City of Poughkeepsie
Planning Board
Meeting Agenda

Virtual Meeting
Meeting Registration
Link: https://attendee.gotowebinar.com/register/5044071584014750479
Tuesday, November 16, 2021
6:00 PM

I. CALL TO ORDER

II. APPROVAL OF MEETING MINUTES

1. APPROVAL OF OCTOBER 19, 2021 MEETING MINUTES

III. PUBLIC HEARINGS FOR SITE PLANS/SPECIAL PERMITS/SUBDIVISIONS

1. WALLACE CAMPUS: DEMOLITION, CONVERSION & NEW CONSTRUCTION

Site Plan application for demolition, conversion and new construction, resulting in a mixed use development with 187 dwelling units and 14,235 square feet of commercial space, with off-street parking and publically-accessible open space on the parcels at 319, 325, 327-329 and 331 Main Street. Redevelopment of the off-street parking area will also involve the properties at 302, 304, 306 and 310 Mill Street. Grid #6162-77-114098, 109079, 109077, 121116, 112116, 116114, 128113 and 6162-78-127091; Owner: 319 & 331 Main Street - IIC Properties, Inc., 327-329 Main Street - Key Main LLC, and 325 Main Street - Wallace Campus Manager LLC (Emanuel Kokinakis) (outright and by contract); Applicant: Wallace Campus Manager, LLC (A Larovere Consulting and Development, Mega Contracting Group, and Urban Green Equities); Consultant: Ken Casamento, LRC Group; Architect: SLCE Architects, LLP; Zoned: Poughkeepsie Innovation District Urban Village (PID-UV) and Historic Core (PID-HC). File #2020-010

2. **MILTON STREET: MULTIFAMILY RESIDENTIAL DEVELOPMENT**
Public Hearing adjourned to December 21, 2021
Application for site plan review relative to the proposed multifamily residential development consisting of two buildings containing a total of 63 units, with a swimming pool and accessory surface parking. Owner/Applicant: Maselo Realty LLC; Consultant: Chazen Companies (Caren LoBrutto); Grid #6162-73-623227; Zoning District: Planned Residential District (PRD); File #2021-029

IV. SITE PLANS/SPECIAL PERMITS/SUBDIVISIONS

1. **267 MILL STREET: SITE PLAN AMENDMENT**
Application for Site Plan Amendment relative to the proposed conversion of a former office building to a multiple dwelling with a total of eight (8) dwelling units. The previous approval was for seven (7) units; Grid #6162-69-073173; Owner: Page Park Associates; Applicant: Kelly Libolt/Page Park Associates: Zoning District: Poughkeepsie Innovation District – Creative Edge (PID-CE); File #2020-044 (1)

2. **278 – 282 MAIN STREET: MIXED USE CONVERSION**
Application for Site Plan Review relative to the conversion of the existing building, formerly a department store, to a mixed use building containing ground floor commercial space and a total of 24 dwelling units on the upper stories, including construction of a fifth story and a tower. Owner/Applicant: Kirchner Realty, Inc/Michael DeCordova; Consultant: Aryeh Siegel Architect; Zoning District: Poughkeepsie Innovation District - Historic Core Subdistrict (PID-HC) Grid #6162-77-059084, 6162-77-062084, 6162-77-065081, 6162-77-065083 and 6162-77-060075; File #2021-040

3. **198-204 HOOKER AVENUE: MIXED USE CONVERSION**
Application for Site Plan/Special Permit review relative to the conversion of the second floor of the existing building at 204 Hooker Avenue from 13 separate offices and 1 dwelling unit to a total of 6 dwelling units, with the first floor remaining commercial (florist, deli, liquor store and hair salon. Owner: 198 Hooker Avenue LLC (Sean Mulcahy); Applicant/Consultant: Paul Pilon, RA (S&P Architects; Zoning District: Neighborhood Commercial (C-1) District; Grid #6161-48-444508; File #2021-049

4. **29 NORTH HAMILTON STREET: ACCESSIBLE ENTRANCE ADDITION**
Application for Site Plan review relative to the proposed construction of an addition to the front of the Family Partnership building at 29 North Hamilton Street to accommodate an accessible entrance and create communal meeting space. Owner: Family Services Inc; Applicant: Brian Doyle, CEO;

Consultant: Model of Architecture Servicing Society, LLC (MASS); Zoning District: Medium High Density Residence (R-4) District; Grid #6162-76-238100; File #2021-061

CITY OF POUGHKEEPSIE
PLANNING BOARD MINUTES
MEETING OF OCTOBER 19, 2021

Present
Robert S. Levine, Esq
Rosaura Andujar-McNeil
Nick DeLuccia
Robert Mallory
Sean O'Donnell
Marjorie Smith
Brian Veltre

Excused
Anne Saylor

Staff present:
Judith Knauss, Deputy Zoning Administrator
Al Gernhardt, Development Specialist

The meeting was called to order at 6:01pm with the pledge of allegiance.

The minutes from the August 2021 meeting were approved on a motion from Marjorie Smith seconded by Robert Mallory.

WALLACE CAMPUS: DEMOLITION, CONVERSION & NEW CONSTRUCTION
319, 325, 327-329, AND 331 MAIN STREET & 302, 304, 306 AND 310 MILL STREET
Site Plan application for demolition, conversion and new construction, resulting in a mixed use development with 187 dwelling units, 14,235 SF of retail commercial space, and publically-accessible open space on the parcels at 319, 325, 327-329 and 331 Main Street. Redevelopment of the off-street parking area will involve the properties at 302, 304, 306 and 310 Mill Street. Grid #6162-77-114098, 109079, 109077, 121116, 112116, 116114, 128113 and 6162-78-127091; Owner: 319 & 331 Main Street - IIC Properties, Inc., 327-329 Main Street - Key Main LLC, and 325 Main Street - Wallace Campus Manager LLC (Emanuel Kokinakis) (outright and by contract); Applicant: Wallace Campus Manager, LLC (A Larovere Consulting and Development, Mega Contracting Group, and Urban Green Equities); Consultant: Ken Casamento, LRC Group; Architect: SLCE Architects, LLP; Zoned: Poughkeepsie Innovation District Urban Village (PID-UV) and Historic Core (PID-HC). File #2020-010

Appearing on behalf of the applicant were Rachel Goodfriend, Saki Akis, Henry Thomas, Lasha Brown, Richard D'Andrea and Jennifer Van Tuyl. The team provided a summary of the changes to the project.

The Board asked if the change in the number of units impacted the affordability component of the project. The answer was that the number of higher AMI units slightly increased.

On a motion by Marjorie Smith, seconded by Robert Mallory, the public hearing was re-opened.

Speaking were:
Michael DeCordova, who spoke in opposition to the project.
Norman Steinberg, who felt further discussion was needed, but applauded the efforts to reduce the scale of the project
Doug Nobiletti, who appreciated continued improvements to the project, but still finds it unacceptable, particularly the demolition of existing viable buildimgs.

On a motion by Marjorie Smith, seconded by Robert Mallory, the public hearing was adjourned to November 16, 2021.

There was general discussion with the Board relative to the project changes, including the impact on the greenspace that was previously dedicated to the day-care component, which has been eliminated. There was a discussion relative to permeable surfaces around historic structures, and a suggestion that reach-out to historic salvage businesses be made prior to demolition of any structures that might contain historic elements.

The Board asked for more information about Market Rate Housing and affordable housing.

The Board asked for renderings of all façade angles and details of cornices.

58 PARKER AVENUE: OFFICE CONVERSION
Application for Site Plan Review relative to the conversion of the existing former industrial complex at 58 Parker Avenue to workspace (offices) for Scenic Hudson, including development of a surface parking lot on the north side of Parker Avenue. Owner/Applicant: Northside Junction, LLC (Caroline Alsup/Scenic Hudson); Consultant: MASS Design Group; Zoning District: Walkway Gateway District Mixed Use Commercial Subdistrict (G-CM) Grid #6162-77-6162-62-148369 and 6162-54-125385; File #2021-0459/30/21

Appearing on behalf of the application were Caroline Alsup and Jason Camporese, who provided an overview of the project.

On a motion by Marjorie Smith, seconded by Robert Mallory, the public hearing was re-opened.

No member of the public chose to speak.

On a motion by Marjorie Smith, seconded by Robert Mallory, the public hearing was closed.

WHEREAS, the Planning Board has received an application relative to the proposed conversion of an existing former industrial complex to offices at 58 Parker Avenue, including development of a surface parking lot on the north side of Parker Avenue; and

WHEREAS, this application for site plan is considered to be an Unlisted Action under SEQRA; and

WHEREAS, the applicant submitted a Full EAF which adequately describes the proposed action; and

WHEREAS, the action is more fully detailed on a site plan set and elevations prepared by Alan A. Ricks, Architect, of MASS Design Group, dated 10/5/21, and supplemental documents; and

WHEREAS, the Board has compared the impacts that are likely to result from the action against those in 617.7(c)(1)(i) through (xii), as noted in the completed Part 2 and Part 3 Full EAF, and has determined that there will be no significant adverse environmental impacts and therefore, a draft environmental impact statement will not be prepared.

NOW THEREFORE BE IT RESOLVED that the Planning Board hereby adopts a Negative Declaration for the File PB#2021-045 as detailed in the application and the above referenced plans.

Motion: Marjorie Smith
Second: Robert Mallory
Carried: 7:0:0

WHEREAS, a public hearing was held on September 21, 2021 and October 19, 2021; and,

WHEREAS, the project received area variances from the Zoning Board of Appeals on October 12, 2021; and,

WHEREAS, the proposed project requires the provision of 108 off-street parking spaces based on the standards outlined in Section 19-3.25(13)(B), including a reduction of one required parking space for ever two bicycle parking spaces provided as outlined Section 19-3.25(12)(d); and,

WHEREAS, eight-seven (87) off-street parking spaces are provided on site and the Planning Board hereby grants a waiver of the remaining twenty-one (21) required spaces based on criteria and justifications outlined in a memorandum titled “Parking Count” submitted by the applicant and dated September 30, 2021, and as permitted pursuant to Section 19-3.25(13)(d); and,

WHEREAS, upon completion of the project, prior to the issuance of the final certificate of occupancy, an as-built site plan set shall be submitted to the Planning Department for certification of compliance with Planning Board approval; and

NOW THEREFORE BE IT FURTHER RESOLVED that the Board grant site plan approval relative to the proposed conversion of an existing former industrial complex to offices at 58 Parker Avenue, including development of a surface parking lot on the north side of Parker Avenue, File #2021-045, with the following conditions:

- All comments from the Engineering Department in the letter dated October 14, 2021 shall be addressed to the satisfaction of the department
- Pursuant to recommendations by Dutchess County Planning Department all outdoor lighting on site shall be fully-shielded and installed in such a way that no light is emitted above a

horizontal plane, lighting levels shall be approximately below 1 foot-candle, and all fixtures shall be of a color temperature no higher than 3,000 K.

- 10 bicycle parking spaces shall be provided within either the street transition zone or the building transition zone as outlined in Figure 3.25-6 of the Zoning Code

Motion: Marjorie Smith
Second: Robert Mallory
Roll Call Vote:
Sean O'Donnell: Aye
Marjorie Smith: Aye
Nick DeLuccia: Aye
Robert Mallory: Aye
Rosaura Andujar McNeil: Aye
Brain Veltrie: Aye
Robert S. Levine: Aye

That motion carried.

584 MAIN STREET
Application for Site Plan Review relative to the proposed conversion of the existing building at 584 Main Street, including construction of an addition, from a used furniture store to a mixed use building containing office space and thirty (30) dwelling units. Owner: 584 Main Street LLC; Applicant: 584 Main Street LLC (Wulf Lueckerath/Mark Lehman); Consultant: Spencer Hall, LLS/Liscum, McCormack, VanVoorhis; Grid #6161-439917; Zoned: Main Street Commercial (C-2A) District; File #2021-013

Appearing on behalf of the application were Wulf Lueckerath, Mark Lehman and Don Pentrucola, who provided an overview of the project and changes to the project.

Appearing on behalf of the City as architectural consultant was Chris Manfield.

The applicants and the City's consultant all agreed that the architectural review process was valuable and led to improvements in the project.

On a motion by Marjorie Smith, seconded by Robert Mallory, the public hearing was re-opened.

No members of the public present chose to speak.

On a motion by Marjorie Smith, seconded by Robert Mallory, the public hearing was closed.

After deliberation, the Board adopted the following resolution:

WHEREAS, the Planning Board has received an application relative to the proposed conversion of the existing building at 584 Main Street, including construction of an addition, from a used furniture store to a mixed use building containing office space and thirty (30) dwelling units; and

WHEREAS, this application for site plan is considered to be an Unlisted Action under SEQRA; and

WHEREAS, the applicant submitted a Short EAF which adequately describes the proposed action; and

WHEREAS, the action is more fully detailed on a site plan set by Cronin Engineering, dated 9/2/21, elevations by LMV Architects dated 10/1/21 and supplemental documents; and

WHEREAS, the Board has compared the impacts that are likely to result from the action against those in 617.7(c)(1)(i) through (xii), as noted in the completed Part 2 and Part 3 Full EAF, and has determined that there will be no significant adverse environmental impacts and therefore, a draft environmental impact statement will not be prepared.

NOW THEREFORE BE IT RESOLVED that the Planning Board hereby adopts a Negative Declaration for the File PB#2021-013 as detailed in the application and the above referenced plans.

Motion: Marjorie Smith
Second: Robert Mallory
Carried: 7:0:0

WHEREAS, a public hearing was held on September 21, 2021 and October 19, 2021; and,

WHEREAS, the project received area variances from the Zoning Board of Appeals on August 10, 2021; and,

WHEREAS, the proposed project requires the provision of 10 off-street parking spaces based on the standards outlined in Section 19-3.25(13)(B), taking into consideration a reduction of required spaces approved by the Zoning Board of Appeals; and,

WHEREAS, the Planning Board hereby grants a waiver of the ten (10) required spaces based on justifications outlined in a memorandum submitted by the applicant, dated September 39, 2021, and three fully-executed lease agreements with the property owners at 618 Main Street, 12 Lexington Avenue, and 22 Lexington Avenue, which secure the use of up to 19 off-street parking spaces for residential tenants of the proposed development.

WHEREAS, upon completion of the project, prior to the issuance of the final certificate of occupancy, an as-built site plan set shall be submitted to the Planning Department for certification of compliance with Planning Board approval; and

NOW THEREFORE BE IT FURTHER RESOLVED that the Board grant site plan approval relative to the proposed conversion of the existing building at 584 Main Street, including construction of an addition, from a used furniture store to a mixed use building containing office space and thirty (30) dwelling units, File #2021-013, with the following conditions:

- All comments from the Engineering Department shall be addressed to the satisfaction of the department

- The proposed parking agreements shall be reviewed and executed to the satisfaction of the City's Corporation Counsel
- Bicycle parking shall be provided as outlined by the applicant.

Motion:Marjorie Smith
Second: Robert Mallory
Roll Call Vote:
Sean O'Donnell: Aye
Marjorie Smith: Aye
Nick DeLuccia: Aye
Robert Mallory: Aye
Rosaura Andujar McNeil: Aye
Brain Veltrie: Aye
Robert S. Levine: Aye

MILTON STREET: MULTIFAMILY RESIDENTIAL DEVELOPMENT
Application for site plan review relative to the proposed multi-residential development consisting of two buildings containing a total of 63 units, with a swimming pool and accessory surface parking. Owner/Applicant: Maselo Realty LLC; Consultant: Chazen Companies (Caren LoBrutto); Grid #6162-73-623227; Zoned Planned Residential District (PRD); File #2021-029

Appearing on behalf of the application Caren LoBrutto, Timothy Lynch and Keith Scoffield, who summarized changes to the project.

Chris Kroner appeared as the City's architectural consultant.

On a motion by Marjorie Smith, seconded by Robert Mallory, the Board opened the public hearing.

There were no speakers.

On a motion by Marjorie Smith, seconded by Robert Mallory, the Board adjourned the public hearing to November 16, 2021.

Chris Kroner appreciated the fact that the missing elevations were submitted. He lamented the loss of certain architectural details to the entrance, and spoke of the challenges to providing good design details on the downward slope on the sides of the building.

The Board asked for color renderings and were informed the renderings are in color: the palette for the project is black and white. There was then discussion about the possible of changing the palette to compliment the surroundings, as the building is in the middle of a green area.

The Board requested that a rendering showing the building through the landscaping be provided.

On a motion by Marjorie Smith, seconded by Robert Mallory, the Board opened the public hearing.

There were no speakers.

On a motion by Marjorie Smith, seconded by Robert Mallory, the Board adjourned the public hearing to November 16, 2021.

On a motion by Marjorie Smith, seconded by Robert Mallory, the Board further directed staff to begin preparation of a findings statement comparing the original site plan reviewed by the Common Council to that currently before the Board make a determination with regards to the existing SEQRA Negative Declaration.

Robert S. Levine was recused, and left the meeting. Marjorie Smith assumed the duties of the chair.

134-136 SOUTH AVENUE: MIXED USE NEW CONSTRUCTION

Application for Site Plan and Special Permit Review relative to the proposed demolition of an existing structure and construction of a new mixed use building with three (3) commercial spaces and fifteen (15) apartments with eleven (11) one-bedroom units and four (4) two-bedroom units. Owner: 134-136 South Avenue LLC (Brian Trematore); Applicant: AE Baxter LLC (Eric Baxter); Zoning District: Neighborhood Commercial (C-1); Grid #6061-44-956742; File #2021-050

Brian Veltrie was recused.

Appearing on behalf of the application were Eric Baxter, Jason Anderson and Lauren Rutkowski.

On a motion by Marjorie Smith, seconded by Robert Mallory, the Board opened the public hearing.

Laurie Sandow of South Grand Avenue spoke. She was not prepared to speak in detail, but offered that:

- At the ZBA meeting, neighbors had lots of comments as to how the project would impact them
- Reducing the width of the sidewalk is not good
- Reducing the number of parking spaces is not good for folks coming home late

There was some discussion about adjourning the public hearing to November.

On a motion made by Nick DeLuccia, seconded by Robert Mallory, the Board voted to close the public hearing, 5:0:0.

Following deliberations, the Board adopted the following resolutions:

WHEREAS, the Planning Board has received an application relative to the proposed demolition of an existing structure and construction of a new mixed use building with three (3) commercial spaces and fifteen (15) apartments at parcels identified as 134-136 South Avenue; and

WHEREAS, this application for site plan is considered to be an Unlisted Action under SEQRA; and

WHEREAS, the applicant submitted a Short EAF which adequately describes the proposed action; and

WHEREAS, the action is more fully detailed on a site plan set by Daniel Koehler of Hudson Land Design, dated 8/31/21, elevations by Anderson Design Group 10/5/21 and supplemental documents; and

WHEREAS, the Board has compared the impacts that are likely to result from the action against those in 617.7(c)(1)(i) through (xii), as noted in the completed Part 2 and Part 3 Full EAF, and has determined that there will be no significant adverse environmental impacts and therefore, a draft environmental impact statement will not be prepared.

NOW THEREFORE BE IT RESOLVED that the Planning Board hereby adopts a Negative Declaration for the File PB#2021-050 as detailed in the application and the above referenced plans.

Motion: Marjorie Smith
Second: Robert Mallory
Carried: 5:0:0

WHEREAS, a public hearing was held on October 19, 2021; and,

WHEREAS, the project received area variances from the Zoning Board of Appeals on October 12, 2021; and,

WHEREAS, upon completion of the project, prior to the issuance of the final certificate of occupancy, an as-built site plan set shall be submitted to the Planning Department for certification of compliance with Planning Board approval; and

NOW THEREFORE BE IT FURTHER RESOLVED that the Board grant site plan approval relative to the proposed construction of a new mixed use building with three (3) commercial spaces and fifteen (15) apartments at 134-136 South Avenue, File #2021-050, with the following conditions:

- All comments from the Engineering Department and Fire Department shall be addressed to the satisfaction of each respective department; and,
- The applicant shall return to the Planning Board for final approval of the elevations, particularly the color and design of the windows and the scale and design of the mansard roof, and final landscaping plan.

Motion: Marjorie Smith
Second: Robert Mallory
Carried: 5:0:0

267 MILL STREET: SITE PLAN AMENDMENT
Application for Site Plan Amendment relative to the proposed conversion of a former office building to a multiple dwelling with a total of eight (8) dwelling units. The previous approval was for seven (7) units; Grid #6162-69-073173; Owner: Page Park Associates; Applicant: Kelly Libolt/Page Park Associates: Zoning District: Poughkeepsie Innovation District – Creative Edge (PID-CE); File #2020-044 (1)

Appearing on behalf of the applicant was Kelly Libolt, who summarized the project.

The Board requested that RADON testing be done for the basement unit.

The Board requested that the requirement for 15% open space be accommodated in the rear yard.

On a motion by Marjorie Smith, seconded by Robert Mallory, the Board authorized circulation of the plans for review and comment by internal departments and Dutchess County Planning.

On a motion by Marjorie Smith, seconded by Robert Mallory, the Board determined that the matter is not of wide public interest, as there was a public hearing at the time of the original application for conversion, and that a public hearing would not be necessary.

Further consideration of the application was adjourned to November 16, 2021.

27 HIGH STREET: RESIDENTIAL CONVERSION AND NEW CONSTRUCTION
Application for Site Plan Review relative to the proposed multifamily development of 67 units at 27 High Street, including the conversion of the existing vacant building and construction of a new building; Owner: 27 High Street Lofts LLC; Applicant: 27 High Street Lofts LLC/Kelly Libolt; Consultant: LRC Group; Grid #6162-62-192294; Zoned: Medium High Density Residence (R-4) District; File #2021-015

Appearing on behalf of the applicant was Kelly Libolt, who provided a summary of changes.

Following deliberations, the Board adopted the following resolution:

WHEREAS, the Planning Board has received an application for site plan review relative to the proposed multifamily development of sixty-seven (67) units, including the conversion of the existing vacant building and construction of a new building at 27 High Street; and

WHEREAS, a public hearing was held on August 17, 2021; and

WHEREAS, this application for site plan is considered to be an Unlisted Action under SEQRA and the Board adopted a Negative Declaration on September 21, 2021; and

WHEREAS, the project received area variances from the Zoning Board of Appeals with regards to lot area, front yard setback, building height, parking, and landscaping on October 12, 2021; and,

WHEREAS, upon completion of the project, prior to the issuance of the final certificate of occupancy, an as-built site plan set shall be submitted to the Planning Department for certification of compliance with Planning Board approval; and

NOW THEREFORE BE IT FURTHER RESOLVED that the Board grant site plan approval relative to the proposed multifamily development of sixty-seven (67) units, including the conversion of the existing vacant building and construction of a new building at 27 High Street, File #2021-015, with the following conditions:

- All comments from the Engineering Department and Fire Department shall be addressed to the satisfaction of each respective department
- Applicant will return to the Planning Board for approval of the parking waiver arrangements when finalized.

Motion: Marjorie Smith
Second: Robert Mallory
Roll call vote:
Sean O'Donnell: Aye
Marjorie Smith: Aye
Nick DeLuccia: Aye
Robert Mallory: Aye
Rosaura Andujar McNeil: Aye
Brain Veltrie: Aye

The motion carried.

135 MAIN STREET: MULTIFAMILY RESIDENTIAL/SUBDIVISION
Application for Site Plan Review and Subdivision relative to the proposed subdivision of the property at 135 Main Street into two lots of record with construction of a new building containing 72 dwelling units on the new lot. Owner: Affiliate of Omni New York; Applicant: Tinkleman Architecture; Consultant: Ken Casamento/LRC Group; Grid #6062-76-911183; Zoning District: Urban Density Residence (R-6) District; File #2021-037 and 2021-038

Appearing on behalf of the project were Steven Tinkleman and Ken Spier who summarized changes to the plan which reduced the number/intensity of variances that will be required.

There was general discussion about whether or not the application was ready for circulation, and what changes might be contemplated. Lighting and landscaping were discussed. There was also discussion about whether the application was an unlisted or Type 1 action for the purposes of SEQR.

On a motion by Marjorie Smith, seconded by Robert Mallory, the Board voted to circulate the application to begin the process of obtaining comments from City Departments and the Dutchess County Planning Department, adjourning the application to the November 16, 2021 meeting for further discussion.

69 & 73 CATHARINE STREET: AGENCY COMMUNITY RESIDENCE/OFFICE
Site Plan and Special Permit application regarding the proposed conversion of the former Catharine Street Community Center to a twenty-seven (27) bed Agency Community Residence and conversion of the former office building at 73 Catharine Street to an associated out-patient clinic and offices. Grid #6162-70-201163 & 6162-70-198164; Owner/Applicant: St. Joseph's Rehabilitation Center, Inc.; Consultant: Architectural & Engineering Design Associates PC; Zoned: Medium High Density Residential (R-4) District; File #2020-024

At the Planning Board meeting of November 17, 2020, the Board granted site plan approval for the above referenced project. As a building permit has not yet been issued, it may be that the approval will become null and void on November 17, 2021, unless extended by the Board pursuant to the provisions of Section 19-6.1(3)(a).

Section 19-6.1(3)(a) states "The approval of a site plan by the Planning Board shall be valid for a period of one year from the date thereof for purposes of obtaining a zoning and building permit. Failure to obtain such a permit within the time period shall cause the approval to become null and void. Upon application, for good cause shown, the Planning Board may extend the validity of the approval, one time, for a period not to exceed one year from the date the original approval expires."

As a ministerial act, this is a Type 2 Action not subject to further review under SEQR.

Recommendations:

Whereas, at the Planning Board meeting of November 17, 2020, the Board granted site plan approval for the above referenced project. As a building permit has not yet been issued, it may be that the approval will become null and void on November 17, 2021, unless extended by the Board pursuant to the provisions of Section 19-6.1(3)(a), which states "The approval of a site plan by the Planning Board shall be valid for a period of one year from the date thereof for purposes of obtaining a zoning and building permit. Failure to obtain such a permit within the time period shall cause the approval to become null and void. Upon application, for good cause shown, the Planning Board may extend the validity of the approval, one time, for a period not to exceed one year from the date the original approval expires;" and,

Whereas, under the provisions of section 19-6.1(3)(a) as outlined above, the Board extends the approval for a period of one year from the expiration of the original approval. This extension will allow the applicant until November 17, 2022, to obtain a building permit.

NOW THEREFORE BE IT RESOLVED that the Planning Board hereby grants the extension of the site plan approval for a period of one year from the expiration of the original approval. This extension will allow the applicant until November 17, 2022, to obtain a building permit for 69 and 73 Catharine Street, File #2020-024.

Motion: Marjorie Smith
Second: Robert Mallory
Carried: 6:0:0

On a motion by Marjorie Smith, seconded by Robert Mallory, the meeting was adjourned at 9:20pm.

APPLICATION TO THE PLANNING BOARD
CITY OF POUGHKEEPSIE, NEW YORK

Application for Site Plan, Special Permit & Facade Approval

OFFICE USE ONLY

CODE: PLSF

ID #_____

FEE: _____
Total, from:
$500, plus
$_____
($150 per 1000 square feet of floor area), plus
$_____
($35 per number of required parking spaces), plus
$_____
($500 for special permit, if applicable)

I. PROPERTY ADDRESS: 319 Main St., 325 Main St., 327-329 Main St., 331 Main St., 306 Mill St., 304 Mill St., 302 Mill St.

II. PROPERTY OWNER: Wallace Campus Manager LLC

ADDRESS: Wallace Campus Manager LLC
Astoria, NY 11103
New York 11103 (state and zip code)

PHONE NUMBER: 718-932-6342 (include area code)

III. NAME OF APPLICANT: Wallace Campus Manager LLC

ADDRESS: Wallace Campus Manager LLC
Astoria, NY 11103
New York 11103 (state and zip code)

PHONE NUMBER: 718-932-6342 (include area code)

EMAIL ADDRESS: ekokinakis@megagroup.nyc

(If applicant is NOT the owner, proof of owner's consent to the application MUST be provided.)

IV. CONSULTANT: Ken Casamento, CPESC

ADDRESS: The LRC Group
85 Civic Center Plaza, Suite 103
Poughkeepsie, NY 10601 (state and zip code)

PHONE NUMBER: 845-243-2880 (include area code)

V. PROPOSED USE or FAÇADE CHANGE (Summarize proposed use or uses): Creation of mixed-use development spanning from the 300 block of both Main & Mill Streets including residential, commercial, and publicly accessible open space.

VI. ZONING DISTRICT: PID-HC and PID-UV

(Proceed to XVII for special permit & façade approval only)

PROJECT INFORMATION

New construction: X (yes)_____ (no)

Change of use: X (yes) _____ (no)

Expansion/addition: X (yes) _____ (no)

Alteration: X (yes) _____ (no)

Cost of Construction: $66M

LOT AND BULK INFORMATION:

Lot area: 2.52 (acres) 109,771 (square feet)

Building Footprint: 23,140 (proposed square feet for new construction)

25,180 (existing square feet for change of use/expansion)

_____ (additional proposed square feet for expansion)

48,320 (total building footprint, square feet)

Lot Coverage: 44% (percentage, building coverage only)

Gross Floor Area: 141,958 (proposed square feet for new construction)

114,856 (existing square feet for change of use/expansion)

_____ (additional proposed square feet for expansion)

256,814 (total gross floor area, square feet)

Building Height: 3, 4, 5 (stories) varies - see plans (feet)

Floor Area Ratio: 2.33 (ratio of gross floor area divided by lot area)

VIII. PROJECT PARKING INFORMATION

A) Number of Off-Street Parking Spaces required: 32

B) Number of Off-Street Parking Spaces provided: 63

C) Waiver Requested: _____ (Yes) X (No)

Is municipal parking available within 600 feet? X (Yes) _____ (No)

If yes, name all such municipal facilities: Conklin Street Lot; Garden Street Lot; Crannell Street; Financial Plaza Parking Garage

(If a waiver is requested based on proximity to municipal facilities, a written request for such waiver, addressed to the City Planning Staff and the Chairman of the Planning Board, must be submitted with the application.)

If a private parking facility is to be utilized, is such facility within 600 feet?

_____ (Yes) _____ (No)

If yes, provide the address of the facility, name of the property owner, number of spaces in the lot, number of spaces available for lease, and length of lease. Attach copy of lease. Additional information may be required by the Planning Board): _____

IX. RESIDENTIAL PROPOSALS

A) Type of Development: Multi-family housing
(Townhouse, condominium, multiple residence rental, etc.)

B) Unit Breakdown:

Number of efficiency or "studio" units: 46

Number of one (1) bedroom units: 92

Number of two (2) bedroom unit's 40

Number with three or more bedrooms: 9

Total number of units: 187

C) Is funding public? X Yes ____ No

If yes, describe funding source: NYS HFA Bond; 4% LIHTC and other sources

X. OFFICE PROPOSALS (____ Medical/Dental ____ Professional ____ Business)

A) Number of Employees: _____

B) Number of doctors/dentists/medical practitioners: _____

C) Days/Hours of Operation: _____

XI. SERVICE BUSINESS PROPOSALS

A) Specify Business: _____
(e.g., laundromat, drycleaner, beauty parlor, travel agency, banks)

B) Number of Employees: _____

C) Number of Washing Machines (for laundromat): _____

D) Days/Hours of Operation: _____

XII. MERCANTILE PROPOSALS (Retail X Wholesale _____)

A) Type of Mercantile (specify): TBD (14,325 SF)

B) Number of Employees: TBD

C) Days/Hours of Operation: Normal Business Hours

XIII. STANDARD RESTAURANT/FAST FOOD RESTAURANT/COFFEE SHOP/DONUT SHOP/NIGHTCLUB/DISCOTHEQUE/BAR PROPOSALS

A) Specify Use: _____

B) Number of seats (excluding bar stools and outdoor seating):_____

C) Meals served (i.e., breakfast, lunch, dinner): _____

D) Type of Menu: _____

E) Days/Hours of Operation: _____

F) Entertainment (live and/or recorded):_____

G) Will the restaurant contain a bar/lounge?: _____ Yes _____ No

H) If yes, how many seats at the bar? _____

I) Is a drive-through window proposed? _____

J) Is a walk-up window proposed? _____

K) Is an outdoor seating area proposed? _____

L) If yes, how many seats are proposed? _____

M) If yes, is outdoor cooking proposed? _____

XIV. INDUSTRIAL/COMMERCIAL PROPOSALS (Automobile repair, taxi, motor vehicle sales, warehouse, manufacturing, animal hospital, research facilities, etc.)

A) Specify Use: _____

B) Number of shifts (if any): _____

C) Number of employees: _____
(If shifts are proposed, list number of employees per shift)

E) Number of work bays (if automobile repair): _____

F) Days/Hours of operation: _____

XV. EDUCATIONAL/INSTITUTIONAL/RECREATIONAL PROPOSALS (e.g., Museums, Theatres, Conference Centers, Hotels, Motels, Hospitals, Nursing Homes, Assisted Living Facilities, Nursery Schools, Private Schools, Day Care Centers, Places of Worship, Marinas, Membership Clubs, etc.)

A) Specify: _____

B) Number of shifts (if any): _____

C) Number of employees: _____
(If shifts are proposed, list number of employees per shift)

D) Number of beds (hospitals, nursing homes, etc): _____

E) Number of seats in largest assembly space: _____

F) Number of classrooms (schools): _____

G) Number of rental units (hotels, motels, etc.) _____

H) Number of boat slips/courts (e.g., tennis, handball, etc.), alleys: _____

I) Days/Hours of Operation: _____

XVI. PROPOSALS NOT MENTIONED ABOVE (Please be specific):

Publicly accessible open space

XVII. APPLICANT CERTIFICATION

I, Emanuel Kokinakis, certify that the this application has addressed the objectives outlined in the Zoning Ordinance with consideration given to the public health, safety and welfare; the comfort and convenience of the public in general or the residents or users of the proposed development and of the immediate neighborhood.

The applicant certifies that all information contained herein is accurate and complete as of the date of this application.

_____ 11/5/21

Signature of Applicant Date

ALC
Planning & Development

Wallace Campus Manager LLC
Rachel.Goodfriend@ALConsulting.us

November 5, 2021

Natalie Quinn
City of Poughkeepsie
62 Civic Center Plaza
3rd Floor
Poughkeepsie, NY 12601

Re: **Wallace Campus Project: November 2021 Planning Board Submission**

Dear Ms. Quinn:

Enclosed is a proposed revised Site Plan submission designed to address the Planning Board, City consultant, County Planning Department, and public comments. The purpose of the Site Plan revision is to enhance compliance with the recently enacted PID zoning and confirm the Applicant's continuing efforts to work with the City to bring an excellent project to fruition. The key characteristics of the proposed modified Site Plan [hereafter, "Reduced Size Plan"] are:

Features eliminated:

- Height Variances eliminated: All height variance requests pertaining to both the Main Street and Catharine Street buildings have been eliminated.
- Reduction in unit count: The number of apartment units has been reduced from 214 to 187 units.
- Elimination of climbing gym and day care facility: In response to comments that these large uses are already or will be available in the area.

Features modified:

- The range of unit sizes was adjusted: More multi-bedroom units were added. Two-bedrooms increased from 25 to 39 units. Three-bedrooms increased from zero to nine units.

- Commercial space available for rent has increased: The prior full site plan submission proposed 6,416 sf of retail commercial space. Per the community's request to align the uses with the needs of the neighborhood, the Reduced Size Plan provides 14,235 sf of retail commercial space, providing more flexibility to meet a variety of future pedestrian-oriented commercial tenancies.

- Vehicular circulation has been modified to eliminate the double drive aisles and proposed drop-off area required by the Daycare use: The revised plan provides one way exit and entrance in a manner that provides the greatest sight distance for exiting vehicles on Mill Street. The revised plan provides 63 parking spaces, exceeding the parking demand of site uses. See enclosed Traffic Report by Colliers, dated September 28, 2021.

- Upper-story set back added to Main Street building to accommodate zoning code sections 19-3.37 (8) (f) and 19-3.24 (4) (e) in response to Deputy Zoning Administrator comments.

Features maintained:

- Contextual and High-Quality Architectural Design: The reduced size project maintains the same high-quality architecture. Furthermore, in response to the public's comments about adhering to the context of the neighborhood's architecture, the cornices were updated. See Architectural Drawing Set by SLCE Architects, submitted herewith.

- Pedestrian interconnection between Main Street and Mill Street: The Reduced Size Plan maintains the Promenade and pedestrian walkway between Main Street and Mill Street.

- Wallace Green: The privately maintained, but publicly accessible green space known as Wallace Green, including the tiered seating area.

- Consolidation of entrances with neighboring properties/shared parking: The project continues to provide for consolidation of access into the block, sharing access and parking with adjoining properties at 302, 304, 306 Mill Street parcels and with Hudson River Housing.

Responses to Planning Board member questions:

- **Clarify affordable and market rate components:** The number of upper tier AMI units (99%-132% POK AMI) has increased by 30 units since the April 2021 submission to the Planning Board. Wallace Campus is designed to serve a broad range of incomes with rent levels ranging from deeply affordable up to rents that are similar to market rents in the City of Poughkeepsie. Please see charts attached to this cover letter that break out the current rent and income levels.

- **Clarify project timeline:** New York State Homes and Community Renewal (HCR) is a key financing partner on the Wallace Campus project. HCR has expressed their intention to make construction period bonds available to the project in the second half of 2022. The bonds, in addition to private bank investments, would enable the construction of Wallace Campus to begin in the summer of 2022. However, in order to secure HCR bonds and private financing by the summer of 2022 the project must obtain all required approvals including Site Plan approval at least six months prior to construction start. In order for construction to start as planned, site plan approval would need to be secured before February 2022.

- **Engagement with architectural salvage company**: The applicant conducted a walk through of all site buildings with the architectural salvage company Zaborski Emporium based in Kingston. The architectural salvage company is interested in acquiring doors, locks, a hutch, bathtub, toilet, stove, and railings from 325 Main Street as well as basement doors, furnishings, and mechanical widgets from the old Wallace Department store that are not already being preserved as part of the planned renovation. So far, there is nothing of interest in 317 Main Street for architectural salvage. All proceeds from the sale of items to architectural salvage companies will be donated to the Mid-Hudson Heritage Center. Zaborski Emporium expressed interest in the clock at 327-329 Main Street, but the applicant seeks to incorporate the clock into the design.

- **Programming of Wallace Green:** In response to concern about an inactive park, the applicant has conducted extensive outreach to a variety of different local programming partners. Although the project is several years away from completion, the applicant has had a variety of positive meetings and enthusiasm for the project and is confident that the Wallace Green will be programmed to the benefit of the City. The team will submit signed letters of interest from the programming partners as they are received. Below lists the potential programming partners for the Wallace Green:

    - Poughkeepsie Jazz Project to provide small jazz concerts (three to four musicians) open to the public (letter of interest is attached)
    - Pop up comedy shows that showcase local talent
    - Movie screenings
    - Small scale philharmonic and opera music
    - Children and adult yoga classes provided by local organizations
    - Cross-fit exercise classes provided by local fitness companies
    - Mobile libraries
    - Weekly food truck pop ups
    - Mobile grocery store that provides free or discounted groceries
    - Flea market with local vendors

- Fresh-air centric activities for youth in partnership with local youth development non-profit

- **Clarify cornice design with perspectives from various angles:** Please reference SLCE drawing sheets A201 - A208, A200A, A201A, A202A, A203A, A200B, A201B, A202B

The Wallace Campus November 2021 Planning Board submission includes:

- Application for Site Plan form
- Revised Site Plan set by LRC dated 10/25/21
- Revised drawing set by SLCE dated 11/2/21
- Revised EAF dated 11/5/21
- Revised Project Narrative dated 11/5/21
- Site Plan Considerations letter by Cuddy + Feder LLP dated 11/5/21
- PID Design Standards letter by SLCE dated 11/5/21 (outlines revisions for upper-story setback per code 19-3.37 (8) (f) and 19-3.24 (4) (e))
- Response to Chazen 10/14/21 comment letter by ALC dated 11/5/21
- Response to MASS 10/15/21 comment letter by SLCE dated 11/2/21
- Responses to public comments to date (including October 2021 public comments)
- SWPPP by LRC dated 10/25/21
- Engineering Report by LRC dated 11/5/21
- Traffic and Parking Analysis by Colliers dated 9/28/21

We believe that the reduced size plan creates reduced impacts as compared to the previous site plan submitted as reflected in the revised EAF included with this submission. We also recognize that the modified plan would have to be re-referred to Dutchess County Planning for their 239-m review. Since the plan reduces the size of the project, we do not believe that it requires a re-circulation to all City Departments.

Thank you for your continued and thoughtful review of Wallace Campus. We look forward to

ALC
Planning & Development

working with you towards bringing the project to fruition.

Thank you,

Rachel Goodfriend

A Larovere Consulting and Development
cc: Jennifer Van Tuyl – Cuddy + Feder LLP
Ken Casamento – LRC
Richard D'Andrea – Colliers
Emanuel Kokinakis – Mega Development

Wallace - Income and Rent Overview				
	POK AMI Tier	**Annual Income Range**	**Monthly Rent**	**# of Units**
Studio	Supportive	Up to $35,850	30% of Income	30
	50%	$18,411-$21,510	$537	1
	66%	$21,051-$28,680	$614	5
	83%	$26,297- $35,850	$767	2
	99%	$31,577- $43,020	$921	7
	132%	$49,166 - $57,360	$1,434	1
One BR	50%	$19,749-$24,570	$576	2
	66%	$26,332-$32,760	$768	5
	83%	$32,914-$40,950	$960	45
	99%	$39,498- $49,140	$1,152	30
	116%	$46,080 - $57,330	$1,344	7
	132%	$52,663 - $65,520	$1,536	3
Two BR	66%	$31,578 - $36,840	$921	6
	83%	$39,463 - $46,050	$1,151	6
	99%	$47,349 - $55,260	$1,381	17
	116%	$55,235- $64,470	$1,611	6
	132%	$63,155 - $73,680	$1,842	4
Three BR	83%	$45,600 - $55,250	$1,330	2
	99%	$54,720 - $66,300	$1,596	4
	116%	$63,840-$77,350	$1,862	1
	132%	$72,960- $88,400	$2,128	2

**Subject to HFA approval*

*** Supportive units will only pay 30% of actual income*

**** Income range is based on the number of individuals in the household*

Community Responsive Design

In response to community feedback, the development team increased the number of workforce housing units (rental rates match Poughkeepsie's market rent)

Wallace Campus - Income Tiers			
	April 2021	October 2021	April 2021 vs. Ocober 2021
POK AMI	# of Units	# of Units	# of Units
Supportive Units	34	30	-4
50%	21	3	-18
66%	41	16	-25
83%	65	55	-10
99%	43	58	+15
116%	5	14	+9
132%	4	10	+6
TOTAL	213	186	-27

**not inclusive of superintendent's unit*

Occupations Served

AMI ranges can accommodate a wide range of occupations

Occupation and Income Levels		
Occupation	**Entry Level Salary in Hudson Valley**	**AMI - POK**
Food Prep	$25,450	50%
Artisan	$24,600	50%
Preschool Teacher	$28,060	66%
Medical Assistant	$32,520	66%
Healthcare Provider	$49,680	99%
Police Officer	$44,000	99%

**NYS Department of Labor*

POK Rent vs. Wallace Campus Rent							
	POK Market Rent	*30% AMI*	*40% AMI*	*50% AMI*	*60% AMI*	*70% AMI*	*80% AMI*
Studio	$1,059	$537	$717	$896	$1,075	-	$1,408
One BR	$1,382	$576	$768	$960	$1,152	$1,344	$1,536
Two BR	$1,608	-	$921	$1,151	$1,381	$1,611	$1,842
Three BR	$2,608	-	-	$1,306	$1,568	$1,829	$2,091

Wallace Campus - Income and Unit Mix							
	Supportive	*30% AMI*	*40% AMI*	*50% AMI*	*60% AMI*	*70% AMI*	*80% AMI*
Studio	30	1	5	2	7	-	1
One BR	-	2	5	45	30	7	3
Two BR	-	-	6	6	17	6	4
Three BR	-	-	-	2	4	1	2
Total	**30**	**3**	**16**	**55**	**58**	**14**	**10**

Letter of Interest – Wallace Green Programming

November 2, 2021

Hercules Argyriou
Managing Member
Wallace Campus Managers
48-02 25th Avenue
Astoria, New York 11103

Re: Wallace Green – Future Programming

Dear Mr. Argyriou,

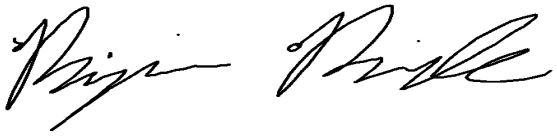
The Poughkeepsie Jazz Project is interested in partnering with Wallace Campus in Downtown Poughkeepsie, an adaptive re-use and mixed-use project. The project will provide 186 housing units and over 14,000 square feet of commercial space, as well as half an acre of open green space, Wallace Green. We are excited at the opportunity to activate and revitalize Main Street by programming Wallace Green and Wallace Campus's common areas.

The Poughkeepsie Jazz Project was created in 2012 with the goal of maintaining live jazz culture and community in Poughkeepsie, NY. Since its inception, The Poughkeepsie Jazz Project has performed throughout The Hudson Valley, as well as presenting a weekly jazz jam session accessible to all musicians and fans of live music.

Potential ideas for programming could be a jazz series on the weekends, small groups of three or fours musicians performing in the afternoon. This could occur at the Wallace Green, open green space in the spring or summer. Having local jazz musicians come perform for free for the community.

On behalf of The Poughkeepsie Jazz Project, I would like to express our interest in contributing to the City of Poughkeepsie's wellbeing through our performances at Wallace Green.

Sincerely,



Benjamin Basile
845 489 0360
www.benbasile.com
benbasilebass@gmail.com
The Poughkeepsie Jazz Project

SITE PLAN SUBMISSION SET

FOR

WALLACE CAMPUS MANAGER, LLC

TAX MAP ID#'S

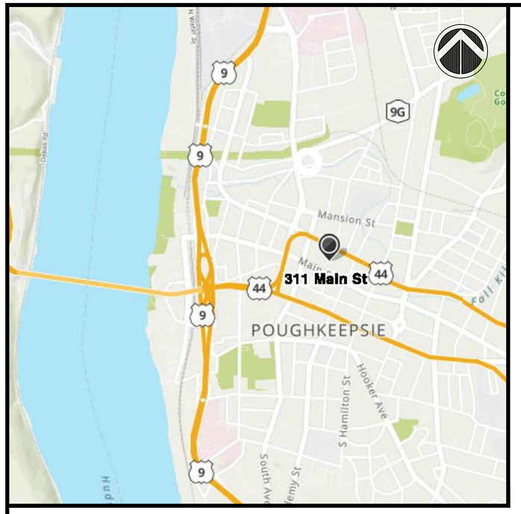
6162-77-114098, 6162-78-127091,
6162-77-109079 & 6162-77-109077

ADJOINING TAX MAP ID#'S

6162-77-112116, 6162-77-116114, 6162-77-121116, 6162-78-128113

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

ORIGINALLY SUBMITTED: APRIL 10, 2020
REVISED: JUNE 5, 2020
REVISED: JULY 10, 2020
REVISED: NOVEMBER 3, 2020
REVISED: MARCH 2, 2021
REVISED: MAY 7, 2021
REVISED: OCTOBER 25, 2021



LOCATION MAP

SCALE: 1"=1,000'

VICINITY MAP

SCALE: 1"=400'

CITY PLANNING BOARD
CITY OF POUGHKEEPSIE, NEW YORK
SITE PLAN APPROVAL
FILE NO:
PROJECT NAME:
PROJECT LOCATION:
APPLICANT:
OFFICIALLY APPROVED AT THE PLANNING BOARD
MEETING HELD THE _____DAY OF_____2_____
PLANNING CHAIR:
DESIGNEE:
DATE SIGNED:
CONDITION(S)

FIRE CHIEF

POLICE CHIEF

BUILDING INSPECTOR

CITY ENGINEER

COMMISSIONER OF PUBLIC WORKS

OWNER / APPLICANT:

WALLACE CAMPUS MANAGER, LLC
48-02 25TH AVE
SUITE 400
ASTORIA NY, 11103

ARCHITECT:

SLCE ARCHITECTS, LLP
1359 BROADWAY, 14TH FLOOR
NEW YORK, NY 10018
TEL: 212-979-8400 OR 212-238-4458

SITE PLANNER / CIVIL ENGINEER:

LRC GROUP

160 West Street, Suite E
Cromwell, CT 06416
Tel: 860.635.2877

85 Civic Center Plaza, Suite 103
Poughkeepsie NY 12601
Tel: 845.243.2880

1 International Blvd, Suite 400
Mahwah, NJ 07495
Tel: 908.603.5730

www.lrcconsult.com

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- CIVIL ENGINEERING
- ENVIRONMENTAL SERVICES
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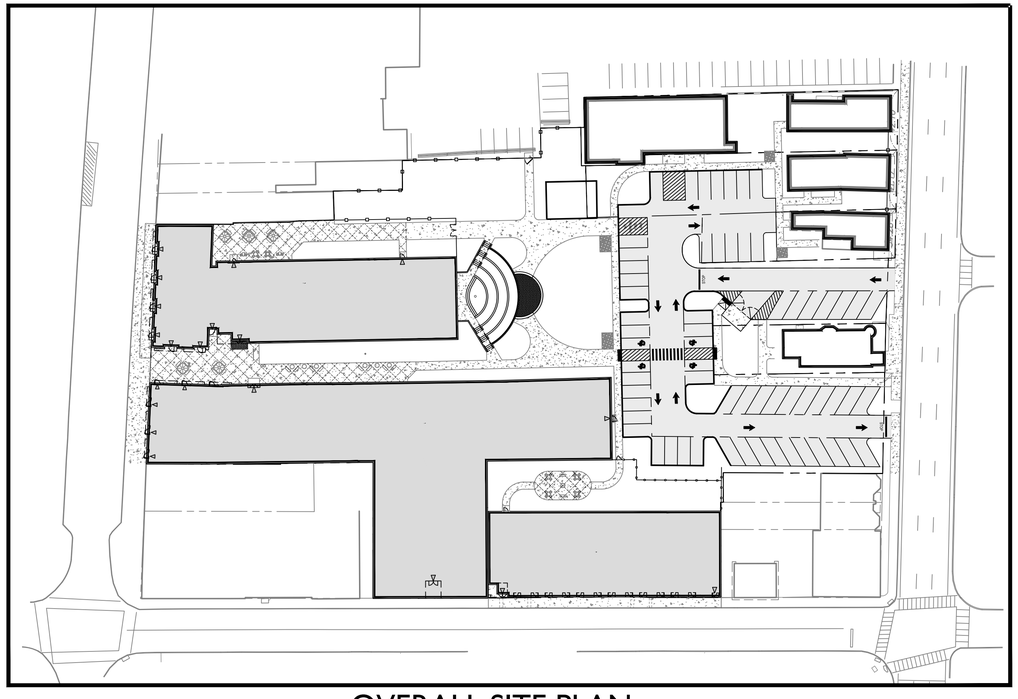
- LANDSCAPE ARCHITECTURE

LRC Engineering & Surveying, DPC
LRC Engineering and Surveying, LLC
LRC Environmental Services, Inc.

STATE OF NEW YORK
RODNEY T. MORRISON
074194
LICENSED PROFESSIONAL ENGINEER

Rodney Morrison P.E. #074194



OVERALL SITE PLAN

SCALE: 1"=50'

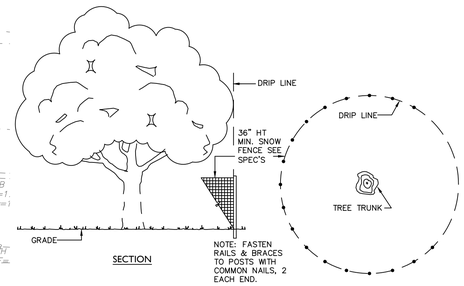
INDEX OF DRAWINGS

CV-1	COVER SHEET
EX-1	EXISTING CONDITIONS (UNDER SEPARATE COVER)
DM-1	DEMOLITION PLAN
LC-1	LOT LINE CONSOLIDATION PLAN
OP-1	OVERALL SITE PLAN
SP-1	SITE PLAN
SP-2	SITE PLAN (BULK REGULATIONS)
SG-1	SITE GRADING / DRAINAGE PLAN
UT-1	SITE UTILITIES
EC-1	EROSION AND SEDIMENTATION CONTROL PLAN
NS-1	NOTES SHEET
LL-1	LANDSCAPE PLAN
LL-2	LANDSCAPE PLAN
LP-1	LIGHTING PLAN
LP-2	LIGHTING CUT SHEETS AND LANDSCAPE DETAILS
DN-1	SITE DETAILS
DN-2	WATER / SANITARY DETAILS
DN-3	STORMWATER DETAILS
DN-4	EROSION CONTROL DETAILS
DN-5	AMENITIES DETAILS

X:\JOBS\Jobs 2020\20-2548-Urban Green-Wallace Campus-Poughkeepsie\DWG\CV20252480T.dwg 10/25/2021 8:24 AM Scurron

DEMOLITION NOTES:

1. CONTRACTOR SHALL NOTIFY "DIG SAFELY NEW YORK" AT 1-800-962-7692 AT LEAST TWO FULL WORKING DAYS PRIOR TO COMMENCEMENT OF ANY WORK IN ACCORDANCE WITH UFPO CODE RULE 53, 16 NYCRR PART 753.
2. ANY ITEM THAT MAY CONFLICT WITH SITE DEVELOPMENT AND IS NOT IDENTIFIED ON THIS PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND DESIGN ENGINEER AS SOON AS POSSIBLE.
3. ADDITIONAL UNDERGROUND FACILITIES MAY BE PRESENT WITHIN THE LIMITS OF THE PROPOSED WORK. THE CONTRACTOR SHALL CONTACT ANY AND ALL PERSONNEL RESPONSIBLE FOR DETERMINING THE LOCATIONS.
4. PRIOR TO DEMOLISHING ANY BUILDINGS/STRUCTURES, THE CONTRACTOR SHALL PERFORM A PRE-DEMOLITION SURVEY IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS BY THE AUTHORITY HAVING JURISDICTION.
5. CONFORM TO APPLICABLE CODE FOR DEMOLITION OF STRUCTURES, SAFETY OF ADJACENT STRUCTURES, DUST CONTROL, RUNOFF CONTROL, AND HAULING, DISPOSAL AND STORAGE OF DEBRIS.
6. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES.
7. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION.
8. WHEN DISTURBED, EXISTING FACILITIES SHALL BE REPAIRED OR REPLACED IN KIND AND IN ACCORDANCE WITH THE REQUIREMENTS OR THE DIRECTION OF THE AUTHORITY HAVING JURISDICTION. ASSOCIATED COSTS SHALL BE BORNE BY THE CONTRACTOR.
9. NOTIFY ADJACENT OWNERS OF WORK THAT MAY AFFECT THEIR PROPERTY, POTENTIAL NOISE, UTILITY OUTAGE, OR DISRUPTION. COORDINATE WITH OWNER.
10. PREVENT MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES. PROVIDE BRACING AND SHORING.
11. LOCATE AND IDENTIFY ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA. DISCONNECT AND SEAL OR CAP OFF UTILITY SERVICES THAT WILL BE AFFECTED BY THIS PROJECT. NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED. ABANDONMENT AND DISCONNECTION OF THE EXISTING WATER LINE MUST BE COORDINATED WITH THE CITY OF POUGHKEEPSIE WATER DEPARTMENT. ABANDONMENT AND DISCONNECTION OF THE EXISTING SEWER LINE MUST BE COORDINATED WITH THE CITY OF POUGHKEEPSIE SEWER DEPARTMENT.
12. DEMOLISH AND REMOVE COMPONENTS IN AN ORDERLY AND CAREFUL MANNER.
13. PROTECT EXISTING FEATURES THAT ARE NOT TO BE DEMOLISHED.
14. CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESS WAY.
15. MAINTAIN EGRESS AND ACCESS AT ALL TIMES. DO NOT CLOSE OR OBSTRUCT ROADWAYS, OR SIDEWALKS WITHOUT PERMITS.
16. CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER. NOTIFY AUTHORITY HAVING JURISDICTION.
17. ROUGH GRADE AND COMPACT AREAS AFFECTED BY DEMOLITION TO MAINTAIN SITE GRADES AND CONTOURS.
18. FIELD VERIFY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED ON DEMOLITION PLAN TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
19. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATION.
20. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA.
21. USE WATER MIST, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS TO LIMIT THE SPREAD OF DUST AND DIRT. COMPLY WITH GOVERNING ENVIRONMENTAL PROTECTION REGULATIONS. DO NOT USE WATER WHEN IT MAY DAMAGE EXISTING CONSTRUCTION, SUCH AS ICE, FLOODING, OR POLLUTION.
22. REMOVE, TRANSPORT AND REMOVE DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS AND MEET ALL APPROPRIATE DISPOSAL AND TRUCKING LAWS.
23. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF SELECTIVE DEMOLITION.
24. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. ALL DEBRIS RESULTING FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE AT A FACILITY APPROVED TO RECEIVE THE DEBRIS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. DO NOT BURN DEMOLISHED MATERIALS ON-SITE.
25. NO BLASTING IS PROPOSED FOR THE PROJECT.
26. A MINIMUM OF TEN FEET OF EXISTING PIPE SHALL BE REMOVED AROUND ALL EXISTING MANHOLES, WHERE NEW PIPES ARE PROPOSED TO CONNECT.
27. IF ANY STORM DRYWELLS OR PREVIOUSLY UNIDENTIFIED UNDERGROUND STRUCTURES ARE IDENTIFIED AND EXHIBIT A SEWAGE/SEPTIC ODOR NOTIFY SITE ENGINEER AND TREAT AS SANITARY WASTE FOR DISPOSAL.
28. EXISTING SANITARY SEWER FOR SOUTH BUILDINGS TAKEN FROM HISTORICAL DATA.
29. THE CONTRACTOR SHALL COORDINATE WITH ARLINGTON FIRE DEPARTMENT FOR ACCESS LOCATIONS TO THE SITE DURING DEMOLITION / CONSTRUCTION.
30. THE ABANDONMENT, REMOVAL & DECOMMISSIONING OF ALL EXISTING SUBSURFACE DISPOSAL SYSTEMS AND SANITARY LINE COMPONENTS MAY BE CONSIDERED HAZARDOUS WASTE AND MUST BE REMOVED IN ACCORDANCE WITH THE PROCEDURES APPROVED BY THE DUTCHESS COUNTY DEPARTMENT OF HEALTH AND NYSDEC AND CERTIFIED BY A NYS PROFESSIONAL ENGINEER.
31. ALL EXISTING MONITORING WELLS ONSITE, ARE TO BE CUT AND CAPPED 4' BELOW GRADE AND FILLED WITH GROUT. WELLS ARE TO BE ABANDONED SHALL BE IN ACCORDANCE WITH DUTCHESS COUNTY DEPARTMENT OF HEALTH REGULATIONS.
32. KNOX BOX LOCKS ARE TO INSTALLED ON EACH OF THE EMERGENCY ACCESS POINTS OF THE TEMPORARY CHAIN LINK FENCE AND DAISY CHAINED TO THE CONTRACTORS PAD LOCK.
33. PRIOR TO THE START OF CONSTRUCTION OR EXCAVATION, TREE'S TO BE RETAINED SHALL BE PROTECTED BY SILT FENCE, SNOW FENCE, CONSTRUCTION FENCE, OR EQUAL, WHICH WILL BE PLACED AT THE DRIP LINE OR SEVERAL FEET BEYOND. HOWEVER, THE FENCING SHALL NOT GROSS PUBLIC SIDEWALKS. NO STORAGE OR STOCKPILING OF CONSTRUCTION MATERIALS, DEBRIS OR EQUIPMENT SHALL OCCUR WITHIN THE FENCED AREA.



TREE PROTECTION DETAIL
NOT TO SCALE

DEMOLITION LEGEND:

X X X X X X X	ITEM(S) TO BE REMOVED
	BUILDING / STRUCTURE TO BE REMOVED
	PAVEMENT TO BE REMOVED
	WALK TO BE REMOVED
	STRUCTURE TO BE REMOVED
	TREE PROTECTION

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

#	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.06.21	RESPONSE TO CONSULTANT COMMENTS
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Revisions

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DEMOLITION PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DM20254801.dwg
Drawn	SMC	Project No.	20-2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	1"=20'

Sheet No. DM-1

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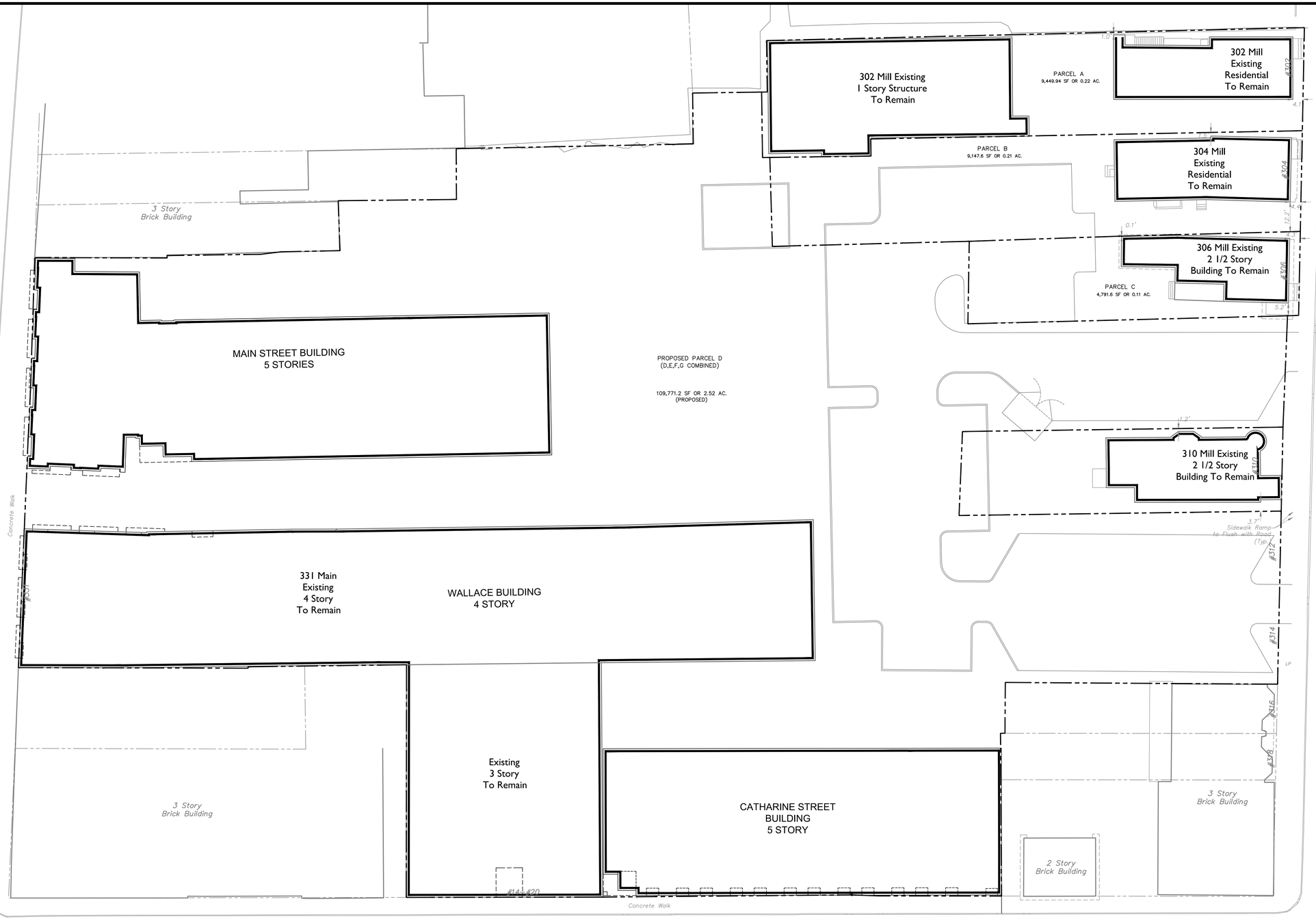
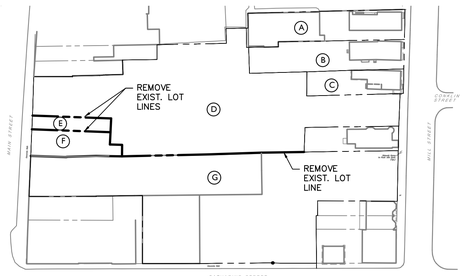


DUTCHESS COUNTY NOTE

THIS LOT LINE REVISION SHALL TAKE EFFECT ONLY AFTER DEEDS PURSUANT TO TOWN CODE CHAPTER 135(D) AND (E) ARE PREPARED FOR AND APPROVED BY THE CITY. THIS PLAN IS PROPERLY APPROVED BY THE PLANNING BOARD AND SIGNED BY THE OWNERS AND THE PLANNING BOARD CHAIRMAN (OR DESIGNEE), AND UPON FILING SAID PLAN AND DEEDS WITH THE DUTCHESS COUNTY CLERK



EXISTING LOT CONFIGURATION

1"=100'

OWNER INFORMATION

PARCEL A
TAX MAP ID# 6162-77-112116
POK MILL, LLC
93 FOURTH AVE #1289
NEW YORK, NY 10276

PARCEL B
TAX MAP ID#6162-77-116114
POK MILL, LLC
93 FOURTH AVE #1289
NEW YORK, NY 10276

PARCEL C
TAX MAP ID# 6162-77-121116
POK MILL, LLC
93 FOURTH AVE #1289
NEW YORK, NY 10276

PARCEL D
TAX MAP ID# 6162-77-114098
IIC PROPERTIES INC.
331 MAIN STREET
POUGHKEEPSIE, NY 12601

PARCEL E
TAX MAP ID# 6162-78-127091
IIC PROPERTIES INC.
331 MAIN STREET
POUGHKEEPSIE, NY 12601

PARCEL F
TAX MAP ID# 6162-77-109079
POK 325 MAIN LLC
93 FOURTH AVE #1289
NEW YORK, NY 10276

PARCEL G
TAX MAP ID# 6162-77-109077
KEY MAIN, LLC
327-329 MAIN STREET
POUGHKEEPSIE, NY 12601

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

ZONING HC-CORE HISTORIC AND UV URBAN VILLAGE

SEE SP-2 FOR ZONING INFORMATION

PROPOSED LOT CONFIGURATION

OWNER / APPLICANT CERTIFICATION

THE UNDERSIGNED, OWNER/APPLICANT OF THIS PROPERTY SHOWN HEREON, AND THE APPLICANT, HEREBY CERTIFY THAT WE ARE FAMILIAR WITH THIS MAP, ITS CONTENTS AND DETAILS, AND HEREBY AGREE TO THE TERMS AND CONDITIONS EXPRESSED HEREON, AND TO FILING OF THIS MAP IN THE OFFICE OF THE DUTCHESS COUNTY CLERK.

OWNER/APPLICANT _____ DATE _____

LOT AREA CHART-EXIST.

EXISTING PARCEL #	AREA
PARCEL A	9,449.94 SF OR 0.22 AC.
PARCEL B	9,147.6 SF OR 0.21 AC.
PARCEL C	4,791.6 SF OR 0.11 AC.
PARCEL D	49,421.12 SF OR 1.13 AC.
PARCEL E	53,952.86 SF OR 1.24 AC.
PARCEL F	2,114.87 SF OR 0.05 AC.
PARCEL G	4,232.25 SF OR 0.10 AC.
TOTAL	133,293.6 SF OR 3.06 AC.

LOT AREA CHART-PROPOSED

PROPOSED PARCEL #	AREA
PARCEL A	9,449.94 SF OR 0.22 AC. (EXIST UNCHANGED)
PARCEL B	9,147.6 SF OR 0.21 AC. (EXIST. UNCHANGED)
PARCEL C	4,791.6 SF OR 0.11 AC. (EXIST. UNCHANGED)
PARCEL D (D,E,F,G COMBINED)	109,771.2 SF OR 2.52 AC. (PROPOSED)
TOTAL	133,293.6 SF OR 3.06 AC.

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LOT LINE CONSOLIDATION PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	LC20254801.dwg
Drawn	SMC	Project No.	20-2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	1"=20'

Sheet No. LC-1

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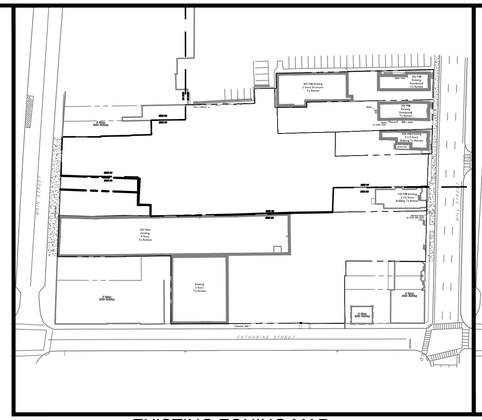
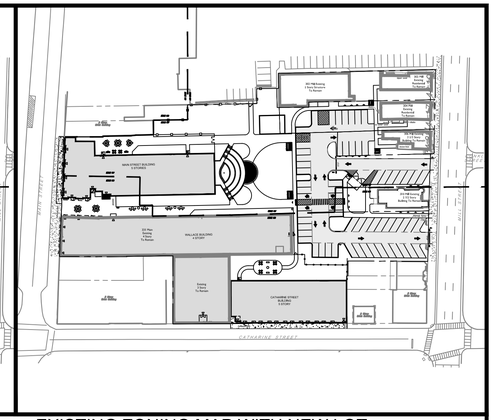


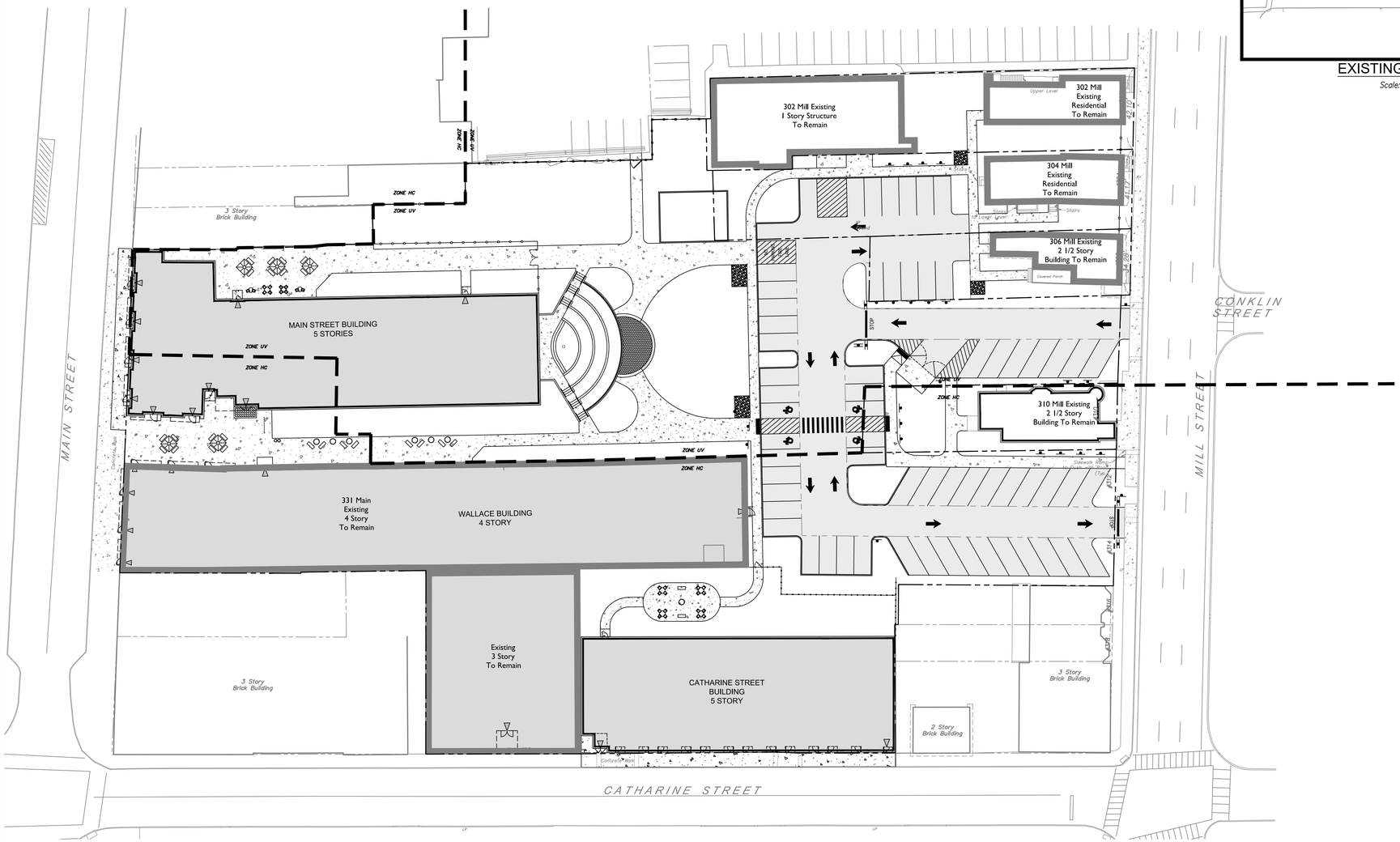
EXISTING ZONING MAP

Scale: 1"=100'



EXISTING ZONING MAP WITH NEW LOT

Scale: 1"=100'



OVERALL SITE PLAN

Scale: 1"=30'

SEE DN-4 FOR TRUCK TURNING MOVEMENTS

GRAPHIC SCALE

30 15 0 30

SCALE IN FEET

STATE OF NEW YORK
RODNEY E. MORRISON
074164
LICENSED PROFESSIONAL ENGINEER

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OVERALL SITE PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	OP20254801.dwg
Drawn	SMC	Project No.	20-2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	NOTED

Sheet No. **OP-1**

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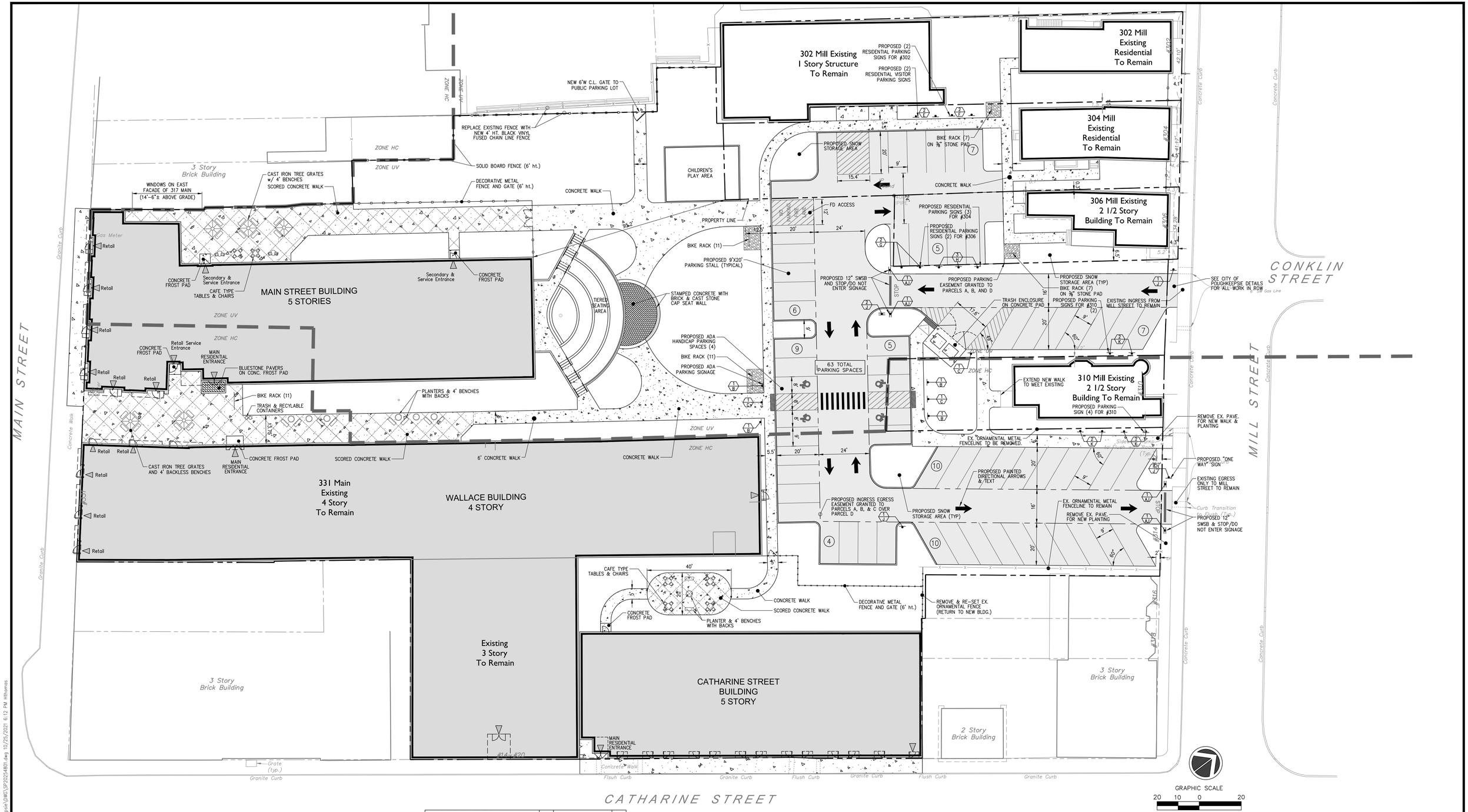

GENERAL MAP NOTE:

ACCESS, SHARED PARKING, AND LANDSCAPING IMPROVEMENTS WITH ADJOINING PARCELS:

THE WALLACE CAMPUS DRAWING SETS FORTH THE BOUNDARIES OF THE WALLACE CAMPUS CONSOLIDATED LOT AND SHOWS THE SITE PLAN FOR THAT LOT. FOUR ADJOINING PARCELS OUTSIDE THE WALLACE CAMPUS ARE ALSO SHOWN ON THE DRAWING SET, FOR THE LIMITED PURPOSE OF DEPICTING THE OFF-SITE IMPROVEMENTS TO BE MADE ON THOSE PROPERTIES PURSUANT TO SHARED PARKING AND EASEMENT AGREEMENTS, AND TO SHOW THE MANNER IN WHICH THOSE PHYSICAL IMPROVEMENTS AND ACCESS PROVISIONS WILL IMPROVE PEDESTRIAN AND VEHICULAR CIRCULATION IN THE NEIGHBORHOOD, AS WELL AS LANDSCAPING, LIGHTING, AND COMMUNITY CHARACTER. THE PROJECT SPONSOR WILL ENTER INTO SHARED PARKING AND PERMANENT ACCESS EASEMENT AGREEMENTS WITH THE OWNERS OF THESE ADJOINING PARCELS, WHICH WILL BE APPROVED BY THE PLANNING BOARD AS PART OF THE PROJECT APPROVALS. THE DRAWING SET DEPICTS THE OFF-SITE WORK TO BE PERFORMED BY THE PROJECT SPONSOR ON THESE PARCELS TO IMPLEMENT THE SHARED PARKING AND ACCESS AGREEMENTS. THE WORK ON 302, 304 AND 306 MILL STREET ("THE 3 MILL STREET LOTS") WOULD ELIMINATE TWO EXISTING CURB CUTS ON MILL STREET (BETWEEN 302 AND 304 MILL AND BETWEEN 304 AND 306 MILL), AND PROVIDE ADDITIONAL GREEN SPACE ON THOSE LOTS, INCLUDING ALONG THE MILL STREET FRONTAGE TO REPLACE THOSE DRIVEWAYS. THE WALLACE CAMPUS OWNER WILL PROVIDE A PERMANENT ACCESS EASEMENT TO THE OWNER OF THE 3 MILL STREET LOTS FOR THE BENEFIT OF OWNERS AND TENANTS, TO ACCESS THE PARKING AREAS LOCATED ON THESE LOTS VIA THE WALLACE CAMPUS ACCESS DRIVES. THE SHARED PARKING AGREEMENT WOULD MAINTAIN THE ALLOCATION OF DEDICATED PARKING (12 SPACES) TO THE 3 MILL STREET LOTS IN COMPLIANCE WITH THE PID ZONING. LIGHTING IMPROVEMENTS, PEDESTRIAN WALKWAYS, AND STORMWATER IMPROVEMENTS WILL BE PROVIDED TO SERVE THE OFFSITE SHARED PARKING AREAS IN THE SAME MANNER AS THE PARKING AREAS ON THE WALLACE CAMPUS PARCEL. PURSUANT TO A SEPARATE SHARED PARKING AGREEMENT WITH THE HUDSON RIVER HOUSING ("HRH") PROPERTY, THE PROJECT SPONSOR WILL BE GRANTED A PERMANENT EASEMENT TO CONSTRUCT PEDESTRIAN SIDEWALK PATHS WITHIN THE HUDSON RIVER HOUSING PROPERTY CONNECTING TO MILL STREET AND PROVIDING ACCESS FROM THAT PARKING AREA TO THE REAR ENTRANCE TO THE HRH OFFICE BUILDING, AND PARKING IMPROVEMENTS ALONG THE HRH LOT SOUTHERLY BOUNDARY THAT INTEGRATE WITH THE WALLACE CAMPUS PARKING AREA. LIGHTING IMPROVEMENTS AND LANDSCAPING WILL BE INSTALLED AS SHOWN ON THE DRAWING SET. THE PROJECT SPONSOR WILL PROVIDE HRH WITH A PERMANENT ACCESS EASEMENT TO USE THE TWO WALLACE CAMPUS MILL STREET ENTRANCES AND EXITS FOR ACCESS TO, AND USE OF, 6 PARKING SPACES WHICH ARE LOCATED ON WALLACE CAMPUS PROPERTY DIRECTLY ABUTTING THE WESTERLY BOUNDARY OF HRH'S PROPERTY (AS SHOWN ON THE DRAWING SET), WHICH SPACES WILL BE RESERVED FOR USE BY HRH EMPLOYEES DURING WORKING HOURS 8 AM TO 6 PM MONDAY TO FRIDAY. THE 6 SPACES TO BE AVAILABLE FOR WALLACE CAMPUS PARKING OUTSIDE OF THOSE HOURS.

SIGN LEGEND

NO.	LEGEND	QTY.
A	STOP	4
B	RESERVED PARKING	4
C	NO PARKING ANYTIME	3
D	15 MIN DROP OFF	0
E	RESIDENTIAL VISITOR PARKING	2
F	RESIDENTIAL PARKING FOR #302 ONLY	2
G	RESIDENTIAL PARKING FOR #306 ONLY	2
H	RESIDENTIAL PARKING FOR #304 ONLY	3
I	DO NOT ENTER	4
J	ONE WAY	5
K	PARKING FOR #310 Weekdays 8am–6pm	6

LEGEND

- PROPOSED ASPHALT
- PROPOSED BLUESTONE WALK
- PROPOSED SNOW STORAGE AREA
- PROPOSED CONCRETE SIDEWALK
- PROPOSED SIGN
- ZONELINE

SURVEY MAP NOTE:

SURVEY BASED ON ENTITLED "MAP OF SURVEY PREPARED FOR URBAN GREEN EQUITIES LLC" PREPARED BY J. WILLIAM KOMISAR, LLS DATED FEBRUARY 7, 2020.

NOTES:
1. THERE ARE NO EXISTING EASEMENTS OF RECORD.
2. PROPERTY IS NOT LOCATED WITHIN THE FALLKILL CREEK WATERSHED.
3. NO WATERCOURSE, MARSHES, WOODED AREA, ROCK OUTCROPS, ISOLATED TREES PRESENT.
4. NO AREAS SUBJECT TO STORM OVERFLOWS. (NOT IN FEMA 100 YEAR FLOOD PLANE)

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SITE PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	SP20254801.dwg	Sheet No.
Drawn	SMC	Project No.	20-2548	SP-1
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Approved	REM	Scale	1"=20'	

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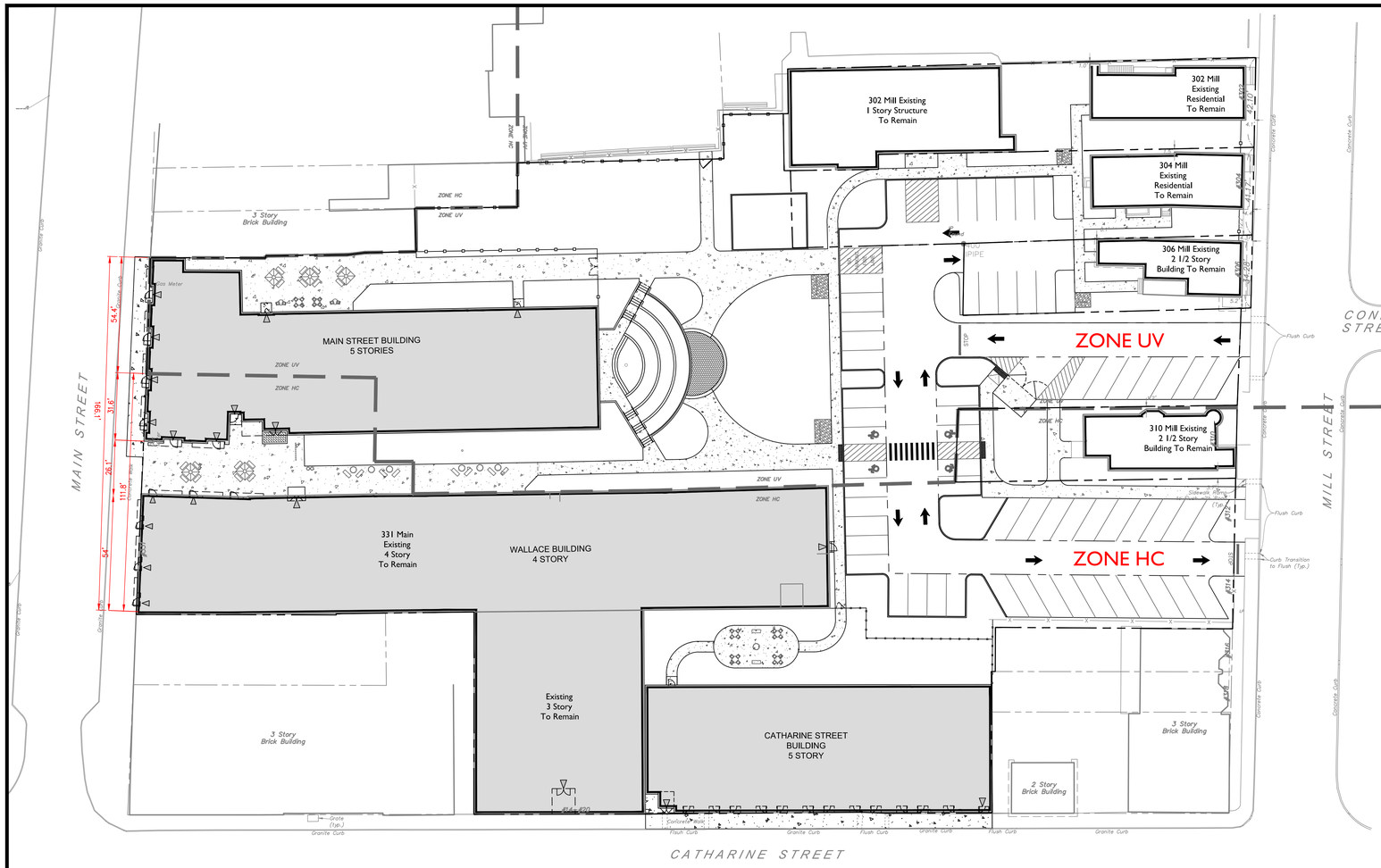


BULK TABLES

PROPOSED CONSOLIDATED LOT D:
COMBINATION OF EXISTING LOTS D, E, F, AND G PARTIALLY LOCATED IN UV AND PARTIALLY LOCATED IN HC (HISTORIC CORE) ZONES

ITEM	REQUIRED	EXISTING	PROVIDED	SEE PLAN
LOT AREA HC	N/A	60,268.7 SQ FT	60,268.7 SQ FT	SP-1
LOT AREA UV	N/A	49,433.6 SQ FT	49,433.6 SQ FT	SP-1
LOT AREA – TOTAL	N/A	109,712.2 SQ FT	109,712.2 SQ FT	SP-1
MAIN STREET BUILDING HEIGHT MINIMUM HEIGHT HC MINIMUM HEIGHT UV MAXIMUM HEIGHT HC MAXIMUM HEIGHT UV	2 STORIES 3 STORIES 5 STORIES 6 STORIES		5 STORIES	A200–A204
EXISTING WALLACE BUILDING HEIGHT MINIMUM HEIGHT HC MAXIMUM HEIGHT HC(5,7)	2 STORIES 5 STORIES	4 STORIES	4 STORIES	A200–A204
CATHARINE STREET BUILDING HEIGHT MINIMUM HEIGHT HC MAXIMUM HEIGHT HC(5,7)	2 STORIES 5 STORIES		5 STORIES	A200–A204
MAXIMUM ACCESSORY BUILDING HEIGHT HOUSING HC HOUSING UV OTHER HC OTHER UV	2 STORIES 2 STORIES 1 STORY 1 STORY		N/A	A200–A204
MINIMUM LOT COVERAGE HC	75% REQ.	54.98% (*1)	87.50% (*4)	SP-1
MINIMUM LOT COVERAGE UV	50% REQ.	11.24% (*1)	60.20% (*4)	SP-1
MINIMUM LOT COVERAGE – TOTAL	--	35.27%	75.19%	SP-1
MINIMUM COMMON/OPEN SPACE HC	0%	0%	20.58%	SP-1
MINIMUM COMMON/OPEN SPACE UV	15%	4.68% (*1)	58.67%	SP-1
MINIMUM COMMON/OPEN SPACE – TOTAL	15%	2.11% (*1)	37.74%	SP-1
SIDE YARD PER SIDE (MIN/MAX) HC– CATHARINE STREET	0 FT	N/A	0FT	SP-1
SIDE YARD PER SIDE (MIN/MAX) UV – MAIN STREET	0 FT / 10 FT	N/A	0FT/25.8 (*2)	SP-1
REAR YARD (MIN) HC	0 FT	N/A	N/A	SP-1
REAR YARD (MIN) UV	8 FT	N/A	N/A	SP-1
MAIN STREET FRONT YARD (MIN/MAX) HC	0 FT	0 FT	0 FT	SP-1
MAIN STREET FRONT YARD (MIN/MAX) UV	0 FT / 6 FT	0 FT	0 FT	SP-1
MAIN STREET FRONTAGE OCCUPANCY (MIN/MAX) HC (*3)	100%	N/A	78.13% (*2)	SP-1
MAIN STREET FRONTAGE OCCUPANCY (MIN/MAX) UV	80%–100%	N/A	100%	SP-1
MAIN STREET FRONT YARD PARKING SETBACKS (MIN) HC/UV	40 FT	213.5FT	>40 FT	SP-1
MAIN STREET PARKING FORWARD OF BUILDING LINE (HC/UV)	NONE	NONE	NONE	SP-1
MAIN STREET REQUIRED BUILDING STEPBACK	OVER 114 FT (TWICE ROW WIDTH)	N/A	N/A	SP-1
WALLACE BUILDING FRONT YARD (MIN/MAX) HC	0 FT	0 FT	0 FT	SP-1
WALLACE BUILDING FRONTAGE OCCUPANCY (MIN/MAX) HC (*3)	100%	N/A	78.13% (*2)	SP-1
WALLACE BUILDING FRONT YARD PARKING SETBACKS (MIN) HC	40 FT	N/A	>40 FT	SP-1
WALLACE BUILDING PARKING FORWARD OF BUILDING LINE HC	NONE	NONE	NONE	SP-1
CATHARINE STREET FRONT YARD (MIN/MAX) HC	0 FT	0 FT	0 FT	SP-1
CATHARINE STREET FRONTAGE OCCUPANCY (MIN/MAX) HC	100%	32.99% (*1)	100%	SP-1
CATHARINE STREET FRONT YARD PARKING SETBACKS (MIN) HC	40 FT	8.4 FT (*1)	>40 FT	SP-1
CATHARINE STREET PARKING FORWARD OF BUILDING LINE HC	NONE	NONE	NONE	SP-1
CATHARINE STREET REQUIRED BUILDING STEPBACK	OVER 88 FT (TWICE ROW WIDTH)	N/A	N/A	SP-1
MILL STREET (EAST) FRONT YARD (MIN/MAX) HC	0 FT	NO BUILDING/PARKING LOT ACCESS (*1)	NO BUILDING/ PARKING LOT ACCESS (*2)	SP-1
MILL STREET (EAST) FRONTAGE OCCUPANCY (MIN/MAX) HC	100%	0% PARKING LOT ACCESS (*1)	0% PARKING LOT ACCESS (*2)	SP-1
MILL STREET (EAST) FRONT YARD PARKING SETBACKS (MIN) HC	40 FT	0 FT (*1)	0 FT (*2)	SP-1
MILL STREET (EAST) PARKING FORWARD OF BUILDING LINE HC	NONE	YES (*1) (NO BUILDING)	YES–NO BUILDING (*2)	SP-1
MILL STREET (EAST) PARKING VISIBLE FROM THE STREET	NONE	YES PARKING LOT ACCESS (*1)	YES PARKING LOT ACCESS (*2)	
MILL STREET (WEST) FRONT YARD (MIN/MAX) UV	0 FT / 6 FT	NO BUILDING/PARKING LOT ACCESS (*1)	NO BUILDING/PARKING LOT ACCESS (*2)	SP-1
MILL STREET (WEST) FRONTAGE OCCUPANCY (MIN/MAX) UV	80%–100%	0% PARKING LOT ACCESS (*1)	0% PARKING LOT ACCESS (*2)	SP-1
MILL STREET (WEST) FRONT YARD PARKING SETBACKS (MIN) HC/UV	40 FT	0 FT (*1)	0 FT (*2)	SP-1
MILL STREET (WEST) PARKING FORWARD OF BUILDING LINE (HC/UV)	NONE	YES (*1) (NO BUILDING)	YES–NO BUILDING (*2)	SP-1
MILL STREET (WEST) PARKING VISIBLE FROM THE STREET	NONE	YES PARKING LOT ACCESS (*1)	YES–PARKING LOT ACCESS (*2)	SP-1

NOTES:
*1 –EXISTING NON–CONFORMING USE
*2 – AREA VARIANCE REQUIRED
*3 – TOTAL MAIN STREET FRONTAGE OCCUPANCY, PARTIALLY OCCUPIED BY EACH OF THE 2 BUILDINGS
*4 – ENTIRE FOOTPRINT OF MAIN STREET BUILDING INCLUDED IN CALCULATION, INCLUDING AREA COVERED WITH PERMEABLE GREEN ROOF

302 MILL STREET

EXISTING / ADJOINING LOT/SHARED PARKING LOT A:
LOCATED IN PID-UV (POUGHKEEPSIE INNOVATION-URBAN VILLAGE) ZONE

ITEM	REQ'D UV ZONE	PROVIDED UV ZONE	SEE PLAN
LOT AREA	N/A	9,499.9 SQ FT	SP-1
MAIN BUILDING HEIGHT MINIMUM HEIGHT MAXIMUM HEIGHT	3 STORIES 6 STORIES	2 1/2 STORIES (*1)	NA
MAXIMUM ACCESSORY BUILDING HEIGHT HOUSING OTHER	2 STORIES 1 STORY	N/A 1 STORY	NA
MINIMUM LOT COVERAGE	50% REQ.	65.38%	SP-1
MINIMUM OPEN SPACE	15% REQ.	34.62%	SP-1
FRONT YARD (MIN/MAX)	0 FT / 6 FT	4.1 FT	SP-1
SIDE YARD PER SIDE (MIN/MAX)	0 FT / 10 FT	0 FT	SP-1
REAR YARD (MIN)	8 FT	0.4 FT (*1)	SP-1
FRONTAGE OCCUPANCY (MIN/MAX)	80%–100%	60.6% (*1)	SP-1
FRONT YARD PARKING SETBACKS (MIN)	40 FT	NO PARKING ON LOT N/A	SP-1
PARKING FORWARD OF BUILDING LINE	NONE	NONE	SP-1

304 MILL STREET

EXISTING / ADJOINING LOT/SHARED PARKING LOT B:
LOCATED IN PID-UV (POUGHKEEPSIE INNOVATION-URBAN VILLAGE) ZONE

ITEM	REQ'D UV ZONE	PROVIDED UV ZONE	SEE PLAN
LOT AREA	N/A	8,851.8 SQ FT	SP-1
MAIN BUILDING HEIGHT MINIMUM HEIGHT MAXIMUM HEIGHT	3 STORIES 6 STORIES	3 STORIES	NA
MAXIMUM ACCESSORY BUILDING HEIGHT HOUSING OTHER	2 STORIES 1 STORY	N/A N/A	NA
MINIMUM LOT COVERAGE	50% REQ.	21.73% (*1)	SP-1
MINIMUM OPEN SPACE	15% REQ.	47.49%	SP-1
FRONT YARD (MIN/MAX)	0 FT / 6 FT	4.5 FT	SP-1
SIDE YARD PER SIDE (MIN/MAX)	0 FT / 10 FT	1.5 FT	SP-1
REAR YARD (MIN)	8 FT	99.4 FT	SP-1
FRONTAGE OCCUPANCY (MIN/MAX)	80%–100%	14.47% (*1)	SP-1
FRONT YARD PARKING SETBACKS (MIN)	40 FT	> 40FT	SP-1
PARKING FORWARD OF BUILDING LINE	NONE	NONE	SP-1

306 MILL STREET

EXISTING / ADJOINING LOT/SHARED PARKING LOT C:
LOCATED IN PID-UV (POUGHKEEPSIE INNOVATION-URBAN VILLAGE) ZONE

ITEM	REQ'D UV ZONE	PROVIDED UV ZONE	SEE PLAN
LOT AREA	N/A	4,616.4 SQ FT	SP-1
MAIN BUILDING HEIGHT MINIMUM HEIGHT MAXIMUM HEIGHT	3 STORIES 6 STORIES	2 1/2 STORIES (*1)	NA
MAXIMUM ACCESSORY BUILDING HEIGHT HOUSING OTHER	2 STORIES 1 STORY	N/A N/A	NA
MINIMUM LOT COVERAGE	50% REQ.	34.68% (*1)	SP-1
MINIMUM OPEN SPACE	15% REQ.	31.05%	SP-1
FRONT YARD (MIN/MAX)	0 FT / 6 FT	4.3 FT	SP-1
SIDE YARD PER SIDE (MIN/MAX)	0 FT / 10 FT	0.3 FT	SP-1
REAR YARD (MIN)	8 FT	62.2 FT	SP-1
FRONTAGE OCCUPANCY (MIN/MAX)	80%–100%	14.92% (*1)	SP-1
FRONT YARD PARKING SETBACKS (MIN)	40 FT	> 40FT	SP-1
PARKING FORWARD OF BUILDING LINE	NONE	NONE	SP-1

310 MILL STREET

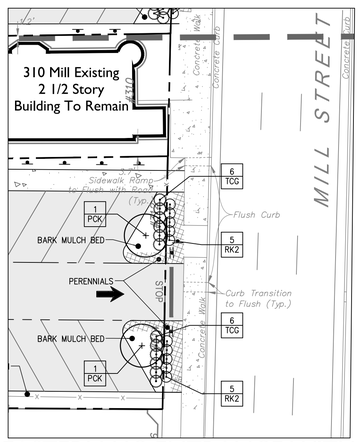
EXISTING / ADJOINING LOT/SHARED PARKING
LOCATED IN HC (HISTORIC CORE) ZONE

ITEM	REQUIRED	PROVIDED	SEE PLAN
LOT AREA	N/A	4,503.0 SQ FT	SP-1
MAIN BUILDING HEIGHT MINIMUM HEIGHT MAXIMUM HEIGHT	2 STORIES 7 STORIES	2 1/2 STORIES	NA
MAXIMUM ACCESSORY BUILDING HEIGHT HOUSING OTHER	2 STORIES 1 STORY	N/A	NA
MINIMUM LOT COVERAGE	75% REQ.	39.53% (*1)	SP-1
MINIMUM OPEN SPACE	0 REQUIRED	51.36%	SP-1
FRONT YARD (MIN/MAX)	0 FT	0 FT	SP-1
SIDE YARD PER SIDE (MIN/MAX)	0 FT	1.2 FT	SP-1
REAR YARD (MIN)	0 FT	58.6 FT	SP-1
FRONTAGE OCCUPANCY (MIN/MAX)	100%	85.37% (*1)	SP-1
FRONT YARD PARKING SETBACKS (MIN)	40 FT	> 40FT	SP-1
PARKING FORWARD OF BUILDING LINE	NONE	NONE	SP-1

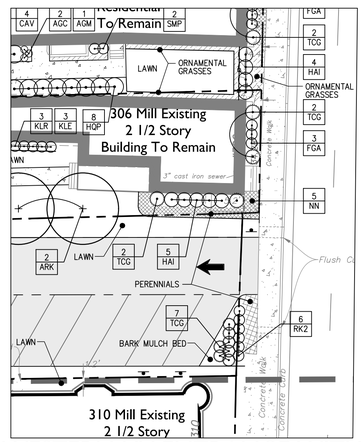
PARKING REQUIREMENTS

BUILDING	PROPOSED USE	SIZE	ZONE	PARKING RATIO	REQUIRED SPACES	PROPOSED SPACES
MAIN STREET BUILDING	RESIDENTIAL (69 UNITS)	17 UNITS	PID–HC	0 SPACES/UNIT	0	
		52 UNITS	PID–UV	0.5 SPACES/UNIT	26	
			PID–UV	1 VISITOR SPACE/10 UNITS	6	
	RETAIL	3,309 SF	PID–UV/ PID–HC	0 SPACES/SF	0	
CATHARINE STREET BUILDING	RESIDENTIAL	49 UNITS	PID–HC	0 SPACES/UNIT	0	
	RETAIL	3,255 SF	PID–HC	0 SPACES/SF	0	
WALLACE BUILDING	RESIDENTIAL	69 UNITS	PID–HC	0 SPACES/UNIT	0	
	RETAIL	7,649 SF	PID–HC	0 SPACES/SF	0	
302/304 /306 MILL STREET BUILDINGS	RESIDENTIAL				12	
310 MILL	OFFICE				6	
				TOTAL	50	63

NOTES:
1. PARKING DEMANDS DEVELOPED BY THE MASER PARKING REQUIREMENT.



EASTERN HC ENTRANCE WITH LANDSCAPING
1"=20'



WESTERN UV ENTRANCE WITH LANDSCAPING
1"=20'

BICYCLE PARKING TABLE

BICYCLE PARKING REQUIREMENTS

RESIDENTIAL USES – MAIN STREET, WALLACE & CATHARINE STREET BUILDINGS (247 BEDROOMS PROPOSED)

TYPE	NUMBER BEDROOMS	REQUIRED/ PER BDRM	REQUIRED	PROVIDED	
LONG TERM	245 BR	0.5	123	123	CELLARS OF BUILDINGS
SHORT TERM	245 BR	0.05	13	13	ONSITE ON CAMPUS

RESIDENTIAL USES –302, 304,306 (19 BEDROOMS)

TYPE	NUMBER BEDROOMS	REQUIRED/ PER BDRM	REQUIRED	PROVIDED	
LONG TERM	19 BR	0.5	10	10	ONSITE ON CAMPUS
SHORT TERM	19 BR	0.05	2	2	ONSITE ON CAMPUS

OTHER USES – ON SITE BICYCLE PARKING: MAIN, CATHERINE AND WALLACE BUILDINGS

TYPE	TYPE	PROPOSED SF	REQUIRED/SF	REQUIRED	PROVIDED
LONG TERM	RETAIL	16,011	1 PER 12K SF	2 SPACES MIN	4 ON CAMPUS
SHORT TERM	RETAIL	16,011	1 PER 5K SF	2 SPACES MIN	4 ON CAMPUS

OTHER USES – ON SITE BICYCLE PARKING: OFFICE AND NON-RETAIL MAIN, CATHERINE AND WALLACE BUILDINGS

TYPE	TYPE	PROPOSED SF	REQUIRED/SF	REQUIRED	PROVIDED
LONG TERM	OFFICE/NON RETAIL	4,648	1 PER 10K SF	1 SPACES	1 ON CAMPUS
SHORT TERM	OFFICE/NON RETAIL	4,648	1 PER 20K SF	2 SPACES MIN	2 ON CAMPUS

OTHER USES – ON SITE BICYCLE PARKING: GREEN AREA

TYPE	TYPE	REQUIRED	PROVIDED
SHORT TERM	OUTDOOR GREEN	AS DETERMINED BY PLANNING BOARD	10 ON CAMPUS

TOTAL BICYCLE PARKING REQUIREMENTS FOR WALLACE CAMPUS

TYPE	REQUIRED	PROVIDED
LONG TERM	139.9 SPACES	123 Wallace 2nd & 3rd Fl 17 ON CAMPUS
SHORT TERM	29 SPACES	29 ON CAMPUS

GRAPHIC SCALE
30 15 0 30
SCALE IN FEET

No.	Date	Revisions
1	11.03.20	Description PLANNING BOARD RE–SUBMISSION
3	01.05.21	RESPONSE TO CONSULTANT COMMENTS
4	03.02.21	RESPONSE TO CONSULTANT COMMENTS
5	05.07.21	RESPONSE TO CONSULTANT COMMENTS
6	10.25.21	RESPONSE TO CONSULTANT COMMENTS
7		

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SITE PLAN
BULK TABLES

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	SP20254802.dwg	Sheet No.	
Drawn	SMC	Project No.	20–2548		SP-2
Checked	KFC	Date	2020.04.10		
Approved	REM	Scale	1"=30'		

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COMPACTION AND BACKFILL NOTES

UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE SITE ENGINEER, ALL SITE SUBGRADE AND BACKFILL FOR ALL STRUCTURES INCLUDING, BUT NOT LIMITED TO, PARKING LOT SUBGRADE, ROAD SUBGRADE, CONCRETE PADS AND SIDEWALKS, WATER LINES AND STRUCTURES, SEWER LINES AND STRUCTURES, STORM LINES AND STRUCTURES, TRASH PADS/ENCLOSURES, AND SITE ELECTRICAL AND CONDUIT, SHALL BE COMPACTED IN ACCORDANCE WITH THE FOLLOWING STANDARD.

METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED MAY 1, 2008, AND ALL ADDENDA THERETO

GRADING AND DRAINAGE NOTES

1. ALL EXISTING STRUCTURES NOTED TO BE REMOVED, FENCING, TREES, ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED & DISPOSED OF OFF SITE. ANY BURNING ON SITE SHALL BE SUBJECT TO LOCAL ORDINANCES.
2. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.
3. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

LEGEND

- PROPOSED ASPHALT
- X 162 — PROPOSED SPOT ELEVATION
- 162 — PROPOSED MINOR CONTOUR LINE
- 160 — PROPOSED MAJOR CONTOUR LINE
- PROPOSED STORM PIPE

GRAPHIC SCALE
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SCALE IN FEET

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3	11.03.20	PLANNING BOARD RE-SUBMISSION
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SITE GRADING / DRAINAGE PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	SG20254801.dwg	Sheet No.
Drawn	SMC	Project No.	20-2548	SG-1
Checked	KFC	Date	2020.04.10	
Approved	REM	Scale	1"=20'	

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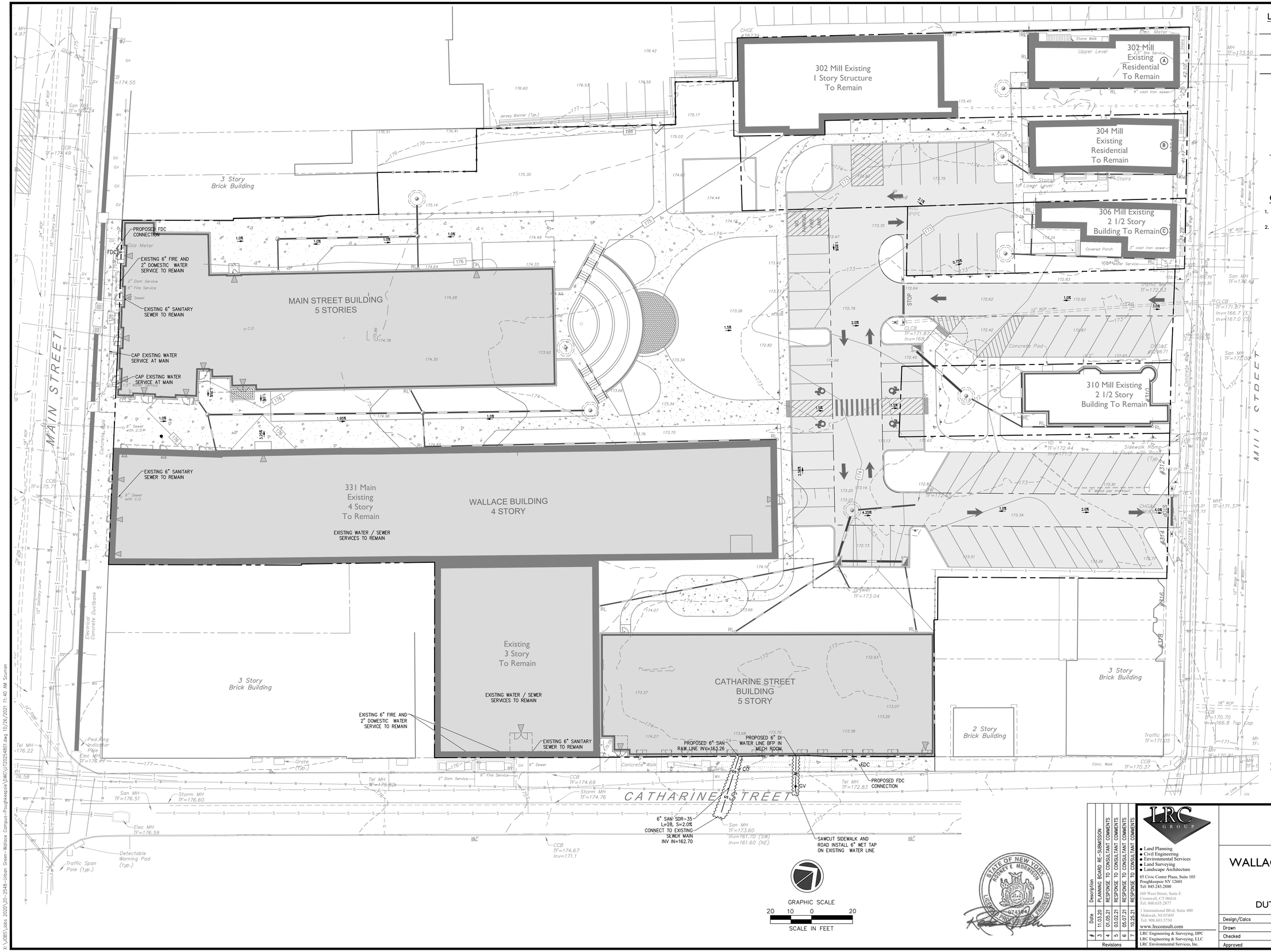

LEGEND

- S — PROPOSED SANITARY SERVICE
- W — PROPOSED WATER SERVICE
- G — PROPOSED GAS SERVICE
- DCO — PROPOSED DOUBLE SANITARY CLEANOUT
- WSO — PROPOSED WATER SHUT OFF VALVE
- PROPOSED SANITARY MANHOLE
- PROPOSED SAWCUT
- (A) (B) (C) EXISTING WATER / SEWER TO REMAIN

CONTRACTOR NOTES

1. BACKFLOW PREVENTION IS REQUIRED FOR BOTH THE FIRE AND DOMESTIC WATER SERVICE CONNECTIONS.
2. TAPPING SLEEVE VALVE AND CURB VALVE IN THE STREET ARE TO BE RIGHT OPEN PER CITY OF POUGHKEEPSIE DPW REQUIREMENTS.

SEE NS-1 FOR WATER / SEWER NOTES

#	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
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STATE OF NEW YORK
ROMEYE E. MORRISON
LICENSED PROFESSIONAL ENGINEER
071104

UTILITIES PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	UT20254801.dwg
Drawn	SMC	Project No.	20-2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	1"=20'

Sheet No. UT-1

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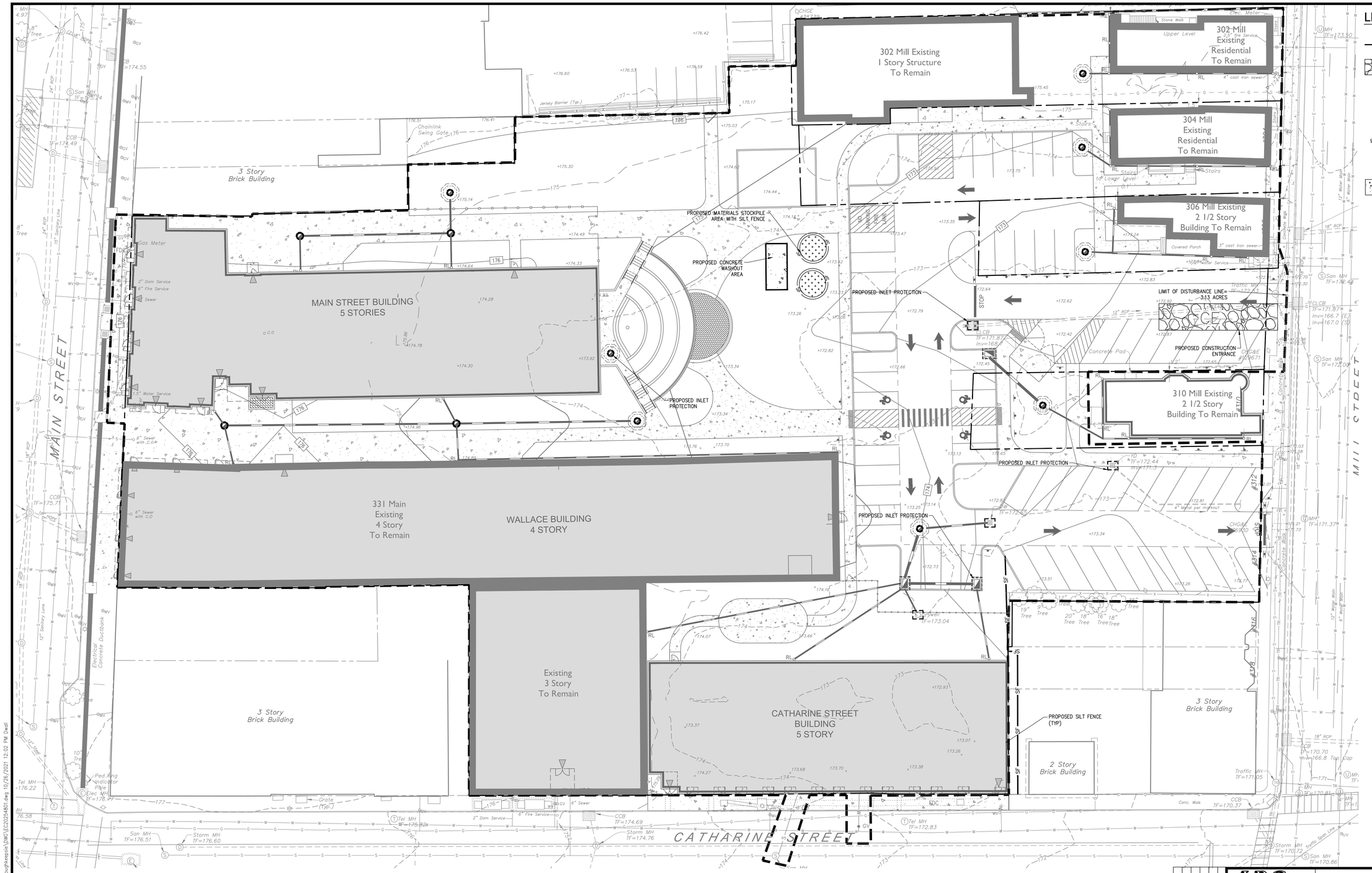

LEGEND

- SF — PROPOSED SILT FENCE
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED INLET PROTECTION (SILT SACKS)
- PROPOSED SOIL MATERIALS STOCKPILE AREA WITH SILT FENCE IN LANDSCAPED AREAS. STOCKPILE IN ASPHALT AREAS SHALL HAVE A TARP COVERING AND MUST BE ANCHORED PROPERLY TO NOT LET SEDIMENT ESCAPE.
- PROPOSED CONCRETE WASHOUT AREA

GRAPHIC SCALE
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SCALE IN FEET

SEE NS-1 FOR EROSION CONTROL NOTES

#	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
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EROSION AND SEDIMENTATION CONTROL PLAN

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CITY OF POUGHKEEPSIE,
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Design/Calcs	LRC	CAD File	EC20254801.dwg	Sheet No.	EC-1
Drawn	SMC	Project No.	20-2548		
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CITY OF POUGHKEEPSIE WATER NOTES

1. ALL WATER MAINS SHALL BE CEMENT LINED DUCTILE IRON PIPE, CLASS 52 PUSH-ON JOINT, UNLESS OTHERWISE SPECIFIED BY OR APPROVED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT. JOINTING SHALL EMPLOY "MEGALUG" CONNECTIONS, FIELD LOCK GASKET, OR AS ALTERNATIVELY SPECIFIED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT. ALL WATER PIPING CONSTRUCTION SHALL BE TO THE SPECIFICATIONS OF THE CITY OF POUGHKEEPSIE WATER DEPARTMENT. WET TAP OF PUBLIC WATER SYSTEM SHALL BE APPROVED AND SUPERVISED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT. TAPPING SLEEVE SHALL BE STAINLESS STEEL OR APPROVED EQUAL. ALL MAINLINE VALVES SHALL BE RESILIENT WEDGE OR APPROVED EQUAL.

2. THE WATER LINE MAY BE FLEXED WITHIN PIPE SPECIFICATIONS OR LAID DEEPER IN AREAS WHERE A CROSSING WITH A SANITARY LINE OCCURS, TO ACHIEVE THE REQUIRED 1.5' VERTICAL SEPARATION DISTANCE. IF THIS DISTANCE CANNOT BE REASONABLY ACHIEVED, THE CONTRACTOR SHALL USE PRESSURE RATED SANITARY PIPE OF EQUAL OR GREATER RATING THAN THE PRESSURE CLASS FOR THE WATER LINE.

3. MINIMUM VERTICAL SEPARATION BETWEEN WATER MAINS AND SEWER PIPE SHALL BE 18 INCHES MEASURED FROM THE OUTSIDE OF THE PIPES AT THE POINT OF CROSSING. ONE FULL STANDARD LAYING LENGTH OF WATER MAIN SHALL BE CENTERED UNDER OR OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER LINE AS POSSIBLE. IN ADDITION, WHEN THE WATER MAIN PASSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT (COMPACTED SELECT FILL) SHALL BE PROVIDED FOR THE SEWER TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING OF THE SEWER PIPE ON THE WATER MAIN. MINIMUM HORIZONTAL SEPARATION BETWEEN PARALLEL WATER MAINS AND SEWER PIPES (INCLUDING MANHOLES AND VAULTS) SHALL BE 10 FEET MEASURED FROM THE OUTSIDE OF THE PIPES, MANHOLES, OR VAULTS.

4. ALL WATER MAINS SHALL HAVE A MINIMUM OF (5) FIVE FEET OF COVER FROM THE TOP OF THE MAIN TO FINISHED GRADE. THE CONTRACTOR SHALL CHECK ALL FINISHED GRADE STAKES BEFORE TRENCHING TO ENSURE THAT ALL INSTALLED WATER MAINS WILL HAVE THE REQUIRED COVER.

5. THE SUPPLIER OF WATER MUST RECEIVE AT LEAST 48-HOUR ADVANCE NOTIFICATION REQUESTING SAMPLING SERVICES. SAMPLING WILL NOT BE PERFORMED PRIOR TO RECEIPT FROM A NEW YORK STATE LICENSED OR REGISTERED DESIGN PROFESSIONAL (ENGINEER, ARCHITECT, OR LAND SURVEYOR WITH A SPECIAL EXEMPTION UNDER SECTION 7208(N) OF THE EDUCATION LAW) CERTIFYING THAT THE WATER SUPPLY IMPROVEMENTS, TESTING AND DISINFECTION PROCEDURES WERE COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS, REPORTS, SPECIFICATIONS, AND ANY APPROVED AMENDMENTS. A NYSDOH CERTIFIED LABORATORY WILL COLLECT SAMPLES FOR FREE CHLORINE RESIDUAL, TOTAL, AND FECAL COLIFORM AND 24-HOUR BACTERIAL PLATE COUNT. THE CERTIFICATE OF COMPLIANCE, TESTING, AND SAMPLING RESULTS SHALL BE PROVIDED TO THE CITY WATER MAINTENANCE SUPERVISOR AND DUTCHESS COUNTY DEPARTMENT OF HEALTH AS A CONDITION OF APPROVAL FOR OPERATION.

6. THE CONTRACTOR SHALL COORDINATE THE TESTING WITH THE WATER DEPARTMENT SO AS TO MAINTAIN THE AMOUNT OF SERVICE INTERRUPTION TO EXISTING USERS TO THE LEAST EXTENT PRACTICABLE. WATER MAIN INSTALLATION AND TESTING SHALL BE PERFORMED UNDER THE SUPERVISION OF THE PROJECT ENGINEER OR HIS DESIGNEE AS NECESSARY TO MEET CONDITIONS IN NOTE 5 ABOVE.

7. THE WATER MAIN SHALL BE PRESSURE LEAKAGE TESTED IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS OF THE AWWA STANDARD C600 (LATEST REVISION) OR IN ACCORDANCE WITH MORE STRINGENT REQUIREMENTS IMPOSED BY THE SUPPLIER OF WATER. TEST TO FIRST VALVE WITHIN BUILDING.

8. THE WATER MAIN SHALL BE DISINFECTED EQUAL TO AWWA STANDARD FOR DISINFECTING WATER MAINS DESIGNATION C651 (LATEST REVISION). FOLLOWING DISINFECTION, THE WATER MAIN SHALL BE FLUSHED UNTIL THE CHLORINE CONCENTRATION IN THE WATER LEAVING THE MAIN IS NO HIGHER THAN THAT GENERALLY PREVAILING IN THE SYSTEM. THE PROJECT ENGINEER OR HIS DESIGNEE SHALL ALSO WITNESS DISINFECTION AND FLUSHING.

9. ALL WATER MAIN FITTINGS NOT RECEIVING 24-HOUR CHLORINE DISINFECTION CONTACT TIME MUST BE SWAB-DISINFECTED 30 MINUTES PRIOR TO INSTALLATION.

10. THE SAMPLING POINT(S) MUST BE DECONTAMINATED BY FLAMING.

11. FIRE HYDRANTS ARE NOT ACCEPTABLE SAMPLING POINTS, UNLESS OTHERWISE APPROVED BY SITE ENGINEER AND CITY OF POUGHKEEPSIE WATER DEPARTMENT.

12. FIRE HYDRANT WEEP HOLES (DRAINS) SHALL BE PLUGGED WHEN GROUND WATER IS ENCOUNTERED WITHIN SEVEN FEET OF THE FINISHED GRADE. WHEN DRAINS ARE PLUGGED, THE BARREL'S MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. SUCH HYDRANTS SHALL BE IDENTIFIED BY MARKINGS AS APPROVED BY THE CITY OF POUGHKEEPSIE.

13. PROPOSED WATER METERS LOCATED WITHIN THE METER PIT OR BUILDING SHALL BE A COMPATIBLE REMOTE STYLE TYPE (SENSUS), AND SHALL BE APPROVED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT PRIOR TO INSTALLATION. WATER METER SHALL BE EQUIPPED WITH (RADIO TYPE REMOTE READER) TRANSCEIVER PROVIDED BY METER MANUFACTURER AND INSTALLED AND PROGRAMMED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT.

14. THE WATER LINE SHALL BE INSTALLED AT A CONTINUOUS GRADE WITH NO ABRUPT HIGH POINTS OR LOW POINTS.

15. FINAL WATER DISTRIBUTION SYSTEM AND CERTIFICATION IS SUBJECT TO REVIEW, REVISION AND APPROVAL BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT AND THE DCDOH PRIOR TO APPROVAL TO OPERATE.

16. ALL WATER MAINS AND RELATED APPURTENANCES SHALL BE CONSTRUCTED TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF POUGHKEEPSIE.

17. THE WATER MAIN SHALL NOT BE PLACED INTO SERVICE UNTIL SO AUTHORIZED BY THE CITY OF POUGHKEEPSIE.

18. ALL WATER SERVICE CONSTRUCTION SHALL BE SUBJECT TO INSPECTION BY THE CITY WATER DEPARTMENT PRIOR TO BACKFILLING. BEDDING AND PIPE ZONE MATERIAL SHALL BE COMPOSED OF CRUSHED STONE OR LIGHT GRAVEL HAVING A GRADATION LIMIT OF 3/4" MINUS. AN ACCEPTABLE MATERIAL SHALL MEET THE FOLLOWING REQUIREMENT:

SIEVE DESIGNATION	% PASSING
3/4"	100
NO.40	0-70
NO. 200	0-10

19. TRENCH BACKFILL SHALL BE WELL-GRADED SOIL AND GRAVEL MATERIAL. ALL PARTICLES SHALL HAVE A GRADATION OF 2" OR LESS. AN ACCEPTABLE MATERIAL SHALL MEET THE FOLLOWING REQUIREMENT:

SIEVE DESIGNATION	% PASSING
2 INCH	100
1/4 INCH	30-65
NO. 40	5-40
NO. 200	0-15

20. BEDDING AND BACKFILL MATERIAL SHALL BE STOCKPILED IN AMOUNTS NECESSARY FOR REASONABLE BACKFILLING REQUIREMENTS. A SIEVE ANALYSIS OF BEDDING OR BACKFILL MAY BE REQUIRED AT THE REQUEST OF THE CITY OF POUGHKEEPSIE.

21. THE SITE UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BURIED PIPING TO THE LOCATION OF THE PROPOSED BUILDING CONNECTION POINT (I.E. INSIDE THE BUILDING). THIS INCLUDES THE TESTING AND CERTIFICATION OF ALL WATER SERVICE WORK FROM THE CITY WATER CONNECTION POINT TO THE PROPOSED BUILDINGS INTERIOR CONNECTION POINT.

22. INDICATOR TAPE SHALL BE PLACED 12" BELOW FINISHED GRADE DIRECTLY ABOVE ALL WATERLINES.

23. ALL COPPER WATER SERVICE PIPING INSTALLATION, BACKFILL AND TESTING SHALL BE REVIEWED AND APPROVED BY THE CITY OF POUGHKEEPSIE WATER MAINTENANCE SUPERVISOR OR HIS DESIGNEE. BEDDING, PIPE ZONE, AND BACKFILL MATERIAL MUST BE SAND ONLY.

24. THE PIPE SUPPORTS FOR THE METER PIT SHALL BE MADE OF GALVANIZED STEEL AND SHALL BE ADJUSTABLE. THE SUPPORTS ARE TO BE PLACED ONLY BENEATH SPOOL PIECES AND NOT UNDER CRITICAL EQUIPMENT, METERS, ETC.

25. THREE AS-BUILT DRAWINGS WHICH INCLUDE VERIFICATION OF THE WATER INFRASTRUCTURE WILL BE PROVIDED TO THE PLANNING DEPARTMENT FOR DISSEMINATION TO THE ENGINEERING AND WATER DEPARTMENTS PRIOR TO ANY EASEMENT DEDICATION TO THE CITY.

CITY OF POUGHKEEPSIE SANITARY SEWER NOTES

1. FLOOR DRAINS, IF CONSTRUCTED, SHALL BE CONNECTED TO THE SANITARY SEWER. FLOOR DRAINS DO NOT INCLUDE FOUNDATION/FOOTER DRAIN: ALL DISCHARGES TO THE SANITARY SEWER SHALL COMPLY WITH THE EFFLUENT LIMITS OF THE LOCAL AND/OR DUTCHESS COUNTY SANITARY CODE.

2. DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPES. THE TESTS SHALL BE CONDUCTED AFTER FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 5 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5% IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID BALL OR MANDREL, IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.

3. SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF POUGHKEEPSIE. ALL SANITARY SEWER SYSTEM COMPONENTS SHALL BE INSTALLED BY OR UNDER THE SUPERVISION OF A CITY OF POUGHKEEPSIE LICENSED PLUMBER IN ACCORDANCE WITH THE CITY PLUMBING CODE.

4. MAJOR EARTHWORK SHALL BE COMPLETED PRIOR TO INSTALLATION OF ANY SANITARY SEWER MAINS AND APPURTENANCES. AIR CONNECTING SEWER LINES SHALL BE FLUSHED BEFORE TESTED.

5. MAXIMUM ALLOWABLE INFILTRATION OR EXFILTRATION SHALL NOT EXCEED 100 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER DAY FOR THE SANITARY SEWER. IF AN AIR TEST IS USED, THE TEST, AS A MINIMUM, SHALL CONFORM TO THE PROCEDURE DESCRIBED IN THE ASTM -F-1417 (1992) ENTITLED "STANDARD PRACTICE FOR INSTALLATION ACCEPTANCE OF GRAVITY SEWER LINES USING LOW PRESSURE AIR" (RE-APPROVED 1998). SANITARY MANHOLES SHALL BE VISUALLY INSPECTED AND TESTED FOR LEAKAGE BY EXFILTRATION OR VACUUM. VACUUM TESTING OF MANHOLES SHALL COMPLY WITH THE METHOD OUTLINED IN THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TECHNICAL INFORMATION PAMPHLET (TIP) NO.15 (REVISED).

6. SANITARY SEWER MAINS ARE TO BE POLYVINYL CHLORIDE (PVC) AND SANITARY LATERALS SHALL BE PVC, SDR-35, UNLESS OTHERWISE NOTED.

7. FINAL SEWER COLLECTION SYSTEM LAYOUT IS SUBJECT TO REVIEW, REVISION AND APPROVAL BY THE CITY OF POUGHKEEPSIE SEWER DEPARTMENT.

8. ALL SANITARY PIPE AND/OR MANHOLES SHALL BE A MINIMUM OF TEN (10) HORIZONTAL FEET FROM THE WATER MAIN. SANITARY PIPE SHALL HAVE A MINIMUM 18" SEPARATION FROM ANY WATER MAIN OR WATER SERVICE LINE. IF FOR SOME REASON THIS SEPARATION CANNOT BE ACHIEVED, SANITARY SEWER PIPE IN THE AREA SHALL BE SDR-26 PRESSURE RATED PIPE, (OR BE ENCASED PER THE DETAIL ON DN-3) AND ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED UNDER OR OVER THE SEWER. ALL SANITARY SEWER CONSTRUCTION SHALL BE TO SPECIFICATIONS OF THE CITY OF POUGHKEEPSIE SEWER DEPARTMENT.

9. ALL SANITARY TESTING SHALL BE PERFORMED UNDER THE SUPERVISION OF THE PROJECT ENGINEER, AND CERTIFICATES OF COMPLIANCE WITH THE INSTALLATION SPECIFICATIONS, TEST STANDARDS, APPROVED PLANS OR APPROVED AMENDMENTS SHALL BE PROVIDED TO THE APPROPRIATE SEWER AUTHORITY AND THE DCDOH AS A CONDITION OF APPROVAL FOR OPERATION.

10. ALL SANITARY SEWER CONSTRUCTION SHALL BE SUBJECT TO INSPECTION BY THE CITY SEWER SUPERINTENDENT PRIOR TO BACKFILLING. PIPE BEDDING AND PIPE ZONE MATERIAL SHALL BE COMPOSED OF CRUSHED STONE OR GRAVEL, FREE OF SOFT NONDURABLE PARTICLES WITH THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
3/4"	100
NO.40	0-70
NO. 200	0-10

ALL TRENCH BACKFILL MATERIAL SHALL BE APPROVED BY THE SUPERINTENDENT OF SEWERS AND MUST MEET THE FOLLOWING GRADATION REQUIREMENT:

SIEVE DESIGNATION	% PASSING
2 INCH	100
1/4 INCH	30-65
NO.40	5-40
NO. 200	0-15

BEDDING AND BACKFILL MATERIAL SHALL BE STOCKPILED IN AMOUNTS NECESSARY FOR REASONABLE BACKFILLING REQUIREMENTS. A SIEVE ANALYSIS OF BEDDING OR BACKFILL MAY BE REQUIRED AT THE REQUEST OF THE CITY OF POUGHKEEPSIE.

11. ALL NEW SANITARY SEWER MANHOLE COVERS SHALL BE NOMINAL 26" DIAMETER CAST IRON AND SHALL READ "SANITARY SEWER". FRAMES SHALL BE 8" IN HEIGHT AND THE FRAME AND COVER SHALL BE SYRACUSE CASTINGS NO.1 009 OR AN APPROVED EQUAL.

12. INDICATOR TAPE SHALL BE PLACED 12" BELOW FINISHED GRADE DIRECTLY ABOVE ALL SANITARY LINES.

13. LOCATION OF SEWER LATERAL CLEAN OUTS ARE TO BE PLACED AS SHOWN ON THE APPROVED SITE PLAN AND NOT TO EXCEED EVERY 75' MEASURED FROM THE SEWER MAIN CONNECTION OR AS DETERMINED BY THE CITY OF POUGHKEEPSIE SUPERINTENDENT OF SEWERS WHERE LOCATIONS ARE NOT SPECIFICALLY SHOWN.

14. EXTERNAL DROP MANHOLES SHALL BE USED FOR SEWERS ENTERING AT AN ELEVATION OF 24 INCHES OR HIGHER AT THE INLET OF A SEWER MANHOLE.

15. THREE AS-BUILT DRAWINGS WHICH INCLUDE VERIFICATION OF THE SEWER INFRASTRUCTURE INCLUDING RIMS AND INVERTS WILL BE PROVIDED TO THE PLANNING DEPARTMENT FOR DISSEMINATION TO THE ENGINEERING AND SEWER DEPARTMENTS PRIOR TO ANY EASEMENT DEDICATION TO THE CITY.

COMPACTION AND BACKFILL NOTES

UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE SITE ENGINEER, ALL SITE SUBGRADE AND BACKFILL FOR ALL STRUCTURES INCLUDING, BUT NOT LIMITED TO, PARKING LOT SUBGRADE, ROAD SUBGRADE, CONCRETE PADS AND SIDEWALKS, WATER LINES AND STRUCTURES, SEWER LINES AND STRUCTURES, STORM LINES AND STRUCTURES, TRASH PADS/ENCLOSURES, AND SITE ELECTRICAL AND CONDUIT, SHALL BE COMPACTED IN ACCORDANCE WITH THE FOLLOWING STANDARD.

METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED MAY 1, 2008, AND ALL ADDENDA THERETO

DECOMPACTION OF SOILS IN RECLAIMED AREAS:

THESE PROCEDURES SHALL BE FOLLOWED PRIOR TO INSTALLATION OF TOP SOIL OR INFILTRATION PRACTICES IN ANY AREA PREVIOUSLY IMPERVIOUS OR COMPACTED BY COSTRUCTION EQUIPMENT. FOR ALL AREAS TO BE RECLAIMED FOR STORMWATER INFILTRATION, THE AREA SHALL BE MARKED OFF WITH ORANGE SAFETY FENCE AFTER DEMOLITION AND PRIOR TO DECOMPACTION TO PREVENT FURTHER COMPACTION OF THE UNDERLYING SOILS.

AREAS RECLAIMED AS TOP SOIL:

A. APPLY 3" OF COMPOST OVER SUBSOIL AFTER SUBGRADE LEVELS HAVE BEEN REACHED AND IMMEDIATELY PRIOR TO PLACING PLANTING SOILS.

B. THE ENTIRE SUBGRADE AREA SHALL BE LOOSENED TO A MINIMUM DEPTH OF 12 INCHES UTILIZING THE BUCKET OF A BACK HOE, CAT MOUNTED RIPPER, TILLER, OR EQUIVALENT EQUIPMENT. ROCK PICK ONLY UNTIL UPLIFTED STONE/ROCK MATERIAL OF FOUR INCHES AND LARGER SIZE HAVE BEEN CLEARED FROM THE SITE.

C. ANY SUBGRADE AREAS WHICH HAVE BECOME HEAVILY COMPACTED (DEFINED AS EXCEEDING 86%-88% COMPACTION ASTM 698 STANDARD PROCTOR) INCLUDING, BUT NOT LIMITED TO, TEMPORARY PARKING AREAS, MATERIAL STOCKPILE AREAS, TEMPORARY ROADWAYS, CONSTRUCTION AREAS AND AREAS AROUND THE BUILDING, OTHER CONSTRUCTION AREAS, AREAS SHOWN ON THE PLANS, OR AREAS IDENTIFIED BY THE DESIGN PROFESSIONAL SHALL BE DEEP-SCARIFIED. IMMEDIATELY PRIOR TO PLACING SOILS, HEAVILY COMPACTED AREAS SHALL BE LOOSENED TO A MINIMUM DEPTH OF 18 INCHES USING THE TEETH OF A BACK HOE OR OTHER SUITABLE EQUIPMENT. FREQUENCY OF COMPACTION TESTS SHALL BE ONE PER 500 SQUARE FEET.

D. CONFIRM THAT THE SUBGRADE IS AT THE PROPER ELEVATION AND THAT NO FURTHER EARTHWORK IS REQUIRED TO BRING THE SUBGRADE TO PROPER ELEVATIONS. PROVIDE A REPORT TO THE DESIGN PROFESSIONAL THAT THE SUBGRADE HAS BEEN PLACED TO THE REQUIRED ELEVATIONS, HAS BEEN DECOMPACTED ACCORDING TO THE CONTRACT DOCUMENTS AND IS READY FOR INSPECTION AT LEAST 3 DAYS PRIOR TO PLACING INFILTRATION PRACTICES. PERFORM NO WORK OF PLACING AND SPREADING PLANTING MIXED UNTIL ELEVATIONS HAVE BEEN CONFIRMED AND THE AREA HAS BEEN ACCEPTED BY THE OWNER'S REPRESENTATIVE.

E. AFTER THE SOILS HAVE BEEN LOOSENED AND INSPECTED, TOPSOIL MAY BE SPREAD BY USING A WIDE-TRACK BULLDOZER SIZE D-5 OR SMALLER OR MAY BE DUMPED AND SPREAD WITH THE BUCKET OF A BACKHOE FROM THE EDGE OF THE LOOSENED AREA. NO RUBBER-TIRED EQUIPMENT OR HEAVY EQUIPMENT EXCEPT FOR A SMALL BULLDOZER SHALL PASS OVER THE SUBSOILS (SUBGRADE) AFTER THEY HAVE BEEN LOOSENED. IF THE CONTRACTOR PLANS TO UTILIZE SUCH AREAS FOR ANY USE OF HEAVY EQUIPMENT, THIS SHOULD BE CARRIED OUT PRIOR TO BEGINNING THE PROCESS OF LOOSENING SOILS OR FILLING IN THAT AREA, OR IT WILL HAVE TO BE RESCARIFIED AND MEET THIS SPECIFICATION REQUIREMENT.

AREAS RECLAIMED FOR STORMWATER INFILTRATION PRACTICES:

A. EXCAVATE AREA TO THE DEPTH OF THE PROPOSED BOTTOM OF THE INFILTRATION PRACTICE.

B. THE ENTIRE SUBGRADE AREA SHALL BE LOOSENED TO A MINIMUM DEPTH OF 12 INCHES BELOW PROPOSED SUBGRADE UTILIZING THE BUCKET OF A BACK HOE, CAT MOUNTED RIPPER, TILLER, OR EQUIVALENT EQUIPMENT. ROCK PICK UNTIL UPLIFTED STONE/ROCK MATERIAL OF FOUR INCHES AND LARGER SIZE HAVE BEEN CLEARED FROM THE SITE.

C. ANY SUBGRADE AREAS WHICH REMAIN HEAVILY COMPACTED (DEFINED AS EXCEEDING 86%-88% COMPACTION ASTM 698 STANDARD PROCTOR), AS SHOWN ON THE PLANS, OR AREAS IDENTIFIED BY THE DESIGN PROFESSIONAL SHALL BE DEEP-SCARIFIED. IMMEDIATELY PRIOR TO PLACING SOILS, HEAVILY COMPACTED AREAS SHALL BE LOOSENED TO A MINIMUM DEPTH OF 18 INCHES USING THE TEETH OF A BACK HOE OR OTHER SUITABLE EQUIPMENT. FREQUENCY OF COMPACTION TESTS SHALL BE ONE PER 500 SQUARE FEET.

D. CONFIRM THAT THE SUBGRADE IS AT THE PROPER ELEVATION AND THAT NO FURTHER EARTHWORK IS REQUIRED TO BRING THE SUBGRADE TO PROPER ELEVATIONS. PROVIDE A REPORT TO THE DESIGN PROFESSIONAL THAT THE SUBGRADE HAS BEEN PLACED TO THE REQUIRED ELEVATIONS, HAS BEEN DECOMPACTED ACCORDING TO THE CONTRACT DOCUMENTS AND IS READY FOR INSPECTION AT LEAST 3 DAYS PRIOR TO PLACING INFILTRATION PRACTICES. PERFORM NO WORK UNTIL ELEVATIONS HAVE BEEN CONFIRMED AND THE AREA HAS BEEN ACCEPTED BY THE OWNER'S REPRESENTATIVE.

E. AFTER THE SOILS HAVE BEEN LOOSENED AND INSPECTED, INFILTRATION PRACTICES MAY BE INSTALLED USING A WIDE-TRACK BULLDOZER SIZE D-5 OR SMALLER OR MAY BE PLACED, DUMPED, OR SPREAD WITH THE BUCKET OF A BACKHOE FROM THE EDGE OF THE LOOSENED AREA. NO RUBBER-TIRED EQUIPMENT OR HEAVY EQUIPMENT EXCEPT FOR A SMALL BULLDOZER SHALL PASS OVER THE SUBSOILS (SUBGRADE) AFTER THEY HAVE BEEN LOOSENED. IF THE CONTRACTOR PLANS TO UTILIZE SUCH AREAS FOR ANY USE OF HEAVY EQUIPMENT, THIS SHOULD BE CARRIED OUT PRIOR TO BEGINNING THE PROCESS OF LOOSENING SOILS OR FILLING IN THAT AREA, OR IT WILL HAVE TO BE RESCARIFIED AND MEET THIS SPECIFICATION REQUIREMENT.

F. WHEN INFILTRATION PRACTICES ARE LOCATED BELOW PAVEMENT THE AREA SHALL REMAIN FREE OF LARGE VEHICLES UNTIL THE PAVEMENT SUBBASE HAS BEEN INSTALLED.

G. FOR REFERENCE OF DECOMPACTION NOTES, SEE NYS DESIGN MANUAL SECTION 5.1.6 FOR DEEP RIPPING AND DECOMPACTION OF EXISTING AREAS THAT ARE PROPOSED FOR RESTORATION.

CITY OF POUGHKEEPSIE EROSION AND SILTATION CONTROL NOTES

1. All unvegetated areas in excess of 10%, per direction of the Engineer, shall have temporary seeding of fast germinating rye, 10 to 15 #'s per 1,000 sq. ft.
2. Graded areas - upper elevations: Provide temporary drainage swales, 1% grade min., to direct runoff away from construction sites. Discharge areas to be acceptable to the Engineer.
3. Graded areas - lower elevations: Provide drainage swales, 1% min. grades, with staked and secured hay bale siltation. Location of hay bales and discharge areas per approval of Engineer.
4. Permanent seeded areas for erosion control: Mixture of perennial rye and blue and red fescue grasses (50/50), 15 to 25 #'s per 1,000 sq. ft., mulching at 5#'s per 1,000 sq. ft., fertilizer - 5.10.5 at 5#'s per 1,000 sq. ft. (if determined necessary by Engineer), with pegging and netting for grades in excess of 15%.
5. All permanent drainage interceptor swales to be seeded per Item 4 also.
6. All erosion control shall be in accordance with the latest "Urban Erosion and Sediment Control Guidebook" of the Dutchess County Soil and Water Conservation District.
7. All areas shall be seeded and mulched as soon as possible.
8. Grade as needed and feasible to permit the use of conventional equipment for seed bed preparation, seeding and mulch application.
9. Scarify all compacted soils prior to applying topsoil.
10. Apply topsoil per Standard #6 Table 6.1 of the Soil Erosion Control Guide Book.
11. Seed mix shall be as follows:
    Ky. Blue grass 20 lbs/ac.
    Creeping Red Fescue 40 lbs/ac.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH CITY OF POUGHKEEPSIE REQUIREMENTS AND SPECIFICATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
3. REFER TO OTHER PLANS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE SITE ENGINEER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO BIDDING. ANY CONFLICT BETWEEN DRAWINGS AND THE SPECIFICATIONS SHALL BE CONFIRMED WITH THE LOCAL CONSTRUCTION MANAGER PRIOR TO BIDDING.
4. REFER TO THE DETAIL SHEETS FOR PAVEMENT, CURBING, AND SIDEWALK INFORMATION.
5. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE SITE ENGINEER, AND THE APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
6. THE CONTRACTOR SHALL RESTORE ANY OF THE FOLLOWING IF THEY ARE NOTED TO REMAIN: UTILITY STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, OR LANDSCAPED AREAS DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE CITY OF POUGHKEEPSIE.
7. TRAFFIC CONTROL MEASURES SHALL BE UTILIZED IN ACCORDANCE WITH CITY OF POUGHKEEPSIE AND NYSDOT.
8. PAVEMENT MARKINGS SHALL BE FAST DRYING TYPE IN ACCORDANCE WITH CITY OF POUGHKEEPSIE SPECIFICATIONS.
9. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS AND PLANT SPECIFICATIONS TO THE SITE ENGINEER AND OWNER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW. APPROVED SHOP DRAWINGS WILL BE PROVIDED BY THE ENGINEER AND COPIED TO THE CITY OF POUGHKEEPSIE.
10. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES AND UNIFORMED TRAFFIC MEN AS REQUIRED OR ORDERED BY THE ENGINEER OR REQUIRED BY THE LOCAL GOVERNING AUTHORITIES. CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS AT ALL TIMES UNLESS WRITTEN APPROVAL FROM THE CITY AND GOVERNING AUTHORITIES IS GRANTED.
11. THE PROJECT DRAWINGS ARE GENERALLY DIAGRAMMATIC IN INDICATING THE PRESENCE OF EXISTING UNDERGROUND UTILITIES. INFORMATION ON EXISTING UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED TO BE CORRECT OR COMPLETE. UTILITIES ARE SHOWN TO ALERT THE CONTRACTOR OF THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND SERVICES. WHEN THE UTILITIES ARE TO BE LEFT IN PLACE, THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING THE EXCAVATION AND BACKFILLING OPERATIONS.
12. PRIOR TO DEMOLITION OR CONSTRUCTION THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 1-800-962-7962 AT LEAST 72 HOURS BEFORE COMMENCEMENT OF WORK TO VERIFY ALL UTILITY LOCATIONS. CONTRACTOR SHALL NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS.
13. IF ANY UNCHARTED OR INCORRECTLY CHARTED EXISTING PIPING OR OTHER UTILITY IS UNCOVERED DURING EXCAVATION, THE CONTRACTOR SHALL CONSULT THE SITE ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH THE WORK.
14. STORAGE OF FLAMMABLE AND HAZARDOUS MATERIALS SHALL BE IN COMPLIANCE WITH THE NYS FIRE AND BUILDING CODE.
15. CONTRACTOR TO PROVIDE SITE ENGINEER WITH SUBMITTALS. ONCE APPROVED, COPIES WILL BE SUPPLIED TO CITY ENGINEER AND APPROPRIATE CITY DEPARTMENTS.
16. NO HERBICIDES OR PESTICIDES WILL BE USED DURING THE OPERATION OF THE SITE.

EROSION AND SEDIMENT CONTROL PLAN

1. LAND DISTURBANCE WILL BE KEPT TO A MINIMUM; RESTABILIZATION WILL BE SCHEDULED AS SOON AS PRACTICABLE.
2. SILTATION FENCE WILL BE INSTALLED AT ALL CULVERT OUTLETS AND ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES.
3. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE NEW YORK STATE EROSION & SEDIMENT CONTROL "BLUE BOOK" 2005.
4. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION WHENEVER POSSIBLE.
5. ALL CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
6. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PERIOD, IF NECESSARY OR REQUIRED.
7. SEDIMENT REMOVED FROM CONTROL STRUCTURES WILL BE DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THE PLAN.
8. DUST CONTROL AND ANTI-TRACKING MAINTENANCE TO BE ADDRESSED AND RESOLVED ON A DAILY BASIS.

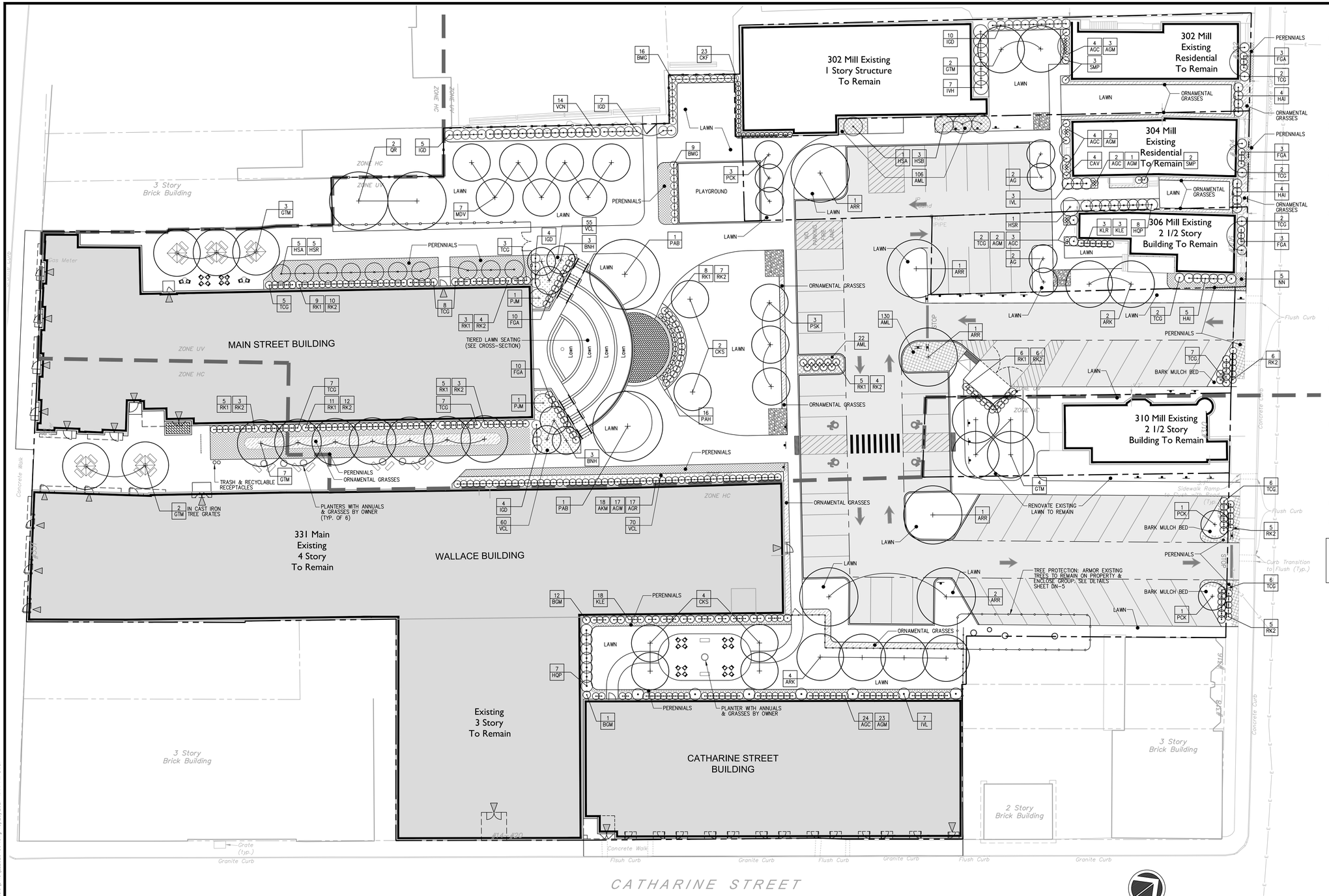
INSTALLATION OF SEDIMENTATION AND EROSION CONTROL MEASURES

I. SILTATION FENCE

A. DIG A SIX INCH TRENCH ON THE UPHILL SIDE OF THE DESIGNATED FENCE LINE LOCATION.

B. POSITION THE POST AT THE BACK OF THE TRENCH (DOWNHILL SIDE), AND HAMMER THE POST AT LEAST 2.0 FEET INTO THE GROUND.

C. LAY THE BOTTOM SIX INCHES OF THE FABRIC IN



PLANTING NOTES:

1. THE LANDSCAPE PLAN AND RELATED DETAILS ARE FOR LANDSCAPING INFORMATION ONLY. PLEASE REFER TO THE SITE, GRADING & EROSION CONTROL PLANS FOR ALL OTHER INFORMATION.
2. THE CONTRACTOR SHALL GUARANTEE THAT ALL PLANTS, TREES, AND SHRUBS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY OWNER OR LANDSCAPE ARCHITECT. CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS AT CONTRACTOR'S EXPENSE. PLANT MATERIAL REPLACEMENTS SHALL BE GUARANTEED FOR ONE FULL YEAR FROM DATE OF REPLACEMENT. FINAL ACCEPTANCE SHALL BE MADE IF ALL PLANTS MEET THE GUARANTEE REQUIREMENTS INCLUDING MAINTENANCE. MAINTENANCE RESPONSIBILITIES INCLUDE CULTIVATING, SPRAYING, WEEDING, WATERING, TIGHTENING GUYS, PRUNING, FERTILIZING, MULCHING, AND ANY OTHER OPERATIONS NECESSARY TO MAINTAIN PLANT VIABILITY. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL THE END OF THE ONE YEAR GUARANTEE PERIOD.
3. THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND LISTED IN THE PLANT SCHEDULE. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY.
4. ALL SHRUB MASSINGS SHALL BE MULCHED TO A DEPTH OF 4" WITH SHREDDED HARDWOOD BARK MULCH.
5. NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY ENGINEER. STAKING THE LOCATION OF ALL TREES AND SHRUBS SHALL BE COMPLETED PRIOR TO PLANTING FOR APPROVAL BY THE OWNER OR LANDSCAPE ARCHITECT. STAKING OF THE INSTALLED TREE MUST BE COMPLETED THE SAME DAY AS IT IS INSTALLED. ALL TREES SHALL BE STAKED OR GUYED PER DETAIL. SEE SHEET DN-1 FOR PLANTING DETAILS.
6. COORDINATE PLANT MATERIAL LOCATIONS WITH SITE UTILITIES. SEE SITE LAYOUT, GRADING AND UTILITY DRAWINGS FOR STORM, SANITARY AND WATER LINES. SEE LIGHTING PLAN FOR ELECTRICAL AND LIGHTING LAYOUT AND DETAILS. UTILITY LOCATIONS ARE APPROXIMATE. EXERCISE CARE WHEN DIGGING IN AREAS OF POTENTIAL CONFLICT WITH UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONTRACTOR'S NEGLIGENCE AND SHALL REPLACE OR REPAIR ANY DAMAGE AT CONTRACTOR'S EXPENSE.
7. LANDSCAPE PLANTING PITS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SUBGRADE, AND BLASTED ROCK SHALL BE REMOVED FROM WITHIN TRAFFIC ISLANDS TO BE LANDSCAPED TO A DEPTH OF 2' OR TO A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL WITHIN ISLANDS WITH MODERATELY COMPACTED LOAM OR SANDY LOAM FREE FROM STONES AND RUBBISH 1" OR GREATER IN DIAMETER AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT. PLANTING INSTALLATION WITHIN ISLANDS SHALL BE AS DETAILED AND CONTAIN PLANTING MIX AS SPECIFIED.
8. TIME OF PLANTING: NEW PLANT MATERIALS SHALL BE INSTALLED BETWEEN APRIL 1 AND JUNE 1, OR AFTER SEPTEMBER 15TH AND NO LATER THAN OCTOBER 31ST.
9. PLANTING SOIL MIXTURE FOR TREES AND SHRUBS:
   - 1 PART PEAT MOSS
   - 3 PARTS TOPSOIL
   - FERTILIZER/LIME (APPLY AS RECOMMENDED BY SOIL ANALYSIS)
   - MYCORHIZA INOCULANT – "TRANSPLANT 1–STEP" AS MANUFACTURED BY ROOTS, INC. OR APPROVED EQUAL.
     USE PER MANUFACTURER'S RECOMMENDATIONS FOR TREES AND SHRUBS.
10. TOPSOIL SHALL BE INSTALLED AT A MINIMUM DEPTH OF 6" IN LAWN AREAS. CONTRACTOR SHALL SUBMIT TOPSOIL TO A CERTIFIED TESTING LABORATORY TO DETERMINE pH, FERTILITY, ORGANIC CONTENT AND MECHANICAL COMPOSITION. THE CONTRACTOR SHALL SUBMIT THE TEST RESULTS FROM REGIONAL EXTENSION OFFICE OF USDA TO THE OWNER OR LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. CONTRACTOR SHALL INCORPORATE AMENDMENTS FOR GOOD PLANT GROWTH AND PROPER SOIL ACIDITY RECOMMENDED FROM THE TOPSOIL TEST.
11. LAWN SEEDING MIXTURE:

    15% KENTUCKY BLUEGRASS (POA PRATENSIS – SINGLE VARIETY)
    15% PERENNIAL RYEGRASS (LOLIUM PERENNE)
    30% CREEPING RED FESCUE (FESTUCA RUBRA)
    25% CHEWINGS FESCUE (FESCTUCA RUBRA "JAMESTOWN II")
    15% HARD FESCUE (FESTUCA OVINA "RELIANT II")

    SEEDING RATE: 4.5 LBS PER 1,000 S.F. (ADD 10% TO QUANTITY IF HYDROSEEDED).

    SEEDING DATES: AUGUST 15 – OCTOBER 1 AND APRIL 15 – JUNE 15 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.
12. ALL SLOPES GREATER THAN 3:1 RECEIVING A GRASS SEEDING MIXTURE SHALL BE COVERED WITH AN EROSION CONTROL BLANKET.
13. ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED SHALL BE SEEDED WITH THE LAWN SEEDING MIXTURE.
14. TREE PROTECTION: PRIOR TO THE START OF CONSTRUCTION OR EXCAVATION, TREES TO BE RETAINED SHALL BE PROTECTED BY SILT FENCE, SNOW FENCE, CONSTRUCTION FENCE, OR EQUAL, WHICH WILL BE PLACED AT THE DRIP LINE OR SEVERAL FEET BEYOND. HOWEVER, THE FENCING SHALL NOT CROSS PUBLIC SIDEWALKS. NO STORAGE OR STOCKPILING OF CONSTRUCTION MATERIALS, DEBRIS OR EQUIPMENT SHALL OCCUR WITHIN THE FENCED AREA."

PLANTING LIST AND DETAILS:
SEE SHEET LL-2

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

STATE OF NEW YORK
RODNEY E. MORRISON
LICENSED PROFESSIONAL ENGINEER
074184

	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS
7	10.25.21	RESPONSE TO CONSULTANT COMMENTS

Revisions

LRC GROUP
- Land Planning
- Civil Engineering
- Environmental Services
- Land Surveying
- Landscape Architecture

85 Civic Center Plaza, Suite 103
Poughkeepsie NY 12601
Tel: 845.243.2880

160 West Street, Suite E
Cromwell, CT 06416
Tel: 860.635.2877

1 International Blvd, Suite 400
Mahwah, NJ 07495
Tel: 908.603.5730

www.lrcconsult.com

LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

LANDSCAPE PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	LL20254801.dwg
Drawn	SMC	Project No.	20-2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	1"=20'

Sheet No. LL-1

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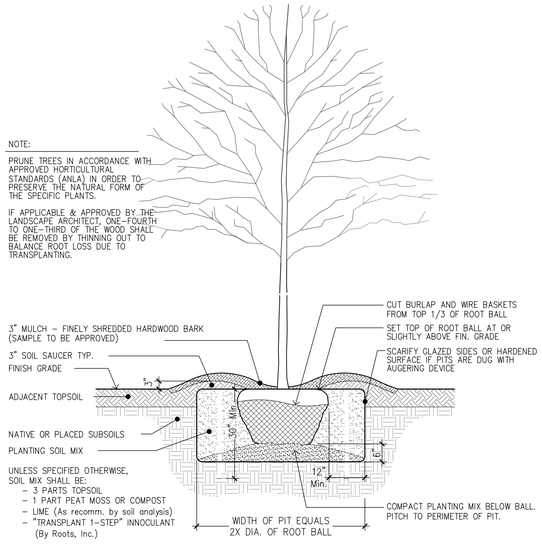
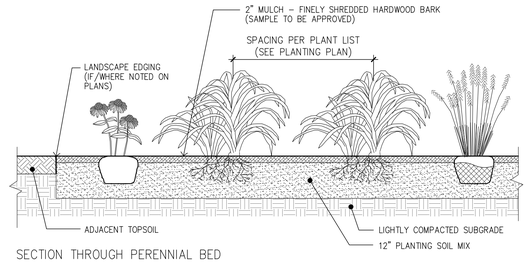
PLANT LIST:

	CODE	QTY.	BOTANICAL NAME	COMMON NAME	ROOT	SIZE INSTALLED	SIZE MATURE	COMMENTS
TREES:	ARK	6	ACER RUBRUM 'KARPICK'	KARPICK RED MAPLE	B&B	2.5–3" cal.	20x40' ht.	Narrow oval crown
	ARR	6	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	B&B	2.5–3" cal.	40' ht.	Upright oval crown
	AG	4	AMEL. x GRANDIFLORA 'CUMULUS'	CUMULUS SERVICEBERRY	B&B	8–10' ht.	30' ht.	Clump Form (3 min.)
	BNH	6	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	B&B	10–12' ht.	40' ht.	Multi-stem; Low Branched
	CKS	6	CORNUS KOUSA 'SATOMI'	SATOMI KOUSA DOGWOOD	B&B	2.5–3" cal.	25' ht.	Pink Bloom
	GTM	18	GLEDITSIA T. INERMIS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	B&B	3–3.5" cal.	60' ht.	HEAVY
	MDV	7	MALUS DOMESTICA VARIETIES	EATING APPLES – MIXED VARIETIES	B&B	1.5–2" cal.	20' ht.	Edible Fruit
	PAB	2	PLATANUS ACERIFOLIA 'BLOODGOOD'	LONDON PLANE TREE	B&B	3–3.5" cal.	50' ht.	Specimen Grade
	PCK	5	PRUNUS CERISIFERA 'KRAUTER VESUVIUS'	KRAUTER VESUVIUS PURPLE LEAF PLUM	B&B	2.5–3" cal.	15'x20' ht.	Pale Pink Bloom
	PSK	3	PRUNUS SERRULATA 'KWANZAN'	KWANZAN CHERRY	B&B	2.5–3" cal.	20x30' ht.	
	QR	2	QUERCUS RUBRA	NORTHERN RED OAK	B&B	3–3.5" cal.	75' ht.	
SHRUBS:	AML	258	ARONIA MEL. 'LOW SCAPE MOUND	LOW SCAPE MOUND CHOKEBERRY	CONT.	#1	12–24" ht.	
	AGC	37	AZALEA 'GIRARD'S CRIMSON'	GIRARD'S CRIMSON AZALEA	CONT.	#3	3–4' ht.	Crimson Bloom
	AGM	31	AZALEA 'GIRARD'S RENEE MICHELLE'	GIRARD'S RENEE MICHELLE AZALEA	CONT.	#3	3–4' ht.	Deep Pink Bloom
	AGR	17	AZALEA 'GIRARD'S ROSE'	GIRARD'S ROSE AZALEA	CONT.	#3	2–3' ht.	
	AGW	17	AZALEA 'GIRARD'S PLEASANT WHITE'	GIRARD'S WHITE AZALEA	CONT.	#3	2–3' ht.	White
	AKM	18	AZALEA x 'MOTHER'S DAY'	MOTHER'S DAY (KURUME) AZALEA	CONT.	#3	2–3' ht.	Rose Red Bloom
	BGM	13	BUXUS MICROPHYLLA 'GREEN MOUNTAIN'	GREEN MOUNTAIN BOXWOOD	CONT.	24" min.ht.	3'Wx3'H	Soft Pyramidal; Do not shear
	BMG	25	BUXUS MICROPHYLLA 'GREEN VELVET'	GREEN VELVET BOXWOOD	CONT.	24" min.ht.	2–4' ht.	Do not shear neat.
	CAV	4	CLETHRA ALNIFOLIA 'VANILLA SPICE'	VANILLA SPICE SUMMERSWEET	CONT.	#5	3–4' ht.	
	FGA	29	FOTHERGILLA GARDENII 'APPALACHIA'	DWARF FOTHERGILLA	CONT.	#5	2–3' ht.	
	HAI	13	HYD. ARBORESCENS INVINOBILE SPIRIT II	SMOOTH HYDRANGEA	CONT.	#5	3–4' ht.	Pink
	HSA	6	HIBISCUS SYRIACUS 'ARDENS'	ROSE OF SHARON	B&B	36–42" ht.	8–10' ht.	Double Rosy Purple
	HSB	3	HIBISCUS SYRIACUS 'BLUE SATIN'	ROSE OF SHARON	B&B	36–42" ht.	8–10' ht.	Single Royal Blue
	HSR	5	HIBISCUS SYRIACUS 'RED HEART'	ROSE OF SHARON	B&B	36–42" ht.	8–10' ht.	White w/ Scarlet Eye
	HQP	15	HYDRANGEA QUERCIFOLIA 'PEEWEE'	PEE WEE OAKLEAF HYDRANGEA	CONT.	#7	3–5' ht.	White; Burgundy fall
	IGD	30	ILEX GLABRA 'DENSA'	INKBERRY	CONT.	24" min.ht.	3–4' ht.	Compact
	IVH	7	ITEA VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET SWEETSPIRE	CONT.	#5	4–6' ht.	
	IVL	10	ITEA VIRGINICA 'LITTLE HENRY'	LITTLE HENRY SWEETSPIRE	CONT.	#3	3–6' ht.	
	KLE	21	KALMIA LATIFOLIA 'ELF'	ELF MIN. MOUNTAIN LAUREL	CONT.	#5	3–4' ht.	White
	KLR	3	KALMIA LATIFOLIA 'RASPBERRY GLOW'	RASPBERRY GLOW MOUNTAIN LAUREL	CONT.	#5	6–8' ht.	Burgundy to Pink
	PJM	2	RHODODENDRON 'PJM'	PJM RHODODENDRON	CONT.	36" min.ht.	8' ht.	
	RK1	47	ROSA 'RADCOR'	RAINBOW KNOCK OUT ROSE	CONT.	#5	3–4' ht.	30" o.c.; Pink
	RK2	58	ROSA 'RADSUNNY'	SUNNY KNOCK OUT ROSE	CONT.	#5	3–4' ht.	30" o.c.; Soft Yellow
	SMP	5	SYRINGA MEYERI 'PALIBIN'	DWARF KOREAN LILAC	CONT.	#7	4–5' ht.	
	TCG	55	TAXUS CUSPIDATA 'GREENWAVE'	GREENWAVE JAPANESE YEW	CONT.	24" min.ht.	3'x4'	DO NOT SHEAR AS HEDGE
	VCN	14	VACCINEUM CORYMBOSUM 'NORTHLAND'	NORTHLAND HIGHBUSH BLUEBERRY	CONT.	#7	3–4' ht.	
	VCL	185	VIBURNUM CASSINOIDES 'LIL DITTY'	LIL DITTY WITHEROD VIBURNUM	CONT.	#1	12–24" ht.	
PERENNIALS:	AAD		ACHILLEA MILL. 'APRICOT DELIGHT'	APRICOT DELIGHT YARROW	CONT.	#SP4	13" ht.	15" o.c.; Mixed Pinks
	ANB		ASTER NOVAE–BELGII 'MARIE BALLARD'	MARIE BALLARD (NY) ASTER	POT	#SP5	30" ht.	18" o.c.; Vio–blue Late Sum.
	EPB		ECHINACAEA P. 'POW WOW WILD BERRY'	WILD BERRY CONEFLOWER	CONT.	#SP5	16–24" ht.	15" o.c.; Rose–Purple
	LMS		LEUCANTHEMUM SUP. 'BECKY'	SHASTA DAISY	CONT.	#SP4	30" ht.	White
	MBS		MONDARDA DIDYMA 'BLUE STOCKING'	BLUE STOCKING BEE BALM	CONT.	#SP4	4' ht.	Purple
	NN		NIPPONANTHEMUM NIPPONICUM	MONTAUK DAISY	CONT.	#2 (2 Gal.)	30–36" ht.	
	RFG		RUDBECKIA FUL. var. SULL. 'GOLDSTURM'	GOLDSTURM Black Eyed Susan	CONT.	#SP4	30–36" ht.	24" o.c.; Gold; June–Sept
	HHR		HEMEROCALLIS MIXED VARIETIES	DAYLILY	CONT.	#SP4	18" ht.	18" o.c.; YELLOW
ORNAMENTAL GRASSES:	CKF		CALAMAGROSTIS ACU. 'KARL FOERSTER'	FEATHER REED GRASS	CONT	#1	4–5' ht.	
	MCS		MOLINA CAER. 'STRAHLENQUELLE'	PURPLE MOOR GRASS	POT	#1	24" o.c.;	24" Blades, 2–4' Plumes
	PAH		PENNISETUM ALOPCUROIDES 'HAMELN'	HAMELN DWARF FOUNTAIN GRASS	CONT.	#2	24" ht.	18" o.c.; Copper tassels



TREE PLANTING
Scale 1/2" = 1'–0"

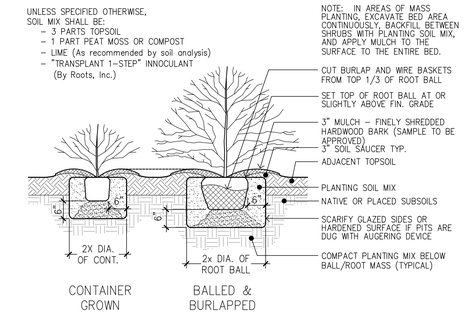


SECTION THROUGH PERENNIAL BED

PERENNIAL NOTES:
1. BULB/CORM PERENNIALS TO BE PLANTED IN FALL. POTTED PERENNIALS MAY BE PLANTED APRIL 15 TO OCTOBER 1.
2. ROTOTILL FERTILIZER AND LIME INTO SOIL PRIOR TO PLANTING AND IN ACCORDANCE TO SOIL ANALYSIS RECOMMENDATIONS.
3. DO NOT OVER COMPACT PLANTING BED. WATER THOROUGHLY AFTER PLANTING BULBS.
4. ADJUST PLANTING DEPTH AS RECOMMENDED BY BULB SUPPLIER.
5. PROVIDE DRAINAGE AS REQUIRED (PERF PIPE 4" ADS) WHEN SUBGRADE IS CLASSIFIED AS A HEAVY SOIL OR EXCESSIVELY COMPACTED.

UNLESS SPECIFIED OTHERWISE, PERENNIAL BED SOIL MIX SHALL BE:
– 3 PARTS TOPSOIL
– 1 PART MANURE (WEED FREE)
– 1 PART PEAT MOSS OR COMPOST
– LIME (As recommended by soil analysis)
– "MILORGANITE" AT 5 LBS. PER 100 SF.

ANNUAL / PERENNIAL AND GROUND COVER BEDS
Scale 1/2" = 1'–0"



SHRUB PLANTING
Scale 1/2" = 1'–0"

STATE OF NEW YORK
ROMEYE E. MORRISON
071104
LICENSED PROFESSIONAL ENGINEER

#	Date	Description
3	11.03.20	PLANNING BOARD RE–SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS
7	10.25.21	RESPONSE TO CONSULTANT COMMENTS

Revisions

LRC GROUP
● Land Planning
● Civil Engineering
● Environmental Services
● Land Surveying
● Landscape Architecture
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LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

PLANT LIST AND PLANTING DETAILS

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	LL20254802.dwg
Drawn	SMC	Project No.	20–2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	NTS

Sheet No.
LL-2

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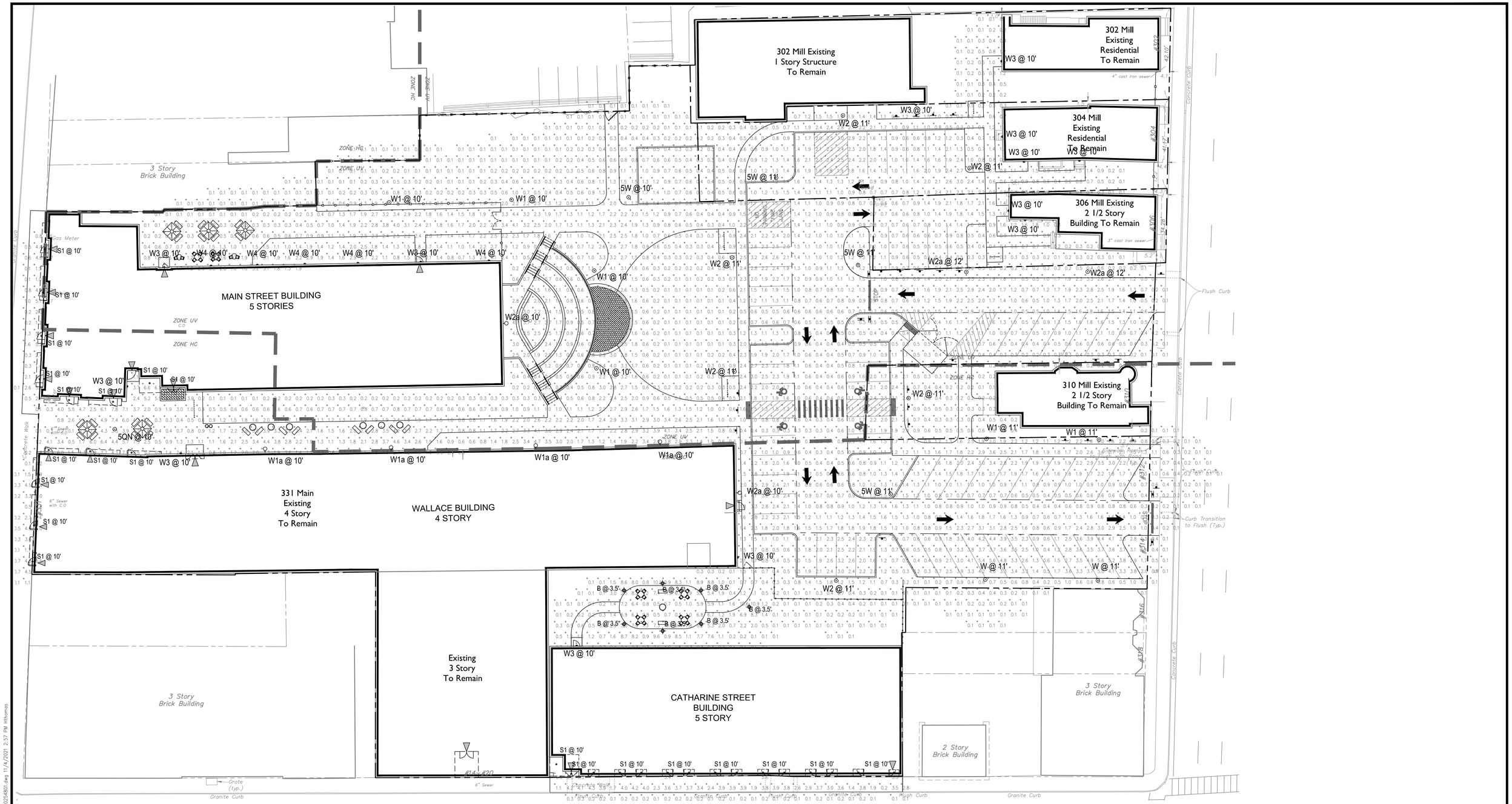

NOTE:
SEE LIGHTING SCHEDULE
& FIXTURE CUT SHEETS
ON SHEET LP-2.

STATE OF NEW YORK
RODNEY E. MORRISON
074104
LICENSED PROFESSIONAL ENGINEER

#	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
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LIGHTING PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	LP20254801.dwg	Sheet No.
Drawn	SMC	Project No.	20-2548	LP-1
Checked	KFC	Date	2020.04.10	
Approved	REM	Scale	1"=20'	

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S1 - Soffit Light

8" LED Downlight
LC8SL
1000/1400/1800 Lumens
120V/277V, 347V
0-10V Dimming

APPLICATIONS:
LiteFrame Commercial LC8SL is a 8" commercial grade LED downlight with available outputs between 1000-1800 lumens. This is suitable to replace most CFL downlighting applications, while realizing substantial energy and maintenance savings. Rated for a minimum of 50,000 hours life (70% lumen maintenance) with ambient plenum temperatures up to 35°C. Free Air Flow around the fixture is required for optimal life performance. This product is not recommended for use with 3rd party "FIREHAT" or insulation barriers.

HOUSING:
One-piece 22 gauge non-corrosive steel platform. Pre-wired J-box with snap-on cover for easy access. Snap-in connection from driver compartment allows easy installation of light engine/trim assembly and can be upgraded to accommodate technology improvements. Approved for 8 (4 in/4 out) No. 12 AWG conductor rated for 90°C through wiring.

REFLECTOR:
High purity aluminum, Alzak, iridescence suppressed, semi-diffuse reflector. Self-trim standard. Painted white self-trim (WT) available as option.

LED LIGHT ENGINE:
The LC8SL uses mid power Nichia LEDs, specifically mixed to provide a minimum of 80 CRI with 3 SDCM color consistency. The use of multiple mid power LEDs allows for optimal thermal management by effectively spreading the heat over a larger area and eliminating hot spots on the LEDs. A diffuse, yet highly transmissive lens obscures the view of the LEDs and creates a smooth, even look from below. The light engine is available in multiple Kelvin temperatures and the system is designed to provide optimal life and lumen maintenance (50,000 hours at 70% Lumen maintenance). The reflector/light engine assembly is mechanically retrained to the housing.

LED DRIVER:
The LC8SL utilizes a constant current LED driver. This same driver is capable of running all three different lumen outputs, resulting in a reduction of housing skus and simplified specification. The driver is UL8750, Class II compliant and universal 120V-277V.

DIMMING:
Comes standard with flicker-free 0-10V dimming to 10%. 0-10V to 1% dimming option is also available. See list of compatible dimmers on page 3. For the sizing of the control circuit, the dimming circuit may require up to 2mA of sink current.

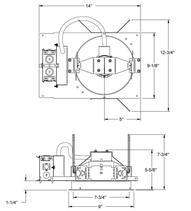
INSTALLATION:
Light commercial bar hangers included. Universal adjustable mounting brackets also accept ½" EMT conduit or ½" or ¾" tubing channel (by others) or Prescolite 24" bar hangers (B24 or B6).

CERTIFICATIONS:
CSA certified to US and Canadian safety standards. Suitable for wet locations (SM and EMR damp location). ENERGY STAR Qualified.
This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction. Materials under Trade Agreements effective 6/10/2020. See Buy American Solutions.

WARRANTY:
5 year warranty. See www.prescolite.com for details.

LC8SL-8LCSL-10L-30K-9-WH
DATE: 1-20-21 TYPE: S1
FIRM NAME: LRC GROUP
PROJECT: WALLACE POUGHKEEPSIE

LiteFrame
Ceiling Cutout 8 3/4"
Maximum Ceiling Thickness 1 3/4"
For conversion to millimeters, multiply inches by 25.4
Not to Scale



LC8SL 10L & 14L
***See page 4 for LC8SL 18L line art**
***See page 4 for LC8SLEM line art**
***See page 4 for LC8SLCP line art**

Order housing, reflector, and accessories separately

CATALOG NUMBER: EXAMPLE: LC8SL-8LCSL14L30K9WT

HOUSING	DRIVER OPTIONS	VOLTAGE	HOUSING OPTIONS
❑ **LC8SL** Standard Lumen 0-10V Dimming to 10% 120V-277V	Standard 0-10V Dimming ❑ **DM1**[1] 1% Dimming	Standard 120V-277V ❑ **347**[1,2] 347V	❑ **EM**[3,4] Integral Battery Pack ❑ **EMR**[4] Remote Battery Pack ❑ **CP**[5,6] Chicago Plenum

TRIM APERTURE	OUTPUT	KELVIN	CRI	REF. FINISH/ COLOR OPTION	REFLECTOR OPTIONS
❑ **8LCSL** Standard Lumen Clear Alzak	❑ **10L** 1000 Lumen ❑ **14L** 1400 Lumen ❑ **18L** 1800 Lumen	❑ **27K** 2700 Kelvin ❑ **30K** 3000 Kelvin ❑ **35K** 3500 Kelvin ❑ **40K** 4000 Kelvin ❑ **50K** 5000 Kelvin	❑ **8** 80+ ❑ **9** 90+ CRI	Standard Semi-Gloss Clear Alzak **WH** Painted Matte White and Flange	❑ **WT** Painted White Flange only ❑ **WF** Wide Flange ❑ **EM**[3,4] Integral Battery Pack ❑ **CP**[5,6] Chicago Plenum

ACCESSORIES
❑ **B24** Set of two(2) 24" bar hangers for Tiber ceilings
❑ **B6** Set of two (2) bar hangers for ceiling cost up to 24" centers
❑ **SCABD** Sloped ceiling adapter (see note on page 4)
❑ **LiteGuard** Inverter, single phase central lighting, 120VAC/120VA
❑ **LPS Series**[7] Lightfoot micro-inverter, 20VA-55VA

[1] See Control Inverter compatibility note and web links on page 3.
[2] EM must be selected on both the housing and the trim.
[3] Not compatible with EM or EMR
[4] Damp location only
[5] Compatible with EMR only
[6] CP must be selected on both the housing and the trim
[7] Not compatible with CP

prescolite
A Division of Hubbell Lighting, Inc.

In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product.
Web: **www.prescolite.com** • Tech Support: **(888) 777-4832**

LFR-LED-042

NOTE: COMPACTED FILL IN EXCAVATION TO 90% COMPACTION DENSITY. PLACE FILL IN 12" LIFTS MAXIMUM.

1 CONC. LIGHT POLE BASE-ROUND
SCALE: 1/2" = 1'-0"

LIGHTING SCHEDULE:

Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
⊙	5QN	1	Kim Lighting	UR20-24L-25-3K7-5QN-PT	UR20	LED 3000K	1	UR20-24L-25-3K7-5QN-PT.ies	2692	0.9	25
⊙	5W	4	Kim Lighting	UR20-24L-25-3K7-5W-PT	UR20	LED 3000K	1	UR20-24L-25-3K7-5W-PT.ies	3032	0.9	25
⌖	S1	29	PRESCOLITE	LC8SLPH-8LCSL10L30K8	8" LED Downlight PowerHUBB Enabled	LED 3000K	1	LC8SLPH-8LCSL10L30K8.ies	1071	0.9	14
⊙	W	2	Kim Lighting	UR20-24L-65-3K7-4-BC	UR20	LED 3000K	1	UR20-24L-65-3K7-4-BC.ies	4920	0.9	65
⊙	W1	6	Kim Lighting	UR20-24L-25-3K7-3-PT	UR20	LED 3000K	1	UR20-24L-25-3K7-3-PT.ies	2999	0.9	25
⚲	W1a	4	Kim Lighting	UR20-24L-25-3K7-3	UR20	LED 3000K	1	UR20-24L-25-3K7-3.ies	3122	0.9	25
⊙	W2	6	Kim Lighting	UR20-24L-25-3K7-4-PT	UR20	LED 3000K	1	UR20-24L-25-3K7-4-PT.ies	3051	0.9	25
⚲	W2a	4	Kim Lighting	UR20-24L-25-3K7-4	UR20	LED 3000K	1	UR20-24L-25-3K7-4.ies	3116	0.9	25
⬭	W3	13	Kim Lighting	WF21S-9L3K	WALL FORMS	LED 3000K	1	WF23-9L3K.ies	640	0.9	11.8
⬭	W4	5	Kim Lighting	WF21S-18L3K	WALL FORMS	LED 3000K	1	WF23-18L3K.ies	1100	0.9	20.2
⌖	B	7	KIM LIGHTING	PA7R-CH5-12L-020-3K7	PA7R	C-70-CRI DATA SHOWN IS ABSOLUTE.	1	PA7R-CH5-12L-020-3K7.ies	1840	0.9	21.73

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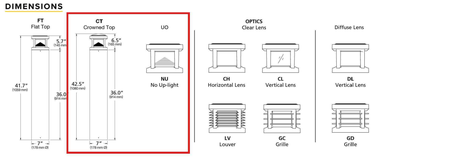
KIM LIGHTING

PA7R
BOLLARD

DATE: 5-28-21 LOCATION: 1234 Route 9G, Hyde Park, NY
TYPE: B PROJECT: Key Construction
CATALOG #: PA7R-CT-NU-3HS-12L-020-3K7-42A-DBS-x-UNV-x

FEATURES
- Traditional or Performance Optics
- Bluetooth® enabled RGBW accent
- Integral NEMA 3R Enclosure
- Dual receptacle power panel
- PA System capability
- IP65 optical system

DIMENSIONS

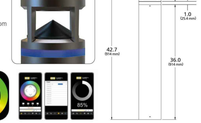


ADDITIONAL INFORMATION

LUMINOUS ACCENT:
- The Luminous Accent option adds an additional 1" / 25.4mm to the overall fixture height and may be controlled via wired DMX RDM or Bluetooth® wireless. The Luminous Accent shall be WD5.

HUBBELL LIGHTING RGBW REMOTE APP
- The Hubbell Lighting RGBW Remote application may be downloaded free of charge from the Apple App Store or Google Play.
- Color selection and adjustment.
- Camera function for color matching.
- Intensity slider for dimming/ramping up.
- Save and rename up to 10 presets.
- Group and rename fixtures.
- Fixture is password protected, refer to instructions to set unique password.

MOUNTING



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KIM LIGHTING

PA7R
BOLLARD

DATE: 5-28-21 LOCATION: 1234 Route 9G, Hyde Park, NY
TYPE: B PROJECT: Key Construction
CATALOG #: PA7R-CT-NU-3HS-12L-020-3K7-42A-DBS-x-UNV-x

ORDERING GUIDE

Example: PA7R-FT-NU-1-12L-010-5K7-24A-BLS-SWP-UNV-EM

CATALOG # PA7R-CT-NU-3HS-12L-020-3K7-42A-DBS-x-UNV-x

HOUSING

PA7R

Model	Top	Optics	Distribution	Light Engine
PA7R Pavilion.7® Ø Round	**FT** Flat Top **CT** * Crowned Top	**NU** No Up-light **CH** Clear Horizontal Lens **CL** * Clear Vertical Lens **DL** ** Diffuse Vertical Lens **LV** Louvers **GC** Grille with clear vertical lens **GD** * Grille with diffuse vertical lens	**1** Type I **2** Type II **3** Type III **3HS** Type III + House side shield **4** Type IV **5** Type V	**12L-010-5K7** 14W /1000 nominal lm, 5000K, 70 CRI **12L-010-4K7** 14W /1000 nominal lm, 4000K, 70 CRI **12L-010-3K7** 14W /1000 nominal lm, 3000K, 70 CRI **12L-010-AMB** 14W, Amber 595 nm Peak **12L-020-5K7** 22W/2000 nominal lm, 5000K, 70 CRI **12L-020-4K7** 22W/2000 nominal lm, 4000K, 70 CRI **12L-020-3K7** 22W/2000 nominal lm, 3000K, 70 CRI **12L-020-AMB** ** 22W, Amber 595 nm Peak

Body	Fixture Finish	Control Options	Voltage	Options
24A 24" OAH, Aluminum **42A** 42" OAH, Aluminum **42BR-C** 42" OAH, Round Concrete **42CH-C** 42" OAH, Charcoal Concrete **42NG-C** 42" OAH, Natural Gray Concrete **42WH-C** 42" OAH, White Concrete **42A-RDP *** 42" OAH, Aluminum + Dual Receptacle Outlet Panel and Cover **42A-RDPL *** 42" OAH, Aluminum + Dual Receptacle Outlet Panel and Locking Cover **42A-2GEB** 42" OAH, Aluminum + Integral Recessed 2 Gang Electrical Box **42A-SG3** 42" OAH, Aluminum + Speaker Grille Enclosure for 3" Ø speaker	**BLS** Black Gloss Smooth **BLT** Black Matte Textured **DBS** Dark Bronze Gloss Smooth **DBT** Dark Bronze Matte Textured **GTT** Graphite Matte Textured **LGS** Light Grey Gloss Smooth **LGT** Light Grey Matte Textured **PSS** Platinum Silver Gloss Smooth **VGT** Verde Green Matte Textured **WHS** White Gloss Smooth **WHT** White Matte Textured	**SWP *** Site Sync pre-commission **MW *** Motion sensing (50% dim, 100% output upon detection) **SiteSync Accessories*** **SWUSB** SiteSync Software on USB **SWTAB** SiteSync Windows® Tablet **SWBRG** SiteSync Wireless Bridge Node PRECOMMISSIONED SITESYNC ORDERING INFORMATION: When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. Visit the Site Sync Commissioning Form or alternate schedule information must be completed. This form can be found in the Product Specifications and Operating schedules. For more detailed information please visit www.hubbelllighting.com/products/sitesync or contact Hubbell Lighting tech support at (800) 345-4928.
Example:
PA7R-FT-NU-3-12L-020-3K7-42A-TT-SWP-UNV-LR	**UNV** 120-277V **120** 120V **277** 208-277V **347** 347V **480** * 480V	**EM *** Battery Backup **LR *** Luminous Accent **SF **** Single Fuse **DF **** Double Fuse

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W3 and W4 Wall

KIM LIGHTING

LED Wall Forms® **WF23**
Shallow Cutoff Face Surface Mount, Round
revision 10/24/14 • kl_wf23led_spec.pdf

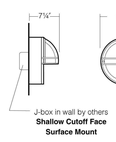
Type: Small Wall Lights W3 and W4 - mounted at 9 and 10' lens height
Job: Wallace Campus - Poughkeepsie
Catalog number: W3: WF23-9L3KUV-DB
W4: WF23-18L3KUV-DB

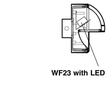
WF23 / / / /
Fixture | Electrical Module | Finish | Options
See page 2

Approvals:

Date:

Specifications





Surface Mount: Die-cast, low copper (<0.6% Cu) aluminum alloy with double side walls. Zinc plated steel mounting plate supplied for mounting to standard 3" or 4" junction box.

Face Plate: Die-cast, low copper (<0.6% Cu) aluminum alloy with vertical and horizontal double rifs covering the full hemisphere. Ribs are minimum ⅝" depth and ⅜" thickness. Secures to housing with four stainless steel captive socket head screws.

Shallow Cutoff Face: Solid upper half protruding 3¾" from housing and concave lower half.

Lens: Flat tempered glass, ⅜" minimum thickness with internal sandblast. Retained in face plate and sealed with a one-piece silicone gasket.

LED Optical System: A total of 9 LED emitters configured in a rectangular array comprised together as a module. One (1) module for 9 LED version and two (2) modules for 18 LED version. Available in 580mm, 3000K, 4200K and 5100K.

LED Driver: Rated for 9 or 18 LED, Universal voltage from 120 to 277V with a ±10% tolerance. -40°F starting temperature. All drivers are Underwriters Laboratories recognized.

Finish: Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat finish. Standard colors include (BL) Black, (DB) Dark Bronze, (WH) White, (PS) Platinum Silver, (SG) Stealth Gray, (LG) Light Gray, and (CC) Custom Color (Include RAL#.).

Finishing Items: Electrical modules and face plates. Each set of finishing items shall be in one container, clearly marked with the fixture catalog number.

CAUTION: Fixtures must be grounded in accordance with national, state, and/or local electrical codes. Failure to do so may result in serious personal injury.

Listings and Ratings

ETL[1] to UL Standard 8750	IP66 Rated	CE	25C° Ambient

*Suitable for wet locations
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HUBBELL Lighting
U.S. PATENTS: D383,054, D381,452, D378,621

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W3 and W4 Wall

KIM LIGHTING

LED Wall Forms® **WF23**
Shallow Cutoff Face Surface Mount, Round
revision 10/24/14 • kl_wf23led_spec.pdf

Type: Small Wall Lights W3 and W4 - mount at 9 and 10' lens heights
Job: Wallace Campus - Poughkeepsie

Standard Features

Fixture

Cat. No. **WF23** W3: WF23-9L3KUV-DB
W4: WF23-18L3KUV-DB

Electrical Module
LED = Light Emitting Diodes

Cat. Nos. for Electrical Modules available:

LED

☐ **9L2KUV**[1]		☐ **18L2KUV**[1]	
☒ **9L3KUV**[1]	**W3**	☒ **18L3KUV**[1]	**W4**
☐ **9L4KUV**[1]		☐ **18L4KUV**[1]	
☐ **9L5KUV**[1]		☐ **18L5KUV**[1]	

[1]For LED, 9L = 9LED Emitters; 18L = 18 LED Emitters; 2K = 580nm color temperature; 3K = 3000K color temperature; 4K = 4200K color temperature; 5K = 5100K color temperature; UV = Universal Voltage from 120 to 277V with a ± 10% tolerance.

Finish
TGIC powdercoat

Color: Black Dark Bronze Light Gray Stealth Gray Platinum Silver White Custom Colors[2]
Cat. No.: ☐ **BL** ☐ **DB** ☐ **LG** ☐ **SG** ☐ **PS** ☐ **WH** ☐ **CC**

[2]Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description: _____

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KIM LIGHTING

W1a and W2a Wall Mount

UR20
ARCHITECTURAL AREA/SITE

DATE: 02/19/21 LOCATION: Poughkeepsie, NY
TYPE: Wall PROJECT: WALLACE CAMPUS
CATALOG #: UR20 - 24L-25 - 3K8 - Type 3 or 4

FEATURES
- 20" size in post top, pole and wall mount
- High performance optics up to 17,000 delivered lumens
- Elegant form factor
- Diffusion lens option
- SiteSync™ wireless control options
- UL/cUL listed for wet locations, IP65 and 3G vibration rated

3000K and warmer CCTs only

CONTROL TECHNOLOGY

SiteSync NX DISTRIBUTED INTELLIGENCE

RELATED PRODUCTS

Ouro Small Post Top | Ouro Large Post Top | Ouro Large Arm Mount

SPECIFICATIONS

CONSTRUCTION
- Low copper aluminum alloy die-casting is designed as one-piece with internal cooling fins.
- Solid, cast aluminum wall creates a thermal barrier between the optical and electrical compartments.
- Molded silicone gasket throughout insures the sealing between the two compartments and provides ingress protection.
- Housing is designed with integral LED heat sink utilized for thermal transfer and for securing the location of each LED module.
- IK09 rated enclosure protects electrical equipment against external mechanical impacts.
- All external fasteners are stainless steel.
- One-piece low copper aluminum alloy die-cast lens frame is secured to housing with 6 screws.

OPTICS
- LEDs mount to a metal printed circuit board assembly (MCPCB).
- Optical lenses are clear injection molded PMMA acrylic.
- Optional Backlight Control on each LED module to completely control unwanted backlight.

INSTALLATION
- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

ELECTRICAL
- Universal voltage, 120 through 277V with a ±10% tolerance. Driver is Underwriters Laboratories listed.
- High voltage configurations, 347/480. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories listed.
- "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments.
- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.
- Surge protection: 10,000k in parallel, 2,000k in series
- Wiring: No. 18AWM rated 105°C, wet rating.

CONTROLS
7PR
- Fully gasketed and wired 7-pin receptacle option. Easy access location above the electrical compartment. 7-pin construction allows for a user-defined interface and provides a controlled definition of operational performance. ANSI twist-lock control module by-others.

Standard customer operation modes:
- Traditional on/off photoelectric control.
- 5-pin wireless photoelectric control for added dimming feature.
- 7-pin wireless photoelectric control for for dimming and additional I/O connections for customer use.

(Specifications continued on page 3)

KEY DATA	
Lumen Range	2888 - 17080
Wattage Range	25 - 150
Efficacy Range (LPW)	100 -136
Reported Life (Hours)	L70>60,000
Weight	32 lbs - 14.5 Kg
EPA	0.372

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KIM LIGHTING

W, W1, W2, 5QN, and 5W Post Top Mount

UR20
ARCHITECTURAL AREA/SITE

DATE: 02/19/21 LOCATION: Poughkeepsie, NY
TYPE: Post Top PROJECT: WALLACE CAMPUS
CATALOG #: UR20 - 24L - 25 - 3K8

RELATED PRODUCTS

Ouro Small Arm Mount | Ouro Large Post Top | Ouro Large Arm Mount

CONTROL TECHNOLOGY

SiteSync NX DISTRIBUTED INTELLIGENCE

SPECIFICATIONS

CONSTRUCTION
- Low copper aluminum alloy die-casting is designed as one-piece.
- Molded silicone gasket throughout insures the sealing between the two compartments and provides ingress protection.
- IK09 rated enclosure protects electrical equipment against external mechanical impacts.
- All external fasteners are stainless steel.
- Cover is secured to Lens frame by the latch and hinge.

OPTICS
- LEDs mount to a metal printed circuit board assembly (MCPCB).
- Optical lenses are clear injection molded PMMA acrylic.
  - Optional Backlight Control on each LED module to completely control unwanted backlight.
- Optional fixture finish optical surfaces will not exceed BUG ratings of the standard white finish.

INSTALLATION
- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

ELECTRICAL
- Universal voltage, 120 through 277V with a ±10% tolerance. Driver is Underwriters Laboratories listed.
- High voltage configurations, 347/480. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories listed.
- "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments.
- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.
- Surge protection: 10,000k in parallel, 2,000k in series
- Wiring: No. 18AWM rated 105°C, wet rating.

CONTROLS
7PR
- Fully gasketed and wired 7-pin receptacle option. Easy access location above the electrical compartment. 7-pin construction allows for a user-defined interface and provides a controlled definition of operational performance. ANSI twist-lock control module by-others.

Standard customer operation modes:
- Traditional on/off photoelectric control.
- 5-pin wireless photoelectric control for added dimming feature.
- 7-pin wireless photoelectric control for for dimming and additional I/O connections for customer use.

(Specifications continued on page 3)

KEY DATA	
Lumen Range	2694 - 16874
Wattage Range	25 - 150
Efficacy Range (LPW)	95 -133
Reported Life (Hours)	L70>60,000
Weight	35 lbs - 15.8 Kg
EPA	0.608

Photocell receptacle wiring diagram

(Specifications continued on page 3)

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KIM LIGHTING

W1a and W2a Wall Mount

UR20
ARCHITECTURAL AREA/SITE

DATE: 02/19/21 LOCATION: Poughkeepsie, NY
TYPE: Wall PROJECT: WALLACE CAMPUS
CATALOG #: UR20 - 24L-25 - 3K8 - Type 3 or 4

ORDERING GUIDE

Example: UR20-24L-25-3K8-3-L-UNV-ASQ-BLT-7PR-BC-SWTAB

CATALOG # UR20 - 24L-25 - 3K7 - Type 3 or 4 Optic as noted on schedule - / - / - / WB Wall Bracket

HOUSING

UR20

Model	LED Engine	CCT	Distribution	Rotation	Voltage
UR20 Ouro	**No Lens or Clear Lens** **24L-25** 3,000 lm **24L-65** 7,000 lm **56L-75** 10,000 lm **56L-115** 15,000 lm **56L-140** 17,000 lm **HDL - High Diffusion Lens** **28L-30** 3,000 lm **28L-70** 7,000 lm **68L-80** 9,000 lm **68L-115** 13,000 lm **68L-150** 15,000 lm	**AM** Amber, 590nm peak * **3K7** 3000K, 70 CRI **3K8** 3000K, 80 CRI **3K9** 3000K, 90 CRI **4K7** 4000K, 70 CRI **4K8** 4000K, 80 CRI **5K7** 5000K, 70 CRI	**No Lens or Clear Lens** **FR** Type 1 Front Row **2** Type II **3** Type III **4** Type IV **4W** Type IV Wide **5QM** Type V Square Medium **5QN** Type V Square Narrow **5R** Type V Rectangular **5W** Type V Wide (Round) **HDL - High Diffusion Lens** **3** Type III Asymmetric **5W** Type V Symmetric	Blank for no rotation **L** * Optic rotation left **R** * Optic rotation right	**UNV** 120-277V **347** 347V **480** 480V **DALI** 120-277V ***Consult factory**

Mounting	Fixture Finish	Control Options	Options	Control Accessories
ASQ Arm Square pole **A34** Arm mt 3.3-4.2" OD pole **A46** Arm mt 4.5-6.0" OD pole **MAP** Horizontal Slip Fitter 2 3/8" OD arm **SVSF** Square Vertical Slipfitter for 2"Tenon (2-3/8"OD) **VSF** Round Vertical Slipfitter for 2"Tenon (2-3/8"OD) **WB** Wall Bracket	**BL** Black **DB** Dark Bronze **GT** Graphite **LG** Light Grey **PS** Platinum Silver **TT** Titanium **WH** White **CC** Custom Color *	**7PR-TL** 7 pin PCR with twist lock photocontrol **7PR-SC** 7 pin PCR with shorting cap **7PR** 7 pin PCR, wireless control enabled **AD-01 *** AstroDIM 50% output at midnight **AD-02 *** AstroDIM 50% output midnight to 4 AM **AD-03 *** AstroDIM 50% output 10PM to 4AM **AD-04 *** AstroDIM 50% output 10PM to 4AM **NXWE** NX Wireless Enabled **SWP 1,2,3** SiteSync Pre commission **SWPM-40F 4,4,4,5** SiteSync with Sensor 9' to 40' MH **WSP-40F-1 5,6** Dimming Occ. Sensor for up to 40' MH, 120/277/347V **WSP-40F-2 5,6** Dimming Occ. Sensor for up to 40' MH, 208/240V **WSP-40F-3 5,6** Dimming Occ. Sensor for up to 40' MH, 480V **NXSPW14F 5,6** NX Wireless, PIR Sensor, 14' **NXSPW30F 5,6** NX Wireless, PIR Occupancy Sensor, Dimming Daylight Harvesting, 30' **NXSP14F 5,6** NX, PIR Occupancy Sensor, Dimming Daylight Harvesting, 14' **NXSP30F 5,6** NX, PIR Occupancy Sensor, Dimming Daylight Harvesting, 30'	**BC *** Back-light Control **SF** Single Fuse **DF** Double Fuse **TB** Terminal Block **CLR *** Clear Lens **TL** Tamper proof latch	**SW7PR 1,5** SiteSync with 7 pin PCR **SWUSB** SiteSync Software on USB **SWTAB** SiteSync Windows® Tablet **SWBRG** SiteSync Wireless Bridge Node **WIR-RME-L** wSCAPE External Fixture Module **SCH-R** Occ. Sensor for Round Pole (up to 30' MH) **SCH-S** Occ. Sensor for Square Pole (up to 30' MH) **NXDFM-1R1D-UNV** NX 7-pin Module

DIMENSIONS

Weight: 32 lbs EPA: .372

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1 Not available with SQM, SQN, and SW distributions.
2 Not available with other sensor or wireless control options.
3 Consult factory for Custom color, ecomo and corrosive finish options.
4 Not available with 347V and 480V.
5 2AL & 5SL only.
6 Not available with Type V distributions or HDL option.
7 Consult factory for custom color, ecomo and corrosive finish options.
8 Turtle Friendly.

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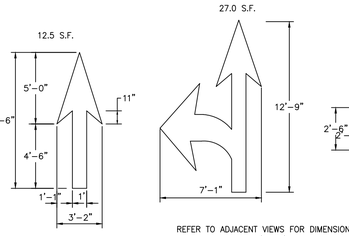
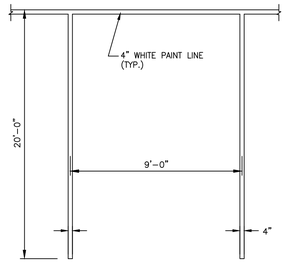


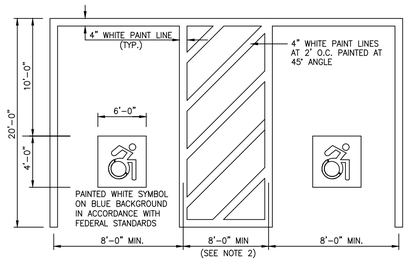
REFER TO ADJACENT VIEWS FOR DIMENSIONS (WHITE)
(ARROWS TO BE CENTERED IN TRAVEL LANE)

PAVEMENT ARROW DETAILS
NOT TO SCALE



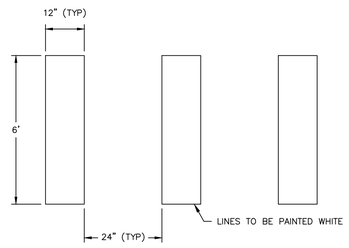
NOTE:
1. PROVIDE 2 COATS OF PAINT ON ALL SURFACES.
2. SEE PLAN FOR ACTUAL SPACE LOCATION AND DIMENSIONS.

TYPICAL PARKING SPACE DETAIL
NOT TO SCALE



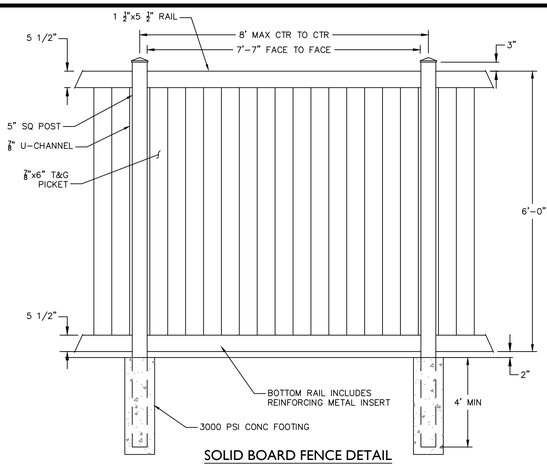
NOTES:
1. SEE SITE PLAN FOR ACCESSIBLE SPACE LOCATION AND DIMENSIONS.
2. PROVIDE 2 COATS OF PAINT ON ALL SURFACES.

TYPICAL ACCESSIBLE PARKING SPACE DETAIL
NOT TO SCALE

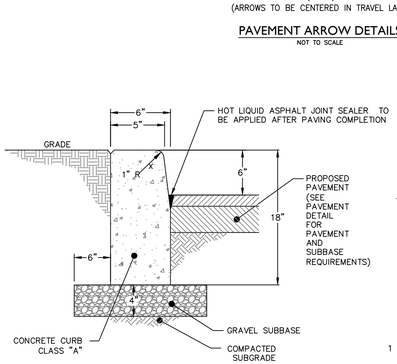


1. PROVIDE TWO COATS OF PAINT ON ALL SURFACES.
2. SEE PLANS FOR LOCATION OF CROSSWALKS.
3. LADDER CROSSWALK (NYSDOT TYPE L).

PAINTED CROSSWALK STRIPING
NOT TO SCALE

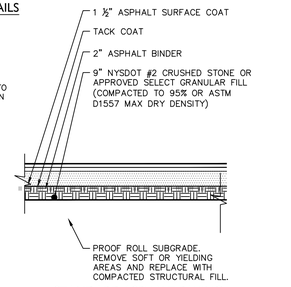


SOLID BOARD FENCE DETAIL
NOT TO SCALE

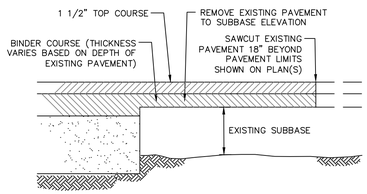


NOTES:
1. COMPACT NATIVE MATERIAL PRIOR TO INSTALLATION OF STONE SUBBASE. SEE NOTE SHEET NS-1 FOR COMPACTION REQUIREMENTS.

ON-SITE CONC. CURB
NOT TO SCALE



STANDARD ASPHALT PAVING
NOT TO SCALE



PAVEMENT TRANSITION DETAIL
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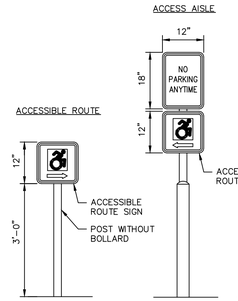
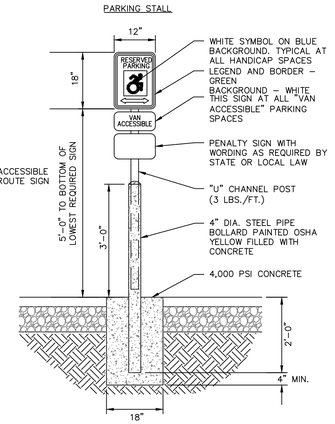
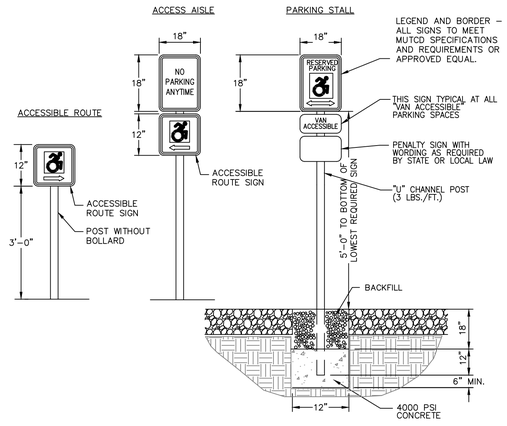




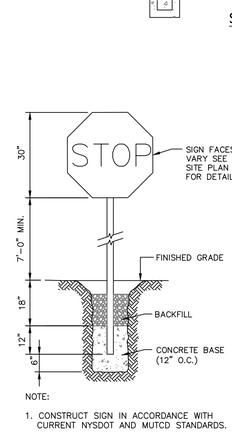
ACCESSIBLE PARKING & ACCESS SIGNS
NOT TO SCALE

FOR USE IN PAVED AREAS



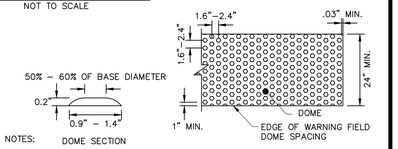
ACCESSIBLE PARKING & ACCESS SIGNS
NOT TO SCALE

FOR USE IN NON PAVED AREAS



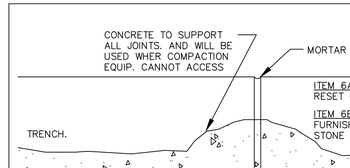
NOTE:
1. CONSTRUCT SIGN IN ACCORDANCE WITH CURRENT NYSDOT AND MUTCD STANDARDS.

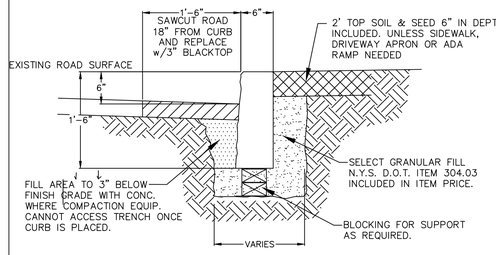
SIGN DETAIL
NOT TO SCALE



NOTES:
1. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE, THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING UNIT (THE DOMES AND THE ENTIRE 24" LEVEL SURFACE) IS FOR ILLUSTRATION ONLY.
2. THE SIZE OF THE DETECTABLE WARNING FIELD SHALL BE 24" IN THE DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
3. THE ROWS OF DOMES SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE GRADE BREAK BETWEEN THE RAMP LANDING OR CURB RAMP AND THE STREET.
4. WHERE DOMES ARE ARRAYED RADIALLY THEY MAY DIFFER IN DOME DIAMETER AND CENTER-TO- CENTER SPACING WITHIN THE RANGES SPECIFIED ON THIS SHEET.
5. THE DETECTABLE WARNING FIELD SHALL BE THE COLOR SPECIFIED IN THE CONTRACT DOCUMENTS OR MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.
6. DETECTABLE WARNING SHALL BE LOCATED SO THAT THE EDGE OR CORNER OF THE WARNING FIELD NEAREST TO THE ROADWAY IS 5" TO 9" FROM THE FRONT OF THE CURB OR THE ROADWAY EDGE (12" WHERE TRAVERSABLE CURB IS USED). INSTALL THE DETECTABLE WARNING FIELD BEHIND THE FLUSH CURB.
7. THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 6'-0" MINIMUM AND 15'-0" MAXIMUM FROM THE CENTERLINE OF THE NEAREST RAIL.

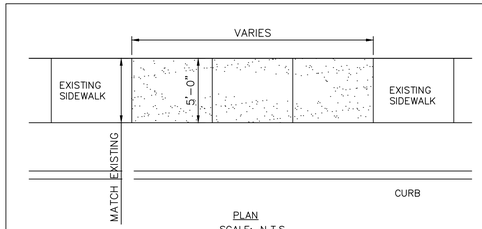
DETECTABLE WARNING STRIP
NOT TO SCALE



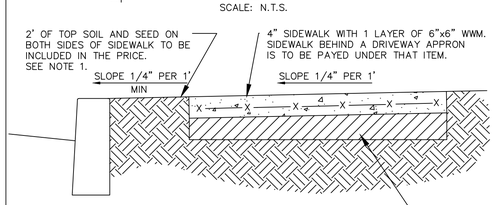


GRANITE OR BLUESTONE CURB DETAIL

CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT 62 CIVIC CENTER PLAZA POUGHKEEPSIE, NY 12602	FILE NO.: 001-DET DATE: 3-6-00 SCALE: AS NOTED DRAWN BY: JP	GRANITE BLUE STONE DETIALS	6 6A, 6B PAGE NO.



PLAN
SCALE: N.T.S.

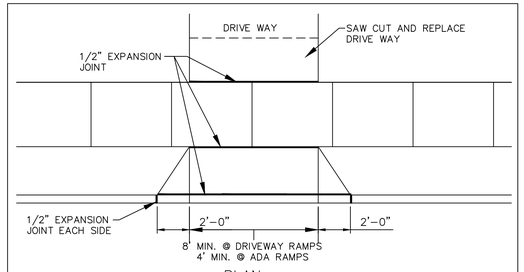


NOTES:
1. WHERE MATERIAL IS NOT USED THE CITY OF POUGHDEEPSIE WILL BE CREDITED IN AREAS WHERE MORE THAN THE SPECIFIED AMOUNT OF MATERIAL IS USED. MAJOR GRADE CHANGES WILL BE APROVED BY THE CITY ENGINEERING DEPT. AND WILL BE PAYED UNDER APROPRIATE ITEMS.

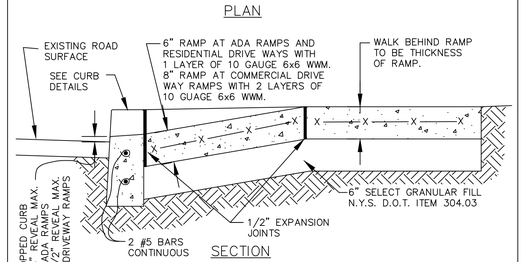
SECTION

SIDEWALK DETAIL REPLACE & NEW

CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT 62 CIVIC CENTER PLAZA POUGHKEEPSIE, NY 12602	PROJECT: 001-DET DATE: 5-16-00 SCALE: AS NOTED DRAWN BY: JP	SIDEWALK DETAIL	



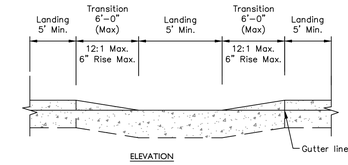
PLAN



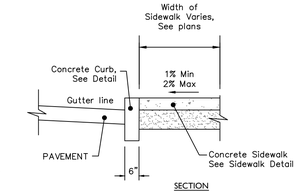
SECTION

DRIVEWAY RAMPS & ADA RAMP
SCALE: 1"=1'-0"

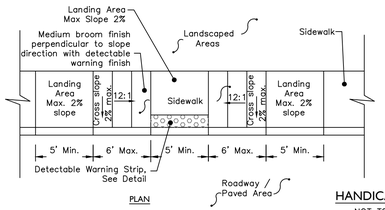
CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT 62 CIVIC CENTER PLAZA POUGHKEEPSIE, NY 12602	FILE NO.: 001-DET DATE: 3-6-00 SCALE: AS NOTED DRAWN BY: JP	DRIVEWAY & ADA RAMP DETIAL	1 PAGE NO.



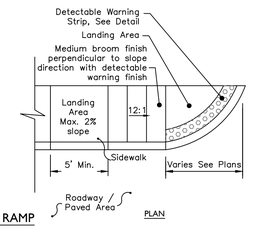
ELEVATION



SECTION



PLAN



PLAN

HANDICAP RAMP
NOT TO SCALE

DETAILS PROVIDED BY THE CITY OF POUGHKEEPSIE. FOR ALL WORK TO BE PERFORMED IN THE CITY ROW.

#	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS
7	10.25.21	RESPONSE TO CONSULTANT COMMENTS

Revisions

LRC GROUP
• Land Planning
• Civil Engineering
• Environmental Services
• Land Surveying
• Landscape Architecture
85 Civic Center Plaza, Suite 103
Poughkeepsie NY 12601
Tel: 845.243.2880
160 West Street, Suite E
Cromwell, CT 06416
Tel: 860.635.2877
1 International Blvd, Suite 400
Mahwah, NJ 07495
Tel: 908.603.5730
www.lrcconsult.com
LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

STATE OF NEW YORK ROMEYE MORRISON 074104 LICENSED PROFESSIONAL ENGINEER

SITE DETAILS

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DN20254801.dwg	Sheet No.	DN-1
Drawn	SMC	Project No.	20-2548		
Checked	KFC	Date	2020.04.10		
Approved	REM	Scale	NOTED		

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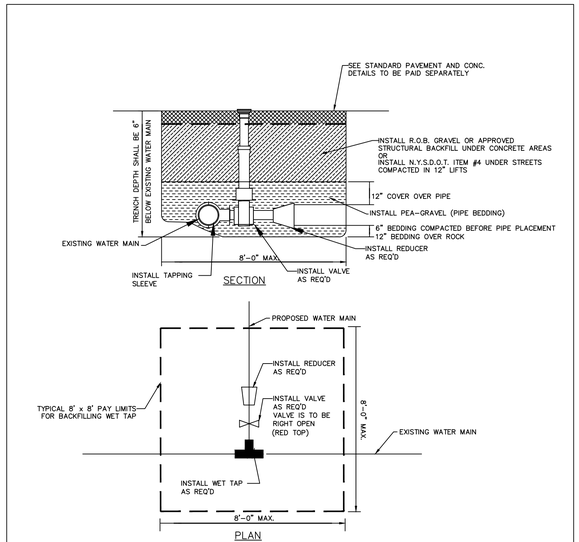
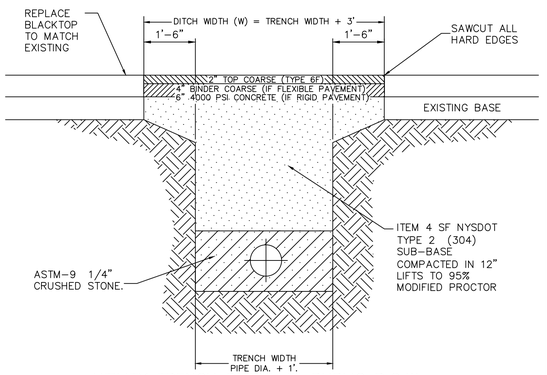


NOTE: ALL BACKFILL TO BE PLACED IN 1' LIFTS AND COMPACTED TO 95% OF MODIFIED PROCTOR (ASTM 1557)

TAPPING SLEEVE & VALVE

SCALE: N.T.S.

CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT 80 WASHINGTON STREET POUGHKEEPSIE, NY 12602	FILE NO.:		TAPPING SLEEVE & VALVE	1 PAGE NO.
	DATE:	3-6-00		
	SCALE:	AS NOTED		
	DRAWN BY:	JP		

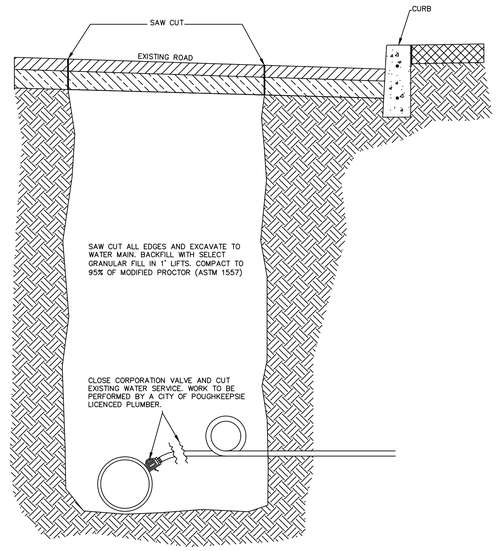


UTILITY TRENCH DETAIL IN PUBLIC R.O.W.

NOTES:

1. DITCH WIDTH SHALL EXTEND A MINIMUM OF ONE AND ONE-HALF FT. FROM THE EDGES OF THE TRENCH.
2. REPLACED BASE MATERIAL OVER TRENCH SHALL BE ITEM 4 COMPACTED IN 12" LIFTS.
3. PIPE BEDDING SHALL BE A MINIMUM OF 6" ABOVE AND BELOW PIPE
4. ALL JOINTS SHALL BE MECHANICALLY SAWED.
5. ALL JOINTS SHALL BE SQUARED TO THE EXISTING EDGE OF CURB AND/OR PAVEMENT, AND TACK COATED PER DETAIL.
6. ROAD SURFACE REPLACEMENT SHALL BE MINIMUM OF SIX INCHES OF ASPHALIC CONCRETE.
7. ASPHALT PAVEMENT TO BE PLACED IN TWO LIFTS AS SHOWN.

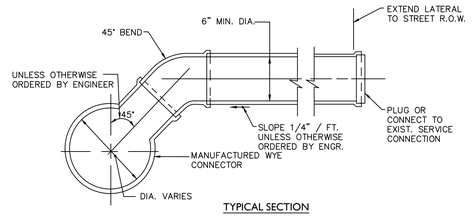
CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT 62 CIVIC CENTER PLAZA POUGHKEEPSIE, NY 12602	FILE NO.:	FLEXPAVE.DWG	TRENCH AND PAVEMENT DETAIL
	DATE:	9-9-04	
	SCALE:	AS NOTED	
	DRAWN BY:	ENGINEERING	



WATER SERVICE DISCONNECT AT MAIN

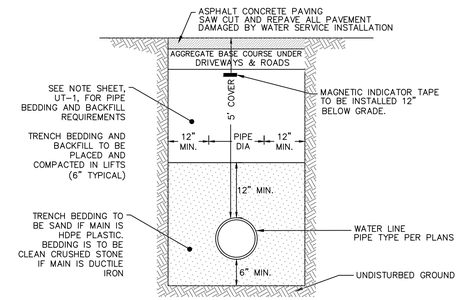
SCALE: N.T.S.

CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT 80 WASHINGTON STREET POUGHKEEPSIE, NY 12602	FILE NO.:		WATER DISCONNECT @ MAIN	1 PAGE NO.
	DATE:	08-21-08		
	SCALE:	AS NOTED		
	DRAWN BY:	JTK		



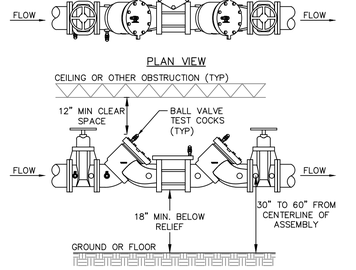
STANDARD SERVICE LATERAL CONNECTION

NOT TO SCALE



WATER MAIN TRENCH

NOT TO SCALE

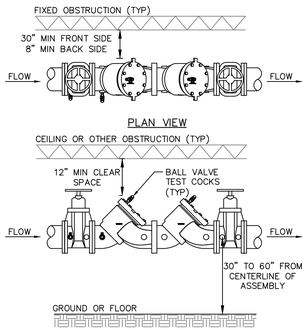


NOTES:

1. ASSEMBLY TO BE INSTALLED HORIZONTALLY.
2. WATTS SERIES LF007 2" REDUCED PRESSURE ZONE OR APPROVED EQUAL.
3. RPZ TO BE INSTALLED IN MECHANICAL SPACE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND MUST MEET ALL CLEARANCES AS OUTLINED ABOVE. SEE PLUMBING PLANS FOR FURTHER DETAILS.
4. ASSEMBLY TO BE TESTED BY A LICENSED BACKFLOW PREVENTION DEVICE TESTER AFTER INSTALLATION AND PRIOR TO ACTIVATION OF NEW WATER SUPPLY. THE RESULTS MUST BE SUBMITTED TO THE DCDOH AND CITY OF POUGHKEEPSIE AS PART OF THE ENGINEER'S CERTIFICATION.
5. ASSEMBLY MUST BE TESTED ANNUALLY BY A LICENSED BACKFLOW PREVENTION TESTER. COPIES OF THE TEST RESULTS MUST BE SUBMITTED TO THE OWNER, CITY OF POUGHKEEPSIE WATER DEPARTMENT, AND THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.
6. RPZ TO DRAIN OUT EXTERIOR OF BUILDING WITH REQUIRED AIR GAP.

DOMESTIC SUPPLY – REDUCED PRESSURE ZONE DETAIL

NOT TO SCALE

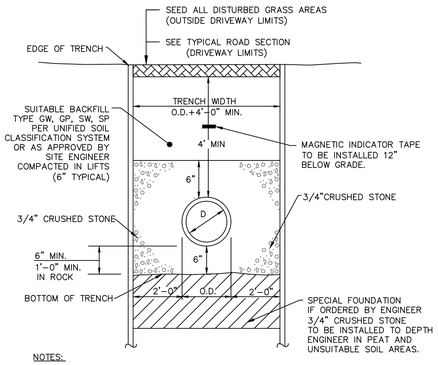


NOTES:

1. ASSEMBLY TO BE INSTALLED HORIZONTALLY OR VERTICAL UP.
2. WATTS SERIES LF709 6" DOUBLE CHECK VALVE OR APPROVED EQUAL.
3. DCV TO BE INSTALLED IN MECHANICAL SPACE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND MUST MEET ALL CLEARANCES AS OUTLINED ABOVE.SEE PLUMBING PLANS FOR FURTHER DETAILS.
4. ASSEMBLY TO BE TESTED BY A LICENSED BACKFLOW PREVENTION DEVICE TESTER AFTER INSTALLATION AND PRIOR TO ACTIVATION OF NEW WATER SUPPLY. THE RESULTS MUST BE SUBMITTED TO THE DCDOH AND TO CITY OF POUGHKEEPSIE AS PART OF THE ENGINEER'S CERTIFICATION.
5. ASSEMBLY MUST BE TESTED ANNUALLY BY A LICENSED BACKFLOW PREVENTION TESTER. COPIES OF THE TEST RESULTS MUST BE SUBMITTED TO THE OWNER, CITY OF POUGHKEEPSIE WATER DEPARTMENT, AND THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.

FIRE SUPPLY – DOUBLE DETECTION CHECK VALVE DETAIL

NOT TO SCALE



NOTES:

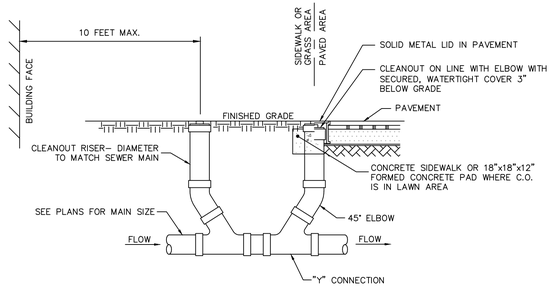
1. IF COVER IS LESS THAN 4 FEET INSULATION IS REQUIRED.
2. SEE NOTES SHEET UT-1 FOR SUBGRADE AND BACKFILL COMPACTION REQUIREMENTS

SANITARY SEWER TRENCH SECTION

NOT TO SCALE

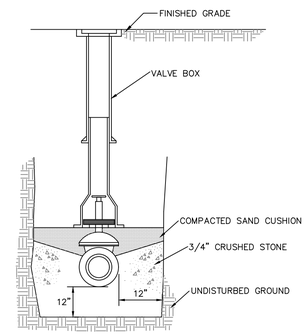
NOTES:

1. DOUBLE CLEANOUT TO BE INSTALLED ON ALL SEWER LATERALS WITHIN 10 FEET OF BUILDING FACE.
2. ANY LOCATIONS WITHIN PAVED AREAS SHALL HAVE COVERS THAT ARE H-20 LOAD RATED. ALL COVERS WHETHER IN PAVEMENT OR GRASS SHALL BE LABELED "SEWER".
3. ALL RISERS ARE TO MATCH THE SIZE OF THE SANITARY LINE.
4. IN LAWN AREAS INSTALL CONCRETE COLLAR 3 INCHES BELOW GRADE. COVER WITH TOP SOIL OR OTHER SURFACE TREATMENT AS DESIGNATED ON LANDSCAPE PLANS.



DOUBLE SEWER CLEANOUT DETAIL

NOT TO SCALE



VALVE AND VALVE BOX DETAIL

NOT TO SCALE

NOTE: SEE CITY OF POUGHKEEPSIE WATER NOTES FOR ADDITIONAL DETAILS.

STATE OF NEW YORK ROMEYE MORRISON 071104 LICENSED PROFESSIONAL ENGINEER

#	Date	Revisions
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS
7	10.25.21	RESPONSE TO CONSULTANT COMMENTS

LRC GROUP
- Land Planning
- Civil Engineering
- Environmental Services
- Land Surveying
- Landscape Architecture

85 Civic Center Plaza, Suite 103
Poughkeepsie NY 12601
Tel: 845.243.2880

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Cromwell, CT 06416
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Mahwah, NJ 07495
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LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

WATER / SEWER DETAILS

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DN20254802.dwg	Sheet No.
Drawn	SMC	Project No.	20-2548	DN-2
Checked	KFC	Date	2020.04.10	
Approved	REM	Scale	NOTED	

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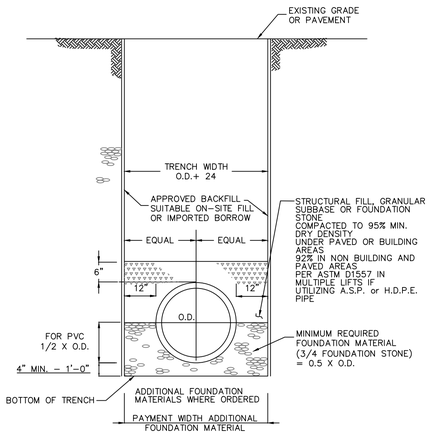


TYPICAL STORM SEWER TRENCH SECTION

NOT TO SCALE

NOTES:

1. PRECAST CONCRETE CATCH BASIN SECTIONS AS MANUFACTURED BY FORT MILLER OR APPROVED EQUAL.

2.CATCH BASIN SHALL BE PRECAST CONCRETE. DESIGNED FOR H20 VEHICULAR LOADING AND 25% IMPACT.

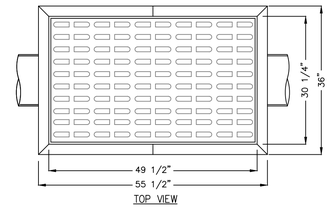
3.FRAME AND COVER SHALL BE DESIGNED FOR H20 VEHICULAR LOADING AND 25% IMPACT. FRAME TO BE GENERAL FOUNDRIES, INC. MODEL #23408 OR APPROVED EQUAL

4.CONCRETE CATCH BASIN CASTING CLEAR OPENING DIMENSION MUST MATCH FRAME AND GRATE CLEAR OPENING DIMENSION.

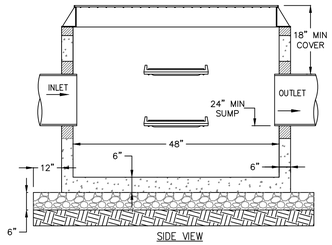
5.CATCH BASINS HAVING A DEPTH GREATER THAN 48" FROM FINISHED SURFACE TO THE TOP OF THE CONCRETE BASE SHALL BE PROVIDED WITH STEPS.

6.BACKFILL USING TRENCH BACKFILL, COMPACTED IN 6" LIFTS.

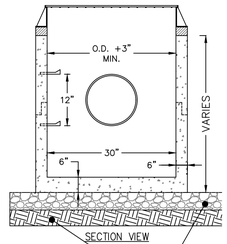
7.SUMPS FOR CATCH BASINS SHALL BE 24".



TOP VIEW



SIDE VIEW

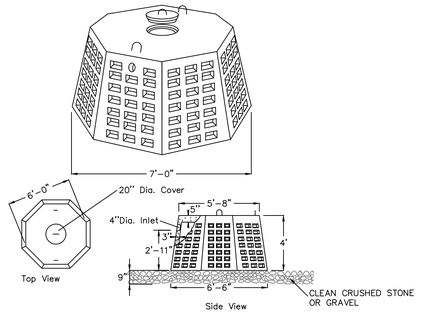


SECTION VIEW

COMPACTED 3/4" CRUSHED STONE PLACED ON COMPACTED STABLE SUBGRADE APPROVED BY THE CERTIFYING ENGINEER)

CURB LESS TYPE CATCH BASIN

NOT TO SCALE

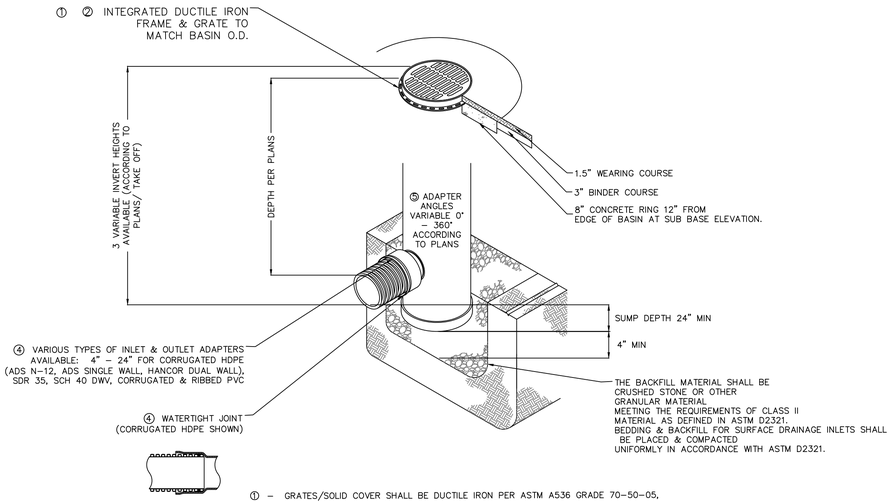


SPECIFICATIONS	PRECAST DRY WELLS MODEL DW-4 (B) 630 GALLONS
Concrete Minimum Strength: 4,000 psi at 28 days Reinforcement: #3 Rebar Air Entrainment: 5% Capacity: 630 gallons Weight = 3600 lbs Sidewall Area: 60 square feet Load Rating: 300 psf (H20 loading on request)	Woodard's Concrete Products, Inc. 629 Isbell Road, Bulrville, KY 10915 (845) 361-3471 / Fax 361-1050

PRECAST DRYWELL DETAIL

NOT TO SCALE

(DETAIL PROVIDED BY WOODARDS)



① - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05,
② - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
③ - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
④ - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
⑤ - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-013.

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DRAWN BY EBC DATE 4-3-06	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
APPD BY CJA DATE 4-3-06	PROJECT NO./NAME SHEET 1 OF 1	TITLE 24 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL	
DWG SIZE A		DWG NO. 7001-110-192	REV B

NYLOPLAST 24" DRAIN BASIN:

NOT TO SCALE

#	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS
7	10.25.21	RESPONSE TO CONSULTANT COMMENTS

Revisions

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STORMWATER DETAILS

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DN20254803.dwg	Sheet No.
Drawn	SMC	Project No.	20-2548	DN-3
Checked	KFC	Date	2020.04.10	
Approved	REM	Scale	NOTED	

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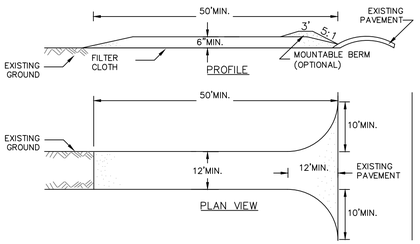
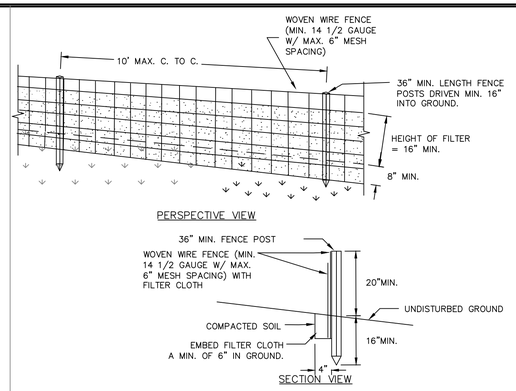


CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – USE 3"–4" ANGULAR STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY–FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

STABILIZED CONSTRUCTION ENTRANCE



CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

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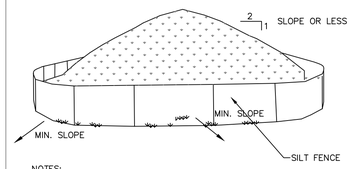
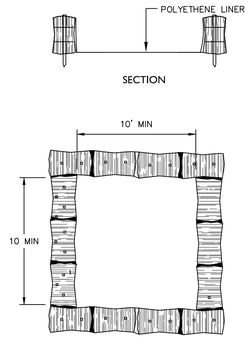
SILT FENCE



NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.
5. HAYBALES OR SILT SOCKS TO BE USED WHERE STOCKPILES ARE LOCATED ON PAVED AREAS.

MATERIALS STOCKPILE
NOT TO SCALE

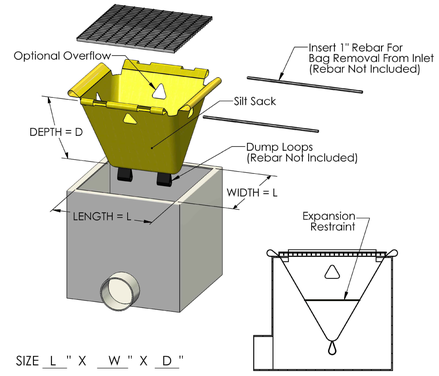


NOTES:

1. CONCRETE WASHOUT SIGN TO BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
2. REMOVE HARDENED CONCRETE WHEN WITHIN 4" FROM TOP OF STRUCTURE.
3. CONSTRUCT NEW FACILITIES ONCE CURRENT FACILITIES ARE TWO–THIRDS FULL. IF CONCRETE HAS NOT HARDENED CONSTRUCT NEW FACILITIES ONCE CURRENT FACILITY IS TWO–THIRDS FULL.
4. LINERS, HAYBALES, ET.C SHALL BE INSPECTED FOR DAMAGE. ANY DAMAGE SHALL BE REPAIRED PROMPTLY.
5. SEPARATE FACILITIES TO BE USED FOR VEHICLE WASHING IF NEEDED.
6. NO CONCRETE IS TO BE WASHOUT OUT ON THE GROUND IN ANY LOCATION.

ABOVE GROUND TEMPORARY
CONCRETE/VEHICLE WASHOUT FACILITY
NOT TO SCALE

Silt Sack - Type A



SIZE L " X W " X D "

SILT SACK DETAIL (CURBLESS CB)
NOT TO SCALE

ACF ENVIRONMENTAL
2831 Cardwell Road
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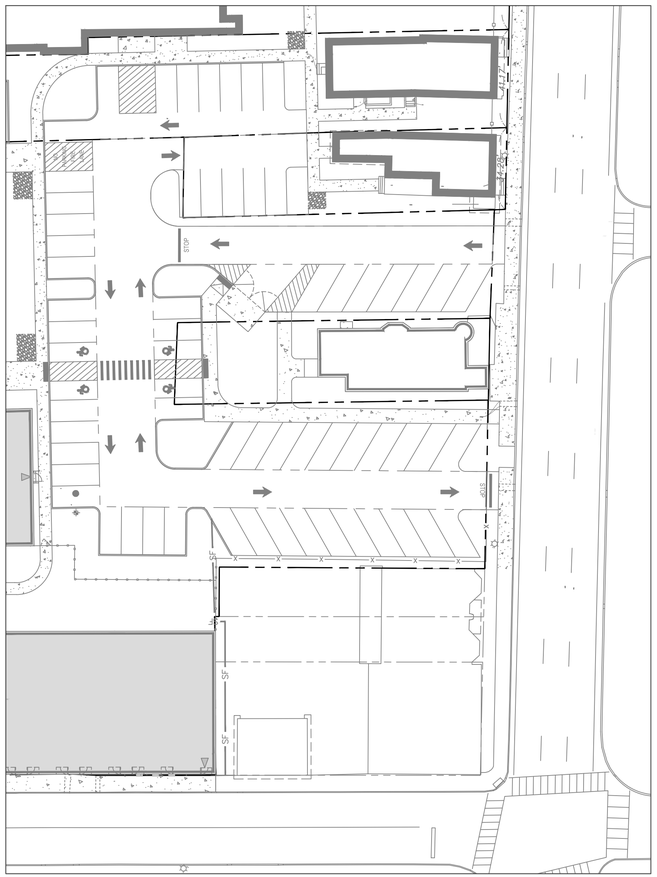
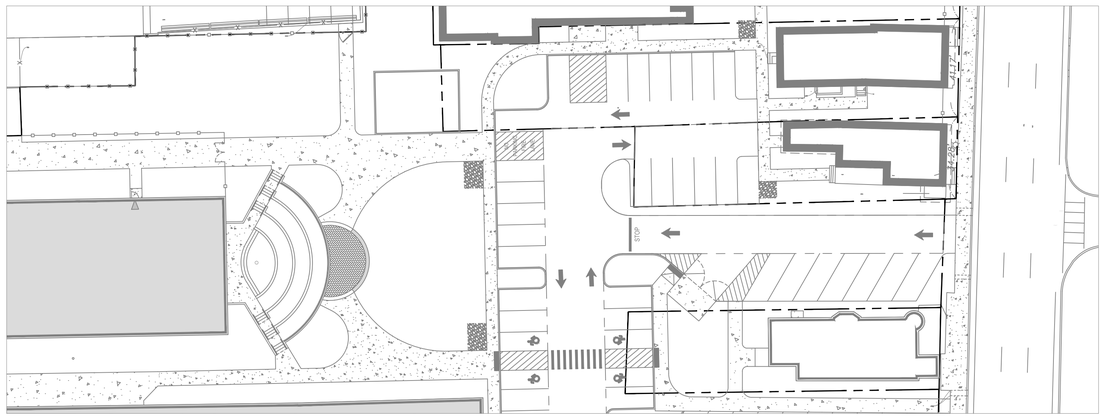
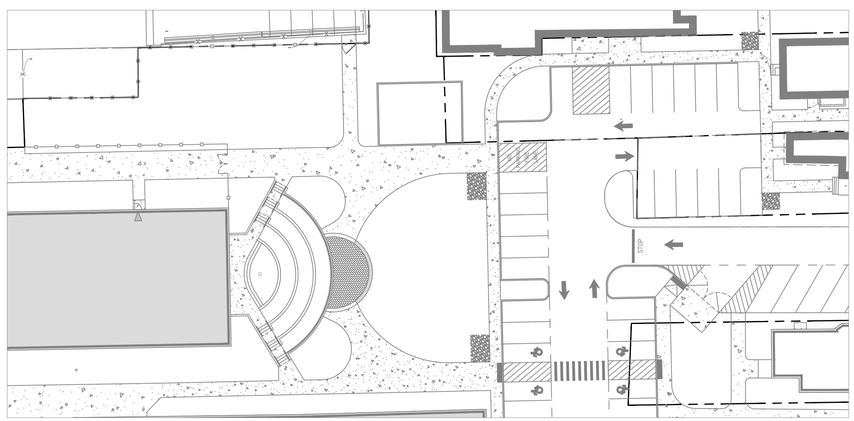


TRUCK TURNING PLAN (IN/OUT)
Scale: 1"=30'



TRUCK TURNING PLAN
Scale: 1"=30'



EMS VEHICLE ENTERING
Scale: 1"=30'

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4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
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7	10.25.21	RESPONSE TO CONSULTANT COMMENTS

Revisions

EROSION CONTROL DETAILS

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DN20254804.dwg
Drawn	SMC	Project No.	20–2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	NOTED

Sheet No. **DN-4**

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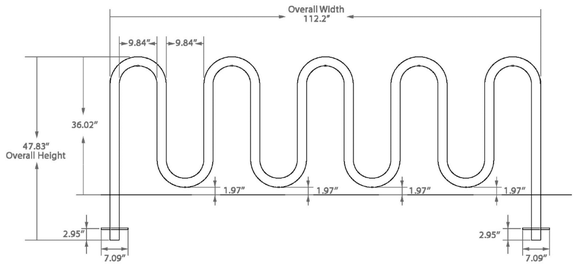
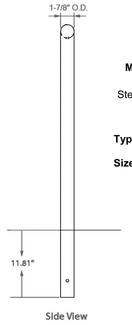
Park-It 11 Bike Rack, Inground



Front View



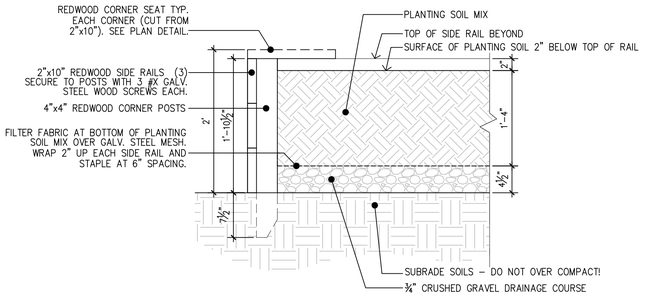
Side View

Material	Finish	Dimensions	Weight
Steel tubing	Powder coated black	112.2" w x 47.83" h Above ground: 112.2" w x 36.02" h	79 lbs.

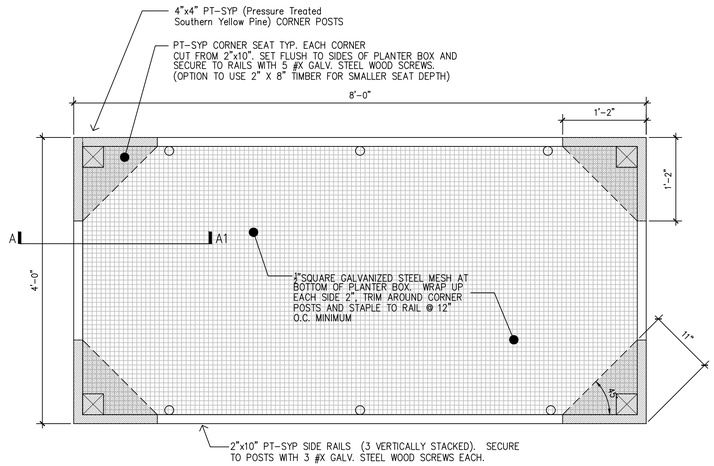
Type of Mount: Inground mount

Size of Tubing: 1-7/8" O.D. x 11-gauge

TYPICAL BICYCLE RACK
(5 & 9 Capacity Racks Similar)

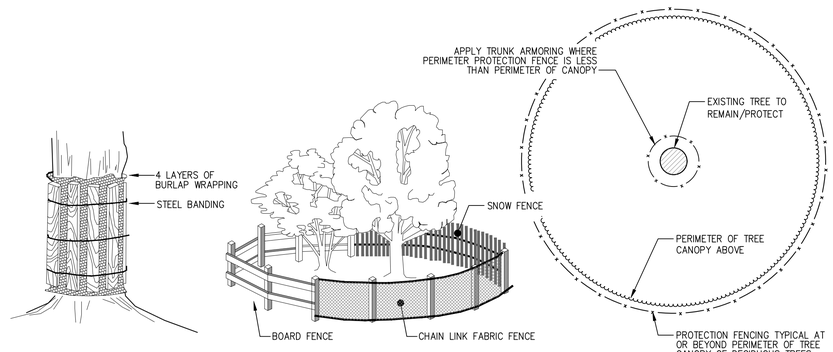


SECTION A–A1



PLAN VIEW

RAISED WOOD PLANTER
Scale: 1" = 1'-0"



TREE ARMORING

CONSTRUCTION AREA WHERE PAVED SURFACES MAKE IT IMPRACTICAL TO ESTABLISH TREE PROTECTION ZONE.

FENCING AT TREE PROTECTION ZONES

INSTALL ONE OF THE FENCE TYPES (MIN. FENCE HT. 42") NOTED ABOVE UNLESS SPECIFICALLY INDICATED ON PLANS. MAY BE INSTALLED CONTINOUSLY AROUND GROUPS OF TREES TO REMAIN.

TREE PROTECTION
NOT TO SCALE

	Date	Description
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Revisions

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AMENITIES DETAILS

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DN20254805.dwg
Drawn	SMC	Project No.	20–2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	NOTED

Sheet No. **DN-5**

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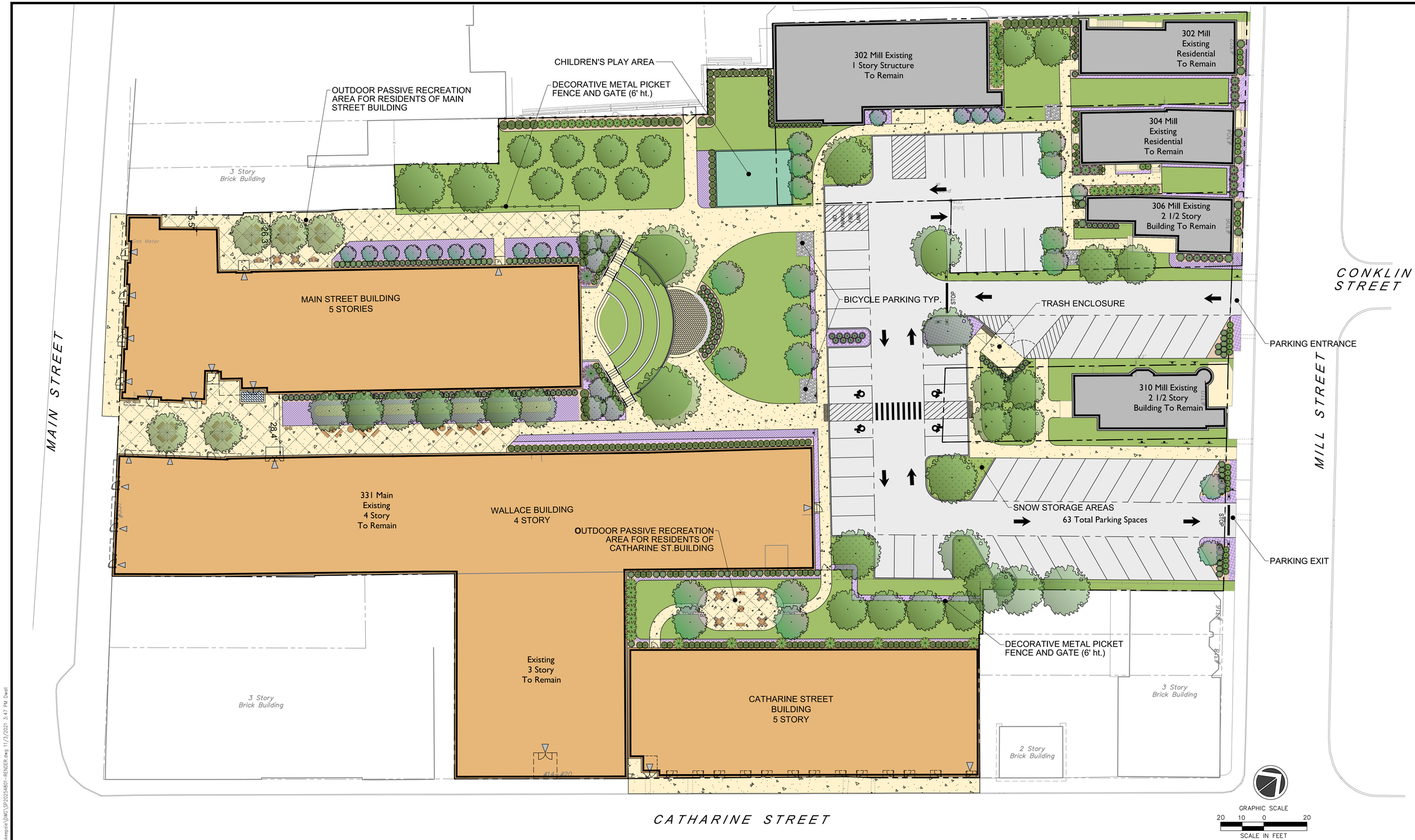

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ILLUSTRATIVE SITE PLAN

WALLACE CAMPUS MANAGER, LLC

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DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CADSP20254801-RENDER.dwg	Sheet No.
Drawn	SMC	Project No. 20-2548	SP-1
Checked	KFC	Date 2020.04.10	
Approved	REM	Scale 1"=20'	

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WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NEW YORK 11103

ARCHITECT : SLCE*Architects*
1359 BROADWAY
NEW YORK, NEW YORK
10018

CIVIL ENGINEER/LANDSCAPE ARCHITECT THE LRC GROUP
85 CIVIC CENTER PLAZA, SUITE 103
POUGHKEEPSIE, NEW YORK 12601

LIST OF DRAWINGS

SHEET#:	TITLE:
A-000	COVER SHEET
A-101A	MAIN STREET BUILDING: 1ST FLOOR PLAN
A-102A	MAIN STREET BUILDING: 2ND-5TH FLOOR PLAN
A-103A	NOT USED
A-104A	MAIN STREET BUILDING: ROOF PLAN
A-100B	CATHARINE STREET BUILDING: CELLAR PLAN
A-101B	CATHARINE STREET BUILDING: 1ST FLOOR PLAN
A-102B	CATHARINE STREET BUILDING: 2ND-7TH FLOOR PLAN
A-103B	CATHARINE STREET BUILDING: ROOF PLAN
A-100C	WALLACE BUILDING: CELLAR PLAN
A-101C	WALLACE BUILDING: 1ST FLOOR PLAN
A-102C	WALLACE BUILDING: 2ND & 3RD FLOOR PLAN
A-103C	WALLACE BUILDING: 4TH FLOOR PLAN
A-104C	WALLACE BUILDING: ROOF PLAN
A-110	TYPICAL APARTMENT LAYOUTS
Z-001	TRANSPARENCY ANALYSIS
Z-002	SIGHTLINE ANALYSIS

LIST OF DRAWINGS CONT.

SHEET#:	TITLE:
A-200A	MAIN STREET BUILDING ELEVATION
A-201A	MAIN STREET BUILDING ELEVATION
A-202A	MAIN STREET BUILDING ELEVATION
A-203A	MAIN STREET BUILDING ELEVATION
A-200B	CATHARINE STREET BUILDING ELEVATIONS
A-201B	CATHARINE STREET BUILDING ELEVATIONS
A-202B	CATHARINE STREET BUILDING ELEVATIONS
A-200C	WALLACE BUILDING ELEVATIONS
A-201C	WALLACE BUILDING ELEVATIONS
A-202C	WALLACE BUILDING ELEVATIONS
A-201	RENDERINGS
A-202	RENDERINGS
A-203	RENDERINGS
A-204	RENDERINGS
A-205	RENDERINGS
A-206	RENDERINGS
A-207	RENDERINGS
A-208	RENDERINGS
A-209	MAIN STREET: MATERIAL SELECTION
A-210	CATHARINE STREET: MATERIAL SELECTION
A-206	VIEW OF MAIN STREET STOREFRONT
A-210	CATHARINE STREET BUILDING
A-211	WALLACE CAMPUS SHADOW STUDIES
A-212	EXISTING WALLACE BUILDING PHOTOS
A-213	HISTORICAL IMAGES

PROJECT:
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331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

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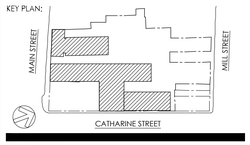
TEL: (845) 243-2880
FAX: (845) 265-8175

No:	Date:	Distribution:
1	6/5/2020	REVISED PER CITY COMMENTS
2	7/10/2020	PLANNING BOARD RE-SUBMISSION
3	10/30/2020	PLANNING BOARD RE-SUBMISSION
4	12/8/2020	PLANNING BOARD RE-SUBMISSION
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

COVER SHEET

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018041
STATE OF NEW YORK

PROJECT No: 2020-30
DRAWN BY: AA, LB
CHECKD BY: SY
DWG. No:

A-000

APARTMENT DISTRIBUTION CHART - Main Street

FLOOR	STUDIO	1 BR	2 BR	3 BR	TOTAL	GROSS AREA	ZONING AREA
Cellar						13,375	
1st	0	6	3		9	13,375	13,375
2nd	3	7	4	1	15	13,375	13,375
3rd	3	7	4	1	15	13,375	13,375
4th	3	7	4	1	15	13,375	13,375
5th	3	7	4	1	15	13,375	13,375
Roof						1,563	
TOTAL	12	34	19	4	69	81,813	66,875
%	17.39%	49.28%	27.54%	5.80%	100.00%		

N

1/8"=1'-0" 8' 0 8 16

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
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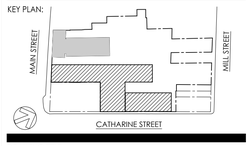
DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

MAIN STREET BUILDING 1ST FL. PLAN

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018047
STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKED BY:	SY
DWG. No:	

A-101A

APARTMENT DISTRIBUTION CHART - Main Street

FLOOR	STUDIO	1 BR	2 BR	3 BR	TOTAL	GROSS AREA	ZONING AREA
Cellar						13,375	
1st	0	6	3		9	13,375	13,375
2nd	3	7	4	1	15	13,375	13,375
3rd	3	7	4	1	15	13,375	13,375
4th	3	7	4	1	15	13,375	13,375
5th	3	7	4	1	15	13,375	13,375
Roof						1,563	
TOTAL	12	34	19	4	69	81,813	66,875
%	17.39%	49.28%	27.54%	5.80%	100.00%		

N

1/8"=1'-0" 8' 0 8 16

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

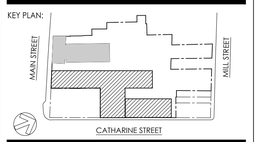
ARCHITECT:
SLCE*Architects*
1359 BROADWAY
NEW YORK, NEW YORK 10018
TEL: (212) 979-8400
FAX: (212) 979-8387

LANDSCAPE / CIVIL
THE LRC GROUP
85 CIVIC CENTER PLAZA, SUITE 103
POUGHKEEPSIE, NY 12601
TEL: (845) 243-2880
FAX: (845) 265-8175

No:	Date:	Distribution:
1	6/5/2020	REVISED PER CITY COMMENTS
2	7/10/2020	PLANNING BOARD RE-SUBMISSION
3	10/30/2020	PLANNING BOARD RE-SUBMISSION
4	12/8/2020	PLANNING BOARD RE-SUBMISSION
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

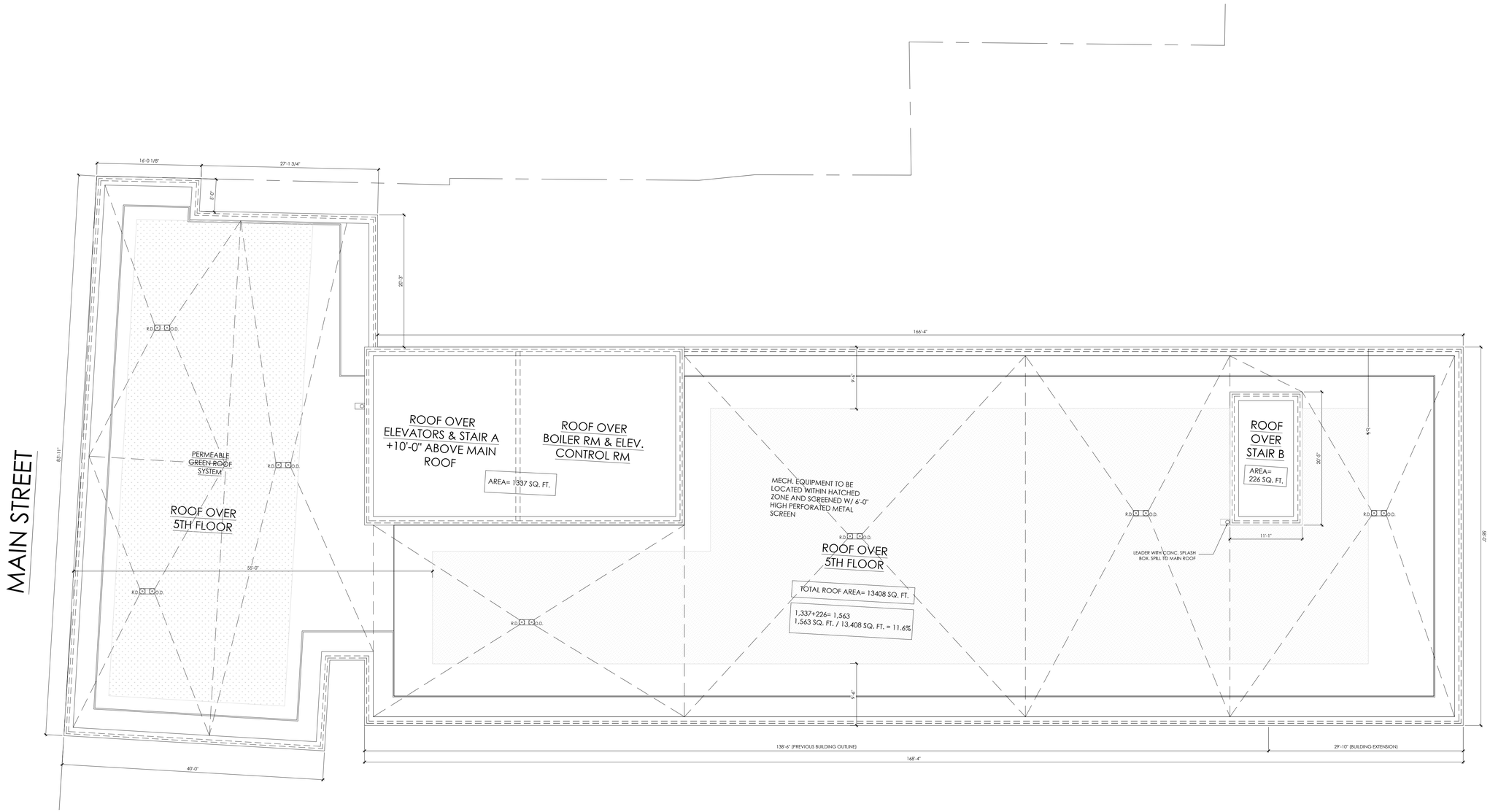
MAIN STREET BUILDING 2ND-5TH PLAN

SEAL / SIGNATURE:

REGISTERED ARCHITECT SAKY YAKAS No. 018047 STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECK'D BY:	SY
DWG. No:	

A-102A



APARTMENT DISTRIBUTION CHART - Main Street

FLOOR	STUDIO	1 BR	2 BR	3 BR	TOTAL	GROSS AREA	ZONING AREA
Cellar						13,375	
1st	0	6	3		9	13,375	13,375
2nd	3	7	4	1	15	13,375	13,375
3rd	3	7	4	1	15	13,375	13,375
4th	3	7	4	1	15	13,375	13,375
5th	3	7	4	1	15	13,375	13,375
Roof						1,563	
TOTAL	12	34	19	4	69	81,813	66,875
%	17.39%	49.28%	27.54%	5.80%	100.00%		

N

1/8"=1'-0" 8' 0 8 16

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:
SLCE*Architects*
1359 BROADWAY
NEW YORK, NEW YORK 10018
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THE LRC GROUP
85 CIVIC CENTER PLAZA, SUITE 103
POUGHKEEPSIE, NY 12601
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No:	Date:	Distribution:
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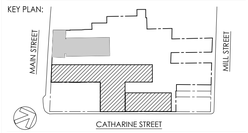
3	10/30/2020	PLANNING BOARD RE-SUBMISSION
4	12/8/2020	PLANNING BOARD RE-SUBMISSION
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



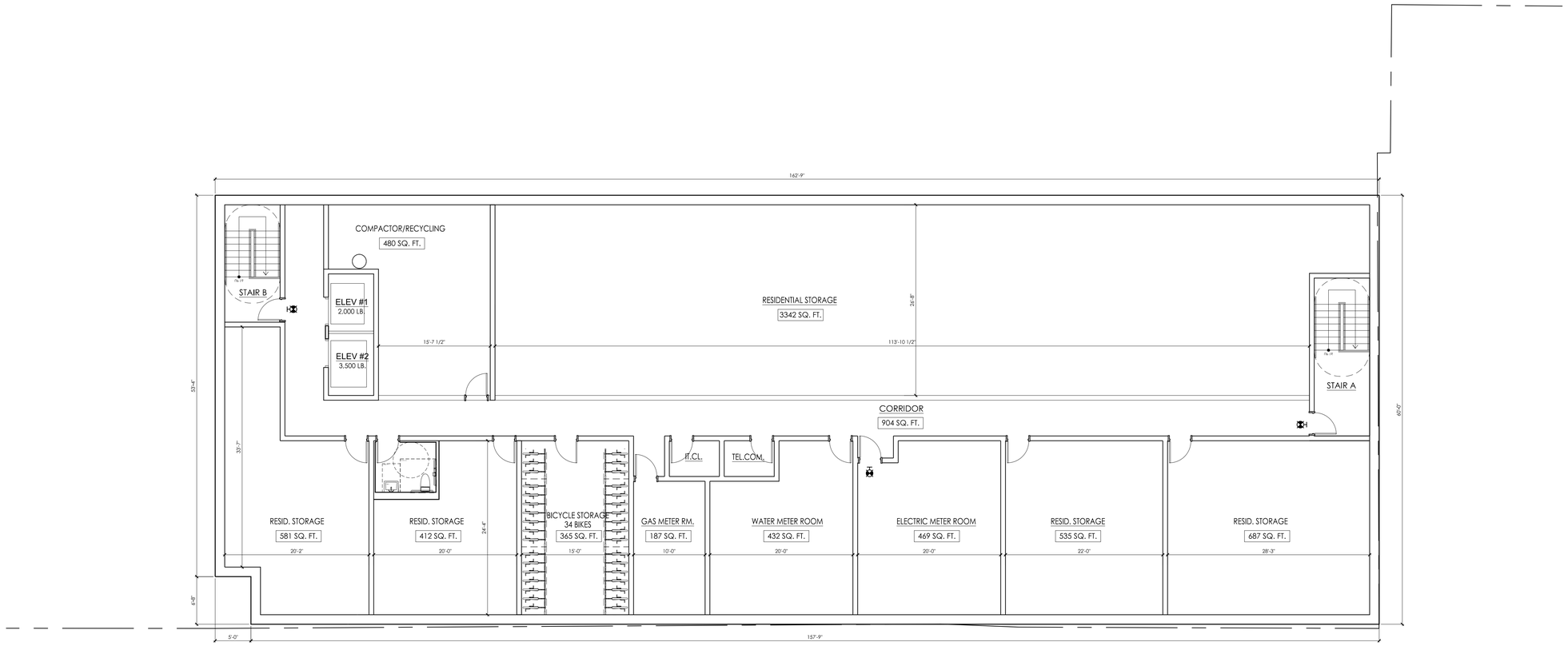
DRAWING TITLE:

MAIN STREET BUILDING ROOF PLAN

SEAL / SIGNATURE:

REGISTERED ARCHITECT SAKY YAKAS No. 018041 STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECK'D BY:	SY
DWG. No:	A-104A



CATHARINE STREET

APARTMENT DISTRIBUTION CHART - Catharine Street Building

FLOOR	STUDIO	1 BR	2 BR	3 BR	TOTAL	GROSS AREA	ZONING AREA
Cellar						9,765	
1st	2	1	1	1	5	9,684	9,684
2nd	3	5	2	1	11	9,765	9,765
3rd	3	5	2	1	11	9,765	9,765
4th	3	5	2	1	11	9,765	9,765
5th	3	5	2	1	11	9,765	9,765
Roof						1,636	
TOTAL	14	21	9	5	49	60,145	48,744
%	28.57%	42.86%	18.37%	10.20%	100.00%		

N

1/8"=1'-0" 8' 0 8 16

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:

WALLACE CAMPUS MANAGER LLC

48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:

SLCE*Architects*

1359 BROADWAY
NEW YORK, NEW YORK 10018

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LANDSCAPE / CIVIL

THE LRC GROUP

85 CIVIC CENTER PLAZA, SUITE 103
POUGHKEEPSIE, NY 12601

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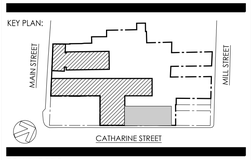
3	10/30/2020	PLANNING BOARD RE-SUBMISSION
4	12/8/2020	PLANNING BOARD RE-SUBMISSION
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

CATHARINE STREET BUILDING CELLAR PLAN

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018047
STATE OF NEW YORK

PROJECT No: 2020-30
DRAWN BY: AA, LB
CHECK'D BY: SY
DWG. No:

A-100B

CATHARINE STREET

APARTMENT DISTRIBUTION CHART - Catharine Street Building

FLOOR	STUDIO	1 BR	2 BR	3 BR	TOTAL	GROSS AREA	ZONING AREA
Cellar						9,765	
1st	2	1	1	1	5	9,684	9,684
2nd	3	5	2	1	11	9,765	9,765
3rd	3	5	2	1	11	9,765	9,765
4th	3	5	2	1	11	9,765	9,765
5th	3	5	2	1	11	9,765	9,765
Roof						1,636	
TOTAL	14	21	9	5	49	60,145	48,744
%	28.57%	42.86%	18.37%	10.20%	100.00%		

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PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:

WALLACE CAMPUS MANAGER LLC

48-02 25TH AVENUE, SUITE 400
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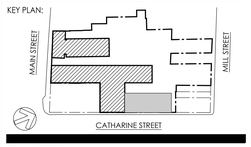
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

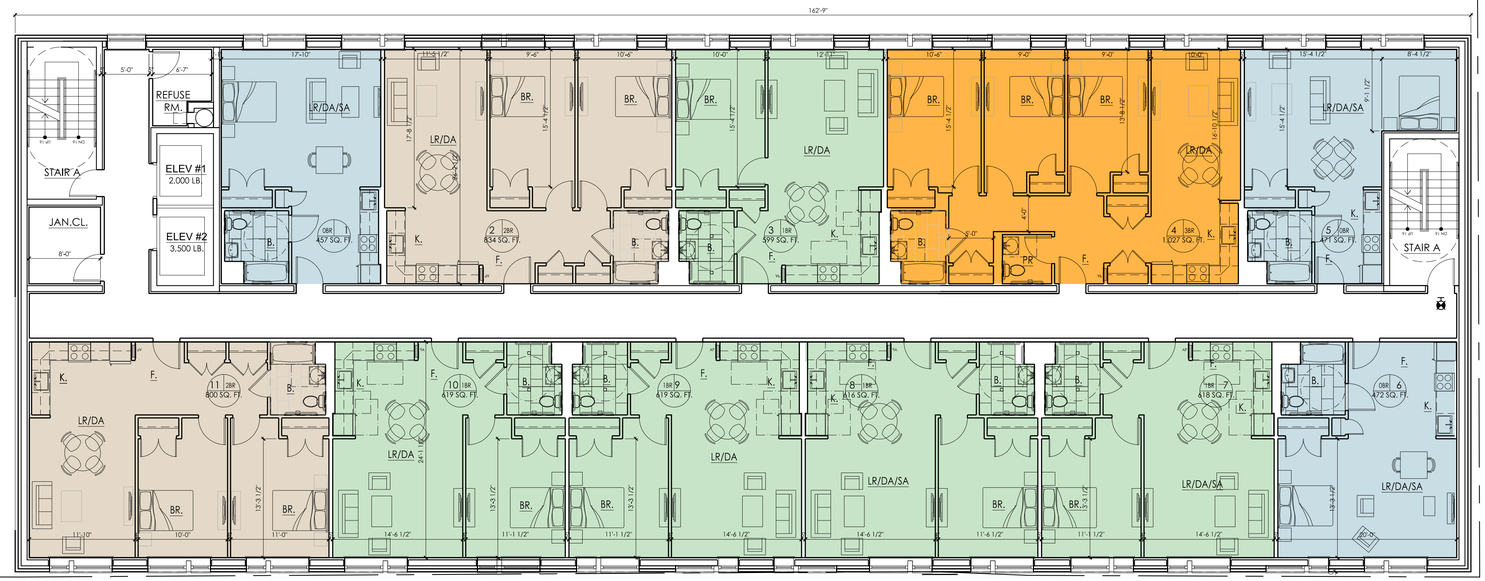
CATHARINE STREET
BUILDING
1ST FL. PLAN

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018047
STATE OF NEW YORK

PROJECT No: 2020-30
DRAWN BY: AA, LB
CHECK'D BY: SY
DWG. No:

A-101B



CATHARINE STREET

APARTMENT DISTRIBUTION CHART - Catharine Street Building

FLOOR	STUDIO	1 BR	2 BR	3 BR	TOTAL	GROSS AREA	ZONING AREA
Cellar						9,765	
1st	2	1	1	1	5	9,684	9,684
2nd	3	5	2	1	11	9,765	9,765
3rd	3	5	2	1	11	9,765	9,765
4th	3	5	2	1	11	9,765	9,765
5th	3	5	2	1	11	9,765	9,765
Roof						1,636	
TOTAL	14	21	9	5	49	60,145	48,744
%	28.57%	42.86%	18.37%	10.20%	100.00%		

N

1/8"=1'-0" 8' 0 8 16

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:
SLCE *Architects*
1359 BROADWAY
NEW YORK, NEW YORK 10018
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LANDSCAPE / CIVIL
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No:	Date:	Distribution:
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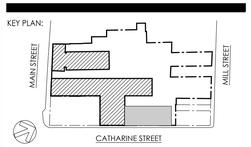
DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

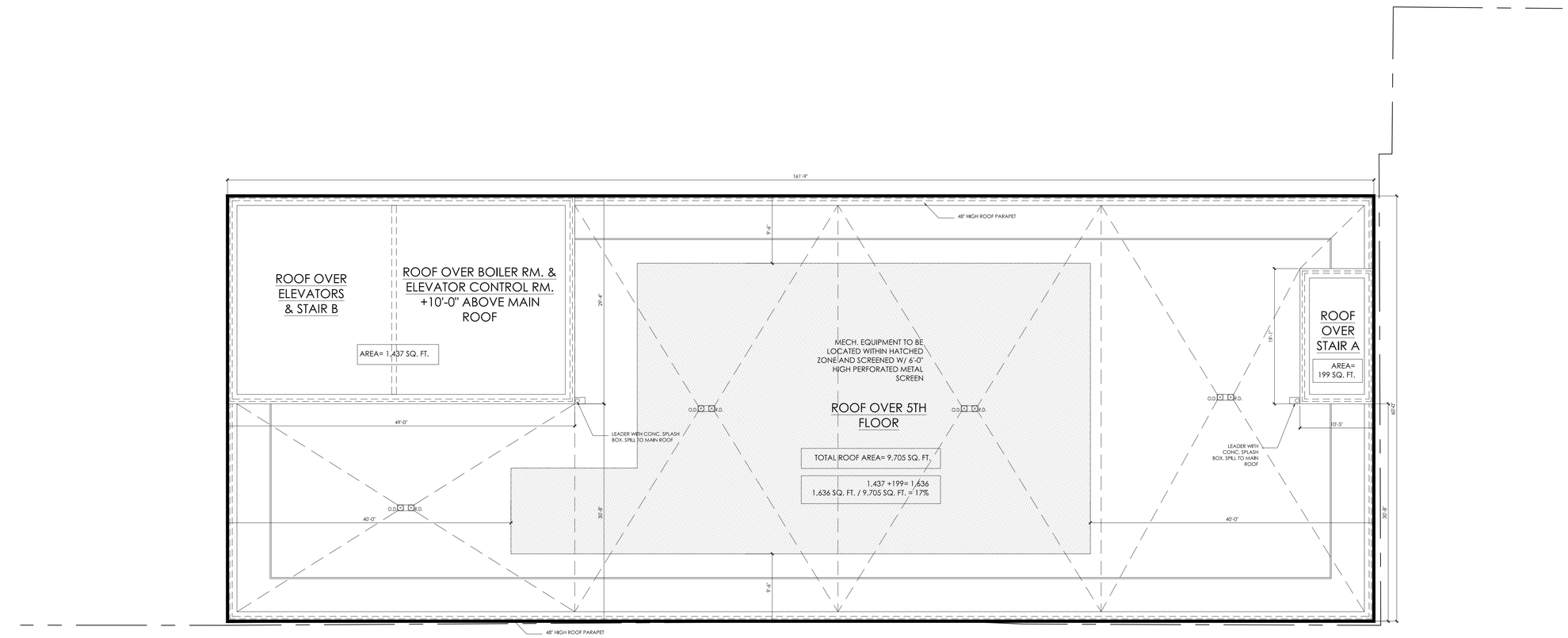
CATHARINE STREET BUILDING 2ND-5TH FL. PLAN

SEAL / SIGNATURE:

REGISTERED ARCHITECT SAKY YAKAS No. 018047 STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECK'D BY:	SY
DWG. No:	

A-102B



CATHARINE STREET

APARTMENT DISTRIBUTION CHART - Catharine Street Building

FLOOR	STUDIO	1 BR	2 BR	3 BR	TOTAL	GROSS AREA	ZONING AREA
Cellar						9,765	
1st	2	1	1	1	5	9,684	9,684
2nd	3	5	2	1	11	9,765	9,765
3rd	3	5	2	1	11	9,765	9,765
4th	3	5	2	1	11	9,765	9,765
5th	3	5	2	1	11	9,765	9,765
Roof						1,636	
TOTAL	14	21	9	5	49	60,145	48,744
%	28.57%	42.86%	18.37%	10.20%	100.00%		

N

1/8"=1'-0" 8' 0 8 16

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:
SLCE *Architects*
1359 BROADWAY
NEW YORK, NEW YORK 10018
TEL: (212) 979-8400
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LANDSCAPE / CIVIL
THE LRC GROUP
85 CIVIC CENTER PLAZA, SUITE 103
POUGHKEEPSIE, NY 12601
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FAX: (845) 265-8175

No:	Date:	Distribution:
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2	7/10/2020	PLANNING BOARD RE-SUBMISSION
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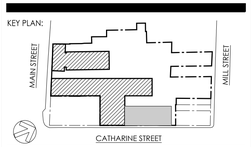
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

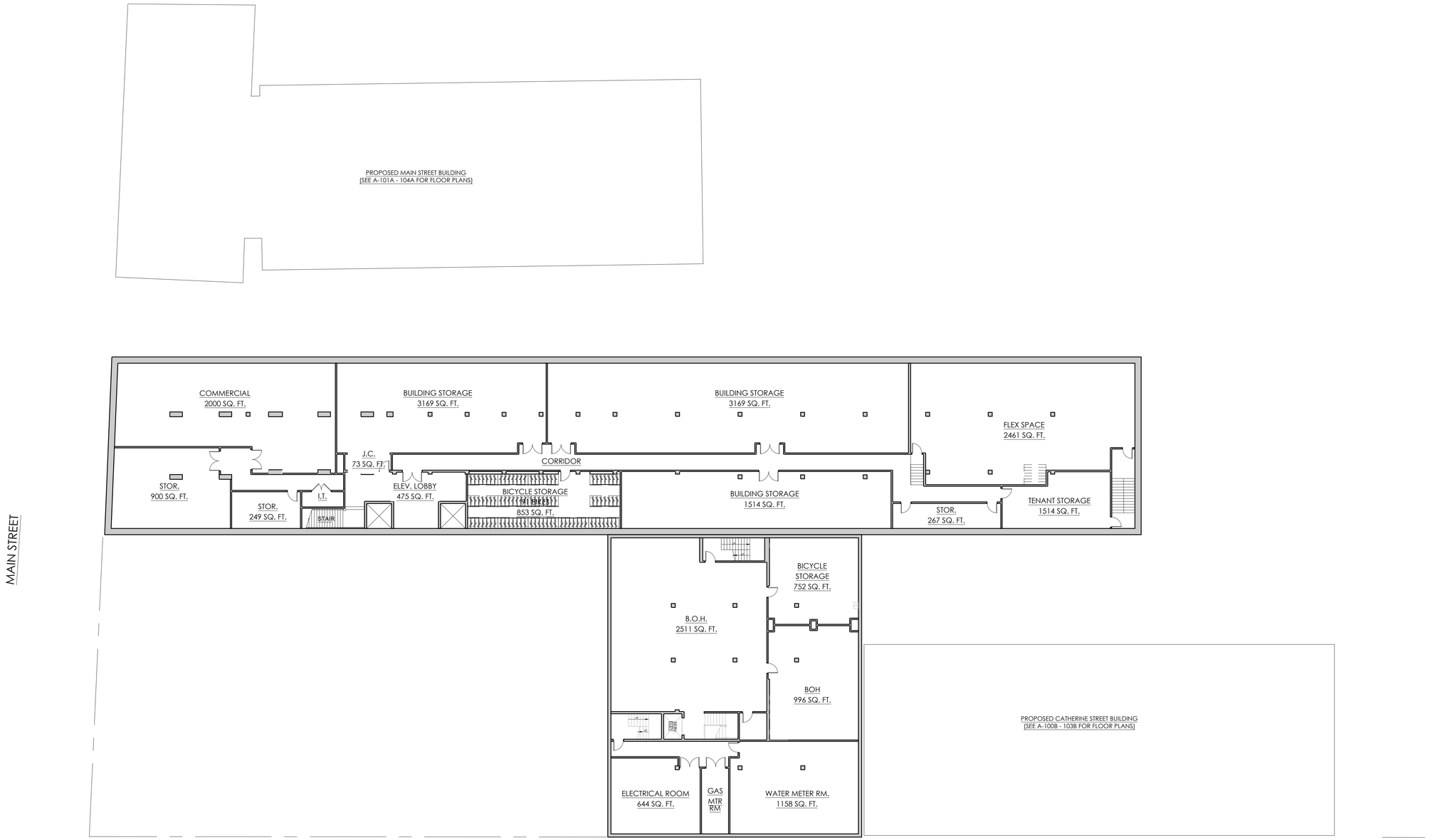
CATHARINE STREET BUILDING ROOF PLAN

SEAL / SIGNATURE:

REGISTERED ARCHITECT SAKY YAKAS No. 018047 STATE OF NEW YORK

PROJECT No: 2020-30
DRAWN BY: AA, LB
CHECK'D BY: SY
DWG. No:

A-103B



APARTMENT DISTRIBUTION CHART - Wallace Building

FLOOR	STUDIO	1 BR	2 BR	3 BR	TOTAL	GROSS AREA	ZONING AREA
Cellar						25,180	
1st	6	6	2		14	25,180	25,180
2nd	4	11	4		19	23,340	23,340
3rd	4	11	4		19	23,340	23,340
4th	6	9	2		17	17,816	17,816
Roof							
TOTAL	20	37	12	0	69	114,856	89,676
%	28.99%	53.62%	17.39%	0.00%	100.00%		

1/16"=1'-0" 15' 0 15 30

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:
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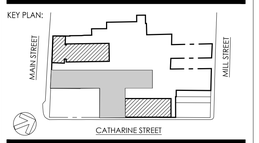
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

WALLACE BUILDING CELLAR PLAN

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018047
STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECK'D BY:	SY
DWG. No:	

A-100C

APARTMENT DISTRIBUTION CHART - Wallace Building

FLOOR	STUDIO	1 BR	2 BR	3 BR	TOTAL	GROSS AREA	ZONING AREA
Cellar						25,180	
1st	6	6	2		14	25,180	25,180
2nd	4	11	4		19	23,340	23,340
3rd	4	11	4		19	23,340	23,340
4th	6	9	2		17	17,816	17,816
Roof							
TOTAL	20	37	12	0	69	114,856	89,676
%	28.99%	53.62%	17.39%	0.00%	100.00%		

1/16"=1'-0" 15' 0 15 30

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

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No:	Date:	Distribution:
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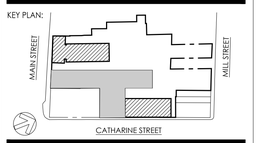
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

WALLACE BUILDING
1ST FL. PLAN

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018047
STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECK'D BY:	SY
DWG. No:	

A-101C

APARTMENT DISTRIBUTION CHART - Wallace Building

FLOOR	STUDIO	1 BR	2 BR	3 BR	TOTAL	GROSS AREA	ZONING AREA
Cellar						25,180	
1st	6	6	2		14	25,180	25,180
2nd	4	11	4		19	23,340	23,340
3rd	4	11	4		19	23,340	23,340
4th	6	9	2		17	17,816	17,816
Roof							
TOTAL	20	37	12	0	69	114,856	89,676
%	28.99%	53.62%	17.39%	0.00%	100.00%		

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1/16"=1'-0" 15" 0 15 30

PROJECT:

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DUTCHESS COUNTY, NEW YORK

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No:	Date:	Distribution:
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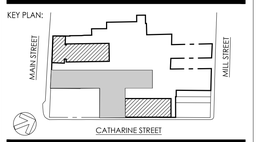
2	7/10/2020	PLANNING BOARD RE-SUBMISSION
3	10/30/2020	PLANNING BOARD RE-SUBMISSION
4	12/8/2020	PLANNING BOARD RE-SUBMISSION
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

WALLACE BUILDING 2ND & 3RD FL. PLAN

SEAL / SIGNATURE:

REGISTERED ARCHITECT SAKY YAKAS No. 018047 STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

A-102C

APARTMENT DISTRIBUTION CHART - Wallace Building

FLOOR	STUDIO	1 BR	2 BR	3 BR	TOTAL	GROSS AREA	ZONING AREA
Cellar						25,180	
1st	6	6	2		14	25,180	25,180
2nd	4	11	4		19	23,340	23,340
3rd	4	11	4		19	23,340	23,340
4th	6	9	2		17	17,816	17,816
Roof							
TOTAL	20	37	12	0	69	114,856	89,676
%	28.99%	53.62%	17.39%	0.00%	100.00%		

N

1/16"=1'-0" 15' 0 15 30

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:
SLCE *Architects*
1359 BROADWAY
NEW YORK, NEW YORK 10018
TEL: (212) 979-8400
FAX: (212) 979-8387

LANDSCAPE / CIVIL
THE LRC GROUP
85 CIVIC CENTER PLAZA, SUITE 103
POUGHKEEPSIE, NY 12601
TEL: (845) 243-2880
FAX: (845) 265-8175

No:	Date:	Distribution:
1	6/5/2020	REVISED PER CITY COMMENTS
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3	10/30/2020	PLANNING BOARD RE-SUBMISSION
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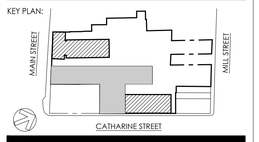
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

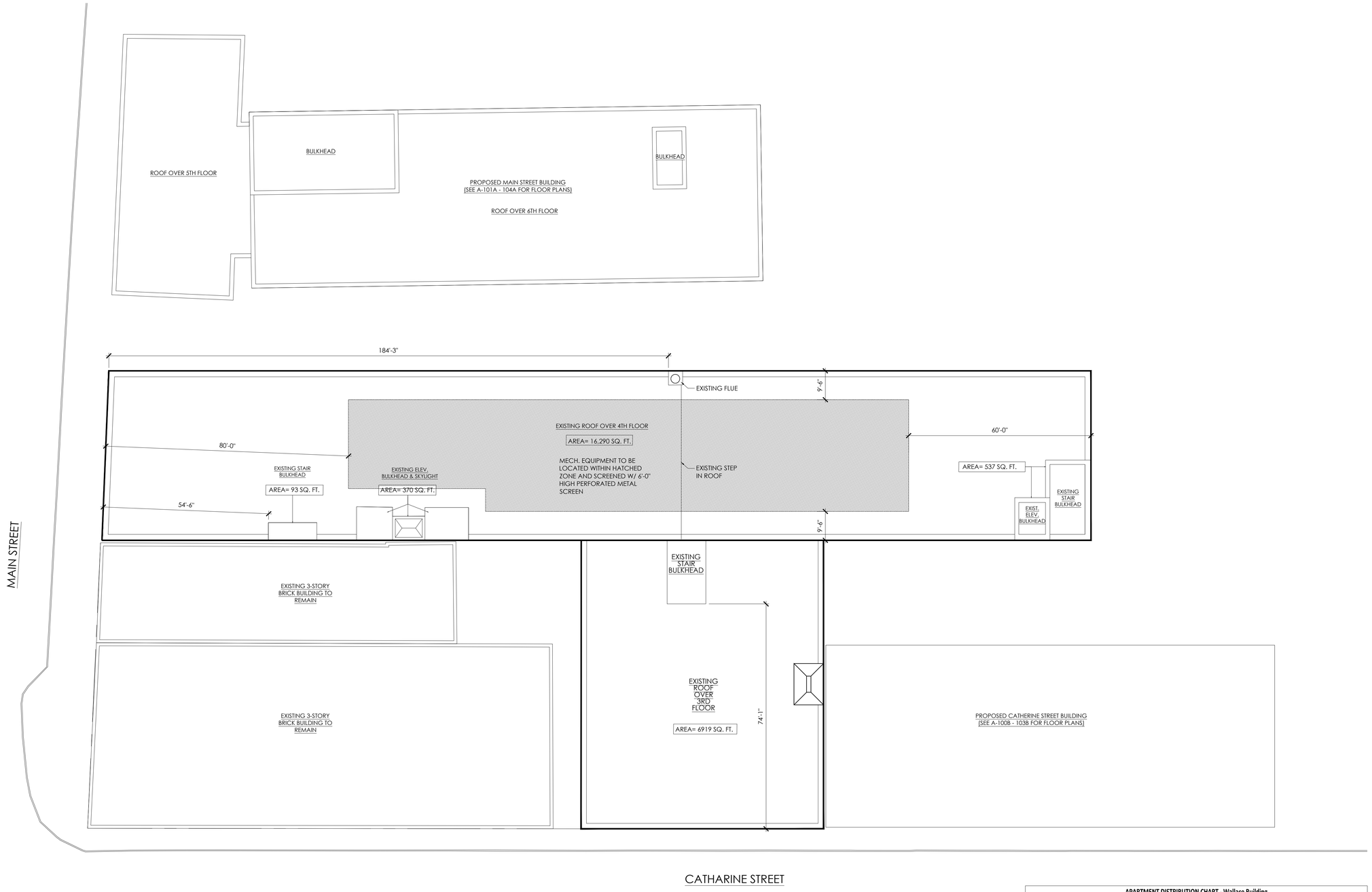
WALLACE BUILDING 4TH FL. PLAN

SEAL / SIGNATURE:

REGISTERED ARCHITECT SAKY YAKAS No. 018047 STATE OF NEW YORK

PROJECT No: 2020-30
DRAWN BY: AA, LB
CHECKD BY: SY
DWG. No:

A-103C



APARTMENT DISTRIBUTION CHART - Wallace Building

FLOOR	STUDIO	1 BR	2 BR	3 BR	TOTAL	GROSS AREA	ZONING AREA
Cellar						25,180	
1st	6	6	2		14	25,180	25,180
2nd	4	11	4		19	23,340	23,340
3rd	4	11	4		19	23,340	23,340
4th	6	9	2		17	17,816	17,816
Roof							
TOTAL	20	37	12	0	69	114,856	89,676
%	28.99%	53.62%	17.39%	0.00%	100.00%		

N

1/16"=1'-0" 15' 0 15 30

PROJECT:

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331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:
SLCE *Architects*
1359 BROADWAY
NEW YORK, NEW YORK 10018
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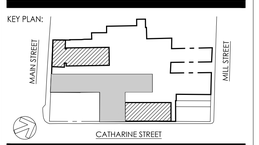
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

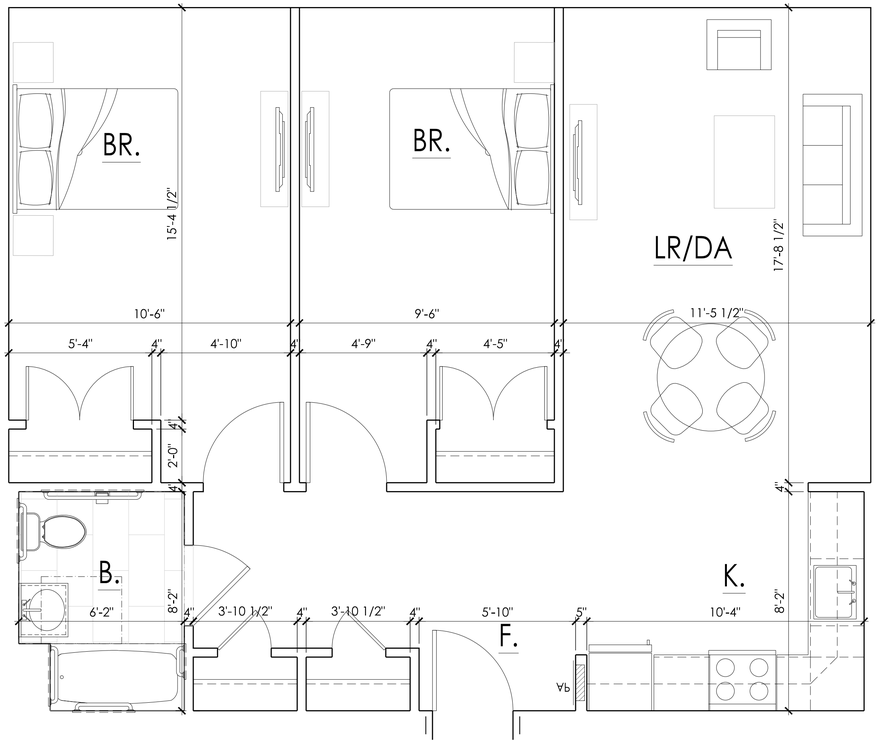
WALLACE BUILDING ROOF PLAN

SEAL / SIGNATURE:

REGISTERED ARCHITECT SAKY YAKAS No. 018047 STATE OF NEW YORK

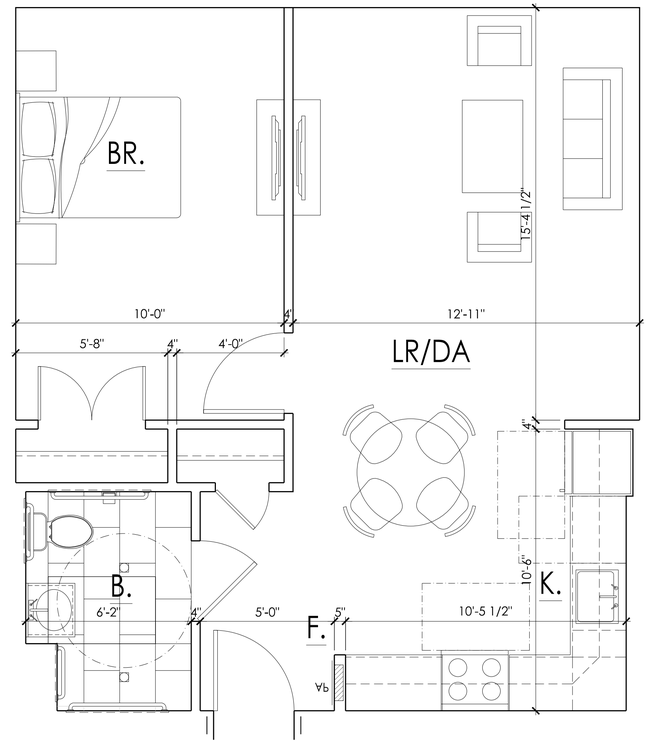
PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECK'D BY:	SY
DWG. No:	

A-104C



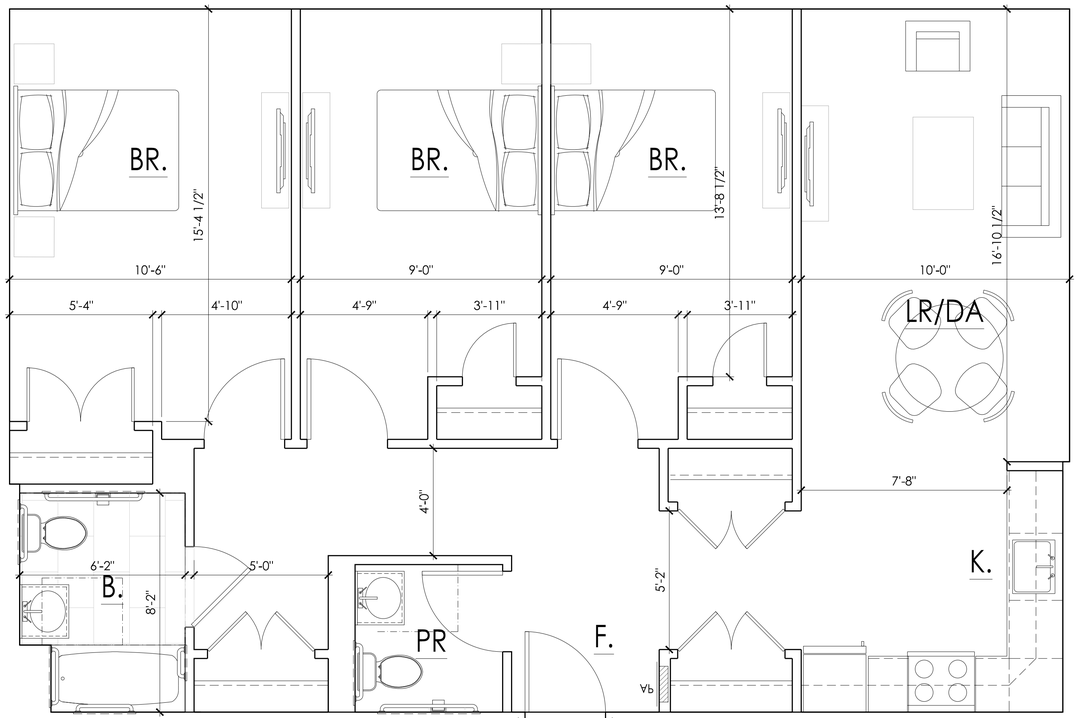
TYPICAL TWO BEDROOM

1/4"=1'-0" 4' 0 4 8



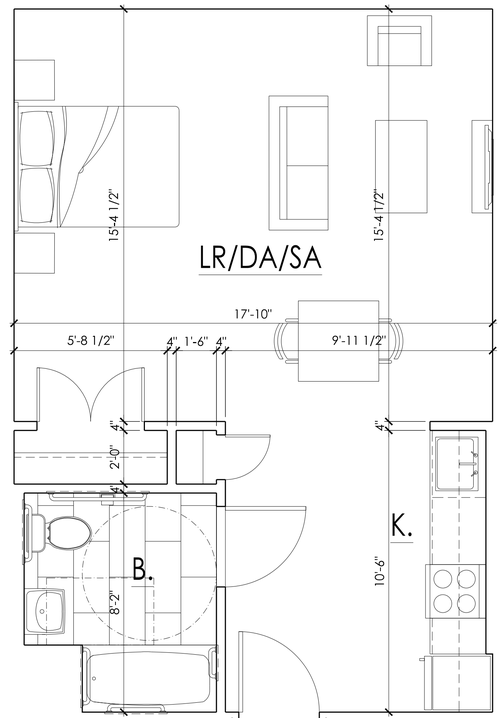
TYPICAL ONE BEDROOM

1/4"=1'-0" 4' 0 4 8



TYPICAL THREE BEDROOM

1/4"=1'-0" 4' 0 4 8



TYPICAL STUDIO

1/4"=1'-0" 4' 0 4 8

PROJECT:

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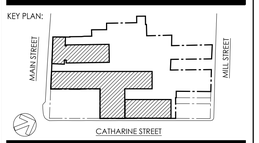
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

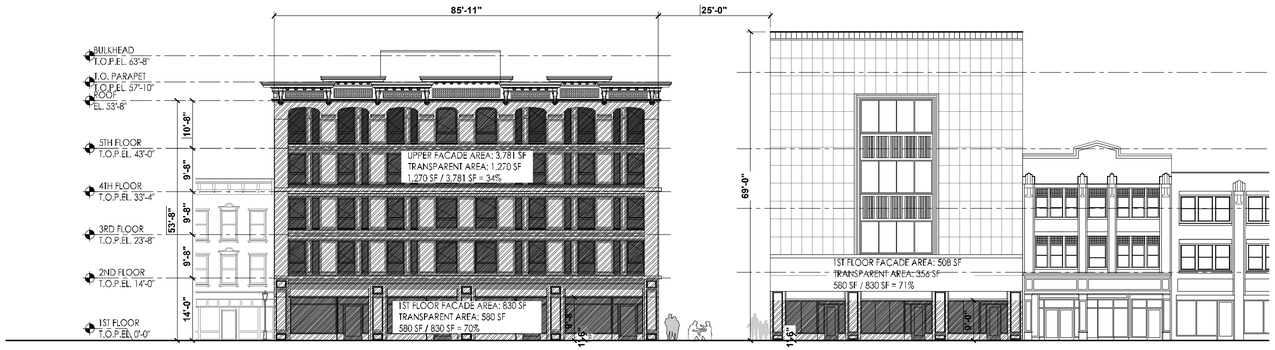
TYPICAL APARTMENT LAYOUTS

SEAL / SIGNATURE:

REGISTERED ARCHITECT SAKY YAKAS No. 018047 STATE OF NEW YORK

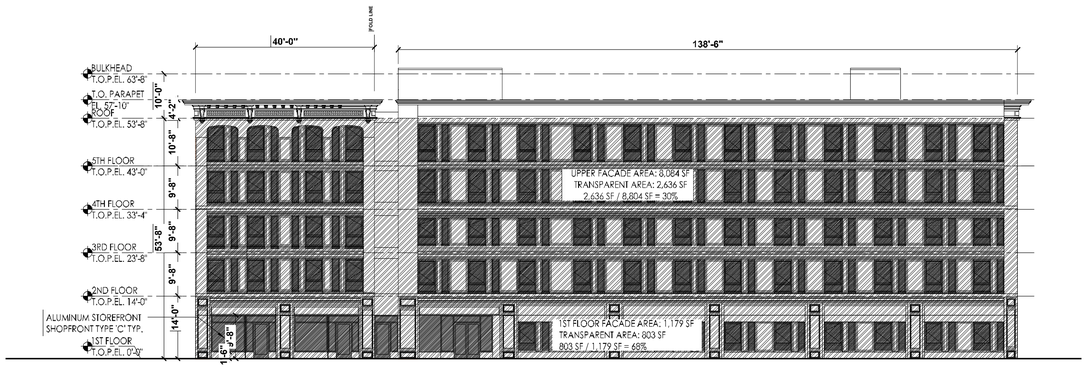
PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

A-110

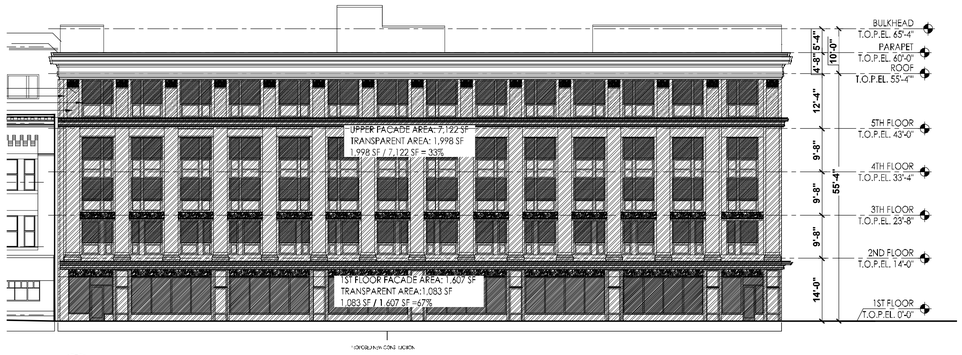


1 Z-001 MAIN STREET BUILDING: SOUTH FACADE
1/16"=1'-0"

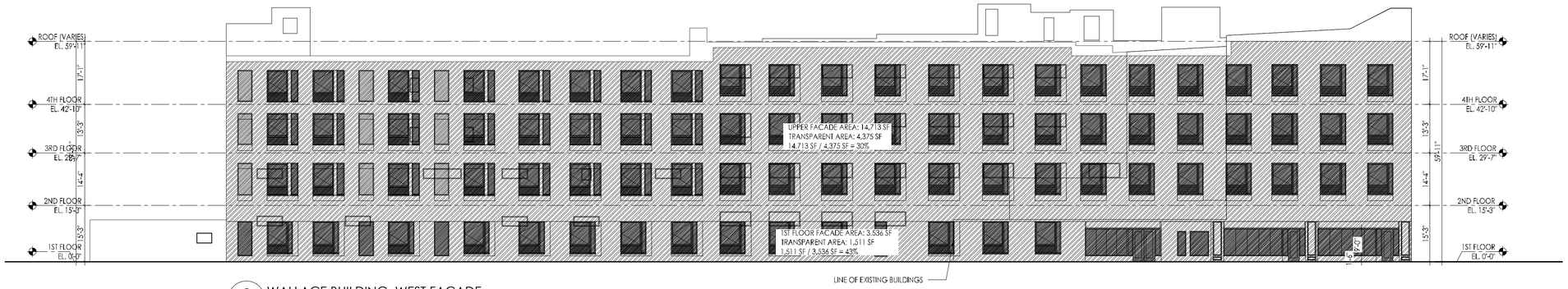
2 Z-001 WALLACE BUILDING: SOUTH FACADE
1/16"=1'-0"



3 Z-001 MAIN STREET BUILDING: EAST FACADE
1/16"=1'-0"



4 Z-001 CATHARINE ST. BUILDING: EAST FACADE
1/16"=1'-0"



5 Z-001 WALLACE BUILDING: WEST FACADE
1/16"=1'-0"

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

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ASTORIA, NY 11103

ARCHITECT:
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LANDSCAPE / CIVIL
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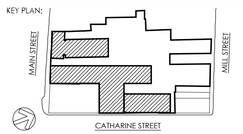
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



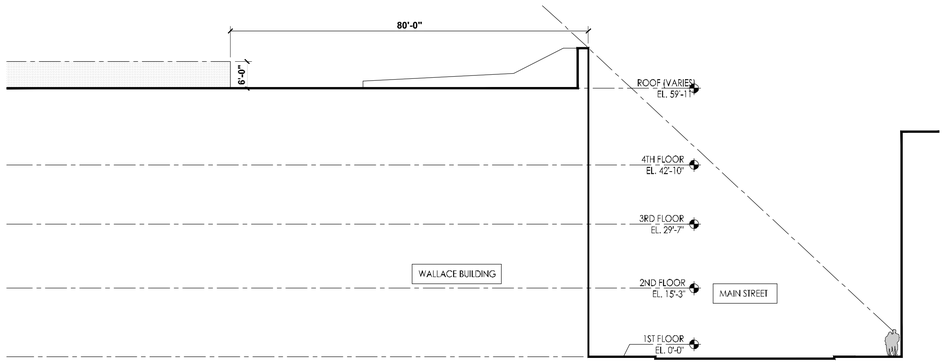
DRAWING TITLE:

TRANSPARENCY ANALYSIS

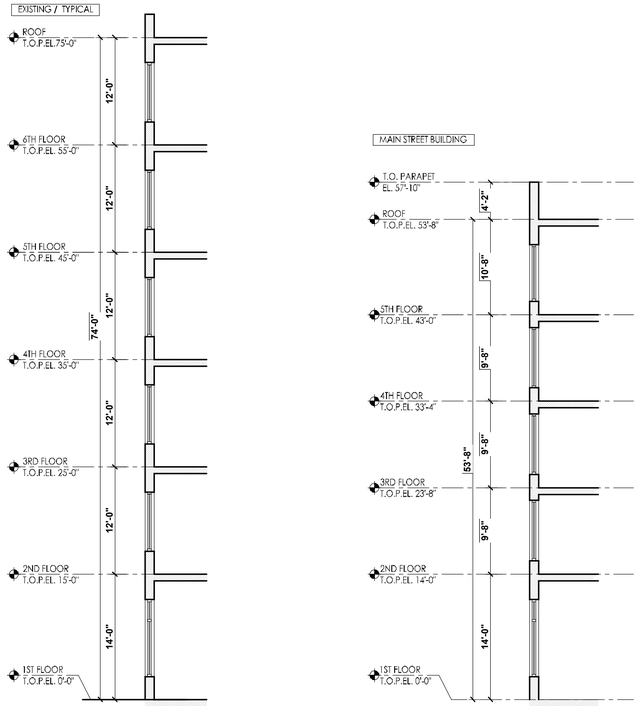
SEAL / SIGNATURE:

REGISTERED ARCHITECT SAKY YAKAS 031807 STATE OF NEW YORK

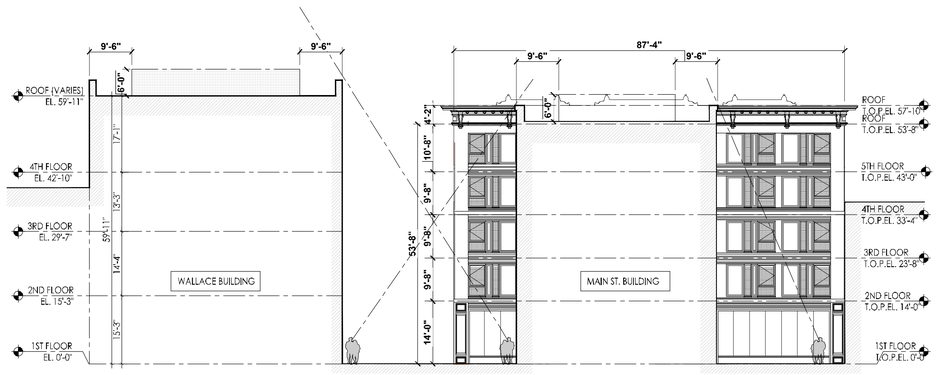
PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	Z-001



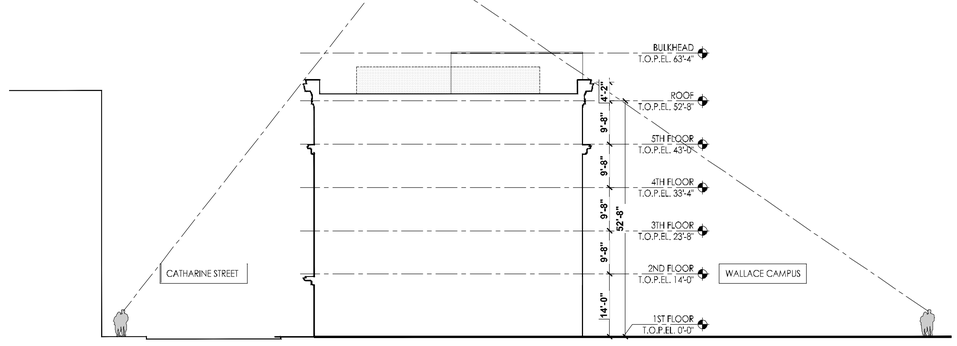
5 Z-002 WALLACE BUILDING: SIGHTLINE ANALYSIS
1/16"=1'-0"



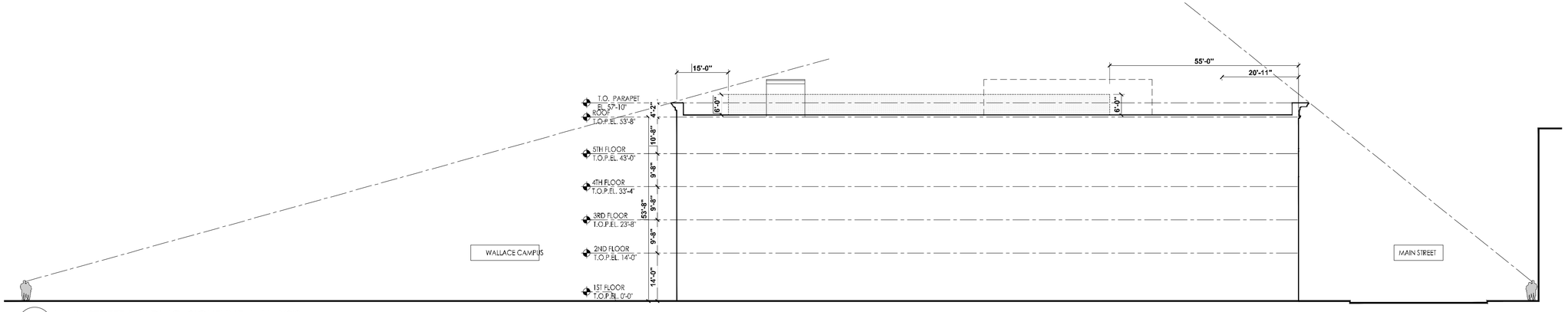
4 Z-002 STORY HEIGHT COMPARISON: EXISTING/HISTORICAL VS. PROPOSED RESIDENTIAL
1/16"=1'-0"



3 Z-002 MAIN STREET & WALLACE BUILDING: SIGHTLINE ANALYSIS
1/16"=1'-0"



2 Z-002 CATHARINE STREET BUILDING: SITELINE ANALYSIS
1/16"=1'-0"



1 Z-002 MAIN STREET BUILDING: SIGHTLINE ANALYSIS
1/16"=1'-0"

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
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48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:
SLCE*Architects*
1359 BROADWAY
NEW YORK, NEW YORK 10018
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LANDSCAPE / CIVIL
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85 CIVIC CENTER PLAZA, SUITE 103
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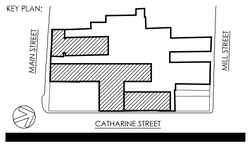
DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

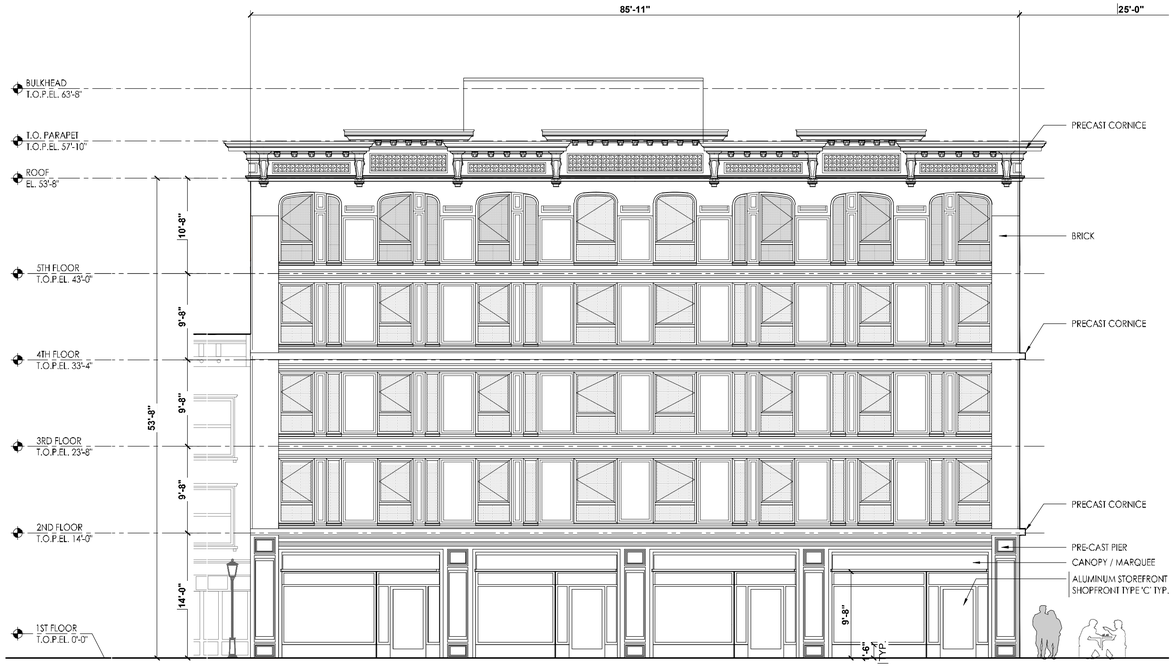
SITELINE ANALYSIS

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018047
STATE OF NEW YORK

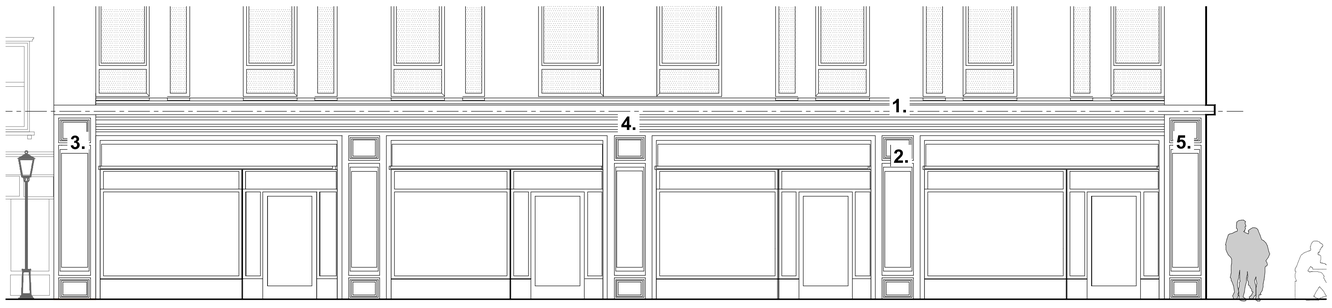
PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

Z-002

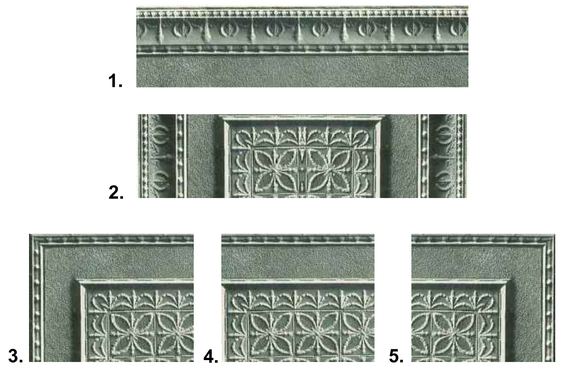


1 SOUTH ELEVATION
A-200A 1/8"=1'-0"

2 NORTH ELEVATION
A-200A 1/8"=1'-0"



3 STOREFRONT DETAIL ELEVATION
A-200A 3/16"=1'-0"



4 PRECAST RELIEF PATTERN (BASED ON EXISTING WALLACE TINE CEILING)
A-200A 3/16"=1'-0"

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
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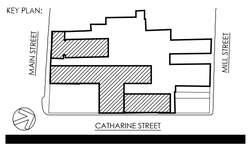
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

MAIN STREET BUILDING ELEVATION

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018047
STATE OF NEW YORK

PROJECT No: 2020-30
DRAWN BY: AA, LB
CHECKD BY: SY
DWG. No:

A-200A

1 / A-201A — MAIN STREET BUILDING: EAST ELEVATION
1/8"=1'-0"

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
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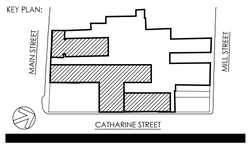
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

MAIN STREET BUILDING ELEVATION

SEAL / SIGNATURE:

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	A-201A

1 / A-202A — MAIN STREET BUILDING: WEST ELEVATION
1/8"=1'-0"

PROJECT:

WALLACE CAMPUS

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DUTCHESS COUNTY, NEW YORK

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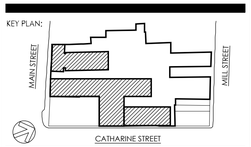
POUGHKEEPSIE, NY 12601
TEL: (845) 243-2880
FAX: (845) 265-8175

No:	Date:	Distribution:
1	6/5/2020	REVISED PER CITY COMMENTS
2	7/10/2020	PLANNING BOARD RE-SUBMISSION
3	10/30/2020	PLANNING BOARD RE-SUBMISSION
4	12/8/2020	PLANNING BOARD RE-SUBMISSION
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:

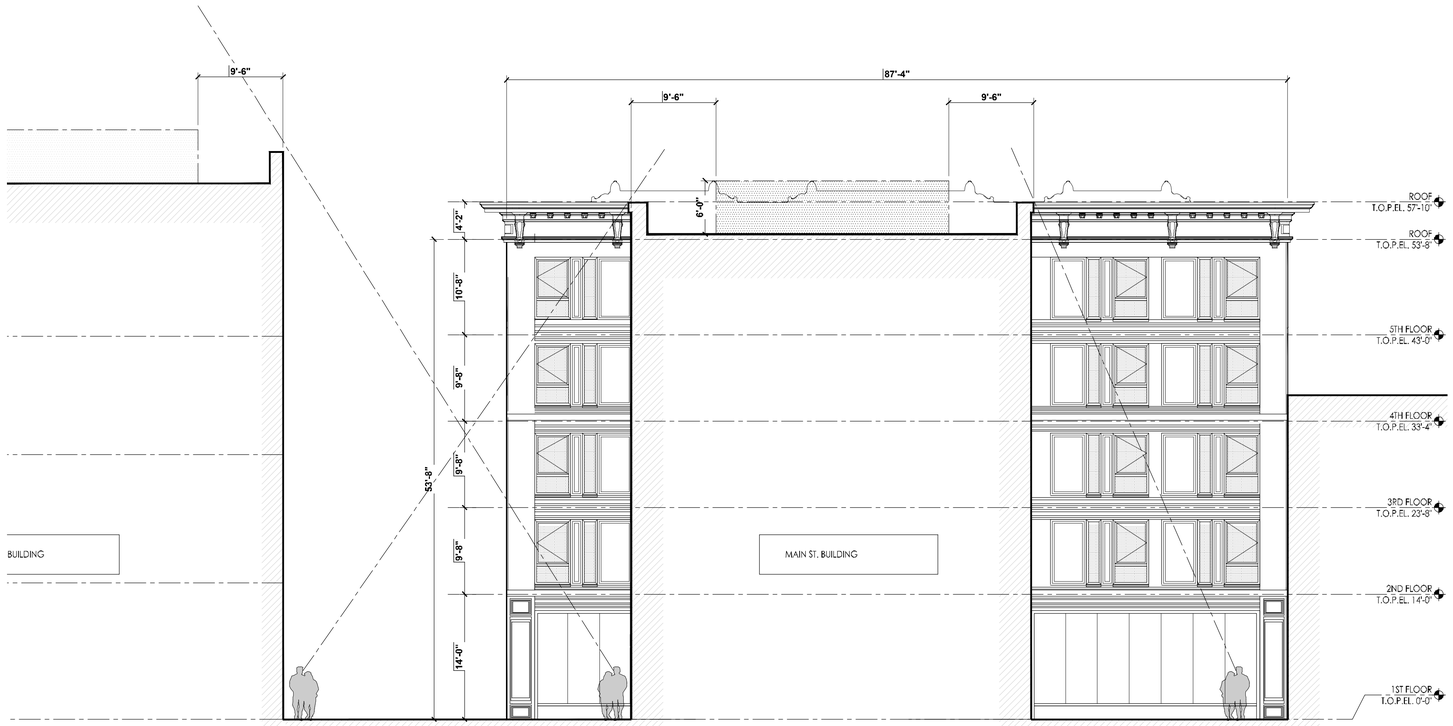


DRAWING TITLE:

MAIN STREET BUILDING ELEVATION

SEAL / SIGNATURE:

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	A-202A



1 A-203A MAIN STREET BUILDING: NORTH ELEVATION
1/8"=1'-0"

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:
SLCE*Architects*
1359 BROADWAY
NEW YORK, NEW YORK 10018
TEL: (212) 979-8400
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LANDSCAPE / CIVIL
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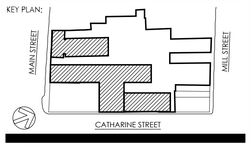
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

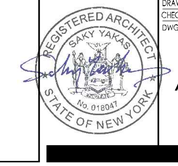
KEY PLAN:



DRAWING TITLE:

MAIN STREET BUILDING ELEVATION

SEAL / SIGNATURE:



PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

A-203A

1 / A-200B — CATHARINE ST. BUILDING: EAST ELEVATION
1/8"=1'-0"

PROPOSED NEW CONSTRUCTION

PROJECT:

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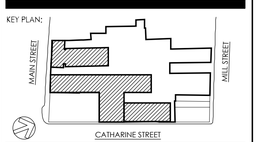
6	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

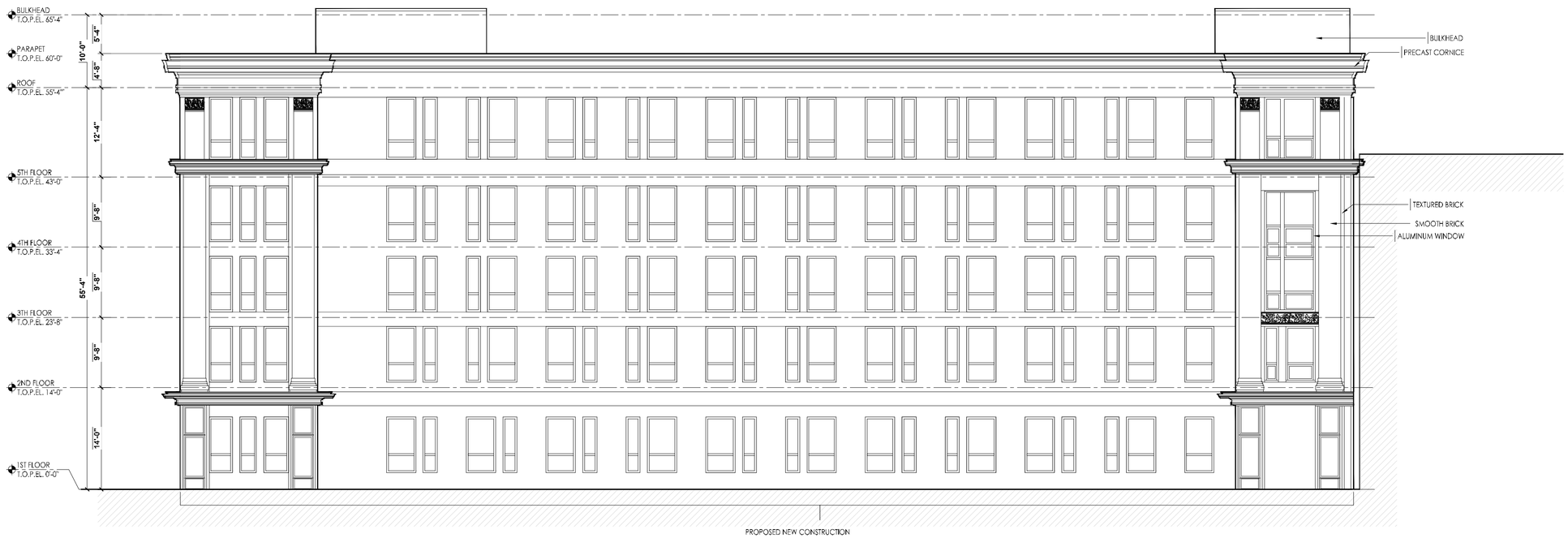
CATHARINE STREET BUILDING ELEVATION

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 019047
STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

A-200B



1 / A-201B — CATHARINE ST BUILDING: WEST ELEVATION
1/8"=1'-0"

PROJECT:

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5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

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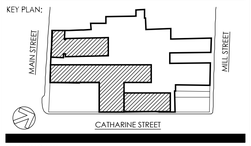
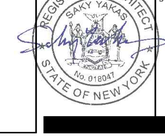


DRAWING TITLE:

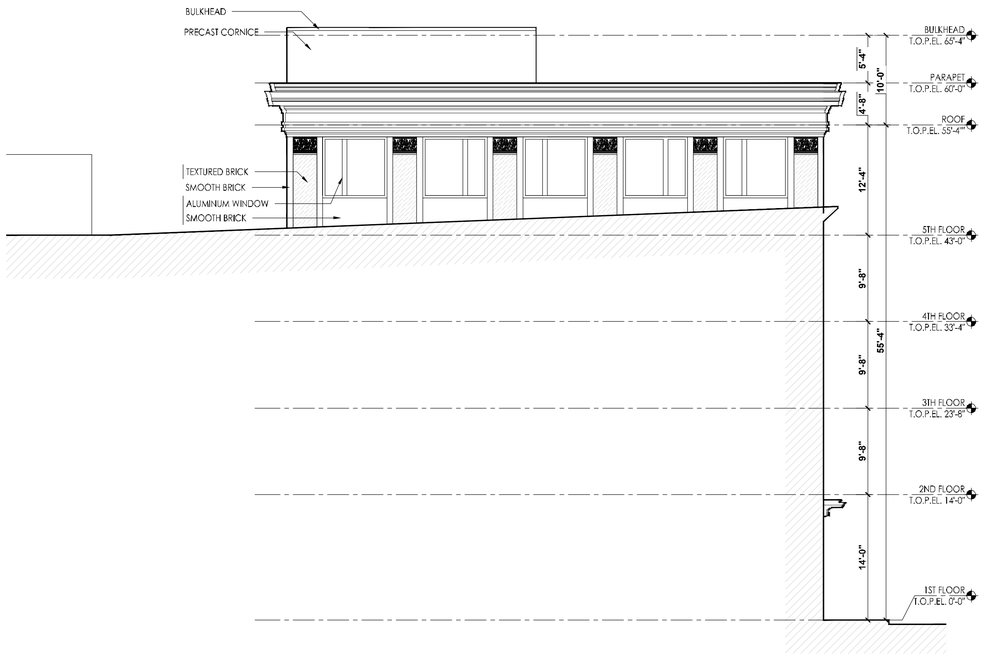
CATHARINE STREET BUILDING ELEVATION

SEAL / SIGNATURE:



PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

A-201B



1 A-202B CATHARINE ST BUILDING: SOUTH ELEVATION
1/8"=1'-0"

2 A-202B CATHARINE ST BUILDING: NORTH ELEVATION
1/8"=1'-0"

PROJECT:

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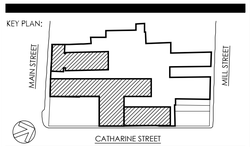
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

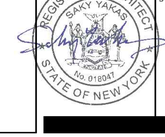
KEY PLAN:



DRAWING TITLE:

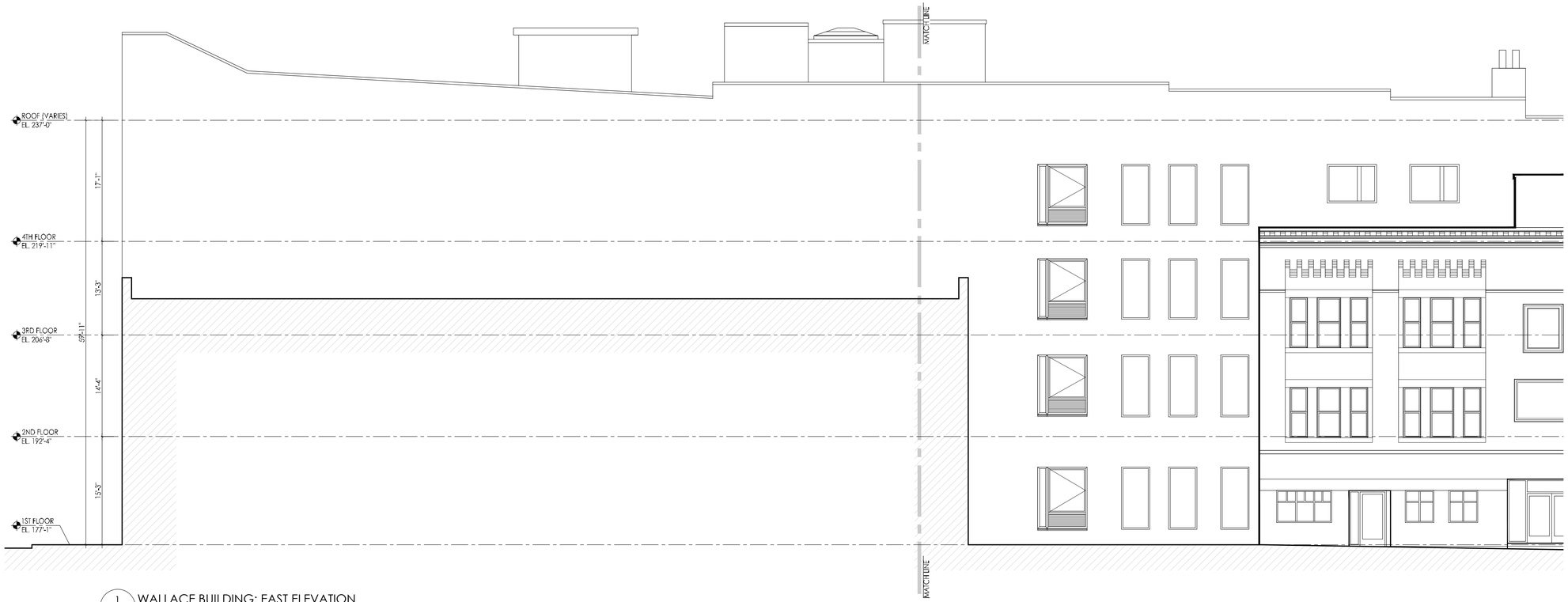
CATHARINE STREET BUILDING ELEVATION

SEAL / SIGNATURE:



PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

A-202B



1 WALLACE BUILDING: EAST ELEVATION
A-200C 1/8"=1'-0"

2 CATHARINE ST BUILDING: EAST ELEVATION
A-200C 1/8"=1'-0"

PROJECT:

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DOB NUMBER:

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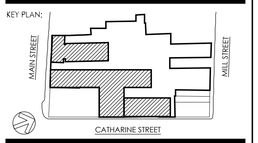
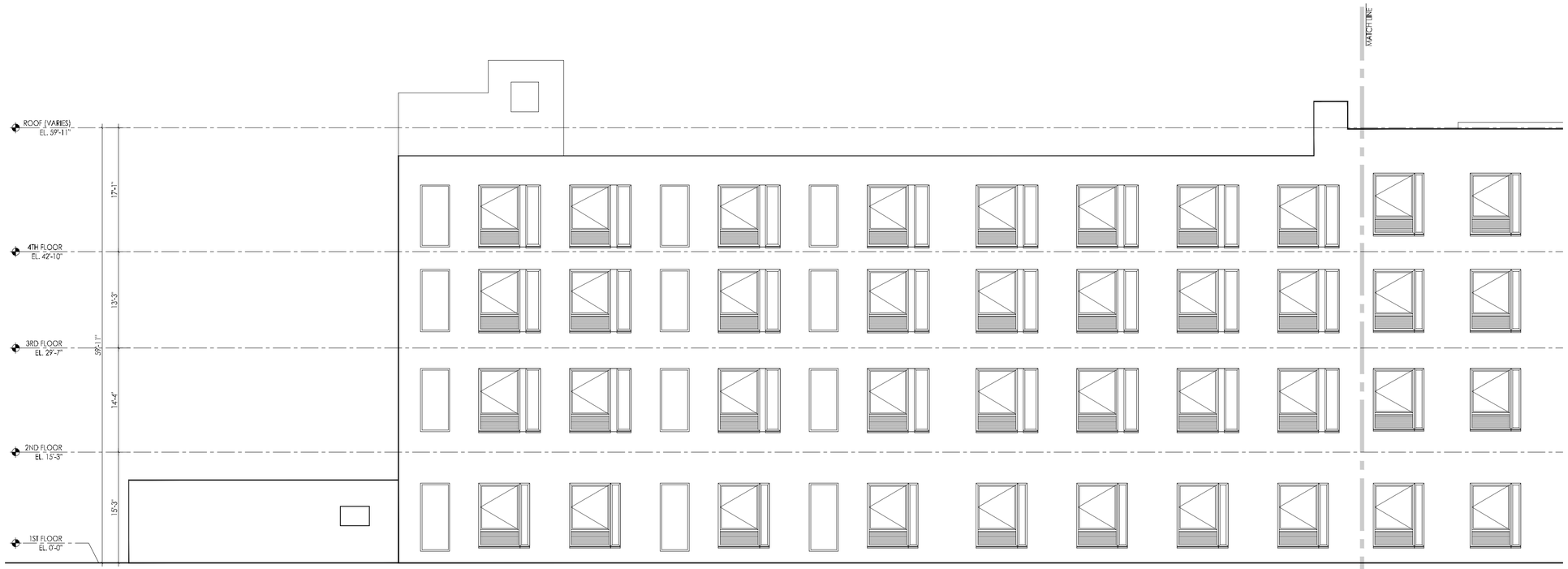


DRAWING TITLE:

WALLACE BUILDING ELEVATIONS

SEAL / SIGNATURE:

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	A-200C



1 A-201C WALLACE BUILDING: WEST ELEVATION
1/8"=1'-0"

1 A-201C WALLACE BUILDING: WEST ELEVATION
1/8"=1'-0"

PROJECT:

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DOB NUMBER:

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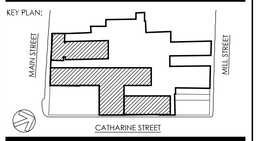


DRAWING TITLE:

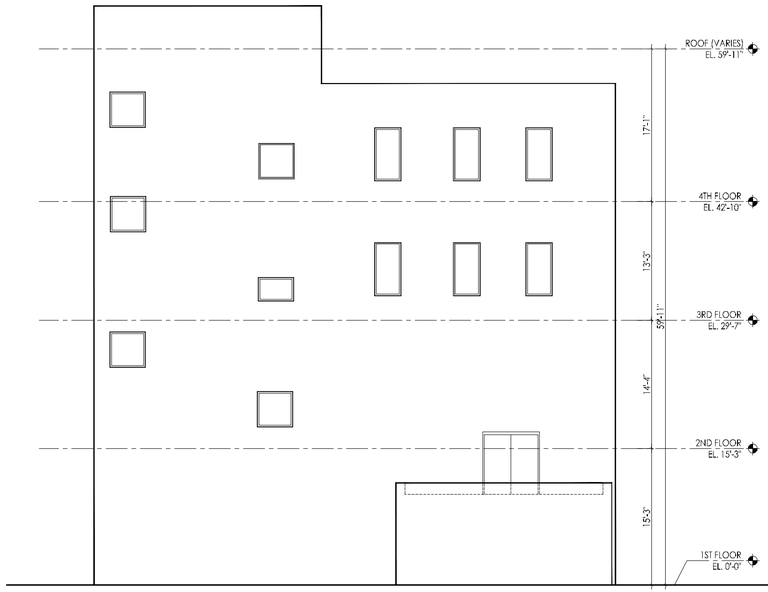
WALLACE BUILDING ELEVATIONS

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018047
STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKED BY:	SY
DWG. No:	A-201C

1 A-202C WALLACE BUILDING: SOUTH ELEVATION
1/8"=1'-0"



2 A-202C WALLACE BUILDING: NORTH ELEVATION
1/8"=1'-0"

PROJECT:

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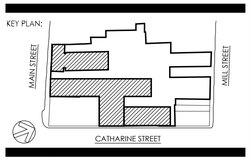


DRAWING TITLE:

WALLACE BUILDING ELEVATIONS

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018047
STATE OF NEW YORK

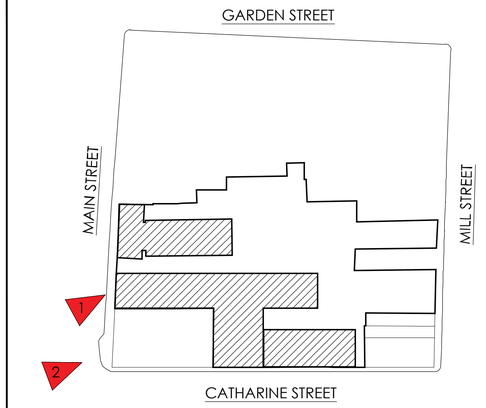
PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

A-202C

1. AERIAL VIEW: MAIN MALL ROW

2. AERIAL VIEW: OVERALL CAMPUS

VIEW KEY



PROJECT:

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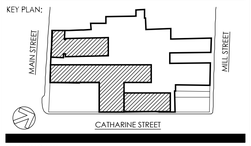


DRAWING TITLE:

RENDERINGS

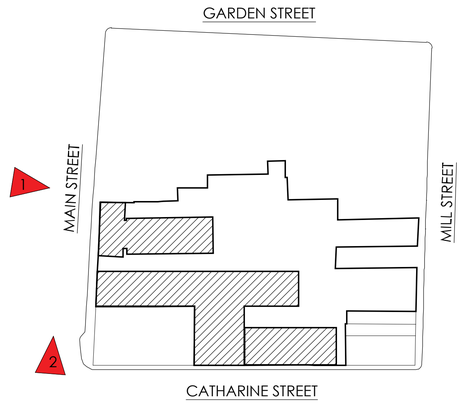
SEAL / SIGNATURE:

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECK'D BY:	SY
DWG. No:	A-201

1. VIEW FROM MAIN STREET

2.VIEW FROM MAIN STREET AND CATHARINE STREET

VIEW KEY



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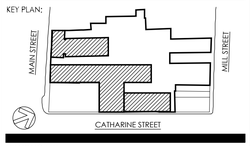


DRAWING TITLE:

RENDERINGS

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018041
STATE OF NEW YORK

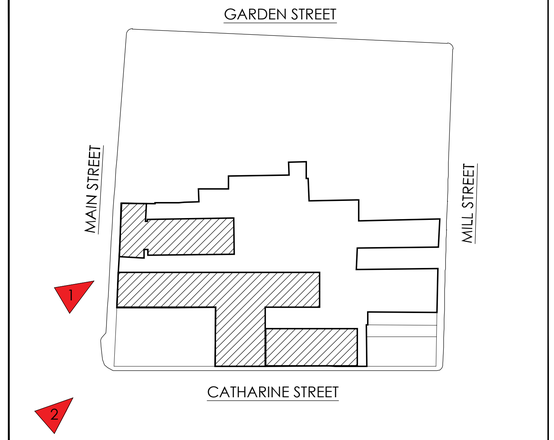
PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

A-202

1. VIEW FROM MAIN STREET

2.VIEW FROM MAIN STREET AND CATHARINE STREET

VIEW KEY



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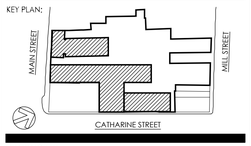
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

RENDERINGS

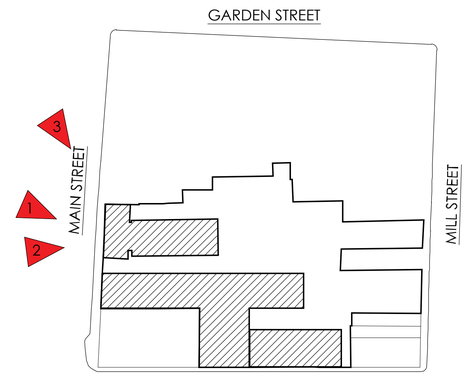
SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018041
STATE OF NEW YORK

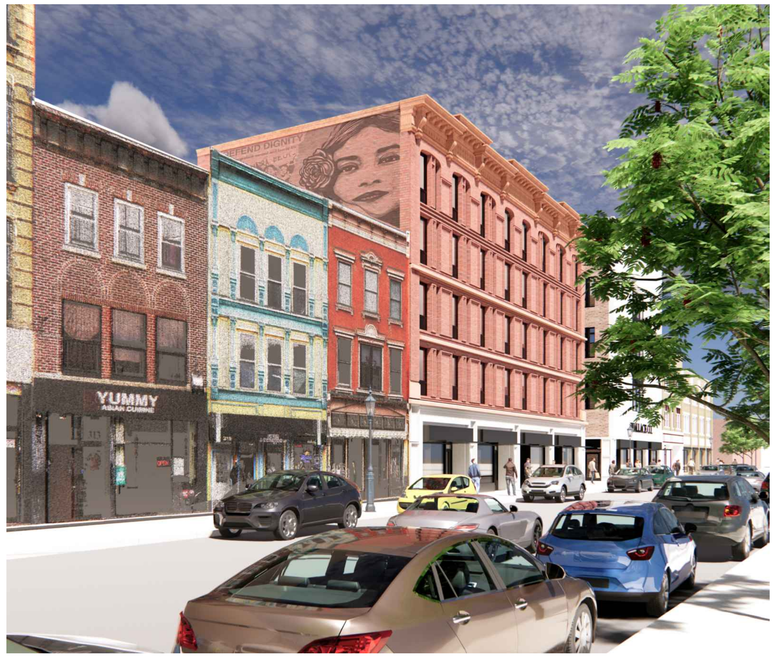
PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	A-203

1. VIEW FROM MAIN STREET

VIEW KEY



2.MAIN STREET STOREFRONT



3.VIEW FROM MAIN STREET TOWARD CATHARINE STREET

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

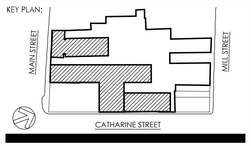
ARCHITECT:
SLCE*Architects*
1359 BROADWAY
NEW YORK, NEW YORK 10018
TEL: (212) 979-8400
FAX: (212) 979-8387

LANDSCAPE / CIVIL
THE LRC GROUP
85 CIVIC CENTER PLAZA, SUITE 103
POUGHKEEPSIE, NY 12601
TEL: (845) 243-2880
FAX: (845) 265-8175

No:	Date:	Distribution:
1	6/5/2020	REVISED PER CITY COMMENTS
2	7/10/2020	PLANNING BOARD RE-SUBMISSION
3	10/30/2020	PLANNING BOARD RE-SUBMISSION
4	12/8/2020	PLANNING BOARD RE-SUBMISSION
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

RENDERINGS

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018041
STATE OF NEW YORK

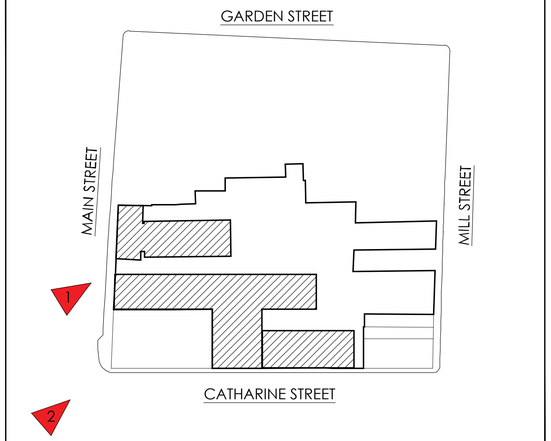
PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

A-204

1. VIEW FROM MAIN STREET

2.VIEW FROM MAIN STREET AND CATHARINE STREET

VIEW KEY



PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

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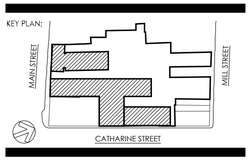
4	12/8/2020	PLANNING BOARD RE-SUBMISSION
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

RENDERINGS

SEAL / SIGNATURE:

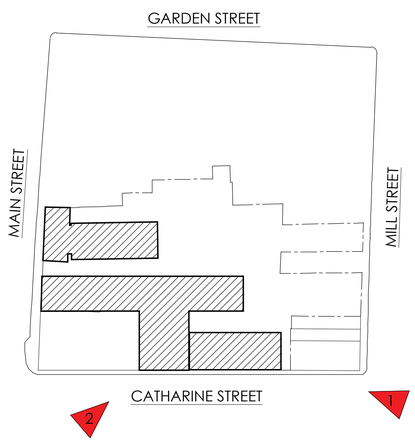
REGISTERED ARCHITECT
SAKY YAKAS
No. 018041
STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	A-205

1. VIEW FROM MAIN STREET

2.VIEW FROM MAIN STREET AND CATHARINE STREET

VIEW KEY



PROJECT:

WALLACE CAMPUS

331 MAIN STREET
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DUTCHESS COUNTY, NEW YORK

OWNER:
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48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

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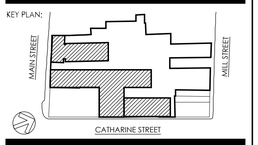
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

RENDERINGS

SEAL / SIGNATURE:

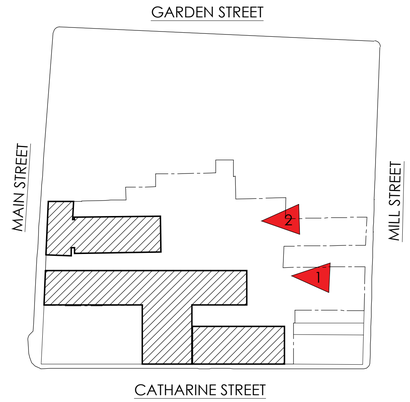
PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

A-206

1. VIEW FROM MAIN STREET

2.VIEW FROM MAIN STREET AND CATHARINE STREET

VIEW KEY



PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:
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NEW YORK, NEW YORK 10018
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85 CIVIC CENTER PLAZA, SUITE 103
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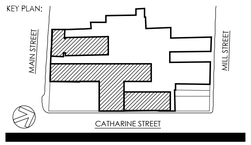
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

RENDERINGS

SEAL / SIGNATURE:

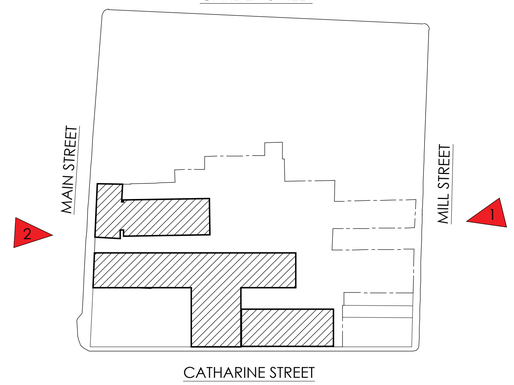
REGISTERED ARCHITECT
SAKY YAKAS
NO. 018047
STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	A-207

1. VIEW FROM MAIN STREET

2.VIEW FROM MAIN STREET AND CATHARINE STREET

VIEW KEY



PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:

WALLACE CAMPUS MANAGER LLC

48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:

SLCE*Architects*

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NEW YORK, NEW YORK 10018
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FAX: (212) 979-8387

LANDSCAPE / CIVIL

THE LRC GROUP

85 CIVIC CENTER PLAZA, SUITE 103
POUGHKEEPSIE, NY 12601
TEL: (845) 243-2880
FAX: (845) 265-8175

No:	Date:	Distibution:
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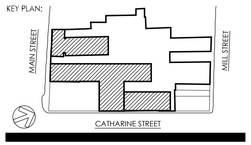
4	12/8/2020	PLANNING BOARD RE-SUBMISSION
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

RENDERINGS

SEAL / SIGNATURE:

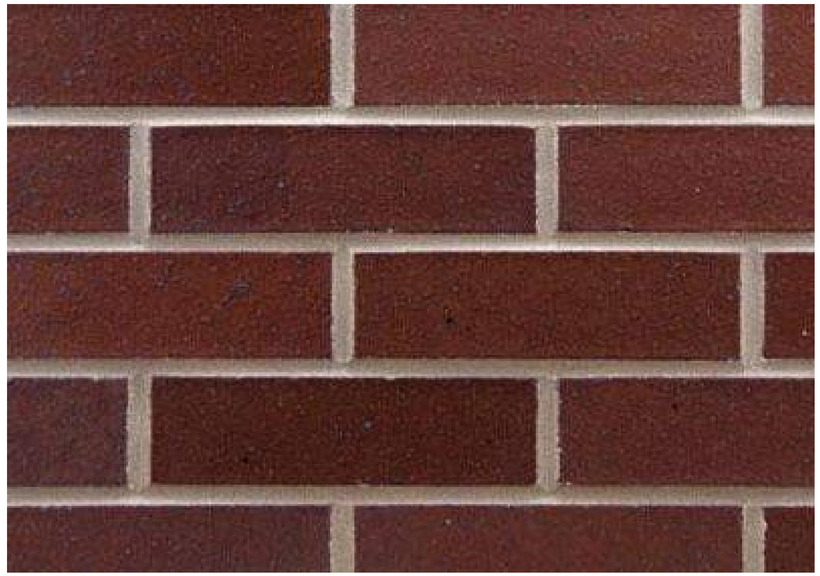
REGISTERED ARCHITECT
SAKY YAKAS
No. 018047
STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

A-208

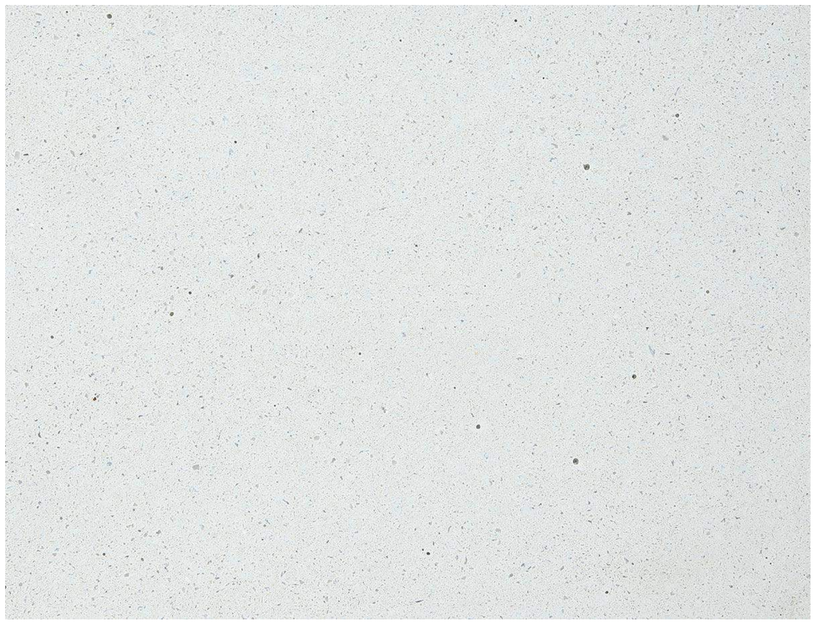
NOTE: SEE PHYSICAL SAMPLES SUBMITTED TO PLANNING BOARD

ALUMINUM



BRICK

PRECAST ACCENT



PRECAST

PROJECT:

WALLACE CAMPUS

CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:

WALLACE CAMPUS MANAGER LLC

48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:

SLCE*Architects*

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NEW YORK, NEW YORK 10018

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LANDSCAPE / CIVIL

THE LRC GROUP

85 CIVIC CENTER PLAZA, SUITE 103
POUGHKEEPSIE, NY 12601

TEL: (845) 243-2880
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No:	Date:	Distribution:
1	6/5/2020	REVISED PER CITY COMMENTS
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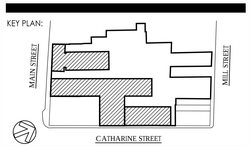
4	12/8/2020	PLANNING BOARD RE-SUBMISSION
4	1/5/2024	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

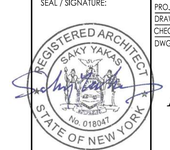
KEY PLAN:



DRAWING TITLE:

MAIN STREET:
MATERIAL SELECTIONS

SEAL / SIGNATURE:



PROJECT No: 2020-30
DRAWN BY: AA, LB
CHECK'D BY: SY
DWG. No:

A-209

NOTE: SEE PHYSICAL SAMPLES SUBMITTED TO PLANNING BOARD

ALUMINUM

BRICK

PRECAST

PRECAST

BRICK

PRECAST

PROJECT:

WALLACE CAMPUS

CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:
SLCE*Architects*
1359 BROADWAY
NEW YORK, NEW YORK 10018
TEL: (212) 979-8400
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LANDSCAPE / CIVIL
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85 CIVIC CENTER PLAZA, SUITE 103
POUGHKEEPSIE, NY 12601
TEL: (845) 243-2880
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No:	Date:	Distribution:
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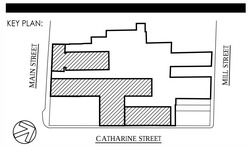
4	12/8/2020	PLANNING BOARD RE-SUBMISSION
4	1/5/2024	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

CATHARINE STREET:
MATERIAL SELECTIONS

SEAL / SIGNATURE:

PROJECT No: 2020-30
DRAWN BY: AA, LB
CHECK'D BY: SY
DWG. No:

A-210

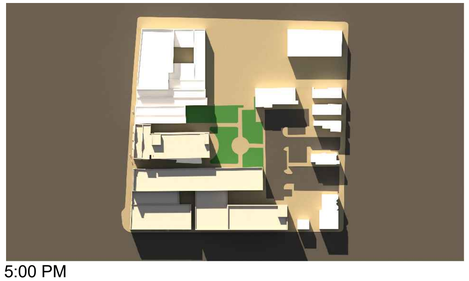
SUMMER SHADOW STUDIES: 6/21

9:00 AM

11:00 AM

1:00 PM

3:00 PM



5:00 PM

WINTER SHADOW STUDIES: 12/21

9:00 AM

11:00 AM

1:00 PM

3:00 PM

5:00 PM

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:
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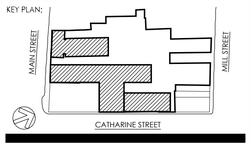
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:

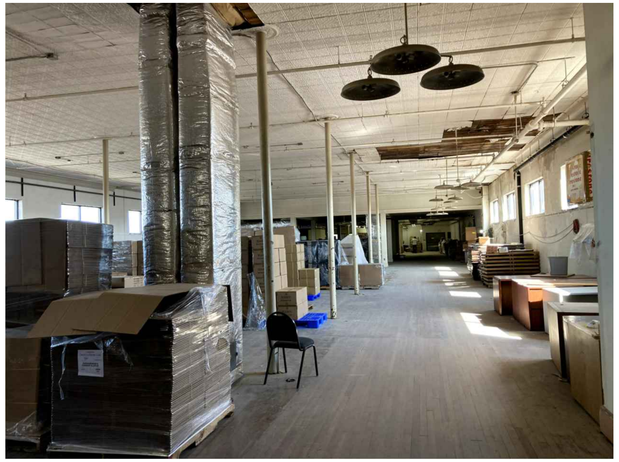


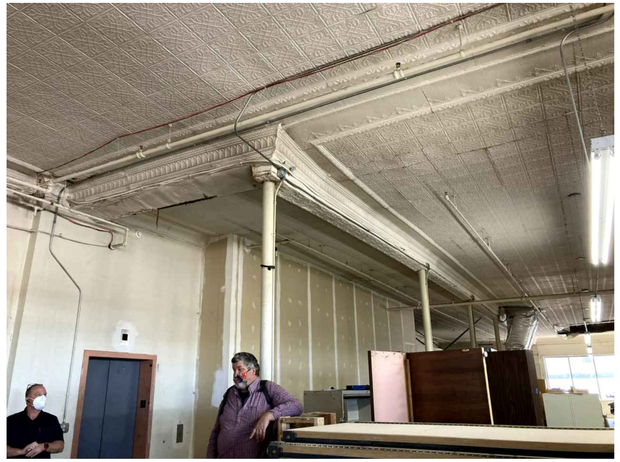
DRAWING TITLE:

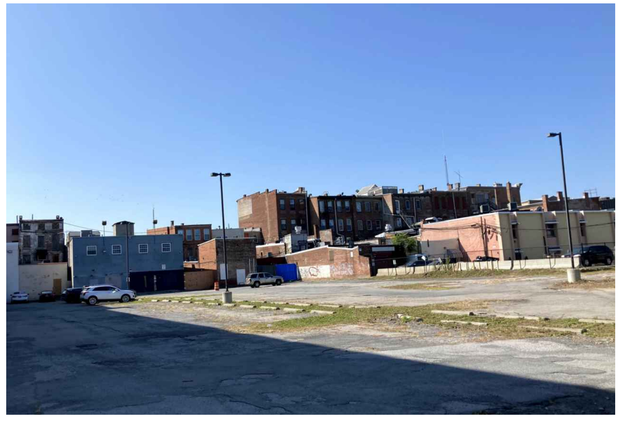
WALLACE CAMPUS SHADOW STUDIES

SEAL / SIGNATURE:

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	A-211







PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:

WALLACE CAMPUS MANAGER LLC

48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

ARCHITECT:

SLCE*Architects*

1359 BROADWAY
NEW YORK, NEW YORK 10018

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LANDSCAPE / CIVIL

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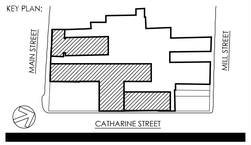
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

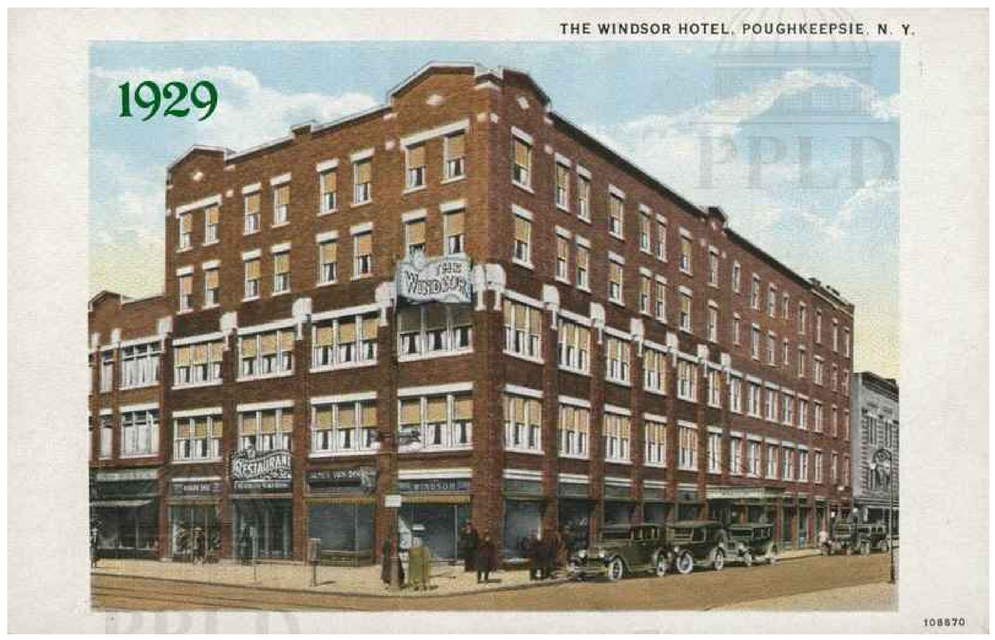
EXISTING WALLACE BUILDING PHOTOS

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 018047
STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

A-212



PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
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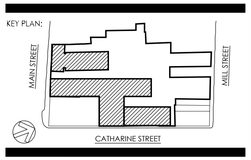
DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

HISTORICAL IMAGES

SEAL / SIGNATURE:

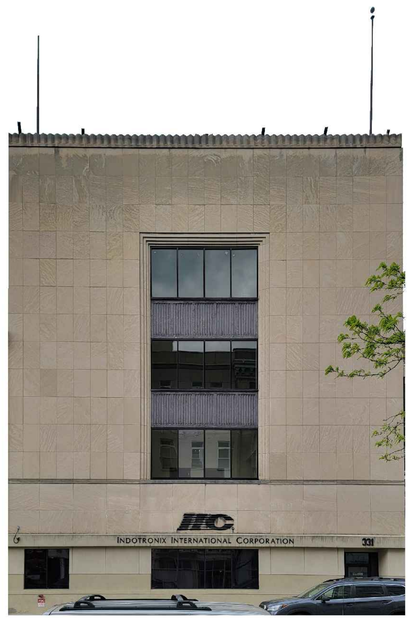
REGISTERED ARCHITECT
SAKY YAKAS
No. 018047
STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKED BY:	SY
DWG. No:	A-213

HELTING BUILDING
Height: +/- 70' @ Roof Peak

HISTORICAL ROW
Height: +/- 60 TO 64'

MAIN STREET BUILDING
Height : 74'



WALLACE BUILDING
Height: +/- 64'

LUCKEY PLATT
Height: +/- 92'

PROJECT:

WALLACE CAMPUS

331 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

OWNER:
WALLACE CAMPUS MANAGER LLC
48-02 25TH AVENUE, SUITE 400
ASTORIA, NY 11103

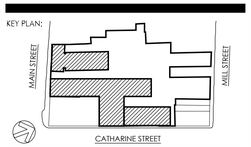
ARCHITECT:
SLCE*Architects*
1359 BROADWAY
NEW YORK, NEW YORK 10018
TEL: (212) 979-8400
FAX: (212) 979-8387

LANDSCAPE / CIVIL
THE LRC GROUP
85 CIVIC CENTER PLAZA, SUITE 103
POUGHKEEPSIE, NY 12601
TEL: (845) 243-2880
FAX: (845) 265-8175

No:	Date:	Distribution:
1	6/5/2020	REVISED PER CITY COMMENTS
2	7/10/2020	PLANNING BOARD RE-SUBMISSION
3	10/30/2020	PLANNING BOARD RE-SUBMISSION
4	12/8/2020	PLANNING BOARD RE-SUBMISSION
5	3/5/2021	PLANNING BOARD RE-SUBMISSION
5	11/2/2021	PLANNING BOARD RE-SUBMISSION

DOB NUMBER:

KEY PLAN:



DRAWING TITLE:

HEIGHT COMPARISON

SEAL / SIGNATURE:

REGISTERED ARCHITECT
SAKY YAKAS
No. 016047
STATE OF NEW YORK

PROJECT No:	2020-30
DRAWN BY:	AA, LB
CHECKD BY:	SY
DWG. No:	

A-214

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Wallace Campus		
Project Location (describe, and attach a general location map): 319 Main Street, 325 Main Street, 327-329 Main Street, and 331 Main Street, City of Poughkeepsie		
Brief Description of Proposed Action (include purpose or need): See Supporting Information, attached.		
Name of Applicant/Sponsor: Wallace Campus Manager, LLC	Telephone: (718) 932-6342 E-Mail: EKokinakis@megagroup.ny	
Address: Mega Development, 48-02 25th Ave, Suite 400		
City/PO: New York	State: NY	Zip Code: 11103
Project Contact (if not same as sponsor; give name and title/role): Emanuel Kokinakis	Telephone: (718) 932-6342 E-Mail: EKokinakis@megagroup.ny	
Address: Mega Development, 48-02 25th Ave, Suite 400		
City/PO: New York	State: NY	Zip Code: 11103
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☑Yes ☐No	Common Council/IDA	TBD
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	City of Poughkeepsie Planning Board - Site Plan Approval	Spring 2020
c. City, Town or Village Zoning Board of Appeals ☑Yes ☐No	City of Poughkeepsie ZBA - possible variances	TBD
d. Other local agencies ☑Yes ☐No	City of Poughkeepsie Common Council; City of Pok Industrial Development Agency	TBD
e. County agencies ☑Yes ☐No	Referral from Planning Board and ZBA for Advisory Opinion	City PB - March 2021; ZBA - TBD
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	SHPO; DOT; DEC; DOH; HCR; HFA; Empire State Development.	Various
h. Federal agencies ☑Yes ☐No	NPS (Historic Tax Credits)	Spring 2020

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☑Yes ☐No

If Yes, identify the plan(s):

Hudson River Valley National Heritage Area; Poughkeepsie Innovation District; EnZone Type AB.

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
PID-Historic Core and PID-Urban Village

b. Is the use permitted or allowed by a special or conditional use permit? ☑ Yes ☐ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? City of Poughkeepsie School District

b. What police or other public protection forces serve the project site?
City of Poughkeepsie Police Department

c. Which fire protection and emergency medical services serve the project site?
City of Poughkeepsie Fire Department

d. What parks serve the project site?
The nearest park is Mansion Square Park located approximately 0.2 mile from the Site. The applicant is also proposing to create privately owned public green space on a portion of the Site.

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Mixed-use development: residential and commercial. Also pedestrian and passive open space amenities.

b. a. Total acreage of the site of the proposed action? 2.52 acres
b. Total acreage to be physically disturbed? 2.52 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 2.52 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
_____
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 24 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				187 Apartments
At completion of all phases				1 Phase only

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures 3

ii. Dimensions (in feet) of largest proposed structure: 59'11" height; 85' 11" width; and 325' 6" length

iii. Approximate extent of building space to be heated or cooled: 114,856 square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify:

_____

iii. If other than water, identify the type of impounded/contained liquids and their source.

_____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

_____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? ☑ Yes ☐ No
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)

If Yes:

i .What is the purpose of the excavation or dredging? Construction/soil remediation

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): TBD
- Over what duration of time? TBD

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

Likely urban fill, requiring management and disposal as a non-hazardous regulated waste. Management and disposal will be governed by NYSDEC approved RAWP under BCP, including CAMP implementation.

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☑ No

If yes, describe. _____

_____

v. What is the total area to be dredged or excavated? TBD acres

vi. What is the maximum area to be worked at any one time? TBD acres

vii. What would be the maximum depth of excavation or dredging? TBD feet

viii. Will the excavation require blasting? ☐ Yes ☑ No

ix. Summarize site reclamation goals and plan:

See attached Supporting Information. Total volume and area to be excavated will be a function of the remedy chosen for the site as determined in the NYSDEC approved RAWP. The site will be cleaned up to Track 1 standards.

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

_____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No
If Yes, describe:

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐ Yes ☐ No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☑ Yes ☐ No
If Yes:

i. Total anticipated water usage/demand per day: 21,857± gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑ Yes ☐ No
If Yes:

- Name of district or service area: City of Poughkeepsie
- Does the existing public water supply have capacity to serve the proposal? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No
- Do existing lines serve the project site? ☑ Yes ☐ No

iii. Will line extension within an existing district be necessary to supply the project? ☐ Yes ☑ No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district:

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑ No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑ Yes ☐ No
If Yes:

i. Total anticipated liquid waste generation per day: 21,857± gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
sanitary wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑ Yes ☐ No
If Yes:

- Name of wastewater treatment plant to be used: City of Poughkeepsie Water Pollution Control Plant
- Name of district: City of Poughkeepsie
- Does the existing wastewater treatment plant have capacity to serve the project? ☑ Yes ☐ No
- Is the project site in the existing district? ☑ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☑ No

- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will a line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

N/A

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

N/A

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

1.89 acres (impervious surface)
2.52 acres (parcel size)

ii. Describe types of new point sources. No new point sources - project is decreasing the amount of impervious surface by approximately 1 acre

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

On-site stormwater management structures

- If to surface waters, identify receiving water bodies or wetlands: _____

N/A

- Will stormwater runoff flow to adjacent properties? ☐ Yes ☑ No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑ Yes ☐ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑ Yes ☐ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Heavy equipment will be utilized during construction of new buildings that are components of the proposed project.

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

N/A

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

HVAC units to provide heat and A/C for the buildings

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☑Yes ☐No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☑ Morning ☑ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

iii. Parking spaces: Existing 121 Proposed 63 Net increase/decrease -58

iv. Does the proposed action include any shared use parking? ☑Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:
Consolidation of existing driveways with 302, 304, 306 Mill street. Four driveway connections to Mill Street.

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☑Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☑Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☑Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: 48,700 kWh

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):
Central Hudson Gas & Electric

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 6:30 a.m. - 9:00 p.m.
- Saturday: N/A
- Sunday: N/A
- Holidays: N/A

ii. During Operations:

- Monday - Friday: 24 hours
- Saturday: 24 hours
- Sunday: 24 hours
- Holidays: TBD- reduced hours most holidays

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Per City of Poughkeepsie Code of Ordinances, Section 13 1/2-6, construction will be limited to the hours of 6:30 a.m. - 9:00 p.m. weekdays. Ambient noise levels will not be exceeded during operation.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☑ No

Describe: _____

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

See Submission Set, pages LP-1 and LP-2

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☑ No

Describe: _____

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:_____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☑ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

Unlikely to present - waste characterization sampling performed prior to site remediation under the BCP will identify any such materials, which, if present, will be managed and disposed of per the RAWP.

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☑ Urban ☐ Industrial ☑ Commercial ☐ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☑ Other (specify): construction

ii. If mix of uses, generally describe:

The property is located in an urban setting, with most properties developed for mixed-use (commercial/residential) and commercial uses. Uses at adjoining properties include an active construction site across Catharine Street, & buildings used for commercial and mixed commercial/residential uses

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	2.52	1.89	-0.63
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: Wallace Green & Landscaped Areas	0	.73	+.73

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No

If Yes,

i. Identify Facilities:

More Young Children Magnet Elementary School, Clinton Elementary School, Hudson River Healthcare Inc., Community Family Development, Humble Life Family Daycare

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☑ Yes ☐ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

The site was used for activities including automotive repair, machining operations, furniture finishing, laundry activities (potentially involving use of chlorinated solvents), and use of gasoline underground storage tanks (USTs). Site will be characterized and remediated under the BCP.

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☑ Yes ☐ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☑ Yes ☐ No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____

☑ Yes – Environmental Site Remediation database — Provide DEC ID number(s): BCP C314134

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

N/A

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☑ Yes ☐ No

If yes, provide DEC ID number(s): B001483, E314110, C314130

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

B001483 - remediation completed, ongoing maintenance required, engineering controls on-site

E314110 - ERP App submitted and withdrawn, non-registry site

C314130 - Crannell Square, under construction, likely Track 1 cleanup under BCP

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

If the project fails to achieve Track 1 Cleanup under BCP, institutional and/or engineering controls may be imposed on the site as part of the remedy. Based on data available to date, the site will achieve Track 1, supporting the conclusion that such controls will be unnecessary.

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? 41 - 62 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____%

c. Predominant soil type(s) present on project site:
Urban Land Soils 100 %
_____ _____%
_____ _____%

d. What is the average depth to the water table on the project site? Average: 15 feet

e. Drainage status of project site soils:
☑ Well Drained: 100 % of site
☐ Moderately Well Drained: _____% of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: 100 % of site
☐ 10-15%: _____% of site
☐ 15% or greater: _____% of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☐ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:

typical urban wildlife

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No

If Yes:

i. Describe the habitat/community (composition, function, and basis for designation):

ii. Source(s) of description or evaluation:

iii. Extent of community/habitat:

- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☐ Yes ☑ No

If Yes:

i. Species and listing (endangered or threatened):

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

If Yes:

i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No

If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No

If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No

i. If Yes: acreage(s) on project site?

ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No

If Yes:

i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature

ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No

If Yes:

i. CEA name:

ii. Basis for designation:

iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☑ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☑ Historic Building or District

ii. Name: Portions of Site are located in the Upper Mill Street Historic District and adjoining properties are listed (see Attachments J & K)

iii. Brief description of attributes on which listing is based:

Age and past uses (see Supporting Information)

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Walkway over the Hudson, FDR, Springside, College Hill, Kaal Rock, Victor C. Waryas, Eastman, Pulaski, Dongan, Wheaton

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): State/local parks, State historic trail (walkway only)

iii. Distance between project and resource: between 0.2 to 5 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Wallace Campus Managers, LLC Date _____

Signature _____ Title _____

PRINT FORM

1.0 INTRODUCTION

1.1. Project Summary

The Project Site consists of the entirety of the contiguous parcels known as 319 Main Street (Block 77, Lot 114098); 325 Main Street (Block 77, Lot 109079); 327-329 Main Street (Block 7, Lot 109077); and 331 Main Street (Block 78, Lot 127091), City of Poughkeepsie, New York (see Figures 1-4). The Applicant, Wallace Campus Manager, LLC, is proposing the renovation of the existing building at 331 Main Street and the construction of two new, mixed-use residential and commercial buildings. The Project will include 187 new dwelling units, on-site parking for vehicles, facilities for bike parking and circulation, and a sidewalk/footpath system throughout the campus. All parcels in the project are owned by Wallace Campus Manager, LLC.

1.2. Site Description and Project Details

The Site is a 2.52-acre commercial property, which is abutted by Mill Street to the north and Main Street to the South (see Figure 3). The southern portion of 319 Main Street currently contains a two-story building (former restaurant and club). The 325 and 327-329 Main Street lots each contain a four-story building with rear two-story sections (former bookstore and residence, and active office building, respectively), and the southern/central portions of 331 Main Street contain a four-story building with a three-story section to the east, utilized for offices and light manufacturing. The remaining northern portions of 319 and 331 Main Street contain paved parking areas, walkways, and yards. The development proposal includes 187 units of mixed-income rental housing and 14,213 sf of commercial space. New construction will only take place in areas where there has been previous ground disturbance and the development will not directly impact wetlands or the Fall Kill Creek (located approximately 650 feet northeast of the property). The buildings will occupy approximately 1.1 acre and the “Wallace Green,” an area of landscaped green space in a park-like setting, will occupy .73-acre of the 2.52-acre property. The remaining space will be used for parking and additional open space.

1.3. Anticipated Funding/Permits/Approvals

Table 1 provides a list of the funding/approvals/permits that are anticipated for the project.

AGENCY	FUNDING/APPROVAL/PERMIT
City of Poughkeepsie Planning Board	Site Plan Approval
City of Poughkeepsie Zoning Board of Appeals	Possible Variances
City of Poughkeepsie Common Council	Possible PILOT
City of Poughkeepsie Industrial Development Agency	Possible Sales Tax relief
Dutchess County Department of Health	Water and Sewer Connections
Dutchess County Department of Planning and Development	GML 239m referral
New York's State Historic Preservation Office	Listing Wallace Campus Building on State and National Registers of Historic Places; Historic Tax Credits
New York State Department of Transportation	Highway Work Permit; Driveways
New York State Department of Environmental Conservation	BCA; BCP Tax Credit; SPDES GP-0-20-001
New York State Housing and Community Renewal	Site Alteration Letter; Low-Income Tax Credit
New York State Empire State Development	Potential Funding Source
Federal Home Loan Bank of New York	Potential Funding Source
National Park Service	Historic Tax Credits

2.0 SITE CONDITIONS

The project site, first developed prior to 1887, has primarily been used for commercial purposes with some limited historical residential use. The most significant commercial uses, including automotive repair, machining operations, furniture finishing, laundry activities (potentially involving use of chlorinated solvents), and use of gasoline underground storage tanks (USTs) occurred at the eastern portion of the site near Catherine Street.

2.1. Early Investigations 2005 to 2013

GBTS reviewed the following environmental reports, prepared for portions of the property:

- Phase I ESA of 327-329 Main Street, John R. Bien, P.E., December 2005;
- Phase I ESA of 331 Main Street, Ecosystems Strategies, Inc., June 2013; and,
- Limited Phase II Subsurface Investigation for 331 Main Street (Lot D, "Phase II SSI"), Greenstar Environmental Solutions, LLC, August 2013.

No notable environmental conditions were identified at the 327-329 Main Street parcel; at the 331 Main Street parcel, however, former automotive repair activities and a historical gasoline underground storage tank (UST) were identified as Recognized Environmental Conditions. According to a conversation with an employee for the City of Poughkeepsie Fire Department, an "unofficial notation in a log book" indicated that Lot D had two, 1,000-gallon tanks removed on June 15, 1979 (location unknown).

The Limited Phase II SSI was conducted on the northeastern portion of 331 Main Street along Catharine Street. Fieldwork included a ground penetrating radar survey, advancement of six soil borings in the vicinity of the former automotive repair facility (SB-01 and SB-02) and the suspect UST (SB-03 through SB-06), and collection of groundwater samples from two borings (SB-04 and SB-06) converted to temporary monitoring wells.

The GPR survey did not indicate the presence of any USTs. No field evidence of petroleum contamination was encountered at any boring location, and laboratory analysis of three soil samples (SB-02, SB-04, and SB-06) did not document the presence of any volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs). Low levels of lead were detected in two groundwater samples; however, the report notes that the lead detection was likely due to suspended soil particles. No VOCs or significant levels of SVOCs were detected in groundwater.

2.2. Recent Investigations: 2020

Recent investigations include the following:

- Geotechnical report for Wallace Campus Buildings ("Geotech Report"), Daniel G. Loucks, P.E. Geotechnical Engineering, September 8, 2020; and,
- Phase II ESA for the Wallace Campus, GBTS, October 2020.

The Geotech Report documents subsurface site conditions on several portions of the property. Subsurface soils throughout the site are generally comprised of an upper layer of fill extending from between 1 and 7 feet bsg. A sandy-gravelly layer underlies the fill layer to depths ranging between 17 to 23 feet bsg, which is underlain by a layer of dense silty clayey soils to depths ranging between 23 to 51 feet bsg. Weathered shale bedrock is reported to be at depths ranging between 41 to 62 feet bsg.

Soils at multiple locations throughout the Site, in an interval ranging from approximately 1 to 7 feet below the parking lot surface, are impacted by PAHs and metals (mercury and lead) above Restricted Residential Use Soil Cleanup Objectives (RRU SCOs). No significant levels of VOCs, SVOCs, pesticides or PCBs were found in soil samples collected for general screening purposes, and no significant levels of VOCs were found in soil vapor or in groundwater samples, suggesting that on-site contamination is limited to PAHs and metals impacts in soils. The source of this PAH and metal contamination is unknown, but may be related to historical commercial uses, impacts from building demolition, or the placement of fill materials.

Existing soil vapor data are limited in areas of proposed building footprints. Due to the urban nature of the Site, additional soil vapor investigation is warranted to determine whether soil vapor intrusion poses a risk to future building occupants.

2.3. Current Regulatory Status

A Brownfield Cleanup Program (BCP) Application and a Remedial Investigation Work Plan (RIWP) were submitted for the site to NYSDEC on January 28, 2021 and a Letter of Completeness was issued on February 16, 2021. The Application's Public Comment period concluded on March 26, 2021. Wallace Campus Manager LLC executed the Brownfield Cleanup Agreement (BCA) with the State on April 19, 2021 (see Attachment A) and the RIWP was finalized in March 2021. It is anticipated that a RIR and RAWP will be submitted to the NYSDEC by December 2021 and NYSDEC could potentially issue the Decision Document for the site in April 2022. The site will be cleaned up to Track 1 standards.

3.0 LAND USE, ZONING, AND PUBLIC POLICY

3.1. Land Use and Zoning

The project site was first developed prior to 1887 and has included commercial and some limited residential use although its recent history has, like other parts of downtown Poughkeepsie, been of underutilization and vacancy. In 2019 the Poughkeepsie Innovation District (PID) rezoning was undertaken by the City to put in place a framework to encourage and govern future development of the core commercial section of the city's downtown into an economic center anchored by increased residential population and a creative economy. Located in the central northern portion of the PID, the project site is zoned PID-Historic Core and PID-Urban Village.

The PID zoning regulations were enacted in 2019, after an extensive planning study, with the purpose of revitalizing the City's historic Central Business District through the fostering of a walkable mixed-use neighborhood that supports quality residential development and institutional spaces for learning and socializing, as well as work spaces for Poughkeepsie's creative and innovative businesses. One of the six key components of the PID District Framework is the retention and enhancement of affordable housing with the PID.

The proposed Wallace Campus Project would be a significant moment in the ongoing realization of the City's vision as expressed in the PID rezoning. It includes quality affordable housing, meeting one of the six key components of the District Framework. It also fulfills a number of other goals of the PID, including: restoring an area with large expanses of underutilized space; restoring the architectural street wall integrity on Catherine Street; creating Wallace Green, a dynamic open space available for public use; creating a pedestrian connection mid-block between Main Street and Mill Street; providing buildings that are of excellent architectural design; and, providing mixed use development on Main Street, including ground floor retail.

Deputy Zoning Administrator Judith Knauss has issued a zoning interpretation dated March 31, 2021 concluding that, as to all three buildings, "All proposed uses are permitted in both the PID-UV and PID-HC, pursuant to the provisions of Section 19-3.37 Table 3.37-1 of the Zoning Ordinance." The uses in the project are multi-family residential and retail. Multi-family units in the PID-HC District and retail in the PID-HC District less than 10,000 SF per building are uses which do not require site plan review.

In response to comments, the project was redesigned to bring the heights of all buildings into conformity with zoning bulk requirements, eliminating two stories on the Main Street building and one story on the Catharine Street building. All buildings now comply with height regulations in the PID and the two new buildings are both lower in height than the existing Wallace building. The project requires several set back/area variances of bulk requirements relating to building and parking setback and frontage occupancy (frontage not occupied by buildings) relating to pre-existing buildings and access drives.

Further information regarding zoning can be found in Attachments B and C, which contain a full project description and statement of compliance with applicable PID building design requirements.

3.2. Public Policy

City of Poughkeepsie Comprehensive Plan, 1998

The City updated its Comprehensive Plan in 1998 with a focus on three areas: Main Street, the Cottage Street Business District, and the Waterfront. These areas were identified as being critically important to the City's future growth. Other areas of interest updated in the Plan included neighborhood planning issues, the City's Zoning Code, and recreational resources. The Plan outlines the following goals:

- Goal #1: A Traditional Downtown and Main Street;
- Goal #2: Neighborhoods with a Strong Sense of Community;
- Goal #3: A Vibrant Waterfront for Commerce and Recreation;
- Goal #4: Increased Employment Opportunities;
- Goal #5: User-Friendly Transportation Systems;
- Goal #6: A Regional Center for Commerce, Medicine, and Government; and
- Goal #7: The Creation of New Economic Opportunities.

The Plan states with regard to Goal #2 that, "City government can play a strong role in making the City a safe, healthy place to live. Policies and decisions on zoning issues that define and protect neighborhood character, and capital investment in parks, sidewalks, and streets, should be in keeping with this goal."

Wallace Campus adheres to this goal by providing outdoor amenity spaces to benefit residents and the public. A public pedestrian walkway will provide new connectivity between Main Street and Mill Street, beginning at a new Promenade entrance between the Wallace and Main Street buildings, and proceeding through the campus to Mill Street, near the intersection with Conklin. The new pedestrian walkway also provides access to an inviting central Green ("Wallace Green") that provides landscaping, play areas, a garden, tiered seating gathering area, and internal pedestrian access between the new buildings and the landscaped internal parking area. Vehicular access to the site is provided through consolidation of existing entrances from Mill Street. Through agreements with adjoining lots fronting on Mill Street (302, 304, 306 and 310 Mill Street), the Project will eliminate two existing curb cuts on Mill Street, provide additional Green space around and between existing buildings fronting on Mill Street, in addition to enhancing the pedestrian use of Mill Street via the new Wallace Green walkway between Main and Mill Streets. Additionally, Goal #2 states that "the City should also support renovation and reuse of vacant buildings, and removal and replacement of dilapidated structures." Wallace Campus supports this goal by renovating and repurposing the long dormant Wallace Campus Department Store and by replacing the old vacant, or otherwise underutilized, buildings west of the Wallace Campus Department Store with a new 81,813 SF building.

Goal #4 states that "the City should maintain a wide variety of employment opportunities for its residents and for workers living outside the City." The proposed project will provide 14,213 sf of commercial space, including new retail spaces along the Main Street pedestrian frontage, which will create new employment opportunities for residents and workers living outside the City. The proposed action is therefore consistent.

Dutchess County Hudson River Valley Greenway Compact Plan, 2000

Dutchess County is one of 13 counties that make up the Hudson River Valley Greenway, which was established by the State by the Hudson River Valley Greenway Act of 1991. In March 2000, the Hudson River Valley Greenway Council approved the Dutchess County Greenway Compact Plan, "Greenway Connections: Greenway Compact Program and Guides for Dutchess County Communities." The Greenway was created to facilitate the development of a voluntary regional strategy for preserving scenic, natural, historic, cultural, and recreational resources while encouraging compatible economic development and maintaining the tradition of home rule for land use decision-making. By Local Law Number 1 of 2002, the City became a participating community in the Greenway Compact, and adopted a statement of land use policies, principles and guides entitled, "Greenway Connections: Greenway Compact Program and Guides for Dutchess County Communities." The City requires that consideration of the Greenway Compact Plan policies, principles, and guides be used to supplement other established land use policies in the City where discretionary decisions are made. The proposed development is anticipated to adhere to the purpose of the plan, as it will provide multifamily housing within a site

design that encourages conservation of natural and historic resources. Therefore, the proposed action is consistent.

4.0 COMMUNITY SERVICES

4.1. Emergency Services

Fire emergency/ambulance service is provided by the City of Poughkeepsie. According to the City website, the Fire Department is a 64-man career-staffed department that protects 31,000 people living in an area of 4.78 square miles. It operates three fire stations that respond to almost 5,000 calls per year. The City's apparatus includes four engines, two ladder trucks, one rescue vehicle, and a fire/rescue boat. Water for fire protection is obtained from the City of Poughkeepsie water supply. A truck turning radius plan will be submitted during the site plan review. It is anticipated that there is sufficient firefighting capability to meet the minimal increase in demand related to the proposed 187 new residential units. The City of Poughkeepsie Police Department, with support from Dutchess County Sheriff's Department and NYS Police, provides police protection.

5.0 NATURAL RESOURCES

5.1. Soils

Soils in the vicinity of the subject property are likely to be derived from glacial till deposits, which overlie greywacke and shale bedrock (see Attachment D). According to the Natural Resources Conservation Service and information contained in the Dutchess County Soil Survey, soils at the project site consist entirely of Urban Land Soils (see Attachment E). The Urban Land designation identifies areas where at least 80% of the surface is covered by buildings, parking areas or other impervious structures, and specific soil and bedrock characteristics are generally not well known. The presence of on-site structures suggests that soils located on the property may have been altered by cutting, regrading, and/or filling activities.

Previous site investigations conducted at eastern-central portion of 331 Main Street documented soils consisting of a mixture of sand, silt, and silty clay. Bedrock was not encountered during the advancement of soil borings to a maximum depth of 20 feet below surface grade (bsg). Depth to bedrock is not reported for Urban Land soils and bedrock outcrops were not observed on the property. Shallow groundwater flow in the vicinity of the property is likely to generally follow surficial topography and be toward the Fall Kill Creek. Groundwater was encountered at approximately 15 feet bsg during previous investigations at 331 Main Street.

5.2. Habitats

According to the NYSDEC Environmental Resource Mapper and the Poughkeepsie National Resource Inventory (see Figure 7 and Attachment D), there is no known occurrence of endangered, threatened, or rare species on or in the immediate vicinity of the project site.

5.3. Water Resources

According to the Poughkeepsie NRI (Attachment D), there is a NYSDEC Class C stream, Fall Kill Creek (Regulation 862-393) located approximately 650 feet northeast of the Project Site. Class C streams are not regulated by the NYSDEC. No waterbodies or wet areas were observed within the boundaries of the Project Site or in the immediate vicinity during previous site inspections. Federal and state mapping data do not identify any other classified surface waterbodies, wet areas, or regulated wetlands on or in the immediate vicinity of the property (Figures 8-9).

5.4. Floodplain

According to the Poughkeepsie NRI Water Resources Map (Attachment D), the Project Site and the area immediately surrounding it are not within a flood hazard area. FEMA's National Flood Layer Flood Insurance Rate Map (FIRM Panel 36027C0358E) the Site is located within Zone X, which has a 0.2% annual chance of flooding (Figure 10). There will be a substantial buffer and distance between the proposed development and the Fall Kill and the implementation of the SWPPP will ensure that no significant adverse impacts to the floodplain will occur.

6.0 UTILITIES

6.1. Water and Wastewater

Municipal water and sewer service currently serve the project site. According to the New York State Department of Environmental Conservation (NYSDEC) *Design Standards for Intermediate Sized Wastewater Treatment Systems*, March 2014, with a 20% reduction for the use of modern water saving fixtures, the proposed project is expected to require water usage of 21,857± gallons per day. The existing demand is 28,226 ± gallons per day resulting in a net reduction of approximately 6,369± gallons per day. It is anticipated that the City's municipal water system has capacity to serve the proposed use. The Site Utilities Plan, shows the locations of all fire and domestic water mains, as well as the locations of all sanitary sewage mains.

6.2. Stormwater

The proposed project will require greater than one acre of disturbance and will require coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity. A SWPPP has been prepared in conformance with the most current New York State Stormwater Management Design Manual and New York State Standards and Specifications for Erosion and Sediment Control (see Attachment F). Stormwater will be directed to on-site stormwater management structures. Therefore, the proposed project is not expected to result in any adverse impacts in regard to stormwater.

7.0 TRAFFIC AND PARKING

The Site is currently accessed via two existing driveway connections to Mill Street (U.S. Route 44/NYS Route 55). Under current conditions, these two driveways are not currently connected internally; however, as part of the proposed development these driveways are proposed to be connected by an internal parking area providing for internal circulation between the driveways. Mill Street is a three-lane roadway that accommodates only westbound traffic in the vicinity of the Site. The roadway is under the jurisdiction of the New York State Department of Transportation (NYSDOT). Any modifications to the proposed driveways including, repaving, signing, striping, and concrete sidewalk modifications along the Mill Street Site frontage will require a Highway Work Permit to be obtained from the NYSDOT. This also includes any work within the NYSDOT Right-of-Way associated with the closure of the existing driveways to 302, 304, and 306 Mill Street.

Based on the Parking and Traffic analysis (see Attachment G), the required parking for the proposed Wallace Campus development (50 spaces during Hudson River Housing office hours and 44 spaces at all other times) will not exceed the proposed parking supply (63 spaces). In addition, the required parking needs associated with the proposed seasonal public performances and community gatherings (to be held at the tiered seating area within the Wallace Green) can be accommodated during both the Weekday evening and Weekend periods, when there is anticipated to be an excess of 500 available public parking spaces in the vicinity of the Site. Furthermore, the proposed development is not anticipated to have any significant traffic related impacts on the surrounding area intersections.

8.0 HISTORIC AND ARCHAEOLOGICAL RESOURCES

According to the Poughkeepsie NRI (Attachment D), several adjoining properties are listed as historic sites or are located within the Upper Mill Street Historic District.

Landmark Consulting LLC, the preservation consulting firm hired by the Wallace Campus development team, authored the Commercial Rehabilitation Tax Credit Part 1 application for certification to pursue the rehab incentive program. The Part 1 application and draft National Register Nomination for the Wallace Building (331 Main and 14-20 Catharine) received preliminary approval (see Attachment H) on May 7, 2021, indicating that the building will likely be listed in the National Register of Historic Places if nominated by the State Historic Preservation Officer according to procedures set forth in 36 CFR Part 60. Official designation to the State and National Registers is likely to happen in 2021-22.

An additional online submission was entered into the SHPO CRIS requesting a general evaluation of the Project Sites historical and archaeological resources. A letter dated May 18, 2021 (see Attachment I) indicated that the project is not anticipated to result in any adverse impacts assuming the following conditions are met:

- The Part-2 Federal Commercial Tax Credit application for the Wallace Department Store at 331 Main Street must be reviewed and approved by the National Parks Service.

- A demolition and construction protection plan for the neighboring historic buildings must be developed and implemented. This plan should include physical protection options – if necessary, as well as include monitoring of the historic resources during the proposed work.

If these conditions cannot be met, or if there are substantive changes to the project, consultation with the NYS Office of Parks, Recreation, and Historic Preservation will resume.

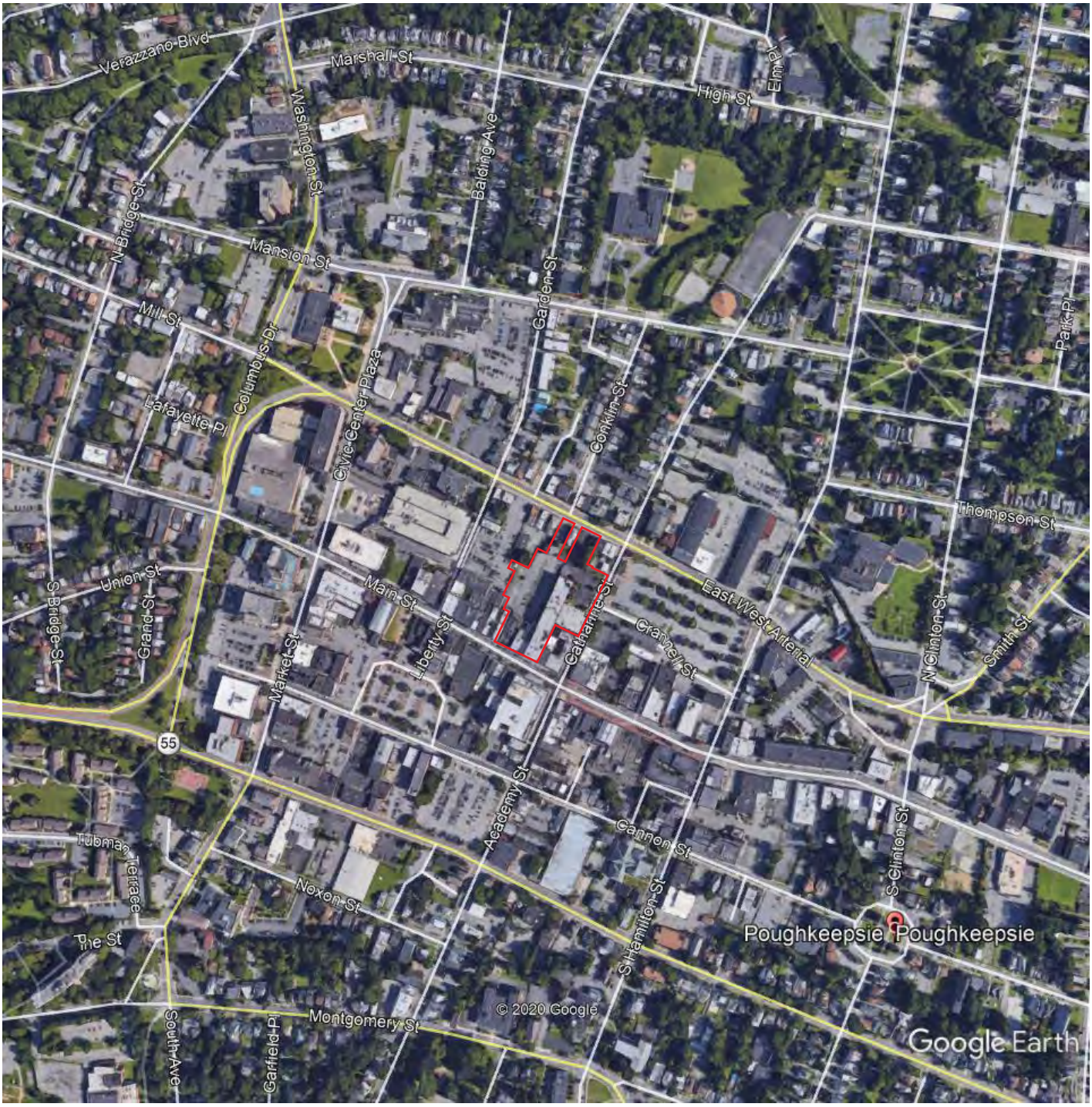
The Applicant has also worked with an architectural salvage company to assure that architectural resources of interest within the buildings at 317, 325, and 327-329 are preserved prior to the demolition of those structures. Those buildings have already been inspected for such purpose and resources identified. All proceeds from the sale of items will be donated by the Applicant to Mid-Hudson Heritage Center.

The Wallace Campus project is near the upper Mill Street historic district. The Wallace project improves the streetscape along Mill Street, enhances landscaping at the driveway entrances, and presents fully finished rear (north) elevations of the buildings to enhance pedestrian and driver views along the Mill Street corridor and into the site. Views into the site from the north will also include views of the Wallace Green, a central green space in the project, and the enhanced plantings within and around the parking areas. The Wallace plan also eliminates unneeded driveway curb cuts along Mill Street and substitutes vegetated space. A Historic Resource Inventory for adjoining properties and a map of City of Poughkeepsie historic districts are included as Attachments J and K, respectively.

9.0 RECREATIONAL RESOURCES

Mural Square, a nearby open space, is located on the northern side of Main Street, approximately 400 feet west of the Site. According the Poughkeepsie NRI (Attachment D), no other recreational resources are located on or in the immediate vicinity of the Site.

FIGURES



Site Location Map

319, 325, 327-329 and 331 Main Street
City of Poughkeepsie
Dutchess County, New York

Legend:

subject property

N

File No: 20-0213.02

November 2021

Figure 1

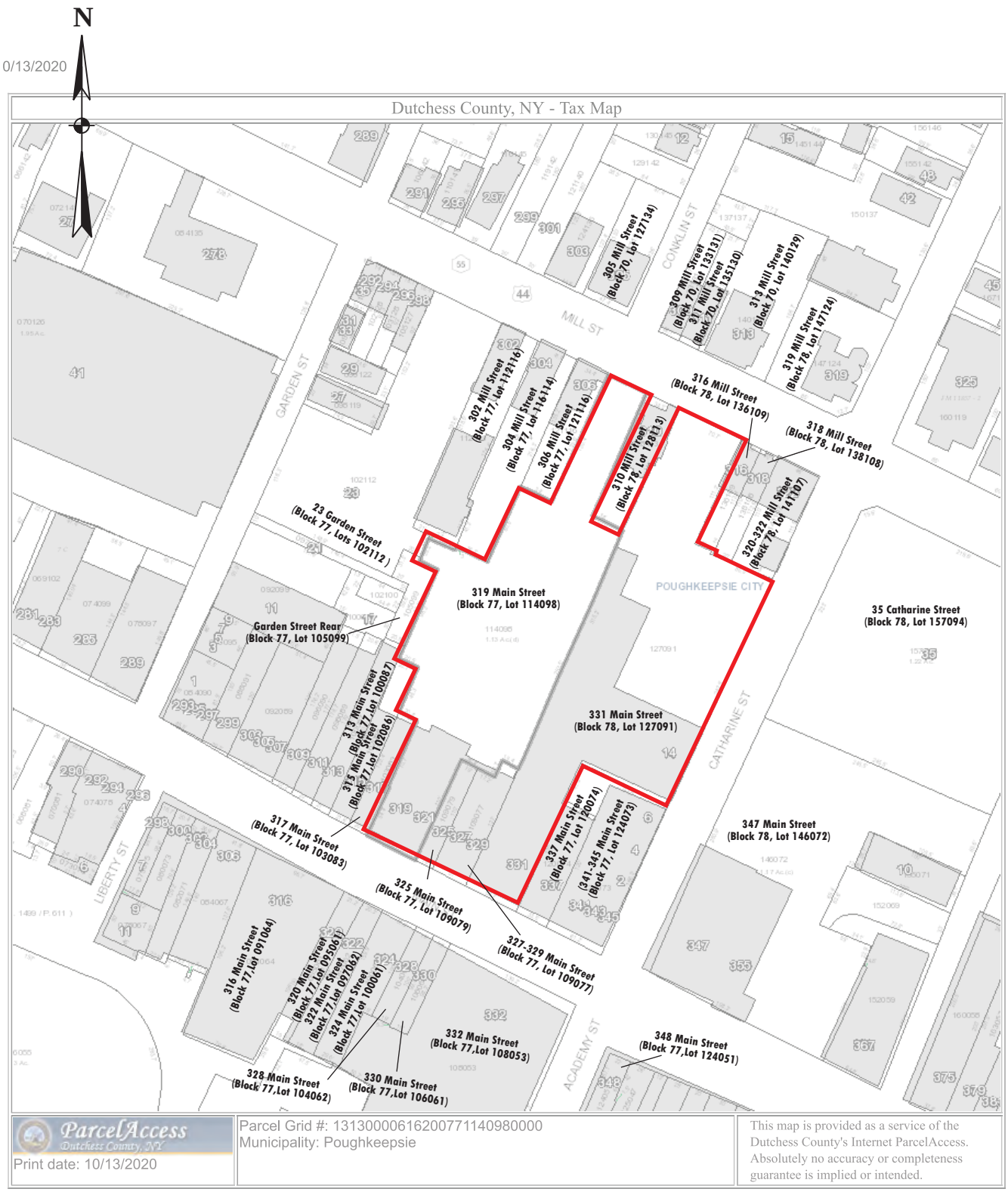


Figure 2 - Tax Map

319, 325, 327-329 and 331 Main Street
City of Poughkeepsie
Dutchess County, New York

Legend:

subject property border

0 50 100
SCALE IN FEET

File: 20-0213

November 2021

Figure 2

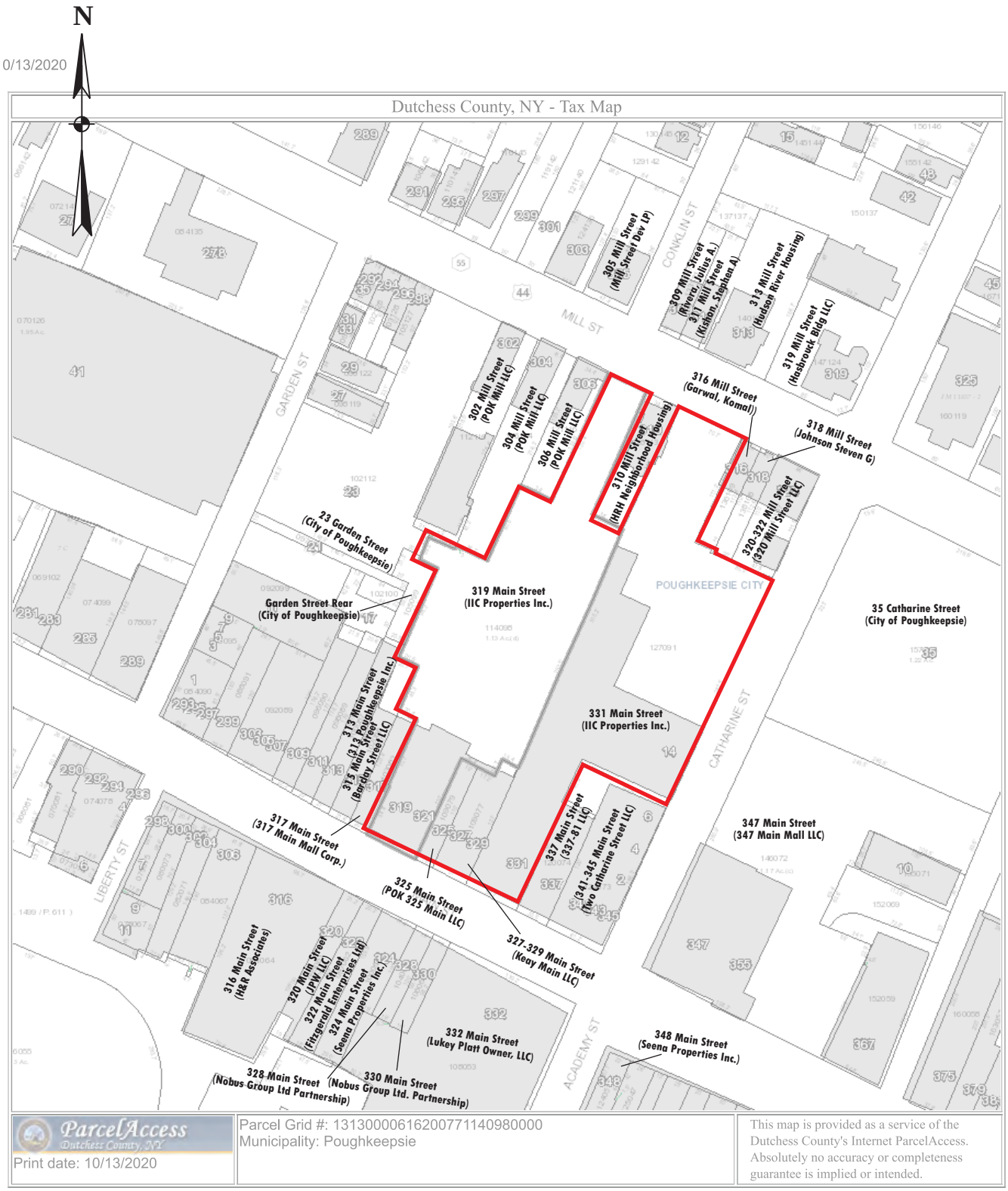


Figure 3 - Site Property Map

319, 325, 327-329 and 331 Main Street
City of Poughkeepsie
Dutchess County, New York

Legend:

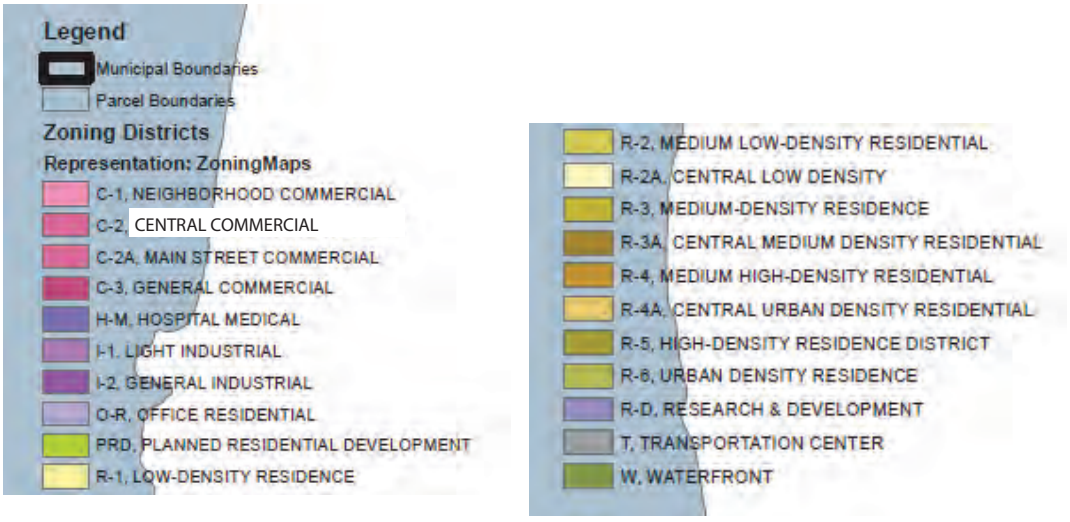
subject property border

0 50 100
SCALE IN FEET

File: 20-0213

Novemer 2021

Figure 3



Source Map provided by Dutchess County Department of Planning and Development 12/26/12

Figure 4 - Land Use

319, 325, 327-329 and 331 Main Street
City of Poughkeepsie
Dutchess County, New York

Legend:

subject property border

0 250 500
SCALE IN FEET

File: 20-0213

November 2021

Figure 4

ZONING MAP OF THE CITY OF POUGHKEEPSIE, NEW YORK

ADOPTED FEBRUARY 20, 1979

SITE LOCATION

R-1	LOW DENSITY RESIDENCE DISTRICT
R-2	MEDIUM-LOW DENSITY RESIDENCE DISTRICT
R-3	MEDIUM DENSITY RESIDENCE DISTRICT
R-4	MEDIUM HIGH DENSITY RESIDENCE DISTRICT
R-5	HIGH DENSITY RESIDENCE DISTRICT
R-6	URBAN DENSITY RESIDENCE DISTRICT
PRD	PLANNED RESIDENTIAL DEVELOPMENT DISTRICT (NOT MAPPED)
O-R	OFFICE-RESIDENTIAL DISTRICT
C-1	NEIGHBORHOOD COMMERCIAL DISTRICT
C-2	CENTRAL COMMERCIAL DISTRICT
C-3	GENERAL COMMERCIAL DISTRICT
I-1	LIGHT INDUSTRIAL DISTRICT
I-2	GENERAL INDUSTRIAL DISTRICT
R-D	RESEARCH AND DEVELOPMENT DISTRICT
W	WATERFRONT DISTRICT
H-M	HOSPITAL-MEDICAL DISTRICT
R-4A	CENTRAL URBAN DENSITY RESIDENCE DISTRICT
T	TRANSPORTATION DISTRICT
	EDUCATION AND/OR RECREATION SITES
	HISTORIC DISTRICTS
R-2A	CENTRAL LOW DENSITY RESIDENCE DISTRICT
R-3A	CENTRAL MEDIUM DENSITY RESIDENCE DISTRICT
C-2A	MAIN STREET COMMERCIAL DISTRICT

DATE	REVISION	AUTHORITY
1/30/82	170 Washington St. C-1 to R&D	Ord. 7/17/79
	PURA 13A - C2 TO C3	Ord. 8/21/79
	PURA 14 - W to R&D	Ord. 9/4/79
	Market St. - OR to C-E-G	Ord. 5/6/80
	Gerald/Bialdi - to R&D	Ord. 6/3/80
	Clinton House	Ord. 6/17/80
	Maple St. - R-5 to R&D	Ord. 9/16/80
	192 Washington St. H-M to C-1	Ord. 9/16/81
	45-47 Catharine St. R-4 to C-3	Ord. 6/16/81
	New Zone: R-4A	Ord. 6/16/81
	Davies Pl. - H4 to C1	Ord. 7/21/81
	Elm. C-E-G Zone	Ord. 9/15/81
	PURA 5A & 5B to R-6	Ord. 11/17/81
		Ord. 3/16/82
3/8/84	301-321 South Ave. R&D to C-3	Ord. 8/17/82
	Hooker Ave. between Trinity Square & Forbus St. R-4 to R-3	Ord. 8/17/82
	Livingston & S. Hamilton R-4 to R-3	Ord. 8/17/82
	Holmes & Academy St. R-4 to R-3	Ord. 11/16/82
	Brookside Ave. R-4 to R-2A	Ord. 11/16/82
	Taylor Ave. & Garden St. R-4 to R-3A	Ord. 12/21/82
	Trinity Sq. to Parker Ave. R-4 to R-2A & R-3A	Ord. 1/17/83
	N. Hamilton to N. Clinton R-4 to R-3A.	Ord. 1/17/83
	Bartlett to DuBois R-4 to R-2A	Ord. 1/17/83
	E. Side of Cedar Ave. R-4 To R&D	Ord. 3/21/84
	Springside R-1 to PRD	
	Academy, Church, Hamilton, Montgomery Streets C-2 and R-3 to O-R	Ord. 3/19/84
10/1/86	42-44 N. Clover R-4 to C-1	Ord. 9/23/85
	1-27 Columbia St. H-M to R-D	Ord. 2/3/86
	39-49 N. Clover & ~~141-145 Mill~~ R-4 to ~~C-1~~	Ord. 3/3/86
	51 Montgomery R-3 to C-2	Ord. 7/7/86
10/18/96	154-162 Wilbur Blvd. R-1 to PRD	Ord. 5/4/87
		Ord. 11/16/87
10/24/89	2 Wilson Blvd. R-2 to C-1	Ord. 1/2/89
	42-46 Catharine St. R-4 to C-2	Ord. 1/2/89
	PURA Parcels 4A & 4B (Main St.) C-1 to C-2	Ord. 3/21/89
	Main St. C-3 to C-2A	Ord. 7/5/89
	Washington St. - Falkill Place R-4 to C-1	Ord. 9/18/89
	Hooker Ave R-4 to R-2	
3/30/92	117 and 125 Market Street R-3 to C-2	Ord. 3/16/92
10/18/96	129 South Ave. R-3 to C-1	Ord. 6/11/93
	50-54 No. Hamilton St. & 168-170 Mansion St. R-4 to O-R	Ord. 3/15/93
	479-519 Main St. (odd #'s only) & 34-58 Winnikee Ave. (even #'s only), 15-20 No. Cherry St. I-1 to C-3	Ord. 10/16/95
	Tax Parcel 31-6041-51-817025 Fox St. & Prospect St. I-2 to R&D	Ord. 11/20/95
	Tax Parcel 31-6063-52-887595 & Tax Parcel 31-6062-50-936494 from R-4 to C-1	Ord. 6/6/96
	2,3, 5-9, 11-15, 17-27 North Water St. & 17-25, 27, 29 & 31-35 Main St. from T to W	Ord. 7/8/96

City of Poughkeepsie

LAND USE & ZONING STUDY

Community Development Program

Raymond, Parish, Pine & Weiner, Inc. Planning and Community Development Consultants

0 400 800 ft.

Source Map provided by Dutchess County Department of Planning and Development

Figure 6 - Zoning Map (1,000' Radius)

319, 325, 327-329 and 331 Main Street
City of Poughkeepsie
Dutchess County, New York

Legend:

subject property border

0 250 500
SCALE IN FEET
(APPROXIMATELY)

File: 20-0213

November 2021

Attachment B

Figure 7 - Endangered Species

Critical Habitat for Threatened & Endangered Species [USFWS]

A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

Esri Canada, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA | U.S. Fish and Wildlife Service | The data found in this file were developed by the U.S. Fish & Wildlife Service field offices. For more information please refer to the species level metadata found with the individual shapefiles. The ECOS Joint Development Team is responsible for creating and serving this conglomerate file. No data alterations are made by ECOS.

Figure 8 - NYS Wetland

June 23, 2020

1:2,257

0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

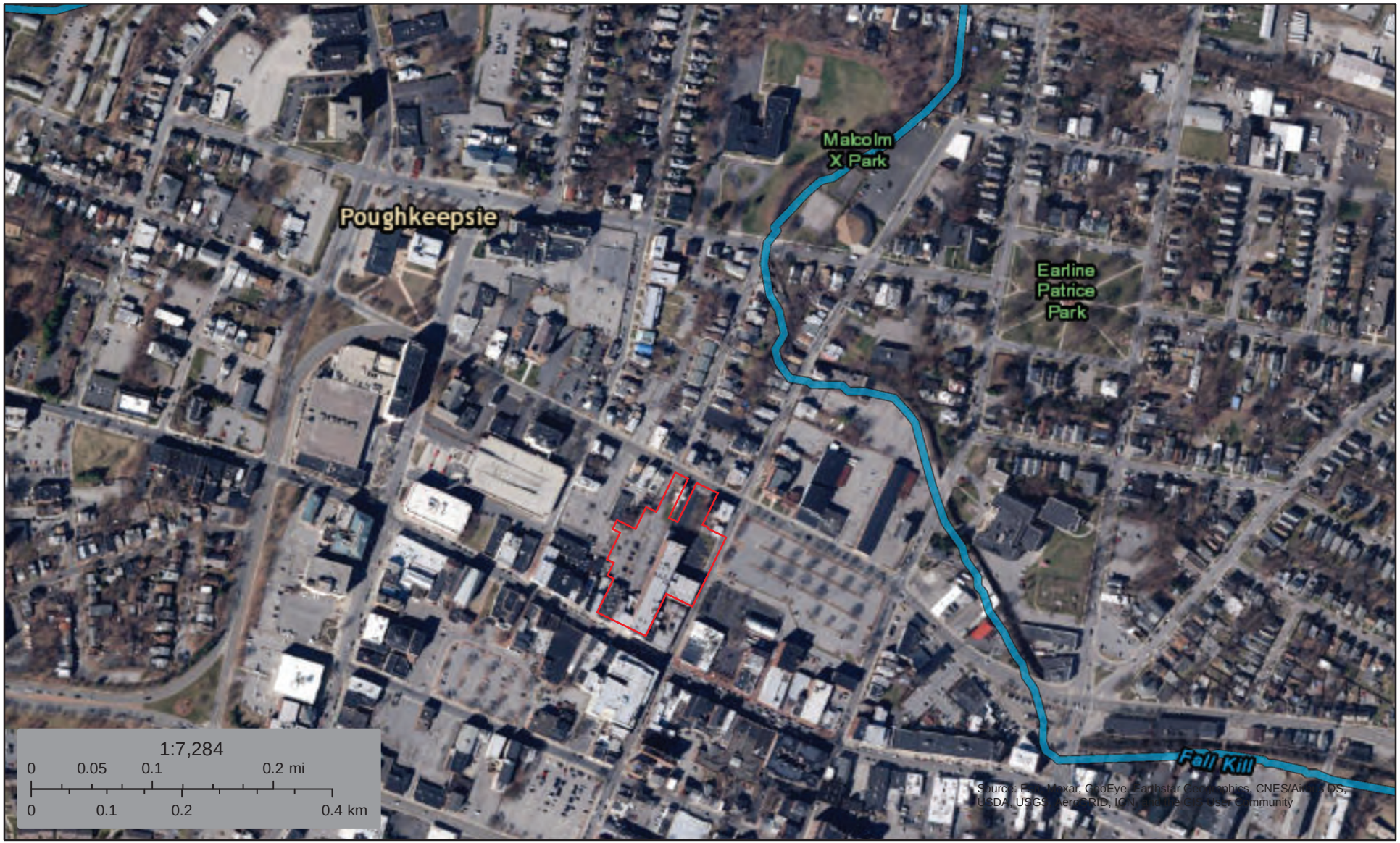
Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

NYS Department of Environmental Conservation
Not a legal document

U.S. Fish and Wildlife Service

National Wetlands Inventory

Figure 9 - Federal Wetland



June 23, 2020

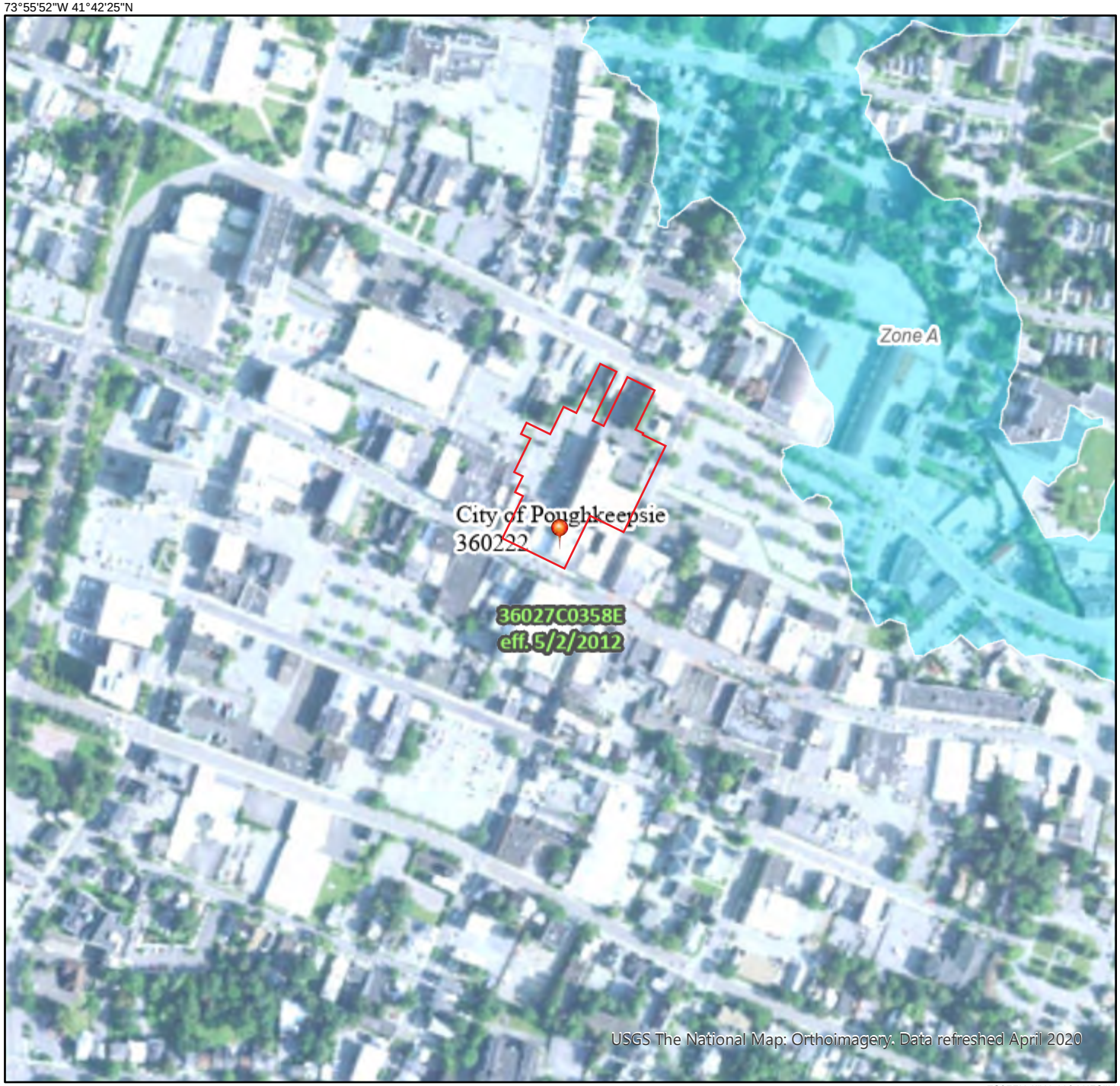
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Figure 10 - National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

Ü

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/13/2020 at 3:38 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

ATTACHMENT A

Executed BCA

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Office of the Director
625 Broadway, 12th Floor, Albany, New York 12233-7011
P: (518) 402-9706 | F: (518) 402-9020
www.dec.ny.gov

April 19, 2021

Wallace Campus Manager LLC
John Logsdon
c/o Mega Development LLC
48-02 25th Ave, Ste 400
Astoria, NY 11103

RE: Site Name: Wallace Campus Site
Site No.: C314134
Location of Site: 319, 325, 327-329 & 331 Main Street
Dutchess County, Poughkeepsie, NY 12601

Dear John Logsdon:

To complete your file, attached is a fully executed copy of the Brownfield Cleanup Agreement for the 351 Franklin Street Wallace Campus Site.

If you have any further questions relating to this matter, please contact the project attorney for this site, Leia Schmidt, Esq., NYS Department of Environmental Conservation, Office of General Counsel, 625 Broadway Albany, NY 12233-1500 or by email at leia.schmidt@dec.ny.gov.

Sincerely,

Michael J. Ryan, P.E.
Director
Division of Environmental Remediation

Enclosure

ec: Michael Kilmer, Project Manager

cc: Leia Schmidt, Esq.
Jennifer Andaloro, Esq./Dale Thiel

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
BROWNFIELD CLEANUP PROGRAM
ECL §27-1401 *et seq.*

In the Matter of a Remedial Program for

BROWNFIELD SITE CLEANUP AGREEMENT
Index No. C314134-04-21

Wallace Campus
DEC Site No:C314134
Located at: 319, 325, 327-329 & 331 Main Street
Dutchess County
Poughkeepsie, NY 12601
Hereinafter referred to as "Site"

by:
Wallace Campus Manager LLC
c/o Mega Development LLC 48-02 25th Ave, Ste 400, Astoria, NY 11103
Hereinafter referred to as "Applicant"

WHEREAS, the Department of Environmental Conservation ("Department") is authorized to administer the Brownfield Cleanup Program ("BCP") set forth in Article 27, Title 14 of the Environmental Conservation Law ("ECL"); and

WHEREAS, the Applicant submitted an application received by the Department on November 18, 2020; and

WHEREAS, the Department has determined that the Site and Applicant are eligible to participate in the BCP.

NOW, THEREFORE, IN CONSIDERATION OF AND IN EXCHANGE FOR THE MUTUAL COVENANTS AND PROMISES, THE PARTIES AGREE TO THE FOLLOWING:

I. Applicant Status

The Applicant, Wallace Campus Manager LLC, is participating in the BCP as a Volunteer as defined in ECL 27-1405(1)(b).

II. Tangible Property Tax Credit Status

The Site is not located in a City having a population of one million or more. It is therefore presumed that the Site is eligible for tangible property tax credits.

III. Real Property

The Site subject to this Brownfield Cleanup Agreement (the "BCA" or "Agreement") consists of approximately 2.480 acres, a Map of which is attached as Exhibit "A", and is described as follows:

Tax Map/Parcel No.: 6162-77-114098
Street Number: 319 Main Street, Poughkeepsie
Owner: IIC Properties Inc.

Tax Map/Parcel No.: 6162-77-109079
Street Number: 325 Main Street, Poughkeepsie
Owner: Wallace Campus Manager LLC

Tax Map/Parcel No.: 6162-77-109077
Street Number: 327-329 Main Street, Poughkeepsie
Owner: Key Main LLC

Tax Map/Parcel No.: 6162-78-127091
Street Number: 331 Main Street, Poughkeepsie
Owner: IIC Properties Inc.

IV. Communications

A. All written communications required by this Agreement shall be transmitted by United States Postal Service, by private courier service, by hand delivery, or by electronic mail.

1. Communication from Applicant shall be sent to:

Michael Kilmer
New York State Department of Environmental Conservation
Division of Environmental Remediation
21 South Putt Corners Rd
New Paltz, NY 12561-1620
michael.kilmer@dec.ny.gov

Note: one hard copy (unbound) of work plans and reports is required, as well as one electronic copy.

Christine Vooris (electronic copy only)
New York State Department of Health
Bureau of Environmental Exposure Investigation
Empire State Plaza
Corning Tower Room 1787
Albany, NY 12237
christine.vooris@health.ny.gov

Leia Schmidt, Esq. (correspondence only)
New York State Department of Environmental Conservation
Office of General Counsel
625 Broadway
Albany, NY 12233-1500
leia.schmidt@dec.ny.gov

2. Communication from the Department to Applicant shall be sent to:

Wallace Campus Manager LLC
Attn: John Logsdon
c/o Mega Development LLC
48-02 25th Ave, Ste 40
Astoria, NY 11103
jlogsdon@urbangreenbuilders.com

B. The Department and Applicant reserve the right to designate additional or different addressees for communication on written notice to the other. Additionally, the Department reserves the right to request that the Applicant provide more than one paper copy of any work plan or report.

C. Each party shall notify the other within ninety (90) days after any change in the addresses listed in this paragraph or in Paragraph III.

V. Miscellaneous

A. Applicant acknowledges that it has read, understands, and agrees to abide by all the terms set forth in Appendix A - "Standard Clauses for All New York State Brownfield Site Cleanup Agreements" which is attached to and hereby made a part of this Agreement as if set forth fully herein.

B. In the event of a conflict between the terms of this BCA (including any and all attachments thereto and amendments thereof) and the terms of Appendix A, the terms of this BCA shall control.

C. The effective date of this Agreement is the date it is signed by the Commissioner or the Commissioner's designee.

DATED: April 19, 2021

THIS BROWNFIELD CLEANUP AGREEMENT IS HEREBY APPROVED, Acting by and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Michael J. Ryan, P.E., Director
Division of Environmental Remediation

CONSENT BY APPLICANT

Applicant hereby consents to the issuing and entering of this Agreement, and agrees to be bound by this Agreement.

Wallace Campus Manager LLC

By: _____

Title: V.P.

Date: 4/16/2021

STATE OF NEW YORK)
) ss:
COUNTY OF DUTCHESS)

On the 16th day of April in the year 2021, before me, the undersigned, personally appeared Hercules Argyrion, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Ellen Noelle Presotto

Signature and Office of individual taking acknowledgment

ELLEN NOELLE PRESOTTO
NOTARY PUBLIC, STATE OF NEW YORK
No. 01PR6267343
Qualified in Nassau County
My Commission Expires August 20, 2024

EXHIBIT A
SITE MAP

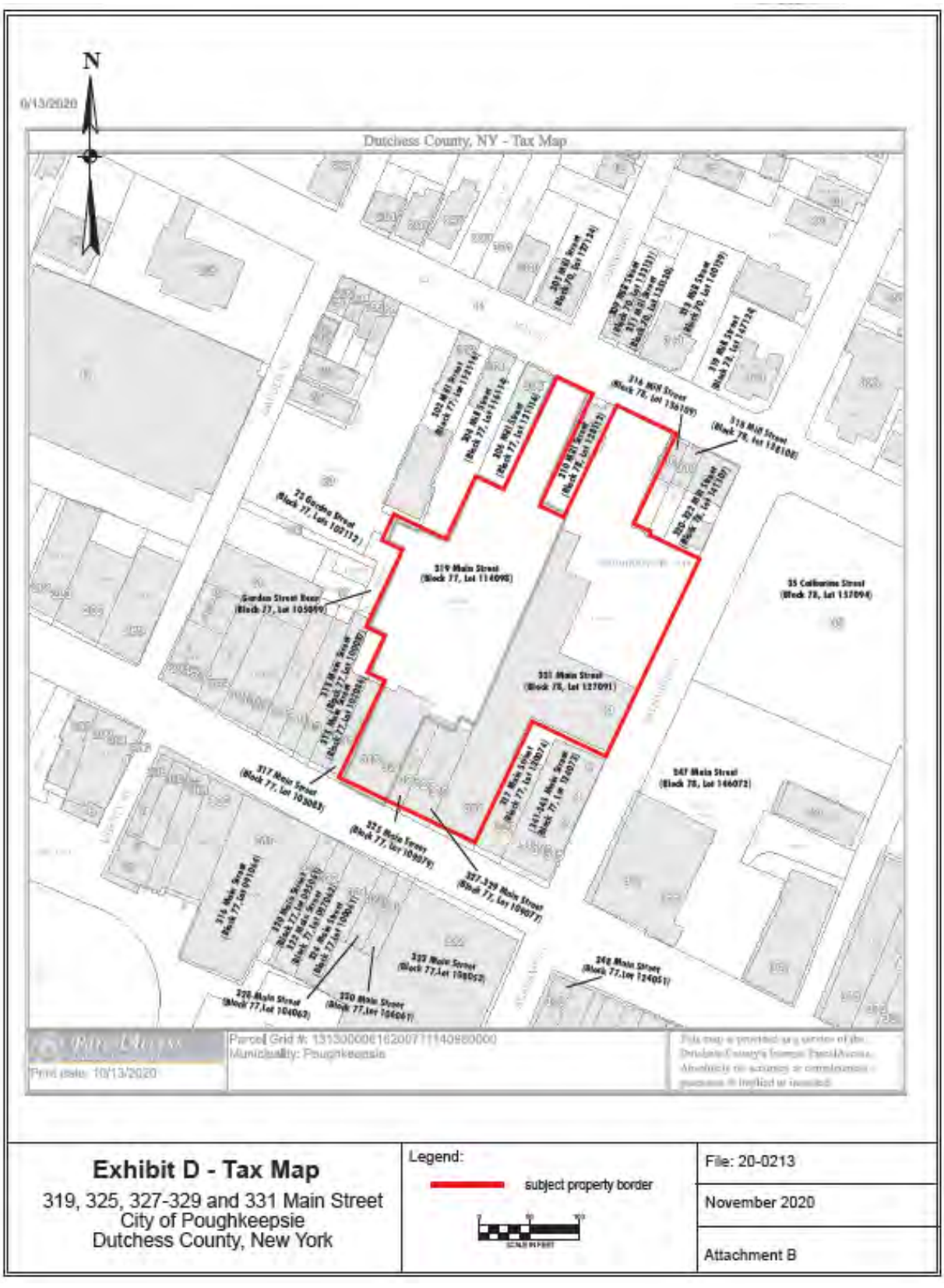


Exhibit D - Tax Map 319, 325, 327-329 and 331 Main Street City of Poughkeepsie Dutchess County, New York	Legend: subject property border	File: 20-0213 November 2020 Attachment B

APPENDIX A

STANDARD CLAUSES FOR ALL NEW YORK STATE BROWNFIELD SITE CLEANUP AGREEMENTS

The parties to the Brownfield Site Cleanup Agreement (hereinafter "BCA" or "Agreement") agree to be bound by the following clauses which are hereby made a part of the BCA. The word "Applicant" herein refers to any party to the Agreement, other than the New York State Department of Environmental Conservation (herein after "Department").

I. Citizen Participation Plan

Within twenty (20) days after the effective date of this Agreement, Applicant shall submit for review and approval a written citizen participation plan prepared in accordance with the requirements of Environmental Conservation Law (ECL) § 27-1417 and 6 NYCRR §§ 375-1.10 and 375-3.10. Upon approval, the Citizen Participation Plan shall be deemed to be incorporated into and made a part of this Agreement.

II. Development, Performance, and Reporting of Work Plans

A. Work Plan Requirements

The work plans ("Work Plan" or "Work Plans") under this Agreement shall be prepared and implemented in accordance with the requirements of ECL Article 27, Title 14, 6 NYCRR §§ 375-1.6(a) and 375-3.6, and all applicable laws, rules, regulations, and guidance documents. The Work Plans shall be captioned as follows:

1. "Remedial Investigation Work Plan" if the Work Plan provides for the investigation of the nature and extent of contamination within the boundaries of the Site and, if the Applicant is a "Participant", the extent of contamination emanating from such Site. If the Applicant is a "Volunteer" it shall perform a qualitative exposure assessment of the contamination emanating from the Site in accordance with ECL § 27-1415(2)(b) and Department guidance;

2. "Remedial Work Plan" if the Work Plan provides for the development and implementation of a Remedial Program for contamination within the boundaries of the Site and, if the Applicant is a "Participant", the contamination that has emanated from such Site;

3. "IRM Work Plan" if the Work Plan provides for an interim remedial measure; or

4. "Site Management Plan" if the Work Plan provides for the identification and implementation of institutional and/or engineering controls as well as any necessary monitoring and/or operation and maintenance of the remedy.

5. "Supplemental" if additional work plans other than those set forth in II.A.1-4 are required to be prepared and implemented.

B. Submission/Implementation of Work Plans

1. The first proposed Work Plan to be submitted under this Agreement shall be submitted no later than thirty (30) days after the effective date of this Agreement. Thereafter, the Applicant shall submit such other and additional work plans as determined in a schedule to be approved by the Department.

2. Any proposed Work Plan shall be submitted for the Department's review and approval and shall include, at a minimum, a chronological description of the anticipated activities to be conducted in accordance with current guidance, a schedule for performance of those activities, and sufficient detail to allow the Department to evaluate that Work Plan. The Department shall use best efforts in accordance with 6 NYCRR § 375-3.6(b) to approve, modify, or reject a proposed Work Plan within forty-five (45) days from its receipt or within fifteen (15) days from the close of the comment period, if applicable, whichever is later.

i. Upon the Department's written approval of a Work Plan, such Department-approved Work Plan shall be deemed to be incorporated into and made a part of this Agreement and shall be implemented in accordance with the schedule contained therein. All work undertaken as part of a remedial program for a Site must be detailed in a department-approved Work Plan or a submittal approved in form and content by the Department.

ii. If the Department requires modification of a Work Plan, the reason for such modification shall be provided in writing and the

provisions of 6 NYCRR § 375-1.6(d)(3) shall apply.

iii. If the Department disapproves a Work Plan, the reason for such disapproval shall be provided in writing and the provisions of 6 NYCRR § 375-1.6(d)(4) shall apply.

3. A Site Management Plan, if necessary, shall be submitted in accordance with the schedule set forth in the IRM Work Plan or Remedial Work Plan.

C. Submission of Final Reports

1. In accordance with the schedule contained in an approved Work Plan, Applicant shall submit a Final Report for an Investigation Work Plan prepared in accordance with ECL § 27-1411(1) and 6 NYCRR § 375-1.6. If such Final Report concludes that no remediation is necessary, and the Site does not meet the requirements for Track 1, Applicant shall submit an Alternatives Analysis prepared in accordance with ECL § 27-1413 and 6 NYCRR § 375-3.8(f) that supports such determination.

2. In accordance with the schedule contained in an approved Work Plan, Applicant shall submit a Final Engineering Report certifying that remediation of the Site has been performed in accordance with the requirements of ECL §§ 27-1419(1) and (2) and 6 NYCRR § 375-1.6. The Department shall review such Report, the submittals made pursuant to this Agreement, and any other relevant information regarding the Site and make a determination as to whether the goals of the remedial program have been or will be achieved in accordance with established timeframes; if so, a written Certificate of Completion will be issued in accordance with ECL § 27-1419, 6 NYCRR §§ 375-1.9 and 375-3.9.

3. Within sixty (60) days of the Department's approval of a Final Report, Applicant shall submit such additional Work Plans as it proposes to implement. In addition, Applicant shall include with every report submitted to the Department a schedule for the submission of any subsequent work plan required to meet the requirements of ECL Article 27 Title 14. Failure to submit any additional Work Plans within such period shall, unless other Work Plans are under review by the Department or being implemented by Applicant, result in the termination of this Agreement pursuant to Paragraph XII.

D. Review of Submittals other than Work Plans

1. The Department shall timely notify Applicant in writing of its approval or disapproval of each submittal other than a Work Plan in accordance with 6 NYCRR § 375-1.6. All Department-approved submittals shall be incorporated into and become an enforceable part of this Agreement.

2. If the Department disapproves a submittal covered by this Subparagraph, it shall specify the reason for its disapproval and may request Applicant to modify or expand the submittal. Within fifteen (15) days after receiving written notice that Applicant's submittal has been disapproved, Applicant shall elect in writing to either (i) modify or expand it within thirty (30) days of receipt of the written notice of disapproval; (ii) complete any other Department-approved Work Plan(s); (iii) invoke dispute resolution pursuant to Paragraph XIII; or (iv) terminate this Agreement pursuant to Paragraph XII. If Applicant submits a revised submittal and it is disapproved, the Department and Applicant may pursue whatever remedies may be available under this Agreement or under law. All work undertaken as part of a remedial program, including work undertaken pursuant to submittals other than Work Plans, must be approved by the department prior to implementation by the Applicant.

E. Department's Determination of Need for Remediation

The Department shall determine upon its approval of each Final Report dealing with the investigation of the Site whether remediation, or additional remediation as the case may be, is needed for protection of public health and the environment.

1. If the Department makes a preliminary determination that remediation, or additional remediation, is not needed for protection of public health and the environment, the Department shall notify the public of such determination and seek public comment in accordance with ECL § 27-1417(3)(f). The Department shall provide timely notification to the Applicant of its final determination following the close of the public comment period.

2. If the Department determines that additional remediation is not needed and such determination is based upon use restrictions, Applicant shall cause to be recorded an Environmental Easement in accordance with 6 NYCRR § 375-1.8(h).

3. If the Department determines that remediation, or additional remediation, is needed, Applicant may elect to submit for review and approval a proposed Remedial Work Plan (or modify an existing Work Plan for the Site) for a remedy selected upon due consideration of the factors set forth in ECL § 27-1415(3) and 6 NYCRR § 375-1.8(f). A proposed Remedial Work Plan addressing the Site's remediation will be noticed for public comment in accordance with ECL § 27-1417(3)(f) and the Citizen Participation Plan developed pursuant to this Agreement. If the Department determines following the close of the public comment period that modifications to the proposed Remedial Work Plan are needed, Applicant agrees to negotiate appropriate modifications to such Work Plan. If Applicant elects not to develop a Work Plan under this Subparagraph then this Agreement shall terminate in accordance with Paragraph XII. If the Applicant elects to develop a Work Plan, then it will be reviewed in accordance with Paragraph II.D above.

F. Institutional/Engineering Control Certification

In the event that the remedy for the Site, if any, or any Work Plan for the Site, requires institutional or engineering controls, Applicant shall submit a written certification in accordance with 6 NYCRR §§ 375-1.8(h)(3) and 375-3.8(h)(2).

III. Enforcement

Except as provided in Paragraph V, this Agreement shall be enforceable as a contractual agreement under the laws of the State of New York. Applicant shall not suffer any penalty except as provided in Paragraph V, or be subject to any proceeding or action if it cannot comply with any requirement of this Agreement as a result of a Force Majeure Event as described at 6 NYCRR § 375-1.5(b)(4) provided Applicant complies with the requirements set forth therein.

IV. Entry upon Site

A. Applicant hereby agrees to provide access to the Site and to all relevant information regarding activities at the Site in accordance with the provisions of ECL § 27-1431. Applicant agrees to provide the Department upon request with proof of access if it is not the owner of the Site.

B. The Department shall have the right to periodically inspect the Site to ensure that the use of the property complies with the terms and conditions of this Agreement. The Department will generally conduct such inspections during business hours, but retains the right to inspect at any time.

C. Failure to provide access as provided for under this Paragraph may result in termination of this Agreement pursuant to Paragraph XII.

V. Payment of State Costs (Applicable only to Applicants with Participant Status)

A. Within forty-five (45) days after receipt of an itemized invoice from the Department, Applicant shall pay to the Department a sum of money which shall represent reimbursement for State Costs as provided by 6 NYCRR § 375-1.5 (b)(3)(i).

B. Costs shall be documented as provided by 6 NYCRR § 375-1.5(b)(3)(ii). The Department shall not be required to provide any other documentation of costs, provided however, that the Department's records shall be available consistent with, and in accordance with, Article 6 of the Public Officers Law.

C. Each such payment shall be made payable to the "Commissioner of NYSDEC" and shall be sent to:

Division of Management and Budget
New York State Department of Environmental Conservation
625 Broadway, 10th Floor
Albany, New York 12233-4900

D. Each party shall provide written notification to the other within ninety (90) days of any change in the foregoing addresses.

E. If Applicant objects to any invoiced costs under this Agreement, the provisions of 6 NYCRR §§ 375-1.5 (b)(3)(v) and (vi) shall apply.

Objections shall be sent to the Department as provided under subparagraph V.C above.

F. In the event of non-payment of any invoice within the 45 days provided herein, the Department may seek enforcement of this provision pursuant to Paragraph III or the Department may commence an enforcement action for non-compliance with ECL § 27-1409(2) and ECL § 71-4003.

VI. Liability Limitation

Subsequent to the issuance of a Certificate of Completion pursuant to this Agreement, Applicant shall be entitled to the Liability Limitation set forth at ECL § 27-1421, subject to the terms and conditions stated therein and to the provisions of 6 NYCRR §§ 375-1.9 and 375-3.9.

VII. Reservation of Rights

A. Except as provided in Subparagraph VII.B, Applicant reserves all rights and defenses under applicable law to contest, defend against, dispute, or disprove any action, proceeding, allegation, assertion, determination, or order of the Department, including any assertion of remedial liability by the Department against Applicant, and further reserves all rights including the rights to notice, to be heard, to appeal, and to any other due process respecting any action or proceeding by the Department, including the enforcement of this Agreement. The existence of this Agreement or Applicant's compliance with it shall not be construed as an admission of any liability, fault, wrongdoing, or violation of law by Applicant, and shall not give rise to any presumption of law or finding of fact which shall inure to the benefit of any third party.

B. Notwithstanding the foregoing, Applicant hereby waives any right it may have to make a claim pursuant to Article 12 of the Navigation Law with respect to the Site and releases the State and the New York Environmental Protection and Spill Compensation Fund from any and all legal or equitable claims, suits, causes of action, or demands whatsoever with respect to the Site that Applicant may have as a result of Applicant's entering into or fulfilling the terms of this Agreement.

VIII. Indemnification

Applicant shall indemnify and hold the Department, the State of New York, and their representatives and employees harmless from any claim, suit, action, and cost of every name and description arising out of or resulting from the fulfillment or attempted fulfillment of this Agreement by Applicant prior to the Termination Date except for those claims, suits, actions, and costs arising from the State's gross negligence or willful or intentional misconduct by the Department, the State of New York, and/or their representatives and employees during the course of any activities conducted pursuant to this Agreement. In the event that the Applicant is a Participant, this provision shall also include the Trustee of the State's Natural Resources. The Department shall provide Applicant with written notice no less than thirty (30) days prior to commencing a lawsuit seeking indemnification pursuant to this Paragraph.

IX. Change of Use

Applicant shall notify the Department at least sixty (60) days in advance of any change of use, as defined in ECL § 27-1425, which is proposed for the Site, in accordance with the provisions of 6 NYCRR § 375-1.11(d). In the event the Department determines that the proposed change of use is prohibited, the Department shall notify Applicant of such determination within forty-five (45) days of receipt of such notice.

X. Environmental Easement

A. Within thirty (30) days after the Department's approval of a Remedial Work Plan which relies upon one or more institutional and/or engineering controls, or within sixty (60) days after the Department's determination pursuant to Subparagraph II.E.2 that additional remediation is not needed based upon use restrictions, Applicant shall submit to the Department for approval an Environmental Easement to run with the land in favor of the State which complies with the requirements of ECL Article 71, Title 36 and 6 NYCRR § 375-1.8(h)(2). Applicant shall cause such instrument to be recorded with the recording officer for the county in which the Site is located within thirty (30) days after the Department's approval of such instrument. Applicant shall provide the Department with a copy of such instrument certified by the recording officer to be a true and faithful copy within thirty (30) days of such recording (or such longer period of time as may be required to obtain a certified copy

provided Applicant advises the Department of the status of its efforts to obtain same within such thirty (30) day period), which shall be deemed to be incorporated into this Agreement.

B. Applicant or the owner of the Site may petition the Department to modify or extinguish the Environmental Easement filed pursuant to this Agreement at such time as it can certify that the Site is protective of public health and the environment without reliance upon the restrictions set forth in such instrument. Such certification shall be made by a Professional Engineer or Qualified Environmental Professional as defined at 6 NYCRR § 375-1.2(ak) approved by the Department. The Department will not unreasonably withhold its consent.

XI. Progress Reports

Applicant shall submit a written progress report of its actions under this Agreement to the parties identified in Subparagraph III.A.1 of the Agreement by the 10th day of each month commencing with the month subsequent to the approval of the first Work Plan and ending with the Termination Date, unless a different frequency is set forth in a Work Plan. Such reports shall, at a minimum, include: all actions relative to the Site during the previous reporting period and those anticipated for the next reporting period; all approved activity modifications (changes of work scope and/or schedule); all results of sampling and tests and all other data received or generated by or on behalf of Applicant in connection with this Site, whether under this Agreement or otherwise, in the previous reporting period, including quality assurance/quality control information; information regarding percentage of completion; unresolved delays encountered or anticipated that may affect the future schedule and efforts made to mitigate such delays; and information regarding activities undertaken in support of the Citizen Participation Plan during the previous reporting period and those anticipated for the next reporting period.

XII. Termination of Agreement

Applicant or the Department may terminate this Agreement consistent with the provisions of 6 NYCRR §§ 375-3.5(b), (c), and (d) by providing written notification to the parties listed in Paragraph IV of the Agreement.

XIII. Dispute Resolution

A. In the event disputes arise under this Agreement, Applicant may, within fifteen (15) days after Applicant knew or should have known of the facts which are the basis of the dispute, initiate dispute resolution in accordance with the provisions of 6 NYCRR § 375-1.5(b)(2).

B. All cost incurred by the Department associated with dispute resolution are State costs subject to reimbursement pursuant to Paragraph V of Appendix A of this Agreement, if applicable.

C. Notwithstanding any other rights otherwise authorized in law or equity, any disputes pursuant to this Agreement shall be limited to Departmental decisions on remedial activities. In no event shall such dispute authorize a challenge to the applicable statute or regulation.

XIV. Miscellaneous

A. If the information provided and any certifications made by Applicant are not materially accurate and complete, this Agreement, except with respect to Applicant's obligations pursuant to Paragraphs V, if applicable, and VII.B, and VIII, shall be null and void ab initio fifteen (15) days after the Department's notification of such inaccuracy or incompleteness or fifteen (15) days after issuance of a final decision resolving a dispute pursuant to Paragraph XIII, whichever is later, unless Applicant submits information within that fifteen (15) day time period indicating that the information provided and the certifications made were materially accurate and complete. In the event this Agreement is rendered null and void, any Certificate of Completion and/or Liability Limitation that may have been issued or may have arisen under this Agreement shall also be null and void ab initio, and the Department shall reserve all rights that it may have under law.

B. By entering into this Agreement, Applicant agrees to comply with and be bound by the provisions of 6 NYCRR §§ 375-1, 375-3 and 375-6; the provisions of such subparts that are referenced herein are referenced for clarity and convenience only and the failure of this Agreement to specifically reference any particular regulatory provision is not intended to imply that such provision is not applicable to activities performed under this Agreement.

C. The Department may exempt Applicant from the requirement to obtain any state or local

permit or other authorization for any activity conducted pursuant to this Agreement in accordance with 6 NYCRR §§ 375-1.12(b), (c), and (d).

D. 1. Applicant shall use "best efforts" to obtain all Site access, permits, easements, approvals, institutional controls, and/or authorizations necessary to perform Applicant's obligations under this Agreement, including all Department-approved Work Plans and the schedules contained therein. If, despite Applicant's best efforts, any access, permits, easements, approvals, institutional controls, or authorizations cannot be obtained, Applicant shall promptly notify the Department and include a summary of the steps taken. The Department may, as it deems appropriate and within its authority, assist Applicant in obtaining same.

2. If an interest in property is needed to implement an institutional control required by a Work Plan and such interest cannot be obtained, the Department may require Applicant to modify the Work Plan pursuant to 6 NYCRR § 375-1.6(d)(3) to reflect changes necessitated by Applicant's inability to obtain such interest.

E. The paragraph headings set forth in this Agreement are included for convenience of reference only and shall be disregarded in the construction and interpretation of any provisions of this Agreement.

F. 1. The terms of this Agreement shall constitute the complete and entire agreement between the Department and Applicant concerning the implementation of the activities required by this Agreement. No term, condition, understanding, or agreement purporting to modify or vary any term of this Agreement shall be binding unless made in writing and subscribed by the party to be bound. No informal advice, guidance, suggestion, or comment by the Department shall be construed as relieving Applicant of its obligation to obtain such formal approvals as may be required by this Agreement. In the event of a conflict between the terms of this Agreement and any Work Plan submitted pursuant to this Agreement, the terms of this Agreement shall control over the terms of the Work Plan(s). Applicant consents to and agrees not to contest the authority and jurisdiction of the Department to enter into or enforce this Agreement.

2. i. Except as set forth herein, if Applicant desires that any provision of this Agreement be changed, Applicant shall make timely written application to the Commissioner with copies to the parties in Subparagraph IV.A.1 of the Agreement.

ii. If Applicant seeks to modify an approved Work Plan, a written request shall be made to the Department's project manager, with copies to the parties listed in Subparagraph IV.A.1 of the Agreement.

iii. Requests for a change to a time frame set forth in this Agreement shall be made in writing to the Department's project attorney and project manager; such requests shall not be unreasonably denied and a written response to such requests shall be sent to Applicant promptly.

G. 1. If there are multiple parties signing this Agreement, the term "Applicant" shall be read in the plural, the obligations of each such party under this Agreement are joint and several, and the insolvency of or failure by any Applicant to implement any obligations under this Agreement shall not affect the obligations of the remaining Applicant(s) under this Agreement.

2. If Applicant is a partnership, the obligations of all general partners (including limited partners who act as general partners) under this Agreement are joint and several and the insolvency or failure of any general partner to implement any obligations under this Agreement shall not affect the obligations of the remaining partner(s) under this Agreement.

3. Notwithstanding the foregoing Subparagraphs XIV.G.1 and 2, if multiple parties sign this Agreement as Applicants but not all of the signing parties elect to implement a Work Plan, all Applicants are jointly and severally liable for each and every obligation under this Agreement through the completion of activities in such Work Plan that all such parties consented to; thereafter, only those Applicants electing to perform additional work shall be jointly and severally liable under this Agreement for the obligations and activities under such additional Work Plan(s). The parties electing not to implement the additional Work Plan(s) shall have no obligations under this Agreement relative to the activities set forth in such Work Plan(s). Further, only those Applicants electing to implement such additional Work Plan(s) shall be

eligible to receive the Liability Limitation referenced in Paragraph VI.

4. Any change to parties pursuant to this Agreement, including successors and assigns through acquisition of title, is subject to approval by the Department, after submittal of an application acceptable to the Department.

H. Applicant shall be entitled to receive contribution protection and/or to seek contribution to the extent authorized by ECL § 27-1421(6) and 6 NYCRR § 375-1.5(b)(5).

I. Applicant shall not be considered an operator of the Site solely by virtue of having executed and/or implemented this Agreement.

J. Applicant and Applicant's agents, grantees, lessees, sublessees, successors, and assigns shall be bound by this Agreement. Any change in ownership of Applicant including, but not limited to, any transfer of assets or real or personal property, shall in no way alter Applicant's responsibilities under this Agreement.

K. Unless otherwise expressly provided herein, terms used in this Agreement which are defined in ECL Article 27 or in regulations promulgated thereunder shall have the meaning assigned to them under said statute or regulations.

L. Applicant's obligations under this Agreement shall not be deemed to constitute any type of fine or penalty.

M. In accordance with 6 NYCRR § 375-1.6(a)(4), the Department shall be notified at least 7 days in advance of, and be allowed to attend, any field activities to be conducted under a Department approved work plan, as well as any pre-bid meetings, job progress meetings, substantial completion meeting and inspection, and final inspection and meeting; provided, however that the Department may be excluded from portions of meetings where privileged matters are discussed.

N. In accordance with 6 NYCRR § 375-1.11(a), all work plans; reports, including all attachments and appendices, and certifications, submitted by a remedial party shall be submitted in print, as well as in an electronic format acceptable to the Department.

O. This Agreement may be executed for the convenience of the parties hereto, individually or in combination, in one or more counterparts, each of which shall be deemed to have the status of an executed original and all of which shall together constitute one and the same.

WALLACE CAMPUS MANAGER LLC AUTHORIZATION TO COMPLETE REMEDIAL REQUIREMENTS

The undersigned, being all of the members of Wallace Campus Manager LLC, a New York limited liability company (the "Company") hereby certify as of November___, 2020, as follows and adopt the following resolutions and authorize the Company to authorize and direct Hercules Argyriou (the "Authorized Signatory") to take the following actions on behalf of the Company:

WHEREAS, the Company desires to authorize the Authorized Signatory to undertake actions necessary to redevelop 319, 325, 327-329 and 331 Main Street, Poughkeepsie, NY, 12601; Section 6162, Block 77, Lots 109077, 109079, 114098, and Section 6162, Block 78, Lot 127091. (the "Property" or the "Site").

WHEREAS, in connection with the redevelopment of the Property, the Company has or will prepare and submit an application to participate in the New York State Brownfield Cleanup Program ("BCP") and, if accepted into the BCP, enter into a Brownfield Cleanup Agreement ("BCA"); file related documents with the New York State Department of Environmental Conservation ("DEC") to participate in the BCP; and undertake certain environmental remediation work related thereto consistent with applicable laws, regulations and guidance under the BCP (collectively referred to as the "Remedial Program Requirements");

NOW THEREFORE, BE IT

RESOLVED, the Authorized Signatory be, and hereby is, authorized and directed, in the name of and on behalf of the Company, to execute and to deliver all applications, documents and instruments required to effectuate the BCA (including execution of the BCA), and make any filings required to comply with the BCA consistent with the Remedial Program Requirements; and be it further;

RESOLVED, that this Authorization may be signed in any number of counterparts, including but not limited to electronic, and shall become effective as of the date herein below written when each person named below shall have signed a copy hereof; and

RESOLVED, The Authorized Signatory is authorized to bind the Company as an Authorized Signatory for the purposes set forth in this Authorization, the signature set forth opposite his name below is his actual signature:

Authorized Signatory	Signature
Hercules Argyriou	

IN WITNESS WHEREOF, the undersigned have signed and sealed this Member Consent on November 12, 2020.

MEMBERS:

POK Wallace Partner LLC

By: Eric Anderson

Wallace ALCD MEGA JV LLC

By: Hercules Argyriou

ATTACHMENT B

Project Narrative

November 5, 2021

WALLACE CAMPUS: PROJECT NARRATIVE (REDUCED SIZE PROJECT)

OVERVIEW:

Wallace Campus is a mixed-use development in the eastern half of the city block surrounded by Main Street, Catharine Street, and Mill Street, within the heart of the Poughkeepsie Innovation District (PID) redevelopment area. The project will consolidate several existing underutilized lots to create a 2.52 acre through lot with frontages on Main Street, Catharine Street, and Mill Street. **The Project includes approximately 257,000 gross square feet *(reduced from 277,333 GSF)*** of building redevelopment and new construction, weaving together the restoration of the long dormant Wallace Department Store, including the construction of two new buildings with architectural style and massing which reflect existing context and urban form conducive to place-making. **The buildings will provide approximately 14,300 sf of commercial space including 6,500 sf of new retail spaces along the Main Street pedestrian frontage, 5,800 GSF of commercial space along the Catharine Street frontage, and 2,000 GSF in cellar spaces. The remainder of the Project buildings will be devoted to providing 187 much-needed mixed-income housing rental units, which will help restore and grow residential and pedestrian activity within Poughkeepsie's PID.**

Wallace Campus also reclaims more than a half acre of underutilized blacktop to create significant public outdoor greenspace, called "Wallace Green," to benefit residents and the public. The promenade entry to the Green from Main Street creates a full mid-block pedestrian through-route to Mill Street. The Wallace Green Walkway integrates views and access to the Green itself, which provides landscaping, play areas, a tiered seating gathering area, and internal pedestrian access between the new buildings and the landscaped internal parking area.

Vehicular access to the site is provided through consolidation of existing entrances from Mill Street, eliminating two dangerous blind driveways. Through agreements with adjoining lots fronting on Mill Street (302, 304, 306 Mill Street and the Hudson River Housing property at 310 Mill Street), the Project will eliminate two existing curb cuts on Mill Street, provide additional green space around and between existing buildings fronting on Mill Street, in addition to enhancing the pedestrian use of Mill Street via the new Wallace Green walkway between Main and Mill Streets.

DEVELOPMENT TEAM AND PROJECT VISION:

Wallace Campus Manager, LLC, and its development team has over 30 years of experience developing, fully renting-up, and successfully operating mixed-income housing and mixed-use spaces similar to Wallace Campus. The Development Team has designed its Project to foster the growth of Poughkeepsie's Innovation District by adding much needed reasonably

priced, quality-built, housing stock, commercial, and community green spaces to the City's Downtown. The Wallace Campus development model is focused on drawing current and future residents of the City of Poughkeepsie to live, work, and prosper in the City's Downtown. Central purposes of the PID zoning initiative include reclamation of underutilized sites, particularly those with large expanses of blacktop, recreation of street walls, respect for historic context, and creation of new urban spaces that inspire pedestrian activity. The Wallace Campus responds to all of these aims.

RESTORATION AND ADAPTIVE REUSE OF THE HISTORIC WALLACE DEPARTMENT STORE BUILDING:

The project will restore and adaptively reuse the former Wallace Department Store at 331 Main Street, an existing 4-story, 118,536 square foot structure with a tall parapet along Main Street that brings it to a height comparable to other 5-story buildings along Main Street. The Wallace building has been underutilized for many years.

The Project proposes to renovate the former Wallace Department Store building (c. 1880's) to its appearance as a signature building in Poughkeepsie's "period of significance" as a mercantile center in the Hudson Valley during the 19th and 20th Centuries. The Luckey Platt building across the street housed the Wallace Department Store's major competing department store during the 1800's and the Luckey Platt building is listed on the National Register. The proposed Wallace restoration was reviewed by the New York State Historic Preservation Office to be considered a standalone historically significant building. Landmark Consulting LLC, the Wallace preservation consulting firm, authored the Commercial Rehabilitation Tax Credit Part 1 application for certification to pursue the rehab incentive program for the Wallace Building. The Part 1 application and draft National Register Nomination for the Wallace Building (331 Main and 14-20 Catharine) was reviewed and approved by New York State Historic Preservation Office (SHPO) and the National Park Service (NPS).

The proposed adaptive reuse of the building will create approximately 3,000 SF of commercial retail space with multiple storefronts on the ground floor along the Main Street frontage and approximately 2,500 SF of commercial retail space on the ground floor of the Wallace Extension building along Catharine Street, with an additional 2,000 SF of commercial space in the cellar.

The 3,000 SF of commercial retail space on the ground floor of Main Street in the historic building will have transparency wrapping around the westerly edge of the building at the entrance to a public promenade and the Wallace Green walkway. The remainder of the main Wallace Building will be adaptively reused for rental apartment units, all accessed by an entrance along the western side of the building, just behind the commercial tenancies and facing the new Wallace Promenade.

Wallace Building rehabilitation:

The proposed renovation scope for the Wallace building includes preservation of the Art Deco Main Street exterior, a limestone façade, that will remain unchanged from the second floor to the roof. Transparency will be added to the first-floor façade (per historic images) opening the ground floor space in a welcoming manner to improve the pedestrian experience on Main Street, consistent with the PID's zoning requirements. The east and west facades will have new window penetrations, reworking existing, non-historic penetrations.

While the interior of the building will be modified to accommodate new residential and commercial uses, important internal elements will be retained, including circulation within the building, which utilizes beautiful existing stairways and a historically significant painted dome at the fourth-floor ceiling. The Project Sponsor is also exploring the possibility of incorporating the historic Wallace Logo sign in the restoration of the exterior of the building.

The Wallace existing extension is a 3-story annex to the main building, constructed in 1860 which is accessed both internally through the main Wallace building and from Catharine Street. The exterior of this annex is in good condition and will be rehabilitated to its existing aesthetic. The existing circulation structure within the Wallace building contributes to the building's active living design, promoting the use of stairs as a healthy alternative to constant elevator use. The unit distribution of the Wallace Building includes:

Wallace Rehab Building:

STUDIO	1 BR	2 BR	3 BR	**TOTAL**
20	37	12	0	**69**

CONSTRUCTION OF A NEW MAIN STREET BUILDING:

West of the Wallace Department store, a new 81,000 SF building will be constructed ("the Main Street Building"). The Main Street Building will involve the demolition of 319 and 325 Main Street. The buildings have been visually inspected and have been determined that they are in sub-par condition and have been vacant for several years. An architectural salvage company was toured through the buildings slated for demolition in efforts to preserve any fixtures or furniture deemed of interest. The Main Street building is 5 stories tall which is the permitted height for the designated zoning and was reduced from 7 stories previously proposed. Both proposed new buildings on the site are being designed to meet Enterprise Green Communities Program certification standards which ensures the buildings will be energy efficient and sustainable.

The Main Street building frontage has been designed with multiple storefronts directly facing Main Street with approximately 3,300 of retail space. The transparency extends around the corner of the building into the promenade, where it will reflect similar transparency

in the Wallace Building to the east.

The remainder of the Main Street Building will house new rental apartment units, all accessed by an entrance along the eastern side of the building, just behind the commercial tenancies and facing the new Wallace Promenade. The unit distribution of the Main Street Building includes:

Main Street New Construction Building:

STUDIO	1 BR	2 BR	3 BR	**TOTAL**
12	34	19	4	**69**

The architecture of the Main Street Building, and its scale and massing, have been designed to blend with the historic context of Main Street, as described by SLCE Architects at Planning Board presentations, and represented on the architectural plans and conceptual renderings. See discussion in the following section on PID Standards. The clock that faces the Main Street in the current building will be removed and utilized in the Wallace Building. Initial plans are to either incorporate the clock in the main lobby or utilize it at Wallace Green.

CONSTRUCTION OF NEW BUILDING ON CATHARINE STREET:

The second proposed new building in the project is a 59,000 square foot building fronting onto Catharine Street ("the Catharine Street Building"). The Catharine Street building is five stories tall (reduced from six stories previously proposed). This building replaces an underutilized parking lot, to create a street wall along Catharine Street that is reflective of the historic buildings in the neighborhood. The architectural design features elements and colors that complement the existing building to its south, as well as the surrounding neighborhood. Both new project buildings are being designed to meet Enterprise Green Communities Program certification standards.

The ground floor of the Catharine Street Building will contain approximately 3,200 square feet of commercial space. The architectural design of the ground floor space features a number of doors facing Catharine Street, making this ground floor space easily adaptable to retail use in the future. The design for this building features 100% frontage occupancy along Catharine Street. Residential uses occupy the upper 4 floors of the building as well as the rear of the ground floor. The unit distribution of the Catharine Street building includes:

Catharine Street Building:

STUDIO	1 BR	2 BR	3 BR	**TOTAL**
14	21	9	5	**49**

WALLACE GREEN:

A central feature of the Wallace Campus is the Wallace Green, which contains a public landscaped green space in a park-like setting. This will be one of the only actively programmed greenspaces in the downtown/PID area, and will therefore create a unique and important feature in the broader and evolving context of the City's redevelopment. The Green will be maintained by the private owner of Wallace Campus, including litter control, landscaping, and general property maintenance and security. The Green is readily accessible to residents of the Wallace Campus as the residential buildings include lobbies with doorways entering onto the pedestrian promenade that passes along the Green. The Green will be open for public access via Main Street and Mill Street. The Green features numerous seating options, in addition to the landscaped lawns and planted areas. The walking paths through the space provide direct access by tenants from the parking area. They also encourage pedestrian movement through the site, and provide access to short term public bicycle parking.

An unique feature on the southern portion of the Green is a multi-tiered seating area. The semi-circular shape tiered seating encourages spontaneous small group gatherings of local residents and visitors for conversation, an outdoor meal, a game of chess, meditation, reading, etc. The tiered seating allows for a small performance area, which offers opportunities for artist readings or small performances, focusing on acoustic uses. The use for events is a secondary use, it's function as a flexible and informal gathering space for residents and green space visitors remains the primary use of the space.

The development team plans to actively program the space. Based on initial outreach, several local organizations and businesses have expressed interest in utilizing the Wallace Green for various public programs. Uses include but are not limited to youth yoga, exercise classes, film screenings, and live comedy shows.

WALLACE GREEN WALKWAY: CREATION OF A NEW PROMENADE AND PEDESTRIAN CONNECTIVITY BETWEEN MAIN STREET AND MILL STREET:

The PID Zoning encourages the creation of new pedestrian throughways on large parcels to break up large parcels (19-3.37(12) (c)(1)(ii)). In response to comments requesting exploration of a more direct and seamless pedestrian connection through the project to create a mid-block pedestrian connection between Main Street and Mill Street, the Applicant has created a direct pedestrian walkway path from Main Street to Mill Street, close to its intersection with Conklin Street. The portion of the walkway nearest Main Street forms the Wallace Campus Promenade, which begins with a wide and inviting pedestrian gathering place where the commercial transparencies of the Main Street Building and Wallace Building wrap around the corners of the respective buildings. This area also leads to the primary

entrances to the residential portions of both buildings, just behind the commercial tenancies. The Promenade then continues northward, drawing pedestrians by the inviting views into the Wallace Green just ahead. The Promenade then turns into an open walkway following along the easterly side of the Green and along the westerly side of the Wallace building. The walkway then proceeds through the Wallace Campus internal parking area, passing a connecting sidewalk which proceeds east to connect to the Catharine Street building. After crossing the landscaped parking area, the Walkway then proceeds along the western side of the Hudson River Housing building to reach Mill Street, near its intersection with Conklin Street. In addition to improving pedestrian circulation, this Walkway also provides an opportunity for additional landscaping around the Hudson River Housing building and allows the rear of the Hudson River Housing parcel to provide additional green space within the overall setting.

VEHICULAR ACCESS FROM MILL STREET, CIRCULATION AND PARKING:
A central accomplishment of the Wallace Campus Project is the replacement of an area of impervious land, a former underutilized parking lot, with green space and public access. To connect these improvements to Mill Street as well as Main Street, substantial consideration has been given to improving access to the property from Mill Street and improving the streetscape and visual character of the Mill Street frontage and views into the site. Mill Street has served as the only vehicular access to the site for many years. The Wallace Campus circulation and parking improvements plan includes upgrades to the existing two main entrances on Mill Street and the vehicular circulation plan for substantially safer and efficient access to and from the Wallace Campus.

The Wallace Campus Drawing sets forth the boundaries of the Wallace Consolidated Lot. Four adjoining parcels outside the Wallace Campus are also shown on the Drawing Set, for the limited purpose of depicting the off-site improvements to be made on those properties pursuant to Shared Parking and Easement Agreements, and to show the manner in which those physical improvements and access provisions will improve pedestrian and vehicular circulation in the neighborhood, as well as landscaping, lighting, and community character. The Project Sponsor will enter into Shared Parking and Permanent Access Easement Agreements with the owners of these adjoining parcels. The Drawing Set depicts the off-site work to be performed by the Project Sponsor on these parcels to implement the Shared Parking and Access Agreements. The work on 302, 304 and 306 Mill Street (“The 3 Mill Street Lots”) would eliminate two existing curb cuts on Mill Street (between 302 and 304 Mill and between 304 and 306 Mill), including along the Mill Street frontage to replace those driveways. The Wallace Campus owner will provide a permanent access easement to the owner of the 3 Mill Street Lots for the benefit of owners and tenants, to access the parking areas located on these lots via the Wallace Campus access drives. The Shared Parking Agreement would maintain the allocation of dedicated parking (12 Spaces) to the 3 Mill Street lots in compliance with the PID zoning. Lighting improvements, pedestrian walkways, and storm water improvements will be provided to serve the offsite Shared Parking areas in the same manner as the parking areas on the Wallace Campus parcel, all as shown on the Proposed Site Plan

drawings. Pursuant to a separate Shared Parking agreement with the Hudson River Housing ("HRH") property at 310 Mill Street, the Project Sponsor will be granted a permanent easement for improvements within the Hudson River Housing property in exchange for HRH employee use of 6 Wallace parking spaces during working hours 8 am to 6 pm, Monday to Friday. The 6 spaces to be available for Wallace Campus parking outside of those hours. Lighting improvements and landscaping will be installed as shown on the Drawing Set. Overall, the proposed Wallace Campus development incorporates 63 parking spaces to serve the commercial and residential uses and public space. Please refer to the Colliers letter addressing parking calculations. **Overall, the Project provides 63 parking spaces while only a total of 32 spaces are required per zoning.** The development team is proposing to maintain these extra parking spaces in the development plan.

ATTACHMENT C

PID Design Standards Conformance Letter

SLCE Architects, LLP

November 5, 2021

Natalie Quinn, Planning Director
City of Poughkeepsie Planning
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Poughkeepsie, NY 12601

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Mario Yao, AIA
Paul Albano, AIA

Re: Wallace Campus: 11/05/21 Reduced Size Plan/PID Building Standards

Dear Ms. Quinn:

Included in the Applicant's submission today is the SLCE Architectural Drawing Set. This plan set illustrates compliance with the PID building design standards. Additionally, this letter briefly summarizes compliance with those standards.

PID Building Design Standards: 19-3.37 (10):

(a) FRONT FAÇADE TRANSPARENCY REQUIREMENTS:

1. There is no mirrored, reflective or darkly tinted glass. Glass used in the three buildings to be transparent low-e, double pane argon filled insulated glass. See Z-001 for extent of glass.

2. No security grills are proposed at any of the buildings.

3. No curtains, blinds, or posters are proposed at the ground floor for any of the buildings. See Z-001 for transparency percentages.

(b) FRONTAGES: SLCE has chosen a Shopfront Type C Frontage Type for all three buildings. See sheets A-200A thru A-200E

(c) DESIGN AND ARCHITECTURE:

1. Entrance Orientation: All 3 buildings have main entrance or entrances on the front façade. Maximum distance between entrances is attained. See Site Plan SP-1

2. Shopfront entrance orientation: Principal pedestrian entrances for all 3 buildings are directly connected to the sidewalk. Principal entrances to shopfronts are highlighted with architectural features.

3. Historic rehabilitation: SLCE Architects engaged in substantial research to assure that their proposed new construction reflects the traditional

architecture of Main Street in building and roof forms, window proportions, materials, colors and details.

With our site in the heart of the historic core, our proposal seeks to take its cues from the existing and historical fabric of Main Street, creating a gateway which reinforces the pedestrian connection from Main Street to Mill Street, near its intersection with Conklin, and passing through a new greenspace (Wallace Green) centrally located on the proposed campus. This new pedestrian connection is designed to be similar in scale to the pedestrian connection between Main Street and Mill Street via Garden St. further west on Main Street.

The existing urban fabric on Main Street is characterized by a finer grain of buildings interrupted by medium and larger scale lots, with our site spanning between the medium scale of the existing Wallace building and the finer grain of main mall row. Our proposal for Main Street mediates between the large scale and stoic quality of the existing Wallace and Luckey Platt buildings and the refined ornament and articulation of the buildings on Main Mall Row.

We were particularly interested in the Cast Iron Building - the way it turns the corner from Main Street to Garden St. by continuing the Main St. façade material and terminating at a setback, giving the effect of a thickened façade, as well as division of the facade into a clear base, middle, & top w/ a highly articulated cornice.

In the historical images of the Wallace building and Windsor hotel, a few things struck us. One was the way the canopy at the storefront level really begins to help activate the street level. We also found the rhythmic structure of the Windsor hotel piers successful at creating continuity along the storefront edge as it turns the corner from Catharine to Main Street. And in the Morgan house hotel photo where the canopies and window shades create a remarkable streetscape.

In Plan, the Main Street building forms a tee pushed to the western edge of the site. At the connection of the tee SLCE introduced a recess in the plan to visually separate the building into two volumes, and allow the stem of the tee to realign with the kink in the Wallace Building and prevent the path from narrowing toward the park while the volume on Main Street remains parallel to Main. It also provides a clear termination to the commercial spaces which wrap into the pedestrian walkway encouraging the pedestrian connection and shortening the perceived distance to the park. The façade is predominately brick with cast stone accents, a precast base, and precast cornice. The windows run in a regular grid with deep returns and articulation of the brick achieved through corbeling. The windows terminate with arched openings at the upper floor to accentuate the building top, similar to the historical buildings on Main Street.

The precast base is conceived as a series of structural piers continuing the rhythm of the Windsor hotel. Between the piers are inserted metal panel canopies and aluminum storefronts, defining the pedestrian edge. We are also introducing ornamental relief to the precast base inspired by the pressed tin ceilings of the existing Wallace building.

The Main street building cornice mimics the depth and section profile of the Cast Iron Building Cornice, while following the stepped silhouette of 311 Main Street. This gives the façade a proportion that is more in keeping with the proportions of the historical buildings on Main Street.

Our design for the Catharine Street building is intended to complement the Wallace building extension facing Catharine Street. The building is divided into three zones with precast structural piers and aluminum storefront along the base, a center zone of brick (taking its material cue from the existing Wallace building extension), ornamental precast, and articulated cornice. The upper zone is conceived as an enlarged cornice with a change to white brick and inserting a spandrel panel and accent mullion, unifying the openings. SLCE is using the same spandrel treatment at the 4th floor and ornamental precast at the remaining slab edges to give a hierarchy of scales to the façade. The remaining windows are separated by a small brick pier which is mirrored around each of the structural columns. These small piers add a secondary rhythm to the façade while keeping the windows proportional to the openings found in the historical district. The ground floor incorporates canopies and the structural piers to open and activate the street level.

4. Blank walls: No visible façade of any of the buildings is blank. We have paid particular attention to the sides of the buildings that face the Wallace Green Walkway and the Green. These are also important facades that frame the view from Mill Street, which will form an important entrance to the side for both vehicles and pedestrians. A custom mural is proposed for the western wall of the Main Street Building visible above the existing building in the adjacent lot. The mural is intended to reference and replace the historical painted signage on the Eastern wall of the Wallace Building. See building elevations and renderings A-20A through A-215.

5. Façade articulation: Facades along all three buildings are broken up with divisions in materials, separate entrances and windows. Awnings are also used. Building articulation continues to wrap around the corners of Main Street and Wallace buildings to invite patrons and visitors into the pedestrian mid-block connector and provide access to residential entrances. The façade of the Catharine Street building has multiple doors and window treatments. See elevations.

6. Awnings: Awnings for the three buildings are to be Aluminum Composite Panels over a recessed entry and extend 3’-4’ beyond the building face. Scale drawings are provided to show height. See A-200A through A-200E.

7. Roofs: All roofs have been designed to conceal mechanical equipment. See detailed elevations and roof plans in the March 2021 submission set, and

accompanying diagrams demonstrating that neither rooftop bulkheads nor rooftop mechanicals will be visible from the street or adjoining properties. Mechanicals will be low in height and will be totally screened. Attached diagrams show limited hatched area within which mechanicals can be located (A-104A Main Street Bldg.; A-103B Catharine Street Bldg.; A104C Wallace Bldg) and showing that the mechanicals as so screened will not be visible from the street or adjacent properties. (Z-002)

Main St Building – The roof will be a high albedo built-up roof system. Proposed elevator/stair and boiler room bulkheads for the building are located within the section of the building that is located within the PID-UV zoning sub-district. These cover 1,563 sf (11.6%) of the horizontal area of the roof and are set-back from Main Street 42'-8" from the face of the building (see A-104A). Mechanical equipment on the roof, required for the proposed residential units, will be limited to placement within the hatched area shown on A-103C. The overall height of the mechanical units, including any concrete pad or dunnage required for support, will be @ 5'-6" max., and will be screened using a 6'-0" high perforated metal screen, as depicted in the attached drawings. Please see the sightline analysis (drawing 1&3 on Z-002) demonstrating that both the mechanical equipment and screen will not be visible from adjacent properties and streets.

Catharine Street Building - The roof will be a high albedo built-up roof system. The roof plan of the Catherine Street building shows proposed elevator/stair and boiler room bulkheads which cover 1,636 sf (17%) of the horizontal area of the roof and sit 30'-8" from Catharine Street, and from the face of the building (see A-103B). Mechanical equipment on the roof required for the proposed residential units, will be limited to placement within the hatched area shown on A-103C. The overall height of the mechanical units, including any concrete pad or dunnage required for support, will be @ 5'-6" max., and will be screened using a 6'-0" high perforated metal screen, as depicted in the attached drawings. Please see the sightline analysis (drawing 2 on Z-002) demonstrating that both the mechanical equipment and screen will not be visible from view from adjacent properties and streets.

Wallace Building – The existing roof of the Wallace building will be replaced and repaired to match the existing roof as required. No new additions to the roof are proposed. Any mechanical equipment on the roof required for the proposed residential units and to be placed on the roof of either the Wallace building or the Wallace building extension, will be limited to within the hatched area shown on Drawing A-103C. The overall height of the mechanical units , including any concrete pad or dunnage required for support, will be @ 5'-6" maximum, and will be screened using a 6'-0" high perforated metal screen, as depicted in the attached drawings. Please

see the sightline analysis (drawings 1 & 5 on Z-002) demonstrating that both the mechanical equipment and screen will not be visible from adjacent properties and streets.

8. Screening: Roof Screening will be a perforated metal screen finished to match the metal of the window frames of the buildings. Mechanical equipment will be located away from the edge of the buildings to further shield from view. See drawings referred to in previous section.

   As noted, the submitted drawings support the compliance of our buildings. We are happy to discuss any questions you may have in this regard.

9. Drawing Revisions: To accommodate upper-story setback per 19-3.37(8)(f) and 19-3.24(4)(e), the Main Street building was setback approximately 5' x 27' on all floors facing 317 Main Street. This provided a minimum of 5' distance from the existing windows previously blocked in the original building massing design. All existing windows are located on Sheet A-102A.

Very truly yours,

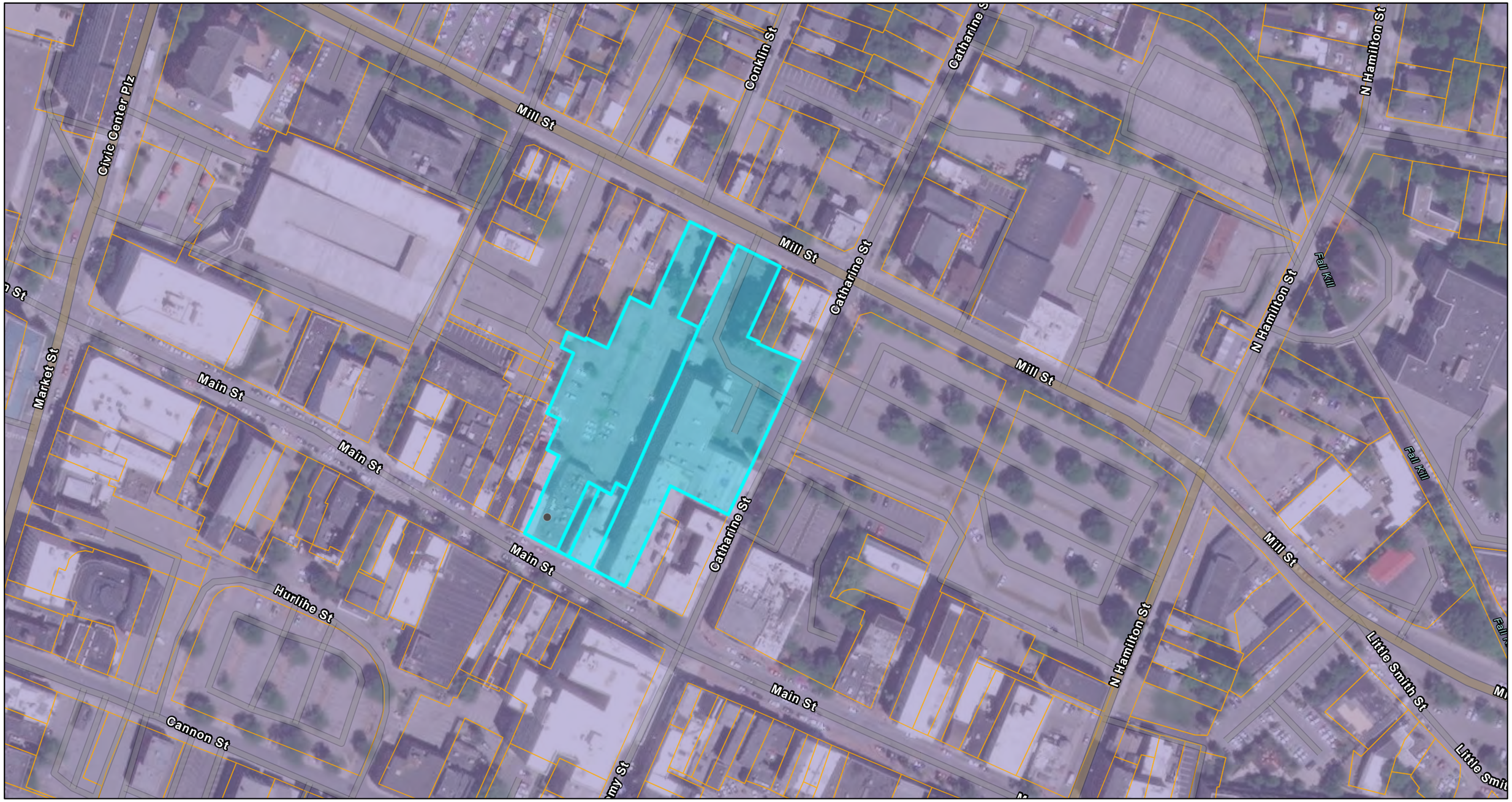
SLCE Architects

Saky Yakas, Partner
SLCE Architects

ATTACHMENT D

Poughkeepsie NRI Maps

Poughkeepsie NRI Map - Geology & Soils



2/22/2021, 12:08:14 PM

City of Poughkeepsie Boundary

Parcel Boundaries

Soils

Bedrock Geology

Graywacke, shale (Oag)

1:2,257

0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

Esri Community Maps Contributors, BuildingFootprintUSA, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, New York State, GeoEye, Maxar, Microsoft

Applicant

Poughkeepsie NRI Map - Habitats

2/22/2021, 12:16:28 PM

Parcel Boundaries

City of Poughkeepsie Boundary

Wetlands

Hudsonia Surface Water

Hudsonia Streams

Perennial Stream or Not Classified

Hudsonia Habitats

Developed

Cultural

Stream

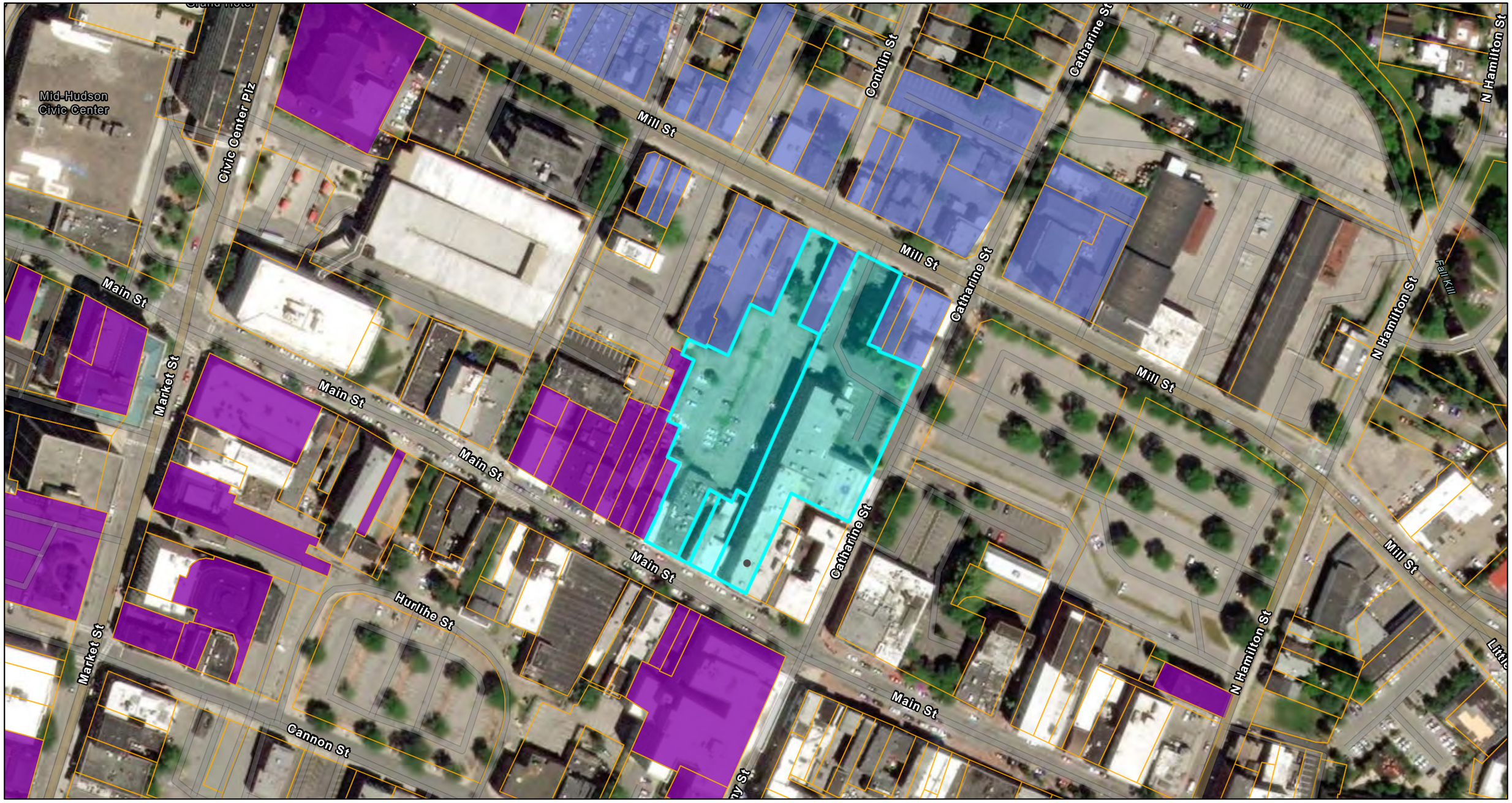
1:2,257

0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

Esri Community Maps Contributors, BuildingFootprintUSA, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, New York State, GeoEye, Maxar, Microsoft

Poughkeepsie NRI Map - Historic Resources



2/22/2021, 12:20:47 PM

Parcel Boundaries

City of Poughkeepsie Boundary

Historic Sites

Historic Districts

Upper Mill Street Historic District

1:2,257

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0 0.03 0.07 0.13 km

Esri Community Maps Contributors, BuildingFootprintUSA, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, New York State, GeoEye, Maxar, Microsoft

New York State, Maxar, Microsoft | Esri Community Maps Contributors, BuildingFootprintUSA, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA |

Poughkeepsie NRI Map - Land Use

2/22/2021, 12:19:27 PM

City of Poughkeepsie Boundary

Poughkeepsie_Parcels_LandCoverCategories

- Commercial
- Community Services
- Recreation and Entertainment
- Residential
- Vacant Land
- Water

1:2,257

0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

Esri Community Maps Contributors, BuildingFootprintUSA, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, New York State, GeoEye, Maxar, Microsoft

Poughkeepsie NRI Map - Recreational Resources

2/22/2021, 12:22:51 PM

Parcel Boundaries

City of Poughkeepsie Boundary

Recreational Features

Flower Garden

Parks and Open Spaces

1:2,257

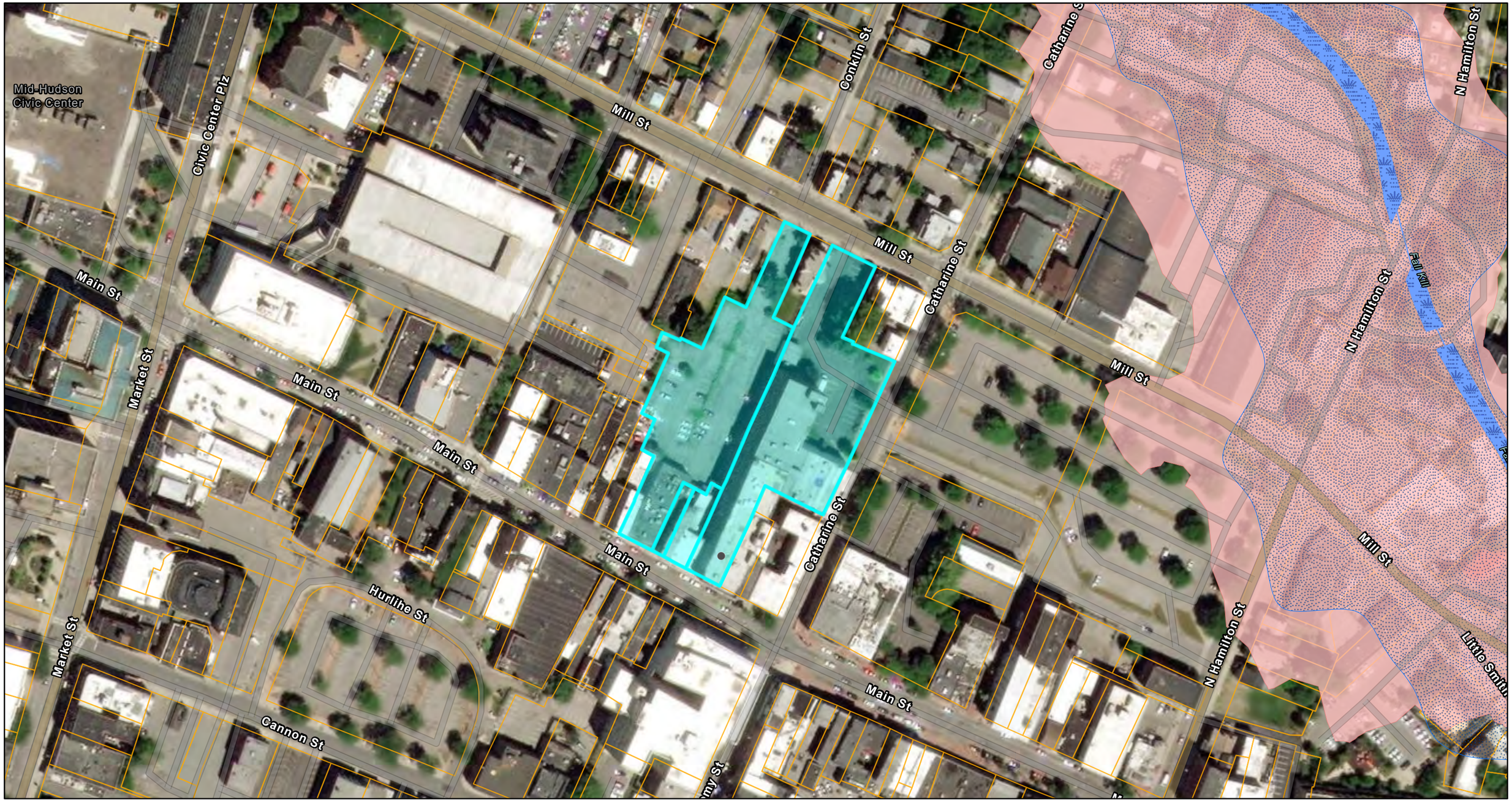
0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

Esri Community Maps Contributors, BuildingFootprintUSA, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, New York State, GeoEye, Maxar, Microsoft

New York State, Maxar, Microsoft | Esri Community Maps Contributors, BuildingFootprintUSA, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA |

Poughkeepsie NRI Map - Water Resources



2/22/2021, 12:18:05 PM

Parcel Boundaries

City of Poughkeepsie Boundary

Wetlands

Surface Water

Streams

Perennial Stream or Not Classified

Riparian Buffers

Flood Hazard Areas

1:2,257

0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

Esri Community Maps Contributors, BuildingFootprintUSA, Esri, HERE, Garmin, SafeGraph, INCREMENT P, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, New York State, GeoEye, Maxar, Microsoft

ATTACHMENT E

Soil Survey

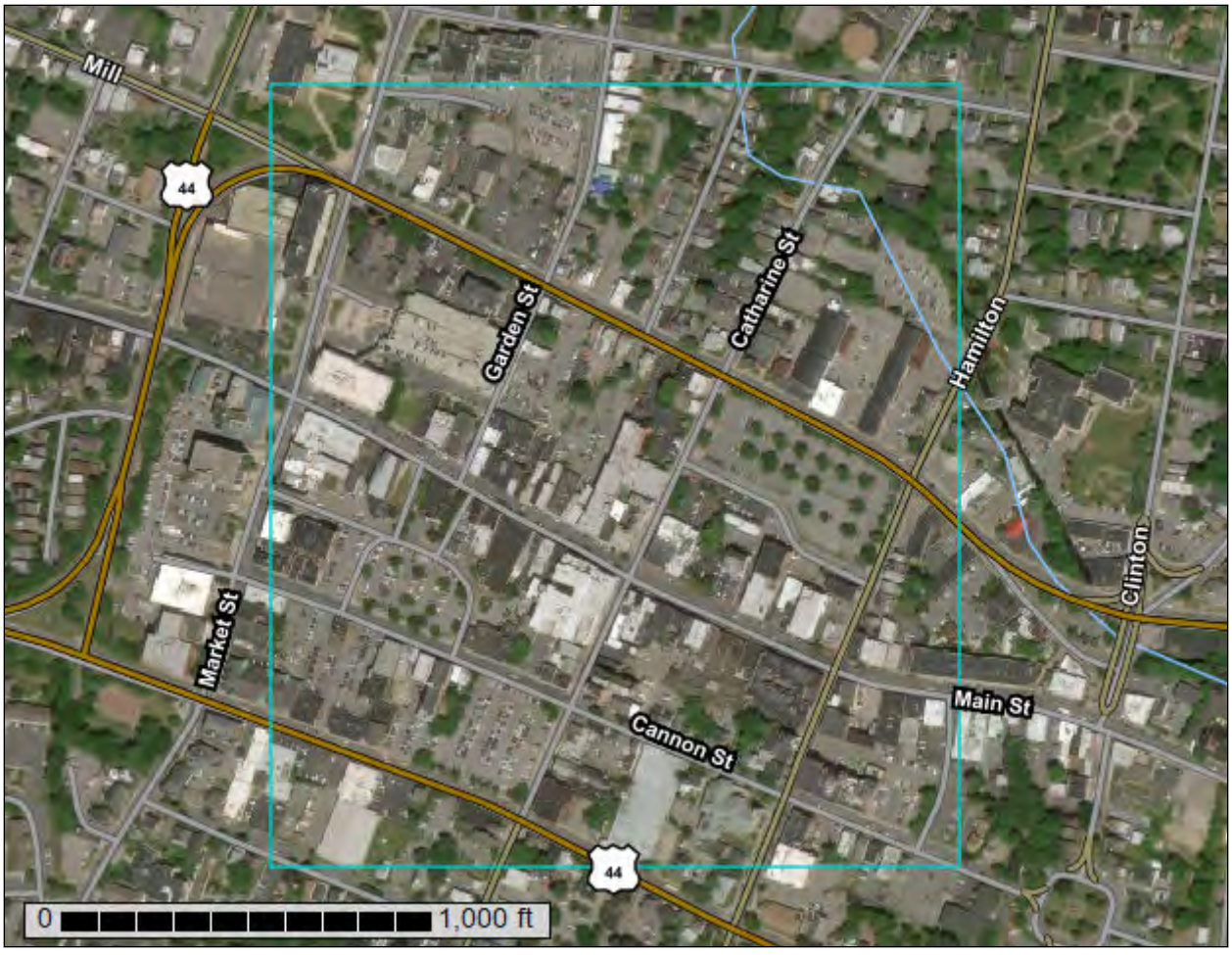
United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Dutchess County, New York



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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Ur—Urban land.....13
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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

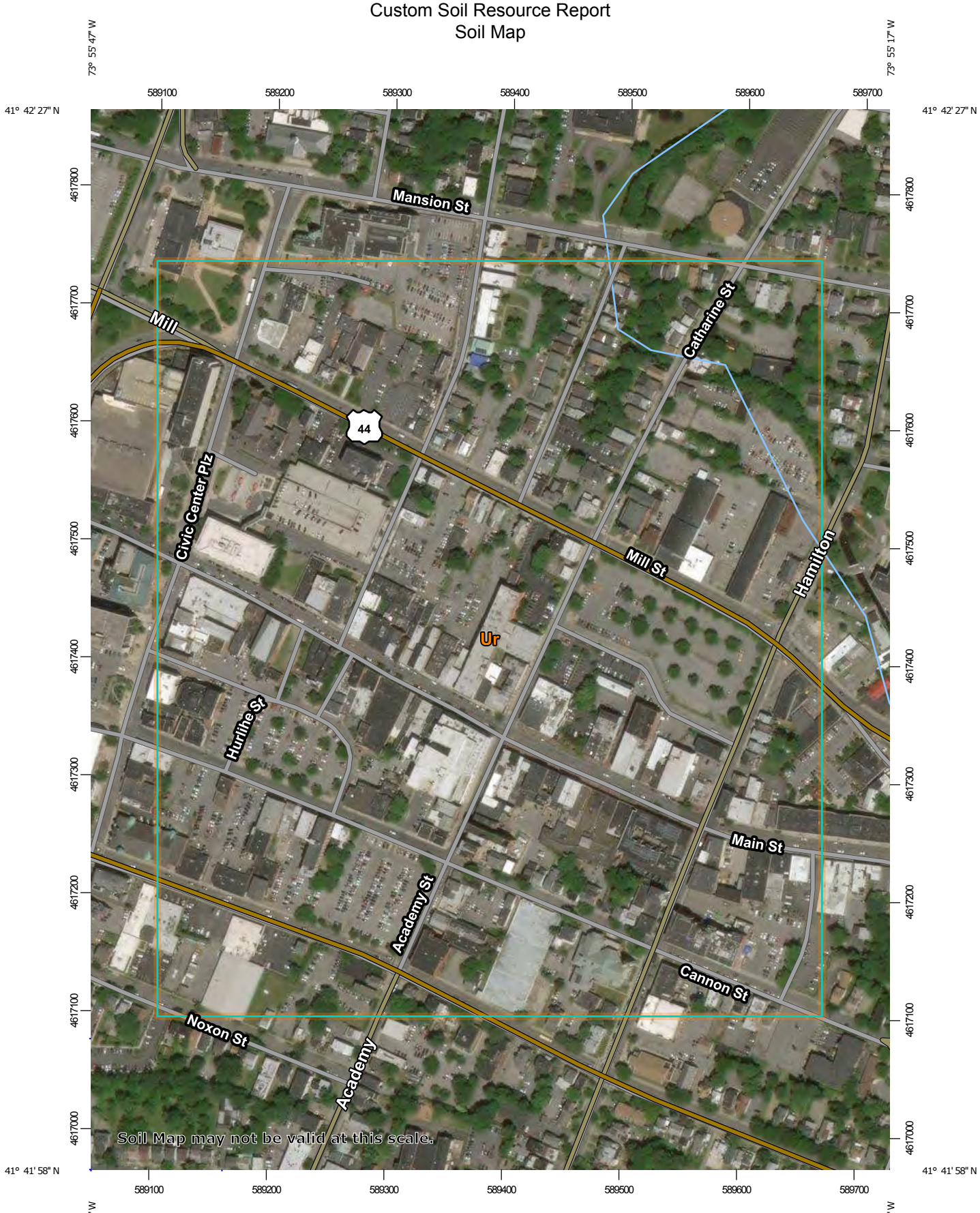
Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



Map Scale: 1:4,380 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dutchess County, New York
Survey Area Data: Version 17, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ur	Urban land	89.8	100.0%
Totals for Area of Interest		**89.8**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Dutchess County, New York

Ur—Urban land

Map Unit Setting

National map unit symbol: 9rjb
Mean annual precipitation: 41 to 47 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 115 to 195 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: Unranked

Minor Components

Udorthents, smoothed

Percent of map unit: 5 percent
Hydric soil rating: No

Udorthents, wet substratum

Percent of map unit: 3 percent
Hydric soil rating: No

Unnamed soils, undisturbed

Percent of map unit: 1 percent
Hydric soil rating: Unranked

Rock outcrop

Percent of map unit: 1 percent
Hydric soil rating: Unranked

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ATTACHMENT F

Stormwater Pollution Protection Plan

STORMWATER POLLUTION PREVENTION PLAN

Prepared for

WALLACE CAMPUS

Located at

319, 325, 327-329, 331 Main Street,
City of Poughkeepsie, Dutchess County, NY
Tax ID 6162-77-114098, 109079, 109077
& 6162-78-127091

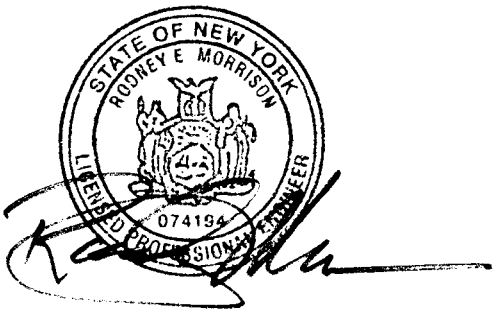
Submitted

March 2, 2021
Revised: October 25, 2021

Prepared for

Wallace Campus Manager, LLC

48-02 25th Avenue
Astoria, NY 11103



Prepared by

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1.0 INTRODUCTION

This Water Quality and Quantity Plan and Stormwater Pollution Prevention Plan (SWPPP) have been prepared pursuant to the Environmental Protection Agencies' (EPA) and the New York State Department of Environmental Conservations (NYSDEC) Phase II Storm Water Regulations. All parties, as defined below, are responsible for executing the SWPPP and for complying with the requirements set forth in the EPA's National Pollution Discharge Elimination System (NPDES) General Permit, the NYSDEC's State Pollution Discharge Elimination System (SPDES) General Permit GP-0-20-001, and any local governing agencies having jurisdiction with regard to erosion and sediment control.

The purpose of the SWPPP, described herein, is to provide for the proper control and treatment of water quality and quantity impacts due to the proposed project. These controls and treatments will be achieved through the use of appropriate features such as conveyance piping and underground drywells. The goal is to manage the post-development storm water discharge to match or improve on the pre-development conditions, provide necessary water quality treatment and quality control for the new development and prevent discharge of pollutants into receiving waters, in keeping with the afore-noted regulations and best management practices as described within the New York State Erosion and Sediment Control Manual and the New York State Stormwater Design Manual.

This SWPPP outlines methods that Owner/Developers and Contractors can use to adjust construction practices in a way that will retain surface water quality and prevent sediment laden runoff from entering rivers, streams, estuaries, wetlands and other sensitive environments. This SWPPP describes methods for permanent stormwater management features in the design and runoff management during the construction phase.

1.1 Responsibilities of the Participants

It is the responsibility of the Owner/Developer, General Contractor and subcontractors to comply with the measures set forth in this SWPPP and implement pollutant control measures which retain surface water quality and prevent sediment laden runoff from entering rivers, streams, estuaries, wetlands and other sensitive environments. The following outlines the responsibilities of all participants.

Owner/Developer's Qualified Representative

1. Prepare this Water Quality and Water Quantity Report and SWPPP using good Engineering practices, best management practices and in compliance with NYSDEC Phase II Storm Water Regulations. The Owner/Developer, General Contractor and all Sub Contractors involved in earth disturbance during construction must certify this Plan by signing the certifying statement contained in **Appendix A**.
2. Prepare the Notice of Intent (NOI) for the Owner/Developer for submission to the NYSDEC at least 5 days prior to commencement of construction.
3. The SWPPP that has been prepared for the job site shall include certification forms and a completed and signed NOI.
4. Provide copies of the SWPPP and the "Acknowledgement of Notice of Intent" to the local government agencies having jurisdiction or regulatory control over the project.
5. Review the site prior to the beginning of construction and certify in an inspection report that the appropriate pre-construction erosion and sediment control measures outlined herein, and

that are required by the NYSDEC SPDES General Permit, have been installed and will operate as designed.

6. Conduct on-site inspections every 7 days for general compliance with the SWPPP and the NYSDEC SPDES General Permit. Inspection reports will be provided to the Owner/Developer within 24-hours of the field inspection. Any problem areas or areas in need of additional stabilization shall be made clear to the Owner/Developer. The Owner/Developer and the authorized person who is responsible for the overall operation of the site, such as a project manager or site superintendent, must certify these reports by signing the certifying statements contained at the end of the reports and must be maintained in the on-site log book as described below.
7. Review onsite Contractors SWPPP records to ensure compliance and update them as required or necessary.
8. Update the SWPPP each time there is a significant modification to the design or construction which may have a significant effect on the potential for discharge of pollutants into receiving waters.
9. When construction is complete, provide the Owner/Developer with certification that an inspection has been completed verifying that the site has undergone final stabilization.
10. When the site has undergone final stabilization, prepare the Notice of Termination (NOT) for the Owner/Developer for submission to the NYSDEC.

Owner/Developer/Operator/Permittee

The following is a summary of the Owner/Developer's responsibilities:

1. Sign the NOI contained in **Appendix B** and certify the SWPPP by signing the Owner/Developer's Certification statement contained in **Appendix A** of this report. The NOI should be submitted to:

   NYSDEC "Notice of Intent"
   Bureau of Water Permits
   625 Broadway
   Albany, New York 12233-3505

2. When the Owner/Developer receives a letter of "Acknowledgement of Notice of Intent" from the NYSDEC, post a copy of this letter at the site for public viewing on a kiosk, in a construction field trailer, in model home, etc. A copy should also be forwarded to the Owner/Developer's Qualified Representative for the project file.
3. Post at the site with the "Acknowledgement of Notice of Intent" a SWPPP inspection activity log for public viewing on a monthly basis.
4. Ensure that a log book, containing all the required documentation, is kept on site and made available for inspection upon request. The book should contain an extra copy of the "Acknowledgement of Notice of Intent", a copy of this Water Quality and Water Quantity and SWPPP report, weekly SWPPP inspection reports, SWPPP inspection quarterly reports and a copy of the SPDES General Permit.
5. Ensure the SWPPP report, inspection reports and inspection quarterly summaries are certified by an authorized person who has responsibility for the overall operation of the site such as a project manager or site superintendent. Certification of these documents is executed by signing the certifying statements contained in **Appendix A** and at the end of the inspection reports.

6. Require the General Contractor and all Sub Contractors involved with construction activity that disturbs site soils, to fully implement the SWPPP and the requirements set forth in the SPDES General Permit. The SWPPP should be certified by the General Contractor and all Sub Contractors involved with earth disturbance during construction by signing the certifying statement in **Appendix A**.

7. Upon project completion and when the site has reached final stabilization, the Owner/Developer should sign the Notice of Termination (NOT) prepared by the Owner/Developer's Qualified Representative and submit to:

   NYSDEC "Notice of Termination"
   Bureau of Water Permits
   625 Broadway
   Albany, New York 12233-3505

8. Retain all site records and documentation including Engineering reports, SWPPP reports, SWPPP inspection reports and all records of data used to complete the NOI for a minimum of 3 years from the date the site reached final stabilization.

9. Provide an Operation & Maintenance (O&M) manual to the new Owner/Developer who is expected to conduct the necessary O&M over the life of the structures as described in Section 10.0 of this report.

Contractors and Sub-Contractors

The following is a summary of the Contractor's responsibilities:

1.0 Implement fully the SWPPP while following the Phasing Plan and the requirements set forth in the SPDES General Permit. Certify the SWPPP by signing the Contractor's Certification statement contained in **Appendix A** of this report.

2.0 Provide the names and addresses of all subcontractors' involved in construction activities that disturb site soils for inclusion in the SWPPP.

3.0 Ensure all Sub Contractors involved in construction activities that disturb site soils implement fully the SWPPP and the requirements set forth in the SPDES General Permit. All Sub Contractors must certify the SWPPP by signing the Contractor's Certification statement contained in **Appendix A** of this report.

4.0 Conduct inspections on a regular basis of the erosion and sedimentation controls installed at the site. Maintain and repair as necessary all erosion and sedimentation controls.

1.2 Participant Contact Information

Owner/Developer/Operator	Owner/Developer's Qualified Representative	Contractor's & Sub- Contractors
Wallace Campus Manger, LLC 48-02 25th Avenue, Suite 400 Astoria, NY 11103	**LRC Engineering & Surveying, PC** 85 Civic Center Plaza, Suite 103 Poughkeepsie, NY 12601 (845) 243-2880	**TBD**

2.0 SITE DESCRIPTION

This section briefly describes existing and proposed hydrologic and hydraulic conditions at and around the project site as they relate to Surface Water Management planning considerations. Subsequent sections contain a description of the manner in which site runoff will be managed to minimize effects on areas adjacent to the site.

2.1 Location

The Wallace Campus is 2.52 acres consisting of 4 parcels located at 319, 325, 327-329, 331 Main Street, in the City of Poughkeepsie. The properties are identified as Tax ID#'s 6162-77-114098, 109079, 109077 and 6162-78-127091. Parcels 6162-77-121116, 116114, 116113 and 112116 are adjoining lots only part of site work for parking no utilities are proposed. The site is located on the north side of Main Street, the west side of Catharine Street, and the south side of Mill Street (Westbound Arterial). The project has UTM coordinates of 589367 Easting and 4617455 Northing.

Figure 1: Location Map

2.2 Topography

Elevations are mainly flat throughout the property. There is not much grade change from one side of the property to the other. The proposed buildings will be situated so that there is access to the buildings from all sides. The proposed site walks are all handicap accessible. The site is broken into many drainage areas. Some flow to an existing system located in Mill Street and others flow towards existing drywells located on site.

2.3 Land Cover and Site Development

The existing land cover consists of a combination of impervious building structures, asphalt pavement and grass area. Currently there are eleven existing buildings on the site. The buildings are surrounded by walkways, parking areas and grass areas. Four of the buildings will be removed and two buildings will be constructed in their place. The existing parking areas will be removed, and grassed areas will be constructed. Parking for the buildings will be available on site. The existing water shed has 2.91 acres of impervious surface. The proposed development will eliminate 0.42 acres of impervious area for a total of 2.49 acres of impervious surface.

2.4 Soils

Soils mantling the site have been classified by the United States Department of Agriculture (USDA) Soil Survey of Dutchess County, New York. The following soils groups are present, based on the afore-noted mapping:

1. Ur: Urban Land

According to NRCS soil hydraulic classifications Ur is a "Class D". The results of the onsite soil tests can be found in **Appendix D**.

2.5 Rainfall Data

Rainfall data utilized in the modeling and the analysis was obtained from NRCS & NRCC Extreme Precipitation in New York and New England, an interactive web tool for extreme precipitation analysis. The data used is specific to Poughkeepsie NY and various 24-hour storm events are presented below. A record of the extreme precipitation data is included in Appendix D.

Rainfall data utilized in the modeling and the analysis was obtained from Exhibit 10.1 in the New York State Department of Environmental Conservation publication entitled, "New York Guidelines for Urban Erosion and Sediment Control". The data used is specific to Dutchess County and various 24-hour storm events are presented below.

24-Hour Storm Event	24-hour rainfall
1 year	2.61
2 year	3.16
10 year	4.68
25 year	5.85
100 year	8.22

2.6 Streams and Water Bodies

There are no streams or water bodies located onsite.

2.7 Wetlands and Floodplains

There are no wetlands or floodplains located onsite.

2.8 Historical and Cultural Resources

The project area will be reviewed in accordance with Section 106 of the National Historic Preservation Act of 1966.

3.0 PROJECT DESCRIPTION

Tax Lots 6162-78-127091, 6162-77-114098, 109077, & 109079 will be combined into one tax parcel. The proposed project will demolish the existing buildings at 319, 325, and 327-329 main street and will replace them with a new building which will include retail and residential units. The existing building at #331 Main Street will be repurposed to include commercial area, fitness area, and residential area. The project will also include a new building to be located along Catharine Street and will have commercial daycare and residential area within it. The project will include modifications to the surrounding parking, sidewalk, and landscaping. The site will be graded to avoid any surface ponding and blend into the landscape.

4.0 METHODOLOGY

The stormwater design approach for this project will accommodate all NYS DEC requirements and will ensure that water quality and water quantity volumes are managed accordingly. The methodology for designing the stormwater management, as well as, the erosion and sediment control structures for this project are as follows:

1. Evaluate the hydrologic condition of the tributary area using the USDA-SCS Technical Release No. 20 (June 1986) Methods.
2. Determine peak flows from each watershed, for various storm events, using the Hydro CAD computer program.
3. Determine the water quality volume, runoff reduction volume, channel protection volume, overbank flood protection volume and extreme storm flood protection volume for each drainage area that requires mitigation. Design the mitigation program to the DEC water quality and quantity methodology for each affected area.
4. Perform hydrologic routings for the selected stormwater systems using the Hydro CAD computer program. Examine and compare the output for the DEC design criteria, and also for peak elevations and peak outflows for both pre and post-development conditions as may be prescribed by the local authority.
5. Design the erosion and sedimentation control structures, and prepare engineering calculations for the design of channels and conveyance piping in accordance with the "New York Standards and Specifications for Erosion and Sediment Control", July 2016, New York State Department of Environmental Conservation".

4.1 Green Infrastructure Planning Guidelines

The proposed project has been designed to implement as many green infrastructure planning guidelines as possible. All of the guidelines are not always applicable or cannot be achieved. The planning methods are discussed below.

Preservation of Undisturbed Areas

The proposed project is located in a portion of the site that has been disturbed in the past. There are no significant undisturbed areas to place into permanent conservation; however, the undisturbed slopes to the south of the project will remain.

Preservation of Buffers

There are no existing stream, river, or wetland vegetated buffers on the project site.

Reduction of Clearing and Grading

The proposed project is located in a previously disturbed area which has already been cleared in the past. This reduces the need for further clearing and grading on the property.

Locating Development in Less Sensitive Areas

As described above, the project is located in an area of the site that has been previously disturbed.

Open Space Design

The proposed development is designed so the buildings are grouped together.

Soil Restoration

Any soil disturbed during the course of construction will be restored in accordance with the NYSDEC Stormwater Design Manual, Section 5.1.6.

Roadway Reduction

There are no proposed roads in this project. The drive aisles are the minimum allowed by the City code.

Sidewalk Reduction

The sidewalks are the minimum width required to meet code and area only proposed where needed to provide safe and adequate pedestrian circulation.

Driveway Reduction

The drive aisles are the minimum required by code.

Cul-de-sac Reduction

There are no proposed cul-de-sacs or dead ends. The layout has a continuous drive aisle to achieve sufficient vehicle access while eliminating the need for large unnecessary dead ends.

Building Footprint Reduction

As a redevelopment project, several existing buildings on the site will be removed.

Parking Reduction

As a redevelopment project, the majority of the site is currently parking and will be partially eliminated to add green space and reduce parking to the minimum required.

5.0 HYDROLOGIC AND HYDRAULIC ANALYSIS

Stormwater Management Design has the purpose of improving the quality of surface water runoff from all impervious areas and providing retention for increased runoff quantities that may occur. For the proposed project, the appropriate methodology to manage stormwater is to capture and treat runoff for quality and quantity control for the site.

The hydrologic analysis was performed uses the Hydro CAD stormwater modeling software, and all data regarding areas has been calculated in AutoCAD. Soils information has been obtained through mapping per the NRCS Dutchess County Soils Survey, onsite deep tests and infiltration tests. The results of the Hydraulic Analysis can be found in **Appendix C**.

5.1 Proposed Runoff Treatment – Water Quality

By allowing stormwater runoff to infiltrate back into the ground we are able to minimize the impacts on the surround surface waters and treat the runoff through exfiltration into the sub surface soils. The evaluation of the site to determine the water quality volumetric requirements follow strictly the

procedures presented in chapters 4 & 5 of the New York State Stormwater Design Manual, and is provided in full in **Appendix D**.

The table below summarizes the volumes required and provided for runoff reduction and water quality; Detailed calculations can be found in **Appendix D.**

WQv REQUIRED	
DA-1	1547.5
DA-2	492.1
DA-3	300.1
DA-4	259.5
DA-5	1711.4
DA-6	644.5
DA-7	302.6
DA-8	724.6
DA-9	194.4
DA-10	387.5
DA-11	385.9
DA-12	695.5
DA-13	172.5
DA-14	399.4
DA-15	144.1
DA-16	153.3
DA-17	145.9
DA-18	250.9
TOTAL (CU FT)	**8,912**
TOTAL (AC FT)	**0.20**
REDEVELOPMENT TOTAL (CU FT)	**2,228**
REDEVELOPMENT TOTAL (AC FT)	**0.05**

Overall there is a reduction of impervious in this area. The discharge rate is reduced and the reduction in impervious surface will reduce the potential for pollutants. Based on the size, location, and site features it is not the ideal location to treat runoff.

Water quality requirements for the proposed project will be achieved via a runoff reduction practice. Runoff reduction practices will satisfy the minimum required runoff reduction volume (RRv) by use of direct infiltration via drywells.

RRv REQUIRED	
DA-1	307
DA-2	97
DA-3	58
DA-4	51
DA-5	331
DA-6	125
DA-7	61
DA-8	143

DA-9	38
DA-10	77
DA-11	74
DA-12	139
DA-13	34
DA-14	78
DA-15	29
DA-16	31
DA-17	29
DA-18	50
TOTAL (CU FT)	**1,752**
TOTAL (AC FT)	**0.04**

Water quality is provided by the eight proposed and two existing drywells, surrounded by stone. The table below summarizes the volumes provided for runoff reduction and water quality. Detailed calculations for the overall WQv is provided in **Appendix D.**

WQv PROVIDED	
DW-1	255
DW-2	348
DW-3	348
DW-4 & EXISTING	510
DW-5	255
DW-6	255
DW-7	255
DW-8	255
EXISTING	348
TOTAL (CU FT)	**2,829**
TOTAL (AC FT)	**0.06**

WQv PROVIDED	
DW-1	194
DW-2	313
DW-3	313
DW-4 & EXISTING	459
DW-5	230
DW-6	153
DW-7	146
DW-8	144
EXISTING	300
TOTAL (CU FT)	**2,253**
TOTAL (AC FT)	**0.05**

Pretreatment

For the proposed drywells, pretreatment has been provided in sumps in the catch basins and yard drains prior to entering the drywells.

5.2 Proposed Stormwater Management – Water Quality

The design observation points have been modeled in Hydro CAD and represents the total flow leaving the project drainage areas. Seven different drainage points have been evaluated based on the proposed site development. The drainage analysis points are shown on the pre and post drainage area maps in **Appendix E.** The table below displays the peak discharge rates for the design points and demonstrates that discharge rates for post construction are less than or equal to what is currently produced at the design points meeting the requirements of Overbank Flood Protection and Extreme Flood protection.

Channel Protection Volume is not required if the Runoff Reduction volume is reduced onsite through runoff reduction techniques or infiltration practices.

Peak Flow Discharge Rate DP-1			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	7.4	3.7	**-3.7**
2	9.1	4.7	**-4.4**
10	13.6	7.2	**-6.4**
25	17.2	9.1	**-8.1**
100	24.2	14.7	**-9.6**

Peak Flow Discharge Rate DP-2			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	1.1	0.7	**-0.4**
2	1.4	0.8	**-0.6**
10	2.0	1.2	**-0.8**
25	2.5	1.6	**-0.9**
100	3.6	2.2	**-1.4**

Peak Flow Discharge Rate OVERALL			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	8.5	4.4	**-4.1**
2	10.5	5.5	**-5.0**
10	15.6	8.5	**-7.2**
25	19.7	10.7	**-9.1**
100	27.8	16.8	**-11.0**

Peak Flow Discharge Rate TOWN CB			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	168.7	167.8	**-0.9**
2	169.3	167.9	**-1.4**
10	171.6	168.6	**-3.0**
25	174.4	169.3	**-5.1**
100	182.2	172.2	**-10.0**

6.0 PERMANENT STORMWATER MANAGEMENT FEATURES

6.1 Conveyance Piping

Storm runoff from developed areas will be conveyed to and through the stormwater system by a series of underground piping and surface flows. Due to relatively small watershed areas associated with each catch basin, the SCS Unit Hydrograph TR-55/TR-20 Method and inlet capacities for circular pipes were used for pipe sizing. In general, piping is designed such that:

- All proposed piping is sized to accommodate the peak flow from the 25-year 24-hour storm, as prescribed by the local authority.
- Flow capacity is sufficient to convey runoff to the receiving discharge points
- Strength is sufficient to withstand the soil cover and vehicle loads.
- In some instances the existing site drainage system is not capable of conveying all of the runoff contributing to the drainage structure. The model shows that the basins fill and sheet flow overland to the next available drainage structure in large storm events. In no cases does the "surcharging" exceed 6 inches. In these locations the post condition has been improved to convey the flow or reduce the "surcharging".

6.2 Drywells

Monthly Maintenance

- Check all inflow pipes and clear of any debris
- Check all outflow pipes and clear of any debris
- Check to ensure drywell is draining between storm cycles.

Annual Maintenance

- Check depth of drywell to ensure greater than 25% storage capacity remains.
- If less than 25% contract Vacuum truck services to clean debris from Drywell.
- If drywell is not draining between storms, contract vacuum truck to clean debris.

7.0 STORMWATER EROSION AND SEDIMENT CONTROLS

Several types of permanent and temporary storm water pollutant controls are required to be installed and implemented for pre-construction, during construction and post-construction as shown on the Construction Plans and per the NYSDEC SPDES General Permit. Guidelines and recommendations can be found in the "New York State Standards and Specifications for Erosion and Sediment Control."

The permanent storm water management system has been designed to accommodate peak storm flows utilizing catch basins, piping and grass swales.

Selection of temporary storm water controls will be on an "as needed basis" and will depend on the specific conditions of the site. Since site characteristics can change significantly during construction, it is important to monitor the site regularly to ensure the proper selection and implementation of the necessary controls. These controls include, but are not limited to, silt fence, drainage swales, check dams, hay bales, stone construction entrances, sediment traps and seeding and mulching.

7.1 Erosion and Sediment Controls

Temporary Stabilization

Silt fences, drainage swales, stabilized stone construction entrances, erosion control blankets, and seeding and mulching, as well as, other controls will be utilized as temporary surface water management features. See the Erosion and Sediment Control Plan(s) and details sheets for the location, size, quantity and details of the temporary stormwater management features as described below.

Silt Fence

Silt fence will be used as necessary to reduce the sediment load in the receiving drainage ditches and as a perimeter sediment control device. In addition, silt fencing will be placed on the downslope sides of all disturbed areas 5 ft. from the toe of the slope until more permanent drainage and erosion control structures are established. In cases with environmentally sensitive areas adjacent to the downslope sides of disturbed areas, silt fencing should be placed at the toe of the slope outside the sensitive area. All silt fence are to be 36" minimum length with built in woven wire mesh (min. 6X6 14 ½ gauge) unless otherwise specified on the construction details.

Inlet Protection

Storm drain inlet protection measures prevent soils, sediment, and debris from entering storm basins. In unpaved areas inlet protection shall consist of a row of silt fence completely encircling the drain inlet. In paved areas inlet protection can consist of stone and block, silt sox, or hanging filter traps as specified on the plans.

Stabilized Stone Construction Entrance

A construction entrance is used at all entrances and exists to construction activities. The stone construction entrance is stabilized to reduce tracking of mud and dirt onto surrounding roads and surfaces.

Seeding and Mulching

Seeding and mulching is one of the most important and underutilized erosion control practices. Exposed earths pose the greatest risks for erosion and sediment. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. Temporarily Ceased means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Soil Stockpile

A soil stockpile is formed with soil excavated to provide proper building elevations. Stockpiled soil is later used to contour the surface to the desired grades, removed from the site, or the material is used for reclamation/restoration of the region following the removal of roads and facilities. All soils piled onsite must be completely enclosed by silt fence around the toe of the slope. The site fence should be

installed a minimum of 2 feet from the toe of the slope. The soil pile should have a maximum side slope of 1V:2H. All soil piles must be stabilized with seed and mulch or covered with a plastic tarp if the soil will not be used within fourteen (14) days from the date the current soil pile was created.

Permanent Stabilization

Permanent stormwater stabilization measures include catch basins, piping and other stormwater structures as described in sections 5 and 6. In all instances, the structures associated with the stormwater management system have been sized to accommodate peak flows from the appropriate storm events as required by the governing municipality. All lawns, basins and swales will be permanently seeded and mulched and maintained as necessary to prevent over growth.

Concrete Washout Areas

Concrete washouts are used to contain concrete and liquids when the chutes of concrete mixers and hoppers are cleaned after a delivery. The washout facility consolidates the liquids and allows them to harden for easy disposal. This prevents contaminated liquids from flowing offsite or leaching into the groundwater aquifer.

7.2 Other Pollutant Controls

Paints and Solvents

During construction temporary structures such as construction trailers may be moved on site to store items such as paints, solvents and gasoline pertinent to the continuation of construction activities. The intention of these structures is to shelter potential contaminants from stormwater and reduce the potential of toxic chemicals from entering the stormwater runoff due to construction activities.

Solvents and detergents that will be used for regular cleaning and maintenance of construction vehicles or temporary structures may be stored on-site. Solvents shall be used in cleaning machinery pursuant to 6 NYCRR Part 750. After use, solvents shall be disposed of in approved containers and removed from site at scheduled intervals.

Fuels

Fuel for construction equipment shall either be obtained from a licensed distributor of petroleum products or from an approved above ground storage tank on site. A distributor may be contracted to arrive on site periodically and fill all equipment as necessary. All distributors of petroleum products must have adequate liability insurance to mitigate and clean up any spills that occur on site as well as obtain appropriate permits and licenses from the NYSDEC. All above ground storage tanks with a combined capacity of 1,100 gallons shall be registered with the NYSDEC pursuant to 6 NYCRR Part 614 Standards for New and Substantially Modified Petroleum Storage Facilities.

Fuel from construction vehicles may come into contact with stormwater when vehicles are stored outside. Good housekeeping and preventative maintenance procedures shall be implemented to ensure fuel spills and leaks are minimized during refueling and storage. Any small-scale fuel or oil spills must be remedied immediately and contaminated soils shall be disposed of appropriately. A licensed spill prevention and response team shall handle large-scale gasoline spills.

Oil and other petroleum products may be stored on site, in limited quantities, to ensure the continued operation of construction equipment in the event a scheduled delivery is unavailable. Items shall be stored in their original containers within temporary structures and shall not be exposed to stormwater.

Used oil and petroleum products shall be stored in approved containers until recycled or disposed of at an approved disposal facility.

Temporary Facilities

Temporary sanitary facilities may be located on site for construction workers. This facility shall be located in an accessible and visible location. Such a facility shall be leak and tip proof. A waste management company may be contracted to arrive on site and provide the routine pumping and sanitization of the facility. Such a company shall have adequate liability insurance to mitigate and clean up any spills that occur on site as well as appropriate permits and licenses from the NYSDEC.

Dust Control

Construction vehicles shall enter and exit the site at the stabilized construction entrance. The construction entrance will trap dust and mud that would otherwise be carried off-site by construction traffic. Water trucks will be used as needed during construction to reduce dust generated on the site. The general contractor will provide dust control in compliance with applicable local and state dust control regulations. The construction entrances will be maintained during the life of the construction and repaired, and/or cleaned, periodically to ensure proper function.

Dewatering

If dewatering is required the water must be free of silt and sediment prior to discharge offsite or to any existing water bodies. If sediment is present, methods of sediment removal may include, but are not limited to; silt bags, temporary sediment traps, temporary sediment basins, or sheet flow across stabilized vegetated surfaces. As the quantity and quality of water cannot accurately be determined prior to excavation dewatering practices must be determined during construction and should be approved by the site engineer prior to commencing any dewatering activities.

Solid Waste

No solid materials are allowed to be discharged from the site with stormwater. All solid waste shall be collected and placed in containers. The containers will be emptied periodically by a contract trash disposal service and hauled away from the site.

Thermal Pollution

Stormwater that comes in contact with roadways, driveways, parking lots or other impermeable surfaces may increase in temperature during warm weather. If stormwater is discharged into surface water bodies, the temperature of the water body may also increase, potentially threatening plant and animal species sensitive to temperature changes as well as providing an environment that may cause nuisance species to flourish.

After development is complete, impervious areas shall be graded to channel water to catch basins and culverts, which in turn convey stormwater to the stormwater management basin. All stormwater shall be stored and treated within the basins and shall be released over a 24 hour period, which shall minimize the potential for raising the temperature of any downstream water bodies.

7.3 Best Management Practices

Throughout construction, care shall be taken to ensure sediment does not enter surface water bodies and chemicals do not enter stormwater, potentially contaminating surface and groundwater supplies. The following Best Management Practices (BMP) shall be observed to maintain responsible environmental practices on the construction site.

Good Housekeeping

Good housekeeping is essential to reducing the risk of contaminating runoff waters during every stage of construction. The General Contractor shall ensure supervisors train each employee in good housekeeping practices as they pertain to the implementation of this SWPPP.

Immediately following mobilization, the General Contractor shall take an inventory of all equipment and containers containing hazardous or toxic materials and submit this inventory to the Owner/Developer to keep on-site with this Stormwater Pollution Prevention Plan. This inventory shall be updated regularly to reflect changes in the quantity or type of hazardous and toxic materials stored on site. In the event of a spill, the Spill Response Team can refer to the inventory if the contents of the spill are unknown.

All equipment shall be operational while it is stored on site. Inspections shall be conducted regularly to ensure all equipment is free of leaks and that oil and grease are not in contact with soils or stormwater. Portable equipment such as chain saws, drills, as well as hand tools, must be placed within a trailer or under cover at the end of each work day.

A storage area shall be designated on-site where all hazardous or toxic materials are stored. Each employee shall return the materials to the designated storage area following use. Chemicals including oil, grease, solvents and detergents shall be stored on-site in approved containers only. Used chemicals shall be disposed of in refuse containers and removed periodically. Containers shall be regularly inspected to ensure the integrity of the container and sealed to prevent leaks.

A scheduled clean-up shall occur at the end of each workweek. During this clean up, empty containers of solvents, oils, grease, paints and detergents shall be disposed of, containers of gasoline shall be placed in trailers where they are not in contact with stormwater and the inventory shall be updated. Empty containers shall not be permitted on the ground.

Preventative Maintenance

All on-site vehicles must be inspected regularly for oil and grease leaks. All leaks shall be repaired immediately upon obtaining the appropriate equipment. If the leak cannot be fixed immediately, it shall be temporarily mitigated to prevent the flow of contaminants onto the soil and potentially into the stormwater. If necessary, the reservoir will be drained to stop the flow of contaminants or the vehicle will be moved under cover. Drip pans shall be used when performing any maintenance or cleaning on construction vehicles.

Spill Prevention and Response

The safety of employees and neighbors shall be of utmost concern when hazardous or toxic chemicals are stored or utilized on-site. Safety Data Sheets (SDS) shall be obtained for all toxic or hazardous substances that are stored on-site to provide employees with a valuable database in assessing risk in the event of a spill.

Any above ground storage tanks on site shall be installed pursuant to 6 NYCRR Part 614. According to the New York State "Minimum Standards for New and Substantially Modified Above Ground Storage Facilities", all tanks installed must meet or exceed the design criteria in one or more of the following design or manufacturing standards: UL No. 142, UL No. 58, API Standard No. 650, API Standard No. 620, CAN4-S601-M84 or CAN4-S630-M84. Tanks constructed of wood, concrete, aluminum, fiberglass reinforced plastic as well as riveted or bolted steel tanks are not permitted. All tanks must have installed

leak detection systems, secondary containment, corrosion protection, and undergo periodic monitoring pursuant to all Part 614 requirements.

Should a spill occur, a licensed spill contractor will be contacted to mitigate the potential negative effects of a spill. Additionally, the NYSDEC must be notified of a release of petroleum products. The General Contractor shall have trained employees knowledgeable in the location of sorbent, brooms, rags and mops in the event of a small-scale spill. An inventory of equipment and its location shall be posted in a visible location as well as kept in proximity to this Pollution Prevention Plan. If the General Contractor does not have Hazardous Materials trained employees on site, a firm that specializes in handling spills, soil and water contamination shall be called.

After a spill occurs, all personnel not trained in hazardous materials spill response shall be asked to evacuate the immediate area. The NYSDEC Spill Response Team shall be called to investigate the spill and determine if additional actions should be taken to ensure the safety of personnel and nearby residents. Should any employee have a suspected injury, a local emergency squad must be contacted immediately.

8.0 CONSTRUCTION SEQUENCE SCHEDULING

The scale of site construction does not necessitate that this project be a phased construction project; However, the construction will be sequenced to limit the exposed soils to reduce the amount of sediments in runoff water and ultimately preserve the quality of surface waters. The construction method selected is designed to combine development with responsible land management as well as protection of sensitive environments both within the proposed development and the surrounding area.

Temporary and permanent stabilization methods will be implemented before construction begins and will be continuously modified throughout the project to provide the best methods for stormwater management and pollution prevention. For more details pertaining to construction sequence, please refer to the "NYSDEC Instruction Manual for Stormwater Construction Permit" pages 23-26. A typical and sample ordering of site construction activities is as follows:

Pre-Construction Activities

- Identify all natural resources and mark and protect them as necessary i.e trees, vegetation, limits of disturbance.
- Identify on-site and downstream surface water bodies and install controls to protect them from sedimentation.
- Establish temporary stone construction entrance pads to capture mud and debris from the tires of construction vehicles.
- Install perimeter sediment controls such as silt fences, as shown on the project plans.
- Install temporary construction fencing as shown on the project plans or as directed by the site engineer.
- All earth disturbances during this phase should be limited to work necessary to install erosion and sedimentation controls.

During Construction Activities

- Complete building demolition in accordance with notes and procedures identified on the demolition plan.

- As site grading is completed install runoff and drainage controls as shown on the project plans and as necessary. These controls should reduce run-off flow rates and velocities, as well as, divert off site and clean run-off.
- Stabilize the conveyance system i.e. ditches, swales, berms etc. by seeding, mulching and installing rock check dams.
- Utilize practices to infiltrate stormwater runoff as much as possible when applicable.
- Stabilize all stormwater runoff outlets as shown on the project plans and as necessary.
- Limit soil disturbance to small areas and preserve as much of the existing vegetation as practical.
- Complete all underground utility improvements prior to installation of hard surface improvements.
- All topsoil stockpiles should be staged in an area away from surface waters and storm drains and should be protected and stabilized.
- Earth disturbance is not allowed in established buffers, within any regulated distance from wetlands, or within the high water line of a body of water affected by tidal action or other such protected zones.
- At any location where surface run-off from disturbed or graded areas may flow off-site, sedimentation control measures must be installed to prevent sedimentation from being transported.
- Regular inspections and maintenance should be performed as described in the following section.

Post-Construction Activities

- Identify the permanent structural or non-structural practices that will remain on the site.
- Provide an Operation & Maintenance (O&M) manual to the new Owner/Developer who is expected to conduct the necessary O&M over the life of the structures as described in Section 10.0 of this report.

9.0 IMPLEMENTING THE SWPP

9.1 Employee Training

All employees involved in site-development activities shall be aware of the stipulations outlined in this SWPPP as it pertains to their everyday activities. All such employees must be able to recognize potential problems and have the ability to provide either temporary or permanent stabilization measures, as appropriate, to mitigate stormwater runoff before problems occur. The NYSDEC periodically holds workshops on erosion and sediment control. It is recommended that the affected and responsible on-site personnel attend these workshops to ensure training is current and up to date. Contact the NYSDEC for more information.

9.2 Site Inspections

The Owner/Developer must have a qualified professional conduct an assessment of the site prior to the commencement of construction and certify in an inspection report that the appropriate erosion and sediment controls described in this SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction. A qualified professional is defined as a Professional Engineer or Landscape Architect licensed to practice in New York State, or is a Certified Professional in Erosion and Sediment Control (CPESC). Once construction begins regular inspection of construction activities by the qualified professional are required at least once every 7 days to ensure deficiencies regarding erosion and sedimentation are reported and corrected. It is the responsibility of the Contractor to continuously monitor construction activities to ensure the measures outlined in this report are being implemented.

Areas which have not been fully stabilized, areas used for materials storage and all structural control measures must be inspected once every 7 calendar days to monitor erosion and assess the risk of sedimentation. For sites where soil disturbance activities are on-going and the owner operator has received authorization in accordance with Part II.C.3 to disturb greater than five (5) acres of soil at any one time, the qualified inspector shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days. For areas construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the qualified inspector shall conduct a site inspection at least once every (30) calendar days.

A thorough site evaluation shall be performed to determine the continued applicability of the permit, and assess the need to make any changes that have not already been reflected in this SWPPP. The SWPPP shall be reviewed to evaluate its overall effectiveness in preventing sediment laden stormwater runoff. Temporary and permanent stabilization methods shall be assessed and new methods shall be established, should any method be determined to be inadequate.

A copy of the SWPPP must be maintained on site at all times in the field log book. The Owner/Developer must maintain a record of all inspection reports with the on site SWPPP. The SWPPP and inspection reports must be maintained on site and be made available to the permitting authority upon request.

9.3 Maintenance

It shall be necessary to maintain all temporary controls installed as well as vegetative measures across the site. Maintenance shall also be necessary to ensure the permanent structural features, such as underground chambers, catch basins and conveyance piping remain optimally functional and continue to reduce the risk of sediment loading of surface water bodies. All controls shall be repaired or replaced as necessary and as noted on the inspection reports as prepared by the Owner/Developer's Qualified Representative.

During construction, maintenance of these stabilization measures shall be the responsibility of the General Contractor or appropriate Sub Contractors. Vegetative plantings must not be allowed to become overgrown. Vegetation shall be removed should it be ineffective and be replaced with a variety of grasses, trees and shrubs more suitable for preventing stormwater runoff. Silt fences must be inspected regularly to ensure that they are still effective and their capability to reduce stormwater runoff has not been reduced due to prolonged sun exposure.

Piping and catch basin sumps shall be cleaned out periodically to prevent the collection of sediment that will reduce the maximum flow. Sediment must be removed from sediment basins, infiltration basins or traps whenever their capacity has been reduced by 50 percent of their design capacity.

Guidelines and recommendations for installation and maintenance practices can be found in the "New York State Standards and Specifications for Erosion and Sediment Control"

9.4 Progress Reports and Summaries

Progress reports shall be completed by the General Contractor and all Sub Contractors weekly to document any conditions, which may affect adherence to the construction schedule and may ultimately result in changes to the stormwater pollution prevention plan.

Each progress report must contain the project, date, weather conditions and a brief description of progress made throughout the week, including the use of temporary and permanent stabilization measures on all exposed soils. The progress reports shall be filed with this SWPPP in the on-site log book.

Additionally, as described in Section 1.1 of this report, the Owner/Developer's Qualified Representative will prepare weekly inspection reports and quarterly summaries. These reports should be maintained in the on site log book as well.

9.5 Certification

Prior to starting construction, the Owner/Developer must certify that to the best of their knowledge this SWPPP was prepared in accordance with the requirements in the NYSDEC SPDES General Permit and that it meets all federal, state and local erosion and sediment control requirements. The certifying statement is presented in **Appendix A** of this report.

The General Contractor and all appropriate Sub Contractors are responsible for reading and understanding the SWPPP and are also required to certify the SWPPP by signing the certifying statement presented in **Appendix A** of this report.

All inspection reports and inspection quarterly summaries are to be certified by an authorized person who has responsibility for the overall operation of the site such as a project manager or site superintendent. Certification of these documents is executed by signing the certifying statements presented at the end of the inspection reports.

10.0 POST CONSTRUCTION INSPECTION & MAINTENANCE

Post-construction, regularly scheduled inspections and maintenance will be necessary to ensure the permanent structural features such as the stormwater management basins and the conveyance system components remain optimally functional and continue to reduce the risk of sediment loading of surface water bodies. Follow manufactures guidelines and the detailed construction installation and maintenance guidelines included in **Appendix A** for all stormwater management practices.

When construction is complete, the Contractor will remain responsible for the site until the entire site has reached final stabilization. The site is considered stabilized when all soil disturbing activities have been completed and a uniform, perennial vegetative cover, with a density of 80%, has been established or equivalent stabilization measures, such as the use of mulches or geotextiles, have been employed on all unpaved areas and areas not covered by permanent structures. Weekly inspections should continue until the site has reached this point.

At the time of final stabilization, the Owner/Developer's Qualified Representative shall perform a final inspection of the site and certify that the site has successfully undergone final stabilization using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls such as silt fence, not needed for long term use, have been removed. All storm water practices must be clean and free of sediment and or debris or must be cleaned by the contractor prior to turning the maintenance responsibilities over to the Owner/Developer. At this point, the Owner/Developer is responsible for the following:

1. Submit to the NYSDEC a NOT prepared by the Owner/Developer's Qualified Representative as described in Section 1.1 of this report.

2. Identify all the permanent stormwater management structures that have been constructed and provide the New Owner/Developer with an Operations and Maintenance (O&M) manual that will be necessary in order for the structures to function properly after the site has been stabilized. Section 10.0 of this report satisfies the O&M requirements
3. Transfer the Water Quality and Quantity Report and SWPPP to the New Owner/Developer.
4. Certify that the permanent structures have been constructed as described by this plan and the drawings.

The new Owner/Developer shall overtake responsibility of inspecting and maintaining drainage and erosion control features over the lifetime of the structures. Maintenance personnel, employed by the New Owner/Developer, must be aware of the SWPPP and should be trained to recognize signs that stabilization measures may not be performing optimally or are failing. The inspection of on-site stabilization measures will become part of routine preventative maintenance practiced by the New Owner/Developer and his employees.

10.1 Inspection

Overall Site Inspection

The overall site, embankments, vegetation and stormwater conveyance system components including catch basins, culverts, swales and outlets should be inspected regularly. The inspections should include but are not limited to:

1. Density and condition of vegetation and ground cover.
2. Erosion, differential settlement or cracking of embankment.
3. Bulging or sliding of toe of embankments.
4. Sedimentation of on-site or downstream water bodies.
5. Sedimentation of culverts or swales.
6. Sedimentation of lawn areas, paved areas, within the sand filter units or catch basin sumps.
7. Accumulation of pollutants, including oils or grease in catch basin sumps.
8. Damage or fatigue of storm sewer structures or associated components.

Water Quality Practice Inspection (if applicable)

All water quality practices and all associated features should be inspected regularly. The inspections should include but are not limited to:

1. Density and condition of vegetation and ground cover.
2. All features of the practice should be clear of brush and tree growth.
3. Erosion, differential settlement or cracking of basin embankments.
4. Bulging or sliding of toe of embankments.
5. Presence of animal burrows.
6. Evidence of clogging or sedimentation at inlets or outlets.
7. Erosion of the flow path through the detention basin.
8. Spillways should be inspected for structural integrity.
9. Spillways should be clear of obstructions.
10. Inlet/outlet riprap should be inspected for scour and dislodged stones and obstructions should be removed.
11. Accumulation of sediments at inlets, outlets and silt traps.

Detailed inspection checklists for each of the Stormwater Management Practices can be found in **Appendix A**.

10.2 Maintenance

Overall Site Maintenance

Maintaining vegetative and structural measures for soil protection is necessary to keep the storm water system functioning properly. Maintenance should occur on a regular basis and should include but is not limited to:

Seasonal Maintenance

1. Vegetated areas should be maintained to promote vigorous and dense growth. Lawn areas should be mowed at least three times a year but may require more frequent mowing's depending on the growth rate.
2. Trees and unwanted vegetation should be removed from inlet structures, outlet structures, banks, and berms to prevent clogging or weakening of the berms and structures.
3. Paved areas should be swept at least twice a year and in the early spring for removal of deicing materials.
4. Accumulation of litter and debris should be removed during each mowing or sweep operation.
5. Structural components of the storm sewer system such as culverts and catch basins which require repair or replacement should be addressed immediately following identification.
6. Cleanout of catch basin sumps should occur when accumulation of sediments and debris are within six inches of the catch basin outlet pipe.
7. Swale and drainage way maintenance will include periodic mowing, occasional spot reseeding and weed control. Weeds and woody plants should be eradicated or cut back since they reduce the efficiency of the drainage way.
8. Rip rap lined inlet and outlets that show signs of scour should be repaired. Weed and brush growth at the inlets and outlets should be controlled as needed.

Winter Maintenance

1. Remove snow and ice from inlet structures, basin inlet and outlet structures and away from culvert end sections.
2. Snow removed from paved areas should not be piled at inlets/outlets of the stormwater management basin.
3. Use of deicing materials should be limited to sand and environmentally friendly chemical products. Use of salt mixtures should be kept to a minimum.
4. Sand used for deicing should be clean, course material free of fines, silt, and clay.
5. Materials used for de-icing should be removed during the early spring by sweeping and/or vacuuming.

Underground Practices Maintenance

1. A consistent schedule of inspection shall be observed for all system components to insure continued effective operation.
2. Areas surrounding the surface access points shall be kept clear of overgrowth.
3. All inspections shall be logged. A specific schedule, on a quarterly basis, shall be maintained by the system owner/operator and a periodic replacement of the water quality practice media shall be schedule for minimally every two years.
4. Accumulation of litter and debris should be removed during each mowing or sweep operation.
5. Structural components of the system which require repair or replacement should be addressed immediately following identification.
6. Spillways should be cleared of obstructions.
7. Inlet/outlet riprap damage due to scour should be repaired.

For any proprietary practices refer to manufacturer specifications for additional maintenance requirements. Detailed maintenance checklists for each of the Stormwater Management Practices can be found in **Appendix A**.

11.0 CONCLUSION

The Engineer has designed a NYSDEC-compliant Stormwater Management Plan for the Wallace Campus project. Overall, the proposed stormwater management system reduces and/or eliminates the impacts of the proposed re-development by controlling and treating stormwater using catch basins, storm-sewer piping, and drywells. Offsite storm discharges and velocities for the proposed project are less than what currently exists. The stormwater management system will function adequately and will not adversely affect adjacent or downstream properties provided it is constructed and maintained as outlined in this plan and as shown on the site plans.

APPENDIX A

Construction Site Log Book
Owner/Developer and Contractor Certification Forms
Pre/Duration Construction Maintenance Inspection Checklists (NYSDEC Sample)
Post Construction Operation and Maintenance

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM
FOR CONSTRUCTION ACTIVITIES

CONSTRUCTION SITE LOG BOOK

Table of Contents

I. Pre-Construction Meeting Documents.

a. Preamble to Site Assessment and Inspections

b. Operator's Certification

c. Qualified Professional's Credentials & Certification

d. Pre-Construction Site Assessment Checklist

a.

II. Construction Duration Inspections

a. Directions

b. Modification to the SWPPP

III. Monthly Summary Reports

IV. Monitoring, Reporting, and Three-Month Status Reports

a. Operator's Compliance Response Form

a

Properly completing forms such as those contained in this document meet the inspection requirement of NYSDEC SPDES GP for Construction Activities. Completed forms shall be kept on site at all times and made available to authorities upon request.

I. PRE-CONSTRUCTION MEETING DOCUMENTS

Project Name _____

Permit No. _____**Date of Authorization**_____

Name of Operator _____

Prime Contractor _____

a. Preamble to Site Assessment and Inspections -The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified professional[1] conduct an assessment of the site prior to the commencement of construction[2] and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Duration Inspections). The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request. The Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis (Monthly Summary Report).

The operator shall also prepare a written summary of compliance with this general permit at a minimum frequency of every three months (Operator's Compliance Response Form), while coverage exists. The summary should address the status of achieving each component of the SWPPP.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization[3] using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 "Qualified Professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, licensed engineer or someone working under the direction and supervision of a licensed engineer (person must have experience in the principles and practices of erosion and sediment control).

2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law. "

Name (please print):_____

Title _____ **Date:**_____

Address: _____

Phone: _____ **Email:**_____

Signature:_____

c. Qualified Professional's Credentials & Certification

" I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the following Pre-construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction."

Name (please print):_____

Title _____ **Date:**_____

Address: _____

Phone: _____ **Email:**_____

Signature:_____

d. Pre-construction Site Assessment Checklist (NOTE: Provide comments below as necessary)

1. Notice of Intent, SWPPP, and Contractors Certification:

Yes No NA

[ ] [ ] [ ] Has a Notice of Intent been filed with the NYS Department of Conservation?
[ ] [ ] [ ] Is the SWPPP on-site? Where?_____
[ ] [ ] [ ] Is the Plan current? What is the latest revision date?_____
[ ] [ ] [ ] Is a copy of the NOI (with brief description) onsite? Where?_____
[ ] [ ] [ ] Have all contractors involved with stormwater related activities signed a contractor's certification?

Pre-construction Site Assessment Checklist (continued)

2. Resource Protection

Yes No NA

[ ] [ ] [ ] Are construction limits clearly flagged or fenced?

[ ] [ ] [ ] Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.

[ ] [ ] [ ] Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

Yes No NA

[ ] [ ] [ ] Clean stormwater runoff has been diverted from areas to be disturbed.

[ ] [ ] [ ] Bodies of water located either on site or in the vicinity of the site have been identified and protected.

[ ] [ ] [ ] Appropriate practices to protect on-site or downstream surface water are installed.

[ ] [ ] [ ] Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Entrance

Yes No NA

[ ] [ ] [ ] A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.

[ ] [ ] [ ] Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.

[ ] [ ] [ ] Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Perimeter Sediment Controls

Yes No NA

[ ] [ ] [ ] Silt fence material and installation comply with the standard drawing and specifications.

[ ] [ ] [ ] Silt fences are installed at appropriate spacing intervals

[ ] [ ] [ ] Sediment/detention basin was installed as first land disturbing activity.

[ ] [ ] [ ] Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA

[ ] [ ] [ ] The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.

[ ] [ ] [ ] The plan is contained in the SWPPP on page _____

[ ] [ ] [ ] Appropriate materials to control spills are onsite. Where? _____

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:
Inspection Forms will be filled out during the entire construction phase of the project.
Required Elements:

(1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;

(2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;

(3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;

Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);

(5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and

(6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

SITE PLAN/SKETCH

_____ _____

Inspector (print name) **Date of Inspection**

_____ _____

Qualified Professional (print name) **Qualified Professional Signature**

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

Maintaining Water Quality

Yes No NA

[ ] [ ] [ ] Is there an increase in turbidity causing a substantial visible contrast to natural conditions?
[ ] [ ] [ ] Is there residue from oil and floating substances, visible oil film, or globules or grease?
[ ] [ ] [ ] All disturbance is within the limits of the approved plans.
[ ] [ ] [ ] Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions

Yes No NA

[ ] [ ] [ ] Is construction site litter and debris appropriately managed?
[ ] [ ] [ ] Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?
[ ] [ ] [ ] Is construction impacting the adjacent property?
[ ] [ ] [ ] Is dust adequately controlled?

2. Temporary Stream Crossing

Yes No NA

[ ] [ ] [ ] Maximum diameter pipes necessary to span creek without dredging are installed.
[ ] [ ] [ ] Installed non-woven geotextile fabric beneath approaches.
[ ] [ ] [ ] Is fill composed of aggregate (no earth or soil)?
[ ] [ ] [ ] Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

Runoff Control Practices

1. Excavation Dewatering

Yes No NA

[ ] [ ] [ ] Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.
[ ] [ ] [ ] Clean water from upstream pool is being pumped to the downstream pool.
[ ] [ ] [ ] Sediment laden water from work area is being discharged to a silt-trapping device.
[ ] [ ] [ ] Constructed upstream berm with one-foot minimum freeboard.

2. Level Spreader

Yes No NA

[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.
[ ] [ ] [ ] Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales

Yes No NA

[ ] [ ] [ ] Installed per plan with minimum side slopes 2H:1V or flatter.
[ ] [ ] [ ] Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.
[ ] [ ] [ ] Sediment-laden runoff directed to sediment trapping structure

Runoff Control Practices (continued)

4. Stone Check Dam

Yes No NA

[ ] [ ] [ ] Is channel stable? (flow is not eroding soil underneath or around the structure).
[ ] [ ] [ ] Check is in good condition (rocks in place and no permanent pools behind the structure).
[ ] [ ] [ ] Has accumulated sediment been removed?.

5. Rock Outlet Protection

Yes No NA

[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles

Yes No NA

[ ] [ ] [ ] Stockpiles are stabilized with vegetation and/or mulch.
[ ] [ ] [ ] Sediment control is installed at the toe of the slope.

2. Revegetation

Yes No NA

[ ] [ ] [ ] Temporary seedings and mulch have been applied to idle areas.
[ ] [ ] [ ] 4 inches minimum of topsoil has been applied under permanent seedings

Sediment Control

1. Stabilized Construction Entrance

Yes No NA

[ ] [ ] [ ] Stone is clean enough to effectively remove mud from vehicles.
[ ] [ ] [ ] Installed per standards and specifications?
[ ] [ ] [ ] Does all traffic use the stabilized entrance to enter and leave site?
[ ] [ ] [ ] Is adequate drainage provided to prevent ponding at entrance?

2. Silt Fence

Yes No NA

[ ] [ ] [ ] Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
[ ] [ ] [ ] Joints constructed by wrapping the two ends together for continuous support.
[ ] [ ] [ ] Fabric buried 6 inches minimum.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.

Sediment accumulation is ___% of design capacity.

Sediment Control (continued)

3. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)

Yes No NA

[ ] [ ] [ ] Installed concrete blocks lengthwise so open ends face outward, not upward.
[ ] [ ] [ ] Placed wire screen between No. 3 crushed stone and concrete blocks.
[ ] [ ] [ ] Drainage area is 1acre or less.
[ ] [ ] [ ] Excavated area is 900 cubic feet.
[ ] [ ] [ ] Excavated side slopes should be 2:1.
[ ] [ ] [ ] 2" x 4" frame is constructed and structurally sound.
[ ] [ ] [ ] Posts 3-foot maximum spacing between posts.
[ ] [ ] [ ] Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.

Sediment accumulation ___% of design capacity.

4. Temporary Sediment Trap

Yes No NA

[ ] [ ] [ ] Outlet structure is constructed per the approved plan or drawing.
[ ] [ ] [ ] Geotextile fabric has been placed beneath rock fill.

Sediment accumulation is ___% of design capacity.

5. Temporary Sediment Basin

Yes No NA

[ ] [ ] [ ] Basin and outlet structure constructed per the approved plan.
[ ] [ ] [ ] Basin side slopes are stabilized with seed/mulch.
[ ] [ ] [ ] Drainage structure flushed and basin surface restored upon removal of sediment basin facility.

Sediment accumulation is ___% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design.
Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

CONSTRUCTION DURATION INSPECTIONS
b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:
1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:

III. Monthly Summary of Site Inspection Activities

Name of Permitted Facility:	Today's Date:	Reporting Month:
Location:	Permit Identification #:	
Name and Telephone Number of Site Inspector:		

Date of Inspection	Regular / Rainfall based Inspection	Name of Inspector	Items of Concern

Owner/Operator Certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

_____ _____

Signature of Permittee or Duly Authorized Representative Name of Permittee or Duly Authorized Representative date

Duly authorized representatives must have written authorization, submitted to DEC, to sign any permit documents.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Owner/Operator Certification Form

SPDES General Permit For Stormwater Discharges From Construction Activity (GP-0-15-002)

Project/Site Name: Wallace Campus

eNOI Submission Number: _____

eNOI Submitted by: ☐ **Owner/Operator** ☐ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Owner/Operator First Name M.I. Last Name

_____

Signature

_____

Date

CONTRACTOR CERTIFICATION

I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York state Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges* from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards.* Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations."

Contractor Signature	Title	Date
Contractor Signature	Title	Date
Contractor Signature	Title	Date
Contractor Signature	Title	Date

85 Civic Center Plaza, Suite 103
Poughkeepsie, NY 12601
Phone: (845) 243-2880
Fax: (845) 265-8175

Drywell Inspection Checklist

Location:	
Site Status:	
Date:	
Time:	
Inspector:	

1. MONTHLY MAINTENANCE

Maintenance Item	Satisfactory / Unsatisfactory	Comments
Inflow pipe clear of debris		
Outflow pipe clear of debris		
Contributory drainage area clear of debris		
No evidence of erosion within contributory drainage area		
Drywell drains between storms		

2. ANNUAL MAINTENANCE

Maintenance Item	Satisfactory / Unsatisfactory	Comments
Greater than 25% of storage volume remaining		
Sediment accumulation requires cleanout		
Drywell in good structural condition		

Comments:

Actions to be Taken:

APPENDIX B

Notice of Intent (NOI)
Notice of Termination (NOT)
NYSDEC SPDES General Permit GP-0-15-002
MS4 Acceptance Form

0644089821

NOTICE OF INTENT

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR _____ (for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-
RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
WALLACE CAMPUS MANAGER, LLC

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
LOGSDON

Owner/Operator Contact Person First Name
JOHN

Owner/Operator Mailing Address
48-02 25TH AVENUE, SUITE 400

City
ASTORIA

State
NY

Zip
11103-____

Phone (Owner/Operator)
917-232-1777

Fax (Owner/Operator)
___-___-____

Email (Owner/Operator)
JLOGSDON@URBANGREENBUILDERS.COM

FED TAX ID
__-_____ (not required for individuals)

Project Site Information

Project/Site Name
WALLACE CAMPUS

Street Address (NOT P.O. BOX)
331 MAIN STREET

Side of Street
● **North** ○ **South** ○ **East** ○ **West**

City/Town/Village (THAT ISSUES BUILDING PERMIT)
CITY OF POUGHKEEPSIE

State: NY
Zip: 12601-
County: DUTCHESS
DEC Region: 3

Name of Nearest Cross Street
CATHERINE STREET

Distance to Nearest Cross Street (Feet)
130

Project In Relation to Cross Street
○ **North** ○ **South** ○ **East** ● **West**

Tax Map Numbers
Section-Block-Parcel
6162-77-127091

Tax Map Numbers

1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you **must** go to the NYSDEC Stormwater Interactive Map on the DEC website at:

www.dec.ny.gov/imsmaps/stormwater/viewer.htm

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting): 589376

Y Coordinates (Northing): 4617452

2. What is the nature of this construction project?

○ **New Construction**

○ **Redevelopment with increase in impervious area**

● **Redevelopment with no increase in impervious area**

3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use

- ○ FOREST
- ○ PASTURE/OPEN LAND
- ○ CULTIVATED LAND
- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION
- ○ TOWN HOME RESIDENTIAL
- ○ MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ● COMMERCIAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY
- ○ PARKING LOT
- ○ OTHER

Post-Development Future Land Use

- ○ SINGLE FAMILY HOME — Number of Lots
- ○ SINGLE FAMILY SUBDIVISION
- ○ TOWN HOME RESIDENTIAL
- ○ MULTIFAMILY RESIDENTIAL
- ○ INSTITUTIONAL/SCHOOL
- ○ INDUSTRIAL
- ● COMMERCIAL
- ○ MUNICIPAL
- ○ ROAD/HIGHWAY
- ○ RECREATIONAL/SPORTS FIELD
- ○ BIKE PATH/TRAIL
- ○ LINEAR UTILITY (water, sewer, gas, etc.)
- ○ PARKING LOT
- ○ CLEARING/GRADING ONLY
- ○ DEMOLITION, NO REDEVELOPMENT
- ○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
- ○ OTHER

***Note**: for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area
3.1	3.1	2.9	2.4

5. Do you plan to disturb more than 5 acres of soil at any one time? ○ **Yes** ● **No**

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	B	C	D
%	%	%	100 %

7. Is this a phased project? ○ **Yes** ● **No**

8. Enter the planned start and end dates of the disturbance activities.

Start Date	End Date
04/01/2022	04/01/2024

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name

Fall Kill Creek

9a. Type of waterbody identified in Question 9?

- ○ Wetland / State Jurisdiction On Site (Answer 9b)
- ○ Wetland / State Jurisdiction Off Site
- ○ Wetland / Federal Jurisdiction On Site (Answer 9b)
- ○ Wetland / Federal Jurisdiction Off Site
- ○ Stream / Creek On Site
- ● Stream / Creek Off Site
- ○ River On Site
- ○ River Off Site
- ○ Lake On Site
- ○ Lake Off Site
- ○ Other Type On Site
- ○ Other Type Off Site

9b. How was the wetland identified?

- ○ Regulatory Map
- ○ Delineated by Consultant
- ○ Delineated by Army Corps of Engineers
- ○ Other (identify)

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001? ○ **Yes** ● **No**

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001? ○ **Yes** ● **No**

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? ○ **Yes** ● **No**
If no, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ○ **Yes** ● **No**
If Yes, what is the acreage to be disturbed?

.

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? ○ **Yes** ● **No**

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ◉ Yes ○ No ○ Unknown

16. What is the name of the municipality/entity that owns the separate storm sewer system?

CITY OF POUGHKEEPSIE

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ○ Yes ◉ No ○ Unknown

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? ○ Yes ◉ No

19. Is this property owned by a state authority, state agency, federal government or local government? ○ Yes ◉ No

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ○ Yes ◉ No

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ◉ Yes ○ No

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ◉ Yes ○ No
If No, skip questions 23 and 27-39.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ◉ Yes ○ No

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ● **Professional Engineer (P.E.)**
- ○ **Soil and Water Conservation District (SWCD)**
- ○ **Registered Landscape Architect (R.L.A)**
- ○ **Certified Professional in Erosion and Sediment Control (CPESC)**
- ○ **Owner/Operator**
- ○ **Other**

SWPPP Preparer
LRC ENGINEERING & SURVEYING, DPC

Contact Name (Last, Space, First)
MORRISON, RODNEY

Mailing Address
85 CIVIC CENTER PLAZA, SUITE 103

City
POUGHKEEPSIE

State NY Zip 12601-

Phone 845-243-2880 Fax --

Email
RMORRISON@LRCCONSULT.COM

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name RODNEY **MI** E

Last Name MORRISON

Signature

Date 10/25/2021

25. Has a construction sequence schedule for the planned management practices been prepared? ○ Yes ○ No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural

- ○ Check Dams
- ○ Construction Road Stabilization
- ● Dust Control
- ○ Earth Dike
- ○ Level Spreader
- ○ Perimeter Dike/Swale
- ○ Pipe Slope Drain
- ○ Portable Sediment Tank
- ○ Rock Dam
- ○ Sediment Basin
- ○ Sediment Traps
- ● Silt Fence
- ● Stabilized Construction Entrance
- ● Storm Drain Inlet Protection
- ○ Straw/Hay Bale Dike
- ○ Temporary Access Waterway Crossing
- ○ Temporary Stormdrain Diversion
- ○ Temporary Swale
- ○ Turbidity Curtain
- ○ Water bars

Biotechnical

- ○ Brush Matting
- ○ Wattling

Vegetative Measures

- ○ Brush Matting
- ○ Dune Stabilization
- ○ Grassed Waterway
- ● Mulching
- ○ Protecting Vegetation
- ○ Recreation Area Improvement
- ● Seeding
- ○ Sodding
- ○ Straw/Hay Bale Dike
- ○ Streambank Protection
- ○ Temporary Swale
- ● Topsoiling
- ○ Vegetating Waterways

Permanent Structural

- ○ Debris Basin
- ○ Diversion
- ○ Grade Stabilization Structure
- ● Land Grading
- ○ Lined Waterway (Rock)
- ○ Paved Channel (Concrete)
- ○ Paved Flume
- ○ Retaining Wall
- ○ Riprap Slope Protection
- ○ Rock Outlet Protection
- ○ Streambank Protection

Other

Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ● **Preservation of Undisturbed Areas**
- ● **Preservation of Buffers**
- ● **Reduction of Clearing and Grading**
- ● **Locating Development in Less Sensitive Areas**
- ● **Roadway Reduction**
- ● **Sidewalk Reduction**
- ● **Driveway Reduction**
- ○ **Cul-de-sac Reduction**
- ● **Building Footprint Reduction**
- ● **Parking Reduction**

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ● All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ○ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required

0.05 **acre-feet**

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

	Total Contributing Area (acres)		Total Contributing Impervious Area(acres)
RR Techniques (Area Reduction)			
○ Conservation of Natural Areas (RR-1)		and/or	
○ Sheetflow to Riparian Buffers/Filters Strips (RR-2)		and/or	
○ Tree Planting/Tree Pit (RR-3)		and/or	
○ Disconnection of Rooftop Runoff (RR-4)		and/or	
RR Techniques (Volume Reduction)			
○ Vegetated Swale (RR-5)			
○ Rain Garden (RR-6)			
○ Stormwater Planter (RR-7)			
○ Rain Barrel/Cistern (RR-8)			
○ Porous Pavement (RR-9)			
○ Green Roof (RR-10)			
Standard SMPs with RRv Capacity			
○ Infiltration Trench (I-1)			
○ Infiltration Basin (I-2)			
○ Dry Well (I-3)			1.48
○ Underground Infiltration System (I-4)			
○ Bioretention (F-5)			
○ Dry Swale (O-1)			
Standard SMPs			
○ Micropool Extended Detention (P-1)			
○ Wet Pond (P-2)			
○ Wet Extended Detention (P-3)			
○ Multiple Pond System (P-4)			
○ Pocket Pond (P-5)			
○ Surface Sand Filter (F-1)			
○ Underground Sand Filter (F-2)			
○ Perimeter Sand Filter (F-3)			
○ Organic Filter (F-4)			
○ Shallow Wetland (W-1)			
○ Extended Detention Wetland (W-2)			
○ Pond/Wetland System (W-3)			
○ Pocket Wetland (W-4)			
○ Wet Swale (O-2)			

Table 2 - Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Alternative SMP	Total Contributing Impervious Area(acres)
○ **Hydrodynamic**	
○ **Wet Vault**	
○ **Media Filter**	
○ **Other**	

Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Name

Manufacturer

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

Total RRv provided

0.05 **acre-feet**

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28).

● **Yes** ○ **No**

If Yes, go to question 36.
If No, go to question 32.

32. Provide the Minimum RRv required based on HSG.
[Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)]

Minimum RRv Required

. **acre-feet**

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

○ **Yes** ○ **No**

If Yes, go to question 33.
Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

[ ][ ][ ].[ ][ ][ ] **acre-feet**

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a). [ ][ ][ ].[ ][ ][ ]

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ○ **Yes** ○ **No**

If Yes, go to question 36.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

[ ][ ][ ].[ ][ ][ ] **acre-feet**

CPv Provided

[ ][ ][ ].[ ][ ][ ] **acre-feet**

36a. The need to provide channel protection has been waived because:

○ Site discharges directly to tidal waters or a fifth order or larger stream.

● Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

[ ][1][5].[7][ ][ ] **CFS**

Post-development

[ ][ ][8].[5][ ][ ] **CFS**

Total Extreme Flood Control Criteria (Qf)

Pre-Development

[ ][2][7].[8][ ][ ] **CFS**

Post-development

[ ][1][6].[8][ ][ ] **CFS**

37a. The need to meet the Qp and Qf criteria has been waived because:

- ○ Site discharges directly to tidal waters or a fifth order or larger stream.
- ● Downstream analysis reveals that the Qp and Qf controls are not required

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? ● **Yes** ○ **No**

If Yes, Identify the entity responsible for the long term Operation and Maintenance

WALLACE CAMPUS MANAGER, LLC

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a) This space can also be used for other pertinent project information.

40. Identify other DEC permits, existing and new, that are required for this project/facility.

- ○ Air Pollution Control
- ○ Coastal Erosion
- ○ Hazardous Waste
- ○ Long Island Wells
- ○ Mined Land Reclamation
- ○ Solid Waste
- ○ Navigable Waters Protection / Article 15
- ○ Water Quality Certificate
- ○ Dam Safety
- ○ Water Supply
- ○ Freshwater Wetlands/Article 24
- ○ Tidal Wetlands
- ○ Wild, Scenic and Recreational Rivers
- ○ Stream Bed or Bank Protection / Article 15
- ○ Endangered or Threatened Species(Incidental Take Permit)
- ○ Individual SPDES
- ○ SPDES Multi-Sector GP [N][Y][R][ ][ ][ ][ ][ ][ ]
- ○ Other [ ]
- ○ None

41. Does this project require a US Army Corps of Engineers Wetland Permit? ○ **Yes** ● **No**
If Yes, Indicate Size of Impact. [ ][ ][ ][ ][ ].[ ]

42. Is this project subject to the requirements of a regulated, traditional land use control MS4? ● **Yes** ○ **No**
(If No, skip question 43)

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI? ● **Yes** ○ **No**

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned. [N][Y][R][ ][ ][ ][ ][ ][ ]

Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name: JOHN

MI:

Print Last Name: LOGSDON

Owner/Operator Signature:

Date: / /

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR ___ ___ ___ ___ ___ ___

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person: | 4a.Telephone:

4b. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

III. Reason for Termination

9a. □ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. ***Date final stabilization completed** (month/year): _____

9b. □ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ___ ___ ___ ___ ___ ___
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. □ Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? □ yes □ no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? □ yes □ no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

_____

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? □ yes □ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

□ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

□ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

□ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.

□ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? □ yes □ no

(If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation:

(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:	Date:

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

(NYS DEC Notice of Termination - January 2015)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2020 Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

1-23-20

Authorized Signature Date

Address: NYS DEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System ("NPDES")* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of "*construction activity*", as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;

2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State.*

3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the

deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:

   (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s;

   (ii) Control stormwater *discharge*s, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;

   (iii) *Minimize* the amount of soil exposed during *construction activity*;

   (iv) *Minimize* the disturbance of *steep slopes*;

   (v) *Minimize* sediment *discharge*s from the site;

   (vi) Provide and maintain *natural buffer*s around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharge*s, unless *infeasible*;

   (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;

   (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

   (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:

(i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;

(ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and

(iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Prohibited *Discharge*s.** The following *discharge*s are prohibited:

(i) Wastewater from washout of concrete;

(ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

(iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;

(iv) Soaps or solvents used in vehicle and equipment washing; and

(v) Toxic or hazardous substances from a spill or other release.

f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices ("SMPs") are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

(i) Runoff Reduction Volume ("RRv"): Reduce the total Water Quality Volume ("WQv") by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site discharges directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria ("Qp"): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria ("Qf"): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watershed

(i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

calculated in accordance with the criteria in Section 10.3 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site *discharge*s directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

c. Sizing Criteria for Redevelopment Activity

(i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.

(1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or

(2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or

(3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or

(4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

(ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

d. Sizing Criteria for Combination of Redevelopment Activity and New Development

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

The Department expects that compliance with the conditions of this permit will control *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;

2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharge*s authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.

2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharge*s; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.

3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharge*s from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.

4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharge*s after *construction activities* have been completed and the site has undergone *final stabilization*;

2. *Discharge*s that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;

3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;

4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

operator has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;

6. *Construction activities* for residential, commercial and institutional projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

7. *Construction activities* for linear transportation projects and linear utility projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:

   a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.

      - 1-5 acres of disturbance - 20 feet
      - 5-20 acres of disturbance - 50 feet
      - 20+ acres of disturbance - 100 feet, or

   b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
      (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
      (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
      (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
      (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or

   c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

(i) No Affect
(ii) No Adverse Affect
(iii) Executed Memorandum of Agreement, or

d. Documentation that:

(i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharge*s from *construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.

3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of *Owner or Operator*) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (http://www.dec.ny.gov/). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

   NOTICE OF INTENT
   NYS DEC, Bureau of Water Permits
   625 Broadway, 4th Floor
   Albany, New York 12233-3505

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.

3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.

4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.

2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:

   a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (http://www.dec.ny.gov/) for more information,

   b. where required, all necessary Department permits subject to the *Uniform Procedures Act ("UPA")* (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators* of *construction activities* that are required to obtain *UPA* permits

must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

c. the final SWPPP has been prepared, and

d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.

3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

   a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:

      (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or

      (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;

      (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:

(i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed "*MS4* SWPPP Acceptance" form, or

(ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed "MS4 SWPPP Acceptance" form.

4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.

2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor's or subcontractor's certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

use control MS4, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.

e. The *owner or operator* shall include the requirements above in their SWPPP.

4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..

5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of *a construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

   An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4,* the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.

2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.

3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.

4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:

    a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;

c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* the Department or other regulatory authority; and

d. to document the final construction conditions.

5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.

6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor.* The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

   The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

   "I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharge*s from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:

    a. Background information about the scope of the project, including the location, type and size of project

b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge*(s);

c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);

d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;

e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;

f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;

g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;

h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;

k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and

l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

   Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

   The post-construction stormwater management practice component of the SWPPP shall include the following:

   a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;

c. A Stormwater Modeling and Analysis Report that includes:
   (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;

   (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;

   (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;

   (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;

   (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and

   (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;

d. Soil testing results and locations (test pits, borings);

e. Infiltration test results, when required; and

f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria,* Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

C. Required SWPPP Components by Project Type

Unless otherwise notified by the Department, *owners or operators* of *construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators* of the *construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- New York State Erosion and Sediment Control Certificate Program holder
- Registered Landscape Architect, or
- someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:

   a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization,* and all temporary, structural erosion and sediment control measures have been removed*;* and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.

e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization,* all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.

4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

a. Date and time of inspection;

b. Name and title of person(s) performing inspection;

c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;

f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;

g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;

i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);

k. Identification and status of all corrective actions that were required by previous inspection; and

l. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the *qualified inspector.* Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.

2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

   a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;

c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.

d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.

3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.

4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the "MS4 Acceptance" statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) required in Part V.A.3. of this permit.

5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),

c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,

d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator,* its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to $37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

E. Duty to Mitigate

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit , or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:

    a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(i) the chief executive officer of the agency, or

(ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.

3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.

4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4,* or by a duly authorized representative of that person.

   It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge*(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner’s or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.

4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.

2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
Cpv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - Environmental Conservation Law
EPA – U. S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property –means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both "sewage" and "stormwater".

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for "*Construction Activity(ies)*" also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Construction Site – means the land area where *construction activity(ies)* will occur. See definition for "*Commence (Commencement of) Construction Activities"* and "*Larger Common Plan of Development or Sale" also.*

Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

Embankment –means an earthen or rock slope that supports a road/highway.

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department's rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term "plan" in "larger common plan of development or sale" is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same "common plan" is not concurrently being disturbed.

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State*;*
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a *combined sewer*; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Natural Buffer –means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Performance Criteria – means the design criteria listed under the "Required Elements" sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Steep Slope – means land area designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint source*s, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single family home not located in one of the watersheds listed in Appendix C or not *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions with 25% or less impervious cover at total site build-out and not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.

The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover
- Cross-country ski trails and walking/hiking trails
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.
- Slope stabilization projects
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover,* and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

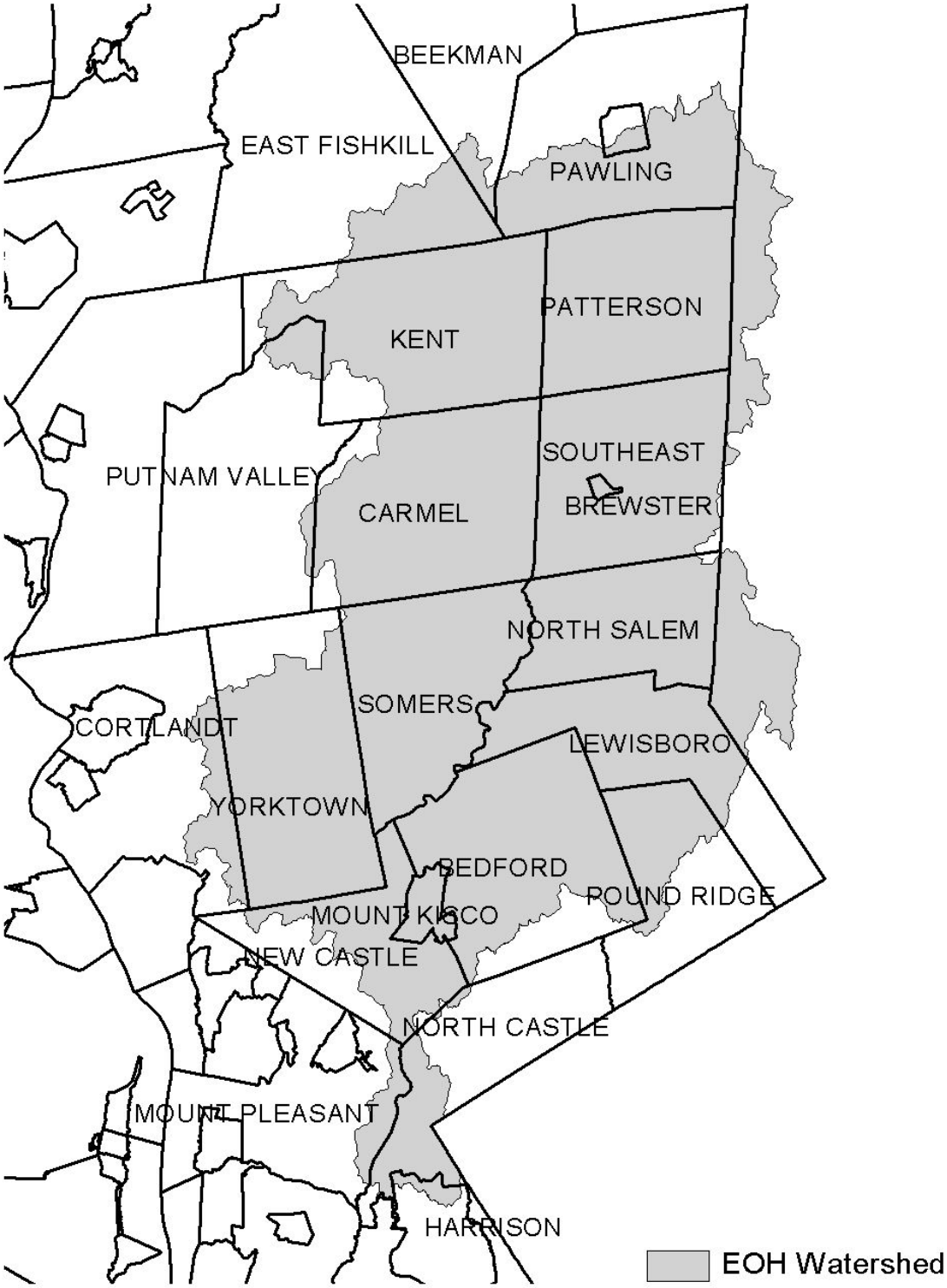


Figure 2 - Onondaga Lake Watershed

Figure 3 - Greenwood Lake Watershed

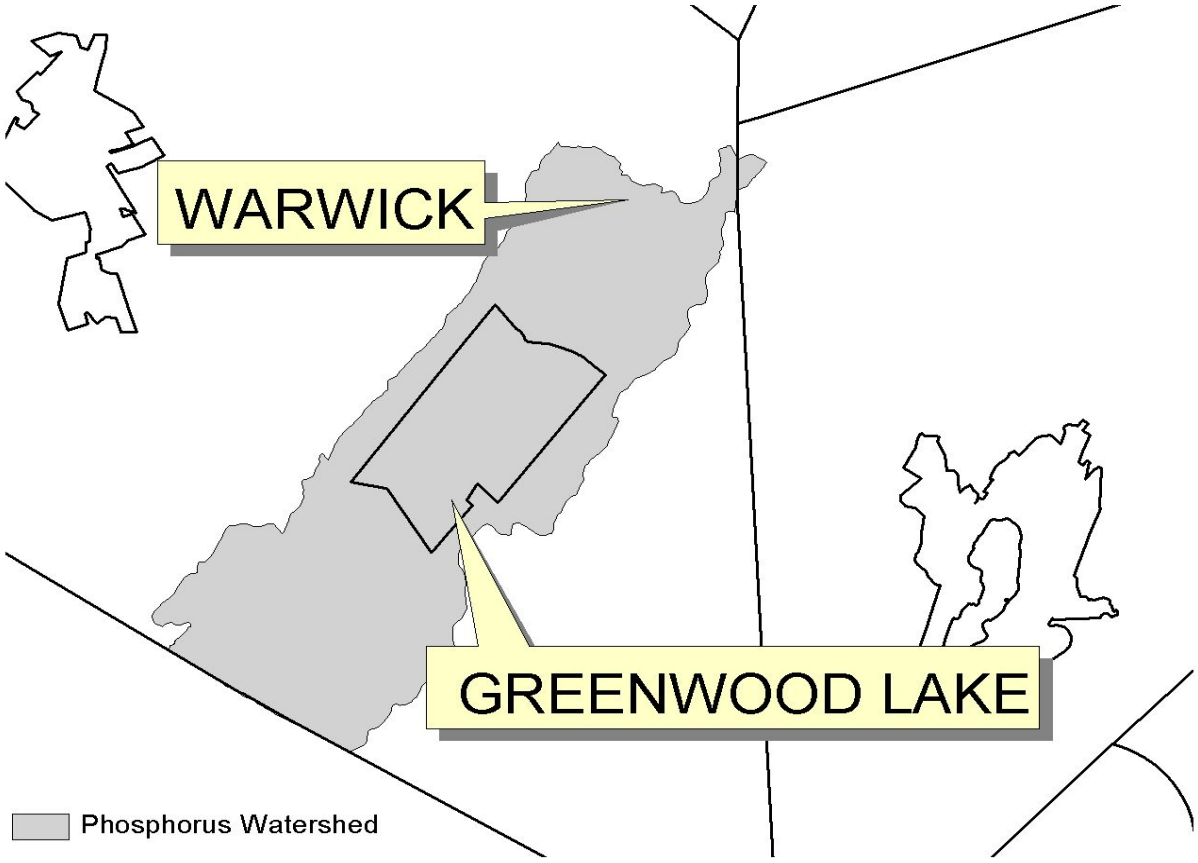


Figure 4 - Oscawana Lake Watershed

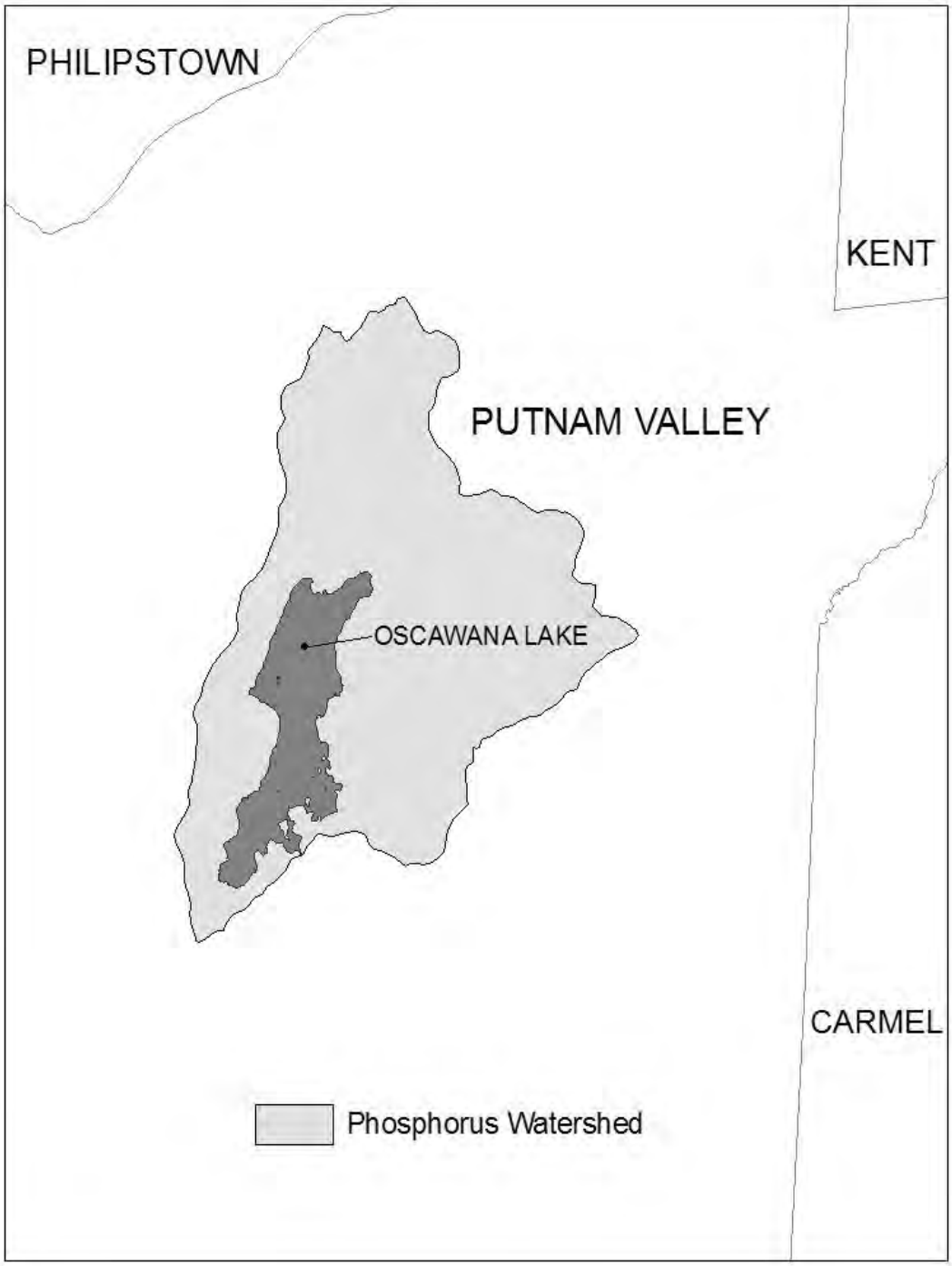
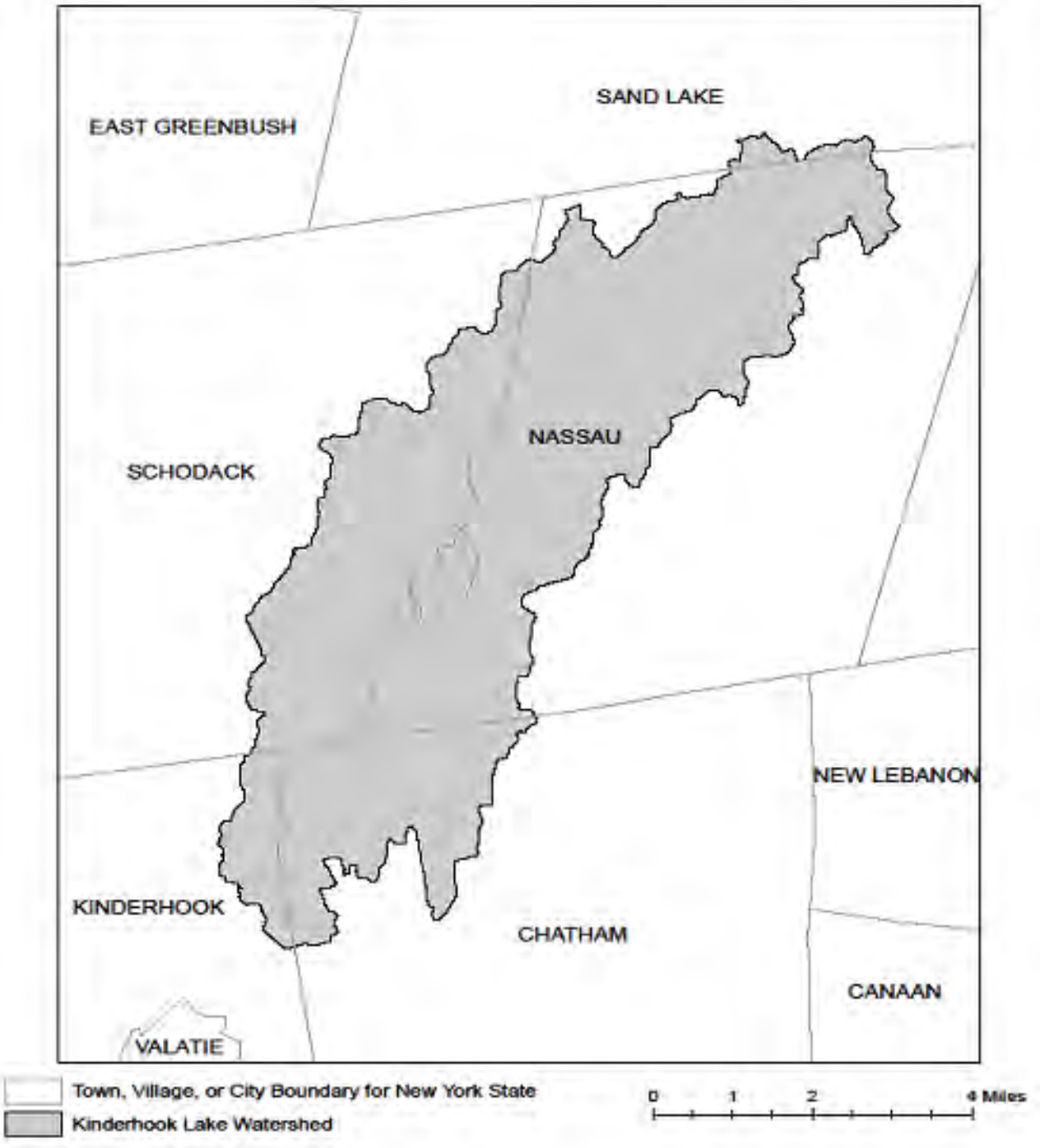


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C

APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

APPENDIX F – List of NYS DEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	100 Hillside Avenue, Suite 1W White Plains, NY 10603 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NYS Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

Construction Activities Seeking Authorization Under SPDES General Permit

*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information
8. SWPPP Reviewed by:
9. Title/Position:
10. Date Final SWPPP Reviewed and Accepted:
IV. Regulated MS4 Information
11. Name of MS4:
12. MS4 SPDES Permit Identification Number: NYR20A _____
13. Contact Person:
14. Street Address:
15. City/State/Zip:
16. Telephone Number:

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

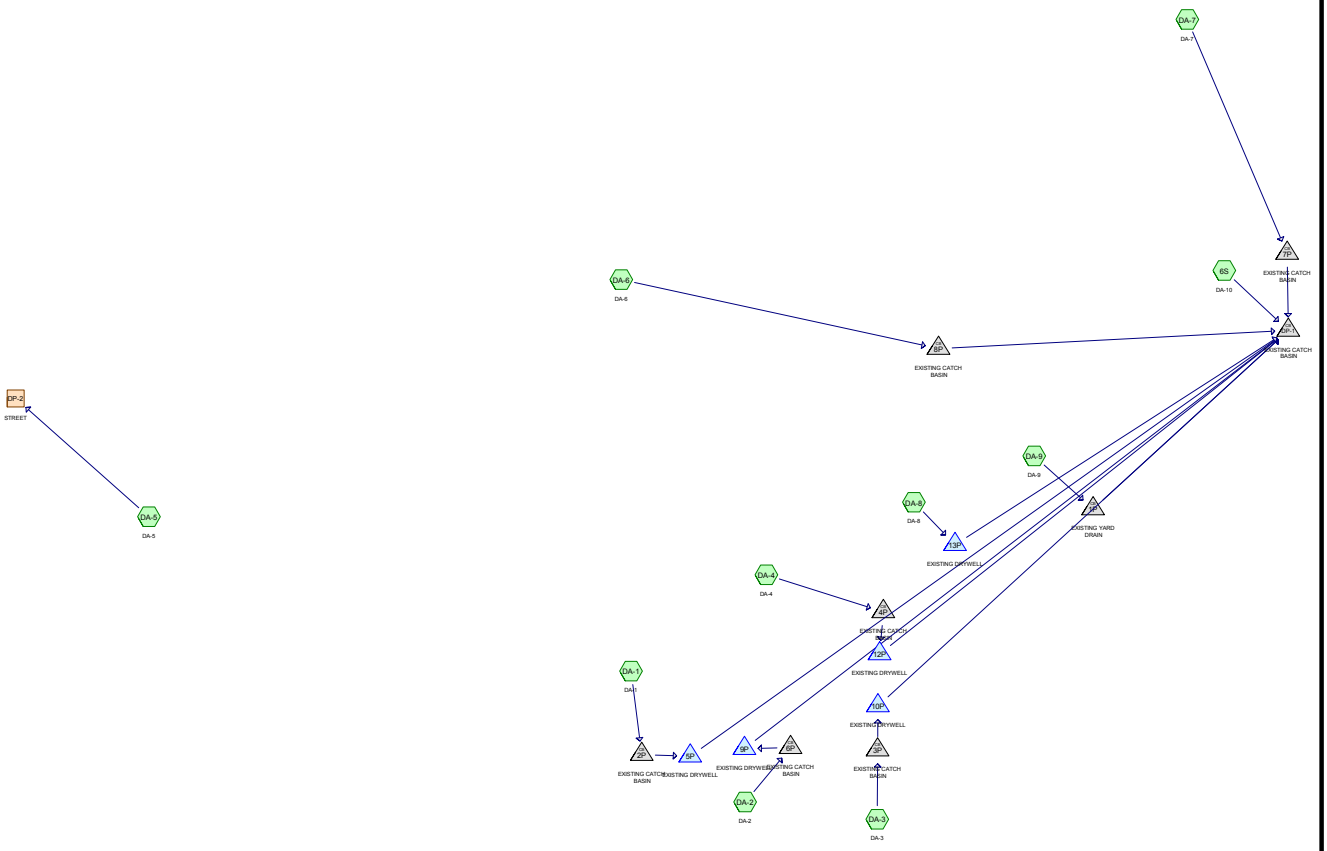
Date:

VI. Additional Information

(NYS DEC - MS4 SWPPP Acceptance Form - January 2015)

APPENDIX C

Pre-Development and Post-Development Run-off Calculations



Subcat Reach Pond Link

Routing Diagram for Wallace-PRE
Prepared by LRC Group, Printed 2/25/2021
HydroCAD® 10.00-19 s/n 02009 © 2016 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
12,123	84	50-75% Grass cover, Fair, HSG D (6S, DA-1, DA-2, DA-3, DA-4, DA-6, DA-8, DA-9)
126,844	98	Paved parking, HSG D (6S, DA-1, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9)
138,967	**97**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
138,967	HSG D	6S, DA-1, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9
0	Other	
138,967		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Sub Num
0	0	0	12,123	0	12,123	50-75% Grass cover, Fair	
0	0	0	126,844	0	126,844	Paved parking	
0	**0**	**0**	**138,967**	**0**	**138,967**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	171.30	170.43	87.0	0.0100	0.013	4.0	0.0	0.0
2	2P	170.60	170.46	14.0	0.0100	0.013	12.0	0.0	0.0
3	3P	170.30	170.13	17.0	0.0100	0.013	12.0	0.0	0.0
4	4P	170.80	170.68	12.0	0.0100	0.013	12.0	0.0	0.0
5	6P	170.30	170.15	15.0	0.0100	0.013	12.0	0.0	0.0
6	7P	167.60	166.70	26.0	0.0346	0.013	18.0	0.0	0.0
7	8P	168.70	167.00	142.0	0.0120	0.013	12.0	0.0	0.0
8	DP-1	166.70	165.00	191.0	0.0089	0.013	18.0	0.0	0.0

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 6S: DA-10 Runoff Area=3,125 sf 87.10% Impervious Runoff Depth=2.17"
Flow Length=48' Slope=0.0235 '/' Tc=6.0 min CN=96 Runoff=0.24 cfs 565 cf

Subcatchment DA-1: DA-1 Runoff Area=15,019 sf 84.37% Impervious Runoff Depth=2.17"
Flow Length=59' Tc=6.0 min CN=96 Runoff=1.18 cfs 2,715 cf

Subcatchment DA-2: DA-2 Runoff Area=3,749 sf 79.83% Impervious Runoff Depth=2.07"
Flow Length=61' Tc=6.0 min CN=95 Runoff=0.29 cfs 647 cf

Subcatchment DA-3: DA-3 Runoff Area=4,132 sf 69.19% Impervious Runoff Depth=1.97"
Flow Length=43' Tc=6.0 min CN=94 Runoff=0.30 cfs 680 cf

Subcatchment DA-4: DA-4 Runoff Area=5,589 sf 86.58% Impervious Runoff Depth=2.17"
Flow Length=59' Tc=6.0 min CN=96 Runoff=0.44 cfs 1,010 cf

Subcatchment DA-5: DA-5 Runoff Area=13,552 sf 100.00% Impervious Runoff Depth=2.38"
Flow Length=60' Slope=0.0100 '/' Tc=6.0 min CN=98 Runoff=1.11 cfs 2,688 cf

Subcatchment DA-6: DA-6 Runoff Area=72,169 sf 95.78% Impervious Runoff Depth=2.27"
Flow Length=293' Tc=6.0 min CN=97 Runoff=5.80 cfs 13,666 cf

Subcatchment DA-7: DA-7 Runoff Area=8,324 sf 100.00% Impervious Runoff Depth=2.38"
Flow Length=183' Tc=6.0 min CN=98 Runoff=0.68 cfs 1,651 cf

Subcatchment DA-8: DA-8 Runoff Area=4,173 sf 81.26% Impervious Runoff Depth=2.07"
Flow Length=31' Tc=6.0 min CN=95 Runoff=0.32 cfs 720 cf

Subcatchment DA-9: DA-9 Runoff Area=9,135 sf 69.73% Impervious Runoff Depth=1.97"
Flow Length=82' Tc=6.0 min CN=94 Runoff=0.67 cfs 1,503 cf

Reach DP-2: STREET Inflow=1.11 cfs 2,688 cf
Outflow=1.11 cfs 2,688 cf

Pond 1P: EXISTING YARD DRAIN Peak Elev=183.40' Inflow=0.67 cfs 1,503 cf
4.0" Round Culvert n=0.013 L=87.0' S=0.0100 '/' Outflow=0.67 cfs 1,503 cf

Pond 2P: EXISTING CATCH BASIN Peak Elev=171.28' Inflow=1.18 cfs 2,715 cf
12.0" Round Culvert n=0.013 L=14.0' S=0.0100 '/' Outflow=1.18 cfs 2,715 cf

Pond 3P: EXISTING CATCH BASIN Peak Elev=170.61' Inflow=0.30 cfs 680 cf
12.0" Round Culvert n=0.013 L=17.0' S=0.0100 '/' Outflow=0.30 cfs 680 cf

Pond 4P: EXISTING CATCH BASIN Peak Elev=171.18' Inflow=0.44 cfs 1,010 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0100 '/' Outflow=0.44 cfs 1,010 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.40' Storage=538 cf Inflow=1.18 cfs 2,715 cf
Outflow=0.79 cfs 2,715 cf

Pond 6P: EXISTING CATCH BASIN Peak Elev=170.60' Inflow=0.29 cfs 647 cf
12.0" Round Culvert n=0.013 L=15.0' S=0.0100 '/' Outflow=0.29 cfs 647 cf

Pond 7P: EXISTING CATCH BASIN Peak Elev=168.01' Inflow=0.68 cfs 1,651 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=0.68 cfs 1,651 cf

Pond 8P: EXISTING CATCH BASIN Peak Elev=173.34' Inflow=5.80 cfs 13,666 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=5.80 cfs 13,666 cf

Pond 9P: EXISTING DRYWELL Peak Elev=173.39' Storage=646 cf Inflow=0.29 cfs 647 cf
Outflow=0.00 cfs 0 cf

Pond 10P: EXISTING DRYWELL Peak Elev=172.94' Storage=209 cf Inflow=0.30 cfs 680 cf
Outflow=0.18 cfs 680 cf

Pond 12P: EXISTING DRYWELL Peak Elev=173.02' Storage=251 cf Inflow=0.44 cfs 1,010 cf
Outflow=0.33 cfs 1,010 cf

Pond 13P: EXISTING DRYWELL Peak Elev=172.60' Storage=226 cf Inflow=0.32 cfs 720 cf
Outflow=0.16 cfs 720 cf

Pond DP-1: EXISTING CATCH BASIN Peak Elev=168.66' Inflow=7.40 cfs 17,385 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=7.40 cfs 17,385 cf

Total Runoff Area = 138,967 sf Runoff Volume = 25,844 cf Average Runoff Depth = 2.23"
8.72% Pervious = 12,123 sf 91.28% Impervious = 126,844 sf

Summary for Subcatchment 6S: DA-10

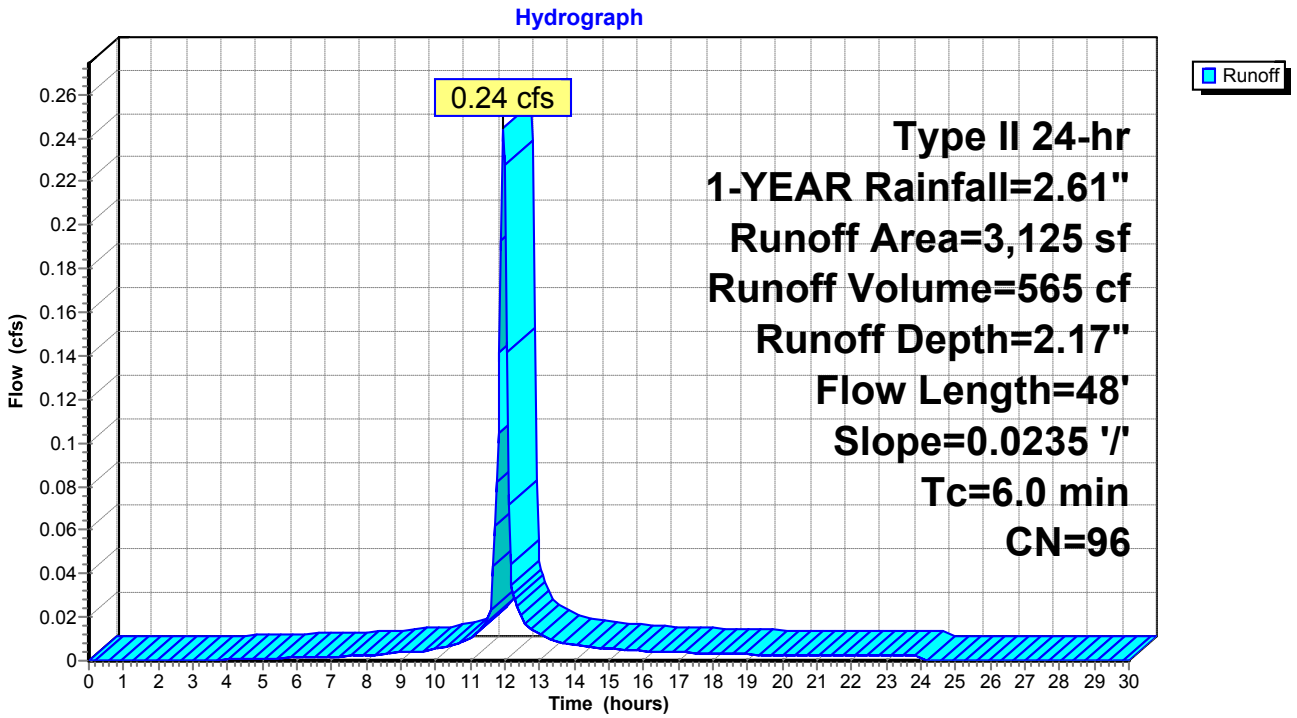
Runoff = 0.24 cfs @ 11.96 hrs, Volume= 565 cf, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
403	84	50-75% Grass cover, Fair, HSG D
2,722	98	Paved parking, HSG D
3,125	96	Weighted Average
403		12.90% Pervious Area
2,722		87.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	48	0.0235	1.26		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	48	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 6S: DA-10



Summary for Subcatchment DA-1: DA-1

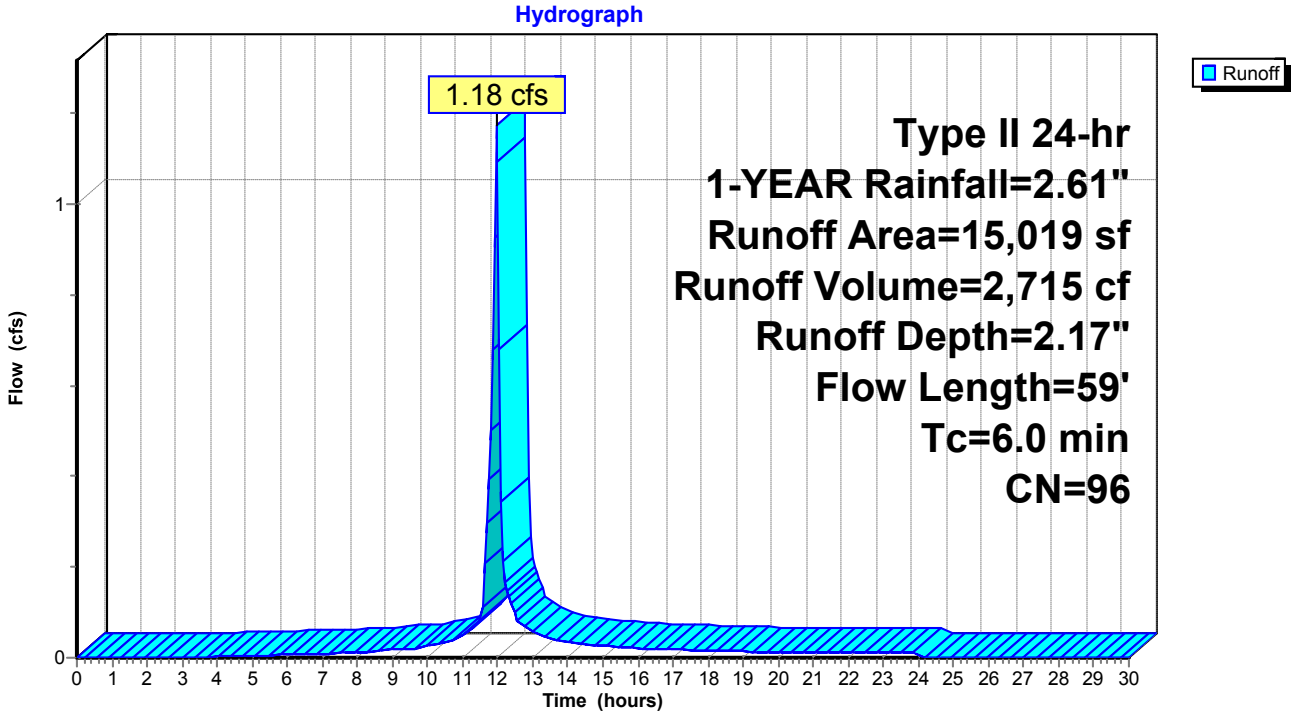
Runoff = 1.18 cfs @ 11.96 hrs, Volume= 2,715 cf, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
2,348	84	50-75% Grass cover, Fair, HSG D
12,671	98	Paved parking, HSG D
15,019	96	Weighted Average
2,348		15.63% Pervious Area
12,671		84.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	29	0.0390	0.17		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	30	0.0350	3.80		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.9	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-2: DA-2

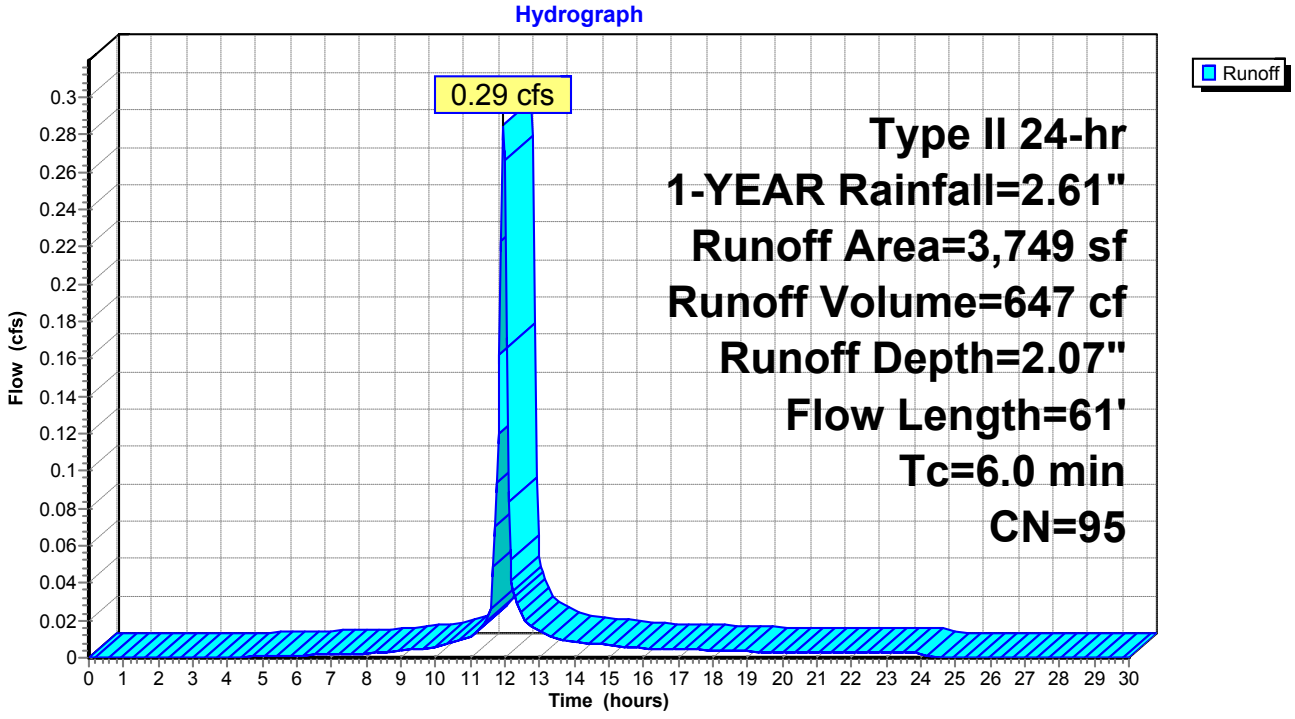
Runoff = 0.29 cfs @ 11.96 hrs, Volume= 647 cf, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
756	84	50-75% Grass cover, Fair, HSG D
2,993	98	Paved parking, HSG D
3,749	95	Weighted Average
756		20.17% Pervious Area
2,993		79.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	26	0.0173	0.12		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	35	0.0257	3.25		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	61	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

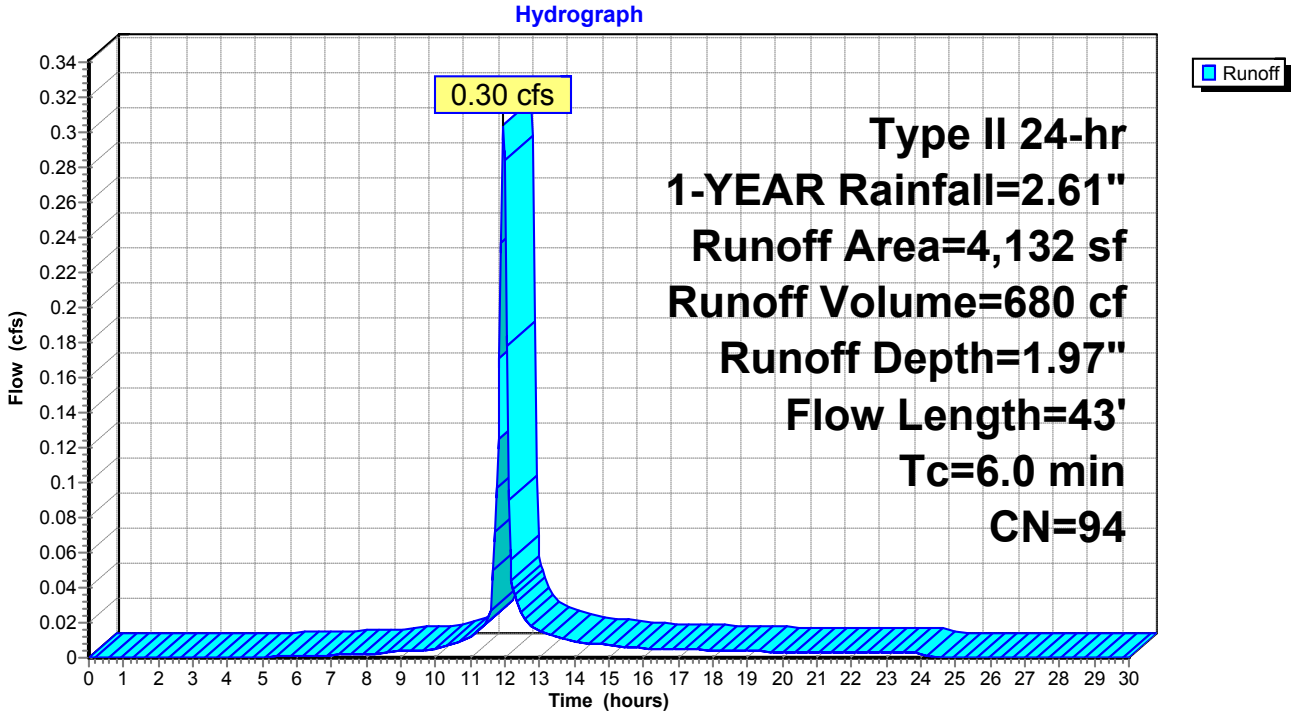
Runoff = 0.30 cfs @ 11.96 hrs, Volume= 680 cf, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,273	84	50-75% Grass cover, Fair, HSG D
2,859	98	Paved parking, HSG D
4,132	94	Weighted Average
1,273		30.81% Pervious Area
2,859		69.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	31	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0250	3.21		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
4.2	43	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

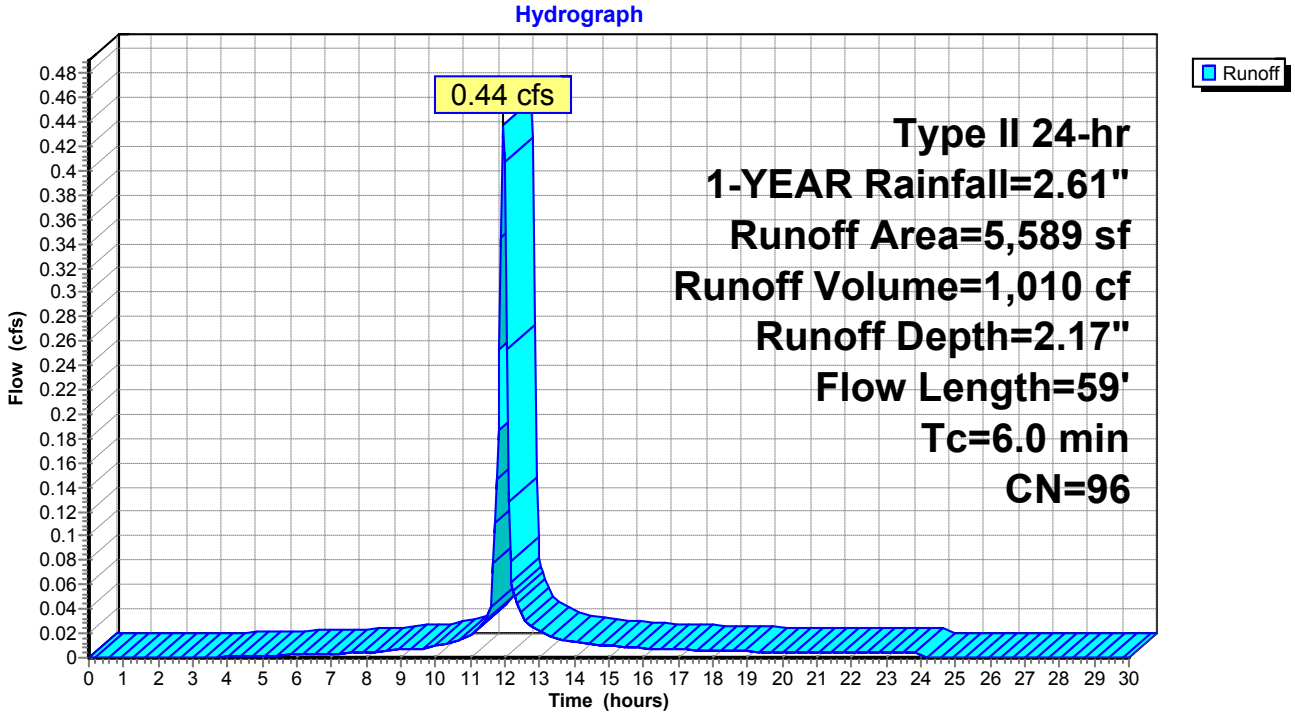
Runoff = 0.44 cfs @ 11.96 hrs, Volume= 1,010 cf, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
750	84	50-75% Grass cover, Fair, HSG D
4,839	98	Paved parking, HSG D
5,589	96	Weighted Average
750		13.42% Pervious Area
4,839		86.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	30	0.0217	0.14		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	29	0.0169	2.64		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-4: DA-4



Summary for Subcatchment DA-5: DA-5

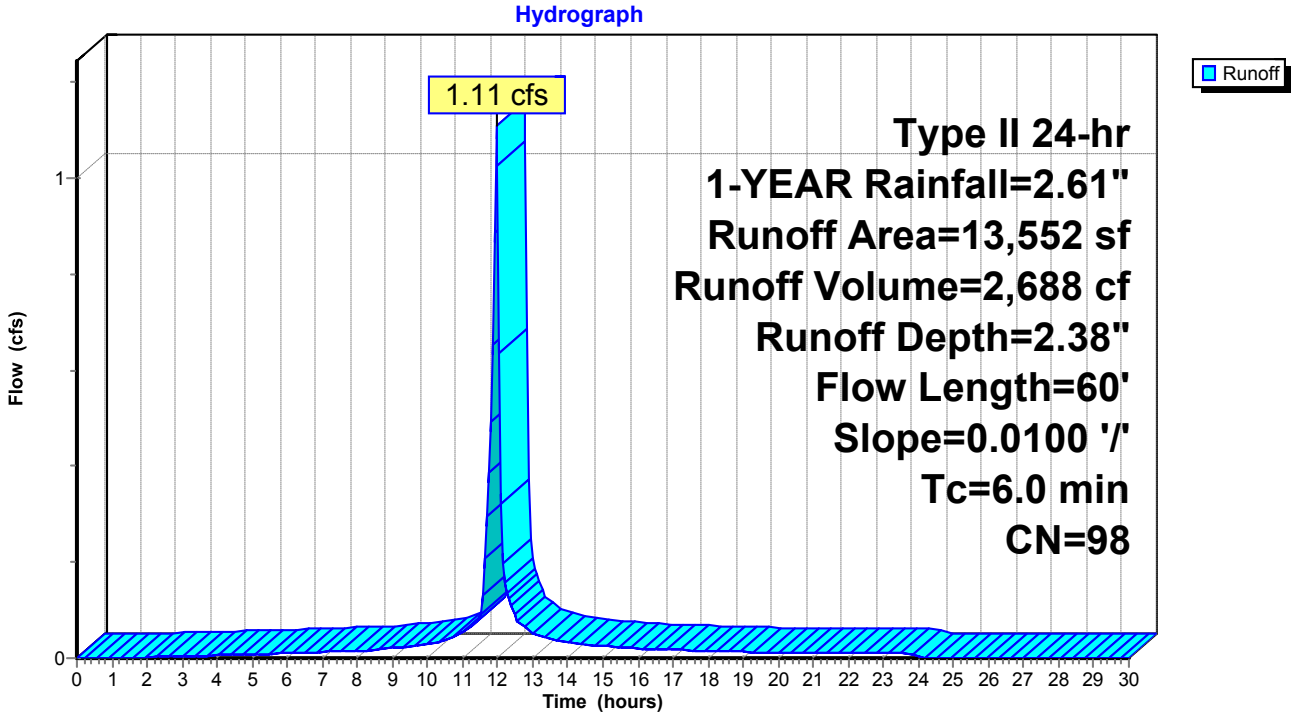
Runoff = 1.11 cfs @ 11.96 hrs, Volume= 2,688 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
13,552	98	Paved parking, HSG D
13,552		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	60	0.0100	0.94		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.1	60	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-5: DA-5



Summary for Subcatchment DA-6: DA-6

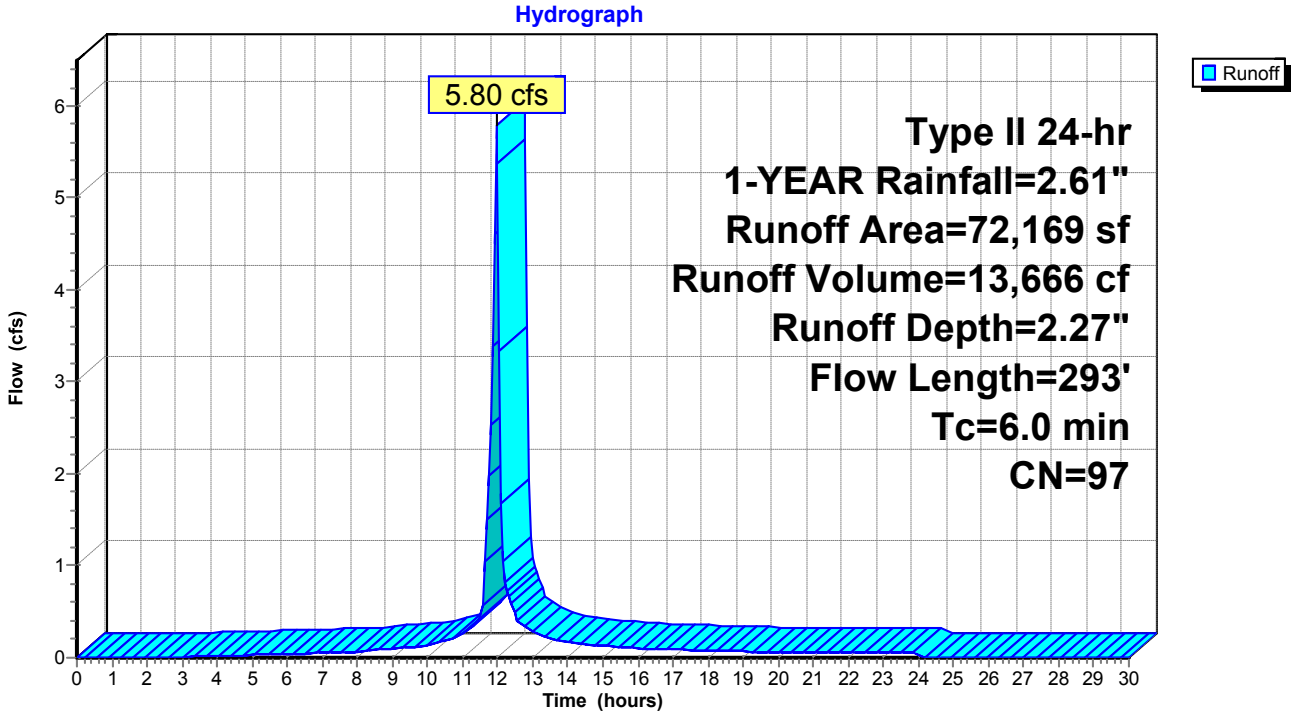
Runoff = 5.80 cfs @ 11.96 hrs, Volume= 13,666 cf, Depth= 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
3,046	84	50-75% Grass cover, Fair, HSG D
69,123	98	Paved parking, HSG D
72,169	97	Weighted Average
3,046		4.22% Pervious Area
69,123		95.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0220	1.42		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.4	193	0.0126	2.28		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.6	293	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

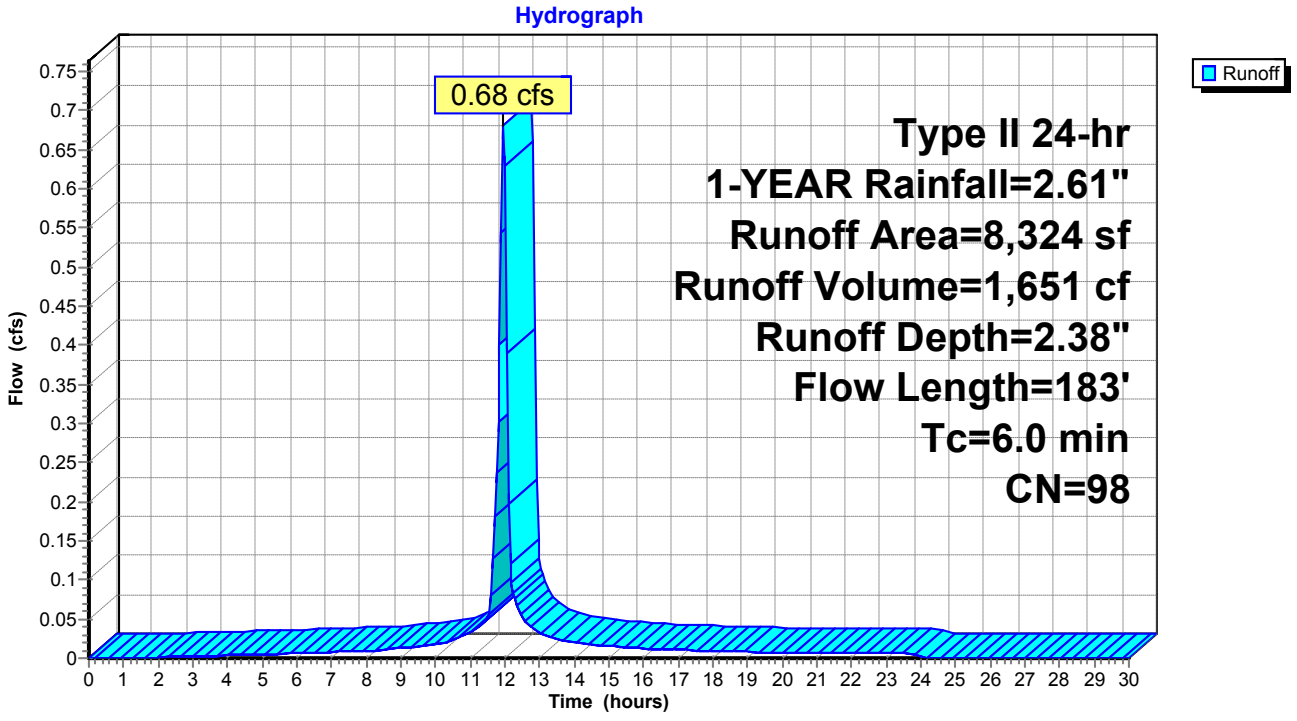
Runoff = 0.68 cfs @ 11.96 hrs, Volume= 1,651 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
8,324	98	Paved parking, HSG D
8,324		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	100	0.0301	1.61		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	83	0.0124	2.26		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
1.6	183	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

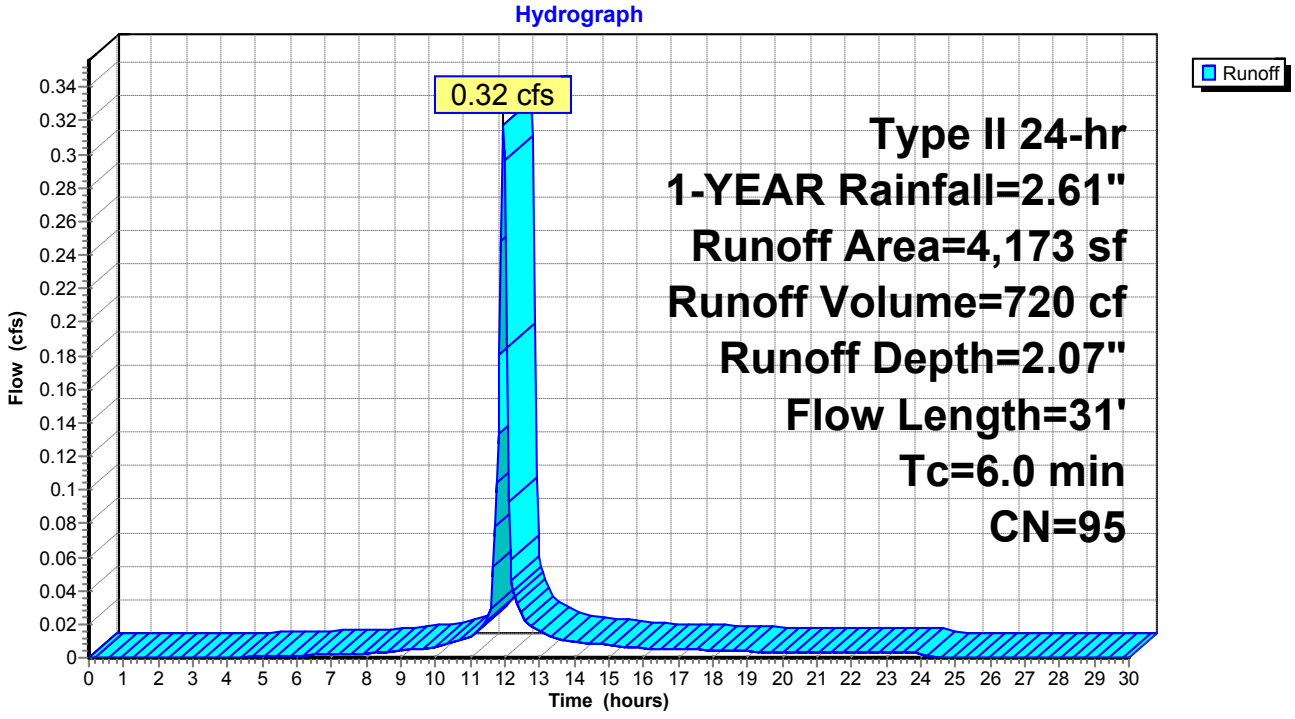
Runoff = 0.32 cfs @ 11.96 hrs, Volume= 720 cf, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
782	84	50-75% Grass cover, Fair, HSG D
3,391	98	Paved parking, HSG D
4,173	95	Weighted Average
782		18.74% Pervious Area
3,391		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	19	0.0150	0.11		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0208	2.93		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.0	31	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DA-9

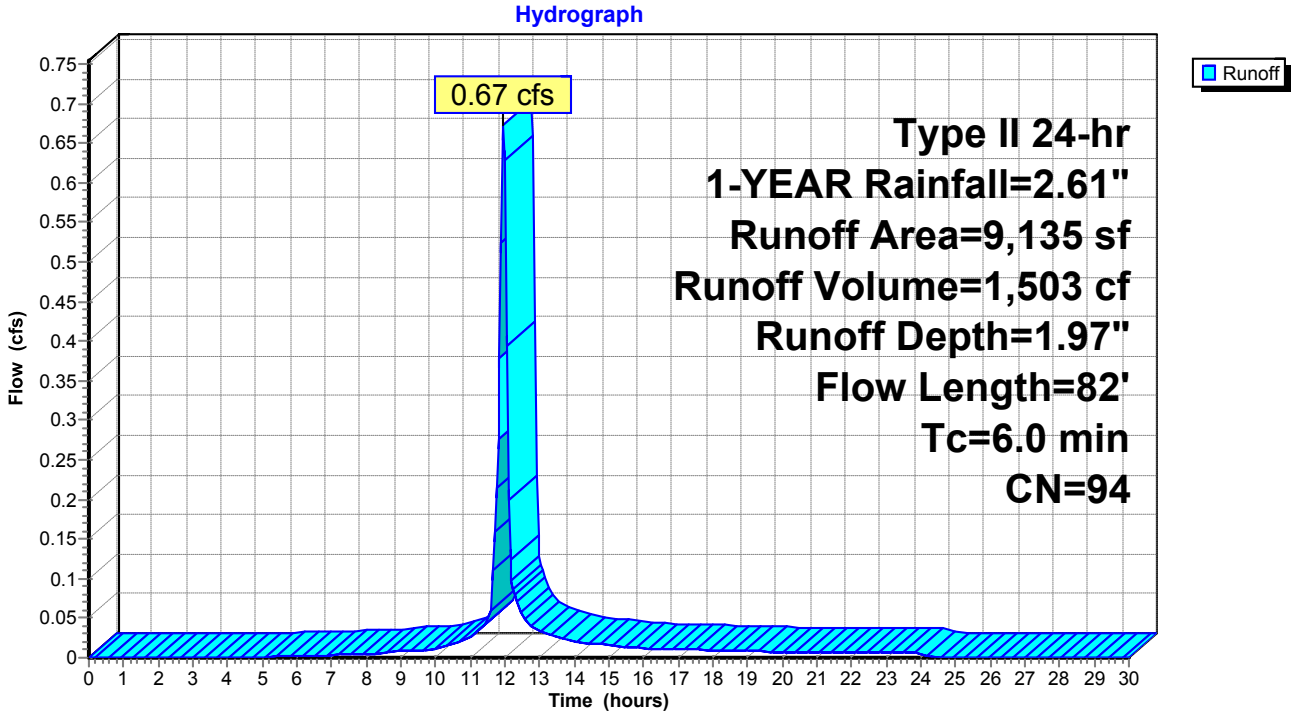
Runoff = 0.67 cfs @ 11.96 hrs, Volume= 1,503 cf, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
2,765	84	50-75% Grass cover, Fair, HSG D
6,370	98	Paved parking, HSG D
9,135	94	Weighted Average
2,765		30.27% Pervious Area
6,370		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	42	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	40	0.0200	2.87		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
5.4	82	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-9: DA-9



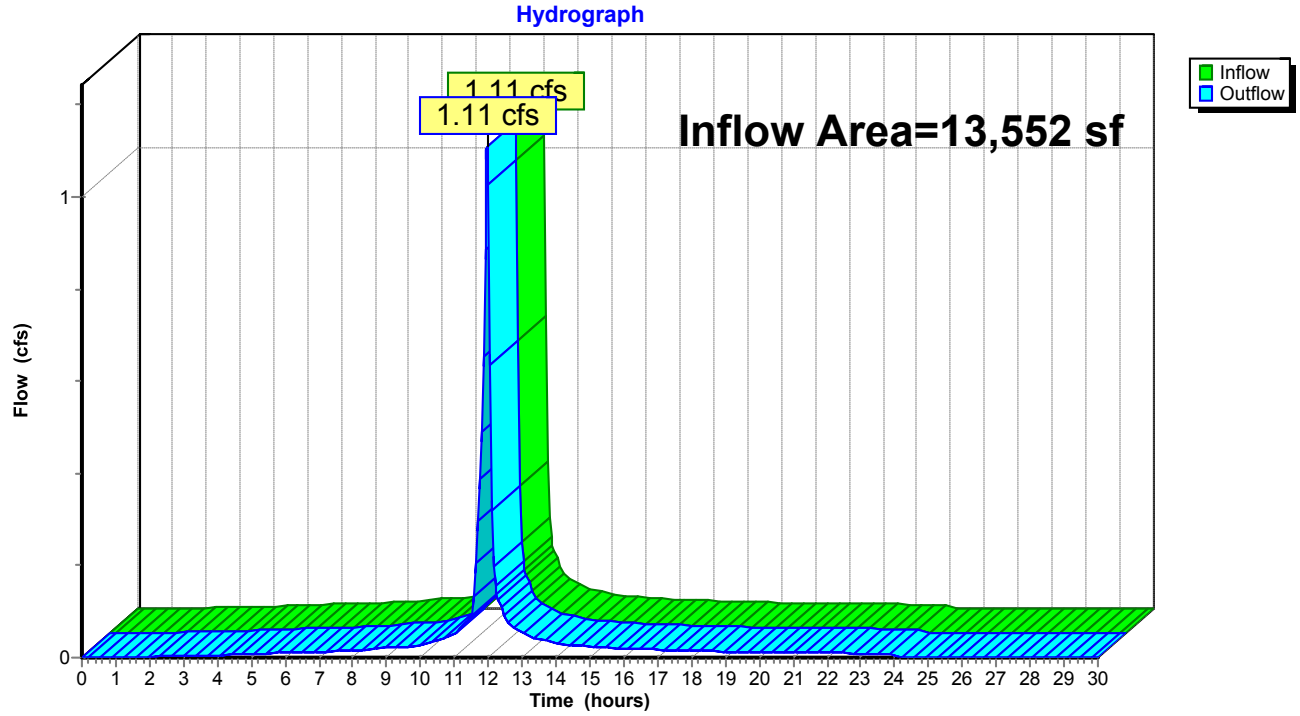
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 13,552 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 1.11 cfs @ 11.96 hrs, Volume= 2,688 cf
Outflow = 1.11 cfs @ 11.96 hrs, Volume= 2,688 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 1P: EXISTING YARD DRAIN

[57] Hint: Peaked at 183.40' (Flood elevation advised)

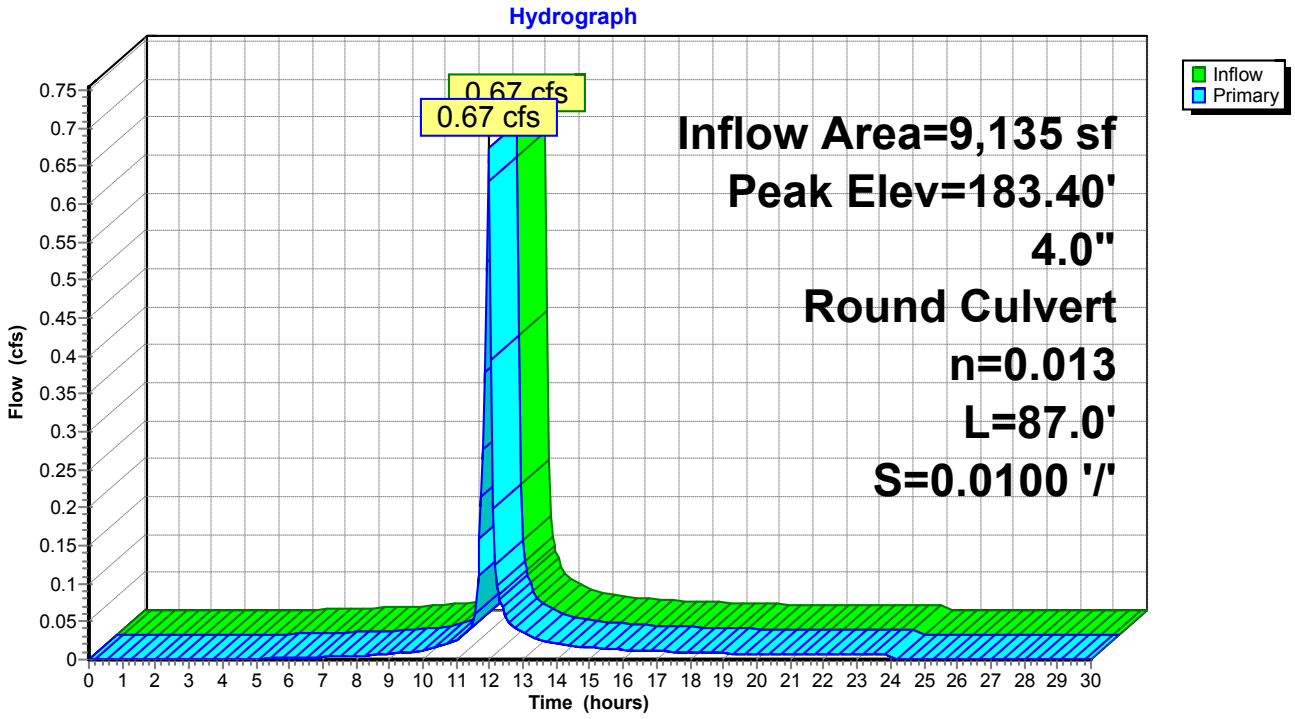
Inflow Area = 9,135 sf, 69.73% Impervious, Inflow Depth = 1.97" for 1-YEAR event
Inflow = 0.67 cfs @ 11.96 hrs, Volume= 1,503 cf
Outflow = 0.67 cfs @ 11.96 hrs, Volume= 1,503 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.67 cfs @ 11.96 hrs, Volume= 1,503 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 183.40' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=0.66 cfs @ 11.96 hrs HW=182.77' (Free Discharge)
1=Culvert (Barrel Controls 0.66 cfs @ 7.51 fps)

Pond 1P: EXISTING YARD DRAIN



Summary for Pond 2P: EXISTING CATCH BASIN

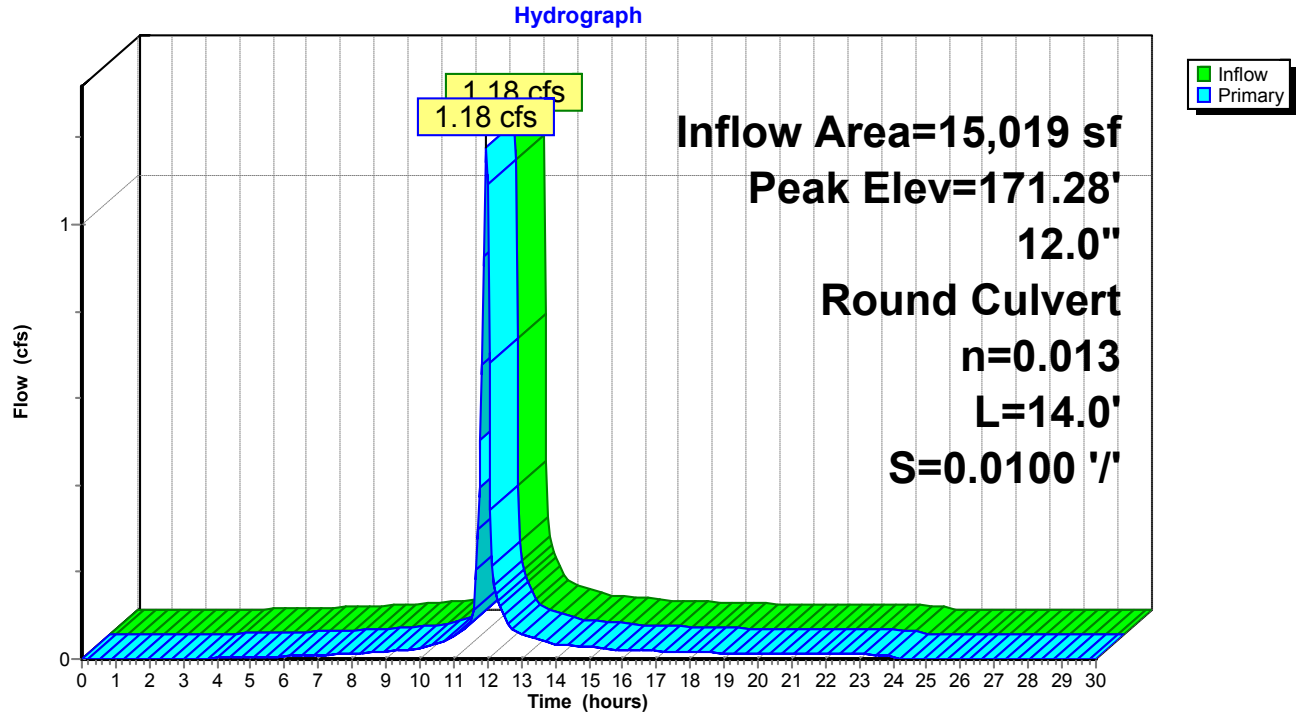
Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 2.17" for 1-YEAR event
Inflow = 1.18 cfs @ 11.96 hrs, Volume= 2,715 cf
Outflow = 1.18 cfs @ 11.96 hrs, Volume= 2,715 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.18 cfs @ 11.96 hrs, Volume= 2,715 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.28' @ 11.96 hrs
Flood Elev= 172.99'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.60'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.60' / 170.46' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.15 cfs @ 11.96 hrs HW=171.27' (Free Discharge)
1=Culvert (Barrel Controls 1.15 cfs @ 2.91 fps)

Pond 2P: EXISTING CATCH BASIN



Summary for Pond 3P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.61' (Flood elevation advised)

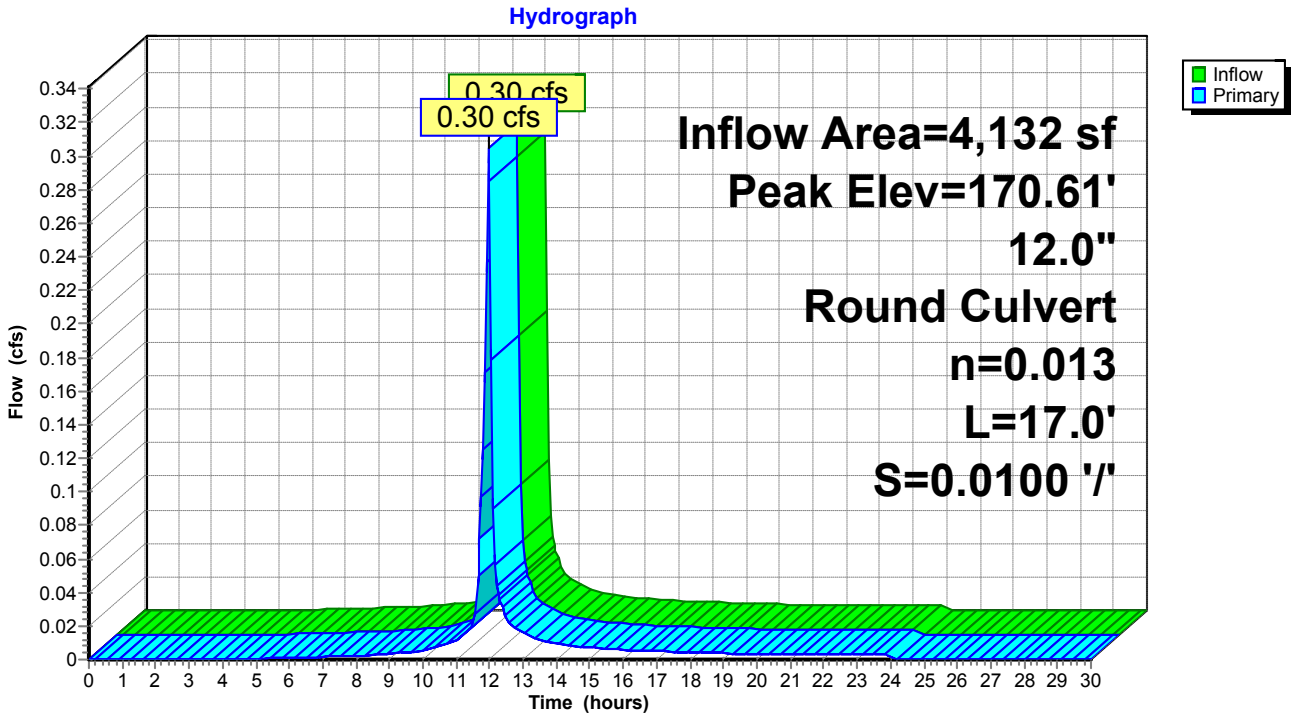
Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 1.97" for 1-YEAR event
Inflow = 0.30 cfs @ 11.96 hrs, Volume= 680 cf
Outflow = 0.30 cfs @ 11.96 hrs, Volume= 680 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.30 cfs @ 11.96 hrs, Volume= 680 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.61' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.13' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.30 cfs @ 11.96 hrs HW=170.60' (Free Discharge)
1=Culvert (Inlet Controls 0.30 cfs @ 1.48 fps)

Pond 3P: EXISTING CATCH BASIN



Summary for Pond 4P: EXISTING CATCH BASIN

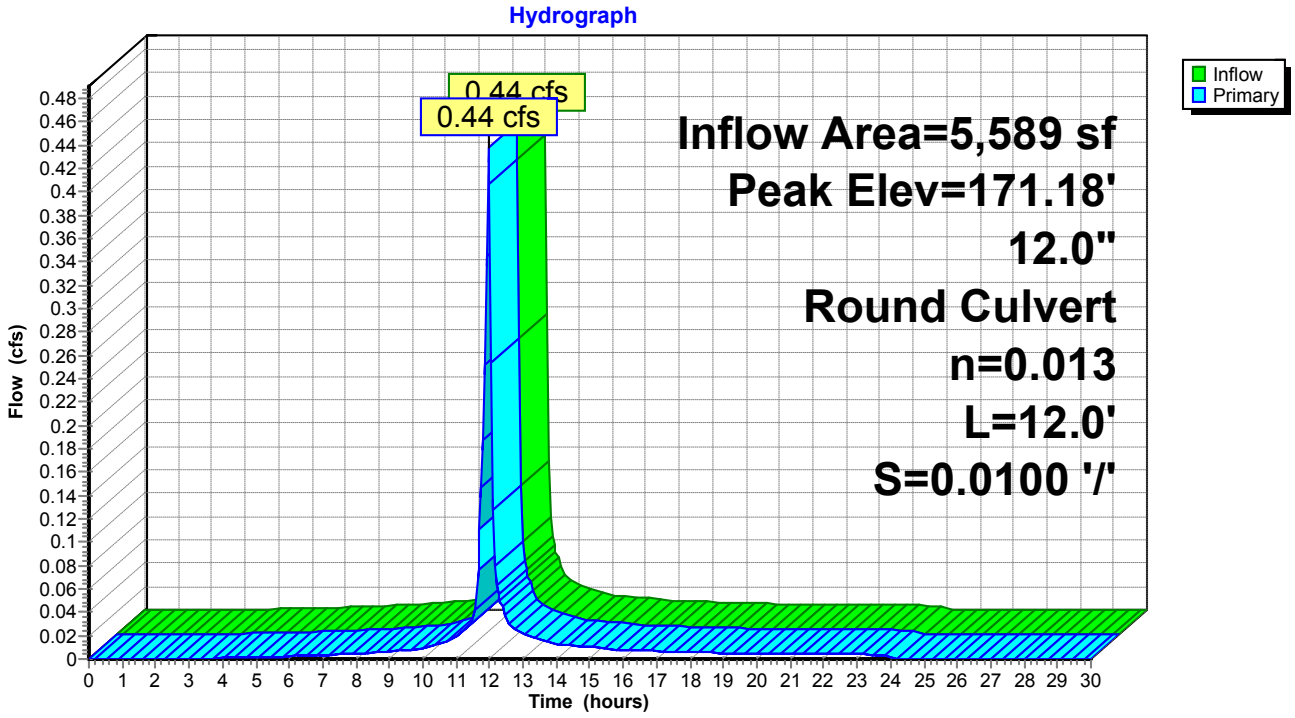
Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 2.17" for 1-YEAR event
Inflow = 0.44 cfs @ 11.96 hrs, Volume= 1,010 cf
Outflow = 0.44 cfs @ 11.96 hrs, Volume= 1,010 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.44 cfs @ 11.96 hrs, Volume= 1,010 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.18' @ 11.96 hrs
Flood Elev= 172.73'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.80'	**12.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.80' / 170.68' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.43 cfs @ 11.96 hrs HW=171.18' (Free Discharge)
1=Culvert (Barrel Controls 0.43 cfs @ 2.32 fps)

Pond 4P: EXISTING CATCH BASIN



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 2P by 2.46' @ 12.15 hrs

Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 2.17" for 1-YEAR event
Inflow = 1.18 cfs @ 11.96 hrs, Volume= 2,715 cf
Outflow = 0.79 cfs @ 12.04 hrs, Volume= 2,715 cf, Atten= 33%, Lag= 4.6 min
Discarded = 0.79 cfs @ 12.04 hrs, Volume= 2,715 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.40' @ 12.04 hrs Surf.Area= 1,553 sf Storage= 538 cf

Plug-Flow detention time= 54.9 min calculated for 2,710 cf (100% of inflow)
Center-of-Mass det. time= 54.9 min (831.5 - 776.7)

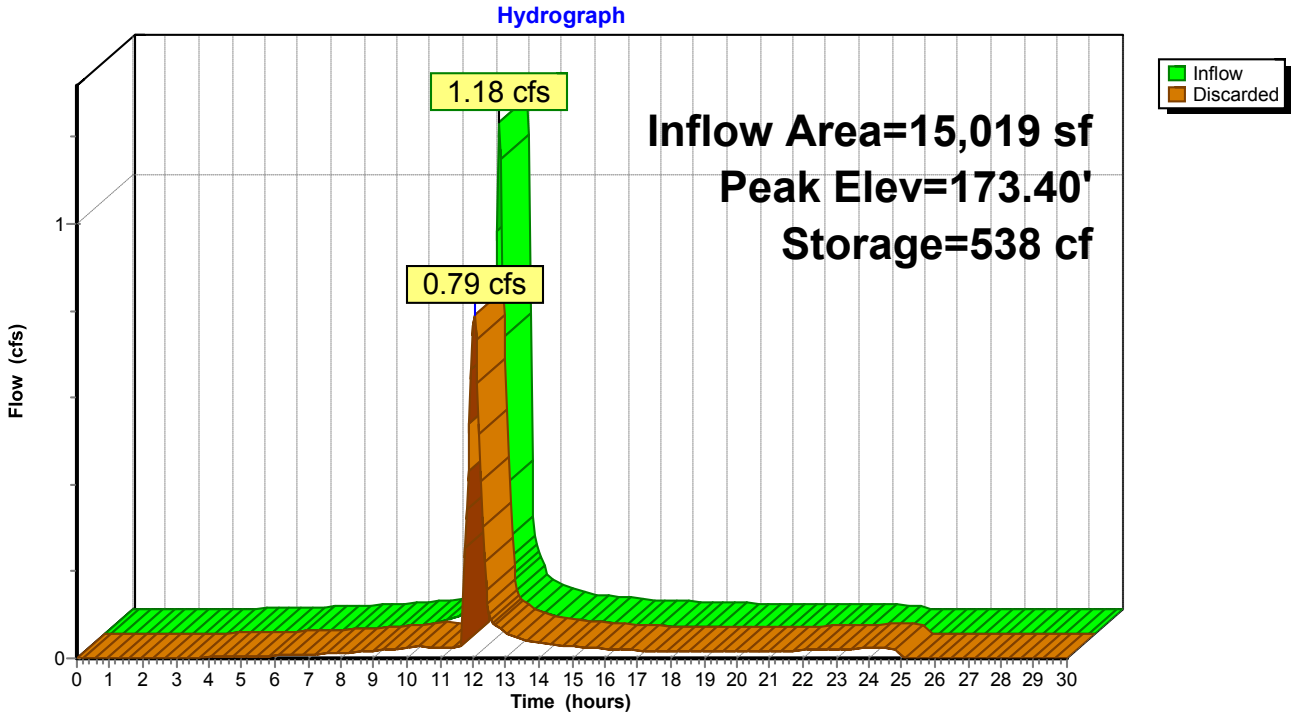
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,139 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	112	7	208
174.00	3,750	1,931	2,139

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.78 cfs @ 12.04 hrs HW=173.39' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.78 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 6P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.60' (Flood elevation advised)

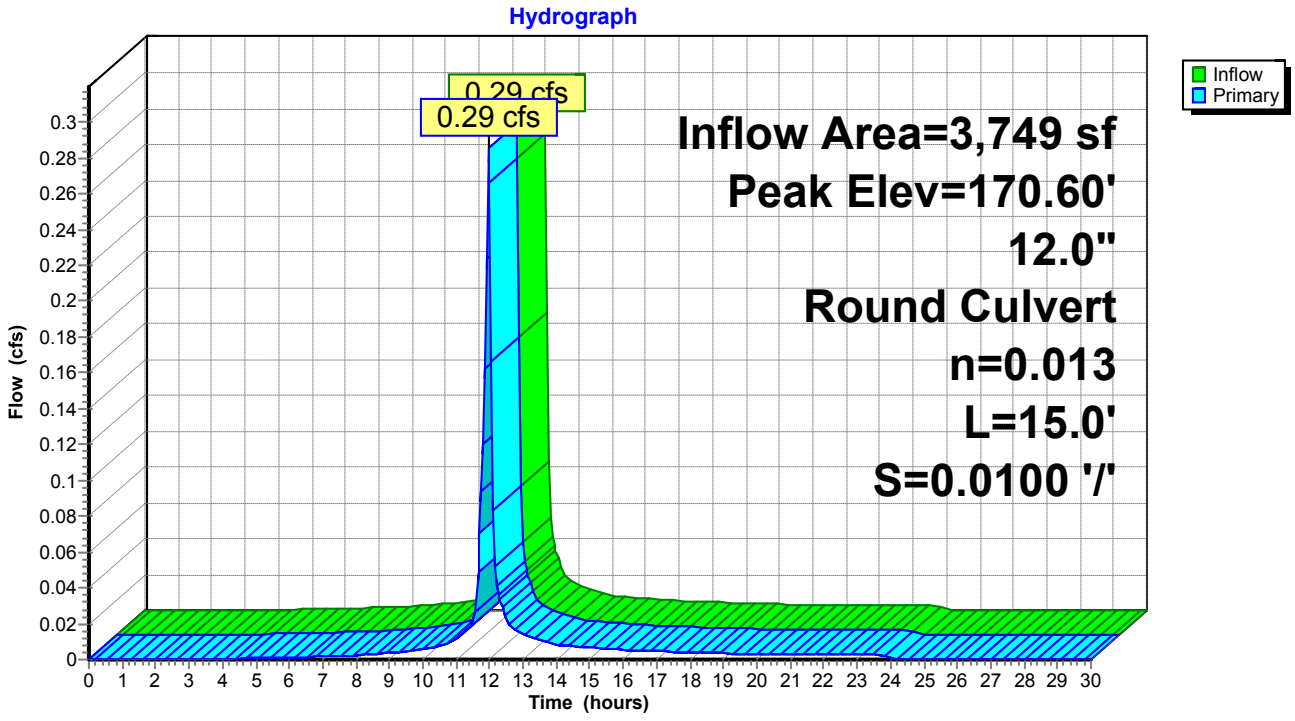
Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 2.07" for 1-YEAR event
Inflow = 0.29 cfs @ 11.96 hrs, Volume= 647 cf
Outflow = 0.29 cfs @ 11.96 hrs, Volume= 647 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.29 cfs @ 11.96 hrs, Volume= 647 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.60' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.15' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.28 cfs @ 11.96 hrs HW=170.59' (Free Discharge)
1=Culvert (Inlet Controls 0.28 cfs @ 1.45 fps)

Pond 6P: EXISTING CATCH BASIN



Summary for Pond 7P: EXISTING CATCH BASIN

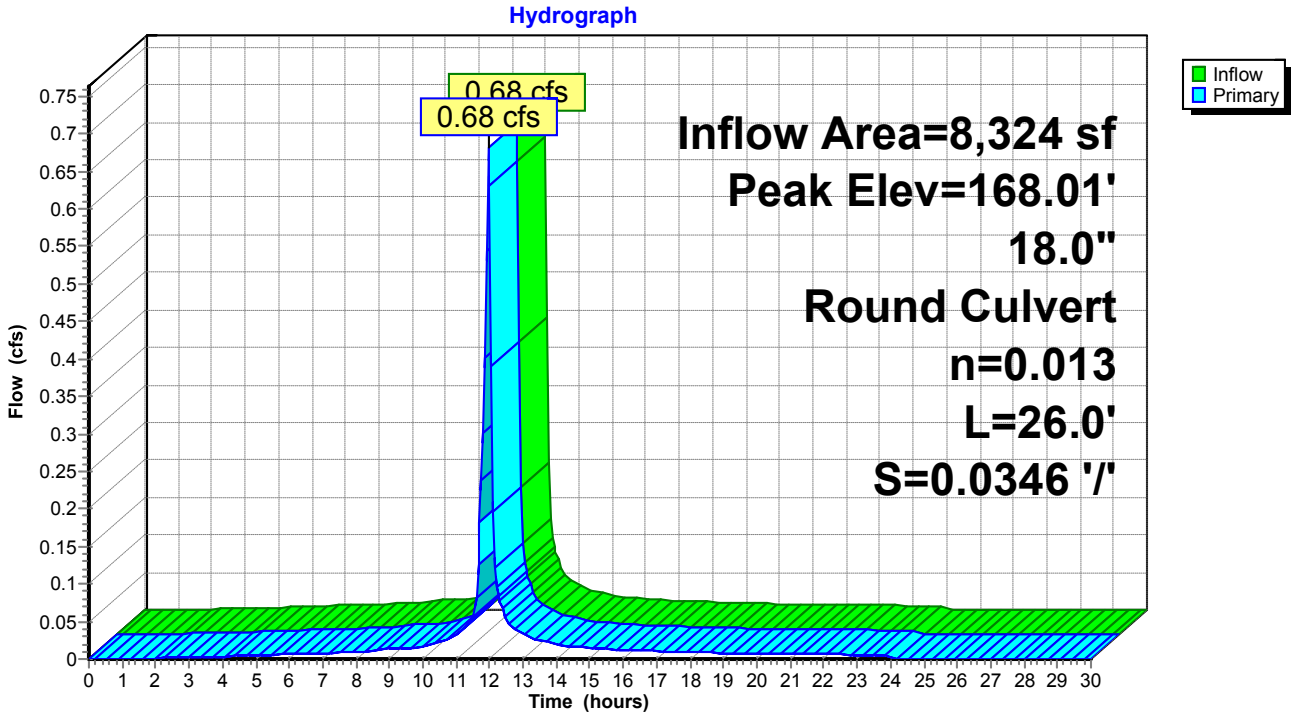
Inflow Area = 8,324 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 0.68 cfs @ 11.96 hrs, Volume= 1,651 cf
Outflow = 0.68 cfs @ 11.96 hrs, Volume= 1,651 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.68 cfs @ 11.96 hrs, Volume= 1,651 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.01' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=0.66 cfs @ 11.96 hrs HW=168.01' (Free Discharge)
1=Culvert (Inlet Controls 0.66 cfs @ 1.71 fps)

Pond 7P: EXISTING CATCH BASIN



Summary for Pond 8P: EXISTING CATCH BASIN

[58] Hint: Peaked 1.47' above defined flood level

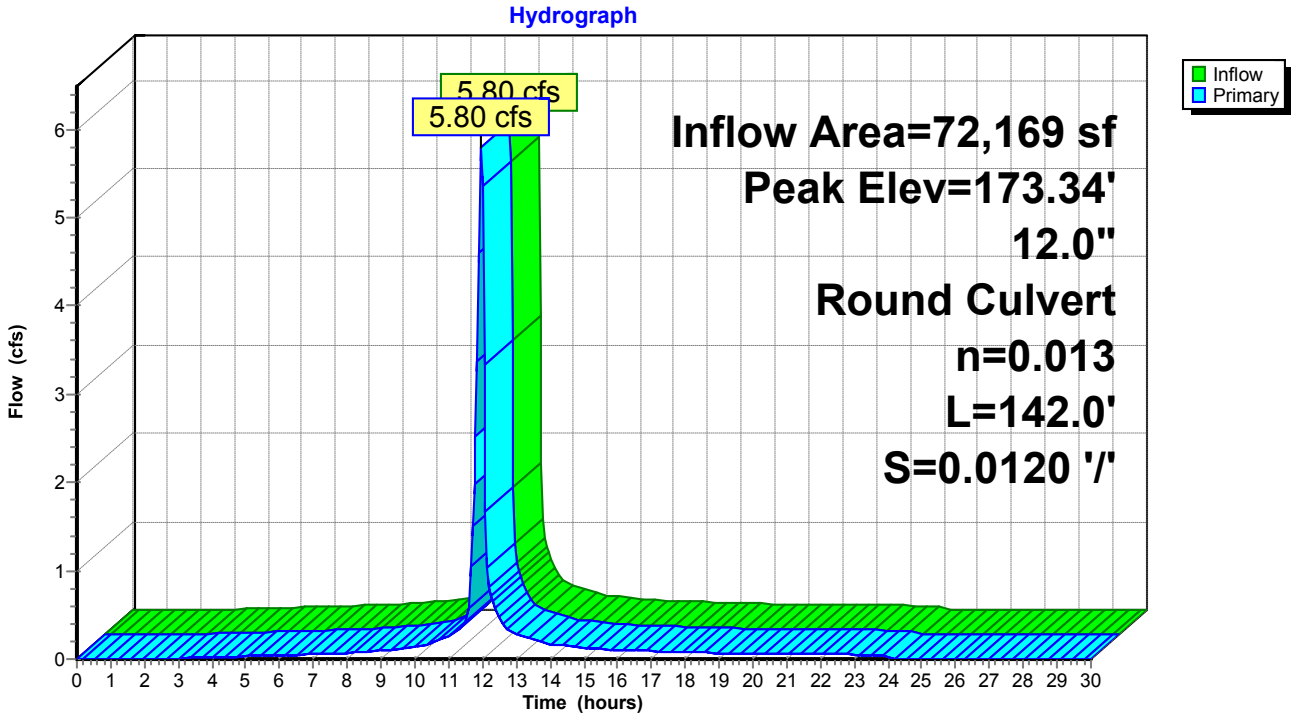
Inflow Area = 72,169 sf, 95.78% Impervious, Inflow Depth = 2.27" for 1-YEAR event
Inflow = 5.80 cfs @ 11.96 hrs, Volume= 13,666 cf
Outflow = 5.80 cfs @ 11.96 hrs, Volume= 13,666 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.80 cfs @ 11.96 hrs, Volume= 13,666 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.34' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=5.65 cfs @ 11.96 hrs HW=173.12' (Free Discharge)
└**1=Culvert** (Barrel Controls 5.65 cfs @ 7.20 fps)

Pond 8P: EXISTING CATCH BASIN



Summary for Pond 9P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 6P by 3.09' @ 24.40 hrs

Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 2.07" for 1-YEAR event
Inflow = 0.29 cfs @ 11.96 hrs, Volume= 647 cf
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min

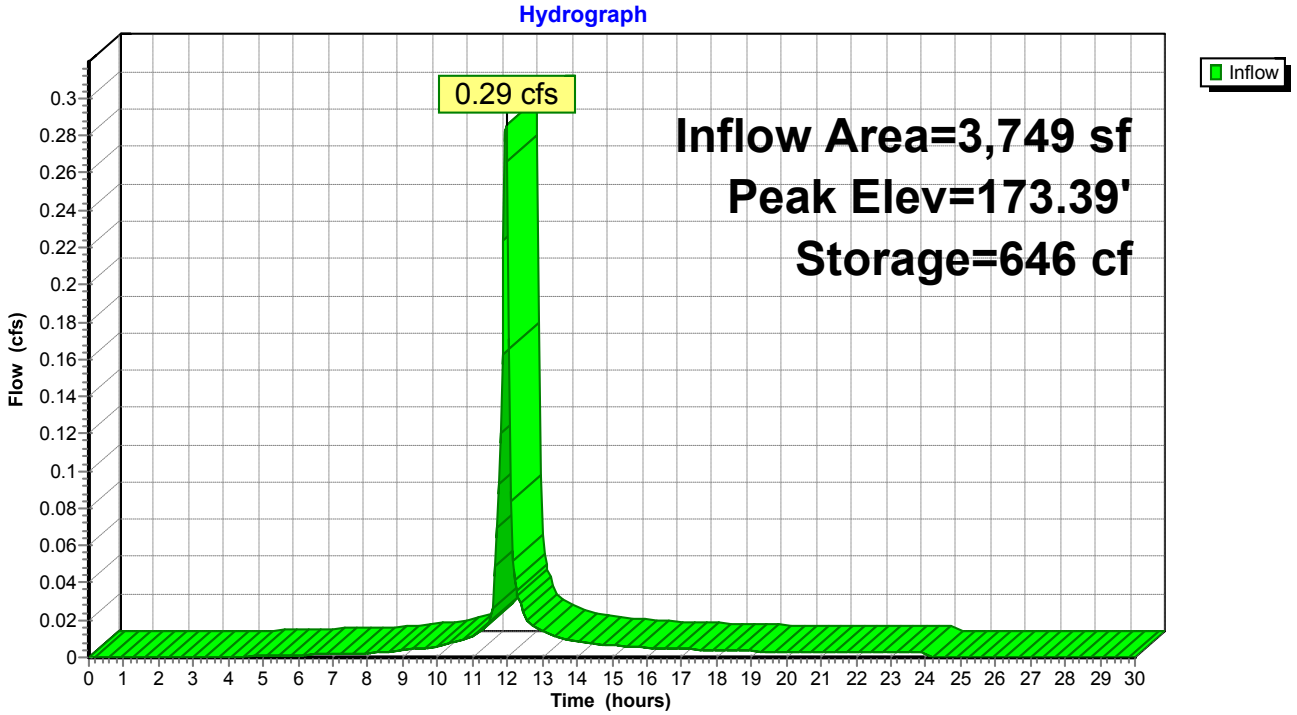
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.39' @ 24.40 hrs Surf.Area= 1,794 sf Storage= 646 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,410 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	377	20	221
174.00	4,000	2,189	2,410

Pond 9P: EXISTING DRYWELL



Summary for Pond 10P: EXISTING DRYWELL

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond 3P by 2.54' @ 13.05 hrs

Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 1.97" for 1-YEAR event
Inflow = 0.30 cfs @ 11.96 hrs, Volume= 680 cf
Outflow = 0.18 cfs @ 12.07 hrs, Volume= 680 cf, Atten= 41%, Lag= 6.1 min
Discarded = 0.18 cfs @ 12.07 hrs, Volume= 680 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.94' @ 12.05 hrs Surf.Area= 336 sf Storage= 209 cf

Plug-Flow detention time= 73.4 min calculated for 679 cf (100% of inflow)
Center-of-Mass det. time= 73.3 min (864.1 - 790.8)

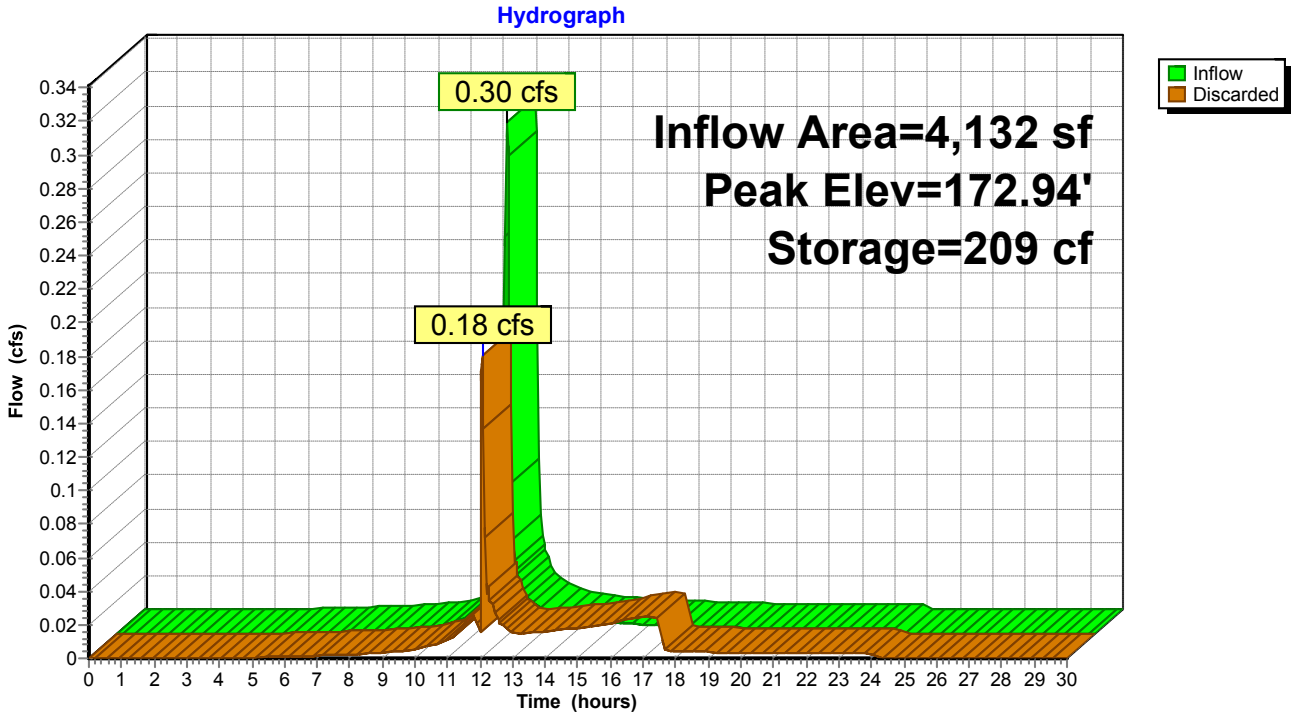
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,486 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	743	39	239
174.00	3,750	2,247	2,486

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.16 cfs @ 12.07 hrs HW=172.94' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.16 cfs)

Pond 10P: EXISTING DRYWELL



Summary for Pond 12P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 4P by 2.04' @ 13.70 hrs

Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 2.17" for 1-YEAR event
Inflow = 0.44 cfs @ 11.96 hrs, Volume= 1,010 cf
Outflow = 0.33 cfs @ 12.03 hrs, Volume= 1,010 cf, Atten= 24%, Lag= 3.8 min
Discarded = 0.33 cfs @ 12.03 hrs, Volume= 1,010 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.02' @ 12.03 hrs Surf.Area= 652 sf Storage= 251 cf

Plug-Flow detention time= 64.0 min calculated for 1,009 cf (100% of inflow)
Center-of-Mass det. time= 63.9 min (840.6 - 776.7)

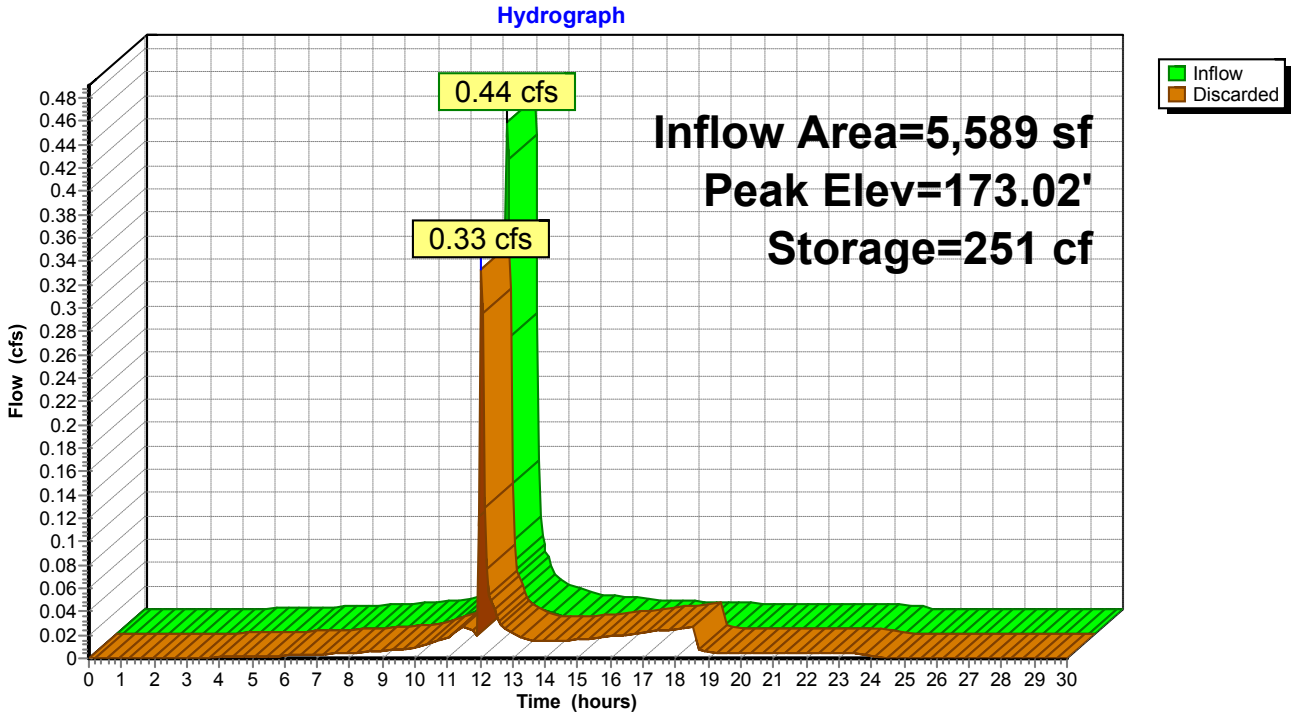
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,373 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	575	30	236
174.00	3,700	2,138	2,373

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.33 cfs @ 12.03 hrs HW=173.02' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.33 cfs)

Pond 12P: EXISTING DRYWELL



Summary for Pond 13P: EXISTING DRYWELL

Inflow Area = 4,173 sf, 81.26% Impervious, Inflow Depth = 2.07" for 1-YEAR event
Inflow = 0.32 cfs @ 11.96 hrs, Volume= 720 cf
Outflow = 0.16 cfs @ 12.07 hrs, Volume= 720 cf, Atten= 49%, Lag= 6.5 min
Discarded = 0.16 cfs @ 12.07 hrs, Volume= 720 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.60' @ 12.05 hrs Surf.Area= 290 sf Storage= 226 cf

Plug-Flow detention time= 74.5 min calculated for 719 cf (100% of inflow)
Center-of-Mass det. time= 74.3 min (858.5 - 784.2)

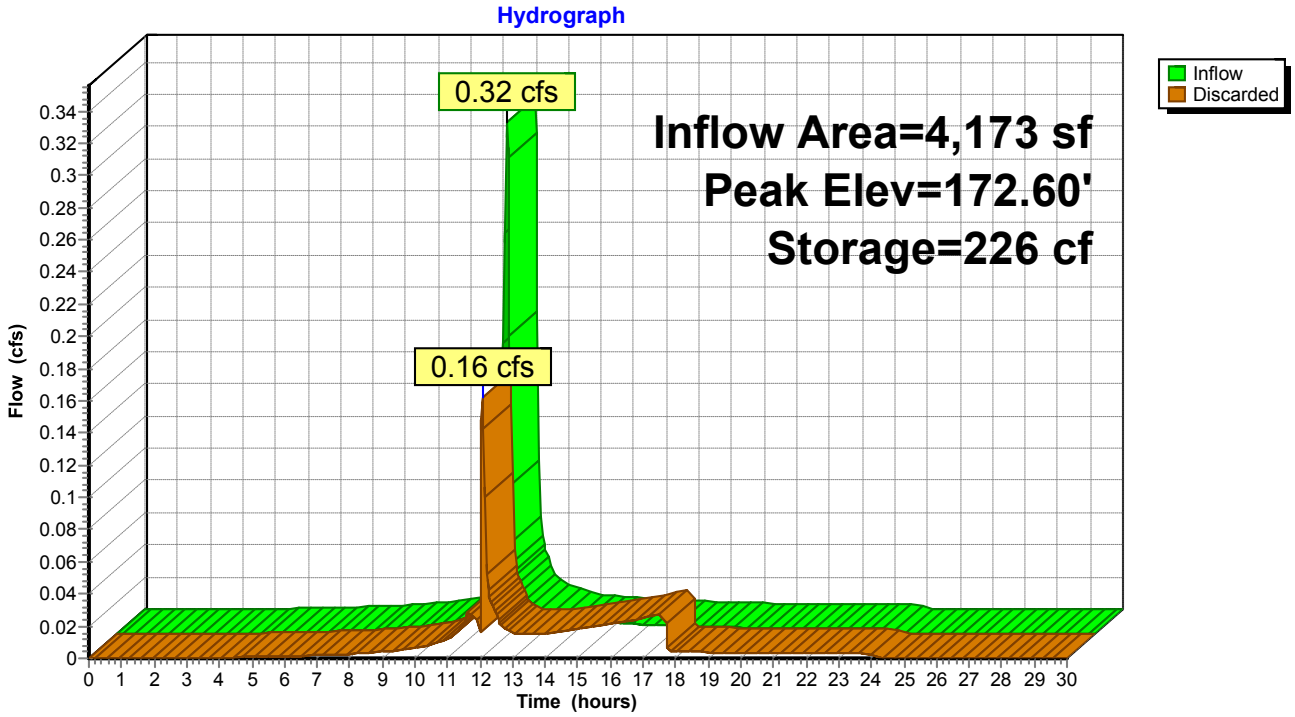
Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	559 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	1,366	349	559

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.15 cfs @ 12.07 hrs HW=172.60' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.15 cfs)

Pond 13P: EXISTING DRYWELL



Summary for Pond DP-1: EXISTING CATCH BASIN

[81] Warning: Exceeded Pond 7P by 0.63' @ 11.95 hrs
[79] Warning: Submerged Pond 8P Primary device # 1 OUTLET by 1.64'

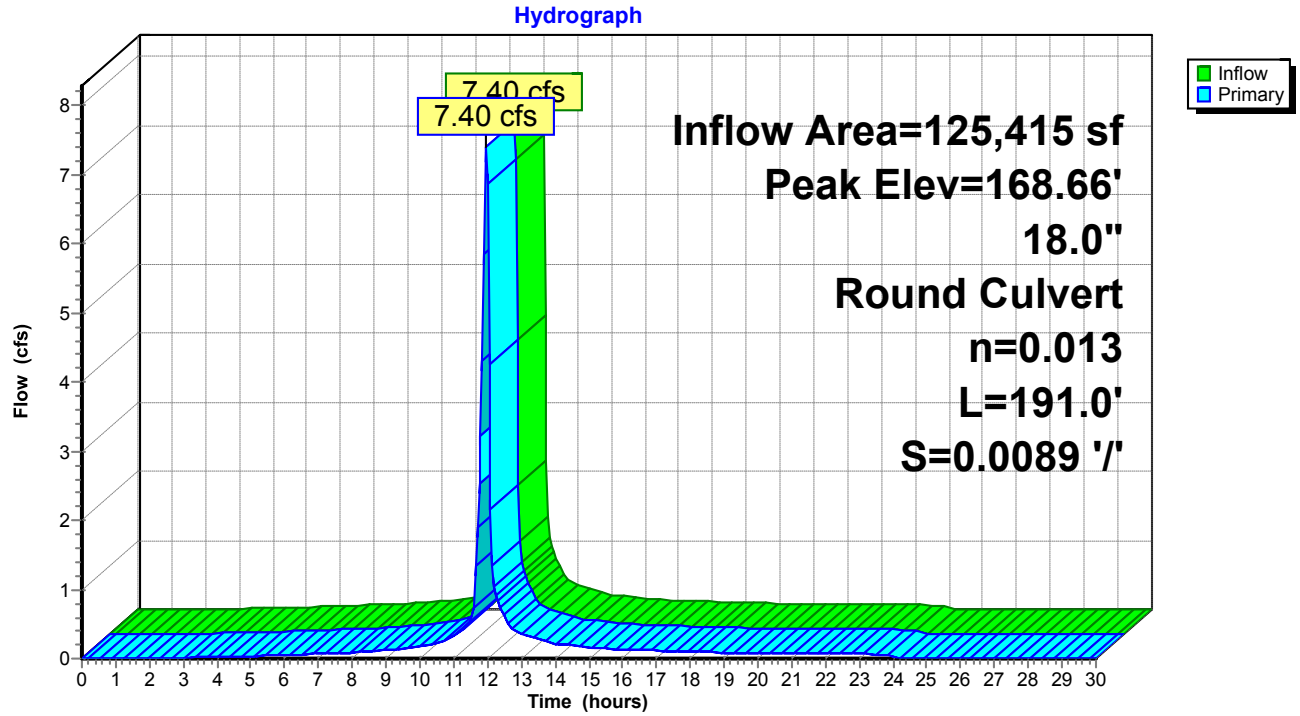
Inflow Area = 125,415 sf, 90.33% Impervious, Inflow Depth = 1.66" for 1-YEAR event
Inflow = 7.40 cfs @ 11.96 hrs, Volume= 17,385 cf
Outflow = 7.40 cfs @ 11.96 hrs, Volume= 17,385 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.40 cfs @ 11.96 hrs, Volume= 17,385 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.66' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=7.21 cfs @ 11.96 hrs HW=168.60' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 7.21 cfs @ 4.08 fps)

Pond DP-1: EXISTING CATCH BASIN



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 6S: DA-10 Runoff Area=3,125 sf 87.10% Impervious Runoff Depth=2.71"
Flow Length=48' Slope=0.0235 '/' Tc=6.0 min CN=96 Runoff=0.30 cfs 706 cf

Subcatchment DA-1: DA-1 Runoff Area=15,019 sf 84.37% Impervious Runoff Depth=2.71"
Flow Length=59' Tc=6.0 min CN=96 Runoff=1.45 cfs 3,391 cf

Subcatchment DA-2: DA-2 Runoff Area=3,749 sf 79.83% Impervious Runoff Depth=2.61"
Flow Length=61' Tc=6.0 min CN=95 Runoff=0.35 cfs 814 cf

Subcatchment DA-3: DA-3 Runoff Area=4,132 sf 69.19% Impervious Runoff Depth=2.51"
Flow Length=43' Tc=6.0 min CN=94 Runoff=0.38 cfs 863 cf

Subcatchment DA-4: DA-4 Runoff Area=5,589 sf 86.58% Impervious Runoff Depth=2.71"
Flow Length=59' Tc=6.0 min CN=96 Runoff=0.54 cfs 1,262 cf

Subcatchment DA-5: DA-5 Runoff Area=13,552 sf 100.00% Impervious Runoff Depth=2.93"
Flow Length=60' Slope=0.0100 '/' Tc=6.0 min CN=98 Runoff=1.35 cfs 3,306 cf

Subcatchment DA-6: DA-6 Runoff Area=72,169 sf 95.78% Impervious Runoff Depth=2.82"
Flow Length=293' Tc=6.0 min CN=97 Runoff=7.09 cfs 16,941 cf

Subcatchment DA-7: DA-7 Runoff Area=8,324 sf 100.00% Impervious Runoff Depth=2.93"
Flow Length=183' Tc=6.0 min CN=98 Runoff=0.83 cfs 2,031 cf

Subcatchment DA-8: DA-8 Runoff Area=4,173 sf 81.26% Impervious Runoff Depth=2.61"
Flow Length=31' Tc=6.0 min CN=95 Runoff=0.39 cfs 906 cf

Subcatchment DA-9: DA-9 Runoff Area=9,135 sf 69.73% Impervious Runoff Depth=2.51"
Flow Length=82' Tc=6.0 min CN=94 Runoff=0.84 cfs 1,907 cf

Reach DP-2: STREET Inflow=1.35 cfs 3,306 cf
Outflow=1.35 cfs 3,306 cf

Pond 1P: EXISTING YARD DRAIN Peak Elev=190.51' Inflow=0.84 cfs 1,907 cf
4.0" Round Culvert n=0.013 L=87.0' S=0.0100 '/' Outflow=0.84 cfs 1,907 cf

Pond 2P: EXISTING CATCH BASIN Peak Elev=171.37' Inflow=1.45 cfs 3,391 cf
12.0" Round Culvert n=0.013 L=14.0' S=0.0100 '/' Outflow=1.45 cfs 3,391 cf

Pond 3P: EXISTING CATCH BASIN Peak Elev=170.65' Inflow=0.38 cfs 863 cf
12.0" Round Culvert n=0.013 L=17.0' S=0.0100 '/' Outflow=0.38 cfs 863 cf

Pond 4P: EXISTING CATCH BASIN Peak Elev=171.23' Inflow=0.54 cfs 1,262 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0100 '/' Outflow=0.54 cfs 1,262 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.47' Storage=661 cf Inflow=1.45 cfs 3,391 cf
Outflow=0.93 cfs 3,391 cf

Pond 6P: EXISTING CATCH BASIN Peak Elev=170.63' Inflow=0.35 cfs 814 cf
12.0" Round Culvert n=0.013 L=15.0' S=0.0100 '/' Outflow=0.35 cfs 814 cf

Pond 7P: EXISTING CATCH BASIN Peak Elev=168.06' Inflow=0.83 cfs 2,031 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=0.83 cfs 2,031 cf

Pond 8P: EXISTING CATCH BASIN Peak Elev=176.03' Inflow=7.09 cfs 16,941 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=7.09 cfs 16,941 cf

Pond 9P: EXISTING DRYWELL Peak Elev=173.48' Storage=813 cf Inflow=0.35 cfs 814 cf
Outflow=0.00 cfs 0 cf

Pond 10P: EXISTING DRYWELL Peak Elev=172.98' Storage=225 cf Inflow=0.38 cfs 863 cf
Outflow=0.30 cfs 863 cf

Pond 12P: EXISTING DRYWELL Peak Elev=173.07' Storage=286 cf Inflow=0.54 cfs 1,262 cf
Outflow=0.41 cfs 1,262 cf

Pond 13P: EXISTING DRYWELL Peak Elev=172.67' Storage=254 cf Inflow=0.39 cfs 906 cf
Outflow=0.25 cfs 906 cf

Pond DP-1: EXISTING CATCH BASIN Peak Elev=169.27' Inflow=9.07 cfs 21,585 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=9.07 cfs 21,585 cf

Total Runoff Area = 138,967 sf Runoff Volume = 32,127 cf Average Runoff Depth = 2.77"
8.72% Pervious = 12,123 sf 91.28% Impervious = 126,844 sf

Summary for Subcatchment 6S: DA-10

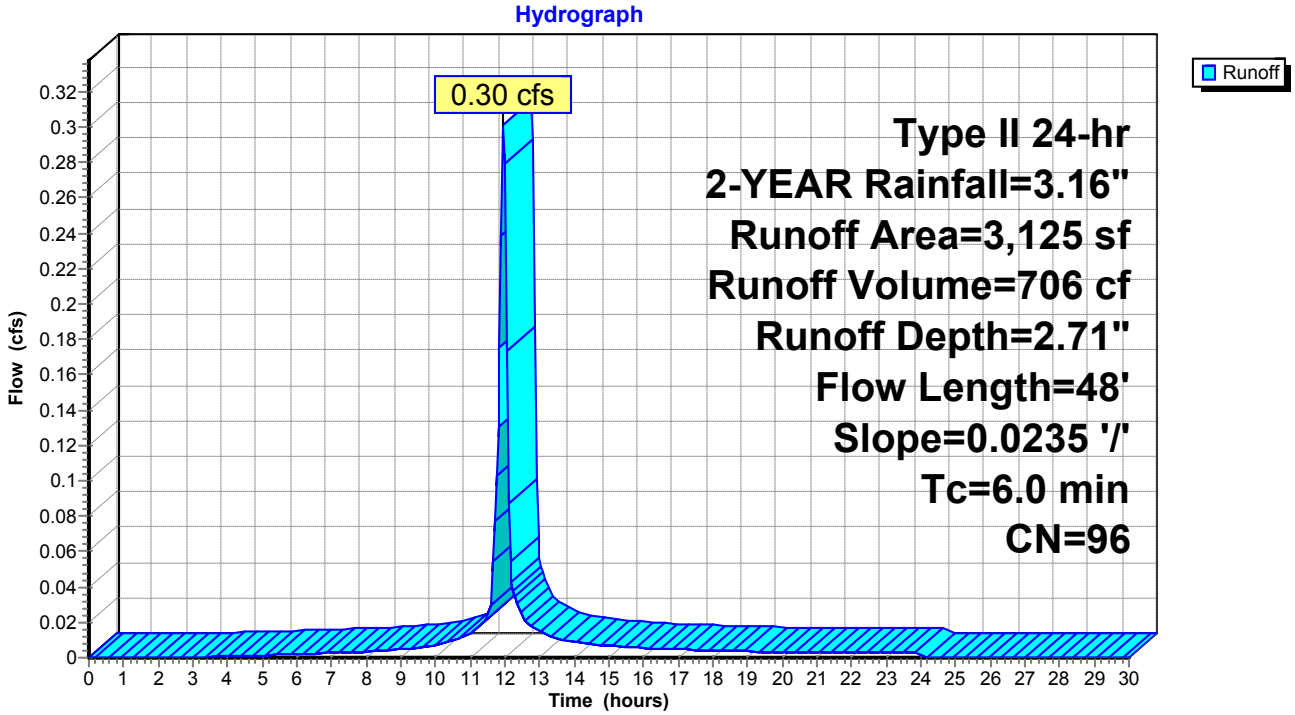
Runoff = 0.30 cfs @ 11.96 hrs, Volume= 706 cf, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
403	84	50-75% Grass cover, Fair, HSG D
2,722	98	Paved parking, HSG D
3,125	96	Weighted Average
403		12.90% Pervious Area
2,722		87.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	48	0.0235	1.26		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	48	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 6S: DA-10



Summary for Subcatchment DA-1: DA-1

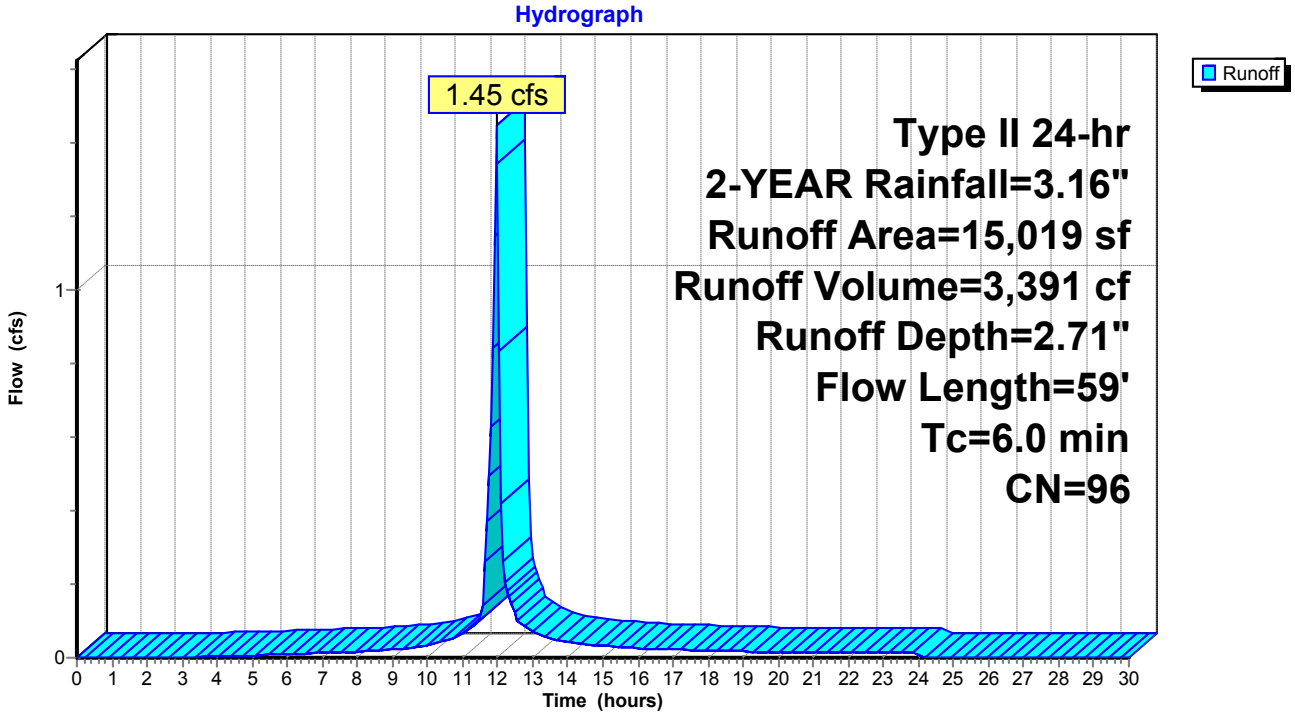
Runoff = 1.45 cfs @ 11.96 hrs, Volume= 3,391 cf, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
2,348	84	50-75% Grass cover, Fair, HSG D
12,671	98	Paved parking, HSG D
15,019	96	Weighted Average
2,348		15.63% Pervious Area
12,671		84.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	29	0.0390	0.17		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	30	0.0350	3.80		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.9	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-2: DA-2

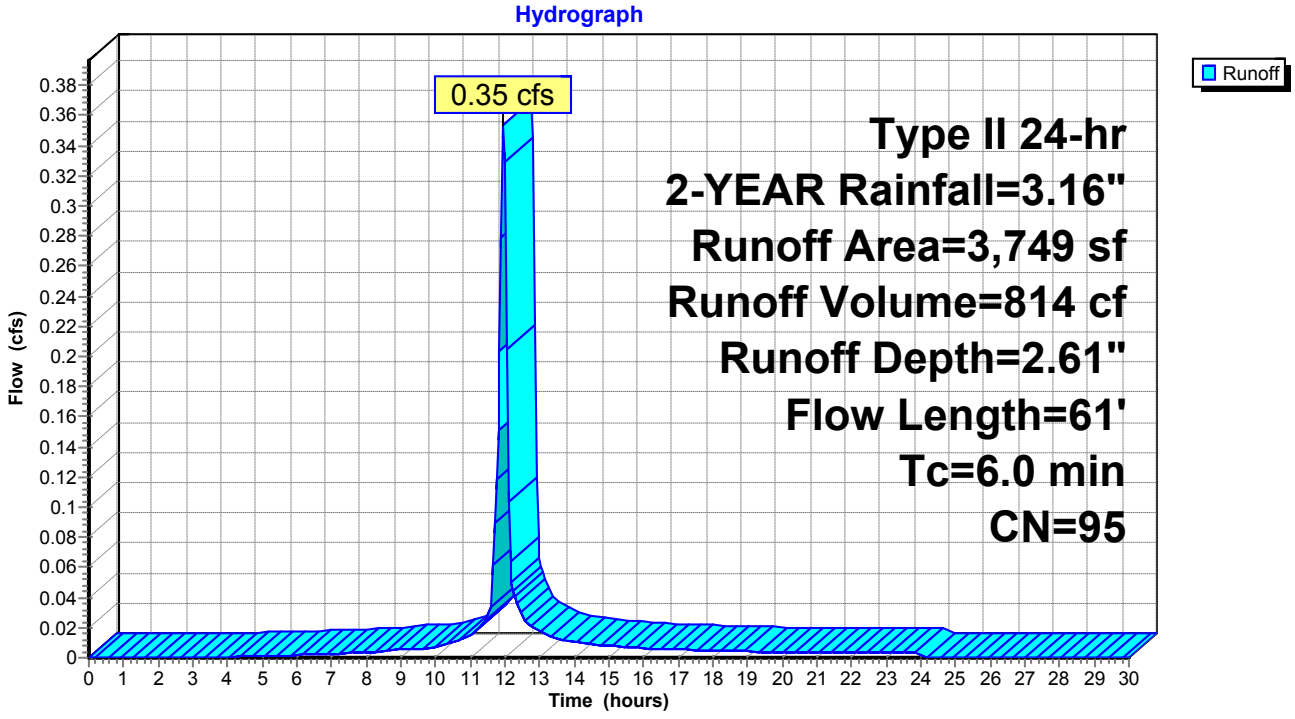
Runoff = 0.35 cfs @ 11.96 hrs, Volume= 814 cf, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
756	84	50-75% Grass cover, Fair, HSG D
2,993	98	Paved parking, HSG D
3,749	95	Weighted Average
756		20.17% Pervious Area
2,993		79.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	26	0.0173	0.12		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	35	0.0257	3.25		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	61	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

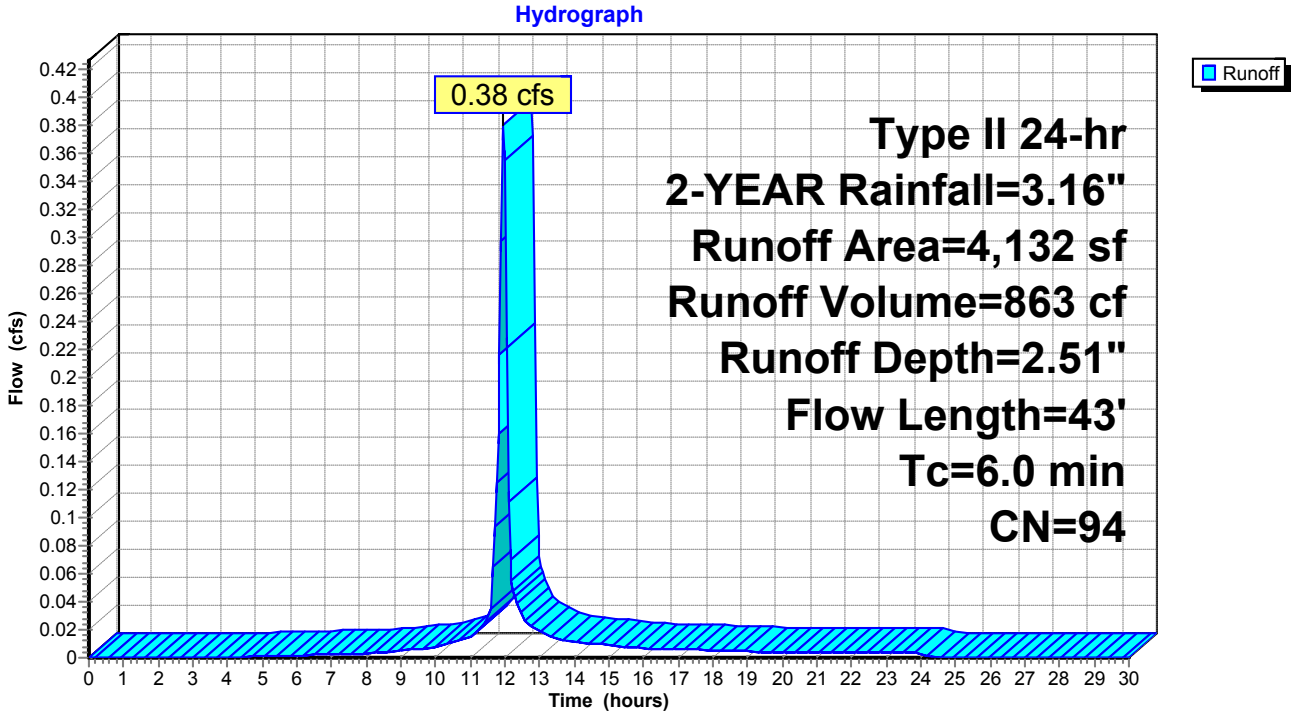
Runoff = 0.38 cfs @ 11.96 hrs, Volume= 863 cf, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,273	84	50-75% Grass cover, Fair, HSG D
2,859	98	Paved parking, HSG D
4,132	94	Weighted Average
1,273		30.81% Pervious Area
2,859		69.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	31	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0250	3.21		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
4.2	43	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

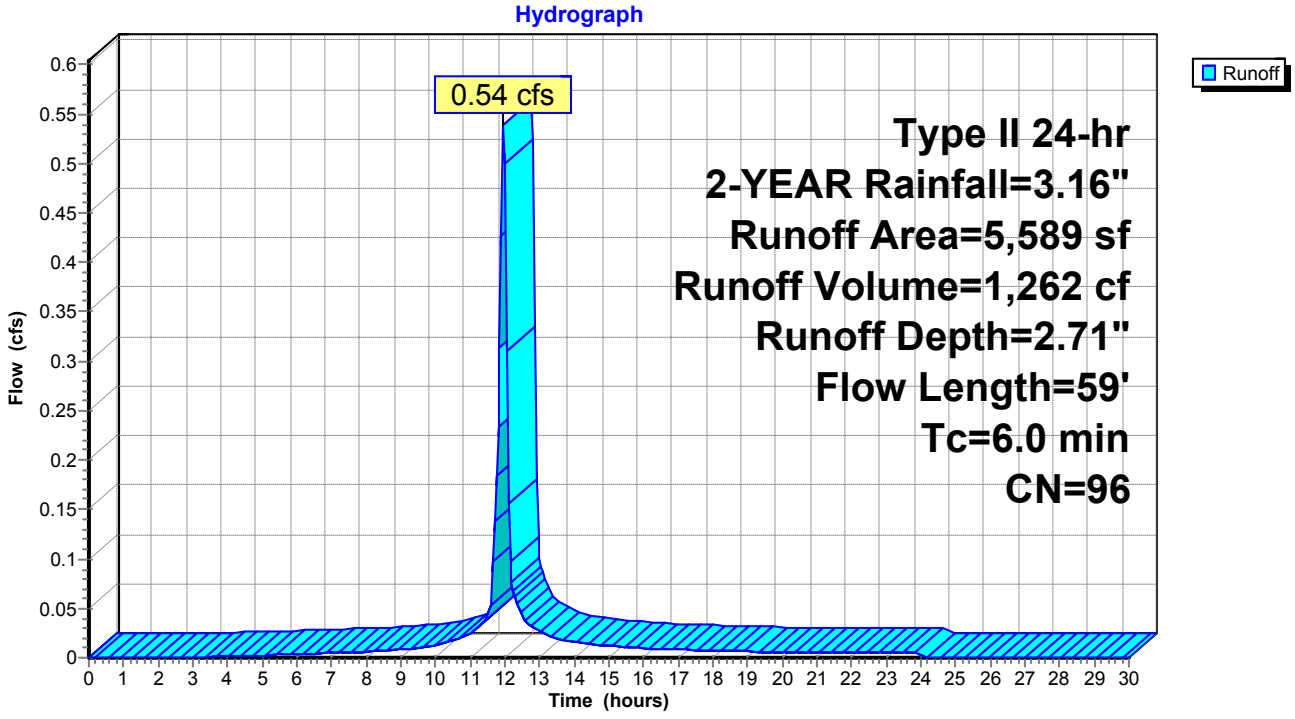
Runoff = 0.54 cfs @ 11.96 hrs, Volume= 1,262 cf, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
750	84	50-75% Grass cover, Fair, HSG D
4,839	98	Paved parking, HSG D
5,589	96	Weighted Average
750		13.42% Pervious Area
4,839		86.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	30	0.0217	0.14		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	29	0.0169	2.64		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-4: DA-4



Summary for Subcatchment DA-5: DA-5

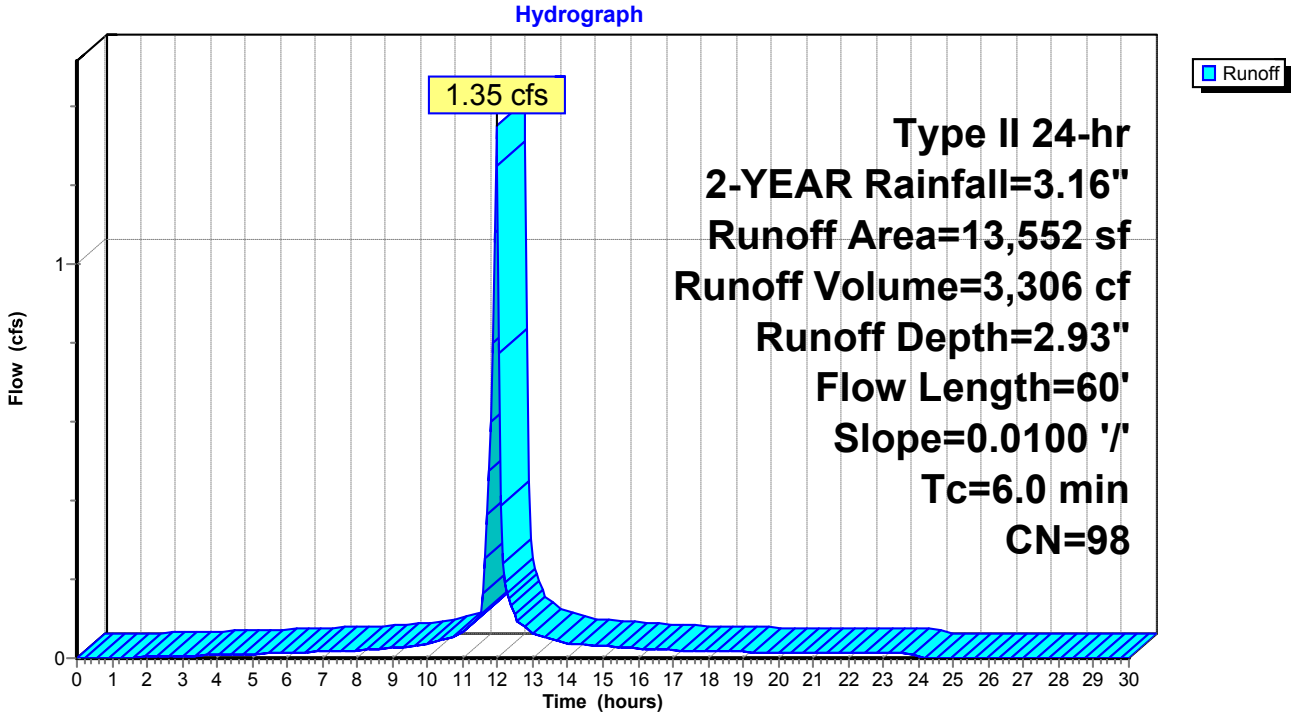
Runoff = 1.35 cfs @ 11.96 hrs, Volume= 3,306 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
13,552	98	Paved parking, HSG D
13,552		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	60	0.0100	0.94		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.1	60	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-5: DA-5



Summary for Subcatchment DA-6: DA-6

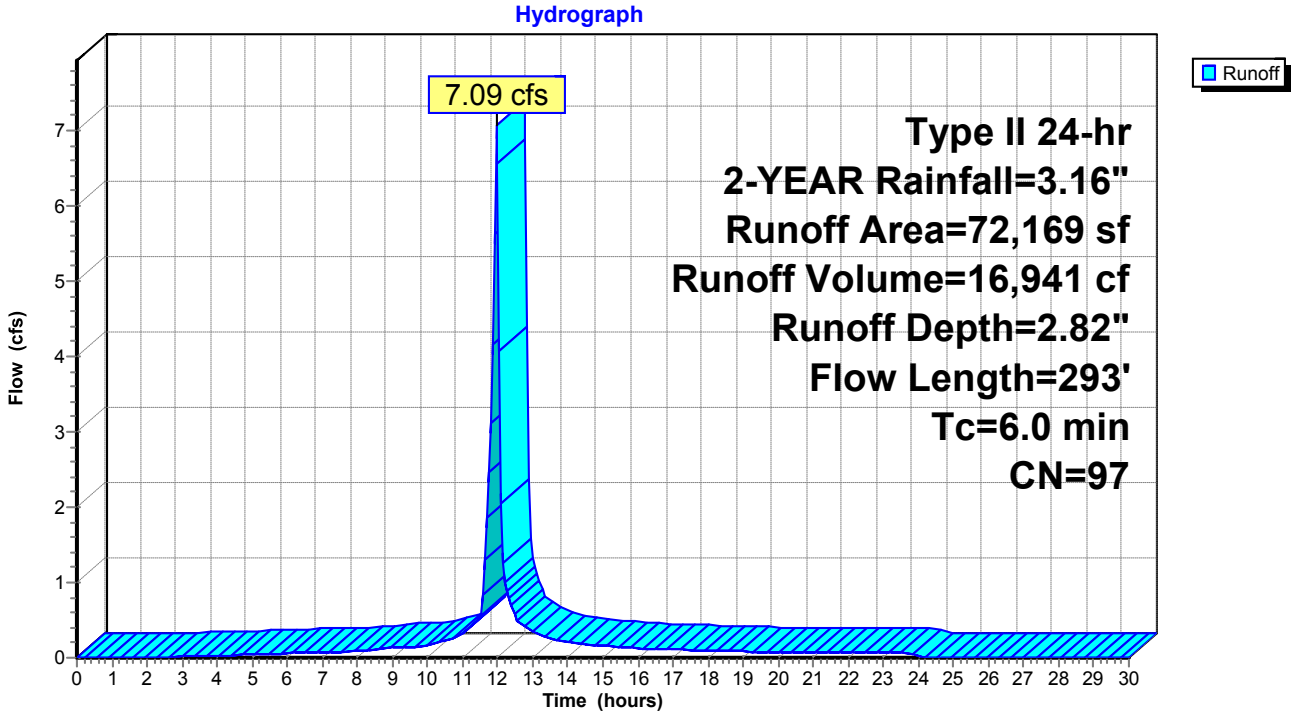
Runoff = 7.09 cfs @ 11.96 hrs, Volume= 16,941 cf, Depth= 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
3,046	84	50-75% Grass cover, Fair, HSG D
69,123	98	Paved parking, HSG D
72,169	97	Weighted Average
3,046		4.22% Pervious Area
69,123		95.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0220	1.42		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.4	193	0.0126	2.28		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.6	293	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

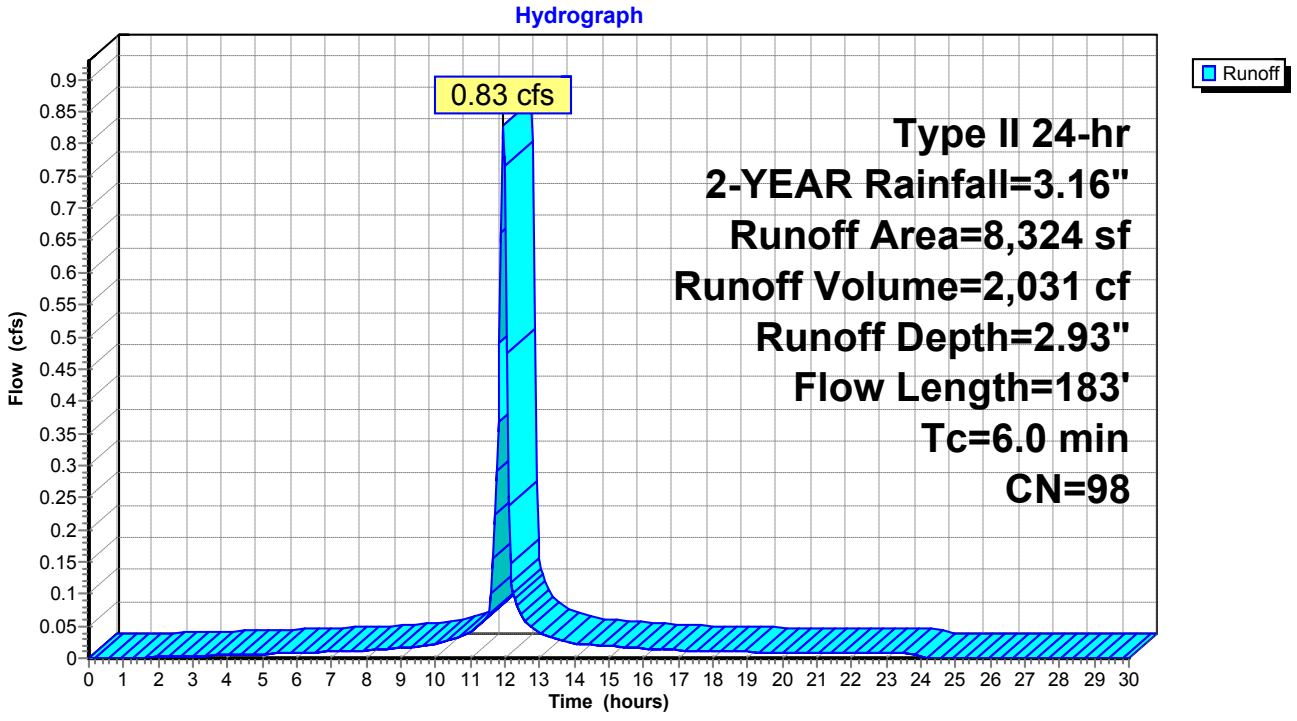
Runoff = 0.83 cfs @ 11.96 hrs, Volume= 2,031 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
8,324	98	Paved parking, HSG D
8,324		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	100	0.0301	1.61		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	83	0.0124	2.26		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
1.6	183	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

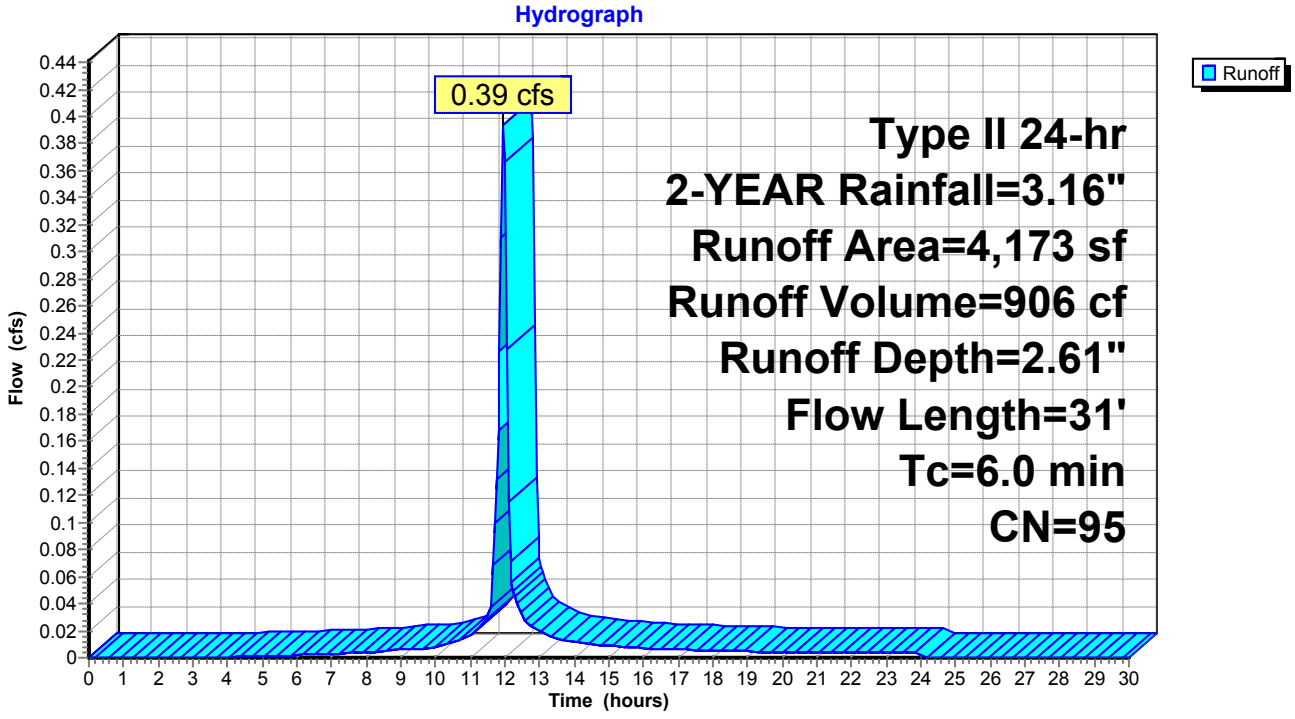
Runoff = 0.39 cfs @ 11.96 hrs, Volume= 906 cf, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
782	84	50-75% Grass cover, Fair, HSG D
3,391	98	Paved parking, HSG D
4,173	95	Weighted Average
782		18.74% Pervious Area
3,391		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	19	0.0150	0.11		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0208	2.93		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.0	31	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DA-9

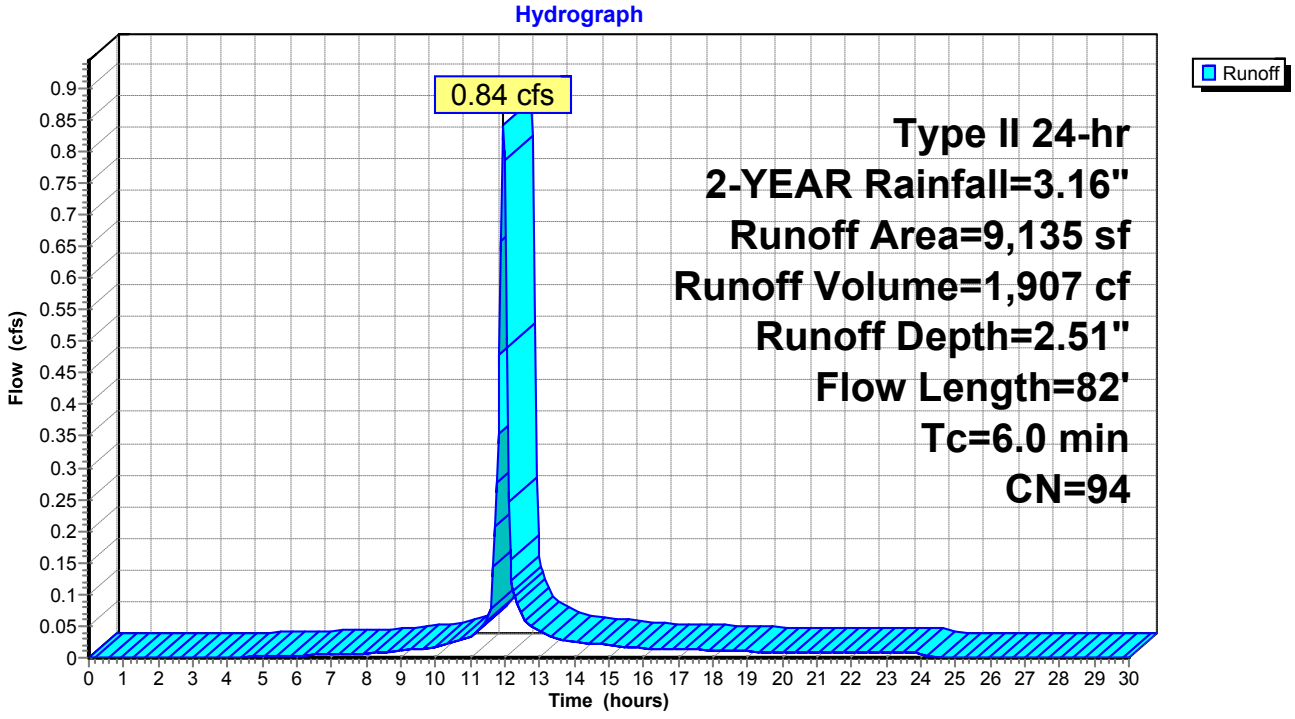
Runoff = 0.84 cfs @ 11.96 hrs, Volume= 1,907 cf, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
2,765	84	50-75% Grass cover, Fair, HSG D
6,370	98	Paved parking, HSG D
9,135	94	Weighted Average
2,765		30.27% Pervious Area
6,370		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	42	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	40	0.0200	2.87		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
5.4	82	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-9: DA-9



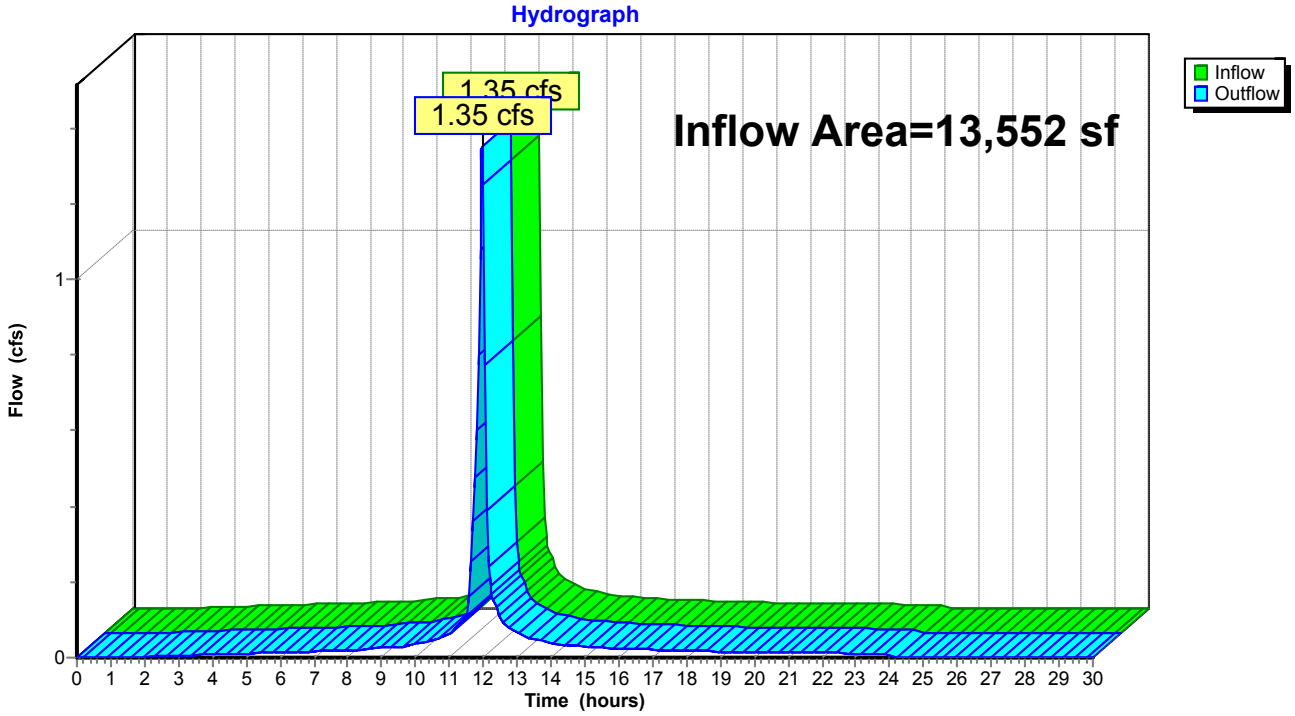
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 13,552 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 1.35 cfs @ 11.96 hrs, Volume= 3,306 cf
Outflow = 1.35 cfs @ 11.96 hrs, Volume= 3,306 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 1P: EXISTING YARD DRAIN

[57] Hint: Peaked at 190.51' (Flood elevation advised)

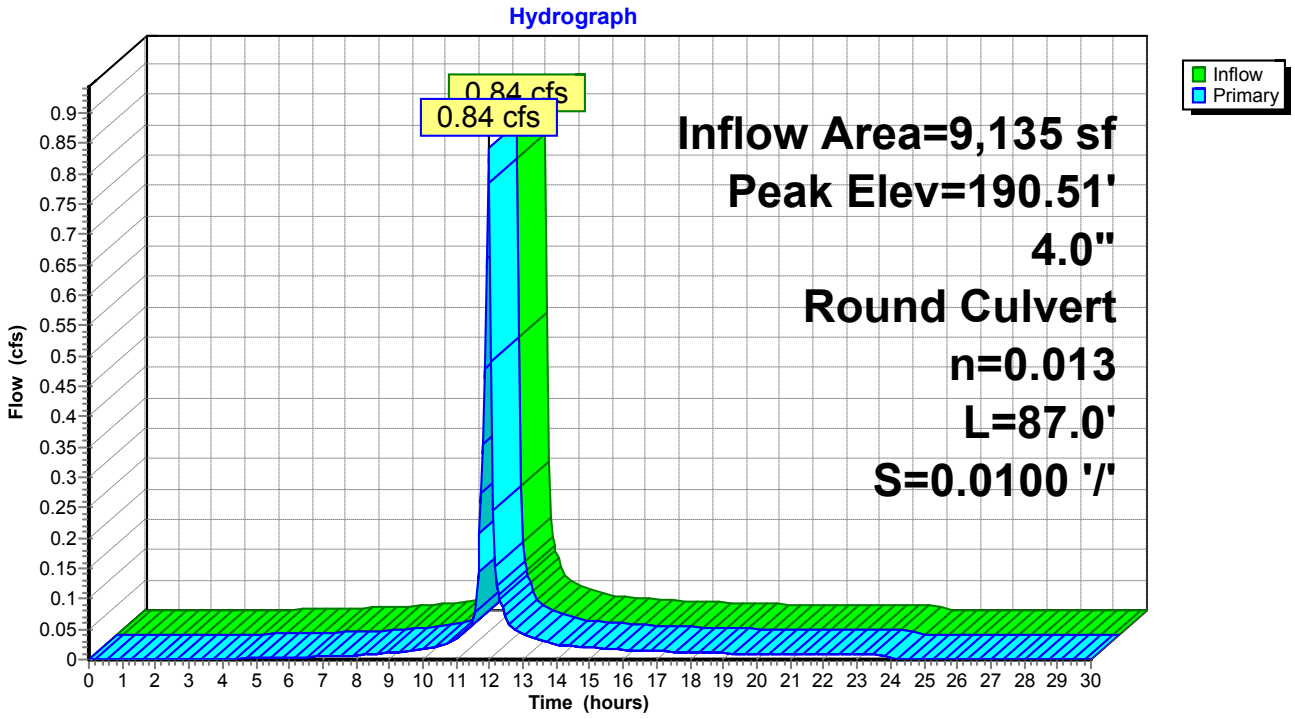
Inflow Area = 9,135 sf, 69.73% Impervious, Inflow Depth = 2.51" for 2-YEAR event
Inflow = 0.84 cfs @ 11.96 hrs, Volume= 1,907 cf
Outflow = 0.84 cfs @ 11.96 hrs, Volume= 1,907 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.84 cfs @ 11.96 hrs, Volume= 1,907 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 190.51' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=0.82 cfs @ 11.96 hrs HW=189.55' (Free Discharge)
1=Culvert (Barrel Controls 0.82 cfs @ 9.39 fps)

Pond 1P: EXISTING YARD DRAIN



Summary for Pond 2P: EXISTING CATCH BASIN

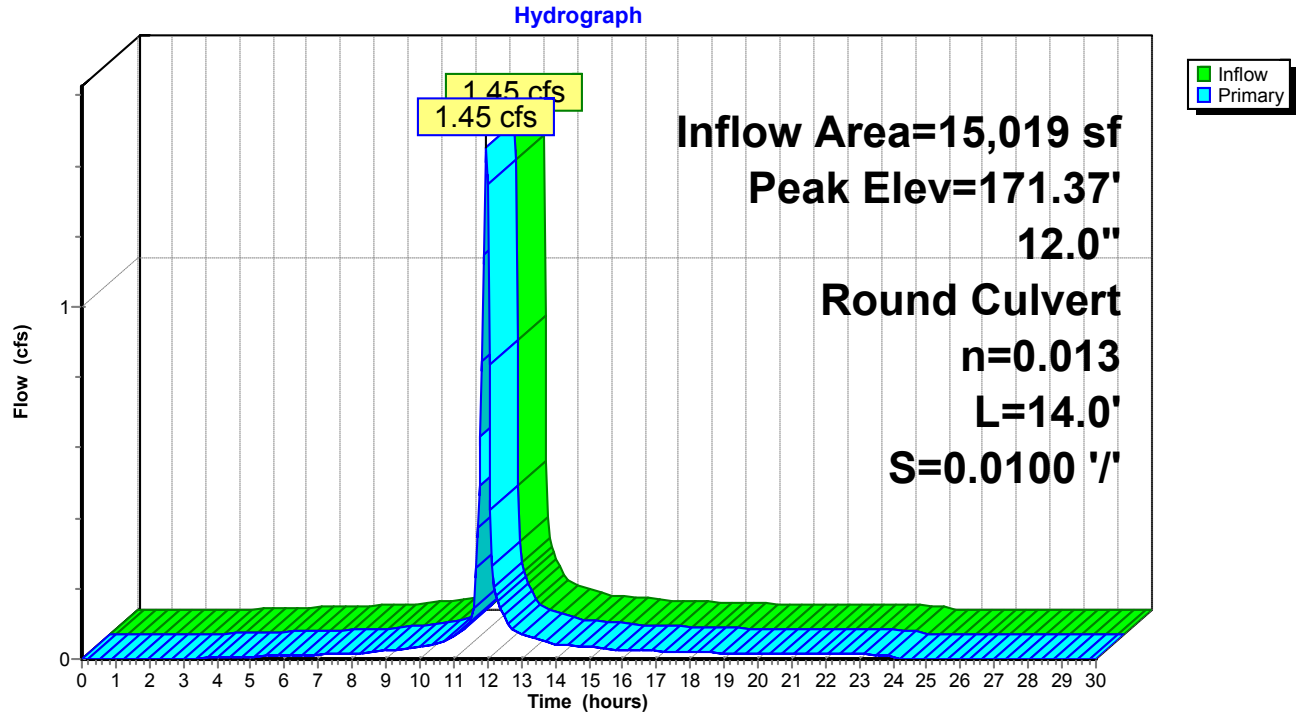
Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 2.71" for 2-YEAR event
Inflow = 1.45 cfs @ 11.96 hrs, Volume= 3,391 cf
Outflow = 1.45 cfs @ 11.96 hrs, Volume= 3,391 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.45 cfs @ 11.96 hrs, Volume= 3,391 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.37' @ 11.96 hrs
Flood Elev= 172.99'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.60'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.60' / 170.46' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.41 cfs @ 11.96 hrs HW=171.36' (Free Discharge)
1=Culvert (Barrel Controls 1.41 cfs @ 3.05 fps)

Pond 2P: EXISTING CATCH BASIN



Summary for Pond 3P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.65' (Flood elevation advised)

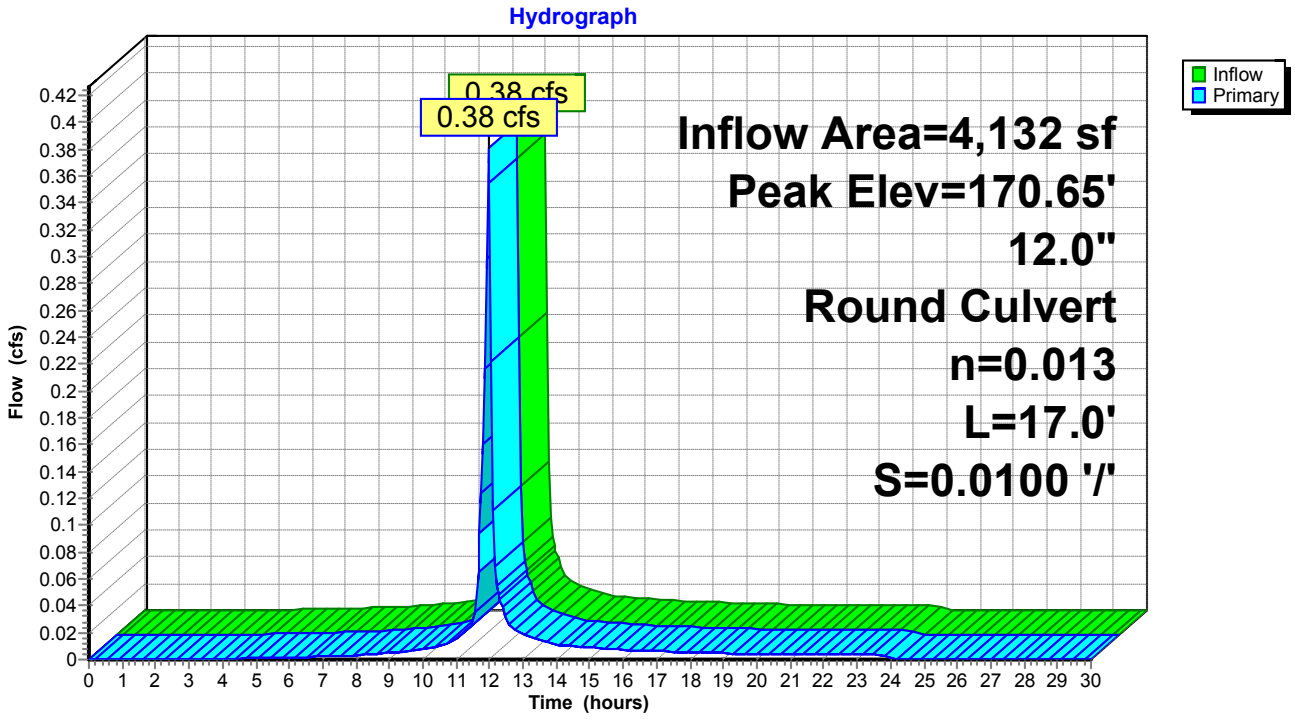
Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 2.51" for 2-YEAR event
Inflow = 0.38 cfs @ 11.96 hrs, Volume= 863 cf
Outflow = 0.38 cfs @ 11.96 hrs, Volume= 863 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.38 cfs @ 11.96 hrs, Volume= 863 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.65' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.13' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.37 cfs @ 11.96 hrs HW=170.64' (Free Discharge)
1=Culvert (Inlet Controls 0.37 cfs @ 1.57 fps)

Pond 3P: EXISTING CATCH BASIN



Summary for Pond 4P: EXISTING CATCH BASIN

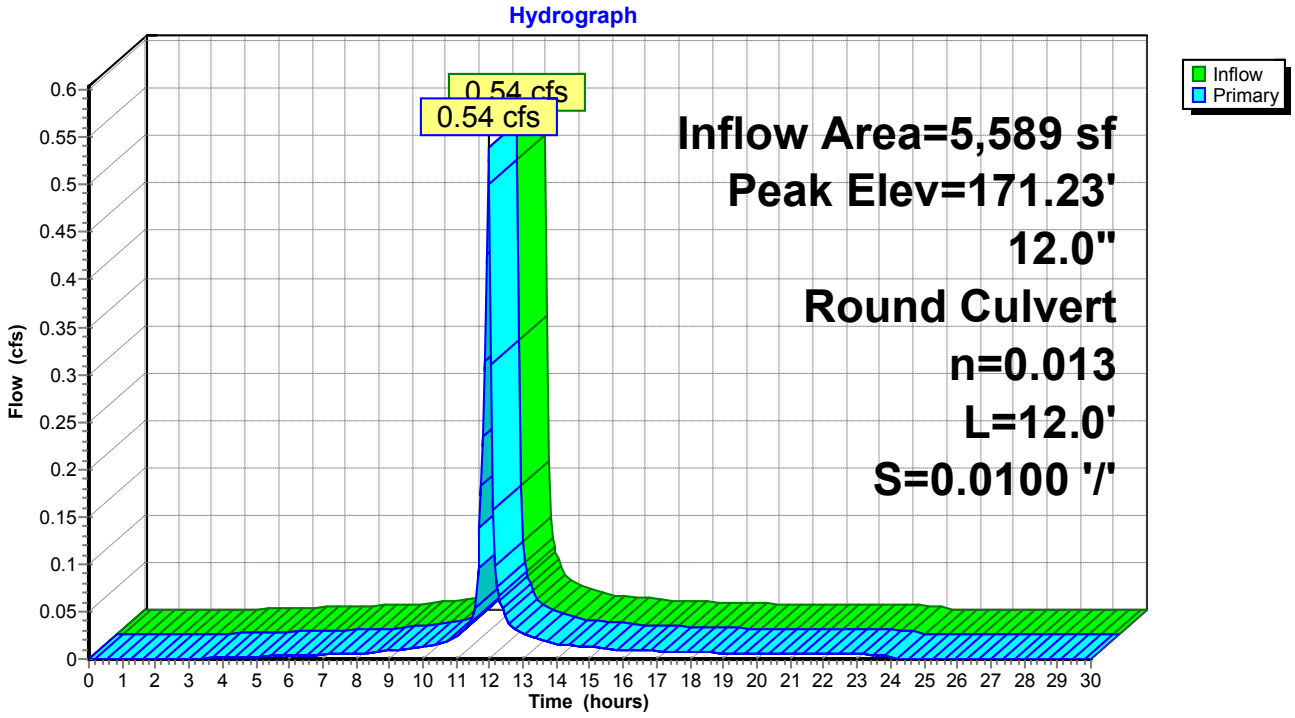
Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 2.71" for 2-YEAR event
Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,262 cf
Outflow = 0.54 cfs @ 11.96 hrs, Volume= 1,262 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.54 cfs @ 11.96 hrs, Volume= 1,262 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.23' @ 11.96 hrs
Flood Elev= 172.73'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.80'	**12.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.80' / 170.68' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.53 cfs @ 11.96 hrs HW=171.23' (Free Discharge)
1=Culvert (Barrel Controls 0.53 cfs @ 2.42 fps)

Pond 4P: EXISTING CATCH BASIN



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 2P by 2.50' @ 12.15 hrs

Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 2.71" for 2-YEAR event
Inflow = 1.45 cfs @ 11.96 hrs, Volume= 3,391 cf
Outflow = 0.93 cfs @ 12.04 hrs, Volume= 3,391 cf, Atten= 36%, Lag= 4.9 min
Discarded = 0.93 cfs @ 12.04 hrs, Volume= 3,391 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.47' @ 12.04 hrs Surf.Area= 1,819 sf Storage= 661 cf

Plug-Flow detention time= 51.5 min calculated for 3,386 cf (100% of inflow)
Center-of-Mass det. time= 51.6 min (822.5 - 770.9)

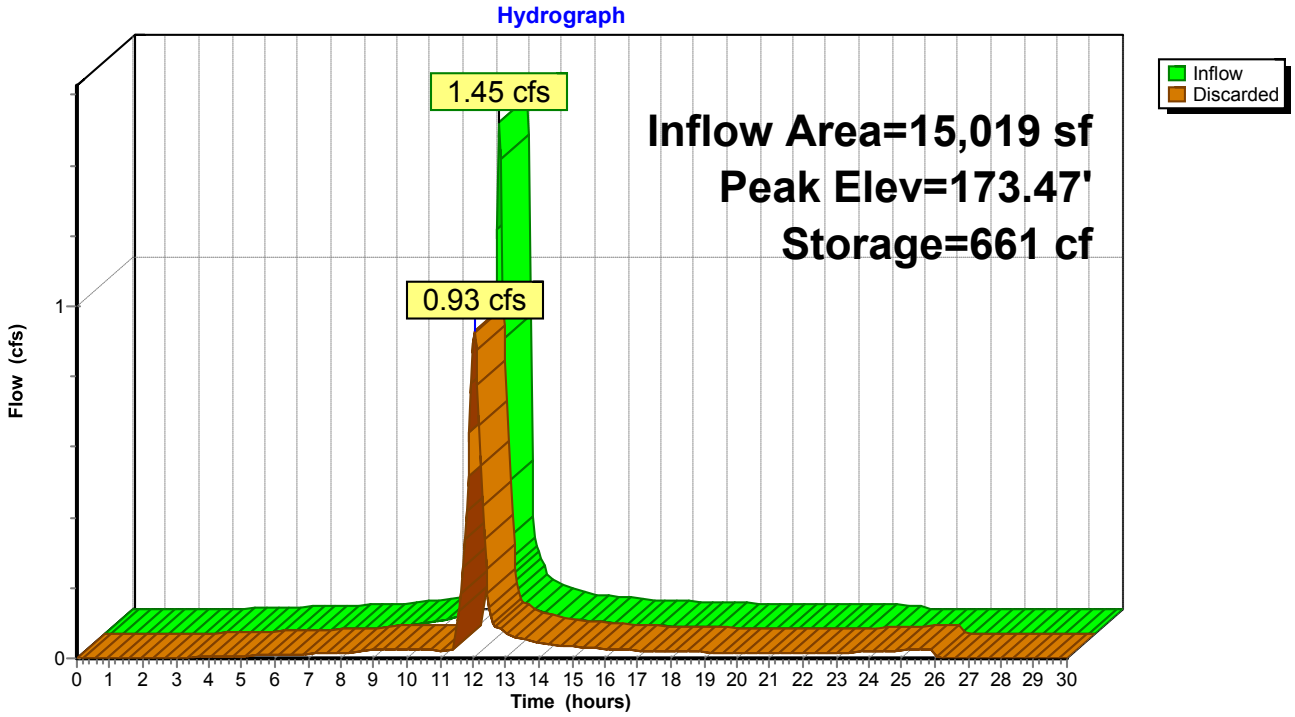
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,139 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	112	7	208
174.00	3,750	1,931	2,139

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.92 cfs @ 12.04 hrs HW=173.47' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.92 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 6P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.63' (Flood elevation advised)

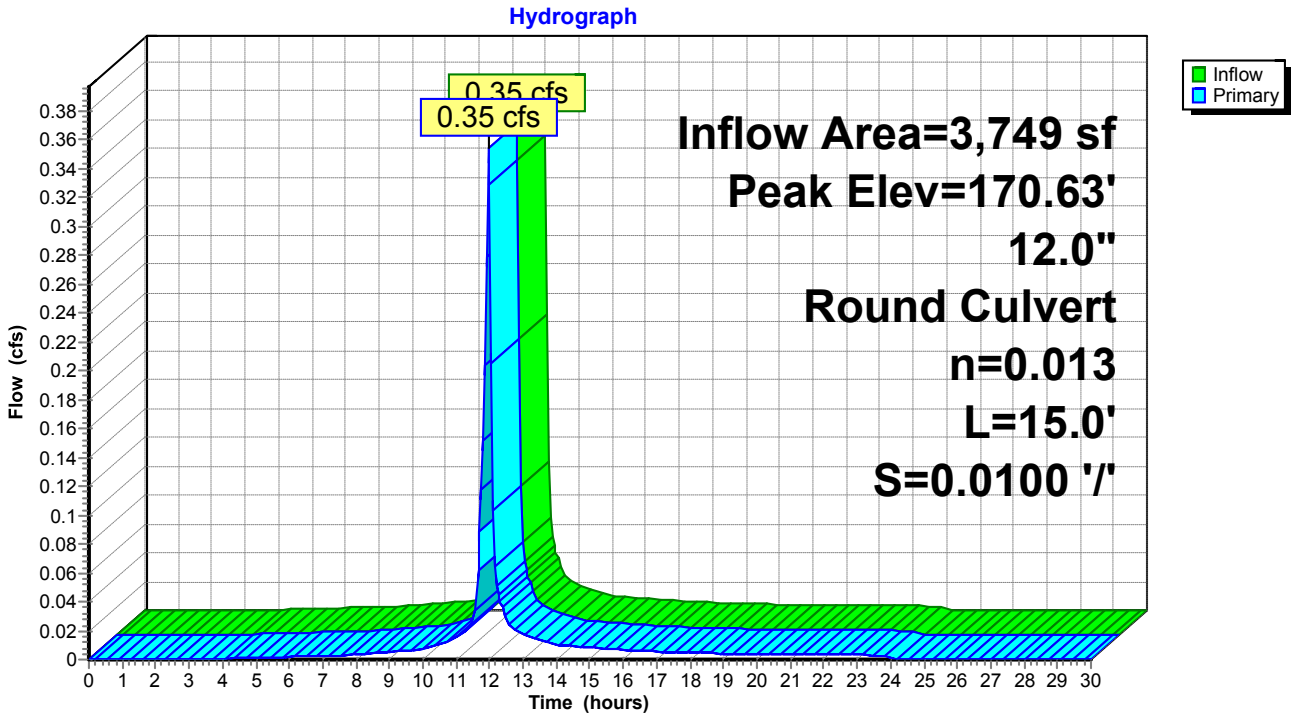
Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 2.61" for 2-YEAR event
Inflow = 0.35 cfs @ 11.96 hrs, Volume= 814 cf
Outflow = 0.35 cfs @ 11.96 hrs, Volume= 814 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.35 cfs @ 11.96 hrs, Volume= 814 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.63' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.15' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.34 cfs @ 11.96 hrs HW=170.63' (Free Discharge)
1=Culvert (Barrel Controls 0.34 cfs @ 2.28 fps)

Pond 6P: EXISTING CATCH BASIN



Summary for Pond 7P: EXISTING CATCH BASIN

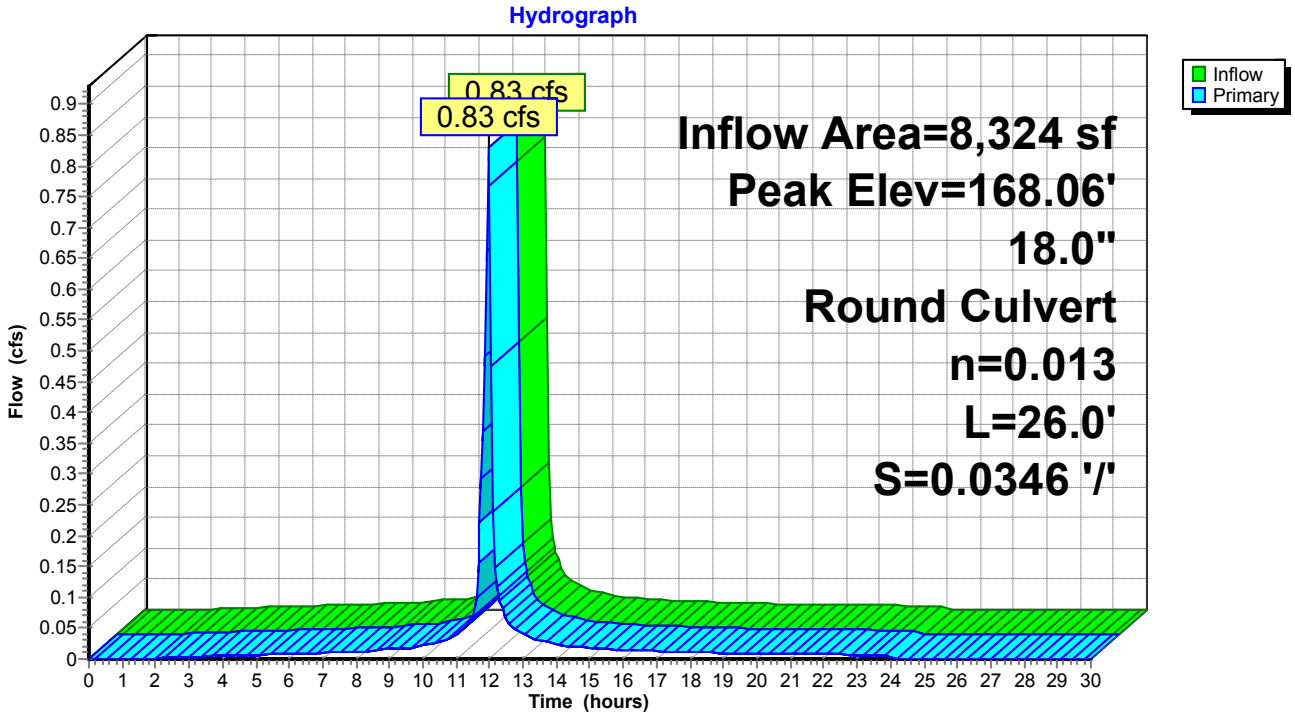
Inflow Area = 8,324 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 0.83 cfs @ 11.96 hrs, Volume= 2,031 cf
Outflow = 0.83 cfs @ 11.96 hrs, Volume= 2,031 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.83 cfs @ 11.96 hrs, Volume= 2,031 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.06' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=0.81 cfs @ 11.96 hrs HW=168.05' (Free Discharge)
1=Culvert (Inlet Controls 0.81 cfs @ 1.81 fps)

Pond 7P: EXISTING CATCH BASIN



Summary for Pond 8P: EXISTING CATCH BASIN

[58] Hint: Peaked 4.16' above defined flood level

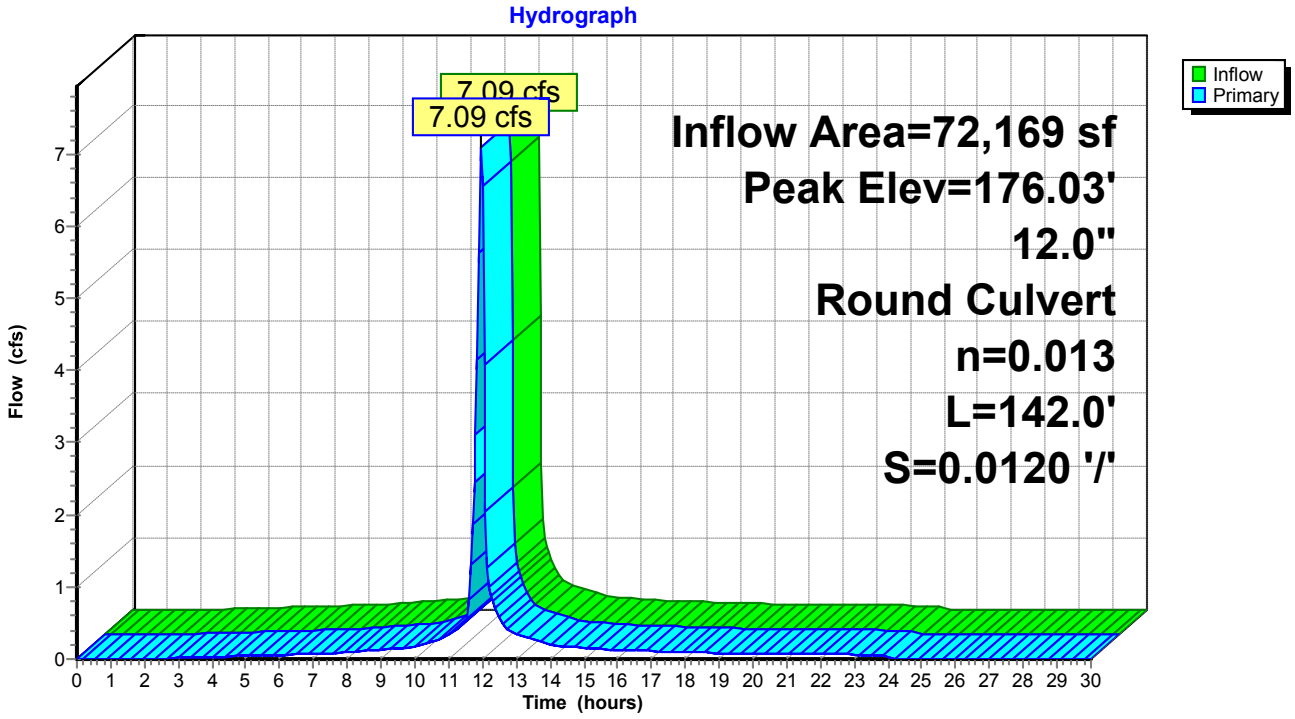
Inflow Area = 72,169 sf, 95.78% Impervious, Inflow Depth = 2.82" for 2-YEAR event
Inflow = 7.09 cfs @ 11.96 hrs, Volume= 16,941 cf
Outflow = 7.09 cfs @ 11.96 hrs, Volume= 16,941 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.09 cfs @ 11.96 hrs, Volume= 16,941 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 176.03' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=6.92 cfs @ 11.96 hrs HW=175.67' (Free Discharge)
└**1=Culvert** (Barrel Controls 6.92 cfs @ 8.81 fps)

Pond 8P: EXISTING CATCH BASIN



Summary for Pond 9P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 6P by 3.18' @ 24.40 hrs

Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 2.61" for 2-YEAR event
Inflow = 0.35 cfs @ 11.96 hrs, Volume= 814 cf
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min

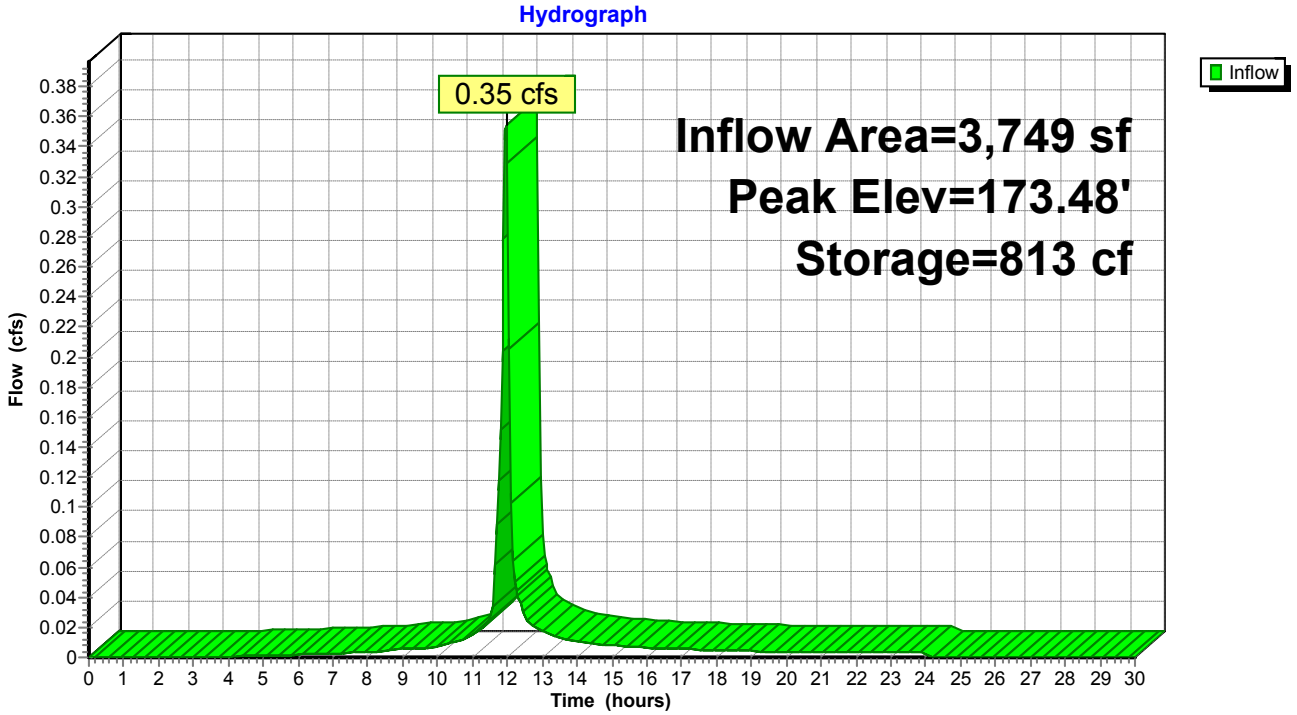
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.48' @ 24.40 hrs Surf.Area= 2,104 sf Storage= 813 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,410 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	377	20	221
174.00	4,000	2,189	2,410

Pond 9P: EXISTING DRYWELL



Summary for Pond 10P: EXISTING DRYWELL

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond 3P by 2.54' @ 13.45 hrs

Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 2.51" for 2-YEAR event
Inflow = 0.38 cfs @ 11.96 hrs, Volume= 863 cf
Outflow = 0.30 cfs @ 12.03 hrs, Volume= 863 cf, Atten= 21%, Lag= 3.8 min
Discarded = 0.30 cfs @ 12.03 hrs, Volume= 863 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.98' @ 12.03 hrs Surf.Area= 589 sf Storage= 225 cf

Plug-Flow detention time= 66.8 min calculated for 861 cf (100% of inflow)
Center-of-Mass det. time= 66.7 min (851.0 - 784.3)

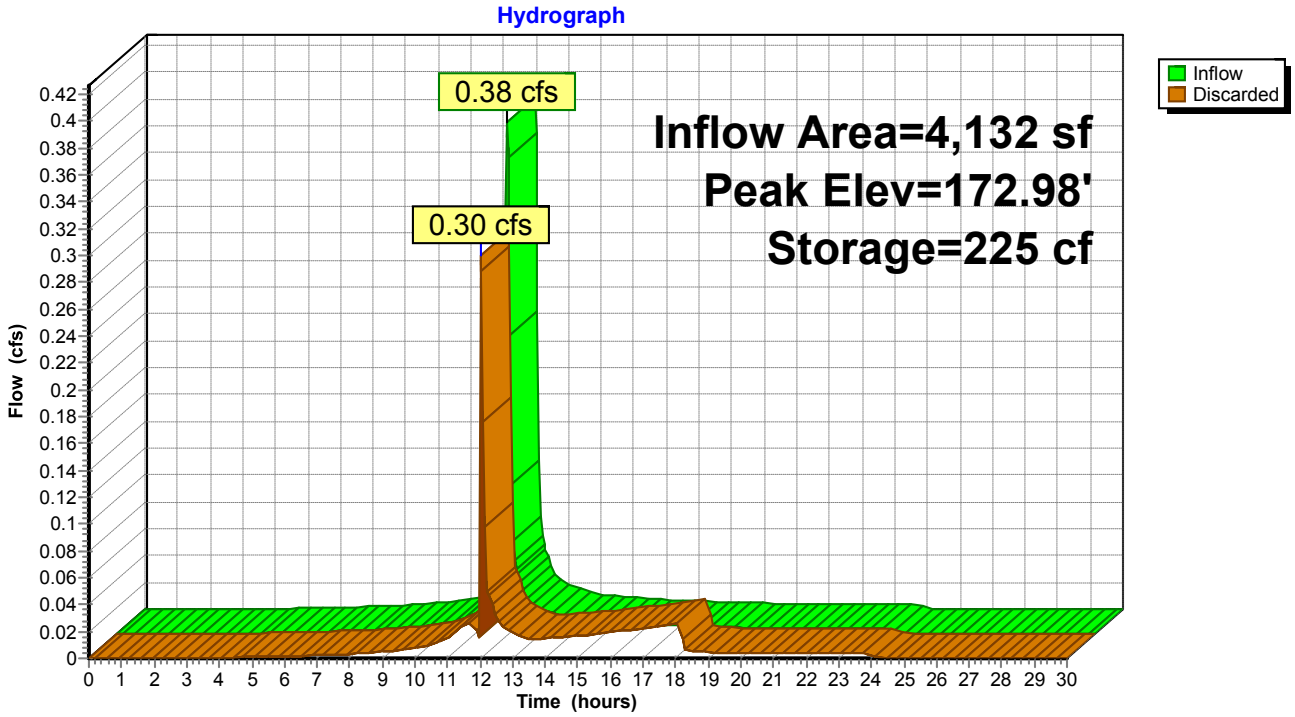
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,486 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	743	39	239
174.00	3,750	2,247	2,486

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.29 cfs @ 12.03 hrs HW=172.97' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.29 cfs)

Pond 10P: EXISTING DRYWELL



Summary for Pond 12P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 4P by 2.04' @ 14.15 hrs

Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 2.71" for 2-YEAR event
Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,262 cf
Outflow = 0.41 cfs @ 12.03 hrs, Volume= 1,262 cf, Atten= 24%, Lag= 3.8 min
Discarded = 0.41 cfs @ 12.03 hrs, Volume= 1,262 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.07' @ 12.03 hrs Surf.Area= 801 sf Storage= 286 cf

Plug-Flow detention time= 60.4 min calculated for 1,260 cf (100% of inflow)
Center-of-Mass det. time= 60.3 min (831.2 - 770.9)

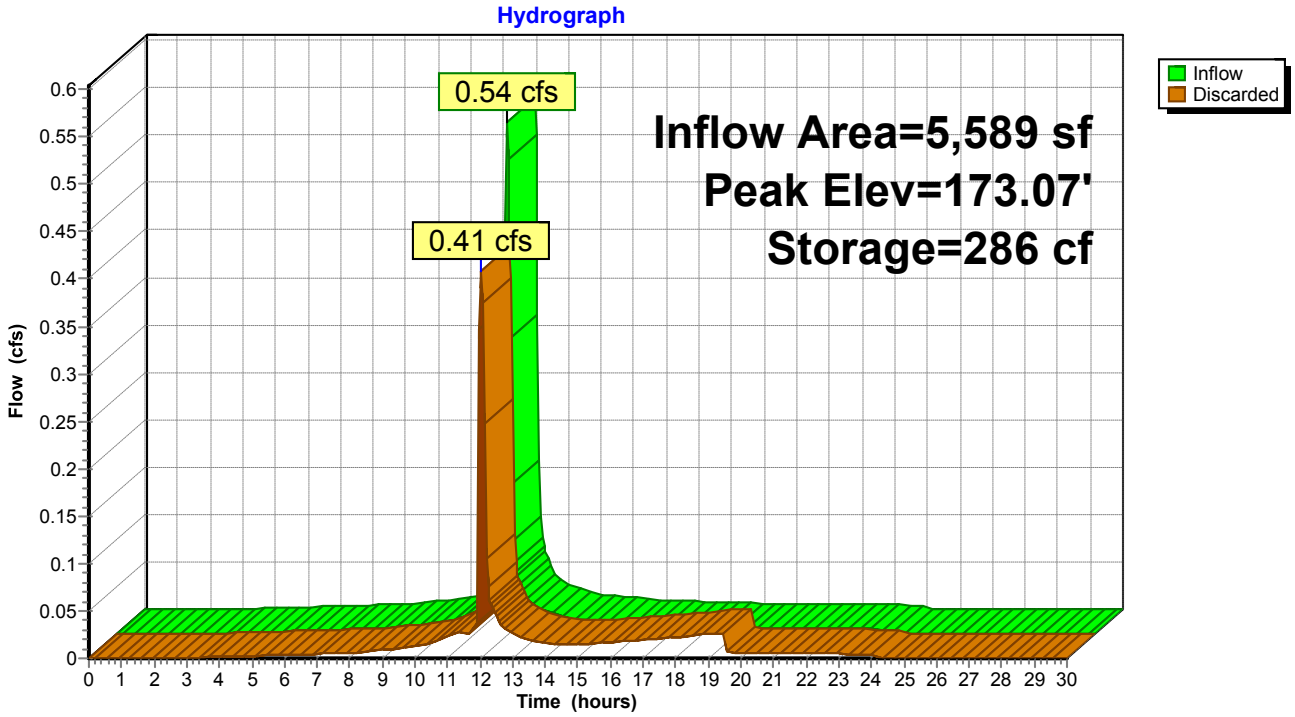
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,373 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	575	30	236
174.00	3,700	2,138	2,373

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.40 cfs @ 12.03 hrs HW=173.07' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.40 cfs)

Pond 12P: EXISTING DRYWELL



Summary for Pond 13P: EXISTING DRYWELL

Inflow Area = 4,173 sf, 81.26% Impervious, Inflow Depth = 2.61" for 2-YEAR event
Inflow = 0.39 cfs @ 11.96 hrs, Volume= 906 cf
Outflow = 0.25 cfs @ 12.05 hrs, Volume= 906 cf, Atten= 37%, Lag= 5.3 min
Discarded = 0.25 cfs @ 12.05 hrs, Volume= 906 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.67' @ 12.05 hrs Surf.Area= 488 sf Storage= 254 cf

Plug-Flow detention time= 68.2 min calculated for 905 cf (100% of inflow)
Center-of-Mass det. time= 68.1 min (846.1 - 778.0)

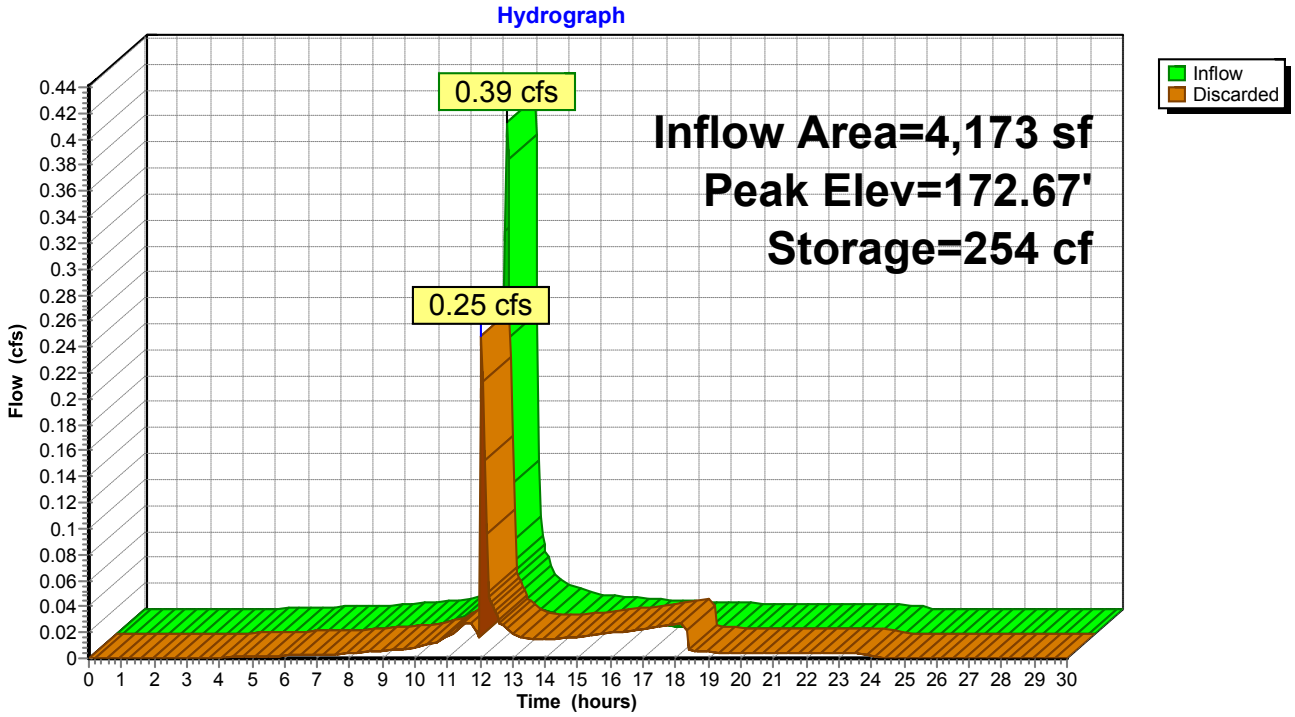
Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	559 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	1,366	349	559

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.25 cfs @ 12.05 hrs HW=172.67' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.25 cfs)

Pond 13P: EXISTING DRYWELL



Summary for Pond DP-1: EXISTING CATCH BASIN

[81] Warning: Exceeded Pond 7P by 1.19' @ 11.95 hrs
[79] Warning: Submerged Pond 8P Primary device # 1 INLET by 0.54'

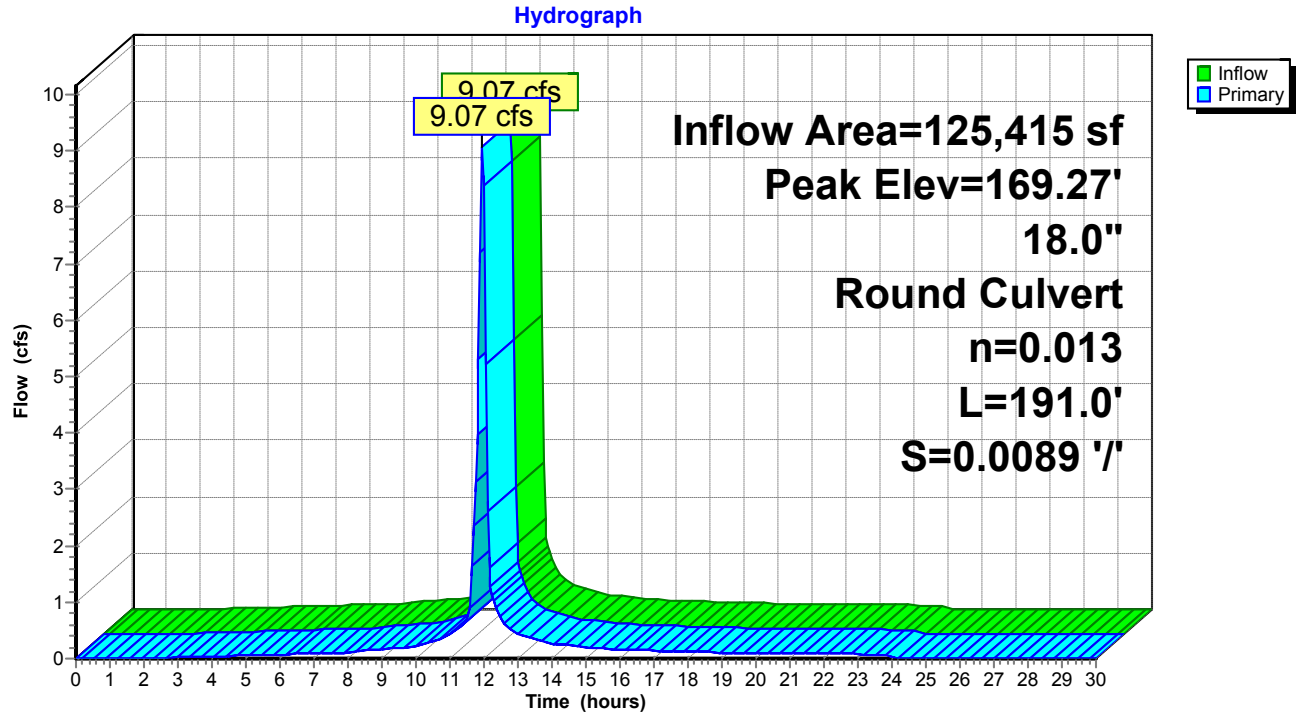
Inflow Area = 125,415 sf, 90.33% Impervious, Inflow Depth = 2.07" for 2-YEAR event
Inflow = 9.07 cfs @ 11.96 hrs, Volume= 21,585 cf
Outflow = 9.07 cfs @ 11.96 hrs, Volume= 21,585 cf, Atten= 0%, Lag= 0.0 min
Primary = 9.07 cfs @ 11.96 hrs, Volume= 21,585 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.27' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=8.85 cfs @ 11.96 hrs HW=169.18' (Free Discharge)
↑**1=Culvert** (Inlet Controls 8.85 cfs @ 5.01 fps)

Pond DP-1: EXISTING CATCH BASIN



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 6S: DA-10 Runoff Area=3,125 sf 87.10% Impervious Runoff Depth=4.21"
Flow Length=48' Slope=0.0235 '/' Tc=6.0 min CN=96 Runoff=0.46 cfs 1,098 cf

Subcatchment DA-1: DA-1 Runoff Area=15,019 sf 84.37% Impervious Runoff Depth=4.21"
Flow Length=59' Tc=6.0 min CN=96 Runoff=2.20 cfs 5,275 cf

Subcatchment DA-2: DA-2 Runoff Area=3,749 sf 79.83% Impervious Runoff Depth=4.10"
Flow Length=61' Tc=6.0 min CN=95 Runoff=0.54 cfs 1,282 cf

Subcatchment DA-3: DA-3 Runoff Area=4,132 sf 69.19% Impervious Runoff Depth=3.99"
Flow Length=43' Tc=6.0 min CN=94 Runoff=0.59 cfs 1,375 cf

Subcatchment DA-4: DA-4 Runoff Area=5,589 sf 86.58% Impervious Runoff Depth=4.21"
Flow Length=59' Tc=6.0 min CN=96 Runoff=0.82 cfs 1,963 cf

Subcatchment DA-5: DA-5 Runoff Area=13,552 sf 100.00% Impervious Runoff Depth=4.44"
Flow Length=60' Slope=0.0100 '/' Tc=6.0 min CN=98 Runoff=2.01 cfs 5,018 cf

Subcatchment DA-6: DA-6 Runoff Area=72,169 sf 95.78% Impervious Runoff Depth=4.33"
Flow Length=293' Tc=6.0 min CN=97 Runoff=10.65 cfs 26,031 cf

Subcatchment DA-7: DA-7 Runoff Area=8,324 sf 100.00% Impervious Runoff Depth=4.44"
Flow Length=183' Tc=6.0 min CN=98 Runoff=1.24 cfs 3,082 cf

Subcatchment DA-8: DA-8 Runoff Area=4,173 sf 81.26% Impervious Runoff Depth=4.10"
Flow Length=31' Tc=6.0 min CN=95 Runoff=0.60 cfs 1,427 cf

Subcatchment DA-9: DA-9 Runoff Area=9,135 sf 69.73% Impervious Runoff Depth=3.99"
Flow Length=82' Tc=6.0 min CN=94 Runoff=1.30 cfs 3,039 cf

Reach DP-2: STREET Inflow=2.01 cfs 5,018 cf
Outflow=2.01 cfs 5,018 cf

Pond 1P: EXISTING YARD DRAIN Peak Elev=218.02' Inflow=1.30 cfs 3,039 cf
4.0" Round Culvert n=0.013 L=87.0' S=0.0100 '/' Outflow=1.30 cfs 3,039 cf

Pond 2P: EXISTING CATCH BASIN Peak Elev=171.64' Inflow=2.20 cfs 5,275 cf
12.0" Round Culvert n=0.013 L=14.0' S=0.0100 '/' Outflow=2.20 cfs 5,275 cf

Pond 3P: EXISTING CATCH BASIN Peak Elev=170.74' Inflow=0.59 cfs 1,375 cf
12.0" Round Culvert n=0.013 L=17.0' S=0.0100 '/' Outflow=0.59 cfs 1,375 cf

Pond 4P: EXISTING CATCH BASIN Peak Elev=171.35' Inflow=0.82 cfs 1,963 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0100 '/' Outflow=0.82 cfs 1,963 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.65' Storage=1,039 cf Inflow=2.20 cfs 5,275 cf
Outflow=1.25 cfs 5,275 cf

Pond 6P: EXISTING CATCH BASIN Peak Elev=170.73' Inflow=0.54 cfs 1,282 cf
12.0" Round Culvert n=0.013 L=15.0' S=0.0100 '/' Outflow=0.54 cfs 1,282 cf

Pond 7P: EXISTING CATCH BASIN Peak Elev=168.17' Inflow=1.24 cfs 3,082 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=1.24 cfs 3,082 cf

Pond 8P: EXISTING CATCH BASIN Peak Elev=186.10' Inflow=10.65 cfs 26,031 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=10.65 cfs 26,031 cf

Pond 9P: EXISTING DRYWELL Peak Elev=173.67' Storage=1,280 cf Inflow=0.54 cfs 1,282 cf
Outflow=0.00 cfs 0 cf

Pond 10P: EXISTING DRYWELL Peak Elev=173.05' Storage=282 cf Inflow=0.59 cfs 1,375 cf
Outflow=0.46 cfs 1,375 cf

Pond 12P: EXISTING DRYWELL Peak Elev=173.18' Storage=390 cf Inflow=0.82 cfs 1,963 cf
Outflow=0.58 cfs 1,963 cf

Pond 13P: EXISTING DRYWELL Peak Elev=172.79' Storage=333 cf Inflow=0.60 cfs 1,427 cf
Outflow=0.41 cfs 1,427 cf

Pond DP-1: EXISTING CATCH BASIN Peak Elev=171.56' Inflow=13.64 cfs 33,250 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=13.64 cfs 33,250 cf

Total Runoff Area = 138,967 sf Runoff Volume = 49,590 cf Average Runoff Depth = 4.28"
8.72% Pervious = 12,123 sf 91.28% Impervious = 126,844 sf

Summary for Subcatchment 6S: DA-10

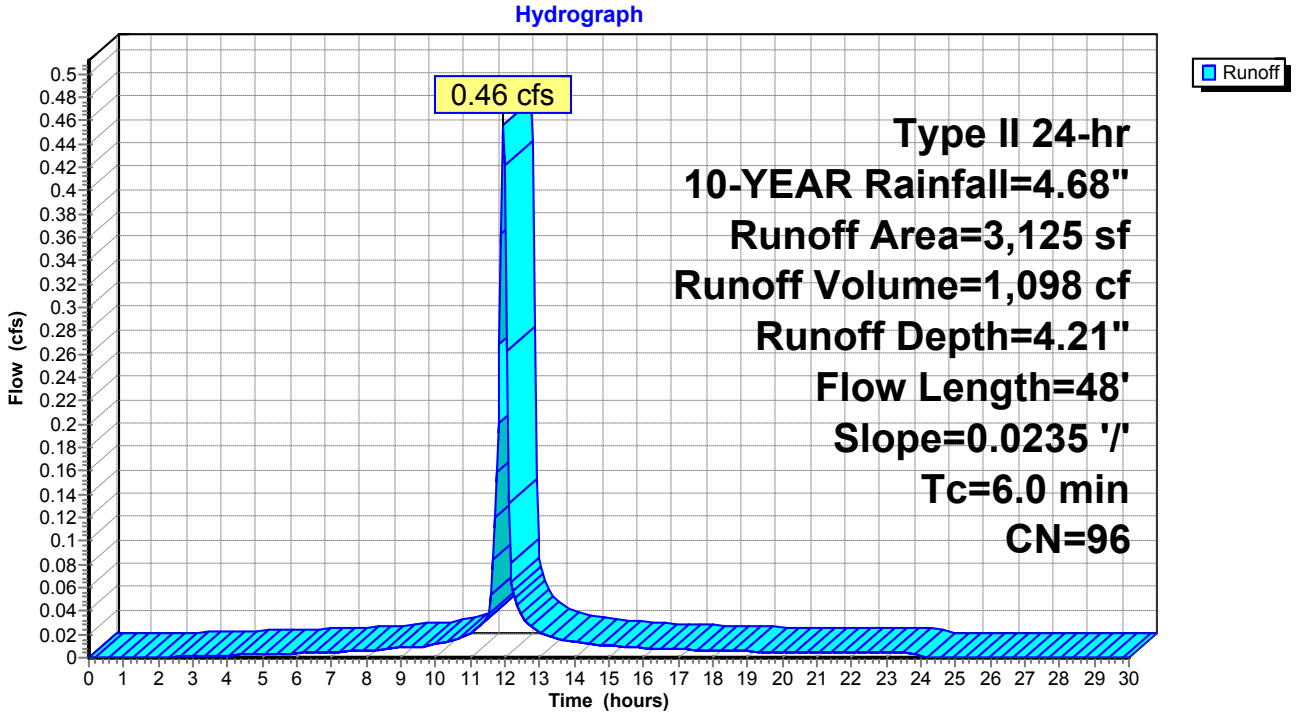
Runoff = 0.46 cfs @ 11.96 hrs, Volume= 1,098 cf, Depth= 4.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
403	84	50-75% Grass cover, Fair, HSG D
2,722	98	Paved parking, HSG D
3,125	96	Weighted Average
403		12.90% Pervious Area
2,722		87.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	48	0.0235	1.26		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	48	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 6S: DA-10



Summary for Subcatchment DA-1: DA-1

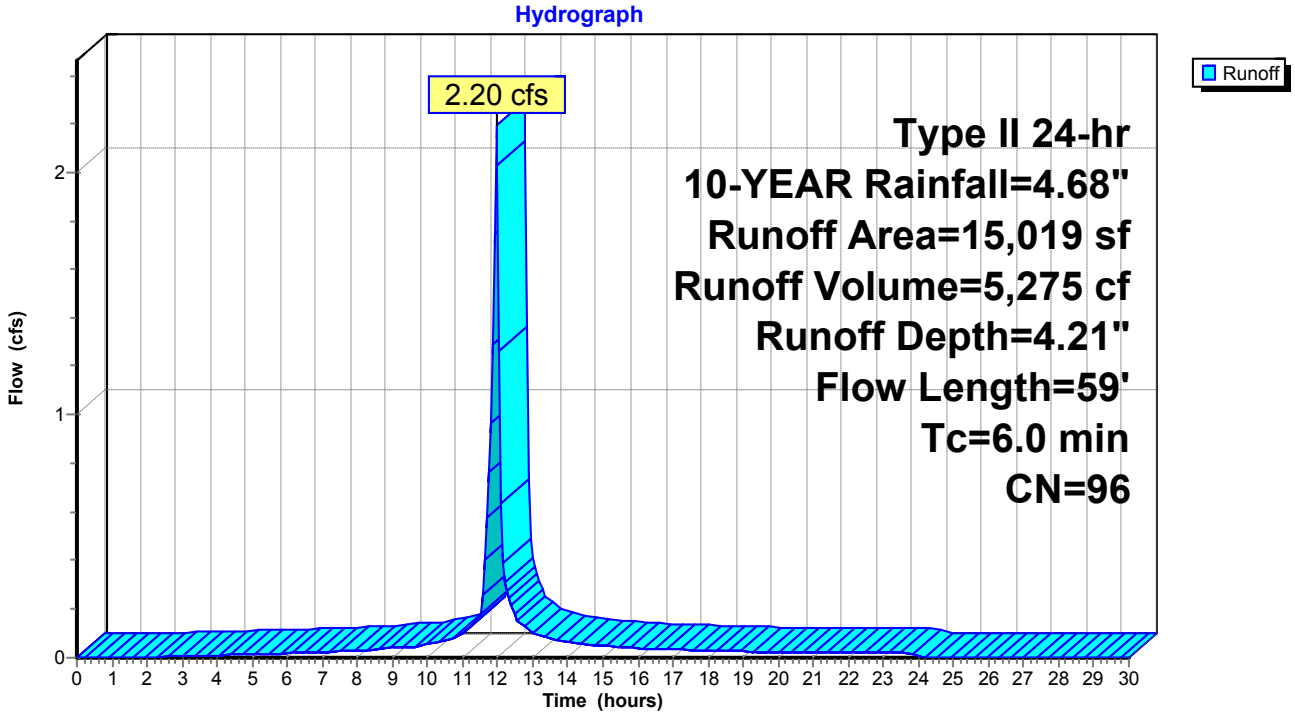
Runoff = 2.20 cfs @ 11.96 hrs, Volume= 5,275 cf, Depth= 4.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
2,348	84	50-75% Grass cover, Fair, HSG D
12,671	98	Paved parking, HSG D
15,019	96	Weighted Average
2,348		15.63% Pervious Area
12,671		84.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	29	0.0390	0.17		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	30	0.0350	3.80		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.9	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-2: DA-2

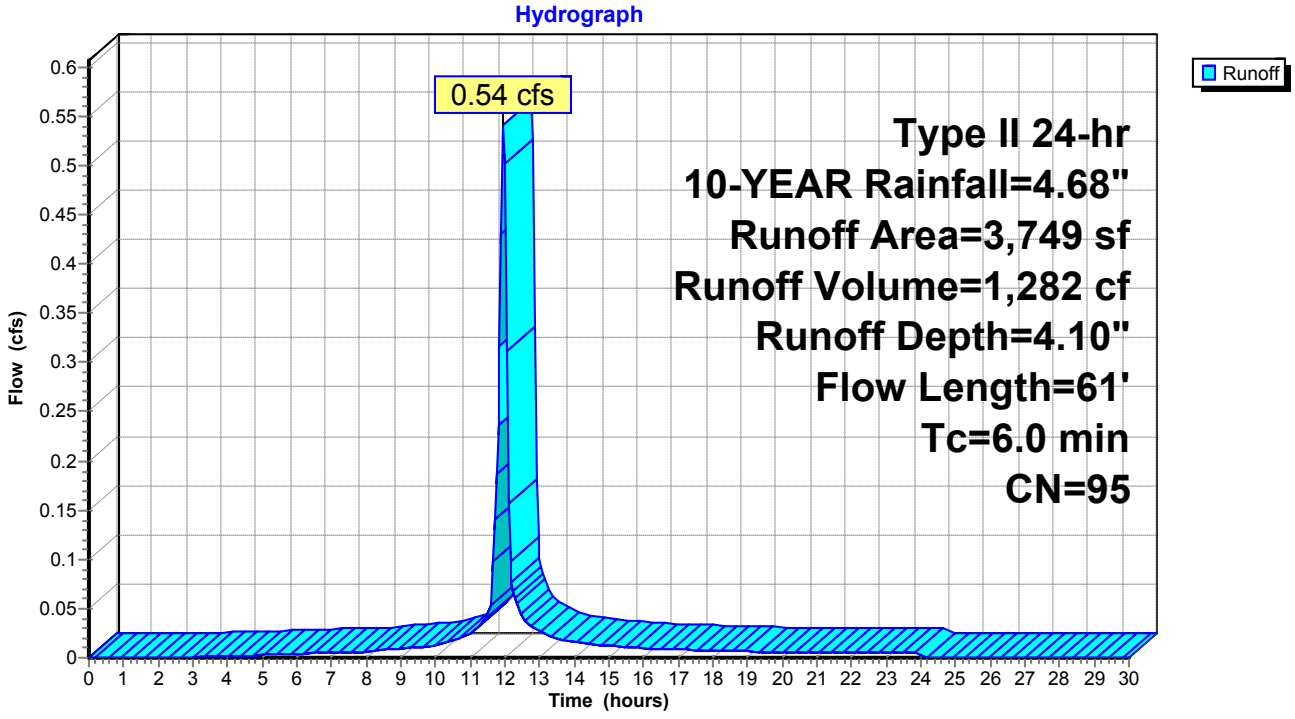
Runoff = 0.54 cfs @ 11.96 hrs, Volume= 1,282 cf, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
756	84	50-75% Grass cover, Fair, HSG D
2,993	98	Paved parking, HSG D
3,749	95	Weighted Average
756		20.17% Pervious Area
2,993		79.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	26	0.0173	0.12		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	35	0.0257	3.25		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	61	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

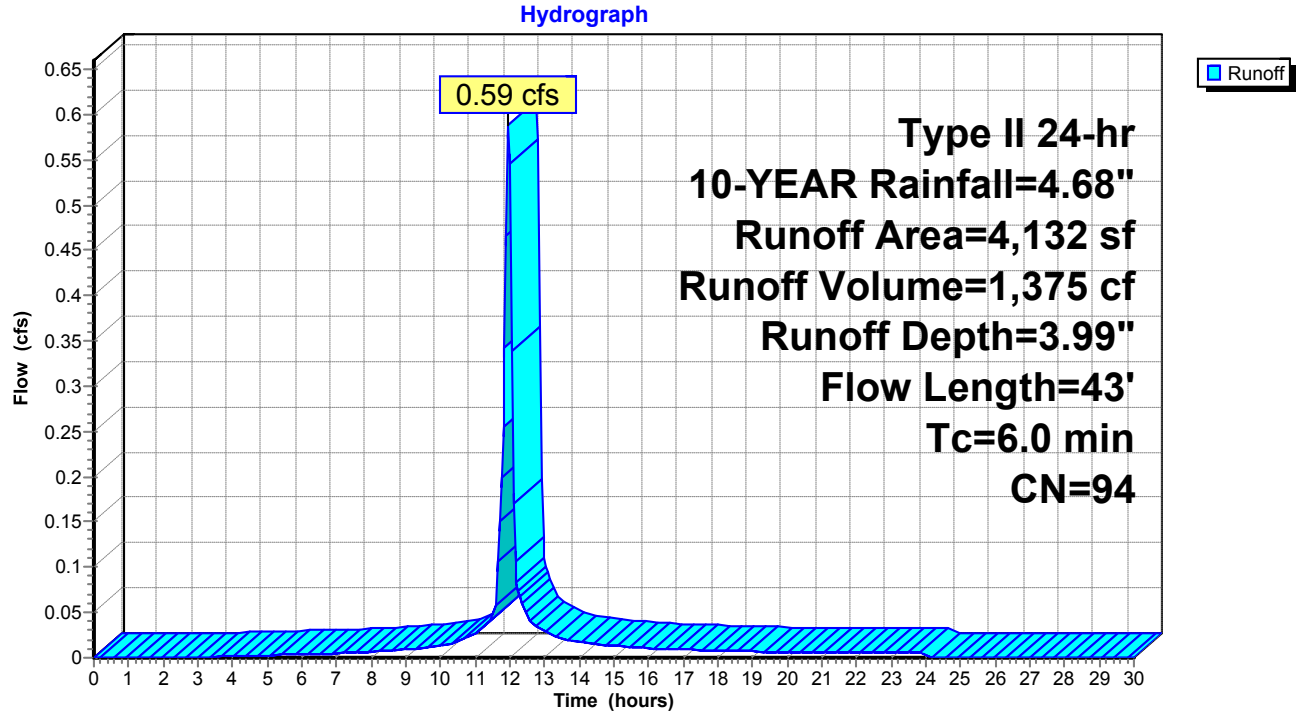
Runoff = 0.59 cfs @ 11.96 hrs, Volume= 1,375 cf, Depth= 3.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,273	84	50-75% Grass cover, Fair, HSG D
2,859	98	Paved parking, HSG D
4,132	94	Weighted Average
1,273		30.81% Pervious Area
2,859		69.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	31	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0250	3.21		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
4.2	43	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

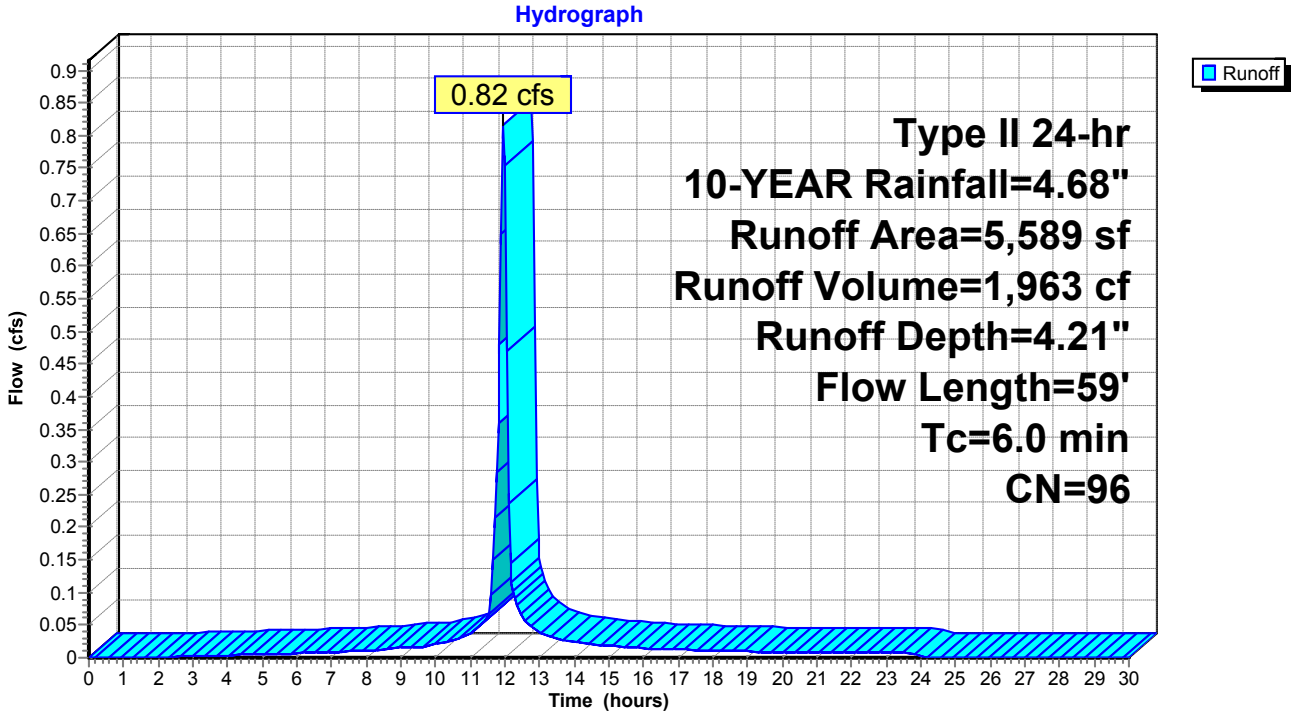
Runoff = 0.82 cfs @ 11.96 hrs, Volume= 1,963 cf, Depth= 4.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
750	84	50-75% Grass cover, Fair, HSG D
4,839	98	Paved parking, HSG D
5,589	96	Weighted Average
750		13.42% Pervious Area
4,839		86.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	30	0.0217	0.14		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	29	0.0169	2.64		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-4: DA-4



Summary for Subcatchment DA-5: DA-5

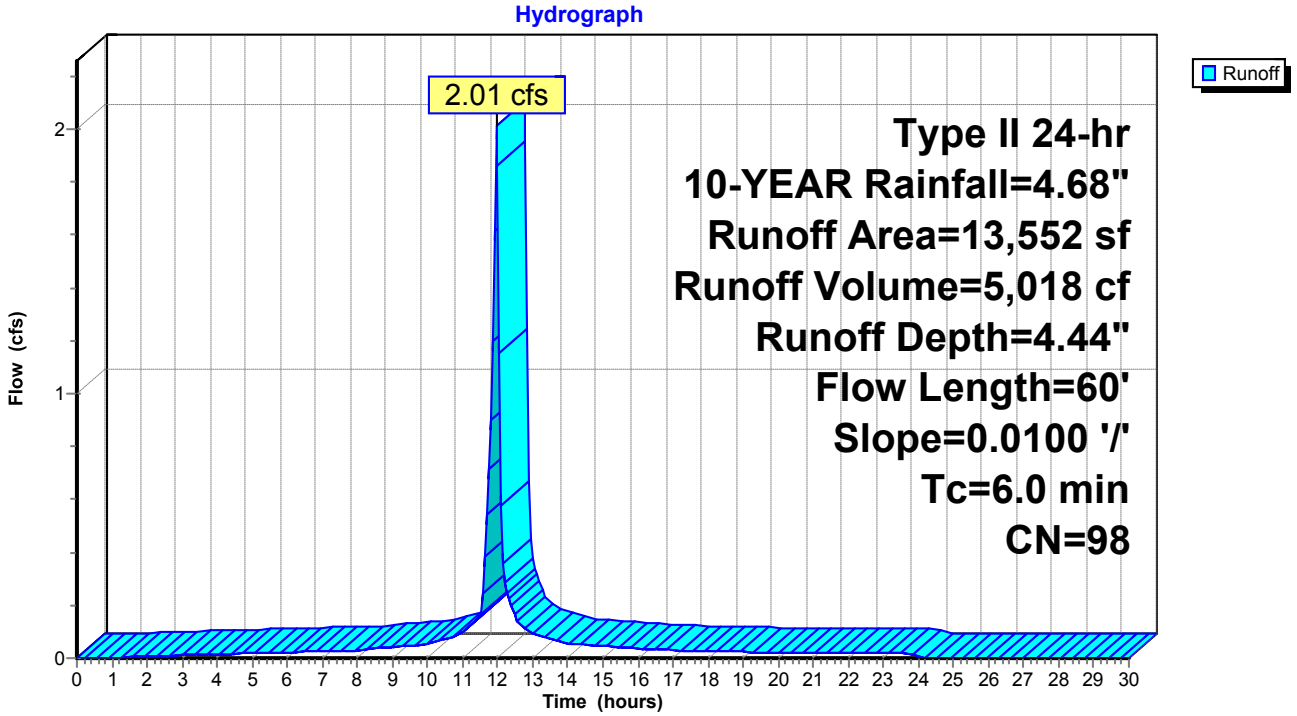
Runoff = 2.01 cfs @ 11.96 hrs, Volume= 5,018 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
13,552	98	Paved parking, HSG D
13,552		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	60	0.0100	0.94		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.1	60	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-5: DA-5



Summary for Subcatchment DA-6: DA-6

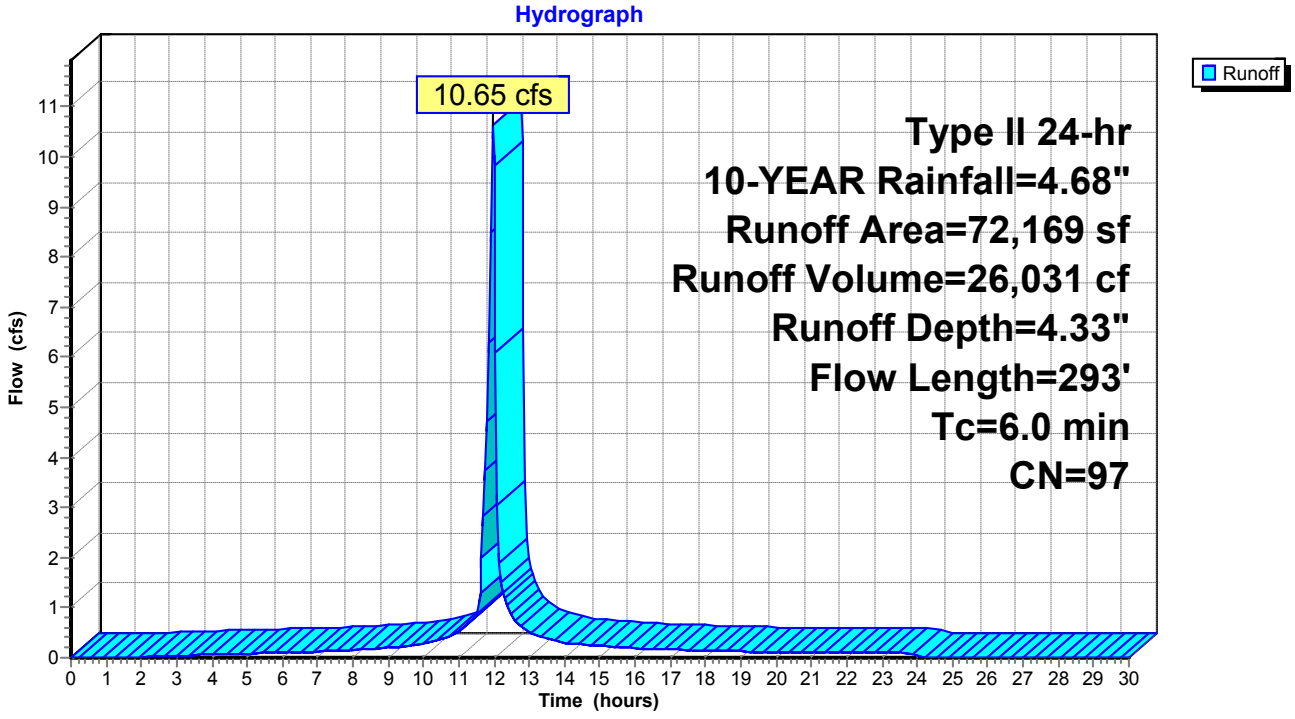
Runoff = 10.65 cfs @ 11.96 hrs, Volume= 26,031 cf, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
3,046	84	50-75% Grass cover, Fair, HSG D
69,123	98	Paved parking, HSG D
72,169	97	Weighted Average
3,046		4.22% Pervious Area
69,123		95.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0220	1.42		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.4	193	0.0126	2.28		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.6	293	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

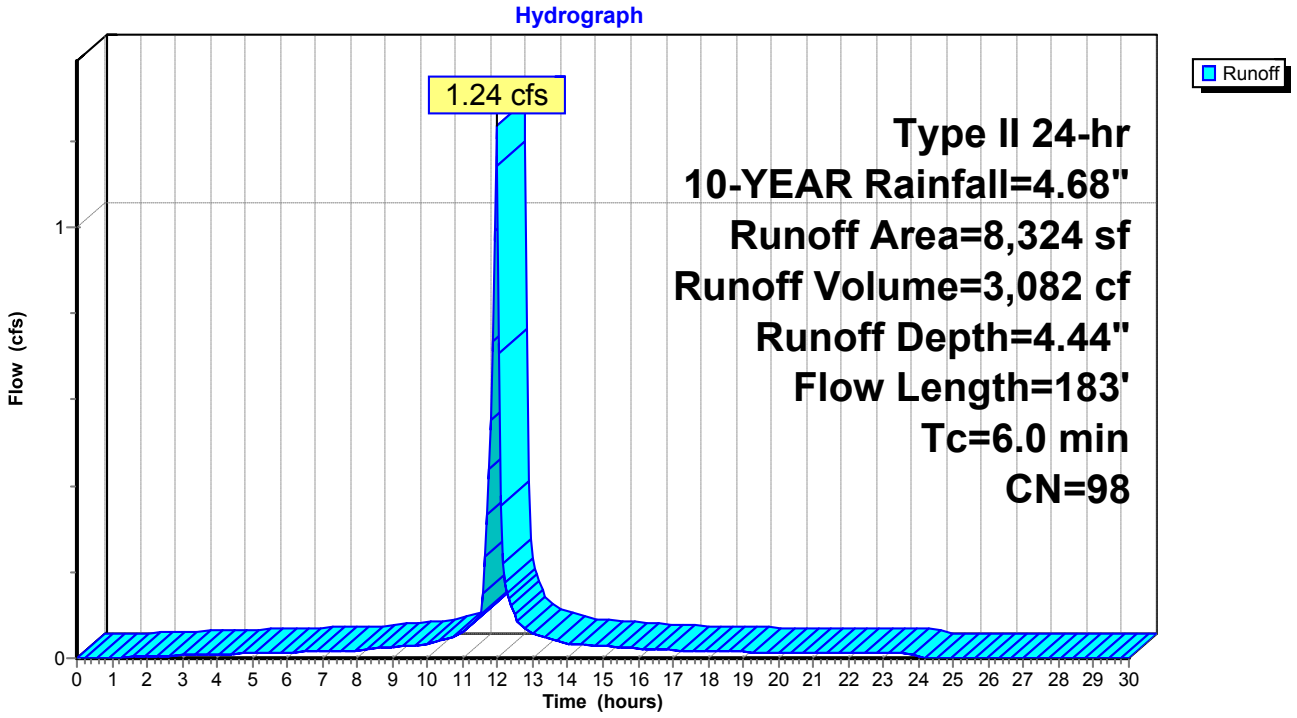
Runoff = 1.24 cfs @ 11.96 hrs, Volume= 3,082 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
8,324	98	Paved parking, HSG D
8,324		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	100	0.0301	1.61		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	83	0.0124	2.26		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
1.6	183	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

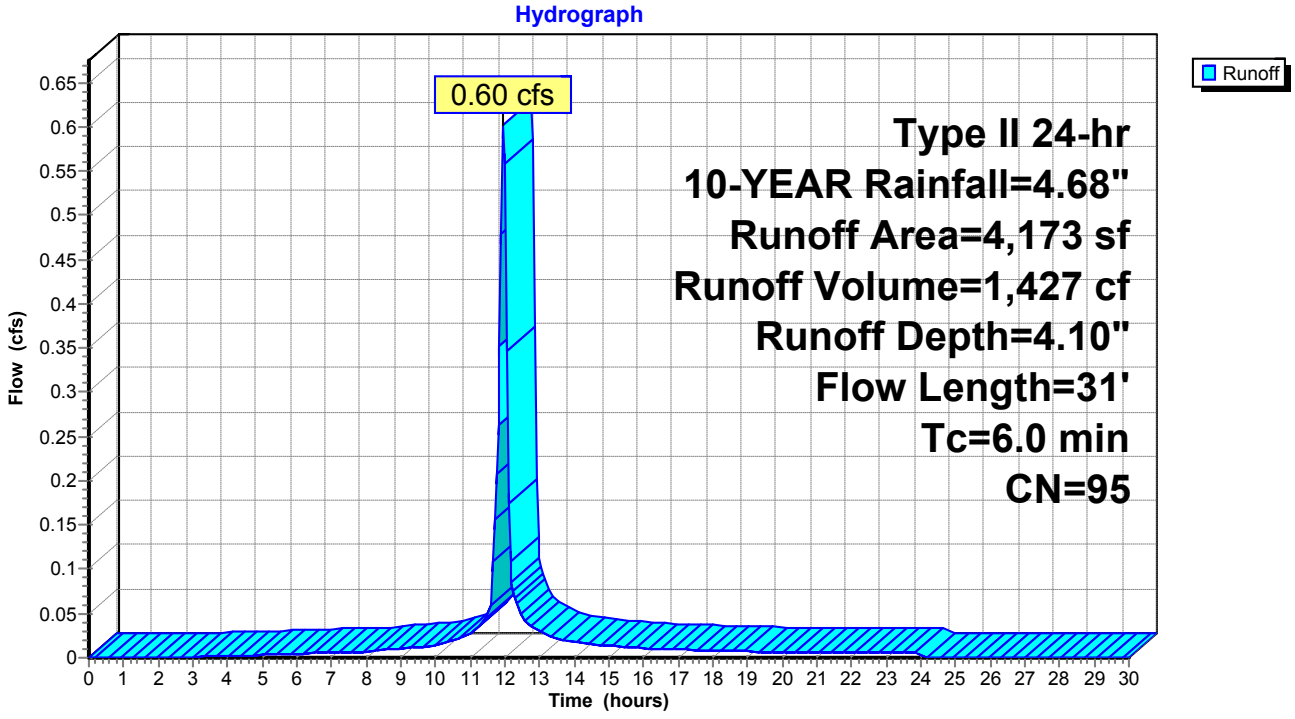
Runoff = 0.60 cfs @ 11.96 hrs, Volume= 1,427 cf, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
782	84	50-75% Grass cover, Fair, HSG D
3,391	98	Paved parking, HSG D
4,173	95	Weighted Average
782		18.74% Pervious Area
3,391		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	19	0.0150	0.11		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0208	2.93		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.0	31	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DA-9

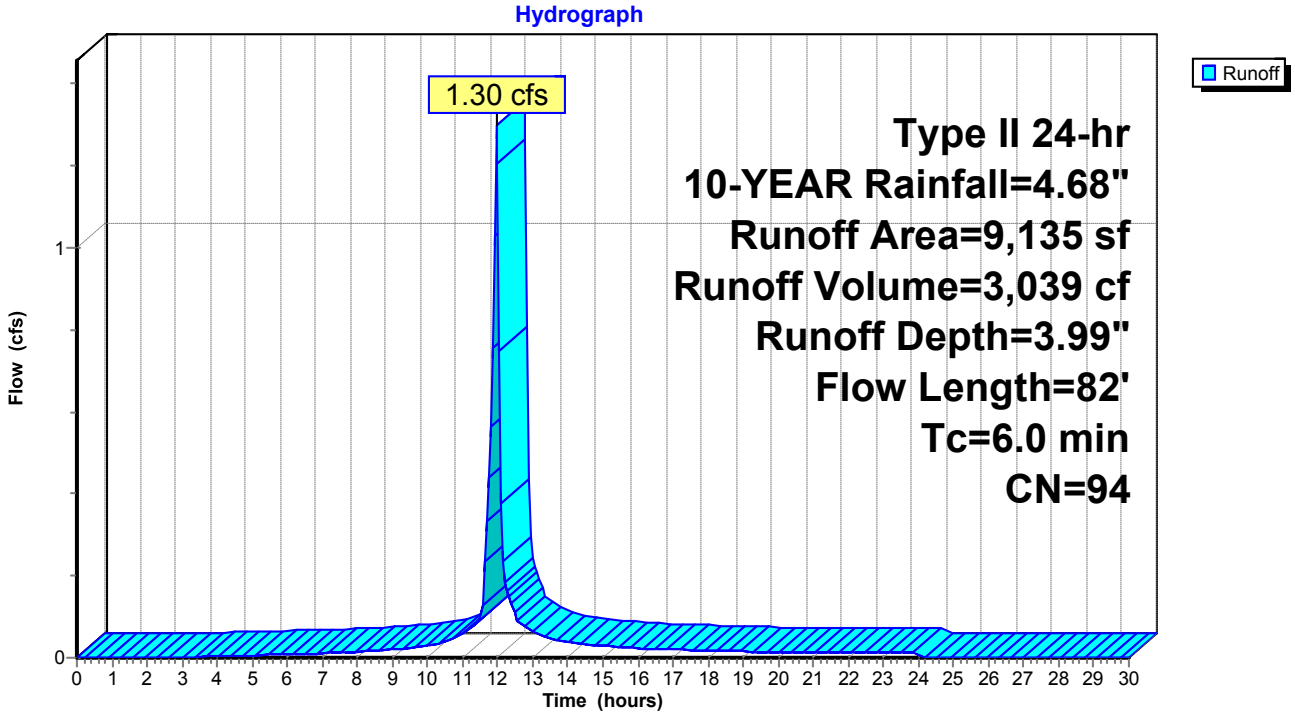
Runoff = 1.30 cfs @ 11.96 hrs, Volume= 3,039 cf, Depth= 3.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
2,765	84	50-75% Grass cover, Fair, HSG D
6,370	98	Paved parking, HSG D
9,135	94	Weighted Average
2,765		30.27% Pervious Area
6,370		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	42	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	40	0.0200	2.87		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
5.4	82	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-9: DA-9



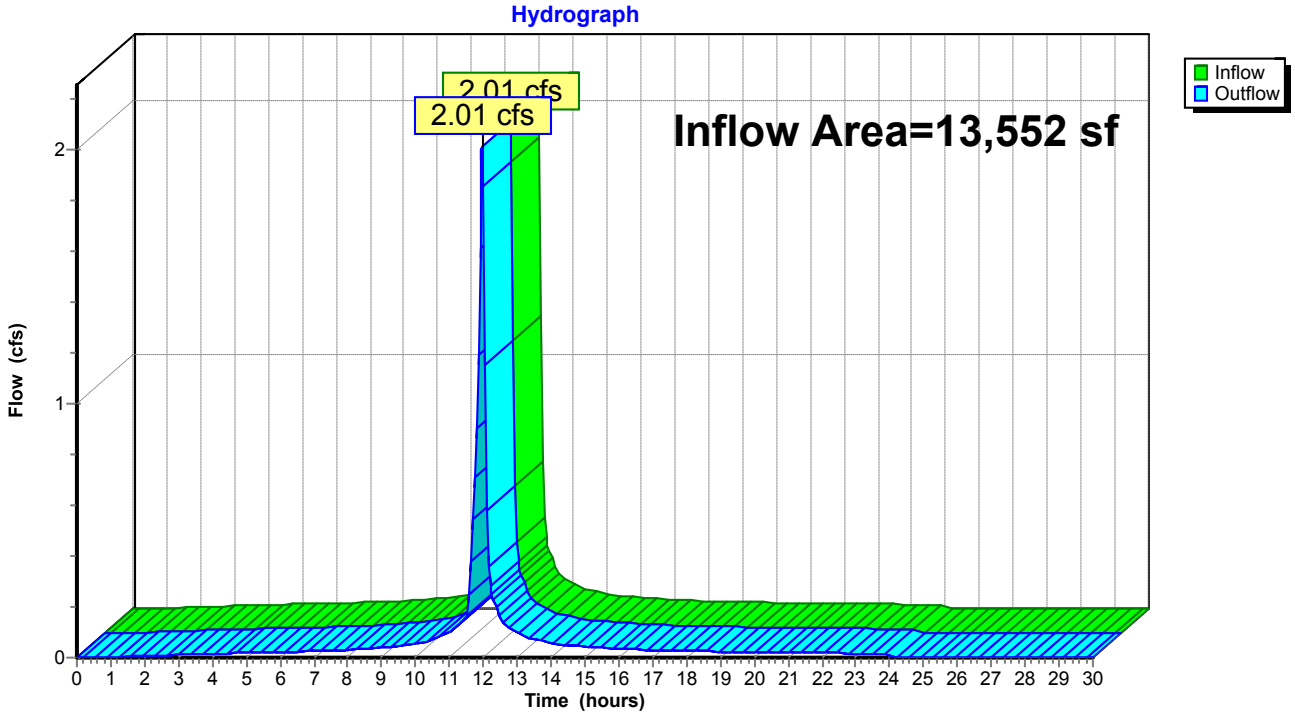
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 13,552 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 2.01 cfs @ 11.96 hrs, Volume= 5,018 cf
Outflow = 2.01 cfs @ 11.96 hrs, Volume= 5,018 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 1P: EXISTING YARD DRAIN

[57] Hint: Peaked at 218.02' (Flood elevation advised)

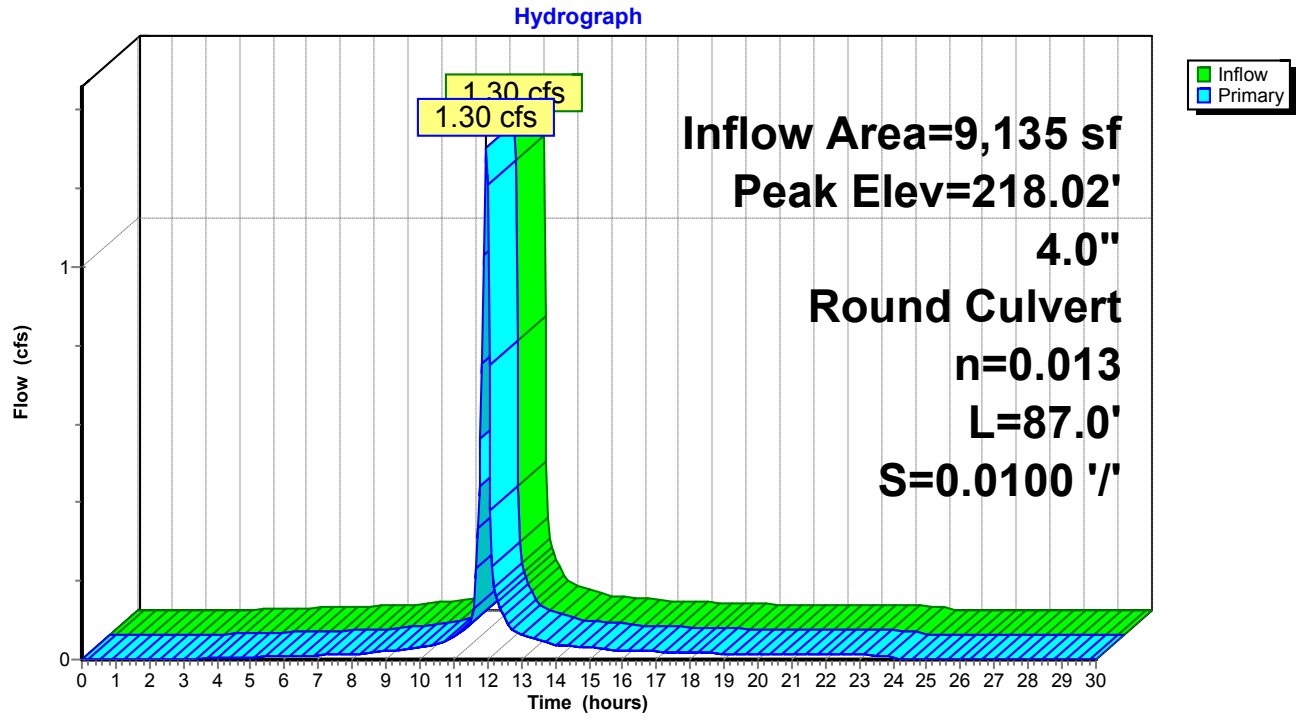
Inflow Area = 9,135 sf, 69.73% Impervious, Inflow Depth = 3.99" for 10-YEAR event
Inflow = 1.30 cfs @ 11.96 hrs, Volume= 3,039 cf
Outflow = 1.30 cfs @ 11.96 hrs, Volume= 3,039 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.30 cfs @ 11.96 hrs, Volume= 3,039 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 218.02' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=1.27 cfs @ 11.96 hrs HW=215.85' (Free Discharge)
1=Culvert (Barrel Controls 1.27 cfs @ 14.55 fps)

Pond 1P: EXISTING YARD DRAIN



Summary for Pond 2P: EXISTING CATCH BASIN

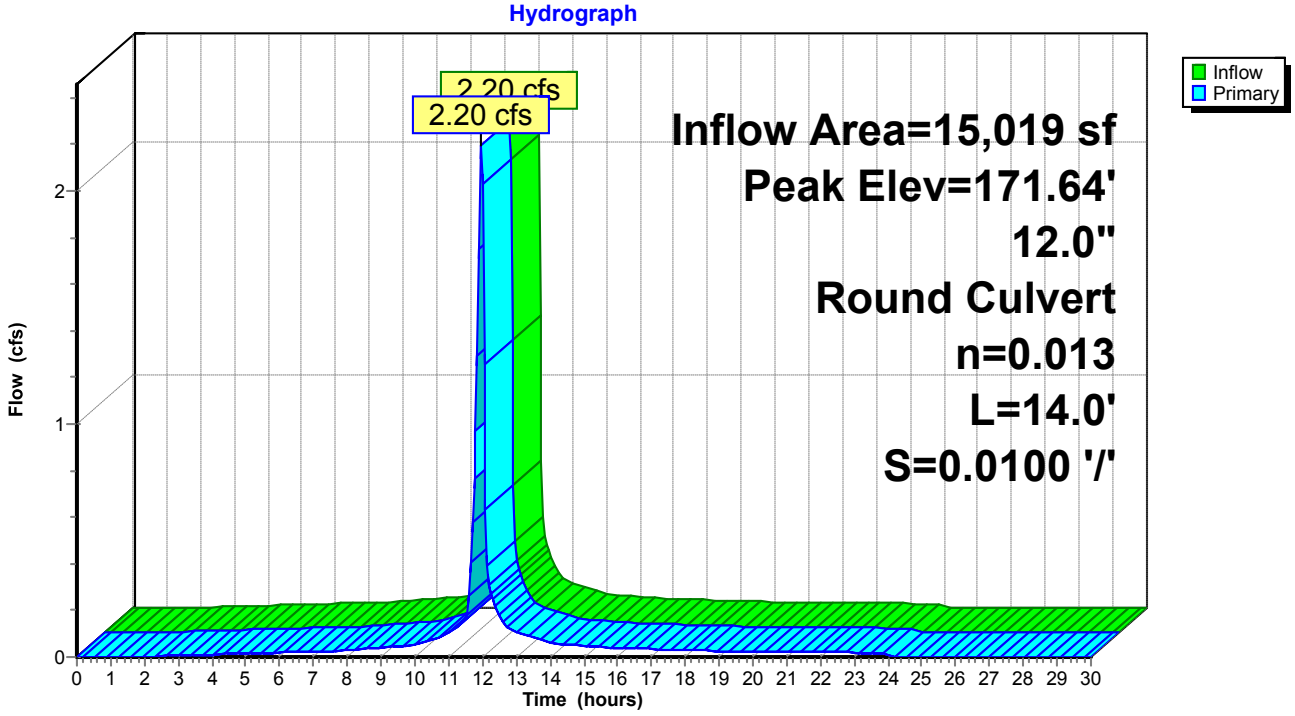
Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 4.21" for 10-YEAR event
Inflow = 2.20 cfs @ 11.96 hrs, Volume= 5,275 cf
Outflow = 2.20 cfs @ 11.96 hrs, Volume= 5,275 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.20 cfs @ 11.96 hrs, Volume= 5,275 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.64' @ 11.96 hrs
Flood Elev= 172.99'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.60'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.60' / 170.46' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.15 cfs @ 11.96 hrs HW=171.62' (Free Discharge)
1=Culvert (Inlet Controls 2.15 cfs @ 2.73 fps)

Pond 2P: EXISTING CATCH BASIN



Summary for Pond 3P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.74' (Flood elevation advised)

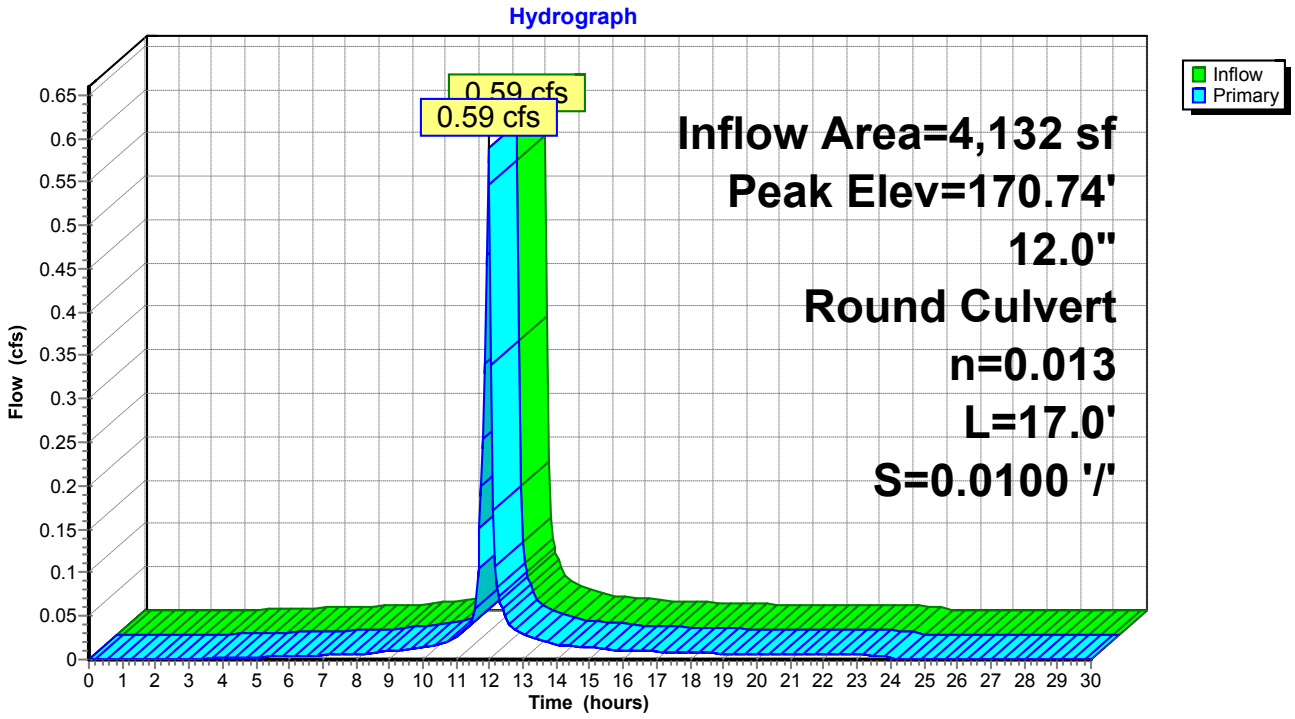
Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 3.99" for 10-YEAR event
Inflow = 0.59 cfs @ 11.96 hrs, Volume= 1,375 cf
Outflow = 0.59 cfs @ 11.96 hrs, Volume= 1,375 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.59 cfs @ 11.96 hrs, Volume= 1,375 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.74' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.13' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.57 cfs @ 11.96 hrs HW=170.74' (Free Discharge)
1=Culvert (Barrel Controls 0.57 cfs @ 2.58 fps)

Pond 3P: EXISTING CATCH BASIN



Summary for Pond 4P: EXISTING CATCH BASIN

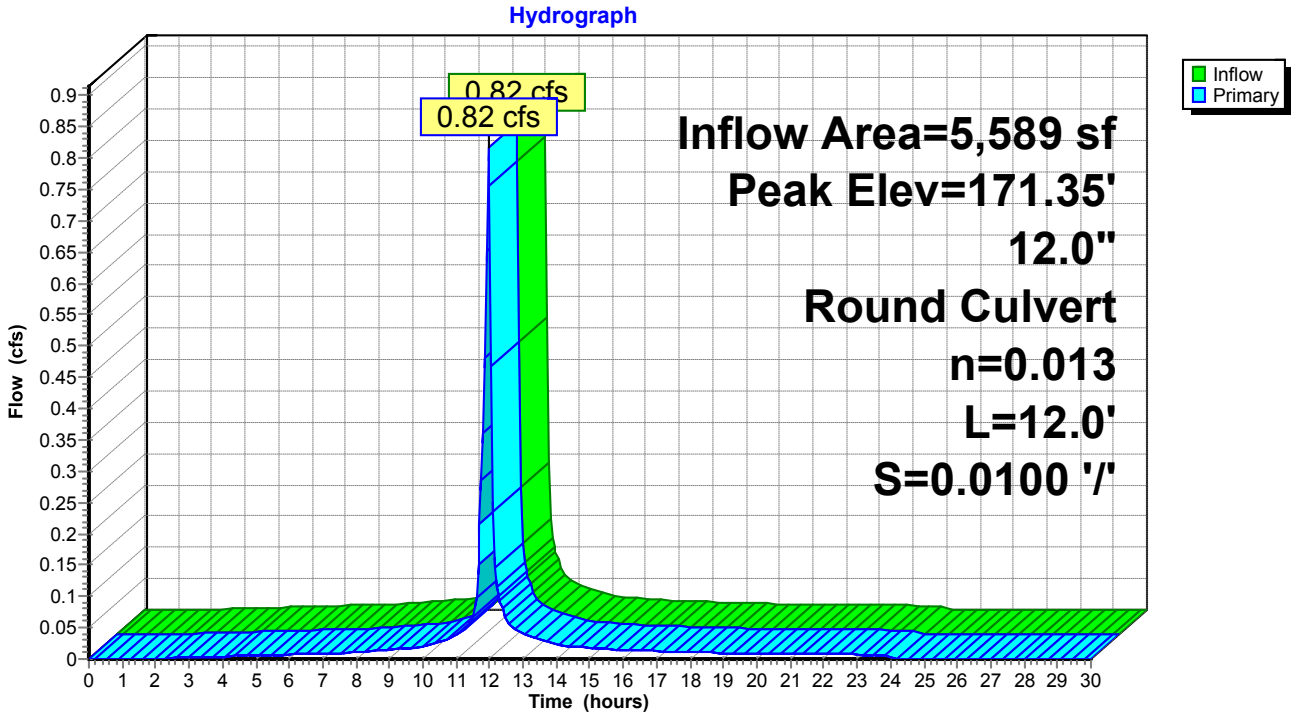
Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 4.21" for 10-YEAR event
Inflow = 0.82 cfs @ 11.96 hrs, Volume= 1,963 cf
Outflow = 0.82 cfs @ 11.96 hrs, Volume= 1,963 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.82 cfs @ 11.96 hrs, Volume= 1,963 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.35' @ 11.96 hrs
Flood Elev= 172.73'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.80'	**12.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.80' / 170.68' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.80 cfs @ 11.96 hrs HW=171.34' (Free Discharge)
1=Culvert (Barrel Controls 0.80 cfs @ 2.65 fps)

Pond 4P: EXISTING CATCH BASIN



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 2P by 2.62' @ 12.15 hrs

Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 4.21" for 10-YEAR event
Inflow = 2.20 cfs @ 11.96 hrs, Volume= 5,275 cf
Outflow = 1.25 cfs @ 12.05 hrs, Volume= 5,275 cf, Atten= 43%, Lag= 5.6 min
Discarded = 1.25 cfs @ 12.05 hrs, Volume= 5,275 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.65' @ 12.05 hrs Surf.Area= 2,461 sf Storage= 1,039 cf

Plug-Flow detention time= 40.7 min calculated for 5,275 cf (100% of inflow)
Center-of-Mass det. time= 40.7 min (801.0 - 760.3)

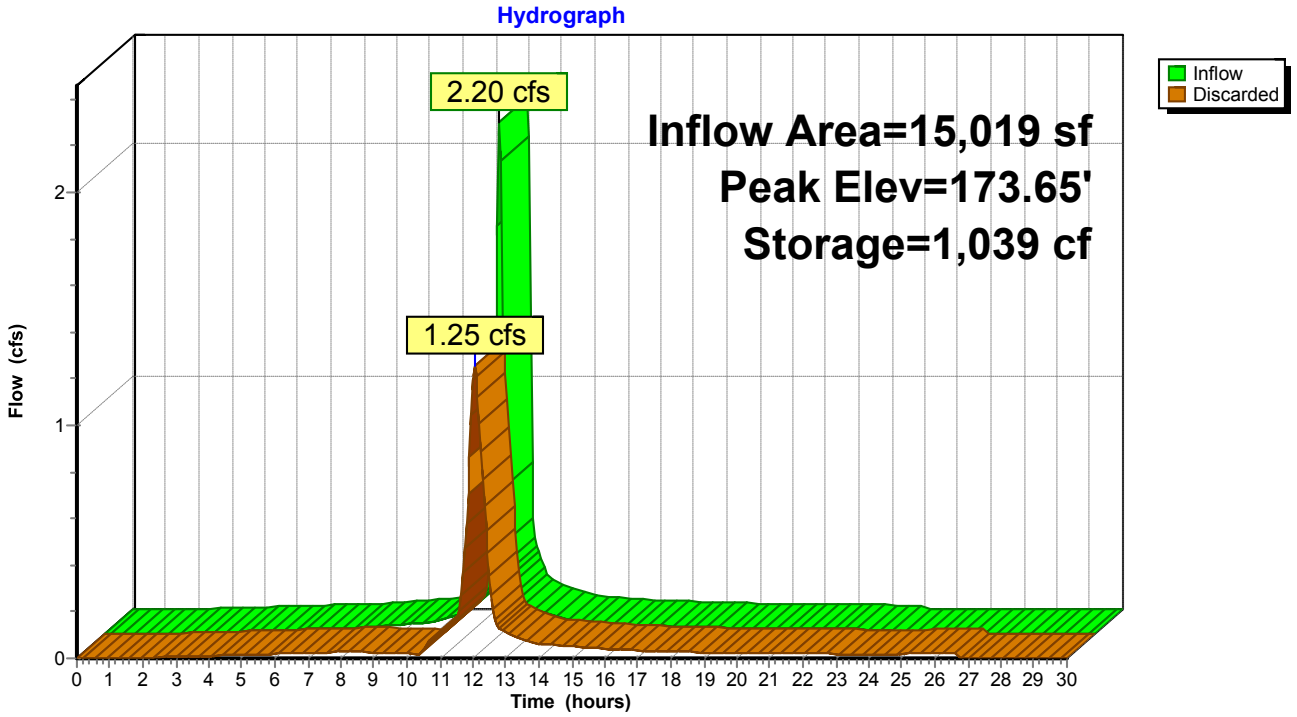
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,139 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	112	7	208
174.00	3,750	1,931	2,139

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.25 cfs @ 12.05 hrs HW=173.64' (Free Discharge)
1=Exfiltration (Exfiltration Controls 1.25 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 6P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.73' (Flood elevation advised)

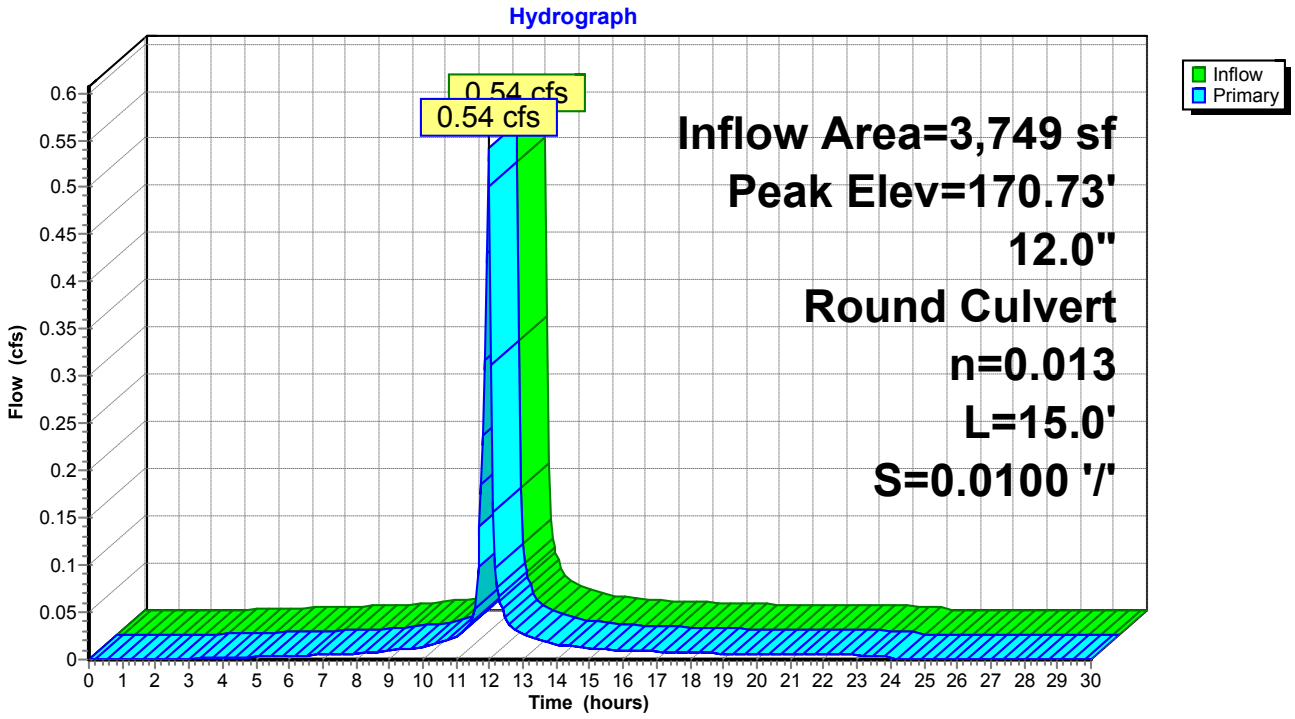
Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 4.10" for 10-YEAR event
Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,282 cf
Outflow = 0.54 cfs @ 11.96 hrs, Volume= 1,282 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.54 cfs @ 11.96 hrs, Volume= 1,282 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.73' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.15' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.53 cfs @ 11.96 hrs HW=170.72' (Free Discharge)
1=Culvert (Barrel Controls 0.53 cfs @ 2.49 fps)

Pond 6P: EXISTING CATCH BASIN



Summary for Pond 7P: EXISTING CATCH BASIN

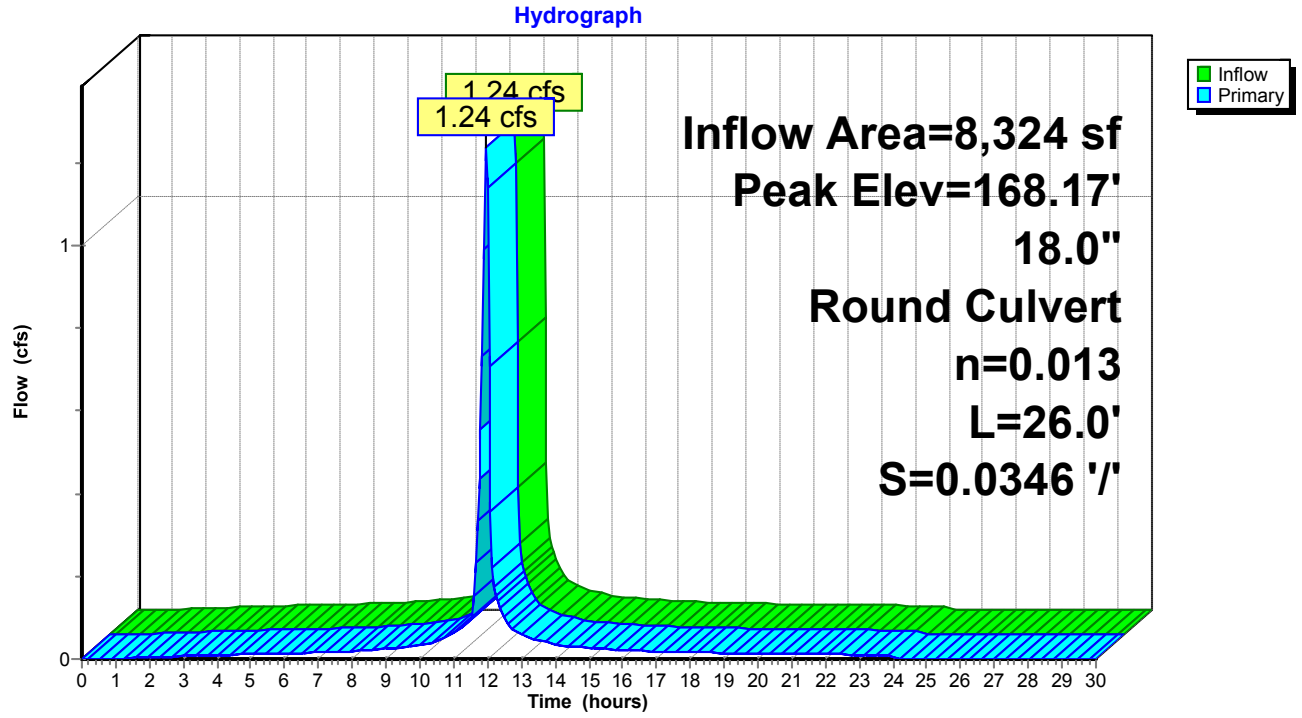
Inflow Area = 8,324 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 1.24 cfs @ 11.96 hrs, Volume= 3,082 cf
Outflow = 1.24 cfs @ 11.96 hrs, Volume= 3,082 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.24 cfs @ 11.96 hrs, Volume= 3,082 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.17' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=1.21 cfs @ 11.96 hrs HW=168.16' (Free Discharge)
1=Culvert (Inlet Controls 1.21 cfs @ 2.01 fps)

Pond 7P: EXISTING CATCH BASIN



Summary for Pond 8P: EXISTING CATCH BASIN

[58] Hint: Peaked 14.23' above defined flood level

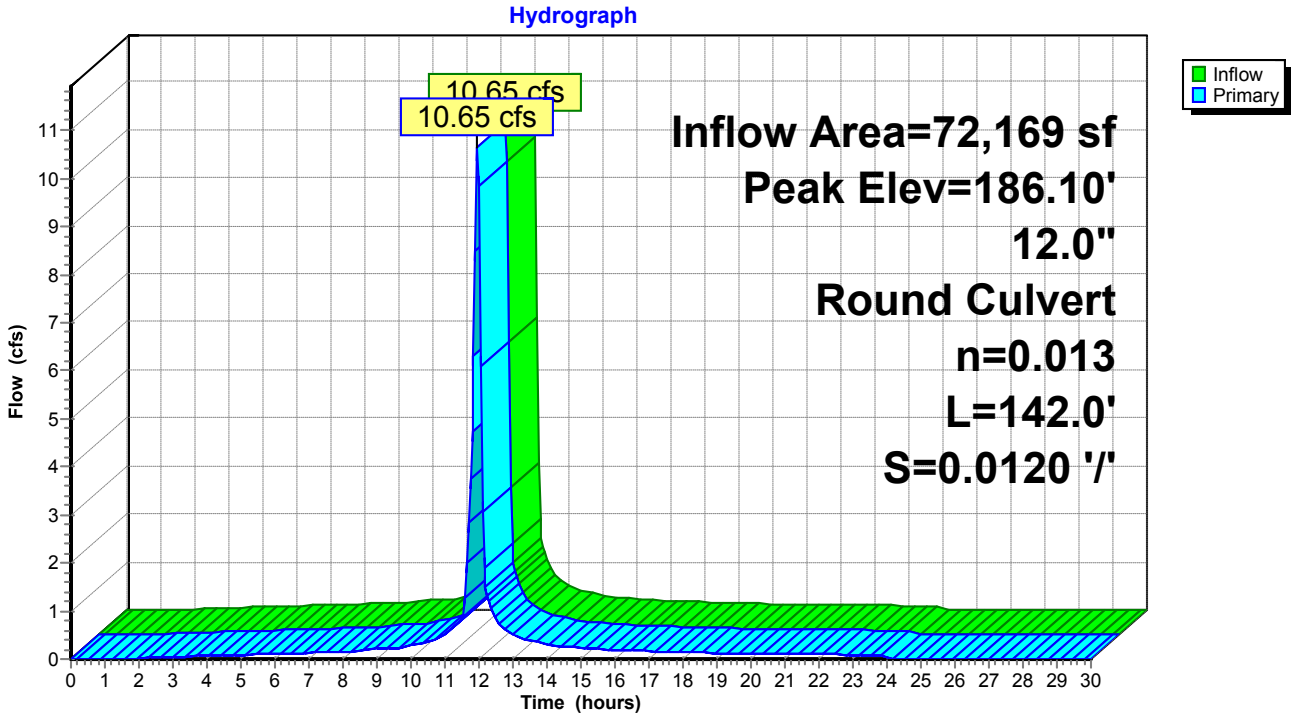
Inflow Area = 72,169 sf, 95.78% Impervious, Inflow Depth = 4.33" for 10-YEAR event
Inflow = 10.65 cfs @ 11.96 hrs, Volume= 26,031 cf
Outflow = 10.65 cfs @ 11.96 hrs, Volume= 26,031 cf, Atten= 0%, Lag= 0.0 min
Primary = 10.65 cfs @ 11.96 hrs, Volume= 26,031 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 186.10' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=10.40 cfs @ 11.96 hrs HW=185.31' (Free Discharge)
1=Culvert (Barrel Controls 10.40 cfs @ 13.24 fps)

Pond 8P: EXISTING CATCH BASIN



Summary for Pond 9P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 6P by 3.37' @ 24.40 hrs

Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 4.10" for 10-YEAR event
Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,282 cf
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min

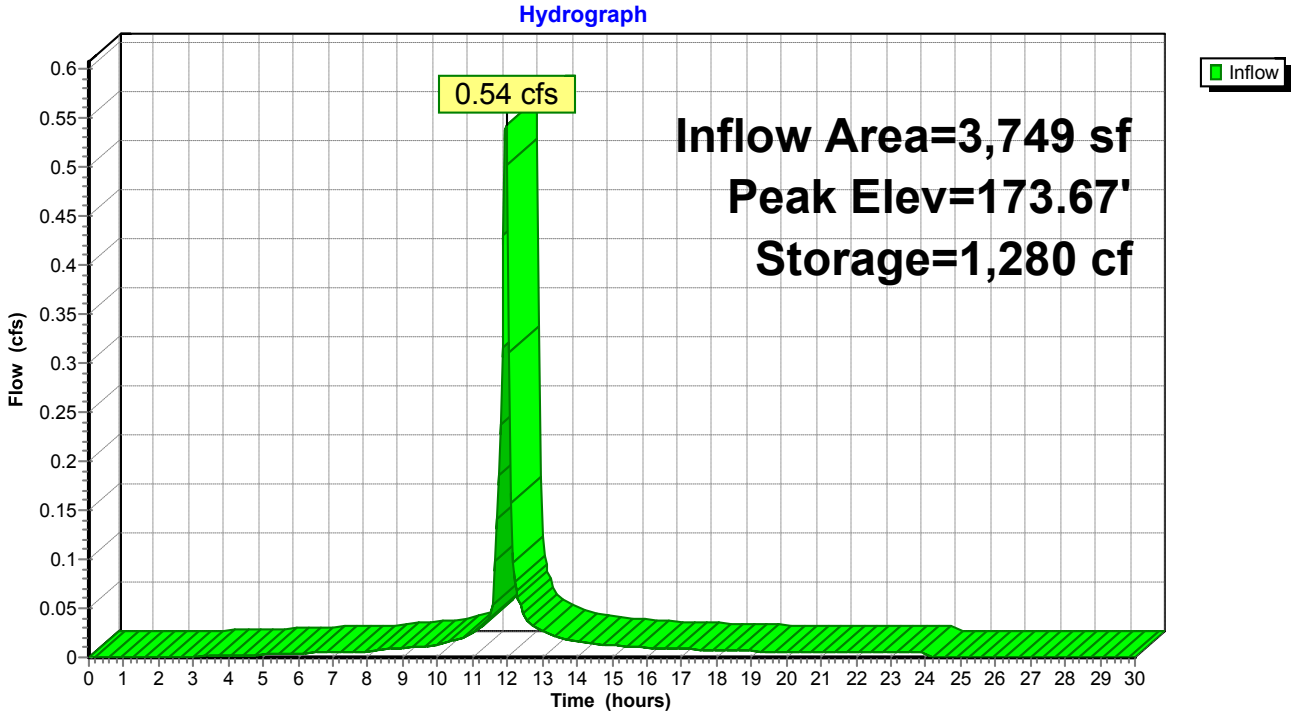
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.67' @ 24.40 hrs Surf.Area= 2,796 sf Storage= 1,280 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,410 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	377	20	221
174.00	4,000	2,189	2,410

Pond 9P: EXISTING DRYWELL



Summary for Pond 10P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 3P by 2.54' @ 14.55 hrs

Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 3.99" for 10-YEAR event
Inflow = 0.59 cfs @ 11.96 hrs, Volume= 1,375 cf
Outflow = 0.46 cfs @ 12.02 hrs, Volume= 1,375 cf, Atten= 22%, Lag= 3.6 min
Discarded = 0.46 cfs @ 12.02 hrs, Volume= 1,375 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.05' @ 12.02 hrs Surf.Area= 897 sf Storage= 282 cf

Plug-Flow detention time= 58.5 min calculated for 1,372 cf (100% of inflow)
Center-of-Mass det. time= 58.4 min (830.3 - 771.9)

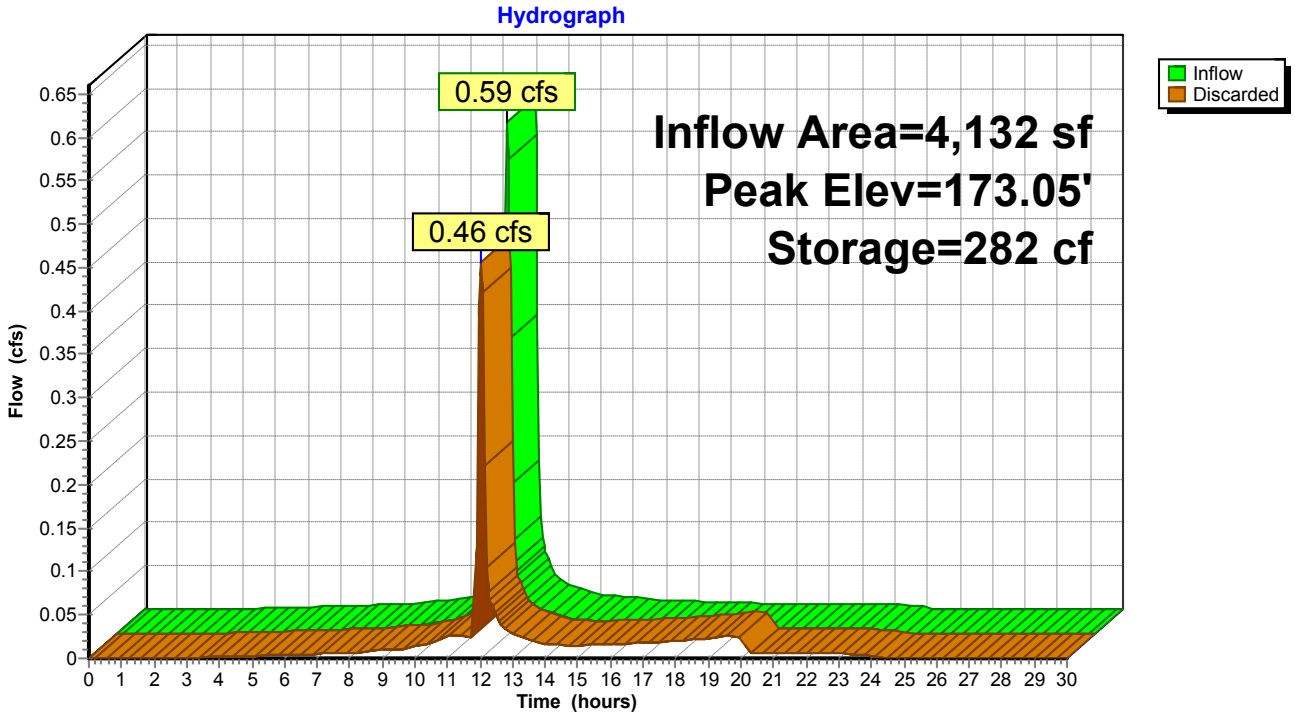
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,486 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	743	39	239
174.00	3,750	2,247	2,486

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.45 cfs @ 12.02 hrs HW=173.05' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.45 cfs)

Pond 10P: EXISTING DRYWELL



Summary for Pond 12P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 4P by 2.08' @ 12.15 hrs

Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 4.21" for 10-YEAR event
Inflow = 0.82 cfs @ 11.96 hrs, Volume= 1,963 cf
Outflow = 0.58 cfs @ 12.03 hrs, Volume= 1,963 cf, Atten= 29%, Lag= 4.3 min
Discarded = 0.58 cfs @ 12.03 hrs, Volume= 1,963 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.18' @ 12.03 hrs Surf.Area= 1,136 sf Storage= 390 cf

Plug-Flow detention time= 54.8 min calculated for 1,960 cf (100% of inflow)
Center-of-Mass det. time= 54.7 min (815.0 - 760.3)

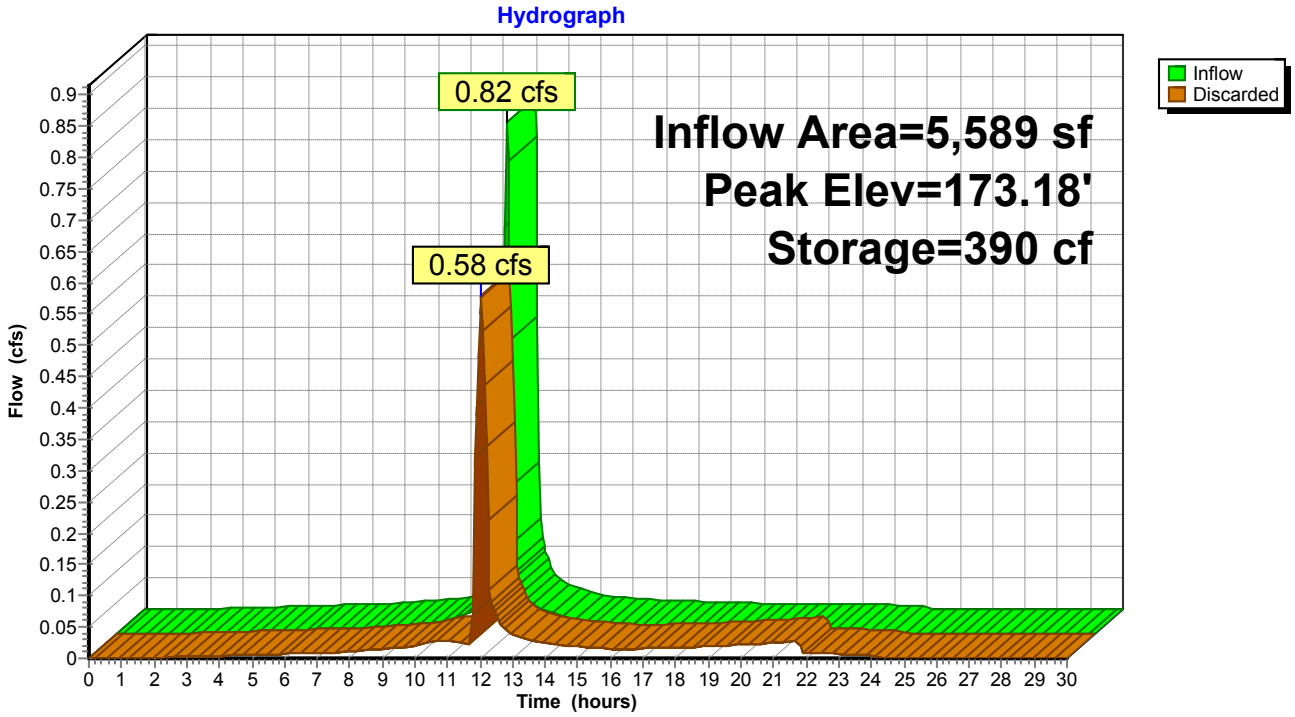
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,373 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	575	30	236
174.00	3,700	2,138	2,373

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.57 cfs @ 12.03 hrs HW=173.18' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.57 cfs)

Pond 12P: EXISTING DRYWELL



Summary for Pond 13P: EXISTING DRYWELL

Inflow Area = 4,173 sf, 81.26% Impervious, Inflow Depth = 4.10" for 10-YEAR event
Inflow = 0.60 cfs @ 11.96 hrs, Volume= 1,427 cf
Outflow = 0.41 cfs @ 12.04 hrs, Volume= 1,427 cf, Atten= 31%, Lag= 4.5 min
Discarded = 0.41 cfs @ 12.04 hrs, Volume= 1,427 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.79' @ 12.04 hrs Surf.Area= 812 sf Storage= 333 cf

Plug-Flow detention time= 60.4 min calculated for 1,424 cf (100% of inflow)
Center-of-Mass det. time= 60.3 min (826.7 - 766.4)

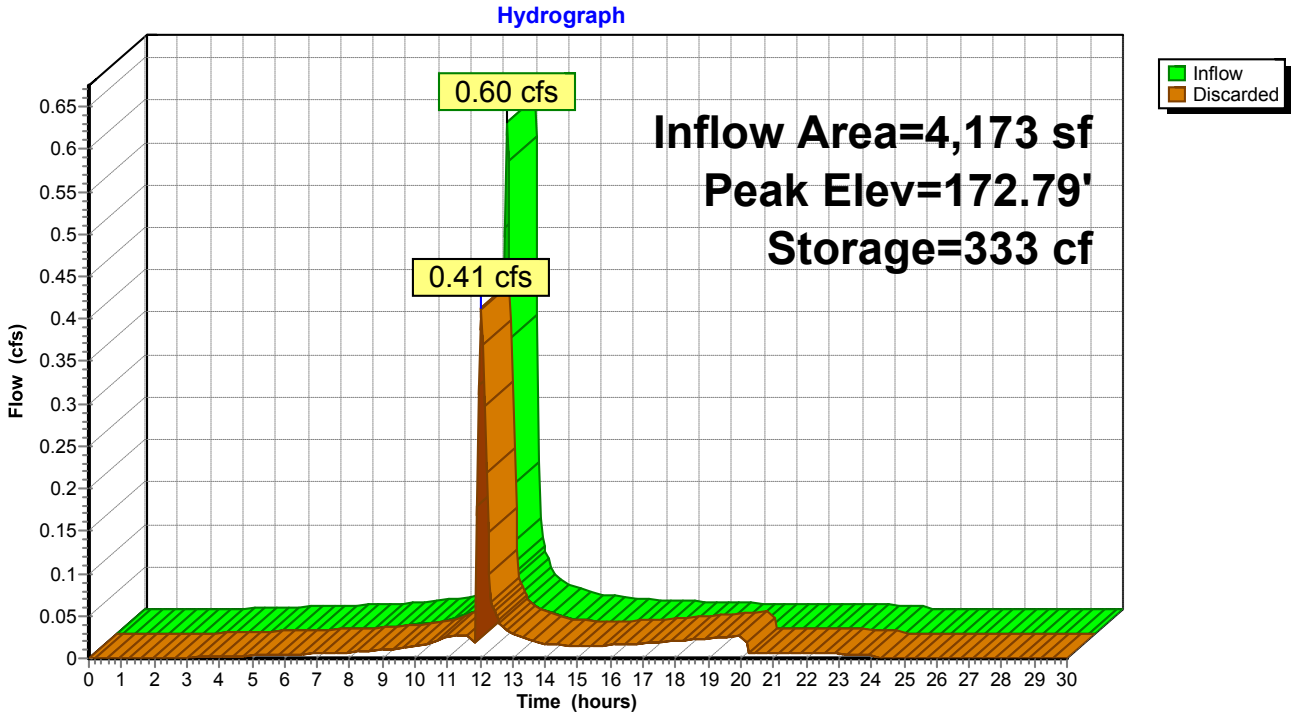
Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	559 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	1,366	349	559

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.41 cfs @ 12.04 hrs HW=172.79' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.41 cfs)

Pond 13P: EXISTING DRYWELL



Summary for Pond DP-1: EXISTING CATCH BASIN

[79] Warning: Submerged Pond 1P Primary device # 1 INLET by 0.21'
[81] Warning: Exceeded Pond 7P by 3.35' @ 11.95 hrs
[79] Warning: Submerged Pond 8P Primary device # 1 INLET by 2.81'

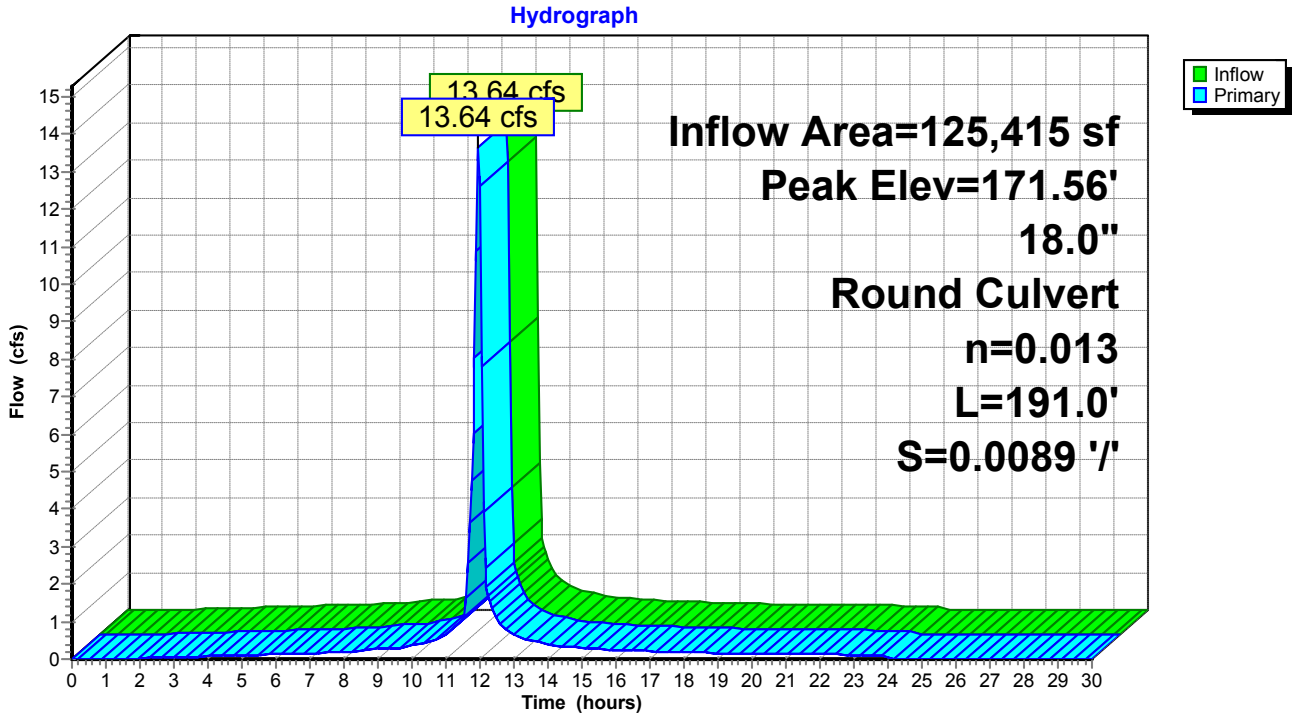
Inflow Area = 125,415 sf, 90.33% Impervious, Inflow Depth = 3.18" for 10-YEAR event
Inflow = 13.64 cfs @ 11.96 hrs, Volume= 33,250 cf
Outflow = 13.64 cfs @ 11.96 hrs, Volume= 33,250 cf, Atten= 0%, Lag= 0.0 min
Primary = 13.64 cfs @ 11.96 hrs, Volume= 33,250 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.56' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=13.32 cfs @ 11.96 hrs HW=171.38' (Free Discharge)
↳**1=Culvert** (Inlet Controls 13.32 cfs @ 7.54 fps)

Pond DP-1: EXISTING CATCH BASIN



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 6S: DA-10 Runoff Area=3,125 sf 87.10% Impervious Runoff Depth=7.74"
Flow Length=48' Slope=0.0235 '/' Tc=6.0 min CN=96 Runoff=0.81 cfs 2,016 cf

Subcatchment DA-1: DA-1 Runoff Area=15,019 sf 84.37% Impervious Runoff Depth=7.74"
Flow Length=59' Tc=6.0 min CN=96 Runoff=3.91 cfs 9,688 cf

Subcatchment DA-2: DA-2 Runoff Area=3,749 sf 79.83% Impervious Runoff Depth=7.62"
Flow Length=61' Tc=6.0 min CN=95 Runoff=0.97 cfs 2,381 cf

Subcatchment DA-3: DA-3 Runoff Area=4,132 sf 69.19% Impervious Runoff Depth=7.50"
Flow Length=43' Tc=6.0 min CN=94 Runoff=1.07 cfs 2,583 cf

Subcatchment DA-4: DA-4 Runoff Area=5,589 sf 86.58% Impervious Runoff Depth=7.74"
Flow Length=59' Tc=6.0 min CN=96 Runoff=1.46 cfs 3,605 cf

Subcatchment DA-5: DA-5 Runoff Area=13,552 sf 100.00% Impervious Runoff Depth=7.98"
Flow Length=60' Slope=0.0100 '/' Tc=6.0 min CN=98 Runoff=3.55 cfs 9,012 cf

Subcatchment DA-6: DA-6 Runoff Area=72,169 sf 95.78% Impervious Runoff Depth=7.86"
Flow Length=293' Tc=6.0 min CN=97 Runoff=18.87 cfs 47,272 cf

Subcatchment DA-7: DA-7 Runoff Area=8,324 sf 100.00% Impervious Runoff Depth=7.98"
Flow Length=183' Tc=6.0 min CN=98 Runoff=2.18 cfs 5,536 cf

Subcatchment DA-8: DA-8 Runoff Area=4,173 sf 81.26% Impervious Runoff Depth=7.62"
Flow Length=31' Tc=6.0 min CN=95 Runoff=1.08 cfs 2,650 cf

Subcatchment DA-9: DA-9 Runoff Area=9,135 sf 69.73% Impervious Runoff Depth=7.50"
Flow Length=82' Tc=6.0 min CN=94 Runoff=2.36 cfs 5,710 cf

Reach DP-2: STREET Inflow=3.55 cfs 9,012 cf
Outflow=3.55 cfs 9,012 cf

Pond 1P: EXISTING YARD DRAIN Peak Elev=325.64' Inflow=2.36 cfs 5,710 cf
4.0" Round Culvert n=0.013 L=87.0' S=0.0100 '/' Outflow=2.36 cfs 5,710 cf

Pond 2P: EXISTING CATCH BASIN Peak Elev=172.81' Inflow=3.91 cfs 9,688 cf
12.0" Round Culvert n=0.013 L=14.0' S=0.0100 '/' Outflow=3.91 cfs 9,688 cf

Pond 3P: EXISTING CATCH BASIN Peak Elev=170.93' Inflow=1.07 cfs 2,583 cf
12.0" Round Culvert n=0.013 L=17.0' S=0.0100 '/' Outflow=1.07 cfs 2,583 cf

Pond 4P: EXISTING CATCH BASIN Peak Elev=171.59' Inflow=1.46 cfs 3,605 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0100 '/' Outflow=1.46 cfs 3,605 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.98' Storage=2,058 cf Inflow=3.91 cfs 9,688 cf
Outflow=1.87 cfs 9,688 cf

Pond 6P: EXISTING CATCH BASIN Peak Elev=170.90' Inflow=0.97 cfs 2,381 cf
12.0" Round Culvert n=0.013 L=15.0' S=0.0100 '/' Outflow=0.97 cfs 2,381 cf

Pond 7P: EXISTING CATCH BASIN Peak Elev=168.38' Inflow=2.18 cfs 5,536 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=2.18 cfs 5,536 cf

Pond 8P: EXISTING CATCH BASIN Peak Elev=224.82' Inflow=18.87 cfs 47,272 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=18.87 cfs 47,272 cf

Pond 9P: EXISTING DRYWELL Peak Elev=173.99' Storage=2,380 cf Inflow=0.97 cfs 2,381 cf
Outflow=0.00 cfs 0 cf

Pond 10P: EXISTING DRYWELL Peak Elev=173.22' Storage=472 cf Inflow=1.07 cfs 2,583 cf
Outflow=0.71 cfs 2,583 cf

Pond 12P: EXISTING DRYWELL Peak Elev=173.38' Storage=679 cf Inflow=1.46 cfs 3,605 cf
Outflow=0.90 cfs 3,605 cf

Pond 13P: EXISTING DRYWELL Peak Elev=173.00' Storage=552 cf Inflow=1.08 cfs 2,650 cf
Outflow=0.69 cfs 2,650 cf

Pond DP-1: EXISTING CATCH BASIN Peak Elev=182.19' Inflow=24.22 cfs 60,533 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=24.22 cfs 60,533 cf

Total Runoff Area = 138,967 sf Runoff Volume = 90,451 cf Average Runoff Depth = 7.81"
8.72% Pervious = 12,123 sf 91.28% Impervious = 126,844 sf

Summary for Subcatchment 6S: DA-10

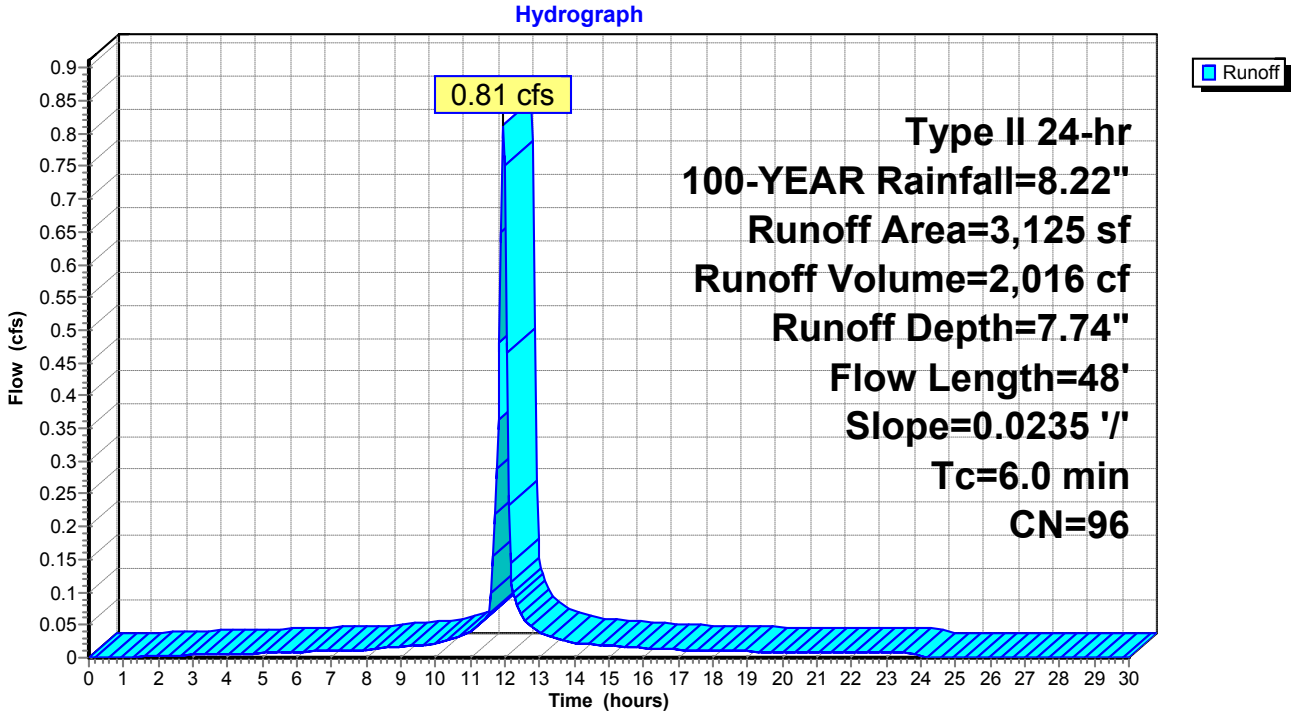
Runoff = 0.81 cfs @ 11.96 hrs, Volume= 2,016 cf, Depth= 7.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
403	84	50-75% Grass cover, Fair, HSG D
2,722	98	Paved parking, HSG D
3,125	96	Weighted Average
403		12.90% Pervious Area
2,722		87.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	48	0.0235	1.26		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	48	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 6S: DA-10



Summary for Subcatchment DA-1: DA-1

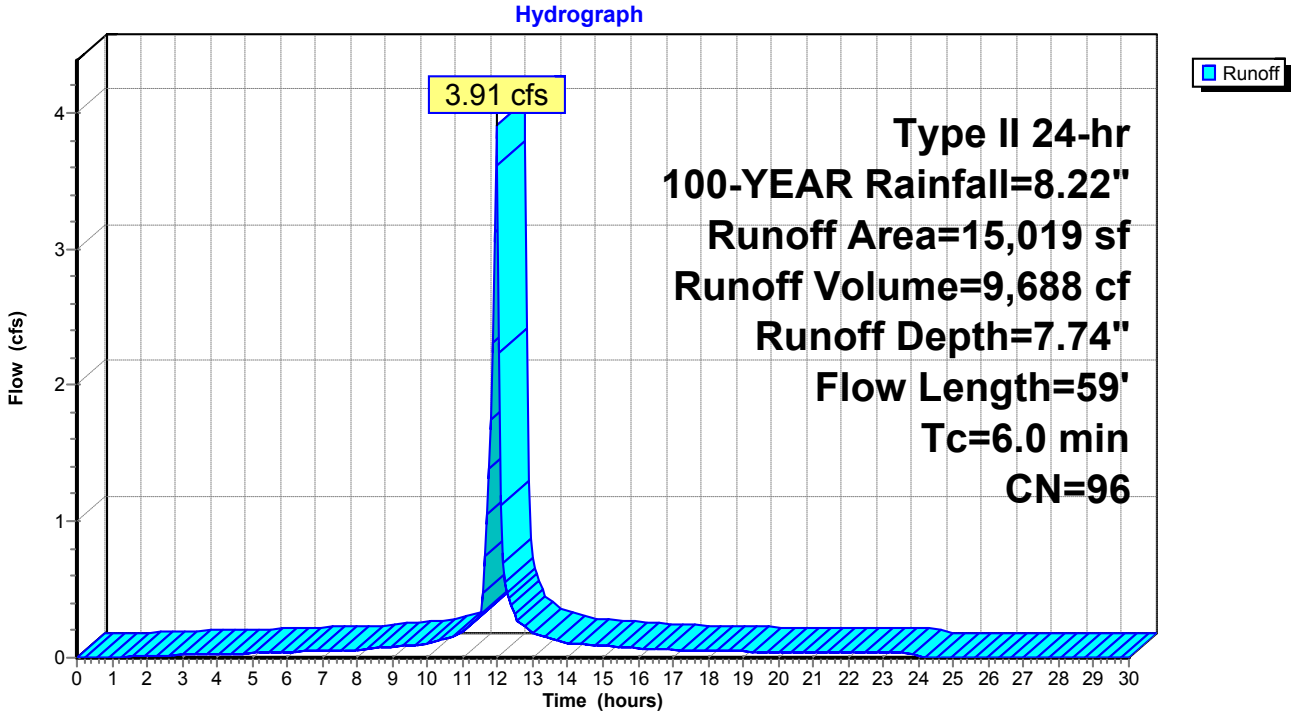
Runoff = 3.91 cfs @ 11.96 hrs, Volume= 9,688 cf, Depth= 7.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
2,348	84	50-75% Grass cover, Fair, HSG D
12,671	98	Paved parking, HSG D
15,019	96	Weighted Average
2,348		15.63% Pervious Area
12,671		84.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	29	0.0390	0.17		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	30	0.0350	3.80		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.9	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-2: DA-2

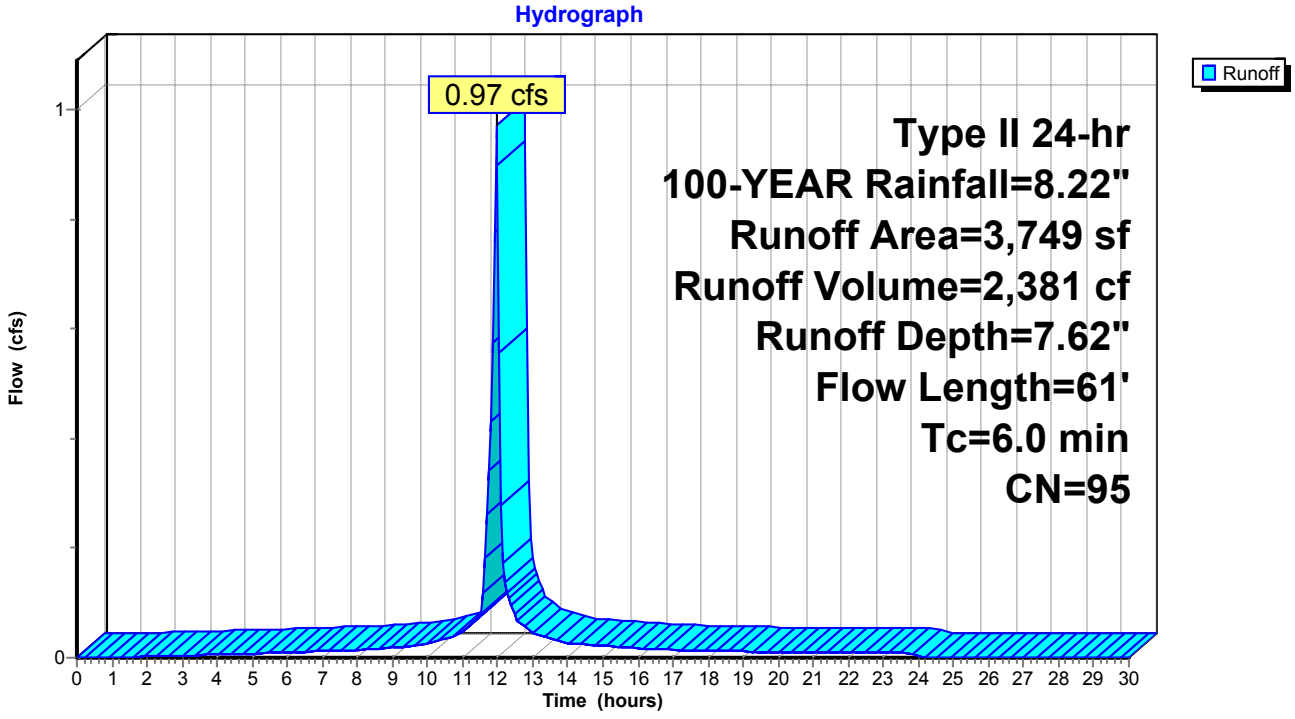
Runoff = 0.97 cfs @ 11.96 hrs, Volume= 2,381 cf, Depth= 7.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
756	84	50-75% Grass cover, Fair, HSG D
2,993	98	Paved parking, HSG D
3,749	95	Weighted Average
756		20.17% Pervious Area
2,993		79.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	26	0.0173	0.12		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	35	0.0257	3.25		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	61	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

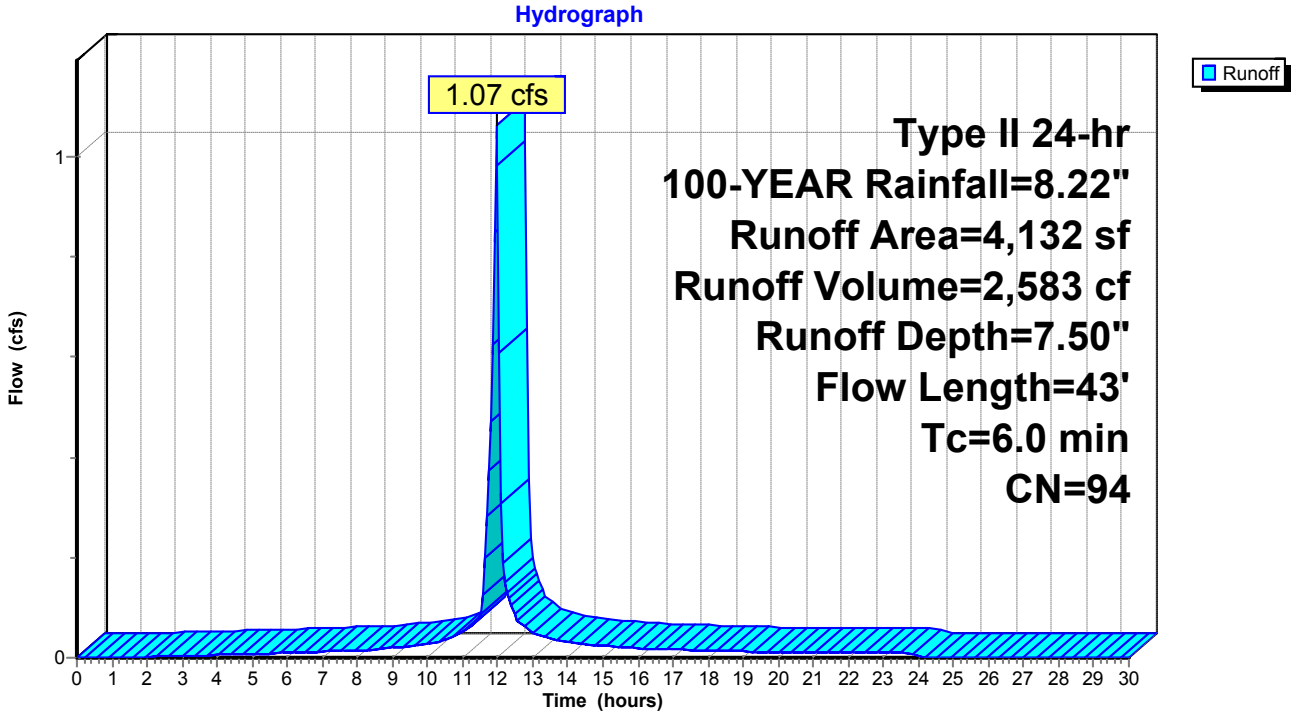
Runoff = 1.07 cfs @ 11.96 hrs, Volume= 2,583 cf, Depth= 7.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,273	84	50-75% Grass cover, Fair, HSG D
2,859	98	Paved parking, HSG D
4,132	94	Weighted Average
1,273		30.81% Pervious Area
2,859		69.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	31	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0250	3.21		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
4.2	43	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

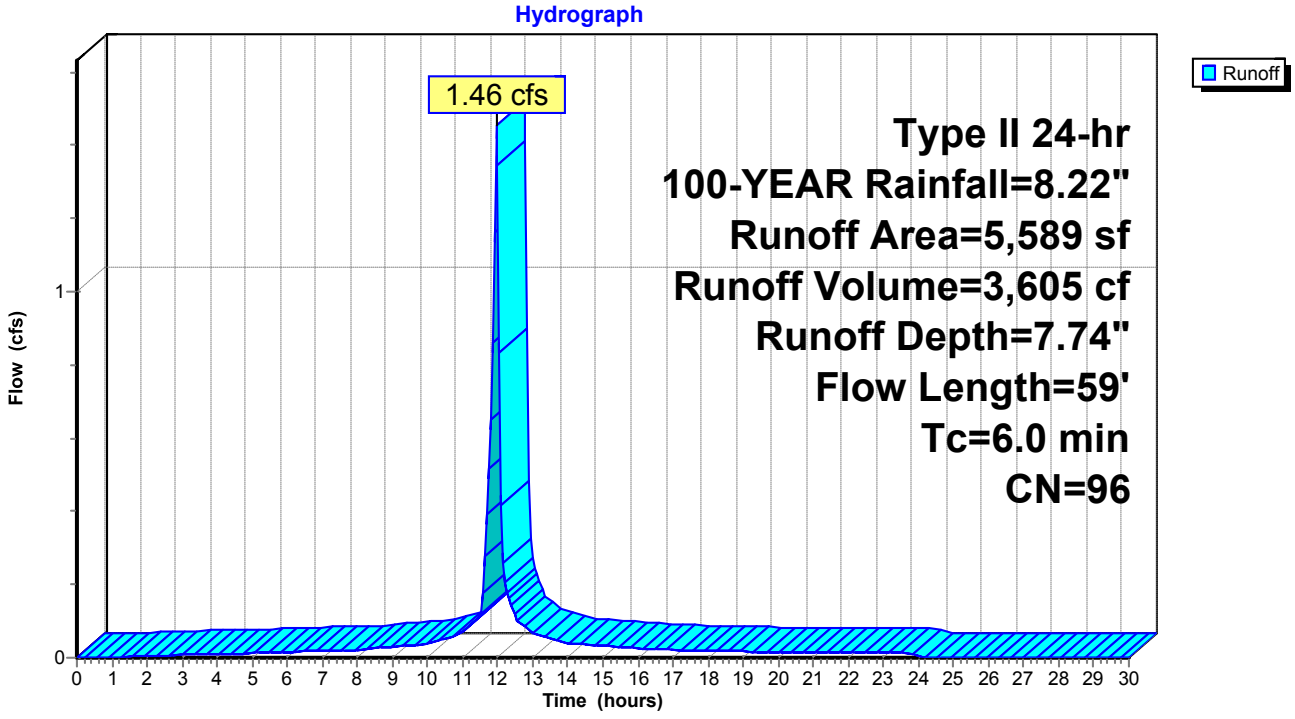
Runoff = 1.46 cfs @ 11.96 hrs, Volume= 3,605 cf, Depth= 7.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
750	84	50-75% Grass cover, Fair, HSG D
4,839	98	Paved parking, HSG D
5,589	96	Weighted Average
750		13.42% Pervious Area
4,839		86.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	30	0.0217	0.14		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	29	0.0169	2.64		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-4: DA-4



Summary for Subcatchment DA-5: DA-5

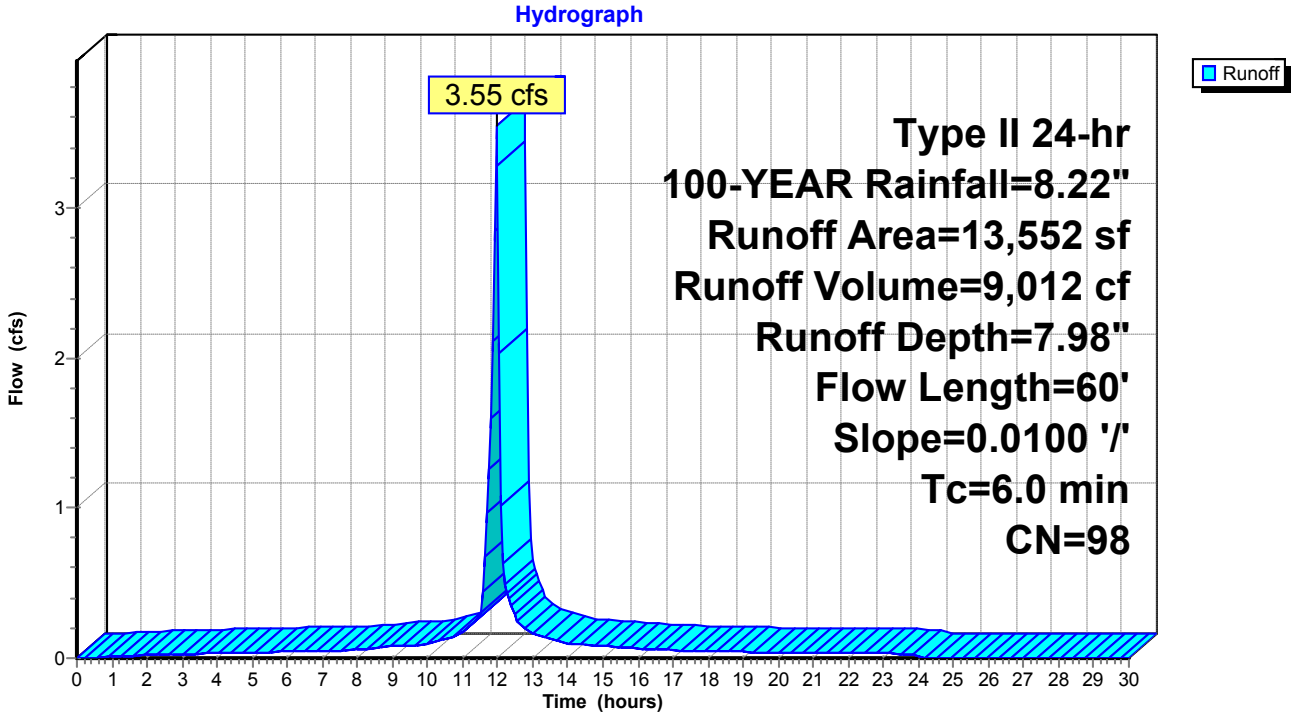
Runoff = 3.55 cfs @ 11.96 hrs, Volume= 9,012 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
13,552	98	Paved parking, HSG D
13,552		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	60	0.0100	0.94		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.1	60	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-5: DA-5



Summary for Subcatchment DA-6: DA-6

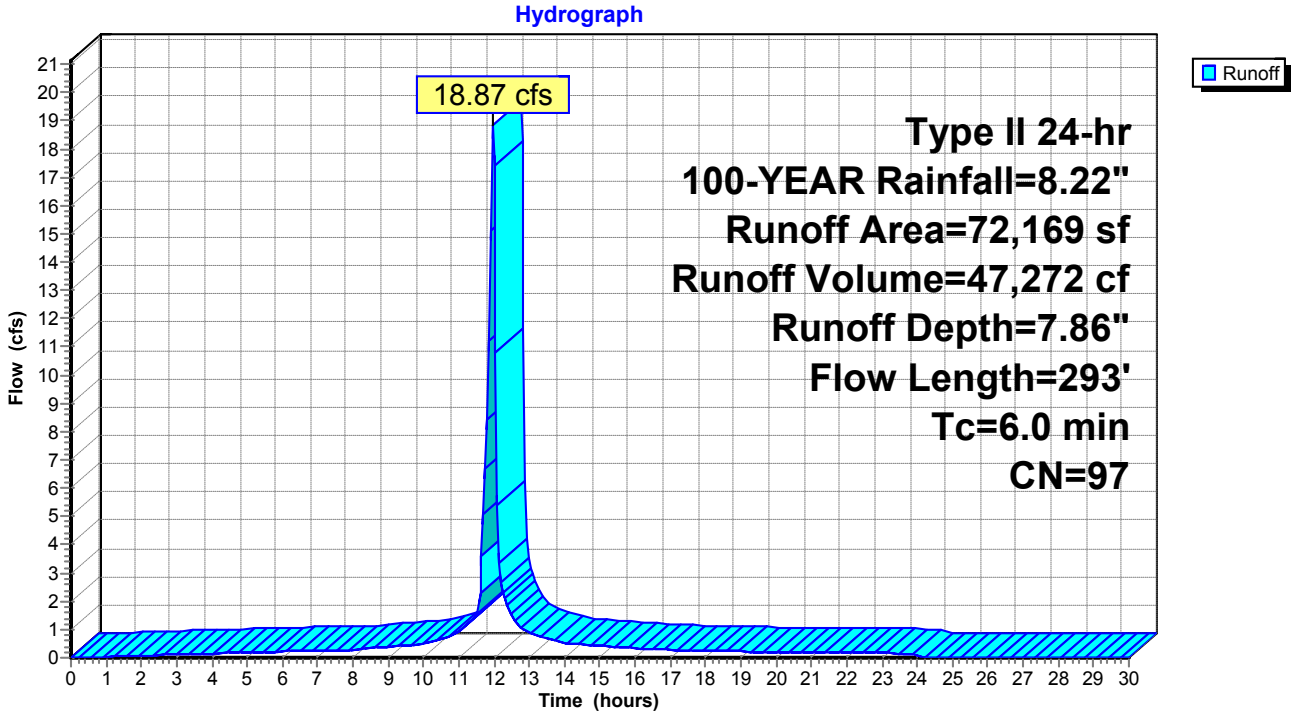
Runoff = 18.87 cfs @ 11.96 hrs, Volume= 47,272 cf, Depth= 7.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
3,046	84	50-75% Grass cover, Fair, HSG D
69,123	98	Paved parking, HSG D
72,169	97	Weighted Average
3,046		4.22% Pervious Area
69,123		95.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0220	1.42		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.4	193	0.0126	2.28		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.6	293	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

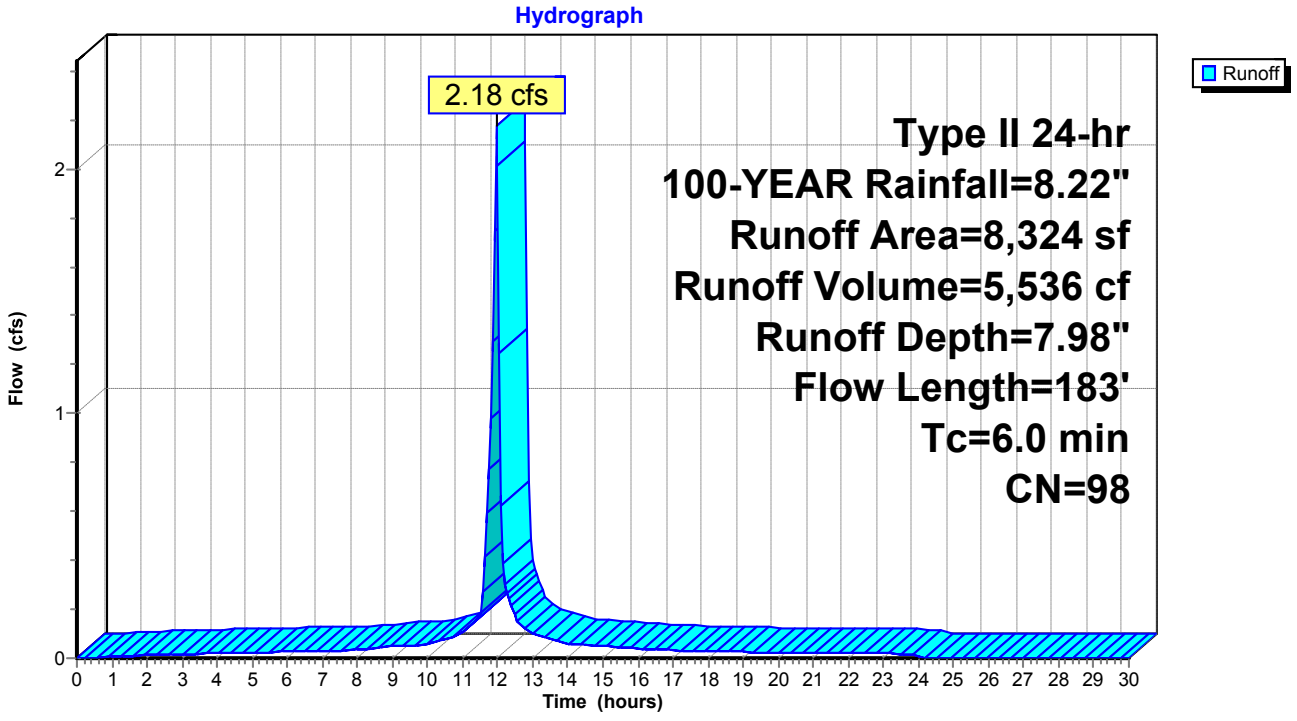
Runoff = 2.18 cfs @ 11.96 hrs, Volume= 5,536 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
8,324	98	Paved parking, HSG D
8,324		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	100	0.0301	1.61		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	83	0.0124	2.26		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
1.6	183	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

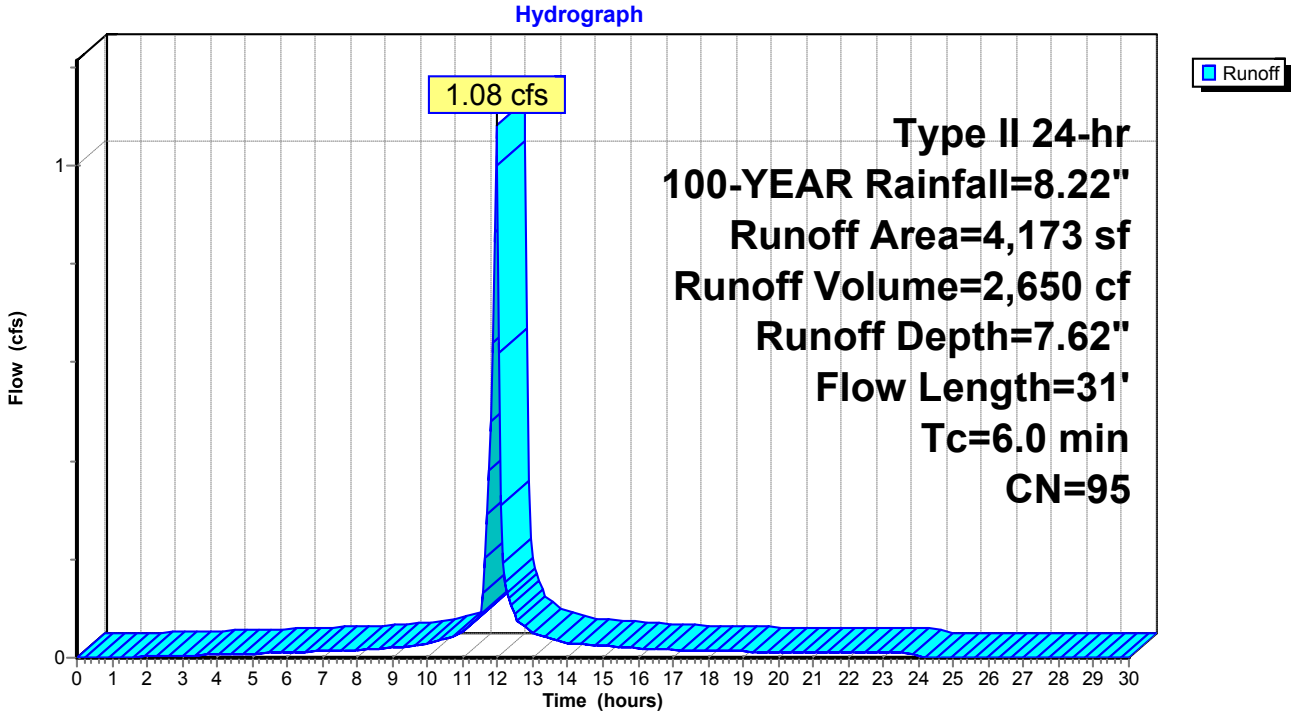
Runoff = 1.08 cfs @ 11.96 hrs, Volume= 2,650 cf, Depth= 7.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
782	84	50-75% Grass cover, Fair, HSG D
3,391	98	Paved parking, HSG D
4,173	95	Weighted Average
782		18.74% Pervious Area
3,391		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	19	0.0150	0.11		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0208	2.93		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.0	31	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DA-9

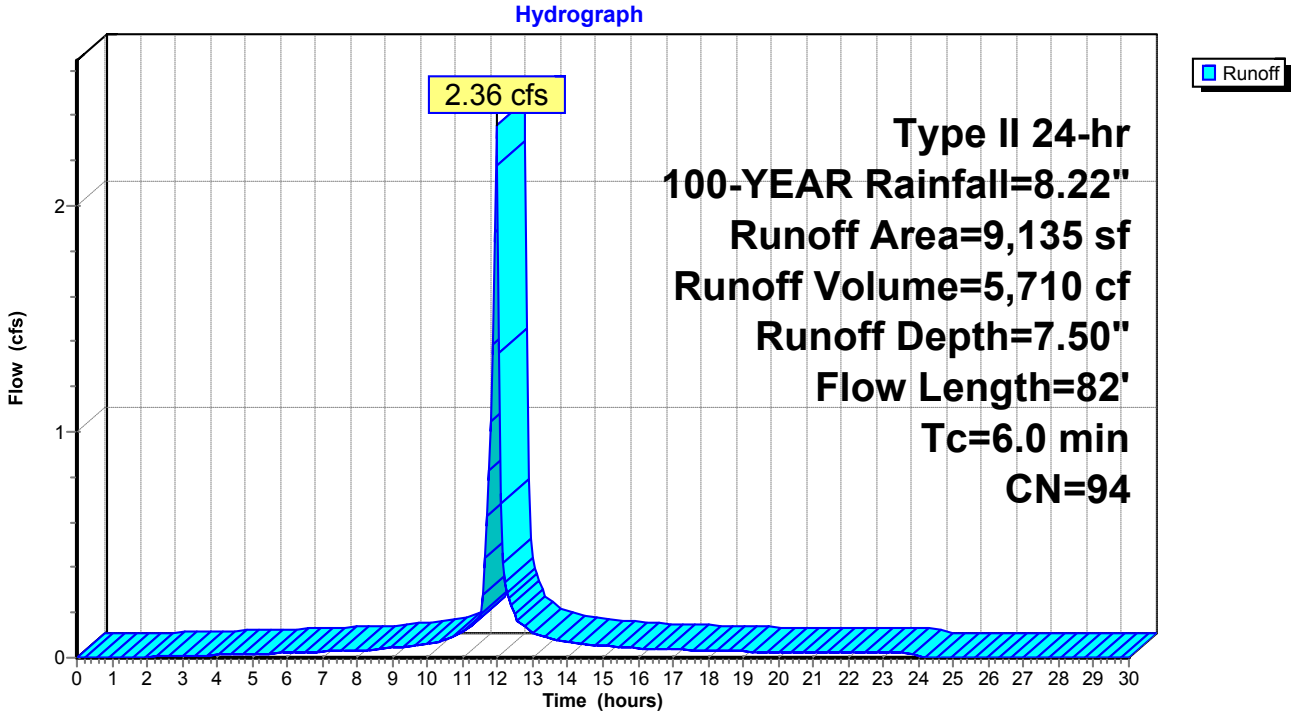
Runoff = 2.36 cfs @ 11.96 hrs, Volume= 5,710 cf, Depth= 7.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
2,765	84	50-75% Grass cover, Fair, HSG D
6,370	98	Paved parking, HSG D
9,135	94	Weighted Average
2,765		30.27% Pervious Area
6,370		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	42	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	40	0.0200	2.87		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
5.4	82	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-9: DA-9



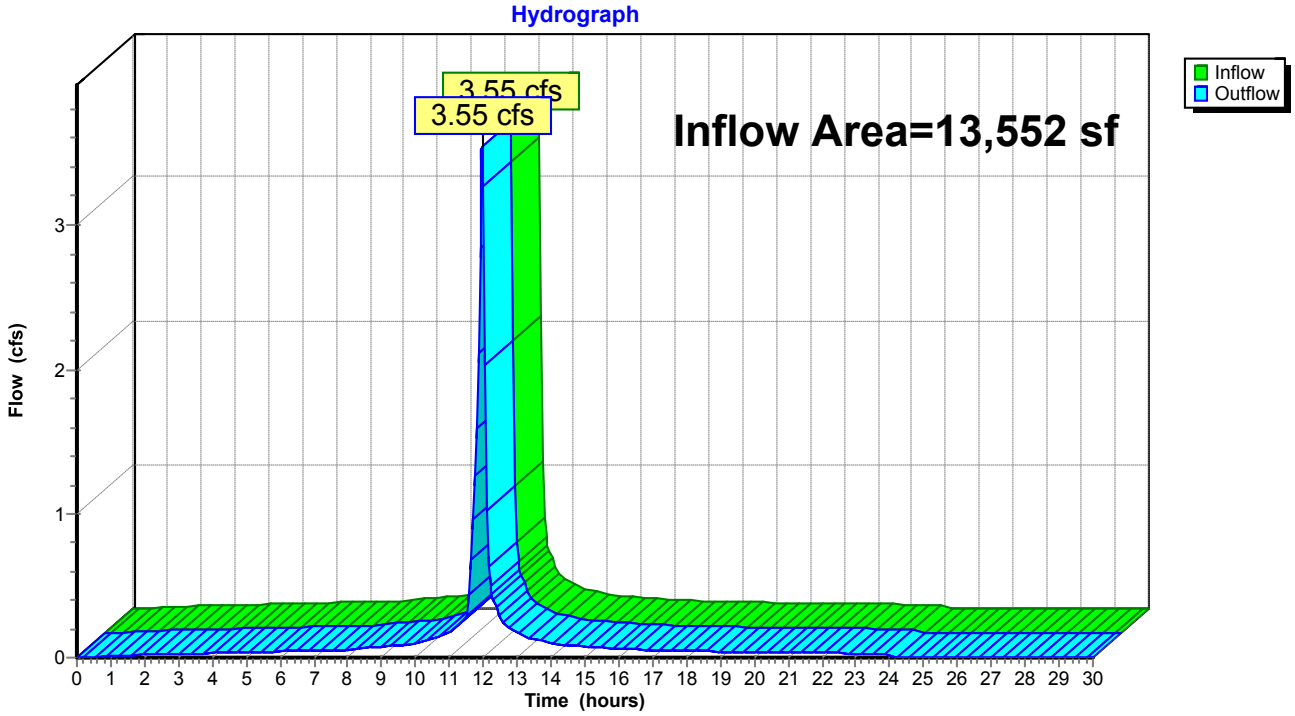
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 13,552 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 3.55 cfs @ 11.96 hrs, Volume= 9,012 cf
Outflow = 3.55 cfs @ 11.96 hrs, Volume= 9,012 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 1P: EXISTING YARD DRAIN

[57] Hint: Peaked at 325.64' (Flood elevation advised)

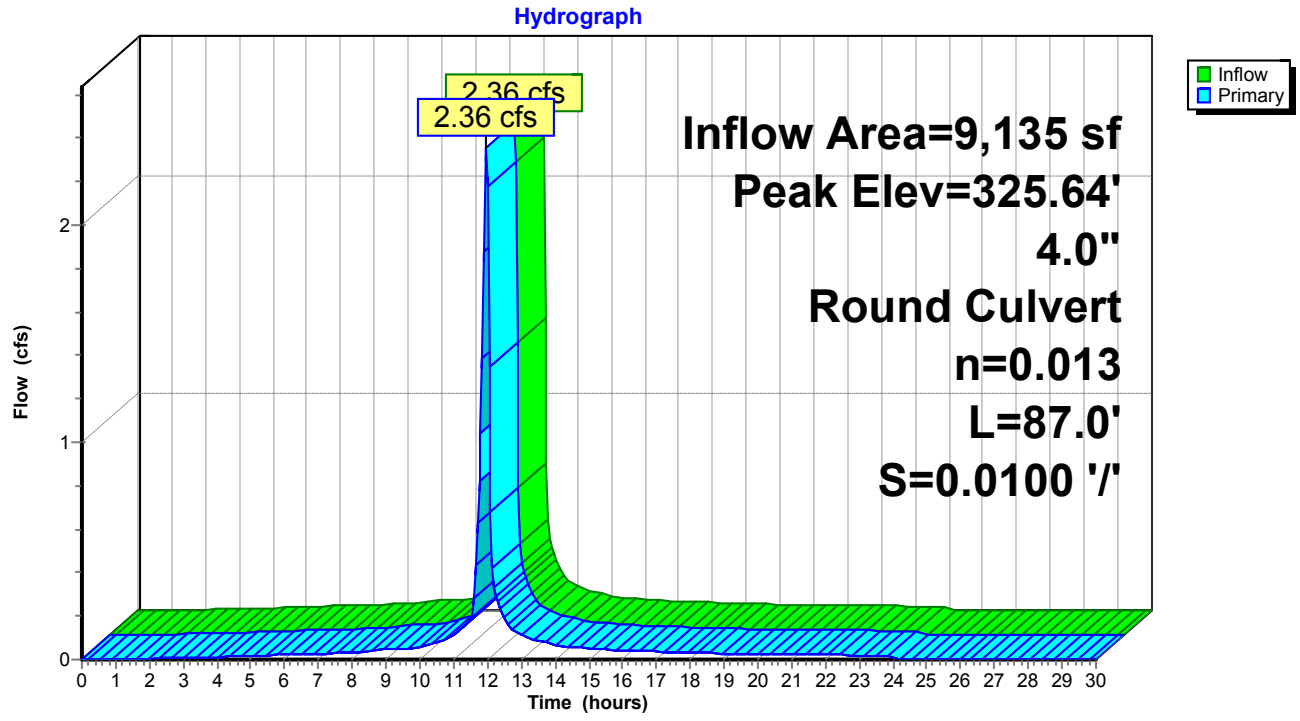
Inflow Area = 9,135 sf, 69.73% Impervious, Inflow Depth = 7.50" for 100-YEAR event
Inflow = 2.36 cfs @ 11.96 hrs, Volume= 5,710 cf
Outflow = 2.36 cfs @ 11.96 hrs, Volume= 5,710 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.36 cfs @ 11.96 hrs, Volume= 5,710 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 325.64' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=2.30 cfs @ 11.96 hrs HW=318.83' (Free Discharge)
1=Culvert (Barrel Controls 2.30 cfs @ 26.37 fps)

Pond 1P: EXISTING YARD DRAIN



Summary for Pond 2P: EXISTING CATCH BASIN

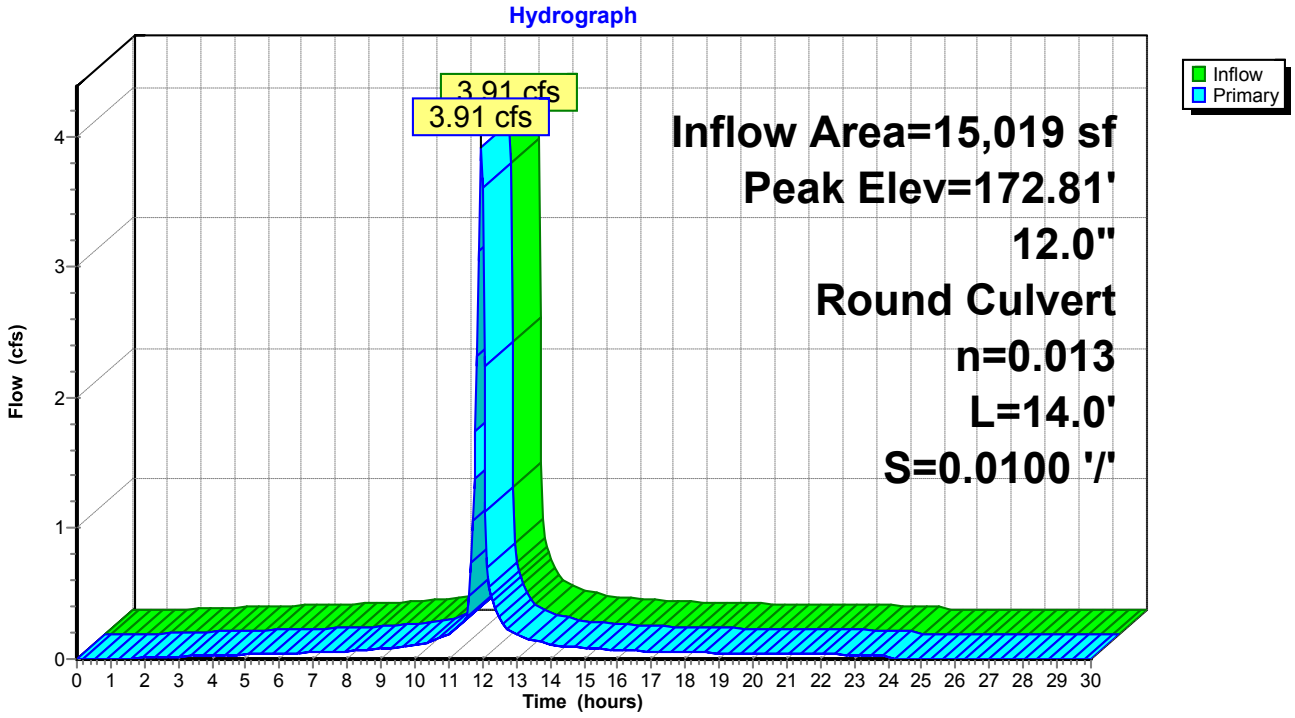
Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 7.74" for 100-YEAR event
Inflow = 3.91 cfs @ 11.96 hrs, Volume= 9,688 cf
Outflow = 3.91 cfs @ 11.96 hrs, Volume= 9,688 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.91 cfs @ 11.96 hrs, Volume= 9,688 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.81' @ 11.96 hrs
Flood Elev= 172.99'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.60'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.60' / 170.46' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.82 cfs @ 11.96 hrs HW=172.74' (Free Discharge)
1=Culvert (Inlet Controls 3.82 cfs @ 4.87 fps)

Pond 2P: EXISTING CATCH BASIN



Summary for Pond 3P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.93' (Flood elevation advised)

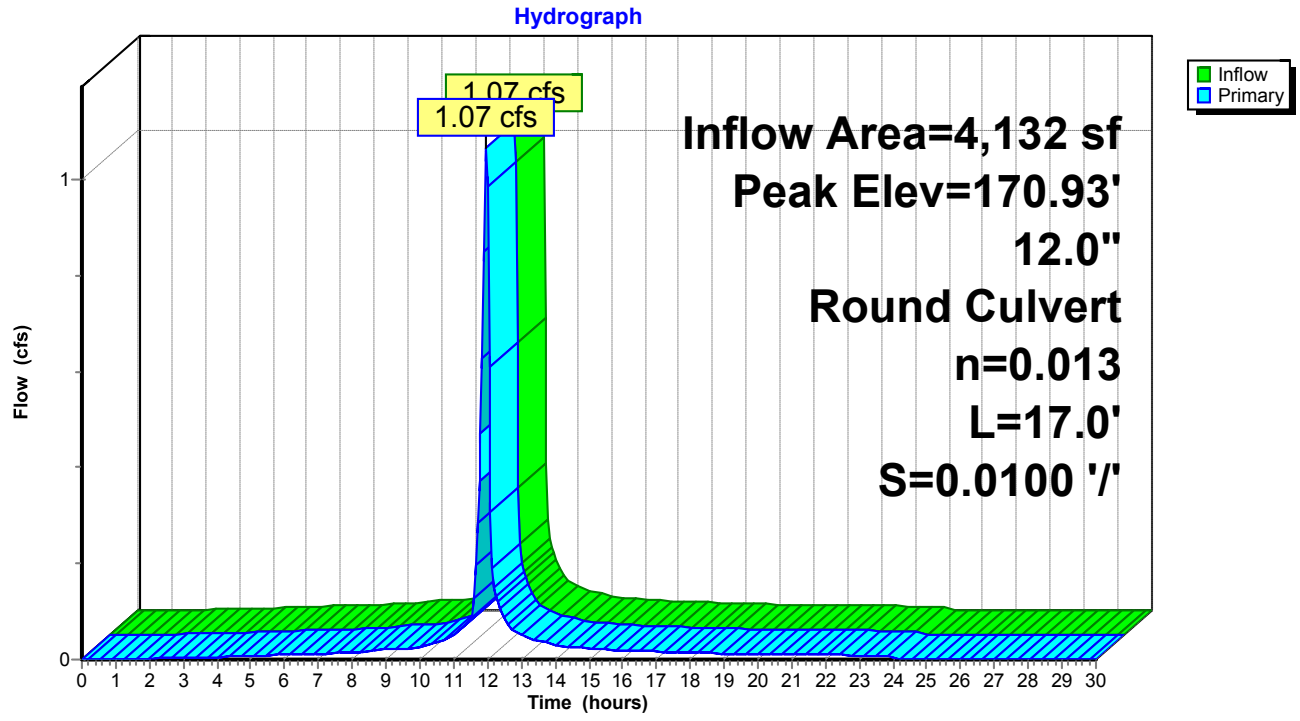
Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 7.50" for 100-YEAR event
Inflow = 1.07 cfs @ 11.96 hrs, Volume= 2,583 cf
Outflow = 1.07 cfs @ 11.96 hrs, Volume= 2,583 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.07 cfs @ 11.96 hrs, Volume= 2,583 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.93' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.13' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.04 cfs @ 11.96 hrs HW=170.92' (Free Discharge)
1=Culvert (Barrel Controls 1.04 cfs @ 2.91 fps)

Pond 3P: EXISTING CATCH BASIN



Summary for Pond 4P: EXISTING CATCH BASIN

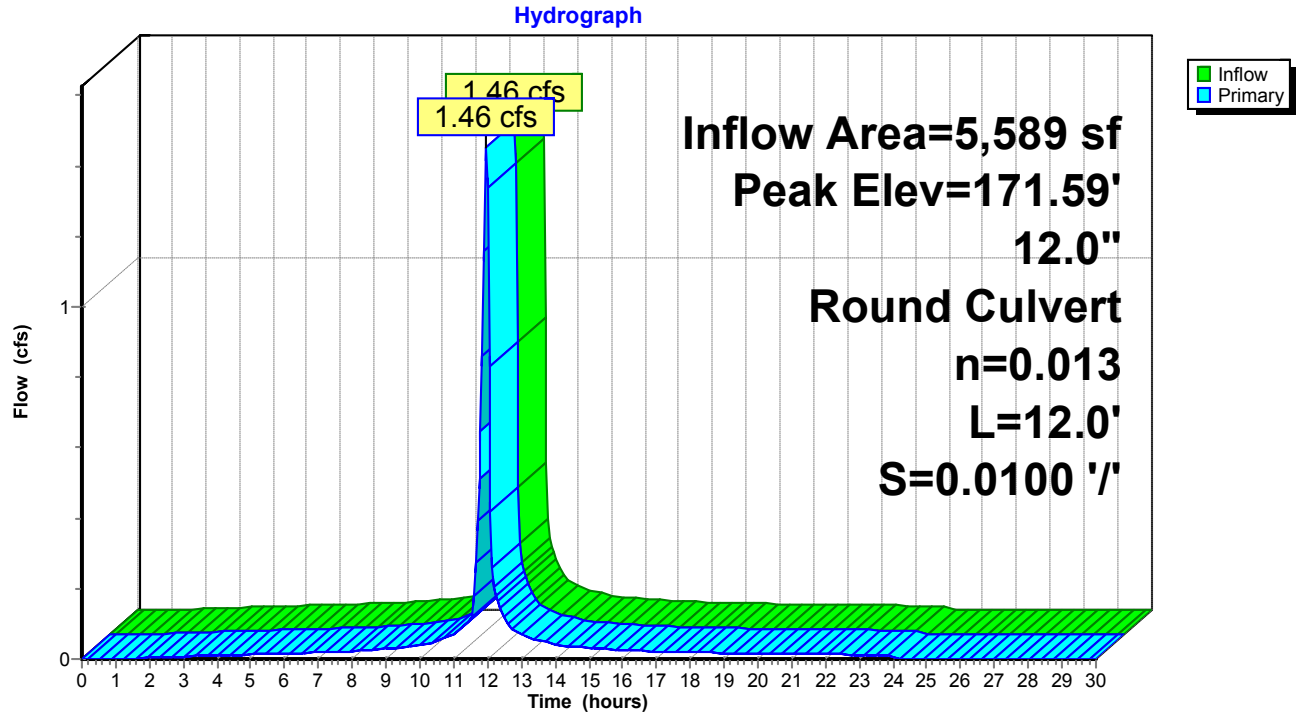
Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 7.74" for 100-YEAR event
Inflow = 1.46 cfs @ 11.96 hrs, Volume= 3,605 cf
Outflow = 1.46 cfs @ 11.96 hrs, Volume= 3,605 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.46 cfs @ 11.96 hrs, Volume= 3,605 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.59' @ 11.96 hrs
Flood Elev= 172.73'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.80'	**12.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.80' / 170.68' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.42 cfs @ 11.96 hrs HW=171.57' (Free Discharge)
1=Culvert (Barrel Controls 1.42 cfs @ 3.01 fps)

Pond 4P: EXISTING CATCH BASIN



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 2P by 2.83' @ 12.20 hrs

Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 7.74" for 100-YEAR event
Inflow = 3.91 cfs @ 11.96 hrs, Volume= 9,688 cf
Outflow = 1.87 cfs @ 12.07 hrs, Volume= 9,688 cf, Atten= 52%, Lag= 6.4 min
Discarded = 1.87 cfs @ 12.07 hrs, Volume= 9,688 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.98' @ 12.07 hrs Surf.Area= 3,671 sf Storage= 2,058 cf

Plug-Flow detention time= 30.6 min calculated for 9,688 cf (100% of inflow)
Center-of-Mass det. time= 30.6 min (778.4 - 747.8)

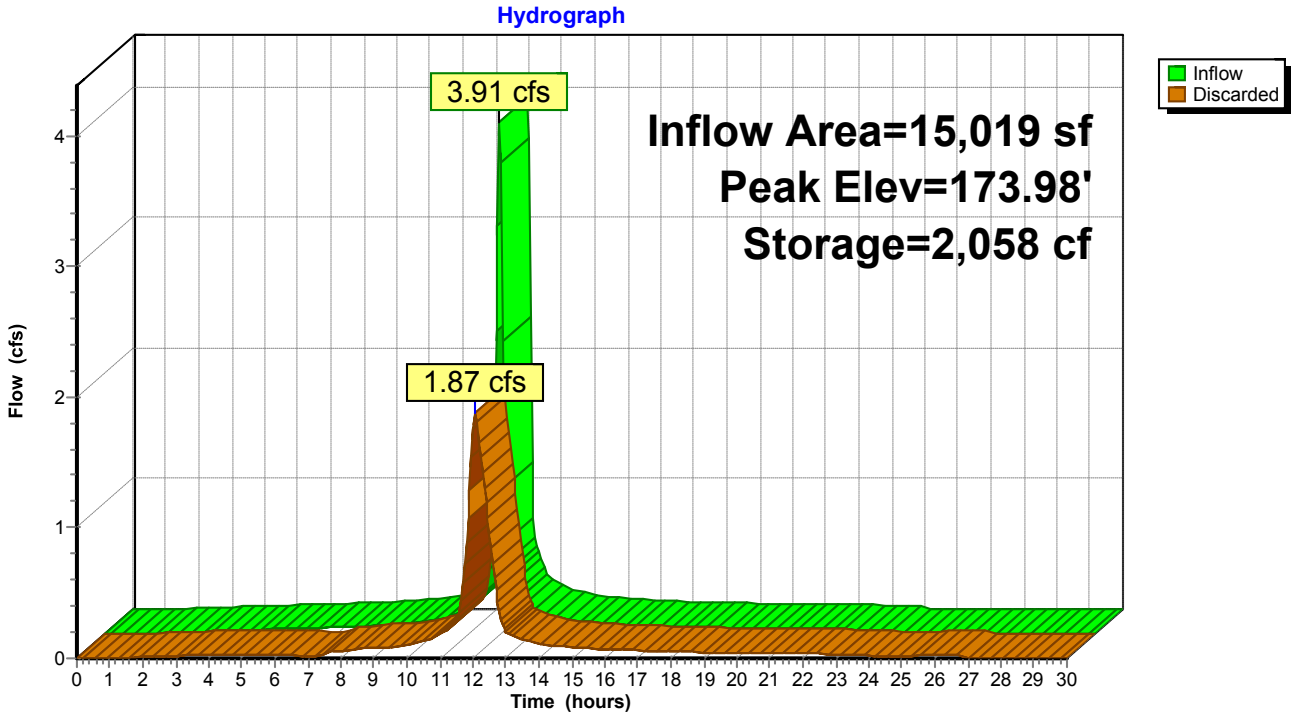
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,139 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	112	7	208
174.00	3,750	1,931	2,139

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.86 cfs @ 12.07 hrs HW=173.97' (Free Discharge)
1=Exfiltration (Exfiltration Controls 1.86 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 6P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.90' (Flood elevation advised)

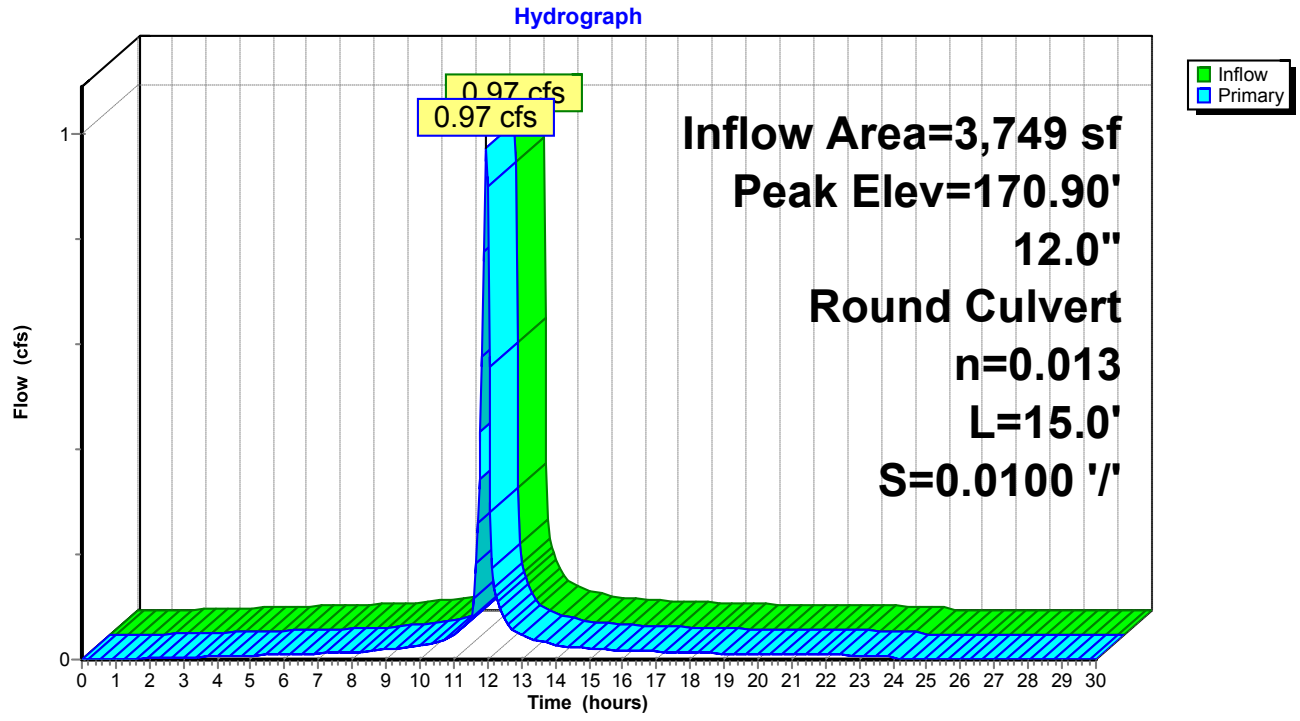
Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 7.62" for 100-YEAR event
Inflow = 0.97 cfs @ 11.96 hrs, Volume= 2,381 cf
Outflow = 0.97 cfs @ 11.96 hrs, Volume= 2,381 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.97 cfs @ 11.96 hrs, Volume= 2,381 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.90' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.15' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.95 cfs @ 11.96 hrs HW=170.89' (Free Discharge)
1=Culvert (Barrel Controls 0.95 cfs @ 2.81 fps)

Pond 6P: EXISTING CATCH BASIN



Summary for Pond 7P: EXISTING CATCH BASIN

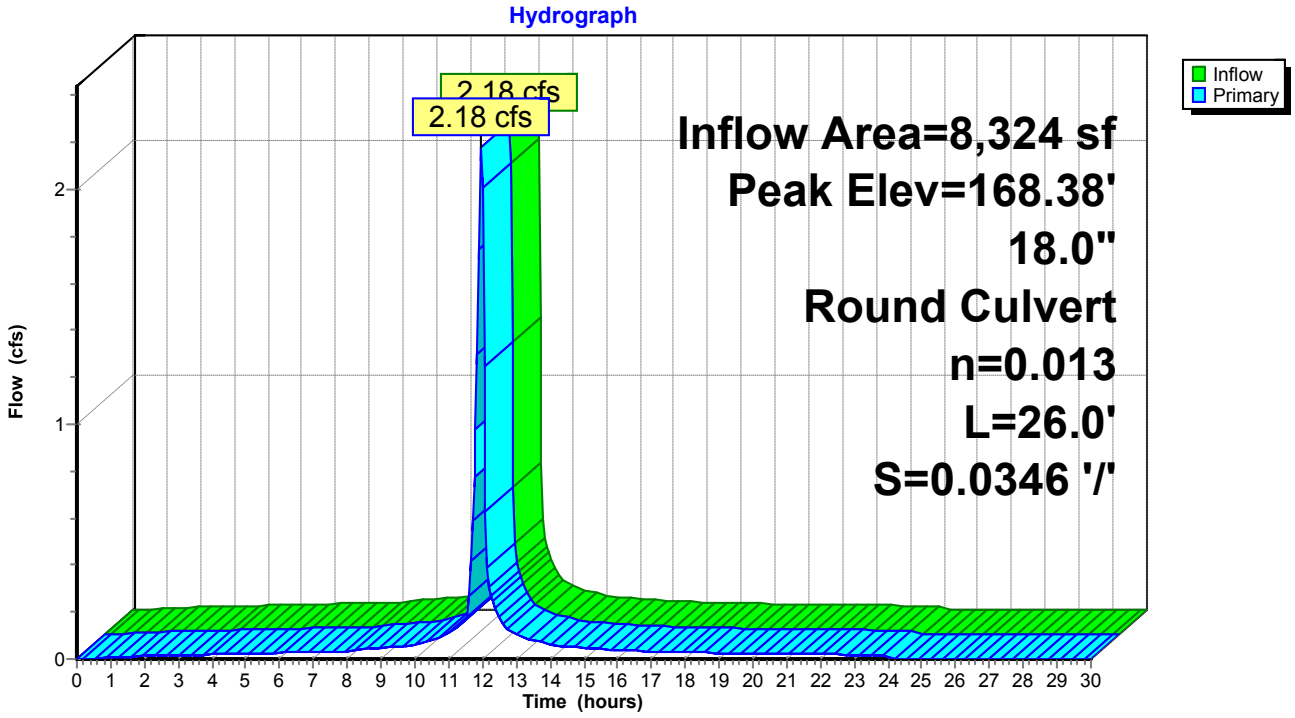
Inflow Area = 8,324 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 2.18 cfs @ 11.96 hrs, Volume= 5,536 cf
Outflow = 2.18 cfs @ 11.96 hrs, Volume= 5,536 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.18 cfs @ 11.96 hrs, Volume= 5,536 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.38' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=2.13 cfs @ 11.96 hrs HW=168.36' (Free Discharge)
1=Culvert (Inlet Controls 2.13 cfs @ 2.35 fps)

Pond 7P: EXISTING CATCH BASIN



Summary for Pond 8P: EXISTING CATCH BASIN

[58] Hint: Peaked 52.95' above defined flood level

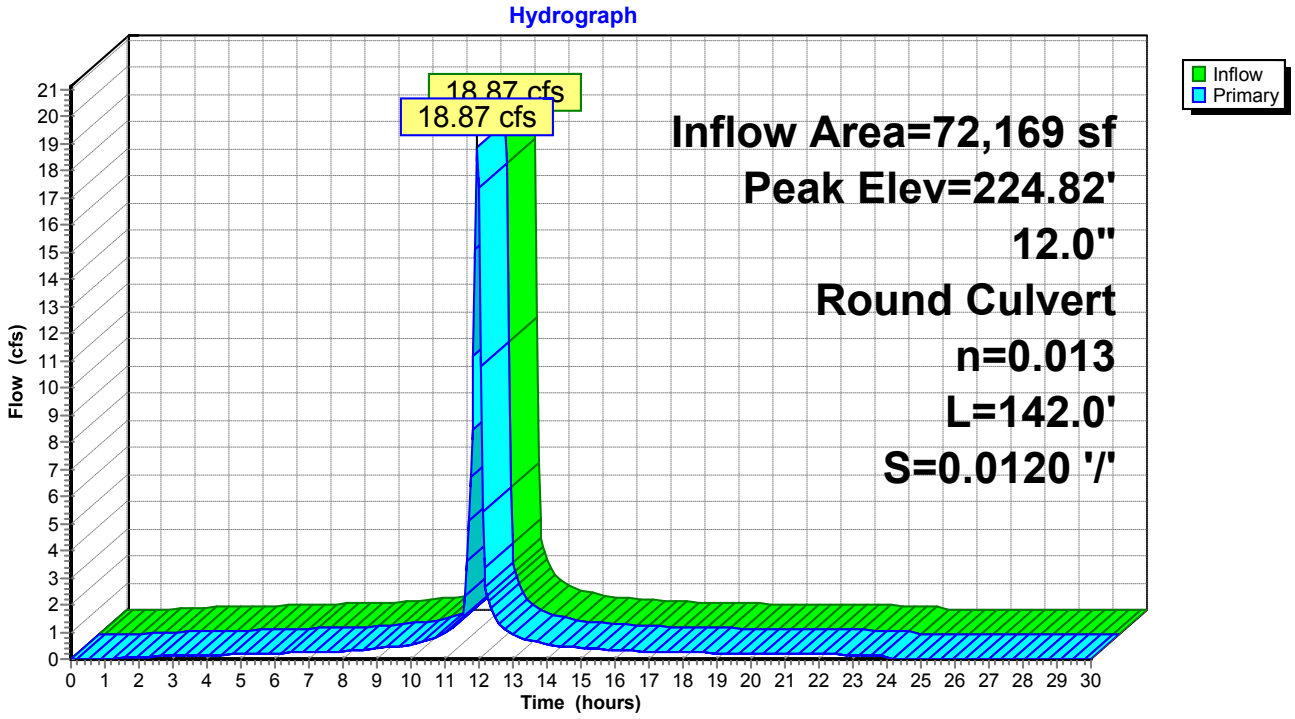
Inflow Area = 72,169 sf, 95.78% Impervious, Inflow Depth = 7.86" for 100-YEAR event
Inflow = 18.87 cfs @ 11.96 hrs, Volume= 47,272 cf
Outflow = 18.87 cfs @ 11.96 hrs, Volume= 47,272 cf, Atten= 0%, Lag= 0.0 min
Primary = 18.87 cfs @ 11.96 hrs, Volume= 47,272 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 224.82' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=18.43 cfs @ 11.96 hrs HW=222.39' (Free Discharge)
└**1=Culvert** (Barrel Controls 18.43 cfs @ 23.47 fps)

Pond 8P: EXISTING CATCH BASIN



Summary for Pond 9P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 6P by 3.69' @ 24.40 hrs

Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 7.62" for 100-YEAR event
Inflow = 0.97 cfs @ 11.96 hrs, Volume= 2,381 cf
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min

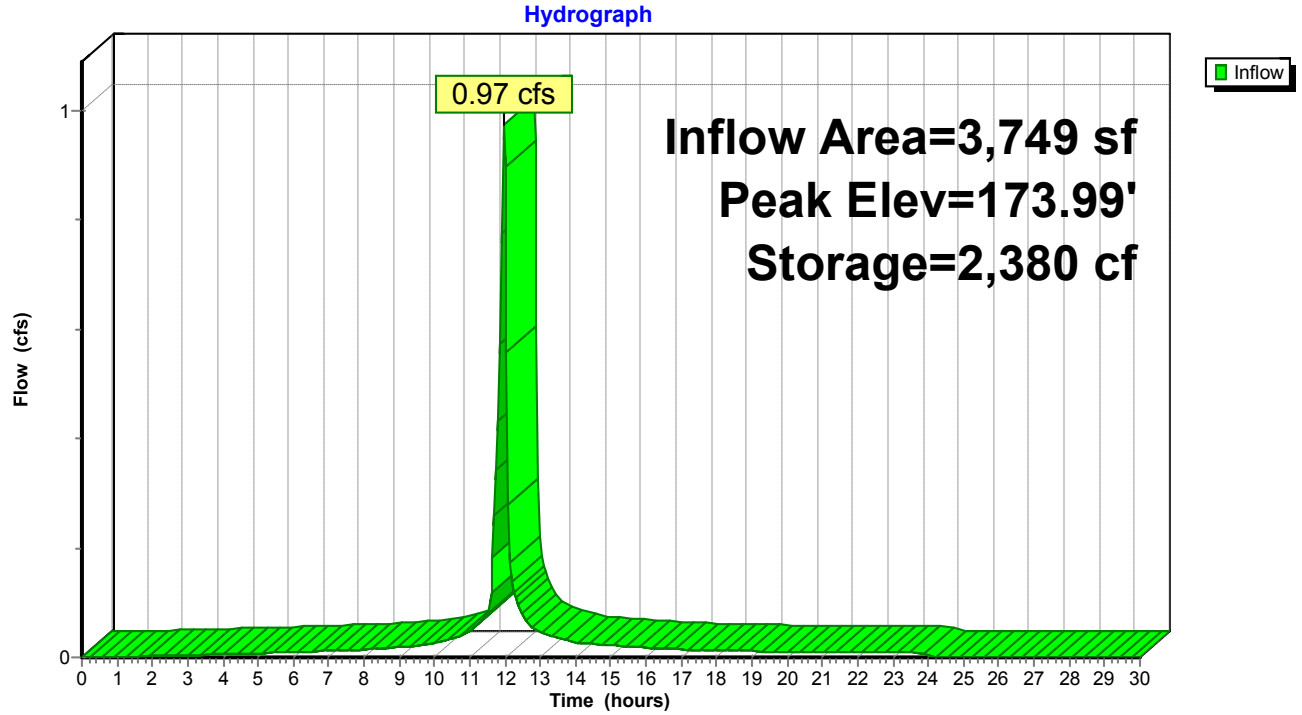
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.99' @ 24.40 hrs Surf.Area= 3,973 sf Storage= 2,380 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,410 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	377	20	221
174.00	4,000	2,189	2,410

Pond 9P: EXISTING DRYWELL



Summary for Pond 10P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 3P by 2.59' @ 12.15 hrs

Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 7.50" for 100-YEAR event
Inflow = 1.07 cfs @ 11.96 hrs, Volume= 2,583 cf
Outflow = 0.71 cfs @ 12.04 hrs, Volume= 2,583 cf, Atten= 33%, Lag= 4.7 min
Discarded = 0.71 cfs @ 12.04 hrs, Volume= 2,583 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.22' @ 12.04 hrs Surf.Area= 1,396 sf Storage= 472 cf

Plug-Flow detention time= 52.3 min calculated for 2,578 cf (100% of inflow)
Center-of-Mass det. time= 52.3 min (809.2 - 756.9)

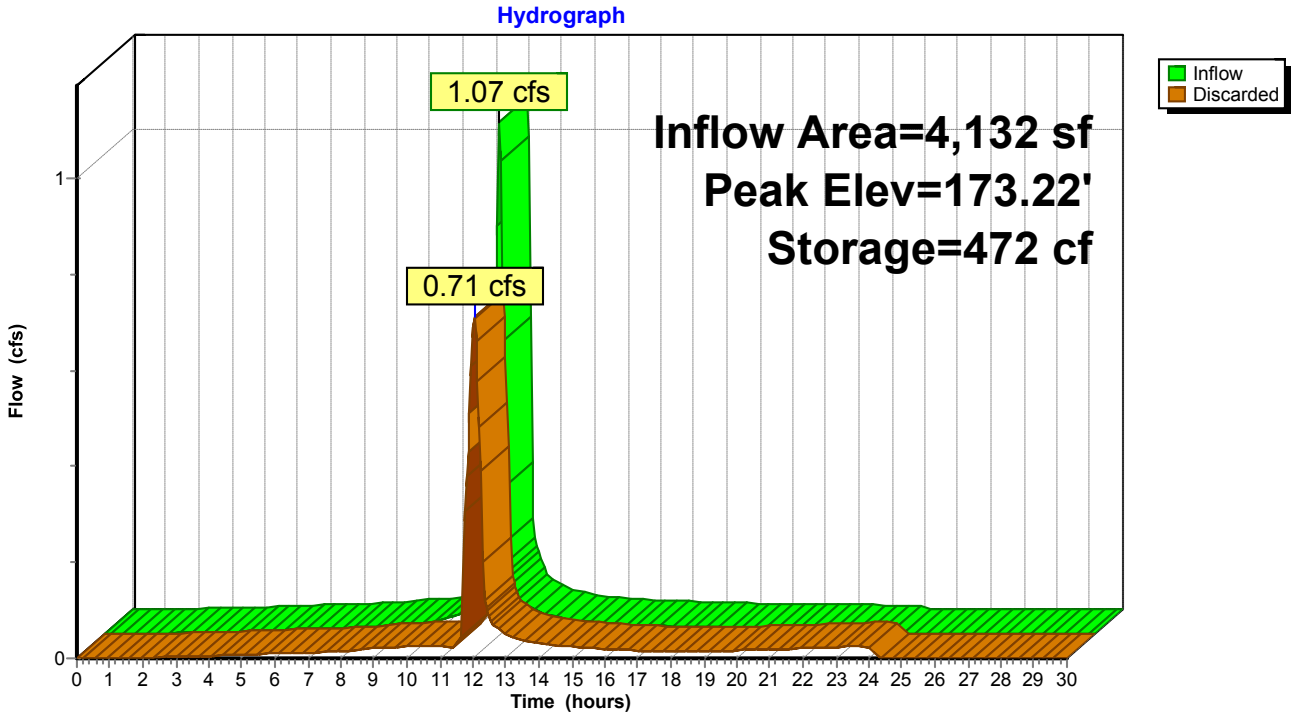
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,486 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	743	39	239
174.00	3,750	2,247	2,486

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.71 cfs @ 12.04 hrs HW=173.21' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.71 cfs)

Pond 10P: EXISTING DRYWELL



Summary for Pond 12P: EXISTING DRYWELL

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond 4P by 2.21' @ 12.15 hrs

Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 7.74" for 100-YEAR event
Inflow = 1.46 cfs @ 11.96 hrs, Volume= 3,605 cf
Outflow = 0.90 cfs @ 12.05 hrs, Volume= 3,605 cf, Atten= 38%, Lag= 5.2 min
Discarded = 0.90 cfs @ 12.05 hrs, Volume= 3,605 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.38' @ 12.05 hrs Surf.Area= 1,760 sf Storage= 679 cf

Plug-Flow detention time= 49.9 min calculated for 3,605 cf (100% of inflow)
Center-of-Mass det. time= 49.9 min (797.7 - 747.8)

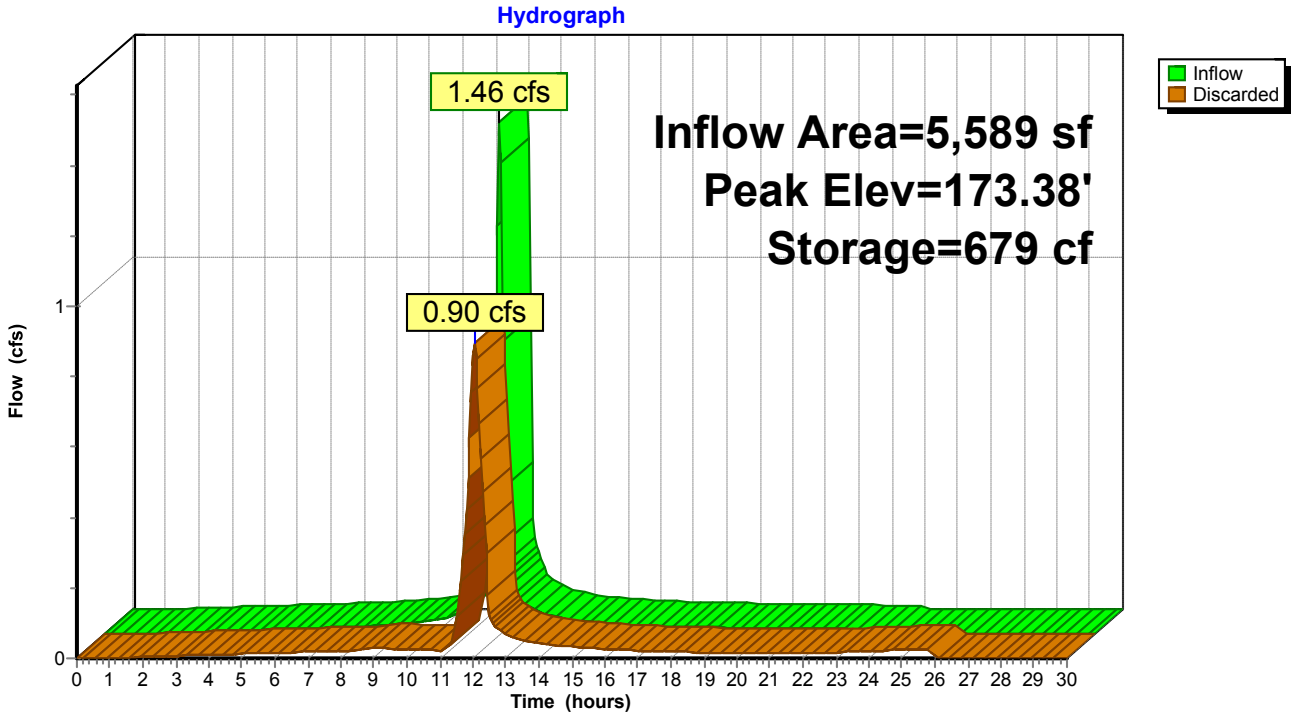
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,373 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	575	30	236
174.00	3,700	2,138	2,373

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.89 cfs @ 12.05 hrs HW=173.38' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.89 cfs)

Pond 12P: EXISTING DRYWELL



Summary for Pond 13P: EXISTING DRYWELL

Inflow Area = 4,173 sf, 81.26% Impervious, Inflow Depth = 7.62" for 100-YEAR event
Inflow = 1.08 cfs @ 11.96 hrs, Volume= 2,650 cf
Outflow = 0.69 cfs @ 12.04 hrs, Volume= 2,650 cf, Atten= 36%, Lag= 5.0 min
Discarded = 0.69 cfs @ 12.04 hrs, Volume= 2,650 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.00' @ 12.04 hrs Surf.Area= 1,353 sf Storage= 552 cf

Plug-Flow detention time= 54.7 min calculated for 2,646 cf (100% of inflow)
Center-of-Mass det. time= 54.6 min (807.2 - 752.6)

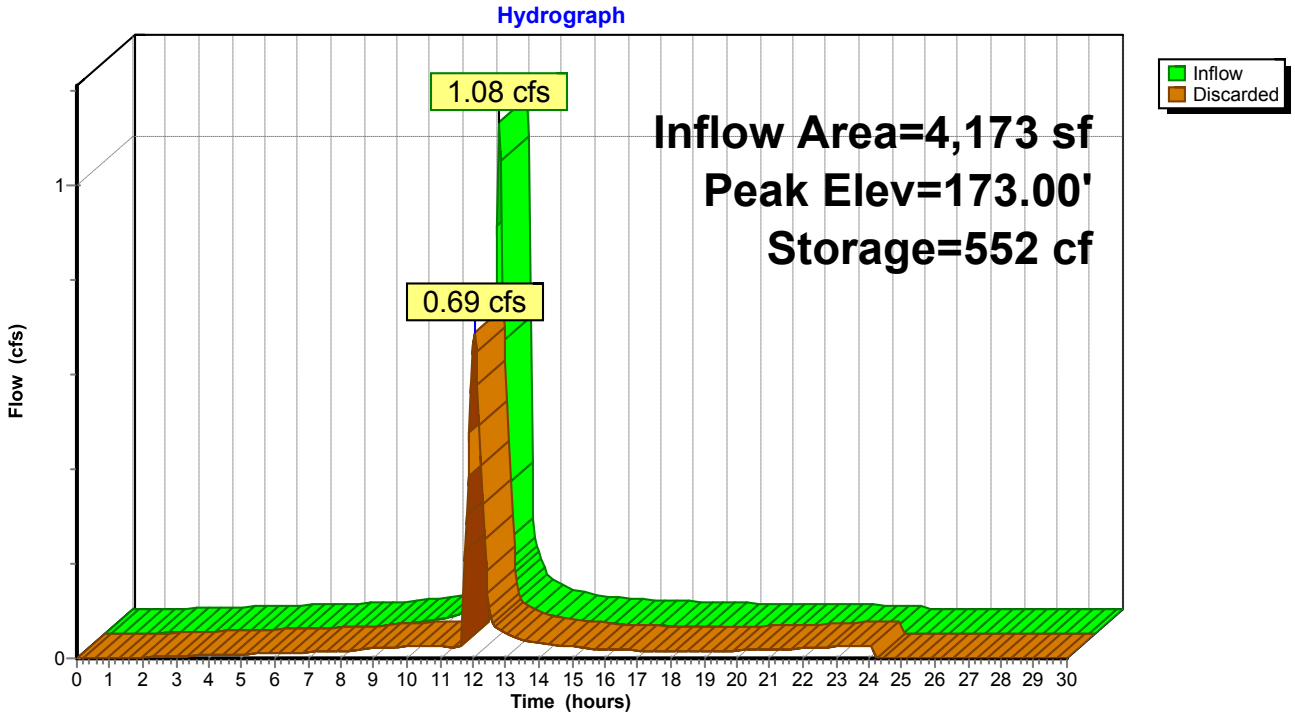
Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	559 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	1,366	349	559

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.69 cfs @ 12.04 hrs HW=172.99' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.69 cfs)

Pond 13P: EXISTING DRYWELL



Summary for Pond DP-1: EXISTING CATCH BASIN

[58] Hint: Peaked 10.32' above defined flood level
[79] Warning: Submerged Pond 1P Primary device # 1 INLET by 10.71'
[81] Warning: Exceeded Pond 7P by 13.63' @ 11.95 hrs
[79] Warning: Submerged Pond 8P Primary device # 1 INLET by 13.31'

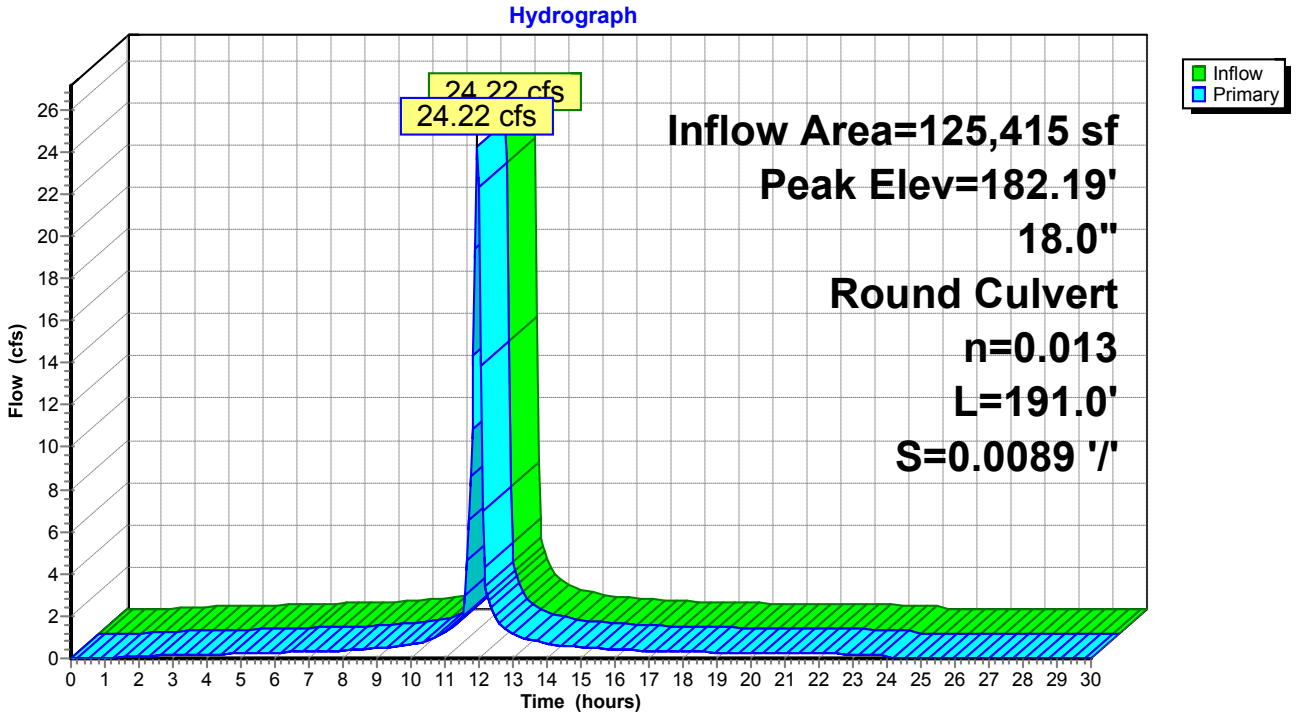
Inflow Area = 125,415 sf, 90.33% Impervious, Inflow Depth = 5.79" for 100-YEAR event
Inflow = 24.22 cfs @ 11.96 hrs, Volume= 60,533 cf
Outflow = 24.22 cfs @ 11.96 hrs, Volume= 60,533 cf, Atten= 0%, Lag= 0.0 min
Primary = 24.22 cfs @ 11.96 hrs, Volume= 60,533 cf

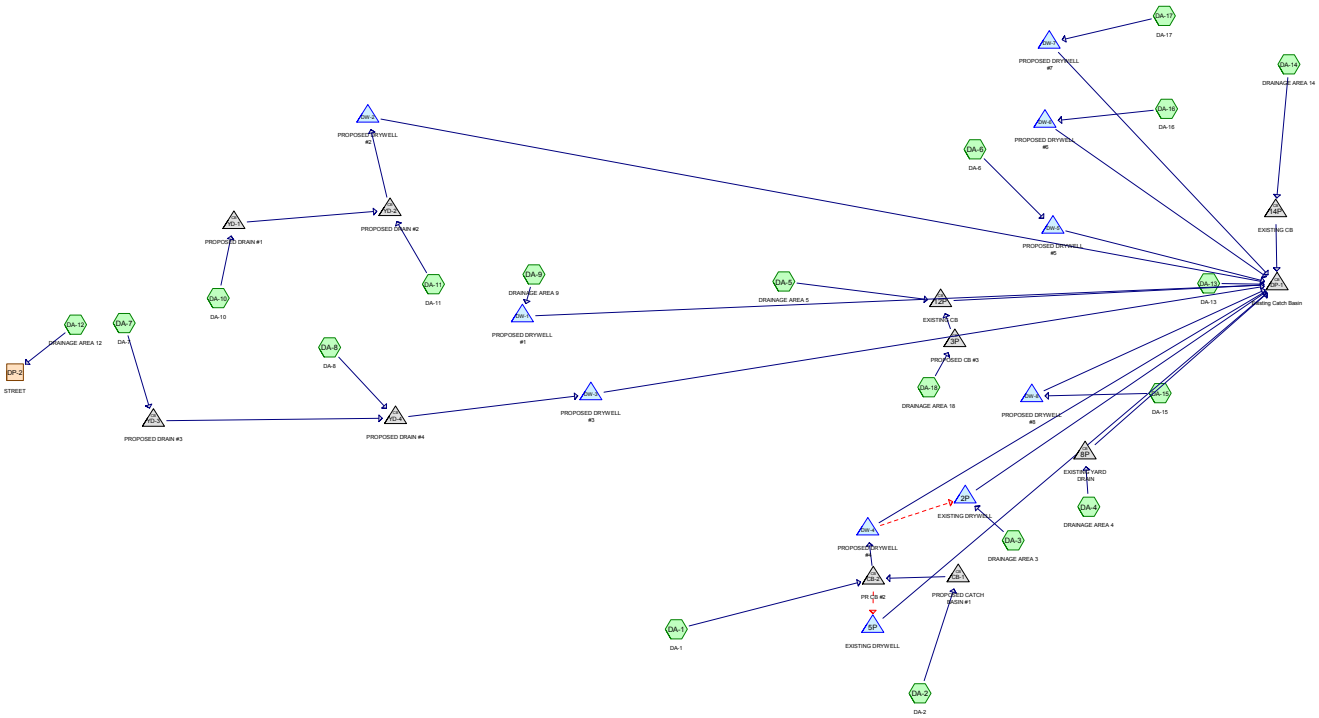
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 182.19' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=23.66 cfs @ 11.96 hrs HW=181.51' (Free Discharge)
1=Culvert (Barrel Controls 23.66 cfs @ 13.39 fps)

Pond DP-1: EXISTING CATCH BASIN





Subcat Reach Pond Link

Routing Diagram for Wallace-POST
Prepared by LRC Group, Printed 10/25/2021
HydroCAD® 10.00-19 s/n 02009 © 2016 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
34,277	80	>75% Grass cover, Good, HSG D (DA-1, DA-10, DA-11, DA-13, DA-14, DA-18, DA-2, DA-3, DA-4, DA-5, DA-6, DA-8, DA-9)
54,227	98	Paved parking, HSG D (DA-1, DA-10, DA-11, DA-13, DA-14, DA-18, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9)
51,084	98	Roofs, HSG D (DA-1, DA-10, DA-11, DA-12, DA-15, DA-16, DA-17, DA-2, DA-7, DA-8)
139,588	**94**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
139,588	HSG D	DA-1, DA-10, DA-11, DA-12, DA-13, DA-14, DA-15, DA-16, DA-17, DA-18, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9
0	Other	
139,588		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Sub Num
0	0	0	34,277	0	34,277	>75% Grass cover, Good	
0	0	0	54,227	0	54,227	Paved parking	
0	0	0	51,084	0	51,084	Roofs	
0	**0**	**0**	**139,588**	**0**	**139,588**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	3P	170.74	170.45	29.0	0.0100	0.013	12.0	0.0	0.0
2	8P	171.30	170.43	87.0	0.0100	0.030	4.0	0.0	0.0
3	12P	168.70	167.00	142.0	0.0120	0.013	12.0	0.0	0.0
4	14P	167.60	166.70	26.0	0.0346	0.013	18.0	0.0	0.0
5	CB-1	171.50	171.17	33.0	0.0100	0.013	12.0	0.0	0.0
6	CB-2	170.25	170.05	20.0	0.0100	0.013	12.0	0.0	0.0
7	CB-2	170.25	170.05	12.0	0.0167	0.013	8.0	0.0	0.0
8	DP-1	166.70	165.00	191.0	0.0089	0.013	18.0	0.0	0.0
9	DW-4	172.00	171.70	30.0	0.0100	0.013	8.0	0.0	0.0
10	YD-1	173.27	172.59	68.0	0.0100	0.013	8.0	0.0	0.0
11	YD-2	172.59	172.43	16.0	0.0100	0.013	8.0	0.0	0.0
12	YD-3	173.54	172.29	104.0	0.0120	0.013	12.0	0.0	0.0
13	YD-4	172.29	171.45	84.0	0.0100	0.013	8.0	0.0	0.0

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA-1: DA-1 Runoff Area=21,412 sf 86.22% Impervious Runoff Depth=2.17"
Tc=6.0 min CN=96 Runoff=1.68 cfs 3,870 cf

Subcatchment DA-10: DA-10 Runoff Area=4,800 sf 94.90% Impervious Runoff Depth=2.27"
Tc=6.0 min CN=97 Runoff=0.39 cfs 909 cf

Subcatchment DA-11: DA-11 Runoff Area=8,557 sf 51.71% Impervious Runoff Depth=1.55"
Tc=6.0 min CN=89 Runoff=0.52 cfs 1,106 cf

Subcatchment DA-12: DRAINAGE AREA 12 Runoff Area=8,367 sf 100.00% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=98 Runoff=0.69 cfs 1,660 cf

Subcatchment DA-13: DA-13 Runoff Area=2,574 sf 79.56% Impervious Runoff Depth=1.97"
Tc=6.0 min CN=94 Runoff=0.19 cfs 424 cf

Subcatchment DA-14: DRAINAGE AREA 14 Runoff Area=6,736 sf 69.73% Impervious Runoff Depth=1.88"
Tc=6.0 min CN=93 Runoff=0.48 cfs 1,057 cf

Subcatchment DA-15: DA-15 Runoff Area=1,734 sf 100.00% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=98 Runoff=0.14 cfs 344 cf

Subcatchment DA-16: DA-16 Runoff Area=1,844 sf 100.00% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=98 Runoff=0.15 cfs 366 cf

Subcatchment DA-17: DA-17 Runoff Area=1,755 sf 100.00% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=98 Runoff=0.14 cfs 348 cf

Subcatchment DA-18: DRAINAGE AREA 18 Runoff Area=3,482 sf 85.96% Impervious Runoff Depth=2.07"
Tc=6.0 min CN=95 Runoff=0.27 cfs 601 cf

Subcatchment DA-2: DA-2 Runoff Area=7,036 sf 83.26% Impervious Runoff Depth=2.07"
Tc=6.0 min CN=95 Runoff=0.54 cfs 1,214 cf

Subcatchment DA-3: DRAINAGE AREA 3 Runoff Area=5,334 sf 65.88% Impervious Runoff Depth=1.80"
Tc=6.0 min CN=92 Runoff=0.37 cfs 798 cf

Subcatchment DA-4: DRAINAGE AREA 4 Runoff Area=4,099 sf 74.82% Impervious Runoff Depth=1.88"
Tc=6.0 min CN=93 Runoff=0.29 cfs 643 cf

Subcatchment DA-5: DRAINAGE AREA 5 Runoff Area=32,655 sf 61.00% Impervious Runoff Depth=1.71"
Flow Length=235' Tc=13.1 min CN=91 Runoff=1.73 cfs 4,655 cf

Subcatchment DA-6: DA-6 Runoff Area=11,493 sf 65.66% Impervious Runoff Depth=1.80"
Tc=6.0 min CN=92 Runoff=0.79 cfs 1,719 cf

Subcatchment DA-7: DA-7 Runoff Area=3,640 sf 100.00% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=98 Runoff=0.30 cfs 722 cf

Subcatchment DA-8: DA-8 Runoff Area=10,599 sf 81.26% Impervious Runoff Depth=2.07"
Tc=6.0 min CN=95 Runoff=0.81 cfs 1,828 cf

Subcatchment DA-9: DRAINAGE AREA 9 Runoff Area=3,471 sf 65.57% Impervious Runoff Depth=1.80"
Tc=6.0 min CN=92 Runoff=0.24 cfs 519 cf

Reach DP-2: STREET Inflow=0.69 cfs 1,660 cf
Outflow=0.69 cfs 1,660 cf

Pond 2P: EXISTING DRYWELL Peak Elev=172.76' Storage=353 cf Inflow=1.57 cfs 1,952 cf
Discarded=0.54 cfs 1,401 cf Primary=1.00 cfs 551 cf Outflow=1.54 cfs 1,952 cf

Pond 3P: PROPOSED CB #3 Peak Elev=171.03' Inflow=0.27 cfs 601 cf
12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.27 cfs 601 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.29' Storage=409 cf Inflow=0.83 cfs 2,179 cf
Outflow=0.63 cfs 2,179 cf

Pond 8P: EXISTING YARD DRAIN Peak Elev=181.97' Inflow=0.29 cfs 643 cf
4.0" Round Culvert n=0.030 L=87.0' S=0.0100 '/' Outflow=0.29 cfs 643 cf

Pond 12P: EXISTING CB Peak Elev=169.60' Inflow=1.90 cfs 5,256 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=1.90 cfs 5,256 cf

Pond 14P: EXISTING CB Peak Elev=167.94' Inflow=0.48 cfs 1,057 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=0.48 cfs 1,057 cf

Pond CB-1: PROPOSED CATCH BASIN #1 Peak Elev=171.92' Inflow=0.54 cfs 1,214 cf
12.0" Round Culvert n=0.013 L=33.0' S=0.0100 '/' Outflow=0.54 cfs 1,214 cf

Pond CB-2: PR CB #2 Peak Elev=170.98' Inflow=2.21 cfs 5,084 cf
Primary=1.38 cfs 2,904 cf Secondary=0.83 cfs 2,179 cf Outflow=2.21 cfs 5,084 cf

Pond DP-1: Existing Catch Basin Peak Elev=167.77' Inflow=3.73 cfs 7,931 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=3.73 cfs 7,931 cf

Pond DW-1: PROPOSED DRYWELL #1 Peak Elev=166.38' Storage=146 cf Inflow=0.24 cfs 519 cf
Outflow=0.05 cfs 519 cf

Pond DW-2: PROPOSED DRYWELL #2 Peak Elev=175.62' Storage=510 cf Inflow=0.90 cfs 2,015 cf
Outflow=0.89 cfs 2,015 cf

Pond DW-3: PROPOSED DRYWELL #3 Peak Elev=174.66' Storage=549 cf Inflow=1.11 cfs 2,550 cf
Outflow=0.96 cfs 2,550 cf

Pond DW-4: PROPOSED DRYWELL #4 Peak Elev=173.16' Storage=511 cf Inflow=1.38 cfs 2,904 cf
Discarded=0.10 cfs 1,750 cf Secondary=1.21 cfs 1,154 cf Outflow=1.31 cfs 2,905 cf

Pond DW-5: PROPOSED DRYWELL #5 Peak Elev=172.32' Storage=421 cf Inflow=0.79 cfs 1,719 cf
Outflow=0.51 cfs 1,720 cf

Pond DW-6: PROPOSED DRYWELL #6 Peak Elev=171.23' Storage=90 cf Inflow=0.15 cfs 366 cf
Outflow=0.04 cfs 366 cf

Pond DW-7: PROPOSED DRYWELL #7 Peak Elev=172.44' Storage=82 cf Inflow=0.14 cfs 348 cf
Outflow=0.04 cfs 348 cf

Pond DW-8: PROPOSED DRYWELL #8 Peak Elev=170.14' Storage=85 cf Inflow=0.14 cfs 344 cf
Outflow=0.04 cfs 344 cf

Pond YD-1: PROPOSED DRAIN #1 Peak Elev=173.68' Inflow=0.39 cfs 909 cf
8.0" Round Culvert n=0.013 L=68.0' S=0.0100 '/' Outflow=0.39 cfs 909 cf

Pond YD-2: PROPOSED DRAIN #2 Peak Elev=173.38' Inflow=0.90 cfs 2,015 cf
8.0" Round Culvert n=0.013 L=16.0' S=0.0100 '/' Outflow=0.90 cfs 2,015 cf

Pond YD-3: PROPOSED DRAIN #3 Peak Elev=173.84' Inflow=0.30 cfs 722 cf
12.0" Round Culvert n=0.013 L=104.0' S=0.0120 '/' Outflow=0.30 cfs 722 cf

Pond YD-4: PROPOSED DRAIN #4 Peak Elev=173.31' Inflow=1.11 cfs 2,550 cf
8.0" Round Culvert n=0.013 L=84.0' S=0.0100 '/' Outflow=1.11 cfs 2,550 cf

Total Runoff Area = 139,588 sf Runoff Volume = 22,783 cf Average Runoff Depth = 1.96"
24.56% Pervious = 34,277 sf 75.44% Impervious = 105,311 sf

Summary for Subcatchment DA-1: DA-1

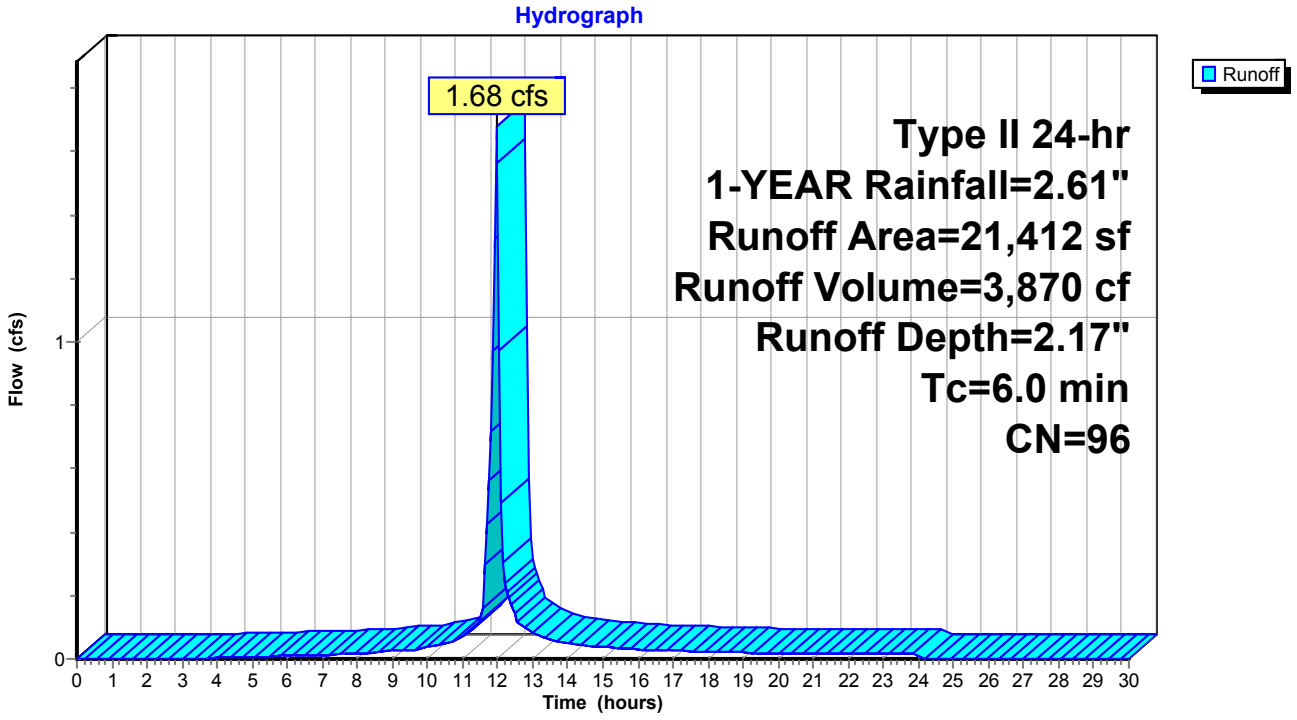
Runoff = 1.68 cfs @ 11.96 hrs, Volume= 3,870 cf, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
2,951	80	>75% Grass cover, Good, HSG D
17,281	98	Roofs, HSG D
1,180	98	Paved parking, HSG D
21,412	96	Weighted Average
2,951		13.78% Pervious Area
18,461		86.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

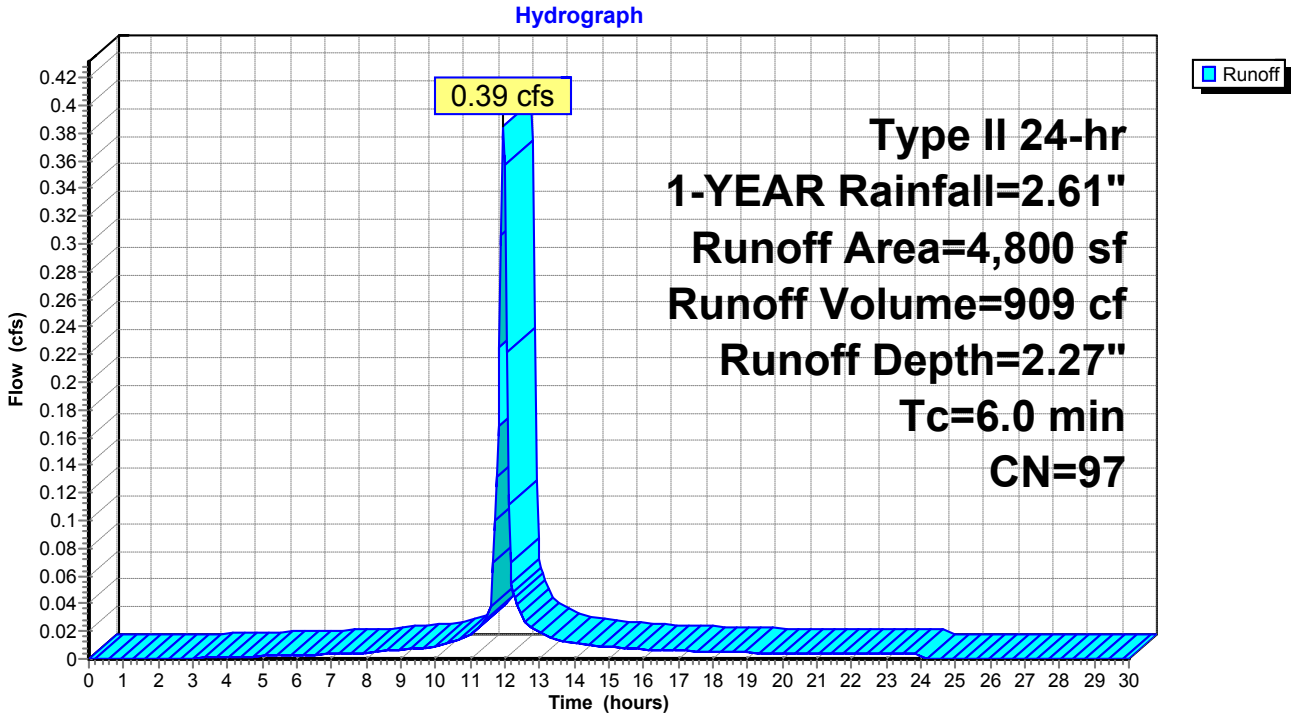
Runoff = 0.39 cfs @ 11.96 hrs, Volume= 909 cf, Depth= 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
245	80	>75% Grass cover, Good, HSG D
2,933	98	Roofs, HSG D
1,622	98	Paved parking, HSG D
4,800	97	Weighted Average
245		5.10% Pervious Area
4,555		94.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

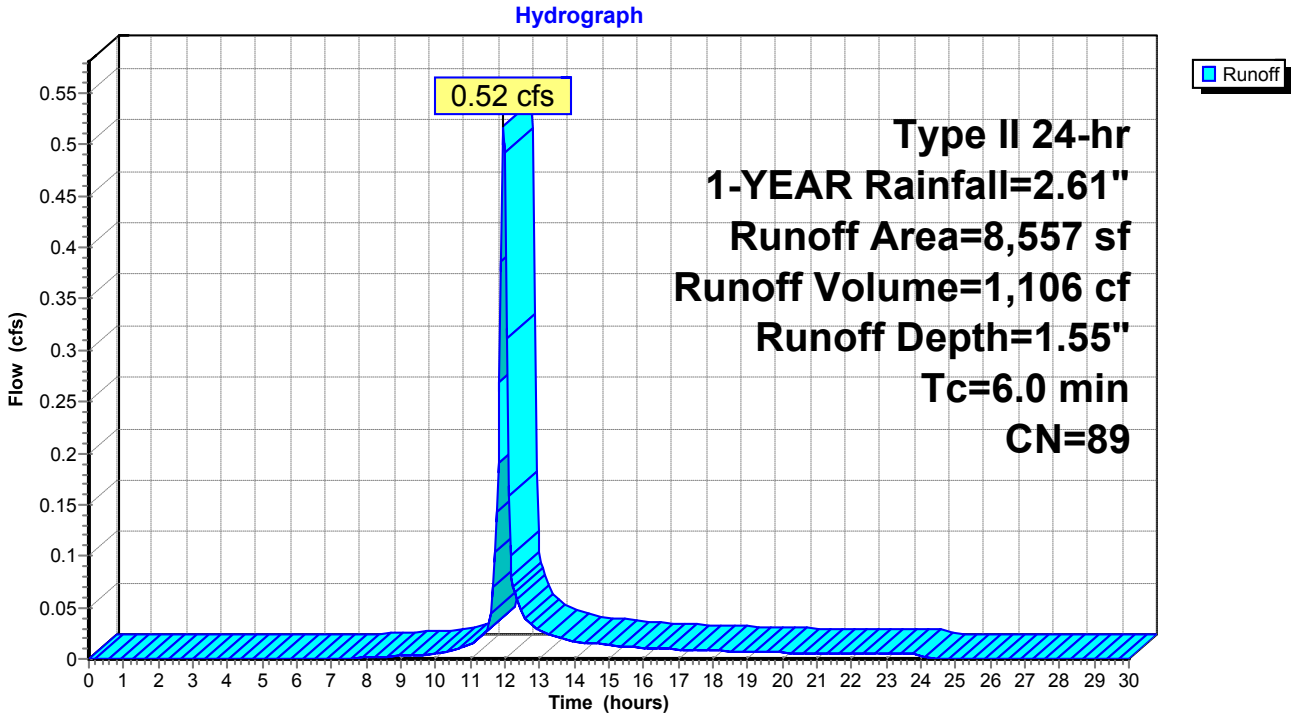
Runoff = 0.52 cfs @ 11.97 hrs, Volume= 1,106 cf, Depth= 1.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
4,132	80	>75% Grass cover, Good, HSG D
3,489	98	Roofs, HSG D
936	98	Paved parking, HSG D
8,557	89	Weighted Average
4,132		48.29% Pervious Area
4,425		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-12: DRAINAGE AREA 12

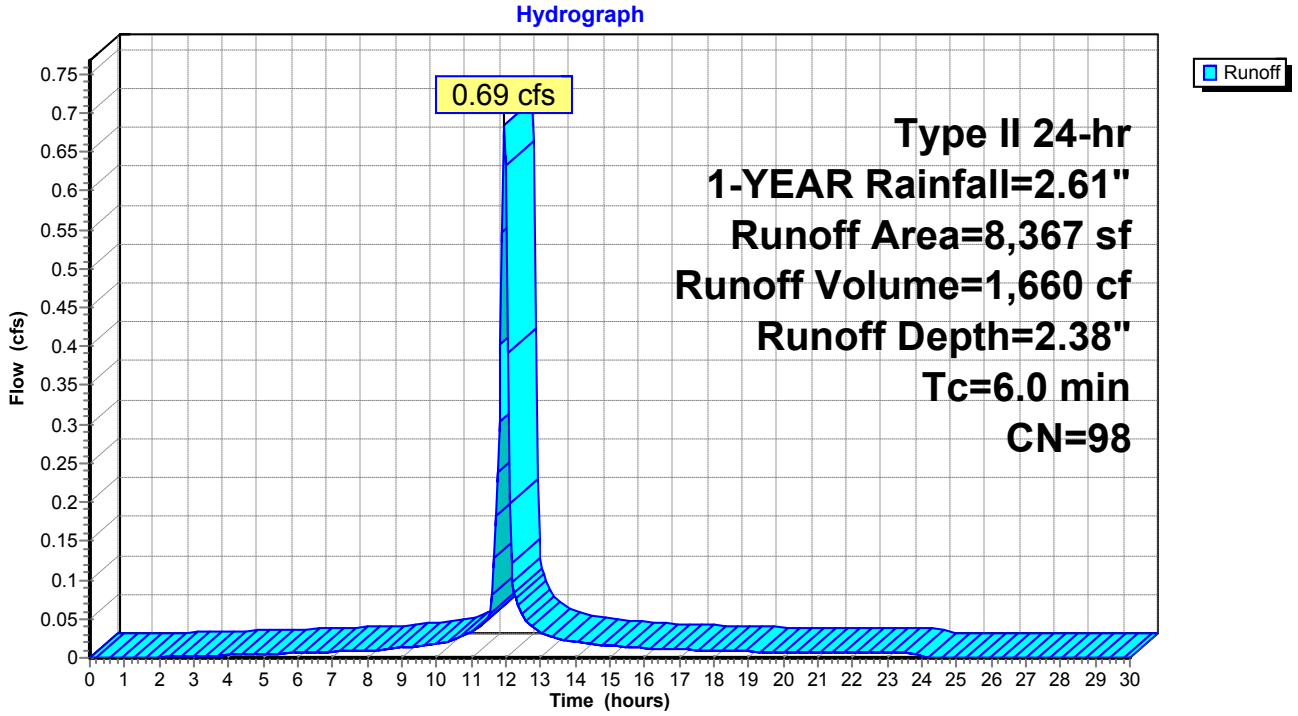
Runoff = 0.69 cfs @ 11.96 hrs, Volume= 1,660 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
8,367	98	Roofs, HSG D
8,367		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-12: DRAINAGE AREA 12



Summary for Subcatchment DA-13: DA-13

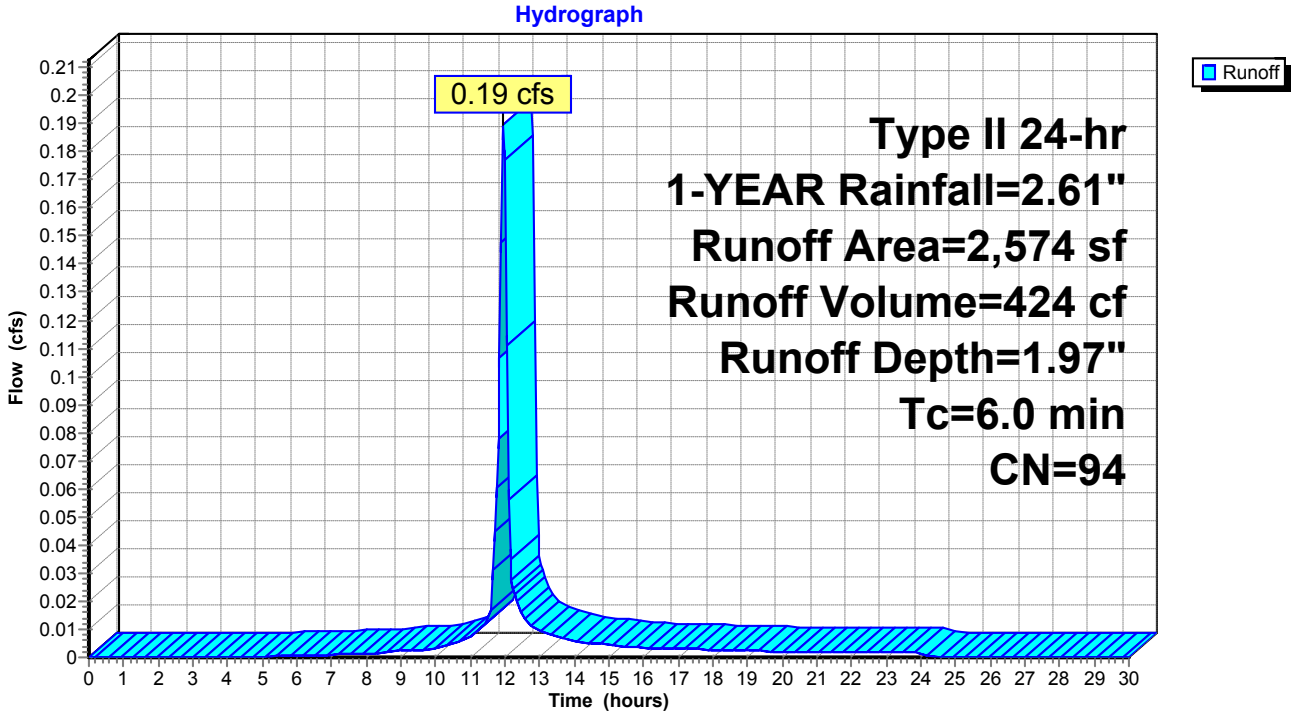
Runoff = 0.19 cfs @ 11.96 hrs, Volume= 424 cf, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
526	80	>75% Grass cover, Good, HSG D
2,048	98	Paved parking, HSG D
2,574	94	Weighted Average
526		20.44% Pervious Area
2,048		79.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-13: DA-13



Summary for Subcatchment DA-14: DRAINAGE AREA 14

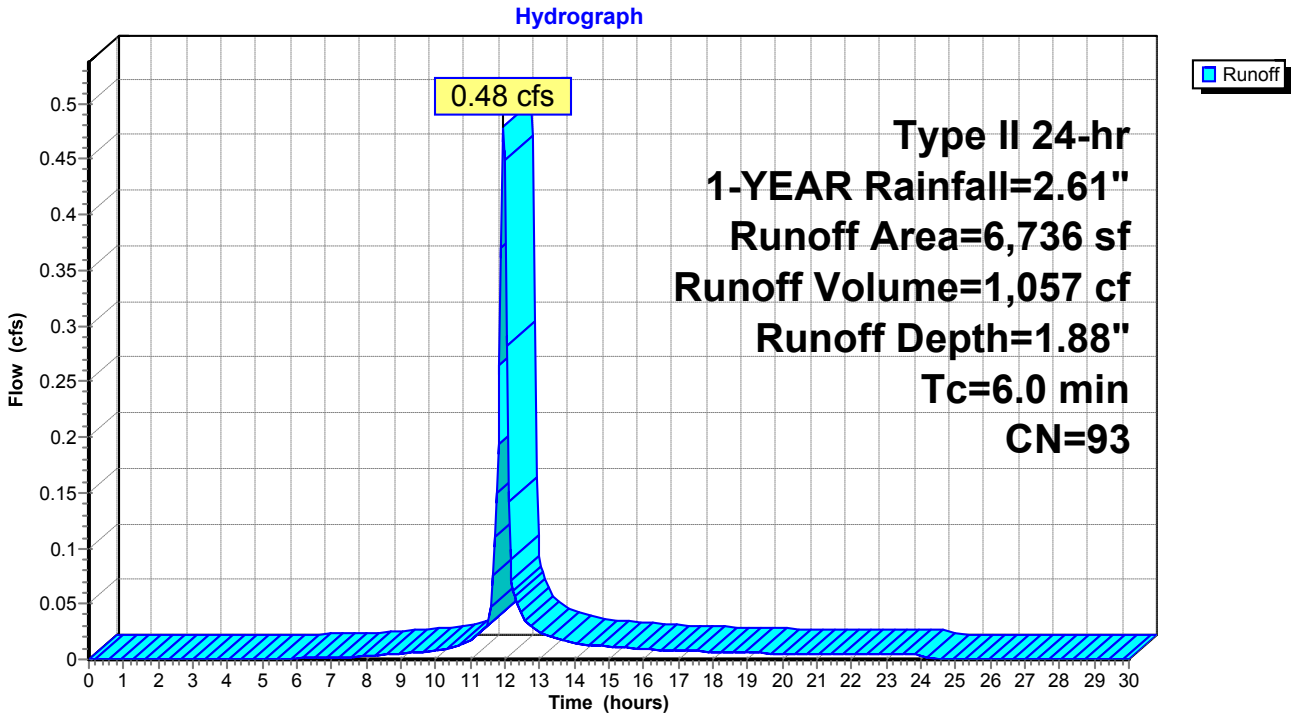
Runoff = 0.48 cfs @ 11.97 hrs, Volume= 1,057 cf, Depth= 1.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
2,039	80	>75% Grass cover, Good, HSG D
4,697	98	Paved parking, HSG D
6,736	93	Weighted Average
2,039		30.27% Pervious Area
4,697		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-14: DRAINAGE AREA 14



Summary for Subcatchment DA-15: DA-15

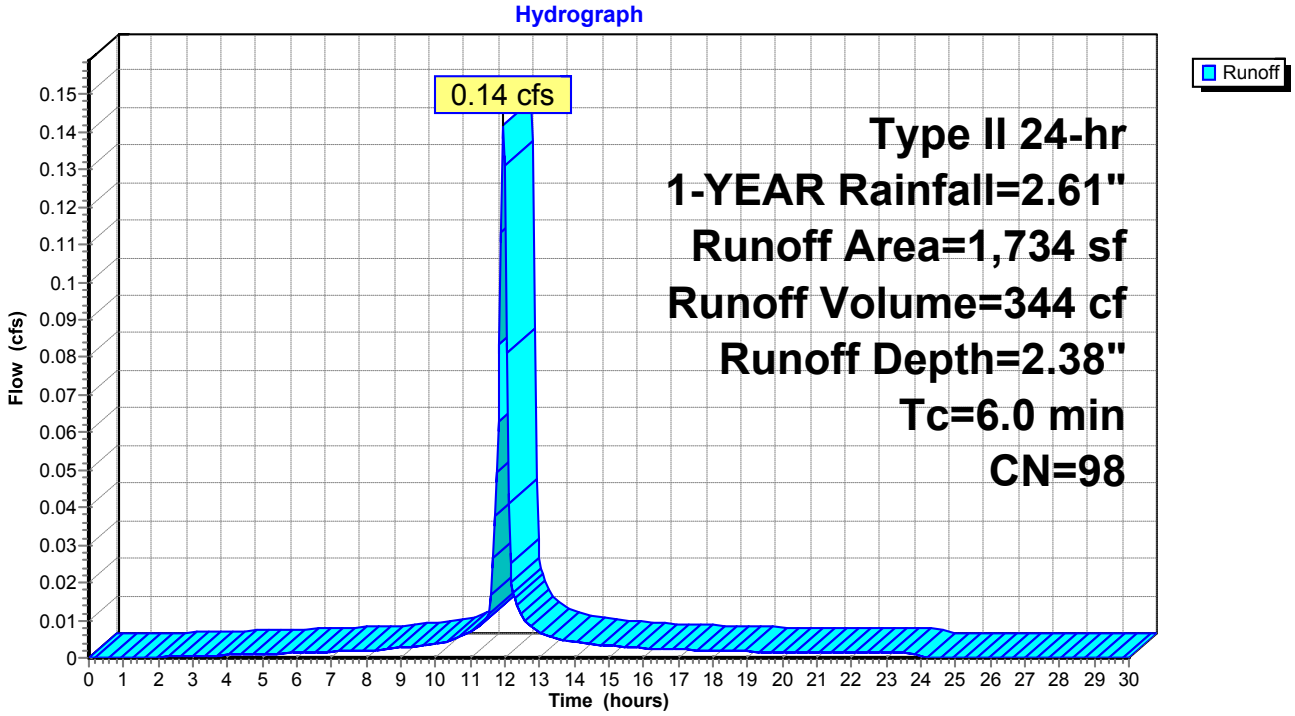
Runoff = 0.14 cfs @ 11.96 hrs, Volume= 344 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,734	98	Roofs, HSG D
1,734		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-15: DA-15



Summary for Subcatchment DA-16: DA-16

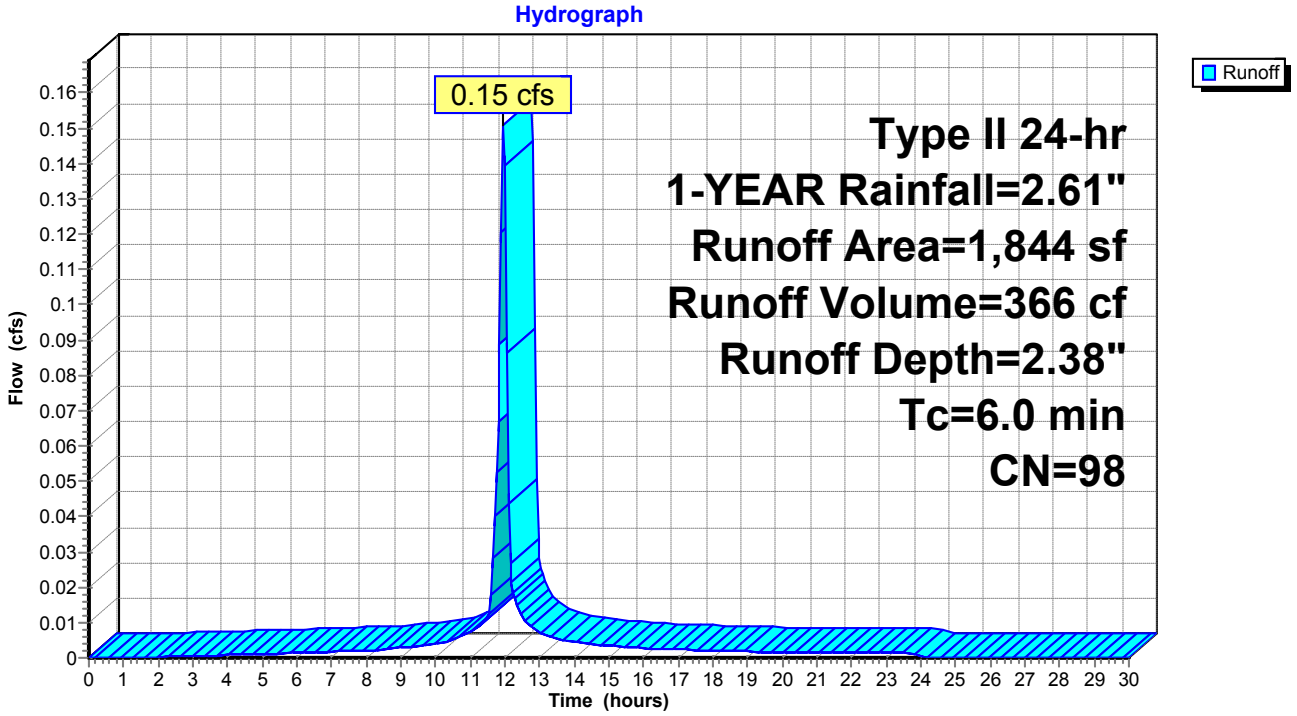
Runoff = 0.15 cfs @ 11.96 hrs, Volume= 366 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,844	98	Roofs, HSG D
1,844		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-16: DA-16



Summary for Subcatchment DA-17: DA-17

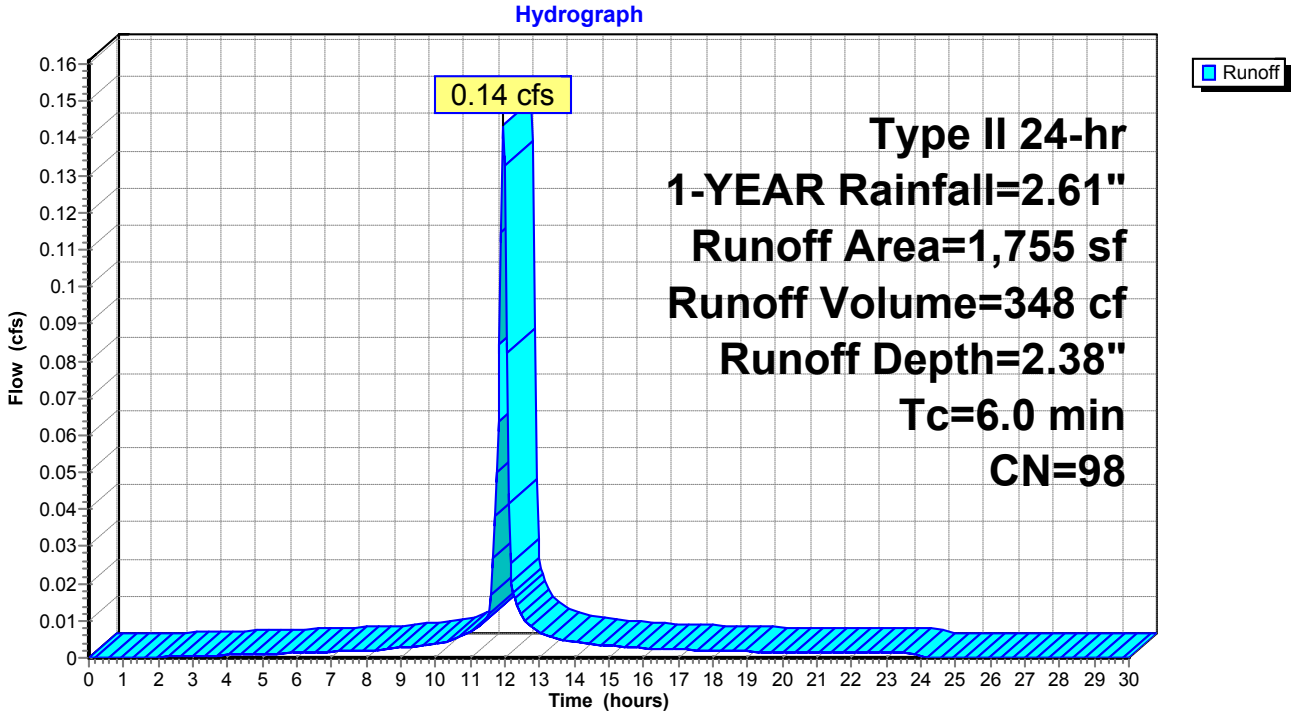
Runoff = 0.14 cfs @ 11.96 hrs, Volume= 348 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,755	98	Roofs, HSG D
1,755		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-17: DA-17



Summary for Subcatchment DA-18: DRAINAGE AREA 18

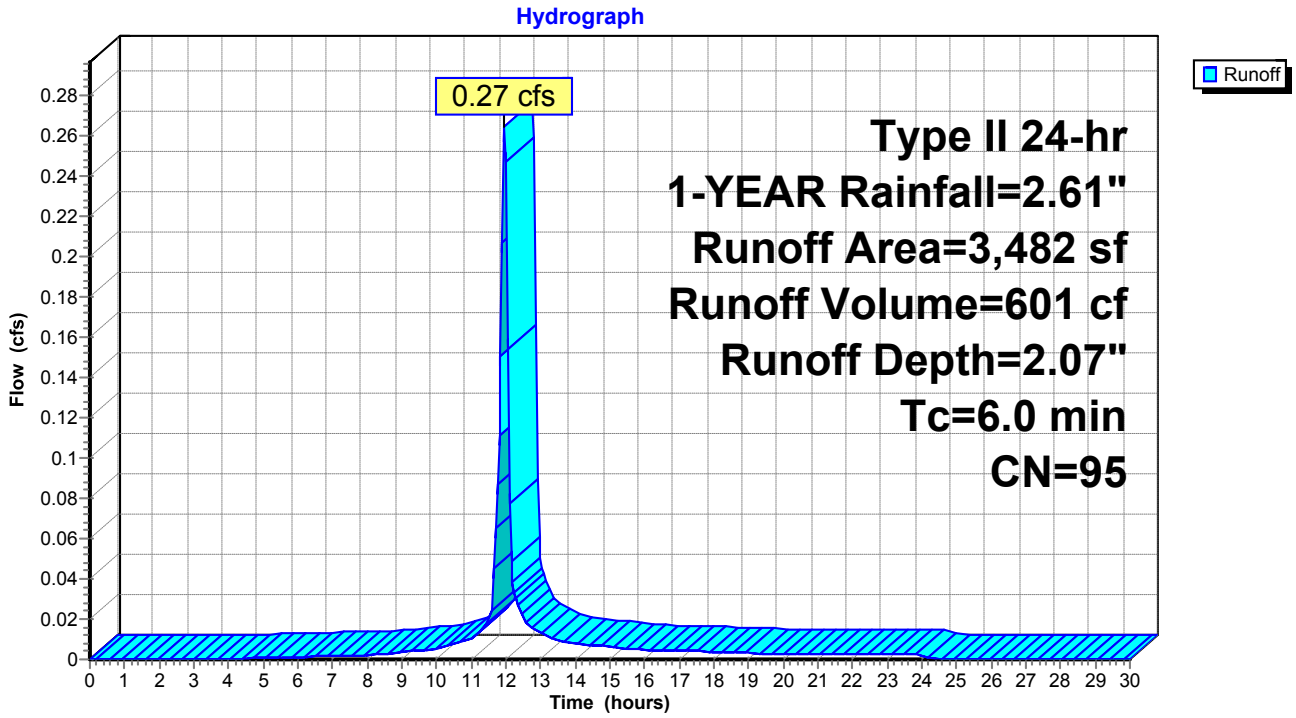
Runoff = 0.27 cfs @ 11.96 hrs, Volume= 601 cf, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
489	80	>75% Grass cover, Good, HSG D
2,993	98	Paved parking, HSG D
3,482	95	Weighted Average
489		14.04% Pervious Area
2,993		85.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-18: DRAINAGE AREA 18



Summary for Subcatchment DA-2: DA-2

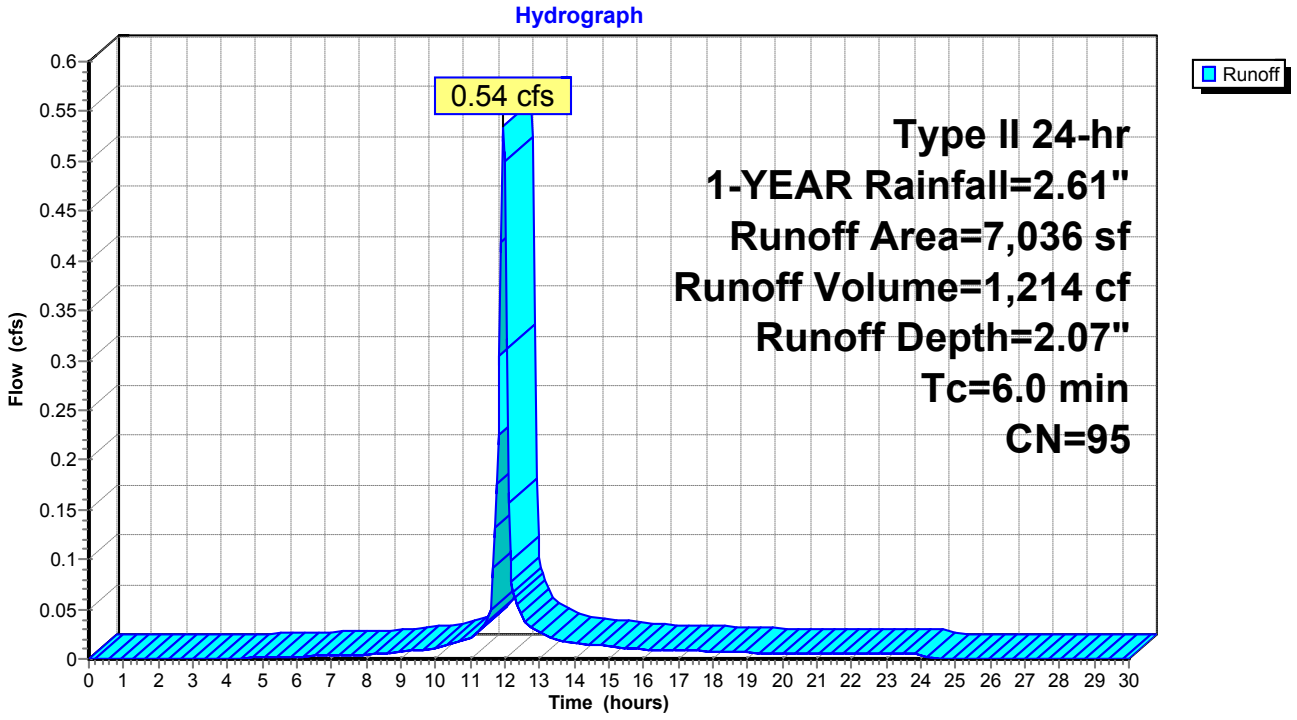
Runoff = 0.54 cfs @ 11.96 hrs, Volume= 1,214 cf, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,178	80	>75% Grass cover, Good, HSG D
5,194	98	Roofs, HSG D
664	98	Paved parking, HSG D
7,036	95	Weighted Average
1,178		16.74% Pervious Area
5,858		83.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DRAINAGE AREA 3

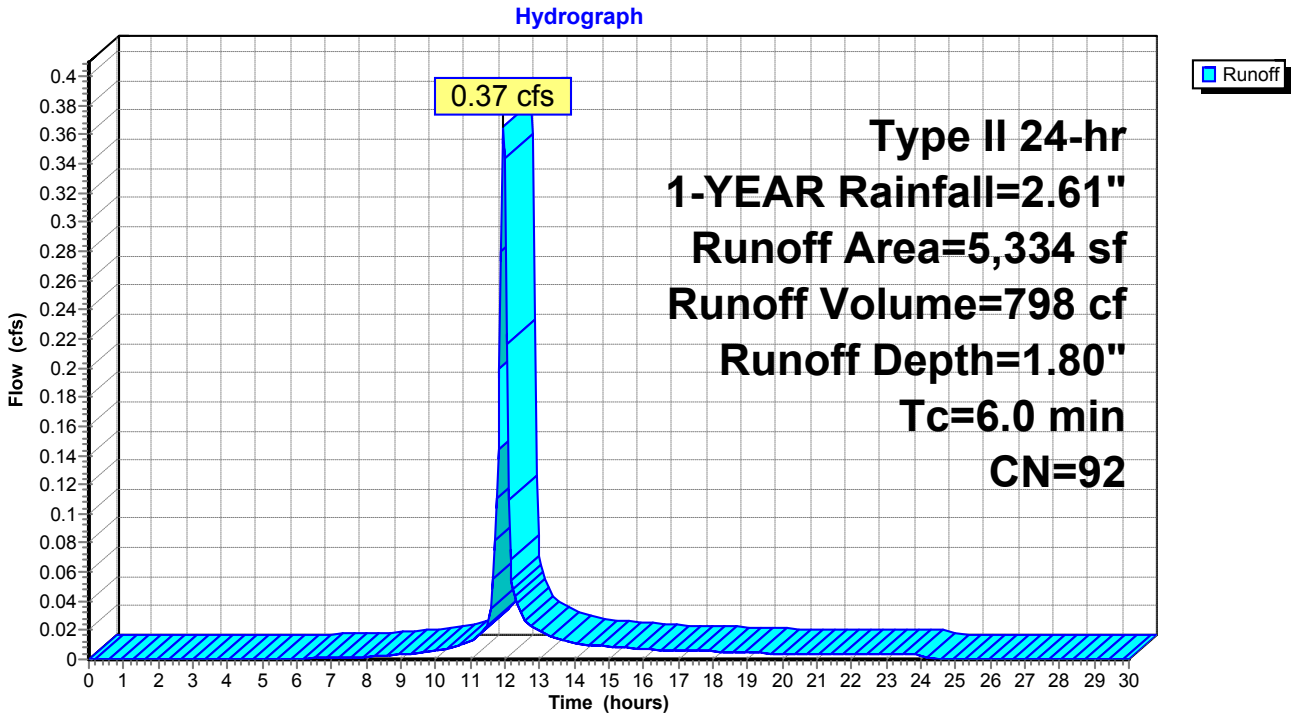
Runoff = 0.37 cfs @ 11.97 hrs, Volume= 798 cf, Depth= 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,820	80	>75% Grass cover, Good, HSG D
3,514	98	Paved parking, HSG D
5,334	92	Weighted Average
1,820		34.12% Pervious Area
3,514		65.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-3: DRAINAGE AREA 3



Summary for Subcatchment DA-4: DRAINAGE AREA 4

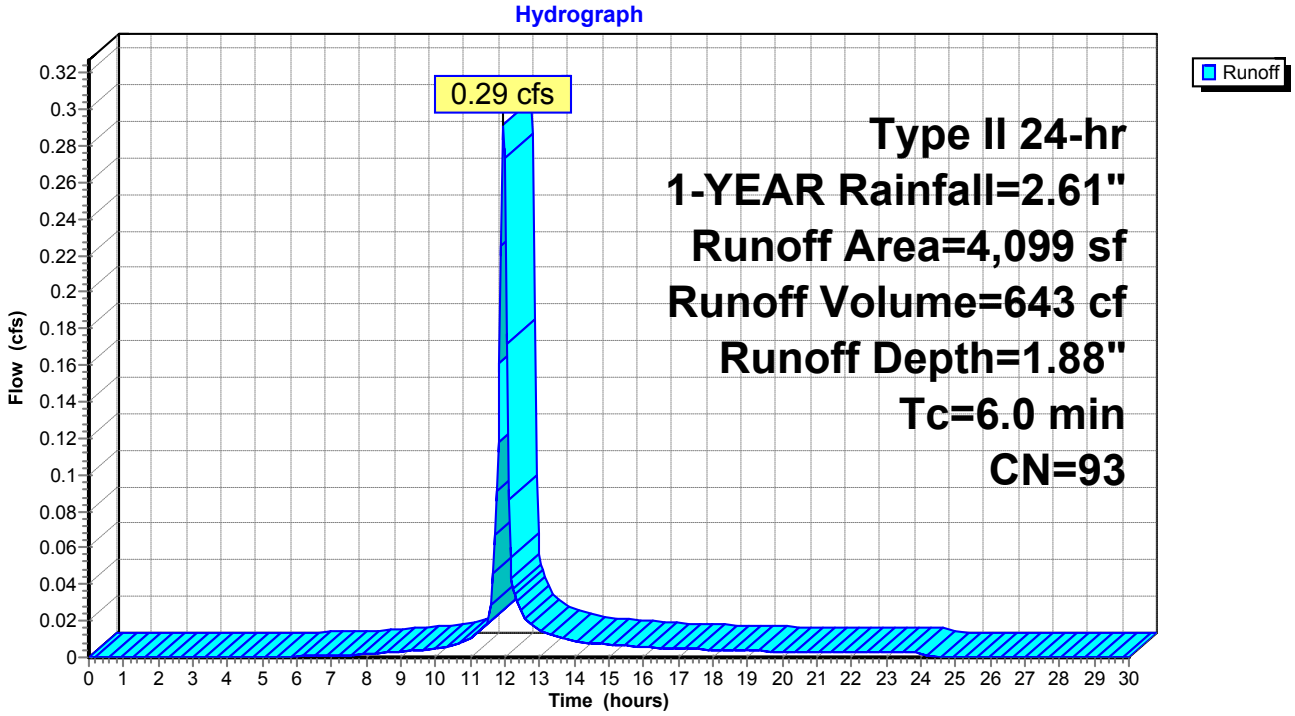
Runoff = 0.29 cfs @ 11.97 hrs, Volume= 643 cf, Depth= 1.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,032	80	>75% Grass cover, Good, HSG D
3,067	98	Paved parking, HSG D
4,099	93	Weighted Average
1,032		25.18% Pervious Area
3,067		74.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-4: DRAINAGE AREA 4



Summary for Subcatchment DA-5: DRAINAGE AREA 5

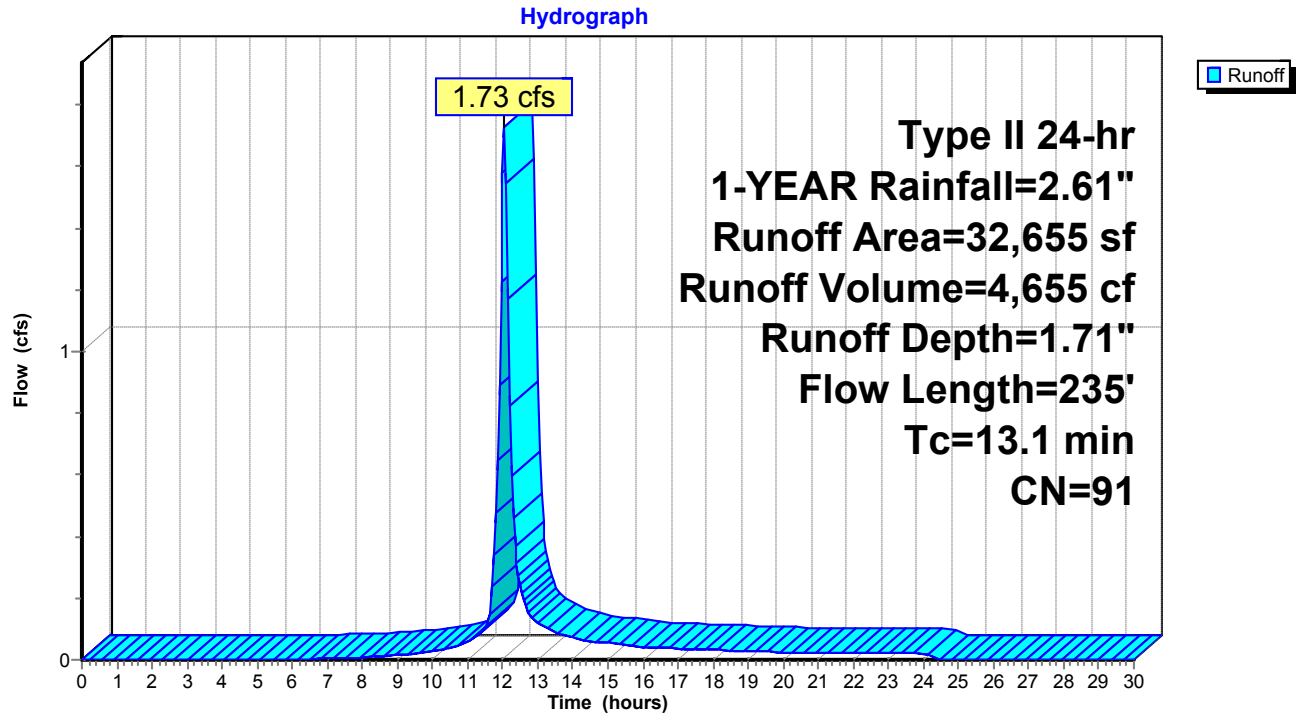
Runoff = 1.73 cfs @ 12.05 hrs, Volume= 4,655 cf, Depth= 1.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
12,737	80	>75% Grass cover, Good, HSG D
19,918	98	Paved parking, HSG D
32,655	91	Weighted Average
12,737		39.00% Pervious Area
19,918		61.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0150	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
1.7	81	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	54	0.0250	3.21		**Shallow Concentrated Flow, C-D** Paved Kv= 20.3 fps
13.1	235	Total			

Subcatchment DA-5: DRAINAGE AREA 5



Summary for Subcatchment DA-6: DA-6

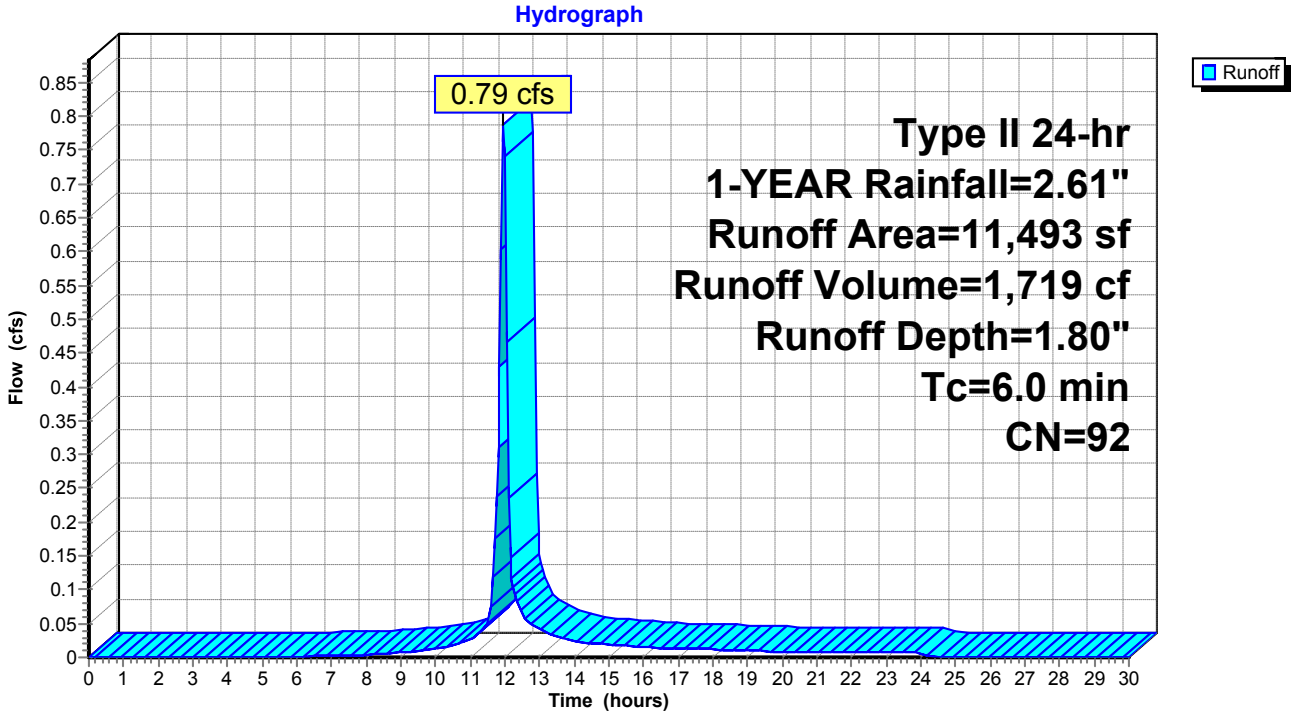
Runoff = 0.79 cfs @ 11.97 hrs, Volume= 1,719 cf, Depth= 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
3,947	80	>75% Grass cover, Good, HSG D
7,546	98	Paved parking, HSG D
11,493	92	Weighted Average
3,947		34.34% Pervious Area
7,546		65.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

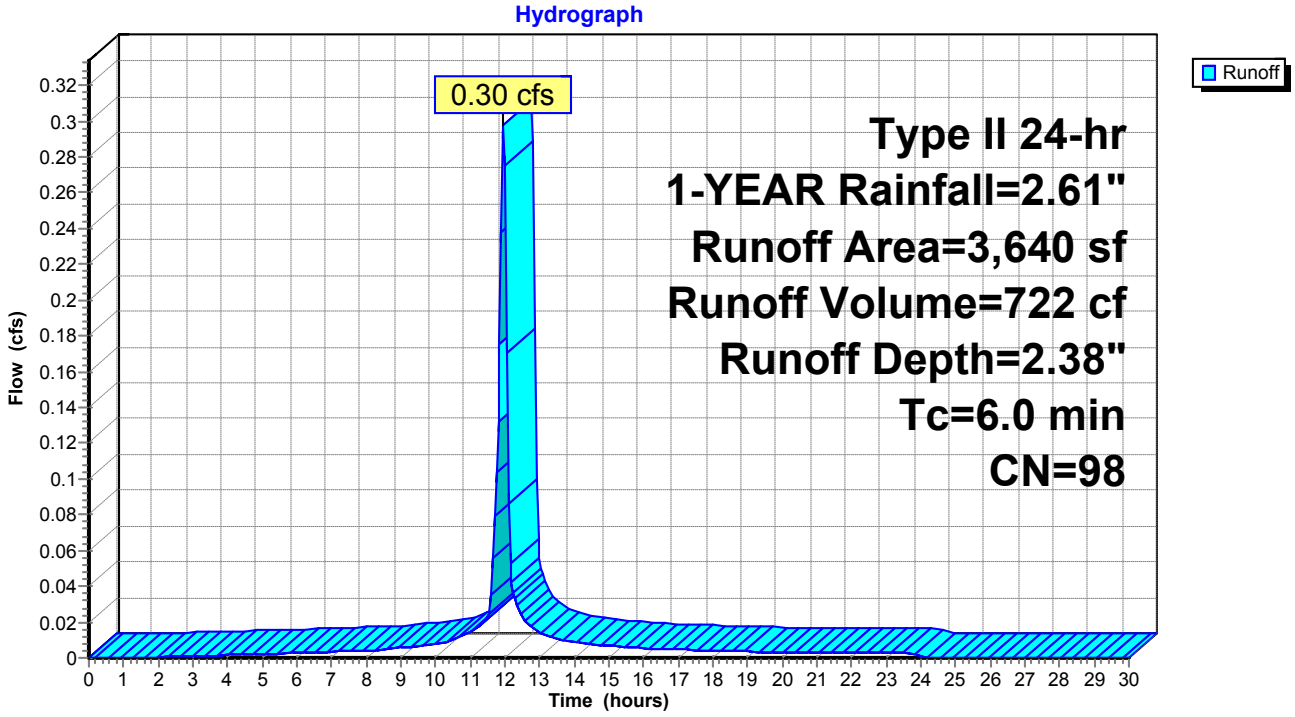
Runoff = 0.30 cfs @ 11.96 hrs, Volume= 722 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,587	98	Roofs, HSG D
2,053	98	Paved parking, HSG D
3,640	98	Weighted Average
3,640		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

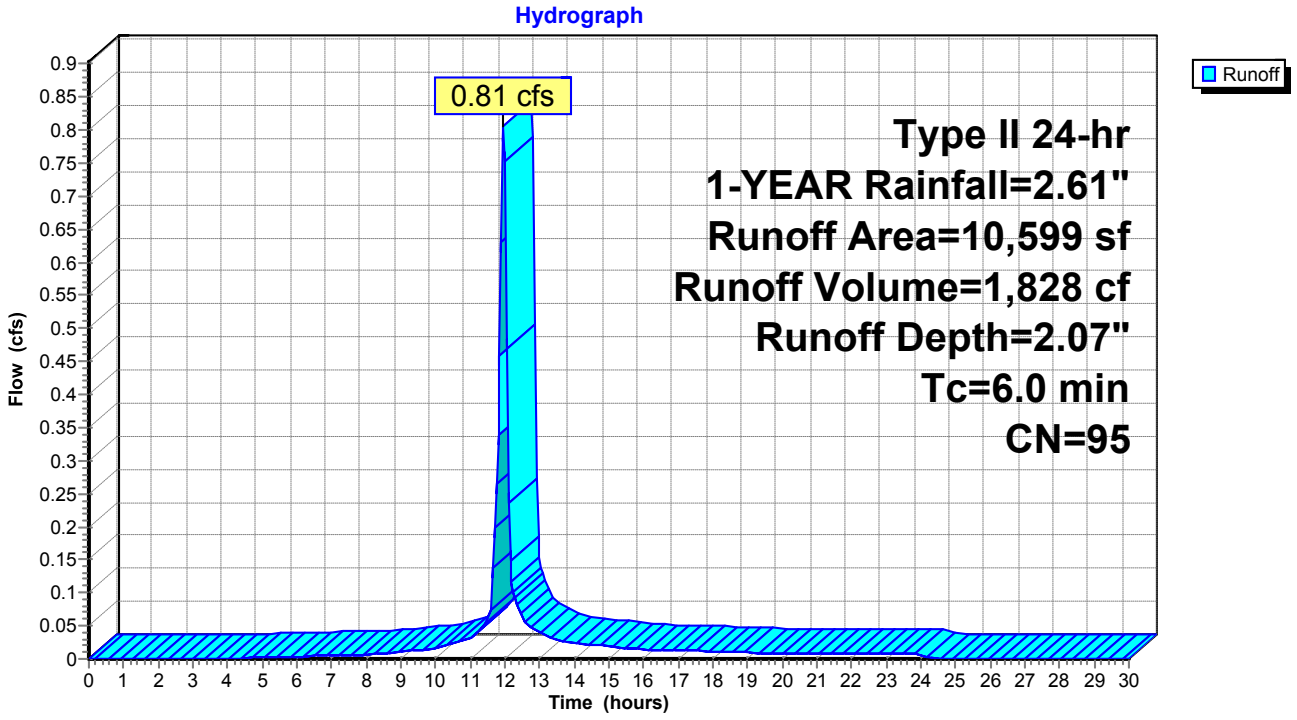
Runoff = 0.81 cfs @ 11.96 hrs, Volume= 1,828 cf, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,986	80	>75% Grass cover, Good, HSG D
6,900	98	Roofs, HSG D
1,713	98	Paved parking, HSG D
10,599	95	Weighted Average
1,986		18.74% Pervious Area
8,613		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DRAINAGE AREA 9

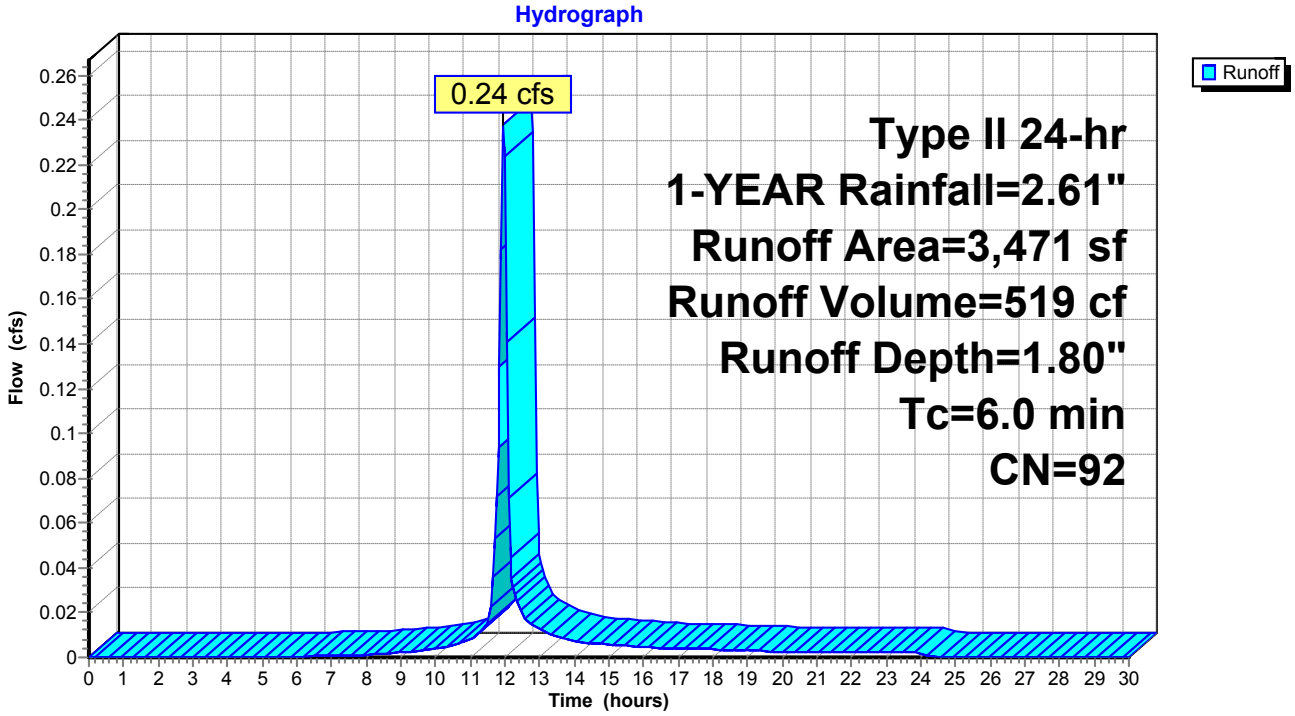
Runoff = 0.24 cfs @ 11.97 hrs, Volume= 519 cf, Depth= 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,195	80	>75% Grass cover, Good, HSG D
2,276	98	Paved parking, HSG D
3,471	92	Weighted Average
1,195		34.43% Pervious Area
2,276		65.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-9: DRAINAGE AREA 9



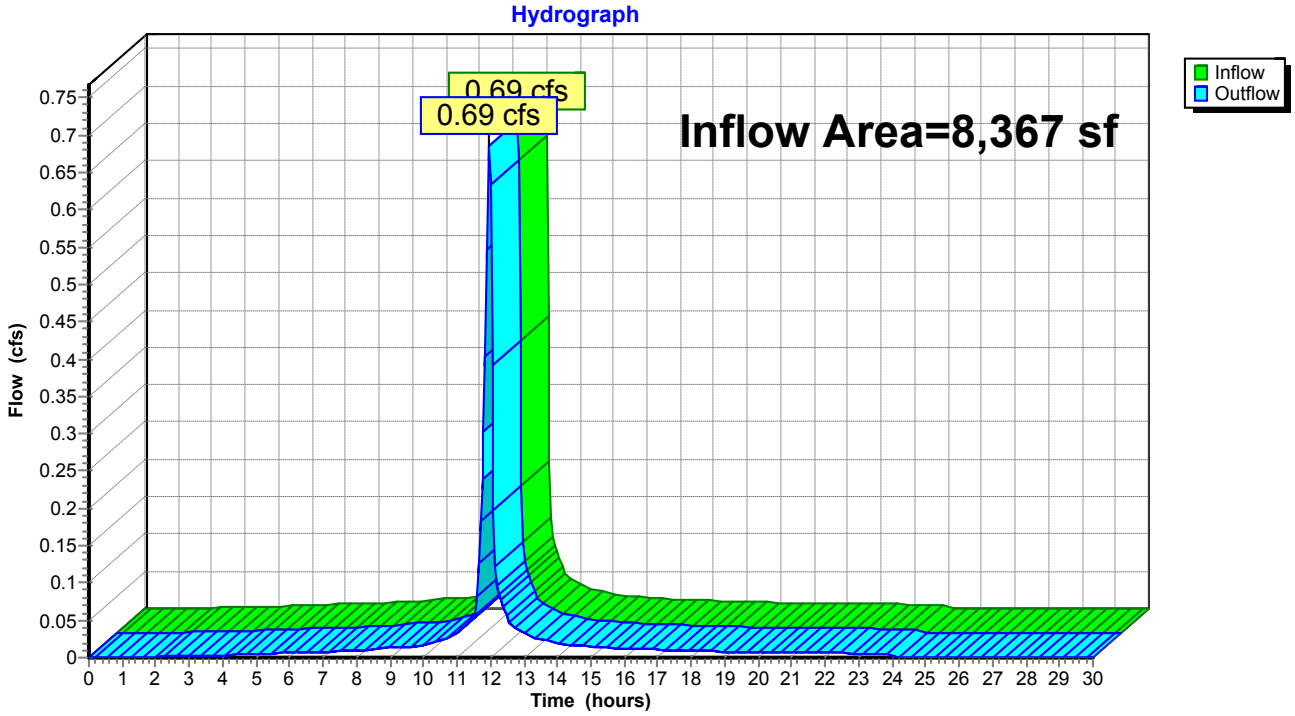
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8,367 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 0.69 cfs @ 11.96 hrs, Volume= 1,660 cf
Outflow = 0.69 cfs @ 11.96 hrs, Volume= 1,660 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 2P: EXISTING DRYWELL

[81] Warning: Exceeded Pond DW-4 by 0.49' @ 14.05 hrs

Inflow Area = 5,334 sf, 65.88% Impervious, Inflow Depth = 4.39" for 1-YEAR event
Inflow = 1.57 cfs @ 11.98 hrs, Volume= 1,952 cf
Outflow = 1.54 cfs @ 12.00 hrs, Volume= 1,952 cf, Atten= 2%, Lag= 1.2 min
Discarded = 0.54 cfs @ 12.00 hrs, Volume= 1,401 cf
Primary = 1.00 cfs @ 12.00 hrs, Volume= 551 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.76' @ 12.00 hrs Surf.Area= 1,061 sf Storage= 353 cf

Plug-Flow detention time= 33.6 min calculated for 1,949 cf (100% of inflow)
Center-of-Mass det. time= 33.5 min (792.1 - 758.6)

Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	1,717 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

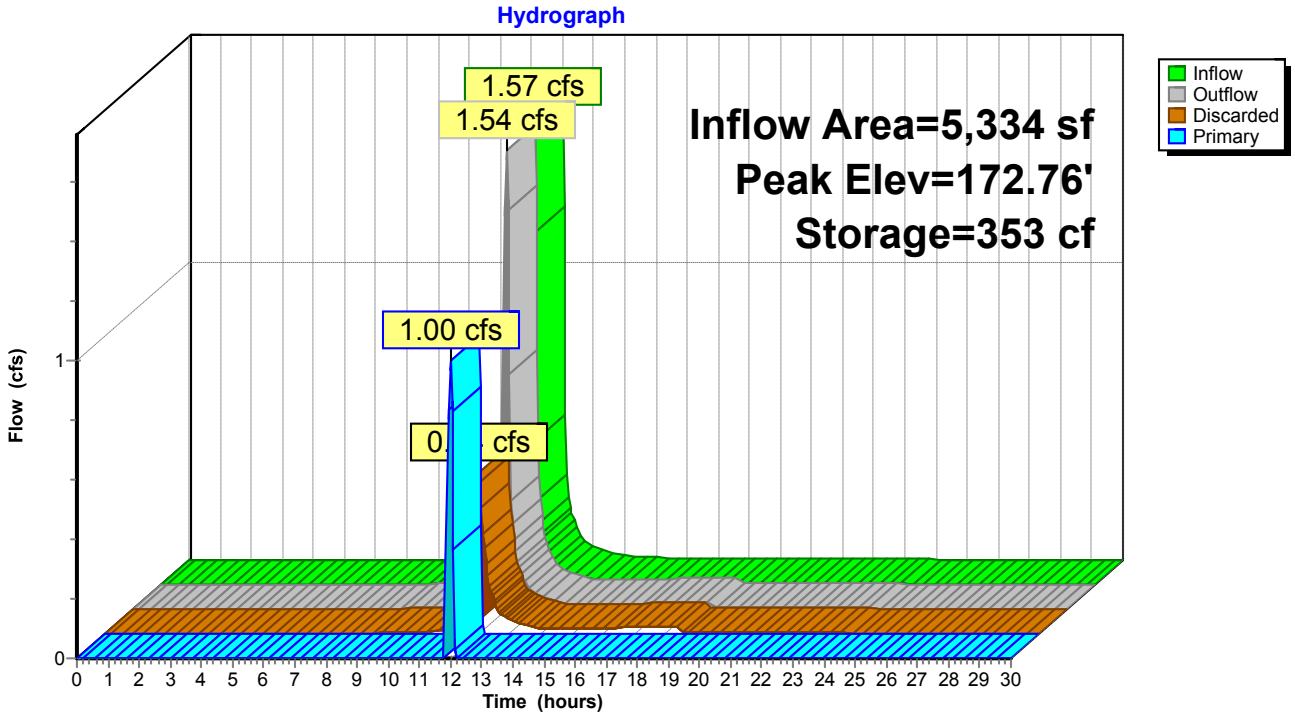
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	2,000	507	717
173.50	2,000	1,000	1,717

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**
#2	Primary	172.65'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.54 cfs @ 12.00 hrs HW=172.76' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.54 cfs)

Primary OutFlow Max=0.97 cfs @ 12.00 hrs HW=172.76' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 0.97 cfs @ 1.09 fps)

Pond 2P: EXISTING DRYWELL



Summary for Pond 3P: PROPOSED CB #3

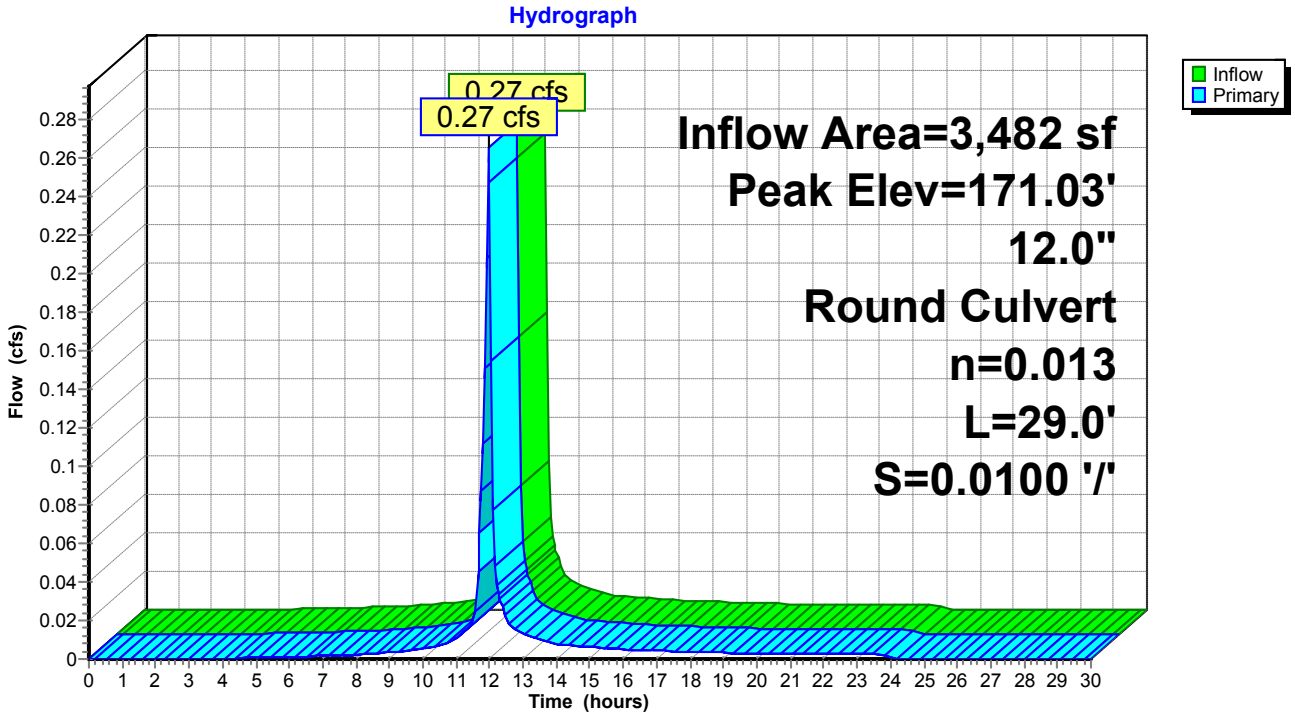
Inflow Area = 3,482 sf, 85.96% Impervious, Inflow Depth = 2.07" for 1-YEAR event
Inflow = 0.27 cfs @ 11.96 hrs, Volume= 601 cf
Outflow = 0.27 cfs @ 11.96 hrs, Volume= 601 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.27 cfs @ 11.96 hrs, Volume= 601 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.03' @ 11.96 hrs
Flood Elev= 172.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.74'	**12.0" Round Culvert** L= 29.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.74' / 170.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.26 cfs @ 11.96 hrs HW=171.02' (Free Discharge)
1=Culvert (Inlet Controls 0.26 cfs @ 1.42 fps)

Pond 3P: PROPOSED CB #3



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond CB-2 by 2.70' @ 12.15 hrs

Inflow	=	0.83 cfs @	11.96 hrs,	Volume=	2,179 cf
Outflow	=	0.63 cfs @	12.03 hrs,	Volume=	2,179 cf, Atten= 24%, Lag= 4.1 min
Discarded	=	0.63 cfs @	12.03 hrs,	Volume=	2,179 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.29' @ 12.03 hrs Surf.Area= 1,241 sf Storage= 409 cf

Plug-Flow detention time= 59.7 min calculated for 2,179 cf (100% of inflow)
Center-of-Mass det. time= 59.7 min (840.6 - 780.9)

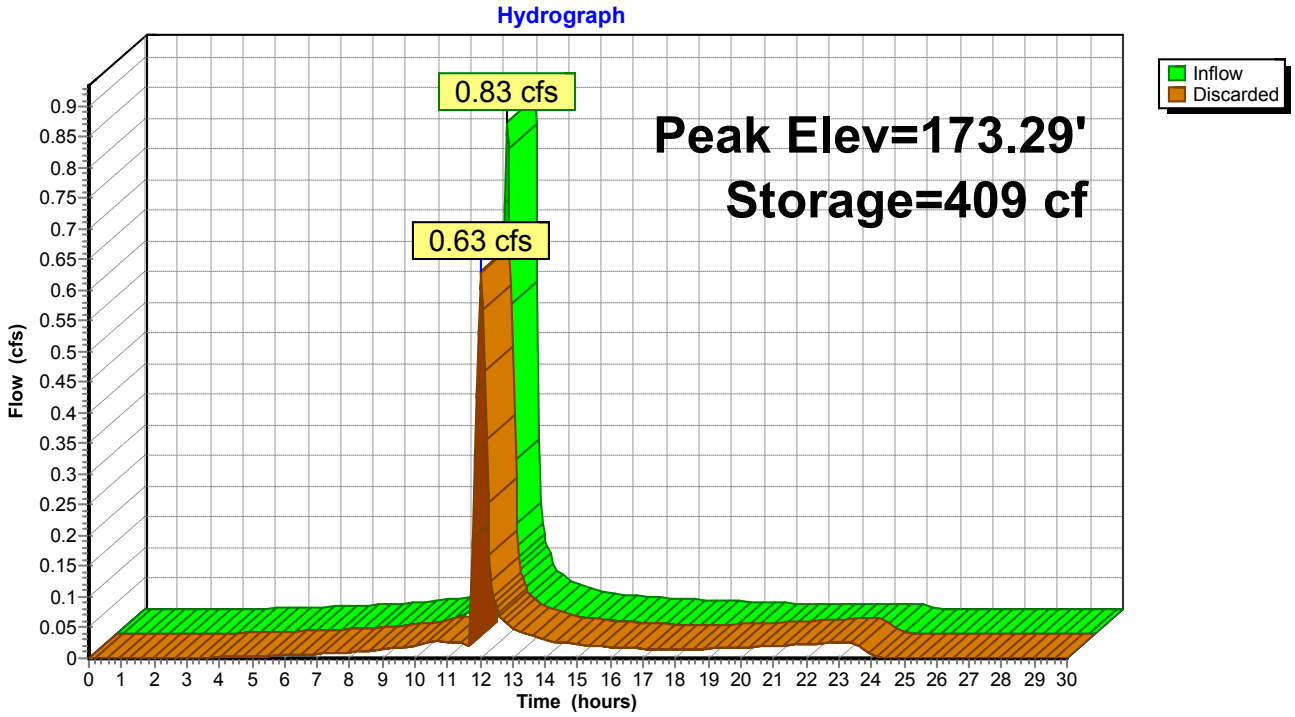
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	112	7	213
174.00	4,000	2,056	2,269

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.62 cfs @ 12.03 hrs HW=173.29' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.62 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 8P: EXISTING YARD DRAIN

[58] Hint: Peaked 9.32' above defined flood level

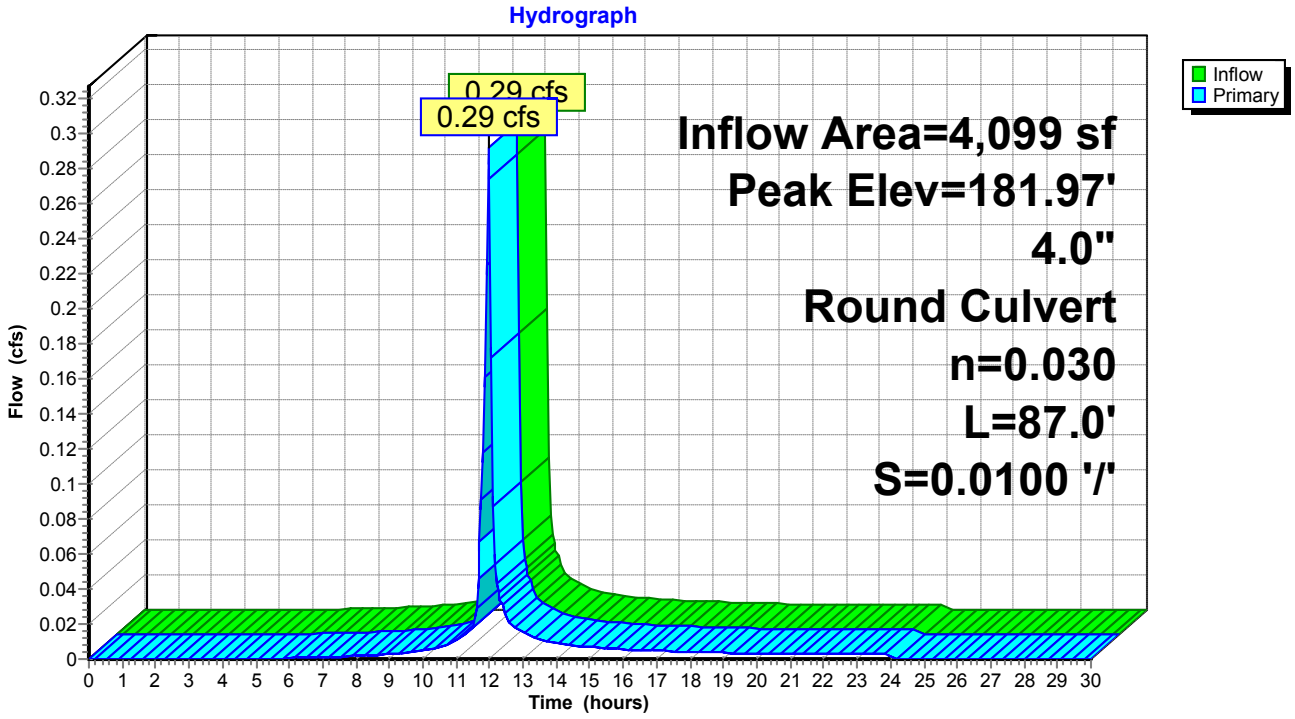
Inflow Area = 4,099 sf, 74.82% Impervious, Inflow Depth = 1.88" for 1-YEAR event
Inflow = 0.29 cfs @ 11.97 hrs, Volume= 643 cf
Outflow = 0.29 cfs @ 11.97 hrs, Volume= 643 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.29 cfs @ 11.97 hrs, Volume= 643 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 181.97' @ 11.96 hrs
Flood Elev= 172.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.030, Flow Area= 0.09 sf

Primary OutFlow Max=0.28 cfs @ 11.97 hrs HW=181.40' (Free Discharge)
1=Culvert (Barrel Controls 0.28 cfs @ 3.25 fps)

Pond 8P: EXISTING YARD DRAIN



Summary for Pond 12P: EXISTING CB

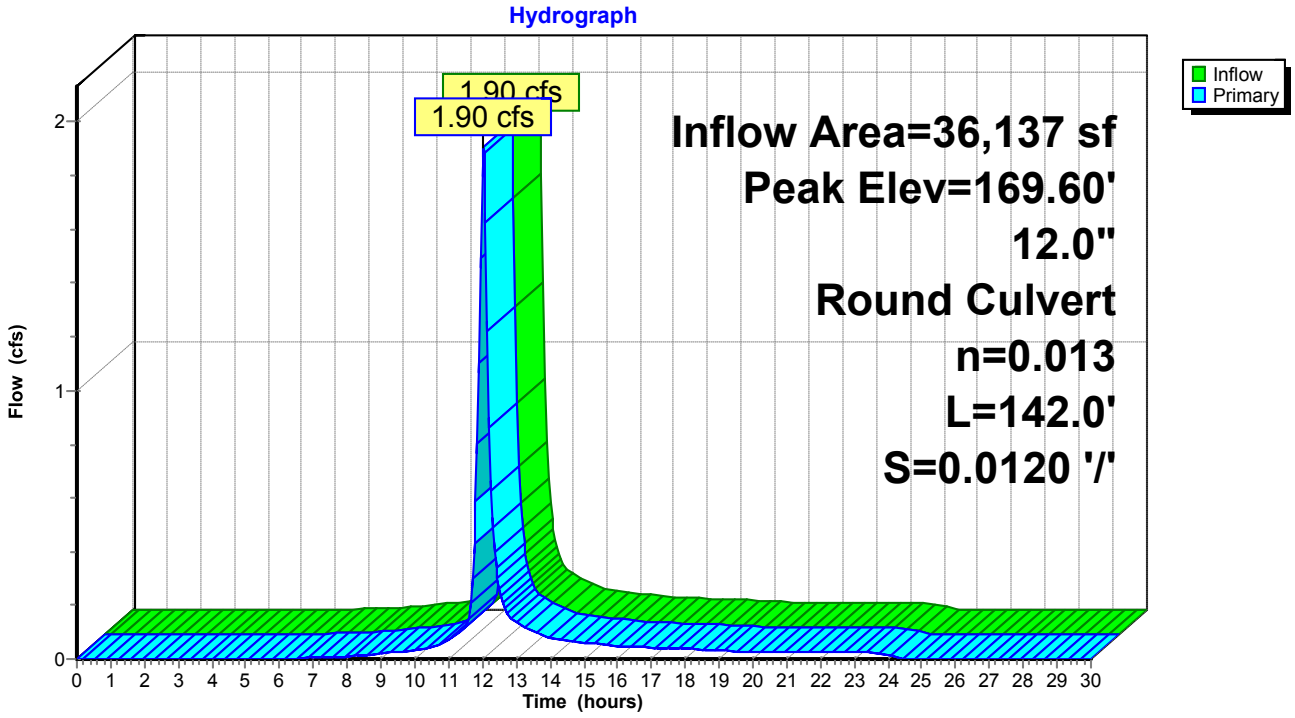
Inflow Area = 36,137 sf, 63.40% Impervious, Inflow Depth = 1.75" for 1-YEAR event
Inflow = 1.90 cfs @ 12.03 hrs, Volume= 5,256 cf
Outflow = 1.90 cfs @ 12.03 hrs, Volume= 5,256 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.90 cfs @ 12.03 hrs, Volume= 5,256 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.60' @ 12.03 hrs
Flood Elev= 172.16'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.87 cfs @ 12.03 hrs HW=169.59' (Free Discharge)
1=Culvert (Inlet Controls 1.87 cfs @ 2.53 fps)

Pond 12P: EXISTING CB



Summary for Pond 14P: EXISTING CB

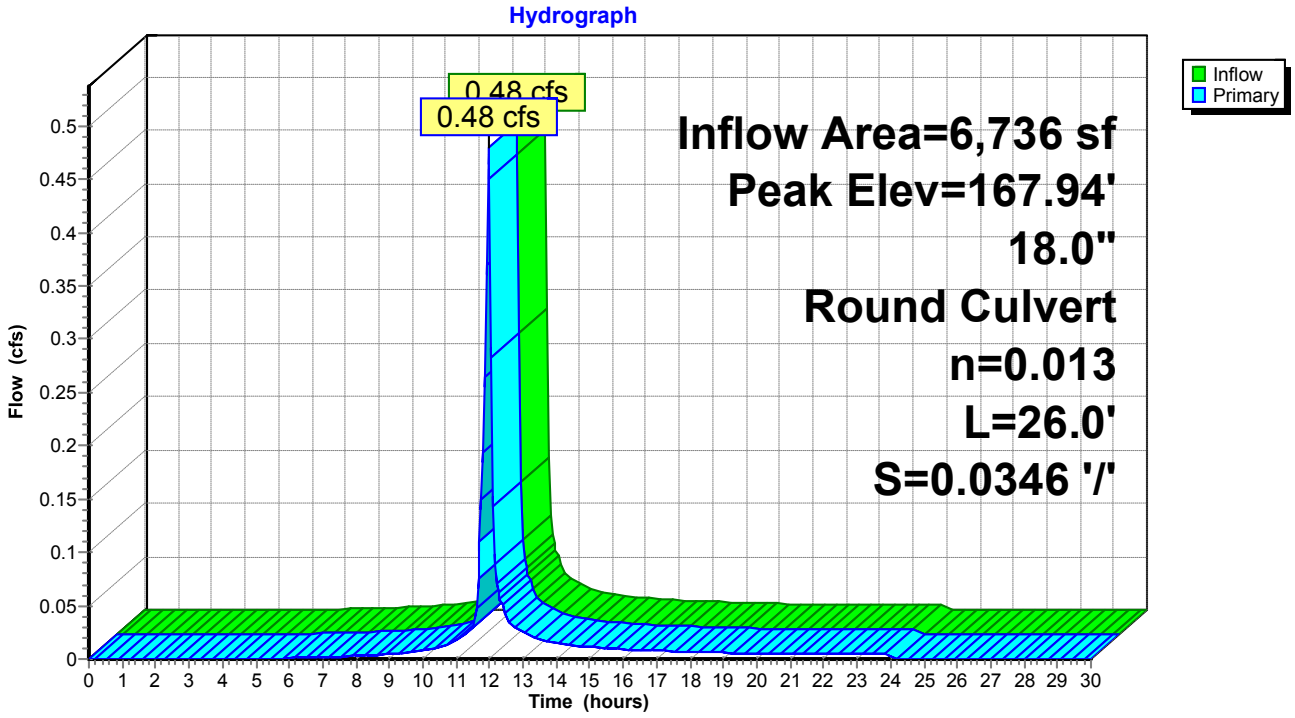
Inflow Area = 6,736 sf, 69.73% Impervious, Inflow Depth = 1.88" for 1-YEAR event
Inflow = 0.48 cfs @ 11.97 hrs, Volume= 1,057 cf
Outflow = 0.48 cfs @ 11.97 hrs, Volume= 1,057 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.48 cfs @ 11.97 hrs, Volume= 1,057 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 167.94' @ 11.97 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=0.47 cfs @ 11.97 hrs HW=167.94' (Free Discharge)
1=Culvert (Inlet Controls 0.47 cfs @ 1.56 fps)

Pond 14P: EXISTING CB



Summary for Pond CB-1: PROPOSED CATCH BASIN #1

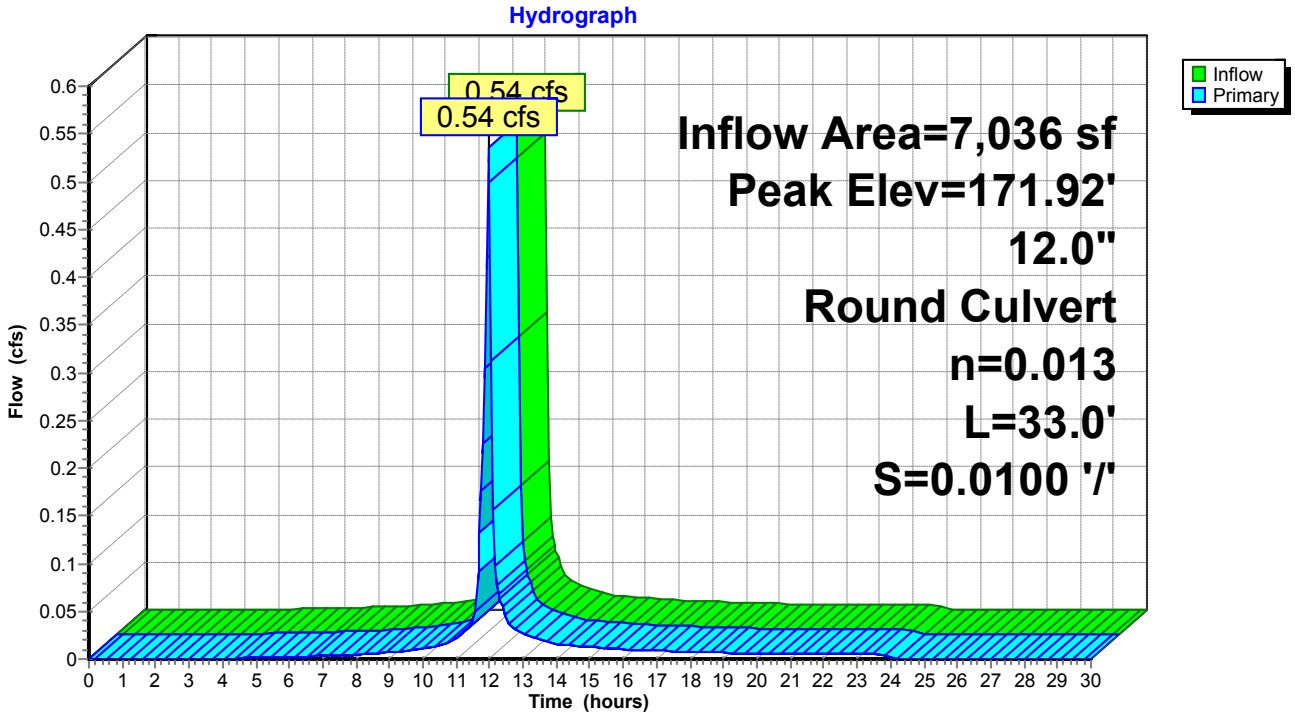
Inflow Area = 7,036 sf, 83.26% Impervious, Inflow Depth = 2.07" for 1-YEAR event
Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,214 cf
Outflow = 0.54 cfs @ 11.96 hrs, Volume= 1,214 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.54 cfs @ 11.96 hrs, Volume= 1,214 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.92' @ 11.96 hrs
Flood Elev= 172.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.50'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.50' / 171.17' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.52 cfs @ 11.96 hrs HW=171.91' (Free Discharge)
1=Culvert (Inlet Controls 0.52 cfs @ 1.72 fps)

Pond CB-1: PROPOSED CATCH BASIN #1



Summary for Pond CB-2: PR CB #2

[57] Hint: Peaked at 170.98' (Flood elevation advised)

Inflow Area =	28,448 sf,	85.49% Impervious,	Inflow Depth =	2.14"	for 1-YEAR event
Inflow =	2.21 cfs @	11.96 hrs,	Volume=	5,084 cf	
Outflow =	2.21 cfs @	11.96 hrs,	Volume=	5,084 cf,	Atten= 0%, Lag= 0.0 min
Primary =	1.38 cfs @	11.96 hrs,	Volume=	2,904 cf	
Secondary =	0.83 cfs @	11.96 hrs,	Volume=	2,179 cf	

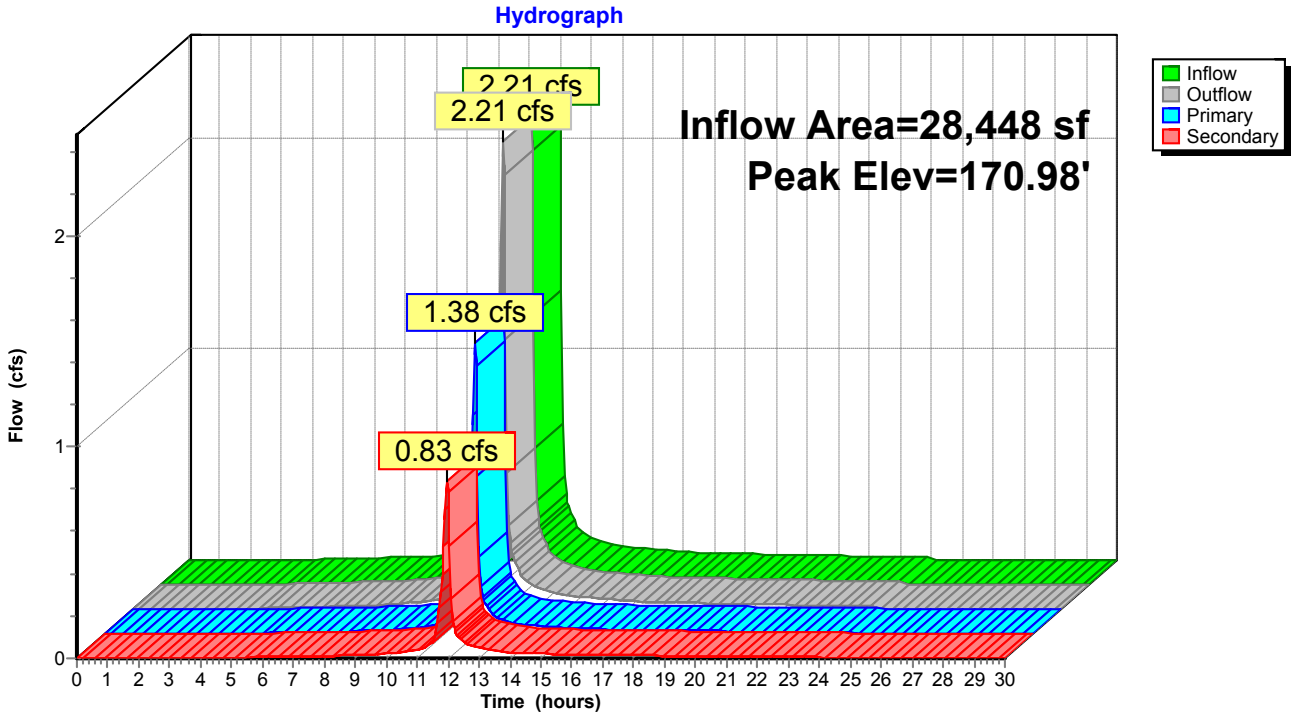
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.98' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.25'	**12.0" Round Culvert** L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	170.25'	**8.0" Round Culvert** L= 12.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.34 cfs @ 11.96 hrs HW=170.96' (Free Discharge)
1=Culvert (Barrel Controls 1.34 cfs @ 3.13 fps)

Secondary OutFlow Max=0.82 cfs @ 11.96 hrs HW=170.96' (Free Discharge)
2=Culvert (Inlet Controls 0.82 cfs @ 2.34 fps)

Pond CB-2: PR CB #2



Summary for Pond DP-1: Existing Catch Basin

[79] Warning: Submerged Pond 12P Primary device # 1 OUTLET by 0.77'
[79] Warning: Submerged Pond 14P Primary device # 1 INLET by 0.17'

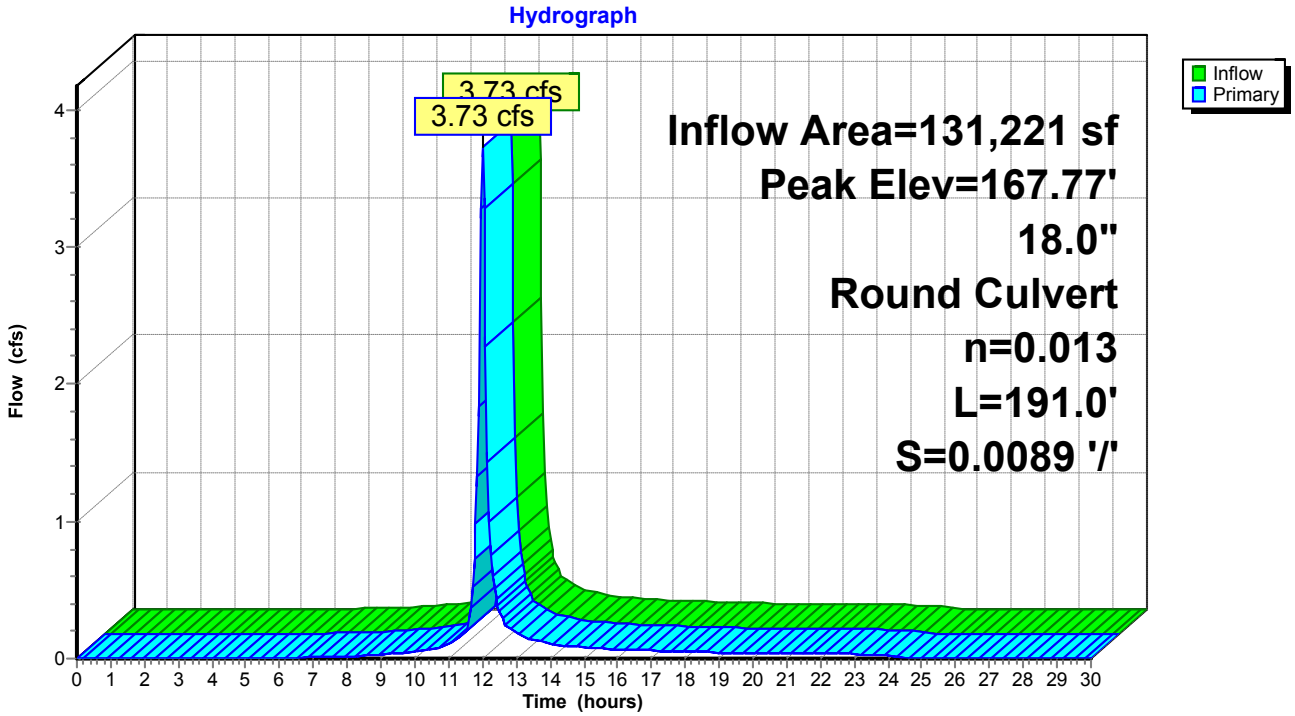
Inflow Area = 131,221 sf, 73.88% Impervious, Inflow Depth = 0.73" for 1-YEAR event
Inflow = 3.73 cfs @ 12.00 hrs, Volume= 7,931 cf
Outflow = 3.73 cfs @ 12.00 hrs, Volume= 7,931 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.73 cfs @ 12.00 hrs, Volume= 7,931 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 167.77' @ 12.00 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=3.73 cfs @ 12.00 hrs HW=167.77' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 3.73 cfs @ 2.78 fps)

Pond DP-1: Existing Catch Basin



Summary for Pond DW-1: PROPOSED DRYWELL #1

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 3,471 sf, 65.57% Impervious, Inflow Depth = 1.80" for 1-YEAR event
Inflow = 0.24 cfs @ 11.97 hrs, Volume= 519 cf
Outflow = 0.05 cfs @ 13.59 hrs, Volume= 519 cf, Atten= 77%, Lag= 97.2 min
Discarded = 0.05 cfs @ 13.59 hrs, Volume= 519 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 166.38' @ 12.16 hrs Surf.Area= 60 sf Storage= 146 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 17.9 min (820.1 - 802.2)

Volume	Invert	Avail.Storage	Storage Description
#1	164.00'	712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	163.00'	38 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 94 cf Overall x 40.0% Voids
		750 cf	Total Available Storage

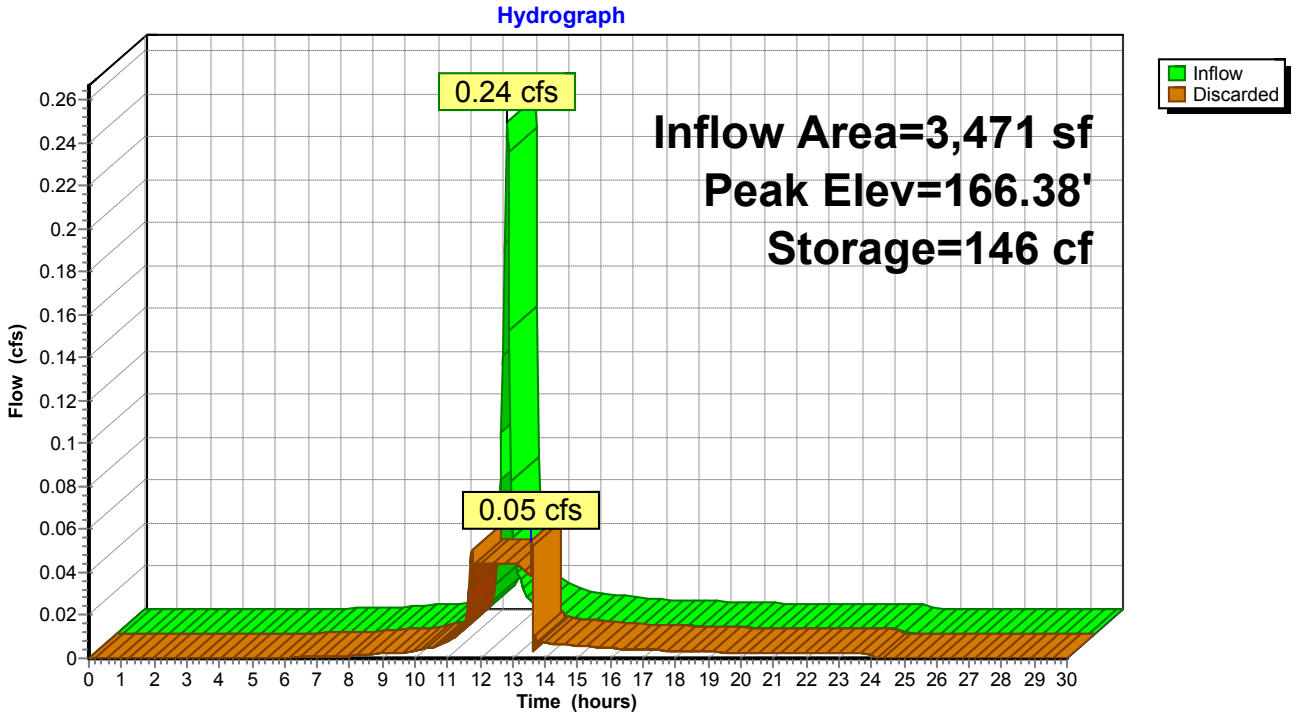
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	50	0	0
168.90	50	245	245
169.00	300	17	262
170.50	300	450	712

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	78	0	0
164.00	10	44	44
169.00	10	50	94

Device	Routing	Invert	Outlet Devices
#1	Discarded	163.00'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.05 cfs @ 13.59 hrs HW=163.19' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.05 cfs)

Pond DW-1: PROPOSED DRYWELL #1



Summary for Pond DW-2: PROPOSED DRYWELL #2

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond YD-2 by 2.78' @ 13.10 hrs

Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 1.81" for 1-YEAR event
Inflow = 0.90 cfs @ 11.97 hrs, Volume= 2,015 cf
Outflow = 0.89 cfs @ 12.02 hrs, Volume= 2,015 cf, Atten= 1%, Lag= 3.1 min
Discarded = 0.89 cfs @ 12.02 hrs, Volume= 2,015 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.62' @ 12.00 hrs Surf.Area= 1,120 sf Storage= 510 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 57.4 min (851.9 - 794.5)

Volume	Invert	Avail.Storage	Storage Description
#1	167.78'	1,499 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	166.50'	53 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 134 cf Overall x 40.0% Voids
		1,552 cf	Total Available Storage

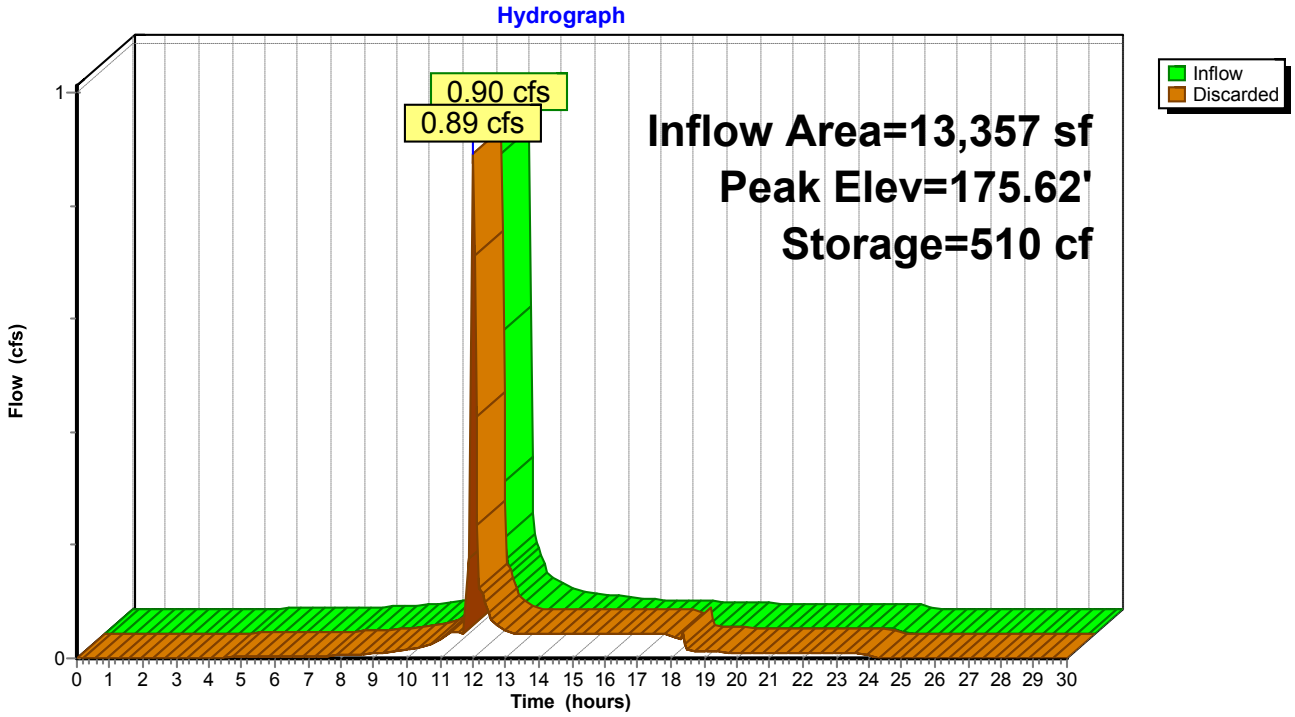
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.78	50	0	0
175.50	50	386	386
176.00	4,400	1,113	1,499

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.50	78	0	0
167.78	10	56	56
175.50	10	77	134

Device	Routing	Invert	Outlet Devices
#1	Discarded	166.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.79 cfs @ 12.02 hrs HW=175.62' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.79 cfs)

Pond DW-2: PROPOSED DRYWELL #2



Summary for Pond DW-3: PROPOSED DRYWELL #3

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)
[81] Warning: Exceeded Pond YD-4 by 2.08' @ 13.40 hrs

Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 2.15" for 1-YEAR event
Inflow = 1.11 cfs @ 11.96 hrs, Volume= 2,550 cf
Outflow = 0.96 cfs @ 12.01 hrs, Volume= 2,550 cf, Atten= 13%, Lag= 2.7 min
Discarded = 0.96 cfs @ 12.01 hrs, Volume= 2,550 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.66' @ 12.01 hrs Surf.Area= 1,290 sf Storage= 549 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 51.7 min (828.2 - 776.5)

Volume	Invert	Avail.Storage	Storage Description
#1	166.69'	1,403 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	165.50'	55 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 138 cf Overall x 40.0% Voids
		1,458 cf	Total Available Storage

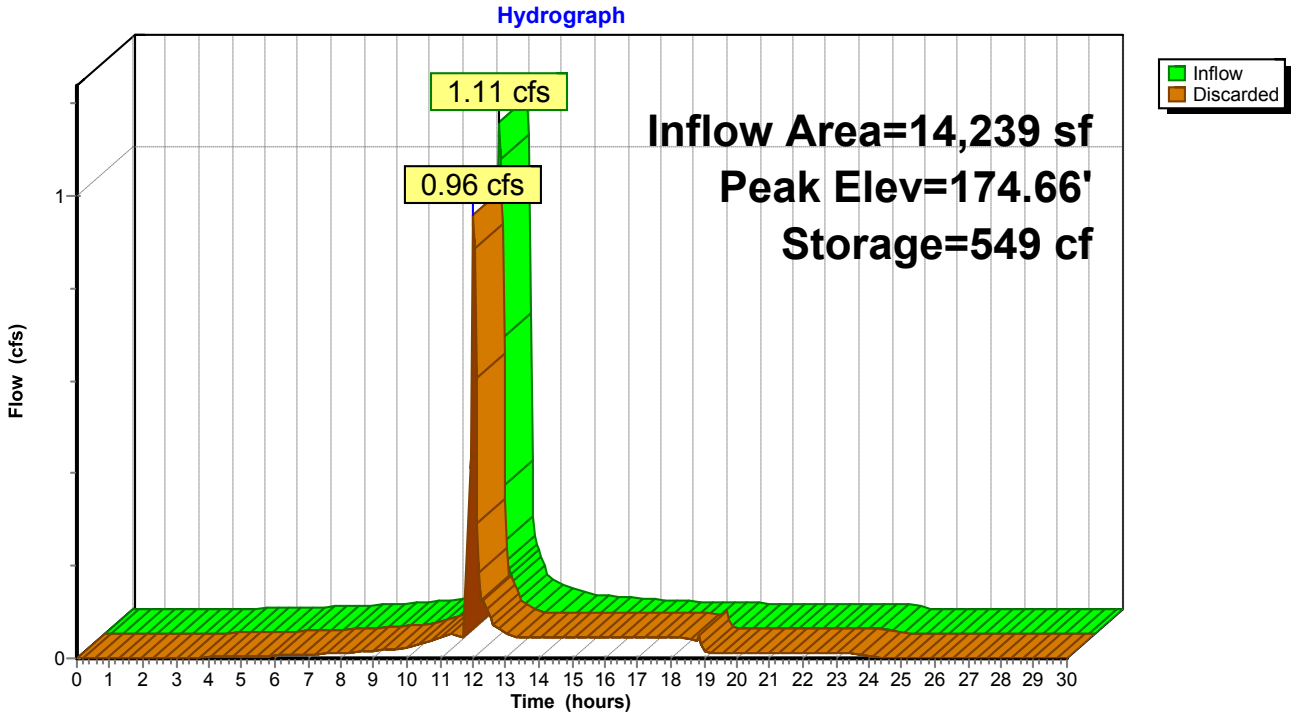
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.69	50	0	0
174.50	50	391	391
175.00	4,000	1,013	1,403

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.50	79	0	0
165.69	79	15	15
166.69	10	45	60
174.50	10	78	138

Device	Routing	Invert	Outlet Devices
#1	Discarded	165.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.94 cfs @ 12.01 hrs HW=174.65' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.94 cfs)

Pond DW-3: PROPOSED DRYWELL #3



Summary for Pond DW-4: PROPOSED DRYWELL #4

[81] Warning: Exceeded Pond CB-2 by 2.21' @ 12.00 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 1.23" for 1-YEAR event
Inflow = 1.38 cfs @ 11.96 hrs, Volume= 2,904 cf
Outflow = 1.31 cfs @ 11.99 hrs, Volume= 2,905 cf, Atten= 5%, Lag= 1.4 min
Discarded = 0.10 cfs @ 11.99 hrs, Volume= 1,750 cf
Secondary = 1.21 cfs @ 11.99 hrs, Volume= 1,154 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.16' @ 11.99 hrs Surf.Area= 217 sf Storage= 511 cf

Plug-Flow detention time= 67.5 min calculated for 2,900 cf (100% of inflow)
Center-of-Mass det. time= 67.5 min (844.1 - 776.6)

Volume	Invert	Avail.Storage	Storage Description
#1	165.00'	1,468 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	164.00'	50 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 124 cf Overall x 40.0% Voids
		1,517 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.00	55	0	0
173.00	55	440	440
174.00	1,000	528	968
174.50	1,000	500	1,468

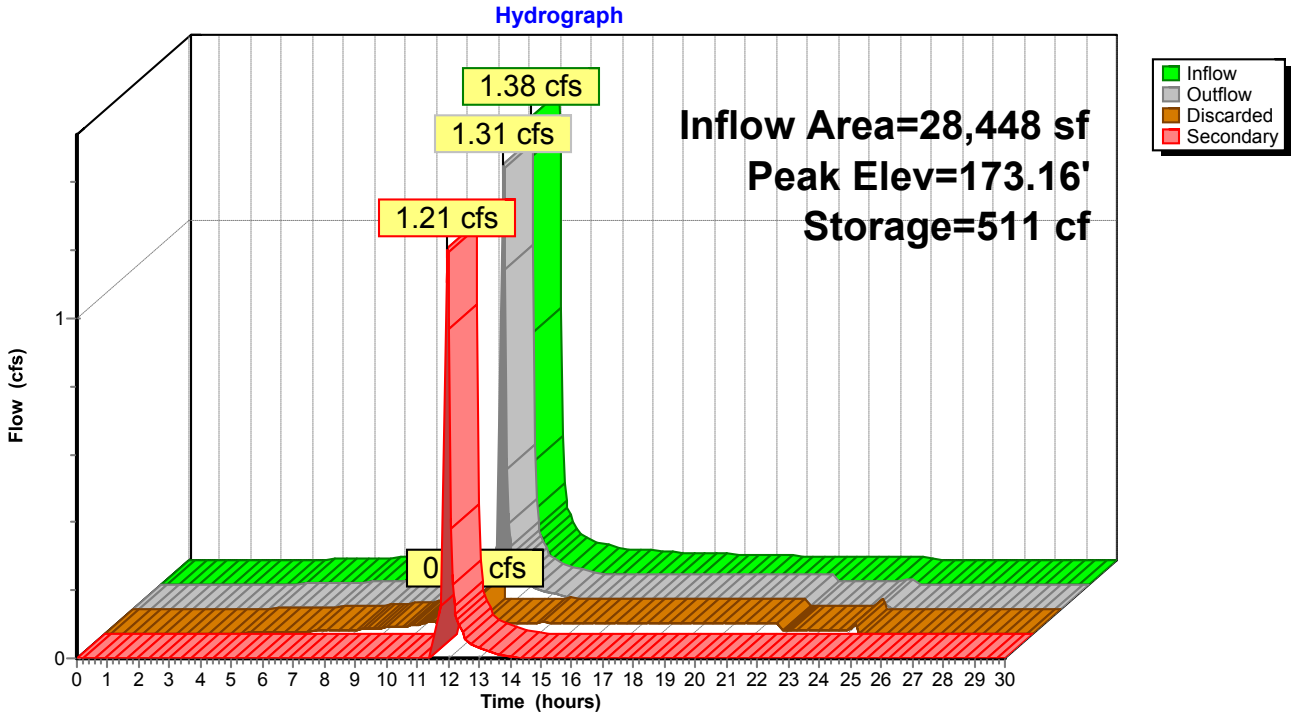
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	78	0	0
165.00	10	44	44
173.00	10	80	124

Device	Routing	Invert	Outlet Devices
#1	Discarded	164.00'	**22.000 in/hr Exfiltration over Surface area**
#2	Secondary	172.00'	**8.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.00' / 171.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Discarded OutFlow Max=0.10 cfs @ 11.99 hrs HW=173.13' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.10 cfs)

Secondary OutFlow Max=1.18 cfs @ 11.99 hrs HW=173.12' (Free Discharge)
└**2=Culvert** (Inlet Controls 1.18 cfs @ 3.38 fps)

Pond DW-4: PROPOSED DRYWELL #4



Summary for Pond DW-5: PROPOSED DRYWELL #5

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 11,493 sf, 65.66% Impervious, Inflow Depth = 1.80" for 1-YEAR event
Inflow = 0.79 cfs @ 11.97 hrs, Volume= 1,719 cf
Outflow = 0.51 cfs @ 12.05 hrs, Volume= 1,720 cf, Atten= 35%, Lag= 4.8 min
Discarded = 0.51 cfs @ 12.05 hrs, Volume= 1,720 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.32' @ 12.05 hrs Surf.Area= 1,005 sf Storage= 421 cf

Plug-Flow detention time= 44.1 min calculated for 1,717 cf (100% of inflow)
Center-of-Mass det. time= 44.3 min (846.5 - 802.2)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,748 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	167.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		1,781 cf	Total Available Storage

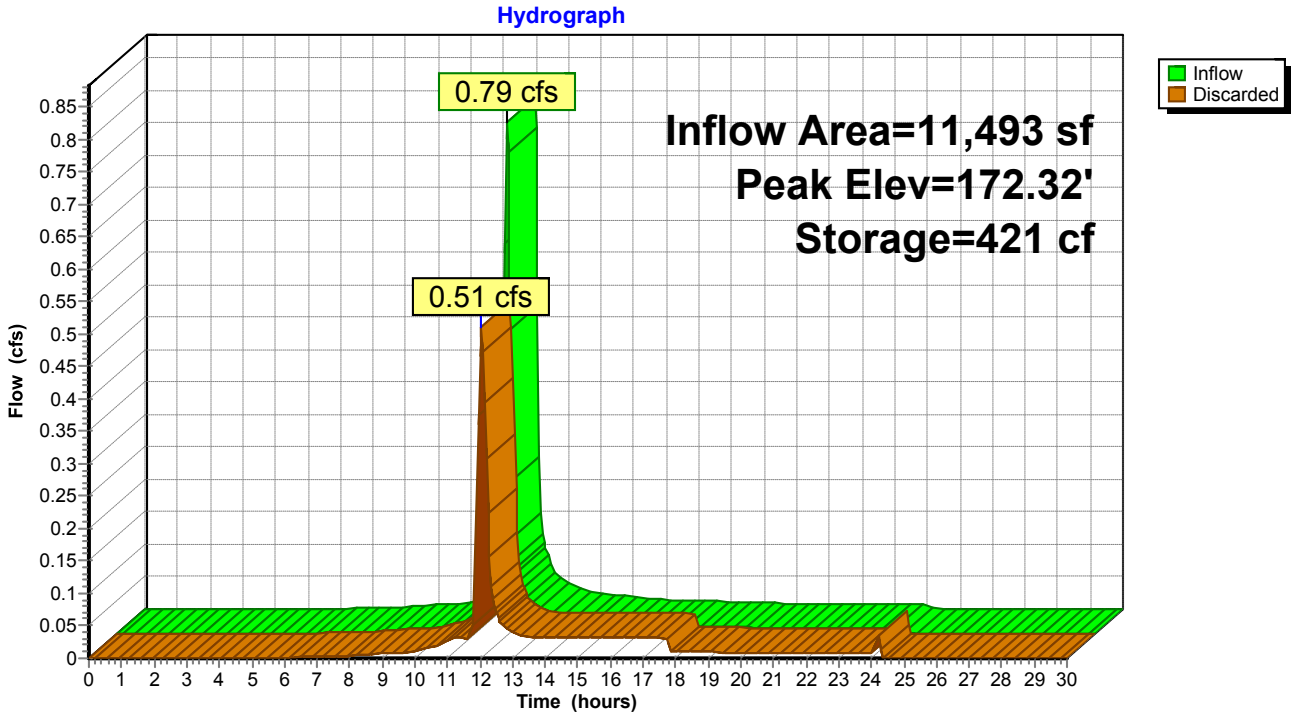
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.00	55	220	220
173.00	3,000	1,528	1,748

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	78	0	0
168.00	10	44	44
172.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.51 cfs @ 12.05 hrs HW=172.32' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.51 cfs)

Pond DW-5: PROPOSED DRYWELL #5



Summary for Pond DW-6: PROPOSED DRYWELL #6

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,844 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 0.15 cfs @ 11.96 hrs, Volume= 366 cf
Outflow = 0.04 cfs @ 11.72 hrs, Volume= 366 cf, Atten= 75%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.72 hrs, Volume= 366 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.23' @ 12.13 hrs Surf.Area= 65 sf Storage= 90 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 13.1 min (770.2 - 757.1)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	169.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

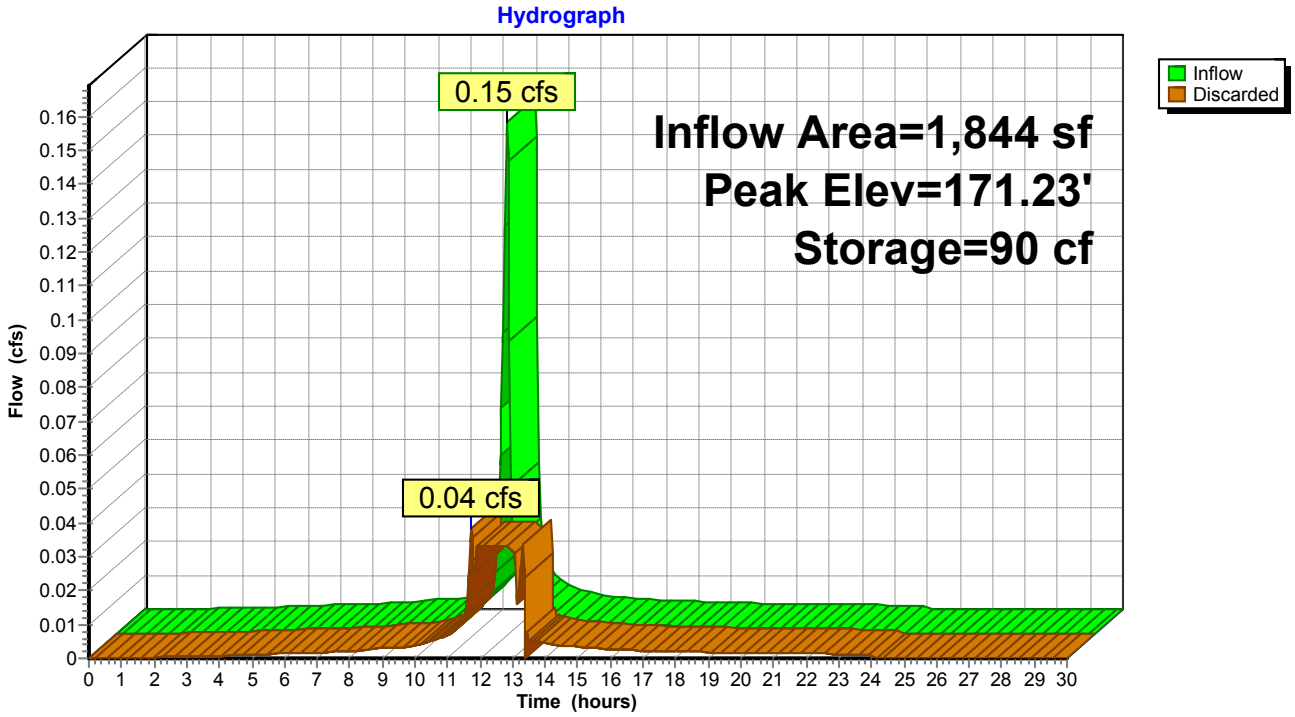
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	55	0	0
174.00	55	220	220
174.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	78	0	0
170.00	10	44	44
174.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	169.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.72 hrs HW=169.08' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-6: PROPOSED DRYWELL #6



Summary for Pond DW-7: PROPOSED DRYWELL #7

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,755 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 0.14 cfs @ 11.96 hrs, Volume= 348 cf
Outflow = 0.04 cfs @ 13.28 hrs, Volume= 348 cf, Atten= 71%, Lag= 79.1 min
Discarded = 0.04 cfs @ 13.28 hrs, Volume= 348 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.44' @ 12.13 hrs Surf.Area= 65 sf Storage= 82 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 12.1 min (769.2 - 757.1)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	352 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	170.00'	42 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 106 cf Overall x 40.0% Voids
		394 cf	Total Available Storage

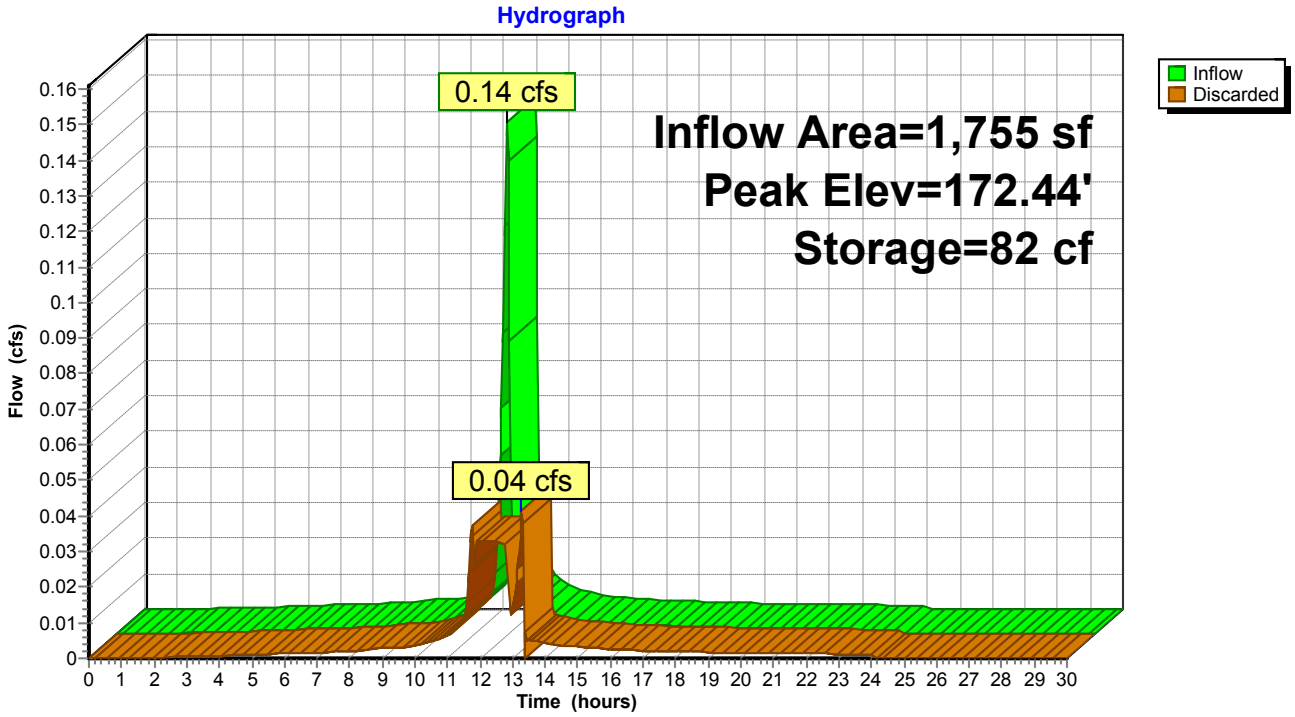
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
171.50	55	0	0
175.50	55	220	220
175.75	1,000	132	352

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	78	0	0
171.50	10	66	66
175.50	10	40	106

Device	Routing	Invert	Outlet Devices
#1	Discarded	170.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 13.28 hrs HW=170.15' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-7: PROPOSED DRYWELL #7



Summary for Pond DW-8: PROPOSED DRYWELL #8

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,734 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 0.14 cfs @ 11.96 hrs, Volume= 344 cf
Outflow = 0.04 cfs @ 11.73 hrs, Volume= 344 cf, Atten= 74%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.73 hrs, Volume= 344 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.14' @ 12.12 hrs Surf.Area= 65 sf Storage= 85 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 12.2 min (769.3 - 757.1)

Volume	Invert	Avail.Storage	Storage Description
#1	169.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	168.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

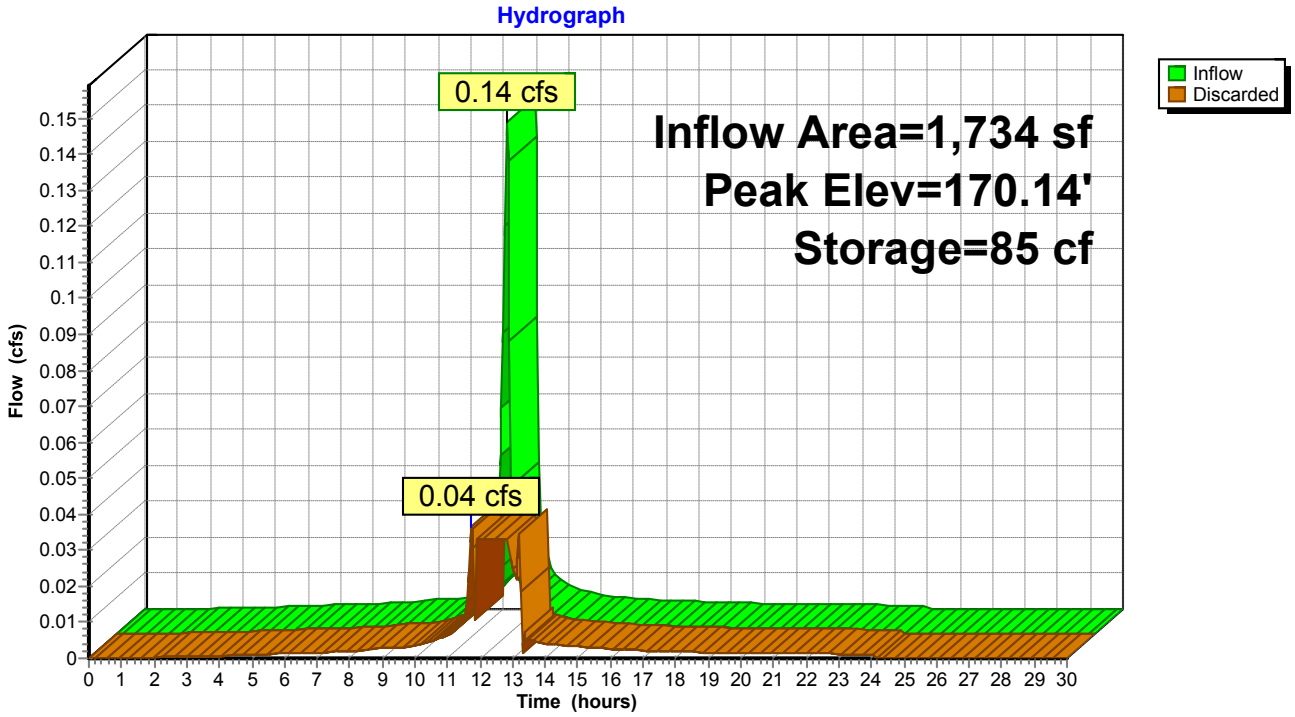
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	55	0	0
173.00	55	220	220
173.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	78	0	0
169.00	10	44	44
173.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.73 hrs HW=168.09' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-8: PROPOSED DRYWELL #8



Summary for Pond YD-1: PROPOSED DRAIN #1

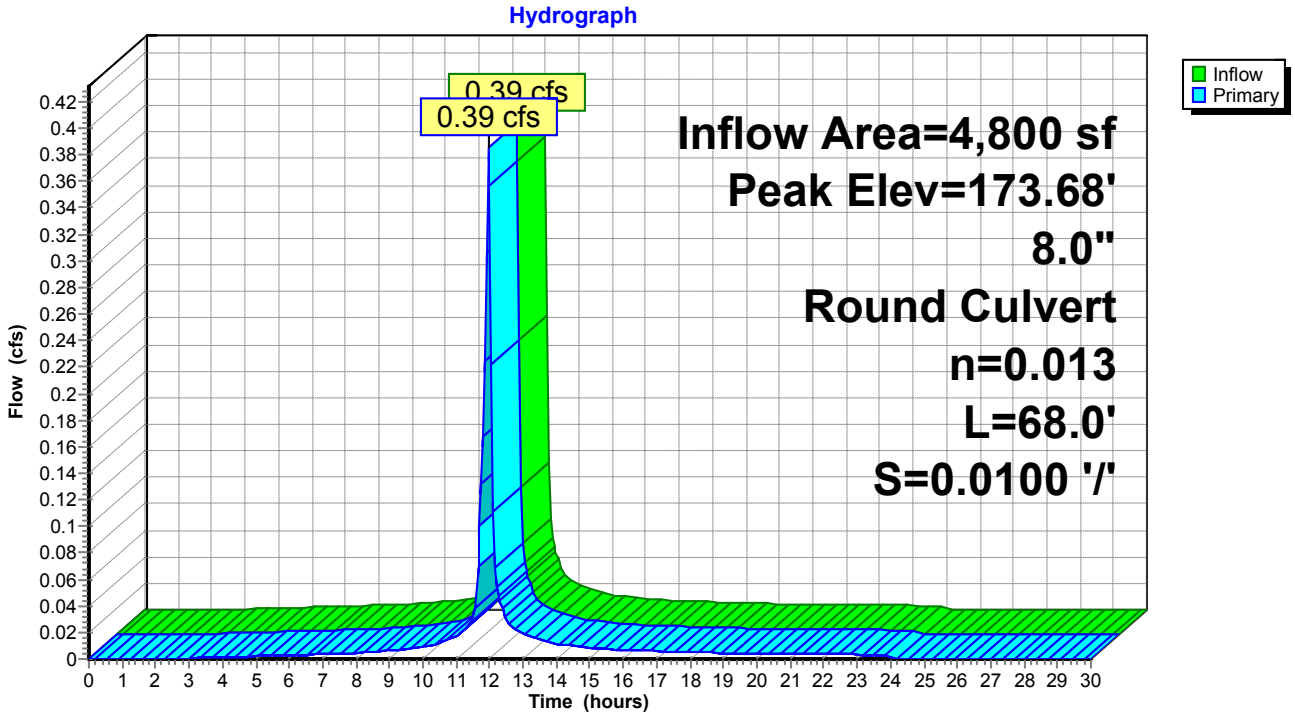
Inflow Area = 4,800 sf, 94.90% Impervious, Inflow Depth = 2.27" for 1-YEAR event
Inflow = 0.39 cfs @ 11.96 hrs, Volume= 909 cf
Outflow = 0.39 cfs @ 11.96 hrs, Volume= 909 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.39 cfs @ 11.96 hrs, Volume= 909 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.68' @ 11.96 hrs
Flood Elev= 175.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.27'	**8.0" Round Culvert** L= 68.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.27' / 172.59' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=0.38 cfs @ 11.96 hrs HW=173.67' (Free Discharge)
1=Culvert (Inlet Controls 0.38 cfs @ 1.71 fps)

Pond YD-1: PROPOSED DRAIN #1



Summary for Pond YD-2: PROPOSED DRAIN #2

[79] Warning: Submerged Pond YD-1 Primary device # 1 INLET by 0.10'

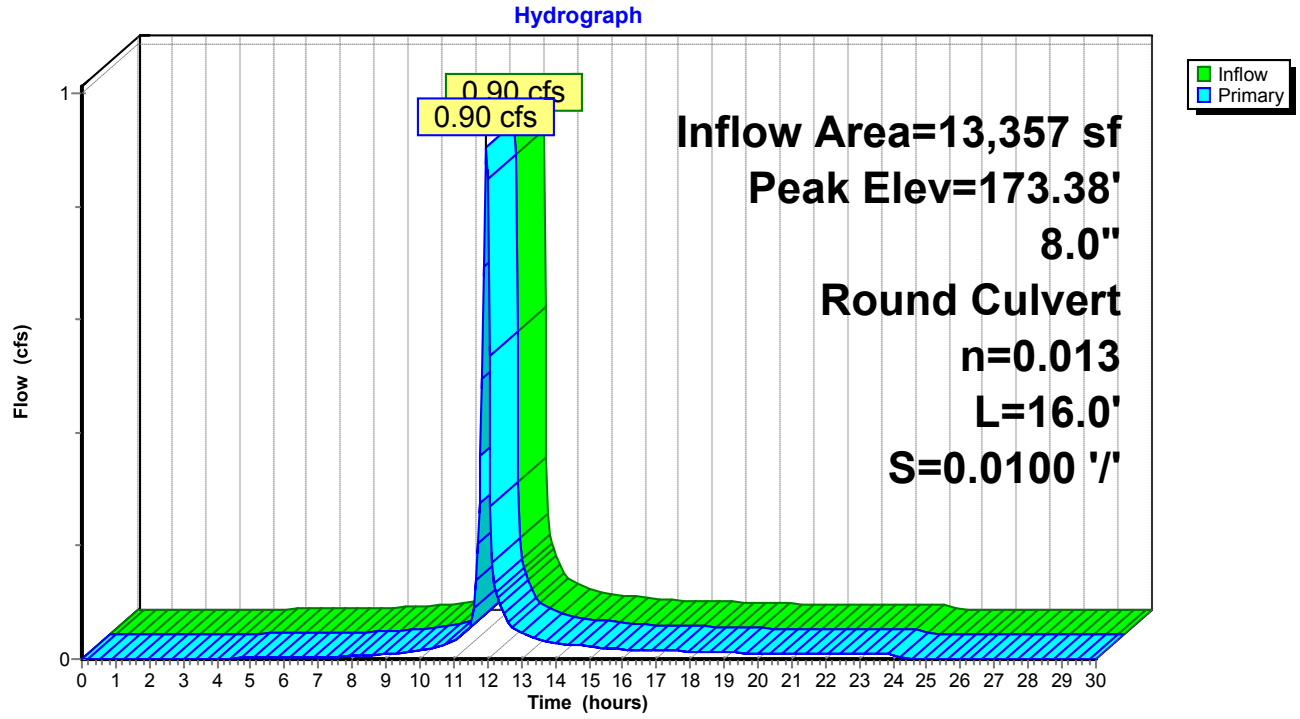
Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 1.81" for 1-YEAR event
Inflow = 0.90 cfs @ 11.97 hrs, Volume= 2,015 cf
Outflow = 0.90 cfs @ 11.97 hrs, Volume= 2,015 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.90 cfs @ 11.97 hrs, Volume= 2,015 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.38' @ 11.97 hrs
Flood Elev= 173.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.59'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.59' / 172.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=0.88 cfs @ 11.97 hrs HW=173.36' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.88 cfs @ 2.51 fps)

Pond YD-2: PROPOSED DRAIN #2



Summary for Pond YD-3: PROPOSED DRAIN #3

[58] Hint: Peaked 0.30' above defined flood level

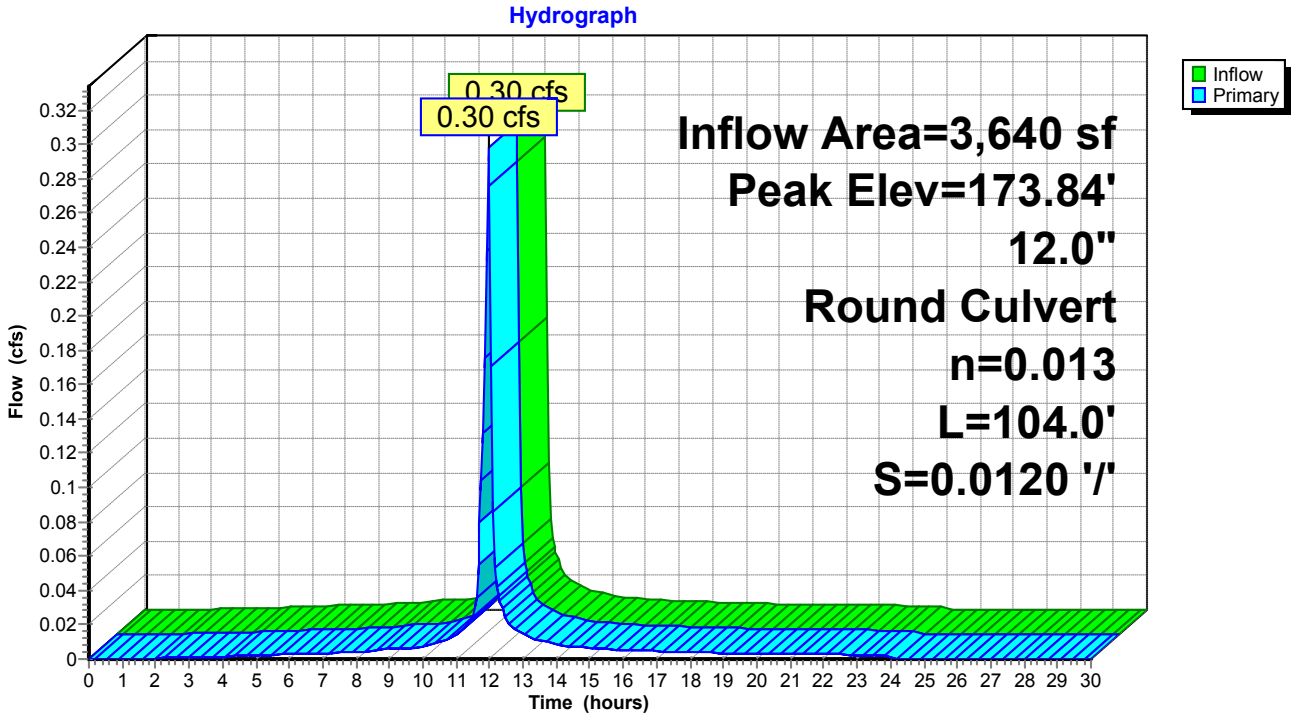
Inflow Area = 3,640 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 0.30 cfs @ 11.96 hrs, Volume= 722 cf
Outflow = 0.30 cfs @ 11.96 hrs, Volume= 722 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.30 cfs @ 11.96 hrs, Volume= 722 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.84' @ 11.96 hrs
Flood Elev= 173.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.54'	**12.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.54' / 172.29' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.29 cfs @ 11.96 hrs HW=173.84' (Free Discharge)
1=Culvert (Inlet Controls 0.29 cfs @ 1.47 fps)

Pond YD-3: PROPOSED DRAIN #3



Summary for Pond YD-4: PROPOSED DRAIN #4

[79] Warning: Submerged Pond YD-3 Primary device # 1 OUTLET by 1.01'

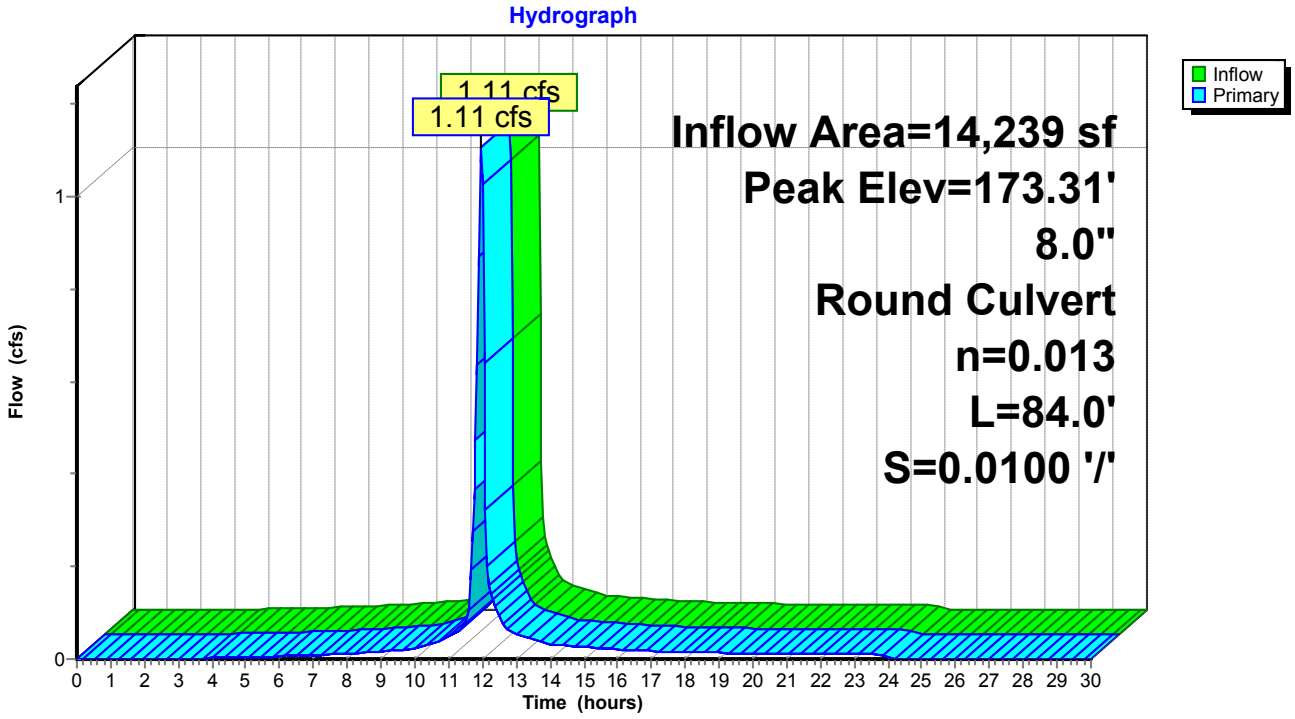
Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 2.15" for 1-YEAR event
Inflow = 1.11 cfs @ 11.96 hrs, Volume= 2,550 cf
Outflow = 1.11 cfs @ 11.96 hrs, Volume= 2,550 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.11 cfs @ 11.96 hrs, Volume= 2,550 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.31' @ 11.96 hrs
Flood Elev= 174.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.29'	**8.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.29' / 171.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.08 cfs @ 11.96 hrs HW=173.28' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.08 cfs @ 3.08 fps)

Pond YD-4: PROPOSED DRAIN #4



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA-1: DA-1 Runoff Area=21,412 sf 86.22% Impervious Runoff Depth=2.71"
Tc=6.0 min CN=96 Runoff=2.07 cfs 4,835 cf

Subcatchment DA-10: DA-10 Runoff Area=4,800 sf 94.90% Impervious Runoff Depth=2.82"
Tc=6.0 min CN=97 Runoff=0.47 cfs 1,127 cf

Subcatchment DA-11: DA-11 Runoff Area=8,557 sf 51.71% Impervious Runoff Depth=2.05"
Tc=6.0 min CN=89 Runoff=0.68 cfs 1,458 cf

Subcatchment DA-12: DRAINAGE AREA 12 Runoff Area=8,367 sf 100.00% Impervious Runoff Depth=2.93"
Tc=6.0 min CN=98 Runoff=0.83 cfs 2,041 cf

Subcatchment DA-13: DA-13 Runoff Area=2,574 sf 79.56% Impervious Runoff Depth=2.51"
Tc=6.0 min CN=94 Runoff=0.24 cfs 537 cf

Subcatchment DA-14: DRAINAGE AREA 14 Runoff Area=6,736 sf 69.73% Impervious Runoff Depth=2.41"
Tc=6.0 min CN=93 Runoff=0.60 cfs 1,351 cf

Subcatchment DA-15: DA-15 Runoff Area=1,734 sf 100.00% Impervious Runoff Depth=2.93"
Tc=6.0 min CN=98 Runoff=0.17 cfs 423 cf

Subcatchment DA-16: DA-16 Runoff Area=1,844 sf 100.00% Impervious Runoff Depth=2.93"
Tc=6.0 min CN=98 Runoff=0.18 cfs 450 cf

Subcatchment DA-17: DA-17 Runoff Area=1,755 sf 100.00% Impervious Runoff Depth=2.93"
Tc=6.0 min CN=98 Runoff=0.17 cfs 428 cf

Subcatchment DA-18: DRAINAGE AREA 18 Runoff Area=3,482 sf 85.96% Impervious Runoff Depth=2.61"
Tc=6.0 min CN=95 Runoff=0.33 cfs 756 cf

Subcatchment DA-2: DA-2 Runoff Area=7,036 sf 83.26% Impervious Runoff Depth=2.61"
Tc=6.0 min CN=95 Runoff=0.66 cfs 1,528 cf

Subcatchment DA-3: DRAINAGE AREA 3 Runoff Area=5,334 sf 65.88% Impervious Runoff Depth=2.31"
Tc=6.0 min CN=92 Runoff=0.46 cfs 1,028 cf

Subcatchment DA-4: DRAINAGE AREA 4 Runoff Area=4,099 sf 74.82% Impervious Runoff Depth=2.41"
Tc=6.0 min CN=93 Runoff=0.37 cfs 822 cf

Subcatchment DA-5: DRAINAGE AREA 5 Runoff Area=32,655 sf 61.00% Impervious Runoff Depth=2.22"
Flow Length=235' Tc=13.1 min CN=91 Runoff=2.23 cfs 6,043 cf

Subcatchment DA-6: DA-6 Runoff Area=11,493 sf 65.66% Impervious Runoff Depth=2.31"
Tc=6.0 min CN=92 Runoff=1.00 cfs 2,215 cf

Subcatchment DA-7: DA-7 Runoff Area=3,640 sf 100.00% Impervious Runoff Depth=2.93"
Tc=6.0 min CN=98 Runoff=0.36 cfs 888 cf

Subcatchment DA-8: DA-8 Runoff Area=10,599 sf 81.26% Impervious Runoff Depth=2.61"
Tc=6.0 min CN=95 Runoff=1.00 cfs 2,302 cf

Subcatchment DA-9: DRAINAGE AREA 9 Runoff Area=3,471 sf 65.57% Impervious Runoff Depth=2.31"
Tc=6.0 min CN=92 Runoff=0.30 cfs 669 cf

Reach DP-2: STREET Inflow=0.83 cfs 2,041 cf
Outflow=0.83 cfs 2,041 cf

Pond 2P: EXISTING DRYWELL Peak Elev=172.78' Storage=370 cf Inflow=1.80 cfs 2,678 cf
Discarded=0.57 cfs 1,791 cf Primary=1.20 cfs 887 cf Outflow=1.77 cfs 2,678 cf

Pond 3P: PROPOSED CB #3 Peak Elev=171.06' Inflow=0.33 cfs 756 cf
12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.33 cfs 756 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.34' Storage=469 cf Inflow=0.96 cfs 2,687 cf
Outflow=0.72 cfs 2,687 cf

Pond 8P: EXISTING YARD DRAIN Peak Elev=188.56' Inflow=0.37 cfs 822 cf
4.0" Round Culvert n=0.030 L=87.0' S=0.0100 '/' Outflow=0.37 cfs 822 cf

Pond 12P: EXISTING CB Peak Elev=169.87' Inflow=2.44 cfs 6,799 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=2.44 cfs 6,799 cf

Pond 14P: EXISTING CB Peak Elev=167.99' Inflow=0.60 cfs 1,351 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=0.60 cfs 1,351 cf

Pond CB-1: PROPOSED CATCH BASIN #1 Peak Elev=171.97' Inflow=0.66 cfs 1,528 cf
12.0" Round Culvert n=0.013 L=33.0' S=0.0100 '/' Outflow=0.66 cfs 1,528 cf

Pond CB-2: PR CB #2 Peak Elev=171.11' Inflow=2.73 cfs 6,363 cf
Primary=1.77 cfs 3,676 cf Secondary=0.96 cfs 2,687 cf Outflow=2.73 cfs 6,363 cf

Pond DP-1: Existing Catch Basin Peak Elev=167.94' Inflow=4.68 cfs 10,397 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=4.68 cfs 10,397 cf

Pond DW-1: PROPOSED DRYWELL #1 Peak Elev=167.56' Storage=210 cf Inflow=0.30 cfs 669 cf
Outflow=0.05 cfs 669 cf

Pond DW-2: PROPOSED DRYWELL #2 Peak Elev=175.65' Storage=545 cf Inflow=1.15 cfs 2,585 cf
Outflow=1.01 cfs 2,585 cf

Pond DW-3: PROPOSED DRYWELL #3 Peak Elev=174.69' Storage=605 cf Inflow=1.36 cfs 3,190 cf
Outflow=1.18 cfs 3,190 cf

Pond DW-4: PROPOSED DRYWELL #4 Peak Elev=173.36' Storage=571 cf Inflow=1.77 cfs 3,676 cf
Discarded=0.21 cfs 2,027 cf Secondary=1.34 cfs 1,650 cf Outflow=1.55 cfs 3,676 cf

Pond DW-5: PROPOSED DRYWELL #5 Peak Elev=172.41' Storage=518 cf Inflow=1.00 cfs 2,215 cf
Outflow=0.64 cfs 2,216 cf

Pond DW-6: PROPOSED DRYWELL #6 Peak Elev=171.82' Storage=125 cf Inflow=0.18 cfs 450 cf
Outflow=0.04 cfs 450 cf

Pond DW-7: PROPOSED DRYWELL #7 Peak Elev=173.02' Storage=116 cf Inflow=0.17 cfs 428 cf
Outflow=0.04 cfs 428 cf

Pond DW-8: PROPOSED DRYWELL #8 Peak Elev=170.60' Storage=112 cf Inflow=0.17 cfs 423 cf
Outflow=0.04 cfs 423 cf

Pond YD-1: PROPOSED DRAIN #1 Peak Elev=173.73' Inflow=0.47 cfs 1,127 cf
8.0" Round Culvert n=0.013 L=68.0' S=0.0100 '/' Outflow=0.47 cfs 1,127 cf

Pond YD-2: PROPOSED DRAIN #2 Peak Elev=173.67' Inflow=1.15 cfs 2,585 cf
8.0" Round Culvert n=0.013 L=16.0' S=0.0100 '/' Outflow=1.15 cfs 2,585 cf

Pond YD-3: PROPOSED DRAIN #3 Peak Elev=173.88' Inflow=0.36 cfs 888 cf
12.0" Round Culvert n=0.013 L=104.0' S=0.0120 '/' Outflow=0.36 cfs 888 cf

Pond YD-4: PROPOSED DRAIN #4 Peak Elev=173.68' Inflow=1.36 cfs 3,190 cf
8.0" Round Culvert n=0.013 L=84.0' S=0.0100 '/' Outflow=1.36 cfs 3,190 cf

Total Runoff Area = 139,588 sf Runoff Volume = 28,902 cf Average Runoff Depth = 2.48"
24.56% Pervious = 34,277 sf 75.44% Impervious = 105,311 sf

Summary for Subcatchment DA-1: DA-1

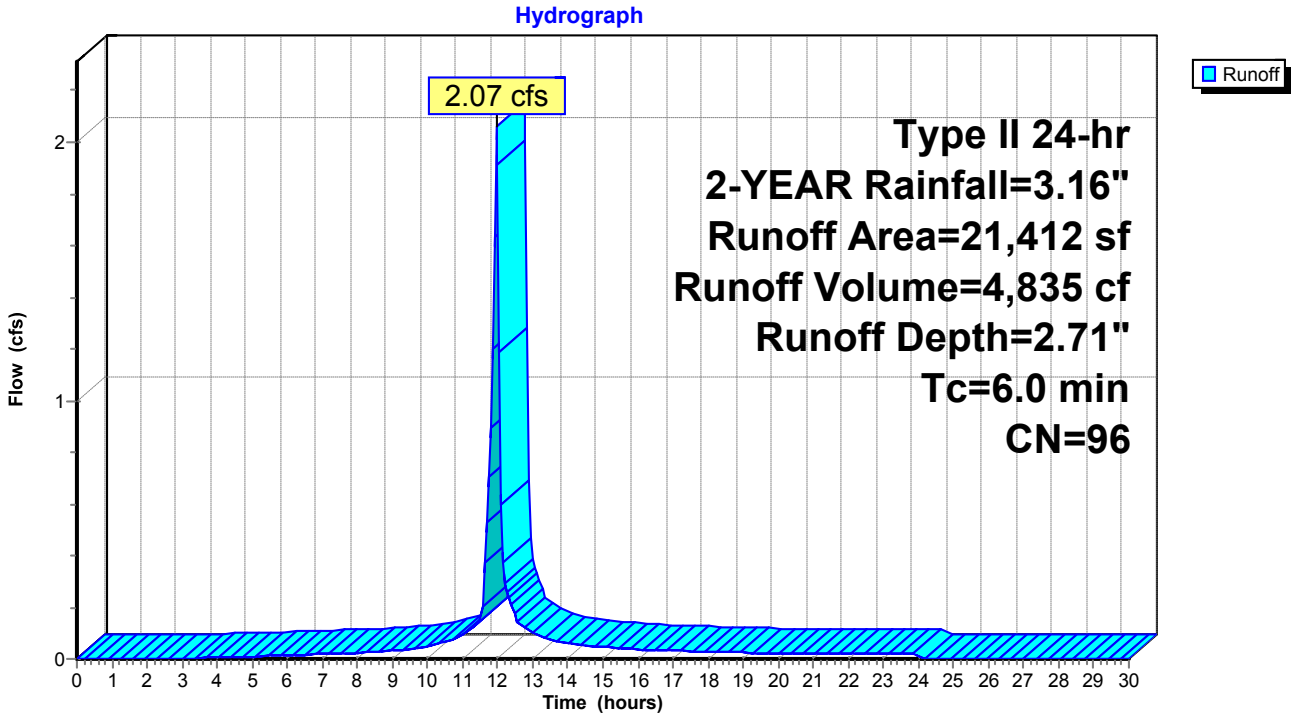
Runoff = 2.07 cfs @ 11.96 hrs, Volume= 4,835 cf, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
2,951	80	>75% Grass cover, Good, HSG D
17,281	98	Roofs, HSG D
1,180	98	Paved parking, HSG D
21,412	96	Weighted Average
2,951		13.78% Pervious Area
18,461		86.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

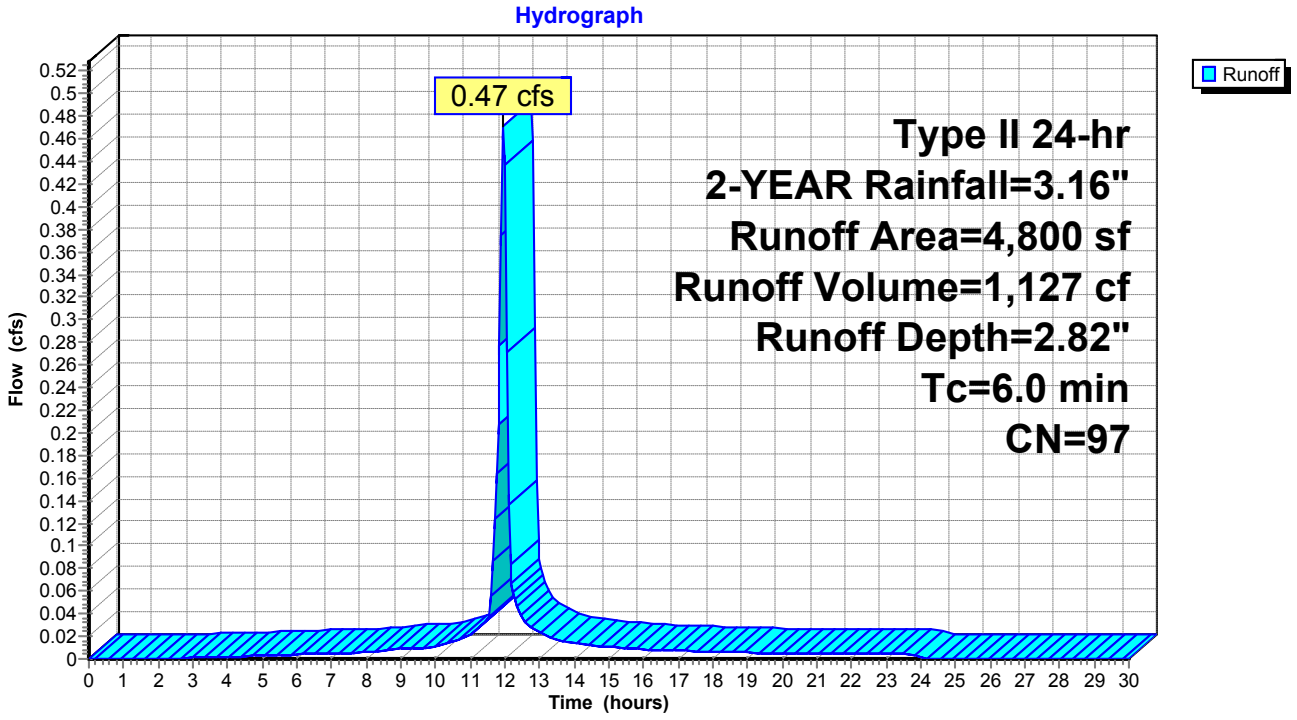
Runoff = 0.47 cfs @ 11.96 hrs, Volume= 1,127 cf, Depth= 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
245	80	>75% Grass cover, Good, HSG D
2,933	98	Roofs, HSG D
1,622	98	Paved parking, HSG D
4,800	97	Weighted Average
245		5.10% Pervious Area
4,555		94.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

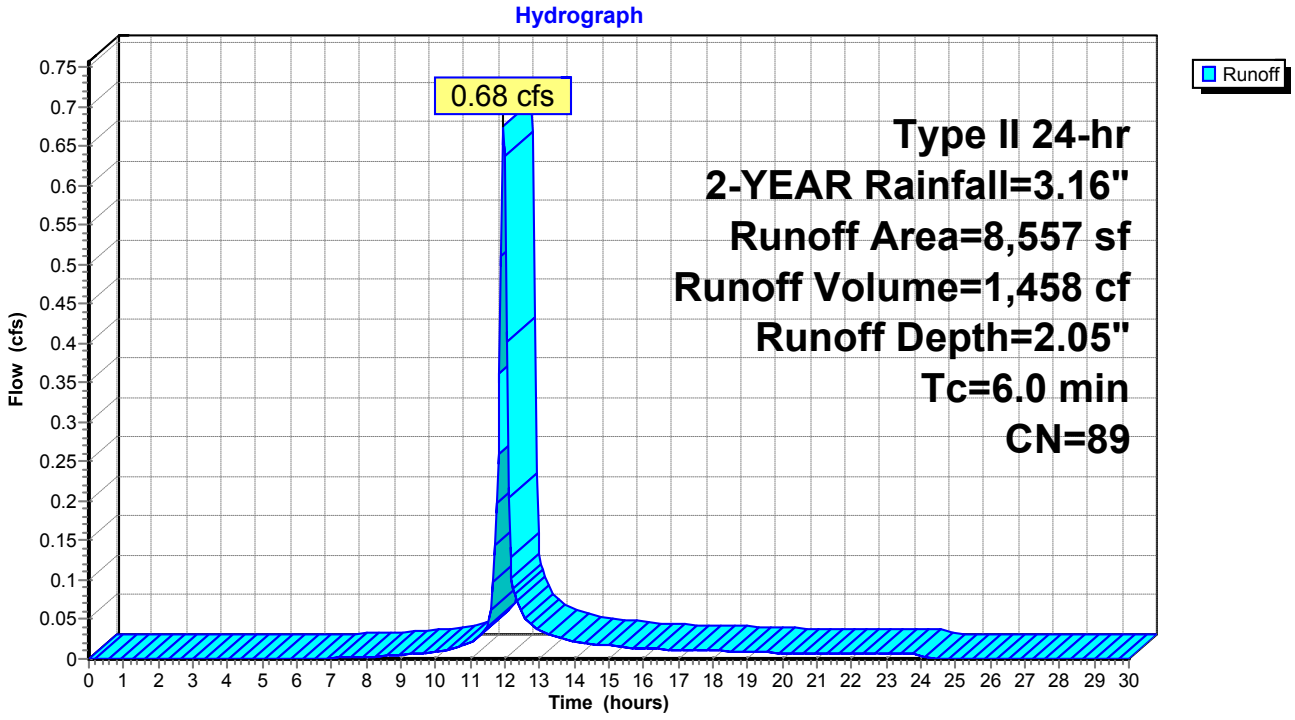
Runoff = 0.68 cfs @ 11.97 hrs, Volume= 1,458 cf, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
4,132	80	>75% Grass cover, Good, HSG D
3,489	98	Roofs, HSG D
936	98	Paved parking, HSG D
8,557	89	Weighted Average
4,132		48.29% Pervious Area
4,425		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-12: DRAINAGE AREA 12

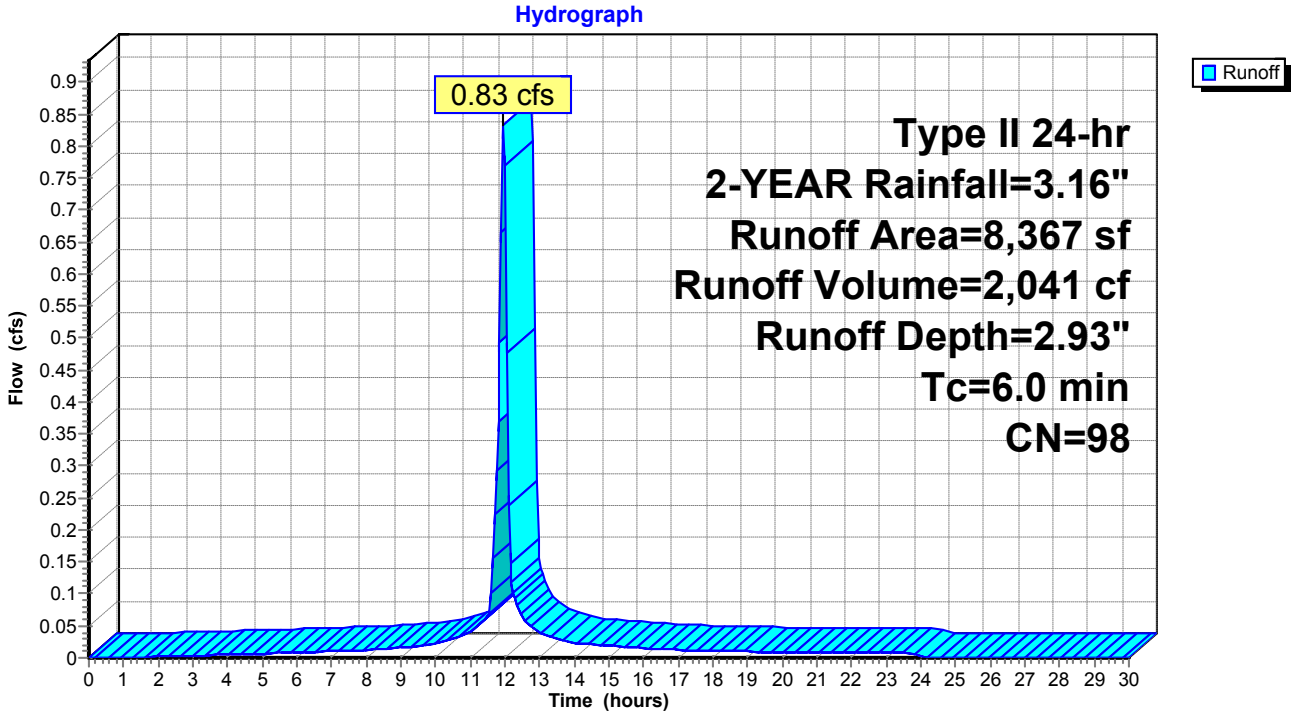
Runoff = 0.83 cfs @ 11.96 hrs, Volume= 2,041 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
8,367	98	Roofs, HSG D
8,367		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-12: DRAINAGE AREA 12



Summary for Subcatchment DA-13: DA-13

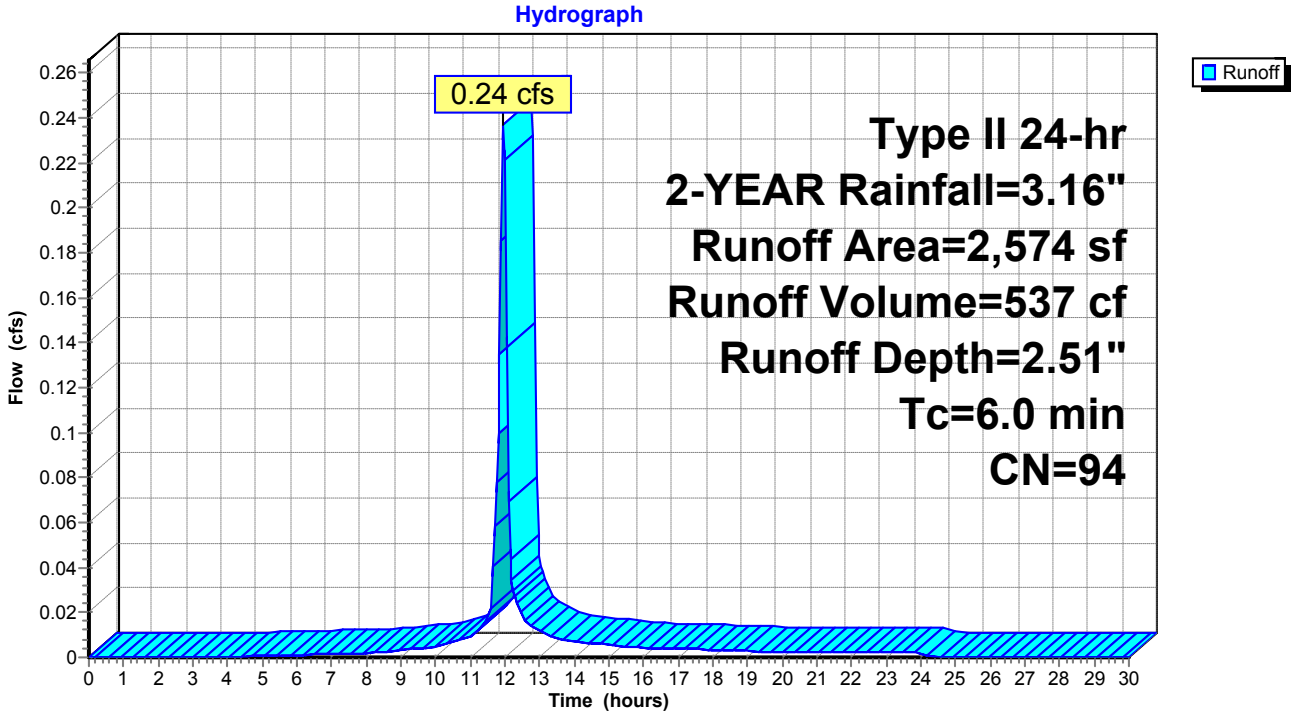
Runoff = 0.24 cfs @ 11.96 hrs, Volume= 537 cf, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
526	80	>75% Grass cover, Good, HSG D
2,048	98	Paved parking, HSG D
2,574	94	Weighted Average
526		20.44% Pervious Area
2,048		79.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-13: DA-13



Summary for Subcatchment DA-14: DRAINAGE AREA 14

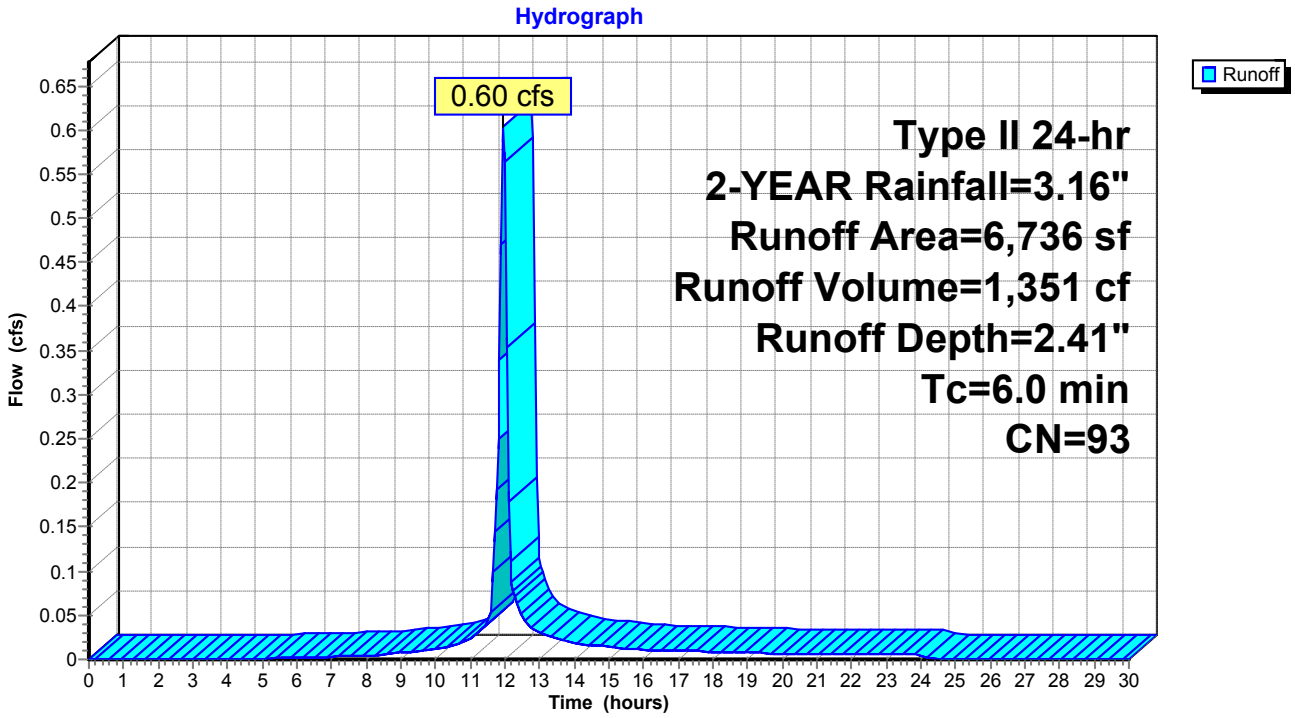
Runoff = 0.60 cfs @ 11.96 hrs, Volume= 1,351 cf, Depth= 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
2,039	80	>75% Grass cover, Good, HSG D
4,697	98	Paved parking, HSG D
6,736	93	Weighted Average
2,039		30.27% Pervious Area
4,697		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-14: DRAINAGE AREA 14



Summary for Subcatchment DA-15: DA-15

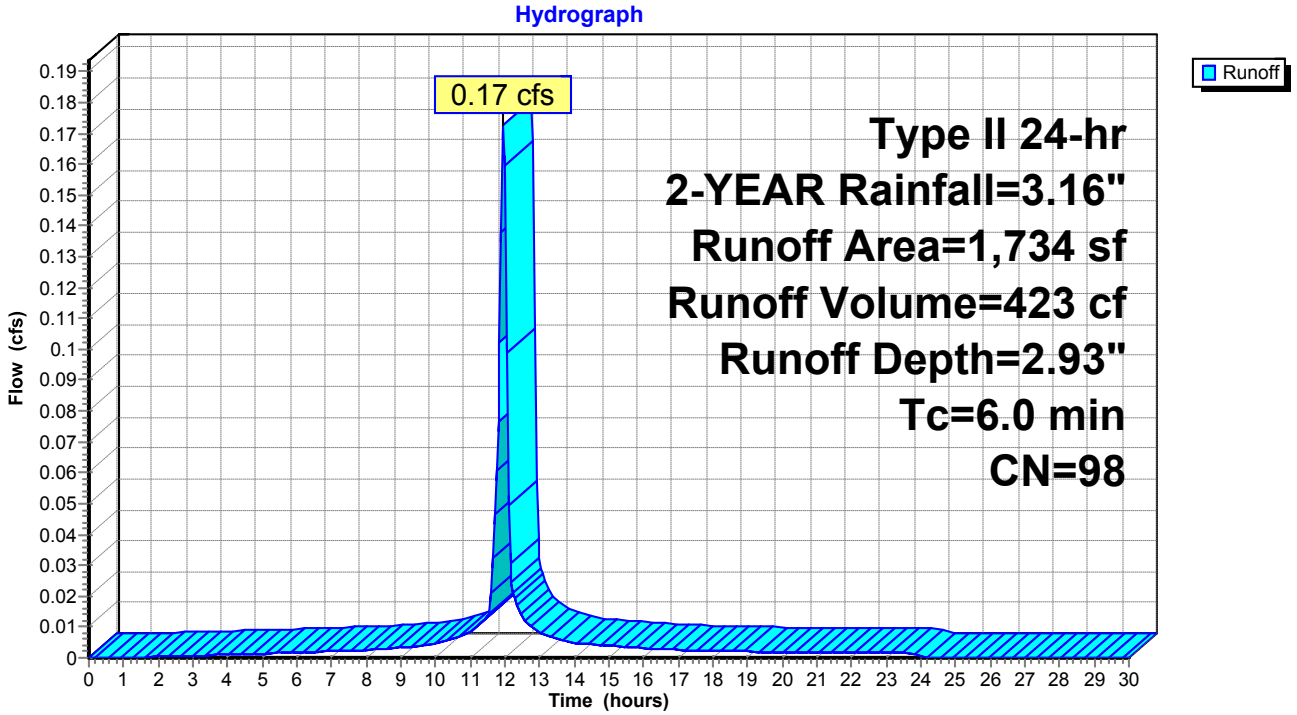
Runoff = 0.17 cfs @ 11.96 hrs, Volume= 423 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,734	98	Roofs, HSG D
1,734		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-15: DA-15



Summary for Subcatchment DA-16: DA-16

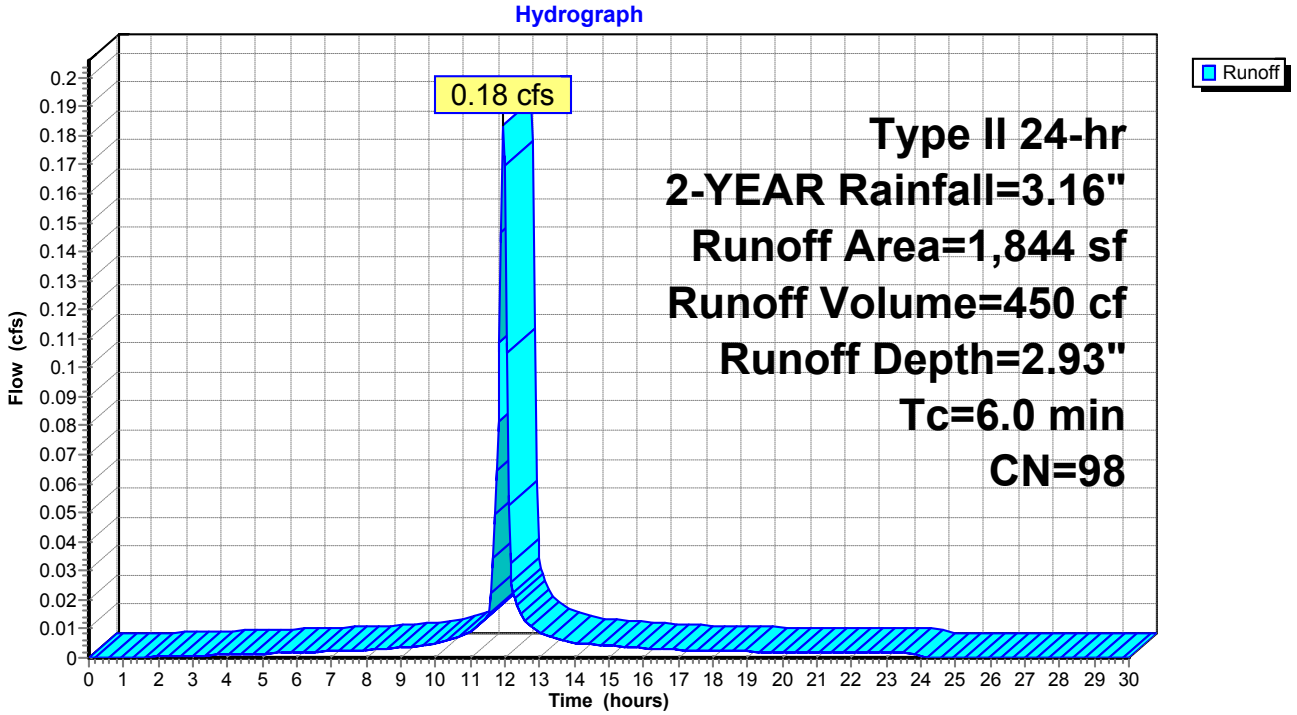
Runoff = 0.18 cfs @ 11.96 hrs, Volume= 450 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,844	98	Roofs, HSG D
1,844		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-16: DA-16



Summary for Subcatchment DA-17: DA-17

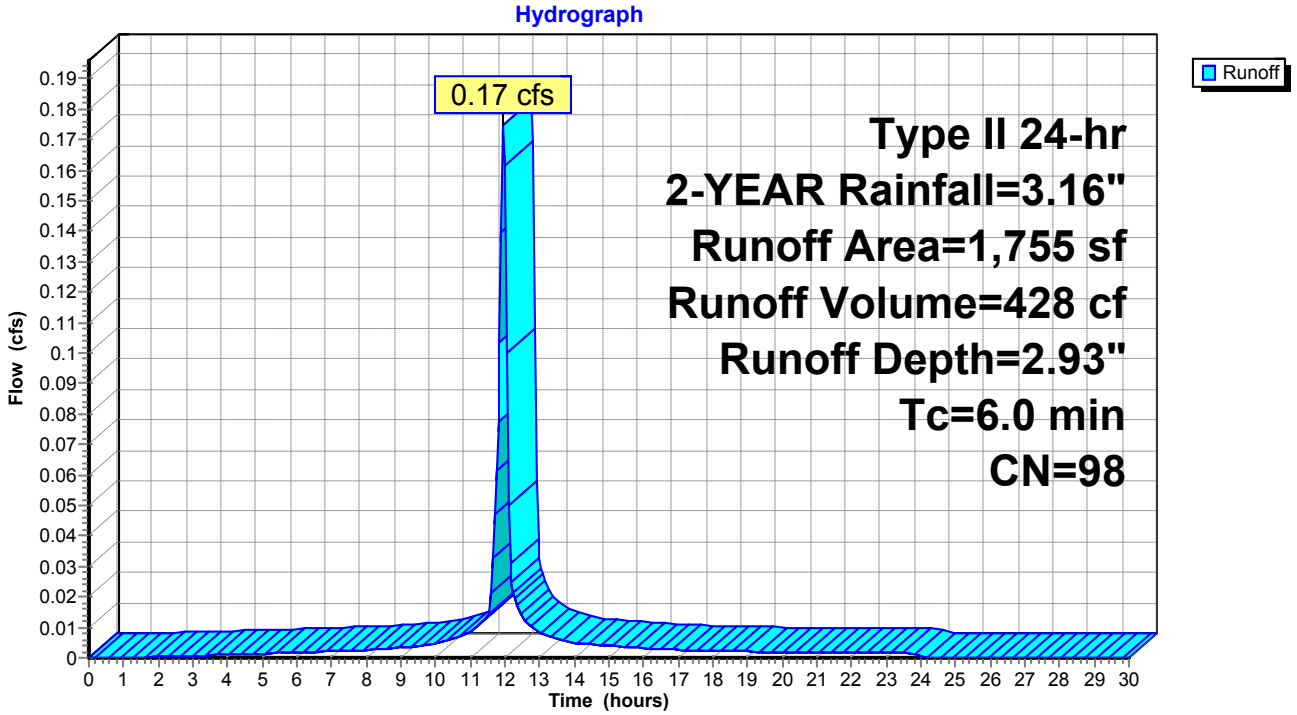
Runoff = 0.17 cfs @ 11.96 hrs, Volume= 428 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,755	98	Roofs, HSG D
1,755		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-17: DA-17



Summary for Subcatchment DA-18: DRAINAGE AREA 18

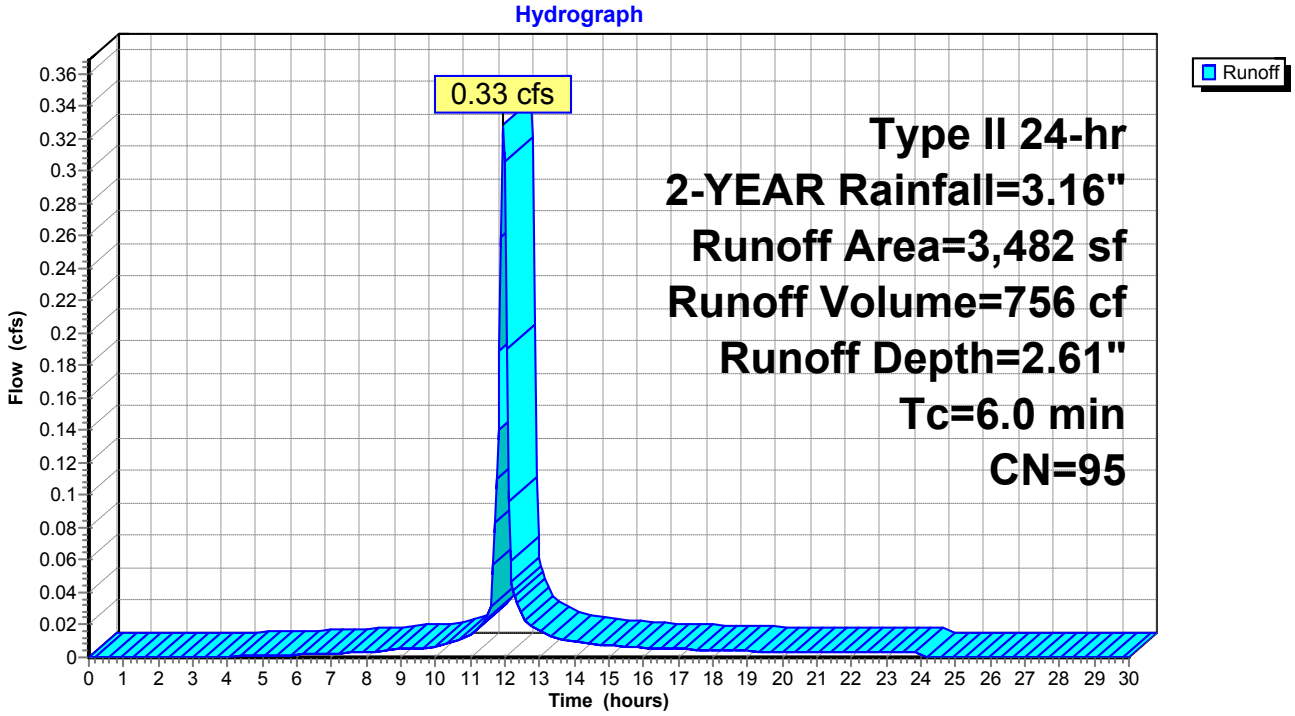
Runoff = 0.33 cfs @ 11.96 hrs, Volume= 756 cf, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
489	80	>75% Grass cover, Good, HSG D
2,993	98	Paved parking, HSG D
3,482	95	Weighted Average
489		14.04% Pervious Area
2,993		85.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-18: DRAINAGE AREA 18



Summary for Subcatchment DA-2: DA-2

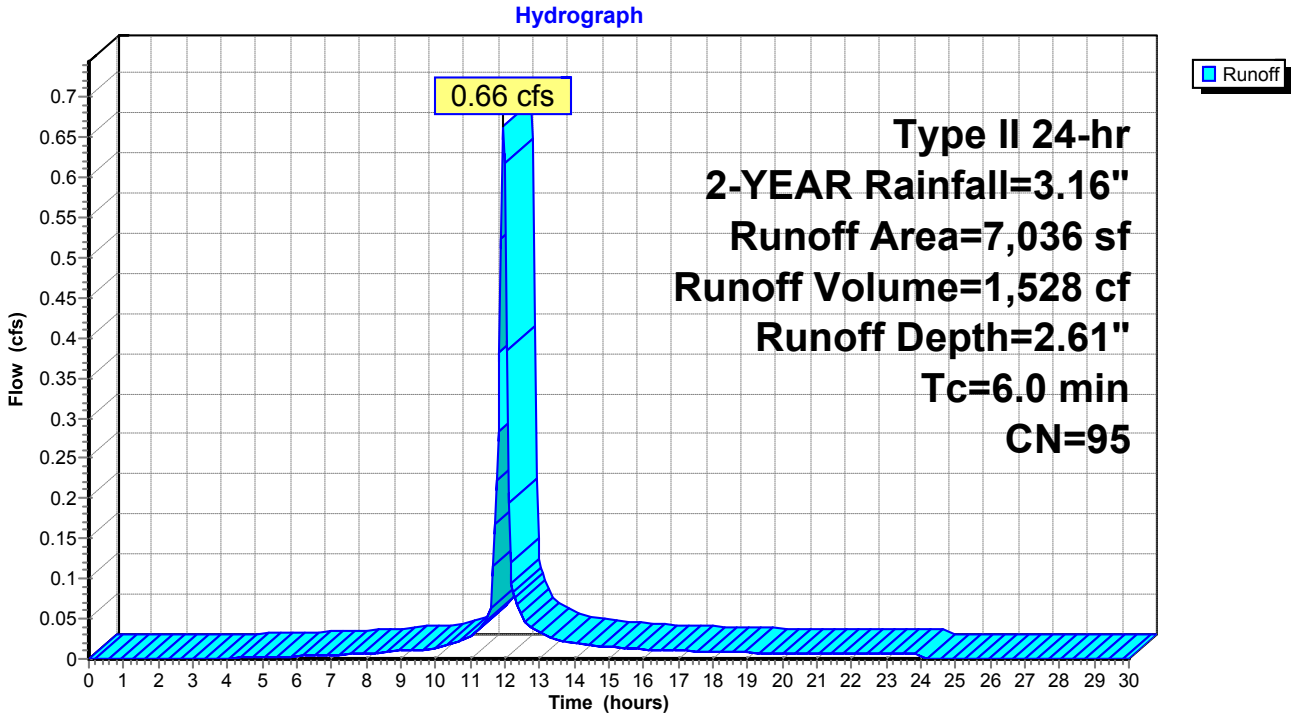
Runoff = 0.66 cfs @ 11.96 hrs, Volume= 1,528 cf, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,178	80	>75% Grass cover, Good, HSG D
5,194	98	Roofs, HSG D
664	98	Paved parking, HSG D
7,036	95	Weighted Average
1,178		16.74% Pervious Area
5,858		83.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DRAINAGE AREA 3

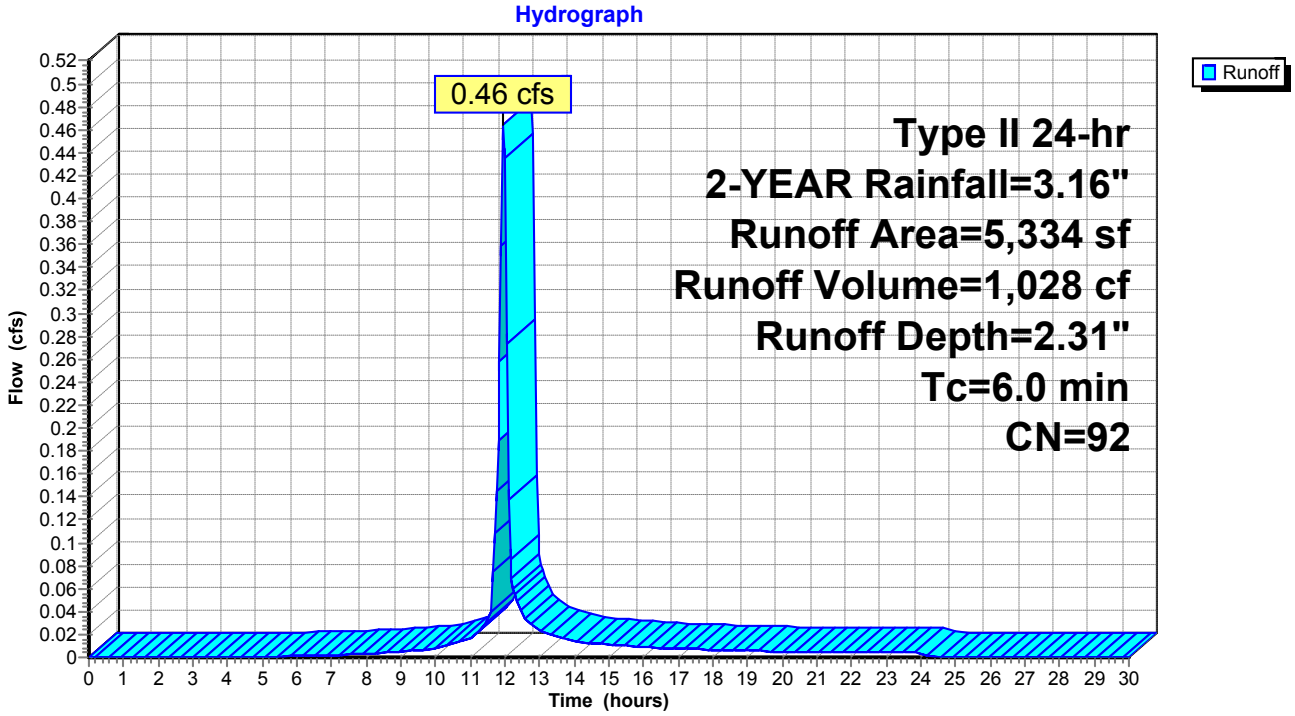
Runoff = 0.46 cfs @ 11.97 hrs, Volume= 1,028 cf, Depth= 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,820	80	>75% Grass cover, Good, HSG D
3,514	98	Paved parking, HSG D
5,334	92	Weighted Average
1,820		34.12% Pervious Area
3,514		65.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-3: DRAINAGE AREA 3



Summary for Subcatchment DA-4: DRAINAGE AREA 4

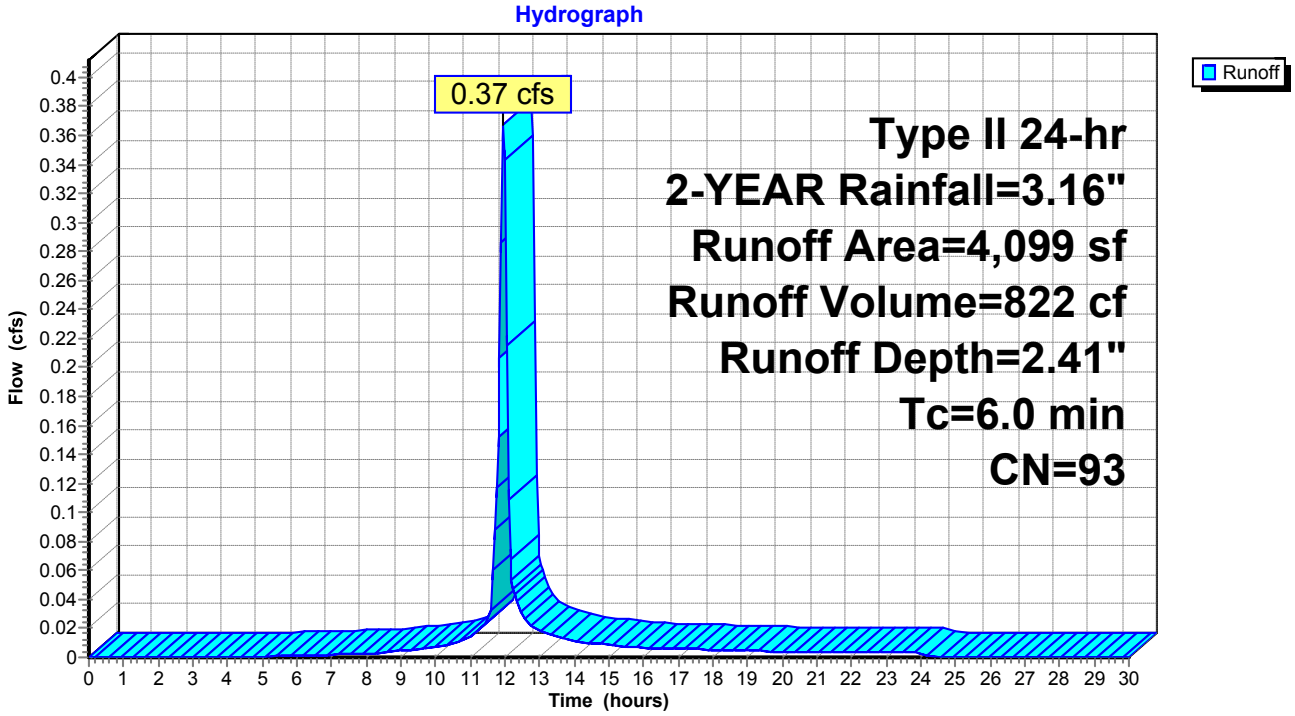
Runoff = 0.37 cfs @ 11.96 hrs, Volume= 822 cf, Depth= 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,032	80	>75% Grass cover, Good, HSG D
3,067	98	Paved parking, HSG D
4,099	93	Weighted Average
1,032		25.18% Pervious Area
3,067		74.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-4: DRAINAGE AREA 4



Summary for Subcatchment DA-5: DRAINAGE AREA 5

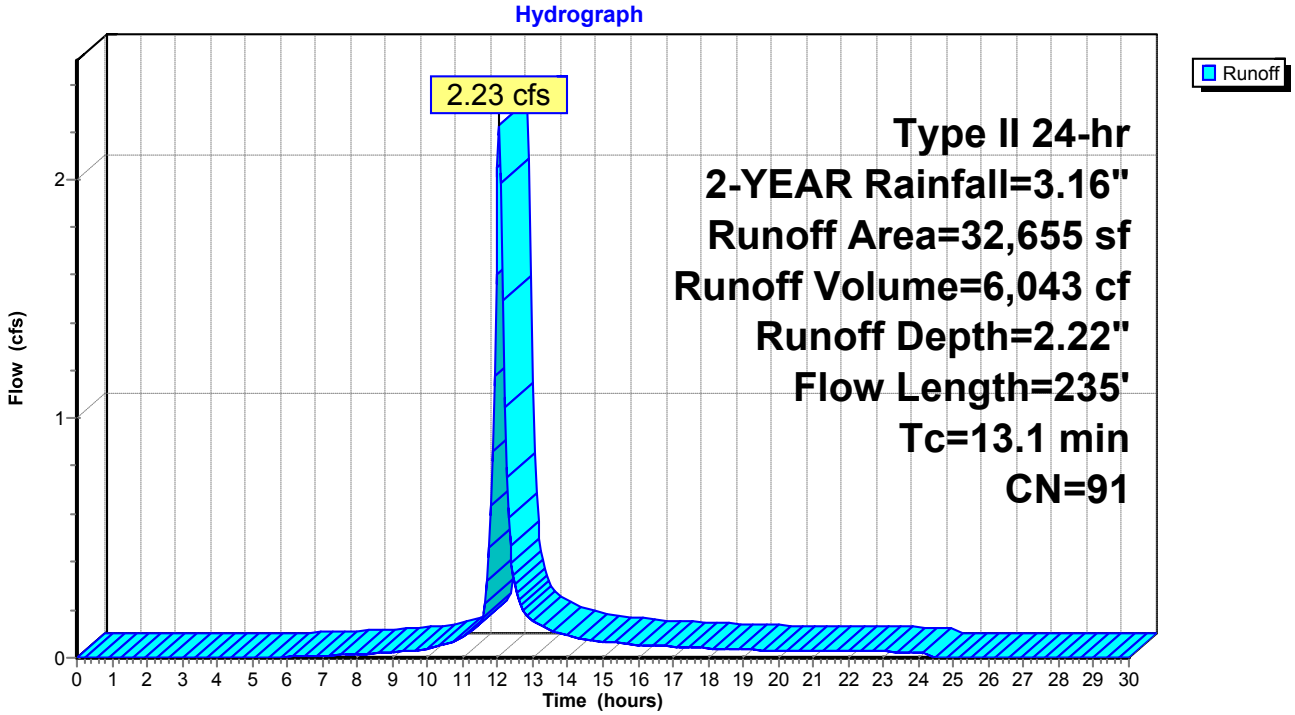
Runoff = 2.23 cfs @ 12.05 hrs, Volume= 6,043 cf, Depth= 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
12,737	80	>75% Grass cover, Good, HSG D
19,918	98	Paved parking, HSG D
32,655	91	Weighted Average
12,737		39.00% Pervious Area
19,918		61.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0150	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
1.7	81	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	54	0.0250	3.21		**Shallow Concentrated Flow, C-D** Paved Kv= 20.3 fps
13.1	235	Total			

Subcatchment DA-5: DRAINAGE AREA 5



Summary for Subcatchment DA-6: DA-6

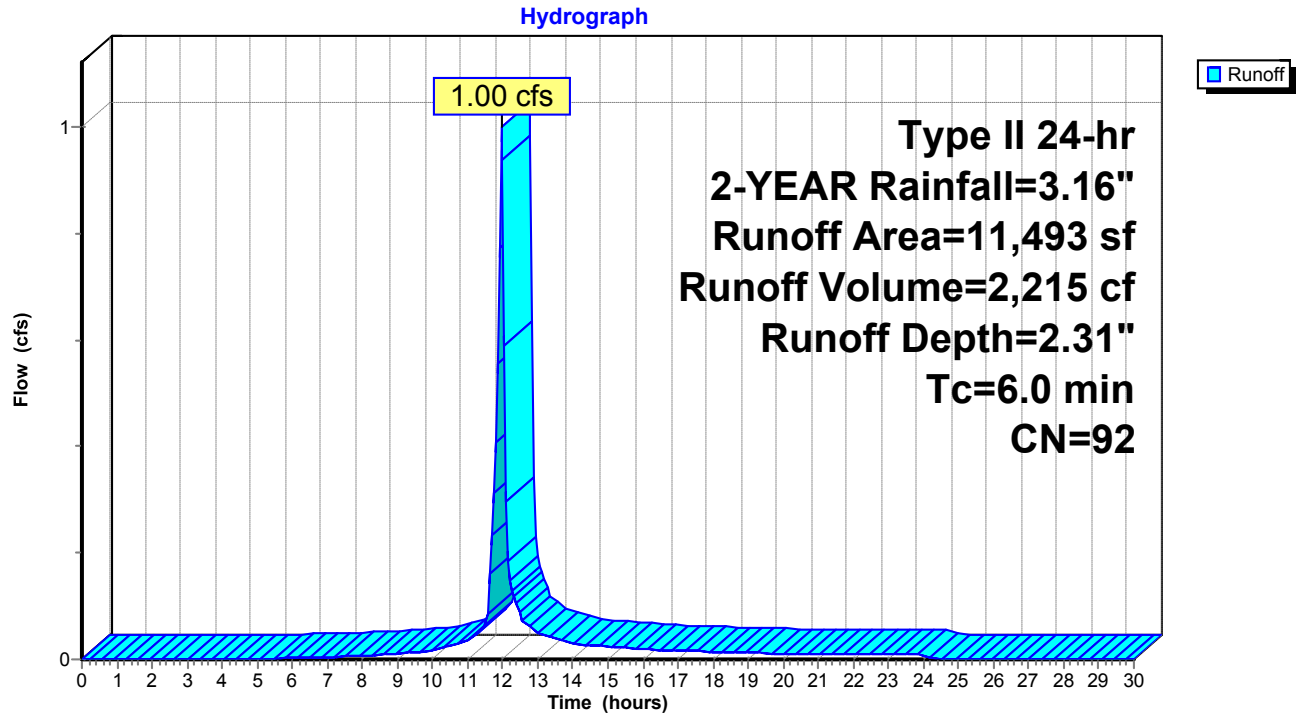
Runoff = 1.00 cfs @ 11.97 hrs, Volume= 2,215 cf, Depth= 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
3,947	80	>75% Grass cover, Good, HSG D
7,546	98	Paved parking, HSG D
11,493	92	Weighted Average
3,947		34.34% Pervious Area
7,546		65.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

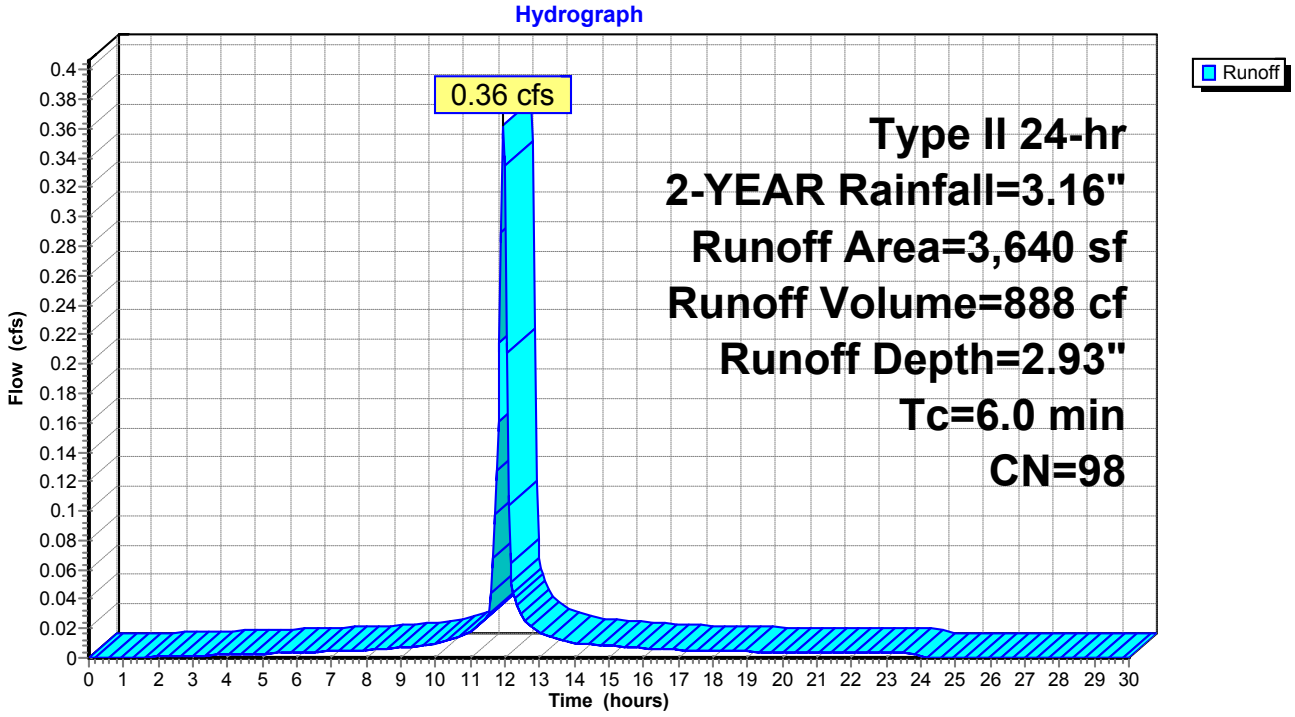
Runoff = 0.36 cfs @ 11.96 hrs, Volume= 888 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,587	98	Roofs, HSG D
2,053	98	Paved parking, HSG D
3,640	98	Weighted Average
3,640		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

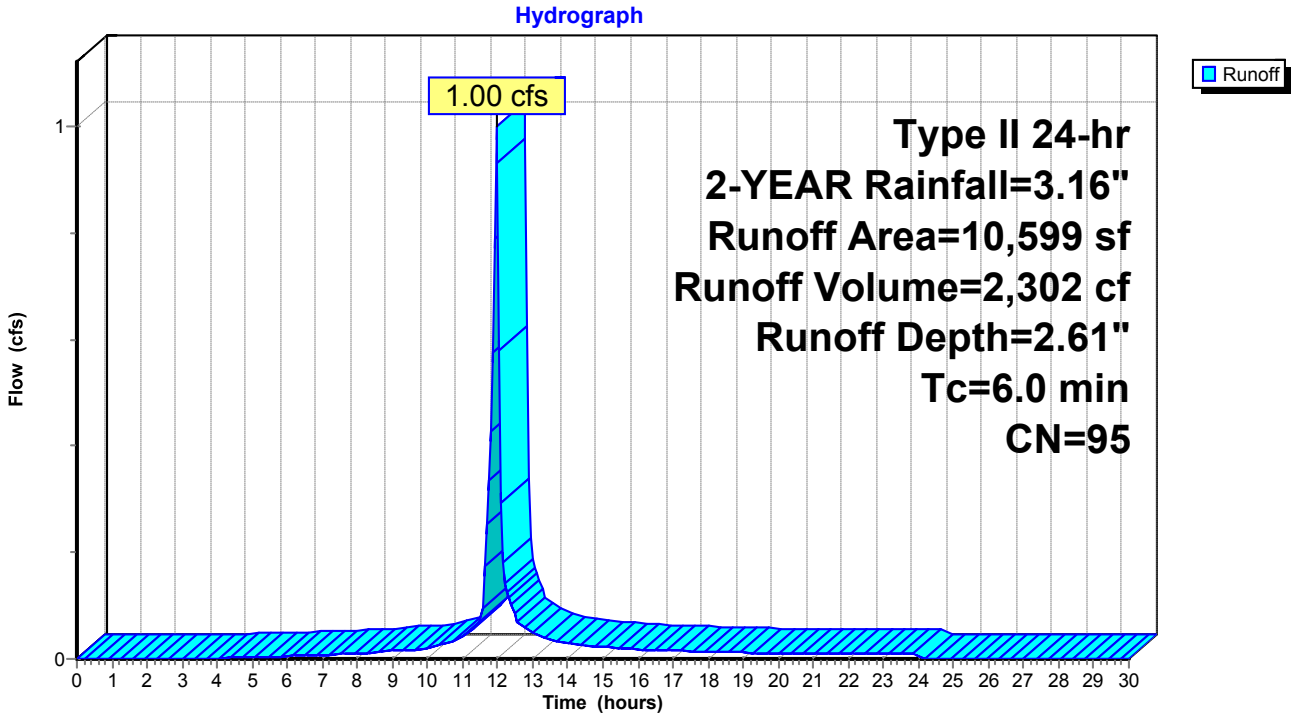
Runoff = 1.00 cfs @ 11.96 hrs, Volume= 2,302 cf, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,986	80	>75% Grass cover, Good, HSG D
6,900	98	Roofs, HSG D
1,713	98	Paved parking, HSG D
10,599	95	Weighted Average
1,986		18.74% Pervious Area
8,613		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DRAINAGE AREA 9

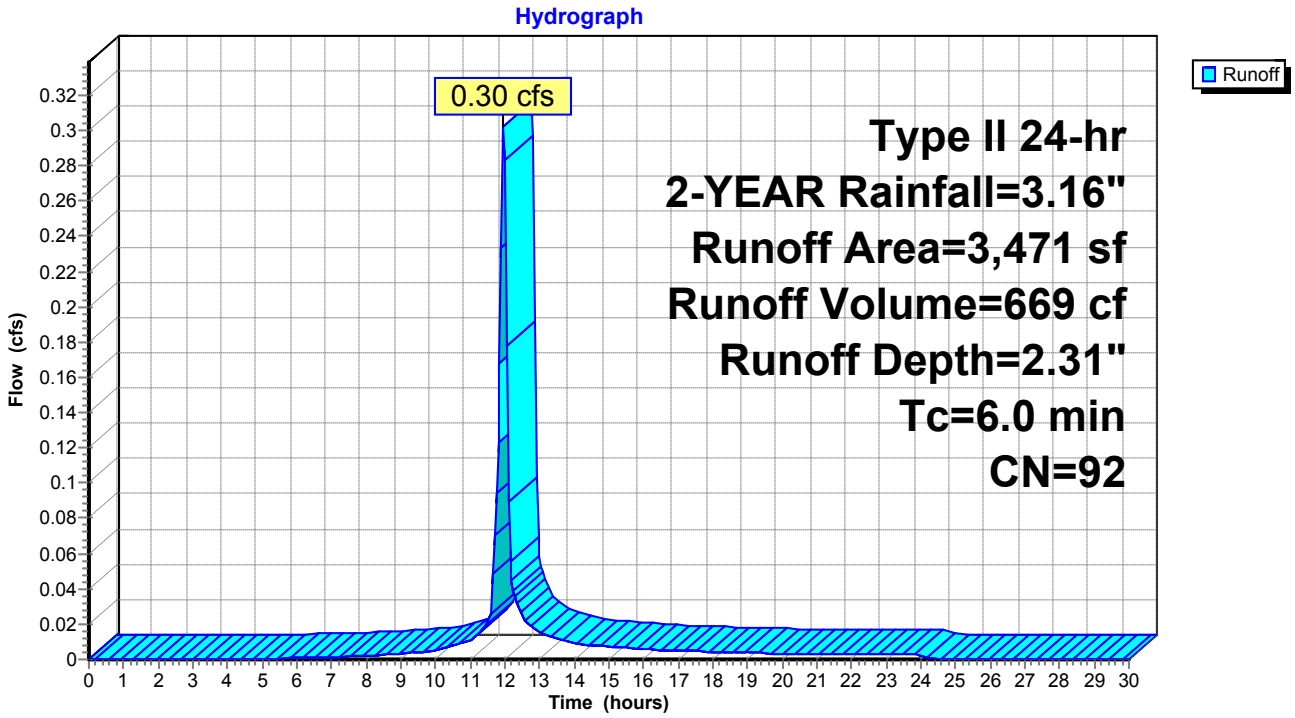
Runoff = 0.30 cfs @ 11.97 hrs, Volume= 669 cf, Depth= 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,195	80	>75% Grass cover, Good, HSG D
2,276	98	Paved parking, HSG D
3,471	92	Weighted Average
1,195		34.43% Pervious Area
2,276		65.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-9: DRAINAGE AREA 9



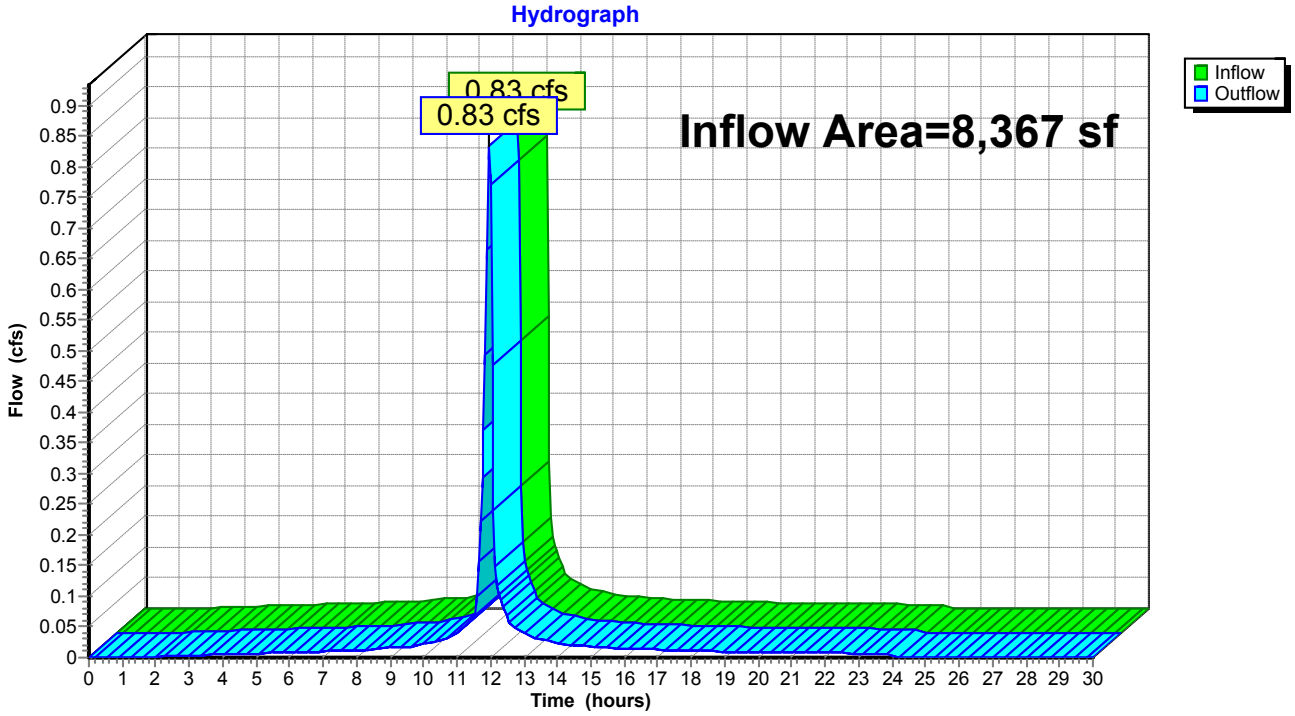
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8,367 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 0.83 cfs @ 11.96 hrs, Volume= 2,041 cf
Outflow = 0.83 cfs @ 11.96 hrs, Volume= 2,041 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 2P: EXISTING DRYWELL

[81] Warning: Exceeded Pond DW-4 by 0.49' @ 14.85 hrs

Inflow Area = 5,334 sf, 65.88% Impervious, Inflow Depth = 6.02" for 2-YEAR event
Inflow = 1.80 cfs @ 11.98 hrs, Volume= 2,678 cf
Outflow = 1.77 cfs @ 12.00 hrs, Volume= 2,678 cf, Atten= 1%, Lag= 1.1 min
Discarded = 0.57 cfs @ 12.00 hrs, Volume= 1,791 cf
Primary = 1.20 cfs @ 12.00 hrs, Volume= 887 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.78' @ 12.00 hrs Surf.Area= 1,124 sf Storage= 370 cf

Plug-Flow detention time= 29.4 min calculated for 2,673 cf (100% of inflow)
Center-of-Mass det. time= 29.4 min (784.3 - 754.9)

Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	1,717 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

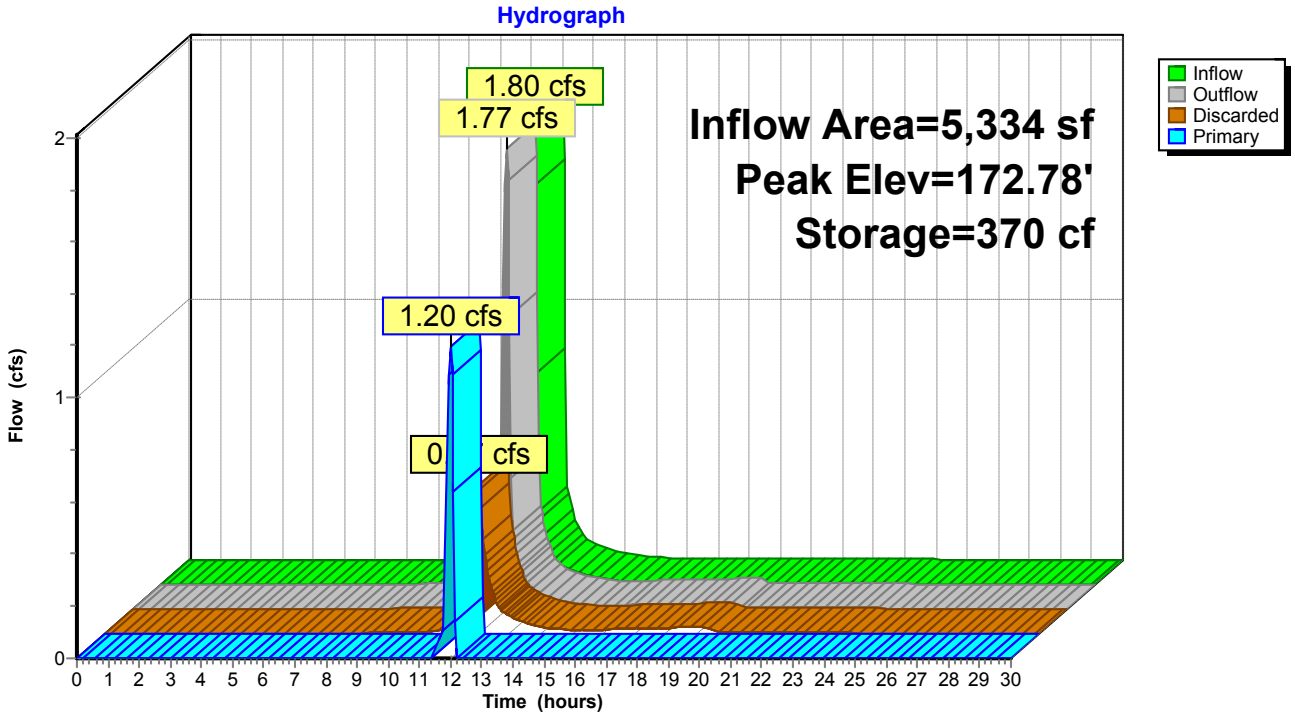
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	2,000	507	717
173.50	2,000	1,000	1,717

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**
#2	Primary	172.65'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.57 cfs @ 12.00 hrs HW=172.78' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.57 cfs)

Primary OutFlow Max=1.19 cfs @ 12.00 hrs HW=172.78' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 1.19 cfs @ 1.17 fps)

Pond 2P: EXISTING DRYWELL



Summary for Pond 3P: PROPOSED CB #3

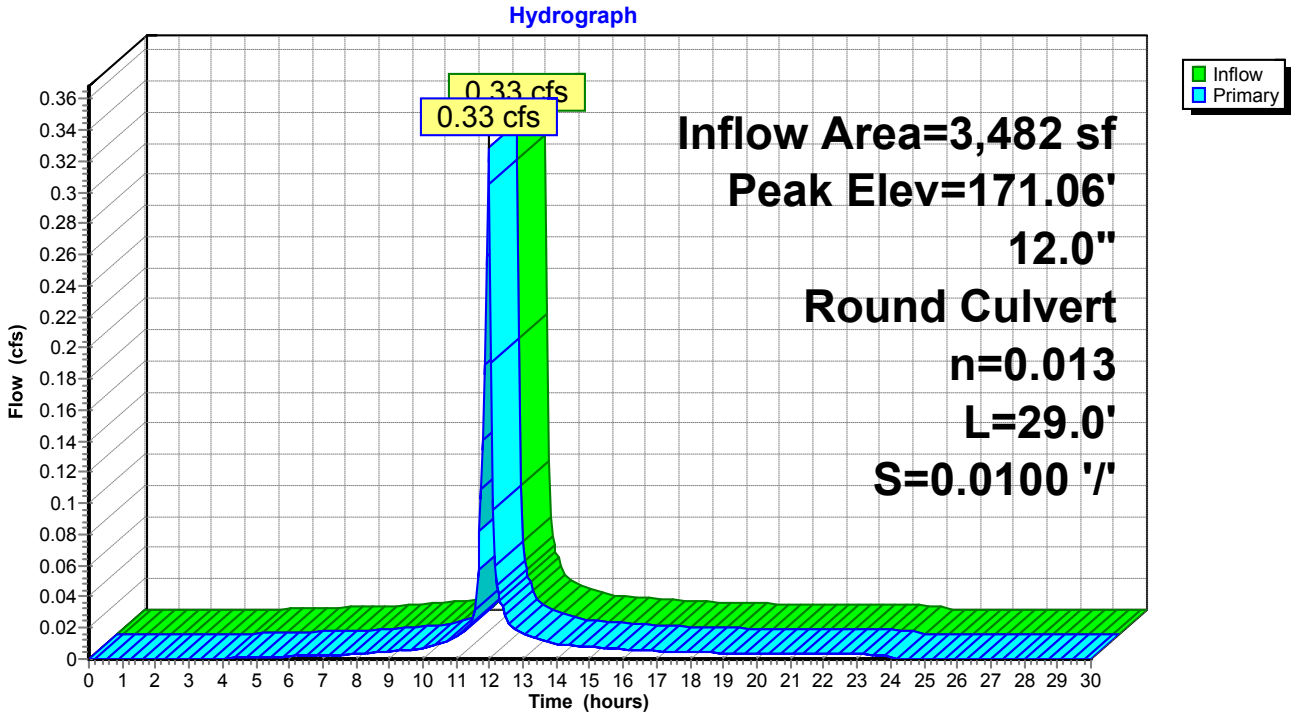
Inflow Area = 3,482 sf, 85.96% Impervious, Inflow Depth = 2.61" for 2-YEAR event
Inflow = 0.33 cfs @ 11.96 hrs, Volume= 756 cf
Outflow = 0.33 cfs @ 11.96 hrs, Volume= 756 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.33 cfs @ 11.96 hrs, Volume= 756 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.06' @ 11.96 hrs
Flood Elev= 172.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.74'	**12.0" Round Culvert** L= 29.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.74' / 170.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.32 cfs @ 11.96 hrs HW=171.06' (Free Discharge)
1=Culvert (Inlet Controls 0.32 cfs @ 1.51 fps)

Pond 3P: PROPOSED CB #3



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond CB-2 by 2.71' @ 12.15 hrs

Inflow	=	0.96 cfs @	11.96 hrs,	Volume=	2,687 cf
Outflow	=	0.72 cfs @	12.04 hrs,	Volume=	2,687 cf, Atten= 25%, Lag= 4.5 min
Discarded	=	0.72 cfs @	12.04 hrs,	Volume=	2,687 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.34' @ 12.04 hrs Surf.Area= 1,415 sf Storage= 469 cf

Plug-Flow detention time= 57.3 min calculated for 2,682 cf (100% of inflow)
Center-of-Mass det. time= 57.3 min (833.0 - 775.7)

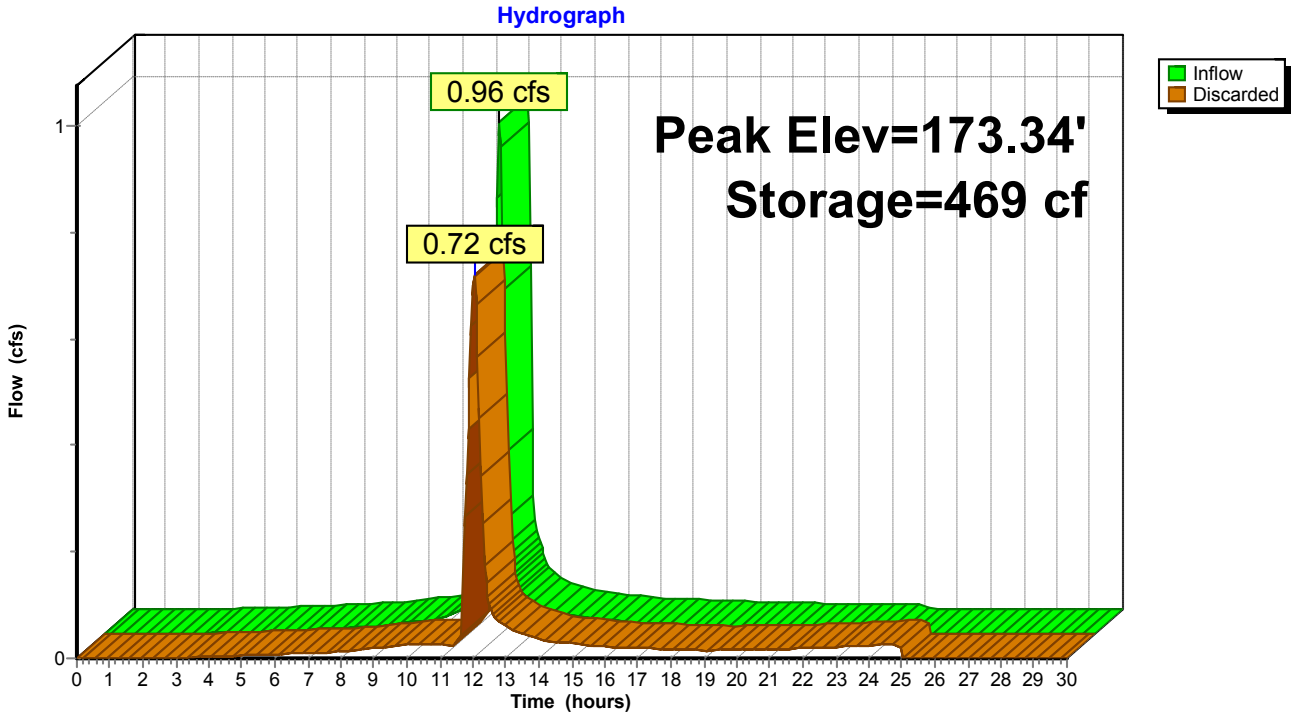
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	112	7	213
174.00	4,000	2,056	2,269

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.71 cfs @ 12.04 hrs HW=173.33' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.71 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 8P: EXISTING YARD DRAIN

[58] Hint: Peaked 15.91' above defined flood level

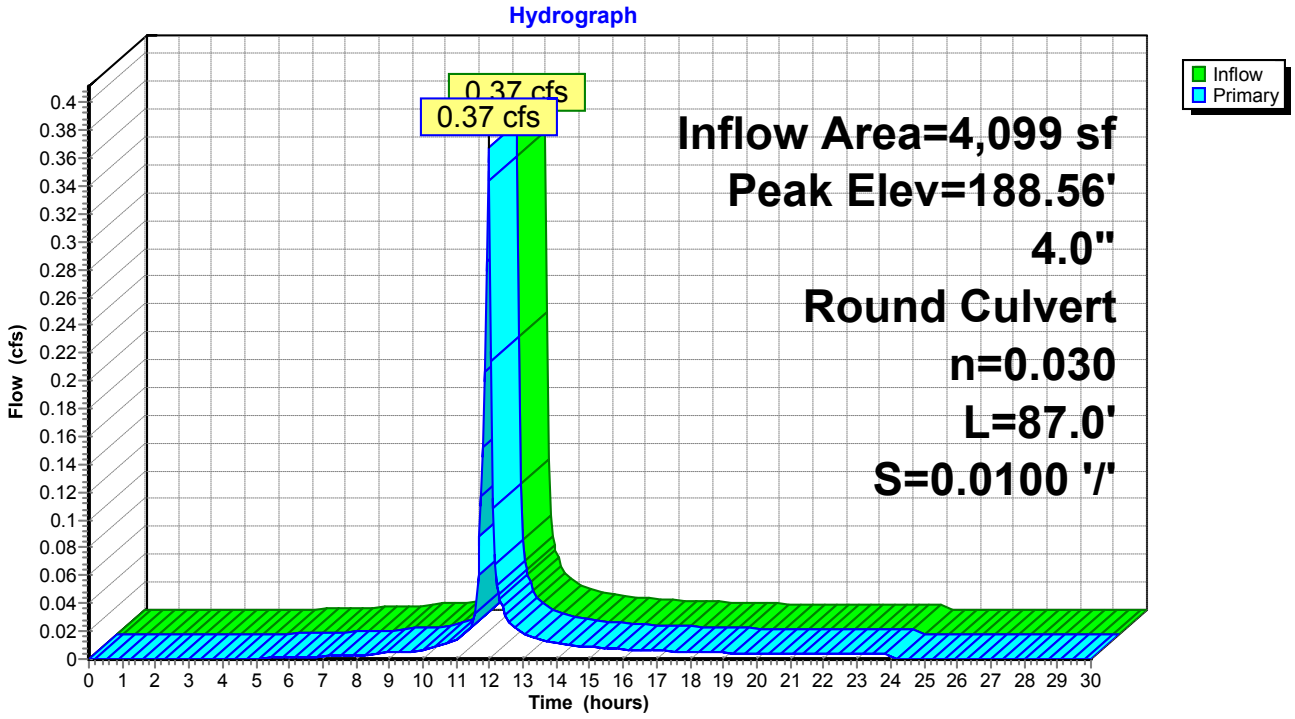
Inflow Area = 4,099 sf, 74.82% Impervious, Inflow Depth = 2.41" for 2-YEAR event
Inflow = 0.37 cfs @ 11.96 hrs, Volume= 822 cf
Outflow = 0.37 cfs @ 11.96 hrs, Volume= 822 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.37 cfs @ 11.96 hrs, Volume= 822 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 188.56' @ 11.96 hrs
Flood Elev= 172.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.030, Flow Area= 0.09 sf

Primary OutFlow Max=0.36 cfs @ 11.96 hrs HW=187.68' (Free Discharge)
1=Culvert (Barrel Controls 0.36 cfs @ 4.10 fps)

Pond 8P: EXISTING YARD DRAIN



Summary for Pond 12P: EXISTING CB

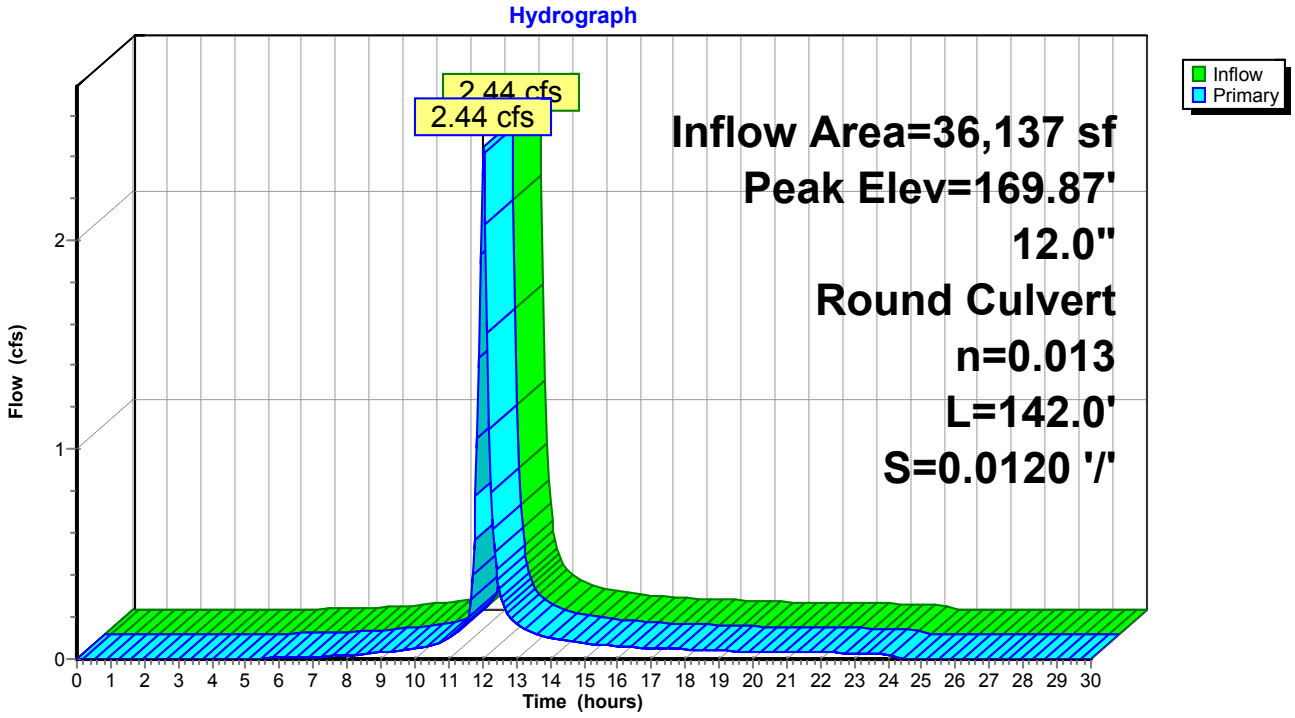
Inflow Area = 36,137 sf, 63.40% Impervious, Inflow Depth = 2.26" for 2-YEAR event
Inflow = 2.44 cfs @ 12.03 hrs, Volume= 6,799 cf
Outflow = 2.44 cfs @ 12.03 hrs, Volume= 6,799 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.44 cfs @ 12.03 hrs, Volume= 6,799 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.87' @ 12.03 hrs
Flood Elev= 172.16'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.39 cfs @ 12.03 hrs HW=169.84' (Free Discharge)
1=Culvert (Inlet Controls 2.39 cfs @ 3.05 fps)

Pond 12P: EXISTING CB



Summary for Pond 14P: EXISTING CB

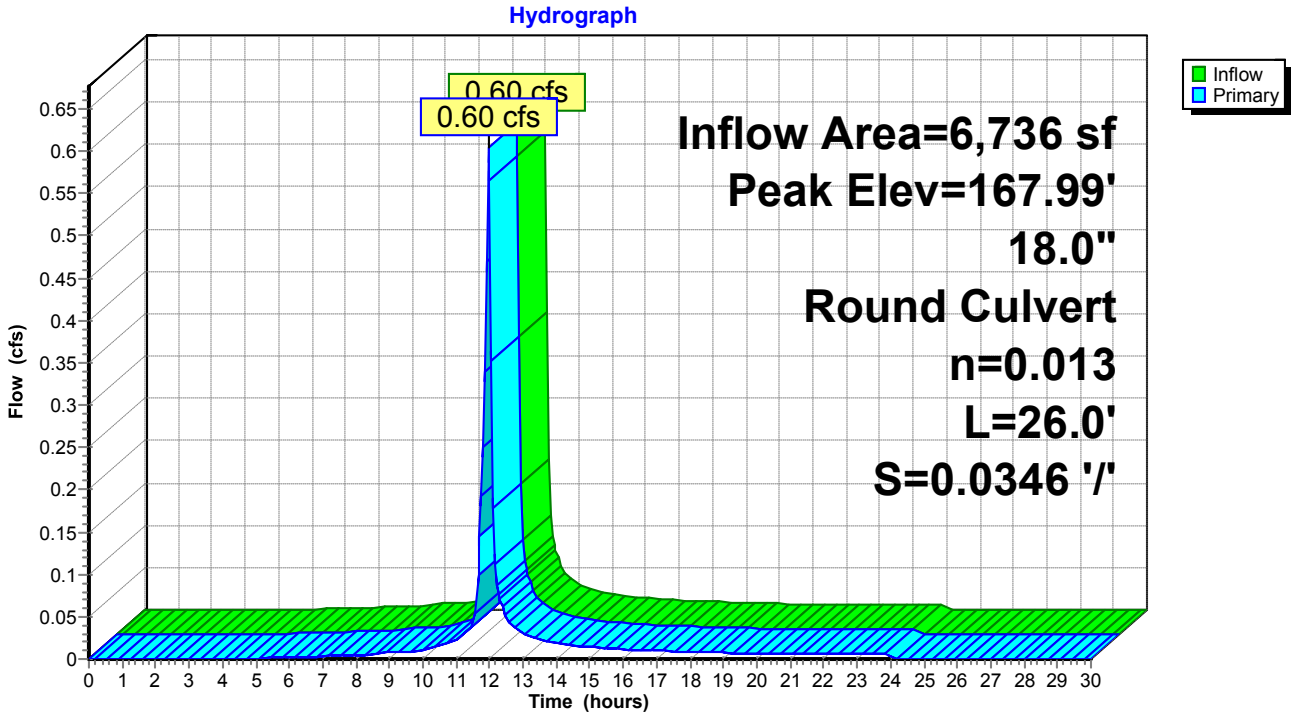
Inflow Area = 6,736 sf, 69.73% Impervious, Inflow Depth = 2.41" for 2-YEAR event
Inflow = 0.60 cfs @ 11.96 hrs, Volume= 1,351 cf
Outflow = 0.60 cfs @ 11.96 hrs, Volume= 1,351 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.60 cfs @ 11.96 hrs, Volume= 1,351 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 167.99' @ 11.97 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=0.59 cfs @ 11.96 hrs HW=167.98' (Free Discharge)
1=Culvert (Inlet Controls 0.59 cfs @ 1.66 fps)

Pond 14P: EXISTING CB



Summary for Pond CB-1: PROPOSED CATCH BASIN #1

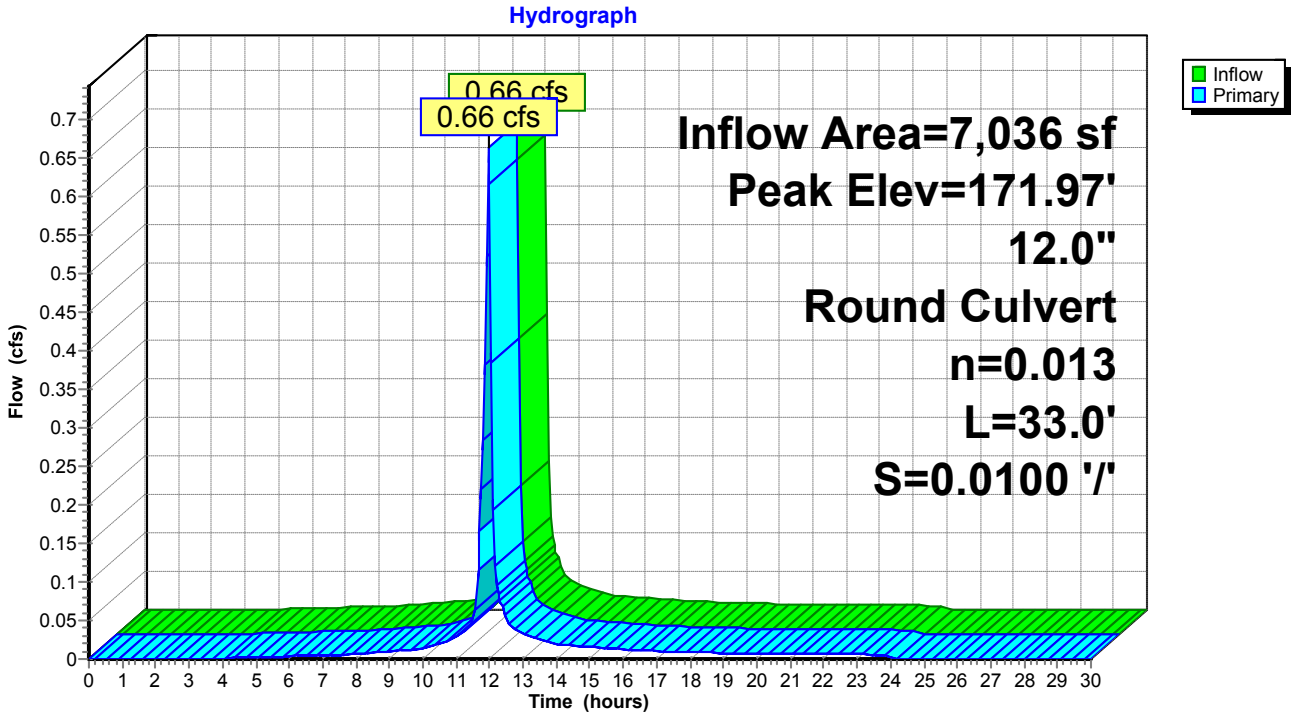
Inflow Area = 7,036 sf, 83.26% Impervious, Inflow Depth = 2.61" for 2-YEAR event
Inflow = 0.66 cfs @ 11.96 hrs, Volume= 1,528 cf
Outflow = 0.66 cfs @ 11.96 hrs, Volume= 1,528 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.66 cfs @ 11.96 hrs, Volume= 1,528 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.97' @ 11.96 hrs
Flood Elev= 172.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.50'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.50' / 171.17' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.65 cfs @ 11.96 hrs HW=171.96' (Free Discharge)
1=Culvert (Inlet Controls 0.65 cfs @ 1.83 fps)

Pond CB-1: PROPOSED CATCH BASIN #1



Summary for Pond CB-2: PR CB #2

[57] Hint: Peaked at 171.11' (Flood elevation advised)

Inflow Area =	28,448 sf,	85.49% Impervious,	Inflow Depth =	2.68"	for 2-YEAR event
Inflow =	2.73 cfs @	11.96 hrs, Volume=	6,363 cf		
Outflow =	2.73 cfs @	11.96 hrs, Volume=	6,363 cf,	Atten= 0%,	Lag= 0.0 min
Primary =	1.77 cfs @	11.96 hrs, Volume=	3,676 cf		
Secondary =	0.96 cfs @	11.96 hrs, Volume=	2,687 cf		

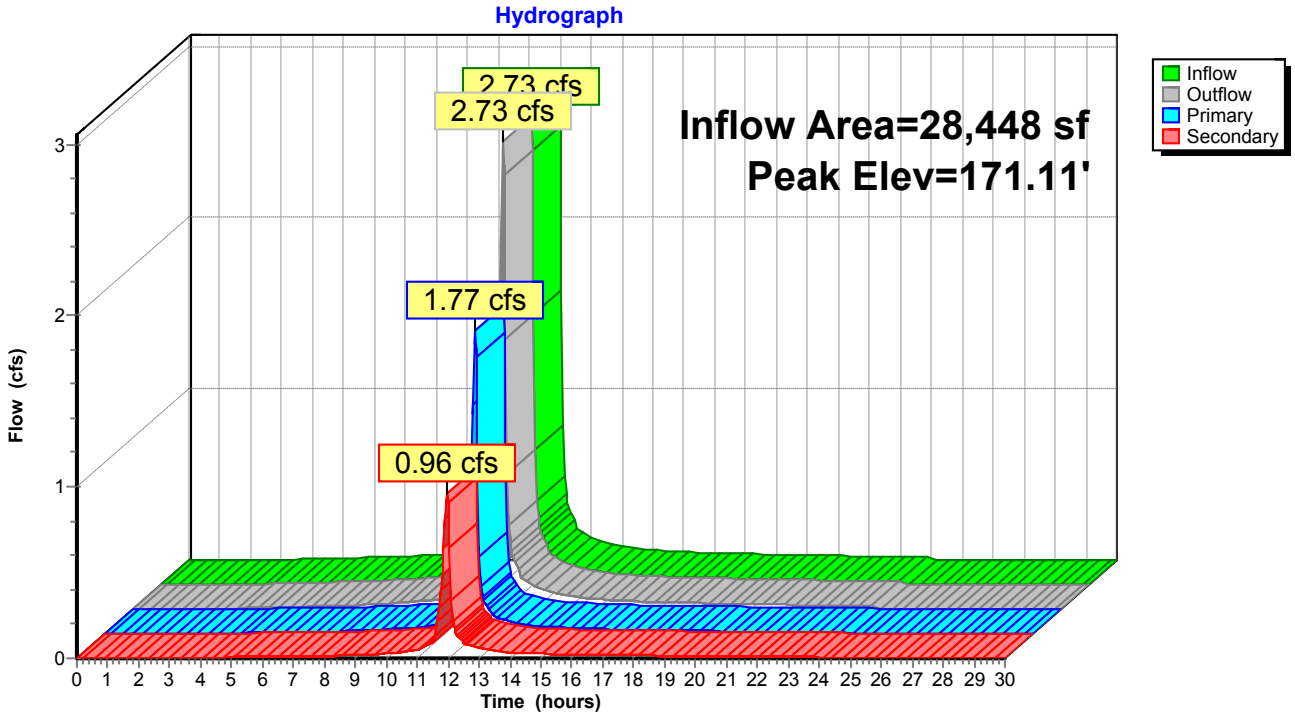
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.11' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.25'	**12.0" Round Culvert** L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	170.25'	**8.0" Round Culvert** L= 12.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.72 cfs @ 11.96 hrs HW=171.09' (Free Discharge)
1=Culvert (Barrel Controls 1.72 cfs @ 3.30 fps)

Secondary OutFlow Max=0.94 cfs @ 11.96 hrs HW=171.09' (Free Discharge)
2=Culvert (Inlet Controls 0.94 cfs @ 2.70 fps)

Pond CB-2: PR CB #2



Summary for Pond DP-1: Existing Catch Basin

[79] Warning: Submerged Pond 12P Primary device # 1 OUTLET by 0.94'
[79] Warning: Submerged Pond 14P Primary device # 1 INLET by 0.34'

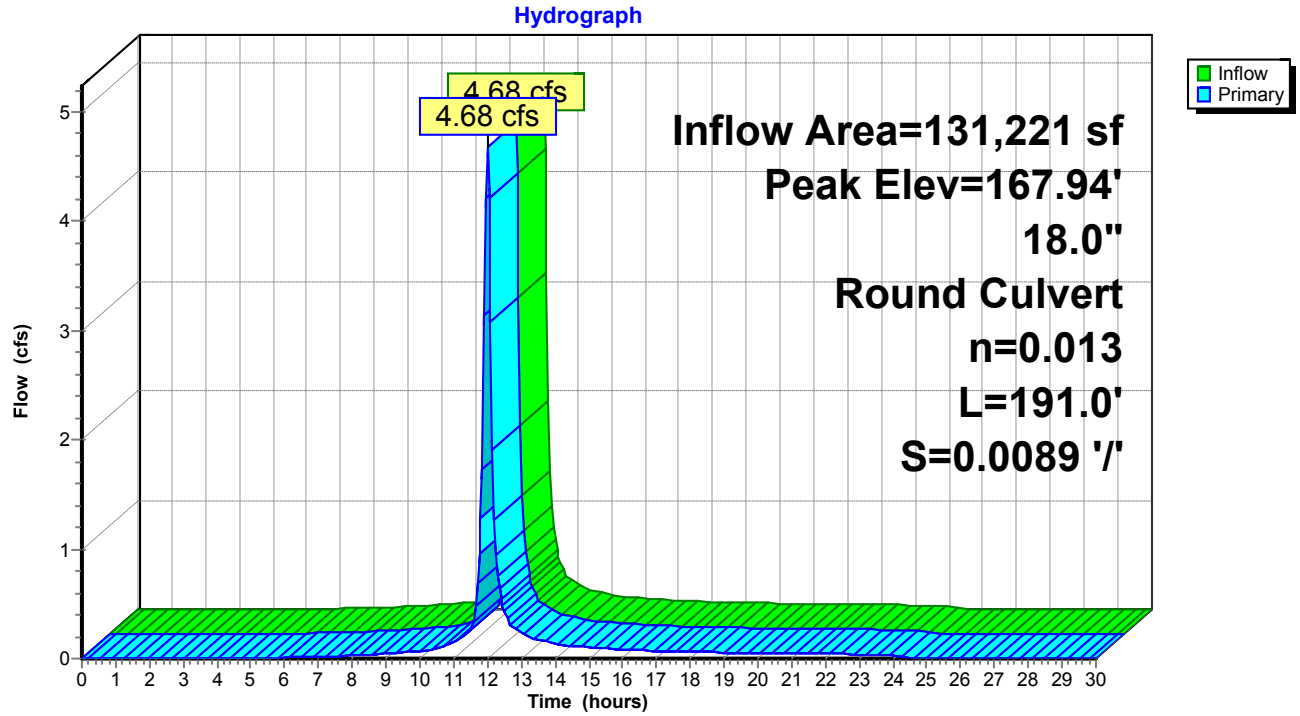
Inflow Area = 131,221 sf, 73.88% Impervious, Inflow Depth = 0.95" for 2-YEAR event
Inflow = 4.68 cfs @ 12.00 hrs, Volume= 10,397 cf
Outflow = 4.68 cfs @ 12.00 hrs, Volume= 10,397 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.68 cfs @ 12.00 hrs, Volume= 10,397 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 167.94' @ 12.00 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=4.68 cfs @ 12.00 hrs HW=167.94' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 4.68 cfs @ 2.99 fps)

Pond DP-1: Existing Catch Basin



Summary for Pond DW-1: PROPOSED DRYWELL #1

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 3,471 sf, 65.57% Impervious, Inflow Depth = 2.31" for 2-YEAR event
Inflow = 0.30 cfs @ 11.97 hrs, Volume= 669 cf
Outflow = 0.05 cfs @ 11.69 hrs, Volume= 669 cf, Atten= 83%, Lag= 0.0 min
Discarded = 0.05 cfs @ 11.69 hrs, Volume= 669 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 167.56' @ 12.21 hrs Surf.Area= 60 sf Storage= 210 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 27.7 min (822.8 - 795.1)

Volume	Invert	Avail.Storage	Storage Description
#1	164.00'	712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	163.00'	38 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 94 cf Overall x 40.0% Voids
		750 cf	Total Available Storage

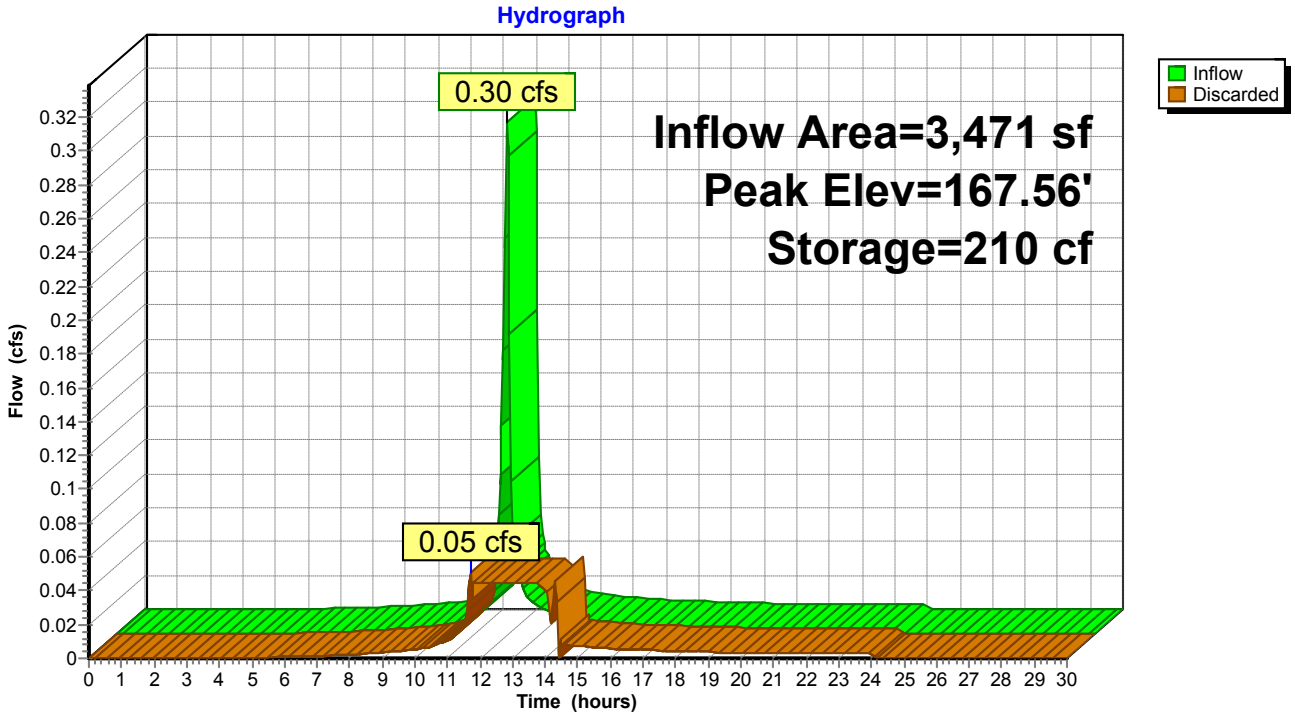
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	50	0	0
168.90	50	245	245
169.00	300	17	262
170.50	300	450	712

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	78	0	0
164.00	10	44	44
169.00	10	50	94

Device	Routing	Invert	Outlet Devices
#1	Discarded	163.00'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.05 cfs @ 11.69 hrs HW=163.12' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.05 cfs)

Pond DW-1: PROPOSED DRYWELL #1



Summary for Pond DW-2: PROPOSED DRYWELL #2

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)
[81] Warning: Exceeded Pond YD-2 by 2.78' @ 13.50 hrs

Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 2.32" for 2-YEAR event
Inflow = 1.15 cfs @ 11.97 hrs, Volume= 2,585 cf
Outflow = 1.01 cfs @ 12.01 hrs, Volume= 2,585 cf, Atten= 12%, Lag= 2.4 min
Discarded = 1.01 cfs @ 12.01 hrs, Volume= 2,585 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.65' @ 12.01 hrs Surf.Area= 1,367 sf Storage= 545 cf

Plug-Flow detention time= 53.0 min calculated for 2,581 cf (100% of inflow)
Center-of-Mass det. time= 52.9 min (841.4 - 788.5)

Volume	Invert	Avail.Storage	Storage Description
#1	167.78'	1,499 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	166.50'	53 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 134 cf Overall x 40.0% Voids
		1,552 cf	Total Available Storage

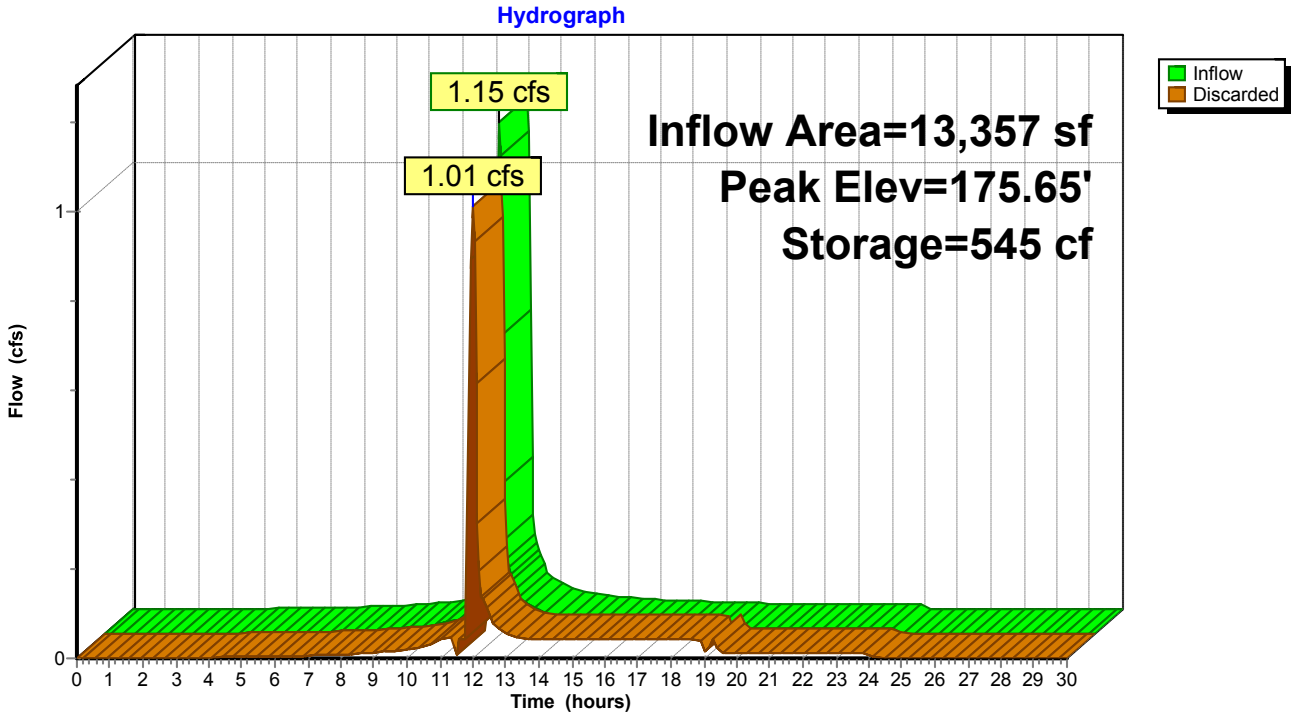
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.78	50	0	0
175.50	50	386	386
176.00	4,400	1,113	1,499

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.50	78	0	0
167.78	10	56	56
175.50	10	77	134

Device	Routing	Invert	Outlet Devices
#1	Discarded	166.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.00 cfs @ 12.01 hrs HW=175.65' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.00 cfs)

Pond DW-2: PROPOSED DRYWELL #2



Summary for Pond DW-3: PROPOSED DRYWELL #3

[81] Warning: Exceeded Pond YD-4 by 2.08' @ 13.75 hrs

Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 2.69" for 2-YEAR event
Inflow = 1.36 cfs @ 11.96 hrs, Volume= 3,190 cf
Outflow = 1.18 cfs @ 12.01 hrs, Volume= 3,190 cf, Atten= 13%, Lag= 2.7 min
Discarded = 1.18 cfs @ 12.01 hrs, Volume= 3,190 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.69' @ 12.01 hrs Surf.Area= 1,596 sf Storage= 605 cf

Plug-Flow detention time= 48.6 min calculated for 3,184 cf (100% of inflow)
Center-of-Mass det. time= 48.5 min (819.5 - 771.0)

Volume	Invert	Avail.Storage	Storage Description
#1	166.69'	1,403 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	165.50'	55 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 138 cf Overall x 40.0% Voids
		1,458 cf	Total Available Storage

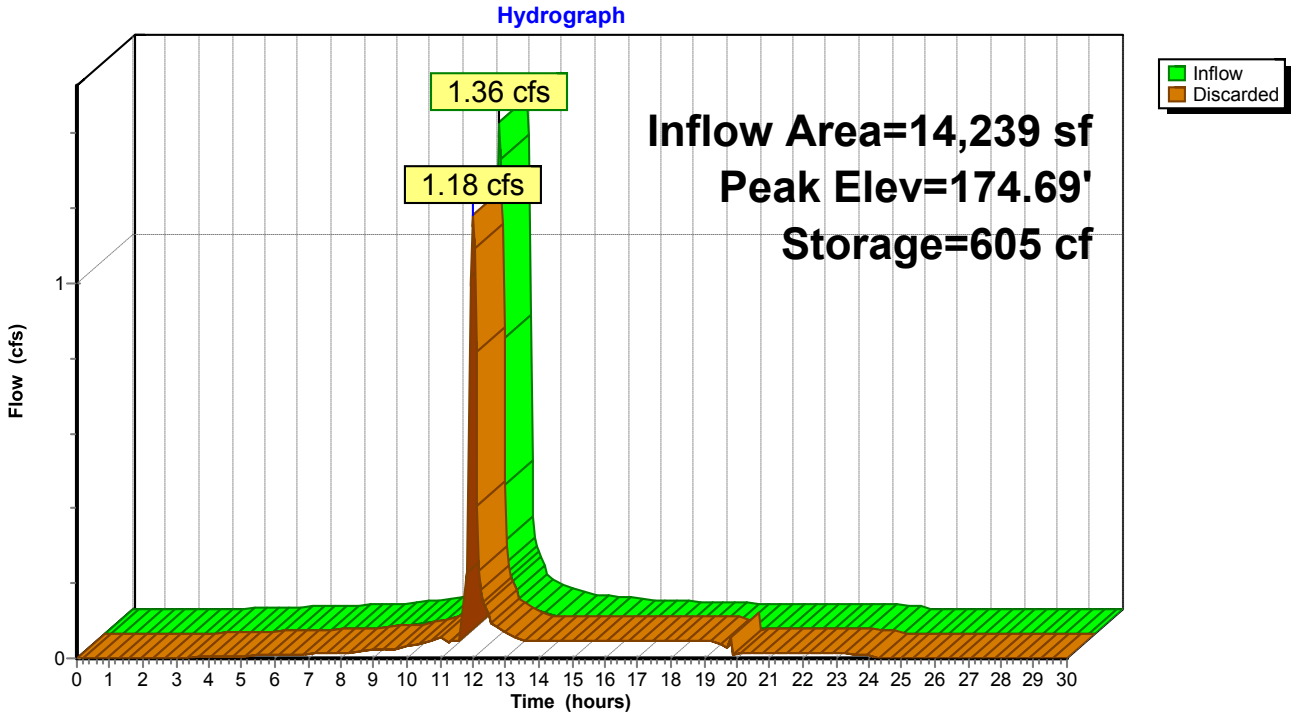
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.69	50	0	0
174.50	50	391	391
175.00	4,000	1,013	1,403

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.50	79	0	0
165.69	79	15	15
166.69	10	45	60
174.50	10	78	138

Device	Routing	Invert	Outlet Devices
#1	Discarded	165.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.17 cfs @ 12.01 hrs HW=174.69' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 1.17 cfs)

Pond DW-3: PROPOSED DRYWELL #3



Summary for Pond DW-4: PROPOSED DRYWELL #4

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond CB-2 by 2.43' @ 12.05 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 1.55" for 2-YEAR event
Inflow = 1.77 cfs @ 11.96 hrs, Volume= 3,676 cf
Outflow = 1.55 cfs @ 12.00 hrs, Volume= 3,676 cf, Atten= 12%, Lag= 2.2 min
Discarded = 0.21 cfs @ 12.00 hrs, Volume= 2,027 cf
Secondary = 1.34 cfs @ 12.00 hrs, Volume= 1,650 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.36' @ 12.00 hrs Surf.Area= 406 sf Storage= 571 cf

Plug-Flow detention time= 62.5 min calculated for 3,670 cf (100% of inflow)
Center-of-Mass det. time= 62.4 min (832.8 - 770.4)

Volume	Invert	Avail.Storage	Storage Description
#1	165.00'	1,468 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	164.00'	50 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 124 cf Overall x 40.0% Voids
		1,517 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.00	55	0	0
173.00	55	440	440
174.00	1,000	528	968
174.50	1,000	500	1,468

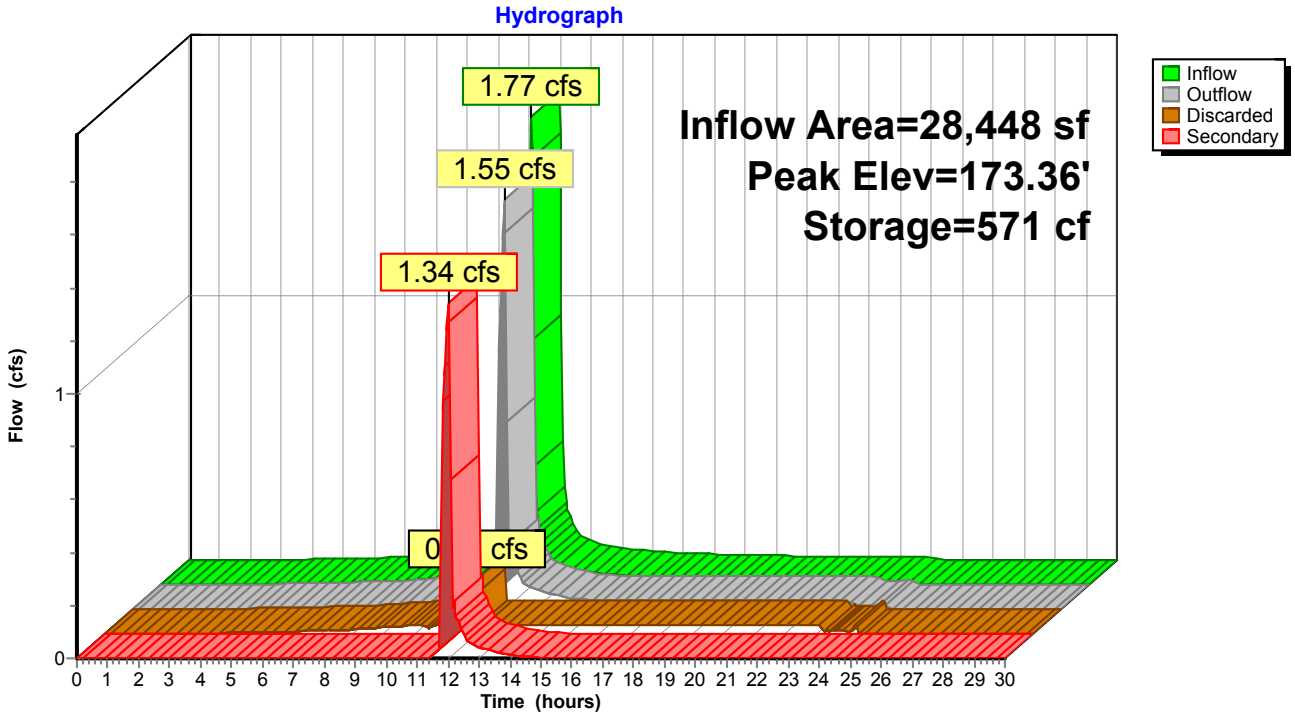
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	78	0	0
165.00	10	44	44
173.00	10	80	124

Device	Routing	Invert	Outlet Devices
#1	Discarded	164.00'	**22.000 in/hr Exfiltration over Surface area**
#2	Secondary	172.00'	**8.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.00' / 171.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Discarded OutFlow Max=0.21 cfs @ 12.00 hrs HW=173.36' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.21 cfs)

Secondary OutFlow Max=1.34 cfs @ 12.00 hrs HW=173.36' (Free Discharge)
└**2=Culvert** (Inlet Controls 1.34 cfs @ 3.85 fps)

Pond DW-4: PROPOSED DRYWELL #4



Summary for Pond DW-5: PROPOSED DRYWELL #5

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=4)

Inflow Area = 11,493 sf, 65.66% Impervious, Inflow Depth = 2.31" for 2-YEAR event
Inflow = 1.00 cfs @ 11.97 hrs, Volume= 2,215 cf
Outflow = 0.64 cfs @ 12.05 hrs, Volume= 2,216 cf, Atten= 36%, Lag= 4.9 min
Discarded = 0.64 cfs @ 12.05 hrs, Volume= 2,216 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.41' @ 12.05 hrs Surf.Area= 1,258 sf Storage= 518 cf

Plug-Flow detention time= 40.8 min calculated for 2,212 cf (100% of inflow)
Center-of-Mass det. time= 41.0 min (836.1 - 795.1)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,748 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	167.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		1,781 cf	Total Available Storage

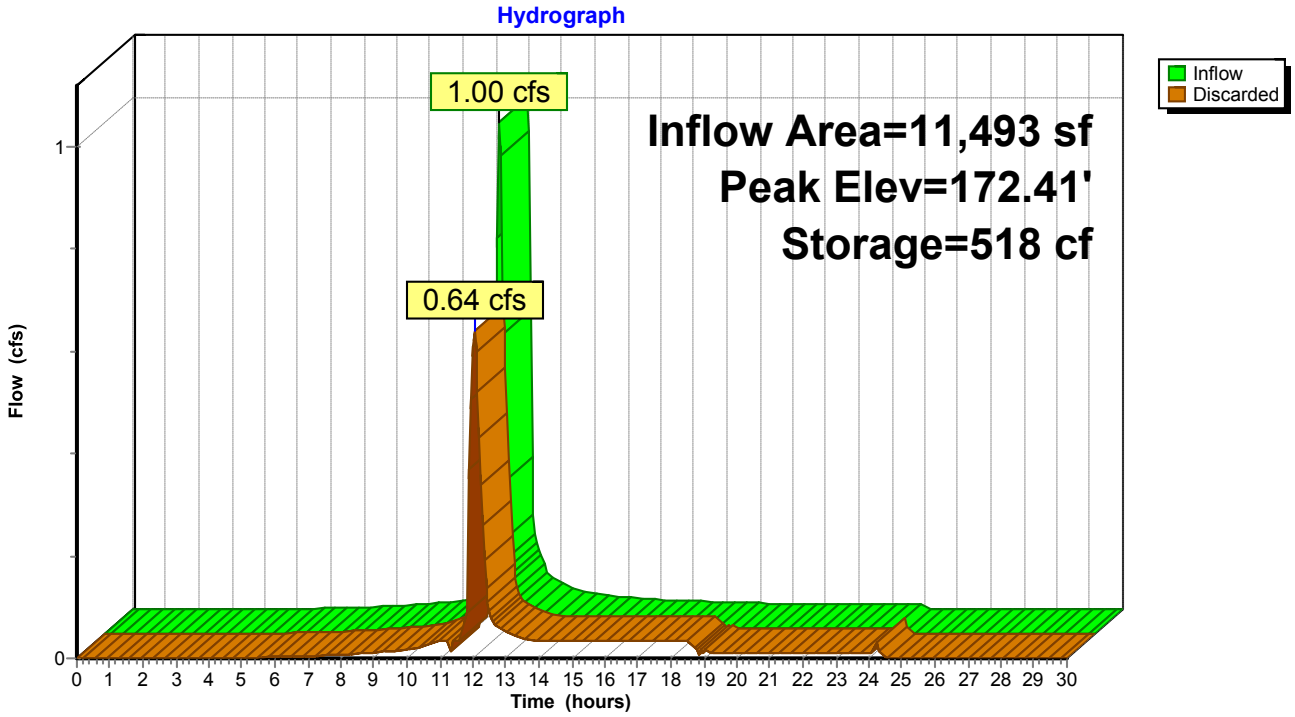
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.00	55	220	220
173.00	3,000	1,528	1,748

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	78	0	0
168.00	10	44	44
172.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.64 cfs @ 12.05 hrs HW=172.40' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.64 cfs)

Pond DW-5: PROPOSED DRYWELL #5



Summary for Pond DW-6: PROPOSED DRYWELL #6

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,844 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 0.18 cfs @ 11.96 hrs, Volume= 450 cf
Outflow = 0.04 cfs @ 11.70 hrs, Volume= 450 cf, Atten= 80%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.70 hrs, Volume= 450 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.82' @ 12.16 hrs Surf.Area= 65 sf Storage= 125 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 19.3 min (772.0 - 752.8)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	169.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

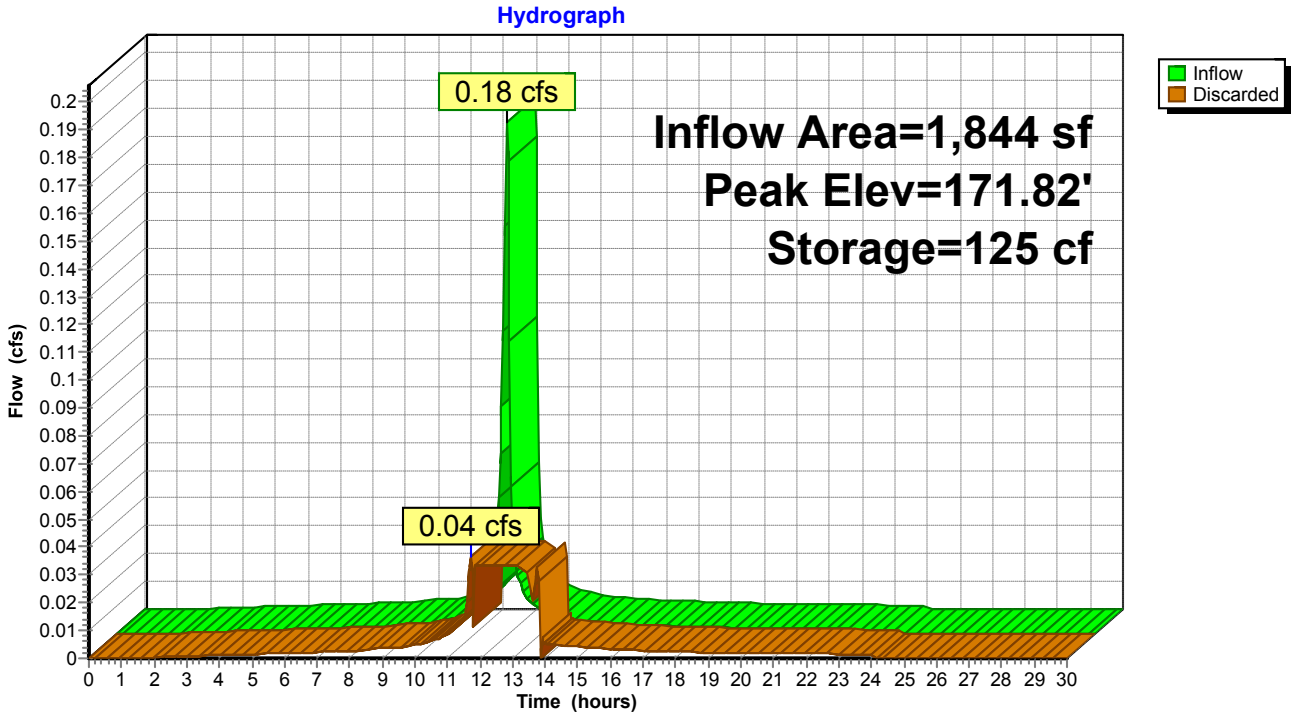
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	55	0	0
174.00	55	220	220
174.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	78	0	0
170.00	10	44	44
174.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	169.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.70 hrs HW=169.09' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-6: PROPOSED DRYWELL #6



Summary for Pond DW-7: PROPOSED DRYWELL #7

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,755 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 0.17 cfs @ 11.96 hrs, Volume= 428 cf
Outflow = 0.04 cfs @ 11.71 hrs, Volume= 428 cf, Atten= 78%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.71 hrs, Volume= 428 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.02' @ 12.15 hrs Surf.Area= 65 sf Storage= 116 cf

Plug-Flow detention time= 17.9 min calculated for 427 cf (100% of inflow)
Center-of-Mass det. time= 17.9 min (770.7 - 752.8)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	352 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	170.00'	42 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 106 cf Overall x 40.0% Voids
		394 cf	Total Available Storage

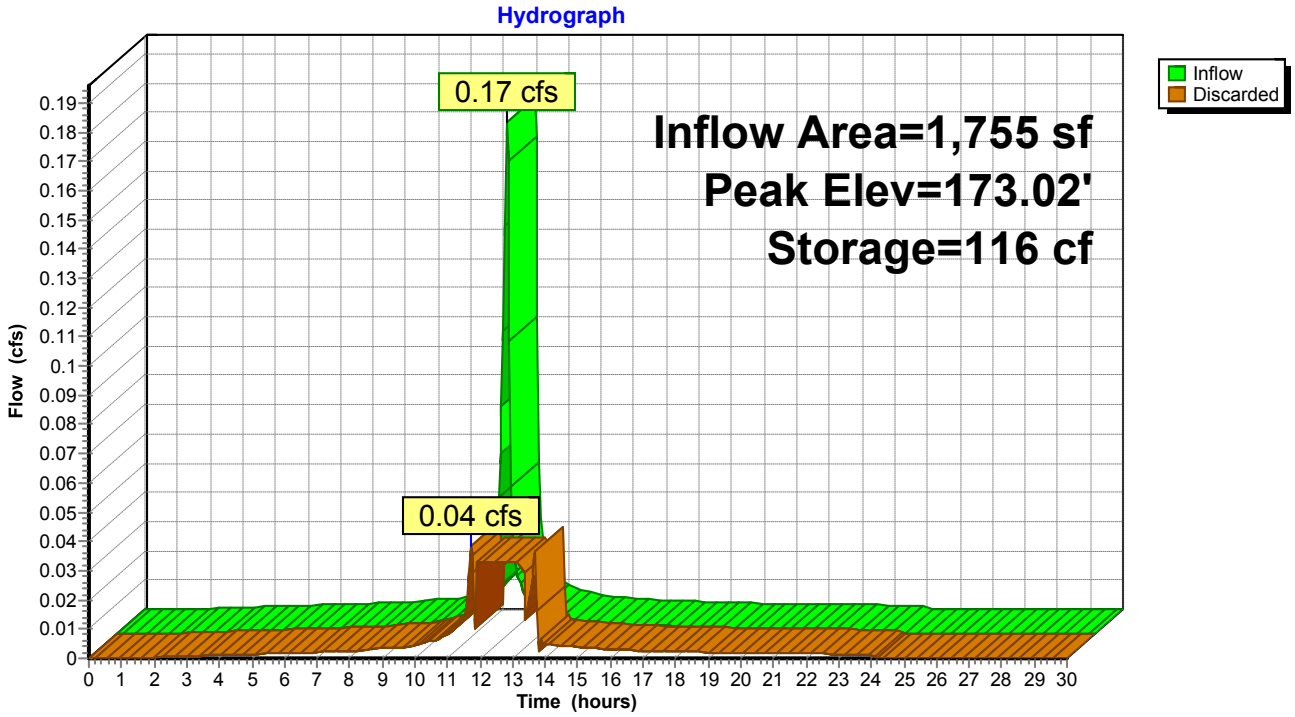
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
171.50	55	0	0
175.50	55	220	220
175.75	1,000	132	352

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	78	0	0
171.50	10	66	66
175.50	10	40	106

Device	Routing	Invert	Outlet Devices
#1	Discarded	170.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.71 hrs HW=170.11' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-7: PROPOSED DRYWELL #7



Summary for Pond DW-8: PROPOSED DRYWELL #8

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,734 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 0.17 cfs @ 11.96 hrs, Volume= 423 cf
Outflow = 0.04 cfs @ 11.71 hrs, Volume= 423 cf, Atten= 79%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.71 hrs, Volume= 423 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.60' @ 12.15 hrs Surf.Area= 65 sf Storage= 112 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 16.9 min (769.7 - 752.8)

Volume	Invert	Avail.Storage	Storage Description
#1	169.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	168.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

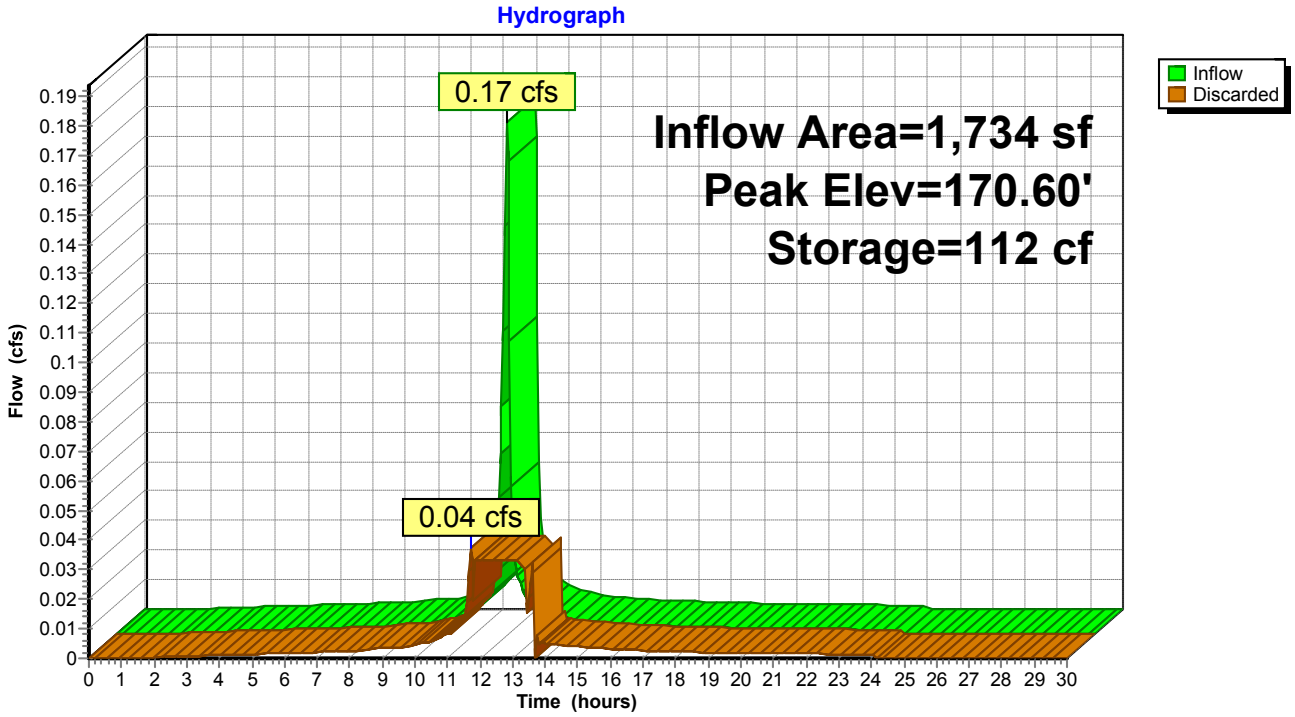
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	55	0	0
173.00	55	220	220
173.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	78	0	0
169.00	10	44	44
173.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.71 hrs HW=168.10' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-8: PROPOSED DRYWELL #8



Summary for Pond YD-1: PROPOSED DRAIN #1

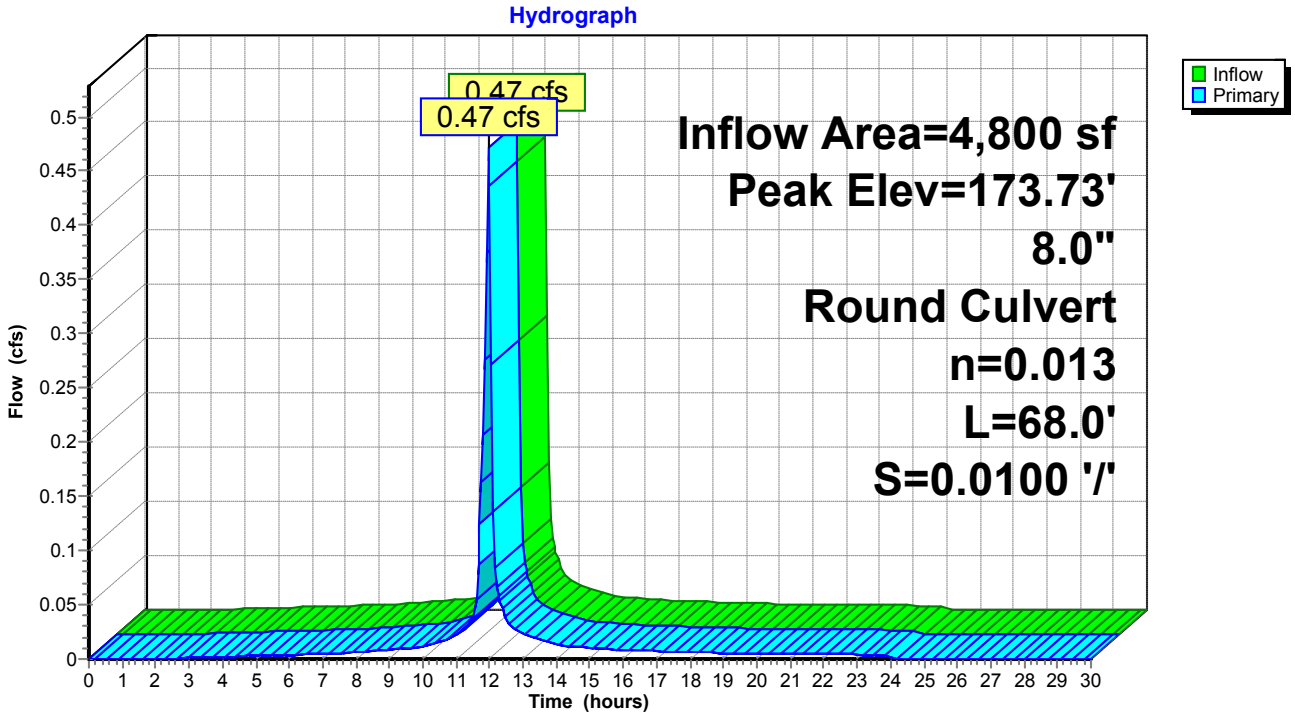
Inflow Area = 4,800 sf, 94.90% Impervious, Inflow Depth = 2.82" for 2-YEAR event
Inflow = 0.47 cfs @ 11.96 hrs, Volume= 1,127 cf
Outflow = 0.47 cfs @ 11.96 hrs, Volume= 1,127 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.47 cfs @ 11.96 hrs, Volume= 1,127 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.73' @ 11.96 hrs
Flood Elev= 175.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.27'	**8.0" Round Culvert** L= 68.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.27' / 172.59' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=0.46 cfs @ 11.96 hrs HW=173.72' (Free Discharge)
1=Culvert (Inlet Controls 0.46 cfs @ 1.81 fps)

Pond YD-1: PROPOSED DRAIN #1



Summary for Pond YD-2: PROPOSED DRAIN #2

[79] Warning: Submerged Pond YD-1 Primary device # 1 INLET by 0.38'

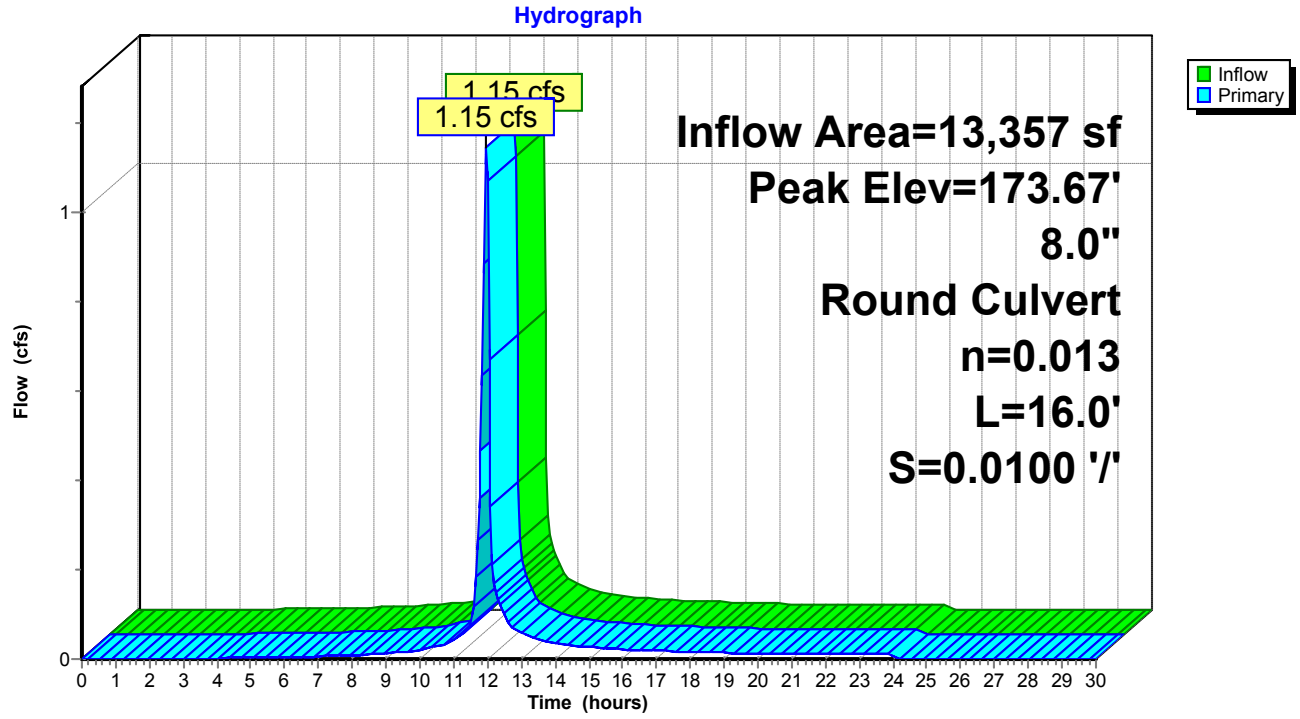
Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 2.32" for 2-YEAR event
Inflow = 1.15 cfs @ 11.97 hrs, Volume= 2,585 cf
Outflow = 1.15 cfs @ 11.97 hrs, Volume= 2,585 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.15 cfs @ 11.97 hrs, Volume= 2,585 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.67' @ 11.96 hrs
Flood Elev= 173.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.59'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.59' / 172.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.12 cfs @ 11.97 hrs HW=173.63' (Free Discharge)
1=Culvert (Inlet Controls 1.12 cfs @ 3.19 fps)

Pond YD-2: PROPOSED DRAIN #2



Summary for Pond YD-3: PROPOSED DRAIN #3

[58] Hint: Peaked 0.34' above defined flood level

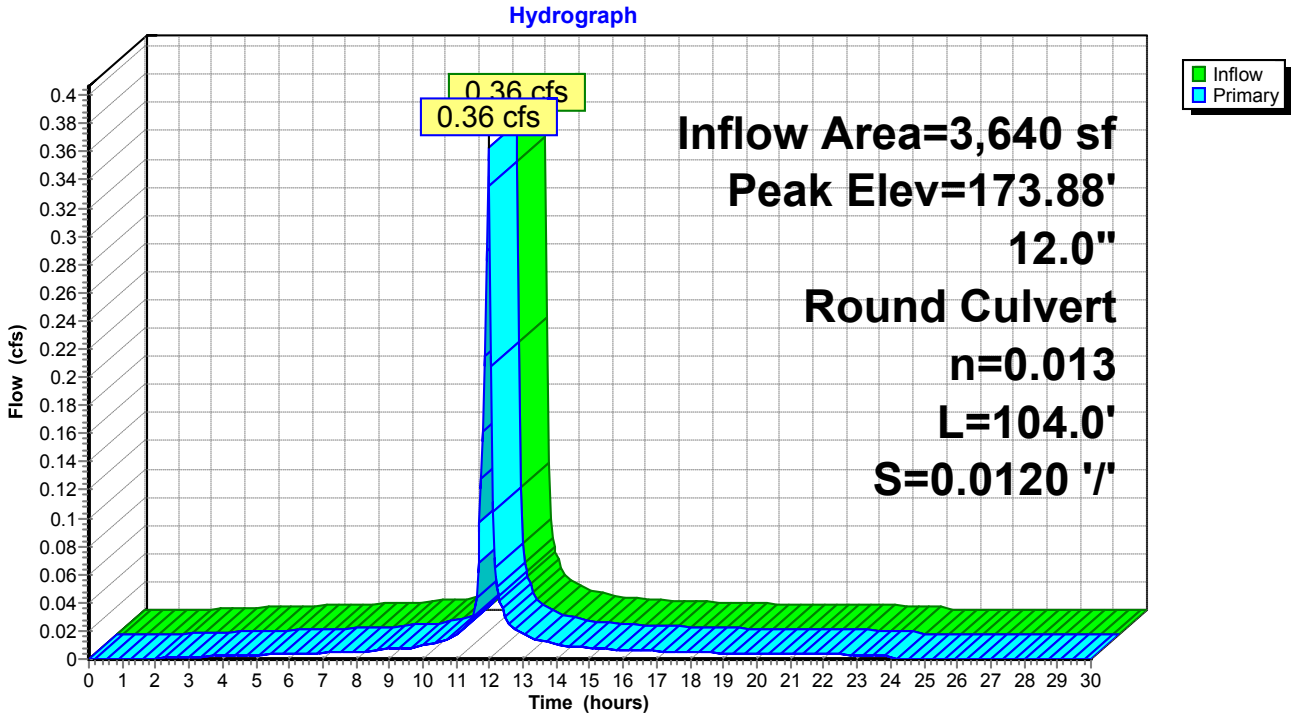
Inflow Area = 3,640 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 0.36 cfs @ 11.96 hrs, Volume= 888 cf
Outflow = 0.36 cfs @ 11.96 hrs, Volume= 888 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.36 cfs @ 11.96 hrs, Volume= 888 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.88' @ 11.96 hrs
Flood Elev= 173.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.54'	**12.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.54' / 172.29' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.35 cfs @ 11.96 hrs HW=173.87' (Free Discharge)
1=Culvert (Inlet Controls 0.35 cfs @ 1.55 fps)

Pond YD-3: PROPOSED DRAIN #3



Summary for Pond YD-4: PROPOSED DRAIN #4

[79] Warning: Submerged Pond YD-3 Primary device # 1 INLET by 0.12'

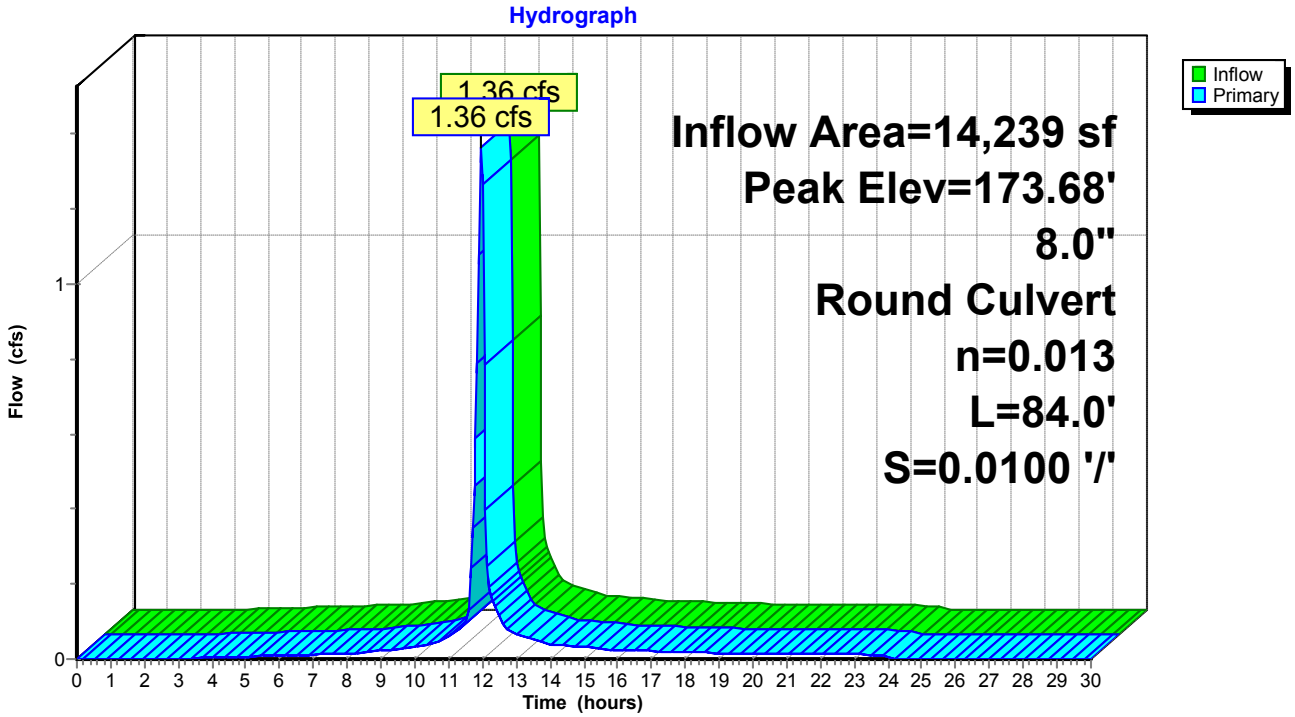
Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 2.69" for 2-YEAR event
Inflow = 1.36 cfs @ 11.96 hrs, Volume= 3,190 cf
Outflow = 1.36 cfs @ 11.96 hrs, Volume= 3,190 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.36 cfs @ 11.96 hrs, Volume= 3,190 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.68' @ 11.96 hrs
Flood Elev= 174.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.29'	**8.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.29' / 171.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.33 cfs @ 11.96 hrs HW=173.63' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.33 cfs @ 3.81 fps)

Pond YD-4: PROPOSED DRAIN #4



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA-1: DA-1 Runoff Area=21,412 sf 86.22% Impervious Runoff Depth=4.21"
Tc=6.0 min CN=96 Runoff=3.13 cfs 7,520 cf

Subcatchment DA-10: DA-10 Runoff Area=4,800 sf 94.90% Impervious Runoff Depth=4.33"
Tc=6.0 min CN=97 Runoff=0.71 cfs 1,731 cf

Subcatchment DA-11: DA-11 Runoff Area=8,557 sf 51.71% Impervious Runoff Depth=3.47"
Tc=6.0 min CN=89 Runoff=1.11 cfs 2,472 cf

Subcatchment DA-12: DRAINAGE AREA 12 Runoff Area=8,367 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=1.24 cfs 3,098 cf

Subcatchment DA-13: DA-13 Runoff Area=2,574 sf 79.56% Impervious Runoff Depth=3.99"
Tc=6.0 min CN=94 Runoff=0.37 cfs 856 cf

Subcatchment DA-14: DRAINAGE AREA 14 Runoff Area=6,736 sf 69.73% Impervious Runoff Depth=3.88"
Tc=6.0 min CN=93 Runoff=0.95 cfs 2,180 cf

Subcatchment DA-15: DA-15 Runoff Area=1,734 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.26 cfs 642 cf

Subcatchment DA-16: DA-16 Runoff Area=1,844 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.27 cfs 683 cf

Subcatchment DA-17: DA-17 Runoff Area=1,755 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.26 cfs 650 cf

Subcatchment DA-18: DRAINAGE AREA 18 Runoff Area=3,482 sf 85.96% Impervious Runoff Depth=4.10"
Tc=6.0 min CN=95 Runoff=0.50 cfs 1,190 cf

Subcatchment DA-2: DA-2 Runoff Area=7,036 sf 83.26% Impervious Runoff Depth=4.10"
Tc=6.0 min CN=95 Runoff=1.02 cfs 2,406 cf

Subcatchment DA-3: DRAINAGE AREA 3 Runoff Area=5,334 sf 65.88% Impervious Runoff Depth=3.78"
Tc=6.0 min CN=92 Runoff=0.74 cfs 1,679 cf

Subcatchment DA-4: DRAINAGE AREA 4 Runoff Area=4,099 sf 74.82% Impervious Runoff Depth=3.88"
Tc=6.0 min CN=93 Runoff=0.58 cfs 1,327 cf

Subcatchment DA-5: DRAINAGE AREA 5 Runoff Area=32,655 sf 61.00% Impervious Runoff Depth=3.67"
Flow Length=235' Tc=13.1 min CN=91 Runoff=3.59 cfs 9,992 cf

Subcatchment DA-6: DA-6 Runoff Area=11,493 sf 65.66% Impervious Runoff Depth=3.78"
Tc=6.0 min CN=92 Runoff=1.59 cfs 3,618 cf

Subcatchment DA-7: DA-7 Runoff Area=3,640 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.54 cfs 1,348 cf

Subcatchment DA-8: DA-8 Runoff Area=10,599 sf 81.26% Impervious Runoff Depth=4.10"
Tc=6.0 min CN=95 Runoff=1.53 cfs 3,624 cf

Subcatchment DA-9: DRAINAGE AREA 9 Runoff Area=3,471 sf 65.57% Impervious Runoff Depth=3.78"
Tc=6.0 min CN=92 Runoff=0.48 cfs 1,093 cf

Reach DP-2: STREET Inflow=1.24 cfs 3,098 cf
Outflow=1.24 cfs 3,098 cf

Pond 2P: EXISTING DRYWELL Peak Elev=172.81' Storage=405 cf Inflow=2.32 cfs 4,807 cf
Discarded=0.63 cfs 2,910 cf Primary=1.66 cfs 1,897 cf Outflow=2.29 cfs 4,807 cf

Pond 3P: PROPOSED CB #3 Peak Elev=171.14' Inflow=0.50 cfs 1,190 cf
12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.50 cfs 1,190 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.44' Storage=641 cf Inflow=1.35 cfs 4,070 cf
Outflow=0.93 cfs 4,070 cf

Pond 8P: EXISTING YARD DRAIN Peak Elev=214.38' Inflow=0.58 cfs 1,327 cf
4.0" Round Culvert n=0.030 L=87.0' S=0.0100 '/' Outflow=0.58 cfs 1,327 cf

Pond 12P: EXISTING CB Peak Elev=170.92' Inflow=3.92 cfs 11,183 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=3.92 cfs 11,183 cf

Pond 14P: EXISTING CB Peak Elev=168.09' Inflow=0.95 cfs 2,180 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=0.95 cfs 2,180 cf

Pond CB-1: PROPOSED CATCH BASIN #1 Peak Elev=172.10' Inflow=1.02 cfs 2,406 cf
12.0" Round Culvert n=0.013 L=33.0' S=0.0100 '/' Outflow=1.02 cfs 2,406 cf

Pond CB-2: PR CB #2 Peak Elev=171.62' Inflow=4.15 cfs 9,926 cf
Primary=2.79 cfs 5,856 cf Secondary=1.35 cfs 4,070 cf Outflow=4.15 cfs 9,926 cf

Pond DP-1: Existing Catch Basin Peak Elev=168.60' Inflow=7.21 cfs 17,443 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=7.21 cfs 17,443 cf

Pond DW-1: PROPOSED DRYWELL #1 Peak Elev=169.08' Storage=325 cf Inflow=0.48 cfs 1,093 cf
Outflow=0.25 cfs 1,093 cf

Pond DW-2: PROPOSED DRYWELL #2 Peak Elev=175.73' Storage=686 cf Inflow=1.82 cfs 4,203 cf
Outflow=1.54 cfs 4,203 cf

Pond DW-3: PROPOSED DRYWELL #3 Peak Elev=174.78' Storage=775 cf Inflow=2.07 cfs 4,972 cf
Outflow=1.70 cfs 4,974 cf

Pond DW-4: PROPOSED DRYWELL #4 Peak Elev=173.84' Storage=867 cf Inflow=2.79 cfs 5,856 cf
Discarded=0.44 cfs 2,728 cf Secondary=1.63 cfs 3,128 cf Outflow=2.06 cfs 5,856 cf

Pond DW-5: PROPOSED DRYWELL #5 Peak Elev=172.60' Storage=812 cf Inflow=1.59 cfs 3,618 cf
Outflow=0.93 cfs 3,618 cf

Pond DW-6: PROPOSED DRYWELL #6 Peak Elev=173.33' Storage=214 cf Inflow=0.27 cfs 683 cf
Outflow=0.04 cfs 683 cf

Pond DW-7: PROPOSED DRYWELL #7 Peak Elev=174.45' Storage=200 cf Inflow=0.26 cfs 650 cf
Outflow=0.04 cfs 650 cf

Pond DW-8: PROPOSED DRYWELL #8 Peak Elev=172.08' Storage=199 cf Inflow=0.26 cfs 642 cf
Outflow=0.04 cfs 642 cf

Pond YD-1: PROPOSED DRAIN #1 Peak Elev=173.88' Inflow=0.71 cfs 1,731 cf
8.0" Round Culvert n=0.013 L=68.0' S=0.0100 '/' Outflow=0.71 cfs 1,731 cf

Pond YD-2: PROPOSED DRAIN #2 Peak Elev=174.80' Inflow=1.82 cfs 4,203 cf
8.0" Round Culvert n=0.013 L=16.0' S=0.0100 '/' Outflow=1.82 cfs 4,203 cf

Pond YD-3: PROPOSED DRAIN #3 Peak Elev=173.96' Inflow=0.54 cfs 1,348 cf
12.0" Round Culvert n=0.013 L=104.0' S=0.0120 '/' Outflow=0.54 cfs 1,348 cf

Pond YD-4: PROPOSED DRAIN #4 Peak Elev=175.62' Inflow=2.07 cfs 4,972 cf
8.0" Round Culvert n=0.013 L=84.0' S=0.0100 '/' Outflow=2.07 cfs 4,972 cf

Total Runoff Area = 139,588 sf Runoff Volume = 46,109 cf Average Runoff Depth = 3.96"
24.56% Pervious = 34,277 sf 75.44% Impervious = 105,311 sf

Summary for Subcatchment DA-1: DA-1

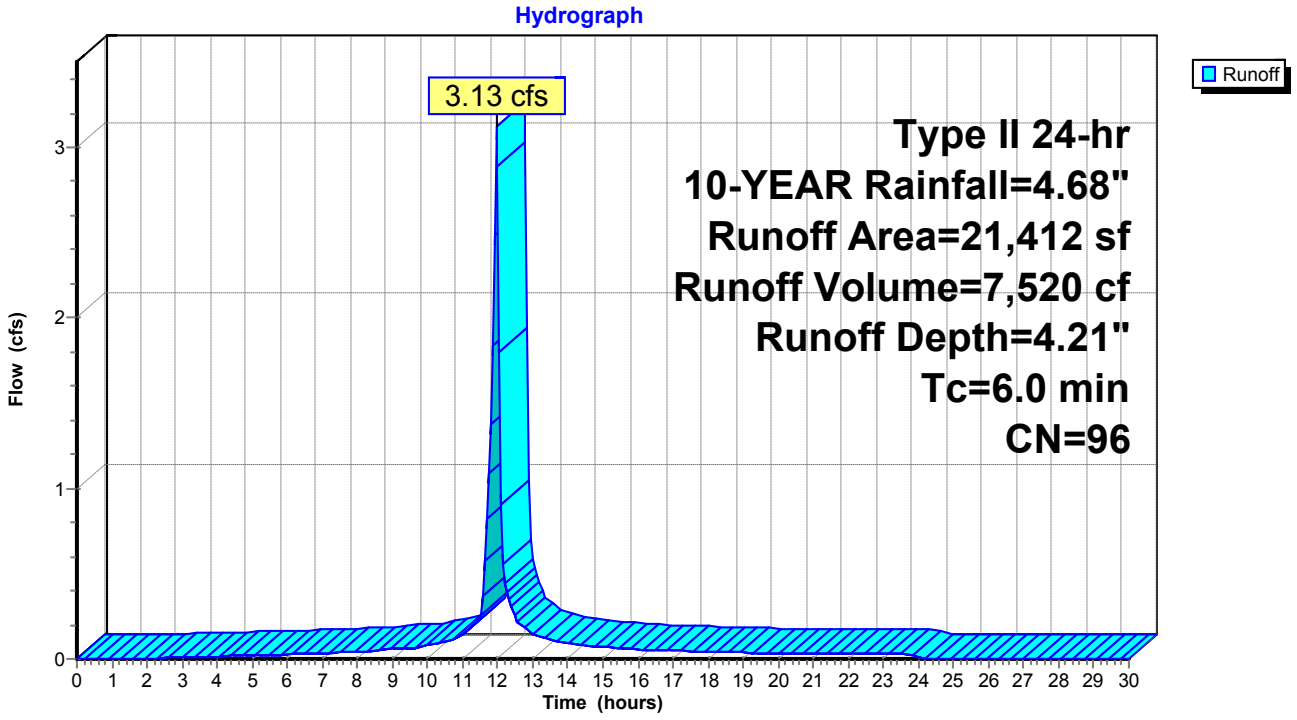
Runoff = 3.13 cfs @ 11.96 hrs, Volume= 7,520 cf, Depth= 4.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
2,951	80	>75% Grass cover, Good, HSG D
17,281	98	Roofs, HSG D
1,180	98	Paved parking, HSG D
21,412	96	Weighted Average
2,951		13.78% Pervious Area
18,461		86.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

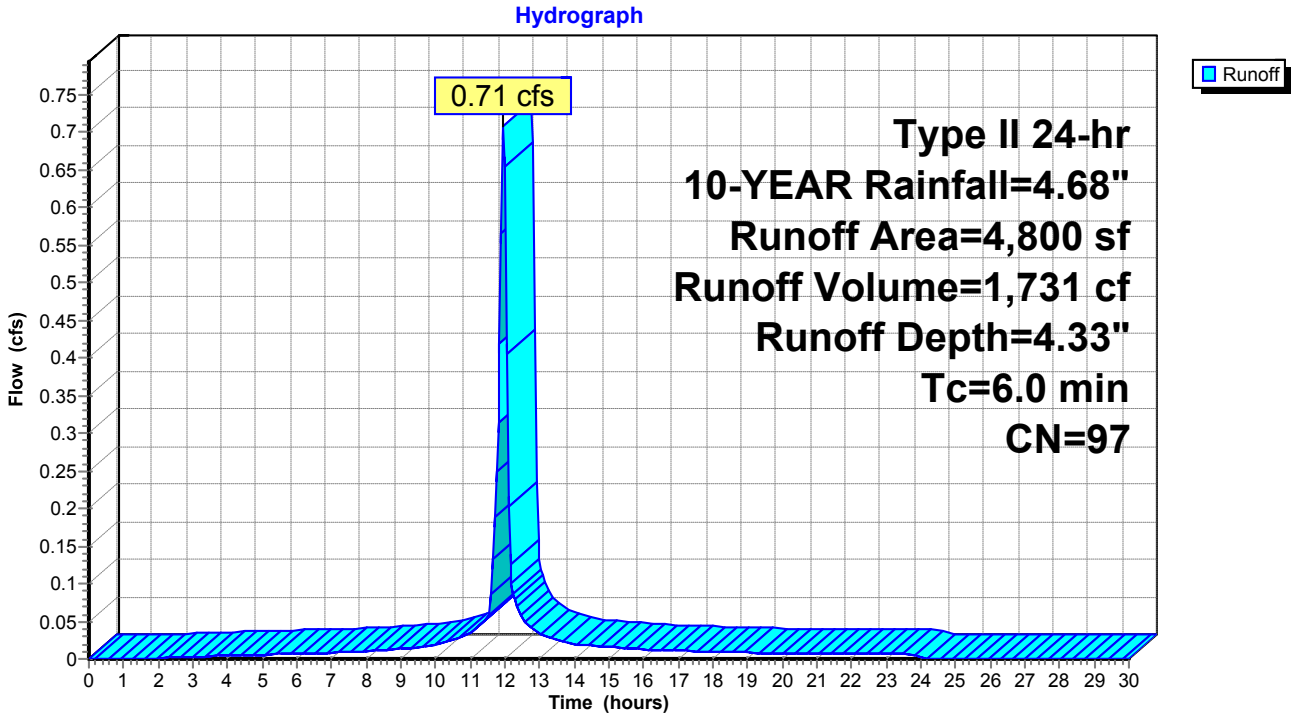
Runoff = 0.71 cfs @ 11.96 hrs, Volume= 1,731 cf, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
245	80	>75% Grass cover, Good, HSG D
2,933	98	Roofs, HSG D
1,622	98	Paved parking, HSG D
4,800	97	Weighted Average
245		5.10% Pervious Area
4,555		94.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

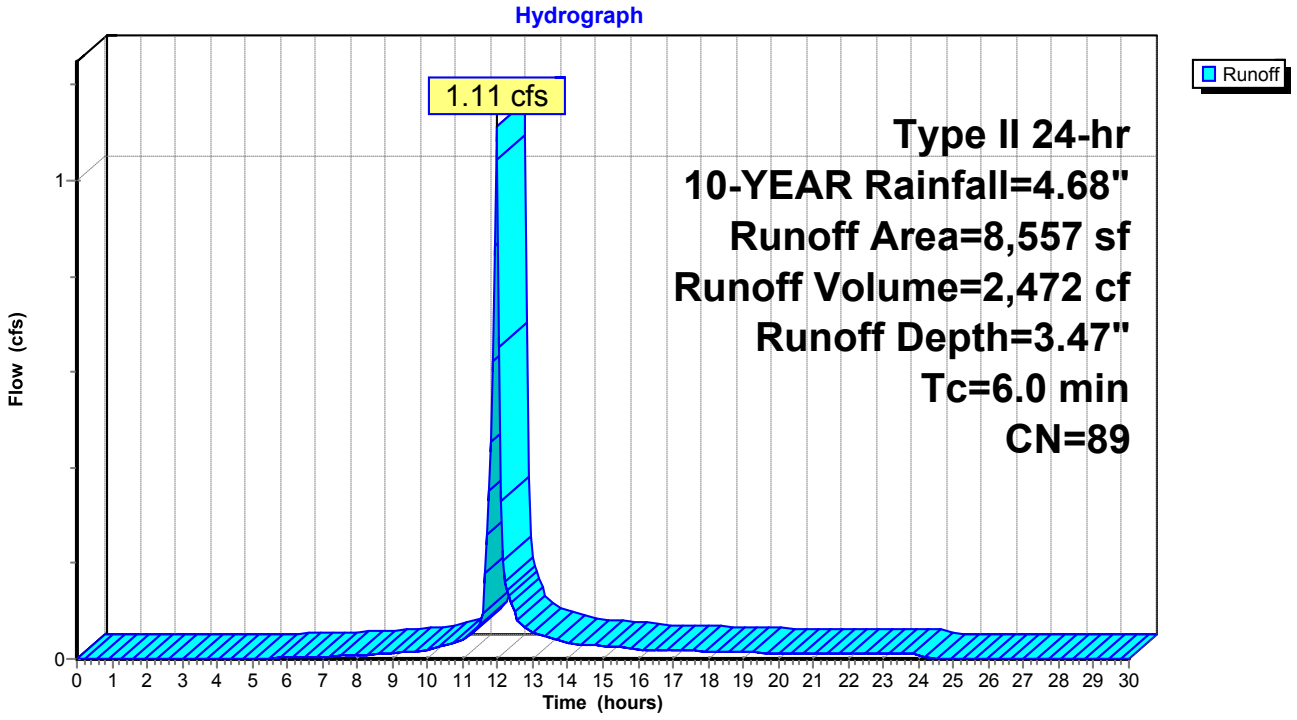
Runoff = 1.11 cfs @ 11.97 hrs, Volume= 2,472 cf, Depth= 3.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
4,132	80	>75% Grass cover, Good, HSG D
3,489	98	Roofs, HSG D
936	98	Paved parking, HSG D
8,557	89	Weighted Average
4,132		48.29% Pervious Area
4,425		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-12: DRAINAGE AREA 12

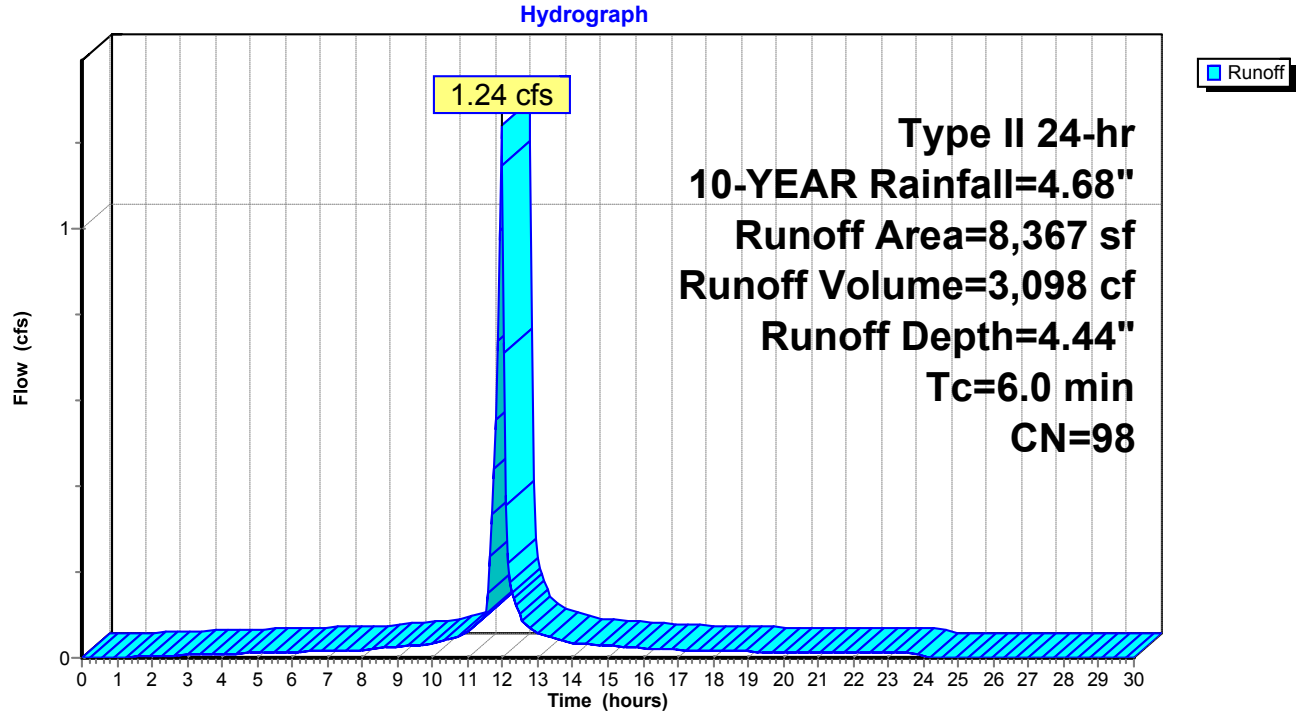
Runoff = 1.24 cfs @ 11.96 hrs, Volume= 3,098 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
8,367	98	Roofs, HSG D
8,367		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-12: DRAINAGE AREA 12



Summary for Subcatchment DA-13: DA-13

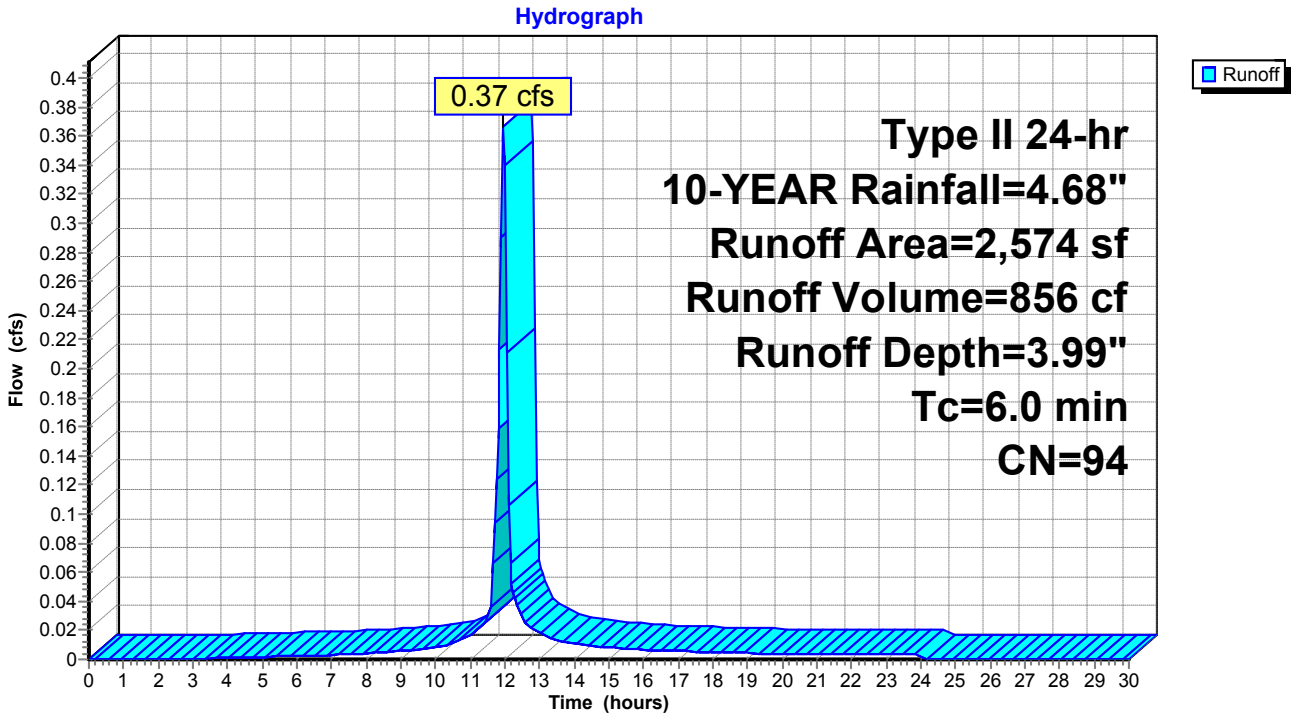
Runoff = 0.37 cfs @ 11.96 hrs, Volume= 856 cf, Depth= 3.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
526	80	>75% Grass cover, Good, HSG D
2,048	98	Paved parking, HSG D
2,574	94	Weighted Average
526		20.44% Pervious Area
2,048		79.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-13: DA-13



Summary for Subcatchment DA-14: DRAINAGE AREA 14

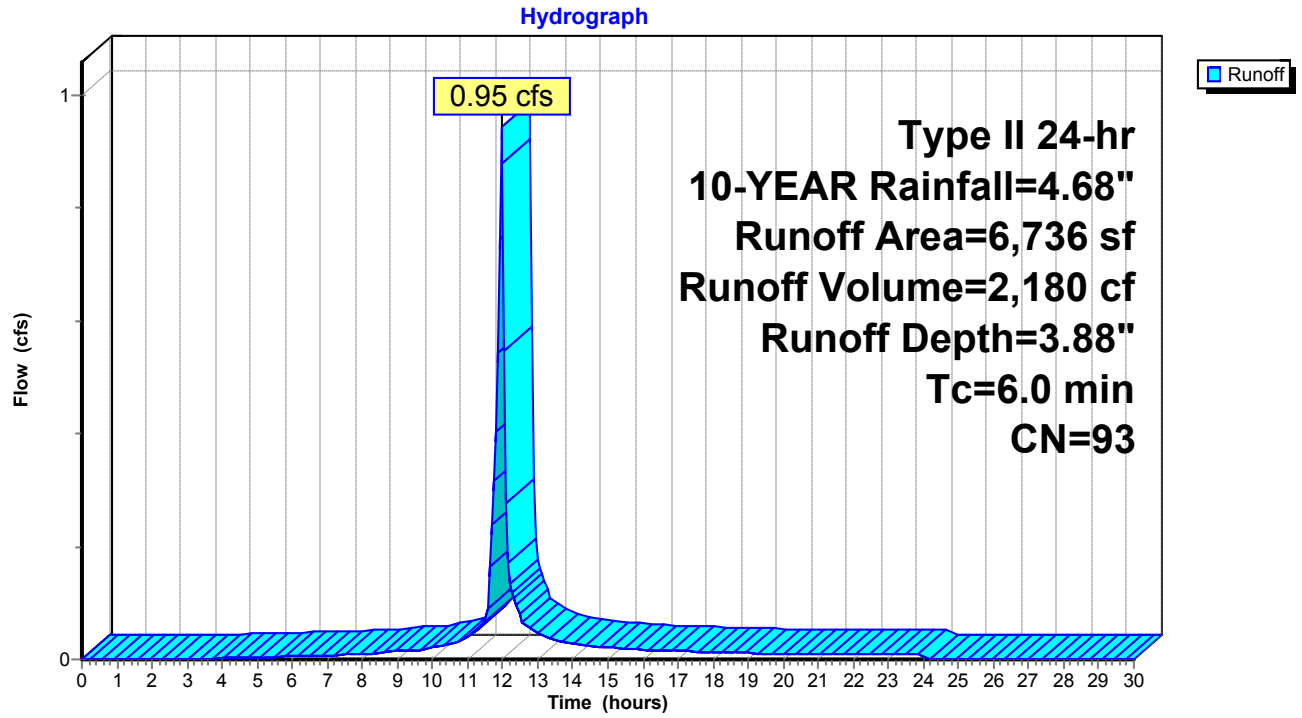
Runoff = 0.95 cfs @ 11.96 hrs, Volume= 2,180 cf, Depth= 3.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
2,039	80	>75% Grass cover, Good, HSG D
4,697	98	Paved parking, HSG D
6,736	93	Weighted Average
2,039		30.27% Pervious Area
4,697		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-14: DRAINAGE AREA 14



Summary for Subcatchment DA-15: DA-15

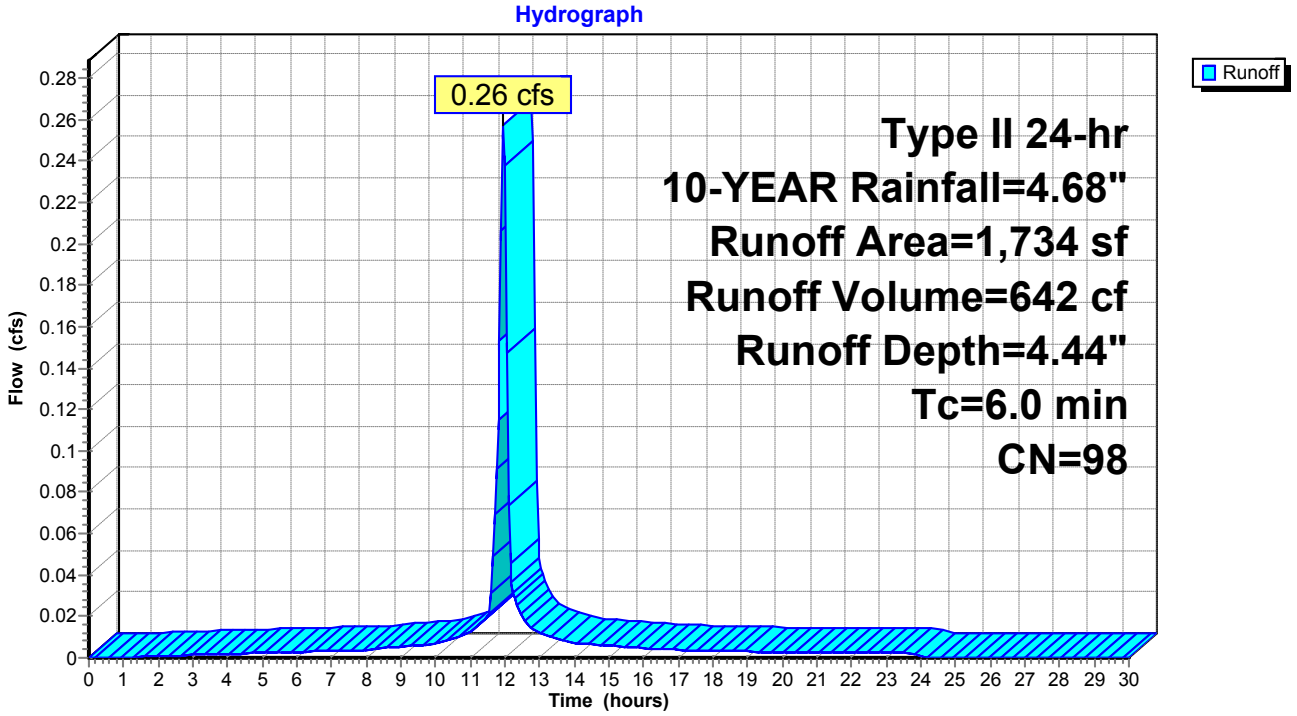
Runoff = 0.26 cfs @ 11.96 hrs, Volume= 642 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,734	98	Roofs, HSG D
1,734		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-15: DA-15



Summary for Subcatchment DA-16: DA-16

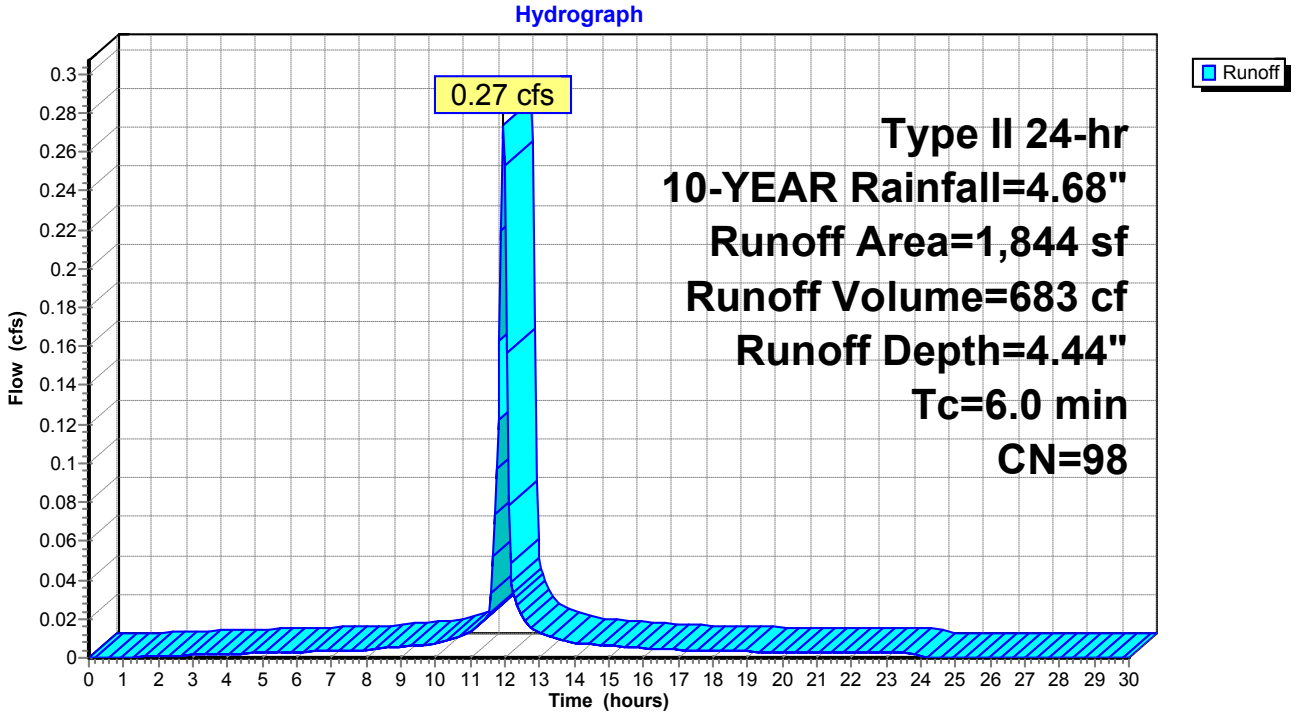
Runoff = 0.27 cfs @ 11.96 hrs, Volume= 683 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,844	98	Roofs, HSG D
1,844		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-16: DA-16



Summary for Subcatchment DA-17: DA-17

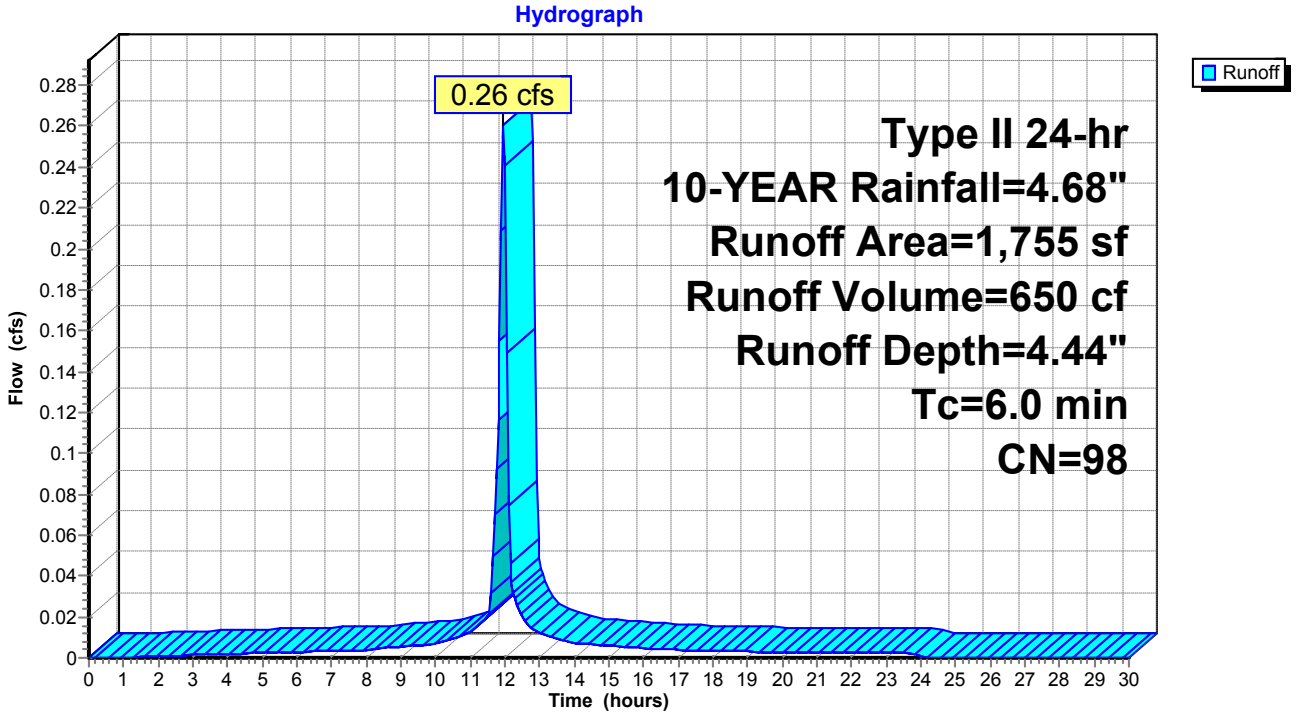
Runoff = 0.26 cfs @ 11.96 hrs, Volume= 650 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,755	98	Roofs, HSG D
1,755		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-17: DA-17



Summary for Subcatchment DA-18: DRAINAGE AREA 18

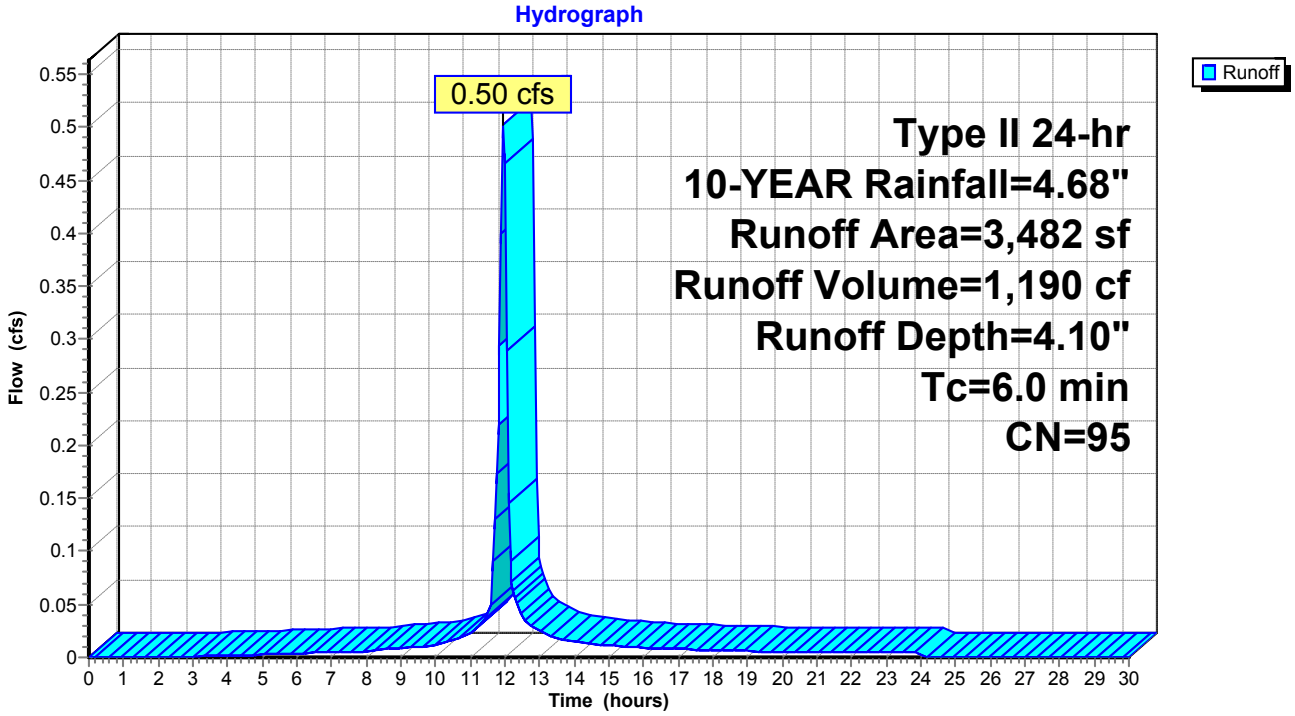
Runoff = 0.50 cfs @ 11.96 hrs, Volume= 1,190 cf, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
489	80	>75% Grass cover, Good, HSG D
2,993	98	Paved parking, HSG D
3,482	95	Weighted Average
489		14.04% Pervious Area
2,993		85.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-18: DRAINAGE AREA 18



Summary for Subcatchment DA-2: DA-2

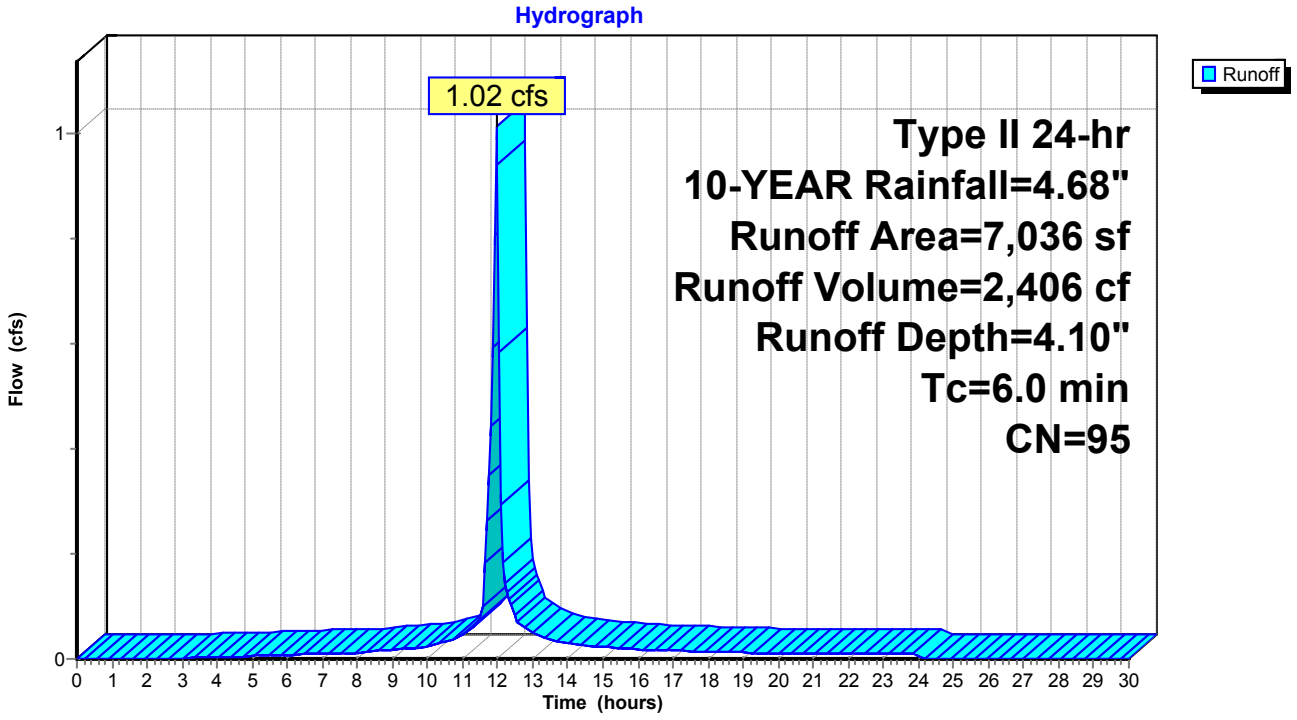
Runoff = 1.02 cfs @ 11.96 hrs, Volume= 2,406 cf, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,178	80	>75% Grass cover, Good, HSG D
5,194	98	Roofs, HSG D
664	98	Paved parking, HSG D
7,036	95	Weighted Average
1,178		16.74% Pervious Area
5,858		83.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DRAINAGE AREA 3

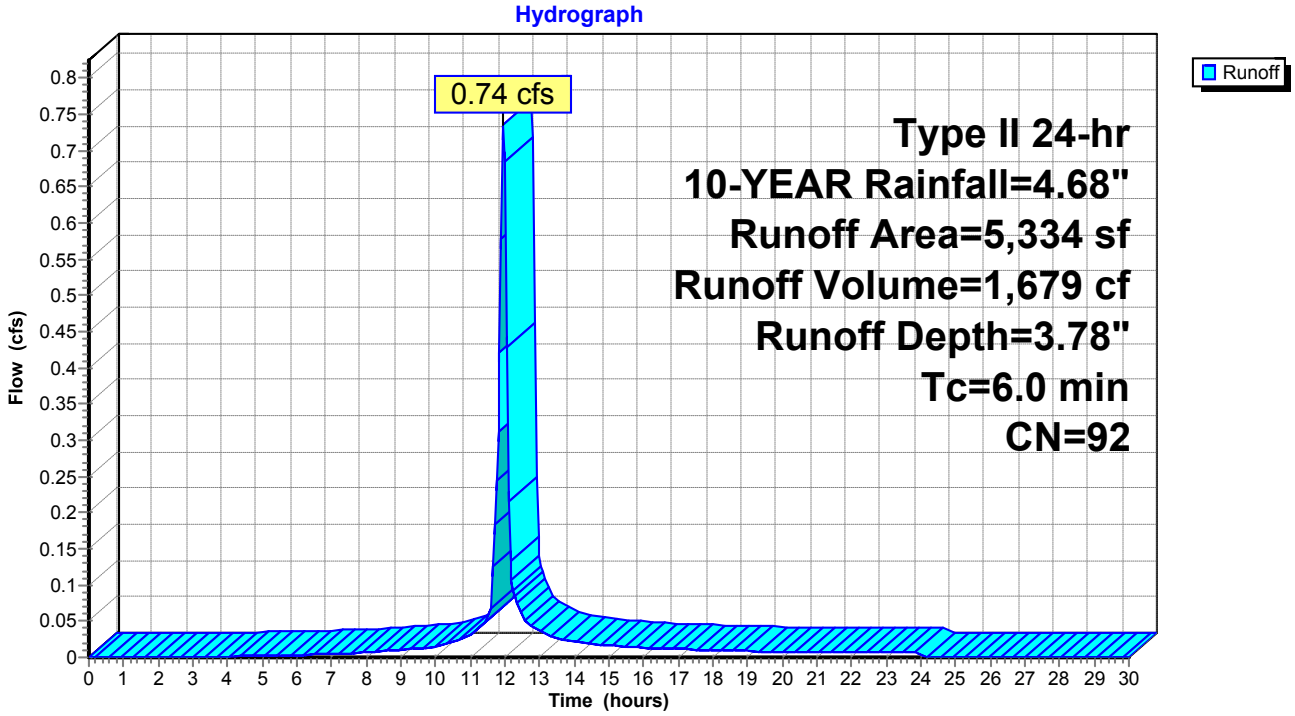
Runoff = 0.74 cfs @ 11.96 hrs, Volume= 1,679 cf, Depth= 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,820	80	>75% Grass cover, Good, HSG D
3,514	98	Paved parking, HSG D
5,334	92	Weighted Average
1,820		34.12% Pervious Area
3,514		65.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-3: DRAINAGE AREA 3



Summary for Subcatchment DA-4: DRAINAGE AREA 4

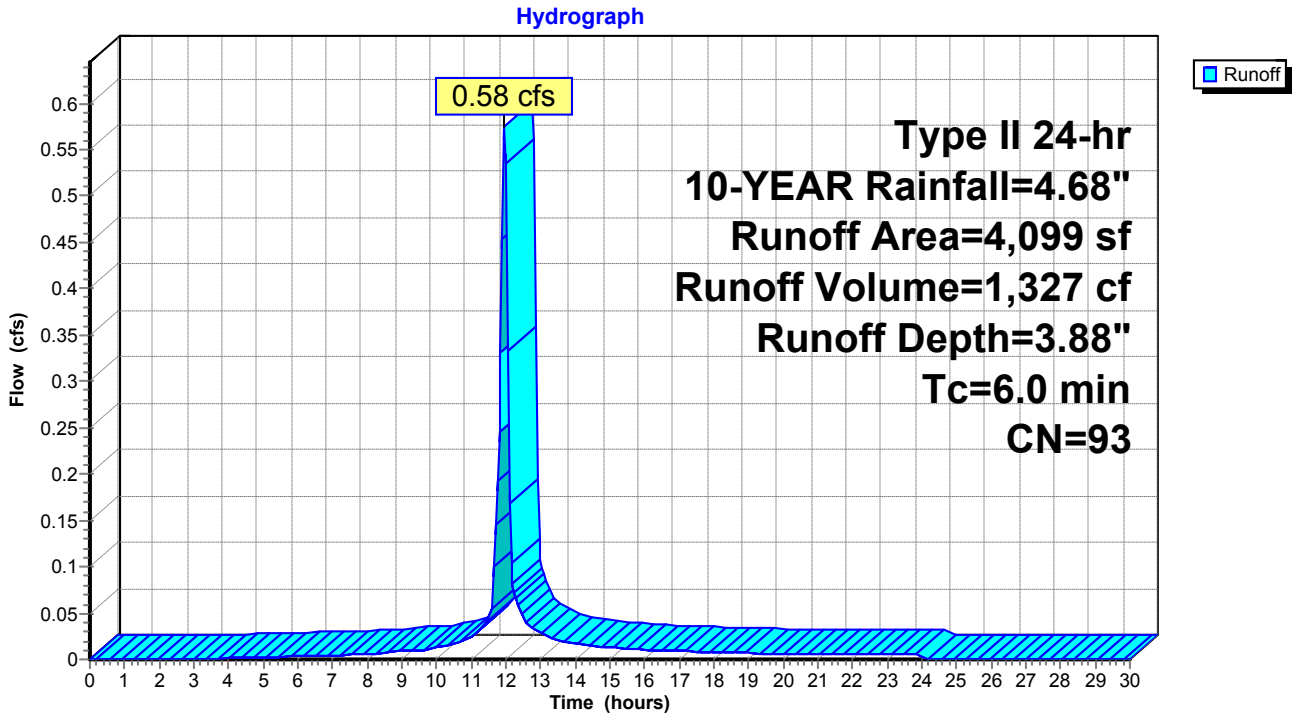
Runoff = 0.58 cfs @ 11.96 hrs, Volume= 1,327 cf, Depth= 3.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,032	80	>75% Grass cover, Good, HSG D
3,067	98	Paved parking, HSG D
4,099	93	Weighted Average
1,032		25.18% Pervious Area
3,067		74.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-4: DRAINAGE AREA 4



Summary for Subcatchment DA-5: DRAINAGE AREA 5

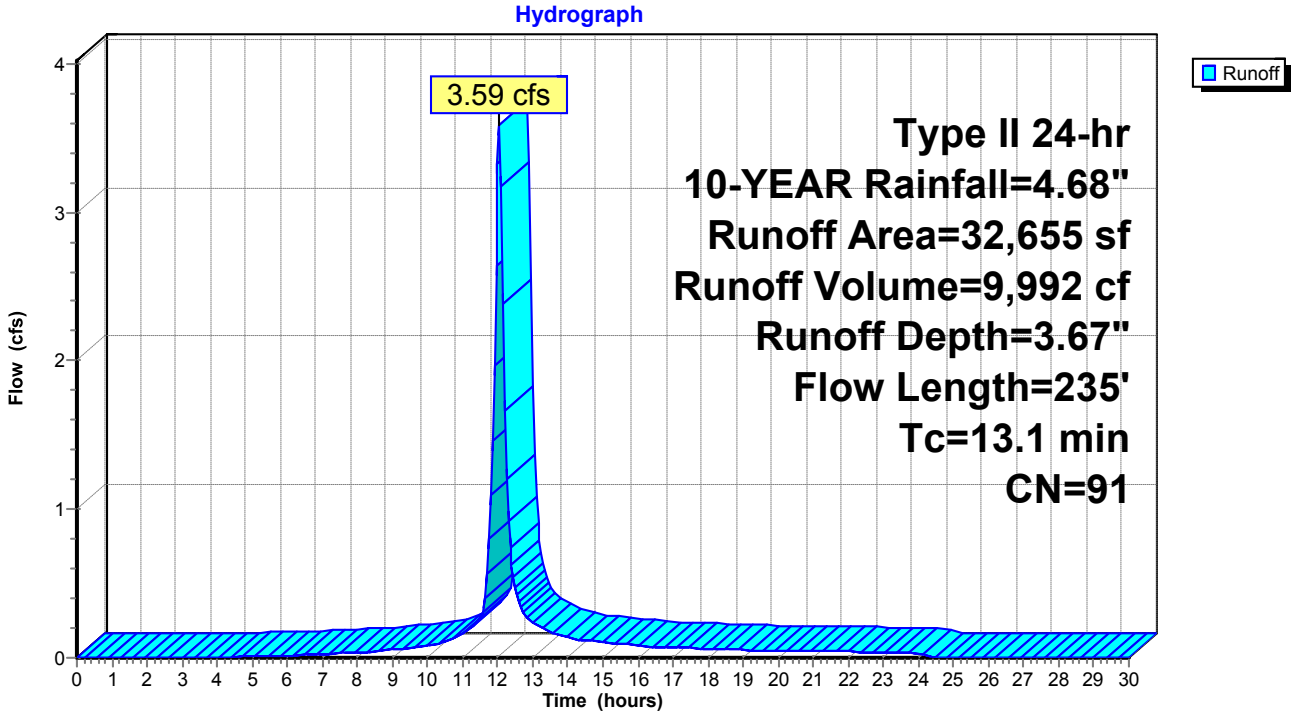
Runoff = 3.59 cfs @ 12.04 hrs, Volume= 9,992 cf, Depth= 3.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
12,737	80	>75% Grass cover, Good, HSG D
19,918	98	Paved parking, HSG D
32,655	91	Weighted Average
12,737		39.00% Pervious Area
19,918		61.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0150	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
1.7	81	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	54	0.0250	3.21		**Shallow Concentrated Flow, C-D** Paved Kv= 20.3 fps
13.1	235	Total			

Subcatchment DA-5: DRAINAGE AREA 5



Summary for Subcatchment DA-6: DA-6

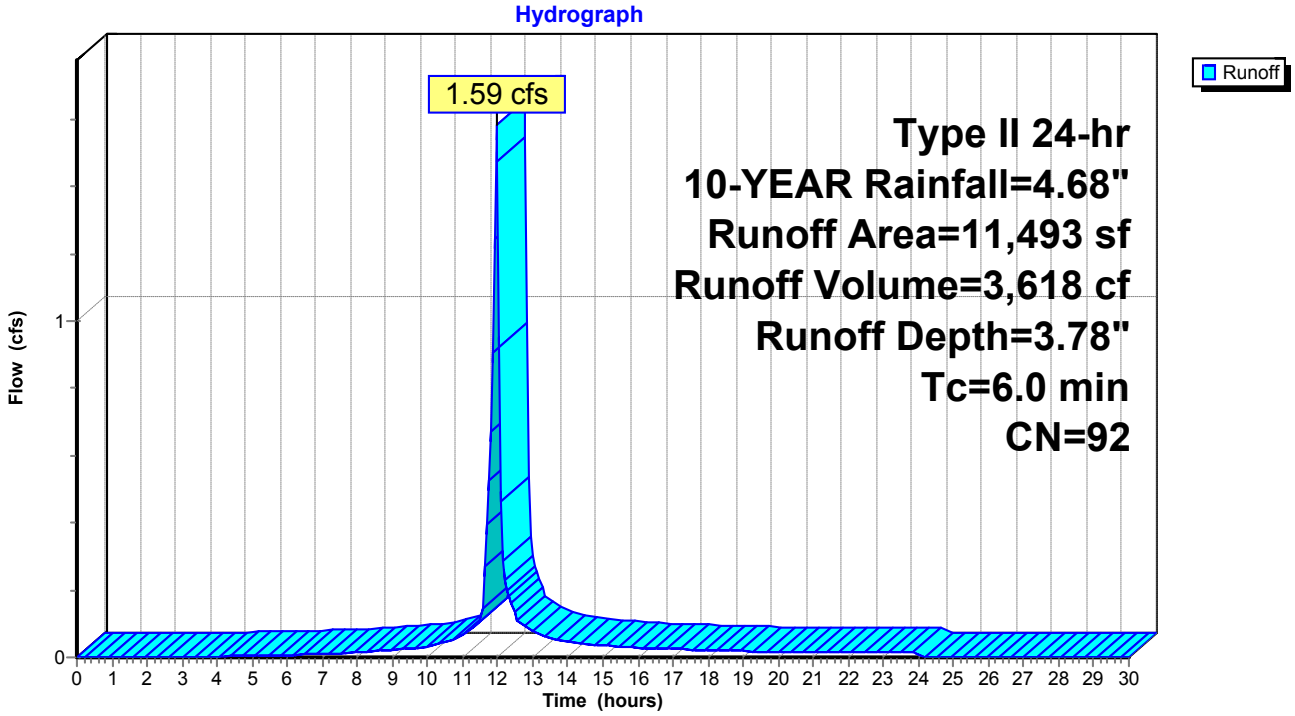
Runoff = 1.59 cfs @ 11.96 hrs, Volume= 3,618 cf, Depth= 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
3,947	80	>75% Grass cover, Good, HSG D
7,546	98	Paved parking, HSG D
11,493	92	Weighted Average
3,947		34.34% Pervious Area
7,546		65.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

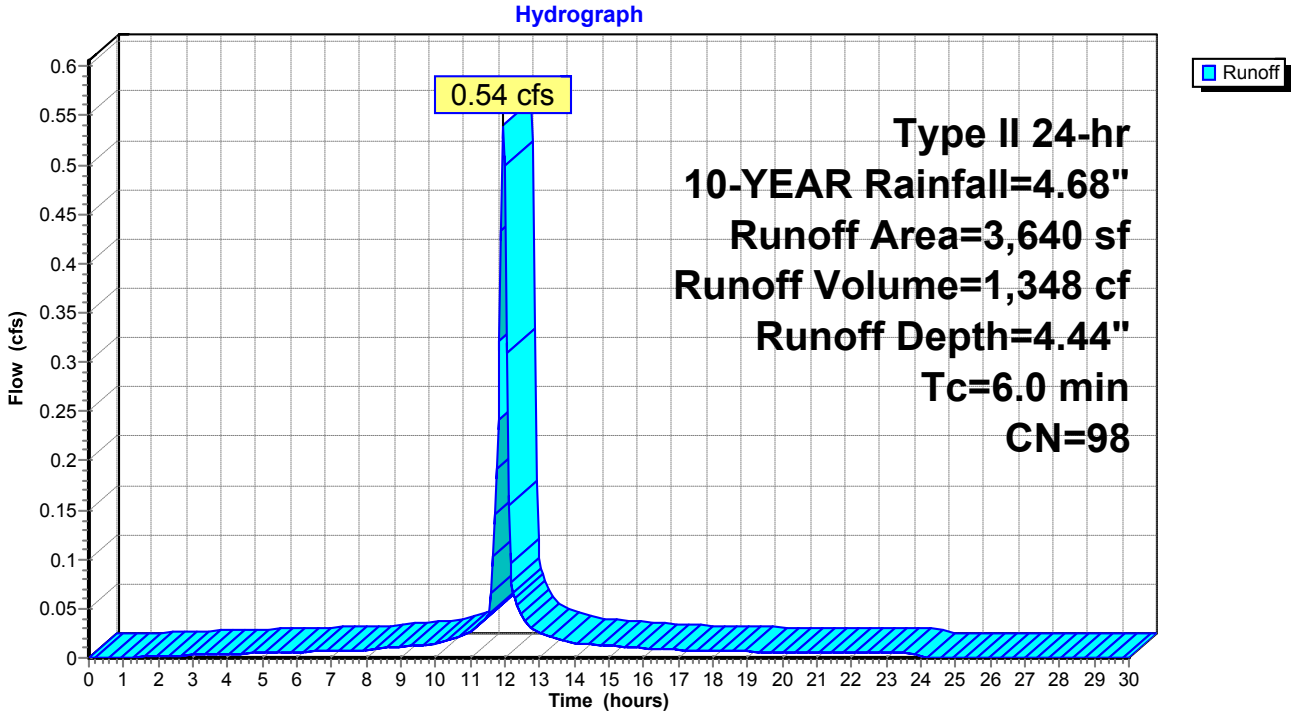
Runoff = 0.54 cfs @ 11.96 hrs, Volume= 1,348 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,587	98	Roofs, HSG D
2,053	98	Paved parking, HSG D
3,640	98	Weighted Average
3,640		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

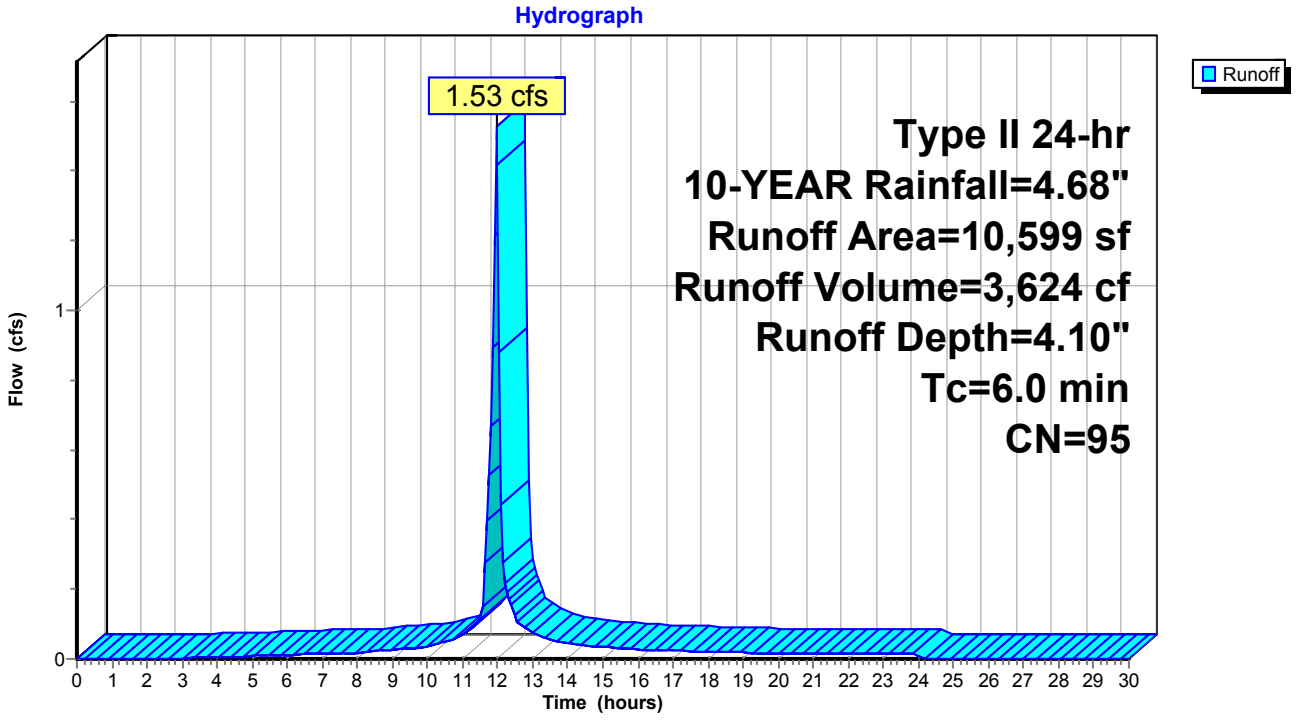
Runoff = 1.53 cfs @ 11.96 hrs, Volume= 3,624 cf, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,986	80	>75% Grass cover, Good, HSG D
6,900	98	Roofs, HSG D
1,713	98	Paved parking, HSG D
10,599	95	Weighted Average
1,986		18.74% Pervious Area
8,613		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DRAINAGE AREA 9

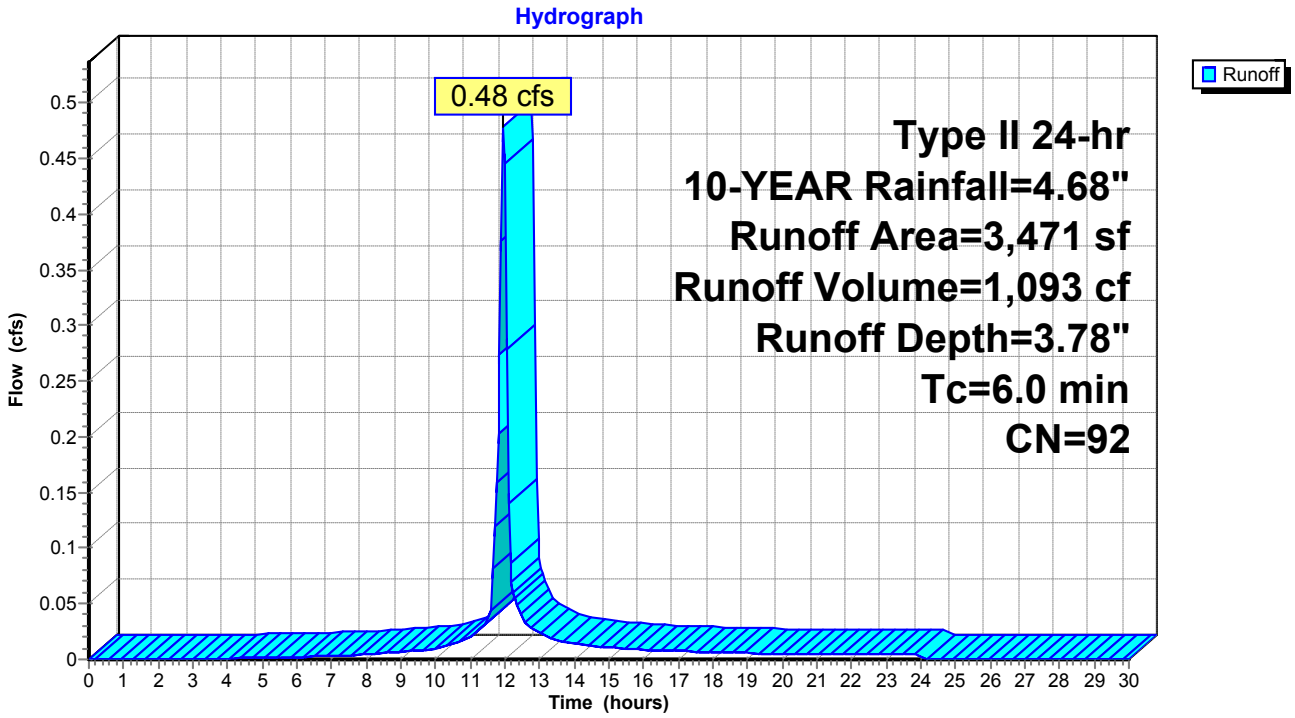
Runoff = 0.48 cfs @ 11.96 hrs, Volume= 1,093 cf, Depth= 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,195	80	>75% Grass cover, Good, HSG D
2,276	98	Paved parking, HSG D
3,471	92	Weighted Average
1,195		34.43% Pervious Area
2,276		65.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-9: DRAINAGE AREA 9



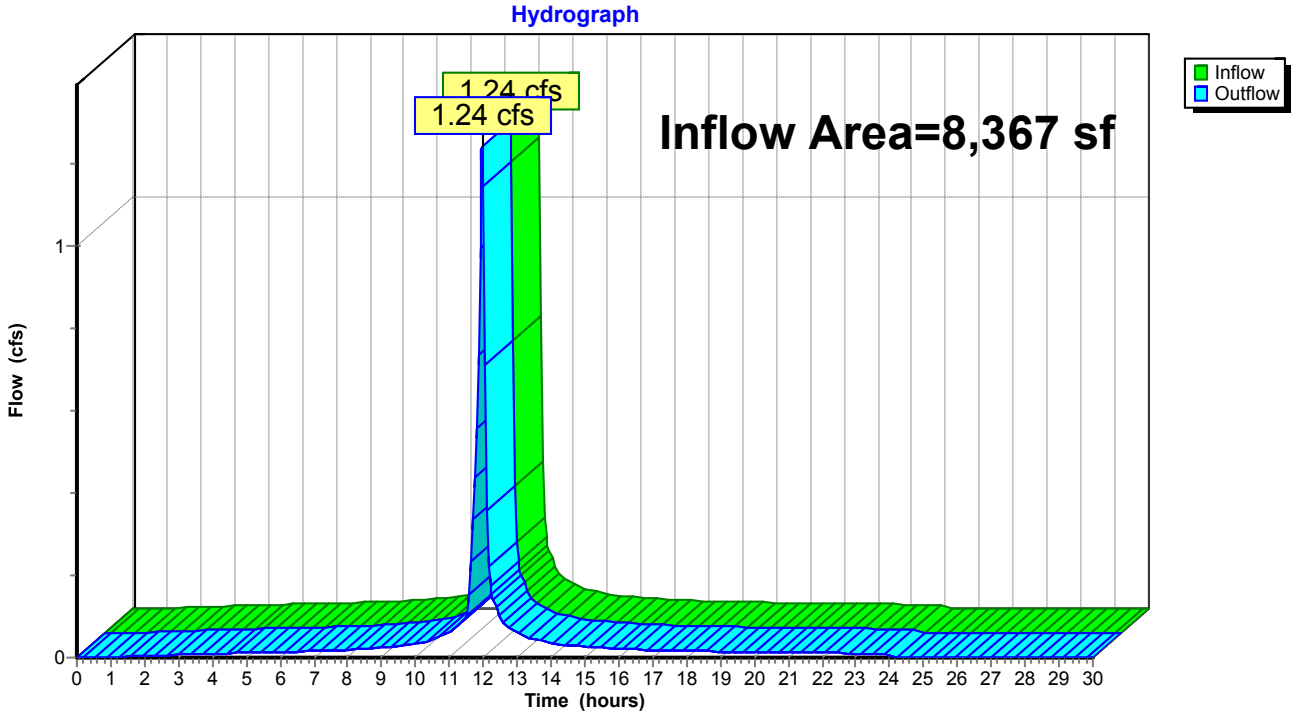
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8,367 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 1.24 cfs @ 11.96 hrs, Volume= 3,098 cf
Outflow = 1.24 cfs @ 11.96 hrs, Volume= 3,098 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 2P: EXISTING DRYWELL

[81] Warning: Exceeded Pond DW-4 by 0.49' @ 16.80 hrs

Inflow Area = 5,334 sf, 65.88% Impervious, Inflow Depth = 10.81" for 10-YEAR event
Inflow = 2.32 cfs @ 11.98 hrs, Volume= 4,807 cf
Outflow = 2.29 cfs @ 12.00 hrs, Volume= 4,807 cf, Atten= 1%, Lag= 1.1 min
Discarded = 0.63 cfs @ 12.00 hrs, Volume= 2,910 cf
Primary = 1.66 cfs @ 12.00 hrs, Volume= 1,897 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.81' @ 12.00 hrs Surf.Area= 1,242 sf Storage= 405 cf

Plug-Flow detention time= 23.6 min calculated for 4,799 cf (100% of inflow)
Center-of-Mass det. time= 23.6 min (775.2 - 751.6)

Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	1,717 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

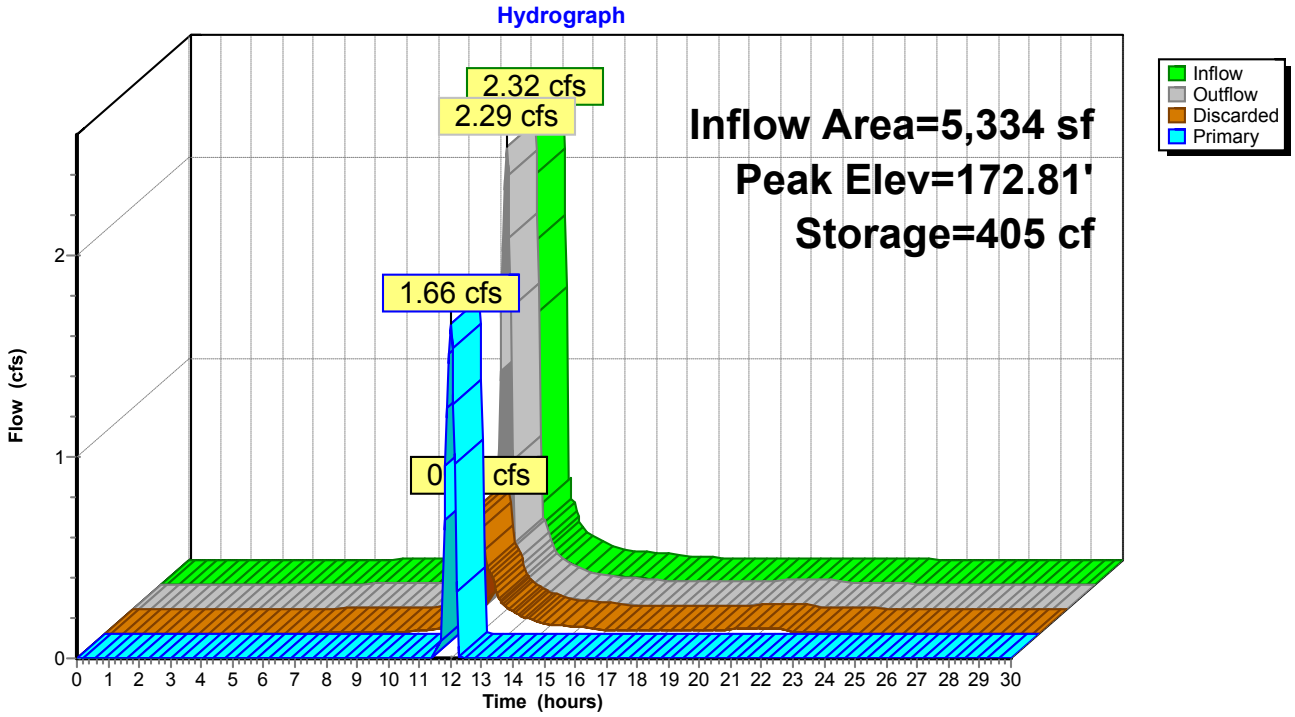
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	2,000	507	717
173.50	2,000	1,000	1,717

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**
#2	Primary	172.65'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.63 cfs @ 12.00 hrs HW=172.81' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.63 cfs)

Primary OutFlow Max=1.63 cfs @ 12.00 hrs HW=172.81' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 1.63 cfs @ 1.30 fps)

Pond 2P: EXISTING DRYWELL



Summary for Pond 3P: PROPOSED CB #3

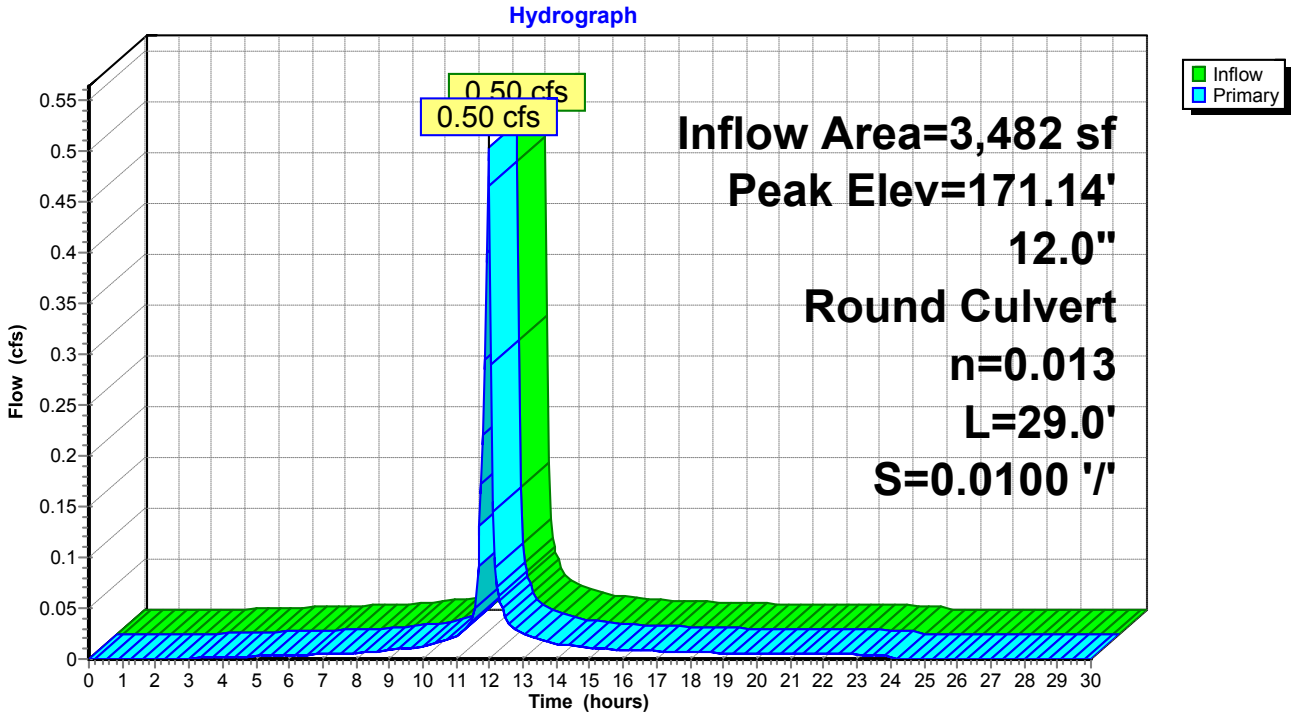
Inflow Area = 3,482 sf, 85.96% Impervious, Inflow Depth = 4.10" for 10-YEAR event
Inflow = 0.50 cfs @ 11.96 hrs, Volume= 1,190 cf
Outflow = 0.50 cfs @ 11.96 hrs, Volume= 1,190 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.50 cfs @ 11.96 hrs, Volume= 1,190 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.14' @ 11.96 hrs
Flood Elev= 172.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.74'	**12.0" Round Culvert** L= 29.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.74' / 170.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.49 cfs @ 11.96 hrs HW=171.14' (Free Discharge)
1=Culvert (Inlet Controls 0.49 cfs @ 1.69 fps)

Pond 3P: PROPOSED CB #3



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond CB-2 by 2.76' @ 12.15 hrs

Inflow	=	1.35 cfs @	11.96 hrs,	Volume=	4,070 cf
Outflow	=	0.93 cfs @	12.05 hrs,	Volume=	4,070 cf, Atten= 31%, Lag= 5.0 min
Discarded	=	0.93 cfs @	12.05 hrs,	Volume=	4,070 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.44' @ 12.05 hrs Surf.Area= 1,829 sf Storage= 641 cf

Plug-Flow detention time= 49.1 min calculated for 4,063 cf (100% of inflow)
Center-of-Mass det. time= 49.3 min (814.9 - 765.6)

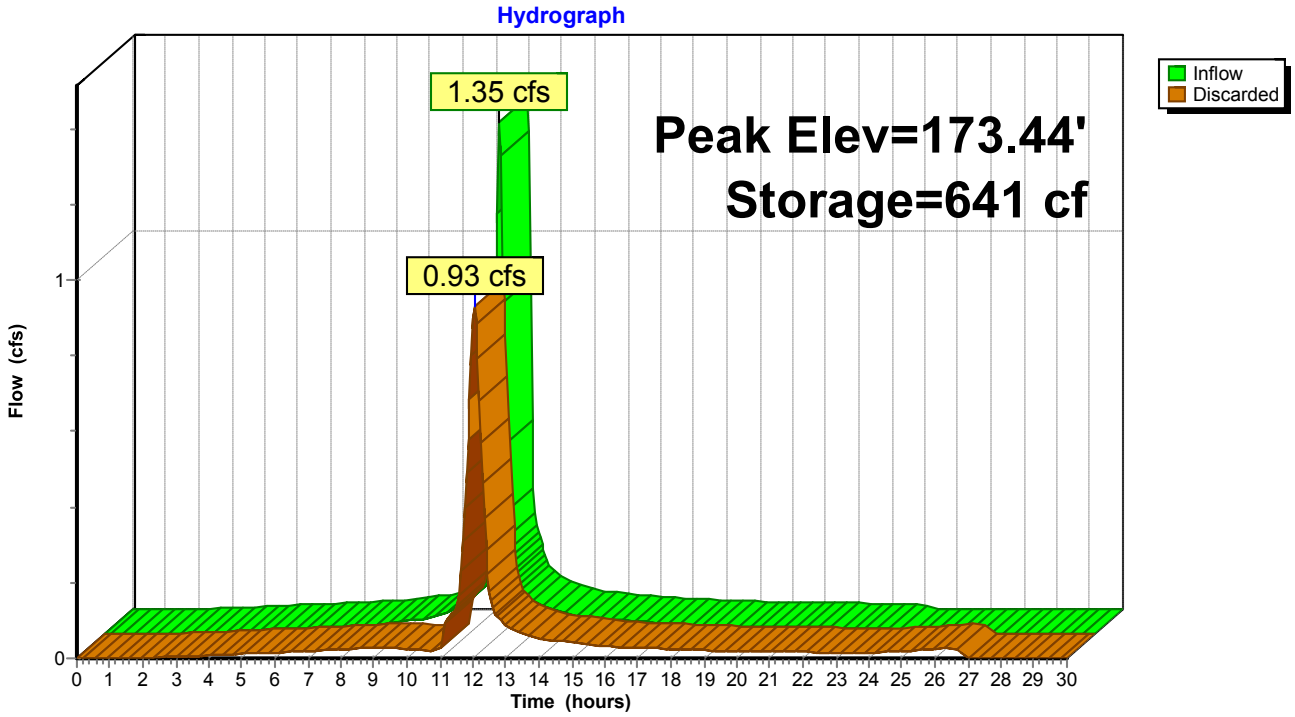
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	112	7	213
174.00	4,000	2,056	2,269

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.93 cfs @ 12.05 hrs HW=173.44' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.93 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 8P: EXISTING YARD DRAIN

[58] Hint: Peaked 41.73' above defined flood level

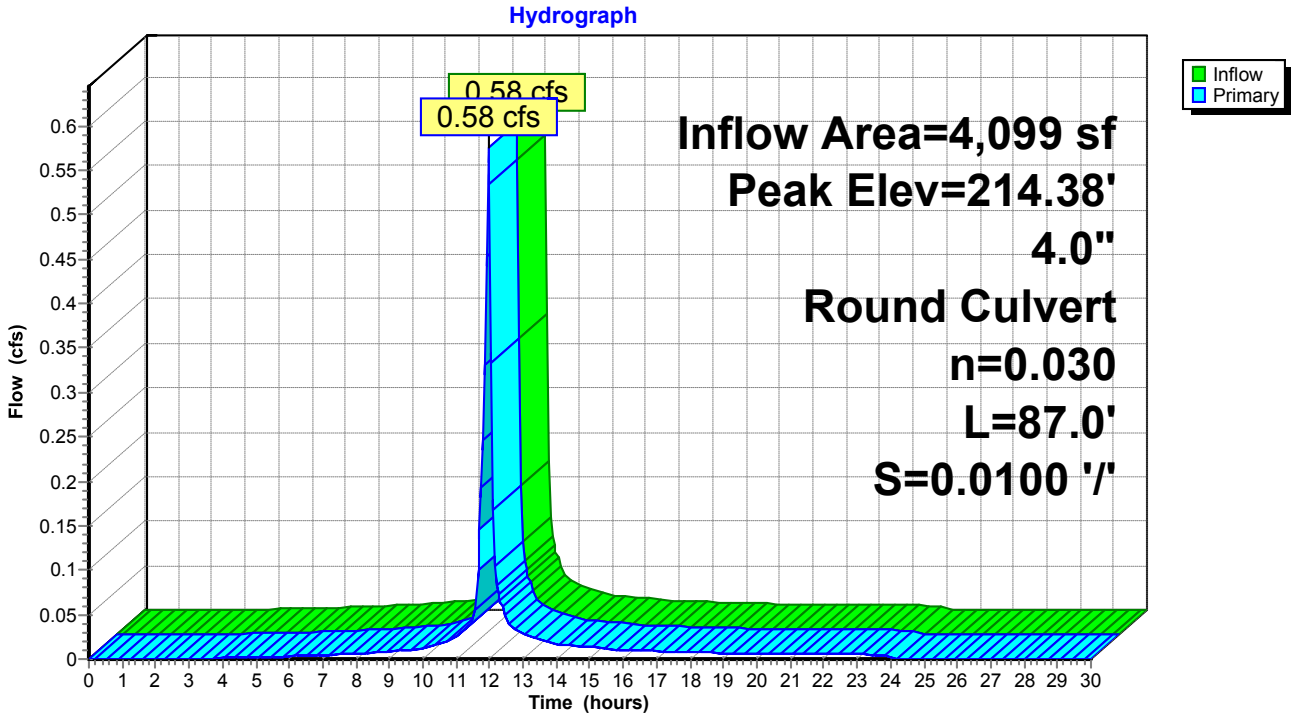
Inflow Area = 4,099 sf, 74.82% Impervious, Inflow Depth = 3.88" for 10-YEAR event
Inflow = 0.58 cfs @ 11.96 hrs, Volume= 1,327 cf
Outflow = 0.58 cfs @ 11.96 hrs, Volume= 1,327 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.58 cfs @ 11.96 hrs, Volume= 1,327 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 214.38' @ 11.96 hrs
Flood Elev= 172.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.030, Flow Area= 0.09 sf

Primary OutFlow Max=0.56 cfs @ 11.96 hrs HW=212.33' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.56 cfs @ 6.43 fps)

Pond 8P: EXISTING YARD DRAIN



Summary for Pond 12P: EXISTING CB

[79] Warning: Submerged Pond 3P Primary device # 1 INLET by 0.14'

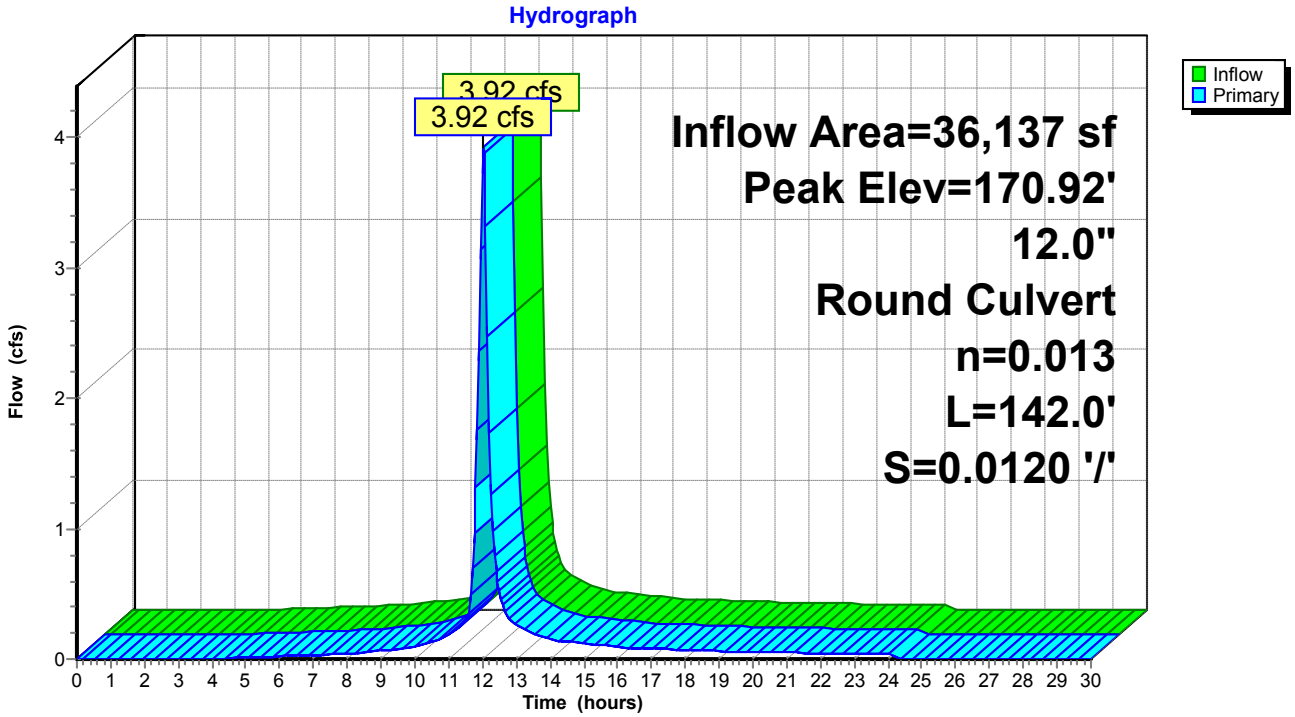
Inflow Area = 36,137 sf, 63.40% Impervious, Inflow Depth = 3.71" for 10-YEAR event
Inflow = 3.92 cfs @ 12.03 hrs, Volume= 11,183 cf
Outflow = 3.92 cfs @ 12.03 hrs, Volume= 11,183 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.92 cfs @ 12.03 hrs, Volume= 11,183 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.92' @ 12.03 hrs
Flood Elev= 172.16'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.84 cfs @ 12.03 hrs HW=170.86' (Free Discharge)
1=Culvert (Inlet Controls 3.84 cfs @ 4.89 fps)

Pond 12P: EXISTING CB



Summary for Pond 14P: EXISTING CB

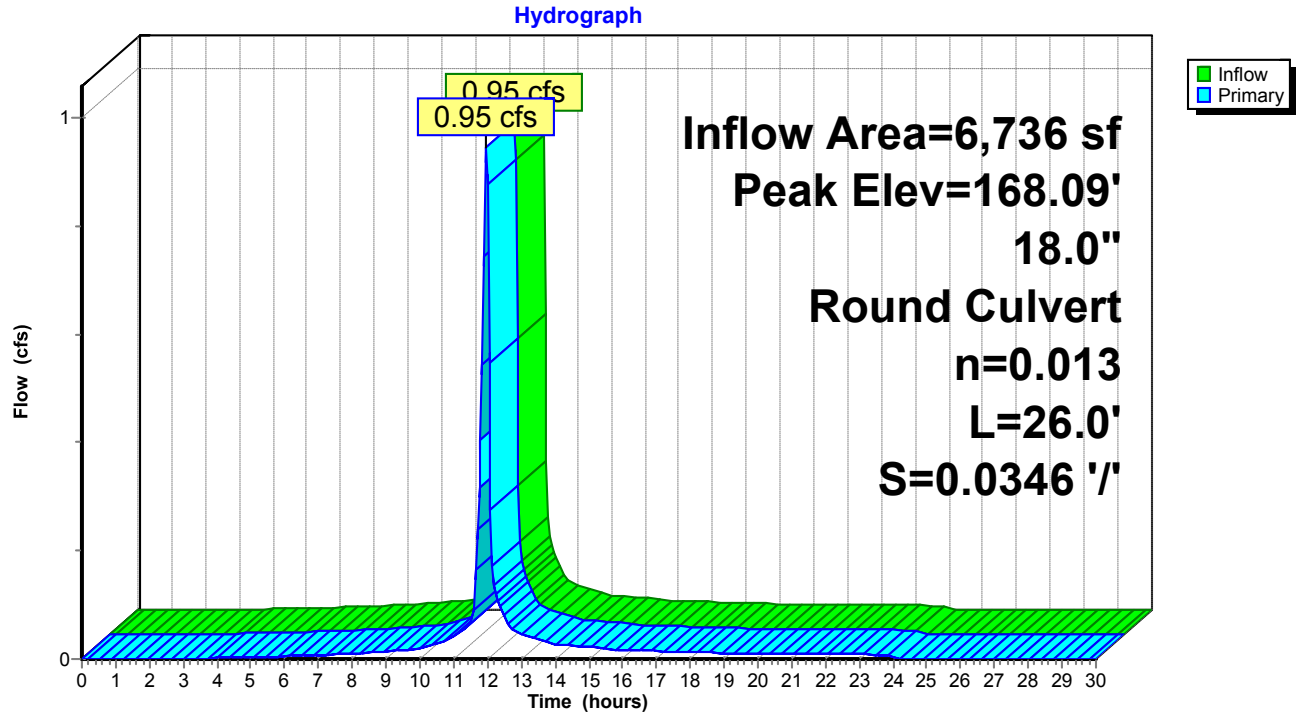
Inflow Area = 6,736 sf, 69.73% Impervious, Inflow Depth = 3.88" for 10-YEAR event
Inflow = 0.95 cfs @ 11.96 hrs, Volume= 2,180 cf
Outflow = 0.95 cfs @ 11.96 hrs, Volume= 2,180 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.95 cfs @ 11.96 hrs, Volume= 2,180 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.09' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=0.92 cfs @ 11.96 hrs HW=168.08' (Free Discharge)
1=Culvert (Inlet Controls 0.92 cfs @ 1.87 fps)

Pond 14P: EXISTING CB



Summary for Pond CB-1: PROPOSED CATCH BASIN #1

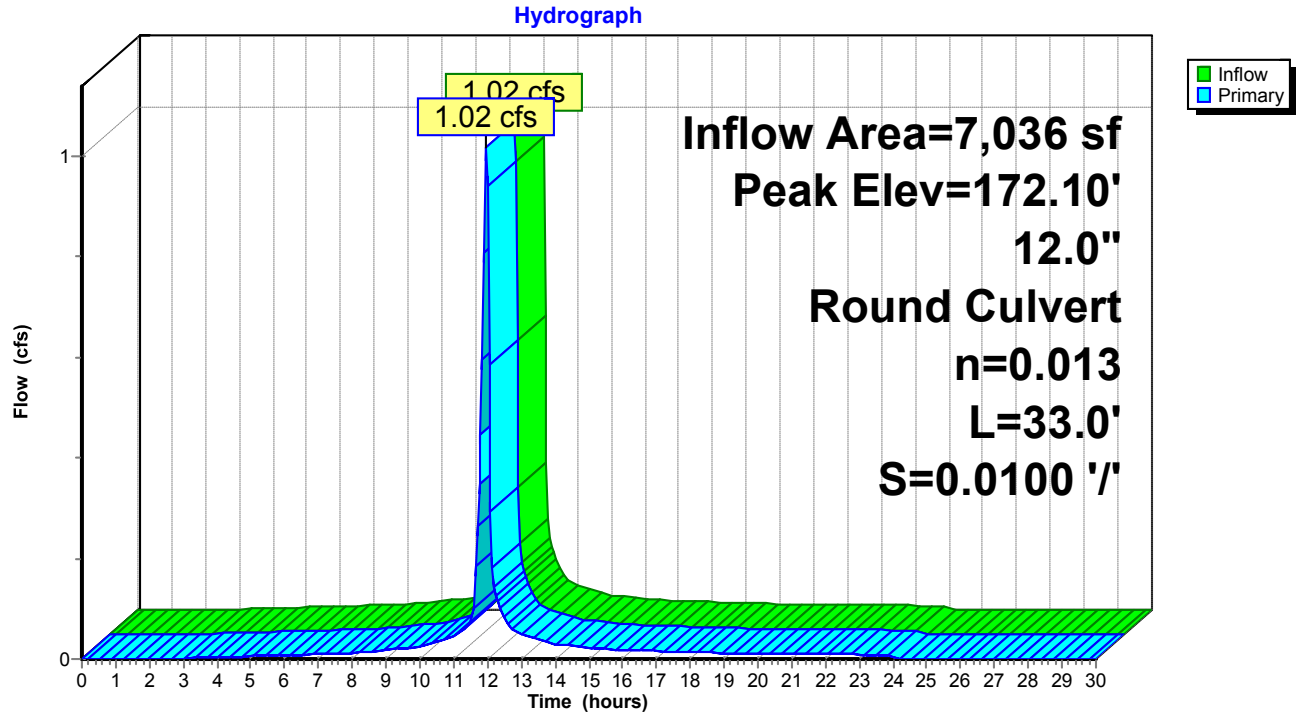
Inflow Area = 7,036 sf, 83.26% Impervious, Inflow Depth = 4.10" for 10-YEAR event
Inflow = 1.02 cfs @ 11.96 hrs, Volume= 2,406 cf
Outflow = 1.02 cfs @ 11.96 hrs, Volume= 2,406 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.02 cfs @ 11.96 hrs, Volume= 2,406 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.10' @ 11.96 hrs
Flood Elev= 172.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.50'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.50' / 171.17' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.99 cfs @ 11.96 hrs HW=172.09' (Free Discharge)
1=Culvert (Inlet Controls 0.99 cfs @ 2.06 fps)

Pond CB-1: PROPOSED CATCH BASIN #1



Summary for Pond CB-2: PR CB #2

[57] Hint: Peaked at 171.62' (Flood elevation advised)
[79] Warning: Submerged Pond CB-1 Primary device # 1 INLET by 0.11'

Inflow Area =	28,448 sf,	85.49% Impervious,	Inflow Depth =	4.19"	for 10-YEAR event
Inflow =	4.15 cfs @	11.96 hrs,	Volume=	9,926 cf	
Outflow =	4.15 cfs @	11.96 hrs,	Volume=	9,926 cf,	Atten= 0%, Lag= 0.0 min
Primary =	2.79 cfs @	11.96 hrs,	Volume=	5,856 cf	
Secondary =	1.35 cfs @	11.96 hrs,	Volume=	4,070 cf	

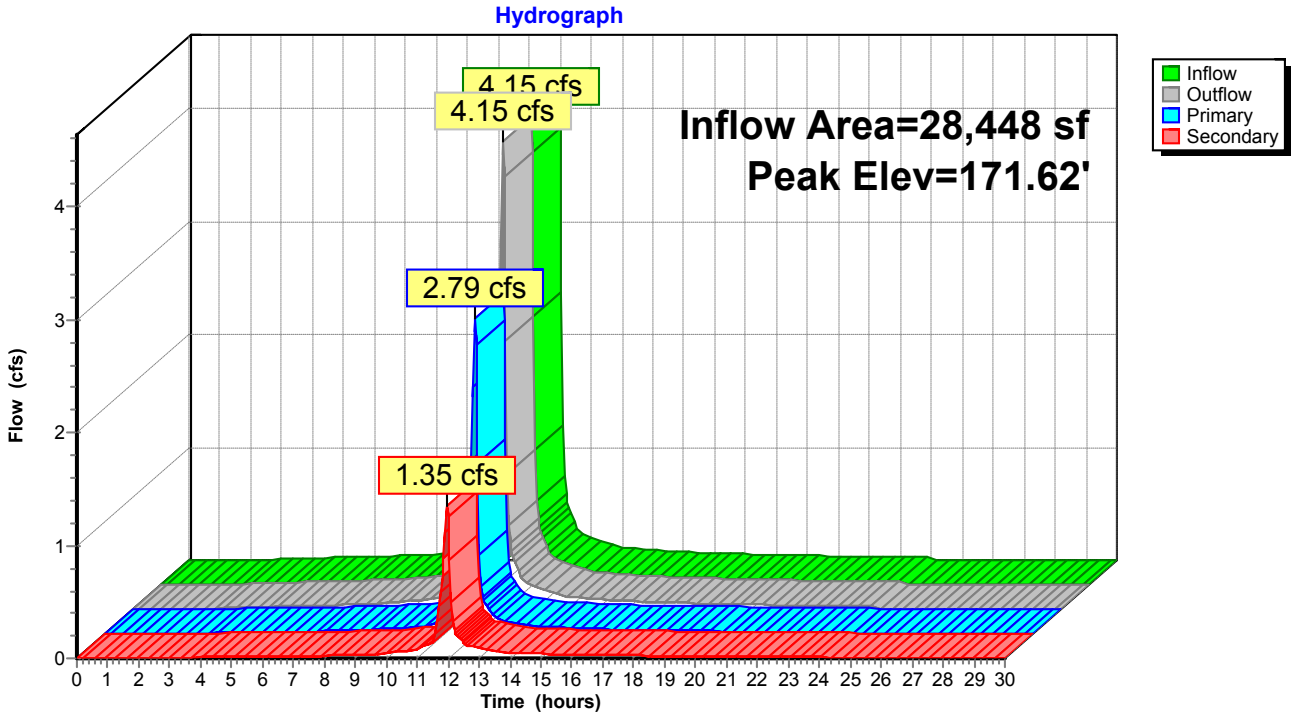
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.62' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.25'	**12.0" Round Culvert** L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	170.25'	**8.0" Round Culvert** L= 12.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=2.72 cfs @ 11.96 hrs HW=171.58' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 2.72 cfs @ 3.46 fps)

Secondary OutFlow Max=1.33 cfs @ 11.96 hrs HW=171.58' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 1.33 cfs @ 3.80 fps)

Pond CB-2: PR CB #2



Summary for Pond DP-1: Existing Catch Basin

[79] Warning: Submerged Pond 12P Primary device # 1 OUTLET by 1.60'
[81] Warning: Exceeded Pond 14P by 0.53' @ 12.00 hrs

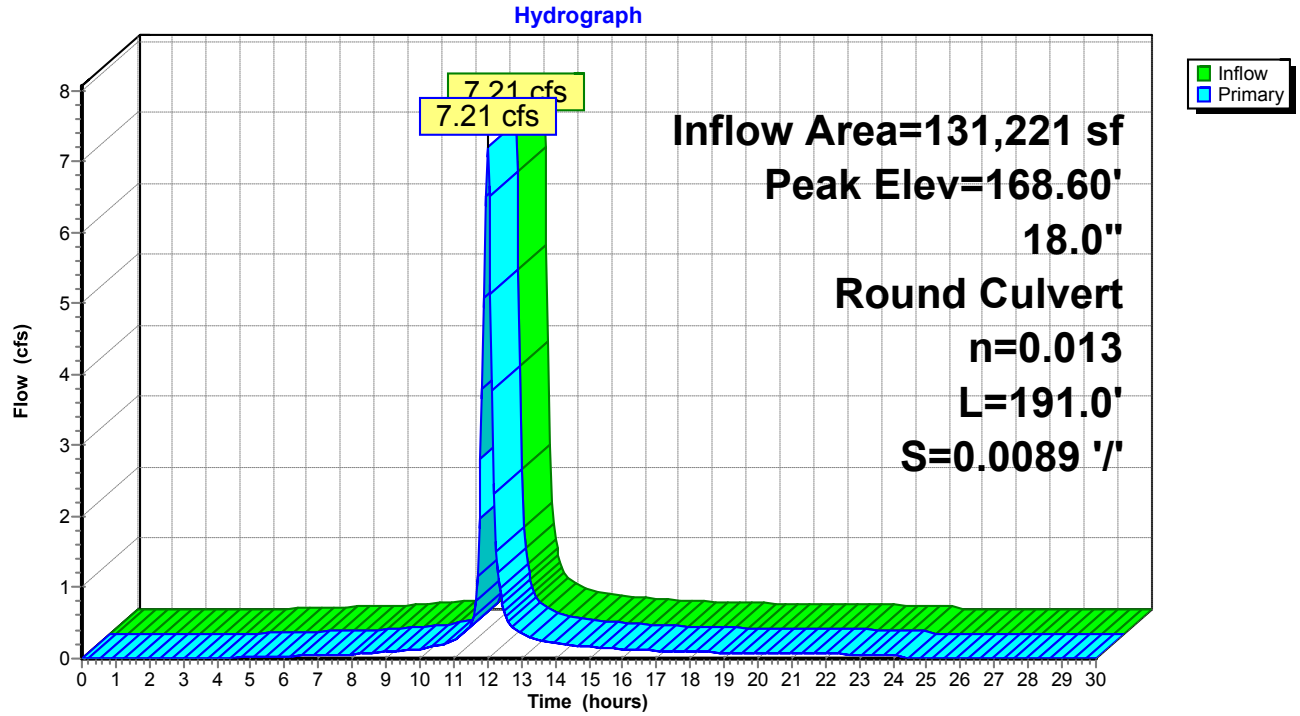
Inflow Area = 131,221 sf, 73.88% Impervious, Inflow Depth = 1.60" for 10-YEAR event
Inflow = 7.21 cfs @ 12.00 hrs, Volume= 17,443 cf
Outflow = 7.21 cfs @ 12.00 hrs, Volume= 17,443 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.21 cfs @ 12.00 hrs, Volume= 17,443 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.60' @ 12.00 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=7.20 cfs @ 12.00 hrs HW=168.60' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 7.20 cfs @ 4.08 fps)

Pond DP-1: Existing Catch Basin



Summary for Pond DW-1: PROPOSED DRYWELL #1

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 3,471 sf, 65.57% Impervious, Inflow Depth = 3.78" for 10-YEAR event
Inflow = 0.48 cfs @ 11.96 hrs, Volume= 1,093 cf
Outflow = 0.25 cfs @ 12.08 hrs, Volume= 1,093 cf, Atten= 49%, Lag= 6.7 min
Discarded = 0.25 cfs @ 12.08 hrs, Volume= 1,093 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.08' @ 12.07 hrs Surf.Area= 310 sf Storage= 325 cf

Plug-Flow detention time= 35.3 min calculated for 1,091 cf (100% of inflow)
Center-of-Mass det. time= 35.3 min (816.8 - 781.5)

Volume	Invert	Avail.Storage	Storage Description
#1	164.00'	712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	163.00'	38 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 94 cf Overall x 40.0% Voids
		750 cf	Total Available Storage

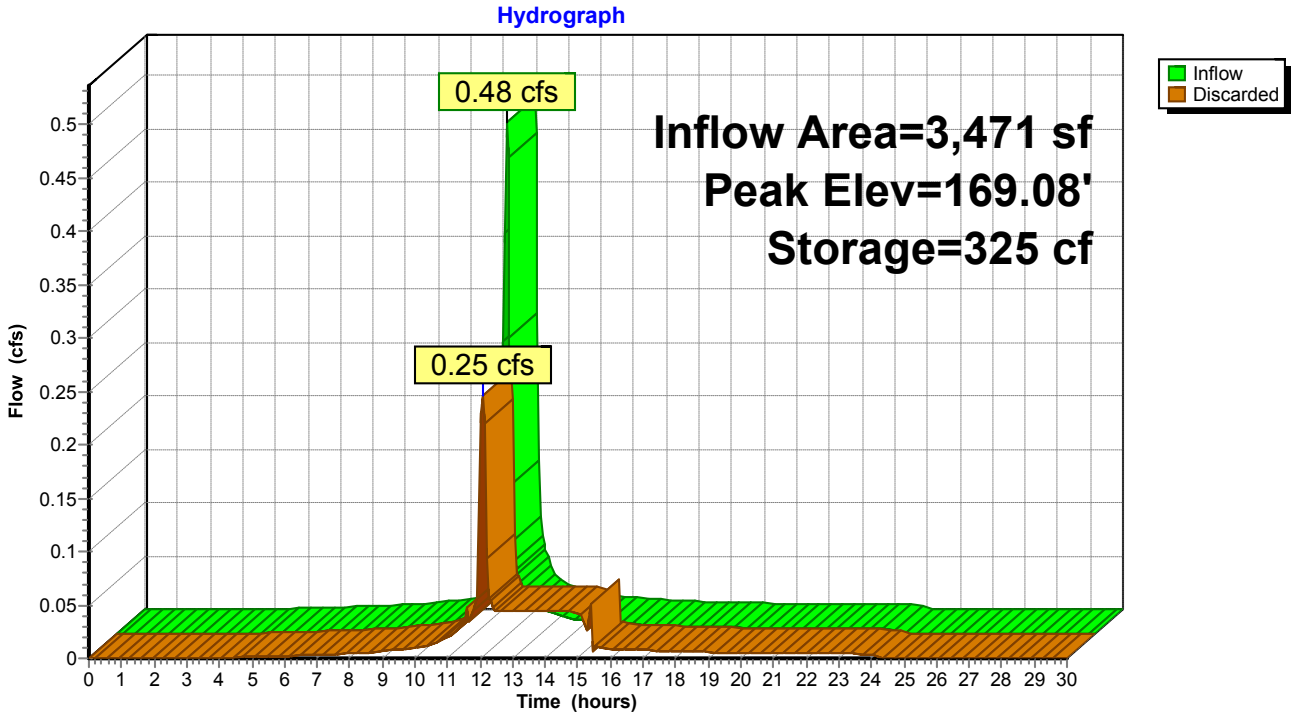
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	50	0	0
168.90	50	245	245
169.00	300	17	262
170.50	300	450	712

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	78	0	0
164.00	10	44	44
169.00	10	50	94

Device	Routing	Invert	Outlet Devices
#1	Discarded	163.00'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.23 cfs @ 12.08 hrs HW=169.06' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.23 cfs)

Pond DW-1: PROPOSED DRYWELL #1



Summary for Pond DW-2: PROPOSED DRYWELL #2

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond YD-2 by 2.78' @ 14.80 hrs

Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 3.78" for 10-YEAR event
Inflow = 1.82 cfs @ 11.96 hrs, Volume= 4,203 cf
Outflow = 1.54 cfs @ 12.01 hrs, Volume= 4,203 cf, Atten= 15%, Lag= 2.8 min
Discarded = 1.54 cfs @ 12.01 hrs, Volume= 4,203 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.73' @ 12.01 hrs Surf.Area= 2,084 sf Storage= 686 cf

Plug-Flow detention time= 47.9 min calculated for 4,196 cf (100% of inflow)
Center-of-Mass det. time= 47.9 min (824.9 - 777.0)

Volume	Invert	Avail.Storage	Storage Description
#1	167.78'	1,499 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	166.50'	53 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 134 cf Overall x 40.0% Voids
		1,552 cf	Total Available Storage

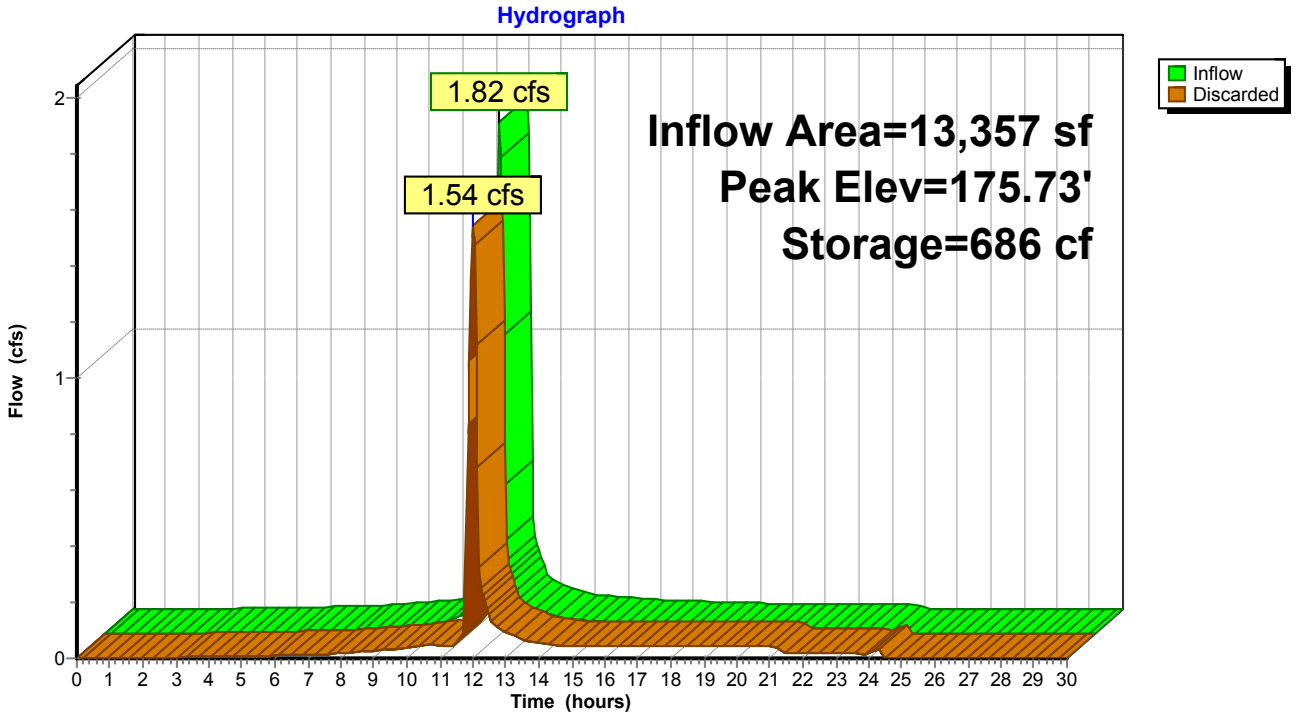
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.78	50	0	0
175.50	50	386	386
176.00	4,400	1,113	1,499

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.50	78	0	0
167.78	10	56	56
175.50	10	77	134

Device	Routing	Invert	Outlet Devices
#1	Discarded	166.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.52 cfs @ 12.01 hrs HW=175.73' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.52 cfs)

Pond DW-2: PROPOSED DRYWELL #2



Summary for Pond DW-3: PROPOSED DRYWELL #3

[81] Warning: Exceeded Pond YD-4 by 2.08' @ 15.25 hrs

Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 4.19" for 10-YEAR event
Inflow = 2.07 cfs @ 11.96 hrs, Volume= 4,972 cf
Outflow = 1.70 cfs @ 12.01 hrs, Volume= 4,974 cf, Atten= 18%, Lag= 3.1 min
Discarded = 1.70 cfs @ 12.01 hrs, Volume= 4,974 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.78' @ 12.01 hrs Surf.Area= 2,292 sf Storage= 775 cf

Plug-Flow detention time= 45.2 min calculated for 4,966 cf (100% of inflow)
Center-of-Mass det. time= 45.4 min (806.0 - 760.6)

Volume	Invert	Avail.Storage	Storage Description
#1	166.69'	1,403 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	165.50'	55 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 138 cf Overall x 40.0% Voids
		1,458 cf	Total Available Storage

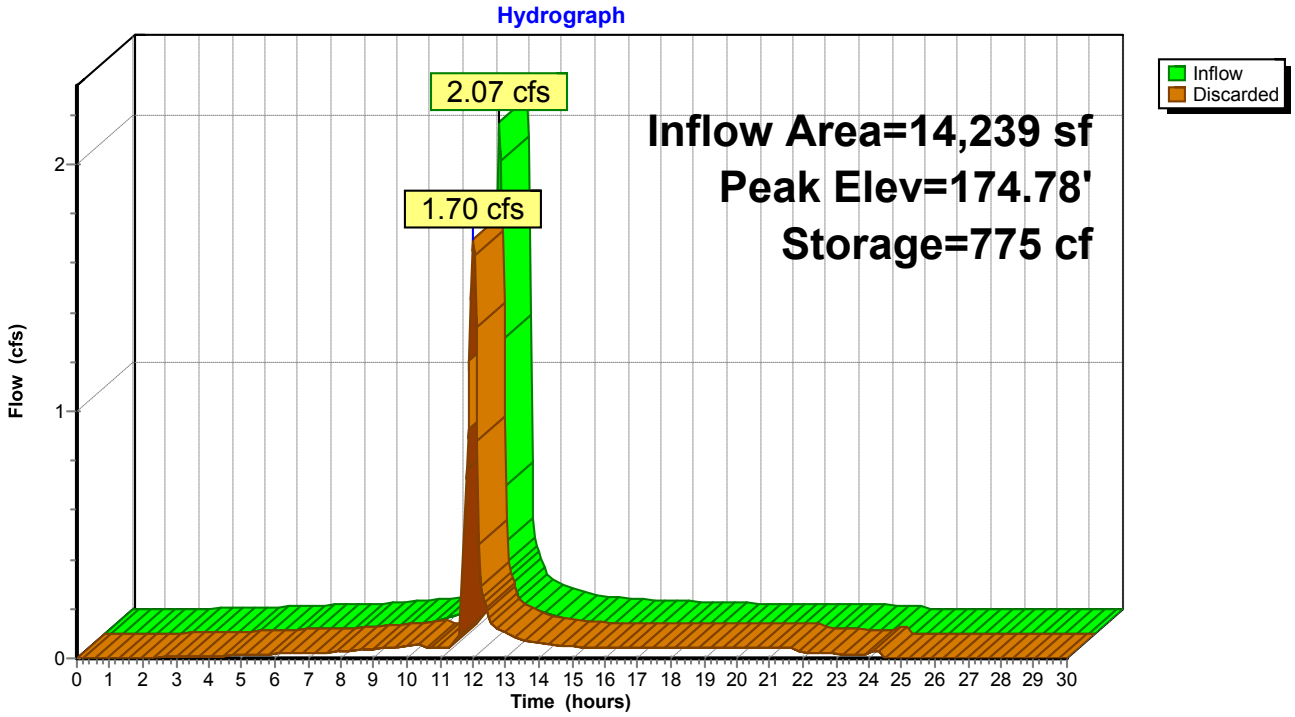
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.69	50	0	0
174.50	50	391	391
175.00	4,000	1,013	1,403

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.50	79	0	0
165.69	79	15	15
166.69	10	45	60
174.50	10	78	138

Device	Routing	Invert	Outlet Devices
#1	Discarded	165.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.67 cfs @ 12.01 hrs HW=174.78' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.67 cfs)

Pond DW-3: PROPOSED DRYWELL #3



Summary for Pond DW-4: PROPOSED DRYWELL #4

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond CB-2 by 2.88' @ 12.10 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 2.47" for 10-YEAR event
Inflow = 2.79 cfs @ 11.96 hrs, Volume= 5,856 cf
Outflow = 2.06 cfs @ 12.02 hrs, Volume= 5,856 cf, Atten= 26%, Lag= 3.7 min
Discarded = 0.44 cfs @ 12.02 hrs, Volume= 2,728 cf
Secondary = 1.63 cfs @ 12.02 hrs, Volume= 3,128 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.84' @ 12.02 hrs Surf.Area= 856 sf Storage= 867 cf

Plug-Flow detention time= 55.7 min calculated for 5,846 cf (100% of inflow)
Center-of-Mass det. time= 55.8 min (814.9 - 759.1)

Volume	Invert	Avail.Storage	Storage Description
#1	165.00'	1,468 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	164.00'	50 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 124 cf Overall x 40.0% Voids
		1,517 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.00	55	0	0
173.00	55	440	440
174.00	1,000	528	968
174.50	1,000	500	1,468

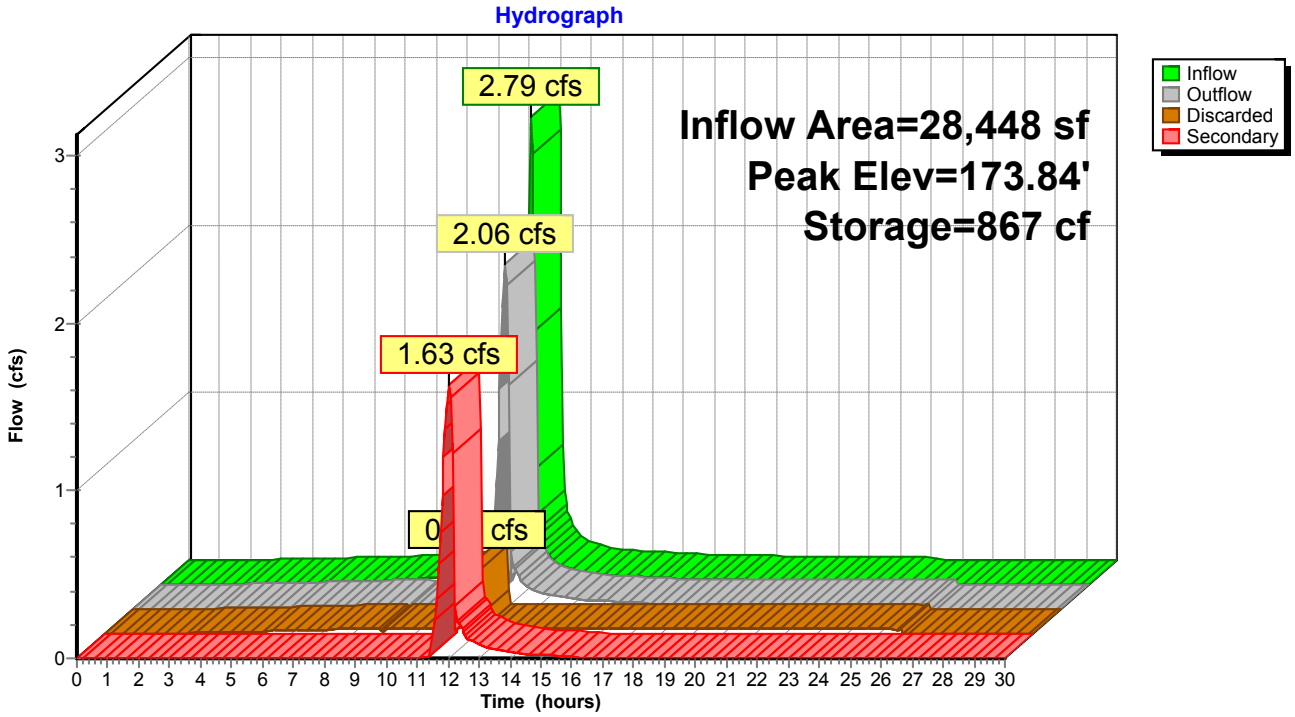
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	78	0	0
165.00	10	44	44
173.00	10	80	124

Device	Routing	Invert	Outlet Devices
#1	Discarded	164.00'	**22.000 in/hr Exfiltration over Surface area**
#2	Secondary	172.00'	**8.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.00' / 171.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Discarded OutFlow Max=0.43 cfs @ 12.02 hrs HW=173.82' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.43 cfs)

Secondary OutFlow Max=1.62 cfs @ 12.02 hrs HW=173.82' (Free Discharge)
└**2=Culvert** (Inlet Controls 1.62 cfs @ 4.63 fps)

Pond DW-4: PROPOSED DRYWELL #4



Summary for Pond DW-5: PROPOSED DRYWELL #5

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 11,493 sf, 65.66% Impervious, Inflow Depth = 3.78" for 10-YEAR event
Inflow = 1.59 cfs @ 11.96 hrs, Volume= 3,618 cf
Outflow = 0.93 cfs @ 12.05 hrs, Volume= 3,618 cf, Atten= 41%, Lag= 5.4 min
Discarded = 0.93 cfs @ 12.05 hrs, Volume= 3,618 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.60' @ 12.05 hrs Surf.Area= 1,825 sf Storage= 812 cf

Plug-Flow detention time= 37.3 min calculated for 3,612 cf (100% of inflow)
Center-of-Mass det. time= 37.4 min (818.9 - 781.5)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,748 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	167.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		1,781 cf	Total Available Storage

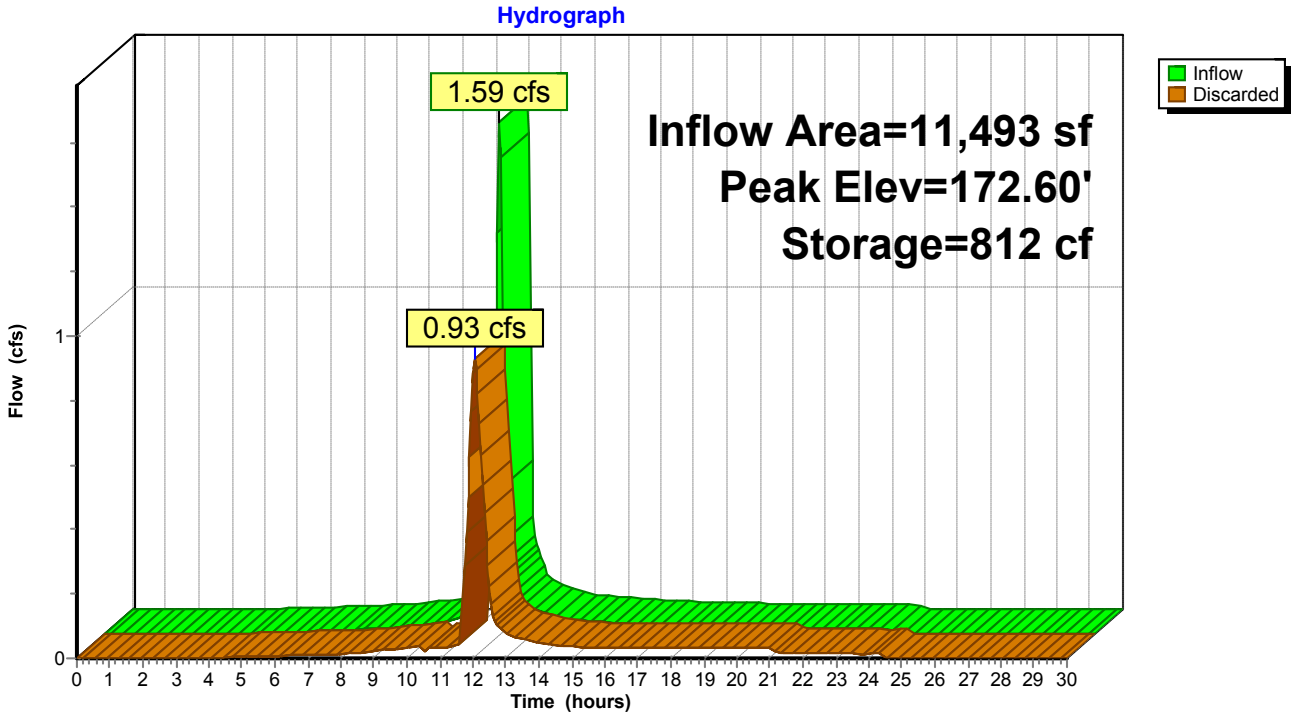
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.00	55	220	220
173.00	3,000	1,528	1,748

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	78	0	0
168.00	10	44	44
172.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.93 cfs @ 12.05 hrs HW=172.60' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.93 cfs)

Pond DW-5: PROPOSED DRYWELL #5



Summary for Pond DW-6: PROPOSED DRYWELL #6

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,844 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 0.27 cfs @ 11.96 hrs, Volume= 683 cf
Outflow = 0.04 cfs @ 11.65 hrs, Volume= 683 cf, Atten= 87%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.65 hrs, Volume= 683 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.33' @ 12.26 hrs Surf.Area= 65 sf Storage= 214 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 36.3 min (781.4 - 745.1)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	169.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

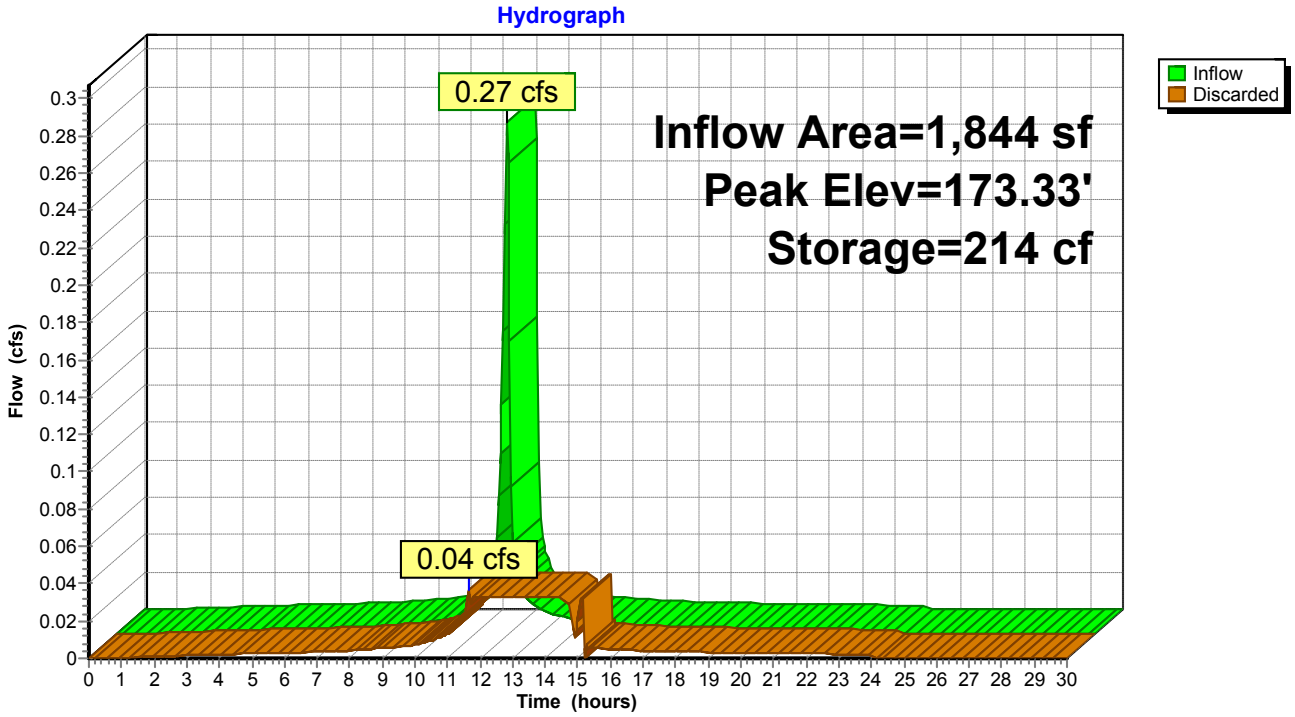
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	55	0	0
174.00	55	220	220
174.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	78	0	0
170.00	10	44	44
174.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	169.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.65 hrs HW=169.10' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-6: PROPOSED DRYWELL #6



Summary for Pond DW-7: PROPOSED DRYWELL #7

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,755 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 0.26 cfs @ 11.96 hrs, Volume= 650 cf
Outflow = 0.04 cfs @ 11.66 hrs, Volume= 650 cf, Atten= 85%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.66 hrs, Volume= 650 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.45' @ 12.24 hrs Surf.Area= 65 sf Storage= 200 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 33.7 min (778.8 - 745.1)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	352 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	170.00'	42 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 106 cf Overall x 40.0% Voids
		394 cf	Total Available Storage

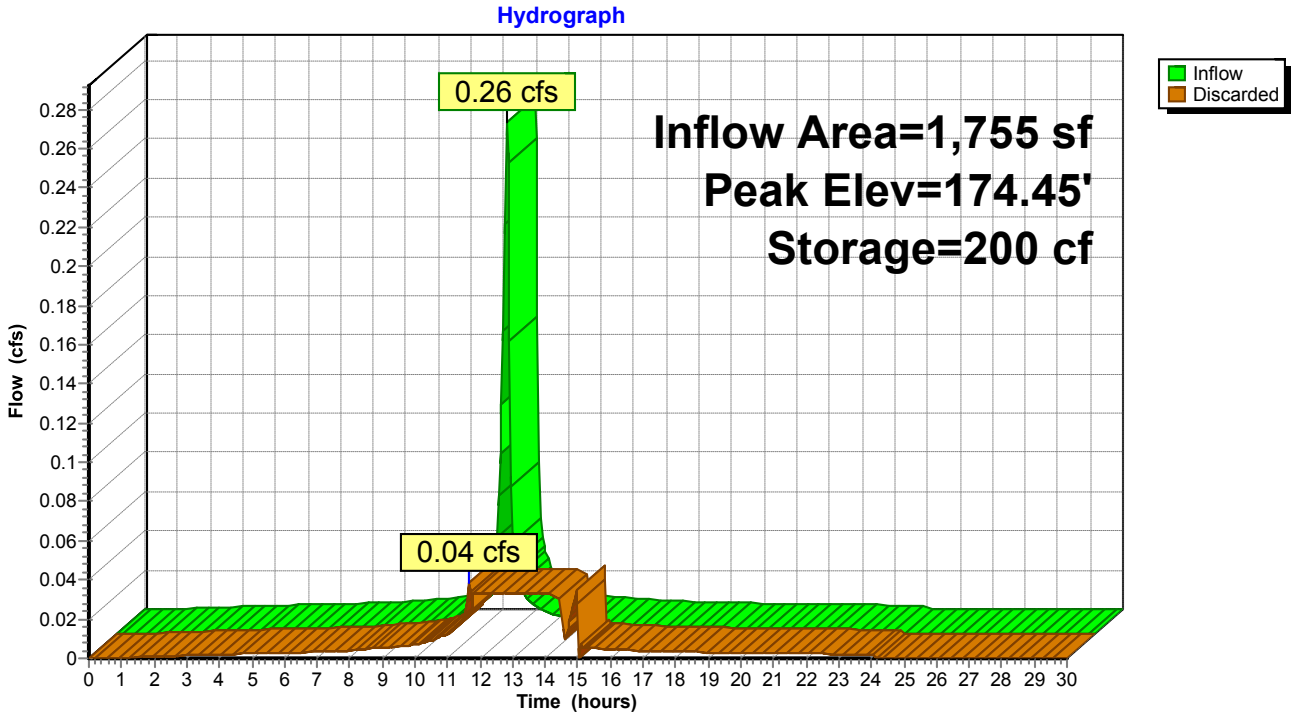
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
171.50	55	0	0
175.50	55	220	220
175.75	1,000	132	352

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	78	0	0
171.50	10	66	66
175.50	10	40	106

Device	Routing	Invert	Outlet Devices
#1	Discarded	170.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.66 hrs HW=170.12' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-7: PROPOSED DRYWELL #7



Summary for Pond DW-8: PROPOSED DRYWELL #8

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,734 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 0.26 cfs @ 11.96 hrs, Volume= 642 cf
Outflow = 0.04 cfs @ 11.65 hrs, Volume= 642 cf, Atten= 86%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.65 hrs, Volume= 642 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.08' @ 12.23 hrs Surf.Area= 65 sf Storage= 199 cf

Plug-Flow detention time= 33.4 min calculated for 641 cf (100% of inflow)
Center-of-Mass det. time= 33.3 min (778.4 - 745.1)

Volume	Invert	Avail.Storage	Storage Description
#1	169.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	168.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

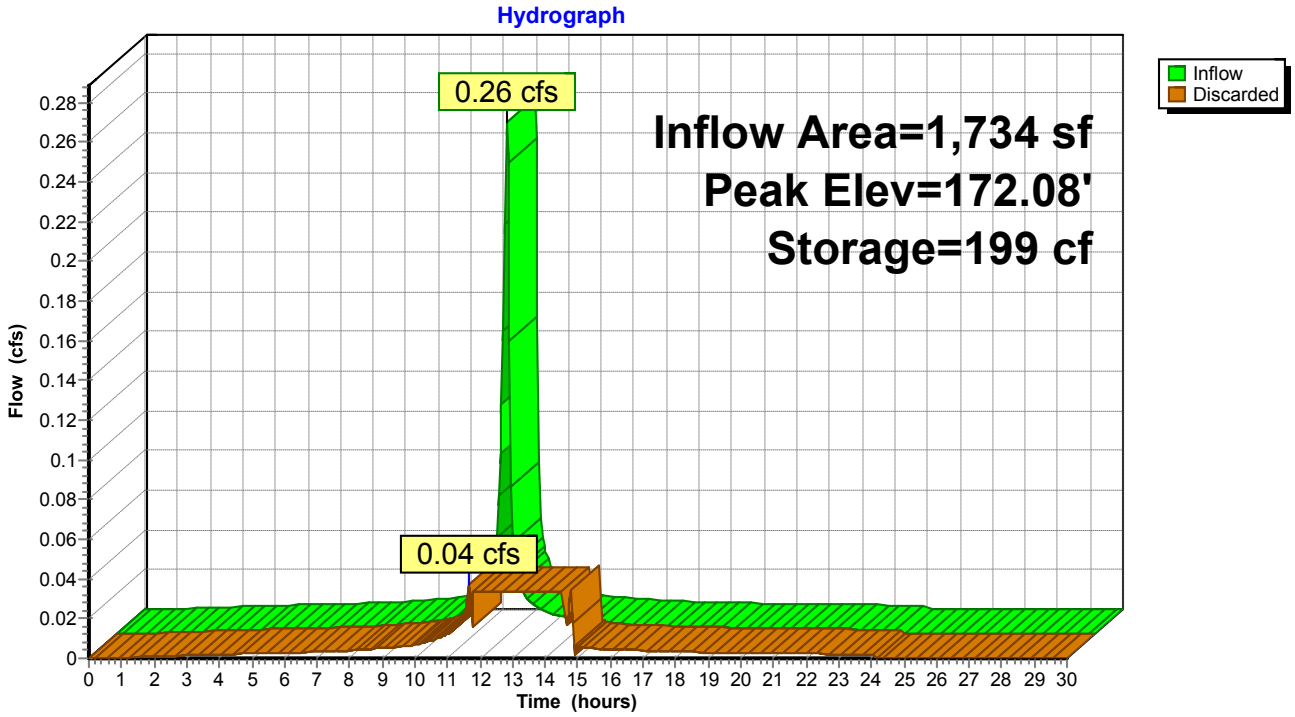
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	55	0	0
173.00	55	220	220
173.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	78	0	0
169.00	10	44	44
173.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.65 hrs HW=168.10' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-8: PROPOSED DRYWELL #8



Summary for Pond YD-1: PROPOSED DRAIN #1

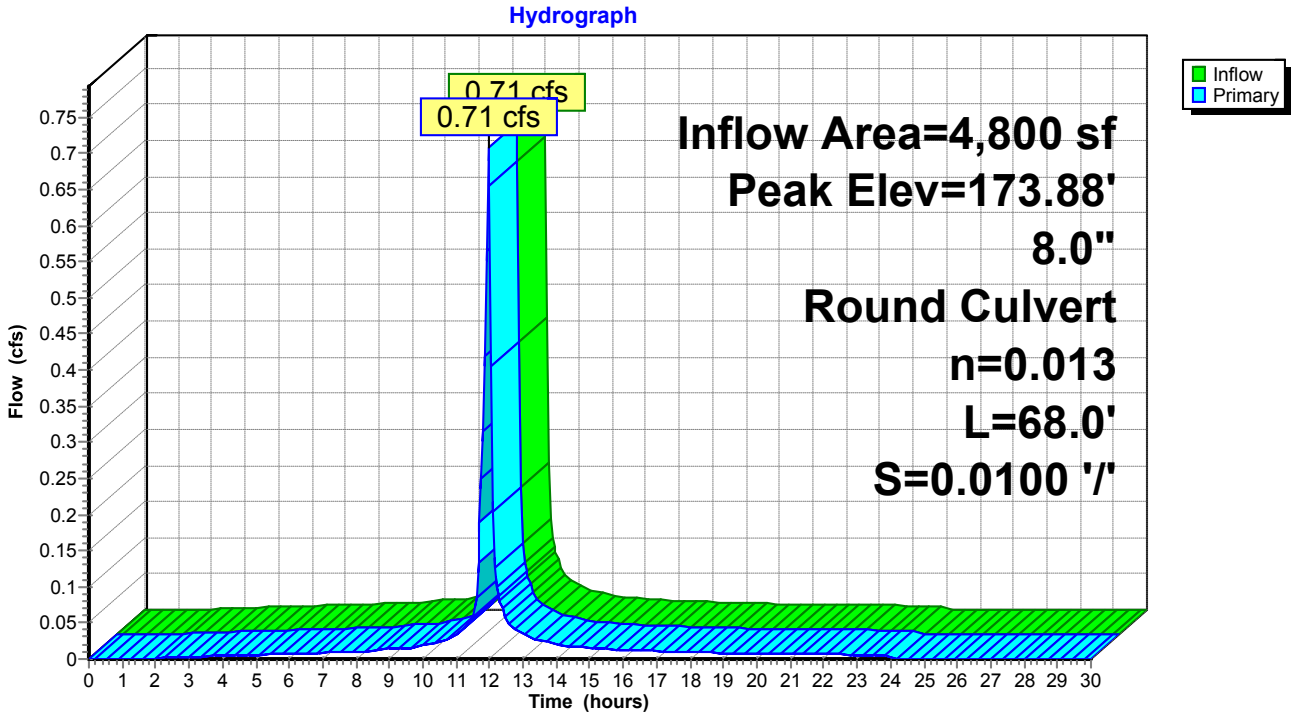
Inflow Area = 4,800 sf, 94.90% Impervious, Inflow Depth = 4.33" for 10-YEAR event
Inflow = 0.71 cfs @ 11.96 hrs, Volume= 1,731 cf
Outflow = 0.71 cfs @ 11.96 hrs, Volume= 1,731 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.71 cfs @ 11.96 hrs, Volume= 1,731 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.88' @ 11.96 hrs
Flood Elev= 175.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.27'	**8.0" Round Culvert** L= 68.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.27' / 172.59' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=0.69 cfs @ 11.96 hrs HW=173.87' (Free Discharge)
1=Culvert (Inlet Controls 0.69 cfs @ 2.09 fps)

Pond YD-1: PROPOSED DRAIN #1



Summary for Pond YD-2: PROPOSED DRAIN #2

[58] Hint: Peaked 1.02' above defined flood level
[81] Warning: Exceeded Pond YD-1 by 0.89' @ 11.95 hrs

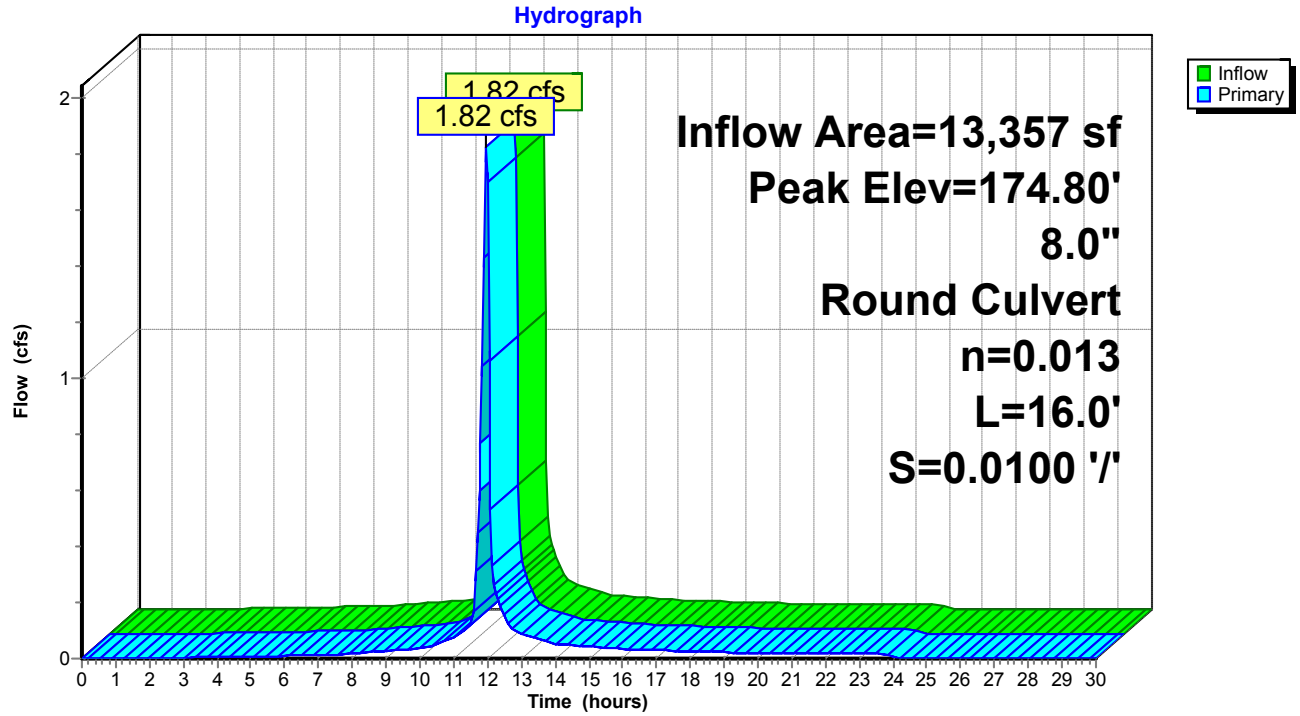
Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 3.78" for 10-YEAR event
Inflow = 1.82 cfs @ 11.96 hrs, Volume= 4,203 cf
Outflow = 1.82 cfs @ 11.96 hrs, Volume= 4,203 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.82 cfs @ 11.96 hrs, Volume= 4,203 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.80' @ 11.96 hrs
Flood Elev= 173.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.59'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.59' / 172.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.77 cfs @ 11.96 hrs HW=174.71' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 1.77 cfs @ 5.08 fps)

Pond YD-2: PROPOSED DRAIN #2



Summary for Pond YD-3: PROPOSED DRAIN #3

[58] Hint: Peaked 0.42' above defined flood level

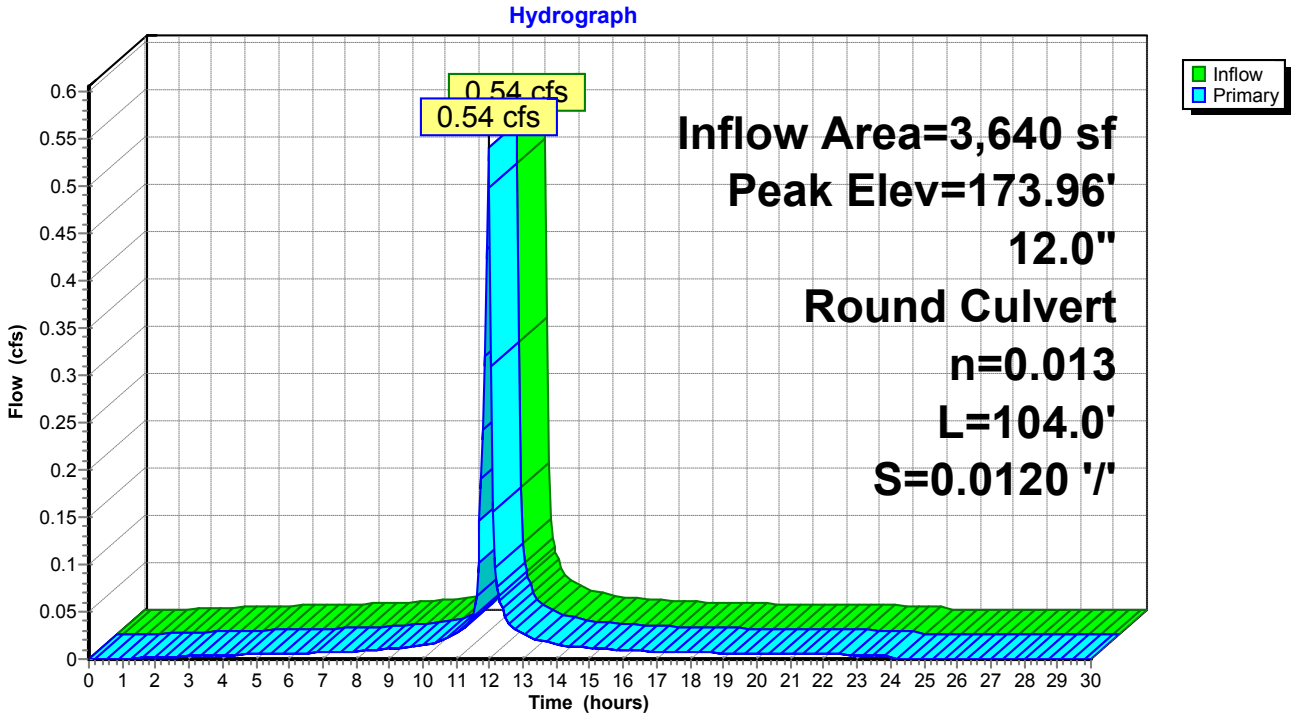
Inflow Area = 3,640 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,348 cf
Outflow = 0.54 cfs @ 11.96 hrs, Volume= 1,348 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.54 cfs @ 11.96 hrs, Volume= 1,348 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.96' @ 11.96 hrs
Flood Elev= 173.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.54'	**12.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.54' / 172.29' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.53 cfs @ 11.96 hrs HW=173.95' (Free Discharge)
1=Culvert (Inlet Controls 0.53 cfs @ 1.73 fps)

Pond YD-3: PROPOSED DRAIN #3



Summary for Pond YD-4: PROPOSED DRAIN #4

[58] Hint: Peaked 1.16' above defined flood level
[81] Warning: Exceeded Pond YD-3 by 1.62' @ 11.95 hrs

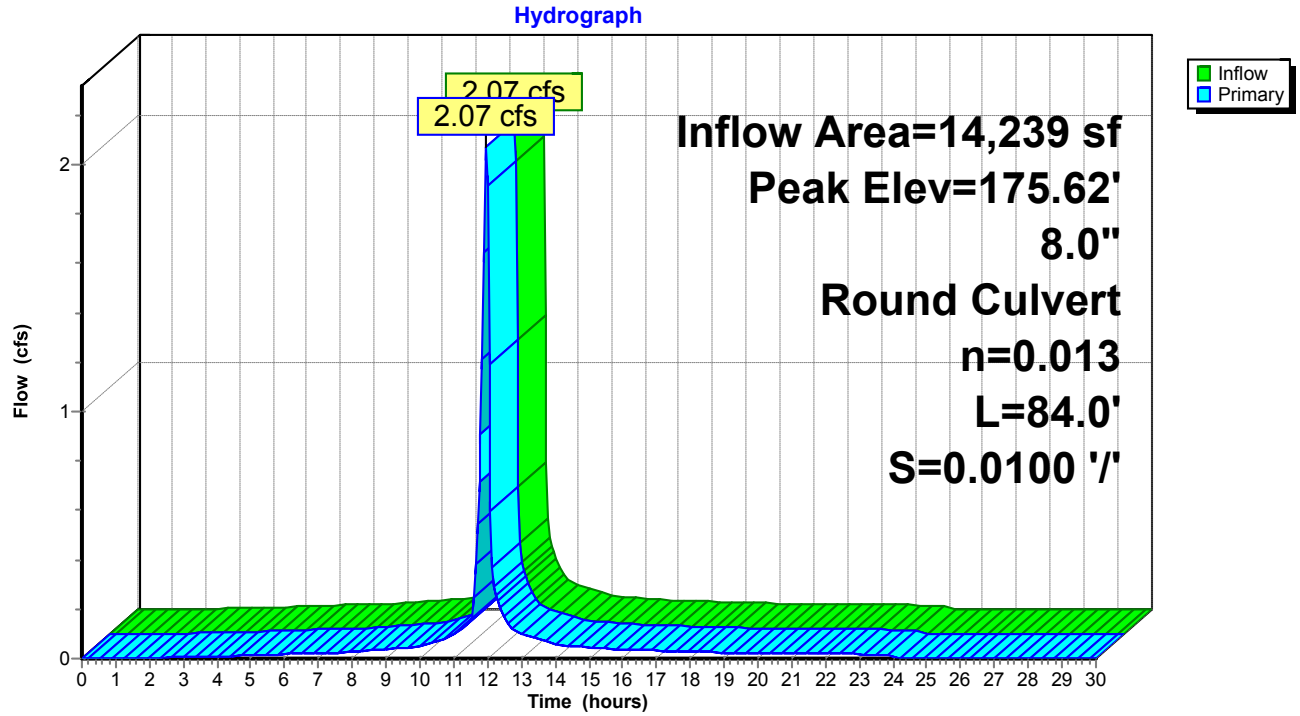
Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 4.19" for 10-YEAR event
Inflow = 2.07 cfs @ 11.96 hrs, Volume= 4,972 cf
Outflow = 2.07 cfs @ 11.96 hrs, Volume= 4,972 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.07 cfs @ 11.96 hrs, Volume= 4,972 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.62' @ 11.96 hrs
Flood Elev= 174.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.29'	**8.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.29' / 171.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=2.02 cfs @ 11.96 hrs HW=175.47' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.02 cfs @ 5.79 fps)

Pond YD-4: PROPOSED DRAIN #4



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA-1: DA-1 Runoff Area=21,412 sf 86.22% Impervious Runoff Depth=5.38"
Tc=6.0 min CN=96 Runoff=3.94 cfs 9,596 cf

Subcatchment DA-10: DA-10 Runoff Area=4,800 sf 94.90% Impervious Runoff Depth=5.49"
Tc=6.0 min CN=97 Runoff=0.89 cfs 2,198 cf

Subcatchment DA-11: DA-11 Runoff Area=8,557 sf 51.71% Impervious Runoff Depth=4.59"
Tc=6.0 min CN=89 Runoff=1.45 cfs 3,273 cf

Subcatchment DA-12: DRAINAGE AREA 12 Runoff Area=8,367 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=1.56 cfs 3,913 cf

Subcatchment DA-13: DA-13 Runoff Area=2,574 sf 79.56% Impervious Runoff Depth=5.15"
Tc=6.0 min CN=94 Runoff=0.47 cfs 1,104 cf

Subcatchment DA-14: DRAINAGE AREA 14 Runoff Area=6,736 sf 69.73% Impervious Runoff Depth=5.03"
Tc=6.0 min CN=93 Runoff=1.21 cfs 2,826 cf

Subcatchment DA-15: DA-15 Runoff Area=1,734 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.32 cfs 811 cf

Subcatchment DA-16: DA-16 Runoff Area=1,844 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.34 cfs 862 cf

Subcatchment DA-17: DA-17 Runoff Area=1,755 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.33 cfs 821 cf

Subcatchment DA-18: DRAINAGE AREA 18 Runoff Area=3,482 sf 85.96% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=95 Runoff=0.64 cfs 1,527 cf

Subcatchment DA-2: DA-2 Runoff Area=7,036 sf 83.26% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=95 Runoff=1.28 cfs 3,086 cf

Subcatchment DA-3: DRAINAGE AREA 3 Runoff Area=5,334 sf 65.88% Impervious Runoff Depth=4.92"
Tc=6.0 min CN=92 Runoff=0.94 cfs 2,188 cf

Subcatchment DA-4: DRAINAGE AREA 4 Runoff Area=4,099 sf 74.82% Impervious Runoff Depth=5.03"
Tc=6.0 min CN=93 Runoff=0.73 cfs 1,720 cf

Subcatchment DA-5: DRAINAGE AREA 5 Runoff Area=32,655 sf 61.00% Impervious Runoff Depth=4.81"
Flow Length=235' Tc=13.1 min CN=91 Runoff=4.63 cfs 13,090 cf

Subcatchment DA-6: DA-6 Runoff Area=11,493 sf 65.66% Impervious Runoff Depth=4.92"
Tc=6.0 min CN=92 Runoff=2.03 cfs 4,714 cf

Subcatchment DA-7: DA-7 Runoff Area=3,640 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.68 cfs 1,702 cf

Subcatchment DA-8: DA-8 Runoff Area=10,599 sf 81.26% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=95 Runoff=1.94 cfs 4,648 cf

Subcatchment DA-9: DRAINAGE AREA 9 Runoff Area=3,471 sf 65.57% Impervious Runoff Depth=4.92"
Tc=6.0 min CN=92 Runoff=0.61 cfs 1,424 cf

Reach DP-2: STREET Inflow=1.56 cfs 3,913 cf
Outflow=1.56 cfs 3,913 cf

Pond 2P: EXISTING DRYWELL Peak Elev=172.83' Storage=431 cf Inflow=2.67 cfs 6,546 cf
Discarded=0.67 cfs 3,873 cf Primary=1.97 cfs 2,673 cf Outflow=2.64 cfs 6,546 cf

Pond 3P: PROPOSED CB #3 Peak Elev=171.20' Inflow=0.64 cfs 1,527 cf
12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.64 cfs 1,527 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.52' Storage=790 cf Inflow=1.67 cfs 5,126 cf
Outflow=1.08 cfs 5,126 cf

Pond 8P: EXISTING YARD DRAIN Peak Elev=241.67' Inflow=0.73 cfs 1,720 cf
4.0" Round Culvert n=0.030 L=87.0' S=0.0100 '/' Outflow=0.73 cfs 1,720 cf

Pond 12P: EXISTING CB Peak Elev=172.05' Inflow=5.05 cfs 14,618 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=5.05 cfs 14,618 cf

Pond 14P: EXISTING CB Peak Elev=168.16' Inflow=1.21 cfs 2,826 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=1.21 cfs 2,826 cf

Pond CB-1: PROPOSED CATCH BASIN #1 Peak Elev=172.19' Inflow=1.28 cfs 3,086 cf
12.0" Round Culvert n=0.013 L=33.0' S=0.0100 '/' Outflow=1.28 cfs 3,086 cf

Pond CB-2: PR CB #2 Peak Elev=172.16' Inflow=5.23 cfs 12,682 cf
Primary=3.56 cfs 7,556 cf Secondary=1.67 cfs 5,126 cf Outflow=5.23 cfs 12,682 cf

Pond DP-1: Existing Catch Basin Peak Elev=169.28' Inflow=9.09 cfs 22,940 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=9.09 cfs 22,940 cf

Pond DW-1: PROPOSED DRYWELL #1 Peak Elev=169.37' Storage=411 cf Inflow=0.61 cfs 1,424 cf
Outflow=0.23 cfs 1,424 cf

Pond DW-2: PROPOSED DRYWELL #2 Peak Elev=175.79' Storage=818 cf Inflow=2.34 cfs 5,471 cf
Outflow=1.91 cfs 5,472 cf

Pond DW-3: PROPOSED DRYWELL #3 Peak Elev=174.84' Storage=929 cf Inflow=2.61 cfs 6,351 cf
Outflow=2.06 cfs 6,352 cf

Pond DW-4: PROPOSED DRYWELL #4 Peak Elev=174.18' Storage=1,194 cf Inflow=3.56 cfs 7,556 cf
Discarded=0.51 cfs 3,198 cf Secondary=1.80 cfs 4,358 cf Outflow=2.32 cfs 7,556 cf

Pond DW-5: PROPOSED DRYWELL #5 Peak Elev=172.72' Storage=1,057 cf Inflow=2.03 cfs 4,714 cf
Outflow=1.11 cfs 4,714 cf

Pond DW-6: PROPOSED DRYWELL #6 Peak Elev=174.09' Storage=267 cf Inflow=0.34 cfs 862 cf
Outflow=0.12 cfs 862 cf

Pond DW-7: PROPOSED DRYWELL #7 Peak Elev=175.52' Storage=264 cf Inflow=0.33 cfs 821 cf
Outflow=0.07 cfs 821 cf

Pond DW-8: PROPOSED DRYWELL #8 Peak Elev=173.04' Storage=257 cf Inflow=0.32 cfs 811 cf
Outflow=0.07 cfs 812 cf

Pond YD-1: PROPOSED DRAIN #1 Peak Elev=174.05' Inflow=0.89 cfs 2,198 cf
8.0" Round Culvert n=0.013 L=68.0' S=0.0100 '/' Outflow=0.89 cfs 2,198 cf

Pond YD-2: PROPOSED DRAIN #2 Peak Elev=176.02' Inflow=2.34 cfs 5,471 cf
8.0" Round Culvert n=0.013 L=16.0' S=0.0100 '/' Outflow=2.34 cfs 5,471 cf

Pond YD-3: PROPOSED DRAIN #3 Peak Elev=174.01' Inflow=0.68 cfs 1,702 cf
12.0" Round Culvert n=0.013 L=104.0' S=0.0120 '/' Outflow=0.68 cfs 1,702 cf

Pond YD-4: PROPOSED DRAIN #4 Peak Elev=177.69' Inflow=2.61 cfs 6,351 cf
8.0" Round Culvert n=0.013 L=84.0' S=0.0100 '/' Outflow=2.61 cfs 6,351 cf

Total Runoff Area = 139,588 sf Runoff Volume = 59,504 cf Average Runoff Depth = 5.12"
24.56% Pervious = 34,277 sf 75.44% Impervious = 105,311 sf

Summary for Subcatchment DA-1: DA-1

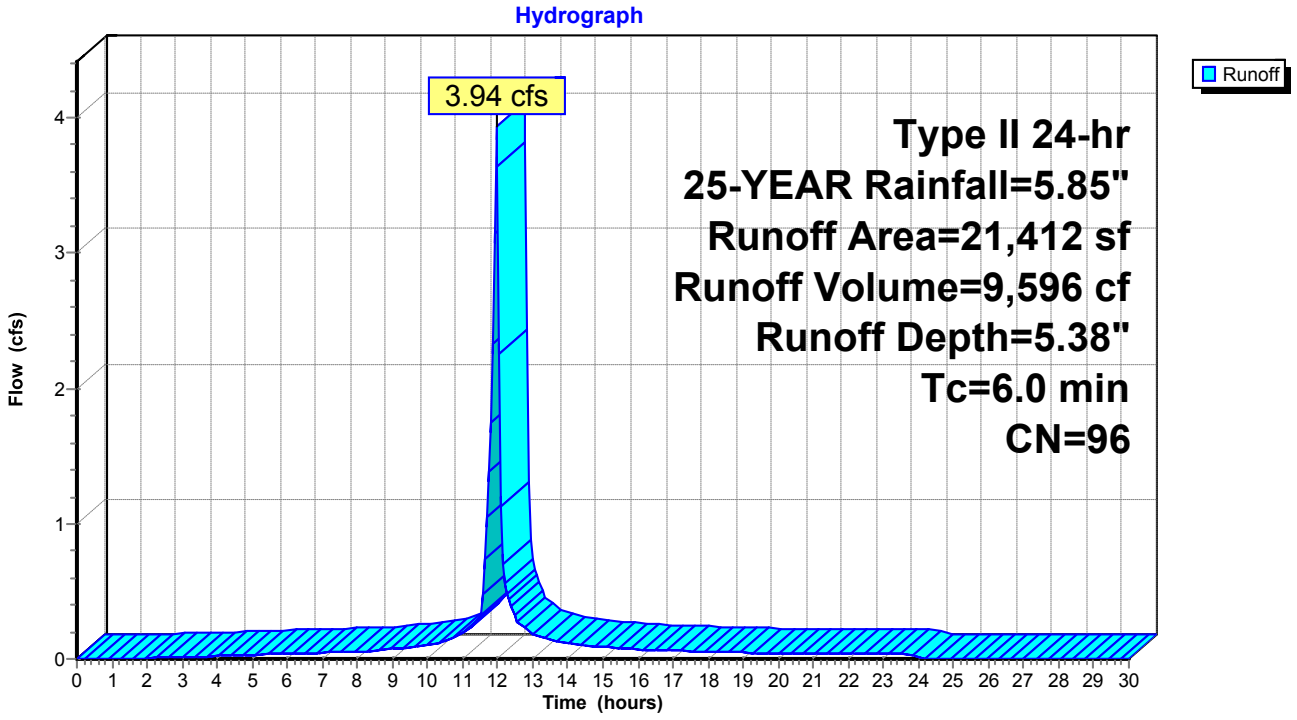
Runoff = 3.94 cfs @ 11.96 hrs, Volume= 9,596 cf, Depth= 5.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
2,951	80	>75% Grass cover, Good, HSG D
17,281	98	Roofs, HSG D
1,180	98	Paved parking, HSG D
21,412	96	Weighted Average
2,951		13.78% Pervious Area
18,461		86.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

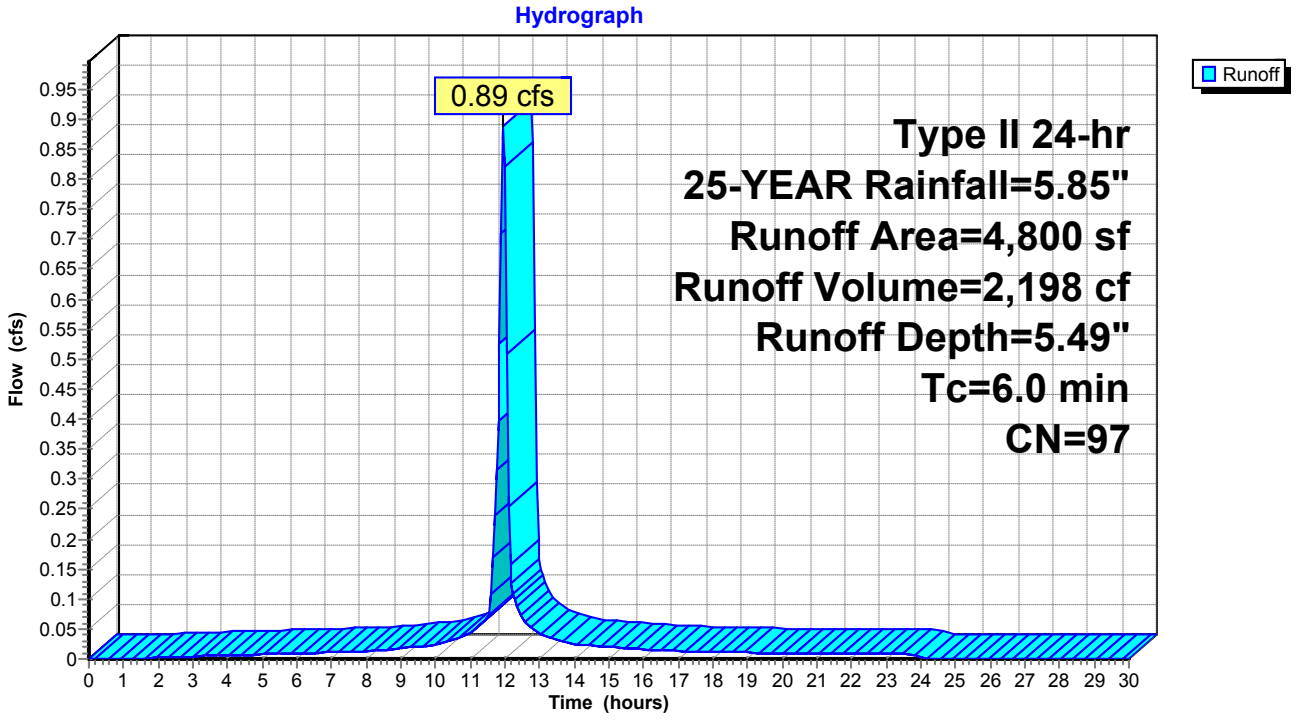
Runoff = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf, Depth= 5.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
245	80	>75% Grass cover, Good, HSG D
2,933	98	Roofs, HSG D
1,622	98	Paved parking, HSG D
4,800	97	Weighted Average
245		5.10% Pervious Area
4,555		94.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

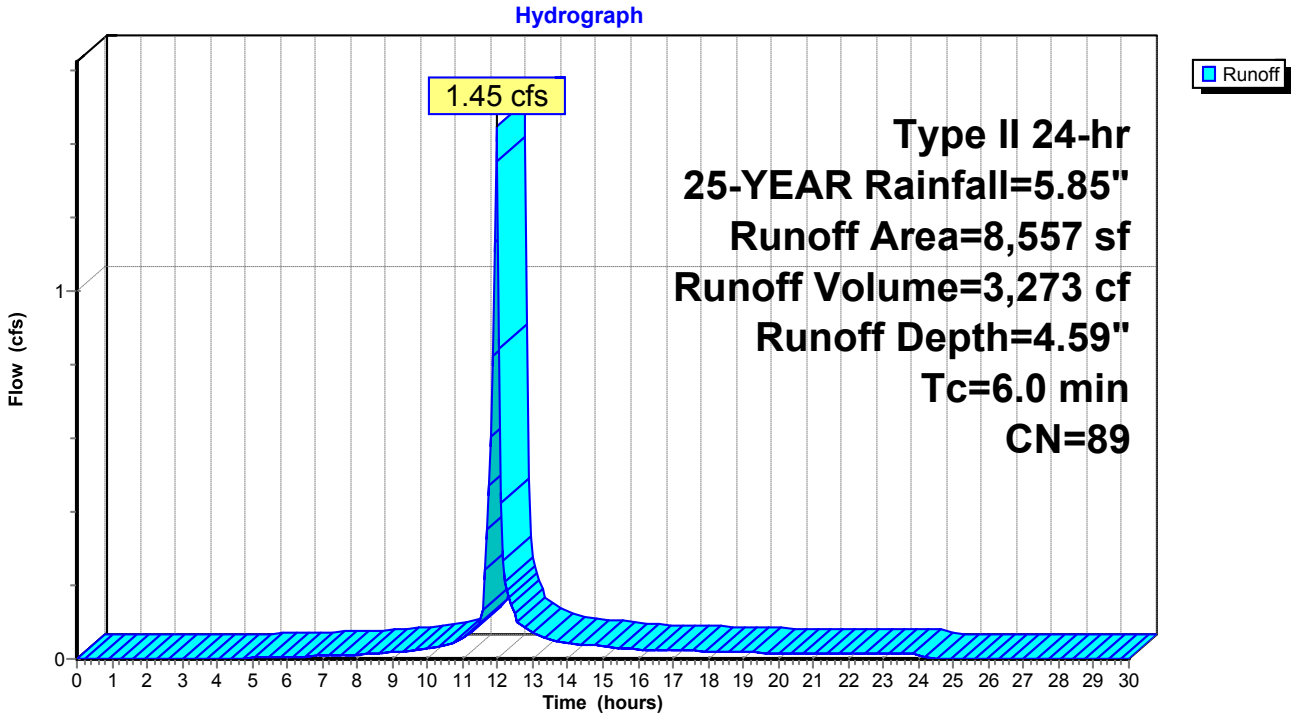
Runoff = 1.45 cfs @ 11.96 hrs, Volume= 3,273 cf, Depth= 4.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
4,132	80	>75% Grass cover, Good, HSG D
3,489	98	Roofs, HSG D
936	98	Paved parking, HSG D
8,557	89	Weighted Average
4,132		48.29% Pervious Area
4,425		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-12: DRAINAGE AREA 12

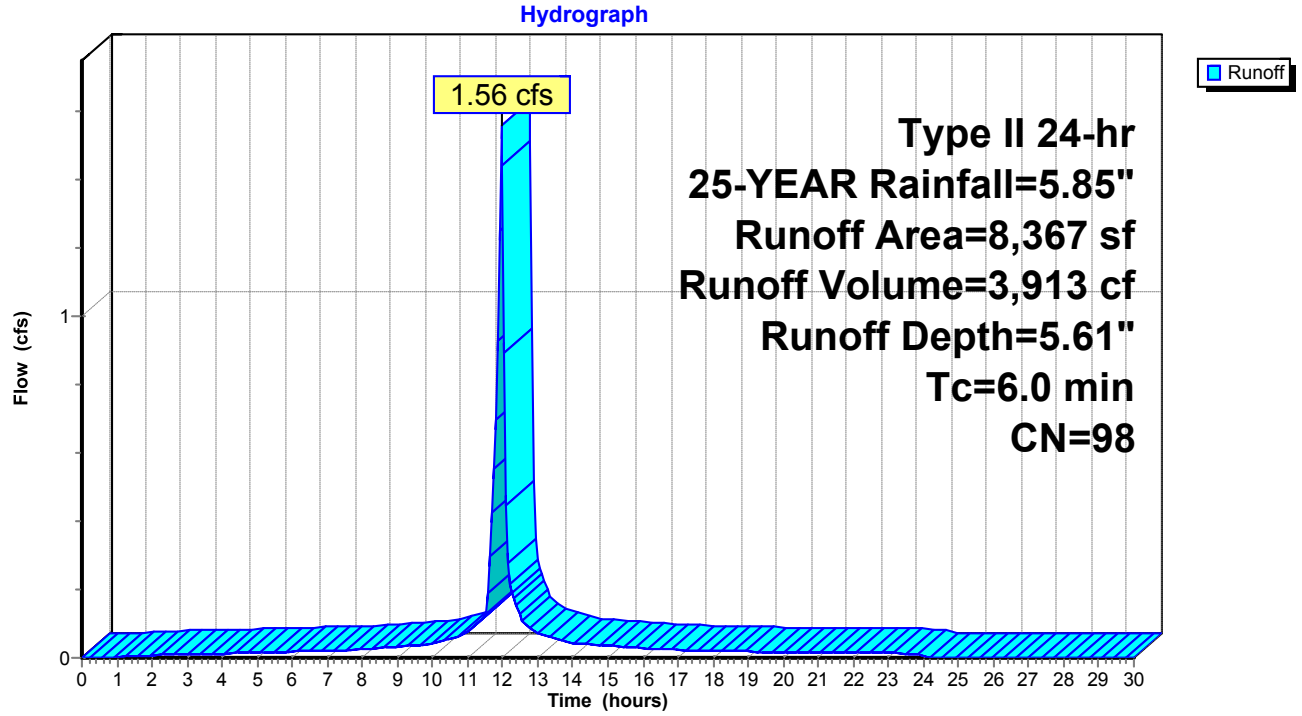
Runoff = 1.56 cfs @ 11.96 hrs, Volume= 3,913 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
8,367	98	Roofs, HSG D
8,367		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-12: DRAINAGE AREA 12



Summary for Subcatchment DA-13: DA-13

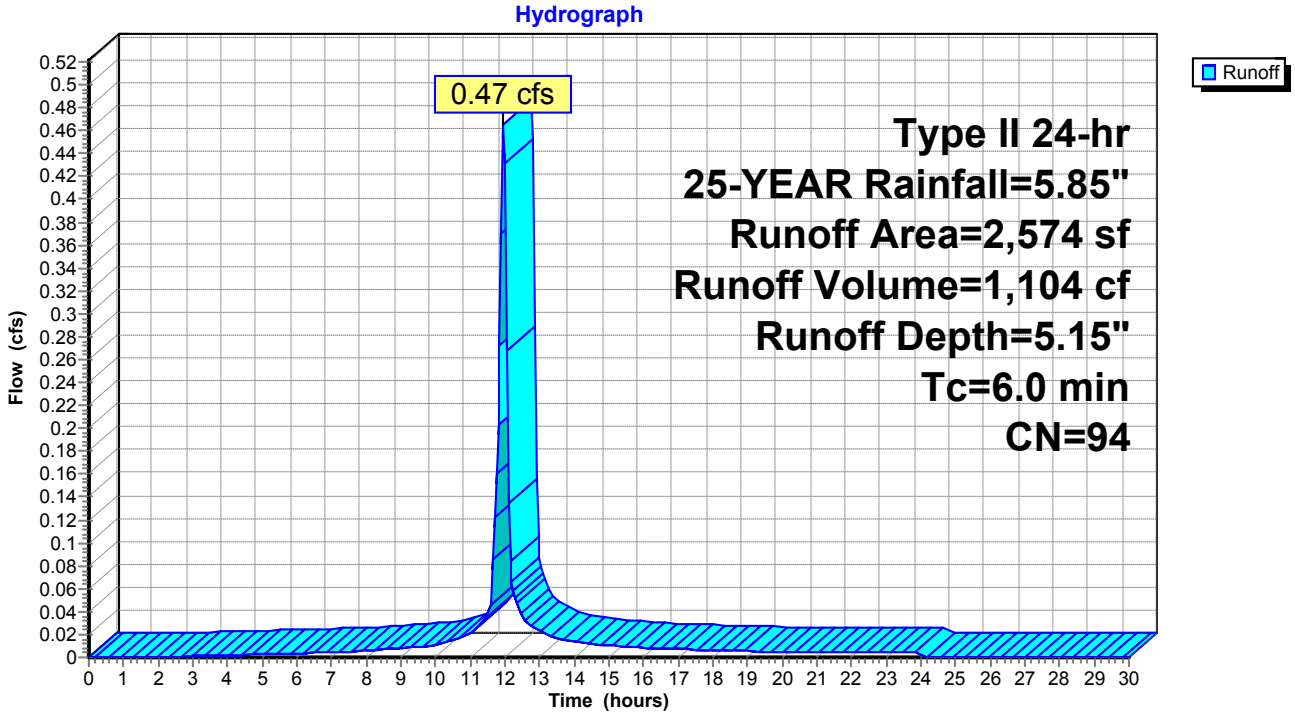
Runoff = 0.47 cfs @ 11.96 hrs, Volume= 1,104 cf, Depth= 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
526	80	>75% Grass cover, Good, HSG D
2,048	98	Paved parking, HSG D
2,574	94	Weighted Average
526		20.44% Pervious Area
2,048		79.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-13: DA-13



Summary for Subcatchment DA-14: DRAINAGE AREA 14

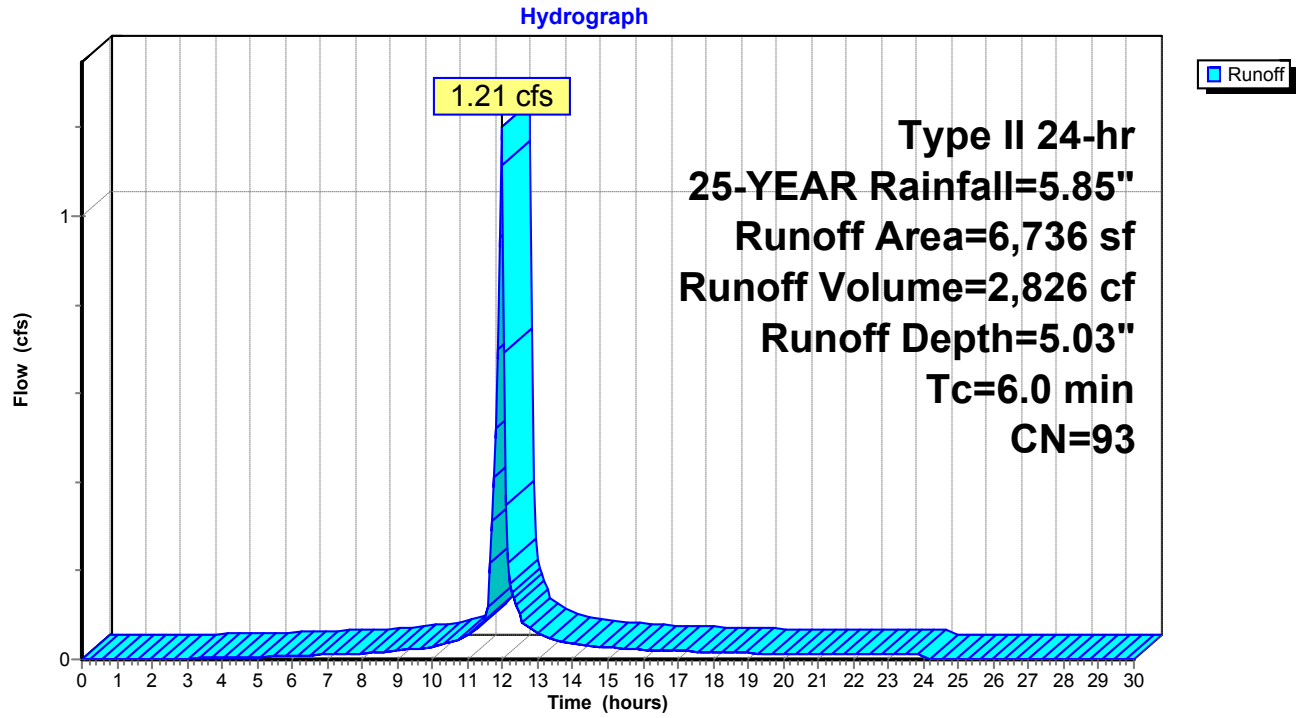
Runoff = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf, Depth= 5.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
2,039	80	>75% Grass cover, Good, HSG D
4,697	98	Paved parking, HSG D
6,736	93	Weighted Average
2,039		30.27% Pervious Area
4,697		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-14: DRAINAGE AREA 14



Summary for Subcatchment DA-15: DA-15

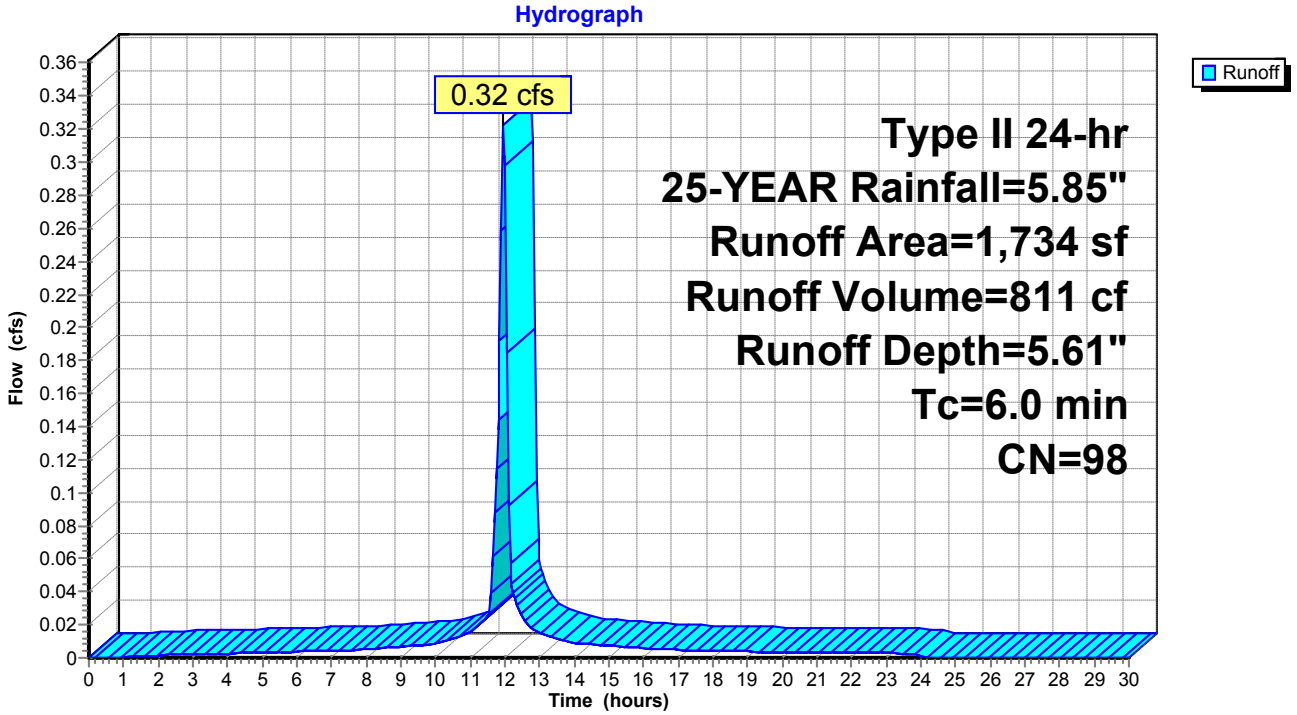
Runoff = 0.32 cfs @ 11.96 hrs, Volume= 811 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,734	98	Roofs, HSG D
1,734		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-15: DA-15



Summary for Subcatchment DA-16: DA-16

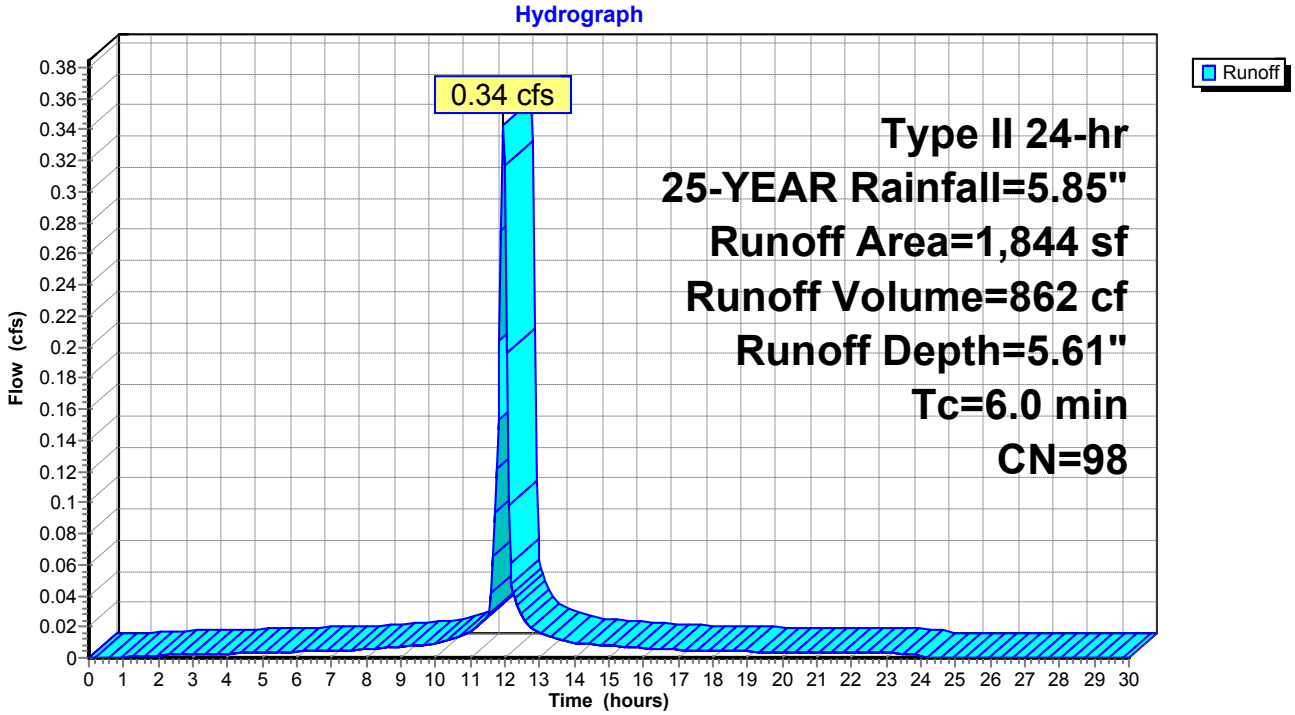
Runoff = 0.34 cfs @ 11.96 hrs, Volume= 862 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,844	98	Roofs, HSG D
1,844		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-16: DA-16



Summary for Subcatchment DA-17: DA-17

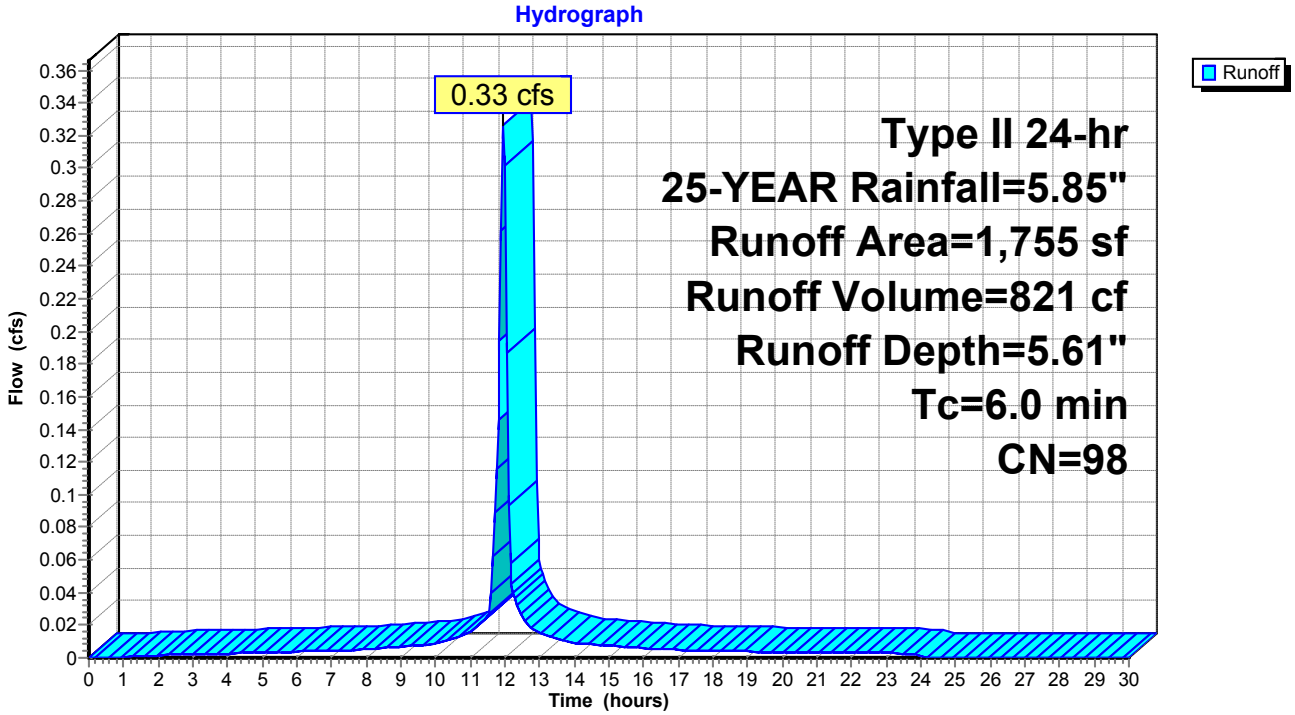
Runoff = 0.33 cfs @ 11.96 hrs, Volume= 821 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,755	98	Roofs, HSG D
1,755		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-17: DA-17



Summary for Subcatchment DA-18: DRAINAGE AREA 18

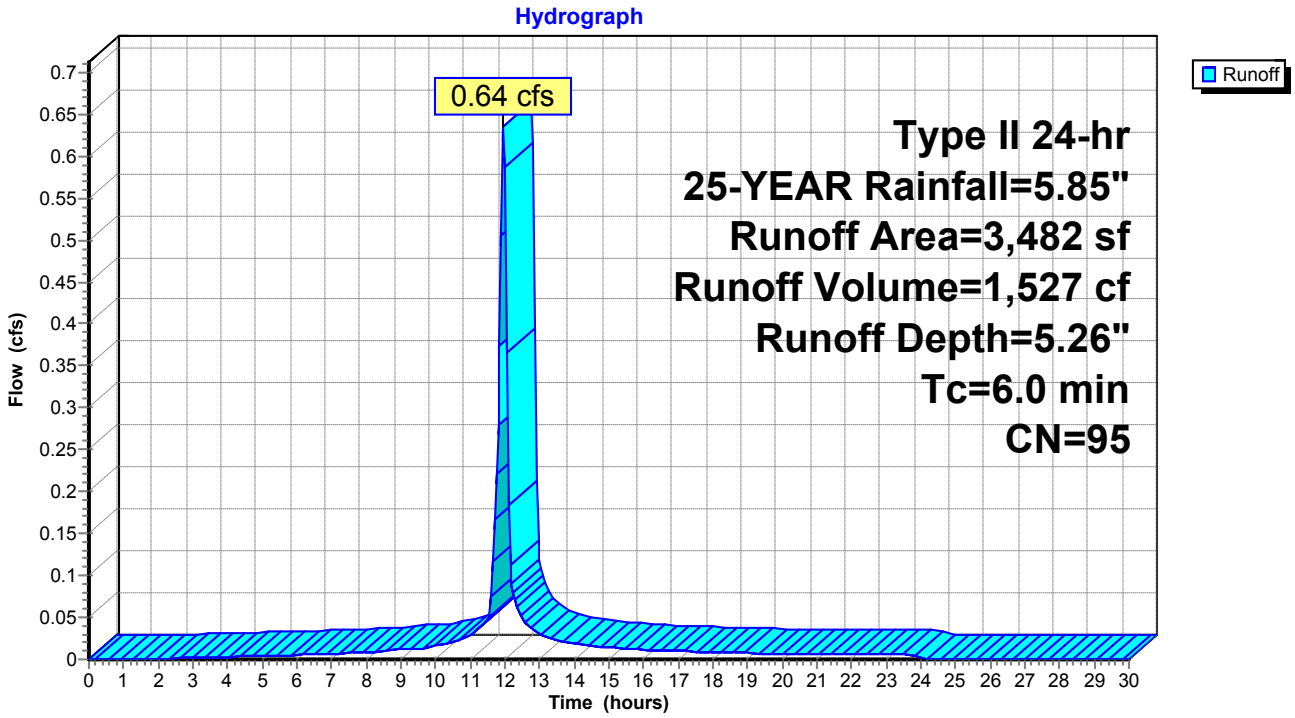
Runoff = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
489	80	>75% Grass cover, Good, HSG D
2,993	98	Paved parking, HSG D
3,482	95	Weighted Average
489		14.04% Pervious Area
2,993		85.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-18: DRAINAGE AREA 18



Summary for Subcatchment DA-2: DA-2

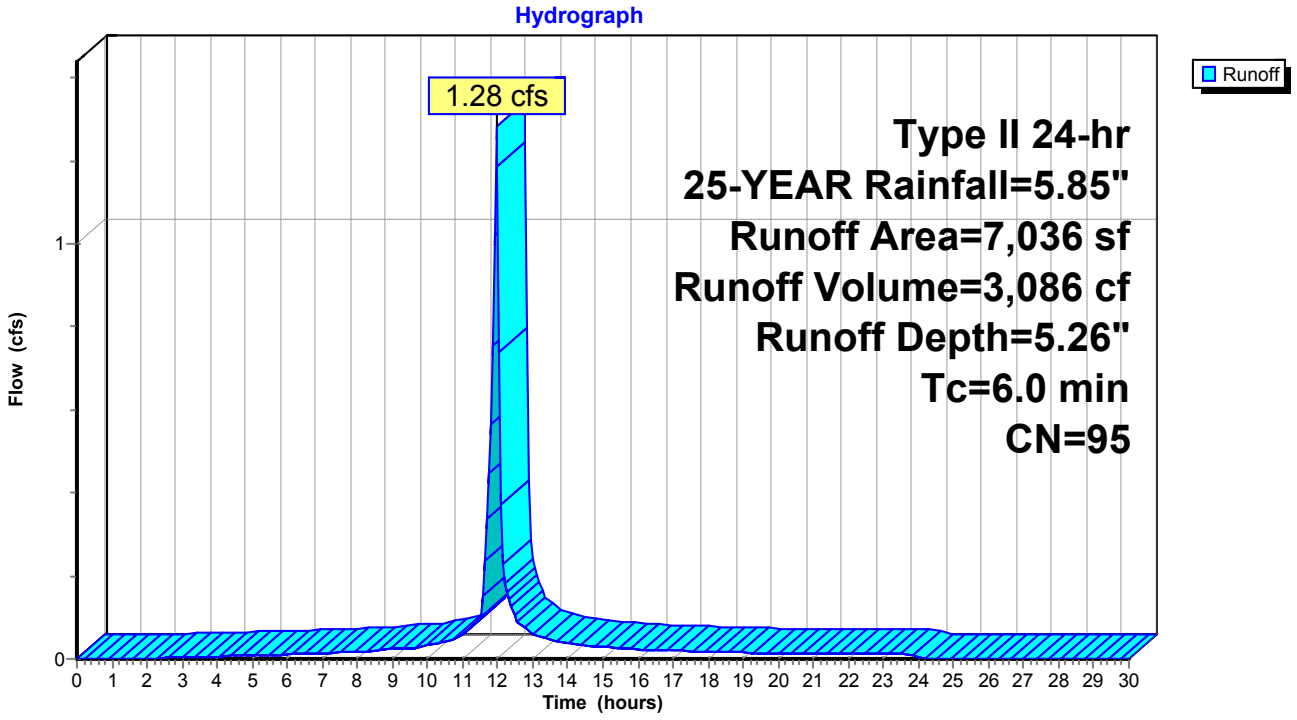
Runoff = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,178	80	>75% Grass cover, Good, HSG D
5,194	98	Roofs, HSG D
664	98	Paved parking, HSG D
7,036	95	Weighted Average
1,178		16.74% Pervious Area
5,858		83.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DRAINAGE AREA 3

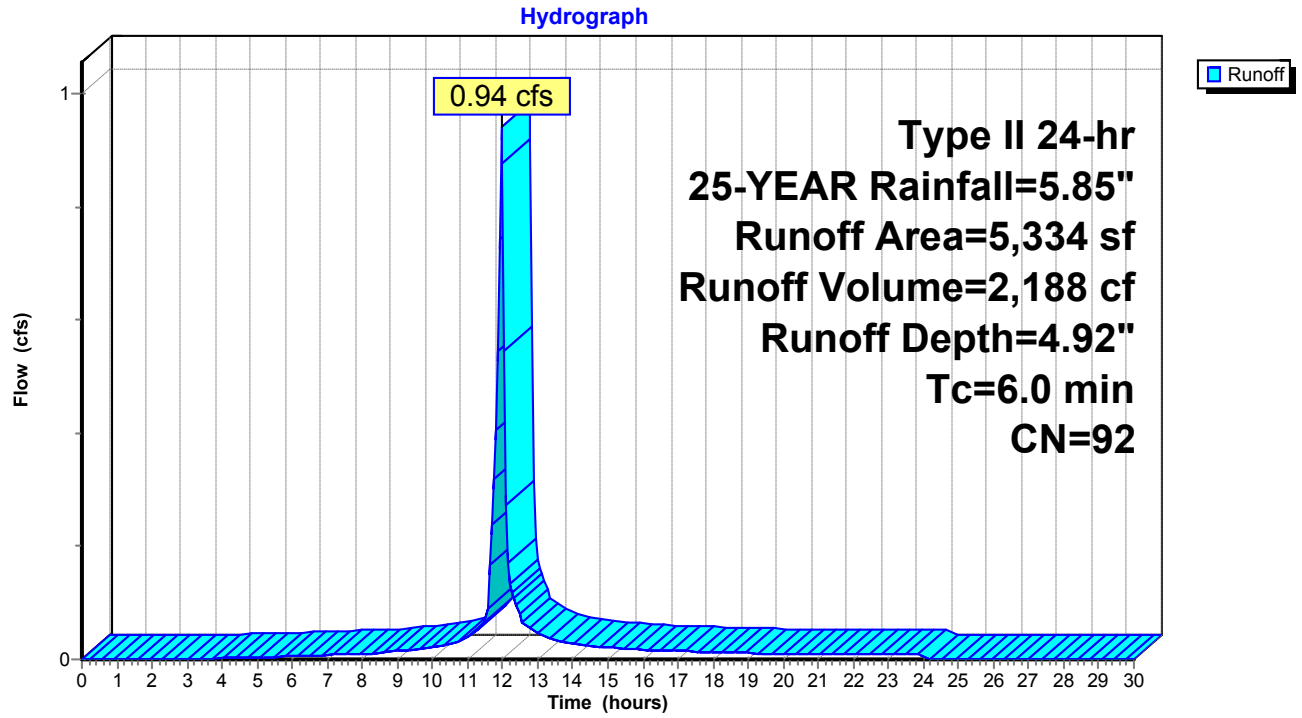
Runoff = 0.94 cfs @ 11.96 hrs, Volume= 2,188 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,820	80	>75% Grass cover, Good, HSG D
3,514	98	Paved parking, HSG D
5,334	92	Weighted Average
1,820		34.12% Pervious Area
3,514		65.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-3: DRAINAGE AREA 3



Summary for Subcatchment DA-4: DRAINAGE AREA 4

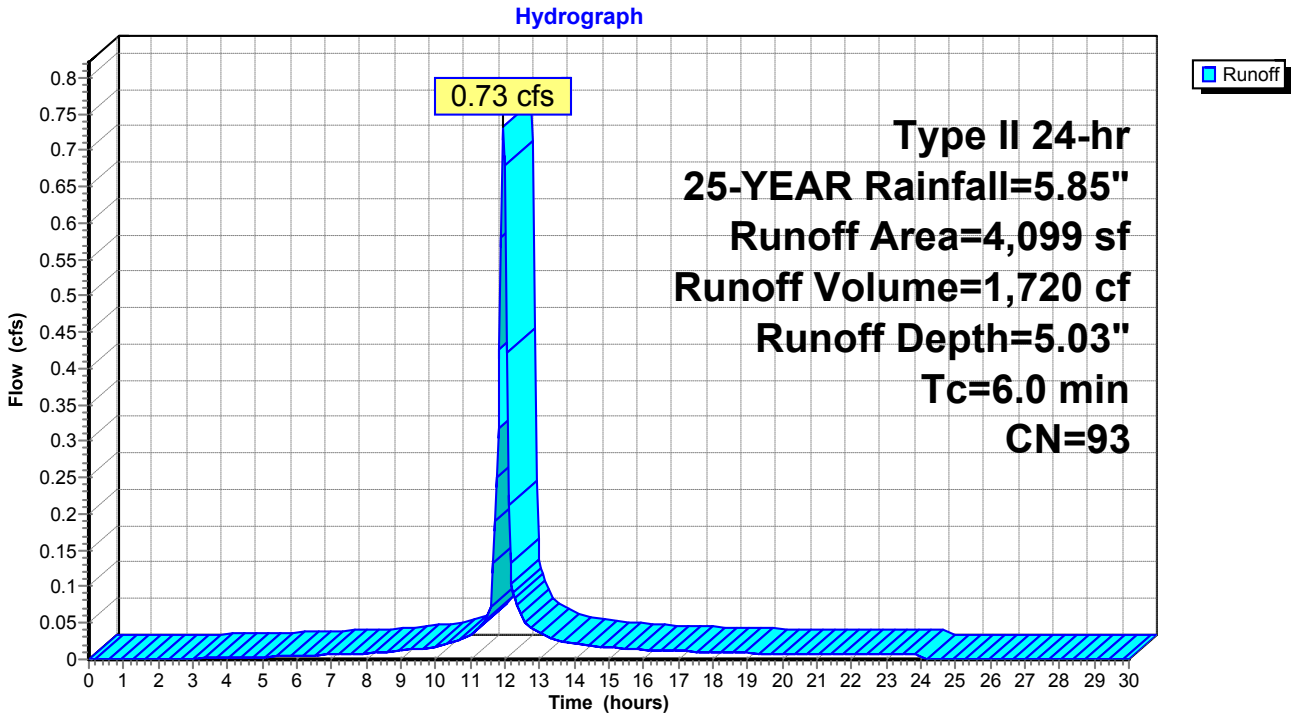
Runoff = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf, Depth= 5.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,032	80	>75% Grass cover, Good, HSG D
3,067	98	Paved parking, HSG D
4,099	93	Weighted Average
1,032		25.18% Pervious Area
3,067		74.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-4: DRAINAGE AREA 4



Summary for Subcatchment DA-5: DRAINAGE AREA 5

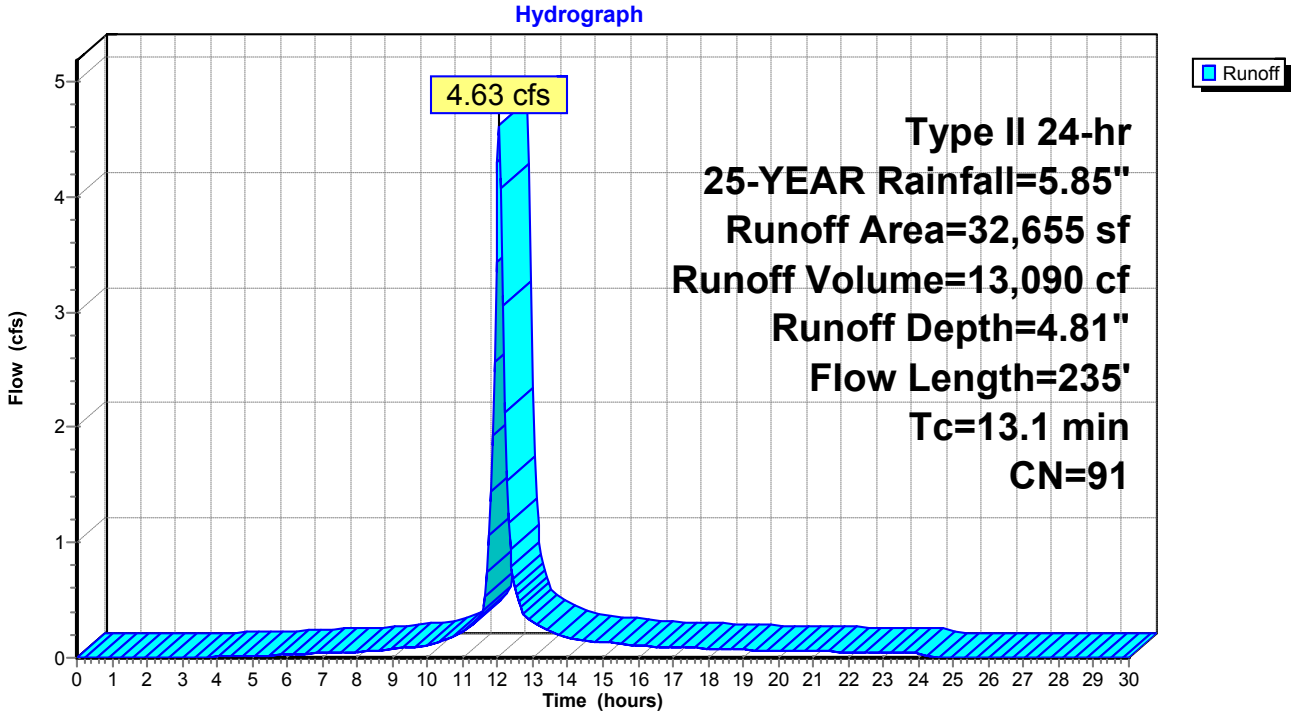
Runoff = 4.63 cfs @ 12.04 hrs, Volume= 13,090 cf, Depth= 4.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
12,737	80	>75% Grass cover, Good, HSG D
19,918	98	Paved parking, HSG D
32,655	91	Weighted Average
12,737		39.00% Pervious Area
19,918		61.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0150	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
1.7	81	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	54	0.0250	3.21		**Shallow Concentrated Flow, C-D** Paved Kv= 20.3 fps
13.1	235	Total			

Subcatchment DA-5: DRAINAGE AREA 5



Summary for Subcatchment DA-6: DA-6

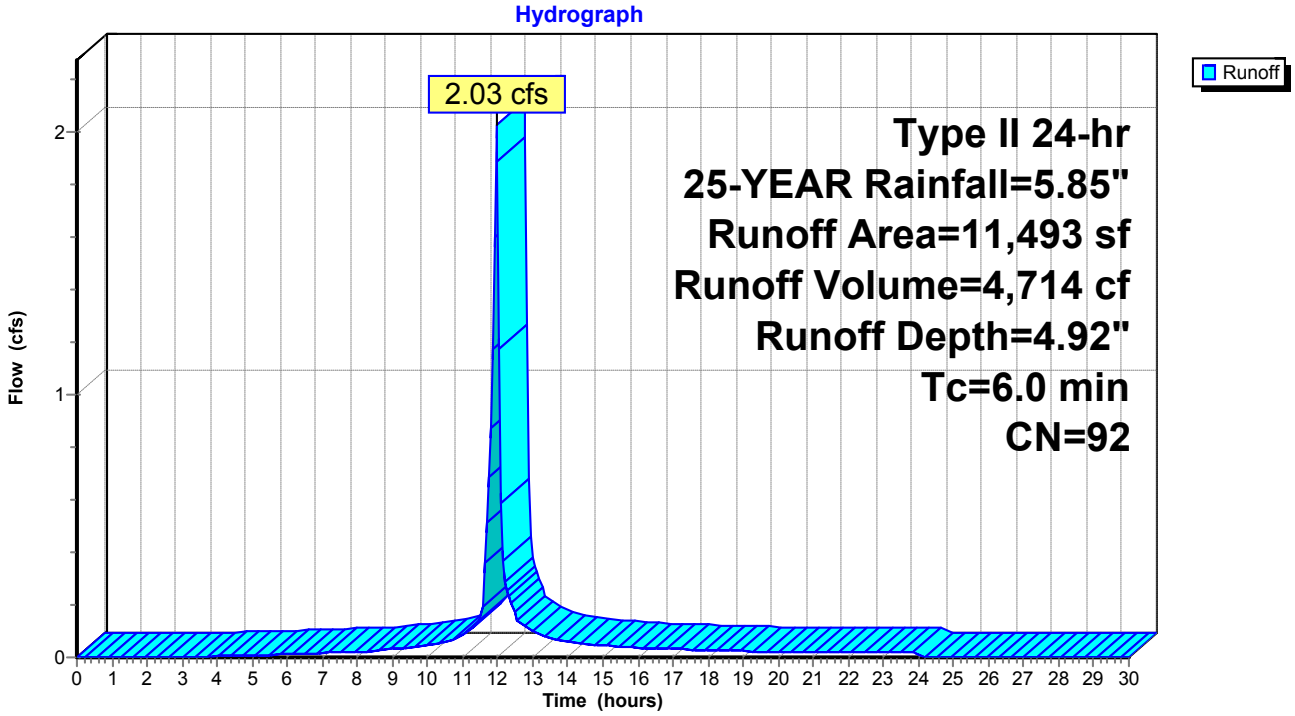
Runoff = 2.03 cfs @ 11.96 hrs, Volume= 4,714 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
3,947	80	>75% Grass cover, Good, HSG D
7,546	98	Paved parking, HSG D
11,493	92	Weighted Average
3,947		34.34% Pervious Area
7,546		65.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

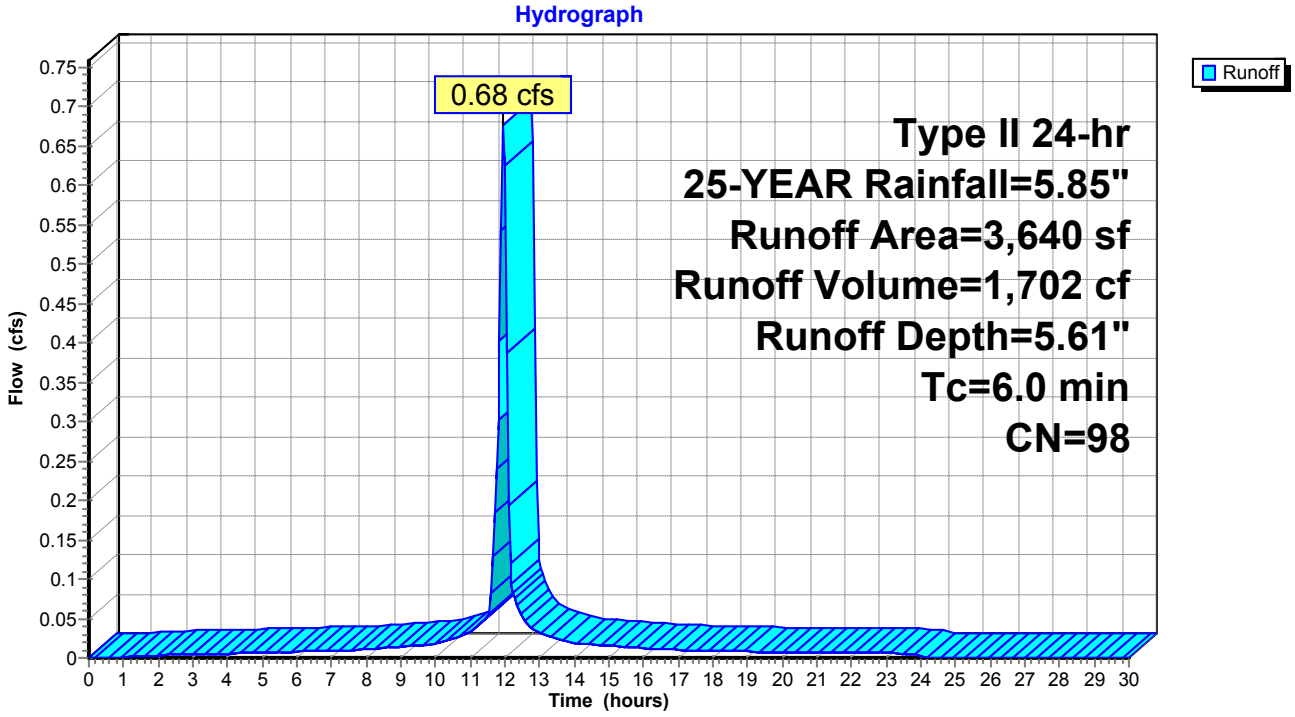
Runoff = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,587	98	Roofs, HSG D
2,053	98	Paved parking, HSG D
3,640	98	Weighted Average
3,640		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

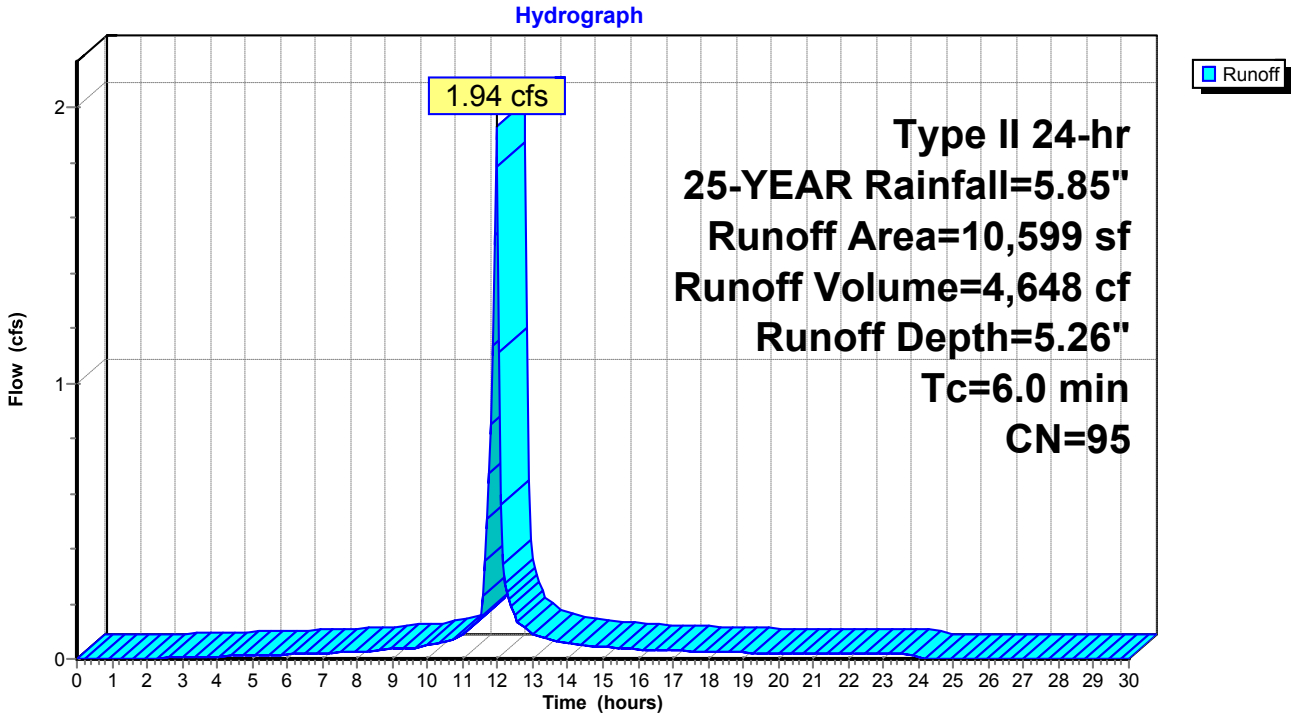
Runoff = 1.94 cfs @ 11.96 hrs, Volume= 4,648 cf, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,986	80	>75% Grass cover, Good, HSG D
6,900	98	Roofs, HSG D
1,713	98	Paved parking, HSG D
10,599	95	Weighted Average
1,986		18.74% Pervious Area
8,613		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DRAINAGE AREA 9

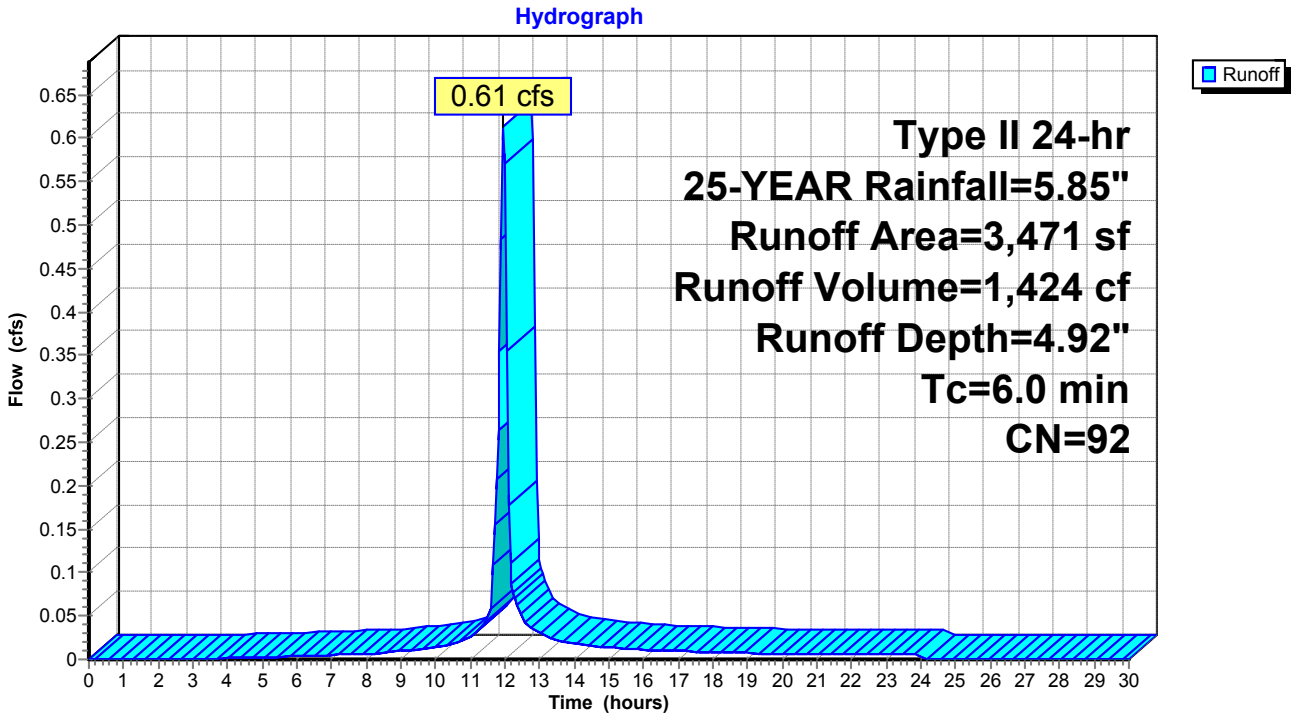
Runoff = 0.61 cfs @ 11.96 hrs, Volume= 1,424 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,195	80	>75% Grass cover, Good, HSG D
2,276	98	Paved parking, HSG D
3,471	92	Weighted Average
1,195		34.43% Pervious Area
2,276		65.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-9: DRAINAGE AREA 9



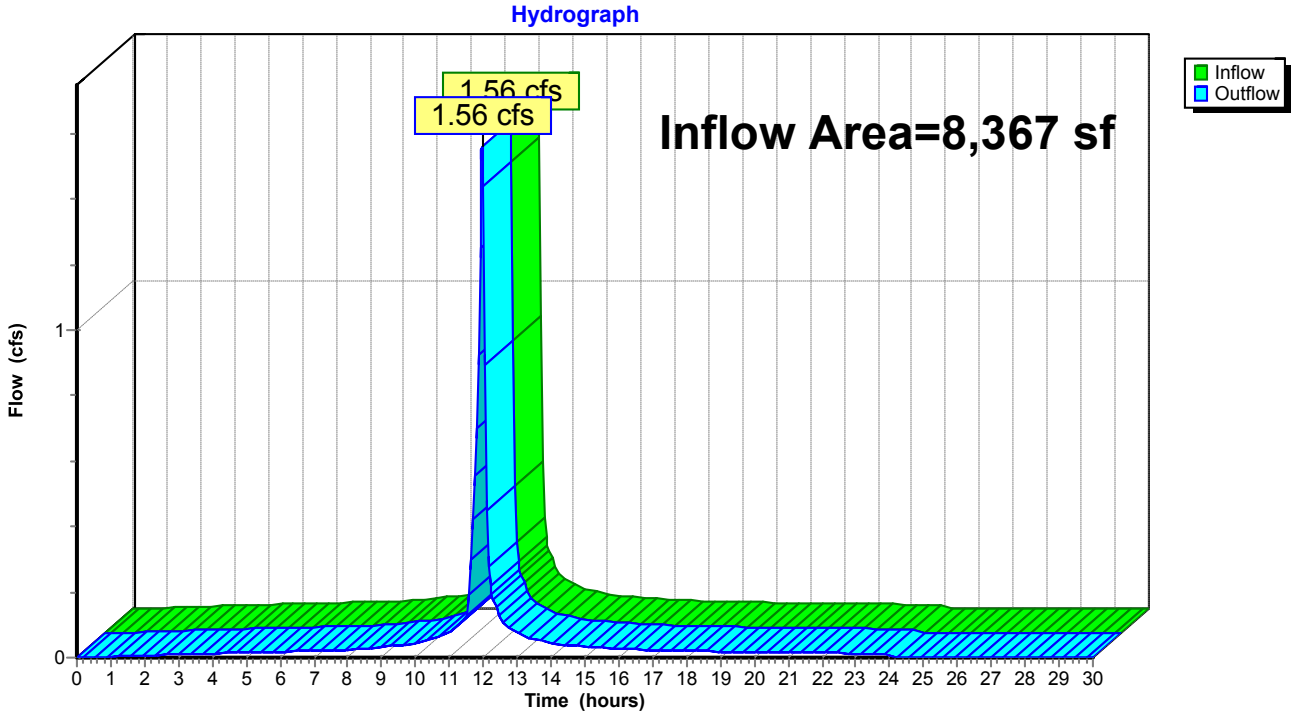
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8,367 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 1.56 cfs @ 11.96 hrs, Volume= 3,913 cf
Outflow = 1.56 cfs @ 11.96 hrs, Volume= 3,913 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 2P: EXISTING DRYWELL

[81] Warning: Exceeded Pond DW-4 by 0.49' @ 18.55 hrs

Inflow Area = 5,334 sf, 65.88% Impervious, Inflow Depth = 14.73" for 25-YEAR event
Inflow = 2.67 cfs @ 11.98 hrs, Volume= 6,546 cf
Outflow = 2.64 cfs @ 12.00 hrs, Volume= 6,546 cf, Atten= 1%, Lag= 1.1 min
Discarded = 0.67 cfs @ 12.00 hrs, Volume= 3,873 cf
Primary = 1.97 cfs @ 12.00 hrs, Volume= 2,673 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.83' @ 12.00 hrs Surf.Area= 1,319 sf Storage= 431 cf

Plug-Flow detention time= 21.9 min calculated for 6,535 cf (100% of inflow)
Center-of-Mass det. time= 21.8 min (773.8 - 751.9)

Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	1,717 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

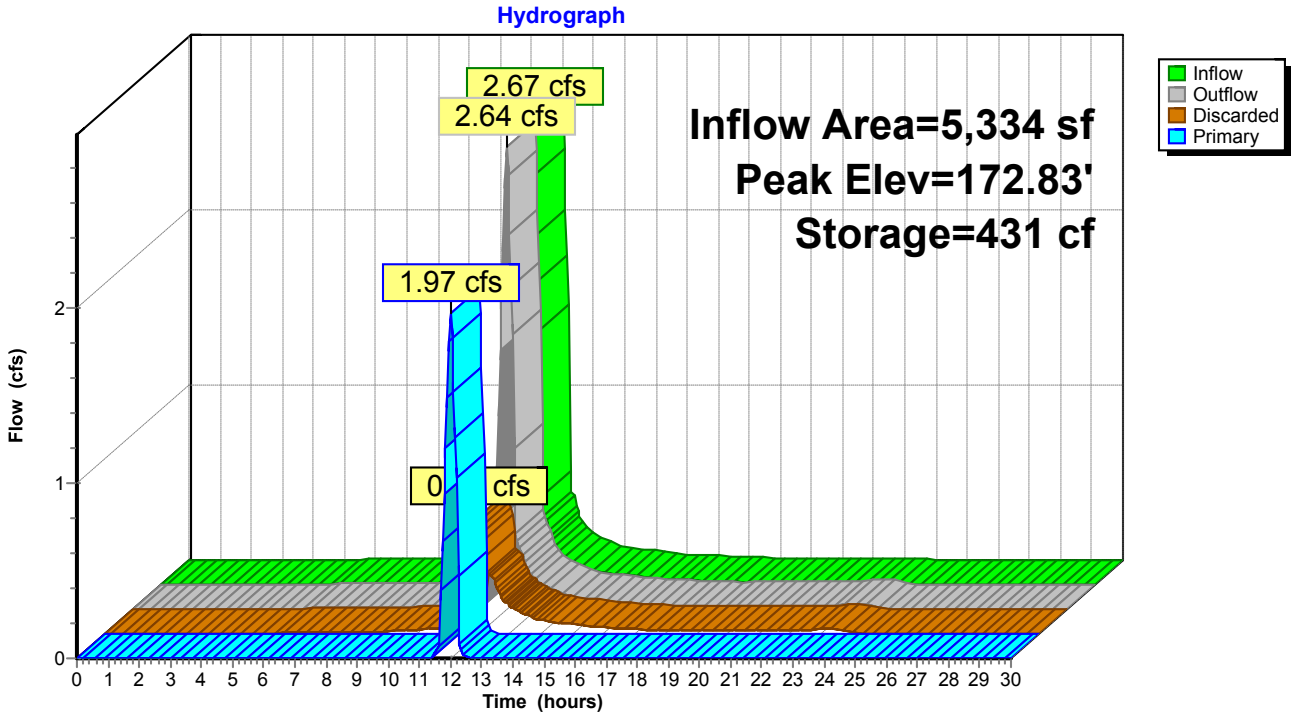
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	2,000	507	717
173.50	2,000	1,000	1,717

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**
#2	Primary	172.65'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.67 cfs @ 12.00 hrs HW=172.83' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.67 cfs)

Primary OutFlow Max=1.95 cfs @ 12.00 hrs HW=172.83' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 1.95 cfs @ 1.38 fps)

Pond 2P: EXISTING DRYWELL



Summary for Pond 3P: PROPOSED CB #3

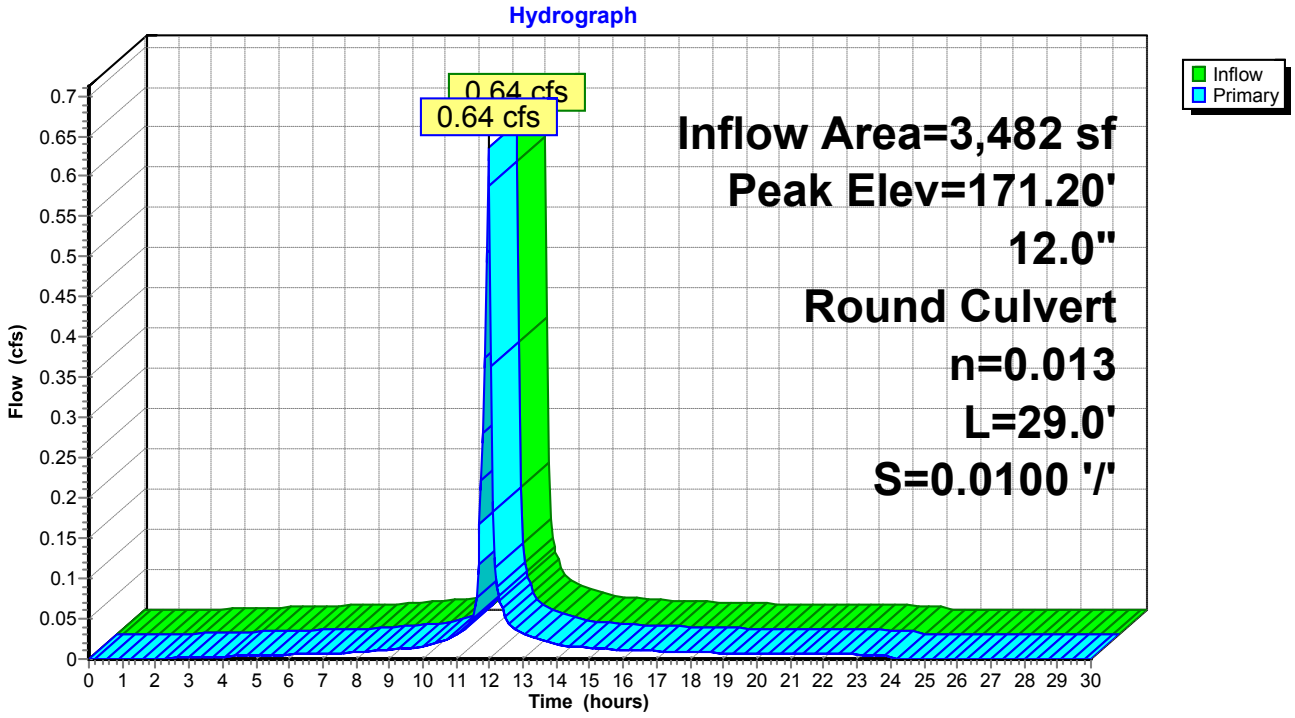
Inflow Area = 3,482 sf, 85.96% Impervious, Inflow Depth = 5.26" for 25-YEAR event
Inflow = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf
Outflow = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.20' @ 11.96 hrs
Flood Elev= 172.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.74'	**12.0" Round Culvert** L= 29.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.74' / 170.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.62 cfs @ 11.96 hrs HW=171.19' (Free Discharge)
1=Culvert (Inlet Controls 0.62 cfs @ 1.80 fps)

Pond 3P: PROPOSED CB #3



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond CB-2 by 2.79' @ 12.15 hrs

Inflow	=	1.67 cfs @	11.96 hrs,	Volume=	5,126 cf
Outflow	=	1.08 cfs @	12.05 hrs,	Volume=	5,126 cf, Atten= 35%, Lag= 5.3 min
Discarded	=	1.08 cfs @	12.05 hrs,	Volume=	5,126 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.52' @ 12.05 hrs Surf.Area= 2,121 sf Storage= 790 cf

Plug-Flow detention time= 42.2 min calculated for 5,126 cf (100% of inflow)
Center-of-Mass det. time= 42.2 min (802.5 - 760.3)

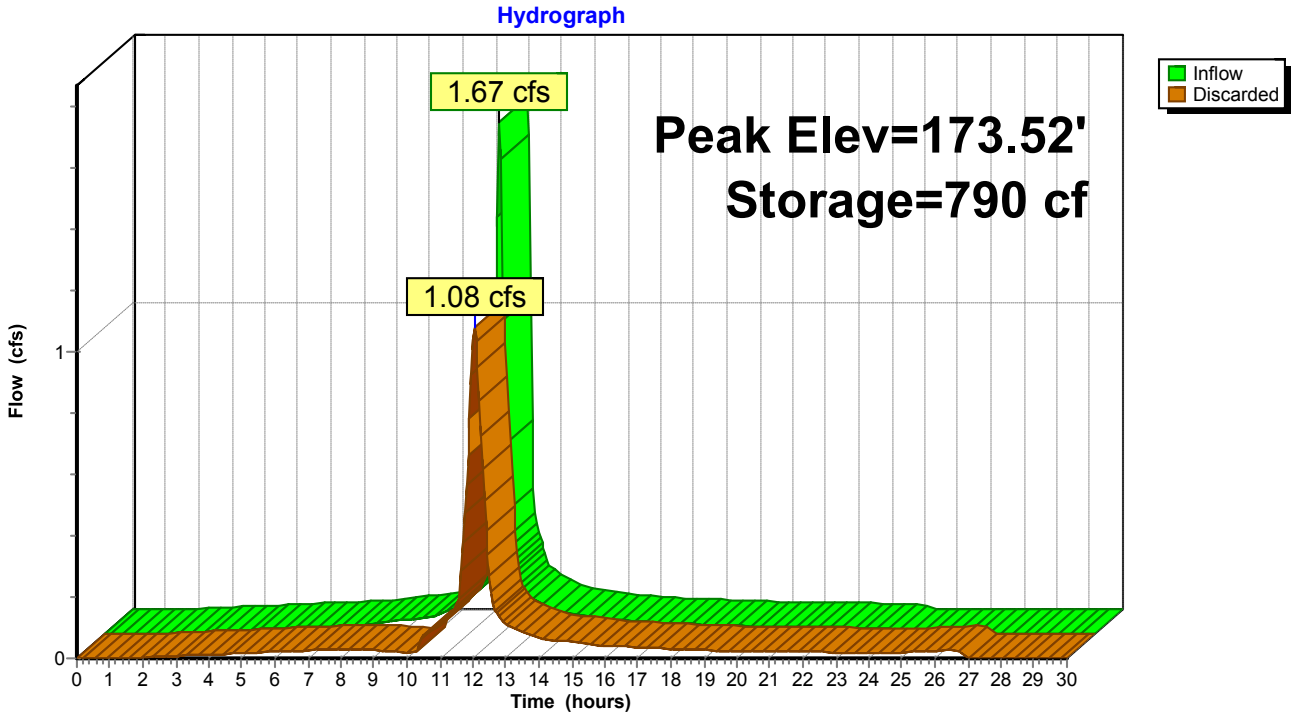
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	112	7	213
174.00	4,000	2,056	2,269

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.08 cfs @ 12.05 hrs HW=173.52' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.08 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 8P: EXISTING YARD DRAIN

[58] Hint: Peaked 69.02' above defined flood level

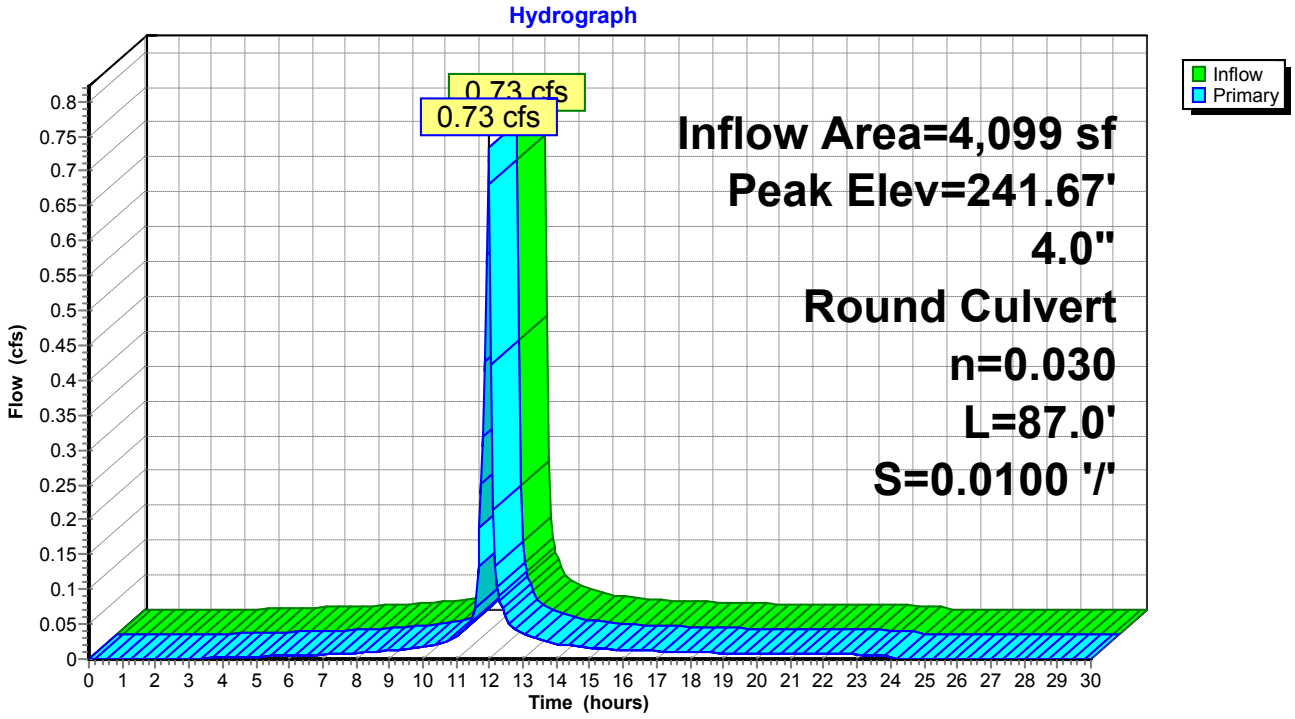
Inflow Area = 4,099 sf, 74.82% Impervious, Inflow Depth = 5.03" for 25-YEAR event
Inflow = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf
Outflow = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 241.67' @ 11.96 hrs
Flood Elev= 172.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.030, Flow Area= 0.09 sf

Primary OutFlow Max=0.72 cfs @ 11.96 hrs HW=238.43' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.72 cfs @ 8.20 fps)

Pond 8P: EXISTING YARD DRAIN



Summary for Pond 12P: EXISTING CB

[81] Warning: Exceeded Pond 3P by 0.91' @ 12.05 hrs

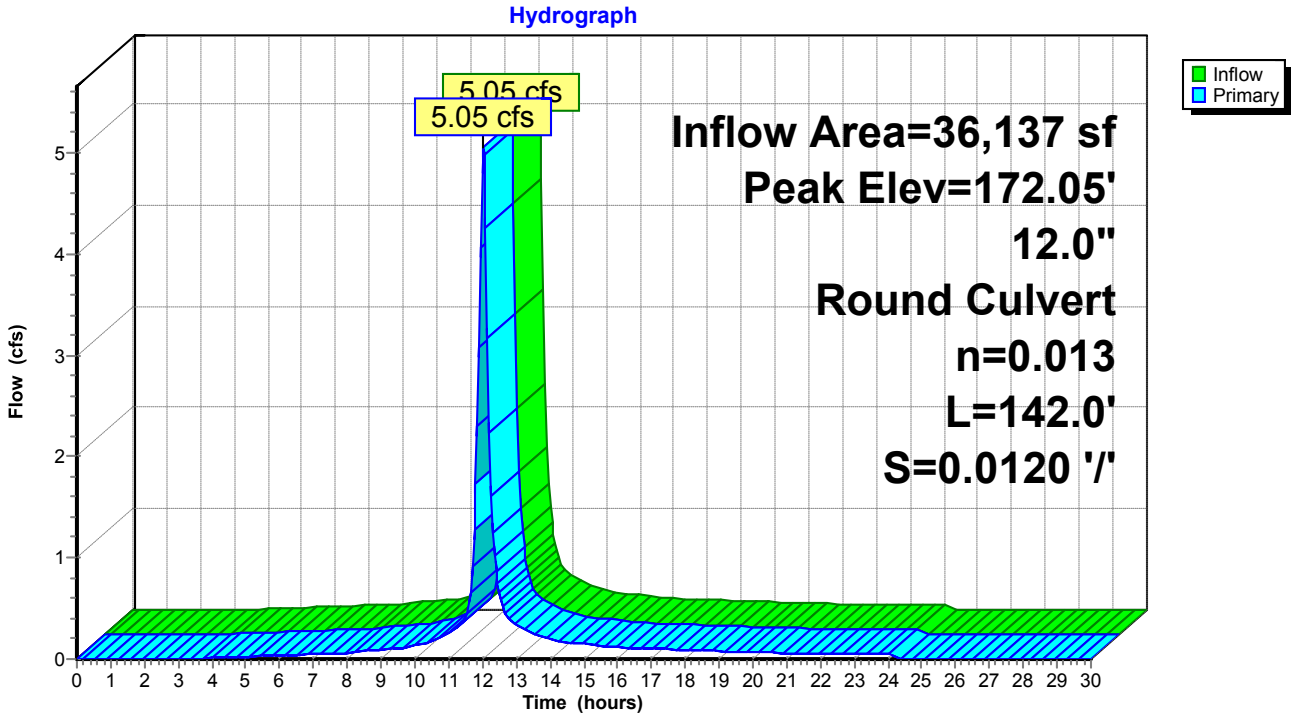
Inflow Area = 36,137 sf, 63.40% Impervious, Inflow Depth = 4.85" for 25-YEAR event
Inflow = 5.05 cfs @ 12.03 hrs, Volume= 14,618 cf
Outflow = 5.05 cfs @ 12.03 hrs, Volume= 14,618 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.05 cfs @ 12.03 hrs, Volume= 14,618 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.05' @ 12.03 hrs
Flood Elev= 172.16'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=4.95 cfs @ 12.03 hrs HW=171.95' (Free Discharge)
1=Culvert (Inlet Controls 4.95 cfs @ 6.31 fps)

Pond 12P: EXISTING CB



Summary for Pond 14P: EXISTING CB

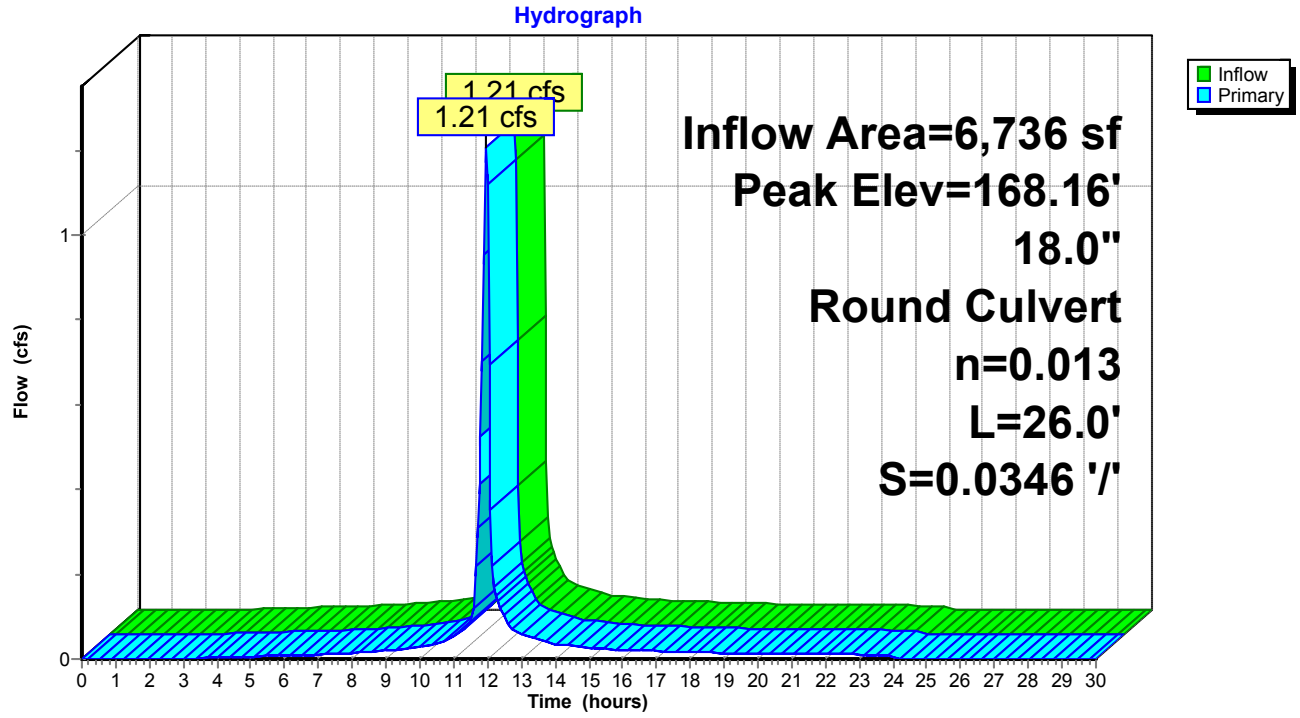
Inflow Area = 6,736 sf, 69.73% Impervious, Inflow Depth = 5.03" for 25-YEAR event
Inflow = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf
Outflow = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.16' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=1.17 cfs @ 11.96 hrs HW=168.15' (Free Discharge)
1=Culvert (Inlet Controls 1.17 cfs @ 2.00 fps)

Pond 14P: EXISTING CB



Summary for Pond CB-1: PROPOSED CATCH BASIN #1

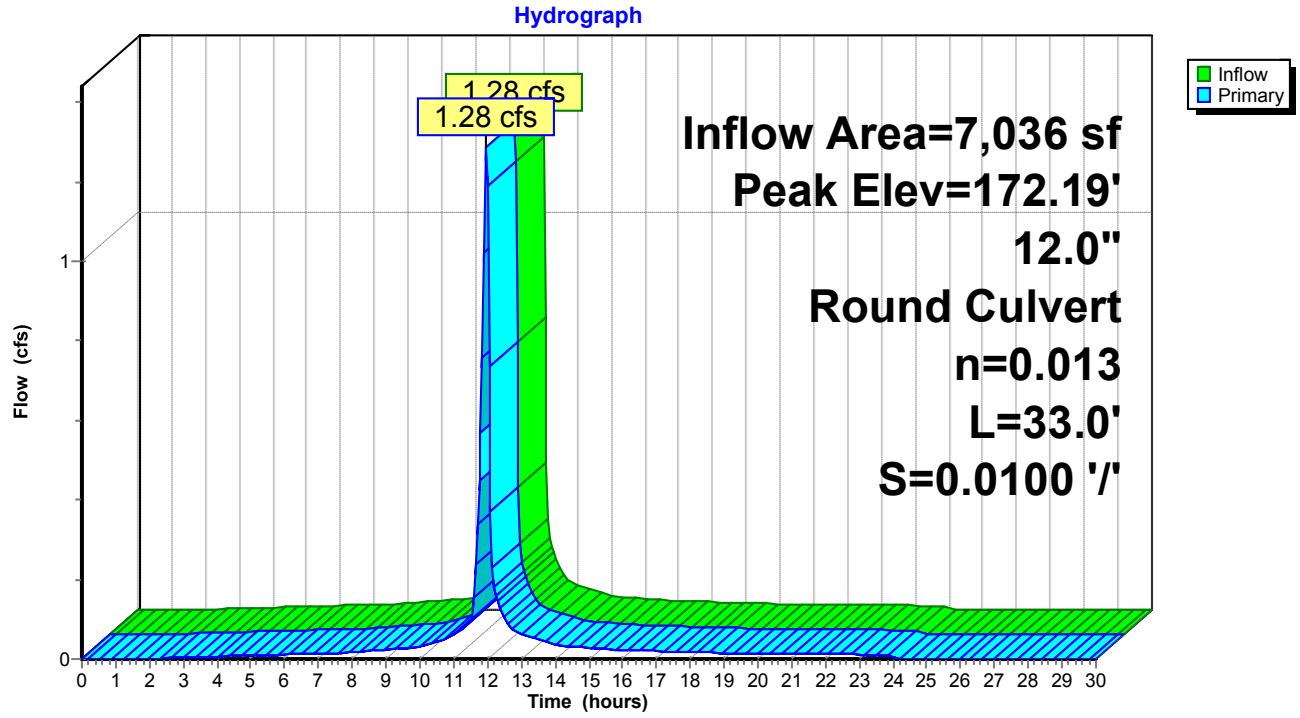
Inflow Area = 7,036 sf, 83.26% Impervious, Inflow Depth = 5.26" for 25-YEAR event
Inflow = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf
Outflow = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.19' @ 11.96 hrs
Flood Elev= 172.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.50'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.50' / 171.17' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.25 cfs @ 11.96 hrs HW=172.18' (Free Discharge)
1=Culvert (Inlet Controls 1.25 cfs @ 2.21 fps)

Pond CB-1: PROPOSED CATCH BASIN #1



Summary for Pond CB-2: PR CB #2

[57] Hint: Peaked at 172.16' (Flood elevation advised)
[79] Warning: Submerged Pond CB-1 Primary device # 1 INLET by 0.65'

Inflow Area =	28,448 sf,	85.49% Impervious,	Inflow Depth =	5.35"	for 25-YEAR event
Inflow =	5.23 cfs @	11.96 hrs, Volume=	12,682 cf		
Outflow =	5.23 cfs @	11.96 hrs, Volume=	12,682 cf,	Atten= 0%,	Lag= 0.0 min
Primary =	3.56 cfs @	11.96 hrs, Volume=	7,556 cf		
Secondary =	1.67 cfs @	11.96 hrs, Volume=	5,126 cf		

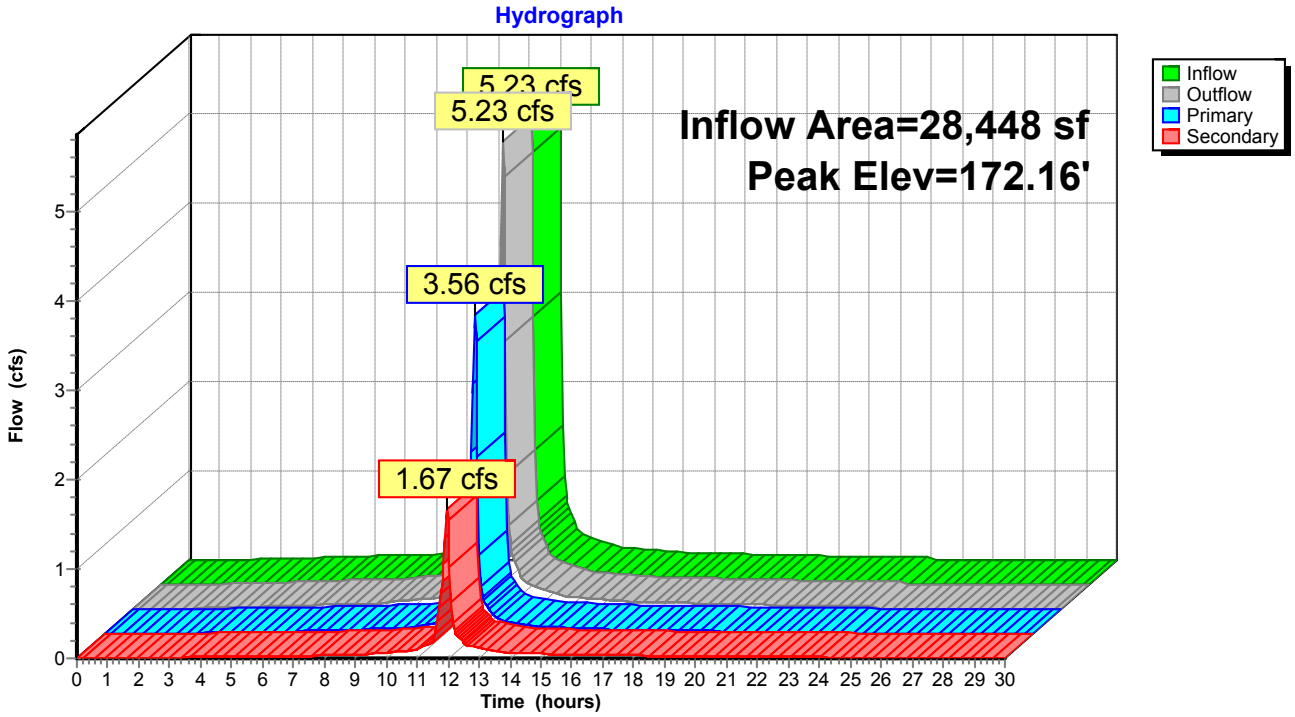
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.16' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.25'	**12.0" Round Culvert** L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	170.25'	**8.0" Round Culvert** L= 12.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=3.47 cfs @ 11.96 hrs HW=172.10' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 3.47 cfs @ 4.42 fps)

Secondary OutFlow Max=1.63 cfs @ 11.96 hrs HW=172.10' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 1.63 cfs @ 4.68 fps)

Pond CB-2: PR CB #2



Summary for Pond DP-1: Existing Catch Basin

[79] Warning: Submerged Pond 12P Primary device # 1 INLET by 0.58'
[81] Warning: Exceeded Pond 14P by 1.15' @ 12.00 hrs

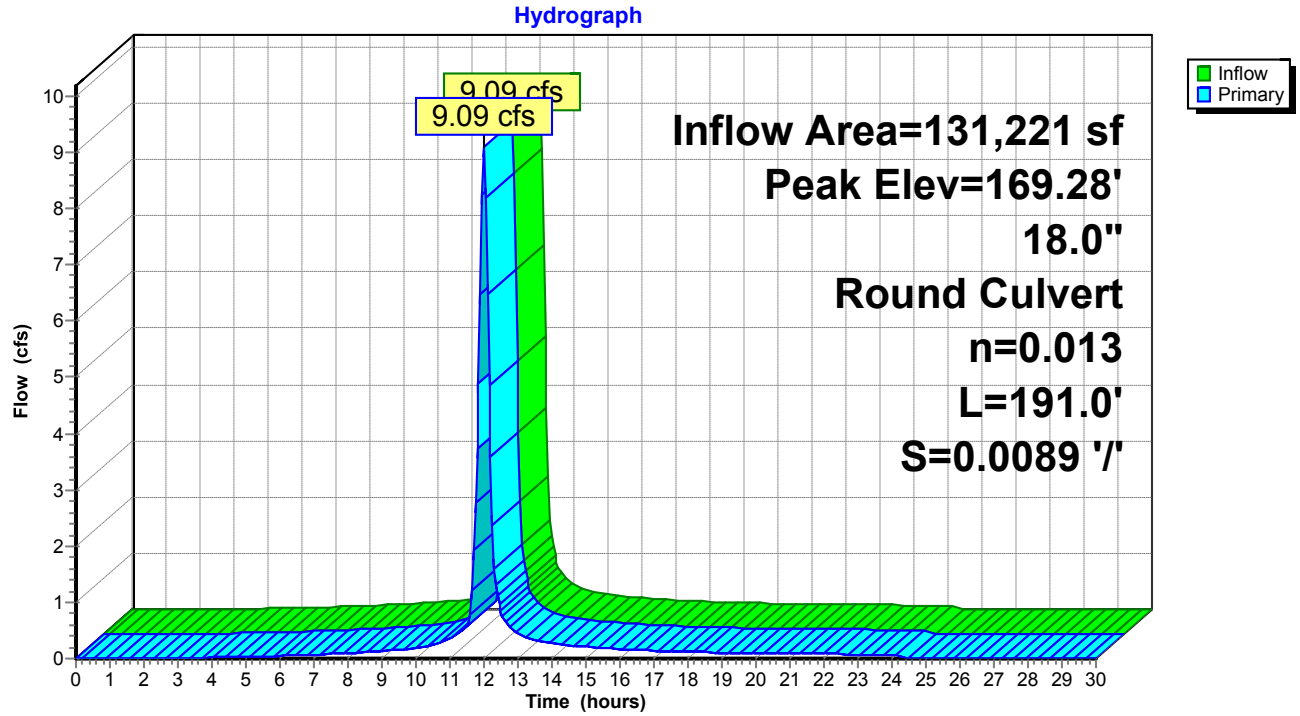
Inflow Area = 131,221 sf, 73.88% Impervious, Inflow Depth = 2.10" for 25-YEAR event
Inflow = 9.09 cfs @ 12.00 hrs, Volume= 22,940 cf
Outflow = 9.09 cfs @ 12.00 hrs, Volume= 22,940 cf, Atten= 0%, Lag= 0.0 min
Primary = 9.09 cfs @ 12.00 hrs, Volume= 22,940 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.28' @ 12.00 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=9.08 cfs @ 12.00 hrs HW=169.28' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 9.08 cfs @ 5.14 fps)

Pond DP-1: Existing Catch Basin



Summary for Pond DW-1: PROPOSED DRYWELL #1

Inflow Area = 3,471 sf, 65.57% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 0.61 cfs @ 11.96 hrs, Volume= 1,424 cf
Outflow = 0.23 cfs @ 12.00 hrs, Volume= 1,424 cf, Atten= 63%, Lag= 2.2 min
Discarded = 0.23 cfs @ 12.00 hrs, Volume= 1,424 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.37' @ 12.09 hrs Surf.Area= 310 sf Storage= 411 cf

Plug-Flow detention time= 32.7 min calculated for 1,421 cf (100% of inflow)
Center-of-Mass det. time= 32.6 min (807.1 - 774.5)

Volume	Invert	Avail.Storage	Storage Description
#1	164.00'	712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	163.00'	38 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 94 cf Overall x 40.0% Voids
		750 cf	Total Available Storage

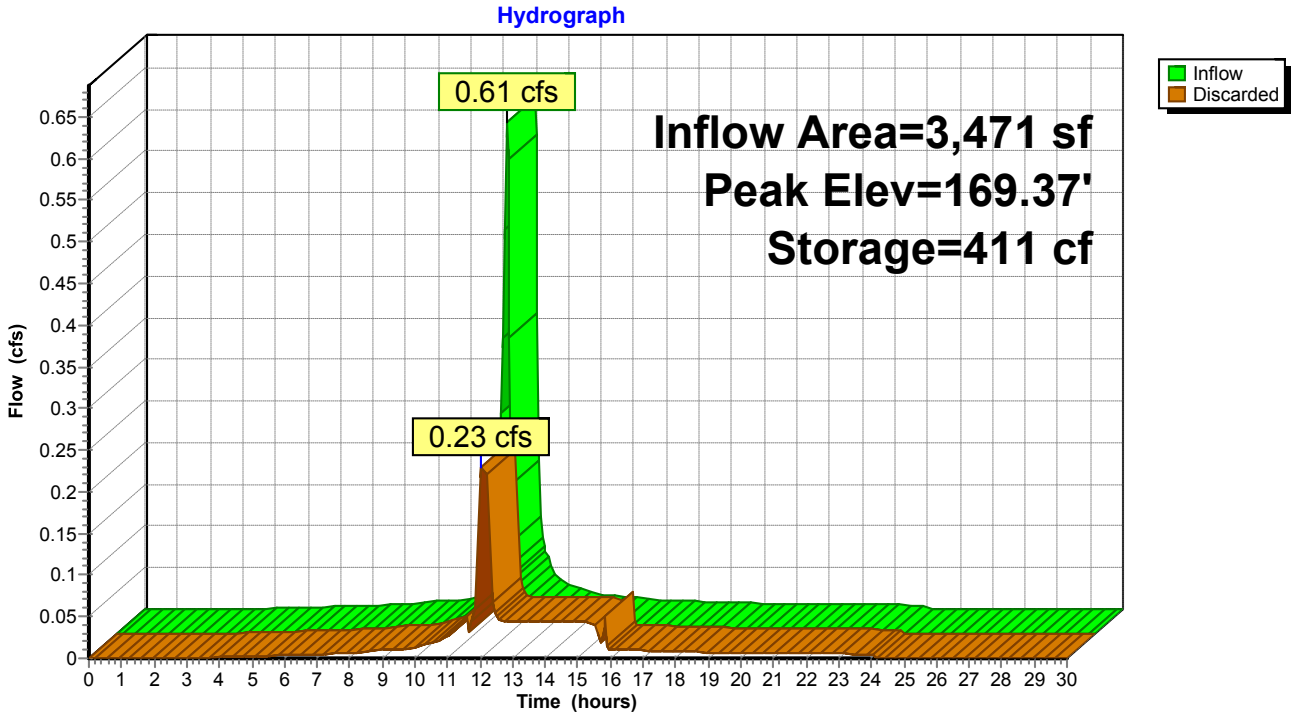
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	50	0	0
168.90	50	245	245
169.00	300	17	262
170.50	300	450	712

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	78	0	0
164.00	10	44	44
169.00	10	50	94

Device	Routing	Invert	Outlet Devices
#1	Discarded	163.00'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.23 cfs @ 12.00 hrs HW=169.21' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.23 cfs)

Pond DW-1: PROPOSED DRYWELL #1



Summary for Pond DW-2: PROPOSED DRYWELL #2

[81] Warning: Exceeded Pond YD-2 by 2.78' @ 15.80 hrs

Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 2.34 cfs @ 11.96 hrs, Volume= 5,471 cf
Outflow = 1.91 cfs @ 12.02 hrs, Volume= 5,472 cf, Atten= 18%, Lag= 3.1 min
Discarded = 1.91 cfs @ 12.02 hrs, Volume= 5,472 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.79' @ 12.02 hrs Surf.Area= 2,577 sf Storage= 818 cf

Plug-Flow detention time= 45.1 min calculated for 5,463 cf (100% of inflow)
Center-of-Mass det. time= 45.2 min (816.1 - 770.9)

Volume	Invert	Avail.Storage	Storage Description
#1	167.78'	1,499 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	166.50'	53 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 134 cf Overall x 40.0% Voids
		1,552 cf	Total Available Storage

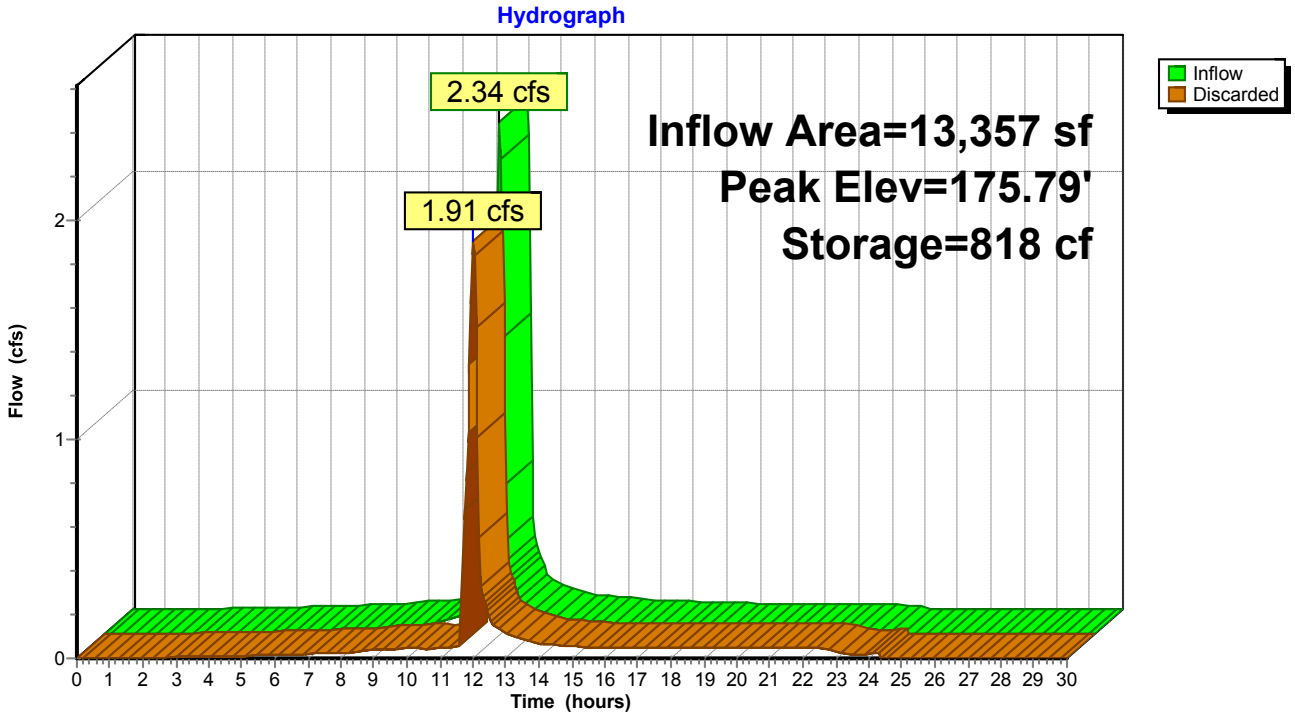
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.78	50	0	0
175.50	50	386	386
176.00	4,400	1,113	1,499

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.50	78	0	0
167.78	10	56	56
175.50	10	77	134

Device	Routing	Invert	Outlet Devices
#1	Discarded	166.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.88 cfs @ 12.02 hrs HW=175.78' (Free Discharge)
1=Exfiltration (Exfiltration Controls 1.88 cfs)

Pond DW-2: PROPOSED DRYWELL #2



Summary for Pond DW-3: PROPOSED DRYWELL #3

[81] Warning: Exceeded Pond YD-4 by 2.08' @ 16.10 hrs

Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 5.35" for 25-YEAR event
Inflow = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf
Outflow = 2.06 cfs @ 12.02 hrs, Volume= 6,352 cf, Atten= 21%, Lag= 3.5 min
Discarded = 2.06 cfs @ 12.02 hrs, Volume= 6,352 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.84' @ 12.02 hrs Surf.Area= 2,774 sf Storage= 929 cf

Plug-Flow detention time= 43.5 min calculated for 6,341 cf (100% of inflow)
Center-of-Mass det. time= 43.6 min (799.0 - 755.4)

Volume	Invert	Avail.Storage	Storage Description
#1	166.69'	1,403 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	165.50'	55 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 138 cf Overall x 40.0% Voids
		1,458 cf	Total Available Storage

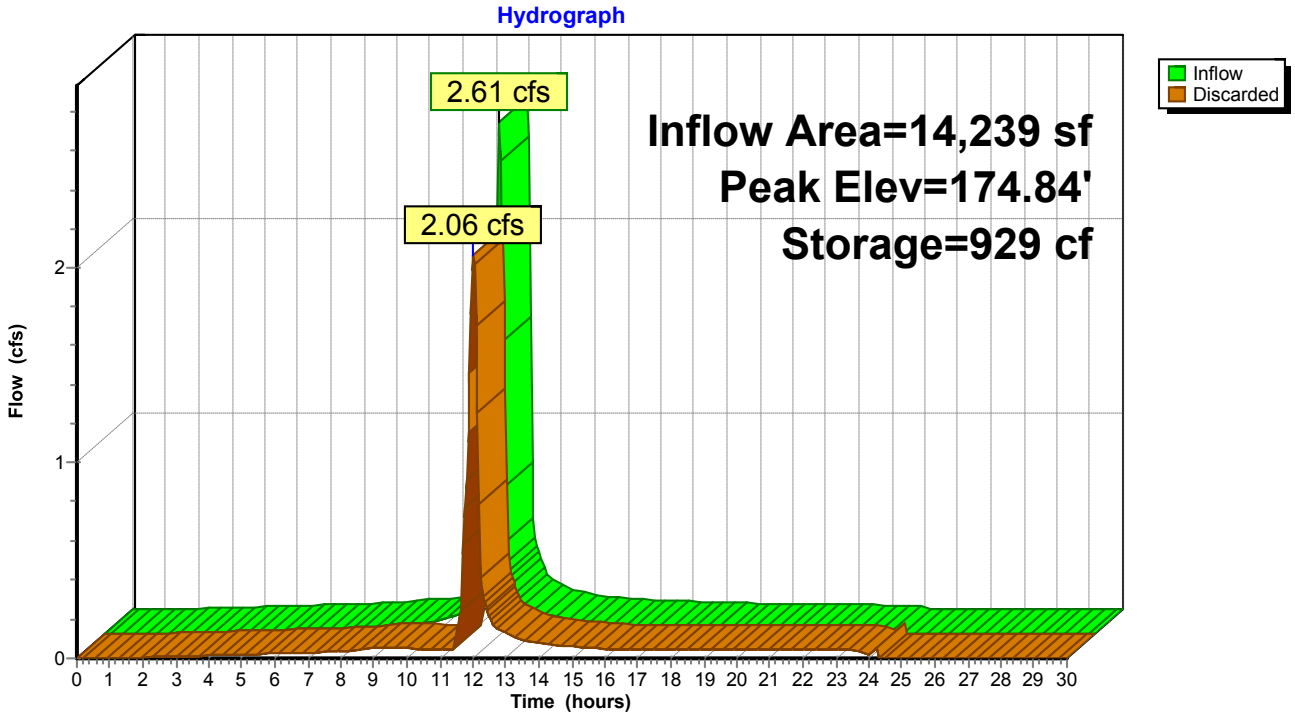
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.69	50	0	0
174.50	50	391	391
175.00	4,000	1,013	1,403

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.50	79	0	0
165.69	79	15	15
166.69	10	45	60
174.50	10	78	138

Device	Routing	Invert	Outlet Devices
#1	Discarded	165.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.02 cfs @ 12.02 hrs HW=174.84' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 2.02 cfs)

Pond DW-3: PROPOSED DRYWELL #3



Summary for Pond DW-4: PROPOSED DRYWELL #4

[81] Warning: Exceeded Pond CB-2 by 3.22' @ 12.10 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 3.19" for 25-YEAR event
Inflow = 3.56 cfs @ 11.96 hrs, Volume= 7,556 cf
Outflow = 2.32 cfs @ 12.04 hrs, Volume= 7,556 cf, Atten= 35%, Lag= 4.6 min
Discarded = 0.51 cfs @ 12.00 hrs, Volume= 3,198 cf
Secondary = 1.80 cfs @ 12.04 hrs, Volume= 4,358 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.18' @ 12.04 hrs Surf.Area= 1,010 sf Storage= 1,194 cf

Plug-Flow detention time= 51.1 min calculated for 7,543 cf (100% of inflow)
Center-of-Mass det. time= 51.3 min (804.9 - 753.6)

Volume	Invert	Avail.Storage	Storage Description
#1	165.00'	1,468 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	164.00'	50 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 124 cf Overall x 40.0% Voids
		1,517 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.00	55	0	0
173.00	55	440	440
174.00	1,000	528	968
174.50	1,000	500	1,468

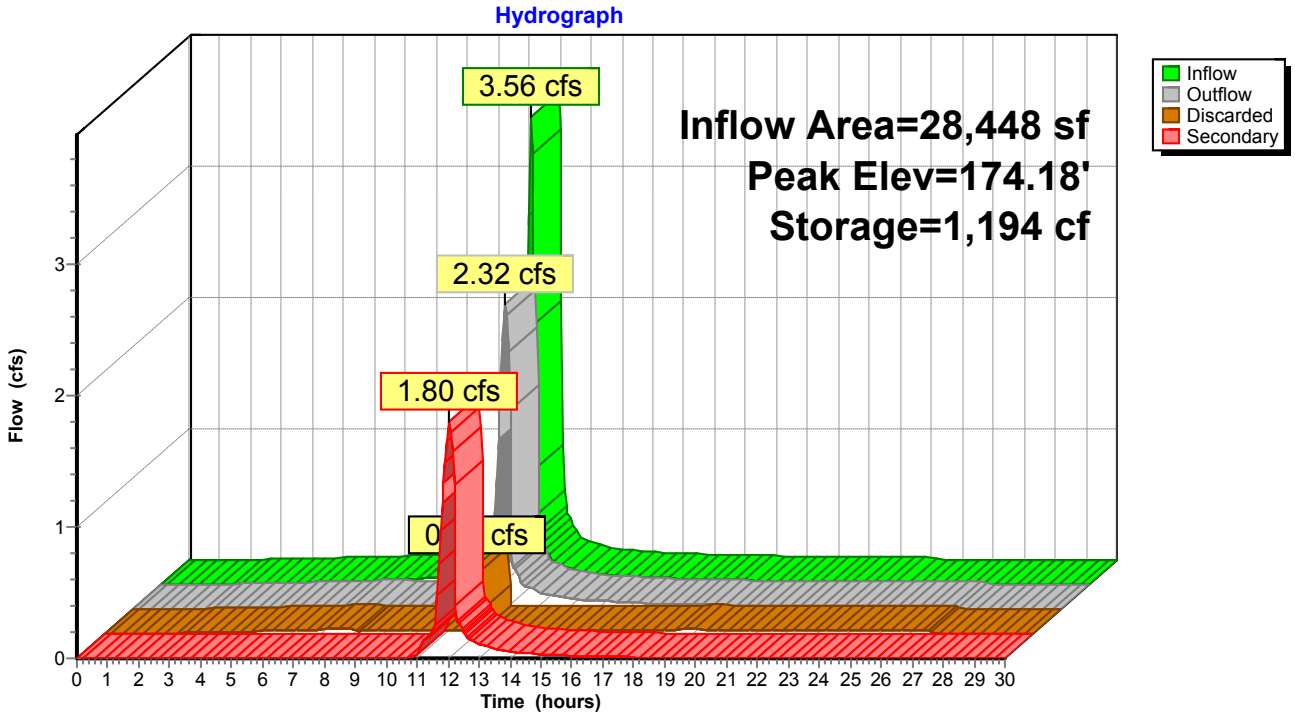
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	78	0	0
165.00	10	44	44
173.00	10	80	124

Device	Routing	Invert	Outlet Devices
#1	Discarded	164.00'	**22.000 in/hr Exfiltration over Surface area**
#2	Secondary	172.00'	**8.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.00' / 171.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Discarded OutFlow Max=0.51 cfs @ 12.00 hrs HW=174.11' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.51 cfs)

Secondary OutFlow Max=1.79 cfs @ 12.04 hrs HW=174.16' (Free Discharge)
└**2=Culvert** (Inlet Controls 1.79 cfs @ 5.14 fps)

Pond DW-4: PROPOSED DRYWELL #4



Summary for Pond DW-5: PROPOSED DRYWELL #5

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=5)

Inflow Area = 11,493 sf, 65.66% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 2.03 cfs @ 11.96 hrs, Volume= 4,714 cf
Outflow = 1.11 cfs @ 12.06 hrs, Volume= 4,714 cf, Atten= 45%, Lag= 5.8 min
Discarded = 1.11 cfs @ 12.06 hrs, Volume= 4,714 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.72' @ 12.06 hrs Surf.Area= 2,186 sf Storage= 1,057 cf

Plug-Flow detention time= 36.7 min calculated for 4,707 cf (100% of inflow)
Center-of-Mass det. time= 36.7 min (811.2 - 774.5)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,748 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	167.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		1,781 cf	Total Available Storage

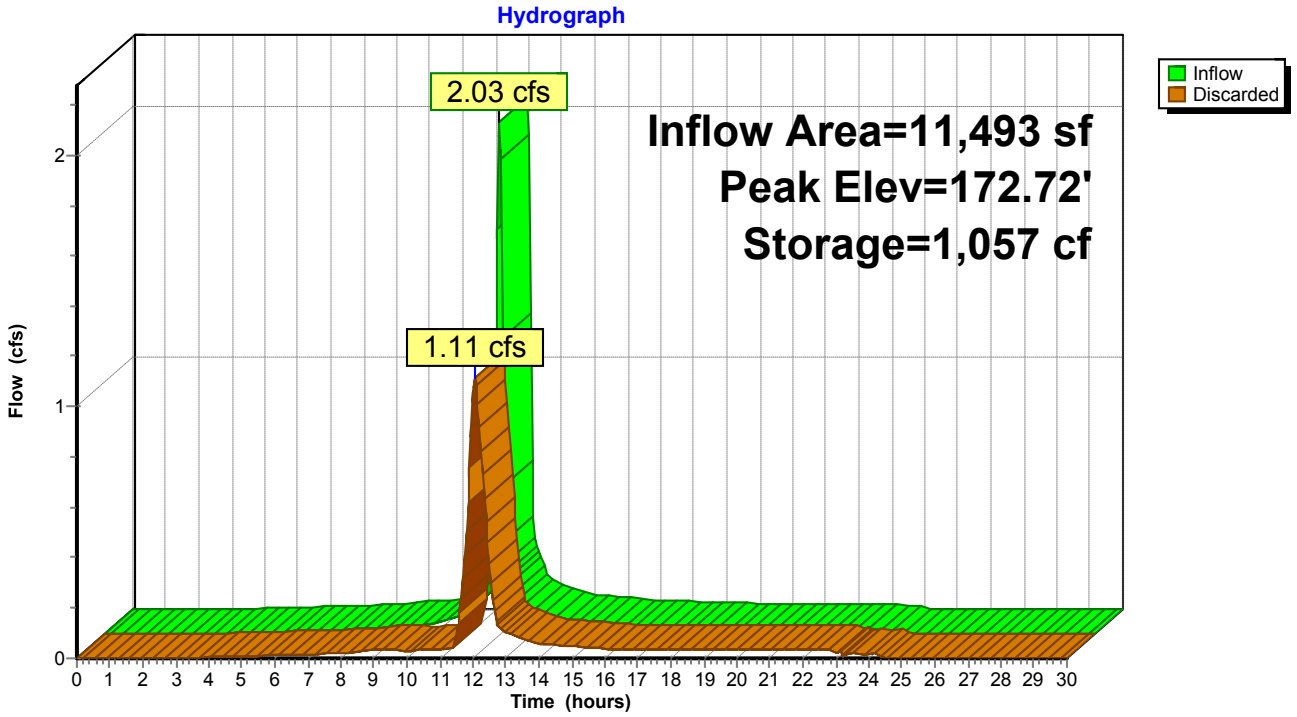
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.00	55	220	220
173.00	3,000	1,528	1,748

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	78	0	0
168.00	10	44	44
172.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.11 cfs @ 12.06 hrs HW=172.72' (Free Discharge)
1=Exfiltration (Exfiltration Controls 1.11 cfs)

Pond DW-5: PROPOSED DRYWELL #5



Summary for Pond DW-6: PROPOSED DRYWELL #6

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=4)

Inflow Area = 1,844 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.34 cfs @ 11.96 hrs, Volume= 862 cf
Outflow = 0.12 cfs @ 12.11 hrs, Volume= 862 cf, Atten= 65%, Lag= 9.2 min
Discarded = 0.12 cfs @ 12.11 hrs, Volume= 862 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.09' @ 12.11 hrs Surf.Area= 239 sf Storage= 267 cf

Plug-Flow detention time= 43.9 min calculated for 861 cf (100% of inflow)
Center-of-Mass det. time= 43.8 min (785.2 - 741.4)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	169.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

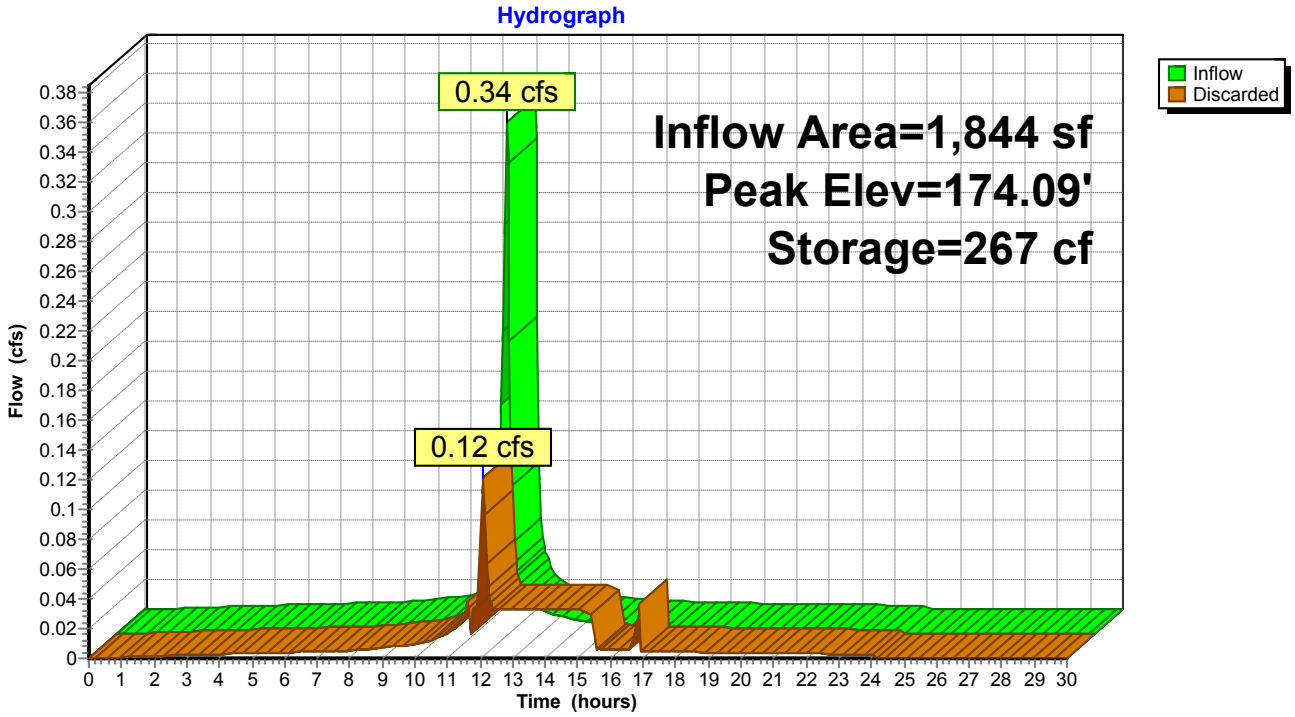
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	55	0	0
174.00	55	220	220
174.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	78	0	0
170.00	10	44	44
174.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	169.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.11 cfs @ 12.11 hrs HW=174.08' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.11 cfs)

Pond DW-6: PROPOSED DRYWELL #6



Summary for Pond DW-7: PROPOSED DRYWELL #7

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,755 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.33 cfs @ 11.96 hrs, Volume= 821 cf
Outflow = 0.07 cfs @ 12.16 hrs, Volume= 821 cf, Atten= 79%, Lag= 11.6 min
Discarded = 0.07 cfs @ 12.16 hrs, Volume= 821 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.52' @ 12.15 hrs Surf.Area= 137 sf Storage= 264 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 45.7 min (787.1 - 741.4)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	352 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	170.00'	42 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 106 cf Overall x 40.0% Voids
		394 cf	Total Available Storage

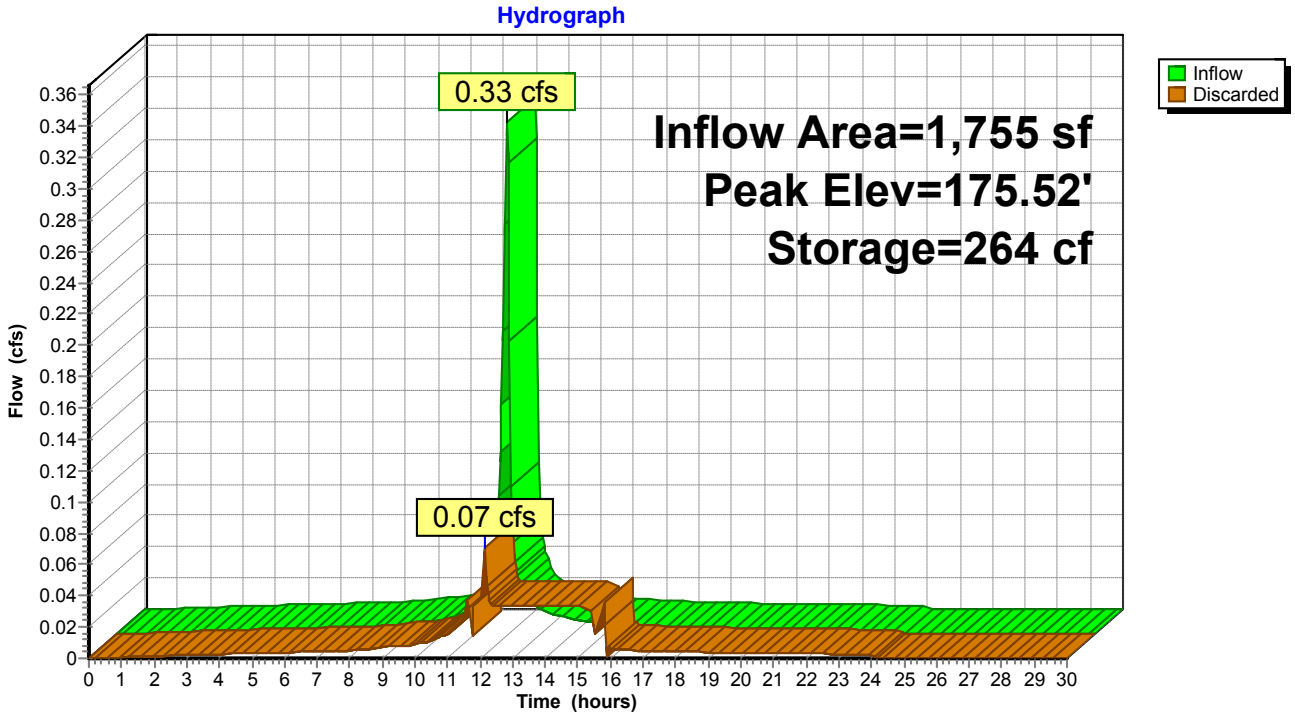
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
171.50	55	0	0
175.50	55	220	220
175.75	1,000	132	352

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	78	0	0
171.50	10	66	66
175.50	10	40	106

Device	Routing	Invert	Outlet Devices
#1	Discarded	170.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 12.16 hrs HW=175.52' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.07 cfs)

Pond DW-7: PROPOSED DRYWELL #7



Summary for Pond DW-8: PROPOSED DRYWELL #8

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,734 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.32 cfs @ 11.96 hrs, Volume= 811 cf
Outflow = 0.07 cfs @ 12.16 hrs, Volume= 812 cf, Atten= 78%, Lag= 11.8 min
Discarded = 0.07 cfs @ 12.16 hrs, Volume= 812 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.04' @ 12.16 hrs Surf.Area= 138 sf Storage= 257 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 43.6 min (785.0 - 741.4)

Volume	Invert	Avail.Storage	Storage Description
#1	169.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	168.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

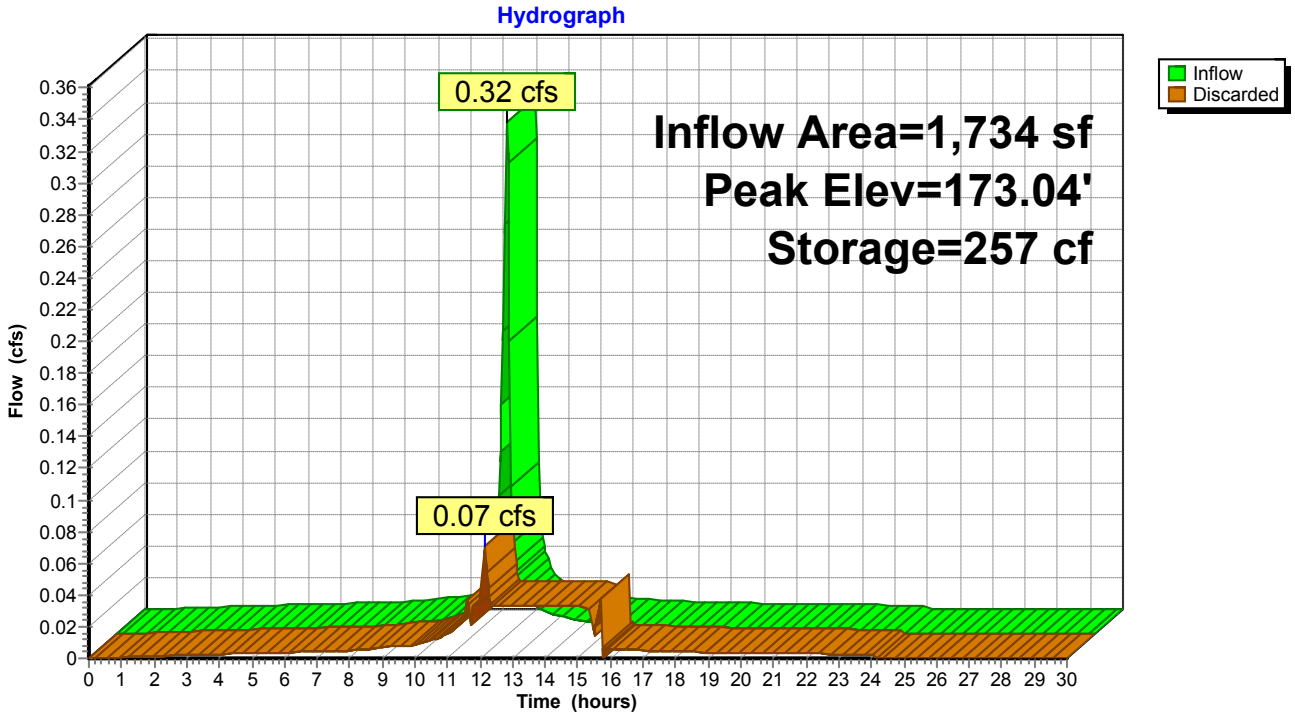
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	55	0	0
173.00	55	220	220
173.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	78	0	0
169.00	10	44	44
173.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 12.16 hrs HW=173.04' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.07 cfs)

Pond DW-8: PROPOSED DRYWELL #8



Summary for Pond YD-1: PROPOSED DRAIN #1

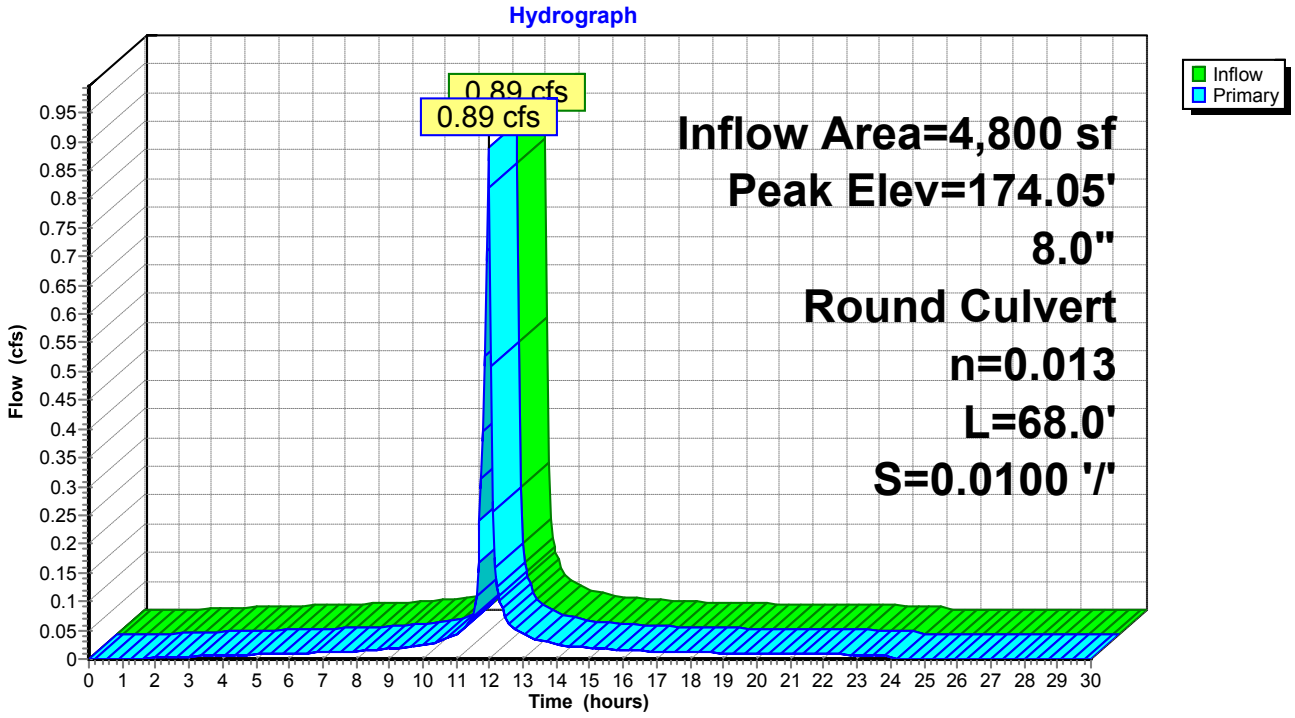
Inflow Area = 4,800 sf, 94.90% Impervious, Inflow Depth = 5.49" for 25-YEAR event
Inflow = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf
Outflow = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.05' @ 11.96 hrs
Flood Elev= 175.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.27'	**8.0" Round Culvert** L= 68.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.27' / 172.59' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=0.87 cfs @ 11.96 hrs HW=174.03' (Free Discharge)
1=Culvert (Inlet Controls 0.87 cfs @ 2.49 fps)

Pond YD-1: PROPOSED DRAIN #1



Summary for Pond YD-2: PROPOSED DRAIN #2

[58] Hint: Peaked 2.24' above defined flood level
[81] Warning: Exceeded Pond YD-1 by 1.93' @ 11.95 hrs

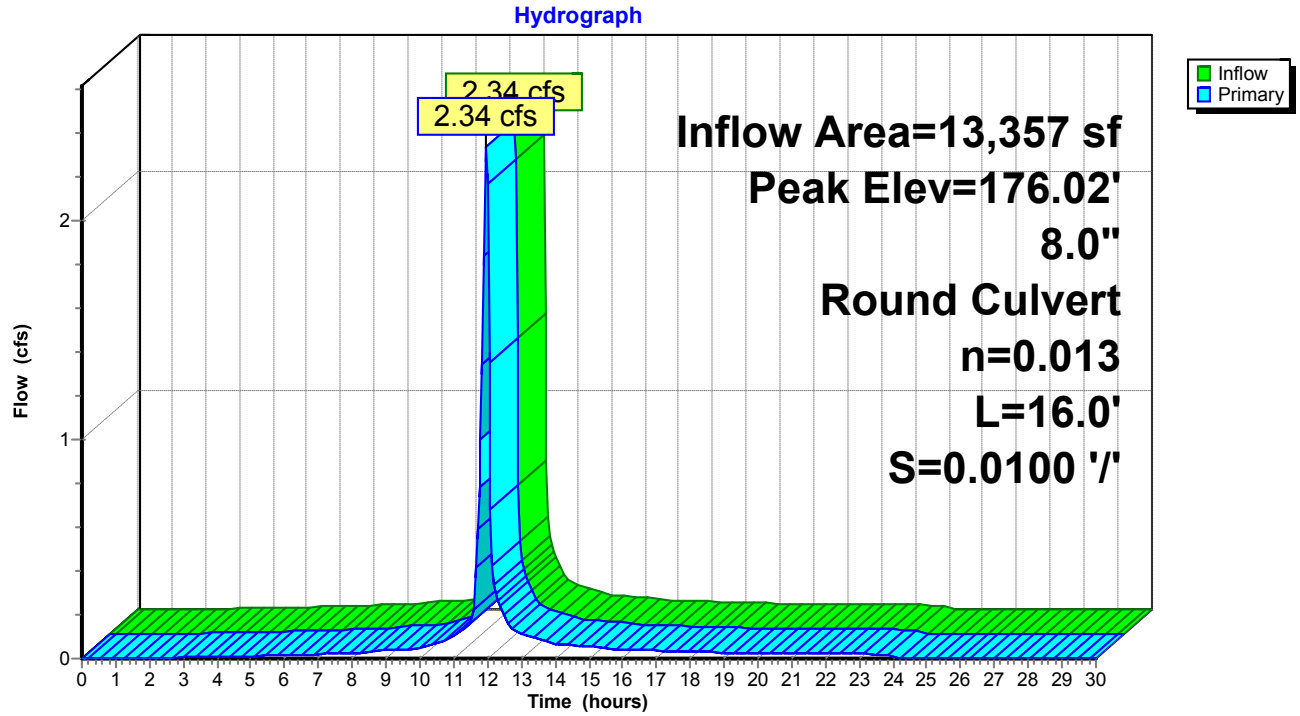
Inflow Area =	13,357 sf,	67.23% Impervious,	Inflow Depth =	4.92"	for 25-YEAR event
Inflow =	2.34 cfs @	11.96 hrs,	Volume=	5,471 cf	
Outflow =	2.34 cfs @	11.96 hrs,	Volume=	5,471 cf,	Atten= 0%, Lag= 0.0 min
Primary =	2.34 cfs @	11.96 hrs,	Volume=	5,471 cf	

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 176.02' @ 11.96 hrs
Flood Elev= 173.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.59'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.59' / 172.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=2.28 cfs @ 11.96 hrs HW=175.88' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 2.28 cfs @ 6.53 fps)

Pond YD-2: PROPOSED DRAIN #2



Summary for Pond YD-3: PROPOSED DRAIN #3

[58] Hint: Peaked 0.47' above defined flood level

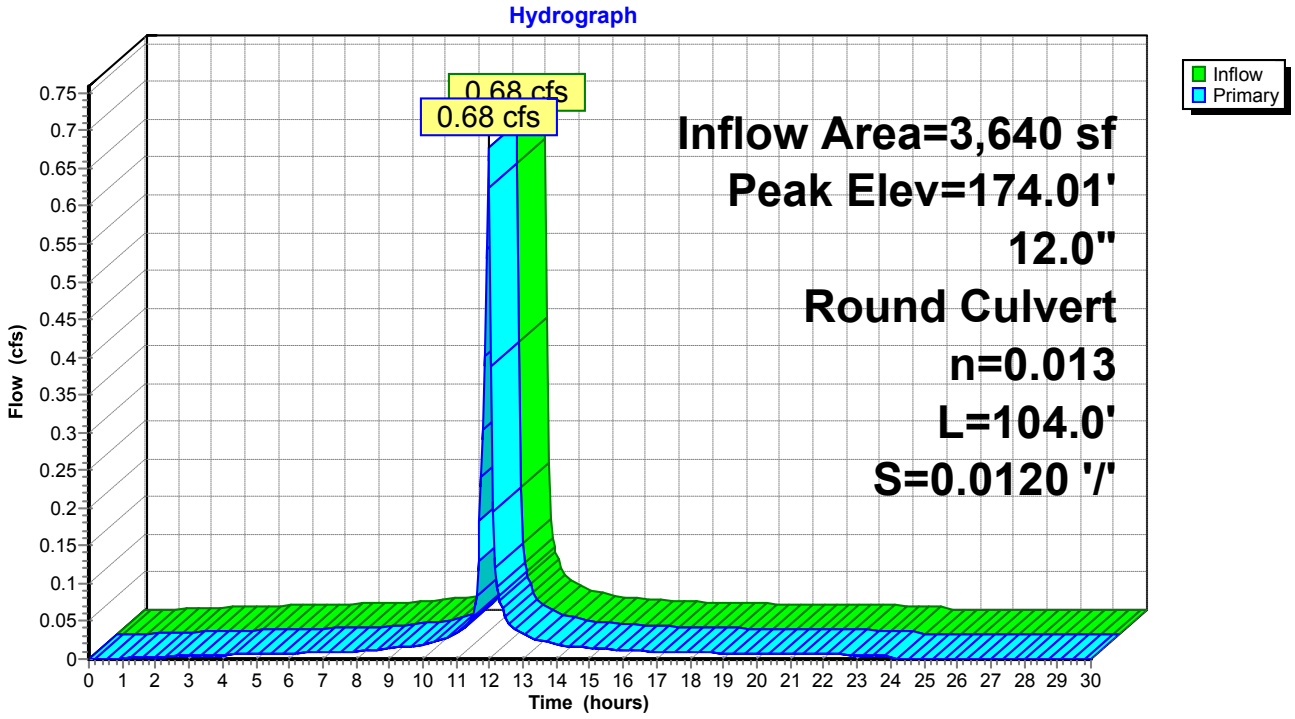
Inflow Area = 3,640 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf
Outflow = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.01' @ 11.96 hrs
Flood Elev= 173.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.54'	**12.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.54' / 172.29' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 11.96 hrs HW=174.01' (Free Discharge)
1=Culvert (Inlet Controls 0.66 cfs @ 1.84 fps)

Pond YD-3: PROPOSED DRAIN #3



Summary for Pond YD-4: PROPOSED DRAIN #4

[58] Hint: Peaked 3.23' above defined flood level
[81] Warning: Exceeded Pond YD-3 by 3.61' @ 11.95 hrs

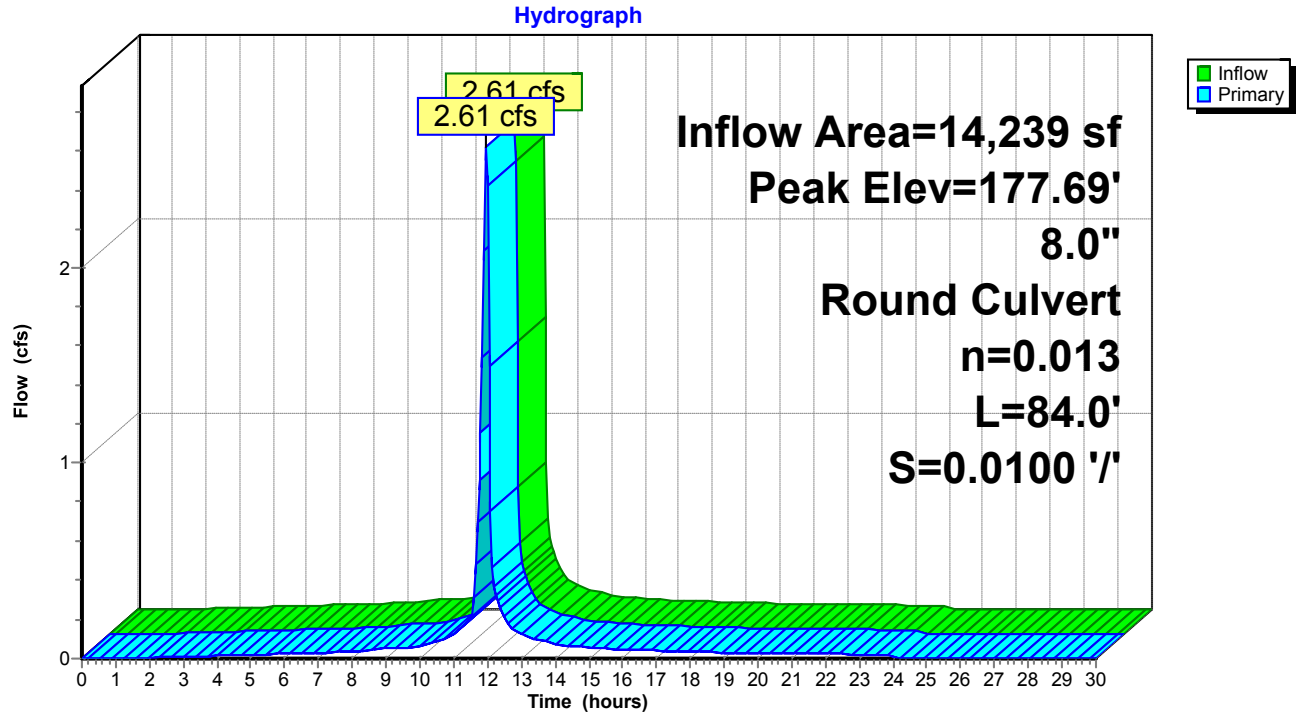
Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 5.35" for 25-YEAR event
Inflow = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf
Outflow = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 177.69' @ 11.96 hrs
Flood Elev= 174.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.29'	**8.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.29' / 171.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=2.55 cfs @ 11.96 hrs HW=177.45' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.55 cfs @ 7.31 fps)

Pond YD-4: PROPOSED DRAIN #4



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA-1: DA-1 Runoff Area=21,412 sf 86.22% Impervious Runoff Depth=7.74"
Tc=6.0 min CN=96 Runoff=5.58 cfs 13,811 cf

Subcatchment DA-10: DA-10 Runoff Area=4,800 sf 94.90% Impervious Runoff Depth=7.86"
Tc=6.0 min CN=97 Runoff=1.25 cfs 3,144 cf

Subcatchment DA-11: DA-11 Runoff Area=8,557 sf 51.71% Impervious Runoff Depth=6.90"
Tc=6.0 min CN=89 Runoff=2.12 cfs 4,922 cf

Subcatchment DA-12: DRAINAGE AREA 12 Runoff Area=8,367 sf 100.00% Impervious Runoff Depth=7.98"
Tc=6.0 min CN=98 Runoff=2.19 cfs 5,564 cf

Subcatchment DA-13: DA-13 Runoff Area=2,574 sf 79.56% Impervious Runoff Depth=7.50"
Tc=6.0 min CN=94 Runoff=0.66 cfs 1,609 cf

Subcatchment DA-14: DRAINAGE AREA 14 Runoff Area=6,736 sf 69.73% Impervious Runoff Depth=7.38"
Tc=6.0 min CN=93 Runoff=1.73 cfs 4,143 cf

Subcatchment DA-15: DA-15 Runoff Area=1,734 sf 100.00% Impervious Runoff Depth=7.98"
Tc=6.0 min CN=98 Runoff=0.45 cfs 1,153 cf

Subcatchment DA-16: DA-16 Runoff Area=1,844 sf 100.00% Impervious Runoff Depth=7.98"
Tc=6.0 min CN=98 Runoff=0.48 cfs 1,226 cf

Subcatchment DA-17: DA-17 Runoff Area=1,755 sf 100.00% Impervious Runoff Depth=7.98"
Tc=6.0 min CN=98 Runoff=0.46 cfs 1,167 cf

Subcatchment DA-18: DRAINAGE AREA 18 Runoff Area=3,482 sf 85.96% Impervious Runoff Depth=7.62"
Tc=6.0 min CN=95 Runoff=0.90 cfs 2,211 cf

Subcatchment DA-2: DA-2 Runoff Area=7,036 sf 83.26% Impervious Runoff Depth=7.62"
Tc=6.0 min CN=95 Runoff=1.82 cfs 4,468 cf

Subcatchment DA-3: DRAINAGE AREA 3 Runoff Area=5,334 sf 65.88% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=92 Runoff=1.36 cfs 3,228 cf

Subcatchment DA-4: DRAINAGE AREA 4 Runoff Area=4,099 sf 74.82% Impervious Runoff Depth=7.38"
Tc=6.0 min CN=93 Runoff=1.05 cfs 2,521 cf

Subcatchment DA-5: DRAINAGE AREA 5 Runoff Area=32,655 sf 61.00% Impervious Runoff Depth=7.14"
Flow Length=235' Tc=13.1 min CN=91 Runoff=6.72 cfs 19,434 cf

Subcatchment DA-6: DA-6 Runoff Area=11,493 sf 65.66% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=92 Runoff=2.93 cfs 6,955 cf

Subcatchment DA-7: DA-7 Runoff Area=3,640 sf 100.00% Impervious Runoff Depth=7.98"
Tc=6.0 min CN=98 Runoff=0.95 cfs 2,421 cf

Subcatchment DA-8: DA-8 Runoff Area=10,599 sf 81.26% Impervious Runoff Depth=7.62"
Tc=6.0 min CN=95 Runoff=2.75 cfs 6,731 cf

Subcatchment DA-9: DRAINAGE AREA 9 Runoff Area=3,471 sf 65.57% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=92 Runoff=0.88 cfs 2,100 cf

Reach DP-2: STREET Inflow=2.19 cfs 5,564 cf
Outflow=2.19 cfs 5,564 cf

Pond 2P: EXISTING DRYWELL Peak Elev=172.96' Storage=634 cf Inflow=6.85 cfs 10,541 cf
Discarded=0.93 cfs 6,074 cf Primary=4.43 cfs 4,467 cf Outflow=5.36 cfs 10,541 cf

Pond 3P: PROPOSED CB #3 Peak Elev=171.30' Inflow=0.90 cfs 2,211 cf
12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.90 cfs 2,211 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.66' Storage=1,126 cf Inflow=2.32 cfs 7,262 cf
Outflow=1.36 cfs 7,262 cf

Pond 8P: EXISTING YARD DRAIN Peak Elev=316.33' Inflow=1.05 cfs 2,521 cf
4.0" Round Culvert n=0.030 L=87.0' S=0.0100 '/' Outflow=1.05 cfs 2,521 cf

Pond 12P: EXISTING CB Peak Elev=176.54' Inflow=7.32 cfs 21,646 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=7.32 cfs 21,646 cf

Pond 14P: EXISTING CB Peak Elev=168.28' Inflow=1.73 cfs 4,143 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=1.73 cfs 4,143 cf

Pond CB-1: PROPOSED CATCH BASIN #1 Peak Elev=172.37' Inflow=1.82 cfs 4,468 cf
12.0" Round Culvert n=0.013 L=33.0' S=0.0100 '/' Outflow=1.82 cfs 4,468 cf

Pond CB-2: PR CB #2 Peak Elev=173.64' Inflow=7.40 cfs 18,279 cf
Primary=5.08 cfs 11,017 cf Secondary=2.32 cfs 7,262 cf Outflow=7.40 cfs 18,279 cf

Pond DP-1: Existing Catch Basin Peak Elev=172.24' Inflow=14.65 cfs 34,386 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=14.65 cfs 34,386 cf

Pond DW-1: PROPOSED DRYWELL #1 Peak Elev=170.14' Storage=642 cf Inflow=0.88 cfs 2,100 cf
Outflow=0.23 cfs 2,100 cf

Pond DW-2: PROPOSED DRYWELL #2 Peak Elev=175.89' Storage=1,134 cf Inflow=3.38 cfs 8,066 cf
Outflow=2.58 cfs 8,068 cf

Pond DW-3: PROPOSED DRYWELL #3 Peak Elev=174.96' Storage=1,295 cf Inflow=3.70 cfs 9,151 cf
Outflow=2.72 cfs 9,152 cf

Pond DW-4: PROPOSED DRYWELL #4 Peak Elev=190.06' Storage=1,517 cf Inflow=5.08 cfs 11,017 cf
Discarded=0.51 cfs 3,704 cf Secondary=5.59 cfs 7,313 cf Outflow=6.10 cfs 11,017 cf

Pond DW-5: PROPOSED DRYWELL #5 Peak Elev=172.93' Storage=1,588 cf Inflow=2.93 cfs 6,955 cf
Outflow=1.43 cfs 6,955 cf

Pond DW-6: PROPOSED DRYWELL #6 Peak Elev=174.25' Storage=325 cf Inflow=0.48 cfs 1,226 cf
Outflow=0.27 cfs 1,226 cf

Pond DW-7: PROPOSED DRYWELL #7 Peak Elev=175.63' Storage=304 cf Inflow=0.46 cfs 1,167 cf
Outflow=0.29 cfs 1,167 cf

Pond DW-8: PROPOSED DRYWELL #8 Peak Elev=173.22' Storage=310 cf Inflow=0.45 cfs 1,153 cf
Outflow=0.24 cfs 1,153 cf

Pond YD-1: PROPOSED DRAIN #1 Peak Elev=174.50' Inflow=1.25 cfs 3,144 cf
8.0" Round Culvert n=0.013 L=68.0' S=0.0100 '/' Outflow=1.25 cfs 3,144 cf

Pond YD-2: PROPOSED DRAIN #2 Peak Elev=179.39' Inflow=3.38 cfs 8,066 cf
8.0" Round Culvert n=0.013 L=16.0' S=0.0100 '/' Outflow=3.38 cfs 8,066 cf

Pond YD-3: PROPOSED DRAIN #3 Peak Elev=174.12' Inflow=0.95 cfs 2,421 cf
12.0" Round Culvert n=0.013 L=104.0' S=0.0120 '/' Outflow=0.95 cfs 2,421 cf

Pond YD-4: PROPOSED DRAIN #4 Peak Elev=183.32' Inflow=3.70 cfs 9,151 cf
8.0" Round Culvert n=0.013 L=84.0' S=0.0100 '/' Outflow=3.70 cfs 9,151 cf

Total Runoff Area = 139,588 sf Runoff Volume = 86,809 cf Average Runoff Depth = 7.46"
24.56% Pervious = 34,277 sf 75.44% Impervious = 105,311 sf

Summary for Subcatchment DA-1: DA-1

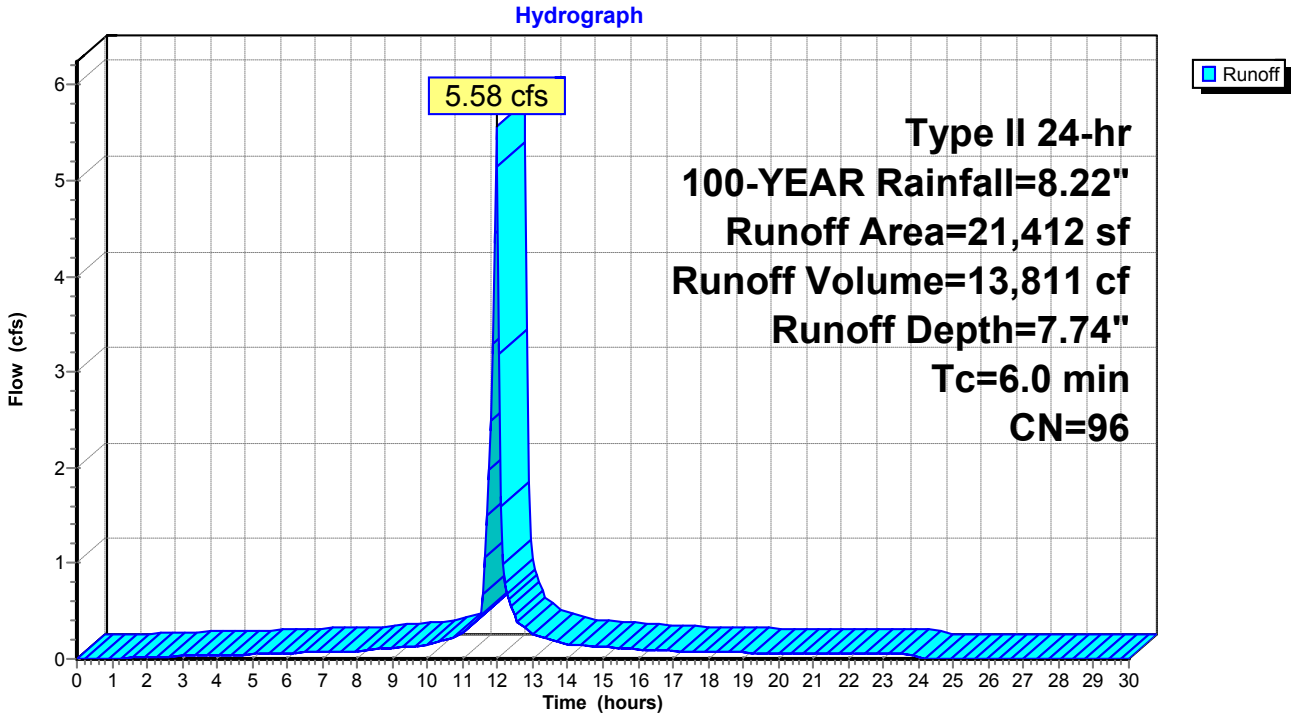
Runoff = 5.58 cfs @ 11.96 hrs, Volume= 13,811 cf, Depth= 7.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
2,951	80	>75% Grass cover, Good, HSG D
17,281	98	Roofs, HSG D
1,180	98	Paved parking, HSG D
21,412	96	Weighted Average
2,951		13.78% Pervious Area
18,461		86.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

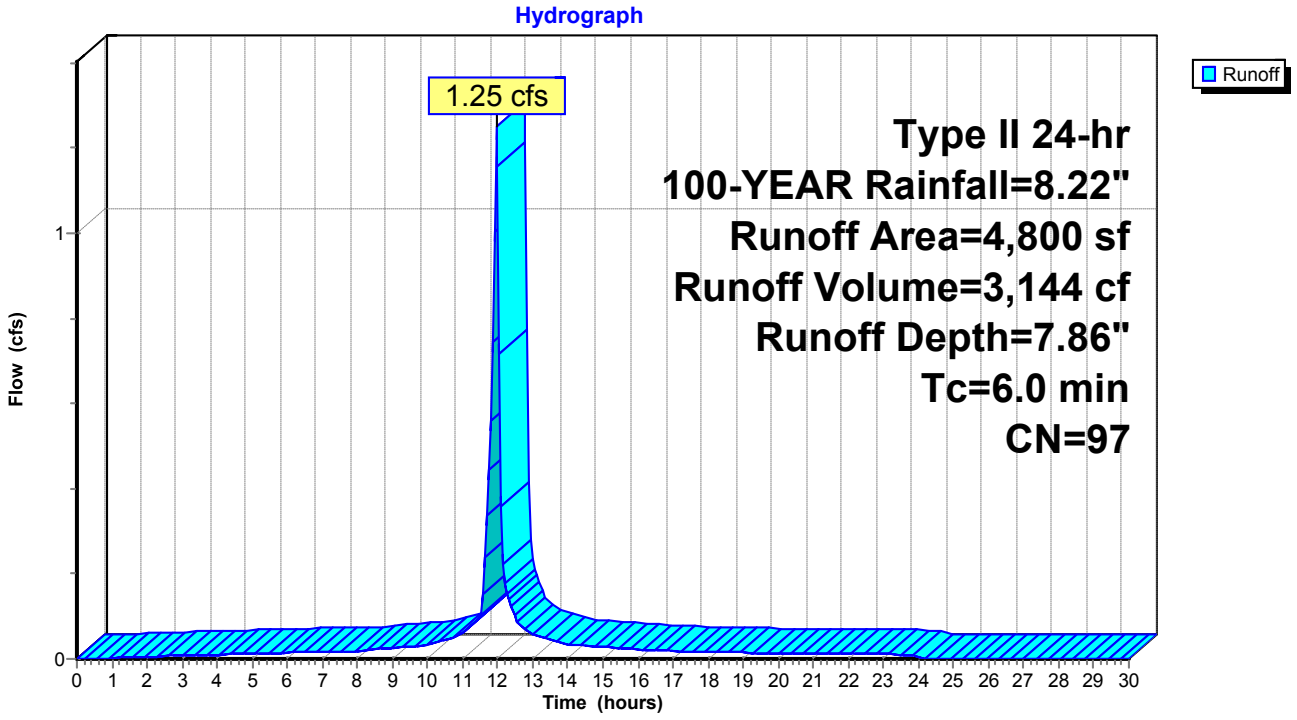
Runoff = 1.25 cfs @ 11.96 hrs, Volume= 3,144 cf, Depth= 7.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
245	80	>75% Grass cover, Good, HSG D
2,933	98	Roofs, HSG D
1,622	98	Paved parking, HSG D
4,800	97	Weighted Average
245		5.10% Pervious Area
4,555		94.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

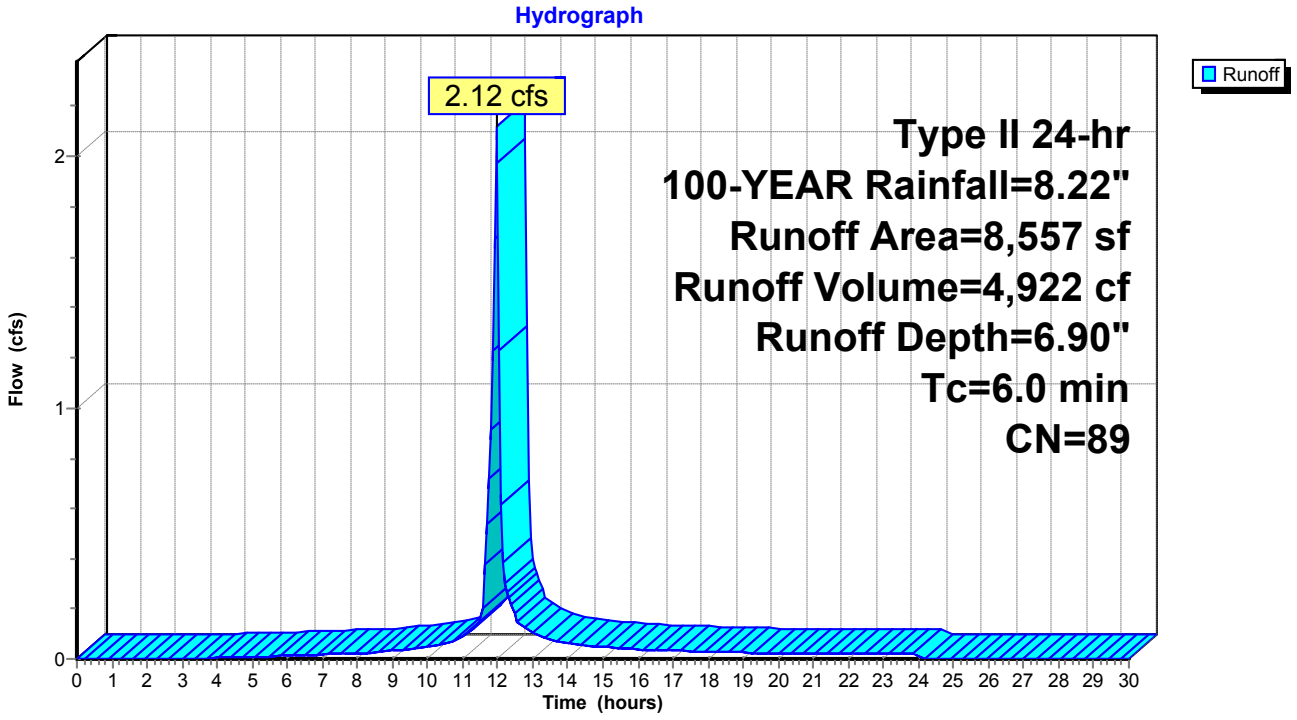
Runoff = 2.12 cfs @ 11.96 hrs, Volume= 4,922 cf, Depth= 6.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
4,132	80	>75% Grass cover, Good, HSG D
3,489	98	Roofs, HSG D
936	98	Paved parking, HSG D
8,557	89	Weighted Average
4,132		48.29% Pervious Area
4,425		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-12: DRAINAGE AREA 12

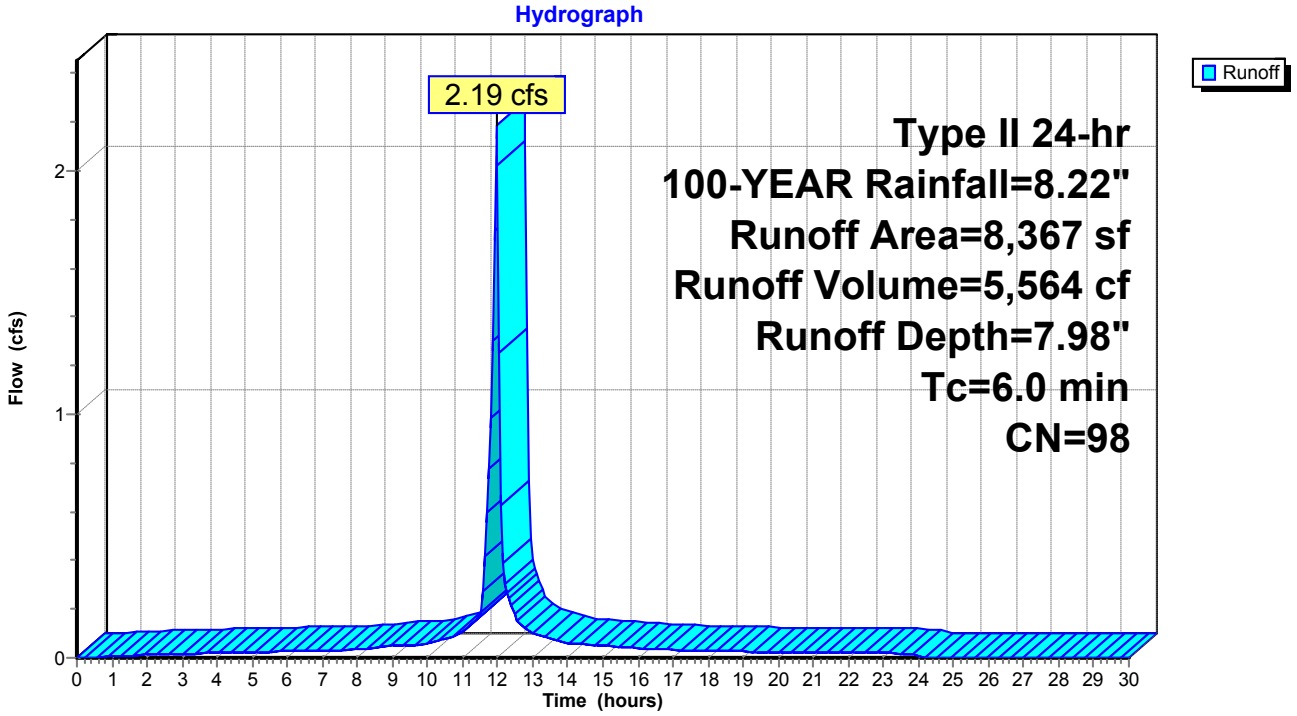
Runoff = 2.19 cfs @ 11.96 hrs, Volume= 5,564 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
8,367	98	Roofs, HSG D
8,367		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-12: DRAINAGE AREA 12



Summary for Subcatchment DA-13: DA-13

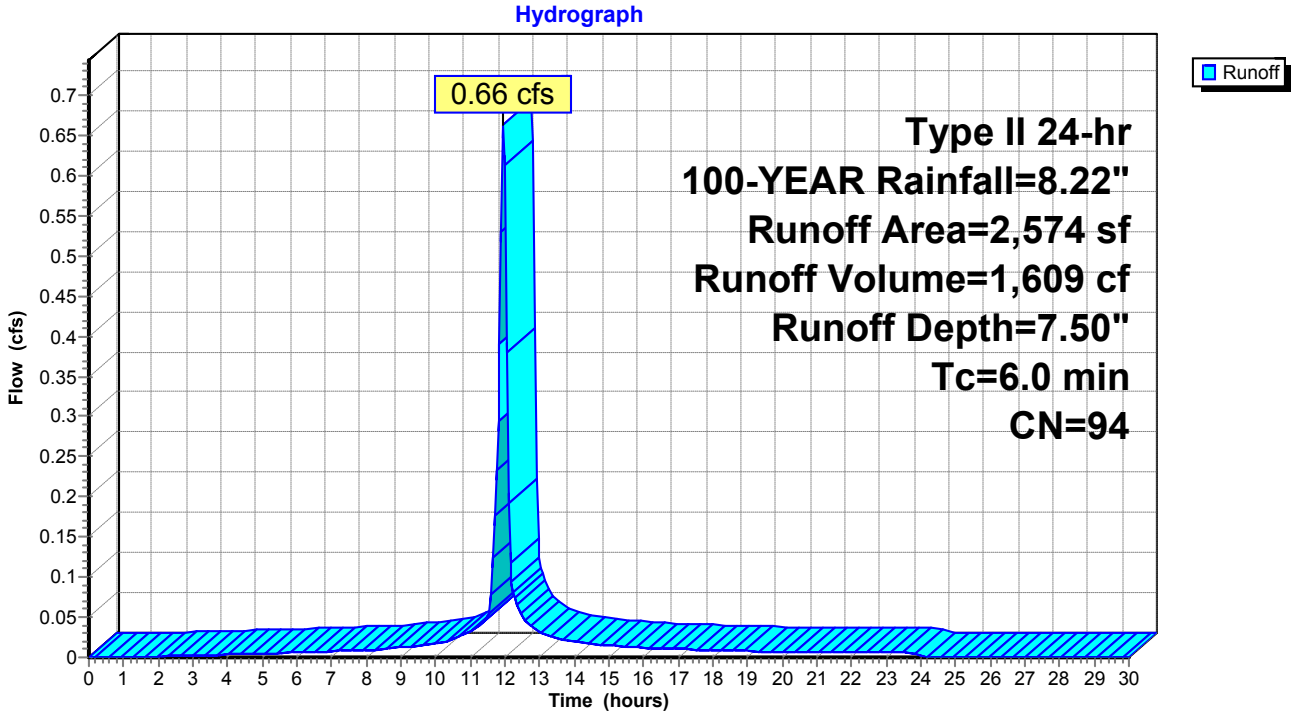
Runoff = 0.66 cfs @ 11.96 hrs, Volume= 1,609 cf, Depth= 7.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
526	80	>75% Grass cover, Good, HSG D
2,048	98	Paved parking, HSG D
2,574	94	Weighted Average
526		20.44% Pervious Area
2,048		79.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-13: DA-13



Summary for Subcatchment DA-14: DRAINAGE AREA 14

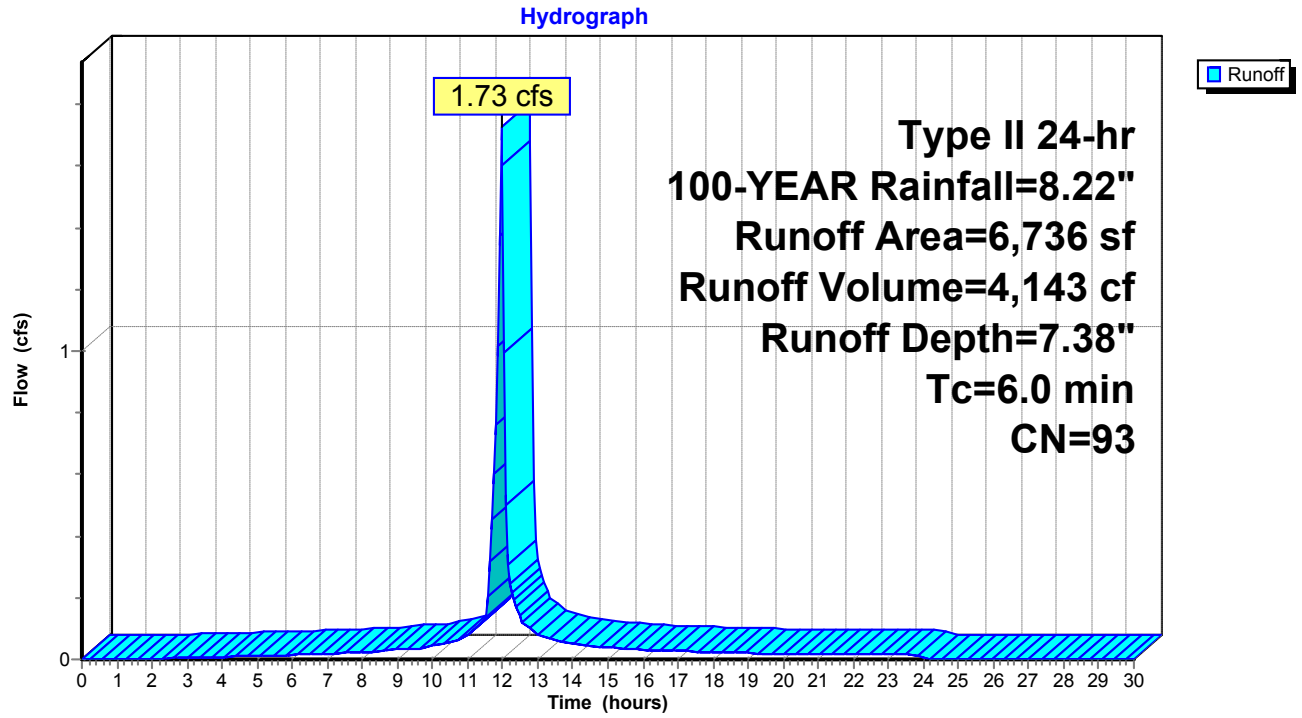
Runoff = 1.73 cfs @ 11.96 hrs, Volume= 4,143 cf, Depth= 7.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
2,039	80	>75% Grass cover, Good, HSG D
4,697	98	Paved parking, HSG D
6,736	93	Weighted Average
2,039		30.27% Pervious Area
4,697		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-14: DRAINAGE AREA 14



Summary for Subcatchment DA-15: DA-15

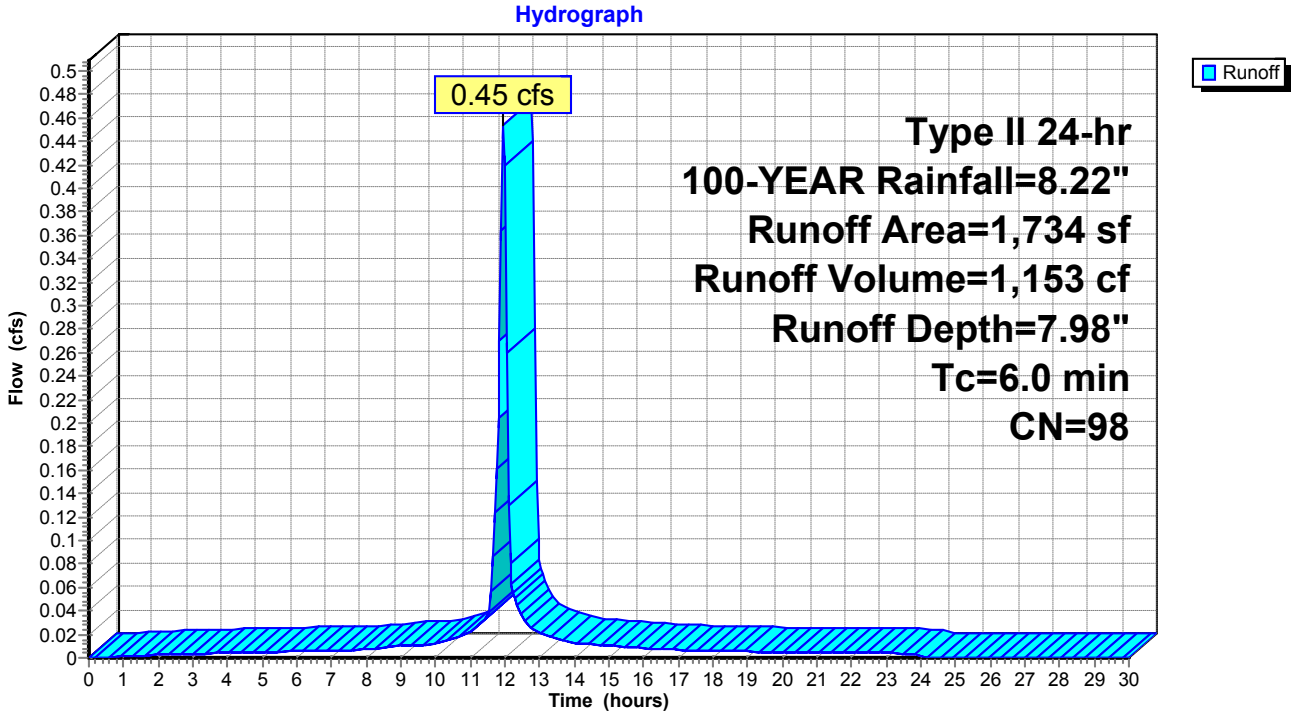
Runoff = 0.45 cfs @ 11.96 hrs, Volume= 1,153 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,734	98	Roofs, HSG D
1,734		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-15: DA-15



Summary for Subcatchment DA-16: DA-16

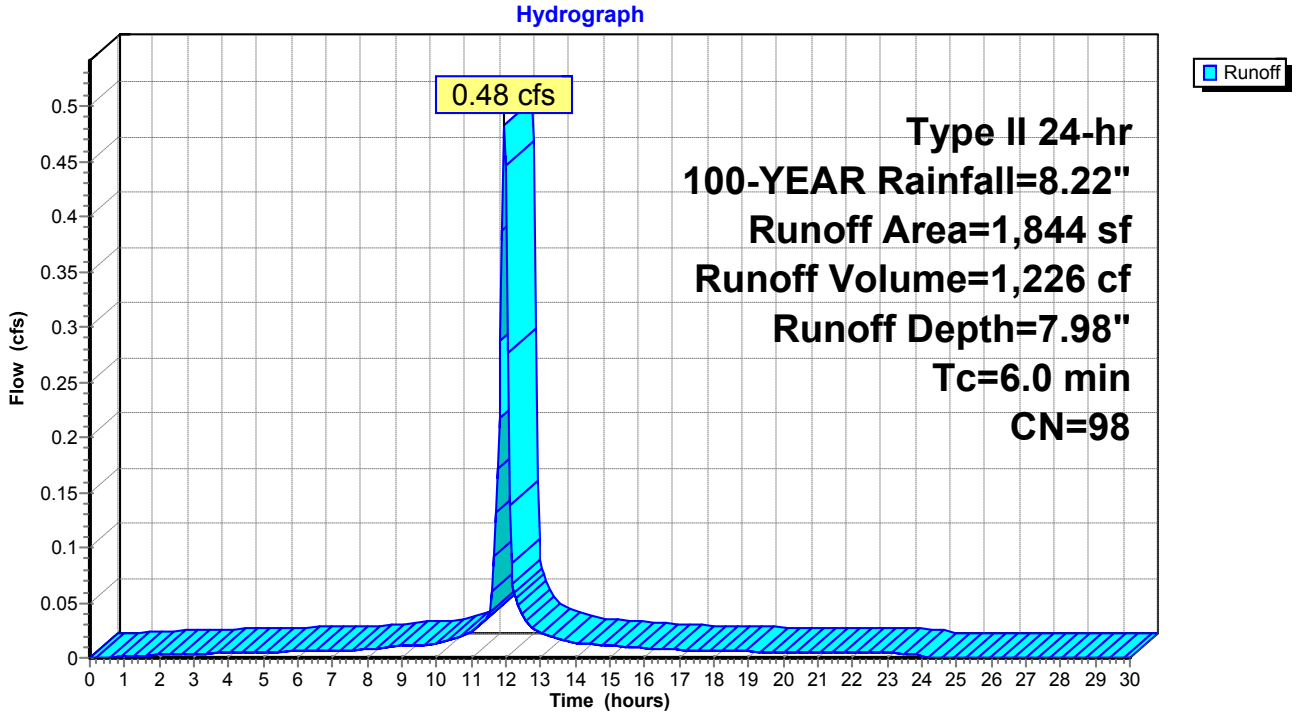
Runoff = 0.48 cfs @ 11.96 hrs, Volume= 1,226 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,844	98	Roofs, HSG D
1,844		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-16: DA-16



Summary for Subcatchment DA-17: DA-17

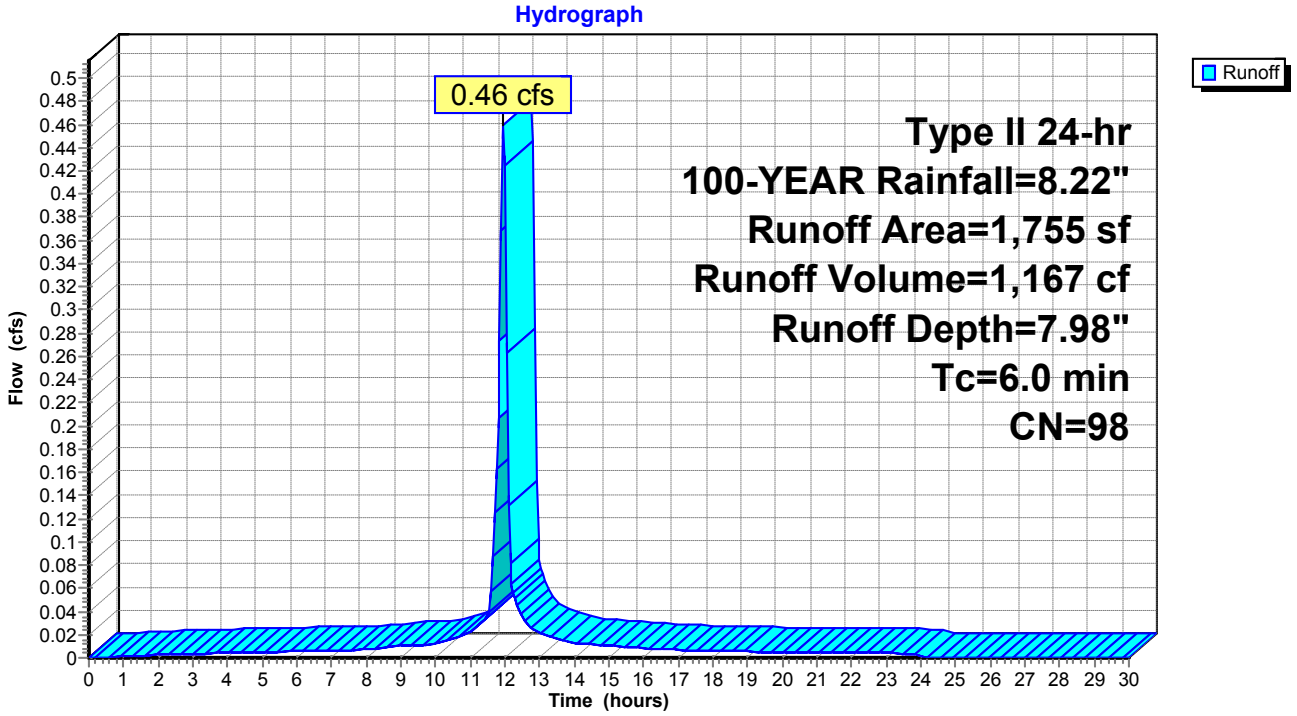
Runoff = 0.46 cfs @ 11.96 hrs, Volume= 1,167 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,755	98	Roofs, HSG D
1,755		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-17: DA-17



Summary for Subcatchment DA-18: DRAINAGE AREA 18

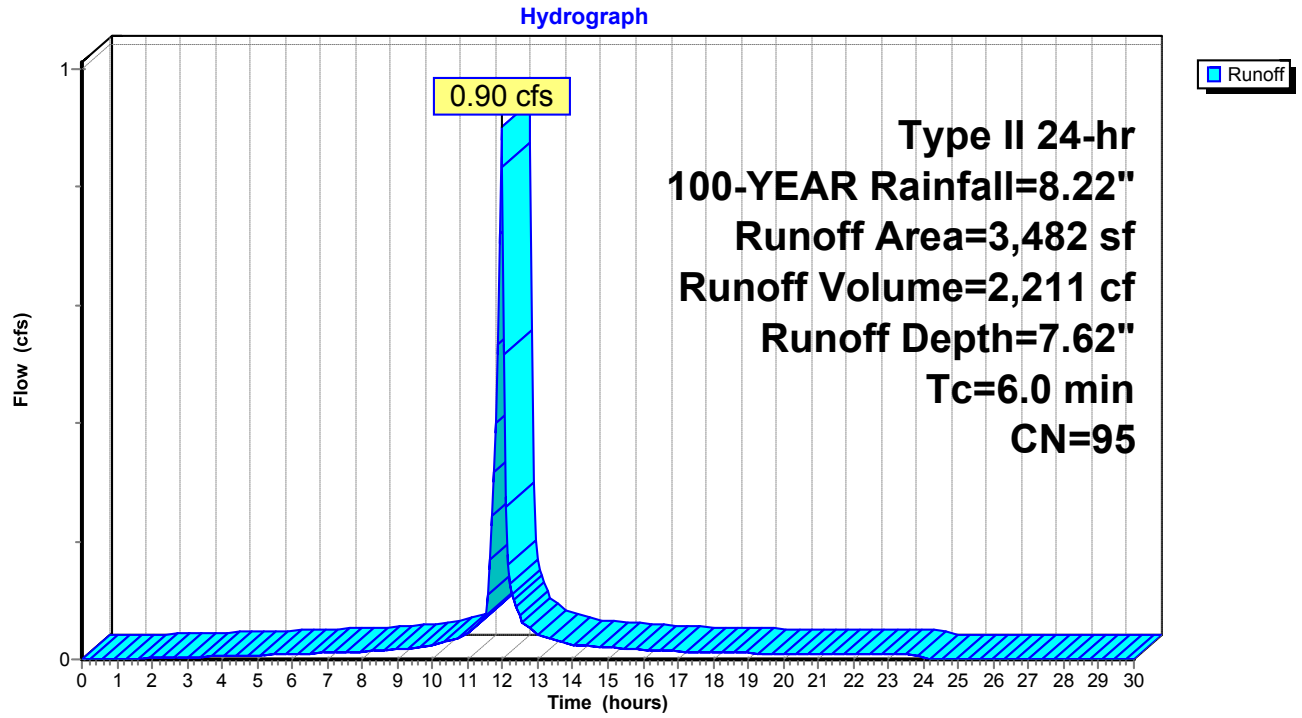
Runoff = 0.90 cfs @ 11.96 hrs, Volume= 2,211 cf, Depth= 7.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
489	80	>75% Grass cover, Good, HSG D
2,993	98	Paved parking, HSG D
3,482	95	Weighted Average
489		14.04% Pervious Area
2,993		85.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-18: DRAINAGE AREA 18



Summary for Subcatchment DA-2: DA-2

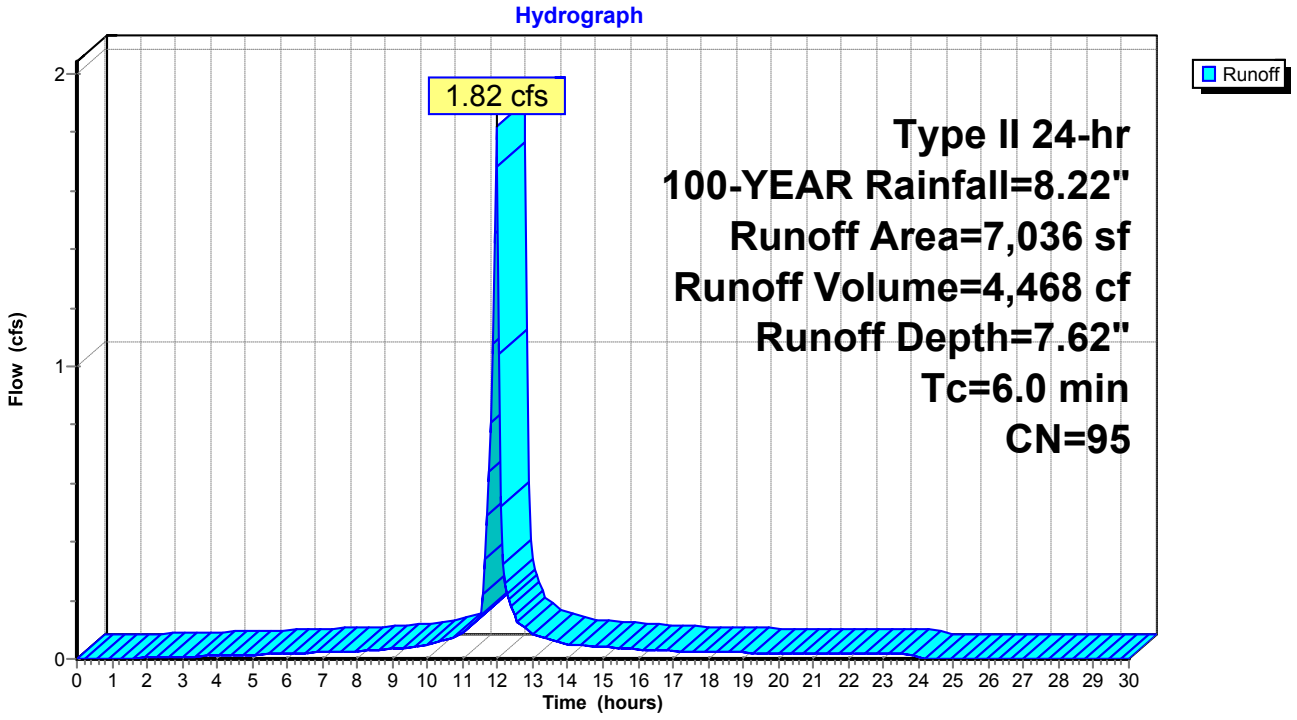
Runoff = 1.82 cfs @ 11.96 hrs, Volume= 4,468 cf, Depth= 7.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,178	80	>75% Grass cover, Good, HSG D
5,194	98	Roofs, HSG D
664	98	Paved parking, HSG D
7,036	95	Weighted Average
1,178		16.74% Pervious Area
5,858		83.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DRAINAGE AREA 3

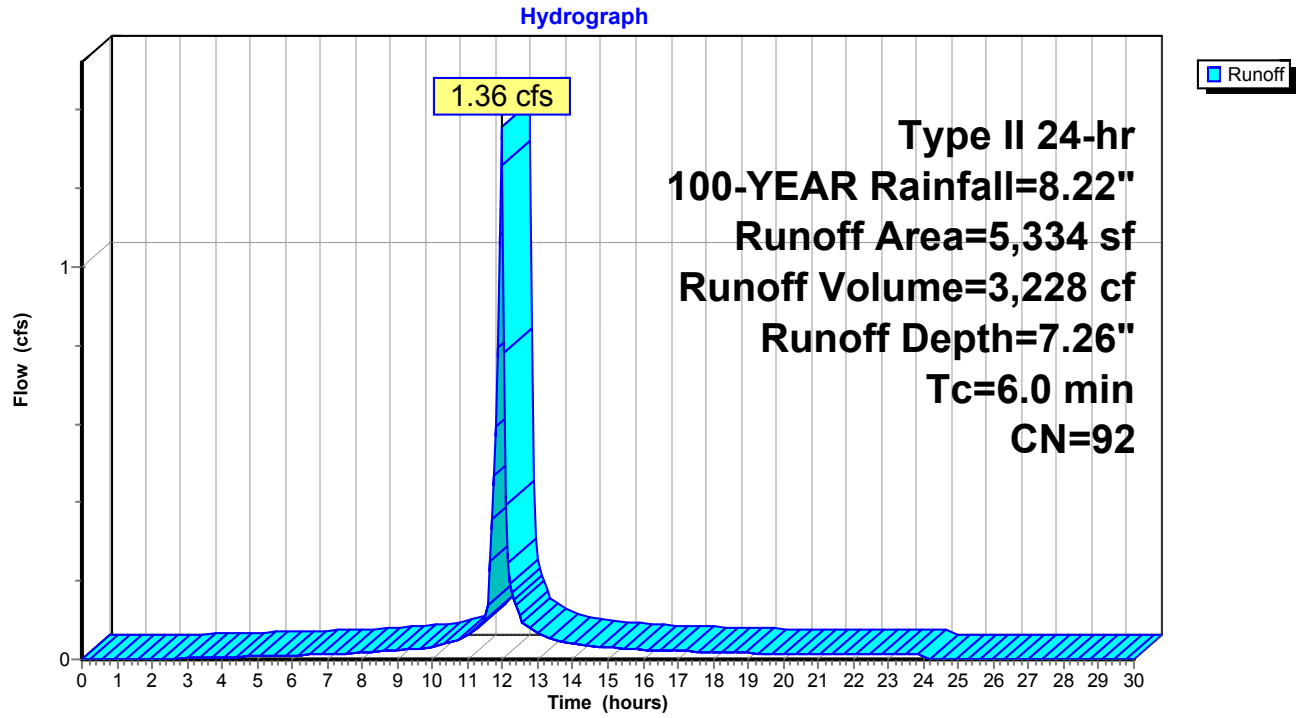
Runoff = 1.36 cfs @ 11.96 hrs, Volume= 3,228 cf, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,820	80	>75% Grass cover, Good, HSG D
3,514	98	Paved parking, HSG D
5,334	92	Weighted Average
1,820		34.12% Pervious Area
3,514		65.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-3: DRAINAGE AREA 3



Summary for Subcatchment DA-4: DRAINAGE AREA 4

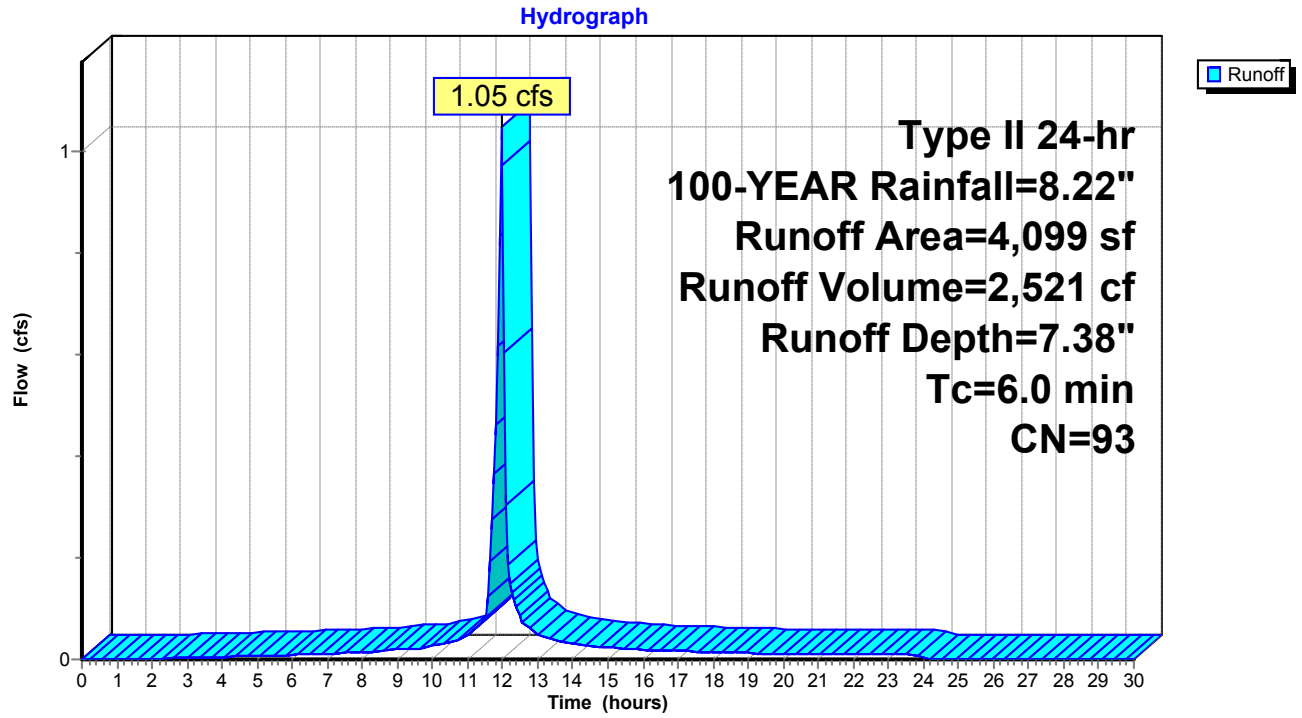
Runoff = 1.05 cfs @ 11.96 hrs, Volume= 2,521 cf, Depth= 7.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,032	80	>75% Grass cover, Good, HSG D
3,067	98	Paved parking, HSG D
4,099	93	Weighted Average
1,032		25.18% Pervious Area
3,067		74.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-4: DRAINAGE AREA 4



Summary for Subcatchment DA-5: DRAINAGE AREA 5

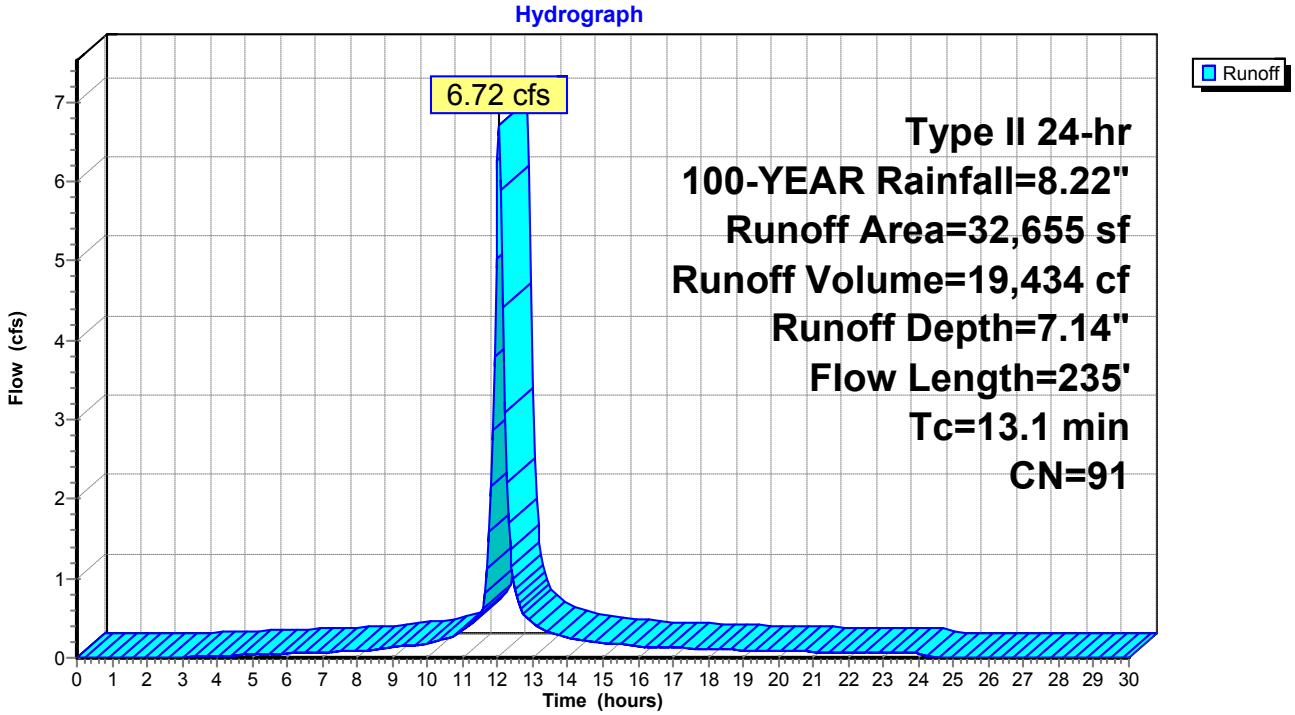
Runoff = 6.72 cfs @ 12.04 hrs, Volume= 19,434 cf, Depth= 7.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
12,737	80	>75% Grass cover, Good, HSG D
19,918	98	Paved parking, HSG D
32,655	91	Weighted Average
12,737		39.00% Pervious Area
19,918		61.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0150	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
1.7	81	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	54	0.0250	3.21		**Shallow Concentrated Flow, C-D** Paved Kv= 20.3 fps
13.1	235	Total			

Subcatchment DA-5: DRAINAGE AREA 5



Summary for Subcatchment DA-6: DA-6

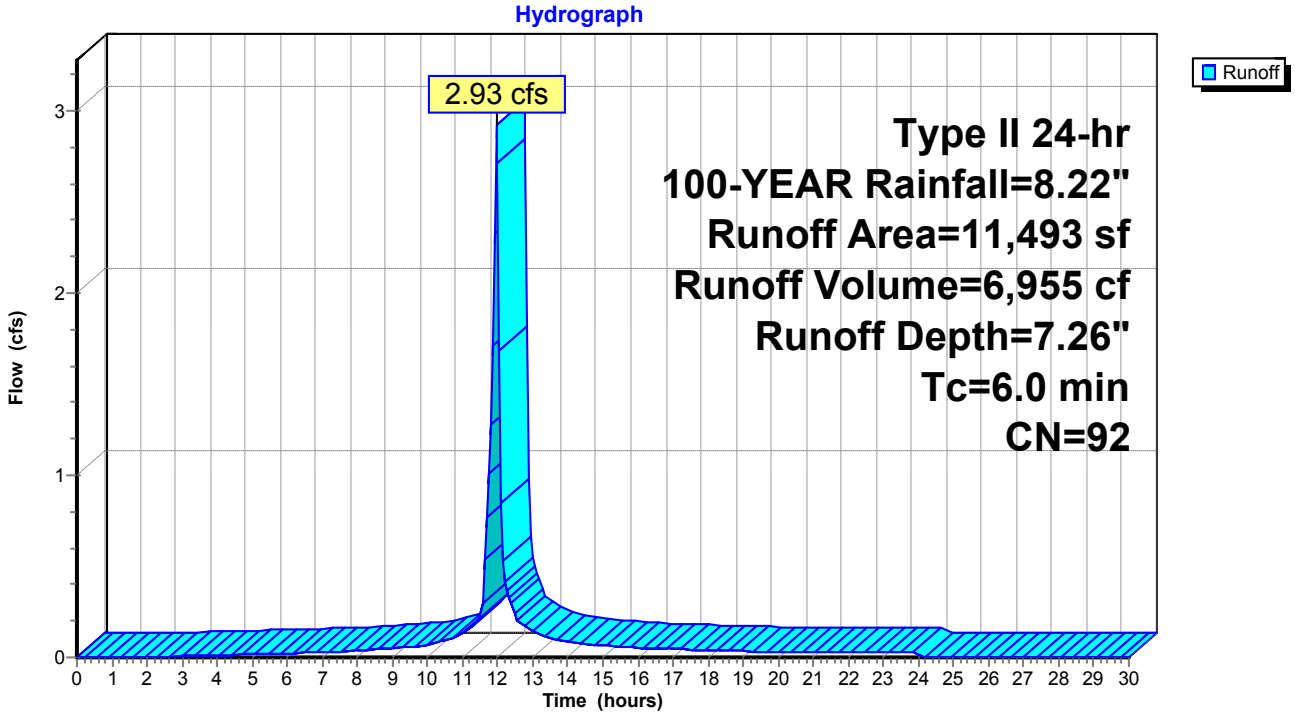
Runoff = 2.93 cfs @ 11.96 hrs, Volume= 6,955 cf, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
3,947	80	>75% Grass cover, Good, HSG D
7,546	98	Paved parking, HSG D
11,493	92	Weighted Average
3,947		34.34% Pervious Area
7,546		65.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

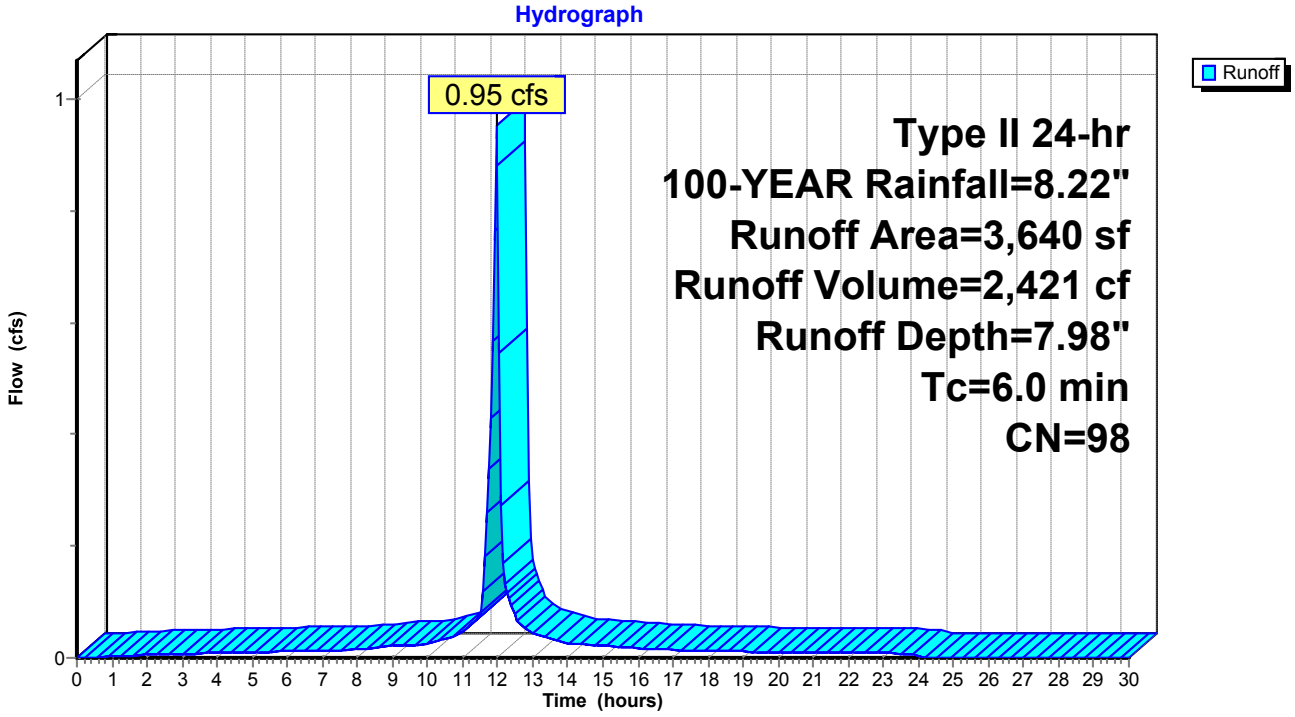
Runoff = 0.95 cfs @ 11.96 hrs, Volume= 2,421 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,587	98	Roofs, HSG D
2,053	98	Paved parking, HSG D
3,640	98	Weighted Average
3,640		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

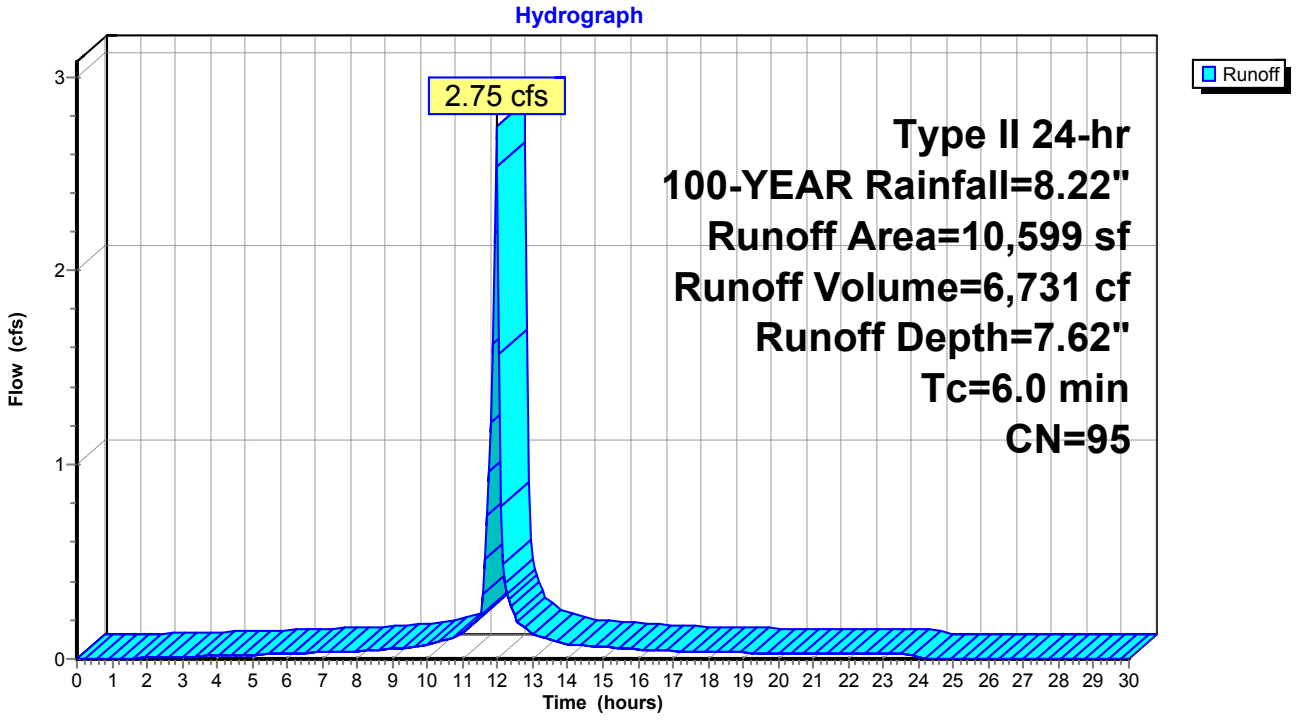
Runoff = 2.75 cfs @ 11.96 hrs, Volume= 6,731 cf, Depth= 7.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,986	80	>75% Grass cover, Good, HSG D
6,900	98	Roofs, HSG D
1,713	98	Paved parking, HSG D
10,599	95	Weighted Average
1,986		18.74% Pervious Area
8,613		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DRAINAGE AREA 9

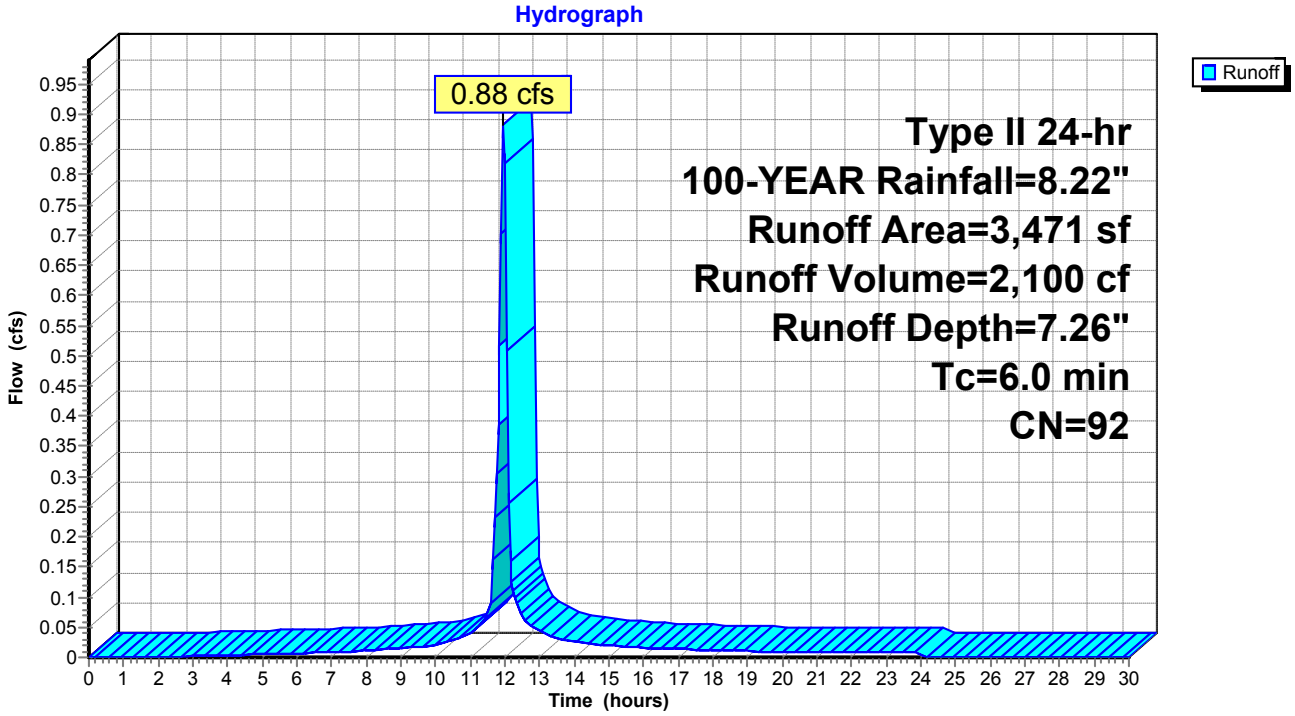
Runoff = 0.88 cfs @ 11.96 hrs, Volume= 2,100 cf, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,195	80	>75% Grass cover, Good, HSG D
2,276	98	Paved parking, HSG D
3,471	92	Weighted Average
1,195		34.43% Pervious Area
2,276		65.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-9: DRAINAGE AREA 9



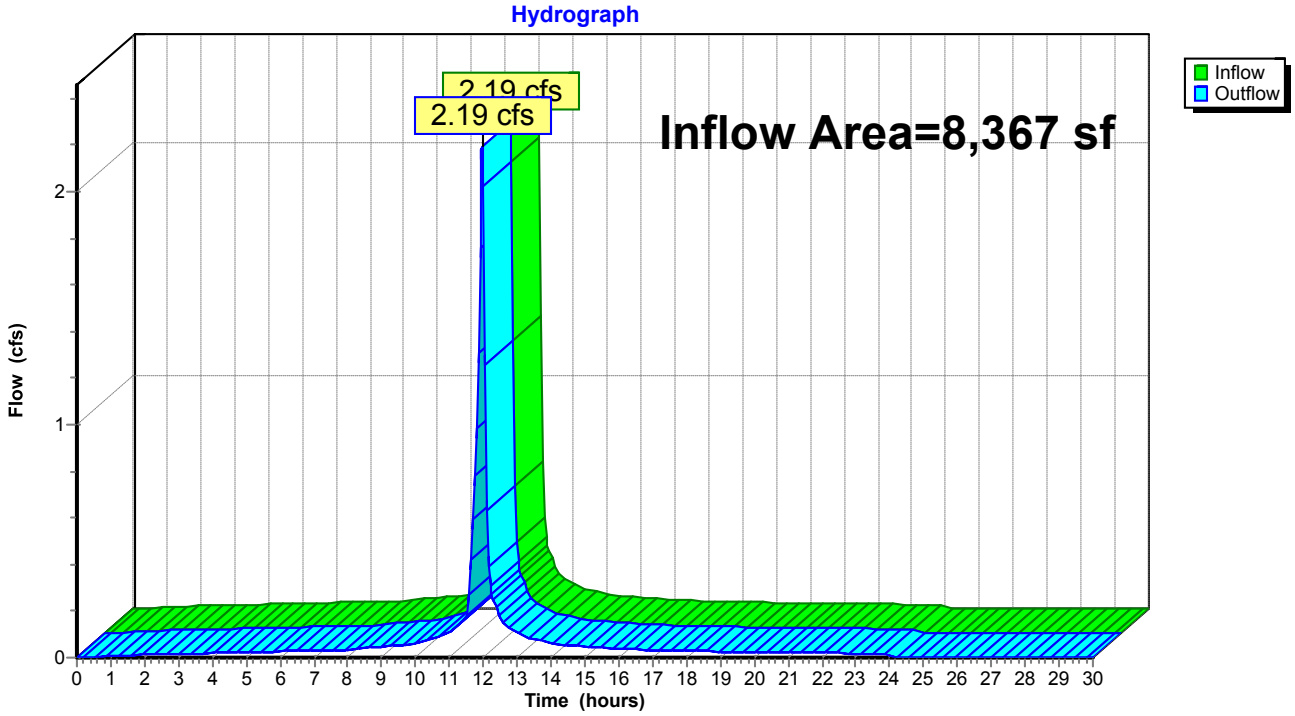
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8,367 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 2.19 cfs @ 11.96 hrs, Volume= 5,564 cf
Outflow = 2.19 cfs @ 11.96 hrs, Volume= 5,564 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 2P: EXISTING DRYWELL

[81] Warning: Exceeded Pond DW-4 by 0.49' @ 22.20 hrs

Inflow Area = 5,334 sf, 65.88% Impervious, Inflow Depth = 23.71" for 100-YEAR event
Inflow = 6.85 cfs @ 12.00 hrs, Volume= 10,541 cf
Outflow = 5.36 cfs @ 12.02 hrs, Volume= 10,541 cf, Atten= 22%, Lag= 1.0 min
Discarded = 0.93 cfs @ 12.02 hrs, Volume= 6,074 cf
Primary = 4.43 cfs @ 12.02 hrs, Volume= 4,467 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.96' @ 12.02 hrs Surf.Area= 1,829 sf Storage= 634 cf

Plug-Flow detention time= 19.4 min calculated for 10,523 cf (100% of inflow)
Center-of-Mass det. time= 19.7 min (771.9 - 752.2)

Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	1,717 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

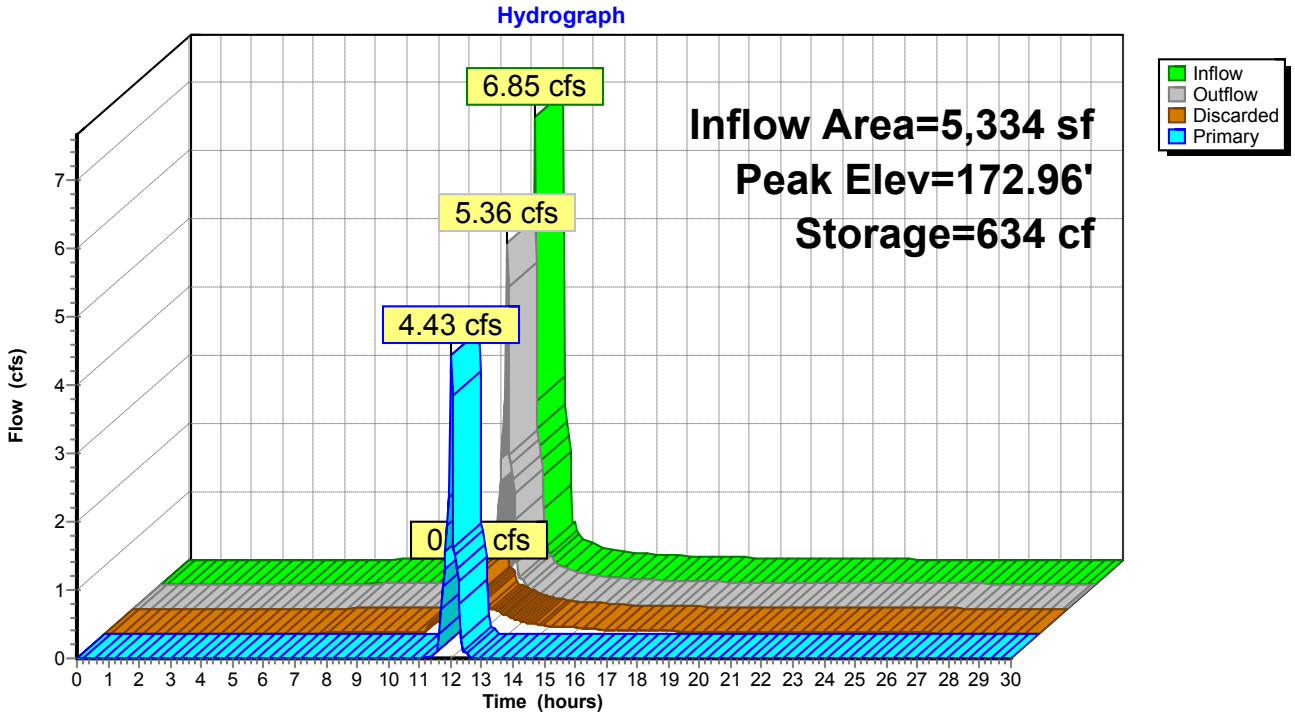
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	2,000	507	717
173.50	2,000	1,000	1,717

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**
#2	Primary	172.65'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.90 cfs @ 12.02 hrs HW=172.94' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.90 cfs)

Primary OutFlow Max=4.16 cfs @ 12.02 hrs HW=172.94' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 4.16 cfs @ 1.77 fps)

Pond 2P: EXISTING DRYWELL



Summary for Pond 3P: PROPOSED CB #3

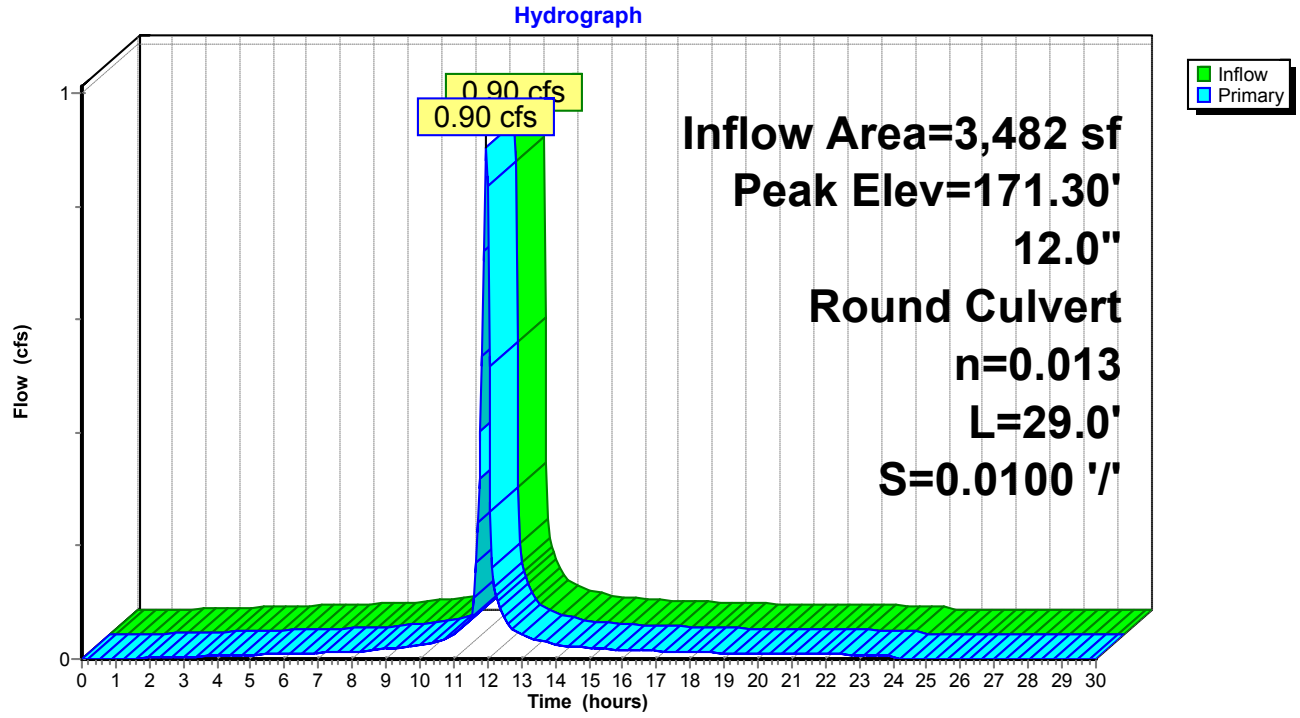
Inflow Area = 3,482 sf, 85.96% Impervious, Inflow Depth = 7.62" for 100-YEAR event
Inflow = 0.90 cfs @ 11.96 hrs, Volume= 2,211 cf
Outflow = 0.90 cfs @ 11.96 hrs, Volume= 2,211 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.90 cfs @ 11.96 hrs, Volume= 2,211 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.30' @ 11.96 hrs
Flood Elev= 172.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.74'	**12.0" Round Culvert** L= 29.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.74' / 170.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.88 cfs @ 11.96 hrs HW=171.29' (Free Discharge)
1=Culvert (Inlet Controls 0.88 cfs @ 1.99 fps)

Pond 3P: PROPOSED CB #3



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond CB-2 by 2.85' @ 12.20 hrs

Inflow	=	2.32 cfs @	11.96 hrs,	Volume=	7,262 cf
Outflow	=	1.36 cfs @	12.06 hrs,	Volume=	7,262 cf, Atten= 42%, Lag= 5.7 min
Discarded	=	1.36 cfs @	12.06 hrs,	Volume=	7,262 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.66' @ 12.06 hrs Surf.Area= 2,666 sf Storage= 1,126 cf

Plug-Flow detention time= 34.9 min calculated for 7,250 cf (100% of inflow)
Center-of-Mass det. time= 35.1 min (788.0 - 752.9)

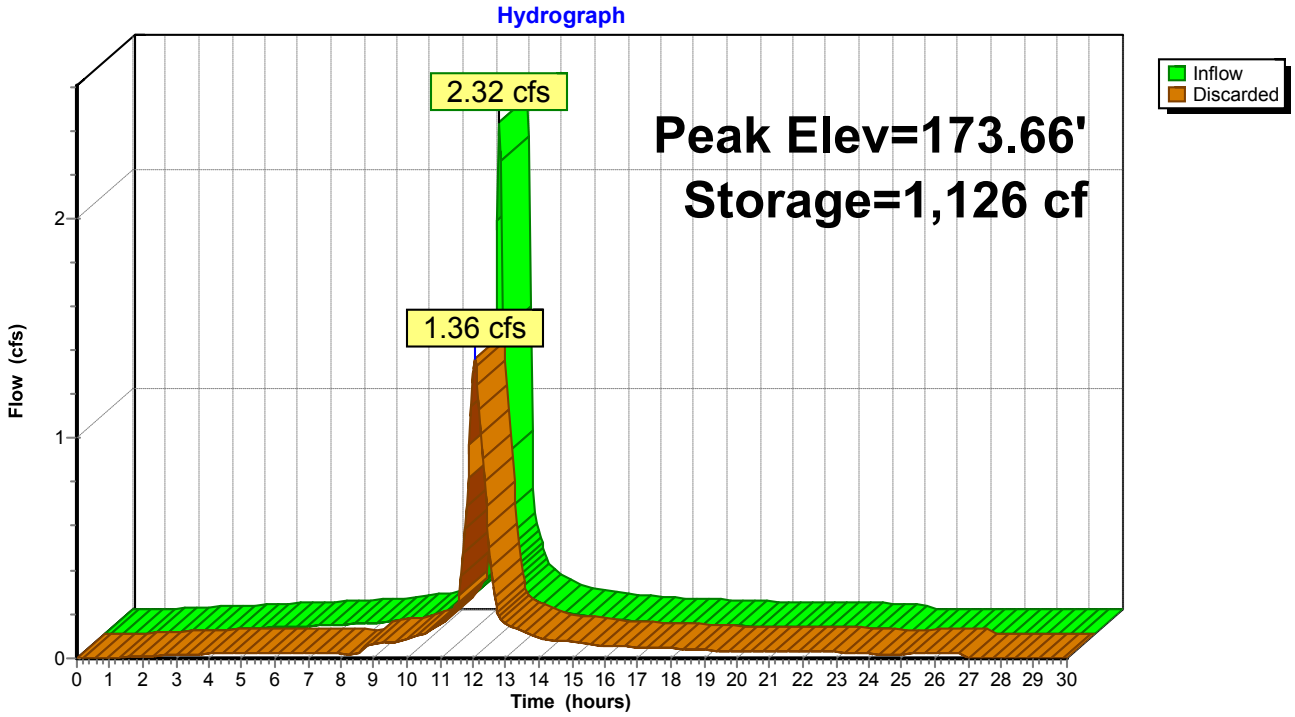
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	112	7	213
174.00	4,000	2,056	2,269

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.35 cfs @ 12.06 hrs HW=173.65' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.35 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 8P: EXISTING YARD DRAIN

[58] Hint: Peaked 143.68' above defined flood level

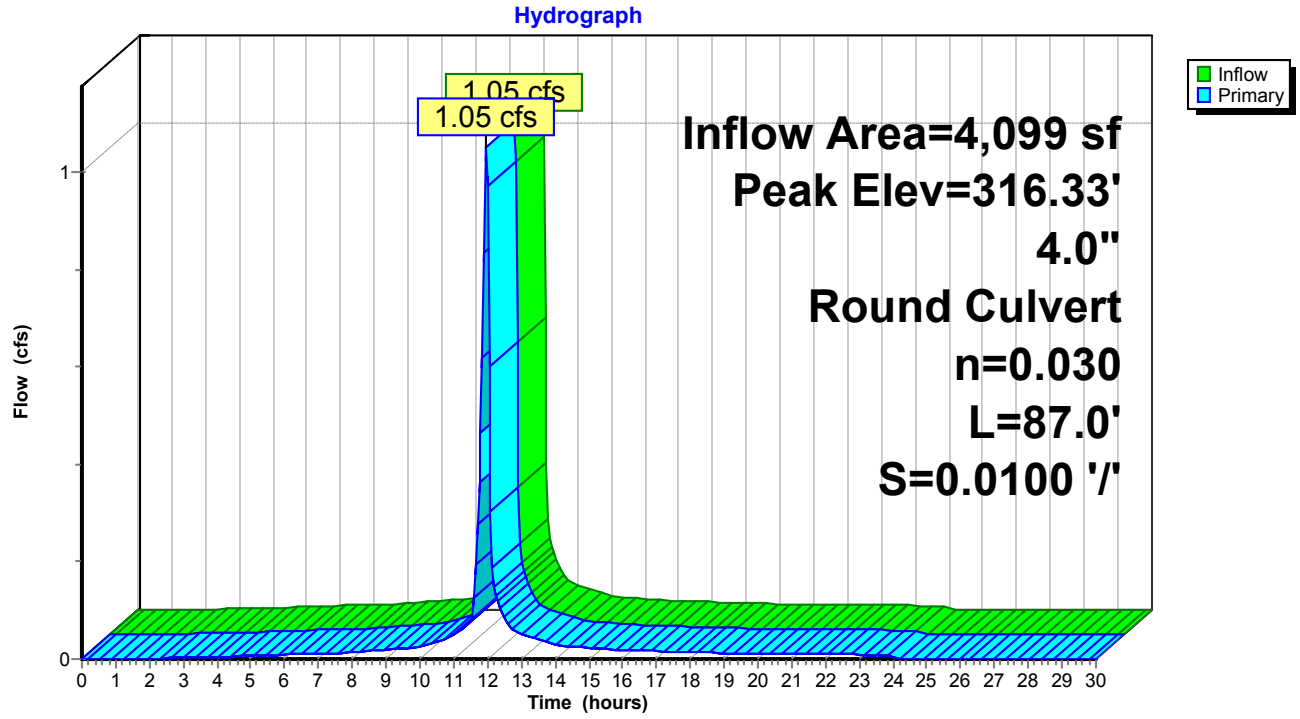
Inflow Area = 4,099 sf, 74.82% Impervious, Inflow Depth = 7.38" for 100-YEAR event
Inflow = 1.05 cfs @ 11.96 hrs, Volume= 2,521 cf
Outflow = 1.05 cfs @ 11.96 hrs, Volume= 2,521 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.05 cfs @ 11.96 hrs, Volume= 2,521 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 316.33' @ 11.96 hrs
Flood Elev= 172.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.030, Flow Area= 0.09 sf

Primary OutFlow Max=1.03 cfs @ 11.96 hrs HW=309.86' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.03 cfs @ 11.76 fps)

Pond 8P: EXISTING YARD DRAIN



Summary for Pond 12P: EXISTING CB

[58] Hint: Peaked 4.38' above defined flood level
[81] Warning: Exceeded Pond 3P by 5.19' @ 12.05 hrs

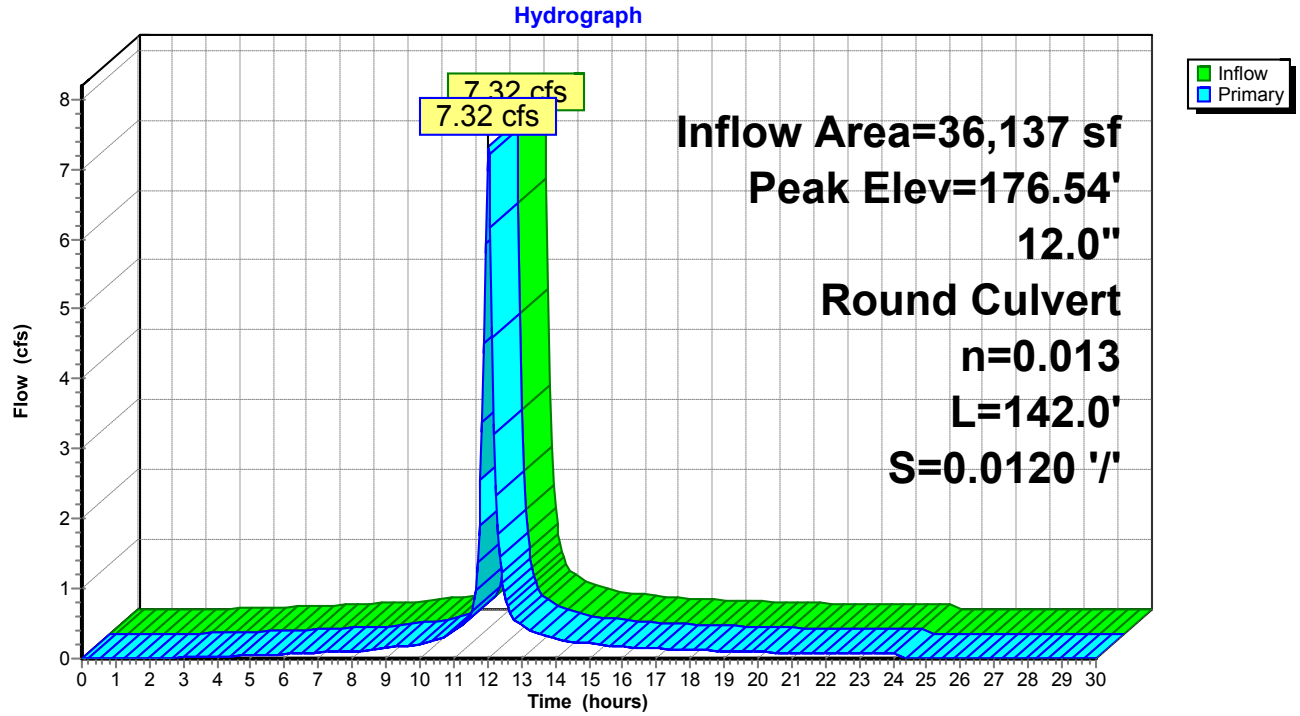
Inflow Area = 36,137 sf, 63.40% Impervious, Inflow Depth = 7.19" for 100-YEAR event
Inflow = 7.32 cfs @ 12.03 hrs, Volume= 21,646 cf
Outflow = 7.32 cfs @ 12.03 hrs, Volume= 21,646 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.32 cfs @ 12.03 hrs, Volume= 21,646 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 176.54' @ 12.03 hrs
Flood Elev= 172.16'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=7.17 cfs @ 12.03 hrs HW=176.24' (Free Discharge)
↑**1=Culvert** (Barrel Controls 7.17 cfs @ 9.13 fps)

Pond 12P: EXISTING CB



Summary for Pond 14P: EXISTING CB

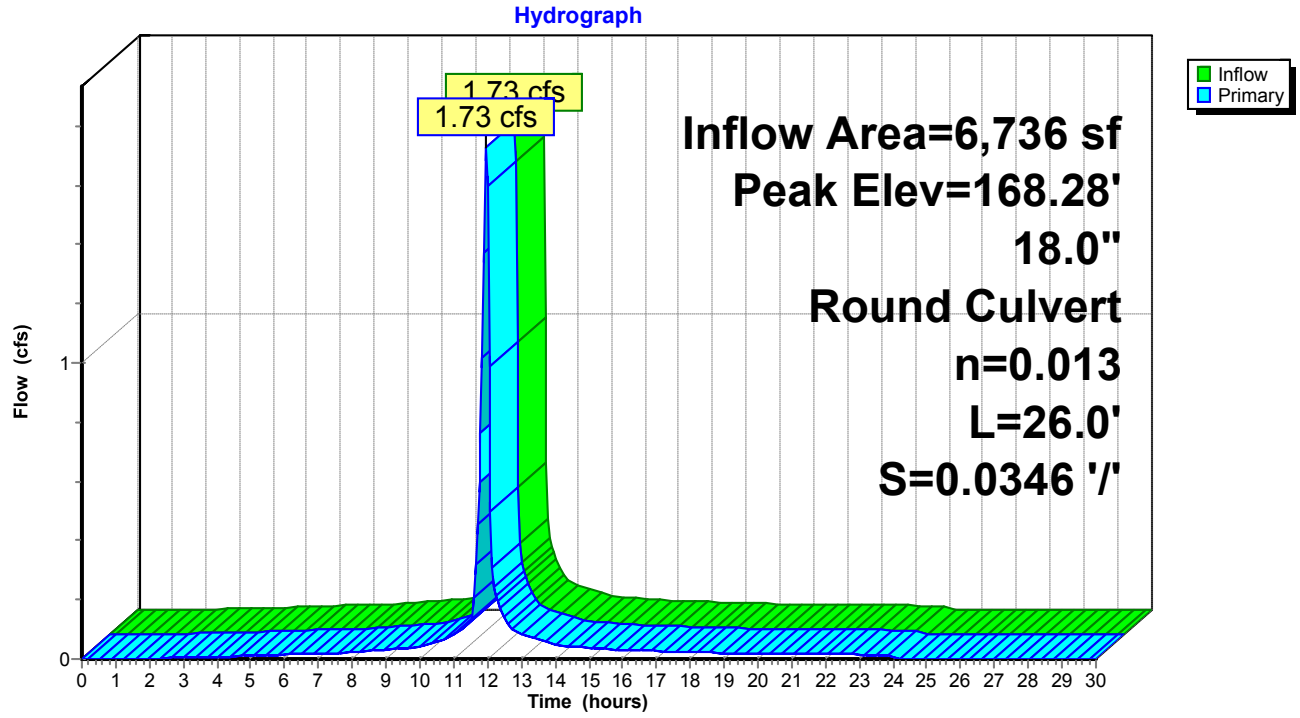
Inflow Area = 6,736 sf, 69.73% Impervious, Inflow Depth = 7.38" for 100-YEAR event
Inflow = 1.73 cfs @ 11.96 hrs, Volume= 4,143 cf
Outflow = 1.73 cfs @ 11.96 hrs, Volume= 4,143 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.73 cfs @ 11.96 hrs, Volume= 4,143 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.28' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=1.68 cfs @ 11.96 hrs HW=168.27' (Free Discharge)
1=Culvert (Inlet Controls 1.68 cfs @ 2.20 fps)

Pond 14P: EXISTING CB



Summary for Pond CB-1: PROPOSED CATCH BASIN #1

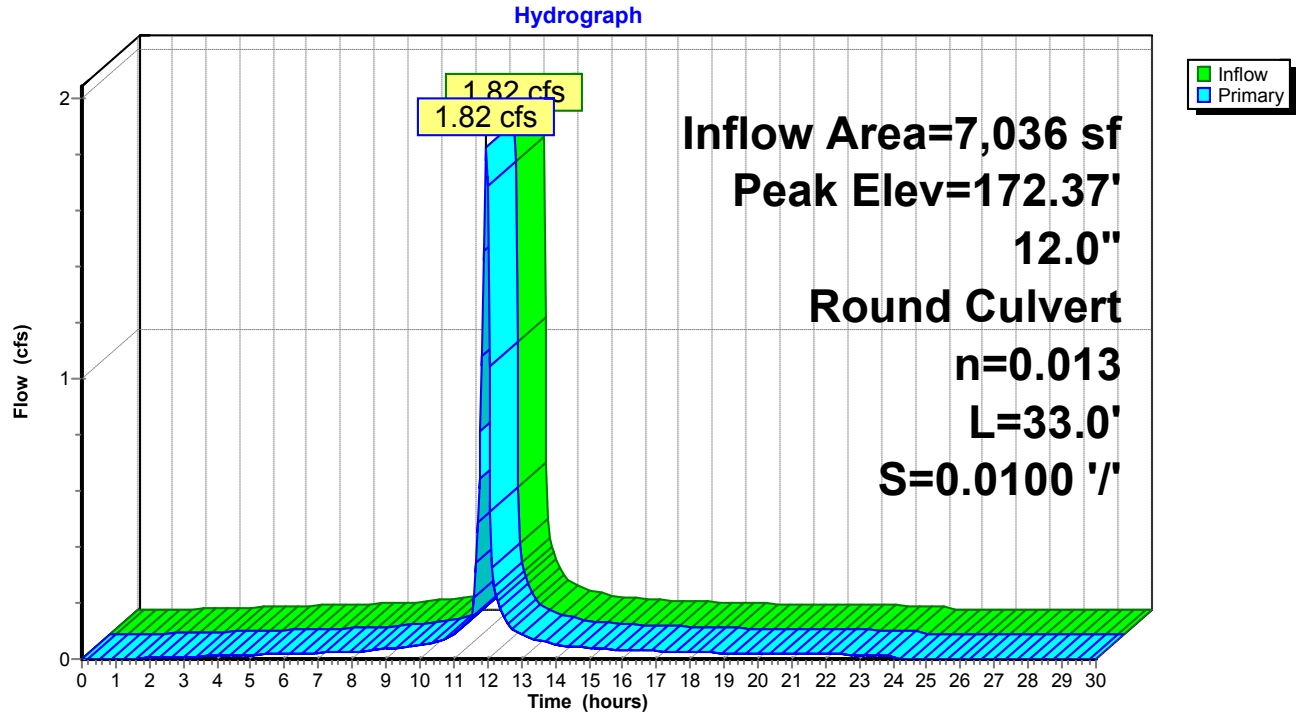
Inflow Area = 7,036 sf, 83.26% Impervious, Inflow Depth = 7.62" for 100-YEAR event
Inflow = 1.82 cfs @ 11.96 hrs, Volume= 4,468 cf
Outflow = 1.82 cfs @ 11.96 hrs, Volume= 4,468 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.82 cfs @ 11.96 hrs, Volume= 4,468 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.37' @ 11.96 hrs
Flood Elev= 172.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.50'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.50' / 171.17' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.78 cfs @ 11.96 hrs HW=172.36' (Free Discharge)
1=Culvert (Inlet Controls 1.78 cfs @ 2.49 fps)

Pond CB-1: PROPOSED CATCH BASIN #1



Summary for Pond CB-2: PR CB #2

[57] Hint: Peaked at 173.64' (Flood elevation advised)
[81] Warning: Exceeded Pond CB-1 by 1.24' @ 11.95 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 7.71" for 100-YEAR event
Inflow = 7.40 cfs @ 11.96 hrs, Volume= 18,279 cf
Outflow = 7.40 cfs @ 11.96 hrs, Volume= 18,279 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.08 cfs @ 11.96 hrs, Volume= 11,017 cf
Secondary = 2.32 cfs @ 11.96 hrs, Volume= 7,262 cf

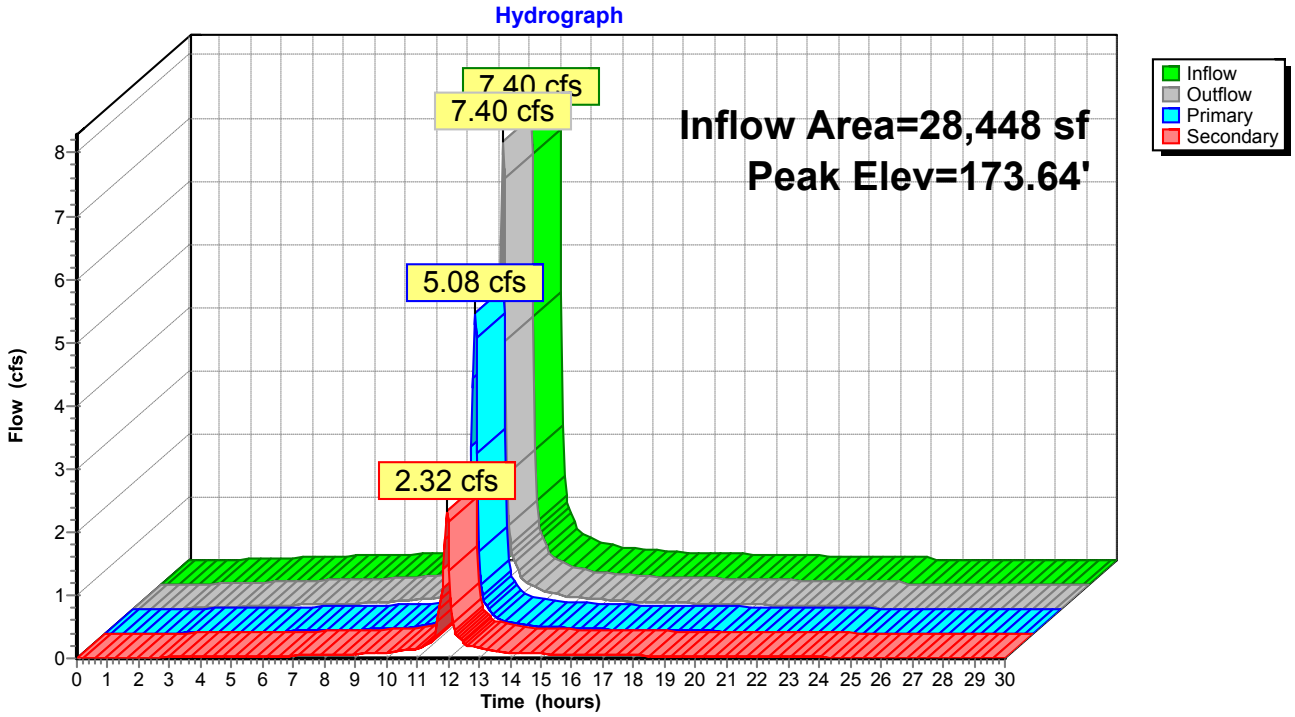
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.64' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.25'	**12.0" Round Culvert** L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	170.25'	**8.0" Round Culvert** L= 12.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=4.96 cfs @ 11.96 hrs HW=173.51' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 4.96 cfs @ 6.32 fps)

Secondary OutFlow Max=2.27 cfs @ 11.96 hrs HW=173.51' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 2.27 cfs @ 6.50 fps)

Pond CB-2: PR CB #2



Summary for Pond DP-1: Existing Catch Basin

[58] Hint: Peaked 0.37' above defined flood level
[79] Warning: Submerged Pond 8P Primary device # 1 INLET by 0.92'
[79] Warning: Submerged Pond 12P Primary device # 1 INLET by 3.52'
[81] Warning: Exceeded Pond 14P by 3.97' @ 12.00 hrs

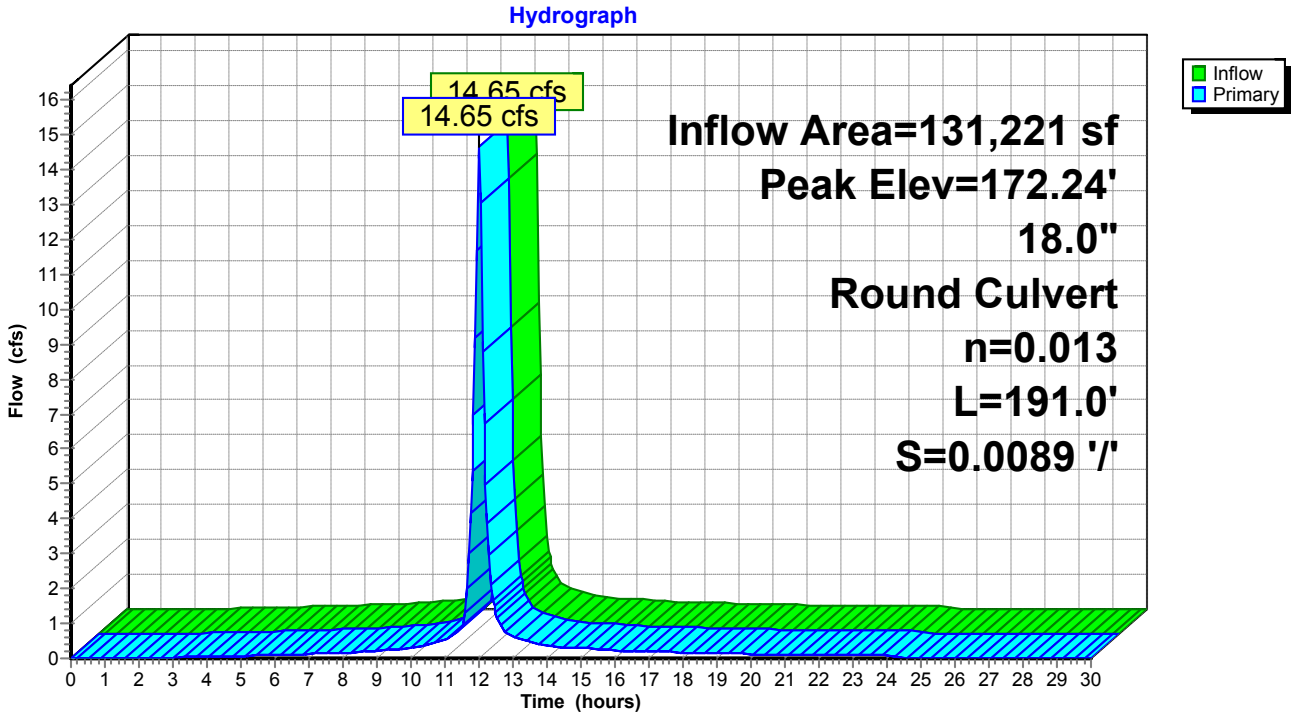
Inflow Area = 131,221 sf, 73.88% Impervious, Inflow Depth = 3.14" for 100-YEAR event
Inflow = 14.65 cfs @ 12.01 hrs, Volume= 34,386 cf
Outflow = 14.65 cfs @ 12.01 hrs, Volume= 34,386 cf, Atten= 0%, Lag= 0.0 min
Primary = 14.65 cfs @ 12.01 hrs, Volume= 34,386 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.24' @ 12.01 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=14.41 cfs @ 12.01 hrs HW=172.07' (Free Discharge)
1=Culvert (Barrel Controls 14.41 cfs @ 8.15 fps)

Pond DP-1: Existing Catch Basin



Summary for Pond DW-1: PROPOSED DRYWELL #1

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)

Inflow Area = 3,471 sf, 65.57% Impervious, Inflow Depth = 7.26" for 100-YEAR event
Inflow = 0.88 cfs @ 11.96 hrs, Volume= 2,100 cf
Outflow = 0.23 cfs @ 11.90 hrs, Volume= 2,100 cf, Atten= 74%, Lag= 0.0 min
Discarded = 0.23 cfs @ 11.90 hrs, Volume= 2,100 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.14' @ 12.12 hrs Surf.Area= 310 sf Storage= 642 cf

Plug-Flow detention time= 33.1 min calculated for 2,097 cf (100% of inflow)
Center-of-Mass det. time= 33.0 min (797.7 - 764.7)

Volume	Invert	Avail.Storage	Storage Description
#1	164.00'	712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	163.00'	38 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 94 cf Overall x 40.0% Voids
		750 cf	Total Available Storage

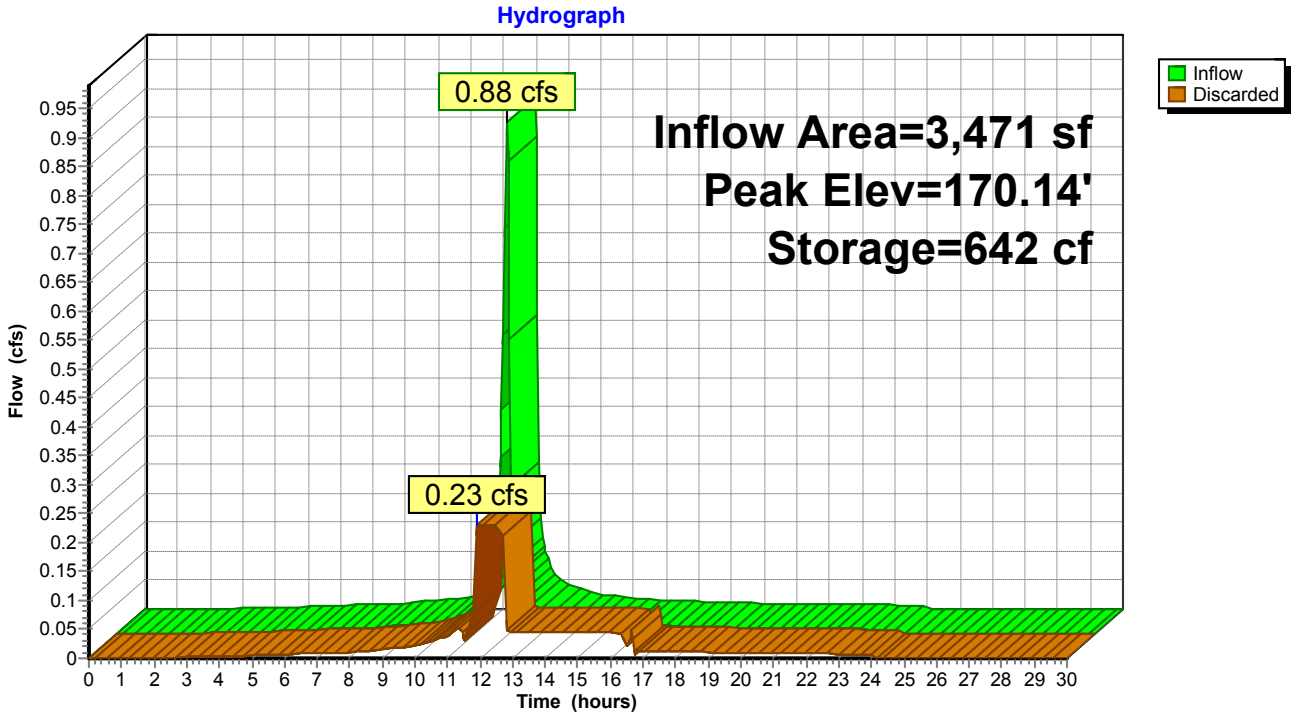
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	50	0	0
168.90	50	245	245
169.00	300	17	262
170.50	300	450	712

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	78	0	0
164.00	10	44	44
169.00	10	50	94

Device	Routing	Invert	Outlet Devices
#1	Discarded	163.00'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.23 cfs @ 11.90 hrs HW=169.08' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.23 cfs)

Pond DW-1: PROPOSED DRYWELL #1



Summary for Pond DW-2: PROPOSED DRYWELL #2

[81] Warning: Exceeded Pond YD-2 by 2.78' @ 18.20 hrs

Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 7.25" for 100-YEAR event
Inflow = 3.38 cfs @ 11.96 hrs, Volume= 8,066 cf
Outflow = 2.58 cfs @ 12.02 hrs, Volume= 8,068 cf, Atten= 24%, Lag= 3.7 min
Discarded = 2.58 cfs @ 12.02 hrs, Volume= 8,068 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.89' @ 12.02 hrs Surf.Area= 3,487 sf Storage= 1,134 cf

Plug-Flow detention time= 42.7 min calculated for 8,055 cf (100% of inflow)
Center-of-Mass det. time= 42.9 min (805.2 - 762.3)

Volume	Invert	Avail.Storage	Storage Description
#1	167.78'	1,499 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	166.50'	53 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 134 cf Overall x 40.0% Voids
		1,552 cf	Total Available Storage

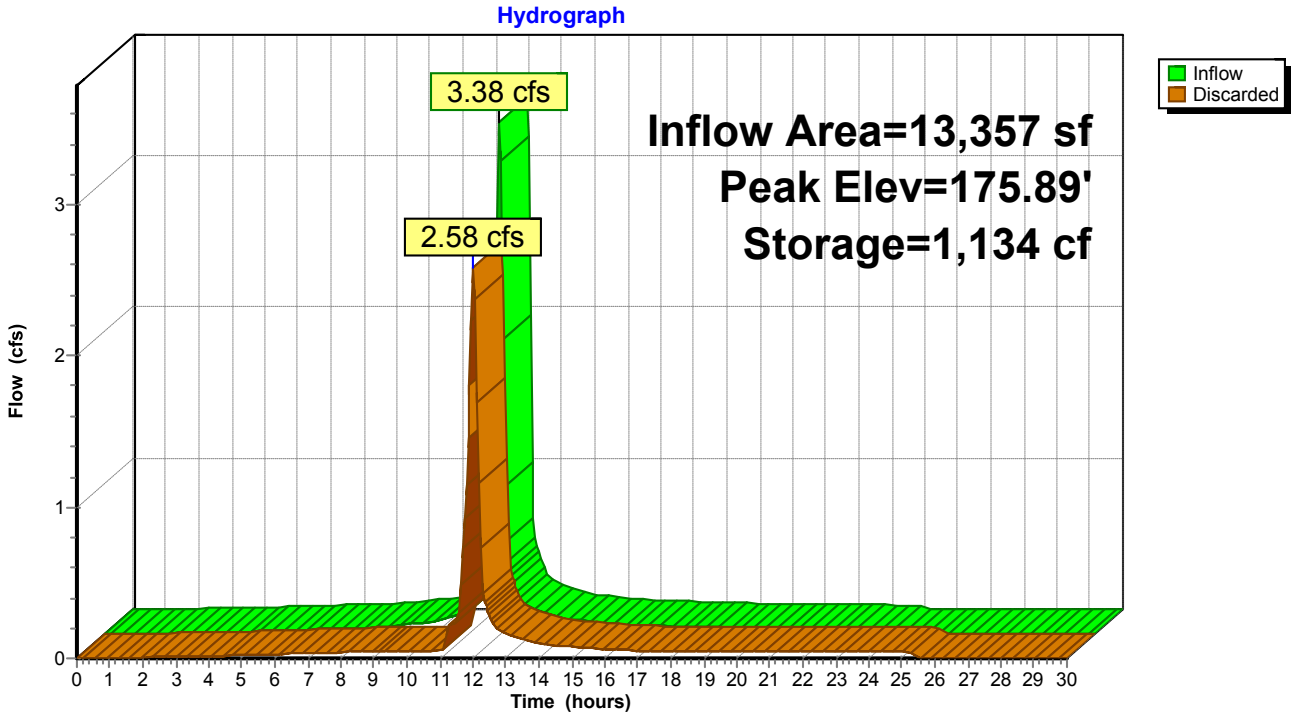
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.78	50	0	0
175.50	50	386	386
176.00	4,400	1,113	1,499

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.50	78	0	0
167.78	10	56	56
175.50	10	77	134

Device	Routing	Invert	Outlet Devices
#1	Discarded	166.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.54 cfs @ 12.02 hrs HW=175.89' (Free Discharge)
1=Exfiltration (Exfiltration Controls 2.54 cfs)

Pond DW-2: PROPOSED DRYWELL #2



Summary for Pond DW-3: PROPOSED DRYWELL #3

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond YD-4 by 2.09' @ 18.70 hrs

Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 7.71" for 100-YEAR event
Inflow = 3.70 cfs @ 11.96 hrs, Volume= 9,151 cf
Outflow = 2.72 cfs @ 12.03 hrs, Volume= 9,152 cf, Atten= 26%, Lag= 4.0 min
Discarded = 2.72 cfs @ 12.03 hrs, Volume= 9,152 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.96' @ 12.03 hrs Surf.Area= 3,675 sf Storage= 1,295 cf

Plug-Flow detention time= 41.3 min calculated for 9,137 cf (100% of inflow)
Center-of-Mass det. time= 41.5 min (789.9 - 748.4)

Volume	Invert	Avail.Storage	Storage Description
#1	166.69'	1,403 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	165.50'	55 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 138 cf Overall x 40.0% Voids
		1,458 cf	Total Available Storage

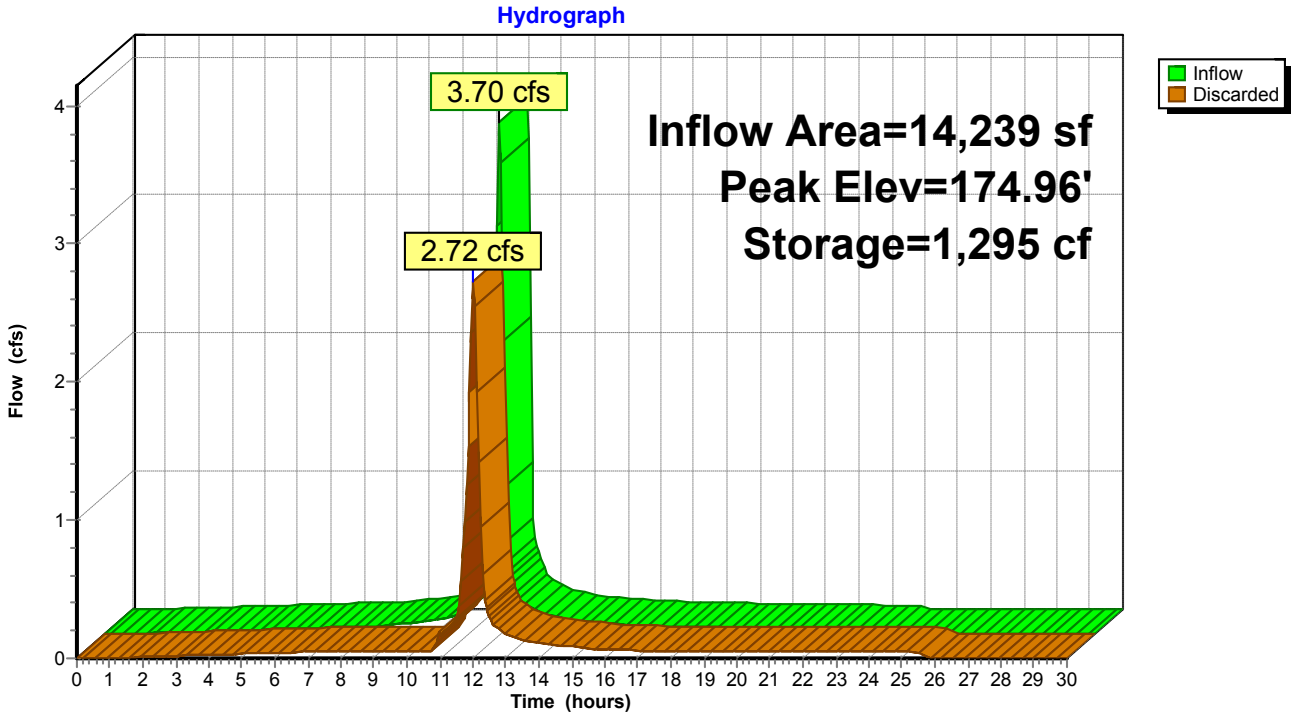
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.69	50	0	0
174.50	50	391	391
175.00	4,000	1,013	1,403

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.50	79	0	0
165.69	79	15	15
166.69	10	45	60
174.50	10	78	138

Device	Routing	Invert	Outlet Devices
#1	Discarded	165.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.68 cfs @ 12.03 hrs HW=174.95' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 2.68 cfs)

Pond DW-3: PROPOSED DRYWELL #3



Summary for Pond DW-4: PROPOSED DRYWELL #4

[93] Warning: Storage range exceeded by 15.56'
[88] Warning: Qout>Qin may require smaller dt or Finer Routing
[81] Warning: Exceeded Pond CB-2 by 16.85' @ 12.00 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 4.65" for 100-YEAR event
Inflow = 5.08 cfs @ 11.96 hrs, Volume= 11,017 cf
Outflow = 6.10 cfs @ 12.00 hrs, Volume= 11,017 cf, Atten= 0%, Lag= 2.3 min
Discarded = 0.51 cfs @ 11.95 hrs, Volume= 3,704 cf
Secondary = 5.59 cfs @ 12.00 hrs, Volume= 7,313 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 190.06' @ 12.00 hrs Surf.Area= 1,010 sf Storage= 1,517 cf

Plug-Flow detention time= 44.1 min calculated for 11,017 cf (100% of inflow)
Center-of-Mass det. time= 44.0 min (790.5 - 746.4)

Volume	Invert	Avail.Storage	Storage Description
#1	165.00'	1,468 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	164.00'	50 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 124 cf Overall x 40.0% Voids
		1,517 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.00	55	0	0
173.00	55	440	440
174.00	1,000	528	968
174.50	1,000	500	1,468

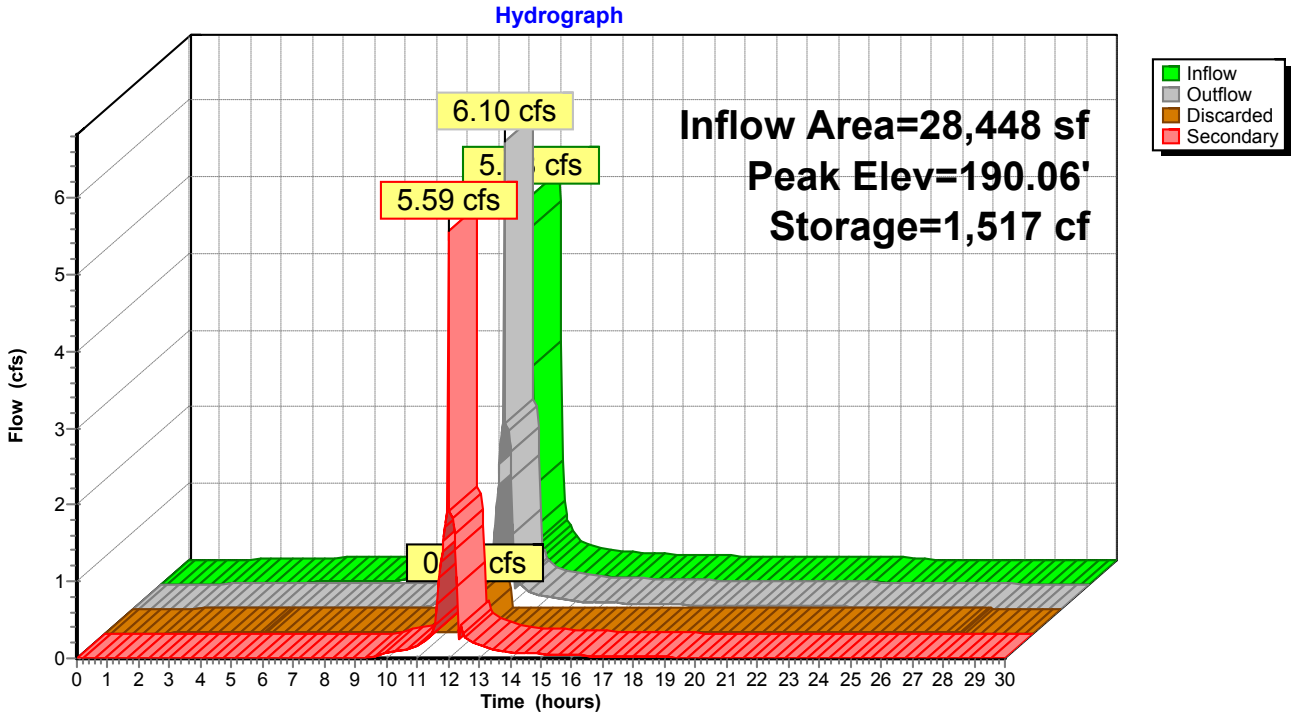
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	78	0	0
165.00	10	44	44
173.00	10	80	124

Device	Routing	Invert	Outlet Devices
#1	Discarded	164.00'	**22.000 in/hr Exfiltration over Surface area**
#2	Secondary	172.00'	**8.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.00' / 171.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Discarded OutFlow Max=0.51 cfs @ 11.95 hrs HW=174.39' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.51 cfs)

Secondary OutFlow Max=5.59 cfs @ 12.00 hrs HW=190.05' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 5.59 cfs @ 16.00 fps)

Pond DW-4: PROPOSED DRYWELL #4



Summary for Pond DW-5: PROPOSED DRYWELL #5

Inflow Area = 11,493 sf, 65.66% Impervious, Inflow Depth = 7.26" for 100-YEAR event
Inflow = 2.93 cfs @ 11.96 hrs, Volume= 6,955 cf
Outflow = 1.43 cfs @ 12.07 hrs, Volume= 6,955 cf, Atten= 51%, Lag= 6.3 min
Discarded = 1.43 cfs @ 12.07 hrs, Volume= 6,955 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.93' @ 12.07 hrs Surf.Area= 2,814 sf Storage= 1,588 cf

Plug-Flow detention time= 35.9 min calculated for 6,943 cf (100% of inflow)
Center-of-Mass det. time= 36.0 min (800.7 - 764.7)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,748 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	167.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		1,781 cf	Total Available Storage

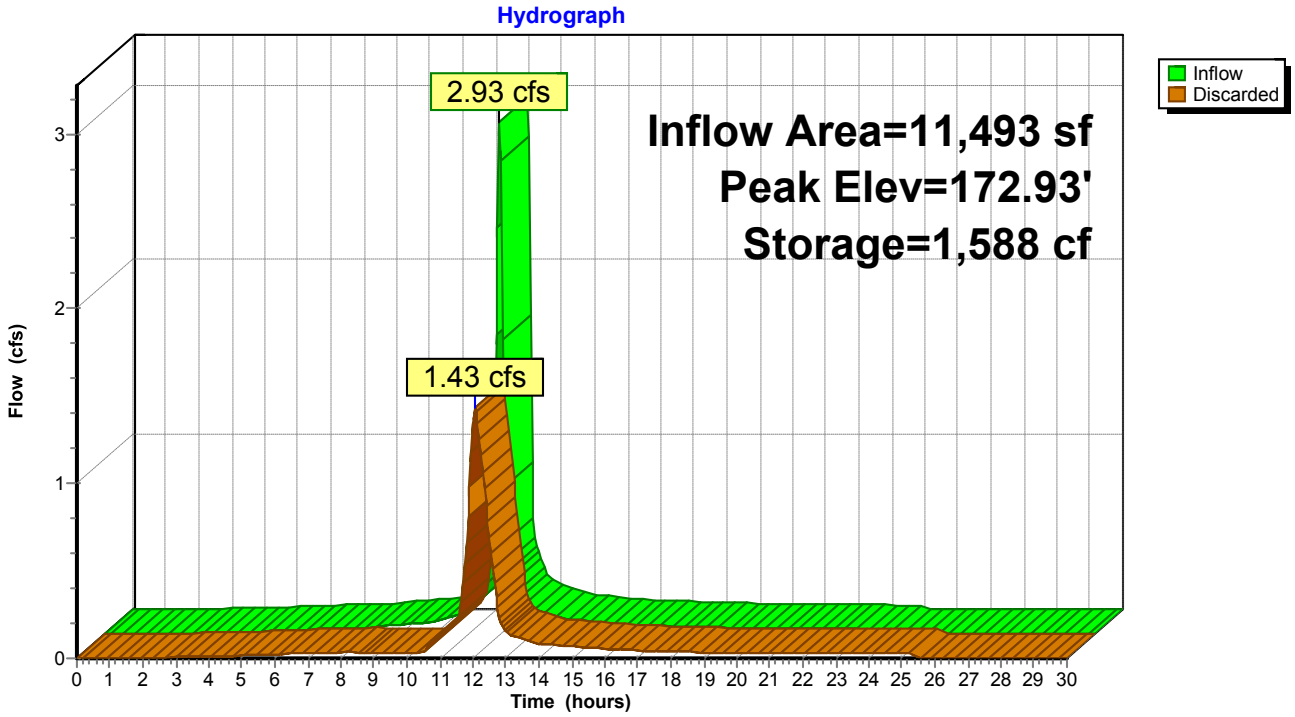
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.00	55	220	220
173.00	3,000	1,528	1,748

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	78	0	0
168.00	10	44	44
172.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.42 cfs @ 12.07 hrs HW=172.93' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.42 cfs)

Pond DW-5: PROPOSED DRYWELL #5



Summary for Pond DW-6: PROPOSED DRYWELL #6

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)

Inflow Area = 1,844 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 0.48 cfs @ 11.96 hrs, Volume= 1,226 cf
Outflow = 0.27 cfs @ 12.06 hrs, Volume= 1,226 cf, Atten= 44%, Lag= 5.9 min
Discarded = 0.27 cfs @ 12.06 hrs, Volume= 1,226 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.25' @ 12.06 hrs Surf.Area= 534 sf Storage= 325 cf

Plug-Flow detention time= 37.3 min calculated for 1,224 cf (100% of inflow)
Center-of-Mass det. time= 37.3 min (773.9 - 736.6)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	169.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

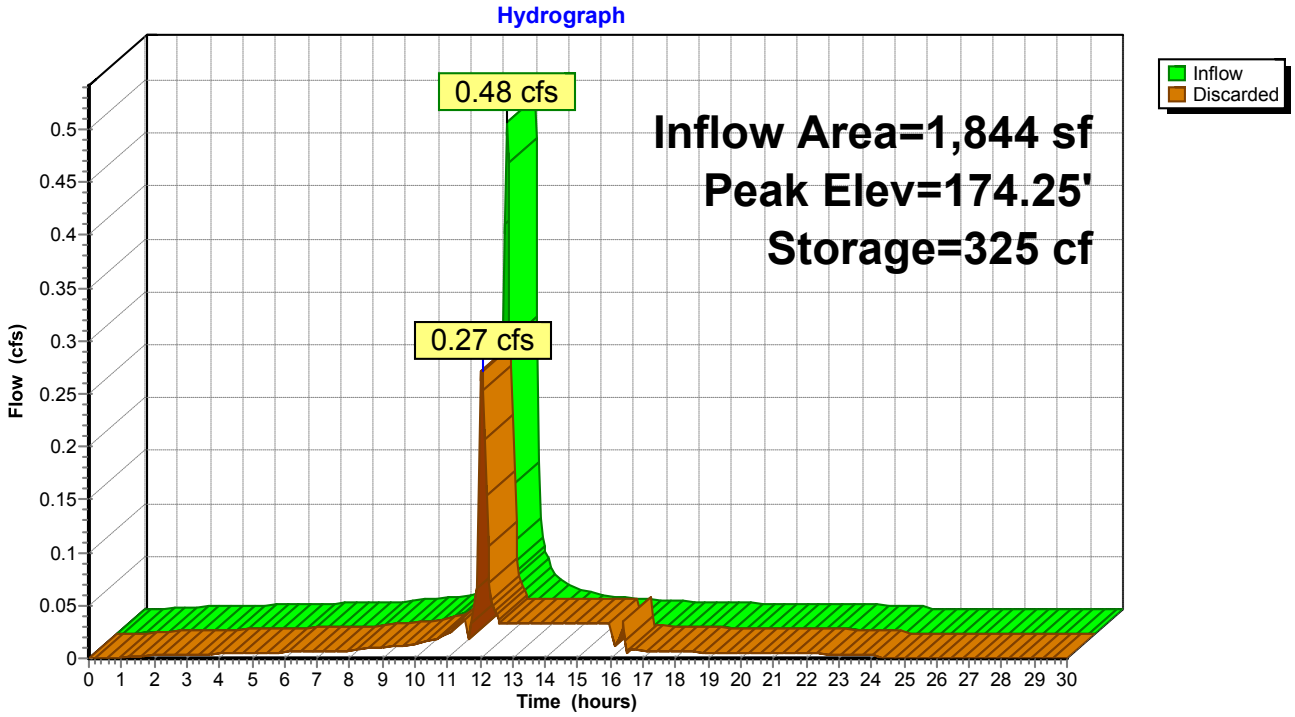
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	55	0	0
174.00	55	220	220
174.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	78	0	0
170.00	10	44	44
174.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	169.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.27 cfs @ 12.06 hrs HW=174.24' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.27 cfs)

Pond DW-6: PROPOSED DRYWELL #6



Summary for Pond DW-7: PROPOSED DRYWELL #7

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)

Inflow Area = 1,755 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 0.46 cfs @ 11.96 hrs, Volume= 1,167 cf
Outflow = 0.29 cfs @ 12.05 hrs, Volume= 1,167 cf, Atten= 37%, Lag= 5.5 min
Discarded = 0.29 cfs @ 12.05 hrs, Volume= 1,167 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.63' @ 12.05 hrs Surf.Area= 573 sf Storage= 304 cf

Plug-Flow detention time= 39.8 min calculated for 1,165 cf (100% of inflow)
Center-of-Mass det. time= 39.8 min (776.4 - 736.6)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	352 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	170.00'	42 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 106 cf Overall x 40.0% Voids
		394 cf	Total Available Storage

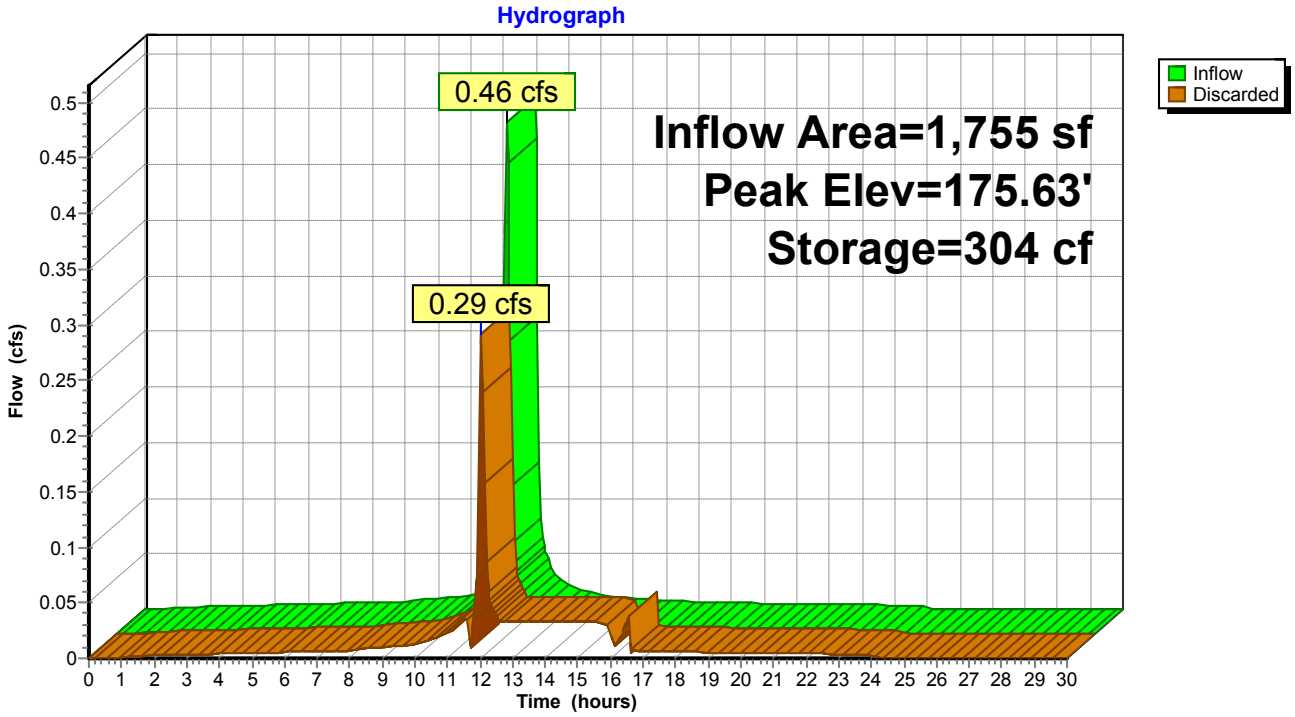
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
171.50	55	0	0
175.50	55	220	220
175.75	1,000	132	352

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	78	0	0
171.50	10	66	66
175.50	10	40	106

Device	Routing	Invert	Outlet Devices
#1	Discarded	170.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.29 cfs @ 12.05 hrs HW=175.63' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.29 cfs)

Pond DW-7: PROPOSED DRYWELL #7



Summary for Pond DW-8: PROPOSED DRYWELL #8

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)

Inflow Area = 1,734 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 0.45 cfs @ 11.96 hrs, Volume= 1,153 cf
Outflow = 0.24 cfs @ 12.06 hrs, Volume= 1,153 cf, Atten= 47%, Lag= 6.2 min
Discarded = 0.24 cfs @ 12.06 hrs, Volume= 1,153 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.22' @ 12.06 hrs Surf.Area= 475 sf Storage= 310 cf

Plug-Flow detention time= 38.0 min calculated for 1,151 cf (100% of inflow)
Center-of-Mass det. time= 37.9 min (774.5 - 736.6)

Volume	Invert	Avail.Storage	Storage Description
#1	169.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	168.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

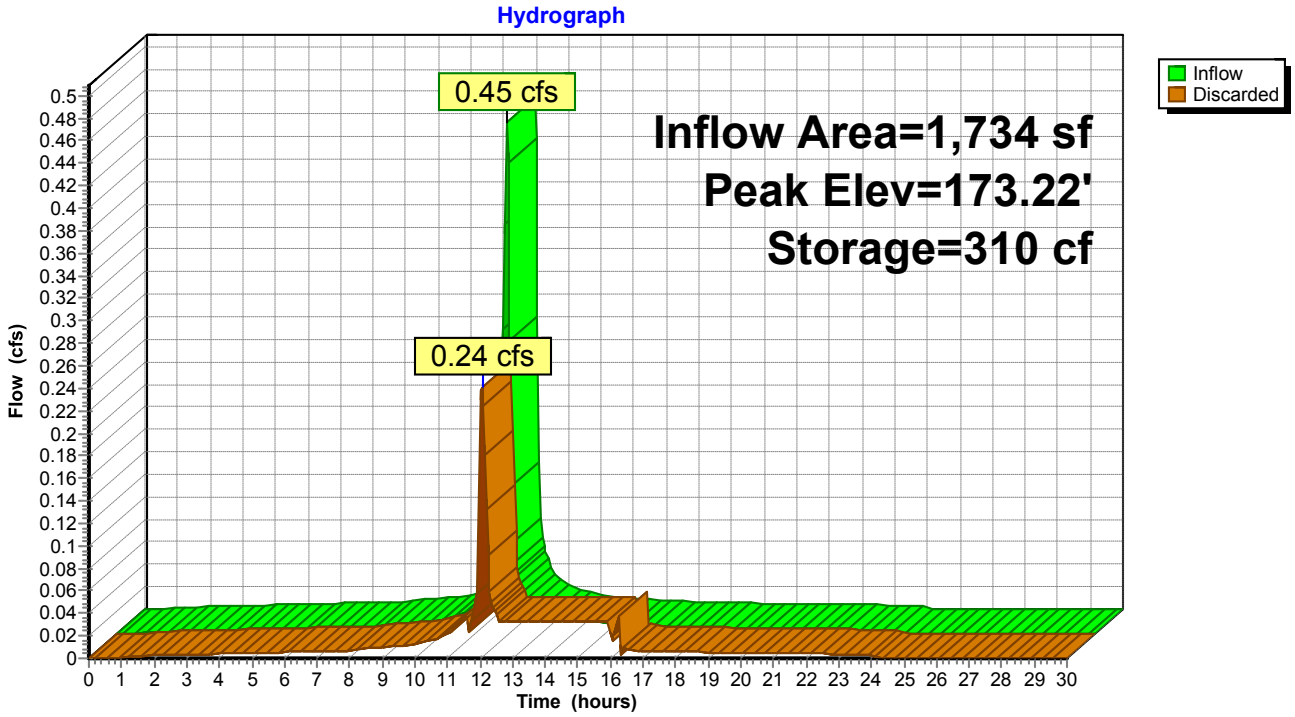
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	55	0	0
173.00	55	220	220
173.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	78	0	0
169.00	10	44	44
173.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.23 cfs @ 12.06 hrs HW=173.21' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.23 cfs)

Pond DW-8: PROPOSED DRYWELL #8



Summary for Pond YD-1: PROPOSED DRAIN #1

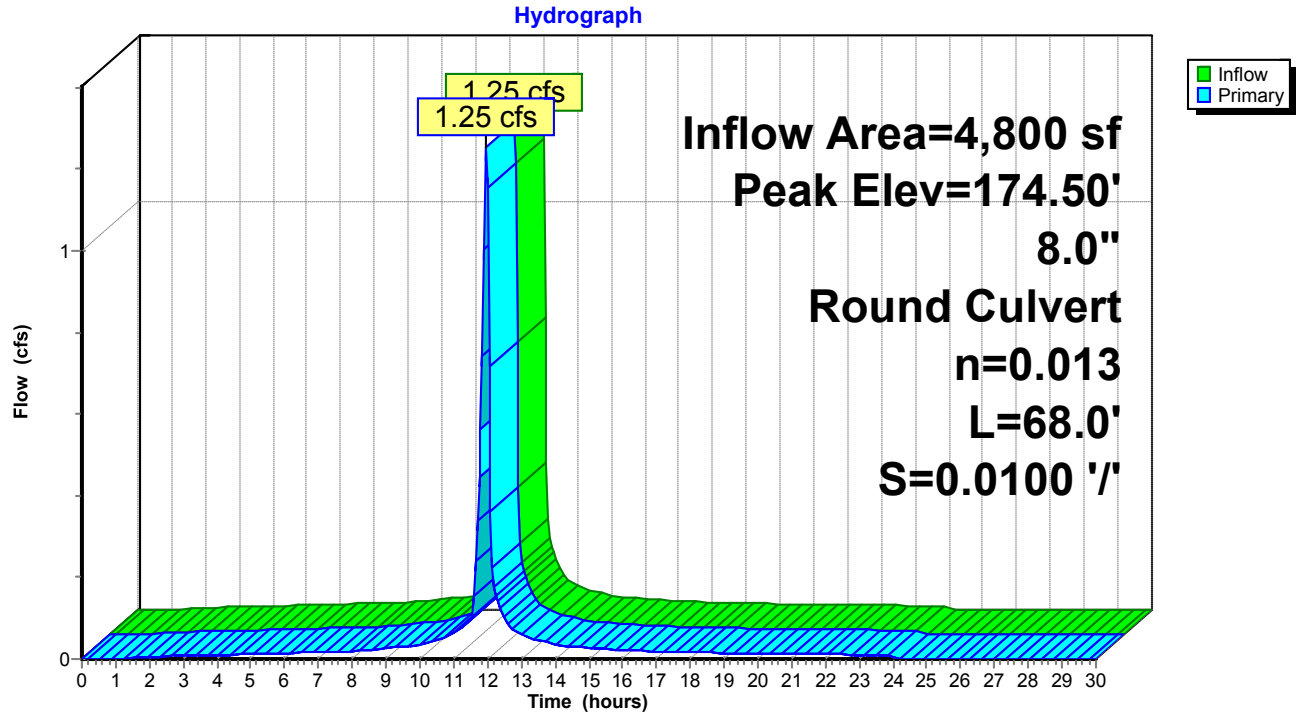
Inflow Area = 4,800 sf, 94.90% Impervious, Inflow Depth = 7.86" for 100-YEAR event
Inflow = 1.25 cfs @ 11.96 hrs, Volume= 3,144 cf
Outflow = 1.25 cfs @ 11.96 hrs, Volume= 3,144 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.25 cfs @ 11.96 hrs, Volume= 3,144 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.50' @ 11.96 hrs
Flood Elev= 175.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.27'	**8.0" Round Culvert** L= 68.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.27' / 172.59' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.23 cfs @ 11.96 hrs HW=174.46' (Free Discharge)
1=Culvert (Inlet Controls 1.23 cfs @ 3.51 fps)

Pond YD-1: PROPOSED DRAIN #1



Summary for Pond YD-2: PROPOSED DRAIN #2

[58] Hint: Peaked 5.61' above defined flood level
[81] Warning: Exceeded Pond YD-1 by 4.82' @ 11.95 hrs

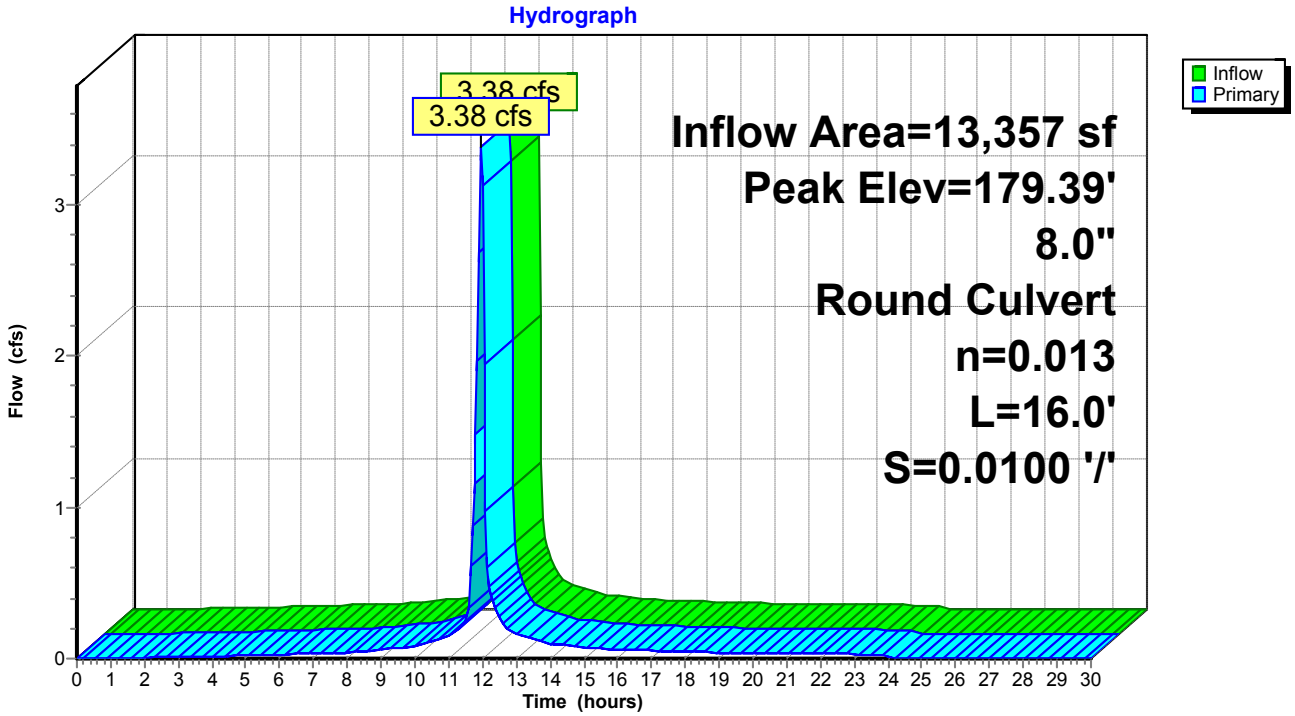
Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 7.25" for 100-YEAR event
Inflow = 3.38 cfs @ 11.96 hrs, Volume= 8,066 cf
Outflow = 3.38 cfs @ 11.96 hrs, Volume= 8,066 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.38 cfs @ 11.96 hrs, Volume= 8,066 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 179.39' @ 11.96 hrs
Flood Elev= 173.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.59'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.59' / 172.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=3.30 cfs @ 11.96 hrs HW=179.10' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 3.30 cfs @ 9.44 fps)

Pond YD-2: PROPOSED DRAIN #2



Summary for Pond YD-3: PROPOSED DRAIN #3

[58] Hint: Peaked 0.58' above defined flood level

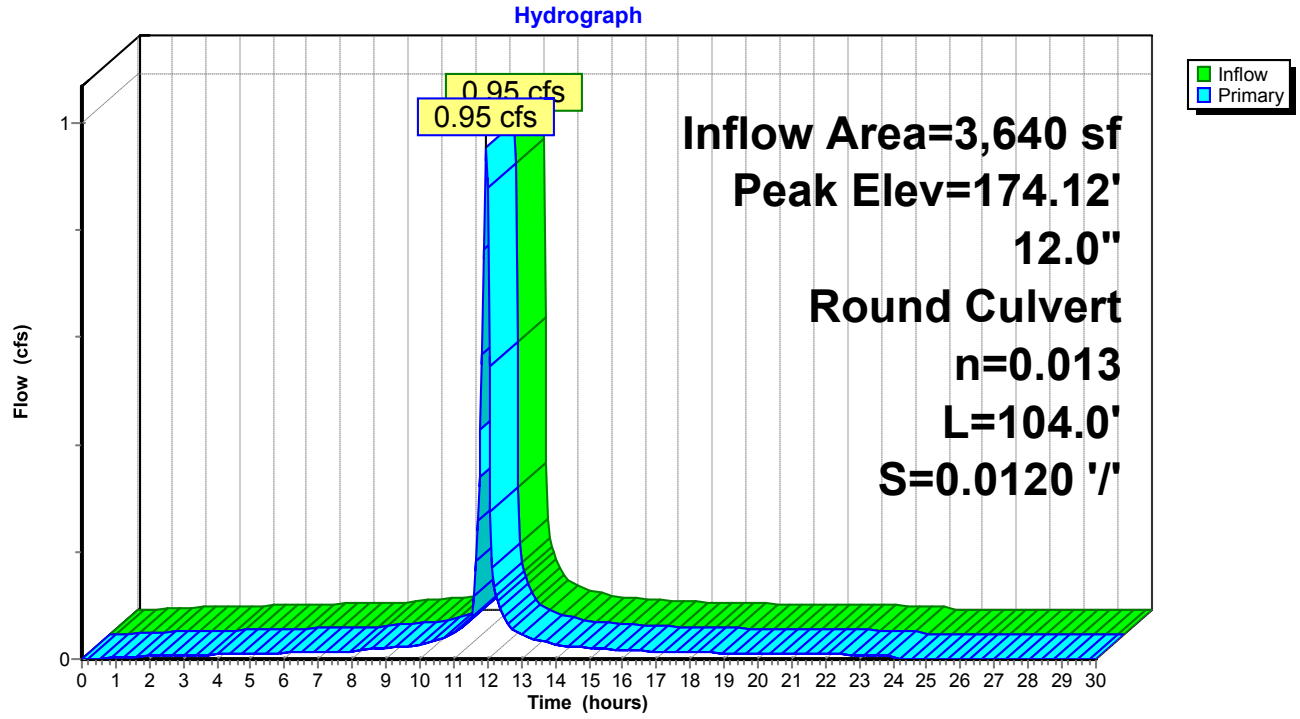
Inflow Area = 3,640 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 0.95 cfs @ 11.96 hrs, Volume= 2,421 cf
Outflow = 0.95 cfs @ 11.96 hrs, Volume= 2,421 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.95 cfs @ 11.96 hrs, Volume= 2,421 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.12' @ 11.96 hrs
Flood Elev= 173.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.54'	**12.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.54' / 172.29' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.93 cfs @ 11.96 hrs HW=174.11' (Free Discharge)
1=Culvert (Inlet Controls 0.93 cfs @ 2.03 fps)

Pond YD-3: PROPOSED DRAIN #3



Summary for Pond YD-4: PROPOSED DRAIN #4

[58] Hint: Peaked 8.86' above defined flood level
[81] Warning: Exceeded Pond YD-3 by 9.07' @ 11.95 hrs

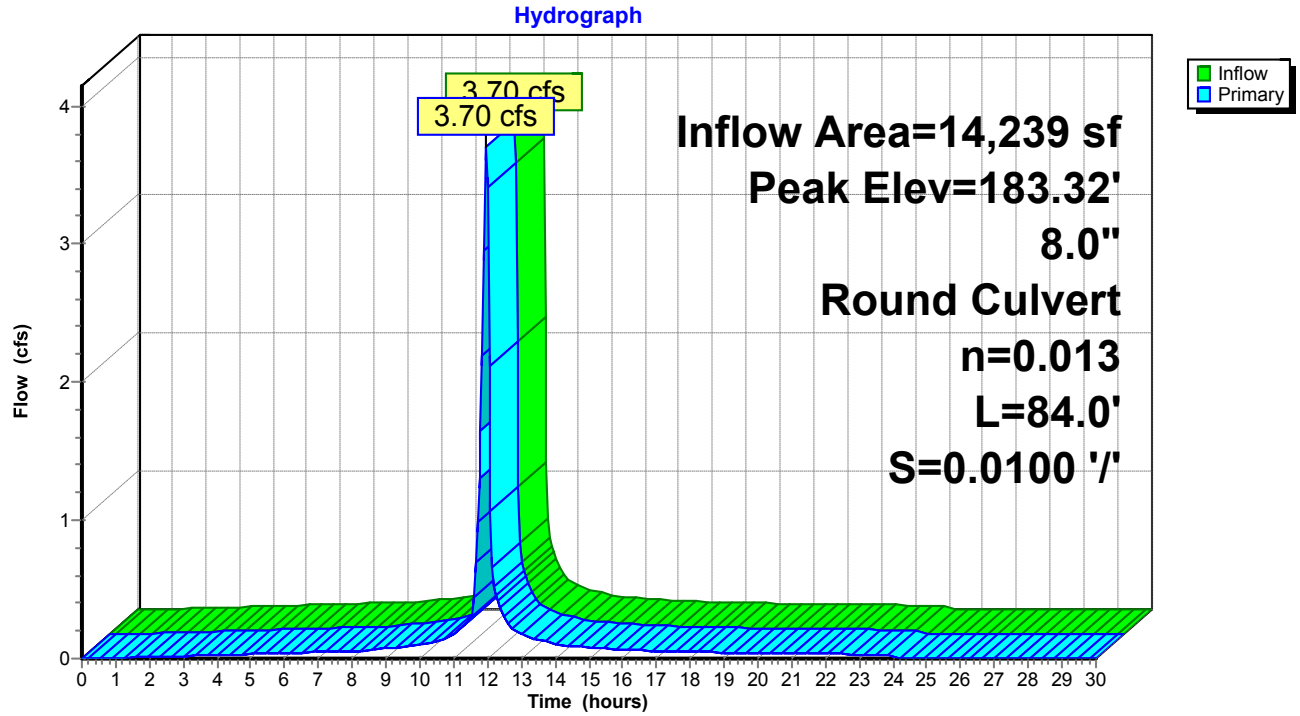
Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 7.71" for 100-YEAR event
Inflow = 3.70 cfs @ 11.96 hrs, Volume= 9,151 cf
Outflow = 3.70 cfs @ 11.96 hrs, Volume= 9,151 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.70 cfs @ 11.96 hrs, Volume= 9,151 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 183.32' @ 11.96 hrs
Flood Elev= 174.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.29'	**8.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.29' / 171.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=3.62 cfs @ 11.96 hrs HW=182.83' (Free Discharge)
1=Culvert (Barrel Controls 3.62 cfs @ 10.36 fps)

Pond YD-4: PROPOSED DRAIN #4



APPENDIX D

Supporting Design Information and Calculations
NYSOPRHP Correspondence
Soils Map

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New York
Location	
Longitude	73.926 degrees West
Latitude	41.704 degrees North
Elevation	0 feet
Date/Time	Wed, 28 Oct 2020 06:41:32 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.32	0.48	0.60	0.79	0.98	1.22	**1yr**	0.85	1.15	1.40	1.73	2.13	2.61	2.96	**1yr**	2.31	2.85	3.32	3.97	4.58	**1yr**
2yr	0.38	0.58	0.72	0.95	1.20	1.50	**2yr**	1.03	1.38	1.72	2.11	2.59	3.16	3.57	**2yr**	2.80	3.43	3.92	4.62	5.25	**2yr**
5yr	0.45	0.70	0.88	1.17	1.50	1.89	**5yr**	1.30	1.71	2.17	2.67	3.26	3.95	4.50	**5yr**	3.50	4.33	4.95	5.72	6.47	**5yr**
10yr	0.51	0.80	1.01	1.37	1.78	2.26	**10yr**	1.54	2.01	2.60	3.20	3.88	4.68	5.37	**10yr**	4.14	5.17	5.91	6.72	7.59	**10yr**
25yr	0.60	0.95	1.21	1.68	2.23	2.85	**25yr**	1.93	2.49	3.30	4.05	4.90	5.85	6.79	**25yr**	5.18	6.53	7.48	8.33	9.36	**25yr**
50yr	0.68	1.10	1.41	1.97	2.65	3.41	**50yr**	2.29	2.93	3.95	4.84	5.83	6.93	8.12	**50yr**	6.13	7.81	8.95	9.80	10.98	**50yr**
100yr	0.78	1.27	1.64	2.32	3.16	4.08	**100yr**	2.73	3.45	4.73	5.79	6.95	8.22	9.71	**100yr**	7.27	9.33	10.71	11.53	12.89	**100yr**
200yr	0.90	1.47	1.90	2.73	3.77	4.89	**200yr**	3.25	4.07	5.67	6.93	8.28	9.75	11.61	**200yr**	8.63	11.17	12.82	13.58	15.14	**200yr**
500yr	1.10	1.80	2.35	3.40	4.76	6.21	**500yr**	4.11	5.06	7.20	8.78	10.45	12.22	14.72	**500yr**	10.82	14.16	16.28	16.87	18.73	**500yr**

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.42	0.52	0.70	0.86	1.03	**1yr**	0.74	1.01	1.21	1.53	1.91	2.33	2.57	**1yr**	2.06	2.47	3.07	3.60	4.09	**1yr**
2yr	0.37	0.56	0.69	0.94	1.16	1.36	**2yr**	1.00	1.33	1.54	1.97	2.50	3.05	3.46	**2yr**	2.70	3.33	3.81	4.56	5.18	**2yr**
5yr	0.41	0.64	0.79	1.09	1.38	1.59	**5yr**	1.19	1.56	1.80	2.32	2.88	3.67	4.15	**5yr**	3.24	3.99	4.68	5.42	6.14	**5yr**
10yr	0.46	0.71	0.88	1.23	1.59	1.78	**10yr**	1.37	1.74	2.02	2.59	3.20	4.18	4.75	**10yr**	3.70	4.57	5.40	6.14	6.96	**10yr**
25yr	0.54	0.82	1.02	1.45	1.91	2.05	**25yr**	1.65	2.00	2.33	2.87	3.67	4.99	5.67	**25yr**	4.41	5.45	6.48	7.27	8.23	**25yr**
50yr	0.60	0.92	1.15	1.65	2.22	2.27	**50yr**	1.91	2.22	2.63	3.18	4.09	5.70	6.49	**50yr**	5.05	6.24	7.41	8.26	9.34	**50yr**
100yr	0.69	1.04	1.30	1.88	2.58	2.54	**100yr**	2.22	2.48	2.96	3.52	4.56	6.54	7.42	**100yr**	5.79	7.14	8.48	9.37	10.61	**100yr**
200yr	0.78	1.18	1.50	2.16	3.02	2.82	**200yr**	2.61	2.76	3.33	3.91	5.07	7.48	8.52	**200yr**	6.62	8.19	9.69	10.66	12.04	**200yr**
500yr	0.95	1.41	1.81	2.63	3.74	3.27	**500yr**	3.23	3.20	3.91	4.49	5.85	8.98	10.22	**500yr**	7.95	9.83	11.57	12.63	14.27	**500yr**

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.35	0.54	0.65	0.88	1.08	1.31	**1yr**	0.93	1.28	1.46	1.87	2.35	2.87	3.21	**1yr**	2.54	3.09	3.62	4.23	4.87	**1yr**
2yr	0.39	0.61	0.75	1.02	1.25	1.50	**2yr**	1.08	1.46	1.69	2.18	2.73	3.27	3.72	**2yr**	2.90	3.58	4.10	4.71	5.34	**2yr**
5yr	0.49	0.75	0.93	1.28	1.63	1.91	**5yr**	1.40	1.87	2.21	2.82	3.56	4.27	4.89	**5yr**	3.78	4.70	5.24	6.07	6.83	**5yr**
10yr	0.58	0.89	1.10	1.54	1.99	2.33	**10yr**	1.72	2.28	2.70	3.46	4.37	5.23	6.05	**10yr**	4.63	5.81	6.44	7.37	8.25	**10yr**
25yr	0.73	1.10	1.37	1.96	2.58	3.03	**25yr**	2.23	2.96	3.56	4.72	5.74	6.87	8.01	**25yr**	6.08	7.70	8.50	9.57	10.59	**25yr**
50yr	0.86	1.31	1.63	2.34	3.16	3.70	**50yr**	2.72	3.61	4.39	5.86	7.04	8.43	9.93	**50yr**	7.46	9.55	10.51	11.66	12.83	**50yr**
100yr	1.03	1.55	1.94	2.81	3.85	4.53	**100yr**	3.32	4.43	5.41	7.29	8.65	10.36	12.31	**100yr**	9.17	11.83	13.01	14.23	15.53	**100yr**
200yr	1.22	1.83	2.32	3.36	4.69	5.52	**200yr**	4.04	5.40	6.68	9.05	10.63	12.73	15.27	**200yr**	11.26	14.68	16.14	17.39	18.81	**200yr**
500yr	1.54	2.29	2.95	4.28	6.09	7.21	**500yr**	5.26	7.05	8.81	12.09	13.98	16.69	20.29	**500yr**	14.77	19.51	21.52	22.69	24.29	**500yr**

Map Scale: 1:1,850 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 25 50 100 150

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dutchess County, New York
Survey Area Data: Version 17, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ur	Urban land	8.9	100.0%
Totals for Area of Interest		**8.9**	**100.0%**

Test Pit Log

Springside Neighboorhood

Completed By: SMC

Dated:

Test Hole	Total Depth	Water Level	Rock Level	Soils
1	8'	NA	NA	0-4" Top Soil
				4"-18" Dark Brown Sandy Soil, Small Cobbles
				18"-4' Light Brown Sandy Loamy Soil with Clay, Silty
				4'-8' Dark Brown Sandy Soil, Small Stones, No Silt
2	9'	NA	NA	0-4" Topsoil
				4"-2' Dark Brown Sandy Soil with Samll Stones
				2'-4' Fill Material, Bricks, Stones
				4'-9' Light Brown Sandy Soil, No silt.

Location of test pits shown on DA-1

Infiltration Test Log

Springside Neighboorhood

Completed By: SMC

Dated:

Test Hole	Total Depth	Run One (in/hr)	Run Two (in/hr)	Run Three (in/hr)	Avg. Run (in/hr)
IT-1	5	34.8	32.4	31.2	32.8
IT-2	4	25.2	20.4	20.4	22.0

Location of Infiltration Tests shown on DA-1

Design Criteria & Performance Summary

SUMMARY OF OVERALL WATERSHEDS

Design Criteria	*min req'd*		Performance Summary:		
criteria	*amount*	*unit*	*Provided*		*notes/information*
<u>WQv:</u>					
total	8,912	cft	2,829	cft	Drywells
	0.20	ac-ft	0.06	ac-ft	
Redevelopment	2,228	cft			
	0.05	ac-ft			
<u>Cpv:</u>					
volume	NA	cft	NA	cft	NA if reduction of CPv achieed through RRv Practices
<u>Qp:</u>					
discharge	15.6	cfs	8.5	cfs	Pre to Post reduced See Hydro CAD
<u>Qf</u>					
discharge	27.8	cfs	16.8	cfs	Pre to Post reduced See Hydro CAD
RRv Min:	1,346	cft	2,253	cft	
	0.03	ac-ft	0.05	ac-ft	

WQv BY DRAINAGE AREA										
DA	Tributary Area	Impervious Cover	Percent Impervious	P	Rv	WQv (AC-FT)	WQv (CF)	S	Min RRv (AC-FT)	Min RRv (CF)
1	0.49	0.42	86.22	1.05	0.83	0.04	1,547.5	0.2	0.007	306.9
2	0.16	0.13	83.26	1.05	0.80	0.01	492.1	0.2	0.002	97.4
3	0.12	0.08	65.88	1.05	0.64	0.01	300.1	0.2	0.001	58.4
4	0.09	0.07	74.82	1.05	0.72	0.01	259.5	0.2	0.001	51.0
5	0.75	0.46	61.00	1.05	0.60	0.04	1,711.4	0.2	0.008	331.1
6	0.26	0.17	65.66	1.05	0.64	0.01	644.5	0.2	0.003	125.5
7	0.08	0.08	100.00	1.05	0.95	0.01	302.6	0.2	0.001	60.5
8	0.24	0.20	81.26	1.05	0.78	0.02	724.6	0.2	0.003	143.2
9	0.08	0.05	65.57	1.05	0.64	0.00	194.4	0.2	0.001	37.8
10	0.11	0.11	96.96	1.05	0.92	0.01	387.5	0.2	0.002	77.4
11	0.20	0.10	51.71	1.05	0.52	0.01	385.9	0.2	0.002	73.6
12	0.19	0.19	100.00	1.05	0.95	0.02	695.5	0.2	0.003	139.1
13	0.06	0.05	79.56	1.05	0.77	0.00	172.5	0.2	0.001	34.0
14	0.15	0.11	69.73	1.05	0.68	0.01	399.4	0.2	0.002	78.1
15	0.04	0.04	100.00	1.05	0.95	0.00	144.1	0.2	0.001	28.8
16	0.04	0.04	100.00	1.05	0.95	0.00	153.3	0.2	0.001	30.7
17	0.04	0.04	100.00	1.05	0.95	0.00	145.9	0.2	0.001	29.2
18	0.08	0.07	85.96	1.05	0.82	0.01	250.9	0.2	0.001	49.8
TOTAL	**3.20**	**2.42**					**8,911.7**		**0.040**	**1752.4**

Water Quality Volume Calculations			REDEVELOPMENT
Trib Area	3.20	ac	
Imperv Cover:	2.42	ac	
Imperv. %	75.52		
Stormwater Management Practice Selection:			
Drywells			
Uniform Sizing Criteria:			
Water Quality (WQv)	P=	1.05	
	I=	*75.5*	
	Rv=	0.7296	
	A=	3.20	
	WQv=	0.20	AC-FT
		8,911.7	CF
25% WQv Redevelopment		**0.05**	AC-FT
		2227.9	CF

Minimum Runoff Reduction Requirements

RRV = 90% rain (P) x Rv* x S x total impervious area (AI from #2) / 12

with S = .55 (A soils); .40 (B soils); .30 (C soils); .20(D soils) OR weighted HSG average in DA

Weighted HSG= 0.2

Min RRV =	0.031	ac-ft
Min RRV =	1,345.9	cu ft

STORMWATER OPEN CHANNEL SYSTEM
SIZING PER CHAPTER 6 OF THE NYS STORM WATER DESIGN MANUAL

Drywell (I-3) Sizing Sheet	DW-1	DW-2	DW-3	DW-4 & EXISTING	DW-5	DW-6	DW-7	DW-8	EXISTING
Design Parameters:	**DA-9**	**DA-10&11**	**DA-7&8**	**DA-1&2**	**DA-6**	**DA-16**	**DA-17**	**DA-15**	**DA-3**
WQv - Required (cu ft)	194.4	773.4	1,027.2	2,039.6	644.5	153.3	145.9	144.1	300.1
Total Impervious Contributing Area (ac.)	0.05	0.21	0.28	0.56	0.17	0.04	0.04	0.04	0.08
Total Grass Area (ac.)	0.03	0.10	0.05	0.09	0.09	0.00	0.00	0.00	0.04
Total Contributing Area (ac.)	0.08	0.31	0.33	0.65	0.26	0.04	0.04	0.04	0.12
Land Cover Coefficient	0.6	0.6	0.7	0.7	0.6	0.8	0.8	0.8	0.6
Rainfall Intensity (in)	8.22	8.22	8.22	8.22	8.22	8.22	8.22	8.22	8.22
Area (sq ft)	3,471.0	13,357.0	14,239.0	28,448.0	11,493.0	1,844.0	1,755.0	1,734.0	5,334.0
Runoff (cu ft)	1,355.4	5,381.6	7,068.5	14,038.7	4,493.1	1,048.4	997.8	985.9	2,091.4
Runoff (gallons)	10,138.5	40,254.7	52,872.2	105,009.4	33,608.1	7,842.1	7,463.6	7,374.3	15,643.6
Soil Permiability (in/hr)	32.8	32.8	32.8	22.0	32.8	22.0	22.0	22.0	22.0
Drywell Area (sq ft)	50.24	50.24	50.24	100.48	50.24	50.24	50.24	50.24	50.24
Drain Rate (cu ft/hr)	137.3	137.3	137.3	184.2	137.3	92.1	92.1	92.1	92.1
Drain Time (hr)	**9.9**	**39.2**	**51.5**	**76.2**	**32.7**	**11.4**	**10.8**	**10.7**	**22.7**
WQv Treatment Volume (cu ft)	**255.2**	**347.7**	**347.7**	**510.4**	**255.2**	**255.2**	**255.2**	**255.2**	**347.7**
RRv Volume Provided (cu-ft)	**194.4**	**312.9**	**312.9**	**459.4**	**229.7**	**153.3**	**145.9**	**144.1**	**300.1**

WQv - RRv Summary

WQv REQUIRED	
DA-1	1547.5
DA-2	492.1
DA-3	300.1
DA-4	259.5
DA-5	1711.4
DA-6	644.5
DA-7	302.6
DA-8	724.6
DA-9	194.4
DA-10	387.5
DA-11	385.9
DA-12	695.5
DA-13	172.5
DA-14	399.4
DA-15	144.1
DA-16	153.3
DA-17	145.9
DA-18	250.9
TOTAL (CU FT)	**8,912**
TOTAL (AC FT)	**0.20**
REDEVELOPMENT TOTAL (CU FT)	**2,228**
REDEVELOPMENT TOTAL (AC FT)	**0.05**

WQv PROVIDED	
DW-1	255
DW-2	348
DW-3	348
DW-4 & EXISTING	510
DW-5	255
DW-6	255
DW-7	255
DW-8	255
EXISTING	348
TOTAL (CU FT)	**2,829**
TOTAL (AC FT)	**0.06**

RRv REQUIRED	
DA-1	307
DA-2	97
DA-3	58
DA-4	51
DA-5	331
DA-6	125
DA-7	61
DA-8	143
DA-9	38
DA-10	77
DA-11	74
DA-12	139
DA-13	34
DA-14	78
DA-15	29
DA-16	31
DA-17	29
DA-18	50
TOTAL (CU FT)	**1,752**
TOTAL (AC FT)	**0.04**

WQv PROVIDED	
DW-1	194
DW-2	313
DW-3	313
DW-4 & EXISTING	459
DW-5	230
DW-6	153
DW-7	146
DW-8	144
EXISTING	300
TOTAL (CU FT)	**2,253**
TOTAL (AC FT)	**0.05**

Pre Post Flow analysis

Peak Flow Discharge Rate DP-1			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	7.4	3.7	**-3.7**
2	9.1	4.7	**-4.4**
10	13.6	7.2	**-6.4**
25	17.2	9.1	**-8.1**
100	24.2	14.7	**-9.6**

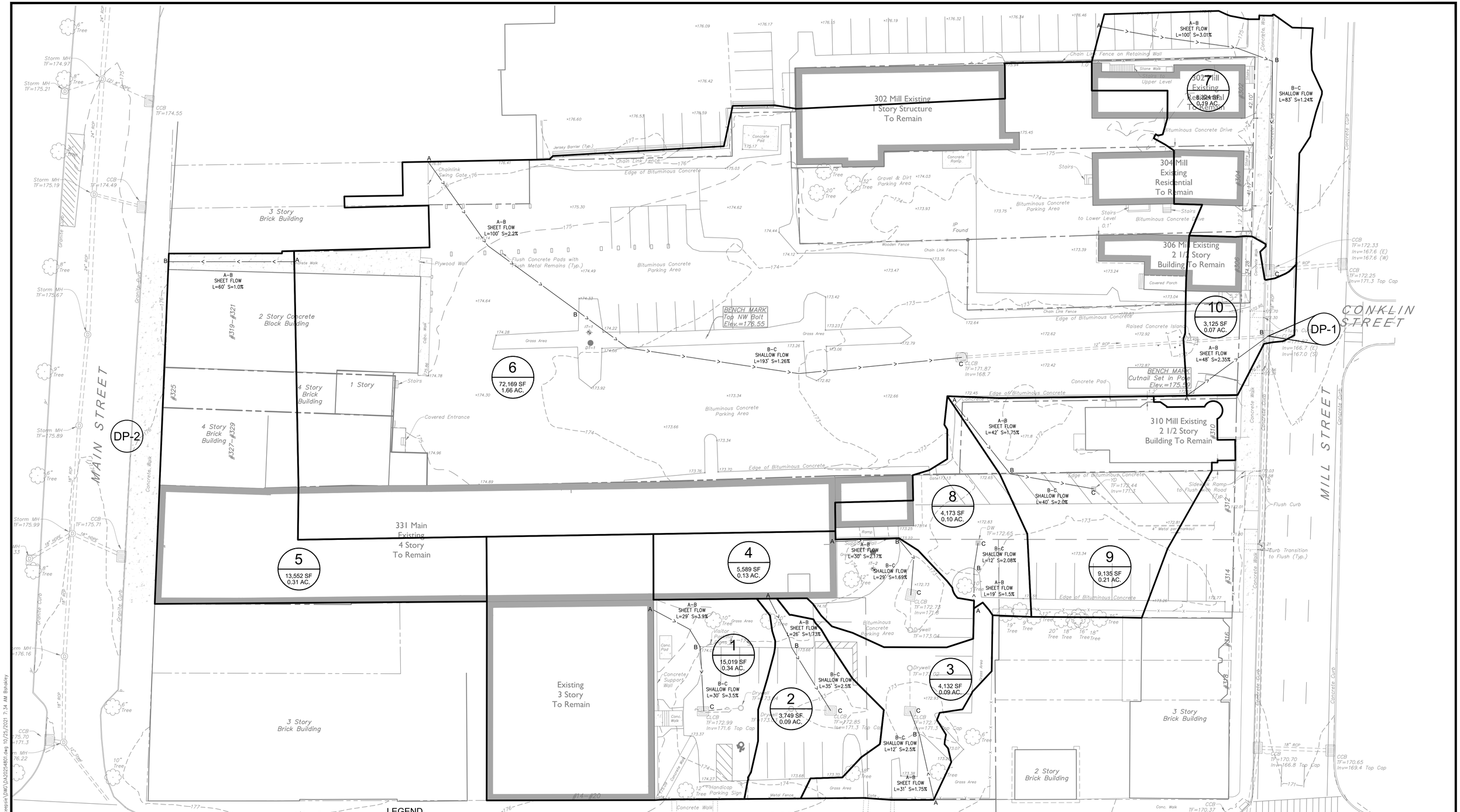
Peak Flow Discharge Rate DP-2			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	1.1	0.7	**-0.4**
2	1.4	0.8	**-0.6**
10	2.0	1.2	**-0.8**
25	2.5	1.6	**-0.9**
100	3.6	2.2	**-1.4**

Peak Flow Discharge Rate OVERALL			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	8.5	4.4	**-4.1**
2	10.5	5.5	**-5.0**
10	15.6	8.5	**-7.2**
25	19.7	10.7	**-9.1**
100	27.8	16.8	**-11.0**

Peak Flow Discharge Rate TOWN CB			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	168.7	167.8	**-0.9**
2	169.3	167.9	**-1.4**
10	171.6	168.6	**-3.0**
25	174.4	169.3	**-5.1**
100	182.2	172.2	**-10.0**

APPENDIX E

Map Pocket: Pre- & Post-Development Drainage Area Maps
Pre & Post Development Routing Diagrams



LEGEND

120	EXISTING MAJOR CONTOUR LINE
123	EXISTING MINOR CONTOUR LINE
	DRAINAGE LINE
	SOIL BOUNDARY LINE
A → B	TIME OF CONCENTRATION LINE
	TEST PIT LOCATION
MgB	SOIL TYPE DESIGNATION
1 XX,XXX SF X.XX AC.	DRAINAGE AREA DESIGNATION

GRAPHIC SCALE

20 10 0 20

SCALE IN FEET

STATE OF NEW YORK
RODNEY E. MORRISON
LICENSED PROFESSIONAL ENGINEER
074104

#	Date	Description
2	07.10.20	PLANNING BOARD RE-SUBMISSION
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS

Revisions

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LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

DRAINAGE AREA MAP (PRE-CONDITIONS)

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DA20254801.dwg	Sheet No.
Drawn	SMC	Project No.	20-2548	DA-1
Checked	KFC	Date	2020.04.10	
Approved	REM	Scale	1"=20'	

DRAINAGE AREA MAP (POST-CONDITIONS)

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC
Drawn	SMC
Checked	KFC
Approved	REM
CAD File	DA20254802.dwg
Project No.	20-2548
Date	2020.04.10
Scale	1"=20'
Sheet No.	DA-2

No.	Date	Description
2	07.10.20	PLANNING BOARD RE-SUBMISSION
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS

Revisions

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ROBERT E. MORRISON
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074104

LEGEND

- EXISTING MAJOR CONTOUR LINE (120)
- EXISTING MINOR CONTOUR LINE (123)
- PROPOSED MAJOR CONTOUR LINE (120)
- PROPOSED MINOR CONTOUR LINE (123)
- DRAINAGE LINE
- SOIL BOUNDARY LINE
- TIME OF CONCENTRATION LINE (A —> B)
- TEST PIT LOCATION
- MgB — SOIL TYPE DESIGNATION
- 1 / XX,XXX SF / X.XX AC. — DRAINAGE AREA DESIGNATION

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

DP-1 CONKLIN STREET

DP-2 MAIN STREET

MILL STREET

MAIN STREET BUILDING
5 STORIES
FF:176.10

WALLACE BUILDING
4 STORY
FF:176.60

CATHARINE STREET
BUILDING
5 STORY
FF:174.00

3 Story Brick Building

2 Story Brick Building

PROPOSED DRYWELL (DW-1) RIM=169.0 BOT=164.0

PROPOSED DRYWELL (DW-2) RIM=175.78 INV=172.43 BOT=167.78

PROPOSED DRYWELL (DW-3) RIM=174.69 INV=171.45 BOT=166.69

PROPOSED DRYWELL (DW-4) RIM=174.00 2 STEPS INV IN=170.05 (SE) INV OUT=172.00 (N)

PROPOSED DRYWELL (DW-5) RIM=172.30 INV=169.30 BOT=168.30

PROPOSED DRYWELL (DW-6) RIM=174.10 INV=171.10 BOT=170.10

PROPOSED DRYWELL (DW-7) RIM=175.50 INV=172.50 BOT=171.50

PROPOSED DRYWELL (DW-8) RIM=173.15 INV=170.15 (NE) INV=170.45 (SW) BOT=169.15

PROPOSED INLINE DRAIN RIM=175.44 INV OUT=173.27

PROPOSED INLINE DRAIN RIM=175.44 INV IN=172.59 INV OUT=172.59 BOT SUMP=170.00

PROPOSED INLINE DRAIN RIM=175.71 INV OUT=173.54

PROPOSED INLINE DRAIN RIM=174.46 INV IN=172.29 INV OUT=172.29 BOT SUMP=170.00

PROPOSED STORM LINE 8" HDPE L=15', S=1.00%

PROPOSED STORM LINE 12" HDPE L=20', S=1.00%

PROPOSED STORM LINE 8" HDPE L=27', S=1.0%

PROPOSED STORM LINE 12" HDPE L=29', S=1.00%

PROPOSED STORM LINE 8" HDPE L=31', S=1.00%

PROPOSED STORM LINE 8" HDPE L=7', S=1.00%

68 LF 8" HDPE @ 1.0%

103 LF 8" HDPE @ 1.20%

78 LF 8" HDPE @ 1.0%

REMOVED EX CB AND REPLACE WITH PROPOSED CATCH BASIN WITH SUMP RIM=174.16 INV IN=170.46 INV OUT=170.25

PROPOSED CATCH BASIN #1 RIM=172.74 INV=170.74

PROPOSED CATCH BASIN #1 RIM=172.70 INV OUT=170.70

PROPOSED LEAK OFF TO CATCH BASIN

RAISE RIM TO 172.16

PROPOSED ROOF LEADER (TYP.)

PREVIOUSLY APPROVED STORM DRAINAGE LAYOUT FOR 302 MILL STREET

PREVIOUSLY APPROVED STORM DRAINAGE LAYOUT FOR 30 MILL STREET

MATCH EXISTING

Chain Link Fence on Retaining Wall

Jersey Barrier (Typ.)

Chainlink Swing Gate

Drain Line

Granite Curb

Concrete Curb

Concrete Walk

Concrete Pad

Flush Curb

Transition

Covered Porch

Upper Level

Lower Level

Stone Wall

Chainlink Fence

Wood Fence

Concrete Wall

Retaining Wall

Top Cap

Trees

Utility Poles

Storm MH

CCB

DOOR

RL

HP

TC

BC

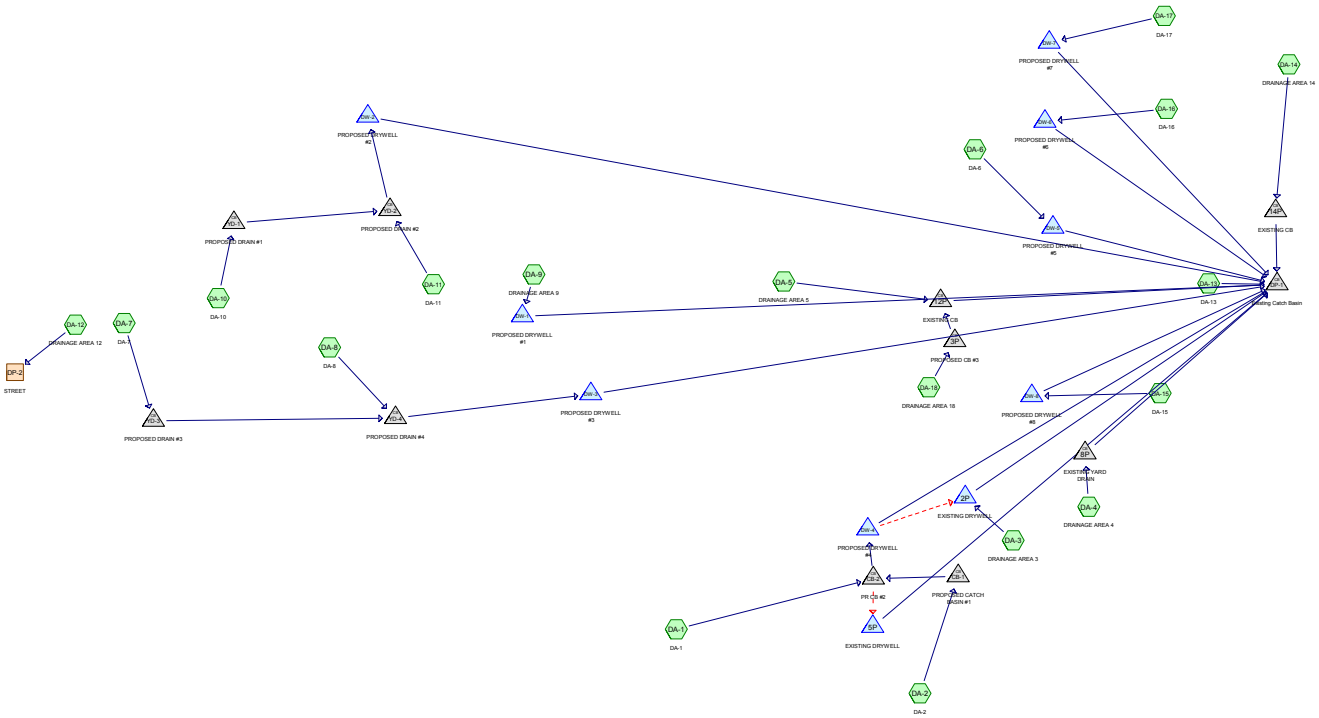
FF

1 — 21,412 SF / 0.49 AC.
2 — 7,036 SF / 0.16 AC.
3 — 5,334 SF / 0.12 AC.
4 — 4,099 SF / 0.09 AC.
5 — 32,655 SF / 0.75 AC.
6 — 11,493 SF / 0.26 AC.
7 — 3,640 SF / .08 AC.
8 — 10,599 SF / 0.24 AC.
9 — 3,471 SF / 0.08 AC.
10 — 4,800 SF / 0.11 AC.
11 — 8,557 SF / 0.20 AC.
12 — 8,367 SF / 0.19 AC.
13 — 2,574 SF / 0.06 AC.
14 — 6,736 SF / 0.15 AC.
15 — 1,734 SF / 0.04 AC.
16 — 1,844 SF / 0.04 AC.
17 — 1,755 SF / 0.04 AC.
18 — 3,482 SF / 0.08 AC.

X:_JOBS\Jobs 2020\20-2548--Urban Green--Wallace Campus--Poughkeepsie\DWG\DA20254802.dwg 10/25/2021 7:35 AM Bshokley

APPENDIX F

25 Year Hydraulic Grade Evaluation



Subcat Reach Pond Link

Routing Diagram for Wallace-POST
Prepared by LRC Group, Printed 10/25/2021
HydroCAD® 10.00-19 s/n 02009 © 2016 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
34,277	80	>75% Grass cover, Good, HSG D (DA-1, DA-10, DA-11, DA-13, DA-14, DA-18, DA-2, DA-3, DA-4, DA-5, DA-6, DA-8, DA-9)
54,227	98	Paved parking, HSG D (DA-1, DA-10, DA-11, DA-13, DA-14, DA-18, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9)
51,084	98	Roofs, HSG D (DA-1, DA-10, DA-11, DA-12, DA-15, DA-16, DA-17, DA-2, DA-7, DA-8)
139,588	**94**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
139,588	HSG D	DA-1, DA-10, DA-11, DA-12, DA-13, DA-14, DA-15, DA-16, DA-17, DA-18, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9
0	Other	
139,588		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Sub Num
0	0	0	34,277	0	34,277	>75% Grass cover, Good	
0	0	0	54,227	0	54,227	Paved parking	
0	0	0	51,084	0	51,084	Roofs	
0	**0**	**0**	**139,588**	**0**	**139,588**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	3P	170.74	170.45	29.0	0.0100	0.013	12.0	0.0	0.0
2	8P	171.30	170.43	87.0	0.0100	0.030	4.0	0.0	0.0
3	12P	168.70	167.00	142.0	0.0120	0.013	12.0	0.0	0.0
4	14P	167.60	166.70	26.0	0.0346	0.013	18.0	0.0	0.0
5	CB-1	171.50	171.17	33.0	0.0100	0.013	12.0	0.0	0.0
6	CB-2	170.25	170.05	20.0	0.0100	0.013	12.0	0.0	0.0
7	CB-2	170.25	170.05	12.0	0.0167	0.013	8.0	0.0	0.0
8	DP-1	166.70	165.00	191.0	0.0089	0.013	18.0	0.0	0.0
9	DW-4	172.00	171.70	30.0	0.0100	0.013	8.0	0.0	0.0
10	YD-1	173.27	172.59	68.0	0.0100	0.013	8.0	0.0	0.0
11	YD-2	172.59	172.43	16.0	0.0100	0.013	8.0	0.0	0.0
12	YD-3	173.54	172.29	104.0	0.0120	0.013	12.0	0.0	0.0
13	YD-4	172.29	171.45	84.0	0.0100	0.013	8.0	0.0	0.0

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA-1: DA-1 Runoff Area=21,412 sf 86.22% Impervious Runoff Depth=5.38"
Tc=6.0 min CN=96 Runoff=3.94 cfs 9,596 cf

Subcatchment DA-10: DA-10 Runoff Area=4,800 sf 94.90% Impervious Runoff Depth=5.49"
Tc=6.0 min CN=97 Runoff=0.89 cfs 2,198 cf

Subcatchment DA-11: DA-11 Runoff Area=8,557 sf 51.71% Impervious Runoff Depth=4.59"
Tc=6.0 min CN=89 Runoff=1.45 cfs 3,273 cf

Subcatchment DA-12: DRAINAGE AREA 12 Runoff Area=8,367 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=1.56 cfs 3,913 cf

Subcatchment DA-13: DA-13 Runoff Area=2,574 sf 79.56% Impervious Runoff Depth=5.15"
Tc=6.0 min CN=94 Runoff=0.47 cfs 1,104 cf

Subcatchment DA-14: DRAINAGE AREA 14 Runoff Area=6,736 sf 69.73% Impervious Runoff Depth=5.03"
Tc=6.0 min CN=93 Runoff=1.21 cfs 2,826 cf

Subcatchment DA-15: DA-15 Runoff Area=1,734 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.32 cfs 811 cf

Subcatchment DA-16: DA-16 Runoff Area=1,844 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.34 cfs 862 cf

Subcatchment DA-17: DA-17 Runoff Area=1,755 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.33 cfs 821 cf

Subcatchment DA-18: DRAINAGE AREA 18 Runoff Area=3,482 sf 85.96% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=95 Runoff=0.64 cfs 1,527 cf

Subcatchment DA-2: DA-2 Runoff Area=7,036 sf 83.26% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=95 Runoff=1.28 cfs 3,086 cf

Subcatchment DA-3: DRAINAGE AREA 3 Runoff Area=5,334 sf 65.88% Impervious Runoff Depth=4.92"
Tc=6.0 min CN=92 Runoff=0.94 cfs 2,188 cf

Subcatchment DA-4: DRAINAGE AREA 4 Runoff Area=4,099 sf 74.82% Impervious Runoff Depth=5.03"
Tc=6.0 min CN=93 Runoff=0.73 cfs 1,720 cf

Subcatchment DA-5: DRAINAGE AREA 5 Runoff Area=32,655 sf 61.00% Impervious Runoff Depth=4.81"
Flow Length=235' Tc=13.1 min CN=91 Runoff=4.63 cfs 13,090 cf

Subcatchment DA-6: DA-6 Runoff Area=11,493 sf 65.66% Impervious Runoff Depth=4.92"
Tc=6.0 min CN=92 Runoff=2.03 cfs 4,714 cf

Subcatchment DA-7: DA-7 Runoff Area=3,640 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.68 cfs 1,702 cf

Subcatchment DA-8: DA-8 Runoff Area=10,599 sf 81.26% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=95 Runoff=1.94 cfs 4,648 cf

Subcatchment DA-9: DRAINAGE AREA 9 Runoff Area=3,471 sf 65.57% Impervious Runoff Depth=4.92"
Tc=6.0 min CN=92 Runoff=0.61 cfs 1,424 cf

Reach DP-2: STREET Inflow=1.56 cfs 3,913 cf
Outflow=1.56 cfs 3,913 cf

Pond 2P: EXISTING DRYWELL Peak Elev=172.83' Storage=431 cf Inflow=2.67 cfs 6,546 cf
Discarded=0.67 cfs 3,873 cf Primary=1.97 cfs 2,673 cf Outflow=2.64 cfs 6,546 cf

Pond 3P: PROPOSED CB #3 Peak Elev=171.20' Inflow=0.64 cfs 1,527 cf
12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.64 cfs 1,527 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.52' Storage=790 cf Inflow=1.67 cfs 5,126 cf
Outflow=1.08 cfs 5,126 cf

Pond 8P: EXISTING YARD DRAIN Peak Elev=241.67' Inflow=0.73 cfs 1,720 cf
4.0" Round Culvert n=0.030 L=87.0' S=0.0100 '/' Outflow=0.73 cfs 1,720 cf

Pond 12P: EXISTING CB Peak Elev=172.05' Inflow=5.05 cfs 14,618 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=5.05 cfs 14,618 cf

Pond 14P: EXISTING CB Peak Elev=168.16' Inflow=1.21 cfs 2,826 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=1.21 cfs 2,826 cf

Pond CB-1: PROPOSED CATCH BASIN #1 Peak Elev=172.19' Inflow=1.28 cfs 3,086 cf
12.0" Round Culvert n=0.013 L=33.0' S=0.0100 '/' Outflow=1.28 cfs 3,086 cf

Pond CB-2: PR CB #2 Peak Elev=172.16' Inflow=5.23 cfs 12,682 cf
Primary=3.56 cfs 7,556 cf Secondary=1.67 cfs 5,126 cf Outflow=5.23 cfs 12,682 cf

Pond DP-1: Existing Catch Basin Peak Elev=169.28' Inflow=9.09 cfs 22,940 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=9.09 cfs 22,940 cf

Pond DW-1: PROPOSED DRYWELL #1 Peak Elev=169.37' Storage=411 cf Inflow=0.61 cfs 1,424 cf
Outflow=0.23 cfs 1,424 cf

Pond DW-2: PROPOSED DRYWELL #2 Peak Elev=175.79' Storage=818 cf Inflow=2.34 cfs 5,471 cf
Outflow=1.91 cfs 5,472 cf

Pond DW-3: PROPOSED DRYWELL #3 Peak Elev=174.84' Storage=929 cf Inflow=2.61 cfs 6,351 cf
Outflow=2.06 cfs 6,352 cf

Pond DW-4: PROPOSED DRYWELL #4 Peak Elev=174.18' Storage=1,194 cf Inflow=3.56 cfs 7,556 cf
Discarded=0.51 cfs 3,198 cf Secondary=1.80 cfs 4,358 cf Outflow=2.32 cfs 7,556 cf

Pond DW-5: PROPOSED DRYWELL #5 Peak Elev=172.72' Storage=1,057 cf Inflow=2.03 cfs 4,714 cf
Outflow=1.11 cfs 4,714 cf

Pond DW-6: PROPOSED DRYWELL #6 Peak Elev=174.09' Storage=267 cf Inflow=0.34 cfs 862 cf
Outflow=0.12 cfs 862 cf

Pond DW-7: PROPOSED DRYWELL #7 Peak Elev=175.52' Storage=264 cf Inflow=0.33 cfs 821 cf
Outflow=0.07 cfs 821 cf

Pond DW-8: PROPOSED DRYWELL #8 Peak Elev=173.04' Storage=257 cf Inflow=0.32 cfs 811 cf
Outflow=0.07 cfs 812 cf

Pond YD-1: PROPOSED DRAIN #1 Peak Elev=174.05' Inflow=0.89 cfs 2,198 cf
8.0" Round Culvert n=0.013 L=68.0' S=0.0100 '/' Outflow=0.89 cfs 2,198 cf

Pond YD-2: PROPOSED DRAIN #2 Peak Elev=176.02' Inflow=2.34 cfs 5,471 cf
8.0" Round Culvert n=0.013 L=16.0' S=0.0100 '/' Outflow=2.34 cfs 5,471 cf

Pond YD-3: PROPOSED DRAIN #3 Peak Elev=174.01' Inflow=0.68 cfs 1,702 cf
12.0" Round Culvert n=0.013 L=104.0' S=0.0120 '/' Outflow=0.68 cfs 1,702 cf

Pond YD-4: PROPOSED DRAIN #4 Peak Elev=177.69' Inflow=2.61 cfs 6,351 cf
8.0" Round Culvert n=0.013 L=84.0' S=0.0100 '/' Outflow=2.61 cfs 6,351 cf

Total Runoff Area = 139,588 sf Runoff Volume = 59,504 cf Average Runoff Depth = 5.12"
24.56% Pervious = 34,277 sf 75.44% Impervious = 105,311 sf

Summary for Subcatchment DA-1: DA-1

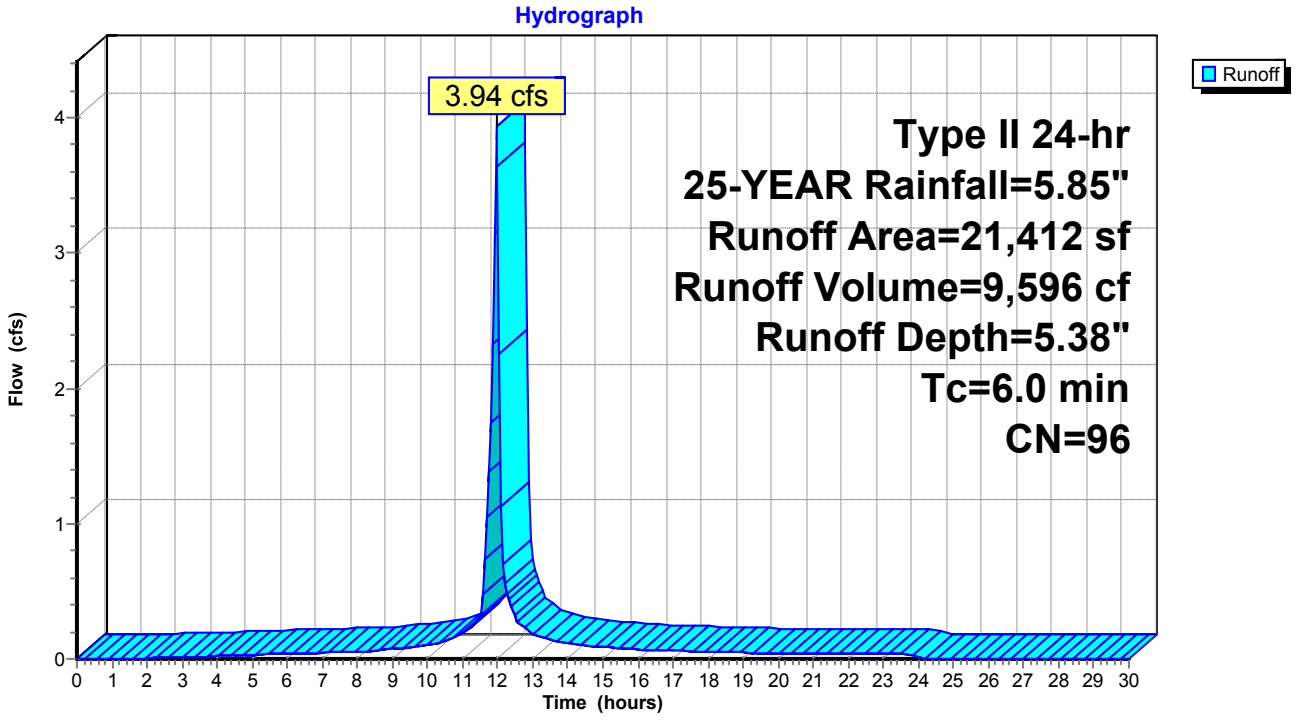
Runoff = 3.94 cfs @ 11.96 hrs, Volume= 9,596 cf, Depth= 5.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
2,951	80	>75% Grass cover, Good, HSG D
17,281	98	Roofs, HSG D
1,180	98	Paved parking, HSG D
21,412	96	Weighted Average
2,951		13.78% Pervious Area
18,461		86.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

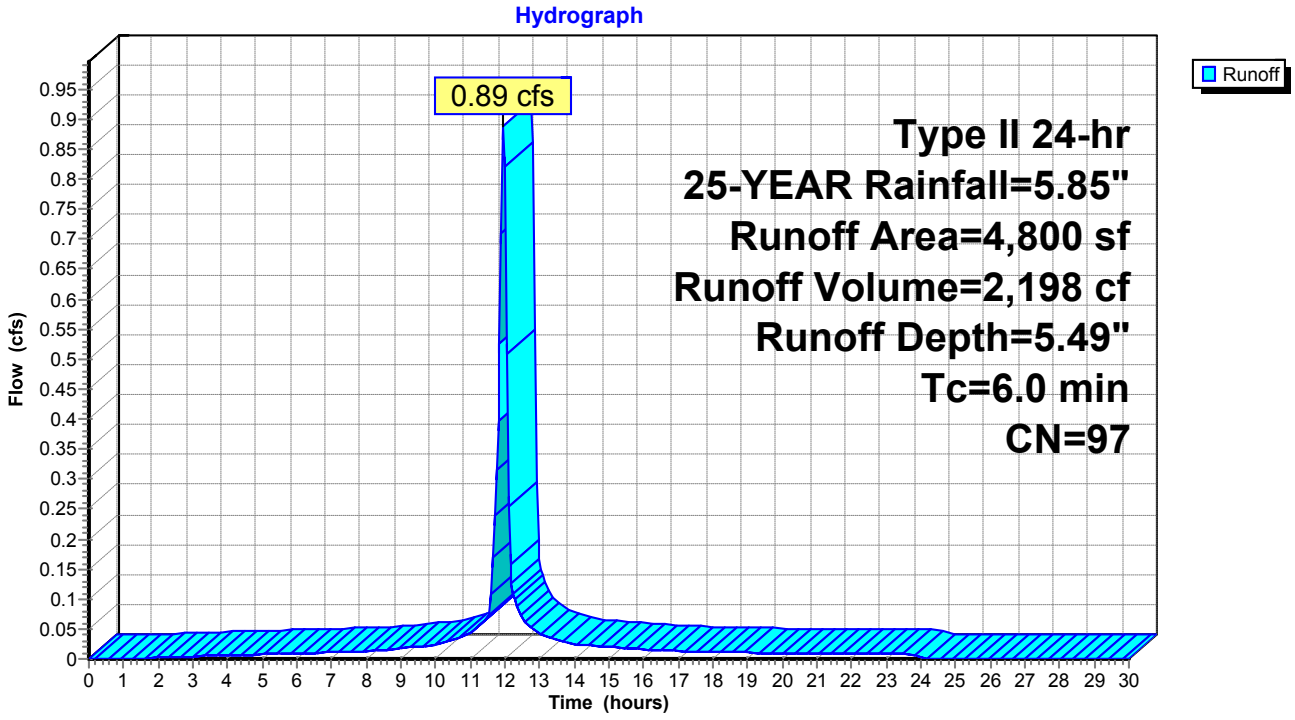
Runoff = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf, Depth= 5.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
245	80	>75% Grass cover, Good, HSG D
2,933	98	Roofs, HSG D
1,622	98	Paved parking, HSG D
4,800	97	Weighted Average
245		5.10% Pervious Area
4,555		94.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

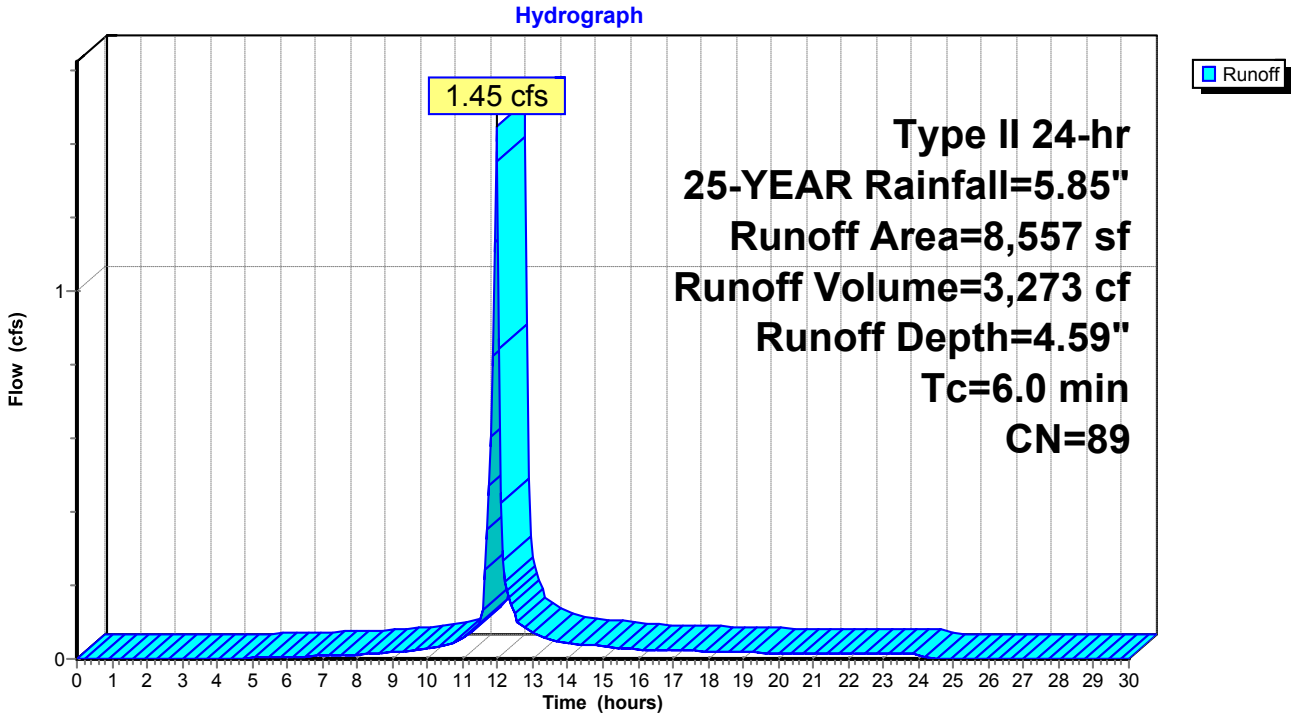
Runoff = 1.45 cfs @ 11.96 hrs, Volume= 3,273 cf, Depth= 4.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
4,132	80	>75% Grass cover, Good, HSG D
3,489	98	Roofs, HSG D
936	98	Paved parking, HSG D
8,557	89	Weighted Average
4,132		48.29% Pervious Area
4,425		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-12: DRAINAGE AREA 12

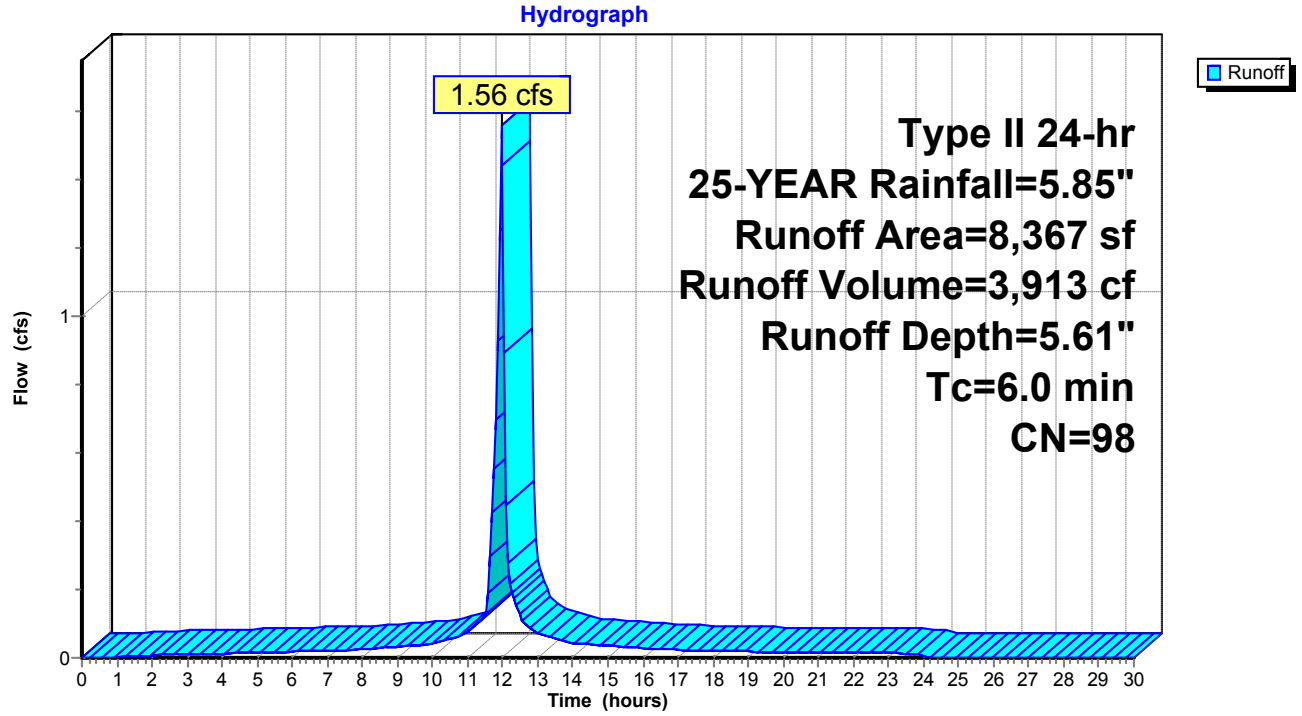
Runoff = 1.56 cfs @ 11.96 hrs, Volume= 3,913 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
8,367	98	Roofs, HSG D
8,367		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-12: DRAINAGE AREA 12



Summary for Subcatchment DA-13: DA-13

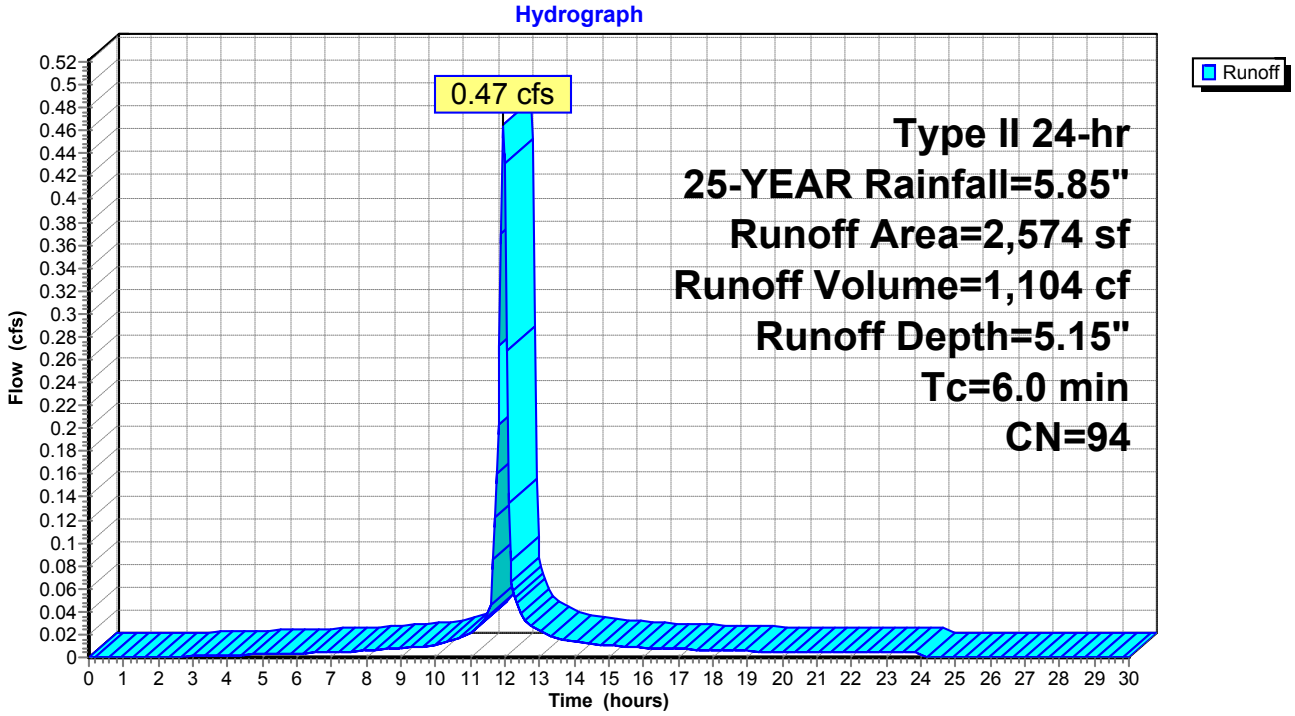
Runoff = 0.47 cfs @ 11.96 hrs, Volume= 1,104 cf, Depth= 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
526	80	>75% Grass cover, Good, HSG D
2,048	98	Paved parking, HSG D
2,574	94	Weighted Average
526		20.44% Pervious Area
2,048		79.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-13: DA-13



Summary for Subcatchment DA-14: DRAINAGE AREA 14

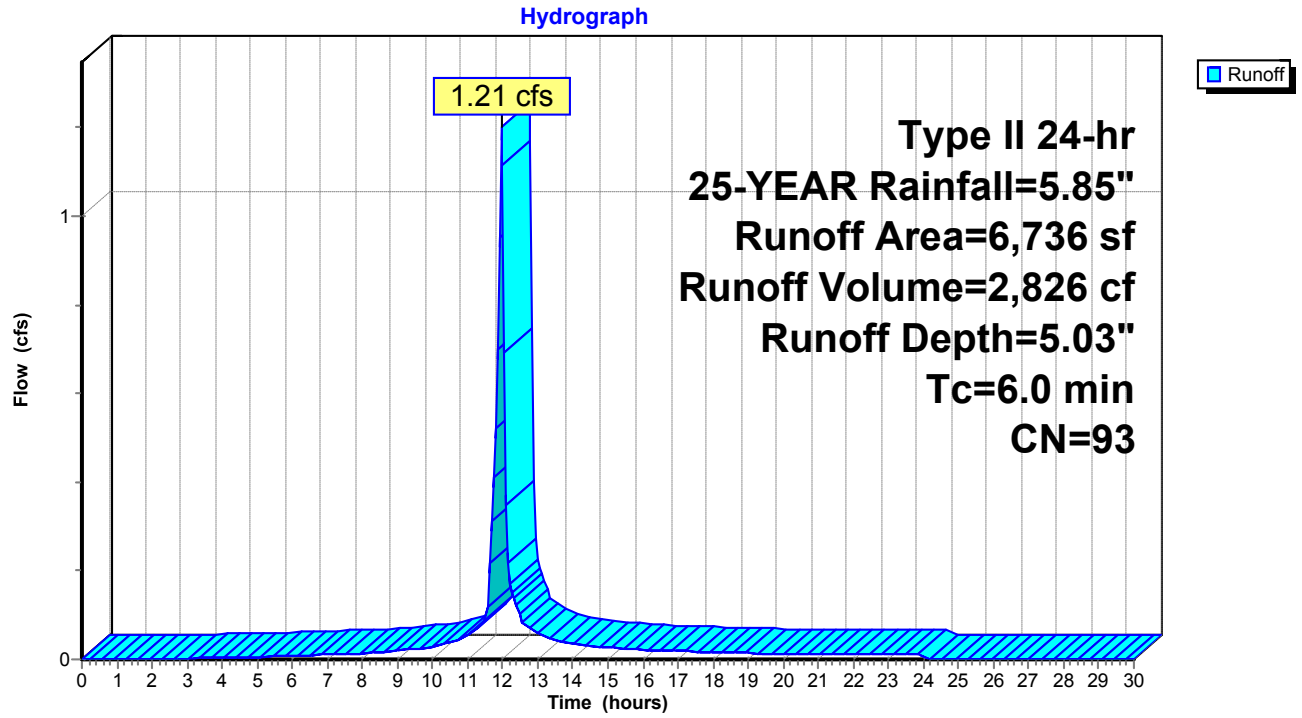
Runoff = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf, Depth= 5.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
2,039	80	>75% Grass cover, Good, HSG D
4,697	98	Paved parking, HSG D
6,736	93	Weighted Average
2,039		30.27% Pervious Area
4,697		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-14: DRAINAGE AREA 14



Summary for Subcatchment DA-15: DA-15

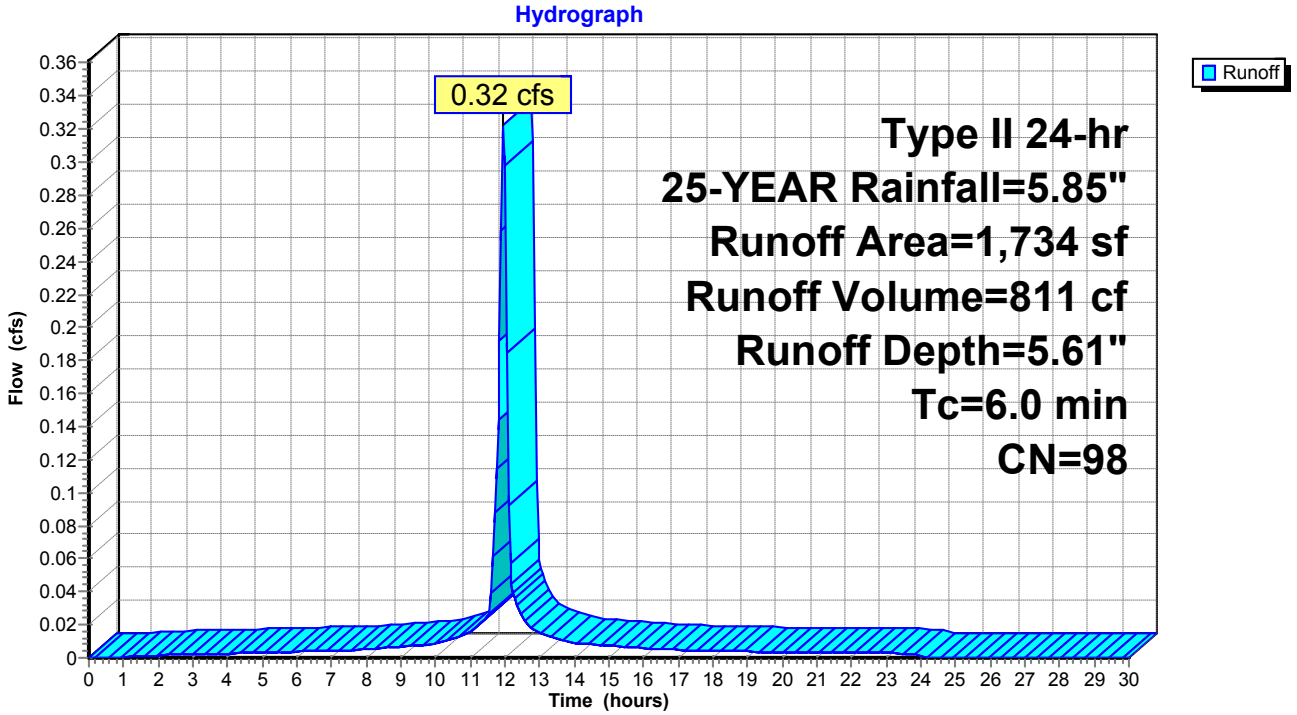
Runoff = 0.32 cfs @ 11.96 hrs, Volume= 811 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,734	98	Roofs, HSG D
1,734		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-15: DA-15



Summary for Subcatchment DA-16: DA-16

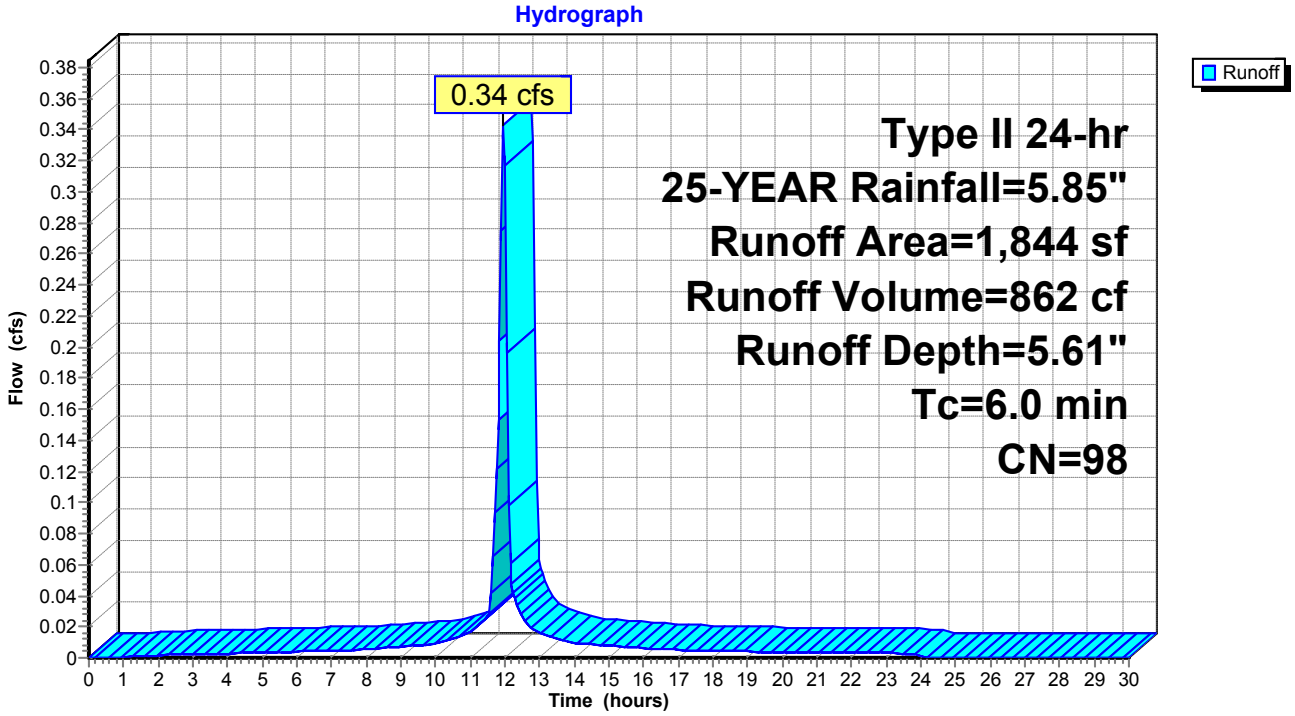
Runoff = 0.34 cfs @ 11.96 hrs, Volume= 862 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,844	98	Roofs, HSG D
1,844		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-16: DA-16



Summary for Subcatchment DA-17: DA-17

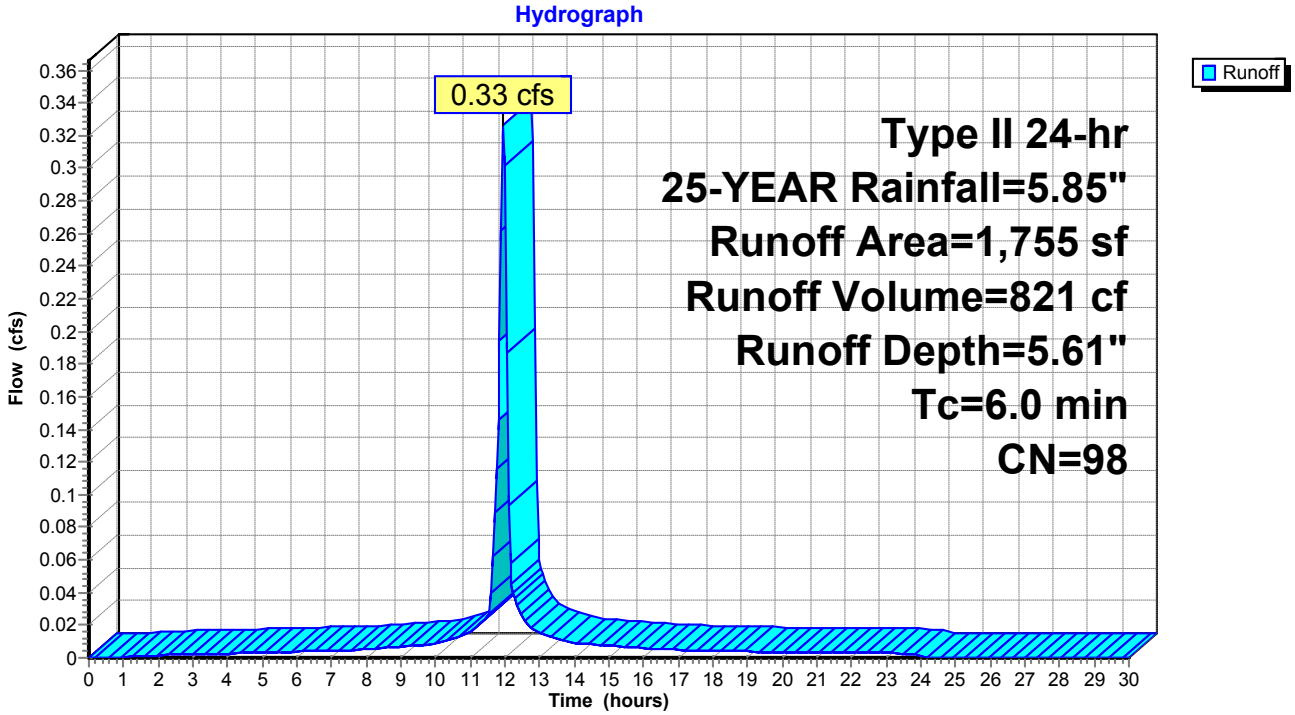
Runoff = 0.33 cfs @ 11.96 hrs, Volume= 821 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,755	98	Roofs, HSG D
1,755		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-17: DA-17



Summary for Subcatchment DA-18: DRAINAGE AREA 18

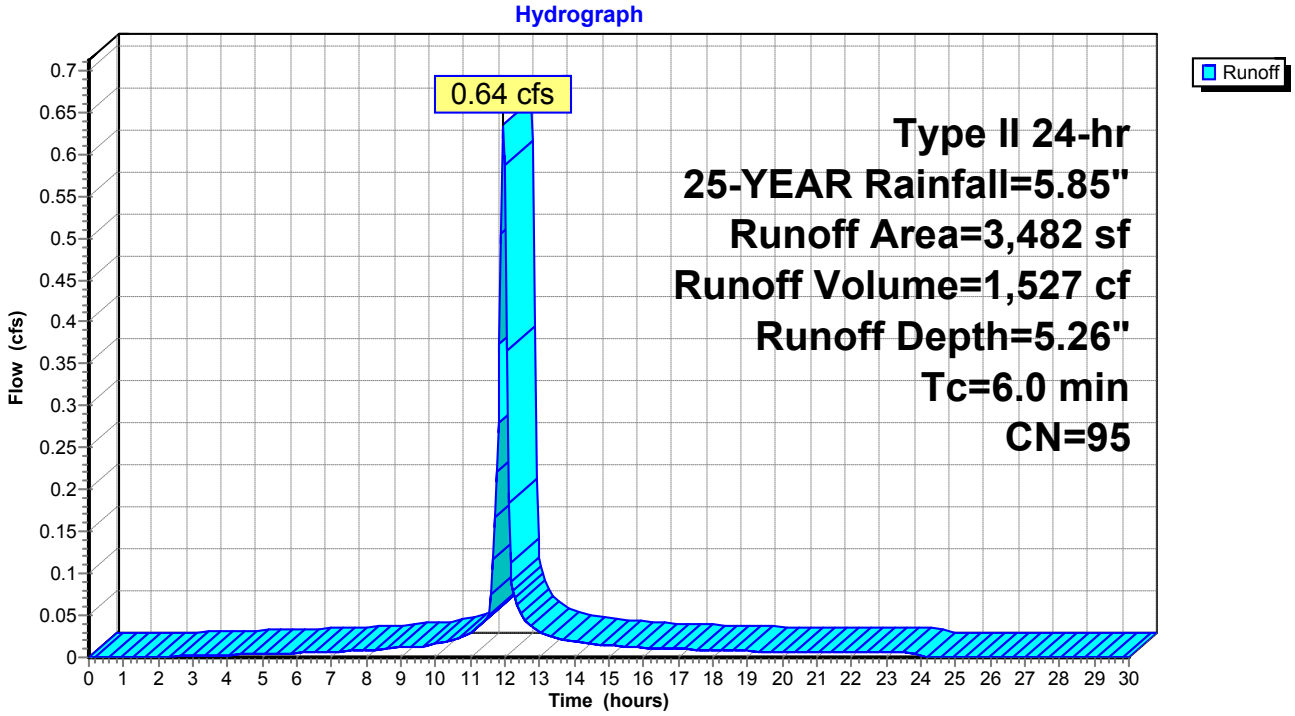
Runoff = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
489	80	>75% Grass cover, Good, HSG D
2,993	98	Paved parking, HSG D
3,482	95	Weighted Average
489		14.04% Pervious Area
2,993		85.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-18: DRAINAGE AREA 18



Summary for Subcatchment DA-2: DA-2

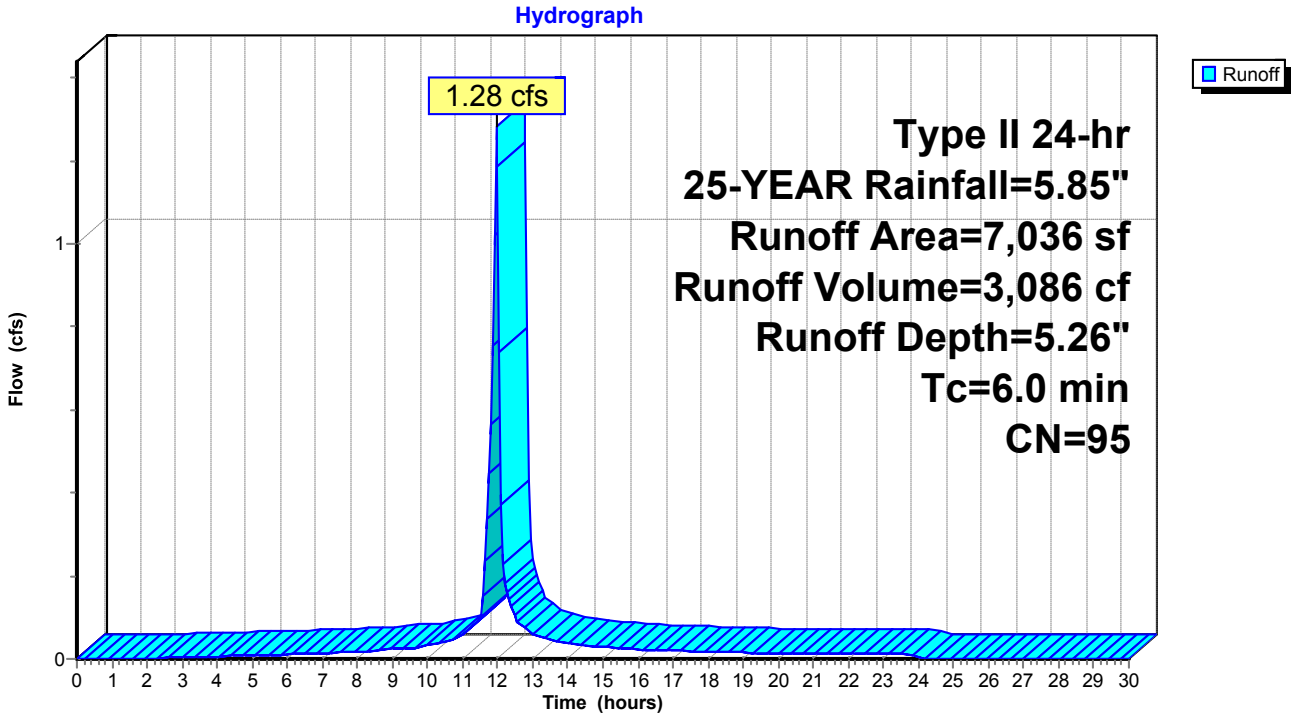
Runoff = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,178	80	>75% Grass cover, Good, HSG D
5,194	98	Roofs, HSG D
664	98	Paved parking, HSG D
7,036	95	Weighted Average
1,178		16.74% Pervious Area
5,858		83.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DRAINAGE AREA 3

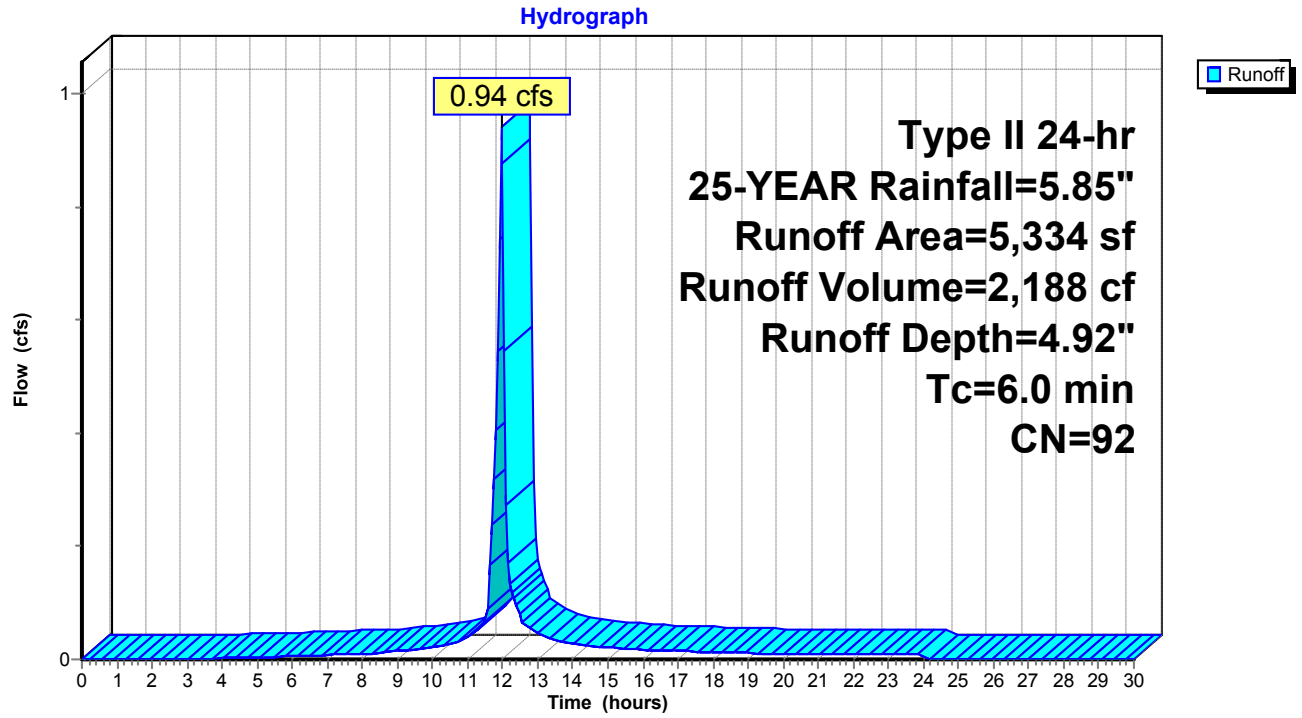
Runoff = 0.94 cfs @ 11.96 hrs, Volume= 2,188 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,820	80	>75% Grass cover, Good, HSG D
3,514	98	Paved parking, HSG D
5,334	92	Weighted Average
1,820		34.12% Pervious Area
3,514		65.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-3: DRAINAGE AREA 3



Summary for Subcatchment DA-4: DRAINAGE AREA 4

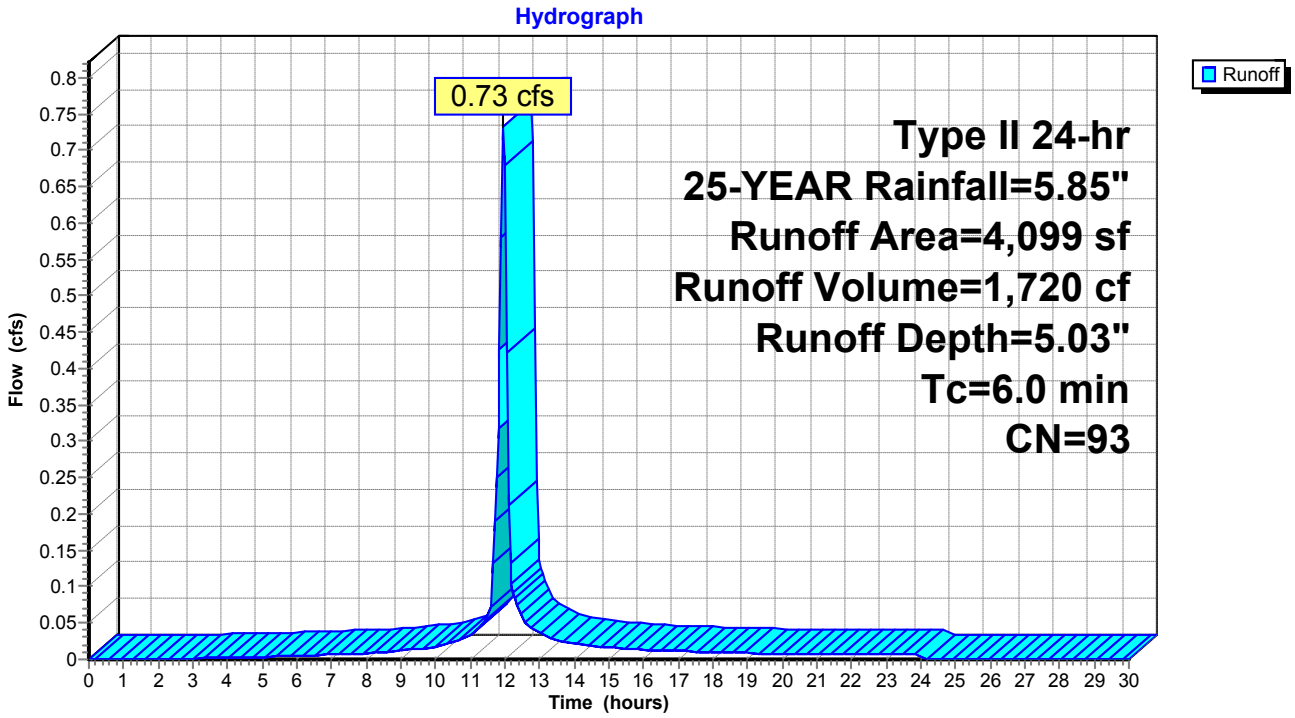
Runoff = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf, Depth= 5.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,032	80	>75% Grass cover, Good, HSG D
3,067	98	Paved parking, HSG D
4,099	93	Weighted Average
1,032		25.18% Pervious Area
3,067		74.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-4: DRAINAGE AREA 4



Summary for Subcatchment DA-5: DRAINAGE AREA 5

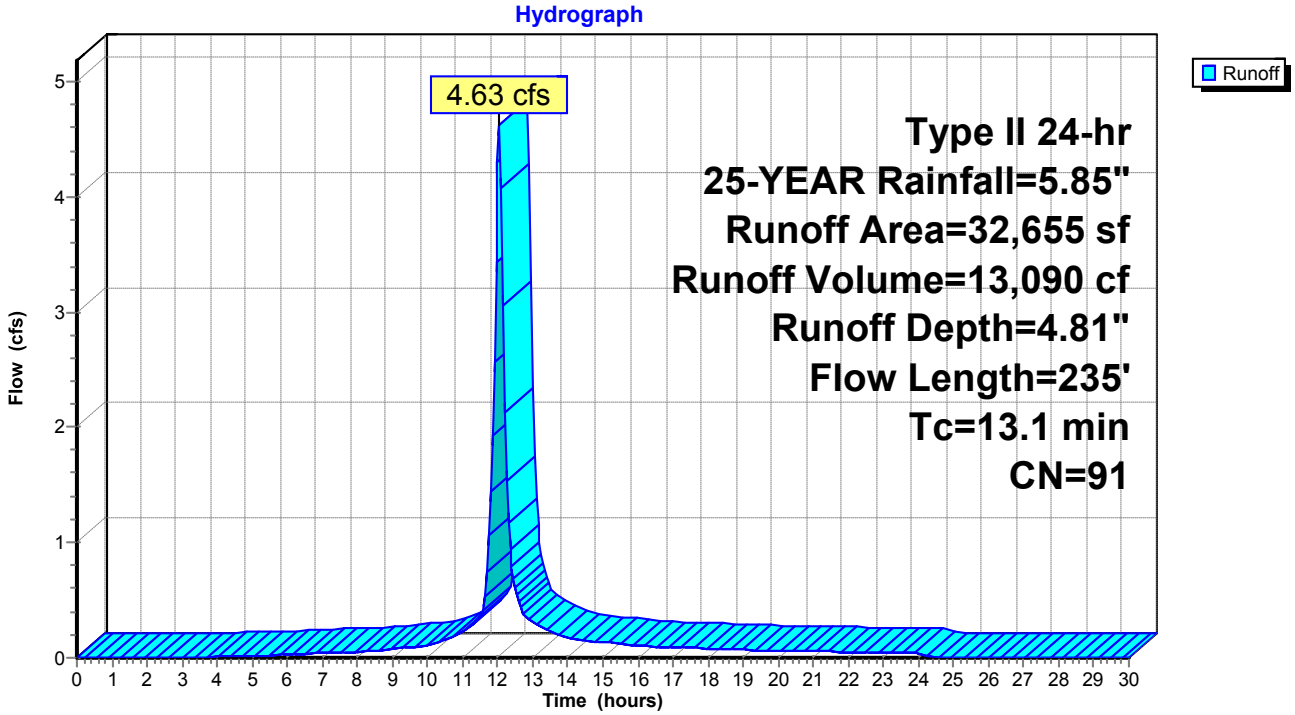
Runoff = 4.63 cfs @ 12.04 hrs, Volume= 13,090 cf, Depth= 4.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
12,737	80	>75% Grass cover, Good, HSG D
19,918	98	Paved parking, HSG D
32,655	91	Weighted Average
12,737		39.00% Pervious Area
19,918		61.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0150	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
1.7	81	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	54	0.0250	3.21		**Shallow Concentrated Flow, C-D** Paved Kv= 20.3 fps
13.1	235	Total			

Subcatchment DA-5: DRAINAGE AREA 5



Summary for Subcatchment DA-6: DA-6

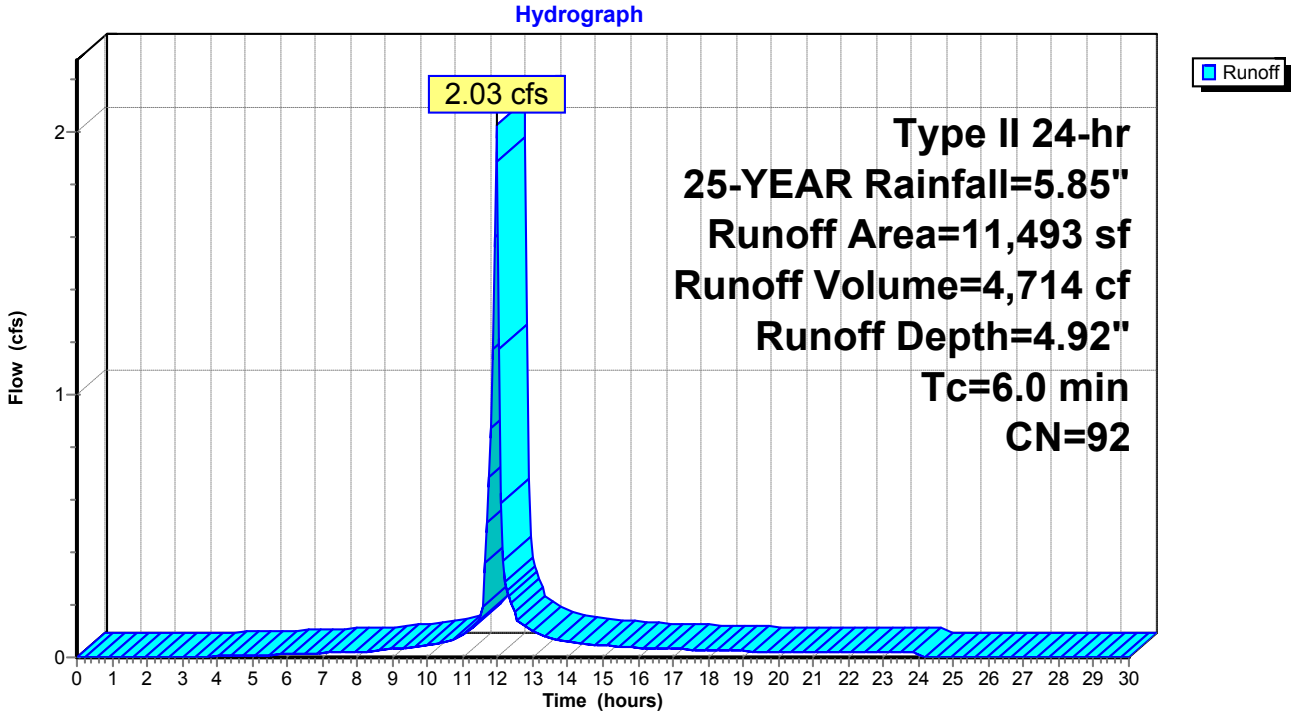
Runoff = 2.03 cfs @ 11.96 hrs, Volume= 4,714 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
3,947	80	>75% Grass cover, Good, HSG D
7,546	98	Paved parking, HSG D
11,493	92	Weighted Average
3,947		34.34% Pervious Area
7,546		65.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

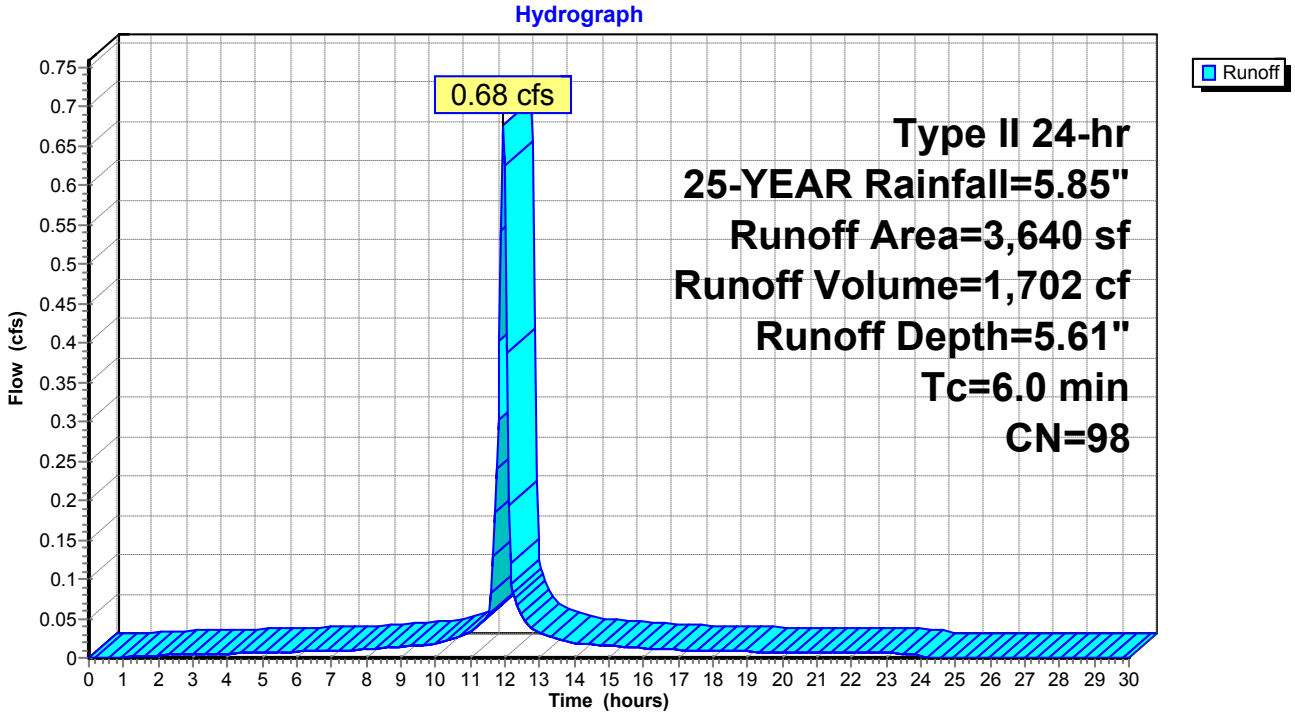
Runoff = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,587	98	Roofs, HSG D
2,053	98	Paved parking, HSG D
3,640	98	Weighted Average
3,640		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

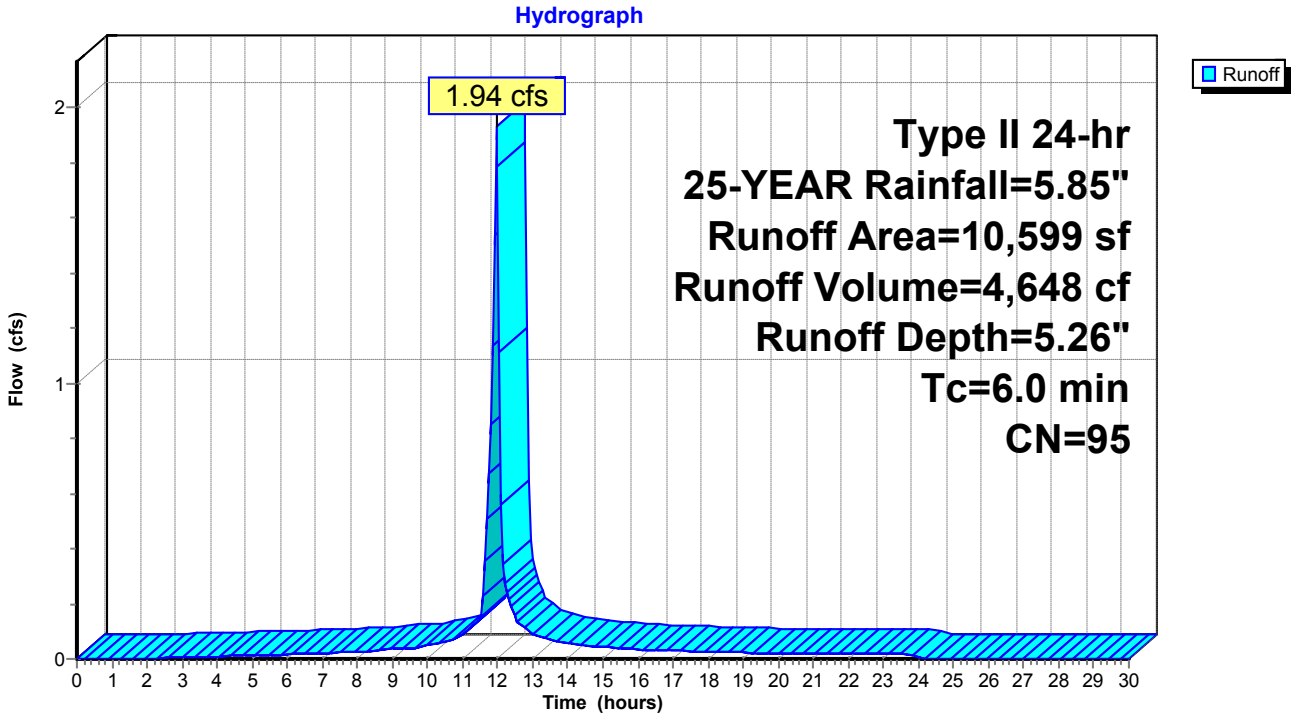
Runoff = 1.94 cfs @ 11.96 hrs, Volume= 4,648 cf, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,986	80	>75% Grass cover, Good, HSG D
6,900	98	Roofs, HSG D
1,713	98	Paved parking, HSG D
10,599	95	Weighted Average
1,986		18.74% Pervious Area
8,613		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DRAINAGE AREA 9

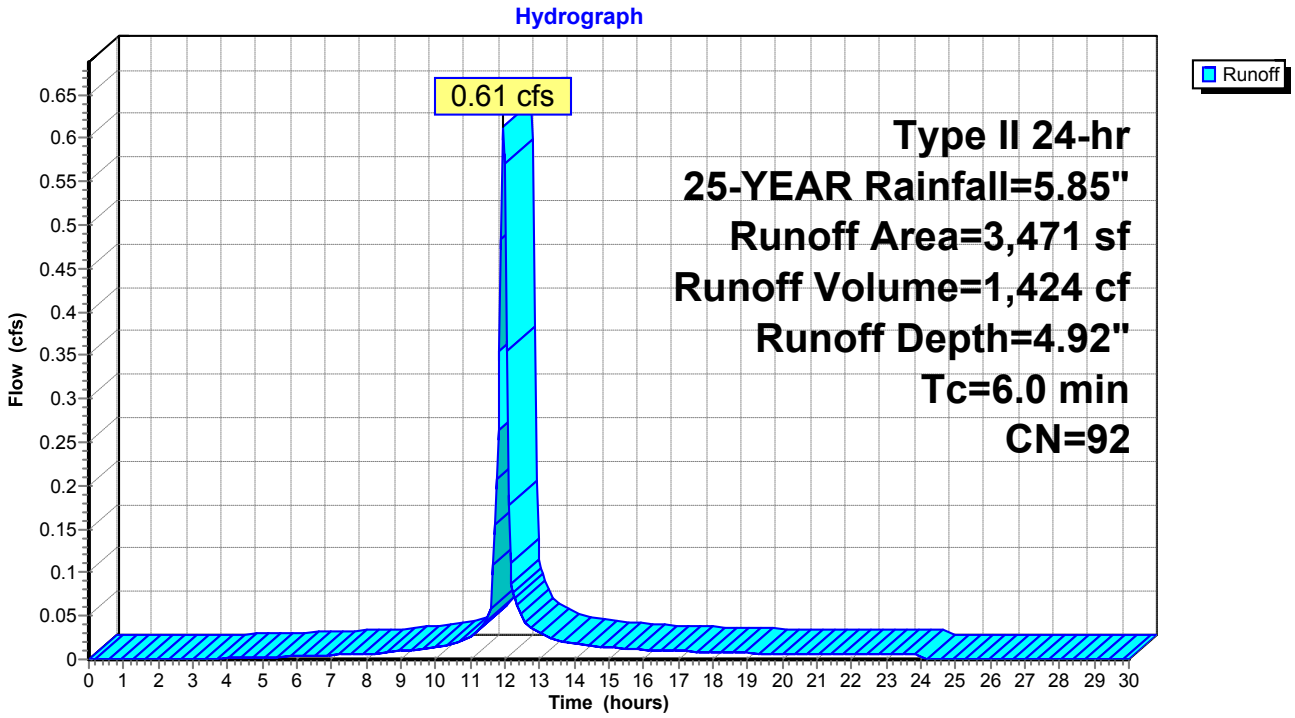
Runoff = 0.61 cfs @ 11.96 hrs, Volume= 1,424 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,195	80	>75% Grass cover, Good, HSG D
2,276	98	Paved parking, HSG D
3,471	92	Weighted Average
1,195		34.43% Pervious Area
2,276		65.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-9: DRAINAGE AREA 9



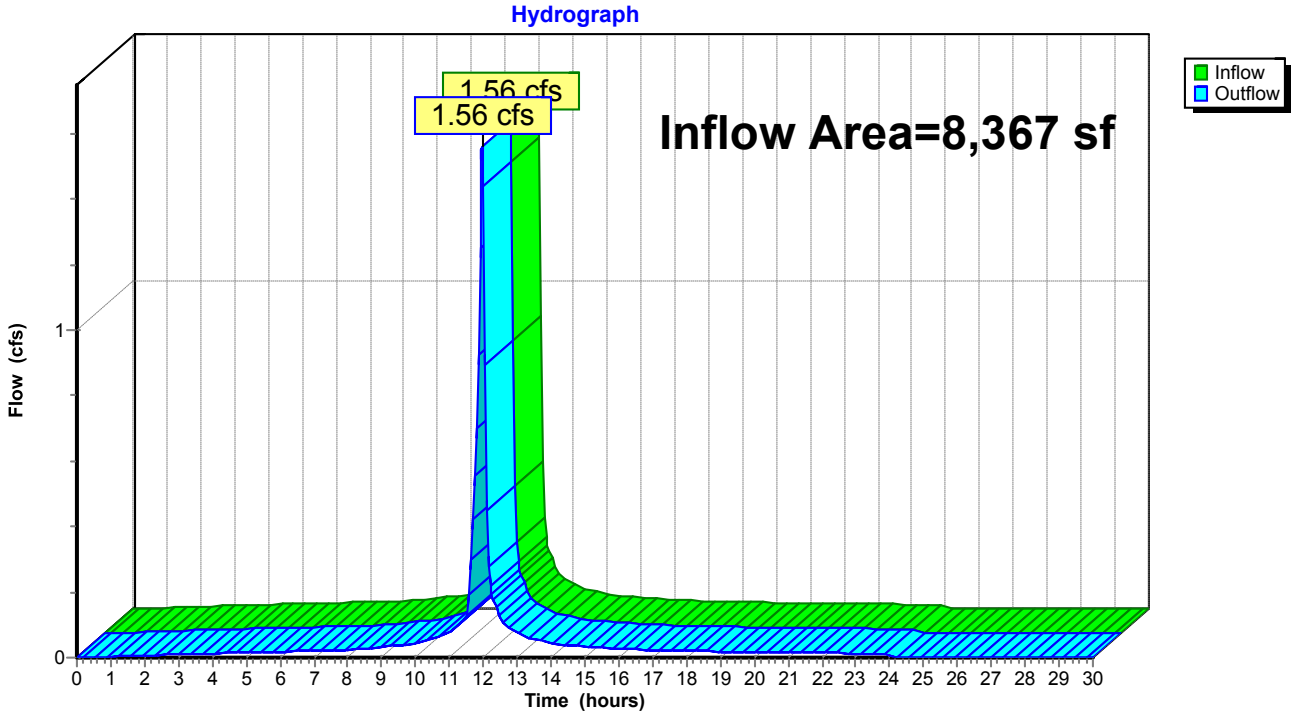
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8,367 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 1.56 cfs @ 11.96 hrs, Volume= 3,913 cf
Outflow = 1.56 cfs @ 11.96 hrs, Volume= 3,913 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 2P: EXISTING DRYWELL

[81] Warning: Exceeded Pond DW-4 by 0.49' @ 18.55 hrs

Inflow Area = 5,334 sf, 65.88% Impervious, Inflow Depth = 14.73" for 25-YEAR event
Inflow = 2.67 cfs @ 11.98 hrs, Volume= 6,546 cf
Outflow = 2.64 cfs @ 12.00 hrs, Volume= 6,546 cf, Atten= 1%, Lag= 1.1 min
Discarded = 0.67 cfs @ 12.00 hrs, Volume= 3,873 cf
Primary = 1.97 cfs @ 12.00 hrs, Volume= 2,673 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.83' @ 12.00 hrs Surf.Area= 1,319 sf Storage= 431 cf

Plug-Flow detention time= 21.9 min calculated for 6,535 cf (100% of inflow)
Center-of-Mass det. time= 21.8 min (773.8 - 751.9)

Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	1,717 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

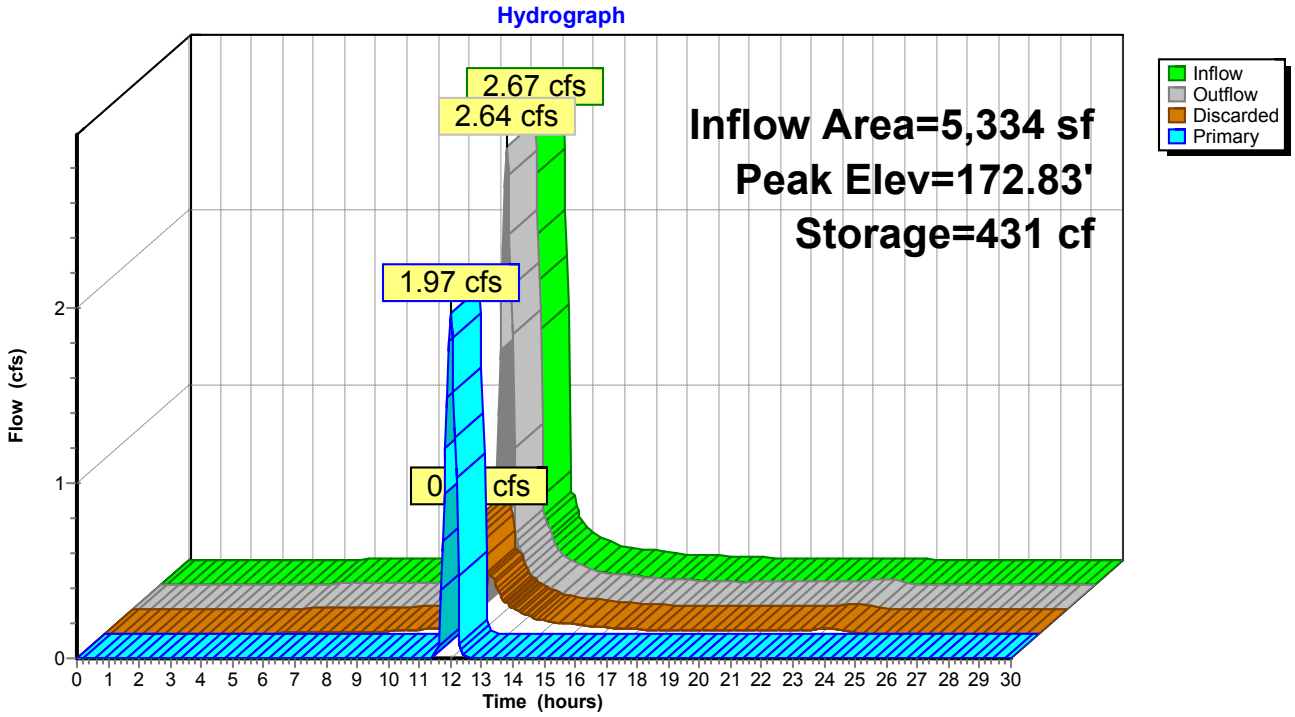
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	2,000	507	717
173.50	2,000	1,000	1,717

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**
#2	Primary	172.65'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.67 cfs @ 12.00 hrs HW=172.83' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.67 cfs)

Primary OutFlow Max=1.95 cfs @ 12.00 hrs HW=172.83' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 1.95 cfs @ 1.38 fps)

Pond 2P: EXISTING DRYWELL



Summary for Pond 3P: PROPOSED CB #3

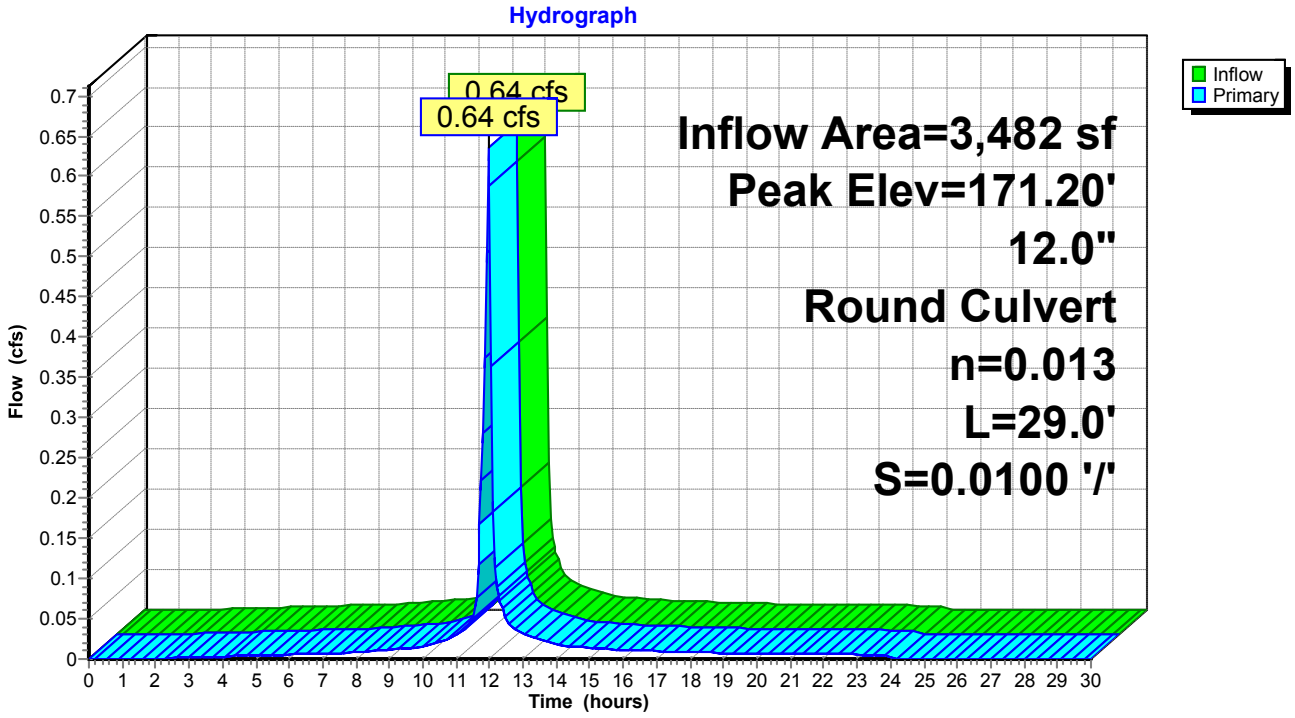
Inflow Area = 3,482 sf, 85.96% Impervious, Inflow Depth = 5.26" for 25-YEAR event
Inflow = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf
Outflow = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.20' @ 11.96 hrs
Flood Elev= 172.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.74'	**12.0" Round Culvert** L= 29.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.74' / 170.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.62 cfs @ 11.96 hrs HW=171.19' (Free Discharge)
1=Culvert (Inlet Controls 0.62 cfs @ 1.80 fps)

Pond 3P: PROPOSED CB #3



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond CB-2 by 2.79' @ 12.15 hrs

Inflow	=	1.67 cfs @	11.96 hrs,	Volume=	5,126 cf
Outflow	=	1.08 cfs @	12.05 hrs,	Volume=	5,126 cf, Atten= 35%, Lag= 5.3 min
Discarded	=	1.08 cfs @	12.05 hrs,	Volume=	5,126 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.52' @ 12.05 hrs Surf.Area= 2,121 sf Storage= 790 cf

Plug-Flow detention time= 42.2 min calculated for 5,126 cf (100% of inflow)
Center-of-Mass det. time= 42.2 min (802.5 - 760.3)

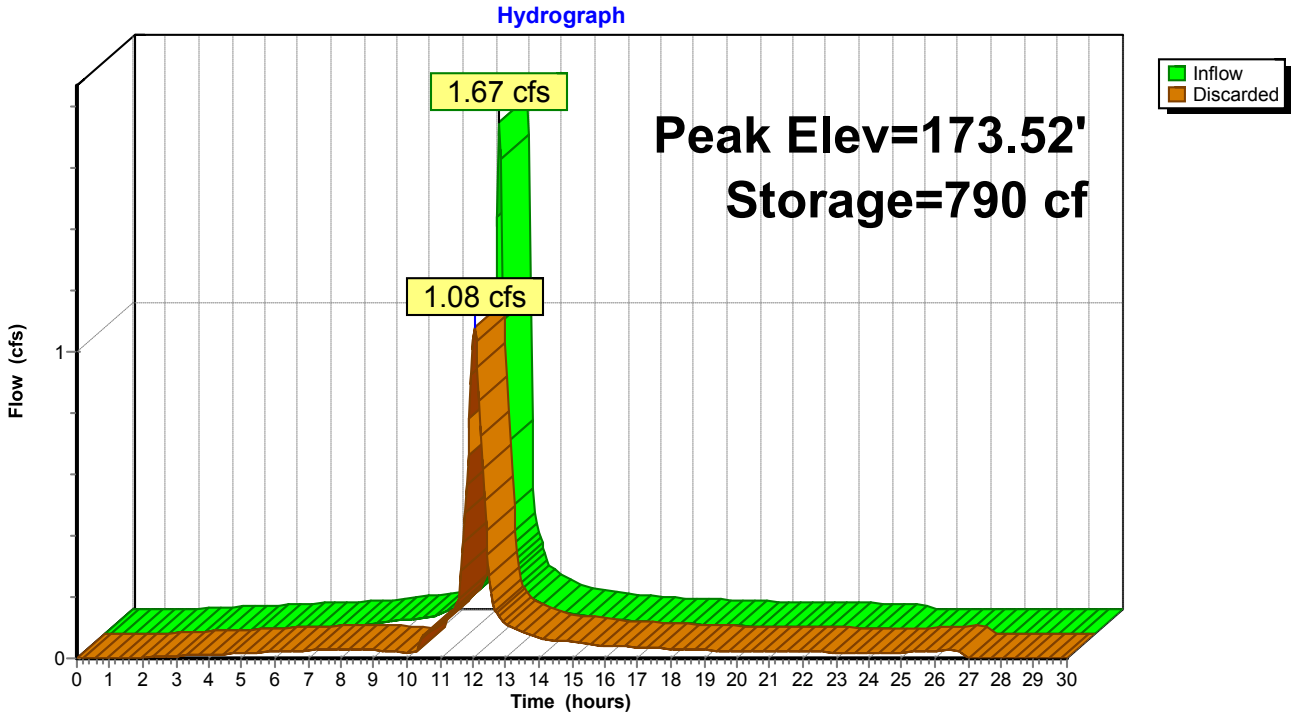
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	112	7	213
174.00	4,000	2,056	2,269

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.08 cfs @ 12.05 hrs HW=173.52' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.08 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 8P: EXISTING YARD DRAIN

[58] Hint: Peaked 69.02' above defined flood level

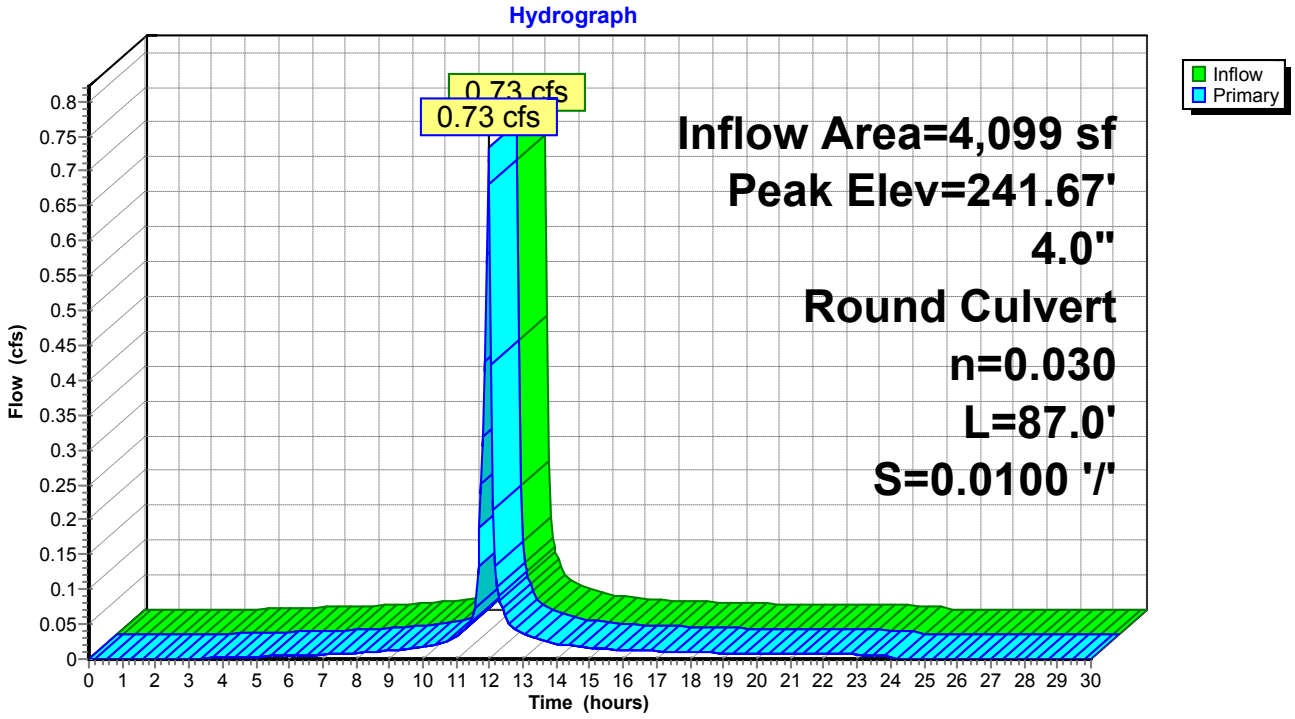
Inflow Area = 4,099 sf, 74.82% Impervious, Inflow Depth = 5.03" for 25-YEAR event
Inflow = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf
Outflow = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 241.67' @ 11.96 hrs
Flood Elev= 172.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.030, Flow Area= 0.09 sf

Primary OutFlow Max=0.72 cfs @ 11.96 hrs HW=238.43' (Free Discharge)
1=Culvert (Barrel Controls 0.72 cfs @ 8.20 fps)

Pond 8P: EXISTING YARD DRAIN



Summary for Pond 12P: EXISTING CB

[81] Warning: Exceeded Pond 3P by 0.91' @ 12.05 hrs

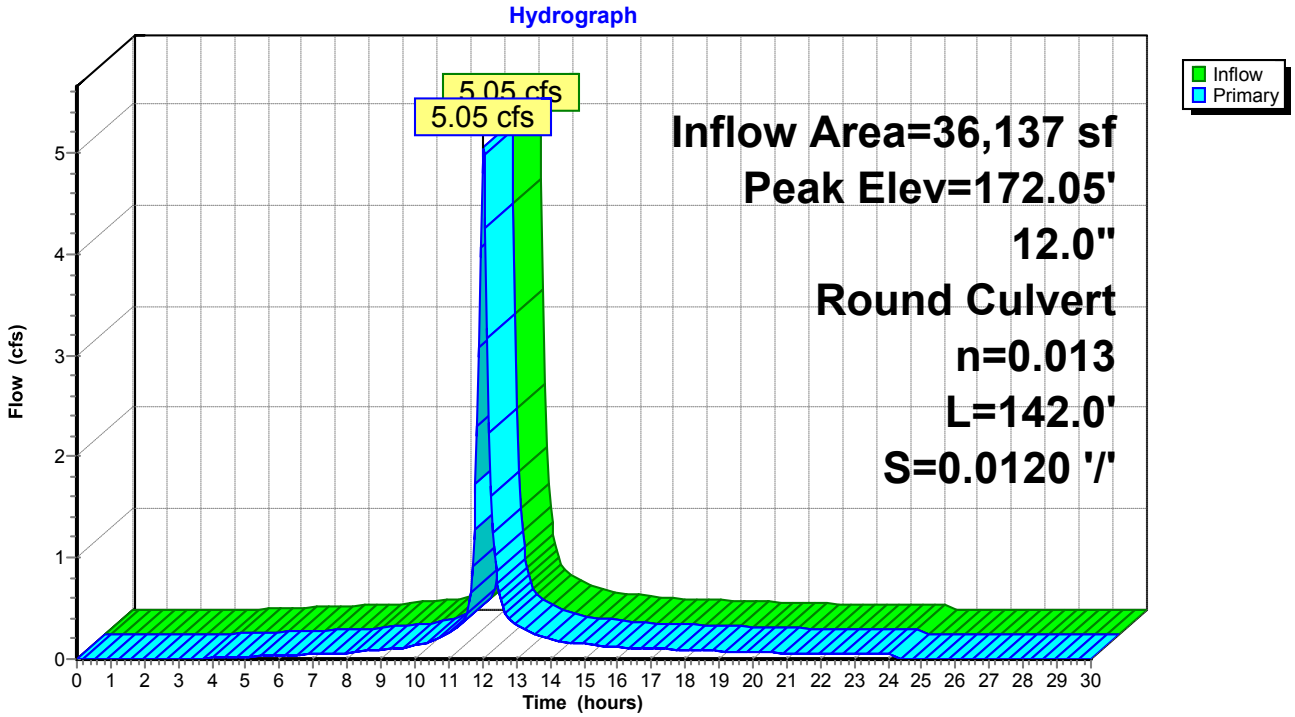
Inflow Area = 36,137 sf, 63.40% Impervious, Inflow Depth = 4.85" for 25-YEAR event
Inflow = 5.05 cfs @ 12.03 hrs, Volume= 14,618 cf
Outflow = 5.05 cfs @ 12.03 hrs, Volume= 14,618 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.05 cfs @ 12.03 hrs, Volume= 14,618 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.05' @ 12.03 hrs
Flood Elev= 172.16'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=4.95 cfs @ 12.03 hrs HW=171.95' (Free Discharge)
└**1=Culvert** (Inlet Controls 4.95 cfs @ 6.31 fps)

Pond 12P: EXISTING CB



Summary for Pond 14P: EXISTING CB

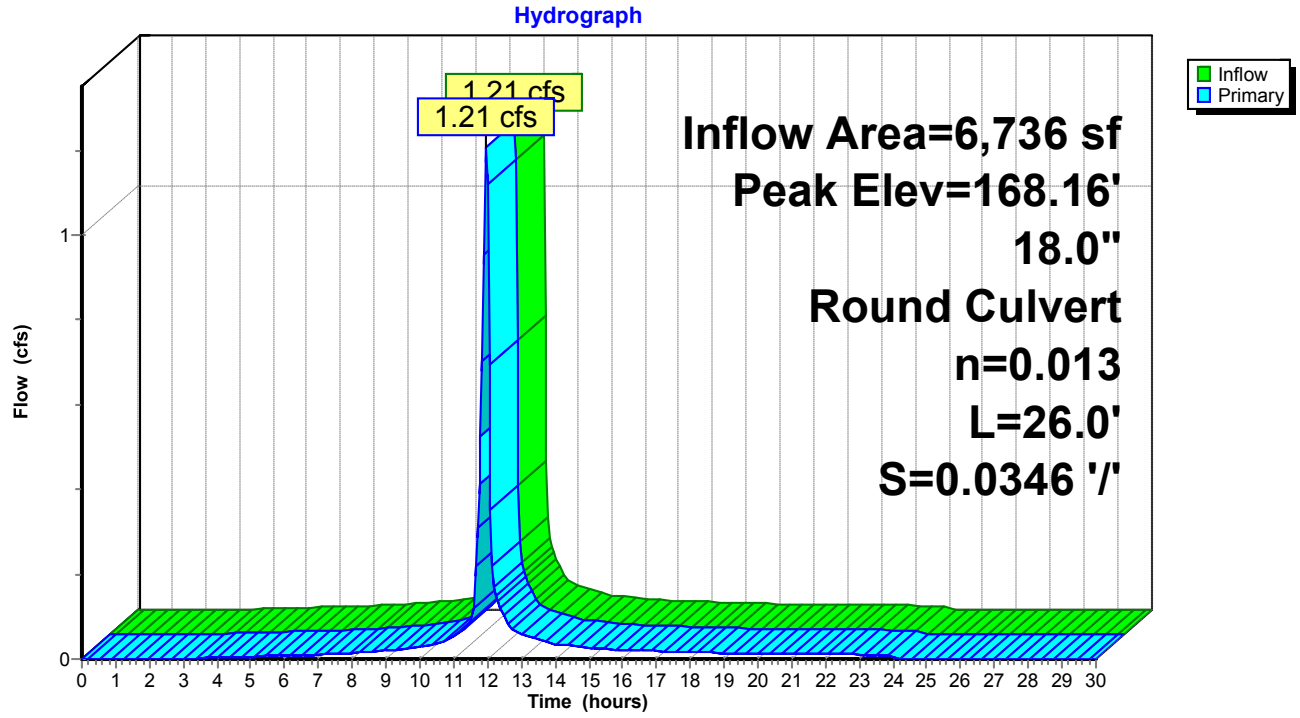
Inflow Area = 6,736 sf, 69.73% Impervious, Inflow Depth = 5.03" for 25-YEAR event
Inflow = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf
Outflow = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.16' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=1.17 cfs @ 11.96 hrs HW=168.15' (Free Discharge)
1=Culvert (Inlet Controls 1.17 cfs @ 2.00 fps)

Pond 14P: EXISTING CB



Summary for Pond CB-1: PROPOSED CATCH BASIN #1

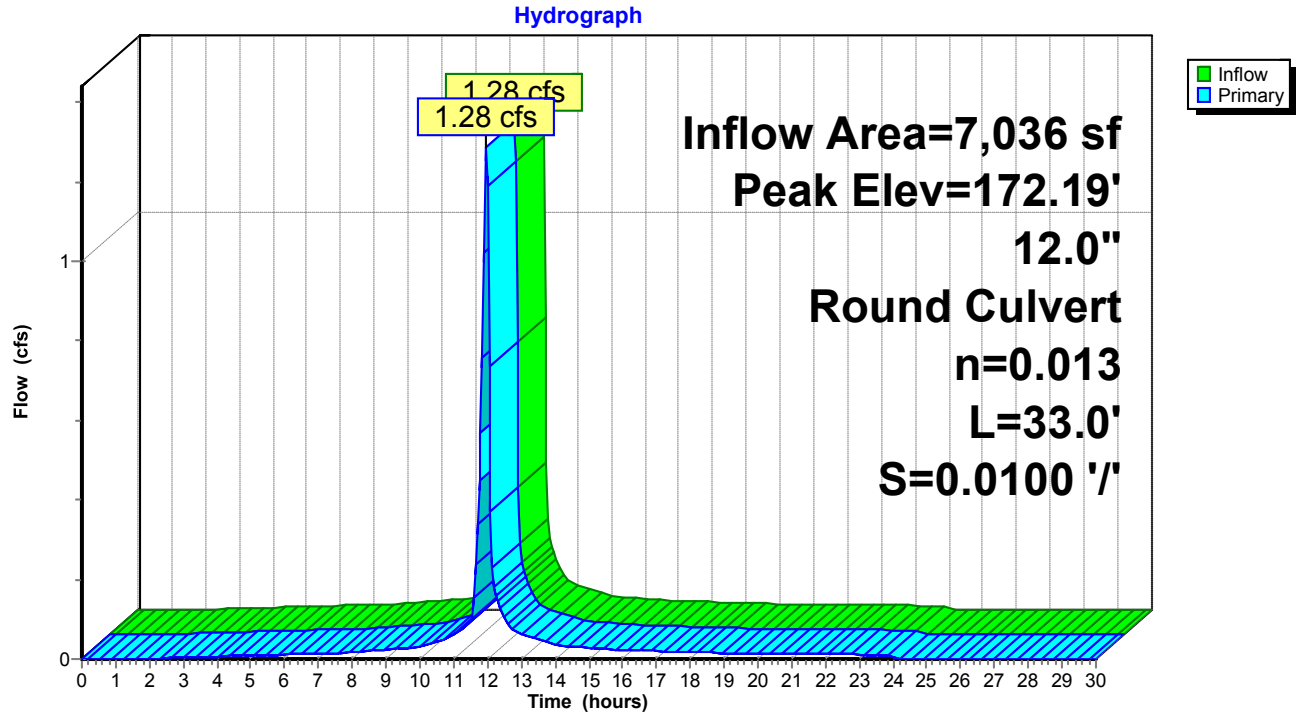
Inflow Area = 7,036 sf, 83.26% Impervious, Inflow Depth = 5.26" for 25-YEAR event
Inflow = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf
Outflow = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.19' @ 11.96 hrs
Flood Elev= 172.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.50'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.50' / 171.17' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.25 cfs @ 11.96 hrs HW=172.18' (Free Discharge)
1=Culvert (Inlet Controls 1.25 cfs @ 2.21 fps)

Pond CB-1: PROPOSED CATCH BASIN #1



Summary for Pond CB-2: PR CB #2

[57] Hint: Peaked at 172.16' (Flood elevation advised)
[79] Warning: Submerged Pond CB-1 Primary device # 1 INLET by 0.65'

Inflow Area =	28,448 sf,	85.49% Impervious,	Inflow Depth =	5.35"	for 25-YEAR event
Inflow =	5.23 cfs @	11.96 hrs,	Volume=	12,682 cf	
Outflow =	5.23 cfs @	11.96 hrs,	Volume=	12,682 cf,	Atten= 0%, Lag= 0.0 min
Primary =	3.56 cfs @	11.96 hrs,	Volume=	7,556 cf	
Secondary =	1.67 cfs @	11.96 hrs,	Volume=	5,126 cf	

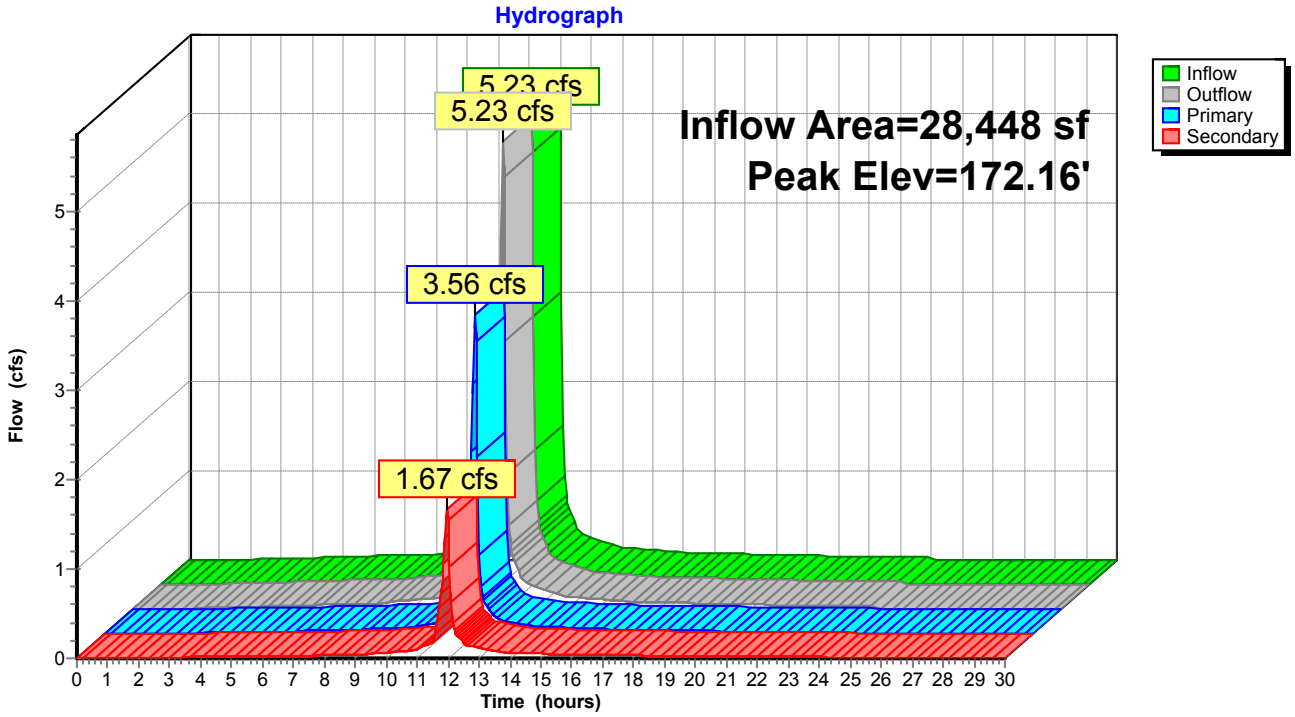
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.16' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.25'	**12.0" Round Culvert** L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	170.25'	**8.0" Round Culvert** L= 12.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=3.47 cfs @ 11.96 hrs HW=172.10' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 3.47 cfs @ 4.42 fps)

Secondary OutFlow Max=1.63 cfs @ 11.96 hrs HW=172.10' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 1.63 cfs @ 4.68 fps)

Pond CB-2: PR CB #2



Summary for Pond DP-1: Existing Catch Basin

[79] Warning: Submerged Pond 12P Primary device # 1 INLET by 0.58'
[81] Warning: Exceeded Pond 14P by 1.15' @ 12.00 hrs

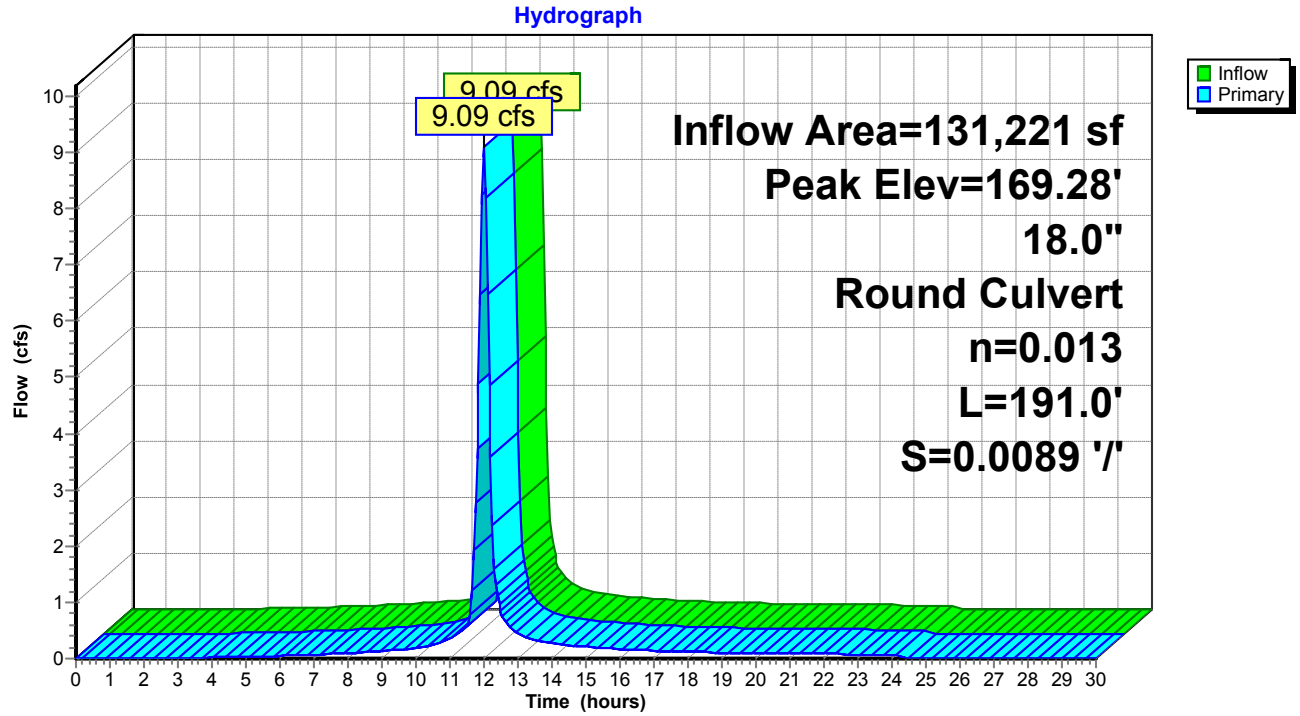
Inflow Area = 131,221 sf, 73.88% Impervious, Inflow Depth = 2.10" for 25-YEAR event
Inflow = 9.09 cfs @ 12.00 hrs, Volume= 22,940 cf
Outflow = 9.09 cfs @ 12.00 hrs, Volume= 22,940 cf, Atten= 0%, Lag= 0.0 min
Primary = 9.09 cfs @ 12.00 hrs, Volume= 22,940 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.28' @ 12.00 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=9.08 cfs @ 12.00 hrs HW=169.28' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 9.08 cfs @ 5.14 fps)

Pond DP-1: Existing Catch Basin



Summary for Pond DW-1: PROPOSED DRYWELL #1

Inflow Area = 3,471 sf, 65.57% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 0.61 cfs @ 11.96 hrs, Volume= 1,424 cf
Outflow = 0.23 cfs @ 12.00 hrs, Volume= 1,424 cf, Atten= 63%, Lag= 2.2 min
Discarded = 0.23 cfs @ 12.00 hrs, Volume= 1,424 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.37' @ 12.09 hrs Surf.Area= 310 sf Storage= 411 cf

Plug-Flow detention time= 32.7 min calculated for 1,421 cf (100% of inflow)
Center-of-Mass det. time= 32.6 min (807.1 - 774.5)

Volume	Invert	Avail.Storage	Storage Description
#1	164.00'	712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	163.00'	38 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 94 cf Overall x 40.0% Voids
		750 cf	Total Available Storage

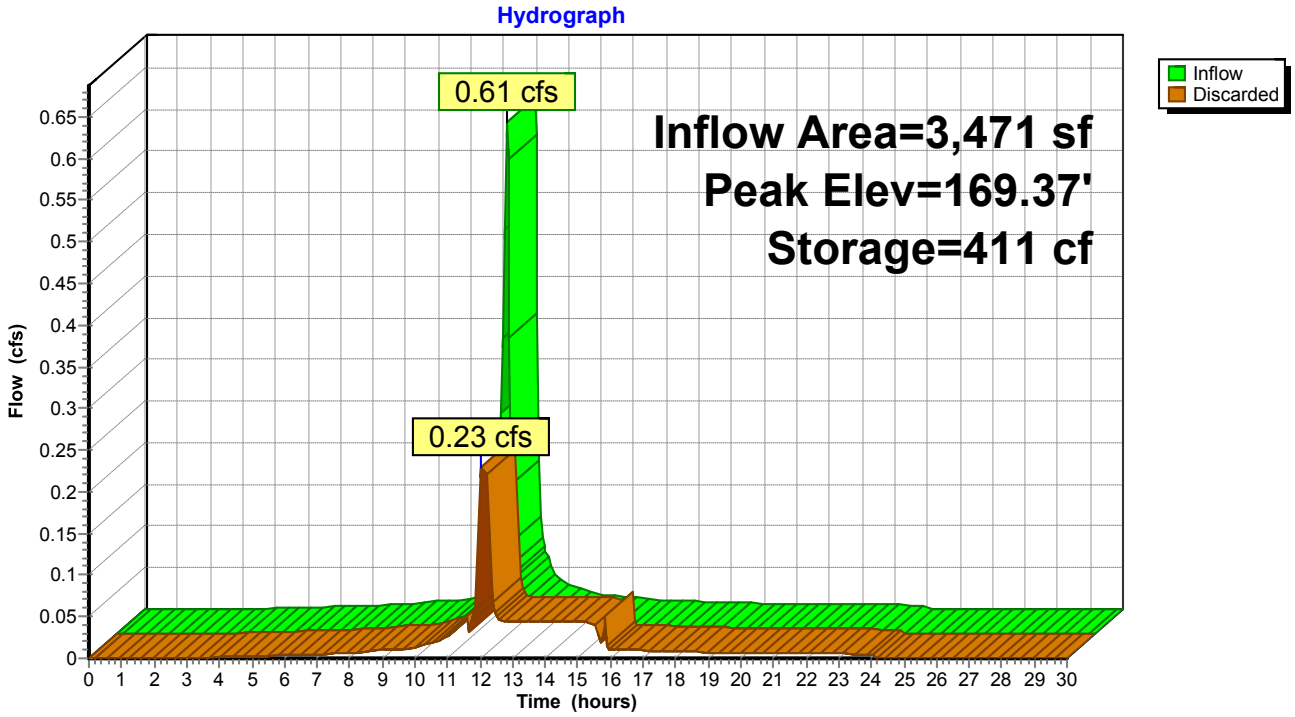
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	50	0	0
168.90	50	245	245
169.00	300	17	262
170.50	300	450	712

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	78	0	0
164.00	10	44	44
169.00	10	50	94

Device	Routing	Invert	Outlet Devices
#1	Discarded	163.00'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.23 cfs @ 12.00 hrs HW=169.21' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.23 cfs)

Pond DW-1: PROPOSED DRYWELL #1



Summary for Pond DW-2: PROPOSED DRYWELL #2

[81] Warning: Exceeded Pond YD-2 by 2.78' @ 15.80 hrs

Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 2.34 cfs @ 11.96 hrs, Volume= 5,471 cf
Outflow = 1.91 cfs @ 12.02 hrs, Volume= 5,472 cf, Atten= 18%, Lag= 3.1 min
Discarded = 1.91 cfs @ 12.02 hrs, Volume= 5,472 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.79' @ 12.02 hrs Surf.Area= 2,577 sf Storage= 818 cf

Plug-Flow detention time= 45.1 min calculated for 5,463 cf (100% of inflow)
Center-of-Mass det. time= 45.2 min (816.1 - 770.9)

Volume	Invert	Avail.Storage	Storage Description
#1	167.78'	1,499 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	166.50'	53 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 134 cf Overall x 40.0% Voids
		1,552 cf	Total Available Storage

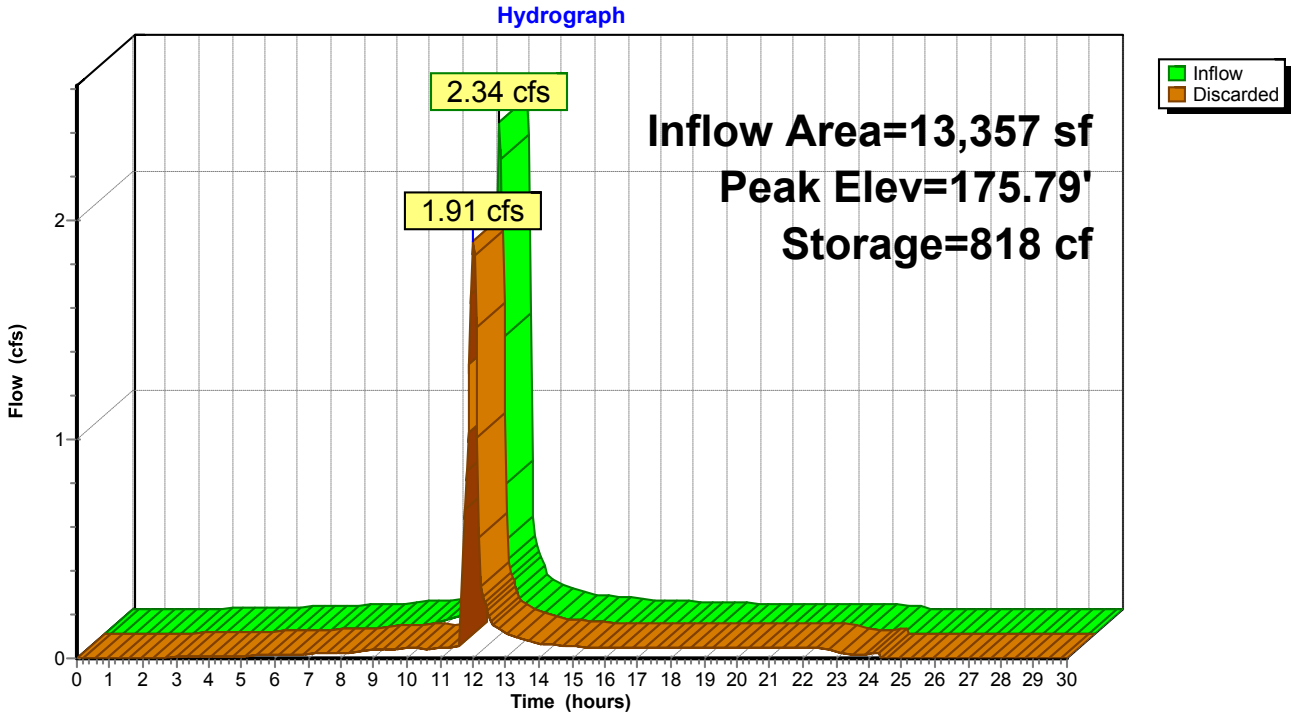
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.78	50	0	0
175.50	50	386	386
176.00	4,400	1,113	1,499

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.50	78	0	0
167.78	10	56	56
175.50	10	77	134

Device	Routing	Invert	Outlet Devices
#1	Discarded	166.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.88 cfs @ 12.02 hrs HW=175.78' (Free Discharge)
1=Exfiltration (Exfiltration Controls 1.88 cfs)

Pond DW-2: PROPOSED DRYWELL #2



Summary for Pond DW-3: PROPOSED DRYWELL #3

[81] Warning: Exceeded Pond YD-4 by 2.08' @ 16.10 hrs

Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 5.35" for 25-YEAR event
Inflow = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf
Outflow = 2.06 cfs @ 12.02 hrs, Volume= 6,352 cf, Atten= 21%, Lag= 3.5 min
Discarded = 2.06 cfs @ 12.02 hrs, Volume= 6,352 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.84' @ 12.02 hrs Surf.Area= 2,774 sf Storage= 929 cf

Plug-Flow detention time= 43.5 min calculated for 6,341 cf (100% of inflow)
Center-of-Mass det. time= 43.6 min (799.0 - 755.4)

Volume	Invert	Avail.Storage	Storage Description
#1	166.69'	1,403 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	165.50'	55 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 138 cf Overall x 40.0% Voids
		1,458 cf	Total Available Storage

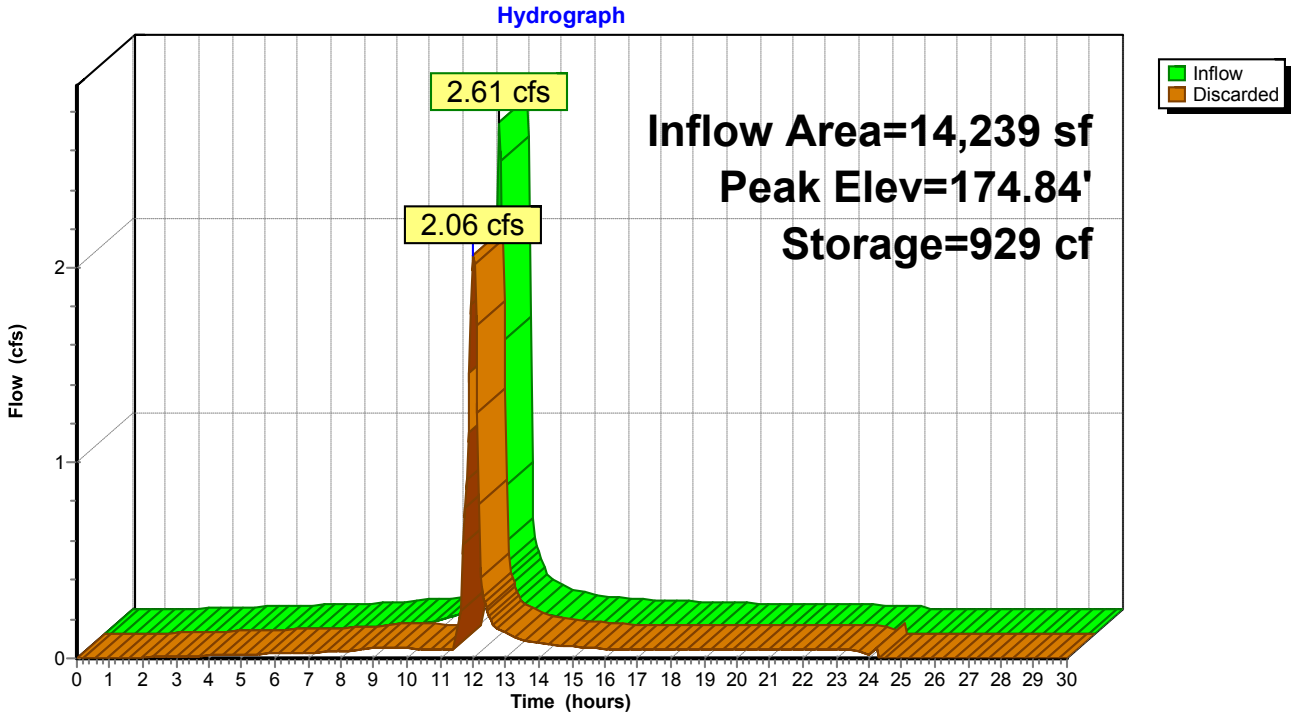
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.69	50	0	0
174.50	50	391	391
175.00	4,000	1,013	1,403

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.50	79	0	0
165.69	79	15	15
166.69	10	45	60
174.50	10	78	138

Device	Routing	Invert	Outlet Devices
#1	Discarded	165.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.02 cfs @ 12.02 hrs HW=174.84' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 2.02 cfs)

Pond DW-3: PROPOSED DRYWELL #3



Summary for Pond DW-4: PROPOSED DRYWELL #4

[81] Warning: Exceeded Pond CB-2 by 3.22' @ 12.10 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 3.19" for 25-YEAR event
Inflow = 3.56 cfs @ 11.96 hrs, Volume= 7,556 cf
Outflow = 2.32 cfs @ 12.04 hrs, Volume= 7,556 cf, Atten= 35%, Lag= 4.6 min
Discarded = 0.51 cfs @ 12.00 hrs, Volume= 3,198 cf
Secondary = 1.80 cfs @ 12.04 hrs, Volume= 4,358 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.18' @ 12.04 hrs Surf.Area= 1,010 sf Storage= 1,194 cf

Plug-Flow detention time= 51.1 min calculated for 7,543 cf (100% of inflow)
Center-of-Mass det. time= 51.3 min (804.9 - 753.6)

Volume	Invert	Avail.Storage	Storage Description
#1	165.00'	1,468 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	164.00'	50 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 124 cf Overall x 40.0% Voids
		1,517 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.00	55	0	0
173.00	55	440	440
174.00	1,000	528	968
174.50	1,000	500	1,468

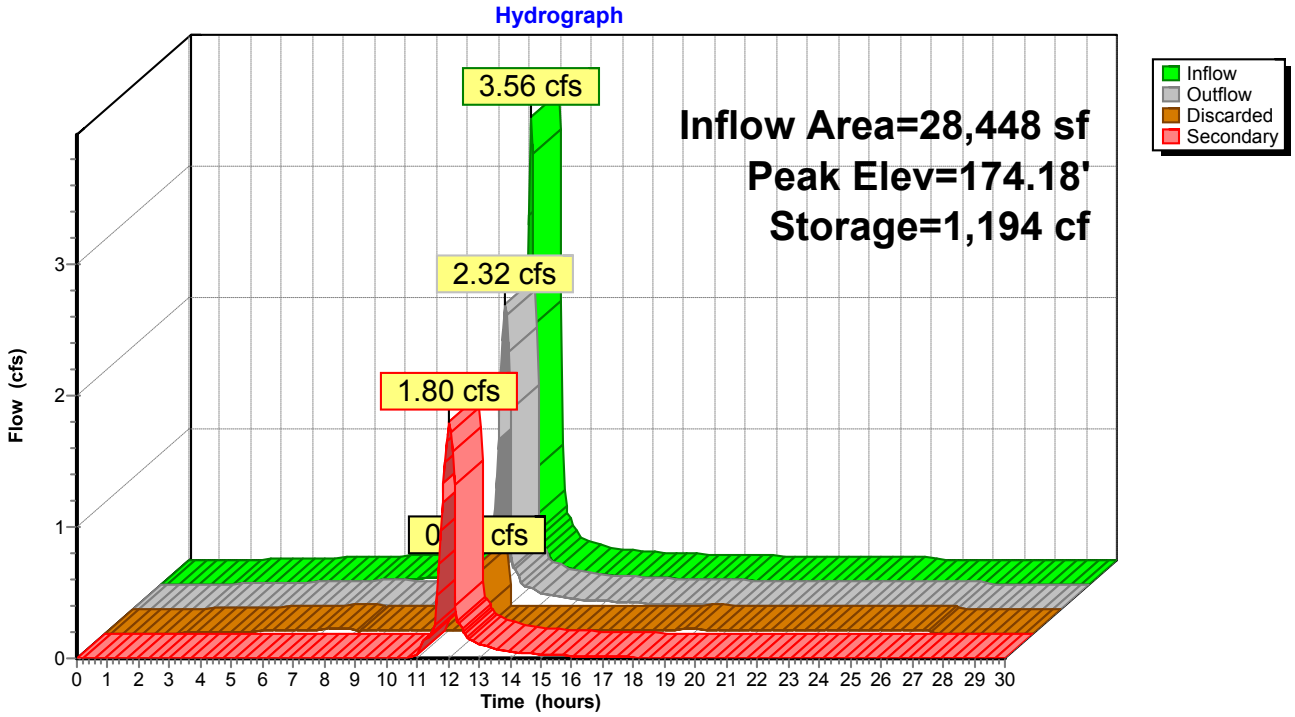
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	78	0	0
165.00	10	44	44
173.00	10	80	124

Device	Routing	Invert	Outlet Devices
#1	Discarded	164.00'	**22.000 in/hr Exfiltration over Surface area**
#2	Secondary	172.00'	**8.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.00' / 171.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Discarded OutFlow Max=0.51 cfs @ 12.00 hrs HW=174.11' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.51 cfs)

Secondary OutFlow Max=1.79 cfs @ 12.04 hrs HW=174.16' (Free Discharge)
└**2=Culvert** (Inlet Controls 1.79 cfs @ 5.14 fps)

Pond DW-4: PROPOSED DRYWELL #4



Summary for Pond DW-5: PROPOSED DRYWELL #5

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=5)

Inflow Area = 11,493 sf, 65.66% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 2.03 cfs @ 11.96 hrs, Volume= 4,714 cf
Outflow = 1.11 cfs @ 12.06 hrs, Volume= 4,714 cf, Atten= 45%, Lag= 5.8 min
Discarded = 1.11 cfs @ 12.06 hrs, Volume= 4,714 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.72' @ 12.06 hrs Surf.Area= 2,186 sf Storage= 1,057 cf

Plug-Flow detention time= 36.7 min calculated for 4,707 cf (100% of inflow)
Center-of-Mass det. time= 36.7 min (811.2 - 774.5)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,748 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	167.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		1,781 cf	Total Available Storage

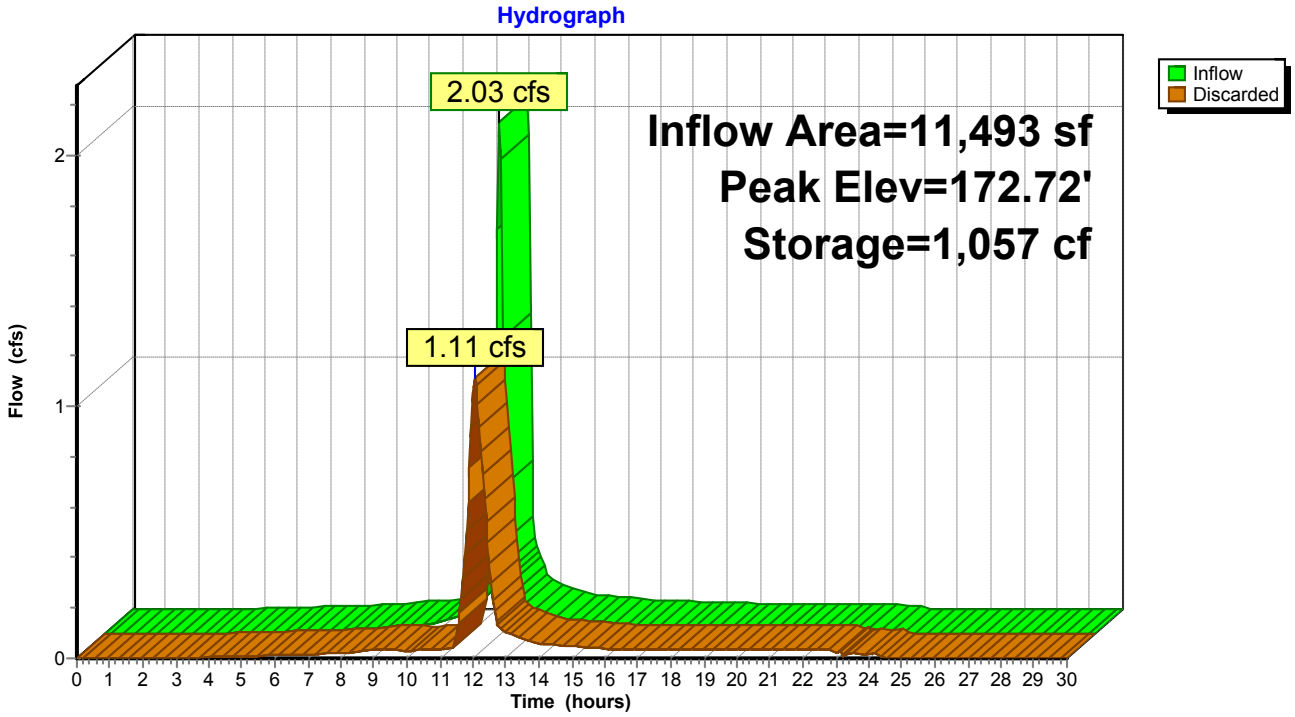
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.00	55	220	220
173.00	3,000	1,528	1,748

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	78	0	0
168.00	10	44	44
172.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.11 cfs @ 12.06 hrs HW=172.72' (Free Discharge)
1=Exfiltration (Exfiltration Controls 1.11 cfs)

Pond DW-5: PROPOSED DRYWELL #5



Summary for Pond DW-6: PROPOSED DRYWELL #6

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=4)

Inflow Area = 1,844 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.34 cfs @ 11.96 hrs, Volume= 862 cf
Outflow = 0.12 cfs @ 12.11 hrs, Volume= 862 cf, Atten= 65%, Lag= 9.2 min
Discarded = 0.12 cfs @ 12.11 hrs, Volume= 862 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.09' @ 12.11 hrs Surf.Area= 239 sf Storage= 267 cf

Plug-Flow detention time= 43.9 min calculated for 861 cf (100% of inflow)
Center-of-Mass det. time= 43.8 min (785.2 - 741.4)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	169.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

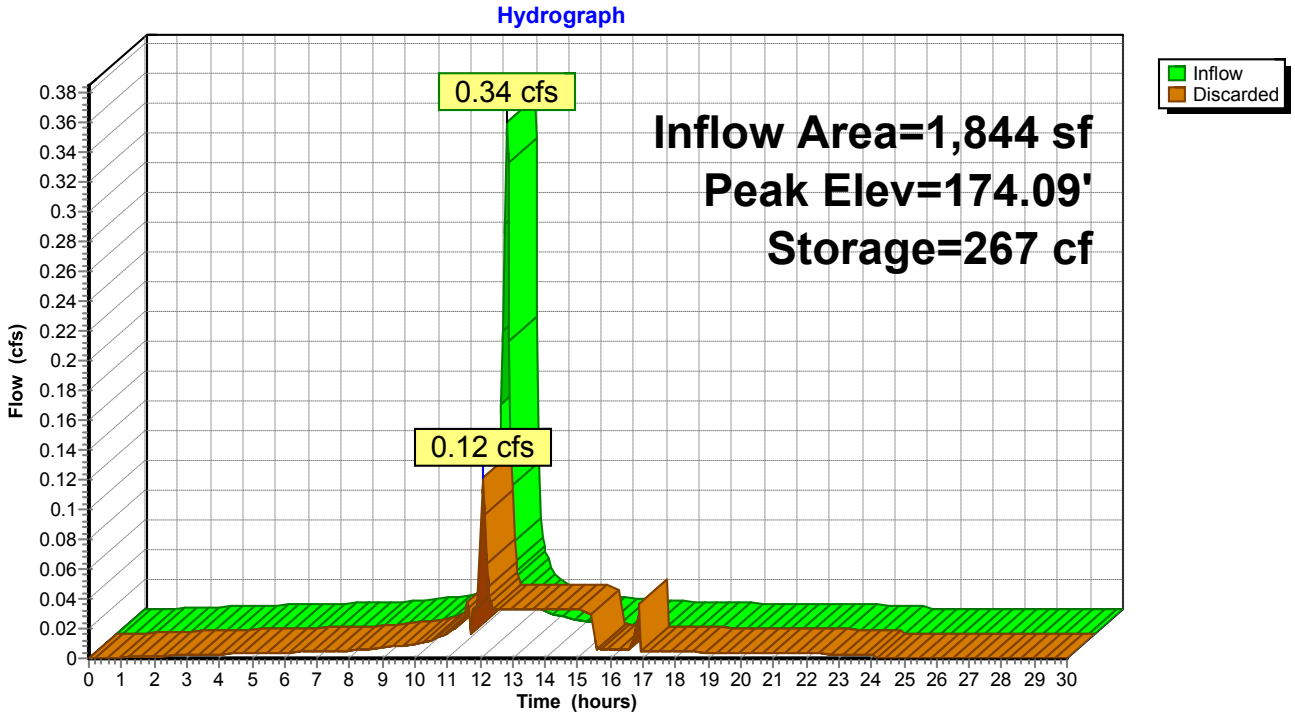
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	55	0	0
174.00	55	220	220
174.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	78	0	0
170.00	10	44	44
174.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	169.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.11 cfs @ 12.11 hrs HW=174.08' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.11 cfs)

Pond DW-6: PROPOSED DRYWELL #6



Summary for Pond DW-7: PROPOSED DRYWELL #7

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,755 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.33 cfs @ 11.96 hrs, Volume= 821 cf
Outflow = 0.07 cfs @ 12.16 hrs, Volume= 821 cf, Atten= 79%, Lag= 11.6 min
Discarded = 0.07 cfs @ 12.16 hrs, Volume= 821 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.52' @ 12.15 hrs Surf.Area= 137 sf Storage= 264 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 45.7 min (787.1 - 741.4)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	352 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	170.00'	42 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 106 cf Overall x 40.0% Voids
		394 cf	Total Available Storage

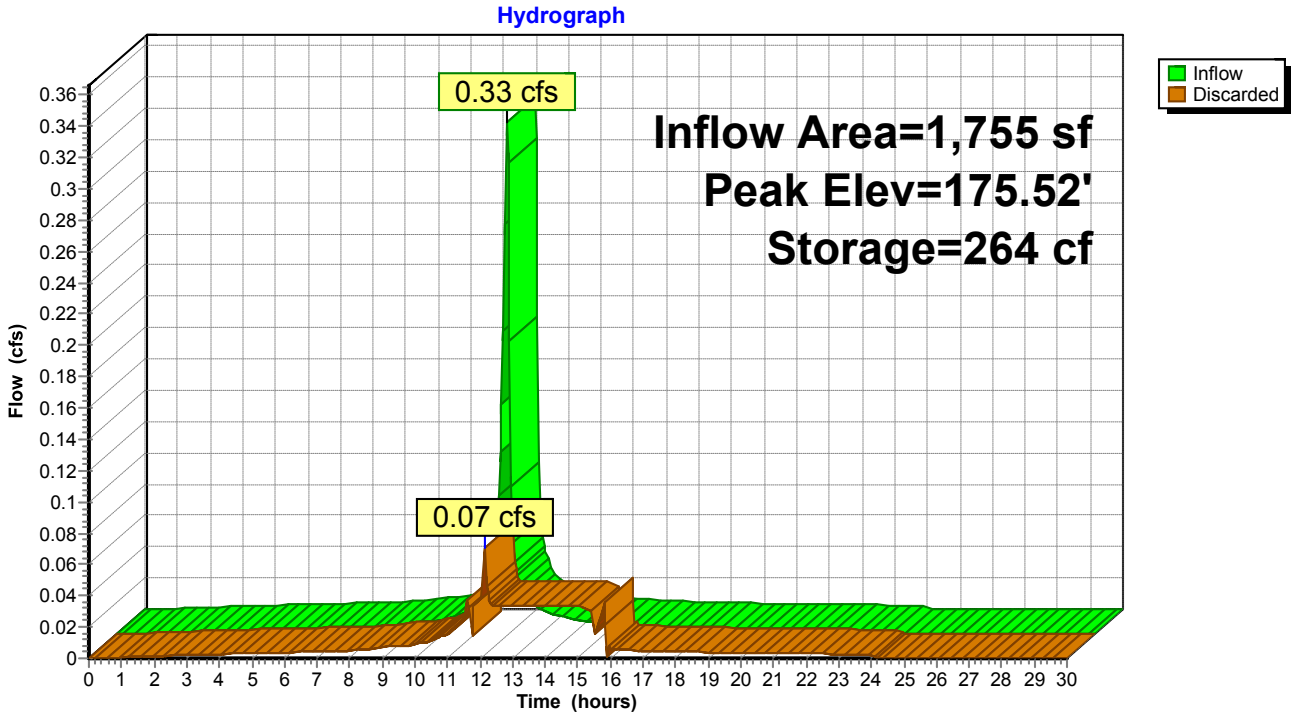
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
171.50	55	0	0
175.50	55	220	220
175.75	1,000	132	352

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	78	0	0
171.50	10	66	66
175.50	10	40	106

Device	Routing	Invert	Outlet Devices
#1	Discarded	170.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 12.16 hrs HW=175.52' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.07 cfs)

Pond DW-7: PROPOSED DRYWELL #7



Summary for Pond DW-8: PROPOSED DRYWELL #8

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,734 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.32 cfs @ 11.96 hrs, Volume= 811 cf
Outflow = 0.07 cfs @ 12.16 hrs, Volume= 812 cf, Atten= 78%, Lag= 11.8 min
Discarded = 0.07 cfs @ 12.16 hrs, Volume= 812 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.04' @ 12.16 hrs Surf.Area= 138 sf Storage= 257 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 43.6 min (785.0 - 741.4)

Volume	Invert	Avail.Storage	Storage Description
#1	169.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	168.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

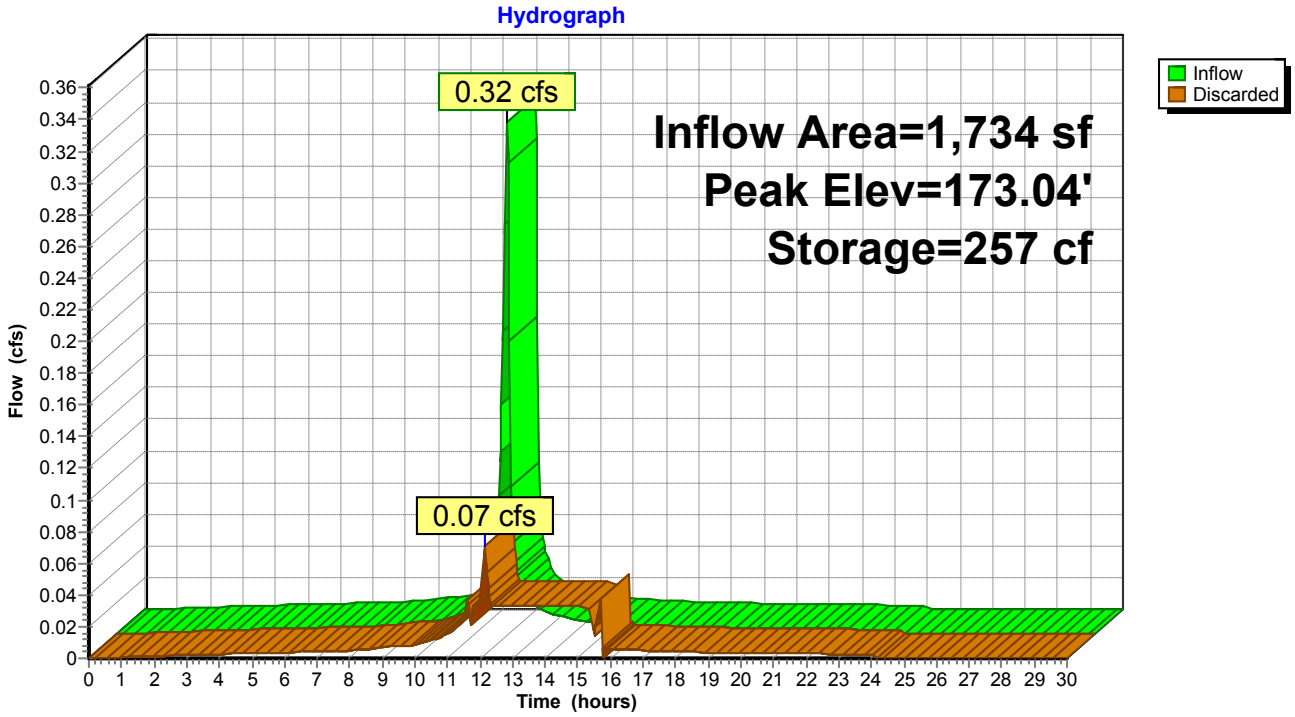
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	55	0	0
173.00	55	220	220
173.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	78	0	0
169.00	10	44	44
173.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 12.16 hrs HW=173.04' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.07 cfs)

Pond DW-8: PROPOSED DRYWELL #8



Summary for Pond YD-1: PROPOSED DRAIN #1

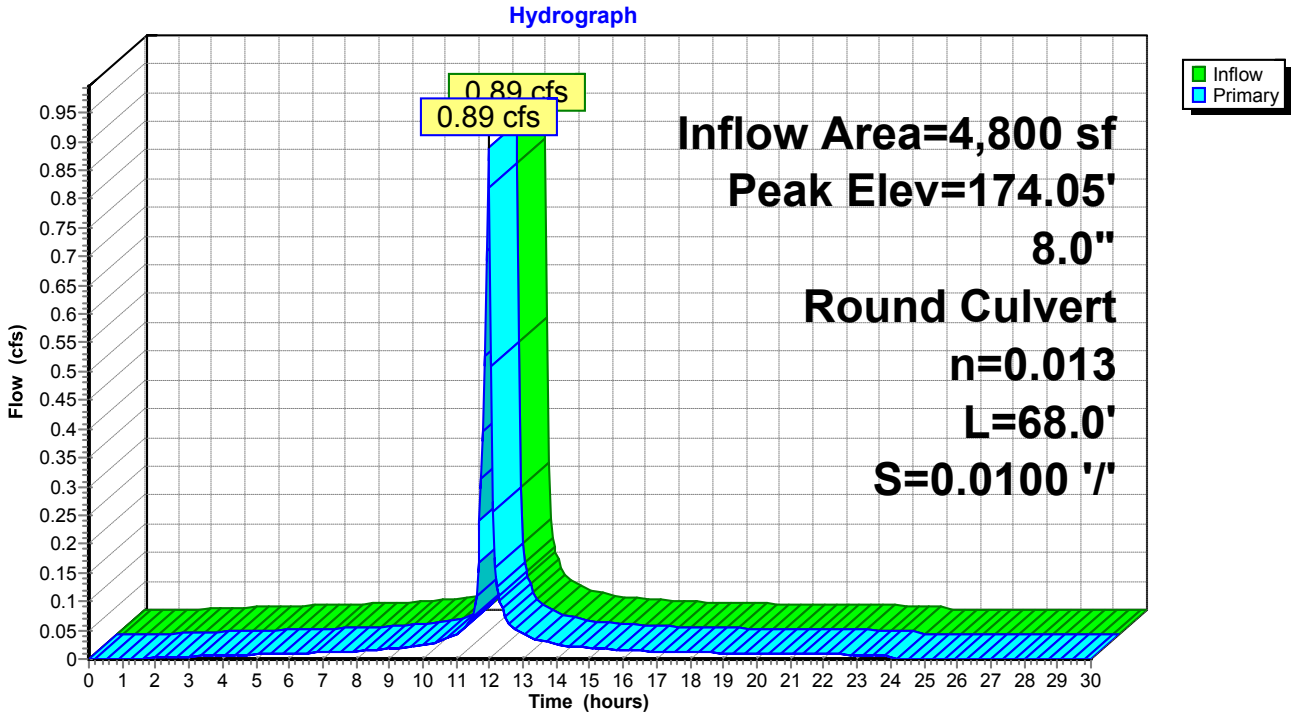
Inflow Area = 4,800 sf, 94.90% Impervious, Inflow Depth = 5.49" for 25-YEAR event
Inflow = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf
Outflow = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.05' @ 11.96 hrs
Flood Elev= 175.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.27'	**8.0" Round Culvert** L= 68.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.27' / 172.59' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=0.87 cfs @ 11.96 hrs HW=174.03' (Free Discharge)
1=Culvert (Inlet Controls 0.87 cfs @ 2.49 fps)

Pond YD-1: PROPOSED DRAIN #1



Summary for Pond YD-2: PROPOSED DRAIN #2

[58] Hint: Peaked 2.24' above defined flood level
[81] Warning: Exceeded Pond YD-1 by 1.93' @ 11.95 hrs

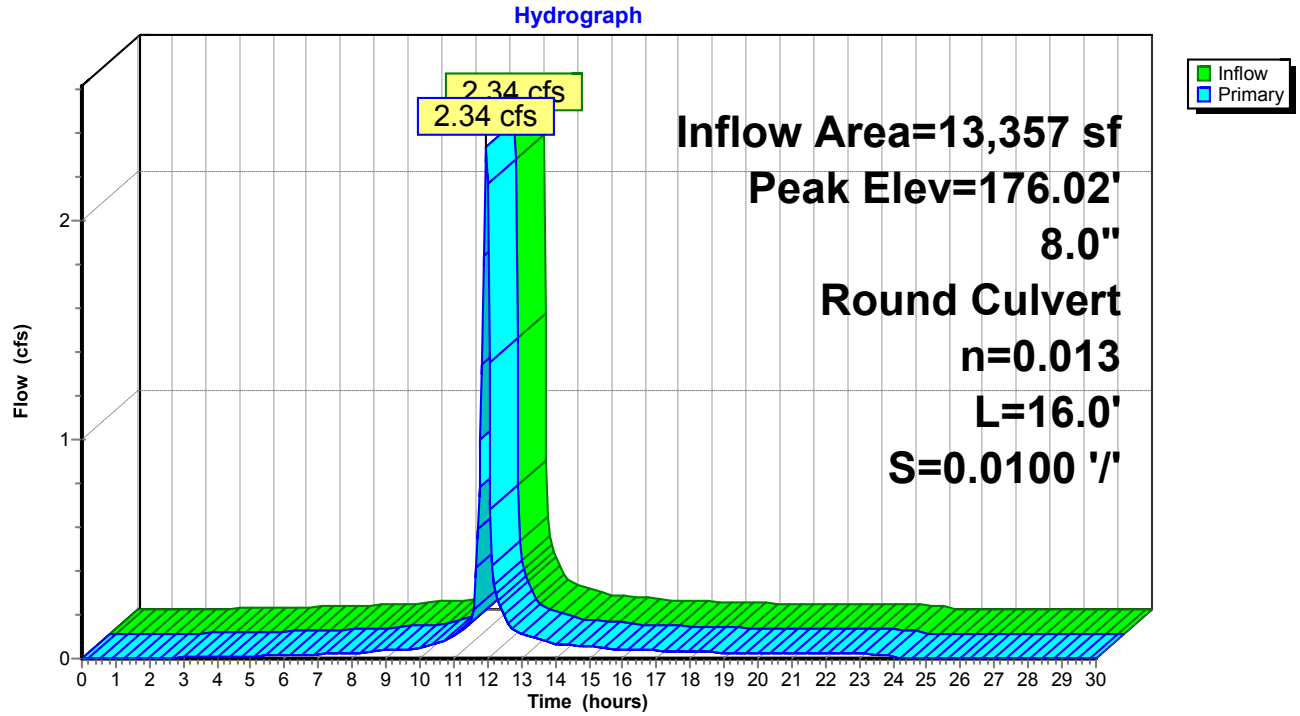
Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 2.34 cfs @ 11.96 hrs, Volume= 5,471 cf
Outflow = 2.34 cfs @ 11.96 hrs, Volume= 5,471 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.34 cfs @ 11.96 hrs, Volume= 5,471 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 176.02' @ 11.96 hrs
Flood Elev= 173.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.59'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.59' / 172.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=2.28 cfs @ 11.96 hrs HW=175.88' (Free Discharge)
↑**1=Culvert** (Inlet Controls 2.28 cfs @ 6.53 fps)

Pond YD-2: PROPOSED DRAIN #2



Summary for Pond YD-3: PROPOSED DRAIN #3

[58] Hint: Peaked 0.47' above defined flood level

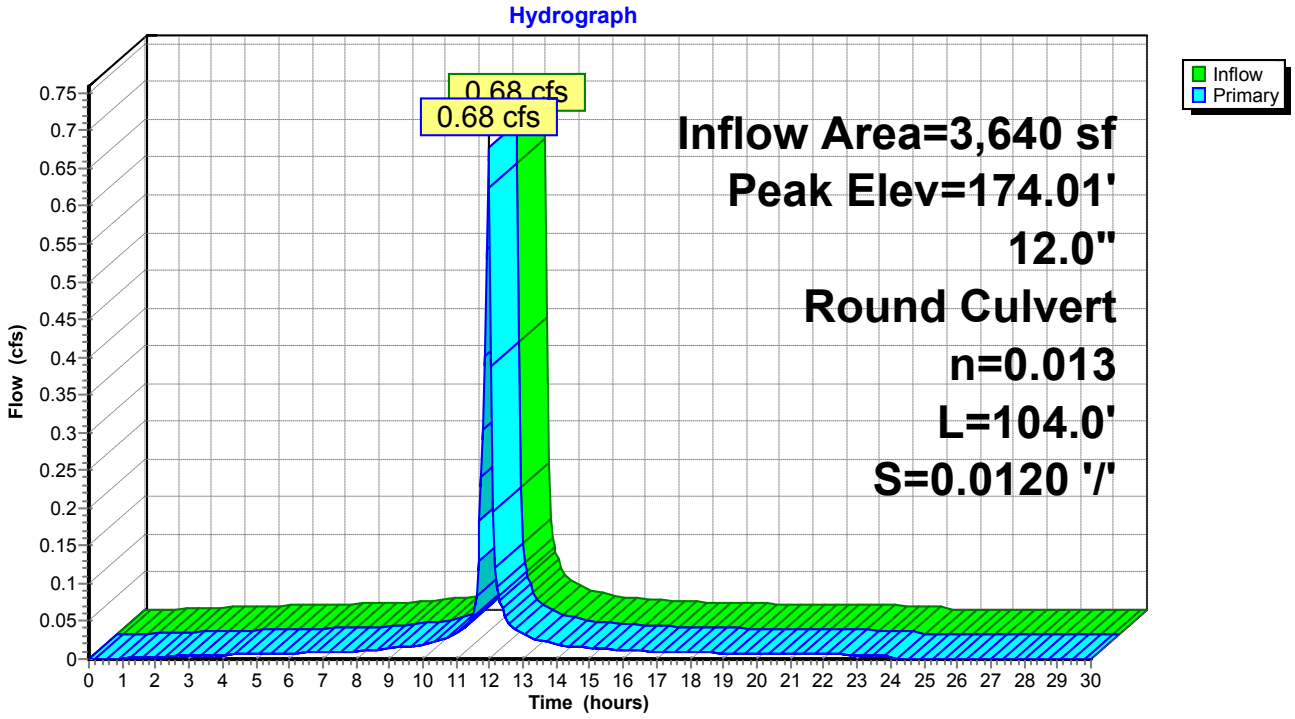
Inflow Area = 3,640 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf
Outflow = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.01' @ 11.96 hrs
Flood Elev= 173.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.54'	**12.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.54' / 172.29' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 11.96 hrs HW=174.01' (Free Discharge)
1=Culvert (Inlet Controls 0.66 cfs @ 1.84 fps)

Pond YD-3: PROPOSED DRAIN #3



Summary for Pond YD-4: PROPOSED DRAIN #4

[58] Hint: Peaked 3.23' above defined flood level
[81] Warning: Exceeded Pond YD-3 by 3.61' @ 11.95 hrs

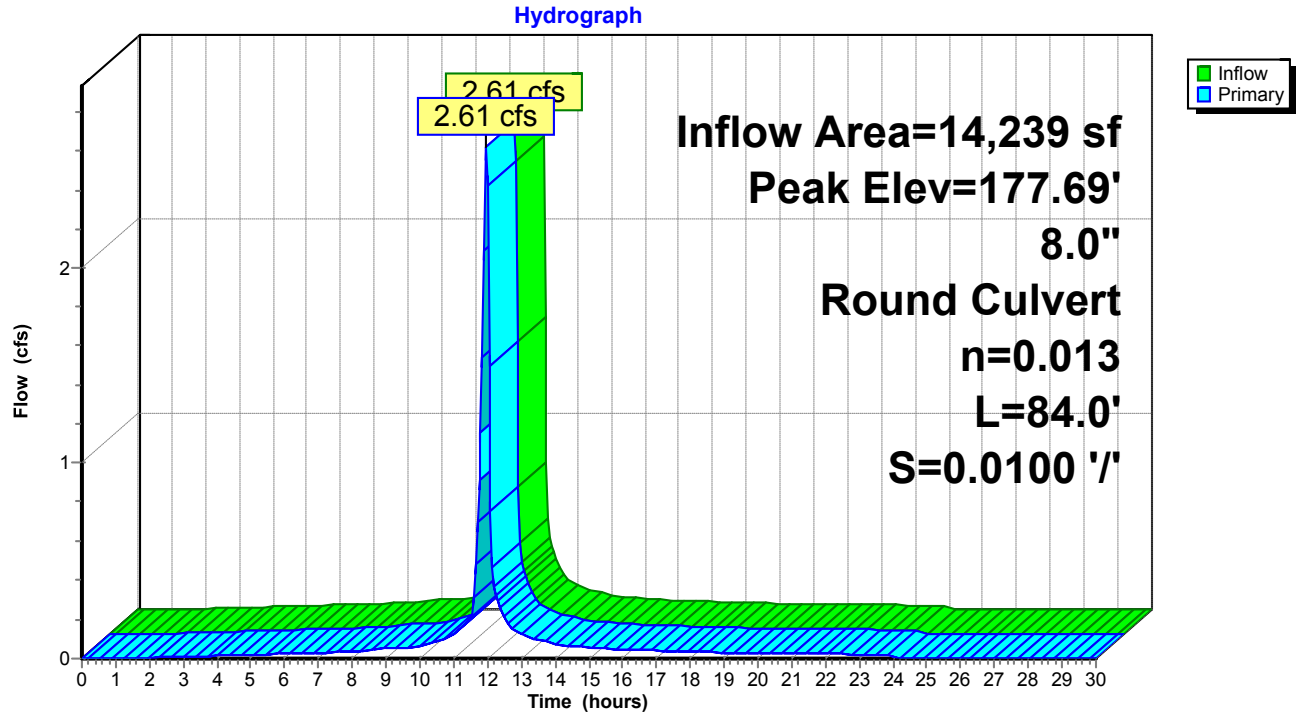
Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 5.35" for 25-YEAR event
Inflow = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf
Outflow = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 177.69' @ 11.96 hrs
Flood Elev= 174.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.29'	**8.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.29' / 171.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=2.55 cfs @ 11.96 hrs HW=177.45' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.55 cfs @ 7.31 fps)

Pond YD-4: PROPOSED DRAIN #4



ATTACHMENT G

Parking and Traffic Analysis

400 Columbus Avenue
Suite 180E
Valhalla New York 10595
Main: 877 627 3772
colliersengineering.com

Colliers
Engineering
& Design

September 28, 2021

Natalie Quinn, Planning Director
City of Poughkeepsie
62 Civic Center Plaza, 2nd Floor
Poughkeepsie, NY 12601

Wallace Campus Development City of Poughkeepsie, Dutchess County, New York
Colliers Engineering & Design Project No. 20003474A

Dear Natalie,

Colliers Engineer & Design (formerly Maser Consulting) has conducted a review of the modified proposed development plan for the Wallace Campus Development ("the Project") as it relates to the potential traffic and parking impacts of the Project. The prior development plan, which was previously analyzed in our February 27, 2021 letter report, was formerly proposed to consist of 214 mixed income affordable housing units, a 10,197 sq. ft. daycare facility, an approximately 29,000 sq. ft. community fitness center/climbing gym, 6,416 sq. ft of retail/commercial space and an approximately 1-acre privately owned, but publicly accessible green space ("Wallace Green").

The modified development plan for the Project is now proposed to consist of 187 mixed income affordable housing units, 14,235 sq. ft. of retail/commercial space along with the Wallace Green. The fitness center/climbing gym and daycare facility are no longer proposed as part of the development. The modified development plan also includes changes to the onsite parking and circulation patterns resulting from the elimination of the previously proposed daycare facility and the associated drop-off/pick-up areas. A total of 63 parking spaces are proposed under this modified development plan as compared to the 62 parking spaces under the previously proposed plan.

The following provides a detailed discussion of the potential traffic and parking impacts of the Project based on this modified development plan as well as a comparison to the previously proposed development plan where appropriate.

Proposed Development Parking Demand

As previously identified in our February 27, 2021 letter report, the Project falls within the Poughkeepsie Innovation District Historic Core (PID-HC) and Urban Village (PID-UV) zones. The City of Poughkeepsie Zoning Code (Section 19-3.37.(13)) identifies the minimum parking requirements for the proposed uses within the development. These parking requirements and the total number of required parking spaces for the Project are identified in the Table No. 1 below.

Table No. 1 – Code Required Parking Summary

Building	Proposed Use	Size	Zone	Code Required Parking Ratio	Required Spaces
Main Street Building	Residential (69 Units Total)	17 Units	PID-HC	0 Spaces/Unit	0
		52 Units	PID-UV	0.5 Spaces/Unit	26
				1 Visitor Space/10 Units	6
	Retail	3,3331 Sq. Ft.	PID-UV	0 Spaces/ Sq. Ft.	0
Catharine Street Building	Residential	49 Units	PID-HC	0 Spaces/Unit	0
	Retail	3,255 Sq. Ft.		0 Spaces/ Sq. Ft.	0
Wallace Building	Residential	69 Units	PID-HC	0 Spaces/Unit	0
	Retail	7,649 Sq. Ft.		0 Spaces/ Sq. Ft.	0
				Total	**32**

As indicated in the table above, per the City Code parking requirements, the Project is required to provide a total of 32 off-street parking spaces. The total of 32 required parking spaces is less than half of the required number of parking spaces under the previous development plan proposal, which was required to provide approximately 90 total parking spaces prior to accounting for shared parking amongst the uses.

The shared parking accommodations for the 302, 304 & 306 Mill Street parcels, which will be provided 12 dedicated parking spaces, will still remain within the overall Wallace Campus parking lot. Similarly, The Wallace consolidated lot will continue to provide the adjacent Hudson River Housing (HRH) with six (6) reserved parking spaces on the Wallace Property during weekday office hours only (8 AM to 6 PM) for employee and client parking. These spaces would be available to Wallace Campus residents and visitors for parking outside these hours. Together with the 32 spaces required for the modified Wallace Campus development, the total required parking spaces is 50 spaces during HRH office hours and 44 spaces all other times on Weekdays and all day on Weekends.

As previously indicated, the modified Site Plan will provide 63 off-street parking spaces which will accommodate the total parking requirements of the Wallace Campus, 302, 304 & 306 Mill Street Parcels and the HRH facility. Furthermore, as identified in our February 27, 2021 study, there is also sufficient available on-street parking in the vicinity of the Site to accommodate any potential excess parking demand that may be generated by the Project. It is the intent of the PID zone to leverage this availability of underutilized surplus parking in the PID downtown area for future development.

It should also be noted that the typical use of the Wallace Green is proposed to remain as a passive park for both residents and visitors and as indicated in our prior study, it is the opinion of Colliers Engineer and Design that this space will not generate any additional parking demand, but rather will draw people who are already within the proposed development and immediate surrounding neighborhood to utilize the space.

Occasional Public Performances/Community Gatherings are also still planned to be held within the Wallace Green & Tiered Seating area. The parking accommodations for these performances/ gatherings can be accommodated by available on-street parking in the area of the Site as previously identified in our February 27, 2021 study.

Development Traffic Generation & Traffic Related Impacts

In order to assess the potential traffic related impacts of the Project, estimates of the amount of traffic to be generated by the modified Wallace Campus development during each of the peak hours (Weekday AM, Weekday PM and Saturday) were developed based on information published by the Institute of Transportation Engineers (ITE) as contained in the report entitled ***Trip Generation***, 10th Edition, 2017, based on Land Use Categories; 223 - Affordable Housing; 411 - Public Park and; 820 - Retail. It should be noted that where applicable ITE data For Dense Multi-Use Urban Locations was referenced to reflect traffic generation rates commensurate with the downtown location of the proposed development.

Table No. 2, below, provides a summary of the traffic generation estimates for the modified development proposal based on the ITE data. This table also takes similar internal and multi-modal credits as identified in our February 27, 2021 report, which are based on the credits identified in the ***Poughkeepsie Downtown Parking Improvement Plan – Analysis of Further Parking Demand*** prepared by Nelson Nygaard dated April 2018.

Colliers Engineering & Design

Table No. 2 – Anticipated Site Generated Traffic Volumes

Time Period	Entry			Exit		
	HTGR[1]	Volume	External Vehicle Trips[2]	HTGR[1]	Volume	External Vehicle Trips[2]
Residential – Affordable Housing (187 Units)						
Peak AM Hour	0.34	63	29	0.14	27	13
Peak PM Hour	0.24	44	21	0.14	26	12
Saturday Peak Hour	0.24	45	21	.24	45	21
Commercial Space (14,235 Sq. Ft.)						
Peak AM Hour	1.26	18	9	1.12	16	8
Peak PM Hour	2.39	34	16	2.53	36	17
Saturday Peak Hour	3.16	45	21	3.16	45	21
Public Park (1 Acre)						
Peak AM Hour	1.00	1	1	1.00	1	1
Peak PM Hour	6.00	6	3	5.00	5	3
Saturday Peak Hour	8.00	8	4	6.00	6	3
Total						
Peak AM Hour	---	---	**39**	---	---	**22**
Peak PM Hour	---	---	**40**	---	---	**32**
Saturday Peak Hour	---	---	**46**	---	---	**45**

Notes:

1. The Hourly Trip Generation Rates (HTGR) are based on data published by the Institute of Transportation Engineers (ITE) as contained in the Trip Generation Handbook, 10th Edition, 2017. ITE Land Use Code - 223 - Affordable Housing, ITE Land Use Code - 411 - Public Park and ITE Land Use Code - 820 - Retail. Note where applicable ITE data for dense multi-use urban locations was referenced.
2. "External Vehicle Trips" include a 30% internal capture trip credit for all land uses as well as a 35% multi-modal trip credit to account for internal trips within the development and between the development and other nearby uses as well as non-personal vehicle trips to the Site. These credits are based on data provided in the Poughkeepsie Downtown Parking Improvement Plan - Analysis of Future Parking Demand prepared by Nelson Nygaard dated April 2018.

Table No. 3 below provides a comparison of the above traffic generation estimates for the modified development plan to the previously proposed development plan. Note that the trip generation estimates for the previously proposed development plan were identified in Table No. 7 of our February 27, 2021 report.

Colliers Engineering & Design

Table No. 3 – Traffic Generation Comparison – Previous Development Plan vs. Modified Development Plan

Time Period	Previous Development Plan			Modified Development Plan		
	Entry Volume	Exit Volume	Total Volume	Entry Volume	Exit Volume	Total Volume
Peak AM Hour	72	58	130	39	22	61
Peak PM Hour	71	63	134	40	32	72
Saturday Peak Hour	54	56	110	46	45	91

As indicated in the above table the modified development plan is generally anticipated to generate less traffic than the previously proposed development plan. This is attributable to the reduction in the number of residential units as well as the elimination of the daycare and fitness center/climbing gym uses.

Based on the above traffic generation estimates the proposed development is expected to generate less than 100 entering vehicle trips during each of the peak hours analyzed and a portion of these trips are anticipated to be attracted from the existing traffic stream along Mill Street as pass-by and/or diverted link trips. As indicated in our February 27, 2021 report, ITE and NYSDOT guidelines indicate that developments generating less than 100 entering vehicle trips will not result in a significant impact to the surrounding area traffic operations. It should also be noted that no credit has been taken for the existing traffic generation of the existing buildings and/or possible re-occupancies of these spaces.

Site Access and Internal Circulation

The elimination of the proposed Daycare facility from the development plan has allowed for the elimination of the previously proposed drop-off area on the eastern one-way entry driveway. This has also allowed for a reconfiguration of the on-site parking areas to maximize the number of parking spaces provided. As a result of these changes, the driveways have been modified to be a one-way pair with the western driveway to be one-way entering and the eastern driveway to be one-way exiting. This configuration provides the greatest Site distance for exiting vehicles onto Mill Street. Appropriate “One-Way” and “Do Not Enter” signage should be provided at each of the driveway locations as well as internally at the driveway connections to the internal east-west parking aisle.

Conclusions

Based on the review of the modified development plan presented above it is the opinion of Colliers Engineering & Design that the Project will not have a significant impact on traffic and parking conditions in the vicinity of the Site. It should also be noted that based on the parking calculations identified above the previous request for a waiver to be granted by the Planning Board for excess parking spaces under the waiver with fee-in-lieu provision of the PID Zoning District, section 19-3.37 (13) (e) is no longer required.

Finally, as indicated in our February 27, 2021 report, the proposed modifications to the two Site access driveway connections to Mill Street as well as the closure of the existing driveways to 302, 304 and 306 Mill Street will require a NYSDOT Highway Work Permit to be obtained prior to implementation of these modifications.

Sincerely,

Colliers Engineering & Design CT, P.C.
(DBA Maser Consulting Engineering & Land Surveying)

Richard D'Andrea, P.E., PTOE
Assistant Department Manager

R:\Projects\2020\20003474A\Correspondence\OUT\210928RGD_Modified Development Plan Traffic & Parking Review.docx

ATTACHMENT H

Commercial Rehabilitation Tax Credit

NPS Form 10-168 (Rev. 2019)
National Park Service
OMB Control No. 1024-0009

RECEIVED
APR 13 2021
NATIONAL PARK SERVICE
TAX INCENTIVES PROGRAM

RECEIVED
MAR 24 2021
DIVISION FOR
HISTORIC PRESERVATION

HISTORIC PRESERVATION CERTIFICATION APPLICATION
PART 1 – EVALUATION OF SIGNIFICANCE

Instructions: This page must bear the applicant's original signature and must be dated. The National Park Service certification decision is based on the descriptions in this application form. In the event of any discrepancy between the application form and other, supplementary material submitted with it (such as architectural plans, drawings and specifications), the application form takes precedence. A copy of this form will be provided to the Internal Revenue Service.

NPS Project Number 43278

1. **Historic Property Name** Wallace Department Store Building

Street 331 Main Street / 14-20 Catharine Street

City Poughkeepsie County Dutchess State NY Zip 12601

Name of Historic District or National Register property

☐ National Register district ☐ certified state or local district ☐ potential district ☐ National Register property

2. **Nature of Request** (check only one box)

☐ certification that the building contributes to the significance of the above-named historic district or National Register property for rehabilitation purposes.
☐ certification that the building contributes to the significance of the above-named historic district for a charitable contribution for conservation purposes.
☐ certification that the building does not contribute to the significance of the above-named district or National Register property.
☒ preliminary determination for individual listing in the National Register.
☐ preliminary determination that a building located within a potential historic district contributes to the significance of the district.
☐ preliminary determination that a building outside the period or area of significance contributes to the significance of the district.

3. **Project Contact** (if different from applicant)

Name Kimberly Konrad Alvarez Company Landmark Consulting LLC

Street 83 Grove Avenue City Albany State NY

Zip 12208 Telephone (518) 458-8942 Email Address kkalvarez@landmarkconsulting.net

4. **Applicant**

I hereby attest that the information I have provided is, to the best of my knowledge, correct. I further attest that [check one or both boxes, as applicable]:

☐ I am the owner of the above-described property within the meaning of "owner" set forth in 36 CFR § 67.2 (2011), and/or
☒ if I am not the fee simple owner of the above described property, the fee simple owner is aware of the action I am taking relative to this application and has no objection, as noted in a written statement from the owner, a copy of which (i) either is attached to this application form and incorporated herein, or has been previously submitted, and (ii) meets the requirements of 36 CFR § 67.3(a)(1) (2011).

For purposes of this attestation, the singular shall include the plural wherever appropriate. I understand that knowing and willful falsification of factual representations in this application may subject me to fines and imprisonment under 18 U.S.C. § 1001, which, under certain circumstances, provides for imprisonment of up to 8 years.

Name Hercules Argyriou Signature (Sign in ink) Date 3/19/2021

Applicant Entity Wallace Campus Manager LLC SSN or TIN 85-3430172

Street 48-02 25th Avenue, Suite 400 City Astoria State NY

Zip 11103 Telephone (718) 932-6342 Email Address hargyriou@megagroup.nyc

NPS Official Use Only

The National Park Service has reviewed the Historic Preservation Certification Application – Part 1 for the above-named property and has determined that the property:

☐ contributes to the significance of the above-named district or National Register property and is a "certified historic structure" for rehabilitation purposes.
☐ contributes to the significance of the above-named district and is a "certified historic structure" for a charitable contribution for conservation purposes.
☐ does not contribute to the significance of the above-named district or National Register property.

Preliminary Determinations:

☑ appears to meet the National Register Criteria for Evaluation and will likely be listed in the National Register of Historic Places if nominated by the State Historic Preservation Officer according to the procedures set forth in 36 CFR Part 60.
☐ does not appear to meet the National Register Criteria for Evaluation and will likely not be listed in the National Register.
☐ appears to contribute to the significance of a potential historic district, which will likely be listed in the National Register of Historic Places if nominated by the State Historic Preservation Officer.
☐ appears to contribute to the significance of a registered historic district if the period or area of significance as documented in the National Register nomination or district documentation on file with the NPS is expanded by the State Historic Preservation Officer.
☐ does not appear to qualify as a certified historic structure.

5/7/21

Date National Park Service Authorized Signature (Sign in ink)

☐ NPS Comments Attached

ATTACHMENT I

SHPO Decision of No Adverse Impact

NEW YORK STATE OF OPPORTUNITY. Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

May 18, 2021

Mr. Charles Vandrei
Agency Historic Preservation Officer
NYS Environmental Conservation - Division of Lands and Forests
625 Broadway
Albany, NY 12233-4255

Re: DEC
Wallace Campus
City of Poughkeepsie, Dutchess County, NY
20PR06244

Dear Mr. Vandrei:

Thank you for continuing to consult with the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources.

Our office has reviewed the revisions made to the updated scope of work. We understand that none of the proposed new construction will have an interior connection to the Wallace Department Store building. Based upon our review, it is the OPRHP's opinion that the project will have No Adverse Effect on historic resources provided the following conditions are met:

1. The Part-2 Federal Commercial Tax Credit application for the Wallace Department Store at 331 Main Street must be reviewed and approved by the National Parks Service.
2. A demolition and construction protection plan for the neighboring historic buildings must be developed and implemented. This plan should include physical protection options - if necessary, as well as include monitoring of the historic resources during the proposed work.
3. If these conditions cannot be met, or if there are substantive changes to the project, consultation with our office will resume.

Our office reminds you that the Federal Tax Credit program is administered by the National Park Service (NPS) in coordination with our office. While our office makes recommendations for the program, it is only the NPS that can approve the Tax Credit application. The opinions expressed in this letter are with regards to the Section 14.09 review in place for this project and do not guarantee approval by the NPS for the Tax Credit program. If you have any questions, I am best reached by email.

Sincerely,

Derek Rohde
Historic Site Restoration Coordinator
e-mail: derek.rohde@parks.ny.gov

via e-mail only

ATTACHMENT J

Historic Resource Inventory

	A	B	C	D	E	F	G
1	**Street**	**St. #**	**1977 photo**	**1977 Status**	**2019 photo**	**2019 Status**	**Ward**
898	Main	328-330					2
899	Main	331-335					1
900	Main	33-35					1
901	Main	337-339					1

Pink=Local Register
Lilac=Natl & State Register
Gold=State Register
Orange=Eligible

Black=Exceptional;Protect
Blue=Excellent;Protect
Green=Good; Monitor
Purple=Listed pre-1977
Dark Red=Demo during survey

Red=Demolished
Yellow=Altered

	A	B	C	D	E	F	G
1	**Street**	**St. #**	**1977 photo**	**1977 Status**	**2019 photo**	**2019 Status**	**Ward**
902	Main	341-345					1
903	Main	364-368					6
904	Main	375-377					6
905	Main	392-394					6

Pink=Local Register
Lilac=Natl & State Register
Gold=State Register
Orange=Eligible

Black=Exceptional;Protect
Blue=Excellent;Protect
Green=Good; Monitor
Purple=Listed pre-1977
Dark Red=Demo during survey

Red=Demolished
Yellow=Altered

	A	B	C	D	E	F	G
1	**Street**	**St. #**	**1977 photo**	**1977 Status**	**2019 photo**	**2019 Status**	**Ward**
1066	Mill	289					3
1067	Mill	291					3
1068	Mill	297					3
1069	Mill	302					1

Pink=Local Register
Lilac=Natl & State Register
Gold=State Register
Orange=Eligible

Black=Exceptional;Protect
Blue=Excellent;Protect
Green=Good; Monitor
Purple=Listed pre-1977
Dark Red=Demo during survey

Red=Demolished
Yellow=Altered

	A	B	C	D	E	F	G
1	**Street**	**St. #**	**1977 photo**	**1977 Status**	**2019 photo**	**2019 Status**	**Ward**
1070	Mill	304					1
1071	Mill	306					1
1072	Mill	310					1
1073	Mill	320					1

Pink=Local Register
Lilac=Natl & State Register
Gold=State Register
Orange=Eligible

Black=Exceptional;Protect
Blue=Excellent;Protect
Green=Good; Monitor
Purple=Listed pre-1977
Dark Red=Demo during survey

Red=Demolished
Yellow=Altered

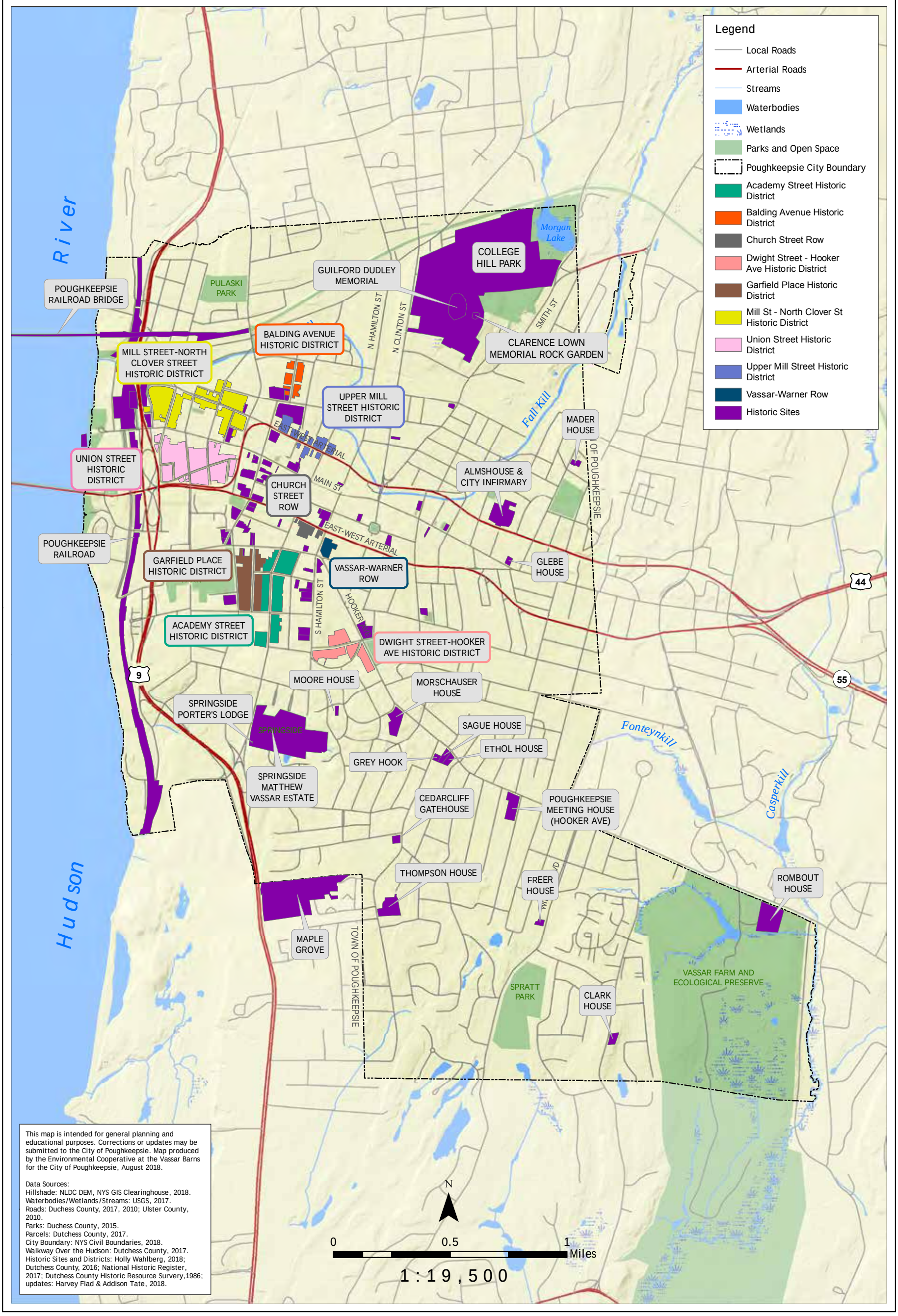
ATTACHMENT K

Map of Historic Districts

Map 7.2 Historic sites and districts throughout the entire City of Poughkeepsie

Historic Resources

City of Poughkeepsie, New York



This map is intended for general planning and educational purposes. Corrections or updates may be submitted to the City of Poughkeepsie. Map produced by the Environmental Cooperative at the Vassar Barns for the City of Poughkeepsie, August 2018.

Data Sources:
Hillshade: NLDC DEM, NYS GIS Clearinghouse, 2018.
Waterbodies/Wetlands/Streams: USGS, 2017.
Roads: Duchess County, 2017, 2010; Ulster County, 2010.
Parks: Duchess County, 2015.
Parcels: Dutchess County, 2017.
City Boundary: NYS Civil Boundaries, 2018.
Walkway Over the Hudson: Dutchess County, 2017.
Historic Sites and Districts: Holly Wahlberg, 2018; Dutchess County, 2016; National Historic Register, 2017; Dutchess County Historic Resource Survery,1986; updates: Harvey Flad & Addison Tate, 2018.

ATTACHMENT L

Site Plans

SITE PLAN SUBMISSION SET

FOR

WALLACE CAMPUS MANAGER, LLC

TAX MAP ID#'S

6162-77-114098, 6162-78-127091,
6162-77-109079 & 6162-77-109077

ADJOINING TAX MAP ID#'S

6162-77-112116, 6162-77-116114, 6162-77-121116, 6162-78-128113

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

ORIGINALLY SUBMITTED: APRIL 10, 2020
REVISED: JUNE 5, 2020
REVISED: JULY 10, 2020
REVISED: NOVEMBER 3, 2020
REVISED: MARCH 2, 2021
REVISED: MAY 7, 2021
REVISED: OCTOBER 25, 2021

LOCATION MAP

SCALE: 1"=1,000'

VICINITY MAP

SCALE: 1"=400'

CITY PLANNING BOARD
CITY OF POUGHKEEPSIE, NEW YORK
SITE PLAN APPROVAL
FILE NO:
PROJECT NAME:
PROJECT LOCATION:
APPLICANT:
OFFICIALLY APPROVED AT THE PLANNING BOARD
MEETING HELD THE _____DAY OF_____2_____
PLANNING CHAIR:
DESIGNEE:
DATE SIGNED:
CONDITION(S)

FIRE CHIEF

POLICE CHIEF

BUILDING INSPECTOR

CITY ENGINEER

COMMISSIONER OF PUBLIC WORKS

OWNER / APPLICANT:

WALLACE CAMPUS MANAGER, LLC
48-02 25TH AVE
SUITE 400
ASTORIA NY, 11103

ARCHITECT:

SLCE ARCHITECTS, LLP
1359 BROADWAY, 14TH FLOOR
NEW YORK, NY 10018
TEL: 212-979-8400 OR 212-238-4458

SITE PLANNER / CIVIL ENGINEER:

LRC GROUP

160 West Street, Suite E
Cromwell, CT 06416
Tel: 860.635.2877

85 Civic Center Plaza, Suite 103
Poughkeepsie NY 12601
Tel: 845.243.2880

1 International Blvd, Suite 400
Mahwah, NJ 07495
Tel: 908.603.5730

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- ENVIRONMENTAL SERVICES
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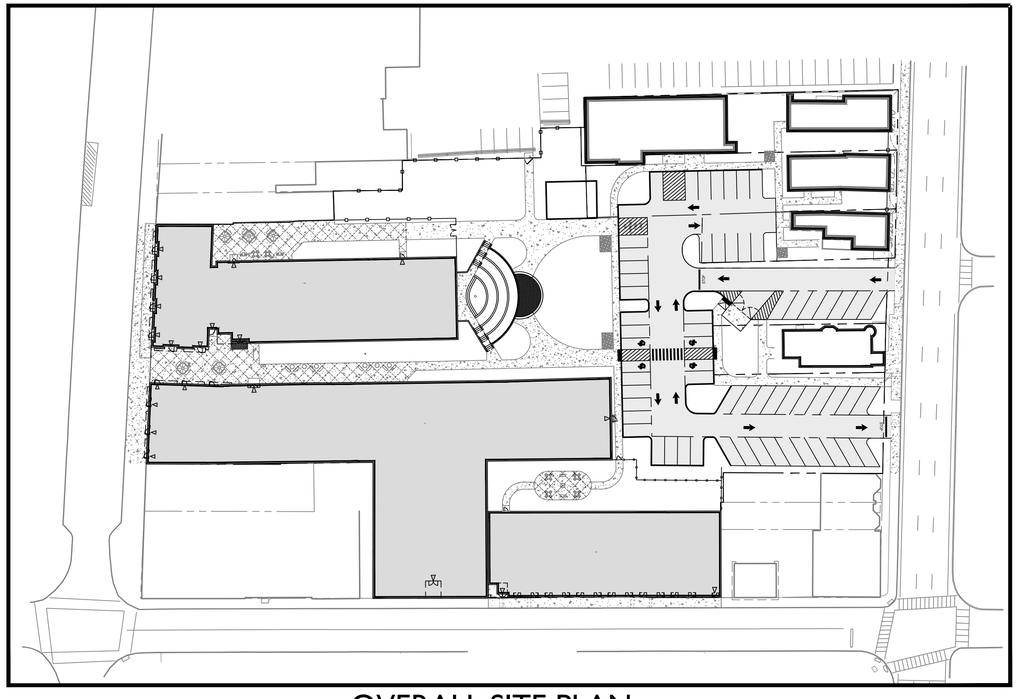
- LANDSCAPE ARCHITECTURE

LRC Engineering & Surveying, DPC
LRC Engineering and Surveying, LLC
LRC Environmental Services, Inc.

STATE OF NEW YORK
RODNEY T. MORRISON
074194
LICENSED PROFESSIONAL ENGINEER

Rodney Morrison P.E. #074194



OVERALL SITE PLAN

SCALE: 1"=50'

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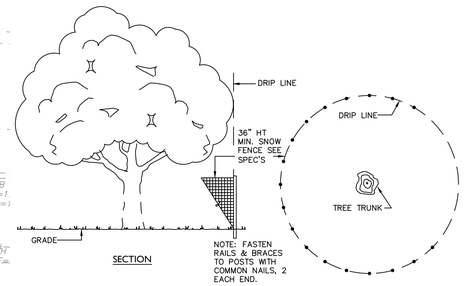
DEMOLITION NOTES:

1. CONTRACTOR SHALL NOTIFY "DIG SAFELY NEW YORK" AT 1-800-962-7692 AT LEAST TWO FULL WORKING DAYS PRIOR TO COMMENCEMENT OF ANY WORK IN ACCORDANCE WITH UFPO CODE RULE 53, 16 NYCRR PART 753.
2. ANY ITEM THAT MAY CONFLICT WITH SITE DEVELOPMENT AND IS NOT IDENTIFIED ON THIS PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND DESIGN ENGINEER AS SOON AS POSSIBLE.
3. ADDITIONAL UNDERGROUND FACILITIES MAY BE PRESENT WITHIN THE LIMITS OF THE PROPOSED WORK. THE CONTRACTOR SHALL CONTACT ANY AND ALL PERSONNEL RESPONSIBLE FOR DETERMINING THE LOCATIONS.
4. PRIOR TO DEMOLISHING ANY BUILDINGS/STRUCTURES, THE CONTRACTOR SHALL PERFORM A PRE-DEMOLITION SURVEY IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS BY THE AUTHORITY HAVING JURISDICTION.
5. CONFORM TO APPLICABLE CODE FOR DEMOLITION OF STRUCTURES, SAFETY OF ADJACENT STRUCTURES, DUST CONTROL, RUNOFF CONTROL, AND HAULING, DISPOSAL AND STORAGE OF DEBRIS.
6. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES.
7. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION.
8. WHEN DISTURBED, EXISTING FACILITIES SHALL BE REPAIRED OR REPLACED IN KIND AND IN ACCORDANCE WITH THE REQUIREMENTS OR THE DIRECTION OF THE AUTHORITY HAVING JURISDICTION. ASSOCIATED COSTS SHALL BE BORNE BY THE CONTRACTOR.
9. NOTIFY ADJACENT OWNERS OF WORK THAT MAY AFFECT THEIR PROPERTY, POTENTIAL NOISE, UTILITY OUTAGE, OR DISRUPTION. COORDINATE WITH OWNER.
10. PREVENT MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES. PROVIDE BRACING AND SHORING.
11. LOCATE AND IDENTIFY ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA. DISCONNECT AND SEAL OR CAP OFF UTILITY SERVICES THAT WILL BE AFFECTED BY THIS PROJECT. NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED. ABANDONMENT AND DISCONNECTION OF THE EXISTING WATER LINE MUST BE COORDINATED WITH THE CITY OF POUGHKEEPSIE WATER DEPARTMENT. ABANDONMENT AND DISCONNECTION OF THE EXISTING SEWER LINE MUST BE COORDINATED WITH THE CITY OF POUGHKEEPSIE SEWER DEPARTMENT.
12. DEMOLISH AND REMOVE COMPONENTS IN AN ORDERLY AND CAREFUL MANNER.
13. PROTECT EXISTING FEATURES THAT ARE NOT TO BE DEMOLISHED.
14. CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESS WAY.
15. MAINTAIN EGRESS AND ACCESS AT ALL TIMES. DO NOT CLOSE OR OBSTRUCT ROADWAYS, OR SIDEWALKS WITHOUT PERMITS.
16. CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER. NOTIFY AUTHORITY HAVING JURISDICTION.
17. ROUGH GRADE AND COMPACT AREAS AFFECTED BY DEMOLITION TO MAINTAIN SITE GRADES AND CONTOURS.
18. FIELD VERIFY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED ON DEMOLITION PLAN TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
19. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATION.
20. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA.
21. USE WATER MIST, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS TO LIMIT THE SPREAD OF DUST AND DIRT. COMPLY WITH GOVERNING ENVIRONMENTAL PROTECTION REGULATIONS. DO NOT USE WATER WHEN IT MAY DAMAGE EXISTING CONSTRUCTION, SUCH AS ICE, FLOODING, OR POLLUTION.
22. REMOVE, TRANSPORT AND REMOVE DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS AND MEET ALL APPROPRIATE DISPOSAL AND TRUCKING LAWS.
23. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF SELECTIVE DEMOLITION.
24. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. ALL DEBRIS RESULTING FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE AT A FACILITY APPROVED TO RECEIVE THE DEBRIS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. DO NOT BURN DEMOLISHED MATERIALS ON-SITE.
25. NO BLASTING IS PROPOSED FOR THE PROJECT.
26. A MINIMUM OF TEN FEET OF EXISTING PIPE SHALL BE REMOVED AROUND ALL EXISTING MANHOLES, WHERE NEW PIPES ARE PROPOSED TO CONNECT.
27. IF ANY STORM DRYWELLS OR PREVIOUSLY UNIDENTIFIED UNDERGROUND STRUCTURES ARE IDENTIFIED AND EXHIBIT A SEWAGE/SEPTIC ODOR NOTIFY SITE ENGINEER AND TREAT AS SANITARY WASTE FOR DISPOSAL.
28. EXISTING SANITARY SEWER FOR SOUTH BUILDINGS TAKEN FROM HISTORICAL DATA.
29. THE CONTRACTOR SHALL COORDINATE WITH ARLINGTON FIRE DEPARTMENT FOR ACCESS LOCATIONS TO THE SITE DURING DEMOLITION / CONSTRUCTION.
30. THE ABANDONMENT, REMOVAL & DECOMMISSIONING OF ALL EXISTING SUBSURFACE DISPOSAL SYSTEMS AND SANITARY LINE COMPONENTS MAY BE CONSIDERED HAZARDOUS WASTE AND MUST BE REMOVED IN ACCORDANCE WITH THE PROCEDURES APPROVED BY THE DUTCHESS COUNTY DEPARTMENT OF HEALTH AND NYSDEC AND CERTIFIED BY A NYS PROFESSIONAL ENGINEER.
31. ALL EXISTING MONITORING WELLS ONSITE, ARE TO BE CUT AND CAPPED 4' BELOW GRADE AND FILLED WITH GROUT. WELLS ARE TO BE ABANDONED SHALL BE IN ACCORDANCE WITH DUTCHESS COUNTY DEPARTMENT OF HEALTH REGULATIONS.
32. KNOX BOX LOCKS ARE TO INSTALLED ON EACH OF THE EMERGENCY ACCESS POINTS OF THE TEMPORARY CHAIN LINK FENCE AND DAISY CHAINED TO THE CONTRACTORS PAD LOCK.
33. PRIOR TO THE START OF CONSTRUCTION OR EXCAVATION, TREE'S TO BE RETAINED SHALL BE PROTECTED BY SILT FENCE, SNOW FENCE, CONSTRUCTION FENCE, OR EQUAL, WHICH WILL BE PLACED AT THE DRIP LINE OR SEVERAL FEET BEYOND. HOWEVER, THE FENCING SHALL NOT GROSS PUBLIC SIDEWALKS. NO STORAGE OR STOCKPILING OF CONSTRUCTION MATERIALS, DEBRIS OR EQUIPMENT SHALL OCCUR WITHIN THE FENCED AREA.



TREE PROTECTION DETAIL
NOT TO SCALE

DEMOLITION LEGEND:

X X X X X X X	ITEM(S) TO BE REMOVED
	BUILDING / STRUCTURE TO BE REMOVED
	PAVEMENT TO BE REMOVED
	WALK TO BE REMOVED
	STRUCTURE TO BE REMOVED
	TREE PROTECTION

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

#	Date	Revisions
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS
7	10.25.21	RESPONSE TO CONSULTANT COMMENTS

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DEMOLITION PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DM20254801.dwg
Drawn	SMC	Project No.	20-2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	1"=20'

Sheet No. DM-1

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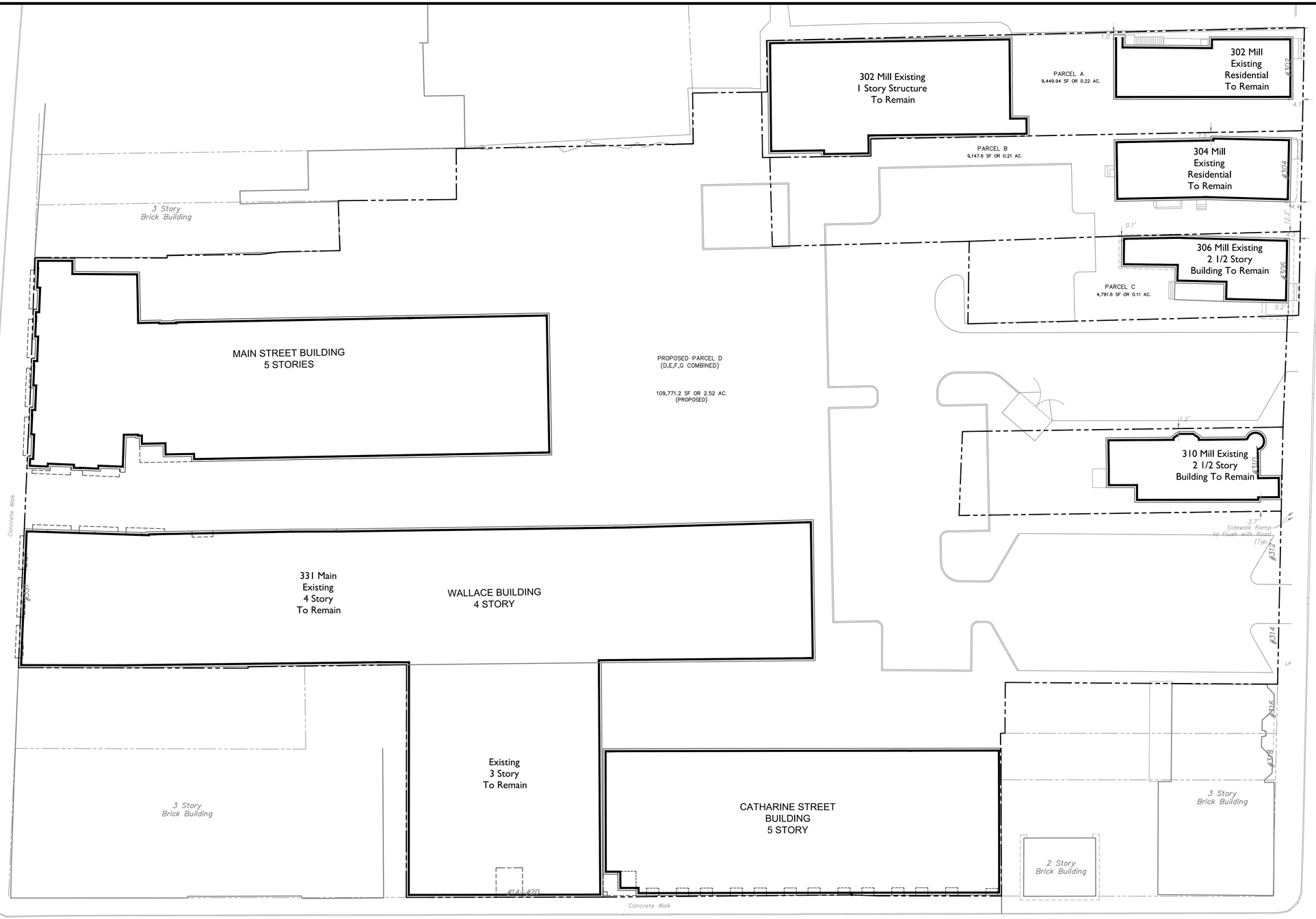
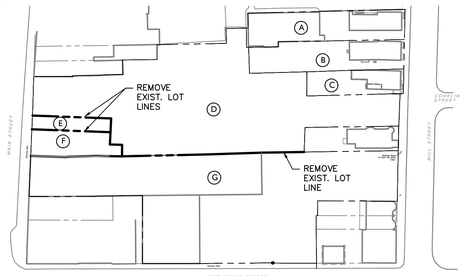


DUTCHESS COUNTY NOTE

THIS LOT LINE REVISION SHALL TAKE EFFECT ONLY AFTER DEEDS PURSUANT TO TOWN CODE CHAPTER 135(D) AND (E) ARE PREPARED FOR AND APPROVED BY THE CITY. THIS PLAN IS PROPERLY APPROVED BY THE PLANNING BOARD AND SIGNED BY THE OWNERS AND THE PLANNING BOARD CHAIRMAN (OR DESIGNEE), AND UPON FILING SAID PLAN AND DEEDS WITH THE DUTCHESS COUNTY CLERK



EXISTING LOT CONFIGURATION

1"=100'

OWNER INFORMATION

PARCEL A
TAX MAP ID# 6162-77-112116
POK MILL, LLC
93 FOURTH AVE #1289
NEW YORK, NY 10276

PARCEL B
TAX MAP ID#6162-77-116114
POK MILL, LLC
93 FOURTH AVE #1289
NEW YORK, NY 10276

PARCEL C
TAX MAP ID# 6162-77-121116
POK MILL, LLC
93 FOURTH AVE #1289
NEW YORK, NY 10276

PARCEL D
TAX MAP ID# 6162-77-114098
IIC PROPERTIES INC.
331 MAIN STREET
POUGHKEEPSIE, NY 12601

PARCEL E
TAX MAP ID# 6162-78-127091
IIC PROPERTIES INC.
331 MAIN STREET
POUGHKEEPSIE, NY 12601

PARCEL F
TAX MAP ID# 6162-77-109079
POK 325 MAIN LLC
93 FOURTH AVE #1289
NEW YORK, NY 10276

PARCEL G
TAX MAP ID# 6162-77-109077
KEY MAIN, LLC
327-329 MAIN STREET
POUGHKEEPSIE, NY 12601

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

ZONING HC-CORE HISTORIC AND UV URBAN VILLAGE

SEE SP-2 FOR ZONING INFORMATION

PROPOSED LOT CONFIGURATION

OWNER / APPLICANT CERTIFICATION

THE UNDERSIGNED, OWNER/APPLICANT OF THIS PROPERTY SHOWN HEREON, AND THE APPLICANT, HEREBY CERTIFY THAT WE ARE FAMILIAR WITH THIS MAP, ITS CONTENTS AND DETAILS, AND HEREBY AGREE TO THE TERMS AND CONDITIONS EXPRESSED HEREON, AND TO FILING OF THIS MAP IN THE OFFICE OF THE DUTCHESS COUNTY CLERK.

OWNER/APPLICANT _____ DATE _____

LOT AREA CHART-EXIST.

EXISTING PARCEL #	AREA
PARCEL A	9,449.94 SF OR 0.22 AC.
PARCEL B	9,147.6 SF OR 0.21 AC.
PARCEL C	4,791.6 SF OR 0.11 AC.
PARCEL D	49,421.12 SF OR 1.13 AC.
PARCEL E	53,952.86 SF OR 1.24 AC.
PARCEL F	2,114.87 SF OR 0.05 AC.
PARCEL G	4,232.25 SF OR 0.10 AC.
TOTAL	133,293.6 SF OR 3.06 AC.

LOT AREA CHART-PROPOSED

PROPOSED PARCEL #	AREA
PARCEL A	9,449.94 SF OR 0.22 AC. (EXIST UNCHANGED)
PARCEL B	9,147.6 SF OR 0.21 AC. (EXIST. UNCHANGED)
PARCEL C	4,791.6 SF OR 0.11 AC. (EXIST. UNCHANGED)
PARCEL D (D,E,F,G COMBINED)	109,771.2 SF OR 2.52 AC. (PROPOSED)
TOTAL	133,293.6 SF OR 3.06 AC.

#	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
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Revisions

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LOT LINE CONSOLIDATION PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	LC20254801.dwg
Drawn	SMC	Project No.	20-2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	1"=20'

Sheet No. LC-1

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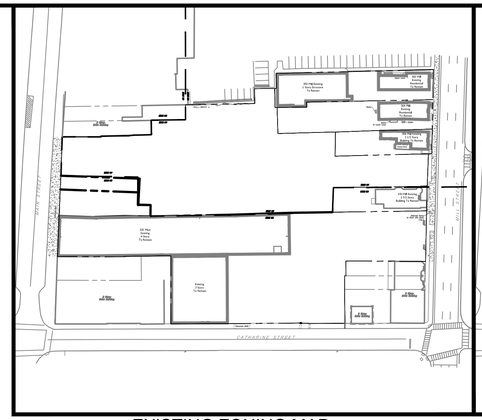
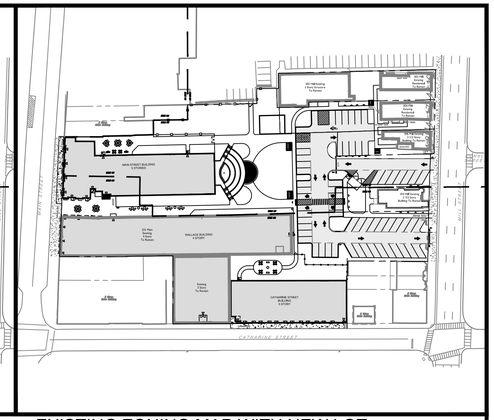


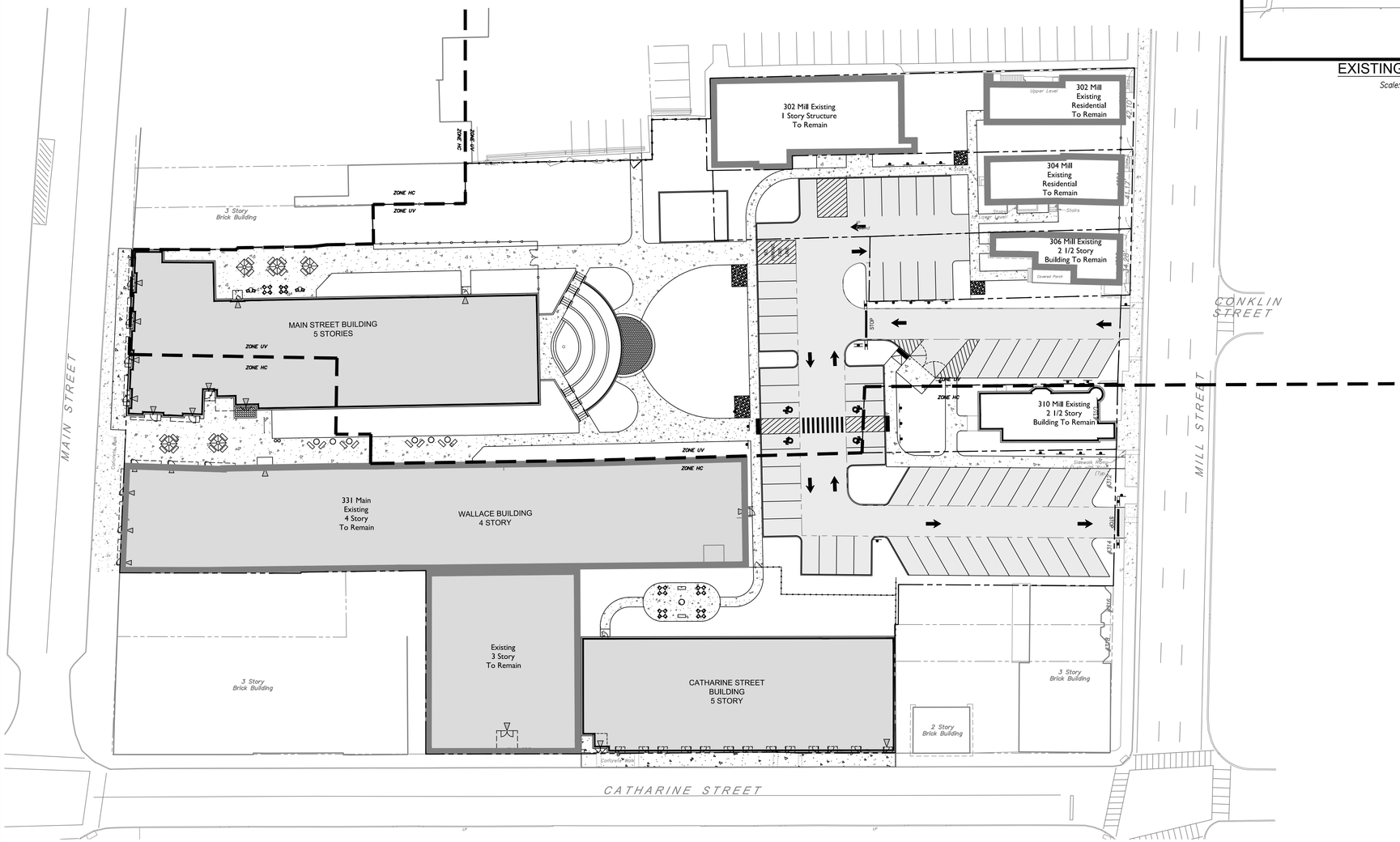
EXISTING ZONING MAP

Scale: 1"=100'



EXISTING ZONING MAP WITH NEW LOT

Scale: 1"=100'



OVERALL SITE PLAN

Scale: 1"=30'

SEE DN-4 FOR TRUCK TURNING MOVEMENTS

GRAPHIC SCALE

30 15 0 30

SCALE IN FEET

STATE OF NEW YORK
RODNEY E. MORRISON
LICENSED PROFESSIONAL ENGINEER

#	Date	Description
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Revisions

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OVERALL SITE PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	OP20254801.dwg
Drawn	SMC	Project No.	20-2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	NOTED

Sheet No. **OP-1**

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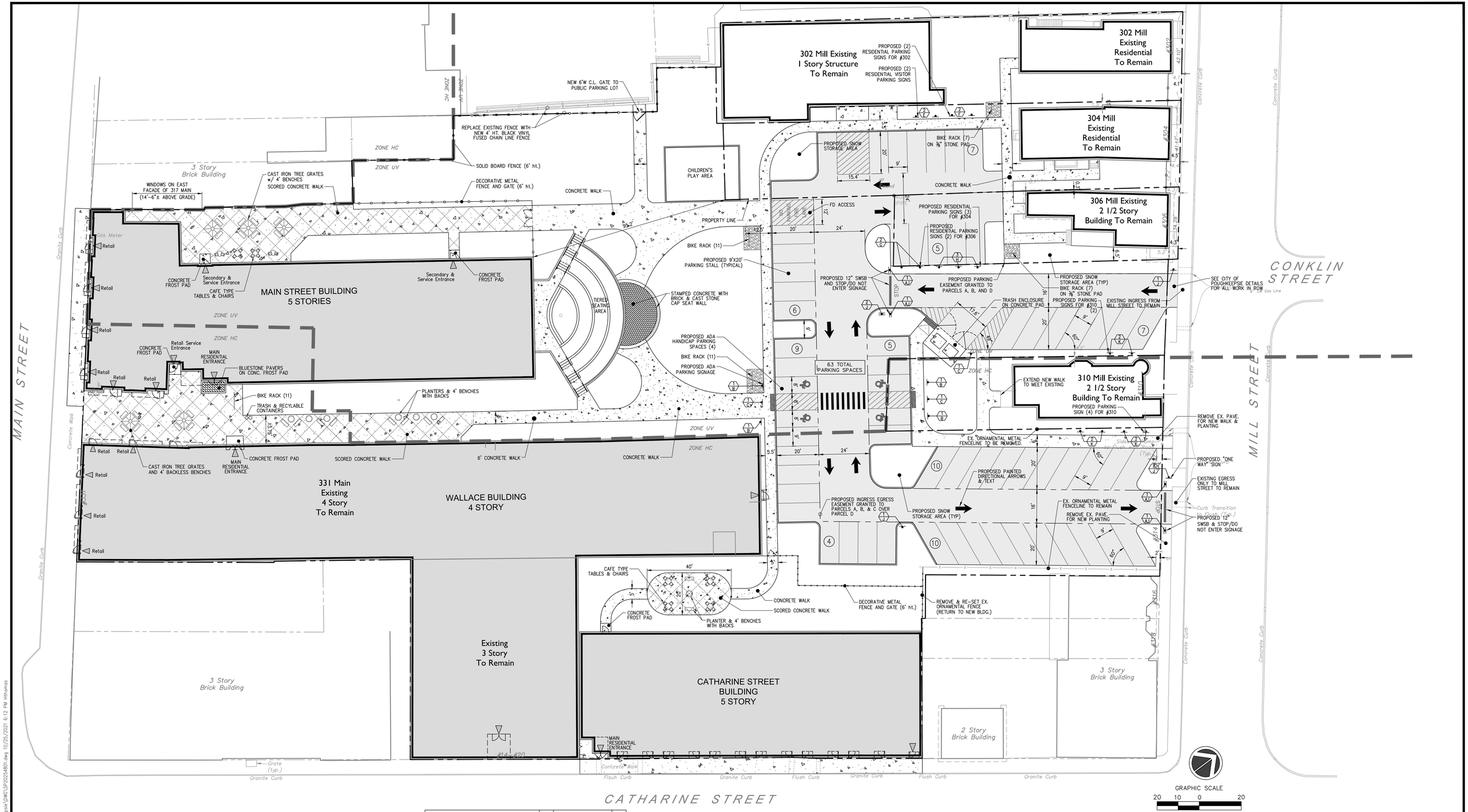

GENERAL MAP NOTE:

ACCESS, SHARED PARKING, AND LANDSCAPING IMPROVEMENTS WITH ADJOINING PARCELS:

THE WALLACE CAMPUS DRAWING SETS FORTH THE BOUNDARIES OF THE WALLACE CAMPUS CONSOLIDATED LOT AND SHOWS THE SITE PLAN FOR THAT LOT. FOUR ADJOINING PARCELS OUTSIDE THE WALLACE CAMPUS ARE ALSO SHOWN ON THE DRAWING SET, FOR THE LIMITED PURPOSE OF DEPICTING THE OFF-SITE IMPROVEMENTS TO BE MADE ON THOSE PROPERTIES PURSUANT TO SHARED PARKING AND EASEMENT AGREEMENTS, AND TO SHOW THE MANNER IN WHICH THOSE PHYSICAL IMPROVEMENTS AND ACCESS PROVISIONS WILL IMPROVE PEDESTRIAN AND VEHICULAR CIRCULATION IN THE NEIGHBORHOOD, AS WELL AS LANDSCAPING, LIGHTING, AND COMMUNITY CHARACTER. THE PROJECT SPONSOR WILL ENTER INTO SHARED PARKING AND PERMANENT ACCESS EASEMENT AGREEMENTS WITH THE OWNERS OF THESE ADJOINING PARCELS, WHICH WILL BE APPROVED BY THE PLANNING BOARD AS PART OF THE PROJECT APPROVALS. THE DRAWING SET DEPICTS THE OFF-SITE WORK TO BE PERFORMED BY THE PROJECT SPONSOR ON THESE PARCELS TO IMPLEMENT THE SHARED PARKING AND ACCESS AGREEMENTS. THE WORK ON 302, 304 AND 306 MILL STREET ("THE 3 MILL STREET LOTS") WOULD ELIMINATE TWO EXISTING CURB CUTS ON MILL STREET (BETWEEN 302 AND 304 MILL AND BETWEEN 304 AND 306 MILL), AND PROVIDE ADDITIONAL GREEN SPACE ON THOSE LOTS, INCLUDING ALONG THE MILL STREET FRONTAGE TO REPLACE THOSE DRIVEWAYS. THE WALLACE CAMPUS OWNER WILL PROVIDE A PERMANENT ACCESS EASEMENT TO THE OWNER OF THE 3 MILL STREET LOTS FOR THE BENEFIT OF OWNERS AND TENANTS, TO ACCESS THE PARKING AREAS LOCATED ON THESE LOTS VIA THE WALLACE CAMPUS ACCESS DRIVES. THE SHARED PARKING AGREEMENT WOULD MAINTAIN THE ALLOCATION OF DEDICATED PARKING (12 SPACES) TO THE 3 MILL STREET LOTS IN COMPLIANCE WITH THE PID ZONING. LIGHTING IMPROVEMENTS, PEDESTRIAN WALKWAYS, AND STORMWATER IMPROVEMENTS WILL BE PROVIDED TO SERVE THE OFFSITE SHARED PARKING AREAS IN THE SAME MANNER AS THE PARKING AREAS ON THE WALLACE CAMPUS PARCEL. PURSUANT TO A SEPARATE SHARED PARKING AGREEMENT WITH THE HUDSON RIVER HOUSING ("HRH") PROPERTY, THE PROJECT SPONSOR WILL BE GRANTED A PERMANENT EASEMENT TO CONSTRUCT PEDESTRIAN SIDEWALK PATHS WITHIN THE HUDSON RIVER HOUSING PROPERTY CONNECTING TO MILL STREET AND PROVIDING ACCESS FROM THAT PARKING AREA TO THE REAR ENTRANCE TO THE HRH OFFICE BUILDING, AND PARKING IMPROVEMENTS ALONG THE HRH LOT SOUTHERLY BOUNDARY THAT INTEGRATE WITH THE WALLACE CAMPUS PARKING AREA. LIGHTING IMPROVEMENTS AND LANDSCAPING WILL BE INSTALLED AS SHOWN ON THE DRAWING SET. THE PROJECT SPONSOR WILL PROVIDE HRH WITH A PERMANENT ACCESS EASEMENT TO USE THE TWO WALLACE CAMPUS MILL STREET ENTRANCES AND EXITS FOR ACCESS TO, AND USE OF, 6 PARKING SPACES WHICH ARE LOCATED ON WALLACE CAMPUS PROPERTY DIRECTLY ABUTTING THE WESTERLY BOUNDARY OF HRH'S PROPERTY (AS SHOWN ON THE DRAWING SET), WHICH SPACES WILL BE RESERVED FOR USE BY HRH EMPLOYEES DURING WORKING HOURS 8 AM TO 6 PM MONDAY TO FRIDAY. THE 6 SPACES TO BE AVAILABLE FOR WALLACE CAMPUS PARKING OUTSIDE OF THOSE HOURS.

SIGN LEGEND

NO.	LEGEND	QTY.
A	STOP	4
B	RESERVED PARKING	4
C	NO PARKING ANYTIME	3
D	15 MIN DROP OFF	0
E	RESIDENTIAL VISITOR PARKING	2
F	RESIDENTIAL PARKING FOR #302 ONLY	2
G	RESIDENTIAL PARKING FOR #306 ONLY	2
H	RESIDENTIAL PARKING FOR #304 ONLY	3
I	DO NOT ENTER	4
J	ONE WAY	5
K	PARKING FOR #310 Weekdays 8am-6pm	6

LEGEND

- PROPOSED ASPHALT
- PROPOSED BLUESTONE WALK
- PROPOSED SNOW STORAGE AREA
- PROPOSED CONCRETE SIDEWALK
- PROPOSED SIGN
- ZONELINE

SURVEY MAP NOTE:

SURVEY BASED ON ENTITLED "MAP OF SURVEY PREPARED FOR URBAN GREEN EQUITIES LLC" PREPARED BY J. WILLIAM KOMISAR, LLS DATED FEBRUARY 7, 2020.

NOTES:
1. THERE ARE NO EXISTING EASEMENTS OF RECORD.
2. PROPERTY IS NOT LOCATED WITHIN THE FALLKILL CREEK WATERSHED.
3. NO WATERCOURSE, MARSHES, WOODED AREA, ROCK OUTCROPS, ISOLATED TREES PRESENT.
4. NO AREAS SUBJECT TO STORM OVERFLOWS. (NOT IN FEMA 100 YEAR FLOOD PLANE)

#	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS
7	10.25.21	RESPONSE TO CONSULTANT COMMENTS

Revisions

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- Civil Engineering
- Environmental Services
- Land Surveying
- Landscape Architecture

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SITE PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	SP20254801.dwg	Sheet No.
Drawn	SMC	Project No.	20-2548	SP-1
Checked	KFC	Date	2020.04.10	
Approved	REM	Scale	1"=20'	

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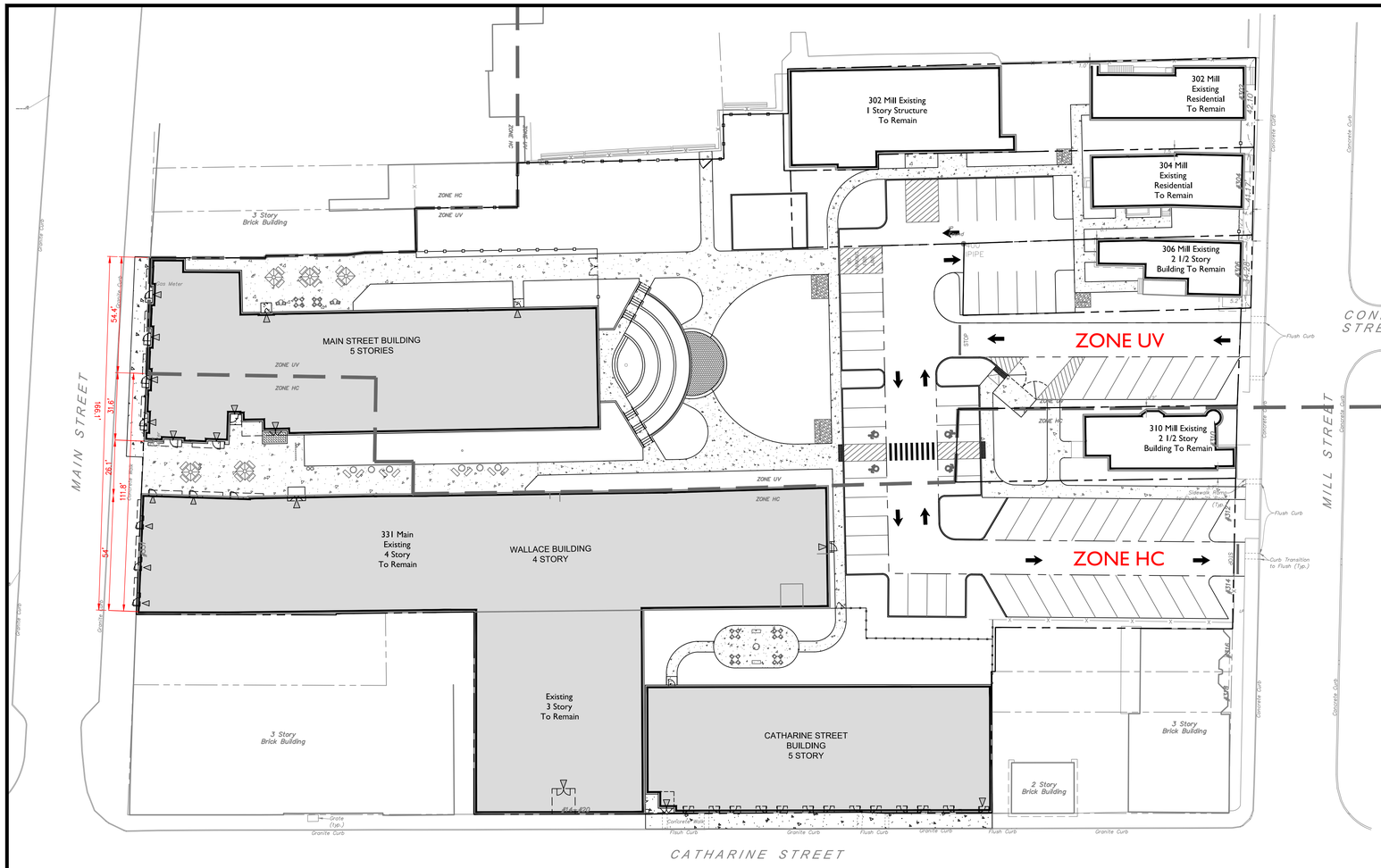


BULK TABLES

PROPOSED CONSOLIDATED LOT D:
COMBINATION OF EXISTING LOTS D, E, F, AND G PARTIALLY LOCATED IN UV AND PARTIALLY LOCATED IN HC (HISTORIC CORE) ZONES

ITEM	REQUIRED	EXISTING	PROVIDED	SEE PLAN
LOT AREA HC	N/A	60,268.7 SQ FT	60,268.7 SQ FT	SP-1
LOT AREA UV	N/A	49,433.6 SQ FT	49,433.6 SQ FT	SP-1
LOT AREA – TOTAL	N/A	109,712.2 SQ FT	109,712.2 SQ FT	SP-1
MAIN STREET BUILDING HEIGHT MINIMUM HEIGHT HC MINIMUM HEIGHT UV MAXIMUM HEIGHT HC MAXIMUM HEIGHT UV	2 STORIES 3 STORIES 5 STORIES 6 STORIES		5 STORIES	A200–A204
EXISTING WALLACE BUILDING HEIGHT MINIMUM HEIGHT HC MAXIMUM HEIGHT HC(5,7)	2 STORIES 5 STORIES	4 STORIES	4 STORIES	A200–A204
CATHARINE STREET BUILDING HEIGHT MINIMUM HEIGHT HC MAXIMUM HEIGHT HC(5,7)	2 STORIES 5 STORIES		5 STORIES	A200–A204
MAXIMUM ACCESSORY BUILDING HEIGHT HOUSING HC HOUSING UV OTHER HC OTHER UV	2 STORIES 2 STORIES 1 STORY 1 STORY		N/A	A200–A204
MINIMUM LOT COVERAGE HC	75% REQ.	54.98% (*1)	87.50% (*4)	SP-1
MINIMUM LOT COVERAGE UV	50% REQ.	11.24% (*1)	60.20% (*4)	SP-1
MINIMUM LOT COVERAGE – TOTAL	--	35.27%	75.19%	SP-1
MINIMUM COMMON/OPEN SPACE HC	0%	0%	20.58%	SP-1
MINIMUM COMMON/OPEN SPACE UV	15%	4.68% (*1)	58.67%	SP-1
MINIMUM COMMON/OPEN SPACE – TOTAL	15%	2.11% (*1)	37.74%	SP-1
SIDE YARD PER SIDE (MIN/MAX) HC– CATHARINE STREET	0 FT	N/A	0FT	SP-1
SIDE YARD PER SIDE (MIN/MAX) UV – MAIN STREET	0 FT / 10 FT	N/A	0FT/25.8 (*2)	SP-1
REAR YARD (MIN) HC	0 FT	N/A	N/A	SP-1
REAR YARD (MIN) UV	8 FT	N/A	N/A	SP-1
MAIN STREET FRONT YARD (MIN/MAX) HC	0 FT	0 FT	0 FT	SP-1
MAIN STREET FRONT YARD (MIN/MAX) UV	0 FT / 6 FT	0 FT	0 FT	SP-1
MAIN STREET FRONTAGE OCCUPANCY (MIN/MAX) HC (*3)	100%	N/A	78.13% (*2)	SP-1
MAIN STREET FRONTAGE OCCUPANCY (MIN/MAX) UV	80%–100%	N/A	100%	SP-1
MAIN STREET FRONT YARD PARKING SETBACKS (MIN) HC/UV	40 FT	213.5FT	>40 FT	SP-1
MAIN STREET PARKING FORWARD OF BUILDING LINE (HC/UV)	NONE	NONE	NONE	SP-1
MAIN STREET REQUIRED BUILDING STEPBACK	OVER 114 FT (TWICE ROW WIDTH)	N/A	N/A	SP-1
WALLACE BUILDING FRONT YARD (MIN/MAX) HC	0 FT	0 FT	0 FT	SP-1
WALLACE BUILDING FRONTAGE OCCUPANCY (MIN/MAX) HC (*3)	100%	N/A	78.13% (*2)	SP-1
WALLACE BUILDING FRONT YARD PARKING SETBACKS (MIN) HC	40 FT	N/A	>40 FT	SP-1
WALLACE BUILDING PARKING FORWARD OF BUILDING LINE HC	NONE	NONE	NONE	SP-1
CATHARINE STREET FRONT YARD (MIN/MAX) HC	0 FT	0 FT	0 FT	SP-1
CATHARINE STREET FRONTAGE OCCUPANCY (MIN/MAX) HC	100%	32.99% (*1)	100%	SP-1
CATHARINE STREET FRONT YARD PARKING SETBACKS (MIN) HC	40 FT	8.4 FT (*1)	>40 FT	SP-1
CATHARINE STREET PARKING FORWARD OF BUILDING LINE HC	NONE	NONE	NONE	SP-1
CATHARINE STREET REQUIRED BUILDING STEPBACK	OVER 88 FT (TWICE ROW WIDTH)	N/A	N/A	SP-1
MILL STREET (EAST) FRONT YARD (MIN/MAX) HC	0 FT	NO BUILDING/PARKING LOT ACCESS (*1)	NO BUILDING/ PARKING LOT ACCESS (*2)	SP-1
MILL STREET (EAST) FRONTAGE OCCUPANCY (MIN/MAX) HC	100%	0% PARKING LOT ACCESS (*1)	0% PARKING LOT ACCESS (*2)	SP-1
MILL STREET (EAST) FRONT YARD PARKING SETBACKS (MIN) HC	40 FT	0 FT (*1)	0 FT (*2)	SP-1
MILL STREET (EAST) PARKING FORWARD OF BUILDING LINE HC	NONE	YES (*1) (NO BUILDING)	YES–NO BUILDING (*2)	SP-1
MILL STREET (EAST) PARKING VISIBLE FROM THE STREET	NONE	YES PARKING LOT ACCESS (*1)	YES PARKING LOT ACCESS (*2)	
MILL STREET (WEST) FRONT YARD (MIN/MAX) UV	0 FT / 6 FT	NO BUILDING/PARKING LOT ACCESS (*1)	NO BUILDING/PARKING LOT ACCESS (*2)	SP-1
MILL STREET (WEST) FRONTAGE OCCUPANCY (MIN/MAX) UV	80%–100%	0% PARKING LOT ACCESS (*1)	0% PARKING LOT ACCESS (*2)	SP-1
MILL STREET (WEST) FRONT YARD PARKING SETBACKS (MIN) HC/UV	40 FT	0 FT (*1)	0 FT (*2)	SP-1
MILL STREET (WEST) PARKING FORWARD OF BUILDING LINE (HC/UV)	NONE	YES (*1) (NO BUILDING)	YES–NO BUILDING (*2)	SP-1
MILL STREET (WEST) PARKING VISIBLE FROM THE STREET	NONE	YES PARKING LOT ACCESS (*1)	YES–PARKING LOT ACCESS (*2)	SP-1

NOTES:
*1 –EXISTING NON–CONFORMING USE
*2 – AREA VARIANCE REQUIRED
*3 – TOTAL MAIN STREET FRONTAGE OCCUPANCY, PARTIALLY OCCUPIED BY EACH OF THE 2 BUILDINGS
*4 – ENTIRE FOOTPRINT OF MAIN STREET BUILDING INCLUDED IN CALCULATION, INCLUDING AREA COVERED WITH PERMEABLE GREEN ROOF

302 MILL STREET

EXISTING / ADJOINING LOT/SHARED PARKING LOT A:
LOCATED IN PID-UV (POUGHKEEPSIE INNOVATION-URBAN VILLAGE) ZONE

ITEM	REQ'D UV ZONE	PROVIDED UV ZONE	SEE PLAN
LOT AREA	N/A	9,499.9 SQ FT	SP-1
MAIN BUILDING HEIGHT MINIMUM HEIGHT MAXIMUM HEIGHT	3 STORIES 6 STORIES	2 1/2 STORIES (*1)	NA
MAXIMUM ACCESSORY BUILDING HEIGHT HOUSING OTHER	2 STORIES 1 STORY	N/A 1 STORY	NA
MINIMUM LOT COVERAGE	50% REQ.	65.38%	SP-1
MINIMUM OPEN SPACE	15% REQ.	34.62%	SP-1
FRONT YARD (MIN/MAX)	0 FT / 6 FT	4.1 FT	SP-1
SIDE YARD PER SIDE (MIN/MAX)	0 FT / 10 FT	0 FT	SP-1
REAR YARD (MIN)	8 FT	0.4 FT (*1)	SP-1
FRONTAGE OCCUPANCY (MIN/MAX)	80%–100%	60.6% (*1)	SP-1
FRONT YARD PARKING SETBACKS (MIN)	40 FT	NO PARKING ON LOT N/A	SP-1
PARKING FORWARD OF BUILDING LINE	NONE	NONE	SP-1

304 MILL STREET

EXISTING / ADJOINING LOT/SHARED PARKING LOT B:
LOCATED IN PID-UV (POUGHKEEPSIE INNOVATION-URBAN VILLAGE) ZONE

ITEM	REQ'D UV ZONE	PROVIDED UV ZONE	SEE PLAN
LOT AREA	N/A	8,851.8 SQ FT	SP-1
MAIN BUILDING HEIGHT MINIMUM HEIGHT MAXIMUM HEIGHT	3 STORIES 6 STORIES	3 STORIES	NA
MAXIMUM ACCESSORY BUILDING HEIGHT HOUSING OTHER	2 STORIES 1 STORY	N/A N/A	NA
MINIMUM LOT COVERAGE	50% REQ.	21.73% (*1)	SP-1
MINIMUM OPEN SPACE	15% REQ.	47.49%	SP-1
FRONT YARD (MIN/MAX)	0 FT / 6 FT	4.5 FT	SP-1
SIDE YARD PER SIDE (MIN/MAX)	0 FT / 10 FT	1.5 FT	SP-1
REAR YARD (MIN)	8 FT	99.4 FT	SP-1
FRONTAGE OCCUPANCY (MIN/MAX)	80%–100%	14.47% (*1)	SP-1
FRONT YARD PARKING SETBACKS (MIN)	40 FT	> 40FT	SP-1
PARKING FORWARD OF BUILDING LINE	NONE	NONE	SP-1

306 MILL STREET

EXISTING / ADJOINING LOT/SHARED PARKING LOT C:
LOCATED IN PID-UV (POUGHKEEPSIE INNOVATION-URBAN VILLAGE) ZONE

ITEM	REQ'D UV ZONE	PROVIDED UV ZONE	SEE PLAN
LOT AREA	N/A	4,616.4 SQ FT	SP-1
MAIN BUILDING HEIGHT MINIMUM HEIGHT MAXIMUM HEIGHT	3 STORIES 6 STORIES	2 1/2 STORIES (*1)	NA
MAXIMUM ACCESSORY BUILDING HEIGHT HOUSING OTHER	2 STORIES 1 STORY	N/A N/A	NA
MINIMUM LOT COVERAGE	50% REQ.	34.68% (*1)	SP-1
MINIMUM OPEN SPACE	15% REQ.	31.05%	SP-1
FRONT YARD (MIN/MAX)	0 FT / 6 FT	4.3 FT	SP-1
SIDE YARD PER SIDE (MIN/MAX)	0 FT / 10 FT	0.3 FT	SP-1
REAR YARD (MIN)	8 FT	62.2 FT	SP-1
FRONTAGE OCCUPANCY (MIN/MAX)	80%–100%	14.92% (*1)	SP-1
FRONT YARD PARKING SETBACKS (MIN)	40 FT	> 40FT	SP-1
PARKING FORWARD OF BUILDING LINE	NONE	NONE	SP-1

310 MILL STREET

EXISTING / ADJOINING LOT/SHARED PARKING
LOCATED IN HC (HISTORIC CORE) ZONE

ITEM	REQUIRED	PROVIDED	SEE PLAN
LOT AREA	N/A	4,503.0 SQ FT	SP-1
MAIN BUILDING HEIGHT MINIMUM HEIGHT MAXIMUM HEIGHT	2 STORIES 7 STORIES	2 1/2 STORIES	NA
MAXIMUM ACCESSORY BUILDING HEIGHT HOUSING OTHER	2 STORIES 1 STORY	N/A	NA
MINIMUM LOT COVERAGE	75% REQ.	39.53% (*1)	SP-1
MINIMUM OPEN SPACE	0 REQUIRED	51.36%	SP-1
FRONT YARD (MIN/MAX)	0 FT	0 FT	SP-1
SIDE YARD PER SIDE (MIN/MAX)	0 FT	1.2 FT	SP-1
REAR YARD (MIN)	0 FT	58.6 FT	SP-1
FRONTAGE OCCUPANCY (MIN/MAX)	100%	85.37% (*1)	SP-1
FRONT YARD PARKING SETBACKS (MIN)	40 FT	> 40FT	SP-1
PARKING FORWARD OF BUILDING LINE	NONE	NONE	SP-1

PARKING REQUIREMENTS

BUILDING	PROPOSED USE	SIZE	ZONE	PARKING RATIO	REQUIRED SPACES	PROPOSED SPACES
MAIN STREET BUILDING	RESIDENTIAL (69 UNITS)	17 UNITS	PID–HC	0 SPACES/UNIT	0	
		52 UNITS	PID–UV	0.5 SPACES/UNIT	26	
			PID–UV	1 VISITOR SPACE/10 UNITS	6	
	RETAIL	3,309 SF	PID–UV/ PID–HC	0 SPACES/SF	0	
CATHARINE STREET BUILDING	RESIDENTIAL	49 UNITS	PID–HC	0 SPACES/UNIT	0	
	RETAIL	3,255 SF	PID–HC	0 SPACES/SF	0	
WALLACE BUILDING	RESIDENTIAL	69 UNITS	PID–HC	0 SPACES/UNIT	0	
	RETAIL	7,649 SF	PID–HC	0 SPACES/SF	0	
302/304 /306 MILL STREET BUILDINGS	RESIDENTIAL				12	
310 MILL	OFFICE				6	
				TOTAL	50	63

NOTES:
1. PARKING DEMANDS DEVELOPED BY THE MASER PARKING REQUIREMENT.

BICYCLE PARKING TABLE

BICYCLE PARKING REQUIREMENTS

RESIDENTIAL USES – MAIN STREET, WALLACE & CATHARINE STREET BUILDINGS (247 BEDROOMS PROPOSED)

TYPE	NUMBER BEDROOMS	REQUIRED/ PER BDRM	REQUIRED	PROVIDED
LONG TERM	245 BR	0.5	123	123 CELLARS OF BUILDINGS
SHORT TERM	245 BR	0.05	13	13 ONSITE ON CAMPUS

RESIDENTIAL USES –302, 304,306 (19 BEDROOMS)

TYPE	NUMBER BEDROOMS	REQUIRED/ PER BDRM	REQUIRED	PROVIDED
LONG TERM	19 BR	0.5	10	10 ONSITE ON CAMPUS
SHORT TERM	19 BR	0.05	2	2 ONSITE ON CAMPUS

OTHER USES – ON SITE BICYCLE PARKING: MAIN, CATHERINE AND WALLACE BUILDINGS

TYPE	TYPE	PROPOSED SF	REQUIRED/SF	REQUIRED	PROVIDED
LONG TERM	RETAIL	16,011	1 PER 12K SF	2 SPACES MIN	4 ON CAMPUS
SHORT TERM	RETAIL	16,011	1 PER 5K SF	2 SPACES MIN	4 ON CAMPUS

OTHER USES – ON SITE BICYCLE PARKING: OFFICE AND NON-RETAIL MAIN, CATHERINE AND WALLACE BUILDINGS

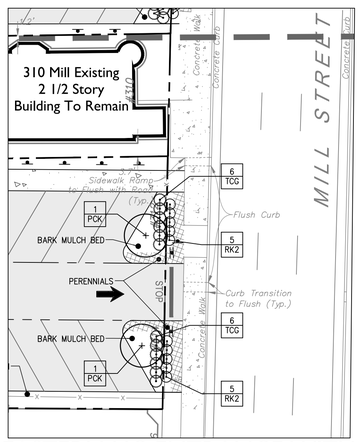
TYPE	TYPE	PROPOSED SF	REQUIRED/SF	REQUIRED	PROVIDED
LONG TERM	OFFICE/NON RETAIL	4,648	1 PER 10K SF	1 SPACES	1 ON CAMPUS
SHORT TERM	OFFICE/NON RETAIL	4,648	1 PER 20K SF	2 SPACES MIN	2 ON CAMPUS

OTHER USES – ON SITE BICYCLE PARKING: GREEN AREA

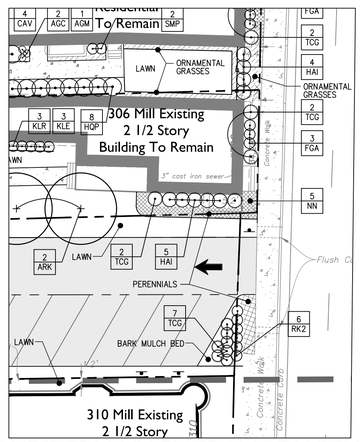
TYPE	TYPE	REQUIRED	PROVIDED
SHORT TERM	OUTDOOR GREEN	AS DETERMINED BY PLANNING BOARD	10 ON CAMPUS

TOTAL BICYCLE PARKING REQUIREMENTS FOR WALLACE CAMPUS

TYPE	REQUIRED	PROVIDED
LONG TERM	139.9 SPACES	123 Wallace 2nd & 3rd Fl 17 ON CAMPUS
SHORT TERM	29 SPACES	29 ON CAMPUS



EASTERN HC ENTRANCE WITH LANDSCAPING
1"=20'



WESTERN UV ENTRANCE WITH LANDSCAPING
1"=20'

GRAPHIC SCALE
30 15 0 30
SCALE IN FEET

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SITE PLAN
BULK TABLES

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	SP20254802.dwg	Sheet No.
Drawn	SMC	Project No.	20–2548	SP-2
Checked	KFC	Date	2020.04.10	
Approved	REM	Scale	1"=30'	

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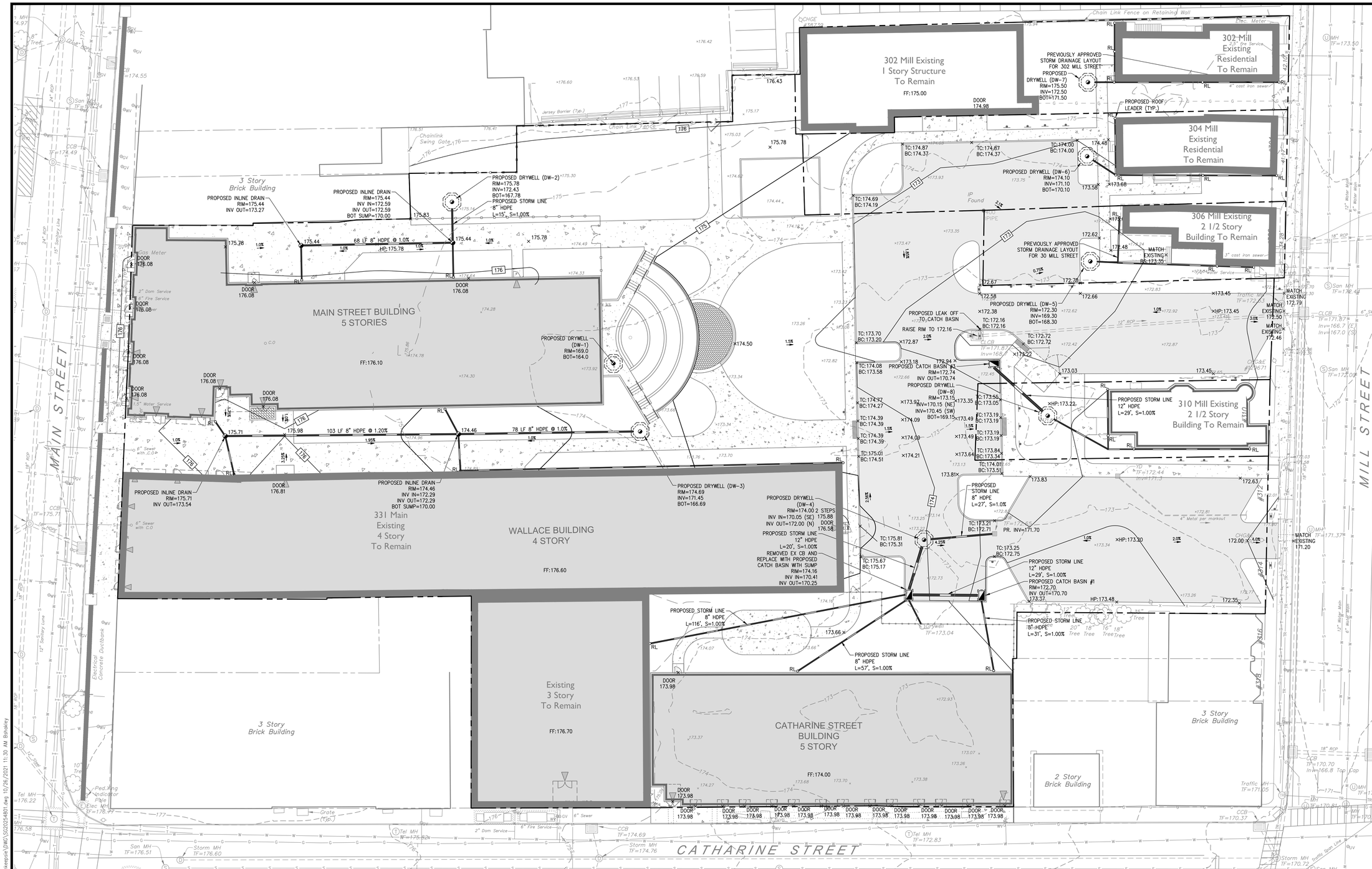

COMPACTION AND BACKFILL NOTES

UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE SITE ENGINEER, ALL SITE SUBGRADE AND BACKFILL FOR ALL STRUCTURES INCLUDING, BUT NOT LIMITED TO, PARKING LOT SUBGRADE, ROAD SUBGRADE, CONCRETE PADS AND SIDEWALKS, WATER LINES AND STRUCTURES, SEWER LINES AND STRUCTURES, STORM LINES AND STRUCTURES, TRASH PADS/ENCLOSURES, AND SITE ELECTRICAL AND CONDUIT, SHALL BE COMPACTED IN ACCORDANCE WITH THE FOLLOWING STANDARD.

METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED MAY 1, 2008, AND ALL ADDENDA THERETO

GRADING AND DRAINAGE NOTES

1. ALL EXISTING STRUCTURES NOTED TO BE REMOVED, FENCING, TREES, ETC., WITHIN CONSTRUCTION AREA SHALL BE REMOVED & DISPOSED OF OFF SITE. ANY BURNING ON SITE SHALL BE SUBJECT TO LOCAL ORDINANCES.
2. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.
3. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

LEGEND

	PROPOSED ASPHALT
X 162	PROPOSED SPOT ELEVATION
162	PROPOSED MINOR CONTOUR LINE
160	PROPOSED MAJOR CONTOUR LINE
	PROPOSED STORM PIPE

GRAPHIC SCALE

20 10 0 20

SCALE IN FEET

STATE OF NEW YORK
RODNEY E. MORRISON
074104
LICENSED PROFESSIONAL ENGINEER

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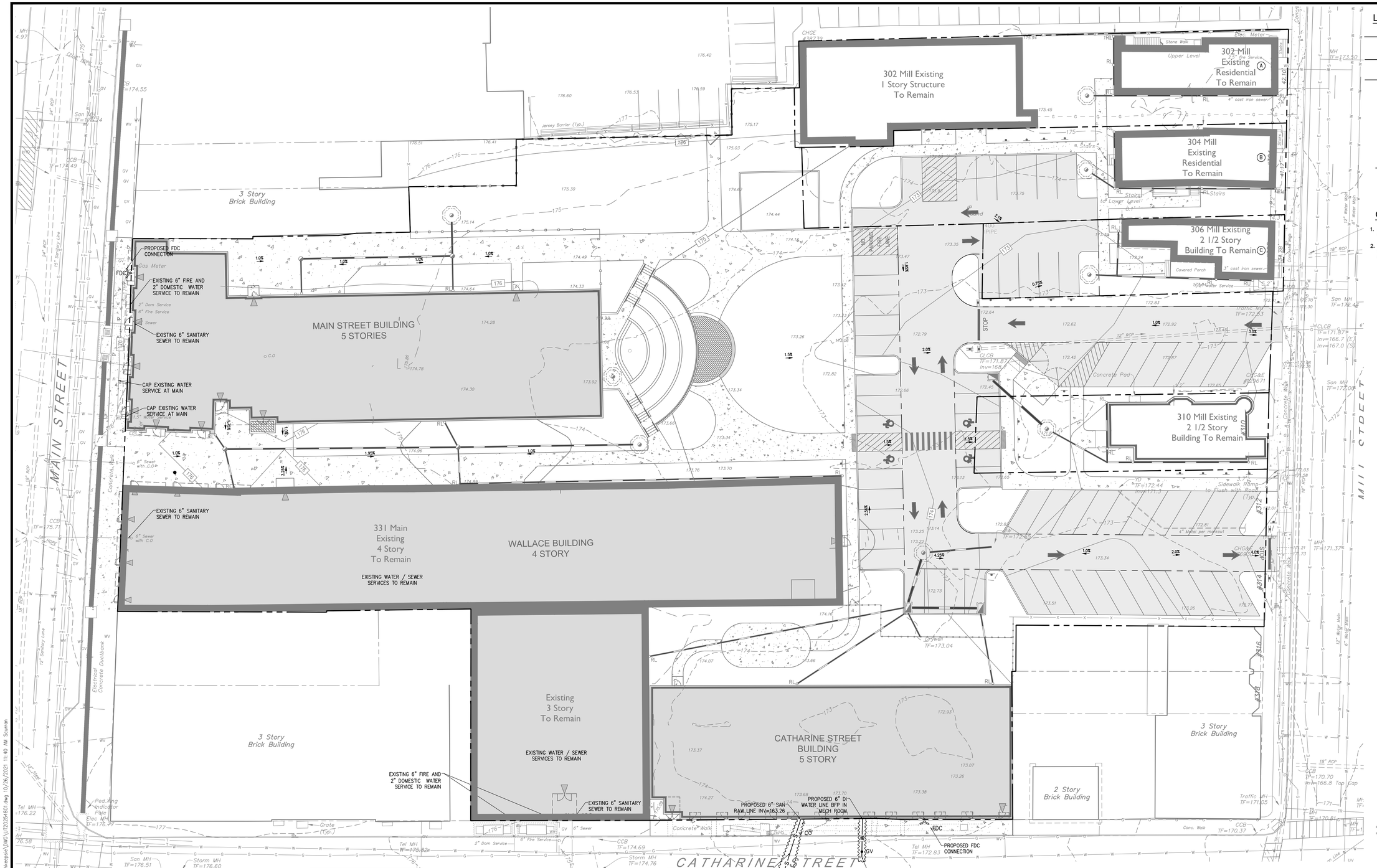
SITE GRADING / DRAINAGE PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	SG20254801.dwg
Drawn	SMC	Project No.	20-2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	1"=20'

Sheet No. SG-1



LEGEND

- S — PROPOSED SANITARY SERVICE
- W — PROPOSED WATER SERVICE
- G — PROPOSED GAS SERVICE
- DCO — PROPOSED DOUBLE SANITARY CLEANOUT
- WSO — PROPOSED WATER SHUT OFF VALVE
- PROPOSED SANITARY MANHOLE
- PROPOSED SAWCUT
- (A) (B) (C) EXISTING WATER / SEWER TO REMAIN

CONTRACTOR NOTES

1. BACKFLOW PREVENTION IS REQUIRED FOR BOTH THE FIRE AND DOMESTIC WATER SERVICE CONNECTIONS.
2. TAPPING SLEEVE VALVE AND CURB VALVE IN THE STREET ARE TO BE RIGHT OPEN PER CITY OF POUGHKEEPSIE DPW REQUIREMENTS.

SEE NS-1 FOR WATER / SEWER NOTES

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STATE OF NEW YORK
ROMEYE E. MORRISON
LICENSED PROFESSIONAL ENGINEER
071104

UTILITIES PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

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Sheet No. UT-1

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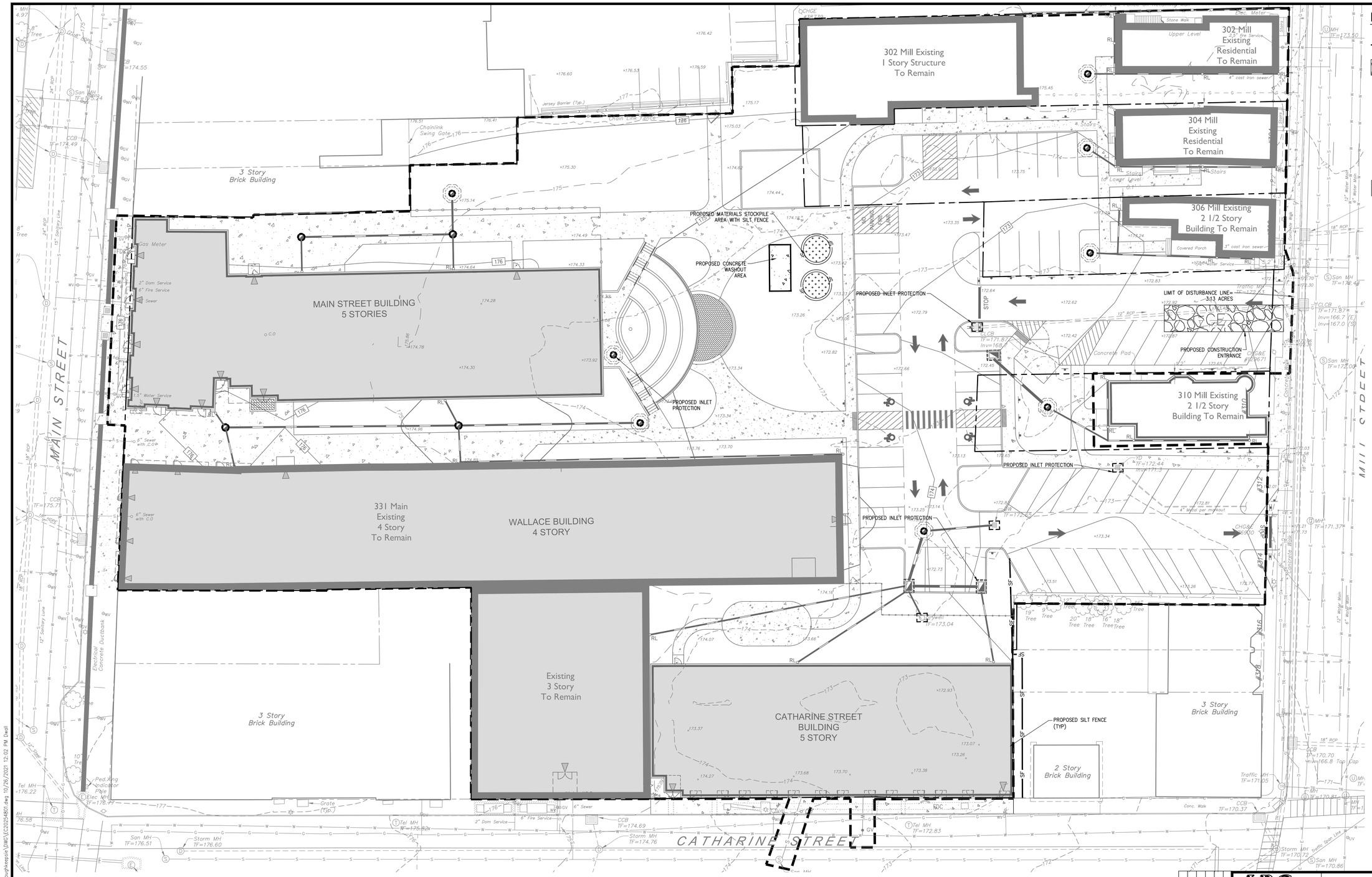

LEGEND

- SF — PROPOSED SILT FENCE
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED INLET PROTECTION (SILT SACKS)
- PROPOSED SOIL MATERIALS STOCKPILE AREA WITH SILT FENCE IN LANDSCAPED AREAS. STOCKPILE IN ASPHALT AREAS SHALL HAVE A TARP COVERING AND MUST BE ANCHORED PROPERLY TO NOT LET SEDIMENT ESCAPE.
- PROPOSED CONCRETE WASHOUT AREA

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

SEE NS-1 FOR EROSION CONTROL NOTES

#	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS
7	10.25.21	RESPONSE TO CONSULTANT COMMENTS

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EROSION AND SEDIMENTATION CONTROL PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

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CITY OF POUGHKEEPSIE WATER NOTES

1. ALL WATER MAINS SHALL BE CEMENT LINED DUCTILE IRON PIPE, CLASS 52 PUSH-ON JOINT, UNLESS OTHERWISE SPECIFIED BY OR APPROVED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT. JOINTING SHALL EMPLOY "MEGALUG" CONNECTIONS, FIELD LOCK GASKET, OR AS ALTERNATIVELY SPECIFIED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT. ALL WATER PIPING CONSTRUCTION SHALL BE TO THE SPECIFICATIONS OF THE CITY OF POUGHKEEPSIE WATER DEPARTMENT. WET TAP OF PUBLIC WATER SYSTEM SHALL BE APPROVED AND SUPERVISED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT. TAPPING SLEEVE SHALL BE STAINLESS STEEL OR APPROVED EQUAL. ALL MAINLINE VALVES SHALL BE RESILIENT WEDGE OR APPROVED EQUAL.

2. THE WATER LINE MAY BE FLEXED WITHIN PIPE SPECIFICATIONS OR LAID DEEPER IN AREAS WHERE A CROSSING WITH A SANITARY LINE OCCURS, TO ACHIEVE THE REQUIRED 1.5' VERTICAL SEPARATION DISTANCE. IF THIS DISTANCE CANNOT BE REASONABLY ACHIEVED, THE CONTRACTOR SHALL USE PRESSURE RATED SANITARY PIPE OF EQUAL OR GREATER RATING THAN THE PRESSURE CLASS FOR THE WATER LINE.

3. MINIMUM VERTICAL SEPARATION BETWEEN WATER MAINS AND SEWER PIPE SHALL BE 18 INCHES MEASURED FROM THE OUTSIDE OF THE PIPES AT THE POINT OF CROSSING. ONE FULL STANDARD LAYING LENGTH OF WATER MAIN SHALL BE CENTERED UNDER OR OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER LINE AS POSSIBLE. IN ADDITION, WHEN THE WATER MAIN PASSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT (COMPACTED SELECT FILL) SHALL BE PROVIDED FOR THE SEWER TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING OF THE SEWER PIPE ON THE WATER MAIN. MINIMUM HORIZONTAL SEPARATION BETWEEN PARALLEL WATER MAINS AND SEWER PIPES (INCLUDING MANHOLES AND VAULTS) SHALL BE 10 FEET MEASURED FROM THE OUTSIDE OF THE PIPES, MANHOLES, OR VAULTS.

4. ALL WATER MAINS SHALL HAVE A MINIMUM OF (5) FIVE FEET OF COVER FROM THE TOP OF THE MAIN TO FINISHED GRADE. THE CONTRACTOR SHALL CHECK ALL FINISHED GRADE STAKES BEFORE TRENCHING TO ENSURE THAT ALL INSTALLED WATER MAINS WILL HAVE THE REQUIRED COVER.

5. THE SUPPLIER OF WATER MUST RECEIVE AT LEAST 48-HOUR ADVANCE NOTIFICATION REQUESTING SAMPLING SERVICES. SAMPLING WILL NOT BE PERFORMED PRIOR TO RECEIPT FROM A NEW YORK STATE LICENSED OR REGISTERED DESIGN PROFESSIONAL (ENGINEER, ARCHITECT, OR LAND SURVEYOR WITH A SPECIAL EXEMPTION UNDER SECTION 7208(N) OF THE EDUCATION LAW) CERTIFYING THAT THE WATER SUPPLY IMPROVEMENTS, TESTING AND DISINFECTION PROCEDURES WERE COMPLETED IN ACCORDANCE WITH THE APPROVED PLANS, REPORTS, SPECIFICATIONS, AND ANY APPROVED AMENDMENTS. A NYSDOH CERTIFIED LABORATORY WILL COLLECT SAMPLES FOR FREE CHLORINE RESIDUAL, TOTAL, AND FECAL COLIFORM AND 24-HOUR BACTERIAL PLATE COUNT. THE CERTIFICATE OF COMPLIANCE, TESTING, AND SAMPLING RESULTS SHALL BE PROVIDED TO THE CITY WATER MAINTENANCE SUPERVISOR AND DUTCHESS COUNTY DEPARTMENT OF HEALTH AS A CONDITION OF APPROVAL FOR OPERATION.

6. THE CONTRACTOR SHALL COORDINATE THE TESTING WITH THE WATER DEPARTMENT SO AS TO MAINTAIN THE AMOUNT OF SERVICE INTERRUPTION TO EXISTING USERS TO THE LEAST EXTENT PRACTICABLE. WATER MAIN INSTALLATION AND TESTING SHALL BE PERFORMED UNDER THE SUPERVISION OF THE PROJECT ENGINEER OR HIS DESIGNEE AS NECESSARY TO MEET CONDITIONS IN NOTE 5 ABOVE.

7. THE WATER MAIN SHALL BE PRESSURE LEAKAGE TESTED IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS OF THE AWWA STANDARD C600 (LATEST REVISION) OR IN ACCORDANCE WITH MORE STRINGENT REQUIREMENTS IMPOSED BY THE SUPPLIER OF WATER. TEST TO FIRST VALVE WITHIN BUILDING.

8. THE WATER MAIN SHALL BE DISINFECTED EQUAL TO AWWA STANDARD FOR DISINFECTING WATER MAINS DESIGNATION C651 (LATEST REVISION). FOLLOWING DISINFECTION, THE WATER MAIN SHALL BE FLUSHED UNTIL THE CHLORINE CONCENTRATION IN THE WATER LEAVING THE MAIN IS NO HIGHER THAN THAT GENERALLY PREVAILING IN THE SYSTEM. THE PROJECT ENGINEER OR HIS DESIGNEE SHALL ALSO WITNESS DISINFECTION AND FLUSHING.

9. ALL WATER MAIN FITTINGS NOT RECEIVING 24-HOUR CHLORINE DISINFECTION CONTACT TIME MUST BE SWAB-DISINFECTED 30 MINUTES PRIOR TO INSTALLATION.

10. THE SAMPLING POINT(S) MUST BE DECONTAMINATED BY FLAMING.

11. FIRE HYDRANTS ARE NOT ACCEPTABLE SAMPLING POINTS, UNLESS OTHERWISE APPROVED BY SITE ENGINEER AND CITY OF POUGHKEEPSIE WATER DEPARTMENT.

12. FIRE HYDRANT WEEP HOLES (DRAINS) SHALL BE PLUGGED WHEN GROUND WATER IS ENCOUNTERED WITHIN SEVEN FEET OF THE FINISHED GRADE. WHEN DRAINS ARE PLUGGED, THE BARREL'S MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. SUCH HYDRANTS SHALL BE IDENTIFIED BY MARKINGS AS APPROVED BY THE CITY OF POUGHKEEPSIE.

13. PROPOSED WATER METERS LOCATED WITHIN THE METER PIT OR BUILDING SHALL BE A COMPATIBLE REMOTE STYLE TYPE (SENSUS), AND SHALL BE APPROVED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT PRIOR TO INSTALLATION. WATER METER SHALL BE EQUIPPED WITH (RADIO TYPE REMOTE READER) TRANSCEIVER PROVIDED BY METER MANUFACTURER AND INSTALLED AND PROGRAMMED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT.

14. THE WATER LINE SHALL BE INSTALLED AT A CONTINUOUS GRADE WITH NO ABRUPT HIGH POINTS OR LOW POINTS.

15. FINAL WATER DISTRIBUTION SYSTEM AND CERTIFICATION IS SUBJECT TO REVIEW, REVISION AND APPROVAL BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT AND THE DCDOH PRIOR TO APPROVAL TO OPERATE.

16. ALL WATER MAINS AND RELATED APPURTENANCES SHALL BE CONSTRUCTED TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF POUGHKEEPSIE.

17. THE WATER MAIN SHALL NOT BE PLACED INTO SERVICE UNTIL SO AUTHORIZED BY THE CITY OF POUGHKEEPSIE.

18. ALL WATER SERVICE CONSTRUCTION SHALL BE SUBJECT TO INSPECTION BY THE CITY WATER DEPARTMENT PRIOR TO BACKFILLING. BEDDING AND PIPE ZONE MATERIAL SHALL BE COMPOSED OF CRUSHED STONE OR LIGHT GRAVEL HAVING A GRADATION LIMIT OF 3/4" MINUS. AN ACCEPTABLE MATERIAL SHALL MEET THE FOLLOWING REQUIREMENT:

SIEVE DESIGNATION	% PASSING
3/4"	100
NO.40	0-70
NO. 200	0-10

19. TRENCH BACKFILL SHALL BE WELL-GRADED SOIL AND GRAVEL MATERIAL. ALL PARTICLES SHALL HAVE A GRADATION OF 2" OR LESS. AN ACCEPTABLE MATERIAL SHALL MEET THE FOLLOWING REQUIREMENT:

SIEVE DESIGNATION	% PASSING
2 INCH	100
1/4 INCH	30-65
NO. 40	5-40
NO. 200	0-15

20. BEDDING AND BACKFILL MATERIAL SHALL BE STOCKPILED IN AMOUNTS NECESSARY FOR REASONABLE BACKFILLING REQUIREMENTS. A SIEVE ANALYSIS OF BEDDING OR BACKFILL MAY BE REQUIRED AT THE REQUEST OF THE CITY OF POUGHKEEPSIE.

21. THE SITE UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BURIED PIPING TO THE LOCATION OF THE PROPOSED BUILDING CONNECTION POINT (I.E. INSIDE THE BUILDING). THIS INCLUDES THE TESTING AND CERTIFICATION OF ALL WATER SERVICE WORK FROM THE CITY WATER CONNECTION POINT TO THE PROPOSED BUILDINGS INTERIOR CONNECTION POINT.

22. INDICATOR TAPE SHALL BE PLACED 12" BELOW FINISHED GRADE DIRECTLY ABOVE ALL WATERLINES.

23. ALL COPPER WATER SERVICE PIPING INSTALLATION, BACKFILL AND TESTING SHALL BE REVIEWED AND APPROVED BY THE CITY OF POUGHKEEPSIE WATER MAINTENANCE SUPERVISOR OR HIS DESIGNEE. BEDDING, PIPE ZONE, AND BACKFILL MATERIAL MUST BE SAND ONLY.

24. THE PIPE SUPPORTS FOR THE METER PIT SHALL BE MADE OF GALVANIZED STEEL AND SHALL BE ADJUSTABLE. THE SUPPORTS ARE TO BE PLACED ONLY BENEATH SPOOL PIECES AND NOT UNDER CRITICAL EQUIPMENT, METERS, ETC.

25. THREE AS-BUILT DRAWINGS WHICH INCLUDE VERIFICATION OF THE WATER INFRASTRUCTURE WILL BE PROVIDED TO THE PLANNING DEPARTMENT FOR DISSEMINATION TO THE ENGINEERING AND WATER DEPARTMENTS PRIOR TO ANY EASEMENT DEDICATION TO THE CITY.

CITY OF POUGHKEEPSIE SANITARY SEWER NOTES

1. FLOOR DRAINS, IF CONSTRUCTED, SHALL BE CONNECTED TO THE SANITARY SEWER. FLOOR DRAINS DO NOT INCLUDE FOUNDATION/FOOTER DRAIN: ALL DISCHARGES TO THE SANITARY SEWER SHALL COMPLY WITH THE EFFLUENT LIMITS OF THE LOCAL AND/OR DUTCHESS COUNTY SANITARY CODE.

2. DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPES. THE TESTS SHALL BE CONDUCTED AFTER FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 5 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5%. IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID BALL OR MANDREL, IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.

3. SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF POUGHKEEPSIE. ALL SANITARY SEWER SYSTEM COMPONENTS SHALL BE INSTALLED BY OR UNDER THE SUPERVISION OF A CITY OF POUGHKEEPSIE LICENSED PLUMBER IN ACCORDANCE WITH THE CITY PLUMBING CODE.

4. MAJOR EARTHWORK SHALL BE COMPLETED PRIOR TO INSTALLATION OF ANY SANITARY SEWER MAINS AND APPURTENANCES. AIR CONNECTING SEWER LINES SHALL BE FLUSHED BEFORE TESTED.

5. MAXIMUM ALLOWABLE INFILTRATION OR EXFILTRATION SHALL NOT EXCEED 100 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER DAY FOR THE SANITARY SEWER. IF AN AIR TEST IS USED, THE TEST, AS A MINIMUM, SHALL CONFORM TO THE PROCEDURE DESCRIBED IN THE ASTM -F-1417 (1992) ENTITLED "STANDARD PRACTICE FOR INSTALLATION ACCEPTANCE OF GRAVITY SEWER LINES USING LOW PRESSURE AIR" (RE-APPROVED 1998). SANITARY MANHOLES SHALL BE VISUALLY INSPECTED AND TESTED FOR LEAKAGE BY EXFILTRATION OR VACUUM. VACUUM TESTING OF MANHOLES SHALL COMPLY WITH THE METHOD OUTLINED IN THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TECHNICAL INFORMATION PAMPHLET (TIP) NO.15 (REVISED).

6. SANITARY SEWER MAINS ARE TO BE POLYVINYL CHLORIDE (PVC) AND SANITARY LATERALS SHALL BE PVC, SDR-35, UNLESS OTHERWISE NOTED.

7. FINAL SEWER COLLECTION SYSTEM LAYOUT IS SUBJECT TO REVIEW, REVISION AND APPROVAL BY THE CITY OF POUGHKEEPSIE SEWER DEPARTMENT.

8. ALL SANITARY PIPE AND/OR MANHOLES SHALL BE A MINIMUM OF TEN (10) HORIZONTAL FEET FROM THE WATER MAIN. SANITARY PIPE SHALL HAVE A MINIMUM 18" SEPARATION FROM ANY WATER MAIN OR WATER SERVICE LINE. IF FOR SOME REASON THIS SEPARATION CANNOT BE ACHIEVED, SANITARY SEWER PIPE IN THE AREA SHALL BE SDR-26 PRESSURE RATED PIPE, (OR BE ENCASED PER THE DETAIL ON DN-3) AND ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED UNDER OR OVER THE SEWER. ALL SANITARY SEWER CONSTRUCTION SHALL BE TO SPECIFICATIONS OF THE CITY OF POUGHKEEPSIE SEWER DEPARTMENT.

9. ALL SANITARY TESTING SHALL BE PERFORMED UNDER THE SUPERVISION OF THE PROJECT ENGINEER, AND CERTIFICATES OF COMPLIANCE WITH THE INSTALLATION SPECIFICATIONS, TEST STANDARDS, APPROVED PLANS OR APPROVED AMENDMENTS SHALL BE PROVIDED TO THE APPROPRIATE SEWER AUTHORITY AND THE DCDOH AS A CONDITION OF APPROVAL FOR OPERATION.

10. ALL SANITARY SEWER CONSTRUCTION SHALL BE SUBJECT TO INSPECTION BY THE CITY SEWER SUPERINTENDENT PRIOR TO BACKFILLING. PIPE BEDDING AND PIPE ZONE MATERIAL SHALL BE COMPOSED OF CRUSHED STONE OR GRAVEL, FREE OF SOFT NONDURABLE PARTICLES WITH THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
3/4"	100
NO.40	0-70
NO. 200	0-10

ALL TRENCH BACKFILL MATERIAL SHALL BE APPROVED BY THE SUPERINTENDENT OF SEWERS AND MUST MEET THE FOLLOWING GRADATION REQUIREMENT:

SIEVE DESIGNATION	% PASSING
2 INCH	100
1/4 INCH	30-65
NO.40	5-40
NO. 200	0-15

BEDDING AND BACKFILL MATERIAL SHALL BE STOCKPILED IN AMOUNTS NECESSARY FOR REASONABLE BACKFILLING REQUIREMENTS. A SIEVE ANALYSIS OF BEDDING OR BACKFILL MAY BE REQUIRED AT THE REQUEST OF THE CITY OF POUGHKEEPSIE.

11. ALL NEW SANITARY SEWER MANHOLE COVERS SHALL BE NOMINAL 26" DIAMETER CAST IRON AND SHALL READ "SANITARY SEWER". FRAMES SHALL BE 8" IN HEIGHT AND THE FRAME AND COVER SHALL BE SYRACUSE CASTINGS NO.1 009 OR AN APPROVED EQUAL.

12. INDICATOR TAPE SHALL BE PLACED 12" BELOW FINISHED GRADE DIRECTLY ABOVE ALL SANITARY LINES.

13. LOCATION OF SEWER LATERAL CLEAN OUTS ARE TO BE PLACED AS SHOWN ON THE APPROVED SITE PLAN AND NOT TO EXCEED EVERY 75' MEASURED FROM THE SEWER MAIN CONNECTION OR AS DETERMINED BY THE CITY OF POUGHKEEPSIE SUPERINTENDENT OF SEWERS WHERE LOCATIONS ARE NOT SPECIFICALLY SHOWN.

14. EXTERNAL DROP MANHOLES SHALL BE USED FOR SEWERS ENTERING AT AN ELEVATION OF 24 INCHES OR HIGHER AT THE INLET OF A SEWER MANHOLE.

15. THREE AS-BUILT DRAWINGS WHICH INCLUDE VERIFICATION OF THE SEWER INFRASTRUCTURE INCLUDING RIMS AND INVERTS WILL BE PROVIDED TO THE PLANNING DEPARTMENT FOR DISSEMINATION TO THE ENGINEERING AND SEWER DEPARTMENTS PRIOR TO ANY EASEMENT DEDICATION TO THE CITY.

COMPACTION AND BACKFILL NOTES

UNLESS OTHERWISE SPECIFIED OR APPROVED BY THE SITE ENGINEER, ALL SITE SUBGRADE AND BACKFILL FOR ALL STRUCTURES INCLUDING, BUT NOT LIMITED TO, PARKING LOT SUBGRADE, ROAD SUBGRADE, CONCRETE PADS AND SIDEWALKS, WATER LINES AND STRUCTURES, SEWER LINES AND STRUCTURES, STORM LINES AND STRUCTURES, TRASH PADS/ENCLOSURES, AND SITE ELECTRICAL AND CONDUIT, SHALL BE COMPACTED IN ACCORDANCE WITH THE FOLLOWING STANDARD.

METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED MAY 1, 2008, AND ALL ADDENDA THERETO

DECOMPACTION OF SOILS IN RECLAIMED AREAS:

THESE PROCEDURES SHALL BE FOLLOWED PRIOR TO INSTALLATION OF TOP SOIL OR INFILTRATION PRACTICES IN ANY AREA PREVIOUSLY IMPERVIOUS OR COMPACTED BY COSTRUCTION EQUIPMENT. FOR ALL AREAS TO BE RECLAIMED FOR STORMWATER INFILTRATION, THE AREA SHALL BE MARKED OFF WITH ORANGE SAFETY FENCE AFTER DEMOLITION AND PRIOR TO DECOMPACTION TO PREVENT FURTHER COMPACTION OF THE UNDERLYING SOILS.

AREAS RECLAIMED AS TOP SOIL:

A. APPLY 3" OF COMPOST OVER SUBSOIL AFTER SUBGRADE LEVELS HAVE BEEN REACHED AND IMMEDIATELY PRIOR TO PLACING PLANTING SOILS.

B. THE ENTIRE SUBGRADE AREA SHALL BE LOOSENED TO A MINIMUM DEPTH OF 12 INCHES UTILIZING THE BUCKET OF A BACK HOE, CAT MOUNTED RIPPER, TILLER, OR EQUIVALENT EQUIPMENT. ROCK PICK UNTIL UPLIFTED STONE/ROCK MATERIAL OF FOUR INCHES AND LARGER SIZE HAVE BEEN CLEARED FROM THE SITE.

C. ANY SUBGRADE AREAS WHICH HAVE BECOME HEAVILY COMPACTED (DEFINED AS EXCEEDING 86%-88% COMPACTION ASTM 698 STANDARD PROCTOR) INCLUDING, BUT NOT LIMITED TO, TEMPORARY PARKING AREAS, MATERIAL STOCKPILE AREAS, TEMPORARY ROADWAYS, CONSTRUCTION AREAS AND AREAS AROUND THE BUILDING, OTHER CONSTRUCTION AREAS, AREAS SHOWN ON THE PLANS, OR AREAS IDENTIFIED BY THE DESIGN PROFESSIONAL SHALL BE DEEP-SCARIFIED. IMMEDIATELY PRIOR TO PLACING SOILS, HEAVILY COMPACTED AREAS SHALL BE LOOSENED TO A MINIMUM DEPTH OF 18 INCHES USING THE TEETH OF A BACK HOE OR OTHER SUITABLE EQUIPMENT. FREQUENCY OF COMPACTION TESTS SHALL BE ONE PER 500 SQUARE FEET.

D. CONFIRM THAT THE SUBGRADE IS AT THE PROPER ELEVATION AND THAT NO FURTHER EARTHWORK IS REQUIRED TO BRING THE SUBGRADE TO PROPER ELEVATIONS. PROVIDE A REPORT TO THE DESIGN PROFESSIONAL THAT THE SUBGRADE HAS BEEN PLACED TO THE REQUIRED ELEVATIONS, HAS BEEN DECOMPACTED ACCORDING TO THE CONTRACT DOCUMENTS AND IS READY FOR INSPECTION AT LEAST 3 DAYS PRIOR TO PLACING PLANTING SOIL. PERFORM NO WORK OF PLACING AND SPREADING PLANTING MIXED UNTIL ELEVATIONS HAVE BEEN CONFIRMED AND THE AREA HAS BEEN ACCEPTED BY THE OWNER'S REPRESENTATIVE.

E. AFTER THE SOILS HAVE BEEN LOOSENED AND INSPECTED, TOPSOIL MAY BE SPREAD BY USING A WIDE-TRACK BULLDOZER SIZE D-5 OR SMALLER OR MAY BE DUMPED AND SPREAD WITH THE BUCKET OF A BACKHOE FROM THE EDGE OF THE LOOSENED AREA. NO RUBBER-TIRED EQUIPMENT OR HEAVY EQUIPMENT EXCEPT FOR A SMALL BULLDOZER SHALL PASS OVER THE SUBSOILS (SUBGRADE) AFTER THEY HAVE BEEN LOOSENED. IF THE CONTRACTOR PLANS TO UTILIZE SUCH AREAS FOR ANY USE OF HEAVY EQUIPMENT, THIS SHOULD BE CARRIED OUT PRIOR TO BEGINNING THE PROCESS OF LOOSENING SOILS OR FILLING IN THAT AREA, OR IT WILL HAVE TO BE RESCARIFIED AND MEET THIS SPECIFICATION REQUIREMENT.

AREAS RECLAIMED FOR STORMWATER INFILTRATION PRACTICES:

A. EXCAVATE AREA TO THE DEPTH OF THE PROPOSED BOTTOM OF THE INFILTRATION PRACTICE.

B. THE ENTIRE SUBGRADE AREA SHALL BE LOOSENED TO A MINIMUM DEPTH OF 12 INCHES BELOW PROPOSED SUBGRADE UTILIZING THE BUCKET OF A BACK HOE, CAT MOUNTED RIPPER, TILLER, OR EQUIVALENT EQUIPMENT. ROCK PICK UNTIL UPLIFTED STONE/ROCK MATERIAL OF FOUR INCHES AND LARGER SIZE HAVE BEEN CLEARED FROM THE SITE.

C. ANY SUBGRADE AREAS WHICH REMAIN HEAVILY COMPACTED (DEFINED AS EXCEEDING 86%-88% COMPACTION ASTM 698 STANDARD PROCTOR), AS SHOWN ON THE PLANS, OR AREAS IDENTIFIED BY THE DESIGN PROFESSIONAL SHALL BE DEEP-SCARIFIED. IMMEDIATELY PRIOR TO PLACING SOILS, HEAVILY COMPACTED AREAS SHALL BE LOOSENED TO A MINIMUM DEPTH OF 18 INCHES USING THE TEETH OF A BACK HOE OR OTHER SUITABLE EQUIPMENT. FREQUENCY OF COMPACTION TESTS SHALL BE ONE PER 500 SQUARE FEET.

D. CONFIRM THAT THE SUBGRADE IS AT THE PROPER ELEVATION AND THAT NO FURTHER EARTHWORK IS REQUIRED TO BRING THE SUBGRADE TO PROPER ELEVATIONS. PROVIDE A REPORT TO THE DESIGN PROFESSIONAL THAT THE SUBGRADE HAS BEEN PLACED TO THE REQUIRED ELEVATIONS, HAS BEEN DECOMPACTED ACCORDING TO THE CONTRACT DOCUMENTS AND IS READY FOR INSPECTION AT LEAST 3 DAYS PRIOR TO PLACING INFILTRATION PRACTICES. PERFORM NO WORK UNTIL ELEVATIONS HAVE BEEN CONFIRMED AND THE AREA HAS BEEN ACCEPTED BY THE OWNER'S REPRESENTATIVE.

E. AFTER THE SOILS HAVE BEEN LOOSENED AND INSPECTED, INFILTRATION PRACTICES MAY BE INSTALLED USING A WIDE-TRACK BULLDOZER SIZE D-5 OR SMALLER OR MAY BE PLACED, DUMPED, OR SPREAD WITH THE BUCKET OF A BACKHOE FROM THE EDGE OF THE LOOSENED AREA. NO RUBBER-TIRED EQUIPMENT OR HEAVY EQUIPMENT EXCEPT FOR A SMALL BULLDOZER SHALL PASS OVER THE SUBSOILS (SUBGRADE) AFTER THEY HAVE BEEN LOOSENED. IF THE CONTRACTOR PLANS TO UTILIZE SUCH AREAS FOR ANY USE OF HEAVY EQUIPMENT, THIS SHOULD BE CARRIED OUT PRIOR TO BEGINNING THE PROCESS OF LOOSENING SOILS OR FILLING IN THAT AREA, OR IT WILL HAVE TO BE RESCARIFIED AND MEET THIS SPECIFICATION REQUIREMENT.

F. WHEN INFILTRATION PRACTICES ARE LOCATED BELOW PAVEMENT THE AREA SHALL REMAIN FREE OF LARGE VEHICLES UNTIL THE PAVEMENT SUBBASE HAS BEEN INSTALLED.

G. FOR REFERENCE OF DECOMPACTION NOTES, SEE NYS DESIGN MANUAL SECTION 5.1.6 FOR DEEP RIPPING AND DECOMPACTION OF EXISTING AREAS THAT ARE PROPOSED FOR RESTORATION.

CITY OF POUGHKEEPSIE EROSION AND SILTATION CONTROL NOTES

1. All unvegetated areas in excess of 10%, per direction of the Engineer, shall have temporary seeding of fast germinating rye, 10 to 15 #'s per 1,000 sq. ft.
2. Graded areas - upper elevations: Provide temporary drainage swales, 1% grade min., to direct runoff away from construction sites. Discharge areas to be acceptable to the Engineer.
3. Graded areas - lower elevations: Provide drainage swales, 1% min. grades, with staked and secured hay bale siltation. Location of hay bales and discharge areas per approval of Engineer.
4. Permanent seeded areas for erosion control: Mixture of perennial rye and blue and red fescue grasses (50/50), 15 to 25 #'s per 1,000 sq. ft., mulching at 5#'s per 1,000 sq. ft., fertilizer - 5.10.5 at 5#'s per 1,000 sq. ft. (if determined necessary by Engineer), with pegging and netting for grades in excess of 15%.
5. All permanent drainage interceptor swales to be seeded per Item 4 also.
6. All erosion control shall be in accordance with the latest "Urban Erosion and Sediment Control Guidebook" of the Dutchess County Soil and Water Conservation District.
7. All areas shall be seeded and mulched as soon as possible.
8. Grade as needed and feasible to permit the use of conventional equipment for seed bed preparation, seeding and mulch application.
9. Scarify all compacted soils prior to applying topsoil.
10. Apply topsoil per Standard #6 Table 6.1 of the Soil Erosion Control Guide Book.
11. Seed mix shall be as follows:
    Ky. Blue grass 20 lbs/ac.
    Creeping Red Fescue 40 lbs/ac.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH CITY OF POUGHKEEPSIE REQUIREMENTS AND SPECIFICATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
3. REFER TO OTHER PLANS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE SITE ENGINEER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO BIDDING. ANY CONFLICT BETWEEN DRAWINGS AND THE SPECIFICATIONS SHALL BE CONFIRMED WITH THE LOCAL CONSTRUCTION MANAGER PRIOR TO BIDDING.
4. REFER TO THE DETAIL SHEETS FOR PAVEMENT, CURBING, AND SIDEWALK INFORMATION.
5. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE SITE ENGINEER, AND THE APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
6. THE CONTRACTOR SHALL RESTORE ANY OF THE FOLLOWING IF THEY ARE NOTED TO REMAIN: UTILITY STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, OR LANDSCAPED AREAS DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE CITY OF POUGHKEEPSIE.
7. TRAFFIC CONTROL MEASURES SHALL BE UTILIZED IN ACCORDANCE WITH CITY OF POUGHKEEPSIE AND NYSDOT.
8. PAVEMENT MARKINGS SHALL BE FAST DRYING TYPE IN ACCORDANCE WITH CITY OF POUGHKEEPSIE SPECIFICATIONS.
9. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS AND PLANT SPECIFICATIONS TO THE SITE ENGINEER AND OWNER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW. APPROVED SHOP DRAWINGS WILL BE PROVIDED BY THE ENGINEER AND COPIED TO THE CITY OF POUGHKEEPSIE.
10. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES AND UNIFORMED TRAFFIC MEN AS REQUIRED OR ORDERED BY THE ENGINEER OR REQUIRED BY THE LOCAL GOVERNING AUTHORITIES. CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS AT ALL TIMES UNLESS WRITTEN APPROVAL FROM THE CITY AND GOVERNING AUTHORITIES IS GRANTED.
11. THE PROJECT DRAWINGS ARE GENERALLY DIAGRAMMATIC IN INDICATING THE PRESENCE OF EXISTING UNDERGROUND UTILITIES. INFORMATION ON EXISTING UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED TO BE CORRECT OR COMPLETE. UTILITIES ARE SHOWN TO ALERT THE CONTRACTOR OF THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND SERVICES. WHEN THE UTILITIES ARE TO BE LEFT IN PLACE, THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING THE EXCAVATION AND BACKFILLING OPERATIONS.
12. PRIOR TO DEMOLITION OR CONSTRUCTION THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 1-800-962-7962 AT LEAST 72 HOURS BEFORE COMMENCEMENT OF WORK TO VERIFY ALL UTILITY LOCATIONS. CONTRACTOR SHALL NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS.
13. IF ANY UNCHARTED OR INCORRECTLY CHARTED EXISTING PIPING OR OTHER UTILITY IS UNCOVERED DURING EXCAVATION, THE CONTRACTOR SHALL CONSULT THE SITE ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH THE WORK.
14. STORAGE OF FLAMMABLE AND HAZARDOUS MATERIALS SHALL BE IN COMPLIANCE WITH THE NYS FIRE AND BUILDING CODE.
15. CONTRACTOR TO PROVIDE SITE ENGINEER WITH SUBMITTALS. ONCE APPROVED, COPIES WILL BE SUPPLIED TO CITY ENGINEER AND APPROPRIATE CITY DEPARTMENTS.
16. NO HERBICIDES OR PESTICIDES WILL BE USED DURING THE OPERATION OF THE SITE.

EROSION AND SEDIMENT CONTROL PLAN

1. LAND DISTURBANCE WILL BE KEPT TO A MINIMUM; RESTABILIZATION WILL BE SCHEDULED AS SOON AS PRACTICABLE.
2. SILTATION FENCE WILL BE INSTALLED AT ALL CULVERT OUTLETS AND ALONG THE TOE OF ALL CRITICAL CUT AND FILL SLOPES.
3. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE NEW YORK STATE EROSION & SEDIMENT CONTROL "BLUE BOOK" 2005.
4. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION WHENEVER POSSIBLE.
5. ALL CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
6. ADDITIONAL CONTROL MEASURES SHALL BE INSTALLED DURING THE CONSTRUCTION PERIOD, IF NECESSARY OR REQUIRED.
7. SEDIMENT REMOVED FROM CONTROL STRUCTURES WILL BE DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THE PLAN.
8. DUST CONTROL AND ANTI-TRACKING MAINTENANCE TO BE ADDRESSED AND RESOLVED ON A DAILY BASIS.

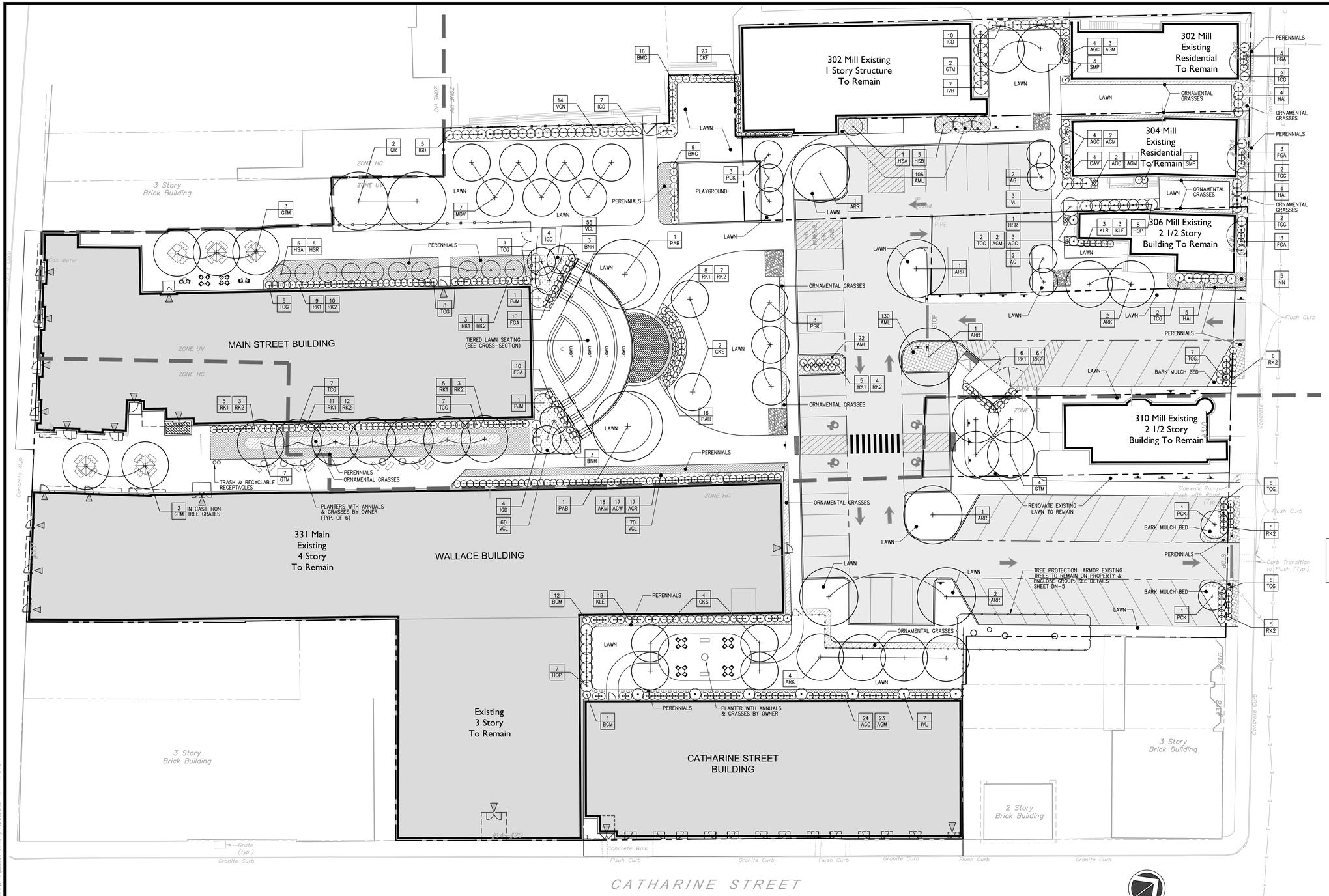
INSTALLATION OF SEDIMENTATION AND EROSION CONTROL MEASURES

I. SILTATION FENCE

A. DIG A SIX INCH TRENCH ON THE UPHILL SIDE OF THE DESIGNATED FENCE LINE LOCATION.

B. POSITION THE POST AT THE BACK OF THE TRENCH (DOWNHILL SIDE), AND HAMMER THE POST AT LEAST 2.0 FEET INTO THE GROUND.

C. LAY THE BOTTOM SIX INCHES OF THE FABRIC INTO THE TREN



PLANTING NOTES:

1. THE LANDSCAPE PLAN AND RELATED DETAILS ARE FOR LANDSCAPING INFORMATION ONLY. PLEASE REFER TO THE SITE, GRADING & EROSION CONTROL PLANS FOR ALL OTHER INFORMATION.
2. THE CONTRACTOR SHALL GUARANTEE THAT ALL PLANTS, TREES, AND SHRUBS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY OWNER OR LANDSCAPE ARCHITECT. CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS AT CONTRACTOR'S EXPENSE. PLANT MATERIAL REPLACEMENTS SHALL BE GUARANTEED FOR ONE FULL YEAR FROM DATE OF REPLACEMENT. FINAL ACCEPTANCE SHALL BE MADE IF ALL PLANTS MEET THE GUARANTEE REQUIREMENTS INCLUDING MAINTENANCE. MAINTENANCE RESPONSIBILITIES INCLUDE CULTIVATING, SPRAYING, WEEDING, WATERING, TIGHTENING GUYS, PRUNING, FERTILIZING, MULCHING, AND ANY OTHER OPERATIONS NECESSARY TO MAINTAIN PLANT VIABILITY. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL THE END OF THE ONE YEAR GUARANTEE PERIOD.
3. THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND LISTED IN THE PLANT SCHEDULE. IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY.
4. ALL SHRUB MASSINGS SHALL BE MULCHED TO A DEPTH OF 4" WITH SHREDDED HARDWOOD BARK MULCH.
5. NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY ENGINEER. STAKING THE LOCATION OF ALL TREES AND SHRUBS SHALL BE COMPLETED PRIOR TO PLANTING FOR APPROVAL BY THE OWNER OR LANDSCAPE ARCHITECT. STAKING OF THE INSTALLED TREE MUST BE COMPLETED THE SAME DAY AS IT IS INSTALLED. ALL TREES SHALL BE STAKED OR GUYED PER DETAIL. SEE SHEET DN-1 FOR PLANTING DETAILS.
6. COORDINATE PLANT MATERIAL LOCATIONS WITH SITE UTILITIES. SEE SITE LAYOUT, GRADING AND UTILITY DRAWINGS FOR STORM, SANITARY AND WATER LINES. SEE LIGHTING PLAN FOR ELECTRICAL AND LIGHTING LAYOUT AND DETAILS. UTILITY LOCATIONS ARE APPROXIMATE. EXERCISE CARE WHEN DIGGING IN AREAS OF POTENTIAL CONFLICT WITH UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONTRACTOR'S NEGLIGENCE AND SHALL REPLACE OR REPAIR ANY DAMAGE AT CONTRACTOR'S EXPENSE.
7. LANDSCAPE PLANTING PITS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SUBGRADE, AND BLASTED ROCK SHALL BE REMOVED FROM WITHIN TRAFFIC ISLANDS TO BE LANDSCAPED TO A DEPTH OF 2' OR TO A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL WITHIN ISLANDS WITH MODERATELY COMPACTED LOAM OR SANDY LOAM FREE FROM STONES AND RUBBISH 1" OR GREATER IN DIAMETER AND ANY OTHER MATERIAL HARMFUL TO PLANT GROWTH AND DEVELOPMENT. PLANTING INSTALLATION WITHIN ISLANDS SHALL BE AS DETAILED AND CONTAIN PLANTING MIX AS SPECIFIED.
8. TIME OF PLANTING: NEW PLANT MATERIALS SHALL BE INSTALLED BETWEEN APRIL 1 AND JUNE 1, OR AFTER SEPTEMBER 15TH AND NO LATER THAN OCTOBER 31ST.
9. PLANTING SOIL MIXTURE FOR TREES AND SHRUBS:
   - 1 PART PEAT MOSS
   - 3 PARTS TOPSOIL
   - FERTILIZER/LIME (APPLY AS RECOMMENDED BY SOIL ANALYSIS)
   - MYCORHIZA INOCULANT – "TRANSPLANT 1–STEP" AS MANUFACTURED BY ROOTS, INC. OR APPROVED EQUAL.
   USE PER MANUFACTURER'S RECOMMENDATIONS FOR TREES AND SHRUBS.
10. TOPSOIL SHALL BE INSTALLED AT A MINIMUM DEPTH OF 6" IN LAWN AREAS. CONTRACTOR SHALL SUBMIT TOPSOIL TO A CERTIFIED TESTING LABORATORY TO DETERMINE pH, FERTILITY, ORGANIC CONTENT AND MECHANICAL COMPOSITION. THE CONTRACTOR SHALL SUBMIT THE TEST RESULTS FROM REGIONAL EXTENSION OFFICE OF USDA TO THE OWNER OR LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. CONTRACTOR SHALL INCORPORATE AMENDMENTS FOR GOOD PLANT GROWTH AND PROPER SOIL ACIDITY RECOMMENDED FROM THE TOPSOIL TEST.
11. LAWN SEEDING MIXTURE:

    15% KENTUCKY BLUEGRASS (POA PRATENSIS – SINGLE VARIETY)
    15% PERENNIAL RYEGRASS (LOLIUM PERENNE)
    30% CREEPING RED FESCUE (FESTUCA RUBRA)
    25% CHEWINGS FESCUE (FESCTUCA RUBRA "JAMESTOWN II")
    15% HARD FESCUE (FESTUCA OVINA "RELIANT II")

    SEEDING RATE: 4.5 LBS PER 1,000 S.F. (ADD 10% TO QUANTITY IF HYDROSEEDED).

    SEEDING DATES: AUGUST 15 – OCTOBER 1 AND APRIL 15 – JUNE 15 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT.
12. ALL SLOPES GREATER THAN 3:1 RECEIVING A GRASS SEEDING MIXTURE SHALL BE COVERED WITH AN EROSION CONTROL BLANKET.
13. ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED SHALL BE SEEDED WITH THE LAWN SEEDING MIXTURE.
14. TREE PROTECTION: PRIOR TO THE START OF CONSTRUCTION OR EXCAVATION, TREES TO BE RETAINED SHALL BE PROTECTED BY SILT FENCE, SNOW FENCE, CONSTRUCTION FENCE, OR EQUAL, WHICH WILL BE PLACED AT THE DRIP LINE OR SEVERAL FEET BEYOND. HOWEVER, THE FENCING SHALL NOT CROSS PUBLIC SIDEWALKS. NO STORAGE OR STOCKPILING OF CONSTRUCTION MATERIALS, DEBRIS OR EQUIPMENT SHALL OCCUR WITHIN THE FENCED AREA."

PLANTING LIST AND DETAILS:
SEE SHEET LL-2

GRAPHIC SCALE
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SCALE IN FEET

	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
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5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
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Revisions

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LANDSCAPE PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	LL20254801.dwg
Drawn	SMC	Project No.	20-2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	1"=20'

Sheet No. **LL-1**

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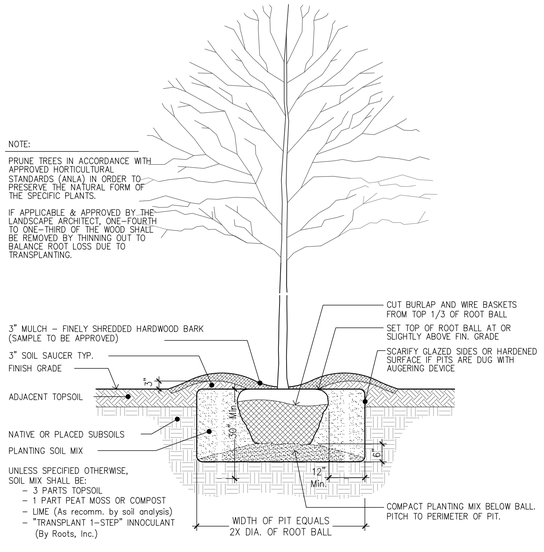
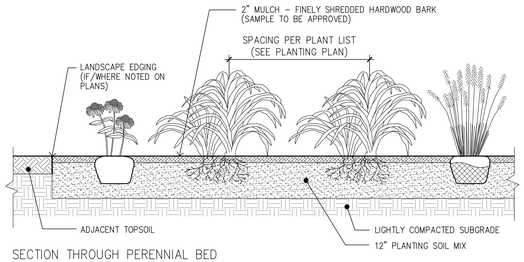
PLANT LIST:

	CODE	QTY.	BOTANICAL NAME	COMMON NAME	ROOT	SIZE INSTALLED	SIZE MATURE	COMMENTS
TREES:	ARK	6	ACER RUBRUM 'KARPICK'	KARPICK RED MAPLE	B&B	2.5–3" cal.	20x40' ht.	Narrow oval crown
	ARR	6	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	B&B	2.5–3" cal.	40' ht.	Upright oval crown
	AG	4	AMEL. x GRANDIFLORA 'CUMULUS'	CUMULUS SERVICEBERRY	B&B	8–10' ht.	30' ht.	Clump Form (3 min.)
	BNH	6	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	B&B	10–12' ht.	40' ht.	Multi-stem; Low Branched
	CKS	6	CORNUS KOUSA 'SATOMI'	SATOMI KOUSA DOGWOOD	B&B	2.5–3" cal.	25' ht.	Pink Bloom
	GTM	18	GLEDITSIA T. INERMIS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	B&B	3–3.5" cal.	60' ht.	HEAVY
	MDV	7	MALUS DOMESTICA VARIETIES	EATING APPLES – MIXED VARIETIES	B&B	1.5–2" cal.	20' ht.	Edible Fruit
	PAB	2	PLATANUS ACERIFOLIA 'BLOODGOOD'	LONDON PLANE TREE	B&B	3–3.5" cal.	50' ht.	Specimen Grade
	PCK	5	PRUNUS CERISIFERA 'KRAUTER VESUVIUS'	KRAUTER VESUVIUS PURPLE LEAF PLUM	B&B	2.5–3" cal.	15'x20' ht.	Pale Pink Bloom
	PSK	3	PRUNUS SERRULATA 'KWANZAN'	KWANZAN CHERRY	B&B	2.5–3" cal.	20x30' ht.	
	QR	2	QUERCUS RUBRA	NORTHERN RED OAK	B&B	3–3.5" cal.	75' ht.	
SHRUBS:	AML	258	ARONIA MEL. 'LOW SCAPE MOUND	LOW SCAPE MOUND CHOKEBERRY	CONT.	#1	12–24" ht.	
	AGC	37	AZALEA 'GIRARD'S CRIMSON'	GIRARD'S CRIMSON AZALEA	CONT.	#3	3–4' ht.	Crimson Bloom
	AGM	31	AZALEA 'GIRARD'S RENEE MICHELLE'	GIRARD'S RENEE MICHELLE AZALEA	CONT.	#3	3–4' ht.	Deep Pink Bloom
	AGR	17	AZALEA 'GIRARD'S ROSE'	GIRARD'S ROSE AZALEA	CONT.	#3	2–3' ht.	
	AGW	17	AZALEA 'GIRARD'S PLEASANT WHITE'	GIRARD'S WHITE AZALEA	CONT.	#3	2–3' ht.	White
	AKM	18	AZALEA x 'MOTHER'S DAY'	MOTHER'S DAY (KURUME) AZALEA	CONT.	#3	2–3' ht.	Rose Red Bloom
	BGM	13	BUXUS MICROPHYLLA 'GREEN MOUNTAIN'	GREEN MOUNTAIN BOXWOOD	CONT.	24" min.ht.	3'Wx3'H	Soft Pyramidal; Do not shear
	BMG	25	BUXUS MICROPHYLLA 'GREEN VELVET'	GREEN VELVET BOXWOOD	CONT.	24" min.ht.	2–4' ht.	Do not shear neat.
	CAV	4	CLETHRA ALNIFOLIA 'VANILLA SPICE'	VANILLA SPICE SUMMERSWEET	CONT.	#5	3–4' ht.	
	FGA	29	FOTHERGILLA GARDENII 'APPALACHIA'	DWARF FOTHERGILLA	CONT.	#5	2–3' ht.	
	HAI	13	HYD. ARBORESCENS INVINOBILE SPIRIT II	SMOOTH HYDRANGEA	CONT.	#5	3–4' ht.	Pink
	HSA	6	HIBISCUS SYRIACUS 'ARDENS'	ROSE OF SHARON	B&B	36–42" ht.	8–10' ht.	Double Rosy Purple
	HSB	3	HIBISCUS SYRIACUS 'BLUE SATIN'	ROSE OF SHARON	B&B	36–42" ht.	8–10' ht.	Single Royal Blue
	HSR	5	HIBISCUS SYRIACUS 'RED HEART'	ROSE OF SHARON	B&B	36–42" ht.	8–10' ht.	White w/ Scarlet Eye
	HQP	15	HYDRANGEA QUERCIFOLIA 'PEEWEE'	PEE WEE OAKLEAF HYDRANGEA	CONT.	#7	3–5' ht.	White; Burgundy fall
	IGD	30	ILEX GLABRA 'DENSA'	INKBERRY	CONT.	24" min.ht.	3–4' ht.	Compact
	IVH	7	ITEA VIRGINICA 'HENRY'S GARNET'	HENRY'S GARNET SWEETSPIRE	CONT.	#5	4–6' ht.	
	IVL	10	ITEA VIRGINICA 'LITTLE HENRY'	LITTLE HENRY SWEETSPIRE	CONT.	#3	3–6' ht.	
	KLE	21	KALMIA LATIFOLIA 'ELF'	ELF MIN. MOUNTAIN LAUREL	CONT.	#5	3–4' ht.	White
	KLR	3	KALMIA LATIFOLIA 'RASPBERRY GLOW'	RASPBERRY GLOW MOUNTAIN LAUREL	CONT.	#5	6–8' ht.	Burgundy to Pink
	PJM	2	RHODODENDRON 'P.J.M'	P.J.M RHODODENDRON	CONT.	36" min.ht.	8' ht.	
	RK1	47	ROSA 'RADCOR'	RAINBOW KNOCK OUT ROSE	CONT.	#5	3–4' ht.	30" o.c.; Pink
	RK2	58	ROSA 'RADSUNNY'	SUNNY KNOCK OUT ROSE	CONT.	#5	3–4' ht.	30" o.c.; Soft Yellow
	SMP	5	SYRINGA MEYERI 'PALIBIN'	DWARF KOREAN LILAC	CONT.	#7	4–5' ht.	
	TCG	55	TAXUS CUSPIDATA 'GREENWAVE'	GREENWAVE JAPANESE YEW	CONT.	24" min.ht.	3'x4'	DO NOT SHEAR AS HEDGE
	VCN	14	VACCINEUM CORYMBOSUM 'NORTHLAND'	NORTHLAND HIGHBUSH BLUEBERY	CONT.	#7	3–4' ht.	
	VCL	185	VIBURNUM CASSINOIDES 'LIL DITTY'	LIL DITTY WITHEROD VIBURNUM	CONT.	#1	12–24" ht.	
PERENNIALS:	AAD		ACHILLEA MILL. 'APRICOT DELIGHT'	APRICOT DELIGHT YARROW	CONT.	#SP4	13" ht.	15" o.c.; Mixed Pinks
	ANB		ASTER NOVAE–BELGII 'MARIE BALLARD'	MARIE BALLARD (NY) ASTER	POT	#SP5	30" ht.	18" o.c.; Vio–blue Late Sum.
	EPB		ECHINACAEA P. 'POW WOW WILD BERRY'	WILD BERRY CONEFLOWER	CONT.	#SP5	16–24" ht.	15" o.c.; Rose–Purple
	LMS		LEUCANTHEMUM SUP. 'BECKY'	SHASTA DAISY	CONT.	#SP4	30" ht.	White
	MBS		MONDARDA DIDYMA 'BLUE STOCKING'	BLUE STOCKING BEE BALM	CONT.	#SP4	4' ht.	Purple
	NN		NIPPONANTHEMUM NIPPONICUM	MONTAUK DAISY	CONT.	#2 (2 Gal.)	30–36" ht.	
	RFG		RUDBECKIA FUL. var. SULL. 'GOLDSTURM'	GOLDSTURM Black Eyed Susan	CONT.	#SP4	30–36" ht.	24" o.c.; Gold; June–Sept
	HHR		HEMEROCALLIS MIXED VARIETIES	DAYLILY	CONT.	#SP4	18" ht.	18" o.c.; YELLOW
ORNAMENTAL GRASSES:	CKF		CALAMAGROSTIS ACU. 'KARL FOERSTER'	FEATHER REED GRASS	CONT.	#1	4–5' ht.	
	MCS		MOLINA CAER. 'STRAHLENQUELLE'	PURPLE MOOR GRASS	POT	#1	24" o.c.;	24" Blades, 2–4' Plumes
	PAH		PENNISETUM ALOPCUROIDES 'HAMELN'	HAMELN DWARF FOUNTAIN GRASS	CONT.	#2	24" ht.	18" o.c.; Copper tassels



TREE PLANTING
Scale 1/2" = 1'–0"

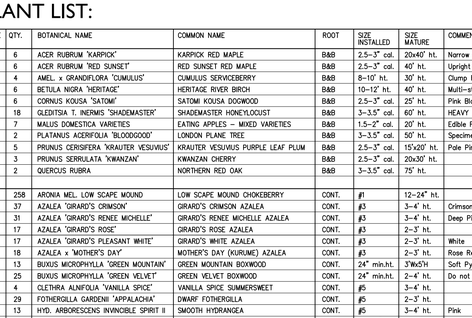


SECTION THROUGH PERENNIAL BED

PERENNIAL NOTES:
1. BULB/CORM PERENNIALS TO BE PLANTED IN FALL. POTTED PERENNIALS MAY BE PLANTED APRIL 15 TO OCTOBER 1.
2. ROTOTILL FERTILIZER AND LIME INTO SOIL PRIOR TO PLANTING AND IN ACCORDANCE TO SOIL ANALYSIS RECOMMENDATIONS.
3. DO NOT OVER COMPACT PLANTING BED. WATER THOROUGHLY AFTER PLANTING BULBS.
4. ADJUST PLANTING DEPTH AS RECOMMENDED BY BULB SUPPLIER.
5. PROVIDE DRAINAGE AS REQUIRED (PERF PIPE 4" ADS) WHEN SUBGRADE IS CLASSIFIED AS A HEAVY SOIL OR EXCESSIVELY COMPACTED.

UNLESS SPECIFIED OTHERWISE, PERENNIAL BED SOIL MIX SHALL BE:
– 3 PARTS TOPSOIL
– 1 PART MANURE (WEED FREE)
– 1 PART PEAT MOSS OR COMPOST
– LIME (As recommended by soil analysis)
– "MILORGANITE" AT 5 LBS. PER 100 SF.

ANNUAL / PERENNIAL AND GROUND COVER BEDS
Scale 1/2" = 1'–0"



SHRUB PLANTING
Scale 1/2" = 1'–0"

STATE OF NEW YORK
ROMEYE E. MORRISON
LICENSED PROFESSIONAL ENGINEER
071104

#	Date	Description
3	11.03.20	PLANNING BOARD RE–SUBMISSION
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Revisions

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- Landscape Architecture

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LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

PLANT LIST AND PLANTING DETAILS

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	LL20254802.dwg
Drawn	SMC	Project No.	20–2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	NTS

Sheet No. **LL-2**

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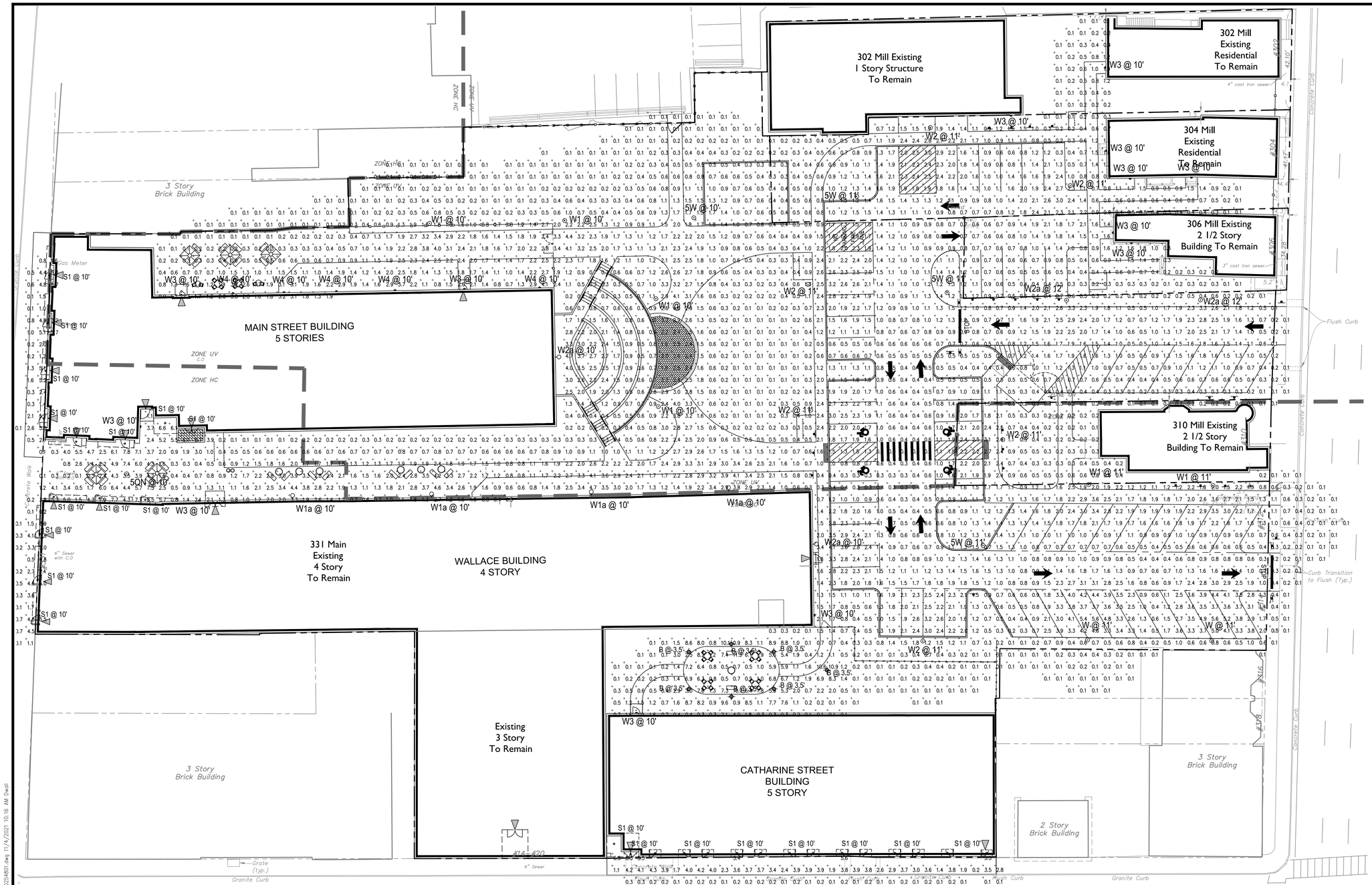

GRAPHIC SCALE

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SCALE IN FEET

NOTE:
SEE LIGHTING SCHEDULE
& FIXTURE CUT SHEETS
ON SHEET LP-2.

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LIGHTING PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	LP20254801.dwg	Sheet No.	LP-1
Drawn	SMC	Project No.	20-2548		
Checked	KFC	Date	2020.04.10		
Approved	REM	Scale	1"=20'		

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S1 - Soffit Light

8" LED Downlight

LC8SL

1000/1400/1800 Lumens
120V/277V, 347V
0-10V Dimming

APPLICATIONS:
LiteFrame Commercial LC8SL is a 8" commercial grade LED downlight with available outputs between 1000-1800 lumens. This is suitable to replace most CFL downlighting applications, while realizing substantial energy and maintenance savings. Rated for a minimum of 50,000 hours life (70% lumen maintenance) with ambient plenum temperatures up to 35°C. Free Air Flow around the fixture is required for optimal life performance. This product is not recommended for use with 3rd party "FIREHAT" or insulation barriers.

HOUSING:
One-piece 22 gauge non-corrosive steel platform. Pre-wired J-box with snap-on cover for easy access. Snap-in connection from driver compartment allows easy installation of light engine/trim assembly and can be upgraded to accommodate technology improvements. Approved for 8 (4 in/4 out) No. 12 AWG conductors rated for 90°C through wiring.

REFLECTOR:
High purity aluminum, Alzak, iridescence suppressed, semi-diffuse reflector. Self-trim standard. Painted white self-trim (WT) available as option.

LED LIGHT ENGINE:
The LC8SL uses mid power Nichia LEDs, specifically mixed to provide a minimum of 80 CRI with 3 SDCM color consistency. The use of multiple mid power LEDs allows for optimal thermal management by effectively spreading the heat over a larger area and eliminating hot spots on the LEDs. A diffuse, yet highly transmissive lens obscures the view of the LEDs and creates a smooth, even look from below. The light engine is available in multiple Kelvin temperatures and the system is designed to provide optimal life and lumen maintenance (50,000 hours at 70% lumen maintenance). The reflector/light engine assembly is mechanically retained to the housing.

Order housing, reflector, and accessories separately

CATALOG NUMBER:

HOUSING	DRIVER OPTIONS	VOLTAGE	HOUSING OPTIONS
❑ **LC8SL** Standard Lumen 0-10V Dimming w/ 10% 120V/277V	Standard (1-10V, 10% Dimming) ❑ **DA1**[1] 0-10V Dimming w/ 1% Dimming	Standard ❑ **347**[1,2] 347V	❑ **EM**[3] Integral Battery Pack ❑ **EMB**[4] Remote Battery Pack ❑ **CP**[5] Chicago Plenum

TRIM APERTURE	OUTPUT	KELVIN	CRI	REF FINISH/ COLOR OPTIONS	REFLECTOR OPTIONS	ACCESSORIES
❑ **BLCSL** Standard Clear/ Clear Alzak Reflector	❑ **10L** 1000 Lumen ❑ **14L** 1400 Lumen ❑ **18L** 1800 Lumen	❑ **27K** 2700 Kelvin ❑ **30K** 3000 Kelvin ❑ **35K** 3500 Kelvin ❑ **40K** 4000 Kelvin ❑ **50K** 5000 Kelvin	❑ **8** 80+ ❑ **9** 90+	❑ **Standard** Semi-Gloss Clear Alzak ❑ **WH** Painted Matte White (with Flange)	❑ **WT** Painted White Flange only ❑ **WF** Wide Flange ❑ **EM**[3] Integral Battery Pack ❑ **CP**[5] Chicago Plenum	❑ **B24** Set of two(2) 24" bar hangers for T-bar ceilings ❑ **BA** Set of two (2) bar hangers for ceiling cast up to 24" centers ❑ **SCABD** Sloped ceiling adapter (see note on page 4) ❑ **LivGuest**[6] Inverter, single phase central lighting, 120VAC/120VA ❑ **LPS Series**[7] Line/Power micro-inverter, 20VA-55VA

EXAMPLE: LC8SL-BLCSL-14L30KSWWT

[1] See Control Inverval compatibility note and trim links on page 3.
[2] EM must be selected on both the housing and the trim.
[3] Not compatible with EM or EMB
[4] Damp location only.
[5] Compatible with EMB only.
[6] CP must be selected on both the housing and the trim.
[7] Not compatible with CP

prescolite
A Division of Hubbell Lighting, Inc.

In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product.
Web: **www.prescolite.com** • Tech Support: **(888) 777-4832**

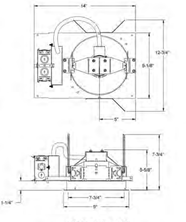
LFR-LED-042

LC8SL-8LCSL-10L-30K-9-WH

DATE: 1-20-21 TYPE: S1
FIRM NAME: LRC GROUP
PROJECT: WALLACE POUGHKEEPSIE

LiteFrame

Ceiling Cutout: 8 1/4"
Maximum Ceiling Thickness 1 1/4"
For conversion to millimeters, multiply inches by 25.4
Not to Scale



LC8SL 10L & 14L
***See page 4 for LC8SL 18L line art**
***See page 4 for LC8SLEM line art**
***See page 4 for LC8SLCP line art**

LED DRIVER:
The LC8SL utilizes a constant current LED driver. This same driver is capable of running all three different lumen outputs, resulting in a reduction of housing stock and simplified specification. The driver is UL8750, Class II compliant and universal 120V-277V.

DIMMING:
Comes standard with flicker-free 0-10V dimming to 10%. 0-10V to 1% dimming option is also available. See list of compatible dimmers on page 3. For the sizing of the control circuit, the dimming circuit may require up to 2mA of sink current.

INSTALLATION:
Light commercial bar hangers included. Universal adjustable mounting brackets also accept ½" EMT conduit or ½" or ¾" tubing channel (by others) or Prescolite 24" bar hangers (B24 or B6).

CERTIFICATIONS:
CSA certified to US and Canadian safety standards. Suitable for wet locations (SM and EMR damp location). ENERGY STAR Qualified.
This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 6/10/2020. See Buy American Solutions.

WARRANTY:
5 year warranty. See www.prescolite.com for details.

1 CONC. LIGHT POLE BASE-ROUND
SCALE: 1/2" = 1'-0"

LIGHTING SCHEDULE:

Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
⊙	5QN	1	Kim Lighting	UR20-24L-25-3K7-5QN-PT	UR20	LED 3000K	1	UR20-24L-25-3K7-5QN-PT.ies	2692	0.9	25
⊙	5W	4	Kim Lighting	UR20-24L-25-3K7-5W-PT	UR20	LED 3000K	1	UR20-24L-25-3K7-5W-PT.ies	3032	0.9	25
⌖	S1	29	PRESCOLITE	LC8SLPH-8LCSL10L30K8	8" LED Downlight PowerHUBB Enabled	LED 3000K	1	LC8SLPH-8LCSL10L30K8.ies	1071	0.9	14
⊙	W	2	Kim Lighting	UR20-24L-65-3K7-4-BC	UR20	LED 3000K	1	UR20-24L-65-3K7-4-BC.ies	4920	0.9	65
⊙	W1	6	Kim Lighting	UR20-24L-25-3K7-3-PT	UR20	LED 3000K	1	UR20-24L-25-3K7-3-PT.ies	2999	0.9	25
⚲	W1a	4	Kim Lighting	UR20-24L-25-3K7-3	UR20	LED 3000K	1	UR20-24L-25-3K7-3.ies	3122	0.9	25
⊙	W2	6	Kim Lighting	UR20-24L-25-3K7-4-PT	UR20	LED 3000K	1	UR20-24L-25-3K7-4-PT.ies	3051	0.9	25
⚲	W2a	4	Kim Lighting	UR20-24L-25-3K7-4	UR20	LED 3000K	1	UR20-24L-25-3K7-4.ies	3116	0.9	25
◠	W3	13	Kim Lighting	WF21S-9L3K	WALL FORMS	LED 3000K	1	WF23-9L3K.ies	640	0.9	11.8
◠	W4	5	Kim Lighting	WF21S-18L3K	WALL FORMS	LED 3000K	1	WF23-18L3K.ies	1100	0.9	20.2
⊕	B	7	KIM LIGHTING	PA7R-CH5-12L-020-3K7	PA7R	C-70-CRI DATA SHOWN IS ABSOLUTE.	1	PA7R-CH5-12L-020-3K7.ies	1840	0.9	21.73

KIM LIGHTING

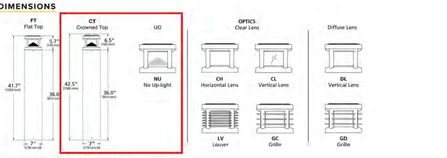
PA7R
BOLLARD

DATE: 5-28-21 LOCATION: 1234 Route 9G, Hyde Park, NY
TYPE: B PROJECT: Key Construction
CATALOG #: PA7R-CT-NU-3HS-12L-020-3K7-42A-DBS-x-UNV-x

Pavilion™

FEATURES
- Traditional or Performance Optics
- Bluetooth® enabled RGBW accent
- Integral NEMA 3R Enclosure
- Dual receptacle power panel
- PA System capability
- IP65 optical system

DIMENSIONS



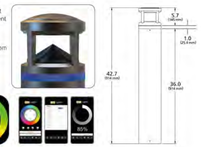
OPTICS - Clear Lens

ADDITIONAL INFORMATION

LUMINOUS ACCENT:
- The Luminous Accent option adds an additional 1" / 25.4mm to the overall fixture height and may be controlled via wired DMX ROM or Bluetooth® wireless. The Luminous Accent shall be WD8.

HUBBELL LIGHTING RGBW REMOTE APP
- The Hubbell Lighting RGBW Remote application may be downloaded free of charge from the Apple App Store or Google Play.
- Color selection and adjustment.
- Camera function for color matching.
- Intensity slider for dimming/ramping up.
- Save and rename up to 10 presets.
- Group and rename fixtures.
- Fixture is password protected, refer to instructions to set unique password.

MOUNTING



Page **1/22** Rev. **05/03/21**
ALT1

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HUBBELL Lighting

KIM LIGHTING

PA7R
BOLLARD

DATE: 5-28-21 LOCATION: 1234 Route 9G, Hyde Park, NY
TYPE: B PROJECT: Key Construction
CATALOG #: PA7R-CT-NU-3HS-12L-020-3K7-42A-DBS-x-UNV-x

ORDERING GUIDE

CATALOG # PA7R-CT-NU-3HS-12L-020-3K7-42A-DBS-x-UNV-x **Example:** PA7R-FT-NU-1-12L-010-5K7-24A-BLS-SWP-UNV-EM

HOUSING

PA7R						
Model	**Top**		**Optics**		**Distribution**	**Light Engine**
PA7R Pavilion 7" @ Round	**FT** Flat Top **CT** * Crowned Top		**NU** No Up-light **CH** Clear Horizontal Lens **CL** * Clear Vertical Lens **DL** ** Diffuse Vertical Lens **LV** Louvers **GC** Grille with clear vertical lens **GD** * Grille with diffuse vertical lens	**1** Type I **2** Type II **3** Type III **3HS** Type III + House-side shield **4** Type IV **5** Type V	**12L-010-5K7** 1161 lm/ 10.0W nominal 4in, 5000K, 70 CRI **12L-010-4K7** 1161 lm/ 10.0W nominal 4in, 4000K, 70 CRI **12L-010-3K7** 1161 lm/ 10.0W nominal 4in, 3000K, 70 CRI **12L-010-AMB** 1161 lm/ 10.0W nominal 4in, Amber 590 nm Peak **12L-020-5K7** 2294 lm/ 20.0W nominal 4in, 5000K, 70 CRI **12L-020-4K7** 2294 lm/ 20.0W nominal 4in, 4000K, 70 CRI **12L-020-3K7** 2294 lm/ 20.0W nominal 4in, 3000K, 70 CRI **12L-020-AMB** * 2294 lm/ 20.0W nominal 4in, Amber 590 nm Peak

Body		Finish		Control Options		Voltage		Options	
24A 24" OAH, Aluminum **42A** 42" OAH, Aluminum **42BR-C** 42" OAH, Brown Concrete **42CH-C** 42" OAH, Charcoal Concrete **42NG-C** 42" OAH, Natural Gray Concrete **42WH-C** 42" OAH, White Concrete **42A-BDP** * 42" OAH, Aluminum + Dual Receptacle Outlet Panel and Cover **42A-RDPL** * 42" OAH, Aluminum + Dual Receptacle Outlet Panel and Locking Cover **42A-26BB** 42" OAH, Aluminum + Integral Recessed 2 Gang Electrical Box **42A-SG3** 42" OAH, Aluminum + Speaker Grille (Enclosure for 3" ID speaker	**BLS** Black Gloss Smooth **BLT** Black Matte Textured **DBS** Dark Bronze Gloss Smooth **DBT** Dark Bronze Matte Textured **GTT** Graphite Matte Textured **LGS** Light Grey Gloss Smooth **LGT** Light Grey Matte Textured **PSS** Platinum Silver Gloss Smooth **VGT** Verde Green Matte Textured **WHS** White Gloss Smooth **WHT** White Matte Textured	**SWP** * Sitelync pre-commission **MW** * Motion-sensing (50% dim, 100% output upon detection) **SiteSync Accessories**[1] **SWUSB** SiteSync® Software on USB **SWTAB** SiteSync® Wireless® Tablet **SWBRG** SiteSync® Wireless® Bridge Node PRECOMMISSIONED SITESYNC® ENCODING INFORMATION When ordering a fixture with the SiteSync® system, control option, additional information will be required to encode the system. Refer to the Precommissioning Form or alternate schedule information must be completed. This form must be submitted with the fixture purchase order and Commissioning Forms or alternate schedule information must be completed. This form must be submitted with the fixture purchase order and Commissioning Schedules. For more detailed information please visit www.hubbelllighting.com/products/sitesync or contact HubbellLighting technical support at (800) 345-4928 Example: PA7RFT-NU-1-12L-020-3K7-HA/TT-SWP/UVR-F	**UNV** 120-277V **120** 120V **277** 208-277V **347** 347V **480** 480V	**EM** * Battery Backup **LP** * Luminous Accent **SF** ** Single Fuse **DF** ** Double Fuse

[1] For LED, 9L = 9LED Emitters; 18L = 18 LED Emitters; 2K = 580lm color temperature; 3K = 3000K color temperature; 4K = 4200K color temperature; 5K = 5100K color temperature; UV = Universal Voltage from 120 to 277V with a ± 10% tolerance.

W3 and W4 Wall

LED Wall Forms® **WF23**
Shallow Cutoff Face Surface Mount, Round
revision 10/24/14 • kl_wf23led_spec.pdf

KIM LIGHTING

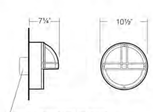
Type: Small Wall Lights W3 and W4 - mounted at 9 and 10' lens height
Job: Wallace Campus - Poughkeepsie
Catalog number: W3: WF23-9L3KUV-DB
W4: WF23-18L3KUV-DB

WF23 / / / /
Fixture Electrical Module Finish Options
See page 2

Approvals:

Date:
Page: 1 of 2

Specifications



J-box in wall by others
Shallow Cutoff Face Surface Mount

WF23 with LED

Light distribution
Shallow Cutoff Face

Surface Mount: Die-cast, low copper (<0.6% Cu) aluminum alloy with double side walls. Zinc plated steel mounting plate supplied for mounting to standard 3" or 4" junction box.

Face Plate: Die-cast, low copper (<0.6% Cu) aluminum alloy with vertical and horizontal double ribs covering the full hemisphere. Ribs are minimum ⅝" depth and ⅜" thickness. Secures to housing with four stainless steel captive socket head screws.
Shallow Cutoff Face: Solid upper half protruding 3⅛" from housing and concave lower half.

Lens: Flat tempered glass, ⅜" minimum thickness with internal sandblast. Retained in face plate and sealed with a one-piece silicone gasket.

LED Optical System: A total of 9 LED emitters configured in a rectangular array comprised together as a module. One (1) module for 9 LED version and two (2) modules for 18 LED version. Available in 580nm, 3000K, 4200K and 5100K.

LED Driver: Rated for 9 or 18 LED. Universal voltage from 120 to 277V with a ±10% tolerance. -40°F starting temperature. All drivers are Underwriters Laboratories recognized.

Finish: Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat finish. Standard colors include (BL) Black, (DB) Dark Bronze, (WH) White, (PS) Platinum Silver, (SG) Stealth Gray, (LG) Light Gray, and (CC) Custom Color (Include RAL#).

Finishing Items: Electrical modules and face plates. Each set of finishing items shall be in one container, clearly marked with the fixture catalog number.

CAUTION: Fixtures must be grounded in accordance with national, state, and/or local electrical codes. Failure to do so may result in serious personal injury.

Listings and Ratings			
ETL® to UL Standard 8750	IP66 Rated	CE	25C°Ambient

*Suitable for wet locations
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HUBBELL Lighting

U.S. PATENTS: D583,494, D581,452, D578,621

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W3 and W4 Wall

LED Wall Forms® **WF23**
Shallow Cutoff Face Surface Mount, Round
revision 10/24/14 • kl_wf23led_spec.pdf

KIM LIGHTING

Type: Small Wall Lights W3 and W4 - mount at 9 and 10' lens heights
Job: Wallace Campus - Poughkeepsie

Page: 2 of 2

Standard Features

Fixture

Cat. No.: **WF23** W3: WF23-9L3KUV-DB
W4: WF23-18L3KUV-DB

Electrical Module
LED = Light Emitting Diodes

Cat. Nos. for Electrical Modules available:

LED

☐ **9L2KUV**[1]	☐ **18L2KUV**[1]
☒ **9L3KUV**[1] **W3**	☒ **18L3KUV**[1] **W4**
☐ **9L4KUV**[1]	☐ **18L4KUV**[1]
☐ **9L5KUV**[1]	☐ **18L5KUV**[1]

[1]For LED, 9L = 9LED Emitters; 18L = 18 LED Emitters; 2K = 580lm color temperature; 3K = 3000K color temperature; 4K = 4200K color temperature; 5K = 5100K color temperature; UV = Universal Voltage from 120 to 277V with a ± 10% tolerance.

Finish
TGIC powder coat

Color: Black Dark Bronze Light Gray Stealth Gray Platinum Silver White Custom Color[2]
Cat. No.: ☐ **BL** ☐ **DB** ☐ **LG** ☐ **SG** ☐ **PS** ☐ **WH** ☐ **CC**

[2]Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description: _____

KIM LIGHTING

UR20
ARCHITECTURAL AREA/SITE

W1a and W2a Wall Mount

DATE: 02/19/21 LOCATION: Poughkeepsie, NY
TYPE: Wall PROJECT: WALLACE CAMPUS
CATALOG #: UR20 - 24L-25 - 3K8 - Type 3 or 4

FEATURES
- 20° size in post top, pole and wall mount
- High performance optics up to 17,000 delivered lumens
- Elegant form factor
- Diffusion lens option
- SiteSync™ wireless control options
- UL/cUL listed for wet locations, IP65 and 3G vibration rated

RELATED PRODUCTS
Ouro Small Post Top | Ouro Large Post Top | Ouro Large Arm Mount

CONTROL TECHNOLOGY
SiteSync NX DISTRIBUTED INTELLIGENCE

SPECIFICATIONS

CONSTRUCTION
- Low copper aluminum alloy die-casting is designed as one-piece with internal cooling fins.
- Solid, cast aluminum wall creates a thermal barrier between the optical and electrical compartments.
- Molded silicone gasket throughout insures the sealing between the two compartments and provides ingress protection.
- Housing is designed with integral LED heat sink utilized for thermal transfer and for securing the location of each LED module.
- IK09 rated enclosure protects electrical equipment against external mechanical impacts.
- All external fasteners are stainless steel.
- Cover is secured to Lens frame by the latch and hinge.

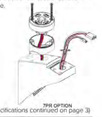
OPTICS
- LEDs mount to a metal printed circuit board assembly (MCPCB).
- Optical lenses are clear injection molded PMMA acrylic.
- Optional Backlight Control on each LED module to completely control unwanted backlight.
- Optional fixture finish optical surfaces will not exceed BUG ratings of the standard white finish.

INSTALLATION
- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

ELECTRICAL
- Universal voltage, 120 through 277V with ±10% tolerance. Driver is Underwriters Laboratories listed.
- High voltage configurations, 347/480. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories listed.
- "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments.
- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.
- Surge protection: 10,000k in parallel, 20,000k in series.
- Wiring: No. 18AWM rated 105°C, wet rating.

CONTROLS
7PR
- Fully gasketed and wired 7-pin receptacle option. Easy access location above the electrical compartment. 7-pin construction allows for a user-defined interface and provides a controlled definition of operational performance. ANSI twist-lock control module by-others.

Standard customer operation modes:
- Traditional on/off photoelectric control.
- 5-pin wireless photoelectric control for added dimming feature.
- 7-pin wireless photoelectric control for for dimming and additional I/O connections for customer use.

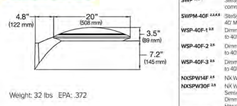


7PR OPTION

(Specifications continued on page 3)

KEY DATA	
Lumen Range	2888 - 17080
Wattage Range	25 - 150
Efficacy Range (LPW)	100 -136
Reported Life (Hours)	L70>60,000
Weight	32 lbs - 14.5 Kg
EPA	0.372

DIMENSIONS



Weight: 32 lbs EPA: .372

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UR20 Arm Mounted

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HUBBELL Lighting

KIM LIGHTING

UR20
ARCHITECTURAL AREA/SITE

W, W1, W2, 5QN, and 5W Post Top Mount

DATE: 02/19/21 LOCATION: Poughkeepsie, NY
TYPE: Post Top PROJECT: WALLACE CAMPUS
CATALOG #: UR20 - 24L - 25 - 3K8

FEATURES
- 20° size in post top, pole and wall mount
- High performance optics up to 17,000 delivered lumens
- Elegant form factor
- Diffusion lens option
- SiteSync™ wireless control options
- UL/cUL listed for wet locations, IP66 and 4G/1.5G vibration rated

RELATED PRODUCTS
Ouro Small Arm Mount | Ouro Large Post Top | Ouro Large Arm Mount

CONTROL TECHNOLOGY
SiteSync NX DISTRIBUTED INTELLIGENCE

SPECIFICATIONS

CONSTRUCTION
- Low copper aluminum alloy die-casting is designed as one-piece with internal cooling fins.
- Molded silicone gasket throughout insures the sealing between the two compartments and provides ingress protection.
- IK09 rated enclosure protects electrical equipment against external mechanical impacts.
- All external fasteners are stainless steel.
- Cover is secured to Lens frame by the latch and hinge.

OPTICS
- LEDs mount to a metal printed circuit board assembly (MCPCB).
- Optical lenses are clear injection molded PMMA acrylic.
- Optional Backlight Control on each LED module to completely control unwanted backlight.
- Optional fixture finish optical surfaces will not exceed BUG ratings of the standard white finish.

INSTALLATION
- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

ELECTRICAL
- Universal voltage, 120 through 277V with ±10% tolerance. Driver is Underwriters Laboratories listed.
- High voltage configurations, 347/480. Driver has a 0-10V dimming interface for multi-level illumination options. Driver is Underwriters Laboratories listed.
- "Thermal Shield", secondary side, thermistor provides protection for the sustainable life of LED module and electronic components
- Drivers shall have greater than a 0.9 power factor, less than 20% harmonic distortion, and be suitable for operation in -40°C to 40°C ambient environments.
- Luminaire shall be capable of operating at 100% brightness in a 40°C environment. Both driver and optical array have integral thermal protection that will dim the luminaire upon detection of temperatures in excess of 85°C.
- Surge protection: 10,000k in parallel, 20,000k in series.
- Wiring: No. 18AWM rated 105°C, wet rating.

CONTROLS
7PR
- Fully gasketed and wired 7-pin receptacle option. Easy access location above the electrical compartment. 7-pin construction allows for a user-defined interface and provides a controlled definition of operational performance: ANSI twist-lock control module by-others.

Standard customer operation modes:
- Traditional on/off photoelectric control.
- 5-pin wireless photoelectric control for added dimming feature.
- 7-pin wireless photoelectric control for for dimming and additional I/O connections for customer use.

7-Pin receptacle placement

(Specifications continued on page 3)

KEY DATA	
Lumen Range	2694 - 16874
Wattage Range	25 - 150
Efficacy Range (LPW)	95 -133
Reported Life (Hours)	L70>60,000
Weight	35 lbs - 15.8 Kg
EPA	0.608

Photocell receptacle wiring diagram

Page **1/13** Rev. **10/06/20**
UR20 Post Top

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HUBBELL Lighting

KIM LIGHTING

UR20
ARCHITECTURAL AREA/SITE

W1a and W2a Wall Mount

DATE: 02/19/21 LOCATION: Poughkeepsie, NY
TYPE: Wall PROJECT: WALLACE CAMPUS
CATALOG #: UR20 - 24L-25 - 3K8 - Type 3 or 4

ORDERING GUIDE

CATALOG # UR20 - 24L-25 - 3K7 - Type 3 or 4 Optic as noted on schedule - / - / / WB Wall Bracket **Example:** UR20-24L-25-3K8-3-L-UNV-ASQ-BLT-7PR-BC-SWTAB

HOUSING

UR20						
Model	**LED Engine**	**CCT**		**Distribution**	**Rotation**	**Voltage**
UR20 Ouro	**No Lens or Clear Lens** **24L-25** 8,000 lm **24L-65** 17,000 lm **56L-75** 10,000 lm **56L-110** 15,000 lm **56L-140** 17,000 lm **HDL - High Diffusion Lens** **28L-30** 3,000 lm **28L-70** 7,000 lm **68L-80** 9,000 lm **68L-115** 13,000 lm **68L-150** 15,000 lm	**AM** Amber, 590nm peak* **3K7** 3000K, 70 CRI **3K8** 3000K, 80 CRI **3K9** 3000K, 90+ CRI **4K7** 4000K, 70 CRI **4K8** 4000K, 80 CRI **5K7** 5000K, 70 CRI	**No Lens or Clear Lens** **FR** Type 1 Front Row **1** Type I **2** Type II **4** Type IV **4W** Type IV Wide **5QM** Type V Square Medium **5QN** Type V Square Narrow **5R** Type V Rectangular **5W** Type V Wide (Round) **HDL - High Diffusion Lens** **3** Type III Asymmetric **SW** Type V/Symmetric	Blank for no rotation **L**[1] Optic rotation left **R**[1] Optic rotation right	**UNV** 120-277V **347** 347V **480** 480V **DALI** 120-277V *Consult factory

Mounting		Fixture Finish		Control Options		Options		Control Accessories	
ASQ Arm Square pole **AJ4** Arm w/ 3.5-4.2" OD pole **AA6** Arm w/ 4.5-6.0" OD pole **MAF** Horizontal Slip Fitter, 2 3/8" OD arm **SVSF** Square Vertical Slipfitter for 2"Tenon (2-3/8"OD) **VSF** Round Vertical Slipfitter for 2"Tenon (2-3/8"OD) **WB** Wall Bracket	**BL** Black **DB** Dark Bronze **GT** Graphite **LG** Light Grey **PS** Platinum Silver **TT** Titanium **WH** White **CC** Custom Color *	**7PR-TL** 7-pin PCR with twist lock photocontrol **7PR-SC** 7-pin PCR with shorting cap **7PR** 7-pin PCR, wireless control enabled **AD-01** * Astro2M, 120% output at midnight **AD-02** * Astro2M, 50% output midnight to 4 AM **AD-03** * Astro2M, 50% output 10PM to 4AM **AD-04** * Astro2M, 50% output 10PM to 4AM **NXWE** NX Wireless Enabled **SWP** 3,4,5 SiteSync Pre-commission **SWPM-40F** 4,4,4,5 SiteSync with Sensor 1F to 40' MH **WSP-40F-1** 4,5 Dimming Occ. Sensor for up to 40' MH, 120/277/347V **WSP-40F-2** 4,5 Dimming Occ. Sensor for up to 40' MH, 208/240V **WSP-40F-3** 4,5 Dimming Occ. Sensor for up to 40' MH, 480V **NXSPW14F** 4,5 NX Wireless, PIR Sensor, 14' **NXSPW30F** 4,5 NX Wireless, PIR Occupancy Sensor, Dimming Daylight Harvesting, 30' **NXSPH14F** 4,5 NX, PIR Occupancy Sensor, Dimming Daylight Harvesting, 14' **NXSP30F** 4,5 NX, PIR Occupancy Sensor, Dimming Daylight Harvesting, 30'	**BC** * Back-light Control **SF** Single Fuse **DF** Double Fuse **TR** Terminal Block **CLR** * Clear Lens **TL** Tamper proof latch	**SWTPR** 3,4,5 SiteSync with 7 pin PCR **SWUSB** SiteSync Software on USB **SWTAB** SiteSync Wireless® Tablet **SWBRG** SiteSync Wireless Bridge Node **WR-RME-L** WiSCAPE External Relay Module **SCH-R** Occ. Sensor for Round Pole (up to 30' MH) **SCH-S** Occ. Sensor for Square Pole (up to 30' MH) **NXOPM-SRSD-UNV** NX 7-pin Module

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[1] Not available with SQN, SQN, and SW distributions.
[2] Not available with other sensor or wireless control options.
[3] Not available with Type V distributions (5, 5QM, 5QN, 5R, 5W).
[4] Not available with 347V and 480V.
[5] 24L & 56L only.
[6] Not available with Type V distributions (5, HDL optics).
[7] Consult factory for custom colors, minimum qtys & extended lead times.
[8] Surge Friendly.

Page **2/14** Rev. **10/06/20**
UR20 Arm Mounted

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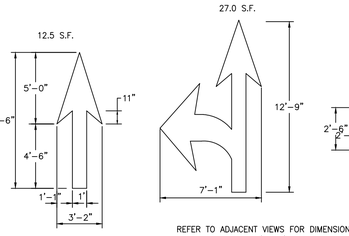
HUBBELL Lighting

KIM LIGHTING

UR20
ARCHITECTURAL AREA/SITE

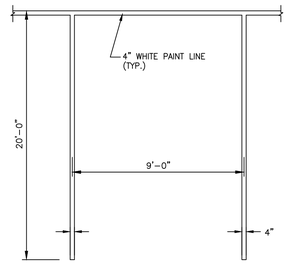
W, W1, W2, 5QN, and 5W Post Top Mount

DATE: 02/19/21 LOCATION: Poughkeepsie, NY
TYPE: Post Top PROJECT



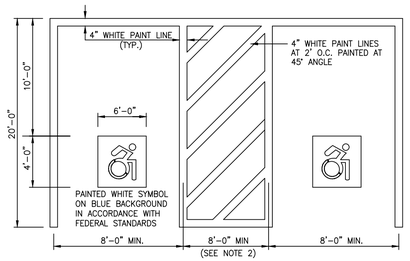
REFER TO ADJACENT VIEWS FOR DIMENSIONS (WHITE)
(ARROWS TO BE CENTERED IN TRAVEL LANE)

PAVEMENT ARROW DETAILS
NOT TO SCALE



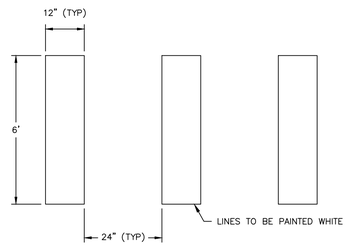
NOTE:
1. PROVIDE 2 COATS OF PAINT ON ALL SURFACES.
2. SEE PLAN FOR ACTUAL SPACE LOCATION AND DIMENSIONS.

TYPICAL PARKING SPACE DETAIL
NOT TO SCALE



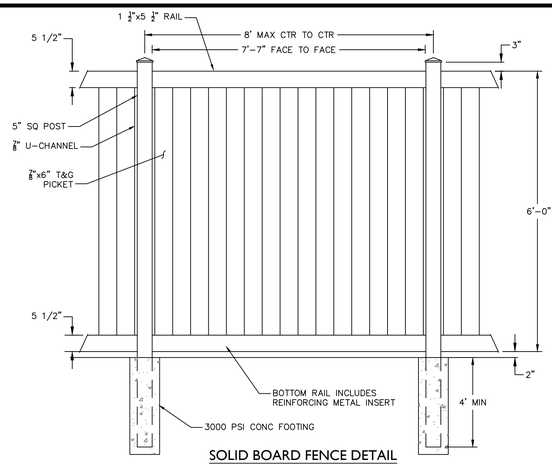
NOTES:
1. SEE SITE PLAN FOR ACCESSIBLE SPACE LOCATION AND DIMENSIONS.
2. PROVIDE 2 COATS OF PAINT ON ALL SURFACES.

TYPICAL ACCESSIBLE PARKING SPACE DETAIL
NOT TO SCALE

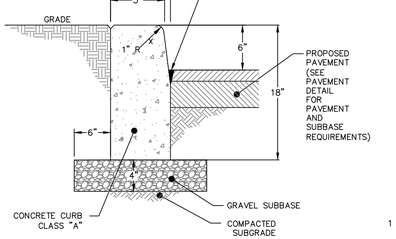


1. PROVIDE TWO COATS OF PAINT ON ALL SURFACES.
2. SEE PLANS FOR LOCATION OF CROSSWALKS.
3. LADDER CROSSWALK (NYSDOT TYPE L).

PAINTED CROSSWALK STRIPING
NOT TO SCALE

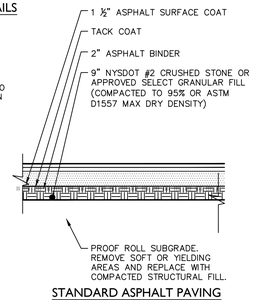


SOLID BOARD FENCE DETAIL
NOT TO SCALE

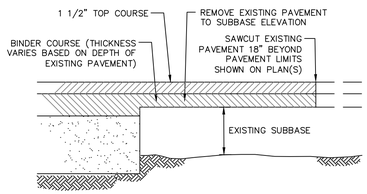


NOTES:
1. COMPACT NATIVE MATERIAL PRIOR TO INSTALLATION OF STONE SUBBASE. SEE NOTE SHEET NS-1 FOR COMPACTION REQUIREMENTS.

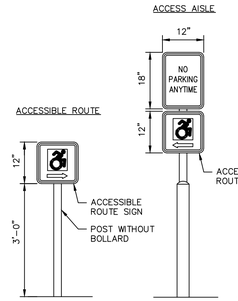
ON-SITE CONC. CURB
NOT TO SCALE

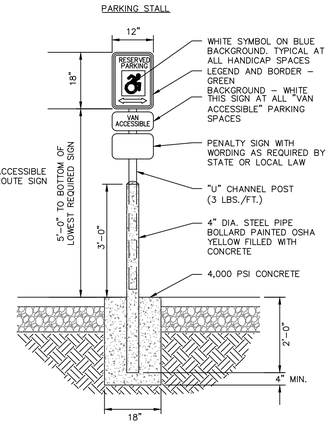


STANDARD ASPHALT PAVING
NOT TO SCALE



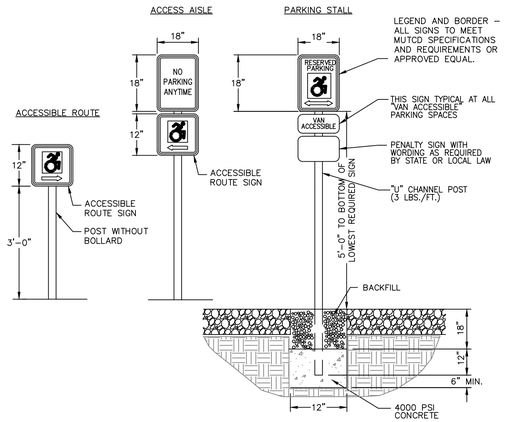
PAVEMENT TRANSITION DETAIL
NOT TO SCALE





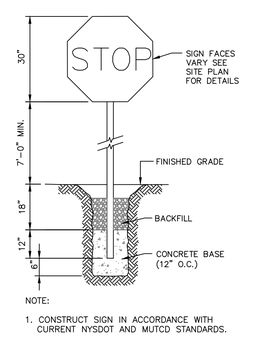
ACCESSIBLE PARKING & ACCESS SIGNS
NOT TO SCALE

FOR USE IN PAVED AREAS



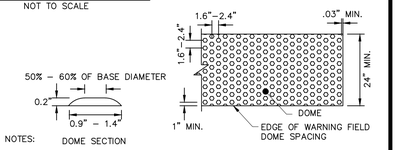
ACCESSIBLE PARKING & ACCESS SIGNS
NOT TO SCALE

FOR USE IN NON PAVED AREAS



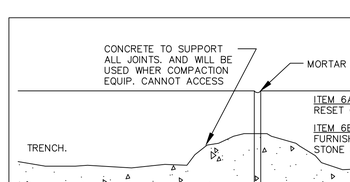
NOTE:
1. CONSTRUCT SIGN IN ACCORDANCE WITH CURRENT NYSDOT AND MUTCD STANDARDS.

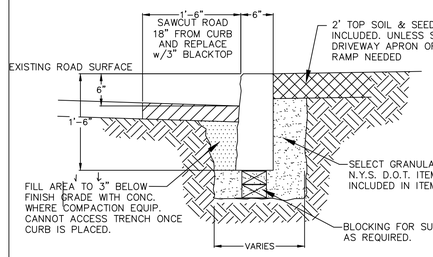
SIGN DETAIL
NOT TO SCALE



NOTES:
1. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE, THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING UNIT (THE DOMES AND THE ENTIRE 24" LEVEL SURFACE) IS FOR ILLUSTRATION ONLY.
2. THE SIZE OF THE DETECTABLE WARNING FIELD SHALL BE 24" IN THE DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
3. THE ROWS OF DOMES SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE GRADE BREAK BETWEEN THE RAMP LANDING OR CURB RAMP AND THE STREET.
4. WHERE DOMES ARE ARRAYED RADIALLY THEY MAY DIFFER IN DOME DIAMETER AND CENTER-TO- CENTER SPACING WITHIN THE RANGES SPECIFIED ON THIS SHEET.
5. THE DETECTABLE WARNING FIELD SHALL BE THE COLOR SPECIFIED IN THE CONTRACT DOCUMENTS OR MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.
6. DETECTABLE WARNING SHALL BE LOCATED SO THAT THE EDGE OR CORNER OF THE WARNING FIELD NEAREST TO THE ROADWAY IS 5" TO 9" FROM THE FRONT OF THE CURB OR THE ROADWAY EDGE (12" WHERE TRAVERSABLE CURB IS USED). INSTALL THE DETECTABLE WARNING FIELD BEHIND THE FLUSH CURB.
7. THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 6'-0" MINIMUM AND 15'-0" MAXIMUM FROM THE CENTERLINE OF THE NEAREST RAIL.

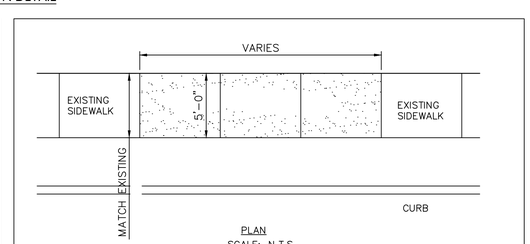
DETECTABLE WARNING STRIP
NOT TO SCALE



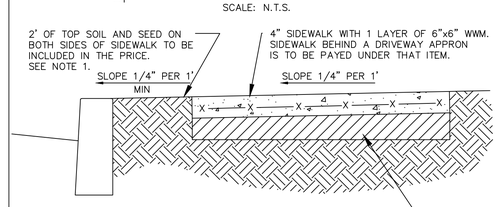


GRANITE OR BLUESTONE CURB DETAIL

CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT 62 CIVIC CENTER PLAZA POUGHKEEPSIE, NY 12602	FILE NO.: 001-DET DATE: 3-6-00 SCALE: AS NOTED DRAWN BY: JP	GRANITE BLUE STONE DETIALS	6 6A, 6B PAGE NO.



PLAN
SCALE: N.T.S.

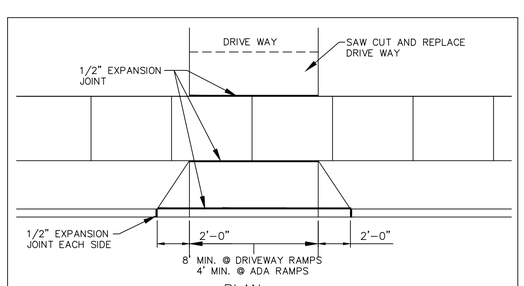


NOTES:
1. WHERE MATERIAL IS NOT USED THE CITY OF POUGHDEEPSIE WILL BE CREDITED IN AREAS WHERE MORE THAN THE SPECIFIED AMOUNT OF MATERIAL IS USED. MAJOR GRADE CHANGES WILL BE APROVED BY THE CITY ENGINEERING DEPT. AND WILL BE PAYED UNDER APROPRIATE ITEMS.

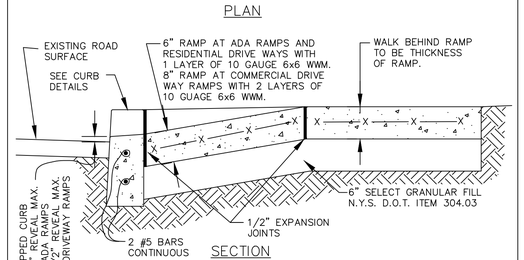
SECTION

SIDEWALK DETAIL REPLACE & NEW

CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT 62 CIVIC CENTER PLAZA POUGHKEEPSIE, NY 12602	PROJECT: 001-DET DATE: 5-16-00 SCALE: AS NOTED DRAWN BY: JP	SIDEWALK DETAIL	



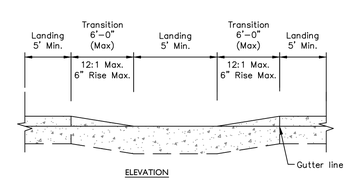
PLAN



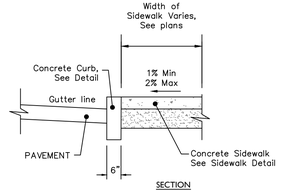
SECTION

DRIVEWAY RAMPS & ADA RAMP
SCALE: 1"=1'-0"

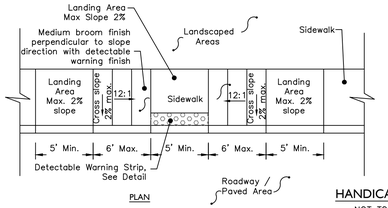
CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT 62 CIVIC CENTER PLAZA POUGHKEEPSIE, NY 12602	FILE NO.: 001-DET DATE: 3-6-00 SCALE: AS NOTED DRAWN BY: JP	DRIVEWAY & ADA RAMP DETIAL	1 PAGE NO.



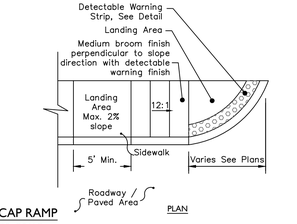
ELEVATION



SECTION



PLAN



PLAN

HANDICAP RAMP
NOT TO SCALE

DETAILS PROVIDED BY THE CITY OF POUGHKEEPSIE. FOR ALL WORK TO BE PERFORMED IN THE CITY ROW.

#	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS
7	10.25.21	RESPONSE TO CONSULTANT COMMENTS

Revisions

LRC GROUP
• Land Planning
• Civil Engineering
• Environmental Services
• Land Surveying
• Landscape Architecture
85 Civic Center Plaza, Suite 103
Poughkeepsie NY 12601
Tel: 845.243.2880
160 West Street, Suite E
Cromwell, CT 06416
Tel: 860.635.2877
1 International Blvd, Suite 400
Mahwah, NJ 07495
Tel: 908.603.5730
www.lrcconsult.com
LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

STATE OF NEW YORK · ROMEYN E. MORRISON · LICENSED PROFESSIONAL ENGINEER · 071104

SITE DETAILS

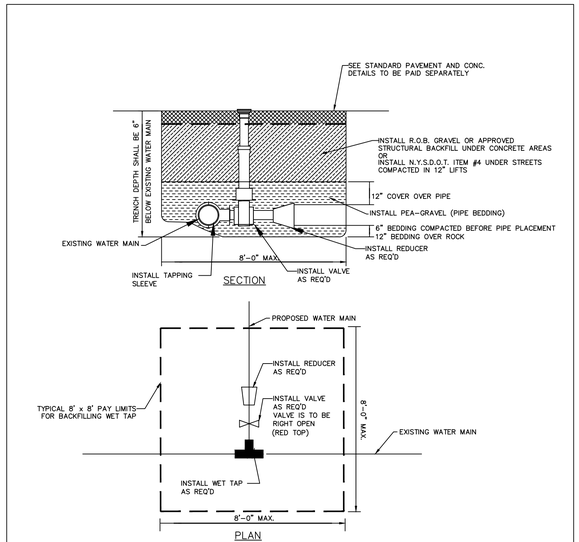
WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DN20254801.dwg
Drawn	SMC	Project No.	20-2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	NOTED

Sheet No. DN-1

X:\Jobs\Jobs 2020\20-2548-Urban Green-Wallace Campus-Poughkeepsie\DWG\DN20254801.dwg 10/25/2021 3:20 PM Scurran

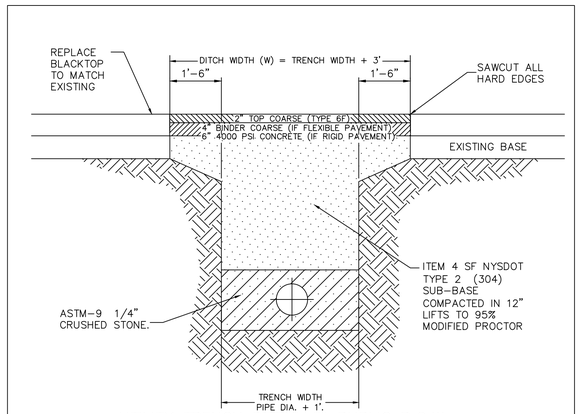


NOTE: ALL BACKFILL TO BE PLACED IN 1' LIFTS AND COMPACTED TO 95% OF MODIFIED PROCTOR (ASTM 1557)

TAPPING SLEEVE & VALVE

SCALE: N.T.S.

CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT 80 WASHINGTON STREET POUGHKEEPSIE, NY 12602	FILE NO.:	TAPPING SLEEVE & VALVE	1 PAGE NO.
	DATE: 3-6-00		
	SCALE: AS NOTED		
	DRAWN BY: JP		

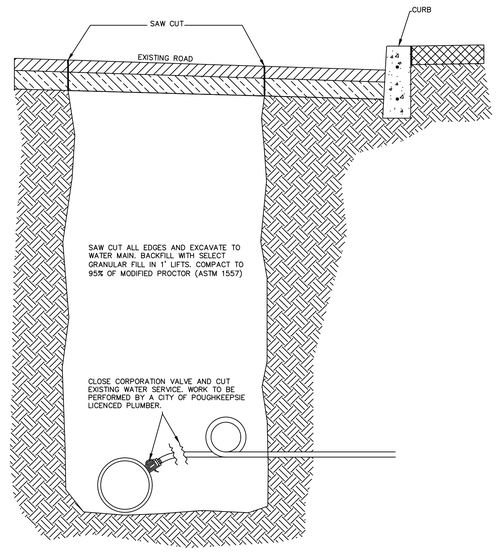


UTILITY TRENCH DETAIL IN PUBLIC R.O.W.

NOTES:

1. DITCH WIDTH SHALL EXTEND A MINIMUM OF ONE AND ONE-HALF FT. FROM THE EDGES OF THE TRENCH.
2. REPLACED BASE MATERIAL OVER TRENCH SHALL BE ITEM 4 COMPACTED IN 12" LIFTS.
3. PIPE BEDDING SHALL BE A MINIMUM OF 6" ABOVE AND BELOW PIPE
4. ALL JOINTS SHALL BE MECHANICALLY SAWED.
5. ALL JOINTS SHALL BE SQUARED TO THE EXISTING EDGE OF CURB AND/OR PAVEMENT, AND TACK COATED PER DETAIL.
6. ROAD SURFACE REPLACEMENT SHALL BE MINIMUM OF SIX INCHES OF ASPHALIC CONCRETE.
7. ASPHALT PAVEMENT TO BE PLACED IN TWO LIFTS AS SHOWN.

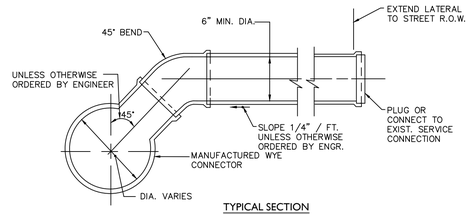
CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT 62 CIVIC CENTER PLAZA POUGHKEEPSIE, NY 12602	FILE NO.: FLEXPAVE.DWG	TRENCH AND PAVEMENT DETAIL	
	DATE: 9-9-04		
	SCALE: AS NOTED		
	DRAWN BY: ENGINEERING		



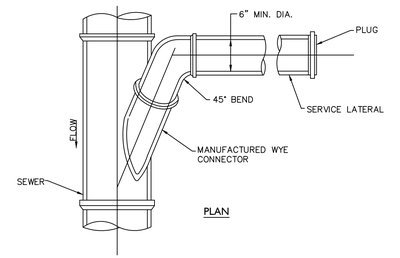
WATER SERVICE DISCONNECT AT MAIN

SCALE: N.T.S.

CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT 80 WASHINGTON STREET POUGHKEEPSIE, NY 12602	FILE NO.:	WATER DISCONNECT @ MAIN	1 PAGE NO.
	DATE: 08-21-08		
	SCALE: AS NOTED		
	DRAWN BY: JTK		



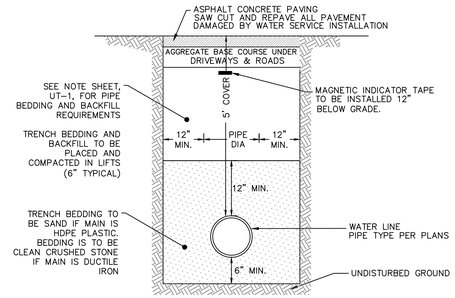
TYPICAL SECTION



PLAN

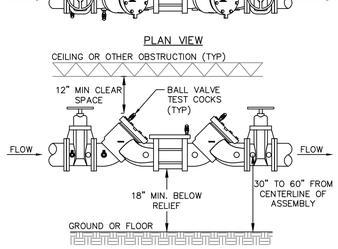
STANDARD SERVICE LATERAL CONNECTION

NOT TO SCALE



WATER MAIN TRENCH

NOT TO SCALE



PLAN VIEW

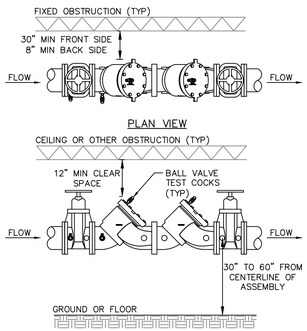
SECTION

NOTES:

1. ASSEMBLY TO BE INSTALLED HORIZONTALLY.
2. WATTS SERIES LF007 2" REDUCED PRESSURE ZONE OR APPROVED EQUAL.
3. RPZ TO BE INSTALLED IN MECHANICAL SPACE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND MUST MEET ALL CLEARANCES AS OUTLINED ABOVE. SEE PLUMBING PLANS FOR FURTHER DETAILS.
4. ASSEMBLY TO BE TESTED BY A LICENSED BACKFLOW PREVENTION DEVICE TESTER AFTER INSTALLATION AND PRIOR TO ACTIVATION OF NEW WATER SUPPLY. THE RESULTS MUST BE SUBMITTED TO THE DCDOH AND CITY OF POUGHKEEPSIE AS PART OF THE ENGINEER'S CERTIFICATION.
5. ASSEMBLY MUST BE TESTED ANNUALLY BY A LICENSED BACKFLOW PREVENTION TESTER. COPIES OF THE TEST RESULTS MUST BE SUBMITTED TO THE OWNER, CITY OF POUGHKEEPSIE WATER DEPARTMENT, AND THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.
6. RPZ TO DRAIN OUT EXTERIOR OF BUILDING WITH REQUIRED AIR GAP.

DOMESTIC SUPPLY – REDUCED PRESSURE ZONE DETAIL

NOT TO SCALE



PLAN VIEW

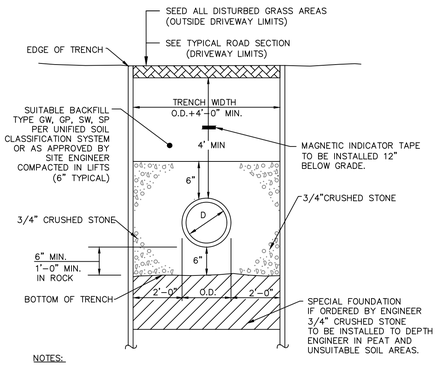
SECTION

NOTES:

1. ASSEMBLY TO BE INSTALLED HORIZONTALLY OR VERTICAL UP.
2. WATTS SERIES LF709 6" DOUBLE CHECK VALVE OR APPROVED EQUAL.
3. DCV TO BE INSTALLED IN MECHANICAL SPACE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS AND MUST MEET ALL CLEARANCES AS OUTLINED ABOVE.SEE PLUMBING PLANS FOR FURTHER DETAILS.
4. ASSEMBLY TO BE TESTED BY A LICENSED BACKFLOW PREVENTION DEVICE TESTER AFTER INSTALLATION AND PRIOR TO ACTIVATION OF NEW WATER SUPPLY. THE RESULTS MUST BE SUBMITTED TO THE DCDOH AND TO CITY OF POUGHKEEPSIE AS PART OF THE ENGINEER'S CERTIFICATION.
5. ASSEMBLY MUST BE TESTED ANNUALLY BY A LICENSED BACKFLOW PREVENTION TESTER. COPIES OF THE TEST RESULTS MUST BE SUBMITTED TO THE OWNER, CITY OF POUGHKEEPSIE WATER DEPARTMENT, AND THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.

FIRE SUPPLY – DOUBLE DETECTION CHECK VALVE DETAIL

NOT TO SCALE



NOTES:

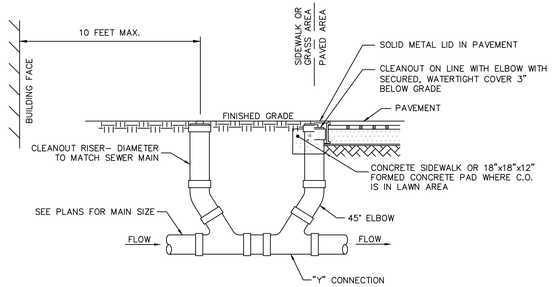
1. IF COVER IS LESS THAN 4 FEET INSULATION IS REQUIRED.
2. SEE NOTES SHEET UT-1 FOR SUBGRADE AND BACKFILL COMPACTION REQUIREMENTS

SANITARY SEWER TRENCH SECTION

NOT TO SCALE

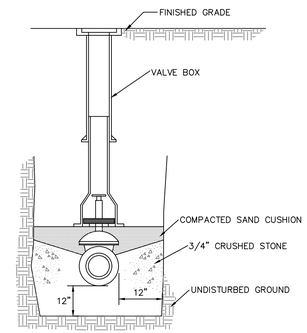
NOTES:

1. DOUBLE CLEANOUT TO BE INSTALLED ON ALL SEWER LATERALS WITHIN 10 FEET OF BUILDING FACE.
2. ANY LOCATIONS WITHIN PAVED AREAS SHALL HAVE COVERS THAT ARE H-20 LOAD RATED. ALL COVERS WHETHER IN PAVEMENT OR GRASS SHALL BE LABELED "SEWER".
3. ALL RISERS ARE TO MATCH THE SIZE OF THE SANITARY LINE.
4. IN LAWN AREAS INSTALL CONCRETE COLLAR 3 INCHES BELOW GRADE. COVER WITH TOP SOIL OR OTHER SURFACE TREATMENT AS DESIGNATED ON LANDSCAPE PLANS.



DOUBLE SEWER CLEANOUT DETAIL

NOT TO SCALE



VALVE AND VALVE BOX DETAIL

NOT TO SCALE

NOTE: SEE CITY OF POUGHKEEPSIE WATER NOTES FOR ADDITIONAL DETAILS.

STATE OF NEW YORK ROMEYE MORRISON 071104 LICENSED PROFESSIONAL ENGINEER

#	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
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5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS
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Revisions

LRC GROUP
- Land Planning
- Civil Engineering
- Environmental Services
- Land Surveying
- Landscape Architecture

85 Civic Center Plaza, Suite 103
Poughkeepsie NY 12601
Tel: 845.243.2880

160 West Street, Suite E
Cromwell, CT 06416
Tel: 860.635.2877

1 International Blvd, Suite 400
Mahwah, NJ 07495
Tel: 908.603.5730

www.lrcconsult.com

LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

WATER / SEWER DETAILS

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DN20254802.dwg	Sheet No.
Drawn	SMC	Project No.	20-2548	DN-2
Checked	KFC	Date	2020.04.10	
Approved	REM	Scale	NOTED	

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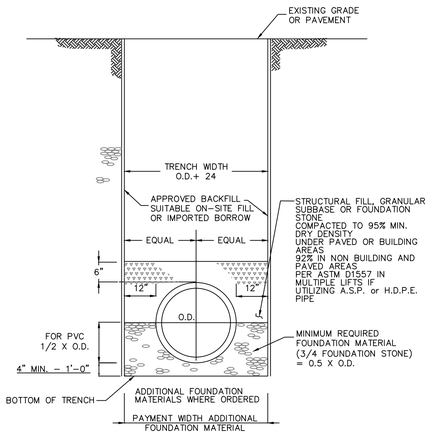


TYPICAL STORM SEWER TRENCH SECTION

NOT TO SCALE

NOTES:

1. PRECAST CONCRETE CATCH BASIN SECTIONS AS MANUFACTURED BY FORT MILLER OR APPROVED EQUAL.

2.CATCH BASIN SHALL BE PRECAST CONCRETE. DESIGNED FOR H20 VEHICULAR LOADING AND 25% IMPACT.

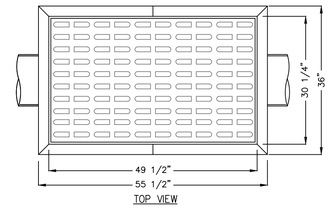
3.FRAME AND COVER SHALL BE DESIGNED FOR H20 VEHICULAR LOADING AND 25% IMPACT. FRAME TO BE GENERAL FOUNDRIES, INC. MODEL #23408 OR APPROVED EQUAL

4.CONCRETE CATCH BASIN CASTING CLEAR OPENING DIMENSION MUST MATCH FRAME AND GRATE CLEAR OPENING DIMENSION.

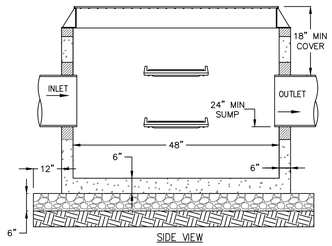
5.CATCH BASINS HAVING A DEPTH GREATER THAN 48" FROM FINISHED SURFACE TO THE TOP OF THE CONCRETE BASE SHALL BE PROVIDED WITH STEPS.

6.BACKFILL USING TRENCH BACKFILL, COMPACTED IN 6" LIFTS.

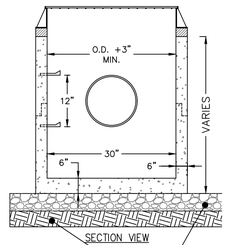
7.SUMPS FOR CATCH BASINS SHALL BE 24".



TOP VIEW



SIDE VIEW

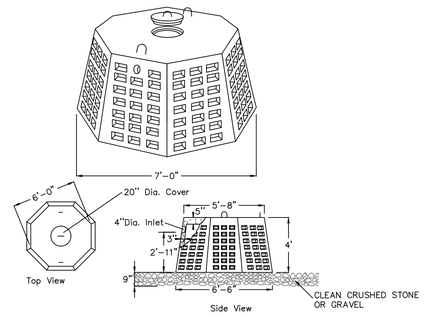


SECTION VIEW

COMPACTED 3/4" CRUSHED STONE PLACED ON COMPACTED STABLE SUBGRADE APPROVED BY THE CERTIFYING ENGINEER)

CURB LESS TYPE CATCH BASIN

NOT TO SCALE

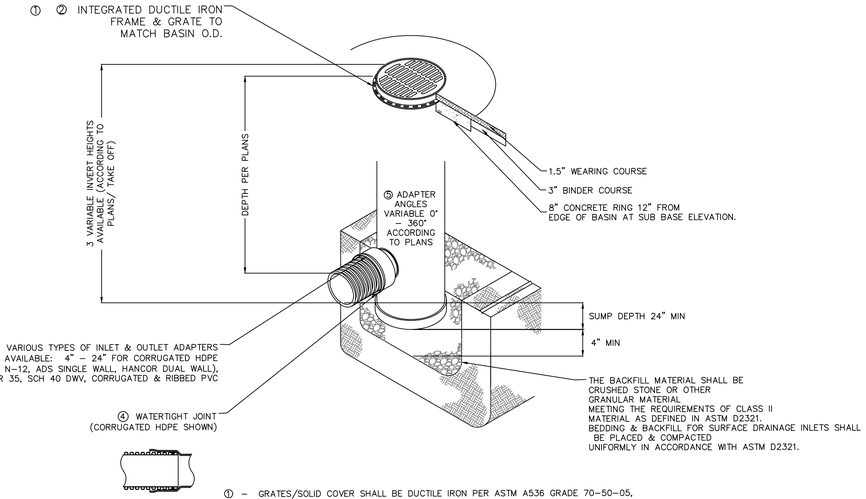


SPECIFICATIONS	PRECAST DRY WELLS MODEL DW-4 (B) 630 GALLONS
Concrete Minimum Strength: 4,000 psi at 28 days Reinforcement: #3 Rebar Air Entrainment: 5% Capacity: 630 gallons Weight = 3600 lbs Sidewall Area: 60 square feet Load Rating: 300 psf (H20 loading on request)	Woodard's Concrete Products, Inc. 629 Isbell Road, Bulrville, KY 10915 (845) 361-3471 / Fax 361-1050

PRECAST DRYWELL DETAIL

NOT TO SCALE

(DETAIL PROVIDED BY WOODARDS)



① - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05,
② - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
③ - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065
④ - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
⑤ - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-013.

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DRAWN BY EBC DATE 4-3-06	MATERIAL	Nyloplast	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
APPD BY CJA DATE 4-3-06	PROJECT NO./NAME SHEET 1 OF 1	TITLE 24 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL	
DWG SIZE A		DWG NO. 7001-110-192	REV B

NYLOPLAST 24" DRAIN BASIN:

NOT TO SCALE

STATE OF NEW YORK
RODNEY E MORRISON
074104
LICENSED PROFESSIONAL ENGINEER

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85 Civic Center Plaza, Suite 103
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Tel: 908.603.5730
www.lrcconsult.com
LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

STORMWATER DETAILS

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DN20254803.dwg	Sheet No.
Drawn	SMC	Project No.	20-2548	DN-3
Checked	KFC	Date	2020.04.10	
Approved	REM	Scale	NOTED	

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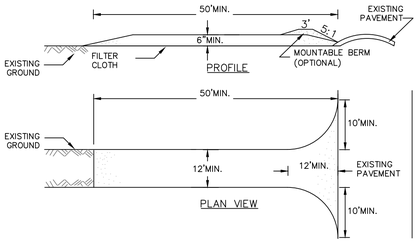
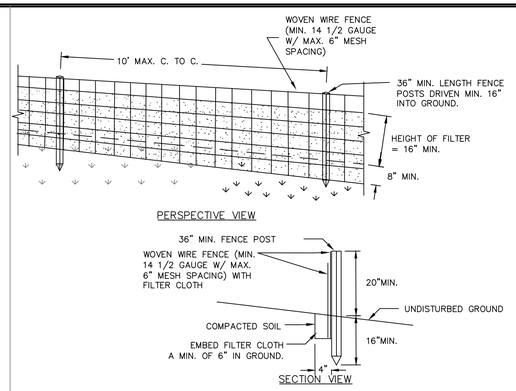


CONSTRUCTION SPECIFICATIONS

1. STONE SIZE – USE 3"–4" ANGULAR STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY–FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

STABILIZED CONSTRUCTION ENTRANCE

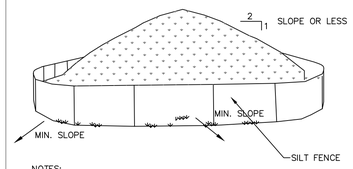


CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

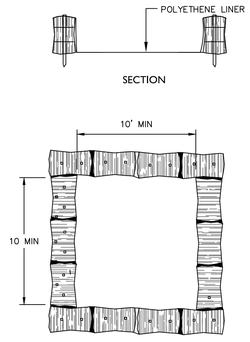
SILT FENCE



NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.
5. HAYBALES OR SILT SOCKS TO BE USED WHERE STOCKPILES ARE LOCATED ON PAVED AREAS.

MATERIALS STOCKPILE
NOT TO SCALE

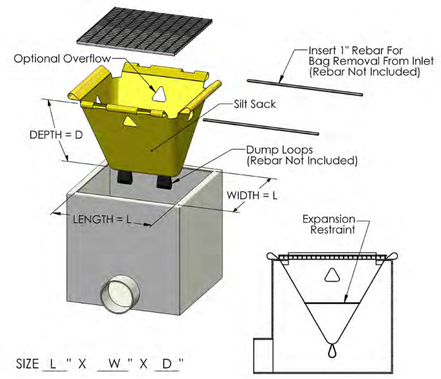


NOTES:

1. CONCRETE WASHOUT SIGN TO BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
2. REMOVE HARDENED CONCRETE WHEN WITHIN 4" FROM TOP OF STRUCTURE.
3. CONSTRUCT NEW FACILITIES ONCE CURRENT FACILITIES ARE TWO–THIRDS FULL. IF CONCRETE HAS NOT HARDENED CONSTRUCT NEW FACILITIES ONCE CURRENT FACILITY IS TWO–THIRDS FULL.
4. LINERS, HAYBALES, ET.C SHALL BE INSPECTED FOR DAMAGE. ANY DAMAGE SHALL BE REPAIRED PROMPTLY.
5. SEPARATE FACILITIES TO BE USED FOR VEHICLE WASHING IF NEEDED.
6. NO CONCRETE IS TO BE WASHOUT OUT ON THE GROUND IN ANY LOCATION.

ABOVE GROUND TEMPORARY
CONCRETE/VEHICLE WASHOUT FACILITY
NOT TO SCALE

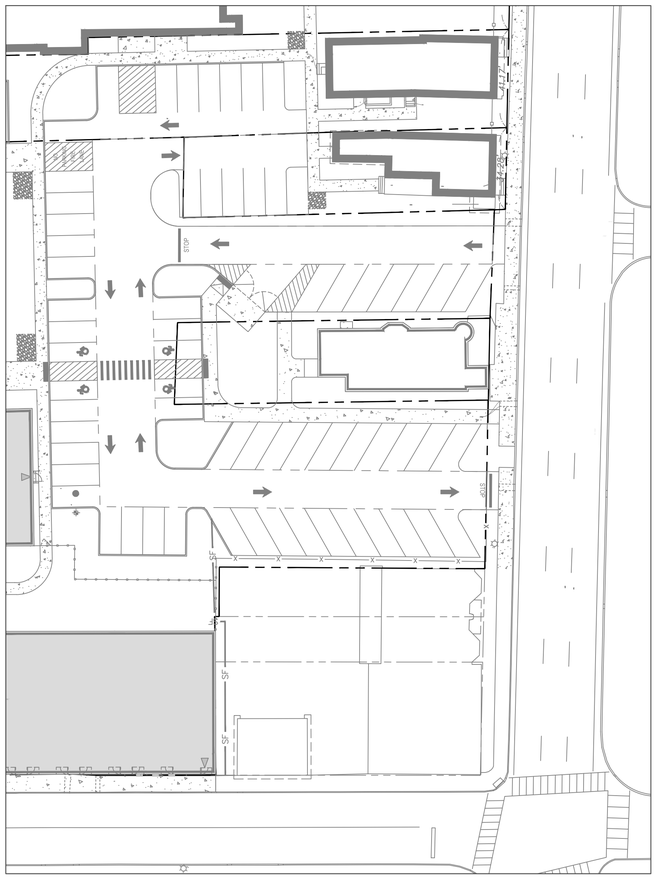
Silt Sack - Type A



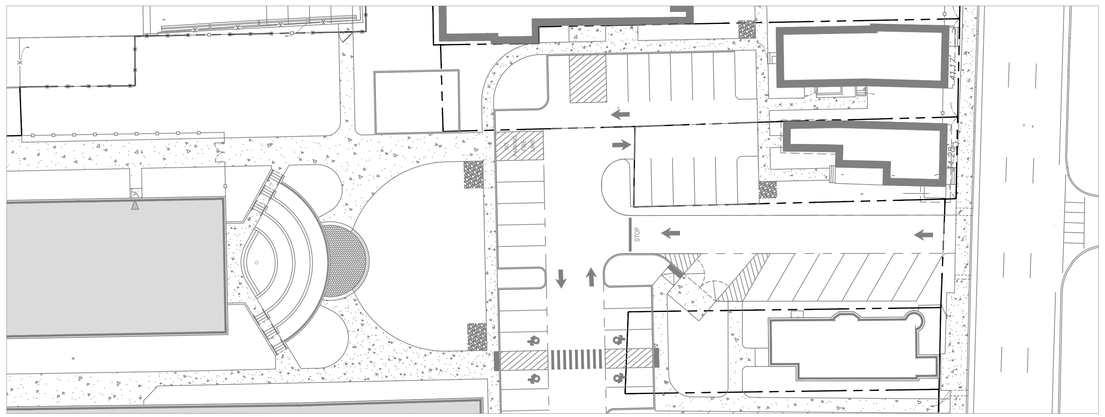
SIZE L " X W " X D "

SILT SACK DETAIL (CURBLESS CB)
NOT TO SCALE

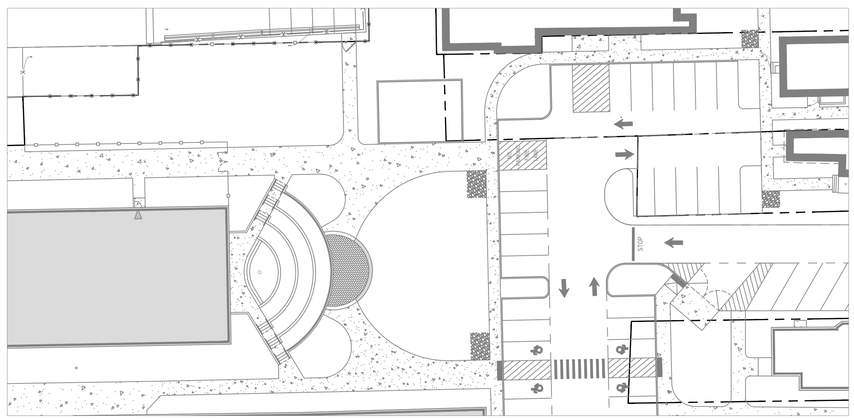
ACF ENVIRONMENTAL
2831 Cardwell Road
Richmond, VA 23234
WWW.ACFENVIRONMENTAL.COM



TRUCK TURNING PLAN (IN/OUT)
Scale: 1"=30'



TRUCK TURNING PLAN
Scale: 1"=30'



EMS VEHICLE ENTERING
Scale: 1"=30'

STATE OF NEW YORK
RODNEY E. MORRISON
LICENSED PROFESSIONAL ENGINEER
087180

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LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

EROSION CONTROL DETAILS

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DN20254804.dwg
Drawn	SMC	Project No.	20–2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	NOTED

Sheet No. **DN-4**

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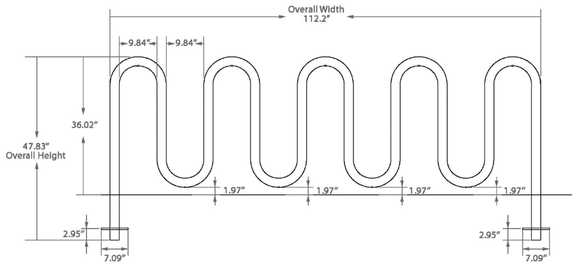
Park-It 11 Bike Rack, Inground



Front View

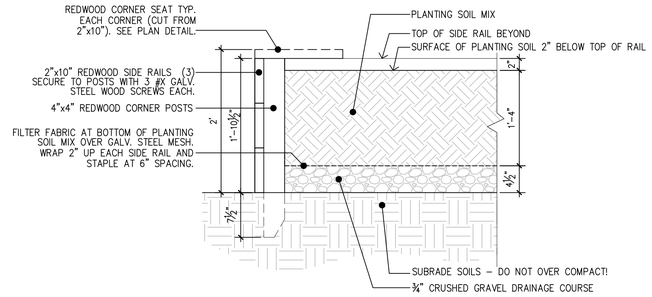
Side View

Material	Finish	Dimensions	Weight
Steel tubing	Powder coated black	112.2" w x 47.83" h Above ground: 112.2" w x 36.02" h	79 lbs.

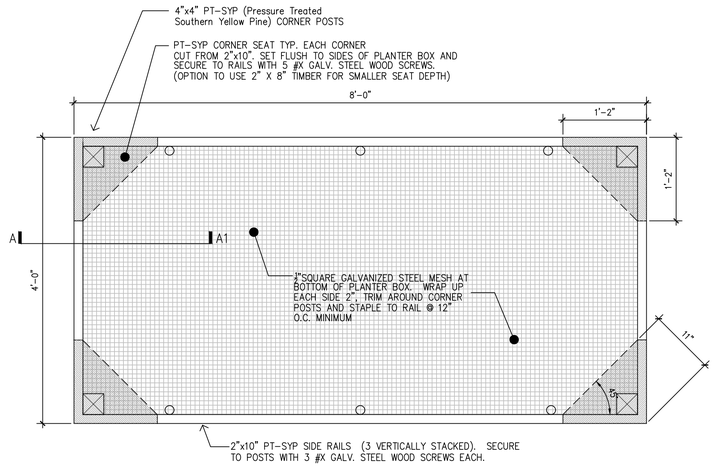
Type of Mount: Inground mount

Size of Tubing: 1-7/8" O.D. x 11-gauge

TYPICAL BICYCLE RACK
(5 & 9 Capacity Racks Similar)

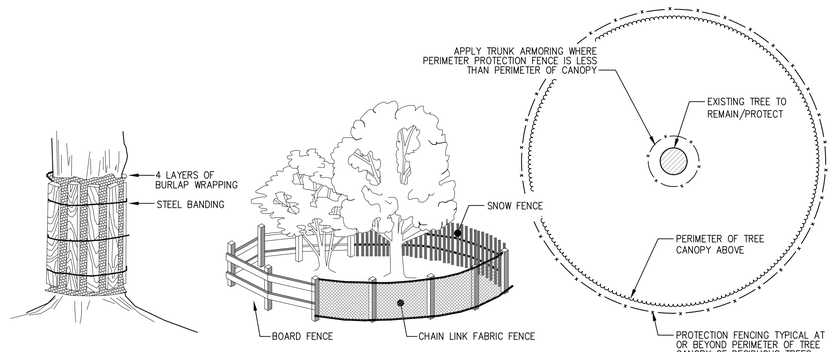


SECTION A–A1



PLAN VIEW

RAISED WOOD PLANTER
Scale: 1" = 1'-0"



TREE ARMORING

CONSTRUCTION AREA WHERE PAVED SURFACES MAKE IT IMPRACTICAL TO ESTABLISH TREE PROTECTION ZONE.

FENCING AT TREE PROTECTION ZONES

INSTALL ONE OF THE FENCE TYPES (MIN. FENCE HT. 42") NOTED ABOVE UNLESS SPECIFICALLY INDICATED ON PLANS. MAY BE INSTALLED CONTINOUSLY AROUND GROUPS OF TREES TO REMAIN.

TREE PROTECTION
NOT TO SCALE

		Date	Description
3		11.03.20	PLANNING BOARD RE-SUBMISSION
4		01.05.21	RESPONSE TO CONSULTANT COMMENTS
5		03.02.21	RESPONSE TO CONSULTANT COMMENTS
6		05.07.21	RESPONSE TO CONSULTANT COMMENTS
7		10.25.21	RESPONSE TO CONSULTANT COMMENTS

Revisions

LRC GROUP
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- Civil Engineering
- Environmental Services
- Land Surveying
- Landscape Architecture

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LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

AMENITIES DETAILS

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DN20254805.dwg
Drawn	SMC	Project No.	20–2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	NOTED

Sheet No. **DN-5**

X:\Jobs\Jobs 2020\20-2548-Uptown Green-Wallace Campus-Poughkeepsie\DWG\DN20254805.dwg 10/25/2021 3:28 PM Scurron

MAIN STREET

CONKLIN STREET

MILL STREET

CATHARINE STREET

CHILDREN'S PLAY AREA

OUTDOOR PASSIVE RECREATION AREA FOR RESIDENTS OF MAIN STREET BUILDING

DECORATIVE METAL PICKET FENCE AND GATE (6' ht.)

302 Mill Existing 1 Story Structure To Remain

302 Mill Existing Residential To Remain

304 Mill Existing Residential To Remain

306 Mill Existing 2 1/2 Story Building To Remain

310 Mill Existing 2 1/2 Story Building To Remain

3 Story Brick Building

MAIN STREET BUILDING 5 STORIES

BICYCLE PARKING TYP.

TRASH ENCLOSURE

PARKING ENTRANCE

331 Main Existing 4 Story To Remain

WALLACE BUILDING 4 STORY

OUTDOOR PASSIVE RECREATION AREA FOR RESIDENTS OF CATHARINE ST.BUILDING

SNOW STORAGE AREAS

63 Total Parking Spaces

PARKING EXIT

DECORATIVE METAL PICKET FENCE AND GATE (6' ht.)

Existing 3 Story To Remain

CATHARINE STREET BUILDING 5 STORY

3 Story Brick Building

2 Story Brick Building

GRAPHIC SCALE

20 10 0 20

SCALE IN FEET

#	Date	Description
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
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LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

ILLUSTRATIVE SITE PLAN

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CADSP20254801-RENDER.dwg	Sheet No.
Drawn	SMC	Project No. 20-2548	SP-1
Checked	KFC	Date 2020.04.10	
Approved	REM	Scale 1"=20'	

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November 5, 2021

WALLACE CAMPUS: PROJECT NARRATIVE (REDUCED SIZE PROJECT)

OVERVIEW:

Wallace Campus is a mixed-use development in the eastern half of the city block surrounded by Main Street, Catharine Street, and Mill Street, within the heart of the Poughkeepsie Innovation District (PID) redevelopment area. The project will consolidate several existing underutilized lots to create a 2.52 acre through lot with frontages on Main Street, Catharine Street, and Mill Street. **The Project includes approximately 257,000 gross square feet *(reduced from 277,333 GSF)*** of building redevelopment and new construction, weaving together the restoration of the long dormant Wallace Department Store, including the construction of two new buildings with architectural style and massing which reflect existing context and urban form conducive to place-making. **The buildings will provide approximately 14,300 sf of commercial space including 6,500 sf of new retail spaces along the Main Street pedestrian frontage, 5,800 GSF of commercial space along the Catharine Street frontage, and 2,000 GSF in cellar spaces. The remainder of the Project buildings will be devoted to providing 187 much-needed mixed-income housing rental units, which will help restore and grow residential and pedestrian activity within Poughkeepsie's PID.**

Wallace Campus also reclaims more than a half acre of underutilized blacktop to create significant public outdoor greenspace, called "Wallace Green," to benefit residents and the public. The promenade entry to the Green from Main Street creates a full mid-block pedestrian through-route to Mill Street. The Wallace Green Walkway integrates views and access to the Green itself, which provides landscaping, play areas, a tiered seating gathering area, and internal pedestrian access between the new buildings and the landscaped internal parking area.

Vehicular access to the site is provided through consolidation of existing entrances from Mill Street, eliminating two dangerous blind driveways. Through agreements with adjoining lots fronting on Mill Street (302, 304, 306 Mill Street and the Hudson River Housing property at 310 Mill Street), the Project will eliminate two existing curb cuts on Mill Street, provide additional green space around and between existing buildings fronting on Mill Street, in addition to enhancing the pedestrian use of Mill Street via the new Wallace Green walkway between Main and Mill Streets.

DEVELOPMENT TEAM AND PROJECT VISION:

Wallace Campus Manager, LLC, and its development team has over 30 years of experience

developing, fully renting-up, and successfully operating mixed-income housing and mixed-use spaces similar to Wallace Campus. The Development Team has designed its Project to foster the growth of Poughkeepsie's Innovation District by adding much needed reasonably priced, quality-built, housing stock, commercial, and community green spaces to the City's Downtown. The Wallace Campus development model is focused on drawing current and future residents of the City of Poughkeepsie to live, work, and prosper in the City's Downtown. Central purposes of the PID zoning initiative include reclamation of underutilized sites, particularly those with large expanses of blacktop, recreation of street walls, respect for historic context, and creation of new urban spaces that inspire pedestrian activity. The Wallace Campus responds to all of these aims.

RESTORATION AND ADAPTIVE REUSE OF THE HISTORIC WALLACE DEPARTMENT STORE BUILDING:

The project will restore and adaptively reuse the former Wallace Department Store at 331 Main Street, an existing 4-story, 118,536 square foot structure with a tall parapet along Main Street that brings it to a height comparable to other 5-story buildings along Main Street. The Wallace building has been underutilized for many years.

The Project proposes to renovate the former Wallace Department Store building (c. 1880's) to its appearance as a signature building in Poughkeepsie's "period of significance" as a mercantile center in the Hudson Valley during the 19th and 20th Centuries. The Luckey Platt building across the street housed the Wallace Department Store's major competing department store during the 1800's and the Luckey Platt building is listed on the National Register. The proposed Wallace restoration was reviewed by the New York State Historic Preservation Office to be considered a standalone historically significant building. Landmark Consulting LLC, the Wallace preservation consulting firm, authored the Commercial Rehabilitation Tax Credit Part 1 application for certification to pursue the rehab incentive program for the Wallace Building. The Part 1 application and draft National Register Nomination for the Wallace Building (331 Main and 14-20 Catharine) was reviewed and approved by New York State Historic Preservation Office (SHPO) and the National Park Service (NPS).

The proposed adaptive reuse of the building will create approximately 3,000 SF of commercial retail space with multiple storefronts on the ground floor along the Main Street frontage and approximately 2,500 SF of commercial retail space on the ground floor of the Wallace Extension building along Catharine Street, with an additional 2,000 SF of commercial space in the cellar.

The 3,000 SF of commercial retail space on the ground floor of Main Street in the historic building will have transparency wrapping around the westerly edge of the building at the

entrance to a public promenade and the Wallace Green walkway. The remainder of the main Wallace Building will be adaptively reused for rental apartment units, all accessed by an entrance along the western side of the building, just behind the commercial tenancies and facing the new Wallace Promenade.

Wallace Building rehabilitation:

The proposed renovation scope for the Wallace building includes preservation of the Art Deco Main Street exterior, a limestone façade, that will remain unchanged from the second floor to the roof. Transparency will be added to the first-floor façade (per historic images) opening the ground floor space in a welcoming manner to improve the pedestrian experience on Main Street, consistent with the PID's zoning requirements. The east and west facades will have new window penetrations, reworking existing, non-historic penetrations.

While the interior of the building will be modified to accommodate new residential and commercial uses, important internal elements will be retained, including circulation within the building, which utilizes beautiful existing stairways and a historically significant painted dome at the fourth-floor ceiling. The Project Sponsor is also exploring the possibility of incorporating the historic Wallace Logo sign in the restoration of the exterior of the building.

The Wallace existing extension is a 3-story annex to the main building, constructed in 1860 which is accessed both internally through the main Wallace building and from Catharine Street. The exterior of this annex is in good condition and will be rehabilitated to its existing aesthetic. The existing circulation structure within the Wallace building contributes to the building's active living design, promoting the use of stairs as a healthy alternative to constant elevator use. The unit distribution of the Wallace Building includes:

Wallace Rehab Building:

STUDIO	1 BR	2 BR	3 BR	**TOTAL**
20	37	12	0	**69**

CONSTRUCTION OF A NEW MAIN STREET BUILDING:

West of the Wallace Department store, a new 81,000 SF building will be constructed ("the Main Street Building"). The Main Street Building will involve the demolition of 319 and 325 Main Street. The buildings have been visually inspected and have been determined that they are in sub-par condition and have been vacant for several years. An architectural salvage company was toured through the buildings slated for demolition in efforts to preserve any fixtures or furniture deemed of interest. The Main Street building is 5 stories

tall which is the permitted height for the designated zoning and was reduced from 7 stories previously proposed. Both proposed new buildings on the site are being designed to meet Enterprise Green Communities Program certification standards which ensures the buildings will be energy efficient and sustainable.

The Main Street building frontage has been designed with multiple storefronts directly facing Main Street with approximately 3,300 of retail space. The transparency extends around the corner of the building into the promenade, where it will reflect similar transparency in the Wallace Building to the east.

The remainder of the Main Street Building will house new rental apartment units, all accessed by an entrance along the eastern side of the building, just behind the commercial tenancies and facing the new Wallace Promenade. The unit distribution of the Main Street Building includes:

Main Street New Construction Building:

STUDIO	1 BR	2 BR	3 BR	**TOTAL**
12	34	19	4	**69**

The architecture of the Main Street Building, and its scale and massing, have been designed to blend with the historic context of Main Street, as described by SLCE Architects at Planning Board presentations, and represented on the architectural plans and conceptual renderings. See discussion in the following section on PID Standards. The clock that faces the Main Street in the current building will be removed and utilized in the Wallace Building. Initial plans are to either incorporate the clock in the main lobby or utilize it at Wallace Green.

CONSTRUCTION OF NEW BUILDING ON CATHARINE STREET:

The second proposed new building in the project is a 59,000 square foot building fronting onto Catharine Street (“the Catharine Street Building”). The Catharine Street building is five stories tall (reduced from six stories previously proposed). This building replaces an underutilized parking lot, to create a street wall along Catharine Street that is reflective of the historic buildings in the neighborhood. The architectural design features elements and colors that complement the existing building to its south, as well as the surrounding neighborhood. Both new project buildings are being designed to meet Enterprise Green Communities Program certification standards.

The ground floor of the Catharine Street Building will contain approximately 3,200 square feet of commercial space. The architectural design of the ground floor space features a number of doors facing Catharine Street, making this ground floor space easily

adaptable to retail use in the future. The design for this building features 100% frontage occupancy along Catharine Street. Residential uses occupy the upper 4 floors of the building as well as the rear of the ground floor. The unit distribution of the Catharine Street building includes:

Catharine Street Building:

STUDIO	1 BR	2 BR	3 BR	**TOTAL**
14	21	9	5	**49**

WALLACE GREEN:

A central feature of the Wallace Campus is the Wallace Green, which contains a public landscaped green space in a park-like setting. This will be one of the only actively programmed greenspaces in the downtown/PID area, and will therefore create a unique and important feature in the broader and evolving context of the City's redevelopment. The Green will be maintained by the private owner of Wallace Campus, including litter control, landscaping, and general property maintenance and security. The Green is readily accessible to residents of the Wallace Campus as the residential buildings include lobbies with doorways entering onto the pedestrian promenade that passes along the Green. The Green will be open for public access via Main Street and Mill Street. The Green features numerous seating options, in addition to the landscaped lawns and planted areas. The walking paths through the space provide direct access by tenants from the parking area. They also encourage pedestrian movement through the site, and provide access to short term public bicycle parking.

An unique feature on the southern portion of the Green is a multi-tiered seating area. The semi-circular shape tiered seating encourages spontaneous small group gatherings of local residents and visitors for conversation, an outdoor meal, a game of chess, meditation, reading, etc. The tiered seating allows for a small performance area, which offers opportunities for artist readings or small performances, focusing on acoustic uses. The use for events is a secondary use, it's function as a flexible and informal gathering space for residents and green space visitors remains the primary use of the space.

The development team plans to actively program the space. Based on initial outreach, several local organizations and businesses have expressed interest in utilizing the Wallace Green for various public programs. Uses include but are not limited to youth yoga, exercise classes, film screenings, and live comedy shows.

WALLACE GREEN WALKWAY: CREATION OF A NEW PROMENADE AND PEDESTRIAN CONNECTIVITY BETWEEN MAIN STREET AND MILL STREET:

The PID Zoning encourages the creation of new pedestrian throughways on large parcels to break up large parcels (19-3.37(12) (c)(1)(ii)). In response to comments requesting exploration of a more direct and seamless pedestrian connection through the project to create a mid-block pedestrian connection between Main Street and Mill Street, the Applicant has created a direct pedestrian walkway path from Main Street to Mill Street, close to its intersection with Conklin Street. The portion of the walkway nearest Main Street forms the Wallace Campus Promenade, which begins with a wide and inviting pedestrian gathering place where the commercial transparencies of the Main Street Building and Wallace Building wrap around the corners of the respective buildings. This area also leads to the primary entrances to the residential portions of both buildings, just behind the commercial tenancies. The Promenade then continues northward, drawing pedestrians by the inviting views into the Wallace Green just ahead. The Promenade then turns into an open walkway following along the easterly side of the Green and along the westerly side of the Wallace building. The walkway then proceeds through the Wallace Campus internal parking area, passing a connecting sidewalk which proceeds east to connect to the Catharine Street building. After crossing the landscaped parking area, the Walkway then proceeds along the western side of the Hudson River Housing building to reach Mill Street, near its intersection with Conklin Street. In addition to improving pedestrian circulation, this Walkway also provides an opportunity for additional landscaping around the Hudson River Housing building and allows the rear of the Hudson River Housing parcel to provide additional green space within the overall setting.

VEHICULAR ACCESS FROM MILL STREET, CIRCULATION AND PARKING:

A central accomplishment of the Wallace Campus Project is the replacement of an area of impervious land, a former underutilized parking lot, with green space and public access. To connect these improvements to Mill Street as well as Main Street, substantial consideration has been given to improving access to the property from Mill Street and improving the streetscape and visual character of the Mill Street frontage and views into the site. Mill Street has served as the only vehicular access to the site for many years. The Wallace Campus circulation and parking improvements plan includes upgrades to the existing two main entrances on Mill Street and the vehicular circulation plan for substantially safer and efficient access to and from the Wallace Campus.

The Wallace Campus Drawing sets forth the boundaries of the Wallace Consolidated Lot. Four adjoining parcels outside the Wallace Campus are also shown on the Drawing Set, for the limited purpose of depicting the off-site improvements to be made on those properties pursuant to Shared Parking and Easement Agreements, and to show the manner in which

those physical improvements and access provisions will improve pedestrian and vehicular circulation in the neighborhood, as well as landscaping, lighting, and community character. The Project Sponsor will enter into Shared Parking and Permanent Access Easement Agreements with the owners of these adjoining parcels. The Drawing Set depicts the off-site work to be performed by the Project Sponsor on these parcels to implement the Shared Parking and Access Agreements. The work on 302, 304 and 306 Mill Street ("The 3 Mill Street Lots") would eliminate two existing curb cuts on Mill Street (between 302 and 304 Mill and between 304 and 306 Mill), including along the Mill Street frontage to replace those driveways. The Wallace Campus owner will provide a permanent access easement to the owner of the 3 Mill Street Lots for the benefit of owners and tenants, to access the parking areas located on these lots via the Wallace Campus access drives. The Shared Parking Agreement would maintain the allocation of dedicated parking (12 Spaces) to the 3 Mill Street lots in compliance with the PID zoning. Lighting improvements, pedestrian walkways, and storm water improvements will be provided to serve the offsite Shared Parking areas in the same manner as the parking areas on the Wallace Campus parcel, all as shown on the Proposed Site Plan drawings. Pursuant to a separate Shared Parking agreement with the Hudson River Housing ("HRH") property at 310 Mill Street, the Project Sponsor will be granted a permanent easement for improvements within the Hudson River Housing property in exchange for HRH employee use of 6 Wallace parking spaces during working hours 8 am to 6 pm, Monday to Friday. The 6 spaces to be available for Wallace Campus parking outside of those hours. Lighting improvements and landscaping will be installed as shown on the Drawing Set. Overall, the proposed Wallace Campus development incorporates 63 parking spaces to serve the commercial and residential uses and public space. Please refer to the Colliers letter addressing parking calculations. **Overall, the Project provides 63 parking spaces while only a total of 32 spaces are required per zoning.** The development team is proposing to maintain these extra parking spaces in the development plan.

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November 5, 2021

Mr. Robert Levine, Planning Board Chair,
and Planning Board members
City of Poughkeepsie Planning Board
62 Civic Center Plaza, 3rd Floor
Poughkeepsie, NY 12601

Re: Wallace Campus: site plan considerations and public hearing record

Dear Chairman Levine and members of the Planning Board:

This letter is written to summarize the Site Plan considerations that have been reviewed and determined to date, and the Site Plan considerations to be addressed based on the reconfiguration of the access on Mill Street, and to address the relevant scope of public hearing comments .

Site Plan Issues:

The Planning Board has focused diligently on a number of site plan issues throughout the review over these many months. The Applicant has made every site plan change that the Planning Board has requested. The initially proposed modern architecture was changed to historically contextual architecture. Details of architectural design of the buildings, the cornices, etc. were explored at length, and modified as suggested by the Board and its consultants. The project complies with all PID Building Design Standards (see letter from SLCE Architects, also part of this submission). Full facades were provided on the north (rear side of the buildings) to enhance the design of the block and enhance the neighborhood aesthetic when viewed from Mill Street. Pursuant to PID policy and Board suggestions, the Applicant included a full pedestrian connection between Main Street and Mill Street, working with adjoining property owners to provide the connection, enhance vehicle circulation, and eliminate unnecessary curb cuts on Mill Street.

The Applicant has eliminated all height variances, reducing its unit count, and has changed its unit mix to provide a wider variety of housing types, as requested by comments. The project now provides 187 residential units of mixed-income affordable housing serving households earning from 50% AMI up to

132% AMI as defined by the City of Poughkeepsie AMI tiers. It has eliminated the planned Day Care tenancy which created complications in traffic circulation. The revised plan provides pedestrian access into the site from the north, south, and west. All these changes have been accommodated while retaining the architectural excellence of the design and the substantial landscaping on the site, including Wallace Green.

The project will renovate the historic Wallace Department building. Renovations will be reviewed and approved by SHPO throughout the construction process. In response to comments at the last meeting, the applicant has recently met with an architectural salvage company to ensure preservation of architectural features of interest in the three non-historic buildings slated for demolition. All proceeds from the sale of these items will be donated to the Mid-Hudson Heritage Center. See Comment-Response document for further details.

The project remediates and redevelops a large, unsightly vacant property with large abandoned fields of blacktop, a major goal of the PID Policy Framework. It rehabilitates and adaptively reuses the historic Wallace building. And it provides for remediation of all on-site environmental conditions with the potential to impact human health and the environment per a NYSDEC Remedial Action Work Plan under the New York State Brownfield Voluntary Cleanup Program.

Site Plan issues for discussion in November:

With this as background, we state our willingness to comply with the Planning Board's suggestions as to the particular site plan issues applicable to the site:

1. The gate of the pedestrian connector:

   The night-time gate was eliminated in response to Planning Board comments. If the Board requests it, the Applicant is willing to restore the gate, or to consent to a condition that it will supply a gate in the future if the Building Department, Office of Public Works, or other designated authority, deems it necessary.

2. Proposed landscaping at drive aisles on Mill Street:

   The Wallace property contains two driveways on Mill Street which have existed since the 1950's. The proposed use of the driveways in the revised plan (one way out at the eastern drive and one way in at the western drive), with a single lane at each driveway, allows opportunity for the Applicant to provide a more substantial mass of planting than provided in the former two-aisle eastern driveway plan. Sheet SP-2 of the Plan Set provides blow-ups of the landscaping at these driveways at a 1"=20' scale, to allow the Planning Board to review the sufficiency of the landscaping and the type of

screening to be provided, pursuant to section 19-3.37 (13) (g) (2) (i) of the City Code. This section requires that parking be screened from view of the street by landscaping at least 3 feet in height, opaque fencing with the finished side facing the street, or other means approved by the Planning Board. The Applicant's landscape plan proposes plantings in front of the parking along the access drives and adjacent to the curb cuts, consisting of Knockout Rose buses in front of Greenwave Yews. This use of flowering shrubs in front of evergreens will provide color in the growing months and screening year-round. These shrubs should mature at 3 feet to 4 feet in height, and the effect will be relatively dense at maturity.

The Applicant believes that this is the best method of screening. Taller shrubs could interfere with visibility. A solid fence would trap litter, make it harder to maintain nearby plantings, potentially block sunlight, and tend to be inconsistent with the iron fencing used in the neighborhood. The proposed landscape plan will provide ample screening from views from cars driving on Mill Street (west bound). Some views into the site along the drive aisles themselves is unavoidable by pedestrians, but these pedestrians would also be able to see the substantial new landscaping within the site, including Wallace Green. The screening obligation should be viewed in light of the necessary purpose of providing vehicular access into a large site. These drives are long existing. The Applicant's proposed landscaping, both at the entries and within the site is a substantial improvement over existing condition.

Requests relating to Public Hearing comments:

The Applicant appreciates the focus of the Planning Board and its consultants and staff on the site plan issues recounted above. However, some public comments in the hearing sessions have raised improper and irrelevant issues.

Several commenters have repeatedly expressed their opposition to the use itself –*affordable* housing. They have demanded "discussion of a market rate project," as if the Planning Board has the right to reject affordable housing and demand some different use. Site Plan review is, of course, not an opinion poll as to whether the Board or the public "likes" a proposed use or prefers some other one. Deputy Zoning Administrator Judith Knauss has issued a zoning interpretation dated March 31, 2021 concluding, as to all three buildings, that, "All proposed uses are permitted in both the PID-UV and PID-HC, pursuant to the provisions of Section 19-3.37, Table 3.37-1 of the Zoning Ordinance."

The Applicant has responded to the public comments that go beyond proper boundaries, but does not concede that these comments raise issues that are either relevant or legally proper in a site plan review. The Applicant's responses establish that Wallace Campus will serve a broad range of workforce income tiers that together specifically target the Poughkeepsie market as it exists today. That this developer is electing to serve younger households, military veterans and the creative classes – cohorts that continue

to be negatively impacted by speculative rents – should be welcomed by stakeholders seeking a vibrant Downtown. The project will fill a gap in quality, stable housing, while rehabilitating underutilized property and restoring an important historic commercial building, meeting the standards and goals of the PID.

We are sure that the Planning Board shares our concern with protecting the record before the Planning Board and assuring that it remains uncompromised by irrelevant matter such as generalized objections to the use, speculation about future violations or criminal activity, or generalized derogatory characterizations about people based on economic status.

We thank the Board for its diligent work to date and we look forward to completing the review and bringing this project to fruition.

Very truly yours,

Jennifer Van Tuyl

cc: Judith Knauss, Deputy Zoning Administrator
Natalie Quinn, Planning Director
Terresa Bakner, Esq., Special Counsel

SLCE Architects, LLP

November 5, 2021

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Re: Wallace Campus: 11/05/21 Reduced Size Plan/PID Building Standards

Dear Ms. Quinn:

Included in the Applicant's submission today is the SLCE Architectural Drawing Set. This plan set illustrates compliance with the PID building design standards. Additionally, this letter briefly summarizes compliance with those standards.

PID Building Design Standards: 19-3.37 (10):

(a) FRONT FAÇADE TRANSPARENCY REQUIREMENTS:

1. There is no mirrored, reflective or darkly tinted glass. Glass used in the three buildings to be transparent low-e, double pane argon filled insulated glass. See Z-001 for extent of glass.

2. No security grills are proposed at any of the buildings.

3. No curtains, blinds, or posters are proposed at the ground floor for any of the buildings. See Z-001 for transparency percentages.

(b) FRONTAGES: SLCE has chosen a Shopfront Type C Frontage Type for all three buildings. See sheets A-200A thru A-200E

(c) DESIGN AND ARCHITECTURE:

1. Entrance Orientation: All 3 buildings have main entrance or entrances on the front façade. Maximum distance between entrances is attained. See Site Plan SP-1

2. Shopfront entrance orientation: Principal pedestrian entrances for all 3 buildings are directly connected to the sidewalk. Principal entrances to shopfronts are highlighted with architectural features.

3. Historic rehabilitation: SLCE Architects engaged in substantial research to assure that their proposed new construction reflects the traditional

architecture of Main Street in building and roof forms, window proportions, materials, colors and details.

With our site in the heart of the historic core, our proposal seeks to take its cues from the existing and historical fabric of Main Street, creating a gateway which reinforces the pedestrian connection from Main Street to Mill Street, near its intersection with Conklin, and passing through a new greenspace (Wallace Green) centrally located on the proposed campus. This new pedestrian connection is designed to be similar in scale to the pedestrian connection between Main Street and Mill Street via Garden St. further west on Main Street.

The existing urban fabric on Main Street is characterized by a finer grain of buildings interrupted by medium and larger scale lots, with our site spanning between the medium scale of the existing Wallace building and the finer grain of main mall row. Our proposal for Main Street mediates between the large scale and stoic quality of the existing Wallace and Luckey Platt buildings and the refined ornament and articulation of the buildings on Main Mall Row.

We were particularly interested in the Cast Iron Building - the way it turns the corner from Main Street to Garden St. by continuing the Main St. façade material and terminating at a setback, giving the effect of a thickened façade, as well as division of the facade into a clear base, middle, & top w/ a highly articulated cornice.

In the historical images of the Wallace building and Windsor hotel, a few things struck us. One was the way the canopy at the storefront level really begins to help activate the street level. We also found the rhythmic structure of the Windsor hotel piers successful at creating continuity along the storefront edge as it turns the corner from Catharine to Main Street. And in the Morgan house hotel photo where the canopies and window shades create a remarkable streetscape.

In Plan, the Main Street building forms a tee pushed to the western edge of the site. At the connection of the tee SLCE introduced a recess in the plan to visually separate the building into two volumes, and allow the stem of the tee to realign with the kink in the Wallace Building and prevent the path from narrowing toward the park while the volume on Main Street remains parallel to Main. It also provides a clear termination to the commercial spaces which wrap into the pedestrian walkway encouraging the pedestrian connection and shortening the perceived distance to the park. The façade is predominately brick with cast stone accents, a precast base, and precast cornice. The windows run in a regular grid with deep returns and articulation of the brick achieved through corbeling. The windows terminate with arched openings at the upper floor to accentuate the building top, similar to the historical buildings on Main Street.

The precast base is conceived as a series of structural piers continuing the rhythm of the Windsor hotel. Between the piers are inserted metal panel canopies and aluminum storefronts, defining the pedestrian edge. We are also introducing ornamental relief to the precast base inspired by the pressed tin ceilings of the existing Wallace building.

The Main street building cornice mimics the depth and section profile of the Cast Iron Building Cornice, while following the stepped silhouette of 311 Main Street. This gives the façade a proportion that is more in keeping with the proportions of the historical buildings on Main Street.

Our design for the Catharine Street building is intended to complement the Wallace building extension facing Catharine Street. The building is divided into three zones with precast structural piers and aluminum storefront along the base, a center zone of brick (taking its material cue from the existing Wallace building extension), ornamental precast, and articulated cornice. The upper zone is conceived as an enlarged cornice with a change to white brick and inserting a spandrel panel and accent mullion, unifying the openings. SLCE is using the same spandrel treatment at the 4th floor and ornamental precast at the remaining slab edges to give a hierarchy of scales to the façade. The remaining windows are separated by a small brick pier which is mirrored around each of the structural columns. These small piers add a secondary rhythm to the façade while keeping the windows proportional to the openings found in the historical district. The ground floor incorporates canopies and the structural piers to open and activate the street level.

4. Blank walls: No visible façade of any of the buildings is blank. We have paid particular attention to the sides of the buildings that face the Wallace Green Walkway and the Green. These are also important facades that frame the view from Mill Street, which will form an important entrance to the side for both vehicles and pedestrians. A custom mural is proposed for the western wall of the Main Street Building visible above the existing building in the adjacent lot. The mural is intended to reference and replace the historical painted signage on the Eastern wall of the Wallace Building. See building elevations and renderings A-200A through A-215.

5. Façade articulation: Facades along all three buildings are broken up with divisions in materials, separate entrances and windows. Awnings are also used. Building articulation continues to wrap around the corners of Main Street and Wallace buildings to invite patrons and visitors into the pedestrian mid-block connector and provide access to residential entrances. The façade of the Catharine Street building has multiple doors and window treatments. See elevations.

6. Awnings: Awnings for the three buildings are to be Aluminum Composite Panels over a recessed entry and extend 3'-4' beyond the building face. Scale drawings are provided to show height. See A-200A through A-200E.

7. Roofs: All roofs have been designed to conceal mechanical equipment. See detailed elevations and roof plans in the March 2021 submission set, and

accompanying diagrams demonstrating that neither rooftop bulkheads nor rooftop mechanicals will be visible from the street or adjoining properties. Mechanicals will be low in height and will be totally screened. Attached diagrams show limited hatched area within which mechanicals can be located (A-104A Main Street Bldg.; A-103B Catharine Street Bldg.; A104C Wallace Bldg) and showing that the mechanicals as so screened will not be visible from the street or adjacent properties. (Z-002)

Main St Building – The roof will be a high albedo built-up roof system. Proposed elevator/stair and boiler room bulkheads for the building are located within the section of the building that is located within the PID-UV zoning sub-district. These cover 1,563 sf (11.6%) of the horizontal area of the roof and are set-back from Main Street 42'-8" from the face of the building (see A-104A). Mechanical equipment on the roof, required for the proposed residential units, will be limited to placement within the hatched area shown on A-103C. The overall height of the mechanical units, including any concrete pad or dunnage required for support, will be @ 5'-6" max., and will be screened using a 6'-0" high perforated metal screen, as depicted in the attached drawings. Please see the sightline analysis (drawing 1&3 on Z-002) demonstrating that both the mechanical equipment and screen will not be visible from adjacent properties and streets.

Catharine Street Building - The roof will be a high albedo built-up roof system. The roof plan of the Catherine Street building shows proposed elevator/stair and boiler room bulkheads which cover 1,636 sf (17%) of the horizontal area of the roof and sit 30'-8" from Catharine Street, and from the face of the building (see A-103B). Mechanical equipment on the roof required for the proposed residential units, will be limited to placement within the hatched area shown on A-103C. The overall height of the mechanical units, including any concrete pad or dunnage required for support, will be @ 5'-6" max., and will be screened using a 6'-0" high perforated metal screen, as depicted in the attached drawings. Please see the sightline analysis (drawing 2 on Z-002) demonstrating that both the mechanical equipment and screen will not be visible from view from adjacent properties and streets.

Wallace Building – The existing roof of the Wallace building will be replaced and repaired to match the existing roof as required. No new additions to the roof are proposed. Any mechanical equipment on the roof required for the proposed residential units and to be placed on the roof of either the Wallace building or the Wallace building extension, will be limited to within the hatched area shown on Drawing A-103C. The overall height of the mechanical units , including any concrete pad or dunnage required for support, will be @ 5'-6" maximum, and will be screened using a 6'-0" high perforated metal screen, as depicted in the attached drawings. Please

see the sightline analysis (drawings 1 & 5 on Z-002) demonstrating that both the mechanical equipment and screen will not be visible from adjacent properties and streets.

8. Screening: Roof Screening will be a perforated metal screen finished to match the metal of the window frames of the buildings. Mechanical equipment will be located away from the edge of the buildings to further shield from view. See drawings referred to in previous section.

   As noted, the submitted drawings support the compliance of our buildings. We are happy to discuss any questions you may have in this regard.

9. Drawing Revisions: To accommodate upper-story setback per 19-3.37(8)(f) and 19-3.24(4)(e), the Main Street building was setback approximately 5' x 27' on all floors facing 317 Main Street. This provided a minimum of 5' distance from the existing windows previously blocked in the original building massing design. All existing windows are located on Sheet A-102A.

Very truly yours,

SLCE Architects

Saky Yakas, Partner
SLCE Architects

ALC
Planning & Development

November 5, 2021

Mr. Robert Levine, Planning Board Chair

City of Poughkeepsie Planning Board

62 Civic Center Plaza, 3rd Floor

Poughkeepsie, NY 12601

Re: **Wallace Campus – Chazen Companies letter dated October 14, 2021 ("Chazen Letter")**

Dear Chairman Levine and members of the Planning Board:

Please find below and attached responses to the Chazen Letter dated 10/14/21. A copy of the Chazen 10/14/21 letter is also attached for your reference.

Parking and Circulation response:

Colliers Engineering and Design provided the attached letter in response to Chazen 10.14.21 parking and circulation comments.

Engineering Details response:

Chazen's April 12,2021 review letter comments are addressed below. A revised flow calculation prepared by LRC is attached here. Please note a full revised SWPPP and Engineering Report prepared by LRC has been submitted as part of the November 2021 Wallace Campus Planning Board submission.

RESPONSES TO CHAZEN COMMENT ENGINEERING & PARKING LETTER DATED APRIL 12, 2021:

Water

1. **Comment**: Engineering Report, Section 1.0: Site improvements are shown to 310 Mill Street (Tax Parcel 6162-78-128113) but it's not included in the project description. Clarify this parcel's involvement in the project.

   ***Response*: The description has been adjusted to add all of the Mill street properties into the description.**

2. **Comment**: Engineering Report, Section 2.2: References to "331 Catharine Street" were removed as requested. However, Section 2.2 includes a reference to "the Catharine Street building." As the project contains multiple buildings along Catharine Street, the building references should be checked to make sure they are clearly referencing a single building. The building references throughout the report should be reviewed for clarity and revised as needed.

   ***Response*: There is only one proposed building on Catharine street, the existing building is to remain and will not have water or sewer service modifications.**

3. **Comment**: Engineering Report, Section 2.2: provide correspondence from City Engineering that the existing water treatment facility and distribution mains located in the vicinity of the project site have sufficient capacity to supply the additional demand resulting from the proposed project. The engineer's response indicates the project results in a slight increase in water

demand. However, this is not based on actual current demand/meter readings so it's not a reflection of the actual increase in demand over the current existing condition.

***Response*:** **As the buildings have been vacant for some time the estimations of water and sewer flows were based on SF of the buildings since the exact number of historic employees is impossible to determine. Historically with the City of Poughkeepsie Engineering department we have utilized the 0.1 GPD for determining approximate flow rates of existing retail and office spaces. As this project initially was reviewed by the City engineering department and provided initial comments at that time, none of which was a concern over the capacity of the municipal system.**

4. **Comment**: Engineering Report, Section 2.1: existing sewer generation: office use generation shall be based on number of employees, per Table B-3 "Typical per Unit Hydraulic Loading Rates" of the NYSDEC "Design Standards for Intermediate Sized Wastewater Treatment Systems", March 5, 2014. As previously requested, revise calculations or provide methodology for converting to square footage.

***Response*:** **As stated above it is impossible to determine the exact number of employees that historically occupied the offices within the buildings, therefore we utilized the mythology for 0.1 GPD per past experience with the City of Poughkeepsie and the former NYSDEC design guidance values prior to updated 2014 version. In addition, the current NYSDEC design manual uses 0.1 GPD for shopping center/department store/grocery store.**

5. **Comment**: Engineering report, Section 2.1: Existing square footage for Parcel E was increased by approximately 45,000 square feet. Additional information regarding where the square footages, restaurant seats and number of club patrons shall be provided.

***Response*:** **The Existing information for the Parcel E SF is based on the SF as indicated in the Dutchess County Parcel Access as well as the project Architect for total SF of the building. The Number of Seats and club patrons was provided by the project architect when reviewing historical documentation for the building.**

6. **Comment**: Engineering report, Section 2.1: Provide methodology for determining number of employees for the retail spaces included in the Sanitary Sewer Flow / Water Consumption Projections.

***Response*:** **The number of employees per retail space was estimated by the project Architect, Owner, and LRC based on the SF of proposed retail as well as previous experience.**

7. **Comment**: Engineering report, Section 2.1: A sentence that "sizing for the fitness and daycare are based on occupancy and parking calculations determine estimated number of patrons" has been added to the engineering report. Provide the correlation and calculations used to convert occupancy and parking calculations into number of patrons and number of people used for average daily sewage generation.

***Response*: Fitness and Daycare uses are no longer planned**

8. **Comment**: Engineering report, Section 2.4: Obtain hydrant flow testing data (if available) from the City Fire Department to verify what the available fire flows are in the vicinity of the project. Alternatively, perform hydrant testing in the vicinity of the project in coordination with the City

Fire Department.

***Response*:** **The project design team will complete a fire flow test if requested by the City Fire Department during final design of the fire suppression system to determine how and what internal design requirements may be required to meet the required codes.**

9. **Comment**: Engineering report, Section 2.4: Additional fire suppression methods may be required for the proposed buildings (standpipe, as an example). Revise fire suppression description accordingly.

***Response*:** **The section has been adjusted to include future design potential during final fire suppression system design in coordination with the City Fire department.**

10. **Comment**: Engineering report, Section 4.0: Provide correspondence from Dutchess County Department of Behavioral and Community Health that their review and approval is not required for the proposed project and associated lot consolidation.

***Response*:** **As this is not an extension of any water mains or sewer mains and only a service connections, therefore no DCDBCH approvals are required. In addition, no approvals for historical projects of this nature that LRC has worked on with the City Engineering Departments have ever required the DCDBCH approval.**

Sewer

1. **Comment**: Sheets EX-1 & UT-1: The size of the existing sewer main in Catharine Street is shown on plan EX-1. The inverts for one sewer manhole have been provided on UT-1. The invert at the manhole on the opposite side of the connection point shall be shown in order to determine the invert of the existing sewer at the location of the proposed service lateral connection.

***Response*:** **The sewer connection has been adjusted to connect to the existing sewer manhole.**

2. **Comment**: Engineering Report, Section 3.2: verify with City Engineering that the existing wastewater plant and the collection lines in the vicinity of the project site have sufficient capacity to serve the additional wastewater generation resulting from the proposed project. The engineer's response indicates the project results in a slight increase in sewer generation. However, this is not based on actual current demand/meter readings so it's not a reflection of the actual increase in demand over the current existing condition.

***Response*:** **The project was initially reviewed by the City Engineering department and the department provided initial comments but did not provide any comment that the existing water and sewer distribution and collection systems did not have adequate capacity to service the proposed development.**

3. **Comment**: Engineering Report, Section 3.3: References to "331 Catharine Street" were removed as requested. However, Section 3.3 now references "the Catharine Street building." As the project contains multiple buildings along Catharine Street, the building references should be checked to make sure they are clearly referencing a single building. The building references throughout the report should be reviewed for clarity and revised as needed.

***Response*:** **Comment noted there is only one proposed building on Catharine Street and one existing building that the existing water and sewer connections will not be adjusted**

as part of the project.

4. **Comment**: Provide correspondence from Dutchess County Department of Behavioral and Community Health that their review and approval is not required for the proposed project and associated lot consolidation.

***Response*: As this is not an extension of any sewer or water mains and only a service connection no DCDBCH approvals are required. In addition, no approvals for historical projects of this nature that LRC has worked on with the City Engineering Departments have ever required the DCDBCH approval. A lot line consolidation is a administerial action and does not require filing of maps or signatures from the DCDBCH.**

Stormwater

1. **Comment**: SWPPP: it's noted that the current General Permit (GP-0-20-001) is provided in Appendix A. However, the narrative and table of contents include references to the previous general permit. Update all references to the current GP number.

***Response*: All mentions of the previous general permit have been updated with the current general permit number (GP-0-20-001).**

2. **Comment**: SWPPP Narrative, page 8: describes one existing dry well to remain. Based on the Demolition Plan and HydroCAD modeling provided, it appears there may be 2 existing dry wells to remain. Clarify/revise as needed.

***Response*: The narrative has been revised to correctly state that there are 2 existing dry wells to remain.**

3. **Comment**: SWPPP Narrative, page 8: states "all proposed piping is sized to accommodate peak flow from 25-year 24-hour storm, as prescribed by the local authority." Provide pipe sizing calculations for review.

***Response*: Appendix F has been added which demonstrates the 25-Year 24-Hour storm event for the pipe sizing.**

SEQRA Review:

The revised project is reduced in size and scale. A revised EAF has been submitted as part of the November 2021 Wallace Campus Planning Board submission.

Project: Wallace Campus | Project #: 20-2548
Calculations by: KFC | Checked by: REM | Date: 11/5/2021

Wallace Campus

Sanitary Sewer Flow / Water Consumption Projections

PROPOSED RE-DEVELOPMENT

Location	Use	Size		Rate*		Flow (GPD)
Parcel D - Wallace Bldg	Residential	69	Beds	110	Per Bedroom	7,590
Parcel D - Wallace Bldg	Retail	7,649	sq ft	0.08	Per sq ft	612
Parcel D - Wallace Bldg	Employees	5	per	15	Per sq ft	75
Parcel D - Main Str Bldg	Residential	69	Beds	110	Per Bedroom	7,590
Parcel D - Main Str Bldg	Retail	3,309	sq ft	0.08	Per sq ft	265
Parcel D - Main Str Bldg	Employees	5	per	15	Per sq ft	75
Parcel D - Catherine Str Bldg	Residential	49	Beds	110	Per Bedroom	5,390
Parcel D - Catherine Str Bldg	Retail	3,255	sq ft	0.08	Per sq ft	260
					Total Proposed Daily Flow:	**21,857**

* Rates based on New York State Design Standards for Intermediate Sized Wastewater Treatment Works (March 5, 2014), with a 20% reduction for the use of modern water saving fixtures.

Colliers Engineering & Design

Chazen Response - 10/14/21 Letter Item 3

3. The site circulation has been revised from earlier plans so that a one-way pair is provided with the eastern driveway as one-way exiting and the western driveway as one-way entering. The traffic assessment states that this configuration provides the greatest sight distance for the exiting vehicles.

   A sight distance evaluation that includes actual measurements at the access points should be provided. The proximity of adjacent building faces, stairs, and hedges appears to limit the sight distance at the eastern driveway such that the reversal of the one-way pair may be appropriate. Although the speed limit on Mill Street is 30 mph, the evaluation should be based on NYSDOT's data showing an 85th percentile speed of 37 mph.

   Response: Sight distance measurements were conducted at each of the driveway locations. The sight distance measurements for each driveway are summarized in Tables No. SD-1 and SD-2 for the East and West access locations respectively. The sight distances were measured for the distance looking to the right from each driveway location for a potential exiting vehicle as well as measure for the rear end or stopping sight distance from Mill Street towards the access location. As shown in the tables the available sight distances are similar at each location, however the sight distance looking right from the east access location for an exiting vehicle is slightly greater than the sight distance looking right from the west access.

   The measured sight distances have been compared to the AASHTO required stopping and intersections sight distances for each location. For the purposes of the sight distance analysis a 40 MPH design speed was utilized, however as noted in the comment the available NYSDOT data indicates that the 85th Percentile speed in this area is 37 MPH therefore the require sight distances are actually somewhat lower than indicated in the tables. Regardless as indicated in the tables the required stopping and intersection sight distances are exceeded at each location for both entering and exiting vehicles.

   It should be noted that at each access location the sight distance looking to the right for an exiting vehicle is somewhat obstructed. At the east access the sight distance is obstructed by the existing light pole and bushes at the 320 Mill Street property. At the west access the sight distance is obstructed by the existing utility pole and entryway to the 310 Mill Street property. Regardless of these obstructions sufficient intersection sight distance is provided at both driveway locations to accommodate exiting vehicles.

   Based on the above analysis either driveway location is acceptable for use as the exit driveway and/or entry driveway. The currently proposed configuration with the eastern driveway as the exit driveway and the western driveway as the entry driveway is the preferred configuration for purposes of onsite circulation.

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Table No. SD-1
Sight Distance Summary Table
Mill Street at East Access

Roadway Design Speed 40 MPH		Existing Available Sight Distance (ft.)	AASHTO Sight Distances	
			Stopping Sight Distance (ft.)	Intersection Sight Distance (ft.)
Left Turn From Minor Road (East Access Driveway)	Looking Left	N/A	305	385
	Looking Right	480	305	385
Left Turn From Major Road (Mill Street)	Left Turn Entry	N/A	305	325
	Rear End	600+	305	305

Notes:

1) AASHTO Sight Distances are based on a 40 MPH operating speed along the roadway in the vicinity of the Site Access location. The actual recorded operating speed along Mill Street in this vicinity is 37 MPH based on available NYSDOT data.
2) Available Sight Distances shown are for existing conditions. Sight distance from driveway location is somewhat obstructed by existing street light pole and bushes at the 320 Mill Street property.

Colliers Engineering & Design

Table No. SD-2
Sight Distance Summary Table
Mill Street at West Access

Roadway Design Speed 40 MPH		Existing Available Sight Distance (ft.)	AASHTO Sight Distances	
			Stopping Sight Distance (ft.)	Intersection Sight Distance (ft.)
Left Turn From Minor Road (West Access Driveway)	Looking Left	N/A	305	385
	Looking Right	455	305	385
Left Turn From Major Road (Mill Street)	Left Turn Entry	N/A	305	325
	Rear End	600+	305	305

Notes:

1) AASHTO Sight Distances are based on a 40 MPH operating speed along the roadway in the vicinity of the Site Access location. The actual recorded operating speed along Mill Street in this vicinity is 37 MPH based on available NYSDOT data.
2) Available Sight Distances shown are for existing conditions. Sight distance from driveway location is somewhat obstructed by existing utility pole and entry way at 310 Mill Street property.

THE Chazen COMPANIES
Civil Engineers
Land Surveyors
Planners
Environmental & Safety Professionals
Landscape Architects
Transportation Planners & Engineers
Proud to be Employee Owned

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October 14, 2021

Ms. Natalie Quinn
City Planner
City of Poughkeepsie
62 Civic Center Plaza
Poughkeepsie, New York 12601

Re: Wallace Campus Project Review
Chazen Project #82029

Dear Ms. Quinn:

The Chazen Companies has reviewed the Wallace Campus project materials submitted by ALC Planning and Development dated September 28, 2021. We have the following comments.

Parking and Circulation

1. Removal of the Daycare facility and fitness center/climbing gym reduces the parking demand. Chazen concurs with the parking demand calculations for the revised project.

2. Chazen concurs with the trip generation calculations and findings that the revised project will not have a significant impact on traffic.

3. The site circulation has been revised from earlier plans so that a one-way pair is provided with the eastern driveway as one-way exiting and the western driveway as one-way entering. The traffic assessment states that this configuration provides the greatest sight distance for the exiting vehicles.

   A sight distance evaluation that includes actual measurements at the access points should be provided. The proximity of adjacent building faces, stairs, and hedges appears to limit the sight distance at the eastern driveway such that the reversal of the one-way pair may be appropriate. Although the speed limit on Mill Street is 30 mph, the evaluation should be based on NYSDOT's data showing an 85th percentile speed of 37 mph.

Engineering Details

Revised engineering details have not been submitted. The applicant should address the engineering comments in our April 12, 2021 review letter.

SEQRA Review

The revised project is reduced in size and scale. Specifically, it incorporates ~22,000 less SF, the main building is two stories smaller, includes 27 fewer units and no longer includes a day care facility and gym/climbing

facility. Collectively these revisions result in less parking demand such that the parking demand can be accommodated on site; result in fewer vehicle trips; and result in less visual impact.

It is therefor our opinion that the project will have fewer impacts than the prior project and that the revised project will not result in significant adverse impact.

Please do not hesitate to contact me with any comments or questions.

Sincerely,

Stuart F. Mesinger, AICP
Vice President, Land Development

cc: Kyle Ahearn, PE
Tom Johnson, PE
Teresa Bakner, Esq

SLCE Architects, LLP

November 2, 2021

Mr. Robert Levine, Planning Board Chair
City of Poughkeepsie Planning Board
62 Civic Center Plaza, 3rd Floor
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Paul Albano, AIA

Re: Wallace Campus – Mass Design Group letter dated October 15, 2021 ("MASS Letter")

Dear Chairman Levine and members of the Planning Board:

Please find below and attached responses to the MASS Letter dated 10/15/21. A copy of the MASS letter is also attached for your reference.

Design:

The MASS Letter requested that the west elevation of the Main Street building be simplified to reduce the visual weight, in accordance to the changes made by the Development Team in the other elevations. The Development Team has adjusted the west elevation in the current submission.

The Mass Letter requested whether or not the Development Team intended to restore the East Side Mural on either the Wallace Building or host a new mural on the west side of the Main Street Building. The updated designs submitted to the planning board reflects the intention to host a new mural on the west side of the Main Street Building.

Sincerely,

Saky Yakas, Partner
SLCE Architects

MASS DESIGN GROUP

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October 15, 2021

City of Poughkeepsie Planning Board
Attn: Robert Levine, Chairman
63 Civic Center Plz
Poughkeepsie, NY 12601

cc: Natalie Quinn, Senior Planner

RE: 2020-010: 319, 325, 327-329 and 331 Main Street "Wallace Campus" Resubmission

Dear City of Poughkeepsie Planning Board,

On October 8th, the applicant and design team convened with Chris Kroner and Natalie Quinn to discuss the latest iteration of their Wallace Campus project. The latest presented version of the design has reduced their new construction to five stories in an effort to follow zoning codes.

Main Street Building
The Main Street Building has been revised to the original proposal's fenestration which was encouraged by the planning board at their previous public meeting. The cornice work for the Main Street building has also been simplified and appears to be in more successful dialogue with both the detail and massing with other main street neighbors.

The north volume of the Main Street building has simplified the cornice detail work further to create a slightly more modern appearance on the east and north elevations. Interestingly, the west elevation retains the cornice work. As this building has a few public "fronts" - the elevation from Main Street, along the new proposed pedestrian street and as perceived from the arterial (Mill Street) - see below. ***The planning board and design team may want to discuss the resolution of the top coping of that massing, as lower level precast details appear to have more visual weight, and the west resolution has additional cornice detail in the currently proposed version.***

Catherine Street Building
As a trade off for the reduction in height, the Catherine Street building now has a continuous street front, with no public exterior connection through to the midblock. Instead, tenants of the building have a protected yard to the rear of the building which we

understand to be gated. **Planning board may wish to clarify the intent of this space.**

Wallace Building

One clarification about the proposed changes to the Wallace Building is regarding the previously discussed possible restoration of the East Side Mural (See White Area of Photo below). While we understood that the design team was originally considering that idea, which appears to be feasible (the current elevations on 1/A-200C do not currently show fenestration changes on that side of the building), the renderings on 1 & 2/A201, and 2/A203 show added windows which conflict with this mural's restoration. ***The design team should clarify which drawing best shows the proposal's intent.***

One related opportunity is for the west facade of the Main Street Building to host a new mural, which might be worth a conversation with the planning board.

We thank the design team for all the time, energy and consideration that they have put into these discussions, and we continue to see this project for downtown Poughkeepsie as an important discussion for public participation.

Sincerely,
Chris Kroner

Principal
ckroner@mass-group.org

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Wallace Campus – Public Comment Responses (April to October 2021)

The Development Team has listened to the concerns voiced at the planning board meetings and public hearings. All the concerns voiced from April to October 2021 are addressed below.

Public Comment	Response
Date: April 20, 2021 Name: Artemus Condon *Great, thank you. Yes, my name is Artemus and I am a resident of Poughkeepsie, 167 Union Street. Thank you, Lydia, for sharing. I am a neighbor and have a lot of shared concerns. I am going to speak more or I think that my strength is more to speak on as more spiritual existential level. You can hear me over the sound of my pounding heart. I'm like super. This is not my preference, but these things feel important. I think that I really want to what I've been reflecting on and learning about the Wallace project and some of these other developments that are being currently considered is the importance of care and learning to care as a as a society, as a city. And I think that it can be a project on this level of this size that that that can slip through the cracks to especially on the side of development and whatnot, to hold space for that to care about people whose voices might not be as heard, even though you can name and we want to make this a mixed income thing, we want to make this a diverse project, that that's actually a really hard thing to do unless we're explicitly naming things like the way that money comes into play, the way that profit comes into play with a project on this size, like there is a consideration of a project excuse me, profit. And also there needs to be it really, really needs to be a consideration of affordability. And I think that another piece of that is contextualizing ourselves. I think something that's been really powerful for me in life is learning this lesson of contextualizing myself in history and just recognizing that I'm living out history right now and every little decision in my personal life, but also that we're risking every day is we are living in history. And it's really important to consider what are the broader lasting impacts, especially with a project of this size. I know that I'm getting close to my time. I did try to time myself. I'm not sure how much longer I have and I know I can be long winded. Essentially, I would*	Since April 2021, the Development Team has increased the number of larger units (two-bedrooms and three-bedrooms) by 23 units while decreasing the overall number of units. The project will provide 187 affordable housing units to a range of incomes. Residents of Wallace will have stabilized rents and will not experience sharp rent increases even if Poughkeepsie housing market rents increase.

say that I think that we really need to learn to care for each other and to consider the impact of a project like this for people to really make it an affordable space. And it's so much more that I wanted to say. But I do. I care about affordable housing. I want to see that. And I do support the Wallace housing project in the direction that it seems to be going in. One thing that I would add on again to voice that I have shared concerns with Lydia who spoke and what are we going to do about something like it looks like in this project? How are we making spaces for families who also need affordable housing in the city? Thank you so much.	
Date: April 20, 2021 Name: Colby Creedon *OK. All right, I'm sure the board already knows that it serves more than administrative function of checking boxes for a complete application, the code does reference the objective of the board to consider the public health, safety and welfare and comfort of its residents in general. I know we've heard a lot of people here today, and I'm sure we'll hear some more talk about the need for affordable housing in the city. However, the housing here is not promised for current city residents who are in need of affordable place to live. The city has a really difficult time providing services for current residents and attracting additional people who need public services could be more detrimental to the city and its finances, which are already struggling. I'm not there for nor against the project. However, I would really like to see before any further action is taken that an independent market analysis is done to facilitate the need for reconfiguring an entire city blocks in a very small city. There's some conclusionary statements about the need for this type of housing and the application, but they're not supported by data or citations or footnotes. And the fact is that and really knows the appropriate mix of housing for the city because there hasn't been an independent market study that there has been publicly released. There's a small number of very loud voices on both sides of the affordable housing debate. However, no one can point to anything to*	Development Team has submitted an adjusted AMI chart that considers the City of Poughkeepsie's Area Median Income. A vast majority of Poughkeepsie residents (those who make between 50% AMI to 132% AMI) qualify to live at Wallace Campus. Residents of Wallace Campus will not experience unexpected rent hikes as rents will be stabilized. Regarding the analysis of the City's needs, the Development Team has created a project that responds to the to the goals of the Poughkeepsie Innovation District, which are aligned with the City's interests. The PID outlined a goal to create a more densely population downtown area. In addition, Patterns for Progress's profile of the City of Poughkeepsie indicates that there is a need for affordable housing in Poughkeepsie: *"According to Pattern for Progress' most recent community profile of the city in 2018, "housing is affordable for 59% of owners, 58% of renters are 'cost burdened' (paying more than 30% of their income toward housing), including 38% who are severely cost-burdened (paying more than 50% of their income towards rent)."*

validate claims on either side. Therefore, before taking any further action, I really think the city should conduct a study to to validate the need for for additional housing of this type. The application also references the city idea interested party. The idea is publicly stated it would not be in the city's best interest to grant another pilot agreement for an affordable housing project. So if that the idea could be considered at some point prior to approval or the arrangement with the idea, I think that would be helpful. And I'd really recommend completing market analysis because the city really can't afford to make another mistake. Thanks.	
Date: April 20, 2021 *Name: Michael DeCordova* *Thank you so much. I have a bit more of a practical, practical approach in terms of the holistic view of the city. This proposed development is massive. It's truly massive. It would change our downtown forever, certainly for 50 years that the low income tax credit restrictions remain in effect. The program, I might add, is called a low income tax credit. This is not a pejorative term being used by me. And I trust New York State aimed at correctly. It's such a transformational project. The simple questions are where is downtown Poughkeepsie today and what do we want downtown Poughkeepsie to be in the future? This is not an inconsequential project. Do you picture a vibrant downtown with lots of residents and visitors with enticing commercial and retail establishments to want to provide housing for Duchess County's homeless population and to provide affordable rental apartments in an overheated housing bubble? How much of this housing exists today downtown and in the city? And how much do we as a community want in the central downtown corridor? Speaking to this gentleman, Colby Credence, salient comments. Do we want the opportunity to lift up every resident? I think the answer is yes. Unfortunately, New York State provides tremendous financial incentives to build below market affordable workforce housing, which is something that has been accomplished in and along Main Street for the past eight years or so, by my count, including Eric Baxter's units on*	Regarding the question of the project's fit with Poughkeepsie's future and if the AMI mix is diverse to meet Poughkeepsie's needs, please see the above response to Colby Creedon's April 20, 2021 comment. The plan will not create a parking deficit. Currently, the proposed plan has 63 parking spaces. Per the City of Poughkeepsie's zoning, 32 is required. Colliers Engineering analyzed the parking needs based on the programming and residential density and concurred that the parking provided meets the needs of the project. Furthermore, the City's retained civil engineering consultant, Chazen Companies, reviewed the projected circulation and parking needs and approved the current parking plan. Additionally, there are several underutilized parking lots in the nearby vicinity if visitor to downtown Poughkeepsie need additional parking. For example, the City of Poughkeepsie conducted a parking study in 2017 and found that the current parking lots in the nearby area are underutilized. Currently, there are 980 total parking spots in the adjacent area. The 90-space public parking lot adjacent to the project site has an estimated utilization rate of less than 30% on weekends and less than 60% on weekdays.

Academy and Ken Kerney's Crandall's Street project, there are ninety one new apartments below 50 percent AMI a hundred and nine new apartments below 60 percent, 70 new apartments below 80 percent. This is a nice mix and doesn't include Hudson River housing's Thirty nine units dedicated to supportive housing at Fallkill commons. This means that there are also a lot of constructed units that are above those levels, establishing a diverse unit mix. I take umbrage at the characterization. Another conclusory statement that the Wallace campus has a broad range of income levels because it doesn't. It does not offer a healthy mix. I'll get to that in a minute. What is missing from downtown today is, frankly, an economic base to support a healthy retail environment downtown. We have no dry cleaner. We have no coffee shops, no nice delis, few restaurants to go for special events such as Mother's Day. Instead, we drive to Rhinebeck. We have no convenient parking and it is certainly not free. We have a lot of grifters who are speaking frankly. And unfortunately, intimidate most people who venture downtown. Inhibiting the growth we see the businesses we want. The question for this planning board is whether or not the Wallace campus is the right project for our community and the answer is no. It is too high in height, it's too dense. It eliminates much needed parking and is decidedly not a mixed unit development, as the applicant has stated repeatedly, to my knowledge, the applicant has not shown proof that it has met the legal requirements to..am I done? [interruption] *I'm not prepared to to wrap up. I will say that this project does not create a north south corridor, that north south corridor exists today. It had to be shut because of public nuisances. And I will say that in the event this project is ever approved, I beg you to allow the developer to close the gate to that north south corridor to give them a chance to attract nice residents who won't be bothered by the same public nuisances in the middle of the night that use the other corridor. If anyone else has left over time and want to give it to me, I'll*	

take it or else some of the comments in writing to the board. Thank you.	
Date: April 20, 2021 *Name: Peter* *OK, yes, my name is Peter, I live at 81 Cannon Street, Poughkeepsie New York. Hello to everybody. Today, I'm just calling just with some opinions and some ideas maybe that can be considered for the Wallace project as a proud lifelong resident of this beautiful area, I've experienced downtown Poughkeepsie from it's glory days to a ghost town days to the greener pastures. We're starting to experience. And respect to the Wallace campus project and that since I'm in favor of a good project, but with some reservations, the current housing boom is going on. Downtown is fantastic in the city, presenting itself and a diverse array of housing types from affordable housing, subsidized housing for low income and artists, to market rate and high end for the Brooklynites. Coming up, the professionals. Downtown Poughkeepsie... between this project, others in the works and on top of already everything going on with all the construction going on, it can create a little bit of a saturation of housing, an influx of two hundred and fourteen apartment units. And will we consider the central business district is not what's needed at that particular time in that area. What's needed in the central business district is an influx of businesses, retail specialty shops, cultural centers is in demand for viable downtown. With jobs. The people that continue to make downtown Poughkeepsie their home where they go and take care of the shopping? They go to 9, route 44. It's not that's not the answer that we're looking for. We want local economy, a building like the Wallace campus can and should have some housing potential. But using the captaincy side, for example, by its design, in essence, was intended for commercial retail ace. In recent years, retail stores are becoming smaller virtual showrooms, which don't require a massive space as the ones that are trending, moving and trends are. These stores are moving back into the downtown areas. The*	The Development Team has increased the square footage of the commercial space to create a more active retail and commercial corridor. The Development Team will program the commercial space to meet the shopping and retail needs of the resident of Poughkeepsie. Regarding unwanted activity at Wallace Green, safety is a key component of the project, as this is in the interests of the tenants as well as the surrounding community. Design and programming features of Wallace Campus that enhance safety and security in the long-term operation of the project include: <u>On-site presence</u>: The residential lobbies will have 24/7 front desk security. <u>Appropriate lighting:</u> The project will include appropriate levels of exterior lighting in both the front sides and rear of both the new building and existing Wallace department store as well as the Wallace Green space to illuminate presently dim portions of Main and Catherine Streets. The November 2021 submission outlines the lighting plan that reflects the illumination of the project site. <u>Security systems</u>: The developer will also incorporate into these areas a highly effective security system designed to assure tenant safety and quickly report safety issues to local authorities. Elements of the security system will include advanced software, motion activated cameras and speaker microphones. These systems can be backed up by remote monitoring, ensuring an alert can be transmitted 24/7. <u>Mixed-use buildings create active presence 24/7:</u> The mixed-use nature of

Wallace building can become a retail shopping hub, as it once was, hosting a variety of shops, stores, restaurants, offices and or apartments, just like in White Plains, Jersey City, Beacon and in Kingston. Not only does it have the square footage for anchor stores, but I also have the infrastructure as well downtown Poughkeepsie it was once considered the epicenter of industry. Shopping malls came in the Hudson Valley. Basically, a small New York City. Apartments in the central business district should be diverse and available for all of our residents but limited to increased commercial retail potential for anchor or mall opportunities. Residents like myself and others living and working in the downtown area want these amenities. So it gives you the culture, the culture of city living. Thank you for your time.	the proposed development will also increase physical presence and deter safety issues. Currently this area on the site is covered with asphalt and several abandoned and under-utilized buildings in the heart of downtown Poughkeepsie, sparingly used and mostly desolate.
Date: April 20, 2021 *Name: Doug Nobletti* *I am unmuted. Hi. I am by Doug Nobletti, I live at one forty five Academy Street, I am a property owner directly across the street on main of three, twenty eight and three thirty. My wife and I have Novice LLC LLP. Sorry too many L's. I have some thoughts on this project that are actually more on the physical construction. I have already voiced my opinions on paper regarding the density, population changes, etc. and the opportunity for good retail. My concern is a seven storey building right now opposite my properties, which my tenants have to look at. We have very limited access to any skylight due to the fact that the prior poor planning of Poughkeepsie has luckie wrap around us and the city drugstore intersect with Lucky Plats. So we are landlocked. Not only did it cause a lot of problems with me having fire egress and require variances, it also helps block any light. I get no sunlight. My plans for any kind of solar arrays went out the window when Lucky Platt was granted the rights to build their penthouse. My tenants get their light from the north light reflecting back from skylight, from the light colored facades of the lower tier buildings. Right now, as it stands, the Wallace project right in front of me is going to be*	The Development Team has reduced the heights of the buildings since April 2021 to be lower than the existing Wallace Building. The Development Team engaged a historic consultant to assess the significance of the existing buildings. The historic consultant assessed that the 331 Main Street building (Wallace Building) was historically significant, but that the other buildings in the project site were not. However, in response to comments at the October 2021 meeting, the Development Team has met on site with an architectural salvage company to examine the exterior and interior of the buildings to be demolished, and have identified the items that will be preserved and re-purposed. The applicant will donate all proceeds from the sale of these items to the Mid-Hudson Heritage Center. Regarding the concern about activity in the park, please see the response to Peter's April 20, 2021 comment.

a large, dark obelisk, seven storeys, which is four stories taller than it is now, or three stories, but it appears much higher with the grooves, etc. And I'm just concerned that it's going to impact the appreciation of the spaces that I created for my tenants 10 years ago when I got involved in helping to revitalize downtown in the first place. Many of us have stood before you in prior years giving our pitches for what we can do to help downtown. And I just hate to see my efforts negated by another large building that will create this dark hole in the sky. For my tenants to look at, some of the questions come down to has any of the property, other properties been assessed for their historic value? Is the building with the clock, which is the former Zimmer brothers, is there a facade underneath that of historic value? Has any of that research been done? I don't know, but I can tell you that from my perspective, those are things that should be ongoing and continuing to consider. When I look at the renderings for the Katherine Street side, I see a very light facade. I see a facade more in tune with Lucky Platts facade. It's more reflective. So it might be a better color choice for the materials. If I have no options for limiting the height of this building, maybe something a little lighter and more reflective would be useful. On the other point, eight out of 10 points that I made, I'm going to stop at the next one, which is something Mike De Cordova said. We already had a connector. The police had to put up a block. It was used for drugs, alcoholism, substance abusers, loitering, homelessness. And I hope that these developers are prepared to handle that and make sure that they don't enhance it. That's it. I'm done. Thank you.	
Date: April 20, 2021 *Name: Lauren Sandow* *OK, thank you. I'm going to reserve my comments, but I have a couple of questions I'd like some clarity on, if you would. I see that on April 9th, 325 main transferred there deed to Wallace Campus Manager LLC. And I see on the agenda for tonight to two owners or one owner for two different properties, one at 319, one at 331, one owner. The first one was IIC Properties owner for*	The Development Team has submitted updated ownership information to the Planning Board. All properties are owned by Wallace Campus Manager, LLC.

319 and 331. The second owners, Kimlin LLC for 327 and 329, another owner is Wallace campus manager for 325, not an owner until April 9th, at least according to the county records, the applicant is almost none of these. The applicant, at least according to the agenda, is listed as well as Campus Manager LLC, then followed in parentheses Ala LaRiviere Consulting, mega contracting urban green equities. Eric Anderson's name seems to have disappeared from everything [interruption] *Thanks, I do appreciate that input, Mr.Levine. On the other hand, whatever you're monitoring is not made public, so that's a constant issue in this city, is what's public and what's not public. And then what the public gets told is like, don't worry about it because we've got it well in hand. If I am following this correctly, Wallace intends to have a seven story building. But I understand that seven stories is not that they would have to apply for and receive a variance to build a seven story building. Is that correct? If the board would clarify that, I would appreciate it. I do find some comedy in a property owner who has blighted Main Street for years and years and years now to be talking about how some other property owner might bring blight to the neighborhood. I I have many questions I'd like to know whether I can get a copy of the presentation, that slide presentation tonight, because personally, I'm not taking on face value the claims that were made in that slide presentation affordable is used as a catchall. And in my opinion, it's a smoke and mirrors that we're affordable. Mean is a way to distract the public and make everyone think that something wonderful is being produced when in fact these units might not be affordable to the general public at all. But if you can clarify some of the questions I've raised, I would appreciate it. Thank you. And then, of course, I would like to speak once I've had a chance to examine the slides and some of the other material presented tonight. Thank you.*	

Wallace Campus – Public Comment Responses (April to October 2021)

Date: April 20, 2021 Name: Michael DeCordova Hi, thank you, I'll try as fast as I can, the project is offering seventy five percent of its units to tenants with income below 50 compared to Ken Kerney's Crandall street development, which has just 10 percent of its project below 50. While this campus offers just five percent of its development to people earning under 80, Kerney is offering 30 percent of its apartments to the same category. Wallace is not a mixed income development of only 10 apartments out of two hundred and fourteen are being offered to people making between sixty one and 80 of the area median income. Ninety five percent of the Wallace apartments are slated for tenants, making below 60 percent of the area median income. This is a heavy concentration of one category of housing. Healthy communities have a diverse populace of low, middle and market, which is sorely absent in this application with a preponderance of below market housing and 60 percent of its units proposed to be occupied by homeless people with severely disabling life conditions. The Central Business District will not only thrive will will not only not thrive, but the Wallace campus itself may struggle to fill its own apartments with quality tenants. Certainly, it is highly doubtful that anyone making 70 to 80 percent of the area median income would move into an apartment complex where 16 percent of its apartments are occupied by formerly homeless tenants. With disabling life conditions, we can do better and we can expect that we should do better to uplift every sector of our city. If you want to know why this developer wants to build so much, so high on much needed parking lots, building taller structures than our city will allow. Just follow the money. New York State is so desperate to provide certain types of housing that it pays developers to build what it wants. The question is, does the city of Poughkeepsie want what the state is incentivizing? Do we want a private developer managing a caseload of sadly severely troubled	Regarding the income mix and the need for the project, please see above April 20, 2021 response to Colby Creedon. Regarding the concern of supportive housing, the Development Team seeks to serve veterans with the supportive units. The on-site services will provide much needed counseling and other supports to help veterans receive much needed help re-stabilizing their lives. The Development team is working with a reputable social services provider, MHA Dutchess, to provide services to the supportive unit residents to ensure the wellbeing of the tenants and surrounding community. Regarding the concern about adequate parking, please see the response to Michael DeCordova's first April 20, 2021 comment, above.

people suffering with disabling conditions? Can a case manager possibly manage so many different people with so many different challenges? Who is responsible if those clients tenants are failing in their treatment? [interruption] The state offers a housing program that offers developers one hundred and fifty thousand dollars for every apartment dedicated to supportive housing. Given that the developer is building 30 for supportive housing units, that amounts to five point four million. A part of that same program is an opportunity to be granted ninety five thousand for every apartment where the occupant makes under 60 percent of the AMI. If this developer takes advantage of that program, this developer will be granted an additional 15 million dollars. Those two grants totaled twenty two million. Historic tax credits will provide up to another eight million or so. And then there's additional two million and low income tax credits, not to mention the tax credits for brownfield cleanup. I'll come back next week to finish next month. Thank you so much.	
Date: June 15, 2021 Name: Jeff Aimen *My name is Jeff Aimen, five Bernarda Avenue in City. First, I just want to make a comment that I understand board orders to ensure that the project meets the bounds of zoning regulations. But given the discussion of two weeks ago, it left me kind of with a vague understanding or a vague question about who was actually responsible for determination of the appropriateness of a project, you know, in any location in the city or the zoning code may not be a final factor. Right. Just that just a basic question. During the previous two meetings, some brief discussion came up about a number of units, I believe it was thirty four for individuals with spectrum duties for services. And just sounds a lot to me, like the one of the two new buildings on Roe Street, that really implies that there's a lot of special attention required and special problems will or will arise. So it just prompts a whole bunch*	Regarding unwanted activity in Wallace Green, please see the response to Peter's April 20,2021 comment. In addition, Gallagher Bassett, an environmental and planning engineering firm, analyzed the City of Poughkeepsie's current firefighting and police capacity. The current site plan allows for fire trucks to turn into the site to respond to requests for services. The City of Poughkeepsie is also served by three law enforcement entities. The City of Poughkeepsie Police Department, Dutchess County Sheriff's Department and New York State police. The Development Team has developed several projects with supportive units and have not experienced an increase in requests for City services (such as police, EMT, etc.). Furthermore, an academic study published In the Prehospital Emergency Care discovered that the on-site

of questions like first is this actually the case that there are units that are geared for targeted for individuals with special needs. If so, what kind of services are going to be required and who will provide them? Will there be 24 hour security? Will there be security cameras on all of the entrances and exits? Will those residents be required to sign in and sign out so there their activity can be tracked? What steps will be taken to prevent prevent individuals from large groups gathering on the sidewalks and in public spaces? What happens when you have that kind of density of certain types of individual? Next, I want to bring up parking because I haven't followed through with the entire downtown parking study. But all I hear is complaints about parking on Main Street and people there that are afraid to park and some of the parking lots and in the parking deck due to safety. And I want to point out that I found the comment two weeks ago that additional parking problems on Main Street would be a good thing. I found that to be offensive and inappropriate. We already have parking problems in the area and there seems to be some complete denial. But what I haven't been able to see, which leads to my questions, is what was exactly factored into the parking numbers that were shown? We have new residences coming at 387, 299, 316, Academy. All this new stuff is going to be coming online and there are two more huge projects on Main Street that could happen. Is that factored in? I don't know. Or maybe.	supportive services actually decreased the usage of emergency public services. Regarding the concern about adequate parking, please see the response to Michael DeCordova's first April 20, 2021 comment.
Date: June 15, 2021 Name: Patrick Gartland *Hi, guys, Patrick Gartland, 74 Wilshire Boulevard and I also work at 35 Market Street in Poughkeepsie. I think first and foremost, I'm a little surprised and disappointed that so many people don't seem to be Poughkeepsie residents and are still allowed to attend this and communicate. That was not my understanding of how this was supposed to work.* *Second, I think the idea of putting two hundred fourteen apartments in this location. The congestion and traffic it will create is just going to be astronomical, and you're talking about a*	The Development Team analyzed the potential congestion impacts of the project. Per the submitted EAF, the required parking for the proposed Wallace Campus development (50 spaces during Hudson River Housing office hours and 44 spaces at all other times) will not exceed the proposed parking supply (63 spaces). In addition, the required parking needs associated with the proposed seasonal public performances and community gatherings (to be held at the tiered seating area within the Wallace Green) can be accommodated during both the Weekday evening and Weekend periods, when there is anticipated to be an excess of 500 available public

congested two lane street already. The terrible parking problems, the city of downtown Poughkeepsie, as a parking lot owner, I can tell you that downtown Poughkeepsie is an absolute parking crisis and giving up on parking spots. Even losing even more parking spots, and that is going to be terrible, and this project is just needs more parking, among other things, and then. And the nice pictures they show in the in the plans and so forth, and these are a fantasy, they make it look like it's in the middle of nowhere and you can do all this beautiful landscaping around it and everything else. This is a narrow street and, you know, you just can't do it. It's not going to look this nice by any means. It just gets too big a project. It's not the right. It's just not the right spot for it. I don't care. I mean, the income levels, I don't care about that. But I think this project is just terrible for the city of Poughkeepsie and. Yeah. You know, my firm is already starting to look at moving out into the town or something because it's just the level of congestion will just be too much. So that's where I am. Thanks, guys.	parking spaces in the vicinity of the Site. Furthermore, the proposed development is not anticipated to have any significant traffic related impacts on the surrounding area intersections. Additional information is attached in the EAF submitted on November 5, 2021 and in the response to Michael DeCordova's April 20, 2021 comment, above. See also parking studies submitted by Colliers with 9/28/21 and 11/5/21 submission.
Date: June 15, 2021 Name: Michael DeCordova *Thank you. Well, we've heard new information we have downtown anchors considering leaving the city of Poughkeepsie because of the problems that this project will face. And I don't think that's a mere threat. You, the county moving downtown, anchors off of Main Street, also downtown to the periphery. You can only ask yourself why, with respect to a comment made about the parking, the problem is really not that there's not enough parking, there's certainly not enough parking. The problem is that the streets are terribly unsafe and people will not walk from the parking lot to the destination. Another new comment is I'd like to know, talking about the pedigree of the developer, just who in the world controls the property? There's many people listed in order to find out what the pedigree is of this tremendous developer. I'd like to know who the controlling interest is and exactly what other supportive housing projects that controlling partner currently*	The Development Team has provided the Planning Board with information about its plans for long term ownership and management of the Wallace Campus buildings. Mega Development's experience developing and managing mixed-use, affordable housing developments includes: Atlantic Terrace, 2051 Ryer Avenue, Northeastern Towers Annex, and Q41 in Long Island City; and other previous projects which have received awards from the New York Landmarks Conservancy, Preservation League of New York State, and American Institute of Architects (New York). Most recently, Mega developed The Wilfrid, a 190 unit, mixed-use development in the Bronx that has been open and successfully operating for over two-years. Mega manages its buildings long term by retaining reliable property management firms at the who are accountable to the owners for long-term maintenance and operations of the buildings.

owns and managers and has owned and managed in the past. I'd like to know using low income tax credits, are foreclosures somehow treated differently if this project were to go under? I would like to know if the planning board has studied the burden this project will impose upon municipal services, EMT, fire and police. I would like to know if this project is so economically diverse as other people have stated. I would like to know how many supportive units are proposed and how many supportive units, as was included in the initial documents filed, are under every income category 30, 40, 50, 60, 70, 80. And I like to object to the massive scale of the buildings which will alter the architectural view of downtown is overwhelming for Catherine Street and is not the right place at the right time or the right project for our city. Michael DeCordova 2406 and Hackensack Road property owner in the City of Liberty. Thank you for your time.	Mega owns several buildings that have been in operation for more than fifteen years and all are in good standing in their respective communities and properly maintained by a third-party management company accountable to Mega as owner. Mega prides itself in establishing and maintaining a good reputation with communities well beyond the construction completion of quality buildings. Mega has provided the planning board with background information about Mega's long-term ownership interests in projects. A Larovere Consulting and Development, a growing woman owned business, has been working in affordable housing for more than 25 years. Evolving from a one woman shop to a firm with nine diverse professionals, the firm has a long history of success. The firm has been involved with the development of several thousand units of affordable housing in New York State and around the country. The firm remains connected to developments through long-term relationships with project sponsors. As ALCD expands its foothold in the realm of developer, the firm has intentionally aligned with Mega Development. ALCD, with a deep and long history with Mega, is leveraging Mega's experience in operations and management. With similar commitments to community and high-quality development, ALCD is pleased to rely and build upon the history of Mega Development. Urban Green is a New York City-based firm expert in mixed-use development and management, with a specific focus on urban in-fill projects, including historic preservation and adaptive re-use transactions. Urban Green's experience includes the creation of some 2,000 units of affordable housing and development of a million square feet of commercial and community facility space, often in partnership with community-based organizations. Urban Green's experience as a property manager has been focused on retail businesses and helping new entrepreneurs to build and operate those businesses; prime examples include the Astro Motel and Spinster Sisters Restaurant in Santa Rosa, California.

	Regarding the question about foreclosures, the lenders of the project, both public and private, have vested interest in providing long-term stable housing. The financial planning for Wallace ensures the viability and stability of long-term operations. Neither Mega nor ALCD have never developed a building that has been foreclosed on under their ownership. Regarding the question of the income ranges, the Development Team has provided the City and planning board with a breakout of the number of units for each AMI tiers, as well as the number of units of supportive housing. Regarding the stress on City services, please see the response to Jeff Aimen's June 15, 2021 comment. Regarding the size of the project, please see the response to Doug Nobletti's April 20, 2021 comment.
Date: June 15, 2021 Name: Doug Nobeletti *Thank you, Mr. Chairman Robert Levine. That is exactly what I intend to do. I thank you for the opportunity to again address the board and my fellow public listening in which to raise a few questions that might not have come up earlier. This is a public hearing and the notices, I'm sure, have reached a fairly limited number of people in the city. The vast majority of people I have spoken to are wholly unaware of this project at all. I first received my notice in the mail as a property owner within the 500 foot radius. It is a very small area relative to our city and with very few residents. However, I wonder what the general public would think if they knew the full extent and the details of this project. The project sounds wonderful, looking at all the accessory components to the housing. A twenty nine thousand square foot fitness center with a climbing wall, the day care center and treatment facilities. As for the residential makeup by ratio, it seems to go against many good planning studies that I have read. Many of us wonder who else are*	The Development Team will maintain an ownership stake after project completion. The Development Team will engage a third-party management firm prior to closing on construction financing for the Wallace Campus. The purpose of the early retention of the reputable third-party property management firm is to incorporate the firm in preparing for the rent-up and long-term maintenance and management of the building. In order to be seriously considered as a candidate for property management, Mega will demand that prospective management companies have an excellent track record and respected local reputation, subscribe to best practices, and have substantial experience with mixed-use housing developments. The Applicant is, of course, willing to inform the Planning Board or its designee of the identity of the hired Management Company. An additional factor that ensures continuous long-term maintenance of this project is that buildings like the Wilfrid and Wallace Campus have several public and private investors who independently require property management oversight and

we getting involved with? Who are the operators to manage and operate the ancillary businesses? The developer is from out of town who then brought in as a majority stakeholder from Astoria, Queens, a builder who then, as far as we can tell, hands off his projects when they're built, or are we really getting in bed with obviously Hudson River housing will not operate those other businesses are they're already pre lease agreements in place with the operators. If so, have those new apartment partners appeared before this board to be vetted? It all sounds glamorous and promising, but I question the reality of what will be in three to five years from now if this fails to catch on. I and many other impacted folks wonder how a project of this magnitude, with the capabilities of creating a major shift in the city's character, is perceived by all the people who might be watching. This might be too timid to speak. And then again, all those people who don't even know about this and might have different feelings about it. *It is our city, the people city and the people need to decide what happens with a project like this and others. On a final note, you must take the voice of the people into consideration. At the last public hearing, you heard three persons who spoke up in favor of the project as it stands. One of them, a former employee of Hudson River Housing. And you had approximately 12 residents and or property owners who offered educated, logical reasons against it proceeding as it is. We're not saying stop it. We're just saying be more cautious and look at more of the details. What are the ratios for these income levels? It's not mixed income when it's listed as affordable housing only. You should use these as barometer of the desire of the people you serve. And as taxpaying citizens. I thank you.*	annual certifications to them that ensure the building is continuing to be properly maintained and operating to its fullest potential so that people can enjoy quality homes for the long term. Regarding the question about income levels, please see the response to the Colbly Creedon's April 20, 2021 comment.
Date: June 15, 2021 Name: Norman Steinberg *Can you hear me? Hello, my name's Norm Steinberg. I'm an owner in the Union Street Historical District. While everyone likes new buildings and public spaces, they must fit into the context of the streetscape and the overall downtown core. I am concerned that the Wallace*	The Wallace Green will be open to the public. Programming will be open to the public. Pedestrian pathways from Main Street have been designed to ensure that everyone can access the park. The current layout of the plan is designed to promote walkability. In addition, the Development Team will partner with local organizations to

campus project has not been designed within the context of the total streetscape and the overall downtown core and well in question whether it will help revive the downtown. When you look at the Wallace campus green itself, the campus green, I view it is almost actually taking from the city in the downtown core. Wallace Green space has been designed more as a private park for the campus, then the amenity of the downtown. It sits behind a wall of buildings on Main Street, Catherine Street corner by the wall. This building, the artery, which is one of the other boarders, represents a barrier for walking across to downtown. And I understand there are still no plans to make crossing the artery more walkable against the aggressive traffic on Mill Street. Thus, it's difficult to get to it on four sides, Ed.. It will not be conducive to street traffic from Main Street and the surrounding area. There's only one entrance from the main street, the walkway. The walkway is narrow and is not conducive, inviting for people to go down that alley to the green. It invites hidden spaces, which may be difficult to monitor for security purposes. I'm not sure if the police, the fire or the EMTs have weighed in as to the safety of the alley in terms of convenience for fire, life, safety for this development. Consequently, I look at this as almost a private park for the Wallace Green campus. Then the reality is, is he taking from the city? My background is in real estate. I've worked with many large mixed use projects, retail development. I'm a little concerned that the amount of street level retail, again, is small when you are trying to create a vibrant downtown core. I heard 6500 square feet of commercial space. Maybe I'm missing something here, but with this amount of street frontage that would be wholly inadequate to encourage a vibrant walking downtown district, which also provides some levels of entertainment. With this level of street frontage, I could easily see thirty thousand square feet of retail or more on between Main Street and Catherine Street. There was a change in the in the height of the Main Street side, and I do applaud that. But I do want to point out that Catherine Street is one way. It's essentially two lanes. Main Street has parking on either side and it's	program the space to provide entertainment and community events. In response to the request to increase the retail frontage, the development team has increased the retail space that will line the front of Catharine and Main Street to 14,235 SF. Regarding the question of adequate parking, please see the response to Jeff Aimen's June 15, 2021 public comment.

essentially four lanes. But today, what I'm from what I'm gathering, the changes that there's a height of still there's a building still on Catherine Street that's six stories tall, while Main Street maybe is now reduced to five. But that's six stories on Catherine Street is definitely overwhelming the street in New York City, zoning codes, which is the father of founding of zoning codes, the street, which take into consideration the height due to considerations of light air and the ability to control density. I don't think that was taken into consideration. When looking at Catherine Street. I also share parking concerns in terms of the adequacy of the number of spaces. I'm not hearing about studies that were done to add up. [interruption] Thank you, Mr. Levine, I will finish saying is that I think there's an inadequate number of spaces and when the city is being reimbursed for 5000 per space, that's the surface parking. But if you're going to have to build new parking, it's going to be underground or structured parking. Those go for 25,000 thousand a space, five times the amount that you're being compensated for. And it's not sure where it's it's going to be. So. Well, I applaud new construction in downtown. We need to create and vibrant downtown core that can attract people from all sorts to come down.	
Date: June 15, 201 Name: Craig Brenly *Thank you, Paul Hesse. So I'm Craig Brenly. I represent District eight of the county legislature, which is partially a part of the city of Poughkeepsie. Last meeting I did talk about my concerns and I'm getting calls and concerns that are not positive for my residents and from Main Street building owners as well. The board asked for addresses. It should be noted that many of the positive comments came from people who either live outside Poughkeepsie, have financial interests in the project, and people that did not provide address as requested. We need to think about what the best practices and housing models are. And this does not appear to be housing models that help people are well studied. And again, the project is not there at this time. Urban*	Regarding the stated concern regarding the alignment of the project with the interest of City of Poughkeepsie, please see the above response to Colby Creedon's April 20, 2021 comment. The Development Team has also conducted outreach to dozens of local businesses and organizations to gain feedback about the project. The feedback has been incorporated in the latest iteration of the design.

renewal left our city a mess. And we have to make sure that development is best practices and in the best interest of our city. Today, I ask you, I asked the developer to really take a look at the best interests and concerns of the constituents. All city residents should be noticed by all city residents and property owners should be noticed by the developer, and we should have a strong, robust, strong community decision about this discussion about this. Thank you for your time.	
Date: October 19, 2021 Name: Michael DeCordova *Oh hi…I think it is very woeful that none of the affordability components have been enumerated <ummm> and to say that the upper end has been <umm> increased is woefully inadequate. We heard testimony or academic viewpoints from someone at Pace University, someone quoted, who said that, "The most valuable and most important consideration in planning board decisions is whether or not the project will improve a community." It was kind of a baseline <ummm> standard and <ummm> there is nothing, absent conversation relating to the income levels, that would suggest this is going to improve our community which already has an inordinate an extraordinary high percentage of Mitchell-Lama and other subsidized and affordable housing. I presented <umm> astounding statistics relating to crime, police, EMT calls to affordable housing projects in the city of Poughkeepsie as compared to <ummm> non-AMI calculated projects. Those figures were astounding and they will very much burden our police, fire, and EMT <ummm> units and I wonder how this project aims to mitigate that. The understanding is that these subsidized, supportive housing opportunity program housing projects do not provide enough income for these projects' future proper management, support, and maintenance. All of the money is in upfront fees, leaving less incentive for long-term management. I'd like the applicant to discuss that. There's a big problem with the City of Poughkeepsie and planning and that problem is the reality on our streets versus a utopian planning agenda and <ummm> the reality is that we need more money*	Regarding stress on social services please see the response to Jeff Aimen's June 15, 2021 public Comment. Regarding the saturation of affordable housing, the Development Team has submitted an AMI chart that utilized the City of Poughkeepsie's Area Median Income. A vast majority of Poughkeepsie residents (those who make between 50% AMI to 132% AMI) qualify to live at Wallace Campus. Please see the response to Colby Creedon's April 20, 2021 comment for further information. Regarding the concern about long-term maintenance, per the New York State Housing Finance Agency, all housing developments are required to maintain a capital reserve to pay for potential capital projects and maintenance to ensure long-term viability of the buildings. Please also review the response to Michael DeCordova's June 15, 2021 comment. Regarding the lack of retail, please see the response to Norman Steinberg's June 15, 2021 comment.

on the street, not less. We need higher retail. Eastdale on Route 44 has 35 brand new businesses and 12 brand new restaurants. [Note 1 Below] That comes with market-rate housing; that's something the city of Poughkeepsie needs. <ummm> I don't know what else to say that I haven't already said. I believe the planning board will <ummm> injure this property by requiring that their green space to remain open 24/7 without the Wallace's ability to lock that gate at night. <ummm> Right now we seem to have…. We have a….we basically have a segregated, red-line zone in the city. We have market-rate housing on the river and <ummm> much less affordable housing, or more affordable, the way you look at it. We are overwhelmed with social service organizations serving <ummm> these populations. This project is not going to help our school district and I hope the planning board will… *Oh! Most importantly, sorry one more thing. This project cuts off access to two buildings, 315 and 317 Main St, very devaluing these and reducing the commercial opportunity for those two buildings whose access is cut off from the North. Thank you.*	
Date: October 19, 2021 Name: Norman Steinberg *I do applaud the efforts by the planners of this project to reduce the size of it, the scope of it, to bring it more in line. I think 5 stories on Catherine is still a bit high for the size of the street but certainly a commendable effort physically. The only thing I would ask is that the window lines for the retail be brought up to the lot lines of the buildings because you do not want to create hidden corners for people into the evening so it's just something to think about. It would also create a uniform -ahhh- frontage along Main St as well as Catherine.* *Uh, so physically, it is a significant improvement. I don't necessarily like the walkway effect into the green into the rear to the north…it still needs to be addressed through light <garbled> ….and going to a couple things that have been said by the*	The project will include appropriate levels of exterior lighting in both the front sides and rear of both the new building and existing Wallace department store as well as the Wallace Green space to illuminate presently dim portions of Main and Catherine Streets. Please see the response to Peter's April 20, 2021 comment for further information. The proposed design does not have overhangs that may be used as unplanned opportunities to shelter, unlike the existing 327 and 329 Main Street buildings that are being replaced by the improved conditions proposed for Wallace Campus. The proposed Catharine Street building is now lower in height than the existing Wallace Building.

previous person, we need to hear and understand what is life safety features going on that will protect people and provide a safe and inviting environment into the evening, something towards 11 o'clock – 12 o'clock – at night. So, I too would like to hear a little bit more about that…. *And I also don't understand why we do not have a discussion about market rate housing in a project like this which it should have some level of discussion given the size of this project and the need to support the retail that is growing and is anticipated all long Main Street but especially on Academy Street…it would be great to have some market-rate housing that could cross-pollinate below, south of Main Street as well* *But the physical efforts are appreciated…but we do need to hear more about market rate housing. Thank You.*	Please see the response to Doug Nobletti's April 20, 2021 comment.
Date: October 19, 2021 Name: Doug Nobletti *Great. Thank You. Alright, well I do appreciate your continued effort to try and make acceptable improvements, I don't consider them acceptable at all.* *Since you are all so thoroughly concerned with historic accuracy….I find it very disappointing you still choose to tear down three perfectly functional buildings which though modified and refaced are now part of the historic fabric of our existing streetscape. They are our familiar streetscape and have been for some time. If you look at City's such as Boston and Dublin, Ireland you are not allowed to destroy a building's façade, you must preserve it. Yes, these facades have been muddled but there is photographic evidence of what used to exist and can be remade.* *There are plenty of examples of buildings which have been restored to present historic style facades with building envelopes maintained and brought up to current standards for both energy efficiency and safety requirements. Look no further than the two properties you face that*	Regarding the concern about the demolition of existing structure, a historic consultant was engaged to advise on the historic importance of the buildings. The buildings have that will be replaced (319 Main Street and 325 Main Street) have been vacant since 2018 and will be replaced with buildings that are more aligned w/ the community architecture. Please see the response to Doug Nobletti's April 20, 2021 comment for more information. The architectural design quality of this project is contextuality aligned with the existing street fabric, which includes a variety of building size, and an eclectic range of design styles (including the large art deco Wallace Building which is part of the project). It also expresses an overall sense of cohesiveness as a commercial/residential neighborhood. One of the purposes of the PID District is to enhance the vibrancy of the overall PID area, by bringing new life into the area. From the very first presentation on the project in 2020, the Board and its consultants expressed concern about building design and neighborhood

appear in renderings of your project: 328 & 330 Main Street. They've both been fully restored as such and hold places on the local historic register. *You are giving up much space to this Wallace Green concept. I ask, have you really investigated how it is going to be utilized, managed, maintained and prevented from becoming a needle park? That has been the problem with all of our public spaces along the Main Street corridor. Just check the call records of fire and emergency medical services. Take a look at Murphy Park, right in front of Poughkeepsie Underwear Factory. This once-promising park has now become fully enclosed by chain-link fence to prevent access by anyone.* *The city used to also have a beautiful mature tree and raised planter at Liberty Street which the administration saw fit to remove…not because of the plan to remake the parking lot which is underway. It was found to be that it was the best solution for dealing with substance-abusing, drug-addled, loitering population who insist on soothing themselves with a variety of substances. Numerous calls have required Narcan (Note 2) to be administered while the majority drunkenly act out all day and night-long leaving residue, empty liquor bottles throughout the corridor and nearly every inch of Main Street. I may have forgotten to mention the illicit sexual activity that takes place.* *Now. Now, that all of our Main Street Parks and accessible open spaces have been shuttered – or at least have had benches removed to help eliminate this population – this population which really needs tender loving care cannot and should not receive it in the core of our City business district nor on the sidewalks of our City.* *I understand that you have continually included supportive housing units yet rarely if ever mention them. I don't understand the logic of establishing a home base for people in need of mental health and treatment services right in the heart of our CBD.*	character compatibility, and it requested that the Development Team explore alternate designs that developed more contextuality with existing buildings in the neighborhood. To respond effectively, the applicant hired SLCE Architects, a firm with substantial experience in designing new buildings within existing historic neighborhoods, and in rehabilitating and adaptively using existing historic buildings. Over many months of review, the Planning Board discussed and evaluated proposals for design of the buildings. For example, the Board reviewed the pediment design originally proposed by SLCE for the Main Street frontage and requested an alternate proposal that was more in keeping with the context of other buildings. The applicant proposed an alternate design, based on an extensive analysis of the cornices used along the streetscape. The Board (and County Planning) then expressed concerns as to whether the proposed cornices, or at least one of them, might be reconsidered to become more reserved in character. The current design as of the November 2021 submission is responsive to all architectural and design comments from City staff, consultants, Planning Board members, and public comments . Regarding the concern about undesirable activity in the Wallace Green due to a lack of programming and security, please see the response to Peter's April 20, 2021 comment. Regarding the concern about the supportive housing population, please see the response to Michael De Cordova's April 20, 2021 comment.

I have yet to find anyone who thinks it makes any sense at all… [interruption] I'm almost there. This is not a case of NIMBY, this is a case of common sense. You are establishing a home base for a population that has substance abuse issues and they will be surround by the attractive nuisances catering to those urges. Right next door is a bodega specializing in cheap beer, tobacco and anything but healthy food while right across the street is the liquor store that provides them. *I'm sorry. I'll continue my thoughts and send them as a submission to add to this comment. But trust me there is a lot to be considered here because I need to know what the contingency plan is to remediate when all of the above-mentioned problems materialize.*	

STORMWATER POLLUTION PREVENTION PLAN

Prepared for

WALLACE CAMPUS

Located at

319, 325, 327-329, 331 Main Street,
City of Poughkeepsie, Dutchess County, NY
Tax ID 6162-77-114098, 109079, 109077
& 6162-78-127091

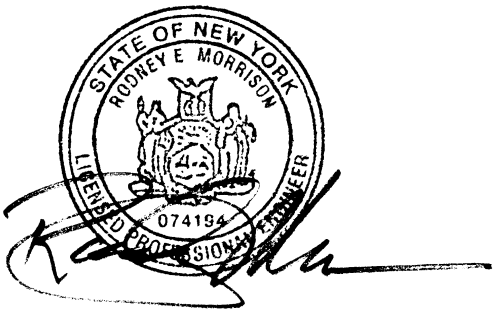
Submitted

March 2, 2021
Revised: October 25, 2021

Prepared for

Wallace Campus Manager, LLC

48-02 25th Avenue
Astoria, NY 11103



Prepared by

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APPENDICES

Appendix A: Construction Site Log Book
Owner/Developer and Contractor Certification Forms
Pre/Duration Construction Maintenance Inspection Checklist (NYSDEC Sample)
Post Construction Operation and Maintenance

Appendix B: Notice of Intent (NOI)
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MS4 Acceptance Form

Appendix C: Pre-Development and Post-Development Run-off Calculations

Appendix D: Supporting Design Information and Calculations
NYSOPRHP Correspondence
Soils Map

Appendix E: Map Pocket: Pre- & Post-Development Drainage Area Maps

Appendix F: 25 Year Hydraulic Grade Evaluation

1.0 INTRODUCTION

This Water Quality and Quantity Plan and Stormwater Pollution Prevention Plan (SWPPP) have been prepared pursuant to the Environmental Protection Agencies' (EPA) and the New York State Department of Environmental Conservations (NYSDEC) Phase II Storm Water Regulations. All parties, as defined below, are responsible for executing the SWPPP and for complying with the requirements set forth in the EPA's National Pollution Discharge Elimination System (NPDES) General Permit, the NYSDEC's State Pollution Discharge Elimination System (SPDES) General Permit GP-0-20-001, and any local governing agencies having jurisdiction with regard to erosion and sediment control.

The purpose of the SWPPP, described herein, is to provide for the proper control and treatment of water quality and quantity impacts due to the proposed project. These controls and treatments will be achieved through the use of appropriate features such as conveyance piping and underground drywells. The goal is to manage the post-development storm water discharge to match or improve on the pre-development conditions, provide necessary water quality treatment and quality control for the new development and prevent discharge of pollutants into receiving waters, in keeping with the afore-noted regulations and best management practices as described within the New York State Erosion and Sediment Control Manual and the New York State Stormwater Design Manual.

This SWPPP outlines methods that Owner/Developers and Contractors can use to adjust construction practices in a way that will retain surface water quality and prevent sediment laden runoff from entering rivers, streams, estuaries, wetlands and other sensitive environments. This SWPPP describes methods for permanent stormwater management features in the design and runoff management during the construction phase.

1.1 Responsibilities of the Participants

It is the responsibility of the Owner/Developer, General Contractor and subcontractors to comply with the measures set forth in this SWPPP and implement pollutant control measures which retain surface water quality and prevent sediment laden runoff from entering rivers, streams, estuaries, wetlands and other sensitive environments. The following outlines the responsibilities of all participants.

Owner/Developer's Qualified Representative

1. Prepare this Water Quality and Water Quantity Report and SWPPP using good Engineering practices, best management practices and in compliance with NYSDEC Phase II Storm Water Regulations. The Owner/Developer, General Contractor and all Sub Contractors involved in earth disturbance during construction must certify this Plan by signing the certifying statement contained in **Appendix A**.
2. Prepare the Notice of Intent (NOI) for the Owner/Developer for submission to the NYSDEC at least 5 days prior to commencement of construction.
3. The SWPPP that has been prepared for the job site shall include certification forms and a completed and signed NOI.
4. Provide copies of the SWPPP and the "Acknowledgement of Notice of Intent" to the local government agencies having jurisdiction or regulatory control over the project.
5. Review the site prior to the beginning of construction and certify in an inspection report that the appropriate pre-construction erosion and sediment control measures outlined herein, and

that are required by the NYSDEC SPDES General Permit, have been installed and will operate as designed.

6. Conduct on-site inspections every 7 days for general compliance with the SWPPP and the NYSDEC SPDES General Permit. Inspection reports will be provided to the Owner/Developer within 24-hours of the field inspection. Any problem areas or areas in need of additional stabilization shall be made clear to the Owner/Developer. The Owner/Developer and the authorized person who is responsible for the overall operation of the site, such as a project manager or site superintendent, must certify these reports by signing the certifying statements contained at the end of the reports and must be maintained in the on-site log book as described below.
7. Review onsite Contractors SWPPP records to ensure compliance and update them as required or necessary.
8. Update the SWPPP each time there is a significant modification to the design or construction which may have a significant effect on the potential for discharge of pollutants into receiving waters.
9. When construction is complete, provide the Owner/Developer with certification that an inspection has been completed verifying that the site has undergone final stabilization.
10. When the site has undergone final stabilization, prepare the Notice of Termination (NOT) for the Owner/Developer for submission to the NYSDEC.

Owner/Developer/Operator/Permittee

The following is a summary of the Owner/Developer's responsibilities:

1. Sign the NOI contained in **Appendix B** and certify the SWPPP by signing the Owner/Developer's Certification statement contained in **Appendix A** of this report. The NOI should be submitted to:

   NYSDEC "Notice of Intent"
   Bureau of Water Permits
   625 Broadway
   Albany, New York 12233-3505

2. When the Owner/Developer receives a letter of "Acknowledgement of Notice of Intent" from the NYSDEC, post a copy of this letter at the site for public viewing on a kiosk, in a construction field trailer, in model home, etc. A copy should also be forwarded to the Owner/Developer's Qualified Representative for the project file.
3. Post at the site with the "Acknowledgement of Notice of Intent" a SWPPP inspection activity log for public viewing on a monthly basis.
4. Ensure that a log book, containing all the required documentation, is kept on site and made available for inspection upon request. The book should contain an extra copy of the "Acknowledgement of Notice of Intent", a copy of this Water Quality and Water Quantity and SWPPP report, weekly SWPPP inspection reports, SWPPP inspection quarterly reports and a copy of the SPDES General Permit.
5. Ensure the SWPPP report, inspection reports and inspection quarterly summaries are certified by an authorized person who has responsibility for the overall operation of the site such as a project manager or site superintendent. Certification of these documents is executed by signing the certifying statements contained in **Appendix A** and at the end of the inspection reports.

6. Require the General Contractor and all Sub Contractors involved with construction activity that disturbs site soils, to fully implement the SWPPP and the requirements set forth in the SPDES General Permit. The SWPPP should be certified by the General Contractor and all Sub Contractors involved with earth disturbance during construction by signing the certifying statement in **Appendix A**.

7. Upon project completion and when the site has reached final stabilization, the Owner/Developer should sign the Notice of Termination (NOT) prepared by the Owner/Developer's Qualified Representative and submit to:

   NYSDEC "Notice of Termination"
   Bureau of Water Permits
   625 Broadway
   Albany, New York 12233-3505

8. Retain all site records and documentation including Engineering reports, SWPPP reports, SWPPP inspection reports and all records of data used to complete the NOI for a minimum of 3 years from the date the site reached final stabilization.

9. Provide an Operation & Maintenance (O&M) manual to the new Owner/Developer who is expected to conduct the necessary O&M over the life of the structures as described in Section 10.0 of this report.

Contractors and Sub-Contractors

The following is a summary of the Contractor's responsibilities:

1.0 Implement fully the SWPPP while following the Phasing Plan and the requirements set forth in the SPDES General Permit. Certify the SWPPP by signing the Contractor's Certification statement contained in **Appendix A** of this report.

2.0 Provide the names and addresses of all subcontractors' involved in construction activities that disturb site soils for inclusion in the SWPPP.

3.0 Ensure all Sub Contractors involved in construction activities that disturb site soils implement fully the SWPPP and the requirements set forth in the SPDES General Permit. All Sub Contractors must certify the SWPPP by signing the Contractor's Certification statement contained in **Appendix A** of this report.

4.0 Conduct inspections on a regular basis of the erosion and sedimentation controls installed at the site. Maintain and repair as necessary all erosion and sedimentation controls.

1.2 Participant Contact Information

Owner/Developer/Operator	Owner/Developer's Qualified Representative	Contractor's & Sub- Contractors
Wallace Campus Manger, LLC 48-02 25th Avenue, Suite 400 Astoria, NY 11103	**LRC Engineering & Surveying, PC** 85 Civic Center Plaza, Suite 103 Poughkeepsie, NY 12601 (845) 243-2880	**TBD**

2.0 SITE DESCRIPTION

This section briefly describes existing and proposed hydrologic and hydraulic conditions at and around the project site as they relate to Surface Water Management planning considerations. Subsequent sections contain a description of the manner in which site runoff will be managed to minimize effects on areas adjacent to the site.

2.1 Location

The Wallace Campus is 2.52 acres consisting of 4 parcels located at 319, 325, 327-329, 331 Main Street, in the City of Poughkeepsie. The properties are identified as Tax ID#'s 6162-77-114098, 109079, 109077 and 6162-78-127091. Parcels 6162-77-121116, 116114, 116113 and 112116 are adjoining lots only part of site work for parking no utilities are proposed. The site is located on the north side of Main Street, the west side of Catharine Street, and the south side of Mill Street (Westbound Arterial). The project has UTM coordinates of 589367 Easting and 4617455 Northing.

Figure 1: Location Map

2.2 Topography

Elevations are mainly flat throughout the property. There is not much grade change from one side of the property to the other. The proposed buildings will be situated so that there is access to the buildings from all sides. The proposed site walks are all handicap accessible. The site is broken into many drainage areas. Some flow to an existing system located in Mill Street and others flow towards existing drywells located on site.

2.3 Land Cover and Site Development

The existing land cover consists of a combination of impervious building structures, asphalt pavement and grass area. Currently there are eleven existing buildings on the site. The buildings are surrounded by walkways, parking areas and grass areas. Four of the buildings will be removed and two buildings will be constructed in their place. The existing parking areas will be removed, and grassed areas will be constructed. Parking for the buildings will be available on site. The existing water shed has 2.91 acres of impervious surface. The proposed development will eliminate 0.42 acres of impervious area for a total of 2.49 acres of impervious surface.

2.4 Soils

Soils mantling the site have been classified by the United States Department of Agriculture (USDA) Soil Survey of Dutchess County, New York. The following soils groups are present, based on the afore-noted mapping:

1. Ur: Urban Land

According to NRCS soil hydraulic classifications Ur is a "Class D". The results of the onsite soil tests can be found in **Appendix D**.

2.5 Rainfall Data

Rainfall data utilized in the modeling and the analysis was obtained from NRCS & NRCC Extreme Precipitation in New York and New England, an interactive web tool for extreme precipitation analysis. The data used is specific to Poughkeepsie NY and various 24-hour storm events are presented below. A record of the extreme precipitation data is included in Appendix D.

Rainfall data utilized in the modeling and the analysis was obtained from Exhibit 10.1 in the New York State Department of Environmental Conservation publication entitled, "New York Guidelines for Urban Erosion and Sediment Control". The data used is specific to Dutchess County and various 24-hour storm events are presented below.

24-Hour Storm Event	24-hour rainfall
1 year	2.61
2 year	3.16
10 year	4.68
25 year	5.85
100 year	8.22

2.6 Streams and Water Bodies

There are no streams or water bodies located onsite.

2.7 Wetlands and Floodplains

There are no wetlands or floodplains located onsite.

2.8 Historical and Cultural Resources

The project area will be reviewed in accordance with Section 106 of the National Historic Preservation Act of 1966.

3.0 PROJECT DESCRIPTION

Tax Lots 6162-78-127091, 6162-77-114098, 109077, & 109079 will be combined into one tax parcel. The proposed project will demolish the existing buildings at 319, 325, and 327-329 main street and will replace them with a new building which will include retail and residential units. The existing building at #331 Main Street will be repurposed to include commercial area, fitness area, and residential area. The project will also include a new building to be located along Catharine Street and will have commercial daycare and residential area within it. The project will include modifications to the surrounding parking, sidewalk, and landscaping. The site will be graded to avoid any surface ponding and blend into the landscape.

4.0 METHODOLOGY

The stormwater design approach for this project will accommodate all NYS DEC requirements and will ensure that water quality and water quantity volumes are managed accordingly. The methodology for designing the stormwater management, as well as, the erosion and sediment control structures for this project are as follows:

1. Evaluate the hydrologic condition of the tributary area using the USDA-SCS Technical Release No. 20 (June 1986) Methods.
2. Determine peak flows from each watershed, for various storm events, using the Hydro CAD computer program.
3. Determine the water quality volume, runoff reduction volume, channel protection volume, overbank flood protection volume and extreme storm flood protection volume for each drainage area that requires mitigation. Design the mitigation program to the DEC water quality and quantity methodology for each affected area.
4. Perform hydrologic routings for the selected stormwater systems using the Hydro CAD computer program. Examine and compare the output for the DEC design criteria, and also for peak elevations and peak outflows for both pre and post-development conditions as may be prescribed by the local authority.
5. Design the erosion and sedimentation control structures, and prepare engineering calculations for the design of channels and conveyance piping in accordance with the "New York Standards and Specifications for Erosion and Sediment Control", July 2016, New York State Department of Environmental Conservation".

4.1 Green Infrastructure Planning Guidelines

The proposed project has been designed to implement as many green infrastructure planning guidelines as possible. All of the guidelines are not always applicable or cannot be achieved. The planning methods are discussed below.

Preservation of Undisturbed Areas

The proposed project is located in a portion of the site that has been disturbed in the past. There are no significant undisturbed areas to place into permanent conservation; however, the undisturbed slopes to the south of the project will remain.

Preservation of Buffers

There are no existing stream, river, or wetland vegetated buffers on the project site.

Reduction of Clearing and Grading

The proposed project is located in a previously disturbed area which has already been cleared in the past. This reduces the need for further clearing and grading on the property.

Locating Development in Less Sensitive Areas

As described above, the project is located in an area of the site that has been previously disturbed.

Open Space Design

The proposed development is designed so the buildings are grouped together.

Soil Restoration

Any soil disturbed during the course of construction will be restored in accordance with the NYSDEC Stormwater Design Manual, Section 5.1.6.

Roadway Reduction

There are no proposed roads in this project. The drive aisles are the minimum allowed by the City code.

Sidewalk Reduction

The sidewalks are the minimum width required to meet code and area only proposed where needed to provide safe and adequate pedestrian circulation.

Driveway Reduction

The drive aisles are the minimum required by code.

Cul-de-sac Reduction

There are no proposed cul-de-sacs or dead ends. The layout has a continuous drive aisle to achieve sufficient vehicle access while eliminating the need for large unnecessary dead ends.

Building Footprint Reduction

As a redevelopment project, several existing buildings on the site will be removed.

Parking Reduction

As a redevelopment project, the majority of the site is currently parking and will be partially eliminated to add green space and reduce parking to the minimum required.

5.0 HYDROLOGIC AND HYDRAULIC ANALYSIS

Stormwater Management Design has the purpose of improving the quality of surface water runoff from all impervious areas and providing retention for increased runoff quantities that may occur. For the proposed project, the appropriate methodology to manage stormwater is to capture and treat runoff for quality and quantity control for the site.

The hydrologic analysis was performed uses the Hydro CAD stormwater modeling software, and all data regarding areas has been calculated in AutoCAD. Soils information has been obtained through mapping per the NRCS Dutchess County Soils Survey, onsite deep tests and infiltration tests. The results of the Hydraulic Analysis can be found in **Appendix C**.

5.1 Proposed Runoff Treatment – Water Quality

By allowing stormwater runoff to infiltrate back into the ground we are able to minimize the impacts on the surround surface waters and treat the runoff through exfiltration into the sub surface soils. The evaluation of the site to determine the water quality volumetric requirements follow strictly the

procedures presented in chapters 4 & 5 of the New York State Stormwater Design Manual, and is provided in full in **Appendix D**.

The table below summarizes the volumes required and provided for runoff reduction and water quality; Detailed calculations can be found in **Appendix D.**

WQv REQUIRED	
DA-1	1547.5
DA-2	492.1
DA-3	300.1
DA-4	259.5
DA-5	1711.4
DA-6	644.5
DA-7	302.6
DA-8	724.6
DA-9	194.4
DA-10	387.5
DA-11	385.9
DA-12	695.5
DA-13	172.5
DA-14	399.4
DA-15	144.1
DA-16	153.3
DA-17	145.9
DA-18	250.9
TOTAL (CU FT)	**8,912**
TOTAL (AC FT)	**0.20**
REDEVELOPMENT TOTAL (CU FT)	**2,228**
REDEVELOPMENT TOTAL (AC FT)	**0.05**

Overall there is a reduction of impervious in this area. The discharge rate is reduced and the reduction in impervious surface will reduce the potential for pollutants. Based on the size, location, and site features it is not the ideal location to treat runoff.

Water quality requirements for the proposed project will be achieved via a runoff reduction practice. Runoff reduction practices will satisfy the minimum required runoff reduction volume (RRv) by use of direct infiltration via drywells.

RRv REQUIRED	
DA-1	307
DA-2	97
DA-3	58
DA-4	51
DA-5	331
DA-6	125
DA-7	61
DA-8	143

DA-9	38
DA-10	77
DA-11	74
DA-12	139
DA-13	34
DA-14	78
DA-15	29
DA-16	31
DA-17	29
DA-18	50
TOTAL (CU FT)	**1,752**
TOTAL (AC FT)	**0.04**

Water quality is provided by the eight proposed and two existing drywells, surrounded by stone. The table below summarizes the volumes provided for runoff reduction and water quality. Detailed calculations for the overall WQv is provided in **Appendix D.**

WQv PROVIDED	
DW-1	255
DW-2	348
DW-3	348
DW-4 & EXISTING	510
DW-5	255
DW-6	255
DW-7	255
DW-8	255
EXISTING	348
TOTAL (CU FT)	**2,829**
TOTAL (AC FT)	**0.06**

WQv PROVIDED	
DW-1	194
DW-2	313
DW-3	313
DW-4 & EXISTING	459
DW-5	230
DW-6	153
DW-7	146
DW-8	144
EXISTING	300
TOTAL (CU FT)	**2,253**
TOTAL (AC FT)	**0.05**

Pretreatment

For the proposed drywells, pretreatment has been provided in sumps in the catch basins and yard drains prior to entering the drywells.

5.2 Proposed Stormwater Management – Water Quality

The design observation points have been modeled in Hydro CAD and represents the total flow leaving the project drainage areas. Seven different drainage points have been evaluated based on the proposed site development. The drainage analysis points are shown on the pre and post drainage area maps in **Appendix E.** The table below displays the peak discharge rates for the design points and demonstrates that discharge rates for post construction are less than or equal to what is currently produced at the design points meeting the requirements of Overbank Flood Protection and Extreme Flood protection.

Channel Protection Volume is not required if the Runoff Reduction volume is reduced onsite through runoff reduction techniques or infiltration practices.

Peak Flow Discharge Rate DP-1			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	7.4	3.7	**-3.7**
2	9.1	4.7	**-4.4**
10	13.6	7.2	**-6.4**
25	17.2	9.1	**-8.1**
100	24.2	14.7	**-9.6**

Peak Flow Discharge Rate DP-2			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	1.1	0.7	**-0.4**
2	1.4	0.8	**-0.6**
10	2.0	1.2	**-0.8**
25	2.5	1.6	**-0.9**
100	3.6	2.2	**-1.4**

Peak Flow Discharge Rate OVERALL			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	8.5	4.4	**-4.1**
2	10.5	5.5	**-5.0**
10	15.6	8.5	**-7.2**
25	19.7	10.7	**-9.1**
100	27.8	16.8	**-11.0**

Peak Flow Discharge Rate TOWN CB			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	168.7	167.8	**-0.9**
2	169.3	167.9	**-1.4**
10	171.6	168.6	**-3.0**
25	174.4	169.3	**-5.1**
100	182.2	172.2	**-10.0**

6.0 PERMANENT STORMWATER MANAGEMENT FEATURES

6.1 Conveyance Piping

Storm runoff from developed areas will be conveyed to and through the stormwater system by a series of underground piping and surface flows. Due to relatively small watershed areas associated with each catch basin, the SCS Unit Hydrograph TR-55/TR-20 Method and inlet capacities for circular pipes were used for pipe sizing. In general, piping is designed such that:

- All proposed piping is sized to accommodate the peak flow from the 25-year 24-hour storm, as prescribed by the local authority.
- Flow capacity is sufficient to convey runoff to the receiving discharge points
- Strength is sufficient to withstand the soil cover and vehicle loads.
- In some instances the existing site drainage system is not capable of conveying all of the runoff contributing to the drainage structure. The model shows that the basins fill and sheet flow overland to the next available drainage structure in large storm events. In no cases does the "surcharging" exceed 6 inches. In these locations the post condition has been improved to convey the flow or reduce the "surcharging".

6.2 Drywells

Monthly Maintenance

- Check all inflow pipes and clear of any debris
- Check all outflow pipes and clear of any debris
- Check to ensure drywell is draining between storm cycles.

Annual Maintenance

- Check depth of drywell to ensure greater than 25% storage capacity remains.
- If less than 25% contract Vacuum truck services to clean debris from Drywell.
- If drywell is not draining between storms, contract vacuum truck to clean debris.

7.0 STORMWATER EROSION AND SEDIMENT CONTROLS

Several types of permanent and temporary storm water pollutant controls are required to be installed and implemented for pre-construction, during construction and post-construction as shown on the Construction Plans and per the NYSDEC SPDES General Permit. Guidelines and recommendations can be found in the "New York State Standards and Specifications for Erosion and Sediment Control."

The permanent storm water management system has been designed to accommodate peak storm flows utilizing catch basins, piping and grass swales.

Selection of temporary storm water controls will be on an "as needed basis" and will depend on the specific conditions of the site. Since site characteristics can change significantly during construction, it is important to monitor the site regularly to ensure the proper selection and implementation of the necessary controls. These controls include, but are not limited to, silt fence, drainage swales, check dams, hay bales, stone construction entrances, sediment traps and seeding and mulching.

7.1 Erosion and Sediment Controls

Temporary Stabilization

Silt fences, drainage swales, stabilized stone construction entrances, erosion control blankets, and seeding and mulching, as well as, other controls will be utilized as temporary surface water management features. See the Erosion and Sediment Control Plan(s) and details sheets for the location, size, quantity and details of the temporary stormwater management features as described below.

Silt Fence

Silt fence will be used as necessary to reduce the sediment load in the receiving drainage ditches and as a perimeter sediment control device. In addition, silt fencing will be placed on the downslope sides of all disturbed areas 5 ft. from the toe of the slope until more permanent drainage and erosion control structures are established. In cases with environmentally sensitive areas adjacent to the downslope sides of disturbed areas, silt fencing should be placed at the toe of the slope outside the sensitive area. All silt fence are to be 36" minimum length with built in woven wire mesh (min. 6X6 14 ½ gauge) unless otherwise specified on the construction details.

Inlet Protection

Storm drain inlet protection measures prevent soils, sediment, and debris from entering storm basins. In unpaved areas inlet protection shall consist of a row of silt fence completely encircling the drain inlet. In paved areas inlet protection can consist of stone and block, silt sox, or hanging filter traps as specified on the plans.

Stabilized Stone Construction Entrance

A construction entrance is used at all entrances and exists to construction activities. The stone construction entrance is stabilized to reduce tracking of mud and dirt onto surrounding roads and surfaces.

Seeding and Mulching

Seeding and mulching is one of the most important and underutilized erosion control practices. Exposed earths pose the greatest risks for erosion and sediment. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. Temporarily Ceased means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Soil Stockpile

A soil stockpile is formed with soil excavated to provide proper building elevations. Stockpiled soil is later used to contour the surface to the desired grades, removed from the site, or the material is used for reclamation/restoration of the region following the removal of roads and facilities. All soils piled onsite must be completely enclosed by silt fence around the toe of the slope. The site fence should be

installed a minimum of 2 feet from the toe of the slope. The soil pile should have a maximum side slope of 1V:2H. All soil piles must be stabilized with seed and mulch or covered with a plastic tarp if the soil will not be used within fourteen (14) days from the date the current soil pile was created.

Permanent Stabilization

Permanent stormwater stabilization measures include catch basins, piping and other stormwater structures as described in sections 5 and 6. In all instances, the structures associated with the stormwater management system have been sized to accommodate peak flows from the appropriate storm events as required by the governing municipality. All lawns, basins and swales will be permanently seeded and mulched and maintained as necessary to prevent over growth.

Concrete Washout Areas

Concrete washouts are used to contain concrete and liquids when the chutes of concrete mixers and hoppers are cleaned after a delivery. The washout facility consolidates the liquids and allows them to harden for easy disposal. This prevents contaminated liquids from flowing offsite or leaching into the groundwater aquifer.

7.2 Other Pollutant Controls

Paints and Solvents

During construction temporary structures such as construction trailers may be moved on site to store items such as paints, solvents and gasoline pertinent to the continuation of construction activities. The intention of these structures is to shelter potential contaminants from stormwater and reduce the potential of toxic chemicals from entering the stormwater runoff due to construction activities.

Solvents and detergents that will be used for regular cleaning and maintenance of construction vehicles or temporary structures may be stored on-site. Solvents shall be used in cleaning machinery pursuant to 6 NYCRR Part 750. After use, solvents shall be disposed of in approved containers and removed from site at scheduled intervals.

Fuels

Fuel for construction equipment shall either be obtained from a licensed distributor of petroleum products or from an approved above ground storage tank on site. A distributor may be contracted to arrive on site periodically and fill all equipment as necessary. All distributors of petroleum products must have adequate liability insurance to mitigate and clean up any spills that occur on site as well as obtain appropriate permits and licenses from the NYSDEC. All above ground storage tanks with a combined capacity of 1,100 gallons shall be registered with the NYSDEC pursuant to 6 NYCRR Part 614 Standards for New and Substantially Modified Petroleum Storage Facilities.

Fuel from construction vehicles may come into contact with stormwater when vehicles are stored outside. Good housekeeping and preventative maintenance procedures shall be implemented to ensure fuel spills and leaks are minimized during refueling and storage. Any small-scale fuel or oil spills must be remedied immediately and contaminated soils shall be disposed of appropriately. A licensed spill prevention and response team shall handle large-scale gasoline spills.

Oil and other petroleum products may be stored on site, in limited quantities, to ensure the continued operation of construction equipment in the event a scheduled delivery is unavailable. Items shall be stored in their original containers within temporary structures and shall not be exposed to stormwater.

Used oil and petroleum products shall be stored in approved containers until recycled or disposed of at an approved disposal facility.

Temporary Facilities

Temporary sanitary facilities may be located on site for construction workers. This facility shall be located in an accessible and visible location. Such a facility shall be leak and tip proof. A waste management company may be contracted to arrive on site and provide the routine pumping and sanitization of the facility. Such a company shall have adequate liability insurance to mitigate and clean up any spills that occur on site as well as appropriate permits and licenses from the NYSDEC.

Dust Control

Construction vehicles shall enter and exit the site at the stabilized construction entrance. The construction entrance will trap dust and mud that would otherwise be carried off-site by construction traffic. Water trucks will be used as needed during construction to reduce dust generated on the site. The general contractor will provide dust control in compliance with applicable local and state dust control regulations. The construction entrances will be maintained during the life of the construction and repaired, and/or cleaned, periodically to ensure proper function.

Dewatering

If dewatering is required the water must be free of silt and sediment prior to discharge offsite or to any existing water bodies. If sediment is present, methods of sediment removal may include, but are not limited to; silt bags, temporary sediment traps, temporary sediment basins, or sheet flow across stabilized vegetated surfaces. As the quantity and quality of water cannot accurately be determined prior to excavation dewatering practices must be determined during construction and should be approved by the site engineer prior to commencing any dewatering activities.

Solid Waste

No solid materials are allowed to be discharged from the site with stormwater. All solid waste shall be collected and placed in containers. The containers will be emptied periodically by a contract trash disposal service and hauled away from the site.

Thermal Pollution

Stormwater that comes in contact with roadways, driveways, parking lots or other impermeable surfaces may increase in temperature during warm weather. If stormwater is discharged into surface water bodies, the temperature of the water body may also increase, potentially threatening plant and animal species sensitive to temperature changes as well as providing an environment that may cause nuisance species to flourish.

After development is complete, impervious areas shall be graded to channel water to catch basins and culverts, which in turn convey stormwater to the stormwater management basin. All stormwater shall be stored and treated within the basins and shall be released over a 24 hour period, which shall minimize the potential for raising the temperature of any downstream water bodies.

7.3 Best Management Practices

Throughout construction, care shall be taken to ensure sediment does not enter surface water bodies and chemicals do not enter stormwater, potentially contaminating surface and groundwater supplies. The following Best Management Practices (BMP) shall be observed to maintain responsible environmental practices on the construction site.

Good Housekeeping

Good housekeeping is essential to reducing the risk of contaminating runoff waters during every stage of construction. The General Contractor shall ensure supervisors train each employee in good housekeeping practices as they pertain to the implementation of this SWPPP.

Immediately following mobilization, the General Contractor shall take an inventory of all equipment and containers containing hazardous or toxic materials and submit this inventory to the Owner/Developer to keep on-site with this Stormwater Pollution Prevention Plan. This inventory shall be updated regularly to reflect changes in the quantity or type of hazardous and toxic materials stored on site. In the event of a spill, the Spill Response Team can refer to the inventory if the contents of the spill are unknown.

All equipment shall be operational while it is stored on site. Inspections shall be conducted regularly to ensure all equipment is free of leaks and that oil and grease are not in contact with soils or stormwater. Portable equipment such as chain saws, drills, as well as hand tools, must be placed within a trailer or under cover at the end of each work day.

A storage area shall be designated on-site where all hazardous or toxic materials are stored. Each employee shall return the materials to the designated storage area following use. Chemicals including oil, grease, solvents and detergents shall be stored on-site in approved containers only. Used chemicals shall be disposed of in refuse containers and removed periodically. Containers shall be regularly inspected to ensure the integrity of the container and sealed to prevent leaks.

A scheduled clean-up shall occur at the end of each workweek. During this clean up, empty containers of solvents, oils, grease, paints and detergents shall be disposed of, containers of gasoline shall be placed in trailers where they are not in contact with stormwater and the inventory shall be updated. Empty containers shall not be permitted on the ground.

Preventative Maintenance

All on-site vehicles must be inspected regularly for oil and grease leaks. All leaks shall be repaired immediately upon obtaining the appropriate equipment. If the leak cannot be fixed immediately, it shall be temporarily mitigated to prevent the flow of contaminants onto the soil and potentially into the stormwater. If necessary, the reservoir will be drained to stop the flow of contaminants or the vehicle will be moved under cover. Drip pans shall be used when performing any maintenance or cleaning on construction vehicles.

Spill Prevention and Response

The safety of employees and neighbors shall be of utmost concern when hazardous or toxic chemicals are stored or utilized on-site. Safety Data Sheets (SDS) shall be obtained for all toxic or hazardous substances that are stored on-site to provide employees with a valuable database in assessing risk in the event of a spill.

Any above ground storage tanks on site shall be installed pursuant to 6 NYCRR Part 614. According to the New York State "Minimum Standards for New and Substantially Modified Above Ground Storage Facilities", all tanks installed must meet or exceed the design criteria in one or more of the following design or manufacturing standards: UL No. 142, UL No. 58, API Standard No. 650, API Standard No. 620, CAN4-S601-M84 or CAN4-S630-M84. Tanks constructed of wood, concrete, aluminum, fiberglass reinforced plastic as well as riveted or bolted steel tanks are not permitted. All tanks must have installed

leak detection systems, secondary containment, corrosion protection, and undergo periodic monitoring pursuant to all Part 614 requirements.

Should a spill occur, a licensed spill contractor will be contacted to mitigate the potential negative effects of a spill. Additionally, the NYSDEC must be notified of a release of petroleum products. The General Contractor shall have trained employees knowledgeable in the location of sorbent, brooms, rags and mops in the event of a small-scale spill. An inventory of equipment and its location shall be posted in a visible location as well as kept in proximity to this Pollution Prevention Plan. If the General Contractor does not have Hazardous Materials trained employees on site, a firm that specializes in handling spills, soil and water contamination shall be called.

After a spill occurs, all personnel not trained in hazardous materials spill response shall be asked to evacuate the immediate area. The NYSDEC Spill Response Team shall be called to investigate the spill and determine if additional actions should be taken to ensure the safety of personnel and nearby residents. Should any employee have a suspected injury, a local emergency squad must be contacted immediately.

8.0 CONSTRUCTION SEQUENCE SCHEDULING

The scale of site construction does not necessitate that this project be a phased construction project; However, the construction will be sequenced to limit the exposed soils to reduce the amount of sediments in runoff water and ultimately preserve the quality of surface waters. The construction method selected is designed to combine development with responsible land management as well as protection of sensitive environments both within the proposed development and the surrounding area.

Temporary and permanent stabilization methods will be implemented before construction begins and will be continuously modified throughout the project to provide the best methods for stormwater management and pollution prevention. For more details pertaining to construction sequence, please refer to the "NYSDEC Instruction Manual for Stormwater Construction Permit" pages 23-26. A typical and sample ordering of site construction activities is as follows:

Pre-Construction Activities

- Identify all natural resources and mark and protect them as necessary i.e trees, vegetation, limits of disturbance.
- Identify on-site and downstream surface water bodies and install controls to protect them from sedimentation.
- Establish temporary stone construction entrance pads to capture mud and debris from the tires of construction vehicles.
- Install perimeter sediment controls such as silt fences, as shown on the project plans.
- Install temporary construction fencing as shown on the project plans or as directed by the site engineer.
- All earth disturbances during this phase should be limited to work necessary to install erosion and sedimentation controls.

During Construction Activities

- Complete building demolition in accordance with notes and procedures identified on the demolition plan.

- As site grading is completed install runoff and drainage controls as shown on the project plans and as necessary. These controls should reduce run-off flow rates and velocities, as well as, divert off site and clean run-off.
- Stabilize the conveyance system i.e. ditches, swales, berms etc. by seeding, mulching and installing rock check dams.
- Utilize practices to infiltrate stormwater runoff as much as possible when applicable.
- Stabilize all stormwater runoff outlets as shown on the project plans and as necessary.
- Limit soil disturbance to small areas and preserve as much of the existing vegetation as practical.
- Complete all underground utility improvements prior to installation of hard surface improvements.
- All topsoil stockpiles should be staged in an area away from surface waters and storm drains and should be protected and stabilized.
- Earth disturbance is not allowed in established buffers, within any regulated distance from wetlands, or within the high water line of a body of water affected by tidal action or other such protected zones.
- At any location where surface run-off from disturbed or graded areas may flow off-site, sedimentation control measures must be installed to prevent sedimentation from being transported.
- Regular inspections and maintenance should be performed as described in the following section.

Post-Construction Activities

- Identify the permanent structural or non-structural practices that will remain on the site.
- Provide an Operation & Maintenance (O&M) manual to the new Owner/Developer who is expected to conduct the necessary O&M over the life of the structures as described in Section 10.0 of this report.

9.0 IMPLEMENTING THE SWPP

9.1 Employee Training

All employees involved in site-development activities shall be aware of the stipulations outlined in this SWPPP as it pertains to their everyday activities. All such employees must be able to recognize potential problems and have the ability to provide either temporary or permanent stabilization measures, as appropriate, to mitigate stormwater runoff before problems occur. The NYSDEC periodically holds workshops on erosion and sediment control. It is recommended that the affected and responsible on-site personnel attend these workshops to ensure training is current and up to date. Contact the NYSDEC for more information.

9.2 Site Inspections

The Owner/Developer must have a qualified professional conduct an assessment of the site prior to the commencement of construction and certify in an inspection report that the appropriate erosion and sediment controls described in this SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction. A qualified professional is defined as a Professional Engineer or Landscape Architect licensed to practice in New York State, or is a Certified Professional in Erosion and Sediment Control (CPESC). Once construction begins regular inspection of construction activities by the qualified professional are required at least once every 7 days to ensure deficiencies regarding erosion and sedimentation are reported and corrected. It is the responsibility of the Contractor to continuously monitor construction activities to ensure the measures outlined in this report are being implemented.

Areas which have not been fully stabilized, areas used for materials storage and all structural control measures must be inspected once every 7 calendar days to monitor erosion and assess the risk of sedimentation. For sites where soil disturbance activities are on-going and the owner operator has received authorization in accordance with Part II.C.3 to disturb greater than five (5) acres of soil at any one time, the qualified inspector shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days. For areas construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the qualified inspector shall conduct a site inspection at least once every (30) calendar days.

A thorough site evaluation shall be performed to determine the continued applicability of the permit, and assess the need to make any changes that have not already been reflected in this SWPPP. The SWPPP shall be reviewed to evaluate its overall effectiveness in preventing sediment laden stormwater runoff. Temporary and permanent stabilization methods shall be assessed and new methods shall be established, should any method be determined to be inadequate.

A copy of the SWPPP must be maintained on site at all times in the field log book. The Owner/Developer must maintain a record of all inspection reports with the on site SWPPP. The SWPPP and inspection reports must be maintained on site and be made available to the permitting authority upon request.

9.3 Maintenance

It shall be necessary to maintain all temporary controls installed as well as vegetative measures across the site. Maintenance shall also be necessary to ensure the permanent structural features, such as underground chambers, catch basins and conveyance piping remain optimally functional and continue to reduce the risk of sediment loading of surface water bodies. All controls shall be repaired or replaced as necessary and as noted on the inspection reports as prepared by the Owner/Developer's Qualified Representative.

During construction, maintenance of these stabilization measures shall be the responsibility of the General Contractor or appropriate Sub Contractors. Vegetative plantings must not be allowed to become overgrown. Vegetation shall be removed should it be ineffective and be replaced with a variety of grasses, trees and shrubs more suitable for preventing stormwater runoff. Silt fences must be inspected regularly to ensure that they are still effective and their capability to reduce stormwater runoff has not been reduced due to prolonged sun exposure.

Piping and catch basin sumps shall be cleaned out periodically to prevent the collection of sediment that will reduce the maximum flow. Sediment must be removed from sediment basins, infiltration basins or traps whenever their capacity has been reduced by 50 percent of their design capacity.

Guidelines and recommendations for installation and maintenance practices can be found in the "New York State Standards and Specifications for Erosion and Sediment Control"

9.4 Progress Reports and Summaries

Progress reports shall be completed by the General Contractor and all Sub Contractors weekly to document any conditions, which may affect adherence to the construction schedule and may ultimately result in changes to the stormwater pollution prevention plan.

Each progress report must contain the project, date, weather conditions and a brief description of progress made throughout the week, including the use of temporary and permanent stabilization measures on all exposed soils. The progress reports shall be filed with this SWPPP in the on-site log book.

Additionally, as described in Section 1.1 of this report, the Owner/Developer's Qualified Representative will prepare weekly inspection reports and quarterly summaries. These reports should be maintained in the on site log book as well.

9.5 Certification

Prior to starting construction, the Owner/Developer must certify that to the best of their knowledge this SWPPP was prepared in accordance with the requirements in the NYSDEC SPDES General Permit and that it meets all federal, state and local erosion and sediment control requirements. The certifying statement is presented in **Appendix A** of this report.

The General Contractor and all appropriate Sub Contractors are responsible for reading and understanding the SWPPP and are also required to certify the SWPPP by signing the certifying statement presented in **Appendix A** of this report.

All inspection reports and inspection quarterly summaries are to be certified by an authorized person who has responsibility for the overall operation of the site such as a project manager or site superintendent. Certification of these documents is executed by signing the certifying statements presented at the end of the inspection reports.

10.0 POST CONSTRUCTION INSPECTION & MAINTENANCE

Post-construction, regularly scheduled inspections and maintenance will be necessary to ensure the permanent structural features such as the stormwater management basins and the conveyance system components remain optimally functional and continue to reduce the risk of sediment loading of surface water bodies. Follow manufactures guidelines and the detailed construction installation and maintenance guidelines included in **Appendix A** for all stormwater management practices.

When construction is complete, the Contractor will remain responsible for the site until the entire site has reached final stabilization. The site is considered stabilized when all soil disturbing activities have been completed and a uniform, perennial vegetative cover, with a density of 80%, has been established or equivalent stabilization measures, such as the use of mulches or geotextiles, have been employed on all unpaved areas and areas not covered by permanent structures. Weekly inspections should continue until the site has reached this point.

At the time of final stabilization, the Owner/Developer's Qualified Representative shall perform a final inspection of the site and certify that the site has successfully undergone final stabilization using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls such as silt fence, not needed for long term use, have been removed. All storm water practices must be clean and free of sediment and or debris or must be cleaned by the contractor prior to turning the maintenance responsibilities over to the Owner/Developer. At this point, the Owner/Developer is responsible for the following:

1. Submit to the NYSDEC a NOT prepared by the Owner/Developer's Qualified Representative as described in Section 1.1 of this report.

2. Identify all the permanent stormwater management structures that have been constructed and provide the New Owner/Developer with an Operations and Maintenance (O&M) manual that will be necessary in order for the structures to function properly after the site has been stabilized. Section 10.0 of this report satisfies the O&M requirements
3. Transfer the Water Quality and Quantity Report and SWPPP to the New Owner/Developer.
4. Certify that the permanent structures have been constructed as described by this plan and the drawings.

The new Owner/Developer shall overtake responsibility of inspecting and maintaining drainage and erosion control features over the lifetime of the structures. Maintenance personnel, employed by the New Owner/Developer, must be aware of the SWPPP and should be trained to recognize signs that stabilization measures may not be performing optimally or are failing. The inspection of on-site stabilization measures will become part of routine preventative maintenance practiced by the New Owner/Developer and his employees.

10.1 Inspection

Overall Site Inspection

The overall site, embankments, vegetation and stormwater conveyance system components including catch basins, culverts, swales and outlets should be inspected regularly. The inspections should include but are not limited to:

1. Density and condition of vegetation and ground cover.
2. Erosion, differential settlement or cracking of embankment.
3. Bulging or sliding of toe of embankments.
4. Sedimentation of on-site or downstream water bodies.
5. Sedimentation of culverts or swales.
6. Sedimentation of lawn areas, paved areas, within the sand filter units or catch basin sumps.
7. Accumulation of pollutants, including oils or grease in catch basin sumps.
8. Damage or fatigue of storm sewer structures or associated components.

Water Quality Practice Inspection (if applicable)

All water quality practices and all associated features should be inspected regularly. The inspections should include but are not limited to:

1. Density and condition of vegetation and ground cover.
2. All features of the practice should be clear of brush and tree growth.
3. Erosion, differential settlement or cracking of basin embankments.
4. Bulging or sliding of toe of embankments.
5. Presence of animal burrows.
6. Evidence of clogging or sedimentation at inlets or outlets.
7. Erosion of the flow path through the detention basin.
8. Spillways should be inspected for structural integrity.
9. Spillways should be clear of obstructions.
10. Inlet/outlet riprap should be inspected for scour and dislodged stones and obstructions should be removed.
11. Accumulation of sediments at inlets, outlets and silt traps.

Detailed inspection checklists for each of the Stormwater Management Practices can be found in **Appendix A**.

10.2 Maintenance

Overall Site Maintenance

Maintaining vegetative and structural measures for soil protection is necessary to keep the storm water system functioning properly. Maintenance should occur on a regular basis and should include but is not limited to:

Seasonal Maintenance

1. Vegetated areas should be maintained to promote vigorous and dense growth. Lawn areas should be mowed at least three times a year but may require more frequent mowing's depending on the growth rate.
2. Trees and unwanted vegetation should be removed from inlet structures, outlet structures, banks, and berms to prevent clogging or weakening of the berms and structures.
3. Paved areas should be swept at least twice a year and in the early spring for removal of deicing materials.
4. Accumulation of litter and debris should be removed during each mowing or sweep operation.
5. Structural components of the storm sewer system such as culverts and catch basins which require repair or replacement should be addressed immediately following identification.
6. Cleanout of catch basin sumps should occur when accumulation of sediments and debris are within six inches of the catch basin outlet pipe.
7. Swale and drainage way maintenance will include periodic mowing, occasional spot reseeding and weed control. Weeds and woody plants should be eradicated or cut back since they reduce the efficiency of the drainage way.
8. Rip rap lined inlet and outlets that show signs of scour should be repaired. Weed and brush growth at the inlets and outlets should be controlled as needed.

Winter Maintenance

1. Remove snow and ice from inlet structures, basin inlet and outlet structures and away from culvert end sections.
2. Snow removed from paved areas should not be piled at inlets/outlets of the stormwater management basin.
3. Use of deicing materials should be limited to sand and environmentally friendly chemical products. Use of salt mixtures should be kept to a minimum.
4. Sand used for deicing should be clean, course material free of fines, silt, and clay.
5. Materials used for de-icing should be removed during the early spring by sweeping and/or vacuuming.

Underground Practices Maintenance

1. A consistent schedule of inspection shall be observed for all system components to insure continued effective operation.
2. Areas surrounding the surface access points shall be kept clear of overgrowth.
3. All inspections shall be logged. A specific schedule, on a quarterly basis, shall be maintained by the system owner/operator and a periodic replacement of the water quality practice media shall be schedule for minimally every two years.
4. Accumulation of litter and debris should be removed during each mowing or sweep operation.
5. Structural components of the system which require repair or replacement should be addressed immediately following identification.
6. Spillways should be cleared of obstructions.
7. Inlet/outlet riprap damage due to scour should be repaired.

For any proprietary practices refer to manufacturer specifications for additional maintenance requirements. Detailed maintenance checklists for each of the Stormwater Management Practices can be found in **Appendix A**.

11.0 CONCLUSION

The Engineer has designed a NYSDEC-compliant Stormwater Management Plan for the Wallace Campus project. Overall, the proposed stormwater management system reduces and/or eliminates the impacts of the proposed re-development by controlling and treating stormwater using catch basins, storm-sewer piping, and drywells. Offsite storm discharges and velocities for the proposed project are less than what currently exists. The stormwater management system will function adequately and will not adversely affect adjacent or downstream properties provided it is constructed and maintained as outlined in this plan and as shown on the site plans.

APPENDIX A

Construction Site Log Book
Owner/Developer and Contractor Certification Forms
Pre/Duration Construction Maintenance Inspection Checklists (NYSDEC Sample)
Post Construction Operation and Maintenance

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM
FOR CONSTRUCTION ACTIVITIES

CONSTRUCTION SITE LOG BOOK

Table of Contents

I. Pre-Construction Meeting Documents.

a. Preamble to Site Assessment and Inspections

b. Operator’s Certification

c. Qualified Professional's Credentials & Certification

d. Pre-Construction Site Assessment Checklist

a.

II. Construction Duration Inspections

a. Directions

b. Modification to the SWPPP

III. Monthly Summary Reports

IV. Monitoring, Reporting, and Three-Month Status Reports

a. Operator’s Compliance Response Form

a

Properly completing forms such as those contained in this document meet the inspection requirement of NYSDEC SPDES GP for Construction Activities. Completed forms shall be kept on site at all times and made available to authorities upon request.

I. PRE-CONSTRUCTION MEETING DOCUMENTS

Project Name _____

Permit No. _____**Date of Authorization**_____

Name of Operator _____

Prime Contractor _____

a. Preamble to Site Assessment and Inspections -The Following Information To Be Read By All Person's Involved in The Construction of Stormwater Related Activities:

The Operator agrees to have a qualified professional[1] conduct an assessment of the site prior to the commencement of construction[2] and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements.

When construction starts, site inspections shall be conducted by the qualified professional at least every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater (Construction Duration Inspections). The Operator shall maintain a record of all inspection reports in this site logbook. The site logbook shall be maintained on site and be made available to the permitting authorities upon request. The Operator shall post at the site, in a publicly accessible location, a summary of the site inspection activities on a monthly basis (Monthly Summary Report).

The operator shall also prepare a written summary of compliance with this general permit at a minimum frequency of every three months (Operator's Compliance Response Form), while coverage exists. The summary should address the status of achieving each component of the SWPPP.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified professional perform a final site inspection. The qualified professional shall certify that the site has undergone final stabilization[3] using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 "Qualified Professional means a person knowledgeable in the principles and practice of erosion and sediment controls, such as a Certified Professional in Erosion and Sediment Control (CPESC), soil scientist, licensed engineer or someone working under the direction and supervision of a licensed engineer (person must have experience in the principles and practices of erosion and sediment control).

2 "Commencement of construction" means the initial removal of vegetation and disturbance of soils associated with clearing, grading or excavating activities or other construction activities.

3 "Final stabilization" means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of eighty (80) percent has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed on all unpaved areas and areas not covered by permanent structures.

b. Operators Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. Further, I hereby certify that the SWPPP meets all Federal, State, and local erosion and sediment control requirements. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law. "

Name (please print):_____

Title _____ **Date:**_____

Address: _____

Phone: _____ **Email:**_____

Signature:_____

c. Qualified Professional's Credentials & Certification

" I hereby certify that I meet the criteria set forth in the General Permit to conduct site inspections for this project and that the appropriate erosion and sediment controls described in the SWPPP and as described in the following Pre-construction Site Assessment Checklist have been adequately installed or implemented, ensuring the overall preparedness of this site for the commencement of construction."

Name (please print):_____

Title _____ **Date:**_____

Address: _____

Phone: _____ **Email:**_____

Signature:_____

d. Pre-construction Site Assessment Checklist (NOTE: Provide comments below as necessary)

1. Notice of Intent, SWPPP, and Contractors Certification:

Yes No NA

[ ] [ ] [ ] Has a Notice of Intent been filed with the NYS Department of Conservation?
[ ] [ ] [ ] Is the SWPPP on-site? Where?_____
[ ] [ ] [ ] Is the Plan current? What is the latest revision date?_____
[ ] [ ] [ ] Is a copy of the NOI (with brief description) onsite? Where?_____
[ ] [ ] [ ] Have all contractors involved with stormwater related activities signed a contractor's certification?

Pre-construction Site Assessment Checklist (continued)

2. Resource Protection

Yes No NA

[ ] [ ] [ ] Are construction limits clearly flagged or fenced?

[ ] [ ] [ ] Important trees and associated rooting zones, on-site septic system absorption fields, existing vegetated areas suitable for filter strips, especially in perimeter areas, have been flagged for protection.

[ ] [ ] [ ] Creek crossings installed prior to land-disturbing activity, including clearing and blasting.

3. Surface Water Protection

Yes No NA

[ ] [ ] [ ] Clean stormwater runoff has been diverted from areas to be disturbed.

[ ] [ ] [ ] Bodies of water located either on site or in the vicinity of the site have been identified and protected.

[ ] [ ] [ ] Appropriate practices to protect on-site or downstream surface water are installed.

[ ] [ ] [ ] Are clearing and grading operations divided into areas <5 acres?

4. Stabilized Construction Entrance

Yes No NA

[ ] [ ] [ ] A temporary construction entrance to capture mud and debris from construction vehicles before they enter the public highway has been installed.

[ ] [ ] [ ] Other access areas (entrances, construction routes, equipment parking areas) are stabilized immediately as work takes place with gravel or other cover.

[ ] [ ] [ ] Sediment tracked onto public streets is removed or cleaned on a regular basis.

5. Perimeter Sediment Controls

Yes No NA

[ ] [ ] [ ] Silt fence material and installation comply with the standard drawing and specifications.

[ ] [ ] [ ] Silt fences are installed at appropriate spacing intervals

[ ] [ ] [ ] Sediment/detention basin was installed as first land disturbing activity.

[ ] [ ] [ ] Sediment traps and barriers are installed.

6. Pollution Prevention for Waste and Hazardous Materials

Yes No NA

[ ] [ ] [ ] The Operator or designated representative has been assigned to implement the spill prevention avoidance and response plan.

[ ] [ ] [ ] The plan is contained in the SWPPP on page _____

[ ] [ ] [ ] Appropriate materials to control spills are onsite. Where? _____

II. CONSTRUCTION DURATION INSPECTIONS

a. Directions:
Inspection Forms will be filled out during the entire construction phase of the project.
Required Elements:

(1) On a site map, indicate the extent of all disturbed site areas and drainage pathways. Indicate site areas that are expected to undergo initial disturbance or significant site work within the next 14-day period;

(2) Indicate on a site map all areas of the site that have undergone temporary or permanent stabilization;

(3) Indicate all disturbed site areas that have not undergone active site work during the previous 14-day period;

Inspect all sediment control practices and record the approximate degree of sediment accumulation as a percentage of sediment storage volume (for example, 10 percent, 20 percent, 50 percent);

(5) Inspect all erosion and sediment control practices and record all maintenance requirements such as verifying the integrity of barrier or diversion systems (earthen berms or silt fencing) and containment systems (sediment basins and sediment traps). Identify any evidence of rill or gully erosion occurring on slopes and any loss of stabilizing vegetation or seeding/mulching. Document any excessive deposition of sediment or ponding water along barrier or diversion systems. Record the depth of sediment within containment structures, any erosion near outlet and overflow structures, and verify the ability of rock filters around perforated riser pipes to pass water; and

(6) Immediately report to the Operator any deficiencies that are identified with the implementation of the SWPPP.

SITE PLAN/SKETCH

Inspector (print name)	**Date of Inspection**
Qualified Professional (print name)	**Qualified Professional Signature**

The above signed acknowledges that, to the best of his/her knowledge, all information provided on the forms is accurate and complete.

Maintaining Water Quality

Yes No NA

[ ] [ ] [ ] Is there an increase in turbidity causing a substantial visible contrast to natural conditions?

[ ] [ ] [ ] Is there residue from oil and floating substances, visible oil film, or globules or grease?

[ ] [ ] [ ] All disturbance is within the limits of the approved plans.

[ ] [ ] [ ] Have receiving lake/bay, stream, and/or wetland been impacted by silt from project?

Housekeeping

1. General Site Conditions

Yes No NA

[ ] [ ] [ ] Is construction site litter and debris appropriately managed?

[ ] [ ] [ ] Are facilities and equipment necessary for implementation of erosion and sediment control in working order and/or properly maintained?

[ ] [ ] [ ] Is construction impacting the adjacent property?

[ ] [ ] [ ] Is dust adequately controlled?

2. Temporary Stream Crossing

Yes No NA

[ ] [ ] [ ] Maximum diameter pipes necessary to span creek without dredging are installed.

[ ] [ ] [ ] Installed non-woven geotextile fabric beneath approaches.

[ ] [ ] [ ] Is fill composed of aggregate (no earth or soil)?

[ ] [ ] [ ] Rock on approaches is clean enough to remove mud from vehicles & prevent sediment from entering stream during high flow.

Runoff Control Practices

1. Excavation Dewatering

Yes No NA

[ ] [ ] [ ] Upstream and downstream berms (sandbags, inflatable dams, etc.) are installed per plan.

[ ] [ ] [ ] Clean water from upstream pool is being pumped to the downstream pool.

[ ] [ ] [ ] Sediment laden water from work area is being discharged to a silt-trapping device.

[ ] [ ] [ ] Constructed upstream berm with one-foot minimum freeboard.

2. Level Spreader

Yes No NA

[ ] [ ] [ ] Installed per plan.

[ ] [ ] [ ] Constructed on undisturbed soil, not on fill, receiving only clear, non-sediment laden flow.

[ ] [ ] [ ] Flow sheets out of level spreader without erosion on downstream edge.

3. Interceptor Dikes and Swales

Yes No NA

[ ] [ ] [ ] Installed per plan with minimum side slopes 2H:1V or flatter.

[ ] [ ] [ ] Stabilized by geotextile fabric, seed, or mulch with no erosion occurring.

[ ] [ ] [ ] Sediment-laden runoff directed to sediment trapping structure

Runoff Control Practices (continued)

4. Stone Check Dam

Yes No NA

[ ] [ ] [ ] Is channel stable? (flow is not eroding soil underneath or around the structure).
[ ] [ ] [ ] Check is in good condition (rocks in place and no permanent pools behind the structure).
[ ] [ ] [ ] Has accumulated sediment been removed?.

5. Rock Outlet Protection

Yes No NA

[ ] [ ] [ ] Installed per plan.
[ ] [ ] [ ] Installed concurrently with pipe installation.

Soil Stabilization

1. Topsoil and Spoil Stockpiles

Yes No NA

[ ] [ ] [ ] Stockpiles are stabilized with vegetation and/or mulch.
[ ] [ ] [ ] Sediment control is installed at the toe of the slope.

2. Revegetation

Yes No NA

[ ] [ ] [ ] Temporary seedings and mulch have been applied to idle areas.
[ ] [ ] [ ] 4 inches minimum of topsoil has been applied under permanent seedings

Sediment Control

1. Stabilized Construction Entrance

Yes No NA

[ ] [ ] [ ] Stone is clean enough to effectively remove mud from vehicles.
[ ] [ ] [ ] Installed per standards and specifications?
[ ] [ ] [ ] Does all traffic use the stabilized entrance to enter and leave site?
[ ] [ ] [ ] Is adequate drainage provided to prevent ponding at entrance?

2. Silt Fence

Yes No NA

[ ] [ ] [ ] Installed on Contour, 10 feet from toe of slope (not across conveyance channels).
[ ] [ ] [ ] Joints constructed by wrapping the two ends together for continuous support.
[ ] [ ] [ ] Fabric buried 6 inches minimum.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.

Sediment accumulation is ___% of design capacity.

Sediment Control (continued)

3. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated practices)

Yes No NA

[ ] [ ] [ ] Installed concrete blocks lengthwise so open ends face outward, not upward.
[ ] [ ] [ ] Placed wire screen between No. 3 crushed stone and concrete blocks.
[ ] [ ] [ ] Drainage area is 1acre or less.
[ ] [ ] [ ] Excavated area is 900 cubic feet.
[ ] [ ] [ ] Excavated side slopes should be 2:1.
[ ] [ ] [ ] 2" x 4" frame is constructed and structurally sound.
[ ] [ ] [ ] Posts 3-foot maximum spacing between posts.
[ ] [ ] [ ] Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.

Sediment accumulation ___% of design capacity.

4. Temporary Sediment Trap

Yes No NA

[ ] [ ] [ ] Outlet structure is constructed per the approved plan or drawing.
[ ] [ ] [ ] Geotextile fabric has been placed beneath rock fill.

Sediment accumulation is ___% of design capacity.

5. Temporary Sediment Basin

Yes No NA

[ ] [ ] [ ] Basin and outlet structure constructed per the approved plan.
[ ] [ ] [ ] Basin side slopes are stabilized with seed/mulch.
[ ] [ ] [ ] Drainage structure flushed and basin surface restored upon removal of sediment basin facility.

Sediment accumulation is ___% of design capacity.

Note: Not all erosion and sediment control practices are included in this listing. Add additional pages to this list as required by site specific design.
Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

CONSTRUCTION DURATION INSPECTIONS
b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:
1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:

III. Monthly Summary of Site Inspection Activities

Name of Permitted Facility:	Today's Date:	Reporting Month:
Location:	Permit Identification #:	
Name and Telephone Number of Site Inspector:		

Date of Inspection	Regular / Rainfall based Inspection	Name of Inspector	Items of Concern

Owner/Operator Certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that false statements made herein are punishable as a class A misdemeanor pursuant to Section 210.45 of the Penal Law."

_____ _____

Signature of Permittee or Duly Authorized Representative Name of Permittee or Duly Authorized Representative date

Duly authorized representatives must have written authorization, submitted to DEC, to sign any permit documents.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Owner/Operator Certification Form

SPDES General Permit For Stormwater Discharges From Construction Activity (GP-0-15-002)

Project/Site Name: Wallace Campus

eNOI Submission Number: _____

eNOI Submitted by: ☐ **Owner/Operator** ☐ **SWPPP Preparer** ☐ **Other**

Certification Statement - Owner/Operator

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Owner/Operator First Name M.I. Last Name

_____

Signature

_____

Date

CONTRACTOR CERTIFICATION

I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with the terms and conditions of the most current version of the New York state Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharges* from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards.* Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations."

_____	_____	_____
Contractor Signature	Title	Date
_____	_____	_____
Contractor Signature	Title	Date
_____	_____	_____
Contractor Signature	Title	Date
_____	_____	_____
Contractor Signature	Title	Date

85 Civic Center Plaza, Suite 103
Poughkeepsie, NY 12601
Phone: (845) 243-2880
Fax: (845) 265-8175

Drywell Inspection Checklist

Location:	
Site Status:	
Date:	
Time:	
Inspector:	

1. MONTHLY MAINTENANCE

Maintenance Item	Satisfactory / Unsatisfactory	Comments
Inflow pipe clear of debris		
Outflow pipe clear of debris		
Contributory drainage area clear of debris		
No evidence of erosion within contributory drainage area		
Drywell drains between storms		

2. ANNUAL MAINTENANCE

Maintenance Item	Satisfactory / Unsatisfactory	Comments
Greater than 25% of storage volume remaining		
Sediment accumulation requires cleanout		
Drywell in good structural condition		

Comments:

Actions to be Taken:

APPENDIX B

Notice of Intent (NOI)
Notice of Termination (NOT)
NYSDEC SPDES General Permit GP-0-15-002
MS4 Acceptance Form

0644089821

NOTICE OF INTENT

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

NYR _____ (for DEC use only)

Stormwater Discharges Associated with Construction Activity Under State Pollutant Discharge Elimination System (SPDES) General Permit # GP-0-20-001

All sections must be completed unless otherwise noted. Failure to complete all items may result in this form being returned to you, thereby delaying your coverage under this General Permit. Applicants must read and understand the conditions of the permit and prepare a Stormwater Pollution Prevention Plan prior to submitting this NOI. Applicants are responsible for identifying and obtaining other DEC permits that may be required.

-IMPORTANT-

RETURN THIS FORM TO THE ADDRESS ABOVE

OWNER/OPERATOR MUST SIGN FORM

Owner/Operator Information

Owner/Operator (Company Name/Private Owner Name/Municipality Name)
WALLACE CAMPUS MANAGER, LLC

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
LOGSDON

Owner/Operator Contact Person First Name
JOHN

Owner/Operator Mailing Address
48-02 25TH AVENUE, SUITE 400

City
ASTORIA

State
NY

Zip
11103-____

Phone (Owner/Operator)
917-232-1777

Fax (Owner/Operator)
___-___-____

Email (Owner/Operator)
JLOGSDON@URBANGREENBUILDERS.COM

FED TAX ID
__-_____ (not required for individuals)

Project Site Information

Project/Site Name
WALLACE CAMPUS

Street Address (NOT P.O. BOX)
331 MAIN STREET

Side of Street
● **North** ○ **South** ○ **East** ○ **West**

City/Town/Village (THAT ISSUES BUILDING PERMIT)
CITY OF POUGHKEEPSIE

State: NY
Zip: 12601-
County: DUTCHESS
DEC Region: 3

Name of Nearest Cross Street
CATHERINE STREET

Distance to Nearest Cross Street (Feet)
130

Project In Relation to Cross Street
○ **North** ○ **South** ○ **East** ● **West**

Tax Map Numbers
Section-Block-Parcel
6162-77-127091

Tax Map Numbers

1. Provide the Geographic Coordinates for the project site in NYTM Units. To do this you **must** go to the NYSDEC Stormwater Interactive Map on the DEC website at:

www.dec.ny.gov/imsmaps/stormwater/viewer.htm

Zoom into your Project Location such that you can accurately click on the centroid of your site. Once you have located your project site, go to the tool boxes on the top and choose "i"(identify). Then click on the center of your site and a new window containing the X, Y coordinates in UTM will pop up. Transcribe these coordinates into the boxes below. For problems with the interactive map use the help function.

X Coordinates (Easting): 589376

Y Coordinates (Northing): 4617452

2. What is the nature of this construction project?

○ **New Construction**

○ **Redevelopment with increase in impervious area**

● **Redevelopment with no increase in impervious area**

3. Select the predominant land use for both pre and post development conditions.
SELECT ONLY ONE CHOICE FOR EACH

Pre-Development Existing Land Use	Post-Development Future Land Use
○ FOREST	○ SINGLE FAMILY HOME
○ PASTURE/OPEN LAND	○ SINGLE FAMILY SUBDIVISION
○ CULTIVATED LAND	○ TOWN HOME RESIDENTIAL
○ SINGLE FAMILY HOME	○ MULTIFAMILY RESIDENTIAL
○ SINGLE FAMILY SUBDIVISION	○ INSTITUTIONAL/SCHOOL
○ TOWN HOME RESIDENTIAL	○ INDUSTRIAL
○ MULTIFAMILY RESIDENTIAL	● COMMERCIAL
○ INSTITUTIONAL/SCHOOL	○ MUNICIPAL
○ INDUSTRIAL	○ ROAD/HIGHWAY
● COMMERCIAL	○ RECREATIONAL/SPORTS FIELD
○ ROAD/HIGHWAY	○ BIKE PATH/TRAIL
○ RECREATIONAL/SPORTS FIELD	○ LINEAR UTILITY (water, sewer, gas, etc.)
○ BIKE PATH/TRAIL	○ PARKING LOT
○ LINEAR UTILITY	○ CLEARING/GRADING ONLY
○ PARKING LOT	○ DEMOLITION, NO REDEVELOPMENT
○ OTHER	○ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
	○ OTHER

Number of Lots

***Note**: for gas well drilling, non-high volume hydraulic fractured wells only

4. In accordance with the larger common plan of development or sale, enter the total project site area; the total area to be disturbed; existing impervious area to be disturbed (for redevelopment activities); and the future impervious area constructed within the disturbed area. (Round to the nearest tenth of an acre.)

Total Site Area	Total Area To Be Disturbed	Existing Impervious Area To Be Disturbed	Future Impervious Area Within Disturbed Area
3.1	3.1	2.9	2.4

5. Do you plan to disturb more than 5 acres of soil at any one time? ○ **Yes** ● **No**

6. Indicate the percentage of each Hydrologic Soil Group(HSG) at the site.

A	B	C	D
%	%	%	100 %

7. Is this a phased project? ○ **Yes** ● **No**

8. Enter the planned start and end dates of the disturbance activities.

Start Date 04/01/2022 – **End Date** 04/01/2024

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name

Fall Kill Creek

9a. Type of waterbody identified in Question 9?

- ○ Wetland / State Jurisdiction On Site (Answer 9b)
- ○ Wetland / State Jurisdiction Off Site
- ○ Wetland / Federal Jurisdiction On Site (Answer 9b)
- ○ Wetland / Federal Jurisdiction Off Site
- ○ Stream / Creek On Site
- ● Stream / Creek Off Site
- ○ River On Site
- ○ River Off Site
- ○ Lake On Site
- ○ Lake Off Site
- ○ Other Type On Site
- ○ Other Type Off Site

9b. How was the wetland identified?

- ○ Regulatory Map
- ○ Delineated by Consultant
- ○ Delineated by Army Corps of Engineers
- ○ Other (identify)

10. Has the surface waterbody(ies) in question 9 been identified as a 303(d) segment in Appendix E of GP-0-20-001? ○ **Yes** ● **No**

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001? ○ **Yes** ● **No**

12. Is the project located in one of the watershed areas associated with AA and AA-S classified waters? ○ **Yes** ● **No**
If no, skip question 13.

13. Does this construction activity disturb land with no existing impervious cover and where the Soil Slope Phase is identified as an E or F on the USDA Soil Survey? ○ **Yes** ● **No**
If Yes, what is the acreage to be disturbed?

.

14. Will the project disturb soils within a State regulated wetland or the protected 100 foot adjacent area? ○ **Yes** ● **No**

15. Does the site runoff enter a separate storm sewer system (including roadside drains, swales, ditches, culverts, etc)? ● **Yes** ○ **No** ○ **Unknown**

16. What is the name of the municipality/entity that owns the separate storm sewer system?

CITY OF POUGHKEEPSIE

17. Does any runoff from the site enter a sewer classified as a Combined Sewer? ○ **Yes** ● **No** ○ **Unknown**

18. Will future use of this site be an agricultural property as defined by the NYS Agriculture and Markets Law? ○ **Yes** ● **No**

19. Is this property owned by a state authority, state agency, federal government or local government? ○ **Yes** ● **No**

20. Is this a remediation project being done under a Department approved work plan? (i.e. CERCLA, RCRA, Voluntary Cleanup Agreement, etc.) ○ **Yes** ● **No**

21. Has the required Erosion and Sediment Control component of the SWPPP been developed in conformance with the current NYS Standards and Specifications for Erosion and Sediment Control (aka Blue Book)? ● **Yes** ○ **No**

22. Does this construction activity require the development of a SWPPP that includes the post-construction stormwater management practice component (i.e. Runoff Reduction, Water Quality and Quantity Control practices/techniques)? ● **Yes** ○ **No**
If No, skip questions 23 and 27-39.

23. Has the post-construction stormwater management practice component of the SWPPP been developed in conformance with the current NYS Stormwater Management Design Manual? ● **Yes** ○ **No**

24. The Stormwater Pollution Prevention Plan (SWPPP) was prepared by:

- ● **Professional Engineer (P.E.)**
- ○ **Soil and Water Conservation District (SWCD)**
- ○ **Registered Landscape Architect (R.L.A)**
- ○ **Certified Professional in Erosion and Sediment Control (CPESC)**
- ○ **Owner/Operator**
- ○ **Other**

SWPPP Preparer
LRC ENGINEERING & SURVEYING, DPC

Contact Name (Last, Space, First)
MORRISON, RODNEY

Mailing Address
85 CIVIC CENTER PLAZA, SUITE 103

City
POUGHKEEPSIE

State NY Zip 12601-

Phone 845-243-2880

Fax --- - --- - ----

Email
RMORRISON@LRCCONSULT.COM

SWPPP Preparer Certification

I hereby certify that the Stormwater Pollution Prevention Plan (SWPPP) for this project has been prepared in accordance with the terms and conditions of the GP-0-20-001. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of this permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

First Name RODNEY **MI** E

Last Name MORRISON

Signature

Date 10/25/2021

25. Has a construction sequence schedule for the planned management practices been prepared? ○ Yes ○ No

26. Select **all** of the erosion and sediment control practices that will be employed on the project site:

Temporary Structural

- ○ Check Dams
- ○ Construction Road Stabilization
- ● Dust Control
- ○ Earth Dike
- ○ Level Spreader
- ○ Perimeter Dike/Swale
- ○ Pipe Slope Drain
- ○ Portable Sediment Tank
- ○ Rock Dam
- ○ Sediment Basin
- ○ Sediment Traps
- ● Silt Fence
- ● Stabilized Construction Entrance
- ● Storm Drain Inlet Protection
- ○ Straw/Hay Bale Dike
- ○ Temporary Access Waterway Crossing
- ○ Temporary Stormdrain Diversion
- ○ Temporary Swale
- ○ Turbidity Curtain
- ○ Water bars

Biotechnical

- ○ Brush Matting
- ○ Wattling

Vegetative Measures

- ○ Brush Matting
- ○ Dune Stabilization
- ○ Grassed Waterway
- ● Mulching
- ○ Protecting Vegetation
- ○ Recreation Area Improvement
- ● Seeding
- ○ Sodding
- ○ Straw/Hay Bale Dike
- ○ Streambank Protection
- ○ Temporary Swale
- ● Topsoiling
- ○ Vegetating Waterways

Permanent Structural

- ○ Debris Basin
- ○ Diversion
- ○ Grade Stabilization Structure
- ● Land Grading
- ○ Lined Waterway (Rock)
- ○ Paved Channel (Concrete)
- ○ Paved Flume
- ○ Retaining Wall
- ○ Riprap Slope Protection
- ○ Rock Outlet Protection
- ○ Streambank Protection

Other

Post-construction Stormwater Management Practice (SMP) Requirements

Important: Completion of Questions 27-39 is not required if response to Question 22 is No.

27. Identify all site planning practices that were used to prepare the final site plan/layout for the project.

- ● **Preservation of Undisturbed Areas**
- ● **Preservation of Buffers**
- ● **Reduction of Clearing and Grading**
- ● **Locating Development in Less Sensitive Areas**
- ● **Roadway Reduction**
- ● **Sidewalk Reduction**
- ● **Driveway Reduction**
- ○ **Cul-de-sac Reduction**
- ● **Building Footprint Reduction**
- ● **Parking Reduction**

27a. Indicate which of the following soil restoration criteria was used to address the requirements in Section 5.1.6("Soil Restoration") of the Design Manual (2010 version).

- ● All disturbed areas will be restored in accordance with the Soil Restoration requirements in Table 5.3 of the Design Manual (see page 5-22).
- ○ Compacted areas were considered as impervious cover when calculating the **WQv Required**, and the compacted areas were assigned a post-construction Hydrologic Soil Group (HSG) designation that is one level less permeable than existing conditions for the hydrology analysis.

28. Provide the total Water Quality Volume (WQv) required for this project (based on final site plan/layout).

Total WQv Required

0.05 **acre-feet**

29. Identify the RR techniques (Area Reduction), RR techniques(Volume Reduction) and Standard SMPs with RRv Capacity in Table 1 (See Page 9) that were used to reduce the Total WQv Required(#28).

Also, provide in Table 1 the total impervious area that contributes runoff to each technique/practice selected. For the Area Reduction Techniques, provide the total contributing area (includes pervious area) and, if applicable, the total impervious area that contributes runoff to the technique/practice.

Note: Redevelopment projects shall use Tables 1 and 2 to identify the SMPs used to treat and/or reduce the WQv required. If runoff reduction techniques will not be used to reduce the required WQv, skip to question 33a after identifying the SMPs.

Table 1 - Runoff Reduction (RR) Techniques and Standard Stormwater Management Practices (SMPs)

	Total Contributing Area (acres)		Total Contributing Impervious Area(acres)
RR Techniques (Area Reduction)			
○ Conservation of Natural Areas (RR-1)		and/or	
○ Sheetflow to Riparian Buffers/Filters Strips (RR-2)		and/or	
○ Tree Planting/Tree Pit (RR-3)		and/or	
○ Disconnection of Rooftop Runoff (RR-4)		and/or	
RR Techniques (Volume Reduction)			
○ Vegetated Swale (RR-5)			
○ Rain Garden (RR-6)			
○ Stormwater Planter (RR-7)			
○ Rain Barrel/Cistern (RR-8)			
○ Porous Pavement (RR-9)			
○ Green Roof (RR-10)			
Standard SMPs with RRv Capacity			
○ Infiltration Trench (I-1)			
○ Infiltration Basin (I-2)			
○ Dry Well (I-3)			1.48
○ Underground Infiltration System (I-4)			
○ Bioretention (F-5)			
○ Dry Swale (O-1)			
Standard SMPs			
○ Micropool Extended Detention (P-1)			
○ Wet Pond (P-2)			
○ Wet Extended Detention (P-3)			
○ Multiple Pond System (P-4)			
○ Pocket Pond (P-5)			
○ Surface Sand Filter (F-1)			
○ Underground Sand Filter (F-2)			
○ Perimeter Sand Filter (F-3)			
○ Organic Filter (F-4)			
○ Shallow Wetland (W-1)			
○ Extended Detention Wetland (W-2)			
○ Pond/Wetland System (W-3)			
○ Pocket Wetland (W-4)			
○ Wet Swale (O-2)			

Table 2 - Alternative SMPs (DO NOT INCLUDE PRACTICES BEING USED FOR PRETREATMENT ONLY)

Alternative SMP	Total Contributing Impervious Area(acres)
○ **Hydrodynamic**	
○ **Wet Vault**	
○ **Media Filter**	
○ **Other** [ ]	

Provide the name and manufacturer of the Alternative SMPs (i.e. proprietary practice(s)) being used for WQv treatment.

Name

Manufacturer

Note: Redevelopment projects which do not use RR techniques, shall use questions 28, 29, 33 and 33a to provide SMPs used, total WQv required and total WQv provided for the project.

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

Total RRv provided

0.05 **acre-feet**

31. Is the Total RRv provided (#30) greater than or equal to the total WQv required (#28).

● **Yes** ○ **No**

If Yes, go to question 36.
If No, go to question 32.

32. Provide the Minimum RRv required based on HSG.
[Minimum RRv Required = (P)(0.95)(Ai)/12, Ai=(S)(Aic)]

Minimum RRv Required

. **acre-feet**

32a. Is the Total RRv provided (#30) greater than or equal to the Minimum RRv Required (#32)?

○ **Yes** ○ **No**

If Yes, go to question 33.
Note: Use the space provided in question #39 to summarize the specific site limitations and justification for not reducing 100% of WQv required (#28). A detailed evaluation of the specific site limitations and justification for not reducing 100% of the WQv required (#28) must also be included in the SWPPP.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

33. Identify the Standard SMPs in Table 1 and, if applicable, the Alternative SMPs in Table 2 that were used to treat the remaining total WQv(=Total WQv Required in 28 - Total RRv Provided in 30).

Also, provide in Table 1 and 2 the total impervious area that contributes runoff to each practice selected.

Note: Use Tables 1 and 2 to identify the SMPs used on Redevelopment projects.

33a. Indicate the Total WQv provided (i.e. WQv treated) by the SMPs identified in question #33 and Standard SMPs with RRv Capacity identified in question 29.

WQv Provided

[ ][ ][ ].[ ][ ][ ] **acre-feet**

Note: For the standard SMPs with RRv capacity, the WQv provided by each practice = the WQv calculated using the contributing drainage area to the practice - RRv provided by the practice. (See Table 3.5 in Design Manual)

34. Provide the sum of the Total RRv provided (#30) and the WQv provided (#33a). [ ][ ][ ].[ ][ ][ ]

35. Is the sum of the RRv provided (#30) and the WQv provided (#33a) greater than or equal to the total WQv required (#28)? ○ **Yes** ○ **No**

If Yes, go to question 36.
If No, sizing criteria has not been met, so NOI can not be processed. SWPPP preparer must modify design to meet sizing criteria.

36. Provide the total Channel Protection Storage Volume (CPv) required and provided or select waiver (36a), if applicable.

CPv Required

[ ][ ][ ].[ ][ ][ ] **acre-feet**

CPv Provided

[ ][ ][ ].[ ][ ][ ] **acre-feet**

36a. The need to provide channel protection has been waived because:

○ Site discharges directly to tidal waters or a fifth order or larger stream.

● Reduction of the total CPv is achieved on site through runoff reduction techniques or infiltration systems.

37. Provide the Overbank Flood (Qp) and Extreme Flood (Qf) control criteria or select waiver (37a), if applicable.

Total Overbank Flood Control Criteria (Qp)

Pre-Development

[ ]1[5].[7][ ][ ] **CFS**

Post-development

[ ][ ]8.[5][ ][ ] **CFS**

Total Extreme Flood Control Criteria (Qf)

Pre-Development

[ ]2[7].[8][ ][ ] **CFS**

Post-development

[ ]1[6].[8][ ][ ] **CFS**

37a. The need to meet the Qp and Qf criteria has been waived because:

- ○ Site discharges directly to tidal waters or a fifth order or larger stream.
- ● Downstream analysis reveals that the Qp and Qf controls are not required

38. Has a long term Operation and Maintenance Plan for the post-construction stormwater management practice(s) been developed? ● **Yes** ○ **No**

If Yes, Identify the entity responsible for the long term Operation and Maintenance

WALLACE CAMPUS MANAGER, LLC

39. Use this space to summarize the specific site limitations and justification for not reducing 100% of WQv required(#28). (See question 32a) This space can also be used for other pertinent project information.

40. Identify other DEC permits, existing and new, that are required for this project/facility.

- ○ Air Pollution Control
- ○ Coastal Erosion
- ○ Hazardous Waste
- ○ Long Island Wells
- ○ Mined Land Reclamation
- ○ Solid Waste
- ○ Navigable Waters Protection / Article 15
- ○ Water Quality Certificate
- ○ Dam Safety
- ○ Water Supply
- ○ Freshwater Wetlands/Article 24
- ○ Tidal Wetlands
- ○ Wild, Scenic and Recreational Rivers
- ○ Stream Bed or Bank Protection / Article 15
- ○ Endangered or Threatened Species(Incidental Take Permit)
- ○ Individual SPDES
- ○ SPDES Multi-Sector GP [N][Y][R][ ][ ][ ][ ][ ][ ]
- ○ Other [ ]
- ○ None

41. Does this project require a US Army Corps of Engineers Wetland Permit? ○ **Yes** ● **No**
If Yes, Indicate Size of Impact. [ ][ ][ ][ ][ ].[ ]

42. Is this project subject to the requirements of a regulated, traditional land use control MS4? ● **Yes** ○ **No**
(If No, skip question 43)

43. Has the "MS4 SWPPP Acceptance" form been signed by the principal executive officer or ranking elected official and submitted along with this NOI? ● **Yes** ○ **No**

44. If this NOI is being submitted for the purpose of continuing or transferring coverage under a general permit for stormwater runoff from construction activities, please indicate the former SPDES number assigned. [N][Y][R][ ][ ][ ][ ][ ][ ]

Owner/Operator Certification

I have read or been advised of the permit conditions and believe that I understand them. I also understand that, under the terms of the permit, there may be reporting requirements. I hereby certify that this document and the corresponding documents were prepared under my direction or supervision. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. I further understand that coverage under the general permit will be identified in the acknowledgment that I will receive as a result of submitting this NOI and can be as long as sixty (60) business days as provided for in the general permit. I also understand that, by submitting this NOI, I am acknowledging that the SWPPP has been developed and will be implemented as the first element of construction, and agreeing to comply with all the terms and conditions of the general permit for which this NOI is being submitted.

Print First Name

J O H N

MI

Print Last Name

L O G S D O N

Owner/Operator Signature

Date

/ /

New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505
(NOTE: Submit completed form to address above)

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity

Please indicate your permit identification number: NYR ___ ___ ___ ___ ___ ___

I. Owner or Operator Information

1. Owner/Operator Name:

2. Street Address:

3. City/State/Zip:

4. Contact Person: | 4a.Telephone:

4b. Contact Person E-Mail:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/Zip:

8. County:

III. Reason for Termination

9a. □ All disturbed areas have achieved final stabilization in accordance with the general permit and SWPPP. ***Date final stabilization completed** (month/year): _____

9b. □ Permit coverage has been transferred to new owner/operator. Indicate new owner/operator's permit identification number: NYR ___ ___ ___ ___ ___ ___
(Note: Permit coverage can not be terminated by owner identified in I.1. above until new owner/operator obtains coverage under the general permit)

9c. □ Other (Explain on Page 2)

IV. Final Site Information:

10a. Did this construction activity require the development of a SWPPP that includes post-construction stormwater management practices? □ yes □ no (If no, go to question 10f.)

10b. Have all post-construction stormwater management practices included in the final SWPPP been constructed? □ yes □ no (If no, explain on Page 2)

10c. Identify the entity responsible for long-term operation and maintenance of practice(s)?

_____

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

10d. Has the entity responsible for long-term operation and maintenance been given a copy of the operation and maintenance plan required by the general permit? □ yes □ no

10e. Indicate the method used to ensure long-term operation and maintenance of the post-construction stormwater management practice(s):

□ Post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain practice(s) have been deeded to the municipality.

□ Executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s).

□ For post-construction stormwater management practices that are privately owned, a mechanism is in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the owner or operator's deed of record.

□ For post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university or hospital), government agency or authority, or public utility; policy and procedures are in place that ensures operation and maintenance of the practice(s) in accordance with the operation and maintenance plan.

10f. Provide the total area of impervious surface (i.e. roof, pavement, concrete, gravel, etc.) constructed within the disturbance area? _____ (acres)

11. Is this project subject to the requirements of a regulated, traditional land use control MS4? □ yes □ no

(If Yes, complete section VI - "MS4 Acceptance" statement

V. Additional Information/Explanation:

(Use this section to answer questions 9c. and 10b., if applicable)

VI. MS4 Acceptance - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative (Note: Not required when 9b. is checked -transfer of coverage)

I have determined that it is acceptable for the owner or operator of the construction project identified in question 5 to submit the Notice of Termination at this time.

Printed Name:

Title/Position:

Signature:	Date:

NOTICE OF TERMINATION for Storm Water Discharges Authorized under the SPDES General Permit for Construction Activity - continued

VII. Qualified Inspector Certification - Final Stabilization:

I hereby certify that all disturbed areas have achieved final stabilization as defined in the current version of the general permit, and that all temporary, structural erosion and sediment control measures have been removed. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

VIII. Qualified Inspector Certification - Post-construction Stormwater Management Practice(s):

I hereby certify that all post-construction stormwater management practices have been constructed in conformance with the SWPPP. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

IX. Owner or Operator Certification

I hereby certify that this document was prepared by me or under my direction or supervision. My determination, based upon my inquiry of the person(s) who managed the construction activity, or those persons directly responsible for gathering the information, is that the information provided in this document is true, accurate and complete. Furthermore, I understand that certifying false, incorrect or inaccurate information is a violation of the referenced permit and the laws of the State of New York and could subject me to criminal, civil and/or administrative proceedings.

Printed Name:	
Title/Position:	
Signature:	Date:

(NYS DEC Notice of Termination - January 2015)

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SPDES GENERAL PERMIT
FOR STORMWATER DISCHARGES

From

CONSTRUCTION ACTIVITY

Permit No. GP- 0-20-001

Issued Pursuant to Article 17, Titles 7, 8 and Article 70

of the Environmental Conservation Law

Effective Date: January 29, 2020 Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator

1-23-20

Authorized Signature Date

Address: NYS DEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, N.Y. 12233-1750

PREFACE

Pursuant to Section 402 of the Clean Water Act ("CWA"), stormwater *discharges* from certain *construction activities* are unlawful unless they are authorized by a *National Pollutant Discharge Elimination System ("NPDES")* permit or by a state permit program. New York administers the approved State Pollutant Discharge Elimination System (SPDES) program with permits issued in accordance with the New York State Environmental Conservation Law (ECL) Article 17, Titles 7, 8 and Article 70.

An *owner or operator* of a *construction activity* that is eligible for coverage under this permit must obtain coverage prior to the *commencement of construction activity*. Activities that fit the definition of "*construction activity*", as defined under 40 CFR 122.26(b)(14)(x), (15)(i), and (15)(ii), constitute construction of a *point source* and therefore, pursuant to ECL section 17-0505 and 17-0701, the *owner or operator* must have coverage under a SPDES permit prior to *commencing construction activity*. The *owner or operator* cannot wait until there is an actual *discharge* from the *construction site* to obtain permit coverage.

***Note: The italicized words/phrases within this permit are defined in Appendix A.**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES

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Part 1. PERMIT COVERAGE AND LIMITATIONS

A. Permit Application

This permit authorizes stormwater *discharges* to *surface waters of the State* from the following *construction activities* identified within 40 CFR Parts 122.26(b)(14)(x), 122.26(b)(15)(i) and 122.26(b)(15)(ii), provided all of the eligibility provisions of this permit are met:

1. *Construction activities* involving soil disturbances of one (1) or more acres; including disturbances of less than one acre that are part of a *larger common plan of development or sale* that will ultimately disturb one or more acres of land; excluding *routine maintenance activity* that is performed to maintain the original line and grade, hydraulic capacity or original purpose of a facility;

2. *Construction activities* involving soil disturbances of less than one (1) acre where the Department has determined that a *SPDES* permit is required for stormwater *discharges* based on the potential for contribution to a violation of a *water quality standard* or for significant contribution of *pollutants* to *surface waters of the State.*

3. *Construction activities* located in the watershed(s) identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

B. Effluent Limitations Applicable to Discharges from Construction Activities

*Discharge*s authorized by this permit must achieve, at a minimum, the effluent limitations in Part I.B.1. (a) – (f) of this permit. These limitations represent the degree of effluent reduction attainable by the application of best practicable technology currently available.

1. Erosion and Sediment Control Requirements - The *owner or operator* must select, design, install, implement and maintain control measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. The selection, design, installation, implementation, and maintenance of these control measures must meet the non-numeric effluent limitations in Part I.B.1.(a) – (f) of this permit and be in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, using sound engineering judgment. Where control measures are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must include in the *Stormwater Pollution Prevention Plan* (“SWPPP”) the reason(s) for the

deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

a. **Erosion and Sediment Controls.** Design, install and maintain effective erosion and sediment controls to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such controls must be designed, installed and maintained to:

   (i) *Minimize* soil erosion through application of runoff control and soil stabilization control measure to *minimize pollutant discharge*s;

   (ii) Control stormwater *discharge*s, including both peak flowrates and total stormwater volume, to *minimize* channel and *streambank* erosion and scour in the immediate vicinity of the *discharge* points;

   (iii) *Minimize* the amount of soil exposed during *construction activity*;

   (iv) *Minimize* the disturbance of *steep slopes*;

   (v) *Minimize* sediment *discharge*s from the site;

   (vi) Provide and maintain *natural buffer*s around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharge*s, unless *infeasible*;

   (vii) *Minimize* soil compaction. Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted;

   (viii) Unless *infeasible*, preserve a sufficient amount of topsoil to complete soil restoration and establish a uniform, dense vegetative cover; and

   (ix) *Minimize* dust. On areas of exposed soil, *minimize* dust through the appropriate application of water or other dust suppression techniques to control the generation of pollutants that could be discharged from the site.

b. **Soil Stabilization**. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within fourteen (14) days from the date the current soil disturbance activity ceased. For construction sites that *directly discharge* to one of the 303(d) segments

listed in Appendix E or is located in one of the watersheds listed in Appendix C, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. See Appendix A for definition of *Temporarily Ceased*.

c. **Dewatering**. *Discharge*s from *dewatering* activities, including *discharge*s from *dewatering* of trenches and excavations, must be managed by appropriate control measures.

d. **Pollution Prevention Measures**. Design, install, implement, and maintain effective pollution prevention measures to *minimize* the *discharge* of *pollutants* and prevent a violation of the *water quality standards*. At a minimum, such measures must be designed, installed, implemented and maintained to:

(i) *Minimize* the *discharge* of *pollutants* from equipment and vehicle washing, wheel wash water, and other wash waters. This applies to washing operations that use clean water only. Soaps, detergents and solvents cannot be used;

(ii) *Minimize* the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, hazardous and toxic waste, and other materials present on the site to precipitation and to stormwater. Minimization of exposure is not required in cases where the exposure to precipitation and to stormwater will not result in a *discharge* of *pollutants*, or where exposure of a specific material or product poses little risk of stormwater contamination (such as final products and materials intended for outdoor use) ; and

(iii) Prevent the *discharge* of *pollutants* from spills and leaks and implement chemical spill and leak prevention and response procedures.

e. **Prohibited *Discharges*.** The following *discharge*s are prohibited:

(i) Wastewater from washout of concrete;

(ii) Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;

(iii) Fuels, oils, or other *pollutants* used in vehicle and equipment operation and maintenance;

(iv) Soaps or solvents used in vehicle and equipment washing; and

(v) Toxic or hazardous substances from a spill or other release.

f. Surface Outlets. When discharging from basins and impoundments, the outlets shall be designed, constructed and maintained in such a manner that sediment does not leave the basin or impoundment and that erosion at or below the outlet does not occur.

C. Post-construction Stormwater Management Practice Requirements

1. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must select, design, install, and maintain the practices to meet the *performance criteria* in the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015, using sound engineering judgment. Where post-construction stormwater management practices ("SMPs") are not designed in conformance with the *performance criteria* in the Design Manual, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. The *owner or operator* of a *construction activity* that requires post-construction stormwater management practices pursuant to Part III.C. of this permit must design the practices to meet the applicable *sizing criteria* in Part I.C.2.a., b., c. or d. of this permit.

a. Sizing Criteria for New Development

(i) Runoff Reduction Volume ("RRv"): Reduce the total Water Quality Volume ("WQv") by application of RR techniques and standard SMPs with RRv capacity. The total WQv shall be calculated in accordance with the criteria in Section 4.2 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: Construction activities that cannot meet the criteria in Part I.C.2.a.(i) of this permit due to site limitations shall direct runoff from all newly constructed impervious areas to a RR technique or standard SMP with RRv capacity unless infeasible. The specific site limitations that prevent the reduction of 100% of the WQv shall be documented in the SWPPP.

For each impervious area that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered infeasible.

In no case shall the runoff reduction achieved from the newly constructed impervious areas be less than the Minimum RRv as calculated using the criteria in Section 4.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume ("Cpv"): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site discharges directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria ("Qp"): Requires storage to attenuate the post-development 10-year, 24-hour peak discharge rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria ("Qf"): Requires storage to attenuate the post-development 100-year, 24-hour peak discharge rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site discharges directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

b. *Sizing Criteria* for *New Development* in Enhanced Phosphorus Removal Watershed

(i) Runoff Reduction Volume (RRv): Reduce the total Water Quality Volume (WQv) by application of RR techniques and standard SMPs with RRv capacity. The total WQv is the runoff volume from the 1-year, 24 hour design storm over the post-developed watershed and shall be

calculated in accordance with the criteria in Section 10.3 of the Design Manual.

(ii) Minimum RRv and Treatment of Remaining Total WQv: *Construction activities* that cannot meet the criteria in Part I.C.2.b.(i) of this permit due to *site limitations* shall direct runoff from all newly constructed *impervious areas* to a RR technique or standard SMP with RRv capacity unless *infeasible*. The specific *site limitations* that prevent the reduction of 100% of the WQv shall be documented in the SWPPP. For each *impervious area* that is not directed to a RR technique or standard SMP with RRv capacity, the SWPPP must include documentation which demonstrates that all options were considered and for each option explains why it is considered *infeasible.*

In no case shall the runoff reduction achieved from the newly constructed *impervious areas* be less than the Minimum RRv as calculated using the criteria in Section 10.3 of the Design Manual. The remaining portion of the total WQv that cannot be reduced shall be treated by application of standard SMPs.

(iii) Channel Protection Volume (Cpv): Provide 24 hour extended detention of the post-developed 1-year, 24-hour storm event; remaining after runoff reduction. The Cpv requirement does not apply when:
(1) Reduction of the entire Cpv is achieved by application of runoff reduction techniques or infiltration systems, or
(2) The site *discharge*s directly to tidal waters, or fifth order or larger streams.

(iv) *Overbank* Flood Control Criteria (Qp): Requires storage to attenuate the post-development 10-year, 24-hour peak *discharge* rate (Qp) to predevelopment rates. The Qp requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

(v) Extreme Flood Control Criteria (Qf): Requires storage to attenuate the post-development 100-year, 24-hour peak *discharge* rate (Qf) to predevelopment rates. The Qf requirement does not apply when:
(1) the site *discharge*s directly to tidal waters or fifth order or larger streams, or
(2) A downstream analysis reveals that *overbank* control is not required.

c. Sizing Criteria for Redevelopment Activity

(i) Water Quality Volume (WQv): The WQv treatment objective for *redevelopment activity* shall be addressed by one of the following options. *Redevelopment activities* located in an Enhanced Phosphorus Removal Watershed (see Part III.B.3. and Appendix C of this permit) shall calculate the WQv in accordance with Section 10.3 of the Design Manual. All other *redevelopment activities* shall calculate the WQv in accordance with Section 4.2 of the Design Manual.

(1) Reduce the existing *impervious cover* by a minimum of 25% of the total disturbed, *impervious area*. The Soil Restoration criteria in Section 5.1.6 of the Design Manual must be applied to all newly created pervious areas, or

(2) Capture and treat a minimum of 25% of the WQv from the disturbed, *impervious area* by the application of standard SMPs; or reduce 25% of the WQv from the disturbed, *impervious area* by the application of RR techniques or standard SMPs with RRv capacity., or

(3) Capture and treat a minimum of 75% of the WQv from the disturbed, *impervious area* as well as any additional runoff from tributary areas by application of the alternative practices discussed in Sections 9.3 and 9.4 of the Design Manual., or

(4) Application of a combination of 1, 2 and 3 above that provide a weighted average of at least two of the above methods. Application of this method shall be in accordance with the criteria in Section 9.2.1(B) (IV) of the Design Manual.

If there is an existing post-construction stormwater management practice located on the site that captures and treats runoff from the *impervious area* that is being disturbed, the WQv treatment option selected must, at a minimum, provide treatment equal to the treatment that was being provided by the existing practice(s) if that treatment is greater than the treatment required by options 1 – 4 above.

(ii) Channel Protection Volume (Cpv): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iii) *Overbank* Flood Control Criteria (Qp): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site.

(iv) Extreme Flood Control Criteria (Qf): Not required if there are no changes to hydrology that increase the *discharge* rate from the project site

d. Sizing Criteria for Combination of Redevelopment Activity and New Development

Construction projects that include both New Development and Redevelopment Activity shall provide post-construction stormwater management controls that meet the sizing criteria calculated as an aggregate of the Sizing Criteria in Part I.C.2.a. or b. of this permit for the New Development portion of the project and Part I.C.2.c of this permit for Redevelopment Activity portion of the project.

D. Maintaining Water Quality

The Department expects that compliance with the conditions of this permit will control *discharge*s necessary to meet applicable *water quality standards*. It shall be a violation of the *ECL* for any discharge to either cause or contribute to a violation of *water quality standards* as contained in Parts 700 through 705 of Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, such as:

1. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions;

2. There shall be no increase in suspended, colloidal or settleable solids that will cause deposition or impair the waters for their best usages; and

3. There shall be no residue from oil and floating substances, nor visible oil film, nor globules of grease.

If there is evidence indicating that the stormwater *discharge*s authorized by this permit are causing, have the reasonable potential to cause, or are contributing to a violation of the *water quality standards*; the *owner or operator* must take appropriate corrective action in accordance with Part IV.C.5. of this general permit and document in accordance with Part IV.C.4. of this general permit. To address the *water quality standard* violation the *owner or operator* may need to provide additional information, include and implement appropriate controls in the SWPPP to correct the problem, or obtain an individual SPDES permit.

If there is evidence indicating that despite compliance with the terms and conditions of this general permit it is demonstrated that the stormwater *discharge*s authorized by this permit are causing or contributing to a violation of *water quality standards*, or if the Department determines that a modification of the permit is necessary to prevent a violation of *water quality standards*, the authorized *discharge*s will no longer be eligible for coverage under this permit. The Department may require the *owner or operator* to obtain an individual SPDES permit to continue discharging.

E. Eligibility Under This General Permit

1. This permit may authorize all *discharges* of stormwater from *construction activity* to *surface waters of the State* and *groundwaters* except for ineligible *discharges* identified under subparagraph F. of this Part.

2. Except for non-stormwater *discharges* explicitly listed in the next paragraph, this permit only authorizes stormwater *discharge*s; including stormwater runoff, snowmelt runoff, and surface runoff and drainage, from *construction activities*.

3. Notwithstanding paragraphs E.1 and E.2 above, the following non-stormwater discharges are authorized by this permit: those listed in 6 NYCRR 750-1.2(a)(29)(vi), with the following exception: "Discharges from firefighting activities are authorized only when the firefighting activities are emergencies/unplanned"; waters to which other components have not been added that are used to control dust in accordance with the SWPPP; and uncontaminated *discharge*s from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.

4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharge*s after *construction activities* have been completed and the site has undergone *final stabilization*;

2. *Discharge*s that are mixed with sources of non-stormwater other than those expressly authorized under subsection E.3. of this Part and identified in the SWPPP required by this permit;

3. *Discharges* that are required to obtain an individual SPDES permit or another SPDES general permit pursuant to Part VII.K. of this permit;

4. *Construction activities* or *discharges* from *construction activities* that may adversely affect an *endangered or threatened species* unless the *owner or*

operator has obtained a permit issued pursuant to 6 NYCRR Part 182 for the project or the Department has issued a letter of non-jurisdiction for the project. All documentation necessary to demonstrate eligibility shall be maintained on site in accordance with Part II.D.2 of this permit;

5. *Discharges* which either cause or contribute to a violation of *water quality standards* adopted pursuant to the *ECL* and its accompanying regulations;

6. *Construction activities* for residential, commercial and institutional projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb one (1) or more acres of land designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

7. *Construction activities* for linear transportation projects and linear utility projects:

   a. Where the *discharge*s from the *construction activities* are tributary to waters of the state classified as AA or AA-s; and

   b. Which are undertaken on land with no existing *impervious cover*; and

   c. Which disturb two (2) or more acres of land designated on the current USDA Soil Survey as Soil Slope Phase "D" (provided the map unit name is inclusive of slopes greater than 25%), or Soil Slope Phase "E" or "F" (regardless of the map unit name), or a combination of the three designations.

8. *Construction activities* that have the potential to affect an *historic property*, unless there is documentation that such impacts have been resolved. The following documentation necessary to demonstrate eligibility with this requirement shall be maintained on site in accordance with Part II.D.2 of this permit and made available to the Department in accordance with Part VII.F of this permit:

   a. Documentation that the *construction activity* is not within an archeologically sensitive area indicated on the sensitivity map, and that the *construction activity* is not located on or immediately adjacent to a property listed or determined to be eligible for listing on the National or State Registers of Historic Places, and that there is no new permanent building on the *construction site* within the following distances from a building, structure, or object that is more than 50 years old, or if there is such a new permanent building on the *construction site* within those parameters that NYS Office of Parks, Recreation and Historic Preservation (OPRHP), a Historic Preservation Commission of a Certified Local Government, or a qualified preservation professional has determined that the building, structure, or object more than 50 years old is not historically/archeologically significant.

      - 1-5 acres of disturbance - 20 feet
      - 5-20 acres of disturbance - 50 feet
      - 20+ acres of disturbance - 100 feet, or

   b. DEC consultation form sent to OPRHP, and copied to the NYS DEC Agency Historic Preservation Officer (APO), and
      (i) the State Environmental Quality Review (SEQR) Environmental Assessment Form (EAF) with a negative declaration or the Findings Statement, with documentation of OPRHP's agreement with the resolution; or
      (ii) documentation from OPRHP that the *construction activity* will result in No Impact; or
      (iii) documentation from OPRHP providing a determination of No Adverse Impact; or
      (iv) a Letter of Resolution signed by the owner/operator, OPRHP and the DEC APO which allows for this *construction activity* to be eligible for coverage under the general permit in terms of the State Historic Preservation Act (SHPA); or

   c. Documentation of satisfactory compliance with Section 106 of the National Historic Preservation Act for a coterminous project area:

(i) No Affect
(ii) No Adverse Affect
(iii) Executed Memorandum of Agreement, or

d. Documentation that:

(i) SHPA Section 14.09 has been completed by NYS DEC or another state agency.

9. *Discharge*s from *construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.

2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.

3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of *Owner or Operator*) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4* . This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (http://www.dec.ny.gov/). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

   NOTICE OF INTENT
   NYS DEC, Bureau of Water Permits
   625 Broadway, 4th Floor
   Albany, New York 12233-3505

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.

3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.

4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.

2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:

   a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (http://www.dec.ny.gov/) for more information,

   b. where required, all necessary Department permits subject to the *Uniform Procedures Act ("UPA")* (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators* of *construction activities* that are required to obtain *UPA* permits

must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

c. the final SWPPP has been prepared, and

d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.

3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:

   a. For *construction activities* that are <u>not</u> subject to the requirements of a *regulated, traditional land use control MS4*:

      (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or

      (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has <u>not</u> been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;

      (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:

(i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed "*MS4* SWPPP Acceptance" form, or

(ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed "MS4 SWPPP Acceptance" form.

4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination ("NOT") has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.

2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor's or subcontractor's certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.

3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

use control MS4, the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*). At a minimum, the *owner or operator* must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.

c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.

d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.

e. The *owner or operator* shall include the requirements above in their SWPPP.

4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..

5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.

6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of *a construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

   An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4,* the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.

2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.

3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.

2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.

3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.

4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:

    a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;

c. to address issues or deficiencies identified during an inspection by the *qualified inspector,* the Department or other regulatory authority; and

d. to document the final construction conditions.

5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.

6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor.* The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

   The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

   "I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *discharge*s from *construction activities* and that it is unlawful for any person to cause or contribute to a violation of *water quality standards*. Furthermore, I am aware that there are significant penalties for submitting false information, that I do not believe to be true, including the possibility of fine and imprisonment for knowing violations"

In addition to providing the certification statement above, the certification page must also identify the specific elements of the SWPPP that each contractor and subcontractor will be responsible for and include the name and title of the person providing the signature; the name and title of the *trained contractor* responsible for SWPPP implementation; the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification statement is signed. The *owner or operator* shall attach the certification statement(s) to the copy of the SWPPP that is maintained at the *construction site*. If new or additional contractors are hired to implement measures identified in the SWPPP after construction has commenced, they must also sign the certification statement and provide the information listed above.

7. For projects where the Department requests a copy of the SWPPP or inspection reports, the *owner or operator* shall submit the documents in both electronic (PDF only) and paper format within five (5) business days, unless otherwise notified by the Department.

B. Required SWPPP Contents

1. Erosion and sediment control component - All SWPPPs prepared pursuant to this permit shall include erosion and sediment control practices designed in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Where erosion and sediment control practices are not designed in conformance with the design criteria included in the technical standard, the *owner or operator* must demonstrate *equivalence* to the technical standard. At a minimum, the erosion and sediment control component of the SWPPP shall include the following:

    a. Background information about the scope of the project, including the location, type and size of project

b. A site map/construction drawing(s) for the project, including a general location map. At a minimum, the site map shall show the total site area; all improvements; areas of disturbance; areas that will not be disturbed; existing vegetation; on-site and adjacent off-site surface water(s); floodplain/floodway boundaries; wetlands and drainage patterns that could be affected by the *construction activity*; existing and final contours ; locations of different soil types with boundaries; material, waste, borrow or equipment storage areas located on adjacent properties; and location(s) of the stormwater *discharge*(s);

c. A description of the soil(s) present at the site, including an identification of the Hydrologic Soil Group (HSG);

d. A construction phasing plan and sequence of operations describing the intended order of *construction activities*, including clearing and grubbing, excavation and grading, utility and infrastructure installation and any other activity at the site that results in soil disturbance;

e. A description of the minimum erosion and sediment control practices to be installed or implemented for each *construction activity* that will result in soil disturbance. Include a schedule that identifies the timing of initial placement or implementation of each erosion and sediment control practice and the minimum time frames that each practice should remain in place or be implemented;

f. A temporary and permanent soil stabilization plan that meets the requirements of this general permit and the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016, for each stage of the project, including initial land clearing and grubbing to project completion and achievement of *final stabilization*;

g. A site map/construction drawing(s) showing the specific location(s), size(s), and length(s) of each erosion and sediment control practice;

h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils;

i. A maintenance inspection schedule for the contractor(s) identified in Part III.A.6. of this permit, to ensure continuous and effective operation of the erosion and sediment control practices. The maintenance inspection

schedule shall be in accordance with the requirements in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016;

j. A description of the pollution prevention measures that will be used to control litter, construction chemicals and construction debris from becoming a *pollutant* source in the stormwater *discharges*;

k. A description and location of any stormwater *discharges* associated with industrial activity other than construction at the site, including, but not limited to, stormwater *discharges* from asphalt plants and concrete plants located on the *construction site*; and

l. Identification of any elements of the design that are not in conformance with the design criteria in the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

2. Post-construction stormwater management practice component – The *owner or operator* of any construction project identified in Table 2 of Appendix B as needing post-construction stormwater management practices shall prepare a SWPPP that includes practices designed in conformance with the applicable *sizing criteria* in Part I.C.2.a., c. or d. of this permit and the *performance criteria* in the technical standard, New York State Stormwater Management Design Manual dated January 2015

   Where post-construction stormwater management practices are not designed in conformance with the *performance criteria* in the technical standard, the *owner or operator* must include in the SWPPP the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the technical standard.

   The post-construction stormwater management practice component of the SWPPP shall include the following:

   a. Identification of all post-construction stormwater management practices to be constructed as part of the project. Include the dimensions, material specifications and installation details for each post-construction stormwater management practice;

b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice;

c. A Stormwater Modeling and Analysis Report that includes:
   (i) Map(s) showing pre-development conditions, including watershed/subcatchments boundaries, flow paths/routing, and design points;

   (ii) Map(s) showing post-development conditions, including watershed/subcatchments boundaries, flow paths/routing, design points and post-construction stormwater management practices;

   (iii) Results of stormwater modeling (i.e. hydrology and hydraulic analysis) for the required storm events. Include supporting calculations (model runs), methodology, and a summary table that compares pre and post-development runoff rates and volumes for the different storm events;

   (iv) Summary table, with supporting calculations, which demonstrates that each post-construction stormwater management practice has been designed in conformance with the *sizing criteria* included in the Design Manual;

   (v) Identification of any *sizing criteria* that is not required based on the requirements included in Part I.C. of this permit; and

   (vi) Identification of any elements of the design that are not in conformance with the *performance criteria* in the Design Manual. Include the reason(s) for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is *equivalent* to the Design Manual;

d. Soil testing results and locations (test pits, borings);

e. Infiltration test results, when required; and

f. An operations and maintenance plan that includes inspection and maintenance schedules and actions to ensure continuous and effective operation of each post-construction stormwater management practice. The plan shall identify the entity that will be responsible for the long term operation and maintenance of each practice.

3. Enhanced Phosphorus Removal Standards - All construction projects identified in Table 2 of Appendix B that are located in the watersheds identified in Appendix C shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the applicable *sizing criteria* in Part I.C.2. b., c. or d. of this permit and the *performance criteria,* Enhanced Phosphorus Removal Standards included in the Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a - 2.f. above.

C. Required SWPPP Components by Project Type

Unless otherwise notified by the Department, *owners or operators* of *construction activities* identified in Table 1 of Appendix B are required to prepare a SWPPP that only includes erosion and sediment control practices designed in conformance with Part III.B.1 of this permit. *Owners or operators* of the *construction activities* identified in Table 2 of Appendix B shall prepare a SWPPP that also includes post-construction stormwater management practices designed in conformance with Part III.B.2 or 3 of this permit.

Part IV. INSPECTION AND MAINTENANCE REQUIREMENTS

A. General Construction Site Inspection and Maintenance Requirements

1. The *owner or operator* must ensure that all erosion and sediment control practices (including pollution prevention measures) and all post-construction stormwater management practices identified in the SWPPP are inspected and maintained in accordance with Part IV.B. and C. of this permit.

2. The terms of this permit shall not be construed to prohibit the State of New York from exercising any authority pursuant to the ECL, common law or federal law, or prohibit New York State from taking any measures, whether civil or criminal, to prevent violations of the laws of the State of New York or protect the public health and safety and/or the environment.

B. Contractor Maintenance Inspection Requirements

1. The *owner or operator* of each *construction activity* identified in Tables 1 and 2 of Appendix B shall have a *trained contractor* inspect the erosion and sediment control practices and pollution prevention measures being implemented within the active work area daily to ensure that they are being maintained in effective operating condition at all times. If deficiencies are identified, the contractor shall

begin implementing corrective actions within one business day and shall complete the corrective actions in a reasonable time frame.

2. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *trained contractor* can stop conducting the maintenance inspections. The *trained contractor* shall begin conducting the maintenance inspections in accordance with Part IV.B.1. of this permit as soon as soil disturbance activities resume.

3. For construction sites where soil disturbance activities have been shut down with partial project completion, the *trained contractor* can stop conducting the maintenance inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational.

C. Qualified Inspector Inspection Requirements

The *owner or operator* shall have a *qualified inspector* conduct site inspections in conformance with the following requirements:

[Note: The *trained contractor* identified in Part III.A.6. and IV.B. of this permit **cannot** conduct the *qualified inspector* site inspections unless they meet the *qualified inspector* qualifications included in Appendix A. In order to perform these inspections, the *trained contractor* would have to be a:

- licensed Professional Engineer,
- Certified Professional in Erosion and Sediment Control (CPESC),
- New York State Erosion and Sediment Control Certificate Program holder
- Registered Landscape Architect, or
- someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity].

1. A *qualified inspector* shall conduct site inspections for all *construction activities* identified in Tables 1 and 2 of Appendix B, with the exception of:

   a. the construction of a single family residential subdivision with 25% or less *impervious cover* at total site build-out that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located

in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

b. the construction of a single family home that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres and is not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E;

c. construction on agricultural property that involves a soil disturbance of one (1) or more acres of land but less than five (5) acres; and

d. *construction activities* located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

2. Unless otherwise notified by the Department, the *qualified inspector* shall conduct site inspections in accordance with the following timetable:

a. For construction sites where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

b. For construction sites where soil disturbance activities are on-going and the *owner or operator* has received authorization in accordance with Part II.D.3 to disturb greater than five (5) acres of soil at any one time, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

c. For construction sites where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and *temporary stabilization* measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to reducing the frequency of inspections.

d. For construction sites where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the DOW Water (SPDES) Program contact at the Regional Office (see contact information in Appendix F) or, in areas under the jurisdiction of a *regulated, traditional land use control MS4,* the *regulated, traditional land use control MS4* (provided the *regulated, traditional land use control MS4* is not the *owner or operator* of the *construction activity*) in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the *owner or operator* shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization,* and all temporary, structural erosion and sediment control measures have been removed*;* and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice" certification statements on the NOT. The *owner or operator* shall then submit the completed NOT form to the address in Part II.B.1 of this permit.

e. For construction sites that directly *discharge* to one of the 303(d) segments listed in Appendix E or is located in one of the watersheds listed in Appendix C, the *qualified inspector* shall conduct at least two (2) site inspections every seven (7) calendar days. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.

3. At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices and pollution prevention measures to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization,* all points of *discharge* to natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site*, and all points of *discharge* from the *construction site*.

4. The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

a. Date and time of inspection;

b. Name and title of person(s) performing inspection;

c. A description of the weather and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

d. A description of the condition of the runoff at all points of *discharge* from the *construction site*. This shall include identification of any *discharges* of sediment from the *construction site*. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

e. A description of the condition of all natural surface waterbodies located within, or immediately adjacent to, the property boundaries of the *construction site* which receive runoff from disturbed areas. This shall include identification of any *discharges* of sediment to the surface waterbody;

f. Identification of all erosion and sediment control practices and pollution prevention measures that need repair or maintenance;

g. Identification of all erosion and sediment control practices and pollution prevention measures that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

h. Description and sketch of areas with active soil disturbance activity, areas that have been disturbed but are inactive at the time of the inspection, and areas that have been stabilized (temporary and/or final) since the last inspection;

i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices and pollution prevention measures; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s);

k. Identification and status of all corrective actions that were required by previous inspection; and

l. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.

6. All inspection reports shall be signed by the *qualified inspector.* Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.

2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:

   a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;

c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.

d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.

3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the "*Final Stabilization*" and "Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.

4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the "MS4 Acceptance" statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector*'s final site inspection certification(s) required in Part V.A.3. of this permit.

5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:

a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),

c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,

d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator,* its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to $37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

E. Duty to Mitigate

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit , or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:

    a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or

(ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or

c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(i) the chief executive officer of the agency, or

(ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.

3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.

4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4,* or by a duly authorized representative of that person.

   It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge*(s), the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner’s or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;

2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.

4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.

2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
Cpv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - Environmental Conservation Law
EPA – U. S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property –means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both "sewage" and "stormwater".

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for "*Construction Activity(ies)*" also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Construction Site – means the land area where *construction activity(ies)* will occur. See definition for "*Commence (Commencement of) Construction Activities"* and "*Larger Common Plan of Development or Sale" also.*

Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

Embankment –means an earthen or rock slope that supports a road/highway.

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department's rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

(i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State*;*
(ii) Designed or used for collecting or conveying stormwater;
(iii) Which is not a *combined sewer*; and
(iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Natural Buffer –means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Performance Criteria – means the design criteria listed under the "Required Elements" sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank* Flood (Qp), and Extreme Flood (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Steep Slope – means land area designated on the current United States Department of Agriculture ("USDA") Soil Survey as Soil Slope Phase "D", (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint source*s. It is a calculation of the maximum amount of a pollutant that a waterbody can receive on a daily basis and still meet *water quality standards*, and an allocation of that amount to the pollutant's sources. A TMDL stipulates wasteload allocations (WLAs) for *point source* discharges, load allocations (LAs) for *nonpoint source*s, and a margin of safety (MOS).

Trained Contractor - means an employee from the contracting (construction) company, identified in Part III.A.6., that has received four (4) hours of Department endorsed

training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the *trained contractor* shall receive four (4) hours of training every three (3) years.

It can also mean an employee from the contracting (construction) company, identified in Part III.A.6., that meets the *qualified inspector* qualifications (e.g. licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder, or someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided they have received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity).

The *trained contractor* is responsible for the day to day implementation of the SWPPP.

Uniform Procedures Act (UPA) Permit - means a permit required under 6 NYCRR Part 621 of the Environmental Conservation Law (ECL), Article 70.

Water Quality Standard - means such measures of purity or quality for any waters in relation to their reasonable and necessary use as promulgated in 6 NYCRR Part 700 et seq.

APPENDIX B – Required SWPPP Components by Project Type

Table 1
Construction Activities that Require the Preparation of a SWPPP That Only Includes Erosion and Sediment Controls

The following construction activities that involve soil disturbances of one (1) or more acres of land, but less than five (5) acres:

- Single family home not located in one of the watersheds listed in Appendix C or not *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions with 25% or less impervious cover at total site build-out and not located in one of the watersheds listed in Appendix C and not directly discharging to one of the 303(d) segments listed in Appendix E
- Construction of a barn or other *agricultural building*, silo, stock yard or pen.

The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land:

All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains
- Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects
- Pond construction
- Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover
- Cross-country ski trails and walking/hiking trails
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development;
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path.
- Slope stabilization projects
- Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State", excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

Table 2

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover,* and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual").

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

Figure 1 - New York City Watershed East of the Hudson

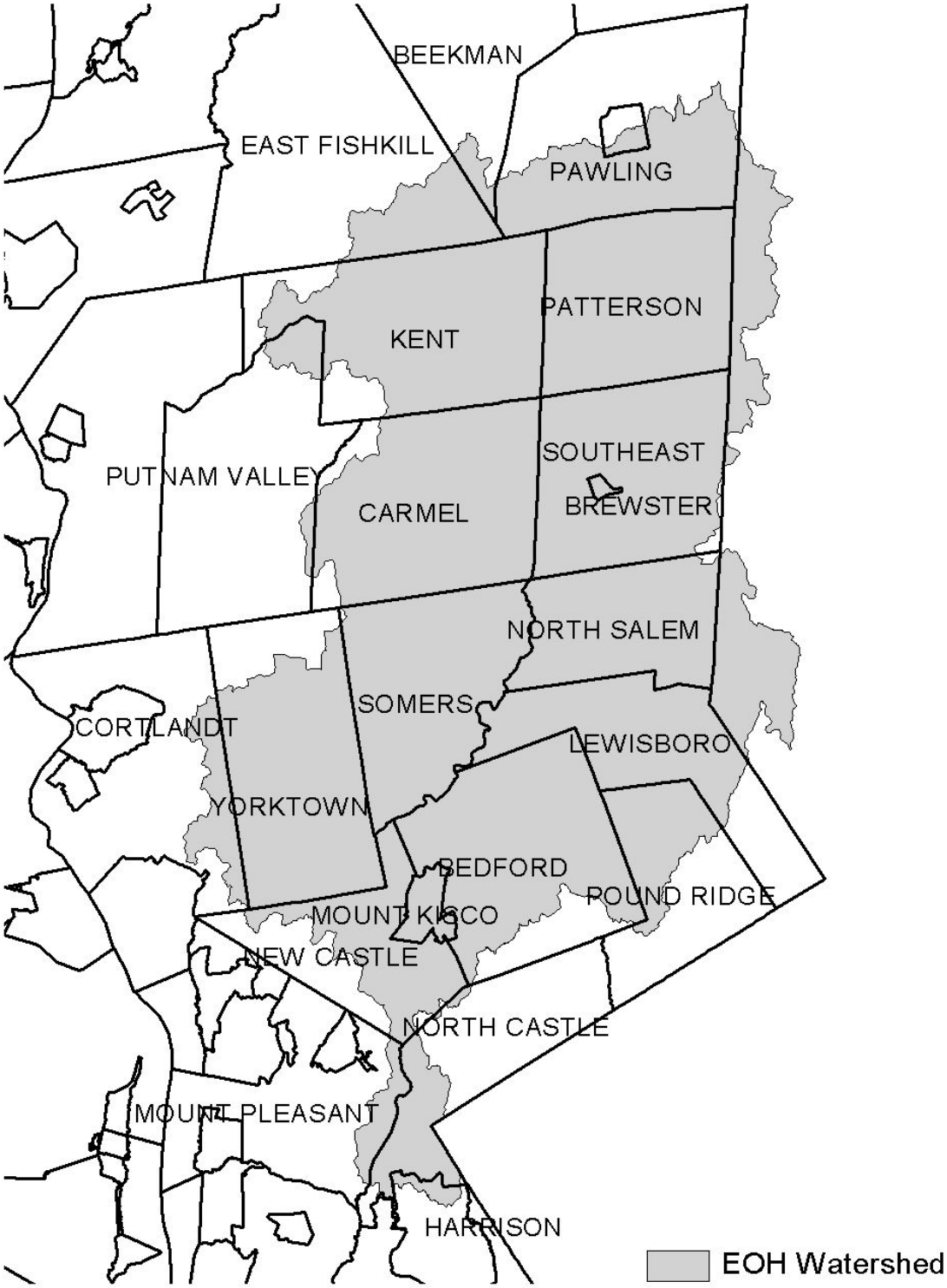


Figure 2 - Onondaga Lake Watershed

Figure 3 - Greenwood Lake Watershed

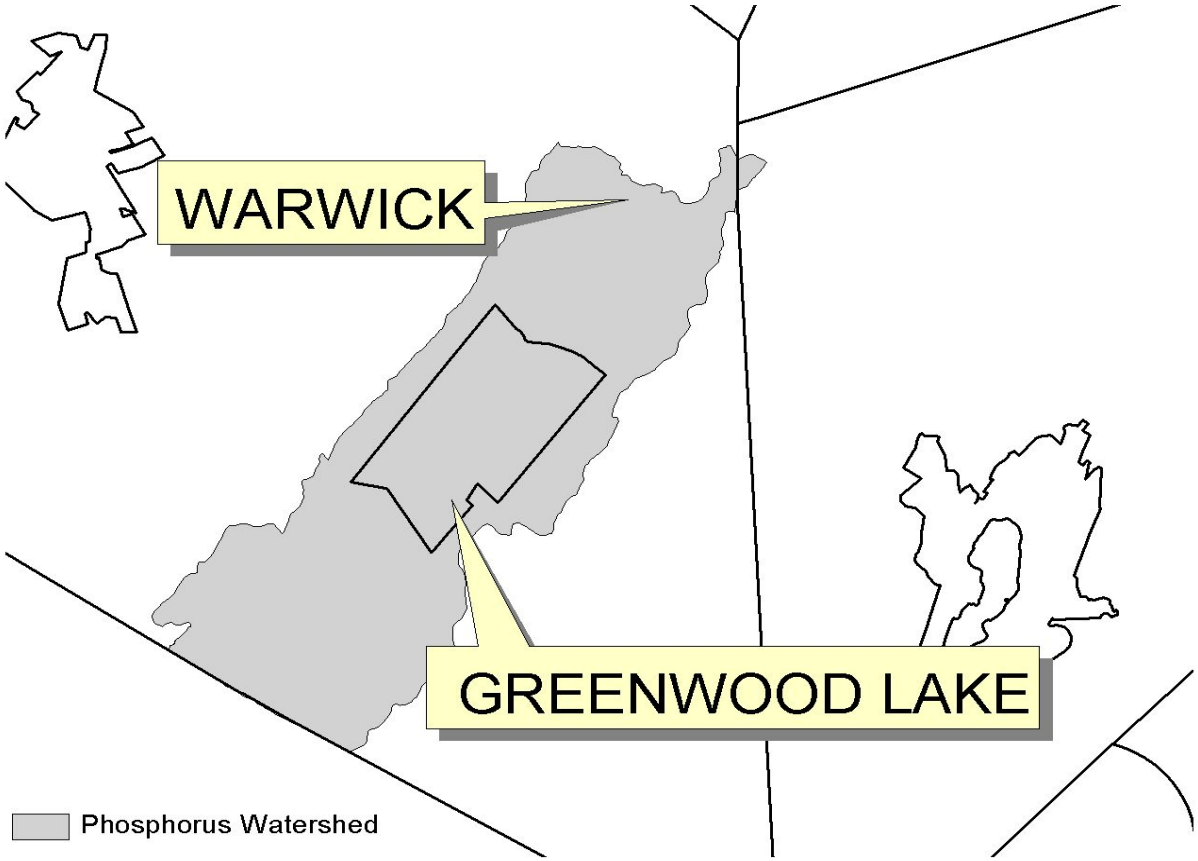


Figure 4 - Oscawana Lake Watershed

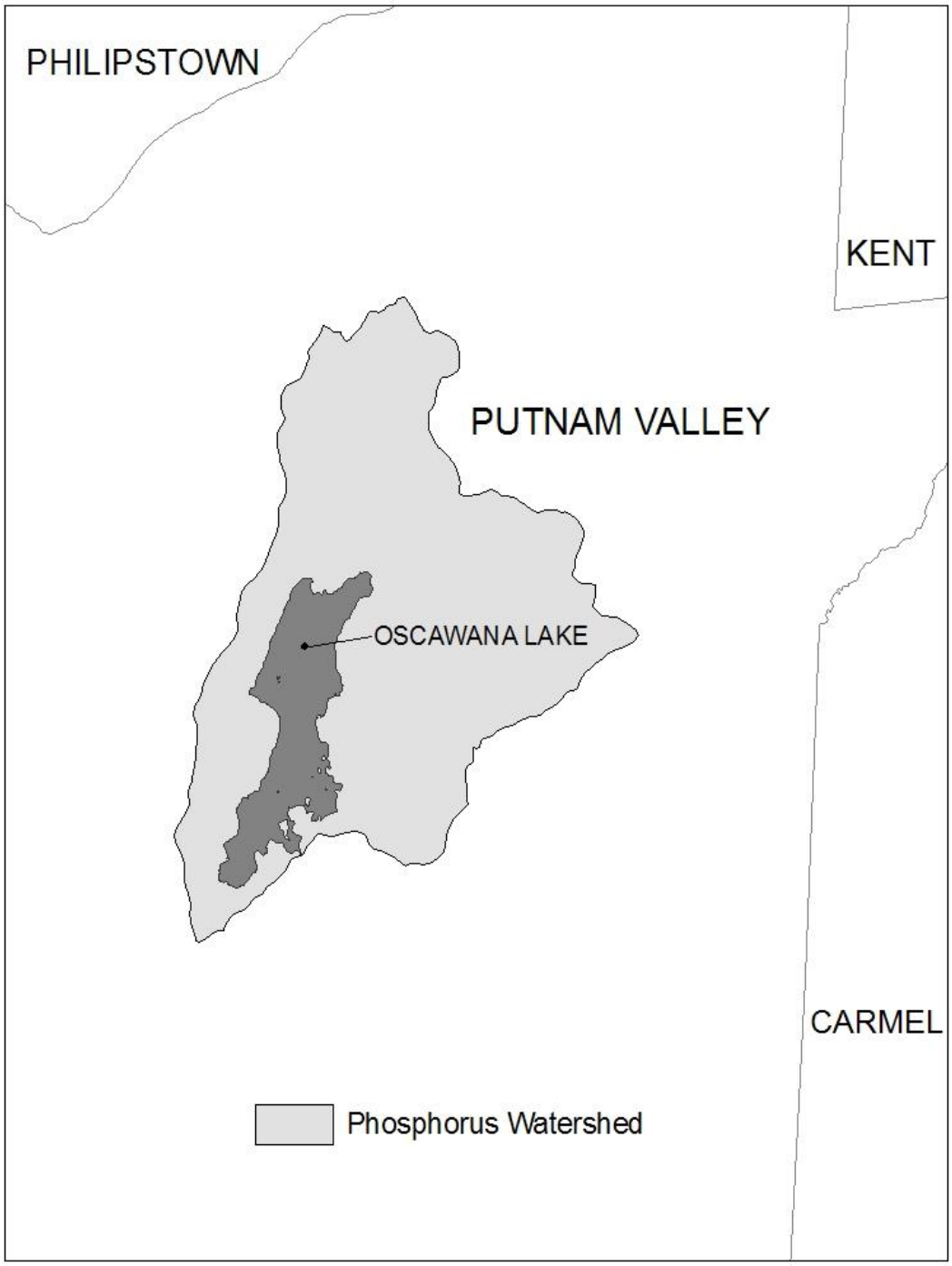
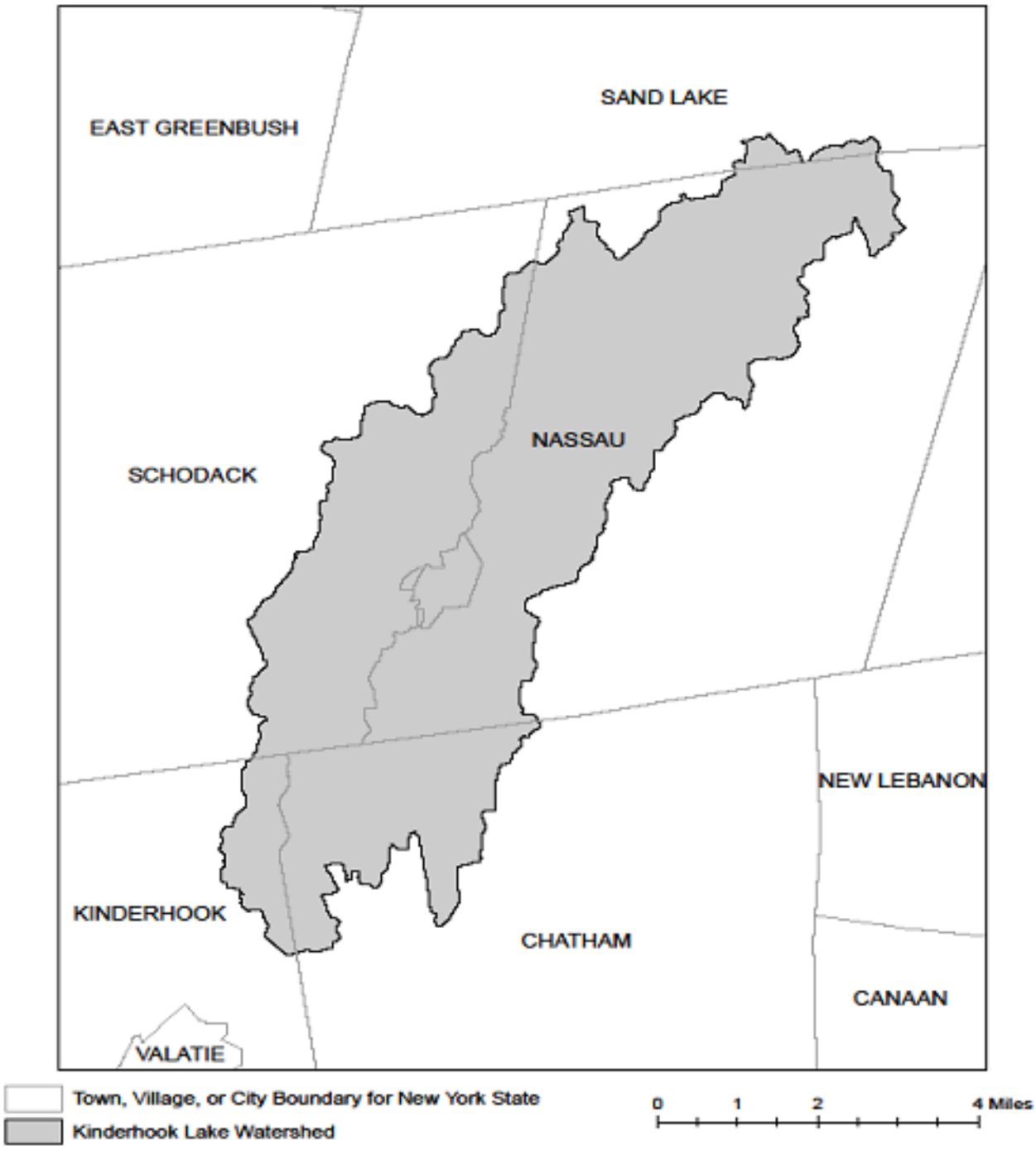


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River **-** See Figure 1 in Appendix C

APPENDIX E – 303(d) Segments Impaired by Construction Related Pollutant(s)

List of 303(d) segments impaired by pollutants related to *construction activity* (e.g. silt, sediment or nutrients). The list was developed using "The Final New York State 2016 Section 303(d) List of Impaired Waters Requiring a TMDL/Other Strategy" dated November 2016. *Owners or operators* of single family home and single family residential subdivisions with 25% or less total impervious cover at total site build-out that involve soil disturbances of one or more acres of land, but less than 5 acres, and *directly discharge* to one of the listed segments below shall prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the New York State Stormwater Management Design Manual ("Design Manual"), dated January 2015.

COUNTY	WATERBODY	POLLUTANT
Albany	Ann Lee (Shakers) Pond, Stump Pond	Nutrients
Albany	Basic Creek Reservoir	Nutrients
Allegany	Amity Lake, Saunders Pond	Nutrients
Bronx	Long Island Sound, Bronx	Nutrients
Bronx	Van Cortlandt Lake	Nutrients
Broome	Fly Pond, Deer Lake, Sky Lake	Nutrients
Broome	Minor Tribs to Lower Susquehanna (north)	Nutrients
Broome	Whitney Point Lake/Reservoir	Nutrients
Cattaraugus	Allegheny River/Reservoir	Nutrients
Cattaraugus	Beaver (Alma) Lake	Nutrients
Cattaraugus	Case Lake	Nutrients
Cattaraugus	Linlyco/Club Pond	Nutrients
Cayuga	Duck Lake	Nutrients
Cayuga	Little Sodus Bay	Nutrients
Chautauqua	Bear Lake	Nutrients
Chautauqua	Chadakoin River and tribs	Nutrients
Chautauqua	Chautauqua Lake, North	Nutrients
Chautauqua	Chautauqua Lake, South	Nutrients
Chautauqua	Findley Lake	Nutrients
Chautauqua	Hulburt/Clymer Pond	Nutrients
Clinton	Great Chazy River, Lower, Main Stem	Silt/Sediment
Clinton	Lake Champlain, Main Lake, Middle	Nutrients
Clinton	Lake Champlain, Main Lake, North	Nutrients
Columbia	Kinderhook Lake	Nutrients
Columbia	Robinson Pond	Nutrients
Cortland	Dean Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Dutchess	Fall Kill and tribs	Nutrients
Dutchess	Hillside Lake	Nutrients
Dutchess	Wappingers Lake	Nutrients
Dutchess	Wappingers Lake	Silt/Sediment
Erie	Beeman Creek and tribs	Nutrients
Erie	Ellicott Creek, Lower, and tribs	Silt/Sediment
Erie	Ellicott Creek, Lower, and tribs	Nutrients
Erie	Green Lake	Nutrients
Erie	Little Sister Creek, Lower, and tribs	Nutrients
Erie	Murder Creek, Lower, and tribs	Nutrients
Erie	Rush Creek and tribs	Nutrients
Erie	Scajaquada Creek, Lower, and tribs	Nutrients
Erie	Scajaquada Creek, Middle, and tribs	Nutrients
Erie	Scajaquada Creek, Upper, and tribs	Nutrients
Erie	South Branch Smoke Cr, Lower, and tribs	Silt/Sediment
Erie	South Branch Smoke Cr, Lower, and tribs	Nutrients
Essex	Lake Champlain, Main Lake, South	Nutrients
Essex	Lake Champlain, South Lake	Nutrients
Essex	Willsboro Bay	Nutrients
Genesee	Bigelow Creek and tribs	Nutrients
Genesee	Black Creek, Middle, and minor tribs	Nutrients
Genesee	Black Creek, Upper, and minor tribs	Nutrients
Genesee	Bowen Brook and tribs	Nutrients
Genesee	LeRoy Reservoir	Nutrients
Genesee	Oak Orchard Cr, Upper, and tribs	Nutrients
Genesee	Tonawanda Creek, Middle, Main Stem	Nutrients
Greene	Schoharie Reservoir	Silt/Sediment
Greene	Sleepy Hollow Lake	Silt/Sediment
Herkimer	Steele Creek tribs	Silt/Sediment
Herkimer	Steele Creek tribs	Nutrients
Jefferson	Moon Lake	Nutrients
Kings	Hendrix Creek	Nutrients
Kings	Prospect Park Lake	Nutrients
Lewis	Mill Creek/South Branch, and tribs	Nutrients
Livingston	Christie Creek and tribs	Nutrients
Livingston	Conesus Lake	Nutrients
Livingston	Mill Creek and minor tribs	Silt/Sediment
Monroe	Black Creek, Lower, and minor tribs	Nutrients
Monroe	Buck Pond	Nutrients
Monroe	Cranberry Pond	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Monroe	Lake Ontario Shoreline, Western	Nutrients
Monroe	Long Pond	Nutrients
Monroe	Mill Creek and tribs	Nutrients
Monroe	Mill Creek/Blue Pond Outlet and tribs	Nutrients
Monroe	Minor Tribs to Irondequoit Bay	Nutrients
Monroe	Rochester Embayment - East	Nutrients
Monroe	Rochester Embayment - West	Nutrients
Monroe	Shipbuilders Creek and tribs	Nutrients
Monroe	Thomas Creek/White Brook and tribs	Nutrients
Nassau	Beaver Lake	Nutrients
Nassau	Camaans Pond	Nutrients
Nassau	East Meadow Brook, Upper, and tribs	Silt/Sediment
Nassau	East Rockaway Channel	Nutrients
Nassau	Grant Park Pond	Nutrients
Nassau	Hempstead Bay	Nutrients
Nassau	Hempstead Lake	Nutrients
Nassau	Hewlett Bay	Nutrients
Nassau	Hog Island Channel	Nutrients
Nassau	Long Island Sound, Nassau County Waters	Nutrients
Nassau	Massapequa Creek and tribs	Nutrients
Nassau	Milburn/Parsonage Creeks, Upp, and tribs	Nutrients
Nassau	Reynolds Channel, west	Nutrients
Nassau	Tidal Tribs to Hempstead Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Nutrients
Nassau	Tribs (fresh) to East Bay	Silt/Sediment
Nassau	Tribs to Smith/Halls Ponds	Nutrients
Nassau	Woodmere Channel	Nutrients
New York	Harlem Meer	Nutrients
New York	The Lake in Central Park	Nutrients
Niagara	Bergholtz Creek and tribs	Nutrients
Niagara	Hyde Park Lake	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Niagara	Lake Ontario Shoreline, Western	Nutrients
Oneida	Ballou, Nail Creeks and tribs	Nutrients
Onondaga	Harbor Brook, Lower, and tribs	Nutrients
Onondaga	Ley Creek and tribs	Nutrients
Onondaga	Minor Tribs to Onondaga Lake	Nutrients
Onondaga	Ninemile Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Lower, and tribs	Nutrients
Onondaga	Onondaga Creek, Middle, and tribs	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Onondaga	Onondaga Lake, northern end	Nutrients
Onondaga	Onondaga Lake, southern end	Nutrients
Ontario	Great Brook and minor tribs	Silt/Sediment
Ontario	Great Brook and minor tribs	Nutrients
Ontario	Hemlock Lake Outlet and minor tribs	Nutrients
Ontario	Honeoye Lake	Nutrients
Orange	Greenwood Lake	Nutrients
Orange	Monhagen Brook and tribs	Nutrients
Orange	Orange Lake	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Orleans	Lake Ontario Shoreline, Western	Nutrients
Oswego	Lake Neatahwanta	Nutrients
Oswego	Pleasant Lake	Nutrients
Putnam	Bog Brook Reservoir	Nutrients
Putnam	Boyd Corners Reservoir	Nutrients
Putnam	Croton Falls Reservoir	Nutrients
Putnam	Diverting Reservoir	Nutrients
Putnam	East Branch Reservoir	Nutrients
Putnam	Lake Carmel	Nutrients
Putnam	Middle Branch Reservoir	Nutrients
Putnam	Oscawana Lake	Nutrients
Putnam	Palmer Lake	Nutrients
Putnam	West Branch Reservoir	Nutrients
Queens	Bergen Basin	Nutrients
Queens	Flushing Creek/Bay	Nutrients
Queens	Jamaica Bay, Eastern, and tribs (Queens)	Nutrients
Queens	Kissena Lake	Nutrients
Queens	Meadow Lake	Nutrients
Queens	Willow Lake	Nutrients
Rensselaer	Nassau Lake	Nutrients
Rensselaer	Snyders Lake	Nutrients
Richmond	Grasmere Lake/Bradys Pond	Nutrients
Rockland	Congers Lake, Swartout Lake	Nutrients
Rockland	Rockland Lake	Nutrients
Saratoga	Ballston Lake	Nutrients
Saratoga	Dwaas Kill and tribs	Silt/Sediment
Saratoga	Dwaas Kill and tribs	Nutrients
Saratoga	Lake Lonely	Nutrients
Saratoga	Round Lake	Nutrients
Saratoga	Tribs to Lake Lonely	Nutrients

303(d) Segments Impaired by Construction Related Pollutant(s)

Schenectady	Collins Lake	Nutrients
Schenectady	Duane Lake	Nutrients
Schenectady	Mariaville Lake	Nutrients
Schoharie	Engleville Pond	Nutrients
Schoharie	Summit Lake	Nutrients
Seneca	Reeder Creek and tribs	Nutrients
St.Lawrence	Black Lake Outlet/Black Lake	Nutrients
St.Lawrence	Fish Creek and minor tribs	Nutrients
Steuben	Smith Pond	Nutrients
Suffolk	Agawam Lake	Nutrients
Suffolk	Big/Little Fresh Ponds	Nutrients
Suffolk	Canaan Lake	Silt/Sediment
Suffolk	Canaan Lake	Nutrients
Suffolk	Flanders Bay, West/Lower Sawmill Creek	Nutrients
Suffolk	Fresh Pond	Nutrients
Suffolk	Great South Bay, East	Nutrients
Suffolk	Great South Bay, Middle	Nutrients
Suffolk	Great South Bay, West	Nutrients
Suffolk	Lake Ronkonkoma	Nutrients
Suffolk	Long Island Sound, Suffolk County, West	Nutrients
Suffolk	Mattituck (Marratooka) Pond	Nutrients
Suffolk	Meetinghouse/Terrys Creeks and tribs	Nutrients
Suffolk	Mill and Seven Ponds	Nutrients
Suffolk	Millers Pond	Nutrients
Suffolk	Moriches Bay, East	Nutrients
Suffolk	Moriches Bay, West	Nutrients
Suffolk	Peconic River, Lower, and tidal tribs	Nutrients
Suffolk	Quantuck Bay	Nutrients
Suffolk	Shinnecock Bay and Inlet	Nutrients
Suffolk	Tidal tribs to West Moriches Bay	Nutrients
Sullivan	Bodine, Montgomery Lakes	Nutrients
Sullivan	Davies Lake	Nutrients
Sullivan	Evens Lake	Nutrients
Sullivan	Pleasure Lake	Nutrients
Tompkins	Cayuga Lake, Southern End	Nutrients
Tompkins	Cayuga Lake, Southern End	Silt/Sediment
Tompkins	Owasco Inlet, Upper, and tribs	Nutrients
Ulster	Ashokan Reservoir	Silt/Sediment
Ulster	Esopus Creek, Upper, and minor tribs	Silt/Sediment
Warren	Hague Brook and tribs	Silt/Sediment

303(d) Segments Impaired by Construction Related Pollutant(s)

Warren	Huddle/Finkle Brooks and tribs	Silt/Sediment
Warren	Indian Brook and tribs	Silt/Sediment
Warren	Lake George	Silt/Sediment
Warren	Tribs to L.George, Village of L George	Silt/Sediment
Washington	Cossayuna Lake	Nutrients
Washington	Lake Champlain, South Bay	Nutrients
Washington	Tribs to L.George, East Shore	Silt/Sediment
Washington	Wood Cr/Champlain Canal and minor tribs	Nutrients
Wayne	Port Bay	Nutrients
Westchester	Amawalk Reservoir	Nutrients
Westchester	Blind Brook, Upper, and tribs	Silt/Sediment
Westchester	Cross River Reservoir	Nutrients
Westchester	Lake Katonah	Nutrients
Westchester	Lake Lincolndale	Nutrients
Westchester	Lake Meahagh	Nutrients
Westchester	Lake Mohegan	Nutrients
Westchester	Lake Shenorock	Nutrients
Westchester	Long Island Sound, Westchester (East)	Nutrients
Westchester	Mamaroneck River, Lower	Silt/Sediment
Westchester	Mamaroneck River, Upper, and minor tribs	Silt/Sediment
Westchester	Muscoot/Upper New Croton Reservoir	Nutrients
Westchester	New Croton Reservoir	Nutrients
Westchester	Peach Lake	Nutrients
Westchester	Reservoir No.1 (Lake Isle)	Nutrients
Westchester	Saw Mill River, Lower, and tribs	Nutrients
Westchester	Saw Mill River, Middle, and tribs	Nutrients
Westchester	Sheldrake River and tribs	Silt/Sediment
Westchester	Sheldrake River and tribs	Nutrients
Westchester	Silver Lake	Nutrients
Westchester	Teatown Lake	Nutrients
Westchester	Titicus Reservoir	Nutrients
Westchester	Truesdale Lake	Nutrients
Westchester	Wallace Pond	Nutrients
Wyoming	Java Lake	Nutrients
Wyoming	Silver Lake	Nutrients

APPENDIX F – List of NYS DEC Regional Offices

Region	Covering the following counties:	DIVISION OF ENVIRONMENTAL PERMITS (DEP) Permit Administrators	DIVISION OF WATER (DOW) Water (SPDES) Program
1	Nassau and Suffolk	50 Circle Road Stony Brook, NY 11790 Tel. (631) 444-0365	50 Circle Road Stony Brook, NY 11790-3409 Tel. (631) 444-0405
2	Bronx, Kings, New York, Queens and Richmond	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4997	1 Hunters Point Plaza, 47-40 21st St. Long Island City, NY 11101-5407 Tel. (718) 482-4933
3	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester	21 South Putt Corners Road New Paltz, NY 12561-1696 Tel. (845) 256-3059	100 Hillside Avenue, Suite 1w White Plains, NY 10603 Tel. (914) 428 - 2505
4	Albany, Columbia, Delaware, Greene, Montgomery, Otsego, Rensselaer, Schenectady and Schoharie	1150 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2069	1130 North Westcott Road Schenectady, NY 12306-2014 Tel. (518) 357-2045
5	Clinton, Essex, Franklin, Fulton, Hamilton, Saratoga, Warren and Washington	1115 State Route 86, Po Box 296 Ray Brook, NY 12977-0296 Tel. (518) 897-1234	232 Golf Course Road Warrensburg, NY 12885-1172 Tel. (518) 623-1200
6	HERKIMER, JEFFERSON, LEWIS, ONEIDA AND ST. LAWRENCE	STATE OFFICE BUILDING 317 WASHINGTON STREET WATERTOWN, NY 13601-3787 TEL. (315) 785-2245	STATE OFFICE BUILDING 207 GENESEE STREET UTICA, NY 13501-2885 TEL. (315) 793-2554
7	BROOME, CAYUGA, CHENANGO, CORTLAND, MADISON, ONONDAGA, OSWEGO, TIOGA AND TOMPKINS	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7438	615 ERIE BLVD. WEST SYRACUSE, NY 13204-2400 TEL. (315) 426-7500
8	CHEMUNG, GENESEE, LIVINGSTON, MONROE, ONTARIO, ORLEANS, SCHUYLER, SENECA, STEUBEN, WAYNE AND YATES	6274 EAST AVON-LIMA ROADAVON, NY 14414-9519 TEL. (585) 226-2466	6274 EAST AVON-LIMA RD. AVON, NY 14414-9519 TEL. (585) 226-2466
9	ALLEGANY, CATTARAUGUS, CHAUTAUQUA, ERIE, NIAGARA AND WYOMING	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7165	270 MICHIGAN AVENUE BUFFALO, NY 14203-2999 TEL. (716) 851-7070

NYS Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

Construction Activities Seeking Authorization Under SPDES General Permit

*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

I. Project Owner/Operator Information
1. Owner/Operator Name:
2. Contact Person:
3. Street Address:
4. City/State/Zip:
II. Project Site Information
5. Project/Site Name:
6. Street Address:
7. City/State/Zip:
III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information
8. SWPPP Reviewed by:
9. Title/Position:
10. Date Final SWPPP Reviewed and Accepted:
IV. Regulated MS4 Information
11. Name of MS4:
12. MS4 SPDES Permit Identification Number: NYR20A _____
13. Contact Person:
14. Street Address:
15. City/State/Zip:
16. Telephone Number:

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

Signature:

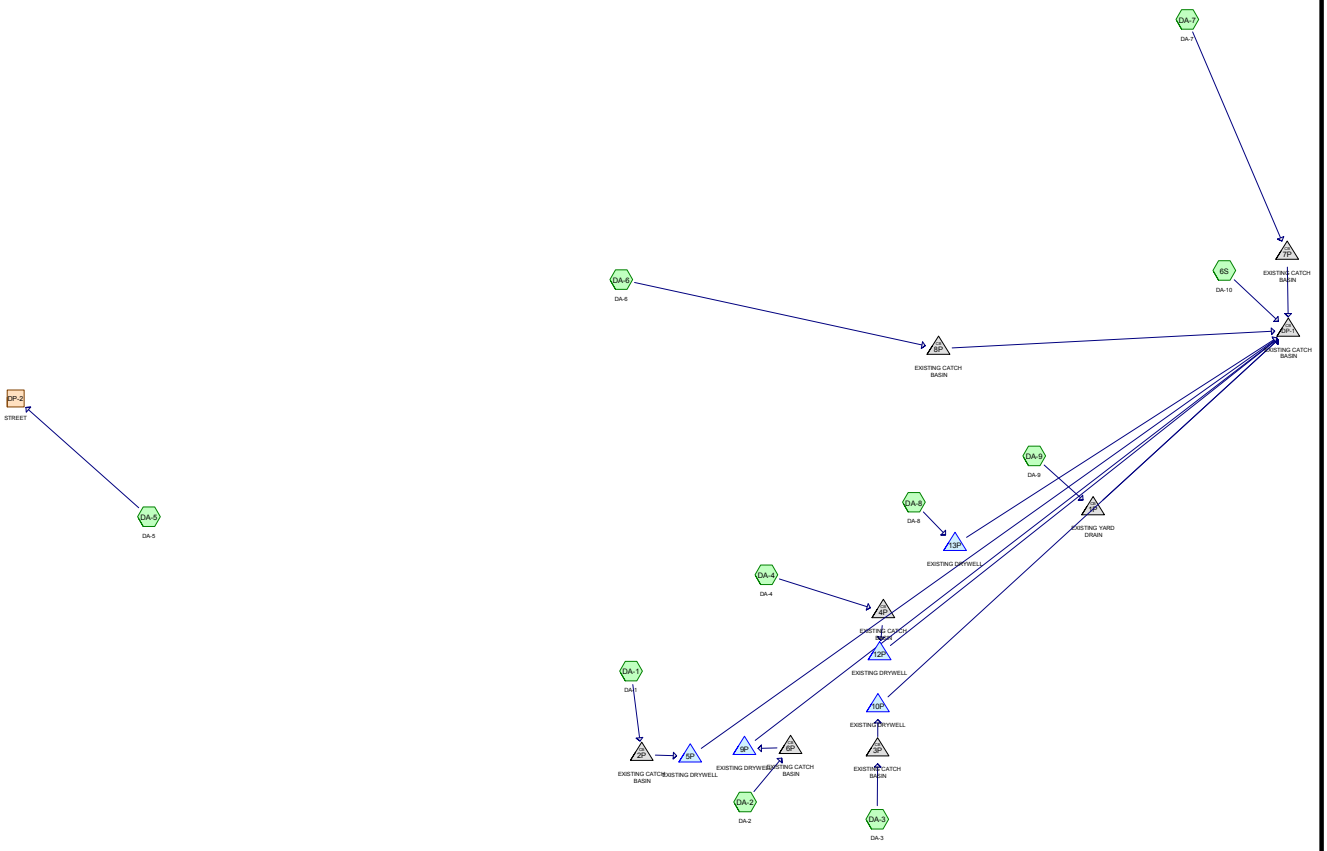
Date:

VI. Additional Information

(NYS DEC - MS4 SWPPP Acceptance Form - January 2015)

APPENDIX C

Pre-Development and Post-Development Run-off Calculations



Subcat Reach Pond Link

Routing Diagram for Wallace-PRE
Prepared by LRC Group, Printed 2/25/2021
HydroCAD® 10.00-19 s/n 02009 © 2016 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
12,123	84	50-75% Grass cover, Fair, HSG D (6S, DA-1, DA-2, DA-3, DA-4, DA-6, DA-8, DA-9)
126,844	98	Paved parking, HSG D (6S, DA-1, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9)
138,967	**97**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
138,967	HSG D	6S, DA-1, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9
0	Other	
138,967		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Sub Num
0	0	0	12,123	0	12,123	50-75% Grass cover, Fair	
0	0	0	126,844	0	126,844	Paved parking	
0	**0**	**0**	**138,967**	**0**	**138,967**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	1P	171.30	170.43	87.0	0.0100	0.013	4.0	0.0	0.0
2	2P	170.60	170.46	14.0	0.0100	0.013	12.0	0.0	0.0
3	3P	170.30	170.13	17.0	0.0100	0.013	12.0	0.0	0.0
4	4P	170.80	170.68	12.0	0.0100	0.013	12.0	0.0	0.0
5	6P	170.30	170.15	15.0	0.0100	0.013	12.0	0.0	0.0
6	7P	167.60	166.70	26.0	0.0346	0.013	18.0	0.0	0.0
7	8P	168.70	167.00	142.0	0.0120	0.013	12.0	0.0	0.0
8	DP-1	166.70	165.00	191.0	0.0089	0.013	18.0	0.0	0.0

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 6S: DA-10 Runoff Area=3,125 sf 87.10% Impervious Runoff Depth=2.17"
Flow Length=48' Slope=0.0235 '/' Tc=6.0 min CN=96 Runoff=0.24 cfs 565 cf

Subcatchment DA-1: DA-1 Runoff Area=15,019 sf 84.37% Impervious Runoff Depth=2.17"
Flow Length=59' Tc=6.0 min CN=96 Runoff=1.18 cfs 2,715 cf

Subcatchment DA-2: DA-2 Runoff Area=3,749 sf 79.83% Impervious Runoff Depth=2.07"
Flow Length=61' Tc=6.0 min CN=95 Runoff=0.29 cfs 647 cf

Subcatchment DA-3: DA-3 Runoff Area=4,132 sf 69.19% Impervious Runoff Depth=1.97"
Flow Length=43' Tc=6.0 min CN=94 Runoff=0.30 cfs 680 cf

Subcatchment DA-4: DA-4 Runoff Area=5,589 sf 86.58% Impervious Runoff Depth=2.17"
Flow Length=59' Tc=6.0 min CN=96 Runoff=0.44 cfs 1,010 cf

Subcatchment DA-5: DA-5 Runoff Area=13,552 sf 100.00% Impervious Runoff Depth=2.38"
Flow Length=60' Slope=0.0100 '/' Tc=6.0 min CN=98 Runoff=1.11 cfs 2,688 cf

Subcatchment DA-6: DA-6 Runoff Area=72,169 sf 95.78% Impervious Runoff Depth=2.27"
Flow Length=293' Tc=6.0 min CN=97 Runoff=5.80 cfs 13,666 cf

Subcatchment DA-7: DA-7 Runoff Area=8,324 sf 100.00% Impervious Runoff Depth=2.38"
Flow Length=183' Tc=6.0 min CN=98 Runoff=0.68 cfs 1,651 cf

Subcatchment DA-8: DA-8 Runoff Area=4,173 sf 81.26% Impervious Runoff Depth=2.07"
Flow Length=31' Tc=6.0 min CN=95 Runoff=0.32 cfs 720 cf

Subcatchment DA-9: DA-9 Runoff Area=9,135 sf 69.73% Impervious Runoff Depth=1.97"
Flow Length=82' Tc=6.0 min CN=94 Runoff=0.67 cfs 1,503 cf

Reach DP-2: STREET Inflow=1.11 cfs 2,688 cf
Outflow=1.11 cfs 2,688 cf

Pond 1P: EXISTING YARD DRAIN Peak Elev=183.40' Inflow=0.67 cfs 1,503 cf
4.0" Round Culvert n=0.013 L=87.0' S=0.0100 '/' Outflow=0.67 cfs 1,503 cf

Pond 2P: EXISTING CATCH BASIN Peak Elev=171.28' Inflow=1.18 cfs 2,715 cf
12.0" Round Culvert n=0.013 L=14.0' S=0.0100 '/' Outflow=1.18 cfs 2,715 cf

Pond 3P: EXISTING CATCH BASIN Peak Elev=170.61' Inflow=0.30 cfs 680 cf
12.0" Round Culvert n=0.013 L=17.0' S=0.0100 '/' Outflow=0.30 cfs 680 cf

Pond 4P: EXISTING CATCH BASIN Peak Elev=171.18' Inflow=0.44 cfs 1,010 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0100 '/' Outflow=0.44 cfs 1,010 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.40' Storage=538 cf Inflow=1.18 cfs 2,715 cf
Outflow=0.79 cfs 2,715 cf

Pond 6P: EXISTING CATCH BASIN Peak Elev=170.60' Inflow=0.29 cfs 647 cf
12.0" Round Culvert n=0.013 L=15.0' S=0.0100 '/' Outflow=0.29 cfs 647 cf

Pond 7P: EXISTING CATCH BASIN Peak Elev=168.01' Inflow=0.68 cfs 1,651 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=0.68 cfs 1,651 cf

Pond 8P: EXISTING CATCH BASIN Peak Elev=173.34' Inflow=5.80 cfs 13,666 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=5.80 cfs 13,666 cf

Pond 9P: EXISTING DRYWELL Peak Elev=173.39' Storage=646 cf Inflow=0.29 cfs 647 cf
Outflow=0.00 cfs 0 cf

Pond 10P: EXISTING DRYWELL Peak Elev=172.94' Storage=209 cf Inflow=0.30 cfs 680 cf
Outflow=0.18 cfs 680 cf

Pond 12P: EXISTING DRYWELL Peak Elev=173.02' Storage=251 cf Inflow=0.44 cfs 1,010 cf
Outflow=0.33 cfs 1,010 cf

Pond 13P: EXISTING DRYWELL Peak Elev=172.60' Storage=226 cf Inflow=0.32 cfs 720 cf
Outflow=0.16 cfs 720 cf

Pond DP-1: EXISTING CATCH BASIN Peak Elev=168.66' Inflow=7.40 cfs 17,385 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=7.40 cfs 17,385 cf

Total Runoff Area = 138,967 sf Runoff Volume = 25,844 cf Average Runoff Depth = 2.23"
8.72% Pervious = 12,123 sf 91.28% Impervious = 126,844 sf

Summary for Subcatchment 6S: DA-10

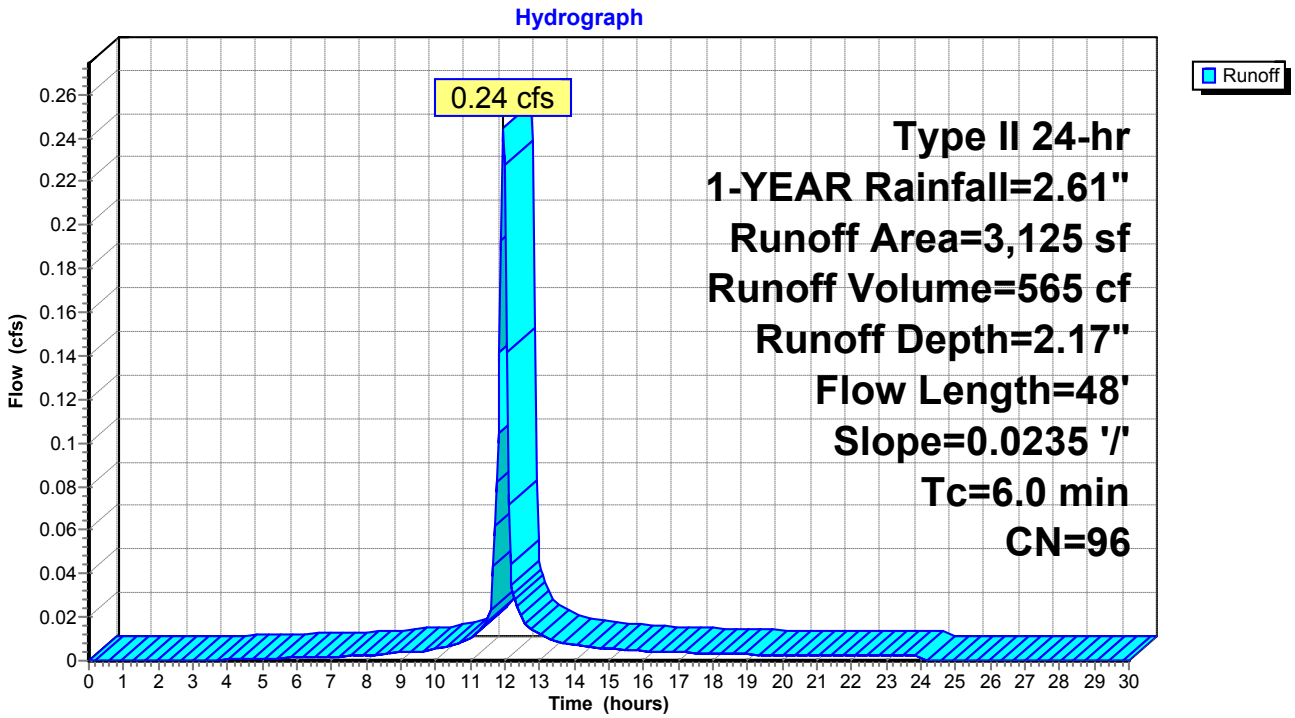
Runoff = 0.24 cfs @ 11.96 hrs, Volume= 565 cf, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
403	84	50-75% Grass cover, Fair, HSG D
2,722	98	Paved parking, HSG D
3,125	96	Weighted Average
403		12.90% Pervious Area
2,722		87.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	48	0.0235	1.26		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	48	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 6S: DA-10



Summary for Subcatchment DA-1: DA-1

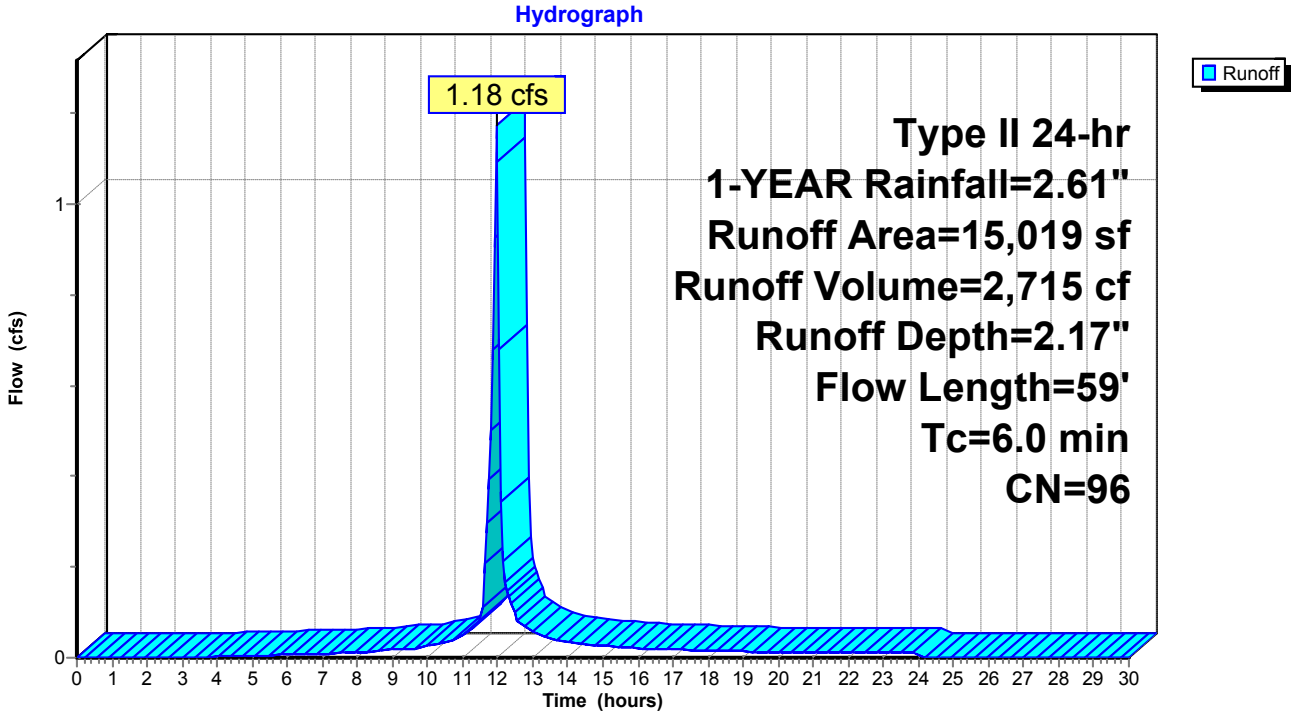
Runoff = 1.18 cfs @ 11.96 hrs, Volume= 2,715 cf, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
2,348	84	50-75% Grass cover, Fair, HSG D
12,671	98	Paved parking, HSG D
15,019	96	Weighted Average
2,348		15.63% Pervious Area
12,671		84.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	29	0.0390	0.17		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	30	0.0350	3.80		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.9	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-2: DA-2

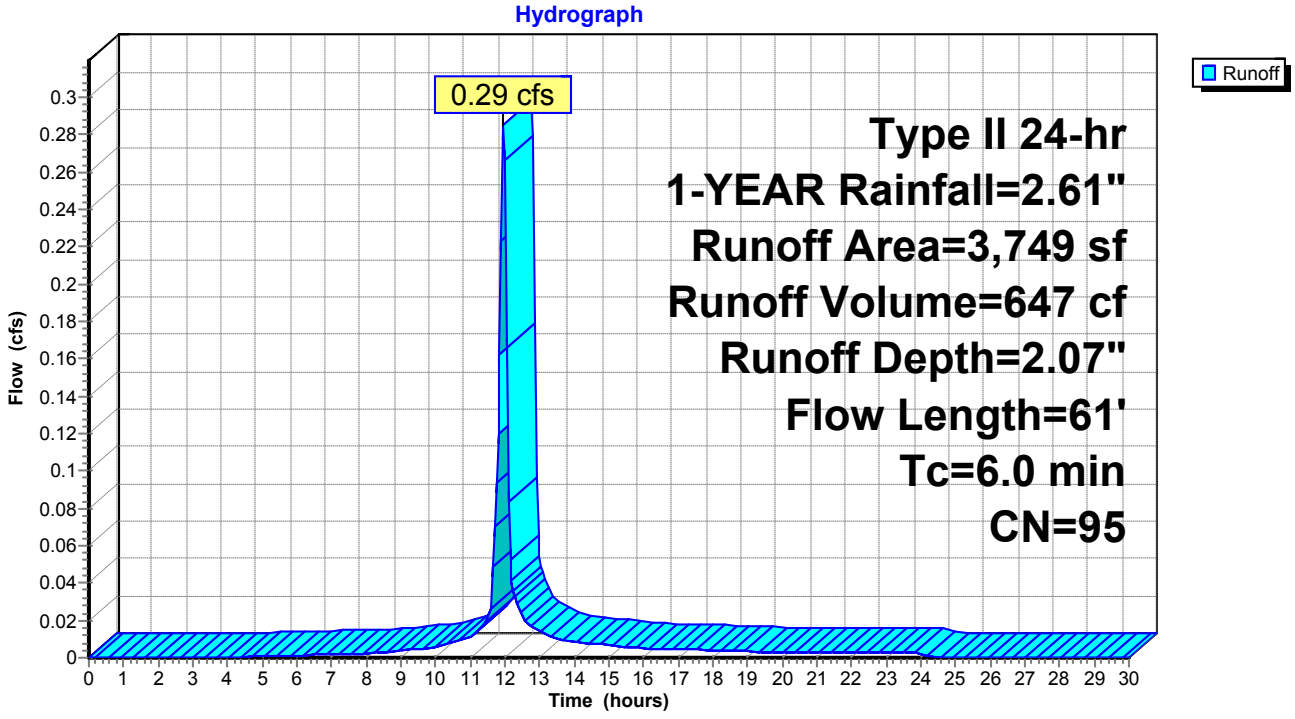
Runoff = 0.29 cfs @ 11.96 hrs, Volume= 647 cf, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
756	84	50-75% Grass cover, Fair, HSG D
2,993	98	Paved parking, HSG D
3,749	95	Weighted Average
756		20.17% Pervious Area
2,993		79.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	26	0.0173	0.12		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	35	0.0257	3.25		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	61	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

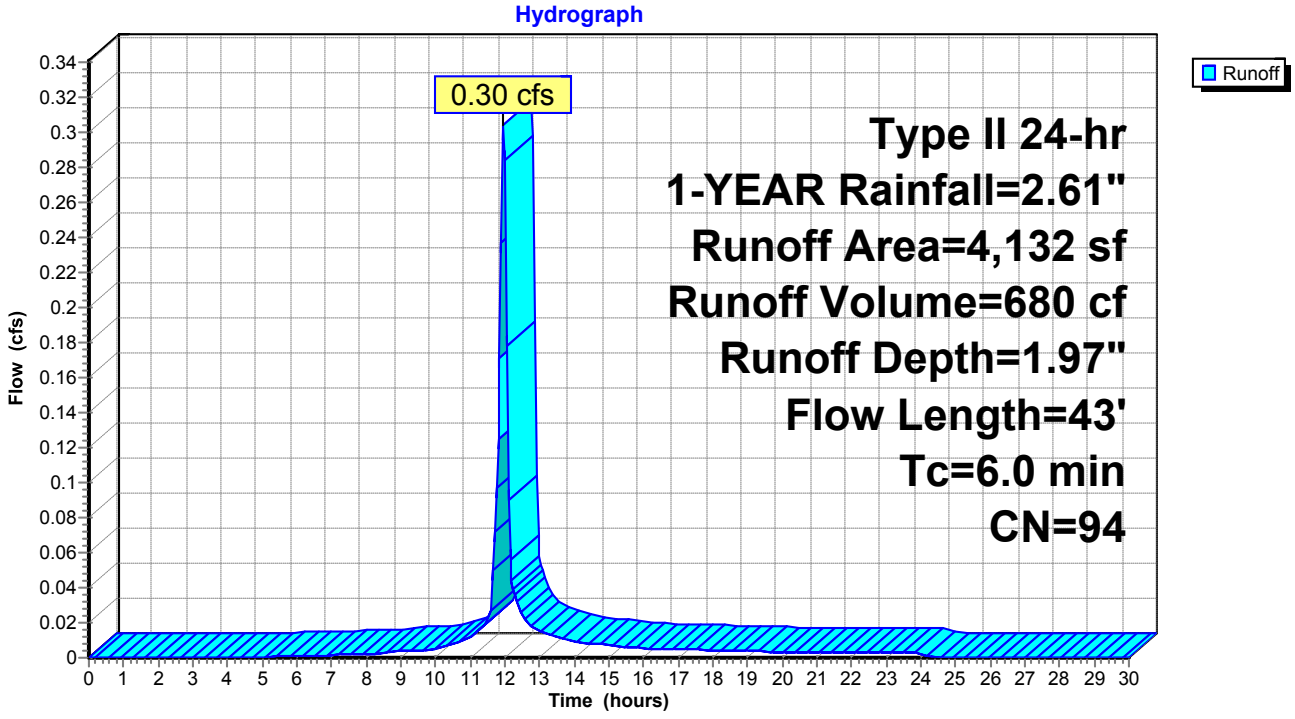
Runoff = 0.30 cfs @ 11.96 hrs, Volume= 680 cf, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,273	84	50-75% Grass cover, Fair, HSG D
2,859	98	Paved parking, HSG D
4,132	94	Weighted Average
1,273		30.81% Pervious Area
2,859		69.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	31	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0250	3.21		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
4.2	43	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

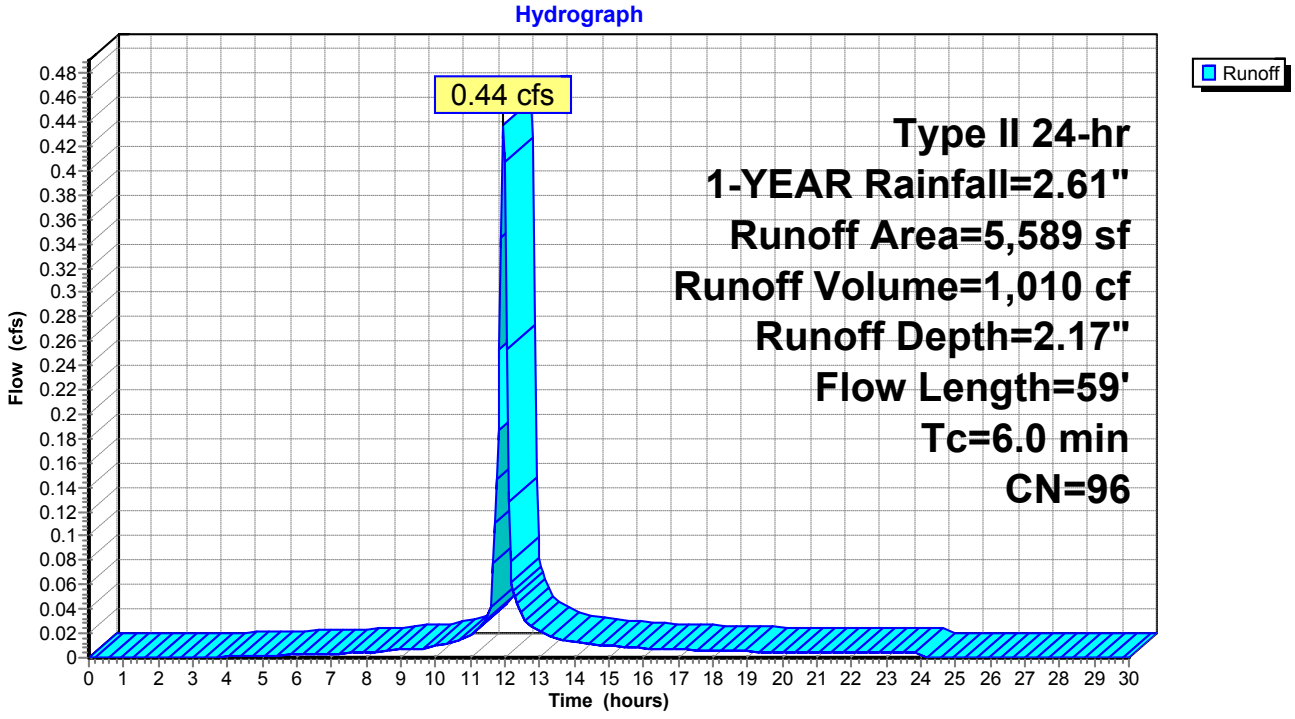
Runoff = 0.44 cfs @ 11.96 hrs, Volume= 1,010 cf, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
750	84	50-75% Grass cover, Fair, HSG D
4,839	98	Paved parking, HSG D
5,589	96	Weighted Average
750		13.42% Pervious Area
4,839		86.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	30	0.0217	0.14		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	29	0.0169	2.64		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-4: DA-4



Summary for Subcatchment DA-5: DA-5

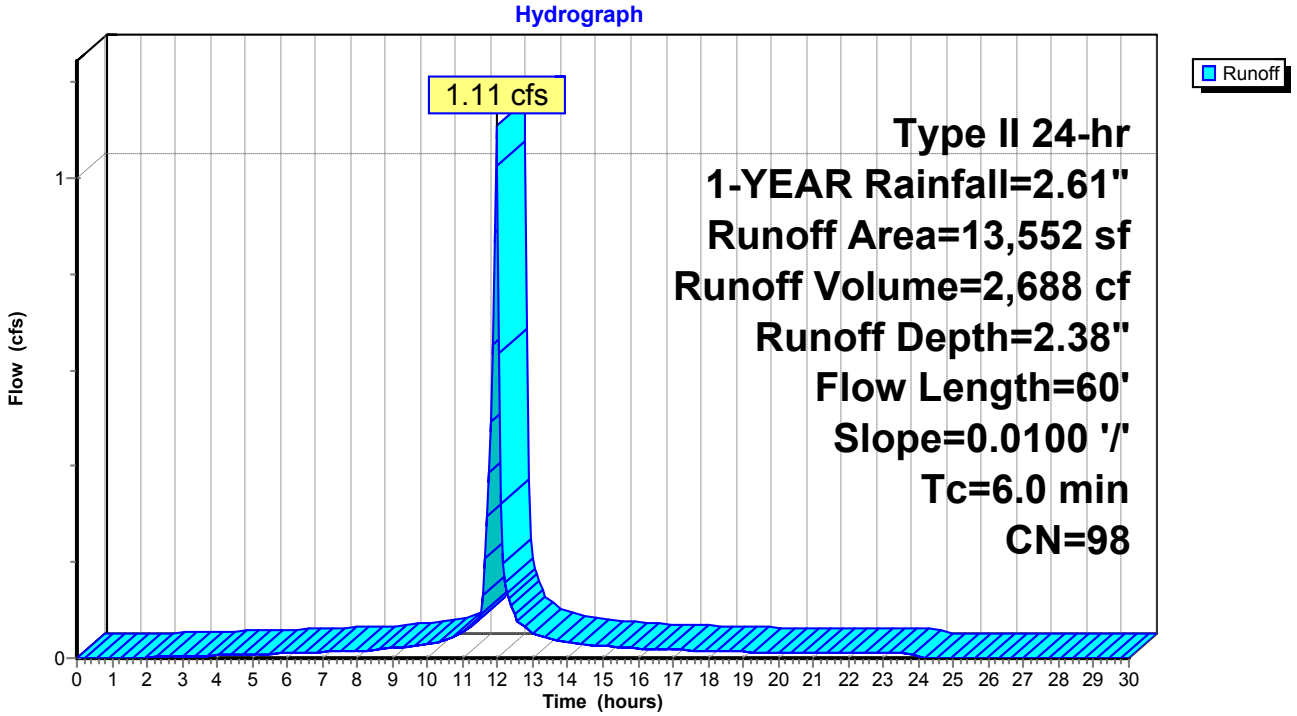
Runoff = 1.11 cfs @ 11.96 hrs, Volume= 2,688 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
13,552	98	Paved parking, HSG D
13,552		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	60	0.0100	0.94		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.1	60	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-5: DA-5



Summary for Subcatchment DA-6: DA-6

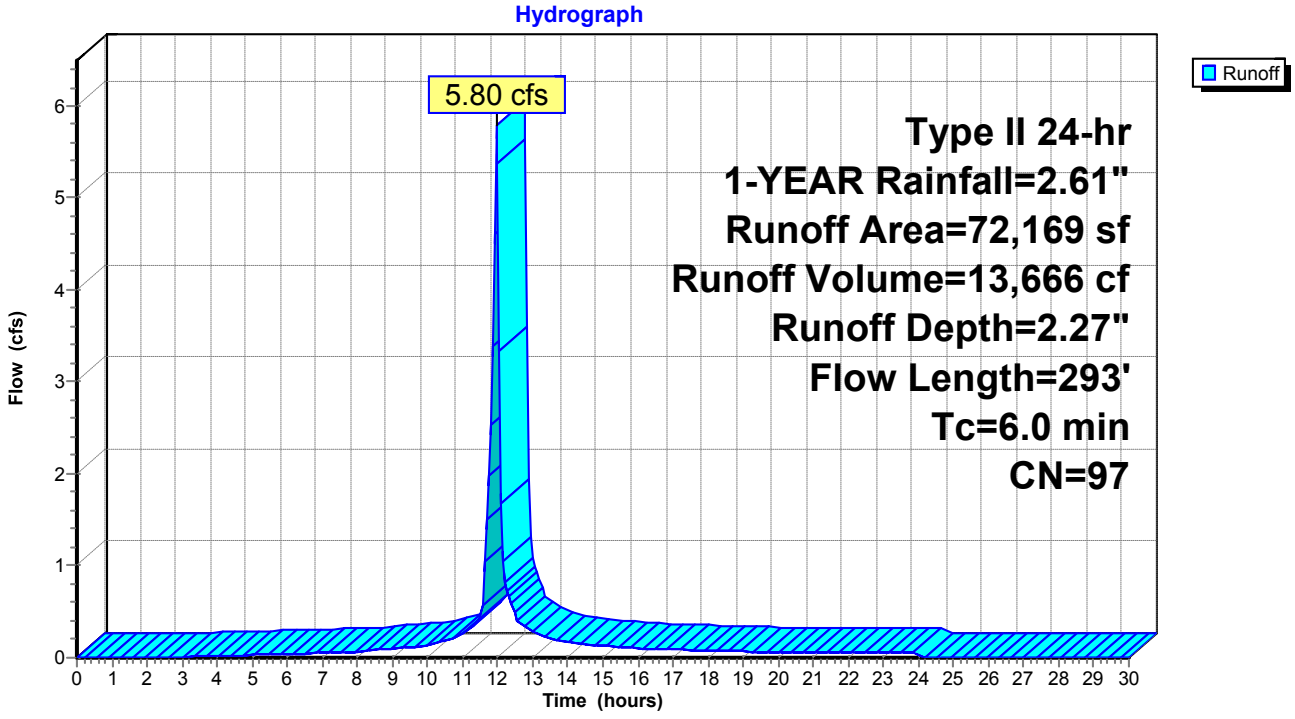
Runoff = 5.80 cfs @ 11.96 hrs, Volume= 13,666 cf, Depth= 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
3,046	84	50-75% Grass cover, Fair, HSG D
69,123	98	Paved parking, HSG D
72,169	97	Weighted Average
3,046		4.22% Pervious Area
69,123		95.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0220	1.42		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.4	193	0.0126	2.28		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.6	293	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

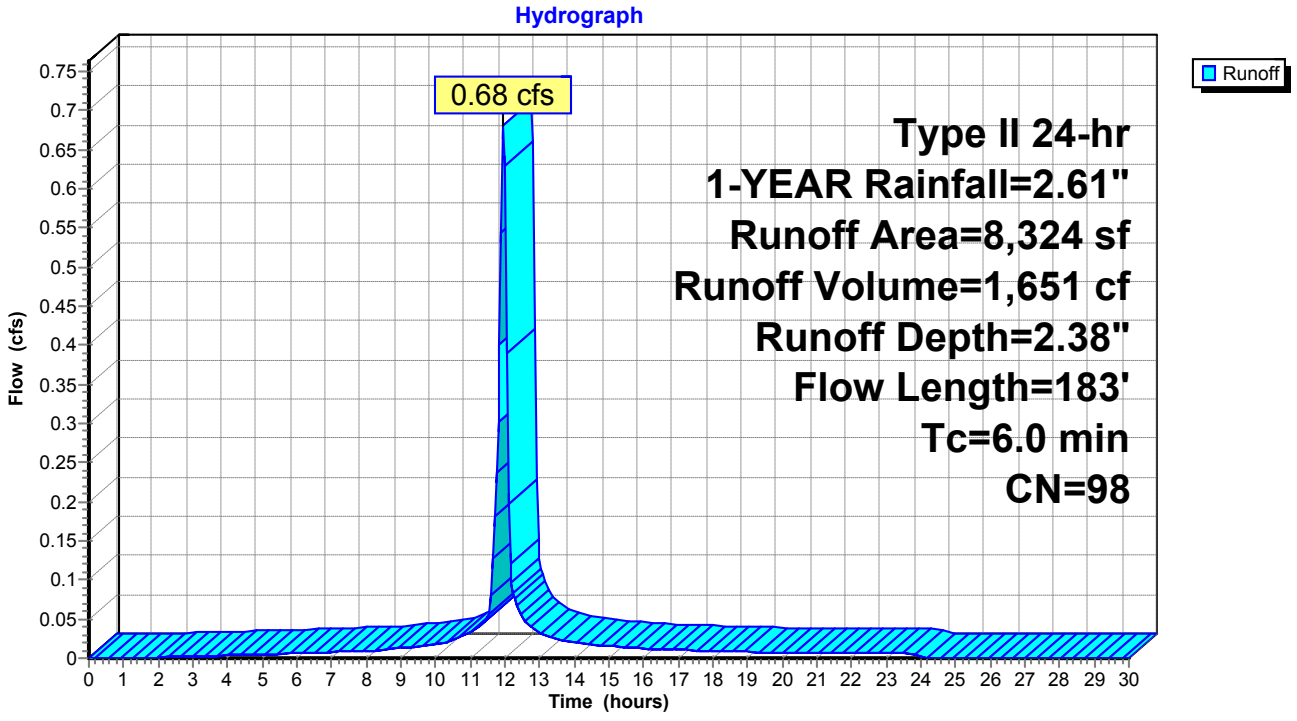
Runoff = 0.68 cfs @ 11.96 hrs, Volume= 1,651 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
8,324	98	Paved parking, HSG D
8,324		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	100	0.0301	1.61		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	83	0.0124	2.26		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
1.6	183	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

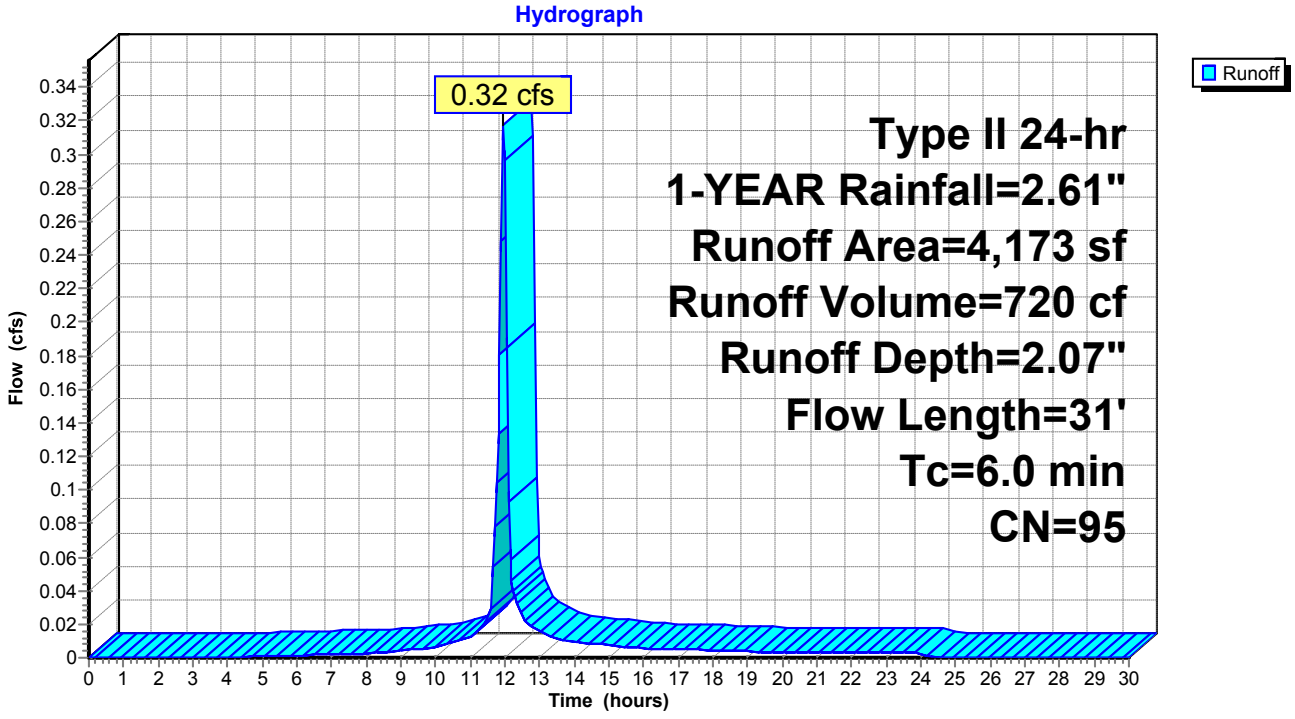
Runoff = 0.32 cfs @ 11.96 hrs, Volume= 720 cf, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
782	84	50-75% Grass cover, Fair, HSG D
3,391	98	Paved parking, HSG D
4,173	95	Weighted Average
782		18.74% Pervious Area
3,391		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	19	0.0150	0.11		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0208	2.93		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.0	31	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DA-9

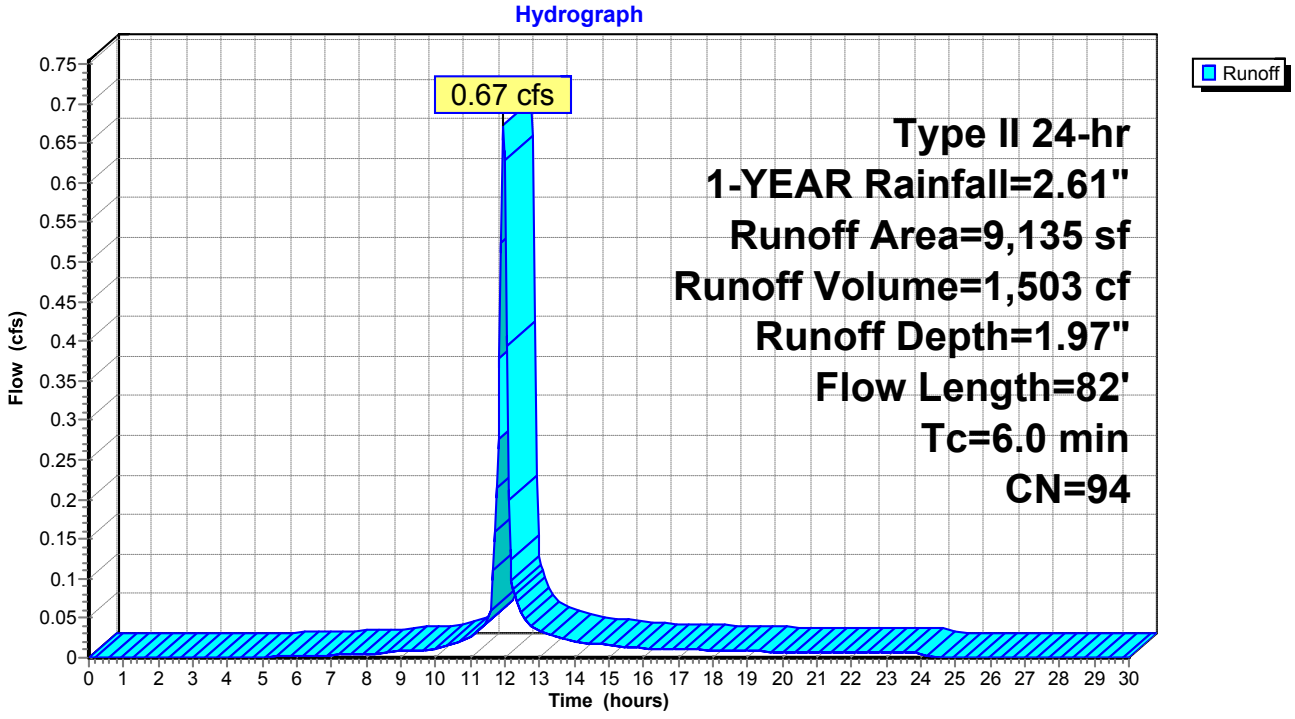
Runoff = 0.67 cfs @ 11.96 hrs, Volume= 1,503 cf, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
2,765	84	50-75% Grass cover, Fair, HSG D
6,370	98	Paved parking, HSG D
9,135	94	Weighted Average
2,765		30.27% Pervious Area
6,370		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	42	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	40	0.0200	2.87		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
5.4	82	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-9: DA-9



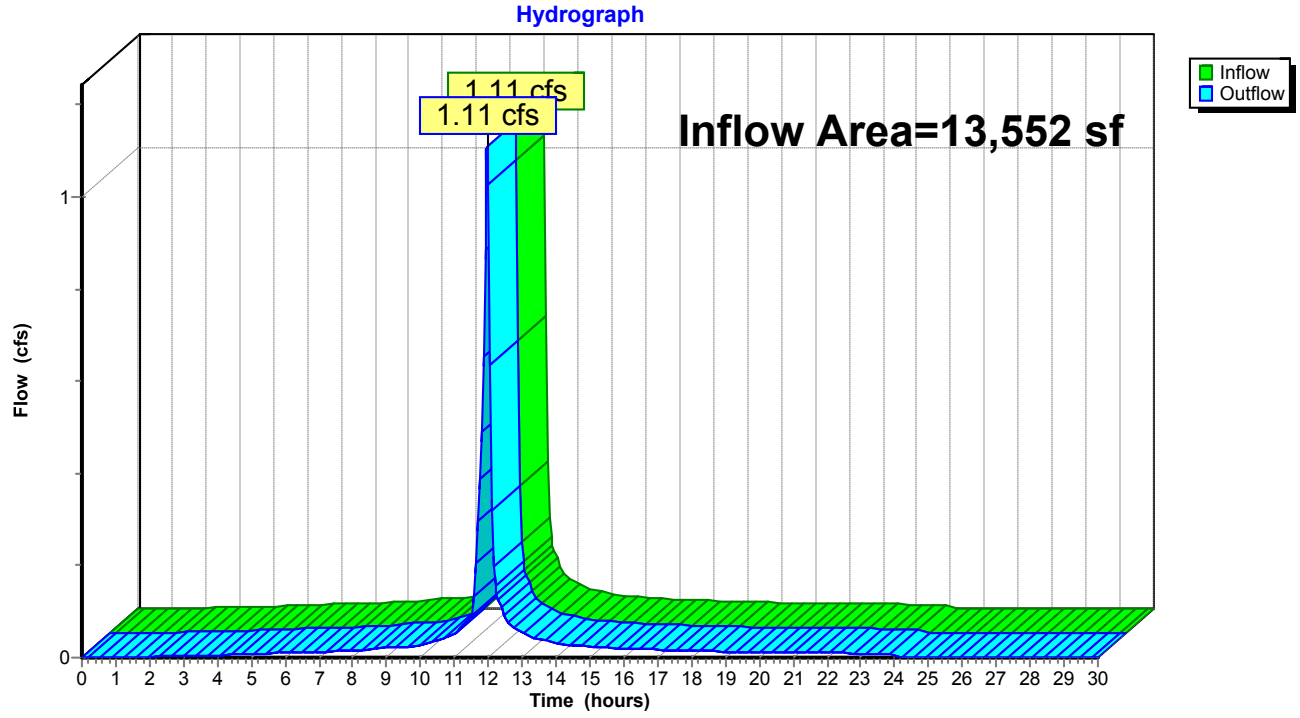
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 13,552 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 1.11 cfs @ 11.96 hrs, Volume= 2,688 cf
Outflow = 1.11 cfs @ 11.96 hrs, Volume= 2,688 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 1P: EXISTING YARD DRAIN

[57] Hint: Peaked at 183.40' (Flood elevation advised)

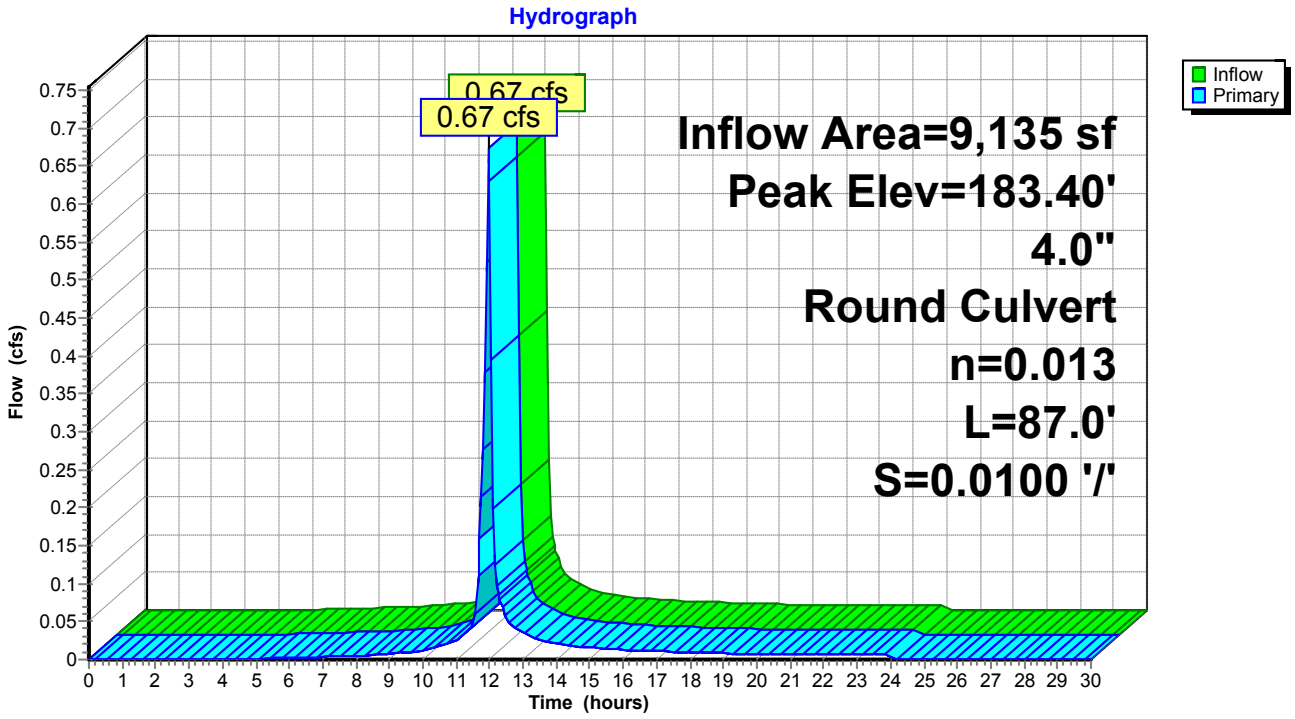
Inflow Area = 9,135 sf, 69.73% Impervious, Inflow Depth = 1.97" for 1-YEAR event
Inflow = 0.67 cfs @ 11.96 hrs, Volume= 1,503 cf
Outflow = 0.67 cfs @ 11.96 hrs, Volume= 1,503 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.67 cfs @ 11.96 hrs, Volume= 1,503 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 183.40' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=0.66 cfs @ 11.96 hrs HW=182.77' (Free Discharge)
1=Culvert (Barrel Controls 0.66 cfs @ 7.51 fps)

Pond 1P: EXISTING YARD DRAIN



Summary for Pond 2P: EXISTING CATCH BASIN

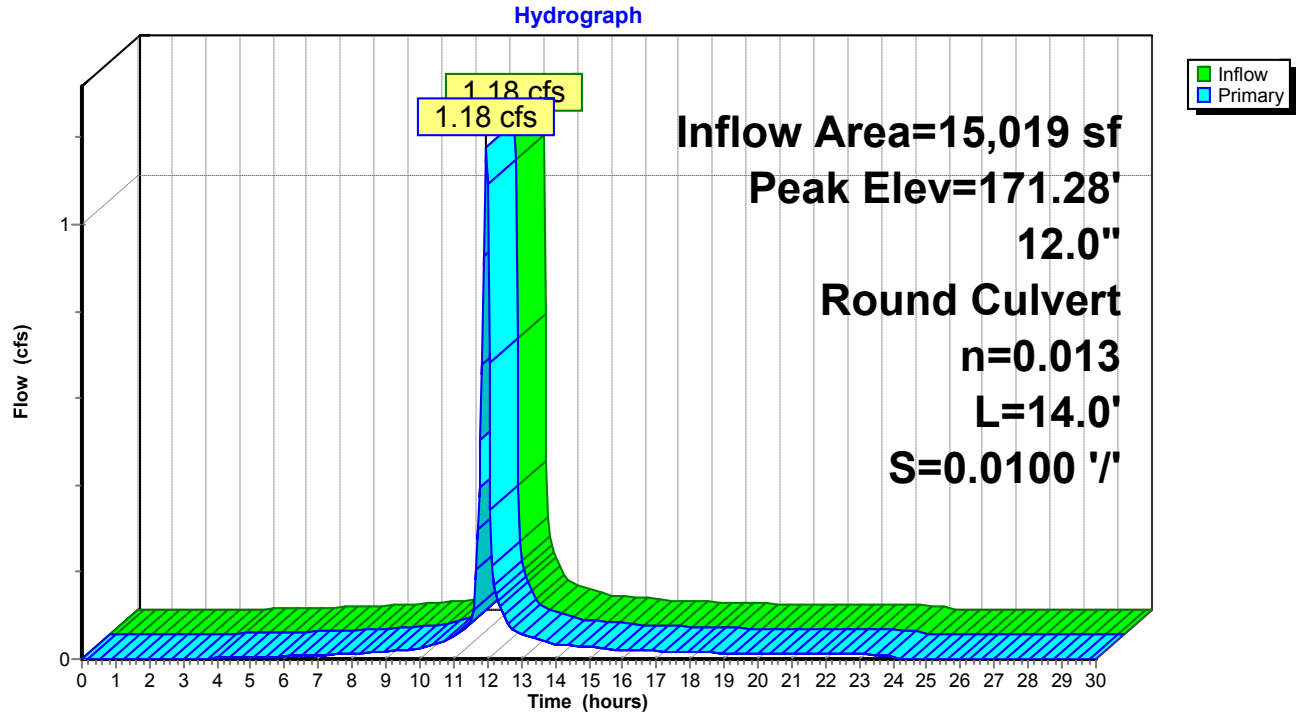
Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 2.17" for 1-YEAR event
Inflow = 1.18 cfs @ 11.96 hrs, Volume= 2,715 cf
Outflow = 1.18 cfs @ 11.96 hrs, Volume= 2,715 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.18 cfs @ 11.96 hrs, Volume= 2,715 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.28' @ 11.96 hrs
Flood Elev= 172.99'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.60'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.60' / 170.46' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.15 cfs @ 11.96 hrs HW=171.27' (Free Discharge)
1=Culvert (Barrel Controls 1.15 cfs @ 2.91 fps)

Pond 2P: EXISTING CATCH BASIN



Summary for Pond 3P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.61' (Flood elevation advised)

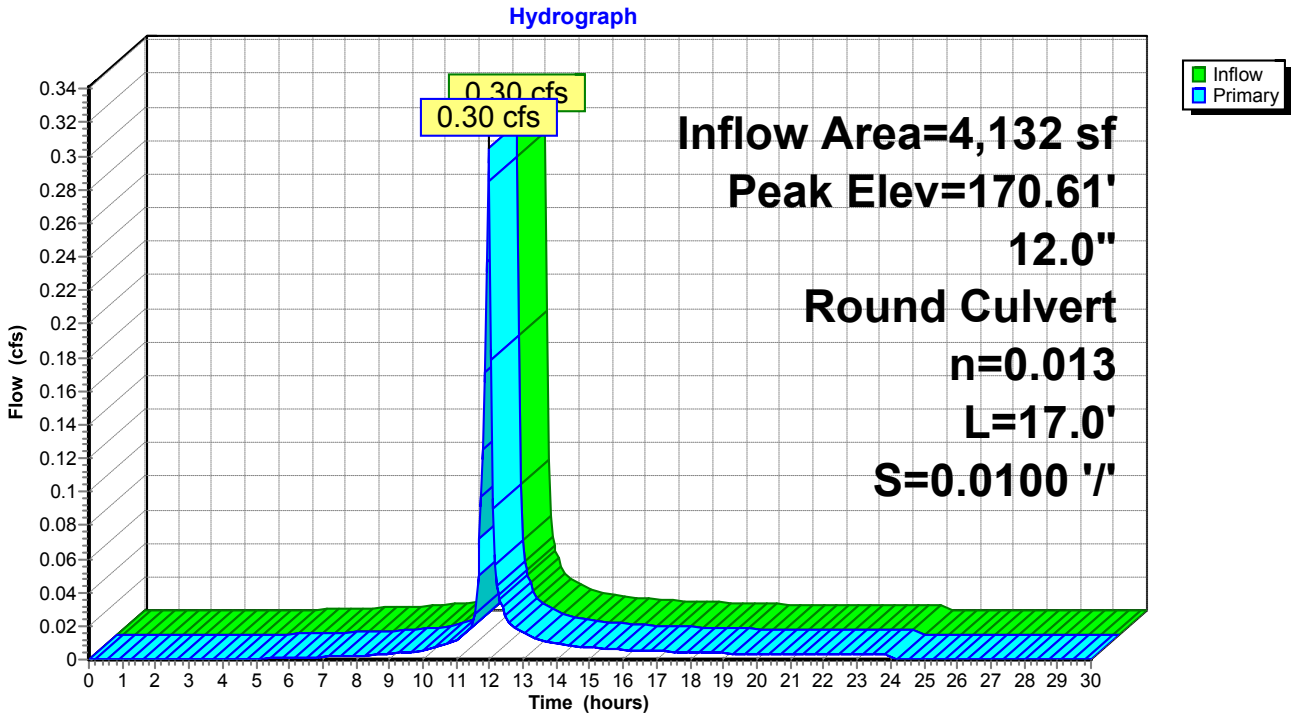
Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 1.97" for 1-YEAR event
Inflow = 0.30 cfs @ 11.96 hrs, Volume= 680 cf
Outflow = 0.30 cfs @ 11.96 hrs, Volume= 680 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.30 cfs @ 11.96 hrs, Volume= 680 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.61' @ 11.97 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.13' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.30 cfs @ 11.96 hrs HW=170.60' (Free Discharge)
1=Culvert (Inlet Controls 0.30 cfs @ 1.48 fps)

Pond 3P: EXISTING CATCH BASIN



Summary for Pond 4P: EXISTING CATCH BASIN

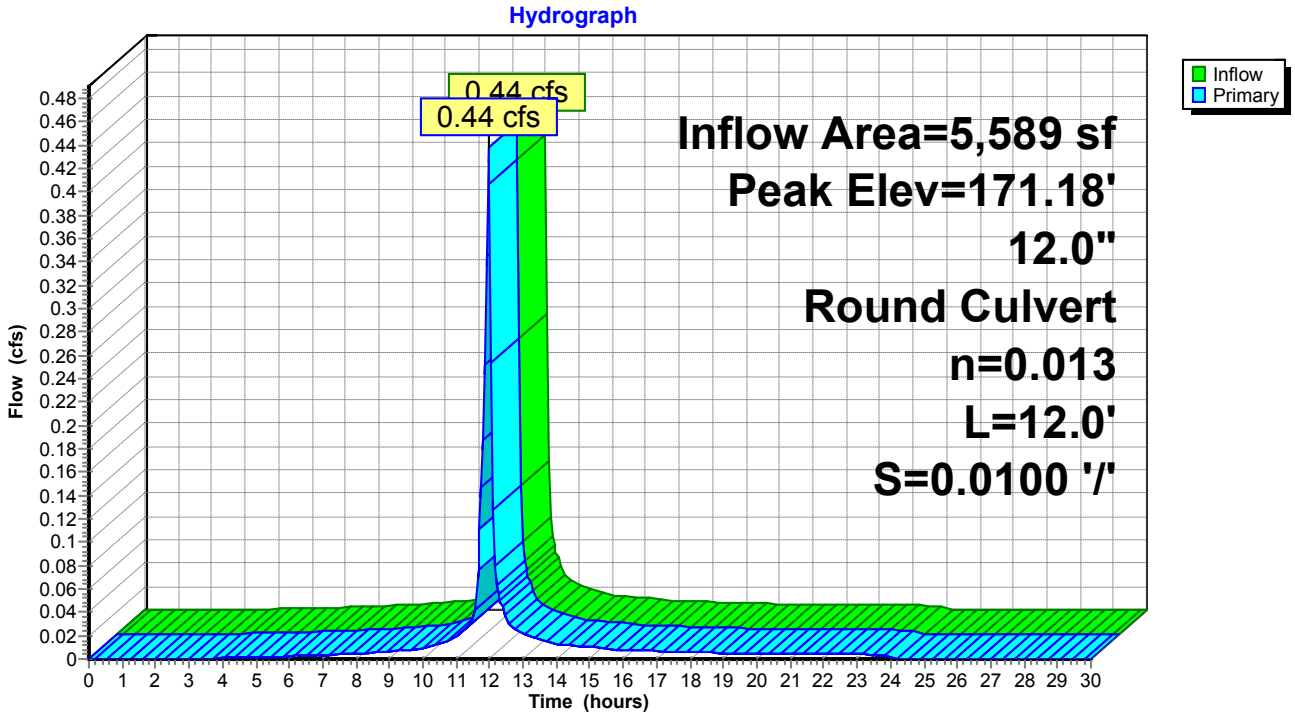
Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 2.17" for 1-YEAR event
Inflow = 0.44 cfs @ 11.96 hrs, Volume= 1,010 cf
Outflow = 0.44 cfs @ 11.96 hrs, Volume= 1,010 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.44 cfs @ 11.96 hrs, Volume= 1,010 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.18' @ 11.96 hrs
Flood Elev= 172.73'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.80'	**12.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.80' / 170.68' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.43 cfs @ 11.96 hrs HW=171.18' (Free Discharge)
1=Culvert (Barrel Controls 0.43 cfs @ 2.32 fps)

Pond 4P: EXISTING CATCH BASIN



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 2P by 2.46' @ 12.15 hrs

Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 2.17" for 1-YEAR event
Inflow = 1.18 cfs @ 11.96 hrs, Volume= 2,715 cf
Outflow = 0.79 cfs @ 12.04 hrs, Volume= 2,715 cf, Atten= 33%, Lag= 4.6 min
Discarded = 0.79 cfs @ 12.04 hrs, Volume= 2,715 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.40' @ 12.04 hrs Surf.Area= 1,553 sf Storage= 538 cf

Plug-Flow detention time= 54.9 min calculated for 2,710 cf (100% of inflow)
Center-of-Mass det. time= 54.9 min (831.5 - 776.7)

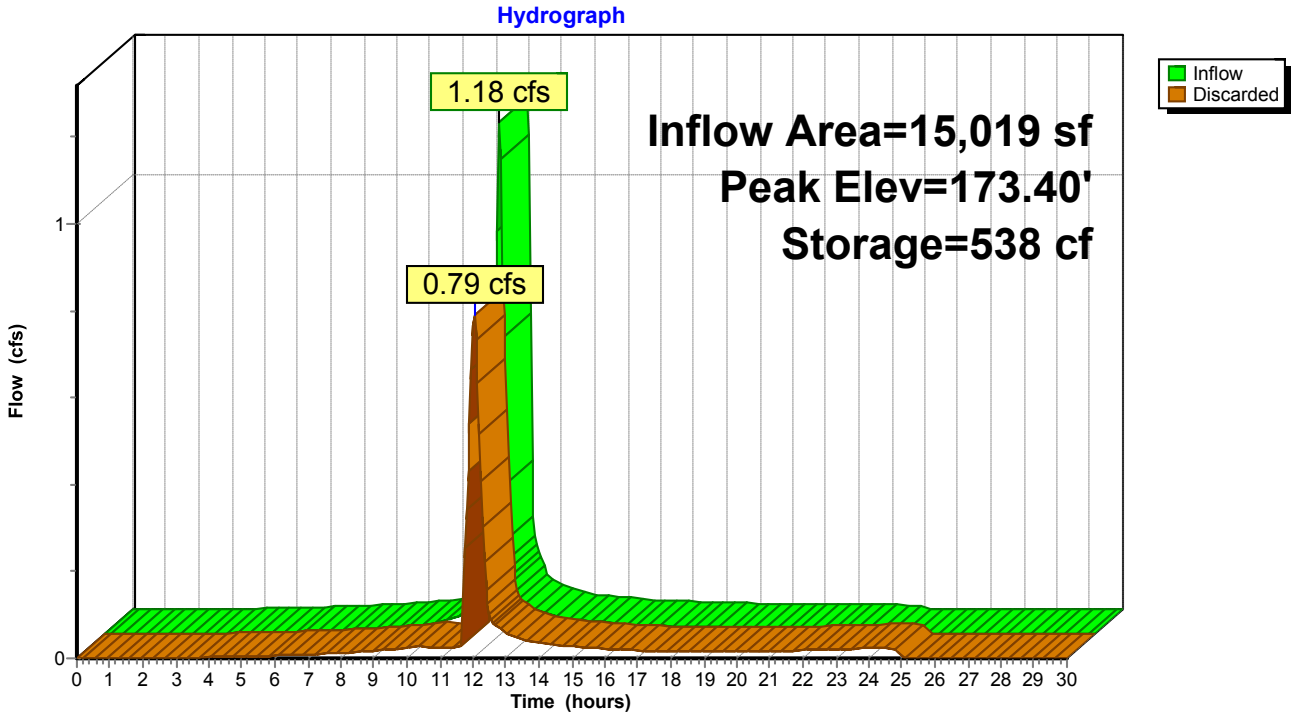
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,139 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	112	7	208
174.00	3,750	1,931	2,139

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.78 cfs @ 12.04 hrs HW=173.39' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.78 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 6P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.60' (Flood elevation advised)

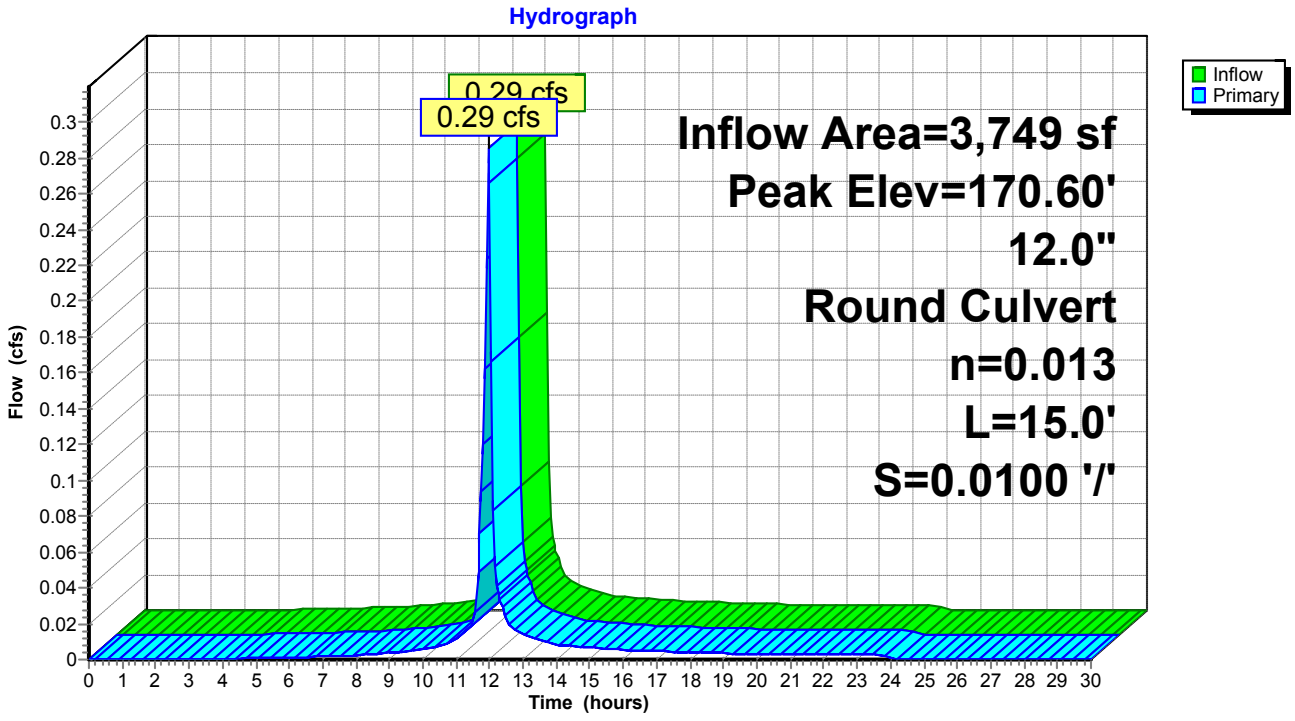
Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 2.07" for 1-YEAR event
Inflow = 0.29 cfs @ 11.96 hrs, Volume= 647 cf
Outflow = 0.29 cfs @ 11.96 hrs, Volume= 647 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.29 cfs @ 11.96 hrs, Volume= 647 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.60' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.15' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.28 cfs @ 11.96 hrs HW=170.59' (Free Discharge)
1=Culvert (Inlet Controls 0.28 cfs @ 1.45 fps)

Pond 6P: EXISTING CATCH BASIN



Summary for Pond 7P: EXISTING CATCH BASIN

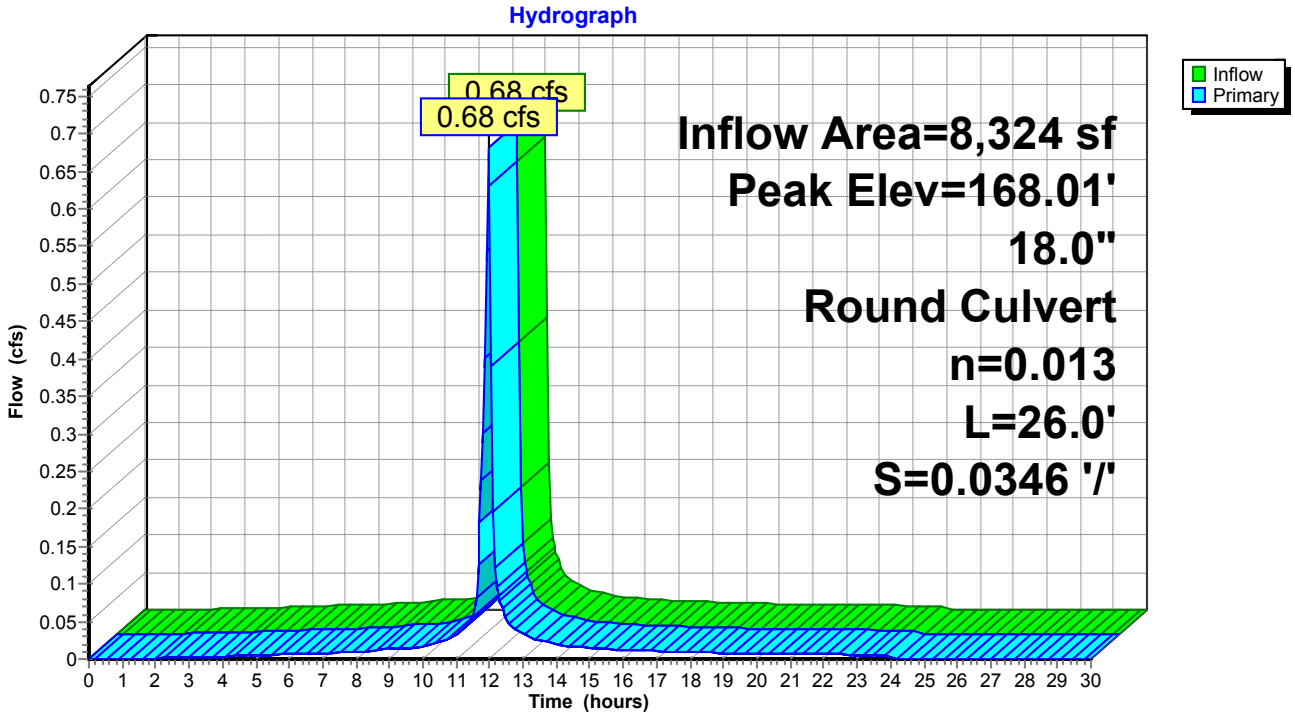
Inflow Area = 8,324 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 0.68 cfs @ 11.96 hrs, Volume= 1,651 cf
Outflow = 0.68 cfs @ 11.96 hrs, Volume= 1,651 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.68 cfs @ 11.96 hrs, Volume= 1,651 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.01' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=0.66 cfs @ 11.96 hrs HW=168.01' (Free Discharge)
1=Culvert (Inlet Controls 0.66 cfs @ 1.71 fps)

Pond 7P: EXISTING CATCH BASIN



Summary for Pond 8P: EXISTING CATCH BASIN

[58] Hint: Peaked 1.47' above defined flood level

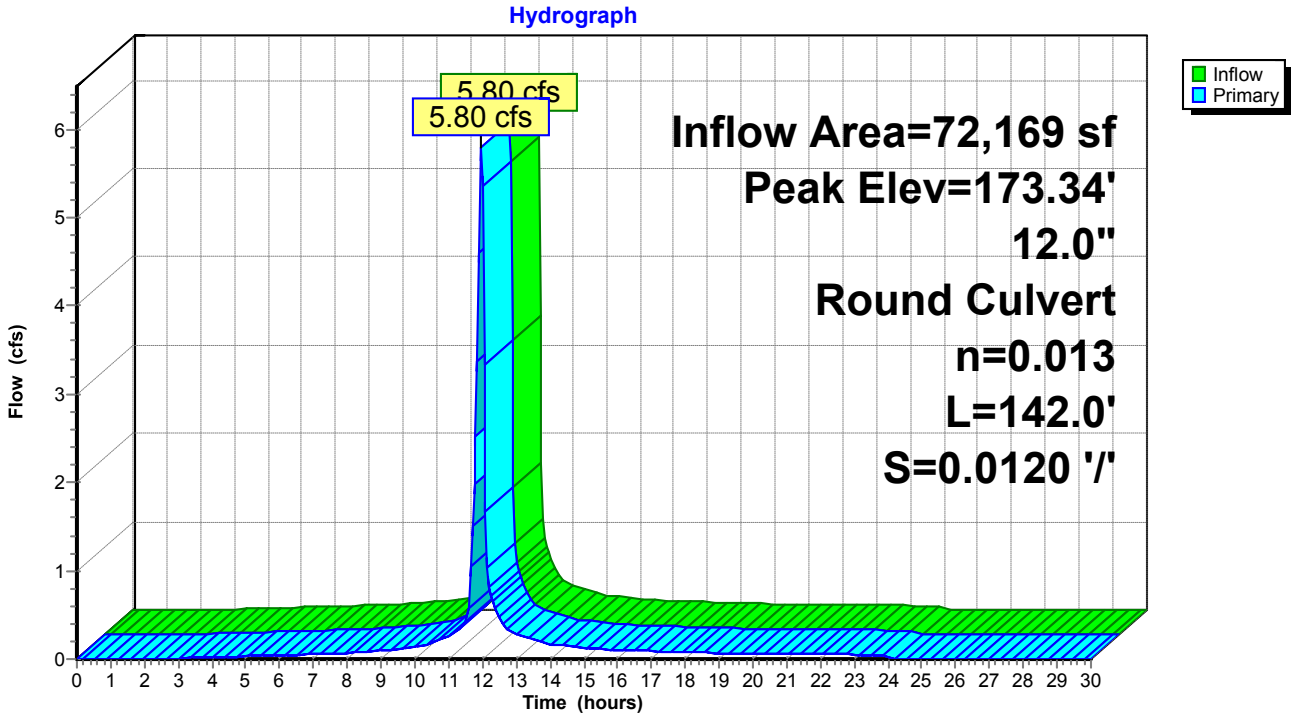
Inflow Area = 72,169 sf, 95.78% Impervious, Inflow Depth = 2.27" for 1-YEAR event
Inflow = 5.80 cfs @ 11.96 hrs, Volume= 13,666 cf
Outflow = 5.80 cfs @ 11.96 hrs, Volume= 13,666 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.80 cfs @ 11.96 hrs, Volume= 13,666 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.34' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=5.65 cfs @ 11.96 hrs HW=173.12' (Free Discharge)
└**1=Culvert** (Barrel Controls 5.65 cfs @ 7.20 fps)

Pond 8P: EXISTING CATCH BASIN



Summary for Pond 9P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 6P by 3.09' @ 24.40 hrs

Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 2.07" for 1-YEAR event
Inflow = 0.29 cfs @ 11.96 hrs, Volume= 647 cf
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min

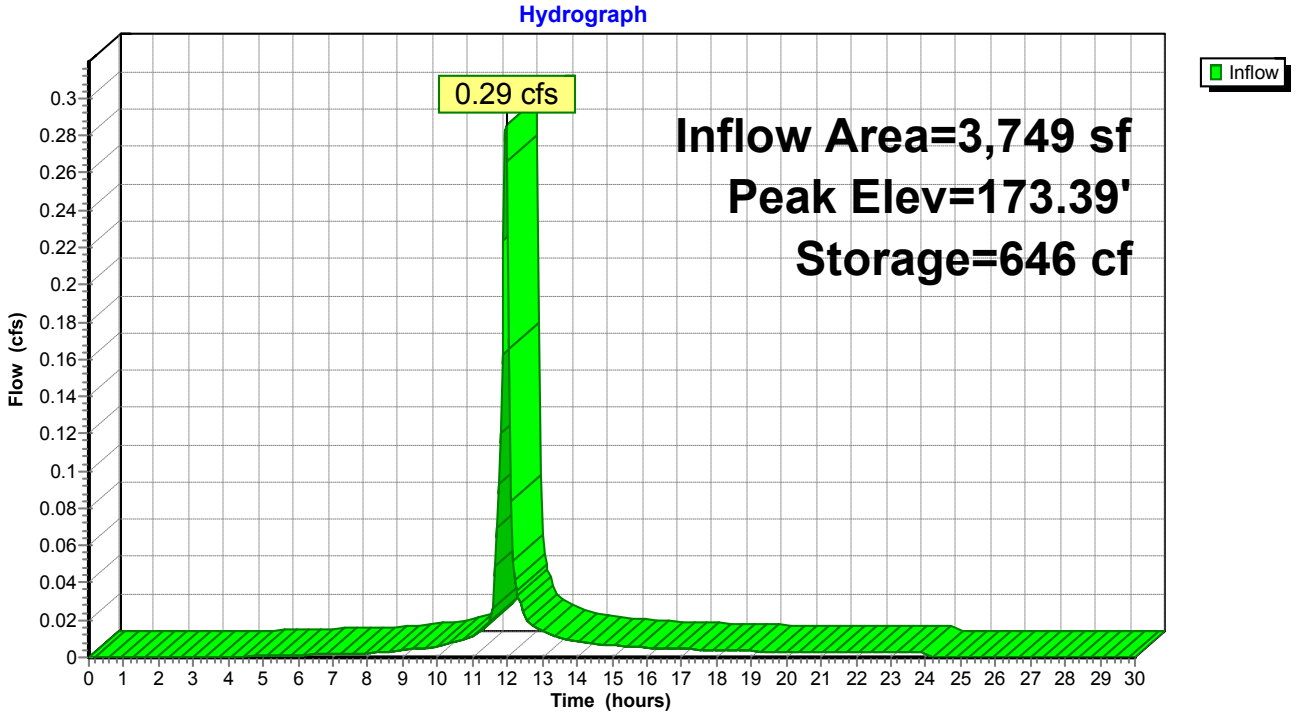
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.39' @ 24.40 hrs Surf.Area= 1,794 sf Storage= 646 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,410 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	377	20	221
174.00	4,000	2,189	2,410

Pond 9P: EXISTING DRYWELL



Summary for Pond 10P: EXISTING DRYWELL

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond 3P by 2.54' @ 13.05 hrs

Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 1.97" for 1-YEAR event
Inflow = 0.30 cfs @ 11.96 hrs, Volume= 680 cf
Outflow = 0.18 cfs @ 12.07 hrs, Volume= 680 cf, Atten= 41%, Lag= 6.1 min
Discarded = 0.18 cfs @ 12.07 hrs, Volume= 680 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.94' @ 12.05 hrs Surf.Area= 336 sf Storage= 209 cf

Plug-Flow detention time= 73.4 min calculated for 679 cf (100% of inflow)
Center-of-Mass det. time= 73.3 min (864.1 - 790.8)

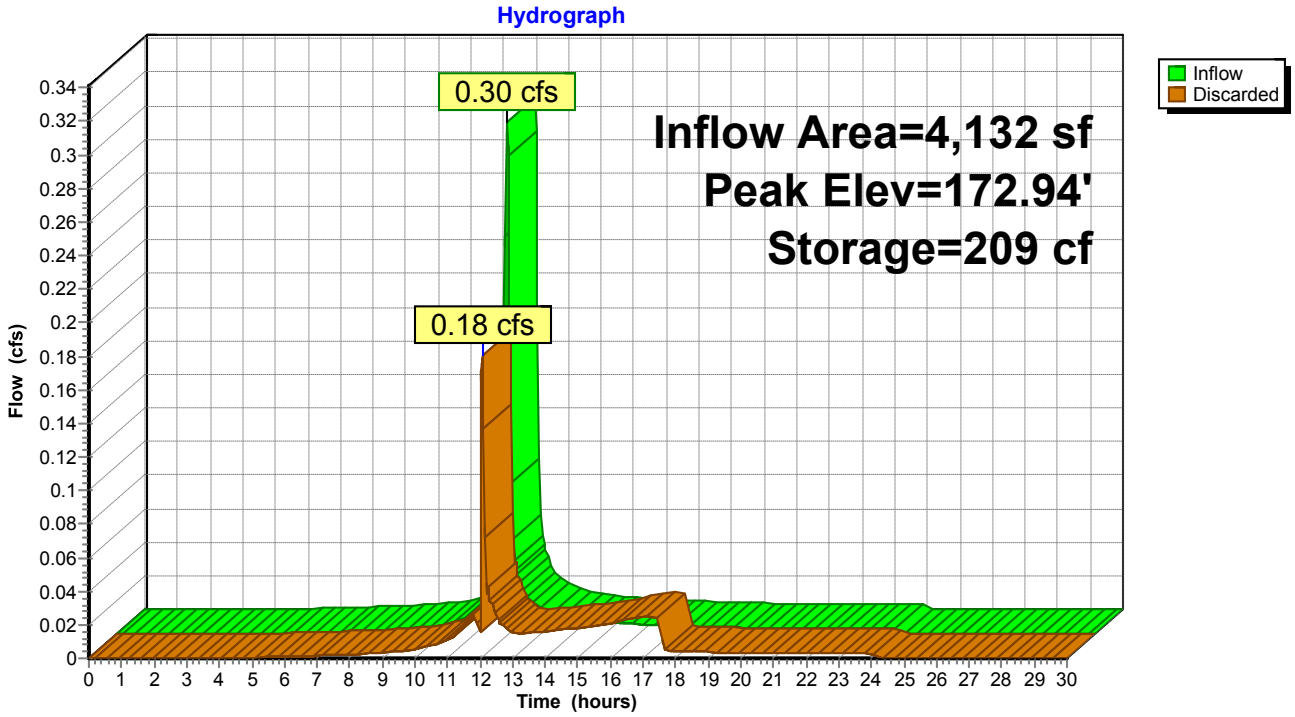
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,486 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	743	39	239
174.00	3,750	2,247	2,486

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.16 cfs @ 12.07 hrs HW=172.94' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.16 cfs)

Pond 10P: EXISTING DRYWELL



Summary for Pond 12P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 4P by 2.04' @ 13.70 hrs

Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 2.17" for 1-YEAR event
Inflow = 0.44 cfs @ 11.96 hrs, Volume= 1,010 cf
Outflow = 0.33 cfs @ 12.03 hrs, Volume= 1,010 cf, Atten= 24%, Lag= 3.8 min
Discarded = 0.33 cfs @ 12.03 hrs, Volume= 1,010 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.02' @ 12.03 hrs Surf.Area= 652 sf Storage= 251 cf

Plug-Flow detention time= 64.0 min calculated for 1,009 cf (100% of inflow)
Center-of-Mass det. time= 63.9 min (840.6 - 776.7)

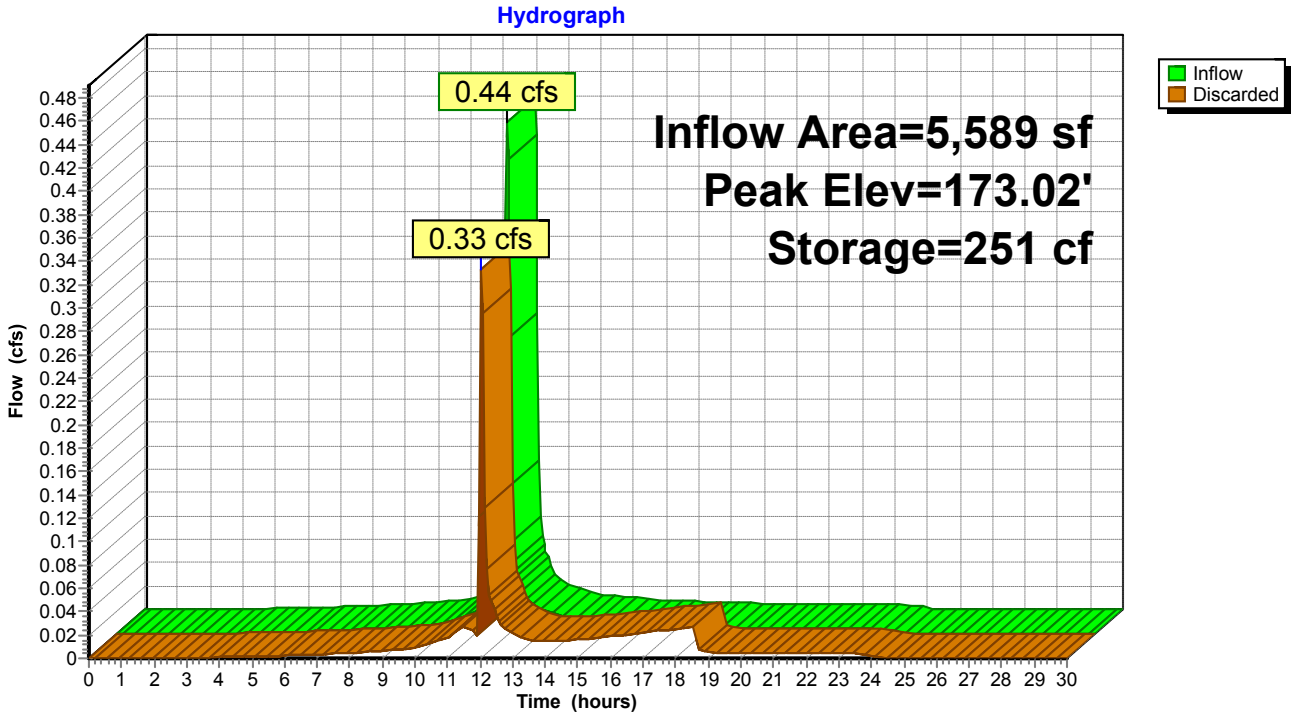
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,373 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	575	30	236
174.00	3,700	2,138	2,373

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.33 cfs @ 12.03 hrs HW=173.02' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.33 cfs)

Pond 12P: EXISTING DRYWELL



Summary for Pond 13P: EXISTING DRYWELL

Inflow Area = 4,173 sf, 81.26% Impervious, Inflow Depth = 2.07" for 1-YEAR event
Inflow = 0.32 cfs @ 11.96 hrs, Volume= 720 cf
Outflow = 0.16 cfs @ 12.07 hrs, Volume= 720 cf, Atten= 49%, Lag= 6.5 min
Discarded = 0.16 cfs @ 12.07 hrs, Volume= 720 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.60' @ 12.05 hrs Surf.Area= 290 sf Storage= 226 cf

Plug-Flow detention time= 74.5 min calculated for 719 cf (100% of inflow)
Center-of-Mass det. time= 74.3 min (858.5 - 784.2)

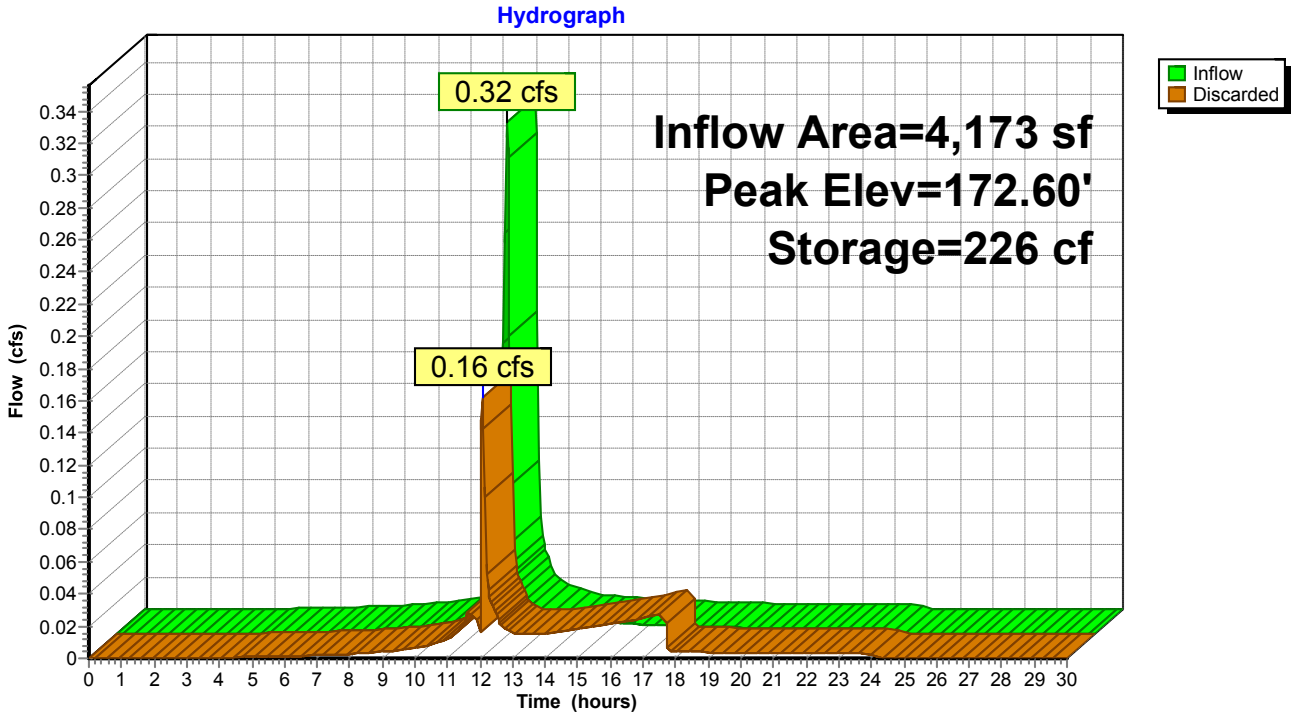
Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	559 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	1,366	349	559

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.15 cfs @ 12.07 hrs HW=172.60' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.15 cfs)

Pond 13P: EXISTING DRYWELL



Summary for Pond DP-1: EXISTING CATCH BASIN

[81] Warning: Exceeded Pond 7P by 0.63' @ 11.95 hrs
[79] Warning: Submerged Pond 8P Primary device # 1 OUTLET by 1.64'

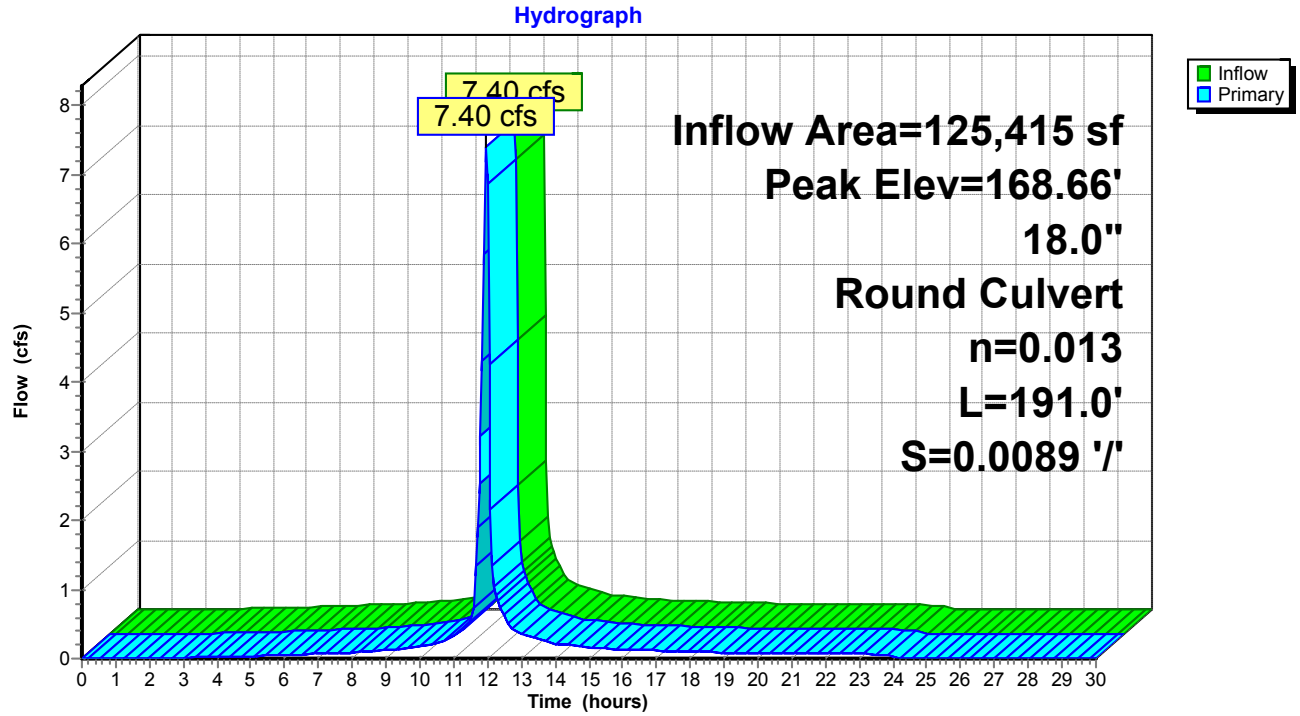
Inflow Area = 125,415 sf, 90.33% Impervious, Inflow Depth = 1.66" for 1-YEAR event
Inflow = 7.40 cfs @ 11.96 hrs, Volume= 17,385 cf
Outflow = 7.40 cfs @ 11.96 hrs, Volume= 17,385 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.40 cfs @ 11.96 hrs, Volume= 17,385 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.66' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=7.21 cfs @ 11.96 hrs HW=168.60' (Free Discharge)
↑**1=Culvert** (Inlet Controls 7.21 cfs @ 4.08 fps)

Pond DP-1: EXISTING CATCH BASIN



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 6S: DA-10 Runoff Area=3,125 sf 87.10% Impervious Runoff Depth=2.71"
Flow Length=48' Slope=0.0235 '/' Tc=6.0 min CN=96 Runoff=0.30 cfs 706 cf

Subcatchment DA-1: DA-1 Runoff Area=15,019 sf 84.37% Impervious Runoff Depth=2.71"
Flow Length=59' Tc=6.0 min CN=96 Runoff=1.45 cfs 3,391 cf

Subcatchment DA-2: DA-2 Runoff Area=3,749 sf 79.83% Impervious Runoff Depth=2.61"
Flow Length=61' Tc=6.0 min CN=95 Runoff=0.35 cfs 814 cf

Subcatchment DA-3: DA-3 Runoff Area=4,132 sf 69.19% Impervious Runoff Depth=2.51"
Flow Length=43' Tc=6.0 min CN=94 Runoff=0.38 cfs 863 cf

Subcatchment DA-4: DA-4 Runoff Area=5,589 sf 86.58% Impervious Runoff Depth=2.71"
Flow Length=59' Tc=6.0 min CN=96 Runoff=0.54 cfs 1,262 cf

Subcatchment DA-5: DA-5 Runoff Area=13,552 sf 100.00% Impervious Runoff Depth=2.93"
Flow Length=60' Slope=0.0100 '/' Tc=6.0 min CN=98 Runoff=1.35 cfs 3,306 cf

Subcatchment DA-6: DA-6 Runoff Area=72,169 sf 95.78% Impervious Runoff Depth=2.82"
Flow Length=293' Tc=6.0 min CN=97 Runoff=7.09 cfs 16,941 cf

Subcatchment DA-7: DA-7 Runoff Area=8,324 sf 100.00% Impervious Runoff Depth=2.93"
Flow Length=183' Tc=6.0 min CN=98 Runoff=0.83 cfs 2,031 cf

Subcatchment DA-8: DA-8 Runoff Area=4,173 sf 81.26% Impervious Runoff Depth=2.61"
Flow Length=31' Tc=6.0 min CN=95 Runoff=0.39 cfs 906 cf

Subcatchment DA-9: DA-9 Runoff Area=9,135 sf 69.73% Impervious Runoff Depth=2.51"
Flow Length=82' Tc=6.0 min CN=94 Runoff=0.84 cfs 1,907 cf

Reach DP-2: STREET Inflow=1.35 cfs 3,306 cf
Outflow=1.35 cfs 3,306 cf

Pond 1P: EXISTING YARD DRAIN Peak Elev=190.51' Inflow=0.84 cfs 1,907 cf
4.0" Round Culvert n=0.013 L=87.0' S=0.0100 '/' Outflow=0.84 cfs 1,907 cf

Pond 2P: EXISTING CATCH BASIN Peak Elev=171.37' Inflow=1.45 cfs 3,391 cf
12.0" Round Culvert n=0.013 L=14.0' S=0.0100 '/' Outflow=1.45 cfs 3,391 cf

Pond 3P: EXISTING CATCH BASIN Peak Elev=170.65' Inflow=0.38 cfs 863 cf
12.0" Round Culvert n=0.013 L=17.0' S=0.0100 '/' Outflow=0.38 cfs 863 cf

Pond 4P: EXISTING CATCH BASIN Peak Elev=171.23' Inflow=0.54 cfs 1,262 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0100 '/' Outflow=0.54 cfs 1,262 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.47' Storage=661 cf Inflow=1.45 cfs 3,391 cf
Outflow=0.93 cfs 3,391 cf

Pond 6P: EXISTING CATCH BASIN Peak Elev=170.63' Inflow=0.35 cfs 814 cf
12.0" Round Culvert n=0.013 L=15.0' S=0.0100 '/' Outflow=0.35 cfs 814 cf

Pond 7P: EXISTING CATCH BASIN Peak Elev=168.06' Inflow=0.83 cfs 2,031 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=0.83 cfs 2,031 cf

Pond 8P: EXISTING CATCH BASIN Peak Elev=176.03' Inflow=7.09 cfs 16,941 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=7.09 cfs 16,941 cf

Pond 9P: EXISTING DRYWELL Peak Elev=173.48' Storage=813 cf Inflow=0.35 cfs 814 cf
Outflow=0.00 cfs 0 cf

Pond 10P: EXISTING DRYWELL Peak Elev=172.98' Storage=225 cf Inflow=0.38 cfs 863 cf
Outflow=0.30 cfs 863 cf

Pond 12P: EXISTING DRYWELL Peak Elev=173.07' Storage=286 cf Inflow=0.54 cfs 1,262 cf
Outflow=0.41 cfs 1,262 cf

Pond 13P: EXISTING DRYWELL Peak Elev=172.67' Storage=254 cf Inflow=0.39 cfs 906 cf
Outflow=0.25 cfs 906 cf

Pond DP-1: EXISTING CATCH BASIN Peak Elev=169.27' Inflow=9.07 cfs 21,585 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=9.07 cfs 21,585 cf

Total Runoff Area = 138,967 sf Runoff Volume = 32,127 cf Average Runoff Depth = 2.77"
8.72% Pervious = 12,123 sf 91.28% Impervious = 126,844 sf

Summary for Subcatchment 6S: DA-10

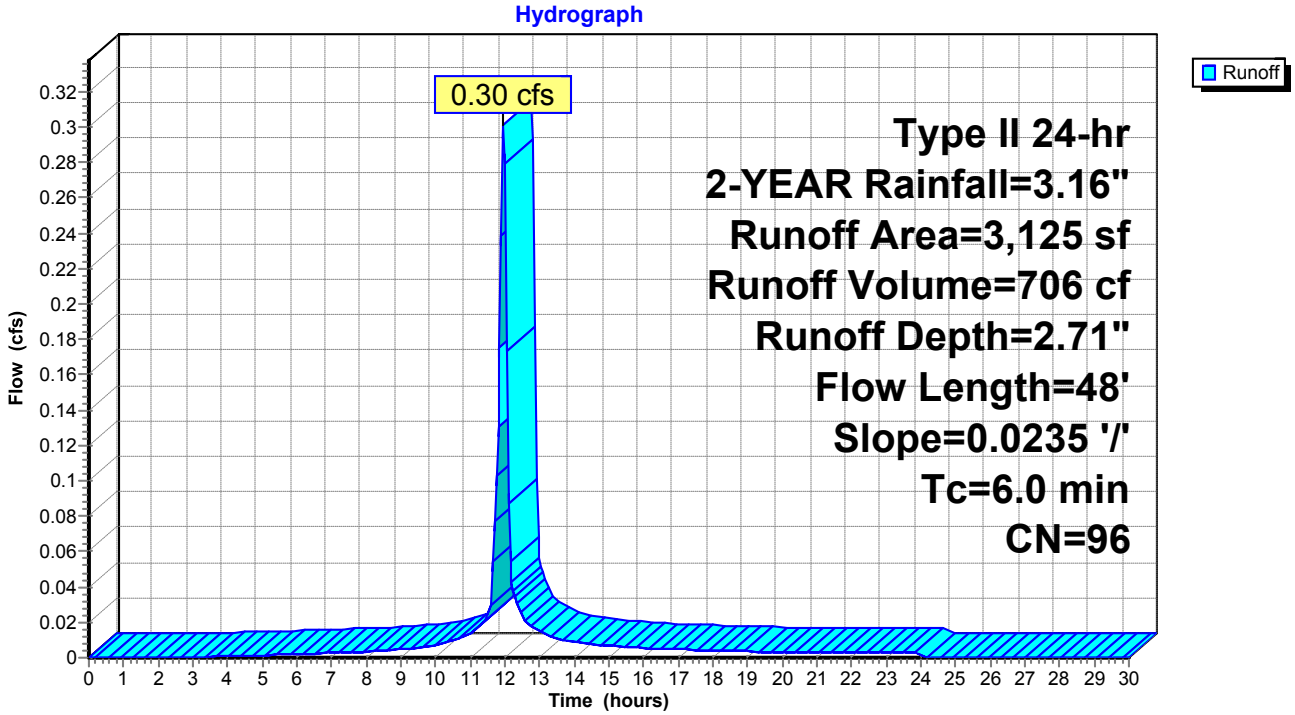
Runoff = 0.30 cfs @ 11.96 hrs, Volume= 706 cf, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
403	84	50-75% Grass cover, Fair, HSG D
2,722	98	Paved parking, HSG D
3,125	96	Weighted Average
403		12.90% Pervious Area
2,722		87.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	48	0.0235	1.26		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	48	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 6S: DA-10



Summary for Subcatchment DA-1: DA-1

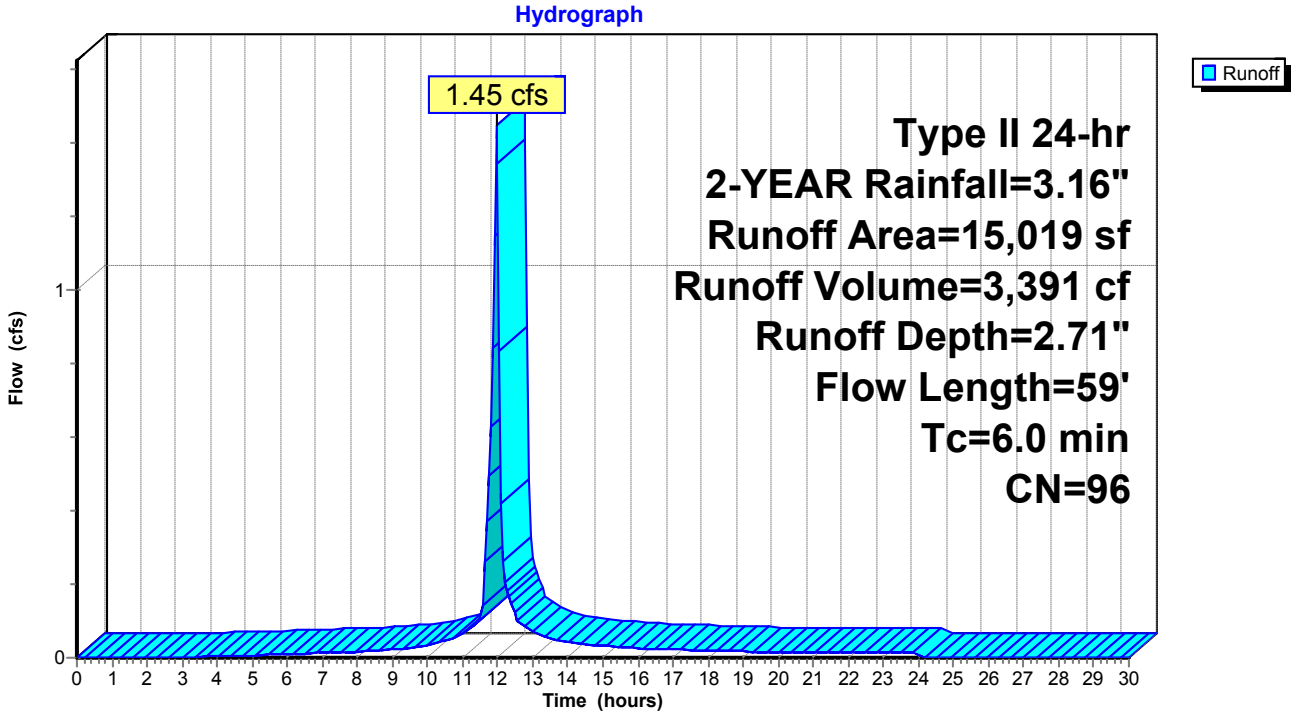
Runoff = 1.45 cfs @ 11.96 hrs, Volume= 3,391 cf, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
2,348	84	50-75% Grass cover, Fair, HSG D
12,671	98	Paved parking, HSG D
15,019	96	Weighted Average
2,348		15.63% Pervious Area
12,671		84.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	29	0.0390	0.17		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	30	0.0350	3.80		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.9	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-2: DA-2

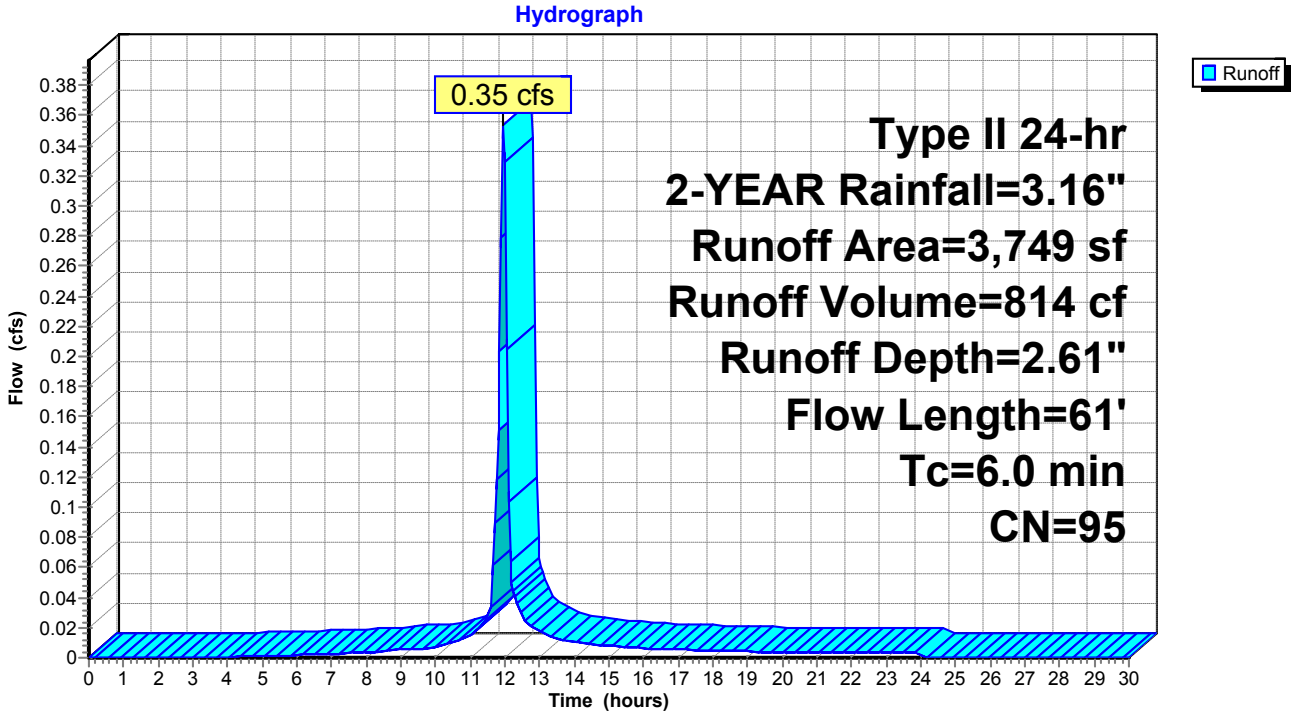
Runoff = 0.35 cfs @ 11.96 hrs, Volume= 814 cf, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
756	84	50-75% Grass cover, Fair, HSG D
2,993	98	Paved parking, HSG D
3,749	95	Weighted Average
756		20.17% Pervious Area
2,993		79.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	26	0.0173	0.12		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	35	0.0257	3.25		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	61	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

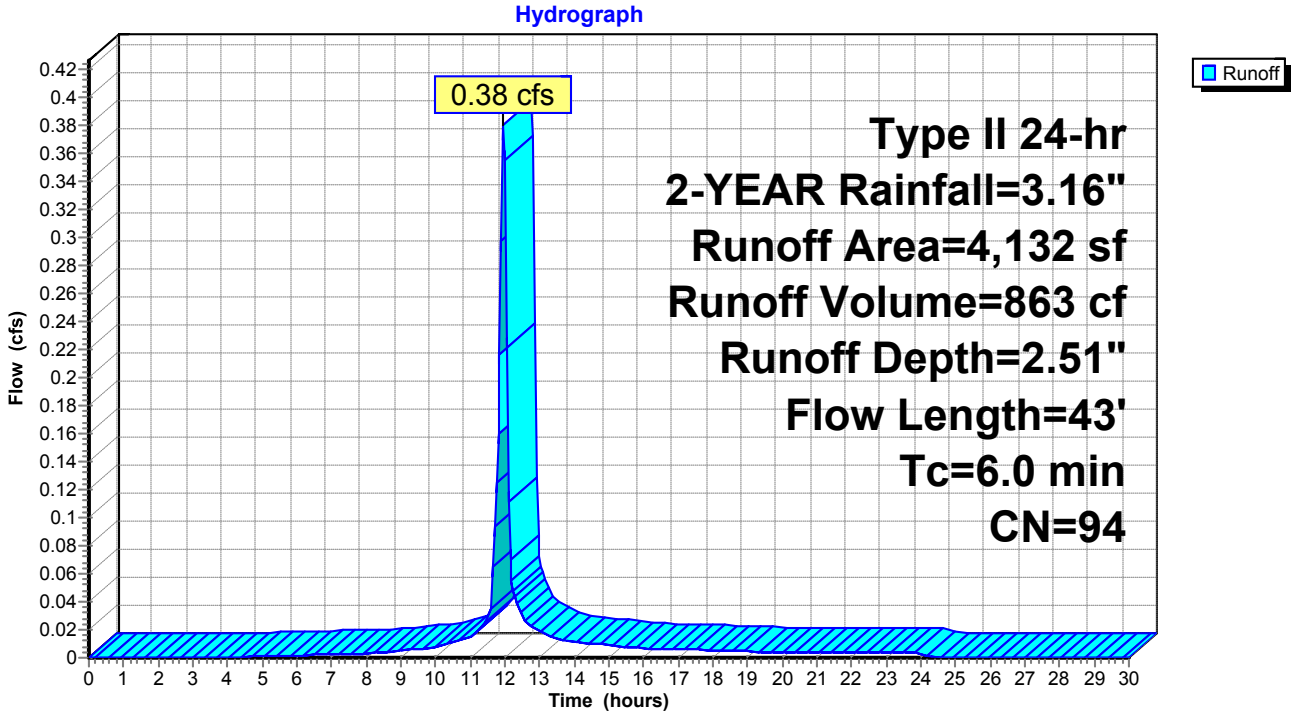
Runoff = 0.38 cfs @ 11.96 hrs, Volume= 863 cf, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,273	84	50-75% Grass cover, Fair, HSG D
2,859	98	Paved parking, HSG D
4,132	94	Weighted Average
1,273		30.81% Pervious Area
2,859		69.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	31	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0250	3.21		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
4.2	43	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

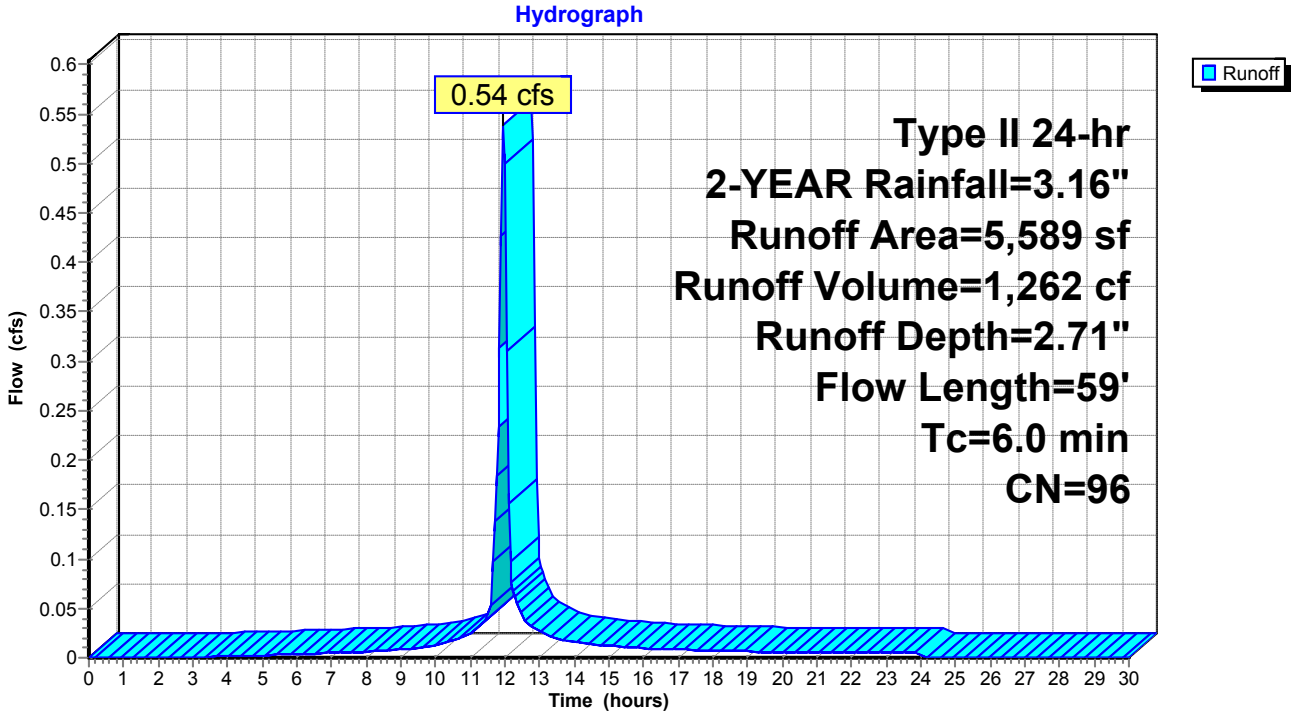
Runoff = 0.54 cfs @ 11.96 hrs, Volume= 1,262 cf, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
750	84	50-75% Grass cover, Fair, HSG D
4,839	98	Paved parking, HSG D
5,589	96	Weighted Average
750		13.42% Pervious Area
4,839		86.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	30	0.0217	0.14		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	29	0.0169	2.64		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-4: DA-4



Summary for Subcatchment DA-5: DA-5

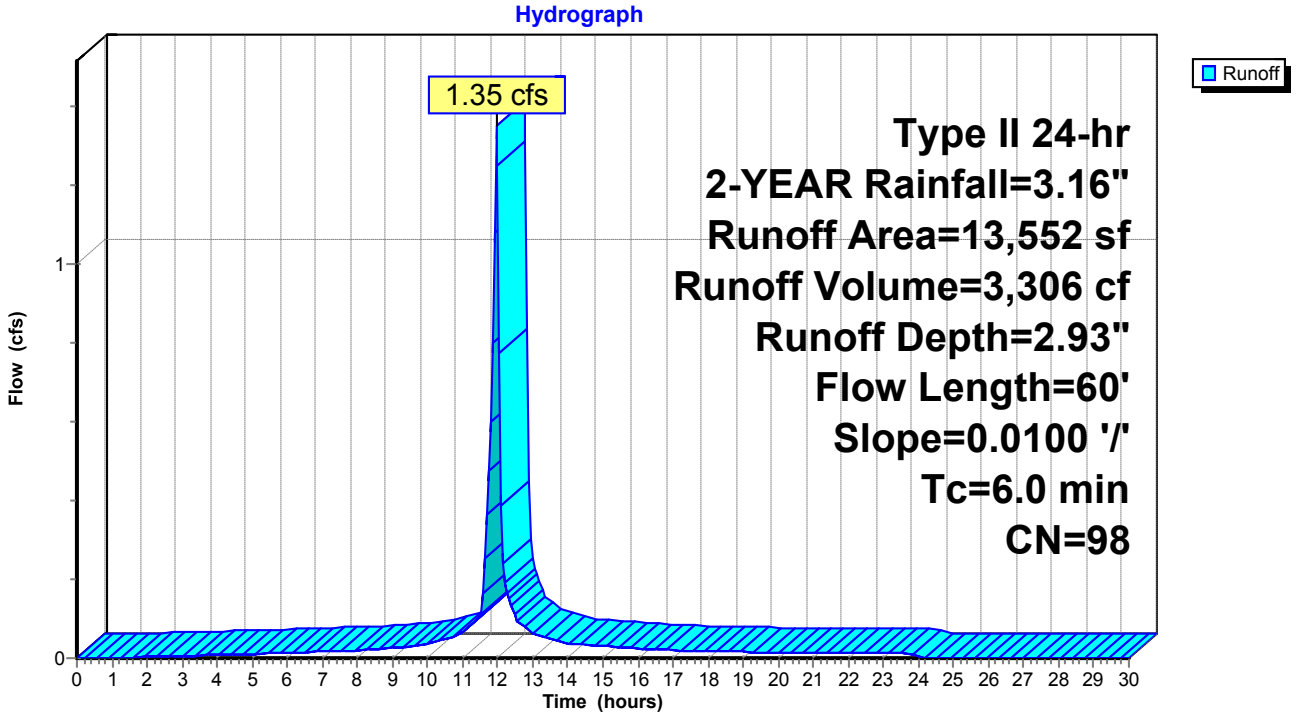
Runoff = 1.35 cfs @ 11.96 hrs, Volume= 3,306 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
13,552	98	Paved parking, HSG D
13,552		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	60	0.0100	0.94		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.1	60	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-5: DA-5



Summary for Subcatchment DA-6: DA-6

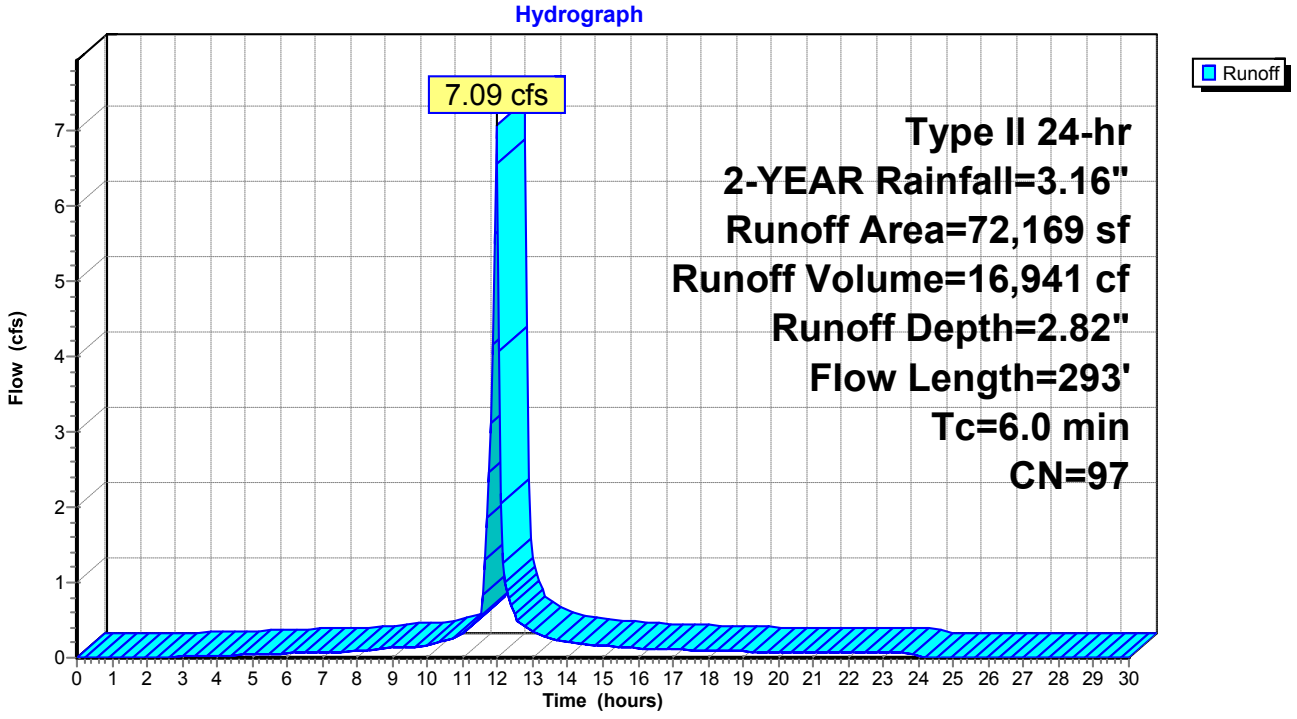
Runoff = 7.09 cfs @ 11.96 hrs, Volume= 16,941 cf, Depth= 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
3,046	84	50-75% Grass cover, Fair, HSG D
69,123	98	Paved parking, HSG D
72,169	97	Weighted Average
3,046		4.22% Pervious Area
69,123		95.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0220	1.42		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.4	193	0.0126	2.28		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.6	293	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

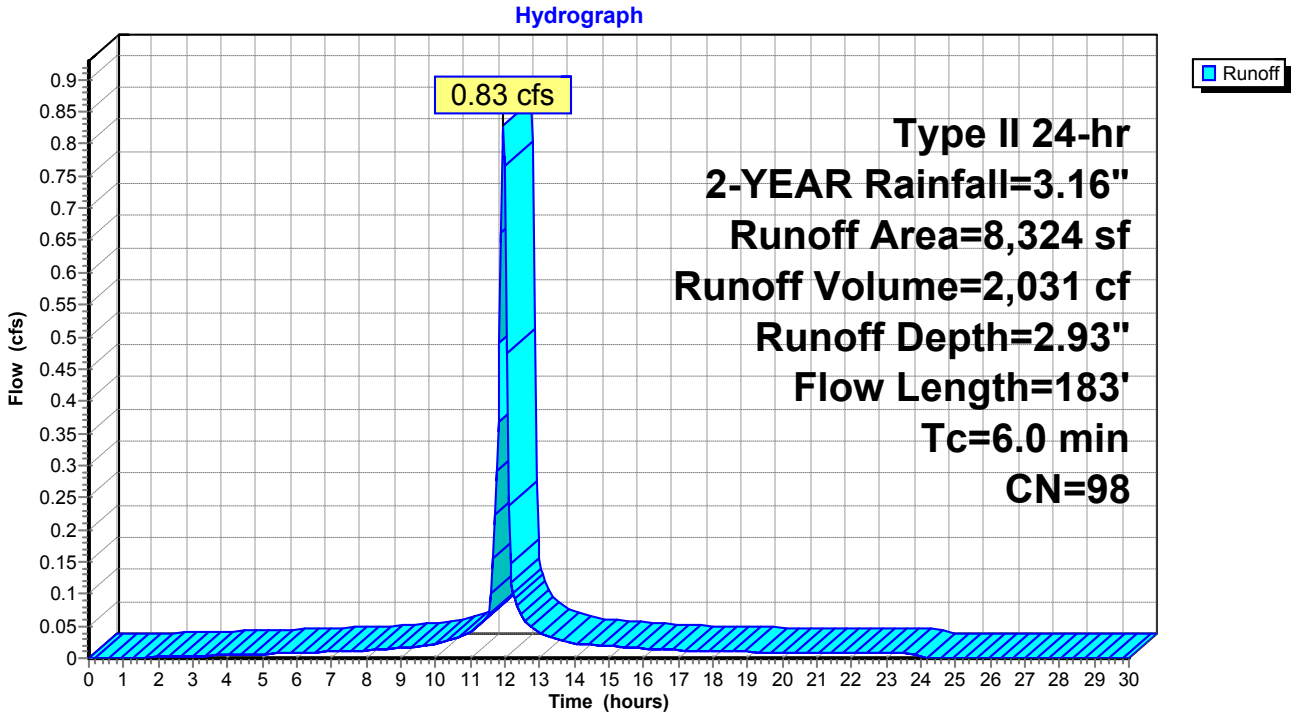
Runoff = 0.83 cfs @ 11.96 hrs, Volume= 2,031 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
8,324	98	Paved parking, HSG D
8,324		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	100	0.0301	1.61		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	83	0.0124	2.26		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
1.6	183	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

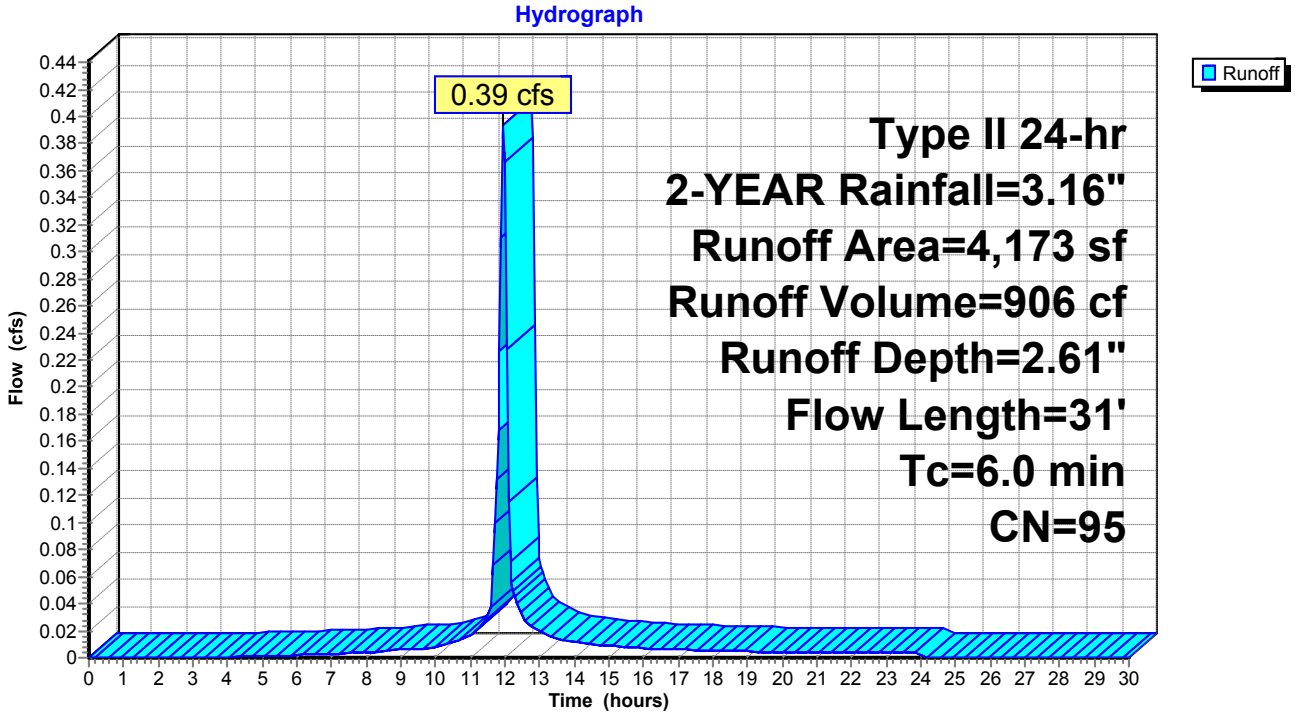
Runoff = 0.39 cfs @ 11.96 hrs, Volume= 906 cf, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
782	84	50-75% Grass cover, Fair, HSG D
3,391	98	Paved parking, HSG D
4,173	95	Weighted Average
782		18.74% Pervious Area
3,391		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	19	0.0150	0.11		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0208	2.93		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.0	31	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DA-9

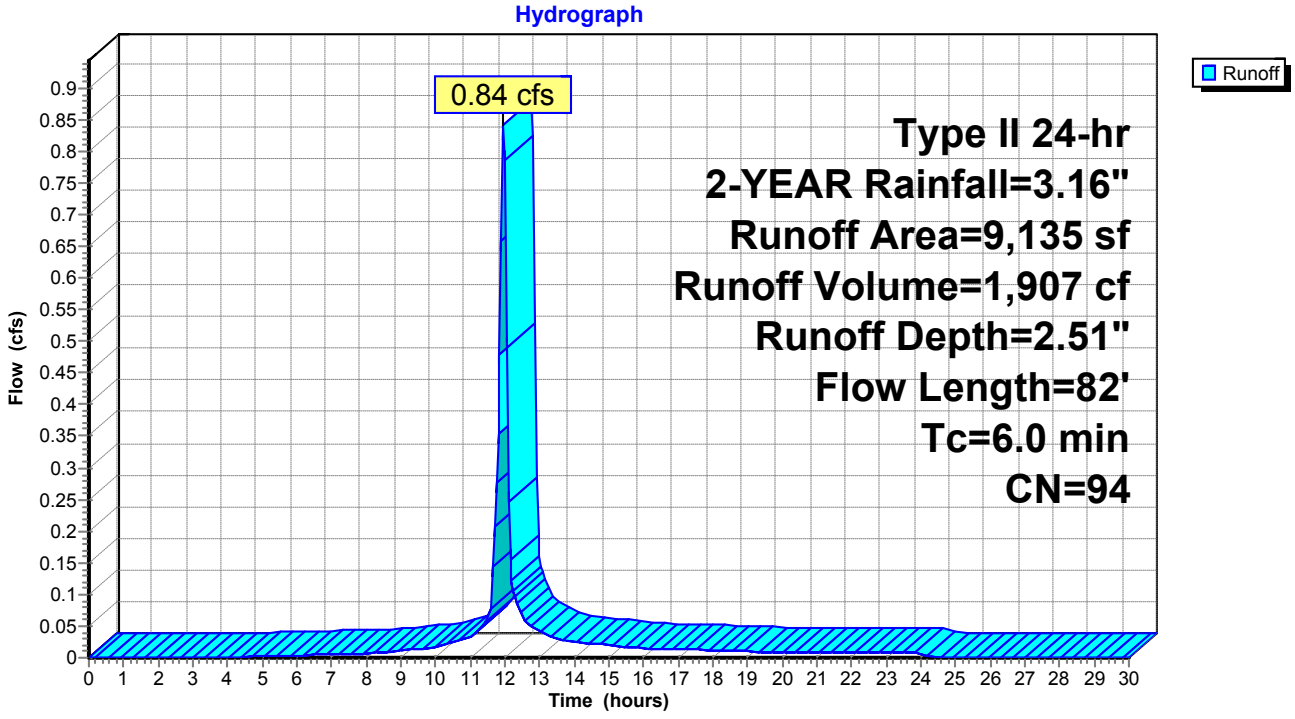
Runoff = 0.84 cfs @ 11.96 hrs, Volume= 1,907 cf, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
2,765	84	50-75% Grass cover, Fair, HSG D
6,370	98	Paved parking, HSG D
9,135	94	Weighted Average
2,765		30.27% Pervious Area
6,370		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	42	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	40	0.0200	2.87		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
5.4	82	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-9: DA-9



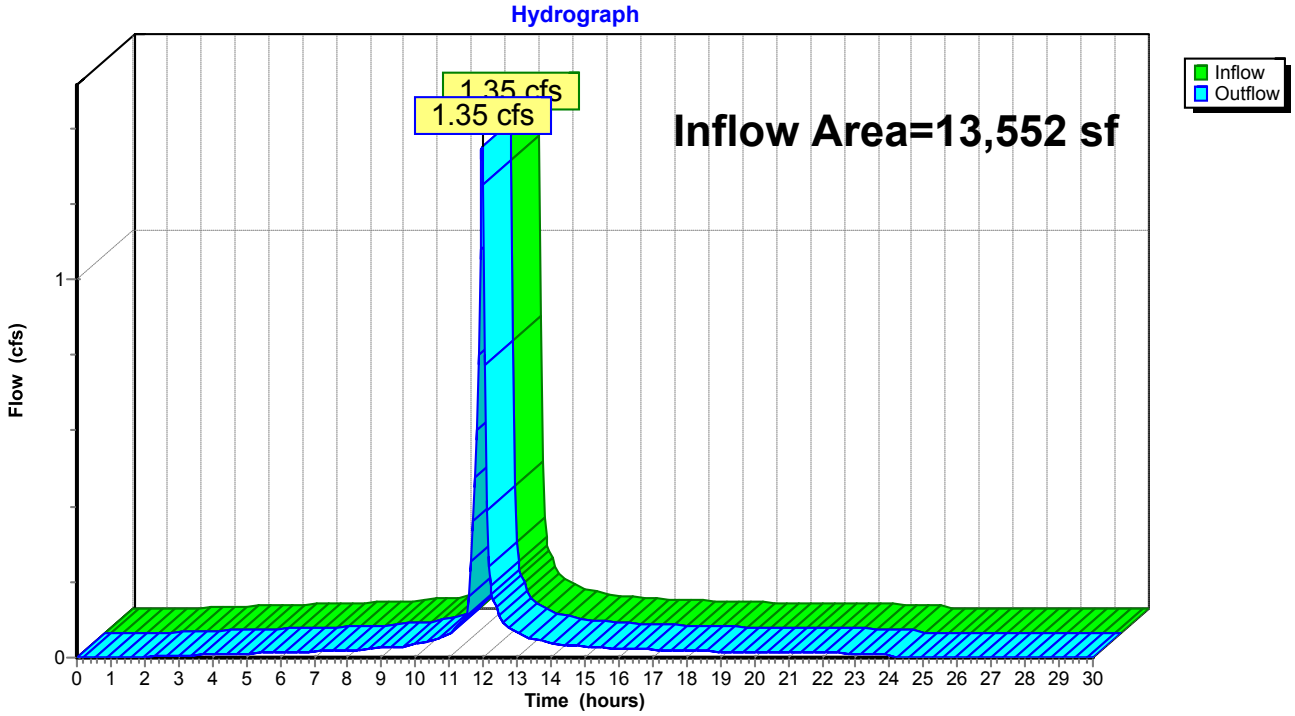
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 13,552 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 1.35 cfs @ 11.96 hrs, Volume= 3,306 cf
Outflow = 1.35 cfs @ 11.96 hrs, Volume= 3,306 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 1P: EXISTING YARD DRAIN

[57] Hint: Peaked at 190.51' (Flood elevation advised)

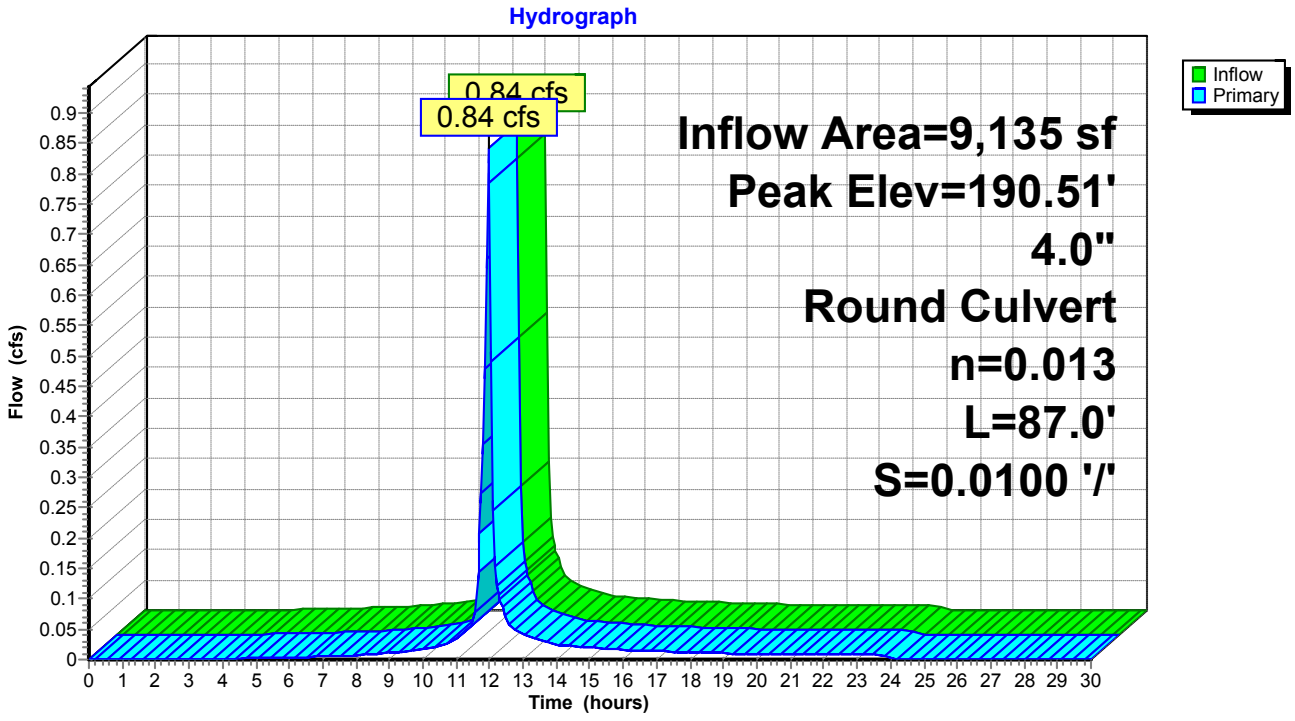
Inflow Area = 9,135 sf, 69.73% Impervious, Inflow Depth = 2.51" for 2-YEAR event
Inflow = 0.84 cfs @ 11.96 hrs, Volume= 1,907 cf
Outflow = 0.84 cfs @ 11.96 hrs, Volume= 1,907 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.84 cfs @ 11.96 hrs, Volume= 1,907 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 190.51' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=0.82 cfs @ 11.96 hrs HW=189.55' (Free Discharge)
1=Culvert (Barrel Controls 0.82 cfs @ 9.39 fps)

Pond 1P: EXISTING YARD DRAIN



Summary for Pond 2P: EXISTING CATCH BASIN

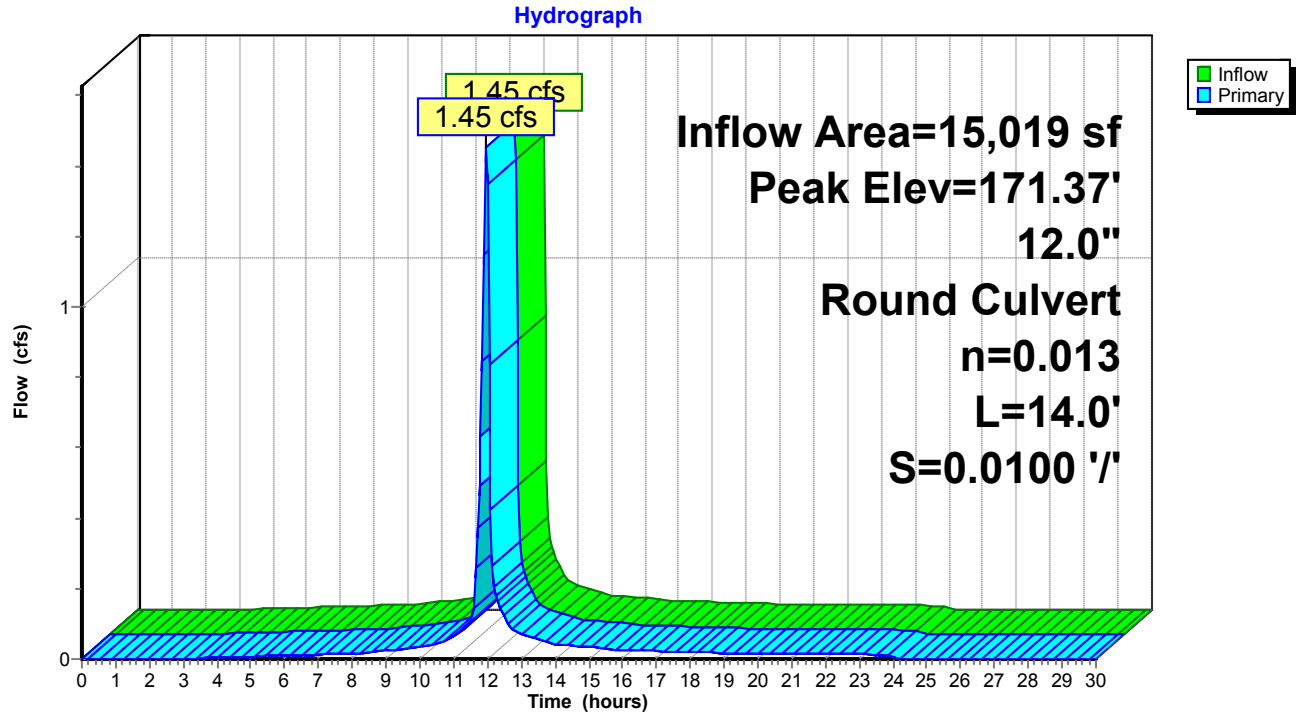
Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 2.71" for 2-YEAR event
Inflow = 1.45 cfs @ 11.96 hrs, Volume= 3,391 cf
Outflow = 1.45 cfs @ 11.96 hrs, Volume= 3,391 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.45 cfs @ 11.96 hrs, Volume= 3,391 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.37' @ 11.96 hrs
Flood Elev= 172.99'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.60'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.60' / 170.46' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.41 cfs @ 11.96 hrs HW=171.36' (Free Discharge)
1=Culvert (Barrel Controls 1.41 cfs @ 3.05 fps)

Pond 2P: EXISTING CATCH BASIN



Summary for Pond 3P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.65' (Flood elevation advised)

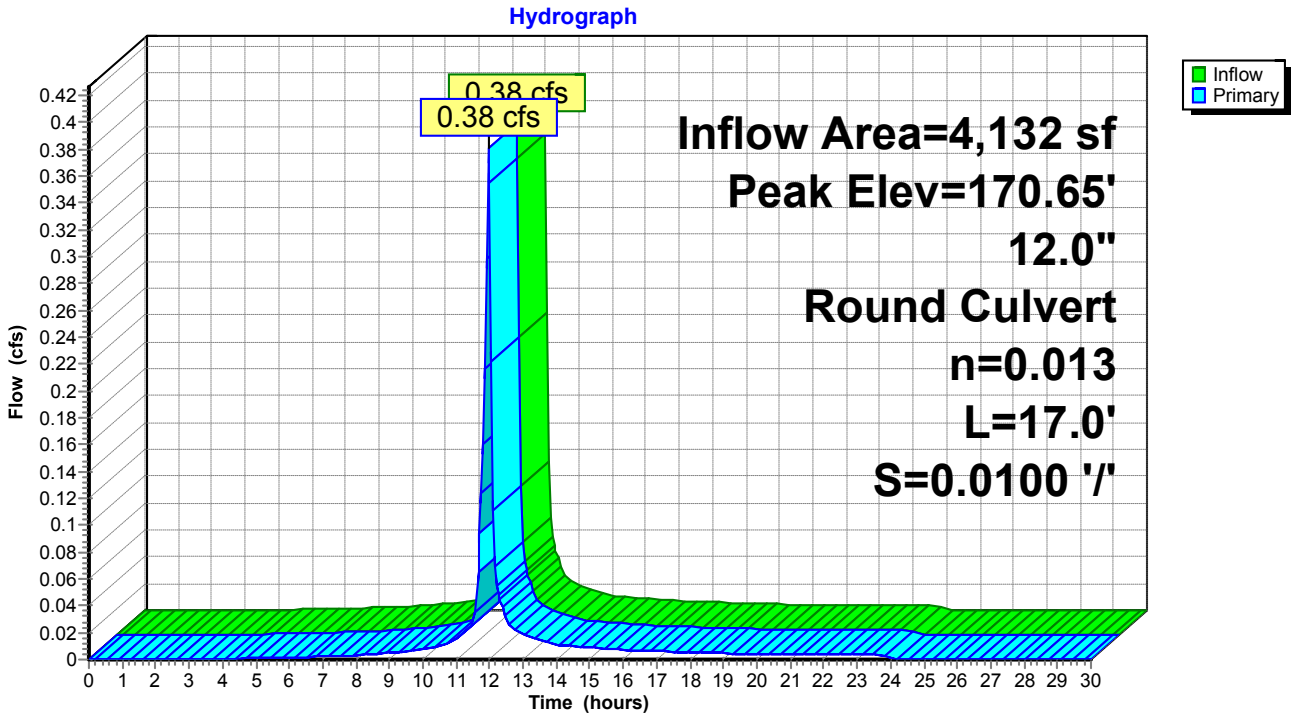
Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 2.51" for 2-YEAR event
Inflow = 0.38 cfs @ 11.96 hrs, Volume= 863 cf
Outflow = 0.38 cfs @ 11.96 hrs, Volume= 863 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.38 cfs @ 11.96 hrs, Volume= 863 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.65' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.13' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.37 cfs @ 11.96 hrs HW=170.64' (Free Discharge)
1=Culvert (Inlet Controls 0.37 cfs @ 1.57 fps)

Pond 3P: EXISTING CATCH BASIN



Summary for Pond 4P: EXISTING CATCH BASIN

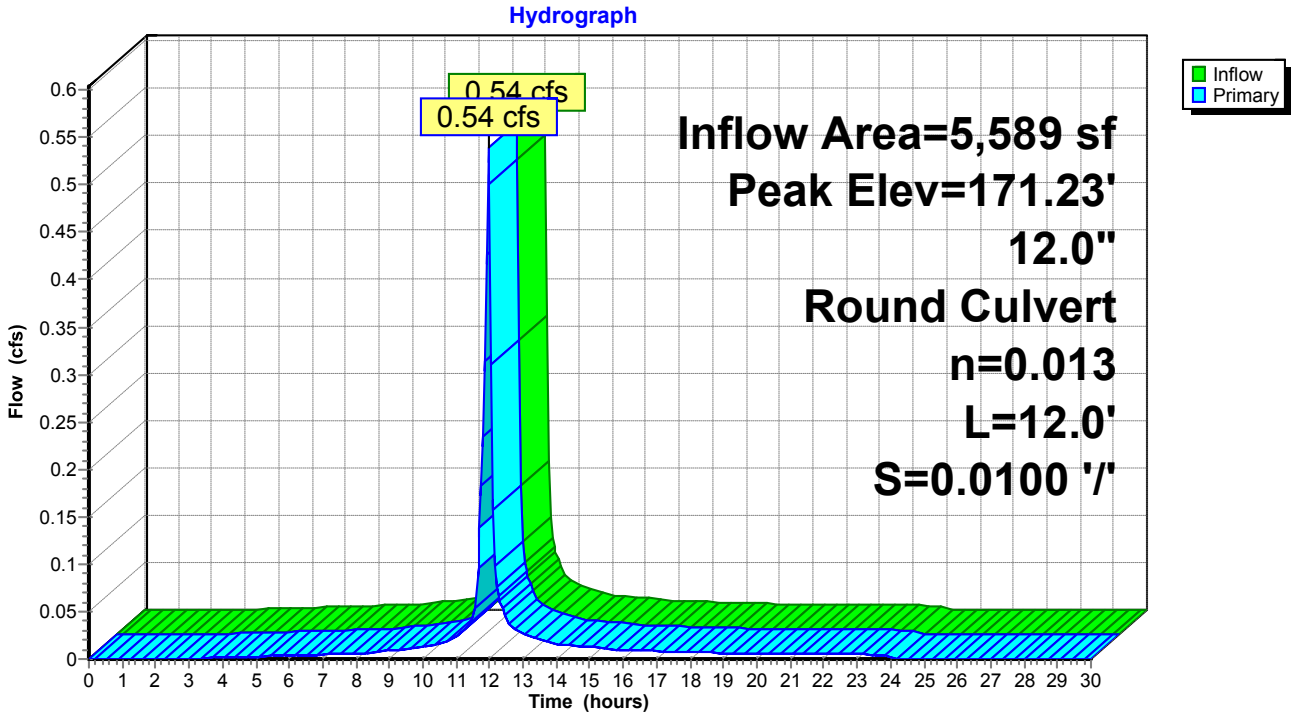
Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 2.71" for 2-YEAR event
Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,262 cf
Outflow = 0.54 cfs @ 11.96 hrs, Volume= 1,262 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.54 cfs @ 11.96 hrs, Volume= 1,262 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.23' @ 11.96 hrs
Flood Elev= 172.73'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.80'	**12.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.80' / 170.68' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.53 cfs @ 11.96 hrs HW=171.23' (Free Discharge)
1=Culvert (Barrel Controls 0.53 cfs @ 2.42 fps)

Pond 4P: EXISTING CATCH BASIN



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 2P by 2.50' @ 12.15 hrs

Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 2.71" for 2-YEAR event
Inflow = 1.45 cfs @ 11.96 hrs, Volume= 3,391 cf
Outflow = 0.93 cfs @ 12.04 hrs, Volume= 3,391 cf, Atten= 36%, Lag= 4.9 min
Discarded = 0.93 cfs @ 12.04 hrs, Volume= 3,391 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.47' @ 12.04 hrs Surf.Area= 1,819 sf Storage= 661 cf

Plug-Flow detention time= 51.5 min calculated for 3,386 cf (100% of inflow)
Center-of-Mass det. time= 51.6 min (822.5 - 770.9)

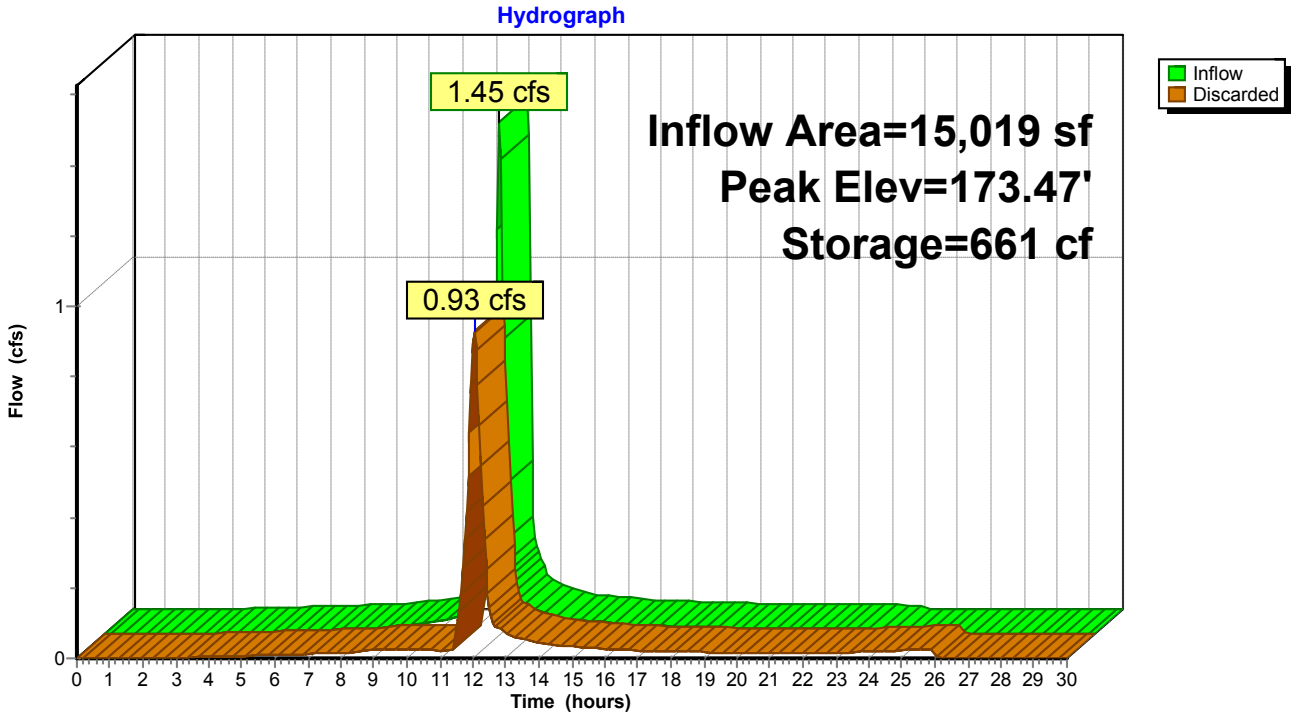
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,139 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	112	7	208
174.00	3,750	1,931	2,139

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.92 cfs @ 12.04 hrs HW=173.47' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.92 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 6P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.63' (Flood elevation advised)

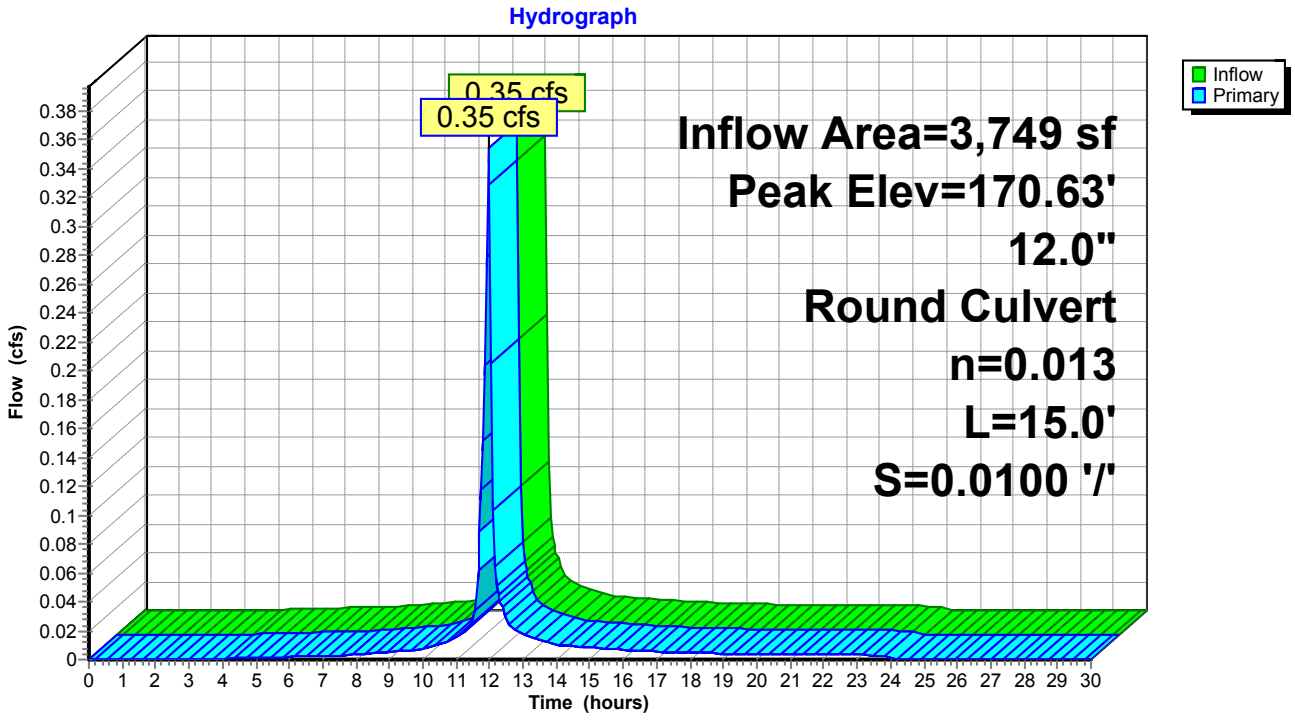
Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 2.61" for 2-YEAR event
Inflow = 0.35 cfs @ 11.96 hrs, Volume= 814 cf
Outflow = 0.35 cfs @ 11.96 hrs, Volume= 814 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.35 cfs @ 11.96 hrs, Volume= 814 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.63' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.15' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.34 cfs @ 11.96 hrs HW=170.63' (Free Discharge)
1=Culvert (Barrel Controls 0.34 cfs @ 2.28 fps)

Pond 6P: EXISTING CATCH BASIN



Summary for Pond 7P: EXISTING CATCH BASIN

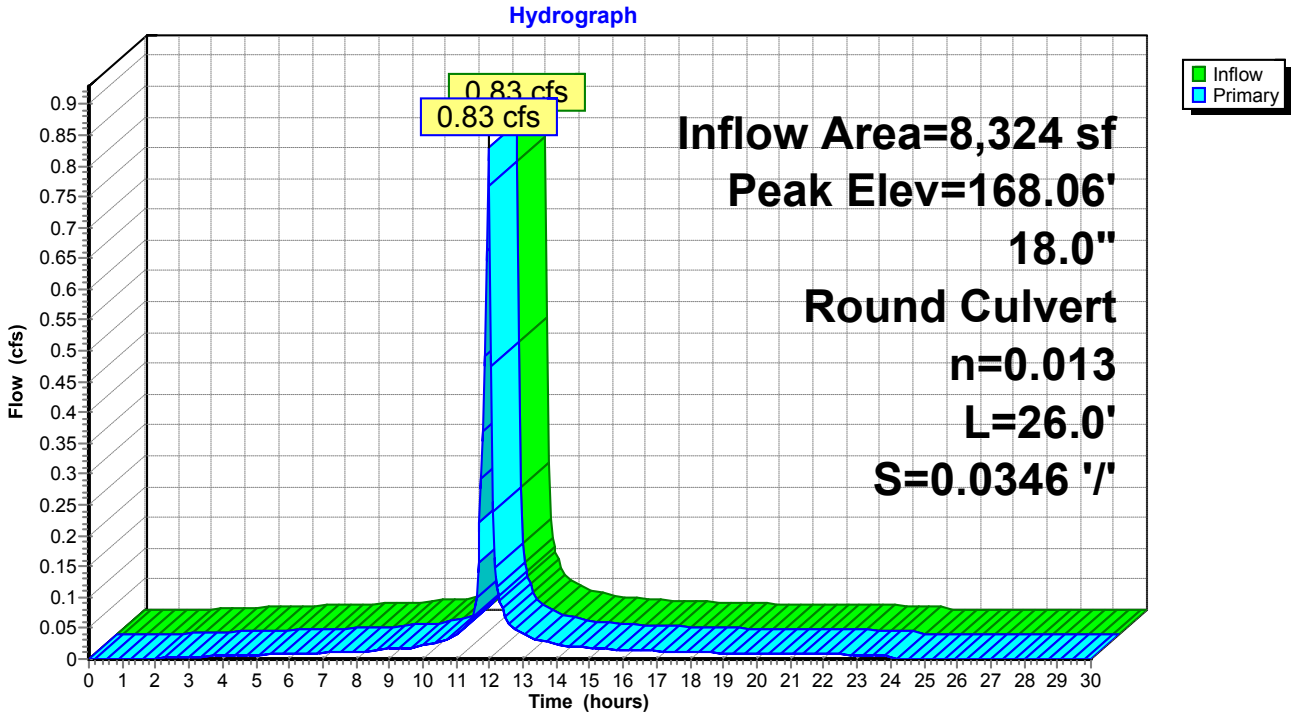
Inflow Area = 8,324 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 0.83 cfs @ 11.96 hrs, Volume= 2,031 cf
Outflow = 0.83 cfs @ 11.96 hrs, Volume= 2,031 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.83 cfs @ 11.96 hrs, Volume= 2,031 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.06' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=0.81 cfs @ 11.96 hrs HW=168.05' (Free Discharge)
1=Culvert (Inlet Controls 0.81 cfs @ 1.81 fps)

Pond 7P: EXISTING CATCH BASIN



Summary for Pond 8P: EXISTING CATCH BASIN

[58] Hint: Peaked 4.16' above defined flood level

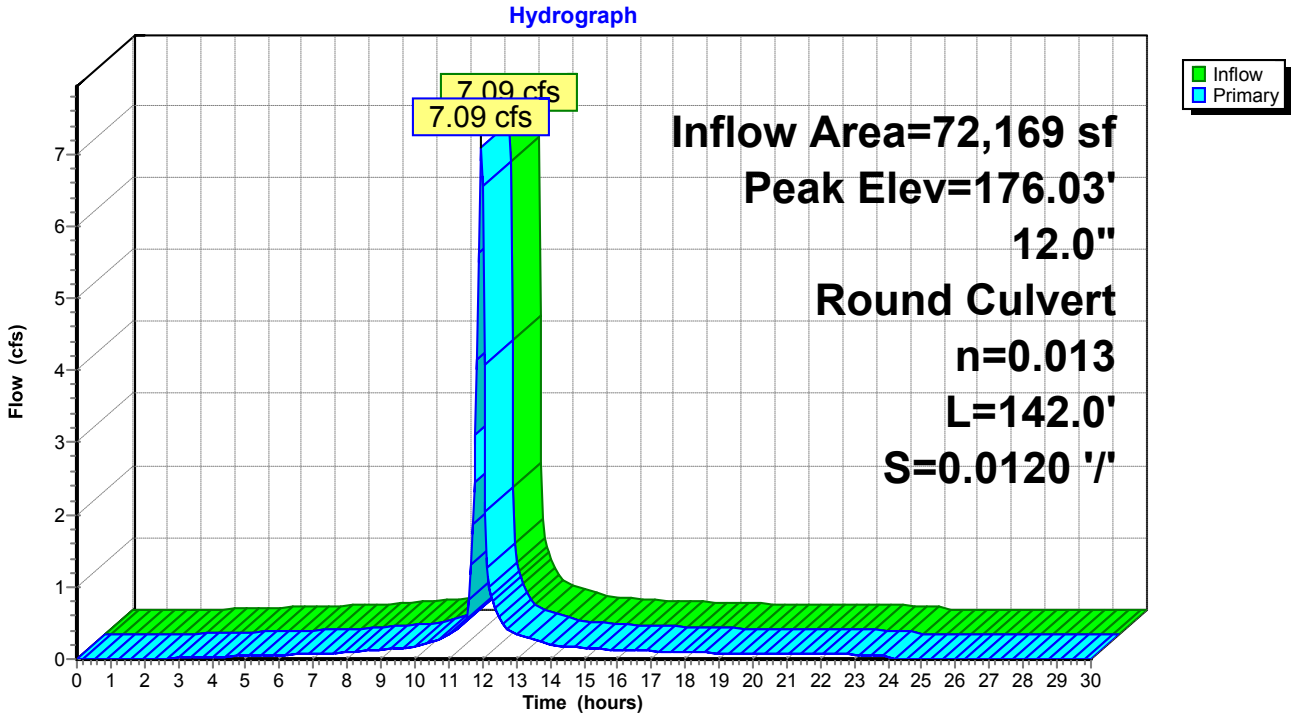
Inflow Area = 72,169 sf, 95.78% Impervious, Inflow Depth = 2.82" for 2-YEAR event
Inflow = 7.09 cfs @ 11.96 hrs, Volume= 16,941 cf
Outflow = 7.09 cfs @ 11.96 hrs, Volume= 16,941 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.09 cfs @ 11.96 hrs, Volume= 16,941 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 176.03' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=6.92 cfs @ 11.96 hrs HW=175.67' (Free Discharge)
└**1=Culvert** (Barrel Controls 6.92 cfs @ 8.81 fps)

Pond 8P: EXISTING CATCH BASIN



Summary for Pond 9P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 6P by 3.18' @ 24.40 hrs

Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 2.61" for 2-YEAR event
Inflow = 0.35 cfs @ 11.96 hrs, Volume= 814 cf
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min

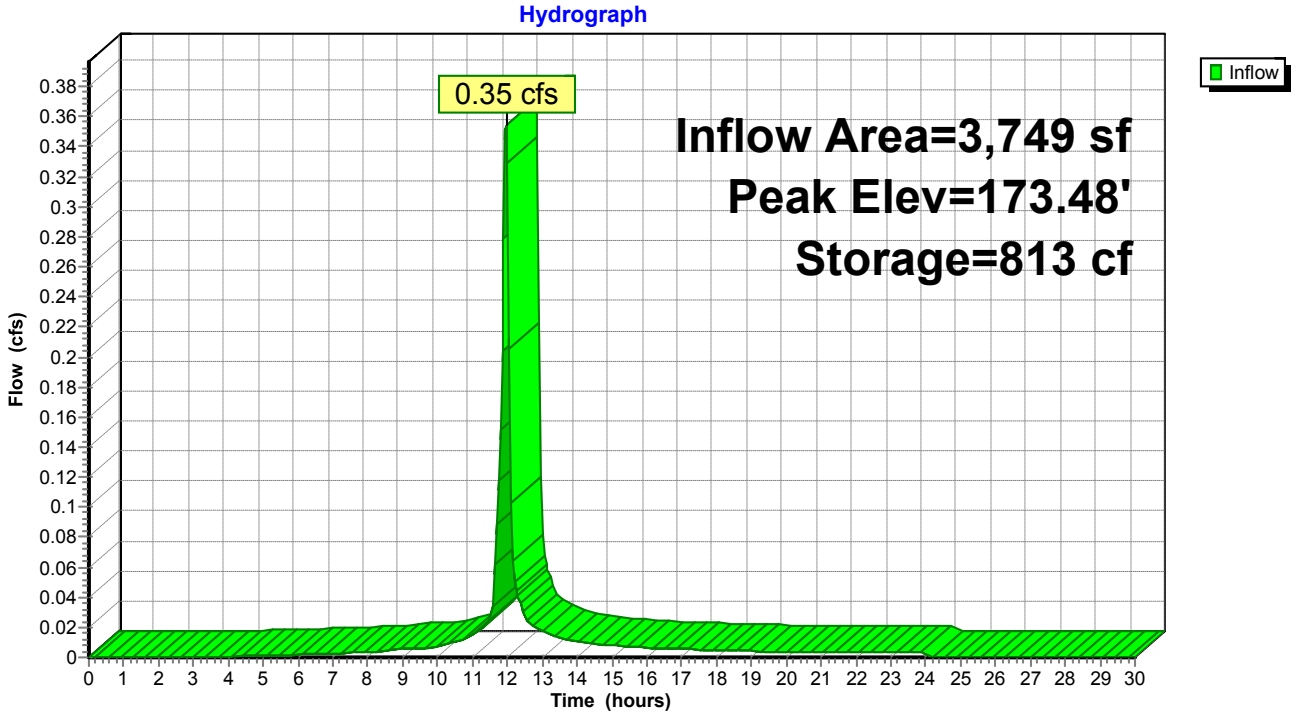
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.48' @ 24.40 hrs Surf.Area= 2,104 sf Storage= 813 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,410 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	377	20	221
174.00	4,000	2,189	2,410

Pond 9P: EXISTING DRYWELL



Summary for Pond 10P: EXISTING DRYWELL

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond 3P by 2.54' @ 13.45 hrs

Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 2.51" for 2-YEAR event
Inflow = 0.38 cfs @ 11.96 hrs, Volume= 863 cf
Outflow = 0.30 cfs @ 12.03 hrs, Volume= 863 cf, Atten= 21%, Lag= 3.8 min
Discarded = 0.30 cfs @ 12.03 hrs, Volume= 863 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.98' @ 12.03 hrs Surf.Area= 589 sf Storage= 225 cf

Plug-Flow detention time= 66.8 min calculated for 861 cf (100% of inflow)
Center-of-Mass det. time= 66.7 min (851.0 - 784.3)

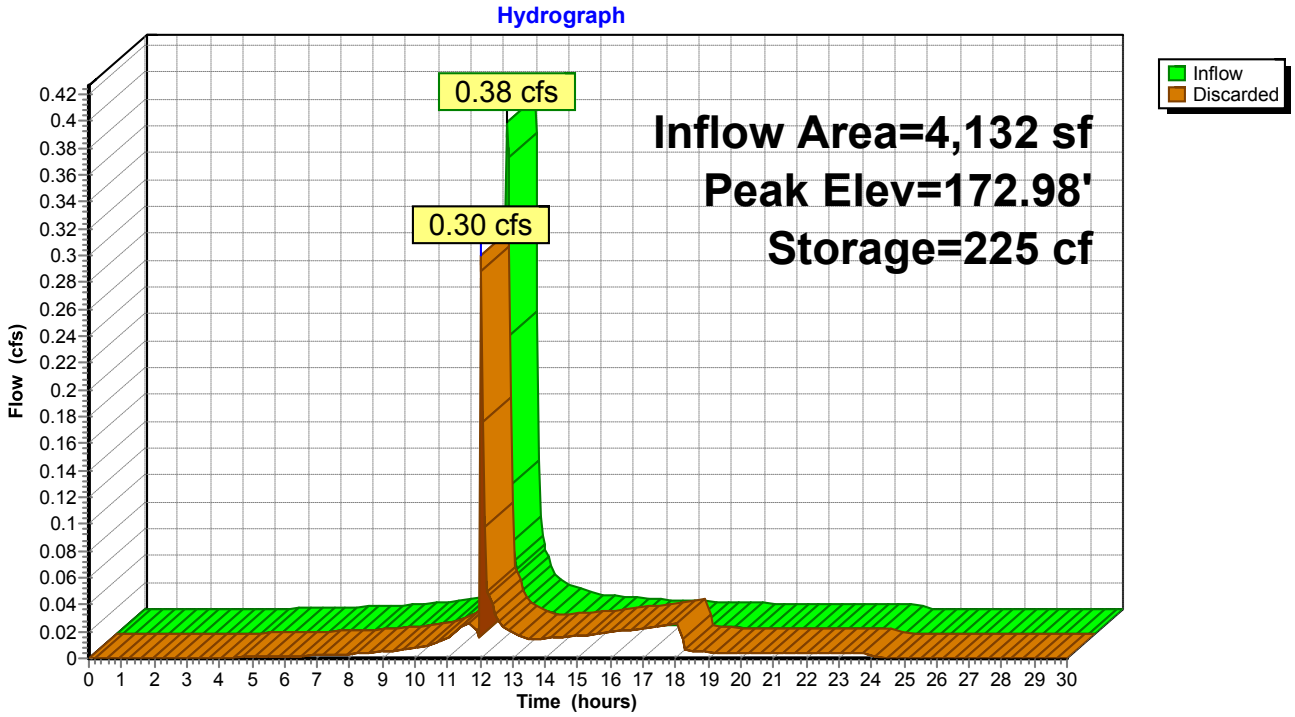
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,486 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	743	39	239
174.00	3,750	2,247	2,486

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.29 cfs @ 12.03 hrs HW=172.97' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.29 cfs)

Pond 10P: EXISTING DRYWELL



Summary for Pond 12P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 4P by 2.04' @ 14.15 hrs

Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 2.71" for 2-YEAR event
Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,262 cf
Outflow = 0.41 cfs @ 12.03 hrs, Volume= 1,262 cf, Atten= 24%, Lag= 3.8 min
Discarded = 0.41 cfs @ 12.03 hrs, Volume= 1,262 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.07' @ 12.03 hrs Surf.Area= 801 sf Storage= 286 cf

Plug-Flow detention time= 60.4 min calculated for 1,260 cf (100% of inflow)
Center-of-Mass det. time= 60.3 min (831.2 - 770.9)

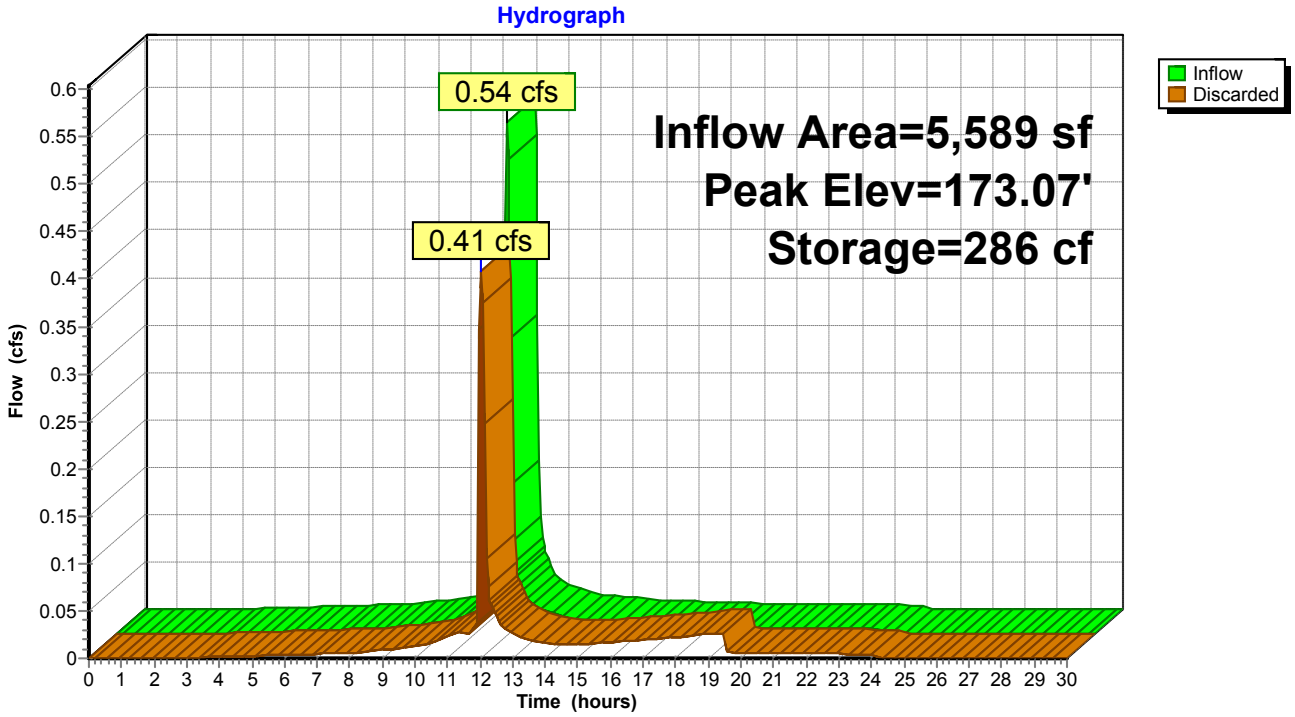
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,373 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	575	30	236
174.00	3,700	2,138	2,373

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.40 cfs @ 12.03 hrs HW=173.07' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.40 cfs)

Pond 12P: EXISTING DRYWELL



Summary for Pond 13P: EXISTING DRYWELL

Inflow Area = 4,173 sf, 81.26% Impervious, Inflow Depth = 2.61" for 2-YEAR event
Inflow = 0.39 cfs @ 11.96 hrs, Volume= 906 cf
Outflow = 0.25 cfs @ 12.05 hrs, Volume= 906 cf, Atten= 37%, Lag= 5.3 min
Discarded = 0.25 cfs @ 12.05 hrs, Volume= 906 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.67' @ 12.05 hrs Surf.Area= 488 sf Storage= 254 cf

Plug-Flow detention time= 68.2 min calculated for 905 cf (100% of inflow)
Center-of-Mass det. time= 68.1 min (846.1 - 778.0)

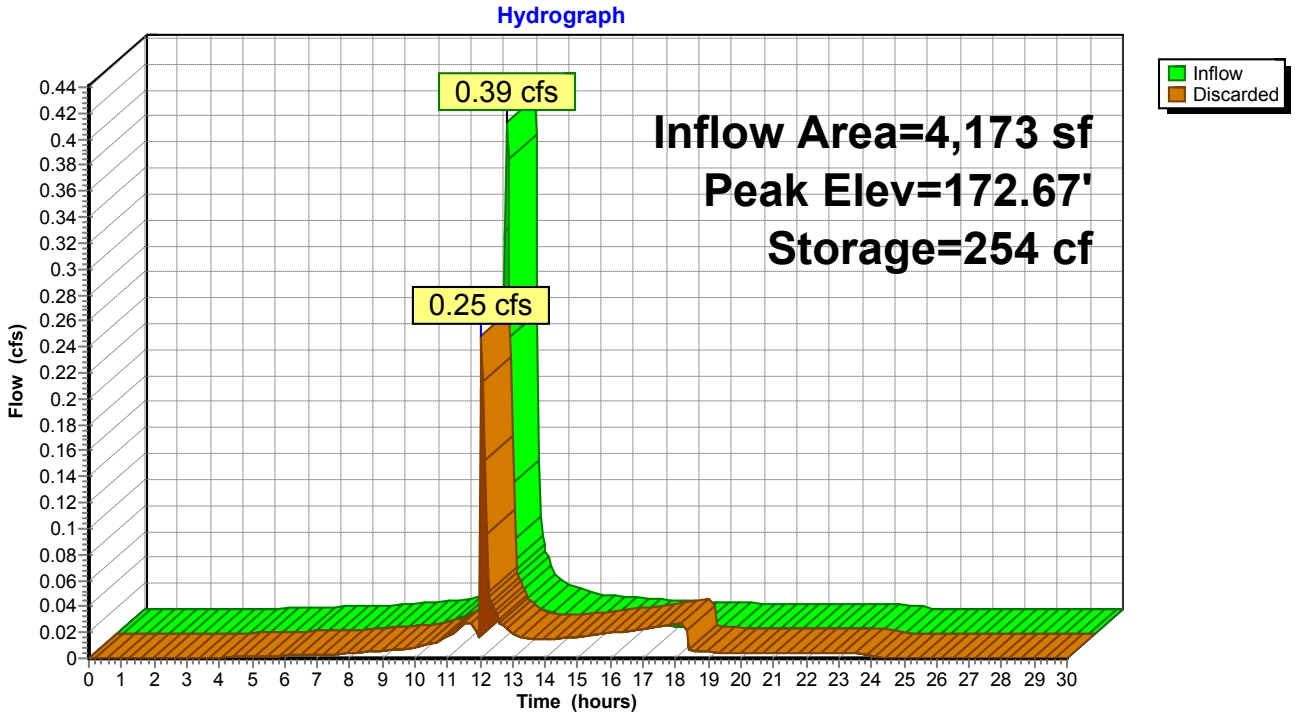
Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	559 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	1,366	349	559

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.25 cfs @ 12.05 hrs HW=172.67' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.25 cfs)

Pond 13P: EXISTING DRYWELL



Summary for Pond DP-1: EXISTING CATCH BASIN

[81] Warning: Exceeded Pond 7P by 1.19' @ 11.95 hrs
[79] Warning: Submerged Pond 8P Primary device # 1 INLET by 0.54'

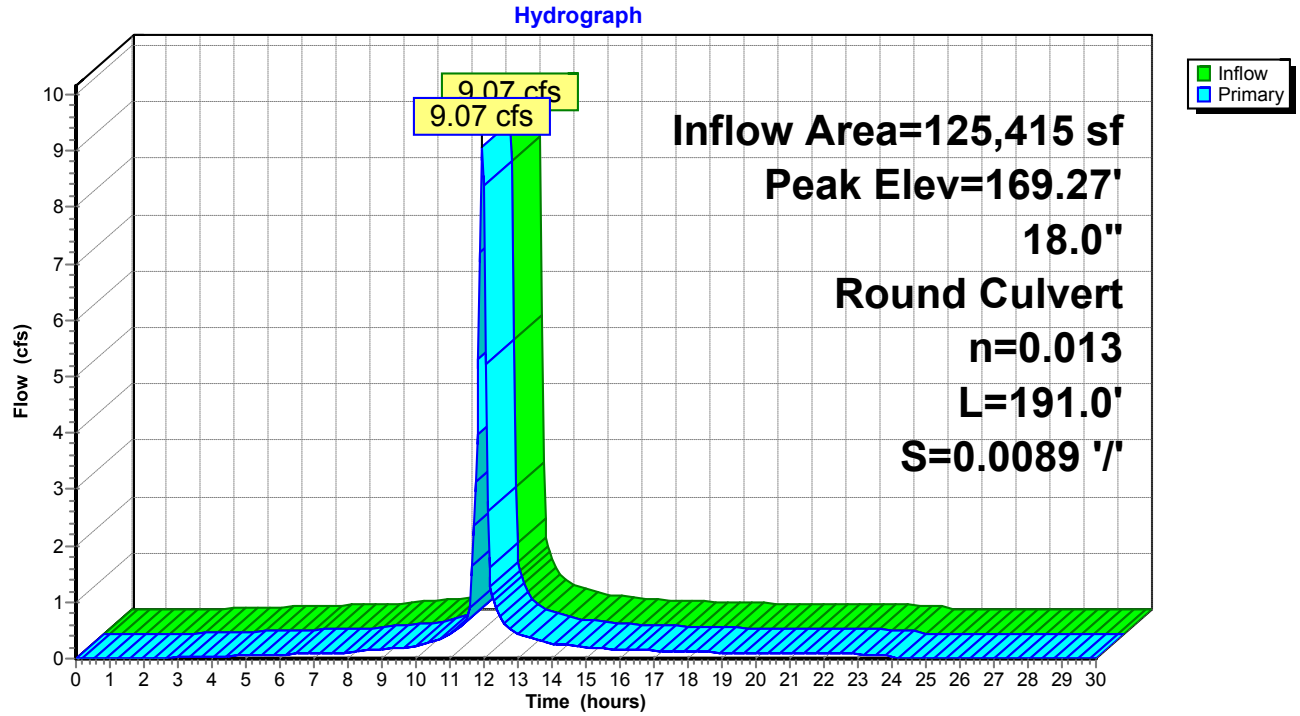
Inflow Area = 125,415 sf, 90.33% Impervious, Inflow Depth = 2.07" for 2-YEAR event
Inflow = 9.07 cfs @ 11.96 hrs, Volume= 21,585 cf
Outflow = 9.07 cfs @ 11.96 hrs, Volume= 21,585 cf, Atten= 0%, Lag= 0.0 min
Primary = 9.07 cfs @ 11.96 hrs, Volume= 21,585 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.27' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=8.85 cfs @ 11.96 hrs HW=169.18' (Free Discharge)
↑**1=Culvert** (Inlet Controls 8.85 cfs @ 5.01 fps)

Pond DP-1: EXISTING CATCH BASIN



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 6S: DA-10 Runoff Area=3,125 sf 87.10% Impervious Runoff Depth=4.21"
Flow Length=48' Slope=0.0235 '/' Tc=6.0 min CN=96 Runoff=0.46 cfs 1,098 cf

Subcatchment DA-1: DA-1 Runoff Area=15,019 sf 84.37% Impervious Runoff Depth=4.21"
Flow Length=59' Tc=6.0 min CN=96 Runoff=2.20 cfs 5,275 cf

Subcatchment DA-2: DA-2 Runoff Area=3,749 sf 79.83% Impervious Runoff Depth=4.10"
Flow Length=61' Tc=6.0 min CN=95 Runoff=0.54 cfs 1,282 cf

Subcatchment DA-3: DA-3 Runoff Area=4,132 sf 69.19% Impervious Runoff Depth=3.99"
Flow Length=43' Tc=6.0 min CN=94 Runoff=0.59 cfs 1,375 cf

Subcatchment DA-4: DA-4 Runoff Area=5,589 sf 86.58% Impervious Runoff Depth=4.21"
Flow Length=59' Tc=6.0 min CN=96 Runoff=0.82 cfs 1,963 cf

Subcatchment DA-5: DA-5 Runoff Area=13,552 sf 100.00% Impervious Runoff Depth=4.44"
Flow Length=60' Slope=0.0100 '/' Tc=6.0 min CN=98 Runoff=2.01 cfs 5,018 cf

Subcatchment DA-6: DA-6 Runoff Area=72,169 sf 95.78% Impervious Runoff Depth=4.33"
Flow Length=293' Tc=6.0 min CN=97 Runoff=10.65 cfs 26,031 cf

Subcatchment DA-7: DA-7 Runoff Area=8,324 sf 100.00% Impervious Runoff Depth=4.44"
Flow Length=183' Tc=6.0 min CN=98 Runoff=1.24 cfs 3,082 cf

Subcatchment DA-8: DA-8 Runoff Area=4,173 sf 81.26% Impervious Runoff Depth=4.10"
Flow Length=31' Tc=6.0 min CN=95 Runoff=0.60 cfs 1,427 cf

Subcatchment DA-9: DA-9 Runoff Area=9,135 sf 69.73% Impervious Runoff Depth=3.99"
Flow Length=82' Tc=6.0 min CN=94 Runoff=1.30 cfs 3,039 cf

Reach DP-2: STREET Inflow=2.01 cfs 5,018 cf
Outflow=2.01 cfs 5,018 cf

Pond 1P: EXISTING YARD DRAIN Peak Elev=218.02' Inflow=1.30 cfs 3,039 cf
4.0" Round Culvert n=0.013 L=87.0' S=0.0100 '/' Outflow=1.30 cfs 3,039 cf

Pond 2P: EXISTING CATCH BASIN Peak Elev=171.64' Inflow=2.20 cfs 5,275 cf
12.0" Round Culvert n=0.013 L=14.0' S=0.0100 '/' Outflow=2.20 cfs 5,275 cf

Pond 3P: EXISTING CATCH BASIN Peak Elev=170.74' Inflow=0.59 cfs 1,375 cf
12.0" Round Culvert n=0.013 L=17.0' S=0.0100 '/' Outflow=0.59 cfs 1,375 cf

Pond 4P: EXISTING CATCH BASIN Peak Elev=171.35' Inflow=0.82 cfs 1,963 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0100 '/' Outflow=0.82 cfs 1,963 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.65' Storage=1,039 cf Inflow=2.20 cfs 5,275 cf
Outflow=1.25 cfs 5,275 cf

Pond 6P: EXISTING CATCH BASIN Peak Elev=170.73' Inflow=0.54 cfs 1,282 cf
12.0" Round Culvert n=0.013 L=15.0' S=0.0100 '/' Outflow=0.54 cfs 1,282 cf

Pond 7P: EXISTING CATCH BASIN Peak Elev=168.17' Inflow=1.24 cfs 3,082 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=1.24 cfs 3,082 cf

Pond 8P: EXISTING CATCH BASIN Peak Elev=186.10' Inflow=10.65 cfs 26,031 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=10.65 cfs 26,031 cf

Pond 9P: EXISTING DRYWELL Peak Elev=173.67' Storage=1,280 cf Inflow=0.54 cfs 1,282 cf
Outflow=0.00 cfs 0 cf

Pond 10P: EXISTING DRYWELL Peak Elev=173.05' Storage=282 cf Inflow=0.59 cfs 1,375 cf
Outflow=0.46 cfs 1,375 cf

Pond 12P: EXISTING DRYWELL Peak Elev=173.18' Storage=390 cf Inflow=0.82 cfs 1,963 cf
Outflow=0.58 cfs 1,963 cf

Pond 13P: EXISTING DRYWELL Peak Elev=172.79' Storage=333 cf Inflow=0.60 cfs 1,427 cf
Outflow=0.41 cfs 1,427 cf

Pond DP-1: EXISTING CATCH BASIN Peak Elev=171.56' Inflow=13.64 cfs 33,250 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=13.64 cfs 33,250 cf

Total Runoff Area = 138,967 sf Runoff Volume = 49,590 cf Average Runoff Depth = 4.28"
8.72% Pervious = 12,123 sf 91.28% Impervious = 126,844 sf

Summary for Subcatchment 6S: DA-10

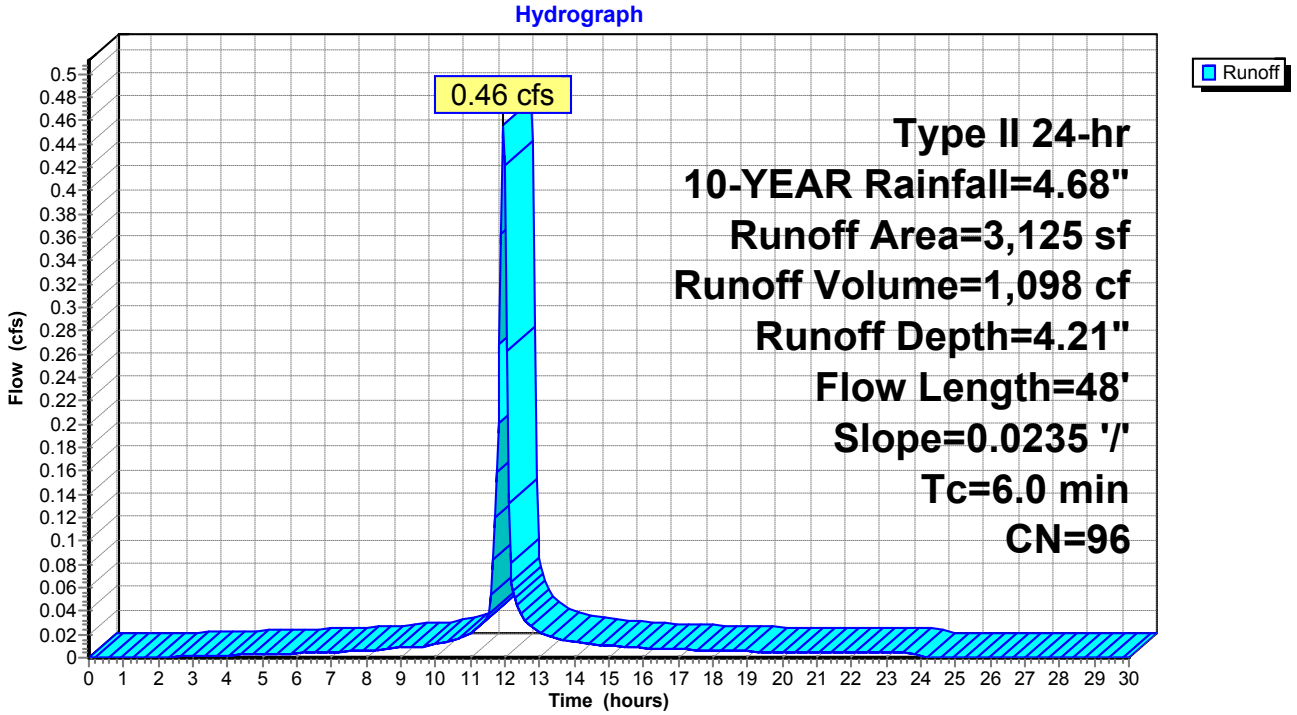
Runoff = 0.46 cfs @ 11.96 hrs, Volume= 1,098 cf, Depth= 4.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
403	84	50-75% Grass cover, Fair, HSG D
2,722	98	Paved parking, HSG D
3,125	96	Weighted Average
403		12.90% Pervious Area
2,722		87.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	48	0.0235	1.26		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	48	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 6S: DA-10



Summary for Subcatchment DA-1: DA-1

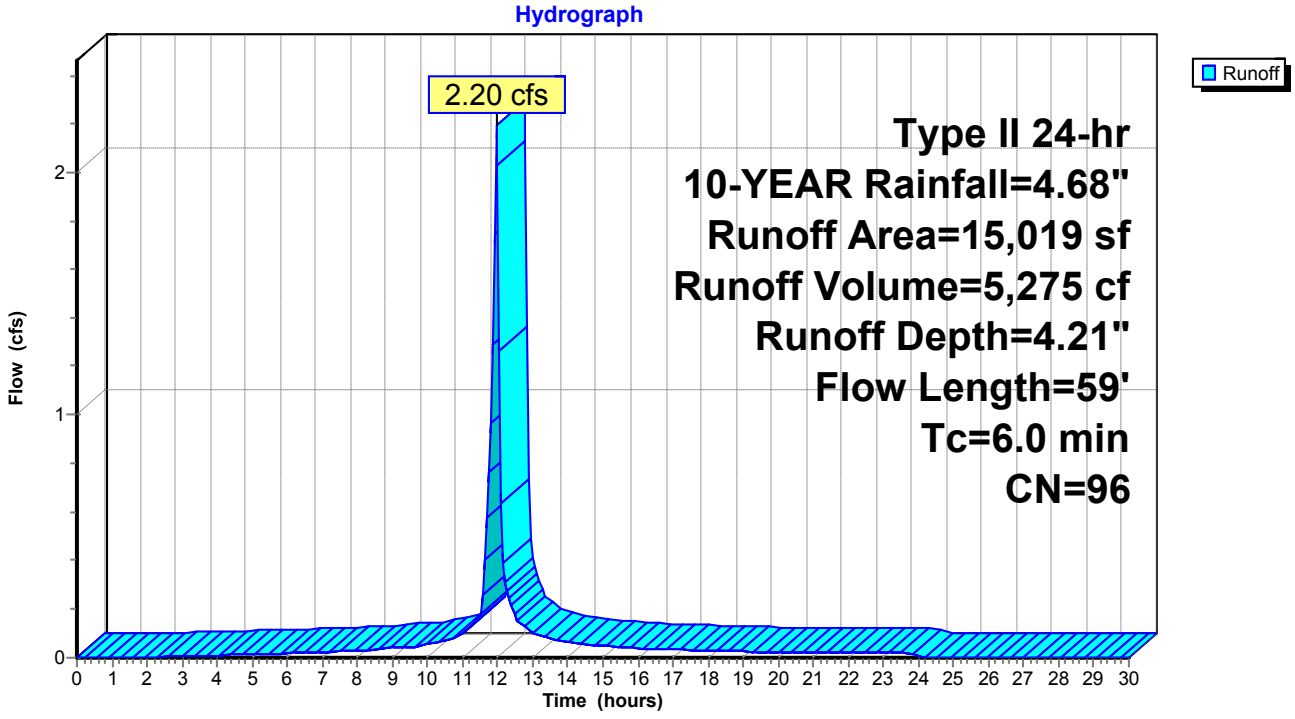
Runoff = 2.20 cfs @ 11.96 hrs, Volume= 5,275 cf, Depth= 4.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
2,348	84	50-75% Grass cover, Fair, HSG D
12,671	98	Paved parking, HSG D
15,019	96	Weighted Average
2,348		15.63% Pervious Area
12,671		84.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	29	0.0390	0.17		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	30	0.0350	3.80		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.9	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-2: DA-2

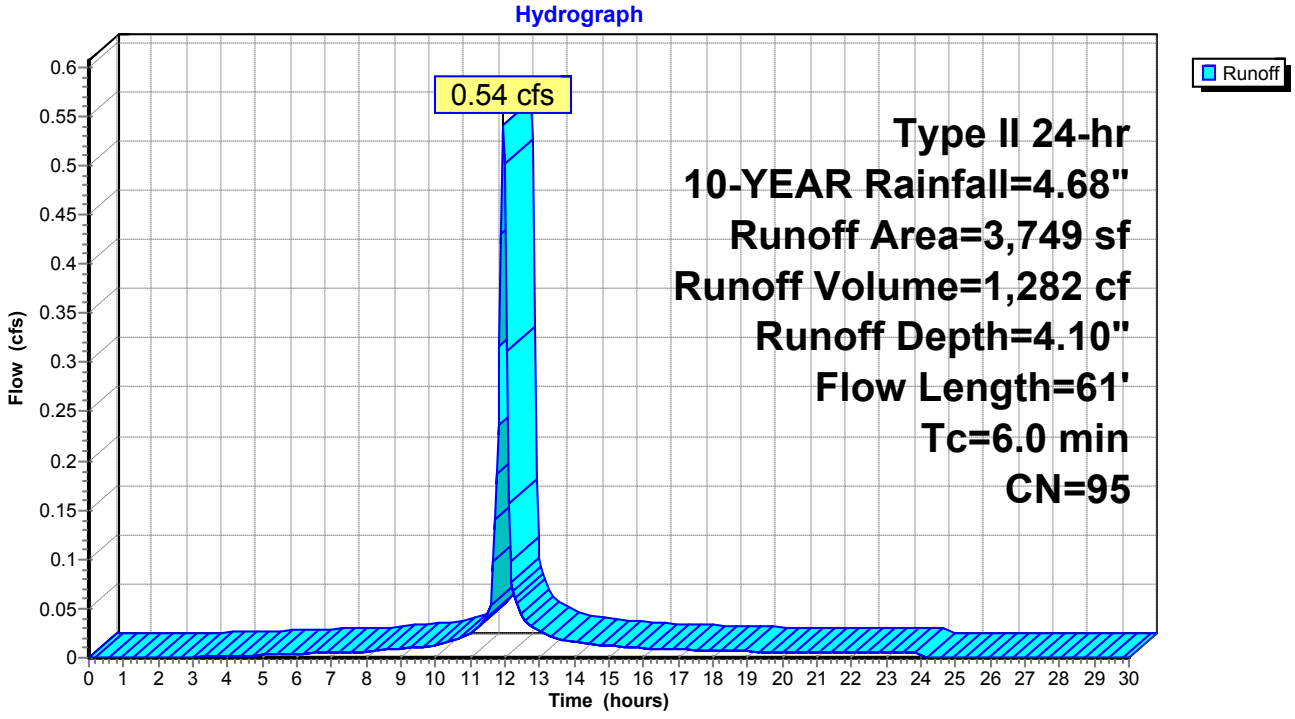
Runoff = 0.54 cfs @ 11.96 hrs, Volume= 1,282 cf, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
756	84	50-75% Grass cover, Fair, HSG D
2,993	98	Paved parking, HSG D
3,749	95	Weighted Average
756		20.17% Pervious Area
2,993		79.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	26	0.0173	0.12		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	35	0.0257	3.25		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	61	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

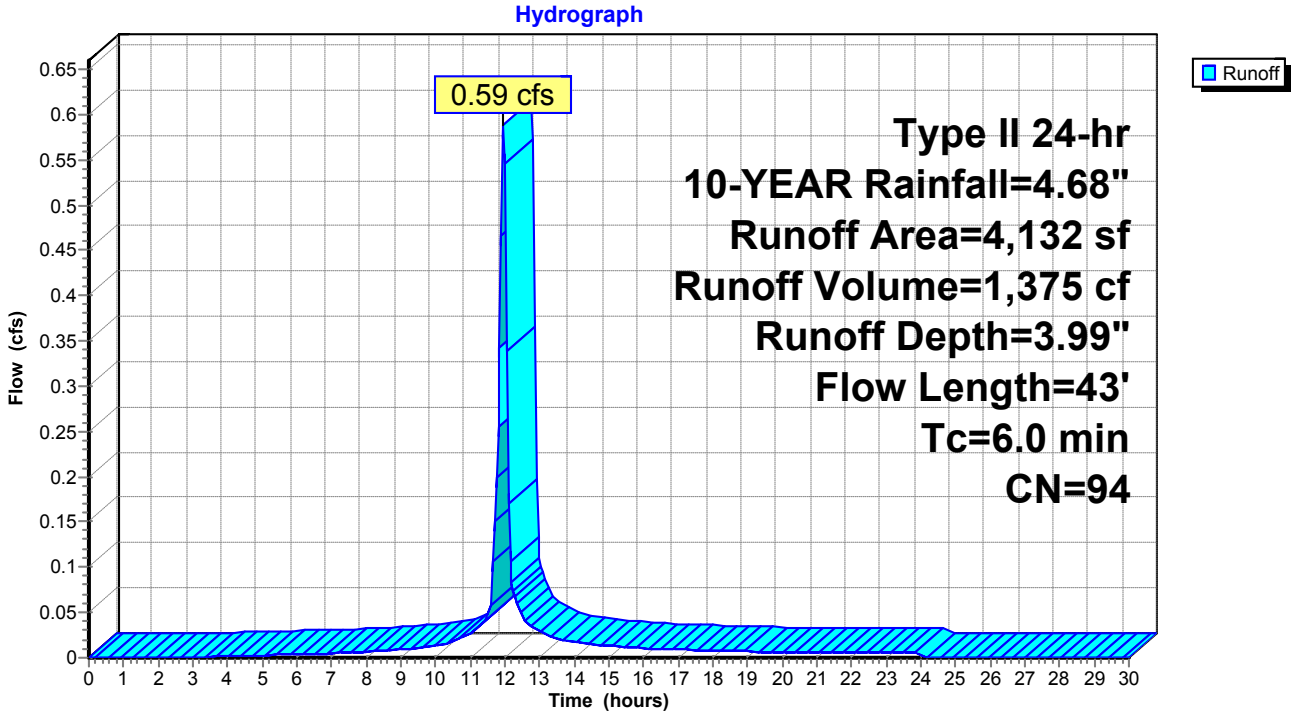
Runoff = 0.59 cfs @ 11.96 hrs, Volume= 1,375 cf, Depth= 3.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,273	84	50-75% Grass cover, Fair, HSG D
2,859	98	Paved parking, HSG D
4,132	94	Weighted Average
1,273		30.81% Pervious Area
2,859		69.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	31	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0250	3.21		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
4.2	43	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

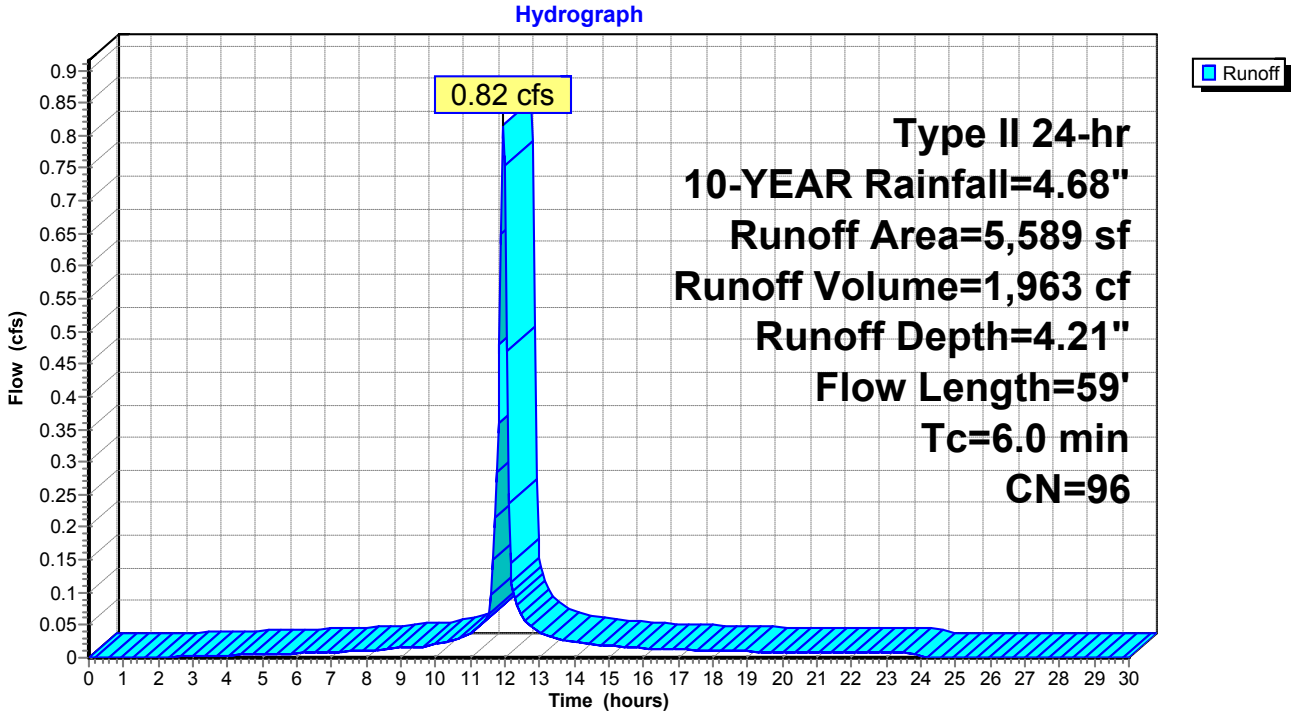
Runoff = 0.82 cfs @ 11.96 hrs, Volume= 1,963 cf, Depth= 4.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
750	84	50-75% Grass cover, Fair, HSG D
4,839	98	Paved parking, HSG D
5,589	96	Weighted Average
750		13.42% Pervious Area
4,839		86.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	30	0.0217	0.14		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	29	0.0169	2.64		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-4: DA-4



Summary for Subcatchment DA-5: DA-5

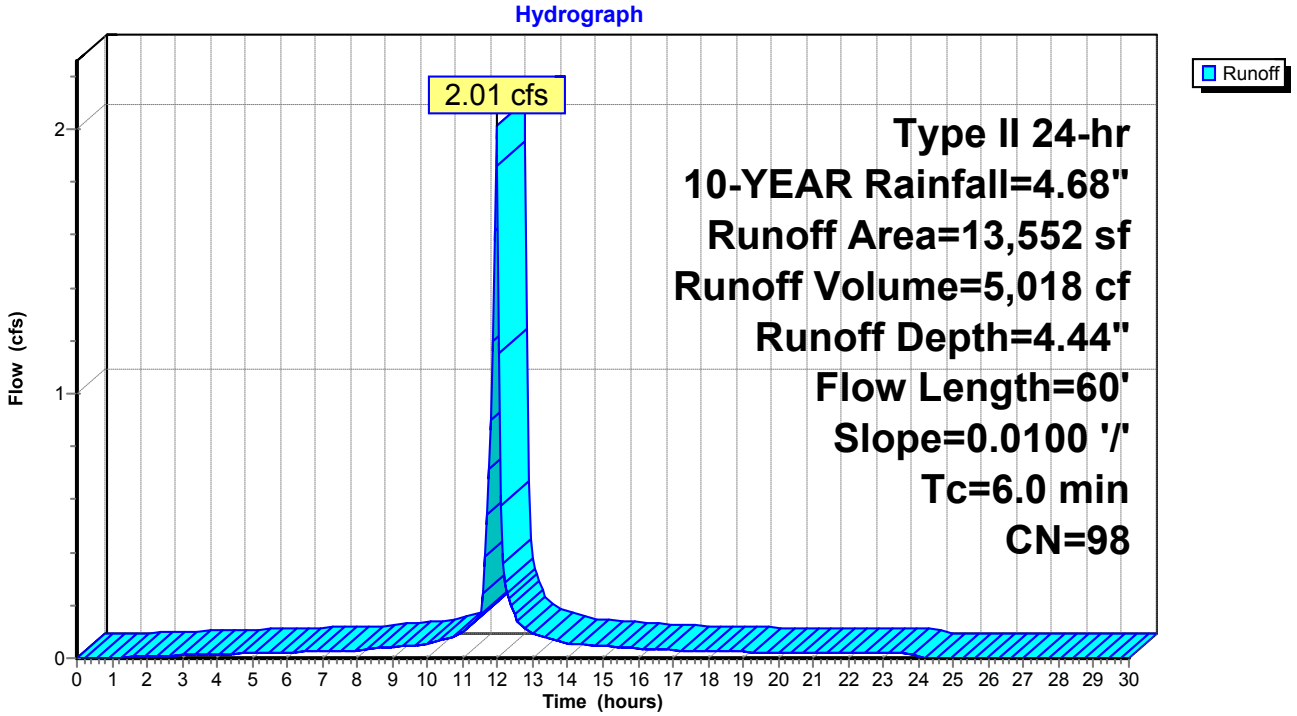
Runoff = 2.01 cfs @ 11.96 hrs, Volume= 5,018 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
13,552	98	Paved parking, HSG D
13,552		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	60	0.0100	0.94		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.1	60	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-5: DA-5



Summary for Subcatchment DA-6: DA-6

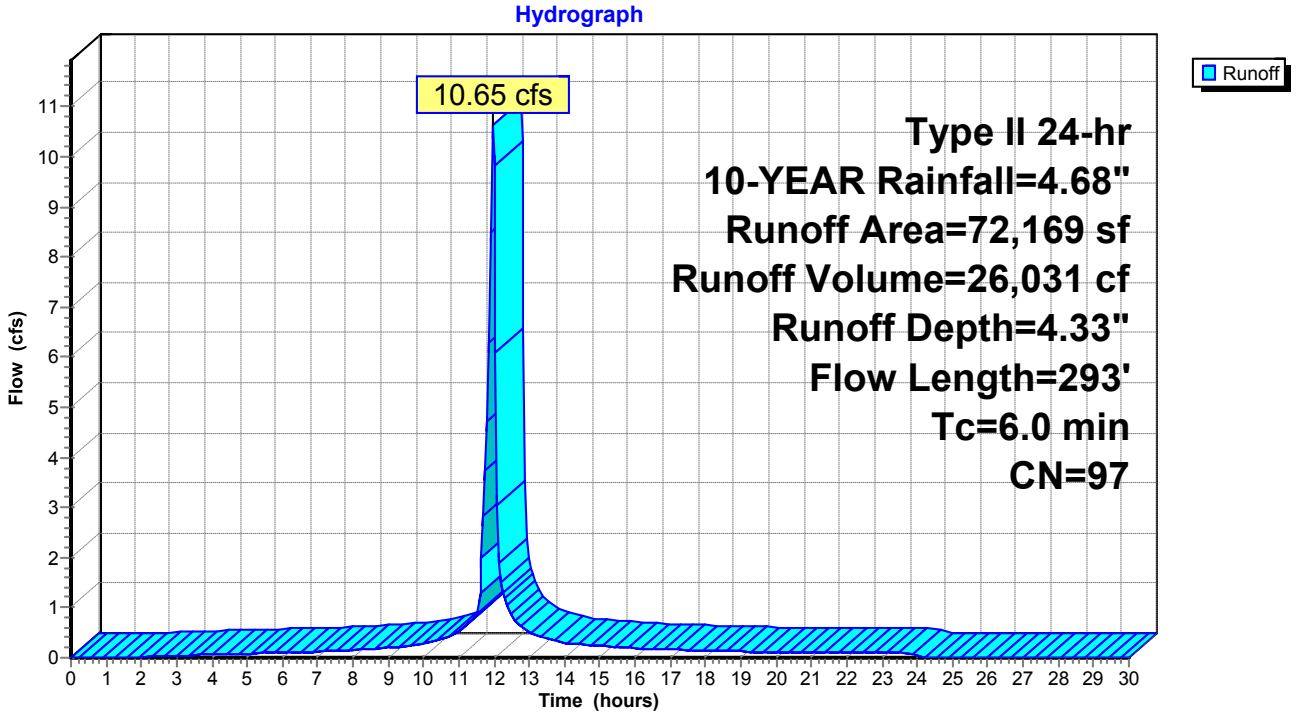
Runoff = 10.65 cfs @ 11.96 hrs, Volume= 26,031 cf, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
3,046	84	50-75% Grass cover, Fair, HSG D
69,123	98	Paved parking, HSG D
72,169	97	Weighted Average
3,046		4.22% Pervious Area
69,123		95.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0220	1.42		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.4	193	0.0126	2.28		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.6	293	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

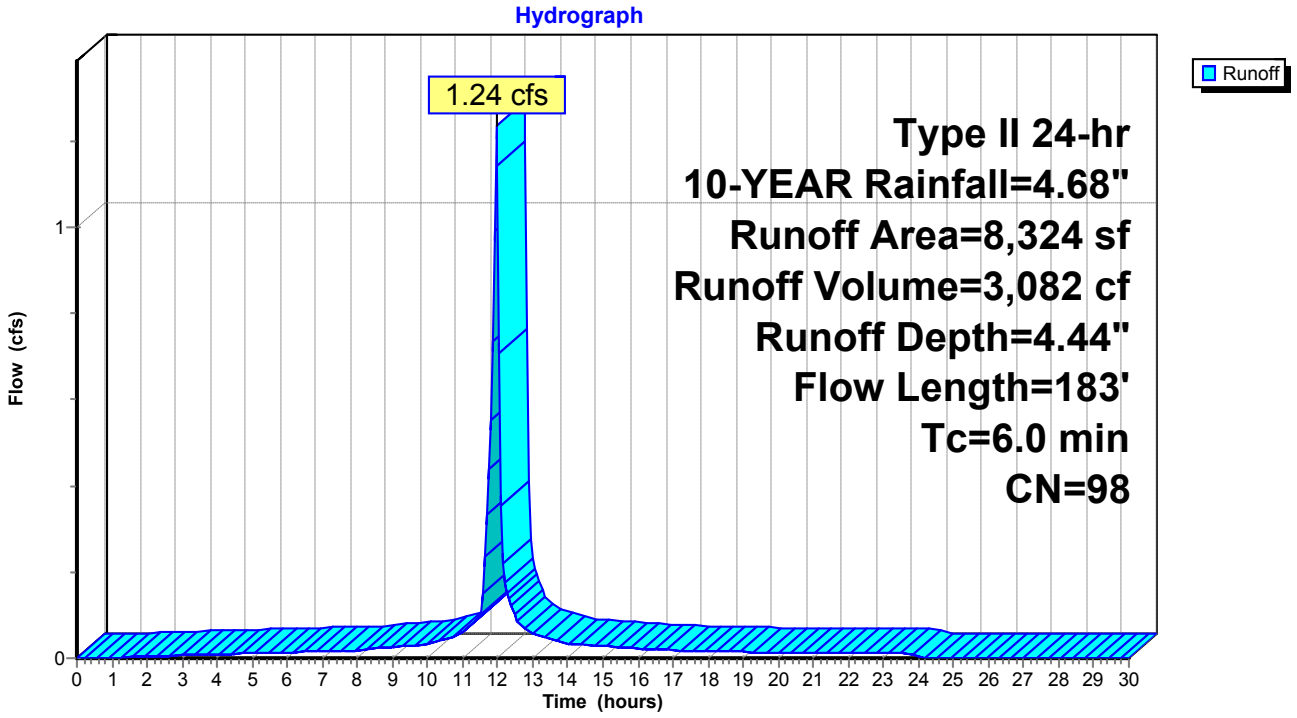
Runoff = 1.24 cfs @ 11.96 hrs, Volume= 3,082 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
8,324	98	Paved parking, HSG D
8,324		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	100	0.0301	1.61		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	83	0.0124	2.26		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
1.6	183	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

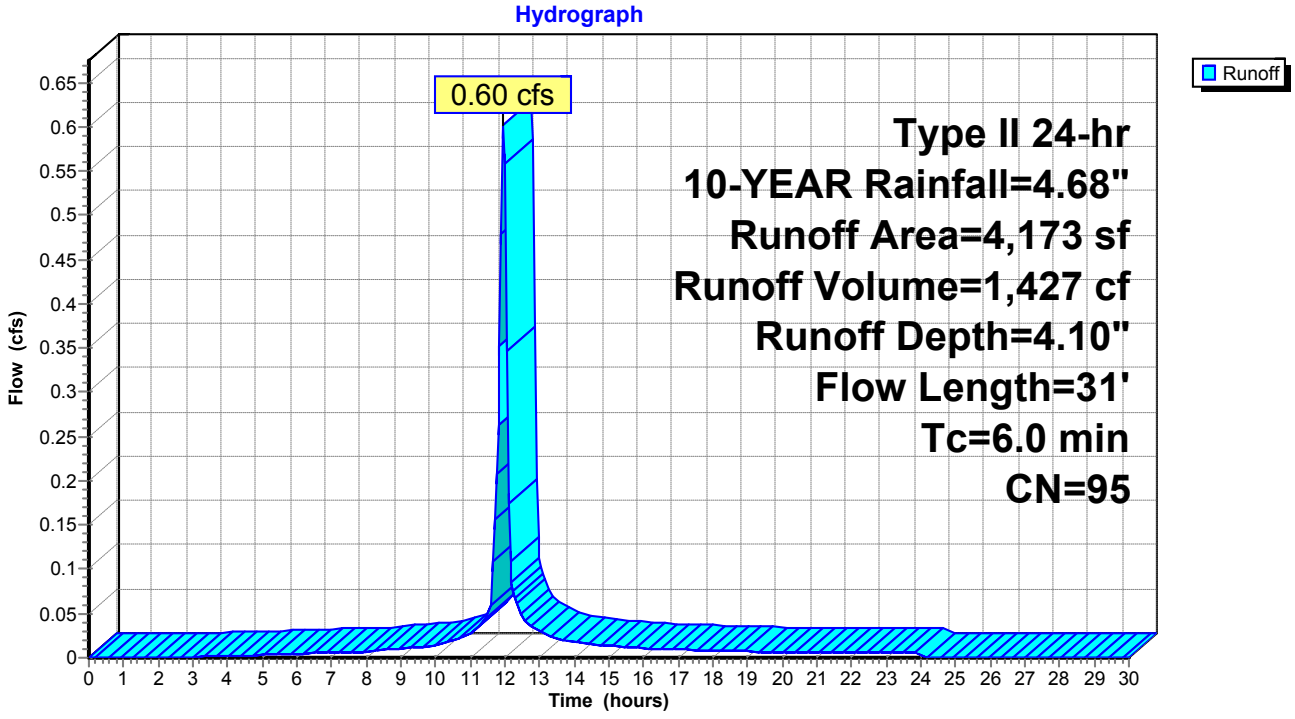
Runoff = 0.60 cfs @ 11.96 hrs, Volume= 1,427 cf, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
782	84	50-75% Grass cover, Fair, HSG D
3,391	98	Paved parking, HSG D
4,173	95	Weighted Average
782		18.74% Pervious Area
3,391		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	19	0.0150	0.11		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0208	2.93		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.0	31	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DA-9

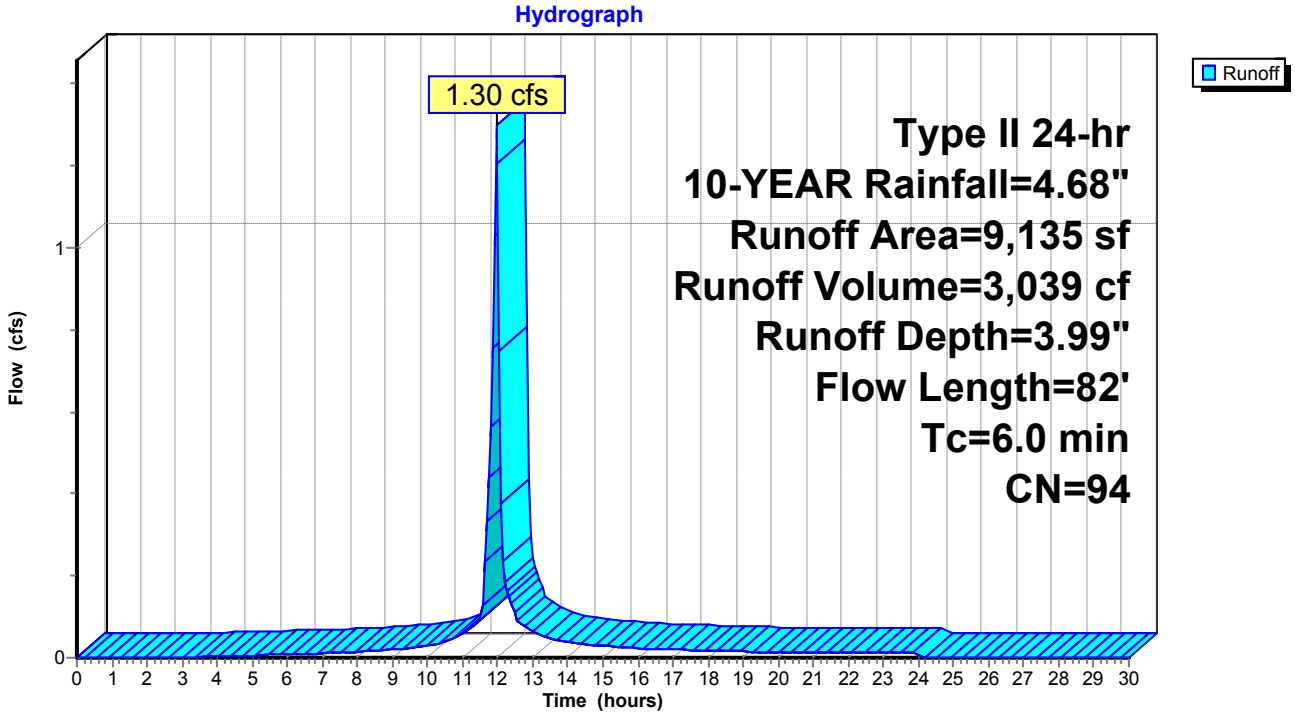
Runoff = 1.30 cfs @ 11.96 hrs, Volume= 3,039 cf, Depth= 3.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
2,765	84	50-75% Grass cover, Fair, HSG D
6,370	98	Paved parking, HSG D
9,135	94	Weighted Average
2,765		30.27% Pervious Area
6,370		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	42	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	40	0.0200	2.87		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
5.4	82	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-9: DA-9



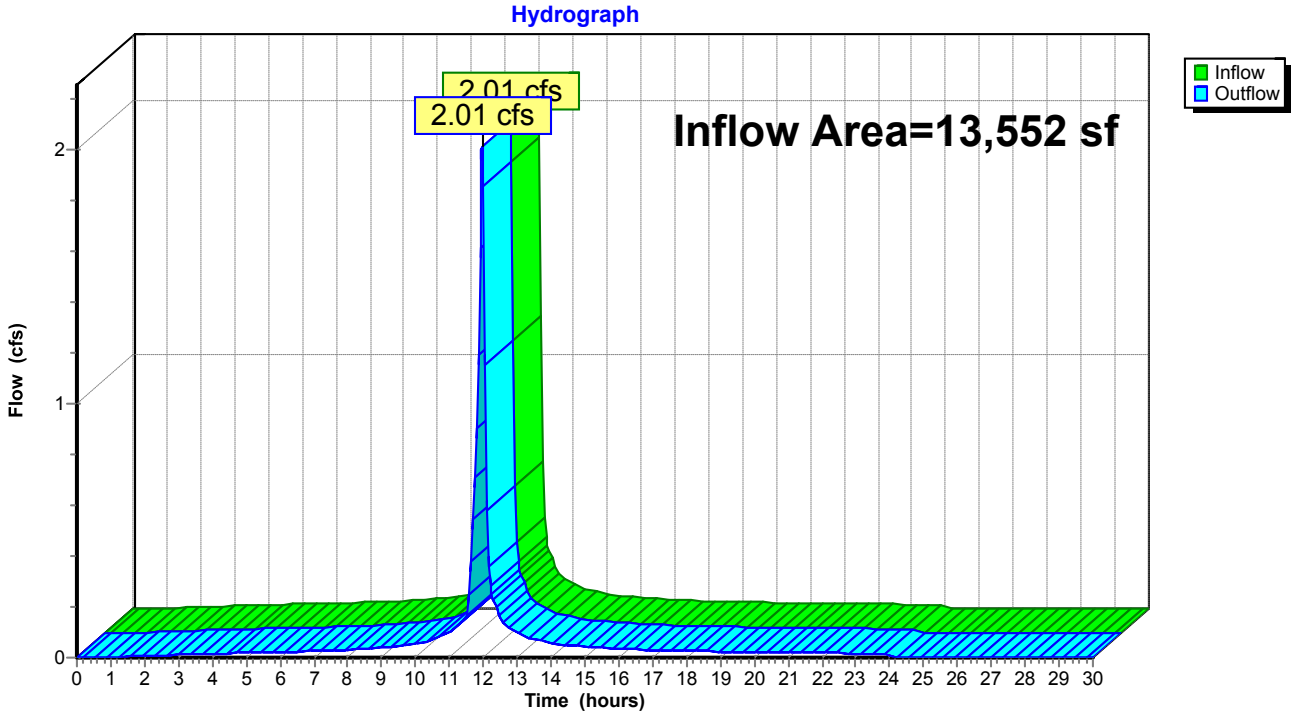
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 13,552 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 2.01 cfs @ 11.96 hrs, Volume= 5,018 cf
Outflow = 2.01 cfs @ 11.96 hrs, Volume= 5,018 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 1P: EXISTING YARD DRAIN

[57] Hint: Peaked at 218.02' (Flood elevation advised)

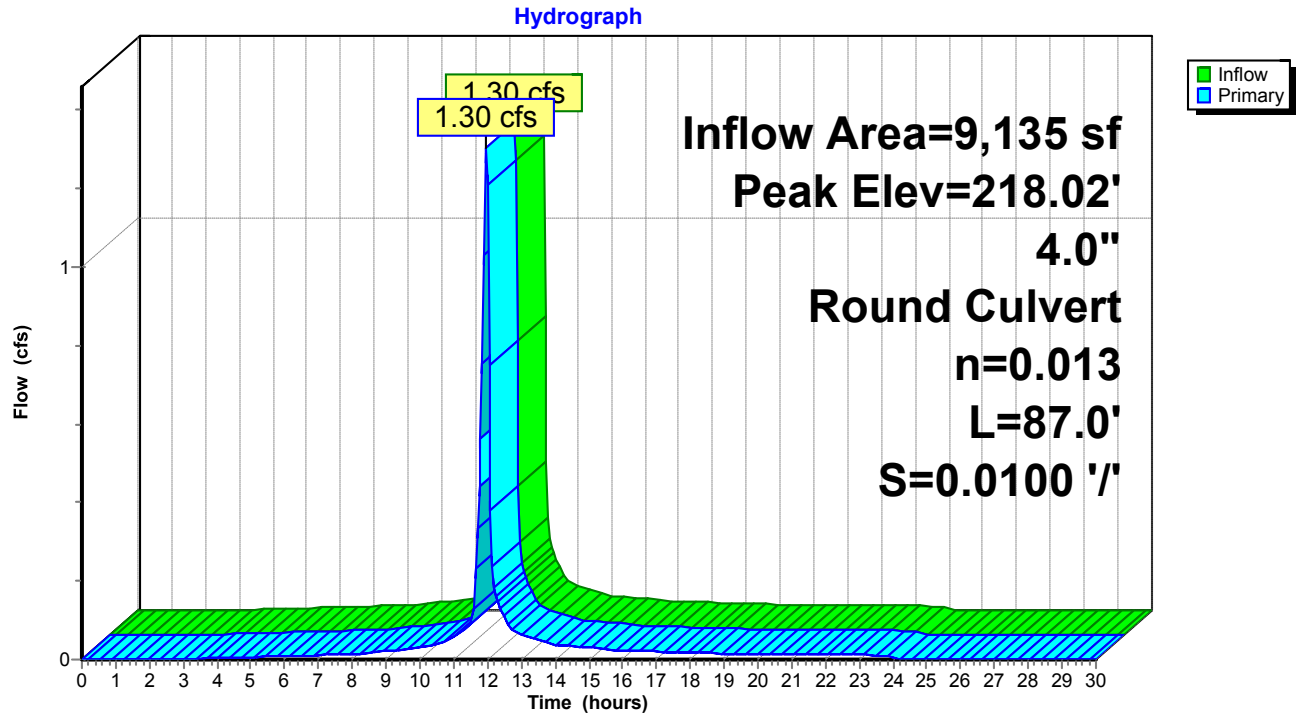
Inflow Area = 9,135 sf, 69.73% Impervious, Inflow Depth = 3.99" for 10-YEAR event
Inflow = 1.30 cfs @ 11.96 hrs, Volume= 3,039 cf
Outflow = 1.30 cfs @ 11.96 hrs, Volume= 3,039 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.30 cfs @ 11.96 hrs, Volume= 3,039 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 218.02' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=1.27 cfs @ 11.96 hrs HW=215.85' (Free Discharge)
1=Culvert (Barrel Controls 1.27 cfs @ 14.55 fps)

Pond 1P: EXISTING YARD DRAIN



Summary for Pond 2P: EXISTING CATCH BASIN

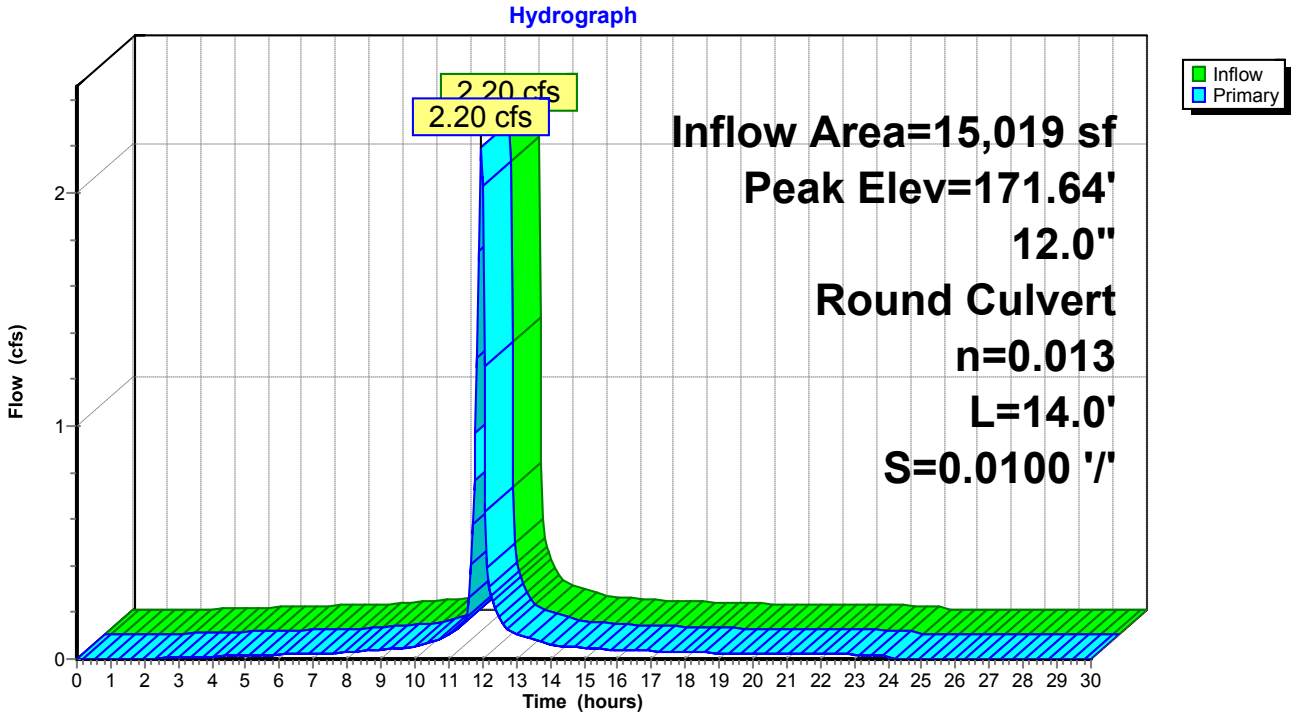
Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 4.21" for 10-YEAR event
Inflow = 2.20 cfs @ 11.96 hrs, Volume= 5,275 cf
Outflow = 2.20 cfs @ 11.96 hrs, Volume= 5,275 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.20 cfs @ 11.96 hrs, Volume= 5,275 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.64' @ 11.96 hrs
Flood Elev= 172.99'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.60'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.60' / 170.46' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.15 cfs @ 11.96 hrs HW=171.62' (Free Discharge)
1=Culvert (Inlet Controls 2.15 cfs @ 2.73 fps)

Pond 2P: EXISTING CATCH BASIN



Summary for Pond 3P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.74' (Flood elevation advised)

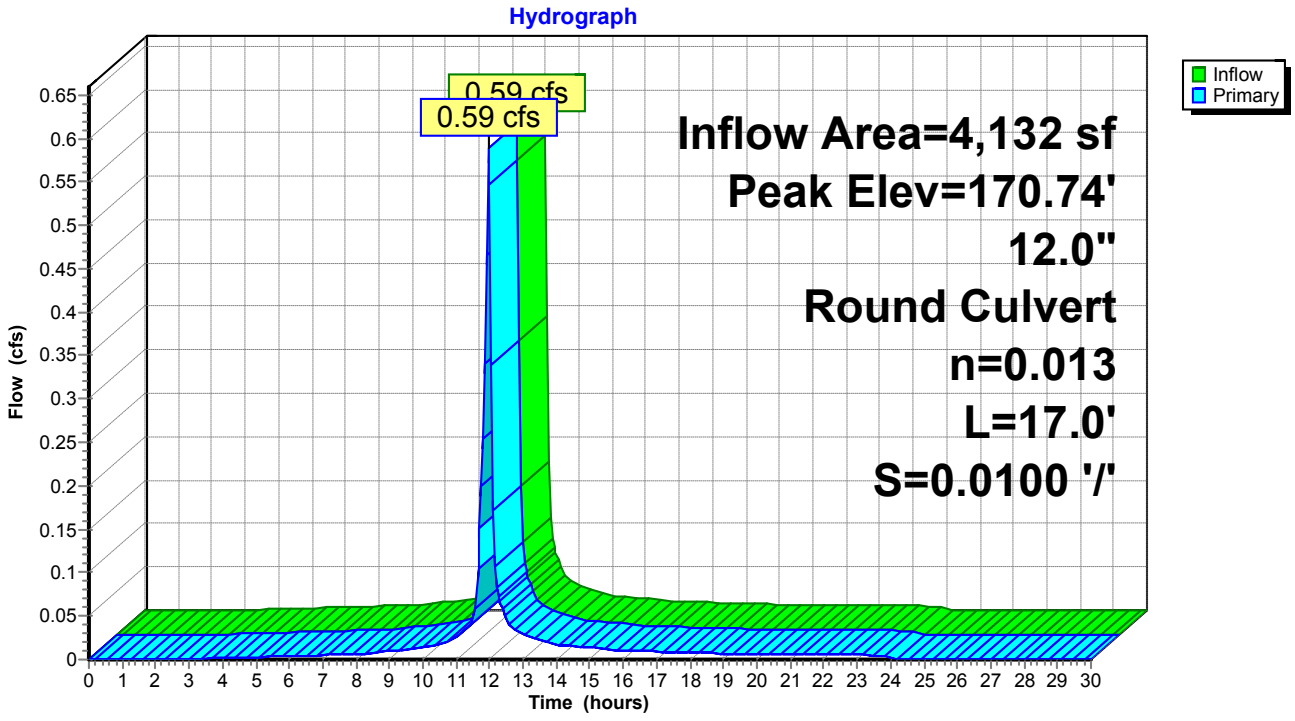
Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 3.99" for 10-YEAR event
Inflow = 0.59 cfs @ 11.96 hrs, Volume= 1,375 cf
Outflow = 0.59 cfs @ 11.96 hrs, Volume= 1,375 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.59 cfs @ 11.96 hrs, Volume= 1,375 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.74' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.13' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.57 cfs @ 11.96 hrs HW=170.74' (Free Discharge)
1=Culvert (Barrel Controls 0.57 cfs @ 2.58 fps)

Pond 3P: EXISTING CATCH BASIN



Summary for Pond 4P: EXISTING CATCH BASIN

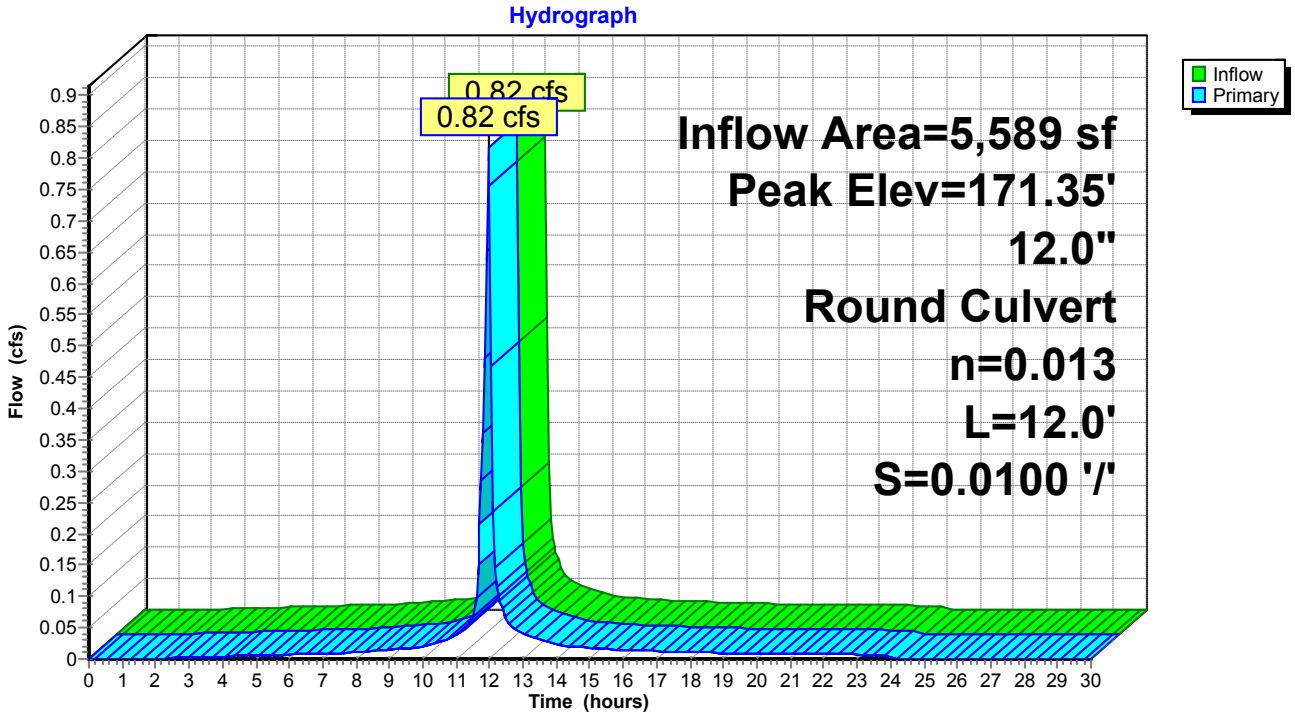
Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 4.21" for 10-YEAR event
Inflow = 0.82 cfs @ 11.96 hrs, Volume= 1,963 cf
Outflow = 0.82 cfs @ 11.96 hrs, Volume= 1,963 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.82 cfs @ 11.96 hrs, Volume= 1,963 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.35' @ 11.96 hrs
Flood Elev= 172.73'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.80'	**12.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.80' / 170.68' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.80 cfs @ 11.96 hrs HW=171.34' (Free Discharge)
1=Culvert (Barrel Controls 0.80 cfs @ 2.65 fps)

Pond 4P: EXISTING CATCH BASIN



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 2P by 2.62' @ 12.15 hrs

Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 4.21" for 10-YEAR event
Inflow = 2.20 cfs @ 11.96 hrs, Volume= 5,275 cf
Outflow = 1.25 cfs @ 12.05 hrs, Volume= 5,275 cf, Atten= 43%, Lag= 5.6 min
Discarded = 1.25 cfs @ 12.05 hrs, Volume= 5,275 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.65' @ 12.05 hrs Surf.Area= 2,461 sf Storage= 1,039 cf

Plug-Flow detention time= 40.7 min calculated for 5,275 cf (100% of inflow)
Center-of-Mass det. time= 40.7 min (801.0 - 760.3)

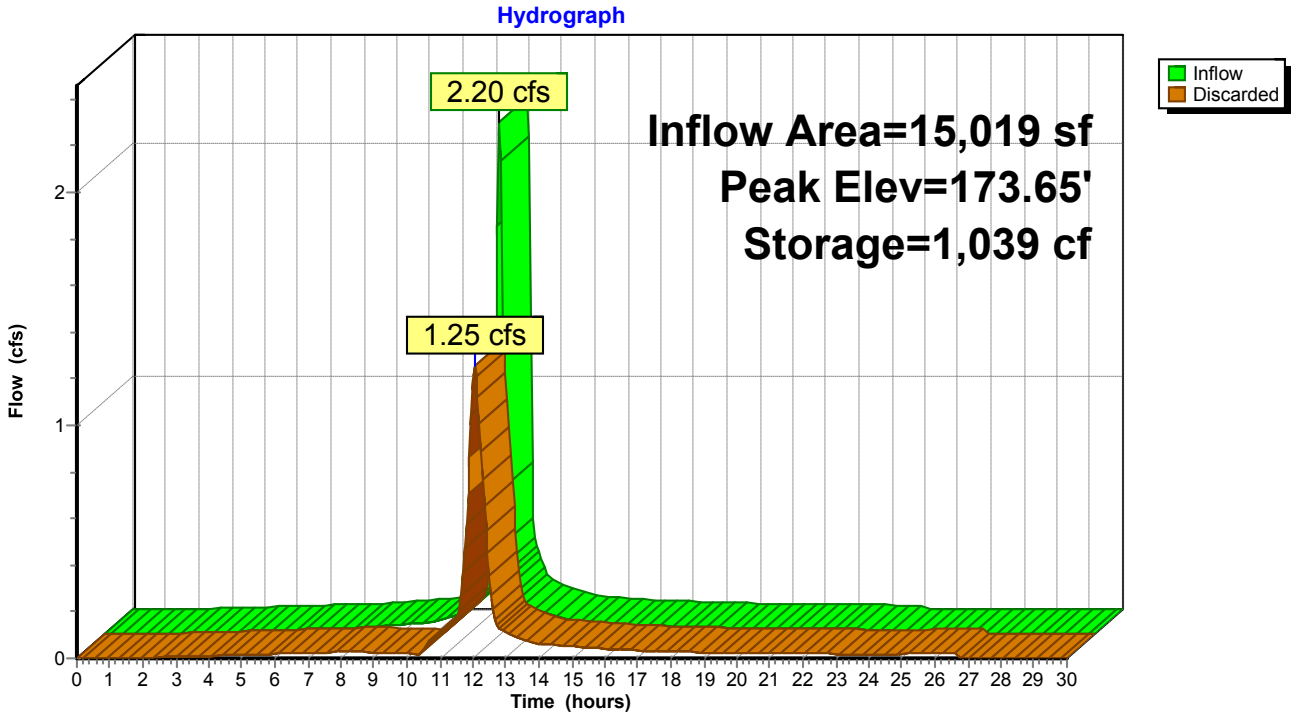
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,139 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	112	7	208
174.00	3,750	1,931	2,139

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.25 cfs @ 12.05 hrs HW=173.64' (Free Discharge)
1=Exfiltration (Exfiltration Controls 1.25 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 6P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.73' (Flood elevation advised)

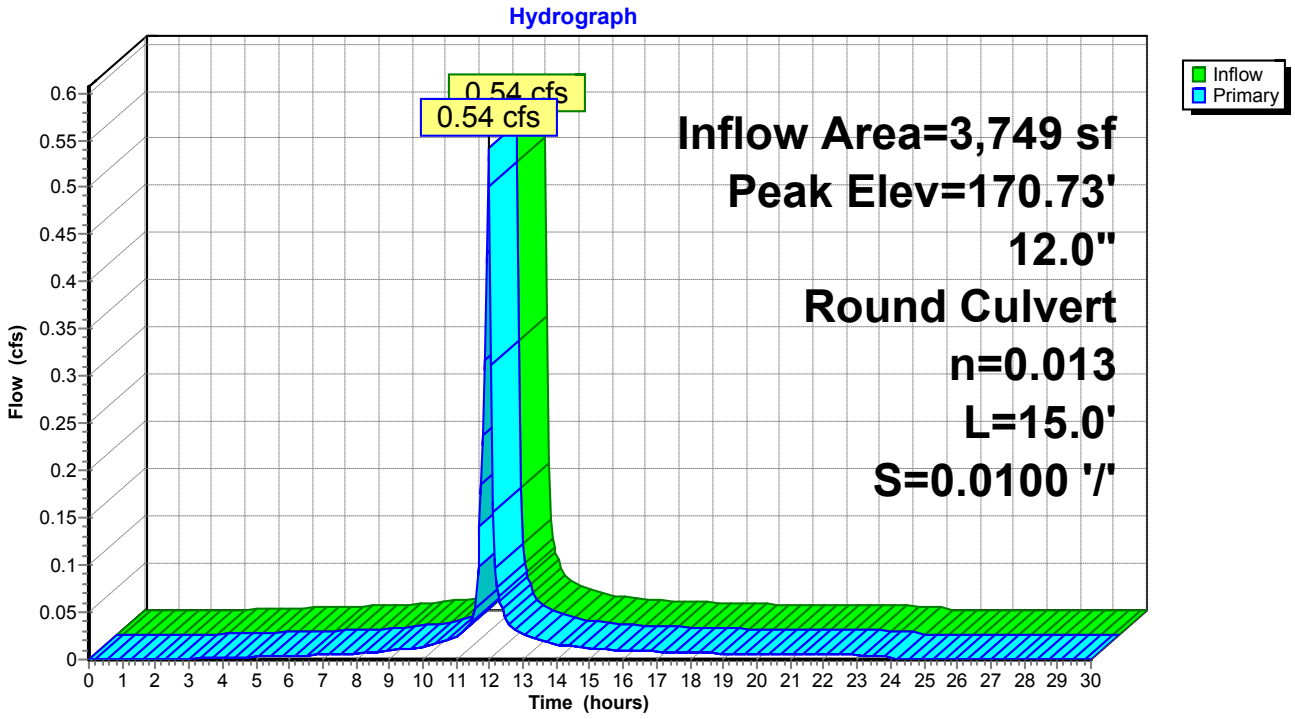
Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 4.10" for 10-YEAR event
Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,282 cf
Outflow = 0.54 cfs @ 11.96 hrs, Volume= 1,282 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.54 cfs @ 11.96 hrs, Volume= 1,282 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.73' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.15' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.53 cfs @ 11.96 hrs HW=170.72' (Free Discharge)
1=Culvert (Barrel Controls 0.53 cfs @ 2.49 fps)

Pond 6P: EXISTING CATCH BASIN



Summary for Pond 7P: EXISTING CATCH BASIN

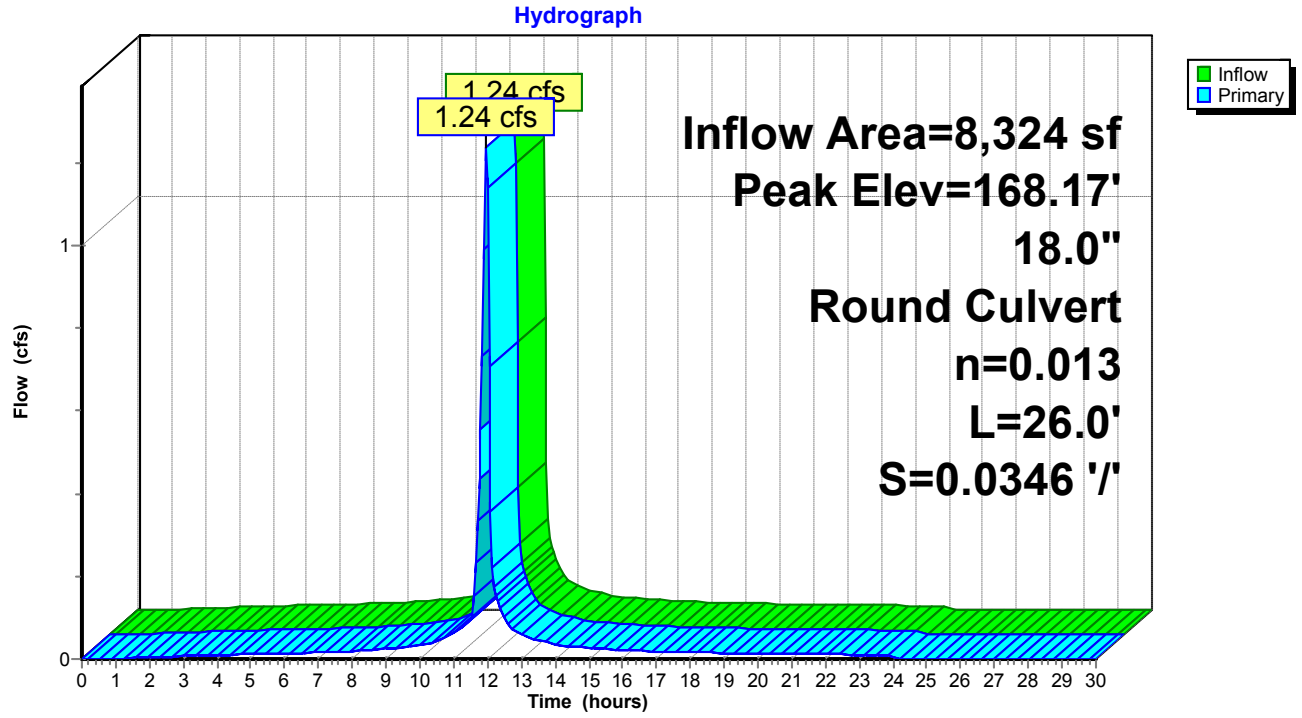
Inflow Area = 8,324 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 1.24 cfs @ 11.96 hrs, Volume= 3,082 cf
Outflow = 1.24 cfs @ 11.96 hrs, Volume= 3,082 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.24 cfs @ 11.96 hrs, Volume= 3,082 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.17' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=1.21 cfs @ 11.96 hrs HW=168.16' (Free Discharge)
1=Culvert (Inlet Controls 1.21 cfs @ 2.01 fps)

Pond 7P: EXISTING CATCH BASIN



Summary for Pond 8P: EXISTING CATCH BASIN

[58] Hint: Peaked 14.23' above defined flood level

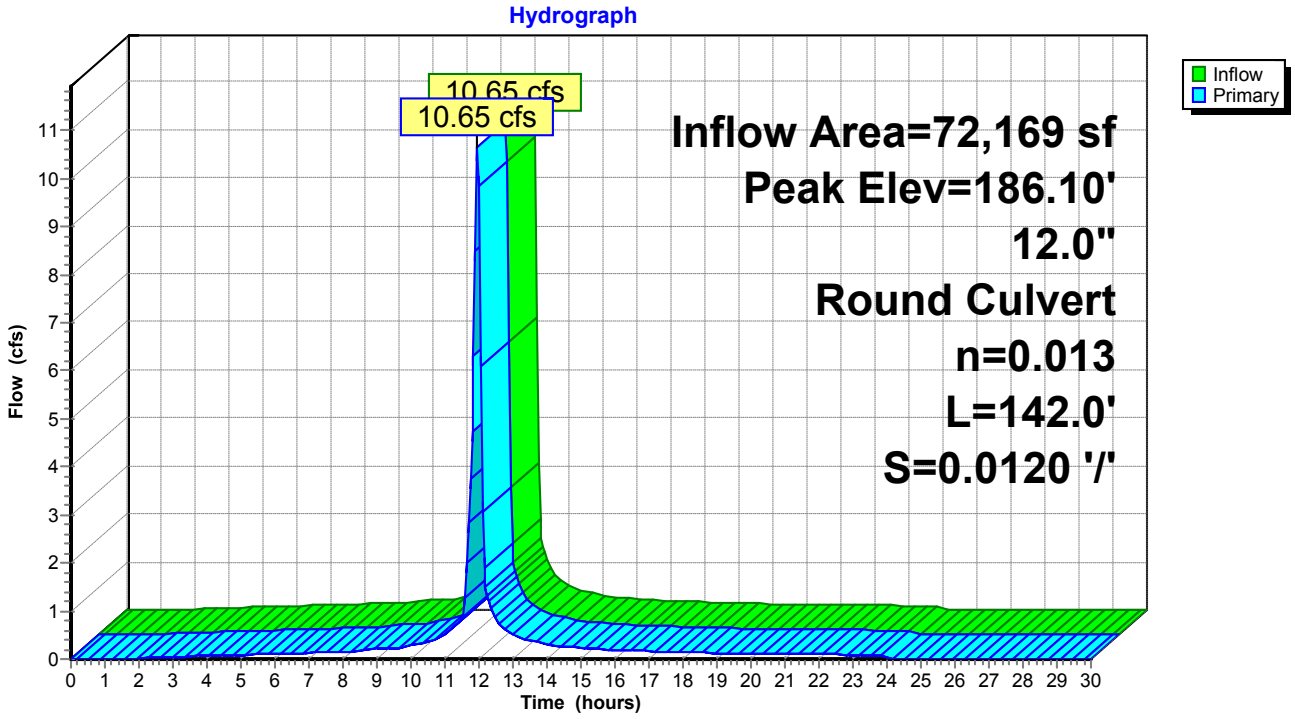
Inflow Area = 72,169 sf, 95.78% Impervious, Inflow Depth = 4.33" for 10-YEAR event
Inflow = 10.65 cfs @ 11.96 hrs, Volume= 26,031 cf
Outflow = 10.65 cfs @ 11.96 hrs, Volume= 26,031 cf, Atten= 0%, Lag= 0.0 min
Primary = 10.65 cfs @ 11.96 hrs, Volume= 26,031 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 186.10' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=10.40 cfs @ 11.96 hrs HW=185.31' (Free Discharge)
1=Culvert (Barrel Controls 10.40 cfs @ 13.24 fps)

Pond 8P: EXISTING CATCH BASIN



Summary for Pond 9P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 6P by 3.37' @ 24.40 hrs

Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 4.10" for 10-YEAR event
Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,282 cf
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min

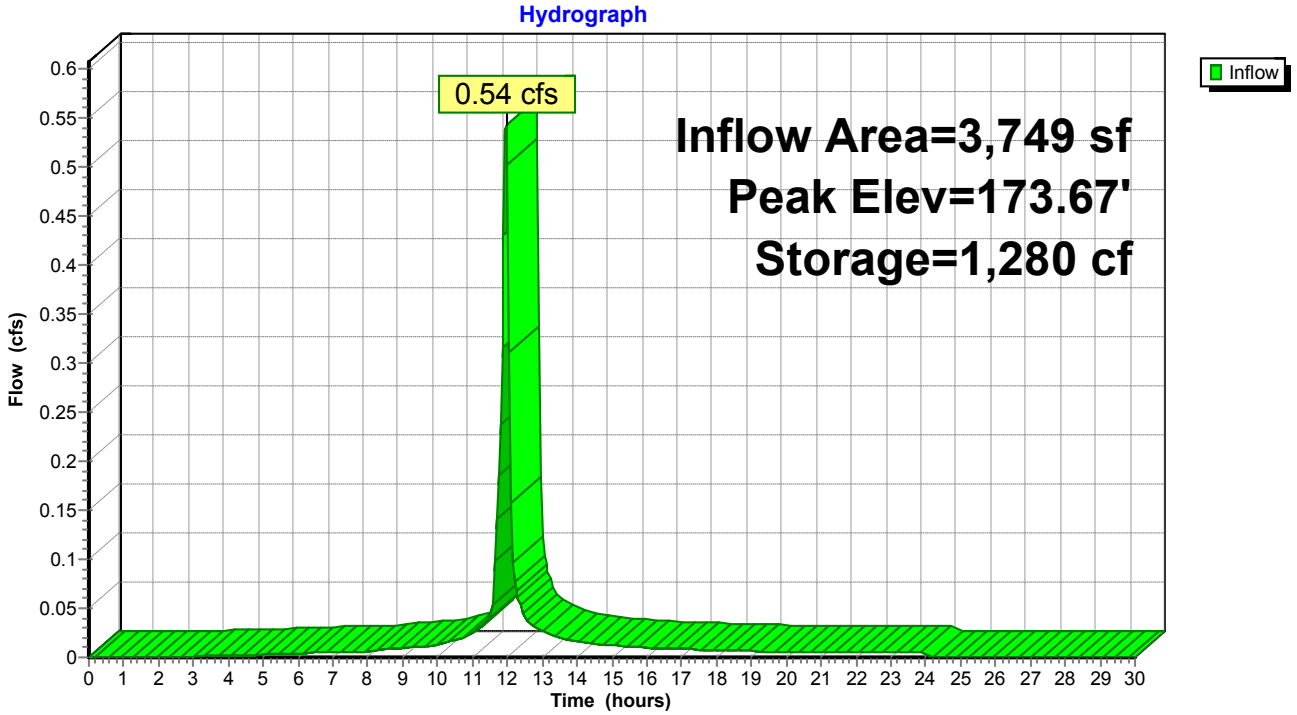
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.67' @ 24.40 hrs Surf.Area= 2,796 sf Storage= 1,280 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,410 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	377	20	221
174.00	4,000	2,189	2,410

Pond 9P: EXISTING DRYWELL



Summary for Pond 10P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 3P by 2.54' @ 14.55 hrs

Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 3.99" for 10-YEAR event
Inflow = 0.59 cfs @ 11.96 hrs, Volume= 1,375 cf
Outflow = 0.46 cfs @ 12.02 hrs, Volume= 1,375 cf, Atten= 22%, Lag= 3.6 min
Discarded = 0.46 cfs @ 12.02 hrs, Volume= 1,375 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.05' @ 12.02 hrs Surf.Area= 897 sf Storage= 282 cf

Plug-Flow detention time= 58.5 min calculated for 1,372 cf (100% of inflow)
Center-of-Mass det. time= 58.4 min (830.3 - 771.9)

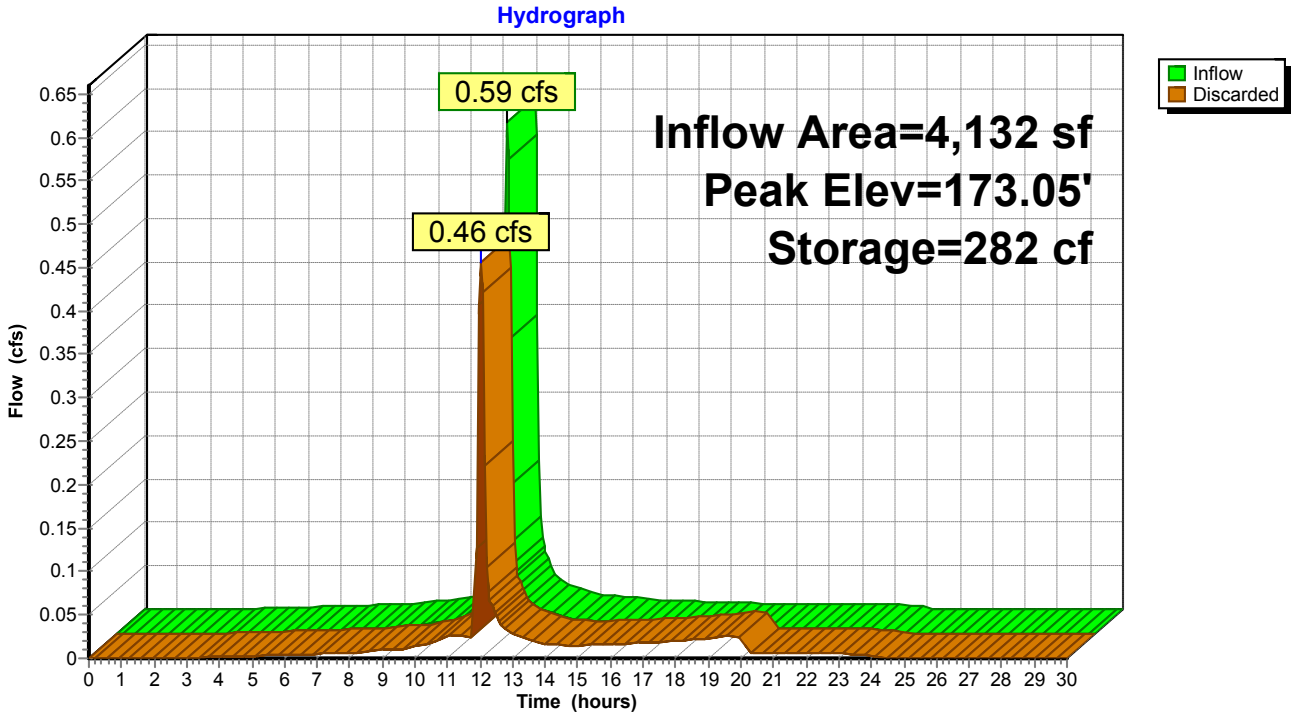
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,486 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	743	39	239
174.00	3,750	2,247	2,486

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.45 cfs @ 12.02 hrs HW=173.05' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.45 cfs)

Pond 10P: EXISTING DRYWELL



Summary for Pond 12P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 4P by 2.08' @ 12.15 hrs

Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 4.21" for 10-YEAR event
Inflow = 0.82 cfs @ 11.96 hrs, Volume= 1,963 cf
Outflow = 0.58 cfs @ 12.03 hrs, Volume= 1,963 cf, Atten= 29%, Lag= 4.3 min
Discarded = 0.58 cfs @ 12.03 hrs, Volume= 1,963 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.18' @ 12.03 hrs Surf.Area= 1,136 sf Storage= 390 cf

Plug-Flow detention time= 54.8 min calculated for 1,960 cf (100% of inflow)
Center-of-Mass det. time= 54.7 min (815.0 - 760.3)

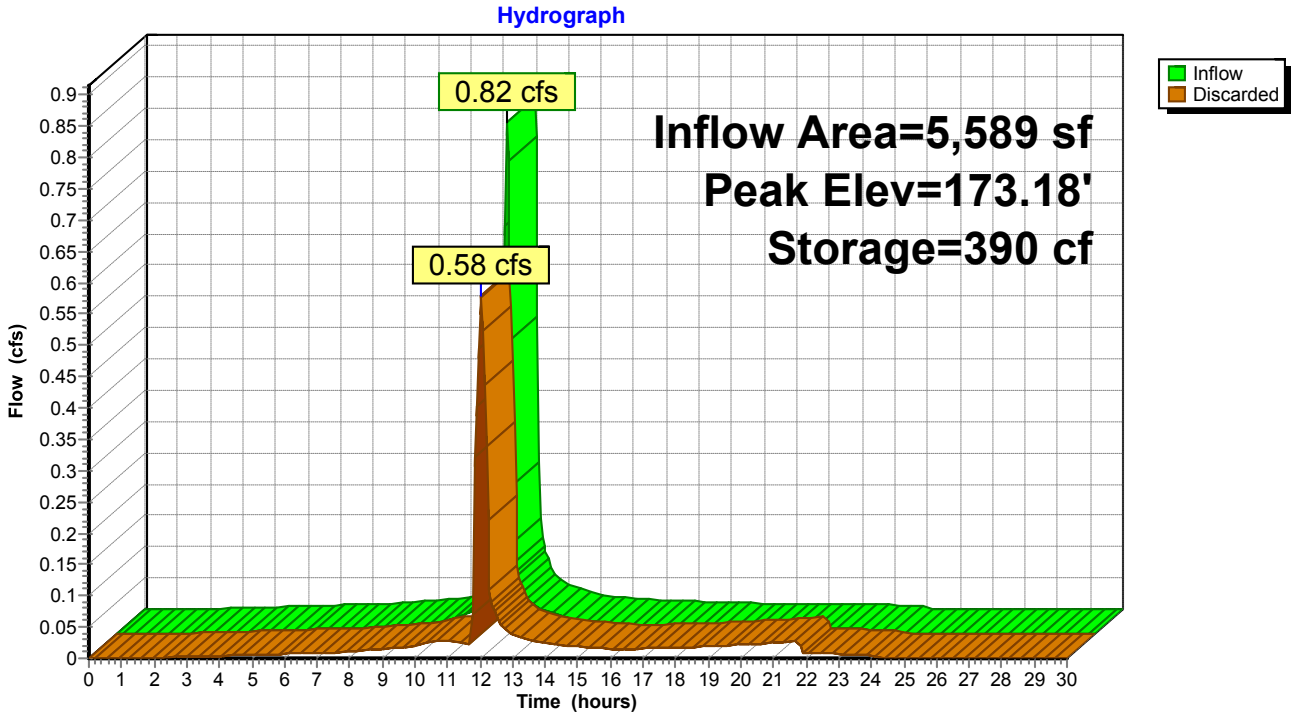
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,373 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	575	30	236
174.00	3,700	2,138	2,373

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.57 cfs @ 12.03 hrs HW=173.18' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.57 cfs)

Pond 12P: EXISTING DRYWELL



Summary for Pond 13P: EXISTING DRYWELL

Inflow Area = 4,173 sf, 81.26% Impervious, Inflow Depth = 4.10" for 10-YEAR event
Inflow = 0.60 cfs @ 11.96 hrs, Volume= 1,427 cf
Outflow = 0.41 cfs @ 12.04 hrs, Volume= 1,427 cf, Atten= 31%, Lag= 4.5 min
Discarded = 0.41 cfs @ 12.04 hrs, Volume= 1,427 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.79' @ 12.04 hrs Surf.Area= 812 sf Storage= 333 cf

Plug-Flow detention time= 60.4 min calculated for 1,424 cf (100% of inflow)
Center-of-Mass det. time= 60.3 min (826.7 - 766.4)

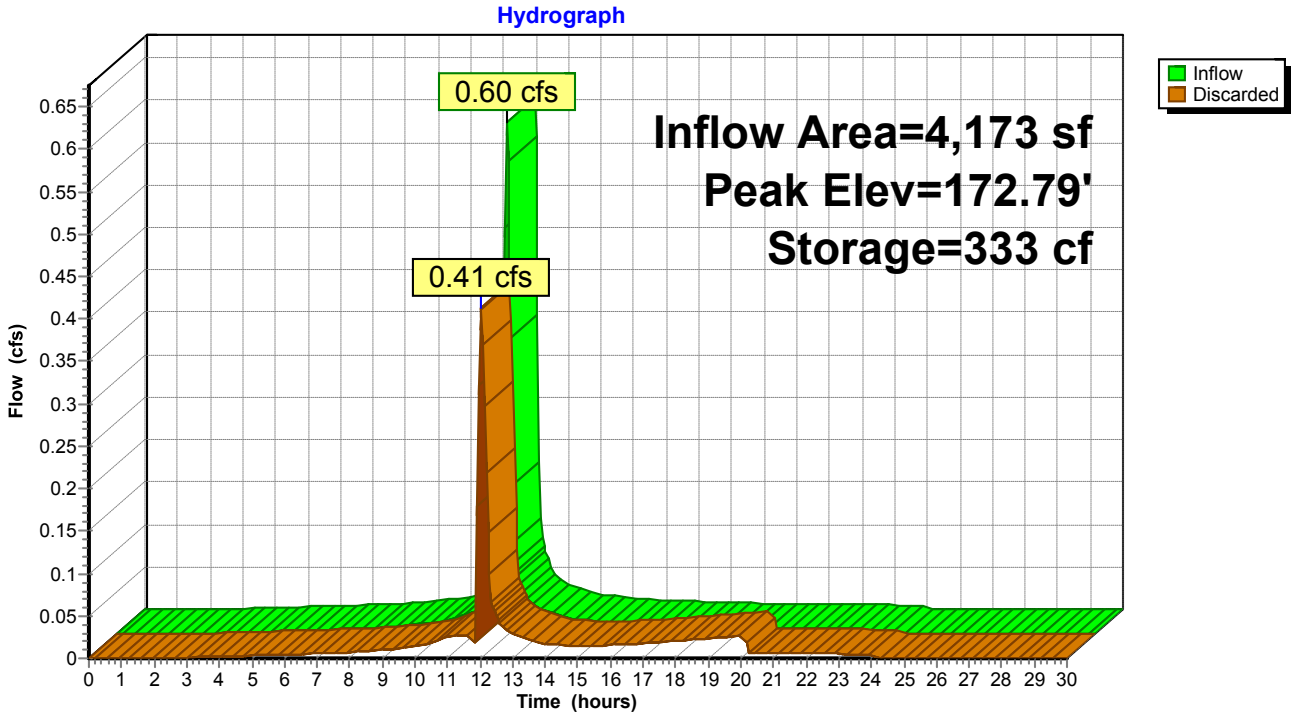
Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	559 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	1,366	349	559

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.41 cfs @ 12.04 hrs HW=172.79' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.41 cfs)

Pond 13P: EXISTING DRYWELL



Summary for Pond DP-1: EXISTING CATCH BASIN

[79] Warning: Submerged Pond 1P Primary device # 1 INLET by 0.21'
[81] Warning: Exceeded Pond 7P by 3.35' @ 11.95 hrs
[79] Warning: Submerged Pond 8P Primary device # 1 INLET by 2.81'

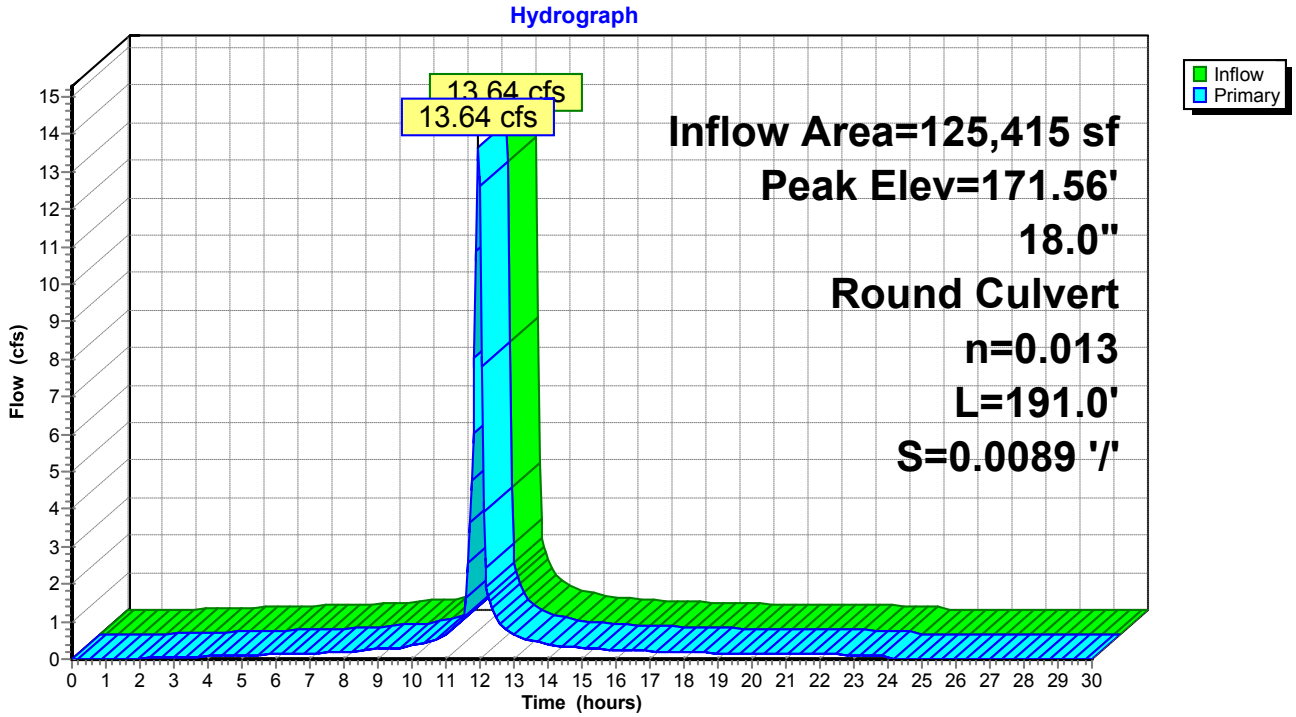
Inflow Area = 125,415 sf, 90.33% Impervious, Inflow Depth = 3.18" for 10-YEAR event
Inflow = 13.64 cfs @ 11.96 hrs, Volume= 33,250 cf
Outflow = 13.64 cfs @ 11.96 hrs, Volume= 33,250 cf, Atten= 0%, Lag= 0.0 min
Primary = 13.64 cfs @ 11.96 hrs, Volume= 33,250 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.56' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=13.32 cfs @ 11.96 hrs HW=171.38' (Free Discharge)
↳**1=Culvert** (Inlet Controls 13.32 cfs @ 7.54 fps)

Pond DP-1: EXISTING CATCH BASIN



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 6S: DA-10 Runoff Area=3,125 sf 87.10% Impervious Runoff Depth=7.74"
Flow Length=48' Slope=0.0235 '/' Tc=6.0 min CN=96 Runoff=0.81 cfs 2,016 cf

Subcatchment DA-1: DA-1 Runoff Area=15,019 sf 84.37% Impervious Runoff Depth=7.74"
Flow Length=59' Tc=6.0 min CN=96 Runoff=3.91 cfs 9,688 cf

Subcatchment DA-2: DA-2 Runoff Area=3,749 sf 79.83% Impervious Runoff Depth=7.62"
Flow Length=61' Tc=6.0 min CN=95 Runoff=0.97 cfs 2,381 cf

Subcatchment DA-3: DA-3 Runoff Area=4,132 sf 69.19% Impervious Runoff Depth=7.50"
Flow Length=43' Tc=6.0 min CN=94 Runoff=1.07 cfs 2,583 cf

Subcatchment DA-4: DA-4 Runoff Area=5,589 sf 86.58% Impervious Runoff Depth=7.74"
Flow Length=59' Tc=6.0 min CN=96 Runoff=1.46 cfs 3,605 cf

Subcatchment DA-5: DA-5 Runoff Area=13,552 sf 100.00% Impervious Runoff Depth=7.98"
Flow Length=60' Slope=0.0100 '/' Tc=6.0 min CN=98 Runoff=3.55 cfs 9,012 cf

Subcatchment DA-6: DA-6 Runoff Area=72,169 sf 95.78% Impervious Runoff Depth=7.86"
Flow Length=293' Tc=6.0 min CN=97 Runoff=18.87 cfs 47,272 cf

Subcatchment DA-7: DA-7 Runoff Area=8,324 sf 100.00% Impervious Runoff Depth=7.98"
Flow Length=183' Tc=6.0 min CN=98 Runoff=2.18 cfs 5,536 cf

Subcatchment DA-8: DA-8 Runoff Area=4,173 sf 81.26% Impervious Runoff Depth=7.62"
Flow Length=31' Tc=6.0 min CN=95 Runoff=1.08 cfs 2,650 cf

Subcatchment DA-9: DA-9 Runoff Area=9,135 sf 69.73% Impervious Runoff Depth=7.50"
Flow Length=82' Tc=6.0 min CN=94 Runoff=2.36 cfs 5,710 cf

Reach DP-2: STREET Inflow=3.55 cfs 9,012 cf
Outflow=3.55 cfs 9,012 cf

Pond 1P: EXISTING YARD DRAIN Peak Elev=325.64' Inflow=2.36 cfs 5,710 cf
4.0" Round Culvert n=0.013 L=87.0' S=0.0100 '/' Outflow=2.36 cfs 5,710 cf

Pond 2P: EXISTING CATCH BASIN Peak Elev=172.81' Inflow=3.91 cfs 9,688 cf
12.0" Round Culvert n=0.013 L=14.0' S=0.0100 '/' Outflow=3.91 cfs 9,688 cf

Pond 3P: EXISTING CATCH BASIN Peak Elev=170.93' Inflow=1.07 cfs 2,583 cf
12.0" Round Culvert n=0.013 L=17.0' S=0.0100 '/' Outflow=1.07 cfs 2,583 cf

Pond 4P: EXISTING CATCH BASIN Peak Elev=171.59' Inflow=1.46 cfs 3,605 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0100 '/' Outflow=1.46 cfs 3,605 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.98' Storage=2,058 cf Inflow=3.91 cfs 9,688 cf
Outflow=1.87 cfs 9,688 cf

Pond 6P: EXISTING CATCH BASIN Peak Elev=170.90' Inflow=0.97 cfs 2,381 cf
12.0" Round Culvert n=0.013 L=15.0' S=0.0100 '/' Outflow=0.97 cfs 2,381 cf

Pond 7P: EXISTING CATCH BASIN Peak Elev=168.38' Inflow=2.18 cfs 5,536 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=2.18 cfs 5,536 cf

Pond 8P: EXISTING CATCH BASIN Peak Elev=224.82' Inflow=18.87 cfs 47,272 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=18.87 cfs 47,272 cf

Pond 9P: EXISTING DRYWELL Peak Elev=173.99' Storage=2,380 cf Inflow=0.97 cfs 2,381 cf
Outflow=0.00 cfs 0 cf

Pond 10P: EXISTING DRYWELL Peak Elev=173.22' Storage=472 cf Inflow=1.07 cfs 2,583 cf
Outflow=0.71 cfs 2,583 cf

Pond 12P: EXISTING DRYWELL Peak Elev=173.38' Storage=679 cf Inflow=1.46 cfs 3,605 cf
Outflow=0.90 cfs 3,605 cf

Pond 13P: EXISTING DRYWELL Peak Elev=173.00' Storage=552 cf Inflow=1.08 cfs 2,650 cf
Outflow=0.69 cfs 2,650 cf

Pond DP-1: EXISTING CATCH BASIN Peak Elev=182.19' Inflow=24.22 cfs 60,533 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=24.22 cfs 60,533 cf

Total Runoff Area = 138,967 sf Runoff Volume = 90,451 cf Average Runoff Depth = 7.81"
8.72% Pervious = 12,123 sf 91.28% Impervious = 126,844 sf

Summary for Subcatchment 6S: DA-10

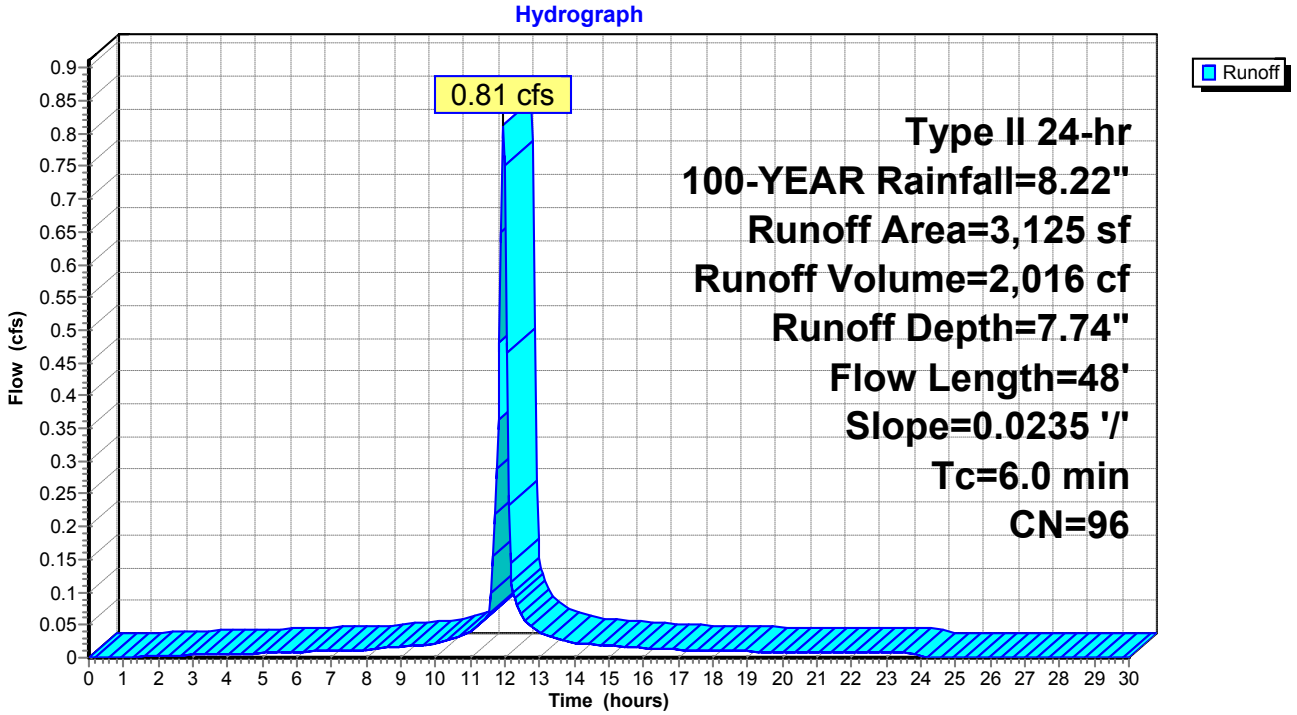
Runoff = 0.81 cfs @ 11.96 hrs, Volume= 2,016 cf, Depth= 7.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
403	84	50-75% Grass cover, Fair, HSG D
2,722	98	Paved parking, HSG D
3,125	96	Weighted Average
403		12.90% Pervious Area
2,722		87.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.6	48	0.0235	1.26		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	48	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 6S: DA-10



Summary for Subcatchment DA-1: DA-1

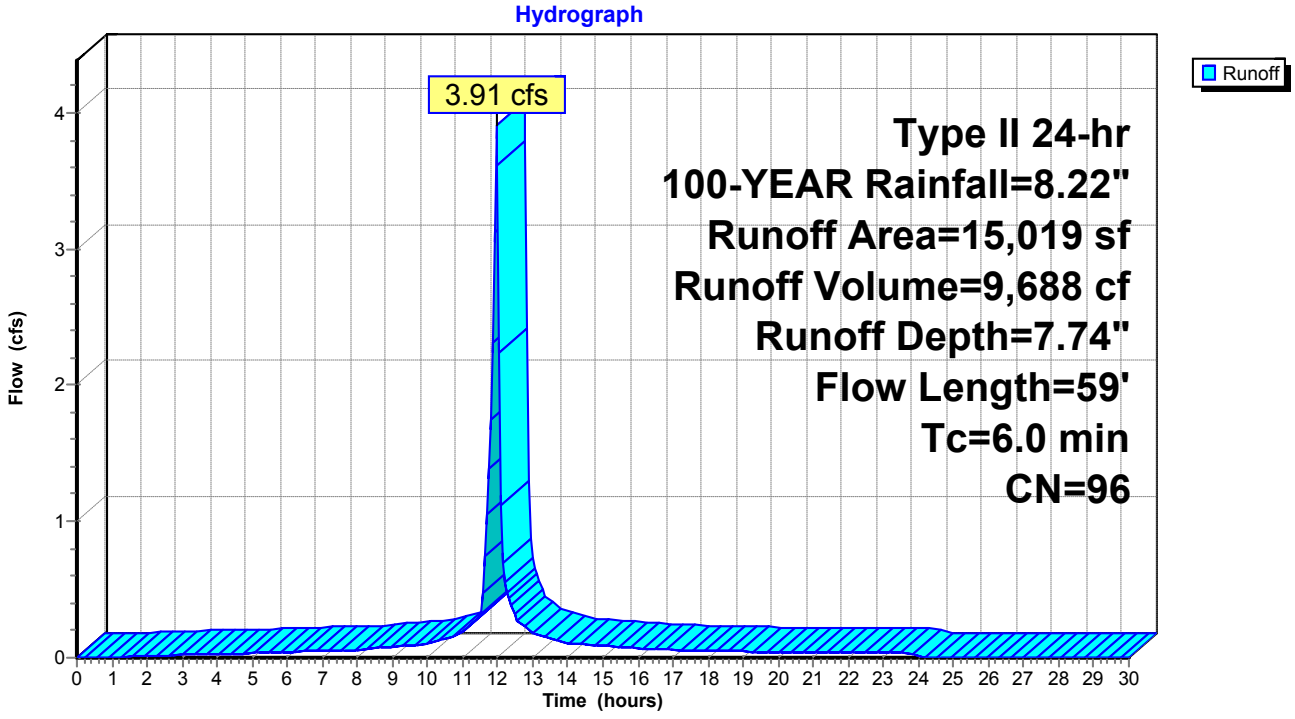
Runoff = 3.91 cfs @ 11.96 hrs, Volume= 9,688 cf, Depth= 7.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
2,348	84	50-75% Grass cover, Fair, HSG D
12,671	98	Paved parking, HSG D
15,019	96	Weighted Average
2,348		15.63% Pervious Area
12,671		84.37% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.8	29	0.0390	0.17		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	30	0.0350	3.80		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.9	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-2: DA-2

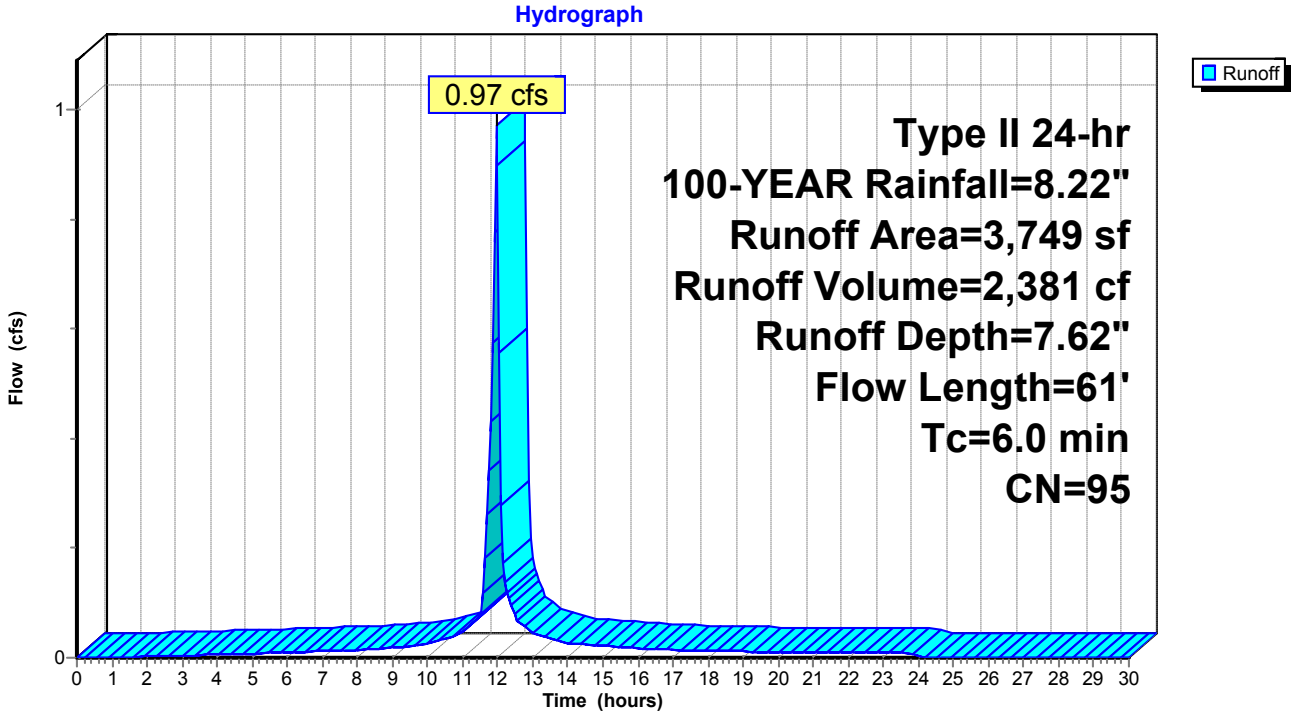
Runoff = 0.97 cfs @ 11.96 hrs, Volume= 2,381 cf, Depth= 7.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
756	84	50-75% Grass cover, Fair, HSG D
2,993	98	Paved parking, HSG D
3,749	95	Weighted Average
756		20.17% Pervious Area
2,993		79.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	26	0.0173	0.12		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	35	0.0257	3.25		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	61	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

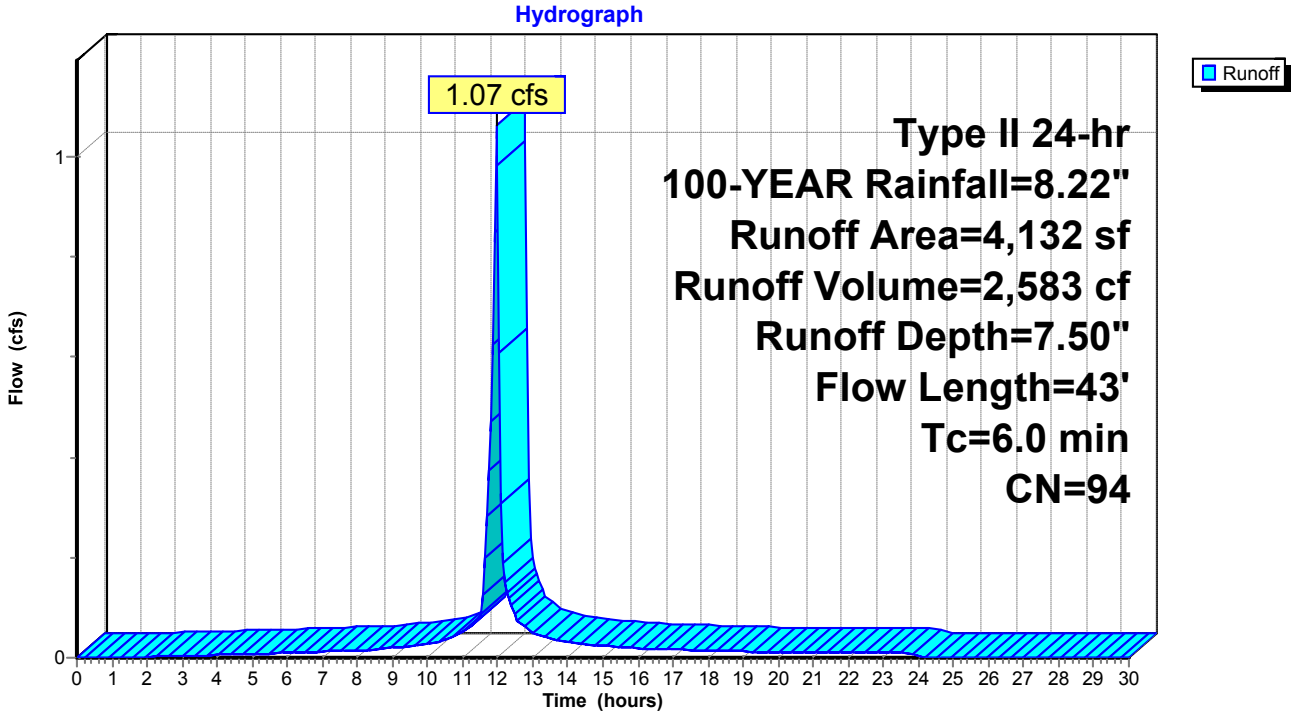
Runoff = 1.07 cfs @ 11.96 hrs, Volume= 2,583 cf, Depth= 7.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,273	84	50-75% Grass cover, Fair, HSG D
2,859	98	Paved parking, HSG D
4,132	94	Weighted Average
1,273		30.81% Pervious Area
2,859		69.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.1	31	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0250	3.21		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
4.2	43	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

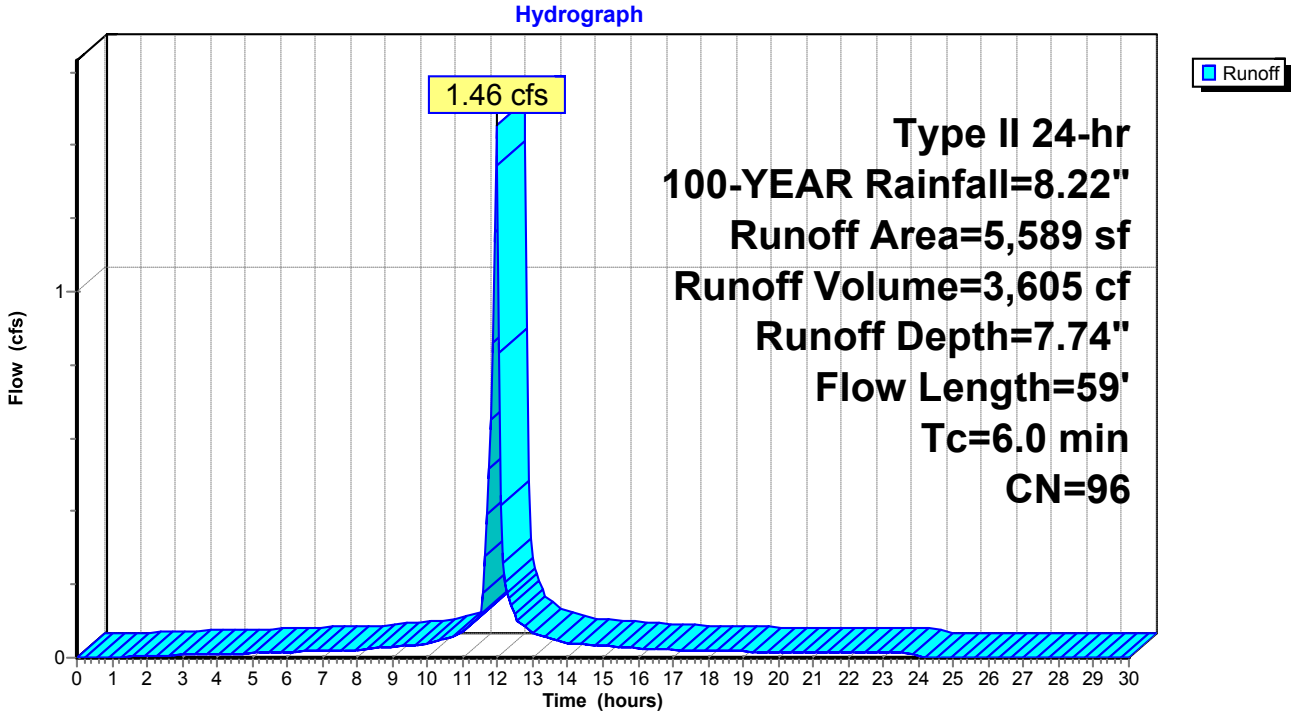
Runoff = 1.46 cfs @ 11.96 hrs, Volume= 3,605 cf, Depth= 7.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
750	84	50-75% Grass cover, Fair, HSG D
4,839	98	Paved parking, HSG D
5,589	96	Weighted Average
750		13.42% Pervious Area
4,839		86.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.6	30	0.0217	0.14		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	29	0.0169	2.64		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.8	59	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-4: DA-4



Summary for Subcatchment DA-5: DA-5

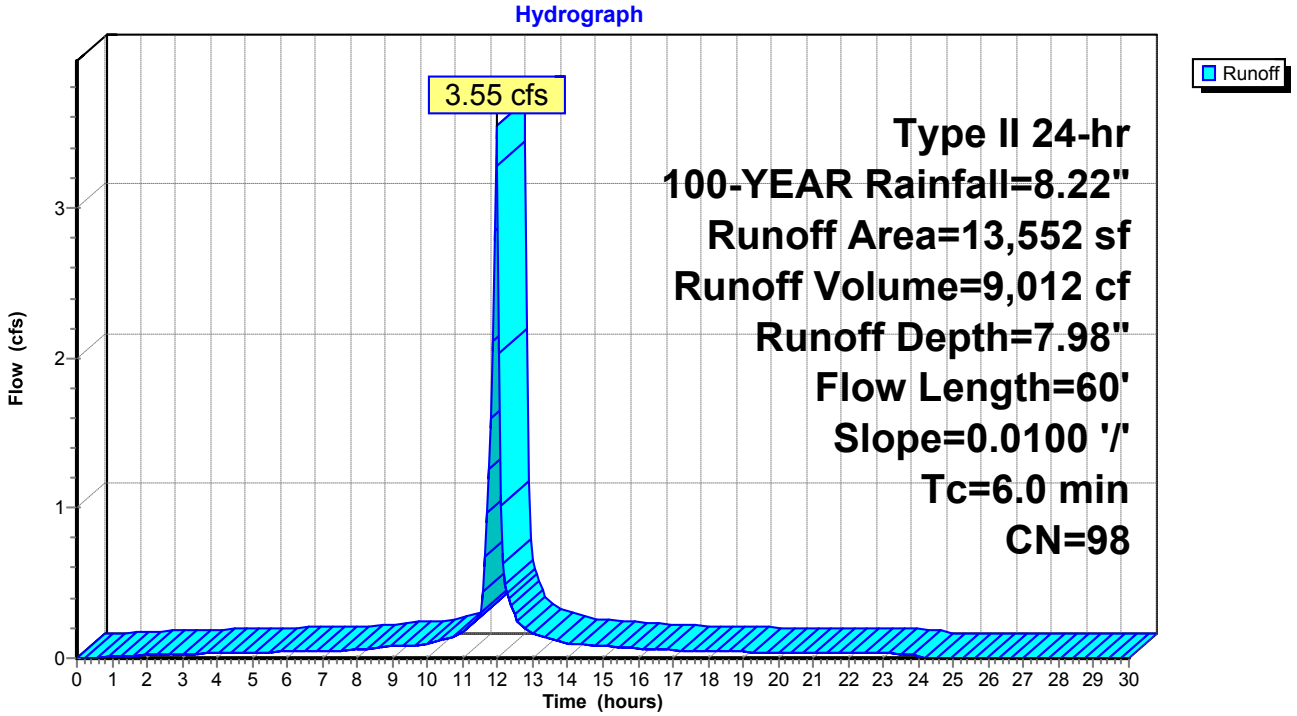
Runoff = 3.55 cfs @ 11.96 hrs, Volume= 9,012 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
13,552	98	Paved parking, HSG D
13,552		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	60	0.0100	0.94		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.1	60	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-5: DA-5



Summary for Subcatchment DA-6: DA-6

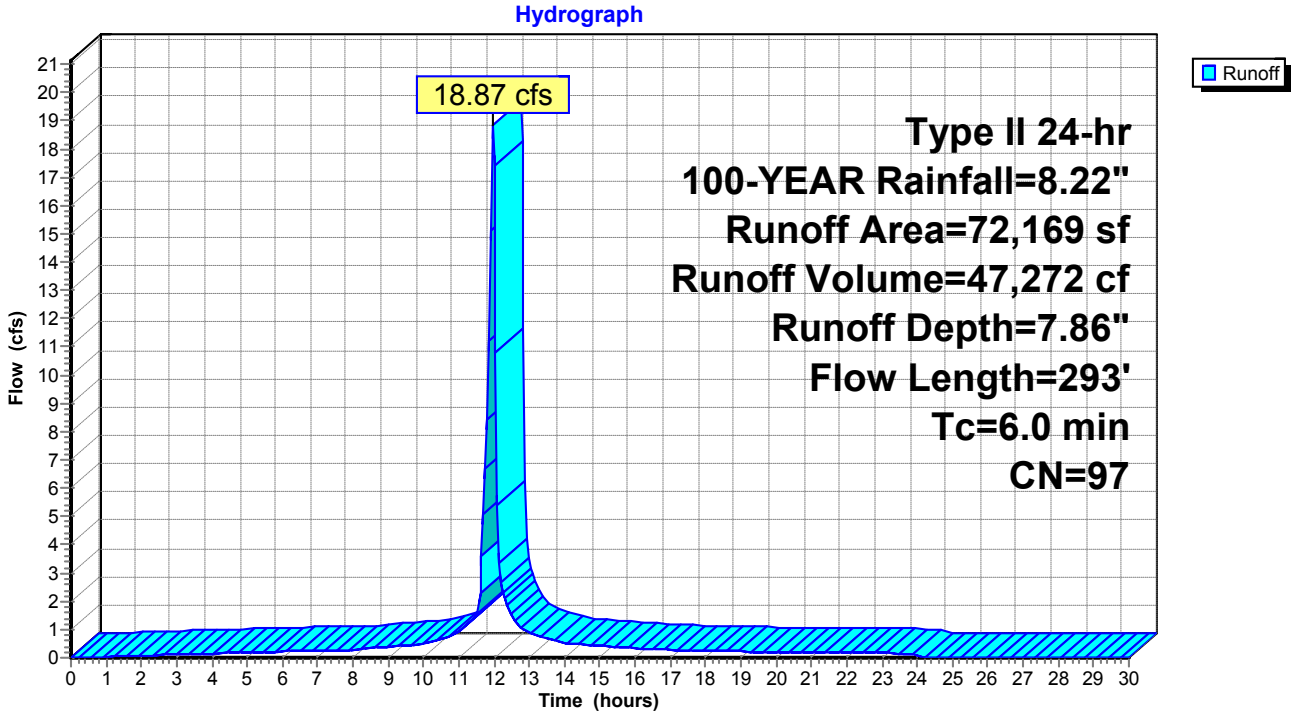
Runoff = 18.87 cfs @ 11.96 hrs, Volume= 47,272 cf, Depth= 7.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
3,046	84	50-75% Grass cover, Fair, HSG D
69,123	98	Paved parking, HSG D
72,169	97	Weighted Average
3,046		4.22% Pervious Area
69,123		95.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	100	0.0220	1.42		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
1.4	193	0.0126	2.28		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
2.6	293	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

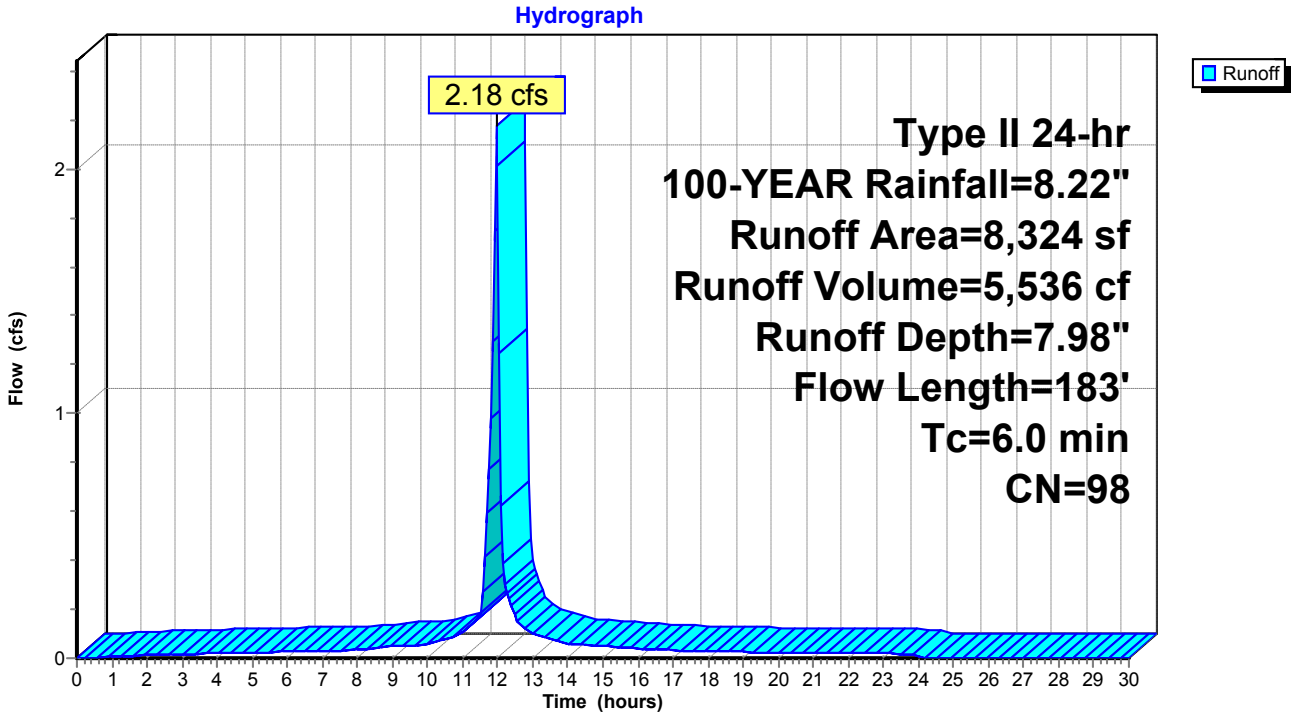
Runoff = 2.18 cfs @ 11.96 hrs, Volume= 5,536 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
8,324	98	Paved parking, HSG D
8,324		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.0	100	0.0301	1.61		**Sheet Flow, A-B** Smooth surfaces n= 0.011 P2= 3.16"
0.6	83	0.0124	2.26		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
1.6	183	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

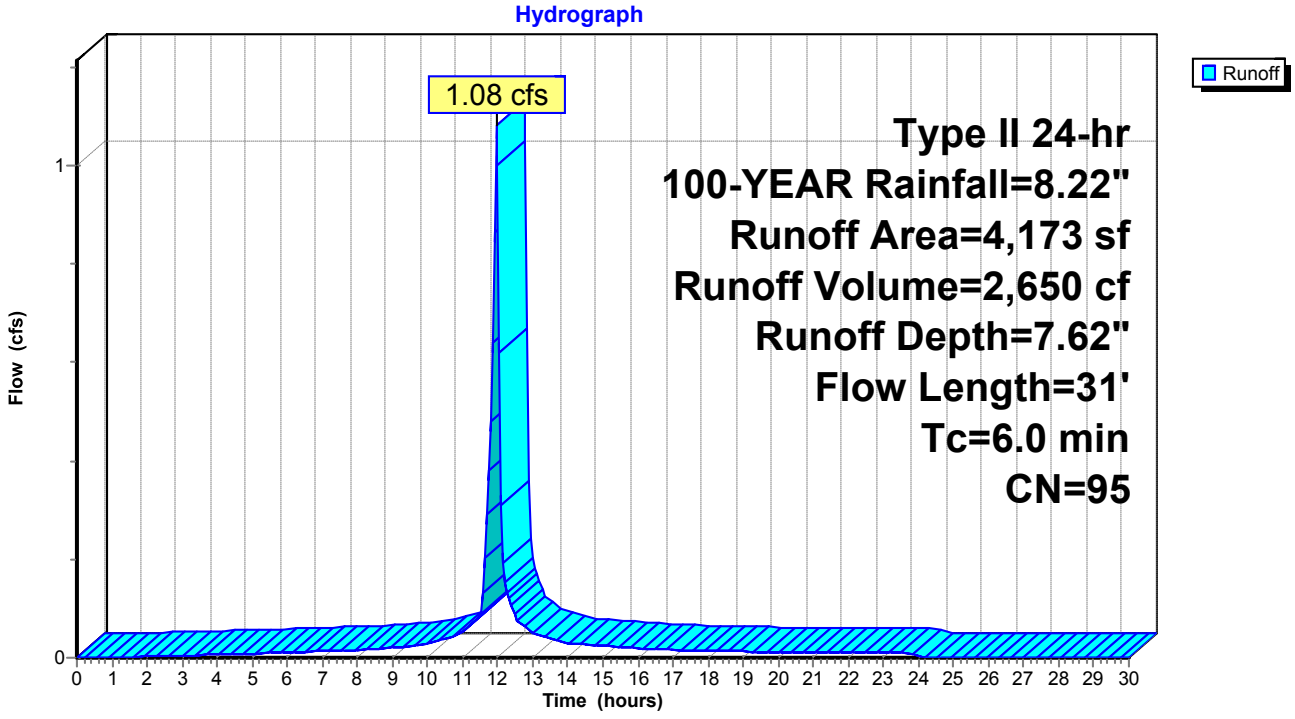
Runoff = 1.08 cfs @ 11.96 hrs, Volume= 2,650 cf, Depth= 7.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
782	84	50-75% Grass cover, Fair, HSG D
3,391	98	Paved parking, HSG D
4,173	95	Weighted Average
782		18.74% Pervious Area
3,391		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	19	0.0150	0.11		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.1	12	0.0208	2.93		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
3.0	31	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DA-9

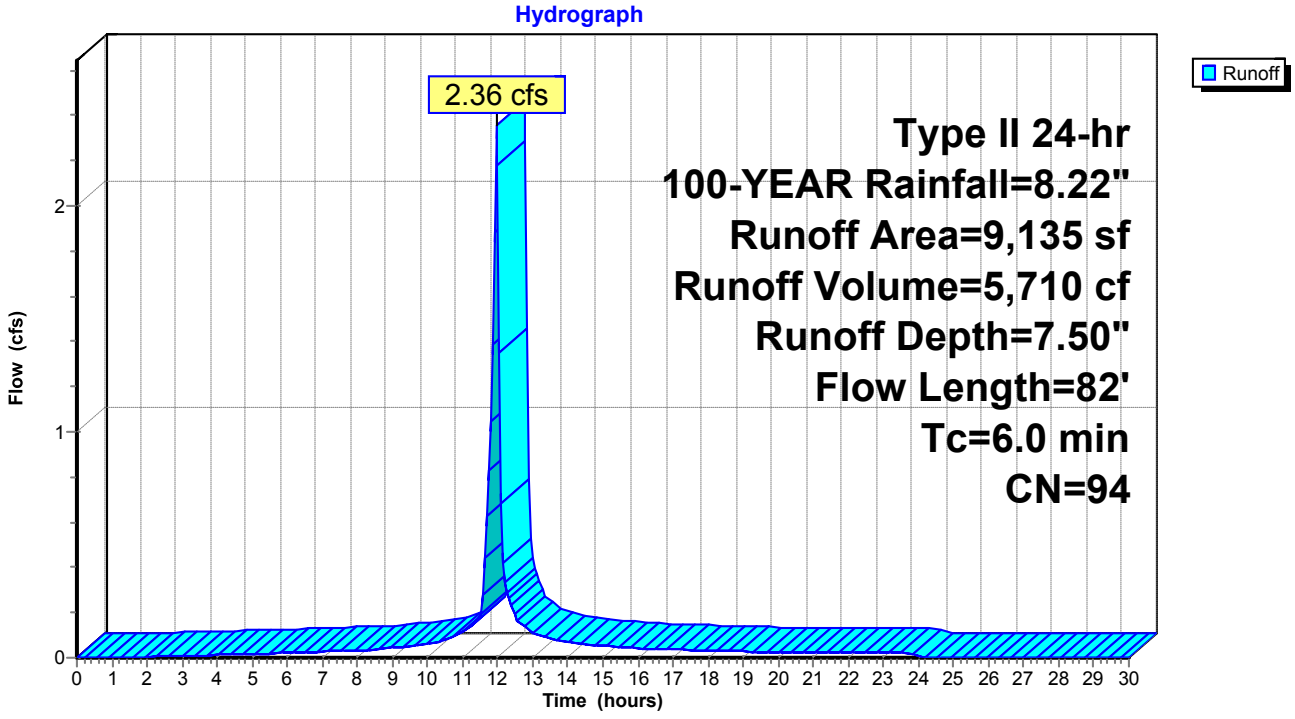
Runoff = 2.36 cfs @ 11.96 hrs, Volume= 5,710 cf, Depth= 7.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
2,765	84	50-75% Grass cover, Fair, HSG D
6,370	98	Paved parking, HSG D
9,135	94	Weighted Average
2,765		30.27% Pervious Area
6,370		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	42	0.0175	0.13		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
0.2	40	0.0200	2.87		**Shallow Concentrated Flow, B-C** Paved Kv= 20.3 fps
5.4	82	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-9: DA-9



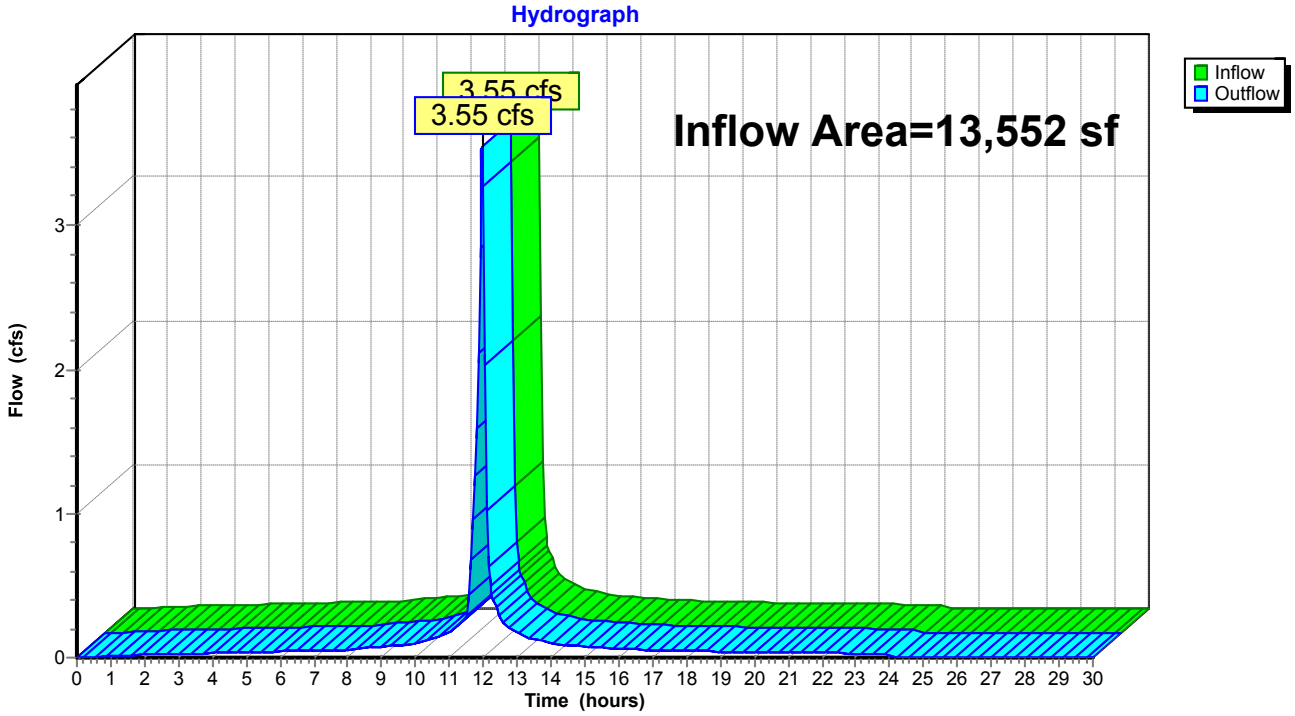
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 13,552 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 3.55 cfs @ 11.96 hrs, Volume= 9,012 cf
Outflow = 3.55 cfs @ 11.96 hrs, Volume= 9,012 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 1P: EXISTING YARD DRAIN

[57] Hint: Peaked at 325.64' (Flood elevation advised)

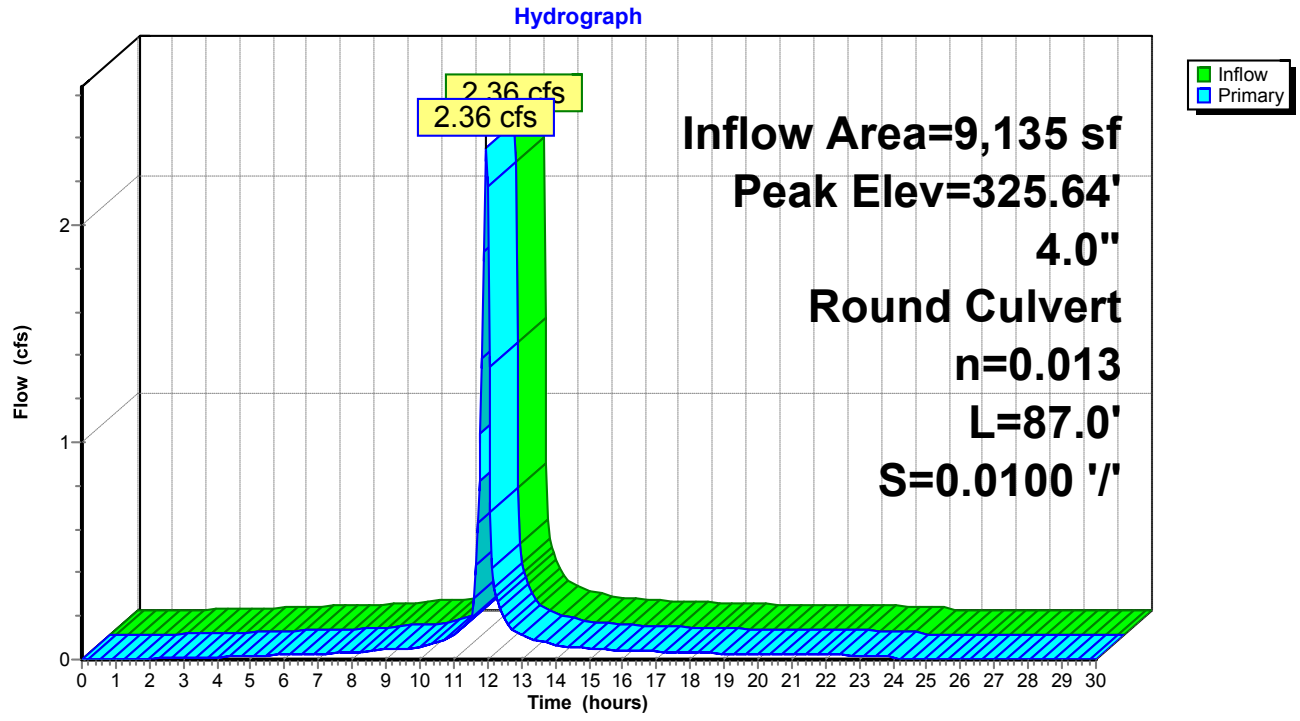
Inflow Area = 9,135 sf, 69.73% Impervious, Inflow Depth = 7.50" for 100-YEAR event
Inflow = 2.36 cfs @ 11.96 hrs, Volume= 5,710 cf
Outflow = 2.36 cfs @ 11.96 hrs, Volume= 5,710 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.36 cfs @ 11.96 hrs, Volume= 5,710 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 325.64' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.09 sf

Primary OutFlow Max=2.30 cfs @ 11.96 hrs HW=318.83' (Free Discharge)
1=Culvert (Barrel Controls 2.30 cfs @ 26.37 fps)

Pond 1P: EXISTING YARD DRAIN



Summary for Pond 2P: EXISTING CATCH BASIN

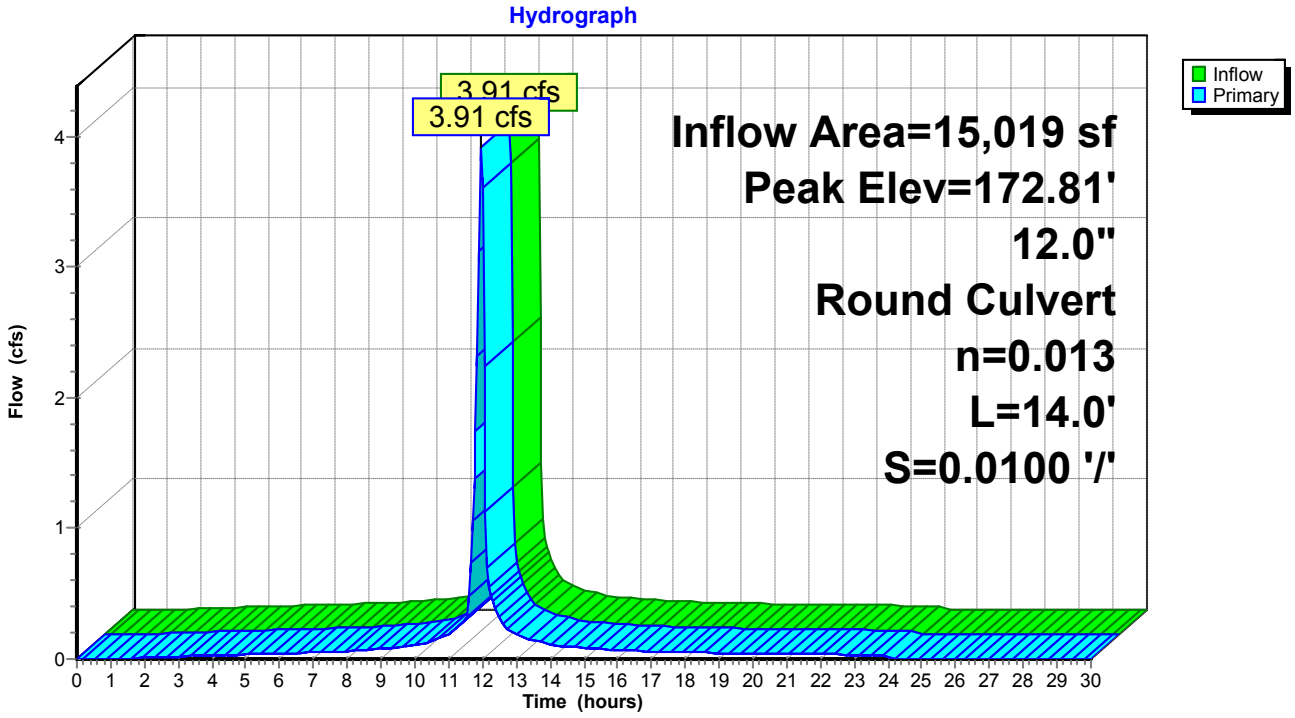
Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 7.74" for 100-YEAR event
Inflow = 3.91 cfs @ 11.96 hrs, Volume= 9,688 cf
Outflow = 3.91 cfs @ 11.96 hrs, Volume= 9,688 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.91 cfs @ 11.96 hrs, Volume= 9,688 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.81' @ 11.96 hrs
Flood Elev= 172.99'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.60'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.60' / 170.46' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.82 cfs @ 11.96 hrs HW=172.74' (Free Discharge)
1=Culvert (Inlet Controls 3.82 cfs @ 4.87 fps)

Pond 2P: EXISTING CATCH BASIN



Summary for Pond 3P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.93' (Flood elevation advised)

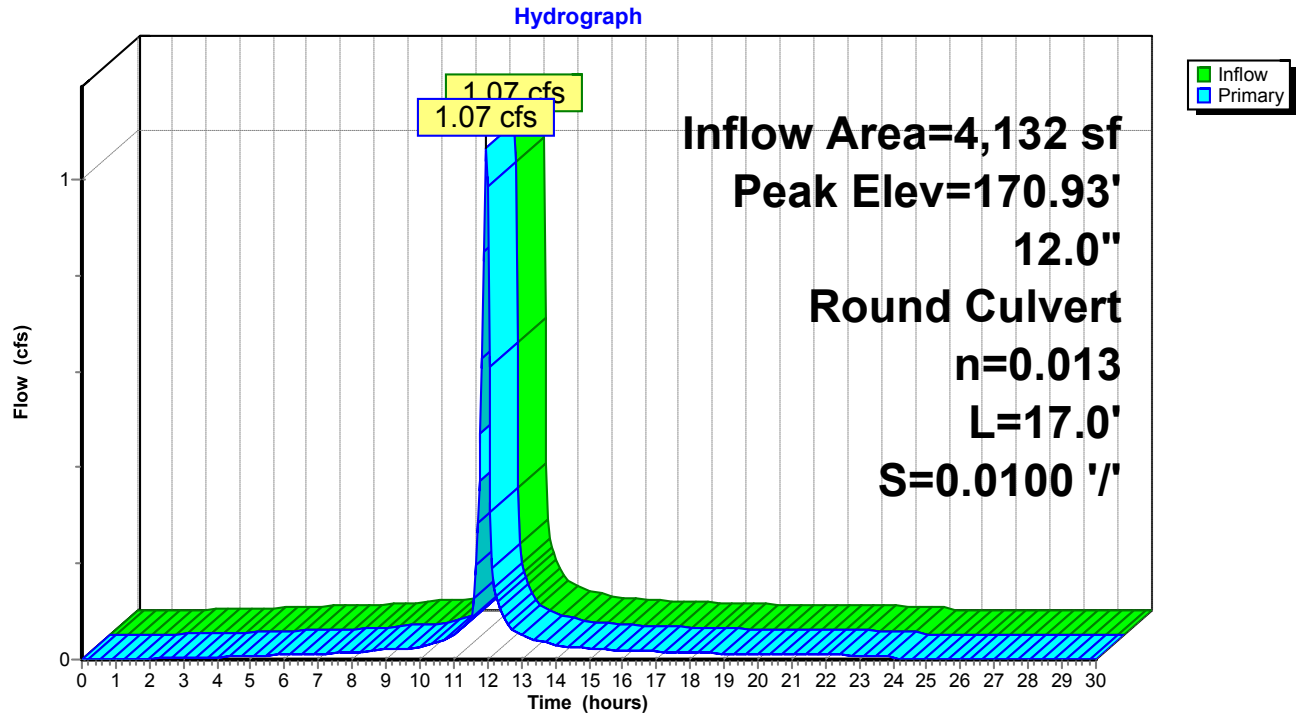
Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 7.50" for 100-YEAR event
Inflow = 1.07 cfs @ 11.96 hrs, Volume= 2,583 cf
Outflow = 1.07 cfs @ 11.96 hrs, Volume= 2,583 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.07 cfs @ 11.96 hrs, Volume= 2,583 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.93' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.13' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.04 cfs @ 11.96 hrs HW=170.92' (Free Discharge)
1=Culvert (Barrel Controls 1.04 cfs @ 2.91 fps)

Pond 3P: EXISTING CATCH BASIN



Summary for Pond 4P: EXISTING CATCH BASIN

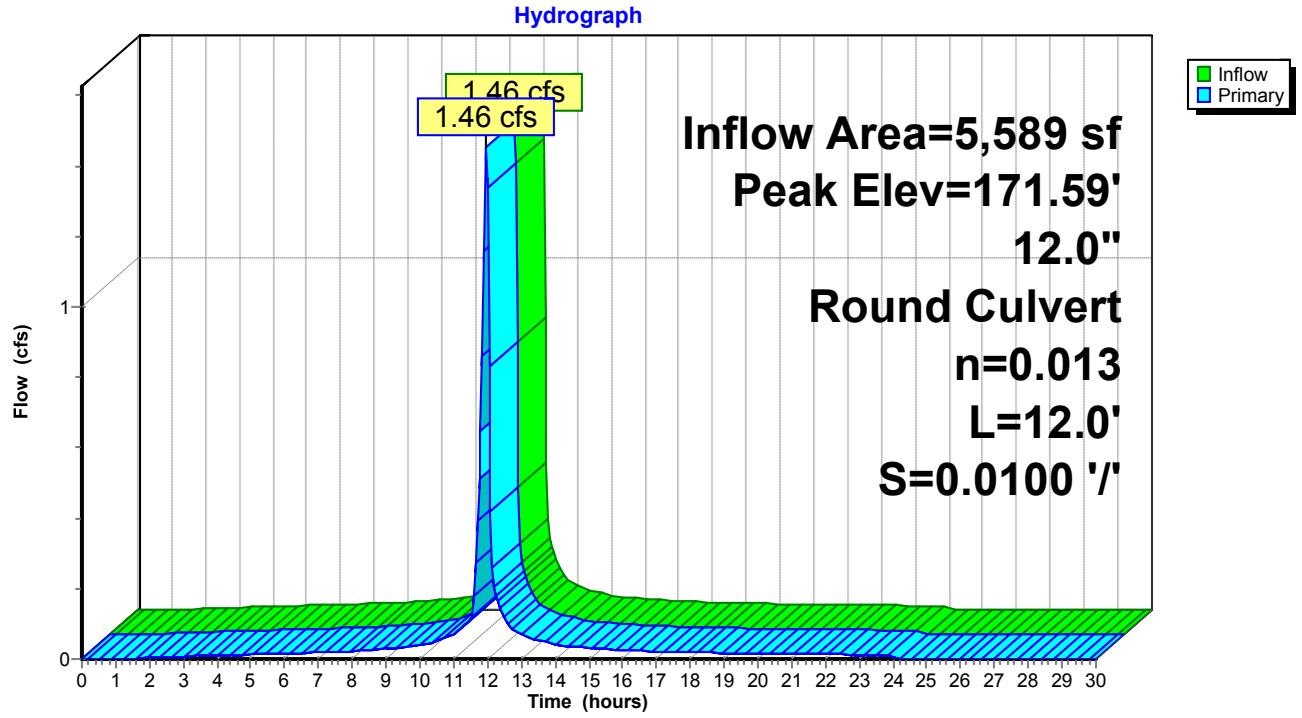
Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 7.74" for 100-YEAR event
Inflow = 1.46 cfs @ 11.96 hrs, Volume= 3,605 cf
Outflow = 1.46 cfs @ 11.96 hrs, Volume= 3,605 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.46 cfs @ 11.96 hrs, Volume= 3,605 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.59' @ 11.96 hrs
Flood Elev= 172.73'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.80'	**12.0" Round Culvert** L= 12.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.80' / 170.68' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.42 cfs @ 11.96 hrs HW=171.57' (Free Discharge)
1=Culvert (Barrel Controls 1.42 cfs @ 3.01 fps)

Pond 4P: EXISTING CATCH BASIN



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 2P by 2.83' @ 12.20 hrs

Inflow Area = 15,019 sf, 84.37% Impervious, Inflow Depth = 7.74" for 100-YEAR event
Inflow = 3.91 cfs @ 11.96 hrs, Volume= 9,688 cf
Outflow = 1.87 cfs @ 12.07 hrs, Volume= 9,688 cf, Atten= 52%, Lag= 6.4 min
Discarded = 1.87 cfs @ 12.07 hrs, Volume= 9,688 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.98' @ 12.07 hrs Surf.Area= 3,671 sf Storage= 2,058 cf

Plug-Flow detention time= 30.6 min calculated for 9,688 cf (100% of inflow)
Center-of-Mass det. time= 30.6 min (778.4 - 747.8)

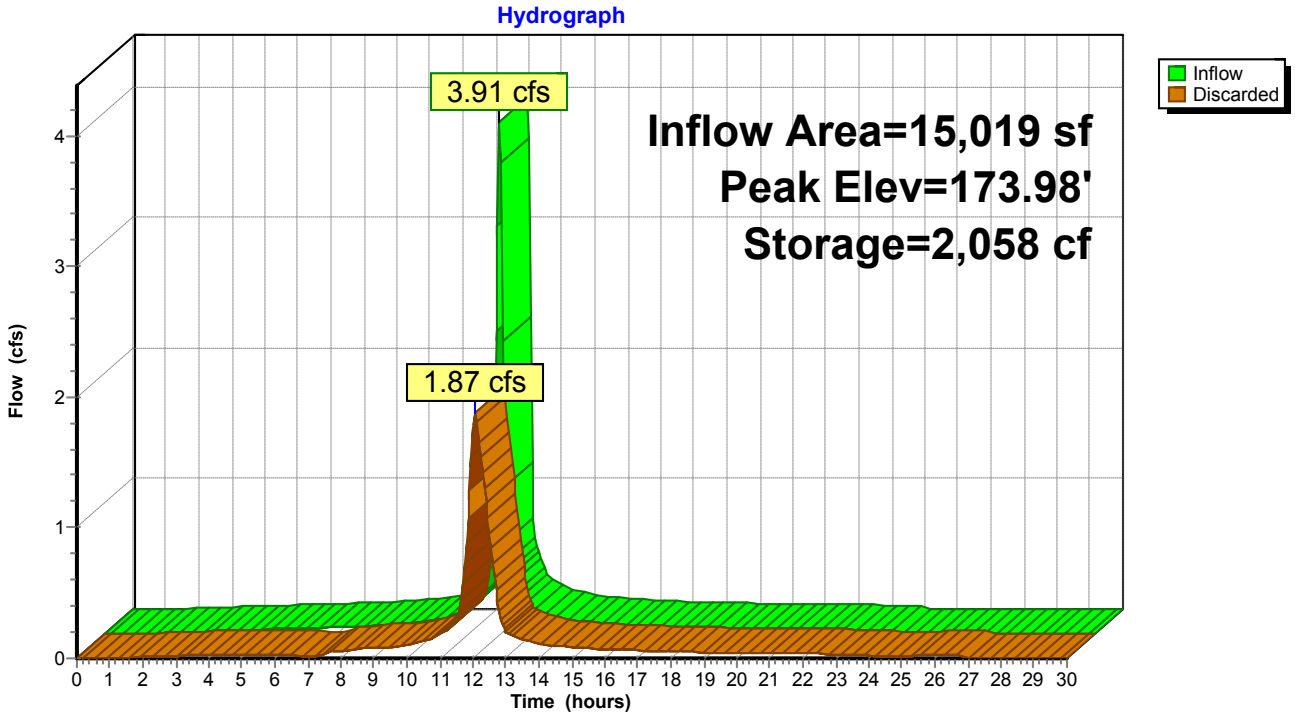
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,139 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	112	7	208
174.00	3,750	1,931	2,139

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.86 cfs @ 12.07 hrs HW=173.97' (Free Discharge)
1=Exfiltration (Exfiltration Controls 1.86 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 6P: EXISTING CATCH BASIN

[57] Hint: Peaked at 170.90' (Flood elevation advised)

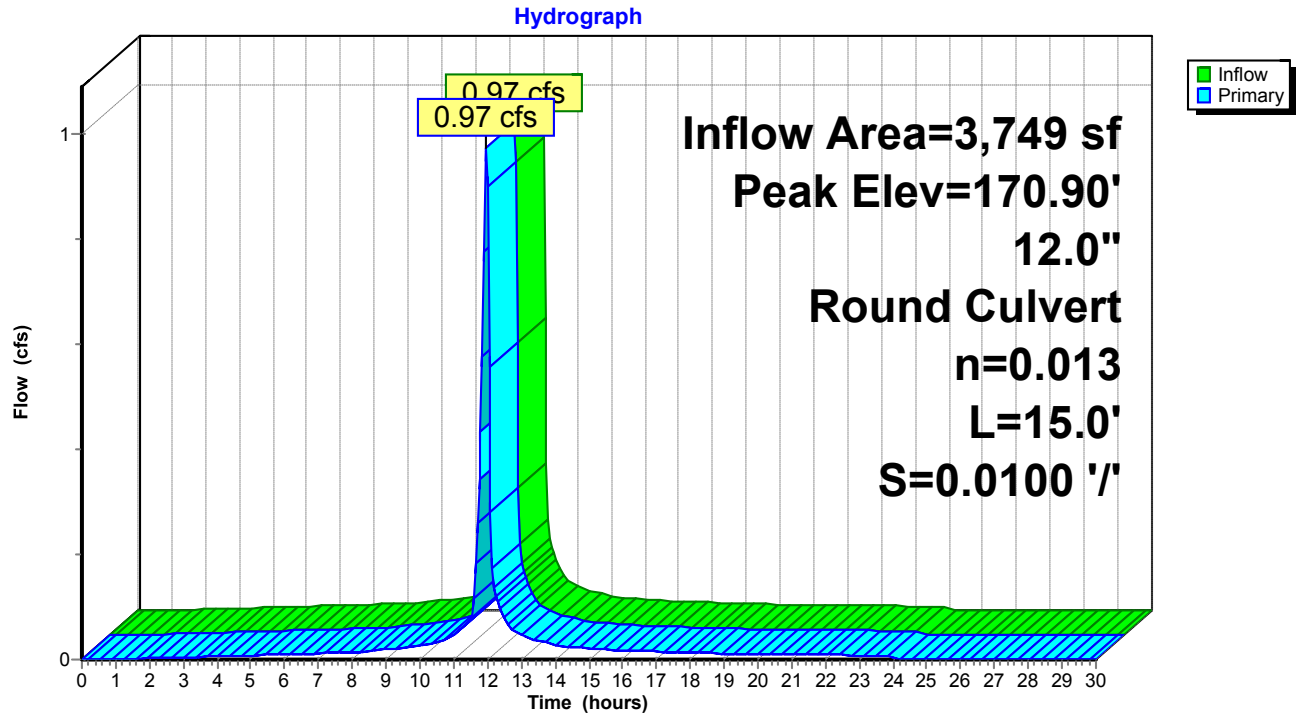
Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 7.62" for 100-YEAR event
Inflow = 0.97 cfs @ 11.96 hrs, Volume= 2,381 cf
Outflow = 0.97 cfs @ 11.96 hrs, Volume= 2,381 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.97 cfs @ 11.96 hrs, Volume= 2,381 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.90' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.30'	**12.0" Round Culvert** L= 15.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.30' / 170.15' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.95 cfs @ 11.96 hrs HW=170.89' (Free Discharge)
1=Culvert (Barrel Controls 0.95 cfs @ 2.81 fps)

Pond 6P: EXISTING CATCH BASIN



Summary for Pond 7P: EXISTING CATCH BASIN

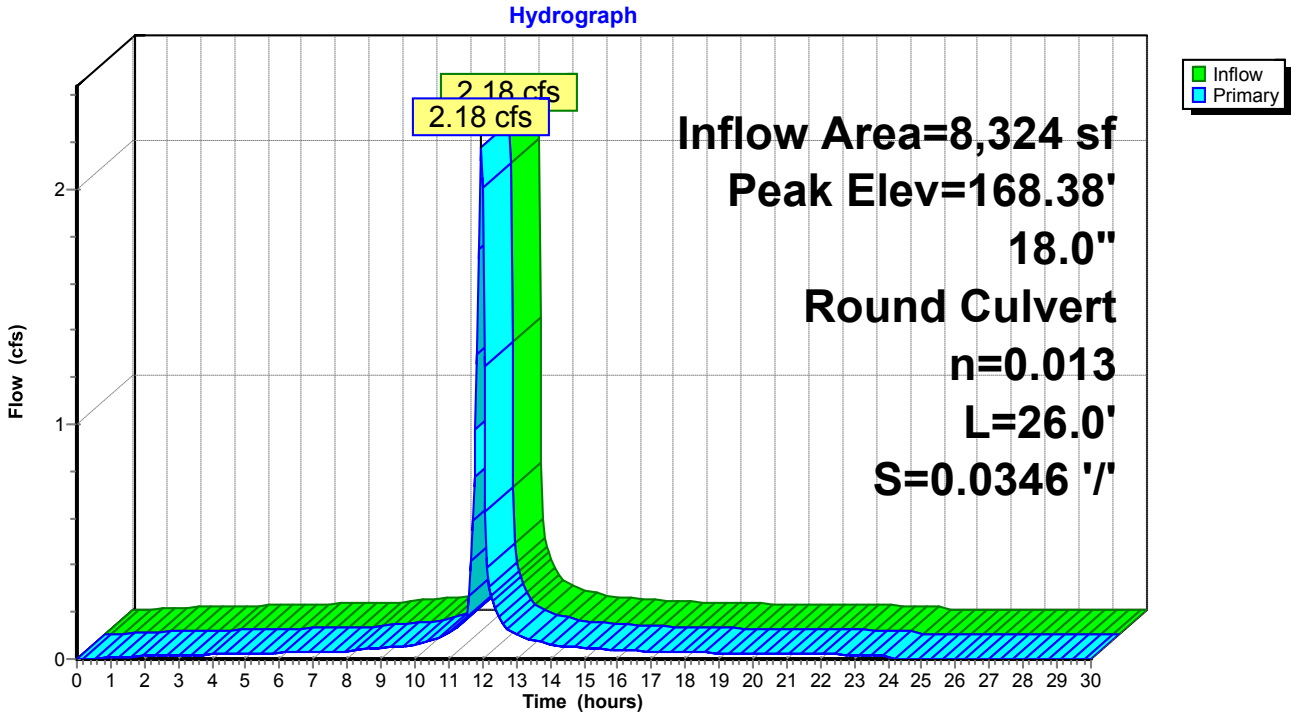
Inflow Area = 8,324 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 2.18 cfs @ 11.96 hrs, Volume= 5,536 cf
Outflow = 2.18 cfs @ 11.96 hrs, Volume= 5,536 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.18 cfs @ 11.96 hrs, Volume= 5,536 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.38' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=2.13 cfs @ 11.96 hrs HW=168.36' (Free Discharge)
1=Culvert (Inlet Controls 2.13 cfs @ 2.35 fps)

Pond 7P: EXISTING CATCH BASIN



Summary for Pond 8P: EXISTING CATCH BASIN

[58] Hint: Peaked 52.95' above defined flood level

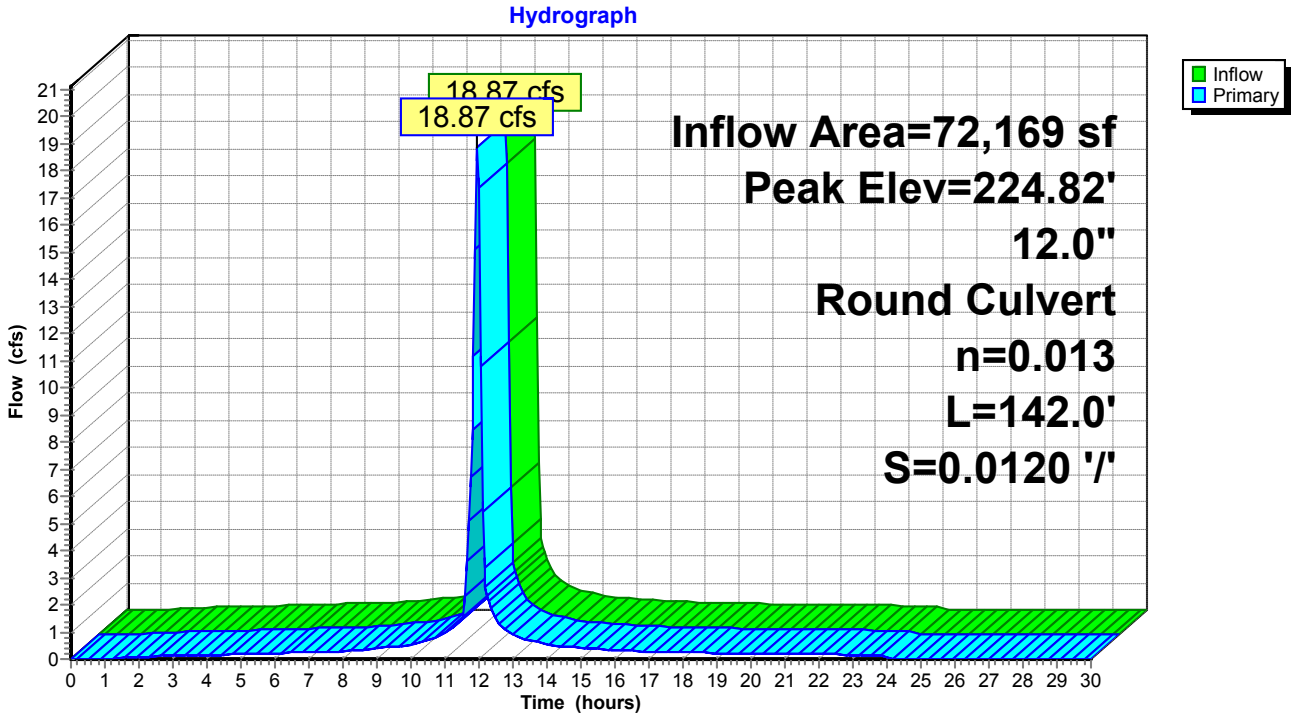
Inflow Area = 72,169 sf, 95.78% Impervious, Inflow Depth = 7.86" for 100-YEAR event
Inflow = 18.87 cfs @ 11.96 hrs, Volume= 47,272 cf
Outflow = 18.87 cfs @ 11.96 hrs, Volume= 47,272 cf, Atten= 0%, Lag= 0.0 min
Primary = 18.87 cfs @ 11.96 hrs, Volume= 47,272 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 224.82' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=18.43 cfs @ 11.96 hrs HW=222.39' (Free Discharge)
1=Culvert (Barrel Controls 18.43 cfs @ 23.47 fps)

Pond 8P: EXISTING CATCH BASIN



Summary for Pond 9P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 6P by 3.69' @ 24.40 hrs

Inflow Area = 3,749 sf, 79.83% Impervious, Inflow Depth = 7.62" for 100-YEAR event
Inflow = 0.97 cfs @ 11.96 hrs, Volume= 2,381 cf
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min

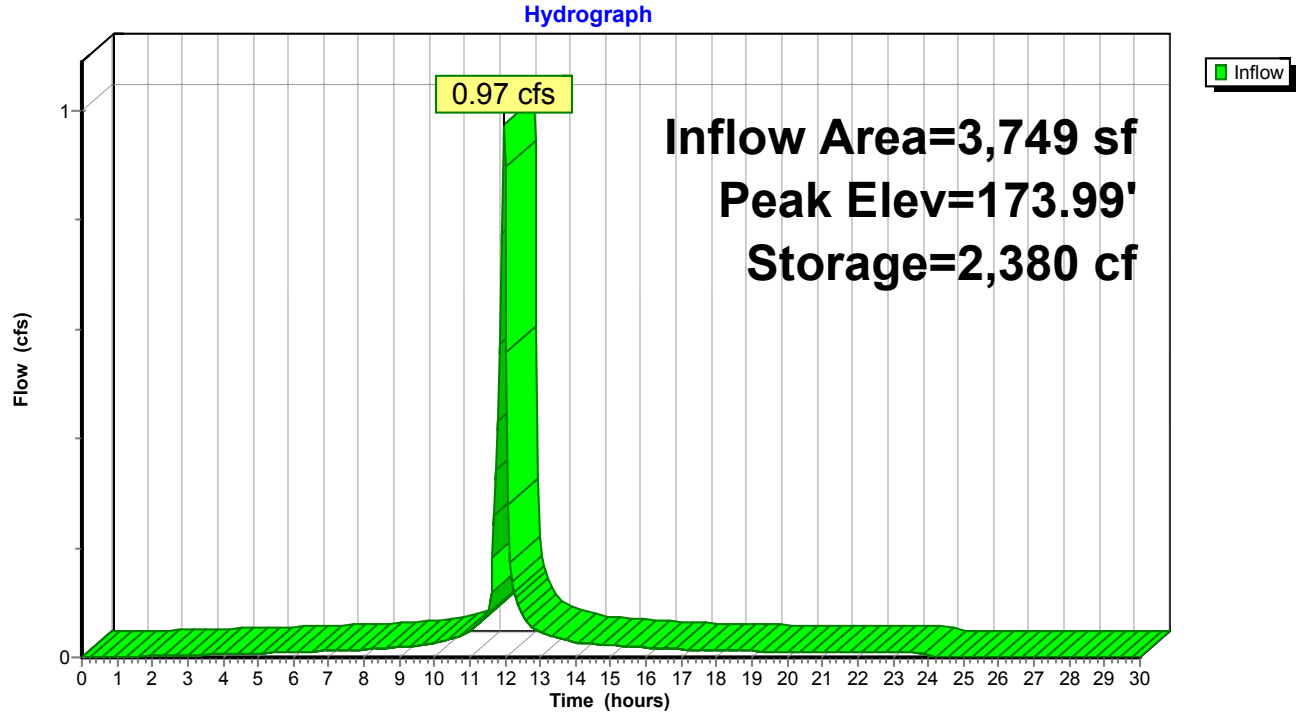
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.99' @ 24.40 hrs Surf.Area= 3,973 sf Storage= 2,380 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,410 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	377	20	221
174.00	4,000	2,189	2,410

Pond 9P: EXISTING DRYWELL



Summary for Pond 10P: EXISTING DRYWELL

[81] Warning: Exceeded Pond 3P by 2.59' @ 12.15 hrs

Inflow Area = 4,132 sf, 69.19% Impervious, Inflow Depth = 7.50" for 100-YEAR event
Inflow = 1.07 cfs @ 11.96 hrs, Volume= 2,583 cf
Outflow = 0.71 cfs @ 12.04 hrs, Volume= 2,583 cf, Atten= 33%, Lag= 4.7 min
Discarded = 0.71 cfs @ 12.04 hrs, Volume= 2,583 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.22' @ 12.04 hrs Surf.Area= 1,396 sf Storage= 472 cf

Plug-Flow detention time= 52.3 min calculated for 2,578 cf (100% of inflow)
Center-of-Mass det. time= 52.3 min (809.2 - 756.9)

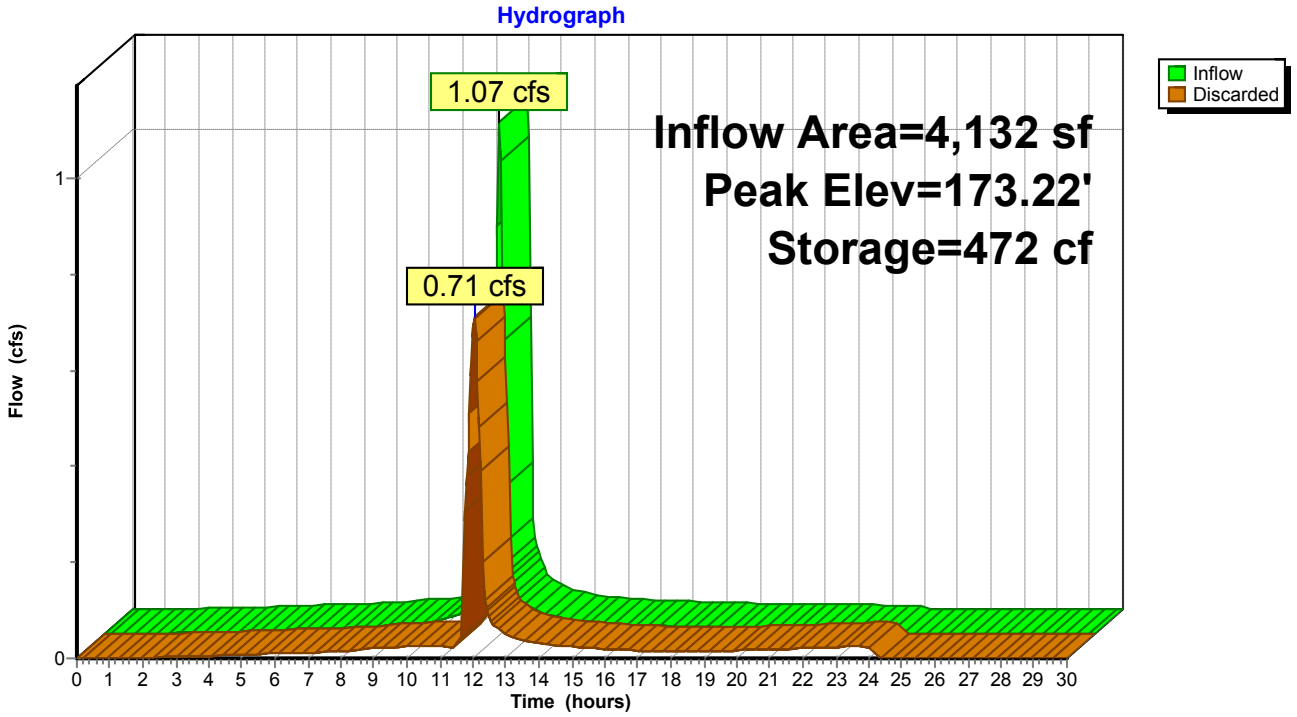
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,486 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	53	0	0
172.90	29	201	201
173.00	743	39	239
174.00	3,750	2,247	2,486

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.71 cfs @ 12.04 hrs HW=173.21' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.71 cfs)

Pond 10P: EXISTING DRYWELL



Summary for Pond 12P: EXISTING DRYWELL

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond 4P by 2.21' @ 12.15 hrs

Inflow Area = 5,589 sf, 86.58% Impervious, Inflow Depth = 7.74" for 100-YEAR event
Inflow = 1.46 cfs @ 11.96 hrs, Volume= 3,605 cf
Outflow = 0.90 cfs @ 12.05 hrs, Volume= 3,605 cf, Atten= 38%, Lag= 5.2 min
Discarded = 0.90 cfs @ 12.05 hrs, Volume= 3,605 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.38' @ 12.05 hrs Surf.Area= 1,760 sf Storage= 679 cf

Plug-Flow detention time= 49.9 min calculated for 3,605 cf (100% of inflow)
Center-of-Mass det. time= 49.9 min (797.7 - 747.8)

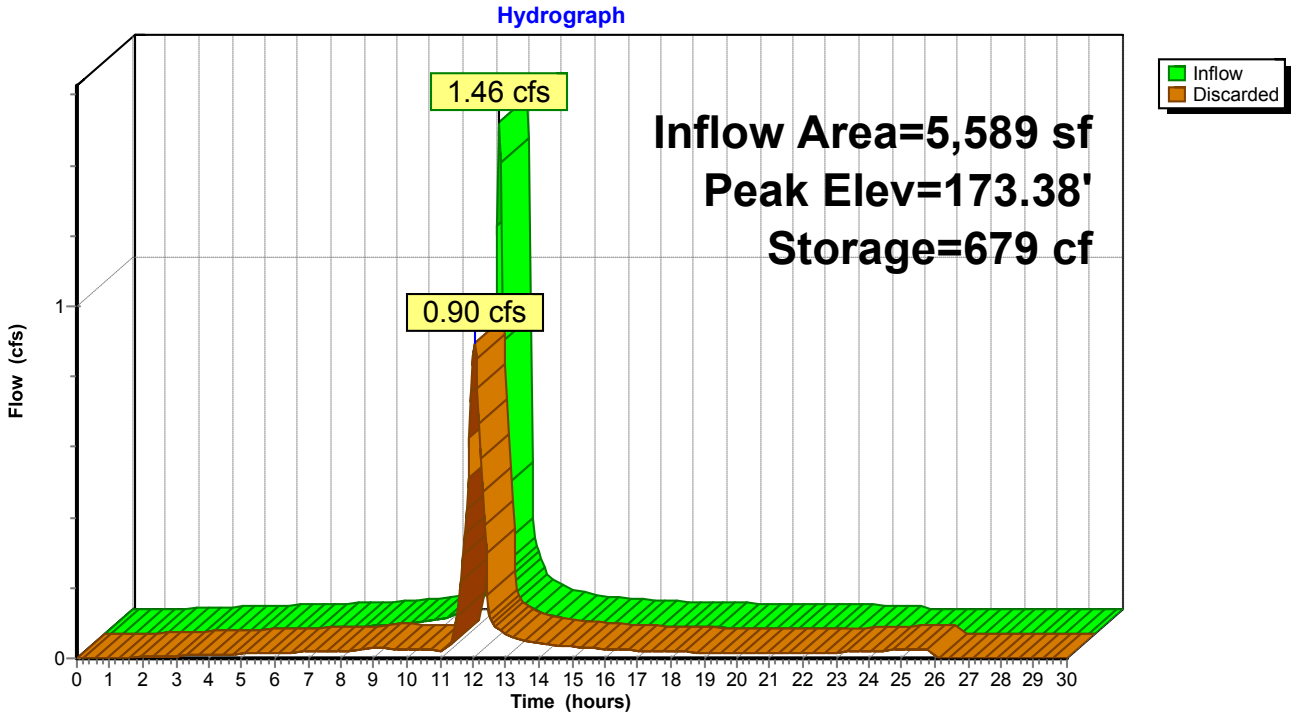
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,373 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	575	30	236
174.00	3,700	2,138	2,373

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.89 cfs @ 12.05 hrs HW=173.38' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.89 cfs)

Pond 12P: EXISTING DRYWELL



Summary for Pond 13P: EXISTING DRYWELL

Inflow Area = 4,173 sf, 81.26% Impervious, Inflow Depth = 7.62" for 100-YEAR event
Inflow = 1.08 cfs @ 11.96 hrs, Volume= 2,650 cf
Outflow = 0.69 cfs @ 12.04 hrs, Volume= 2,650 cf, Atten= 36%, Lag= 5.0 min
Discarded = 0.69 cfs @ 12.04 hrs, Volume= 2,650 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.00' @ 12.04 hrs Surf.Area= 1,353 sf Storage= 552 cf

Plug-Flow detention time= 54.7 min calculated for 2,646 cf (100% of inflow)
Center-of-Mass det. time= 54.6 min (807.2 - 752.6)

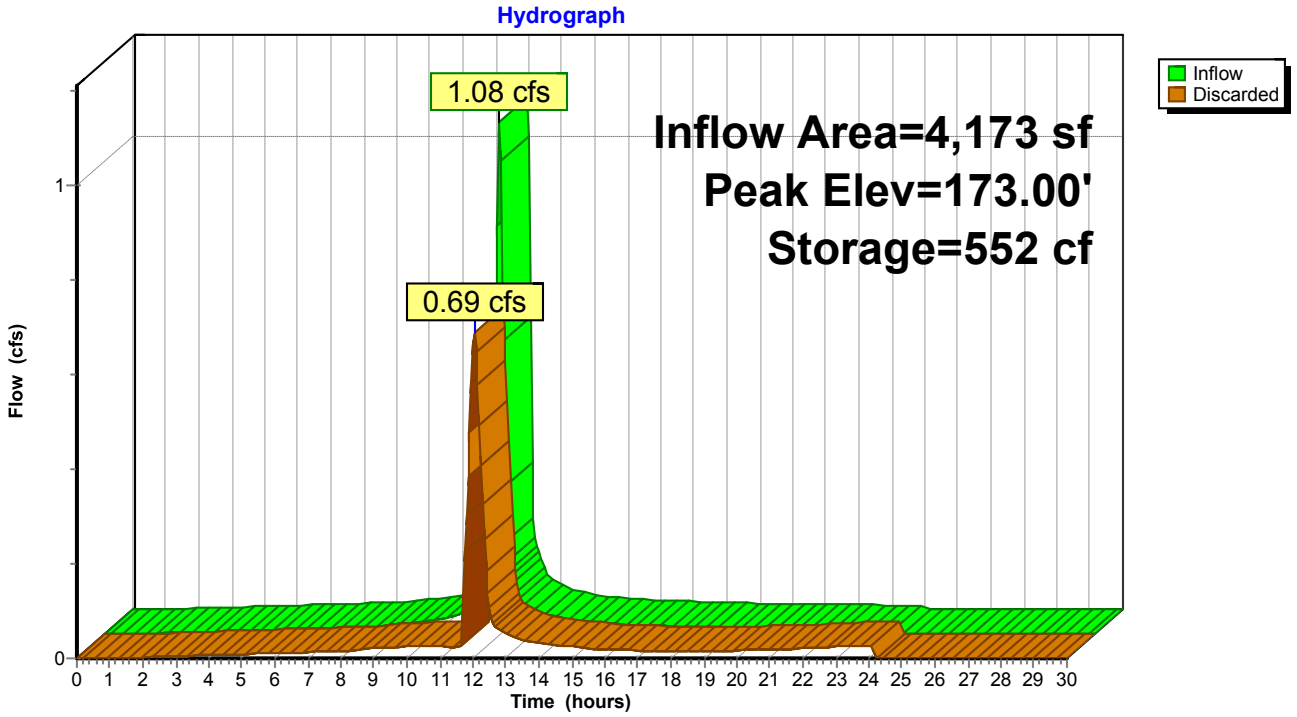
Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	559 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	1,366	349	559

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.69 cfs @ 12.04 hrs HW=172.99' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.69 cfs)

Pond 13P: EXISTING DRYWELL



Summary for Pond DP-1: EXISTING CATCH BASIN

[58] Hint: Peaked 10.32' above defined flood level
[79] Warning: Submerged Pond 1P Primary device # 1 INLET by 10.71'
[81] Warning: Exceeded Pond 7P by 13.63' @ 11.95 hrs
[79] Warning: Submerged Pond 8P Primary device # 1 INLET by 13.31'

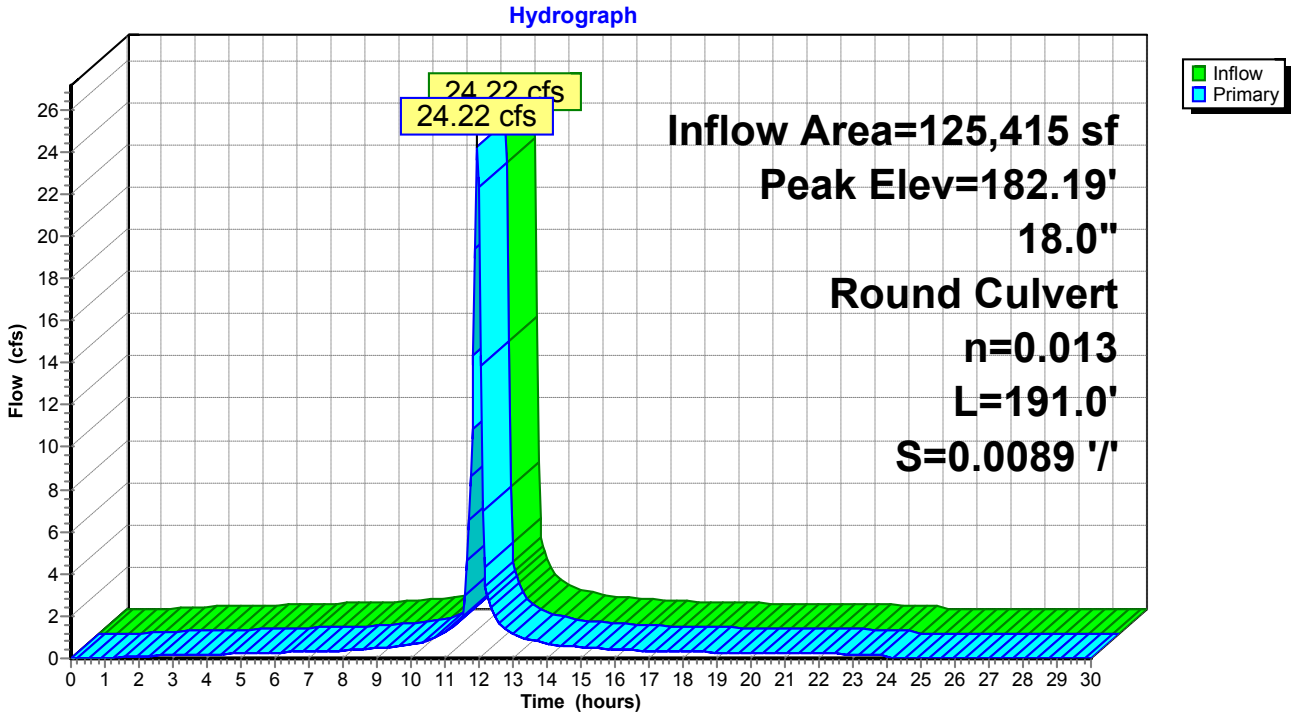
Inflow Area = 125,415 sf, 90.33% Impervious, Inflow Depth = 5.79" for 100-YEAR event
Inflow = 24.22 cfs @ 11.96 hrs, Volume= 60,533 cf
Outflow = 24.22 cfs @ 11.96 hrs, Volume= 60,533 cf, Atten= 0%, Lag= 0.0 min
Primary = 24.22 cfs @ 11.96 hrs, Volume= 60,533 cf

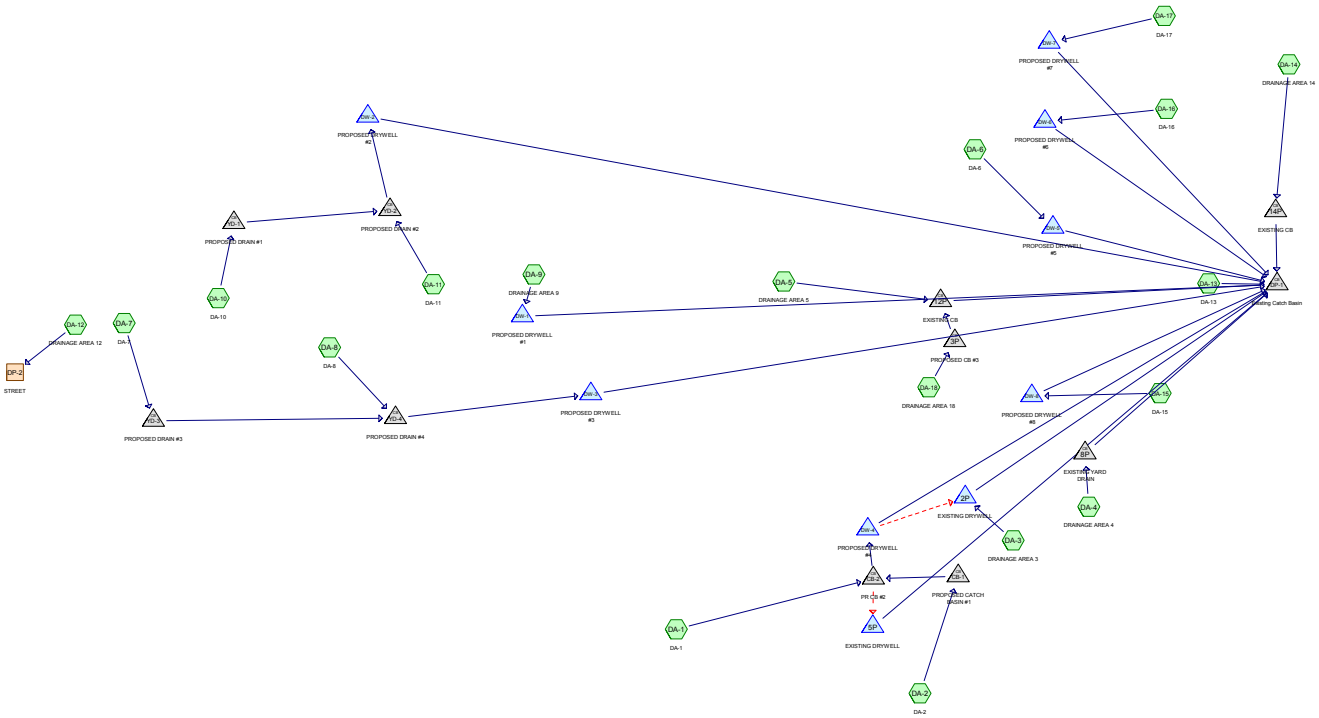
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 182.19' @ 11.96 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=23.66 cfs @ 11.96 hrs HW=181.51' (Free Discharge)
1=Culvert (Barrel Controls 23.66 cfs @ 13.39 fps)

Pond DP-1: EXISTING CATCH BASIN





Subcat Reach Pond Link

Routing Diagram for Wallace-POST
Prepared by LRC Group, Printed 10/25/2021
HydroCAD® 10.00-19 s/n 02009 © 2016 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
34,277	80	>75% Grass cover, Good, HSG D (DA-1, DA-10, DA-11, DA-13, DA-14, DA-18, DA-2, DA-3, DA-4, DA-5, DA-6, DA-8, DA-9)
54,227	98	Paved parking, HSG D (DA-1, DA-10, DA-11, DA-13, DA-14, DA-18, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9)
51,084	98	Roofs, HSG D (DA-1, DA-10, DA-11, DA-12, DA-15, DA-16, DA-17, DA-2, DA-7, DA-8)
139,588	**94**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
139,588	HSG D	DA-1, DA-10, DA-11, DA-12, DA-13, DA-14, DA-15, DA-16, DA-17, DA-18, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9
0	Other	
139,588		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Sub Num
0	0	0	34,277	0	34,277	>75% Grass cover, Good	
0	0	0	54,227	0	54,227	Paved parking	
0	0	0	51,084	0	51,084	Roofs	
0	**0**	**0**	**139,588**	**0**	**139,588**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	3P	170.74	170.45	29.0	0.0100	0.013	12.0	0.0	0.0
2	8P	171.30	170.43	87.0	0.0100	0.030	4.0	0.0	0.0
3	12P	168.70	167.00	142.0	0.0120	0.013	12.0	0.0	0.0
4	14P	167.60	166.70	26.0	0.0346	0.013	18.0	0.0	0.0
5	CB-1	171.50	171.17	33.0	0.0100	0.013	12.0	0.0	0.0
6	CB-2	170.25	170.05	20.0	0.0100	0.013	12.0	0.0	0.0
7	CB-2	170.25	170.05	12.0	0.0167	0.013	8.0	0.0	0.0
8	DP-1	166.70	165.00	191.0	0.0089	0.013	18.0	0.0	0.0
9	DW-4	172.00	171.70	30.0	0.0100	0.013	8.0	0.0	0.0
10	YD-1	173.27	172.59	68.0	0.0100	0.013	8.0	0.0	0.0
11	YD-2	172.59	172.43	16.0	0.0100	0.013	8.0	0.0	0.0
12	YD-3	173.54	172.29	104.0	0.0120	0.013	12.0	0.0	0.0
13	YD-4	172.29	171.45	84.0	0.0100	0.013	8.0	0.0	0.0

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA-1: DA-1 Runoff Area=21,412 sf 86.22% Impervious Runoff Depth=2.17"
Tc=6.0 min CN=96 Runoff=1.68 cfs 3,870 cf

Subcatchment DA-10: DA-10 Runoff Area=4,800 sf 94.90% Impervious Runoff Depth=2.27"
Tc=6.0 min CN=97 Runoff=0.39 cfs 909 cf

Subcatchment DA-11: DA-11 Runoff Area=8,557 sf 51.71% Impervious Runoff Depth=1.55"
Tc=6.0 min CN=89 Runoff=0.52 cfs 1,106 cf

Subcatchment DA-12: DRAINAGE AREA 12 Runoff Area=8,367 sf 100.00% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=98 Runoff=0.69 cfs 1,660 cf

Subcatchment DA-13: DA-13 Runoff Area=2,574 sf 79.56% Impervious Runoff Depth=1.97"
Tc=6.0 min CN=94 Runoff=0.19 cfs 424 cf

Subcatchment DA-14: DRAINAGE AREA 14 Runoff Area=6,736 sf 69.73% Impervious Runoff Depth=1.88"
Tc=6.0 min CN=93 Runoff=0.48 cfs 1,057 cf

Subcatchment DA-15: DA-15 Runoff Area=1,734 sf 100.00% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=98 Runoff=0.14 cfs 344 cf

Subcatchment DA-16: DA-16 Runoff Area=1,844 sf 100.00% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=98 Runoff=0.15 cfs 366 cf

Subcatchment DA-17: DA-17 Runoff Area=1,755 sf 100.00% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=98 Runoff=0.14 cfs 348 cf

Subcatchment DA-18: DRAINAGE AREA 18 Runoff Area=3,482 sf 85.96% Impervious Runoff Depth=2.07"
Tc=6.0 min CN=95 Runoff=0.27 cfs 601 cf

Subcatchment DA-2: DA-2 Runoff Area=7,036 sf 83.26% Impervious Runoff Depth=2.07"
Tc=6.0 min CN=95 Runoff=0.54 cfs 1,214 cf

Subcatchment DA-3: DRAINAGE AREA 3 Runoff Area=5,334 sf 65.88% Impervious Runoff Depth=1.80"
Tc=6.0 min CN=92 Runoff=0.37 cfs 798 cf

Subcatchment DA-4: DRAINAGE AREA 4 Runoff Area=4,099 sf 74.82% Impervious Runoff Depth=1.88"
Tc=6.0 min CN=93 Runoff=0.29 cfs 643 cf

Subcatchment DA-5: DRAINAGE AREA 5 Runoff Area=32,655 sf 61.00% Impervious Runoff Depth=1.71"
Flow Length=235' Tc=13.1 min CN=91 Runoff=1.73 cfs 4,655 cf

Subcatchment DA-6: DA-6 Runoff Area=11,493 sf 65.66% Impervious Runoff Depth=1.80"
Tc=6.0 min CN=92 Runoff=0.79 cfs 1,719 cf

Subcatchment DA-7: DA-7 Runoff Area=3,640 sf 100.00% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=98 Runoff=0.30 cfs 722 cf

Subcatchment DA-8: DA-8 Runoff Area=10,599 sf 81.26% Impervious Runoff Depth=2.07"
Tc=6.0 min CN=95 Runoff=0.81 cfs 1,828 cf

Subcatchment DA-9: DRAINAGE AREA 9 Runoff Area=3,471 sf 65.57% Impervious Runoff Depth=1.80"
Tc=6.0 min CN=92 Runoff=0.24 cfs 519 cf

Reach DP-2: STREET Inflow=0.69 cfs 1,660 cf
Outflow=0.69 cfs 1,660 cf

Pond 2P: EXISTING DRYWELL Peak Elev=172.76' Storage=353 cf Inflow=1.57 cfs 1,952 cf
Discarded=0.54 cfs 1,401 cf Primary=1.00 cfs 551 cf Outflow=1.54 cfs 1,952 cf

Pond 3P: PROPOSED CB #3 Peak Elev=171.03' Inflow=0.27 cfs 601 cf
12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.27 cfs 601 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.29' Storage=409 cf Inflow=0.83 cfs 2,179 cf
Outflow=0.63 cfs 2,179 cf

Pond 8P: EXISTING YARD DRAIN Peak Elev=181.97' Inflow=0.29 cfs 643 cf
4.0" Round Culvert n=0.030 L=87.0' S=0.0100 '/' Outflow=0.29 cfs 643 cf

Pond 12P: EXISTING CB Peak Elev=169.60' Inflow=1.90 cfs 5,256 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=1.90 cfs 5,256 cf

Pond 14P: EXISTING CB Peak Elev=167.94' Inflow=0.48 cfs 1,057 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=0.48 cfs 1,057 cf

Pond CB-1: PROPOSED CATCH BASIN #1 Peak Elev=171.92' Inflow=0.54 cfs 1,214 cf
12.0" Round Culvert n=0.013 L=33.0' S=0.0100 '/' Outflow=0.54 cfs 1,214 cf

Pond CB-2: PR CB #2 Peak Elev=170.98' Inflow=2.21 cfs 5,084 cf
Primary=1.38 cfs 2,904 cf Secondary=0.83 cfs 2,179 cf Outflow=2.21 cfs 5,084 cf

Pond DP-1: Existing Catch Basin Peak Elev=167.77' Inflow=3.73 cfs 7,931 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=3.73 cfs 7,931 cf

Pond DW-1: PROPOSED DRYWELL #1 Peak Elev=166.38' Storage=146 cf Inflow=0.24 cfs 519 cf
Outflow=0.05 cfs 519 cf

Pond DW-2: PROPOSED DRYWELL #2 Peak Elev=175.62' Storage=510 cf Inflow=0.90 cfs 2,015 cf
Outflow=0.89 cfs 2,015 cf

Pond DW-3: PROPOSED DRYWELL #3 Peak Elev=174.66' Storage=549 cf Inflow=1.11 cfs 2,550 cf
Outflow=0.96 cfs 2,550 cf

Pond DW-4: PROPOSED DRYWELL #4 Peak Elev=173.16' Storage=511 cf Inflow=1.38 cfs 2,904 cf
Discarded=0.10 cfs 1,750 cf Secondary=1.21 cfs 1,154 cf Outflow=1.31 cfs 2,905 cf

Pond DW-5: PROPOSED DRYWELL #5 Peak Elev=172.32' Storage=421 cf Inflow=0.79 cfs 1,719 cf
Outflow=0.51 cfs 1,720 cf

Pond DW-6: PROPOSED DRYWELL #6 Peak Elev=171.23' Storage=90 cf Inflow=0.15 cfs 366 cf
Outflow=0.04 cfs 366 cf

Pond DW-7: PROPOSED DRYWELL #7 Peak Elev=172.44' Storage=82 cf Inflow=0.14 cfs 348 cf
Outflow=0.04 cfs 348 cf

Pond DW-8: PROPOSED DRYWELL #8 Peak Elev=170.14' Storage=85 cf Inflow=0.14 cfs 344 cf
Outflow=0.04 cfs 344 cf

Pond YD-1: PROPOSED DRAIN #1 Peak Elev=173.68' Inflow=0.39 cfs 909 cf
8.0" Round Culvert n=0.013 L=68.0' S=0.0100 '/' Outflow=0.39 cfs 909 cf

Pond YD-2: PROPOSED DRAIN #2 Peak Elev=173.38' Inflow=0.90 cfs 2,015 cf
8.0" Round Culvert n=0.013 L=16.0' S=0.0100 '/' Outflow=0.90 cfs 2,015 cf

Pond YD-3: PROPOSED DRAIN #3 Peak Elev=173.84' Inflow=0.30 cfs 722 cf
12.0" Round Culvert n=0.013 L=104.0' S=0.0120 '/' Outflow=0.30 cfs 722 cf

Pond YD-4: PROPOSED DRAIN #4 Peak Elev=173.31' Inflow=1.11 cfs 2,550 cf
8.0" Round Culvert n=0.013 L=84.0' S=0.0100 '/' Outflow=1.11 cfs 2,550 cf

Total Runoff Area = 139,588 sf Runoff Volume = 22,783 cf Average Runoff Depth = 1.96"
24.56% Pervious = 34,277 sf 75.44% Impervious = 105,311 sf

Summary for Subcatchment DA-1: DA-1

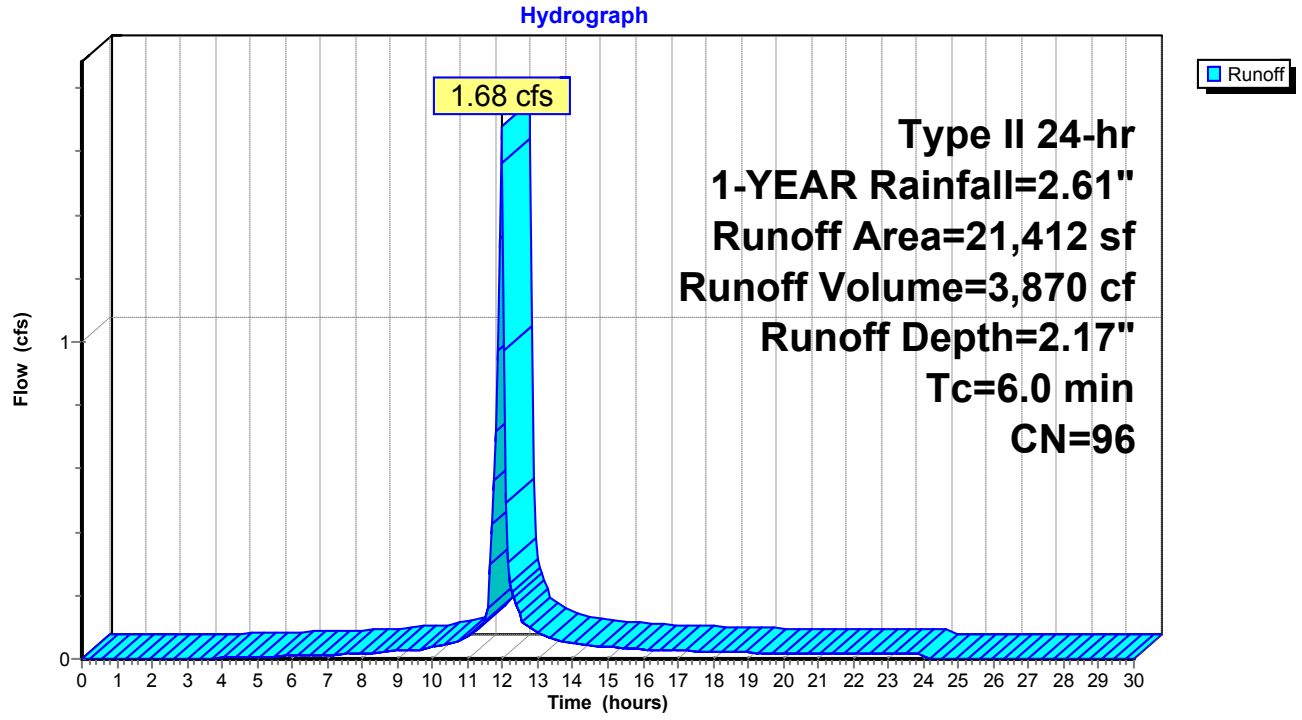
Runoff = 1.68 cfs @ 11.96 hrs, Volume= 3,870 cf, Depth= 2.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
2,951	80	>75% Grass cover, Good, HSG D
17,281	98	Roofs, HSG D
1,180	98	Paved parking, HSG D
21,412	96	Weighted Average
2,951		13.78% Pervious Area
18,461		86.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

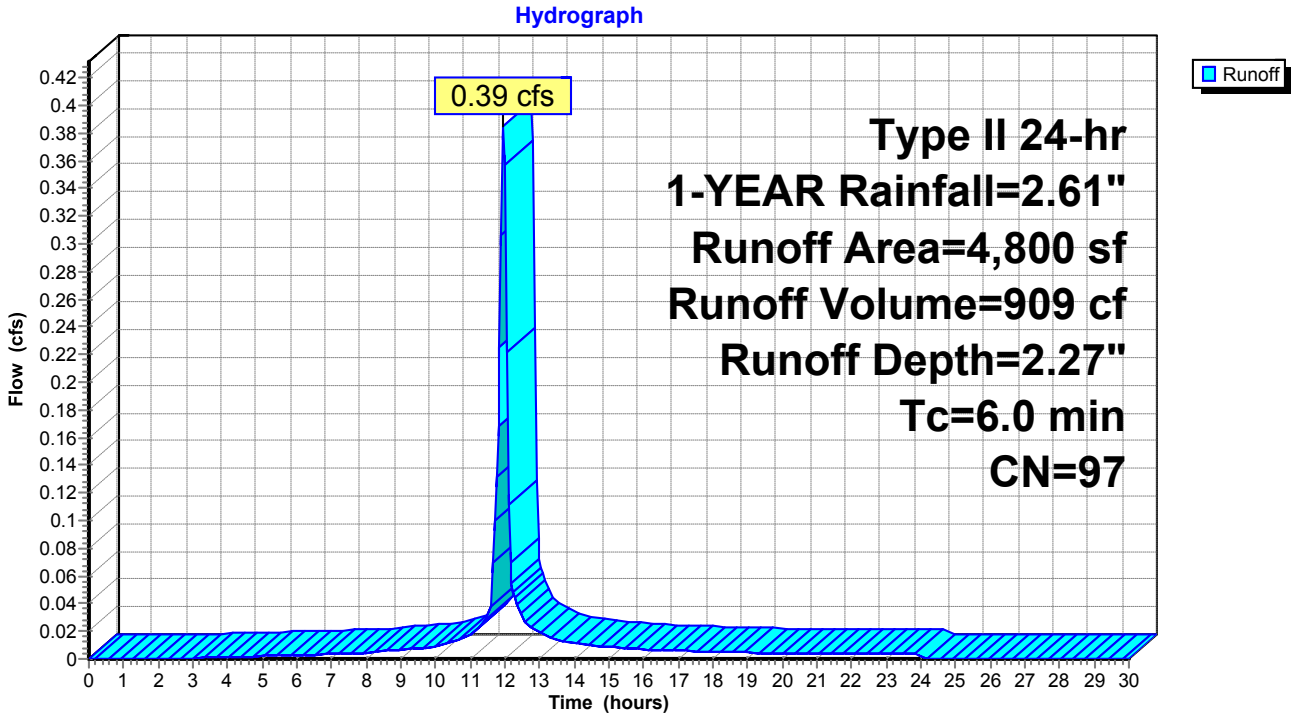
Runoff = 0.39 cfs @ 11.96 hrs, Volume= 909 cf, Depth= 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
245	80	>75% Grass cover, Good, HSG D
2,933	98	Roofs, HSG D
1,622	98	Paved parking, HSG D
4,800	97	Weighted Average
245		5.10% Pervious Area
4,555		94.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

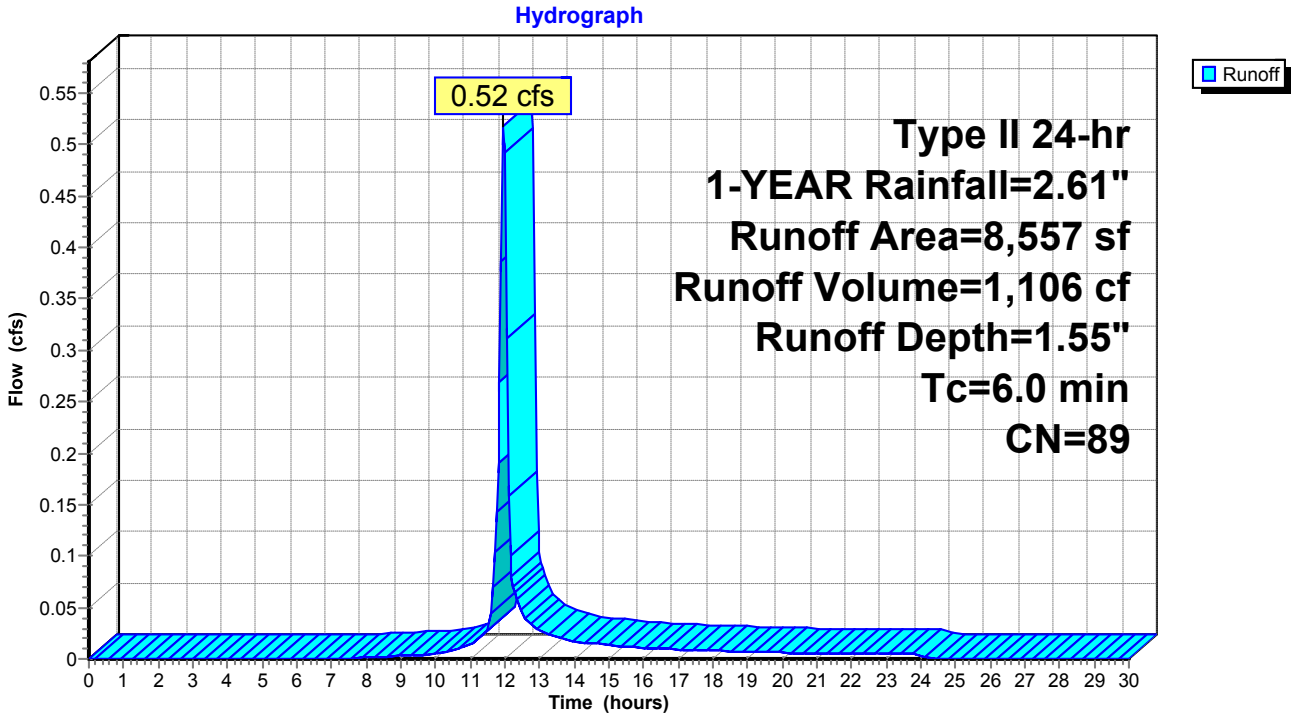
Runoff = 0.52 cfs @ 11.97 hrs, Volume= 1,106 cf, Depth= 1.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
4,132	80	>75% Grass cover, Good, HSG D
3,489	98	Roofs, HSG D
936	98	Paved parking, HSG D
8,557	89	Weighted Average
4,132		48.29% Pervious Area
4,425		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-12: DRAINAGE AREA 12

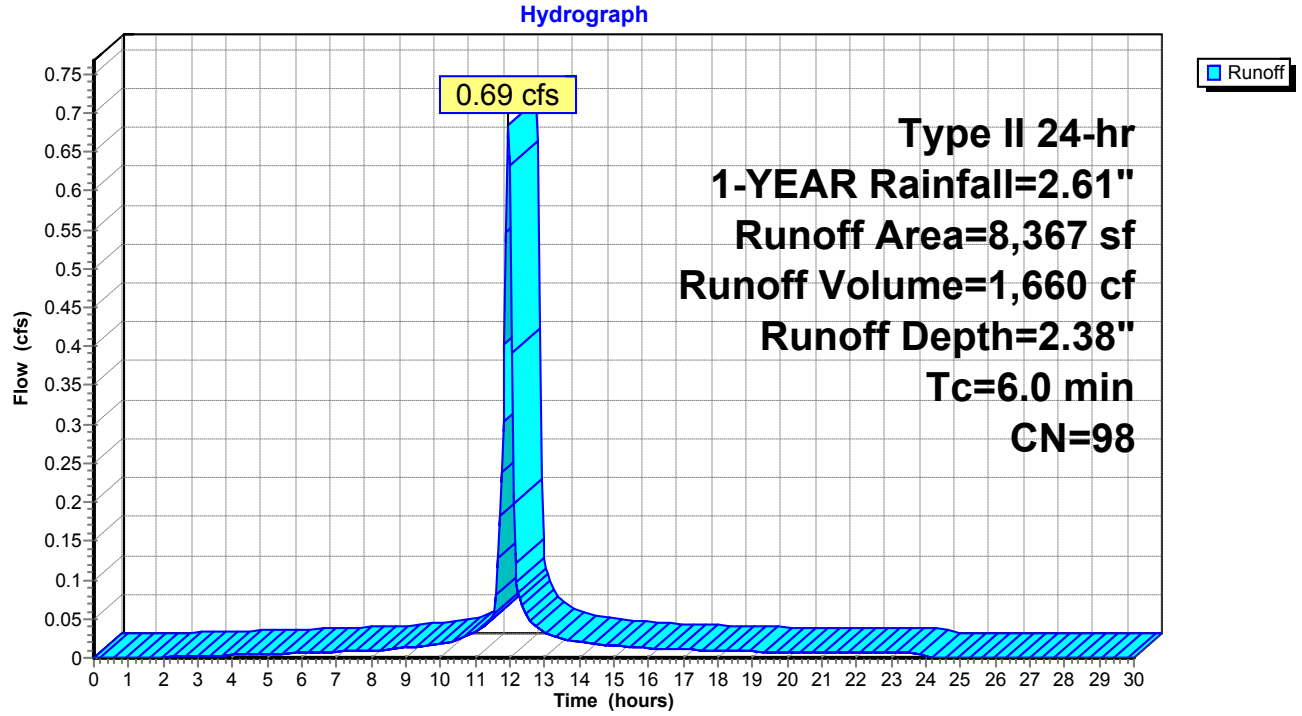
Runoff = 0.69 cfs @ 11.96 hrs, Volume= 1,660 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
8,367	98	Roofs, HSG D
8,367		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-12: DRAINAGE AREA 12



Summary for Subcatchment DA-13: DA-13

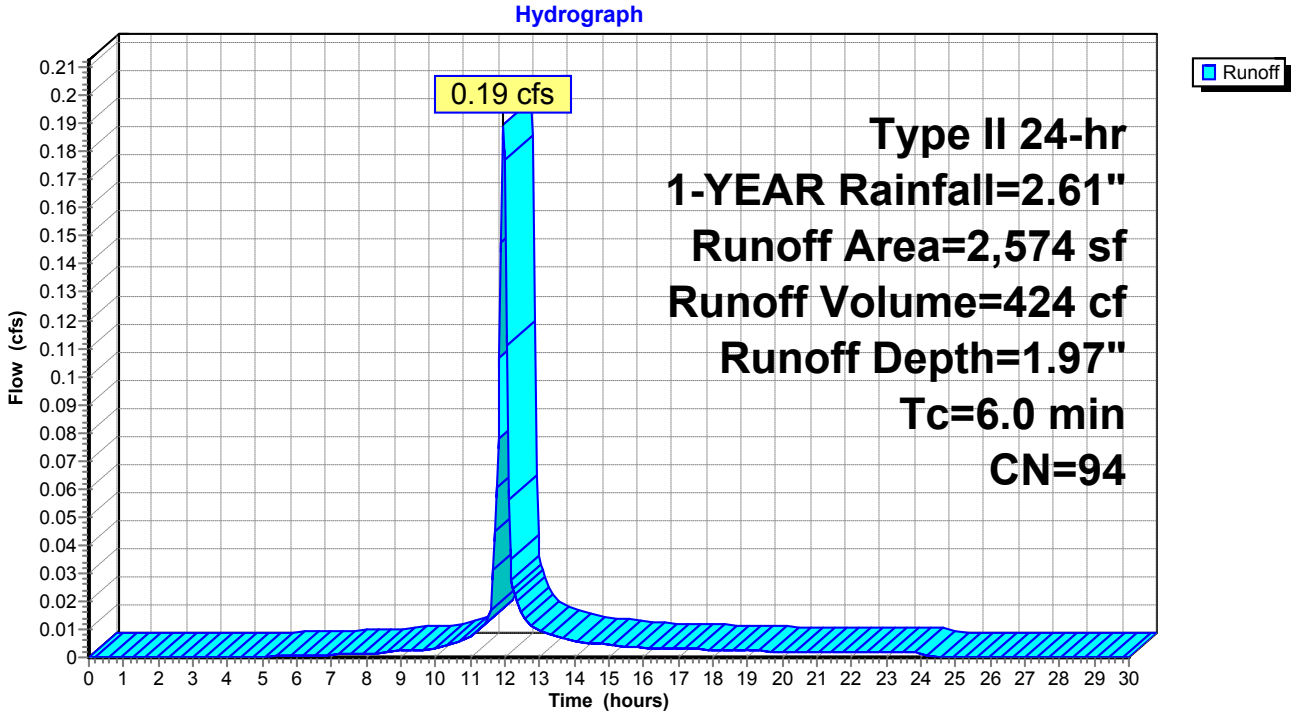
Runoff = 0.19 cfs @ 11.96 hrs, Volume= 424 cf, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
526	80	>75% Grass cover, Good, HSG D
2,048	98	Paved parking, HSG D
2,574	94	Weighted Average
526		20.44% Pervious Area
2,048		79.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-13: DA-13



Summary for Subcatchment DA-14: DRAINAGE AREA 14

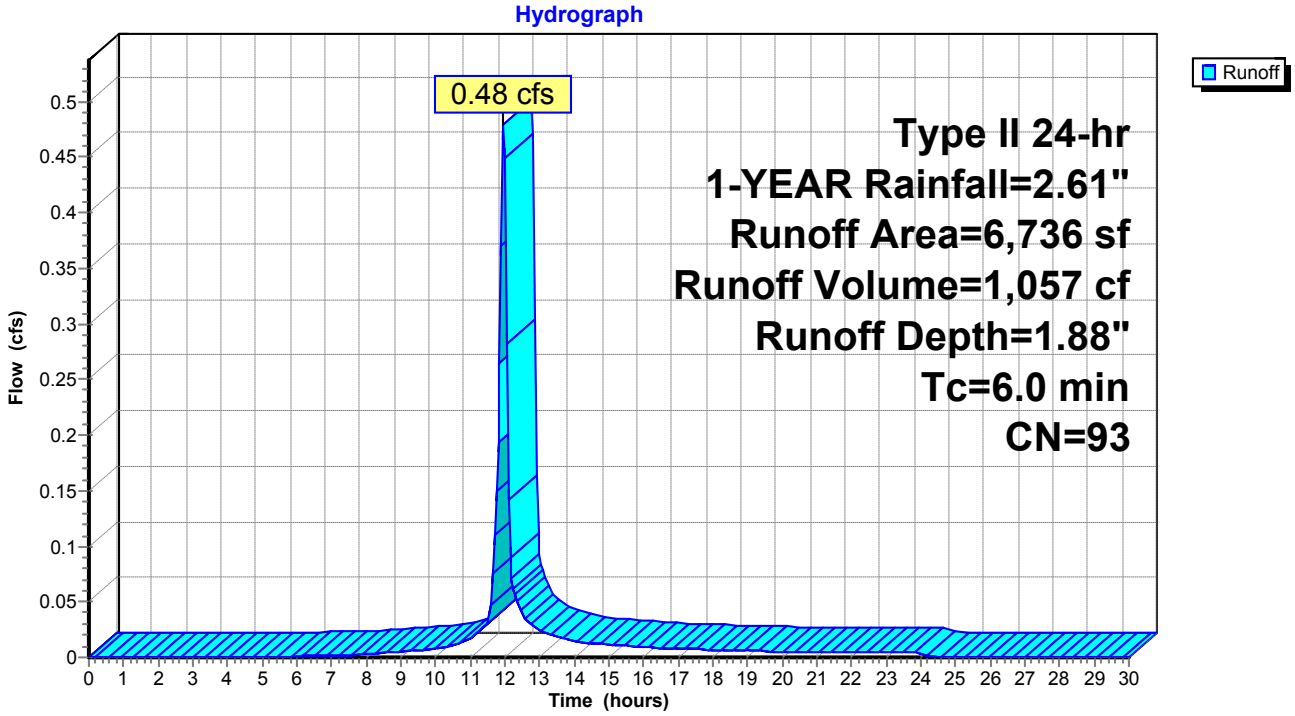
Runoff = 0.48 cfs @ 11.97 hrs, Volume= 1,057 cf, Depth= 1.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
2,039	80	>75% Grass cover, Good, HSG D
4,697	98	Paved parking, HSG D
6,736	93	Weighted Average
2,039		30.27% Pervious Area
4,697		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-14: DRAINAGE AREA 14



Summary for Subcatchment DA-15: DA-15

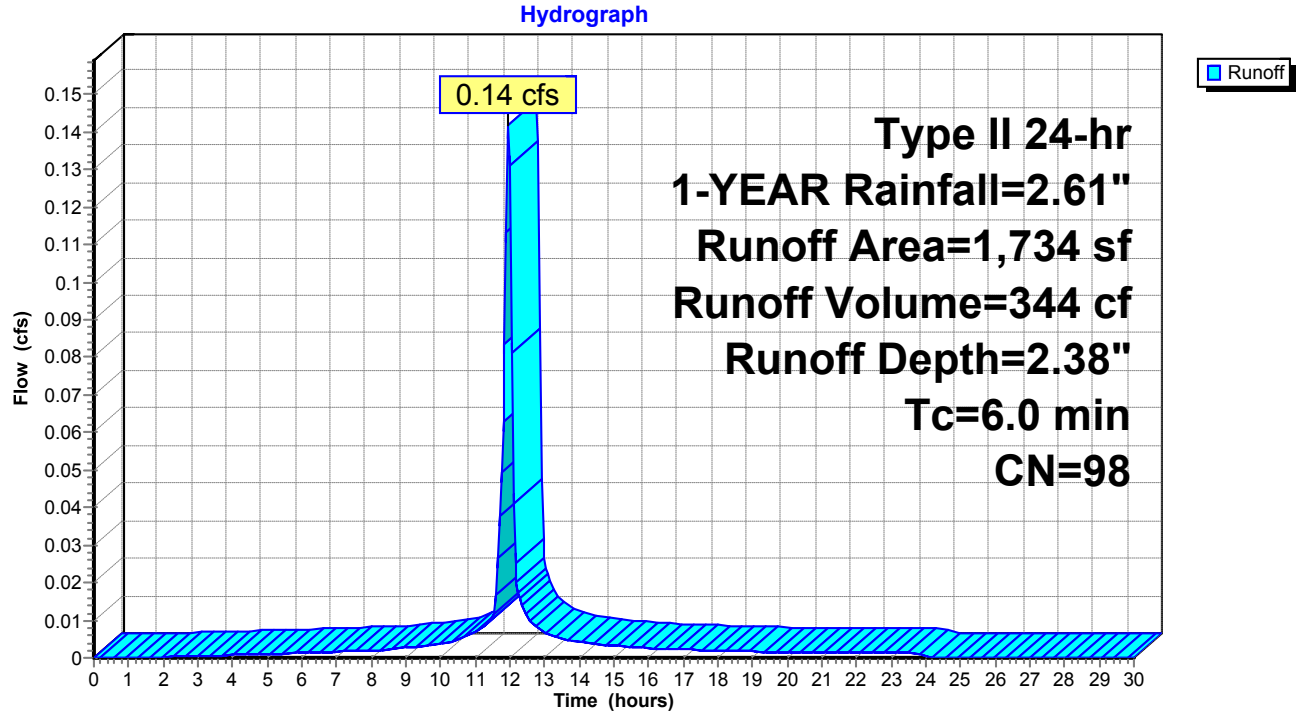
Runoff = 0.14 cfs @ 11.96 hrs, Volume= 344 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,734	98	Roofs, HSG D
1,734		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-15: DA-15



Summary for Subcatchment DA-16: DA-16

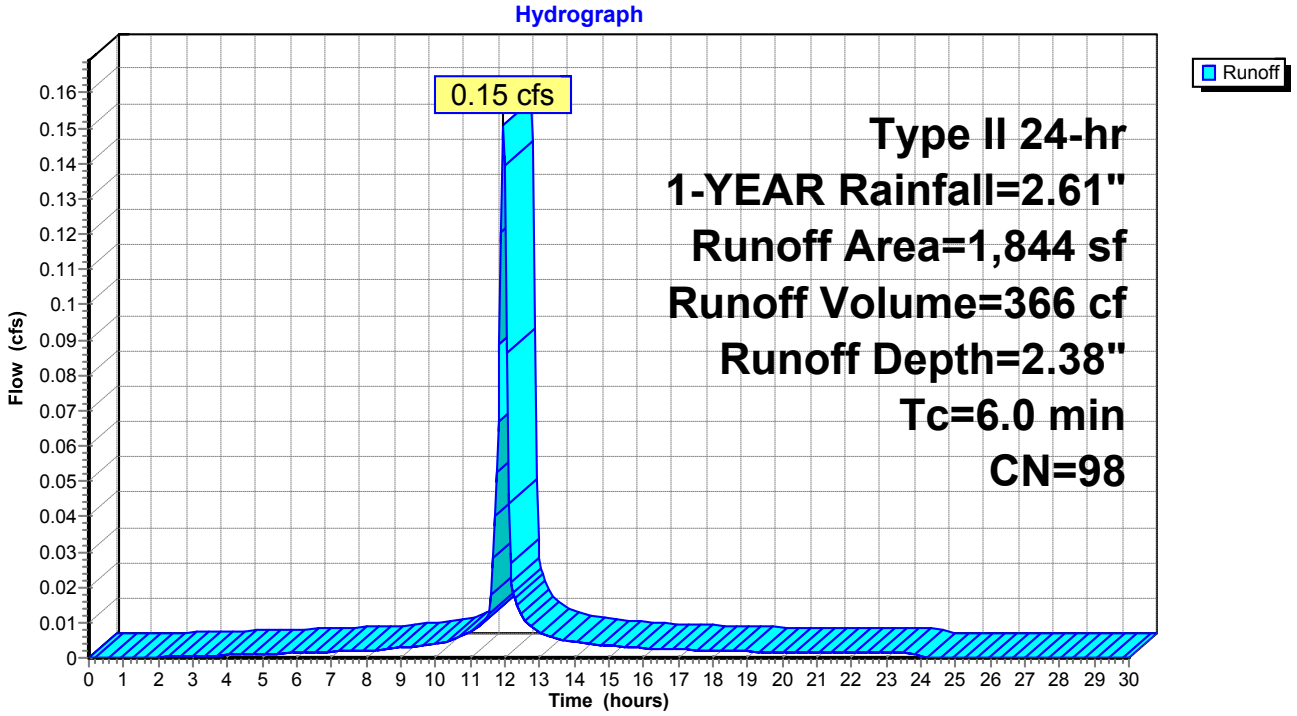
Runoff = 0.15 cfs @ 11.96 hrs, Volume= 366 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,844	98	Roofs, HSG D
1,844		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-16: DA-16



Summary for Subcatchment DA-17: DA-17

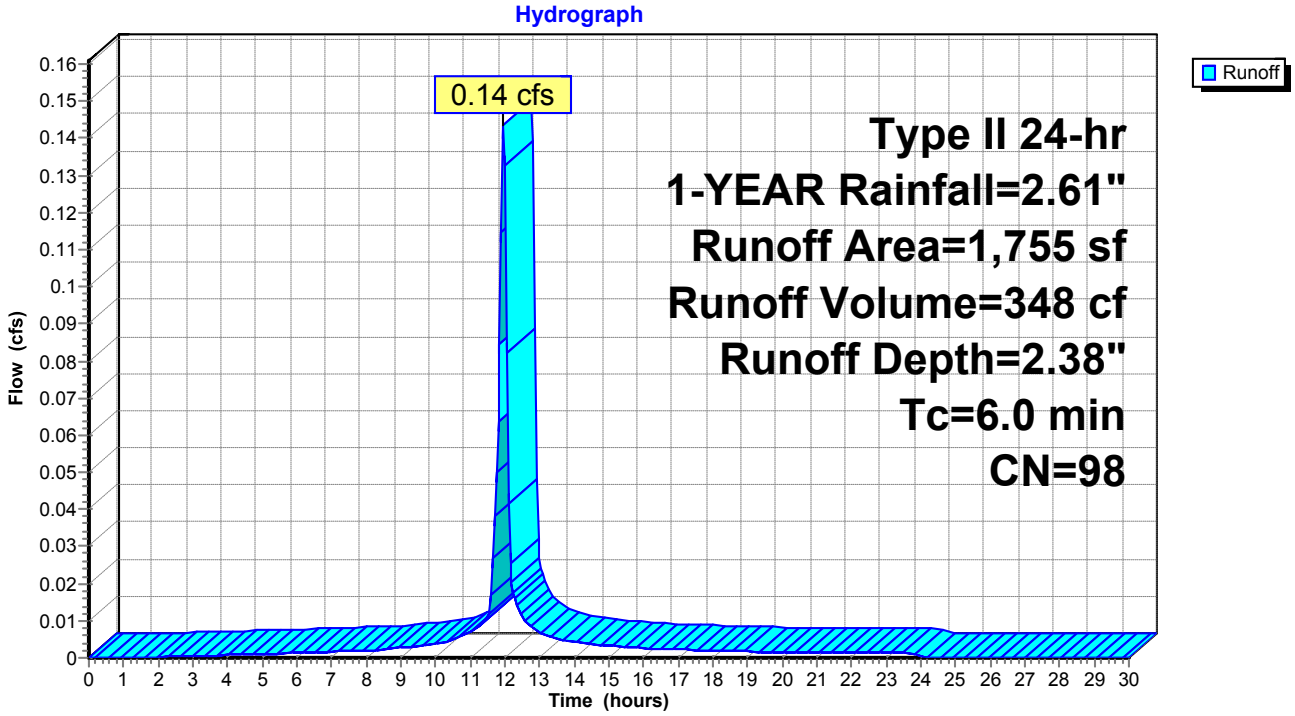
Runoff = 0.14 cfs @ 11.96 hrs, Volume= 348 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,755	98	Roofs, HSG D
1,755		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-17: DA-17



Summary for Subcatchment DA-18: DRAINAGE AREA 18

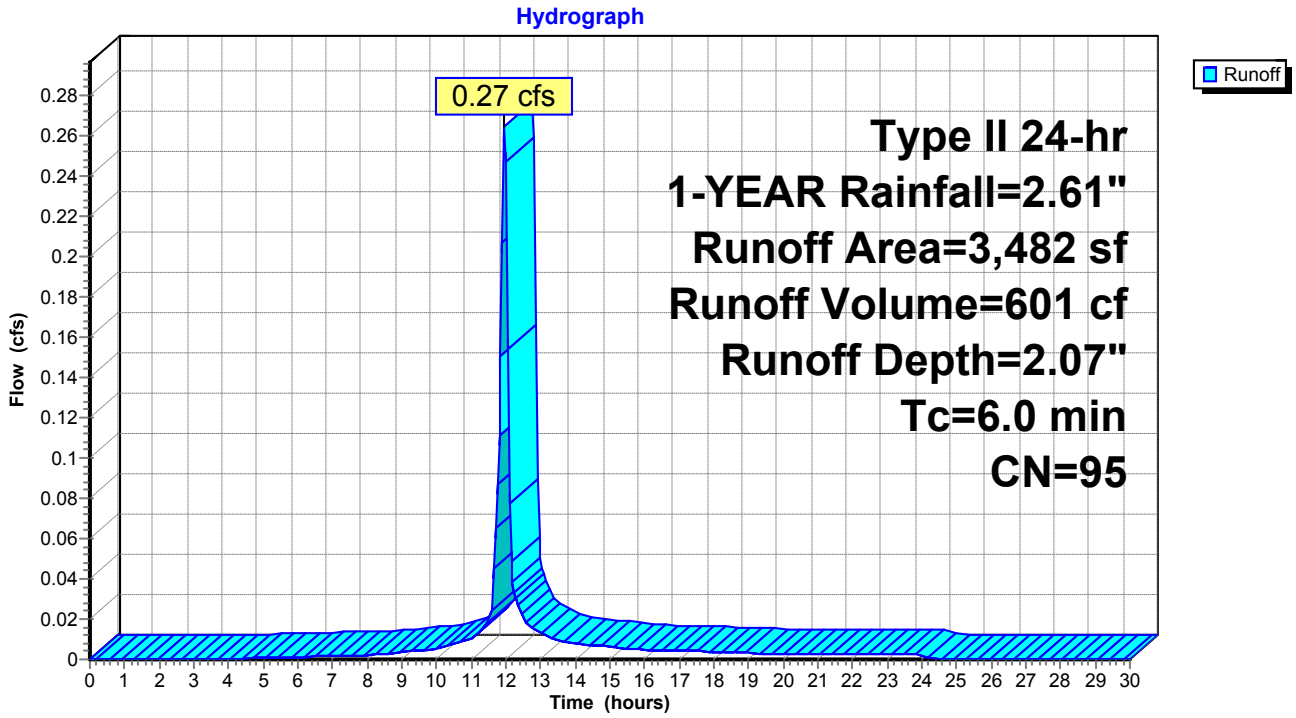
Runoff = 0.27 cfs @ 11.96 hrs, Volume= 601 cf, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
489	80	>75% Grass cover, Good, HSG D
2,993	98	Paved parking, HSG D
3,482	95	Weighted Average
489		14.04% Pervious Area
2,993		85.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-18: DRAINAGE AREA 18



Summary for Subcatchment DA-2: DA-2

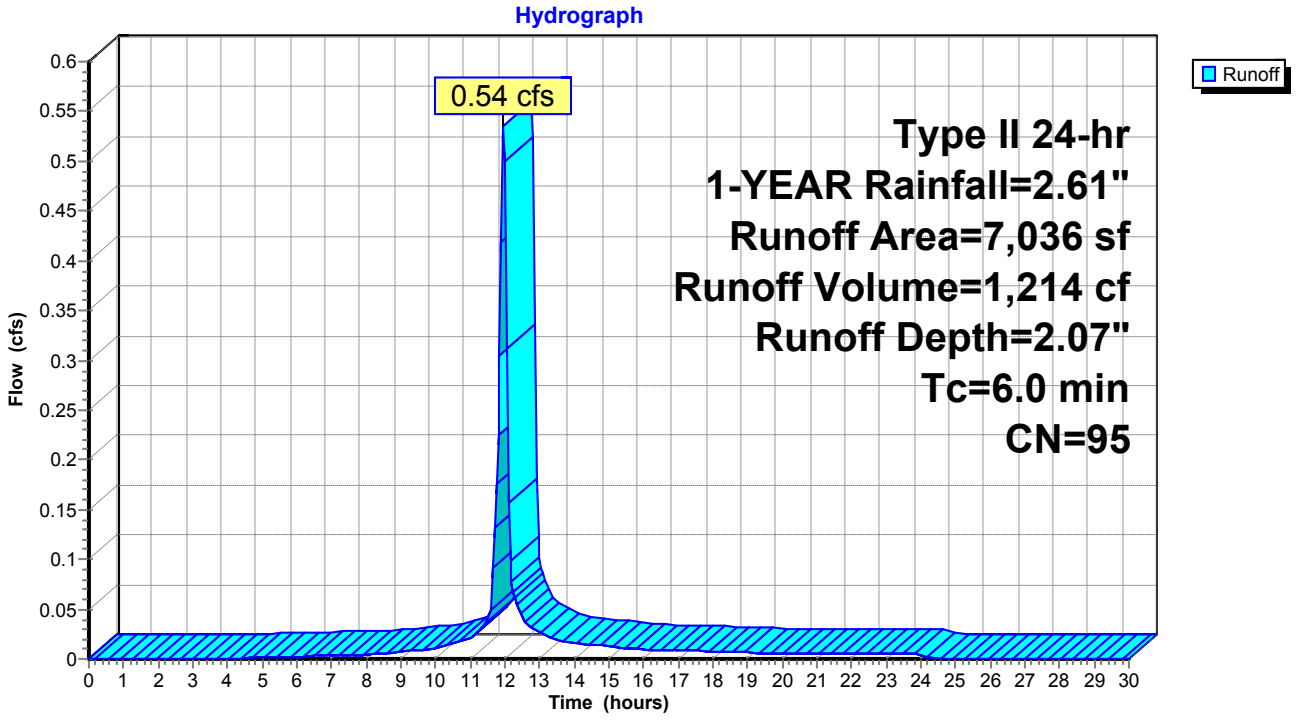
Runoff = 0.54 cfs @ 11.96 hrs, Volume= 1,214 cf, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,178	80	>75% Grass cover, Good, HSG D
5,194	98	Roofs, HSG D
664	98	Paved parking, HSG D
7,036	95	Weighted Average
1,178		16.74% Pervious Area
5,858		83.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DRAINAGE AREA 3

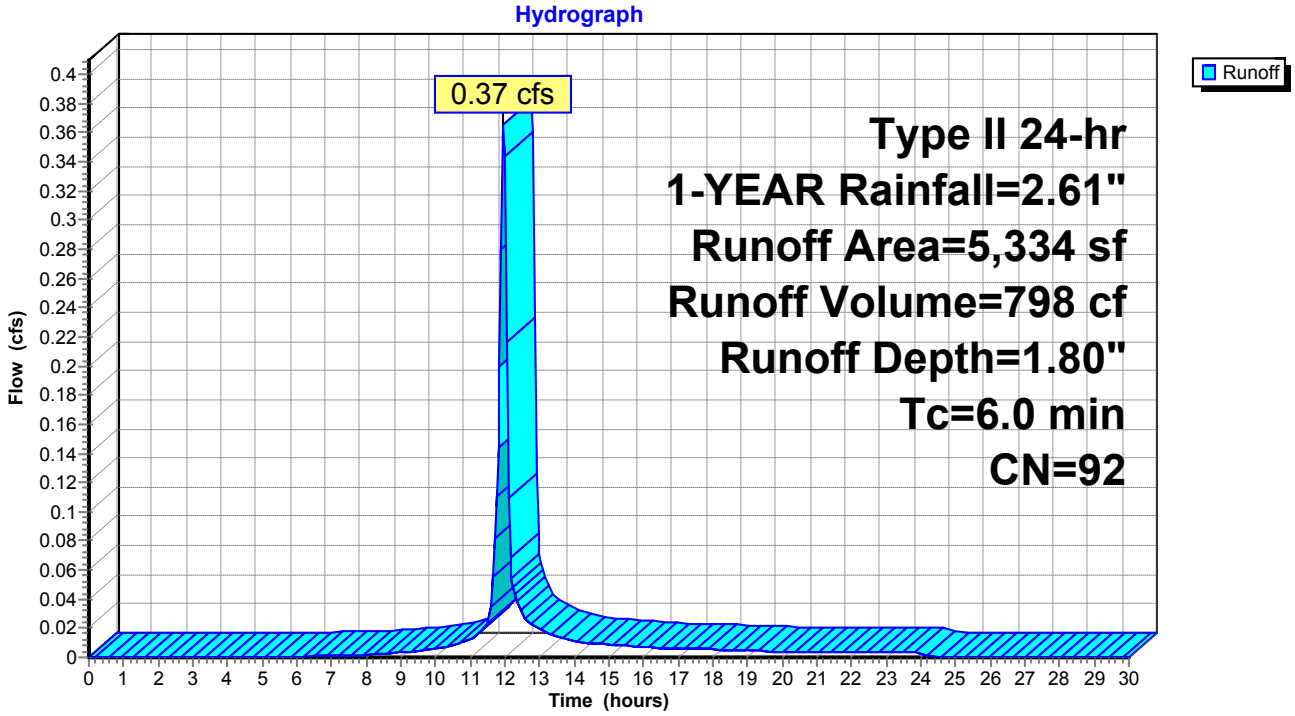
Runoff = 0.37 cfs @ 11.97 hrs, Volume= 798 cf, Depth= 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,820	80	>75% Grass cover, Good, HSG D
3,514	98	Paved parking, HSG D
5,334	92	Weighted Average
1,820		34.12% Pervious Area
3,514		65.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-3: DRAINAGE AREA 3



Summary for Subcatchment DA-4: DRAINAGE AREA 4

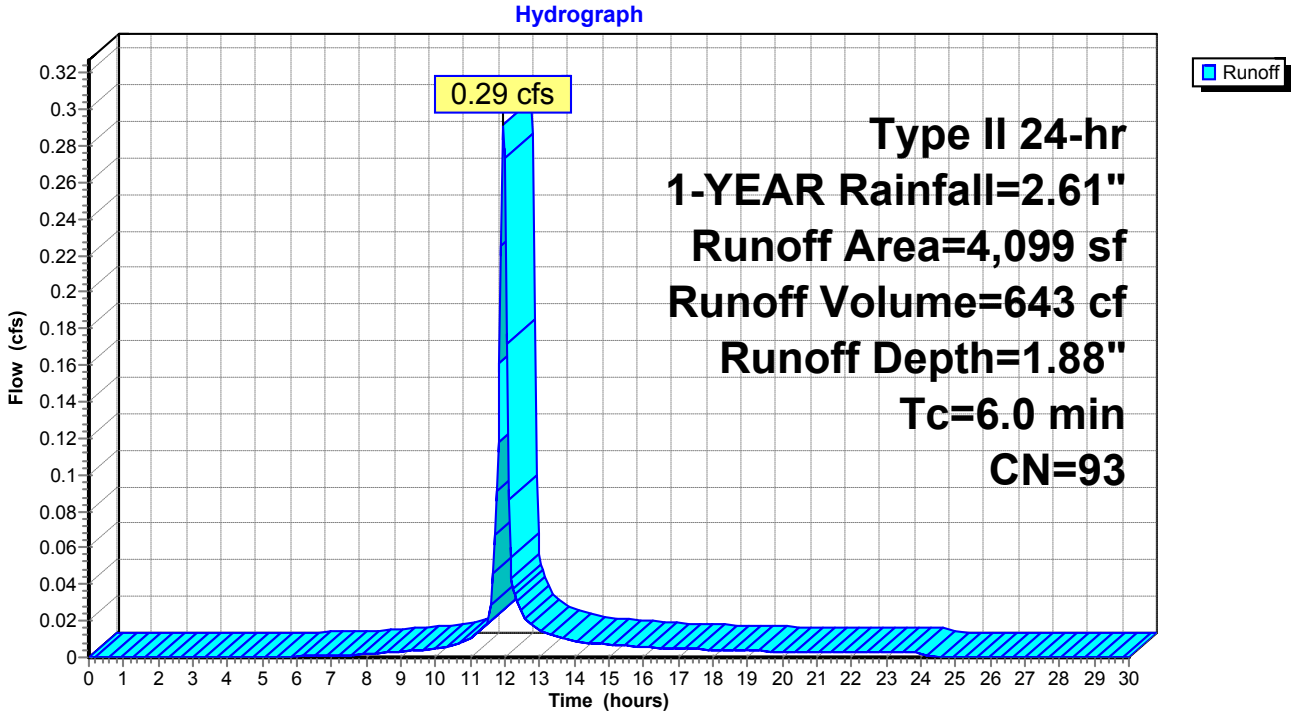
Runoff = 0.29 cfs @ 11.97 hrs, Volume= 643 cf, Depth= 1.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,032	80	>75% Grass cover, Good, HSG D
3,067	98	Paved parking, HSG D
4,099	93	Weighted Average
1,032		25.18% Pervious Area
3,067		74.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-4: DRAINAGE AREA 4



Summary for Subcatchment DA-5: DRAINAGE AREA 5

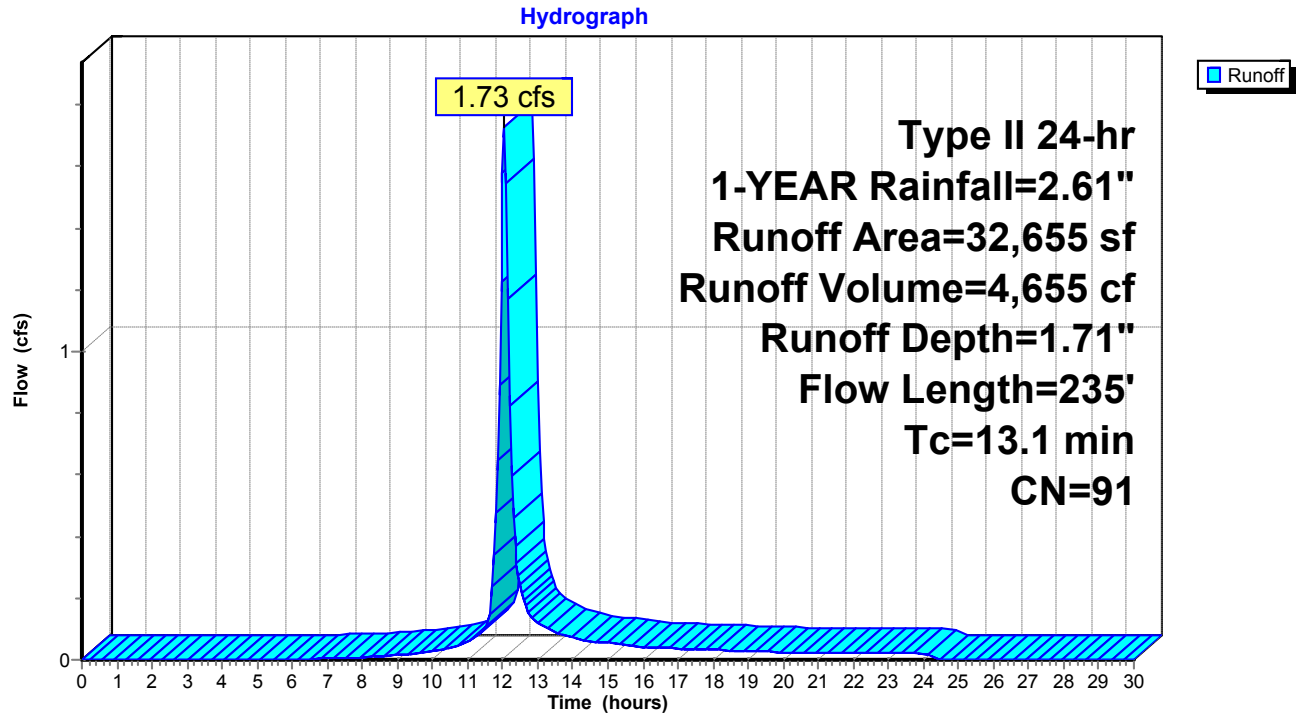
Runoff = 1.73 cfs @ 12.05 hrs, Volume= 4,655 cf, Depth= 1.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
12,737	80	>75% Grass cover, Good, HSG D
19,918	98	Paved parking, HSG D
32,655	91	Weighted Average
12,737		39.00% Pervious Area
19,918		61.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0150	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
1.7	81	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	54	0.0250	3.21		**Shallow Concentrated Flow, C-D** Paved Kv= 20.3 fps
13.1	235	Total			

Subcatchment DA-5: DRAINAGE AREA 5



Summary for Subcatchment DA-6: DA-6

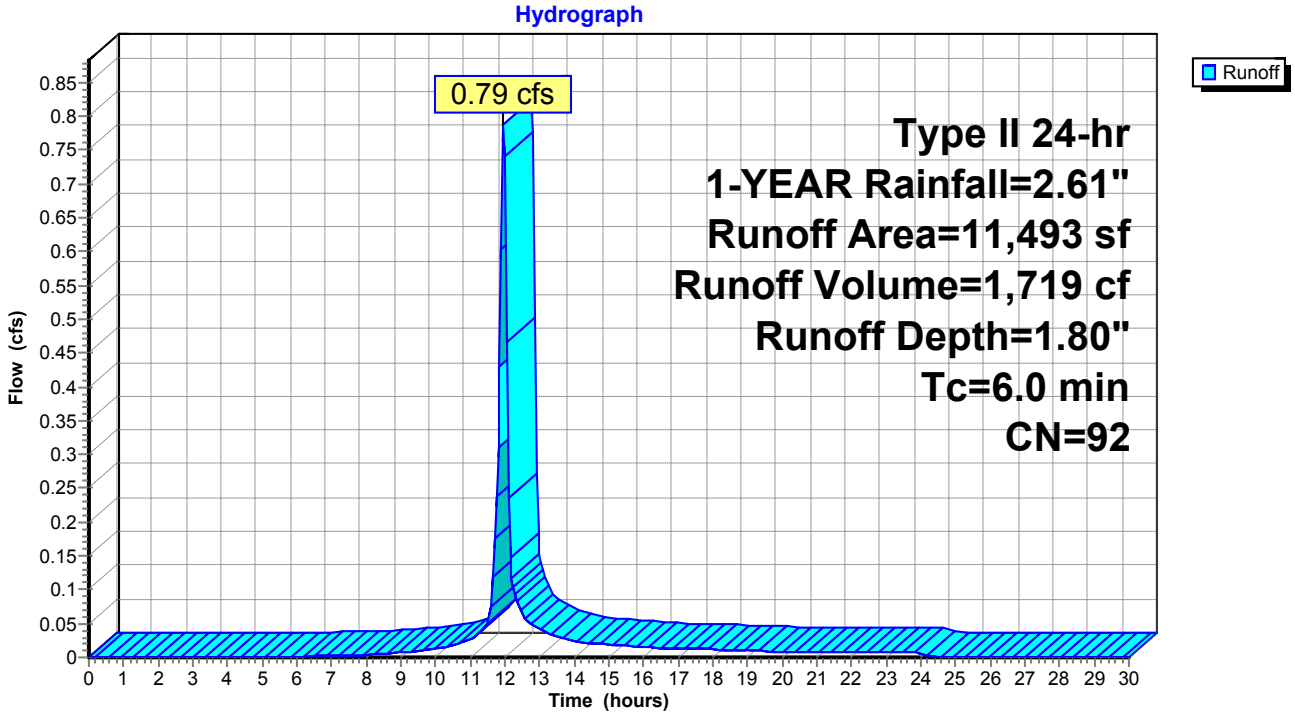
Runoff = 0.79 cfs @ 11.97 hrs, Volume= 1,719 cf, Depth= 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
3,947	80	>75% Grass cover, Good, HSG D
7,546	98	Paved parking, HSG D
11,493	92	Weighted Average
3,947		34.34% Pervious Area
7,546		65.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

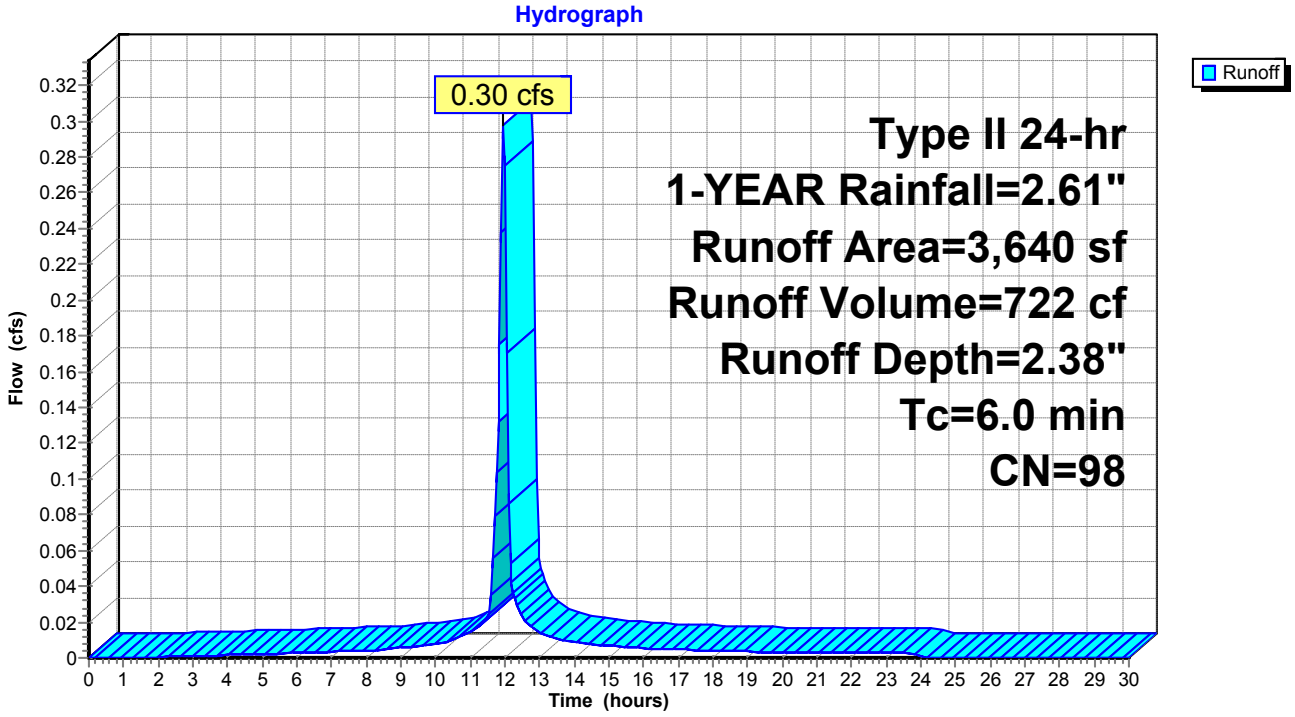
Runoff = 0.30 cfs @ 11.96 hrs, Volume= 722 cf, Depth= 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,587	98	Roofs, HSG D
2,053	98	Paved parking, HSG D
3,640	98	Weighted Average
3,640		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

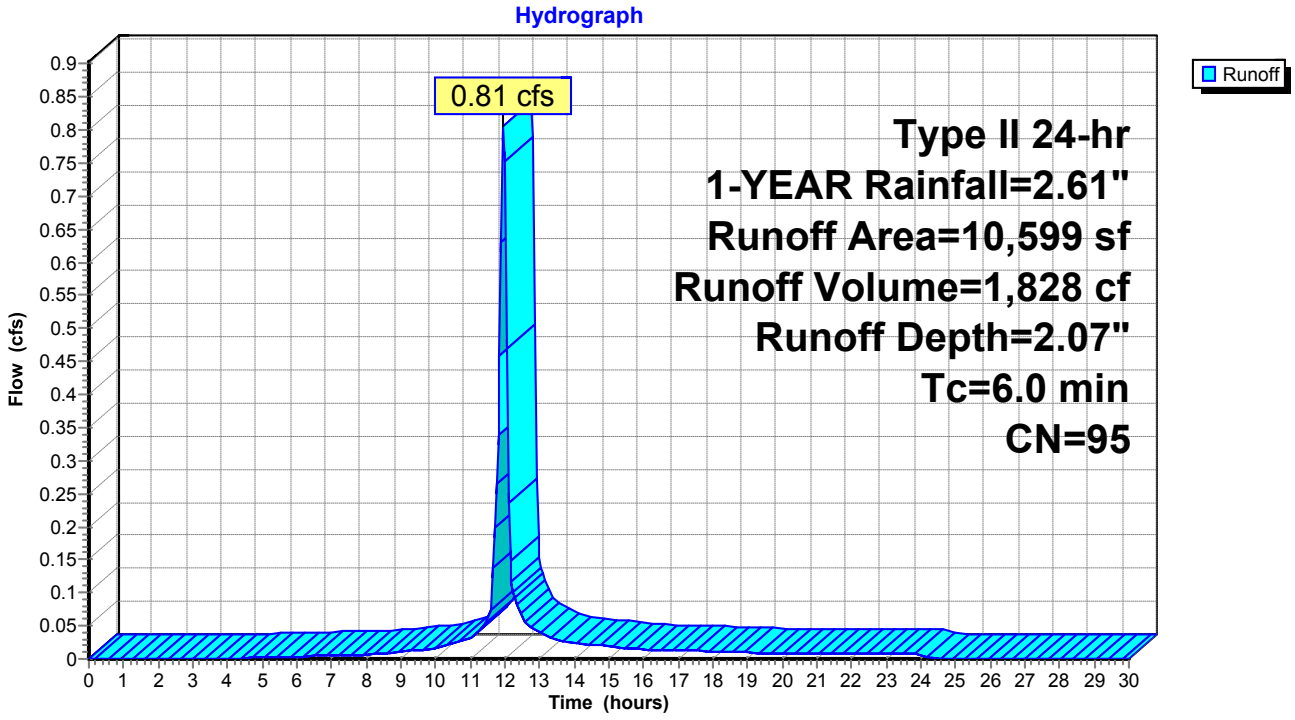
Runoff = 0.81 cfs @ 11.96 hrs, Volume= 1,828 cf, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,986	80	>75% Grass cover, Good, HSG D
6,900	98	Roofs, HSG D
1,713	98	Paved parking, HSG D
10,599	95	Weighted Average
1,986		18.74% Pervious Area
8,613		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DRAINAGE AREA 9

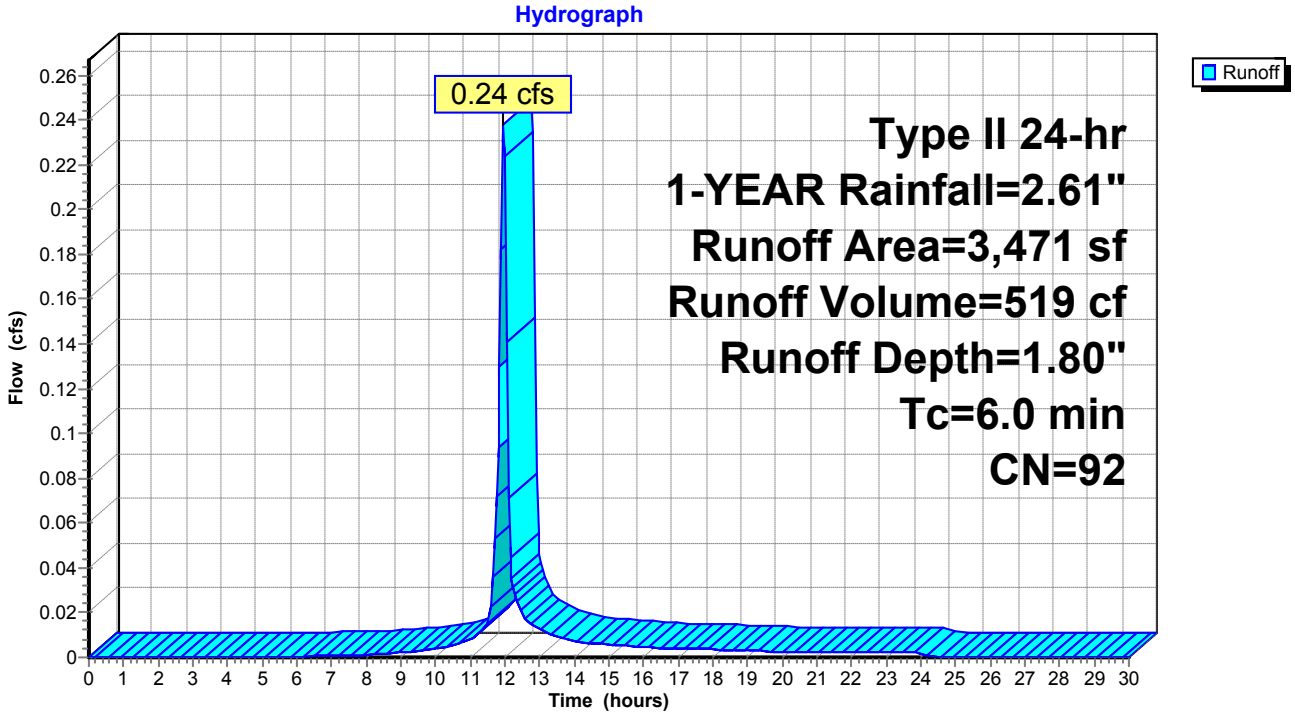
Runoff = 0.24 cfs @ 11.97 hrs, Volume= 519 cf, Depth= 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,195	80	>75% Grass cover, Good, HSG D
2,276	98	Paved parking, HSG D
3,471	92	Weighted Average
1,195		34.43% Pervious Area
2,276		65.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-9: DRAINAGE AREA 9



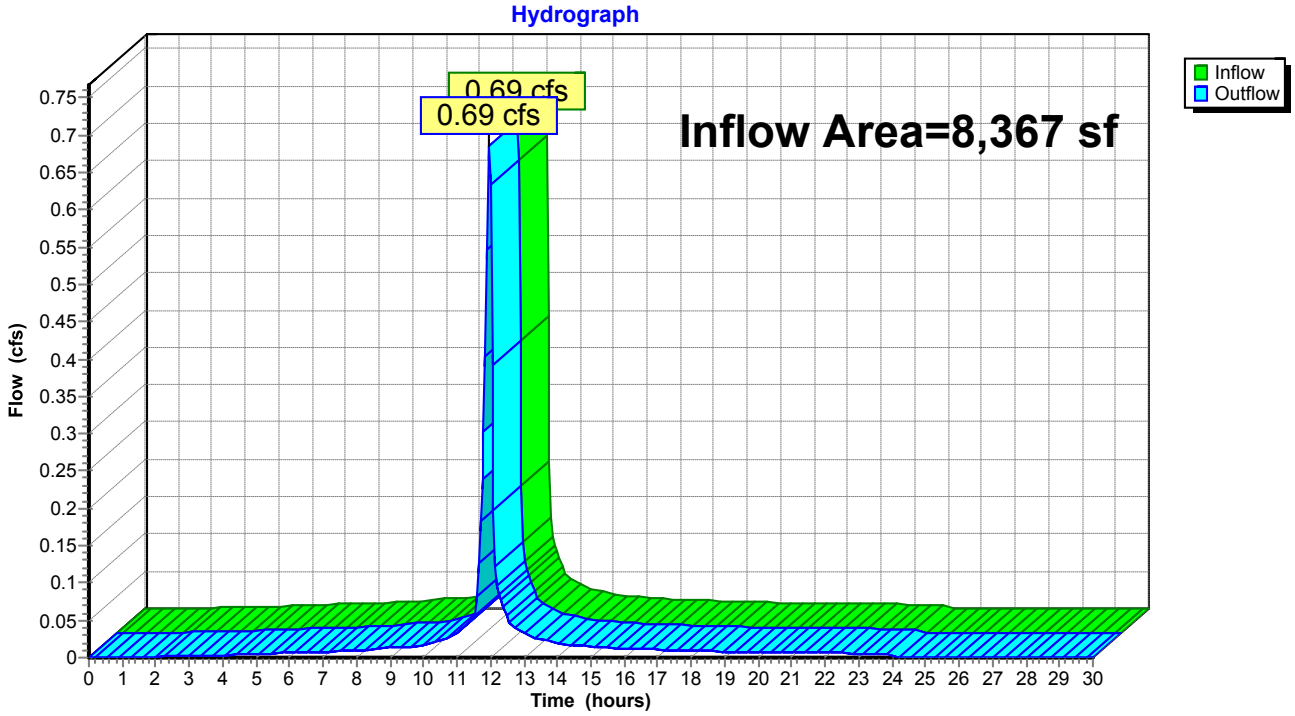
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8,367 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 0.69 cfs @ 11.96 hrs, Volume= 1,660 cf
Outflow = 0.69 cfs @ 11.96 hrs, Volume= 1,660 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 2P: EXISTING DRYWELL

[81] Warning: Exceeded Pond DW-4 by 0.49' @ 14.05 hrs

Inflow Area = 5,334 sf, 65.88% Impervious, Inflow Depth = 4.39" for 1-YEAR event
Inflow = 1.57 cfs @ 11.98 hrs, Volume= 1,952 cf
Outflow = 1.54 cfs @ 12.00 hrs, Volume= 1,952 cf, Atten= 2%, Lag= 1.2 min
Discarded = 0.54 cfs @ 12.00 hrs, Volume= 1,401 cf
Primary = 1.00 cfs @ 12.00 hrs, Volume= 551 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.76' @ 12.00 hrs Surf.Area= 1,061 sf Storage= 353 cf

Plug-Flow detention time= 33.6 min calculated for 1,949 cf (100% of inflow)
Center-of-Mass det. time= 33.5 min (792.1 - 758.6)

Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	1,717 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

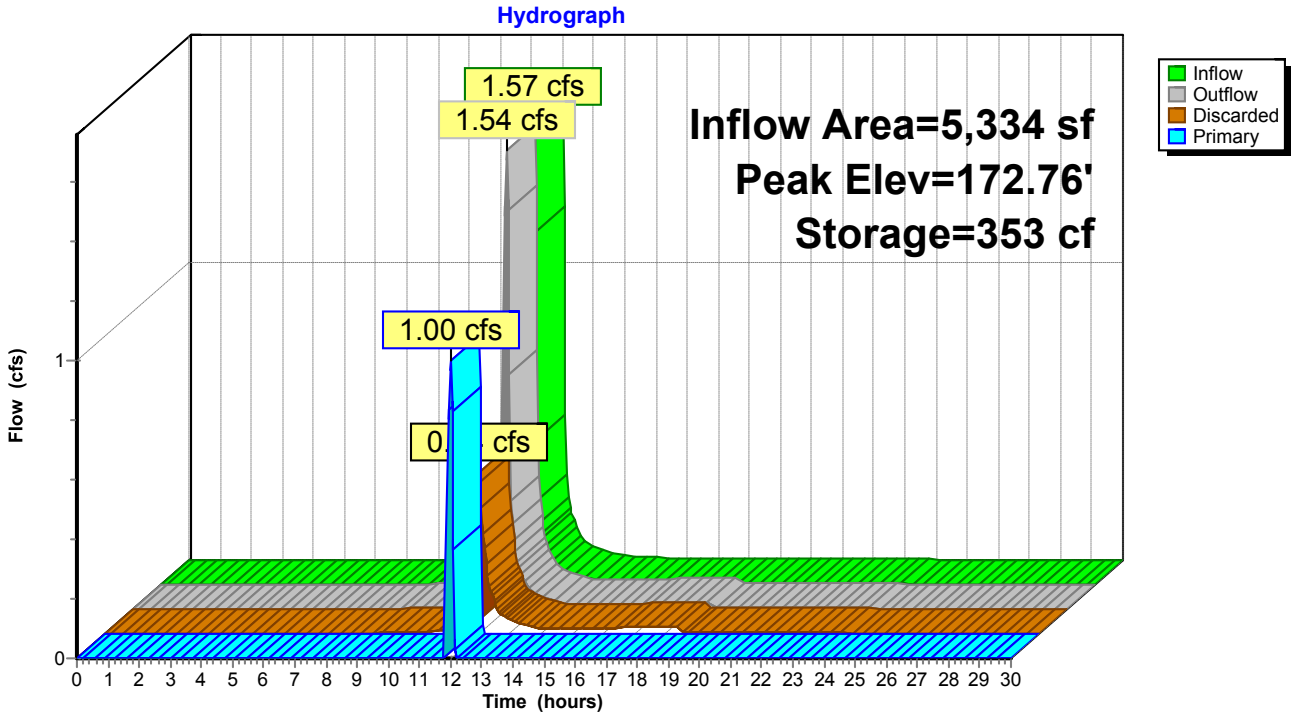
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	2,000	507	717
173.50	2,000	1,000	1,717

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**
#2	Primary	172.65'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.54 cfs @ 12.00 hrs HW=172.76' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.54 cfs)

Primary OutFlow Max=0.97 cfs @ 12.00 hrs HW=172.76' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 0.97 cfs @ 1.09 fps)

Pond 2P: EXISTING DRYWELL



Summary for Pond 3P: PROPOSED CB #3

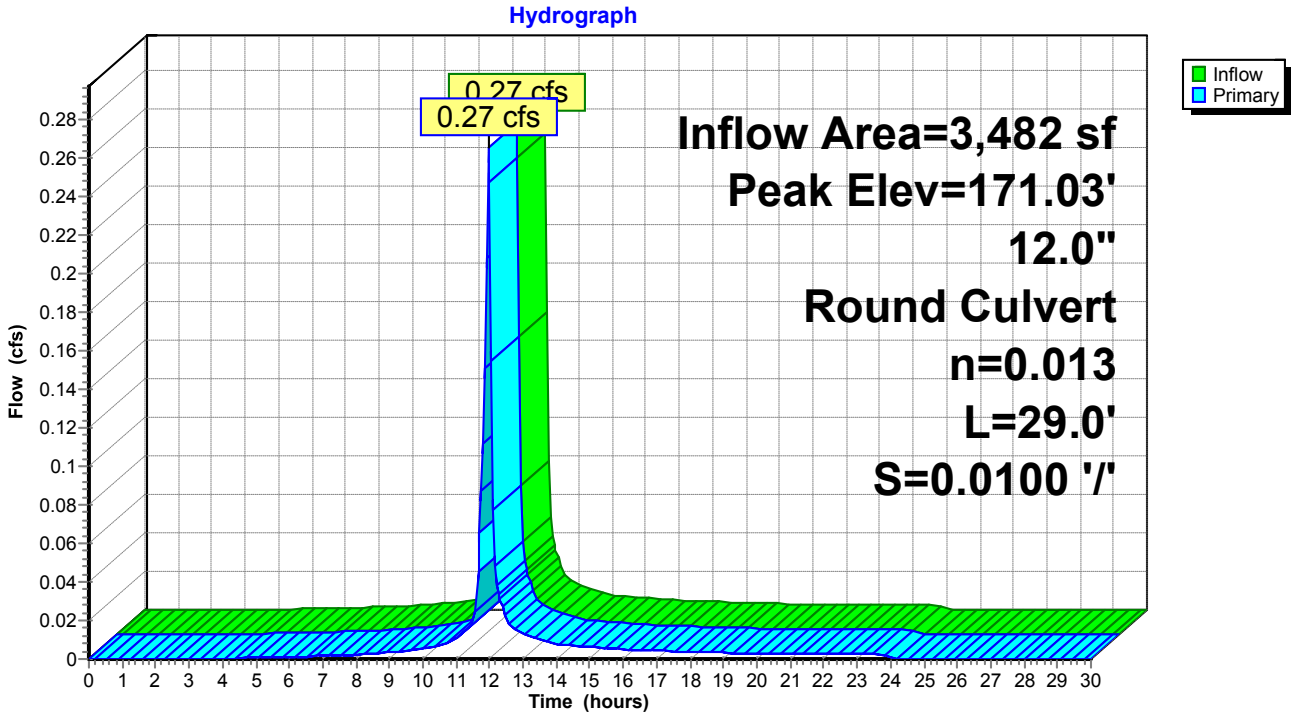
Inflow Area = 3,482 sf, 85.96% Impervious, Inflow Depth = 2.07" for 1-YEAR event
Inflow = 0.27 cfs @ 11.96 hrs, Volume= 601 cf
Outflow = 0.27 cfs @ 11.96 hrs, Volume= 601 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.27 cfs @ 11.96 hrs, Volume= 601 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.03' @ 11.96 hrs
Flood Elev= 172.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.74'	**12.0" Round Culvert** L= 29.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.74' / 170.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.26 cfs @ 11.96 hrs HW=171.02' (Free Discharge)
1=Culvert (Inlet Controls 0.26 cfs @ 1.42 fps)

Pond 3P: PROPOSED CB #3



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond CB-2 by 2.70' @ 12.15 hrs

Inflow	=	0.83 cfs @	11.96 hrs,	Volume=	2,179 cf
Outflow	=	0.63 cfs @	12.03 hrs,	Volume=	2,179 cf, Atten= 24%, Lag= 4.1 min
Discarded	=	0.63 cfs @	12.03 hrs,	Volume=	2,179 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.29' @ 12.03 hrs Surf.Area= 1,241 sf Storage= 409 cf

Plug-Flow detention time= 59.7 min calculated for 2,179 cf (100% of inflow)
Center-of-Mass det. time= 59.7 min (840.6 - 780.9)

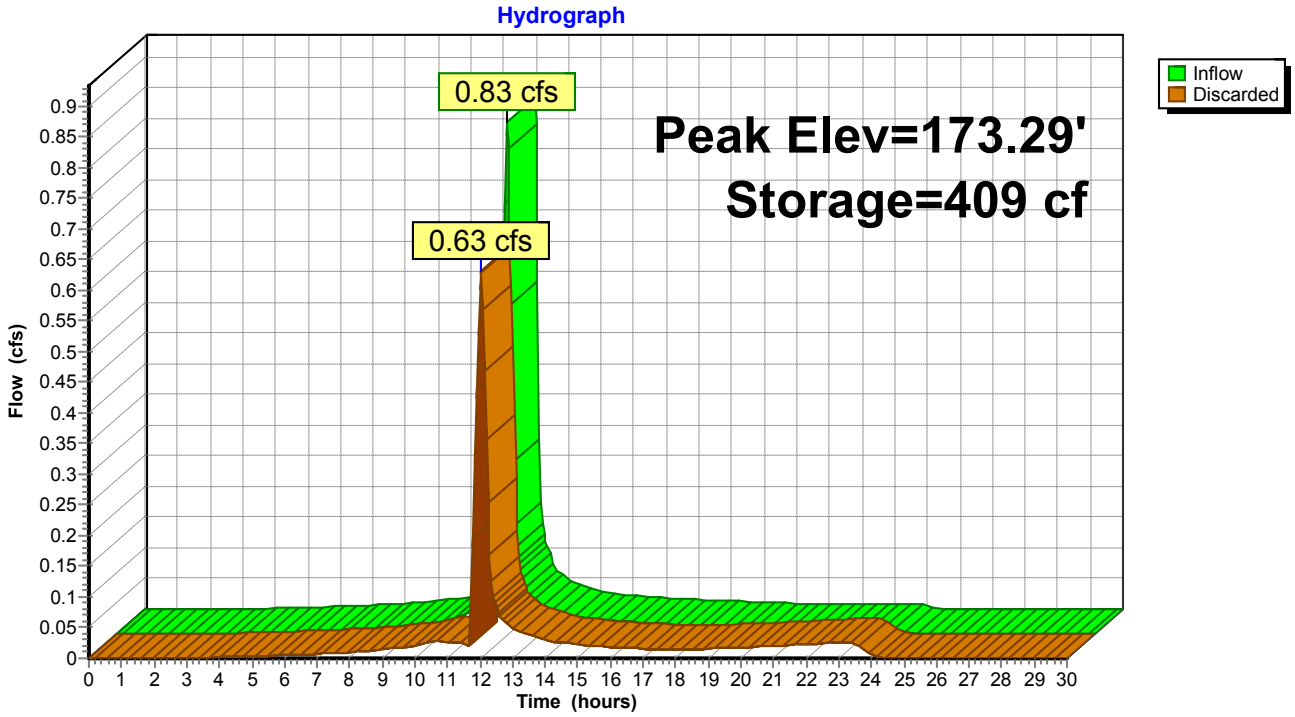
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	112	7	213
174.00	4,000	2,056	2,269

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.62 cfs @ 12.03 hrs HW=173.29' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.62 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 8P: EXISTING YARD DRAIN

[58] Hint: Peaked 9.32' above defined flood level

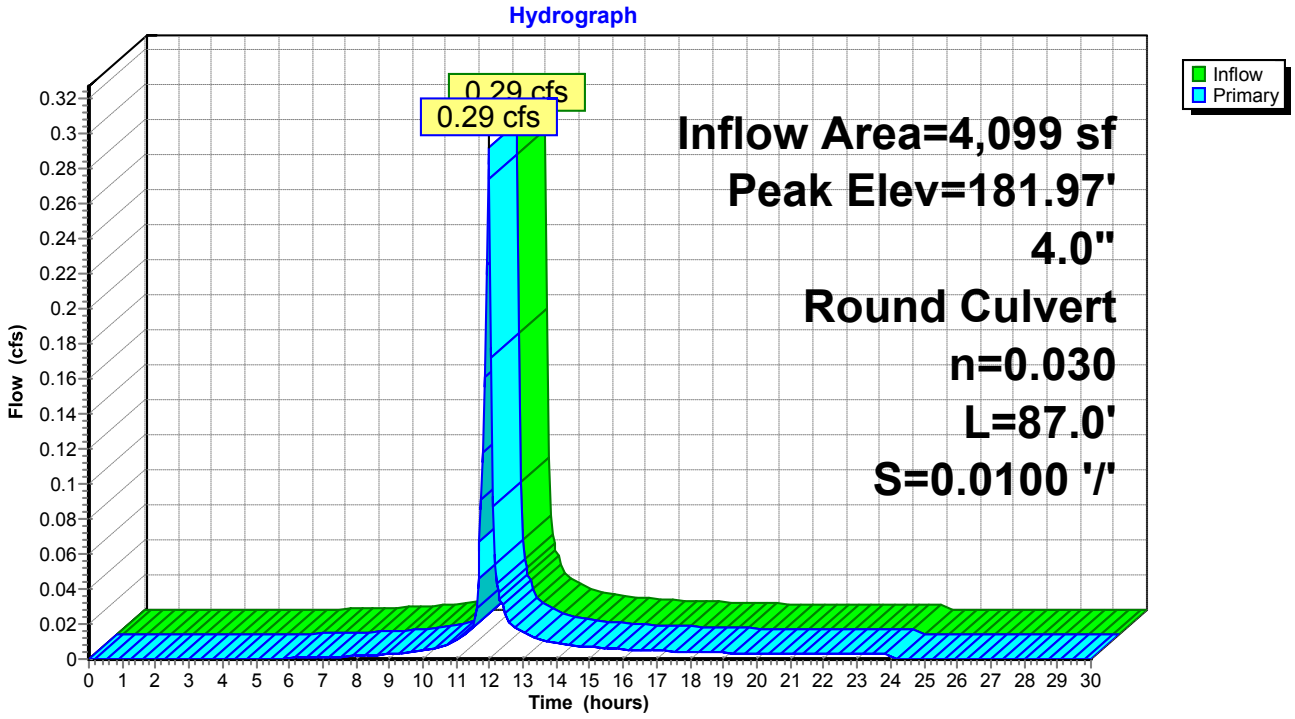
Inflow Area = 4,099 sf, 74.82% Impervious, Inflow Depth = 1.88" for 1-YEAR event
Inflow = 0.29 cfs @ 11.97 hrs, Volume= 643 cf
Outflow = 0.29 cfs @ 11.97 hrs, Volume= 643 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.29 cfs @ 11.97 hrs, Volume= 643 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 181.97' @ 11.96 hrs
Flood Elev= 172.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.030, Flow Area= 0.09 sf

Primary OutFlow Max=0.28 cfs @ 11.97 hrs HW=181.40' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.28 cfs @ 3.25 fps)

Pond 8P: EXISTING YARD DRAIN



Summary for Pond 12P: EXISTING CB

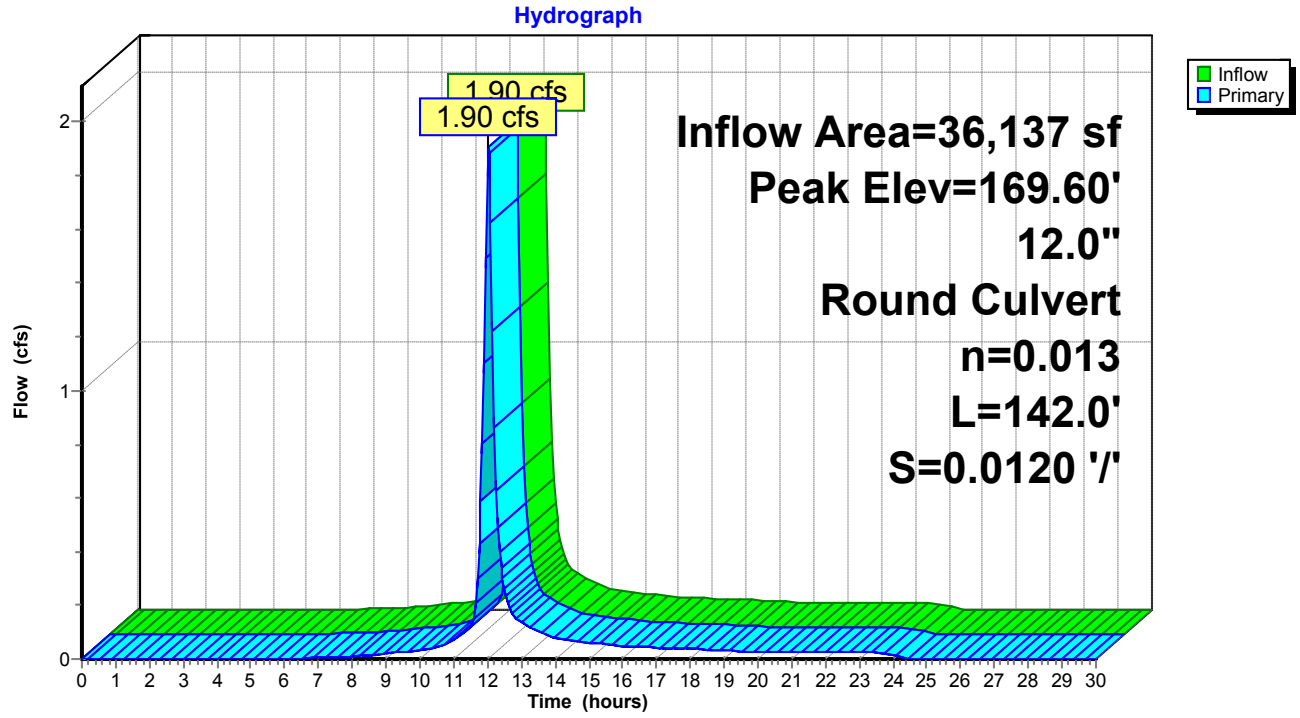
Inflow Area = 36,137 sf, 63.40% Impervious, Inflow Depth = 1.75" for 1-YEAR event
Inflow = 1.90 cfs @ 12.03 hrs, Volume= 5,256 cf
Outflow = 1.90 cfs @ 12.03 hrs, Volume= 5,256 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.90 cfs @ 12.03 hrs, Volume= 5,256 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.60' @ 12.03 hrs
Flood Elev= 172.16'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.87 cfs @ 12.03 hrs HW=169.59' (Free Discharge)
1=Culvert (Inlet Controls 1.87 cfs @ 2.53 fps)

Pond 12P: EXISTING CB



Summary for Pond 14P: EXISTING CB

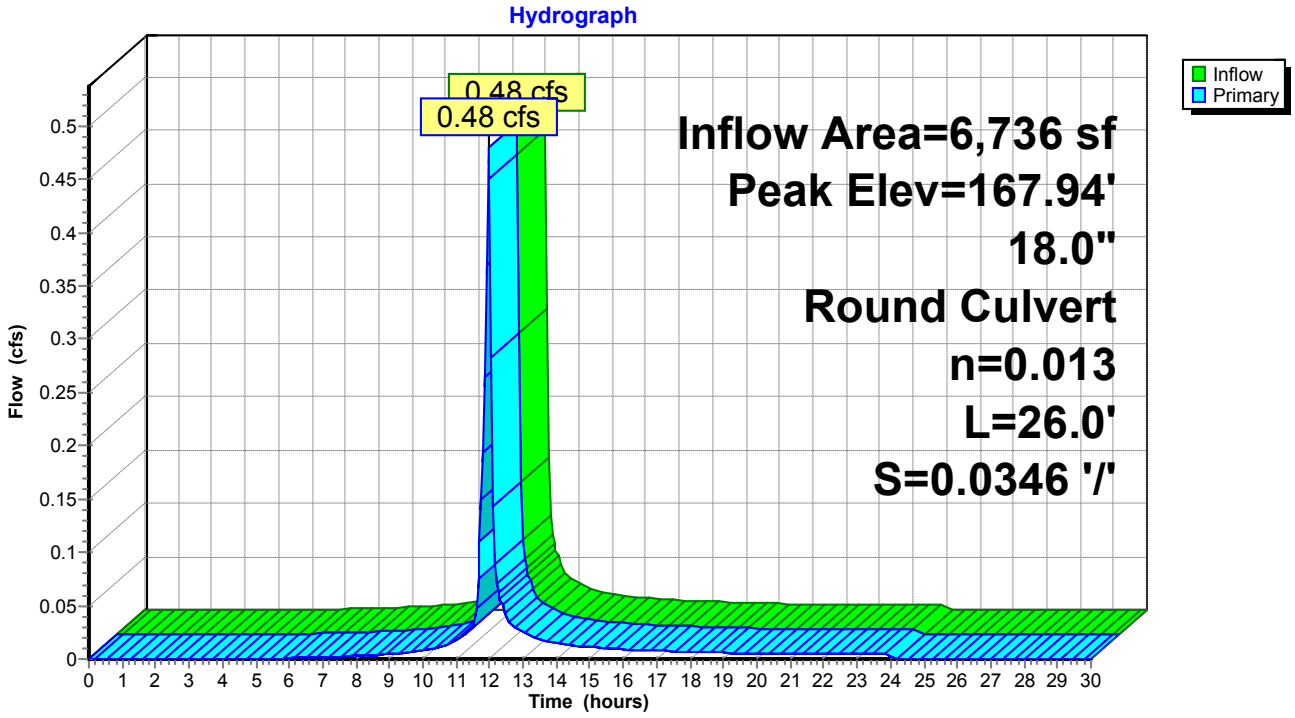
Inflow Area = 6,736 sf, 69.73% Impervious, Inflow Depth = 1.88" for 1-YEAR event
Inflow = 0.48 cfs @ 11.97 hrs, Volume= 1,057 cf
Outflow = 0.48 cfs @ 11.97 hrs, Volume= 1,057 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.48 cfs @ 11.97 hrs, Volume= 1,057 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 167.94' @ 11.97 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=0.47 cfs @ 11.97 hrs HW=167.94' (Free Discharge)
1=Culvert (Inlet Controls 0.47 cfs @ 1.56 fps)

Pond 14P: EXISTING CB



Summary for Pond CB-1: PROPOSED CATCH BASIN #1

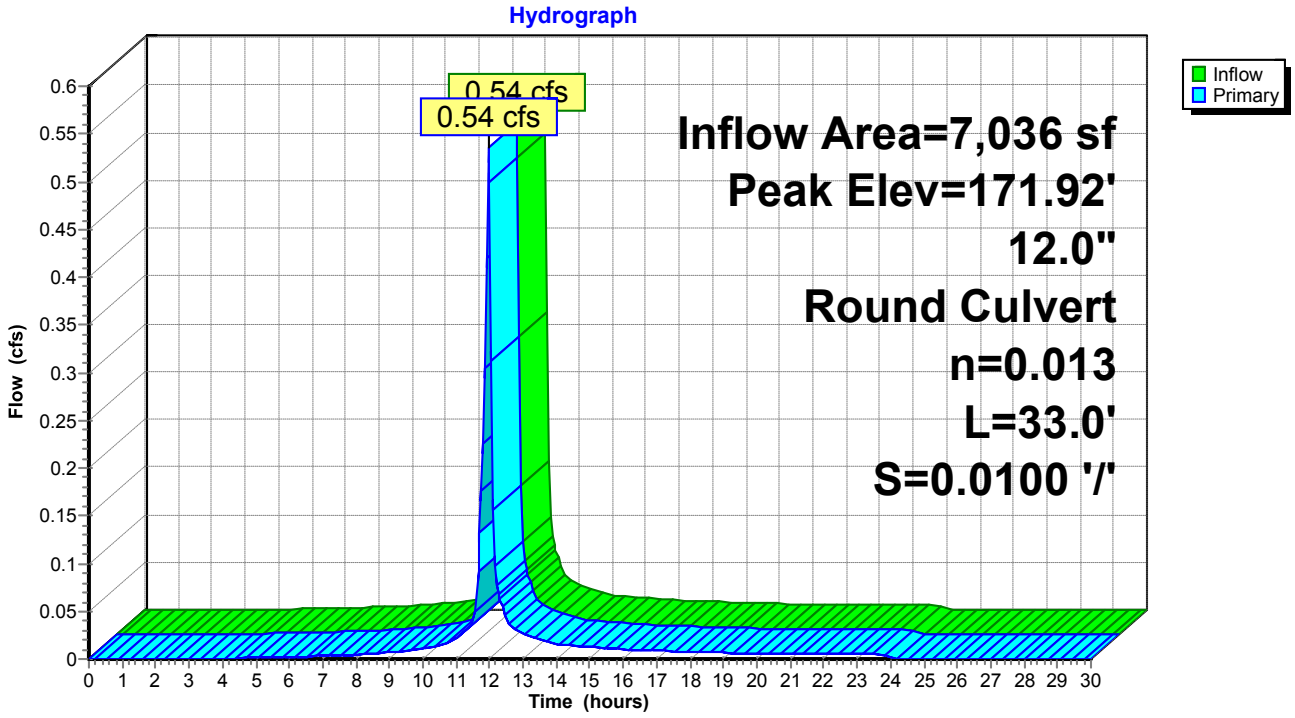
Inflow Area = 7,036 sf, 83.26% Impervious, Inflow Depth = 2.07" for 1-YEAR event
Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,214 cf
Outflow = 0.54 cfs @ 11.96 hrs, Volume= 1,214 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.54 cfs @ 11.96 hrs, Volume= 1,214 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.92' @ 11.96 hrs
Flood Elev= 172.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.50'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.50' / 171.17' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.52 cfs @ 11.96 hrs HW=171.91' (Free Discharge)
1=Culvert (Inlet Controls 0.52 cfs @ 1.72 fps)

Pond CB-1: PROPOSED CATCH BASIN #1



Summary for Pond CB-2: PR CB #2

[57] Hint: Peaked at 170.98' (Flood elevation advised)

Inflow Area =	28,448 sf,	85.49% Impervious,	Inflow Depth =	2.14"	for 1-YEAR event
Inflow =	2.21 cfs @	11.96 hrs,	Volume=	5,084 cf	
Outflow =	2.21 cfs @	11.96 hrs,	Volume=	5,084 cf,	Atten= 0%, Lag= 0.0 min
Primary =	1.38 cfs @	11.96 hrs,	Volume=	2,904 cf	
Secondary =	0.83 cfs @	11.96 hrs,	Volume=	2,179 cf	

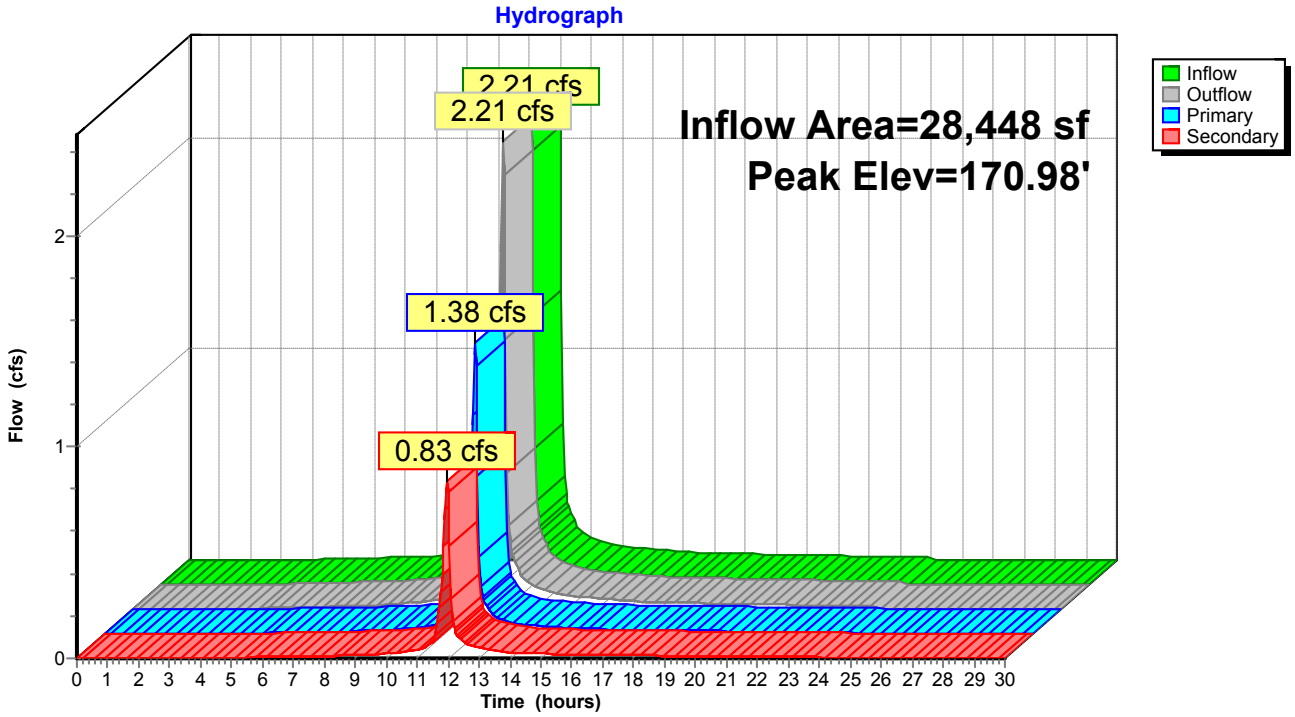
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.98' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.25'	**12.0" Round Culvert** L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	170.25'	**8.0" Round Culvert** L= 12.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.34 cfs @ 11.96 hrs HW=170.96' (Free Discharge)
1=Culvert (Barrel Controls 1.34 cfs @ 3.13 fps)

Secondary OutFlow Max=0.82 cfs @ 11.96 hrs HW=170.96' (Free Discharge)
2=Culvert (Inlet Controls 0.82 cfs @ 2.34 fps)

Pond CB-2: PR CB #2



Summary for Pond DP-1: Existing Catch Basin

[79] Warning: Submerged Pond 12P Primary device # 1 OUTLET by 0.77'
[79] Warning: Submerged Pond 14P Primary device # 1 INLET by 0.17'

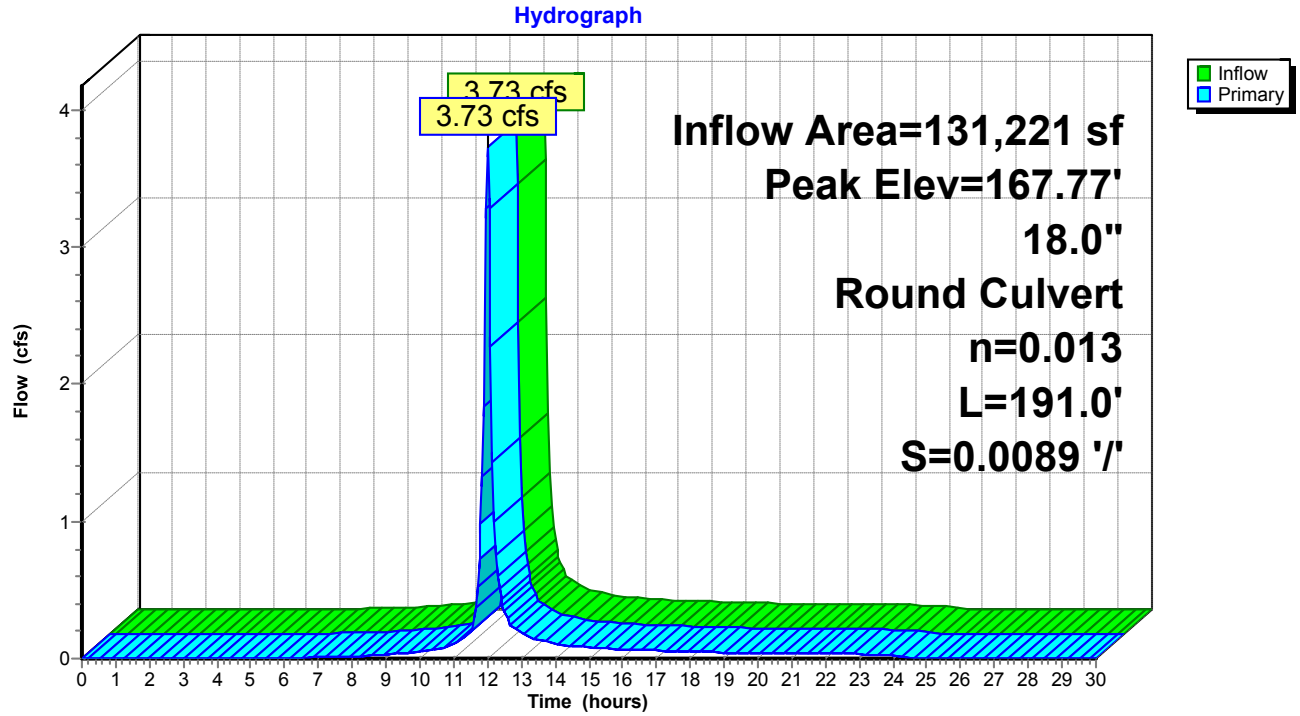
Inflow Area = 131,221 sf, 73.88% Impervious, Inflow Depth = 0.73" for 1-YEAR event
Inflow = 3.73 cfs @ 12.00 hrs, Volume= 7,931 cf
Outflow = 3.73 cfs @ 12.00 hrs, Volume= 7,931 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.73 cfs @ 12.00 hrs, Volume= 7,931 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 167.77' @ 12.00 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=3.73 cfs @ 12.00 hrs HW=167.77' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 3.73 cfs @ 2.78 fps)

Pond DP-1: Existing Catch Basin



Summary for Pond DW-1: PROPOSED DRYWELL #1

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 3,471 sf, 65.57% Impervious, Inflow Depth = 1.80" for 1-YEAR event
Inflow = 0.24 cfs @ 11.97 hrs, Volume= 519 cf
Outflow = 0.05 cfs @ 13.59 hrs, Volume= 519 cf, Atten= 77%, Lag= 97.2 min
Discarded = 0.05 cfs @ 13.59 hrs, Volume= 519 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 166.38' @ 12.16 hrs Surf.Area= 60 sf Storage= 146 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 17.9 min (820.1 - 802.2)

Volume	Invert	Avail.Storage	Storage Description
#1	164.00'	712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	163.00'	38 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 94 cf Overall x 40.0% Voids
		750 cf	Total Available Storage

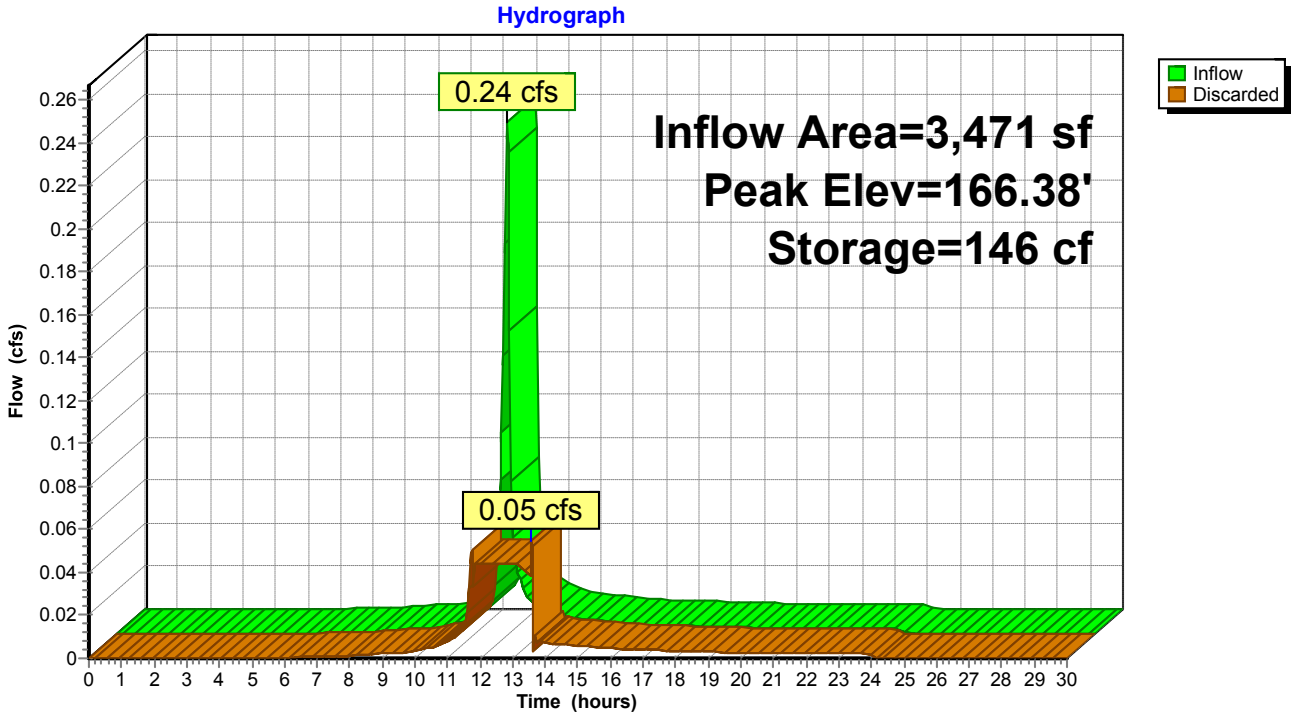
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	50	0	0
168.90	50	245	245
169.00	300	17	262
170.50	300	450	712

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	78	0	0
164.00	10	44	44
169.00	10	50	94

Device	Routing	Invert	Outlet Devices
#1	Discarded	163.00'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.05 cfs @ 13.59 hrs HW=163.19' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.05 cfs)

Pond DW-1: PROPOSED DRYWELL #1



Summary for Pond DW-2: PROPOSED DRYWELL #2

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond YD-2 by 2.78' @ 13.10 hrs

Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 1.81" for 1-YEAR event
Inflow = 0.90 cfs @ 11.97 hrs, Volume= 2,015 cf
Outflow = 0.89 cfs @ 12.02 hrs, Volume= 2,015 cf, Atten= 1%, Lag= 3.1 min
Discarded = 0.89 cfs @ 12.02 hrs, Volume= 2,015 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.62' @ 12.00 hrs Surf.Area= 1,120 sf Storage= 510 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 57.4 min (851.9 - 794.5)

Volume	Invert	Avail.Storage	Storage Description
#1	167.78'	1,499 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	166.50'	53 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 134 cf Overall x 40.0% Voids
		1,552 cf	Total Available Storage

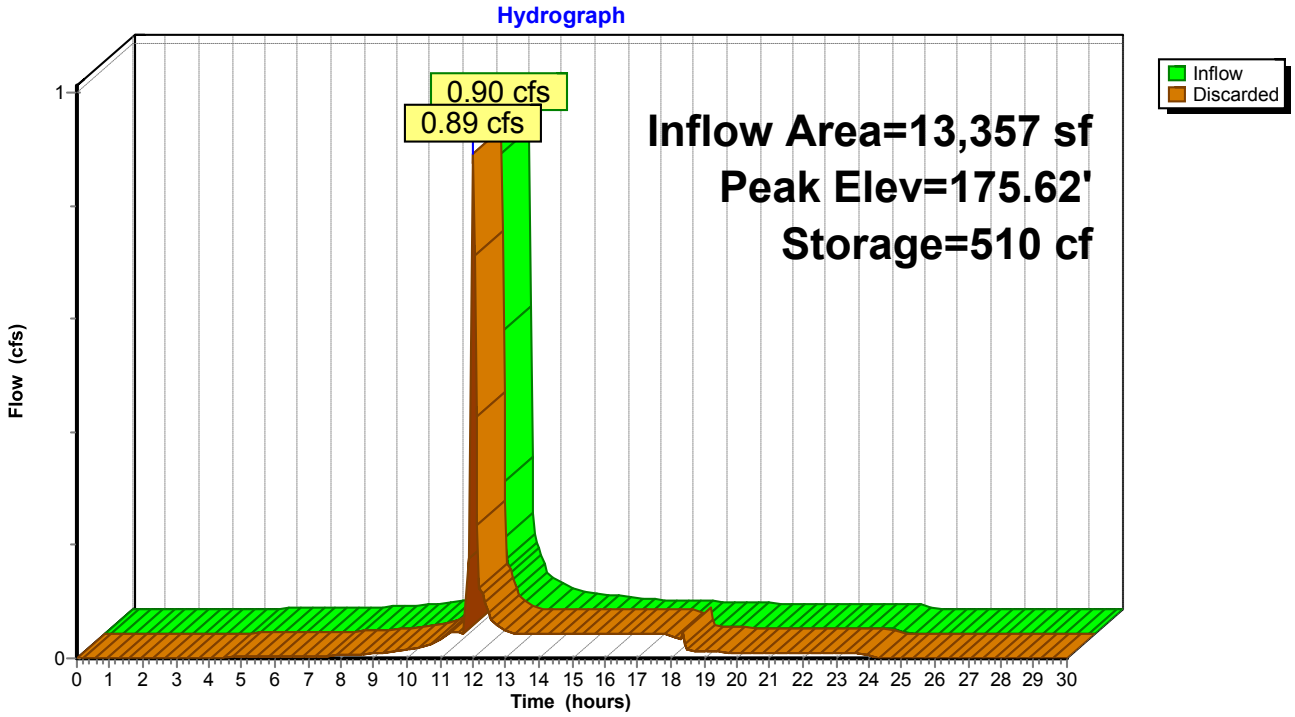
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.78	50	0	0
175.50	50	386	386
176.00	4,400	1,113	1,499

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.50	78	0	0
167.78	10	56	56
175.50	10	77	134

Device	Routing	Invert	Outlet Devices
#1	Discarded	166.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.79 cfs @ 12.02 hrs HW=175.62' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.79 cfs)

Pond DW-2: PROPOSED DRYWELL #2



Summary for Pond DW-3: PROPOSED DRYWELL #3

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)
[81] Warning: Exceeded Pond YD-4 by 2.08' @ 13.40 hrs

Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 2.15" for 1-YEAR event
Inflow = 1.11 cfs @ 11.96 hrs, Volume= 2,550 cf
Outflow = 0.96 cfs @ 12.01 hrs, Volume= 2,550 cf, Atten= 13%, Lag= 2.7 min
Discarded = 0.96 cfs @ 12.01 hrs, Volume= 2,550 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.66' @ 12.01 hrs Surf.Area= 1,290 sf Storage= 549 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 51.7 min (828.2 - 776.5)

Volume	Invert	Avail.Storage	Storage Description
#1	166.69'	1,403 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	165.50'	55 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 138 cf Overall x 40.0% Voids
		1,458 cf	Total Available Storage

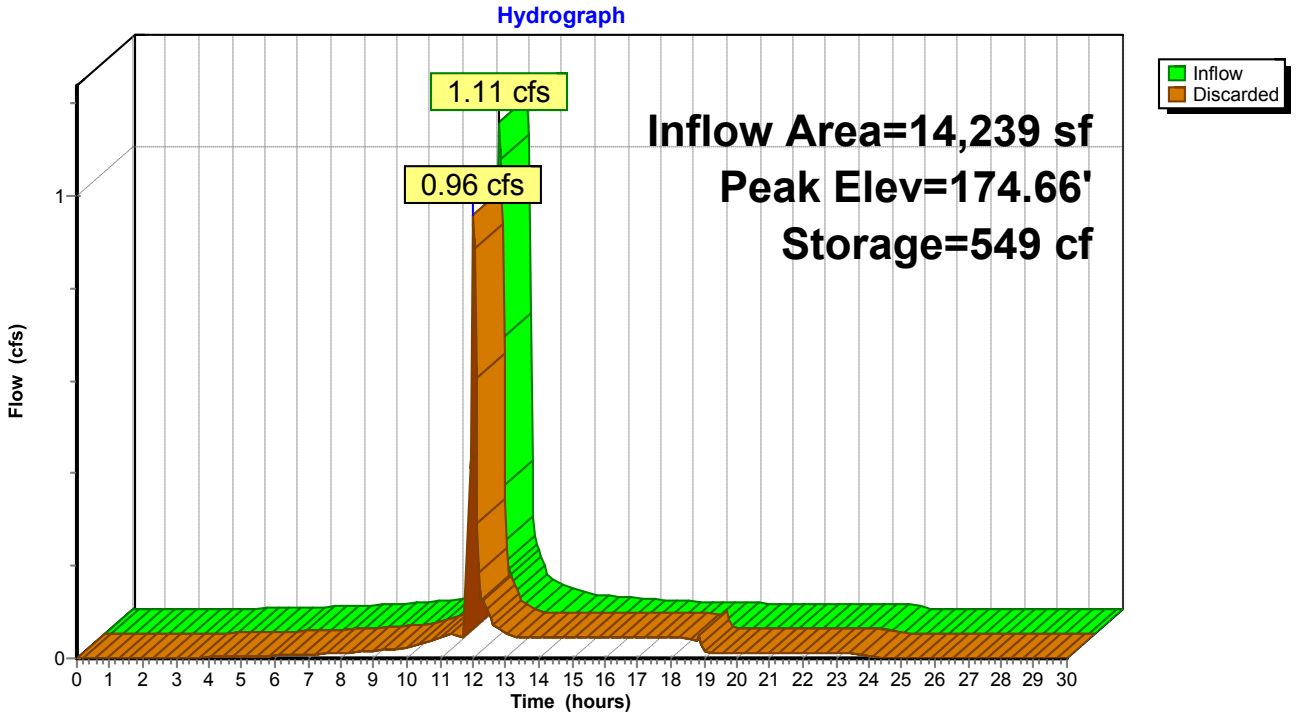
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.69	50	0	0
174.50	50	391	391
175.00	4,000	1,013	1,403

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.50	79	0	0
165.69	79	15	15
166.69	10	45	60
174.50	10	78	138

Device	Routing	Invert	Outlet Devices
#1	Discarded	165.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.94 cfs @ 12.01 hrs HW=174.65' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.94 cfs)

Pond DW-3: PROPOSED DRYWELL #3



Summary for Pond DW-4: PROPOSED DRYWELL #4

[81] Warning: Exceeded Pond CB-2 by 2.21' @ 12.00 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 1.23" for 1-YEAR event
Inflow = 1.38 cfs @ 11.96 hrs, Volume= 2,904 cf
Outflow = 1.31 cfs @ 11.99 hrs, Volume= 2,905 cf, Atten= 5%, Lag= 1.4 min
Discarded = 0.10 cfs @ 11.99 hrs, Volume= 1,750 cf
Secondary = 1.21 cfs @ 11.99 hrs, Volume= 1,154 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.16' @ 11.99 hrs Surf.Area= 217 sf Storage= 511 cf

Plug-Flow detention time= 67.5 min calculated for 2,900 cf (100% of inflow)
Center-of-Mass det. time= 67.5 min (844.1 - 776.6)

Volume	Invert	Avail.Storage	Storage Description
#1	165.00'	1,468 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	164.00'	50 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 124 cf Overall x 40.0% Voids
		1,517 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.00	55	0	0
173.00	55	440	440
174.00	1,000	528	968
174.50	1,000	500	1,468

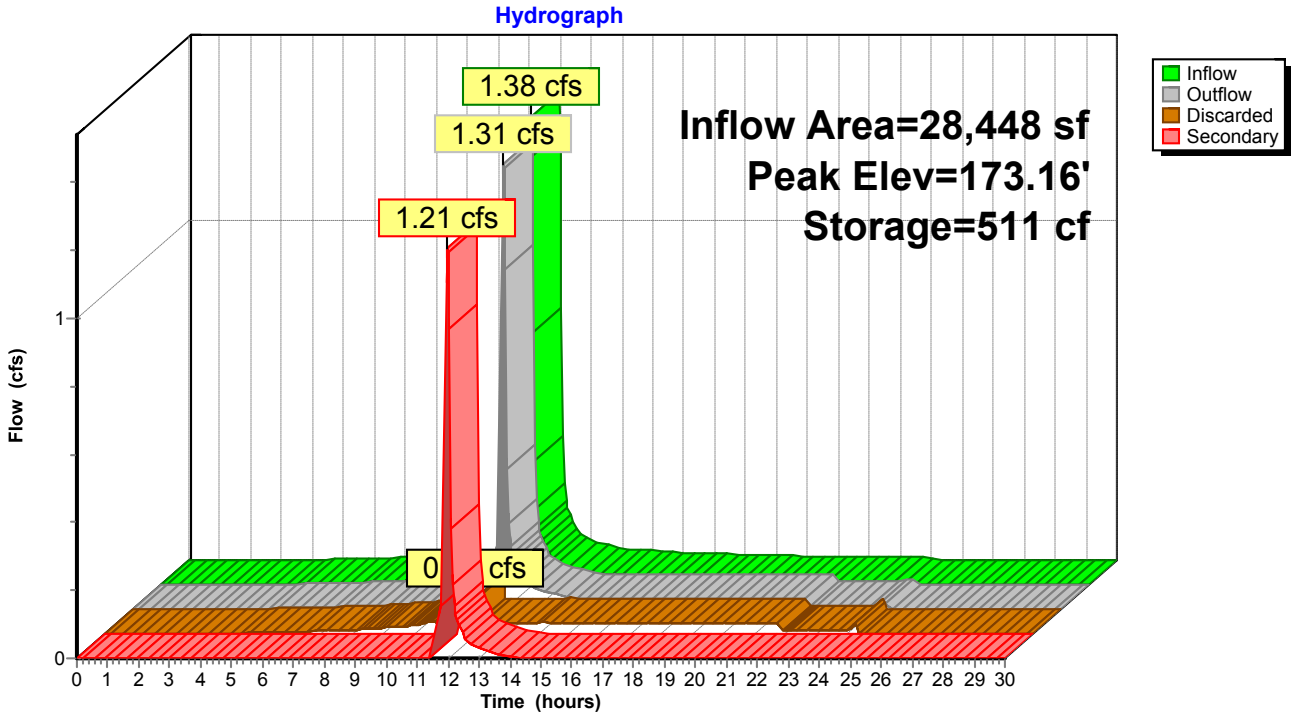
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	78	0	0
165.00	10	44	44
173.00	10	80	124

Device	Routing	Invert	Outlet Devices
#1	Discarded	164.00'	**22.000 in/hr Exfiltration over Surface area**
#2	Secondary	172.00'	**8.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.00' / 171.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Discarded OutFlow Max=0.10 cfs @ 11.99 hrs HW=173.13' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.10 cfs)

Secondary OutFlow Max=1.18 cfs @ 11.99 hrs HW=173.12' (Free Discharge)
└**2=Culvert** (Inlet Controls 1.18 cfs @ 3.38 fps)

Pond DW-4: PROPOSED DRYWELL #4



Summary for Pond DW-5: PROPOSED DRYWELL #5

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 11,493 sf, 65.66% Impervious, Inflow Depth = 1.80" for 1-YEAR event
Inflow = 0.79 cfs @ 11.97 hrs, Volume= 1,719 cf
Outflow = 0.51 cfs @ 12.05 hrs, Volume= 1,720 cf, Atten= 35%, Lag= 4.8 min
Discarded = 0.51 cfs @ 12.05 hrs, Volume= 1,720 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.32' @ 12.05 hrs Surf.Area= 1,005 sf Storage= 421 cf

Plug-Flow detention time= 44.1 min calculated for 1,717 cf (100% of inflow)
Center-of-Mass det. time= 44.3 min (846.5 - 802.2)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,748 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	167.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		1,781 cf	Total Available Storage

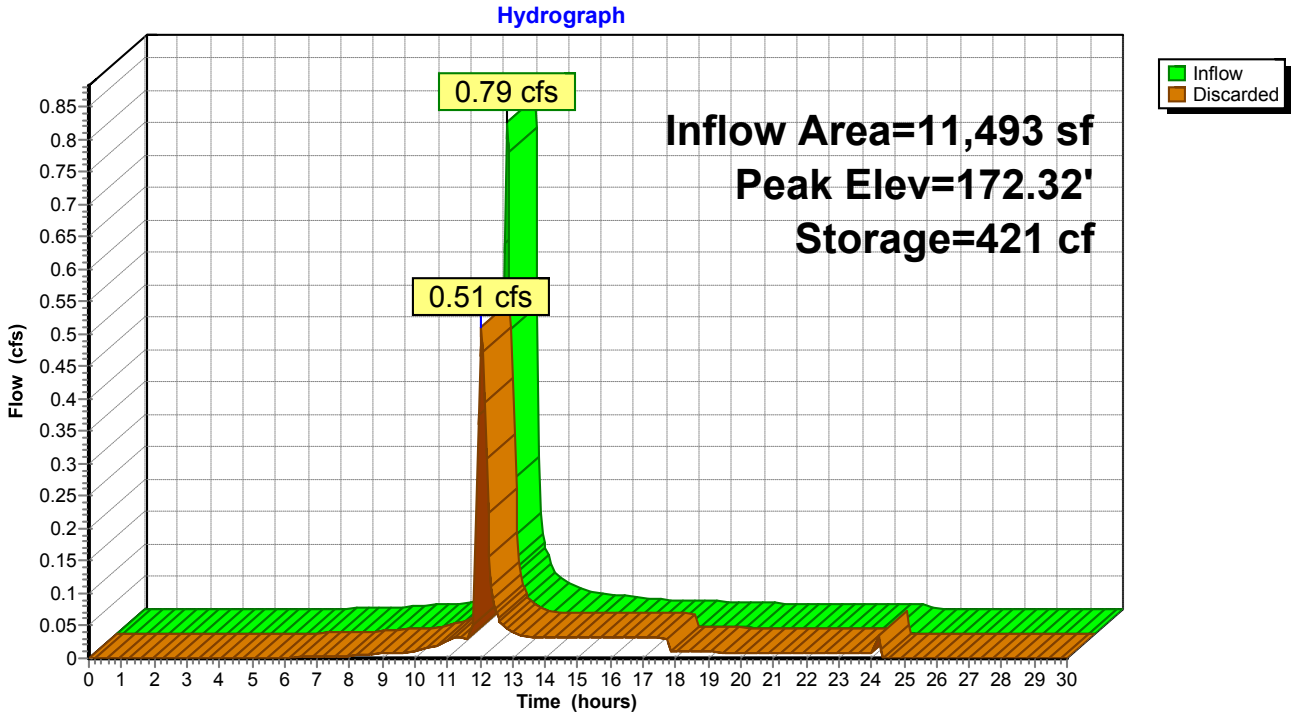
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.00	55	220	220
173.00	3,000	1,528	1,748

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	78	0	0
168.00	10	44	44
172.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.51 cfs @ 12.05 hrs HW=172.32' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.51 cfs)

Pond DW-5: PROPOSED DRYWELL #5



Summary for Pond DW-6: PROPOSED DRYWELL #6

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,844 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 0.15 cfs @ 11.96 hrs, Volume= 366 cf
Outflow = 0.04 cfs @ 11.72 hrs, Volume= 366 cf, Atten= 75%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.72 hrs, Volume= 366 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.23' @ 12.13 hrs Surf.Area= 65 sf Storage= 90 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 13.1 min (770.2 - 757.1)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	169.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

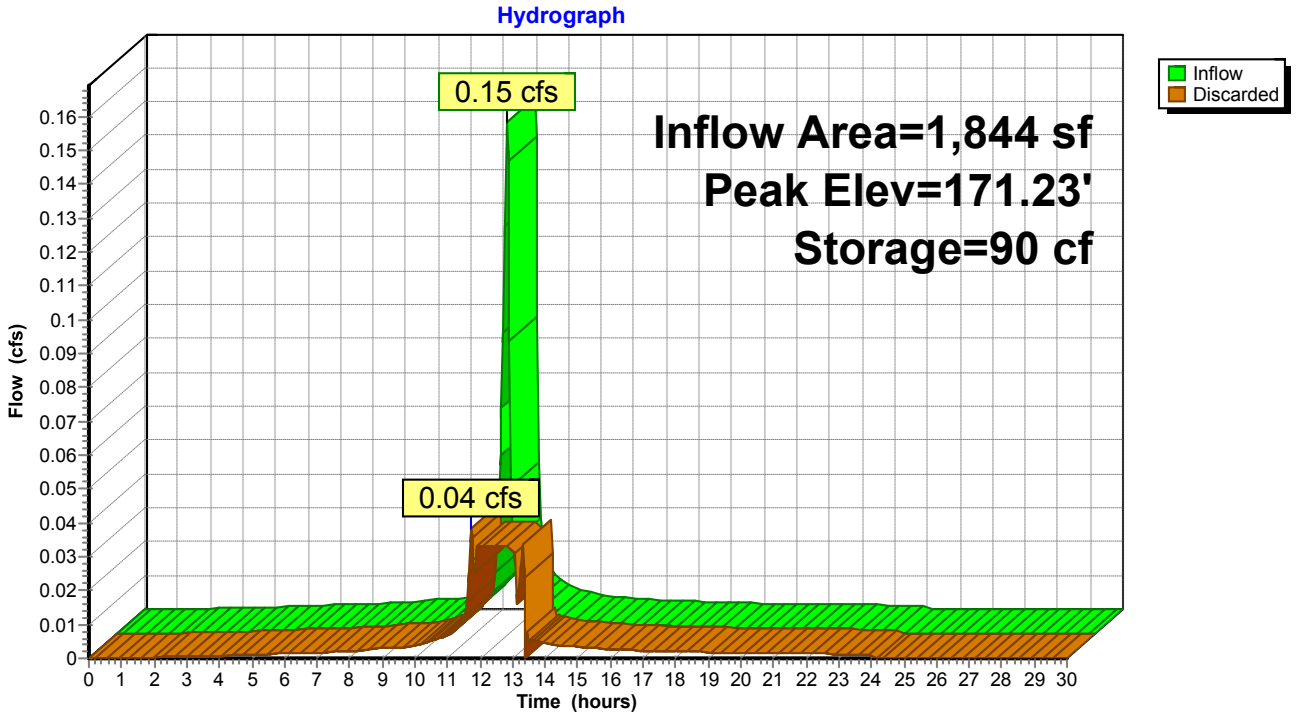
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	55	0	0
174.00	55	220	220
174.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	78	0	0
170.00	10	44	44
174.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	169.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.72 hrs HW=169.08' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-6: PROPOSED DRYWELL #6



Summary for Pond DW-7: PROPOSED DRYWELL #7

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,755 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 0.14 cfs @ 11.96 hrs, Volume= 348 cf
Outflow = 0.04 cfs @ 13.28 hrs, Volume= 348 cf, Atten= 71%, Lag= 79.1 min
Discarded = 0.04 cfs @ 13.28 hrs, Volume= 348 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.44' @ 12.13 hrs Surf.Area= 65 sf Storage= 82 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 12.1 min (769.2 - 757.1)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	352 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	170.00'	42 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 106 cf Overall x 40.0% Voids
		394 cf	Total Available Storage

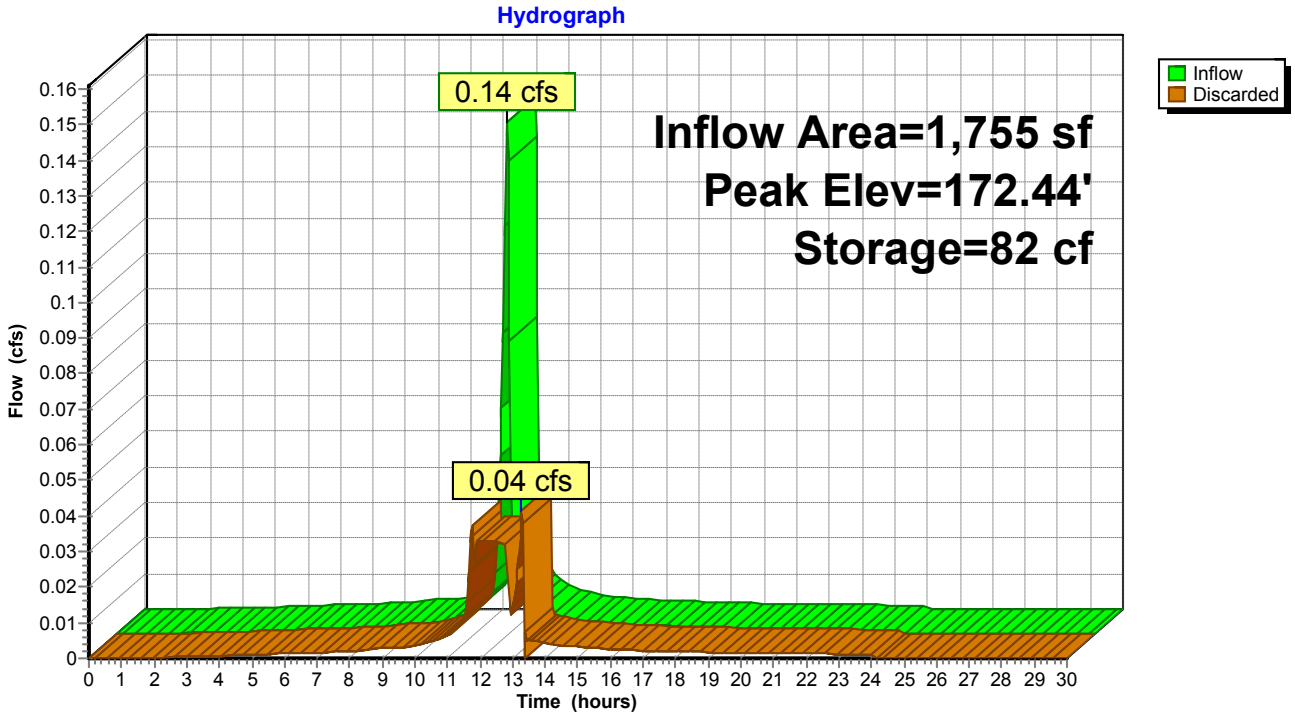
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
171.50	55	0	0
175.50	55	220	220
175.75	1,000	132	352

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	78	0	0
171.50	10	66	66
175.50	10	40	106

Device	Routing	Invert	Outlet Devices
#1	Discarded	170.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 13.28 hrs HW=170.15' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-7: PROPOSED DRYWELL #7



Summary for Pond DW-8: PROPOSED DRYWELL #8

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,734 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 0.14 cfs @ 11.96 hrs, Volume= 344 cf
Outflow = 0.04 cfs @ 11.73 hrs, Volume= 344 cf, Atten= 74%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.73 hrs, Volume= 344 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.14' @ 12.12 hrs Surf.Area= 65 sf Storage= 85 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 12.2 min (769.3 - 757.1)

Volume	Invert	Avail.Storage	Storage Description
#1	169.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	168.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

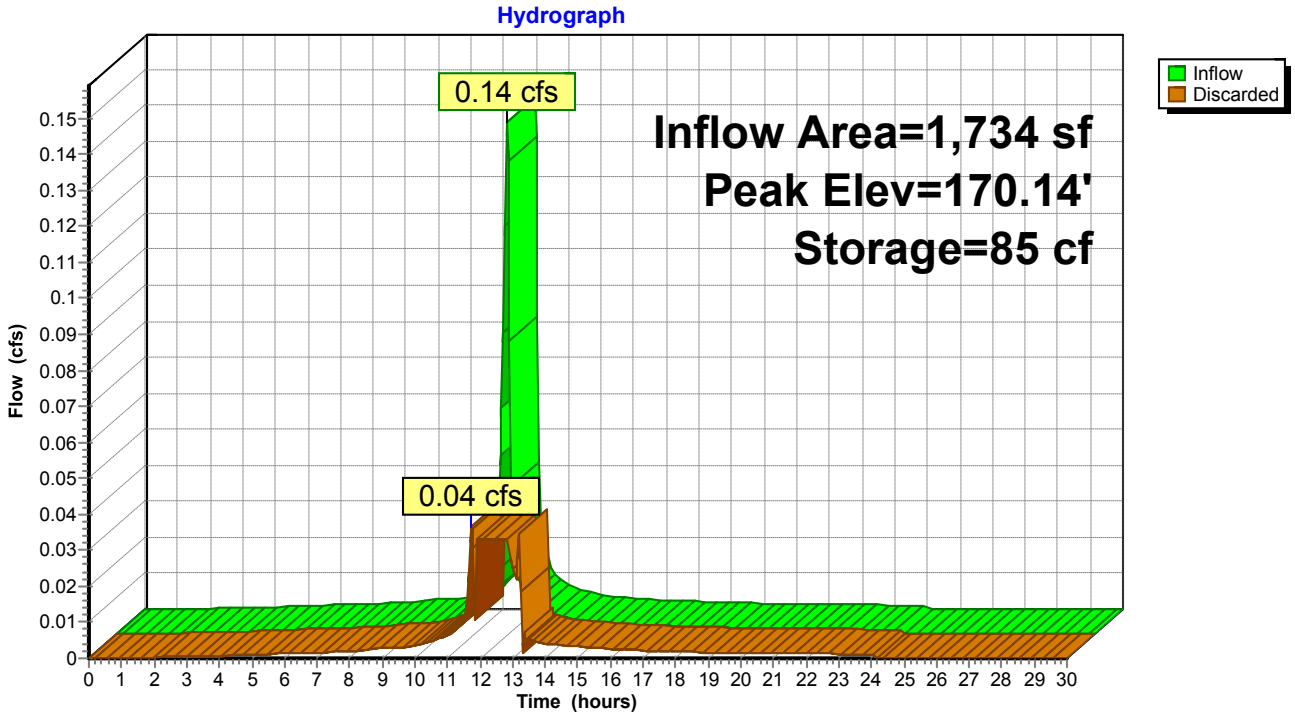
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	55	0	0
173.00	55	220	220
173.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	78	0	0
169.00	10	44	44
173.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.73 hrs HW=168.09' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-8: PROPOSED DRYWELL #8



Summary for Pond YD-1: PROPOSED DRAIN #1

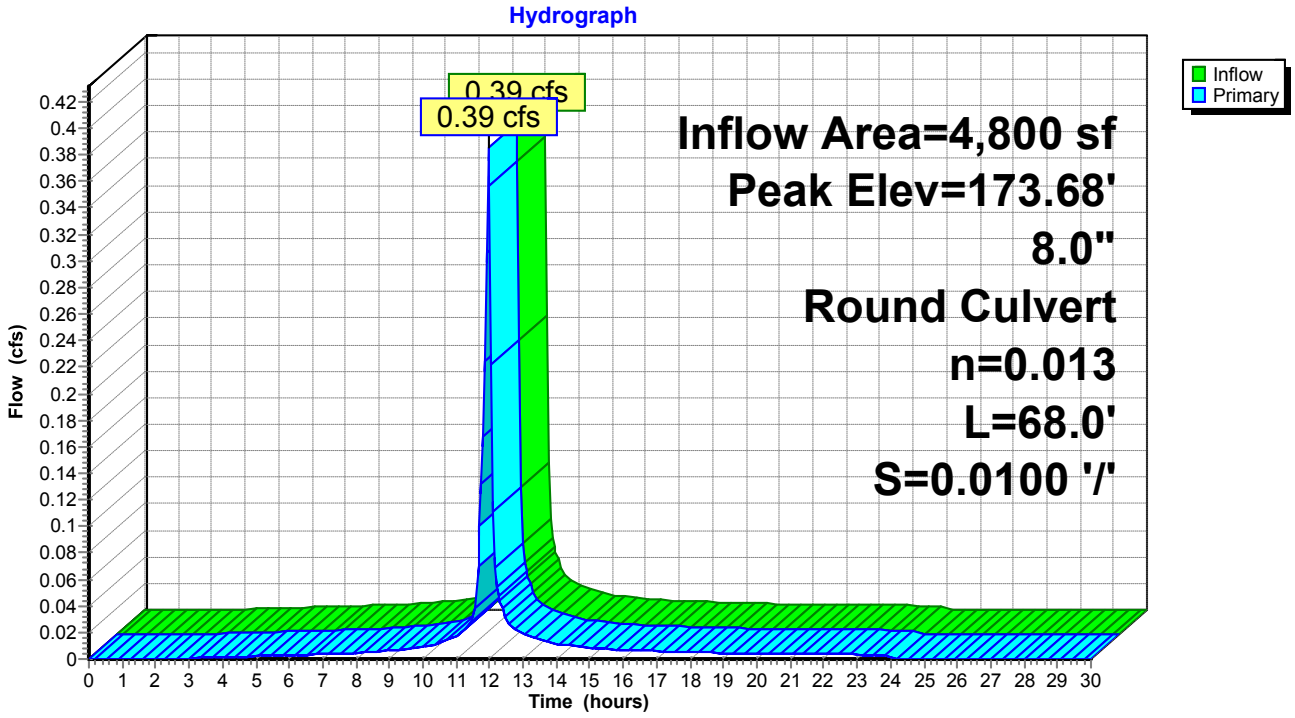
Inflow Area = 4,800 sf, 94.90% Impervious, Inflow Depth = 2.27" for 1-YEAR event
Inflow = 0.39 cfs @ 11.96 hrs, Volume= 909 cf
Outflow = 0.39 cfs @ 11.96 hrs, Volume= 909 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.39 cfs @ 11.96 hrs, Volume= 909 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.68' @ 11.96 hrs
Flood Elev= 175.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.27'	**8.0" Round Culvert** L= 68.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.27' / 172.59' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=0.38 cfs @ 11.96 hrs HW=173.67' (Free Discharge)
1=Culvert (Inlet Controls 0.38 cfs @ 1.71 fps)

Pond YD-1: PROPOSED DRAIN #1



Summary for Pond YD-2: PROPOSED DRAIN #2

[79] Warning: Submerged Pond YD-1 Primary device # 1 INLET by 0.10'

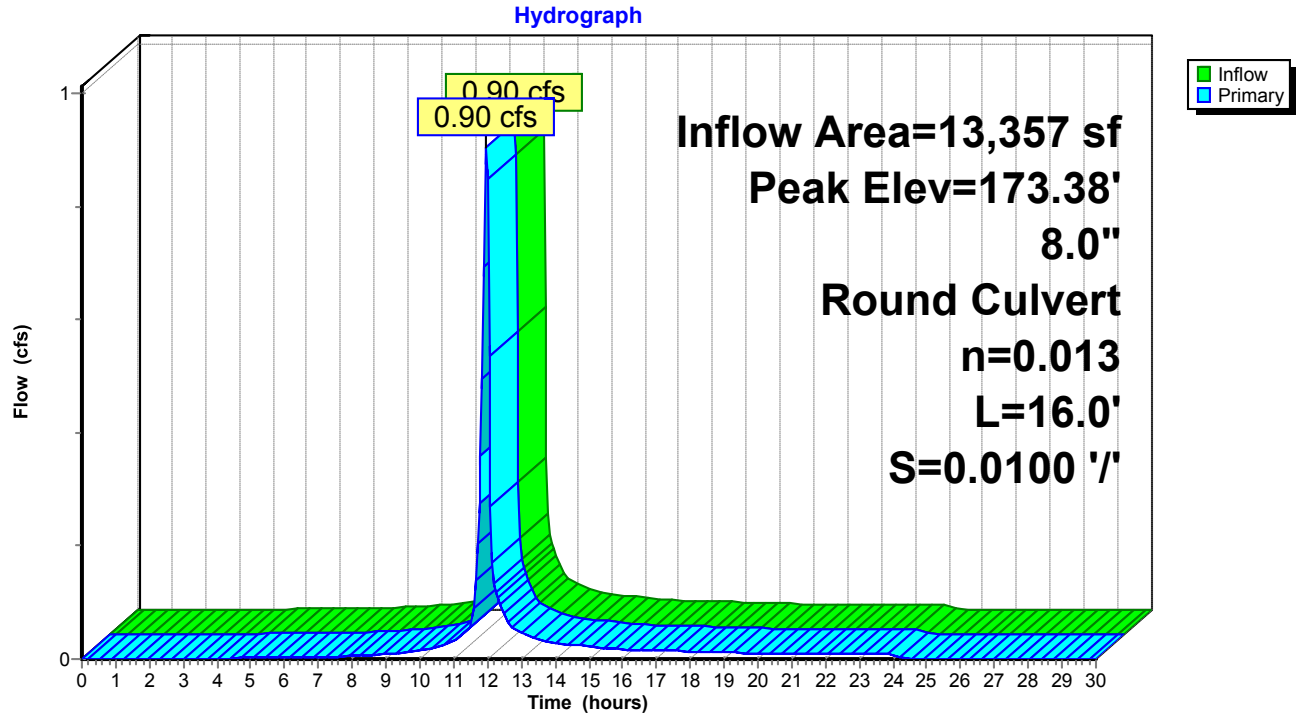
Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 1.81" for 1-YEAR event
Inflow = 0.90 cfs @ 11.97 hrs, Volume= 2,015 cf
Outflow = 0.90 cfs @ 11.97 hrs, Volume= 2,015 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.90 cfs @ 11.97 hrs, Volume= 2,015 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.38' @ 11.97 hrs
Flood Elev= 173.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.59'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.59' / 172.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=0.88 cfs @ 11.97 hrs HW=173.36' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.88 cfs @ 2.51 fps)

Pond YD-2: PROPOSED DRAIN #2



Summary for Pond YD-3: PROPOSED DRAIN #3

[58] Hint: Peaked 0.30' above defined flood level

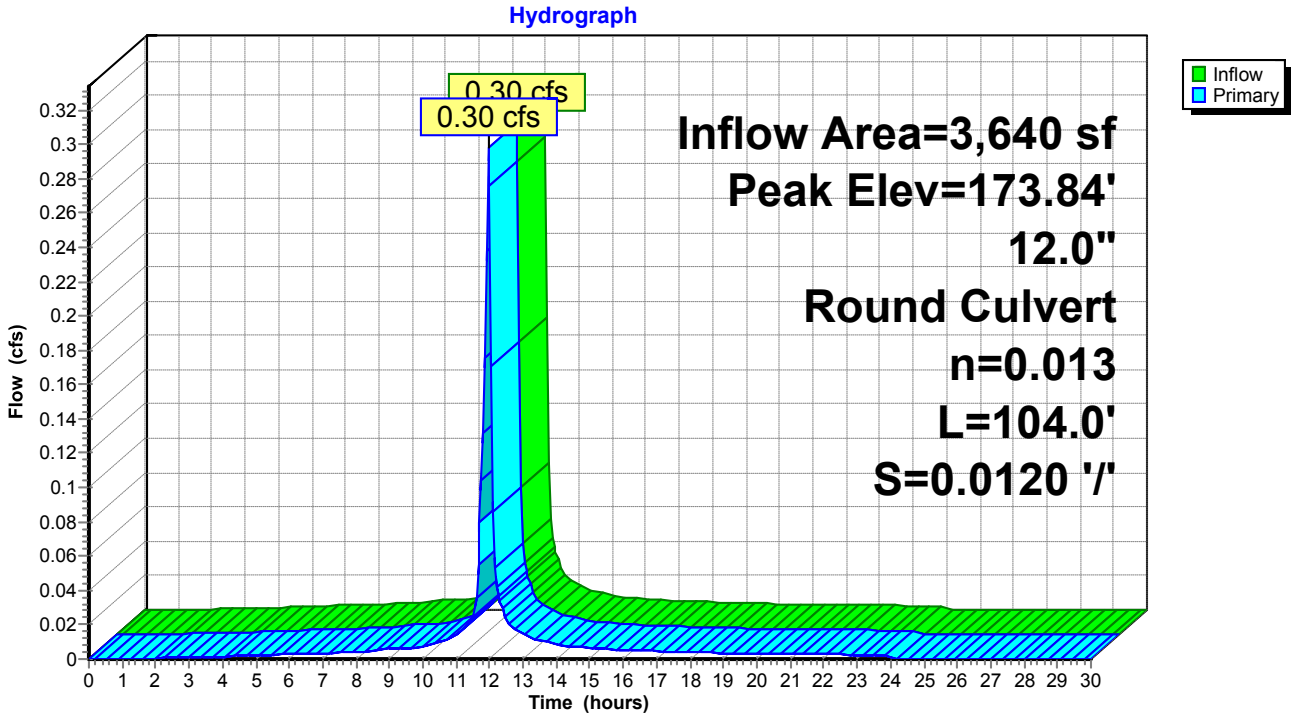
Inflow Area = 3,640 sf,100.00% Impervious, Inflow Depth = 2.38" for 1-YEAR event
Inflow = 0.30 cfs @ 11.96 hrs, Volume= 722 cf
Outflow = 0.30 cfs @ 11.96 hrs, Volume= 722 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.30 cfs @ 11.96 hrs, Volume= 722 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.84' @ 11.96 hrs
Flood Elev= 173.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.54'	**12.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.54' / 172.29' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.29 cfs @ 11.96 hrs HW=173.84' (Free Discharge)
1=Culvert (Inlet Controls 0.29 cfs @ 1.47 fps)

Pond YD-3: PROPOSED DRAIN #3



Summary for Pond YD-4: PROPOSED DRAIN #4

[79] Warning: Submerged Pond YD-3 Primary device # 1 OUTLET by 1.01'

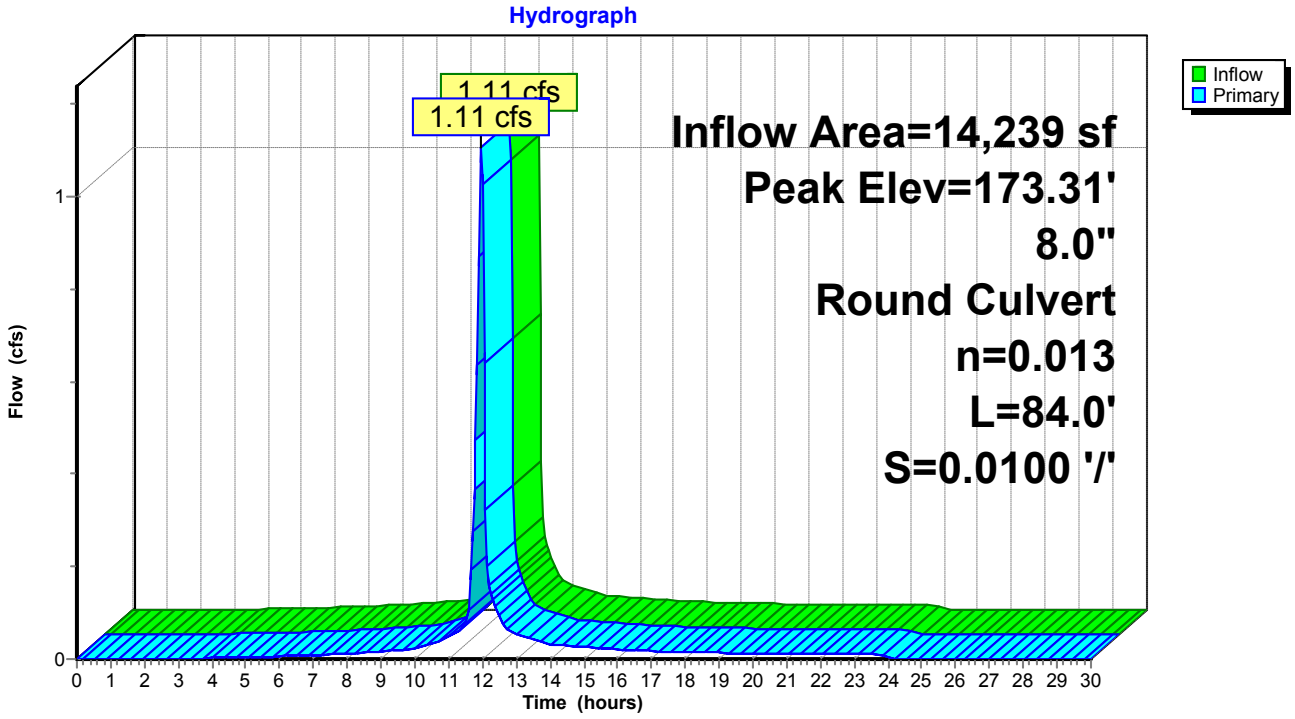
Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 2.15" for 1-YEAR event
Inflow = 1.11 cfs @ 11.96 hrs, Volume= 2,550 cf
Outflow = 1.11 cfs @ 11.96 hrs, Volume= 2,550 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.11 cfs @ 11.96 hrs, Volume= 2,550 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.31' @ 11.96 hrs
Flood Elev= 174.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.29'	**8.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.29' / 171.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.08 cfs @ 11.96 hrs HW=173.28' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.08 cfs @ 3.08 fps)

Pond YD-4: PROPOSED DRAIN #4



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA-1: DA-1 Runoff Area=21,412 sf 86.22% Impervious Runoff Depth=2.71"
Tc=6.0 min CN=96 Runoff=2.07 cfs 4,835 cf

Subcatchment DA-10: DA-10 Runoff Area=4,800 sf 94.90% Impervious Runoff Depth=2.82"
Tc=6.0 min CN=97 Runoff=0.47 cfs 1,127 cf

Subcatchment DA-11: DA-11 Runoff Area=8,557 sf 51.71% Impervious Runoff Depth=2.05"
Tc=6.0 min CN=89 Runoff=0.68 cfs 1,458 cf

Subcatchment DA-12: DRAINAGE AREA 12 Runoff Area=8,367 sf 100.00% Impervious Runoff Depth=2.93"
Tc=6.0 min CN=98 Runoff=0.83 cfs 2,041 cf

Subcatchment DA-13: DA-13 Runoff Area=2,574 sf 79.56% Impervious Runoff Depth=2.51"
Tc=6.0 min CN=94 Runoff=0.24 cfs 537 cf

Subcatchment DA-14: DRAINAGE AREA 14 Runoff Area=6,736 sf 69.73% Impervious Runoff Depth=2.41"
Tc=6.0 min CN=93 Runoff=0.60 cfs 1,351 cf

Subcatchment DA-15: DA-15 Runoff Area=1,734 sf 100.00% Impervious Runoff Depth=2.93"
Tc=6.0 min CN=98 Runoff=0.17 cfs 423 cf

Subcatchment DA-16: DA-16 Runoff Area=1,844 sf 100.00% Impervious Runoff Depth=2.93"
Tc=6.0 min CN=98 Runoff=0.18 cfs 450 cf

Subcatchment DA-17: DA-17 Runoff Area=1,755 sf 100.00% Impervious Runoff Depth=2.93"
Tc=6.0 min CN=98 Runoff=0.17 cfs 428 cf

Subcatchment DA-18: DRAINAGE AREA 18 Runoff Area=3,482 sf 85.96% Impervious Runoff Depth=2.61"
Tc=6.0 min CN=95 Runoff=0.33 cfs 756 cf

Subcatchment DA-2: DA-2 Runoff Area=7,036 sf 83.26% Impervious Runoff Depth=2.61"
Tc=6.0 min CN=95 Runoff=0.66 cfs 1,528 cf

Subcatchment DA-3: DRAINAGE AREA 3 Runoff Area=5,334 sf 65.88% Impervious Runoff Depth=2.31"
Tc=6.0 min CN=92 Runoff=0.46 cfs 1,028 cf

Subcatchment DA-4: DRAINAGE AREA 4 Runoff Area=4,099 sf 74.82% Impervious Runoff Depth=2.41"
Tc=6.0 min CN=93 Runoff=0.37 cfs 822 cf

Subcatchment DA-5: DRAINAGE AREA 5 Runoff Area=32,655 sf 61.00% Impervious Runoff Depth=2.22"
Flow Length=235' Tc=13.1 min CN=91 Runoff=2.23 cfs 6,043 cf

Subcatchment DA-6: DA-6 Runoff Area=11,493 sf 65.66% Impervious Runoff Depth=2.31"
Tc=6.0 min CN=92 Runoff=1.00 cfs 2,215 cf

Subcatchment DA-7: DA-7 Runoff Area=3,640 sf 100.00% Impervious Runoff Depth=2.93"
Tc=6.0 min CN=98 Runoff=0.36 cfs 888 cf

Subcatchment DA-8: DA-8 Runoff Area=10,599 sf 81.26% Impervious Runoff Depth=2.61"
Tc=6.0 min CN=95 Runoff=1.00 cfs 2,302 cf

Subcatchment DA-9: DRAINAGE AREA 9 Runoff Area=3,471 sf 65.57% Impervious Runoff Depth=2.31"
Tc=6.0 min CN=92 Runoff=0.30 cfs 669 cf

Reach DP-2: STREET Inflow=0.83 cfs 2,041 cf
Outflow=0.83 cfs 2,041 cf

Pond 2P: EXISTING DRYWELL Peak Elev=172.78' Storage=370 cf Inflow=1.80 cfs 2,678 cf
Discarded=0.57 cfs 1,791 cf Primary=1.20 cfs 887 cf Outflow=1.77 cfs 2,678 cf

Pond 3P: PROPOSED CB #3 Peak Elev=171.06' Inflow=0.33 cfs 756 cf
12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.33 cfs 756 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.34' Storage=469 cf Inflow=0.96 cfs 2,687 cf
Outflow=0.72 cfs 2,687 cf

Pond 8P: EXISTING YARD DRAIN Peak Elev=188.56' Inflow=0.37 cfs 822 cf
4.0" Round Culvert n=0.030 L=87.0' S=0.0100 '/' Outflow=0.37 cfs 822 cf

Pond 12P: EXISTING CB Peak Elev=169.87' Inflow=2.44 cfs 6,799 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=2.44 cfs 6,799 cf

Pond 14P: EXISTING CB Peak Elev=167.99' Inflow=0.60 cfs 1,351 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=0.60 cfs 1,351 cf

Pond CB-1: PROPOSED CATCH BASIN #1 Peak Elev=171.97' Inflow=0.66 cfs 1,528 cf
12.0" Round Culvert n=0.013 L=33.0' S=0.0100 '/' Outflow=0.66 cfs 1,528 cf

Pond CB-2: PR CB #2 Peak Elev=171.11' Inflow=2.73 cfs 6,363 cf
Primary=1.77 cfs 3,676 cf Secondary=0.96 cfs 2,687 cf Outflow=2.73 cfs 6,363 cf

Pond DP-1: Existing Catch Basin Peak Elev=167.94' Inflow=4.68 cfs 10,397 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=4.68 cfs 10,397 cf

Pond DW-1: PROPOSED DRYWELL #1 Peak Elev=167.56' Storage=210 cf Inflow=0.30 cfs 669 cf
Outflow=0.05 cfs 669 cf

Pond DW-2: PROPOSED DRYWELL #2 Peak Elev=175.65' Storage=545 cf Inflow=1.15 cfs 2,585 cf
Outflow=1.01 cfs 2,585 cf

Pond DW-3: PROPOSED DRYWELL #3 Peak Elev=174.69' Storage=605 cf Inflow=1.36 cfs 3,190 cf
Outflow=1.18 cfs 3,190 cf

Pond DW-4: PROPOSED DRYWELL #4 Peak Elev=173.36' Storage=571 cf Inflow=1.77 cfs 3,676 cf
Discarded=0.21 cfs 2,027 cf Secondary=1.34 cfs 1,650 cf Outflow=1.55 cfs 3,676 cf

Pond DW-5: PROPOSED DRYWELL #5 Peak Elev=172.41' Storage=518 cf Inflow=1.00 cfs 2,215 cf
Outflow=0.64 cfs 2,216 cf

Pond DW-6: PROPOSED DRYWELL #6 Peak Elev=171.82' Storage=125 cf Inflow=0.18 cfs 450 cf
Outflow=0.04 cfs 450 cf

Pond DW-7: PROPOSED DRYWELL #7 Peak Elev=173.02' Storage=116 cf Inflow=0.17 cfs 428 cf
Outflow=0.04 cfs 428 cf

Pond DW-8: PROPOSED DRYWELL #8 Peak Elev=170.60' Storage=112 cf Inflow=0.17 cfs 423 cf
Outflow=0.04 cfs 423 cf

Pond YD-1: PROPOSED DRAIN #1 Peak Elev=173.73' Inflow=0.47 cfs 1,127 cf
8.0" Round Culvert n=0.013 L=68.0' S=0.0100 '/' Outflow=0.47 cfs 1,127 cf

Pond YD-2: PROPOSED DRAIN #2 Peak Elev=173.67' Inflow=1.15 cfs 2,585 cf
8.0" Round Culvert n=0.013 L=16.0' S=0.0100 '/' Outflow=1.15 cfs 2,585 cf

Pond YD-3: PROPOSED DRAIN #3 Peak Elev=173.88' Inflow=0.36 cfs 888 cf
12.0" Round Culvert n=0.013 L=104.0' S=0.0120 '/' Outflow=0.36 cfs 888 cf

Pond YD-4: PROPOSED DRAIN #4 Peak Elev=173.68' Inflow=1.36 cfs 3,190 cf
8.0" Round Culvert n=0.013 L=84.0' S=0.0100 '/' Outflow=1.36 cfs 3,190 cf

Total Runoff Area = 139,588 sf Runoff Volume = 28,902 cf Average Runoff Depth = 2.48"
24.56% Pervious = 34,277 sf 75.44% Impervious = 105,311 sf

Summary for Subcatchment DA-1: DA-1

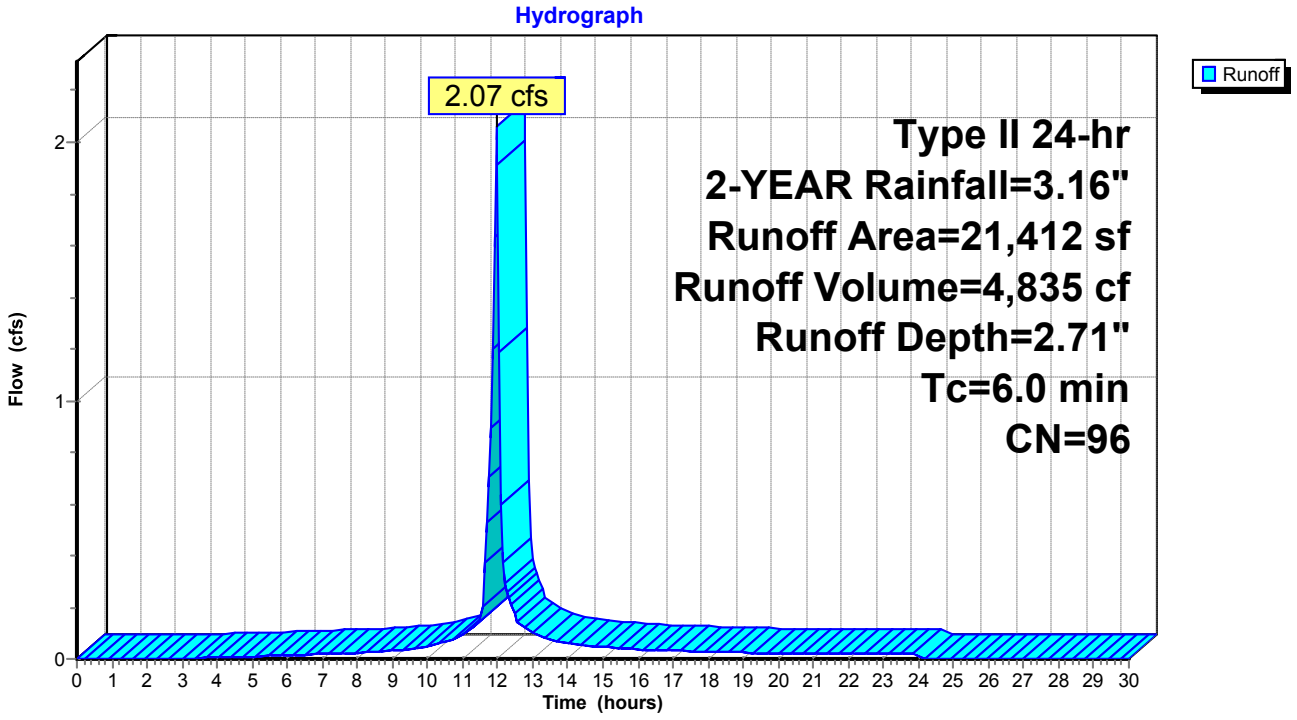
Runoff = 2.07 cfs @ 11.96 hrs, Volume= 4,835 cf, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
2,951	80	>75% Grass cover, Good, HSG D
17,281	98	Roofs, HSG D
1,180	98	Paved parking, HSG D
21,412	96	Weighted Average
2,951		13.78% Pervious Area
18,461		86.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

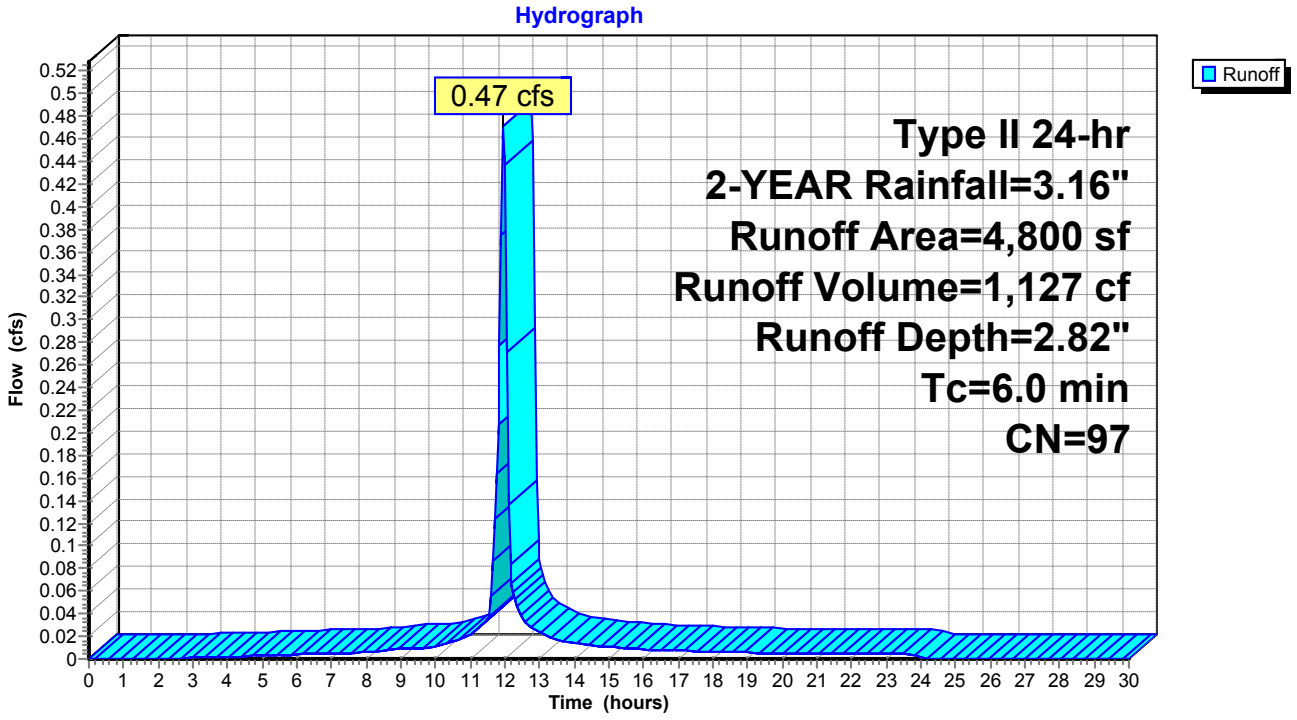
Runoff = 0.47 cfs @ 11.96 hrs, Volume= 1,127 cf, Depth= 2.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
245	80	>75% Grass cover, Good, HSG D
2,933	98	Roofs, HSG D
1,622	98	Paved parking, HSG D
4,800	97	Weighted Average
245		5.10% Pervious Area
4,555		94.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

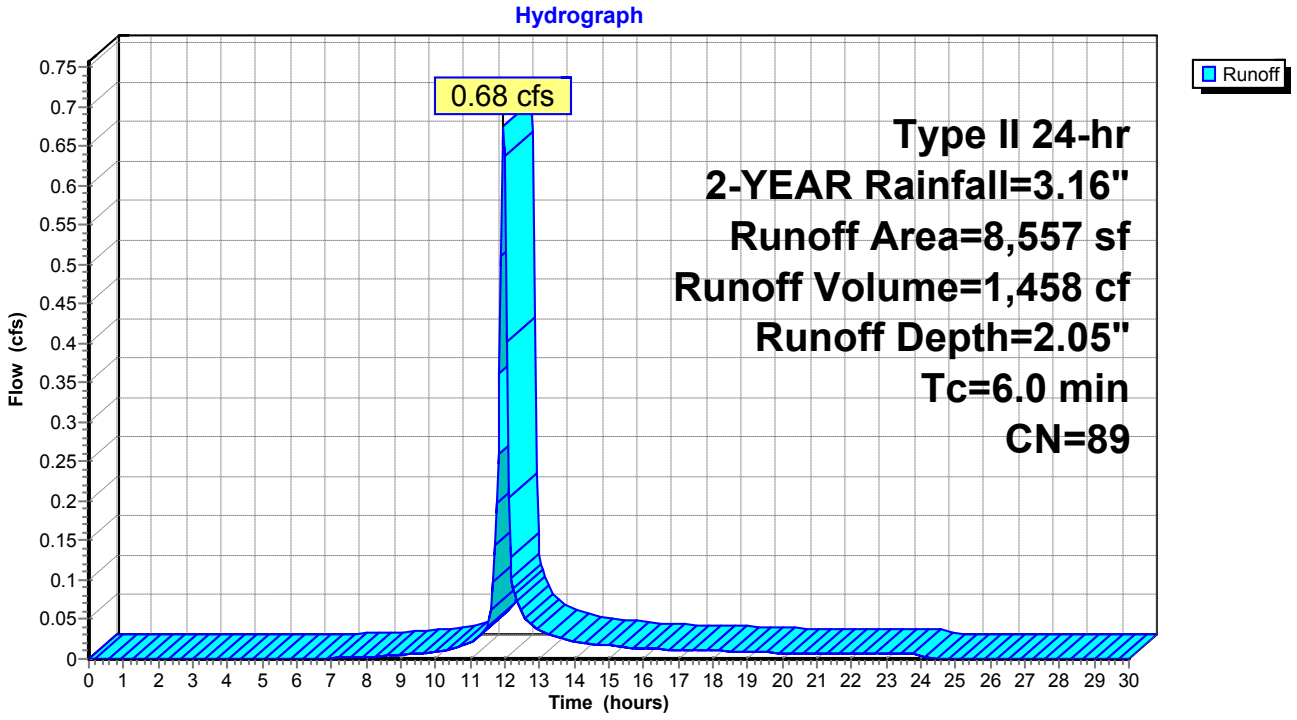
Runoff = 0.68 cfs @ 11.97 hrs, Volume= 1,458 cf, Depth= 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
4,132	80	>75% Grass cover, Good, HSG D
3,489	98	Roofs, HSG D
936	98	Paved parking, HSG D
8,557	89	Weighted Average
4,132		48.29% Pervious Area
4,425		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-12: DRAINAGE AREA 12

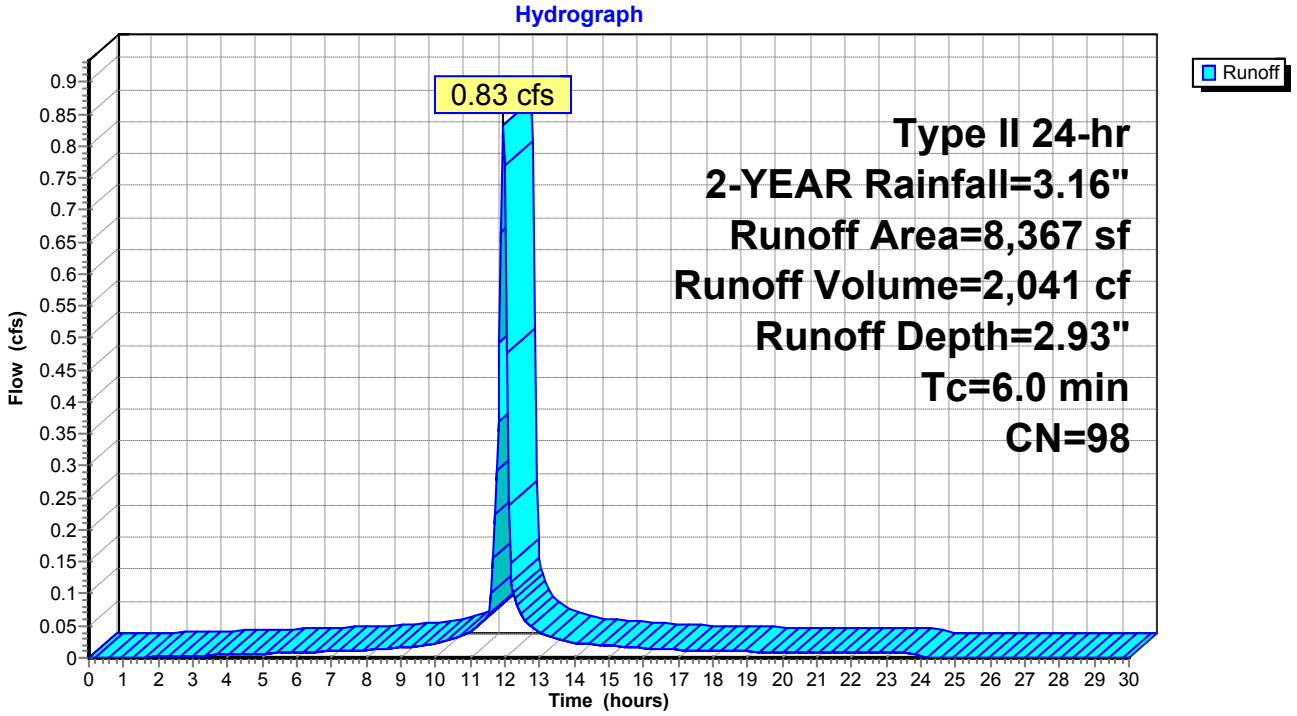
Runoff = 0.83 cfs @ 11.96 hrs, Volume= 2,041 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
8,367	98	Roofs, HSG D
8,367		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-12: DRAINAGE AREA 12



Summary for Subcatchment DA-13: DA-13

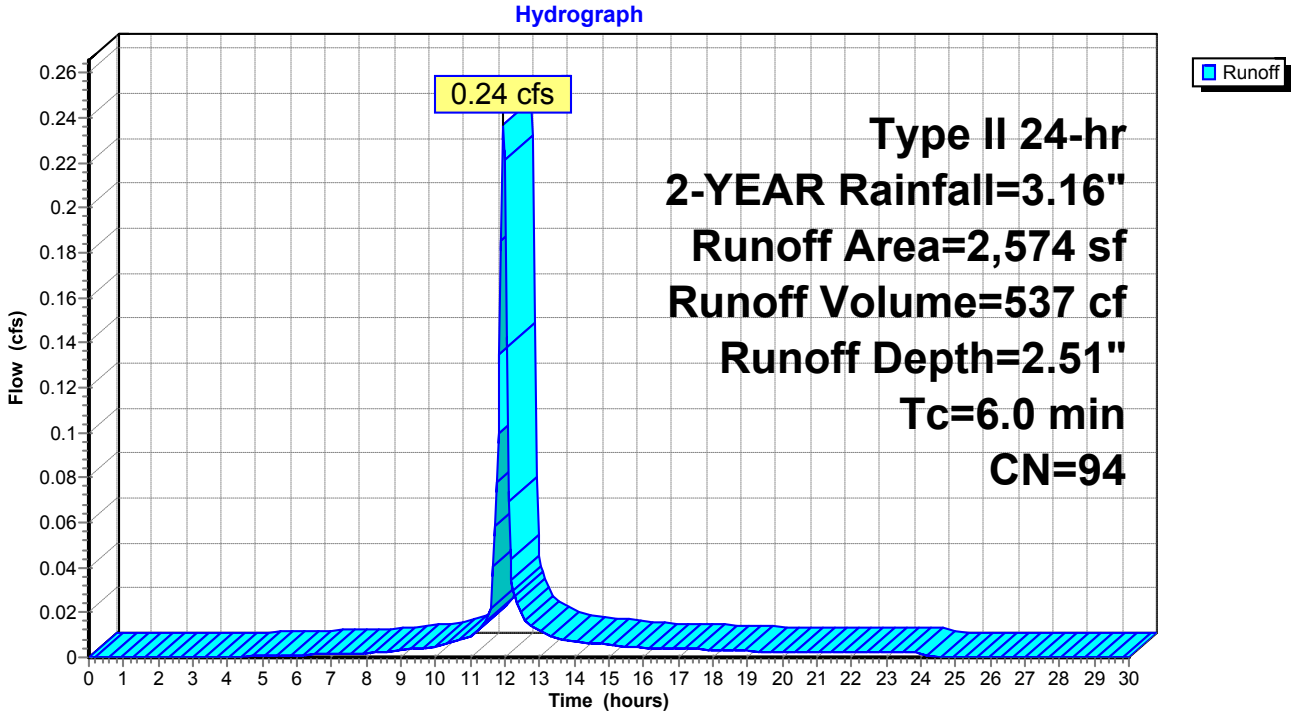
Runoff = 0.24 cfs @ 11.96 hrs, Volume= 537 cf, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
526	80	>75% Grass cover, Good, HSG D
2,048	98	Paved parking, HSG D
2,574	94	Weighted Average
526		20.44% Pervious Area
2,048		79.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-13: DA-13



Summary for Subcatchment DA-14: DRAINAGE AREA 14

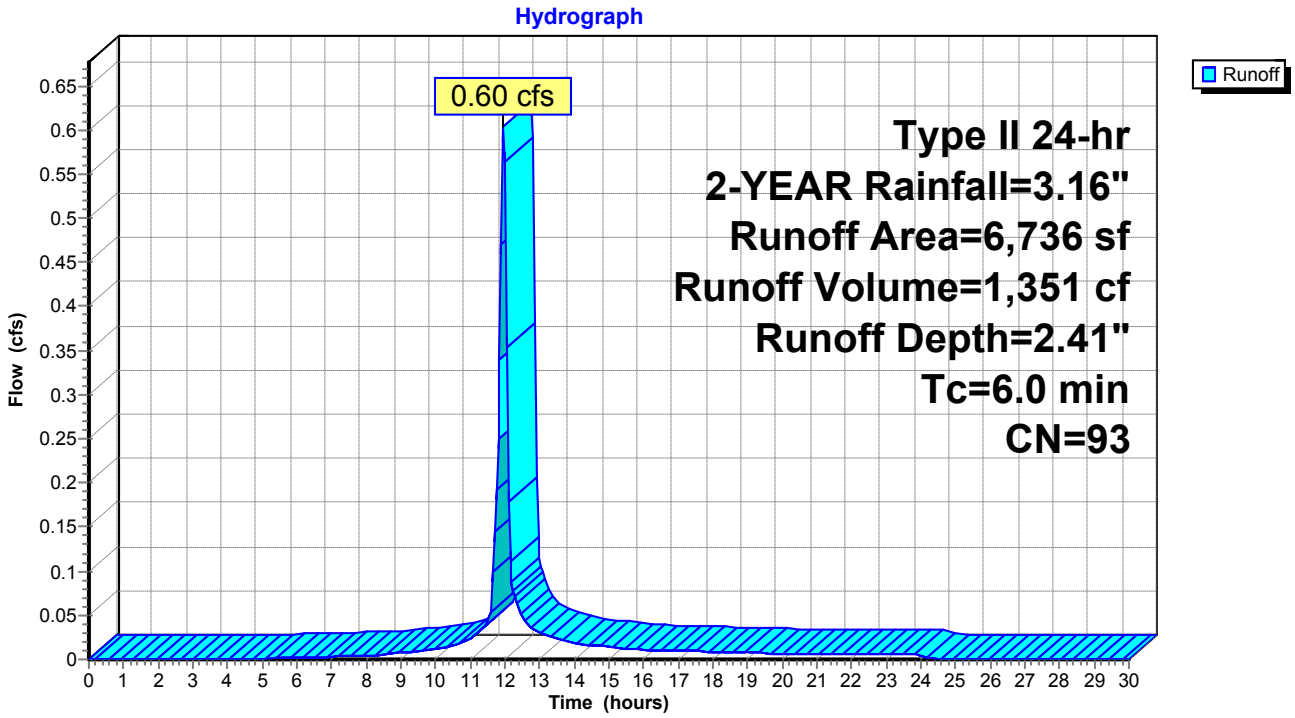
Runoff = 0.60 cfs @ 11.96 hrs, Volume= 1,351 cf, Depth= 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
2,039	80	>75% Grass cover, Good, HSG D
4,697	98	Paved parking, HSG D
6,736	93	Weighted Average
2,039		30.27% Pervious Area
4,697		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-14: DRAINAGE AREA 14



Summary for Subcatchment DA-15: DA-15

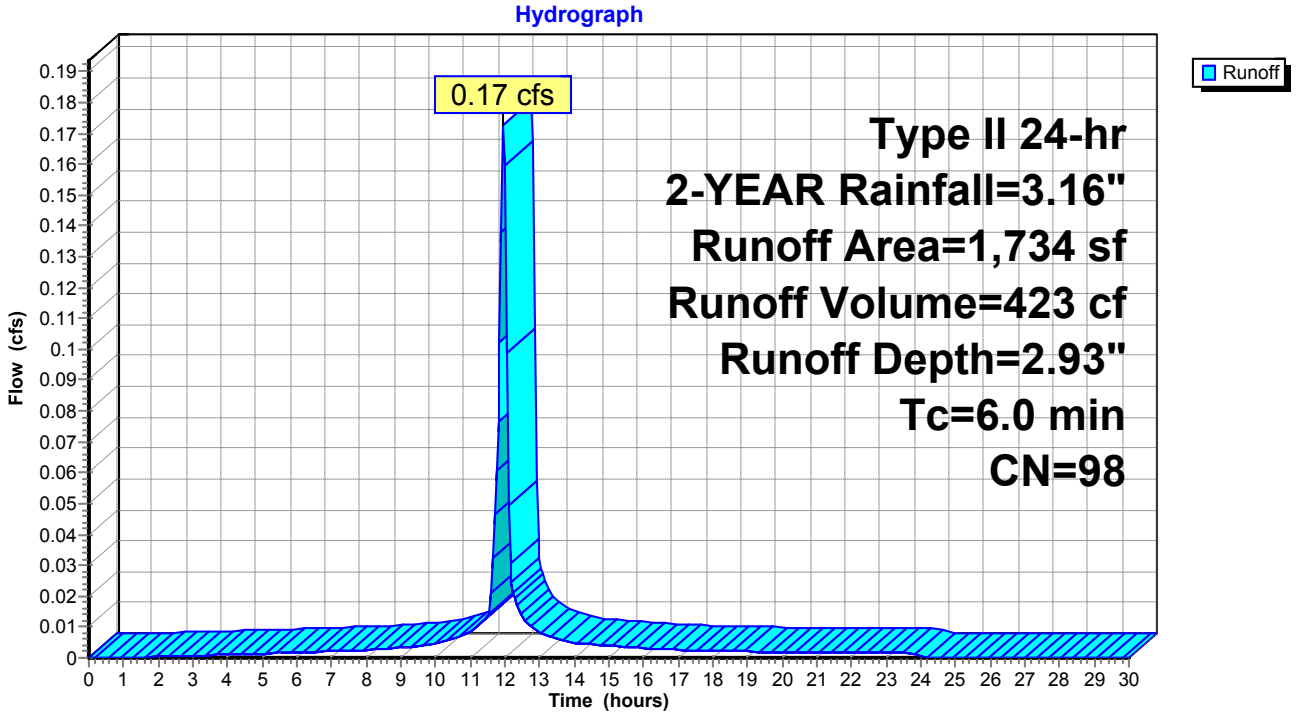
Runoff = 0.17 cfs @ 11.96 hrs, Volume= 423 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,734	98	Roofs, HSG D
1,734		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-15: DA-15



Summary for Subcatchment DA-16: DA-16

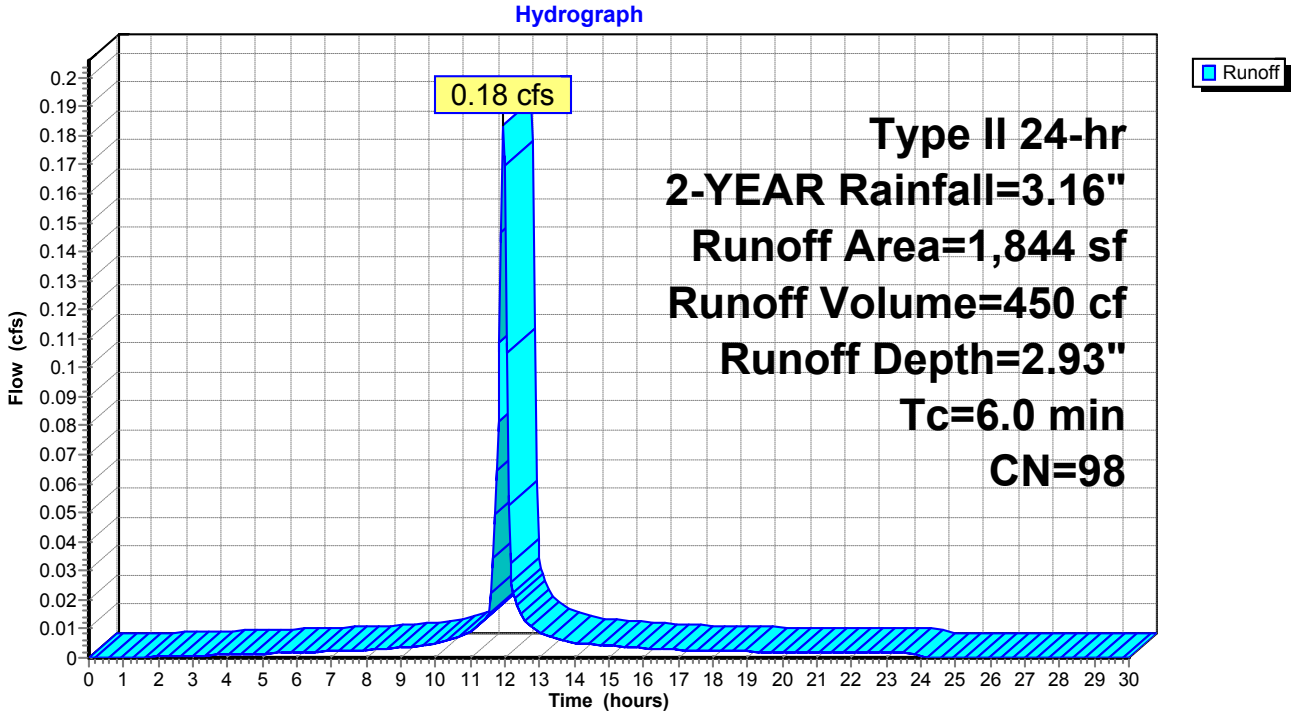
Runoff = 0.18 cfs @ 11.96 hrs, Volume= 450 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,844	98	Roofs, HSG D
1,844		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-16: DA-16



Summary for Subcatchment DA-17: DA-17

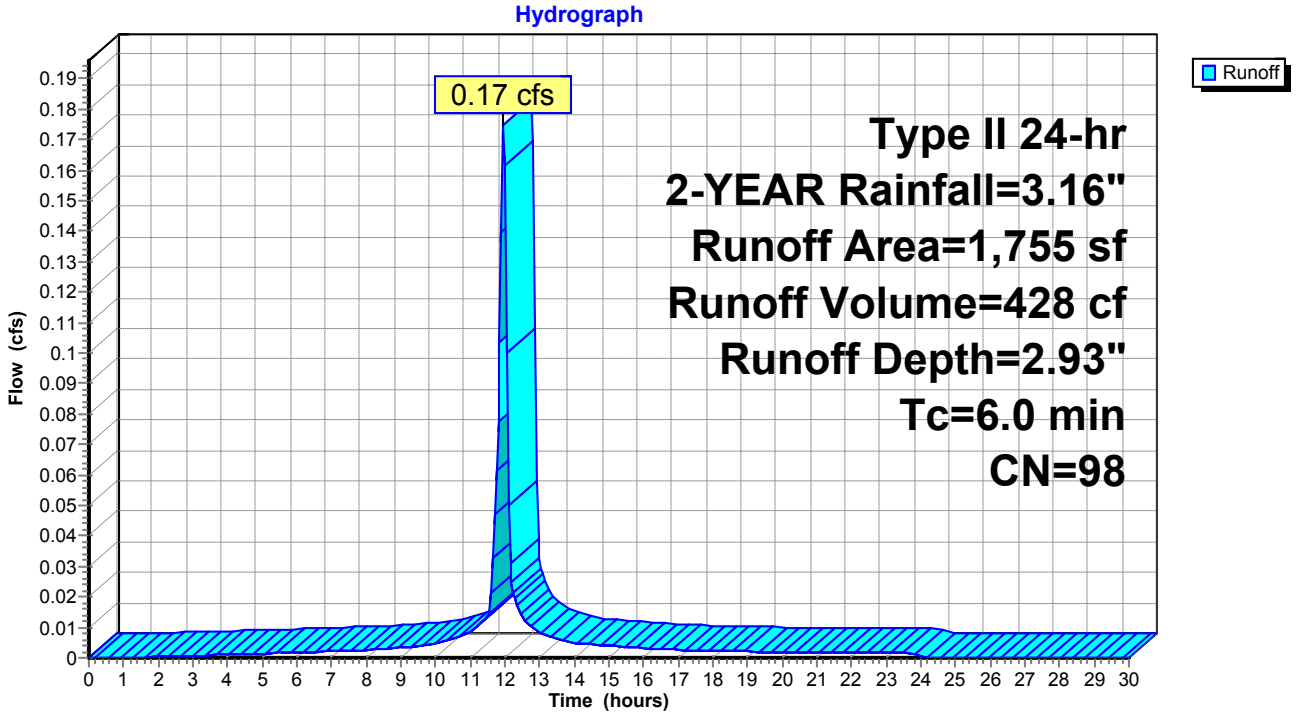
Runoff = 0.17 cfs @ 11.96 hrs, Volume= 428 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,755	98	Roofs, HSG D
1,755		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-17: DA-17



Summary for Subcatchment DA-18: DRAINAGE AREA 18

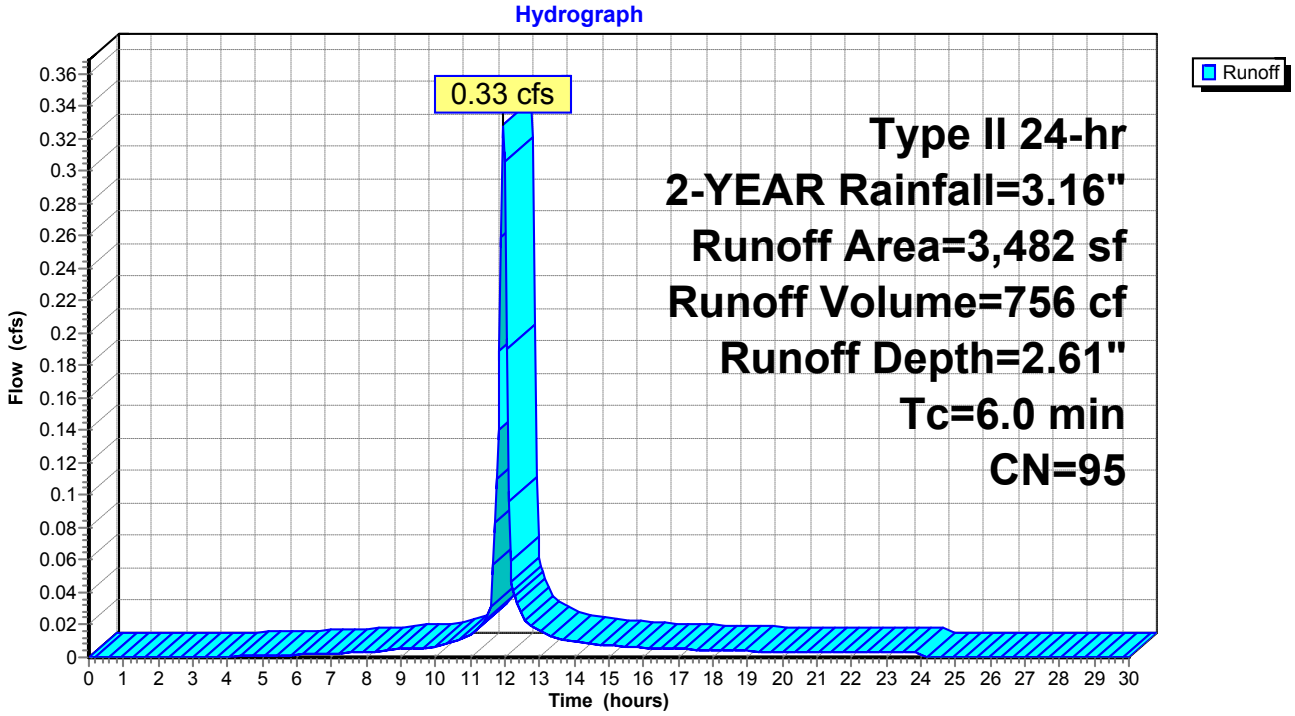
Runoff = 0.33 cfs @ 11.96 hrs, Volume= 756 cf, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
489	80	>75% Grass cover, Good, HSG D
2,993	98	Paved parking, HSG D
3,482	95	Weighted Average
489		14.04% Pervious Area
2,993		85.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-18: DRAINAGE AREA 18



Summary for Subcatchment DA-2: DA-2

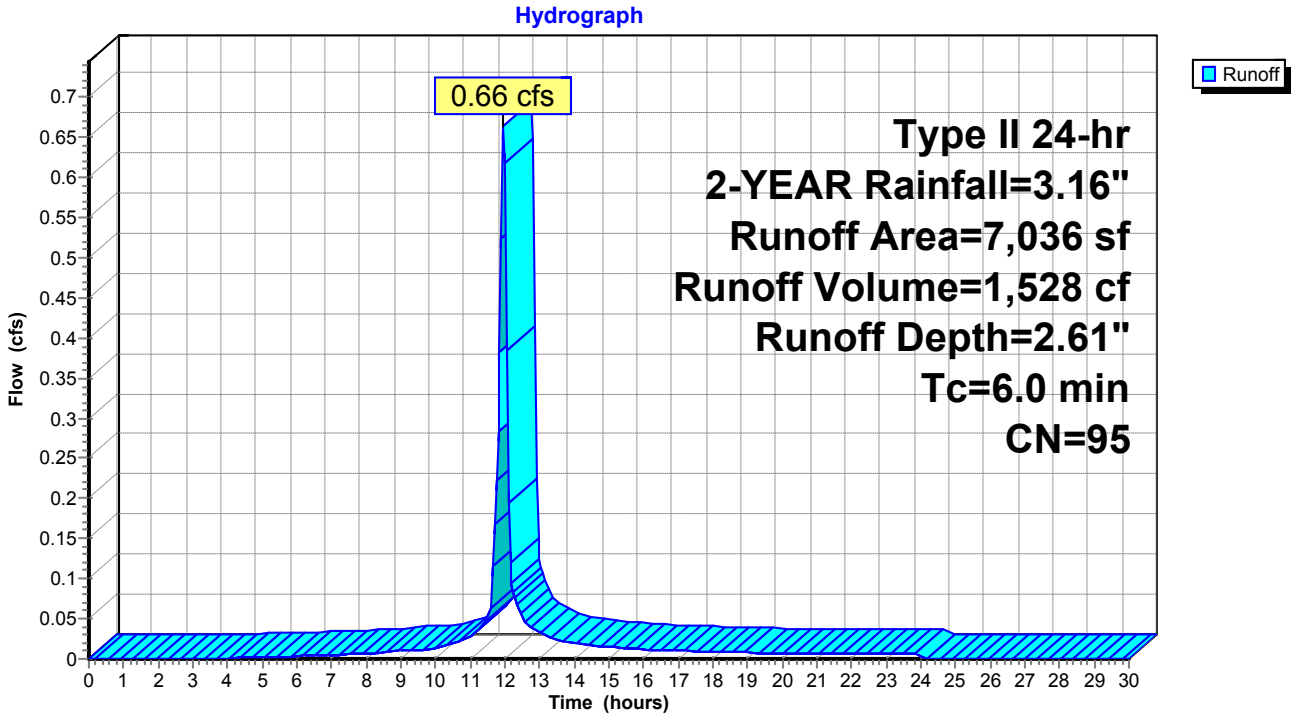
Runoff = 0.66 cfs @ 11.96 hrs, Volume= 1,528 cf, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,178	80	>75% Grass cover, Good, HSG D
5,194	98	Roofs, HSG D
664	98	Paved parking, HSG D
7,036	95	Weighted Average
1,178		16.74% Pervious Area
5,858		83.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DRAINAGE AREA 3

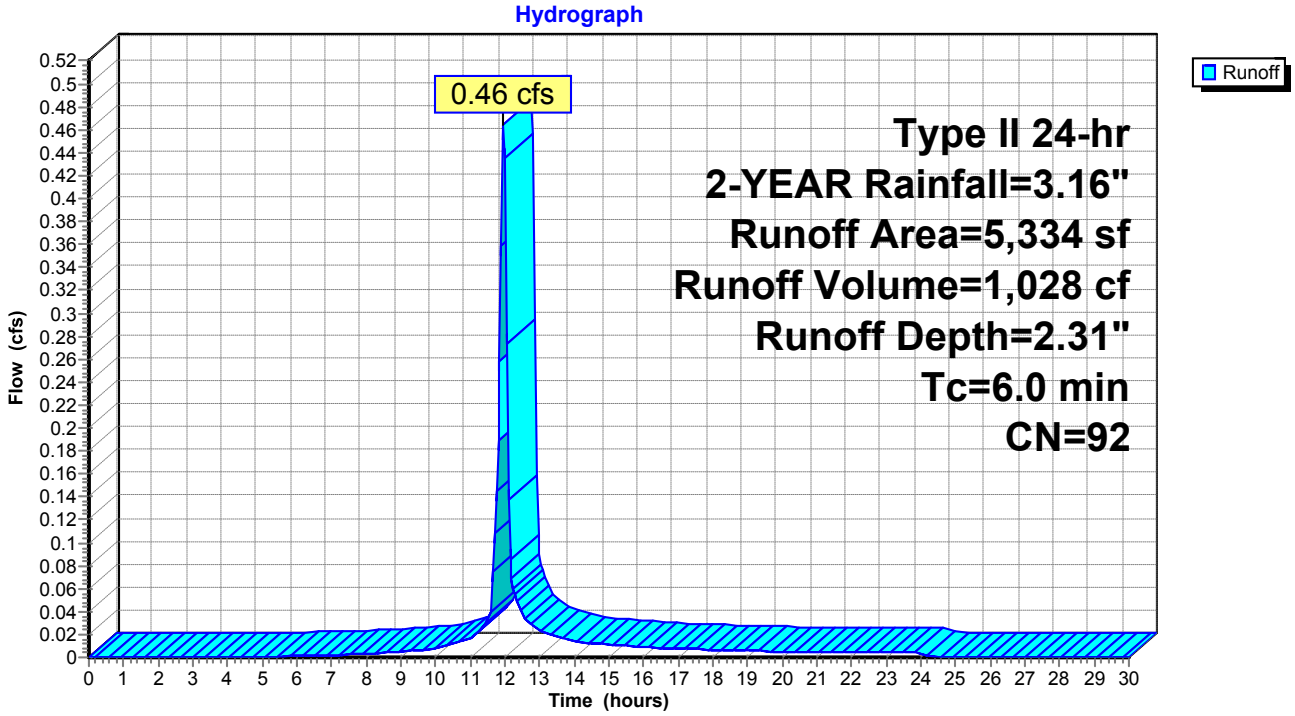
Runoff = 0.46 cfs @ 11.97 hrs, Volume= 1,028 cf, Depth= 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,820	80	>75% Grass cover, Good, HSG D
3,514	98	Paved parking, HSG D
5,334	92	Weighted Average
1,820		34.12% Pervious Area
3,514		65.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-3: DRAINAGE AREA 3



Summary for Subcatchment DA-4: DRAINAGE AREA 4

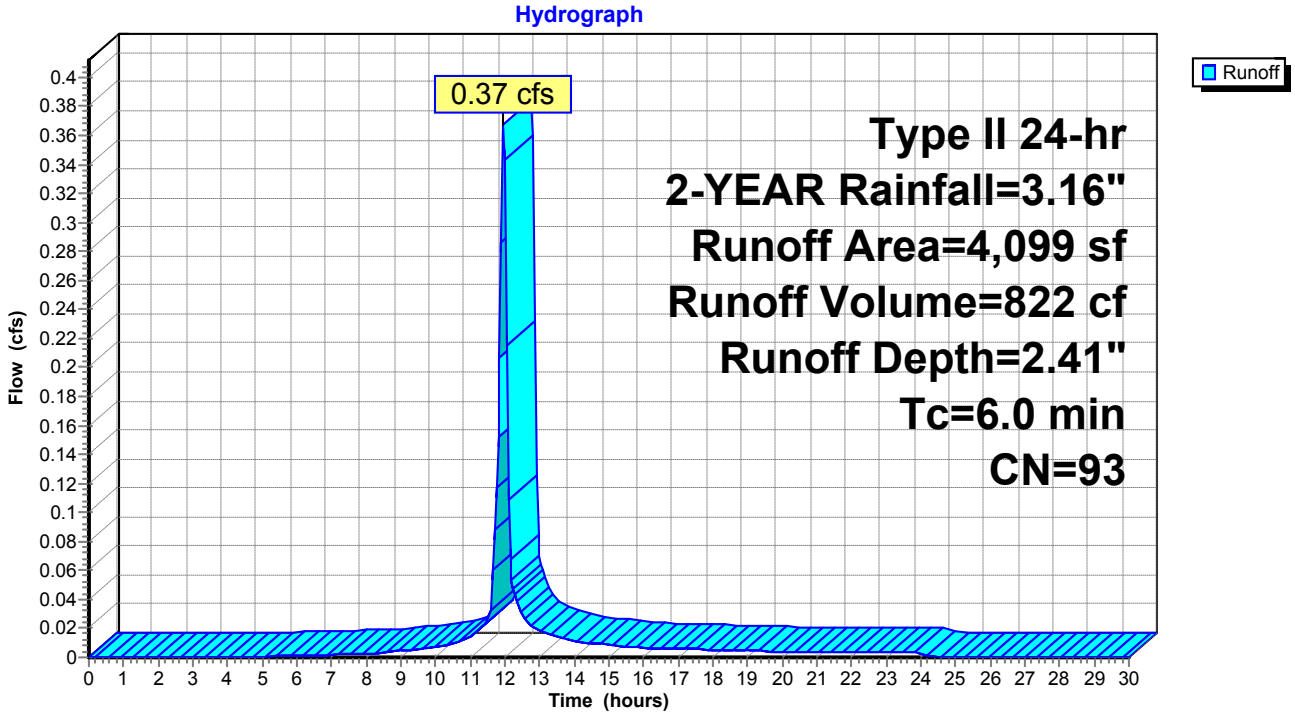
Runoff = 0.37 cfs @ 11.96 hrs, Volume= 822 cf, Depth= 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,032	80	>75% Grass cover, Good, HSG D
3,067	98	Paved parking, HSG D
4,099	93	Weighted Average
1,032		25.18% Pervious Area
3,067		74.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-4: DRAINAGE AREA 4



Summary for Subcatchment DA-5: DRAINAGE AREA 5

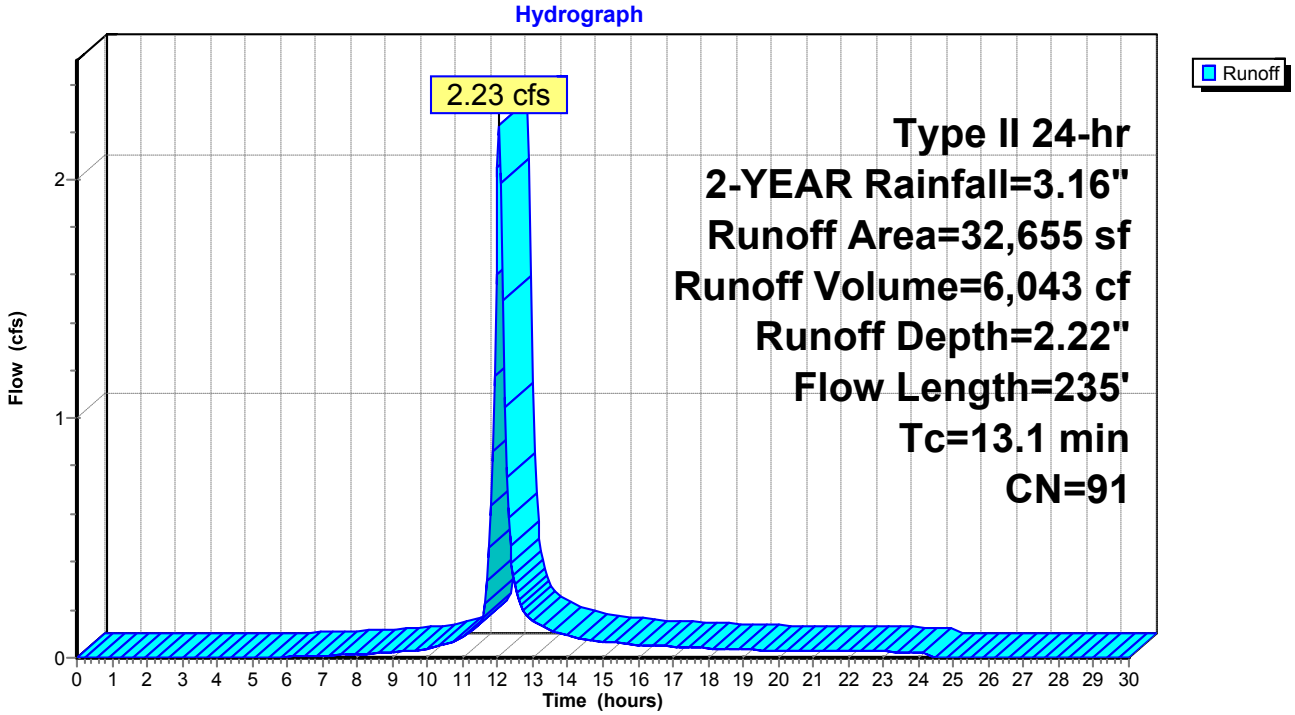
Runoff = 2.23 cfs @ 12.05 hrs, Volume= 6,043 cf, Depth= 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
12,737	80	>75% Grass cover, Good, HSG D
19,918	98	Paved parking, HSG D
32,655	91	Weighted Average
12,737		39.00% Pervious Area
19,918		61.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0150	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
1.7	81	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	54	0.0250	3.21		**Shallow Concentrated Flow, C-D** Paved Kv= 20.3 fps
13.1	235	Total			

Subcatchment DA-5: DRAINAGE AREA 5



Summary for Subcatchment DA-6: DA-6

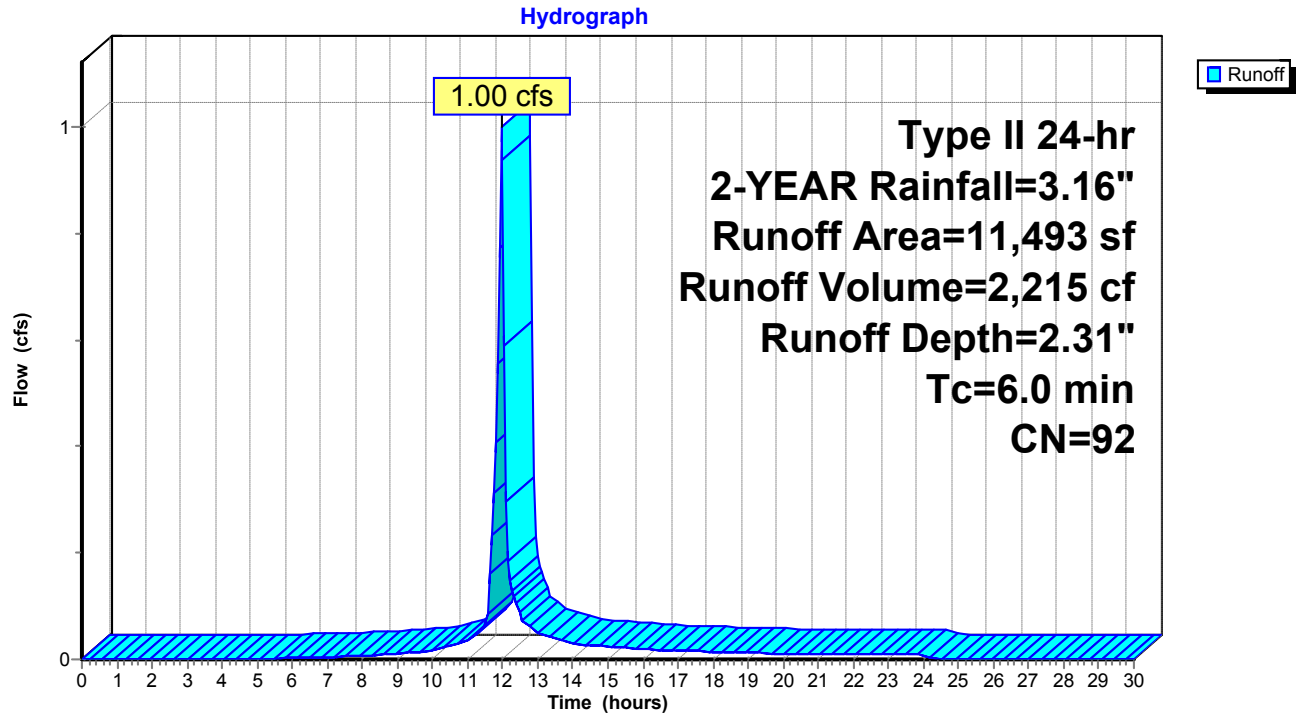
Runoff = 1.00 cfs @ 11.97 hrs, Volume= 2,215 cf, Depth= 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
3,947	80	>75% Grass cover, Good, HSG D
7,546	98	Paved parking, HSG D
11,493	92	Weighted Average
3,947		34.34% Pervious Area
7,546		65.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

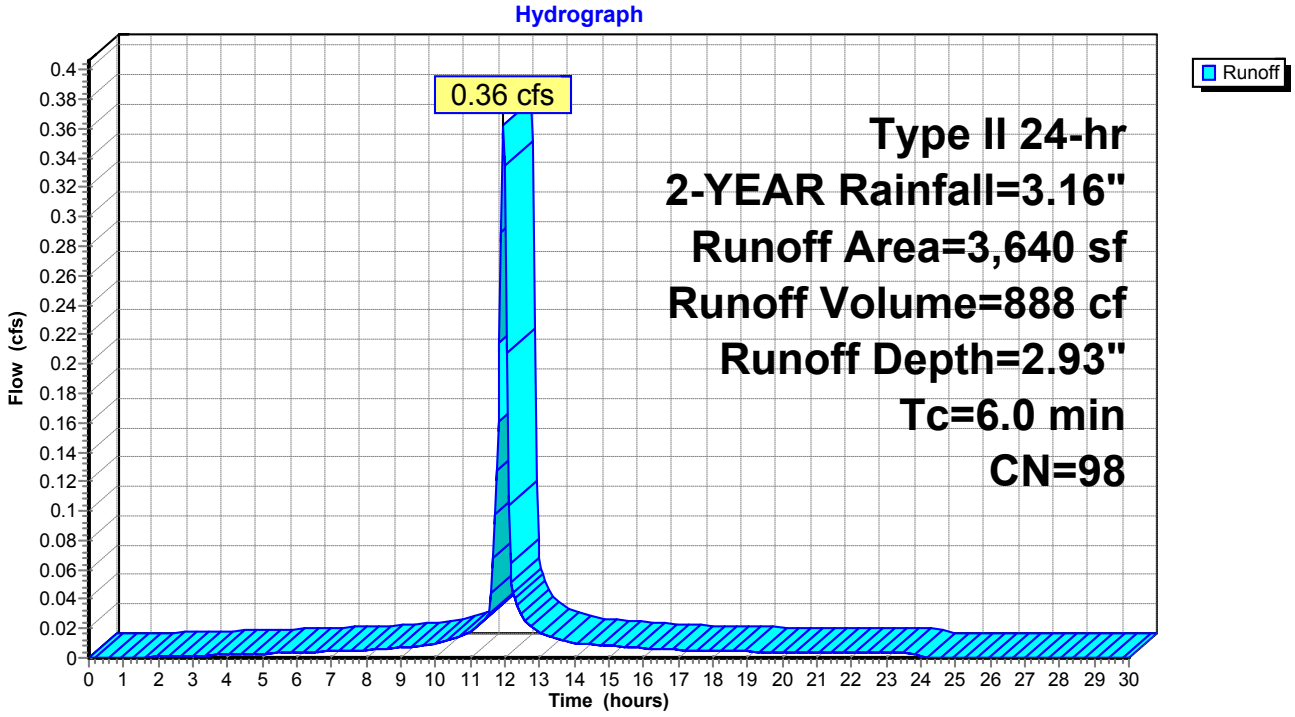
Runoff = 0.36 cfs @ 11.96 hrs, Volume= 888 cf, Depth= 2.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,587	98	Roofs, HSG D
2,053	98	Paved parking, HSG D
3,640	98	Weighted Average
3,640		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

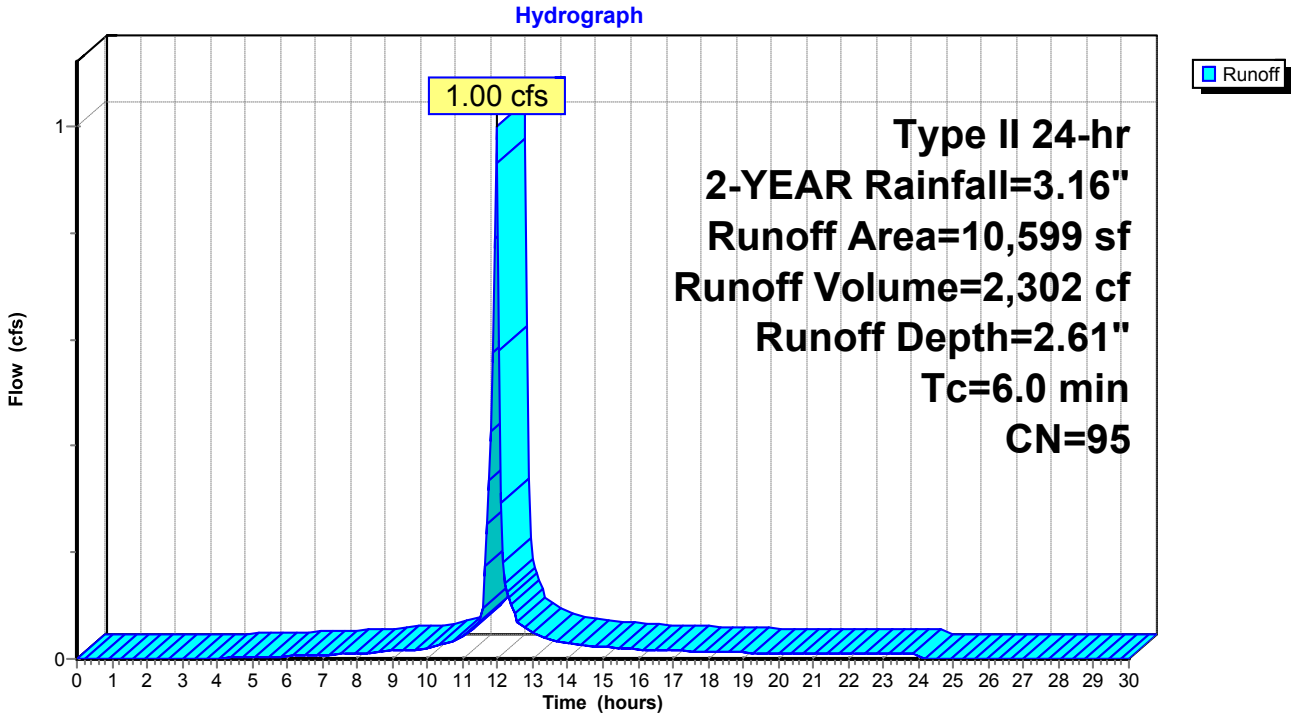
Runoff = 1.00 cfs @ 11.96 hrs, Volume= 2,302 cf, Depth= 2.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,986	80	>75% Grass cover, Good, HSG D
6,900	98	Roofs, HSG D
1,713	98	Paved parking, HSG D
10,599	95	Weighted Average
1,986		18.74% Pervious Area
8,613		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DRAINAGE AREA 9

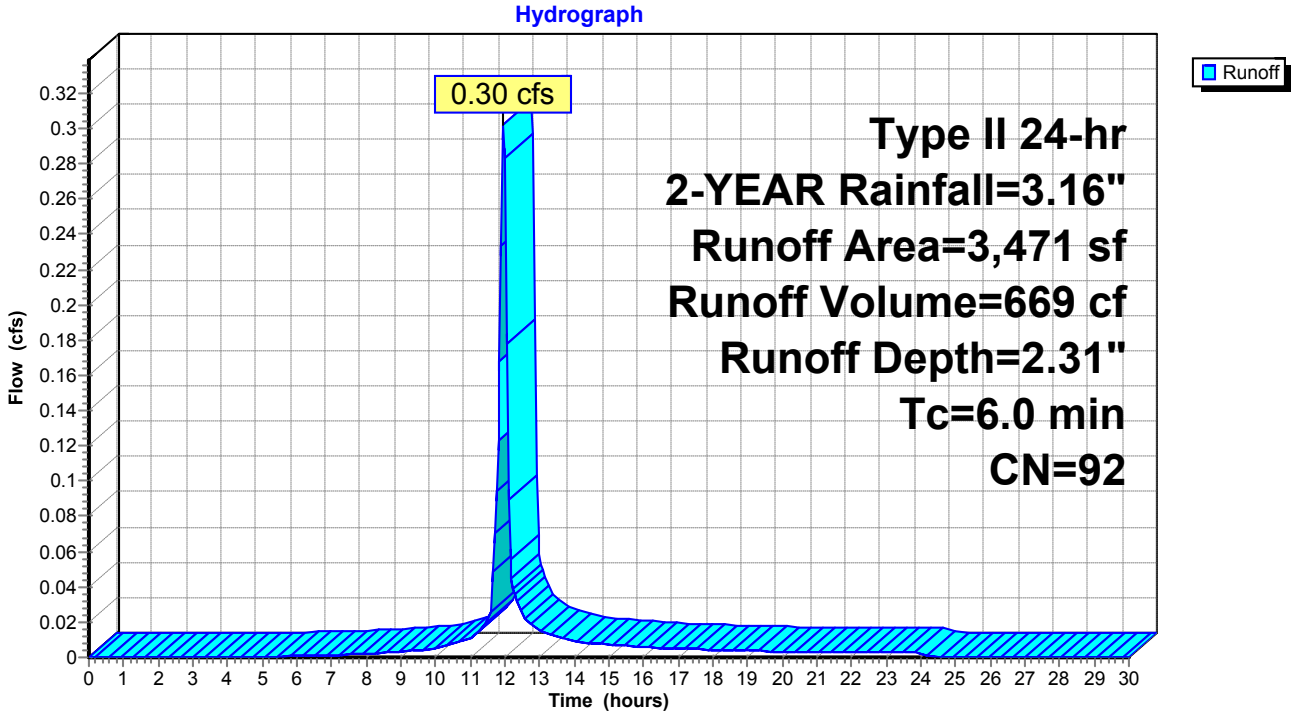
Runoff = 0.30 cfs @ 11.97 hrs, Volume= 669 cf, Depth= 2.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,195	80	>75% Grass cover, Good, HSG D
2,276	98	Paved parking, HSG D
3,471	92	Weighted Average
1,195		34.43% Pervious Area
2,276		65.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-9: DRAINAGE AREA 9



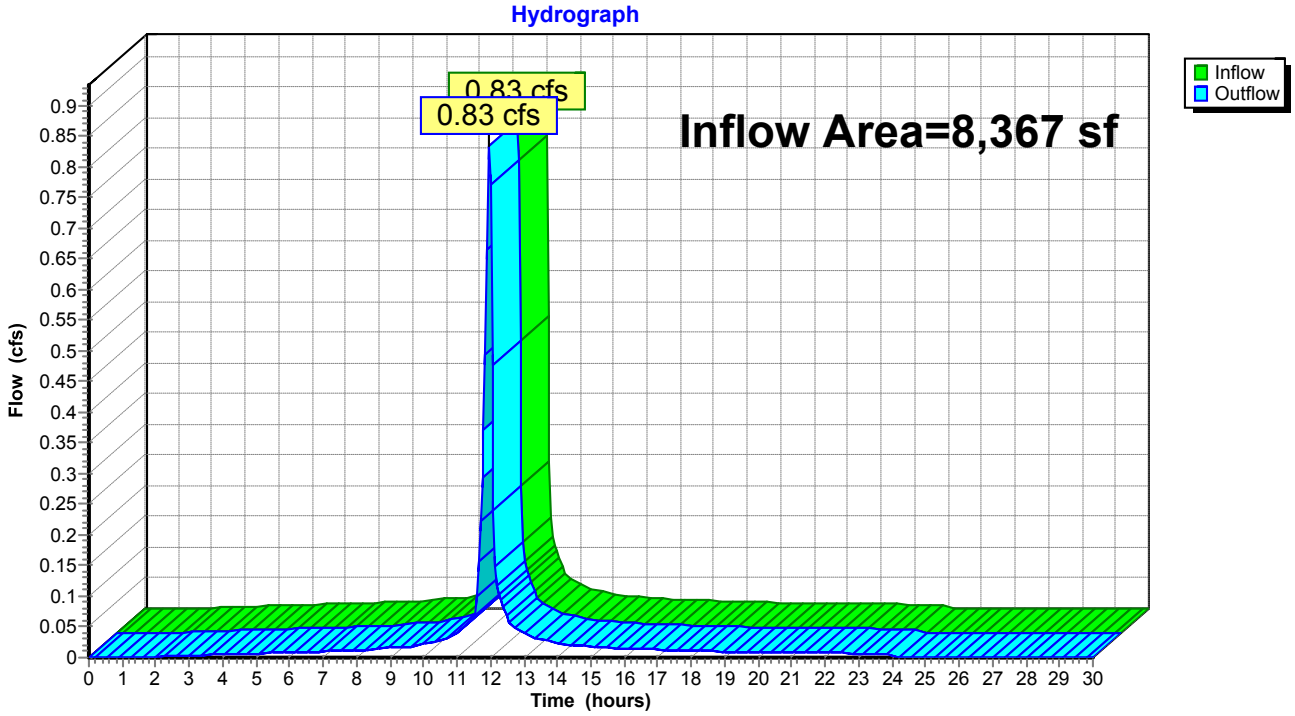
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8,367 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 0.83 cfs @ 11.96 hrs, Volume= 2,041 cf
Outflow = 0.83 cfs @ 11.96 hrs, Volume= 2,041 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 2P: EXISTING DRYWELL

[81] Warning: Exceeded Pond DW-4 by 0.49' @ 14.85 hrs

Inflow Area = 5,334 sf, 65.88% Impervious, Inflow Depth = 6.02" for 2-YEAR event
Inflow = 1.80 cfs @ 11.98 hrs, Volume= 2,678 cf
Outflow = 1.77 cfs @ 12.00 hrs, Volume= 2,678 cf, Atten= 1%, Lag= 1.1 min
Discarded = 0.57 cfs @ 12.00 hrs, Volume= 1,791 cf
Primary = 1.20 cfs @ 12.00 hrs, Volume= 887 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.78' @ 12.00 hrs Surf.Area= 1,124 sf Storage= 370 cf

Plug-Flow detention time= 29.4 min calculated for 2,673 cf (100% of inflow)
Center-of-Mass det. time= 29.4 min (784.3 - 754.9)

Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	1,717 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

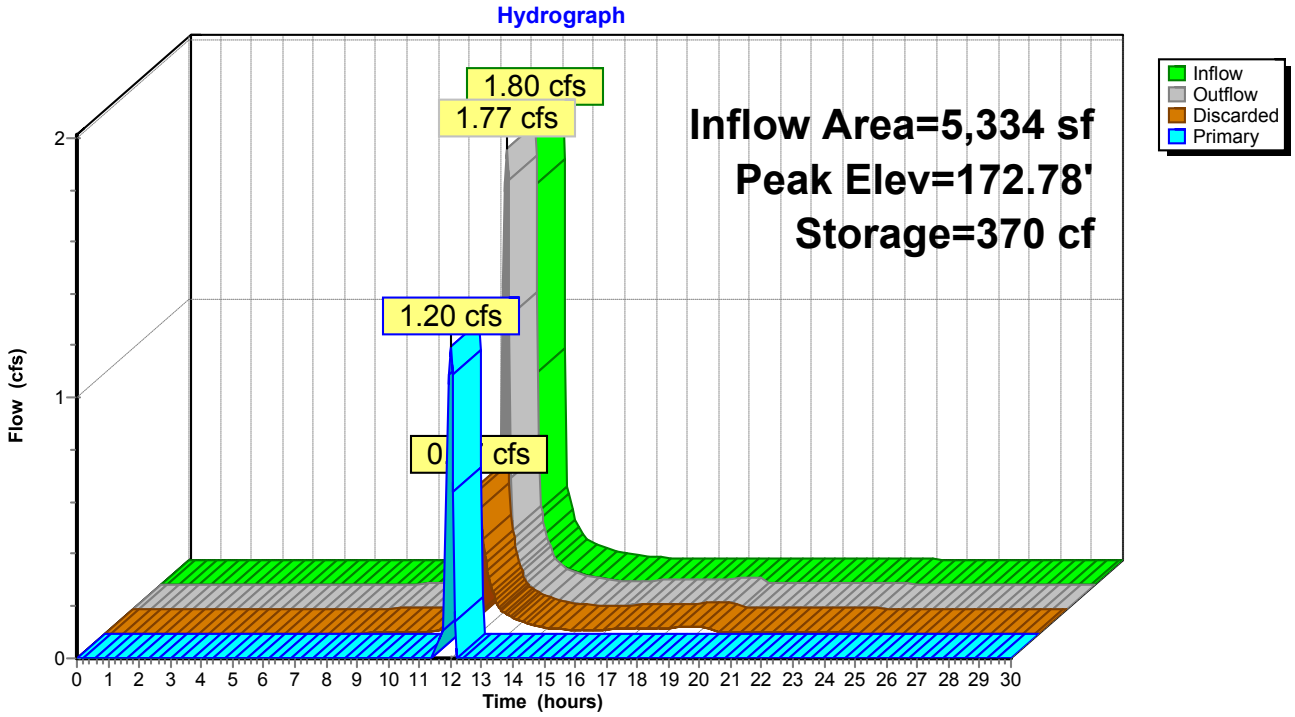
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	2,000	507	717
173.50	2,000	1,000	1,717

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**
#2	Primary	172.65'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.57 cfs @ 12.00 hrs HW=172.78' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.57 cfs)

Primary OutFlow Max=1.19 cfs @ 12.00 hrs HW=172.78' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 1.19 cfs @ 1.17 fps)

Pond 2P: EXISTING DRYWELL



Summary for Pond 3P: PROPOSED CB #3

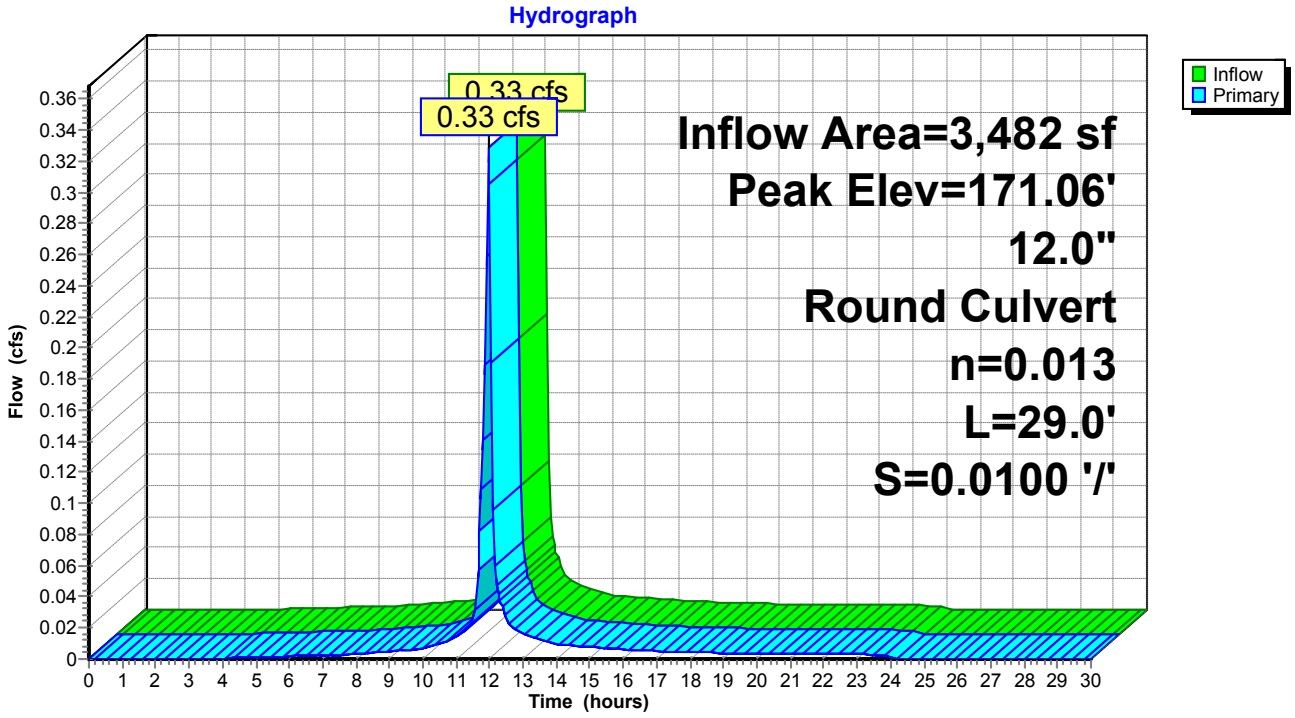
Inflow Area = 3,482 sf, 85.96% Impervious, Inflow Depth = 2.61" for 2-YEAR event
Inflow = 0.33 cfs @ 11.96 hrs, Volume= 756 cf
Outflow = 0.33 cfs @ 11.96 hrs, Volume= 756 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.33 cfs @ 11.96 hrs, Volume= 756 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.06' @ 11.96 hrs
Flood Elev= 172.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.74'	**12.0" Round Culvert** L= 29.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.74' / 170.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.32 cfs @ 11.96 hrs HW=171.06' (Free Discharge)
1=Culvert (Inlet Controls 0.32 cfs @ 1.51 fps)

Pond 3P: PROPOSED CB #3



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond CB-2 by 2.71' @ 12.15 hrs

Inflow	=	0.96 cfs @	11.96 hrs,	Volume=	2,687 cf
Outflow	=	0.72 cfs @	12.04 hrs,	Volume=	2,687 cf, Atten= 25%, Lag= 4.5 min
Discarded	=	0.72 cfs @	12.04 hrs,	Volume=	2,687 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.34' @ 12.04 hrs Surf.Area= 1,415 sf Storage= 469 cf

Plug-Flow detention time= 57.3 min calculated for 2,682 cf (100% of inflow)
Center-of-Mass det. time= 57.3 min (833.0 - 775.7)

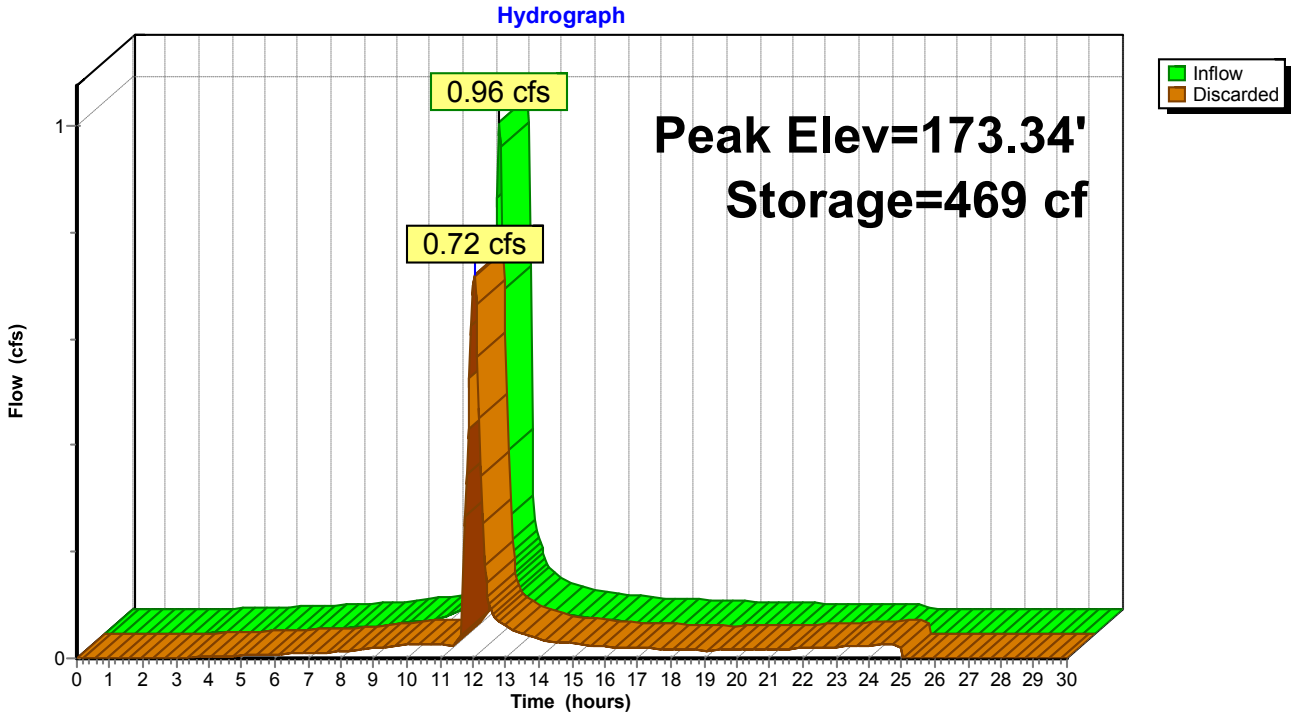
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	112	7	213
174.00	4,000	2,056	2,269

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.71 cfs @ 12.04 hrs HW=173.33' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.71 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 8P: EXISTING YARD DRAIN

[58] Hint: Peaked 15.91' above defined flood level

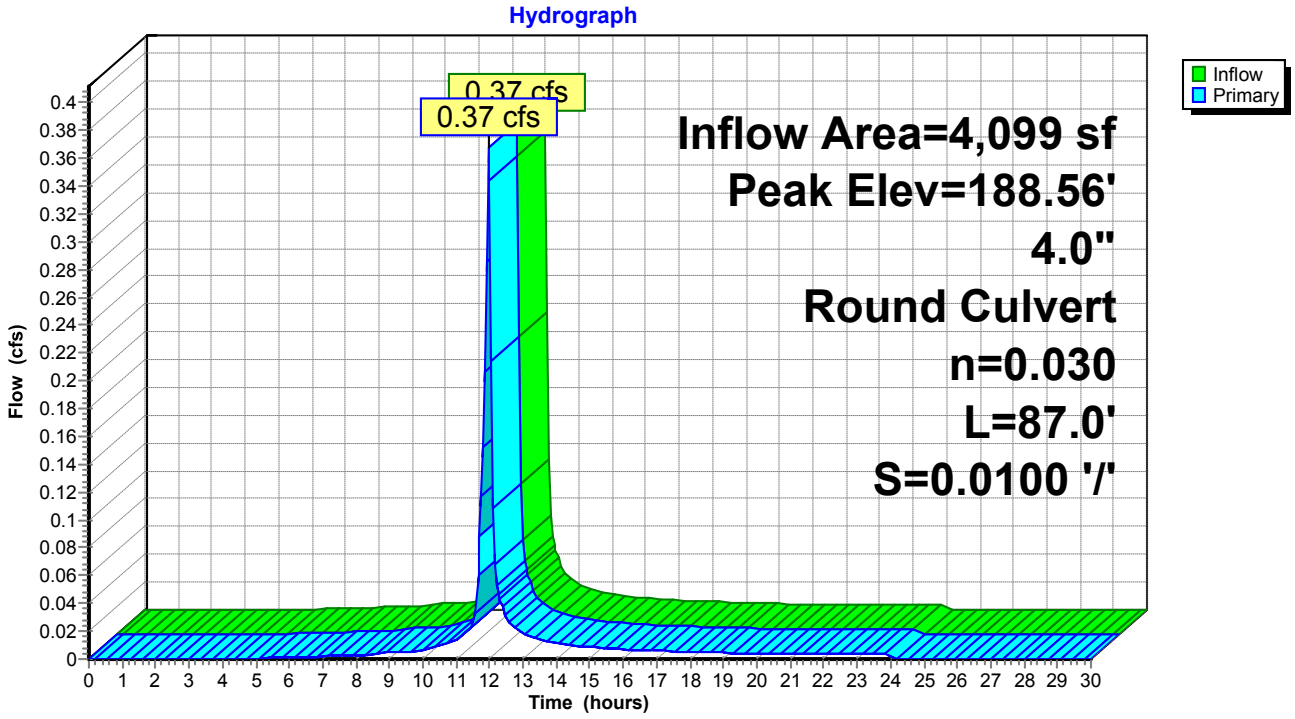
Inflow Area = 4,099 sf, 74.82% Impervious, Inflow Depth = 2.41" for 2-YEAR event
Inflow = 0.37 cfs @ 11.96 hrs, Volume= 822 cf
Outflow = 0.37 cfs @ 11.96 hrs, Volume= 822 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.37 cfs @ 11.96 hrs, Volume= 822 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 188.56' @ 11.96 hrs
Flood Elev= 172.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.030, Flow Area= 0.09 sf

Primary OutFlow Max=0.36 cfs @ 11.96 hrs HW=187.68' (Free Discharge)
1=Culvert (Barrel Controls 0.36 cfs @ 4.10 fps)

Pond 8P: EXISTING YARD DRAIN



Summary for Pond 12P: EXISTING CB

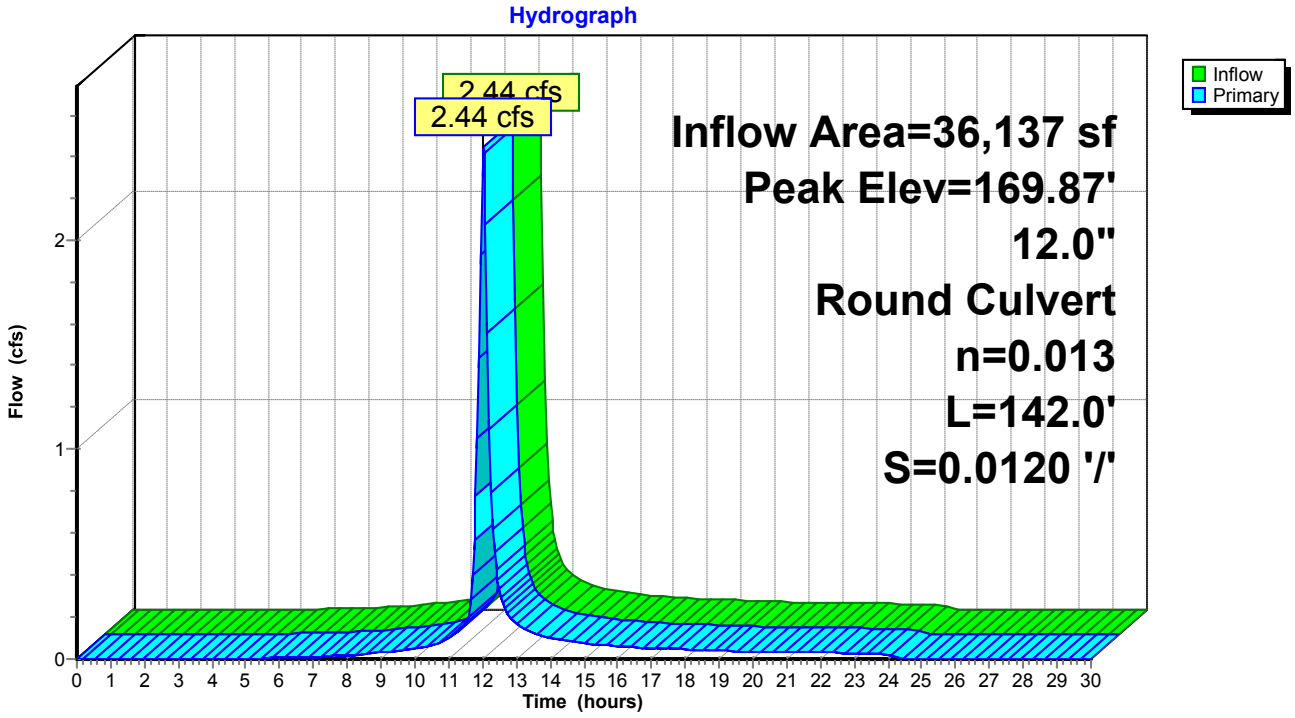
Inflow Area = 36,137 sf, 63.40% Impervious, Inflow Depth = 2.26" for 2-YEAR event
Inflow = 2.44 cfs @ 12.03 hrs, Volume= 6,799 cf
Outflow = 2.44 cfs @ 12.03 hrs, Volume= 6,799 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.44 cfs @ 12.03 hrs, Volume= 6,799 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.87' @ 12.03 hrs
Flood Elev= 172.16'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=2.39 cfs @ 12.03 hrs HW=169.84' (Free Discharge)
1=Culvert (Inlet Controls 2.39 cfs @ 3.05 fps)

Pond 12P: EXISTING CB



Summary for Pond 14P: EXISTING CB

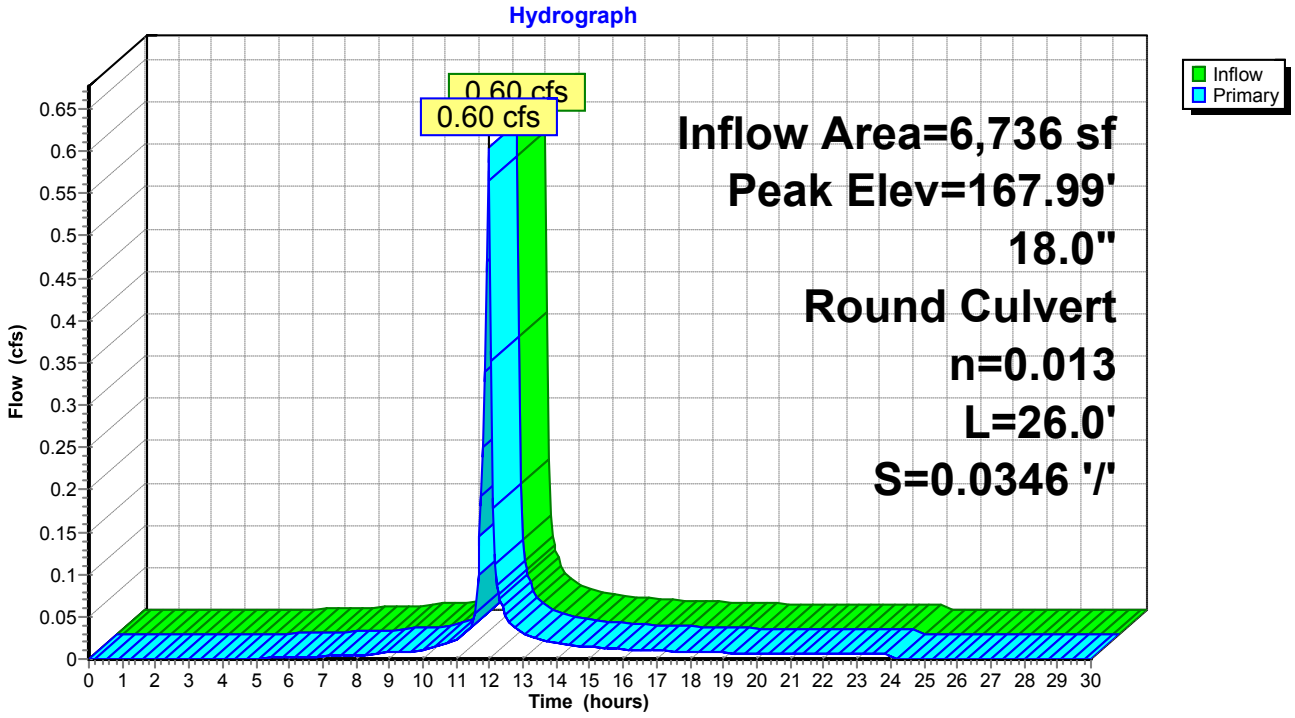
Inflow Area = 6,736 sf, 69.73% Impervious, Inflow Depth = 2.41" for 2-YEAR event
Inflow = 0.60 cfs @ 11.96 hrs, Volume= 1,351 cf
Outflow = 0.60 cfs @ 11.96 hrs, Volume= 1,351 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.60 cfs @ 11.96 hrs, Volume= 1,351 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 167.99' @ 11.97 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=0.59 cfs @ 11.96 hrs HW=167.98' (Free Discharge)
1=Culvert (Inlet Controls 0.59 cfs @ 1.66 fps)

Pond 14P: EXISTING CB



Summary for Pond CB-1: PROPOSED CATCH BASIN #1

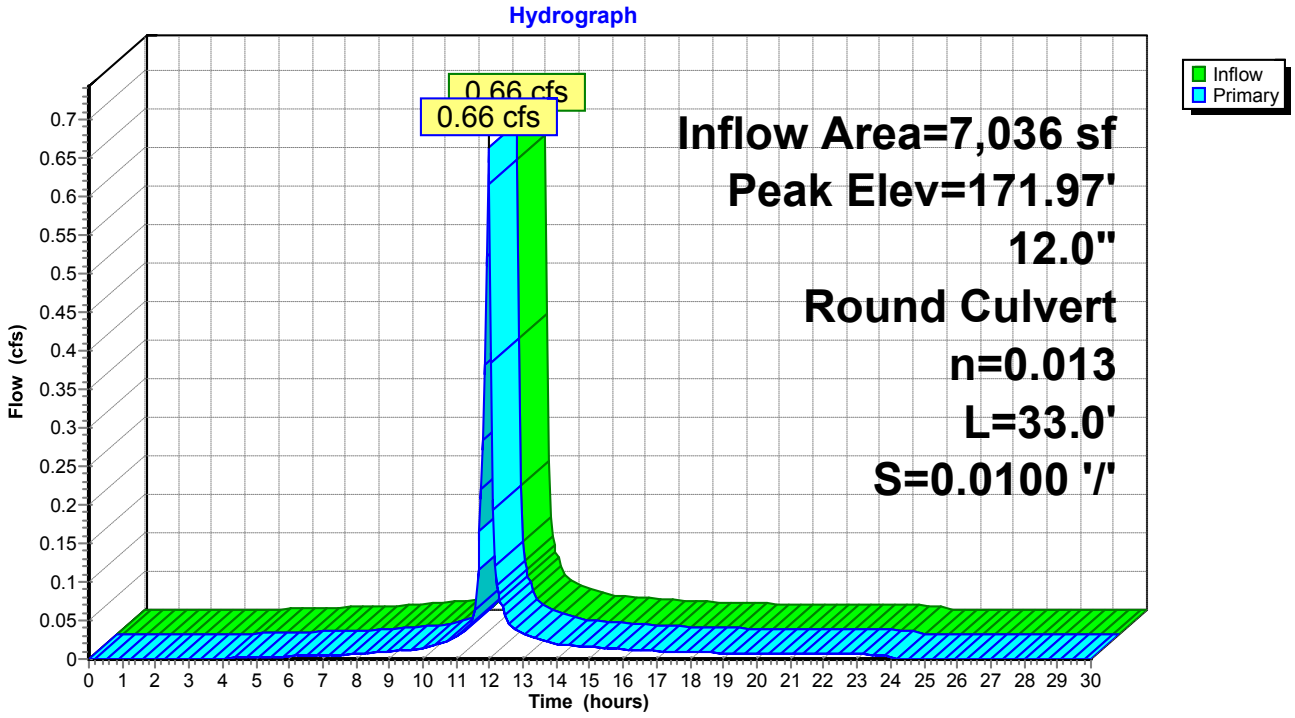
Inflow Area = 7,036 sf, 83.26% Impervious, Inflow Depth = 2.61" for 2-YEAR event
Inflow = 0.66 cfs @ 11.96 hrs, Volume= 1,528 cf
Outflow = 0.66 cfs @ 11.96 hrs, Volume= 1,528 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.66 cfs @ 11.96 hrs, Volume= 1,528 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.97' @ 11.96 hrs
Flood Elev= 172.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.50'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.50' / 171.17' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.65 cfs @ 11.96 hrs HW=171.96' (Free Discharge)
1=Culvert (Inlet Controls 0.65 cfs @ 1.83 fps)

Pond CB-1: PROPOSED CATCH BASIN #1



Summary for Pond CB-2: PR CB #2

[57] Hint: Peaked at 171.11' (Flood elevation advised)

Inflow Area =	28,448 sf,	85.49% Impervious,	Inflow Depth =	2.68"	for 2-YEAR event
Inflow =	2.73 cfs @	11.96 hrs,	Volume=	6,363 cf	
Outflow =	2.73 cfs @	11.96 hrs,	Volume=	6,363 cf,	Atten= 0%, Lag= 0.0 min
Primary =	1.77 cfs @	11.96 hrs,	Volume=	3,676 cf	
Secondary =	0.96 cfs @	11.96 hrs,	Volume=	2,687 cf	

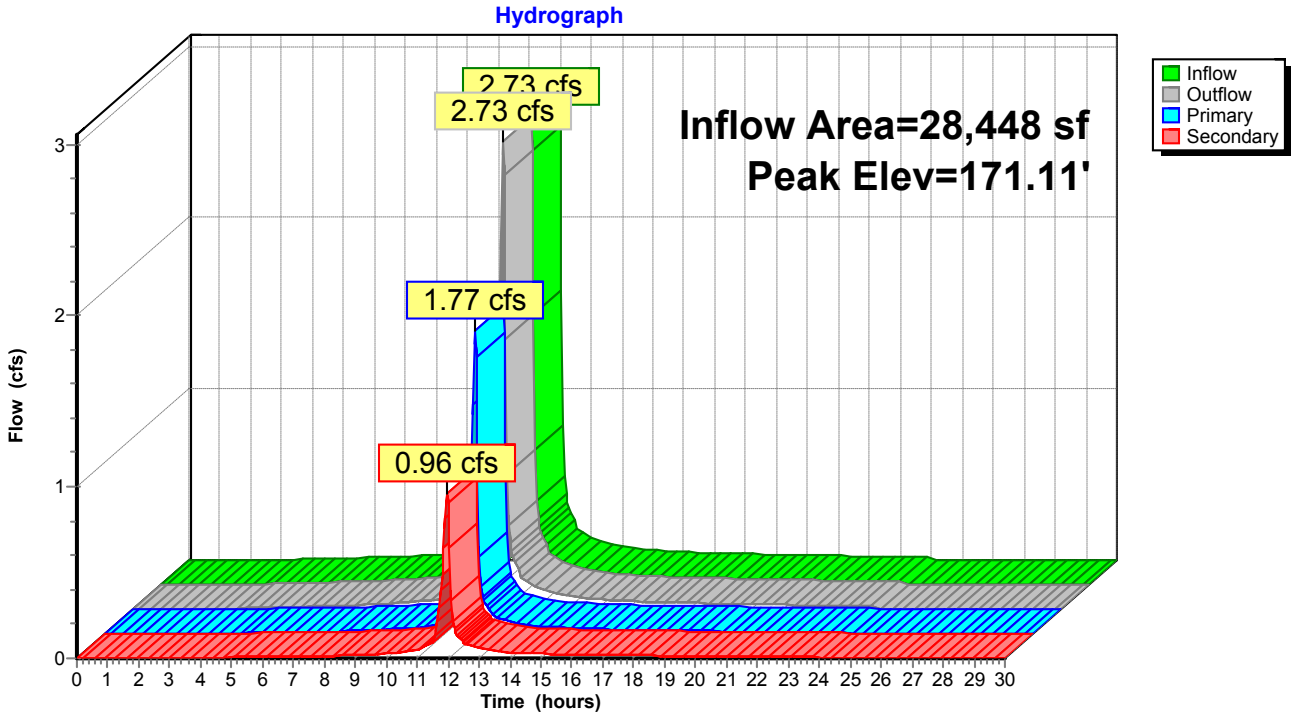
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.11' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.25'	**12.0" Round Culvert** L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	170.25'	**8.0" Round Culvert** L= 12.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.72 cfs @ 11.96 hrs HW=171.09' (Free Discharge)
1=Culvert (Barrel Controls 1.72 cfs @ 3.30 fps)

Secondary OutFlow Max=0.94 cfs @ 11.96 hrs HW=171.09' (Free Discharge)
2=Culvert (Inlet Controls 0.94 cfs @ 2.70 fps)

Pond CB-2: PR CB #2



Summary for Pond DP-1: Existing Catch Basin

[79] Warning: Submerged Pond 12P Primary device # 1 OUTLET by 0.94'
[79] Warning: Submerged Pond 14P Primary device # 1 INLET by 0.34'

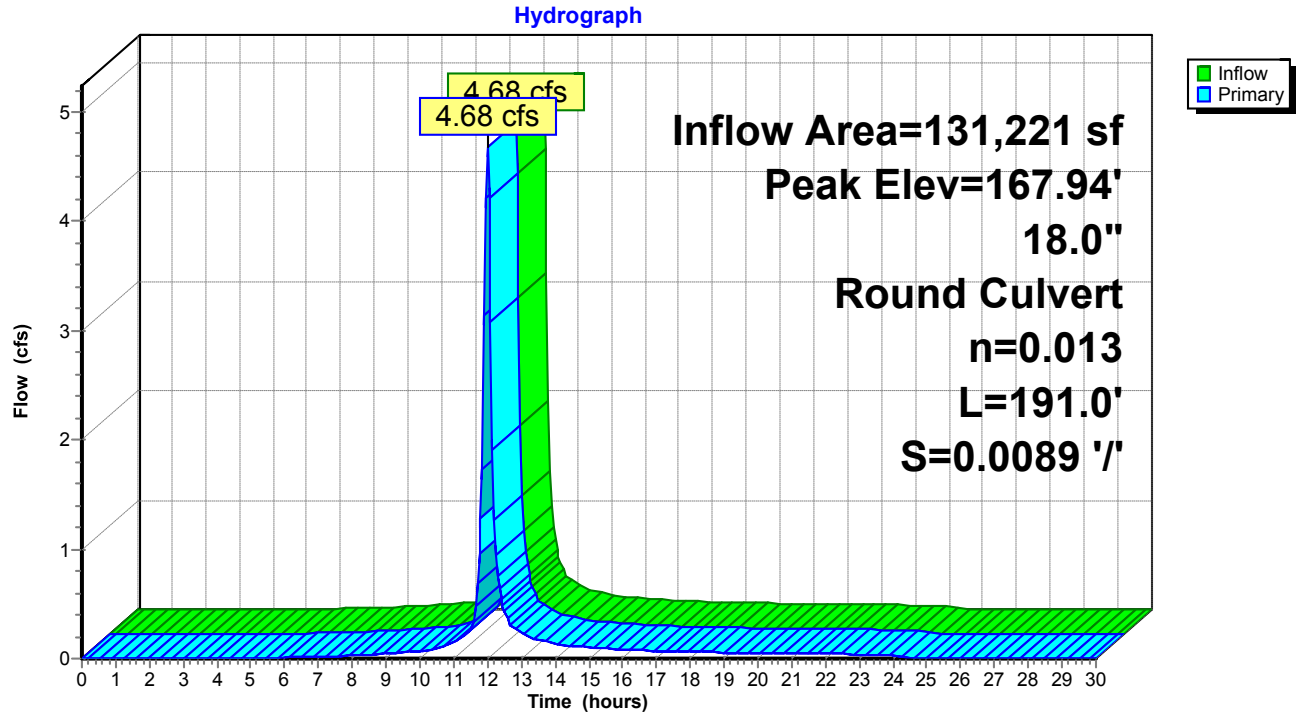
Inflow Area = 131,221 sf, 73.88% Impervious, Inflow Depth = 0.95" for 2-YEAR event
Inflow = 4.68 cfs @ 12.00 hrs, Volume= 10,397 cf
Outflow = 4.68 cfs @ 12.00 hrs, Volume= 10,397 cf, Atten= 0%, Lag= 0.0 min
Primary = 4.68 cfs @ 12.00 hrs, Volume= 10,397 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 167.94' @ 12.00 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=4.68 cfs @ 12.00 hrs HW=167.94' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 4.68 cfs @ 2.99 fps)

Pond DP-1: Existing Catch Basin



Summary for Pond DW-1: PROPOSED DRYWELL #1

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 3,471 sf, 65.57% Impervious, Inflow Depth = 2.31" for 2-YEAR event
Inflow = 0.30 cfs @ 11.97 hrs, Volume= 669 cf
Outflow = 0.05 cfs @ 11.69 hrs, Volume= 669 cf, Atten= 83%, Lag= 0.0 min
Discarded = 0.05 cfs @ 11.69 hrs, Volume= 669 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 167.56' @ 12.21 hrs Surf.Area= 60 sf Storage= 210 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 27.7 min (822.8 - 795.1)

Volume	Invert	Avail.Storage	Storage Description
#1	164.00'	712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	163.00'	38 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 94 cf Overall x 40.0% Voids
		750 cf	Total Available Storage

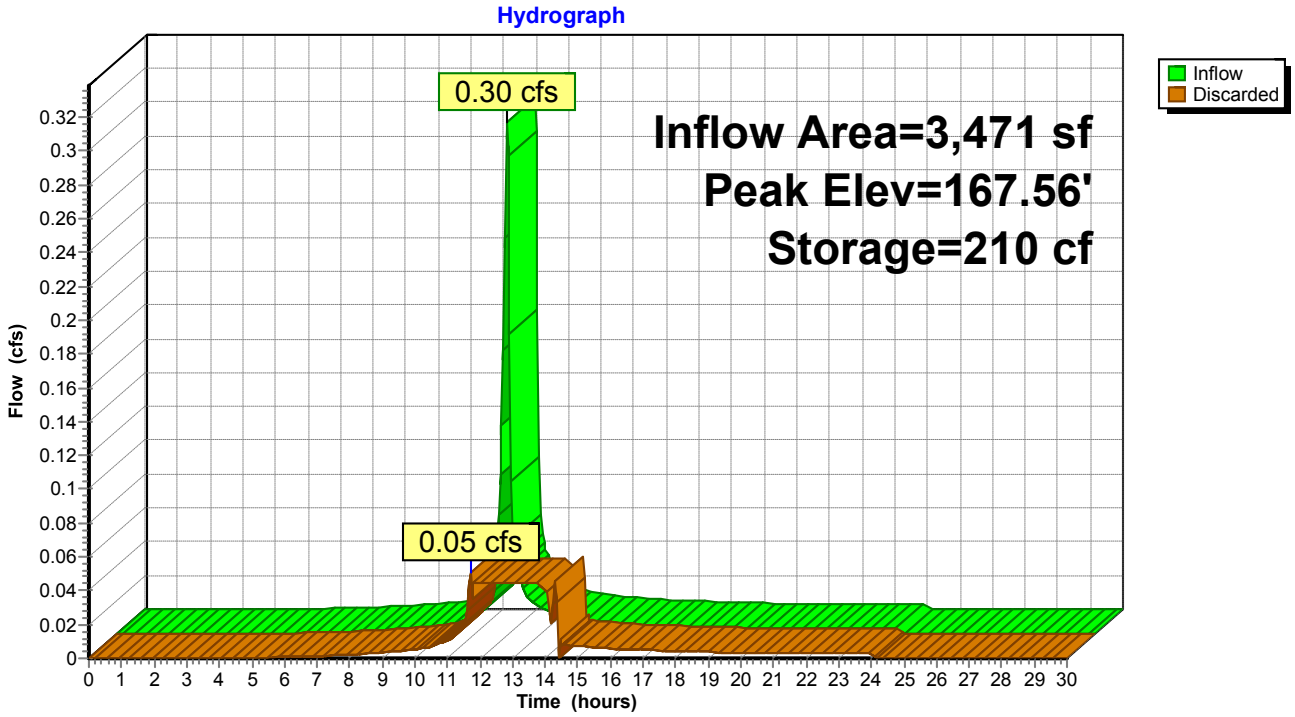
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	50	0	0
168.90	50	245	245
169.00	300	17	262
170.50	300	450	712

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	78	0	0
164.00	10	44	44
169.00	10	50	94

Device	Routing	Invert	Outlet Devices
#1	Discarded	163.00'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.05 cfs @ 11.69 hrs HW=163.12' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.05 cfs)

Pond DW-1: PROPOSED DRYWELL #1



Summary for Pond DW-2: PROPOSED DRYWELL #2

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)
[81] Warning: Exceeded Pond YD-2 by 2.78' @ 13.50 hrs

Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 2.32" for 2-YEAR event
Inflow = 1.15 cfs @ 11.97 hrs, Volume= 2,585 cf
Outflow = 1.01 cfs @ 12.01 hrs, Volume= 2,585 cf, Atten= 12%, Lag= 2.4 min
Discarded = 1.01 cfs @ 12.01 hrs, Volume= 2,585 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.65' @ 12.01 hrs Surf.Area= 1,367 sf Storage= 545 cf

Plug-Flow detention time= 53.0 min calculated for 2,581 cf (100% of inflow)
Center-of-Mass det. time= 52.9 min (841.4 - 788.5)

Volume	Invert	Avail.Storage	Storage Description
#1	167.78'	1,499 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	166.50'	53 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 134 cf Overall x 40.0% Voids
		1,552 cf	Total Available Storage

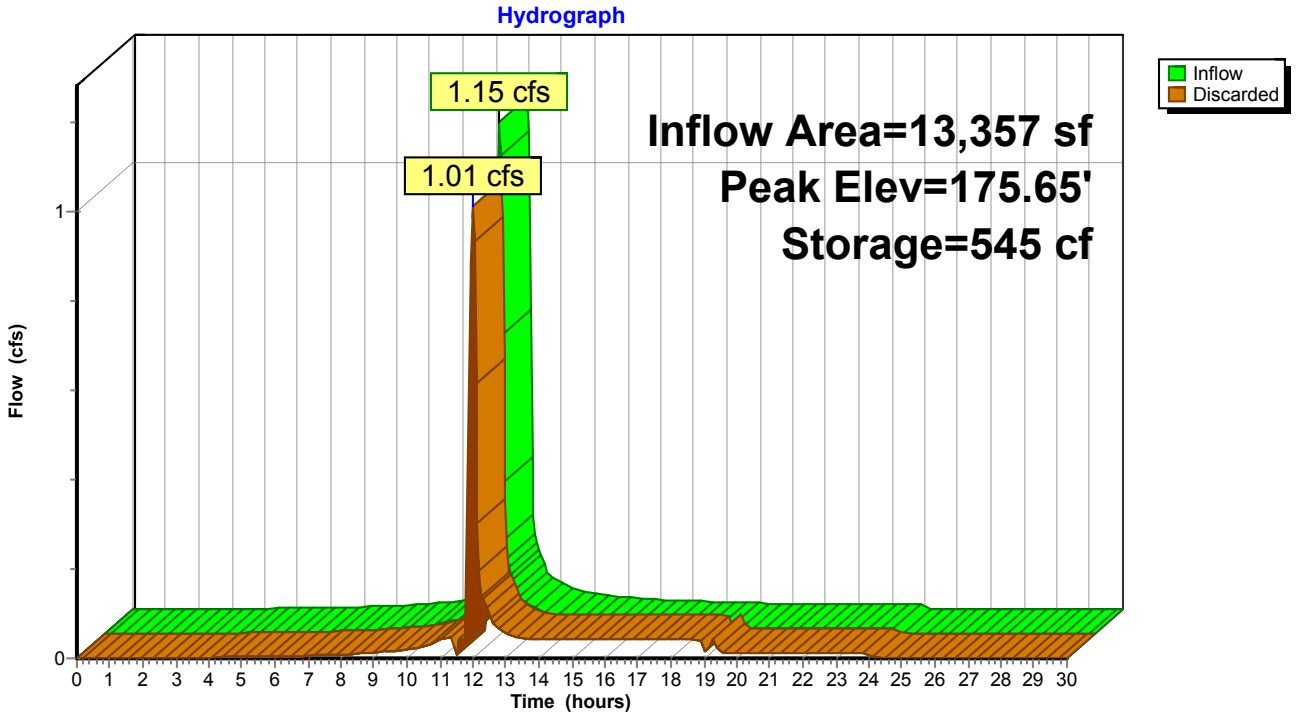
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.78	50	0	0
175.50	50	386	386
176.00	4,400	1,113	1,499

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.50	78	0	0
167.78	10	56	56
175.50	10	77	134

Device	Routing	Invert	Outlet Devices
#1	Discarded	166.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.00 cfs @ 12.01 hrs HW=175.65' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.00 cfs)

Pond DW-2: PROPOSED DRYWELL #2



Summary for Pond DW-3: PROPOSED DRYWELL #3

[81] Warning: Exceeded Pond YD-4 by 2.08' @ 13.75 hrs

Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 2.69" for 2-YEAR event
Inflow = 1.36 cfs @ 11.96 hrs, Volume= 3,190 cf
Outflow = 1.18 cfs @ 12.01 hrs, Volume= 3,190 cf, Atten= 13%, Lag= 2.7 min
Discarded = 1.18 cfs @ 12.01 hrs, Volume= 3,190 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.69' @ 12.01 hrs Surf.Area= 1,596 sf Storage= 605 cf

Plug-Flow detention time= 48.6 min calculated for 3,184 cf (100% of inflow)
Center-of-Mass det. time= 48.5 min (819.5 - 771.0)

Volume	Invert	Avail.Storage	Storage Description
#1	166.69'	1,403 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	165.50'	55 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 138 cf Overall x 40.0% Voids
		1,458 cf	Total Available Storage

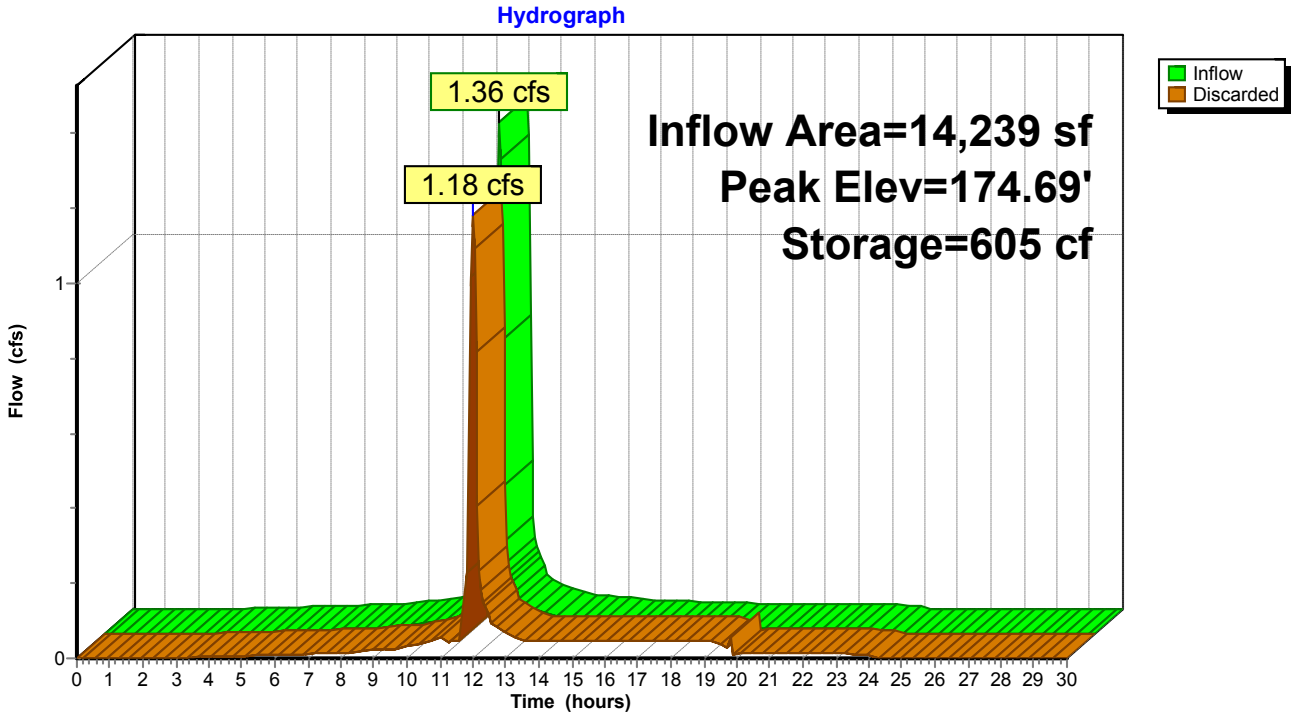
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.69	50	0	0
174.50	50	391	391
175.00	4,000	1,013	1,403

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.50	79	0	0
165.69	79	15	15
166.69	10	45	60
174.50	10	78	138

Device	Routing	Invert	Outlet Devices
#1	Discarded	165.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.17 cfs @ 12.01 hrs HW=174.69' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.17 cfs)

Pond DW-3: PROPOSED DRYWELL #3



Summary for Pond DW-4: PROPOSED DRYWELL #4

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond CB-2 by 2.43' @ 12.05 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 1.55" for 2-YEAR event
Inflow = 1.77 cfs @ 11.96 hrs, Volume= 3,676 cf
Outflow = 1.55 cfs @ 12.00 hrs, Volume= 3,676 cf, Atten= 12%, Lag= 2.2 min
Discarded = 0.21 cfs @ 12.00 hrs, Volume= 2,027 cf
Secondary = 1.34 cfs @ 12.00 hrs, Volume= 1,650 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.36' @ 12.00 hrs Surf.Area= 406 sf Storage= 571 cf

Plug-Flow detention time= 62.5 min calculated for 3,670 cf (100% of inflow)
Center-of-Mass det. time= 62.4 min (832.8 - 770.4)

Volume	Invert	Avail.Storage	Storage Description
#1	165.00'	1,468 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	164.00'	50 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 124 cf Overall x 40.0% Voids
		1,517 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.00	55	0	0
173.00	55	440	440
174.00	1,000	528	968
174.50	1,000	500	1,468

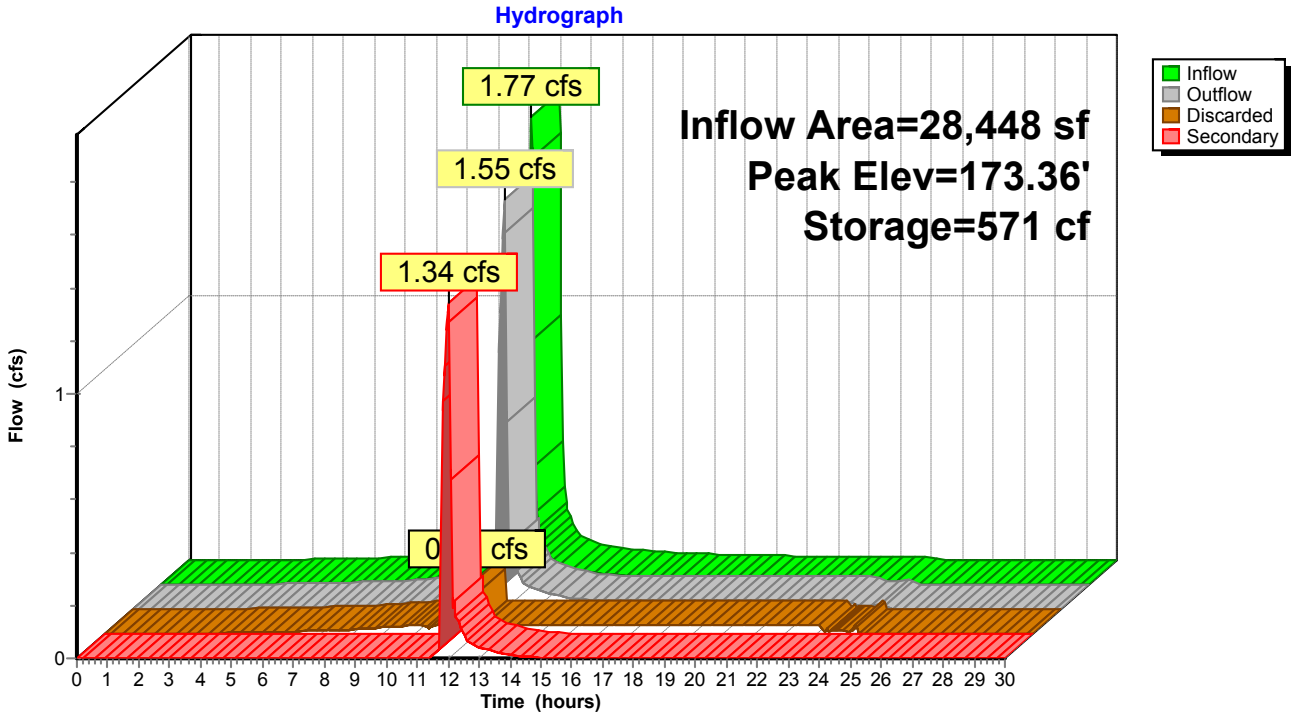
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	78	0	0
165.00	10	44	44
173.00	10	80	124

Device	Routing	Invert	Outlet Devices
#1	Discarded	164.00'	**22.000 in/hr Exfiltration over Surface area**
#2	Secondary	172.00'	**8.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.00' / 171.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Discarded OutFlow Max=0.21 cfs @ 12.00 hrs HW=173.36' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.21 cfs)

Secondary OutFlow Max=1.34 cfs @ 12.00 hrs HW=173.36' (Free Discharge)
└**2=Culvert** (Inlet Controls 1.34 cfs @ 3.85 fps)

Pond DW-4: PROPOSED DRYWELL #4



Summary for Pond DW-5: PROPOSED DRYWELL #5

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=4)

Inflow Area = 11,493 sf, 65.66% Impervious, Inflow Depth = 2.31" for 2-YEAR event
Inflow = 1.00 cfs @ 11.97 hrs, Volume= 2,215 cf
Outflow = 0.64 cfs @ 12.05 hrs, Volume= 2,216 cf, Atten= 36%, Lag= 4.9 min
Discarded = 0.64 cfs @ 12.05 hrs, Volume= 2,216 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.41' @ 12.05 hrs Surf.Area= 1,258 sf Storage= 518 cf

Plug-Flow detention time= 40.8 min calculated for 2,212 cf (100% of inflow)
Center-of-Mass det. time= 41.0 min (836.1 - 795.1)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,748 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	167.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		1,781 cf	Total Available Storage

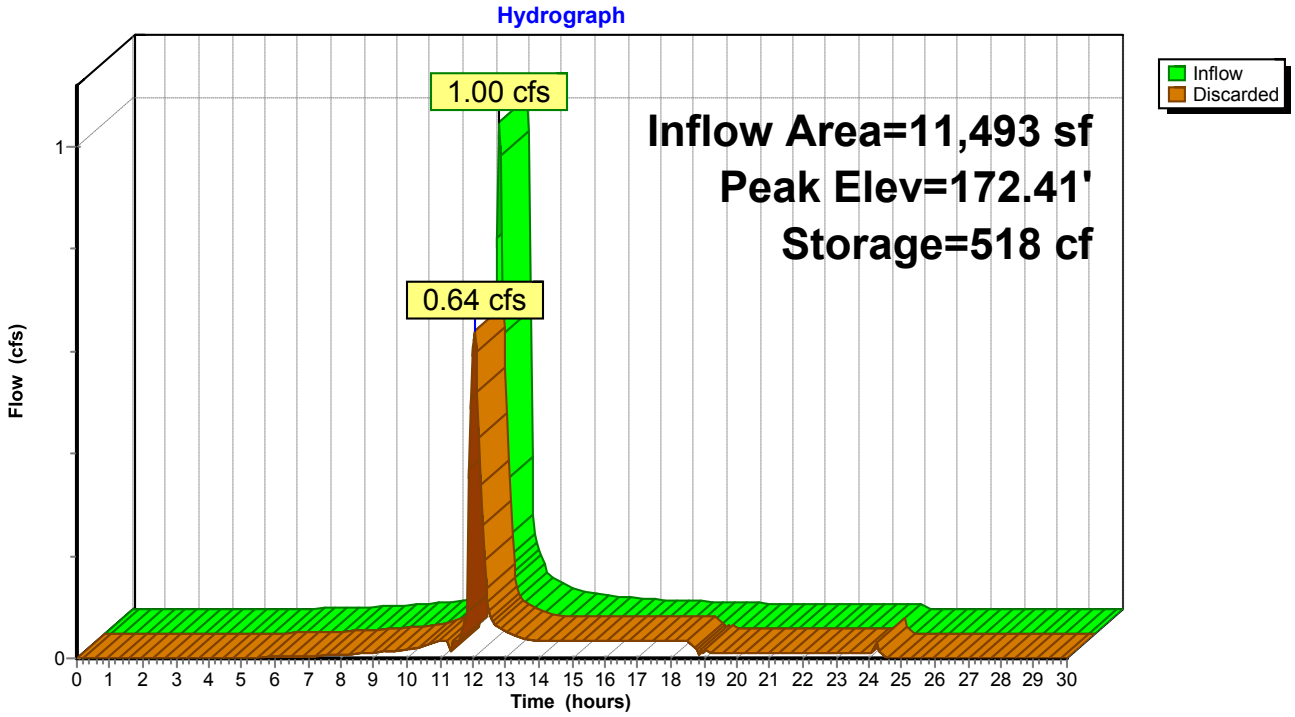
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.00	55	220	220
173.00	3,000	1,528	1,748

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	78	0	0
168.00	10	44	44
172.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.64 cfs @ 12.05 hrs HW=172.40' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.64 cfs)

Pond DW-5: PROPOSED DRYWELL #5



Summary for Pond DW-6: PROPOSED DRYWELL #6

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,844 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 0.18 cfs @ 11.96 hrs, Volume= 450 cf
Outflow = 0.04 cfs @ 11.70 hrs, Volume= 450 cf, Atten= 80%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.70 hrs, Volume= 450 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.82' @ 12.16 hrs Surf.Area= 65 sf Storage= 125 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 19.3 min (772.0 - 752.8)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	169.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

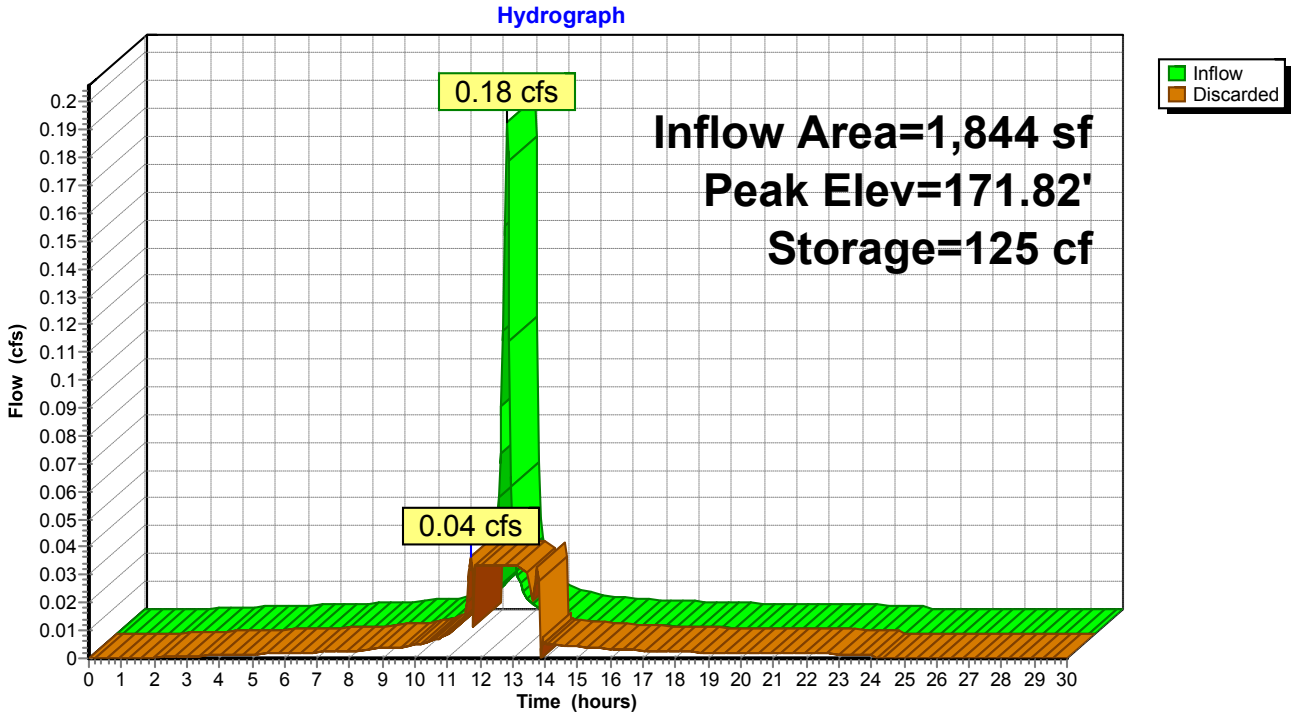
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	55	0	0
174.00	55	220	220
174.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	78	0	0
170.00	10	44	44
174.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	169.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.70 hrs HW=169.09' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.04 cfs)

Pond DW-6: PROPOSED DRYWELL #6



Summary for Pond DW-7: PROPOSED DRYWELL #7

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,755 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 0.17 cfs @ 11.96 hrs, Volume= 428 cf
Outflow = 0.04 cfs @ 11.71 hrs, Volume= 428 cf, Atten= 78%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.71 hrs, Volume= 428 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.02' @ 12.15 hrs Surf.Area= 65 sf Storage= 116 cf

Plug-Flow detention time= 17.9 min calculated for 427 cf (100% of inflow)
Center-of-Mass det. time= 17.9 min (770.7 - 752.8)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	352 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	170.00'	42 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 106 cf Overall x 40.0% Voids
		394 cf	Total Available Storage

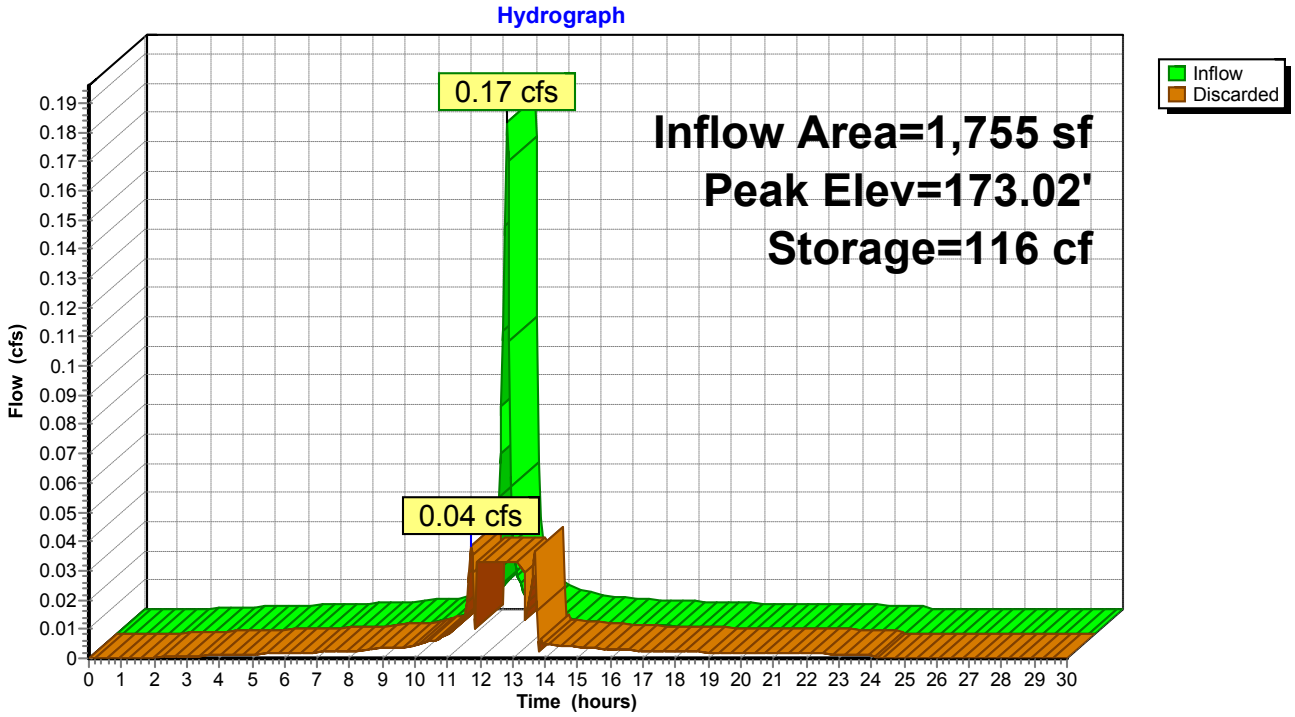
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
171.50	55	0	0
175.50	55	220	220
175.75	1,000	132	352

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	78	0	0
171.50	10	66	66
175.50	10	40	106

Device	Routing	Invert	Outlet Devices
#1	Discarded	170.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.71 hrs HW=170.11' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-7: PROPOSED DRYWELL #7



Summary for Pond DW-8: PROPOSED DRYWELL #8

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,734 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 0.17 cfs @ 11.96 hrs, Volume= 423 cf
Outflow = 0.04 cfs @ 11.71 hrs, Volume= 423 cf, Atten= 79%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.71 hrs, Volume= 423 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.60' @ 12.15 hrs Surf.Area= 65 sf Storage= 112 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 16.9 min (769.7 - 752.8)

Volume	Invert	Avail.Storage	Storage Description
#1	169.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	168.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

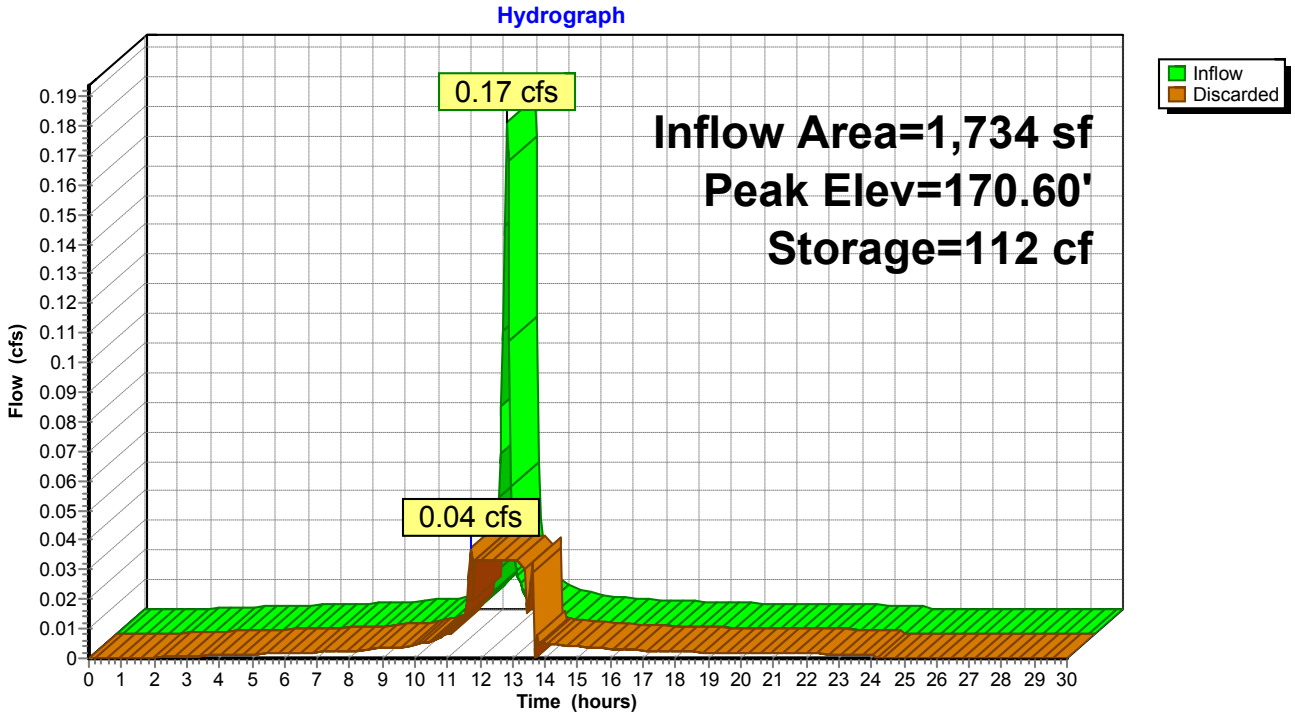
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	55	0	0
173.00	55	220	220
173.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	78	0	0
169.00	10	44	44
173.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.71 hrs HW=168.10' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-8: PROPOSED DRYWELL #8



Summary for Pond YD-1: PROPOSED DRAIN #1

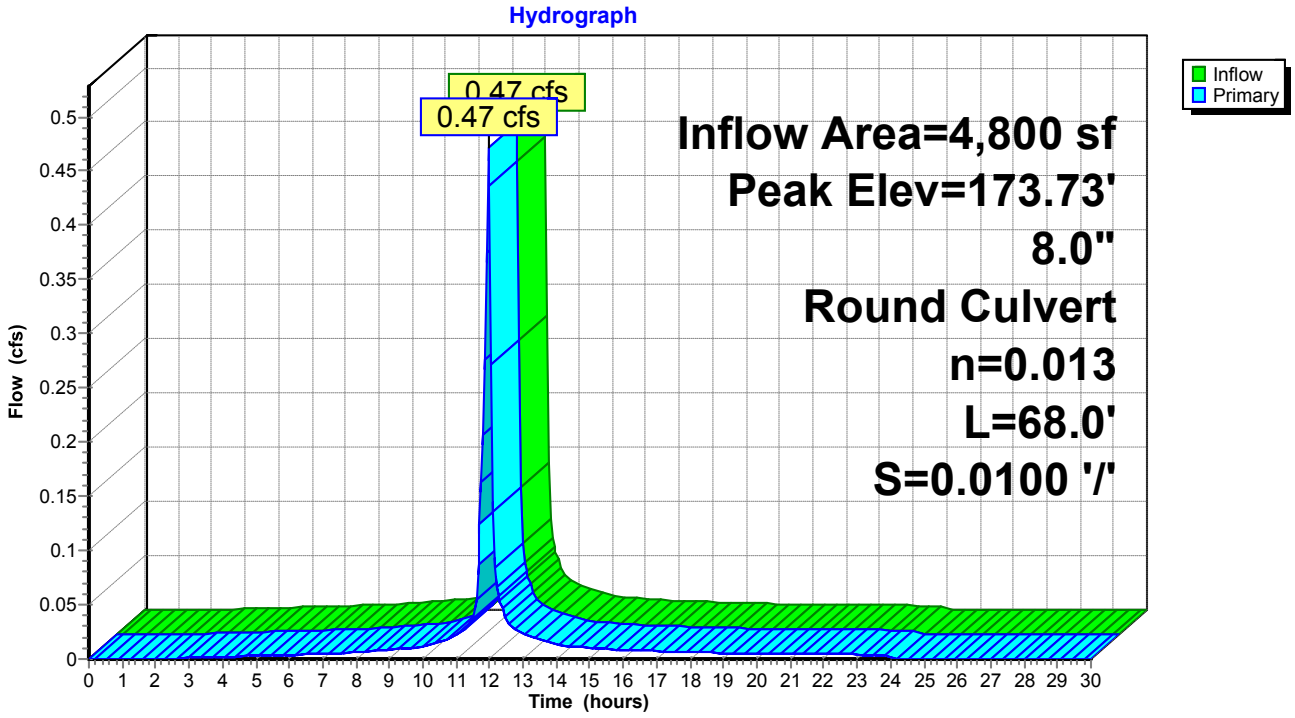
Inflow Area = 4,800 sf, 94.90% Impervious, Inflow Depth = 2.82" for 2-YEAR event
Inflow = 0.47 cfs @ 11.96 hrs, Volume= 1,127 cf
Outflow = 0.47 cfs @ 11.96 hrs, Volume= 1,127 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.47 cfs @ 11.96 hrs, Volume= 1,127 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.73' @ 11.96 hrs
Flood Elev= 175.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.27'	**8.0" Round Culvert** L= 68.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.27' / 172.59' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=0.46 cfs @ 11.96 hrs HW=173.72' (Free Discharge)
1=Culvert (Inlet Controls 0.46 cfs @ 1.81 fps)

Pond YD-1: PROPOSED DRAIN #1



Summary for Pond YD-2: PROPOSED DRAIN #2

[79] Warning: Submerged Pond YD-1 Primary device # 1 INLET by 0.38'

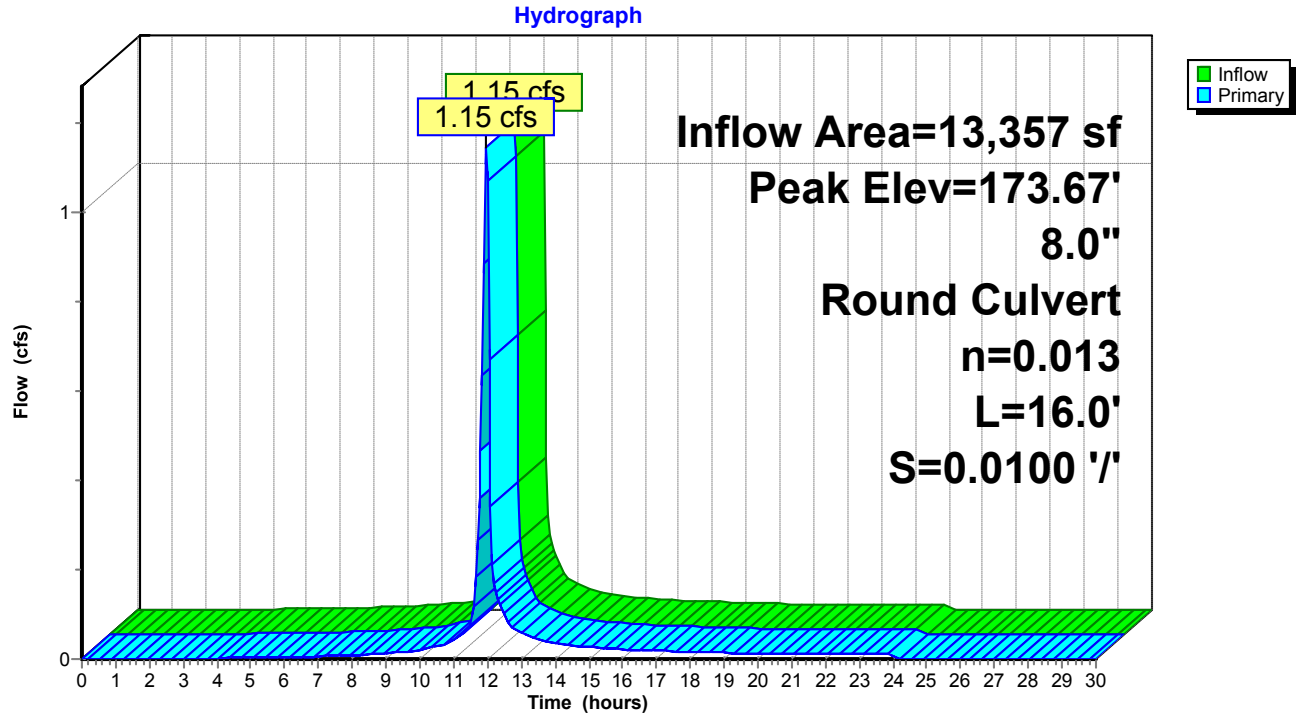
Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 2.32" for 2-YEAR event
Inflow = 1.15 cfs @ 11.97 hrs, Volume= 2,585 cf
Outflow = 1.15 cfs @ 11.97 hrs, Volume= 2,585 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.15 cfs @ 11.97 hrs, Volume= 2,585 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.67' @ 11.96 hrs
Flood Elev= 173.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.59'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.59' / 172.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.12 cfs @ 11.97 hrs HW=173.63' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.12 cfs @ 3.19 fps)

Pond YD-2: PROPOSED DRAIN #2



Summary for Pond YD-3: PROPOSED DRAIN #3

[58] Hint: Peaked 0.34' above defined flood level

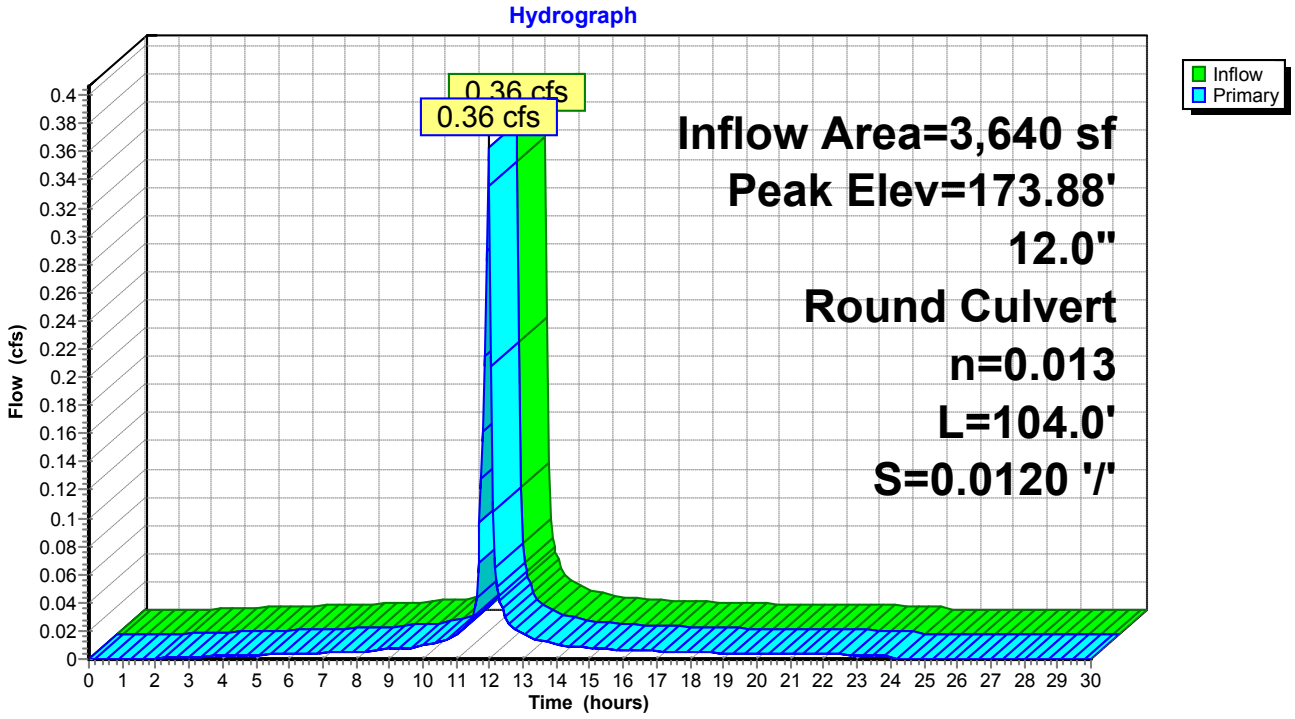
Inflow Area = 3,640 sf,100.00% Impervious, Inflow Depth = 2.93" for 2-YEAR event
Inflow = 0.36 cfs @ 11.96 hrs, Volume= 888 cf
Outflow = 0.36 cfs @ 11.96 hrs, Volume= 888 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.36 cfs @ 11.96 hrs, Volume= 888 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.88' @ 11.96 hrs
Flood Elev= 173.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.54'	**12.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.54' / 172.29' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.35 cfs @ 11.96 hrs HW=173.87' (Free Discharge)
1=Culvert (Inlet Controls 0.35 cfs @ 1.55 fps)

Pond YD-3: PROPOSED DRAIN #3



Summary for Pond YD-4: PROPOSED DRAIN #4

[79] Warning: Submerged Pond YD-3 Primary device # 1 INLET by 0.12'

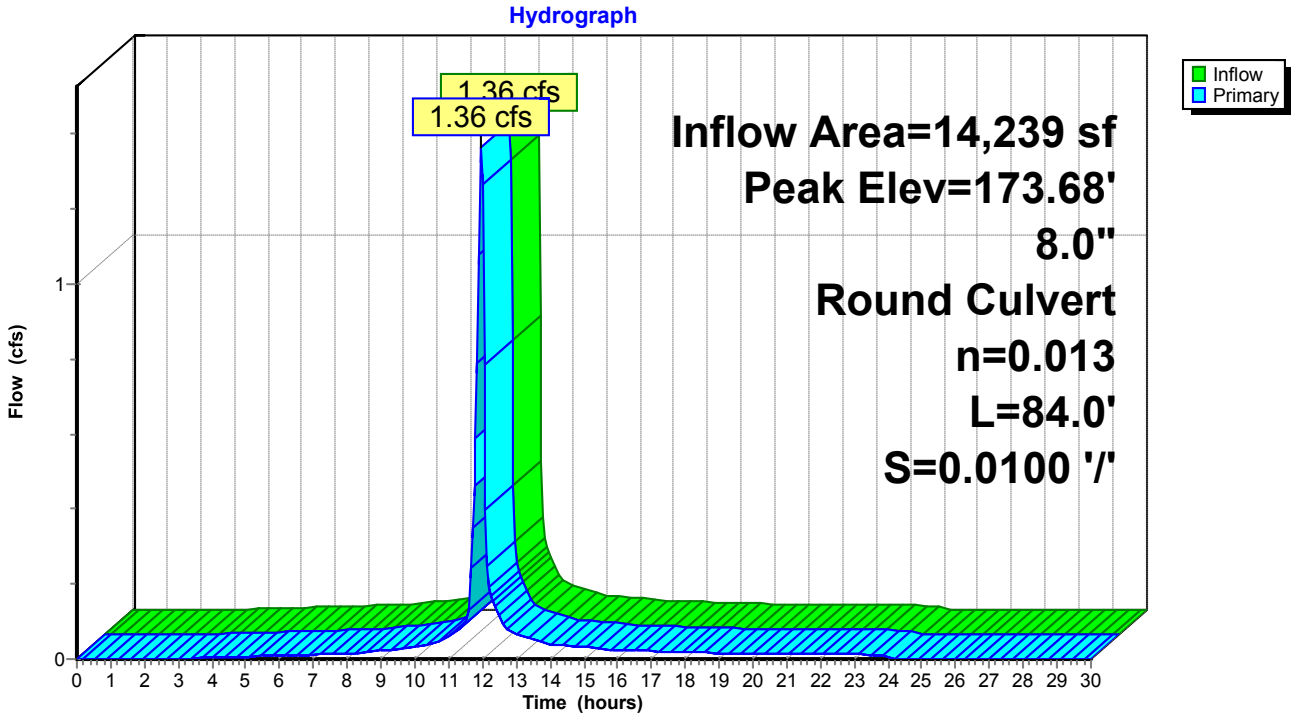
Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 2.69" for 2-YEAR event
Inflow = 1.36 cfs @ 11.96 hrs, Volume= 3,190 cf
Outflow = 1.36 cfs @ 11.96 hrs, Volume= 3,190 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.36 cfs @ 11.96 hrs, Volume= 3,190 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.68' @ 11.96 hrs
Flood Elev= 174.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.29'	**8.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.29' / 171.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.33 cfs @ 11.96 hrs HW=173.63' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.33 cfs @ 3.81 fps)

Pond YD-4: PROPOSED DRAIN #4



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA-1: DA-1 Runoff Area=21,412 sf 86.22% Impervious Runoff Depth=4.21"
Tc=6.0 min CN=96 Runoff=3.13 cfs 7,520 cf

Subcatchment DA-10: DA-10 Runoff Area=4,800 sf 94.90% Impervious Runoff Depth=4.33"
Tc=6.0 min CN=97 Runoff=0.71 cfs 1,731 cf

Subcatchment DA-11: DA-11 Runoff Area=8,557 sf 51.71% Impervious Runoff Depth=3.47"
Tc=6.0 min CN=89 Runoff=1.11 cfs 2,472 cf

Subcatchment DA-12: DRAINAGE AREA 12 Runoff Area=8,367 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=1.24 cfs 3,098 cf

Subcatchment DA-13: DA-13 Runoff Area=2,574 sf 79.56% Impervious Runoff Depth=3.99"
Tc=6.0 min CN=94 Runoff=0.37 cfs 856 cf

Subcatchment DA-14: DRAINAGE AREA 14 Runoff Area=6,736 sf 69.73% Impervious Runoff Depth=3.88"
Tc=6.0 min CN=93 Runoff=0.95 cfs 2,180 cf

Subcatchment DA-15: DA-15 Runoff Area=1,734 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.26 cfs 642 cf

Subcatchment DA-16: DA-16 Runoff Area=1,844 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.27 cfs 683 cf

Subcatchment DA-17: DA-17 Runoff Area=1,755 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.26 cfs 650 cf

Subcatchment DA-18: DRAINAGE AREA 18 Runoff Area=3,482 sf 85.96% Impervious Runoff Depth=4.10"
Tc=6.0 min CN=95 Runoff=0.50 cfs 1,190 cf

Subcatchment DA-2: DA-2 Runoff Area=7,036 sf 83.26% Impervious Runoff Depth=4.10"
Tc=6.0 min CN=95 Runoff=1.02 cfs 2,406 cf

Subcatchment DA-3: DRAINAGE AREA 3 Runoff Area=5,334 sf 65.88% Impervious Runoff Depth=3.78"
Tc=6.0 min CN=92 Runoff=0.74 cfs 1,679 cf

Subcatchment DA-4: DRAINAGE AREA 4 Runoff Area=4,099 sf 74.82% Impervious Runoff Depth=3.88"
Tc=6.0 min CN=93 Runoff=0.58 cfs 1,327 cf

Subcatchment DA-5: DRAINAGE AREA 5 Runoff Area=32,655 sf 61.00% Impervious Runoff Depth=3.67"
Flow Length=235' Tc=13.1 min CN=91 Runoff=3.59 cfs 9,992 cf

Subcatchment DA-6: DA-6 Runoff Area=11,493 sf 65.66% Impervious Runoff Depth=3.78"
Tc=6.0 min CN=92 Runoff=1.59 cfs 3,618 cf

Subcatchment DA-7: DA-7 Runoff Area=3,640 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.54 cfs 1,348 cf

Subcatchment DA-8: DA-8 Runoff Area=10,599 sf 81.26% Impervious Runoff Depth=4.10"
Tc=6.0 min CN=95 Runoff=1.53 cfs 3,624 cf

Subcatchment DA-9: DRAINAGE AREA 9 Runoff Area=3,471 sf 65.57% Impervious Runoff Depth=3.78"
Tc=6.0 min CN=92 Runoff=0.48 cfs 1,093 cf

Reach DP-2: STREET Inflow=1.24 cfs 3,098 cf
Outflow=1.24 cfs 3,098 cf

Pond 2P: EXISTING DRYWELL Peak Elev=172.81' Storage=405 cf Inflow=2.32 cfs 4,807 cf
Discarded=0.63 cfs 2,910 cf Primary=1.66 cfs 1,897 cf Outflow=2.29 cfs 4,807 cf

Pond 3P: PROPOSED CB #3 Peak Elev=171.14' Inflow=0.50 cfs 1,190 cf
12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.50 cfs 1,190 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.44' Storage=641 cf Inflow=1.35 cfs 4,070 cf
Outflow=0.93 cfs 4,070 cf

Pond 8P: EXISTING YARD DRAIN Peak Elev=214.38' Inflow=0.58 cfs 1,327 cf
4.0" Round Culvert n=0.030 L=87.0' S=0.0100 '/' Outflow=0.58 cfs 1,327 cf

Pond 12P: EXISTING CB Peak Elev=170.92' Inflow=3.92 cfs 11,183 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=3.92 cfs 11,183 cf

Pond 14P: EXISTING CB Peak Elev=168.09' Inflow=0.95 cfs 2,180 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=0.95 cfs 2,180 cf

Pond CB-1: PROPOSED CATCH BASIN #1 Peak Elev=172.10' Inflow=1.02 cfs 2,406 cf
12.0" Round Culvert n=0.013 L=33.0' S=0.0100 '/' Outflow=1.02 cfs 2,406 cf

Pond CB-2: PR CB #2 Peak Elev=171.62' Inflow=4.15 cfs 9,926 cf
Primary=2.79 cfs 5,856 cf Secondary=1.35 cfs 4,070 cf Outflow=4.15 cfs 9,926 cf

Pond DP-1: Existing Catch Basin Peak Elev=168.60' Inflow=7.21 cfs 17,443 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=7.21 cfs 17,443 cf

Pond DW-1: PROPOSED DRYWELL #1 Peak Elev=169.08' Storage=325 cf Inflow=0.48 cfs 1,093 cf
Outflow=0.25 cfs 1,093 cf

Pond DW-2: PROPOSED DRYWELL #2 Peak Elev=175.73' Storage=686 cf Inflow=1.82 cfs 4,203 cf
Outflow=1.54 cfs 4,203 cf

Pond DW-3: PROPOSED DRYWELL #3 Peak Elev=174.78' Storage=775 cf Inflow=2.07 cfs 4,972 cf
Outflow=1.70 cfs 4,974 cf

Pond DW-4: PROPOSED DRYWELL #4 Peak Elev=173.84' Storage=867 cf Inflow=2.79 cfs 5,856 cf
Discarded=0.44 cfs 2,728 cf Secondary=1.63 cfs 3,128 cf Outflow=2.06 cfs 5,856 cf

Pond DW-5: PROPOSED DRYWELL #5 Peak Elev=172.60' Storage=812 cf Inflow=1.59 cfs 3,618 cf
Outflow=0.93 cfs 3,618 cf

Pond DW-6: PROPOSED DRYWELL #6 Peak Elev=173.33' Storage=214 cf Inflow=0.27 cfs 683 cf
Outflow=0.04 cfs 683 cf

Pond DW-7: PROPOSED DRYWELL #7 Peak Elev=174.45' Storage=200 cf Inflow=0.26 cfs 650 cf
Outflow=0.04 cfs 650 cf

Pond DW-8: PROPOSED DRYWELL #8 Peak Elev=172.08' Storage=199 cf Inflow=0.26 cfs 642 cf
Outflow=0.04 cfs 642 cf

Pond YD-1: PROPOSED DRAIN #1 Peak Elev=173.88' Inflow=0.71 cfs 1,731 cf
8.0" Round Culvert n=0.013 L=68.0' S=0.0100 '/' Outflow=0.71 cfs 1,731 cf

Pond YD-2: PROPOSED DRAIN #2 Peak Elev=174.80' Inflow=1.82 cfs 4,203 cf
8.0" Round Culvert n=0.013 L=16.0' S=0.0100 '/' Outflow=1.82 cfs 4,203 cf

Pond YD-3: PROPOSED DRAIN #3 Peak Elev=173.96' Inflow=0.54 cfs 1,348 cf
12.0" Round Culvert n=0.013 L=104.0' S=0.0120 '/' Outflow=0.54 cfs 1,348 cf

Pond YD-4: PROPOSED DRAIN #4 Peak Elev=175.62' Inflow=2.07 cfs 4,972 cf
8.0" Round Culvert n=0.013 L=84.0' S=0.0100 '/' Outflow=2.07 cfs 4,972 cf

Total Runoff Area = 139,588 sf Runoff Volume = 46,109 cf Average Runoff Depth = 3.96"
24.56% Pervious = 34,277 sf 75.44% Impervious = 105,311 sf

Summary for Subcatchment DA-1: DA-1

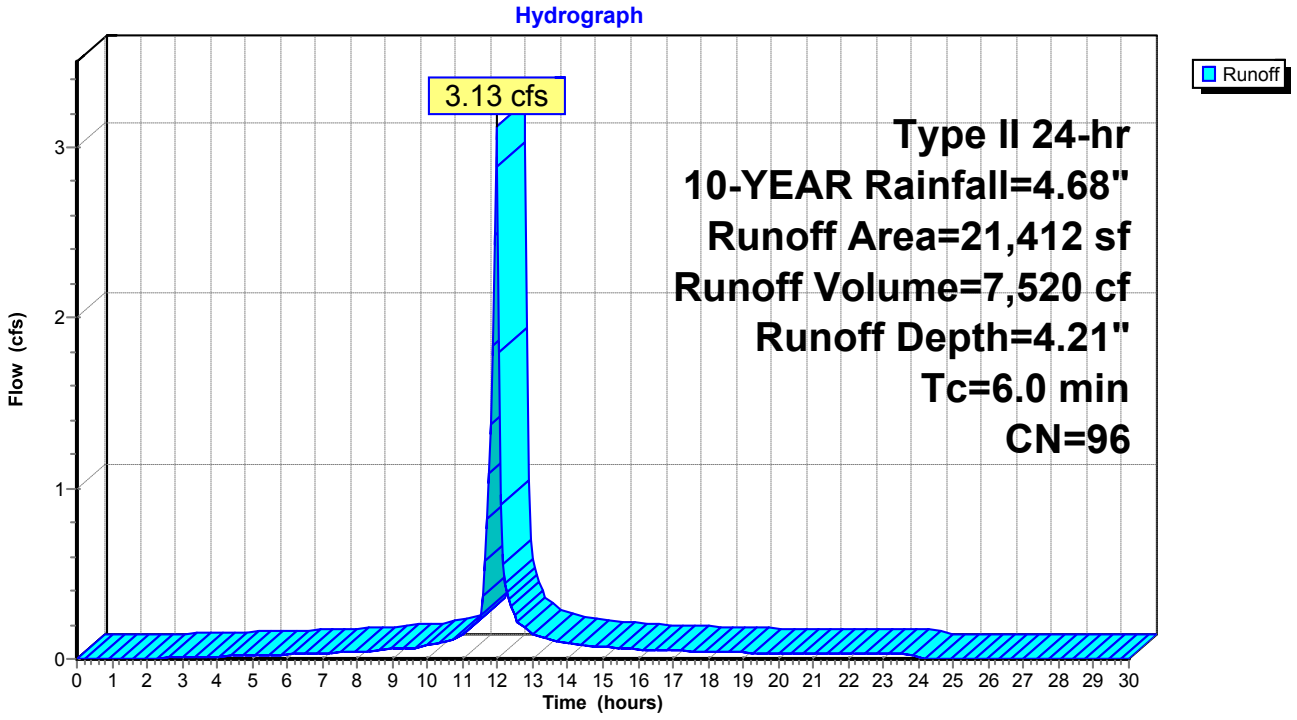
Runoff = 3.13 cfs @ 11.96 hrs, Volume= 7,520 cf, Depth= 4.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
2,951	80	>75% Grass cover, Good, HSG D
17,281	98	Roofs, HSG D
1,180	98	Paved parking, HSG D
21,412	96	Weighted Average
2,951		13.78% Pervious Area
18,461		86.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

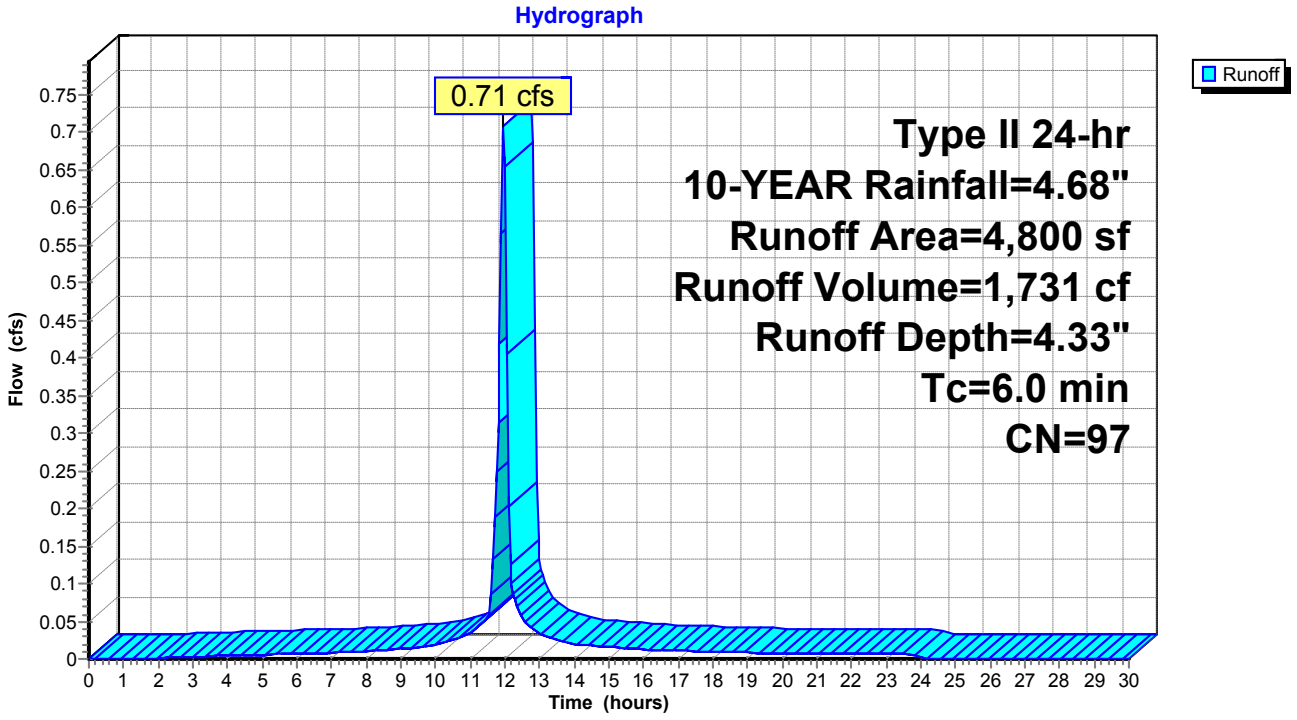
Runoff = 0.71 cfs @ 11.96 hrs, Volume= 1,731 cf, Depth= 4.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
245	80	>75% Grass cover, Good, HSG D
2,933	98	Roofs, HSG D
1,622	98	Paved parking, HSG D
4,800	97	Weighted Average
245		5.10% Pervious Area
4,555		94.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

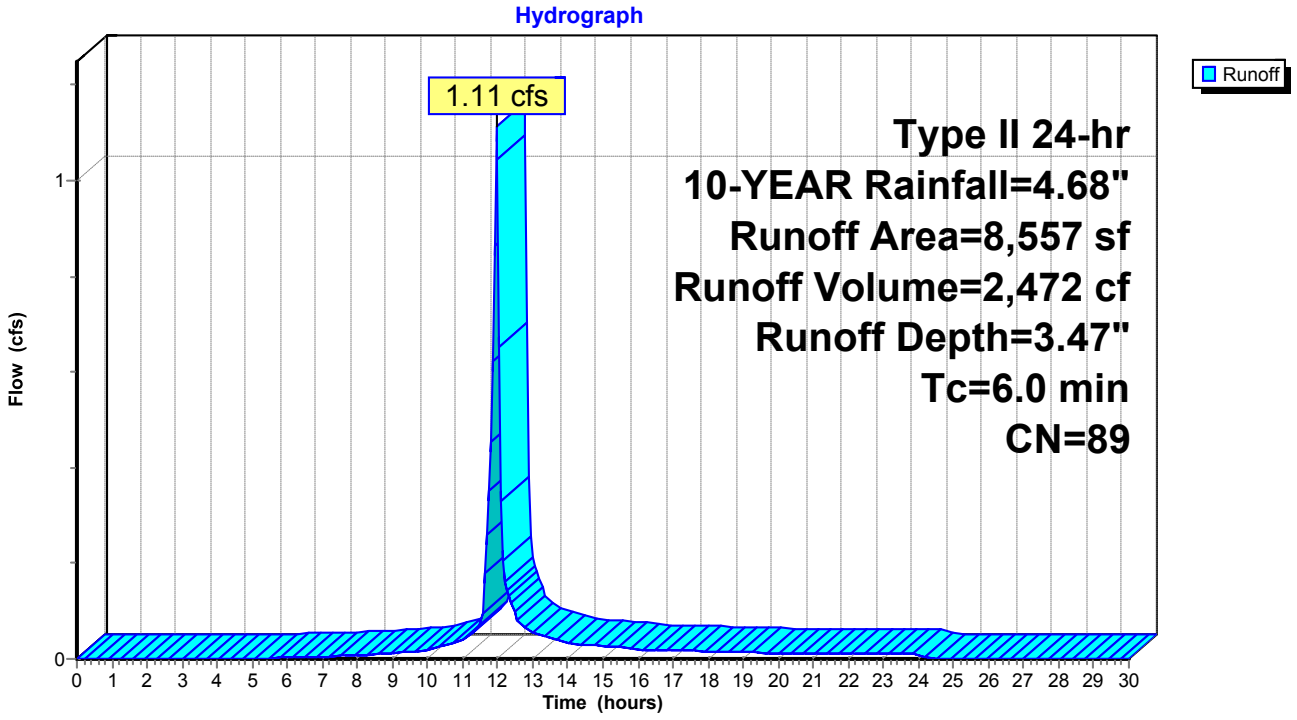
Runoff = 1.11 cfs @ 11.97 hrs, Volume= 2,472 cf, Depth= 3.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
4,132	80	>75% Grass cover, Good, HSG D
3,489	98	Roofs, HSG D
936	98	Paved parking, HSG D
8,557	89	Weighted Average
4,132		48.29% Pervious Area
4,425		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-12: DRAINAGE AREA 12

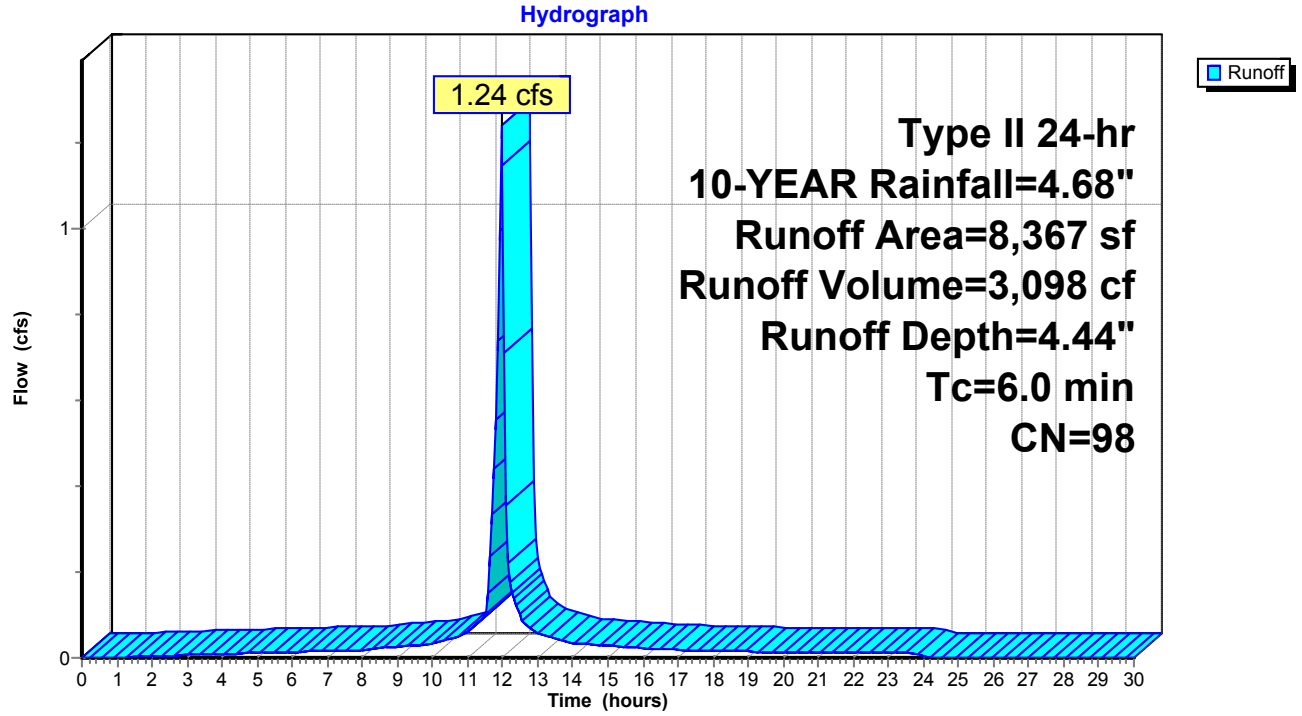
Runoff = 1.24 cfs @ 11.96 hrs, Volume= 3,098 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
8,367	98	Roofs, HSG D
8,367		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-12: DRAINAGE AREA 12



Summary for Subcatchment DA-13: DA-13

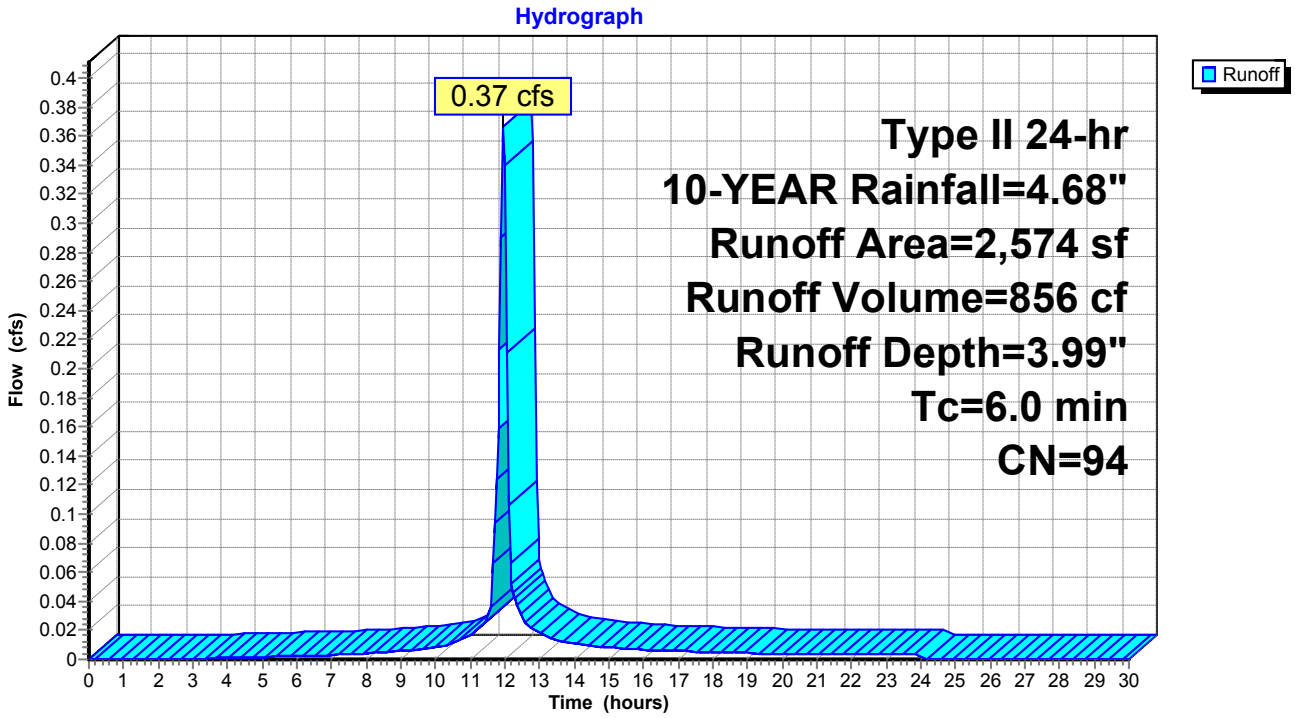
Runoff = 0.37 cfs @ 11.96 hrs, Volume= 856 cf, Depth= 3.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
526	80	>75% Grass cover, Good, HSG D
2,048	98	Paved parking, HSG D
2,574	94	Weighted Average
526		20.44% Pervious Area
2,048		79.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-13: DA-13



Summary for Subcatchment DA-14: DRAINAGE AREA 14

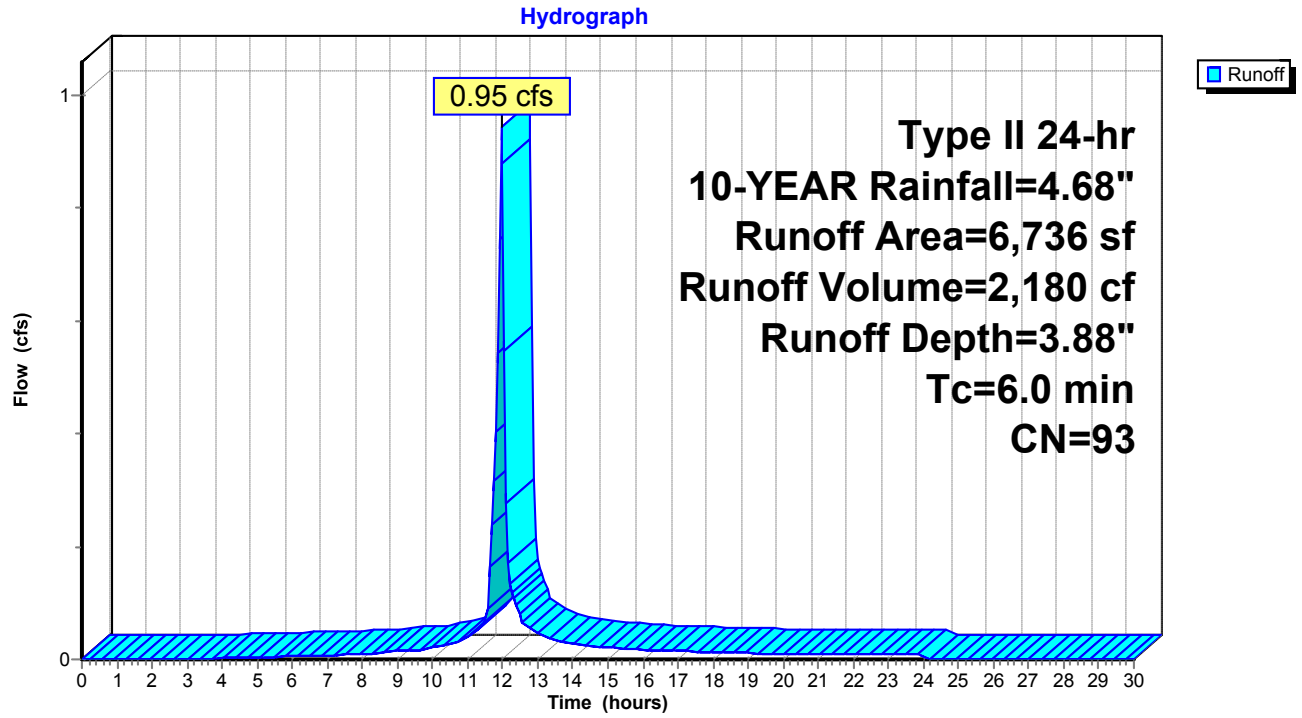
Runoff = 0.95 cfs @ 11.96 hrs, Volume= 2,180 cf, Depth= 3.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
2,039	80	>75% Grass cover, Good, HSG D
4,697	98	Paved parking, HSG D
6,736	93	Weighted Average
2,039		30.27% Pervious Area
4,697		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-14: DRAINAGE AREA 14



Summary for Subcatchment DA-15: DA-15

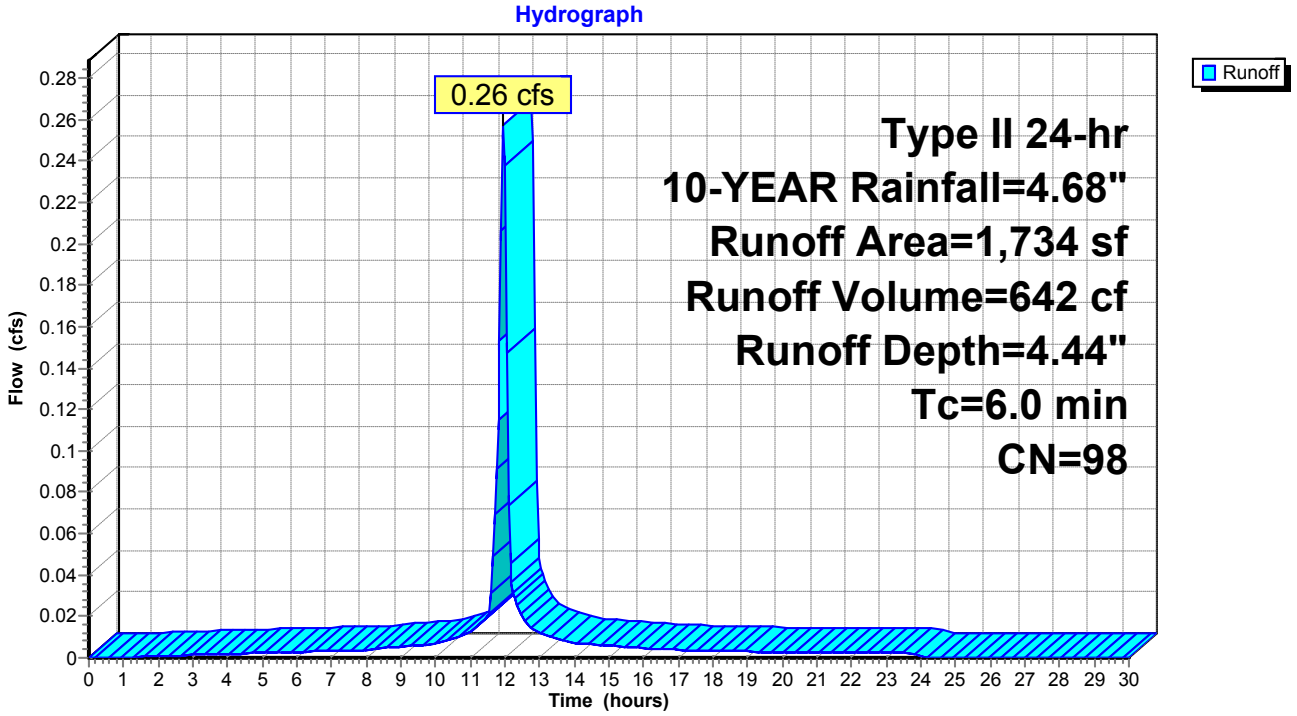
Runoff = 0.26 cfs @ 11.96 hrs, Volume= 642 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,734	98	Roofs, HSG D
1,734		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-15: DA-15



Summary for Subcatchment DA-16: DA-16

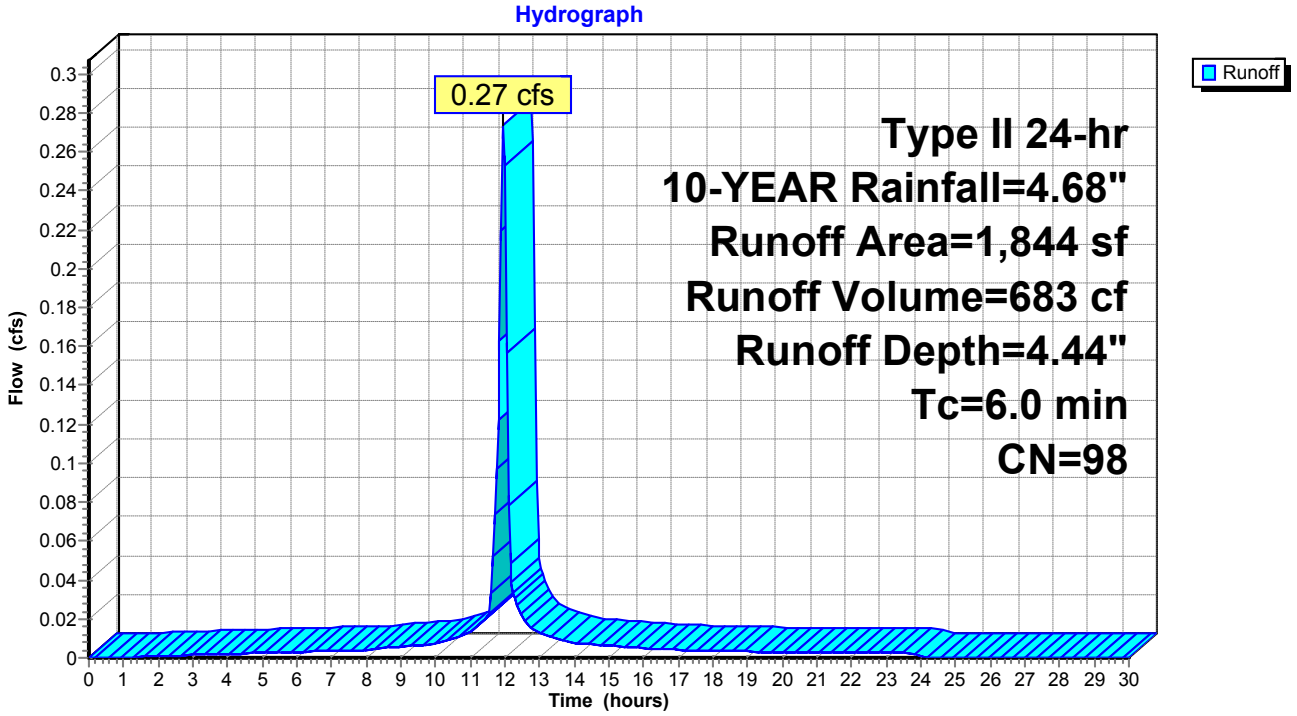
Runoff = 0.27 cfs @ 11.96 hrs, Volume= 683 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,844	98	Roofs, HSG D
1,844		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-16: DA-16



Summary for Subcatchment DA-17: DA-17

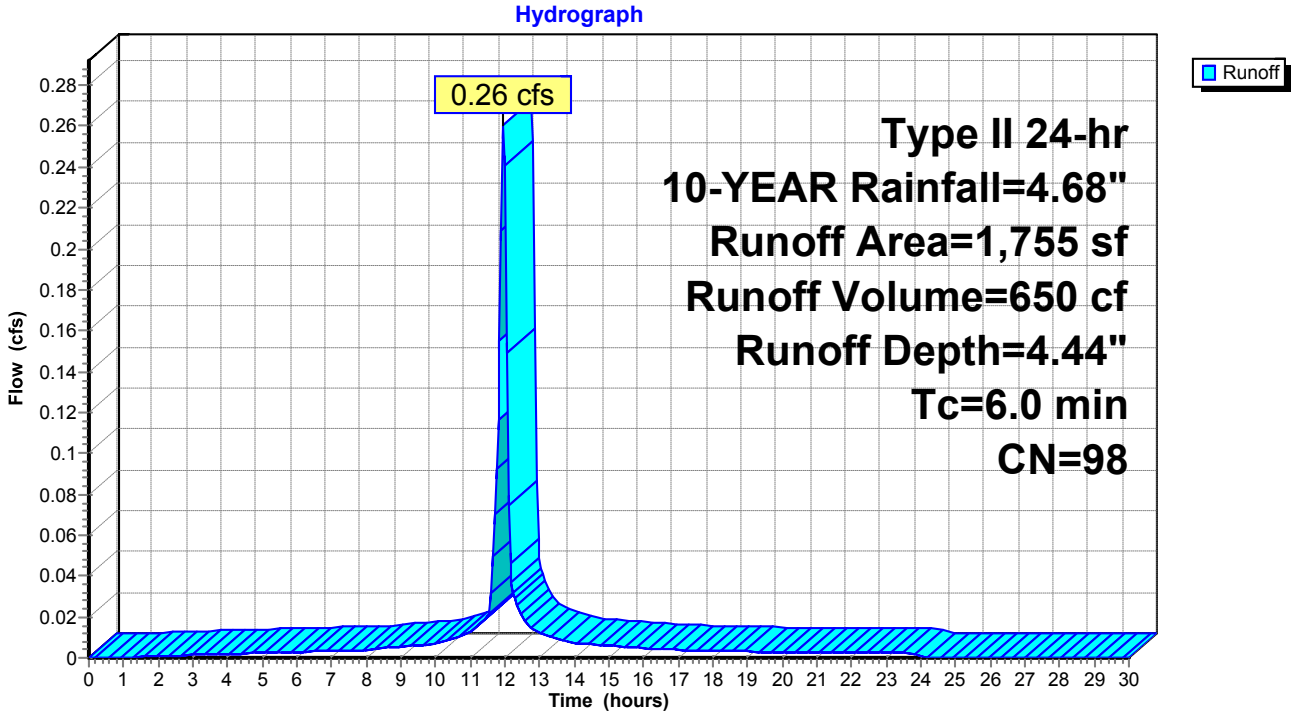
Runoff = 0.26 cfs @ 11.96 hrs, Volume= 650 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,755	98	Roofs, HSG D
1,755		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-17: DA-17



Summary for Subcatchment DA-18: DRAINAGE AREA 18

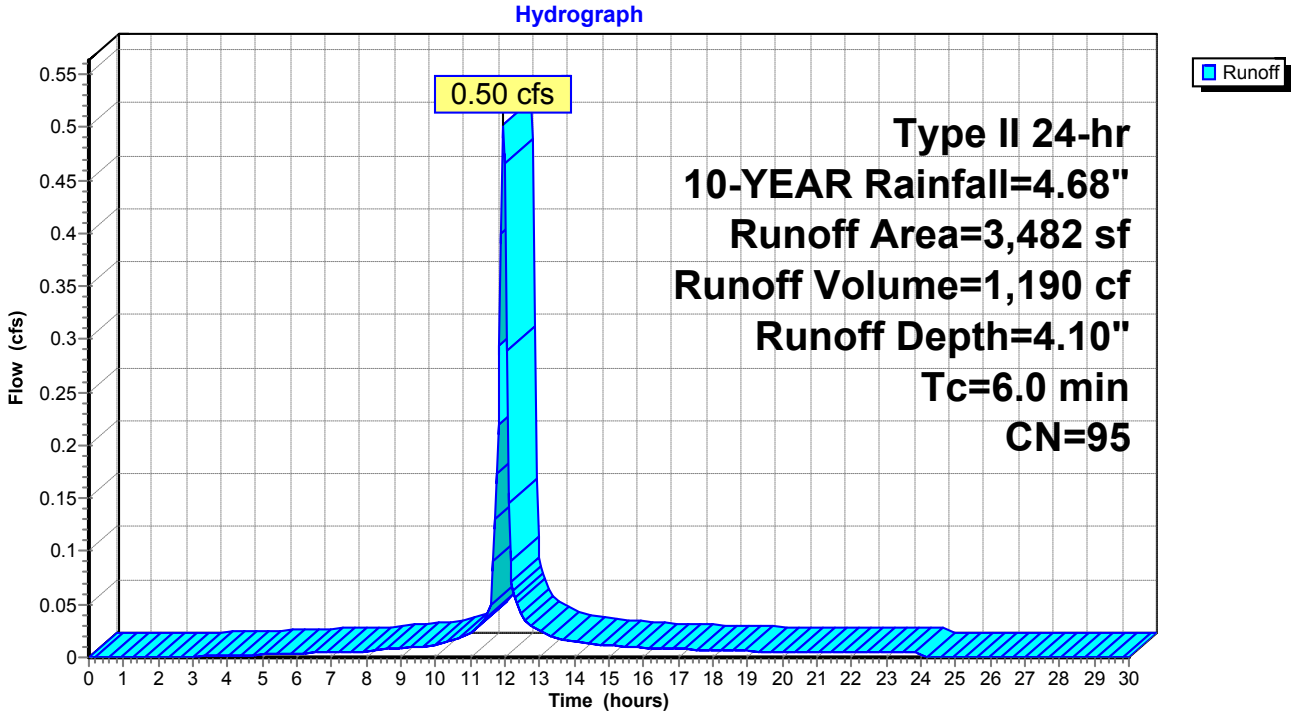
Runoff = 0.50 cfs @ 11.96 hrs, Volume= 1,190 cf, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
489	80	>75% Grass cover, Good, HSG D
2,993	98	Paved parking, HSG D
3,482	95	Weighted Average
489		14.04% Pervious Area
2,993		85.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-18: DRAINAGE AREA 18



Summary for Subcatchment DA-2: DA-2

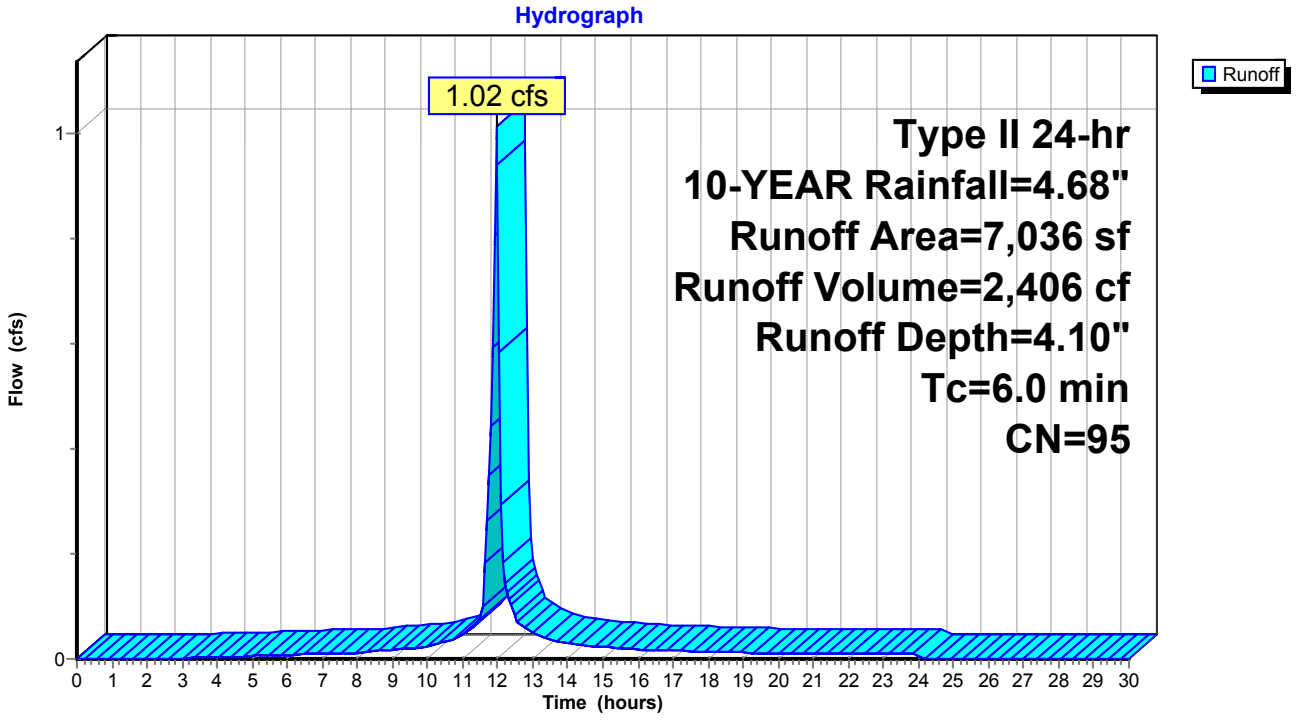
Runoff = 1.02 cfs @ 11.96 hrs, Volume= 2,406 cf, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,178	80	>75% Grass cover, Good, HSG D
5,194	98	Roofs, HSG D
664	98	Paved parking, HSG D
7,036	95	Weighted Average
1,178		16.74% Pervious Area
5,858		83.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DRAINAGE AREA 3

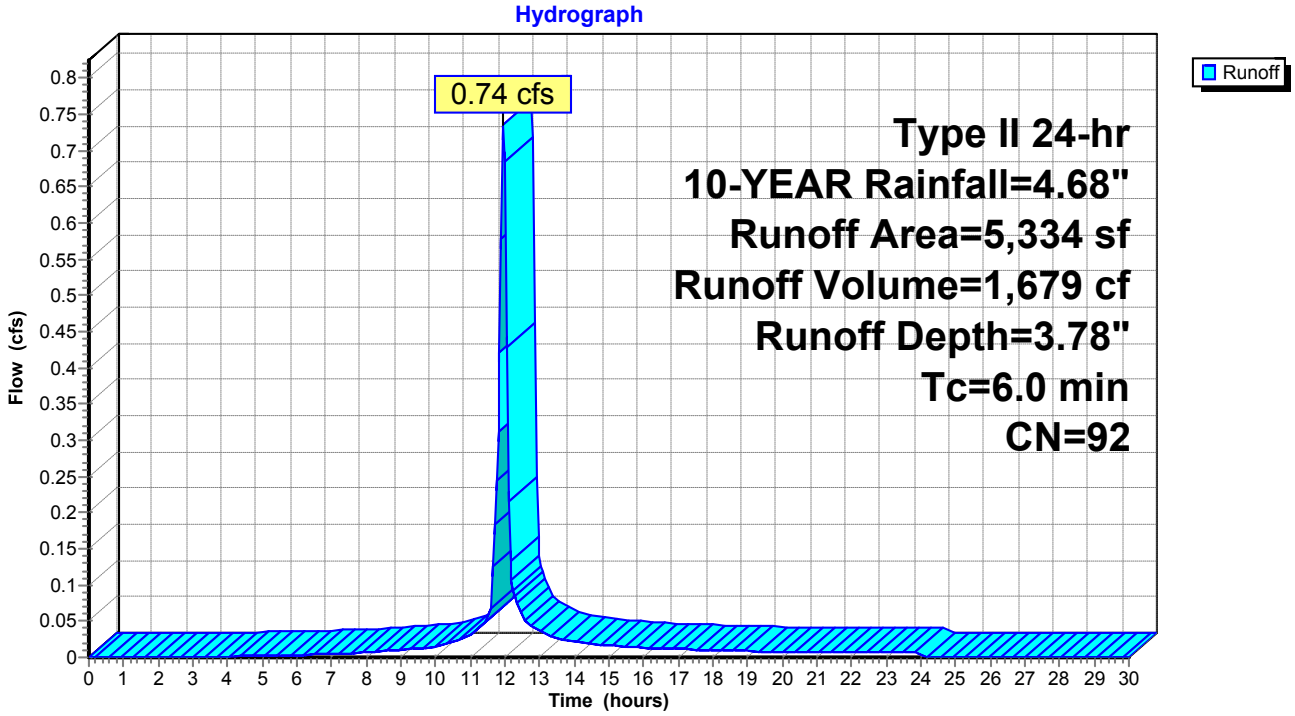
Runoff = 0.74 cfs @ 11.96 hrs, Volume= 1,679 cf, Depth= 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,820	80	>75% Grass cover, Good, HSG D
3,514	98	Paved parking, HSG D
5,334	92	Weighted Average
1,820		34.12% Pervious Area
3,514		65.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-3: DRAINAGE AREA 3



Summary for Subcatchment DA-4: DRAINAGE AREA 4

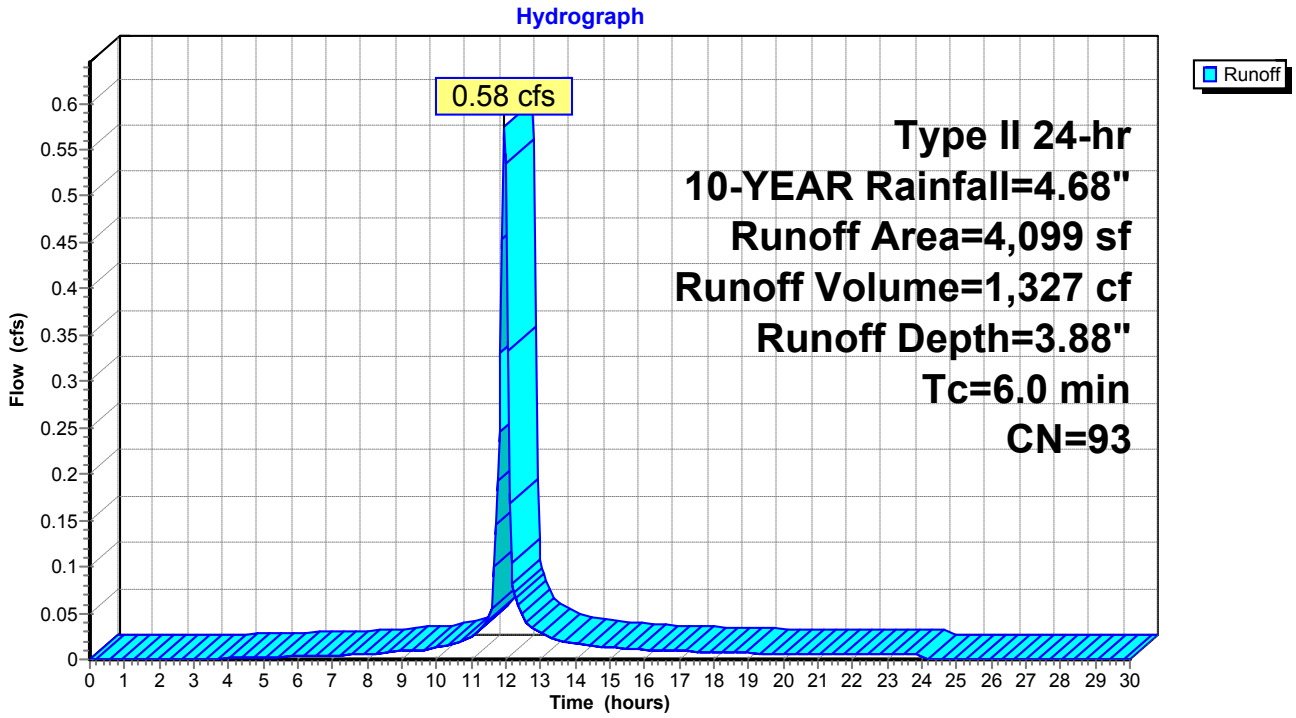
Runoff = 0.58 cfs @ 11.96 hrs, Volume= 1,327 cf, Depth= 3.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,032	80	>75% Grass cover, Good, HSG D
3,067	98	Paved parking, HSG D
4,099	93	Weighted Average
1,032		25.18% Pervious Area
3,067		74.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-4: DRAINAGE AREA 4



Summary for Subcatchment DA-5: DRAINAGE AREA 5

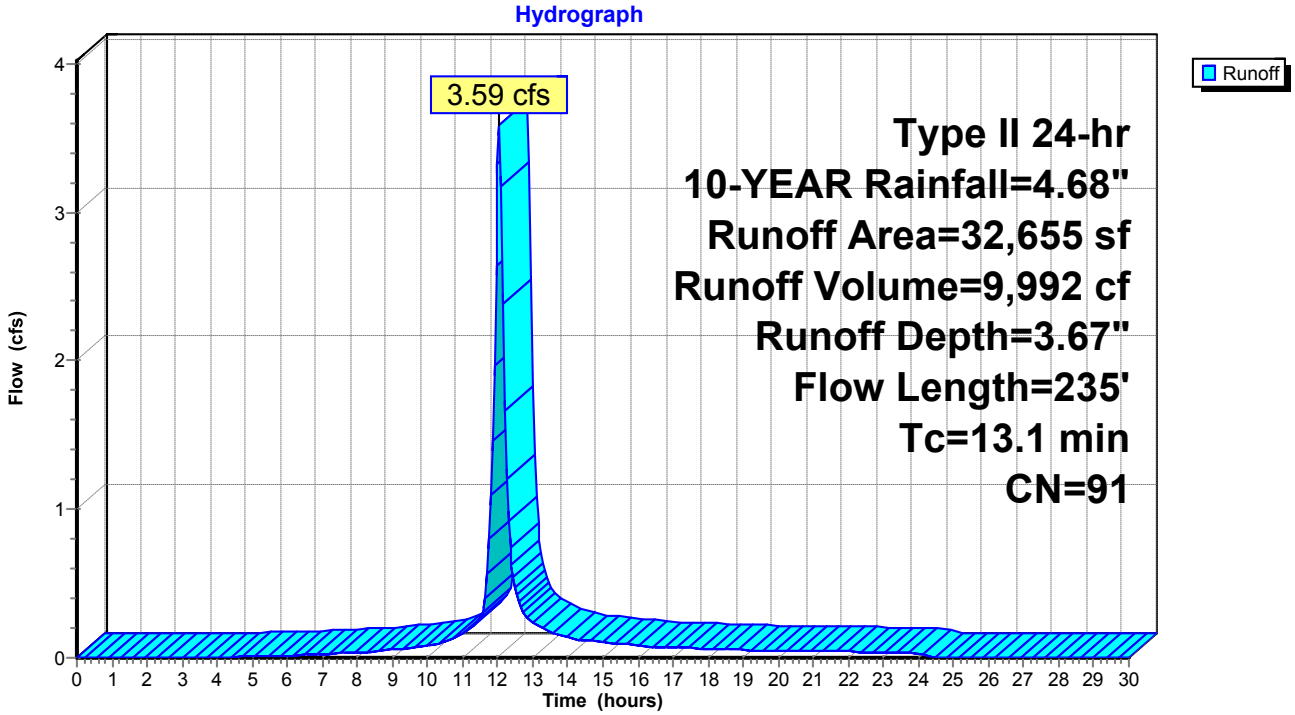
Runoff = 3.59 cfs @ 12.04 hrs, Volume= 9,992 cf, Depth= 3.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
12,737	80	>75% Grass cover, Good, HSG D
19,918	98	Paved parking, HSG D
32,655	91	Weighted Average
12,737		39.00% Pervious Area
19,918		61.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0150	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
1.7	81	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	54	0.0250	3.21		**Shallow Concentrated Flow, C-D** Paved Kv= 20.3 fps
13.1	235	Total			

Subcatchment DA-5: DRAINAGE AREA 5



Summary for Subcatchment DA-6: DA-6

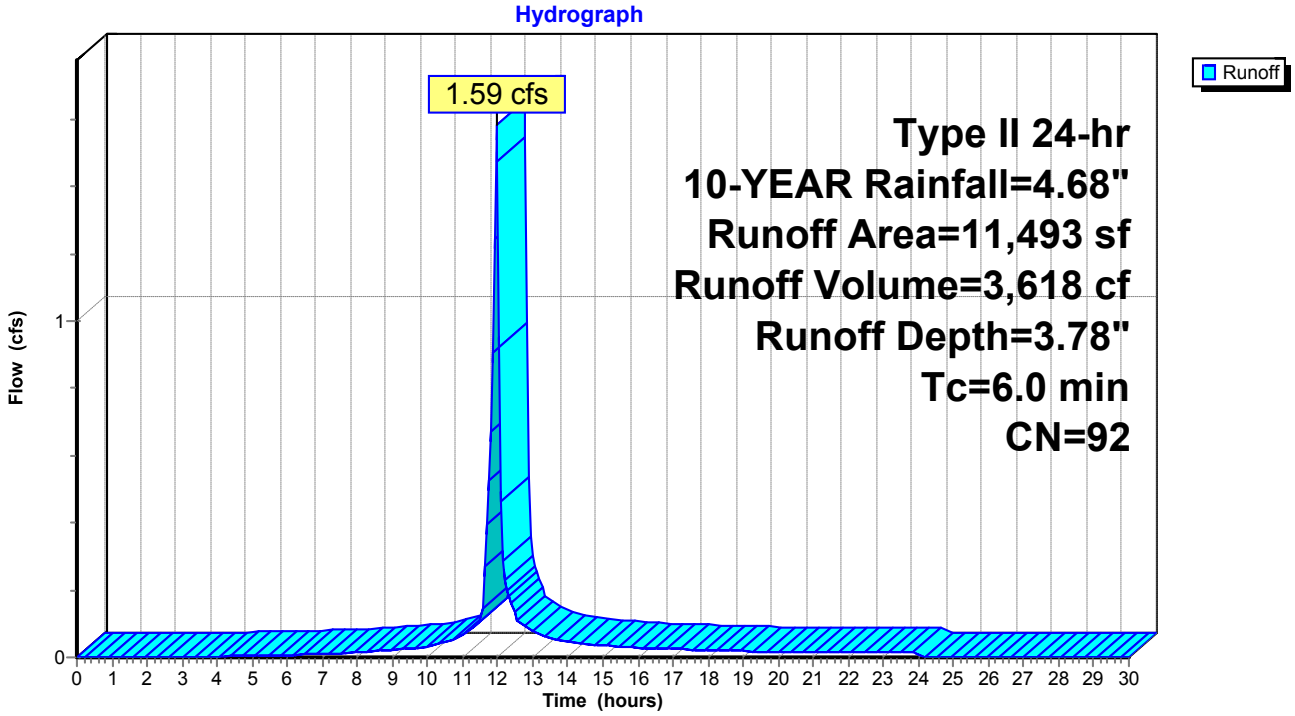
Runoff = 1.59 cfs @ 11.96 hrs, Volume= 3,618 cf, Depth= 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
3,947	80	>75% Grass cover, Good, HSG D
7,546	98	Paved parking, HSG D
11,493	92	Weighted Average
3,947		34.34% Pervious Area
7,546		65.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

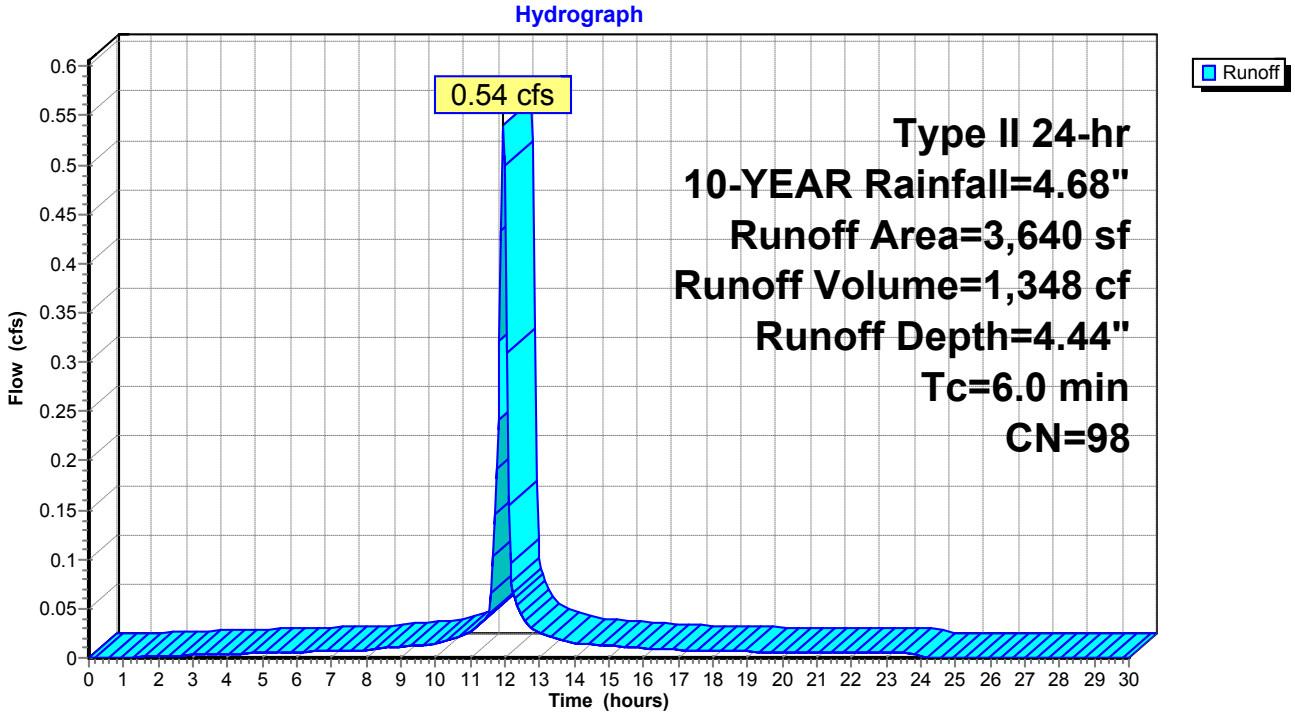
Runoff = 0.54 cfs @ 11.96 hrs, Volume= 1,348 cf, Depth= 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,587	98	Roofs, HSG D
2,053	98	Paved parking, HSG D
3,640	98	Weighted Average
3,640		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

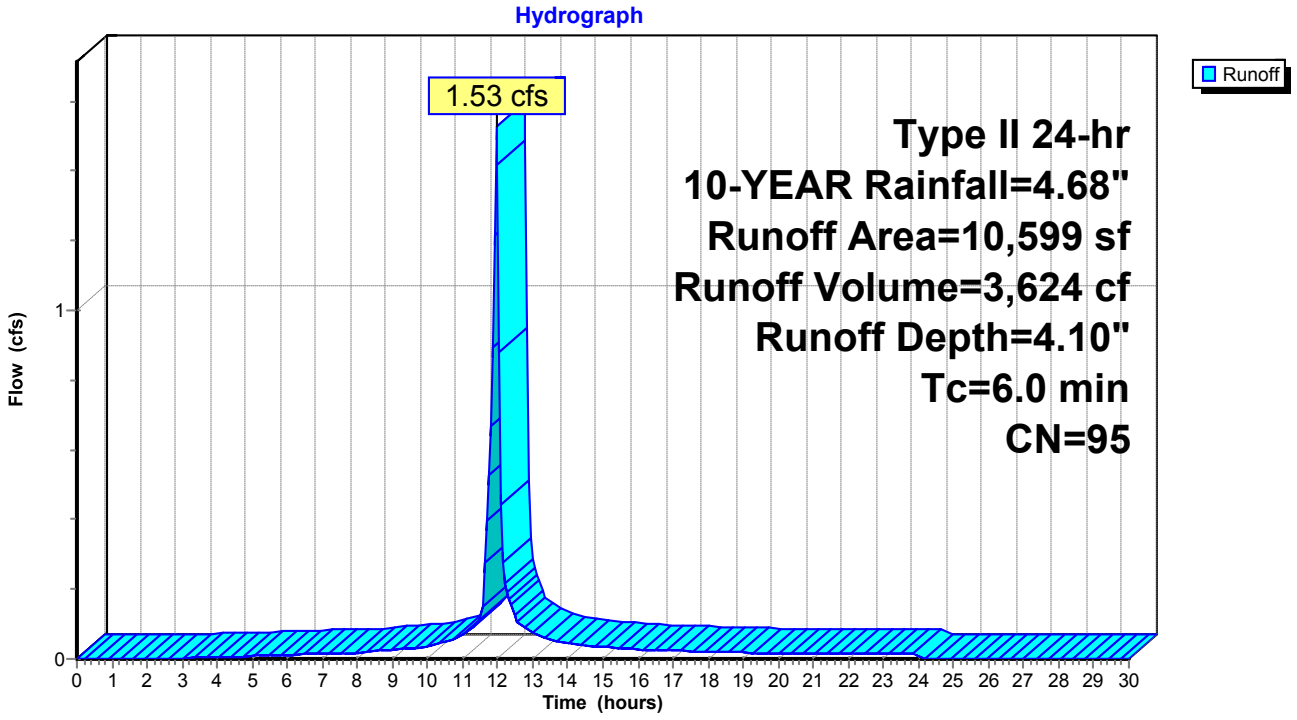
Runoff = 1.53 cfs @ 11.96 hrs, Volume= 3,624 cf, Depth= 4.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,986	80	>75% Grass cover, Good, HSG D
6,900	98	Roofs, HSG D
1,713	98	Paved parking, HSG D
10,599	95	Weighted Average
1,986		18.74% Pervious Area
8,613		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DRAINAGE AREA 9

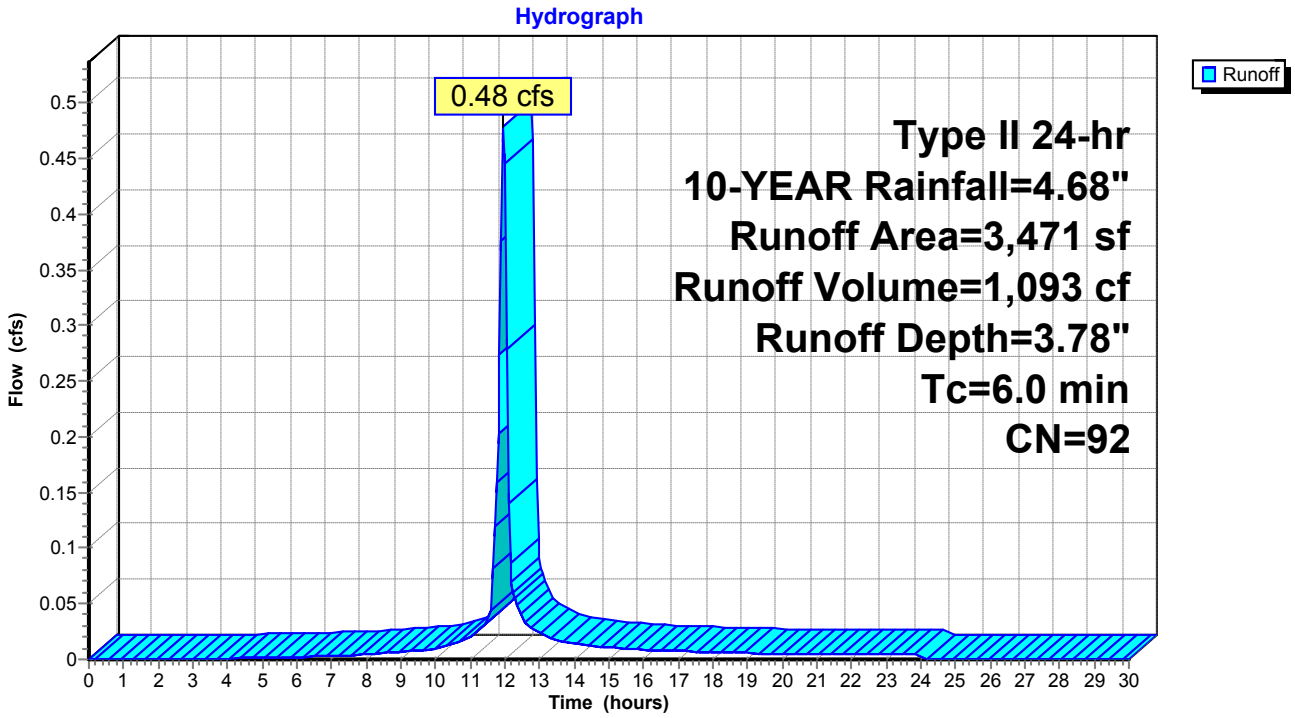
Runoff = 0.48 cfs @ 11.96 hrs, Volume= 1,093 cf, Depth= 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,195	80	>75% Grass cover, Good, HSG D
2,276	98	Paved parking, HSG D
3,471	92	Weighted Average
1,195		34.43% Pervious Area
2,276		65.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-9: DRAINAGE AREA 9



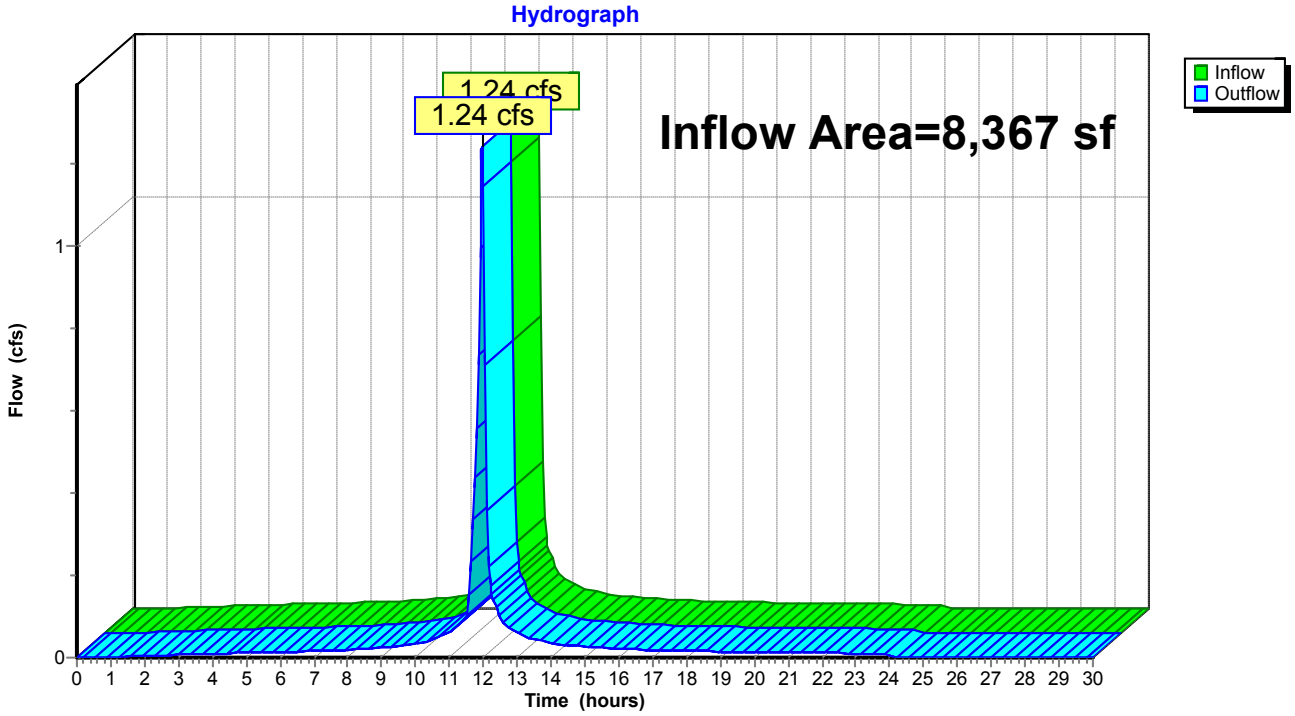
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8,367 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 1.24 cfs @ 11.96 hrs, Volume= 3,098 cf
Outflow = 1.24 cfs @ 11.96 hrs, Volume= 3,098 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 2P: EXISTING DRYWELL

[81] Warning: Exceeded Pond DW-4 by 0.49' @ 16.80 hrs

Inflow Area = 5,334 sf, 65.88% Impervious, Inflow Depth = 10.81" for 10-YEAR event
Inflow = 2.32 cfs @ 11.98 hrs, Volume= 4,807 cf
Outflow = 2.29 cfs @ 12.00 hrs, Volume= 4,807 cf, Atten= 1%, Lag= 1.1 min
Discarded = 0.63 cfs @ 12.00 hrs, Volume= 2,910 cf
Primary = 1.66 cfs @ 12.00 hrs, Volume= 1,897 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.81' @ 12.00 hrs Surf.Area= 1,242 sf Storage= 405 cf

Plug-Flow detention time= 23.6 min calculated for 4,799 cf (100% of inflow)
Center-of-Mass det. time= 23.6 min (775.2 - 751.6)

Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	1,717 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

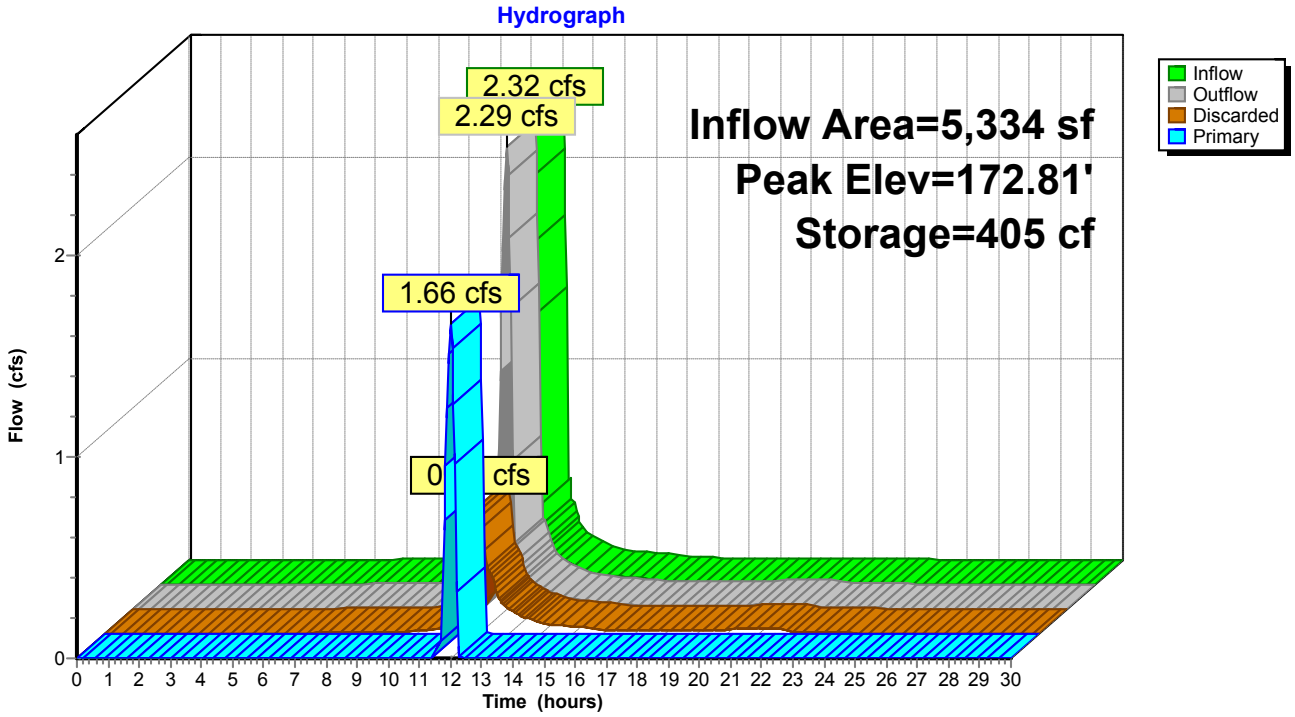
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	2,000	507	717
173.50	2,000	1,000	1,717

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**
#2	Primary	172.65'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.63 cfs @ 12.00 hrs HW=172.81' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.63 cfs)

Primary OutFlow Max=1.63 cfs @ 12.00 hrs HW=172.81' (Free Discharge)
↑**2=Orifice/Grate** (Weir Controls 1.63 cfs @ 1.30 fps)

Pond 2P: EXISTING DRYWELL



Summary for Pond 3P: PROPOSED CB #3

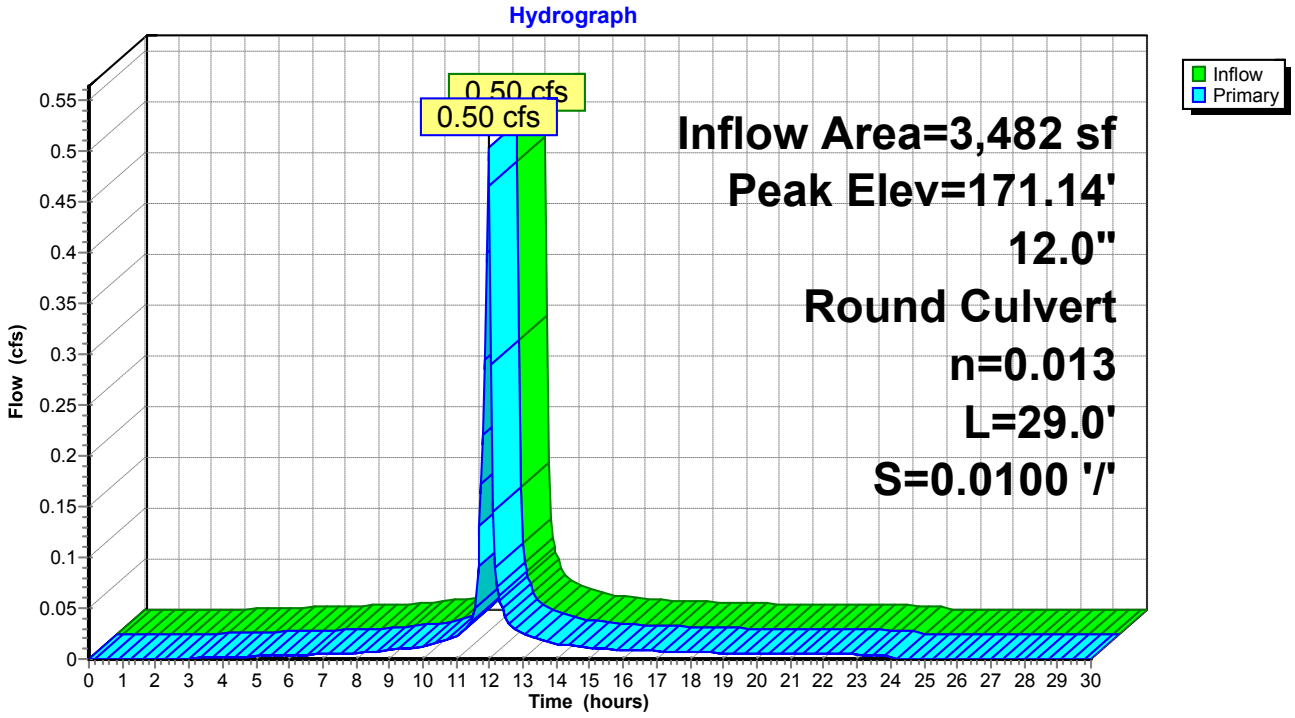
Inflow Area = 3,482 sf, 85.96% Impervious, Inflow Depth = 4.10" for 10-YEAR event
Inflow = 0.50 cfs @ 11.96 hrs, Volume= 1,190 cf
Outflow = 0.50 cfs @ 11.96 hrs, Volume= 1,190 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.50 cfs @ 11.96 hrs, Volume= 1,190 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.14' @ 11.96 hrs
Flood Elev= 172.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.74'	**12.0" Round Culvert** L= 29.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.74' / 170.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.49 cfs @ 11.96 hrs HW=171.14' (Free Discharge)
1=Culvert (Inlet Controls 0.49 cfs @ 1.69 fps)

Pond 3P: PROPOSED CB #3



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond CB-2 by 2.76' @ 12.15 hrs

Inflow	=	1.35 cfs @	11.96 hrs,	Volume=	4,070 cf
Outflow	=	0.93 cfs @	12.05 hrs,	Volume=	4,070 cf, Atten= 31%, Lag= 5.0 min
Discarded	=	0.93 cfs @	12.05 hrs,	Volume=	4,070 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.44' @ 12.05 hrs Surf.Area= 1,829 sf Storage= 641 cf

Plug-Flow detention time= 49.1 min calculated for 4,063 cf (100% of inflow)
Center-of-Mass det. time= 49.3 min (814.9 - 765.6)

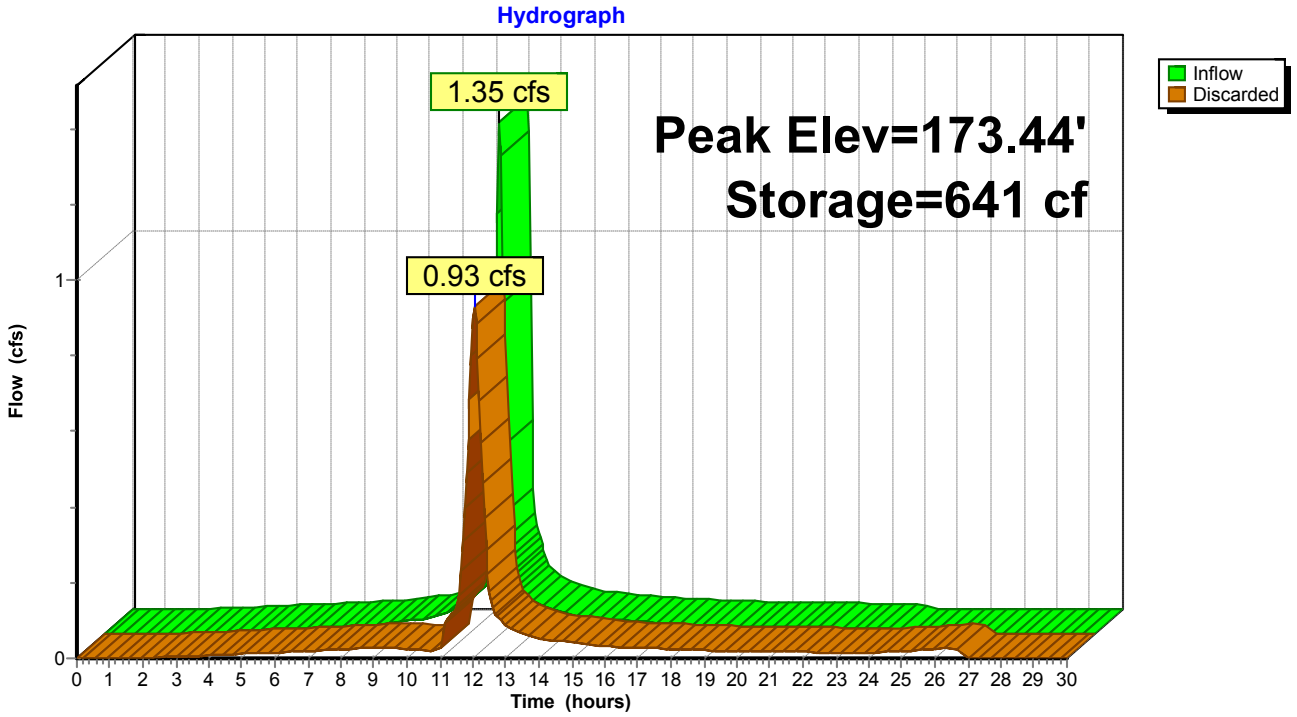
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	112	7	213
174.00	4,000	2,056	2,269

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.93 cfs @ 12.05 hrs HW=173.44' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.93 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 8P: EXISTING YARD DRAIN

[58] Hint: Peaked 41.73' above defined flood level

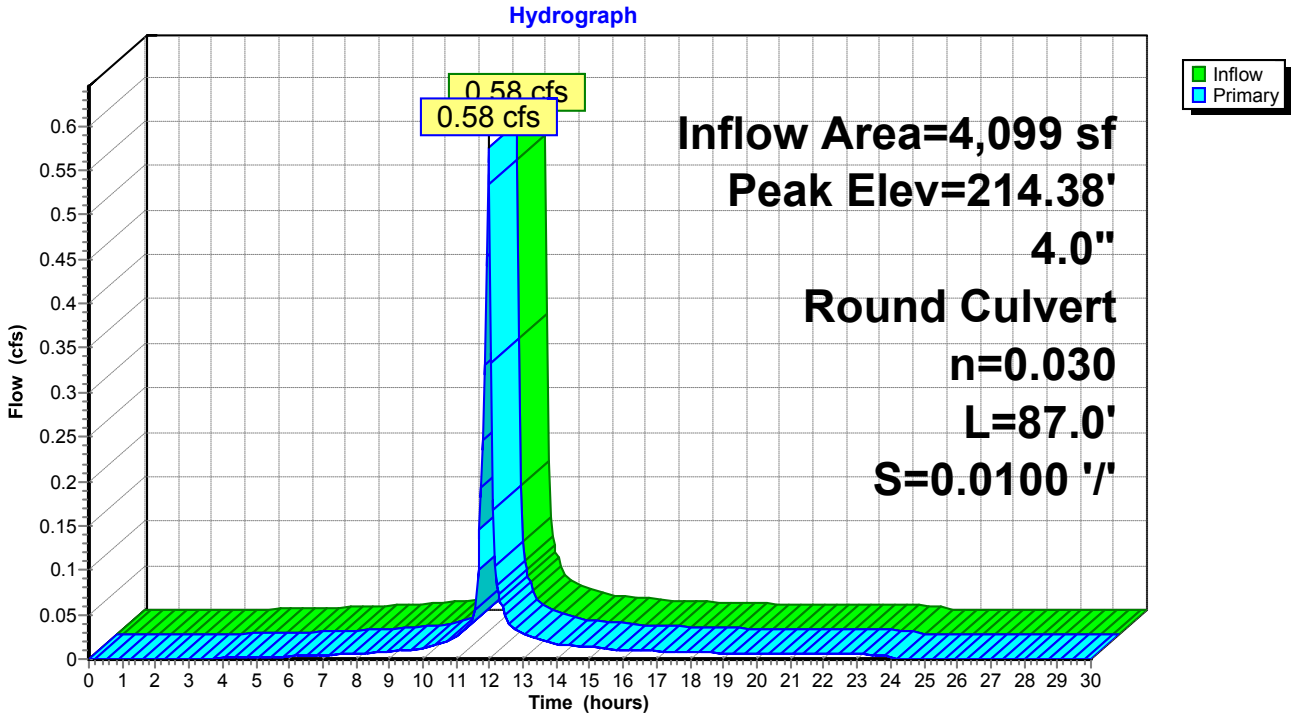
Inflow Area = 4,099 sf, 74.82% Impervious, Inflow Depth = 3.88" for 10-YEAR event
Inflow = 0.58 cfs @ 11.96 hrs, Volume= 1,327 cf
Outflow = 0.58 cfs @ 11.96 hrs, Volume= 1,327 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.58 cfs @ 11.96 hrs, Volume= 1,327 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 214.38' @ 11.96 hrs
Flood Elev= 172.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.030, Flow Area= 0.09 sf

Primary OutFlow Max=0.56 cfs @ 11.96 hrs HW=212.33' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.56 cfs @ 6.43 fps)

Pond 8P: EXISTING YARD DRAIN



Summary for Pond 12P: EXISTING CB

[79] Warning: Submerged Pond 3P Primary device # 1 INLET by 0.14'

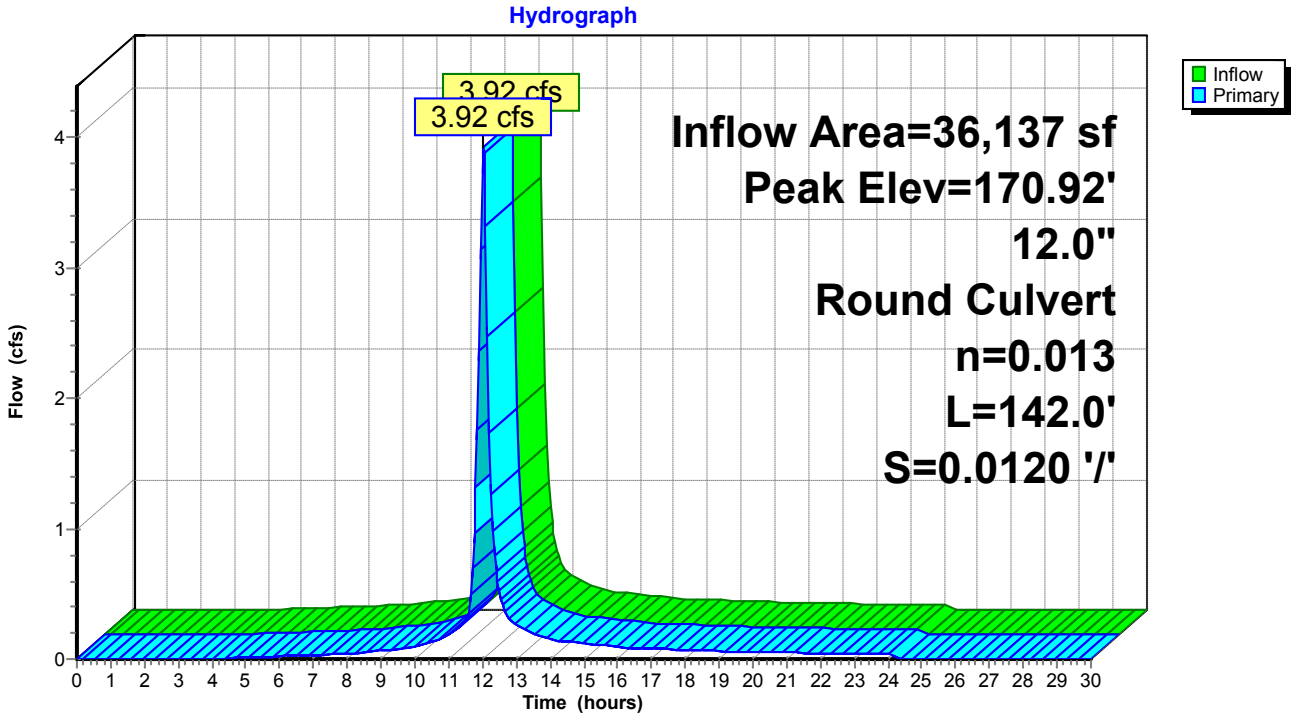
Inflow Area = 36,137 sf, 63.40% Impervious, Inflow Depth = 3.71" for 10-YEAR event
Inflow = 3.92 cfs @ 12.03 hrs, Volume= 11,183 cf
Outflow = 3.92 cfs @ 12.03 hrs, Volume= 11,183 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.92 cfs @ 12.03 hrs, Volume= 11,183 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.92' @ 12.03 hrs
Flood Elev= 172.16'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=3.84 cfs @ 12.03 hrs HW=170.86' (Free Discharge)
└**1=Culvert** (Inlet Controls 3.84 cfs @ 4.89 fps)

Pond 12P: EXISTING CB



Summary for Pond 14P: EXISTING CB

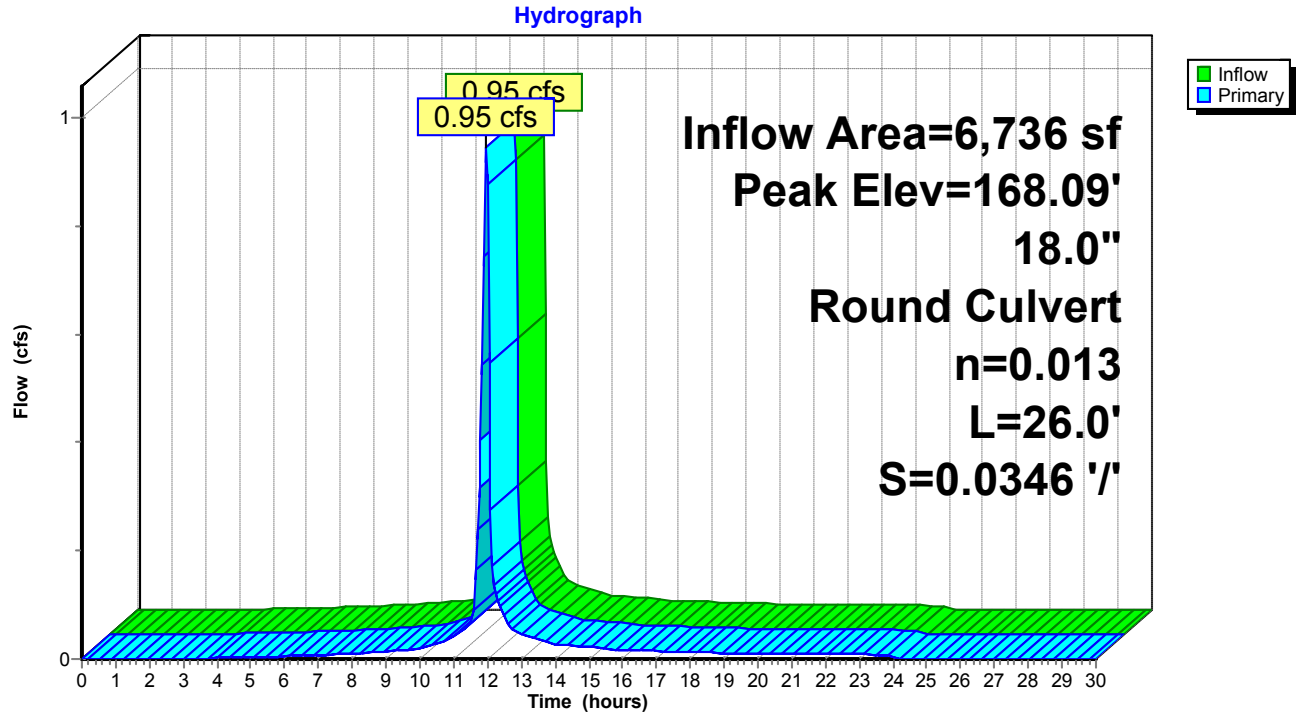
Inflow Area = 6,736 sf, 69.73% Impervious, Inflow Depth = 3.88" for 10-YEAR event
Inflow = 0.95 cfs @ 11.96 hrs, Volume= 2,180 cf
Outflow = 0.95 cfs @ 11.96 hrs, Volume= 2,180 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.95 cfs @ 11.96 hrs, Volume= 2,180 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.09' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=0.92 cfs @ 11.96 hrs HW=168.08' (Free Discharge)
1=Culvert (Inlet Controls 0.92 cfs @ 1.87 fps)

Pond 14P: EXISTING CB



Summary for Pond CB-1: PROPOSED CATCH BASIN #1

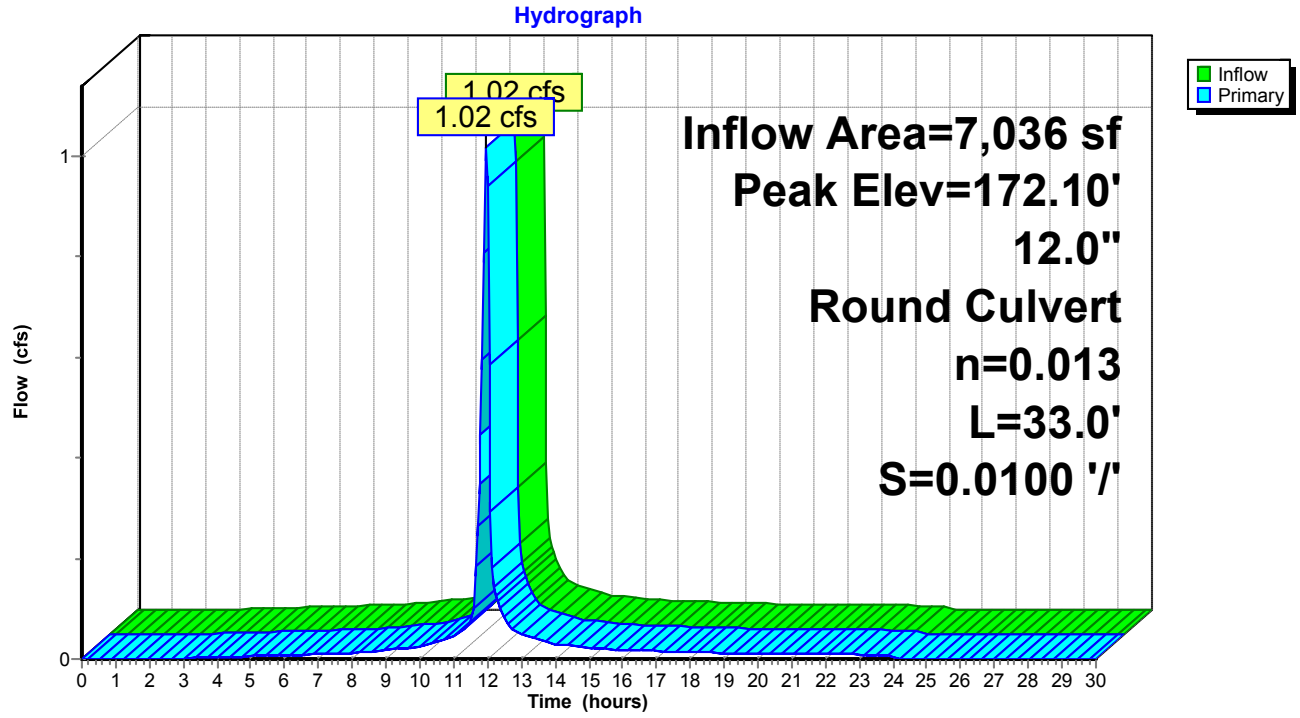
Inflow Area = 7,036 sf, 83.26% Impervious, Inflow Depth = 4.10" for 10-YEAR event
Inflow = 1.02 cfs @ 11.96 hrs, Volume= 2,406 cf
Outflow = 1.02 cfs @ 11.96 hrs, Volume= 2,406 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.02 cfs @ 11.96 hrs, Volume= 2,406 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.10' @ 11.96 hrs
Flood Elev= 172.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.50'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.50' / 171.17' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.99 cfs @ 11.96 hrs HW=172.09' (Free Discharge)
1=Culvert (Inlet Controls 0.99 cfs @ 2.06 fps)

Pond CB-1: PROPOSED CATCH BASIN #1



Summary for Pond CB-2: PR CB #2

[57] Hint: Peaked at 171.62' (Flood elevation advised)
[79] Warning: Submerged Pond CB-1 Primary device # 1 INLET by 0.11'

Inflow Area =	28,448 sf,	85.49% Impervious,	Inflow Depth =	4.19"	for 10-YEAR event
Inflow =	4.15 cfs @	11.96 hrs,	Volume=	9,926 cf	
Outflow =	4.15 cfs @	11.96 hrs,	Volume=	9,926 cf,	Atten= 0%, Lag= 0.0 min
Primary =	2.79 cfs @	11.96 hrs,	Volume=	5,856 cf	
Secondary =	1.35 cfs @	11.96 hrs,	Volume=	4,070 cf	

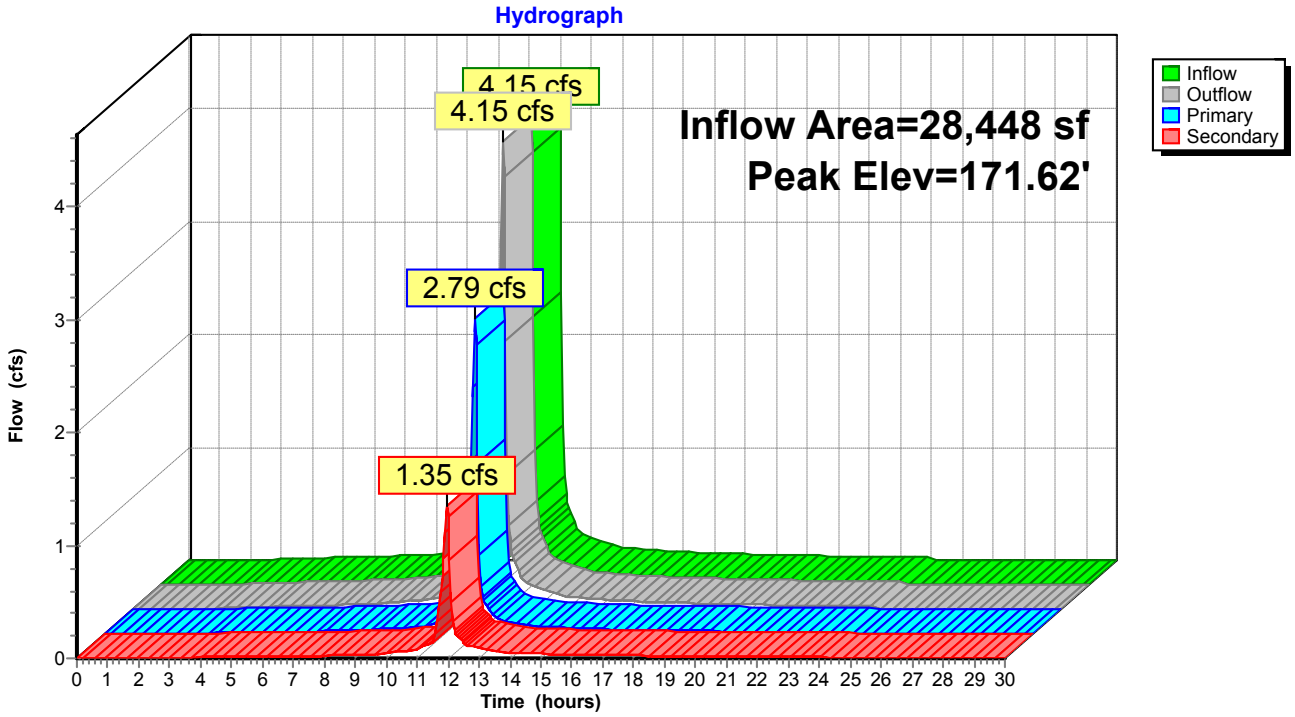
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.62' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.25'	**12.0" Round Culvert** L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	170.25'	**8.0" Round Culvert** L= 12.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=2.72 cfs @ 11.96 hrs HW=171.58' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 2.72 cfs @ 3.46 fps)

Secondary OutFlow Max=1.33 cfs @ 11.96 hrs HW=171.58' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 1.33 cfs @ 3.80 fps)

Pond CB-2: PR CB #2



Summary for Pond DP-1: Existing Catch Basin

[79] Warning: Submerged Pond 12P Primary device # 1 OUTLET by 1.60'
[81] Warning: Exceeded Pond 14P by 0.53' @ 12.00 hrs

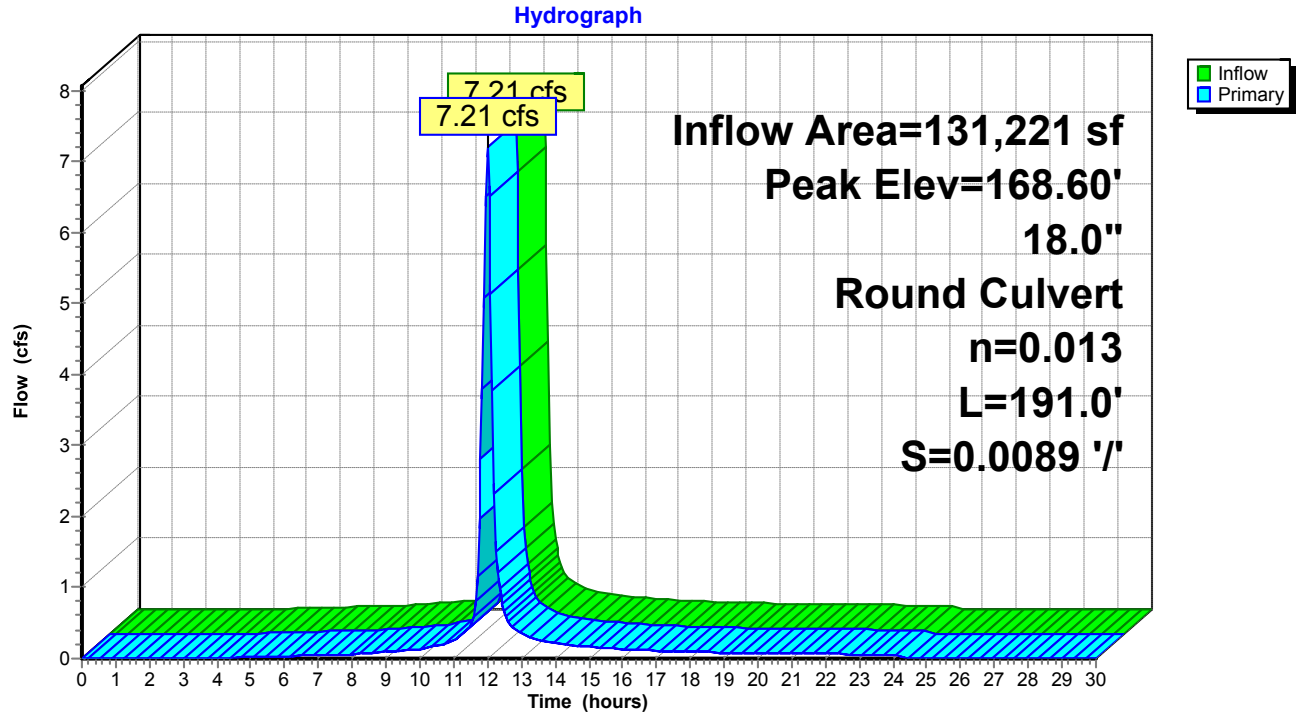
Inflow Area = 131,221 sf, 73.88% Impervious, Inflow Depth = 1.60" for 10-YEAR event
Inflow = 7.21 cfs @ 12.00 hrs, Volume= 17,443 cf
Outflow = 7.21 cfs @ 12.00 hrs, Volume= 17,443 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.21 cfs @ 12.00 hrs, Volume= 17,443 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.60' @ 12.00 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=7.20 cfs @ 12.00 hrs HW=168.60' (Free Discharge)
1=Culvert (Inlet Controls 7.20 cfs @ 4.08 fps)

Pond DP-1: Existing Catch Basin



Summary for Pond DW-1: PROPOSED DRYWELL #1

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 3,471 sf, 65.57% Impervious, Inflow Depth = 3.78" for 10-YEAR event
Inflow = 0.48 cfs @ 11.96 hrs, Volume= 1,093 cf
Outflow = 0.25 cfs @ 12.08 hrs, Volume= 1,093 cf, Atten= 49%, Lag= 6.7 min
Discarded = 0.25 cfs @ 12.08 hrs, Volume= 1,093 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.08' @ 12.07 hrs Surf.Area= 310 sf Storage= 325 cf

Plug-Flow detention time= 35.3 min calculated for 1,091 cf (100% of inflow)
Center-of-Mass det. time= 35.3 min (816.8 - 781.5)

Volume	Invert	Avail.Storage	Storage Description
#1	164.00'	712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	163.00'	38 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 94 cf Overall x 40.0% Voids
		750 cf	Total Available Storage

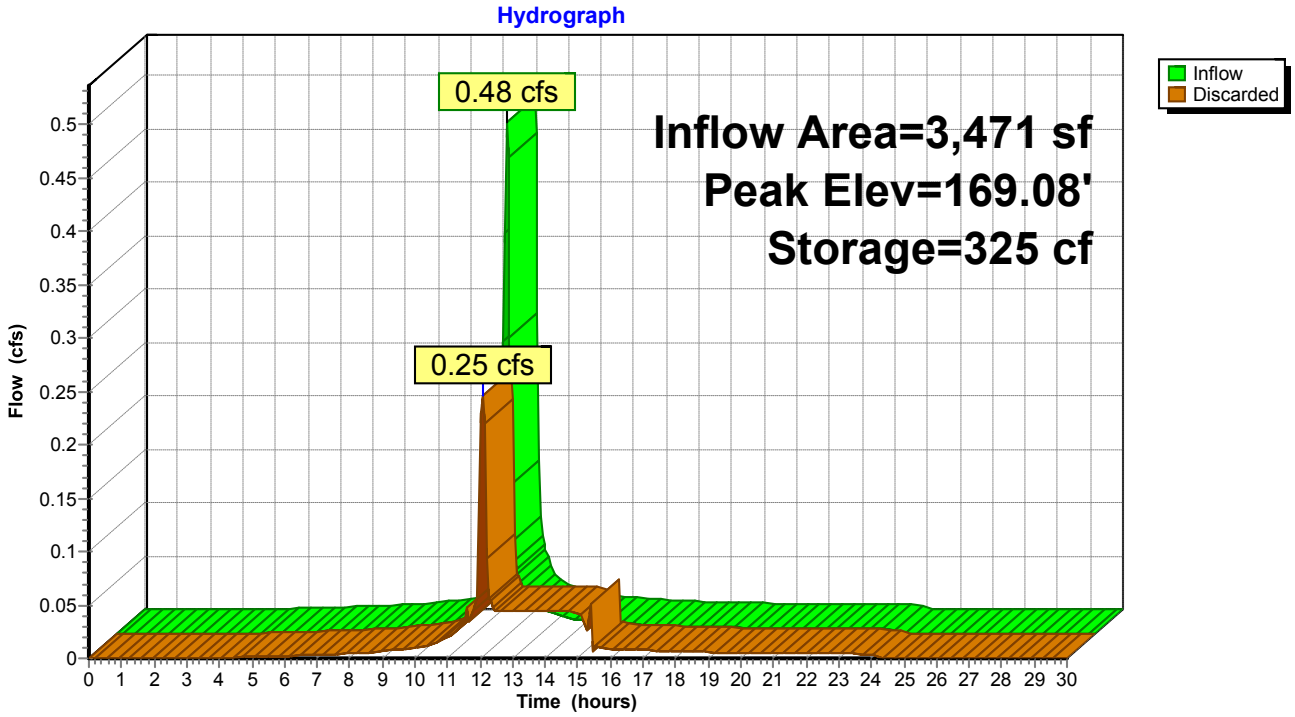
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	50	0	0
168.90	50	245	245
169.00	300	17	262
170.50	300	450	712

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	78	0	0
164.00	10	44	44
169.00	10	50	94

Device	Routing	Invert	Outlet Devices
#1	Discarded	163.00'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.23 cfs @ 12.08 hrs HW=169.06' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.23 cfs)

Pond DW-1: PROPOSED DRYWELL #1



Summary for Pond DW-2: PROPOSED DRYWELL #2

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond YD-2 by 2.78' @ 14.80 hrs

Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 3.78" for 10-YEAR event
Inflow = 1.82 cfs @ 11.96 hrs, Volume= 4,203 cf
Outflow = 1.54 cfs @ 12.01 hrs, Volume= 4,203 cf, Atten= 15%, Lag= 2.8 min
Discarded = 1.54 cfs @ 12.01 hrs, Volume= 4,203 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.73' @ 12.01 hrs Surf.Area= 2,084 sf Storage= 686 cf

Plug-Flow detention time= 47.9 min calculated for 4,196 cf (100% of inflow)
Center-of-Mass det. time= 47.9 min (824.9 - 777.0)

Volume	Invert	Avail.Storage	Storage Description
#1	167.78'	1,499 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	166.50'	53 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 134 cf Overall x 40.0% Voids
		1,552 cf	Total Available Storage

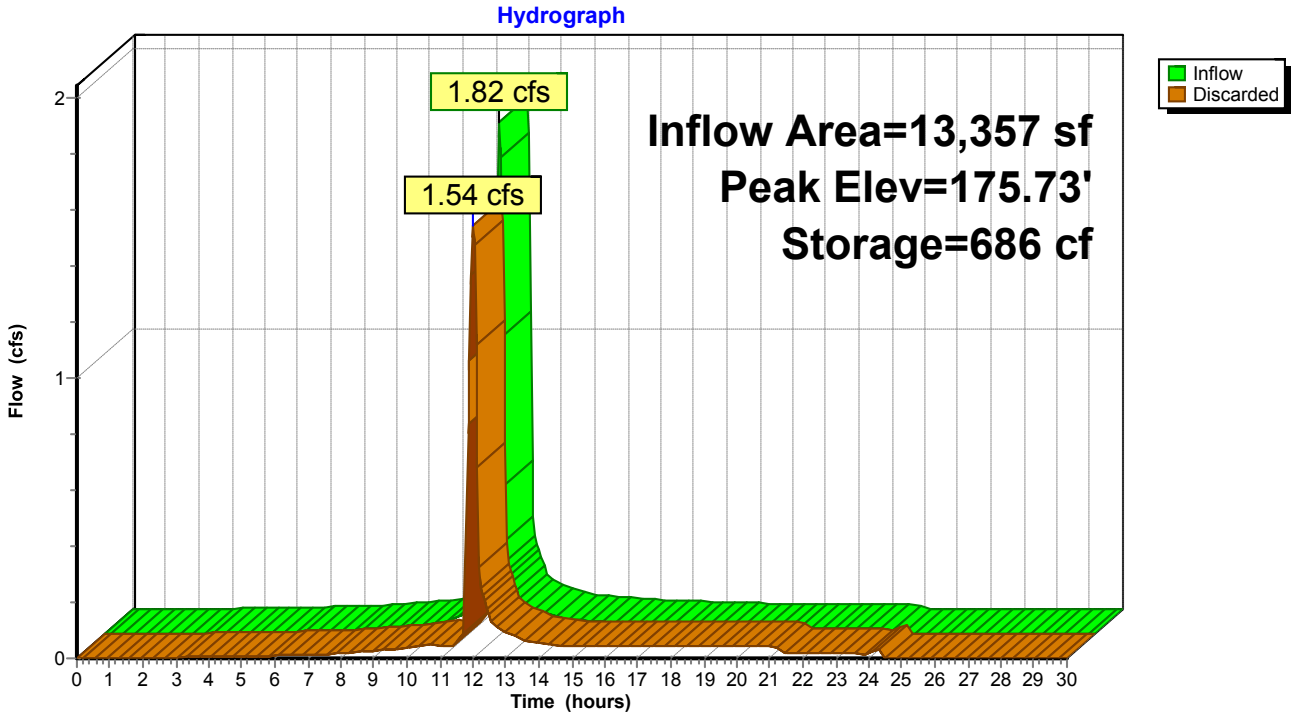
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.78	50	0	0
175.50	50	386	386
176.00	4,400	1,113	1,499

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.50	78	0	0
167.78	10	56	56
175.50	10	77	134

Device	Routing	Invert	Outlet Devices
#1	Discarded	166.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.52 cfs @ 12.01 hrs HW=175.73' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.52 cfs)

Pond DW-2: PROPOSED DRYWELL #2



Summary for Pond DW-3: PROPOSED DRYWELL #3

[81] Warning: Exceeded Pond YD-4 by 2.08' @ 15.25 hrs

Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 4.19" for 10-YEAR event
Inflow = 2.07 cfs @ 11.96 hrs, Volume= 4,972 cf
Outflow = 1.70 cfs @ 12.01 hrs, Volume= 4,974 cf, Atten= 18%, Lag= 3.1 min
Discarded = 1.70 cfs @ 12.01 hrs, Volume= 4,974 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.78' @ 12.01 hrs Surf.Area= 2,292 sf Storage= 775 cf

Plug-Flow detention time= 45.2 min calculated for 4,966 cf (100% of inflow)
Center-of-Mass det. time= 45.4 min (806.0 - 760.6)

Volume	Invert	Avail.Storage	Storage Description
#1	166.69'	1,403 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	165.50'	55 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 138 cf Overall x 40.0% Voids
		1,458 cf	Total Available Storage

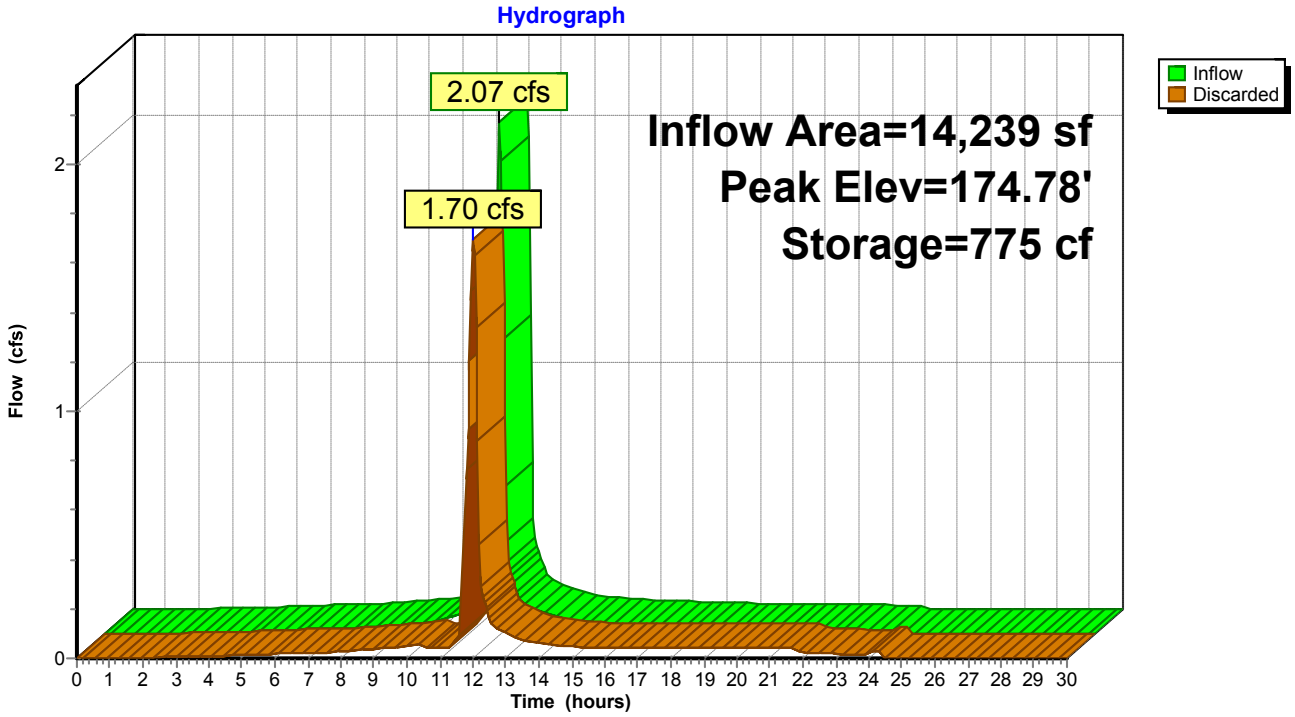
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.69	50	0	0
174.50	50	391	391
175.00	4,000	1,013	1,403

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.50	79	0	0
165.69	79	15	15
166.69	10	45	60
174.50	10	78	138

Device	Routing	Invert	Outlet Devices
#1	Discarded	165.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.67 cfs @ 12.01 hrs HW=174.78' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.67 cfs)

Pond DW-3: PROPOSED DRYWELL #3



Summary for Pond DW-4: PROPOSED DRYWELL #4

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond CB-2 by 2.88' @ 12.10 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 2.47" for 10-YEAR event
Inflow = 2.79 cfs @ 11.96 hrs, Volume= 5,856 cf
Outflow = 2.06 cfs @ 12.02 hrs, Volume= 5,856 cf, Atten= 26%, Lag= 3.7 min
Discarded = 0.44 cfs @ 12.02 hrs, Volume= 2,728 cf
Secondary = 1.63 cfs @ 12.02 hrs, Volume= 3,128 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.84' @ 12.02 hrs Surf.Area= 856 sf Storage= 867 cf

Plug-Flow detention time= 55.7 min calculated for 5,846 cf (100% of inflow)
Center-of-Mass det. time= 55.8 min (814.9 - 759.1)

Volume	Invert	Avail.Storage	Storage Description
#1	165.00'	1,468 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	164.00'	50 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 124 cf Overall x 40.0% Voids
		1,517 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.00	55	0	0
173.00	55	440	440
174.00	1,000	528	968
174.50	1,000	500	1,468

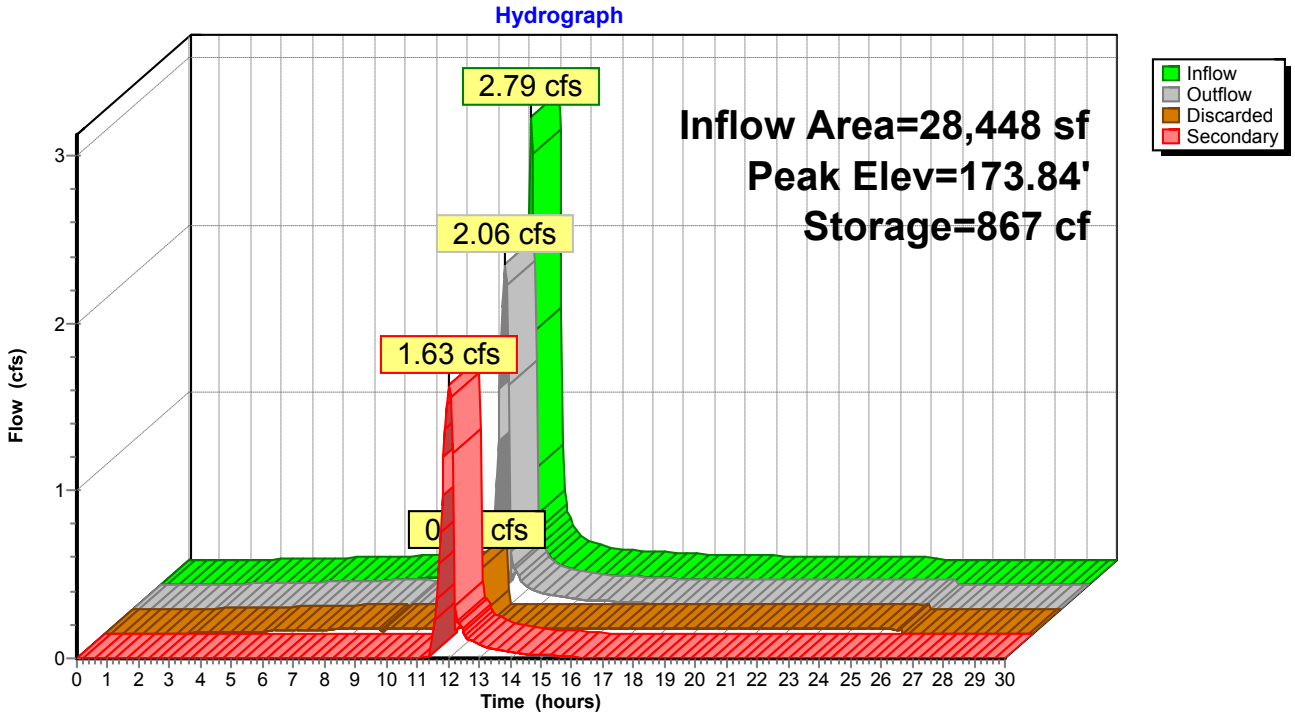
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	78	0	0
165.00	10	44	44
173.00	10	80	124

Device	Routing	Invert	Outlet Devices
#1	Discarded	164.00'	**22.000 in/hr Exfiltration over Surface area**
#2	Secondary	172.00'	**8.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.00' / 171.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Discarded OutFlow Max=0.43 cfs @ 12.02 hrs HW=173.82' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.43 cfs)

Secondary OutFlow Max=1.62 cfs @ 12.02 hrs HW=173.82' (Free Discharge)
└**2=Culvert** (Inlet Controls 1.62 cfs @ 4.63 fps)

Pond DW-4: PROPOSED DRYWELL #4



Summary for Pond DW-5: PROPOSED DRYWELL #5

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 11,493 sf, 65.66% Impervious, Inflow Depth = 3.78" for 10-YEAR event
Inflow = 1.59 cfs @ 11.96 hrs, Volume= 3,618 cf
Outflow = 0.93 cfs @ 12.05 hrs, Volume= 3,618 cf, Atten= 41%, Lag= 5.4 min
Discarded = 0.93 cfs @ 12.05 hrs, Volume= 3,618 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.60' @ 12.05 hrs Surf.Area= 1,825 sf Storage= 812 cf

Plug-Flow detention time= 37.3 min calculated for 3,612 cf (100% of inflow)
Center-of-Mass det. time= 37.4 min (818.9 - 781.5)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,748 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	167.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		1,781 cf	Total Available Storage

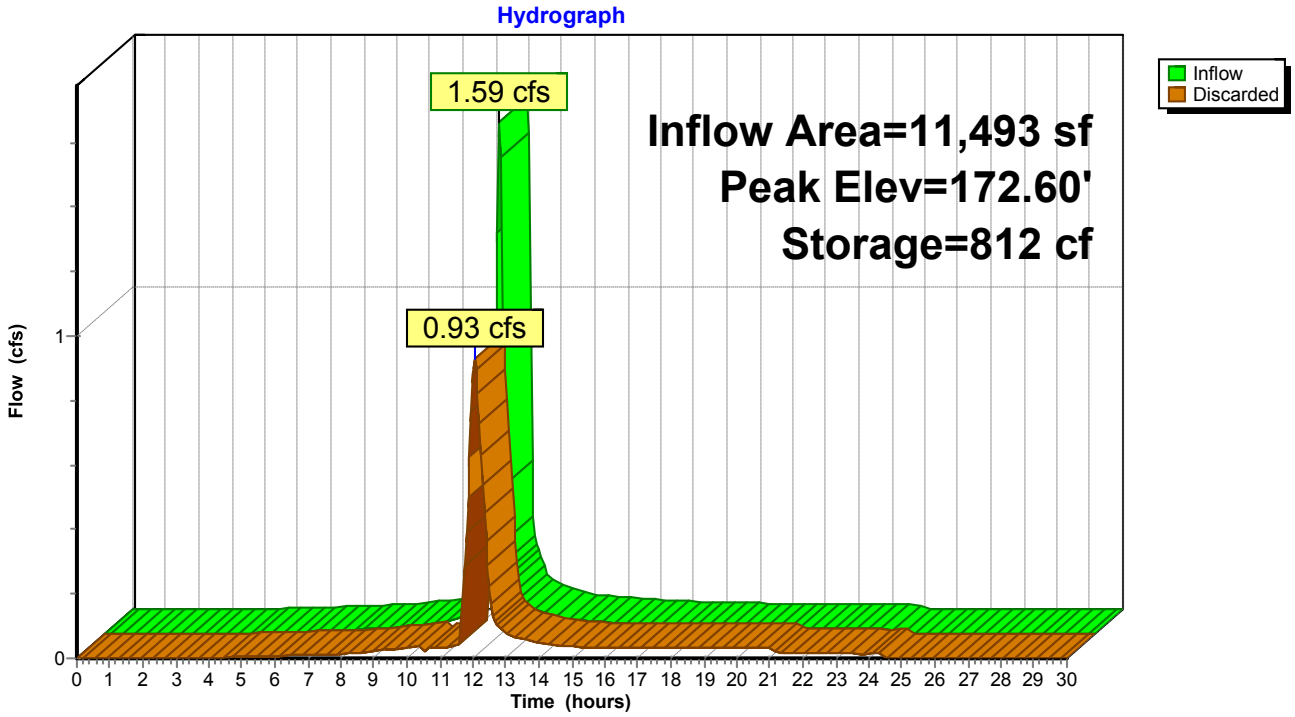
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.00	55	220	220
173.00	3,000	1,528	1,748

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	78	0	0
168.00	10	44	44
172.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.93 cfs @ 12.05 hrs HW=172.60' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.93 cfs)

Pond DW-5: PROPOSED DRYWELL #5



Summary for Pond DW-6: PROPOSED DRYWELL #6

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,844 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 0.27 cfs @ 11.96 hrs, Volume= 683 cf
Outflow = 0.04 cfs @ 11.65 hrs, Volume= 683 cf, Atten= 87%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.65 hrs, Volume= 683 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.33' @ 12.26 hrs Surf.Area= 65 sf Storage= 214 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 36.3 min (781.4 - 745.1)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	169.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

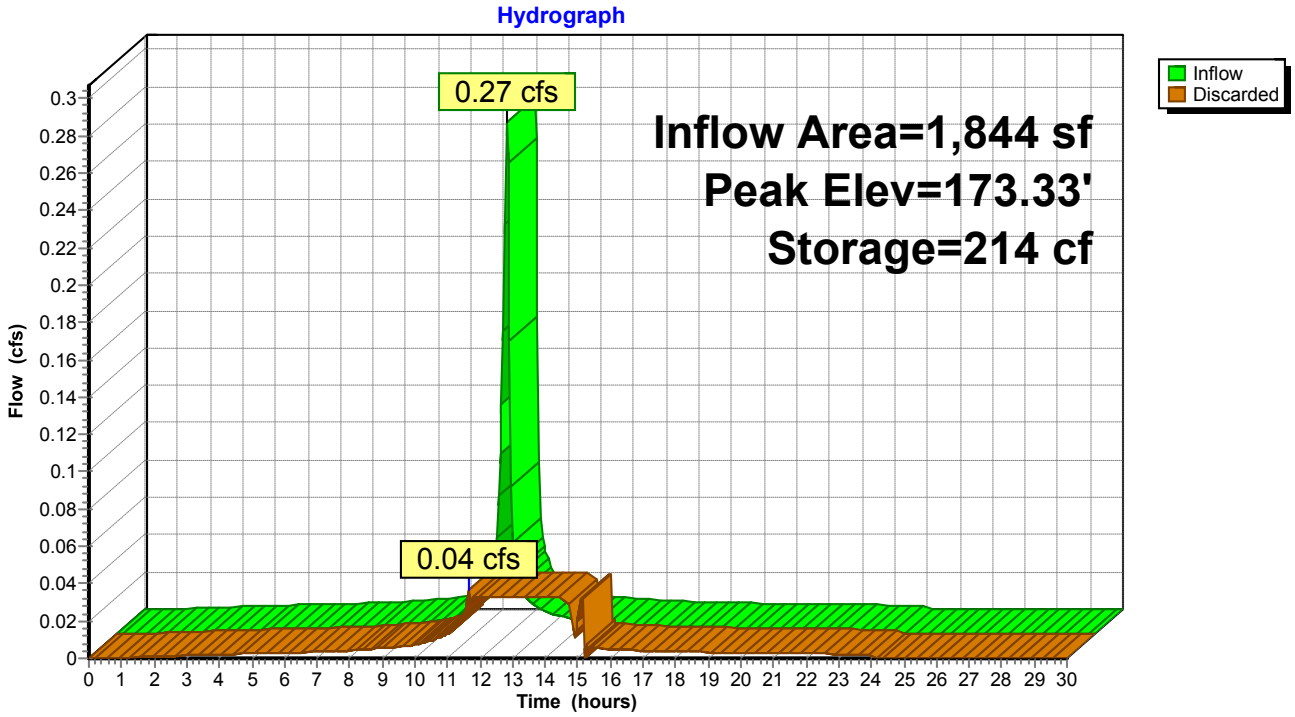
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	55	0	0
174.00	55	220	220
174.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	78	0	0
170.00	10	44	44
174.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	169.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.65 hrs HW=169.10' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-6: PROPOSED DRYWELL #6



Summary for Pond DW-7: PROPOSED DRYWELL #7

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,755 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 0.26 cfs @ 11.96 hrs, Volume= 650 cf
Outflow = 0.04 cfs @ 11.66 hrs, Volume= 650 cf, Atten= 85%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.66 hrs, Volume= 650 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.45' @ 12.24 hrs Surf.Area= 65 sf Storage= 200 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 33.7 min (778.8 - 745.1)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	352 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	170.00'	42 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 106 cf Overall x 40.0% Voids
		394 cf	Total Available Storage

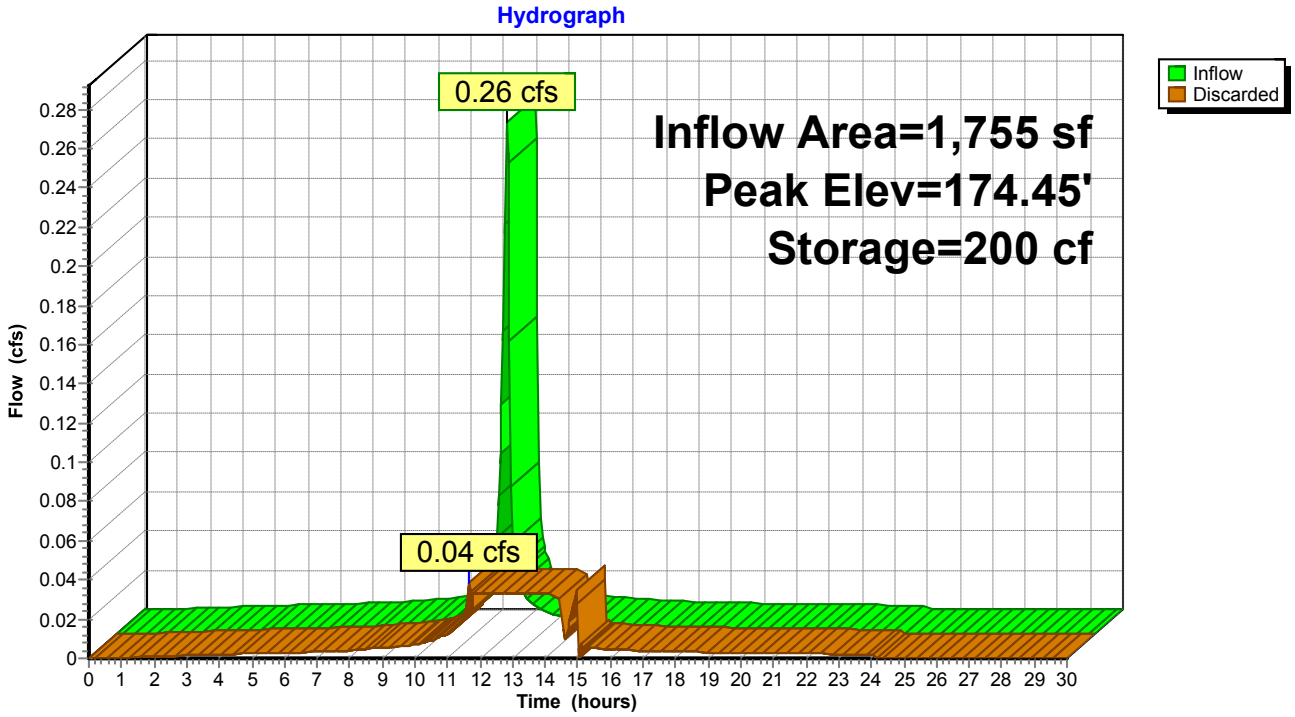
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
171.50	55	0	0
175.50	55	220	220
175.75	1,000	132	352

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	78	0	0
171.50	10	66	66
175.50	10	40	106

Device	Routing	Invert	Outlet Devices
#1	Discarded	170.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.66 hrs HW=170.12' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-7: PROPOSED DRYWELL #7



Summary for Pond DW-8: PROPOSED DRYWELL #8

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,734 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 0.26 cfs @ 11.96 hrs, Volume= 642 cf
Outflow = 0.04 cfs @ 11.65 hrs, Volume= 642 cf, Atten= 86%, Lag= 0.0 min
Discarded = 0.04 cfs @ 11.65 hrs, Volume= 642 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.08' @ 12.23 hrs Surf.Area= 65 sf Storage= 199 cf

Plug-Flow detention time= 33.4 min calculated for 641 cf (100% of inflow)
Center-of-Mass det. time= 33.3 min (778.4 - 745.1)

Volume	Invert	Avail.Storage	Storage Description
#1	169.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	168.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

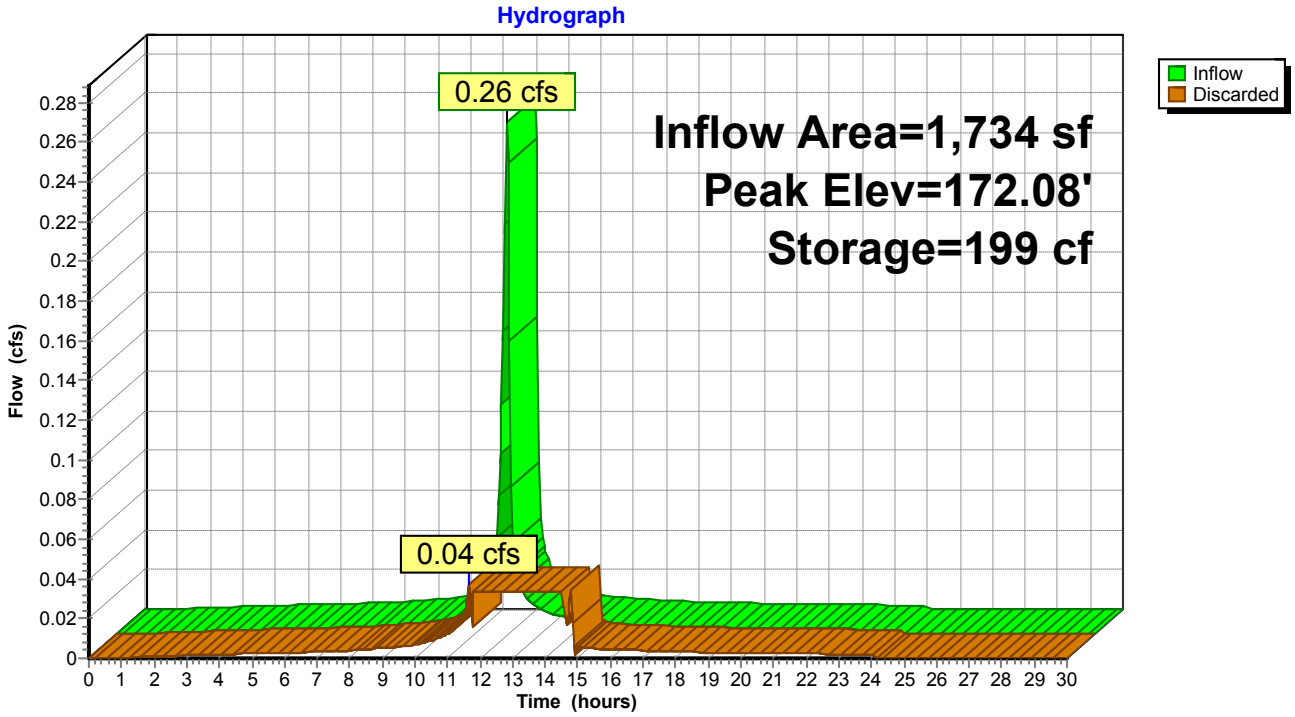
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	55	0	0
173.00	55	220	220
173.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	78	0	0
169.00	10	44	44
173.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.04 cfs @ 11.65 hrs HW=168.10' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.04 cfs)

Pond DW-8: PROPOSED DRYWELL #8



Summary for Pond YD-1: PROPOSED DRAIN #1

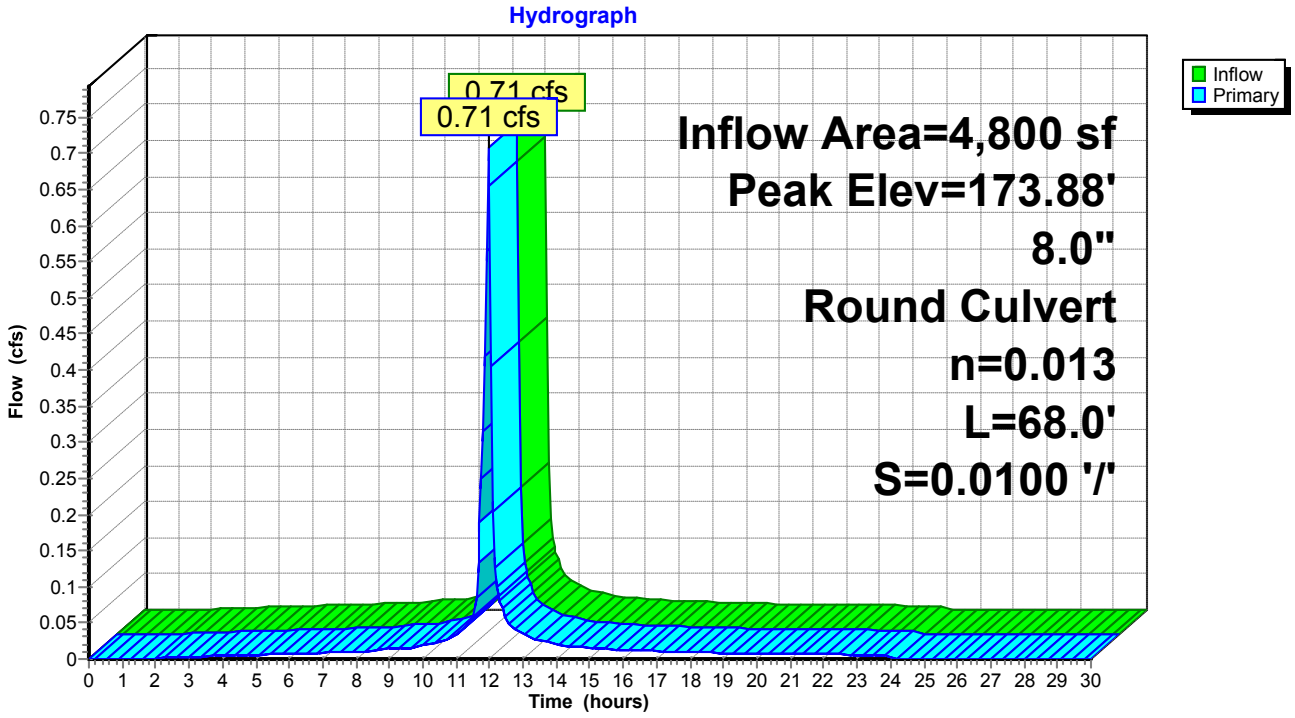
Inflow Area = 4,800 sf, 94.90% Impervious, Inflow Depth = 4.33" for 10-YEAR event
Inflow = 0.71 cfs @ 11.96 hrs, Volume= 1,731 cf
Outflow = 0.71 cfs @ 11.96 hrs, Volume= 1,731 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.71 cfs @ 11.96 hrs, Volume= 1,731 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.88' @ 11.96 hrs
Flood Elev= 175.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.27'	**8.0" Round Culvert** L= 68.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.27' / 172.59' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=0.69 cfs @ 11.96 hrs HW=173.87' (Free Discharge)
1=Culvert (Inlet Controls 0.69 cfs @ 2.09 fps)

Pond YD-1: PROPOSED DRAIN #1



Summary for Pond YD-2: PROPOSED DRAIN #2

[58] Hint: Peaked 1.02' above defined flood level
[81] Warning: Exceeded Pond YD-1 by 0.89' @ 11.95 hrs

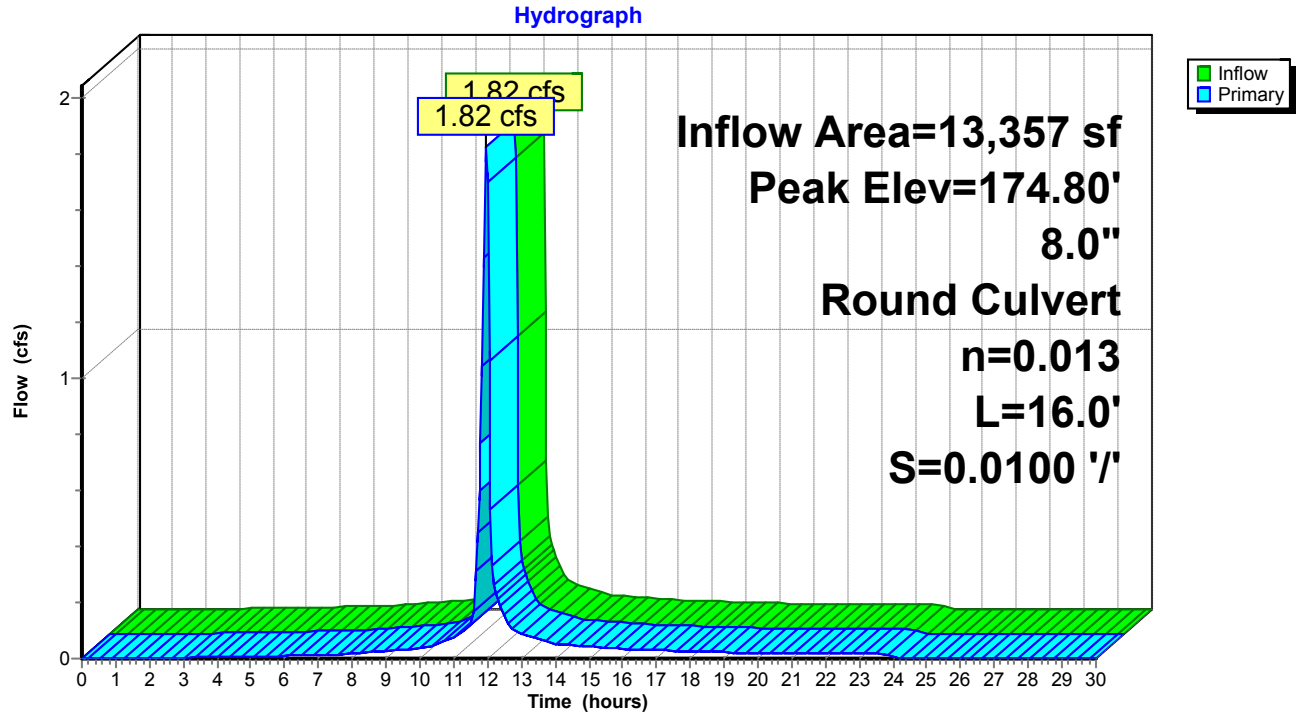
Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 3.78" for 10-YEAR event
Inflow = 1.82 cfs @ 11.96 hrs, Volume= 4,203 cf
Outflow = 1.82 cfs @ 11.96 hrs, Volume= 4,203 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.82 cfs @ 11.96 hrs, Volume= 4,203 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.80' @ 11.96 hrs
Flood Elev= 173.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.59'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.59' / 172.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.77 cfs @ 11.96 hrs HW=174.71' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 1.77 cfs @ 5.08 fps)

Pond YD-2: PROPOSED DRAIN #2



Summary for Pond YD-3: PROPOSED DRAIN #3

[58] Hint: Peaked 0.42' above defined flood level

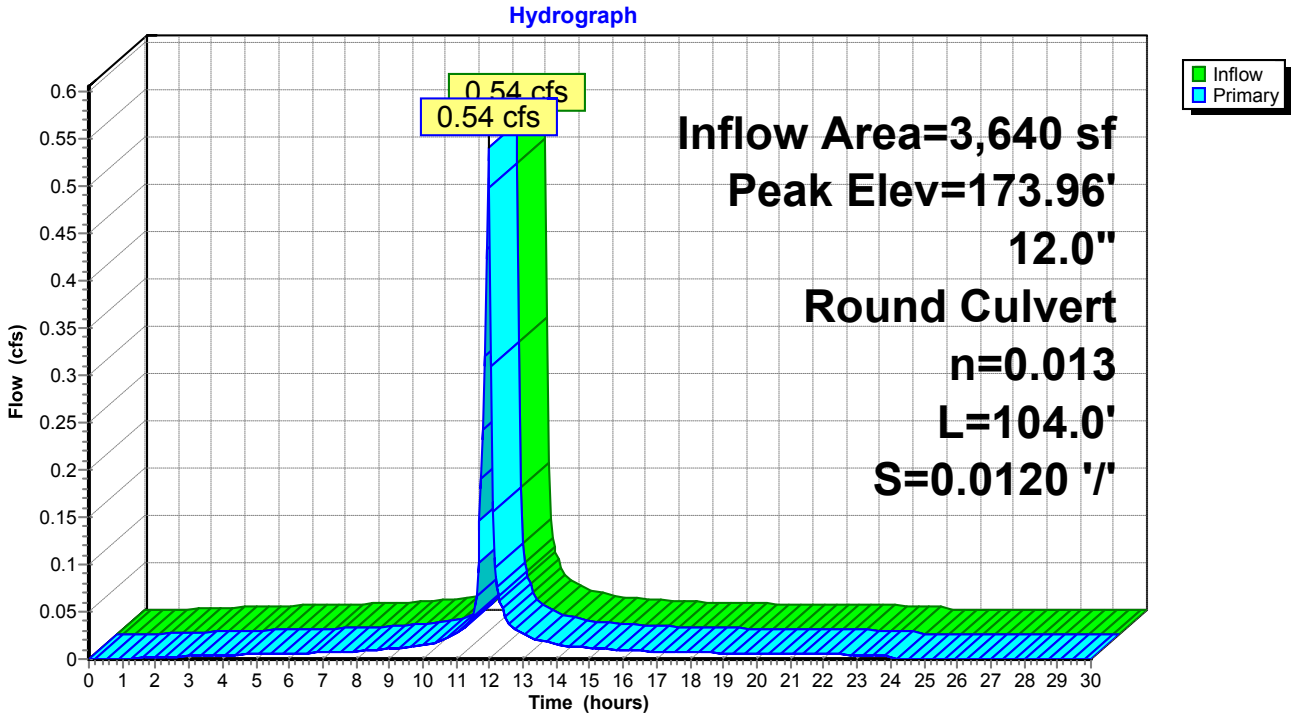
Inflow Area = 3,640 sf,100.00% Impervious, Inflow Depth = 4.44" for 10-YEAR event
Inflow = 0.54 cfs @ 11.96 hrs, Volume= 1,348 cf
Outflow = 0.54 cfs @ 11.96 hrs, Volume= 1,348 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.54 cfs @ 11.96 hrs, Volume= 1,348 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.96' @ 11.96 hrs
Flood Elev= 173.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.54'	**12.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.54' / 172.29' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.53 cfs @ 11.96 hrs HW=173.95' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.53 cfs @ 1.73 fps)

Pond YD-3: PROPOSED DRAIN #3



Summary for Pond YD-4: PROPOSED DRAIN #4

[58] Hint: Peaked 1.16' above defined flood level
[81] Warning: Exceeded Pond YD-3 by 1.62' @ 11.95 hrs

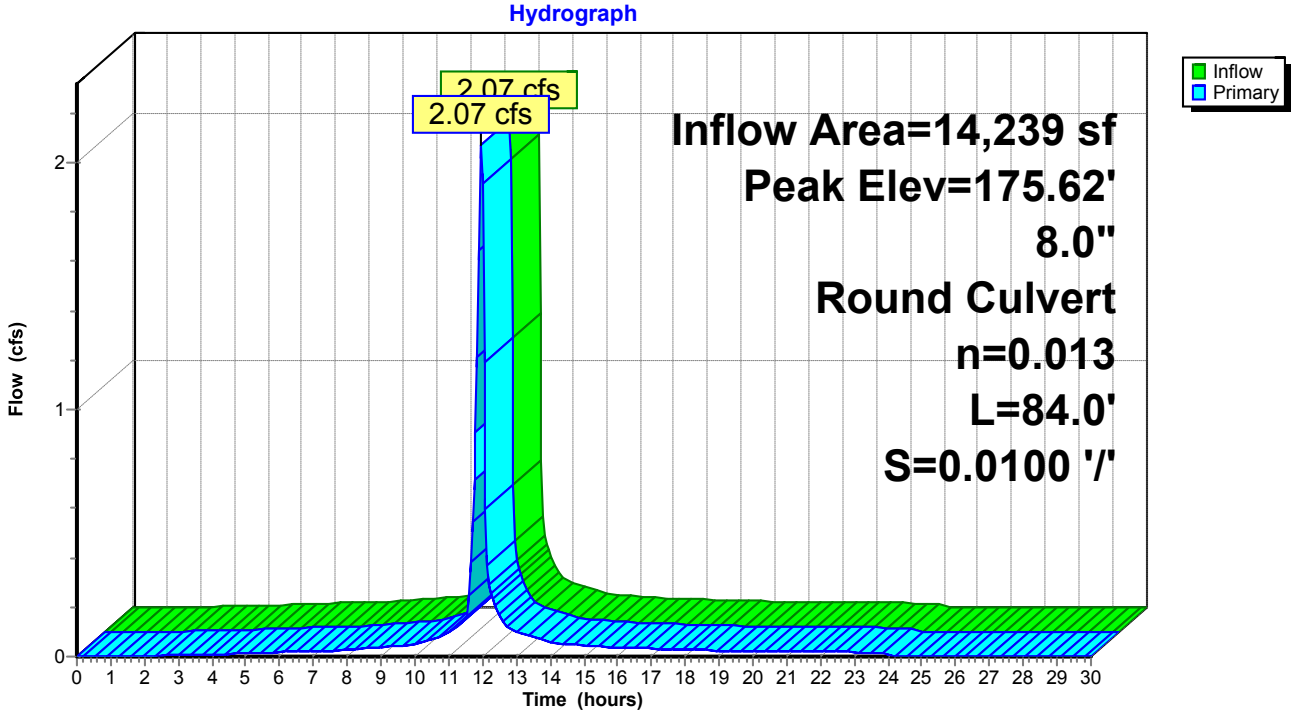
Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 4.19" for 10-YEAR event
Inflow = 2.07 cfs @ 11.96 hrs, Volume= 4,972 cf
Outflow = 2.07 cfs @ 11.96 hrs, Volume= 4,972 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.07 cfs @ 11.96 hrs, Volume= 4,972 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.62' @ 11.96 hrs
Flood Elev= 174.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.29'	**8.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.29' / 171.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=2.02 cfs @ 11.96 hrs HW=175.47' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.02 cfs @ 5.79 fps)

Pond YD-4: PROPOSED DRAIN #4



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA-1: DA-1 Runoff Area=21,412 sf 86.22% Impervious Runoff Depth=5.38"
Tc=6.0 min CN=96 Runoff=3.94 cfs 9,596 cf

Subcatchment DA-10: DA-10 Runoff Area=4,800 sf 94.90% Impervious Runoff Depth=5.49"
Tc=6.0 min CN=97 Runoff=0.89 cfs 2,198 cf

Subcatchment DA-11: DA-11 Runoff Area=8,557 sf 51.71% Impervious Runoff Depth=4.59"
Tc=6.0 min CN=89 Runoff=1.45 cfs 3,273 cf

Subcatchment DA-12: DRAINAGE AREA 12 Runoff Area=8,367 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=1.56 cfs 3,913 cf

Subcatchment DA-13: DA-13 Runoff Area=2,574 sf 79.56% Impervious Runoff Depth=5.15"
Tc=6.0 min CN=94 Runoff=0.47 cfs 1,104 cf

Subcatchment DA-14: DRAINAGE AREA 14 Runoff Area=6,736 sf 69.73% Impervious Runoff Depth=5.03"
Tc=6.0 min CN=93 Runoff=1.21 cfs 2,826 cf

Subcatchment DA-15: DA-15 Runoff Area=1,734 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.32 cfs 811 cf

Subcatchment DA-16: DA-16 Runoff Area=1,844 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.34 cfs 862 cf

Subcatchment DA-17: DA-17 Runoff Area=1,755 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.33 cfs 821 cf

Subcatchment DA-18: DRAINAGE AREA 18 Runoff Area=3,482 sf 85.96% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=95 Runoff=0.64 cfs 1,527 cf

Subcatchment DA-2: DA-2 Runoff Area=7,036 sf 83.26% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=95 Runoff=1.28 cfs 3,086 cf

Subcatchment DA-3: DRAINAGE AREA 3 Runoff Area=5,334 sf 65.88% Impervious Runoff Depth=4.92"
Tc=6.0 min CN=92 Runoff=0.94 cfs 2,188 cf

Subcatchment DA-4: DRAINAGE AREA 4 Runoff Area=4,099 sf 74.82% Impervious Runoff Depth=5.03"
Tc=6.0 min CN=93 Runoff=0.73 cfs 1,720 cf

Subcatchment DA-5: DRAINAGE AREA 5 Runoff Area=32,655 sf 61.00% Impervious Runoff Depth=4.81"
Flow Length=235' Tc=13.1 min CN=91 Runoff=4.63 cfs 13,090 cf

Subcatchment DA-6: DA-6 Runoff Area=11,493 sf 65.66% Impervious Runoff Depth=4.92"
Tc=6.0 min CN=92 Runoff=2.03 cfs 4,714 cf

Subcatchment DA-7: DA-7 Runoff Area=3,640 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.68 cfs 1,702 cf

Subcatchment DA-8: DA-8 Runoff Area=10,599 sf 81.26% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=95 Runoff=1.94 cfs 4,648 cf

Subcatchment DA-9: DRAINAGE AREA 9 Runoff Area=3,471 sf 65.57% Impervious Runoff Depth=4.92"
Tc=6.0 min CN=92 Runoff=0.61 cfs 1,424 cf

Reach DP-2: STREET Inflow=1.56 cfs 3,913 cf
Outflow=1.56 cfs 3,913 cf

Pond 2P: EXISTING DRYWELL Peak Elev=172.83' Storage=431 cf Inflow=2.67 cfs 6,546 cf
Discarded=0.67 cfs 3,873 cf Primary=1.97 cfs 2,673 cf Outflow=2.64 cfs 6,546 cf

Pond 3P: PROPOSED CB #3 Peak Elev=171.20' Inflow=0.64 cfs 1,527 cf
12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.64 cfs 1,527 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.52' Storage=790 cf Inflow=1.67 cfs 5,126 cf
Outflow=1.08 cfs 5,126 cf

Pond 8P: EXISTING YARD DRAIN Peak Elev=241.67' Inflow=0.73 cfs 1,720 cf
4.0" Round Culvert n=0.030 L=87.0' S=0.0100 '/' Outflow=0.73 cfs 1,720 cf

Pond 12P: EXISTING CB Peak Elev=172.05' Inflow=5.05 cfs 14,618 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=5.05 cfs 14,618 cf

Pond 14P: EXISTING CB Peak Elev=168.16' Inflow=1.21 cfs 2,826 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=1.21 cfs 2,826 cf

Pond CB-1: PROPOSED CATCH BASIN #1 Peak Elev=172.19' Inflow=1.28 cfs 3,086 cf
12.0" Round Culvert n=0.013 L=33.0' S=0.0100 '/' Outflow=1.28 cfs 3,086 cf

Pond CB-2: PR CB #2 Peak Elev=172.16' Inflow=5.23 cfs 12,682 cf
Primary=3.56 cfs 7,556 cf Secondary=1.67 cfs 5,126 cf Outflow=5.23 cfs 12,682 cf

Pond DP-1: Existing Catch Basin Peak Elev=169.28' Inflow=9.09 cfs 22,940 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=9.09 cfs 22,940 cf

Pond DW-1: PROPOSED DRYWELL #1 Peak Elev=169.37' Storage=411 cf Inflow=0.61 cfs 1,424 cf
Outflow=0.23 cfs 1,424 cf

Pond DW-2: PROPOSED DRYWELL #2 Peak Elev=175.79' Storage=818 cf Inflow=2.34 cfs 5,471 cf
Outflow=1.91 cfs 5,472 cf

Pond DW-3: PROPOSED DRYWELL #3 Peak Elev=174.84' Storage=929 cf Inflow=2.61 cfs 6,351 cf
Outflow=2.06 cfs 6,352 cf

Pond DW-4: PROPOSED DRYWELL #4 Peak Elev=174.18' Storage=1,194 cf Inflow=3.56 cfs 7,556 cf
Discarded=0.51 cfs 3,198 cf Secondary=1.80 cfs 4,358 cf Outflow=2.32 cfs 7,556 cf

Pond DW-5: PROPOSED DRYWELL #5 Peak Elev=172.72' Storage=1,057 cf Inflow=2.03 cfs 4,714 cf
Outflow=1.11 cfs 4,714 cf

Pond DW-6: PROPOSED DRYWELL #6 Peak Elev=174.09' Storage=267 cf Inflow=0.34 cfs 862 cf
Outflow=0.12 cfs 862 cf

Pond DW-7: PROPOSED DRYWELL #7 Peak Elev=175.52' Storage=264 cf Inflow=0.33 cfs 821 cf
Outflow=0.07 cfs 821 cf

Pond DW-8: PROPOSED DRYWELL #8 Peak Elev=173.04' Storage=257 cf Inflow=0.32 cfs 811 cf
Outflow=0.07 cfs 812 cf

Pond YD-1: PROPOSED DRAIN #1 Peak Elev=174.05' Inflow=0.89 cfs 2,198 cf
8.0" Round Culvert n=0.013 L=68.0' S=0.0100 '/' Outflow=0.89 cfs 2,198 cf

Pond YD-2: PROPOSED DRAIN #2 Peak Elev=176.02' Inflow=2.34 cfs 5,471 cf
8.0" Round Culvert n=0.013 L=16.0' S=0.0100 '/' Outflow=2.34 cfs 5,471 cf

Pond YD-3: PROPOSED DRAIN #3 Peak Elev=174.01' Inflow=0.68 cfs 1,702 cf
12.0" Round Culvert n=0.013 L=104.0' S=0.0120 '/' Outflow=0.68 cfs 1,702 cf

Pond YD-4: PROPOSED DRAIN #4 Peak Elev=177.69' Inflow=2.61 cfs 6,351 cf
8.0" Round Culvert n=0.013 L=84.0' S=0.0100 '/' Outflow=2.61 cfs 6,351 cf

Total Runoff Area = 139,588 sf Runoff Volume = 59,504 cf Average Runoff Depth = 5.12"
24.56% Pervious = 34,277 sf 75.44% Impervious = 105,311 sf

Summary for Subcatchment DA-1: DA-1

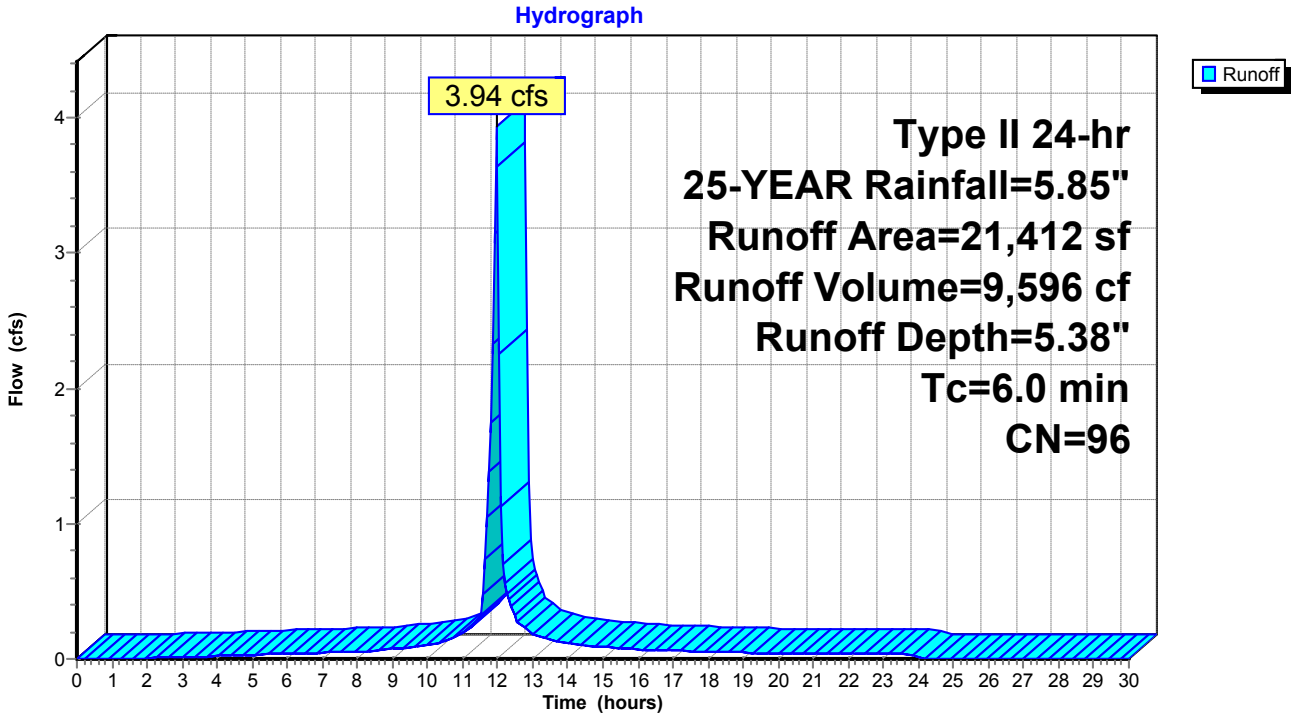
Runoff = 3.94 cfs @ 11.96 hrs, Volume= 9,596 cf, Depth= 5.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
2,951	80	>75% Grass cover, Good, HSG D
17,281	98	Roofs, HSG D
1,180	98	Paved parking, HSG D
21,412	96	Weighted Average
2,951		13.78% Pervious Area
18,461		86.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

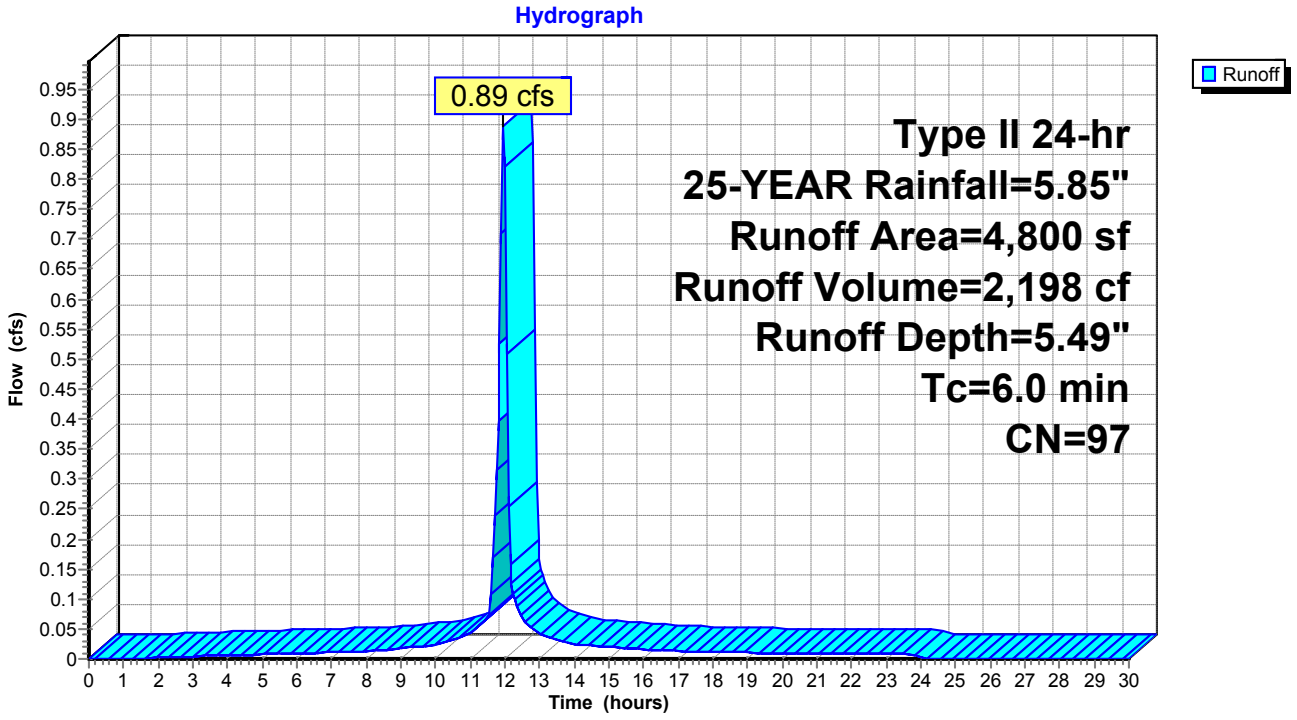
Runoff = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf, Depth= 5.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
245	80	>75% Grass cover, Good, HSG D
2,933	98	Roofs, HSG D
1,622	98	Paved parking, HSG D
4,800	97	Weighted Average
245		5.10% Pervious Area
4,555		94.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

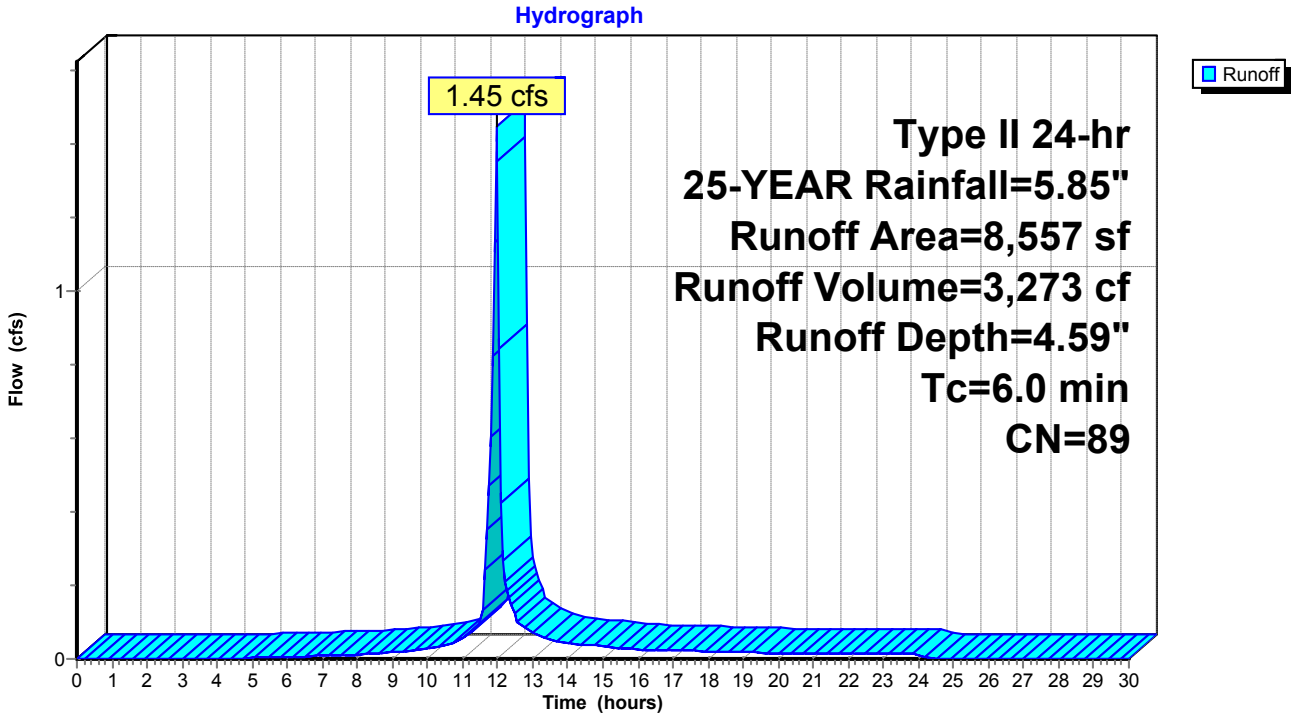
Runoff = 1.45 cfs @ 11.96 hrs, Volume= 3,273 cf, Depth= 4.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
4,132	80	>75% Grass cover, Good, HSG D
3,489	98	Roofs, HSG D
936	98	Paved parking, HSG D
8,557	89	Weighted Average
4,132		48.29% Pervious Area
4,425		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-12: DRAINAGE AREA 12

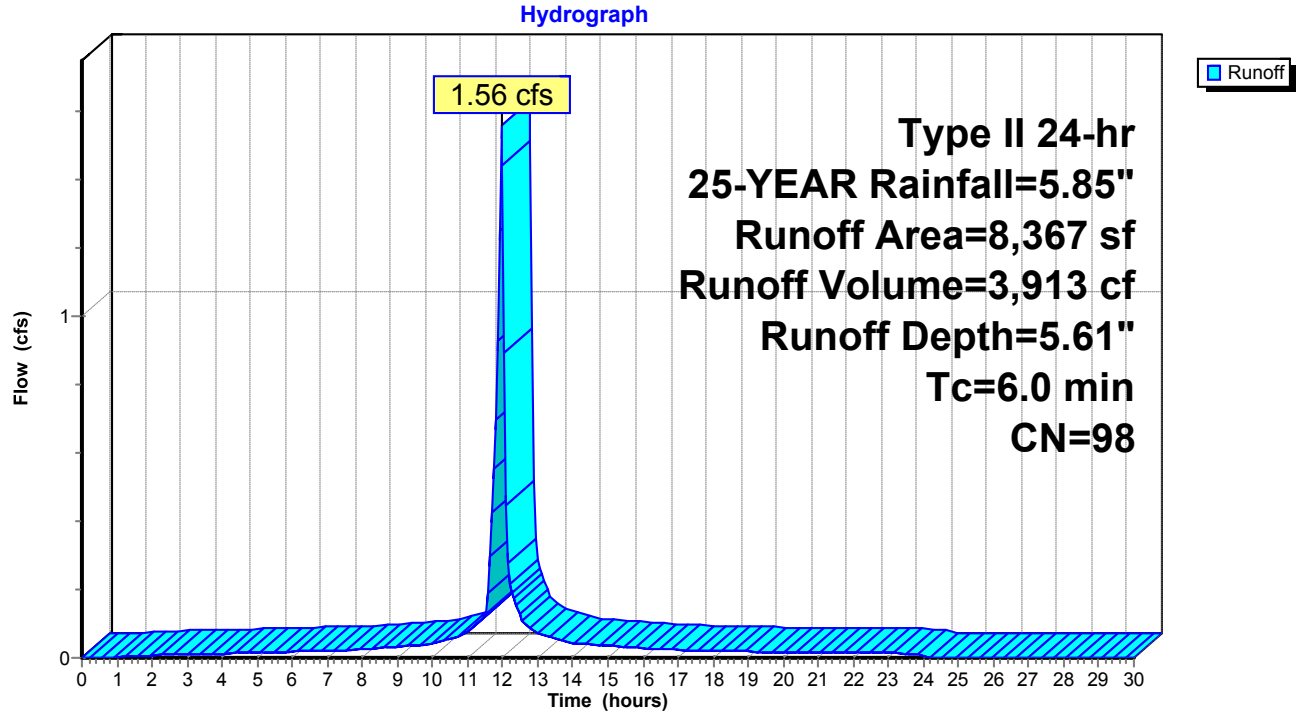
Runoff = 1.56 cfs @ 11.96 hrs, Volume= 3,913 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
8,367	98	Roofs, HSG D
8,367		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-12: DRAINAGE AREA 12



Summary for Subcatchment DA-13: DA-13

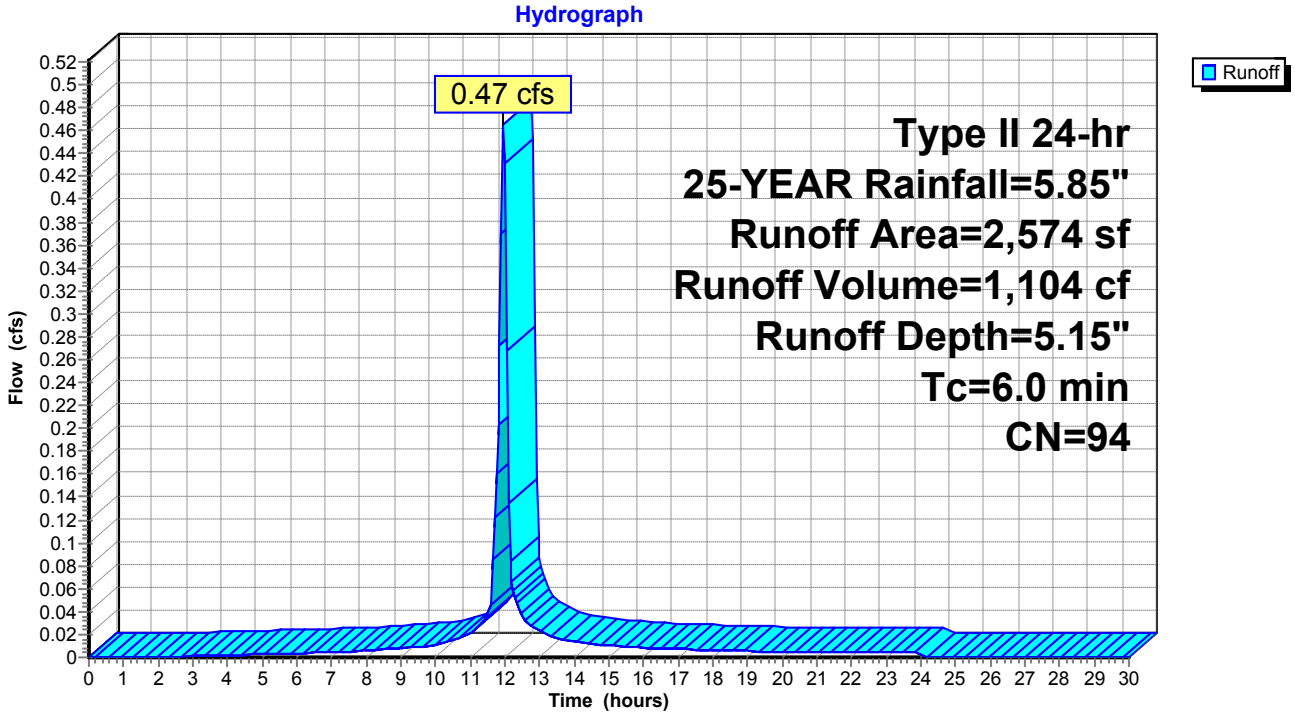
Runoff = 0.47 cfs @ 11.96 hrs, Volume= 1,104 cf, Depth= 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
526	80	>75% Grass cover, Good, HSG D
2,048	98	Paved parking, HSG D
2,574	94	Weighted Average
526		20.44% Pervious Area
2,048		79.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-13: DA-13



Summary for Subcatchment DA-14: DRAINAGE AREA 14

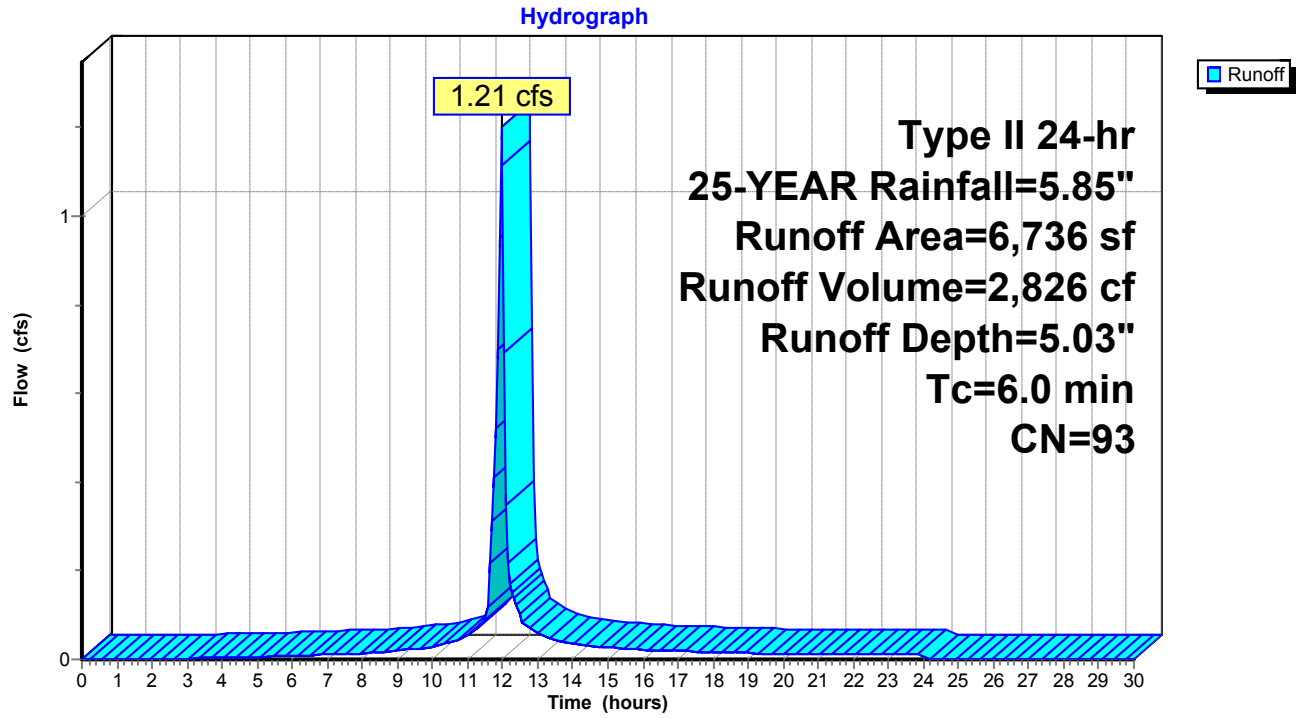
Runoff = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf, Depth= 5.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
2,039	80	>75% Grass cover, Good, HSG D
4,697	98	Paved parking, HSG D
6,736	93	Weighted Average
2,039		30.27% Pervious Area
4,697		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-14: DRAINAGE AREA 14



Summary for Subcatchment DA-15: DA-15

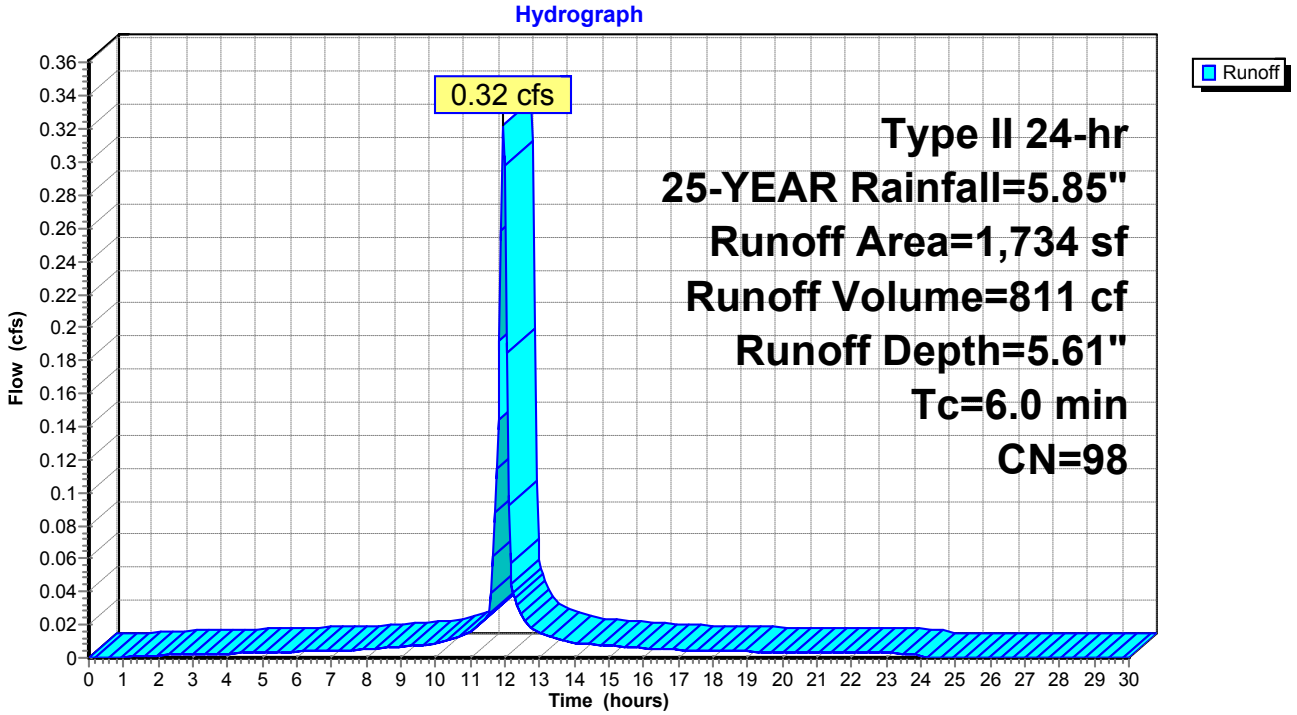
Runoff = 0.32 cfs @ 11.96 hrs, Volume= 811 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,734	98	Roofs, HSG D
1,734		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-15: DA-15



Summary for Subcatchment DA-16: DA-16

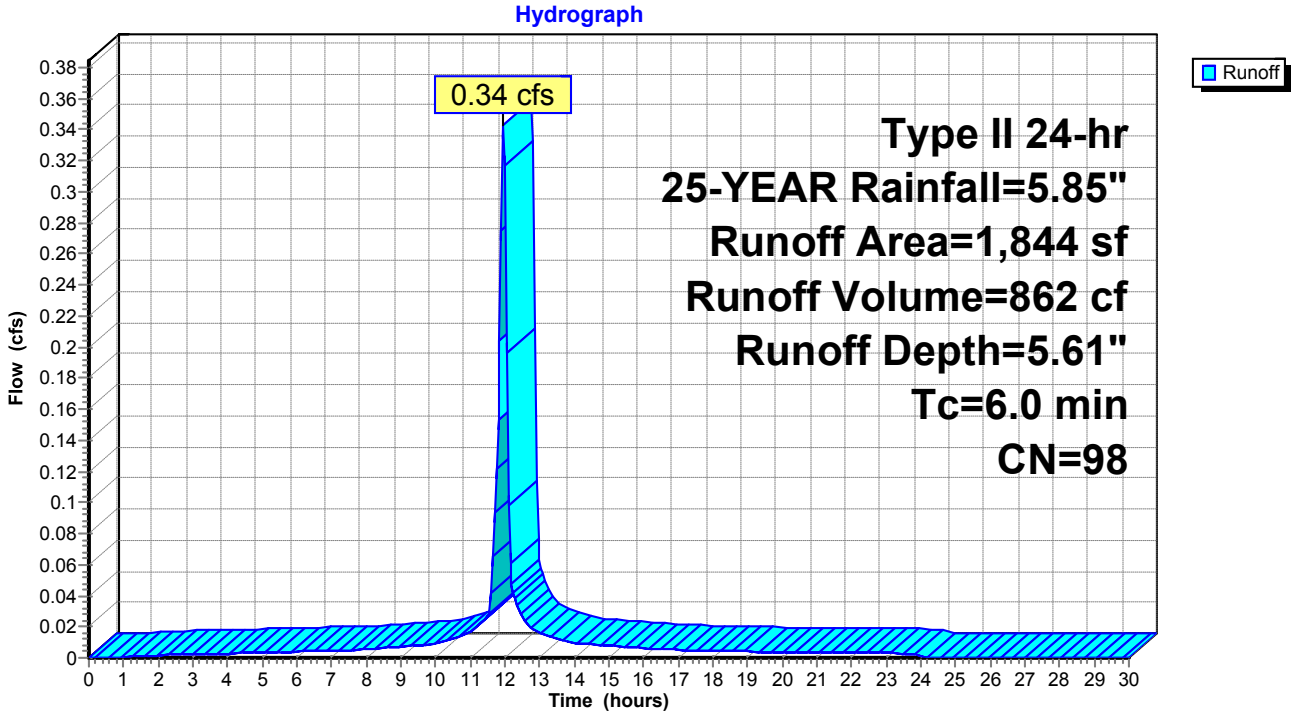
Runoff = 0.34 cfs @ 11.96 hrs, Volume= 862 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,844	98	Roofs, HSG D
1,844		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-16: DA-16



Summary for Subcatchment DA-17: DA-17

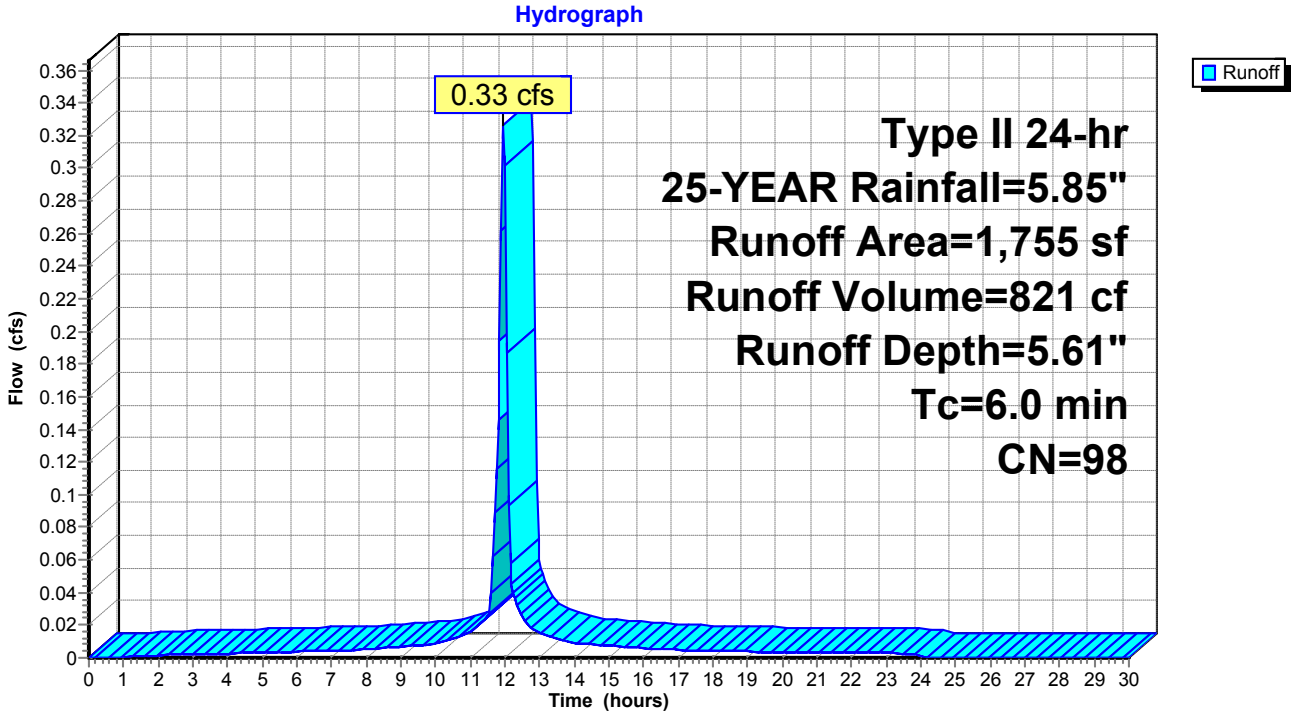
Runoff = 0.33 cfs @ 11.96 hrs, Volume= 821 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,755	98	Roofs, HSG D
1,755		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-17: DA-17



Summary for Subcatchment DA-18: DRAINAGE AREA 18

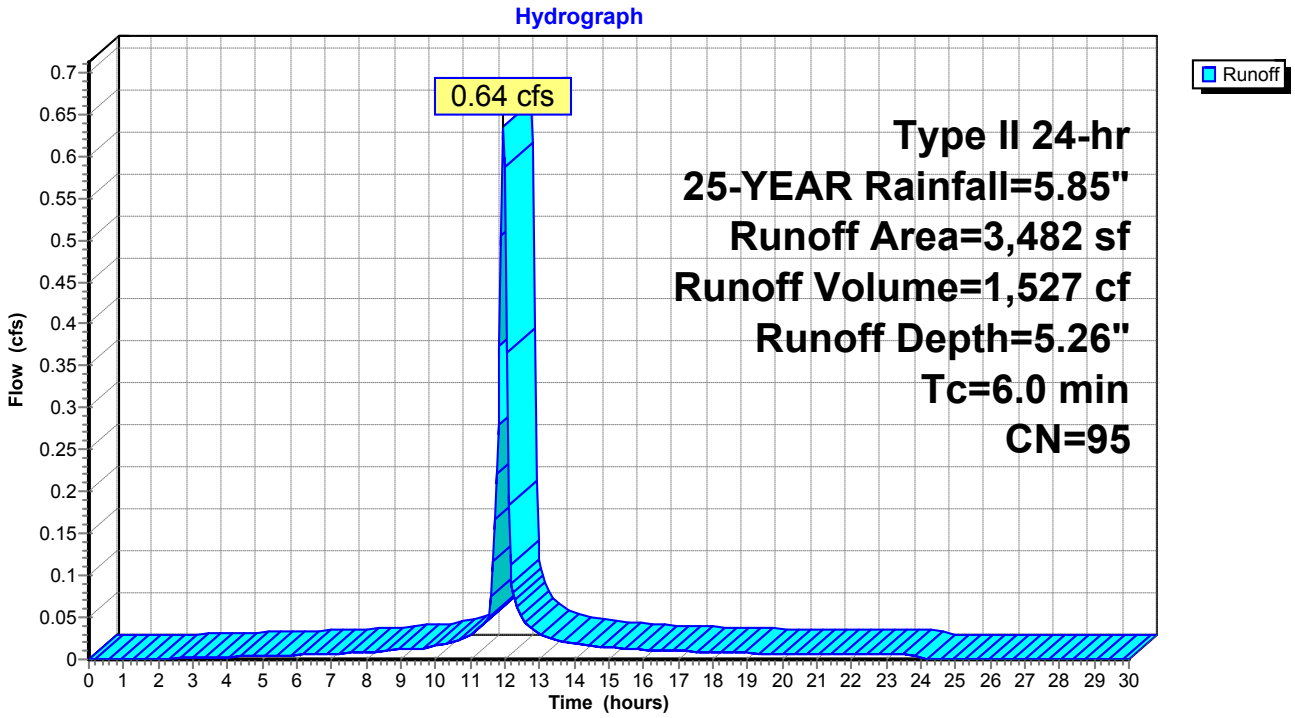
Runoff = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
489	80	>75% Grass cover, Good, HSG D
2,993	98	Paved parking, HSG D
3,482	95	Weighted Average
489		14.04% Pervious Area
2,993		85.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-18: DRAINAGE AREA 18



Summary for Subcatchment DA-2: DA-2

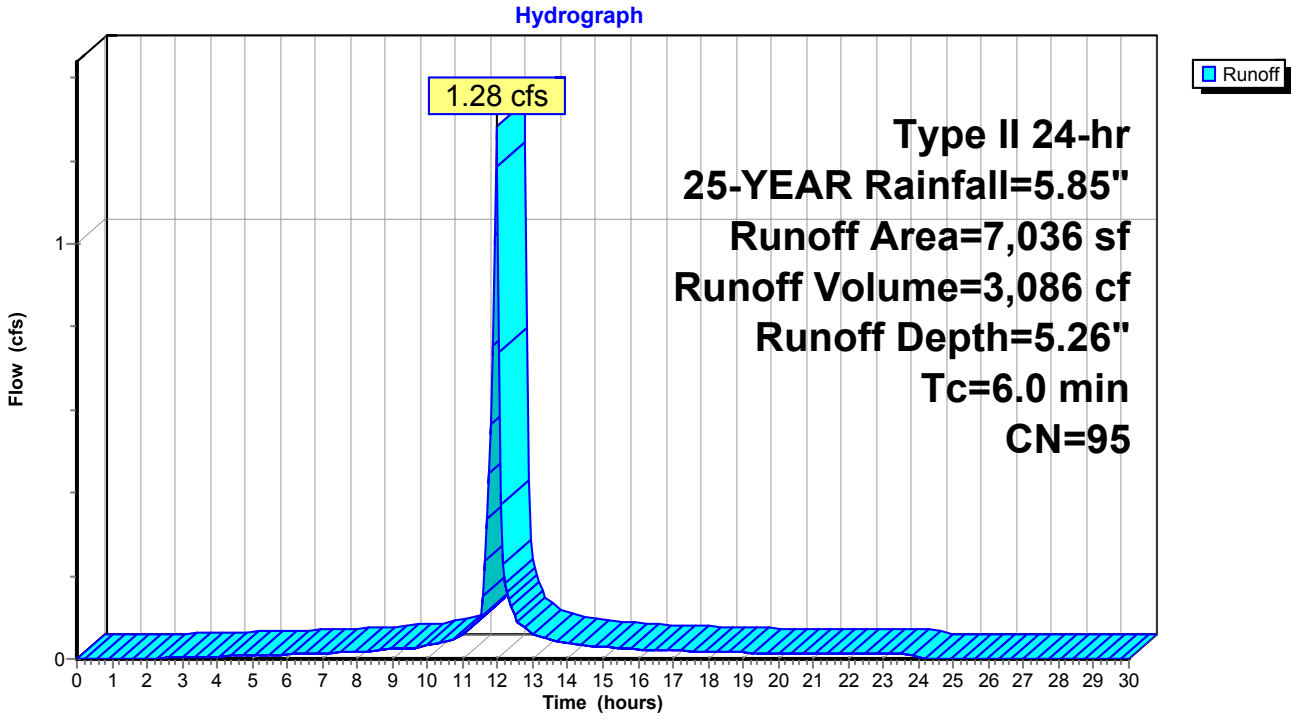
Runoff = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,178	80	>75% Grass cover, Good, HSG D
5,194	98	Roofs, HSG D
664	98	Paved parking, HSG D
7,036	95	Weighted Average
1,178		16.74% Pervious Area
5,858		83.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DRAINAGE AREA 3

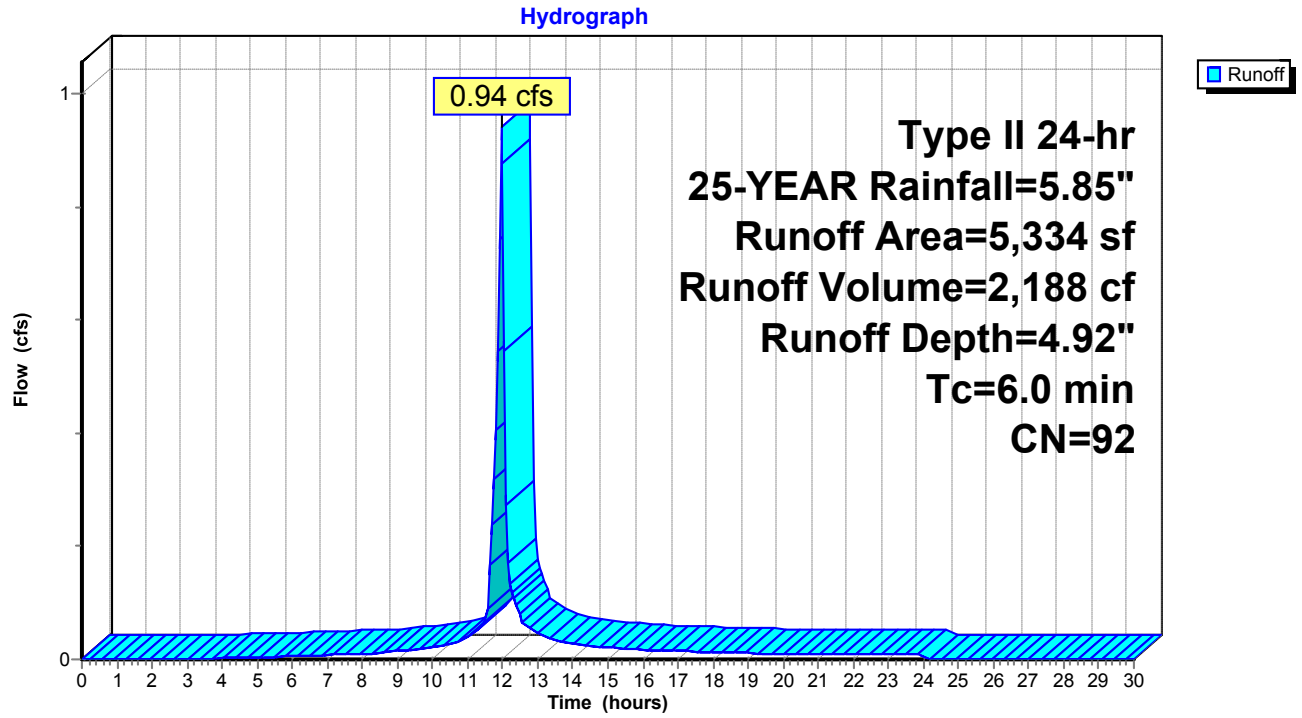
Runoff = 0.94 cfs @ 11.96 hrs, Volume= 2,188 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,820	80	>75% Grass cover, Good, HSG D
3,514	98	Paved parking, HSG D
5,334	92	Weighted Average
1,820		34.12% Pervious Area
3,514		65.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-3: DRAINAGE AREA 3



Summary for Subcatchment DA-4: DRAINAGE AREA 4

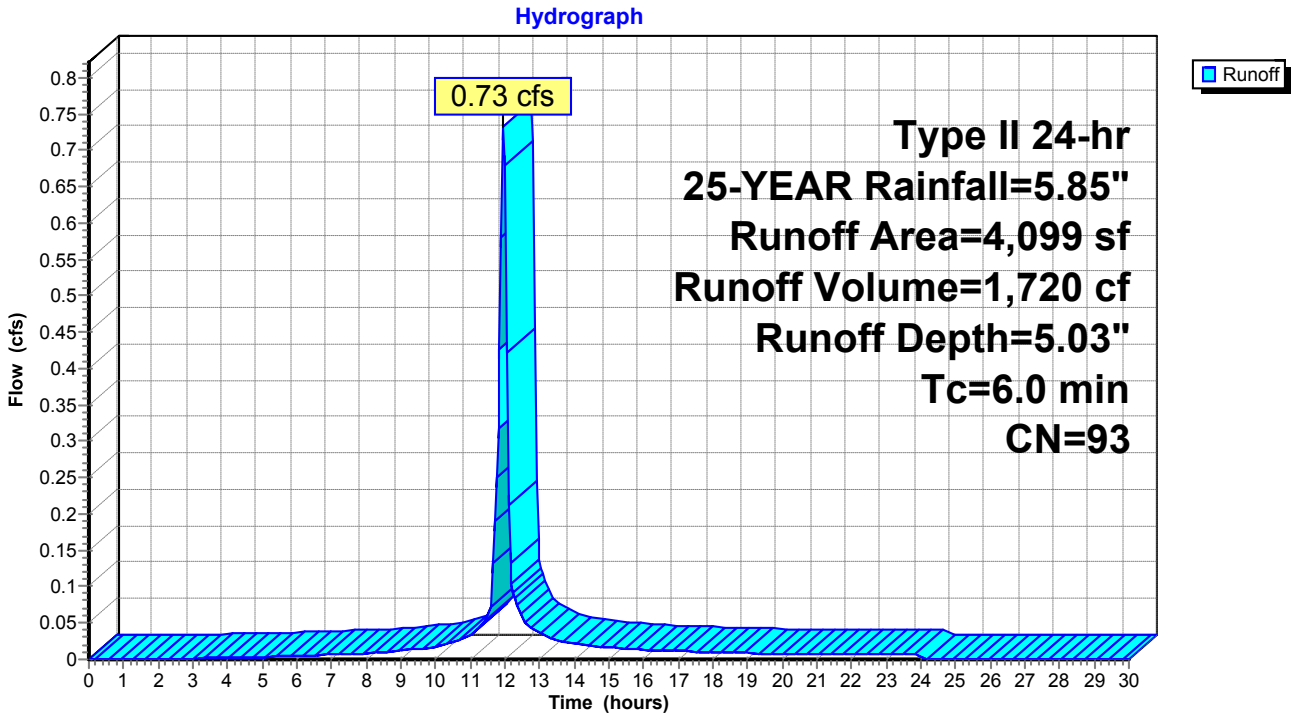
Runoff = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf, Depth= 5.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,032	80	>75% Grass cover, Good, HSG D
3,067	98	Paved parking, HSG D
4,099	93	Weighted Average
1,032		25.18% Pervious Area
3,067		74.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-4: DRAINAGE AREA 4



Summary for Subcatchment DA-5: DRAINAGE AREA 5

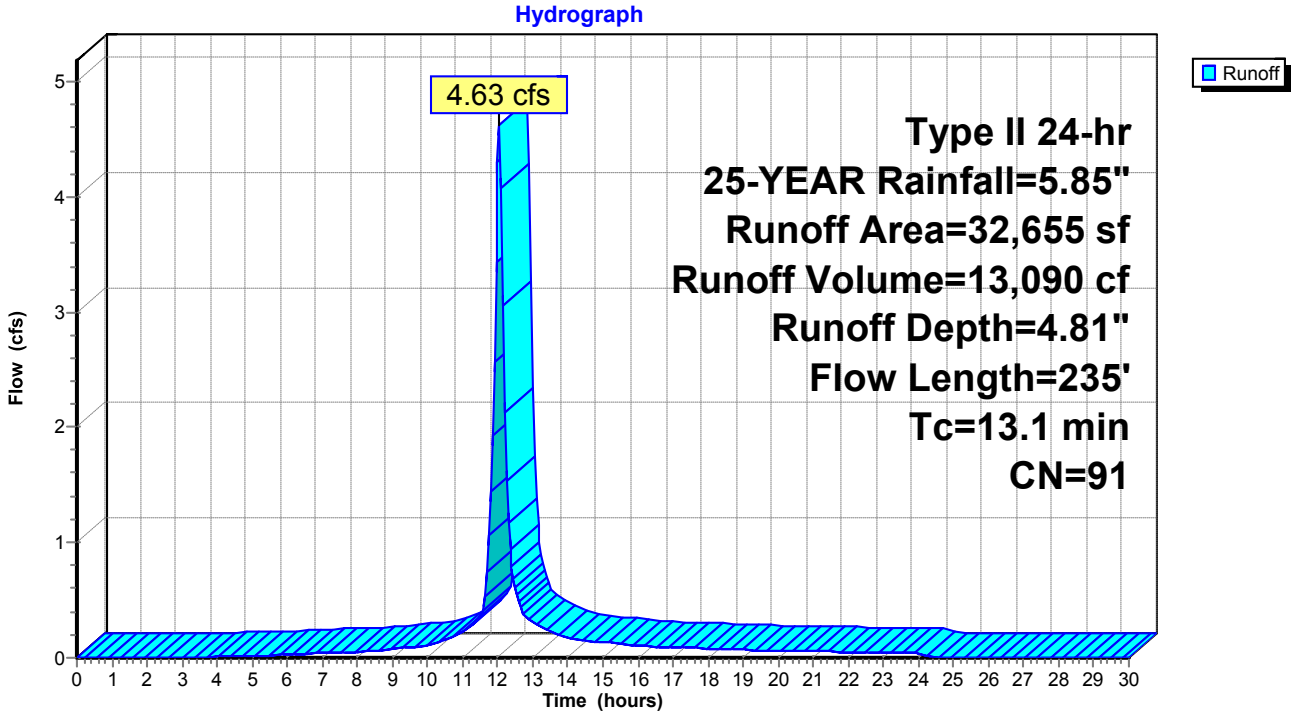
Runoff = 4.63 cfs @ 12.04 hrs, Volume= 13,090 cf, Depth= 4.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
12,737	80	>75% Grass cover, Good, HSG D
19,918	98	Paved parking, HSG D
32,655	91	Weighted Average
12,737		39.00% Pervious Area
19,918		61.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0150	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
1.7	81	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	54	0.0250	3.21		**Shallow Concentrated Flow, C-D** Paved Kv= 20.3 fps
13.1	235	Total			

Subcatchment DA-5: DRAINAGE AREA 5



Summary for Subcatchment DA-6: DA-6

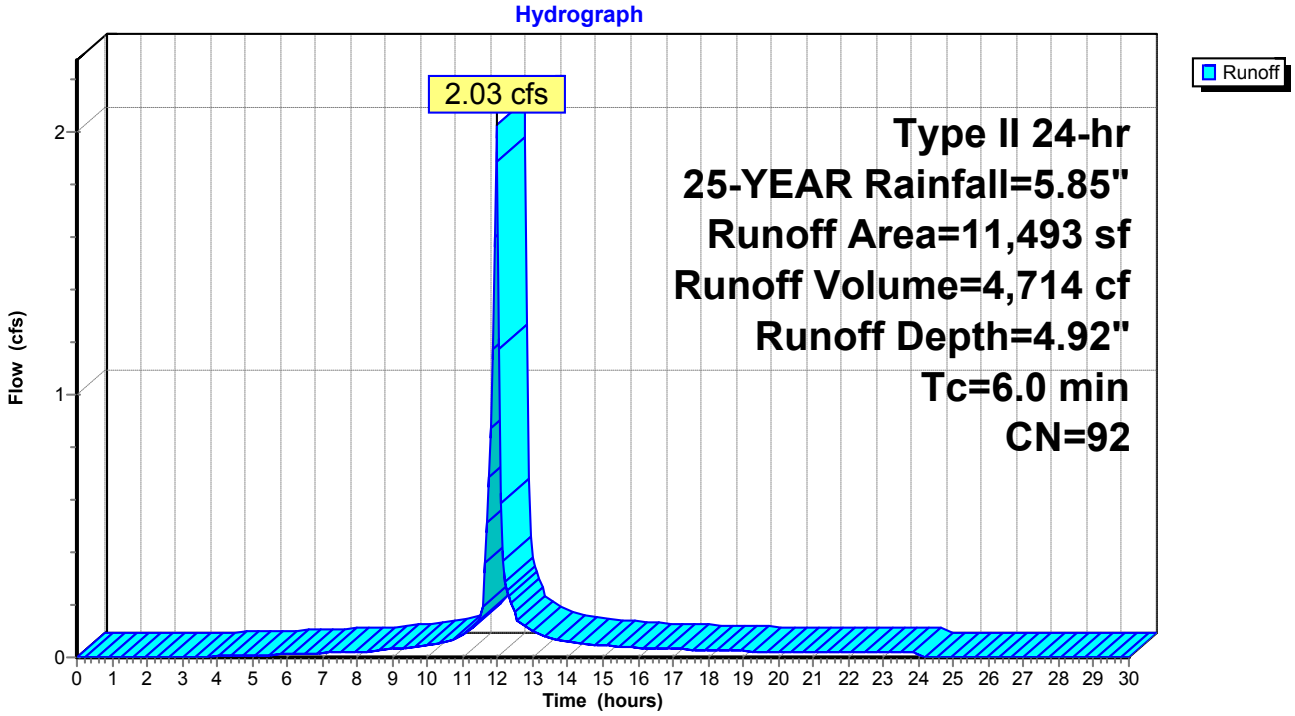
Runoff = 2.03 cfs @ 11.96 hrs, Volume= 4,714 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
3,947	80	>75% Grass cover, Good, HSG D
7,546	98	Paved parking, HSG D
11,493	92	Weighted Average
3,947		34.34% Pervious Area
7,546		65.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

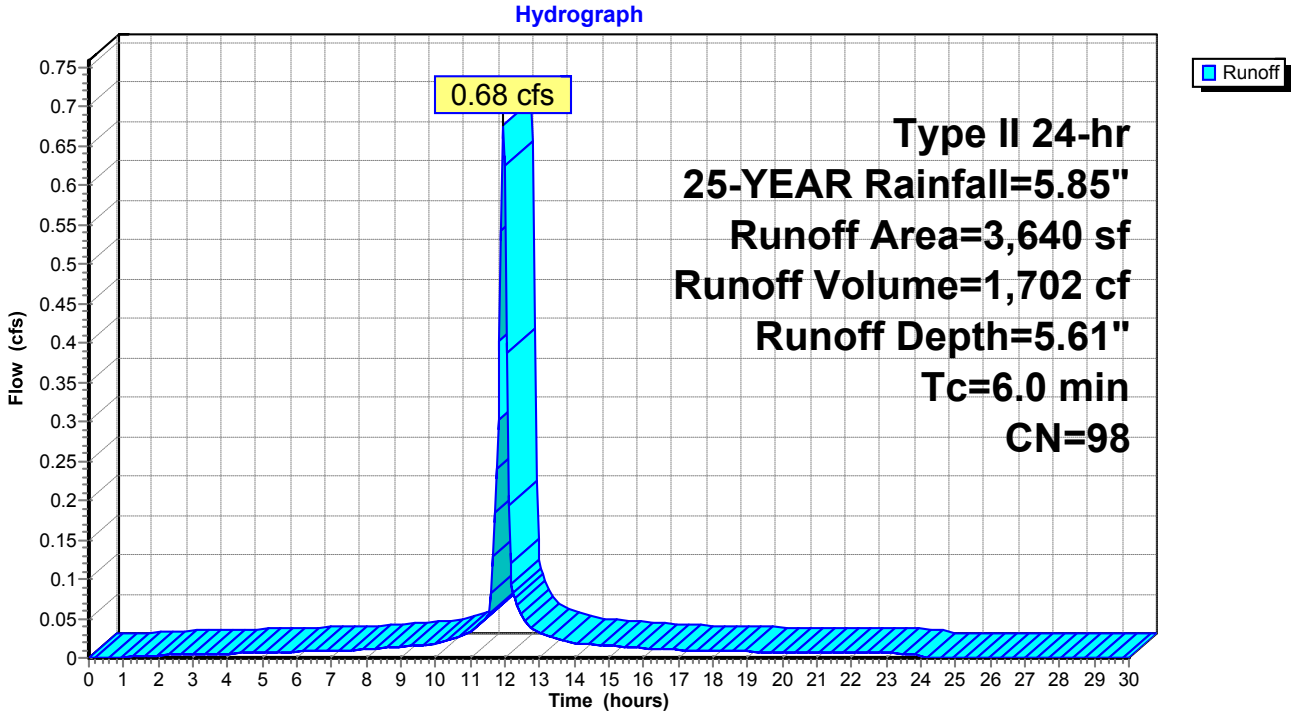
Runoff = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,587	98	Roofs, HSG D
2,053	98	Paved parking, HSG D
3,640	98	Weighted Average
3,640		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

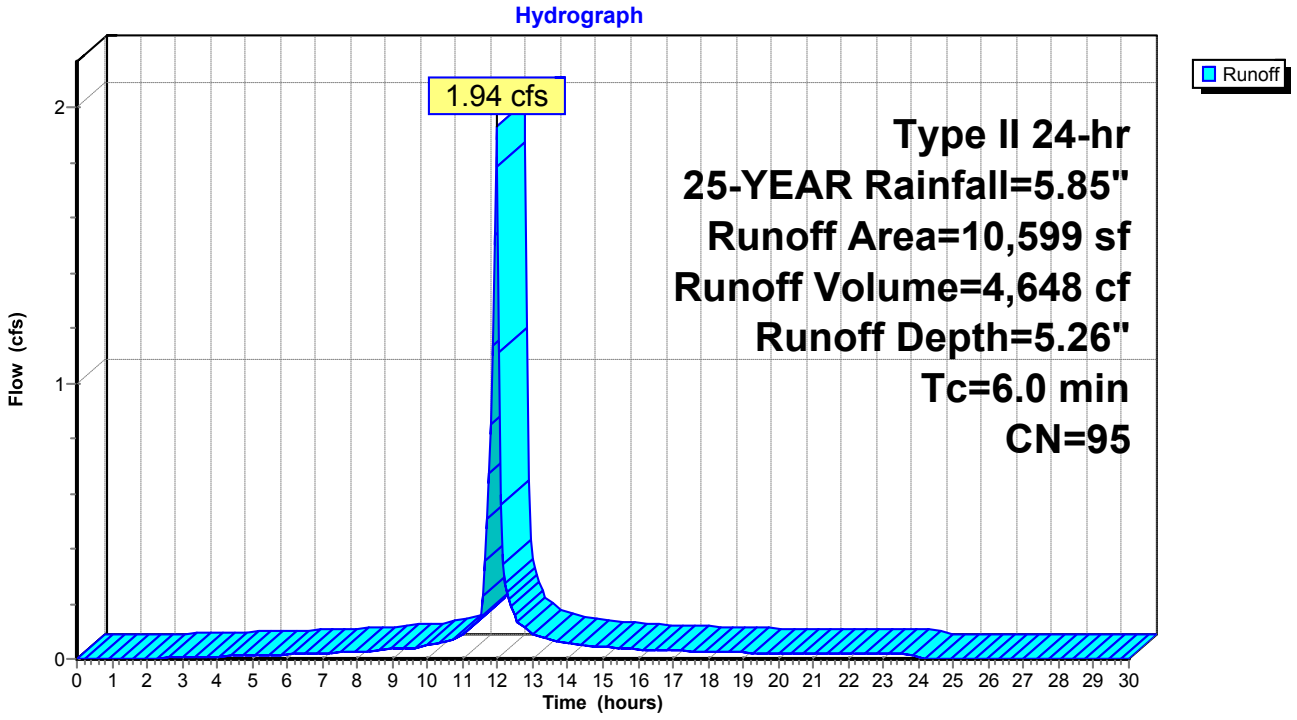
Runoff = 1.94 cfs @ 11.96 hrs, Volume= 4,648 cf, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,986	80	>75% Grass cover, Good, HSG D
6,900	98	Roofs, HSG D
1,713	98	Paved parking, HSG D
10,599	95	Weighted Average
1,986		18.74% Pervious Area
8,613		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DRAINAGE AREA 9

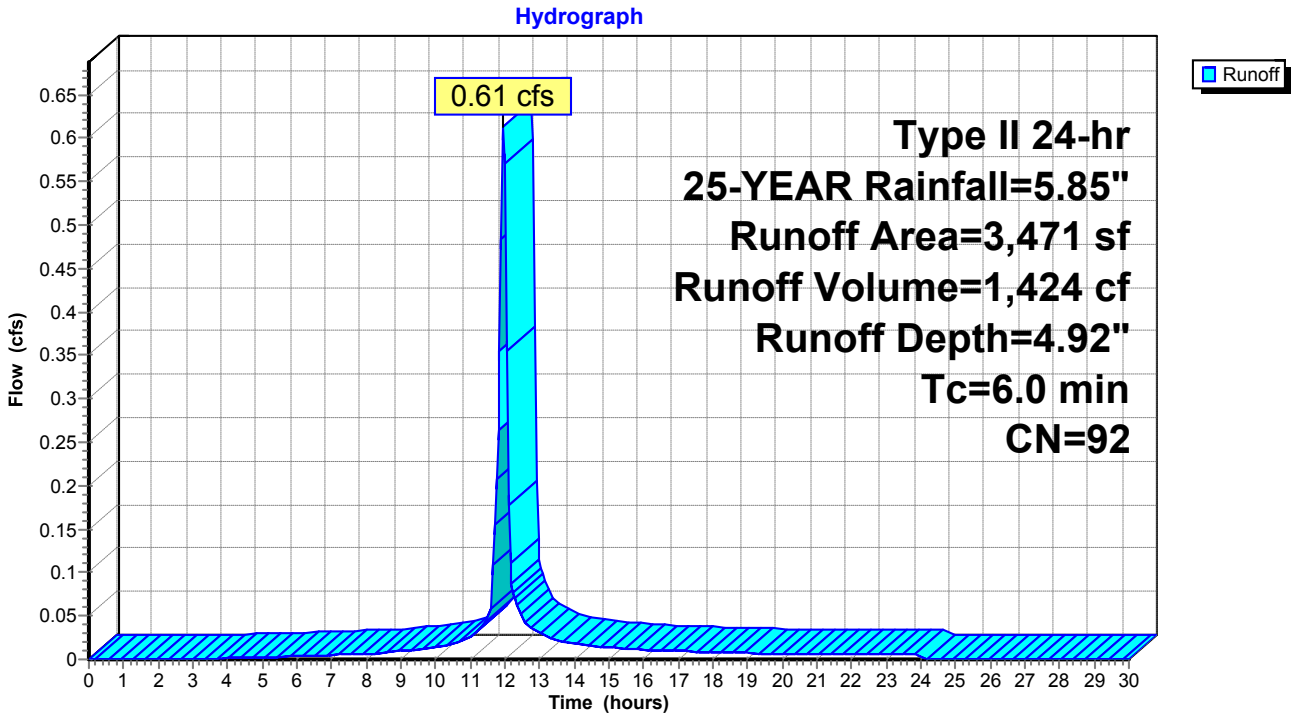
Runoff = 0.61 cfs @ 11.96 hrs, Volume= 1,424 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,195	80	>75% Grass cover, Good, HSG D
2,276	98	Paved parking, HSG D
3,471	92	Weighted Average
1,195		34.43% Pervious Area
2,276		65.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-9: DRAINAGE AREA 9



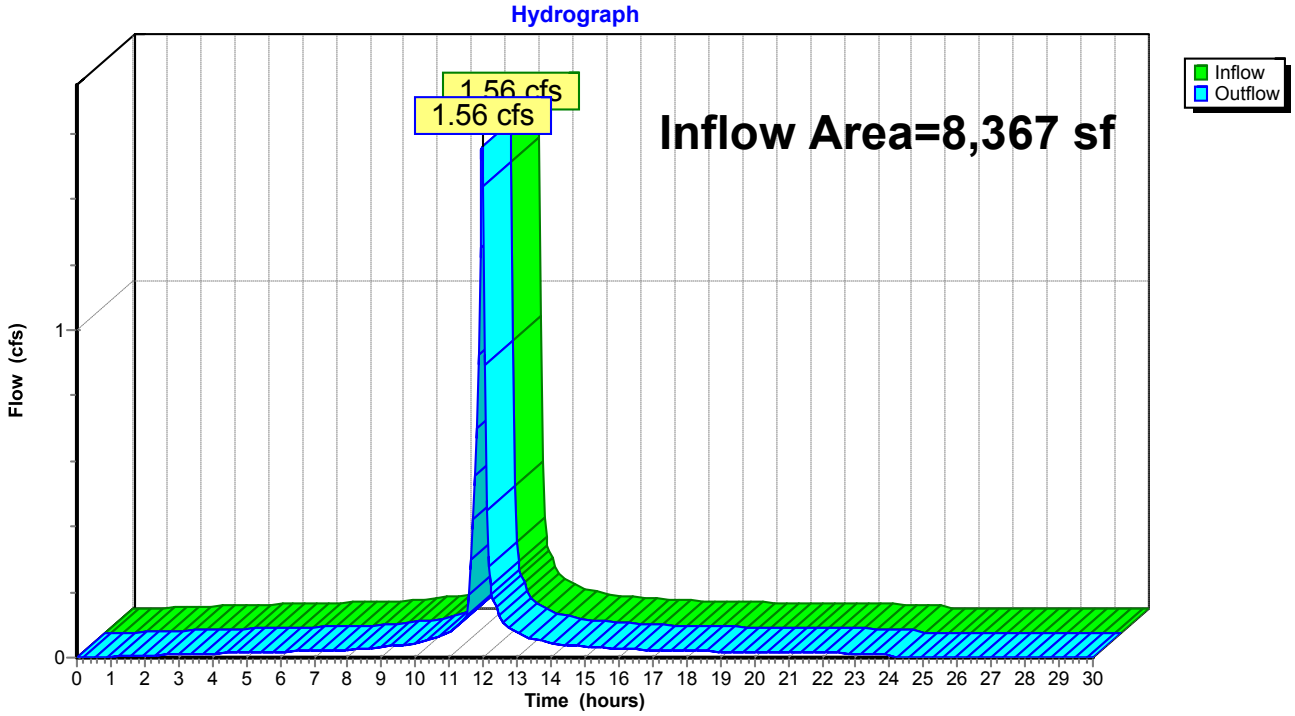
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8,367 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 1.56 cfs @ 11.96 hrs, Volume= 3,913 cf
Outflow = 1.56 cfs @ 11.96 hrs, Volume= 3,913 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 2P: EXISTING DRYWELL

[81] Warning: Exceeded Pond DW-4 by 0.49' @ 18.55 hrs

Inflow Area = 5,334 sf, 65.88% Impervious, Inflow Depth = 14.73" for 25-YEAR event
Inflow = 2.67 cfs @ 11.98 hrs, Volume= 6,546 cf
Outflow = 2.64 cfs @ 12.00 hrs, Volume= 6,546 cf, Atten= 1%, Lag= 1.1 min
Discarded = 0.67 cfs @ 12.00 hrs, Volume= 3,873 cf
Primary = 1.97 cfs @ 12.00 hrs, Volume= 2,673 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.83' @ 12.00 hrs Surf.Area= 1,319 sf Storage= 431 cf

Plug-Flow detention time= 21.9 min calculated for 6,535 cf (100% of inflow)
Center-of-Mass det. time= 21.8 min (773.8 - 751.9)

Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	1,717 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

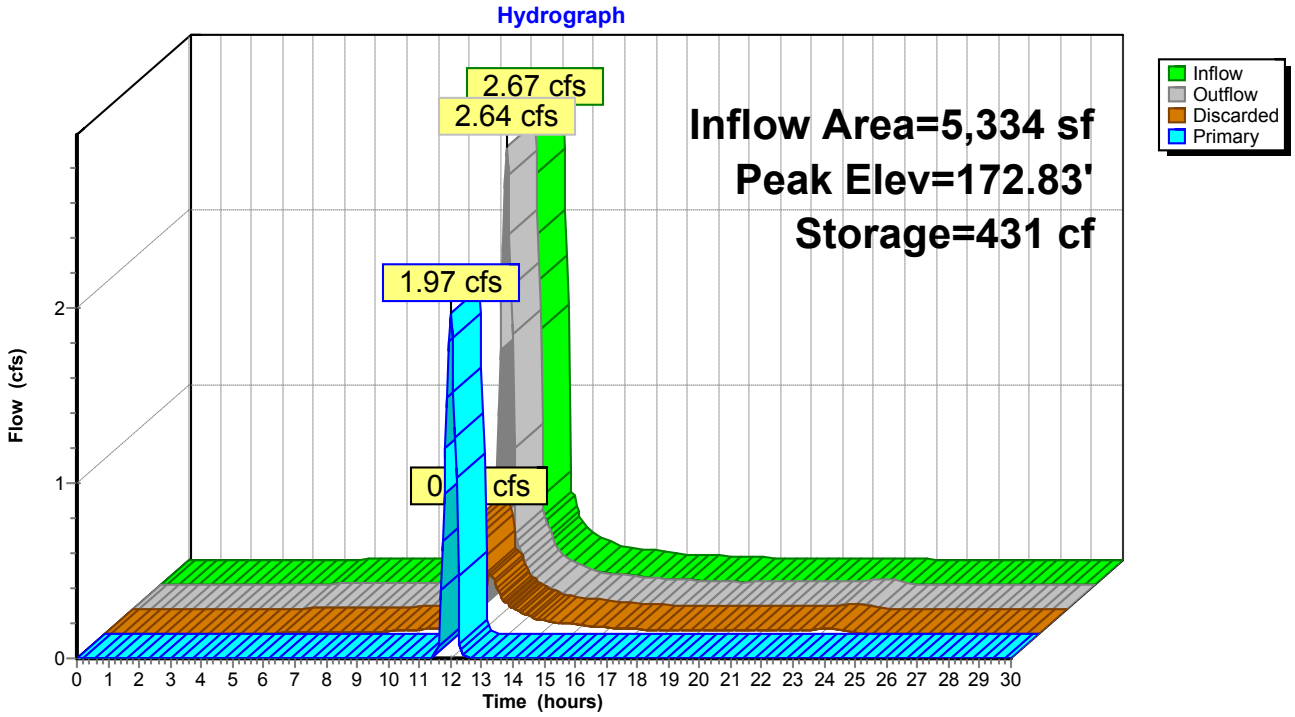
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	2,000	507	717
173.50	2,000	1,000	1,717

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**
#2	Primary	172.65'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.67 cfs @ 12.00 hrs HW=172.83' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.67 cfs)

Primary OutFlow Max=1.95 cfs @ 12.00 hrs HW=172.83' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 1.95 cfs @ 1.38 fps)

Pond 2P: EXISTING DRYWELL



Summary for Pond 3P: PROPOSED CB #3

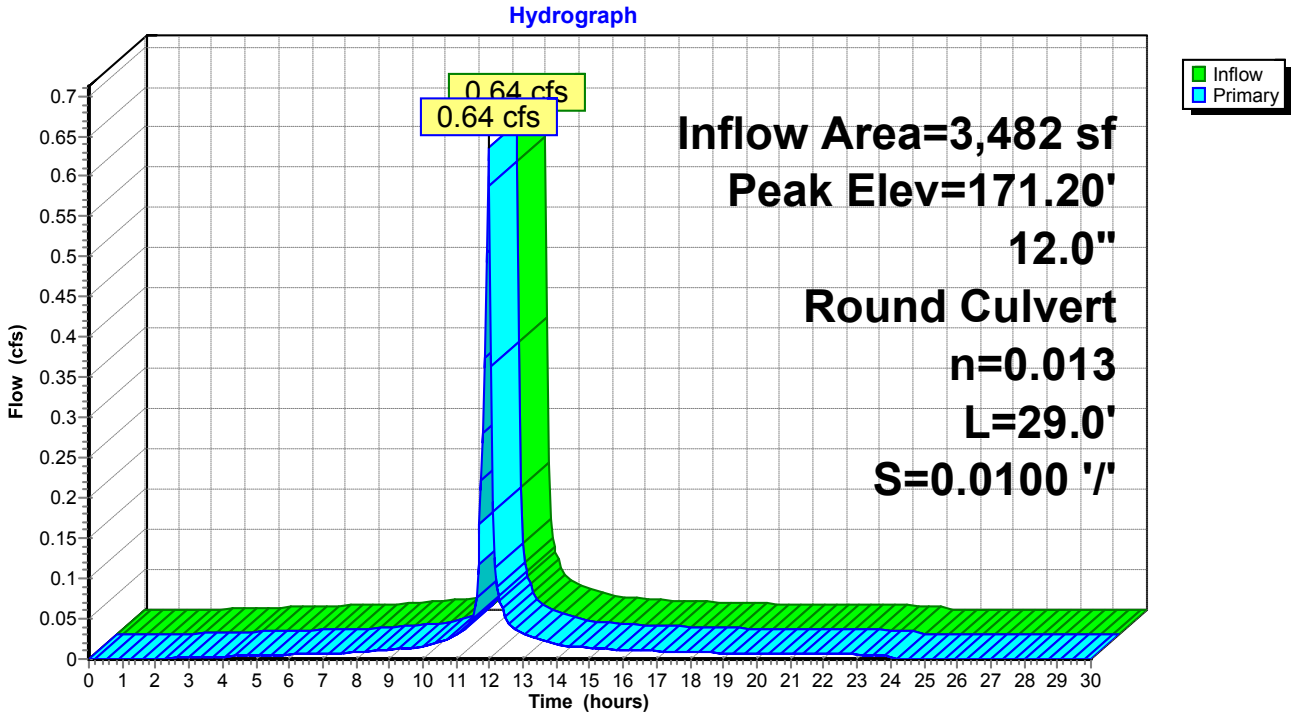
Inflow Area = 3,482 sf, 85.96% Impervious, Inflow Depth = 5.26" for 25-YEAR event
Inflow = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf
Outflow = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.20' @ 11.96 hrs
Flood Elev= 172.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.74'	**12.0" Round Culvert** L= 29.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.74' / 170.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.62 cfs @ 11.96 hrs HW=171.19' (Free Discharge)
1=Culvert (Inlet Controls 0.62 cfs @ 1.80 fps)

Pond 3P: PROPOSED CB #3



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond CB-2 by 2.79' @ 12.15 hrs

Inflow	=	1.67 cfs @	11.96 hrs,	Volume=	5,126 cf
Outflow	=	1.08 cfs @	12.05 hrs,	Volume=	5,126 cf, Atten= 35%, Lag= 5.3 min
Discarded	=	1.08 cfs @	12.05 hrs,	Volume=	5,126 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.52' @ 12.05 hrs Surf.Area= 2,121 sf Storage= 790 cf

Plug-Flow detention time= 42.2 min calculated for 5,126 cf (100% of inflow)
Center-of-Mass det. time= 42.2 min (802.5 - 760.3)

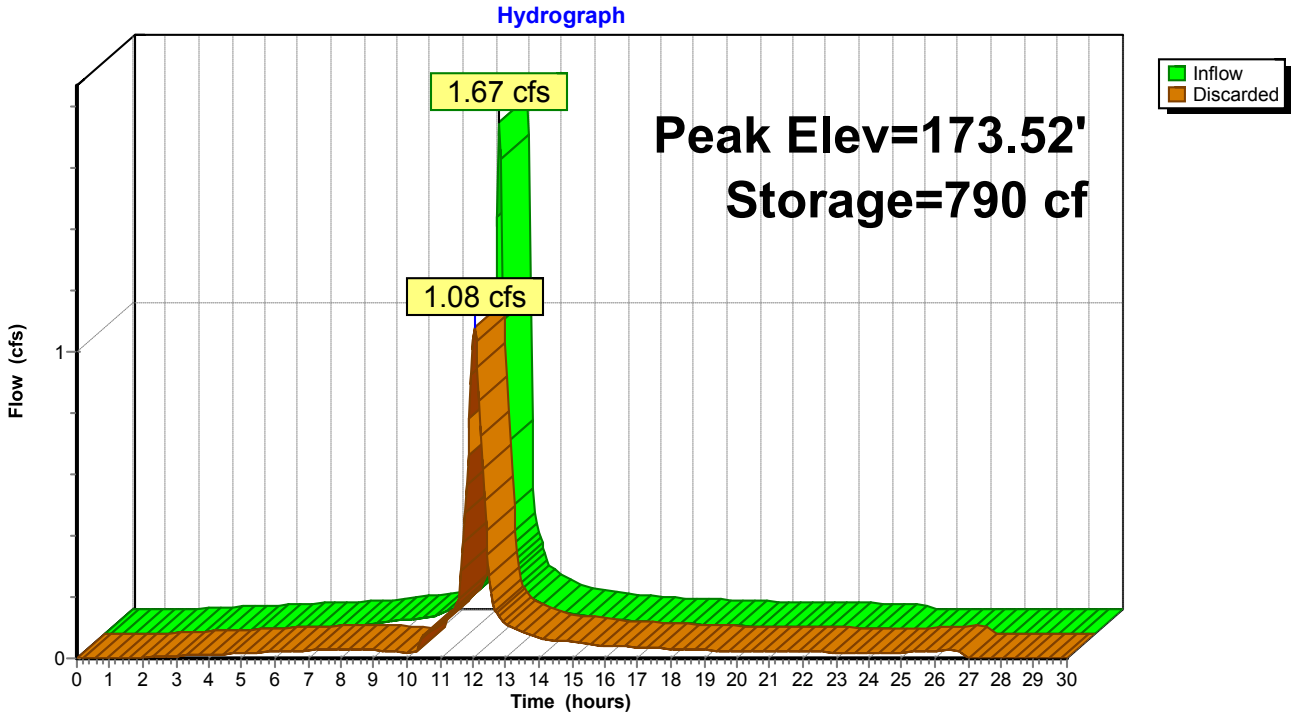
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	112	7	213
174.00	4,000	2,056	2,269

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.08 cfs @ 12.05 hrs HW=173.52' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.08 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 8P: EXISTING YARD DRAIN

[58] Hint: Peaked 69.02' above defined flood level

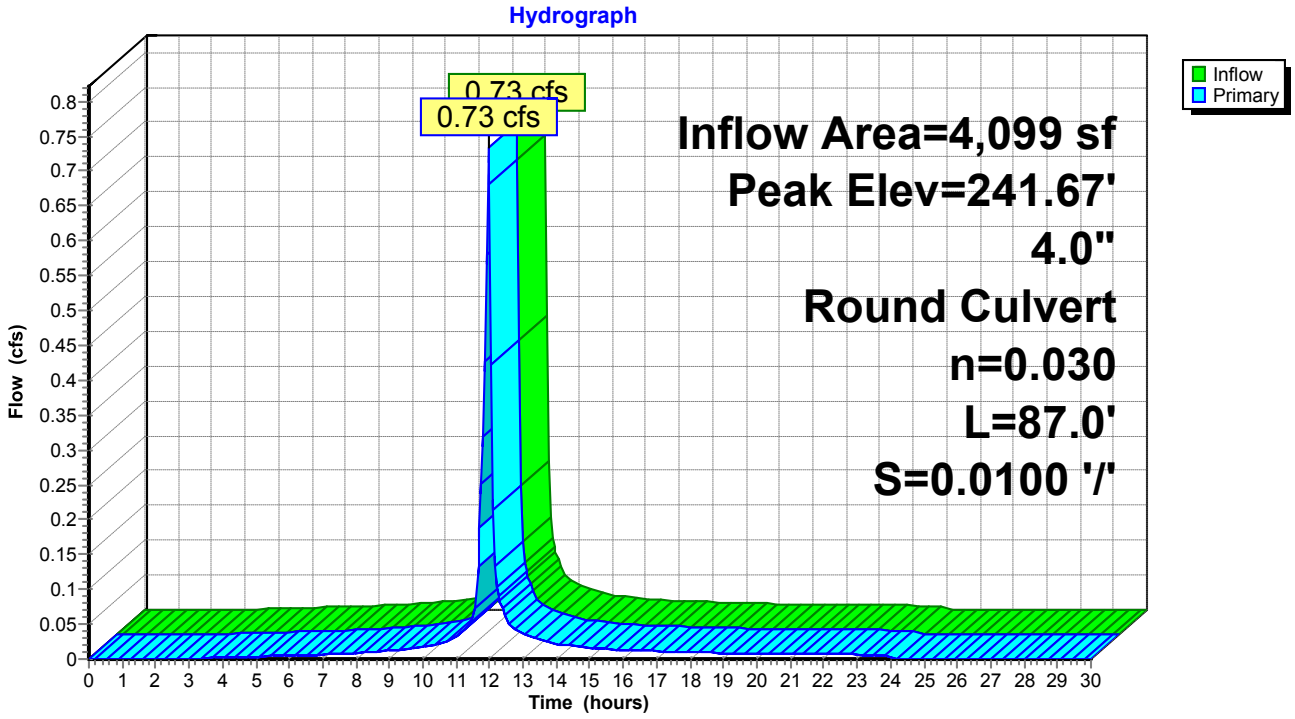
Inflow Area = 4,099 sf, 74.82% Impervious, Inflow Depth = 5.03" for 25-YEAR event
Inflow = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf
Outflow = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 241.67' @ 11.96 hrs
Flood Elev= 172.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.030, Flow Area= 0.09 sf

Primary OutFlow Max=0.72 cfs @ 11.96 hrs HW=238.43' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.72 cfs @ 8.20 fps)

Pond 8P: EXISTING YARD DRAIN



Summary for Pond 12P: EXISTING CB

[81] Warning: Exceeded Pond 3P by 0.91' @ 12.05 hrs

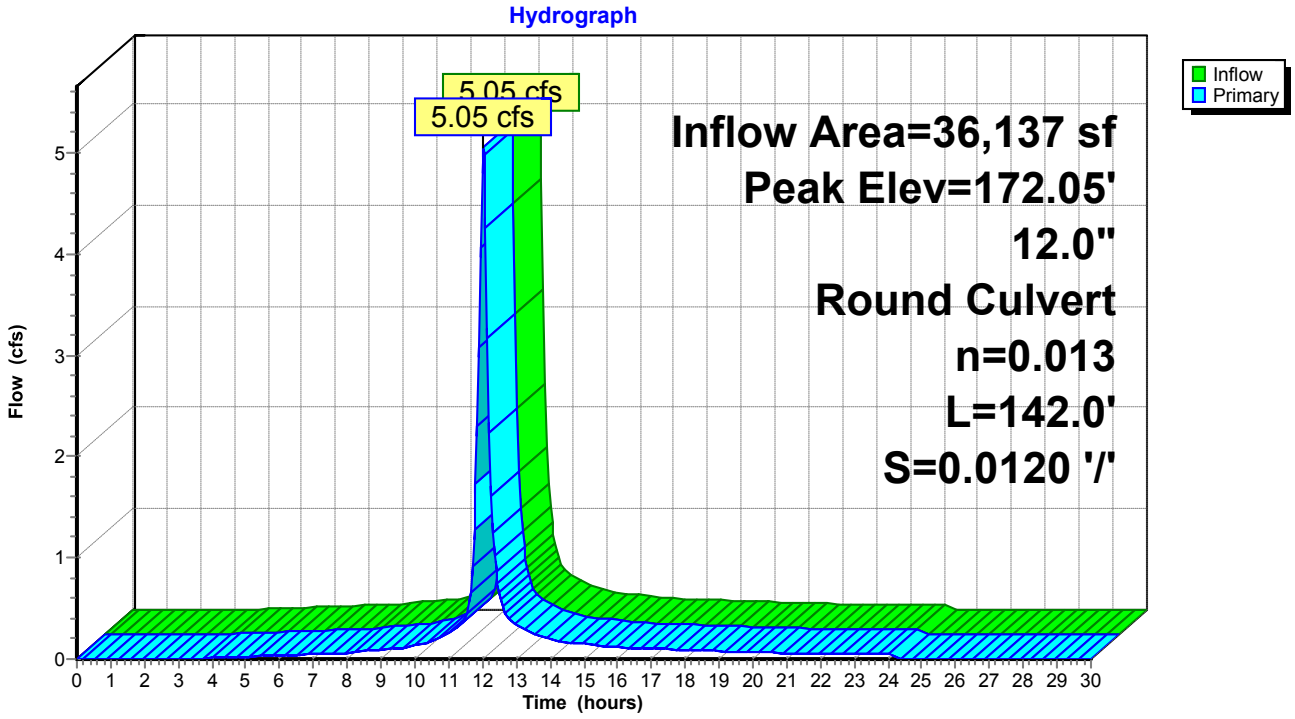
Inflow Area = 36,137 sf, 63.40% Impervious, Inflow Depth = 4.85" for 25-YEAR event
Inflow = 5.05 cfs @ 12.03 hrs, Volume= 14,618 cf
Outflow = 5.05 cfs @ 12.03 hrs, Volume= 14,618 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.05 cfs @ 12.03 hrs, Volume= 14,618 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.05' @ 12.03 hrs
Flood Elev= 172.16'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=4.95 cfs @ 12.03 hrs HW=171.95' (Free Discharge)
1=Culvert (Inlet Controls 4.95 cfs @ 6.31 fps)

Pond 12P: EXISTING CB



Summary for Pond 14P: EXISTING CB

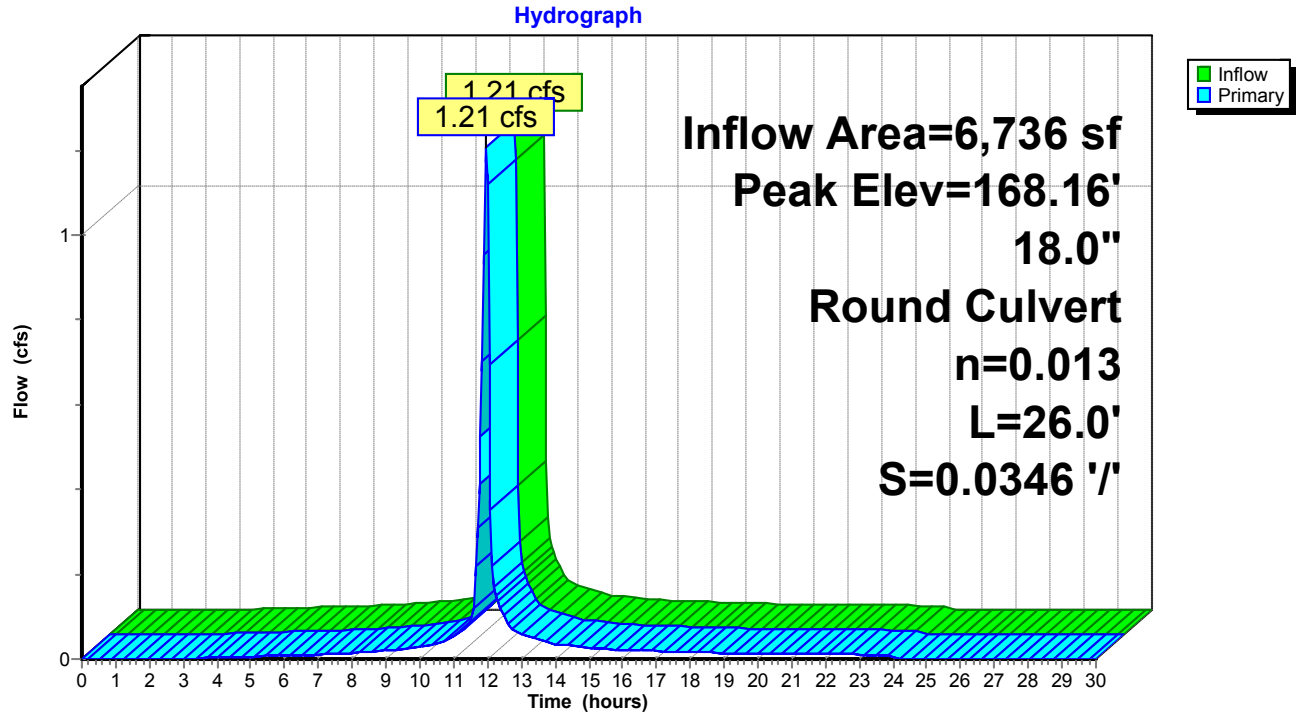
Inflow Area = 6,736 sf, 69.73% Impervious, Inflow Depth = 5.03" for 25-YEAR event
Inflow = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf
Outflow = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.16' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=1.17 cfs @ 11.96 hrs HW=168.15' (Free Discharge)
1=Culvert (Inlet Controls 1.17 cfs @ 2.00 fps)

Pond 14P: EXISTING CB



Summary for Pond CB-1: PROPOSED CATCH BASIN #1

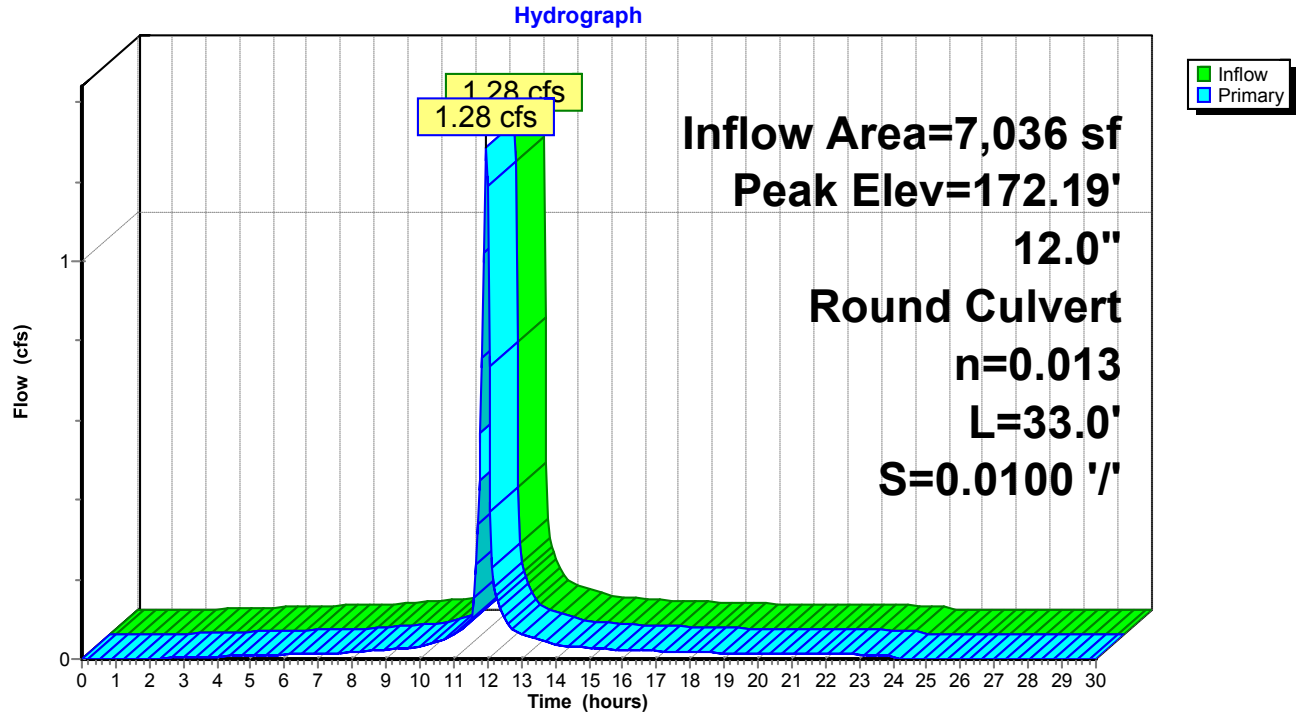
Inflow Area = 7,036 sf, 83.26% Impervious, Inflow Depth = 5.26" for 25-YEAR event
Inflow = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf
Outflow = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.19' @ 11.96 hrs
Flood Elev= 172.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.50'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.50' / 171.17' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.25 cfs @ 11.96 hrs HW=172.18' (Free Discharge)
1=Culvert (Inlet Controls 1.25 cfs @ 2.21 fps)

Pond CB-1: PROPOSED CATCH BASIN #1



Summary for Pond CB-2: PR CB #2

[57] Hint: Peaked at 172.16' (Flood elevation advised)
[79] Warning: Submerged Pond CB-1 Primary device # 1 INLET by 0.65'

Inflow Area =	28,448 sf,	85.49% Impervious,	Inflow Depth =	5.35"	for 25-YEAR event
Inflow =	5.23 cfs @	11.96 hrs,	Volume=	12,682 cf	
Outflow =	5.23 cfs @	11.96 hrs,	Volume=	12,682 cf,	Atten= 0%, Lag= 0.0 min
Primary =	3.56 cfs @	11.96 hrs,	Volume=	7,556 cf	
Secondary =	1.67 cfs @	11.96 hrs,	Volume=	5,126 cf	

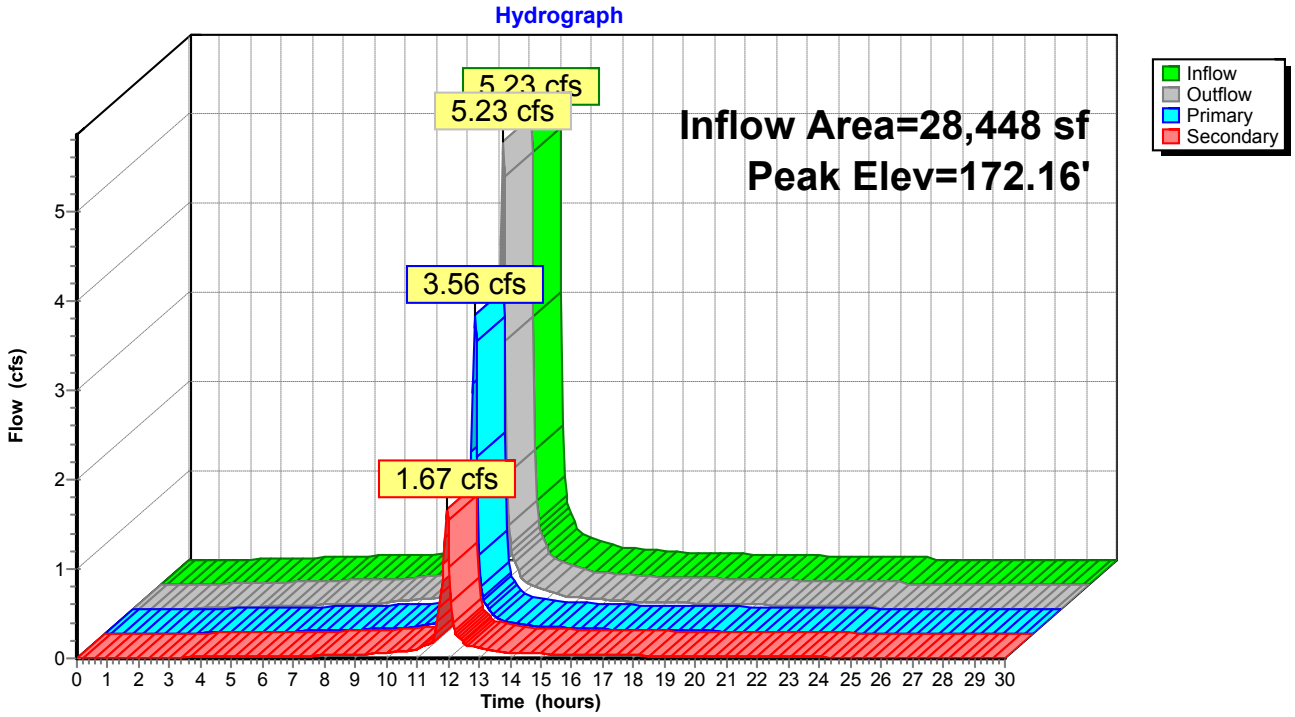
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.16' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.25'	**12.0" Round Culvert** L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	170.25'	**8.0" Round Culvert** L= 12.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=3.47 cfs @ 11.96 hrs HW=172.10' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 3.47 cfs @ 4.42 fps)

Secondary OutFlow Max=1.63 cfs @ 11.96 hrs HW=172.10' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 1.63 cfs @ 4.68 fps)

Pond CB-2: PR CB #2



Summary for Pond DP-1: Existing Catch Basin

[79] Warning: Submerged Pond 12P Primary device # 1 INLET by 0.58'
[81] Warning: Exceeded Pond 14P by 1.15' @ 12.00 hrs

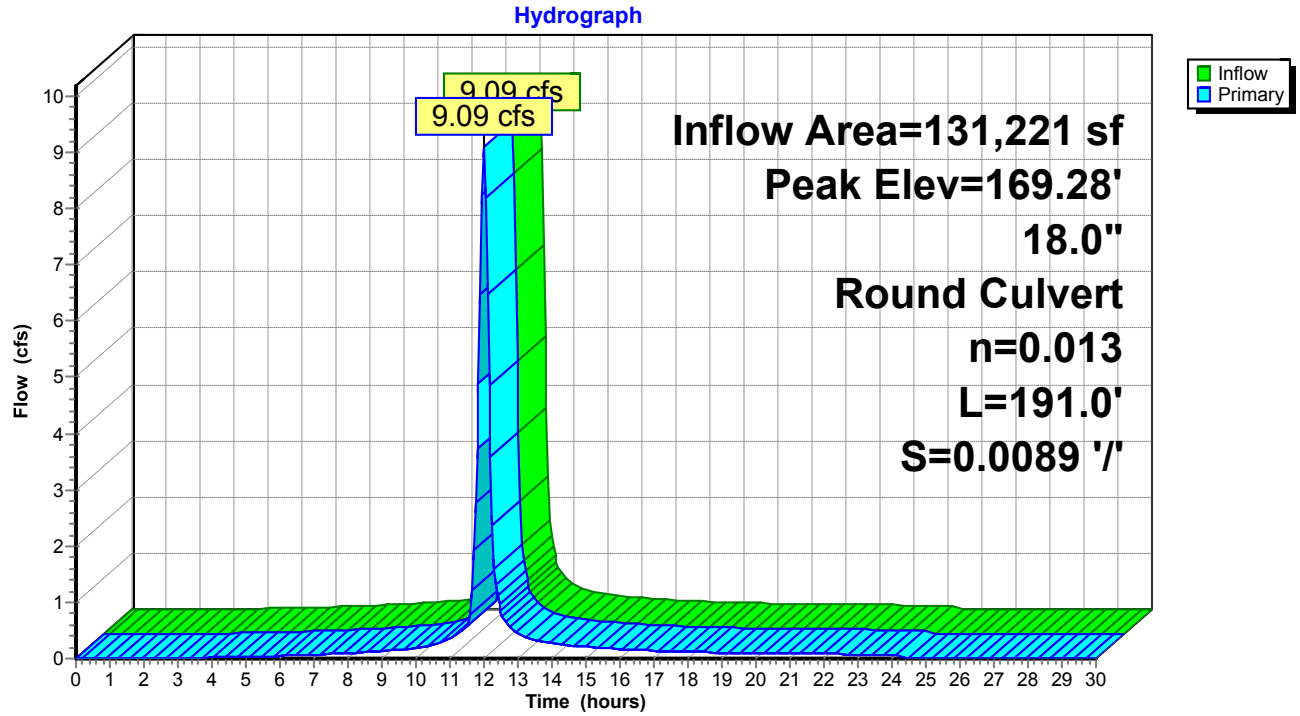
Inflow Area = 131,221 sf, 73.88% Impervious, Inflow Depth = 2.10" for 25-YEAR event
Inflow = 9.09 cfs @ 12.00 hrs, Volume= 22,940 cf
Outflow = 9.09 cfs @ 12.00 hrs, Volume= 22,940 cf, Atten= 0%, Lag= 0.0 min
Primary = 9.09 cfs @ 12.00 hrs, Volume= 22,940 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.28' @ 12.00 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=9.08 cfs @ 12.00 hrs HW=169.28' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 9.08 cfs @ 5.14 fps)

Pond DP-1: Existing Catch Basin



Summary for Pond DW-1: PROPOSED DRYWELL #1

Inflow Area = 3,471 sf, 65.57% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 0.61 cfs @ 11.96 hrs, Volume= 1,424 cf
Outflow = 0.23 cfs @ 12.00 hrs, Volume= 1,424 cf, Atten= 63%, Lag= 2.2 min
Discarded = 0.23 cfs @ 12.00 hrs, Volume= 1,424 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.37' @ 12.09 hrs Surf.Area= 310 sf Storage= 411 cf

Plug-Flow detention time= 32.7 min calculated for 1,421 cf (100% of inflow)
Center-of-Mass det. time= 32.6 min (807.1 - 774.5)

Volume	Invert	Avail.Storage	Storage Description
#1	164.00'	712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	163.00'	38 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 94 cf Overall x 40.0% Voids
		750 cf	Total Available Storage

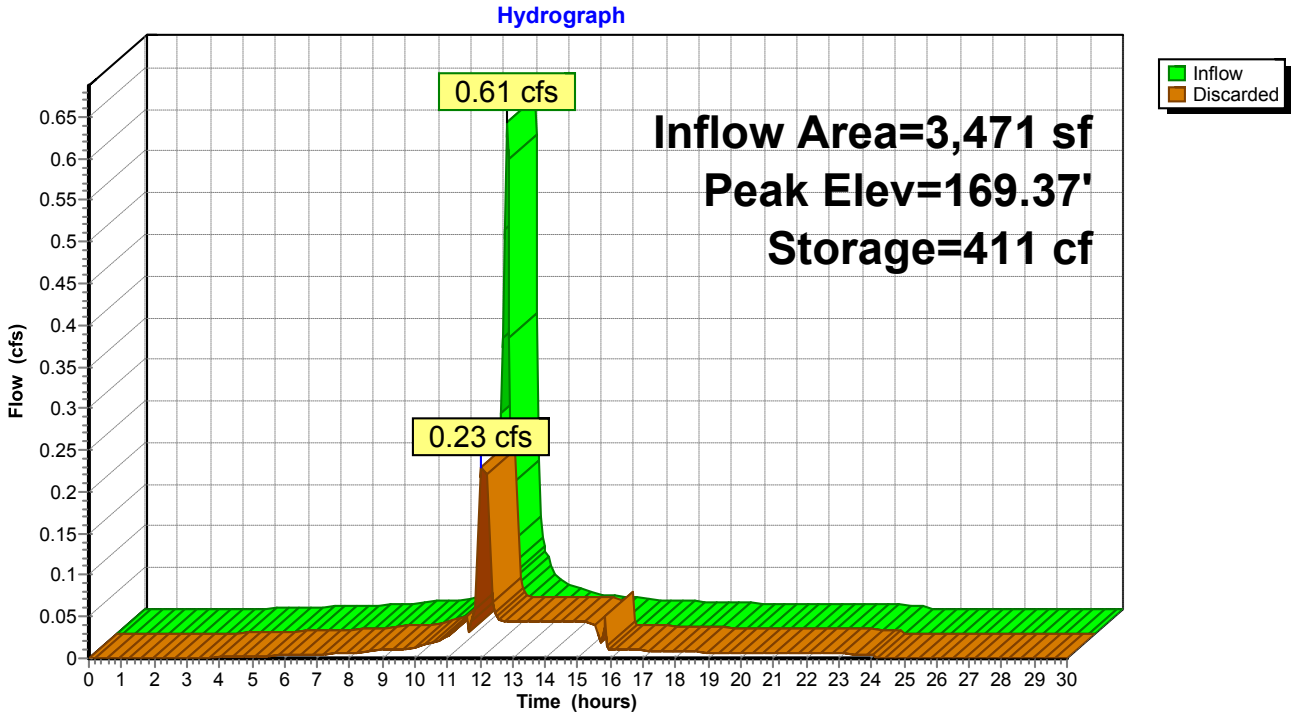
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	50	0	0
168.90	50	245	245
169.00	300	17	262
170.50	300	450	712

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	78	0	0
164.00	10	44	44
169.00	10	50	94

Device	Routing	Invert	Outlet Devices
#1	Discarded	163.00'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.23 cfs @ 12.00 hrs HW=169.21' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.23 cfs)

Pond DW-1: PROPOSED DRYWELL #1



Summary for Pond DW-2: PROPOSED DRYWELL #2

[81] Warning: Exceeded Pond YD-2 by 2.78' @ 15.80 hrs

Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 2.34 cfs @ 11.96 hrs, Volume= 5,471 cf
Outflow = 1.91 cfs @ 12.02 hrs, Volume= 5,472 cf, Atten= 18%, Lag= 3.1 min
Discarded = 1.91 cfs @ 12.02 hrs, Volume= 5,472 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.79' @ 12.02 hrs Surf.Area= 2,577 sf Storage= 818 cf

Plug-Flow detention time= 45.1 min calculated for 5,463 cf (100% of inflow)
Center-of-Mass det. time= 45.2 min (816.1 - 770.9)

Volume	Invert	Avail.Storage	Storage Description
#1	167.78'	1,499 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	166.50'	53 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 134 cf Overall x 40.0% Voids
		1,552 cf	Total Available Storage

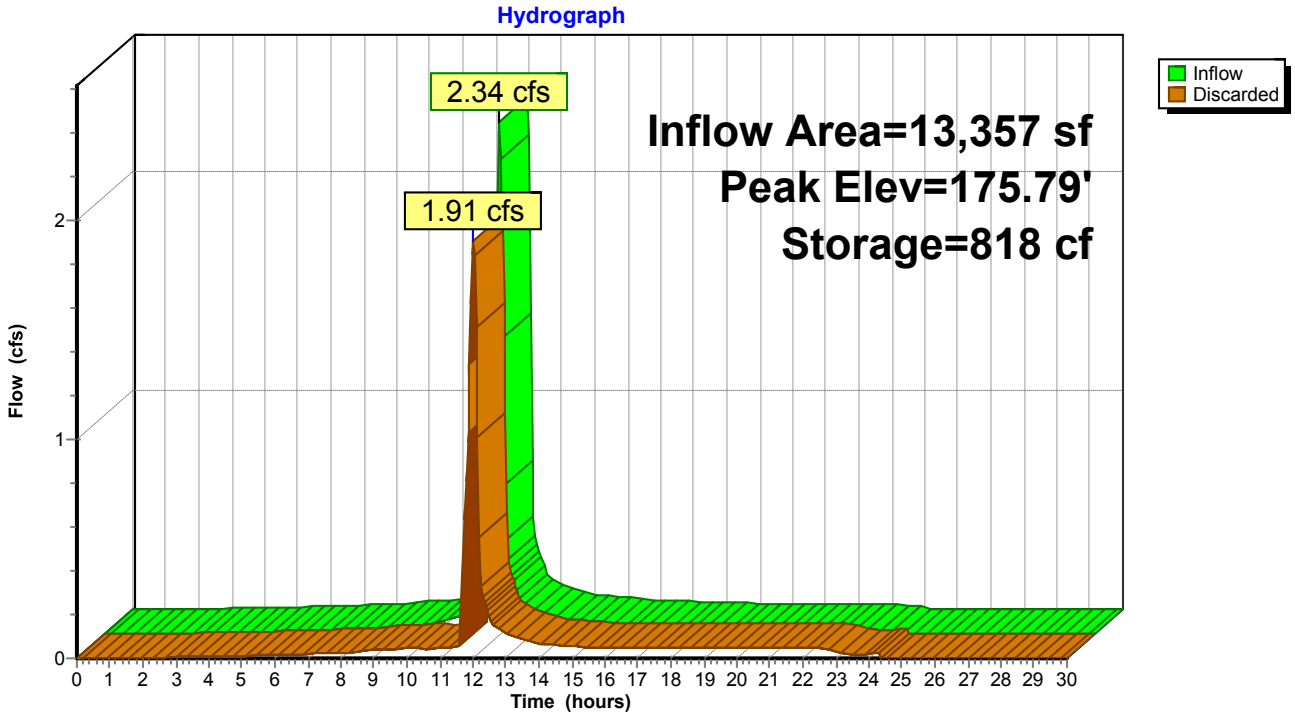
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.78	50	0	0
175.50	50	386	386
176.00	4,400	1,113	1,499

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.50	78	0	0
167.78	10	56	56
175.50	10	77	134

Device	Routing	Invert	Outlet Devices
#1	Discarded	166.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.88 cfs @ 12.02 hrs HW=175.78' (Free Discharge)
1=Exfiltration (Exfiltration Controls 1.88 cfs)

Pond DW-2: PROPOSED DRYWELL #2



Summary for Pond DW-3: PROPOSED DRYWELL #3

[81] Warning: Exceeded Pond YD-4 by 2.08' @ 16.10 hrs

Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 5.35" for 25-YEAR event
Inflow = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf
Outflow = 2.06 cfs @ 12.02 hrs, Volume= 6,352 cf, Atten= 21%, Lag= 3.5 min
Discarded = 2.06 cfs @ 12.02 hrs, Volume= 6,352 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.84' @ 12.02 hrs Surf.Area= 2,774 sf Storage= 929 cf

Plug-Flow detention time= 43.5 min calculated for 6,341 cf (100% of inflow)
Center-of-Mass det. time= 43.6 min (799.0 - 755.4)

Volume	Invert	Avail.Storage	Storage Description
#1	166.69'	1,403 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	165.50'	55 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 138 cf Overall x 40.0% Voids
		1,458 cf	Total Available Storage

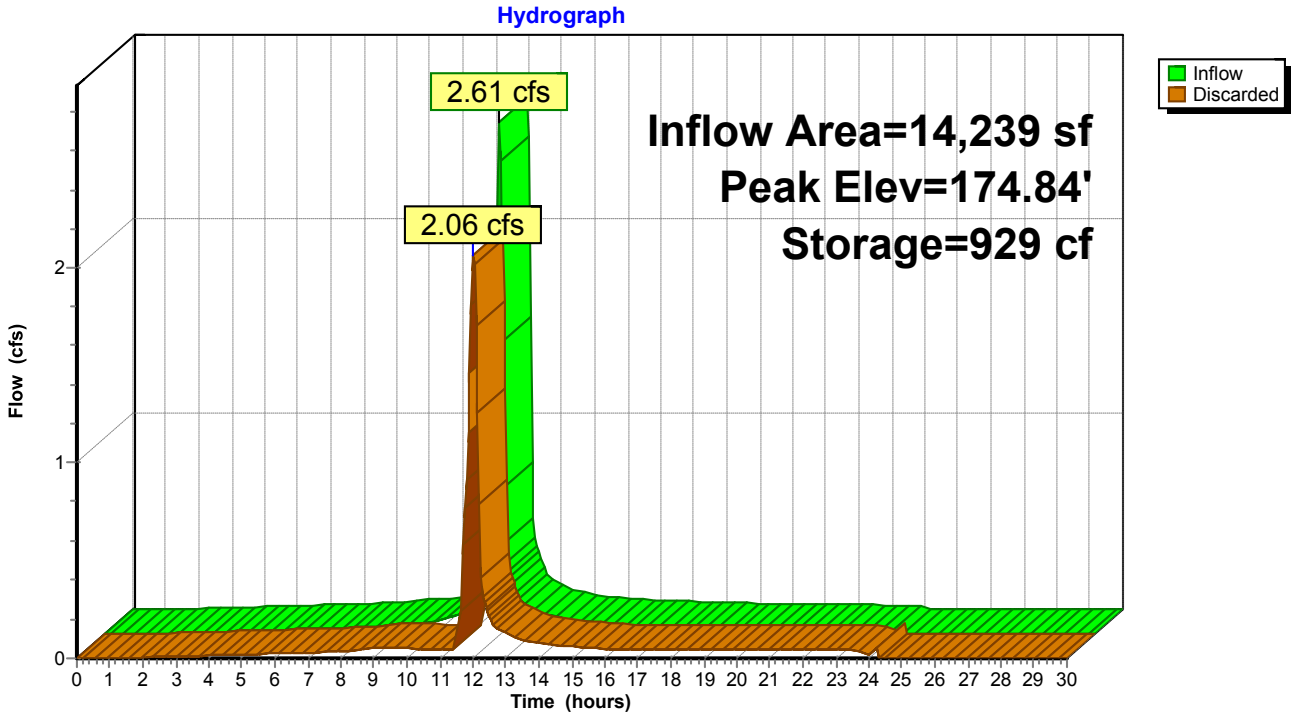
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.69	50	0	0
174.50	50	391	391
175.00	4,000	1,013	1,403

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.50	79	0	0
165.69	79	15	15
166.69	10	45	60
174.50	10	78	138

Device	Routing	Invert	Outlet Devices
#1	Discarded	165.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.02 cfs @ 12.02 hrs HW=174.84' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 2.02 cfs)

Pond DW-3: PROPOSED DRYWELL #3



Summary for Pond DW-4: PROPOSED DRYWELL #4

[81] Warning: Exceeded Pond CB-2 by 3.22' @ 12.10 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 3.19" for 25-YEAR event
Inflow = 3.56 cfs @ 11.96 hrs, Volume= 7,556 cf
Outflow = 2.32 cfs @ 12.04 hrs, Volume= 7,556 cf, Atten= 35%, Lag= 4.6 min
Discarded = 0.51 cfs @ 12.00 hrs, Volume= 3,198 cf
Secondary = 1.80 cfs @ 12.04 hrs, Volume= 4,358 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.18' @ 12.04 hrs Surf.Area= 1,010 sf Storage= 1,194 cf

Plug-Flow detention time= 51.1 min calculated for 7,543 cf (100% of inflow)
Center-of-Mass det. time= 51.3 min (804.9 - 753.6)

Volume	Invert	Avail.Storage	Storage Description
#1	165.00'	1,468 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	164.00'	50 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 124 cf Overall x 40.0% Voids
		1,517 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.00	55	0	0
173.00	55	440	440
174.00	1,000	528	968
174.50	1,000	500	1,468

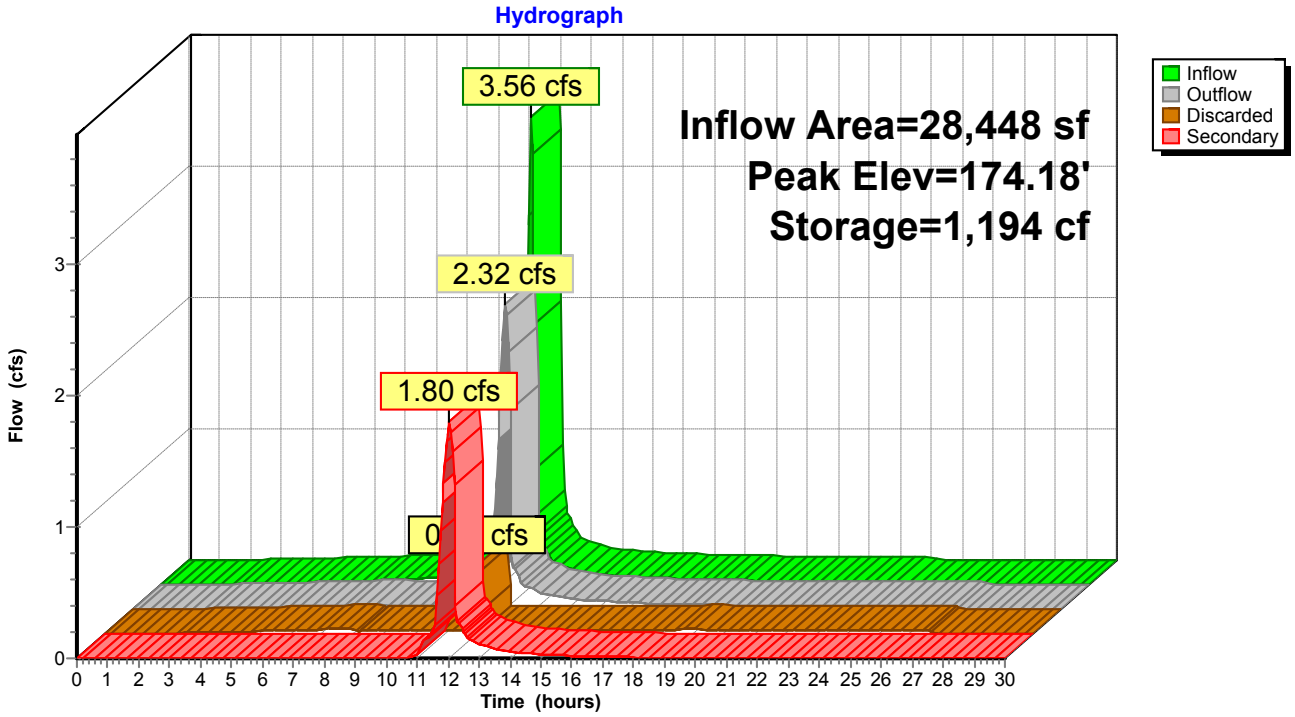
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	78	0	0
165.00	10	44	44
173.00	10	80	124

Device	Routing	Invert	Outlet Devices
#1	Discarded	164.00'	**22.000 in/hr Exfiltration over Surface area**
#2	Secondary	172.00'	**8.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.00' / 171.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Discarded OutFlow Max=0.51 cfs @ 12.00 hrs HW=174.11' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.51 cfs)

Secondary OutFlow Max=1.79 cfs @ 12.04 hrs HW=174.16' (Free Discharge)
└**2=Culvert** (Inlet Controls 1.79 cfs @ 5.14 fps)

Pond DW-4: PROPOSED DRYWELL #4



Summary for Pond DW-5: PROPOSED DRYWELL #5

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=5)

Inflow Area = 11,493 sf, 65.66% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 2.03 cfs @ 11.96 hrs, Volume= 4,714 cf
Outflow = 1.11 cfs @ 12.06 hrs, Volume= 4,714 cf, Atten= 45%, Lag= 5.8 min
Discarded = 1.11 cfs @ 12.06 hrs, Volume= 4,714 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.72' @ 12.06 hrs Surf.Area= 2,186 sf Storage= 1,057 cf

Plug-Flow detention time= 36.7 min calculated for 4,707 cf (100% of inflow)
Center-of-Mass det. time= 36.7 min (811.2 - 774.5)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,748 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	167.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		1,781 cf	Total Available Storage

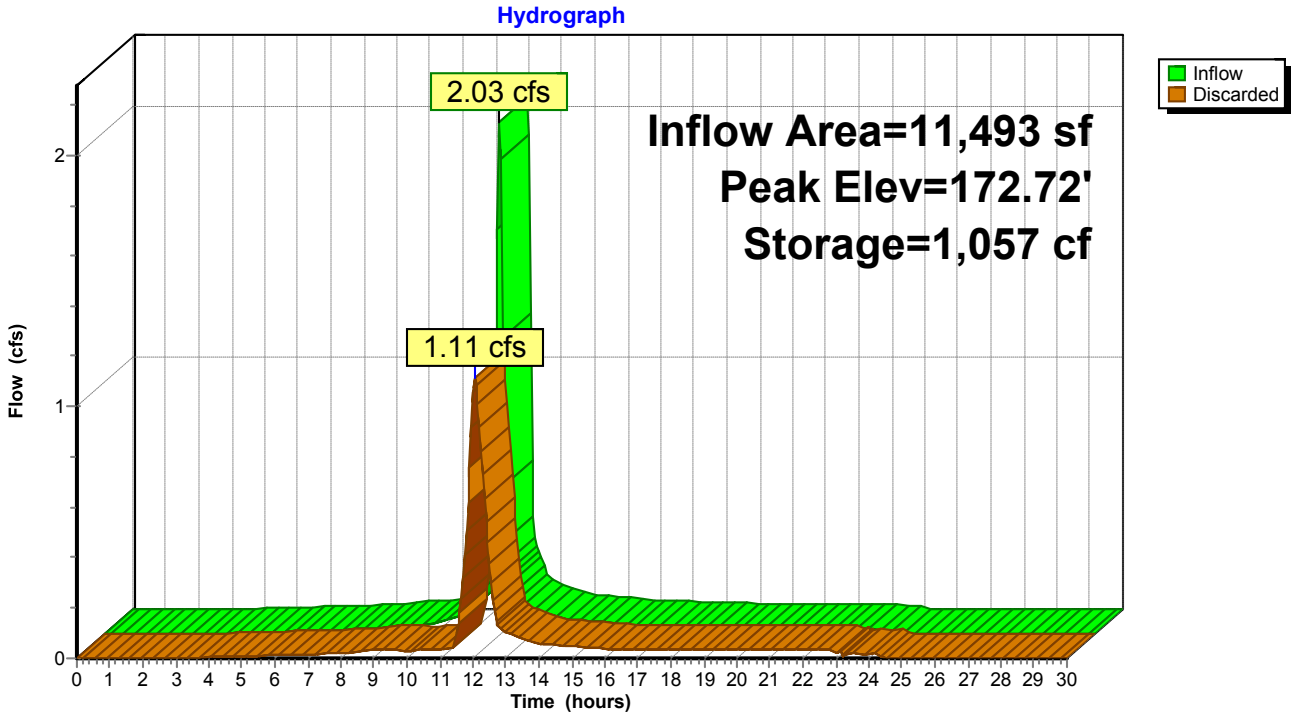
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.00	55	220	220
173.00	3,000	1,528	1,748

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	78	0	0
168.00	10	44	44
172.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.11 cfs @ 12.06 hrs HW=172.72' (Free Discharge)
1=Exfiltration (Exfiltration Controls 1.11 cfs)

Pond DW-5: PROPOSED DRYWELL #5



Summary for Pond DW-6: PROPOSED DRYWELL #6

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=4)

Inflow Area = 1,844 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.34 cfs @ 11.96 hrs, Volume= 862 cf
Outflow = 0.12 cfs @ 12.11 hrs, Volume= 862 cf, Atten= 65%, Lag= 9.2 min
Discarded = 0.12 cfs @ 12.11 hrs, Volume= 862 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.09' @ 12.11 hrs Surf.Area= 239 sf Storage= 267 cf

Plug-Flow detention time= 43.9 min calculated for 861 cf (100% of inflow)
Center-of-Mass det. time= 43.8 min (785.2 - 741.4)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	169.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

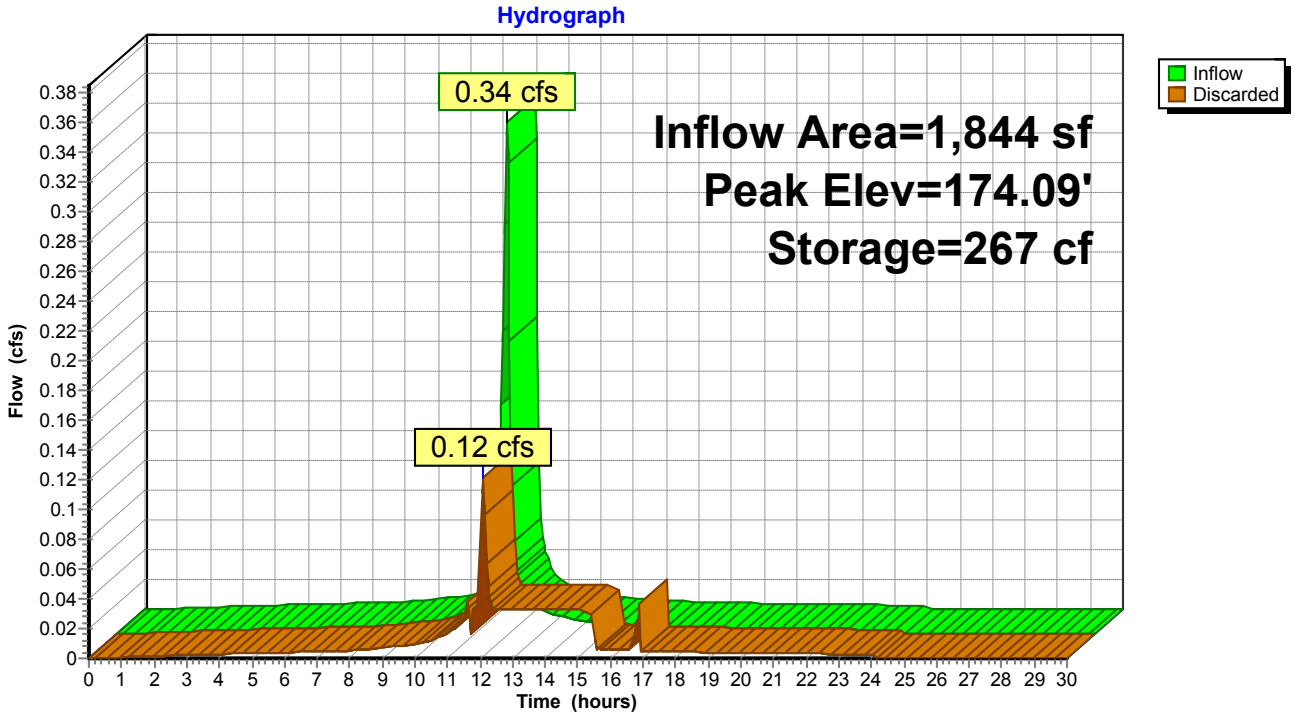
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	55	0	0
174.00	55	220	220
174.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	78	0	0
170.00	10	44	44
174.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	169.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.11 cfs @ 12.11 hrs HW=174.08' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.11 cfs)

Pond DW-6: PROPOSED DRYWELL #6



Summary for Pond DW-7: PROPOSED DRYWELL #7

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,755 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.33 cfs @ 11.96 hrs, Volume= 821 cf
Outflow = 0.07 cfs @ 12.16 hrs, Volume= 821 cf, Atten= 79%, Lag= 11.6 min
Discarded = 0.07 cfs @ 12.16 hrs, Volume= 821 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.52' @ 12.15 hrs Surf.Area= 137 sf Storage= 264 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 45.7 min (787.1 - 741.4)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	352 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	170.00'	42 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 106 cf Overall x 40.0% Voids
		394 cf	Total Available Storage

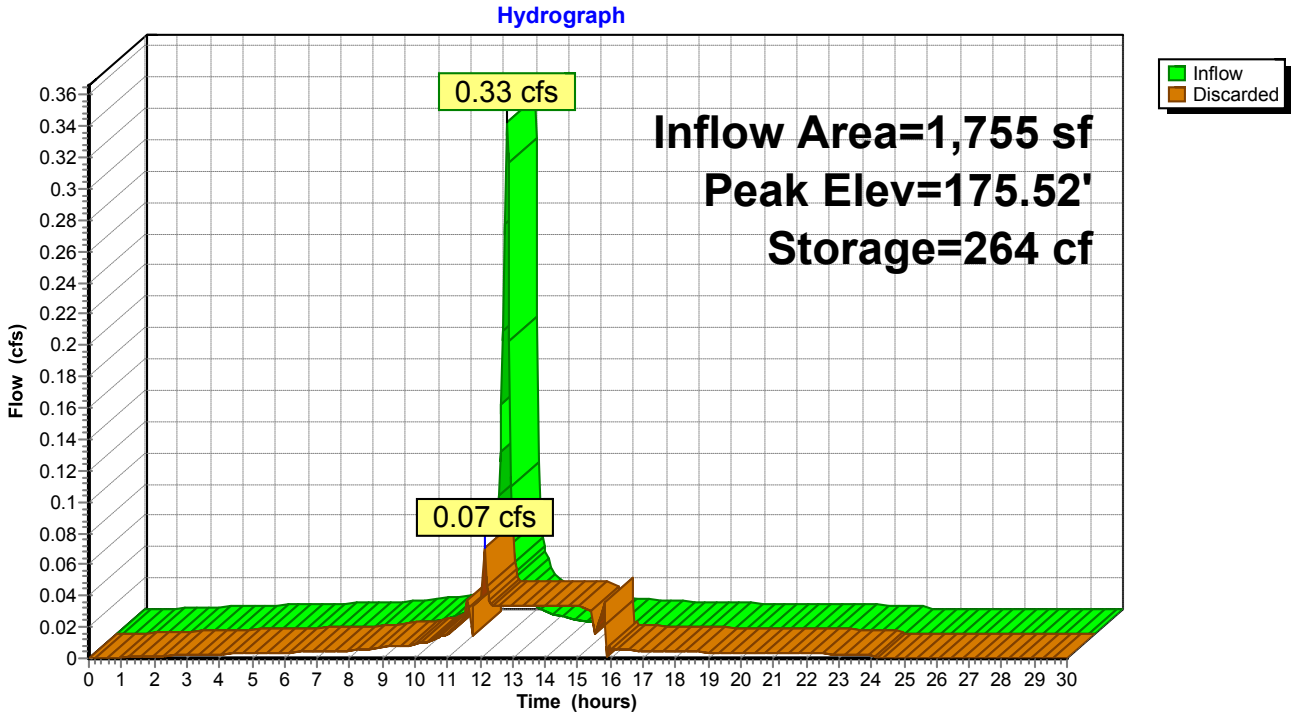
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
171.50	55	0	0
175.50	55	220	220
175.75	1,000	132	352

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	78	0	0
171.50	10	66	66
175.50	10	40	106

Device	Routing	Invert	Outlet Devices
#1	Discarded	170.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 12.16 hrs HW=175.52' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.07 cfs)

Pond DW-7: PROPOSED DRYWELL #7



Summary for Pond DW-8: PROPOSED DRYWELL #8

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,734 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.32 cfs @ 11.96 hrs, Volume= 811 cf
Outflow = 0.07 cfs @ 12.16 hrs, Volume= 812 cf, Atten= 78%, Lag= 11.8 min
Discarded = 0.07 cfs @ 12.16 hrs, Volume= 812 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.04' @ 12.16 hrs Surf.Area= 138 sf Storage= 257 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 43.6 min (785.0 - 741.4)

Volume	Invert	Avail.Storage	Storage Description
#1	169.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	168.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

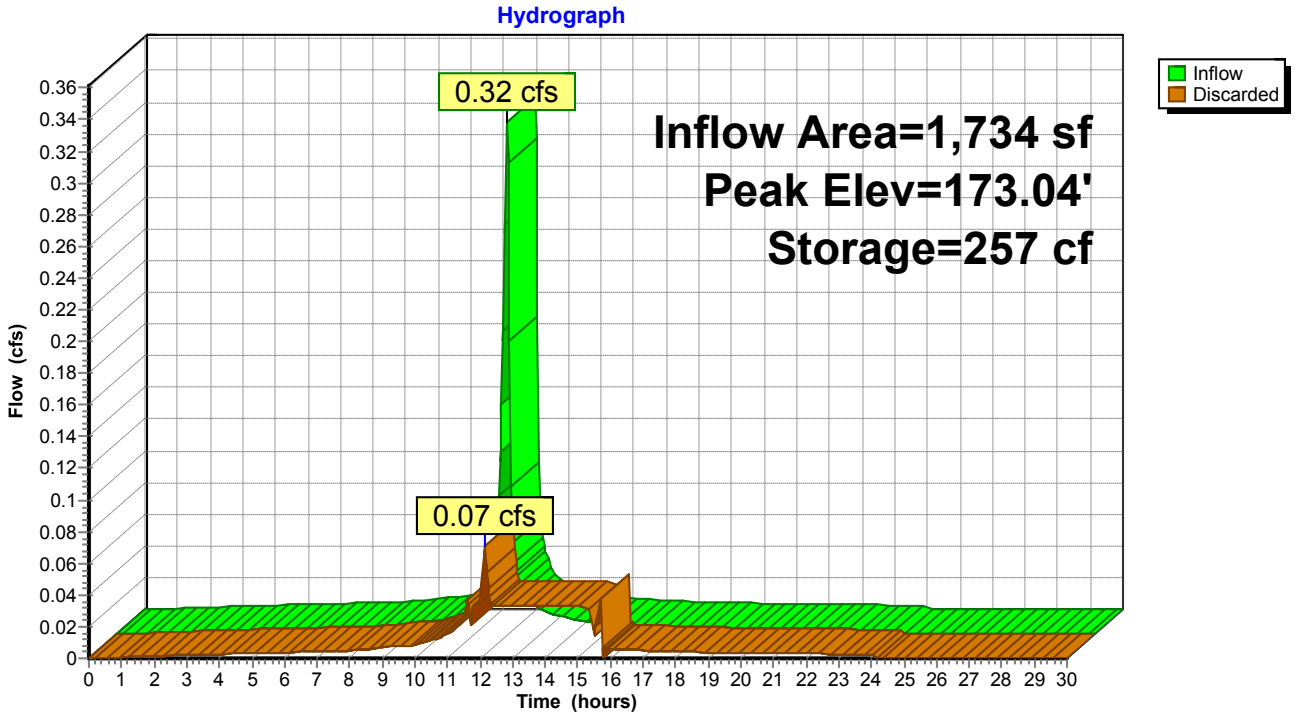
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	55	0	0
173.00	55	220	220
173.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	78	0	0
169.00	10	44	44
173.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 12.16 hrs HW=173.04' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.07 cfs)

Pond DW-8: PROPOSED DRYWELL #8



Summary for Pond YD-1: PROPOSED DRAIN #1

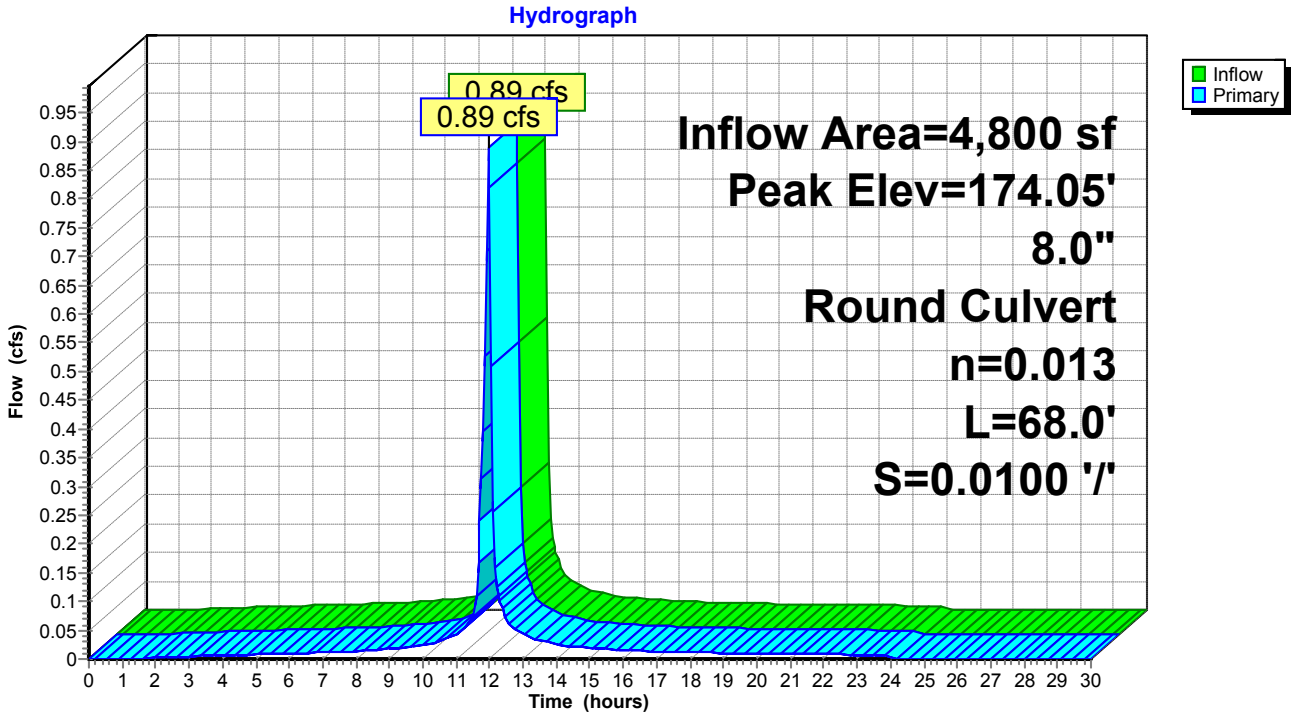
Inflow Area = 4,800 sf, 94.90% Impervious, Inflow Depth = 5.49" for 25-YEAR event
Inflow = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf
Outflow = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.05' @ 11.96 hrs
Flood Elev= 175.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.27'	**8.0" Round Culvert** L= 68.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.27' / 172.59' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=0.87 cfs @ 11.96 hrs HW=174.03' (Free Discharge)
1=Culvert (Inlet Controls 0.87 cfs @ 2.49 fps)

Pond YD-1: PROPOSED DRAIN #1



Summary for Pond YD-2: PROPOSED DRAIN #2

[58] Hint: Peaked 2.24' above defined flood level
[81] Warning: Exceeded Pond YD-1 by 1.93' @ 11.95 hrs

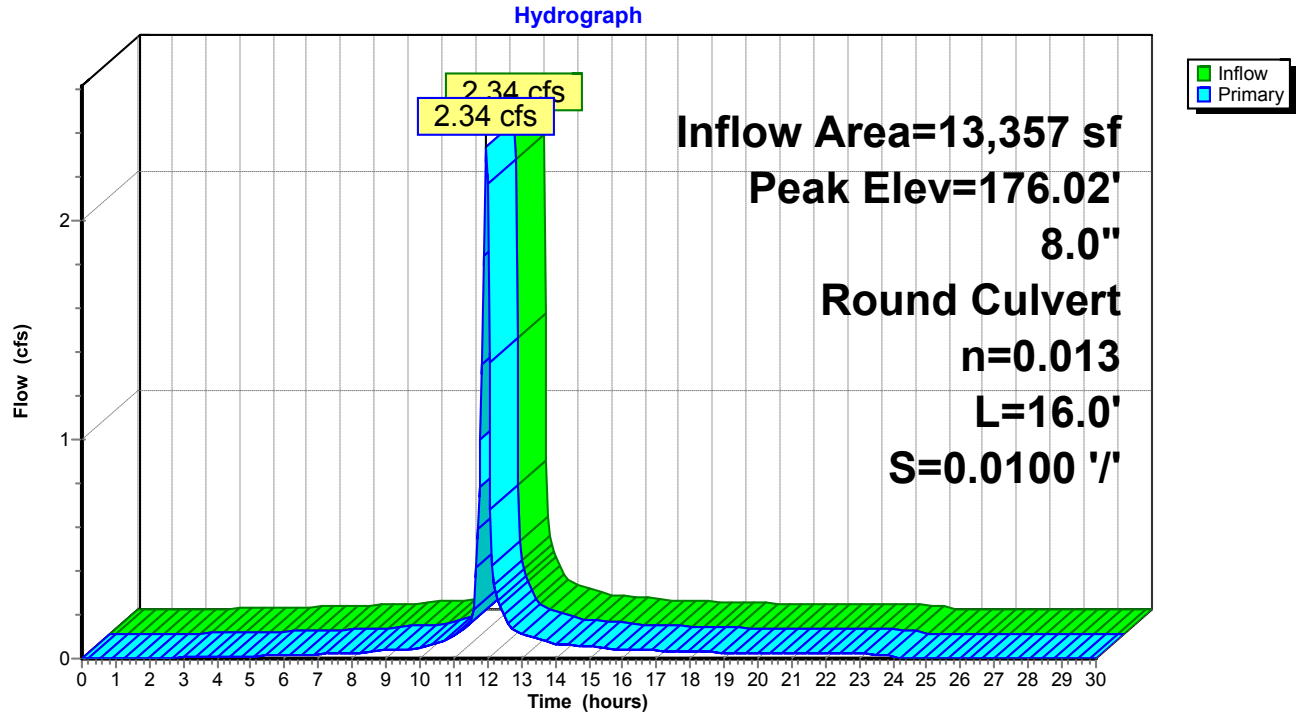
Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 2.34 cfs @ 11.96 hrs, Volume= 5,471 cf
Outflow = 2.34 cfs @ 11.96 hrs, Volume= 5,471 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.34 cfs @ 11.96 hrs, Volume= 5,471 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 176.02' @ 11.96 hrs
Flood Elev= 173.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.59'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.59' / 172.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=2.28 cfs @ 11.96 hrs HW=175.88' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 2.28 cfs @ 6.53 fps)

Pond YD-2: PROPOSED DRAIN #2



Summary for Pond YD-3: PROPOSED DRAIN #3

[58] Hint: Peaked 0.47' above defined flood level

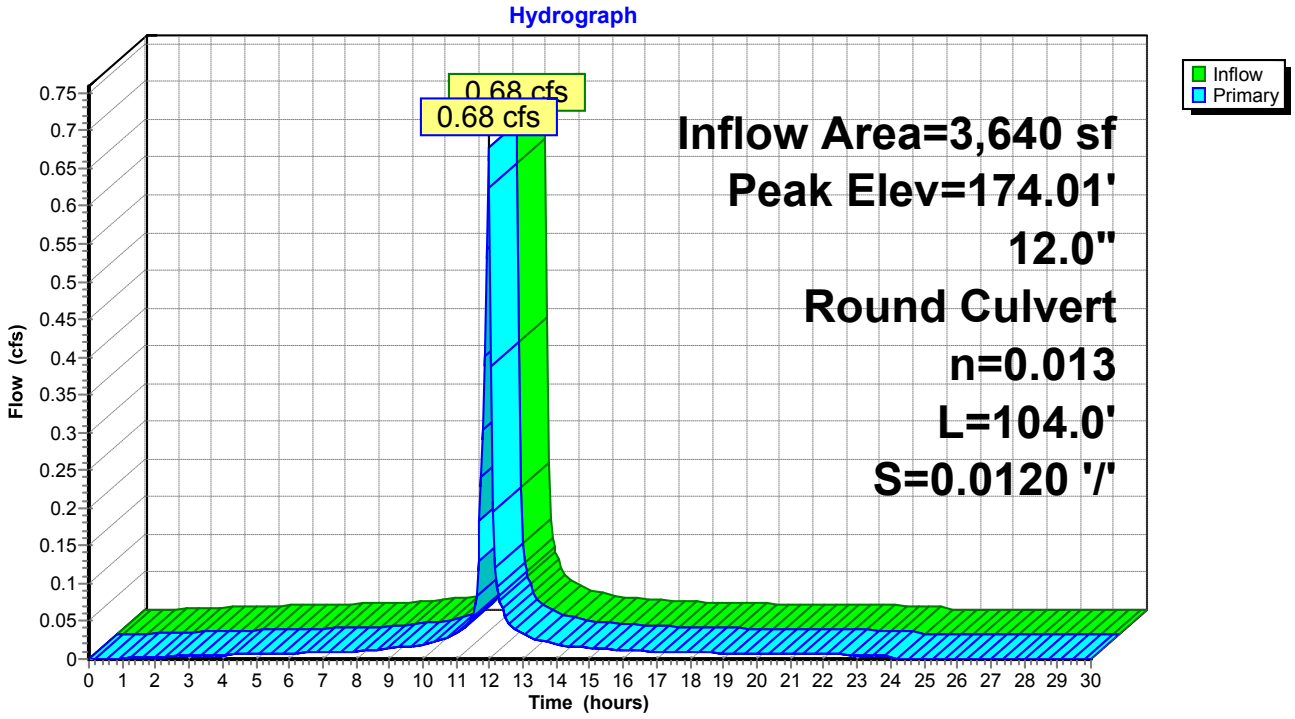
Inflow Area = 3,640 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf
Outflow = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.01' @ 11.96 hrs
Flood Elev= 173.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.54'	**12.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.54' / 172.29' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 11.96 hrs HW=174.01' (Free Discharge)
1=Culvert (Inlet Controls 0.66 cfs @ 1.84 fps)

Pond YD-3: PROPOSED DRAIN #3



Summary for Pond YD-4: PROPOSED DRAIN #4

[58] Hint: Peaked 3.23' above defined flood level
[81] Warning: Exceeded Pond YD-3 by 3.61' @ 11.95 hrs

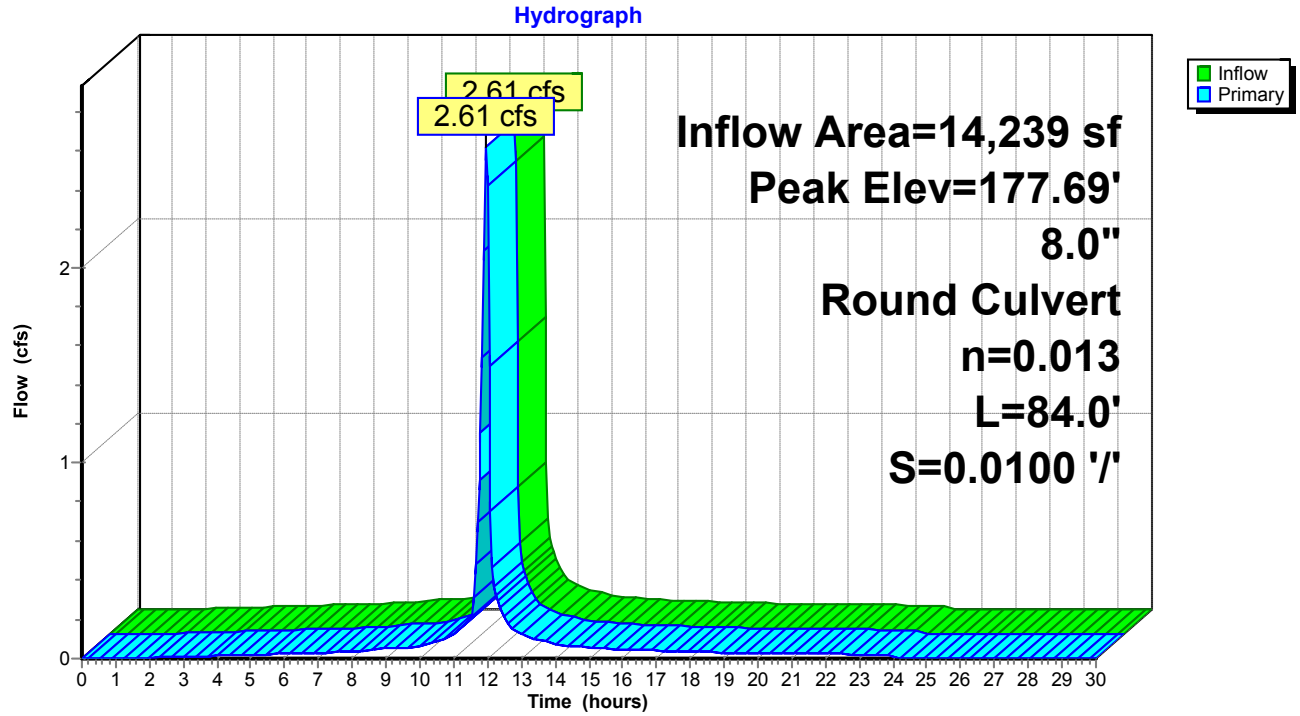
Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 5.35" for 25-YEAR event
Inflow = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf
Outflow = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 177.69' @ 11.96 hrs
Flood Elev= 174.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.29'	**8.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.29' / 171.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=2.55 cfs @ 11.96 hrs HW=177.45' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.55 cfs @ 7.31 fps)

Pond YD-4: PROPOSED DRAIN #4



Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA-1: DA-1 Runoff Area=21,412 sf 86.22% Impervious Runoff Depth=7.74"
Tc=6.0 min CN=96 Runoff=5.58 cfs 13,811 cf

Subcatchment DA-10: DA-10 Runoff Area=4,800 sf 94.90% Impervious Runoff Depth=7.86"
Tc=6.0 min CN=97 Runoff=1.25 cfs 3,144 cf

Subcatchment DA-11: DA-11 Runoff Area=8,557 sf 51.71% Impervious Runoff Depth=6.90"
Tc=6.0 min CN=89 Runoff=2.12 cfs 4,922 cf

Subcatchment DA-12: DRAINAGE AREA 12 Runoff Area=8,367 sf 100.00% Impervious Runoff Depth=7.98"
Tc=6.0 min CN=98 Runoff=2.19 cfs 5,564 cf

Subcatchment DA-13: DA-13 Runoff Area=2,574 sf 79.56% Impervious Runoff Depth=7.50"
Tc=6.0 min CN=94 Runoff=0.66 cfs 1,609 cf

Subcatchment DA-14: DRAINAGE AREA 14 Runoff Area=6,736 sf 69.73% Impervious Runoff Depth=7.38"
Tc=6.0 min CN=93 Runoff=1.73 cfs 4,143 cf

Subcatchment DA-15: DA-15 Runoff Area=1,734 sf 100.00% Impervious Runoff Depth=7.98"
Tc=6.0 min CN=98 Runoff=0.45 cfs 1,153 cf

Subcatchment DA-16: DA-16 Runoff Area=1,844 sf 100.00% Impervious Runoff Depth=7.98"
Tc=6.0 min CN=98 Runoff=0.48 cfs 1,226 cf

Subcatchment DA-17: DA-17 Runoff Area=1,755 sf 100.00% Impervious Runoff Depth=7.98"
Tc=6.0 min CN=98 Runoff=0.46 cfs 1,167 cf

Subcatchment DA-18: DRAINAGE AREA 18 Runoff Area=3,482 sf 85.96% Impervious Runoff Depth=7.62"
Tc=6.0 min CN=95 Runoff=0.90 cfs 2,211 cf

Subcatchment DA-2: DA-2 Runoff Area=7,036 sf 83.26% Impervious Runoff Depth=7.62"
Tc=6.0 min CN=95 Runoff=1.82 cfs 4,468 cf

Subcatchment DA-3: DRAINAGE AREA 3 Runoff Area=5,334 sf 65.88% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=92 Runoff=1.36 cfs 3,228 cf

Subcatchment DA-4: DRAINAGE AREA 4 Runoff Area=4,099 sf 74.82% Impervious Runoff Depth=7.38"
Tc=6.0 min CN=93 Runoff=1.05 cfs 2,521 cf

Subcatchment DA-5: DRAINAGE AREA 5 Runoff Area=32,655 sf 61.00% Impervious Runoff Depth=7.14"
Flow Length=235' Tc=13.1 min CN=91 Runoff=6.72 cfs 19,434 cf

Subcatchment DA-6: DA-6 Runoff Area=11,493 sf 65.66% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=92 Runoff=2.93 cfs 6,955 cf

Subcatchment DA-7: DA-7 Runoff Area=3,640 sf 100.00% Impervious Runoff Depth=7.98"
Tc=6.0 min CN=98 Runoff=0.95 cfs 2,421 cf

Subcatchment DA-8: DA-8 Runoff Area=10,599 sf 81.26% Impervious Runoff Depth=7.62"
Tc=6.0 min CN=95 Runoff=2.75 cfs 6,731 cf

Subcatchment DA-9: DRAINAGE AREA 9 Runoff Area=3,471 sf 65.57% Impervious Runoff Depth=7.26"
Tc=6.0 min CN=92 Runoff=0.88 cfs 2,100 cf

Reach DP-2: STREET Inflow=2.19 cfs 5,564 cf
Outflow=2.19 cfs 5,564 cf

Pond 2P: EXISTING DRYWELL Peak Elev=172.96' Storage=634 cf Inflow=6.85 cfs 10,541 cf
Discarded=0.93 cfs 6,074 cf Primary=4.43 cfs 4,467 cf Outflow=5.36 cfs 10,541 cf

Pond 3P: PROPOSED CB #3 Peak Elev=171.30' Inflow=0.90 cfs 2,211 cf
12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.90 cfs 2,211 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.66' Storage=1,126 cf Inflow=2.32 cfs 7,262 cf
Outflow=1.36 cfs 7,262 cf

Pond 8P: EXISTING YARD DRAIN Peak Elev=316.33' Inflow=1.05 cfs 2,521 cf
4.0" Round Culvert n=0.030 L=87.0' S=0.0100 '/' Outflow=1.05 cfs 2,521 cf

Pond 12P: EXISTING CB Peak Elev=176.54' Inflow=7.32 cfs 21,646 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=7.32 cfs 21,646 cf

Pond 14P: EXISTING CB Peak Elev=168.28' Inflow=1.73 cfs 4,143 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=1.73 cfs 4,143 cf

Pond CB-1: PROPOSED CATCH BASIN #1 Peak Elev=172.37' Inflow=1.82 cfs 4,468 cf
12.0" Round Culvert n=0.013 L=33.0' S=0.0100 '/' Outflow=1.82 cfs 4,468 cf

Pond CB-2: PR CB #2 Peak Elev=173.64' Inflow=7.40 cfs 18,279 cf
Primary=5.08 cfs 11,017 cf Secondary=2.32 cfs 7,262 cf Outflow=7.40 cfs 18,279 cf

Pond DP-1: Existing Catch Basin Peak Elev=172.24' Inflow=14.65 cfs 34,386 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=14.65 cfs 34,386 cf

Pond DW-1: PROPOSED DRYWELL #1 Peak Elev=170.14' Storage=642 cf Inflow=0.88 cfs 2,100 cf
Outflow=0.23 cfs 2,100 cf

Pond DW-2: PROPOSED DRYWELL #2 Peak Elev=175.89' Storage=1,134 cf Inflow=3.38 cfs 8,066 cf
Outflow=2.58 cfs 8,068 cf

Pond DW-3: PROPOSED DRYWELL #3 Peak Elev=174.96' Storage=1,295 cf Inflow=3.70 cfs 9,151 cf
Outflow=2.72 cfs 9,152 cf

Pond DW-4: PROPOSED DRYWELL #4 Peak Elev=190.06' Storage=1,517 cf Inflow=5.08 cfs 11,017 cf
Discarded=0.51 cfs 3,704 cf Secondary=5.59 cfs 7,313 cf Outflow=6.10 cfs 11,017 cf

Pond DW-5: PROPOSED DRYWELL #5 Peak Elev=172.93' Storage=1,588 cf Inflow=2.93 cfs 6,955 cf
Outflow=1.43 cfs 6,955 cf

Pond DW-6: PROPOSED DRYWELL #6 Peak Elev=174.25' Storage=325 cf Inflow=0.48 cfs 1,226 cf
Outflow=0.27 cfs 1,226 cf

Pond DW-7: PROPOSED DRYWELL #7 Peak Elev=175.63' Storage=304 cf Inflow=0.46 cfs 1,167 cf
Outflow=0.29 cfs 1,167 cf

Pond DW-8: PROPOSED DRYWELL #8 Peak Elev=173.22' Storage=310 cf Inflow=0.45 cfs 1,153 cf
Outflow=0.24 cfs 1,153 cf

Pond YD-1: PROPOSED DRAIN #1 Peak Elev=174.50' Inflow=1.25 cfs 3,144 cf
8.0" Round Culvert n=0.013 L=68.0' S=0.0100 '/' Outflow=1.25 cfs 3,144 cf

Pond YD-2: PROPOSED DRAIN #2 Peak Elev=179.39' Inflow=3.38 cfs 8,066 cf
8.0" Round Culvert n=0.013 L=16.0' S=0.0100 '/' Outflow=3.38 cfs 8,066 cf

Pond YD-3: PROPOSED DRAIN #3 Peak Elev=174.12' Inflow=0.95 cfs 2,421 cf
12.0" Round Culvert n=0.013 L=104.0' S=0.0120 '/' Outflow=0.95 cfs 2,421 cf

Pond YD-4: PROPOSED DRAIN #4 Peak Elev=183.32' Inflow=3.70 cfs 9,151 cf
8.0" Round Culvert n=0.013 L=84.0' S=0.0100 '/' Outflow=3.70 cfs 9,151 cf

Total Runoff Area = 139,588 sf Runoff Volume = 86,809 cf Average Runoff Depth = 7.46"
24.56% Pervious = 34,277 sf 75.44% Impervious = 105,311 sf

Summary for Subcatchment DA-1: DA-1

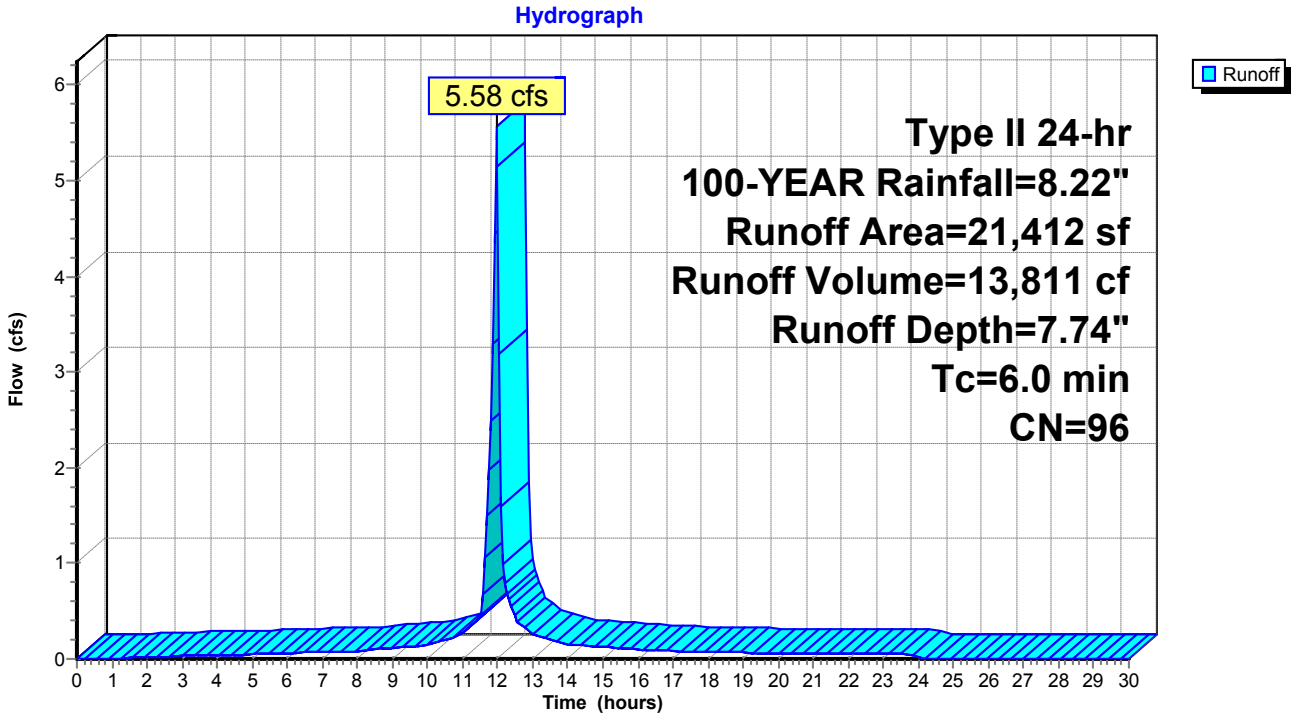
Runoff = 5.58 cfs @ 11.96 hrs, Volume= 13,811 cf, Depth= 7.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
2,951	80	>75% Grass cover, Good, HSG D
17,281	98	Roofs, HSG D
1,180	98	Paved parking, HSG D
21,412	96	Weighted Average
2,951		13.78% Pervious Area
18,461		86.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

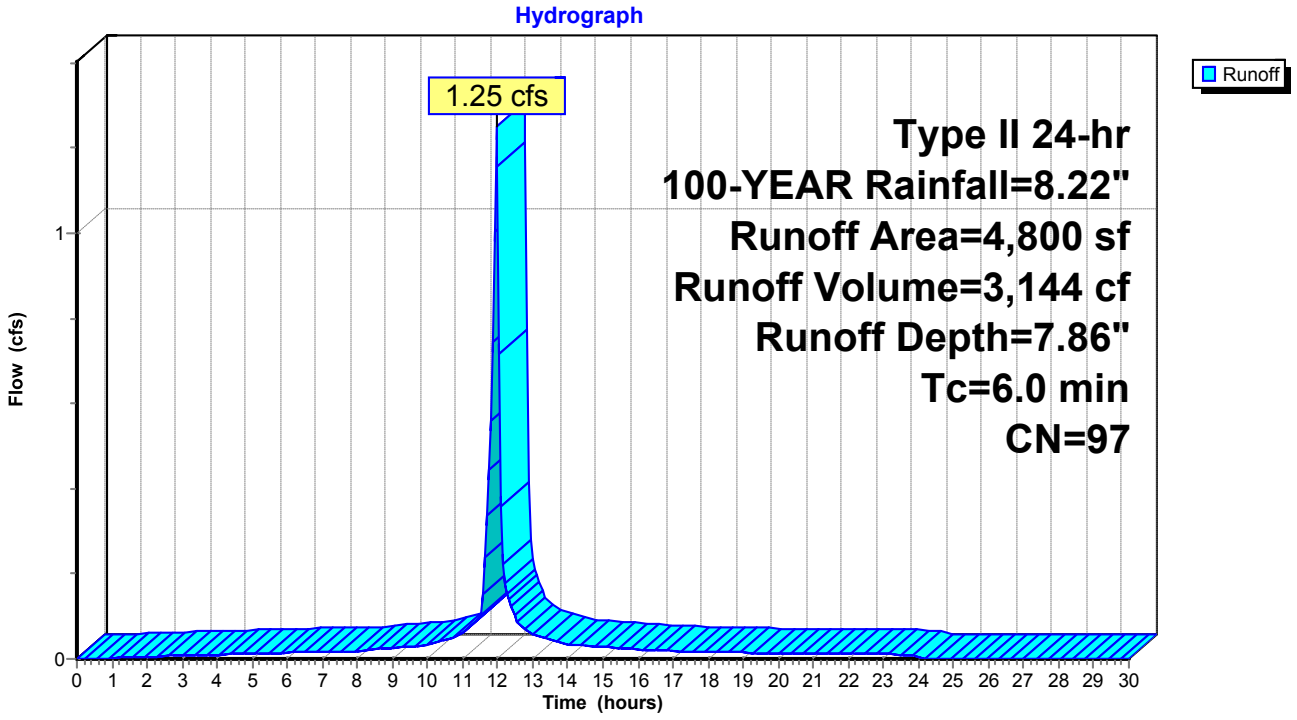
Runoff = 1.25 cfs @ 11.96 hrs, Volume= 3,144 cf, Depth= 7.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
245	80	>75% Grass cover, Good, HSG D
2,933	98	Roofs, HSG D
1,622	98	Paved parking, HSG D
4,800	97	Weighted Average
245		5.10% Pervious Area
4,555		94.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

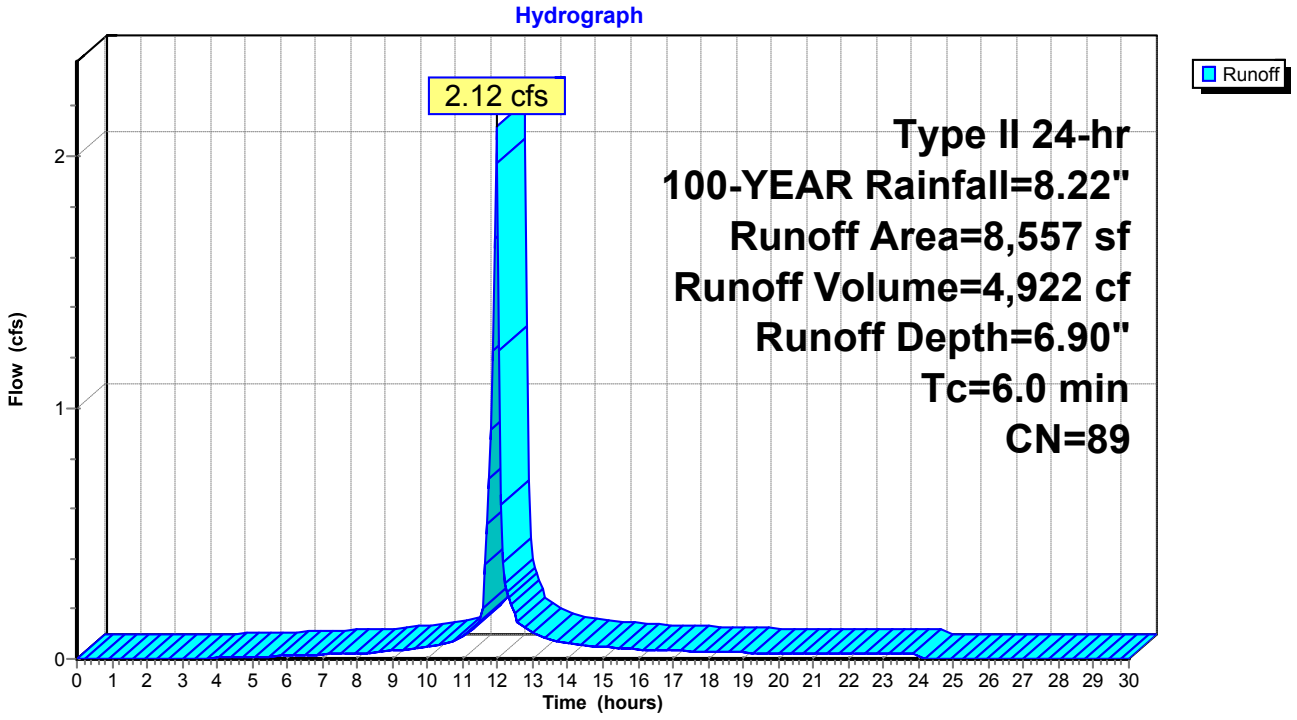
Runoff = 2.12 cfs @ 11.96 hrs, Volume= 4,922 cf, Depth= 6.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
4,132	80	>75% Grass cover, Good, HSG D
3,489	98	Roofs, HSG D
936	98	Paved parking, HSG D
8,557	89	Weighted Average
4,132		48.29% Pervious Area
4,425		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-12: DRAINAGE AREA 12

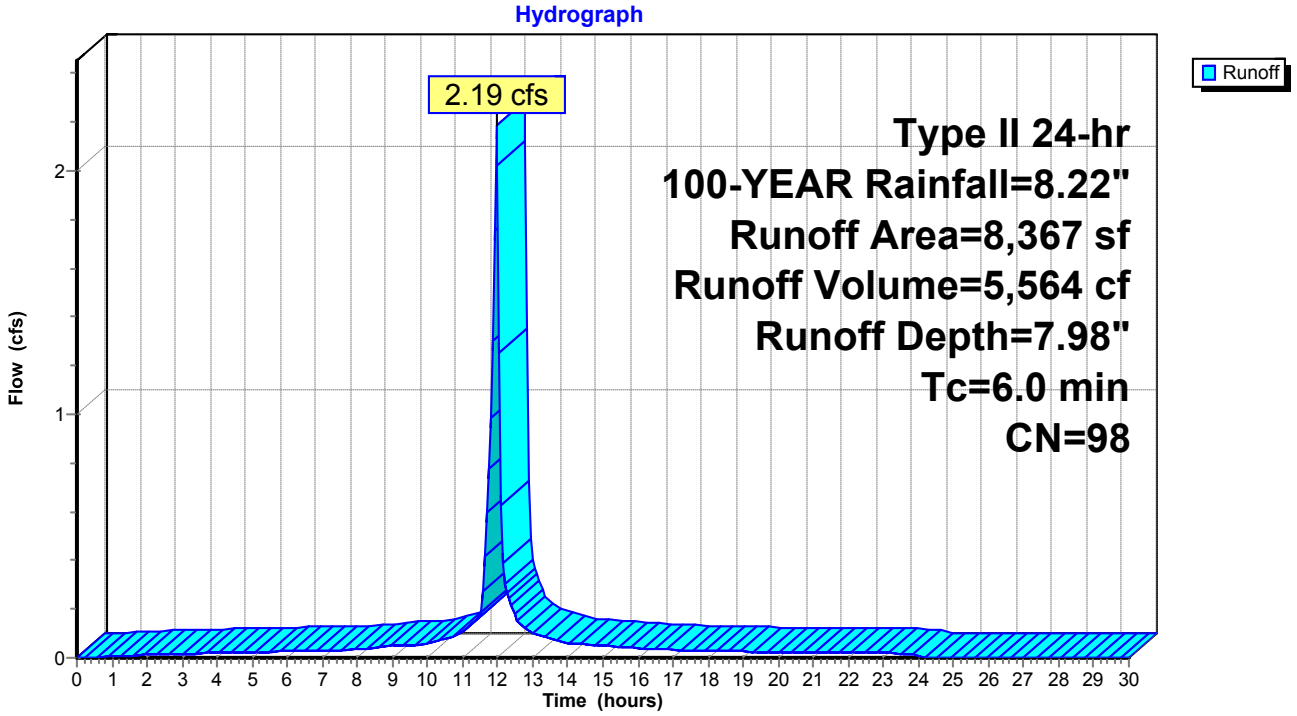
Runoff = 2.19 cfs @ 11.96 hrs, Volume= 5,564 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
8,367	98	Roofs, HSG D
8,367		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-12: DRAINAGE AREA 12



Summary for Subcatchment DA-13: DA-13

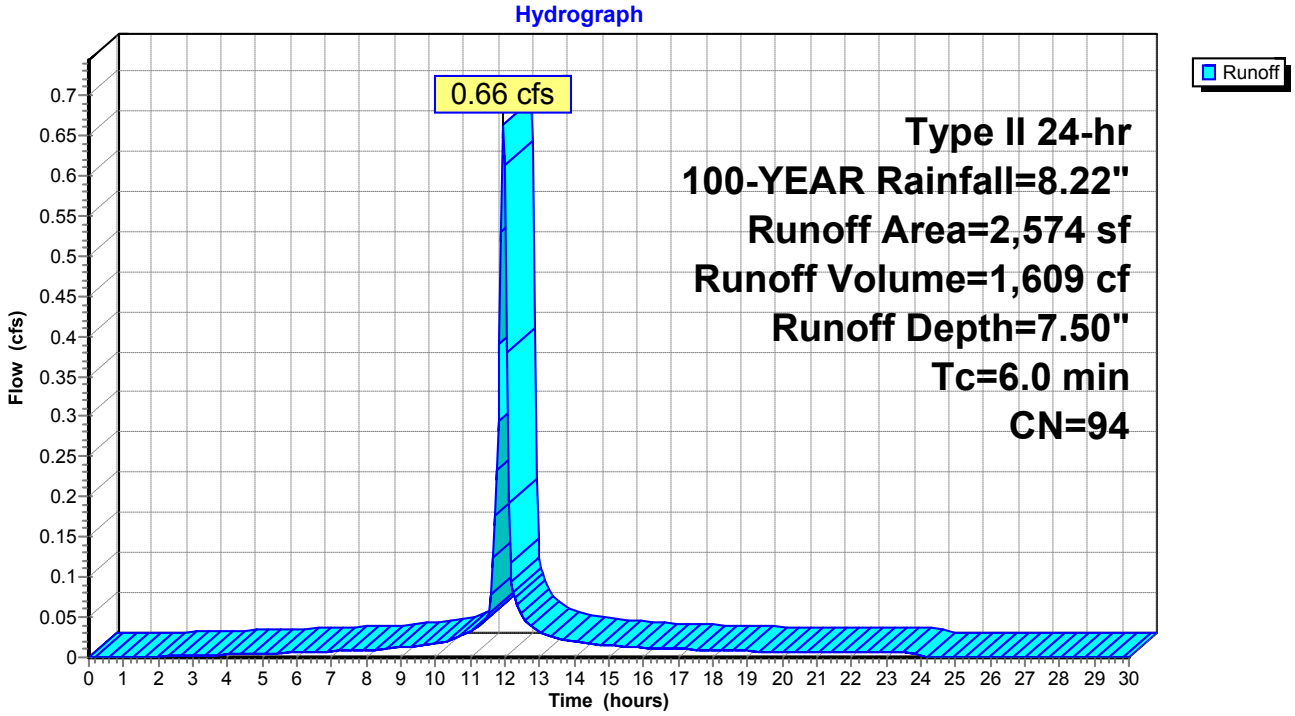
Runoff = 0.66 cfs @ 11.96 hrs, Volume= 1,609 cf, Depth= 7.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
526	80	>75% Grass cover, Good, HSG D
2,048	98	Paved parking, HSG D
2,574	94	Weighted Average
526		20.44% Pervious Area
2,048		79.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-13: DA-13



Summary for Subcatchment DA-14: DRAINAGE AREA 14

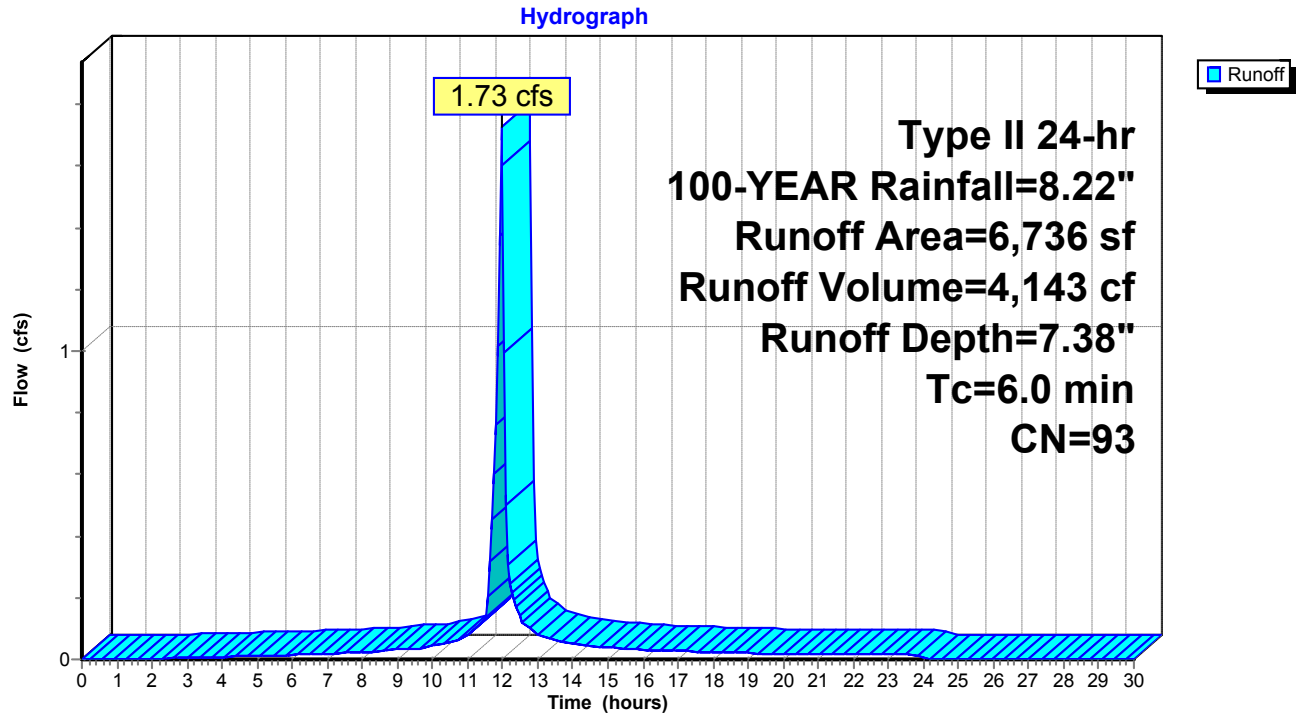
Runoff = 1.73 cfs @ 11.96 hrs, Volume= 4,143 cf, Depth= 7.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
2,039	80	>75% Grass cover, Good, HSG D
4,697	98	Paved parking, HSG D
6,736	93	Weighted Average
2,039		30.27% Pervious Area
4,697		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-14: DRAINAGE AREA 14



Summary for Subcatchment DA-15: DA-15

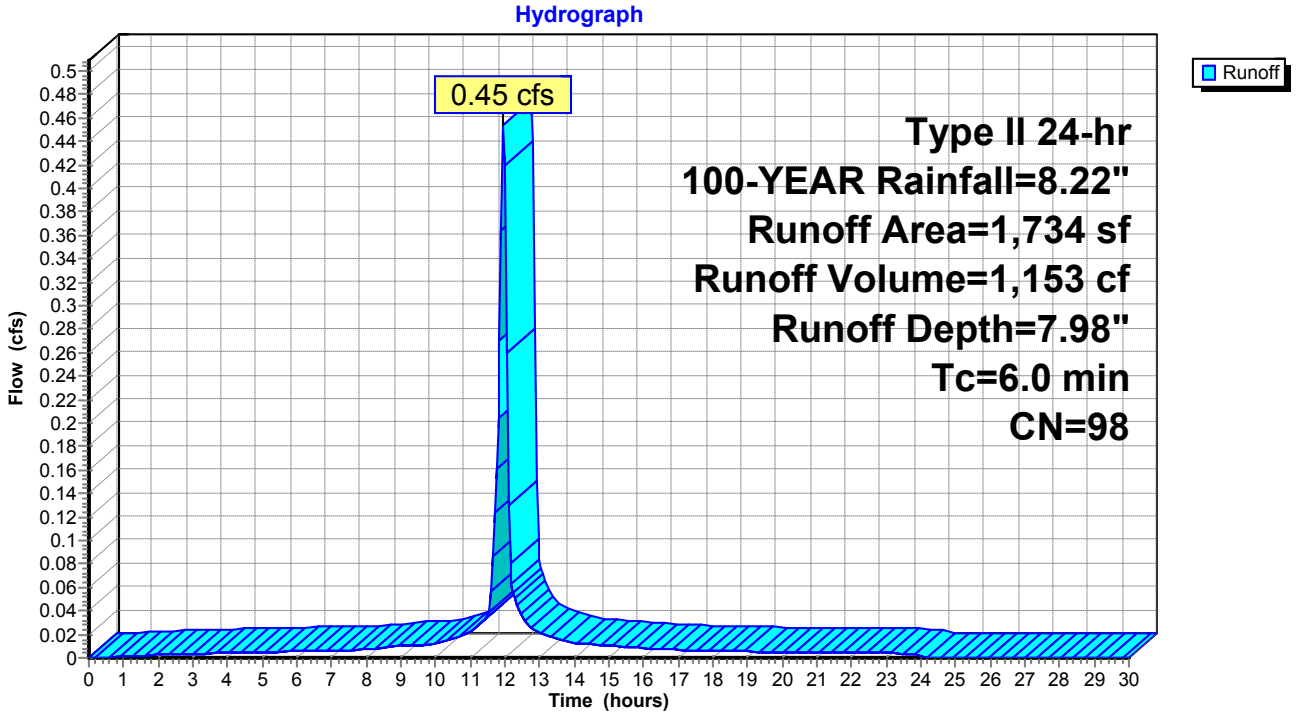
Runoff = 0.45 cfs @ 11.96 hrs, Volume= 1,153 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,734	98	Roofs, HSG D
1,734		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-15: DA-15



Summary for Subcatchment DA-16: DA-16

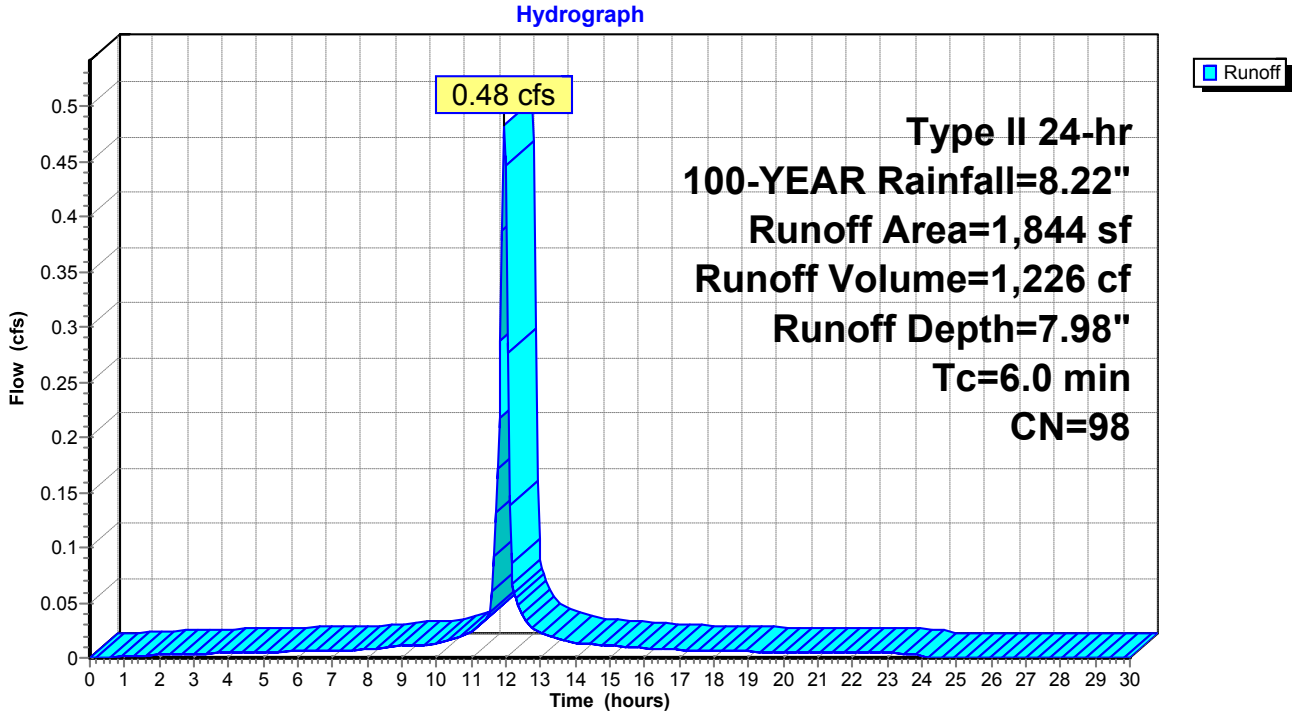
Runoff = 0.48 cfs @ 11.96 hrs, Volume= 1,226 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,844	98	Roofs, HSG D
1,844		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-16: DA-16



Summary for Subcatchment DA-17: DA-17

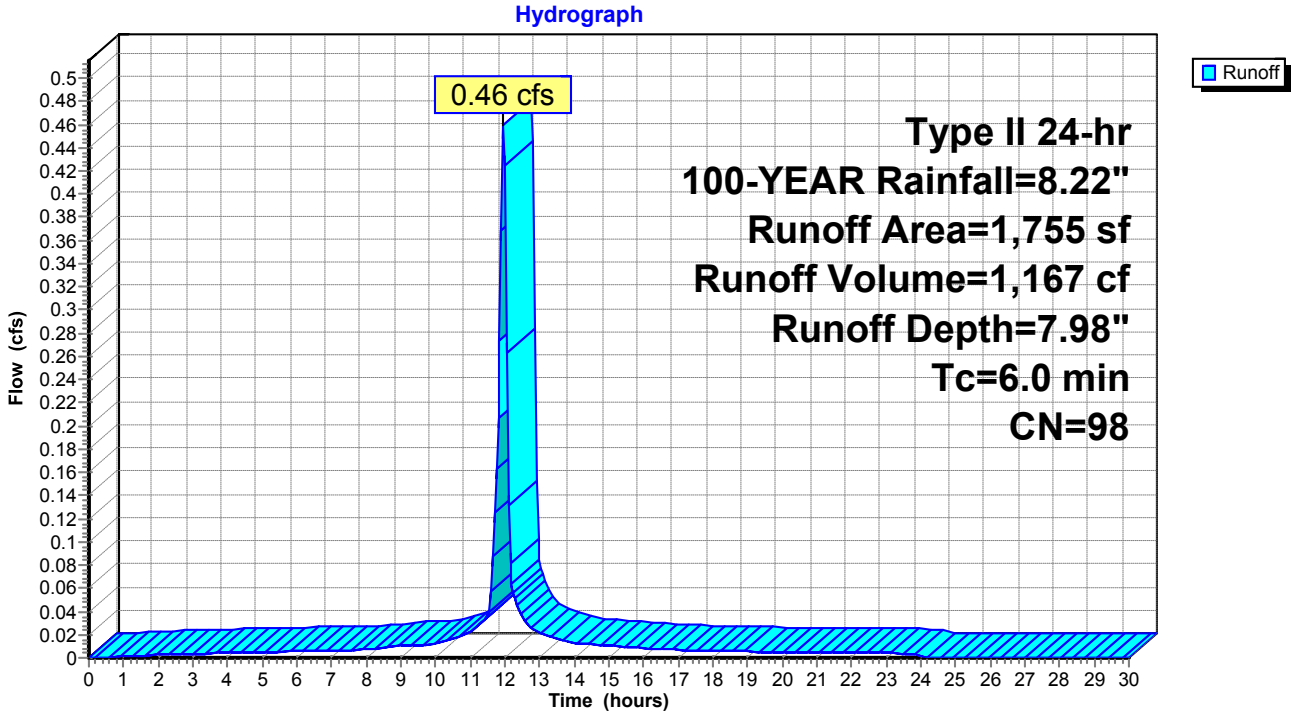
Runoff = 0.46 cfs @ 11.96 hrs, Volume= 1,167 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,755	98	Roofs, HSG D
1,755		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-17: DA-17



Summary for Subcatchment DA-18: DRAINAGE AREA 18

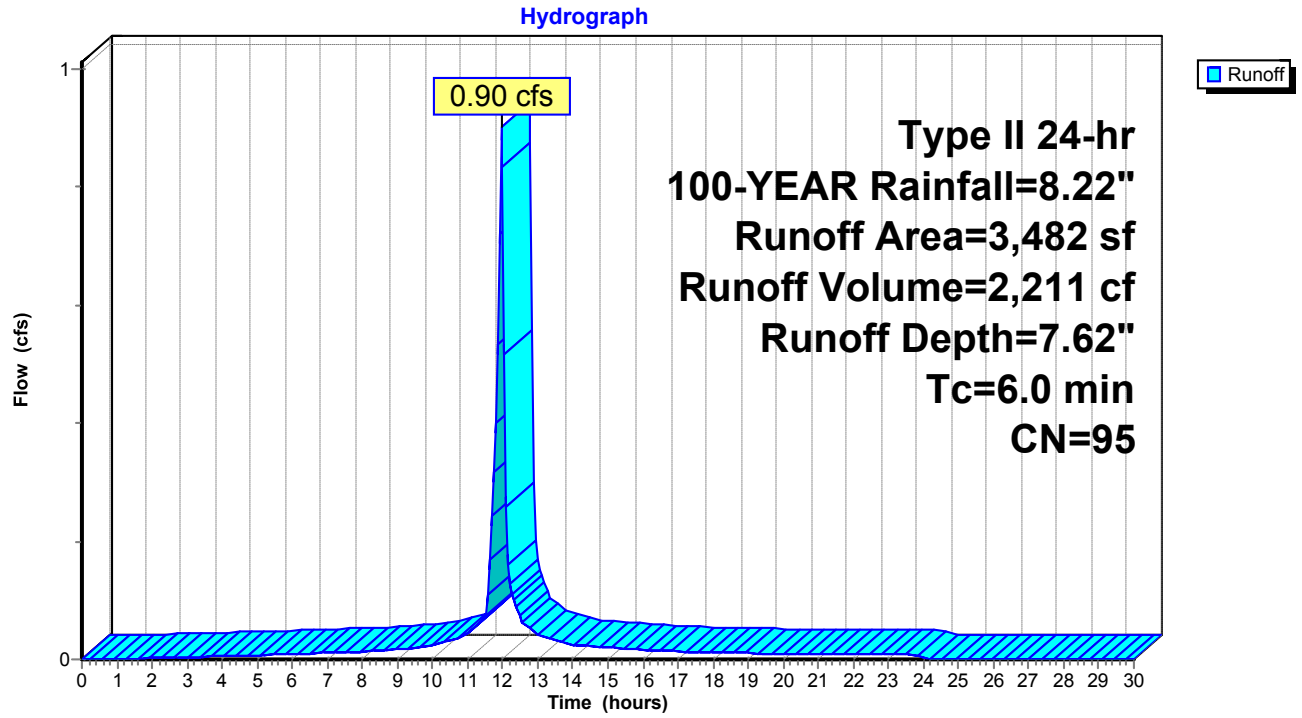
Runoff = 0.90 cfs @ 11.96 hrs, Volume= 2,211 cf, Depth= 7.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
489	80	>75% Grass cover, Good, HSG D
2,993	98	Paved parking, HSG D
3,482	95	Weighted Average
489		14.04% Pervious Area
2,993		85.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-18: DRAINAGE AREA 18



Summary for Subcatchment DA-2: DA-2

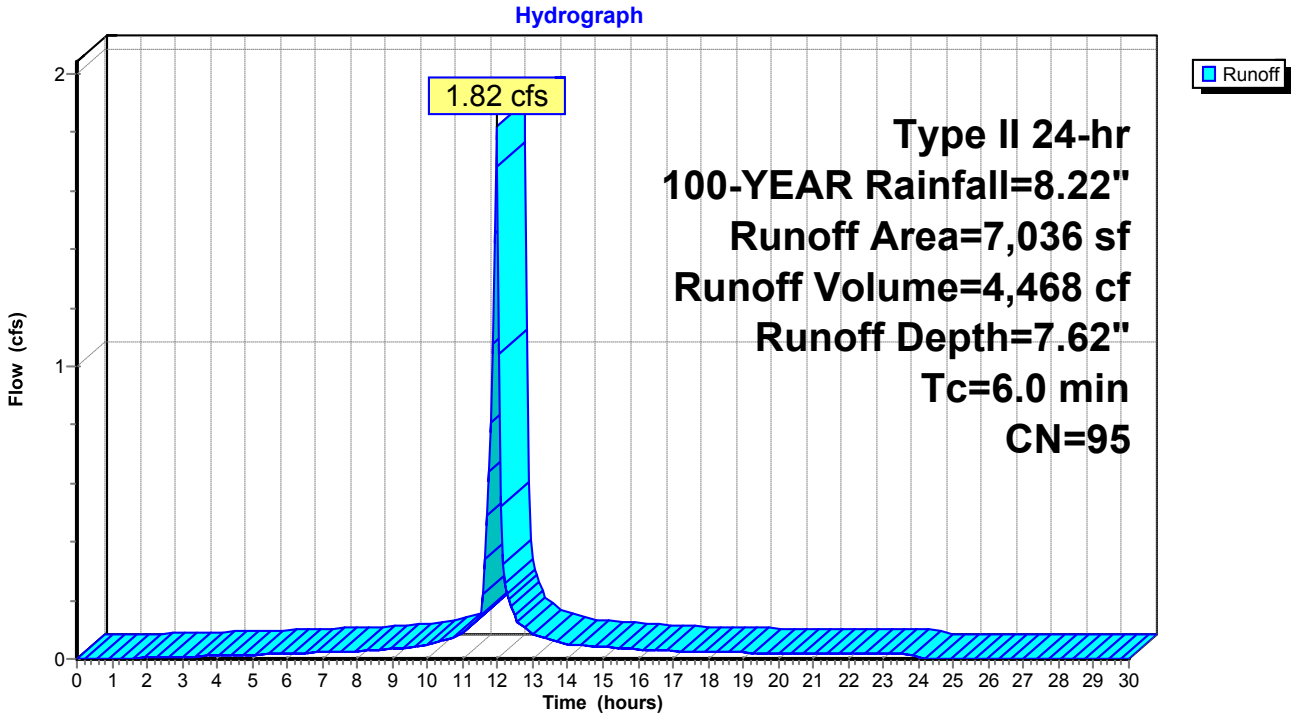
Runoff = 1.82 cfs @ 11.96 hrs, Volume= 4,468 cf, Depth= 7.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,178	80	>75% Grass cover, Good, HSG D
5,194	98	Roofs, HSG D
664	98	Paved parking, HSG D
7,036	95	Weighted Average
1,178		16.74% Pervious Area
5,858		83.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DRAINAGE AREA 3

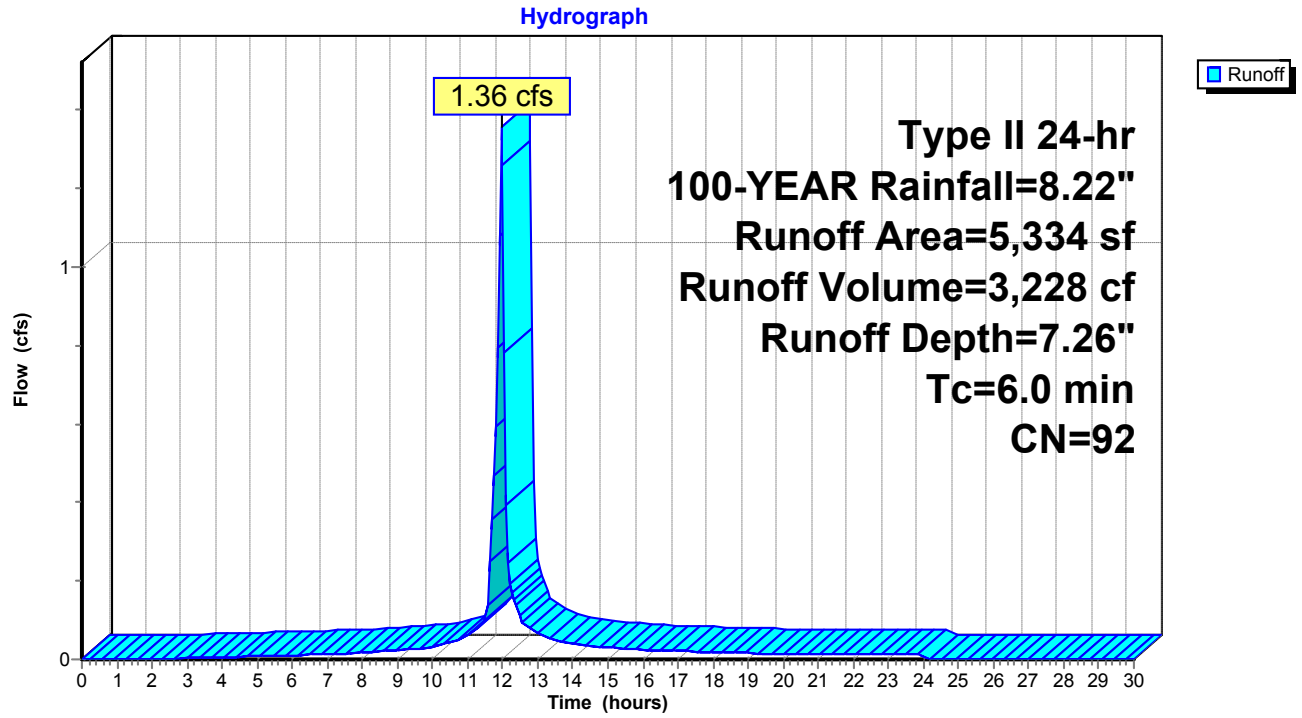
Runoff = 1.36 cfs @ 11.96 hrs, Volume= 3,228 cf, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,820	80	>75% Grass cover, Good, HSG D
3,514	98	Paved parking, HSG D
5,334	92	Weighted Average
1,820		34.12% Pervious Area
3,514		65.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-3: DRAINAGE AREA 3



Summary for Subcatchment DA-4: DRAINAGE AREA 4

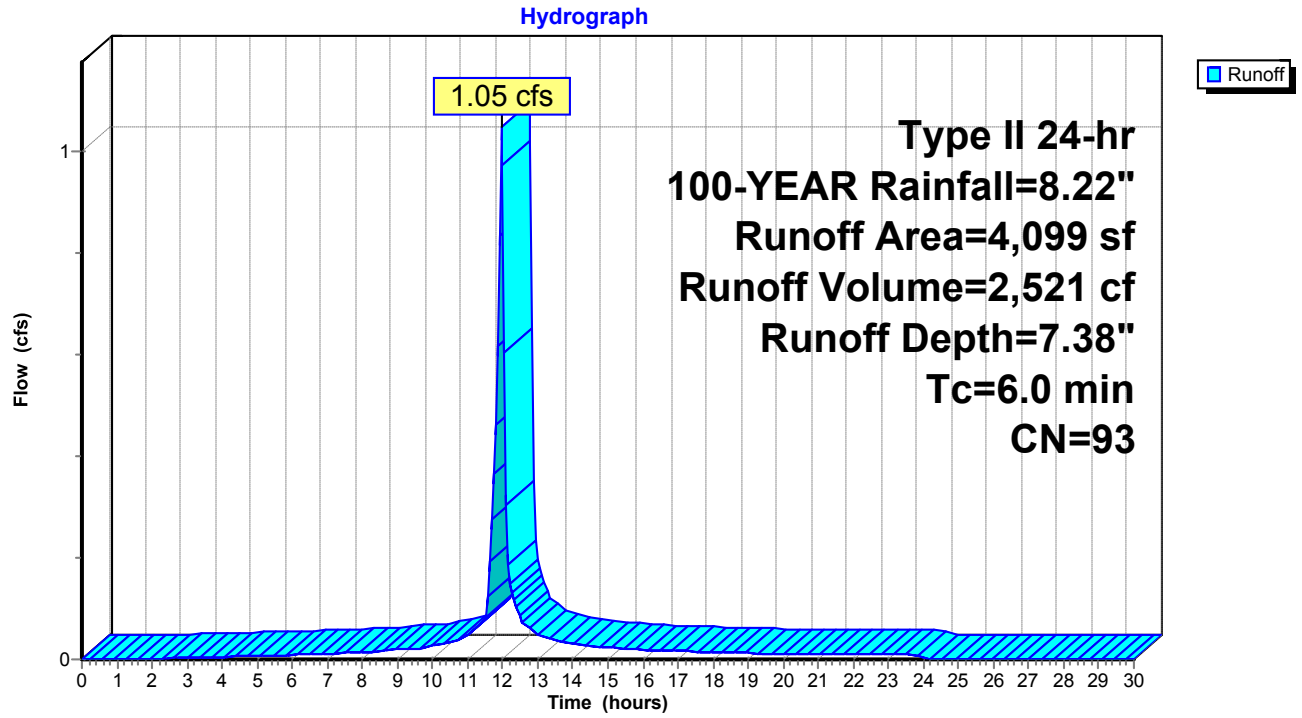
Runoff = 1.05 cfs @ 11.96 hrs, Volume= 2,521 cf, Depth= 7.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,032	80	>75% Grass cover, Good, HSG D
3,067	98	Paved parking, HSG D
4,099	93	Weighted Average
1,032		25.18% Pervious Area
3,067		74.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-4: DRAINAGE AREA 4



Summary for Subcatchment DA-5: DRAINAGE AREA 5

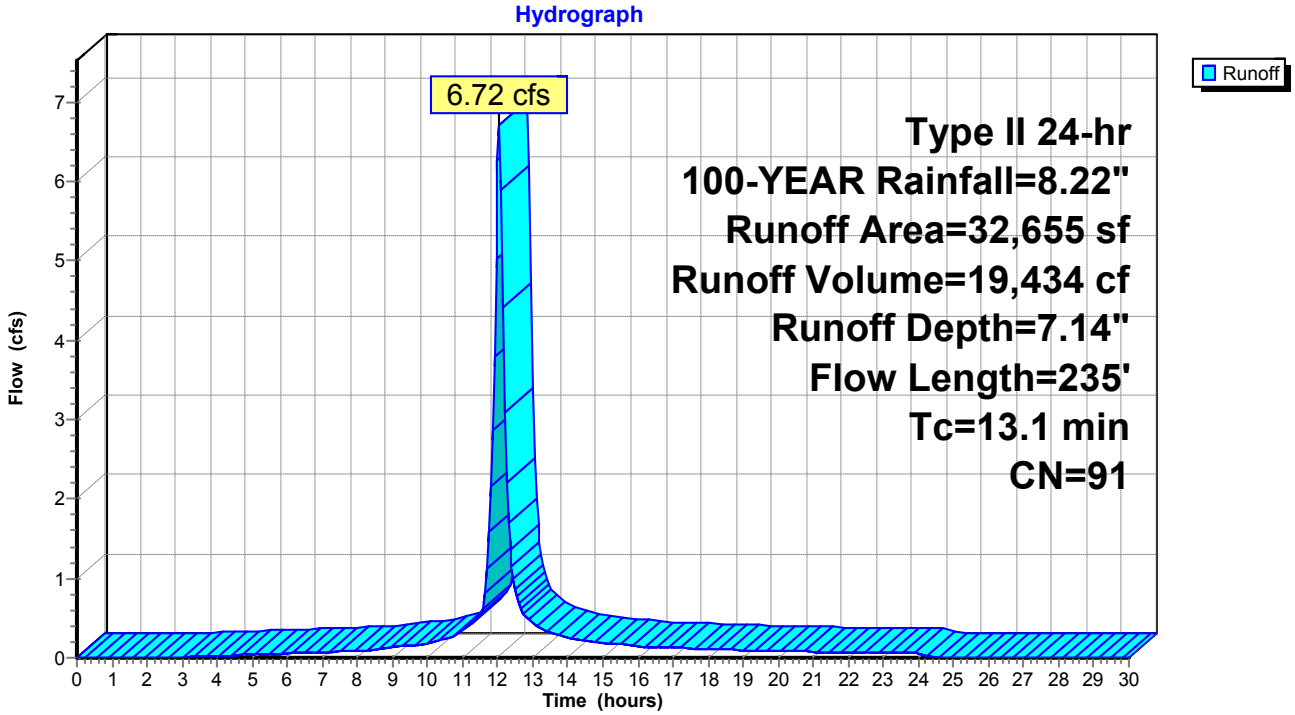
Runoff = 6.72 cfs @ 12.04 hrs, Volume= 19,434 cf, Depth= 7.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
12,737	80	>75% Grass cover, Good, HSG D
19,918	98	Paved parking, HSG D
32,655	91	Weighted Average
12,737		39.00% Pervious Area
19,918		61.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0150	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
1.7	81	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	54	0.0250	3.21		**Shallow Concentrated Flow, C-D** Paved Kv= 20.3 fps
13.1	235	Total			

Subcatchment DA-5: DRAINAGE AREA 5



Summary for Subcatchment DA-6: DA-6

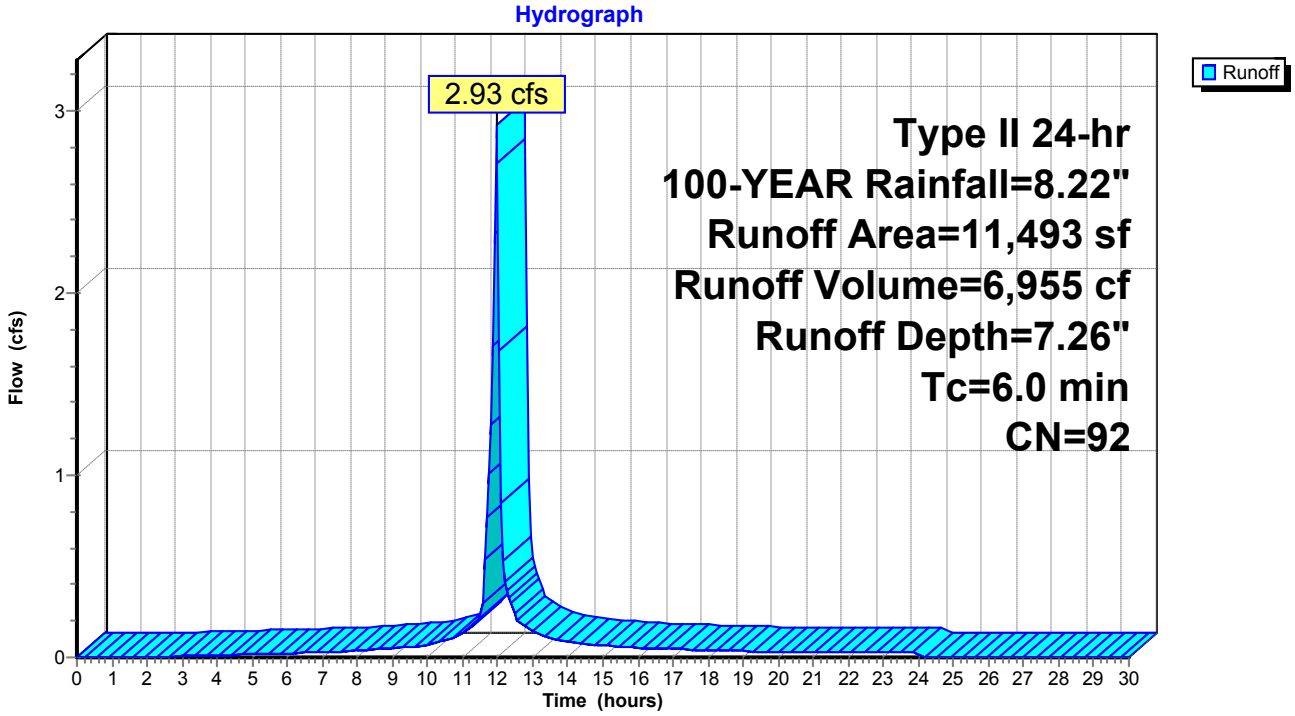
Runoff = 2.93 cfs @ 11.96 hrs, Volume= 6,955 cf, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
3,947	80	>75% Grass cover, Good, HSG D
7,546	98	Paved parking, HSG D
11,493	92	Weighted Average
3,947		34.34% Pervious Area
7,546		65.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

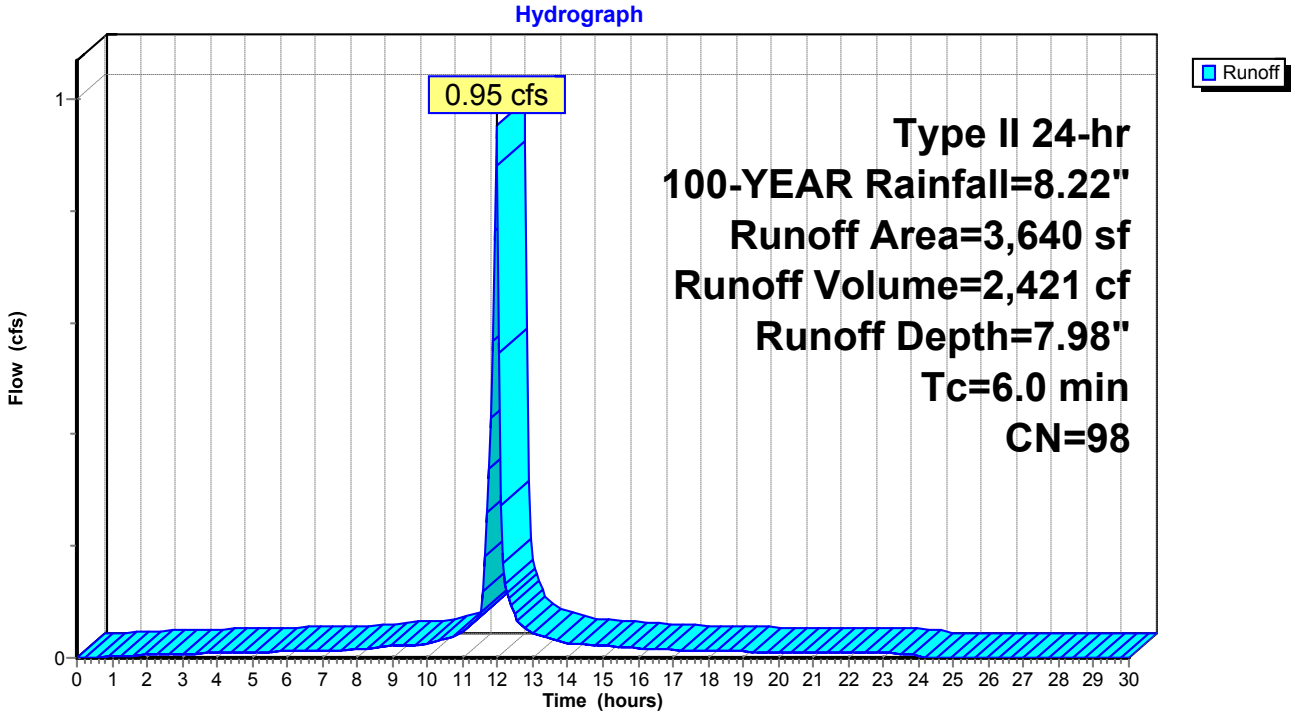
Runoff = 0.95 cfs @ 11.96 hrs, Volume= 2,421 cf, Depth= 7.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,587	98	Roofs, HSG D
2,053	98	Paved parking, HSG D
3,640	98	Weighted Average
3,640		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

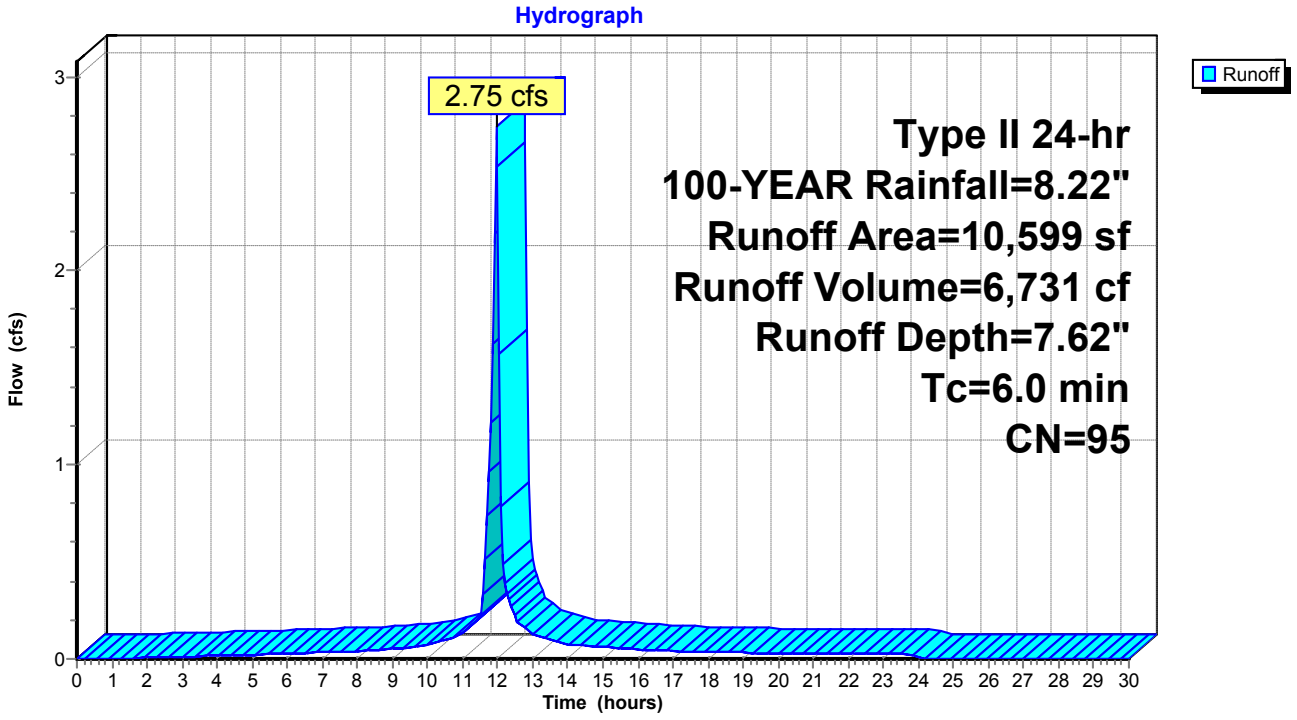
Runoff = 2.75 cfs @ 11.96 hrs, Volume= 6,731 cf, Depth= 7.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,986	80	>75% Grass cover, Good, HSG D
6,900	98	Roofs, HSG D
1,713	98	Paved parking, HSG D
10,599	95	Weighted Average
1,986		18.74% Pervious Area
8,613		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DRAINAGE AREA 9

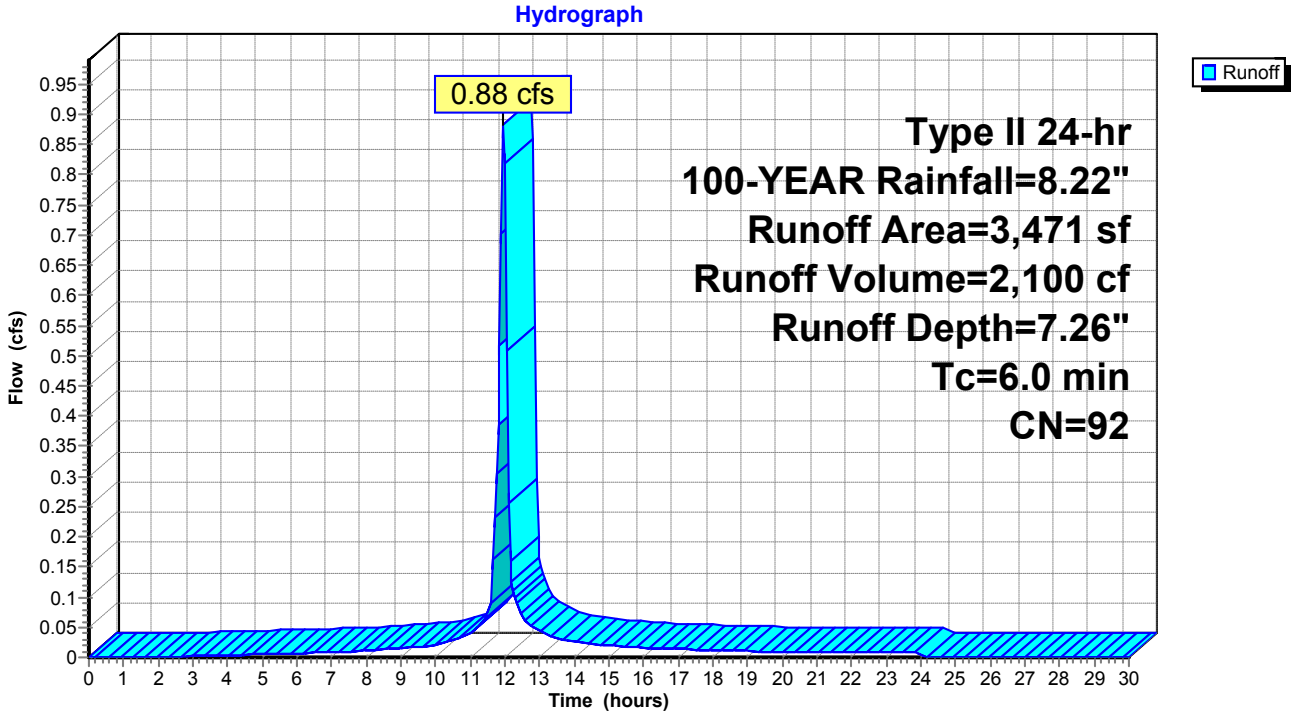
Runoff = 0.88 cfs @ 11.96 hrs, Volume= 2,100 cf, Depth= 7.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,195	80	>75% Grass cover, Good, HSG D
2,276	98	Paved parking, HSG D
3,471	92	Weighted Average
1,195		34.43% Pervious Area
2,276		65.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-9: DRAINAGE AREA 9



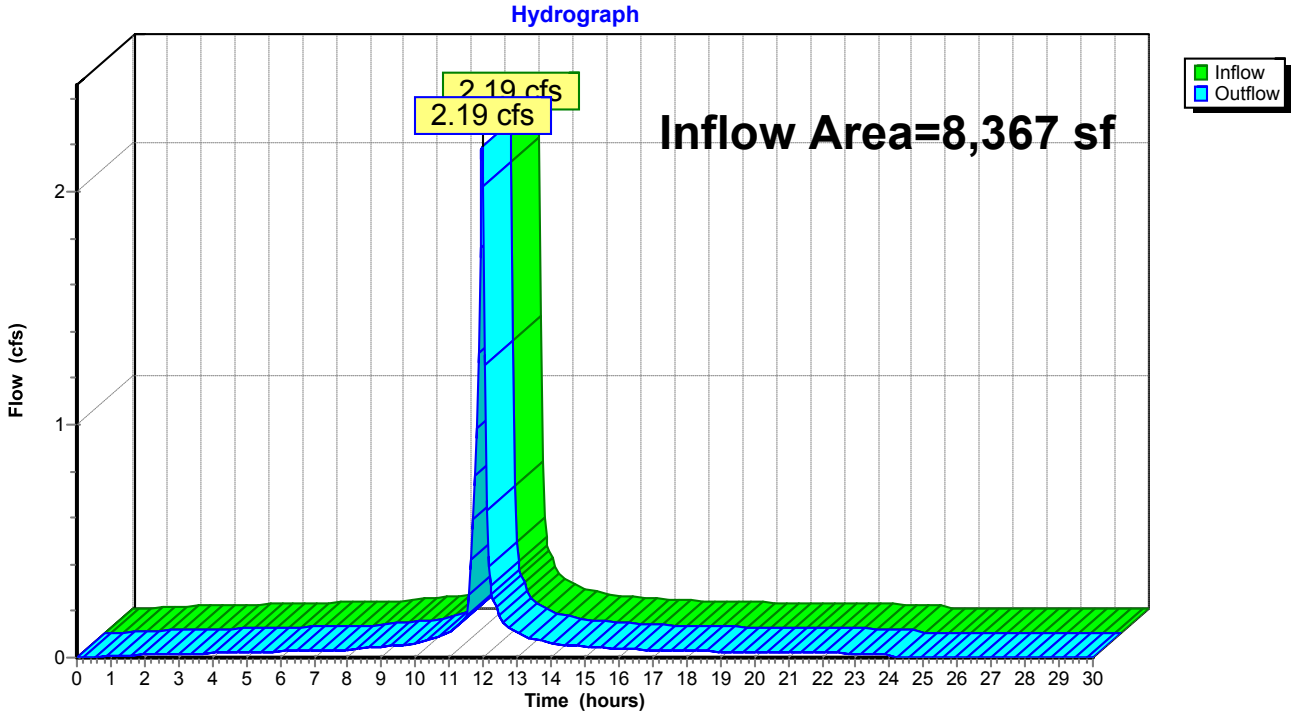
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8,367 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 2.19 cfs @ 11.96 hrs, Volume= 5,564 cf
Outflow = 2.19 cfs @ 11.96 hrs, Volume= 5,564 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 2P: EXISTING DRYWELL

[81] Warning: Exceeded Pond DW-4 by 0.49' @ 22.20 hrs

Inflow Area = 5,334 sf, 65.88% Impervious, Inflow Depth = 23.71" for 100-YEAR event
Inflow = 6.85 cfs @ 12.00 hrs, Volume= 10,541 cf
Outflow = 5.36 cfs @ 12.02 hrs, Volume= 10,541 cf, Atten= 22%, Lag= 1.0 min
Discarded = 0.93 cfs @ 12.02 hrs, Volume= 6,074 cf
Primary = 4.43 cfs @ 12.02 hrs, Volume= 4,467 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.96' @ 12.02 hrs Surf.Area= 1,829 sf Storage= 634 cf

Plug-Flow detention time= 19.4 min calculated for 10,523 cf (100% of inflow)
Center-of-Mass det. time= 19.7 min (771.9 - 752.2)

Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	1,717 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

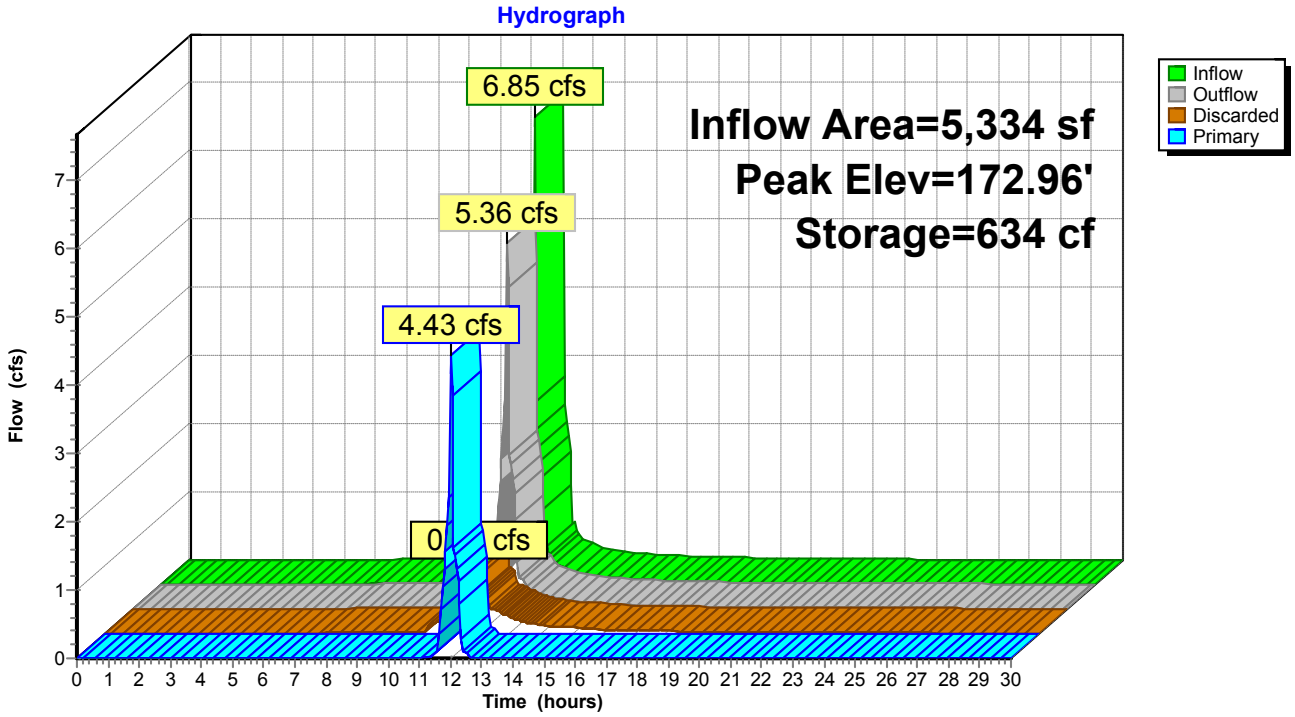
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	2,000	507	717
173.50	2,000	1,000	1,717

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**
#2	Primary	172.65'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.90 cfs @ 12.02 hrs HW=172.94' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.90 cfs)

Primary OutFlow Max=4.16 cfs @ 12.02 hrs HW=172.94' (Free Discharge)
↑**2=Orifice/Grate** (Weir Controls 4.16 cfs @ 1.77 fps)

Pond 2P: EXISTING DRYWELL



Summary for Pond 3P: PROPOSED CB #3

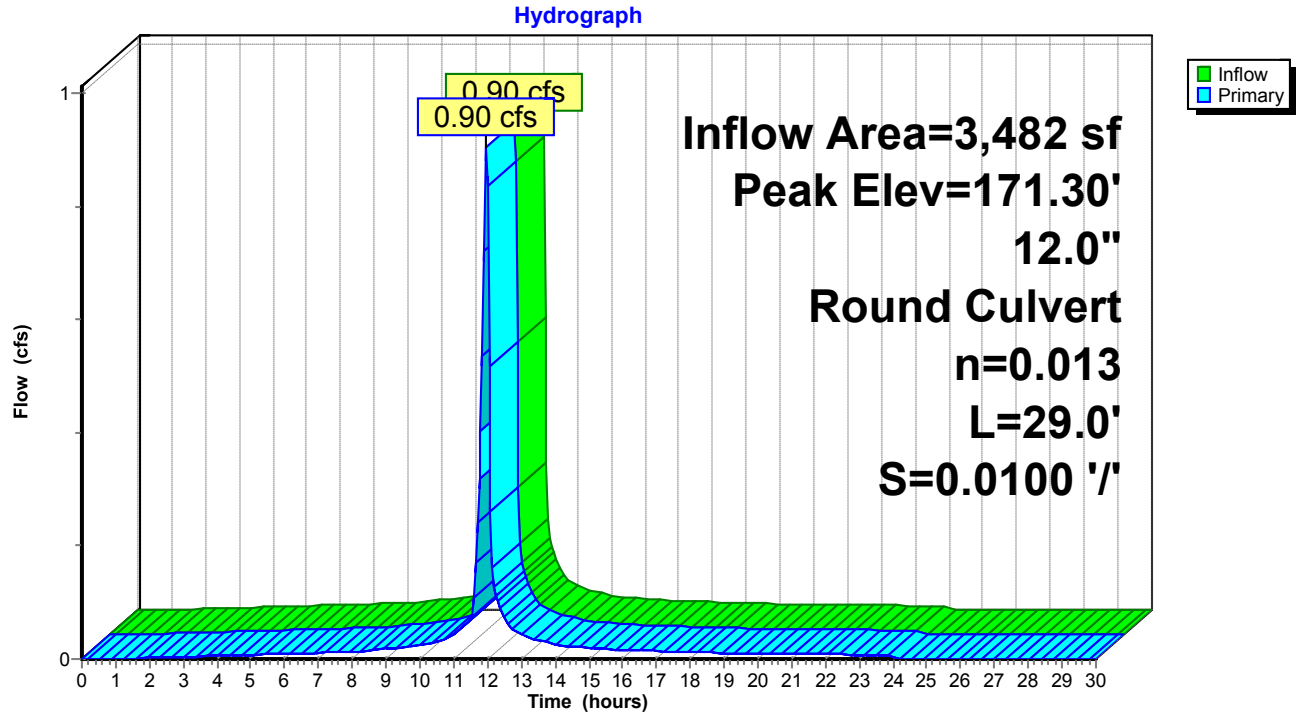
Inflow Area = 3,482 sf, 85.96% Impervious, Inflow Depth = 7.62" for 100-YEAR event
Inflow = 0.90 cfs @ 11.96 hrs, Volume= 2,211 cf
Outflow = 0.90 cfs @ 11.96 hrs, Volume= 2,211 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.90 cfs @ 11.96 hrs, Volume= 2,211 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.30' @ 11.96 hrs
Flood Elev= 172.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.74'	**12.0" Round Culvert** L= 29.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.74' / 170.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.88 cfs @ 11.96 hrs HW=171.29' (Free Discharge)
1=Culvert (Inlet Controls 0.88 cfs @ 1.99 fps)

Pond 3P: PROPOSED CB #3



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond CB-2 by 2.85' @ 12.20 hrs

Inflow	=	2.32 cfs @	11.96 hrs,	Volume=	7,262 cf
Outflow	=	1.36 cfs @	12.06 hrs,	Volume=	7,262 cf, Atten= 42%, Lag= 5.7 min
Discarded	=	1.36 cfs @	12.06 hrs,	Volume=	7,262 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.66' @ 12.06 hrs Surf.Area= 2,666 sf Storage= 1,126 cf

Plug-Flow detention time= 34.9 min calculated for 7,250 cf (100% of inflow)
Center-of-Mass det. time= 35.1 min (788.0 - 752.9)

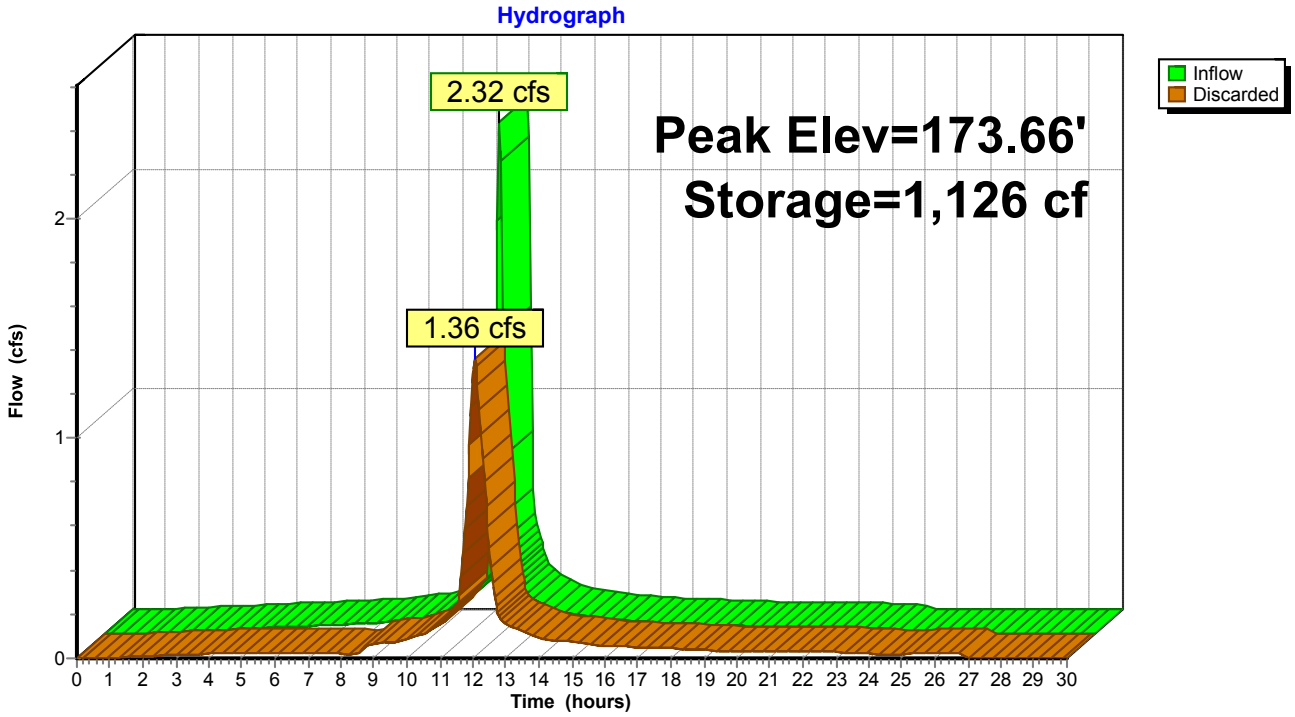
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	112	7	213
174.00	4,000	2,056	2,269

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.35 cfs @ 12.06 hrs HW=173.65' (Free Discharge)
1=Exfiltration (Exfiltration Controls 1.35 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 8P: EXISTING YARD DRAIN

[58] Hint: Peaked 143.68' above defined flood level

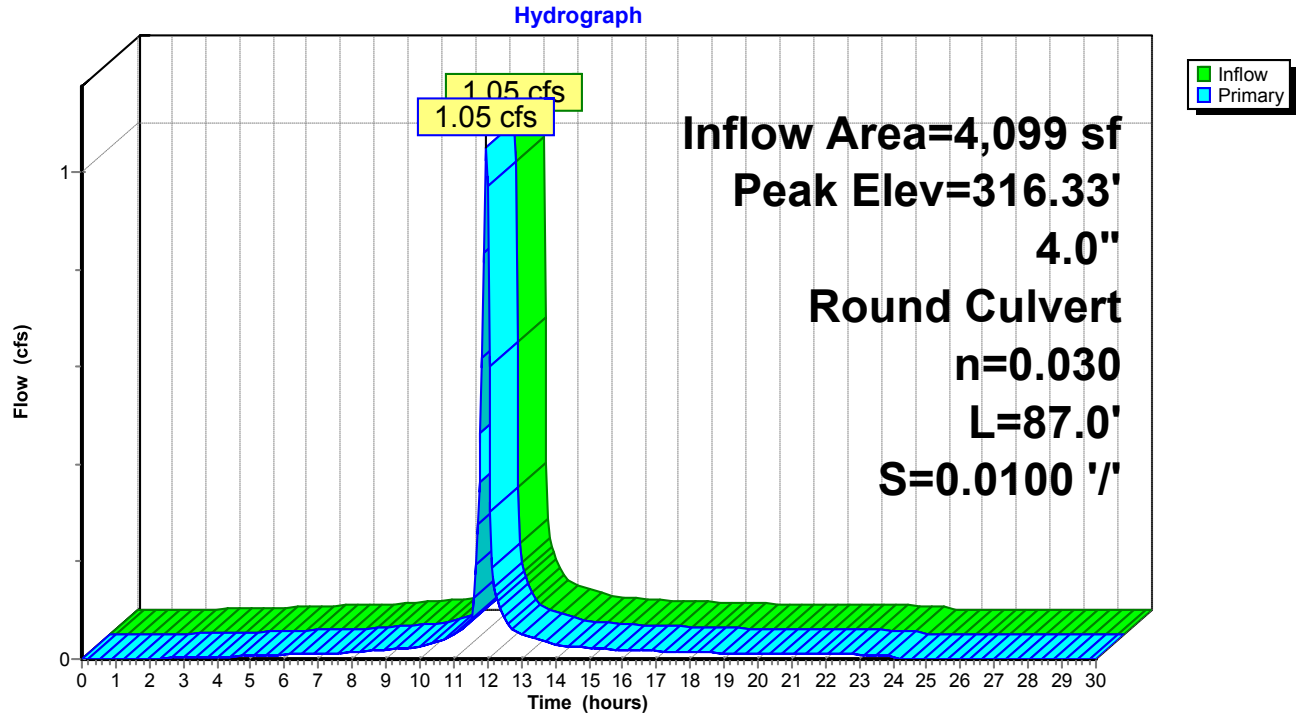
Inflow Area = 4,099 sf, 74.82% Impervious, Inflow Depth = 7.38" for 100-YEAR event
Inflow = 1.05 cfs @ 11.96 hrs, Volume= 2,521 cf
Outflow = 1.05 cfs @ 11.96 hrs, Volume= 2,521 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.05 cfs @ 11.96 hrs, Volume= 2,521 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 316.33' @ 11.96 hrs
Flood Elev= 172.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.030, Flow Area= 0.09 sf

Primary OutFlow Max=1.03 cfs @ 11.96 hrs HW=309.86' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.03 cfs @ 11.76 fps)

Pond 8P: EXISTING YARD DRAIN



Summary for Pond 12P: EXISTING CB

[58] Hint: Peaked 4.38' above defined flood level
[81] Warning: Exceeded Pond 3P by 5.19' @ 12.05 hrs

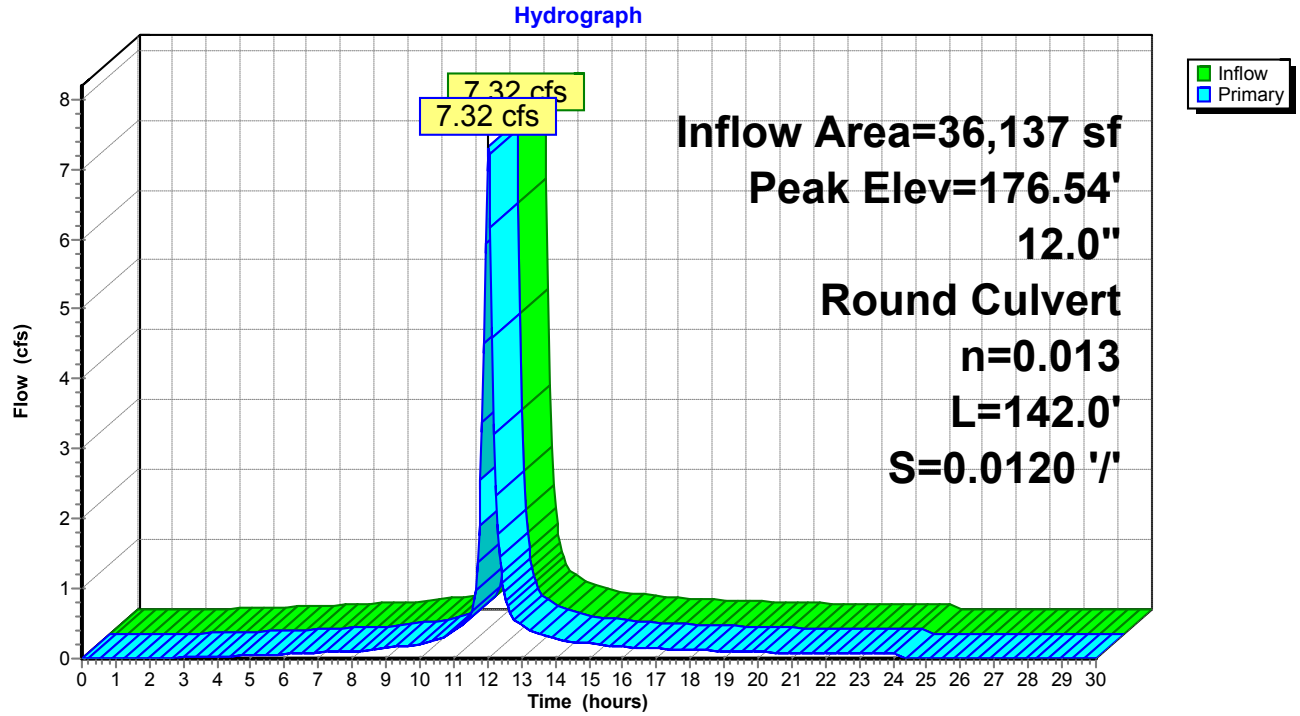
Inflow Area = 36,137 sf, 63.40% Impervious, Inflow Depth = 7.19" for 100-YEAR event
Inflow = 7.32 cfs @ 12.03 hrs, Volume= 21,646 cf
Outflow = 7.32 cfs @ 12.03 hrs, Volume= 21,646 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.32 cfs @ 12.03 hrs, Volume= 21,646 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 176.54' @ 12.03 hrs
Flood Elev= 172.16'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=7.17 cfs @ 12.03 hrs HW=176.24' (Free Discharge)
↑**1=Culvert** (Barrel Controls 7.17 cfs @ 9.13 fps)

Pond 12P: EXISTING CB



Summary for Pond 14P: EXISTING CB

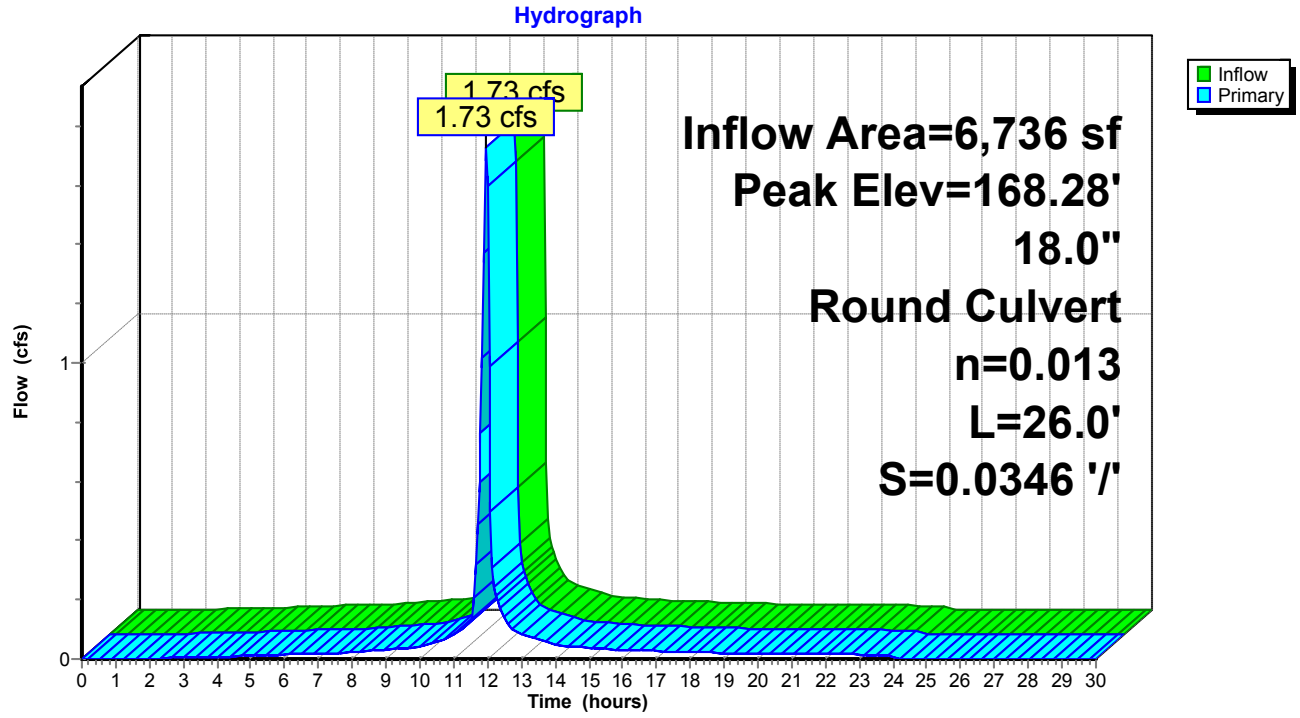
Inflow Area = 6,736 sf, 69.73% Impervious, Inflow Depth = 7.38" for 100-YEAR event
Inflow = 1.73 cfs @ 11.96 hrs, Volume= 4,143 cf
Outflow = 1.73 cfs @ 11.96 hrs, Volume= 4,143 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.73 cfs @ 11.96 hrs, Volume= 4,143 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.28' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=1.68 cfs @ 11.96 hrs HW=168.27' (Free Discharge)
1=Culvert (Inlet Controls 1.68 cfs @ 2.20 fps)

Pond 14P: EXISTING CB



Summary for Pond CB-1: PROPOSED CATCH BASIN #1

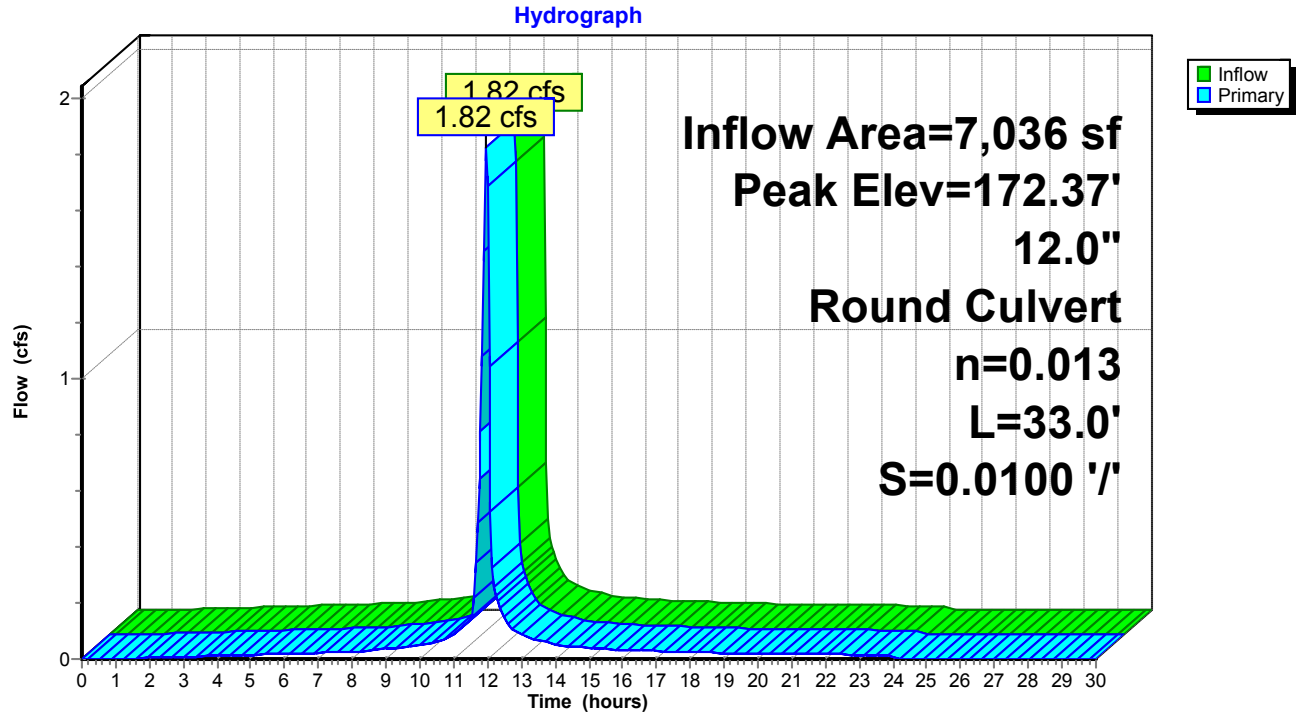
Inflow Area = 7,036 sf, 83.26% Impervious, Inflow Depth = 7.62" for 100-YEAR event
Inflow = 1.82 cfs @ 11.96 hrs, Volume= 4,468 cf
Outflow = 1.82 cfs @ 11.96 hrs, Volume= 4,468 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.82 cfs @ 11.96 hrs, Volume= 4,468 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.37' @ 11.96 hrs
Flood Elev= 172.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.50'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.50' / 171.17' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.78 cfs @ 11.96 hrs HW=172.36' (Free Discharge)
1=Culvert (Inlet Controls 1.78 cfs @ 2.49 fps)

Pond CB-1: PROPOSED CATCH BASIN #1



Summary for Pond CB-2: PR CB #2

[57] Hint: Peaked at 173.64' (Flood elevation advised)
[81] Warning: Exceeded Pond CB-1 by 1.24' @ 11.95 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 7.71" for 100-YEAR event
Inflow = 7.40 cfs @ 11.96 hrs, Volume= 18,279 cf
Outflow = 7.40 cfs @ 11.96 hrs, Volume= 18,279 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.08 cfs @ 11.96 hrs, Volume= 11,017 cf
Secondary = 2.32 cfs @ 11.96 hrs, Volume= 7,262 cf

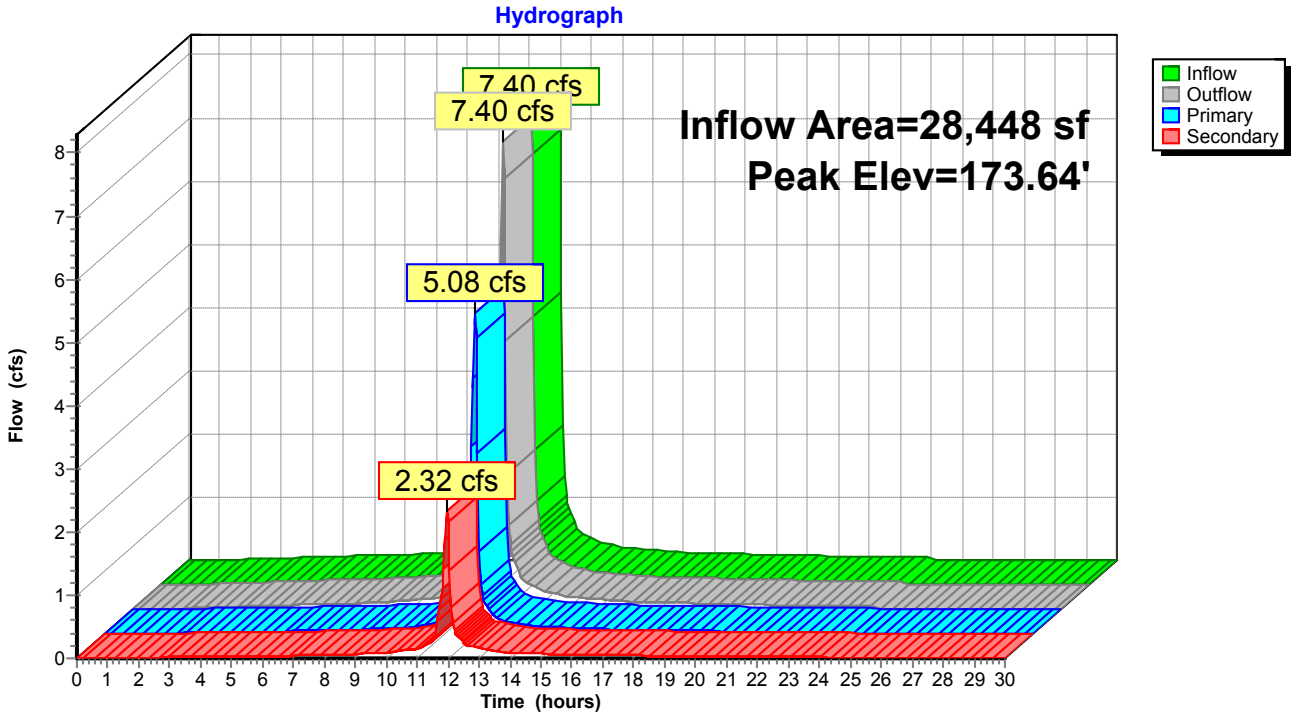
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.64' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.25'	**12.0" Round Culvert** L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	170.25'	**8.0" Round Culvert** L= 12.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=4.96 cfs @ 11.96 hrs HW=173.51' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 4.96 cfs @ 6.32 fps)

Secondary OutFlow Max=2.27 cfs @ 11.96 hrs HW=173.51' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 2.27 cfs @ 6.50 fps)

Pond CB-2: PR CB #2



Summary for Pond DP-1: Existing Catch Basin

[58] Hint: Peaked 0.37' above defined flood level
[79] Warning: Submerged Pond 8P Primary device # 1 INLET by 0.92'
[79] Warning: Submerged Pond 12P Primary device # 1 INLET by 3.52'
[81] Warning: Exceeded Pond 14P by 3.97' @ 12.00 hrs

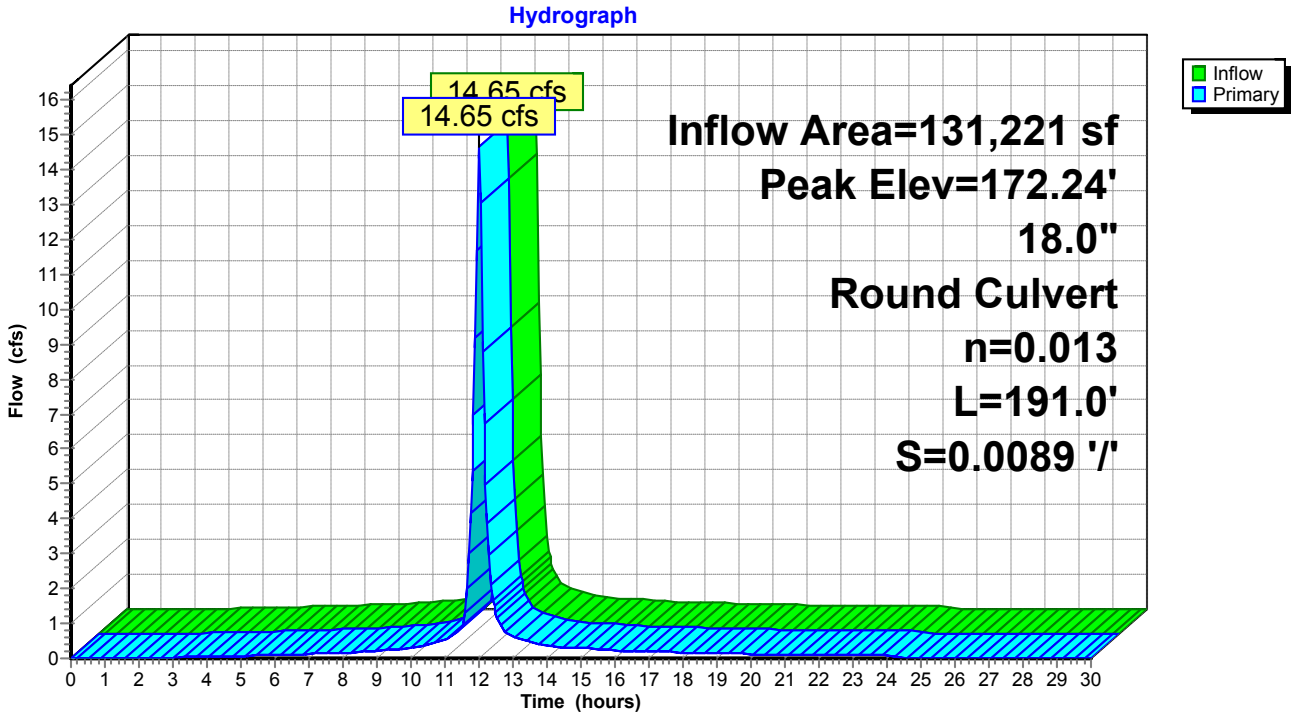
Inflow Area = 131,221 sf, 73.88% Impervious, Inflow Depth = 3.14" for 100-YEAR event
Inflow = 14.65 cfs @ 12.01 hrs, Volume= 34,386 cf
Outflow = 14.65 cfs @ 12.01 hrs, Volume= 34,386 cf, Atten= 0%, Lag= 0.0 min
Primary = 14.65 cfs @ 12.01 hrs, Volume= 34,386 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.24' @ 12.01 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=14.41 cfs @ 12.01 hrs HW=172.07' (Free Discharge)
1=Culvert (Barrel Controls 14.41 cfs @ 8.15 fps)

Pond DP-1: Existing Catch Basin



Summary for Pond DW-1: PROPOSED DRYWELL #1

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)

Inflow Area = 3,471 sf, 65.57% Impervious, Inflow Depth = 7.26" for 100-YEAR event
Inflow = 0.88 cfs @ 11.96 hrs, Volume= 2,100 cf
Outflow = 0.23 cfs @ 11.90 hrs, Volume= 2,100 cf, Atten= 74%, Lag= 0.0 min
Discarded = 0.23 cfs @ 11.90 hrs, Volume= 2,100 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 170.14' @ 12.12 hrs Surf.Area= 310 sf Storage= 642 cf

Plug-Flow detention time= 33.1 min calculated for 2,097 cf (100% of inflow)
Center-of-Mass det. time= 33.0 min (797.7 - 764.7)

Volume	Invert	Avail.Storage	Storage Description
#1	164.00'	712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	163.00'	38 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 94 cf Overall x 40.0% Voids
		750 cf	Total Available Storage

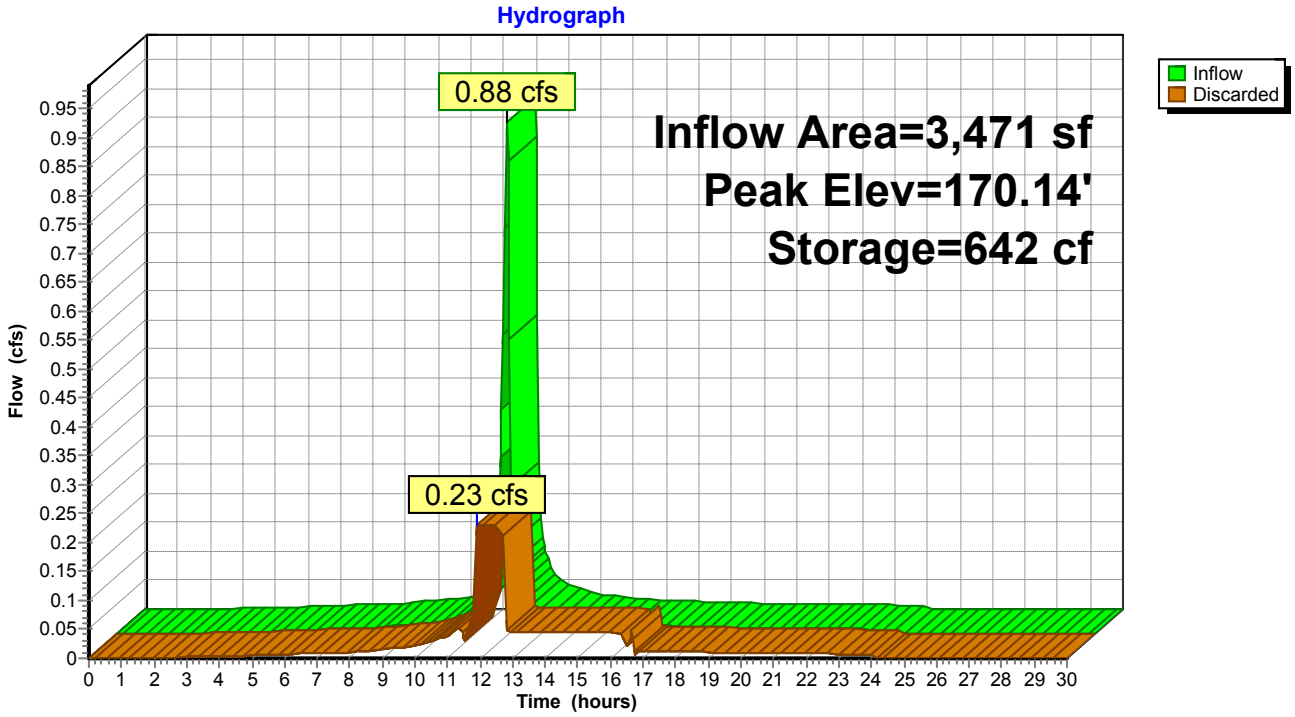
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	50	0	0
168.90	50	245	245
169.00	300	17	262
170.50	300	450	712

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	78	0	0
164.00	10	44	44
169.00	10	50	94

Device	Routing	Invert	Outlet Devices
#1	Discarded	163.00'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.23 cfs @ 11.90 hrs HW=169.08' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.23 cfs)

Pond DW-1: PROPOSED DRYWELL #1



Summary for Pond DW-2: PROPOSED DRYWELL #2

[81] Warning: Exceeded Pond YD-2 by 2.78' @ 18.20 hrs

Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 7.25" for 100-YEAR event
Inflow = 3.38 cfs @ 11.96 hrs, Volume= 8,066 cf
Outflow = 2.58 cfs @ 12.02 hrs, Volume= 8,068 cf, Atten= 24%, Lag= 3.7 min
Discarded = 2.58 cfs @ 12.02 hrs, Volume= 8,068 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.89' @ 12.02 hrs Surf.Area= 3,487 sf Storage= 1,134 cf

Plug-Flow detention time= 42.7 min calculated for 8,055 cf (100% of inflow)
Center-of-Mass det. time= 42.9 min (805.2 - 762.3)

Volume	Invert	Avail.Storage	Storage Description
#1	167.78'	1,499 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	166.50'	53 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 134 cf Overall x 40.0% Voids
		1,552 cf	Total Available Storage

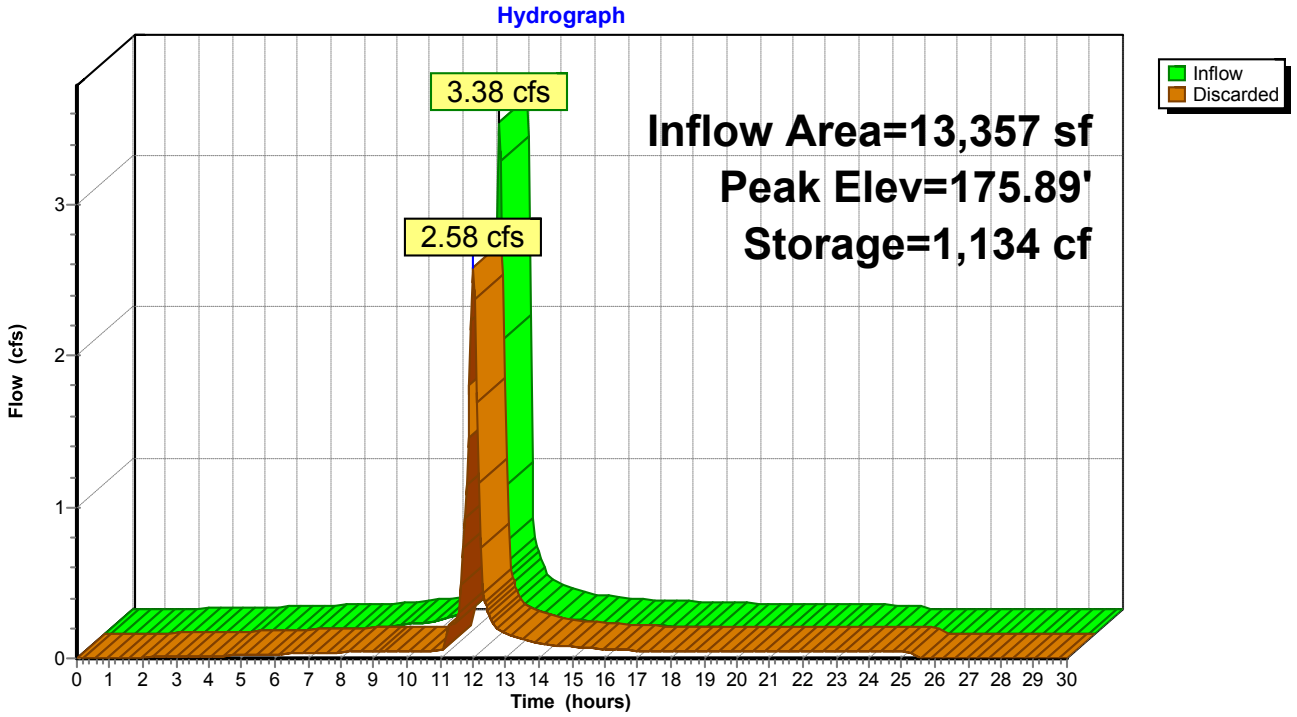
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.78	50	0	0
175.50	50	386	386
176.00	4,400	1,113	1,499

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.50	78	0	0
167.78	10	56	56
175.50	10	77	134

Device	Routing	Invert	Outlet Devices
#1	Discarded	166.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.54 cfs @ 12.02 hrs HW=175.89' (Free Discharge)
1=Exfiltration (Exfiltration Controls 2.54 cfs)

Pond DW-2: PROPOSED DRYWELL #2



Summary for Pond DW-3: PROPOSED DRYWELL #3

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)
[81] Warning: Exceeded Pond YD-4 by 2.09' @ 18.70 hrs

Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 7.71" for 100-YEAR event
Inflow = 3.70 cfs @ 11.96 hrs, Volume= 9,151 cf
Outflow = 2.72 cfs @ 12.03 hrs, Volume= 9,152 cf, Atten= 26%, Lag= 4.0 min
Discarded = 2.72 cfs @ 12.03 hrs, Volume= 9,152 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.96' @ 12.03 hrs Surf.Area= 3,675 sf Storage= 1,295 cf

Plug-Flow detention time= 41.3 min calculated for 9,137 cf (100% of inflow)
Center-of-Mass det. time= 41.5 min (789.9 - 748.4)

Volume	Invert	Avail.Storage	Storage Description
#1	166.69'	1,403 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	165.50'	55 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 138 cf Overall x 40.0% Voids
		1,458 cf	Total Available Storage

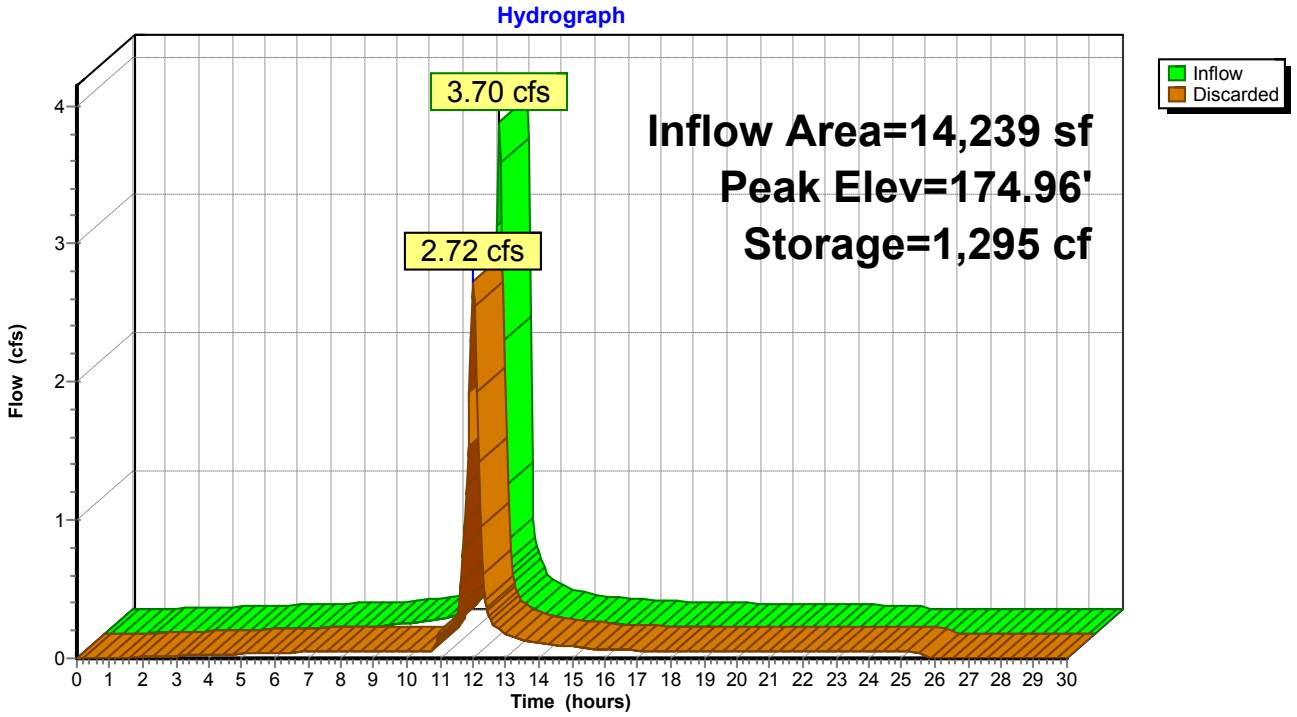
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.69	50	0	0
174.50	50	391	391
175.00	4,000	1,013	1,403

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.50	79	0	0
165.69	79	15	15
166.69	10	45	60
174.50	10	78	138

Device	Routing	Invert	Outlet Devices
#1	Discarded	165.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.68 cfs @ 12.03 hrs HW=174.95' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 2.68 cfs)

Pond DW-3: PROPOSED DRYWELL #3



Summary for Pond DW-4: PROPOSED DRYWELL #4

[93] Warning: Storage range exceeded by 15.56'
[88] Warning: Qout>Qin may require smaller dt or Finer Routing
[81] Warning: Exceeded Pond CB-2 by 16.85' @ 12.00 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 4.65" for 100-YEAR event
Inflow = 5.08 cfs @ 11.96 hrs, Volume= 11,017 cf
Outflow = 6.10 cfs @ 12.00 hrs, Volume= 11,017 cf, Atten= 0%, Lag= 2.3 min
Discarded = 0.51 cfs @ 11.95 hrs, Volume= 3,704 cf
Secondary = 5.59 cfs @ 12.00 hrs, Volume= 7,313 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 190.06' @ 12.00 hrs Surf.Area= 1,010 sf Storage= 1,517 cf

Plug-Flow detention time= 44.1 min calculated for 11,017 cf (100% of inflow)
Center-of-Mass det. time= 44.0 min (790.5 - 746.4)

Volume	Invert	Avail.Storage	Storage Description
#1	165.00'	1,468 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	164.00'	50 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 124 cf Overall x 40.0% Voids
		1,517 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.00	55	0	0
173.00	55	440	440
174.00	1,000	528	968
174.50	1,000	500	1,468

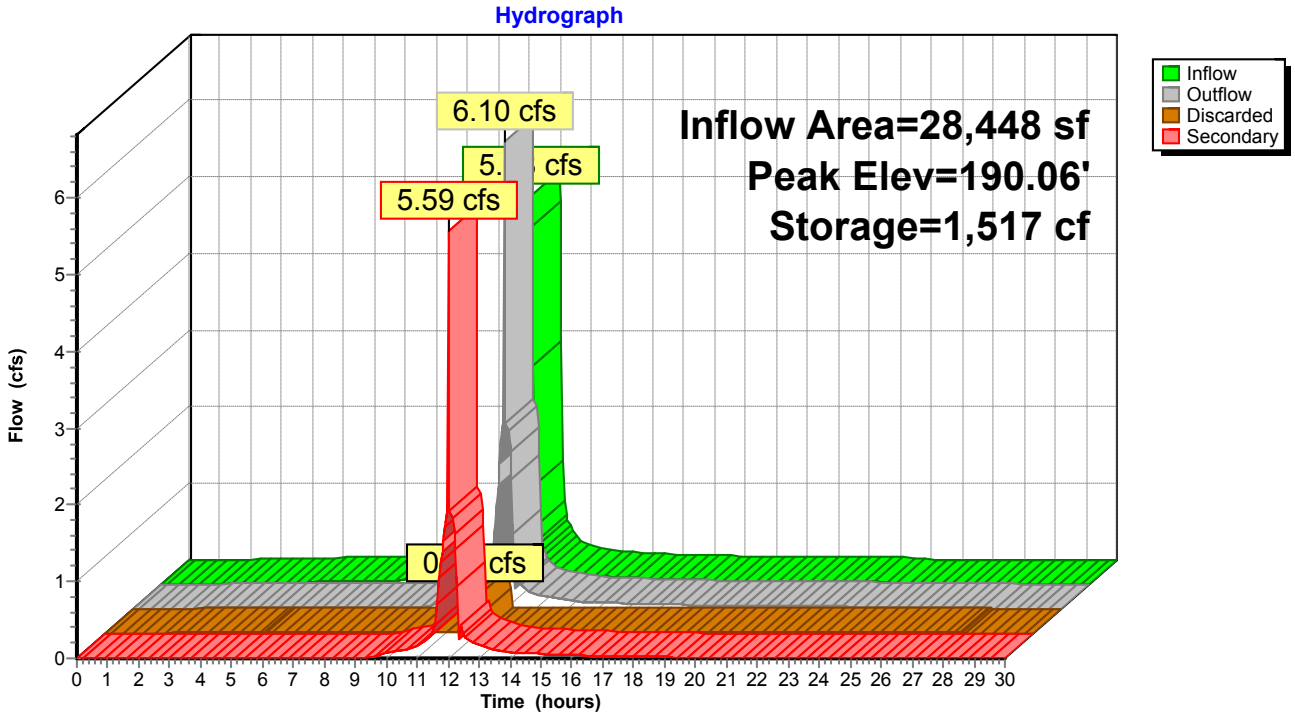
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	78	0	0
165.00	10	44	44
173.00	10	80	124

Device	Routing	Invert	Outlet Devices
#1	Discarded	164.00'	**22.000 in/hr Exfiltration over Surface area**
#2	Secondary	172.00'	**8.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.00' / 171.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Discarded OutFlow Max=0.51 cfs @ 11.95 hrs HW=174.39' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.51 cfs)

Secondary OutFlow Max=5.59 cfs @ 12.00 hrs HW=190.05' (Free Discharge)
↑**2=Culvert** (Inlet Controls 5.59 cfs @ 16.00 fps)

Pond DW-4: PROPOSED DRYWELL #4



Summary for Pond DW-5: PROPOSED DRYWELL #5

Inflow Area = 11,493 sf, 65.66% Impervious, Inflow Depth = 7.26" for 100-YEAR event
Inflow = 2.93 cfs @ 11.96 hrs, Volume= 6,955 cf
Outflow = 1.43 cfs @ 12.07 hrs, Volume= 6,955 cf, Atten= 51%, Lag= 6.3 min
Discarded = 1.43 cfs @ 12.07 hrs, Volume= 6,955 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.93' @ 12.07 hrs Surf.Area= 2,814 sf Storage= 1,588 cf

Plug-Flow detention time= 35.9 min calculated for 6,943 cf (100% of inflow)
Center-of-Mass det. time= 36.0 min (800.7 - 764.7)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,748 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	167.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		1,781 cf	Total Available Storage

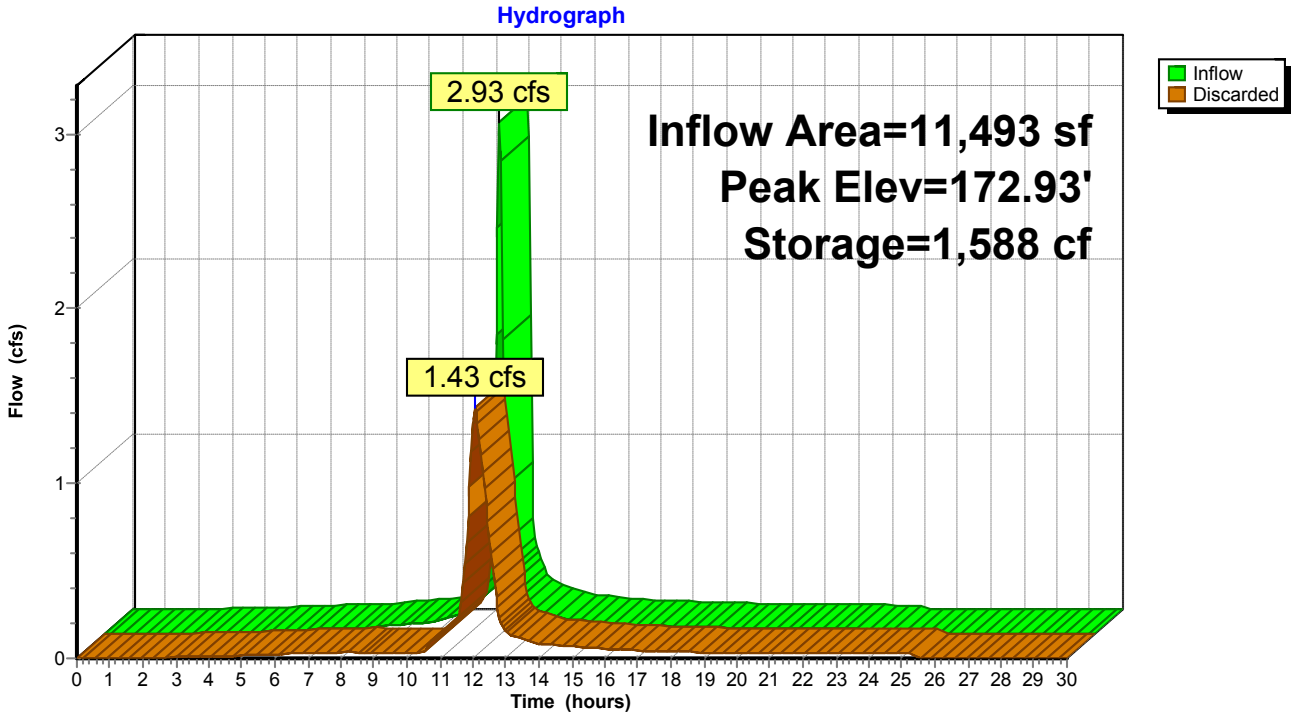
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.00	55	220	220
173.00	3,000	1,528	1,748

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	78	0	0
168.00	10	44	44
172.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.42 cfs @ 12.07 hrs HW=172.93' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 1.42 cfs)

Pond DW-5: PROPOSED DRYWELL #5



Summary for Pond DW-6: PROPOSED DRYWELL #6

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)

Inflow Area = 1,844 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 0.48 cfs @ 11.96 hrs, Volume= 1,226 cf
Outflow = 0.27 cfs @ 12.06 hrs, Volume= 1,226 cf, Atten= 44%, Lag= 5.9 min
Discarded = 0.27 cfs @ 12.06 hrs, Volume= 1,226 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.25' @ 12.06 hrs Surf.Area= 534 sf Storage= 325 cf

Plug-Flow detention time= 37.3 min calculated for 1,224 cf (100% of inflow)
Center-of-Mass det. time= 37.3 min (773.9 - 736.6)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	169.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

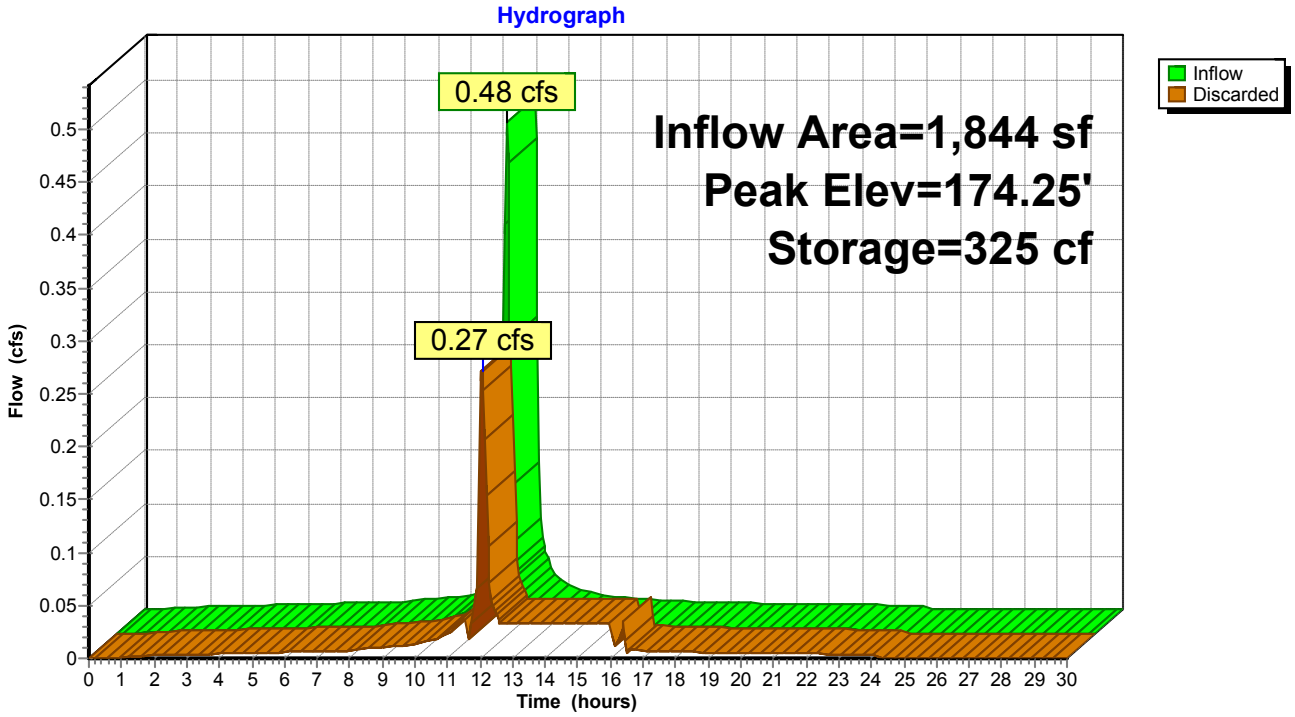
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	55	0	0
174.00	55	220	220
174.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	78	0	0
170.00	10	44	44
174.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	169.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.27 cfs @ 12.06 hrs HW=174.24' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.27 cfs)

Pond DW-6: PROPOSED DRYWELL #6



Summary for Pond DW-7: PROPOSED DRYWELL #7

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)

Inflow Area = 1,755 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 0.46 cfs @ 11.96 hrs, Volume= 1,167 cf
Outflow = 0.29 cfs @ 12.05 hrs, Volume= 1,167 cf, Atten= 37%, Lag= 5.5 min
Discarded = 0.29 cfs @ 12.05 hrs, Volume= 1,167 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.63' @ 12.05 hrs Surf.Area= 573 sf Storage= 304 cf

Plug-Flow detention time= 39.8 min calculated for 1,165 cf (100% of inflow)
Center-of-Mass det. time= 39.8 min (776.4 - 736.6)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	352 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	170.00'	42 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 106 cf Overall x 40.0% Voids
		394 cf	Total Available Storage

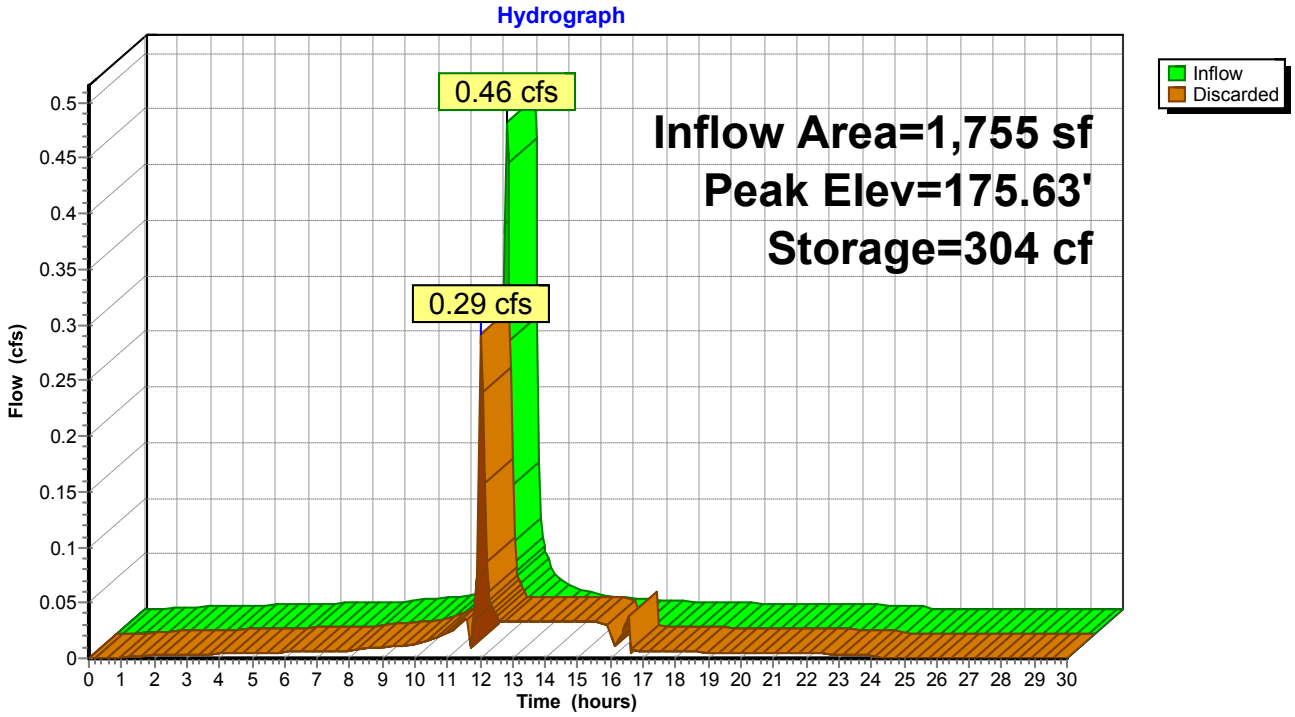
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
171.50	55	0	0
175.50	55	220	220
175.75	1,000	132	352

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	78	0	0
171.50	10	66	66
175.50	10	40	106

Device	Routing	Invert	Outlet Devices
#1	Discarded	170.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.29 cfs @ 12.05 hrs HW=175.63' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.29 cfs)

Pond DW-7: PROPOSED DRYWELL #7



Summary for Pond DW-8: PROPOSED DRYWELL #8

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=1)

Inflow Area = 1,734 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 0.45 cfs @ 11.96 hrs, Volume= 1,153 cf
Outflow = 0.24 cfs @ 12.06 hrs, Volume= 1,153 cf, Atten= 47%, Lag= 6.2 min
Discarded = 0.24 cfs @ 12.06 hrs, Volume= 1,153 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.22' @ 12.06 hrs Surf.Area= 475 sf Storage= 310 cf

Plug-Flow detention time= 38.0 min calculated for 1,151 cf (100% of inflow)
Center-of-Mass det. time= 37.9 min (774.5 - 736.6)

Volume	Invert	Avail.Storage	Storage Description
#1	169.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	168.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

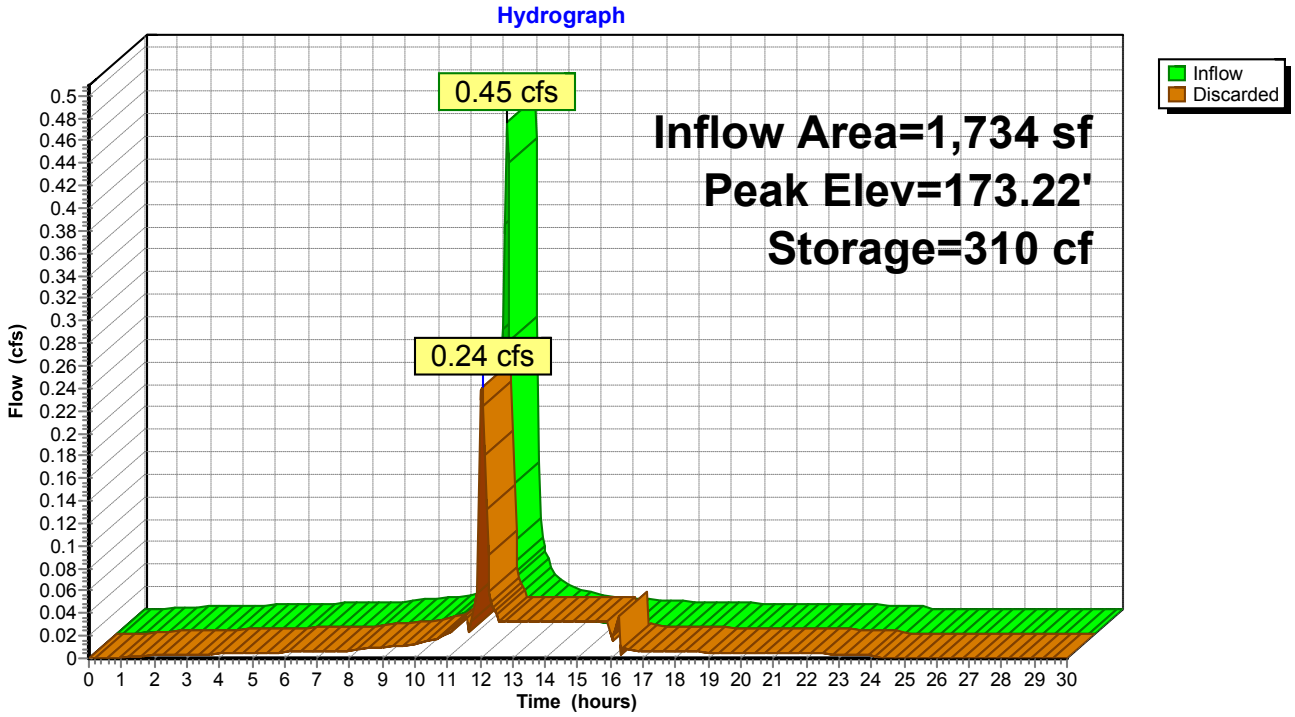
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	55	0	0
173.00	55	220	220
173.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	78	0	0
169.00	10	44	44
173.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.23 cfs @ 12.06 hrs HW=173.21' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.23 cfs)

Pond DW-8: PROPOSED DRYWELL #8



Summary for Pond YD-1: PROPOSED DRAIN #1

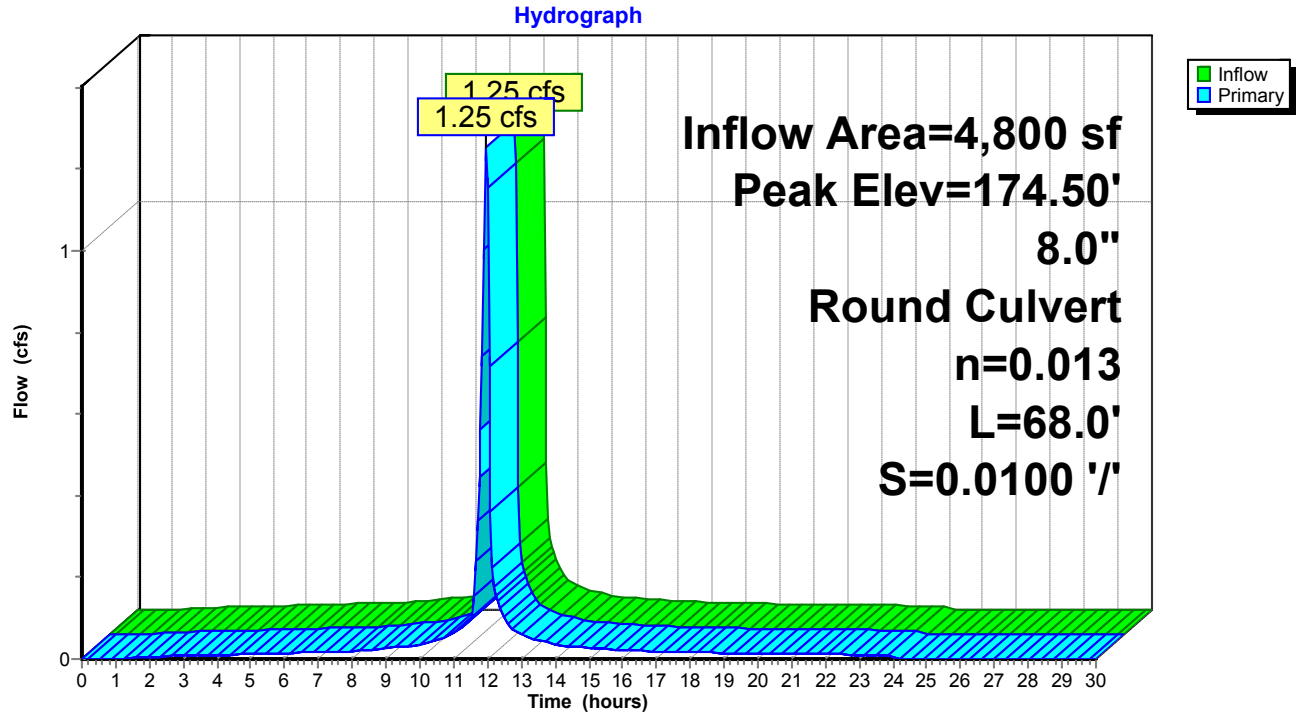
Inflow Area = 4,800 sf, 94.90% Impervious, Inflow Depth = 7.86" for 100-YEAR event
Inflow = 1.25 cfs @ 11.96 hrs, Volume= 3,144 cf
Outflow = 1.25 cfs @ 11.96 hrs, Volume= 3,144 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.25 cfs @ 11.96 hrs, Volume= 3,144 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.50' @ 11.96 hrs
Flood Elev= 175.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.27'	**8.0" Round Culvert** L= 68.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.27' / 172.59' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=1.23 cfs @ 11.96 hrs HW=174.46' (Free Discharge)
1=Culvert (Inlet Controls 1.23 cfs @ 3.51 fps)

Pond YD-1: PROPOSED DRAIN #1



Summary for Pond YD-2: PROPOSED DRAIN #2

[58] Hint: Peaked 5.61' above defined flood level
[81] Warning: Exceeded Pond YD-1 by 4.82' @ 11.95 hrs

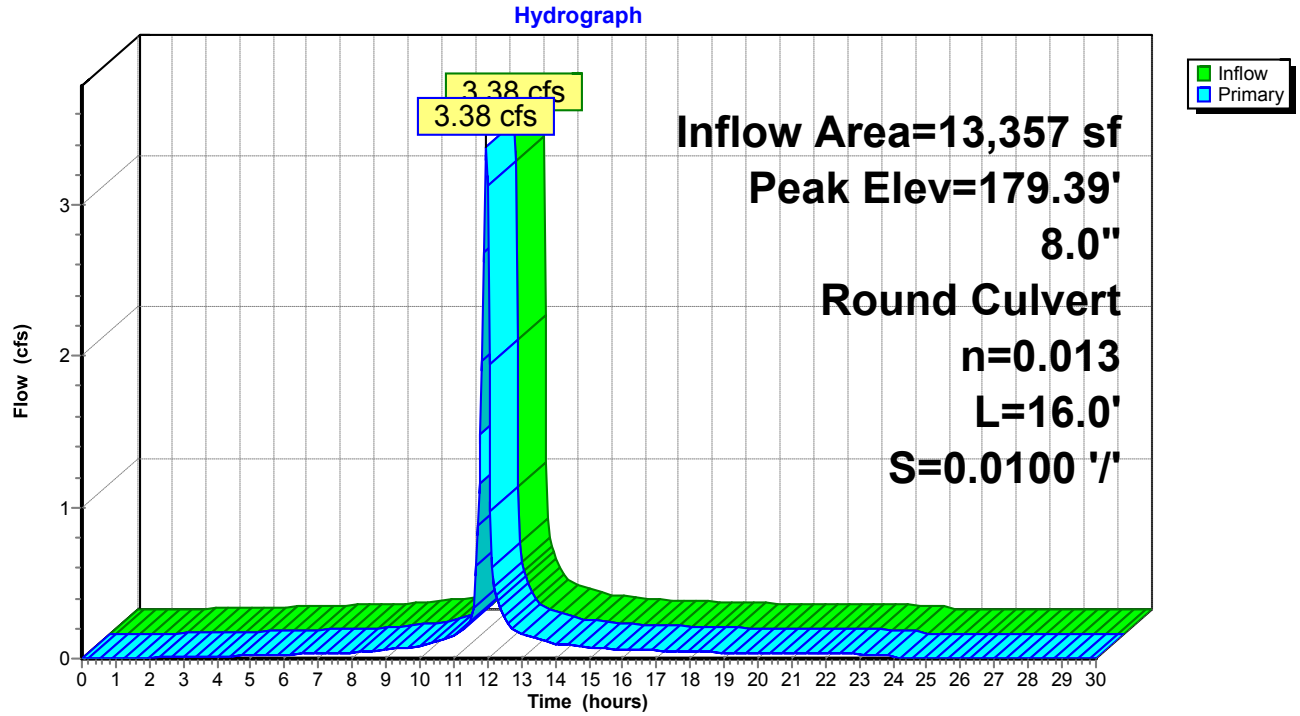
Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 7.25" for 100-YEAR event
Inflow = 3.38 cfs @ 11.96 hrs, Volume= 8,066 cf
Outflow = 3.38 cfs @ 11.96 hrs, Volume= 8,066 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.38 cfs @ 11.96 hrs, Volume= 8,066 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 179.39' @ 11.96 hrs
Flood Elev= 173.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.59'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.59' / 172.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=3.30 cfs @ 11.96 hrs HW=179.10' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 3.30 cfs @ 9.44 fps)

Pond YD-2: PROPOSED DRAIN #2



Summary for Pond YD-3: PROPOSED DRAIN #3

[58] Hint: Peaked 0.58' above defined flood level

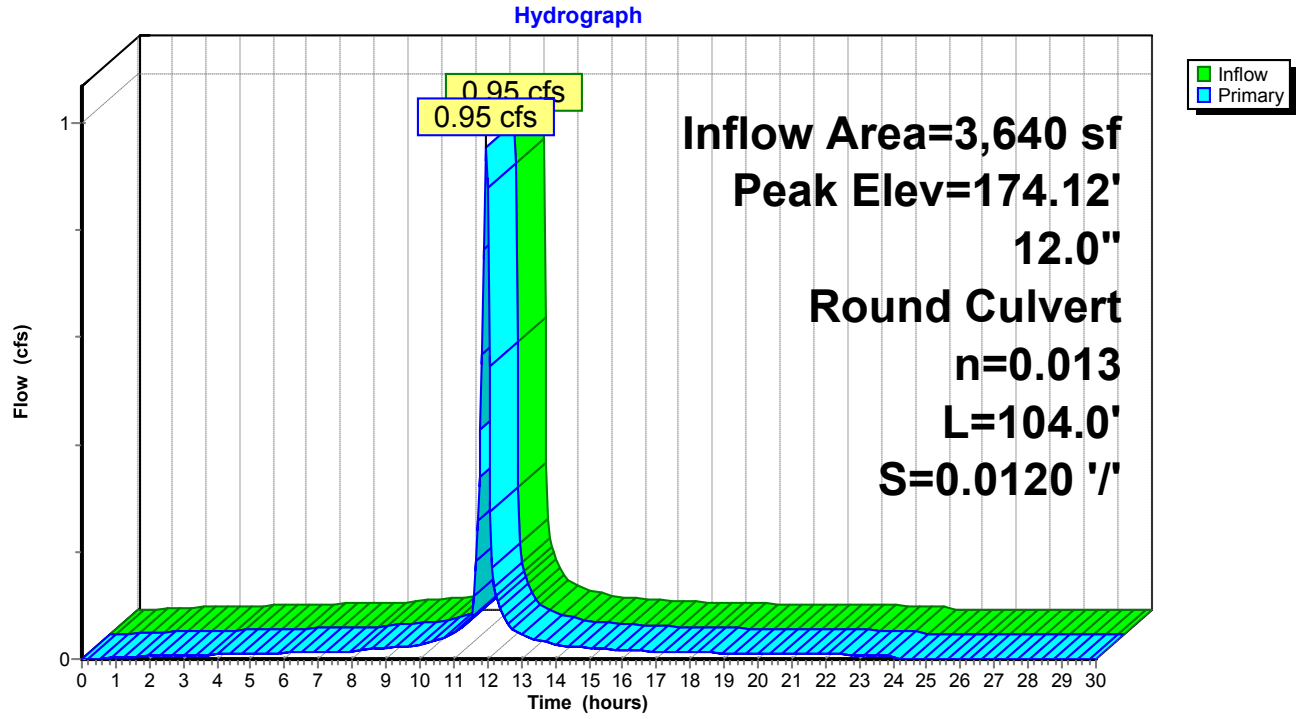
Inflow Area = 3,640 sf,100.00% Impervious, Inflow Depth = 7.98" for 100-YEAR event
Inflow = 0.95 cfs @ 11.96 hrs, Volume= 2,421 cf
Outflow = 0.95 cfs @ 11.96 hrs, Volume= 2,421 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.95 cfs @ 11.96 hrs, Volume= 2,421 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.12' @ 11.96 hrs
Flood Elev= 173.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.54'	**12.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.54' / 172.29' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.93 cfs @ 11.96 hrs HW=174.11' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.93 cfs @ 2.03 fps)

Pond YD-3: PROPOSED DRAIN #3



Summary for Pond YD-4: PROPOSED DRAIN #4

[58] Hint: Peaked 8.86' above defined flood level
[81] Warning: Exceeded Pond YD-3 by 9.07' @ 11.95 hrs

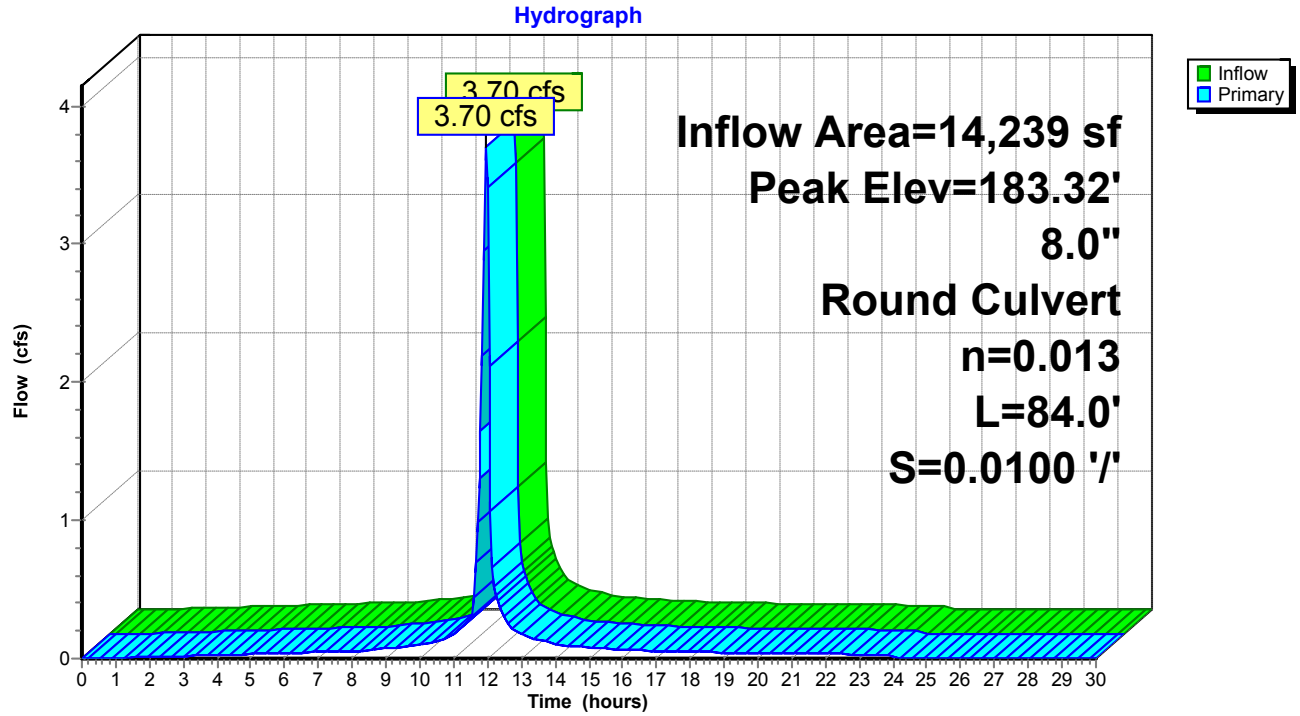
Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 7.71" for 100-YEAR event
Inflow = 3.70 cfs @ 11.96 hrs, Volume= 9,151 cf
Outflow = 3.70 cfs @ 11.96 hrs, Volume= 9,151 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.70 cfs @ 11.96 hrs, Volume= 9,151 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 183.32' @ 11.96 hrs
Flood Elev= 174.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.29'	**8.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.29' / 171.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=3.62 cfs @ 11.96 hrs HW=182.83' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 3.62 cfs @ 10.36 fps)

Pond YD-4: PROPOSED DRAIN #4



APPENDIX D

Supporting Design Information and Calculations
NYSOPRHP Correspondence
Soils Map

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New York
Location	
Longitude	73.926 degrees West
Latitude	41.704 degrees North
Elevation	0 feet
Date/Time	Wed, 28 Oct 2020 06:41:32 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.32	0.48	0.60	0.79	0.98	1.22	**1yr**	0.85	1.15	1.40	1.73	2.13	2.61	2.96	**1yr**	2.31	2.85	3.32	3.97	4.58	**1yr**
2yr	0.38	0.58	0.72	0.95	1.20	1.50	**2yr**	1.03	1.38	1.72	2.11	2.59	3.16	3.57	**2yr**	2.80	3.43	3.92	4.62	5.25	**2yr**
5yr	0.45	0.70	0.88	1.17	1.50	1.89	**5yr**	1.30	1.71	2.17	2.67	3.26	3.95	4.50	**5yr**	3.50	4.33	4.95	5.72	6.47	**5yr**
10yr	0.51	0.80	1.01	1.37	1.78	2.26	**10yr**	1.54	2.01	2.60	3.20	3.88	4.68	5.37	**10yr**	4.14	5.17	5.91	6.72	7.59	**10yr**
25yr	0.60	0.95	1.21	1.68	2.23	2.85	**25yr**	1.93	2.49	3.30	4.05	4.90	5.85	6.79	**25yr**	5.18	6.53	7.48	8.33	9.36	**25yr**
50yr	0.68	1.10	1.41	1.97	2.65	3.41	**50yr**	2.29	2.93	3.95	4.84	5.83	6.93	8.12	**50yr**	6.13	7.81	8.95	9.80	10.98	**50yr**
100yr	0.78	1.27	1.64	2.32	3.16	4.08	**100yr**	2.73	3.45	4.73	5.79	6.95	8.22	9.71	**100yr**	7.27	9.33	10.71	11.53	12.89	**100yr**
200yr	0.90	1.47	1.90	2.73	3.77	4.89	**200yr**	3.25	4.07	5.67	6.93	8.28	9.75	11.61	**200yr**	8.63	11.17	12.82	13.58	15.14	**200yr**
500yr	1.10	1.80	2.35	3.40	4.76	6.21	**500yr**	4.11	5.06	7.20	8.78	10.45	12.22	14.72	**500yr**	10.82	14.16	16.28	16.87	18.73	**500yr**

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.42	0.52	0.70	0.86	1.03	**1yr**	0.74	1.01	1.21	1.53	1.91	2.33	2.57	**1yr**	2.06	2.47	3.07	3.60	4.09	**1yr**
2yr	0.37	0.56	0.69	0.94	1.16	1.36	**2yr**	1.00	1.33	1.54	1.97	2.50	3.05	3.46	**2yr**	2.70	3.33	3.81	4.56	5.18	**2yr**
5yr	0.41	0.64	0.79	1.09	1.38	1.59	**5yr**	1.19	1.56	1.80	2.32	2.88	3.67	4.15	**5yr**	3.24	3.99	4.68	5.42	6.14	**5yr**
10yr	0.46	0.71	0.88	1.23	1.59	1.78	**10yr**	1.37	1.74	2.02	2.59	3.20	4.18	4.75	**10yr**	3.70	4.57	5.40	6.14	6.96	**10yr**
25yr	0.54	0.82	1.02	1.45	1.91	2.05	**25yr**	1.65	2.00	2.33	2.87	3.67	4.99	5.67	**25yr**	4.41	5.45	6.48	7.27	8.23	**25yr**
50yr	0.60	0.92	1.15	1.65	2.22	2.27	**50yr**	1.91	2.22	2.63	3.18	4.09	5.70	6.49	**50yr**	5.05	6.24	7.41	8.26	9.34	**50yr**
100yr	0.69	1.04	1.30	1.88	2.58	2.54	**100yr**	2.22	2.48	2.96	3.52	4.56	6.54	7.42	**100yr**	5.79	7.14	8.48	9.37	10.61	**100yr**
200yr	0.78	1.18	1.50	2.16	3.02	2.82	**200yr**	2.61	2.76	3.33	3.91	5.07	7.48	8.52	**200yr**	6.62	8.19	9.69	10.66	12.04	**200yr**
500yr	0.95	1.41	1.81	2.63	3.74	3.27	**500yr**	3.23	3.20	3.91	4.49	5.85	8.98	10.22	**500yr**	7.95	9.83	11.57	12.63	14.27	**500yr**

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.35	0.54	0.65	0.88	1.08	1.31	**1yr**	0.93	1.28	1.46	1.87	2.35	2.87	3.21	**1yr**	2.54	3.09	3.62	4.23	4.87	**1yr**
2yr	0.39	0.61	0.75	1.02	1.25	1.50	**2yr**	1.08	1.46	1.69	2.18	2.73	3.27	3.72	**2yr**	2.90	3.58	4.10	4.71	5.34	**2yr**
5yr	0.49	0.75	0.93	1.28	1.63	1.91	**5yr**	1.40	1.87	2.21	2.82	3.56	4.27	4.89	**5yr**	3.78	4.70	5.24	6.07	6.83	**5yr**
10yr	0.58	0.89	1.10	1.54	1.99	2.33	**10yr**	1.72	2.28	2.70	3.46	4.37	5.23	6.05	**10yr**	4.63	5.81	6.44	7.37	8.25	**10yr**
25yr	0.73	1.10	1.37	1.96	2.58	3.03	**25yr**	2.23	2.96	3.56	4.72	5.74	6.87	8.01	**25yr**	6.08	7.70	8.50	9.57	10.59	**25yr**
50yr	0.86	1.31	1.63	2.34	3.16	3.70	**50yr**	2.72	3.61	4.39	5.86	7.04	8.43	9.93	**50yr**	7.46	9.55	10.51	11.66	12.83	**50yr**
100yr	1.03	1.55	1.94	2.81	3.85	4.53	**100yr**	3.32	4.43	5.41	7.29	8.65	10.36	12.31	**100yr**	9.17	11.83	13.01	14.23	15.53	**100yr**
200yr	1.22	1.83	2.32	3.36	4.69	5.52	**200yr**	4.04	5.40	6.68	9.05	10.63	12.73	15.27	**200yr**	11.26	14.68	16.14	17.39	18.81	**200yr**
500yr	1.54	2.29	2.95	4.28	6.09	7.21	**500yr**	5.26	7.05	8.81	12.09	13.98	16.69	20.29	**500yr**	14.77	19.51	21.52	22.69	24.29	**500yr**

Powered by ACIS Northeast Regional Climate Center

Map Scale: 1:1,850 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 25 50 100 150

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dutchess County, New York
Survey Area Data: Version 17, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ur	Urban land	8.9	100.0%
Totals for Area of Interest		**8.9**	**100.0%**

Test Pit Log

Springside Neighboorhood

Completed By: SMC

Dated:

Test Hole	Total Depth	Water Level	Rock Level	Soils
1	8'	NA	NA	0-4" Top Soil
				4"-18" Dark Brown Sandy Soil, Small Cobbles
				18"-4' Light Brown Sandy Loamy Soil with Clay, Silty
				4'-8' Dark Brown Sandy Soil, Small Stones, No Silt
2	9'	NA	NA	0-4" Topsoil
				4"-2' Dark Brown Sandy Soil with Samll Stones
				2'-4' Fill Material, Bricks, Stones
				4'-9' Light Brown Sandy Soil, No silt.

Location of test pits shown on DA-1

Infiltration Test Log

Springside Neighboorhood

Completed By: SMC

Dated:

Test Hole	Total Depth	Run One (in/hr)	Run Two (in/hr)	Run Three (in/hr)	Avg. Run (in/hr)
IT-1	5	34.8	32.4	31.2	32.8
IT-2	4	25.2	20.4	20.4	22.0

Location of Infiltration Tests shown on DA-1

Design Criteria & Performance Summary

SUMMARY OF OVERALL WATERSHEDS

Design Criteria	*min req'd*		Performance Summary:		
criteria	*amount*	*unit*	*Provided*		*notes/information*
WQv:					
total	8,912	cft	2,829	cft	Drywells
	0.20	ac-ft	0.06	ac-ft	
Redevelopment	2,228	cft			
	0.05	ac-ft			
Cpv:					
volume	NA	cft	NA	cft	NA if reduction of CPv achieed through RRv Practices
Qp:					
discharge	15.6	cfs	8.5	cfs	Pre to Post reduced See Hydro CAD
Qf					
discharge	27.8	cfs	16.8	cfs	Pre to Post reduced See Hydro CAD
RRv Min:	1,346	cft	2,253	cft	
	0.03	ac-ft	0.05	ac-ft	

WQv BY DRAINAGE AREA										
DA	Tributary Area	Impervious Cover	Percent Impervious	P	Rv	WQv (AC-FT)	WQv (CF)	S	Min RRv (AC-FT)	Min RRv (CF)
1	0.49	0.42	86.22	1.05	0.83	0.04	1,547.5	0.2	0.007	306.9
2	0.16	0.13	83.26	1.05	0.80	0.01	492.1	0.2	0.002	97.4
3	0.12	0.08	65.88	1.05	0.64	0.01	300.1	0.2	0.001	58.4
4	0.09	0.07	74.82	1.05	0.72	0.01	259.5	0.2	0.001	51.0
5	0.75	0.46	61.00	1.05	0.60	0.04	1,711.4	0.2	0.008	331.1
6	0.26	0.17	65.66	1.05	0.64	0.01	644.5	0.2	0.003	125.5
7	0.08	0.08	100.00	1.05	0.95	0.01	302.6	0.2	0.001	60.5
8	0.24	0.20	81.26	1.05	0.78	0.02	724.6	0.2	0.003	143.2
9	0.08	0.05	65.57	1.05	0.64	0.00	194.4	0.2	0.001	37.8
10	0.11	0.11	96.96	1.05	0.92	0.01	387.5	0.2	0.002	77.4
11	0.20	0.10	51.71	1.05	0.52	0.01	385.9	0.2	0.002	73.6
12	0.19	0.19	100.00	1.05	0.95	0.02	695.5	0.2	0.003	139.1
13	0.06	0.05	79.56	1.05	0.77	0.00	172.5	0.2	0.001	34.0
14	0.15	0.11	69.73	1.05	0.68	0.01	399.4	0.2	0.002	78.1
15	0.04	0.04	100.00	1.05	0.95	0.00	144.1	0.2	0.001	28.8
16	0.04	0.04	100.00	1.05	0.95	0.00	153.3	0.2	0.001	30.7
17	0.04	0.04	100.00	1.05	0.95	0.00	145.9	0.2	0.001	29.2
18	0.08	0.07	85.96	1.05	0.82	0.01	250.9	0.2	0.001	49.8
TOTAL	**3.20**	**2.42**					**8,911.7**		**0.040**	**1752.4**

Water Quality Volume Calculations			REDEVELOPMENT
Trib Area	3.20	ac	
Imperv Cover:	2.42	ac	
Imperv. %	75.52		
Stormwater Management Practice Selection:			
Drywells			
Uniform Sizing Criteria:			
Water Quality (WQv)	P=	1.05	
	I=	*75.5*	
	Rv=	0.7296	
	A=	3.20	
	WQv=	0.20	AC-FT
		8,911.7	CF
25% WQv Redevelopment		**0.05**	AC-FT
		2227.9	CF

Minimum Runoff Reduction Requirements

RRV = 90% rain (P) x Rv* x S x total impervious area (AI from #2) / 12

with S = .55 (A soils); .40 (B soils); .30 (C soils); .20(D soils) OR weighted HSG average in DA

Weighted HSG= 0.2

Min RRV =	0.031	ac-ft
Min RRV =	1,345.9	cu ft

STORMWATER OPEN CHANNEL SYSTEM
SIZING PER CHAPTER 6 OF THE NYS STORM WATER DESIGN MANUAL

Drywell (I-3) Sizing Sheet	DW-1	DW-2	DW-3	DW-4 & EXISTING	DW-5	DW-6	DW-7	DW-8	EXISTING
Design Parameters:	**DA-9**	**DA-10&11**	**DA-7&8**	**DA-1&2**	**DA-6**	**DA-16**	**DA-17**	**DA-15**	**DA-3**
WQv - Required (cu ft)	194.4	773.4	1,027.2	2,039.6	644.5	153.3	145.9	144.1	300.1
Total Impervious Contributing Area (ac.)	0.05	0.21	0.28	0.56	0.17	0.04	0.04	0.04	0.08
Total Grass Area (ac.)	0.03	0.10	0.05	0.09	0.09	0.00	0.00	0.00	0.04
Total Contributing Area (ac.)	0.08	0.31	0.33	0.65	0.26	0.04	0.04	0.04	0.12
Land Cover Coefficient	0.6	0.6	0.7	0.7	0.6	0.8	0.8	0.8	0.6
Rainfall Intensity (in)	8.22	8.22	8.22	8.22	8.22	8.22	8.22	8.22	8.22
Area (sq ft)	3,471.0	13,357.0	14,239.0	28,448.0	11,493.0	1,844.0	1,755.0	1,734.0	5,334.0
Runoff (cu ft)	1,355.4	5,381.6	7,068.5	14,038.7	4,493.1	1,048.4	997.8	985.9	2,091.4
Runoff (gallons)	10,138.5	40,254.7	52,872.2	105,009.4	33,608.1	7,842.1	7,463.6	7,374.3	15,643.6
Soil Permiability (in/hr)	32.8	32.8	32.8	22.0	32.8	22.0	22.0	22.0	22.0
Drywell Area (sq ft)	50.24	50.24	50.24	100.48	50.24	50.24	50.24	50.24	50.24
Drain Rate (cu ft/hr)	137.3	137.3	137.3	184.2	137.3	92.1	92.1	92.1	92.1
Drain Time (hr)	**9.9**	**39.2**	**51.5**	**76.2**	**32.7**	**11.4**	**10.8**	**10.7**	**22.7**
WQv Treatment Volume (cu ft)	**255.2**	**347.7**	**347.7**	**510.4**	**255.2**	**255.2**	**255.2**	**255.2**	**347.7**
RRv Volume Provided (cu-ft)	**194.4**	**312.9**	**312.9**	**459.4**	**229.7**	**153.3**	**145.9**	**144.1**	**300.1**

WQv - RRv Summary

WQv REQUIRED	
DA-1	1547.5
DA-2	492.1
DA-3	300.1
DA-4	259.5
DA-5	1711.4
DA-6	644.5
DA-7	302.6
DA-8	724.6
DA-9	194.4
DA-10	387.5
DA-11	385.9
DA-12	695.5
DA-13	172.5
DA-14	399.4
DA-15	144.1
DA-16	153.3
DA-17	145.9
DA-18	250.9
TOTAL (CU FT)	**8,912**
TOTAL (AC FT)	**0.20**
REDEVELOPMENT TOTAL (CU FT)	**2,228**
REDEVELOPMENT TOTAL (AC FT)	**0.05**

WQv PROVIDED	
DW-1	255
DW-2	348
DW-3	348
DW-4 & EXISTING	510
DW-5	255
DW-6	255
DW-7	255
DW-8	255
EXISTING	348
TOTAL (CU FT)	**2,829**
TOTAL (AC FT)	**0.06**

RRv REQUIRED	
DA-1	307
DA-2	97
DA-3	58
DA-4	51
DA-5	331
DA-6	125
DA-7	61
DA-8	143
DA-9	38
DA-10	77
DA-11	74
DA-12	139
DA-13	34
DA-14	78
DA-15	29
DA-16	31
DA-17	29
DA-18	50
TOTAL (CU FT)	**1,752**
TOTAL (AC FT)	**0.04**

WQv PROVIDED	
DW-1	194
DW-2	313
DW-3	313
DW-4 & EXISTING	459
DW-5	230
DW-6	153
DW-7	146
DW-8	144
EXISTING	300
TOTAL (CU FT)	**2,253**
TOTAL (AC FT)	**0.05**

Pre Post Flow analysis

Peak Flow Discharge Rate DP-1			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	7.4	3.7	**-3.7**
2	9.1	4.7	**-4.4**
10	13.6	7.2	**-6.4**
25	17.2	9.1	**-8.1**
100	24.2	14.7	**-9.6**

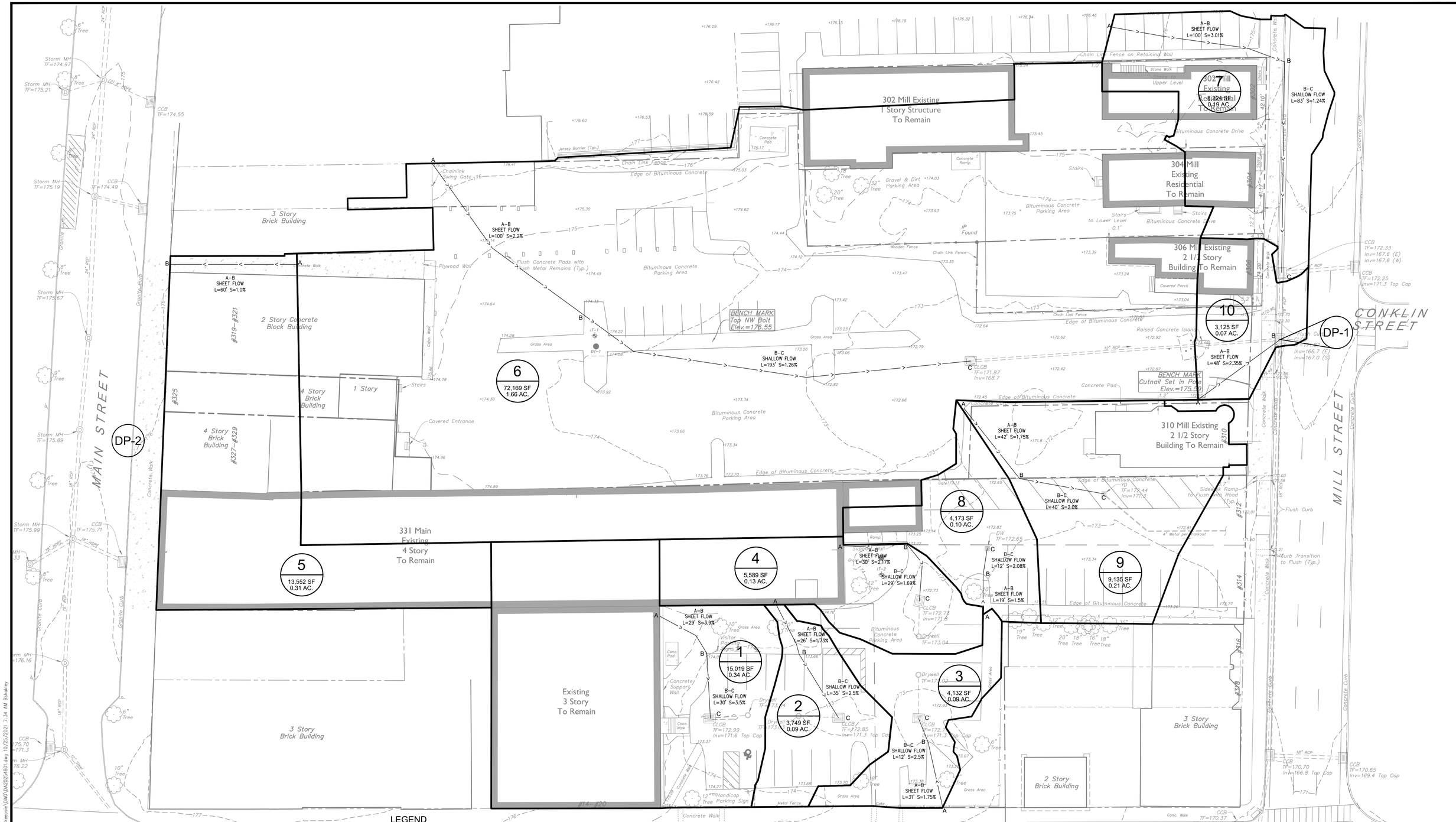
Peak Flow Discharge Rate DP-2			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	1.1	0.7	**-0.4**
2	1.4	0.8	**-0.6**
10	2.0	1.2	**-0.8**
25	2.5	1.6	**-0.9**
100	3.6	2.2	**-1.4**

Peak Flow Discharge Rate OVERALL			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	8.5	4.4	**-4.1**
2	10.5	5.5	**-5.0**
10	15.6	8.5	**-7.2**
25	19.7	10.7	**-9.1**
100	27.8	16.8	**-11.0**

Peak Flow Discharge Rate TOWN CB			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	168.7	167.8	**-0.9**
2	169.3	167.9	**-1.4**
10	171.6	168.6	**-3.0**
25	174.4	169.3	**-5.1**
100	182.2	172.2	**-10.0**

APPENDIX E

Map Pocket: Pre- & Post-Development Drainage Area Maps
Pre & Post Development Routing Diagrams



LEGEND

- EXISTING MAJOR CONTOUR LINE (120)
- EXISTING MINOR CONTOUR LINE (123)
- DRAINAGE LINE
- SOIL BOUNDARY LINE
- TIME OF CONCENTRATION LINE (A ——> B)
- TEST PIT LOCATION
- MgB — SOIL TYPE DESIGNATION
- 1 / XX,XXX SF / X.XX AC. — DRAINAGE AREA DESIGNATION

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

STATE OF NEW YORK
RODNEY E. MORRISON
LICENSED PROFESSIONAL ENGINEER
072180

#	Date	Description
2	07.10.20	PLANNING BOARD RE-SUBMISSION
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS

Revisions

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LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

DRAINAGE AREA MAP (PRE-CONDITIONS)

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DA20254801.dwg
Drawn	SMC	Project No.	20-2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	1"=20'

Sheet No. DA-1

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DRAINAGE AREA MAP (POST-CONDITIONS)

WALLACE CAMPUS MANAGER, LLC

WALLACE CAMPUS
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

MAIN STREET BUILDING
5 STORIES

WALLACE BUILDING
4 STORY

CATHARINE STREET
BUILDING
5 STORY

MAIN STREET

MILL STREET

CONKLIN STREET

DP-1

DP-2

1	21,412 SF	0.49 AC.
2	7,036 SF	0.16 AC.
3	5,334 SF	0.12 AC.
4	4,099 SF	0.09 AC.
5	32,655 SF	0.75 AC.
6	11,493 SF	0.26 AC.
7	3,640 SF	0.08 AC.
8	10,599 SF	0.24 AC.
9	3,471 SF	0.08 AC.
10	4,800 SF	0.11 AC.
11	8,557 SF	0.20 AC.
12	8,367 SF	0.19 AC.
13	2,574 SF	0.06 AC.
14	6,736 SF	0.15 AC.
15	1,734 SF	0.04 AC.
16	1,844 SF	0.04 AC.
17	1,755 SF	0.04 AC.
18	3,482 SF	0.08 AC.

LEGEND

- EXISTING MAJOR CONTOUR LINE (120)
- EXISTING MINOR CONTOUR LINE (123)
- PROPOSED MAJOR CONTOUR LINE (120)
- PROPOSED MINOR CONTOUR LINE (123)
- DRAINAGE LINE
- SOIL BOUNDARY LINE
- TIME OF CONCENTRATION LINE (A —> B)
- TEST PIT LOCATION
- MgB — SOIL TYPE DESIGNATION
- 1 / XX,XXX SF / X.XX AC. — DRAINAGE AREA DESIGNATION

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

STATE OF NEW YORK
ROBERT E. MORRISON
LICENSED PROFESSIONAL ENGINEER
074104

No.	Date	Description
2	07.10.20	PLANNING BOARD RE-SUBMISSION
3	11.03.20	PLANNING BOARD RE-SUBMISSION
4	01.05.21	RESPONSE TO CONSULTANT COMMENTS
5	03.02.21	RESPONSE TO CONSULTANT COMMENTS
6	05.07.21	RESPONSE TO CONSULTANT COMMENTS

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LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

Design/Calcs	LRC	CAD File	DA20254802.dwg
Drawn	SMC	Project No.	20-2548
Checked	KFC	Date	2020.04.10
Approved	REM	Scale	1"=20'

Sheet No. DA-2

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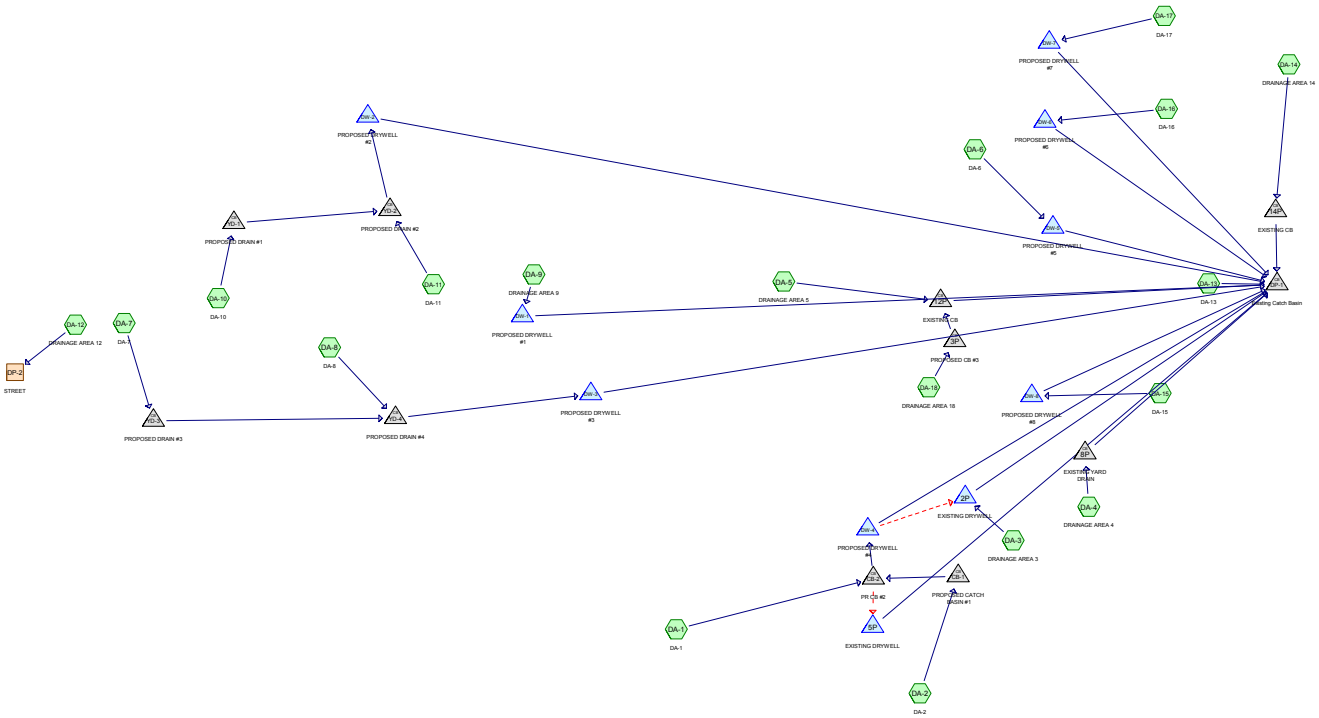
APPENDIX F

25 Year Hydraulic Grade Evaluation



Subcat Reach Pond Link

Routing Diagram for Wallace-POST
Prepared by LRC Group, Printed 10/25/2021
HydroCAD® 10.00-19 s/n 02009 © 2016 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
34,277	80	>75% Grass cover, Good, HSG D (DA-1, DA-10, DA-11, DA-13, DA-14, DA-18, DA-2, DA-3, DA-4, DA-5, DA-6, DA-8, DA-9)
54,227	98	Paved parking, HSG D (DA-1, DA-10, DA-11, DA-13, DA-14, DA-18, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9)
51,084	98	Roofs, HSG D (DA-1, DA-10, DA-11, DA-12, DA-15, DA-16, DA-17, DA-2, DA-7, DA-8)
139,588	**94**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
0	HSG C	
139,588	HSG D	DA-1, DA-10, DA-11, DA-12, DA-13, DA-14, DA-15, DA-16, DA-17, DA-18, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9
0	Other	
139,588		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover	Sub Num
0	0	0	34,277	0	34,277	>75% Grass cover, Good	
0	0	0	54,227	0	54,227	Paved parking	
0	0	0	51,084	0	51,084	Roofs	
0	**0**	**0**	**139,588**	**0**	**139,588**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	3P	170.74	170.45	29.0	0.0100	0.013	12.0	0.0	0.0
2	8P	171.30	170.43	87.0	0.0100	0.030	4.0	0.0	0.0
3	12P	168.70	167.00	142.0	0.0120	0.013	12.0	0.0	0.0
4	14P	167.60	166.70	26.0	0.0346	0.013	18.0	0.0	0.0
5	CB-1	171.50	171.17	33.0	0.0100	0.013	12.0	0.0	0.0
6	CB-2	170.25	170.05	20.0	0.0100	0.013	12.0	0.0	0.0
7	CB-2	170.25	170.05	12.0	0.0167	0.013	8.0	0.0	0.0
8	DP-1	166.70	165.00	191.0	0.0089	0.013	18.0	0.0	0.0
9	DW-4	172.00	171.70	30.0	0.0100	0.013	8.0	0.0	0.0
10	YD-1	173.27	172.59	68.0	0.0100	0.013	8.0	0.0	0.0
11	YD-2	172.59	172.43	16.0	0.0100	0.013	8.0	0.0	0.0
12	YD-3	173.54	172.29	104.0	0.0120	0.013	12.0	0.0	0.0
13	YD-4	172.29	171.45	84.0	0.0100	0.013	8.0	0.0	0.0

Time span=0.00-30.00 hrs, dt=0.05 hrs, 601 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment DA-1: DA-1 Runoff Area=21,412 sf 86.22% Impervious Runoff Depth=5.38"
Tc=6.0 min CN=96 Runoff=3.94 cfs 9,596 cf

Subcatchment DA-10: DA-10 Runoff Area=4,800 sf 94.90% Impervious Runoff Depth=5.49"
Tc=6.0 min CN=97 Runoff=0.89 cfs 2,198 cf

Subcatchment DA-11: DA-11 Runoff Area=8,557 sf 51.71% Impervious Runoff Depth=4.59"
Tc=6.0 min CN=89 Runoff=1.45 cfs 3,273 cf

Subcatchment DA-12: DRAINAGE AREA 12 Runoff Area=8,367 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=1.56 cfs 3,913 cf

Subcatchment DA-13: DA-13 Runoff Area=2,574 sf 79.56% Impervious Runoff Depth=5.15"
Tc=6.0 min CN=94 Runoff=0.47 cfs 1,104 cf

Subcatchment DA-14: DRAINAGE AREA 14 Runoff Area=6,736 sf 69.73% Impervious Runoff Depth=5.03"
Tc=6.0 min CN=93 Runoff=1.21 cfs 2,826 cf

Subcatchment DA-15: DA-15 Runoff Area=1,734 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.32 cfs 811 cf

Subcatchment DA-16: DA-16 Runoff Area=1,844 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.34 cfs 862 cf

Subcatchment DA-17: DA-17 Runoff Area=1,755 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.33 cfs 821 cf

Subcatchment DA-18: DRAINAGE AREA 18 Runoff Area=3,482 sf 85.96% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=95 Runoff=0.64 cfs 1,527 cf

Subcatchment DA-2: DA-2 Runoff Area=7,036 sf 83.26% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=95 Runoff=1.28 cfs 3,086 cf

Subcatchment DA-3: DRAINAGE AREA 3 Runoff Area=5,334 sf 65.88% Impervious Runoff Depth=4.92"
Tc=6.0 min CN=92 Runoff=0.94 cfs 2,188 cf

Subcatchment DA-4: DRAINAGE AREA 4 Runoff Area=4,099 sf 74.82% Impervious Runoff Depth=5.03"
Tc=6.0 min CN=93 Runoff=0.73 cfs 1,720 cf

Subcatchment DA-5: DRAINAGE AREA 5 Runoff Area=32,655 sf 61.00% Impervious Runoff Depth=4.81"
Flow Length=235' Tc=13.1 min CN=91 Runoff=4.63 cfs 13,090 cf

Subcatchment DA-6: DA-6 Runoff Area=11,493 sf 65.66% Impervious Runoff Depth=4.92"
Tc=6.0 min CN=92 Runoff=2.03 cfs 4,714 cf

Subcatchment DA-7: DA-7 Runoff Area=3,640 sf 100.00% Impervious Runoff Depth=5.61"
Tc=6.0 min CN=98 Runoff=0.68 cfs 1,702 cf

Subcatchment DA-8: DA-8 Runoff Area=10,599 sf 81.26% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=95 Runoff=1.94 cfs 4,648 cf

Subcatchment DA-9: DRAINAGE AREA 9 Runoff Area=3,471 sf 65.57% Impervious Runoff Depth=4.92"
Tc=6.0 min CN=92 Runoff=0.61 cfs 1,424 cf

Reach DP-2: STREET Inflow=1.56 cfs 3,913 cf
Outflow=1.56 cfs 3,913 cf

Pond 2P: EXISTING DRYWELL Peak Elev=172.83' Storage=431 cf Inflow=2.67 cfs 6,546 cf
Discarded=0.67 cfs 3,873 cf Primary=1.97 cfs 2,673 cf Outflow=2.64 cfs 6,546 cf

Pond 3P: PROPOSED CB #3 Peak Elev=171.20' Inflow=0.64 cfs 1,527 cf
12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.64 cfs 1,527 cf

Pond 5P: EXISTING DRYWELL Peak Elev=173.52' Storage=790 cf Inflow=1.67 cfs 5,126 cf
Outflow=1.08 cfs 5,126 cf

Pond 8P: EXISTING YARD DRAIN Peak Elev=241.67' Inflow=0.73 cfs 1,720 cf
4.0" Round Culvert n=0.030 L=87.0' S=0.0100 '/' Outflow=0.73 cfs 1,720 cf

Pond 12P: EXISTING CB Peak Elev=172.05' Inflow=5.05 cfs 14,618 cf
12.0" Round Culvert n=0.013 L=142.0' S=0.0120 '/' Outflow=5.05 cfs 14,618 cf

Pond 14P: EXISTING CB Peak Elev=168.16' Inflow=1.21 cfs 2,826 cf
18.0" Round Culvert n=0.013 L=26.0' S=0.0346 '/' Outflow=1.21 cfs 2,826 cf

Pond CB-1: PROPOSED CATCH BASIN #1 Peak Elev=172.19' Inflow=1.28 cfs 3,086 cf
12.0" Round Culvert n=0.013 L=33.0' S=0.0100 '/' Outflow=1.28 cfs 3,086 cf

Pond CB-2: PR CB #2 Peak Elev=172.16' Inflow=5.23 cfs 12,682 cf
Primary=3.56 cfs 7,556 cf Secondary=1.67 cfs 5,126 cf Outflow=5.23 cfs 12,682 cf

Pond DP-1: Existing Catch Basin Peak Elev=169.28' Inflow=9.09 cfs 22,940 cf
18.0" Round Culvert n=0.013 L=191.0' S=0.0089 '/' Outflow=9.09 cfs 22,940 cf

Pond DW-1: PROPOSED DRYWELL #1 Peak Elev=169.37' Storage=411 cf Inflow=0.61 cfs 1,424 cf
Outflow=0.23 cfs 1,424 cf

Pond DW-2: PROPOSED DRYWELL #2 Peak Elev=175.79' Storage=818 cf Inflow=2.34 cfs 5,471 cf
Outflow=1.91 cfs 5,472 cf

Pond DW-3: PROPOSED DRYWELL #3 Peak Elev=174.84' Storage=929 cf Inflow=2.61 cfs 6,351 cf
Outflow=2.06 cfs 6,352 cf

Pond DW-4: PROPOSED DRYWELL #4 Peak Elev=174.18' Storage=1,194 cf Inflow=3.56 cfs 7,556 cf
Discarded=0.51 cfs 3,198 cf Secondary=1.80 cfs 4,358 cf Outflow=2.32 cfs 7,556 cf

Pond DW-5: PROPOSED DRYWELL #5 Peak Elev=172.72' Storage=1,057 cf Inflow=2.03 cfs 4,714 cf
Outflow=1.11 cfs 4,714 cf

Pond DW-6: PROPOSED DRYWELL #6 Peak Elev=174.09' Storage=267 cf Inflow=0.34 cfs 862 cf
Outflow=0.12 cfs 862 cf

Pond DW-7: PROPOSED DRYWELL #7 Peak Elev=175.52' Storage=264 cf Inflow=0.33 cfs 821 cf
Outflow=0.07 cfs 821 cf

Pond DW-8: PROPOSED DRYWELL #8 Peak Elev=173.04' Storage=257 cf Inflow=0.32 cfs 811 cf
Outflow=0.07 cfs 812 cf

Pond YD-1: PROPOSED DRAIN #1 Peak Elev=174.05' Inflow=0.89 cfs 2,198 cf
8.0" Round Culvert n=0.013 L=68.0' S=0.0100 '/' Outflow=0.89 cfs 2,198 cf

Pond YD-2: PROPOSED DRAIN #2 Peak Elev=176.02' Inflow=2.34 cfs 5,471 cf
8.0" Round Culvert n=0.013 L=16.0' S=0.0100 '/' Outflow=2.34 cfs 5,471 cf

Pond YD-3: PROPOSED DRAIN #3 Peak Elev=174.01' Inflow=0.68 cfs 1,702 cf
12.0" Round Culvert n=0.013 L=104.0' S=0.0120 '/' Outflow=0.68 cfs 1,702 cf

Pond YD-4: PROPOSED DRAIN #4 Peak Elev=177.69' Inflow=2.61 cfs 6,351 cf
8.0" Round Culvert n=0.013 L=84.0' S=0.0100 '/' Outflow=2.61 cfs 6,351 cf

Total Runoff Area = 139,588 sf Runoff Volume = 59,504 cf Average Runoff Depth = 5.12"
24.56% Pervious = 34,277 sf 75.44% Impervious = 105,311 sf

Summary for Subcatchment DA-1: DA-1

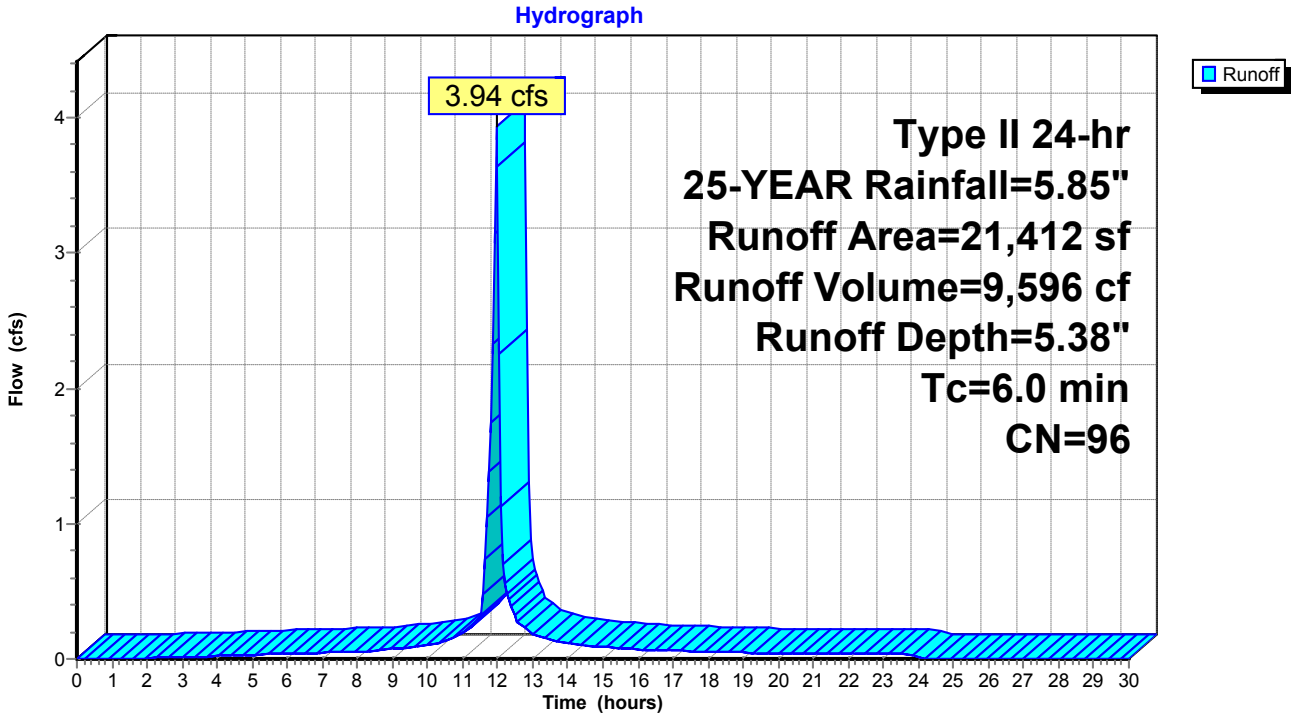
Runoff = 3.94 cfs @ 11.96 hrs, Volume= 9,596 cf, Depth= 5.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
2,951	80	>75% Grass cover, Good, HSG D
17,281	98	Roofs, HSG D
1,180	98	Paved parking, HSG D
21,412	96	Weighted Average
2,951		13.78% Pervious Area
18,461		86.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

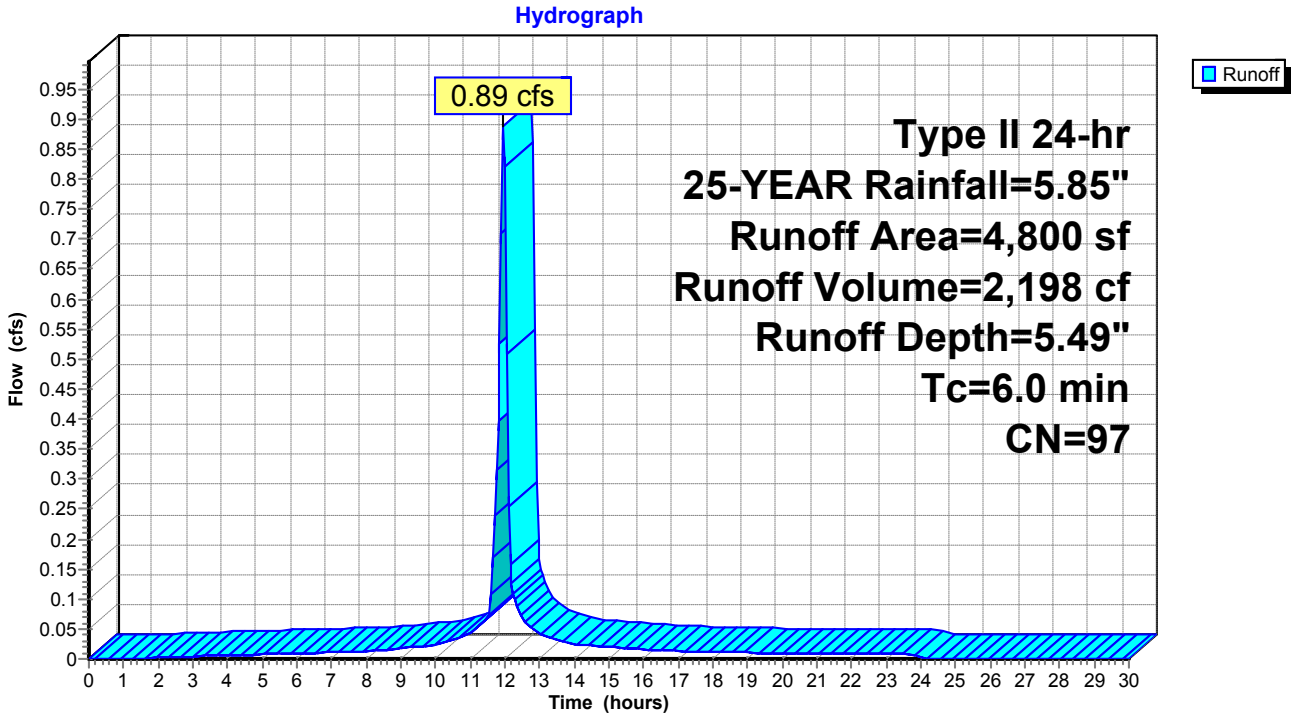
Runoff = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf, Depth= 5.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
245	80	>75% Grass cover, Good, HSG D
2,933	98	Roofs, HSG D
1,622	98	Paved parking, HSG D
4,800	97	Weighted Average
245		5.10% Pervious Area
4,555		94.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

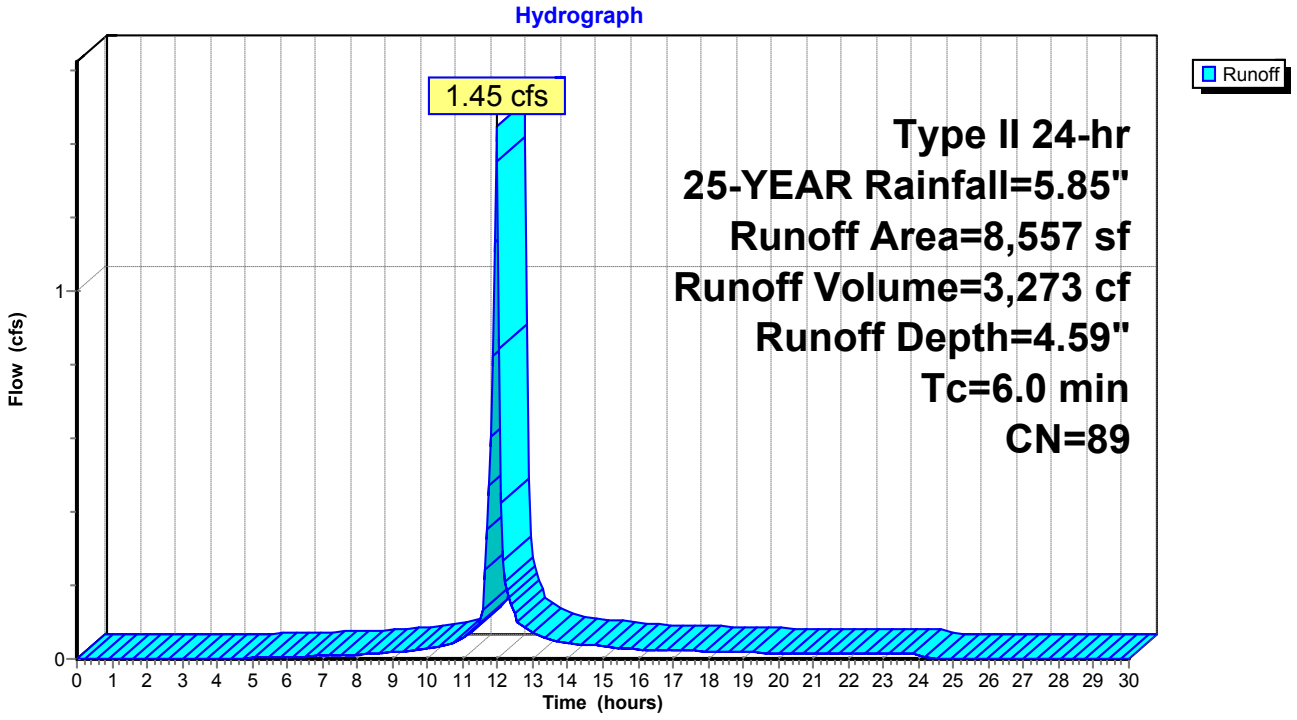
Runoff = 1.45 cfs @ 11.96 hrs, Volume= 3,273 cf, Depth= 4.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
4,132	80	>75% Grass cover, Good, HSG D
3,489	98	Roofs, HSG D
936	98	Paved parking, HSG D
8,557	89	Weighted Average
4,132		48.29% Pervious Area
4,425		51.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-12: DRAINAGE AREA 12

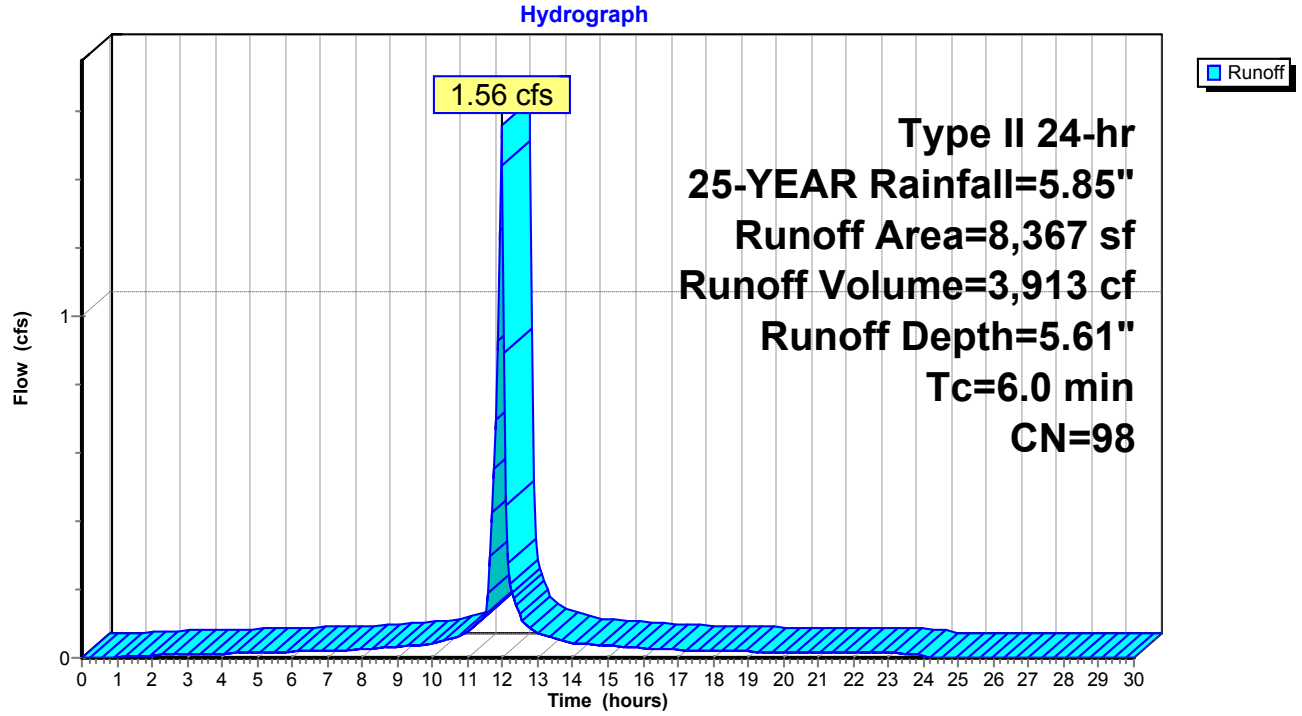
Runoff = 1.56 cfs @ 11.96 hrs, Volume= 3,913 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
8,367	98	Roofs, HSG D
8,367		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-12: DRAINAGE AREA 12



Summary for Subcatchment DA-13: DA-13

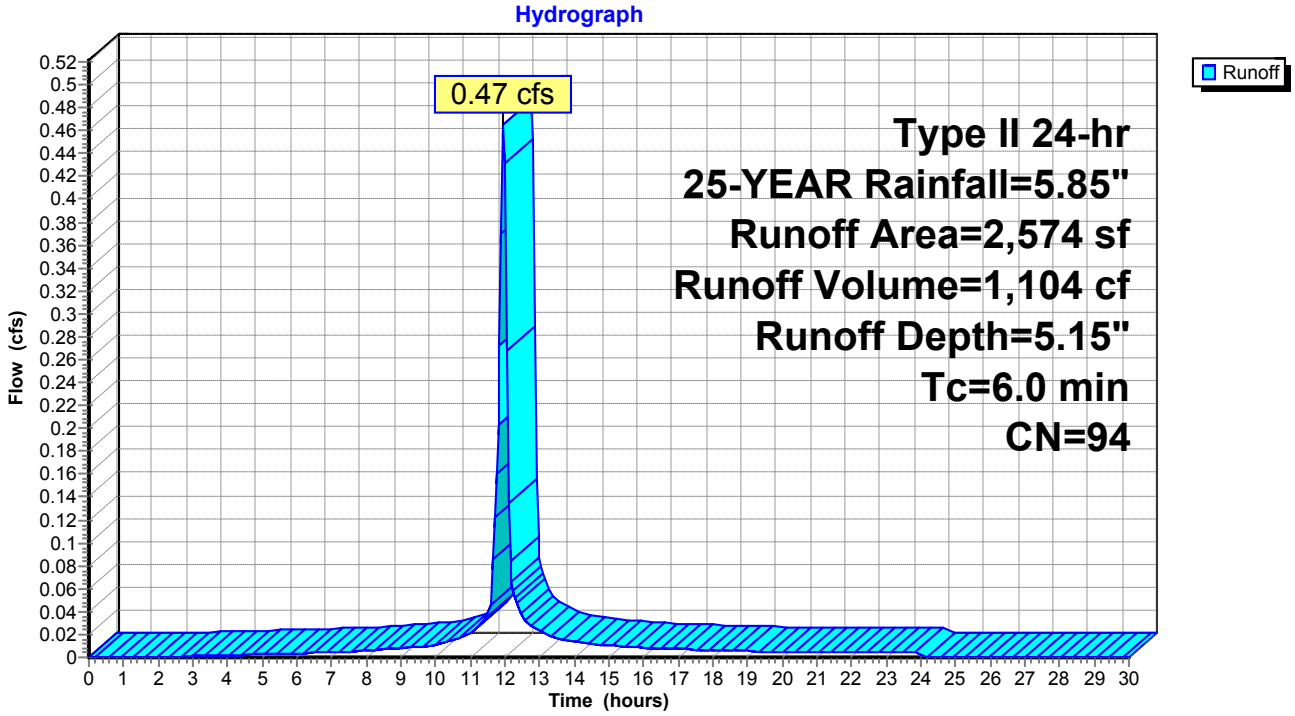
Runoff = 0.47 cfs @ 11.96 hrs, Volume= 1,104 cf, Depth= 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
526	80	>75% Grass cover, Good, HSG D
2,048	98	Paved parking, HSG D
2,574	94	Weighted Average
526		20.44% Pervious Area
2,048		79.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-13: DA-13



Summary for Subcatchment DA-14: DRAINAGE AREA 14

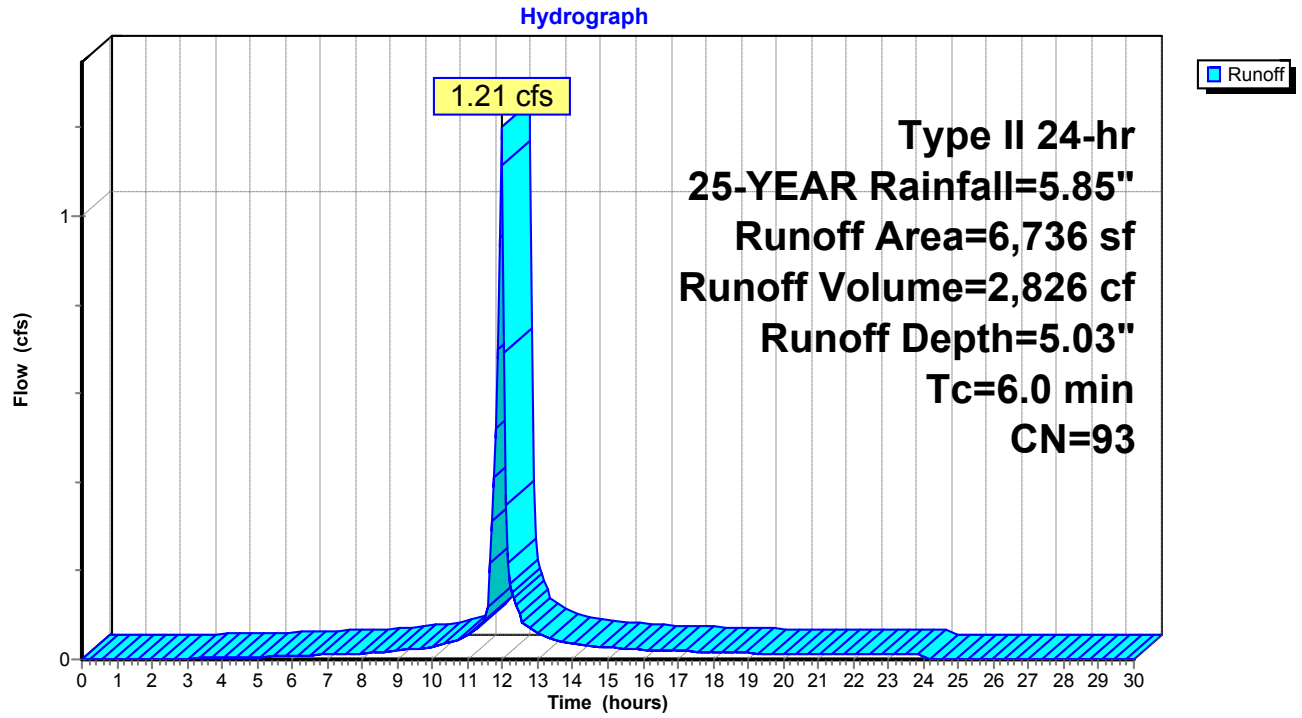
Runoff = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf, Depth= 5.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
2,039	80	>75% Grass cover, Good, HSG D
4,697	98	Paved parking, HSG D
6,736	93	Weighted Average
2,039		30.27% Pervious Area
4,697		69.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-14: DRAINAGE AREA 14



Summary for Subcatchment DA-15: DA-15

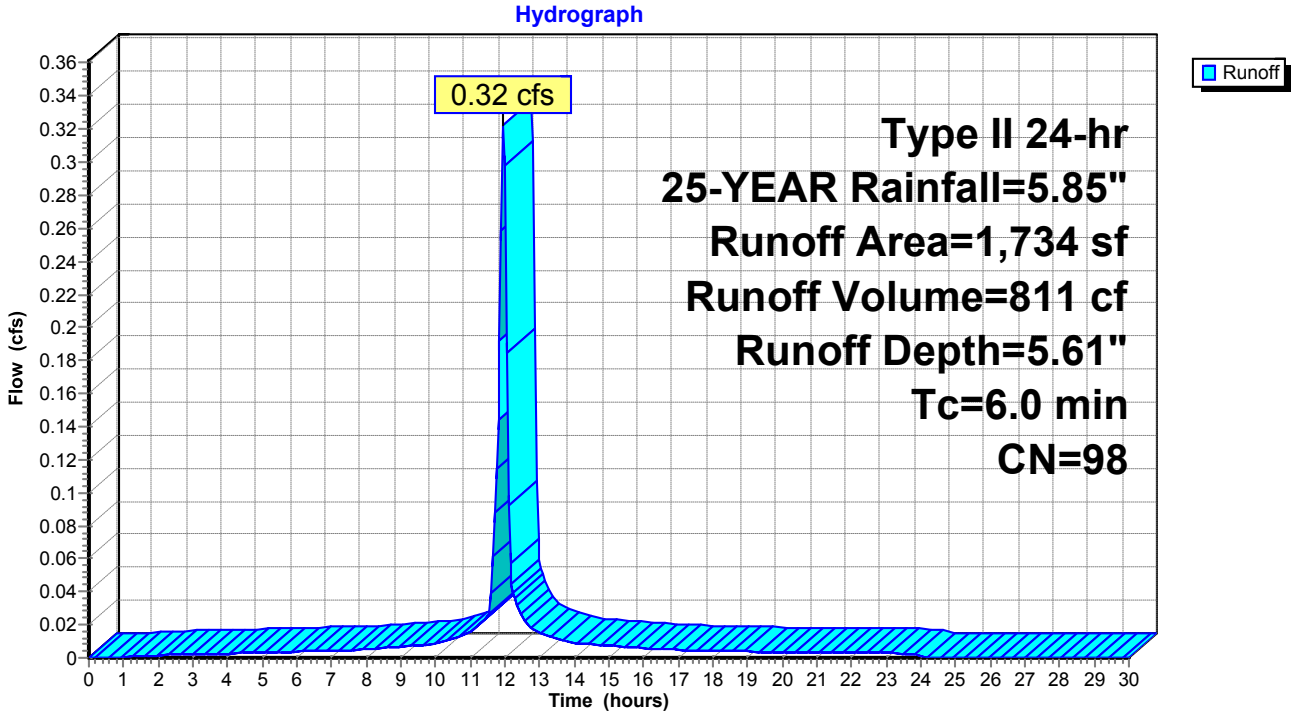
Runoff = 0.32 cfs @ 11.96 hrs, Volume= 811 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,734	98	Roofs, HSG D
1,734		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-15: DA-15



Summary for Subcatchment DA-16: DA-16

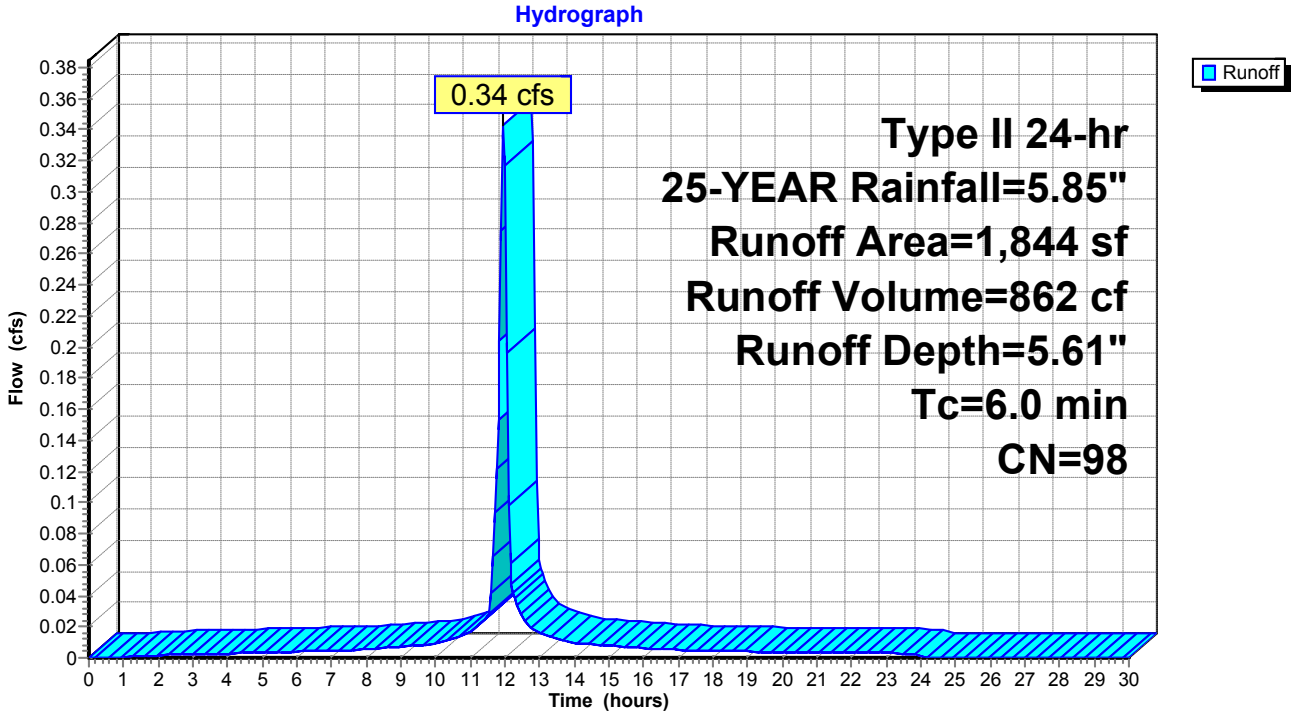
Runoff = 0.34 cfs @ 11.96 hrs, Volume= 862 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,844	98	Roofs, HSG D
1,844		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-16: DA-16



Summary for Subcatchment DA-17: DA-17

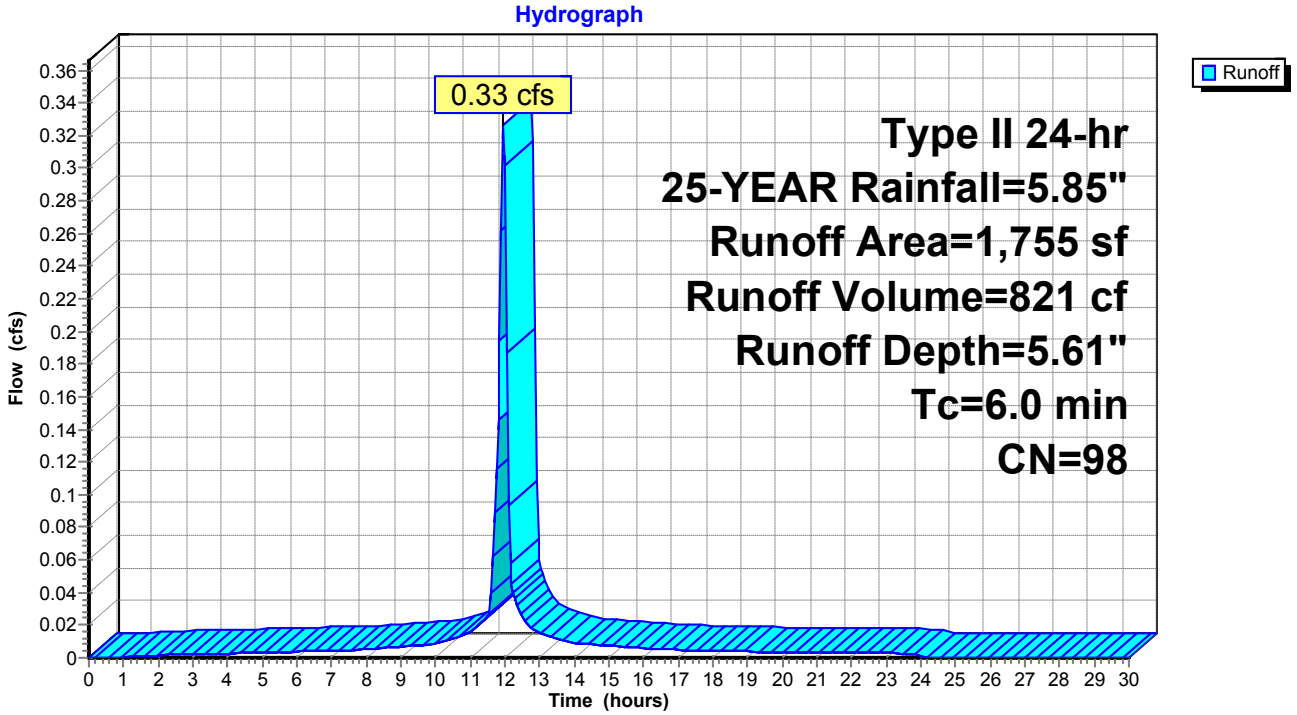
Runoff = 0.33 cfs @ 11.96 hrs, Volume= 821 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,755	98	Roofs, HSG D
1,755		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-17: DA-17



Summary for Subcatchment DA-18: DRAINAGE AREA 18

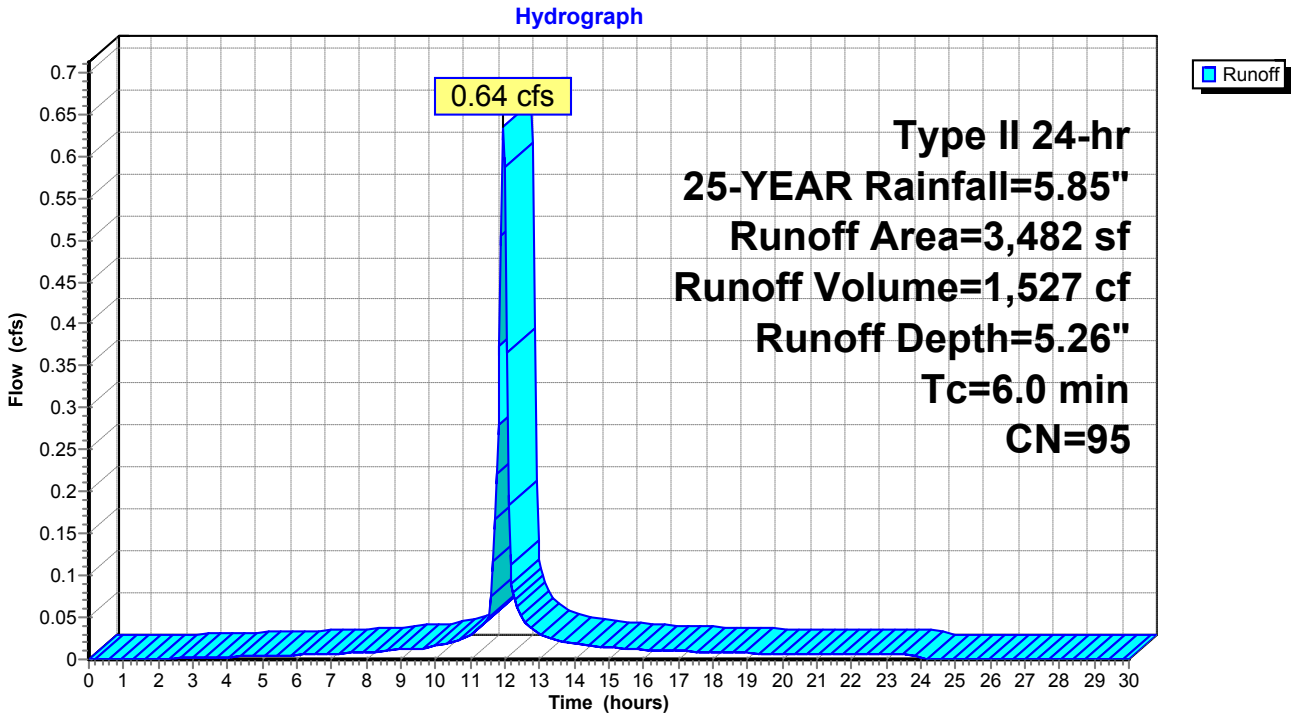
Runoff = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
489	80	>75% Grass cover, Good, HSG D
2,993	98	Paved parking, HSG D
3,482	95	Weighted Average
489		14.04% Pervious Area
2,993		85.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-18: DRAINAGE AREA 18



Summary for Subcatchment DA-2: DA-2

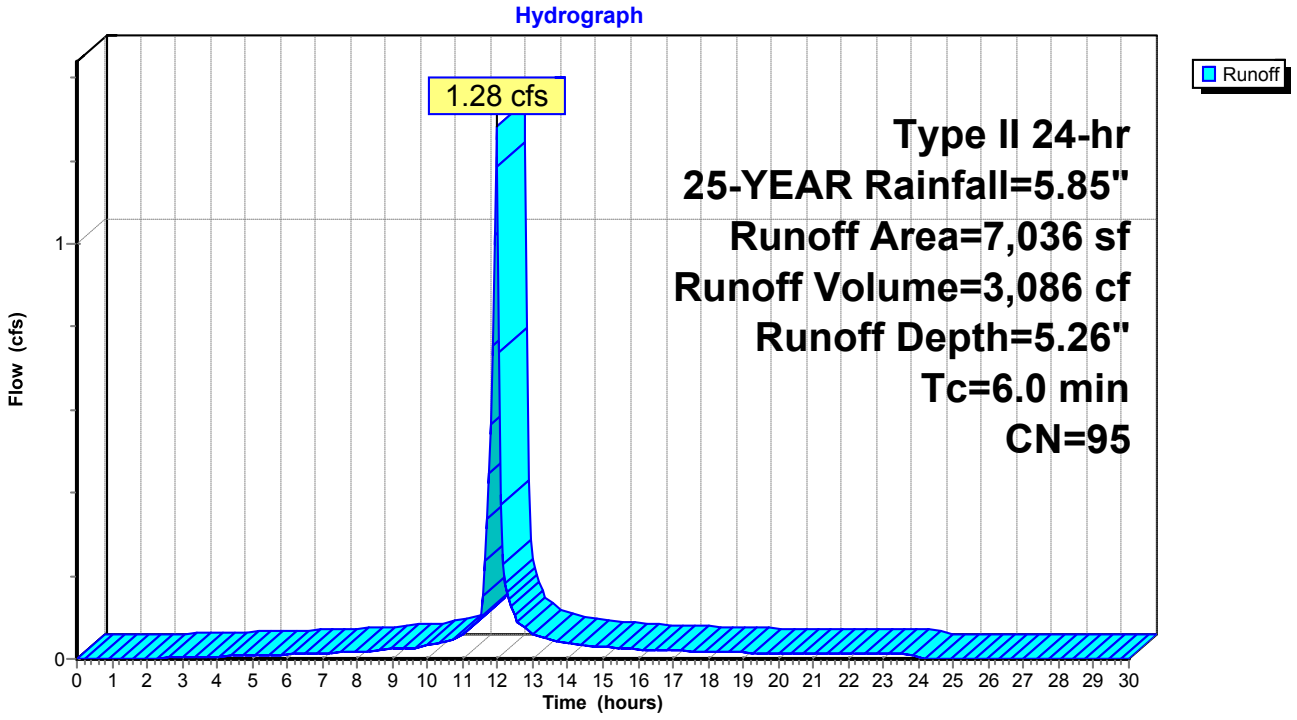
Runoff = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,178	80	>75% Grass cover, Good, HSG D
5,194	98	Roofs, HSG D
664	98	Paved parking, HSG D
7,036	95	Weighted Average
1,178		16.74% Pervious Area
5,858		83.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DRAINAGE AREA 3

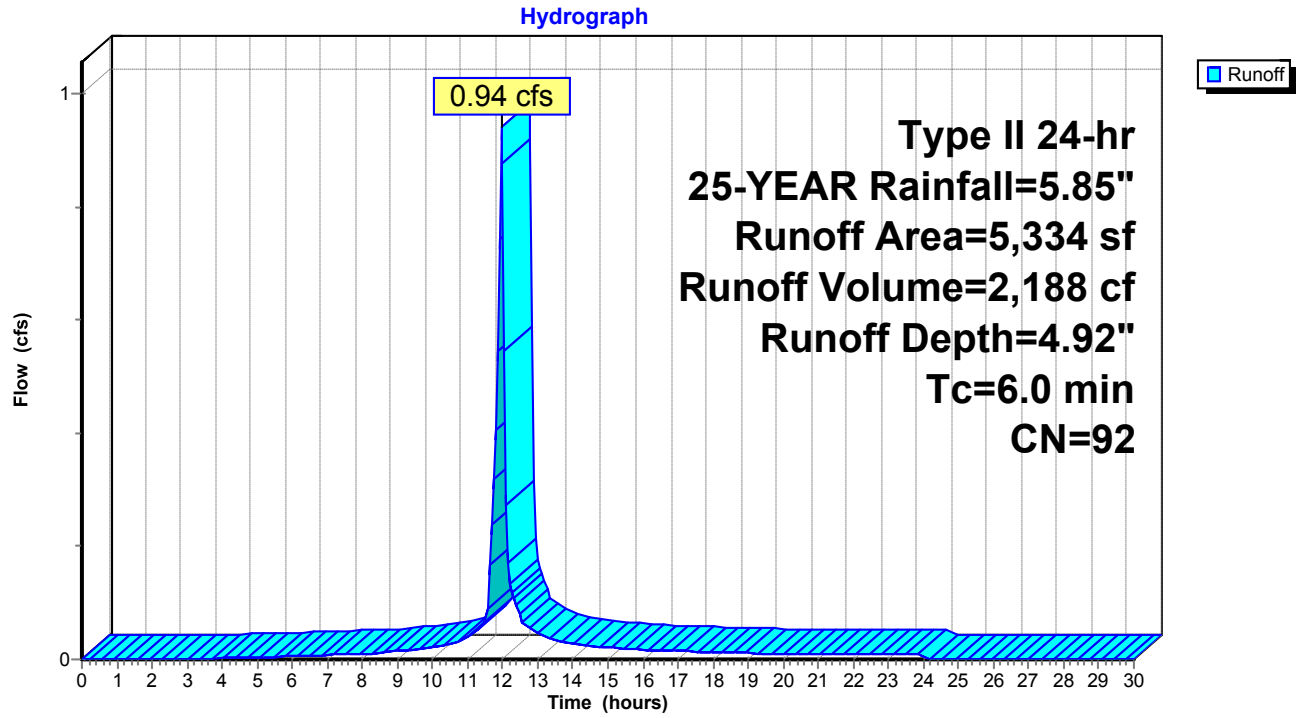
Runoff = 0.94 cfs @ 11.96 hrs, Volume= 2,188 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,820	80	>75% Grass cover, Good, HSG D
3,514	98	Paved parking, HSG D
5,334	92	Weighted Average
1,820		34.12% Pervious Area
3,514		65.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-3: DRAINAGE AREA 3



Summary for Subcatchment DA-4: DRAINAGE AREA 4

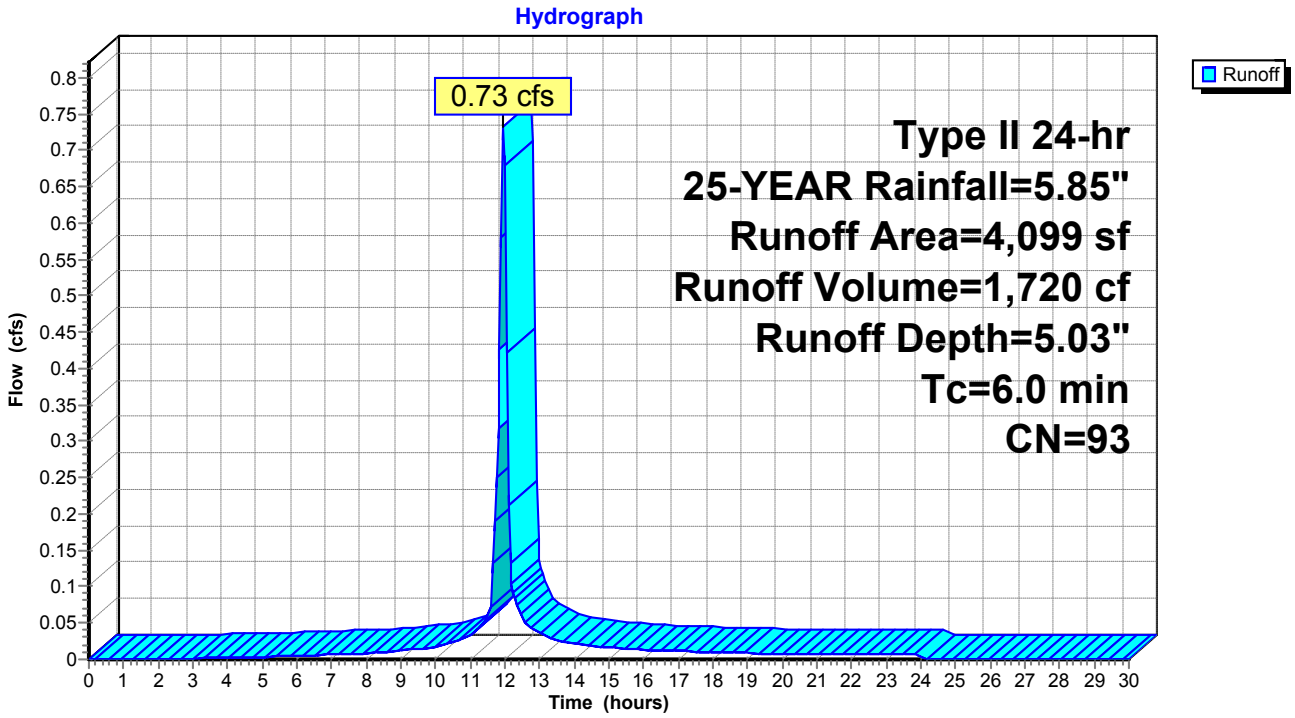
Runoff = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf, Depth= 5.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,032	80	>75% Grass cover, Good, HSG D
3,067	98	Paved parking, HSG D
4,099	93	Weighted Average
1,032		25.18% Pervious Area
3,067		74.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-4: DRAINAGE AREA 4



Summary for Subcatchment DA-5: DRAINAGE AREA 5

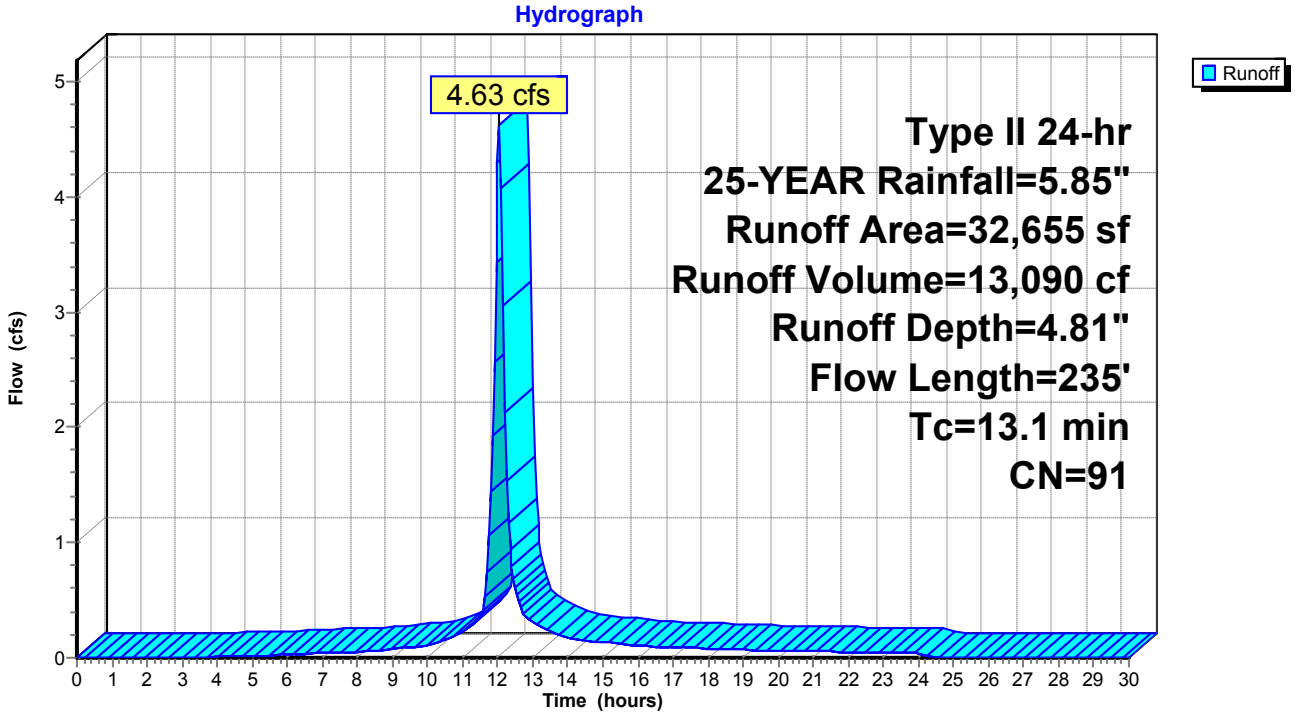
Runoff = 4.63 cfs @ 12.04 hrs, Volume= 13,090 cf, Depth= 4.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
12,737	80	>75% Grass cover, Good, HSG D
19,918	98	Paved parking, HSG D
32,655	91	Weighted Average
12,737		39.00% Pervious Area
19,918		61.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	100	0.0150	0.15		**Sheet Flow, A-B** Grass: Short n= 0.150 P2= 3.16"
1.7	81	0.0130	0.80		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
0.3	54	0.0250	3.21		**Shallow Concentrated Flow, C-D** Paved Kv= 20.3 fps
13.1	235	Total			

Subcatchment DA-5: DRAINAGE AREA 5



Summary for Subcatchment DA-6: DA-6

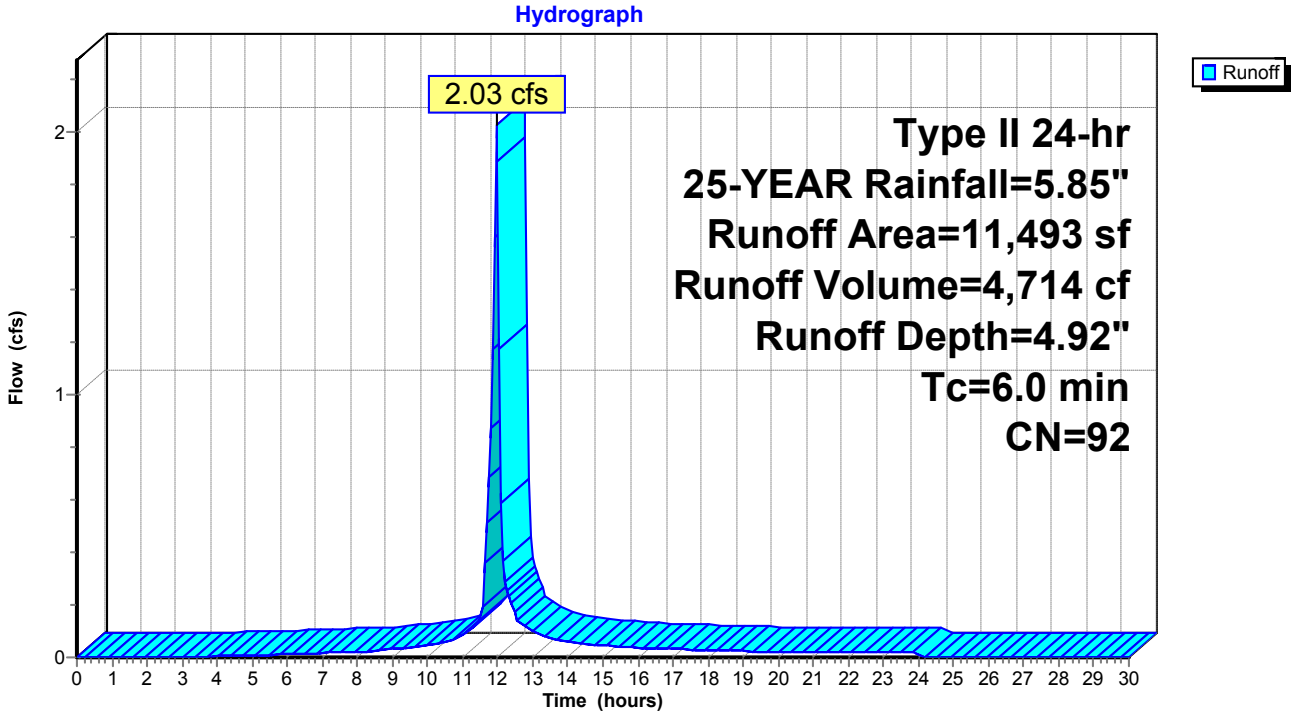
Runoff = 2.03 cfs @ 11.96 hrs, Volume= 4,714 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
3,947	80	>75% Grass cover, Good, HSG D
7,546	98	Paved parking, HSG D
11,493	92	Weighted Average
3,947		34.34% Pervious Area
7,546		65.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

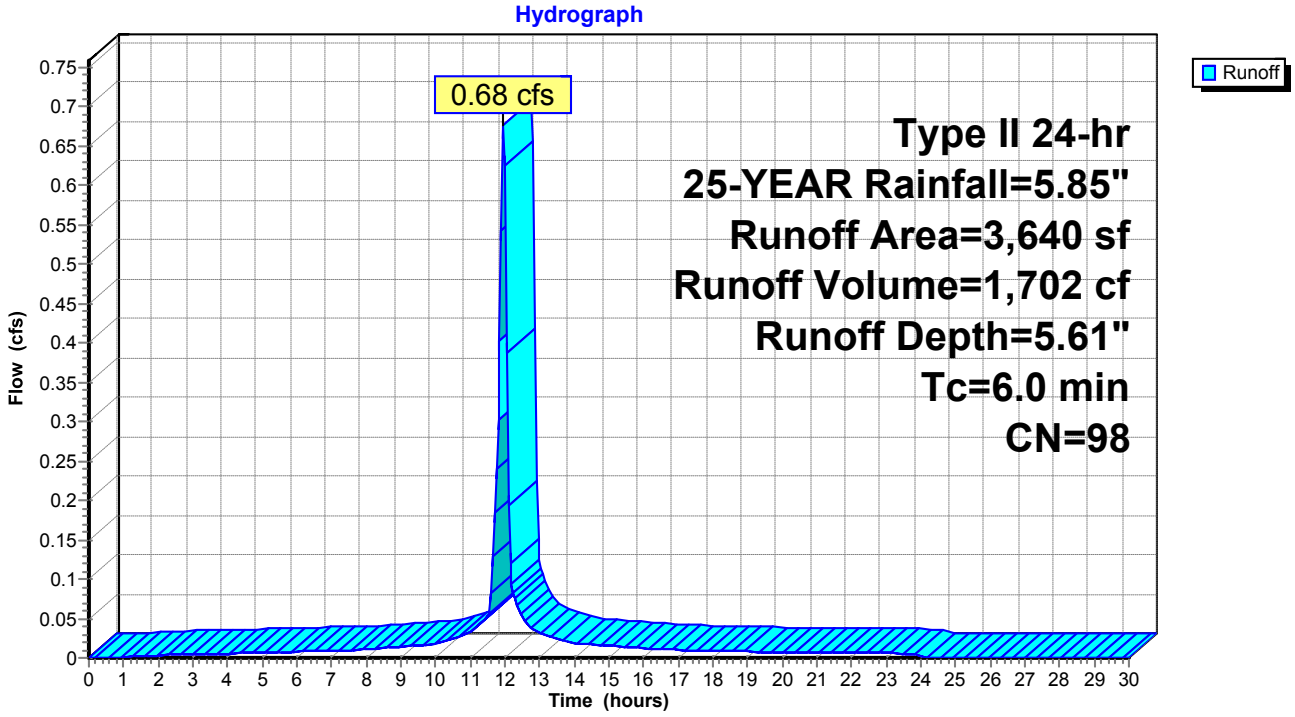
Runoff = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf, Depth= 5.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,587	98	Roofs, HSG D
2,053	98	Paved parking, HSG D
3,640	98	Weighted Average
3,640		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

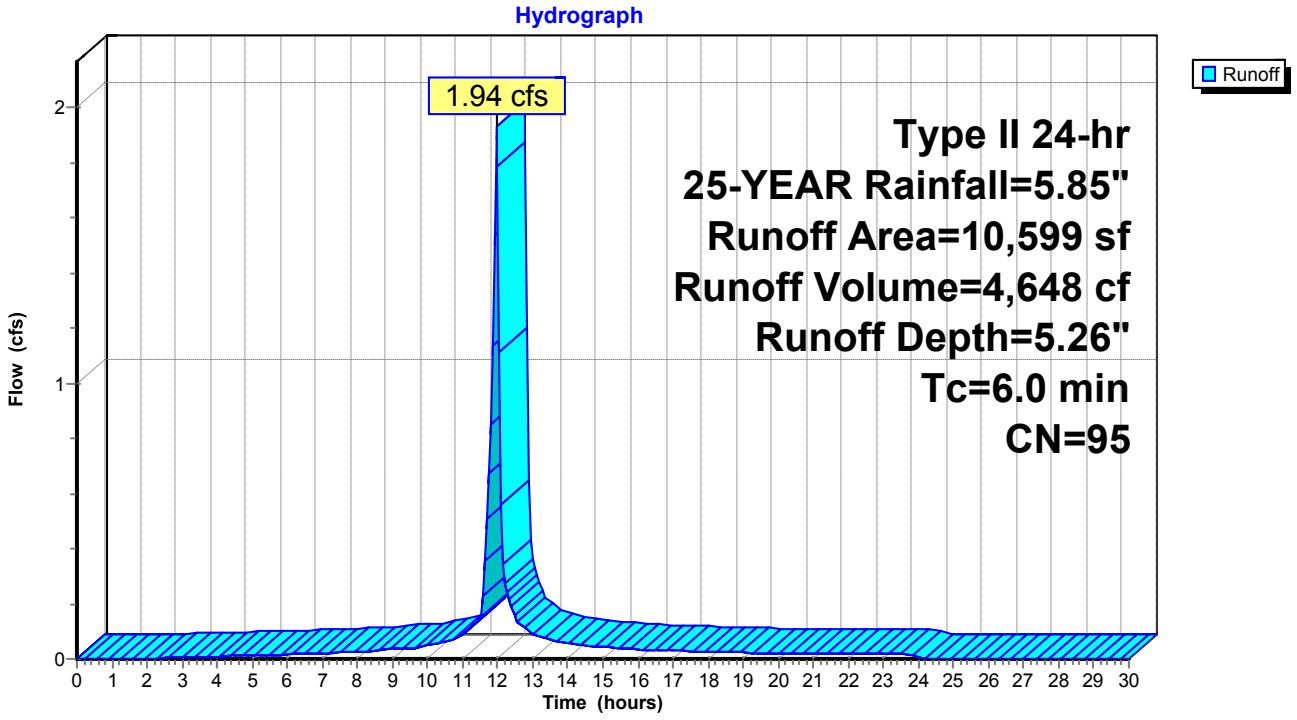
Runoff = 1.94 cfs @ 11.96 hrs, Volume= 4,648 cf, Depth= 5.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,986	80	>75% Grass cover, Good, HSG D
6,900	98	Roofs, HSG D
1,713	98	Paved parking, HSG D
10,599	95	Weighted Average
1,986		18.74% Pervious Area
8,613		81.26% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DRAINAGE AREA 9

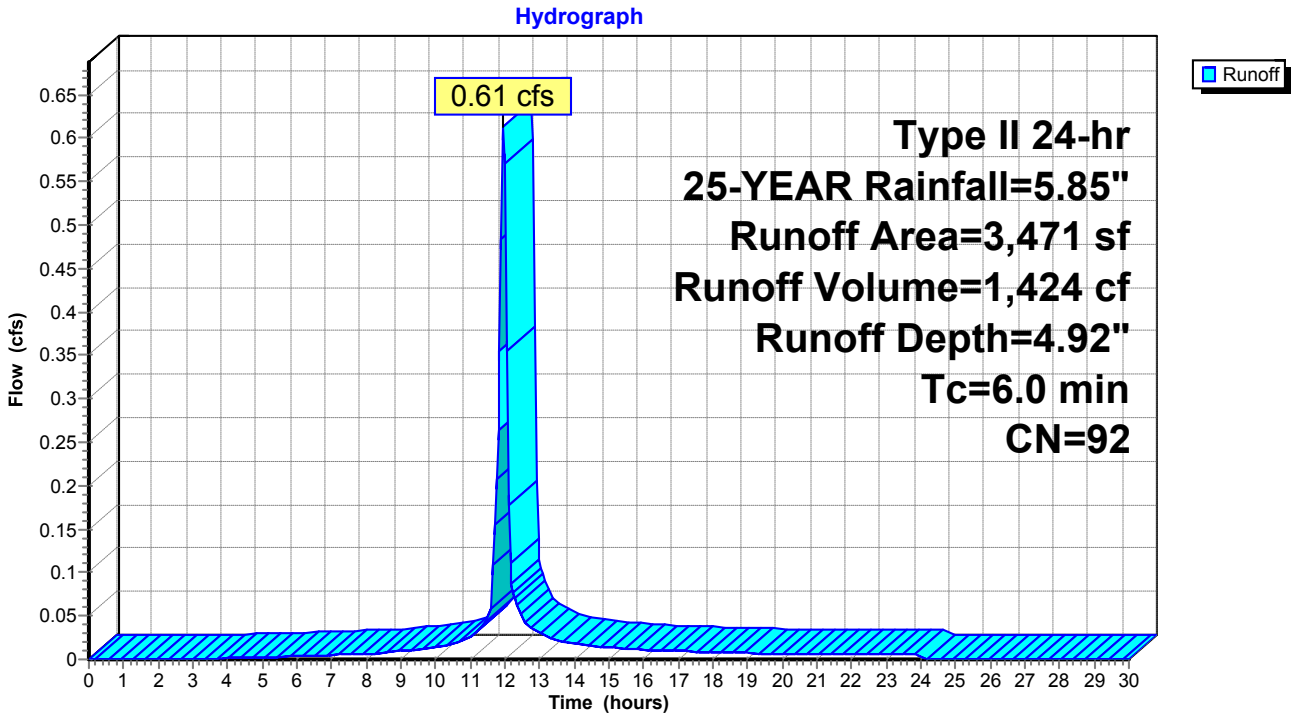
Runoff = 0.61 cfs @ 11.96 hrs, Volume= 1,424 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type II 24-hr 25-YEAR Rainfall=5.85"

Area (sf)	CN	Description
1,195	80	>75% Grass cover, Good, HSG D
2,276	98	Paved parking, HSG D
3,471	92	Weighted Average
1,195		34.43% Pervious Area
2,276		65.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment DA-9: DRAINAGE AREA 9



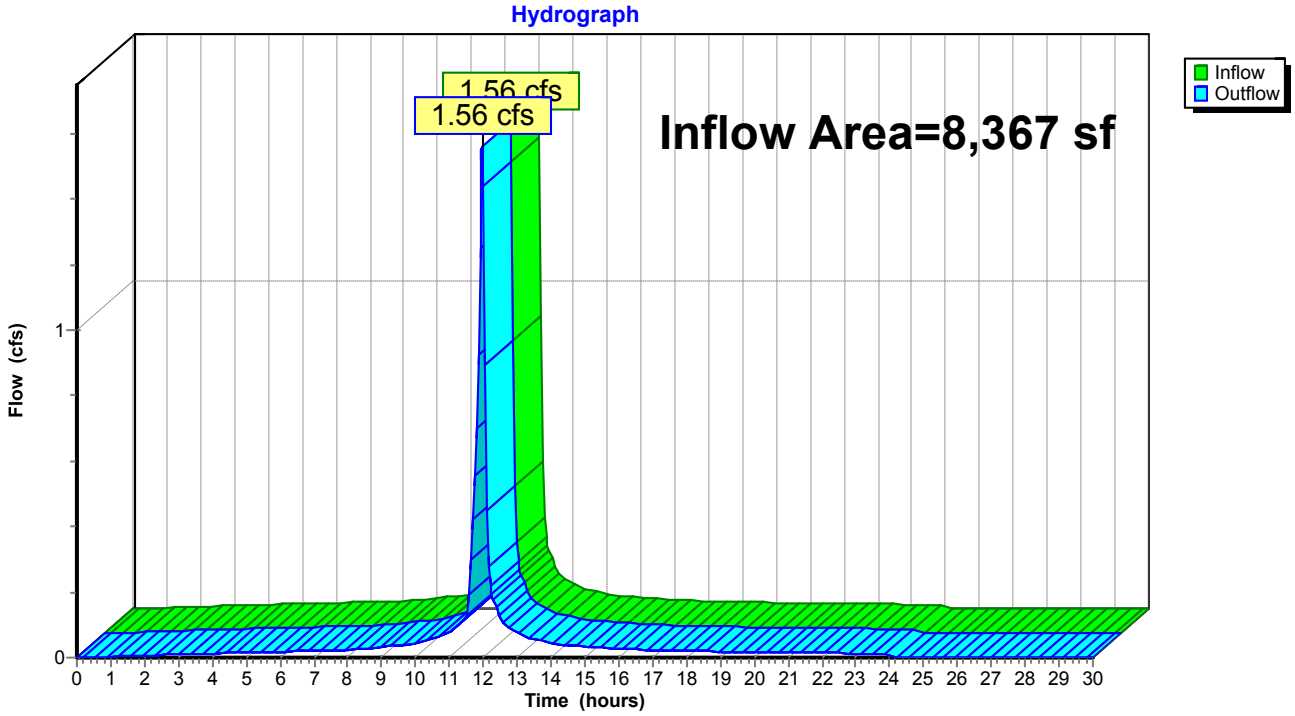
Summary for Reach DP-2: STREET

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 8,367 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 1.56 cfs @ 11.96 hrs, Volume= 3,913 cf
Outflow = 1.56 cfs @ 11.96 hrs, Volume= 3,913 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: STREET



Summary for Pond 2P: EXISTING DRYWELL

[81] Warning: Exceeded Pond DW-4 by 0.49' @ 18.55 hrs

Inflow Area = 5,334 sf, 65.88% Impervious, Inflow Depth = 14.73" for 25-YEAR event
Inflow = 2.67 cfs @ 11.98 hrs, Volume= 6,546 cf
Outflow = 2.64 cfs @ 12.00 hrs, Volume= 6,546 cf, Atten= 1%, Lag= 1.1 min
Discarded = 0.67 cfs @ 12.00 hrs, Volume= 3,873 cf
Primary = 1.97 cfs @ 12.00 hrs, Volume= 2,673 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.83' @ 12.00 hrs Surf.Area= 1,319 sf Storage= 431 cf

Plug-Flow detention time= 21.9 min calculated for 6,535 cf (100% of inflow)
Center-of-Mass det. time= 21.8 min (773.8 - 751.9)

Volume	Invert	Avail.Storage	Storage Description
#1	167.50'	1,717 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

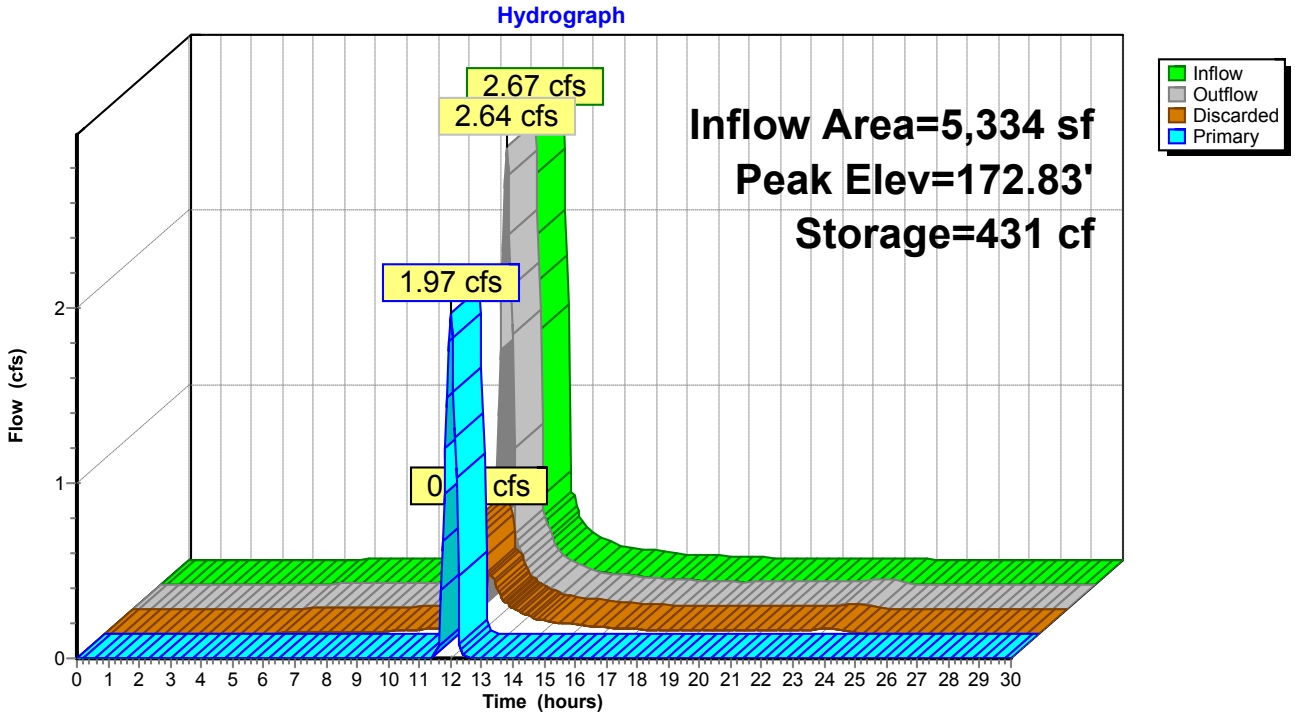
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.50	55	0	0
172.50	29	210	210
173.00	2,000	507	717
173.50	2,000	1,000	1,717

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.50'	**22.000 in/hr Exfiltration over Surface area**
#2	Primary	172.65'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.67 cfs @ 12.00 hrs HW=172.83' (Free Discharge)
↑—**1=Exfiltration** (Exfiltration Controls 0.67 cfs)

Primary OutFlow Max=1.95 cfs @ 12.00 hrs HW=172.83' (Free Discharge)
↑—**2=Orifice/Grate** (Weir Controls 1.95 cfs @ 1.38 fps)

Pond 2P: EXISTING DRYWELL



Summary for Pond 3P: PROPOSED CB #3

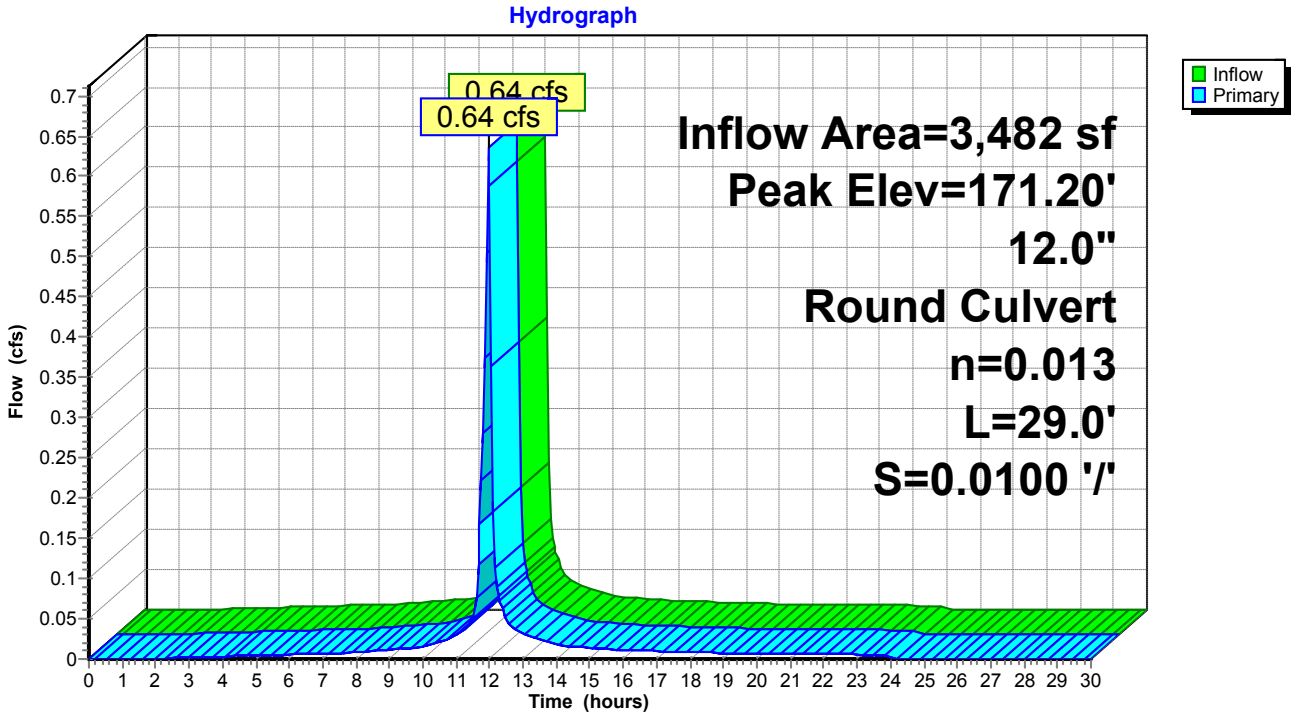
Inflow Area = 3,482 sf, 85.96% Impervious, Inflow Depth = 5.26" for 25-YEAR event
Inflow = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf
Outflow = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.64 cfs @ 11.96 hrs, Volume= 1,527 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 171.20' @ 11.96 hrs
Flood Elev= 172.74'

Device	Routing	Invert	Outlet Devices
#1	Primary	170.74'	**12.0" Round Culvert** L= 29.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.74' / 170.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.62 cfs @ 11.96 hrs HW=171.19' (Free Discharge)
1=Culvert (Inlet Controls 0.62 cfs @ 1.80 fps)

Pond 3P: PROPOSED CB #3



Summary for Pond 5P: EXISTING DRYWELL

[81] Warning: Exceeded Pond CB-2 by 2.79' @ 12.15 hrs

Inflow	=	1.67 cfs @	11.96 hrs,	Volume=	5,126 cf
Outflow	=	1.08 cfs @	12.05 hrs,	Volume=	5,126 cf, Atten= 35%, Lag= 5.3 min
Discarded	=	1.08 cfs @	12.05 hrs,	Volume=	5,126 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.52' @ 12.05 hrs Surf.Area= 2,121 sf Storage= 790 cf

Plug-Flow detention time= 42.2 min calculated for 5,126 cf (100% of inflow)
Center-of-Mass det. time= 42.2 min (802.5 - 760.3)

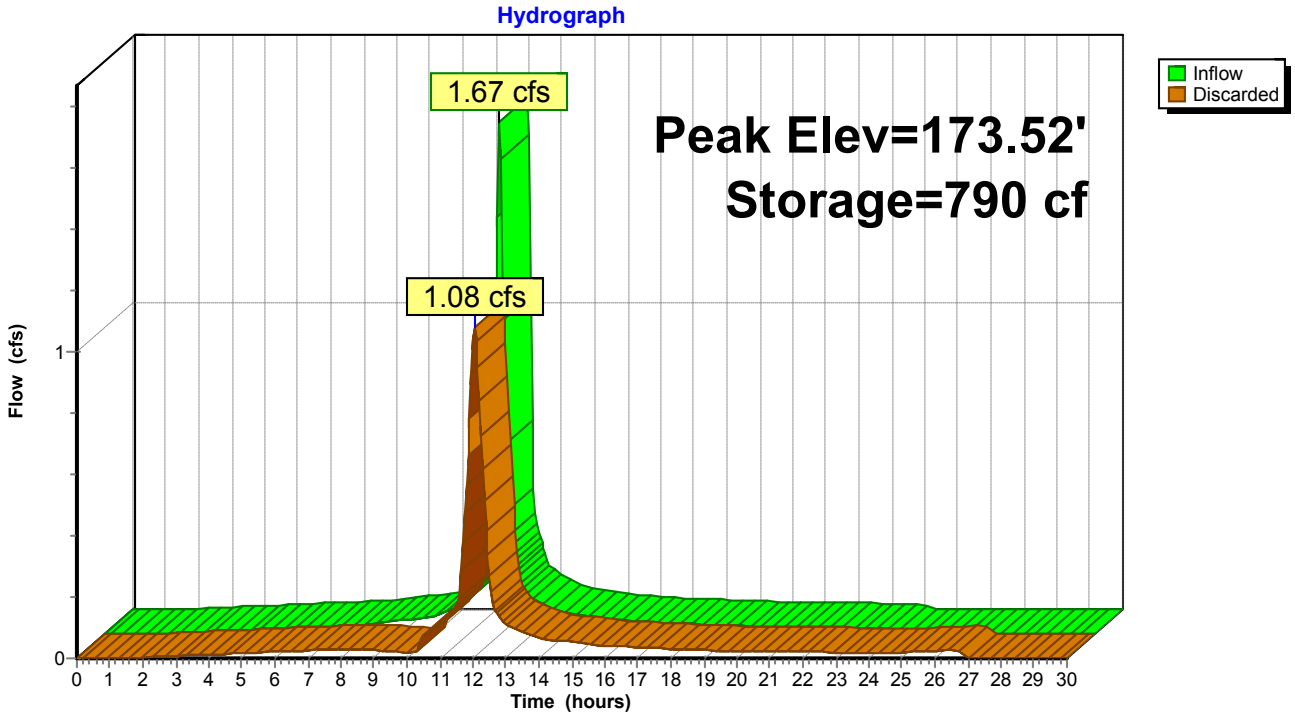
Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	2,269 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.90	29	206	206
173.00	112	7	213
174.00	4,000	2,056	2,269

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.08 cfs @ 12.05 hrs HW=173.52' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 1.08 cfs)

Pond 5P: EXISTING DRYWELL



Summary for Pond 8P: EXISTING YARD DRAIN

[58] Hint: Peaked 69.02' above defined flood level

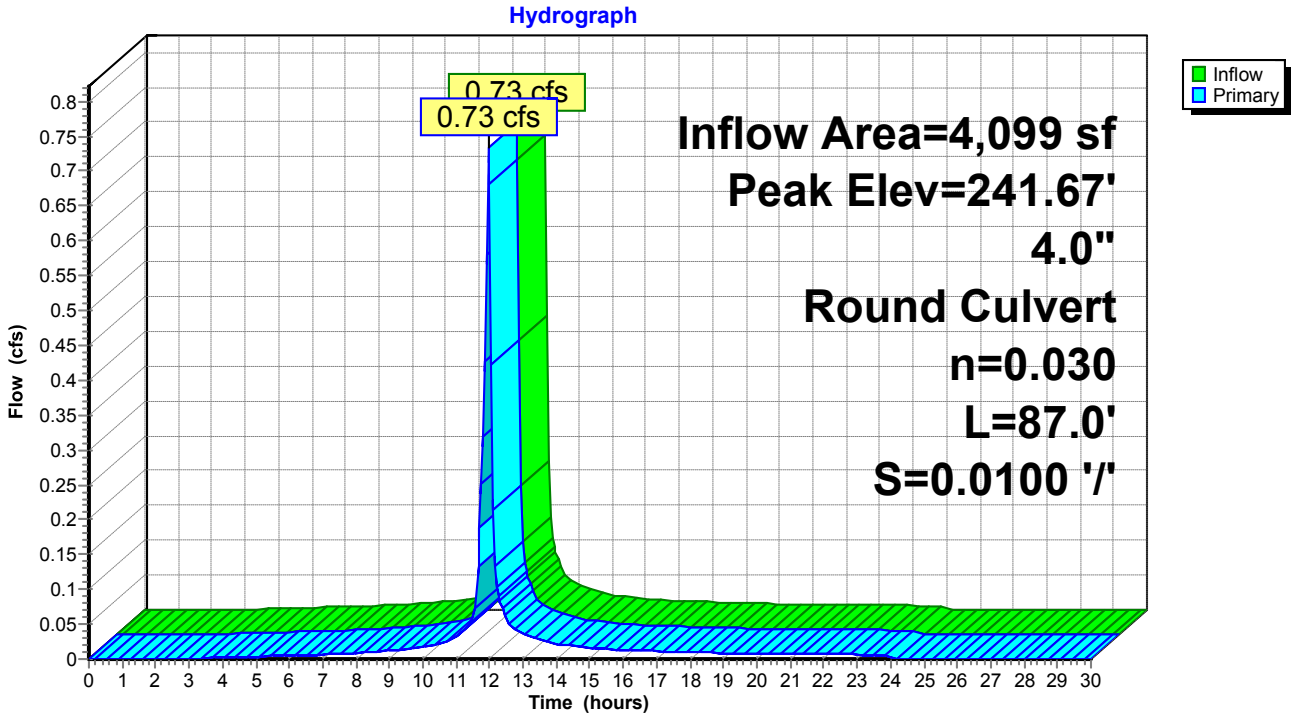
Inflow Area = 4,099 sf, 74.82% Impervious, Inflow Depth = 5.03" for 25-YEAR event
Inflow = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf
Outflow = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.73 cfs @ 11.96 hrs, Volume= 1,720 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 241.67' @ 11.96 hrs
Flood Elev= 172.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.30'	**4.0" Round Culvert** L= 87.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.30' / 170.43' S= 0.0100 '/' Cc= 0.900 n= 0.030, Flow Area= 0.09 sf

Primary OutFlow Max=0.72 cfs @ 11.96 hrs HW=238.43' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.72 cfs @ 8.20 fps)

Pond 8P: EXISTING YARD DRAIN



Summary for Pond 12P: EXISTING CB

[81] Warning: Exceeded Pond 3P by 0.91' @ 12.05 hrs

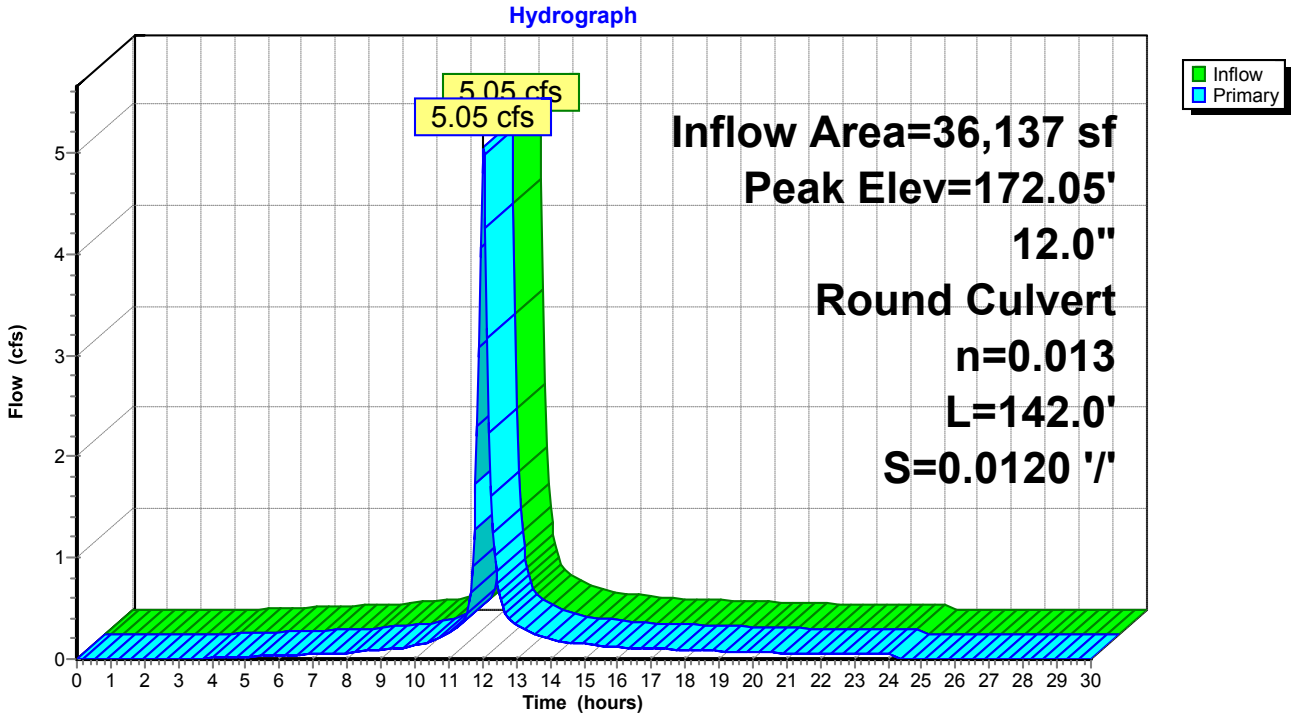
Inflow Area = 36,137 sf, 63.40% Impervious, Inflow Depth = 4.85" for 25-YEAR event
Inflow = 5.05 cfs @ 12.03 hrs, Volume= 14,618 cf
Outflow = 5.05 cfs @ 12.03 hrs, Volume= 14,618 cf, Atten= 0%, Lag= 0.0 min
Primary = 5.05 cfs @ 12.03 hrs, Volume= 14,618 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.05' @ 12.03 hrs
Flood Elev= 172.16'

Device	Routing	Invert	Outlet Devices
#1	Primary	168.70'	**12.0" Round Culvert** L= 142.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 168.70' / 167.00' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=4.95 cfs @ 12.03 hrs HW=171.95' (Free Discharge)
└**1=Culvert** (Inlet Controls 4.95 cfs @ 6.31 fps)

Pond 12P: EXISTING CB



Summary for Pond 14P: EXISTING CB

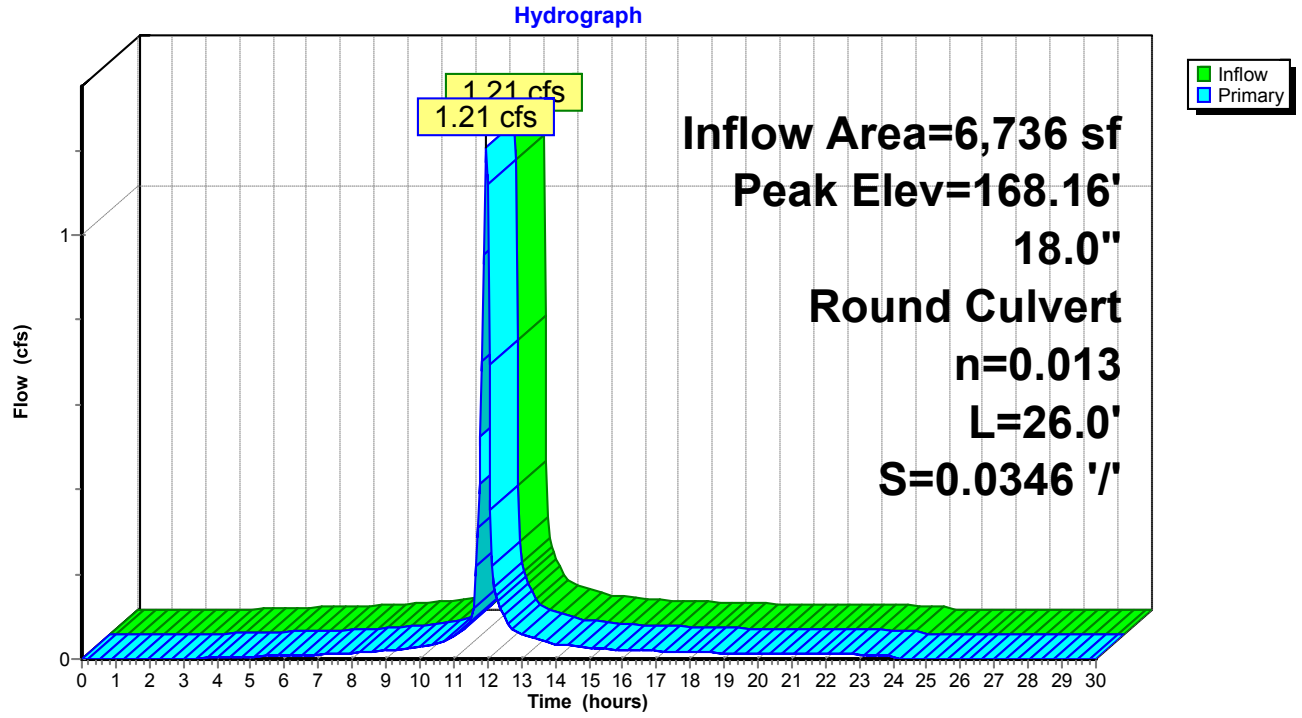
Inflow Area = 6,736 sf, 69.73% Impervious, Inflow Depth = 5.03" for 25-YEAR event
Inflow = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf
Outflow = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.21 cfs @ 11.96 hrs, Volume= 2,826 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 168.16' @ 11.96 hrs
Flood Elev= 172.33'

Device	Routing	Invert	Outlet Devices
#1	Primary	167.60'	**18.0" Round Culvert** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 167.60' / 166.70' S= 0.0346 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=1.17 cfs @ 11.96 hrs HW=168.15' (Free Discharge)
1=Culvert (Inlet Controls 1.17 cfs @ 2.00 fps)

Pond 14P: EXISTING CB



Summary for Pond CB-1: PROPOSED CATCH BASIN #1

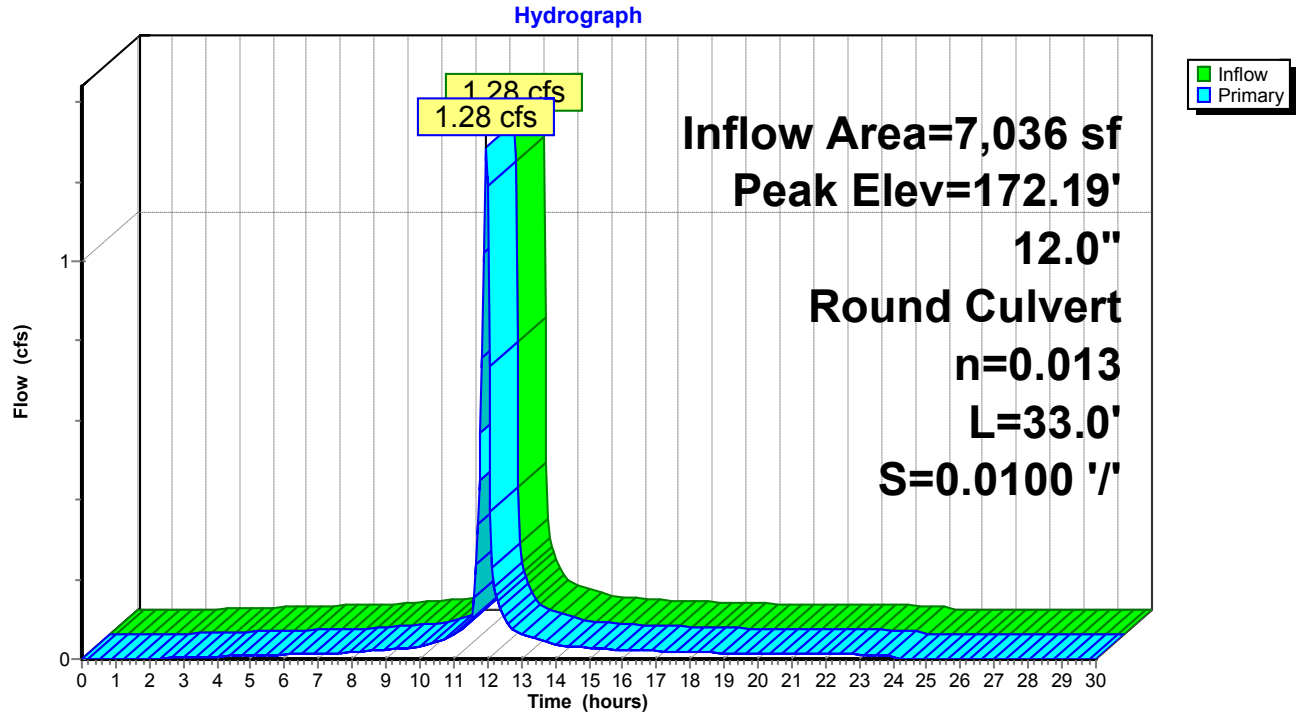
Inflow Area = 7,036 sf, 83.26% Impervious, Inflow Depth = 5.26" for 25-YEAR event
Inflow = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf
Outflow = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.28 cfs @ 11.96 hrs, Volume= 3,086 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.19' @ 11.96 hrs
Flood Elev= 172.70'

Device	Routing	Invert	Outlet Devices
#1	Primary	171.50'	**12.0" Round Culvert** L= 33.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 171.50' / 171.17' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=1.25 cfs @ 11.96 hrs HW=172.18' (Free Discharge)
1=Culvert (Inlet Controls 1.25 cfs @ 2.21 fps)

Pond CB-1: PROPOSED CATCH BASIN #1



Summary for Pond CB-2: PR CB #2

[57] Hint: Peaked at 172.16' (Flood elevation advised)
[79] Warning: Submerged Pond CB-1 Primary device # 1 INLET by 0.65'

Inflow Area =	28,448 sf,	85.49% Impervious,	Inflow Depth =	5.35"	for 25-YEAR event
Inflow =	5.23 cfs @	11.96 hrs,	Volume=	12,682 cf	
Outflow =	5.23 cfs @	11.96 hrs,	Volume=	12,682 cf,	Atten= 0%, Lag= 0.0 min
Primary =	3.56 cfs @	11.96 hrs,	Volume=	7,556 cf	
Secondary =	1.67 cfs @	11.96 hrs,	Volume=	5,126 cf	

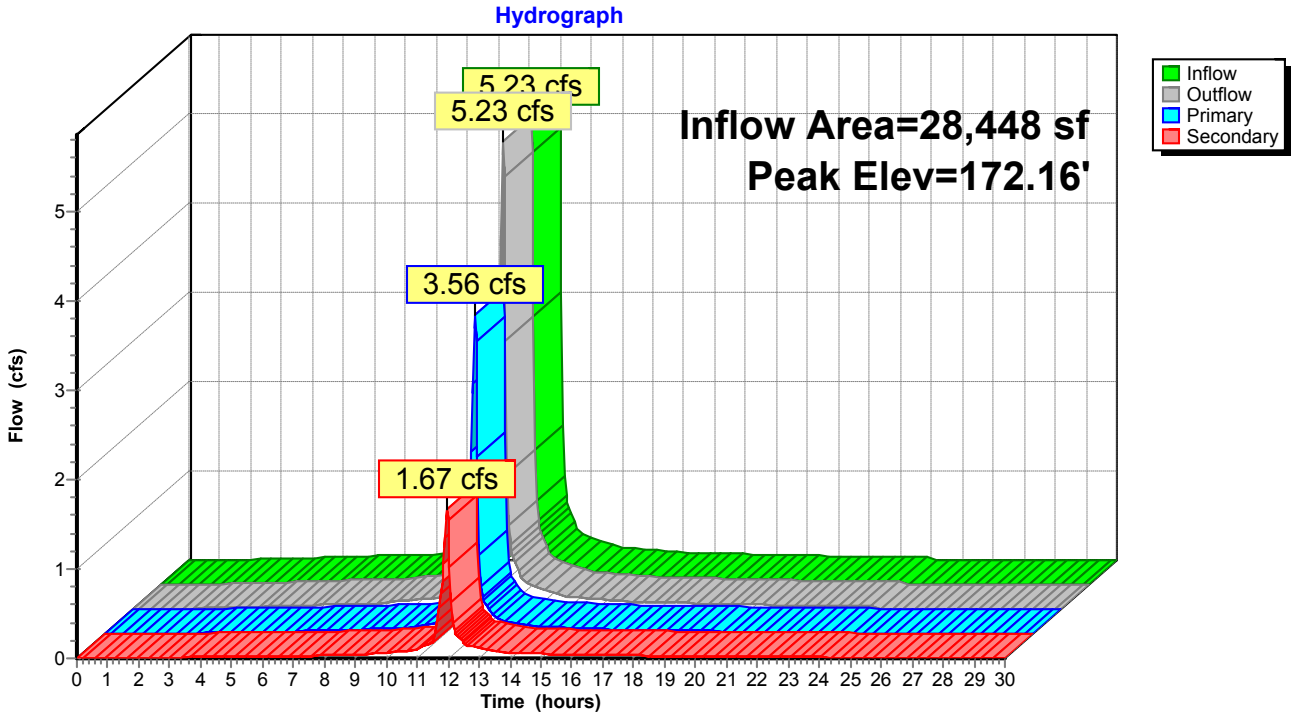
Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.16' @ 11.96 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	170.25'	**12.0" Round Culvert** L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf
#2	Secondary	170.25'	**8.0" Round Culvert** L= 12.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 170.25' / 170.05' S= 0.0167 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=3.47 cfs @ 11.96 hrs HW=172.10' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 3.47 cfs @ 4.42 fps)

Secondary OutFlow Max=1.63 cfs @ 11.96 hrs HW=172.10' (Free Discharge)
↑—**2=Culvert** (Inlet Controls 1.63 cfs @ 4.68 fps)

Pond CB-2: PR CB #2



Summary for Pond DP-1: Existing Catch Basin

[79] Warning: Submerged Pond 12P Primary device # 1 INLET by 0.58'
[81] Warning: Exceeded Pond 14P by 1.15' @ 12.00 hrs

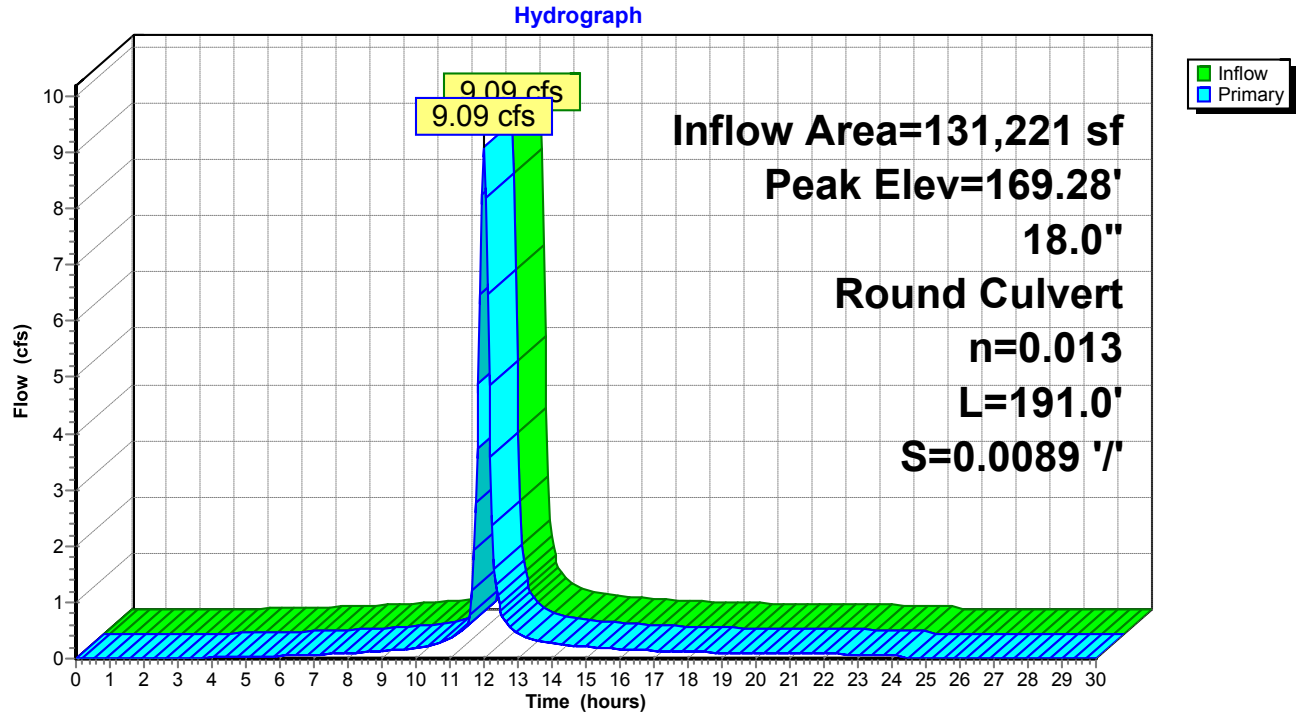
Inflow Area = 131,221 sf, 73.88% Impervious, Inflow Depth = 2.10" for 25-YEAR event
Inflow = 9.09 cfs @ 12.00 hrs, Volume= 22,940 cf
Outflow = 9.09 cfs @ 12.00 hrs, Volume= 22,940 cf, Atten= 0%, Lag= 0.0 min
Primary = 9.09 cfs @ 12.00 hrs, Volume= 22,940 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.28' @ 12.00 hrs
Flood Elev= 171.87'

Device	Routing	Invert	Outlet Devices
#1	Primary	166.70'	**18.0" Round Culvert** L= 191.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 166.70' / 165.00' S= 0.0089 '/' Cc= 0.900 n= 0.013, Flow Area= 1.77 sf

Primary OutFlow Max=9.08 cfs @ 12.00 hrs HW=169.28' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 9.08 cfs @ 5.14 fps)

Pond DP-1: Existing Catch Basin



Summary for Pond DW-1: PROPOSED DRYWELL #1

Inflow Area = 3,471 sf, 65.57% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 0.61 cfs @ 11.96 hrs, Volume= 1,424 cf
Outflow = 0.23 cfs @ 12.00 hrs, Volume= 1,424 cf, Atten= 63%, Lag= 2.2 min
Discarded = 0.23 cfs @ 12.00 hrs, Volume= 1,424 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 169.37' @ 12.09 hrs Surf.Area= 310 sf Storage= 411 cf

Plug-Flow detention time= 32.7 min calculated for 1,421 cf (100% of inflow)
Center-of-Mass det. time= 32.6 min (807.1 - 774.5)

Volume	Invert	Avail.Storage	Storage Description
#1	164.00'	712 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	163.00'	38 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 94 cf Overall x 40.0% Voids
		750 cf	Total Available Storage

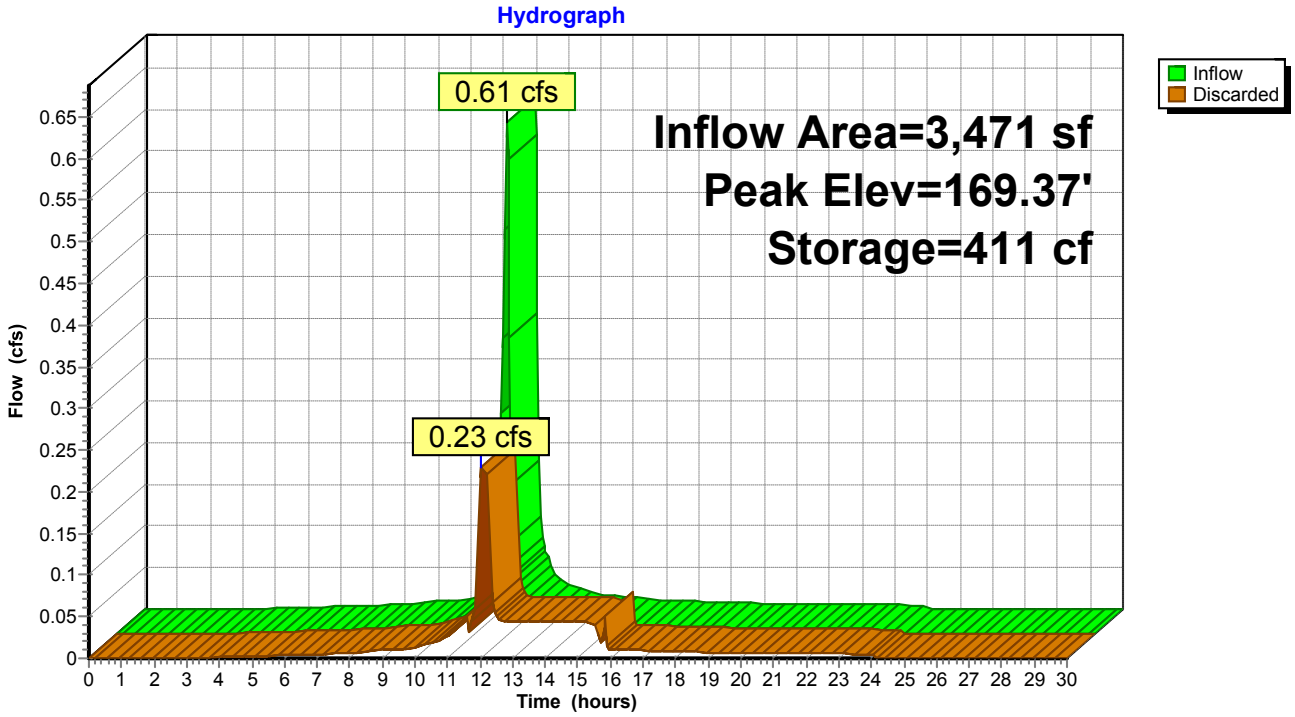
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	50	0	0
168.90	50	245	245
169.00	300	17	262
170.50	300	450	712

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
163.00	78	0	0
164.00	10	44	44
169.00	10	50	94

Device	Routing	Invert	Outlet Devices
#1	Discarded	163.00'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.23 cfs @ 12.00 hrs HW=169.21' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 0.23 cfs)

Pond DW-1: PROPOSED DRYWELL #1



Summary for Pond DW-2: PROPOSED DRYWELL #2

[81] Warning: Exceeded Pond YD-2 by 2.78' @ 15.80 hrs

Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 2.34 cfs @ 11.96 hrs, Volume= 5,471 cf
Outflow = 1.91 cfs @ 12.02 hrs, Volume= 5,472 cf, Atten= 18%, Lag= 3.1 min
Discarded = 1.91 cfs @ 12.02 hrs, Volume= 5,472 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.79' @ 12.02 hrs Surf.Area= 2,577 sf Storage= 818 cf

Plug-Flow detention time= 45.1 min calculated for 5,463 cf (100% of inflow)
Center-of-Mass det. time= 45.2 min (816.1 - 770.9)

Volume	Invert	Avail.Storage	Storage Description
#1	167.78'	1,499 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	166.50'	53 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 134 cf Overall x 40.0% Voids
		1,552 cf	Total Available Storage

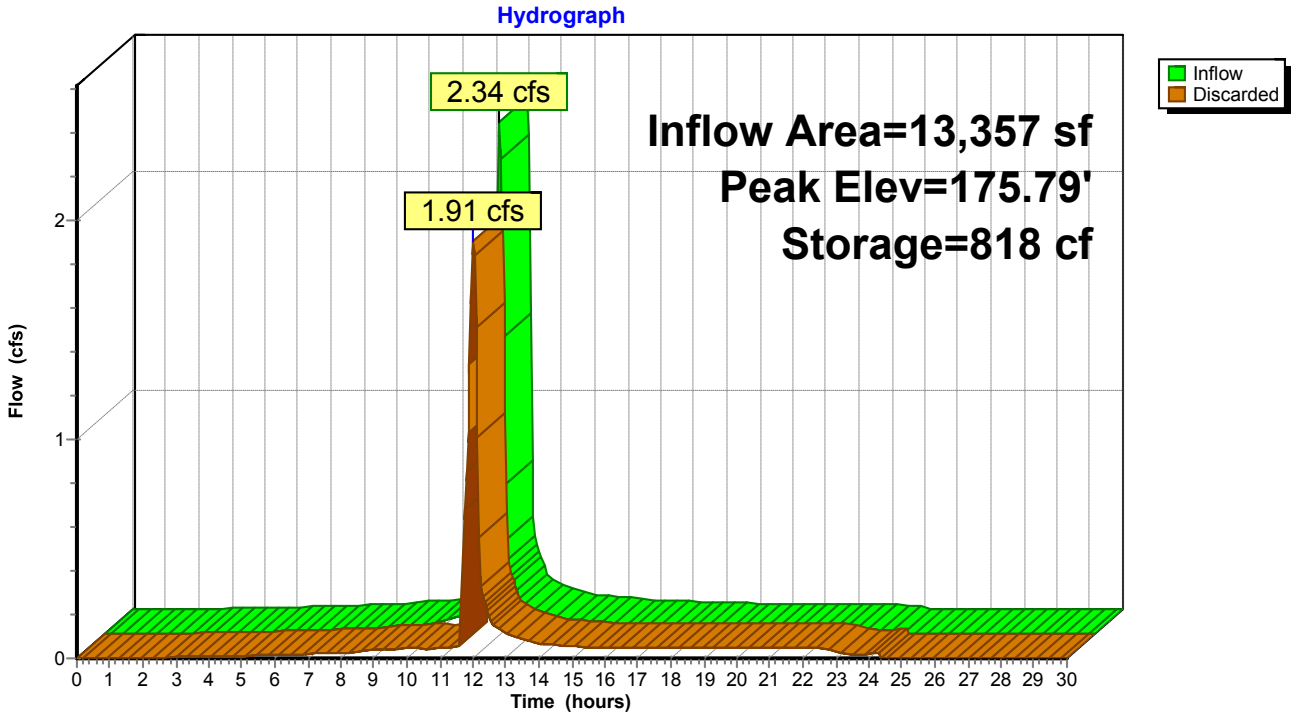
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.78	50	0	0
175.50	50	386	386
176.00	4,400	1,113	1,499

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.50	78	0	0
167.78	10	56	56
175.50	10	77	134

Device	Routing	Invert	Outlet Devices
#1	Discarded	166.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.88 cfs @ 12.02 hrs HW=175.78' (Free Discharge)
1=Exfiltration (Exfiltration Controls 1.88 cfs)

Pond DW-2: PROPOSED DRYWELL #2



Summary for Pond DW-3: PROPOSED DRYWELL #3

[81] Warning: Exceeded Pond YD-4 by 2.08' @ 16.10 hrs

Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 5.35" for 25-YEAR event
Inflow = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf
Outflow = 2.06 cfs @ 12.02 hrs, Volume= 6,352 cf, Atten= 21%, Lag= 3.5 min
Discarded = 2.06 cfs @ 12.02 hrs, Volume= 6,352 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.84' @ 12.02 hrs Surf.Area= 2,774 sf Storage= 929 cf

Plug-Flow detention time= 43.5 min calculated for 6,341 cf (100% of inflow)
Center-of-Mass det. time= 43.6 min (799.0 - 755.4)

Volume	Invert	Avail.Storage	Storage Description
#1	166.69'	1,403 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	165.50'	55 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 138 cf Overall x 40.0% Voids
		1,458 cf	Total Available Storage

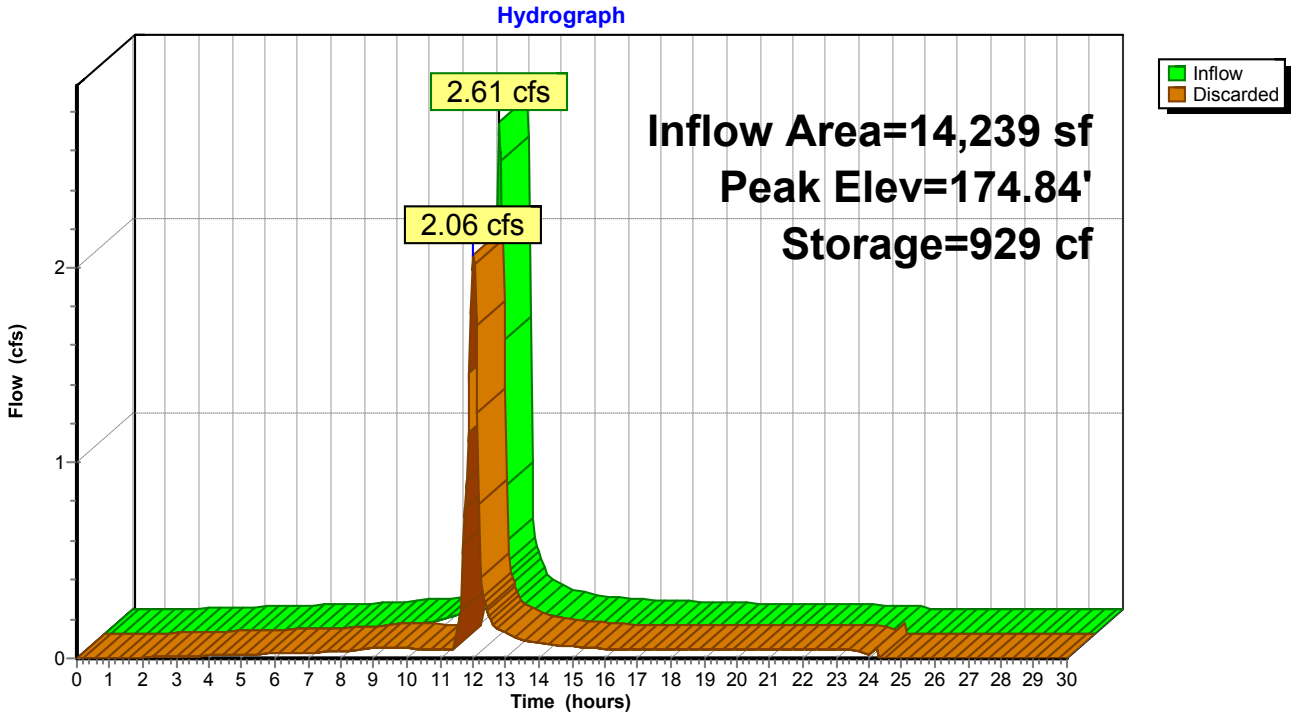
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
166.69	50	0	0
174.50	50	391	391
175.00	4,000	1,013	1,403

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.50	79	0	0
165.69	79	15	15
166.69	10	45	60
174.50	10	78	138

Device	Routing	Invert	Outlet Devices
#1	Discarded	165.50'	**32.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.02 cfs @ 12.02 hrs HW=174.84' (Free Discharge)
↑**1=Exfiltration** (Exfiltration Controls 2.02 cfs)

Pond DW-3: PROPOSED DRYWELL #3



Summary for Pond DW-4: PROPOSED DRYWELL #4

[81] Warning: Exceeded Pond CB-2 by 3.22' @ 12.10 hrs

Inflow Area = 28,448 sf, 85.49% Impervious, Inflow Depth = 3.19" for 25-YEAR event
Inflow = 3.56 cfs @ 11.96 hrs, Volume= 7,556 cf
Outflow = 2.32 cfs @ 12.04 hrs, Volume= 7,556 cf, Atten= 35%, Lag= 4.6 min
Discarded = 0.51 cfs @ 12.00 hrs, Volume= 3,198 cf
Secondary = 1.80 cfs @ 12.04 hrs, Volume= 4,358 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.18' @ 12.04 hrs Surf.Area= 1,010 sf Storage= 1,194 cf

Plug-Flow detention time= 51.1 min calculated for 7,543 cf (100% of inflow)
Center-of-Mass det. time= 51.3 min (804.9 - 753.6)

Volume	Invert	Avail.Storage	Storage Description
#1	165.00'	1,468 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	164.00'	50 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 124 cf Overall x 40.0% Voids
		1,517 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
165.00	55	0	0
173.00	55	440	440
174.00	1,000	528	968
174.50	1,000	500	1,468

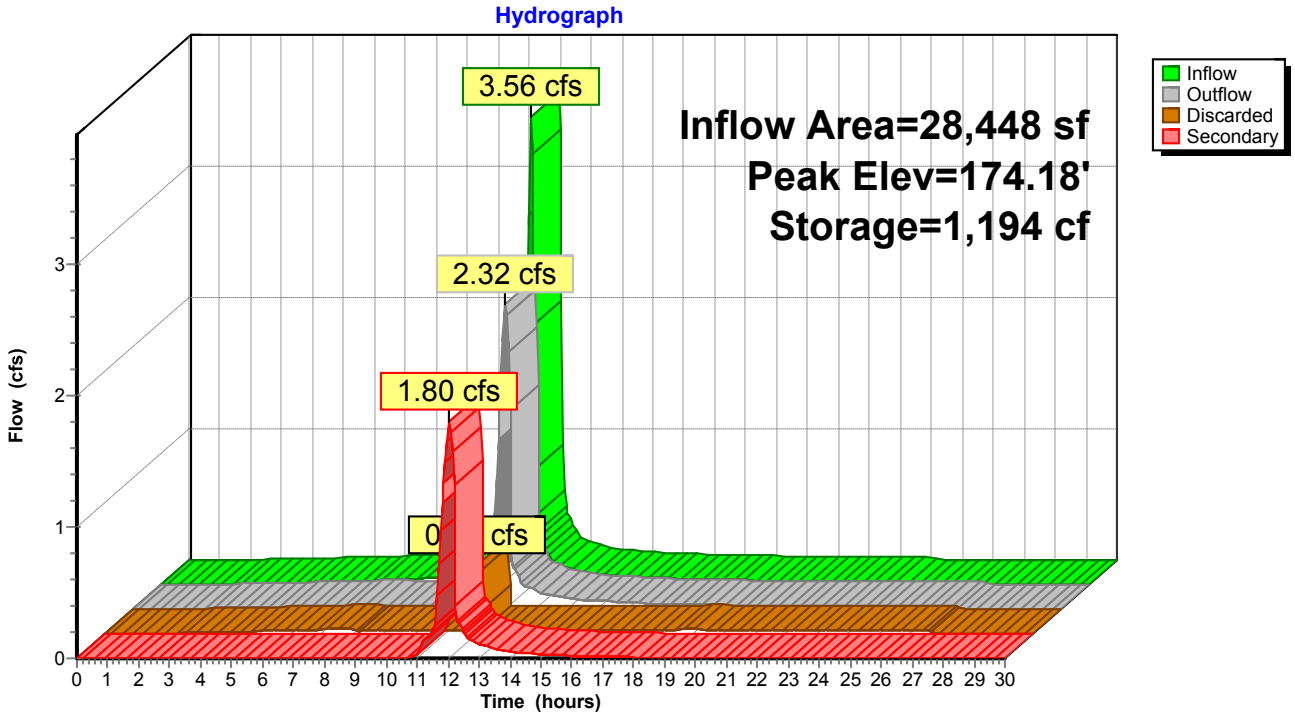
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
164.00	78	0	0
165.00	10	44	44
173.00	10	80	124

Device	Routing	Invert	Outlet Devices
#1	Discarded	164.00'	**22.000 in/hr Exfiltration over Surface area**
#2	Secondary	172.00'	**8.0" Round Culvert** L= 30.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.00' / 171.70' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Discarded OutFlow Max=0.51 cfs @ 12.00 hrs HW=174.11' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.51 cfs)

Secondary OutFlow Max=1.79 cfs @ 12.04 hrs HW=174.16' (Free Discharge)
└**2=Culvert** (Inlet Controls 1.79 cfs @ 5.14 fps)

Pond DW-4: PROPOSED DRYWELL #4



Summary for Pond DW-5: PROPOSED DRYWELL #5

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=5)

Inflow Area = 11,493 sf, 65.66% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 2.03 cfs @ 11.96 hrs, Volume= 4,714 cf
Outflow = 1.11 cfs @ 12.06 hrs, Volume= 4,714 cf, Atten= 45%, Lag= 5.8 min
Discarded = 1.11 cfs @ 12.06 hrs, Volume= 4,714 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 172.72' @ 12.06 hrs Surf.Area= 2,186 sf Storage= 1,057 cf

Plug-Flow detention time= 36.7 min calculated for 4,707 cf (100% of inflow)
Center-of-Mass det. time= 36.7 min (811.2 - 774.5)

Volume	Invert	Avail.Storage	Storage Description
#1	168.00'	1,748 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	167.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		1,781 cf	Total Available Storage

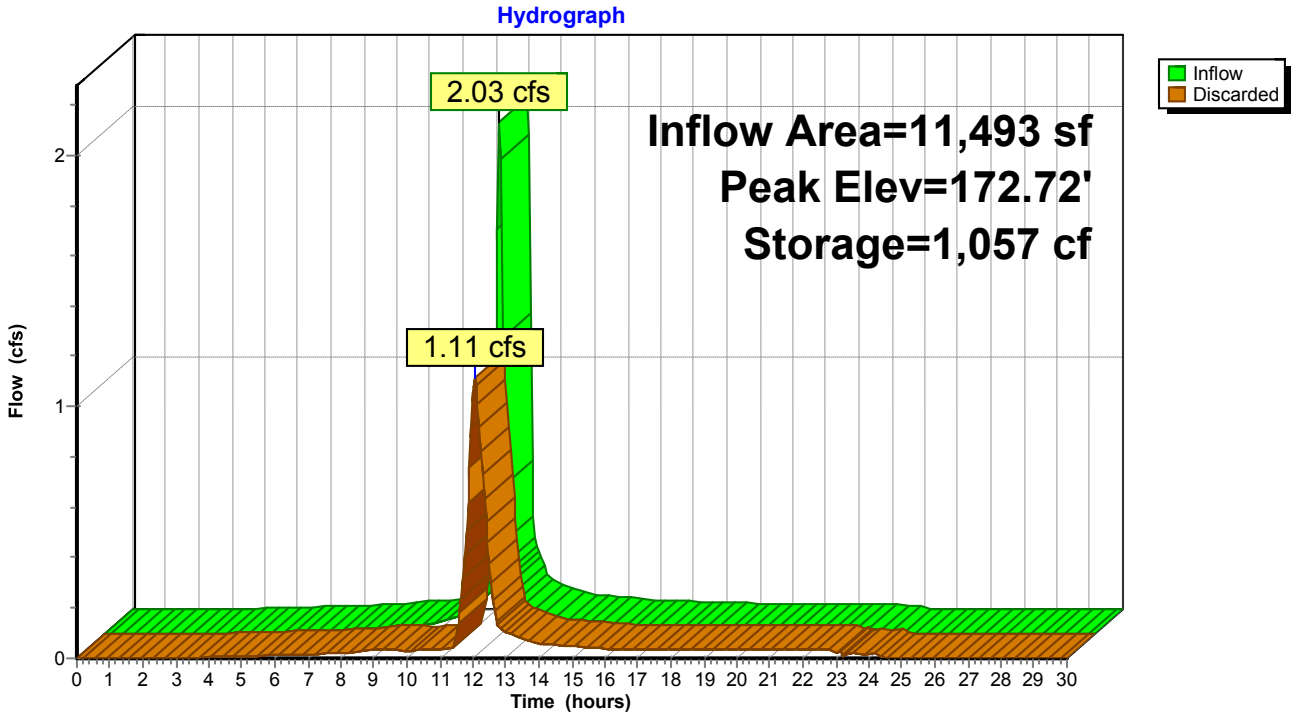
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	55	0	0
172.00	55	220	220
173.00	3,000	1,528	1,748

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
167.00	78	0	0
168.00	10	44	44
172.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	167.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.11 cfs @ 12.06 hrs HW=172.72' (Free Discharge)
1=Exfiltration (Exfiltration Controls 1.11 cfs)

Pond DW-5: PROPOSED DRYWELL #5



Summary for Pond DW-6: PROPOSED DRYWELL #6

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=4)

Inflow Area = 1,844 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.34 cfs @ 11.96 hrs, Volume= 862 cf
Outflow = 0.12 cfs @ 12.11 hrs, Volume= 862 cf, Atten= 65%, Lag= 9.2 min
Discarded = 0.12 cfs @ 12.11 hrs, Volume= 862 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.09' @ 12.11 hrs Surf.Area= 239 sf Storage= 267 cf

Plug-Flow detention time= 43.9 min calculated for 861 cf (100% of inflow)
Center-of-Mass det. time= 43.8 min (785.2 - 741.4)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	169.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

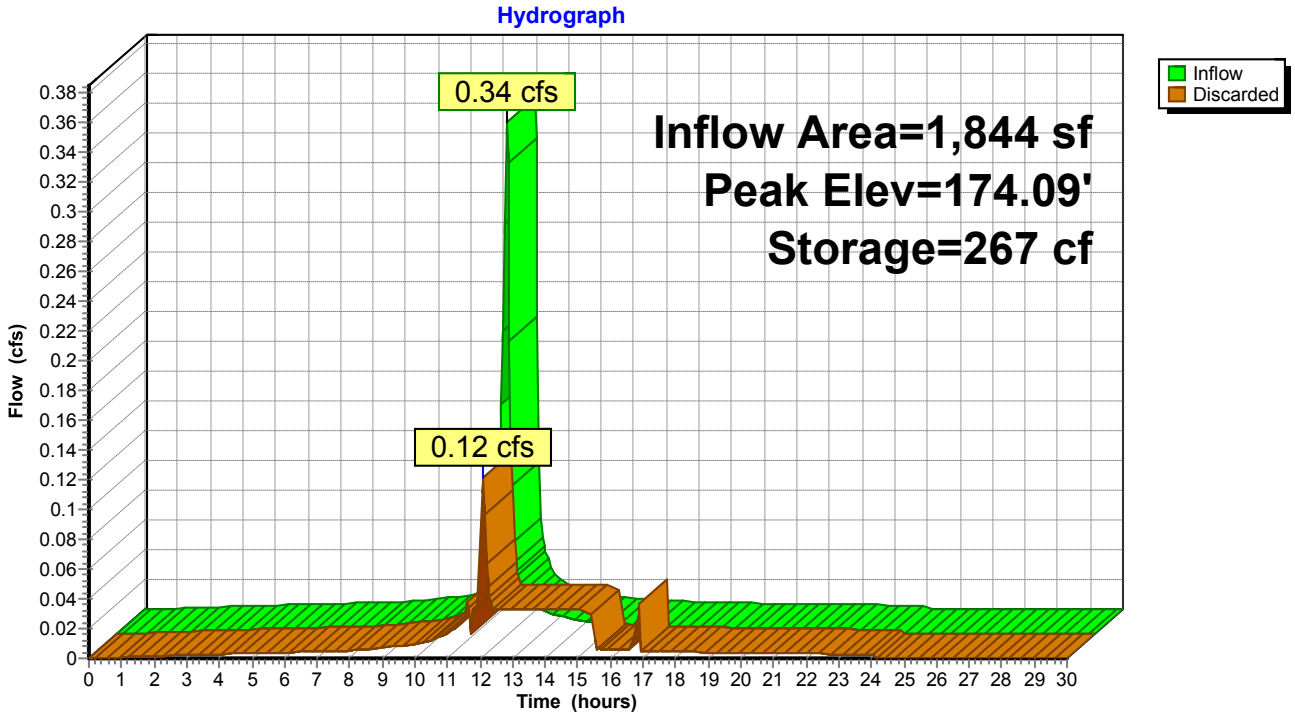
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	55	0	0
174.00	55	220	220
174.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	78	0	0
170.00	10	44	44
174.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	169.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.11 cfs @ 12.11 hrs HW=174.08' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.11 cfs)

Pond DW-6: PROPOSED DRYWELL #6



Summary for Pond DW-7: PROPOSED DRYWELL #7

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,755 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.33 cfs @ 11.96 hrs, Volume= 821 cf
Outflow = 0.07 cfs @ 12.16 hrs, Volume= 821 cf, Atten= 79%, Lag= 11.6 min
Discarded = 0.07 cfs @ 12.16 hrs, Volume= 821 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 175.52' @ 12.15 hrs Surf.Area= 137 sf Storage= 264 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 45.7 min (787.1 - 741.4)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	352 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	170.00'	42 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 106 cf Overall x 40.0% Voids
		394 cf	Total Available Storage

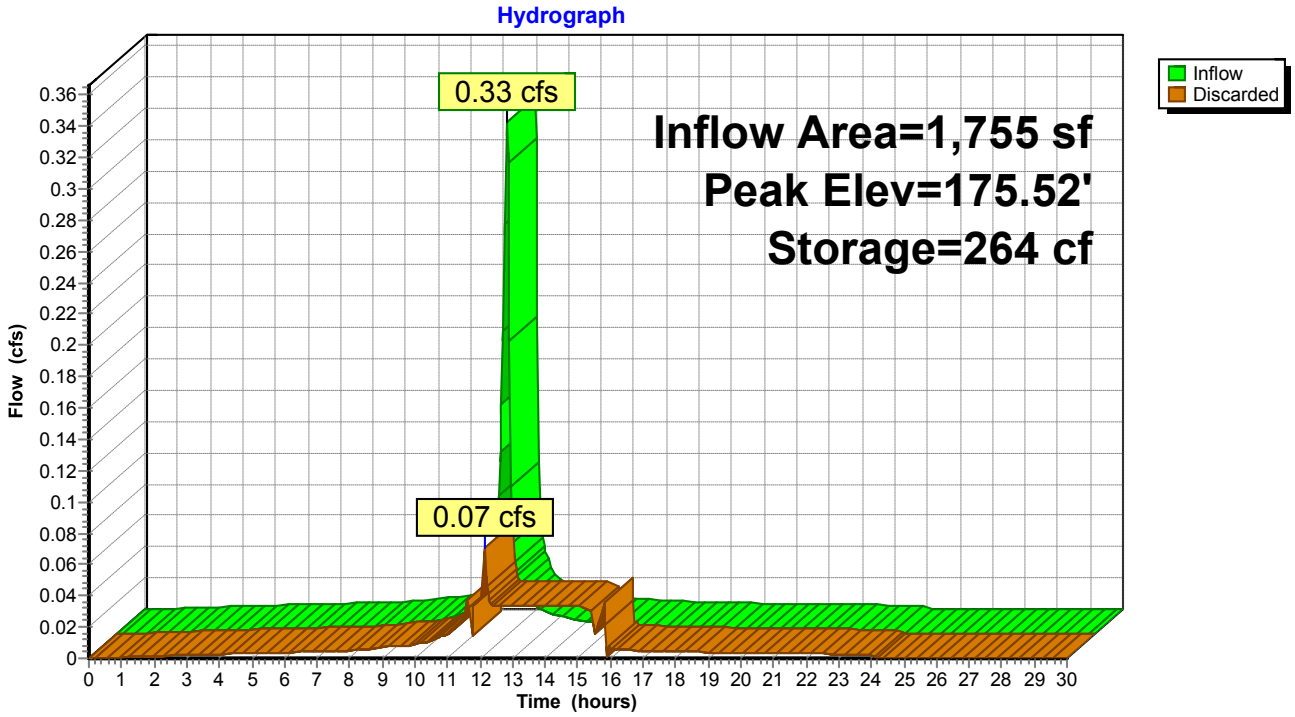
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
171.50	55	0	0
175.50	55	220	220
175.75	1,000	132	352

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
170.00	78	0	0
171.50	10	66	66
175.50	10	40	106

Device	Routing	Invert	Outlet Devices
#1	Discarded	170.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 12.16 hrs HW=175.52' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.07 cfs)

Pond DW-7: PROPOSED DRYWELL #7



Summary for Pond DW-8: PROPOSED DRYWELL #8

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=2)

Inflow Area = 1,734 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.32 cfs @ 11.96 hrs, Volume= 811 cf
Outflow = 0.07 cfs @ 12.16 hrs, Volume= 812 cf, Atten= 78%, Lag= 11.8 min
Discarded = 0.07 cfs @ 12.16 hrs, Volume= 812 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 173.04' @ 12.16 hrs Surf.Area= 138 sf Storage= 257 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 43.6 min (785.0 - 741.4)

Volume	Invert	Avail.Storage	Storage Description
#1	169.00'	484 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)
#2	168.00'	34 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc) 84 cf Overall x 40.0% Voids
		517 cf	Total Available Storage

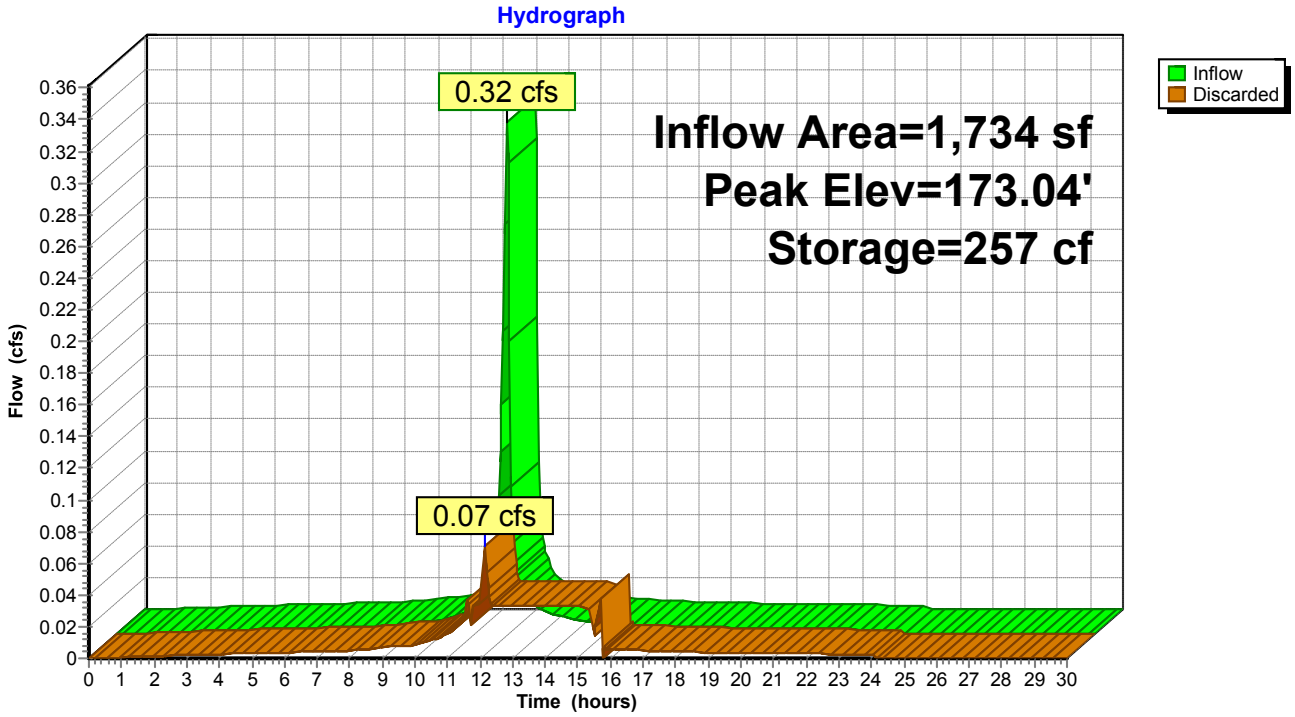
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
169.00	55	0	0
173.00	55	220	220
173.50	1,000	264	484

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
168.00	78	0	0
169.00	10	44	44
173.00	10	40	84

Device	Routing	Invert	Outlet Devices
#1	Discarded	168.00'	**22.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.07 cfs @ 12.16 hrs HW=173.04' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.07 cfs)

Pond DW-8: PROPOSED DRYWELL #8



Summary for Pond YD-1: PROPOSED DRAIN #1

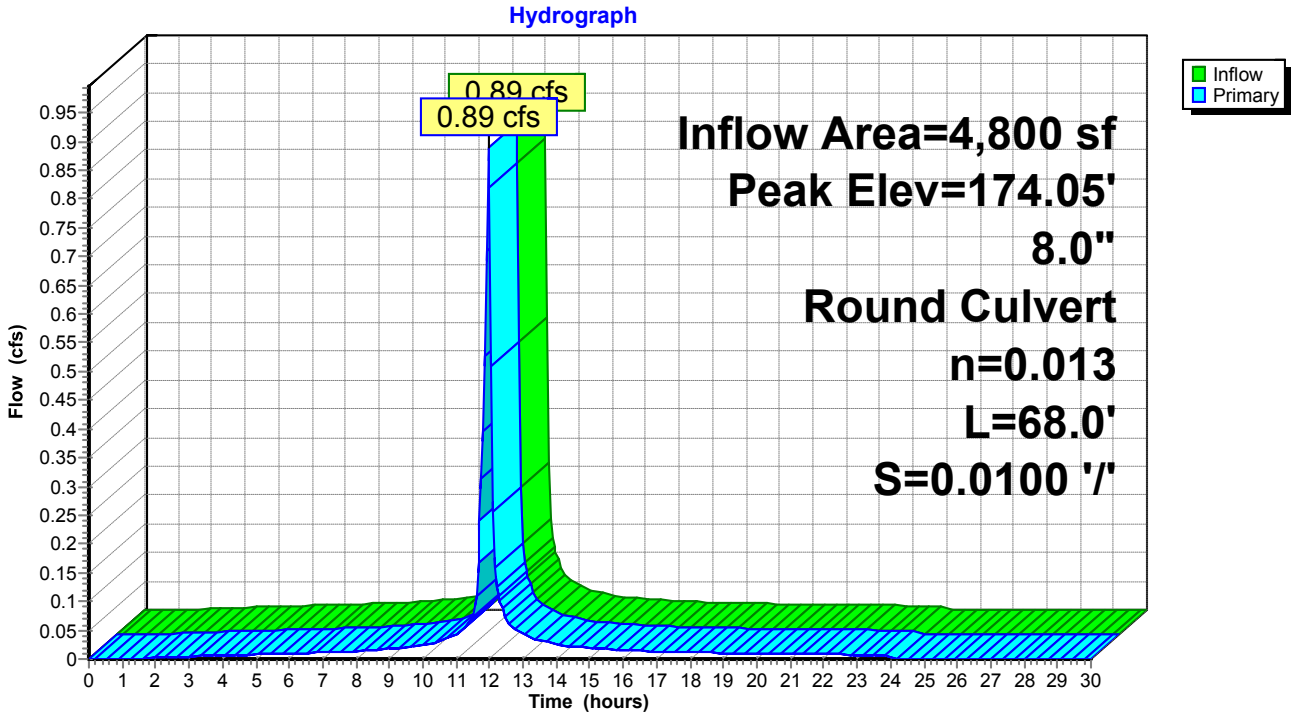
Inflow Area = 4,800 sf, 94.90% Impervious, Inflow Depth = 5.49" for 25-YEAR event
Inflow = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf
Outflow = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.89 cfs @ 11.96 hrs, Volume= 2,198 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.05' @ 11.96 hrs
Flood Elev= 175.44'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.27'	**8.0" Round Culvert** L= 68.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.27' / 172.59' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=0.87 cfs @ 11.96 hrs HW=174.03' (Free Discharge)
1=Culvert (Inlet Controls 0.87 cfs @ 2.49 fps)

Pond YD-1: PROPOSED DRAIN #1



Summary for Pond YD-2: PROPOSED DRAIN #2

[58] Hint: Peaked 2.24' above defined flood level
[81] Warning: Exceeded Pond YD-1 by 1.93' @ 11.95 hrs

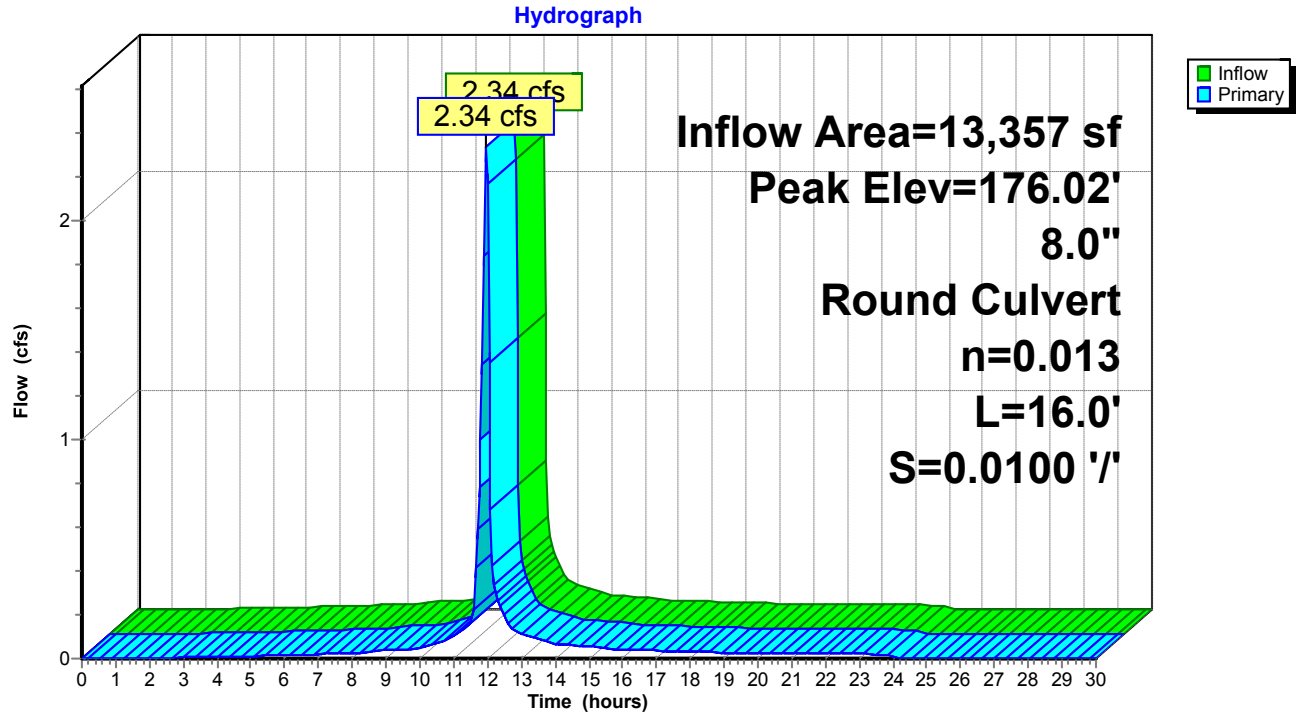
Inflow Area = 13,357 sf, 67.23% Impervious, Inflow Depth = 4.92" for 25-YEAR event
Inflow = 2.34 cfs @ 11.96 hrs, Volume= 5,471 cf
Outflow = 2.34 cfs @ 11.96 hrs, Volume= 5,471 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.34 cfs @ 11.96 hrs, Volume= 5,471 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 176.02' @ 11.96 hrs
Flood Elev= 173.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.59'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.59' / 172.43' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=2.28 cfs @ 11.96 hrs HW=175.88' (Free Discharge)
↑**1=Culvert** (Inlet Controls 2.28 cfs @ 6.53 fps)

Pond YD-2: PROPOSED DRAIN #2



Summary for Pond YD-3: PROPOSED DRAIN #3

[58] Hint: Peaked 0.47' above defined flood level

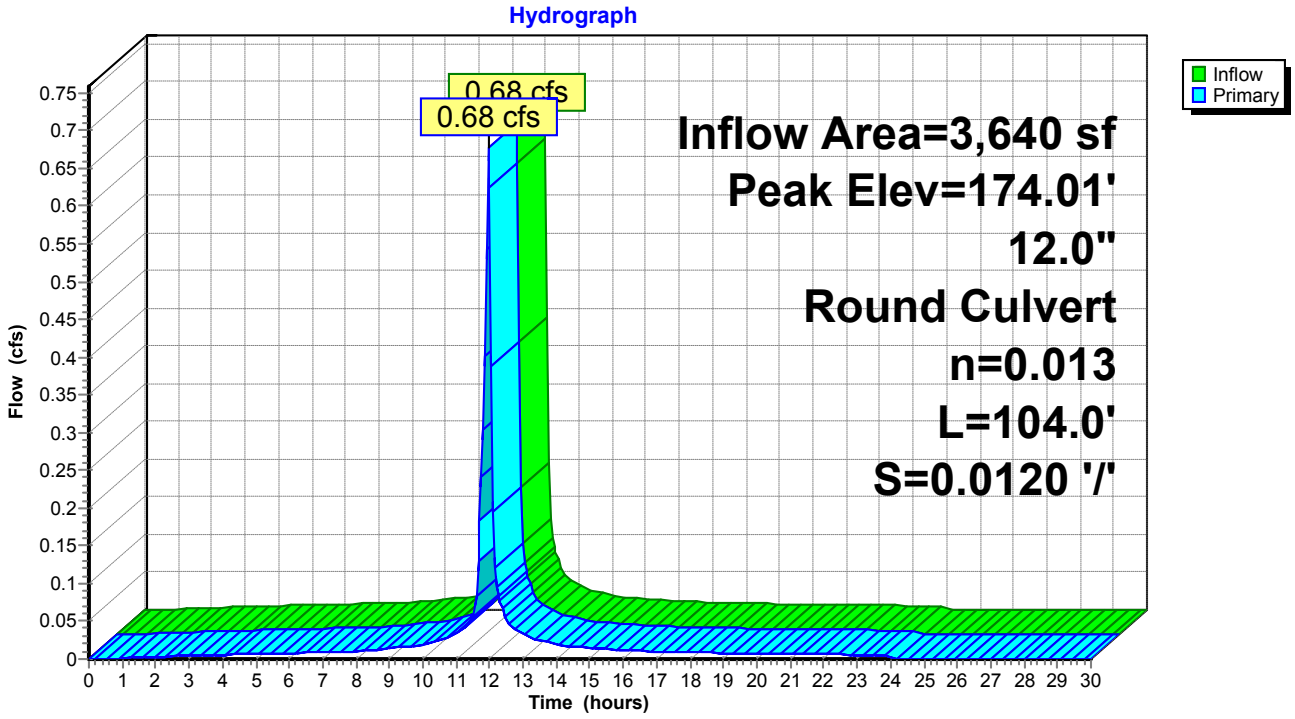
Inflow Area = 3,640 sf,100.00% Impervious, Inflow Depth = 5.61" for 25-YEAR event
Inflow = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf
Outflow = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.68 cfs @ 11.96 hrs, Volume= 1,702 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 174.01' @ 11.96 hrs
Flood Elev= 173.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	173.54'	**12.0" Round Culvert** L= 104.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 173.54' / 172.29' S= 0.0120 '/' Cc= 0.900 n= 0.013, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 11.96 hrs HW=174.01' (Free Discharge)
1=Culvert (Inlet Controls 0.66 cfs @ 1.84 fps)

Pond YD-3: PROPOSED DRAIN #3



Summary for Pond YD-4: PROPOSED DRAIN #4

[58] Hint: Peaked 3.23' above defined flood level
[81] Warning: Exceeded Pond YD-3 by 3.61' @ 11.95 hrs

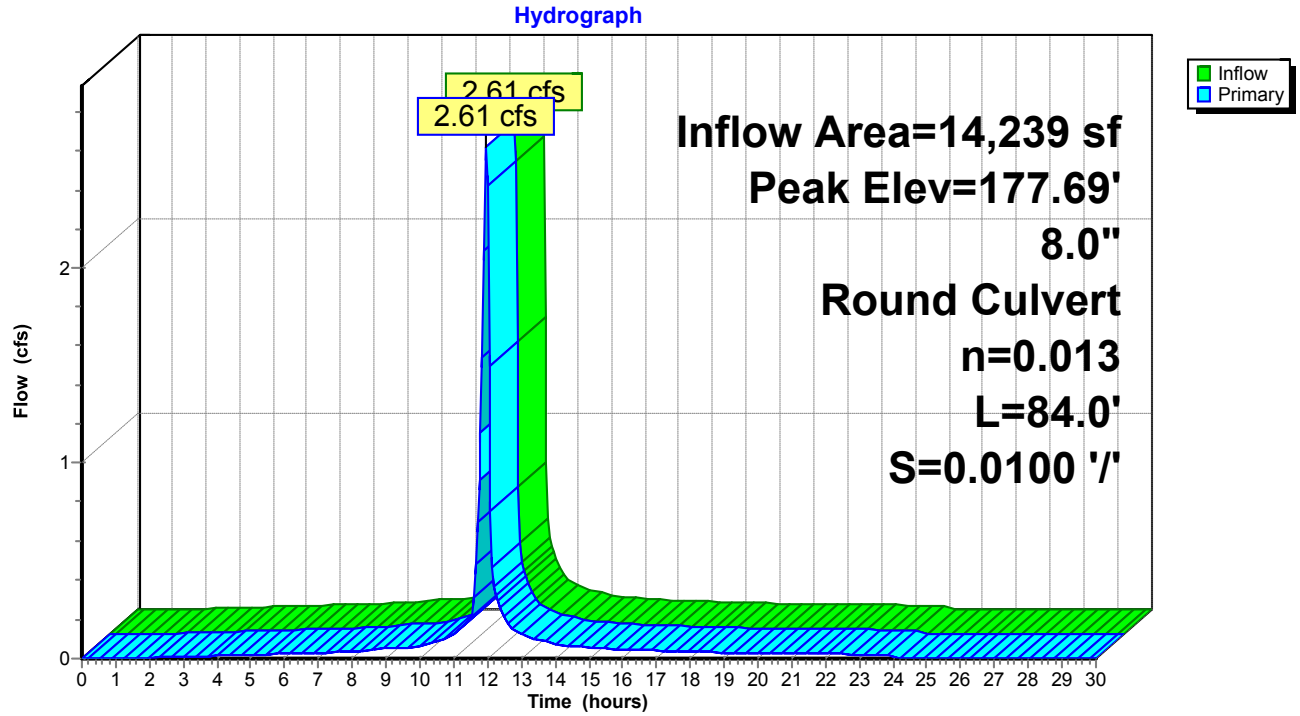
Inflow Area = 14,239 sf, 86.05% Impervious, Inflow Depth = 5.35" for 25-YEAR event
Inflow = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf
Outflow = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.61 cfs @ 11.96 hrs, Volume= 6,351 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 177.69' @ 11.96 hrs
Flood Elev= 174.46'

Device	Routing	Invert	Outlet Devices
#1	Primary	172.29'	**8.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 172.29' / 171.45' S= 0.0100 '/' Cc= 0.900 n= 0.013, Flow Area= 0.35 sf

Primary OutFlow Max=2.55 cfs @ 11.96 hrs HW=177.45' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.55 cfs @ 7.31 fps)

Pond YD-4: PROPOSED DRAIN #4



PRELIMINARY ENGINEERING REPORT

Prepared for

WALLACE CAMPUS

Located at

319, 325, 327-329, 331 Main Street,
City of Poughkeepsie, Dutchess County, NY
Tax ID 6162-77-114098, 109079, 109077
& 6162-78-127091

Submitted

April 10, 2020
Revised: November 5, 2021

Prepared for

Wallace Campus Manager, LLC

48-02 25th Ave, Suite 400
Astoria, NY 11103

Prepared by

Land Planning ♦ Civil Engineering ♦ Environmental Services ♦ Land Surveying ♦ Landscape Architecture

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LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

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1.0 INTRODUCTION

The Wallace Campus is 2.52 acres consisting of 5 parcels located at 319, 325, 327-329, 331 Main Street, in the City of Poughkeepsie. The properties are identified as Tax ID#'s 6162-77-114098, 109079, 109077 and 6162-78-127091. Parcels 6162-77-121116, 116114, 116113,128113 and 112116 are adjoining lots only part of site work for parking; no utilities are proposed. The site is located on the north side of Main Street, the west side of Catharine Street, and the south side of Mill Street (Westbound Arterial). The project has UTM coordinates of 589367 Easting and 4617455 Northing.

Tax Lots 6162-78-127091, 6162-77-114098, 109077, & 109079 will be combined into one tax parcel. The proposed project will demolish the existing buildings at 319, 325, and 327-329 Main Street and will replace them with a building which will include retail and residential units. The project will also include a new building to be located along Catharine Street, which will include residential and day care units. The proposed project will remove a large amount of impervious surface from behind 325 and 327-329 Main Street to construct a new green area.

Through agreements with adjoining lots fronting on Mill Street (302, 304, 306 Mill Street and the Hudson River Housing property at 310 Mill Street), the Project will eliminate two existing curb cuts on Mill Street, provide additional Green space around and between existing buildings fronting on Mill Street, in addition to enhancing the pedestrian use of Mill Street via the new Wallace Green walkway between Main and Mill Streets. No water or sewer modifications to the existing services are proposed for these properties.

2.0 WATER SERVICES

2.1 Domestic Water Demand

The site is currently developed. Due to the change in owners and recent vacancies historic water usage records are not available for all of the parcels. Assuming all parcels are fully occupied as they exist, the estimated consumption values for the existing buildings were derived from Table B-3 "Typical per Unit Hydraulic Loading Rates" of the New York State Department of Environmental Conservation (NYSDEC) Division of Water "Design Standards for Intermediate Sized Wastewater Treatment Systems", March 5, 2014. A summary of the projected sanitary sewer flow/water consumption is as follows:

Sanitary Sewer Flow / Water Consumption Projections						
EXISTING SITE						
Location	**Use**	**Size**		**Rate***		**Flow (GPD)**
Parcel D	Restaurant	150	Seats	28	Per Seat	4,200
	Club	800	Persons	16	Per Person	12,800
Parcel E	Office	118,536	sq ft	0.08	Per sq ft	9,483
Parcel F	Office	8,740	sq ft	0.08	Per sq ft	699
Parcel G	Office	13,047	sq ft	0.08	Per sq ft	1,044
					Total Existing Daily Flow:	**28,226**

* Rates based on New York State Design Standards for Intermediate Sized Wastewater Treatment Works (March 5, 2014), with a 20% reduction for the use of modern water saving fixtures.

The Wallace Campus will include Residential, Retail, and a Day Care. The estimated consumption values for the new additions and renovations were derived from Table B-3 "Typical per Unit Hydraulic Loading Rates" of the New York State Department of Environmental Conservation (NYSDEC) Division of Water "Design Standards for Intermediate Sized Wastewater Treatment Systems", March 5, 2014. A summary of the projected sanitary sewer flow/water consumption is as follows:

PROPOSED RE-DEVELOPMENT WATER/SEWER						
Location	**Use**	**Size**		**Rate***		**Flow (GPD)**
Parcel D - Wallace Bldg	Residential	69	Beds	110	Per Bedroom	7,590
Parcel D - Wallace Bldg	Retail	7,649	sq ft	0.08	Per sq ft	612
Parcel D - Wallace Bldg	Employees	5	per	15	Per sq ft	75
Parcel D - Main Str Bldg	Residential	69	Beds	110	Per Bedroom	7,590
Parcel D - Main Str Bldg	Retail	3,309	sq ft	0.08	Per sq ft	265
Parcel D - Main Str Bldg	Employees	5	per	15	Per sq ft	75
Parcel D - Catherine Str Bldg	Residential	49	Beds	110	Per Bedroom	5,390
Parcel D - Catherine Str Bldg	Retail	3,255	sq ft	0.08	Per sq ft	260
					Total Proposed Daily Flow:	**21,857**

* Rates based on New York State Design Standards for Intermediate Sized Wastewater Treatment Works (March 5, 2014), with a 20% reduction for the use of modern water saving fixtures.

Through working with the project architect and project sponsor it was determined that an estimated 160 patrons would be the maximum number of people that would be at the fitness center

at any one time and was therefore utilized in the flow calculations. In the daycare the parking requirement estimated a number of 14 employees for the 7 classrooms. So in addition, the daycare patrons was estimated at 126 bringing the total number of people within the daycare to 140 per day. The proposed project will result in an approximate increase of 777 GPD.

2.2 Proposed Water Supply

Water supply for the project will be provided from the City of Poughkeepsie Municipal Water System. The water is supplied by the joint Town and City water treatment facility located at 3431 North Road, Poughkeepsie, NY 12601.

The water is supplied from the municipal lines in Main Street and Catharine Streets. The existing 6" sanitary line (one to Main and one to Catharine) and 6" and 2" water supply services for 331 Main Street/14 Catharine Street will remain unchanged. The new Main Street Building will utilize the existing water supply for former 319 Main Street, formerly Bull and Buddha, and includes a 6" sanitary sewer line, 6" fire line and 2" domestic line. Water supply for the Catharine Street building will be provide by a new 6" connection for water and sewer to the municipal system located in Catharine Street.

2.3 Water Infrastructure Improvements

A new water meter and backflow prevention devices will be installed in the mechanical rooms in 331 Main Street and Main Street Buildings. A new 6" water service line will be installed for the new Catharine Street Building and will include a water meter and backflow prevention device to be located in the mechanical room. All building will include a new FDC connection and knox box on the building frontage.

2.4 Fire Suppression

The proposed buildings will be equipped with sprinkler systems in accordance with NFPA guidelines. There are no new fire hydrants proposed as part of the site plan. Existing municipal fire hydrants are located on Main Street, Mill Street, and Catharine Street. During final design of the fire suppression system the City Fire Department will be consulted to determine if any additional requirements will be required to meet the city's fire department needs.

3.0 WASTEWATER SERVICES

3.1 Design Wastewater Flows

As discussed in section 2.1 the estimated consumption values are derived from Table B-3 "Typical per Unit Hydraulic Loading Rates" of the New York State Department of Environmental Conservation (NYSDEC) Division of Water "Design Standards for Intermediate Sized Wastewater Treatment Systems", March 5, 2014. The total average day demand for sewer and water is 28,853

GPD for the project. Using a peaking factor of 4.0 as recommended by the NYSDEC the design max hourly flow rate is 80.15 GPM.

3.2 Existing Wastewater Treatment

The project will connect to the existing municipal sewer collection system. Wastewater generated at the site will be treated by the City/Town of Poughkeepsie Municipal Wastewater Treatment Plant. The plant is located off Hudson Street in the Town of Poughkeepsie.

3.3 Wastewater Infrastructure Improvements

The wastewater is discharged to the municipal lines in Main Street and Catharine Streets. The existing 6" sanitary line (one to Main and one to Catharine) for 331 Main Street/14 Catharine Street will remain unchanged. The new Main Street Building will utilize the existing wastewater lines for the former 319 Main Street, formerly Bull and Buddha, and includes a 6" sanitary sewer line. Wastewater for the Catharine Street building will be provided by a new 6" connection for sewer to the municipal system located in Catharine Street.

4.0 WATER AND WASTEWATER SERVICES – CONCLUSION

Based on the planned re-development water/wastewater consumption estimates, the site will have an increase sewer and water usage of 777 GPD. The water and sewer system will be connected to the City of Poughkeepsie water and sewer systems, using the existing infrastructure at the site. The proposed water and wastewater services, from the City of Poughkeepsie Department of Public Works, have adequate infrastructure and capacity.

The City of Poughkeepsie Engineering Department will, as part of the site plan approval process, review and approve the water and sewer connections. The required testing parameters are also reviewed by the City Engineering Department and included on the approved plans.

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Colliers
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& Design

September 28, 2021

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City of Poughkeepsie
62 Civic Center Plaza, 2nd Floor
Poughkeepsie, NY 12601

Wallace Campus Development City of Poughkeepsie, Dutchess County, New York
Colliers Engineering & Design Project No. 20003474A

Dear Natalie,

Colliers Engineer & Design (formerly Maser Consulting) has conducted a review of the reduced size proposed development plan for the Wallace Campus Development ("the Reduced Size Project") as it relates to the potential traffic and parking impacts of the Project. The prior development plan ("7-Story/Daycare Project"), which was previously analyzed in our February 27, 2021 letter report, was formerly proposed to consist of 214 mixed income affordable housing units, a 10,197 sq. ft. daycare facility, an approximately 29,000 sq. ft. community fitness center/climbing gym, 6,416 sq. ft of retail/commercial space and an approximately 1-acre privately owned, but publicly accessible green space ("Wallace Green").

The Reduced Size Project is now proposed to consist of 187 mixed income affordable housing units, 14,235 sq. ft. of retail/commercial space along with the Wallace Green. The fitness center/climbing gym and daycare facility are no longer part of the development.

The Reduced Size Project also includes changes to the onsite parking and circulation patterns resulting from the elimination of the previously proposed daycare facility and the associated drop-off/pick-up areas. A total of 63 parking spaces are proposed under this modified development plan as compared to the 62 parking spaces under the previously proposed plan.

The following provides a detailed discussion of the potential traffic and parking impacts of the Project based on this modified development plan as well as a comparison to the previously proposed development plan where appropriate.

Colliers Engineering & Design

Reduced Size Project Parking Demand

As previously identified in our February 27, 2021 letter report, the Project falls within the Poughkeepsie Innovation District Historic Core (PID-HC) and Urban Village (PID-UV) zones. The City of Poughkeepsie Zoning Code (Section 19-3.37.(13)) identifies the minimum parking requirements for the proposed uses within the development. These parking requirements and the total number of required parking spaces for the Reduced Size Project are identified in the Table No. 1 below.

Table No. 1 – Code Required Parking Summary – Reduced Size Project

Building	Proposed Use	Size	Zone	Code Required Parking Ratio	Required Spaces
Main Street Building	Residential (69 Units Total)	17 Units	PID-HC	0 Spaces/Unit	0
		52 Units	PID-UV	0.5 Spaces/Unit	26
				1 Visitor Space/10 Units	6
	Retail	3,331 Sq. Ft.	PID-UV	0 Spaces/ Sq. Ft.	0
Catharine Street Building	Residential	49 Units	PID-HC	0 Spaces/Unit	0
	Retail	3,255 Sq. Ft.		0 Spaces/ Sq. Ft.	0
Wallace Building	Residential	69 Units	PID-HC	0 Spaces/Unit	0
	Retail	7,649 Sq. Ft.		0 Spaces/ Sq. Ft.	0
				Total	32

As indicated in the table above, per the City Code parking requirements, the Reduced Size Project is required to provide a total of 32 off-street parking spaces. The total of 32 required parking spaces is less than half of the required number of parking spaces under the 7-Story/Daycare Project, which was required to provide approximately 90 total parking spaces prior to accounting for shared parking amongst the uses.

The shared parking accommodations for the 302, 304 & 306 Mill Street parcels, which will be provided 12 dedicated parking spaces, will still remain within the overall Wallace Campus parking lot. Similarly, The Wallace consolidated lot will continue to provide the adjacent Hudson River Housing (HRH) with six (6) reserved parking spaces on the Wallace Property during weekday office hours only (8 AM to 6 PM) for employee and client parking. These spaces would be available to Wallace Campus residents and visitors for parking outside these hours. Together with the 32 spaces required for the Reduced Size Project, the total required parking spaces is 50 spaces during HRH office hours and 44 spaces all other times on Weekdays and all day on Weekends.

As previously indicated, the Site Plan for the Reduced Size Project will provide 63 off-street parking spaces, which will accommodate the total parking requirements of the Wallace Campus, 302, 304 & 306 Mill Street Parcels and the HRH facility. Furthermore, as identified in our February 27, 2021 study, there is also sufficient available on-street parking in the vicinity of the Site to accommodate any potential excess parking demand that may be generated by the Project. It is the intent of the PID zone to leverage this availability of underutilized surplus parking in the PID downtown area for future development.

It should also be noted that the typical use of the Wallace Green is proposed to remain as a passive green space for both residents and visitors. As indicated in our prior study, it is the opinion of Colliers Engineer and Design that this space will not generate any additional parking demand, but rather will draw patrons who are already within the proposed development and immediate surrounding neighborhood to utilize the space.

The Reduced Size Project will also hold occasional Public Performances/Community Gatherings within the Wallace Green & Tiered Seating area. The parking accommodations for these performances/gatherings can be accommodated by available on-street parking in the area of the Site as previously identified in our February 27, 2021 study.

Reduced Size Project Traffic Generation & Traffic Related Impacts

In order to assess the potential traffic related impacts of the Project, estimates of the amount of traffic to be generated by the modified Wallace Campus development during each of the peak hours (Weekday AM, Weekday PM and Saturday) were developed based on information published by the Institute of Transportation Engineers (ITE) as contained in the report entitled ***Trip Generation***, 10th Edition, 2017, based on Land Use Categories; 223 - Affordable Housing; 411 - Public Park and; 820 - Retail. It should be noted that where applicable ITE data For Dense Multi-Use Urban Locations was referenced to reflect traffic generation rates commensurate with the downtown location of the proposed development.

Table No. 2, below, provides a summary of the traffic generation estimates for the Reduced Size Proejct based on the ITE data. This table also takes similar internal and multi-modal credits as identified in our February 27, 2021 report, which are based on the credits identified in the ***Poughkeepsie Downtown Parking Improvement Plan – Analysis of Further Parking Demand*** prepared by Nelson Nygaard dated April 2018.

Colliers Engineering & Design

Table No. 2 – Anticipated Site Generated Traffic Volumes for Reduced Size Project

Time Period	Entry			Exit		
	HTGR[1]	Volume	External Vehicle Trips[2]	HTGR[1]	Volume	External Vehicle Trips[2]
Residential – Affordable Housing (187 Units)						
Peak AM Hour	0.34	63	29	0.14	27	13
Peak PM Hour	0.24	44	21	0.14	26	12
Saturday Peak Hour	0.24	45	21	.24	45	21
Commercial Space (14,235 Sq. Ft.)						
Peak AM Hour	1.26	18	9	1.12	16	8
Peak PM Hour	2.39	34	16	2.53	36	17
Saturday Peak Hour	3.16	45	21	3.16	45	21
Public Park (1 Acre)						
Peak AM Hour	1.00	1	1	1.00	1	1
Peak PM Hour	6.00	6	3	5.00	5	3
Saturday Peak Hour	8.00	8	4	6.00	6	3
Total						
Peak AM Hour	---	---	**39**	---	---	**22**
Peak PM Hour	---	---	**40**	---	---	**32**
Saturday Peak Hour	---	---	**46**	---	---	**45**

Notes:

1. The Hourly Trip Generation Rates (HTGR) are based on data published by the Institute of Transportation Engineers (ITE) as contained in the Trip Generation Handbook, 10th Edition, 2017. ITE Land Use Code - 223 - Affordable Housing, ITE Land Use Code - 411 - Public Park and ITE Land Use Code - 820 - Retail. Note where applicable ITE data for dense multi-use urban locations was referenced.
2. "External Vehicle Trips" include a 30% internal capture trip credit for all land uses as well as a 35% multi-modal trip credit to account for internal trips within the development and between the development and other nearby uses as well as non-personal vehicle trips to the Site. These credits are based on data provided in the Poughkeepsie Downtown Parking Improvement Plan - Analysis of Future Parking Demand prepared by Nelson Nygaard dated April 2018.

Table No. 3 below provides a comparison of the above traffic generation estimates for the Reduced Size Project to the previously proposed 7-Story/Daycare Project. The trip generation estimates for the 7-Story/Daycare Project were identified in Table No. 7 of our February 27, 2021 report.

Colliers Engineering & Design

Table No. 3 – Traffic Generation Comparison – 7-Story/Daycare Project vs. Reduced Size Project

Time Period	7-Story/Daycare Project			Reduced Size Project		
	Entry Volume	Exit Volume	Total Volume	Entry Volume	Exit Volume	Total Volume
Peak AM Hour	72	58	130	39	22	61
Peak PM Hour	71	63	134	40	32	72
Saturday Peak Hour	54	56	110	46	45	91

As indicated in the above table, the Reduced Size Project is generally anticipated to generate less traffic than the previously proposed 7-Story/Daycare Project. This is attributable to the reduction in the number of residential units as well as the elimination of the daycare and fitness center/climbing gym uses.

Based on the above traffic generation estimates, the Reduced Size Project is expected to generate less than 100 entering vehicle trips during each of the peak hours analyzed and a portion of these trips are anticipated to be attracted from the existing traffic stream along Mill Street as pass-by and/or diverted link trips. As indicated in our February 27, 2021 report, ITE and NYSDOT guidelines indicate that developments generating less than 100 entering vehicle trips will not result in a significant impact to the surrounding area traffic operations. It should also be noted that no credit has been taken for the existing traffic generation of the existing buildings and/or possible re-occupancies of these spaces.

Reduced Size Project Site Access and Internal Circulation

The elimination of the proposed Daycare facility from the development plan has allowed for the elimination of the previously proposed drop-off area on the eastern one-way entry driveway. This has also allowed for a reconfiguration of the on-site parking areas to maximize the number of parking spaces provided. As a result of these changes, the driveways have been modified to be a one-way pair, with the western driveway to be one-way entering and the eastern driveway to be one-way exiting. This configuration provides the greatest Site distance for exiting vehicles onto Mill Street. Appropriate “One-Way” and “Do Not Enter” signage should be provided at each of the driveway locations as well as internally at the driveway connections to the internal east-west parking aisle.

Conclusions

Based on the data discussed herein, it is the opinion of Colliers Engineering & Design that the Reduced Size Project will not have a significant impact on traffic and parking conditions in the vicinity of the Site. It should also be noted that based on the parking calculations identified above the previous request for a waiver to be granted by the Planning Board for excess parking spaces under the waiver with fee-in-lieu provision of the PID Zoning District, section 19-3.37 (13) (e) is no longer required.

It is also noted, as indicated in our February 27, 2021 report, the proposed modifications to the two (2) Site access driveway connections to Mill Street, as well as the closure of the existing driveways to 302, 304 and 306 Mill Street, will require a NYSDOT Highway Work Permit to be obtained prior to implementation of these modifications.

Sincerely,

Colliers Engineering & Design CT, P.C.
(DBA Maser Consulting Engineering & Land Surveying)

Richard D'Andrea, P.E., PTOE
Assistant Department Manager

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November 15, 2021

Ms. Natalie Quinn
City Planner
City of Poughkeepsie
62 Civic Center Plaza
Poughkeepsie, New York 12601

Re: Wallace Campus Project Review
Chazen Project #82029

Dear Ms. Quinn:

The Chazen Companies has reviewed the Wallace Campus project materials submitted by ALC Planning and Development dated November 5, 2021. We have the following comments.

Environmental Assessment Form (EAF) Part 1

1. Revisions were made to the EAF to address our minor comments previously submitted (e.g. Coastal Zone status; nearby historic sites).
2. Section B.c. identifies the possible need for variances. The project was revised to eliminate the need for height variances. We did not find identification of the need for other variances. This section could be revised if no variances are sought.
3. The energy use on Section D.k.i. increased over that projected in the prior EAF. It is not clear why that should be the case since the revised project has been downsized and would presumably use less energy.
4. Section D.r. should identify construction and operations solid waste (i.e. non-hazardous waste) generation.

Parking and Circulation

1. Chazen concurs with the results of the sight distance evaluation for the site driveways. A one-way sign at the exit driveway should be shown on the site plans to prevent wrong way travel when turning onto Mill Street.

Engineering

While revised plans were submitted, most of the engineering comments in our April 12, 2021 review letter have not been responded to. We also have several new comments in response to the latest submission. Note also we did not have time to conduct a detailed review of pipe sizing calculations. We will do so when the next submission addressing our comments is made.

Our consolidated comments are as follows.

Water

1. Engineering Report, Section 1.0: Site improvements are shown to 310 Mill Street (Tax Parcel 6162-78- 128113) but it's not included in the project description. Clarify this parcel's involvement in the project.
   Comment not addressed. The description still doesn't accurately describe the Wallace Campus. The description states there are 5 tax parcels involved and provides 4 addresses & tax parcel identification numbers where 8 individual tax parcels are part of the project. Similarly, the revised Lot Line Consolidation Plan includes Lots A-G and 310 Mill Street still isn't included. The description still describes a proposed day care.

2. Engineering Report, Section 2.2: References to "331 Catharine Street" were removed as requested. However, Section 2.2 includes a reference to "the Catharine Street building." As the project contains multiple buildings along Catharine Street, the building references should be checked to make sure they are clearly referencing a single building. The building references throughout the report should be reviewed for clarity and revised as needed.
   Comment not addressed. Response indicates that there is only one *proposed* building and that there are no revisions proposed to the existing services. This is a correct statement but doesn't address the comment.

3. Engineering Report, Section 2.2: provide correspondence from City Engineering that the existing water treatment facility and distribution mains located in the vicinity of the project site have sufficient capacity to supply the additional demand resulting from the proposed project. The engineer's response indicates the project results in a slight increase in water demand. However, this is not based on actual current demand/meter readings so it's not a reflection of the actual increase in demand over the current existing condition.
   Comment not addressed. No correspondence has been provided from City Engineering related to sufficient capacity.

4. Engineering Report, Section 2.1: existing sewer generation: office use generation shall be based on number of employees, per Table B-3 "Typical per Unit Hydraulic Loading Rates" of the NYSDEC "Design Standards for Intermediate Sized Wastewater Treatment Systems", March 5, 2014. As previously requested, revise calculations or provide methodology for converting to square footage.
   Comment not addressed. The engineering report continues to reference the NYSDEC "Design Standards for Intermediate Sized Wastewater Treatment Systems" (2014) which is based on number of employees, not square footage. The response indicates the methodology relies on the previous NYSDEC design manual. Either clarify the engineering report methodology reference or provide a conversion for square footage to number of employees based on the previous NYSDEC design manual.

5. Engineering report, Section 2.1: Existing square footage for Parcel E was increased by approximately 45,000 square feet. Additional information regarding where the square footages, restaurant seats and number of club patrons shall be provided.
   Comment not addressed. The response indicates the information was obtained from "Dutchess County Parcel Access as well as the project Architect for total SF of the building. The number of seats and club patrons was provided by the project architect when reviewing historical documentation for the building." No such supporting documentation has been added to or provided in the engineering report to support the estimated existing flows (ie. the methodology utilized by the project architect). Additionally, references to the fitness center and daycare uses should be removed from Section 2.1.

6. Engineering report, Section 2.1: Provide methodology for determining number of employees for the retail spaces included in the Sanitary Sewer Flow / Water Consumption Projections.
   Comment not addressed. The response indicates the estimated flows were provided by the project Architect and previous experience but no such supporting information has been added to or provided in the engineering report to support the estimated flows (ie. the methodology utilized by the project architect).

7. Engineering report, Section 2.1: A sentence that "sizing for the fitness and daycare are based on occupancy and parking calculations determine estimated number of patrons" has been added to the engineering report. Provide the correlation and calculations used to convert occupancy and parking calculations into number of patrons and number of people used for average daily sewage generation.
   Comment no longer applicable, as the fitness center and daycare are no longer proposed.

8. Engineering report, Section 2.4: Obtain hydrant flow testing data (if available) from the City Fire Department to verify what the available fire flows are in the vicinity of the project. Alternatively, perform hydrant testing in the vicinity of the project in coordination with the City Fire Department.
   Comment not addressed.

9. Engineering report, Section 2.4: Additional fire suppression methods may be required for the proposed buildings (standpipe, as an example). Revise fire suppression description accordingly.
   Comment addressed.

10. Engineering report, Section 4.0: Provide correspondence from Dutchess County Department of Behavioral and Community Health that their review and approval is not required for the proposed project and associated lot consolidation.
    Comment not addressed. No correspondence from DCDBCH has been provided.

Sewer

1. Sheets EX-1 & UT-1: The size of the existing sewer main in Catharine Street is shown on plan EX-1. The inverts for one sewer manhole have been provided on UT-1. The invert at the manhole on the opposite side of the connection point shall be shown in order to determine the invert of the existing sewer at the location of the proposed service lateral connection.
   Comment not addressed. The applicant now proposed connecting the sewer lateral directly

into the existing sanitary manhole within Catherine Street, which results in less than the minimum 10' horizontal separation to the water line to an existing hydrant. Indicate mitigation proposed at this location.

2. Engineering Report, Section 3.2: verify with City Engineering that the existing wastewater plant and the collection lines in the vicinity of the project site have sufficient capacity to serve the additional wastewater generation resulting from the proposed project. The engineer's response indicates the project results in a slight increase in sewer generation. However, this is not based on actual current demand/meter readings so it's not a reflection of the actual increase in demand over the current existing condition.
   Comment not addressed. No correspondence from City Engineering has been provided.

3. Engineering Report, Section 3.3: References to "331 Catharine Street" were removed as requested. However, Section 3.3 now references "the Catharine Street building." As the project contains multiple buildings along Catharine Street, the building references should be checked to make sure they are clearly referencing a single building. The building references throughout the report should be reviewed for clarity and revised as needed.
   Comment not addressed. Response indicates that there is only one *proposed* building and that there are no revisions proposed to the existing services. This is a correct statement but doesn't address the comment.

4. Provide correspondence from Dutchess County Department of Behavioral and Community Health that their review and approval is not required for the proposed project and associated lot consolidation.
   Comment not addressed. No correspondence from DCDBCH has been provided.

<u>Stormwater</u>

1. SWPPP: it's noted that the current General Permit (GP-0-20-001) is provided in Appendix A. However, the narrative and table of contents include references to the previous general permit. Update all references to the current GP number.
   Comment partially addressed. The Owner/Operator Certification Form provided in the SWPPP references GP-0-15-002 and should be replaced with the current version. The Appendix B divider page also contains a reference to GP-0-15-002.

2. SWPPP Narrative, page 8: describes one existing dry well to remain. Based on the Demolition Plan and HydroCAD modeling provided, it appears there may be 2 existing dry wells to remain. Clarify/revise as needed.
   Comment addressed.

3. SWPPP Narrative, page 8: states "all proposed piping is sized to accommodate peak flow from 25-year 24-hour storm, as prescribed by the local authority." Provide pipe sizing calculations for review.
   Pipe sizing calculations have been provided but have not yet been reviewed due to the delayed submission and resulting review timeframe. Related comment(s), if any, will be provided at a

later date.

4. SWPPP Narrative, page 9: Section 5.2 states there are seven different design points. However, only two are shown on the pre-development and post-development watershed maps. Clarify/revise as needed.
   Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

5. SWPPP Narrative, page 10: clarify what the "TOWN CB" peak flow discharge rate table refers to.
   Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

6. SWPPP: provide calculations for the provided WQv pretreatment.
   Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

7. SWPPP NOI: answer question 9
   Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

8. SWPPP NOI: answer question 10
   Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

9. SWPPP NOI: in question 29, provide the green roof contributing impervious area.
   Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

10. SWPPP NOI: answer question 42.
    Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

11. SWPPP Test Pit Log: 2 test holes are provided in a test pit log, though it's not clear if they were performed at the project site. The log is for "Springside Neighborhood" and states that the location of the test pits are shown on DA-1. However, no test pits can be located on DA-1.
    Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

12. SWPPP Infiltration Test Log: 2 infiltration test holes are provided in an infiltration test log, though it's not clear if they were performed at the project site. The log is for "Springside Neighborhood" and states that the location of the test pits are shown on DA-1. However, no test pits can be located on DA-1.
    Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

13. SWPPP: provide preliminary infiltration testing for the proposed infiltration practices in accordance with Section 6.3.1 and Appendix D of the NYSDEC Stormwater Design Manual.

Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

14. Dry wells should include rooftop runoff only per Section 6.3.1 of the Design Manual. Alternatively, question 23 in the NOI shall be answered "No" and the SWPPP will be submitted for 60-day review from NYSDEC.
    Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

15. SWPPP Narrative: Identify which existing and proposed buildings have cellars and provide a discussion of the proximity of proposed dry wells to those buildings.
    Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

16. SWPPP Narrative: Provide the design calculations in Appendix D that are referenced in the narrative.
    Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

17. SWPPP DA-2: show existing dry well(s) to remain.
    Comment not responded to. Response letter includes responses for stormwater comments 1-3 only. The Applicant shall provide a response for all previous comments.

Plans

1. OP-1: Existing Zoning Maps show the scale as 1"=1,000' where it appears the scale is 1"=100'
   Comment not responded to. The Applicant shall provide a response for all previous comments.

2. SP-1: Title block states scale is 1"=20', plan states scale as 1"=40' where it appears the scale is 1"=30'
   Comment not responded to. The Applicant shall provide a response for all previous comments.

3. SG-1: dimension the separation from the proposed dry wells to the existing and proposed structures to ensure at least 10 feet of separation.
   Comment not responded to. The Applicant shall provide a response for all previous comments.

4. SG-1: less than 6" of cover is provided at Catch Basin #1. Revise accordingly.
   Comment not responded to. The Applicant shall provide a response for all previous comments.

5. SG-1: Rim elevation of DW-4 doesn't match the proposed grading.
   Comment not responded to. The Applicant shall provide a response for all previous comments.

6. SG-1: show what appears to be an existing drywell to remain on the east side of the CB to be replaced with proposed catch basin with sump (vicinity of CB#1). Alternatively, if this existing dry well isn't proposed to remain, remove the proposed piping shown tributary to it.
   Comment not responded to. The Applicant shall provide a response for all previous comments.

7. A number of improvements are shown on the 310 Mill St parcel, but it has not otherwise

been identified as a project parcel.
Comment not responded to. The Applicant shall provide a response for all previous comments.

8. Additional technical review comments of the site plan set will be provided once the general engineering comments provided herein have been addressed.
Comment not responded to. The Applicant shall provide a response for all previous comments.

Please do not hesitate to contact me with any comments or questions.

Sincerely,

Stuart F. Mesinger, AICP
Vice President, Land Development

cc: Kyle Ahearn, PE
Tom Johnson, PE
Teresa Bakner, Esq

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October 15, 2021

City of Poughkeepsie Planning Board
Attn: Robert Levine, Chairman
63 Civic Center Plz
Poughkeepsie, NY 12601

cc: Natalie Quinn, Senior Planner

RE: 2020-010: 319, 325, 327-329 and 331 Main Street "Wallace Campus" Resubmission

Dear City of Poughkeepsie Planning Board,

On October 8th, the applicant and design team convened with Chris Kroner and Natalie Quinn to discuss the latest iteration of their Wallace Campus project. The latest presented version of the design has reduced their new construction to five stories in an effort to follow zoning codes.

Main Street Building
The Main Street Building has been revised to the original proposal's fenestration which was encouraged by the planning board at their previous public meeting. The cornice work for the Main Street building has also been simplified and appears to be in more successful dialogue with both the detail and massing with other main street neighbors.

The north volume of the Main Street building has simplified the cornice detail work further to create a slightly more modern appearance on the east and north elevations. Interestingly, the west elevation retains the cornice work. As this building has a few public "fronts" - the elevation from Main Street, along the new proposed pedestrian street and as perceived from the arterial (Mill Street) - see below. ***The planning board and design team may want to discuss the resolution of the top coping of that massing, as lower level precast details appear to have more visual weight, and the west resolution has additional cornice detail in the currently proposed version.***

Catherine Street Building
As a trade off for the reduction in height, the Catherine Street building now has a continuous street front, with no public exterior connection through to the midblock. Instead, tenants of the building have a protected yard to the rear of the building which we

understand to be gated. **Planning board may wish to clarify the intent of this space.**

Wallace Building

One clarification about the proposed changes to the Wallace Building is regarding the previously discussed possible restoration of the East Side Mural (See White Area of Photo below). While we understood that the design team was originally considering that idea, which appears to be feasible (the current elevations on 1/A-200C do not currently show fenestration changes on that side of the building), the renderings on 1 & 2/A201, and 2/A203 show added windows which conflict with this mural's restoration. ***The design team should clarify which drawing best shows the proposal's intent.***

One related opportunity is for the west facade of the Main Street Building to host a new mural, which might be worth a conversation with the planning board.

We thank the design team for all the time, energy and consideration that they have put into these discussions, and we continue to see this project for downtown Poughkeepsie as an important discussion for public participation.

Sincerely,
Chris Kroner

Principal
ckroner@mass-group.org

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October 14, 2021

Ms. Natalie Quinn
City Planner
City of Poughkeepsie
62 Civic Center Plaza
Poughkeepsie, New York 12601

Re: Wallace Campus Project Review
Chazen Project #82029

Dear Ms. Quinn:

The Chazen Companies has reviewed the Wallace Campus project materials submitted by ALC Planning and Development dated September 28, 2021. We have the following comments.

Parking and Circulation

1. Removal of the Daycare facility and fitness center/climbing gym reduces the parking demand. Chazen concurs with the parking demand calculations for the revised project.

2. Chazen concurs with the trip generation calculations and findings that the revised project will not have a significant impact on traffic.

3. The site circulation has been revised from earlier plans so that a one-way pair is provided with the eastern driveway as one-way exiting and the western driveway as one-way entering. The traffic assessment states that this configuration provides the greatest sight distance for the exiting vehicles.

   A sight distance evaluation that includes actual measurements at the access points should be provided. The proximity of adjacent building faces, stairs, and hedges appears to limit the sight distance at the eastern driveway such that the reversal of the one-way pair may be appropriate. Although the speed limit on Mill Street is 30 mph, the evaluation should be based on NYSDOT's data showing an 85th percentile speed of 37 mph.

Engineering Details

Revised engineering details have not been submitted. The applicant should address the engineering comments in our April 12, 2021 review letter.

SEQRA Review

The revised project is reduced in size and scale. Specifically, it incorporates ~22,000 less SF, the main building is two stories smaller, includes 27 fewer units and no longer includes a day care facility and gym/climbing

facility. Collectively these revisions result in less parking demand such that the parking demand can be accommodated on site; result in fewer vehicle trips; and result in less visual impact.

It is therefor our opinion that the project will have fewer impacts than the prior project and that the revised project will not result in significant adverse impact.

Please do not hesitate to contact me with any comments or questions.

Sincerely,

Stuart F. Mesinger, AICP
Vice President, Land Development

cc: Kyle Ahearn, PE
Tom Johnson, PE
Teresa Bakner, Esq

THE CITY OF POUGHKEEPSIE
NEW YORK
PLANNING & ZONING
62 CIVIC CENTER PLAZA, 2ND FLOOR
POUGHKEEPSIE, NY 12601
Phone: (845) 451-4055 Fax: (845) 451-4006

MEMORANDUM OF TRANSMITTAL

To: Planning Board

From Natalie Quinn, Planning Director

Date: June 15, 2021

Re: **Existing and Proposed Project Densities in the Downtown**

The Planning Department looked at a number of apartment and mixed-use buildings throughout the city in order to understand their residential densities and have points of comparison for the proposed Wallace Campus project. Existing structures, recent rehabilitations, proposed projects yet to be built, and new construction projects currently underway were looked at to determine the number of dwelling units per acre.

Below is a table that includes the developments that were examined. Of the 13 developments, there exists a range of density levels, from a low of 28 du/ac to a high of 200 du/ac. The average is 71 du/ac and the median is 51 du/ac. The Wallace project, at 214 units across three buildings within approximately 2.5 acres, has a density of 85 du/ac, 19.7% higher than the average. This is a dense project, but not as dense as projects such as Luckey Platt (135 du/ac), the proposed building at 316 Main St (200 du/ac), or even older apartment buildings such as 60 Carroll St (119 du/ac).

Development	Address	# of Units	Lot Size (ac)	DU/ac
Luckey Platt	332 Main St	138	1.02	135
Behrends Court	386 Main St	40	0.81	49
Crannell Square	35 Catharine St	75	1.22	61
40 Cannon	40 Cannon St	49	0.63	78
Executive Towers	160 Academy St	72	1.9	38
Queen City Lofts	178-188 Main St	70	1.07	65
316 Main St	316 Main St	80	0.4	200
Up To Date	278 Main St	24	0.47	51
Heart of the Block	472 Maple	40	1.43	28
60 Carroll	60 Carroll	25	0.21	119
The Hamilton	417-449 Main	54	1.59	34
One Dutchess	One Dutchess Ave	300	8.7	34
Eastman Tower	22 Montgomery	152	5.2	29
Wallace Campus total	Campus	214	2.52	85

THE CITY OF POUGHKEEPSIE
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If the Wallace project were "broken up" among the three separate buildings, the Main St. buildings become much more in line with the average dwelling units per acre, while the Catharine St. building on its own becomes a much denser development. We offer this admittedly arbitrary view of the project simply as a discussion point, as Wallace is a campus-style development spread across multiple parcels and fronting on two different streets.

Wallace Campus breakout 1	Main Street Building	87	1.2	73
Wallace Campus breakout 2	Wallace Building	67	0.9	74
Wallace Campus breakout 3	Catharine St Building	60	0.306	196

Ultimately, the Planning Department feels that this project is not out of scale with other developments within the city's core and addresses the goal of increased residential density that is supported within the Poughkeepsie Innovation District.

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MEMORANDUM

To: Natalie Quinn, Planning Director

From: Stuart Mesinger, AICP; Tom Johnson, P.E., PTOE

cc:

Date: May 14, 2021

Re: Wallace Campus, Parking Review

Job #: 82029.00

Chazen has reviewed the revised parking analysis completed by Colliers Engineering & Design, dated May 3, 2021. Chazen generally agrees with the Colliers methodology and conclusions including the use of parking data from similar climbing gyms. However, we note the following items:

1. The project's weekday peak parking demand was calculated to be 89 spaces and occurred at 6:00 -7:00 p.m. An error in the parking calculations for the Daycare Center reduces the peak parking demand to 86 spaces during this period. This reduces the excess parking demand from 27 spaces to 24 spaces to be accommodated off-site.

2. It is noted that the Daycare Center parking demand noted above was calculated using an "average" rate. Chazen recommends the use of the 85th percentile parking rate for the Daycare Center which increases the parking demand of the Daycare Center from 7 spaces to 11 spaces at the 6:00 – 7:00 period. This increases the overall peak parking demand to 90 spaces.

In summary, a weekday peak parking demand of 90 spaces and an on-site parking supply of 62 spaces leaves an excess parking demand of 28 spaces to be accommodated off-site.

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April 12, 2021

Ms. Natalie Quinn
City Planner
City of Poughkeepsie
62 Civic Center Plaza
Poughkeepsie, New York 12601

Re: Wallace Campus Project Review
Chazen Project #82029

Dear Ms. Quinn:

The Chazen Companies has reviewed the Wallace Campus project materials submitted by ALC Planning and Development dated March 2, 2021, including the Revised Site and Landscape Plan Set, Preliminary Engineering Report and Stormwater Pollution Prevention Plan by LRC Engineering and Surveying, LLC dated March 2, and the Updated Parking and Traffic Report by Maser Engineering dated February 27, 2021. We have the following comments.

Water

1. Engineering Report, Section 1.0: Site improvements are shown to 310 Mill Street (Tax Parcel 6162-78-128113) but it's not included in the project description. Clarify this parcel's involvement in the project.
2. Engineering Report, Section 2.2: References to "331 Catharine Street" were removed as requested. However, Section 2.2 includes a reference to "the Catharine Street building." As the project contains multiple buildings along Catharine Street, the building references should be checked to make sure they are clearly referencing a single building. The building references throughout the report should be reviewed for clarity and revised as needed.
3. Engineering Report, Section 2.2: provide correspondence from City Engineering that the existing water treatment facility and distribution mains located in the vicinity of the project site have sufficient capacity to supply the additional demand resulting from the proposed project. The engineer's response indicates the project results in a slight increase in water demand. However, this is not based on actual current demand/meter readings so it's not a reflection of the actual increase in demand over the current existing condition.
4. Engineering Report, Section 2.1: existing sewer generation: office use generation shall be based on number of employees, per Table B-3 "Typical per Unit Hydraulic Loading Rates" of the NYSDEC "Design Standards for Intermediate Sized Wastewater Treatment Systems", March 5, 2014. As previously requested, revise calculations or provide methodology for converting to square footage.
5. Engineering report, Section 2.1: Existing square footage for Parcel E was increased by approximately 45,000 square feet. Additional information regarding where the square footages, restaurant seats and number of club patrons shall be provided.

6. Engineering report, Section 2.1: Provide methodology for determining number of employees for the retail spaces included in the Sanitary Sewer Flow / Water Consumption Projections.
7. Engineering report, Section 2.1: A sentence that "sizing for the fitness and daycare are based on occupancy and parking calculations determine estimated number of patrons" has been added to the engineering report. Provide the correlation and calculations used to convert occupancy and parking calculations into number of patrons and number of people used for average daily sewage generation.
8. Engineering report, Section 2.4: Obtain hydrant flow testing data (if available) from the City Fire Department to verify what the available fire flows are in the vicinity of the project. Alternatively, perform hydrant testing in the vicinity of the project in coordination with the City Fire Department.
9. Engineering report, Section 2.4: Additional fire suppression methods may be required for the proposed buildings (standpipe, as an example). Revise fire suppression description accordingly.
10. Engineering report, Section 4.0: Provide correspondence from Dutchess County Department of Behavioral and Community Health that their review and approval is not required for the proposed project and associated lot consolidation.

Sewer

1. Sheets EX-1 & UT-1: The size of the existing sewer main in Catharine Street is shown on plan EX-1. The inverts for one sewer manhole have been provided on UT-1. The invert at the manhole on the opposite side of the connection point shall be shown in order to determine the invert of the existing sewer at the location of the proposed service lateral connection.
2. Engineering Report, Section 3.2: verify with City Engineering that the existing wastewater plant and the collection lines in the vicinity of the project site have sufficient capacity to serve the additional wastewater generation resulting from the proposed project. The engineer's response indicates the project results in a slight increase in sewer generation. However, this is not based on actual current demand/meter readings so it's not a reflection of the actual increase in demand over the current existing condition.
3. Engineering Report, Section 3.3: References to "331 Catharine Street" were removed as requested. However, Section 3.3 now references "the Catharine Street building." As the project contains multiple buildings along Catharine Street, the building references should be checked to make sure they are clearly referencing a single building. The building references throughout the report should be reviewed for clarity and revised as needed.
4. Provide correspondence from Dutchess County Department of Behavioral and Community Health that their review and approval is not required for the proposed project and associated lot consolidation.

Stormwater

1. SWPPP: it's noted that the current General Permit (GP-0-20-001) is provided in Appendix A. However, the narrative and table of contents include references to the previous general permit. Update all references to the current GP number.
2. SWPPP Narrative, page 8: describes one existing dry well to remain. Based on the Demolition Plan and HydroCAD modeling provided, it appears there may be 2 existing dry wells to remain. Clarify/revise as needed.
3. SWPPP Narrative, page 8: states "all proposed piping is sized to accommodate peak flow from 25-year 24-hour storm, as prescribed by the local authority." Provide pipe sizing calculations for review.

4. SWPPP Narrative, page 9: Section 5.2 states there are seven different design points. However, only two are shown on the pre-development and post-development watershed maps. Clarify/revise as needed.
5. SWPPP Narrative, page 10: clarify what the "TOWN CB" peak flow discharge rate table refers to.
6. SWPPP: provide calculations for the provided WQv pretreatment.
7. SWPPP NOI: answer question 9
8. SWPPP NOI: answer question 10
9. SWPPP NOI: in question 29, provide the green roof contributing impervious area.
10. SWPPP NOI: answer question 42.
11. SWPPP Test Pit Log: 2 test holes are provided in a test pit log, though it's not clear if they were performed at the project site. The log is for "Springside Neighborhood" and states that the location of the test pits are shown on DA-1. However, no test pits can be located on DA-1.
12. SWPPP Infiltration Test Log: 2 infiltration test holes are provided in an infiltration test log, though it's not clear if they were performed at the project site. The log is for "Springside Neighborhood" and states that the location of the test pits are shown on DA-1. However, no test pits can be located on DA-1.
13. SWPPP: provide preliminary infiltration testing for the proposed infiltration practices in accordance with Section 6.3.1 and Appendix D of the NYSDEC Stormwater Design Manual.
14. Dry wells should include rooftop runoff only per Section 6.3.1 of the Design Manual. Alternatively, question 23 in the NOI shall be answered "No" and the SWPPP will be submitted for 60-day review from NYSDEC.
15. SWPPP Narrative: Identify which existing and proposed buildings have cellars and provide a discussion of the proximity of proposed dry wells to those buildings.
16. SWPPP Narrative: Provide the design calculations in Appendix D that are referenced in the narrative.
17. SWPPP DA-2: show existing dry well(s) to remain.

Plans

1. OP-1: Existing Zoning Maps show the scale as 1"=1,000' where it appears the scale is 1"=100'
2. SP-1: Title block states scale is 1"=20', plan states scale as 1"=40' where it appears the scale is 1"=30'
3. SG-1: dimension the separation from the proposed dry wells to the existing and proposed structures to ensure at least 10 feet of separation.
4. SG-1: less than 6" of cover is provided at Catch Basin #1. Revise accordingly.
5. SG-1: Rim elevation of DW-4 doesn't match the proposed grading.
6. SG-1: show what appears to be an existing drywell to remain on the east side of the CB to be replaced with proposed catch basin with sump (vicinity of CB#1). Alternatively, if this existing dry well isn't proposed to remain, remove the proposed piping shown tributary to it.
7. A number of improvements are shown on the 310 Mill St parcel, but it has not otherwise been identified as a project parcel.
8. Additional technical review comments of the site plan set will be provided once the general engineering comments provided herein have been addressed.

Parking

1. From a parking generation standpoint, Maser defines the project area as a Dense Urban Area rather than a General Urban/Suburban Area and Chazen agrees with this. However, parking data for the Daycare Center and Fitness Center in the Dense Urban Area classification is limited to one study and should not be used for the parking estimates; therefore, parking rates for the General Urban/Suburban Area classification should be used.
2. Parking estimates were only provided using "average" rates. It is common to also present parking estimates using an "85th percentile" rate as this is often used for parking design applications. It is important to note that neither the average rate nor the 85th percentile rate represent a parking standard.
3. Using the General Urban/Suburban rates, Chazen has estimated the parking demand using average and 85th percentile rates:

Daycare Center & Fitness Center
Parking Demand (Spaces)

Parking Demand	Daycare Center		Fitness Center	
	Average	85th %-tile	Average	85th %-tile
Unadjusted Demand	25	38	60	110
Internal and Multi-use credits	-13	-21	-32	-60
Adjusted Demand	12	17	28	50

4. The combined parking demand for the Daycare Center and the Fitness Center is 40 spaces using average parking rates. Estimates provided by Maser using average rates is 35 spaces. The combined parking demand for the Daycare Center and the Fitness Center is 67 spaces using 85th percentile parking rates, a difference of 32 spaces as estimated by Maser using average rates.
5. The shared parking analysis provided by Maser shows that there are 231 available public parking spaces within 600 feet of Wallace Campus on a weekday; therefore, there is enough parking available to accommodate the additional demand of 32 spaces as estimated using the 85th percentile rates.

We would be pleased to discuss these comments at the Board's next meeting. In the meantime, please do not hesitate to contact me with any comments or questions.

Sincerely,

Stuart F. Mesinger, AICP
Vice President, Land Development

cc: Kyle Ahearn, PE
Tom Johnson, PE

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April 11, 2021

City of Poughkeepsie Planning Board
Attn: Robert Levine, Chairman
63 Civic Center Plz
Poughkeepsie, NY 12601

cc: Natalie Quinn, Senior Planner

RE: 2020-010: 319, 325, 327-329 and 331 Main Street "Wallace Campus" Resubmission

Dear City of Poughkeepsie Planning Board,

On March 16, the applicant and design team updated the planning board with their latest iteration of their Wallace Campus project.

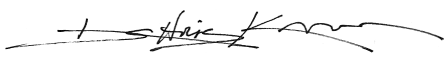
Catharine Street Building
Notably, there have been architectural changes that reproportion the building footprint along Catherine Street to extend to the full lot line, which reduced the massing to six stories. This design appears to fit more successfully alongside the building's immediate neighbors along Catharine Street.

Main Street Building
1) The Main Street building also has shown aesthetic evolution, especially along the cornice line. While some cornice work is advisable on a building of this scale, we advised the applicant during the meeting that the detailed historic cornice ornament feels a bit busy for a midblock building, and that this may be attributed to the proposed choice to show a highly ornamented cornice both atop of the street wall and atop of the setback massing. Since the meeting, we observe that historic cornice ornamentation along both streetwall massing and setback massing appears to establish a new architectural precedent for the Main Street Corridor. ***During the meeting it was advised that the design team consider options of either highlighting the streetwall massing with the historic cornice line or highlighting the setback massing with the cornice line, for review by the planning board.***

2) It was noted that in the current version the decorative cornice turns the southwest corner and appears to project over the west lot line wall, where ***we suggested the applicant to provide additional dimension and clarity of intent regarding the lotline projections to the board.***

As this project has significant scale both in footprint and in proposed massing heights, we continue to see this project for downtown of Poughkeepsie as an important discussion for public participation.

Sincerely,
Chris Kroner



Principal
ckroner@mass-group.org

MARCUS J. MOLINARO
COUNTY EXECUTIVE

EOIN WRAFTER, AICP
COMMISSIONER

COUNTY OF DUTCHESS

DEPARTMENT OF PLANNING AND DEVELOPMENT

April 2, 2021

To: Planning Board, City of Poughkeepsie
Re: Referral 21-060, Wallace Campus Site Plan
Parcels: 6162-77-114098 / 109079 / 109077 / 112116 / 116114 / 121116 and 6162-78-127091 / 128813, Main Street and US44/NY55 (Mill Street)

The Dutchess County Department of Planning and Development has reviewed the subject referral within the framework of General Municipal Law (Article 12B, §239-l/m).

ACTION

The applicant is requesting site plan approval for the following:

- Restoration of the former Wallace Department Store building on Main Street, to contain a mix of non-residential and multi-family residential uses;
- Construction of a stepped-height 5- and 7-story building on Main Street adjacent to the Wallace building (involving the demolition of three existing buildings) to contain non-residential and multi-family residential uses;
- Construction of a 6-story addition to the Wallace building along the Catharine Street frontage, to contain a daycare and multi-family residential;
- 214 units of mixed-income affordable rental housing (in the Wallace building and new construction);
- Approximately 6,400 square feet of ground-floor commercial on Main Street (in the Wallace building and new construction), as well as a 29,000 square foot climbing gym and fitness center (in the Wallace annex on Catharine Street);
- A privately-owned public greenspace, and reconfiguration of parking and circulation patterns, in the interior of the block.

COMMENTS

As noted previously, we appreciate the applicant's consideration of feedback received and the associated modifications to the site plan, building architecture, and site details. Upon review of this latest referral, we have the following comments:

Building Heights

The new buildings proposed still exceed the number of stories permitted in the PID zoning (5-story maximum in PID-HC, 6-story maximum in PID-UV). The PID governs height based on the number of stories, within which it also provides a maximum height per story (20' ground floor / 14' upper floors). We find the overall bulk of a building in relation to the historic fabric of the City's downtown to be the most important governing factor for functionally determining when a building is of an appropriate height versus when it is too tall and overwhelms its historic neighbors.

According to the documentation provided by the applicant, the Wallace building is 69’ to the very top of its Main Street façade. This measurement provides a baseline from which to evaluate the other buildings in this block, as the Wallace building is one of the more prominent structures. The Main Street building appears to be approximately 60’ to the top of the 5-story southern facade, and then steps up to approximately 80’ at the top of the 7-story portion of the building (plus additional height for the roof mechanicals). Although the technique of stepping back the top two stories does aid in mitigating the impact of the bulk of the building along Main Street, the overall 80’ height of the setback still contributes to the building visually overwhelming the block. View 1 shown on sheet A-202 illustrates how the 80’ tall, 7-story portion looks top heavy, and competes with the 60’ tall, 5-story facade.

The Catharine Street building has been redesigned to have a slightly larger footprint and six stories where seven were previously proposed. The current design of the Catharine Street building is approximately 68’ to the top of the cornice, and no longer appears to dwarf it’s 3-story neighbor to the south. The elimination of the seventh story (and associated reduction in height from approximately 79’ to 68’) has mitigated our concern about the size of the Catharine Street building in relation to its neighbors in the PID-HC district.

Main Street Upper Cornice

We note the design modifications to the Main Street building’s cornice, which are more in keeping with the context of the building. We suggest evaluating whether a less detailed/ornate cornice on the stepped-back section could help reduce the visual prominence of it, allowing it to visually recede while giving the 5-story façade center stage along Main Street.

Lighting

We are pleased to see that overall lighting levels are much lower than previously proposed. In reviewing the fixture specs, we note that the wall and pole mounted fixtures have a color rendering index (CRI) of only 70, though a CRI of 80 or 90 are options for both types of fixtures. We recommend a minimum of CRI 80 to ensure that the color of objects is rendered as close to “natural” as possible.

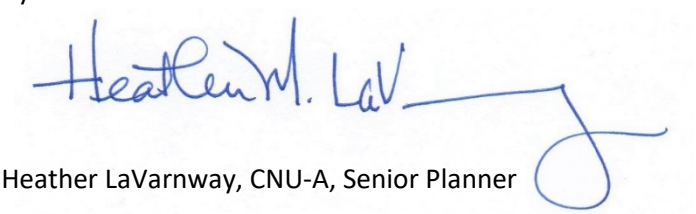
RECOMMENDATION

For the reasons stated above, we recommend the Board not grant the requested site plan approval until the following condition has been met:

1. The height of the Main Street building be reduced to complement rather than compete with the Wallace Building and other nearby historic structures.

   Voting and Reporting Requirements: If the Board acts contrary to our recommendation, the law requires that it do so by a majority plus one of the full membership of the Board and that it notify us of the reasons for its decision.

Eoin Wrafter, AICP, Commissioner
By



Heather LaVarnway, CNU-A, Senior Planner

Dutchess County Department of Planning and Development	Fax Info Only	To	Date #pgs
		Co./Dept.	From
		Fax #	Phone #

Please Fill in this section

239 Planning/Zoning Referral - Standard Form

Municipality: **City of Poughkeepsie**

Referring Agency: **Planning Board**

Tax Parcel Numbers(s): **1140980000, 1090790000, 1090770000, 1270910000, 1121160000, 1161140000, 1211160000, 1281130000**

Project Name: **Wallace Campus**

Applicant: **Wallace Campus Manager, LLC**

Address of Property: **319 Main St, Poughkeepsie, NY 126010000**

Type of Action

- [ ] Local Law/Text Amendment
- [ ] Rezoning
- [x] Site Plan
- [ ] Special Permit
- [ ] Use Variance
- [ ] Area Variance
- [ ] Other:

Parcels within 500 feet of:

- [x] State Road: **44/55 West**
- [ ] County Road:
- [ ] State Property (with recreation area or public building)
- [x] County Property (with recreation area or public building)
- [ ] Municipal Boundary
- [ ] Farm operation in an Agricultural District

Date Response Requested:

Entered By: **Knauss, Judith**

For County Office Use Only

Response From Dutchess County Department of Planning and Development

No Comments:

- [ ] Matter of Local Concern
- [ ] No Jurisdiction
- [ ] No Authority
- [ ] Withdrawn
- [ ] Incomplete - municipality must resubmit to County
- [ ] None

Comments Attached:

- [ ] Local Concern with Comments
- [x] Conditional
- [ ] Denial
- [ ] Incomplete with Comments- municipality must resubmit to County
- [ ] Informal Comments Only

Date Submitted: **3/4/2021**	Notes: **Responded via RAMP.**	[x] Major Project
Date Received: **3/4/2021**		Referral #: **ZR21-060**
Date Requested:		
Date Required: **4/2/2021**	[ ] Also mailed hard copy	Reviewer: Heather M. LaV
Date Transmitted: **4/2/2021**		

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Transportation Planners & Engineers

Enterprise Green Communities Comparison

for

The Wallace Campus

City of Poughkeepsie
Dutchess County, New York

Issued: March 30, 2021

Prepared for:

Natalie Quinn, Planning Director
62 Civic Center Plaza, 2nd Floor
Poughkeepsie, NY 12601

Prepared by:

Chazen Engineering, Land Surveying,
Landscape Architecture & Geology Co., D.P.C.
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Chazen Project No. 82029.00

It is a violation of New York State Education Law for any person to alter this drawing or document in any way, unless he or she is acting under the direction of a licensed design professional (professional engineer, land surveyor, architect, landscape architect or professional geologist). If this drawing or document is altered, the altering design professional shall affix to the drawing or document his or her seal, the notation "altered by" followed by his or her signature, the date of such alteration, and a specific description of the alteration.

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Figure 1: City of Poughkeepsie Code Citation 1

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1.0 INTRODUCTION

The Wallace Campus project is a mixed-use affordable housing development bounded by Main Street, Catharine Street and Mill Street in the City of Poughkeepsie. The applicant has requested a one-story height bonus based on "Green Building Practices." In accordance with the City's code, the applicant must demonstrate that the "proposed site and building techniques are of similar or greater value in terms of water use, energy efficiency, stormwater management, and carbon emissions, as LEED Gold or Platinum certification."

Figure 1:
City of Poughkeepsie Code Citation

> *Green building practices.* One additional story may be added to the maximum building height for developments that acquire Gold or Platinum certification through LEED Building and/or Neighborhood Development Rating System. If not LEED certified, the applicant is required to demonstrate, through submission of plans, details and certifications by accredited green building/architectural professionals, that the proposed site and building techniques are of similar or greater value in terms of water use, energy efficiency, stormwater management, and carbon emissions, as LEED Gold or Platinum certification. The applicant and the applicant's LEED-certified professional shall work in concert with City staff to identify the LEED rating system to be used to guide the development and advise the Planning Board accordingly.

Based on communication with the applicant we understand that at this phase of the project there is insufficient design detail to evaluate the proposed project for equivalency with LEED. To support the Planning Board and allow the project to move forward, this report provides an analysis of the Enterprise Green Community program, and how it compares to the LEED Certification process. This analysis is intended to demonstrate the basis for equivalency, and therefore qualification for the one-story height increase.

2.0 EQUIVALENCY ANALYSIS

Enterprise Green Communities is a non-profit organization that was developed to create a straightforward and unified path to incorporate sustainable, green building practices for low-income housing projects. The path for these projects is outlined by the Enterprise Green Communities Criteria (EGCC), which establishes mandatory and optional green building practices that must be incorporated into low-income housing projects to certify these projects as sustainable developments. The following is an equivalency analysis between the two programs.

2.1 Credit Category Comparison

The EGCC is similar to LEED V4.1 Residential: Multi-family criteria (LEED V4.1). Both standards require specific baseline credits or criteria and a specified number of additional optional credits. Required and optional credits for the EGCC and LEED V4.1 with respect to their credit categories are outlined below in Table 1. The EGCC has a greater number of required building practices than the LEED V4.1. Accordingly, the EGCC establishes a more stringent baseline with unified project goals for all certified projects than the LEED V4.1. For optional credits however, the EGCC has more leniency with a possible 290 credits and a requirement of only 40 credits for certification. LEED V4.1 requires various levels of optional credits for their four certification levels, bronze, silver, gold, and platinum, with a total of 110 possible credits. In a

side-by-side credit comparison, EGCC certified projects are at least equivalent to LEED V4.1 silver level projects, with the possibility of having a gold level certification based on the specific optional credits utilized. It should be noted that this comparison does not consider several requirements of the EGCC which do not exist within the requirements or optional credits of LEED V4.1.

Table 1:
EGCC Requirements and Credits Vs. LEED V4.1

Enterprise Green Communites Criteria Vs. LEED V4.1 Residential: Multifamily					
EGCC			LEED V4.1		
Category	Number of Requirements	Number of Optional Credits	Equivalent Category	Number of Requirements	Number of Optional Credits
Water	2	39	Water Efficiency	2	12
Operating Energy	4	55	Energy and Atmosphere	4	34
Site Improvements	5	16	Sustainable Sites	1	10
Intergrative Design	4	33	Intergrative Process	0	1
Location + Neighborhood Fabric	6	53	Location and Transportation	0	15
Materials	5	58	Materials, Resources, and Regional Priority	2	17
Healthy Living Enviornment	5	36	Indoor Enviornmental Quality	6	16
O+M and Resident Engagment	5	0			
			Innovation	0	6
Totals	36	290	Totals	15	111

2.2 Detail Level Comparison

While the EGCC and LEED V4.1 have very similar requirements within each comparable category, specific differences between the two standards exist that are important to this analysis. The two most important areas are the location and transportation criteria and the water use, stormwater control, and energy consumption/carbon emissions categories.

2.2.1 Location and Transportation

EGCC has mandatory requirements for the location of project sites and proximity to community amenities and transit routes. Projects are not allowed to be located in an area that would negatively impact a floodplain, waterway, ecosystem, or prime farmland. Projects are required to be located within 0.25 miles of a dedicated public open space, 0.5 miles of a public transit service, and 0.5 miles of four approved community amenities. These two caveats are designed to lessen the impact of projects on the environment and increase the engagement of residents with their surrounding communities. LEED V4.1

has no requirements for the location of project sites but does have optional low value credits for all of these criteria.

2.2.2 Water Use, Stormwater Control, and Energy Consumption/Carbon Emissions

Water use, stormwater control, and energy consumption/carbon emissions requirements of both EGCC and LEED V4.1 are the on the surface equal. However, EGCC has more stringent stormwater requirements and optional credits for both programs generally do not overlap.

Both standards require at least a 20% reduction in water use from the same referenced baseline standard and whole building water use monitoring. EGCC however, requires WaterSense fixtures be installed in all kitchens and bathrooms and for all projects to develop a Legionella water management program. LEED V4.1 only offers optional credits for additional water conservation techniques and more advanced water metering programs. EGCC offers credits for these two criteria and for efficient plumbing designs, non-potable reuse, and access to potable water in emergencies.

Stormwater management within LEED V4.1 is completely optional. This standard only requires that construction pollution prevention practices be observed. EGCC requires construction pollution prevention practices and stormwater management of all rainwater entering the site for up to the 60th percentile rain event. Efficient irrigation practices, such as rainwater harvesting and reuse, are also required on all projects that utilize irrigation or need water for landscaping.

EGCC and LEED V4.1 require the same baseline criteria for energy performance of structures, however, the EGCC requires more efficient appliances and interior lighting. LEED V4.1 requires a minimum energy performance via the ASHRAE 90.1 standard where EGCC requires all appliances and units be ENERGY STAR rated. The ENERGY STAR rating meets or exceeds the requirements of ASHRAE 90.1. Heating and cooling systems are required to meet the same efficiency standard as well, although interior lighting of EGCC projects must be through high efficiency fixtures. EGCC optional credits focus on projects reducing their energy consumption through renewable or green rated building practices and minimizing the use of combusting or gas-powered utilities. LEED V4.1 also addresses optional renewable energy credits but does not give credit to the use of all electric utilities and appliances.

2.3 Additional Requirements of the EGCC

While the side-by-side credit comparison highlights the overall similarities of EGCC and LEED V4.1, it is important to highlight the portions of the EGCC that are not included in the LEED V4.1. The most notable difference is the inclusion of a mandatory operation, maintenance, and resident engagement section within the EGCC. This category is not included in LEED V4.1. This category requires energy and water data collection, which must be submitted to the Enterprise Green Community organization for a minimum of 5 years after construction completion to ensure the energy and water goals for the project are being met. Additionally, the EGCC requires each project to have an integrative design process, which is only an optional credit for the LEED V4.1 criterion. These two criteria are further detailed below.

2.3.1 Operations, Maintenance, and Resident Engagement

A unique requirement of the EGCC is the mandatory incorporation of a thorough operations and maintenance plan and resident engagement criteria. There are five required criteria within this category,

to establish a benchmark for continued maintenance of the facilities and engagement of the residents. Additional criteria in this category requires monitoring and collection of water and energy use data.

Under the EGCC, a Building Operations and Maintenance Manual and Plan (O&M) and an Emergency Management Manual (EMM) are required to be created and issued to building staff and workers. The O&M must be developed in collaboration with the design team to ensure all implemented sustainability systems are maintained throughout the project's useful life. This plan must include a detailed list and layout of all items on the project site that will need to be maintained, their maintenance specifications, and repair information. Cleaning schedules, hardscape and landscape upkeep plans, and an occupant turnover plan highlighting common items that should be replaced with each new tenant are required for the O&M. The EMM must include a process for addressing natural disasters, system malfunctions, and power outages. This plan must prioritize resident safety in case of an emergency and outline how staff members will work to mitigate any emergency.

For resident engagement, a resident manual and walk-though/orientation process must be established. The resident manual should highlight all environmental, societal, and technological advantages of the building and how residents can positively impact the structure and its community. Recycling and refuse management, basic O&M procedures, and a briefing of community amenities for residents to utilize should be covered by this plan. In conjunction with this manual, each project must provide walk-throughs and an orientation on the building operations for all prospective residents.

The last piece of the O&M and resident engagement category is the requirement for collecting and storing energy and water use of the project. This data can be collected on a whole building or individual unit basis and must be made available for all residents to view. Additionally, the Enterprise Green Communities organization must be able to monitor the data for 5 years from the project's date of completion to ensure that the water and energy use goals are being met.

LEED V4.1 does not have any mandatory or optional credits for O&M or resident engagement practices. There is a required credit for monitoring energy and water use however, this collected data is not required to be viewed by a third party and not required to be assessed against project goals.

2.3.2 Integrative Design Process

The EGCC prioritizes an integrated design and construction process to ensure that the criteria specified in each project is met during and after construction is completed. In this process, a "project priorities survey" must be submitted and approved by the Enterprise Green Communities organization before design can begin. This survey includes information on who may be future residents, how various resident needs will be met, how all required EGCC will be met, which optional criteria will be included, and all geographic and climatic information of the community surrounding the project.

Once the survey is approved, coordination meetings must be scheduled and outlined between the various design teams and construction managers which highlight who is responsible for each criteria and how each team will be held accountable for their given tasks. Then, the EGCC requires that the construction documents reflect all applicable criteria and that this information is communicated to the construction management team. Project teams are required to create and implement a contractor education plan which will inform all parties working to construct the project of the sustainability goals, project timeline, and accountability structure for each task. Each phase of the integrated design process must be proven to have been completed to the EGCC standards with through direct submission to the Enterprise Green

Community organization and/or through thorough documentation of the process within the construction documents.

The required EGCC integrative design process is much more stringent and structured than the optional process which may be utilized for LEED V4.1. Within LEED V4.1, projects can either provide contractor education or implement an integrative process. No incentive is given for projects to include both of these facets. Additionally, the optional integrative process does not require pre-approval of project goals and criteria.

3.0 CONCLUSION

As made evident by a high-level comparison of categories, the Enterprise Green Communities Certification is comparable to a LEED V4.1 Residential: Multi-family Certification. Through analysis of categories and criteria alone, the EGCC falls between LEED Silver and Gold. This comparison however does not account for the many additional requirements of the EGCC certification which are not included in the LEED V4.1 criteria list. More importantly, the areas where EGCC goes above and beyond LEED V4.1 provide critical enhancements that improve the sustainability of the project. The most important of these enhancements is through resident engagement and reporting of operational data. Residents have a tremendous impact on the functional sustainability of a development. EGCC, through the integrative design process, resident engagement and reporting will ensure a higher level of sustainability and is critical to this analysis.

Given this detailed analysis, it is our opinion that the Enterprise Green Communities Certifications is of similar or greater value in terms of water use, energy efficiency, stormwater management, and carbon emissions as LEED Gold certification.

Moving forward the integrative design process will allow for the City to be engaged in the advancement of design documents and ensure that the project meets the requirements of EGCC which are necessary to justify the one-story height bonus.

Gary E. Beck, Jr.
Building Inspector

THE CITY OF POUGHKEEPSIE
NEW YORK
BUILDING PLANNING & ZONING
62 CIVIC CENTER PLAZA, 2ND FLOOR
POUGHKEEPSIE, NY 12601
Phone: (845) 451-4007 Fax: (845) 451-4006

APPLICATION FOR SITE PLAN, SPECIAL PERMIT APPROVAL & FAÇADE REVIEW

The Zoning Ordinance of the City of Poughkeepsie requires site plan approval by the Planning Board for the following:

(a) The erection or enlargement of all buildings in all districts other than one, two- or three-family residences, except as part of a subdivision and except as provided hereinafter or uses accessory thereto;
(b) All uses of vacant land other than uses accessory to one, two- or three-family houses;
(c) Any change in use or intensity of use which will affect the characteristics of the site in terms of parking, loading, access, drainage or utilities;
(d) Any plan to alter or improve a building facade in any area designated by the Common Council as a landmark or a special historical, architectural or design improvement district;
(e) Any application for a special use permit;
(f) Any use or structure in a flood hazard area;
(g) Any amendment of a previously approved plan;
(h) Any modular construction, pursuant to Section 19-4.20 of the Zoning Ordinance.

Prior to any submission it is highly recommended that potential developers file a Zoning Review Request form and request a pre-submission conference by contacting the Building Planning and Zoning Department. For the Zoning Review Request form go to the Planning Board page on the City website (http://cityofpoughkeepsie.com/planning-board/), and look under *Applications*. The purpose of the form and pre-submission conference is to discuss the proposal so that necessary subsequent steps may be undertaken with a clear understanding of the city's requirements in matters relating to site development.

If Planning Board review is required, ONE (1) COPY of the application form and ONE (1) FULL-SIZE COPY of the proposed site plan must be submitted to the Building Planning & Zoning Department with the appropriate fees, in order to allow review and certification of completeness.

Once an application is deemed complete, six (6) full-size sets, four (4) 11”x17” copies, and one (1) electronic copy of the site plan will be requested by the Planning Department.

The site plan must be at a minimum scale of one (1) inch equals thirty (30) feet, prepared by an architect, landscape architect, civil engineer, surveyor, land planner or other competent person. The following information, in total, shall constitute the site plan:

(a) Legal data:

1. Name and address of the owner of record.
2. Name and address of person, firm or organization preparing the map.
3. Date, North arrow and written and graphic scale.
4. Names of owners of adjoining properties.
5. A statement indicating the financial capability of the applicant to carry out this proposed development.

(b) Natural features:

1. Existing contours with intervals of five (5) feet or less.
2. Approximate boundaries of any areas subject to flooding or storm water overflows.
3. Location of existing watercourses, marshes, wooded areas, rock outcrops, isolated trees with a diameter of eight (8) inches or more, measured three (3) feet above the base of the trunk, and any other significant existing natural features.
4. Indication of direction of scenic views.

(c) Existing structures and utilities:

1. Outlines of all structures and location of all uses not requiring structures.
2. Paved areas, walkways and vehicular access between the site and public streets.
3. Locations, dimensions, grades and flow direction of any existing sewers, culverts, water lines, as well as other underground and aboveground utilities within and adjacent to the property.
4. Other existing development, including fences, landscaping and screening.
5. Sufficient description or information to define precisely the boundaries of the property. All distances shall be in feet and tenths of a foot. All angles shall be given to the nearest ten (10) seconds or closer. The error of closure shall not exceed one (1) in ten thousand (10,000).
6. The locations and owners of all adjoining lands as shown on the latest tax records.
7. The locations, names and existing widths of adjacent streets and curb lines.
8. The location, width and purpose of all existing and proposed easements, setbacks, reservations and areas dedicated to public use within or adjacent to the property.
9. A complete outline of existing deed restrictions or covenants applying to the property.
10. Existing zoning.

(d) Proposed development:

1. The location of proposed buildings or structural improvements
2. The location and design of all uses not requiring structures (such as off-street parking and loading).
3. The location, direction, power and time of use for any outdoor lighting or public address systems.
4. The location and plans for any outdoor signs.

5. The location, arrangement and materials of proposed means of access and egress, including walkways, driveways or other paved areas. Profiles indicating grading and cross sections showing location and width of roadway and walkways. Any proposed direct pedestrian connection to public parking lots or structures will also be shown.
6. Proposed screening and other landscaping, in accordance with Section 19-4.11.
7. The location, size, direction of flow and connection to city facilities of all proposed water lines, valves and hydrants and of all sewer lines or alternate means of water supply and sewage disposal and treatment facilities.
8. Location of any fire alarm boxes and/or connections to the city fire alarm system.
9. An outline of any proposed easements, deed restrictions or covenants and a notation of any areas to be dedicated to a public agency.
10. Any contemplated public improvements on or adjoining the property.
11. Any proposed new grades, indicating clearly how such grades will meet existing grades of adjacent properties or the street.
12. Elevations of all proposed principal or accessory structures (such elevations should be detailed, noting all materials and colors).
13. Indication of how the site plan has considered energy consumption in the siting and layout of buildings and in proposed building services (heat, lighting, air conditioning, etc.).
14. If the site plan indicates a first stage, a supplementary plan shall indicate ultimate development.
15. Any other information deemed by the Planning Board necessary to determine conformity of the plan with the spirit and intent of this Chapter (including plans for storm water drainage and disposal).
16. The following note must be added on all site plans where existing trees are to be retained: "Prior to the start of construction or excavation, trees to be retained shall be protected by silt fence, snow fence, construction fence, or equal, which will be placed at the drip line or several feet beyond. However, the fencing shall not cross public sidewalks. No storage or stockpiling of construction materials, debris or equipment shall occur within the fenced area." In addition to the note, the location of the fencing must be shown on the site or landscape plan. Where proximity to a building, driveway, parking area, or construction roadway prevents installation of fencing at the drip line, modification of the fence position shall be shown on the plan and shall be subject to the approval of the Planning Board. Field modification of the fence position may be granted by the Building Inspector/Zoning Administrator or Deputy Building Inspector.

The applicant may make a written request for a waiver of any of the site plan elements listed above. Such a request must be addressed to the Planning Board and to the Building Inspector, must describe specifically the item(s) and fully explain the reason(s) why the applicant feels a waiver is justified. Further, unless waived by Building Inspector, plans for all required improvements must be signed by a professional engineer or registered architect or, if appropriate, a registered landscape architect.

Please note that all applications for new construction must be accompanied by a properly prepared Full Environmental Assessment Form (EAF). Other plans will require either a Full EAF or a Short EAF, depending on project's specifics. Please note that one, two and three family dwellings do not require a Full EAF.

SPECIAL PERMIT REQUEST

In all applications containing a request for special permit, the applicant must submit written and/or visual documentation addressing the following considerations:

a) That all proposed structures, equipment or material shall be readily accessible for fire and police protection.
b) That the proposed use is of such location, size and character that, in general, it will be in harmony with the appropriate and orderly development of the district in which it is proposed to be situated and will not be detrimental to the orderly development of adjacent properties in accordance with the zoning classification of such properties.
c) That, in addition to the above, in the case of any use located in or directly adjacent to, a residential district:
    - The location and size of such use, the nature and intensity of operations involved in or conducted in connection therewith, its site layout and its relation to access streets shall be such that both pedestrian and vehicular traffic to and from the use and the assembly of persons in connection therewith will not be hazardous or inconvenient or incongruous with said residential district or conflict with the normal traffic of the neighborhood; and
    - The location and height of buildings, the location, nature and height of walls and fences and the nature and extent of screening and landscaping on the site shall be such that the use will not hinder or discourage the appropriate development and use of adjacent land and buildings or diminish the value thereof.

APPLICATION FEES

Upon submission of a site plan application, the applicant must pay a base fee $500, plus $35 per required off-street parking space and $150 per 1000 square feet of development. If the applicant is also requesting special permit review, an additional $500 must be paid at the time of application submission. In instances where an applicant is only requesting façade review for an existing building, a fee of $350 must be paid at the time of application submission. Note, if façade review is pertaining to a proposed site plan, the façade review fee is not required in addition to the site plan review fee.

	FEES
Site Plan Review	$500.00 and $35.00 per required off-street parking space and $150.00 per 1000 square feet
Special Permit Review	$500.00
Façade Review (Only)	$350.00

TIMING OF APPLICATION

Please remember that the Building Planning & Zoning Department must review all applications for site plan review to insure conformity with the requirements of the Zoning Ordinance, as well as to certify completeness of the submission. Since applications must be received by the Planning Department at least three Tuesday's prior to the Planning Board's Meeting, it is advisable that submissions be made to the Building Planning & Zoning Department no later than the second Tuesday of the month prior to Planning Board agenda on which the applicant plans to be considered. Once an application is conforming and complete, it will be forwarded to the Planning Board. Applicants filing incomplete applications will be informed of all deficiencies noted to exist in the submission in writing.

Only complete applications will be forwarded.

All applications for site plan, special permit and façade approval are required to be reviewed for comment by the Fire Chief, Police Chief, City Engineer, Superintendent of Public Works and Building Inspector. Copies of the application and accompanying information are forwarded to these officials by the Building Department simultaneously with transmission to the Planning Board. The complete application will be circulated, where required, to the Dutchess County Planning Department and to other appropriate agencies.

The Planning Board meets the third Tuesday of each month. Attendance by the applicant or the applicant's agent is required at these meetings. Should the applicant or representative fail to attend, the application will be removed from the agenda.

The Planning Board may hold a public hearing on site plan applications if the Board determines that such hearing would serve the public interest. The Board is required to hold a public hearing on all applications for Special Permit.

Upon completion of the review, the Planning Board will: approve, approve with conditions, or disapprove the site plan, special permit or façade application.

REPSONSIBILITY OF THE APPLICANT FOLLOWING APPROVAL

Approval by the Planning Board does not end the approval process, nor does it convey the right to build a project. Prior to commencement of the actual work, a Building Permit must be obtained. Prior to the actual occupancy of any building or land, a Certificate of Occupancy must be issued and all conditions of approval satisfied. Following approval by the Board, the applicant may either:

1) Circulate the original mylar or other acceptable original format of the approved site plan to the Fire Chief, Police Chief, Superintendent of Public Works/City Engineer and Building Inspector for their signatures;
2) Bring the mylar or other original to the Building, Planning & Zoning Department so that arrangements for these signatures can be made. The original, so signed, will then be sealed with the Planning Board's stamp of approval, provided that all conditions of the Board's approval have been met.

Seven (7) copies of the signed and stamped plan must be submitted to the Building Planning & Zoning Department prior to the issuance of any building permit for the proposed work.

CONTACT NUMBERS

BUILDING DEPARTMENT:	(845) 451-4007
PLANNING DEPARTMENT:	(845) 451-4047
FIRE CHIEF:	(845) 451-4079
POLICE CHIEF:	(845) 451-4132
CITY ENGINEER (CPL):	(845) 451-4021

APPLICATION TO THE PLANNING BOARD
CITY OF POUGHKEEPSIE, NEW YORK

Application for Site Plan, Special Permit & Facade Approval

OFFICE USE ONLY

CODE: PLSF

ID #_____

FEE: _____
Total, from:
$500, plus
$_____
($150 per 1000 square feet of floor area), plus
$_____
($35 per number of required parking spaces), plus
$_____
($500 for special permit, if applicable)

I. PROPERTY ADDRESS: Highview/Milton Street

II. PROPERTY OWNER: Maselo Realty, LLC (Nate Abikhzer)
ADDRESS: 18 Eastview Road
Monsey, NY
10952 (state and zip code)
PHONE NUMBER: 845-341-7395 (include area code)

III. NAME OF APPLICANT: Same as above
ADDRESS: _____
_____
_____ (state and zip code)
PHONE NUMBER: _____ (include area code)
EMAIL ADDRESS: nateabikhzer@gmail.com

(If applicant is NOT the owner, proof of owner's consent to the application MUST be provided.)

IV. CONSULTANT: Chazen Companies, Caren LoBrutto
ADDRESS: 21 Fox Street
Poughkeepsie, NY
12601 (state and zip code)
PHONE NUMBER: 845-486-1458 (include area code)

V. PROPOSED USE or FAÇADE CHANGE (Summarize proposed use or uses): The proposed construct of a 63-apartment unit clustered multifamily development within two buildings with two accesses off Miltor

VI. ZONING DISTRICT: Planned Residential Devel

(Proceed to XVII for special permit & façade approval only)

PROJECT INFORMATION

New construction: X (yes)_____ (no)

Change of use:_____ (yes) X (no)

Expansion/addition:_____ (yes) X (no)

Alteration:_____ (yes) X (no)

Cost of Construction: $to be determined

LOT AND BULK INFORMATION:

Lot area: 8.713 (acres) 379,539.8 (square feet)

Building Footprint: 24,490 (proposed square feet for new construction)

0.00 (existing square feet for change of use/expansion)

0.00 (additional proposed square feet for expansion)

24,490 (total building footprint, square feet)

Lot Coverage: 6.45 (percentage, building coverage only)

Gross Floor Area: 96,760 (proposed square feet for new construction)

0.00 (existing square feet for change of use/expansion)

0.00 (additional proposed square feet for expansion)

96,760 (total gross floor area, square feet)

Building Height: 3.5 (stories) 35 (feet)

Floor Area Ratio: 0.25 (ratio of gross floor area divided by lot area)

VIII. PROJECT PARKING INFORMATION

A) Number of Off-Street Parking Spaces required: 123

B) Number of Off-Street Parking Spaces provided: 123

C) Waiver Requested: _____ (Yes) X (No)

Is municipal parking available within 600 feet? _____ (Yes) X (No)

If yes, name all such municipal facilities: N/A

(If a waiver is requested based on proximity to municipal facilities, a written request for such waiver, addressed to the City Planning Staff and the Chairman of the Planning Board, must be submitted with the application.)

If a private parking facility is to be utilized, is such facility within 600 feet? N/A

_____ (Yes) _____ (No)

If yes, provide the address of the facility, name of the property owner, number of spaces in the lot, number of spaces available for lease, and length of lease. Attach copy of lease. Additional information may be required by the Planning Board): N/A

IX. RESIDENTIAL PROPOSALS

A) Type of Development: Multiple residence rental apartments
(Townhouse, condominium, multiple residence rental, etc.)

B) Unit Breakdown:

Number of efficiency or "studio" units: None

Number of one (1) bedroom units: 31

Number of two (2) bedroom unit's 32

Number with three or more bedrooms: None

Total number of units: 63

C) Is funding public? ____ Yes X No
If yes, describe funding source: _____

X. OFFICE PROPOSALS (____ Medical/Dental ____ Professional ____ Business)

A) Number of Employees: _____
N/A B) Number of doctors/dentists/medical practitioners: _____
C) Days/Hours of Operation: _____

XI. SERVICE BUSINESS PROPOSALS

A) Specify Business: _____
(e.g., laundromat, drycleaner, beauty parlor, travel agency, banks)

N/A B) Number of Employees: _____

C) Number of Washing Machines (for laundromat): _____

D) Days/Hours of Operation: _____

XII. MERCANTILE PROPOSALS (Retail _____ Wholesale _____)

A) Type of Mercantile (specify): _____

N/A B) Number of Employees: _____

C) Days/Hours of Operation: _____

XIII. STANDARD RESTAURANT/FAST FOOD RESTAURANT/COFFEE SHOP/DONUT SHOP/NIGHTCLUB/DISCOTHEQUE/BAR PROPOSALS

A) Specify Use: _____

N/A B) Number of seats (excluding bar stools and outdoor seating):_____

C) Meals served (i.e., breakfast, lunch, dinner): _____

D) Type of Menu: _____

E) Days/Hours of Operation: _____

F) Entertainment (live and/or recorded):_____

G) Will the restaurant contain a bar/lounge?: _____ Yes _____ No

H) If yes, how many seats at the bar? _____

I) Is a drive-through window proposed? _____

J) Is a walk-up window proposed? _____

K) Is an outdoor seating area proposed? _____

L) If yes, how many seats are proposed? _____

M) If yes, is outdoor cooking proposed? _____

XIV. INDUSTRIAL/COMMERCIAL PROPOSALS (Automobile repair, taxi, motor vehicle sales, warehouse, manufacturing, animal hospital, research facilities, etc.)

A) Specify Use: _____

N/A B) Number of shifts (if any): _____

C) Number of employees: _____
(If shifts are proposed, list number of employees per shift)

E) Number of work bays (if automobile repair): _____

F) Days/Hours of operation: _____

XV. EDUCATIONAL/INSTITUTIONAL/RECREATIONAL PROPOSALS (e.g., Museums, Theatres, Conference Centers, Hotels, Motels, Hospitals, Nursing Homes, Assisted Living Facilities, Nursery Schools, Private Schools, Day Care Centers, Places of Worship, Marinas, Membership Clubs, etc.)

A) Specify: _____

N/A B) Number of shifts (if any): _____

C) Number of employees: _____
(If shifts are proposed, list number of employees per shift)

D) Number of beds (hospitals, nursing homes, etc): _____

E) Number of seats in largest assembly space: _____

F) Number of classrooms (schools): _____

G) Number of rental units (hotels, motels, etc.) _____

H) Number of boat slips/courts (e.g., tennis, handball, etc.), alleys: _____

I) Days/Hours of Operation: _____

XVI. PROPOSALS NOT MENTIONED ABOVE (Please be specific):

None

XVII. APPLICANT CERTIFICATION

I, Nate Abikhzer, certify that the this application has addressed the objectives outlined in the Zoning Ordinance with consideration given to the public health, safety and welfare; the comfort and convenience of the public in general or the residents or users of the proposed development and of the immediate neighborhood.

The applicant certifies that all information contained herein is accurate and complete as of the date of this application.

Signature of Applicant

May 25, 2021
Date

Revised January 2018: Previous Editions Obsolete

THE Chazen COMPANIES
Civil Engineers
Land Surveyors
Planners
Environmental & Safety Professionals
Landscape Architects
Transportation Planners & Engineers
Proud to be Employee Owned

HUDSON VALLEY OFFICE
21 Fox Street
Poughkeepsie, NY 12601
P: 845.454.3980 or 888.539.9073
www.chazencompanies.com

October 5, 2021

Chairman Robert Levine
Members of the City of Poughkeepsie Planning Board
City of Poughkeepsie
62 Civic Center Plaza
Poughkeepsie, NY 12601

Cc: Natalie Quinn, Senior Planner

Re: Highview at the Fallkill Creek Proposed 64-Unit Residential Development (Maselo Realty LLC)
Milton Street (Tax Parcel 131300-6162-73-623227)
City of Poughkeepsie, Dutchess County, NY
Chazen #81947

Dear Chair Levine:

The Applicant and Owner, Maselo Realty LLC, received comments from the City's consulting architect, Chris Kroner of MASS Design Group, in a letter dated September 7, 2021 regarding the architectural design. In addition, a September 13, 2021 letter was received from Dutchess County Department of Planning and Development regarding the Planned Residential Development (PRD) construction of a 63-apartment unit clustered multifamily development.

Below is a point-by-point response to each of the comments received from MASS Design Group:

SITING:

A. *The buildings are aligned to each other, roughly following the contours that make an embankment to the Fall Kill. In the workshop it was discussed how the buildings could rotate away from parallel in an effort to better follow existing contours. These rotations may allow for additional tree plantings in front of the buildings, which may be a worthwhile gesture for an existing wooded site. Design team offered to review this idea further.*

Response: The northern building (Building 200) has been rotated slightly in order to better follow the site contours. Site conditions and setback constraints limit the amount that the building can be rotated. The buildings have been placed as far upland as possible to give the greatest possible buffer to the Fall Creek natural area. This has caused the parking and other site elements to cross the minimum setbacks. The project has been granted two variances related to setbacks by the ZBA.

B. *As the City of Poughkeepsie continues to explore a future Fall Kill Trail system, the site appears to have the dimensions to participate in this effort. On Drawing C180, there is what appears to be a mulched area to the west of the buildings, but the purpose of this area is not explicitly*

presented. Could the design team clarify its intent, and if there is the opportunity for this creekside zone to accept a future nearby trail?

Response: A 'Woodland Path' has been added to the site plans. The applicant plans to utilize this path as an amenity to residents. The applicant is open to having the Creekside section of this path open for public access as part of the future Fall Kill Trail system. The hatched area was erroneously identified as 'mulched area'. The hatched area to the west of the buildings will be seeded with a mix of native grasses. These areas will be maintained as naturalized meadow areas. The plans have been updated to properly identify these areas.

C. *The primary facades of these buildings are designed perpendicular from Milton Street (East Elevations), but the current package of drawings doesn't present the South Elevation, which would be the primary view from Milton Street - the public right of way. We acknowledge that there may be some existing tree groupings at the street, but from a street view perspective, the buildings would likely still be prominent beyond (see street view below). Please provide further elevations for the planning board's review.*

Response: ***The apartment buildings are two of the same. The front, rear and side elevations have been provided. The Left Side Elevation is the elevation that will be facing Milton Street.***

MASSING

A. *The two proposed structures are built into a hillside, and therefore will appear to be three stories from the proposed parking lot,but increase to four stories as you move towards the Fall Kill. The buildings are made with hipped roofs, which is understood to extend the single family pitched roof vernacular into the project. It was discussed if the roof pitch could be decreased to help the overall bulk of the project to be lessened.*

Response: The front and rear roof slopes were lowered to a 6/12 roof pitch. The roof slopes along the sides and the gables are proposed to remain as 8/12 roof pitch.

B. *The space between the two building volumes was discussed as an important public viewing court and possible stairway that focuses a viewshed of the project to the Fall Kill. Because of this opportunity, it was also asked if the ground floor plan layout may look to upgrade the side doors to make this space a more celebrated entry sequence into the building's amenity spaces. As shown in the side elevations, this area shows how the hillside plays a major role in this area and could potentially sponsor a public stairway down to the Fall Kill. This zone between the buildings could also help clarify the nearby parking peninsula that, if aligned with the interstitial space, would help further clarify the space and viewshed.*

Response: The site plan has been revised to relocate the parking lot island in order to bring attention to that space between the buildings. While the elevation differences and proposed utilities make the public stairway infeasible, the site plan has been amended to make that location

an overlook for the Fall Kill. The landscape plan has been revised to call out areas for selective tree limb removal in order to open up views to the Fall Kill Creek.

C. *Central Pediment: The building's central dormer gable includes a center drop arch decoration as the signature detail that the design team has included in the proposed drawings. The planning board may want to ask the design team to elaborate on the singular use of this detail, or if this treatment may be a motif to explore at other pedimented dormers.*

Response: The front gable decorations were removed to provide a uniform and clean gable look.

D. *Central Balcony: The porticos at the main entryways also show built up columns with square bases and capitals. Creating some continuity between the column detailing and the drop arch braces (ie. fastener detailing, joinery articulation, etc) above may be worth additional exploration to help connect the human experience with the overall building appearance. Above the portico it was discussed if there could be resident portico roof terrace access via doors in lieu of windows.*

Response: The design was modified to remove the gathering space over the main entrance.

E. *Please provide elevation regarding the pool house as another visible piece of the project at ground level.*

Response: Elevations of the pool house have been submitted.

ARCHITECTURAL DETAILS, MATERIALS AND METHODS

A. *While the documents we were sent had no notes as to the specific materials, it was presented in the workshop that the proposed buildings would have a neutral grayscale palette, with Stone at the Ground Floor, Brick at the subsequent floor, and then proceeds upward with board and batten cementitious wood. The roof in its current elevation is a predominant feature, made with Architectural Asphalt Shingles. Any efforts to incorporate solar on the roof or site should be noted. Color elevations and a materials board would help the board review the materials.*

Response: A Material Key showing the materials and colors has been attached to the color elevation drawings.

B. *In the workshop, it was mentioned that the window frames are currently being specified in a dark bronze, but it was recommended that if the building pursues a dark palette, that dark gray or black window frames have been recently installed around the city with success, and that they seem to weather and age slightly better than their lighter colored counterparts.*

Response: The window frames will be black.

C. *One architectural consideration we discussed for part of the workshop was trying to introduce methods to reduce the horizontal stacking/banding of materials by floor, with the goal of weaving them together vertically more holistically. One specific idea explored was to consider if the board and batten palette shall locally extend down by a floor at either the zones between dormers or alternatively to try the same approach at the dormer volumes. This design effort should also review the solution in conversation with the side elevations. At this interstitial zone, the stacked materials currently read very simply, but perhaps could incorporate some of the upgraded ground floor detailing to create a welcoming tactile space at the human scale.*

Response: The rear elevation was altered by weaving the rear finishes from the second floor down to the first floor to disrupt the appearance of layering from the horizontal banding. The corner material at the ground level wraps around the sides and blends into the retaining wall.

D. *Building trims were discussed as being specified as Polyvinyl Chloride (PVC). As this is a material on sustainability "Red Lists", we would generally recommend substituting a more environmentally responsible material for trims (ie. Claymark Solid Gold® Wood) wherever possible.*

Response: The trim finishes will be Boral -Tru Exterior Cement Trim.

E. *The balcony railings appear to be drawn with stock, readily available metal post panels, and the color needs to be clarified in a subsequent submission or discussion. In the workshop, it was discussed whether there might be options that allow the railings, the drop arches and the column details to work more closely together.*

Response: The aluminum railing color will be black.

Below is a point-by-point response to each of the comments received from Dutchess County

A. ***Circulation:*** *Vehicular circulation throughout the site is designed to be two-way except for site ingress and egress, which is shown as two 20'-wide, one-way driveways. To eliminate confusion and reduce the amount of impervious pavement on this parcel adjacent to the Fallkill Creek, the Board and applicant could evaluate the removal of one of the driveways and making the remaining driveway two-way. Given the topography, the eastern/ingress driveway could be eliminated and the western/egress driveway could be widened slightly to accommodate two-way traffic.*

Response: The previously proposed ingress and egress with two one-way driveways has been redesigned to be one two-way driveway centered along Milton Street. This modification will help to calm traffic and assist in dividing traffic more evenly to Arnold and Fitchett Street. The newly proposed driveway will be widened to 24'.

B. ***Open Space / Landscaping:*** *The site plan (C130) shows three hatched areas labeled "usable open space", but as per the landscape plan (C180) the southernmost hatched section appears to be existing forested land and the areas closer to the pool coincide with bioretention and pond areas, which are not typically considered appropriate for active/passive recreation (as per the definition of "usable open space" in §19-2.2). Also, the landscape plan doesn't include labels to indicate where the specific plants materials will be located.*

Response: A 'Woodland Path' which will provide recreational space has been added to the site plan. The "usable open space" label has been revised to identify this area. The applicant plans to utilize this path as an amenity to residents. The applicant is open to having the Creekside section of this path open for public access as part of the future Fall Kill Trail system.

Enclosed please find revised elevations and an updated plan set showing the modification of the two-way access to a single access and rotation of Building 200 per comments received.

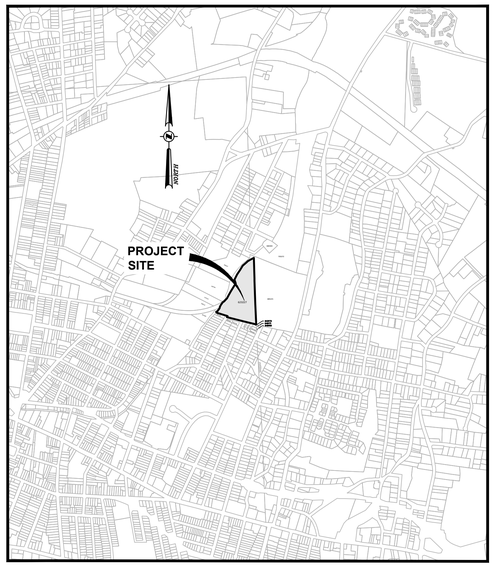
Please call 845-486-1458 or email me at clobrutto@chazencompanies.com if you have any questions or need anything further.

Thank you.

Sincerely,

Senior Planner, Planning Services

Cc: Tim Lynch, Chazen Companies
Maselo Realty, LLC
Michael McCormick, LMV Architects



AREA MAP
SCALE: 1"=1000'

HIGHVIEW AT THE FALLKILL CREEK

PROPOSED 63-UNIT RESIDENTIAL DEVELOPMENT

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

MAY 25, 2021

LAST REVISED: OCTOBER 05, 2021

LOCATION MAP
SCALE: 1"=500'

BULK TABLE:

PLANNED RESIDENTIAL DEVELOPMENT DISTRICT: (PRD)

ZONING REQUIREMENTS:	REQUIRED	PROPOSED
MINIMUM LOT AREA	25 ACRES[1]	379,533 SF
MINIMUM REQUIRED FRONTAGE	NONE	279
MAXIMUM RESIDENTIAL DENSITY	63[2]	63
MINIMUM WIDTH	NONE	669
MINIMUM DEPTH	NONE	1,007
MINIMUM YARDS		
FRONT	NONE	208.9
SIDES	NONE	50
SIDES	NONE	122.4
REAR	NONE	106.1
MAXIMUM BUILDING COVERAGE	20%	6.45%
MAXIMUM HEIGHT	NONE	35 FT/3.5 STORIES
MINIMUM USABLE OPEN SPACE	22,100	22,100[3]
50' PRD BUFFER	50 FT	9.0'[4]
120' PRD BUFFER	120 FT	94.8'[5]

(1)SITE DEMONSTRATES THAT IT MEETS OBJECTIVES OF THIS SECTION. PER 19-3.18(3)(h)
(2)PER ZONING SECTION 19-3.18(3)(d)(1), GROSS DENSITY IN EFFECT, WHICH IS 63 DWELLING UNITS FOR THE R2 ZONING DISTRICT.
(3)USABLE OPEN SPACE BASED ON R-4, PER ZONING SECTION 19-3.18(3)(D)(3)
(4) VARIANCE REQUIRED. 19-3.18 (4)(h)
(5) VARIANCE REQUIRED. 19-3.18 (4)(h)

PARKING REQUIREMENTS:

TOTAL SPACES	REQUIRED	PROPOSED(1)
	123 SPACES	123 SPACES

(1) PER 19-4.3, 1.5 SPACES FOR EACH OF THE THIRTY-ONE (31) 1-BEDROOM APARTMENTS; 2.0 SPACES FOR EACH OF THE THIRTY-TWO(32) TWO-BEDROOM APARTMENTS; PLUS AN ADDITIONAL 10% OF THE TOTAL REQUIRED SPACES FOR VISITOR PARKING.

INDEX OF DRAWINGS

PAGE NO.	SHEET NO.	DATE	DESCRIPTION
1	G001	10/5/21	TITLE SHEET
2	C100	05/25/21	EXISTING CONDITIONS PLAN
3	C101	6/29/21	LEGEND & NOTES
4	C120	10/05/21	DEMOLITION & TREE REMOVAL PLAN
5	C130	10/5/21	SITE PLAN
6	C140	10/5/21	GRADING PLAN
7	C150	08/31/21	EROSION & SEDIMENT CONTROL PLAN
8	C160	10/5/21	UTILITY PLAN
9	C170	6/29/21	WATER AND SEWER PROFILES (NOT INCLUDED IN SET)
10	C180	10/5/21	LANDSCAPE PLAN
11	C190	10/5/21	PHOTOMETRIC LIGHTING PLAN
12	C200	6/29/21	VEHICLE MANEUVERING PLAN
13	C530	6/29/21	SITE DETAILS
14	C531	6/29/21	SITE DETAILS
15	C540	6/29/21	STORM WATER DETAILS
16	C550	6/29/21	TREE PROTECTION & EROSION AND SEDIMENT CONTROL DETAILS
17	C560	6/29/21	WATER DETAILS
18	C561	6/29/21	WATER DETAILS
19	C570	6/29/21	SANITARY SEWER DETAILS
20	C580	6/29/21	LANDSCAPE DETAILS

ADJOINING PARCELS

1. GEORGES, ANTHONY J
JOHNSON, IRVIN
50 W AMOLD RD
POUGHKEEPSIE, NY 12601
TAX ID No: 131300-6162-74-626174

2. GEORGES, ANTHONY J
JOHNSON, IRVIN
W AMOLD RD
POUGHKEEPSIE, NY 12601
TAX ID NO: 131300-6162-74-631172

3. GEORGES, ANTHONY J
JOHNSON, IRVIN
50 W AMOLD RD
POUGHKEEPSIE, NY 12601
TAX ID NO: 131300-6162-74-636171

4. KANE, JOSEPH
SCHOONMAKER, AMANDA
146 CORLIES AVE
POUGHKEEPSIE, NY 12601
TAX ID NO: 131300-6162-74-643173

5. WHITTLE, FRANK J TRUSTEE
CORLIES AVE
POUGHKEEPSIE, NY 12601
TAX ID NO: 131300-6162-74-642168

6. WHITTLE, FRANK J TRUSTEE
142 CORLIES AVE
POUGHKEEPSIE, NY 12601
TAX ID NO: 131300-6162-74-641163

7. KANE, JOSEPH
SCHOONMAKER, AMANDA
146 CORLIES AVE
POUGHKEEPSIE, NY 12601
TAX ID NO: 134689-6162-19-649171

8. WHITTLE, FRANK J TRUSTEE
142 CORLIES AVE
POUGHKEEPSIE, NY 12601
TAX ID NO: 134689-6162-19-648165

9. WOOD, NICHOL SL
143 CORLIES AVE
POUGHKEEPSIE, NY 12601
TAX ID NO: 134689-6162-19-663164

10. MOUNTAIN BROOK GARDENS LLC
134 INNIS AVE
POUGHKEEPSIE, NY 12601
TAX ID No: 134689-6162-19-685225

11. CITY OF POUGHKEEPSIE
26 HOWARD ST
POUGHKEEPSIE, NY 12601
TAX ID No: 131300-6162-66-705372

12. CITY OF POUGHKEEPSIE
25 HOWARD ST
POUGHKEEPSIE, NY 12601
TAX ID No: 134689-6162-15-668303

13. HIGHRIDGE GARDENS HOUSING
140-150 HUDSON AVE EXT
POUGHKEEPSIE, NY 12601
TAX ID NO: 131300-6162-65-590267

14. STORTINI FARMS LLC
23-25 VAN KLEECK DR
POUGHKEEPSIE, NY 12601
TAX ID NO: 131300-6162-73-567244

15. MILLENS , JOAN TRUSTEE (PRIMARY)
LENEFSKY , DAVID TRUSTEE (ADDITIONAL)
MULA , PAUL TRUSTEE
20 VAN KLEECK DR
POUGHKEEPSIE, NY 12601
TAX ID NO: 131300-6162-73-528212

16. TOWN OF POUGHKEEPSIE
COTTAGE ST REAR
POUGHKEEPSIE, NY 12601
TAX ID NO: 131300-6162-73-562189

17. SMITH , HEYWOOD V (PRIMARY)
GREEN SMITH , PAMELA (ADDITIONAL)
45 FITCHETT ST
POUGHKEEPSIE, NY 12601
TAX ID No: 131300-6162-73-587190

18. JOHNSON , ALLEN JR III
FITCHETT ST
POUGHKEEPSIE, NY 12601
TAX ID No: 131300-6162-73-602181

19. JOHNSON , ALLEN JR III
51 W ARNOLD RD
POUGHKEEPSIE, NY 12601
TAX ID NO: 131300-6162-73-612178

CITY PLANNING BOARD
CITY OF POUGHKEEPSIE, NEW YORK
SITE PLAN APPROVAL

FILE NO:
PROJECT NAME:
PROJECT LOCATION:
APPLICANT:

OFFICIALL APPROVED AT THE PLANNING BOARD

MEETING HELD THE ____ DAY OF _____ 2____

PLANNING CHAIR:

DESIGNEE:

DATE SIGNED:

CONDITION(S):

CITY OF POUGHKEEPSIE DEPARTMENTAL SIGNATURES

FIRE CHIEF	DATE
POLICE CHIEF	DATE
BUILDING INSPECTOR	DATE
CITY ENGINEER	DATE
COMMISSIONER OF PUBLIC WORKS	DATE

RECORD OWNERS:
LOT 131300 RECORD OWNER:
MASELO REALTY LLC
18 EASTVIEW RD
MONSEY NY 10952

DEVELOPER / APPLICANT:
MASELO REALTY LLC
18 EASTVIEW RD
MONSEY NY 10952

SITE CIVIL ENGINEER:
CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., D.P.C.
21 FOX STREET, POUGHKEEPSIE, NY 12601
PHONE: (845) 454-3980

TAX MAP INFORMATION:
CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK
SECTION 6162, BLOCK 73, LOT 623227

AREA:
TOTAL PARCEL AREA: 8.713± ACRES

SITE DATA:
SPECIAL DISTRICT INFORMATION:
GREATER POUGHKEEPSIE PUBLIC LIBRARY DISTRICT
SCHOOL DISTRICT:
POUGHKEEPSIE CITY SCHOOL DISTRICT

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Poughkeepsie, New York 12601

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- Poughkeepsie, NY
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- New York City, NY

rev.	date	description
3	10/04/21	REVISED FOR PLANNING BOARD SUBMISSION
2	8/31/21	REVISED FOR PLANNING BOARD SUBMISSION
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

TITLE SHEET

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
LTN	LB
date	scale
05/25/21	AS SHOWN
project no.	
81947.00	
sheet no.	
G001	

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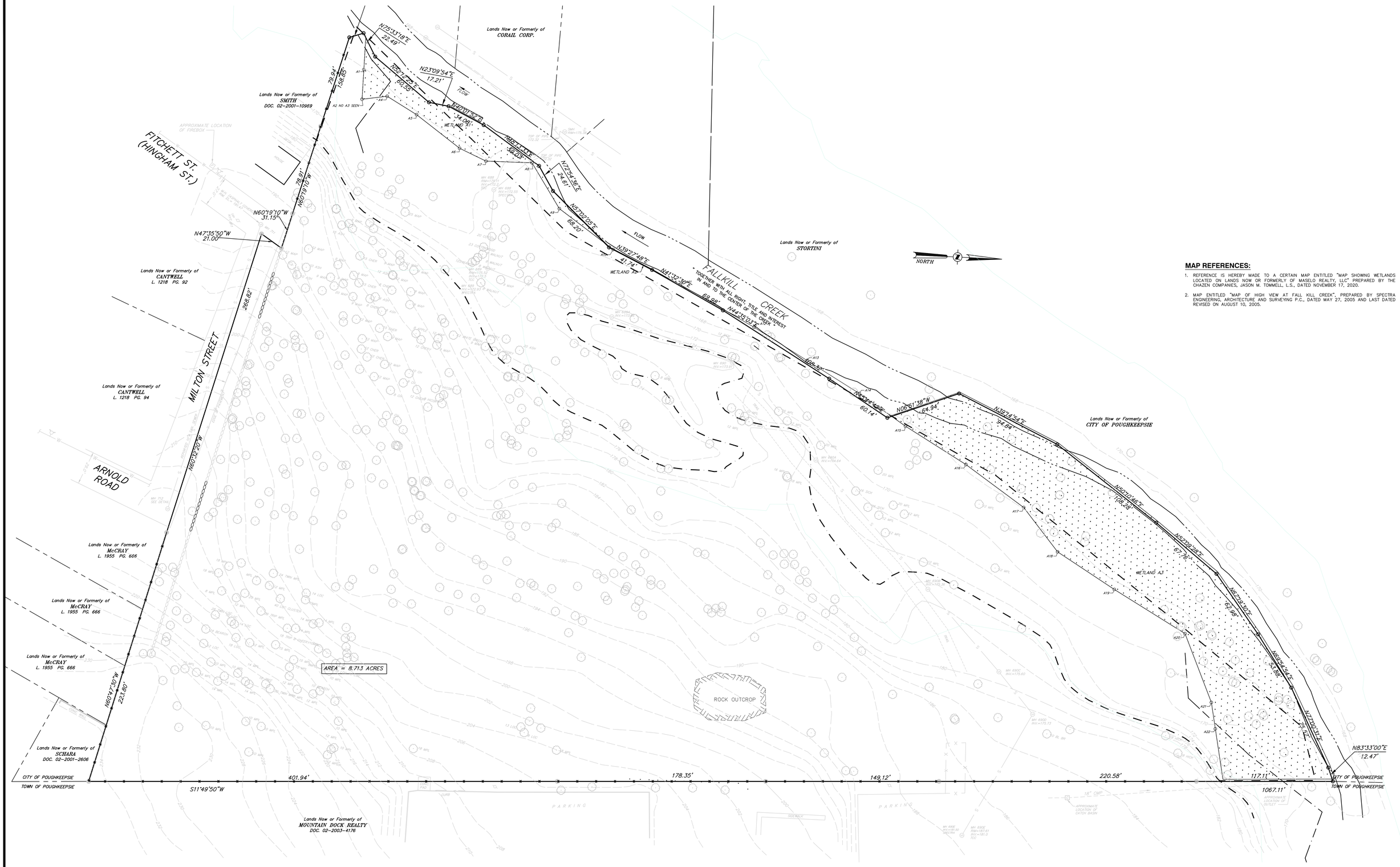
Date Printed: Oct 05, 2021, 4:12pm



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1. REFERENCE IS HEREBY MADE TO A CERTAIN MAP ENTITLED "MAP SHOWING WETLANDS LOCATED ON LANDS NOW OR FORMERLY OF MASELO REALTY, LLC" PREPARED BY THE CHAZEN COMPANIES, JASON M. TOMMELL, L.S., DATED NOVEMBER 17, 2020.
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- Poughkeepsie, NY
- White Plains, NY
- New York City, NY

rev.	date	description
2	5/25/21	REVISED FOR PLANNING BOARD SUBMISSION
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

EXISTING CONDITIONS PLAN

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
TL	LB
date	scale
05/25/21	1" = 30'
project no.	
81947.00	
sheet no.	
C100	

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Xrefs Attached: XTB_30X42_81947; XBASE-ENG_81947; XBASE-ENG-WETLAND_81947-00
Date Printed: Oct 05, 2021, 4:13pm

LEGEND:

LAYOUT:

- LOT LINE
- SETBACK LINE
- EASEMENT LINE
- BUILDING
- PAVED ROAD / DRIVEWAY / PARKING AREA
- ROAD CENTER LINE
- SIDEWALK
- CURB/WING GUTTER
- GRAVEL DRIVEWAY
- WORKLIMITS
- GUIDERAIL
- CHAIN LINK FENCE
- STOCKADE FENCE
- CONCRETE
- STABILIZED CONSTRUCTION ENTRANCE
- ROAD LINING & STRIPING
- GRAVEL PARKING AREA

UTILITIES:

- OHW — OVERHEAD WIRES
- ROAD CENTER LINE
- S — SANITARY SEWER LINE
- FM — FORCE MAIN
- W — WATER LINE
- ST — STORM DRAIN LINE
- DRAINAGE SWALE
- E — ELECTRIC LINE
- G — GAS LINE
- SIZE & TYPE — CULVERT W/ END SECTION

GRADING & EROSION CONTROL:

- 500 — 10 FT CONTOUR
- 448 — 2 FT CONTOUR
- 501.25 X — SPOT ELEVATIONS
- TREE LINE
- SHRUB LINE
- DRAINAGE SWALE
- ORANGE CONSTRUCTION FENCE
- SILT FENCE / FIBER LOG
- CHECK DAM WITH DITCH FLOW DIRECTION
- TD — TD — TEMPORARY DIVERSION SWALE
- STRAW BALE DIKE / FIBER ROLL
- FILTER FABRIC DROP INLET PROTECTION
- STONE & BLOCK DROP INLET PROTECTION
- CATCH BASIN GRATE DROP INLET PROTECTION
- CATCH BASIN SILT SAC DROP INLET PROTECTION
- PIPE OUTLET SEDIMENT TRAP
- SPOILS STORAGE AREA
- STABILIZED CONSTRUCTION ENTRANCE
- RIPRAP
- CONCRETE WASH OUT AREA
- TREE PROTECTION

DEMO:

- EXISTING FEATURE TO BE REMOVED
- EXISTING TREE TO BE REMOVED
- EXISTING SITE FEATURE TO BE REMOVED
- EXISTING PAVEMENT & SIDEWALK TO BE REMOVED
- EXISTING BUILDING TO BE REMOVED
- N.I.C. — NOT IN CONTRACT
- EXISTING STRUCTURE TO BE REMOVED, N.I.C

SYMBOLS:

- SIGN
- SIGN
- BOLLARD
- LIGHTED BOLLARD
- CATCH BASIN
- YARD DRAIN
- CLEAN OUT / DOWN SPOUT
- FLARED END SECTION
- DRAINAGE MANHOLE
- SANITARY MANHOLE
- CLEANOUT
- WELL
- WATER SHUT OFF VALVE
- WATER VALVE
- HYDRANT
- REDUCER
- CONTROL BOX
- ELECTRIC MANHOLE
- CABLE TV PEDESTAL
- GAS VALVE
- LIGHT POLE
- LIGHT WALL PACK
- POST AND LUMINAIRE
- TWIN POST AND LUMINAIRE AT 180°
- MAILBOX
- MONUMENT
- 25 — PARKING COUNT
- SOIL BORING
- TEST PIT
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- ELECTRIC TRANSFORMER
- TRAFFIC SIGNAL CONTROL BOX
- TRAFFIC SIGNAL POLE
- UTILITY POLE
- UTILITY POLE W/ LIGHT
- UTILITY POLE W/ GUY WIRE

0 1 2 3
ORIGINAL SCALE IN INCHES

DEMOLITION PLAN NOTES:

DEMOLITION NOTES:

1. REFER TO REQUIREMENTS OUTLINED IN THE EROSION & SEDIMENTS CONTROL PLANS & NOTES PRIOR TO COMMENCEMENT OF WORK.
2. BUILDING/STRUCTURE TO BE DEMOLISHED ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE NOT TO BE DEMOLISHED AS PART OF THIS WORK. PRIOR TO DEMOLISHING ANY BUILDINGS/STRUCTURES, THE CONTRACTOR SHALL PERFORM A PRE-DEMOLITION SURVEY IN ACCORDANCE WITH STATE AND FEDERAL REGULATIONS GOVERNING THE DISPOSAL OF SOLID WASTE. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS BY THE AUTHORITY HAVING JURISDICTION.
3. CONFORM TO APPLICABLE CODE FOR DEMOLITION OF STRUCTURES, SAFETY OF ADJACENT STRUCTURES, DUST CONTROL, RUNOFF CONTROL, AND HAULING, DISPOSAL AND STORAGE OF DEBRIS.
4. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES.
5. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION.
6. NOTIFY ADJACENT OWNERS OF WORK THAT MAY AFFECT THEIR PROPERTY, POTENTIAL NOISE, UTILITY OUTAGE, OR DISRUPTION. COORDINATE WITH OWNER.
7. PREVENT MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES. PROVIDE BRACING AND SHORING.
8. LOCATE AND IDENTIFY ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA. DISCONNECT AND SEAL OR CAP OFF UTILITY SERVICES THAT WILL BE AFFECTED BY THIS PROJECT. NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED.
9. DEMOLISH AND REMOVE COMPONENTS IN AN ORDERLY AND CAREFUL MANNER.
10. PROTECT EXISTING FEATURES THAT ARE NOT TO BE DEMOLISHED.
11. CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESSES.
12. MAINTAIN EGRESS AND ACCESS AT ALL TIMES. DO NOT CLOSE OR OBSTRUCT ROADWAYS, OR SIDEWALKS WITHOUT PERMITS. COORDINATE W/ AUTHORITY HAVING JURISDICTION.
13. CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER. NOTIFY AUTHORITY HAVING JURISDICTION.
14. ROUGH GRADE AND COMPACT AREAS AFFECTED BY DEMOLITION TO MAINTAIN SITE GRADES AND CONTOURS.
15. FIELD VERIFY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED ON DEMOLITION PLAN TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
16. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH SELECTIVE DEMOLITION OPERATIONS.
17. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA.
18. USE WATER MIST, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS TO LIMIT THE SPREAD OF DUST AND DIRT. COMPLY WITH GOVERNING ENVIRONMENTAL PROTECTION REGULATIONS. DO NOT USE WATER WHEN IT MAY DAMAGE EXISTING CONSTRUCTION, SUCH AS CAUSING ICING, FLOODING, AND TRANSPORTING POLLUTANTS.
19. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
20. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF SELECTIVE DEMOLITION.
21. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. ALL DEBRIS RESULTING FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE AT A FACILITY APPROVED TO RECEIVE THE DEBRIS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. DO NOT BURN DEMOLISHED MATERIALS ON-SITE.
22. NO SITE DISTURBANCE IS TO OCCUR PRIOR TO CLEARING OF SUCH BY THE RETAINED QUALIFIED INSPECTOR.
23. ANY NECESSARY TREE CLEARING WILL OCCUR BETWEEN NOVEMBER 1ST AND MARCH 31ST TO AVOID DIRECT OR INDIRECT TAKE OF THE BAT SPECIES AS DURING THIS TIME THE BATS WOULD BE HIBERNATING AND NOT PRESENT ON SITE.

LANDSCAPING NOTES:

1. SEE SHEET C580 FOR ALL LANDSCAPING NOTES.

GRADING PLAN NOTES:

GRADING NOTES:

1. PRIOR TO SITE DISTURBANCE, CONTRACTOR TO INSTALL EROSION & SEDIMENT CONTROL MEASURES.
2. IF ROCK IS ENCOUNTERED DURING CONSTRUCTION & REMOVAL BY BLASTING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVALS AND PERMITS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
3. ALL BLASTING OPERATIONS WILL ADHERE TO NEW YORK STATE AND LOCAL AUTHORITY ORDINANCES GOVERNING THE USE OF EXPLOSIVES. THE STATE REGULATIONS ARE CONTAINED IN 12 NYCRR 39 AND INDUSTRIAL CODE RULE 753.
4. STRIP ALL TOPSOIL PRIOR TO COMMENCING EARTHWORK OPERATIONS. TOPSOIL MAY BE STORED AND REUSED IN LAWN AND PLANTING AREAS ONLY. TOPSOIL AND SEED ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE TO REMAIN GREEN.
5. BOX ALL TREES AND HOUSE ALL SHRUBS AND HEDGES BEFORE PLACING EARTH AGAINST OR NEAR THEM. ORNAMENTAL TREES, SHRUBS AND HEDGES WHICH MUST BE REMOVED DURING CONSTRUCTION SHALL BE HEALED IN AND RE-PLANTED IN AS GOOD A CONDITION AS THEY WERE BEFORE THEIR REMOVAL. ANY DAMAGED TREES, SHRUBS, AND/OR HEDGES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. ALL EARTHWORK SHALL BE SMOOTHLY AND EVENLY BLENDED INTO EXISTING CONDITIONS. NO WORK, STORAGE OR TRESPASS SHALL BE PERMITTED BEYOND THE BOUNDARIES OF ANY EASEMENT OR PROPERTY LINE.
7. REMOVE ALL VEGETATION, TREES, STUMPS, GRASSES, ORGANIC SOILS, DEBRIS AND DELETERIOUS MATERIALS WITHIN THE AREAS SLATED FOR CONSTRUCTION.
8. IF PREVIOUSLY UNKNOWN CULTURAL, ARCHEOLOGICAL, OR HISTORIC REMAINS OR ARTIFACTS ARE DISCOVERED IN THE COURSE OF CONSTRUCTION OF THIS PROJECT, THE PROJECT SPONSORS SHALL SUSPEND CONSTRUCTION OPERATIONS IN THE PERTINENT AREA AND SHALL NOTIFY THE PROJECT ENGINEER. CONSTRUCTION IN THAT AREA SHALL RESUME ONLY AFTER COMPLETION OF FEDERAL, TRIBAL, AND STATE COORDINATION TO DETERMINE WHETHER PROTECTION OR RECOVERY OF THE REMAINS IS WARRANTED, OR WHETHER THE SITE IS ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES.

UTILITY PLAN NOTES:

GENERAL CONSTRUCTION NOTES:

1. ALL UNDERGROUND UTILITIES ARE SHOWN IN THEIR RELATIVE POSITION AND ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY THEIR ACTUAL LOCATION IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. ANY CONDITION ENCOUNTERED IN THE FIELD DIFFERING FROM THOSE SHOWN HEREON, SHALL BE REPORTED TO THE DESIGN ENGINEER BEFORE CONSTRUCTION IS TO PROCEED.
3. SEWER MAINS IN RELATION TO WATER MAINS: WHERE POSSIBLE, SEWERS SHALL BE LAID AT LEAST 10 (TEN) FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. VERTICAL SEPARATION SHALL BE MAINTAINED TO PROVIDE 18 (EIGHTEEN) INCHES BETWEEN TOP OF SEWER AND BOTTOM OF THE WATER MAIN AT UTILITY CROSSINGS. WHEN NOT POSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION, SEWER PIPE SHALL BE PRESSURE RATED AND TESTED @ 150psi, 10 (TEN) FEET ON EACH SIDE OF THE WATER MAIN BEING CROSSED.
4. ALL PROPOSED UTILITIES SHALL TERMINATE 5 FEET FROM ANY PROPOSED BUILDING FACE.
5. CONTRACTOR TO COORDINATE WITH BUILDING PLANS FOR ANY CONNECTIONS.
6. ALL STORM SEWER SHALL BE SMOOTH INTERIOR HDPE UNLESS OTHERWISE SPECIFIED.
7. ALL GRAVITY SANITARY SEWER SHALL BE SDR 35 PVC UNLESS OTHERWISE SPECIFIED.
8. ALL WATER PIPE SHALL BE CL52 DUCTILE IRON PIPE UNLESS OTHERWISE SPECIFIED.
9. CONTRACTOR TO VERIFY STATUS OF ALL UTILITY SERVICES PRIOR TO INTERRUPTION.
10. EXPLORATORY EXCAVATIONS SHALL BE PERFORMED BY THE CONTRACTOR AT ALL UTILITY CONNECTION LOCATIONS AND AS NEEDED TO VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK.
11. BEFORE CONSTRUCTING LINES TO CONNECT TO EXISTING UTILITIES, VERIFY EXISTING UTILITY INVERTS. NOTIFY THE ENGINEER IMMEDIATELY IF ANY VARIATION FROM THE PLAN IS REQUIRED.
12. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES IN SERVICE FOR THE DURATION OF THE WORK.
13. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS AND ASSOCIATED CONDITIONS.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING UTILITY TRENCHES AND EXCAVATIONS AND FOR THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF THE WORK.
15. IF ROCK REMOVAL BY BLASTING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVALS AND PERMITS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

SITE PLAN NOTES:

GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE ENGINEER OR OWNER, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AND UNDER THE SUPERVISION OF A NEW YORK STATE LICENSED LAND SURVEYOR.
2. ALL PAVEMENT RESTORATION SHALL MEET AND MATCH EXISTING GRADES.
3. ALL SAWCUT LINES SHALL BE PARALLEL AND CURVILINEAR TO EXISTING OR PROPOSED CURBING AND SHALL BE A CONSTANT DISTANCE OF 18" MIN AWAY.
4. ALL ARCHITECTURE IS SUBJECT TO PLANNING BOARD REVIEW.
5. NOTIFY ENGINEER 48 HOURS PRIOR TO INITIALIZATION OF ANY WORK ON SITE.
6. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT PRIOR REVIEW FROM THE ENGINEER.
7. CONTRACTOR IS RESPONSIBLE FOR EMPLOYING AND MAINTAINING ALL TRAFFIC CONTROL AND SAFETY MEASURES DURING CONSTRUCTION.
8. CONTRACTOR IS RESPONSIBLE FOR PROPERLY & SAFELY MAINTAINING AREA BETWEEN ALL ADJOINING PROPERTIES.
9. NO WORK, STORAGE OR TRESPASS SHALL BE PERMITTED BEYOND THE SITE PROPERTY LINES OR PUBLIC RIGHT-OF-WAY.
10. ALL EXISTING LAWN AREA, CURBING, PAVING, SIDEWALKS, CULVERTS OR OTHER PUBLIC OR PRIVATE PROPERTY DAMAGED BY TRENCHING OR EXCAVATION OPERATIONS SHALL BE REPLACED OR REPAIRED TO A CONDITION EQUAL TO EXISTING, AS DESCRIBED IN CONTRACT DOCUMENTS OR AS ORDERED BY ENGINEER (AOBE). MAILBOXES, SIGN POSTS, ETC SHALL BE PROPERLY REMOVED AND REPLACED EXACTLY AS THEY WERE BEFORE BEING DISTURBED. REMOVE AND REPLACE AFFECTED CURBING AND SIDEWALK TO NEAREST JOINT. REMOVE PAVEMENT AND REPLACE TO SAW CUT LINE. SAW CUT IN STRAIGHT LINE TO POINT NEEDED TO BLEND GRADE. REMOVE LAWN AND REPLACE TO MINIMUM LIMIT OF EXCAVATION.
11. IF PREVIOUSLY UNKNOWN CULTURAL, ARCHEOLOGICAL, OR HISTORIC REMAINS OR ARTIFACTS ARE DISCOVERED IN THE COURSE OF CONSTRUCTION OF THIS PROJECT, THE PROJECT SPONSORS SHALL SUSPEND CONSTRUCTION OPERATIONS IN THE PERTINENT AREA AND SHALL NOTIFY THE PROJECT ENGINEER. CONSTRUCTION IN THAT AREA SHALL RESUME ONLY AFTER COMPLETION OF FEDERAL, TRIBAL, AND STATE COORDINATION TO DETERMINE WHETHER PROTECTION OR RECOVERY OF THE REMAINS IS WARRANTED, OR WHETHER THE SITE IS ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES.

LAYOUT NOTES:

1. BUILDING DIMENSIONS TO BE TAKEN FROM ARCHITECTURAL BUILDING PLANS. NOTIFY THE ENGINEER OF ANY DEVIATION FROM CONDITIONS SHOWN ON THIS PLAN.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL FIELD LAYOUT. THE CONTRACTOR SHALL TAKE TIES TO ALL UTILITY CONNECTIONS AND PROVIDE AS-BUILT SURVEY UP AS BUILT PLANS FOR ALL UTILITIES SHOWING TIES TO CONNECTIONS, BENDS, VALVES, LENGTHS OF LINES AND INVERTS. AS-BUILT PLANS SHALL BE REVIEWED BY THE OWNER AND THE ENGINEER AND THE CONTRACTOR SHALL PROVIDE ANY CORRECTION OR ADDITIONS TO THE SATISFACTION OF THE OWNER AND THE ENGINEER BEFORE UTILITIES WILL BE ACCEPTED.

PAVING NOTES:

1. NO REGULAR TRAFFIC OF ANY SORT SHALL BE PERMITTED ON THE SURFACE OF SUBBASE COURSE MATERIAL ONCE IT HAS BEEN FINE GRADED, COMPACTED, AND IS READY FOR PAVING. SUBBASE MATERIAL SO PREPARED FOR PAVING SHALL BE PAVED WITHIN THREE DAYS OF PREPARATION.
2. SUBBASE MATERIAL AND THE VARIOUS ASPHALT CONCRETE MATERIALS CALLED FOR IN THESE DRAWINGS SHALL CONFORM WITH THE REFERENCED SECTION OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED **"LATEST EDITIONS"**. CONSTRUCTION SHALL BE AS FURTHER SET FORTH IN THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
3. PLACE ASPHALT CONCRETE MIXTURE ON PREPARED SURFACE, SPREAD AND STRIKE-OFF USING A SELF-PROPELLED PAVING MACHINE, WITH VIBRATING SCREED. PLACEMENT IN INACCESSIBLE AND SMALL AREAS MAY BE BY HAND.
4. PROVIDE JOINTS BETWEEN OLD AND NEW PAVEMENTS OR BETWEEN SUCCESSIVE DAY'S WORK.
5. TACK COAT WHEN SPECIFIED OR CALLED OUT ON THE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATION SHALL CONFORM WITH THE FOLLOWING:
   A. TACK COAT SHALL MEET THE MATERIAL REQUIREMENTS OF 702-90 ASPHALT EMULSION FOR TACK COAT OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED **"LATEST EDITION"**, SHALL BE APPLIED IN ACCORDANCE WITH SECTION 407 – TACK COAT SHALL BE IN ACCORDANCE WITH THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
   B. REMOVE LOOSE AND FOREIGN MATERIAL FROM ASPHALT SURFACE BEFORE PAVING NEXT COURSE. USE POWER BROOMS, BLOWERS OR HAND BROOM.
   C. APPLY TACK COAT TO ASPHALT PAVEMENT SURFACES & AND SURFACES OF CURBS, GUTTERS, MANHOLES, AND OTHER STRUCTURES PROJECTING INTO OR ABUTTING PAVEMENT. DRY TO A "TACKY" CONSISTENCY BEFORE PAVING.
   D. TACK COAT ENTIRE VERTICAL SURFACE OF ABUTTING EXISTING PAVEMENT.
6. AFTER COMPLETION OF PAVING AND SURFACING OPERATIONS, CLEAN SURFACES OF EXCESS OR SPILLED ASPHALT, GRAVEL OR STONE MATERIALS TO THE SATISFACTION OF THE ENGINEER.

TESTING WATER MAINS:

1. AFTER TRENCH HAS BEEN BACKFILLED, HYDROSTATIC ACCEPTANCE TESTS, CONSISTING OF A PRESSURE TEST AND A LEAKAGE TEST, SHALL BE PERFORMED ON ALL SECTIONS OF WATER MAIN INSTALLED. LEAKAGE TEST SHALL BE CONDUCTED CONCURRENTLY WITH PRESSURE TEST. TEST SECTION SHALL BE LIMITED TO ABOUT 2000 FT (MAX.) UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. AFTER ALL TESTS AND INSPECTIONS HAVE BEEN PERFORMED EVIDENCE OF COMPLIANCE SHALL BE FORWARDED TO OWNER/ENGINEER AND THE MUNICIPALITY PRIOR TO ACCEPTANCE.
3. ALL WATER FOR TESTS SHALL BE FURNISHED AND DISPOSED OF BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. SOURCE AND/OR QUALITY OF WATER WHICH THE CONTRACTOR PROPOSES TO USE IN TESTING LINES SHALL BE ACCEPTABLE TO THE ENGINEER.
4. HYDROSTATIC PRESUMPTIVE TESTS MAY BE PERFORMED WHEN SYSTEM IS PARTIALLY BACKFILLED TO SIMPLY CHECK WORK, BUT ACCEPTANCE OF SYSTEM SHALL BE BASED ON HYDROSTATIC TESTS RUN ON FINISHED SYSTEM AFTER IT HAS BEEN COMPLETELY BACKFILLED. ALL HYDROSTATIC TESTS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 4 OF AWWA STANDARD C 600 OR LATEST ADDITION, AS MODIFIED HEREIN.
5. FOR THE PRESSURE TEST, SYSTEM SHALL BE PRESSURIZED AND MAINTAINED AT A MINIMUM OF 150 POUNDS PER SQUARE INCH, OR 1.5 TIMES THE WORKING PRESSURE, WHICHEVER IS GREATER, BASED ON THE ELEVATION OF THE LOWEST POINT IN THE SECTION BEING TESTED AND CORRECTED TO THE ELEVATION OF THE GAUGE. PROVISIONS SHALL BE MADE TO RELIEVE AIR TRAPPED AT HIGH POINTS IN THE SYSTEM THROUGH ADJACENT HYDRANTS OR THROUGH TAPS AND CORPORATION STOPS INSTALLED FOR THIS PURPOSE BY THE CONTRACTOR. AFTER SAID PRESSURE HAS BEEN MAINTAINED SUCCESSFULLY, WITH FURTHER PUMPING AS REQUIRED, FOR A PERIOD OF AT LEAST TWO HOURS, THE SECTION UNDER TEST SHALL BE CONSIDERED TO HAVE PASSED THE PRESSURE TEST.
6. LEAKAGE TEST SHALL BE PERFORMED CONCURRENTLY USING A MINIMUM TEST PRESSURE OF 150 LBS/SQUARE INCH, OR 1.5 TIMES THE WORKING PRESSURE, WHICHEVER IS GREATER, BASED ON THE ELEVATION OF THE LOWEST POINT IN THE SECTION UNDER TEST AND CORRECTED TO ELEVATION OF THE GAUGE. LEAKAGE TEST DURATION SHALL BE A MINIMUM OF 2 HOURS AFTER LEAKAGE RATE HAS STABILIZED.
7. MAXIMUM ALLOWABLE LEAKAGE SHALL BE AS SHOWN IN THE FOLLOWING TABLE:
   ALLOWABLE LEAKAGE PER 1000 FT (305M) OF PIPELINE (GPH)

AVG. TEST PRESSURE PSI	NOMINAL PIPE DIAMETER—IN. 4	6	8	10	12	14	16
450	0.57	0.86	1.15	1.43	1.72	2.01	2.29
400	0.54	0.81	1.08	1.35	1.62	1.89	2.16
350	0.51	0.76	1.01	1.26	1.52	1.77	2.02
300	0.47	0.70	0.94	1.17	1.40	1.64	1.87
275	0.45	0.67	0.90	1.12	1.34	1.57	1.79
250	0.43	0.64	0.85	1.07	1.28	1.50	1.71
225	0.41	0.61	0.81	1.01	1.22	1.42	1.62
200	0.38	0.57	0.76	0.96	1.15	1.34	1.53
175	0.36	0.54	0.72	0.89	1.07	1.25	1.43
150	0.33	0.50	0.66	0.83	0.99	1.16	1.32
125	0.30	0.45	0.60	0.76	0.91	1.06	1.21
100	0.27	0.41	0.54	0.68	0.81	0.95	1.08

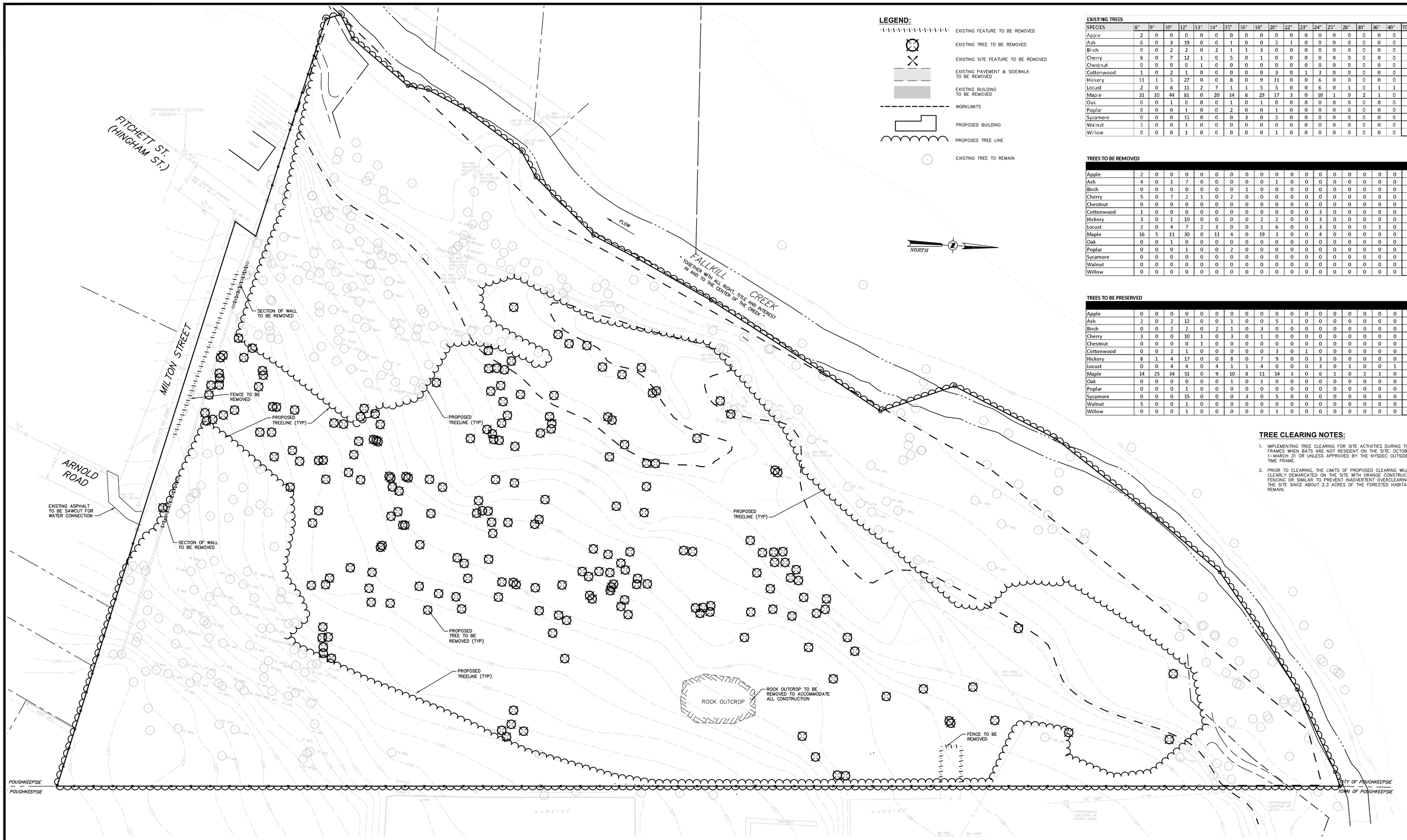
1. IF LEAKAGE IN SYSTEM EXCEEDS THE SPECIFIED AMOUNT, THE CONTRACTOR SHALL, AT NO ADDED COST TO THE OWNER, LOCATE, REPAIR, AND/OR REPLACE DEFECT(S) AND RE-TEST PIPING SYSTEM.

GENERAL CONSTRUCTION NOTES:

1. ALL UTILITY WORK INVOLVING CONNECTION TO EXISTING MUNICIPAL WATER MAIN SHALL BE COORDINATED WITH OWNER AND OWNER'S REPRESENTATIVE. NOTIFY OWNER AND THE OWNER'S REPRESENTATIVE 3 WORKING DAYS BEFORE CONNECTION IS MADE.
2. THE CONTRACTOR SHALL VERIFY THE PRESENCE OF AND EXACT LOCATION OF ALL UTILITIES PRIOR TO COMMENCING ANY EXCAVATION WORK AS THE EXACT LOCATION OF UTILITIES MAY DIFFER FROM THE LOCATION SHOWN, AND ADDITIONAL UTILITIES MAY EXIST.
3. THE CONTRACTOR SHALL REVIEW ALL FIELD UTILITY MARKOUT INFORMATION AND BRING ANY CONFLICTS TO THE ATTENTION OF THE PROJECT ENGINEER PRIOR TO COMMENCING ANY WORK OPERATIONS. TEST PITS MAY BE REQUIRED BY THE CONTRACTOR TO VERIFY ACTUAL UTILITY LOCATIONS AND/OR DEPTHS. TEST PIT OPERATIONS WILL MEET ALL NECESSARY REQUIREMENTS AS SET FORTH IN THESE PLANS, DETAILS, FEDERAL/STATE/LOCAL REGULATIONS AND ANY SPECIFIC PERMIT REQUIREMENTS.
4. THE CONTRACTOR SHALL PERFORM EXPLORATORY EXCAVATIONS AT ALL UTILITY CONNECTION LOCATIONS AND AS NEEDED TO VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK. THE CONTRACTOR SHALL NOTIFY THE OWNER AND OWNER'S REPRESENTATIVE 3 WORKING DAYS PRIOR TO SUCH EXCAVATIONS TO ENSURE THEIR PRESENCE.
5. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING FOR THE PROPOSED STRUCTURES AND WATER LINES AS THE EXACT LOCATION OF UNDERGROUND STRUCTURES AND UTILITIES ARE NOT KNOWN. ANY DAMAGE TO EXISTING STRUCTURES/UTILITIES ABOVE OR BELOW GRADE, CAUSED BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY BY THE CONTRACTOR AT HIS OWN EXPENSE.

WATER MAIN NOTES:

1. ALL WATER MAINS SHALL BE CEMENT LINED DUCTILE IRON PIPE, CLASS 52 PUSH-ON JOINT, UNLESS OTHERWISE SPECIFIED BY OR APPROVED BY THE WATER DEPARTMENT. JOINING SHALL EMPLOY "MEGALUG" CONNECTIONS, FIELD LOCK GASKET, OR AS ALTERNATIVELY SPECIFIED BY THE WATER DEPARTMENT. ALL WATER PIPING CONSTRUCTION SHALL BE TO THE SPECIFICATIONS OF THE WATER DEPARTMENT. WET TAP OF PUBLIC WATER SYSTEM SHALL BE APPROVED AND SUPERVISED BY THE WATER DEPARTMENT. TAPPING SLEEVE SHALL BE STAINLESS STEEL OR APPROVED EQUAL. ALL MAINLINE VALVES SHALL BE RESILIENT WEDGE OR APPROVED EQUAL.
2. THE WATER LINE MAY BE FLEXED WITHIN PIPE SPECIFICATIONS OR LAID DEEPER IN AREAS WHERE A CROSSING WITH A SANITARY LINE OCCURS, TO ACHIEVE THE REQUIRED 1.5' VERTICAL SEPARATION DISTANCE. IF THIS DISTANCE CANNOT BE REASONABLY ACHIEVED, THE CONTRACTOR SHALL USE PRESSURE RATED SANITARY SEWER PIPE OF EQUAL OR GREATER RATEING THAT THE PRESSURE CLASS FOR THE WATER LINE.
3. MINIMUM VERTICAL SEPARATION BETWEEN WATER MAINS AND SEWER PIPE SHALL BE 18 INCHES MEASURED FROM THE OUTSIDE OF THE PIPES AT THE POINT OF CROSSING. ONE FULL STANDARD LAYING LENGTH OF WATER MAIN SHALL BE CENTERED UNDER OR OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER LINE AS POSSIBLE. IN ADDITION, WHEN THE WATER MAIN PASSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT (COMPACTED SELECT FILL) SHALL BE PROVIDED FOR THE SEWER TO PREVENT EXCESSIVE DEFLECTION OF JOINTS AND SETTLING OF THE SEWER PIPE ON THE WATER MAIN. MINIMUM HORIZONTAL SEPARATION BETWEEN PARALLEL WATER MAINS AND SEWER PIPES (INCLUDING MANHOLES AND VAULTS) SHALL BE 10 FEET MEASURED FROM THE OUTSIDE OF THE PIPES, MANHOLES OR VAULTS.
4. ALL WATER MAINS SHALL HAVE A MINIMUM OF (5) FIVE FEET OF COVER FROM THE TOP OF THE MAIN TO FINISHED GRADE. THE CONTRACTOR SHALL CHECK ALL FINISHED GRADE STAKES BEFORE TRENCHING TO ENSURE THAT ALL INSTALLED WATERMAINS WILL HAVE THE REQUIRED COVER.
5. THE SUPPLIER OF WATER MUST RECEIVE AT LEAST 48-HOUR ADVANCE NOTIFICATION REQUESTING SAMPLING SERVICES. SAMPLING WILL NOT BE PERFORMED PRIOR TO RECEIPT FROM A NEW YORK STATE LICENSED OR REGISTERED DESIGN PROFESSIONAL (ENGINEER, ARCHITECT, OR LAND SURVEYOR WITH A SPECIAL EXEMPTION UNDER SECTION 7208(N) OF THE EDUCATION LAW) CERTIFYING THAT THE WATER SUPPLY IMPROVEMENTS, TESTING AND DISINFECTION PROCEDURES WERE COMPLETED IN ACCORDANCE WITH THE APPROVAL PLANS, REPORTS, SPECIFICATIONS AND ANY APPROVED AMENDMENTS. A NYSDOH CERTIFIED LABORATORY WILL COLLECT SAMPLES FOR FREE CHLORINE RESIDUAL, TOTAL AND FECAL COLIFORM AND 24-HOUR BACTERIAL PLATE COUNT. THE CERTIFICATE OF COMPLIANCE SHALL BE PROVIDED TO THE WATER MAINTENANCE SUPERVISOR AS A CONDITION OF APPROVAL FOR OPERATION.
6. THE CONTRACTOR SHALL COORDINATE THE TESTING WITH THE WATER DEPARTMENT SO AS TO MAINTAIN THE AMOUNT OF SERVICE INTERRUPTION TO EXISTING USERS TO THE LEAST EXTENT PRACTICABLE. WATER MAIN INSTALLATION AND TESTING SHALL BE PERFORMED UNDER THE SUPERVISION OF THE PROJECT ENGINEER OR HIS DESIGNEE AS NECESSARY TO MEET CONDITIONS IN NOTE 5 ABOVE.
7. THE WATER MAIN SHALL BE PRESSURE LEAKAGE TESTED IN ACCORDANCE WITH THE MINIMUM REQUIREMENTS OF THE AWWA STANDARD C600 (LATEST REVISION) OR IN ACCORDANCE WITH MORE STRINGENT REQUIREMENTS IMPOSED BY THE SUPPLIER OF WATER. TEST TO FIRST VALVE WITHIN BUILDING.
8. THE WATER MAIN SHALL BE DISINFECTED EQUAL TO AWWA STANDARD FOR DISINFECTING WATER MAINS DESIGNATION C651 (LATEST REVISION). THE FOLLOWING DISINFECTION, THE WATER MAIN SHALL BE FLUSHED UNTIL THE CHLORINE CONCENTRATION IN THE WATER LEAVING THE MAIN IS NO HIGHER THAN THAT GENERALLY PREVAILING IN THE SYSTEM. THE PROJECT ENGINEER OR HIS DESIGNEE SHALL ALSO WITNESS DISINFECTION AND FLUSHING.
9. ALL WATER MAIN FITTINGS NOT RECEIVING 24-HOUR CHLORINE DISINFECTION TIME MUST BE SWAB-DISINFECTED 30 MINUTES PRIOR TO INSTALLATION.
10



LEGEND:

- EXISTING FEATURE TO BE REMOVED
- EXISTING TREE TO BE REMOVED
- EXISTING SITE FEATURE TO BE REMOVED
- EXISTING PAVEMENT & SIDEWALK TO BE REMOVED
- EXISTING BUILDING TO BE REMOVED
- WORKLIMITS
- PROPOSED BUILDING
- PROPOSED TREE LINE
- EXISTING TREE TO REMAIN

EXISTING TREES

SPECIES	8"	9"	10"	12"	13"	14"	15"	16"	18"	20"	22"	23"	24"	25"	28"	30"	36"	40"	TOTAL
Apple	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Ash	6	0	3	19	0	0	1	0	0	5	1	0	0	0	0	0	0	0	35
Birch	0	0	2	2	0	2	1	1	3	0	0	0	0	0	0	0	0	0	11
Cherry	8	0	7	12	1	0	5	0	1	0	0	0	0	0	0	0	0	0	34
Chestnut	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Cottonwood	1	0	2	1	0	0	0	0	0	3	0	1	3	0	0	0	0	0	11
Hickory	11	1	5	27	0	0	8	0	9	11	0	0	6	0	0	0	0	0	78
Locust	2	0	8	11	2	7	1	1	5	5	0	0	6	0	1	0	1	1	51
Maple	31	30	44	81	0	20	14	8	29	17	3	0	10	1	0	2	1	0	291
Oak	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	3
Poplar	0	0	0	1	0	0	2	0	0	1	0	0	0	0	0	0	0	0	4
Sycamore	0	0	0	15	0	0	0	3	0	5	0	0	0	0	0	0	0	0	23
Walnut	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Willow	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2

TREES TO BE REMOVED

Apple	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Ash	4	0	1	7	0	0	0	0	0	1	0	0	0	0	0	0	0	13
Birch	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Cherry	5	0	7	2	1	0	2	0	0	0	0	0	0	0	0	0	0	17
Chestnut	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cottonwood	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	4
Hickory	3	0	1	10	0	0	0	0	2	2	0	0	3	0	0	0	0	21
Locust	2	0	4	7	2	3	0	0	1	6	0	0	3	0	0	0	1	0	29
Maple	16	5	11	30	0	11	4	0	19	3	0	0	4	0	0	0	0	0	103
Oak	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Poplar	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3
Sycamore	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walnut	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Willow	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TREES TO BE PRESERVED

Apple	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ash	2	0	2	12	0	0	1	0	0	5	1	0	0	0	0	0	0	23
Birch	0	0	2	2	0	2	1	0	3	0	0	0	0	0	0	0	0	10
Cherry	3	0	0	10	1	0	3	0	1	0	0	0	0	0	0	0	0	18
Chestnut	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Cottonwood	0	0	2	1	0	0	0	0	0	3	0	1	0	0	0	0	0	7
Hickory	8	1	4	17	0	0	8	0	7	9	0	0	3	0	0	0	0	57
Locust	0	0	4	4	0	4	1	1	4	0	0	0	3	0	1	0	0	1	23
Maple	14	25	34	51	0	9	10	8	11	14	3	0	6	1	0	2	1	0	189
Oak	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2
Poplar	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Sycamore	0	0	0	15	0	0	0	3	0	5	0	0	0	0	0	0	0	0	23
Walnut	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Willow	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2

TREE CLEARING NOTES:

1. IMPLEMENTING TREE CLEARING FOR SITE ACTIVITIES DURING TIME FRAMES WHEN BATS ARE NOT RESIDENT ON THE SITE. OCTOBER 1–MARCH 31 OR UNLESS APPROVED BY THE NYSDEC OUTSIDE THIS TIME FRAME.
2. PRIOR TO CLEARING, THE LIMITS OF PROPOSED CLEARING WILL BE CLEARLY DEMARCATED ON THE SITE WITH ORANGE CONSTRUCTION FENCING OR SIMILAR TO PREVENT INADVERTENT OVERCLEARING OF THE SITE SINCE ABOUT 2.3 ACRES OF THE FORESTED HABITAT WILL REMAIN.

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rev.	date	description
3	10/05/21	REVISED FOR PLANNING BOARD SUBMISSION
2	8/31/21	REVISED FOR PLANNING BOARD SUBMISSION
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

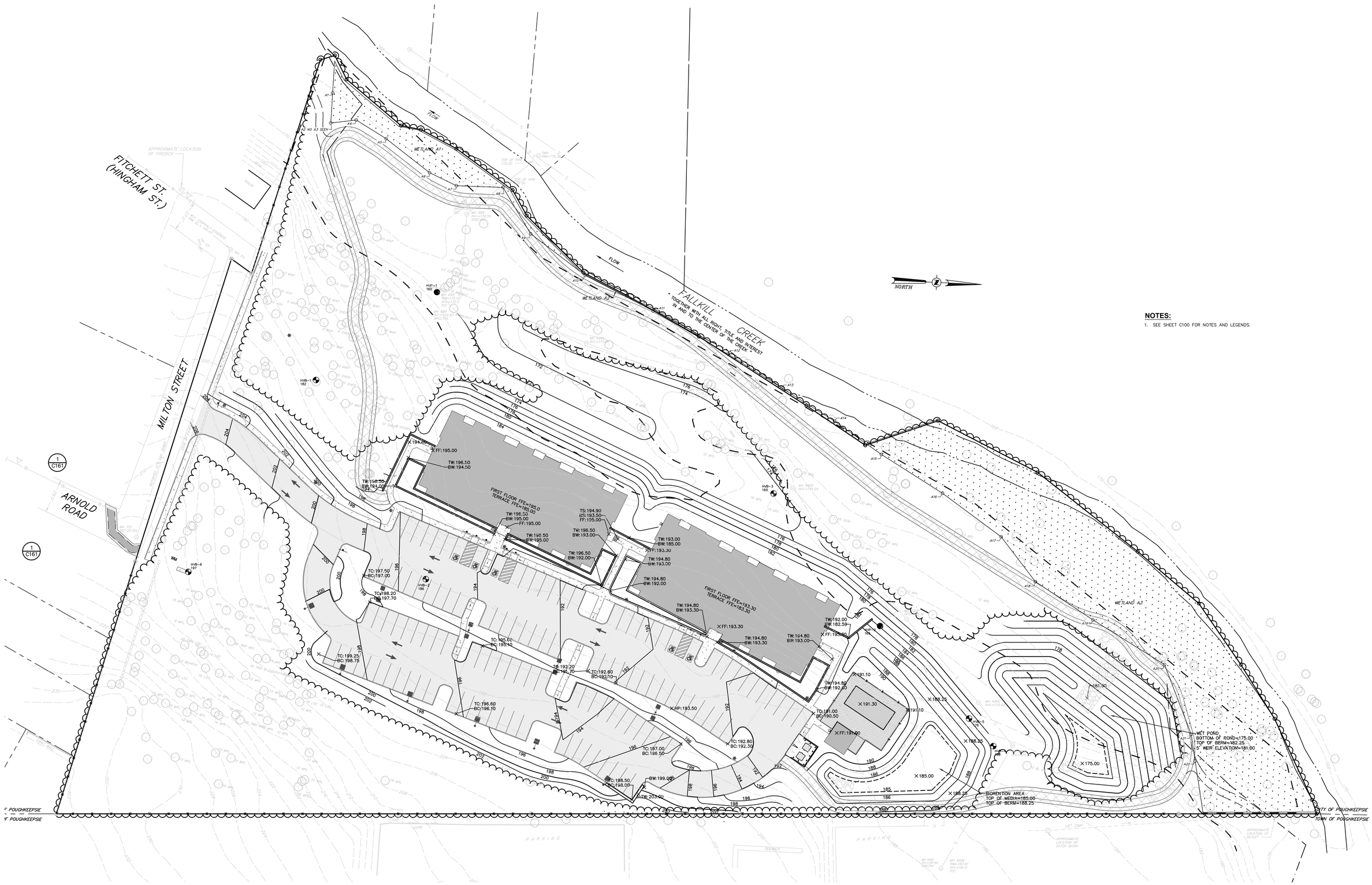
DEMOLITION & TREE REMOVAL PLAN

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
TL	LB
date	scale
05/25/21	1" = 30'
project no.	
81947.00	
sheet no.	
C120	

Drawing Name: Z:\projects\81900-81999\81947.00 – Highview II\DWG\01_C120_81947_DEMO&TREE REMOVAL PLAN.dwg
Xref's Attached: XBASE-ENG_81947; XLAYOUT_81947; XBASE-ENG_81947-00; XTB_30X42_81947
Date Printed: Oct 05, 2021, 4:13pm

POSSIBLE FUTURE GREENWAY TRAIL EASEMENT
FLOW
WETLAND A1
WOODLAND PATH
ACOE/FEDERAL WETLAND 'A1' 0.089 ACRE
FLOOD PLAIN BOUNDARY LINE (TYP.)
ACOE/FEDERAL WETLAND 'A2' 0.001 ACRE
FALLKILL CREEK
TOGETHER WITH ALL RIGHT, TITLE AND INTEREST IN AND TO THE CENTER OF THE CREEK
NORTH
FITCHETT ST. (HINGHAM ST.)
APPROXIMATE LOCATION OF FIREBOX
MILTON STREET
CAST IN PLACE CONCRETE CURB AT SIDEWALK (TYP.)
USABLE OPEN SPACE 22,100 SF
STOP SIGN (TYP)
PROPOSED EDGE OF WOODS (TYP)
MIN. REQUIRED FRONT YARD SETBACK
208.9'
DIRECTIONAL ARROW (TYP)
LIGHT POLE (SEE SHEET C190)
BUILDING 100
RESIDENTIAL APARTMENTS
32 UNITS
3 STORIES
(3 STORIES FRONT / 1 REAR/ REAR WALKOUT)
165 FT.
PEDESTRIAN RAMP SECTION – DROP CURB
CAST IN PLACE CONCRETE WALK AT BUILDING ENTRANCE (TYP)
MIN. REQUIRED SIDE YARD SETBACK
145.7'
50.0' REQUIRED BUFFER (PRD) 19-3.18(4)(H)
FLOOD PLAIN BOUNDARY LINE (TYP.)
35.0'
ACCESSIBLE PARKING SIGN (TYP)
BUILDING 200
RESIDENTIAL APARTMENTS
31 UNITS
3 STORIES
(3 STORIES FRONT / 1 REAR/ REAR WALKOUT)
192 FT.
ACOE/FEDERAL WETLAND 'A3' 0.686 ACRE
WETLAND A3
MIN. REQUIRED REAR YARD (15% OF LOT DEPTH)
ARNOLD ROAD
TRENCH AND PAVEMENT REPLACEMENT
END OF CURB
50.0' REQUIRED BUFFER (PRD) 19-3.18(4)(H)
PAVEMENT SECTION (TYP)
PAVEMENT STRIPING (TYP)
RETAINING WALL (TYP)
PROPOSED TREELINE (TYP)
CAST IN PLACE CONCRETE CURB (TYP)
CAST IN PLACE CONCRETE SIDEWALK (TYP)
CROSSWALK PAVEMENT STRIPING
PEDESTRIAN RAMP SECTION – DROP CURB
POOL
40x13 SF
POOL HOUSE
WOODLAND PATH
MIN. REQUIRED SIDE YARD SETBACK
50.0' REQUIRED BUFFER (PRD) 19-3.18(4)(H)
RETAINING WALL (TYP)
DUMPSTER ENCLOSURE (TYP)
POSSIBLE FUTURE GREENWAY TRAIL EASEMENT
CITY OF POUGHKEEPSIE
TOWN OF POUGHKEEPSIE
PARKING
18" CMP
APPROXIMATE LOCATION OF CATCH BASIN
APPROXIMATE LOCATION OF OUTLET
MH: ESE RIM=187.61 INV=181.0 TEC
MH: ESE RIM=180.56 INV=174.56 CMP
MH: ESE RIM=170.60
MH: SWR RIM=172.55 INV=167.55
MH: SWR RIM=172.53 INV=167.53
MH: SWR RIM=172.51 INV=167.51
MH: SWR RIM=172.55 INV=167.55
MH: SWR RIM=172.55 INV=167.55
MH: SWR RIM=172.55 INV=167.55



NOTES:

1. SEE SHEET C100 FOR NOTES AND LEGENDS.

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rev.	date	description
2	8/31/21	REVISED FOR PLANNING BOARD SUBMISSION
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

GRADING PLAN

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
TL	LB
date	scale
05/25/21	1" = 30'
project no.	
81947.00	
sheet no.	
C140	

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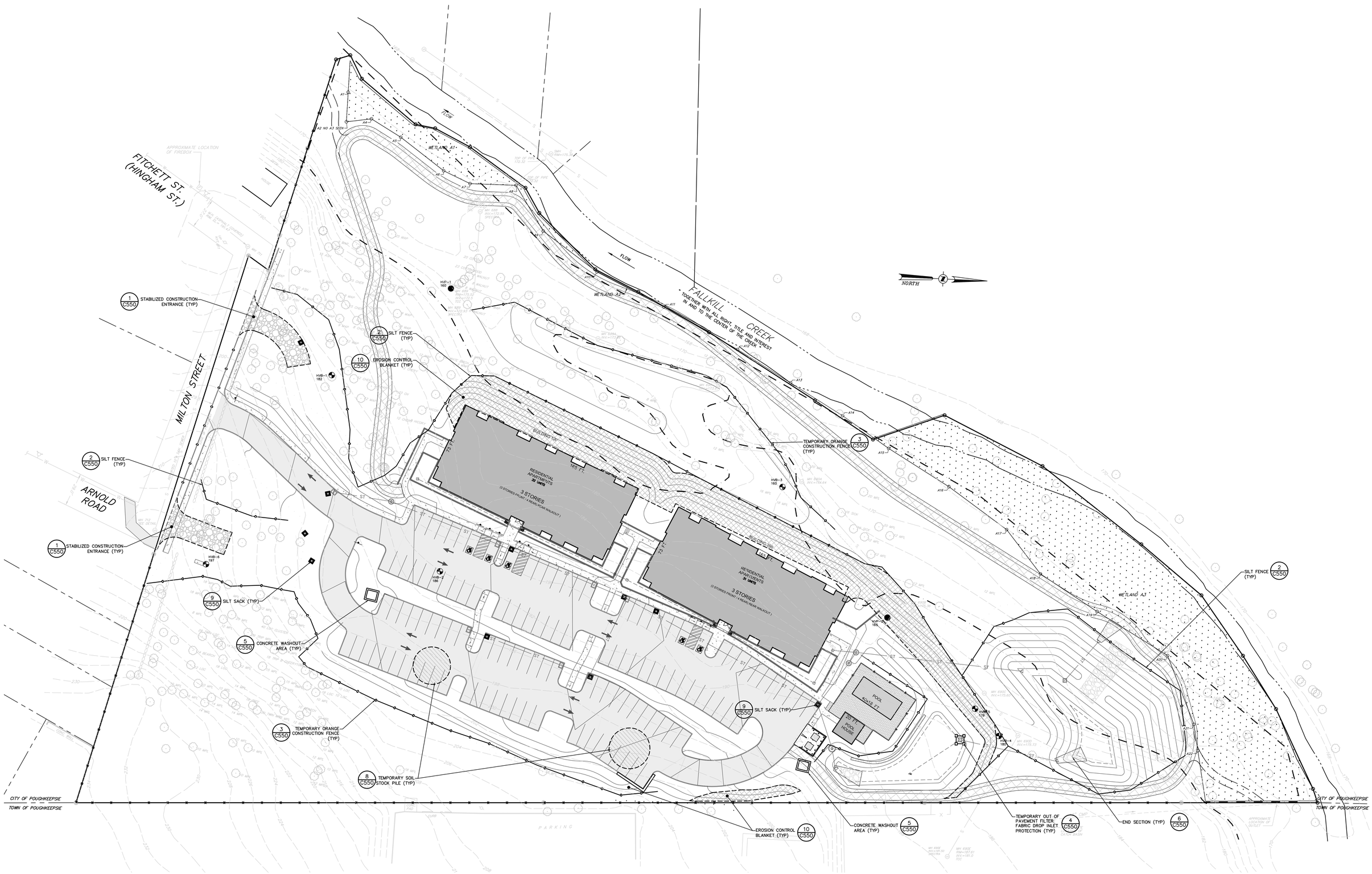
Xrefs Attached: XTB_30X42_81947; XLAYOUT_81947; XGRADING_81947; XEROS_81947; XBASE-ENG_81947; XBASE-ENG-WETLAND_81947-00
Date Printed: Oct 05, 2021, 4:13pm



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2	8/31/21	REVISED FOR PLANNING BOARD SUBMISSION
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

EROSION AND SEDIMENT CONTROL PLAN

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
LTN	LB
date	scale
05/25/21	1" = 30'
project no.	
81947.00	
sheet no.	
C150	

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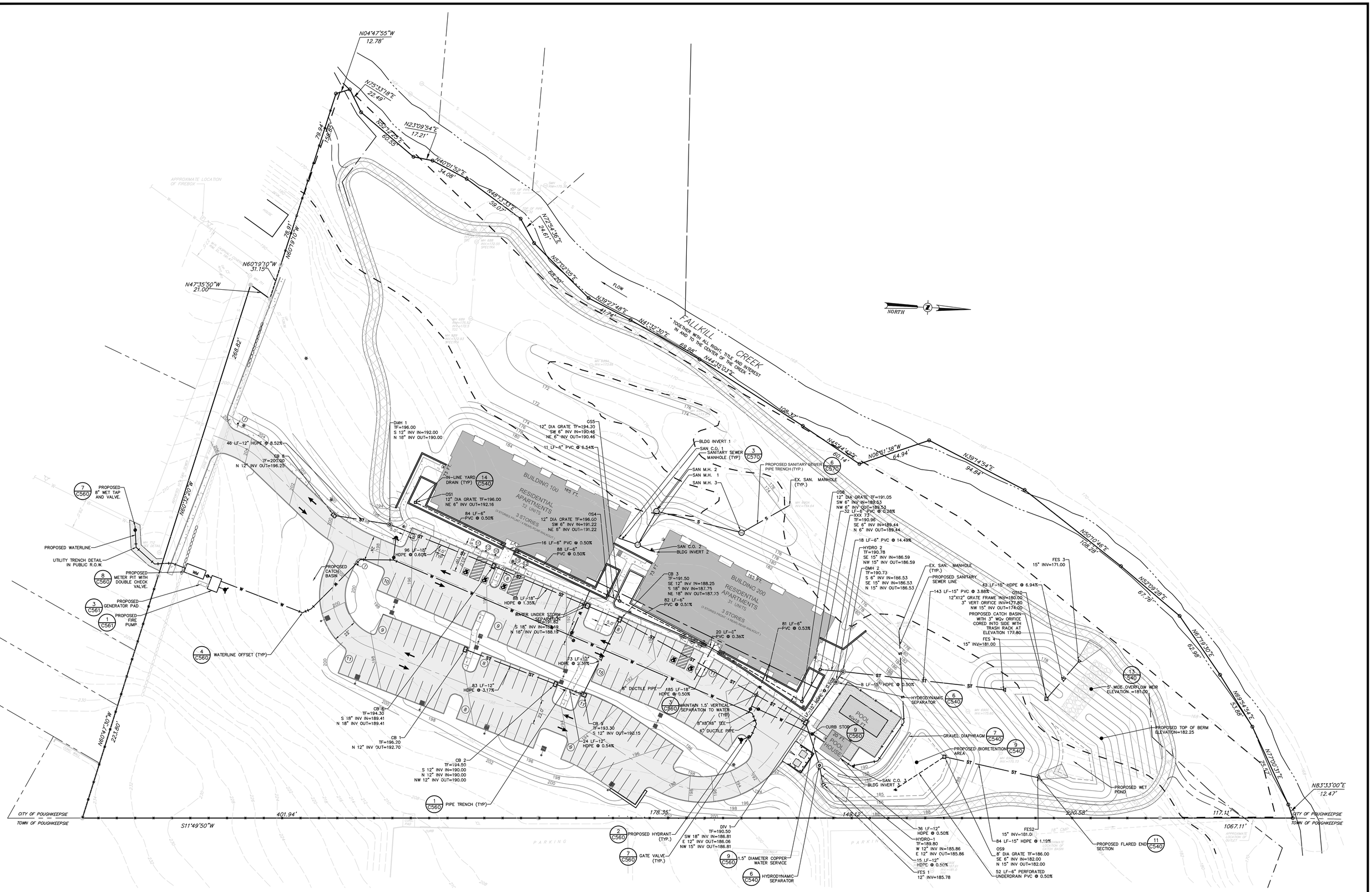
Date Printed: Oct 05, 2021, 4:16pm



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3	10/05/21	REVISE FOR PLANNING BOARD SUBMISSION
2	8/31/21	REVISED FOR PLANNING BOARD SUBMISSION
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

UTILITY PLAN

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
TL	LB
date	scale
05/25/21	1"=30'
project no.	
81947.00	
sheet no.	
C160	

Drawing Name: Z:\projects\81900-81999\81947.00 - Highview II\DWG\01_C160_UTIL_81947-00.dwg
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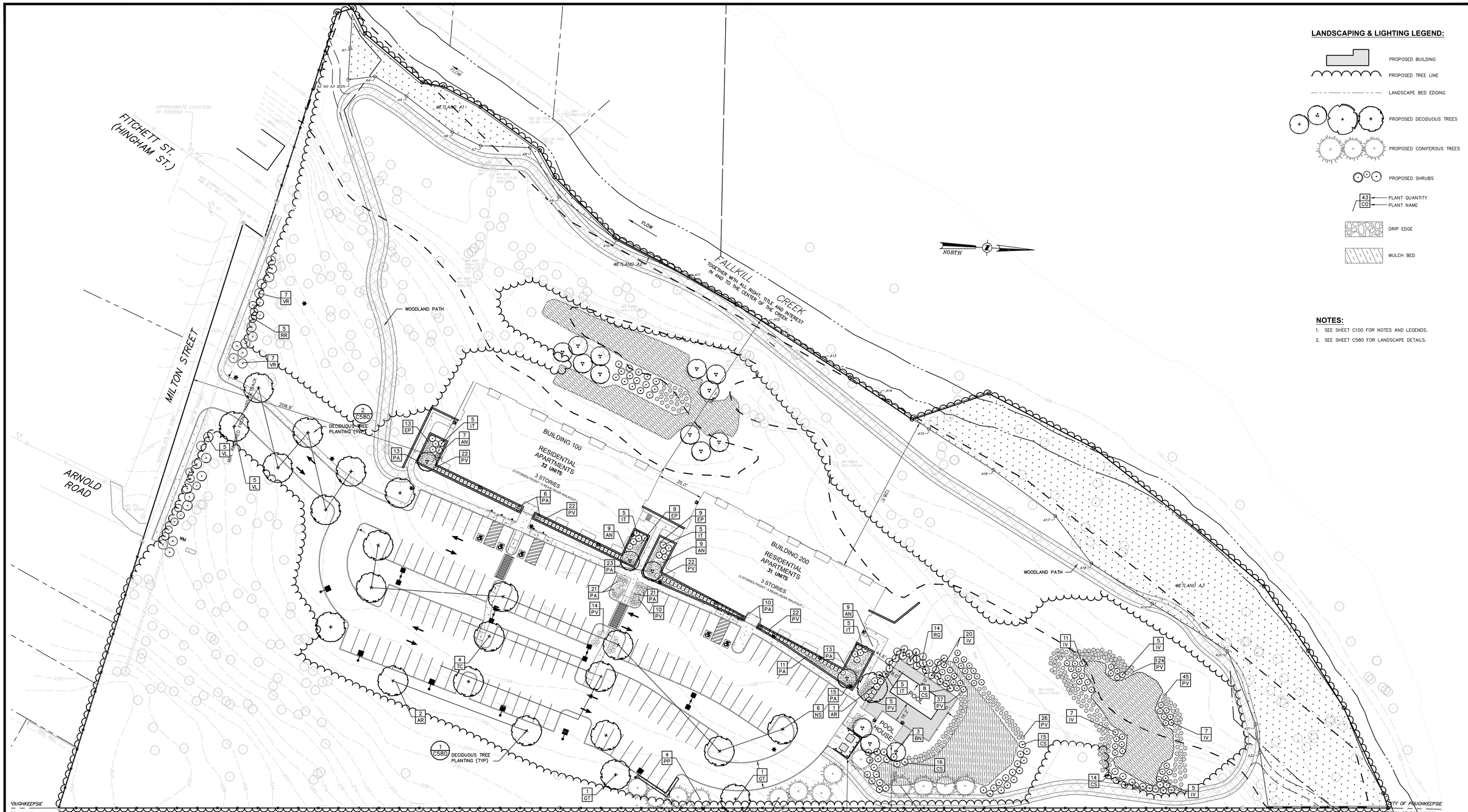

LANDSCAPING & LIGHTING LEGEND:

- PROPOSED BUILDING
- PROPOSED TREE LINE
- LANDSCAPE BED EDGING
- PROPOSED DECIDUOUS TREES
- PROPOSED CONIFEROUS TREES
- PROPOSED SHRUBS
- PLANT QUANTITY / PLANT NAME (e.g. 43 / CO)
- DRIP EDGE
- MULCH BED

NOTES:

1. SEE SHEET C100 FOR NOTES AND LEGENDS.
2. SEE SHEET C580 FOR LANDSCAPE DETAILS.

PLANT LIST

QTY	ABRV	BOTANICAL NAME	COMMON NAME	SIZE	COND	SPACING	REMARKS
TREES							
3	AR	Acer rubrum 'October Glory'	October Glory Red Maple	2 – 2.5" Cal.	B&B	As Shown	
6	BN	Betula nigra 'Heritage'	Heritage River Birch	10–12'	B&B	As Shown	
9	GT	Gleditsia triacanthos inermis	Thornless Honeylocust	3" – 3.5" Cal.	B&B	As Shown	
6	NS	Nyssa sylvatica	Black Tupelo	3 – 3.5" Cal.	B&B	As Shown	
7	PG	Picea glauca	White Spruce	8' – 10'	B&B	As Shown	
3	PP	Picea pungens glauca	Colorado Blue Spruce	8' – 10'	B&B	As Shown	
4	TC	Tilia cordata 'Greenspire'	Greenspire Linden	3 – 3.5" Cal.	B&B	As Shown	
6	UA	Ulmus americana 'Princeton'	Princeton Elm	3–3.5"	B&B	As Shown	
SHRUBS							
38	CS	Cornus sericea 'Baileyi'	Red Twig Dogwood	#5	cont.	As Shown	
55	IV	Ilex verticillata	Winterberry Holly	#5	cont.	As Shown	
25	IT	Itea virginica	Virginia Sweetspire	#5	cont.	As Shown	
16	RR	Rhododendron 'Roseum Elegans'	Hybrid Pink Rhododendron	30–36"	B&B	As Shown	
16	RG	Rhus aromatica 'Gro Low'	Grow Low Sumac	#5	cont.	As Shown	
13	VL	Viburnum lentago	Nannyberry Viburnum	3–4'	B&B	As Shown	
7	UA	Viburnum rhytidophyllum	Leatherleaf Viburnum	3–4'	B&B	As Shown	
PERENNIALS/GRASSES							
138	PA	Pennisetum alopecuroides	Dwarf Fountain Grass	#2	cont.	As Shown	
325	PV	Panicum virgatum	Switchgrass	#2	cont.	As Shown	
34	VL	Aster novae–angliae	New England Aster	#2	cont.	As Shown	
31	EP	Purple Coneflower	Echinacea purpurea	#2	cont.	As Shown	

SOIL RESTORATION NOTES:

IN AREAS WHERE SOIL DISTURBANCE HAS OCCURRED OUTSIDE OF BUILDINGS AND PAVEMENT AREAS, THE DISTURBED SUB–SOILS SHALL BE RETURNED TO ROUGH GRADE AND THE FOLLOWING SOILS RESTORATION STEPS APPLIED:

1) APPLY THREE INCHES OF COMPOST OVER SOIL. COMPOST SHALL BE AGED, FROM PLANT DERIVED MATERIALS, FREE OF VIABLE WEED SEEDS, HAVE NO VISIBLE FREE WATER OR DUST PRODUCED WHEN HANDLING, PASS THROUGH A HALF INCH SCREEN AND HAVE A PH SUITABLE TO GROW DESIRED PLANTS.
2) TILL COMPOST INTO THE SUBSOIL TO A DEPTH OF AT LEAST 12–INCHES USING A CAT–MOUNTED RIPPER, TRACTOR MOUNTED DISC, OR TILLER, MIXING AND CIRCULATING AIR AND COMPOST INTO SUB–SOILS.
3) ROCK–PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF FOUR INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE.
4) APPLY TOPSOIL TO A DEPTH OF SIX INCHES.

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rev.	date	description
4	10/04/21	REVISED FOR PLANNING BOARD SUBMISSION
3	9/14/21	REVISED FOR ZONING BOARD OF APPEALS
2	8/31/21	REVISED FOR PLANNING BOARD SUBMISSION
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

LANDSCAPE PLAN

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
TL	LB
date	scale
05/25/21	1"=30'
project no.	
81947.00	
sheet no.	
C180	

0 1 2 3
ORIGINAL SCALE IN INCHES

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Xref's Attached: XLAYOUT_81947; XLANDSCAPE_81947; XTB_30X42_81947; XBASE-ENG_81947; XBASE-ENG-WETLAND_81947-00; XGRADING_81947
Date Printed: Oct 05, 2021, 4:14pm

PHOTOMETRIC LEGEND:

- PROPERTY LINE
- BUILDING
- FOOT CANDLE TICK MARKS (×1.2)
- PHOTOMETRIC CONTOUR
- LIGHT POLE
- LIGHT WALL PACK
- POST AND LUMINAIRE

ABBREVIATIONS:

W	WALL MOUNTED
LP	LIGHT POLE – ARM MOUNTED
PT	POST TOP

LIGHTING NOTES:

1. GRID NUMBERS SHOWN REPRESENT FOOTCANDLE VALUES AT GROUND PLANE.
2. THE LIGHTING FIXTURES, SURFACE LOCATIONS AND ASSOCIATED PHOTOMETRIC VALUES ARE IDENTIFIED BY TCC. DETAILED DESIGN OF THE LIGHTING SPECIFICATIONS, FOUNDATION DESIGN, LIGHTING CONDUIT, WIRING, AND CONTROL CIRCUITRY SHALL BE BY OTHERS.
3. IF DISCREPENCIES EXIST BETWEEN THE LIGHTING SCHEDULE AND LIGHTING PLAN, THE PLAN SHALL DICTATE.

LIGHTING SCHEDULE

Label	Mounting Height	QTY	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens per Lamp	LLF	Wattage	Efficiency	Notes
W-T2	10 ft.	2	HUBBELL OUTDOOR LIGHTING	TRP1-12L1S-3K7-2	GeoPak Size 1		1	TRP1-12L1S-3K7-2.IES	1497	0.92	13.9	100%	
W-T3	10 ft.	2	HUBBELL OUTDOOR LIGHTING	TRP1-12L1S-3K7-3	GeoPak Size 1		1	TRP1-12L1S-3K7-3.IES	1478	0.92	13.9	100%	
W-T4	10 ft.	6	HUBBELL OUTDOOR LIGHTING	TRP1-12L1S-3K7-4	GeoPak Size 1		1	TRP1-12L1S-3K7-4.IES	1471	0.92	13.9	100%	
PT-Y2	12 ft.	3	ARCHITECTURAL AREA LIGHTING	ALN445-Y2-32LED-3K-SBL-700	TOWNE COMMONS - ALN445 ONE PIECE SAND BLASTED LENS.	C-70-CRI DATA SHOWN IS	1	ALN445-Y2-32LED-3K-SBL-700.ies	5015	0.93	74.8	100%	
PT-Y3	12 ft.	4	ARCHITECTURAL AREA LIGHTING	ALN445-Y3-32LED-3K-SBL-700	TOWNE COMMONS - ALN445 ONE PIECE SAND BLASTED LENS.	C-70-CRI DATA SHOWN IS	1	ALN445-Y3-32LED-3K-SBL-700.ies	4829	0.93	74.9	100%	
PT-Y5	12 ft.	4	ARCHITECTURAL AREA LIGHTING	ALN445-Y5-32LED-3K-SBL-700	TOWNE COMMONS - ALN445 ONE PIECE SAND BLASTED LENS.	C-70-CRI DATA SHOWN IS	1	ALN445-Y5-32LED-3K-SBL-700.ies	4771	0.93	74	100%	
(LP 1)-R2-530-L2	20 ft.	4	Selux Corporation	DSC4Lx-R2-5G530-30-XX-XX-UNV			1	DSC4Lx-R2-XX-5G530-30-XX-XX-UNV.ies	4854	0.94	94	100%	
(LP 2)-R2-350_HS	16 ft.	6	Selux Corporation	DSC4Lx-R2-5G350-30-XX-XX-UNV-HS	WITH HOUSE-SIDE SHIELD		1	DSC4Lx-R2-XX-5G350-30-XX-XX-UNV-HS.ies	2349	0.94	32	100%	

1 C190 **PHOTOMETRIC LIGHTING PLAN**
SCALE: 1"=30'

2 C190 **POST-TOP LIGHT FIXTURE DETAIL**
SCALE: NTS

NOTES:

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
2. ALL EXCAVATIONS SHALL BE BACKFILLED WITH STRUCTURAL FILL AND COMPACTED TO 95% OF MAXIMUM MATERIAL DENSITY.
3. ELECTRICAL POWER SUPPLY, WIRE, AND CONDUIT BY OTHERS.

SINGLE MOUNT

TWIN MOUNT AT 180 d

NOTES:

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
2. ALL EXCAVATIONS SHALL BE BACKFILLED WITH STRUCTURAL FILL AND COMPACTED TO 95% OF MAXIMUM MATERIAL DENSITY.
3. ELECTRICAL POWER SUPPLY, WIRE, AND CONDUIT BY OTHERS.

3 C190 **PEDESTRIAN SCALE LIGHTING FIXTURE DETAIL**
SCALE: N.T.S.

SIDE VIEW FRONT VIEW

MANUFACTURER: HUBBELL LIGHTING
MODEL: GEO–PAK SIZE 1
LED, CERTIFIED IDA DARK SKY FRIENDLY
0–10V DIMMING DRIVER STANDARD. PHOTOCELL AND OCCUPANCY SENSOR OPTIONS AVAILABLE FOR COMPLETE ON/OFF AND DIMMING CONTROL.

4 C190 **WALL-MOUNTED LIGHT FIXTURE DETAIL**
SCALE: NTS

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0 1 2 3
ORIGINAL SCALE IN INCHES

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○ Troy, NY
● Poughkeepsie, NY
○ White Plains, NY
○ New York City, NY

rev.	date	description
2	8/31/21	REVISED FOR PLANNING BOARD SUBMISSION
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

PHOTOMETRIC LIGHTING PLAN

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
SMD	LB
date	scale
05/25/21	1"=30'
project no.	
81947.00	
sheet no.	
C190	

Drawing Name: Z:\projects\81900–81999\81947.00 – Highview II\DWG\01_C190_81747–00_PHOTOMTRIC.dwg
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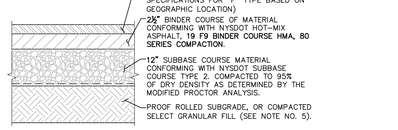
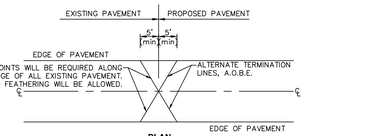
Date Printed: Oct 05, 2021, 4:15pm

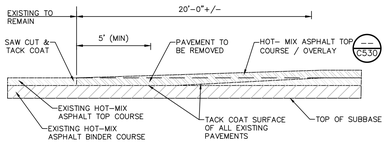


NOTES:
1. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED **"CURRENT VERSION"**, AND ALL ADDENDA THERE TO.
2. SUBBASE MATERIAL SHALL CONFORM WITH **SECTION 304** – SUBBASE COURSE OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND THE TYPE CALLED OUT IN THESE DRAWINGS.
3. HOT MIX ASPHALT (HMA) PAVEMENT SHALL CONFORM WITH **SECTION 400**–HOT MIX ASPHALT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND THE TYPE CALLED OUT IN THESE DRAWINGS. ALTHOUGH **SECTION 400** IN ITS ENTIRETY IS REFERENCED, THE HOT MIX ASPHALT (HMA) PAVEMENT(S) SPECIFIED FOR THIS CONTRACT SHALL BE AS SPECIFIED UNDER **SECTION 402**–HOT MIX ASPHALT (HMA) PAVEMENTS.
4. TACK COAT WHEN SPECIFIED OR CALLED OUT IN THESE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATIONS SHALL CONFORM WITH **SECTION 407**–TACK COAT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
5. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSES OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMANCE WITH **SECTION 203**– EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
6. PAVEMENT SECTION SHOWN IS PRELIMINARY. PRIOR TO BIDDING AND COMMENCEMENT OF CONSTRUCTION, THE FINAL DESIGN OF THE PAVEMENT SECTION MUST BE PREPARED BY A NYS LICENSED PROFESSIONAL ENGINEER AND MUST BE BASED ON A CURRENT GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT.

1 PAVEMENT SECTION DETAIL
SCALE: NOT TO SCALE

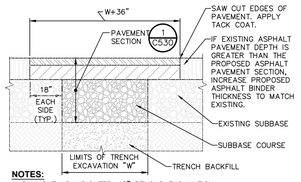


PLAN



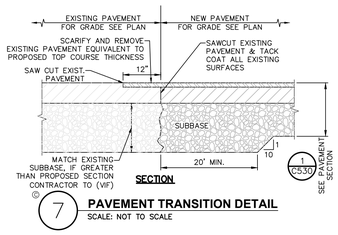
SECTION

5 PAVEMENT OVERLAY TRANSITION DETAIL
SCALE: NOT TO SCALE



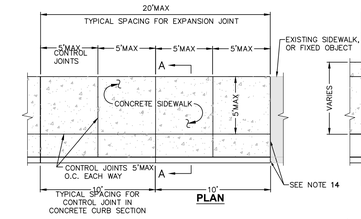
NOTES:
1. SAW CUT AS INDICATED, 18" BEYOND EXCAVATION.
2. FURNISH, PLACE, AND COMPACT SUBBASE.
3. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.
4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.

6 TRENCH SURFACE RESTORATION IN ASPHALT PAVEMENT
SCALE: NOT TO SCALE

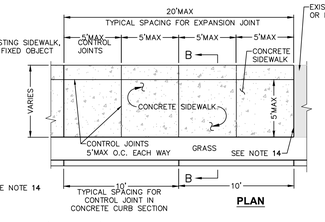


SECTION

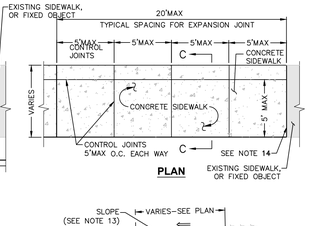
7 PAVEMENT TRANSITION DETAIL
SCALE: NOT TO SCALE



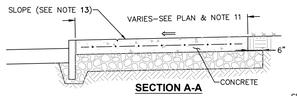
PLAN



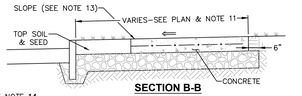
PLAN



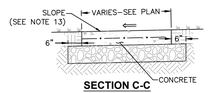
PLAN



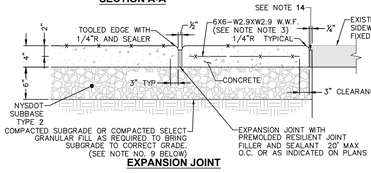
SECTION A-A



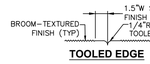
SECTION B-B



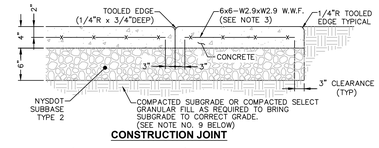
SECTION C-C



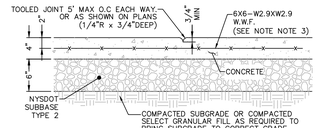
EXPANSION JOINT



TOOLED EDGE



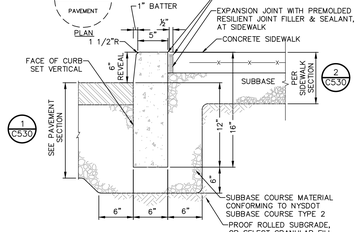
CONSTRUCTION JOINT



CONTROL JOINT

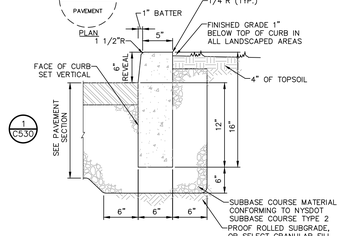
NOTES:
1. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED "CURRENT VERSION", AND ALL ADDENDA THERE TO.
2. ALL CONCRETE SHALL BE **4,500** CONCRETE. CONCRETE MATERIALS, PLACEMENT, AND CONSTRUCTION SHALL CONFORM WITH **SECTION 500** OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
3. REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH SECTION 556 – REINFORCING STEEL FOR CONCRETE STRUCTURES OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND AS SPECIFICALLY CALLED OUT IN THE DRAWINGS.
4. ALL EXPOSED SURFACES SHALL HAVE A BROOM TEXTURED FINISH & TOOLED EDGES. TOOL SHALL PROVIDE MAX 1–1/2" WIDE SMOOTH TROWEL FINISH AT JOINT.
5. EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20' ON CENTER, OR AS INDICATED ON PLANS.
6. JOINTS SHALL NOT BE SAW CUT.
7. EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH **"SUREBOND" 1100 RESIN–BASED, WATER EMULSION CONCRETE CURING COMPOUND,** OR EQUAL. RATE AND METHOD OF APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
8. SUBBASE MATERIAL SHALL CONFORM WITH **SECTION 304** OF THE ABOVE REFERENCED NYSDOT STANDARD.
9. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN ACCORDANCE WITH SECTION 203–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
10. ALL WORK SHALL CONFORM WITH **SECTION 608**–SIDEWALK, DRIVEWAYS, AND BICYCLE PATHS OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
11. ALL WORK SHALL CONFORM WITH AASHTO GEOMETRIC DESIGN OF HIGHWAYS AND STREET 2011, ICC A117.1 2009. OR LATEST EDITION.
12. SIDEWALK WIDTH SHOWN ON THE PLANS IS TO BE MEASURED FROM THE BACK OF THE CURB.
13. SIDEWALKS SHALL HAVE A CROSS SLOPE OF **1.5%** MAX. UNLESS OTHERWISE NOTED ON PLAN.
14. INSTALL EXPANSION JOINT WITH PREMOLDED RESILIENT JOINT FILLER & SEALANT AT ALL EXISTING SIDEWALKS, CURBS, FIXED OBJECTS, ETC., INCLUDING THOSE PLACED ON PREVOUS DAYS.

2 CONCRETE SIDEWALK DETAIL
SCALE: NOT TO SCALE



NOTES
1. CONCRETE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION **SECTION 609.**
2. PRECAST CONCRETE CURB MAY BE SUBSTITUTED, WHEN ALTERNATE CONSTRUCTION DETAILS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. ALTERNATE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT SPEC **SECTION 609.**

8 CAST IN PLACE CONCRETE CURB AT SIDEWALK
SCALE: NOT TO SCALE



NOTES:
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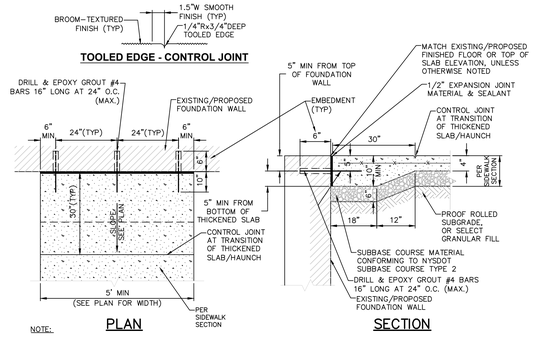
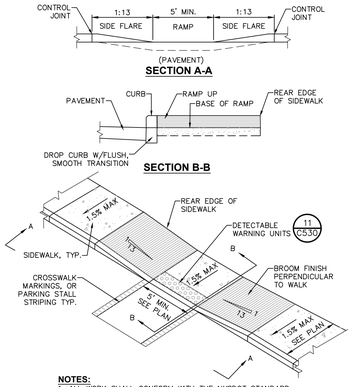
2. PRECAST CONCRETE CURB MAY BE SUBSTITUTED, WHEN ALTERNATE CONSTRUCTION DETAILS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. ALTERNATE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT SPEC **SECTION 609.**

9 CAST IN PLACE CONCRETE CURB
SCALE: NOT TO SCALE



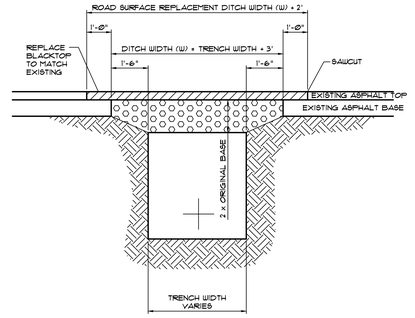
NOTE:
1. THICKENED (HAUNCH) & ADDITIONALLY REINFORCED CONCRETE SIDEWALK ENDS ARE REQUIRED AT ALL EXISTING/PROPOSED BUILDING ENTRANCES.
2. SEE CONCRETE SIDEWALK DETAIL FOR ADDITIONAL DETAILS & NOTES.

3 CONCRETE SIDEWALK AT BUILDING ENTRANCES
SCALE: NOT TO SCALE

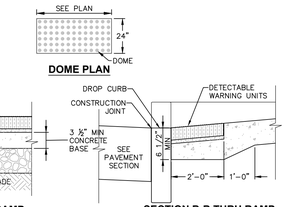


NOTES:
1. ALL WORK SHALL CONFORM WITH THE NYSDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS DATED, **"CURRENT VERSION"**, AND ALL ADDENDA THERE TO; SPECIFICALLY **SECTION 608**– SIDEWALKS, DRIVEWAYS, AND BICYCLE PATHS.
2. SLOPE RAMP AND SIDE FLARES AS INDICATED IN THE PLANS OR AS ORDERED BY THE ENGINEER.
3. DETECTABLE WARNING UNITS SHALL BE PROVIDED ON ALL RAMPS IN ACCORDANCE W/ ADA REQUIREMENTS.

4 PEDESTRIAN RAMP SECTION - DROP CURB
SCALE: NOT TO SCALE



10 CITY OF POUGHKEEPSIE FLEXIBLE PAVEMENT DETAIL AND TRENCHING LIMITS
SCALE: NOT TO SCALE



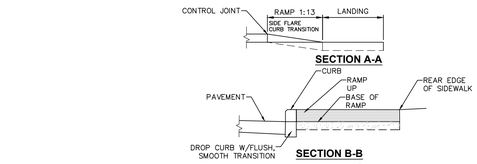
SECTION A-A THRU RAMP

SECTION B-B THRU RAMP

NOTES:
1. COORDINATE W/ OWNER FOR COLOR.
2. DETECTABLE WARNING UNIT SHALL BE ADA COMPLIANT, AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
3. MATERIALS: UNIT SHALL BE 24–INCH DETECTABLE WARNING ADA PAVERS, DOME STRAIGHT ROW SPACING PATTERN ADA–2 OR ADA–3, ADA COMPLIANT WARNING PAVER AS MANUFACTURED BY WAUSAU TILE OR CAST IRON, CAST IN PLACE ADA COMPLIANT WARNING PLATE A MANUFACTURED BY TUFTILE OR EQUAL.

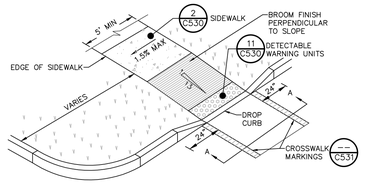
ALTERNATIVE NOTE 3, SEE SPECIFICATION SECTION 3XXXXXX FOR DETECTABLE WARNING ADA PAVERS.

11 DETECTABLE WARNING UNITS FOR RAMPS
SCALE: NOT TO SCALE



NOTES:
1. ALL WORK SHALL CONFORM WITH THE NYSDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS DATED, **"CURRENT VERSION"**, AND ALL ADDENDA THERE TO; SPECIFICALLY **SECTION 608**– SIDEWALKS, DRIVEWAYS, AND BICYCLE PATHS.
2. SLOPE RAMP AND SIDE FLARES AS INDICATED IN THE PLANS OR AS ORDERED BY THE ENGINEER.
3. DETECTABLE WARNING UNITS SHALL BE PROVIDED ON ALL RAMPS IN ACCORDANCE W/ ADA REQUIREMENTS.

12 PEDESTRIAN RAMP SECTION - DROP CURB
SCALE: NOT TO SCALE



NOTES:
1. ALL WORK SHALL CONFORM WITH THE NYSDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS DATED, **"CURRENT VERSION"**, AND ALL ADDENDA THERE TO; SPECIFICALLY **SECTION 608**– SIDEWALKS, DRIVEWAYS, AND BICYCLE PATHS.
2. SLOPE RAMP AND SIDE FLARES AS INDICATED IN THE PLANS OR AS ORDERED BY THE ENGINEER.
3. DETECTABLE WARNING UNITS SHALL BE PROVIDED ON ALL RAMPS IN ACCORDANCE W/ ADA REQUIREMENTS.

13 PEDESTRIAN RAMP SECTION - DROP CURB
SCALE: NOT TO SCALE

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0 1 2 3
ORIGINAL SCALE IN INCHES

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New York City, NY

rev.	date	description
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

SITE DETAILS

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
	LB
date	scale
05/25/21	AS SHOWN
project no.	
81947.00	
sheet no.	
C530	

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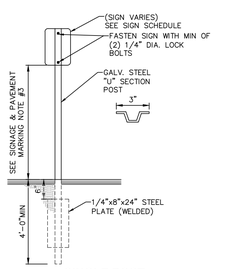
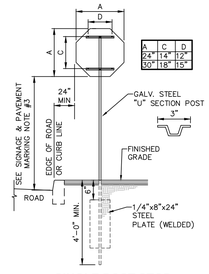


1 **SINGLE POST SIGN MOUNTING DETAIL**
SCALE: NOT TO SCALE



2 **SINGLE POST STOP SIGN MOUNTING DETAIL**
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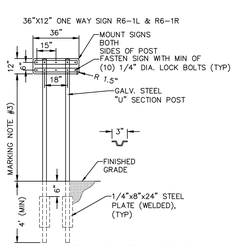

3 **TWO POST ONE WAY SIGN MOUNTING DETAIL**
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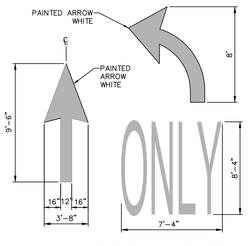
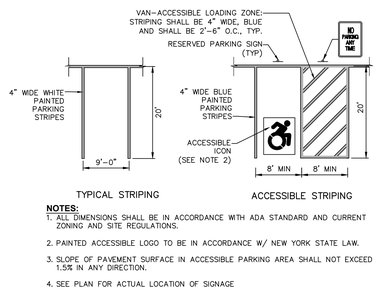
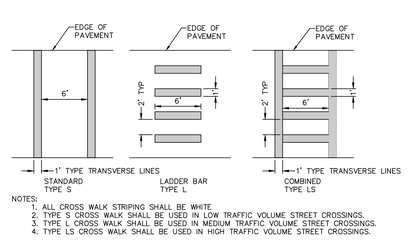


4 **PAVEMENT MARKING DETAIL DIRECTIONAL ARROW**
SCALE: NOT TO SCALE



NOTES:
1. ALL DIMENSIONS SHALL BE IN ACCORDANCE WITH ADA STANDARD AND CURRENT ZONING AND SITE REGULATIONS.
2. PAINTED ACCESSIBLE LOGO TO BE IN ACCORDANCE W/ NEW YORK STATE LAW.
3. SLOPE OF PAVEMENT SURFACE IN ACCESSIBLE PARKING AREA SHALL NOT EXCEED 1.5% IN ANY DIRECTION.
4. SEE PLAN FOR ACTUAL LOCATION OF SIGNAGE

5 **PAVEMENT MARKING DETAIL PARKING STRIPING**
SCALE: NOT TO SCALE



NOTES:
1. ALL CROSS WALK STRIPING SHALL BE WHITE
2. TYPE S CROSS WALK SHALL BE USED IN LOW TRAFFIC VOLUME STREET CROSSINGS.
3. TYPE L CROSS WALK SHALL BE USED IN MEDIUM TRAFFIC VOLUME STREET CROSSINGS.
4. TYPE LS CROSS WALK SHALL BE USED IN HIGH TRAFFIC VOLUME STREET CROSSINGS.

6 **PAVEMENT MARKING DETAIL CROSS WALK STRIPING**
SCALE: NOT TO SCALE

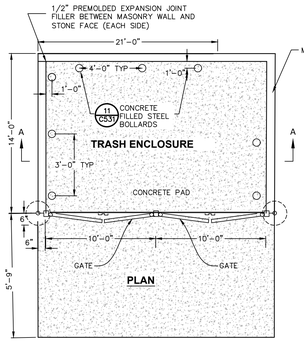
STRIPING NOTES:
1. ALL STRIPING SHALL CONFORM TO THE LATEST EDITION OF THE NYSDOT STANDARD SPECIFICATIONS, **SECTION 640** AND THE "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" – **2009 EDITION** AND THE "NYS SUPPLEMENT."
2. STRIPE PAVEMENT AS INDICATED ON THE PLANS AND/OR IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REQUIREMENTS.
3. STRIPING WORK WILL BE REVIEWED AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION.
4. COLOR: DRIVE LANE DIVIDERS – WHITE OR AOBE
   NO PARKING ZONE WARNINGS – WHITE OR AOBE
   PARKING DIVIDERS – WHITE OR AOBE
   WALKING LINES – WHITE OR AOBE
   ACCESSIBLE PARKING LINES & SYMBOL – BLUE

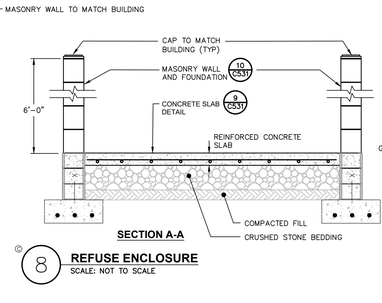
SIGNAGE NOTES:
1. ALL SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE NYSDOT STANDARD SPECIFICATIONS, **SECTION 645** AND THE "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" – **2009 EDITION** AND THE "NYS SUPPLEMENT."
2. SIGN MOUNTING HEIGHT SHALL BE A MINIMUM OF 7' MINIMUM MOUNTING HEIGHT MAY BE ADJUSTED ONLY IN ACCORDANCE WITH PROVISIONS OUTLINED IN THE "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" – **2009 EDITION** AND THE "NYS SUPPLEMENT."
3. SIGN POST SHALL BE IN ACCORDANCE W/ NYSDOT STANDARD SPECS **SECTION 730.**

MUTCD SIGN SCHEDULE

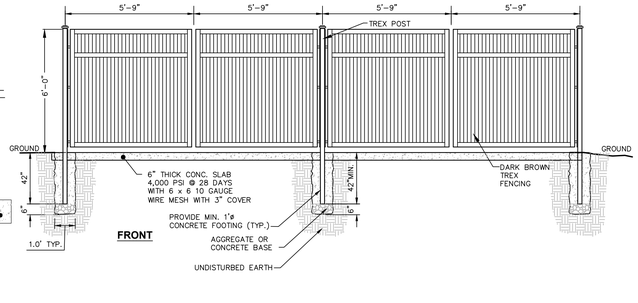
SIGN NO.	SIGN FACE	MUTCD NUMBER	MIN SIZE	COLORS BCK GRND	COLORS LEGEND	MOUNTING
1	STOP	R1-1	30"x30"	RED	WHITE	2 C5.31
4	ONE WAY	R6-1L	36"x12"	BLACK	WHITE	3 C5.31
5	ONE WAY	R6-1R	36"x12"	BLACK	WHITE	3 C5.31
6		W11-2	24"x24"	YELLOW/ FYG	BLACK	1 C5.31
7		W16-7P	24"x12"	YELLOW/ FYG	BLACK	1 C5.31
9	DO NOT ENTER	R5-1	30"x30"	RED	WHITE	1 C5.31
10	RESERVED PARKING	NY R7-8D	12"x18"	WHITE/ BLUE	GREEN/ WHITE	1 C5.31
11	VAN ACCESSIBLE	R7-8P	12"x6"	WHITE	BLUE	1 C5.31
12	NO PARKING ANY TIME	R7-1	12"x18"	WHITE	RED	1 C5.31

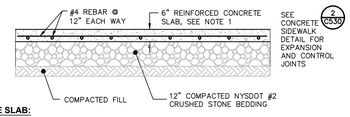
7 **MUTCD SIGN SCHEDULE**
SCALE: NOT TO SCALE





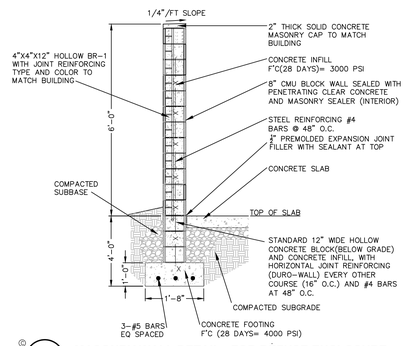
8 **REFUSE ENCLOSURE**
SCALE: NOT TO SCALE





CONCRETE SLAB:
1. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED MAY 1, 2008, AND ALL ADDENDA THERETO.
2. CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 4500 PSI @ 28 DAY AND SHALL BE PLACED IN ACCORDANCE WITH ACI SPECIFICATIONS AND ITS LATEST REVISION.
3. REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH SECTION 556 – REINFORCING STEEL FOR CONCRETE STRUCTURES OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND AS SPECIFICALLY CALLED OUT IN THE DRAWINGS.
4. ALL EXPOSED SURFACES SHALL HAVE A BROOM TEXTURED FINISH & TOOLED EDGES. TOOL SHALL BE PROVIDE MAX 1-1/2" WIDE SMOOTH TROWEL FINISH AT JOINT.
5. EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20' ON CENTER, OR AS INDICATED ON PLANS.
6. CONTROL JOINTS SHALL BE LOCATED A MAXIMUM OF 5' ON CENTER, OR AS INDICATED ON PLANS.
7. JOINTS SHALL NOT BE SAW CUT.
8. EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH "SUREBOND"/"SAFEBOND" SB-7000 INTENSIFIER BRIGHT PROTECTOR AND SIDEWALK SEALER, OR EQUAL. RATE AND METHOD OF APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
9. SUBBASE MATERIAL SHALL CONFORM WITH SECTION 304 OF THE ABOVE REFERENCED NYSDOT STANDARD.
10. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN ACCORDANCE WITH SECTION 203-EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.

9 **CONCRETE SLAB**
SCALE: NOT TO SCALE



10 **MASONRY WALL DETAIL - FOR REFUSE ENCLOSURE**
SCALE: NOT TO SCALE

NOTES
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS WITH A MINIMUM CEMENT CONTENT OF 600 POUNDS PER CUBIC YARD FOR ALL FOOTINGS.
2. ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 3"-5" TO WITHIN A TOLERANCE OF 0"-1".
3. ALL EXPOSED CONCRETE SHALL BE 5% AIR-ENTRAINED (WITHIN 1% TOLERANCES) CONFORMING TO ASTM C260.
4. ALL FORMWORK AND PLACEMENT OF CONCRETE SHALL COMPLY WITH GOOD CONSTRUCTION PRACTICES AND BE IN ACCORDANCE WITH GOVERNING CODES, AND REGULATIONS.

11 **BOLLARD DETAIL - FOR REFUSE ENCLOSURE**
SCALE: NOT TO SCALE

0 1 2 3
ORIGINAL SCALE IN INCHES

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rev.	date	description
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

SITE DETAILS

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
	LB
date	scale
05/25/21	AS SHOWN
project no.	
81947.00	
sheet no.	
C531	

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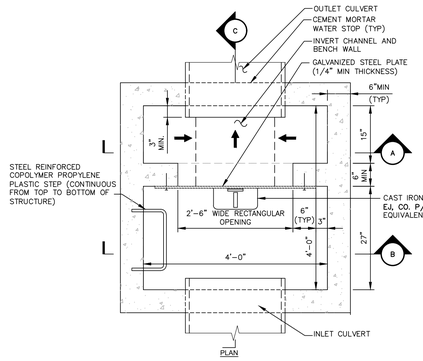
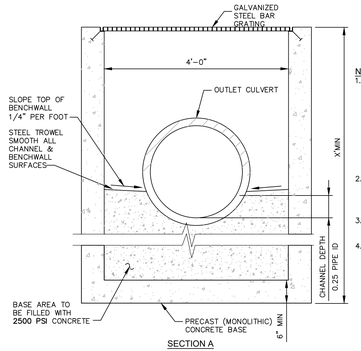




NOTES:
1. OUTLET CONTROL STRUCTURE SHALL BE PRECAST REINFORCED CONCRETE AS MANUFACTURED BY **FORT MILLER** CO. OR APPROVED EQUIVALENT. REINFORCEMENT FOR OUTLET CONTROL STRUCTURE SHALL BE DESIGNED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW. STRUCTURE SHALL BE DESIGNED FOR HS20–44 VEHICULAR LOADING PLUS 25% IMPACT.
2. OUTLET CONTROL STRUCTURES HAVING A DEPTH GRATER THAN 48" FROM FINISHED SURFACE TO THE TOP OF THE CONCRETE BASE SHALL BE PROVIDED WITH STEPS.
3. BACKFILL USING EMBANKMENT FILL, COMPACTED IN 8" LIFTS.
4. CONTRACTOR TO PROVIDE PADLOCKS & KEYS(KEYED ALIKE) FOR ALL STORM WATER MANAGEMENT BASIN OUTLET CONTROL STRUCTURES INSTALLED ON THIS PROJECT. CONTRACTOR MAY SUBMIT ALTERNATE CONFIGURATION FOR LOCKING GRATE.

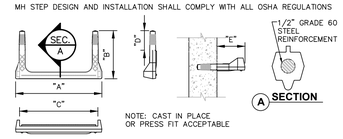
SECTION A

ACCEPTABLE MANHOLE STEPS

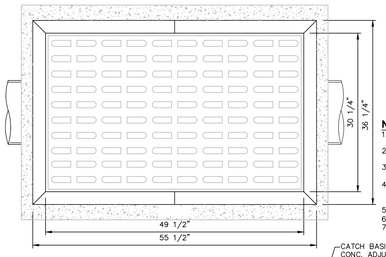
MANUFACTURER	PATTERN NUMBER	"A" STEP WIDTH	"B" LEG LENGTH	"C" RUNG CLEAR	"D" EMBED-MENT	"E" RUNG CLEAR
M.A. INDUSTRIES INC*	PS2-PF	14 3/4	9 1/4	13 3/4	3 3/8	5 7/8
M.A. INDUSTRIES INC*	PS2-PFS	14 3/4	8 1/4	13 3/4	3 3/8	4 7/8

* OR EQUIVALENT

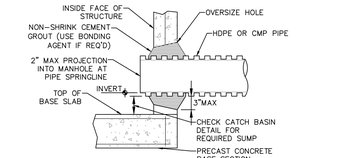
MH STEP DESIGN AND INSTALLATION SHALL COMPLY WITH ALL OSHA REGULATIONS



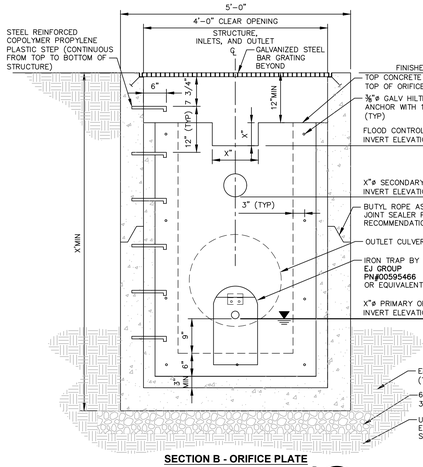
2 **COPOLYMER POLYPROPYLENE MH STEP**
SCALE: NOT TO SCALE



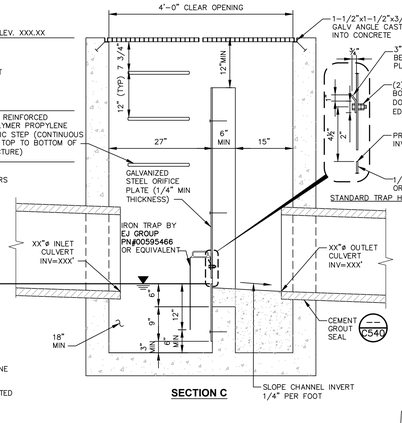
NOTES:
1. CATCH BASIN SHALL BE PRECAST CONCRETE. DESIGNED FOR HS20–44 VEHICULAR LOADING AND 25% IMPACT.
2. FRAME AND COVER SHALL BE DESIGNED FOR HS20–44 VEHICULAR LOADING & 25% IMPACT.
3. CONCRETE CATCH BASIN CASTING CLEAR OPENING DIMENSION MUST MATCH FRAME AND GRATE CLEAR OPENING DIMENSION.
4. CATCH BASINS HAVING A DEPTH GREATER THAN 48" FROM FINISHED SURFACE TO THE TOP OF THE CONCRETE BASE SHALL BE PROVIDED WITH STEPS.
5. BACKFILL USING TRENCH BACKFILL, COMPACTED IN 6" LIFTS.
6. SUMPS FOR CATCH BASINS SHALL BE 12".
7. EJ GROUP GRATE & FRAME PN#00758535A01 OR EQUIVALENT.



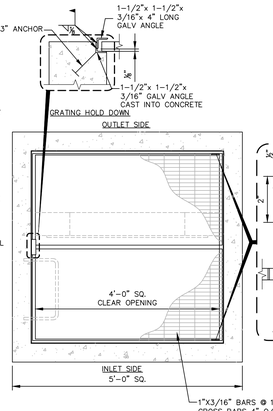
4 **PIPE CONNECTION TO DRAINAGE STRUCTURE-CMP OR HDPE CEMENT GROUT SEAL JOINT**
SCALE: NOT TO SCALE



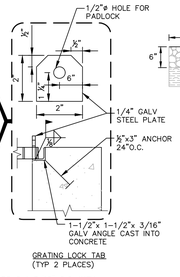
SECTION B - ORIFICE PLATE

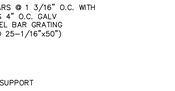


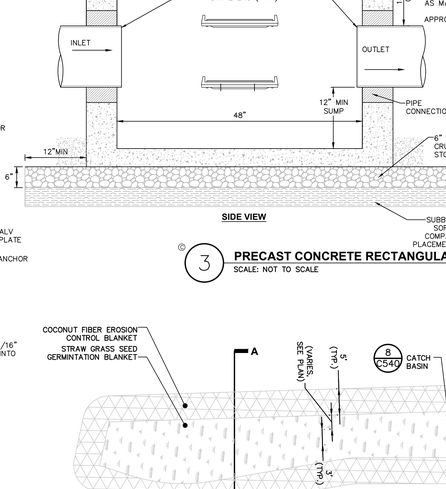
SECTION C



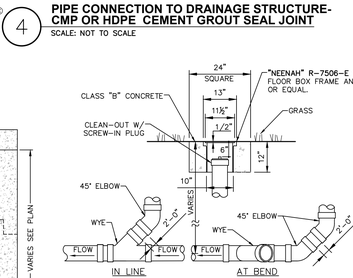
OUTLET STRUCTURE GRATE







3 **PRECAST CONCRETE RECTANGULAR CATCH BASIN DETAIL**
SCALE: NOT TO SCALE



NOTES:
1. SEWER PIPE FITTINGS TO BE **ASTM D–3033 OR D–3034 SDR–35.**
2. TO BE USED FOR GRAVITY PORTION OF SANITARY SYSTEM AS WELL AS THE STORM ROOF DRAINAGE SYSTEM.

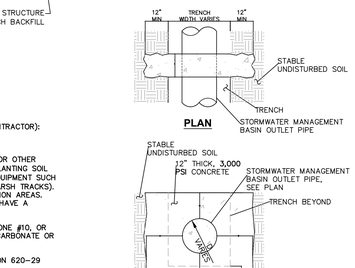
5 **CLEAN OUT - NON TRAFFIC AREAS**
SCALE: NOT TO SCALE

NOTES:
1. SOIL COMPOSITION (TO BE DEMONSTRATED BY CONTRACTOR):
   35–60% SAND*
   30–55% SILT
   10–25% CLAY
   SOIL WILL BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER. PLACE PLANTING SOIL IN 12" LIFTS, LOOSELY COMPACTED (USE LIGHT EQUIPMENT SUCH AS COMPACT LOADER OR DOZER/LOADER WITH MARSH TRACKS). DO NOT USE HEAVY EQUIPMENT WITHIN BIORETENTION AREAS. CONTRACTOR TO DEMONSTRATE: THE SOIL SHALL HAVE A PERMEABILITY OF AT LEAST 0.5 INCH PER HOUR.

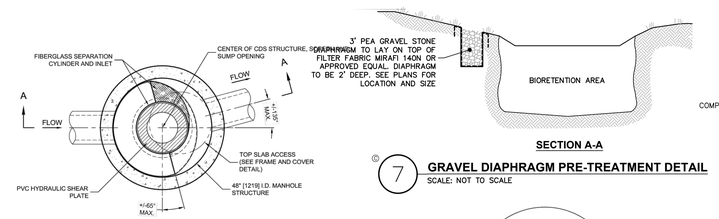
   * SAND SUBSTITUTION SUCH AS DIABASE, GRAYSTONE #10, OR ROCK DUST ARE NOT ACCEPTABLE. NO CALCIUM CARBONATE OR DOLOMITIC SAND SUBSTITUTIONS ARE ACCEPTABLE.
2. RIVER STONE; SHALL CONFORM TO NYSDOT SECTION 620–29
3. CONTRACTOR SHALL DEMONSTRATE: SOIL FOR EACH BIORETENTION AREA SHALL MEET THE FOLLOWING CRITERIA:

PH RANGE**	5.2 – 7.0
ORGANIC MATTER	1.5–4%
MAGNESIUM	35 LBS/ACRE
PHOSPHOROUS	75 LBS/ACRE
POTASSIUM	85 LBS/ACRE
SOLUBLE SALTS	NOT TO EXCEED 500 PPM

   ** IF PH FALLS OUT OF ACCEPTABLE RANGE, PH OF SOIL MAY BE MODIFIED WITH LIME (HIGHER PH), OR WITH WITH IRON SULFATE PLUS SULFUR (LOWER PH).
4. BIORETENTION AREA TO BE SURROUNDED WITH SILT FENCE DURING CONSTRUCTION. ONCE UPSTREAM AREA IS STABILIZED, SILT FENCE TO BE REMOVED AS APPROVED BY PROJECT ENGINEER.



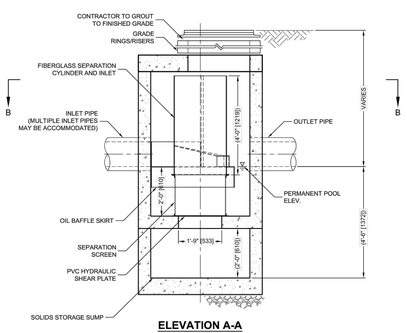
10 **ANTI-SEEP COLLAR**
SCALE: 3/4" = 1'-0"



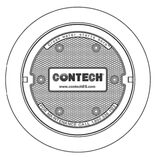
SECTION A-A

PLAN VIEW B-B
N.T.S.

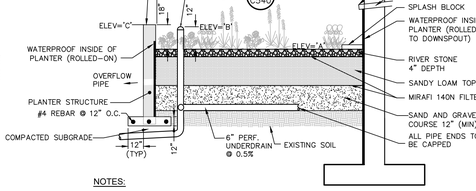
7 **GRAVEL DIAPHRAGM PRE-TREATMENT DETAIL**
SCALE: NOT TO SCALE



ELEVATION A-A
N.T.S.



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

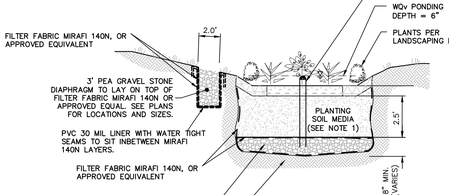


NOTES:
1. SANDY LOAM TOPSOIL SHALL HAVE AN INFILTRATION RATE OF 2 INCHES PER HOUR AND 5 INCHES AN HOUR FOR SAND AND GRAVEL COURSE.
2. SOIL COMPACTION MUST BE NO GREATER THAN 85% IN THE PLANTER.
3. THE GROWING MEDIA SHOULD BE UNIFORM MIXTURE OF 70% SAND (100% PASSING THE 1–INCH SIEVE AND 5% PASSING THE NO. 200 SIEVE) AND 30% TOPSOIL WITH AN AVERAGE OF 5% ORGANIC MATERIAL, SUCH AS COMPOST OR PEAT, FREE OF STONES, ROOTS AND WOODY DEBRIS AND ANIMAL WASTE.
4. DRAINAGE LAYER SHALL BE CLEAN SAND WITH 100% PASSING THE 1–INCH SIEVE AND 5% PASSING THE NO. 200 SIEVE.
5. SEE LANDSCAPE PLAN FOR PROPOSED PLANTING SCHEDULES.

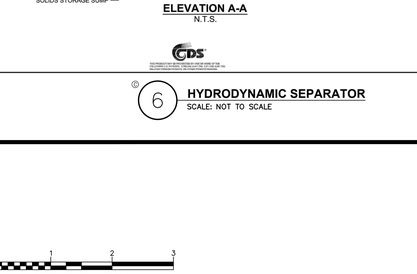
PLANTER ELEVATION

BUILDING PLANTER	ELEVATIONS "A" ELEV	"B" ELEV	"C" ELEV
PLANTER –1	195.0'	196.0'	196.5'
PLANTER –2	193.3'	194.3'	194.8'

8 **STORMWATER PLANTER CROSS SECTION**
SCALE: NOT TO SCALE



13 **SECTION THRU STORM WATER MANAGEMENT BASIN OVER FLOW WEIR**
SCALE: NOT TO SCALE


GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.contechES.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET HS20 (AASHTO M 306) LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.

INSTALLATION NOTES
A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
C. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
E. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

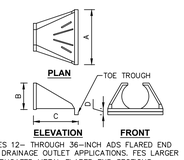
CONTECH ENGINEERED SOLUTIONS LLC
www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2015-4-C
INLINE CDS
STANDARD DETAIL

6 **HYDRODYNAMIC SEPARATOR**
SCALE: NOT TO SCALE

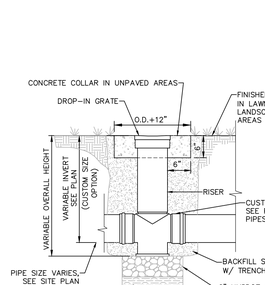
TYPICAL HDPE END SECTION

PIPE DIA.	END SECTION DIMENSIONS A	B	C	D
12"	42"	14"	34"	6"
15"	42"	17"	34"	6"
18"	59"	21"	48"	6"
24"	59"	27"	48"	6"
30"	82"	34"	58"	6"
36"	82"	41"	58"	6"



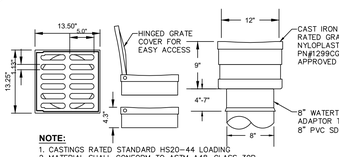
NOTES:
1. SCOPE: THIS SPECIFICATION DESCRIBES 12– THROUGH 36–INCH ADS FLARED END SECTIONS FOR USE IN CULVERT AND DRAINAGE OUTLET APPLICATIONS. FES LARGER THAN 36" SHALL USE CIRCULAR CORRUGATED METAL FLARED END SECTIONS.
2. REQUIREMENTS: THE INVERT OF THE PIPE AND THE END SECTION SHALL BE AT THE SAME ELEVATION. THE ADS FLARED END SECTION SHALL BE HIGH DENSITY POLYETHYLENE MEETING ASTM D3350 MINIMUM CELL CLASSIFICATION 213320C; CONTACT MANUFACTURER FOR ADDITIONAL CELL CLASSIFICATION INFORMATION. WHEN PROVIDED, THE METAL THREADED FASTENING ROD SHALL BE STAINLESS STEEL.
3. INSTALLATION: INSTALLATION SHALL BE IN ACCORDANCE WITH ADS INSTALLATION INSTRUCTIONS AND WITH THOSE ISSUED BY STATE OR LOCAL AUTHORITIES. CONTACT YOUR LOCAL ADS REPRESENTATIVE OR VISIT WWW.ADS–PIPE.COM FOR THE LATEST INSTALLATION INSTRUCTIONS.
4. PROVIDE TRASH RACK ONLY WHERE SPECIFIED ON SITE PLANS.

11 **TYPICAL END SECTION - HDPE**
SCALE: NOT TO SCALE



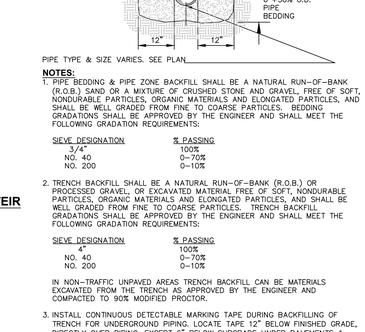
NOTE:
1. BACKFILL USING TRENCH BACKFILL, COMPACTED IN 6" LIFTS.

12 **NYOPLAST DRAIN BASIN**
SCALE: NOT TO SCALE



NOTE:
1. CASTINGS RATED STANDARD HS20–44 LOADING
2. MATERIAL SHALL CONFORM TO ASTM A48–CLASS 30B
3. PAINT: CASTINGS TO BE FURNISHED WITH A BLACK PAINT
4. IN–LINE DRAIN BY NYLOPLAST OR APPROVED EQUIVALENT
5. DRAIN AREA = 62.7 SQ. INCH

14 **12" IN-LINE DRAIN & GRATE**
SCALE: NOT TO SCALE



PIPE TYPE & SIZE VARIES. SEE PLAN

NOTES:
1. PIPE BEDDING & PIPE ZONE BACKFILL SHALL BE A NATURAL RUN–OF–BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
3/4"	100%
NO. 40	0–70%
NO. 200	0–10%

2. TRENCH BACKFILL SHALL BE A NATURAL RUN–OF–BANK (R.O.B.) OR PROCESSED GRAVEL OR EXCAVATED MATERIAL FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. TRENCH BACKFILL GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
4"	100%
NO. 40	0–70%
NO. 200	0–10%

IN NON–TRAFFIC UNPAVED AREAS TRENCH BACKFILL CAN BE MATERIALS EXCAVATED FROM THE TRENCH AS APPROVED BY THE ENGINEER AND COMPACTED TO 90% MODIFIED PROCTOR.

3. INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.
5. 5'–0" MIN COVER SHALL BE APPLIED TO WATER MAIN OR SANITARY SEWER FORCE MAINS ONLY.

15 **PIPE TRENCH DETAIL (TYPICAL)**
SCALE: NOT TO SCALE

0 1 2 3
ORIGINAL SCALE IN INCHES

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rev.	date	description
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

STORM SEWER DETAILS

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
	LB
date	scale
05/25/21	AS SHOWN
project no.	
81947.00	
sheet no.	
C540	

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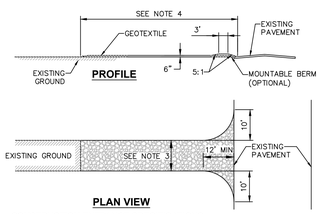
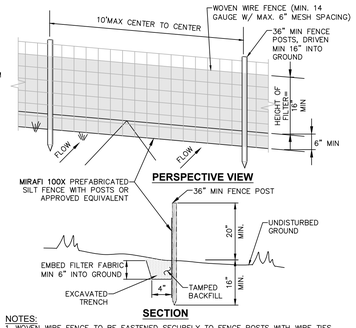


PLAN VIEW

CONSTRUCTION ENTRANCE SPECIFICATIONS:

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT
2. THICKNESS – NOT LESS THAN SIX (6) INCHES.
3. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY FOUR (24) FEET IF SINGLE ENTRANCE TO SITE.
4. LENGTH – NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH WOULD APPLY).
5. GEOTEXTILE – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS–OF–WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

① **STABILIZED CONSTRUCTION ACCESS DETAIL**
SCALE: NOT TO SCALE

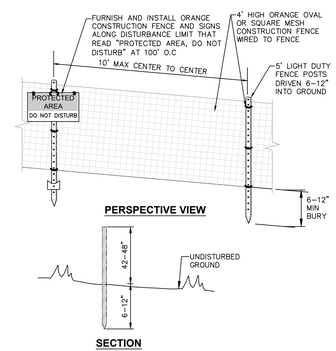


NOTES:

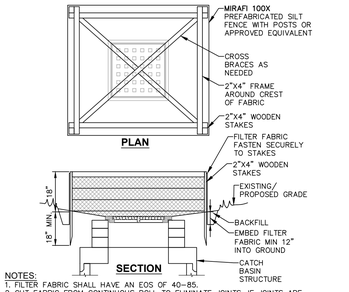
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL "T" OR "U" TYPE OR HARDWOOD.
2. FILTER FABRIC TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAX MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIALS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
5. MAXIMUM DRAINAGE AREA FOR OVERLAND FLOW TO A SILT FENCE SHALL NOT EXCEED 1/4 ACRE PER 100 FEET OF FENCE.
6. SILT FENCE SHALL BE USED WHERE EROSION COULD OCCUR IN THE FORM OF SHEET EROSION.
7. SILT FENCE SHALL NOT BE USED WHEN A CONCENTRATION OF WATER IS FLOWING TO THE BARRIER.
8. MAXIMUM ALLOWABLE SLOPE LENGTHS CONTRIBUTING RUN–OFF TO A SILT FENCE ARE:

SLOPE STEEPNESS	MAXIMUM SLOPE LENGTH(FT)
2:1	25
3:1	50
4:1	75
5:1 OR FLATTER	100

② **SILT FENCE INSTALLATION DETAIL**
SCALE: NOT TO SCALE



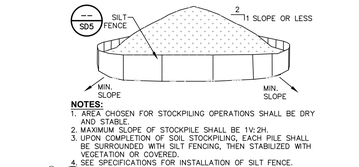
③ **TEMPORARY ORANGE CONSTRUCTION FENCE DETAIL**
SCALE: NOT TO SCALE

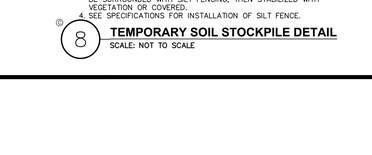


NOTES:

1. FILTER FABRIC SHALL HAVE AN EOS OF 40–85.
2. CUT FABRIC FROM CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED, OVERLAP TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2"x4" WOOD OR EQUIVALENT, WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE MINIMUM 18" DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2"x4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVERFLOW STABILITY.
7. MAXIMUM DRAINAGE AREA IS 1 ACRE.
8. INLET PROTECTION SHALL REMAIN IN–PLACE UNTIL SITE HAS BEEN STABILIZED.

④ **TEMPORARY OUT OF PAVEMENT FILTER FABRIC DROP INLET PROTECTION DETAIL**
SCALE: NOT TO SCALE





NOTES:

1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL. THIS INCLUDES REPLACEMENT OF THE 10 MIL POLYETHLENE SHEETING.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY, REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

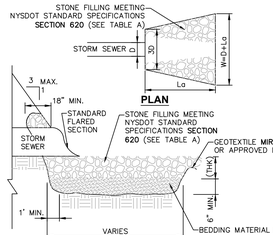
⑤ **CONCRETE WASHOUT AREA DETAIL**
SCALE: NOT TO SCALE

NOTES:

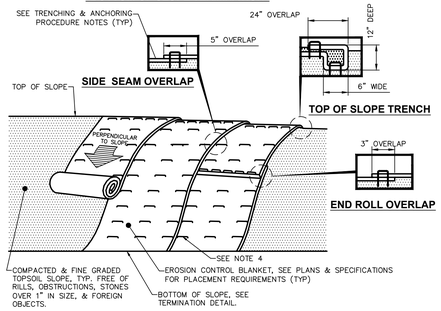
1. TOPSOIL, SEED, MULCH, AND FERTILIZE DISTURBED SOIL AREAS THAT WILL BE LEFT EXPOSED FOR 14 DAYS OR MORE.

⑦ **TEMPORARY TOPSOIL, FERTILIZER, SEED & MULCH DETAIL**
SCALE: NOT TO SCALE

STONE APRON SIZING REQUIREMENT - TABLE "A"						
CULVERT DIA. (D)	CULVERT SLOPE, %	NYSDOT STANDARD STONE FILLING APRON MATERIAL	d50	dMAX	MINIMUM APRON THICKNESS (IN)	MINIMUM OUTLET APRON LENGTH(FT) (Lo)
12"	< 8	LIGHT	6"	9"	18	10
	8–10	MEDIUM	9"–12"	14"–18"	24	10
18"	< 4	LIGHT	6"	9"	18	10
	4–6	MEDIUM	9"–12"	14"–18"	24	12
	6–8	HEAVY	15"–18"	22"–27"	36	12
	8–10	HEAVY	15"–18"	22"–27"	36	18
24"	< 3	LIGHT	6"	9"	18	12
	3–4	MEDIUM	9"–12"	14"–18"	24	16
	4–8	HEAVY	15"–18"	22"–27"	36	24
30"	< 1	LIGHT	6"	9"	18	15
	1–2	MEDIUM	9"–12"	14"–18"	24	20
	2–4	HEAVY	15"–18"	22"–27"	36	25
	4–6	HEAVY	15"–18"	22"–27"	36	30
36"	< 2	MEDIUM	9"–12"	14"–18"	24	24
	2–3	HEAVY	15"–18"	22"–27"	36	30
	3–5	HEAVY	15"–18"	22"–27"	36	36
42"	< 1	MEDIUM	9"–12"	14"–18"	24	28
	1–2	HEAVY	15"–18"	22"–27"	36	35
	2–3	HEAVY	15"–18"	22"–27"	36	42
48"	< 1	MEDIUM	9"–12"	14"–18"	24	32
	1–2	HEAVY	15"–18"	22"–27"	36	40
	2–3	HEAVY	15"–18"	22"–27"	36	48



⑥ **END SECTION WITH STONE LINED APRON DETAIL**
SCALE: NOT TO SCALE



NOTES:

1. PREPARE THE TOPSOIL (SEEDBED) FIRST BY RAKING, SHAPING, FINE GRADING, COMPACTING, SEEDING & FERTILIZING THE SLOPES.
2. USE THE TRENCHING & ANCHORING PROCEDURES DETAILED HEREIN TO SECURE ANY EXPOSED MATERIAL ENDS. SECURE ALL PRODUCT OVERLAPS. OVERLAP IN THE DIRECTION OF WATER FLOW, PERPENDICULAR TO THE SLOPE.
3. KEEP EROSION CONTROL BLANKET IN SOLID CONTACT WITH THE TOPSOIL.
4. USE THE REQUIRED NUMBER OF STAPLES/STAKES TO SECURELY FASTEN THE EROSION CONTROL BLANKET TO THE SLOPE. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLES/STAKES LENGTHS GREATER THAN 6" MAYBE NECESSARY FOR PROPER SECURING. STAPLE PATTERNS & OVERLAPS ARE DEPENDENT ON SITE CONDITIONS & MANUFACTURER'S REQUIREMENTS. CONTRACTOR SHALL CONSULT WITH MANUFACTURER FOR ACTUAL SITE SPECIFIC REQUIREMENTS.

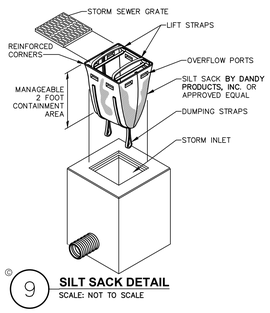
TRENCHING & ANCHORING PROCEDURE NOTES:

SIDE SEAM OVERLAP:– THE EDGES OF PARALLEL BLANKETS SHALL BE STAPLED WITH A 5" OVERLAP.

TOP OF SLOPE TRENCH:– BEGIN AT THE TOP OF SLOPE BY ANCHORING THE EROSION CONTROL BLANKET IN A 6"D x 6"W TRENCH WITH A 12" OVERLAP EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR WITH A ROW OF STAPLES/STAKES 12" O.C. IN THE BOTTOM OF THE TRENCH. BACKFILL & COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL & FOLD THE REMAINING 12" PORTION OF THE EROSION CONTROL BLANKET BACK OVER THE SEED & COMPACTED SOIL. SECURE THE EROSION CONTROL BLANKET OVER THE COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED 12" O.C. ACROSS THE ENTIRE WIDTH.

END ROLL OVERLAP:– CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE SHALL BE PLACED END OVER END (SHINGLE–STYLE) WITH A 3" OVERLAP. STAPLE THRU OVERLAPPED AREAS, 12" APART ACROSS THE ENTIRE WIDTH.

⑩ **EROSION CONTROL BLANKET INSTALLATION DETAIL**
SCALE: NTS



⑨ **SILT SACK DETAIL**
SCALE: NOT TO SCALE

NOTES:

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.

⑧ **TEMPORARY SOIL STOCKPILE DETAIL**
SCALE: NOT TO SCALE

SPDES GENERAL PERMIT GP-0-20-001 COMPLIANCE NOTES:

THIS PLAN SET AND THE ACCOMPANYING SWPPP ENTITLED **[NAME]** HAVE BEEN SUBMITTED AS A SET. THESE ENGINEERING DRAWINGS ARE CONSIDERED AN INTEGRAL PART OF THE SWPPP. THEREFORE THE PLAN SET IS NOT CONSIDERED COMPLETE WITHOUT THE SWPPP.

1. THE TOTAL AREA OF DISTURBANCE PLANNED FOR THIS PROJECT IS LESS THAN 1 ACRE THEREFORE A SPDES GENERAL PERMIT (GP–0–20–001) IS NOT REQUIRED.

1. THIS PROJECT HAS NOT RECEIVED WRITTEN APPROVAL FROM _____ **(INSERT NYSDEC OR MUNICIPALITY (IF MS4))** ALLOWING THE DISTURBANCE OF MORE THAN FIVE (5) ACRES OF LAND AT ANY ONE TIME. THEREFORE, IF THE CONTRACTOR'S CONSTRUCTION SEQUENCE REQUIRES THE DISTURBANCE OF MORE THAN FIVE ACRES AT ANY ONE TIME, WRITTEN APPROVAL MUST BE OBTAINED FROM NYSDEC PRIOR TO EXCEEDING THE 5 ACRE LIMIT.

1. THIS PROJECT HAS REQUESTED WRITTEN APPROVAL FROM _____ **(INSERT NYSDEC OR MUNICIPALITY (IF MS4))** ALLOWING THE DISTURBANCE OF MORE THAN FIVE (5) ACRES OF LAND AT ANY ONE TIME. CONTRACTOR SHALL NOT DISTURB MORE THAN FIVE (5) ACRES UNTIL SUCH TIME THAT THE WAIVER IS GRANTED AND WRITTEN AUTHORIZATION IS RECEIVED FROM NYSDEC.

CONSTRUCTION SEQUENCING NOTES:

1. PRIOR TO COMMENCING ANY CLEARING, GRUBBING, EARTHWORK ACTIVITIES, ETC.AT THE SITE, THE CONTRACTOR SHALL FLAG THE WORK LIMITS AND SHALL INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES (I.E. SILT FENCES, TREE PROTECTION/BARRIER FENCES, STABILIZED CONSTRUCTION ENTRANCES, STORM DRAIN SEDIMENT FILTERS, DRAINAGE DITCH SEDIMENT FILTERS, ETC.) INDICATED ON THE PROJECT DRAWINGS. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THEIR TRIBUTARY AREAS.
2. THE CONTRACTOR SHALL CLEAR AND GRUB THE AREA OF THE STORMWATER MANAGEMENT FACILITIES. THIS AREA SHALL NOT EXCEED FIVE (5) ACRES IN EXTENT WITHOUT TEMPORARY STABILIZATION.
3. THE STORMWATER DETENTION BASIN SHALL BE UTILIZED AS A TEMPORARY SEDIMENT TRAP DURING CONSTRUCTION. THE CONTRACTOR SHALL INSTALL THE OUTLET CONTROL STRUCTURES AND THE EARTHEN BERM. THE BASIN SHALL BE GRADED TO THE TOP OF THE AQUATIC BENCH AS INDICATED IN THE TYPICAL STORMWATER MANAGEMENT BASIN SECTION PRESENTED IN THE PROJECT DRAWINGS.
4. PRIOR TO COMMENCING CLEARING, GRUBBING AND/OR EARTHWORK ACTIVITIES IN ANY OTHER AREA OF THE SITE, THE CONTRACTOR SHALL INSTALL INLET AND OUTLET PROTECTION MEASURES (RIPRAP OVERFLOW WEIR(S), CULVERT INLET/OUTLET PROTECTION, ETC.) AND SHALL STABILIZE THE AREAS DISTURBED DURING THE CONSTRUCTION OF THE SEDIMENT BASIN.
5. THE CONTRACTOR SHALL INSTALL TEMPORARY DIVERSION MEASURES WITH ASSOCIATED STABILIZATION MEASURES (I.E., VEGETATIVE COVER, DRAINAGE DITCH SEDIMENT FILTERS, STORM DRAIN SEDIMENT FILTERS, ETC.)TO ASSURE THAT STORMWATER RUNOFF IS CONVEYED TO THE TEMPORARY SEDIMENT BASIN.
6. TEMPORARY DIVERSION MEASURES SHALL BE LOCATED IN A MANNER THAT WILL ASSURE THAT THE AREA TRIBUTARY TO EACH DIVERSION DOES NOT EXCEED FIVE (5) ACRES. THESE TEMPORARY DIVERSION MEASURES SHALL BE INSPECTED DAILY AND REPAIRED/STABILIZED AS NECESSARY TO MINIMIZE EROSION.
7. THE CONTRACTOR SHALL COMMENCE SITE CONSTRUCTION ACTIVITIES INCLUDING CLEARING & GRADING OF THE PROPOSED AREA OF DISTURBANCE AS REQUIRED.
8. INSTALL PROTECTIVE MEASURES AT THE LOCATIONS OF ALL GRATE INLETS, CURB INLETS, AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES.
9. CONSTRUCT ALL UTILITIES, CURB AND GUTTER, GUTTER INLETS, AREA INLETS, AND STORM SEWER MANHOLES, AS SHOWN ON THE PLANS. INLET PROTECTION MAY BE REMOVED TEMPORARILY FOR THIS CONSTRUCTION. PLACE REQUIRED RIP–RAP AT LOCATIONS SHOWN ON THE PLANS.
10. FINALIZE PAVEMENT SUB–GRADE PREPARATION.
11. REMOVE PROTECTIVE MEASURES AROUND INLETS AND MANHOLES NO MORE THAN 24 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.
12. INSTALL SUB–BASE MATERIAL AS REQUIRED FOR PAVEMENT.
13. PRIOR TO FINALIZING CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY, ALL CATCH BASINS AND DRAINAGE LINES SHALL BE CLEANED OF ALL SILT AND SEDIMENT.
14. UPON COMPLETION OF SITE CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL FINALIZE CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY. CONTRACTOR SHALL FINISH GRADE THE FORBAY(S), AQUATIC BENCHES, AND WET POOL(S) AND STABILIZE AS INDICATED IN THE PROJECT DRAWINGS.
15. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AFTER IMMEDIATELY ESTABLISH PERMANENT VEGETATION ON THE AREAS DISTURBED DURING THEIR REMOVAL.

EROSION AND SEDIMENT CONTROL MEASURES:

1. DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION SHALL BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
2. AS MUCH AS IS PRACTICAL, EXISTING VEGETATION SHALL BE PRESERVED. FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES IN ANY PORTION OF THE SITE, PERMANENT VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SOILS.
3. SITE PREPARATION ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISRUPTION.
4. PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL POINTS OF ENTRY ONTO THE PROJECT SITE.

MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES:

PERMANENT AND TEMPORARY VEGETATION:
INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. ALL AREAS DAMAGED BY EROSION OR WHERE SEED HAS NOT ESTABLISHED SHALL BE REPAIRED AND RESTABLIZED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE:
INSPECT THE ENTRANCE PAD EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. CHECK FOR MUD, SEDIMENT BUILD–UP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING WET WEATHER. RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL. WASH AND REPLACE STONE AS NEEDED. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF–SITE BY VEHICLES. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. REMOVE TEMPORARY CONSTRUCTION ENTRANCE AS SOON AS THEY ARE NO LONGER NEEDED TO PROVIDE ACCESS TO THE SITE.

SILT FENCE:
INSPECT FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP–SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE FENCE. IF FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.

SOIL STOCKPILE:
INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE OR HAY BALE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP–SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANYWAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCK PILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.

DUST CONTROL:
SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORK. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WATER). STRUCTURAL MEASURES (MULCH, SEEDING) SHALL BE INSTALLED IN DISTURBED AREAS BEFORE SIGNIFICANT BLOWING PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.

CHECK DAM:
INSPECT CHECK DAMS EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. IF SIGNIFICANT EROSION HAS OCCURRED BETWEEN STRUCTURES A LINER OF STONE OR OTHER SUITABLE MATERIAL SHOULD BE INSTALLED IN THAT PORTION OF THE CHANNEL. REMOVE SEDIMENT ACCUMULATED BEHIND THE DAM AS NEEDED TO ALLOW CHANNEL TO DRAIN THROUGH THE STONE CHECK DAM AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT OVER THE DAM. REPLACE STONES AS NEEDED TO MAINTAIN THE DESIGN CROSS SECTION OF THE STRUCTURES. REMOVE CHECK DAMS AS PER APPROVAL OF ENGINEER.

EROSION CONTROL BLANKET:
INSPECT THE BLANKET EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. REPLACE WIRE STAPLES AS REQUIRED. REPAIR AND RESEED WHERE CRACKS AND DAMAGED VEGETATION IS EVIDENT. WHEN DAMAGED BEYOND REPAIR OR NO LONGER FUNCTIONING, THE BLANKET SHALL BE REPLACED.

EARTH DIKE:
INSPECT ALL EARTH DIKES EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. ALL AREAS DAMAGED BY EROSION SHALL BE REPAIRED IMMEDIATELY.

TEMPORARY SWALE:
INSPECT ALL EARTH DIKES EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. ALL AREAS DAMAGED BY EROSION SHALL BE REPAIRED IMMEDIATELY.

SEDIMENT TRAP:
INSPECT ALL SEDIMENT TRAPS EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. REPAIRS SHALL BE MADE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO THE ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO 1/2 OF THE DESIGN DEPTH OF THE TRAP.

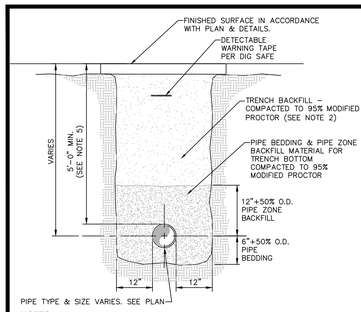
STORM DRAIN INLET PROTECTION:
INSPECT ALL STORM DRAIN INLET PROTECTION DEVICES EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE REPAIRS AS NEEDED, REMOVE SEDIMENT FROM THE POOL AREA AS NECESSARY.

DEWATERING PITS:
(IF REQUIRED) – INSPECT DAILY DURING OPERATION FOR CLOGGING OR OVERFLOW. CLEAR INLET AND DISCHARGE PIPES OF OBSTRUCTIONS. IF A FILTER MATERIAL BECOMES CLOGGED WITH SEDIMENT, PIT SHALL BE DISMANTLED AND CONSTRUCT NEW PITS AS NEEDED.

SNOW AND ICE CONTROL:
PARKING LOTS, ROADWAYS, AND DRIVEWAYS ADJACENT TO WATER QUALITY FILTERS SHALL NOT BE SANDED DURING SNOW EVENTS DUE TO HIGH POTENTIAL FOR CLOGGING FROM SAND IN SURFACE WATER RUNOFF. USE SALT ONLY FOR SNOW AND ICE CONTROL.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IN STRICT COMPLIANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", NOVEMBER 2016.
2. EXCESS SOIL TO BE STOCKPILED WITHIN THE LIMITS OF SITE DISTURBANCE IF NOT USED IMMEDIATELY FOR GRADING PURPOSES. INSTALL SILT FENCE AROUND SOIL STOCKPILES.
3. APPLY SURFACE STABILIZATION AND RESTORATION MEASURES. AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS DELAYED, SUSPENDED, OR INCOMPLETE AND WILL NOT BE REDISTURBED FOR 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED. (SEE SPECIFICATIONS FOR TEMPORARY VEGETATIVE COVER). AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS COMPLETE AND WILL NOT BE REDISTURBED SHALL BE STABILIZED AND RESTORED WITH PERMANENT VEGETATIVE COVER AS SOON AS SITE AREAS ARE AVAILABLE AND WITHIN 14 DAYS AFTER WORK IS COMPLETE. (SEE SPECIFICATIONS FOR PERMANENT VEGETATIVE COVER). SEEDING FOR PERMANENT VEGETATIVE COVER SHALL BE WITHIN THE SEASONAL LIMITATIONS. PROVIDE STABILIZATION WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER WORK IS COMPLETE, FOR SEEDING OUTSIDE PERMITTED SEEDING PERIODS.
4. SEEDED AREAS TO BE MULCHED WITH STRAW OR HAY MULCH IN ACCORDANCE WITH VEGETATIVE COVER SPECIFICATIONS.
5. THE CONTRACT



PIPE TYPE & SIZE VARIES. SEE PLAN

NOTES:

1. PIPE BEDDING & PIPE ZONE BACKFILL SHALL BE A NATURAL RUN–OF–BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
3/4"	100%
NO. 40	0–70%
NO. 200	0–10%

2. TRENCH BACKFILL SHALL BE A NATURAL RUN–OF–BANK (R.O.B.) OR PROCESSED GRAVEL, OR EXCAVATED MATERIAL FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. TRENCH BACKFILL GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
4"	100%
NO. 40	0–70%
NO. 200	0–10%

IN NON–TRAFFIC UNPAVED AREAS TRENCH BACKFILL CAN BE MATERIALS EXCAVATED FROM THE TRENCH AS APPROVED BY THE ENGINEER AND COMPACTED TO 90% MODIFIED PROCTOR.

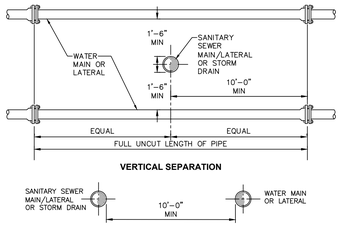
3. INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB.

4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

5. 5'–0" MIN COVER SHALL BE APPLIED TO WATER MAIN OR SANITARY SEWER FORCE MAINS ONLY.

1 PIPE TRENCH DETAIL (TYPICAL)

SCALE: NOT TO SCALE

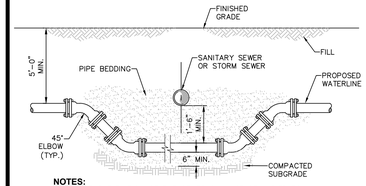


NOTES:

1. NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE EXPRESS APPROVAL OF THE NYS HEALTH DEPARTMENT. OFFSETTING OF WATERLINE SHALL BE REQUIRED WHERE SEPARATION DISTANCES CANNOT BE MAINTAINED.
2. WHEN IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS INDICATED ABOVE, BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE CONSTRUCTED OF MECHANICAL JOINT, DUCTILE IRON PIPE OR PVC WATER WORKS GRADE PRESSURE PIPE FOR 10' EACH SIDE OF CROSSING AND SHALL BE PRESSURE TESTED TO **150psi** TO ASSURE WATER TIGHTNESS.

3 SANITARY/STORM SEWER AND WATERMAIN SEPARATION DETAIL

SCALE: NOT TO SCALE

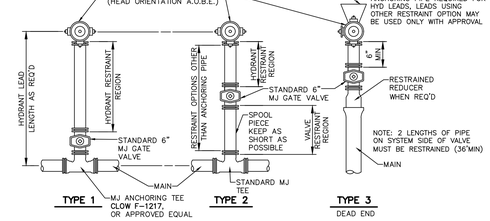


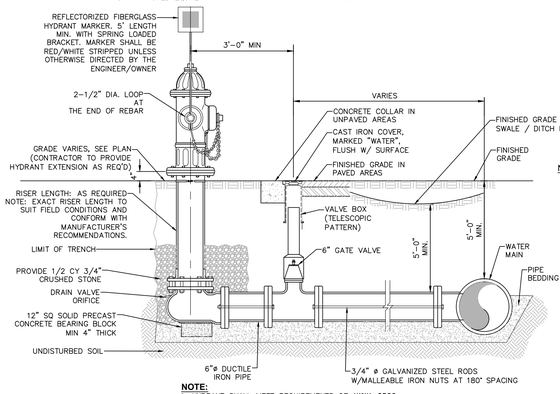
NOTES:

1. WHEN THE ELEVATION OF THE SEWER CAN NOT BE VARIED TO MEET THE ABOVE REQUIREMENTS, THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THIS REQUIRED SEPARATION.
2. WHEN IT IS IMPOSSIBLE TO OBTAIN VERTICAL SEPARATION AS INDICATED ABOVE, BOTH THE WATER MAIN AND THE SEWER MAIN SHALL BE CONSTRUCTED OF MECHANICAL JOINT DUCTILE IRON PIPE OR PVC WATER WORKS GRADE PRESSURE PIPE FOR 10' EACH SIDE OF CROSSING AND SHALL BE PRESSURE TESTED TO **150psi** TO ASSURE WATER TIGHTNESS.

4 WATERLINE OFFSET DETAIL

SCALE: NOT TO SCALE





NOTES:

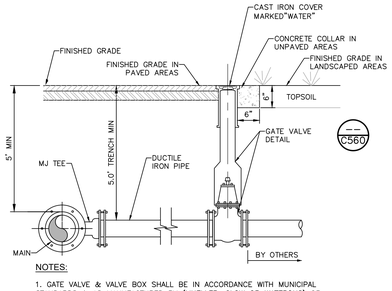
1. HYDRANTS SHALL BE **MUELLER SUPER CENTURION 250** OR APPROVED EQUIVALENT BY THE AUTHORITY HAVING JURISDICTION. HYDRANTS SHALL MEET REQUIREMENTS OF **AWWA STANDARD C–502.**
2. HYDRANTS SHALL BE CAST IRON BODY, DRY BARREL DESIGN, COMPRESSION–TYPE VALVE, OPENING AGAINST PRESSURE AND CLOSING WITH PRESSURE, 6–INCH MECHANICAL JOINT INLET FOOT PIECE, 5 ¼ INCH MAIN VALVE OPENING, O–RING TYPE PACKING, RATED FOR 250–PSI WORKING PRESSURE, TWO (2) 2 ½ INCH HOSE NOZZLES AND ONE (1) 4 ½ INCH PUMPER NOZZLE.
3. NOZZLE OUTLET THREADS SHALL MEET LOCAL FIRE DEPARTMENT REQUIREMENTS AND HAVE CAST IRON CAPS WITH NON–KINKING STEEL CHAINS. OPERATING AND CAP NUTS: PENTAGON 1 ½ INCH POINT TO FLAT. HYDRANT VALVES SHALL BE OPENED BY TURNING OPERATING NUT TO THE LEFT, OR **COUNTERCLOCKWISE.**
4. HYDRANTS SHALL BE TRAFFIC TYPE WITH BREAKABLE SAFETY FLANGE WITH RED EXTERIOR ALKYD GLOSS ENAMEL PAINT. HYDRANTS SHALL BE TOUCHED UP TO REMOVE ANY MARKS OR SCRAPED PAINT CAUSED BY INSTALLATON OR TRANSIT.

NOTE:

1. HYDRANT SHALL MEET REQUIREMENTS OF **AWWA C502.**

2 HYDRANT ASSEMBLY DETAIL

SCALE: NOT TO SCALE

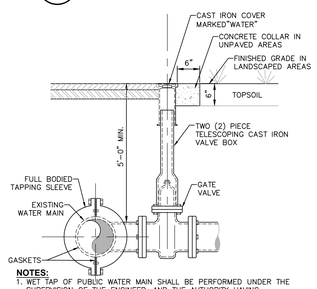


NOTES:

1. GATE VALVE & VALVE BOX SHALL BE IN ACCORDANCE WITH MUNICIPAL STANDARDS & AS MANUFACTURED BY **(MUELLER, CLOW OR WATEROUS)** OR APPROVED EQUIVALENT.

5 DUCTILE IRON SERVICE PIPE

SCALE: NOT TO SCALE

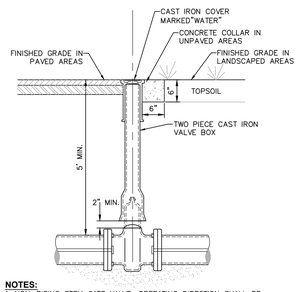


NOTES:

1. WET TAP OF PUBLIC WATER MAIN SHALL BE PERFORMED UNDER THE SUPERVISION OF THE ENGINEER, AND THE AUTHORITY HAVING JURISDICTION.
2. TAPPING SLEEVE AND VALVE SUPPORT SHALL BE COORDINATED WITH THE ENGINEER TO SUIT FIELD CONDITIONS.
3. MINIMUM DISTANCE TO JOINTS, FITTINGS, OR OTHER WET TAPS OR STOPS SHALL BE 3 FEET.
4. VALVE OPERATING DIRECTION SHALL BE **COUNTERCLOCKWISE** TO OPEN (TURNING LEFT).
5. TAPPING SLEEVE SHALL BE SELECTED TO FIT EXISTING PIPE MATERIAL (C.I., D.I., A.C.) AND OUTSIDE DIAMETERS.
6. THRUST BLOCK IS REQUIRED WHERE THE BRANCH OF THE TAPPING SLEEVE DOES NOT HAVE RESTRAINED JOINT.
7. TAPPING SLEEVE, VALVE & VALVE BOX SHALL BE IN ACCORDANCE WITH MUNICIPAL STANDARDS & AS MANUFACTURED BY **(MUELLER, CLOW OR WATEROUS)** OR APPROVED EQUIVALENT.

6 TAPPING SLEEVE AND VALVE DETAIL

SCALE: NOT TO SCALE

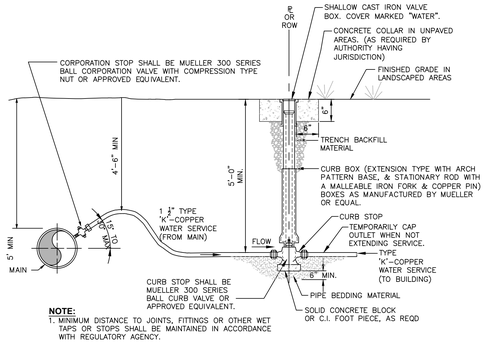


NOTES:

1. NON–RISING STEM GATE VALVE, OPERATING DIRECTION SHALL BE **COUNTERCLOCKWISE** TO OPEN.
2. MINIMUM DISTANCE TO JOINTS, FITTINGS, OR OTHER WET TAPS OR STOPS SHALL BE 3 FEET.
3. IF VALVE IS TO BE RODDED, PROVIDE VALVE WITH RODDING FLANGES OR EYEBOLTS. TWO (2) 3/4"ø GALVANIZED STEEL RODS WITH MALLEABLE IRON NUTS AT 180° SPACING SHALL BE USED FOR RODDING VALVES. FOR 12" DIA. PIPE OR LESS. FOR LARGER PIPE SIZES, SEE TABLE FOR NUMBER OF TIE RODS REQUIRED–"JOINT RESTRAINT OPTION DETAILS.)
4. GATE VALVE & VALVE BOX SHALL BE IN ACCORDANCE WITH MUNICIPAL STANDARDS & AS MANUFACTURED BY **(MUELLER, CLOW OR WATEROUS)** OR APPROVED EQUIVALENT.

7 TYPICAL GATE VALVE DETAIL

SCALE: NOT TO SCALE

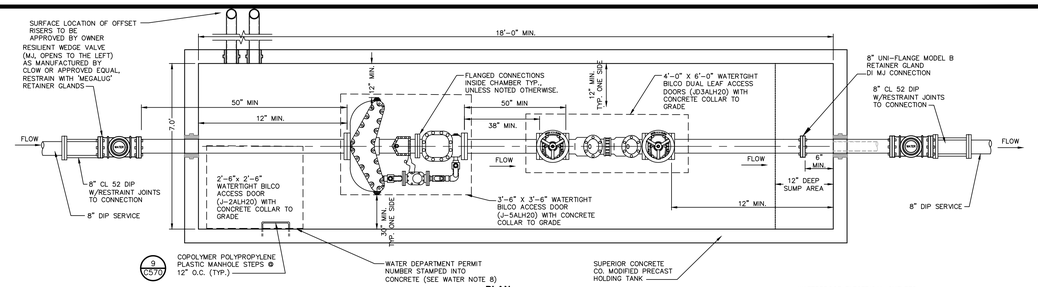


NOTE:

1. MINIMUM DISTANCE TO JOINTS, FITTINGS OR OTHER WET TAPS OR STOPS SHALL BE MAINTAINED IN ACCORDANCE WITH REGULATORY AGENCY.

9 COPPER WATER SERVICE

SCALE: NOT TO SCALE



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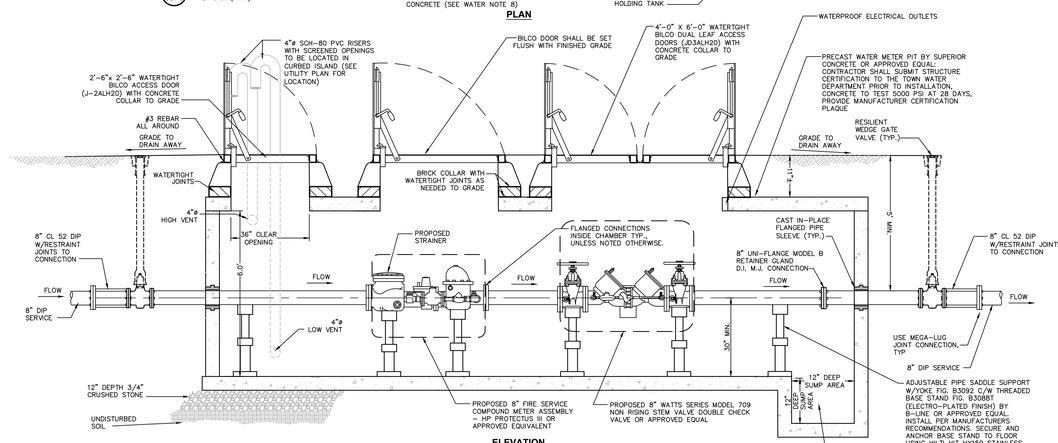

ELEVATION

8 WATER METER AND BACKFLOW PREVENTION PIT DETAIL

SCALE: NOT TO SCALE

NOTES

1. WATER METER PIT AND ASSEMBLY SHALL BE SUBJECT TO REVIEW AND FINAL APPROVAL BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT. WATER METER SHALL BE A SENSUS OMNI OR APPROVED EQUAL.
2. WATER METER SHALL BE PROVIDED WITH A REMOTE READING SYSTEM WITH BRONZE WATERTIGHT ENCLOSURE. WATER PROOF REGISTERS SHALL BE PROVIDED. LOCATION SHALL BE APPROVED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT PRIOR TO CONSTRUCTION.
3. AN ALUMINUM WARNING PLATE SHALL BE RIVETED OR OTHERWISE PERMANENTLY ATTACHED TO THE MANHOLE COVER. THE PLATE SHALL BE A MINIMUM OF 12"x12" AND SHALL BE ENGRAVED WITH THE FOLLOWING LANGUAGE: "WARNING: CONFINED SPACE – ENTRY PROHIBITED WITHOUT AUTHORIZATION – CALL OWNER FOR APPROVAL TO ACCESS". VENTILATION SHALL CONFORM TO EXISTING LOCAL AND/OR STATE CODES AND AS PER SECTION 6.2.5 OF "RECOMMENDED STANDARDS FOR WATER WORKS – 1997" (TEN STATES STANDARDS).
4. PREPARED SURFACE (I.E., BOTTOM) OF EXCAVATION FOR PLACEMENT OF WATER METER PIT SHALL CONSIST OF A MINIMUM 6" DEPTH OF 3/4" CRUSHED STONE, LEVELED AND LAID OVER STABLE NATIVE SOIL. IF EXCAVATION REVEALS UNSTABLE SOIL MATERIAL, THIS BEDDING REQUIREMENT SHALL BE MODIFIED BY THE PROJECT ENGINEER.
5. WHEN INSTALLING TURBO METERS WITH A STRAINER, A MINIMUM OF FIVE (5) PIPE DIAMETERS OF STRAIGHT RUN PIPE OR EQUIVALENT FULL OPEN COMPONENTS IS REQUIRED UPSTREAM OF THE METER INLET FLANGE. A MINIMUM OF THREE (3) PIPE DIAMETERS OF STRAIGHT PIPE OR EQUIVALENT IS REQUIRED DOWN STREAM OF THE METER.
6. DO NOT INSTALL ELBOWS, BENDS, NONCONCENTRIC REDUCERS, CHECK VALVES, BACK FLOW PREVENTORS AND/OR PERSSURE REDUCING DEVICES WITHIN TEN (10) PIPE DIAMETERS UPSTREAM OR FIVE (5) PIPE DIAMETERS DOWNSTREAM OF THE METER.
7. EXTERIOR OF METER PIT SHALL RECEIVE TWO COATS OF BITUMINOUS COATING.
8. WITHIN 30 DAYS OF INSTALLATION, THE BACKFLOW PREVENTION DEVICE SHALL BE TESTED BY A CERTIFIED TESTER. FOLLOWING TESTING, A NYS DOH–1013 REPORT MUST BE COMPLETED AND SUBMITTED TO THE CITY OF POUGHKEEPSIE, TOWN CLERK AND DUTCHESS COUNTY HEALTH DEPARTMENT TO CERTIFY THAT DEVICE WAS INSTALLED PER APPROVED PLANS.
9. ALL BACKFLOW PREVENTION DEVICES MUST BE TESTED AT LEAST ANNUALLY BY A NYS CERTIFIED TESTER WITH A COPY OF THE INSPECTION AND TEST REPORT (DOH–1013) FORWARDED TO CITY OF POUGHKEEPSIE, AND THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.
10. REINFORCEMENT FOR MANHOLE COMPONENTS SHALL BE DESIGNED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW. STRUCTURE SHALL BE DESIGNED FOR HS20–44 VEHICULAR LOADING PLUS 25% IMPACT.
11. PROVIDE WATERPROOF ELECTRIC OUTLET FOR SUMP PUMP IN THE EVENT WATER ACCUMULATES IN SUMP AREA.

SCHEDULE OF JOINT RESTRAINT BARE DIP (NOT POLYWRAPPED)
(LENGTH OF PIPE EACH SIDE OF FITTING TO BE RESTRAINED IN FEET "L")

PIPE SIZE (INCHES)	FITTING TYPE						REDUCER					
	90°	45°	22½°	11¼°	TEE	VALVE	DEAD END	6"	8"	10"	12"	16"	18"	24"
6"	43	18	8	4	29	31	31							
8"	56	23	11	5	38	41	41	17						
10"	68	28	14	7	48	50	50	31	17					
12"	81	34	16	8	57	59	59	43	31	17				
16"	106	44	21	10	76	78	78	66	57	46	33			
18"	119	49	24	12	85	88	88		69	59	48	18		
24"	156	65	31	15	116	116	116				86	63	50	
30"	192	80	38	19	142	144	144						91	50

NOTES:

1. THE LENGTH OF PIPE REQUIRING RESTRAINT IS BASED UPON THE FOLLOWING ASSUMPTIONS:

   A. BEDDING TYPE 2 – FLAT BOTTOM TRENCH, BACKFILL LIGHTLY CONSOLIDATED TO CENTER LINE OF PIPE.
   B. SOIL TYPE CLAY 1 – CLAY OF MEDIUM TO LOW PLASTICITY, LL<50, <25% COURSE PARTICLES [CL & CL–ML] :

      CL – INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY GRAVELY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
      ML – INORGANIC SILTS, VERY FINE SAND, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS.

   C. PIPE IS BARE DUCTILE IRON PIPE (NOT POLYWRAPPED)
   D. DEPTH TO TOP OF PIPE 5'–0" MINIMUM
   E. MAXIMUM OPERATING PRESSURE OF 150 PSI
   F. FACTOR OF SAFETY OF 1.5

2. FOR END PLUGS, RESTRAIN PIPE LENGTH GIVEN FOR DEAD END FITTING.
3. THE LENGTH OF NEW PIPE TO BE RESTRAINED IS THE LENGTH FOR EACH SIDE OF THE FITTING.
4. THE ABOVE INFORMATION WAS PROVIDED USING THE THRUST RESTRAINT PROGRAM ISSUED BY THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) AND IS BASED ON THE ASSUMPTIONS LISTED IN NOTE 1. RESTRAINED LENGTH REQUIREMENTS FOR FIELD CONDITIONS AND PIPE SIZES DIFFERING FROM THOSE LISTED ABOVE SHOULD BE EVALUATED SEPARATELY.
5. RESTRAINED JOINT PIPE AND FITTINGS SHALL BE USED ONLY AS ALLOWED BY THE PROJECT PLANS AND/OR SPECIFICATION.

10 JOINT RESTRAINT SCHEDULE AND NOTES

SCALE: NOT TO SCALE

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rev.	date	description
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

WATER DETAILS NOTES

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

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date	scale
05/25/21	AS SHOWN
project no.	
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sheet no.	
C560	

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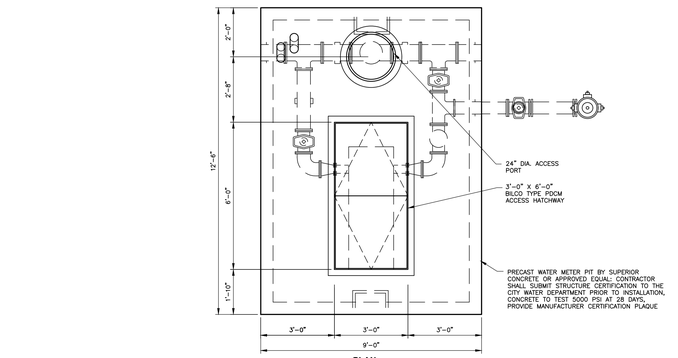
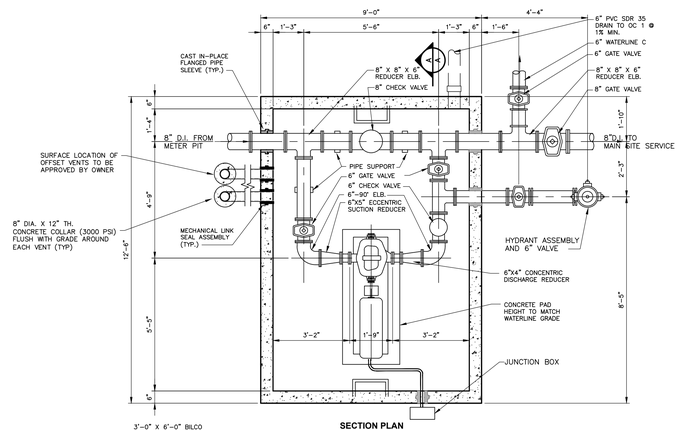
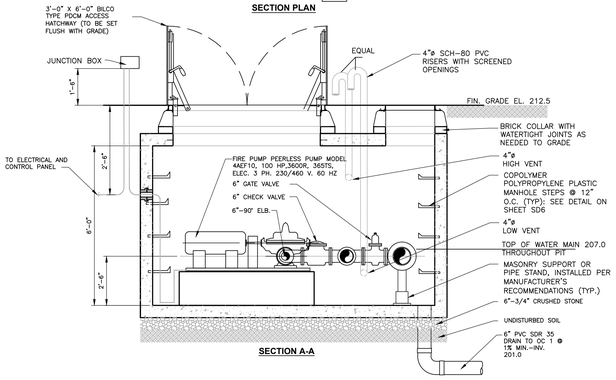


PLAN



SECTION PLAN

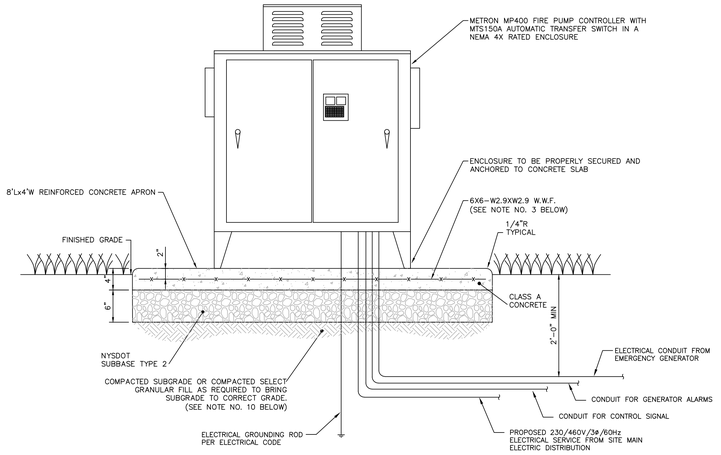


SECTION A-A

NOTES

1. PUMP CHAMBER AND ASSEMBLY AND SHOP DRAWINGS SHALL BE SUBJECT TO REVIEW AND FINAL APPROVAL BY THE CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT.
2. FIRE PUMP FURNISHED FOR FIRE PROTECTION SERVICE SHALL BE SUPPLIED WITH SPECIFIED DRIVERS, CONTROLS AND PUMP ACESSORIES AS DESCRIBED IN APPENDIX TO ENGINEERING REPORT
3. AN ALUMINUM WARNING PLATE SHALL BE RIVETED OR OTHERWISE PERMANENTLY ATTACHED TO THE MANHOLE COVER. THE PLATE SHALL BE A MINIMUM OF 12"x12" AND SHALL BE ENGRAVED WITH THE FOLLOWING LANGUAGE: "WARNING: CONFINED SPACE – ENTRY PROHIBITED WITHOUT AUTHORIZATION – CALL OWNER FOR APPROVAL TO ACCESS". VENTILATION SHALL CONFORM TO EXISTING LOCAL AND/OR STATE CODES AND AS PER SECTION 6.2.5 OF "RECOMMENDED STANDARDS FOR WATER WORKS – 1997" (TEN STATES STANDARDS).
4. PREPARED SURFACE (I.E., BOTTOM) OF EXCAVATION FOR PLACEMENT OF PUMP CHAMBER SHALL CONSIST OF A MINIMUM 9" DEPTH OF 3/4" CRUSHED STONE, LEVELED AND LAID OVER STABLE NATIVE SOIL. IF EXCAVATION REVEALS UNSTABLE SOIL MATERIAL, THIS BEDDING REQUIREMENT SHALL BE MODIFIED BY THE PROJECT ENGINEER.
5. FIRE PUMP PIT TO BE PROVIDED WITH STEPS.
6. ALL ELECTRICAL SHALL BE INSTALLED AS PER THE NATIONAL ELECTRIC CODE, LATEST EDITION.
7. INSTALLATION AND TESTING TO BE CERTIFIED COMPLETE BY A NYS LICENSED PROFESSIONAL ENGINEER.

© 1 **PUMP CHAMBER DETAIL**
SCALE: NOT TO SCALE

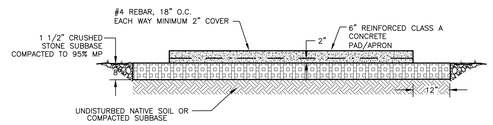


1. THE METRON COMBINATION FIRE PUMP CONTROLLER/TRANSFER SWITCH IS A METRON MODEL MP400 WITH INTEGRATED MTS150A AUTOMATIC TRANSFER SWITCH IN A NEMA 4X RATED ENCLOSURE. THE UNIT IS UNDERWRITER'S LABORATORIES (UL) AND FACTORY MUTUAL (FM) APPROVED AND MEETS ALL THE REQUIREMENTS OF NFPA FOR CENTRIFUGAL FIRE PUMPS.
2. THE CONTROLLER/TRANSFER SWITCH UNIT SHALL BE MANUFACTURED BY METRON, INC. AND BE EQUIPPED WITH ALL THE FEATURES DESCRIBED IN THE ENGINEER'S REPORT. THE UNIT PROVIDES OPERATION OF THE ELECTRIC FIRE PUMP MOTOR FROM AN ALTERNATE SOURCE WHEN THE NORMAL POWER SOURCE FAILS.
3. THE FIRE PUMP IS A PEERLESS HORIZONTAL SPLIT CASE SINGLE STAGE FIRE PUMP MODEL 4AEF10 EQUIPPED WITH A 3550 RPM, 3PH, 230/460V, 60 HZ ELECTRIC MOTOR. THE PUMP SHALL BE EQUIPPED WITH ALL ANCILLARY ACCESSORIES DESCRIBED IN THE ENGINEER'S REPORT.
4. THE EMERGENCY GENERATOR SET SHALL BE A KOHLER MODEL 230REOZJB, 230 KW, DIESEL UNIT WITH SOUND ATTENUATED ENCLOSURE AND DUAL–WALL SUB–BASE TANK, OR APPROVED EQUAL. THE GENERATOR IS TO BE EQUIPPED WITH ALL FEATURES DESCRIBED IN THE ENGINEER'S REPORT.
5. THIS DETAIL IS PROVIDED TO ILLUSTRATE THE INTENDED LAYOUT. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS SHOWING THE ARRANGEMENT AND LOCATIONS OF ALL COMPONENTS, CONDUITS AND EQUIPMENT FOR THE FIRE PUMP CONTROLLER/AUTO TRANSFER SWITCH UNIT FOR A COMPLETE AND FUNCTIONAL INSTALLATION.
6. THE CONTRACTOR SHALL SUBMIT A COPY OF THE SHOP DRAWINGS TO THE CITY OF POUGHKEEPSIE ENGINEER FOR REVIEW.
7. THE INSTALLATION SHALL COMPLY WITH ALL LOCAL, STATE AND NEC ELECTRICAL CODE AND NFPA REQUIREMENTS.
8. INSTALL ALL WIRING IN RIGID GALV. STEEL CONDUITS.
9. ALL WIRING SHALL BE ADEQUATELY SIZED TO CARRY REQUIRED LOADS AS PER ELECTRICAL CODES.

© 2 **ELECTRIC FIRE PUMP CONTROLLER AND AUTO-TRANSFER SWITCH**
SCALE: NOT TO SCALE

CONCRETE NOTES:

1. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED JANUARY 2, 2002, AND ALL ADDENDA THERETO; THE ONLY EXCEPTION BEING THAT THE WORK OF THIS CONTRACT SHALL BE MEASURED IN ENGLISH UNITS.
2. ALL CONCRETE SHALL BE CLASS A CONCRETE. CONCRETE MATERIALS, PLACEMENT, AND CONSTRUCTION SHALL CONFORM WITH SECTION 500 OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
3. REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH SECTION 556 – REINFORCING STEEL FOR CONCRETE STRUCTURES OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND AS SPECIFICALLY CALLED OUT IN THE DRAWINGS.
4. ALL EXPOSED SURFACED SHALL HAVE A BROOM TEXTURED FINISH.
5. EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20'–0" ON CENTER, OR AS INDICATED ON PLANS.
6. JOINTS SHALL NOT BE SAW CUT.
7. EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH "SUREBOND","SAFEBOND" SB–7000 INTENSIFIER BRIGHT PROTECTOR AND SIDEWALK SEALER, OR EQUAL. RATE AND METHOD OF APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.
8. SUBBASE MATERIAL SHALL CONFORM WITH SECTION 304 OF THE ABOVE REFERENCED NYSDOT STANDARD.
9. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMATION WITH SECTION 203–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
10. ALL WORK SHALL CONFORM WITH SECTION 608–SIDEWALK, DRIVEWAYS, AND BICYCLE PATHS OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.



NOTES:

1. THE CONCRETE PAD DIMENSIONS SHALL BE 16'L x 10'W.
2. THE CONTRACTOR SHALL MAKE PROVISIONS TO PROVIDE ALL SLEEVES REQUIRED FOR THE PASSAGE OF ALL CONDUITS IN THE CONCRETE SLAB.

© 3 **GENERATOR PAD DETAIL**
SCALE: NOT TO SCALE

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HIGHVIEW II - MILTON STREET

WATER DETAILS

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
KTB	LB
date	scale
05/25/21	AS SHOWN
project no.	
81947.00	
sheet no.	
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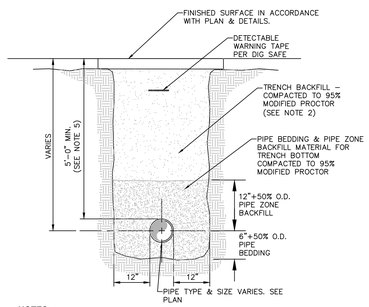


NOTES:

1. PIPE BEDDING & PIPE ZONE BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
3/4"	100%
NO. 40	0-70%
NO. 200	0-10%

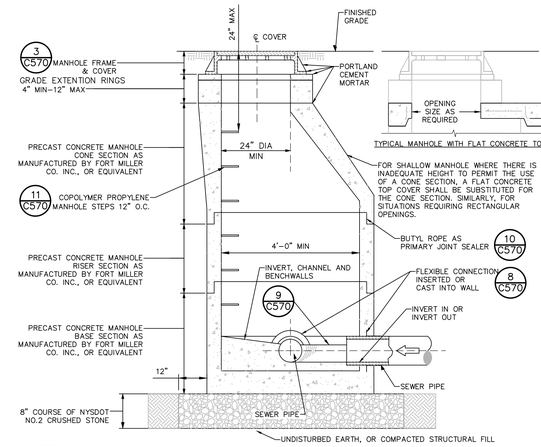
2. TRENCH BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) OR PROCESSED GRAVEL, OR EXCAVATED MATERIAL FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. TRENCH BACKFILL GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
4"	100%
NO. 40	0-70%
NO. 200	0-10%

IN NON-TRAFFIC UNPAVED AREAS TRENCH BACKFILL CAN BE MATERIALS EXCAVATED FROM THE TRENCH AS APPROVED BY THE ENGINEER AND COMPACTED TO 90% MODIFIED PROCTOR.

3. INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.
5. 5'-0" MIN COVER SHALL BE APPLIED TO WATER MAIN OR SANITARY SEWER FORCE MAINS ONLY.

1 PIPE TRENCH DETAIL (TYPICAL)
SCALE: NOT TO SCALE



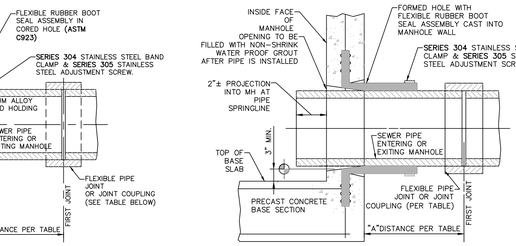
NOTES: USE ONLY WET-CAST UNITS. DRY-CAST NOT ACCEPTABLE

1.

CONE DIMENSIONS	
DIAM. OPENING	HEIGHT
24"	24" OR 42"
30"	34"

2. INVERT SHALL BE FILLETED.
3. REINFORCEMENT FOR MANHOLE COMPONENTS SHALL BE DESIGNED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW. STRUCTURE SHALL BE DESIGNED FOR HS20-44 VEHICULAR LOADING PLUS 25% IMPACT.
4. CONCRETE TO TEST **4,500 PSI** AT 28 DAYS IN CONFORMANCE WITH **A.S.T.M. C-478.**
5. BENCH SHALL BE BUILT FOR FLOW BETWEEN INLET AND OUTLET.
6. EACH MANHOLE EXTERIOR SHALL RECEIVE TWO BITUMINOUS COATS.

2 PRECAST CONCRETE MANHOLE
SCALE: NOT TO SCALE



FLEXIBLE JOINT REQUIREMENTS

SEWER PIPE TYPE	FLEXIBLE JOINT TYPE IN & OUT	"A"DISTANCE (FEET)
DUCTILE IRON	STD RUBBER GASKET PIPE JOINT ONLY	10' MAX
PVC	STD RUBBER GASKET PIPE JOINT ONLY	3' MAX

NOTE:
REFERENCE MANHOLE DETAIL(S) FOR REQUIRED INVERT CHANNEL CONFIGURATION.

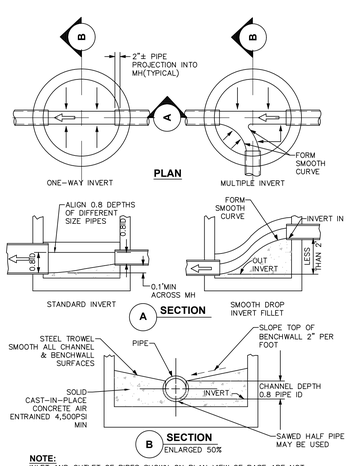
7 PIPE CONNECTION TO MANHOLE- PRECAST OR CORED HOLE W/ INSERTED FLEXIBLE BOOT
SCALE: NOT TO SCALE

FLEXIBLE JOINT REQUIREMENTS

SEWER PIPE TYPE	FLEXIBLE JOINT TYPE IN & OUT	"A"DISTANCE (FEET)
DUCTILE IRON	STD RUBBER GASKET PIPE JOINT ONLY	10' MAX
PVC	STD RUBBER GASKET PIPE JOINT ONLY	3' MAX

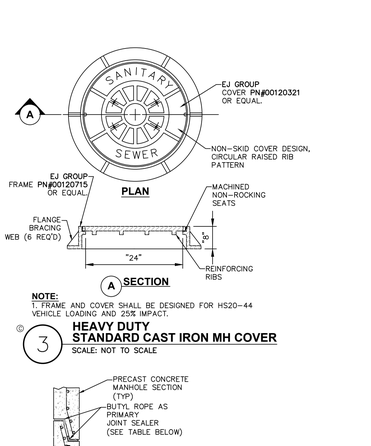
NOTE:
REFERENCE MANHOLE DETAIL(S) FOR REQUIRED INVERT CHANNEL CONFIGURATION.

8 PIPE CONNECTION TO MANHOLE- FLEXIBLE RUBBER BOOT CAST INTO MANHOLE WALL
SCALE: NOT TO SCALE



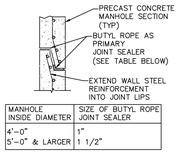
NOTE:
INLET AND OUTLET OF PIPES SHOWN ON PLAN VIEW OF BASE ARE NOT NECESSARILY TYPICAL OF ALL MANHOLES. REFER TO UTILITY PLAN FOR INLET AND OUTLET DIRECTIONS.

9 INVERT, CHANNEL AND BENCHWALLS
SCALE: NOT TO SCALE



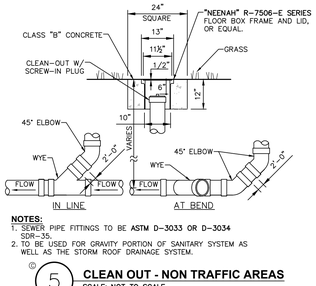
NOTE:
1. FRAME AND COVER SHALL BE DESIGNED FOR HS20-44 VEHICLE LOADING AND 25% IMPACT.

3 HEAVY DUTY STANDARD CAST IRON MH COVER
SCALE: NOT TO SCALE



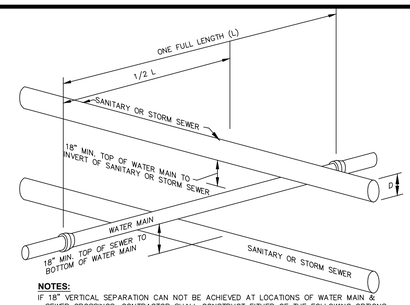
MANHOLE INSIDE DIAMETER	SIZE OF BUTYL ROPE JOINT SEALER
4'-0" 5'-0" & LARGER	1" 1 1/2"

4 MANHOLE JOINT
SCALE: NOT TO SCALE



NOTES:
1. SEWER PIPE FITTINGS TO BE **ASTM D-3033 OR D-3034** SDR-35.
2. TO BE USED FOR GRAVITY PORTION OF SANITARY SYSTEM AS WELL AS THE STORM ROOF DRAINAGE SYSTEM.

5 CLEAN OUT - NON TRAFFIC AREAS
SCALE: NOT TO SCALE



NOTES:
IF 18" VERTICAL SEPARATION CAN NOT BE ACHIEVED AT LOCATIONS OF WATER MAIN & SEWER CROSSINGS, CONTRACTOR SHALL CONSTRUCT EITHER OF THE FOLLOWING OPTIONS:
1. CONSTRUCT SEWER OF PVC WATERWORKS GRADE PRESSURE PIPE MATERIAL 10' ON EACH SIDE OF THE WATER MAIN AND TEST TO 150PSI TO ASSURE TIGHTNESS.
2. EITHER THE WATER MAIN OR THE SEWER LINE MAY BE ENCASED IN A WATER TIGHT CARRIER PIPE WHICH EXTENDS 10 FEET ON BOTH SIDES OF THE CROSSING. THE CARRIER PIPE SHALL BE OF MATERIAL APPROVED FOR THE USE IN WATER MAIN CONSTRUCTION.

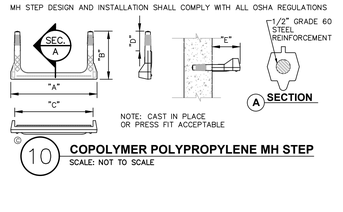
6 SECTION WATER/SEWER SEPARATION REQUIREMENTS
SCALE: NOT TO SCALE

ACCEPTABLE MANHOLE STEPS

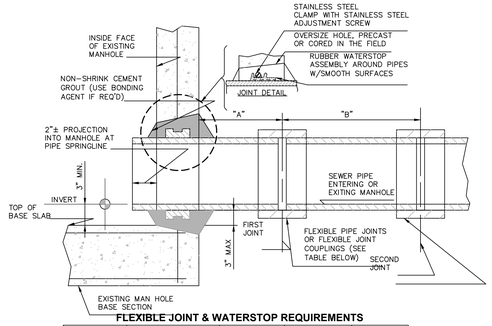
MANUFACTURER	PATTERN NUMBER	"A" STEP WIDTH	"B" LEG LENGTH	"C" RUNG CLEAR	"D" EMBED-MENT	"E" RUNG CLEAR
M.A. INDUSTRIES INC*	PS2-PF	14 3/4	9 1/4	13 3/4	3 3/8	5 7/8
M.A. INDUSTRIES INC*	PS2-PFS	14 3/4	8 1/4	13 3/4	3 3/8	4 7/8

* OR EQUIVALENT

MH STEP DESIGN AND INSTALLATION SHALL COMPLY WITH ALL OSHA REGULATIONS



10 COPOLYMER POLYPROPYLENE MH STEP
SCALE: NOT TO SCALE



FLEXIBLE JOINT & WATERSTOP REQUIREMENTS

SEWER PIPE TYPE	FLEXIBLE JOINT TYPE IN & OUT	"A"DISTANCE (FEET)	"B"DISTANCE (FEET)	MH WATER STOP REQD
DUCTILE IRON	STD RUBBER GASKET PIPE JOINT ONLY	10'MAX	NO LIMIT	YES
PVC	SPECIAL FLEXIBLE JOINT COUPLING	1'MAX	3'MAX	YES

NOTES:
1. THIS DETAIL SHALL BE USED AT NO EXTRA COST IN PLACE OF EITHER OF THE PIPE-TO-MANHOLE CONNECTION DETAILS ONLY WHEN CONNECTING TO EXISTING MANHOLES THAT HAVE NO FLEXIBLE RUBBER BOOT PROVIDED.
2. REFERENCE MANHOLE DETAIL(S) FOR REQUIRED INVERT CHANNEL CONFIGURATION.

11 PIPE CONNECTION TO EXISTING MANHOLE- CEMENT GROUT SEAL WITH WATER STOP
SCALE: NOT TO SCALE

0 1 2 3
ORIGINAL SCALE IN INCHES

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rev.	date	description
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

SANITARY SEWER DETAILS

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

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date	scale
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sheet no.	
C570	

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CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
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date	scale
05/25/21	AS SHOWN
project no.	
81947.00	
sheet no.	
C571	

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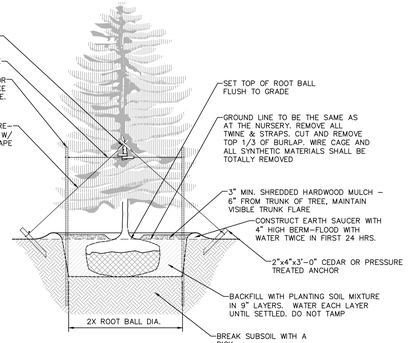
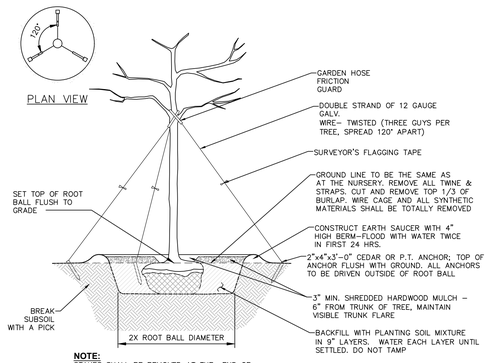


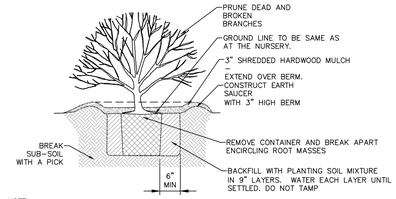
NOTES:
1. SPRAY WITH ANTIDESICCANT IN ACCORDANCE WITH MFG.'S RECOMMENDATIONS.
2. TREES LESS THAN 3" CALIPER SHALL BE STAKED.
3. TREES GREATER THAN 3" CALIPER AND UP SHALL BE GUYED AND ANCHORED.
4. STAKES SHALL BE REMOVED AT THE END OF THE FIRST GROWING SEASON AFTER PLANTING.

© 1 **EVERGREEN PLANTING DETAIL**
SCALE: NOT TO SCALE



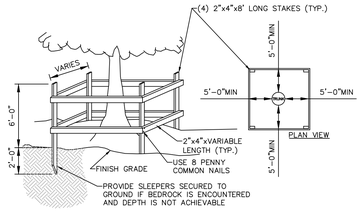
NOTE:
STAKES SHALL BE REMOVED AT THE END OF THE FIRST GROWING SEASON AFTER PLANTING

© 2 **PLANTING AND GUYING DETAIL BALLED AND BURLAPPED TREE**
SCALE: NOT TO SCALE



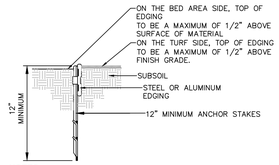
NOTE:
SPRAY WITH ANTI DESICCANT IN ACCORDANCE WITH MFG.'S RECOMMENDATIONS IF FOLIAGE IS PRESENT.

© **SHRUB PLANTING DETAIL FOR CONTAINERIZED SHRUBS**
SCALE: NOT TO SCALE



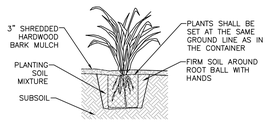
NOTE:
SEE LANDSCAPING PLAN FOR ADDITIONAL TREE PROTECTION NOTES.

© **TEMPORARY TREE PROTECTION DETAIL**
SCALE: NOT TO SCALE



NOTES:
1. 16'-0" SECTIONS TO INCLUDE FIVE (5) 12" STAKES
2. 8'-0" SECTIONS TO INCLUDE THREE (3) 12" STAKES
3. COMPACT GRADES ADJACENT TO EDGING TO MINIMIZE SETTLING
4. CORNERS — CUT BASE OF EDGING HALF WAY AND FORM A CONTINUOUS CORNER.

© **LANDSCAPE BED EDGING**
SCALE: NOT TO SCALE



SECTIONAL ELEVATION

NOTES:
1. SPADED PLANTING SOIL MIX (4"–6" DEPTH), ADD FERTILIZER WHEN MIXING. DO NOT COMPACT AFTER PLANTING.
2. WATER THOROUGHLY AFTER PLANTING.
3. PROVIDE WELL DRAINING SUBSOIL WHEN SOIL IS HEAVY OR COMPACTED.
4. PLANTS SHALL BE REMOVED FROM ALL CONTAINERS WHEN PLANTED, UNLESS OTHERWISE STATED IN THE PLANT SCHEDULE.

© **CONTAINERIZED PERENNIAL PLANTING**
SCALE: NOT TO SCALE

LANDSCAPING NOTES:

1. THE LANDSCAPE CONTRACTOR SHALL CAREFULLY COORDINATE CONSTRUCTION ACTIVITIES WITH THAT OF THE EARTHWORK CONTRACTOR AND OTHER SITE DEVELOPMENT.
2. THE CONTRACTOR SHALL VERIFY DRAWING DIMENSIONS WITH ACTUAL FIELD CONDITIONS AND INSPECT RELATED WORK AND ADJACENT SURFACES. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF ALL FINISH GRADES WITHIN THE WORK AREA. THE CONTRACTOR SHALL REPORT TO THE LANDSCAPE ARCHITECT/ENGINEER AND OWNER ALL CONDITIONS WHICH PREVENT PROPER EXECUTION OF THIS WORK.
3. THE EXACT LOCATION OF ALL EXISTING UTILITIES, STRUCTURES AND UNDERGROUND UTILITIES, WHICH MAY NOT BE INDICATED ON THE DRAWINGS, SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL PROTECT EXISTING STRUCTURES AND UTILITY SERVICES AND IS RESPONSIBLE FOR THEIR REPLACEMENT IF DAMAGED.
4. THE CONTRACTOR SHALL KEEP THE PREMISES FREE FROM RUBBISH AND ALL DEBRIS AT ALL TIMES AND SHALL ARRANGE MATERIAL STORAGE SO AS NOT TO INTERFERE WITH THE OPERATION OF THE PROJECT. ALL UNUSED MATERIALS, RUBBISH AND DEBRIS SHALL BE REMOVED FROM THE SITE.
5. NO TREES OR SHRUBS SHALL BE PLANTED ON EXISTING OR PROPOSED UTILITY LINES.
6. QUALITY ASSURANCE:
   A. NOMENCLATURE: PLANT NAMES SHALL CONFORM TO THE LATEST EDITION OF "STANDARDIZED PLANT NAMES" AS ADOPTED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE.
   B. SIZE AND GRADING: PLANT SIZES AND GRADING SHALL CONFORM TO THE LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK" AS SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC (AAN), UNLESS OTHERWISE SPECIFIED.
   C. NURSERY SOURCE: OBTAIN FRESHLY DUG, HEALTHY, VIGOROUS PLANTS NURSERY GROWN UNDER CLIMACTIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR A MINIMUM OF 2 YEARS. PLANTS SHALL HAVE BEEN LINED OUT IN ROWS, ANNUALLY CULTIVATED, SPRAYED, PRUNED AND FERTILIZED IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. ALL PLANTS SHALL HAVE BEEN TRANSPLANTED OR ROOT PRUNED AT LEAST ONCE IN THE PAST 3 YEARS. BALLED AND BURLAPPED PLANTS MUST COME FROM SOIL WHICH WILL HOLD A FIRM ROOT BALL. HEELED IN PLANTS AND PLANTS FROM COLD STORAGE ARE NOT ACCEPTABLE.
   D. SUBSTITUTIONS: DO NOT MAKE SUBSTITUTIONS OF TREES AND/OR SHRUB MATERIALS. IF REQUIRED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY AND PROPOSAL FOR USE OF EQUIVALENT MATERIAL. WHEN AUTHORIZED, ADJUSTMENTS OF CONTRACT AMOUNT (IF ANY) WILL BE MADE BY CHANGE ORDER.
7. SEEDING & PLANTING SEASONS AND TIMING CONDITIONS:
   A. UNLESS OTHERWISE DIRECTED IN WRITING, SEED LAWNS FROM MARCH 15 TO JUNE 15, AND FROM AUGUST 15 TO OCTOBER 15.
   B. UNLESS OTHERWISE DIRECTED IN WRITING PLANT TREES AND SHRUBS FROM MARCH 15 TO JUNE 1, AND FROM AUGUST 15 TO OCTOBER 30.
   C. AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE LAWNS OR PLANTINGS ARE TO BE ESTABLISHED AND WORK IS COMPLETE, SHALL BE RESTORED WITH PERMANENT VEGETATIVE COVER AS SOON AS SITE AREAS ARE AVAILABLE AND WITHIN 14 DAYS AFTER WORK IS COMPLETE: WORK SHALL BE WITHIN THE SEASONAL LIMITATIONS FOR EACH KIND OF LANDSCAPE WORK REQUIRED. PROVIDE STABILIZATION WITH TEMPORARY VEGETATIVE COVER (TOPSOIL AND TEMPORARY COVER SEED MIX) WITHIN 14 DAYS AFTER WORK IS COMPLETE, FOR SEEDING OUTSIDE PERMITTED SEEDING PERIODS.
8. PRODUCTS:
   A. IMPORTED TOPSOIL: PROVIDE TOPSOIL CONFORMING TO THE FOLLOWING:
      i. LOAM TOPSOIL, WELL DRAINED HOMOGENEOUS TEXTURE AND OF UNIFORM GRADE, WITHOUT THE ADMIXTURE OF SUBSOIL MATERIAL AND FREE OF DENSE MATERIAL, HARDPAN, CLAY, STONES, SOD OR OTHER OBJECTIONABLE MATERIAL.
      ii. CONTAINING NOT LESS THAN 5% NOR MORE THAN 20% ORGANIC MATTER IN THAT PORTION OF A SAMPLING PASSING A 1/4" SIEVE WHEN DETERMINED BY THE WET COMBUSTION METHOD ON A SAMPLE DRIED AT 105°C.
      iii. CONTAINING A PH VALUE WITHIN THE RANGE OF 6.5 TO 7.5 ON THAT PORTION OF THE SAMPLE WHICH PASSES A 1/4" SIEVE.
      iv. CONTAINING THE FOLLOWING WASHED GRADATIONS:

SIEVE DESIGNATION	% PASSING
1"	100
1/4"	97-100
NO 200	20-60

   B. SEED MIXTURE:
      PROVIDE FRESH, CLEAN, NEW-CROP SEED MIXED IN THE PROPORTIONS SPECIFIED FOR SPECIES AND VARIETY, AND CONFORMING TO FEDERAL AND STATE STANDARDS. PROVIDE THE FOLLOWING MIXTURES:
      i. LAWN SEED MIX

SUN AND PARTIAL SHADE:

AMOUNT BY: WEIGHT	SPECIES OR VARIETY	MINIMUM % PURITY	GERMINATION
50%	KENTUCKY BLUE GRASS*	95%	80%
20%	PERENNIAL RYE	98%	90%
30%	CREEPING RED FESCUE	97%	85%
100%			

*MINIMUM 2 (EQUAL PROPORTIONS) VARIETIES AS LISTED IN CORNELL RECOMMENDATIONS FOR TURFGRASS.

SHADE:

AMOUNT BY: WEIGHT	SPECIES OR VARIETY	MINIMUM % PURITY	GERMINATION
25%	KENTUCKY BLUE GRASS**	95%	80%
20%	PERENNIAL RYE	98%	90%
35%	CREEPING RED FESCUE	97%	85%
20%	CHEWINGS RED FESCUE	97%	85%
100%			

**SHADE TOLERANT VARIETY

      ii TEMPORARY COVER SEED MIX

AMOUNT BY: WEIGHT	SPECIES OR VARIETY	MINIMUM % PURITY	GERMINATION
100%	ANNUAL RYEGRASS	98%	90%

   C. LIME: NATURAL LIMESTONE CONTAINING AT LEAST 85% OF TOTAL CARBONATES, GROUND TO SUCH FINENESS THAT AT LEAST 90% PASSES A 10-MESH SIEVE AND AT LEAST 50% PASSES A 100-MESH SIEVE.
   D. FERTILIZER:
      i. FOR STARTER FERTILIZING: COMMERCIAL STARTER FERTILIZER, GRANULAR, NONBURNING PRODUCT CONTAINING 5% NITROGEN, 10% AVAILABLE PHOSPHOROUS, AND 5% WATER SOLUABLE POTASH (5-10-5).
      ii. FOR FINAL FERTILIZING: IF APPLIED IN SPRING SEASON, SHALL BE A SLOW RELEASE COMMERCIAL FERTILIZER, GRANULAR, WITH 3-1-2 NPK. IF APPLIED IN FALL SEASON, SHALL BE AS SPECIFIED IN (8.D.) ABOVE.
   E. TREES, SHRUBS, GROUND COVERS, PERENNIALS, ANNUALS:
      i. PLANTING SOIL MIXTURE: SHALL BE PREMIXED IN BULK, AND CONTAIN THE FOLLOWING BY VOLUME:
         30 PARTS TOPSOIL
         10 PARTS PEAT
         1 PART BONE MEAL
      ii. PEAT: BROWN TO BLACK IN COLOR, WEED AND SEED FREE. DRIED SPHAGNUM PEAT, CONTAINING NOT MORE THAN 9% MINERAL ON A DRY BASIS AND CONFORMING TO NYSDOT 713-15.
      iii. BONE MEAL: FINELY GROUND, RAW, MINIMUM 4% NITROGEN AND 20% PHOSPHORIC ACID. IT SHALL BE DELIVERED IN SEALED BAGS SHOWING THE MANUFACTURER'S GUARANTEED ANALYSIS.
   F. STAKES: 8 FEET LONG, 3 INCH DIA. CEDAR OR P.T. WOOD STAKES.
   G. HOSE: NEW, 2-PLY GARDEN HOSE NOT LESS THAN 1/2 INCH IN DIAMETER.
   H. WEED CONTROL FABRIC: SOIL CHECK AS MANUFACTURED BY BRIGHTON BYPRODUCTS CO. INC, NEW BRIGHTON, PA; MIRASCAPE OR MIRAFI GEOSYNTHETIC PRODUCTS, NORCROSS, PA, OR APPROVED EQUIVALENT.
   I. MULCH:
      i. LAWN AREAS
      OAT OR WHEAT STRAW, FREE OF WEEDS. AN ALTERNATIVE IS WOOD FIBER CELLULOSE IF HYDROSEEDING IS USED.
      ii. PLANT BED AREAS
      GROUND OR SHREDDED HARDWOOD BARK, UNCOLORED. NO PIECES OVER 2 INCHES GREATEST DIMENSION. FREE FROM SAWDUST.
9. EXECUTION:
   A. LANDSCAPE WORK SHALL BE UNDERTAKEN AS SOON AS SITE AREAS ARE AVAILABLE.
   B. TOPSOIL SHALL BE SPREAD NO LESS THAN 4" OVER SUB-GRADE MATERIAL. SOIL AMENDMENTS SHALL BE THOROUGHLY MIXED INTO THE TOP 4" OF TOPSOIL, FOLLOWING THE SPECIFICATIONS STATED BELOW.
   C. PERFORM FINE GRADING TO FINISHED ELEVATION ONLY IMMEDIATELY PRIOR TO PLANTING. PLANTING AREAS SHALL BE GRADED TO A SMOOTH, EVEN SURFACE, FREE OF DEPRESSIONS OR RIDGES WITH A UNIFORM LOOSE, FINE TEXTURE.
   D. FERTILIZING:
      i. THE SOIL SHALL BE TESTED FOR PH AND LIME ADDED AS NECESSARY. ALL AMENDMENTS SHALL BE CHECKED AND APPROVED BY LANDSCAPE ARCHITECT BEFORE AMENDMENTS ARE MADE.
      ii. APPLY FERTILIZER AT RATE OF 4 LBS/1000 SF FOR LAWN AREAS.
   E. LAWN:
      i. LAWN SEED MIX: SEED AT THE RATE OF 5 TO 6 LBS PER 1,000 SF.
      ii. TEMPORARY COVER SEED MIX: SEED AT THE RATE OF 3 TO 4 LBS PER 1,000 SF.
      iii. TEMPORARY COVER SEED MIX TO BE APPLIED ONLY FOR LATE FALL OR SUMMER SOIL STABILIZATION OUTSIDE ALLOWED SEEDING PERIODS.
   F. ALL SEEDED AREAS SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS:
      i. A UNIFORM BLANKET OF STRAW APPLIED AT A RATE OF 2 TONS/ACRE MIN, TO BE APPLIED ONCE SEEDING IS COMPLETE.
      ii. WOOD FIBER CELLULOSE APPLIED WITH SEED MIX BY A HYDROSEEDER AT A RATE OF 2,000 LBS/ACRE.
   G. ALL SEEDED SLOPES 3:1 OR GREATER SHALL BE PROTECTED FROM EROSION WITH JUTE MESH OR APPROVED EQUAL.
   H. ALL NEWLY PLANTED AREAS SHALL BE KEPT MOIST BY WATERING UNTIL GRASSES AND GROUND COVERS ARE WELL ESTABLISHED. THE LANDSCAPE CONTRACTOR MUST WATER PLANT MATERIAL WHEN NECESSARY FOR 60 DAYS AFTER INSTALLATION.
   I. LAWNS ARE TO BE WARRANTED UNTIL THEY BECOME ESTABLISHED, UNTIL FINAL ACCEPTANCE, AND NOT LESS THAN 60 DAYS AFTER COMPLETION OF ALL WORK. TREES, SHRUBS, GROUND COVERS, AND PERENNIALS SHALL BE WARRANTED AGAINST DEFECTS INCLUDING POOR GROWTH AND DEATH, EXCEPT WHEN RESULTING FROM OWNER NEGLECT, INCIDENTS THAT ARE BEYOND THE CONTROL OF THE LANDSCAPE INSTALLER AND DAMAGE OR ABUSE BY OTHERS, FOR AT LEAST ONE FULL YEAR AFTER PROJECT COMPLETION.

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rev.	date	description
1	06/29/21	REVISED FOR PLANNING BOARD SUBMISSION

HIGHVIEW II - MILTON STREET

LANDSCAPE DETAILS

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
	LB
date	scale
05/25/21	AS SHOWN
project no.	
81947.00	
sheet no.	
C580	

Drawing Name: Z:\projects\81900-81999\81947.00 - Highview II\DWG\01_C580_81747-00_LANDSCD.DWG
Xref's Attached: XTB_30X42_81947
Date Printed: Oct 05, 2021, 4:16pm

SCHEMATIC FRONT ELEVATION
NEW APARTMENT BUILDING

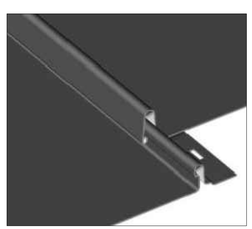
CULTURED STONE VENEER
ENVIRONMENTAL STONEWORKS
BLACK OAK HACKETT CUT STONE

GLEN GERY THIN BRICK
COLOR: ROMERO

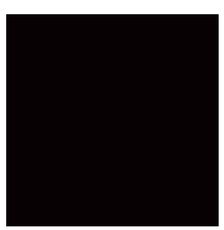
JAMES HARDIE CEMENT SIDING
PEARL GRAY

JAMES HARDIE CEMENT SIDING
ARCTIC WHITE

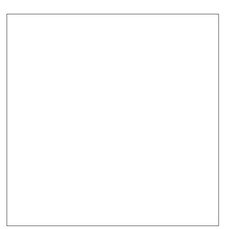
GAF - TIMBERLINE
ARCHITECTURAL SHINGLES
COLOR: CHARCOAL



STANDING SEAM ROOFING
CHARCOAL



CLAD WINDOWS AND DOORS
BLACK



BORAL - TRU EXTERIOR CEMENT TRIM
COLOR: WHITE

ALUMINUM RAILING
BLACK

EXTERIOR FINISHES

SCHEMATIC RIGHT SIDE ELEVATION
NEW APARTMENT BUILDING

PROPOSED HIGH VIEW MULTI-FAMILY PROJECT

MILTON STREET, POUGHKEEPSIE, NY

9-16-21
#21080

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Full Environmental Assessment Form Part 1

for

HIGHVIEW AT THE FALLKILL CREEK

Milton Street
City of Poughkeepsie
Dutchess County, New York

Issued: *December 2, 2020*

Prepared for:

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Prepared by:

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Chazen Project No. 81947.00

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FULL ENVIRONMENTAL ASSESSMENT FORM PART 1

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Attachment A: Councilwoman Flowers Letter of Support
Attachment B: Natural Resource Information

Note: Site Plan submitted separately.

PROJECT NARRATIVE

1.0 INTRODUCTION

1.1 Project Summary

The Applicant and Owner, Maselo Realty, LLC, is proposing the rezoning of an 8.713-acre tax parcel on Milton Street in the City of Poughkeepsie from Medium Low-Density Residential (R-2) to Planned Residential Development (PRD) for the construction of a 63-apartment unit clustered multifamily development within two buildings with two accesses off Milton Street. The parcel is identified as parcel number 131300-6162-73-623227 on the City of Poughkeepsie Tax Map. The Town of Poughkeepsie abuts the eastern edge of the property (see Figures 1 and 2).

The parcel is currently undeveloped and zoned for Medium Low-Density Residential (R-2) within which multifamily development is not permitted. Therefore, to facilitate the proposed project, the Applicant is petitioning the City for a rezoning of the property from R-2 to PRD by the Common Council. Upon completion of the rezoning, the Applicant will seek site plan approval from the Planning Board.

1.2 Background

On April 25, 2006, the City of Poughkeepsie Planning Board granted site plan approval for the construction of a 120-unit condominium complex to be known as Highview at the Fallkill Creek, located on the north side of Milton Street. The Applicant was Phoenix Capital Partners, LLC. The parcel was zoned as Medium High-Density Residential (R-4) at that time, which would have permitted a maximum of 140 dwelling units based on the R-4 requirements and lot size. The original project was never undertaken, and site plan approvals lapsed. The site was subsequently rezoned to Medium Low-Density Residence District (R-2) in October 2010.

1.3 Site Description and Project Details

The project parcel is located in the northeast quadrant of the city, along the city/town border, with access to the site on Milton Street by way of Fitchett Street and West Arnold Road. The project site consists of vacant wooded land. The Fallkill Creek runs along the western property line and within the property for approximately 200 linear feet. The current development proposal, referenced as Highview at the Fallkill Creek – Milton Street, includes 63 multifamily dwelling units clustered within two buildings in the southeast portion of the project parcel. The unit breakdown is anticipated to include approximately 31 one-bedroom and 32 two-bedroom units.

The development will be located away from Milton Street (approximately 240 feet) with a substantial natural buffer. The finished floor of the southern building's (Building 100 on Sheet C130) ground floor will be approximately 18 ft lower than Milton Street. The development will not directly impact wetlands or the Fallkill Creek and is approximately 146 – 160 feet away from the Creek. The development will occupy less than half of the 8.713-acre property allowing for approximately 57% of the site to remain undisturbed including 380 trees or approximately 68% of trees currently found on the site.

1.4 Anticipated Permits/Approvals

Table 1 provides a list of the approvals/permits that are anticipated for the project.

Table 1: Anticipated Approvals/Permits

AGENCY	APPROVAL/PERMIT
City of Poughkeepsie Common Council	Rezoning from R-2 to PRD
City of Poughkeepsie Planning Board	Site plan approval
City of Poughkeepsie Zoning Board of Appeals	Area Variances
City of Poughkeepsie – Engineering Department	Curb cut approval
City of Poughkeepsie – Zoning Administrator	Floodplain development permit
Dutchess County Department of Planning and Development	GML 239m referral
Dutchess County Department of Health	Water and Sewer Connections
New York State Department of Environmental Conservation (NYSDEC)	GP-0-20-001 SPDES General Permit for Discharges during Construction Activities

2.0 LAND USE, ZONING, AND PUBLIC POLICY

2.1 Land Use and Zoning

The parcel is currently undeveloped and zoned for Medium Low-Density Residential (R-2). To the north and west, the property is abutted by Light Industrial (I-1) and Research & Development (R&D) districts, which house a range of uses including multi-family housing (Highridge Garden Apartments), a junkyard, the City's Department of Public Works complex, and manufacturing uses. To the east, in the Town of Poughkeepsie, the property is abutted by a parcel zoned for Multifamily Residence (Town of Poughkeepsie) which contains a large apartment complex, Mountain Brook Apartments. The southern portion of the lot abuts a Medium-Low Density Residential (R-2) district, comprised primarily of single-family residences (Figures 3 and 4).

The purpose of the R-2 District is to provide for areas of relatively open character for single family dwellings on individual lots, as well as for creative cluster development on appropriate sites to provide for facilities and uses which serve residents of those areas and which are benefited by an open residential environment; and to provide opportunity for more intensive use of large older residential structures as a means of assuring neighborhood stability. Table 2 shows the uses that are permitted in this district. Apartments/multifamily dwellings are not permitted in R-2 Districts. Therefore, the Applicant is petitioning the City for a rezoning of the property from R-2 to PRD by the Common Council to facilitate the development of a 63-unit multifamily residential development.

The rezoning of the property to a PRD District, which will permit multifamily residential development, is anticipated to result in a more environmentally sensitive development of the property than that of a traditional single-family home development. The minimum lot area requirement in the R-2 District is 6,000 SF for each single family home; therefore, a maximum of 63 dwellings could theoretically be developed on the site according to the R-2 zoning requirements. Under the existing R-2 zoning, a cluster development allows for flexibility with site design, but the residential uses permitted in a cluster development are

limited to the residential uses permitted in the underlying zoning district. In the R-2 District, the residential use is single family detached dwellings, which would preclude apartment development.

Table 2: Medium Low-Density Residence District (R-2) – Permitted Uses

R-2 Zoning District	**Permitted as-of-right**
	Single-family detached dwellings
	Home occupations per §19-4.1
	Professional offices per §19-4.2
	Municipal parks and recreational facilities
	Governmental uses
	Public, private and parochial schools per §19-3.12(2)(a)4
	Cemeteries
	Student home per §19-4.22
	Permitted by Planning Board Special Permit
	Places of worship per §19-3.12(2)(b)1
	Cluster developments per §19-4.16
	Nursery or preschool educational establishments or day-care centers per §19-3.12(2)(b)3
	Libraries, museums and/or art galleries on a minimum 20,000 SF lot
	Golf, tennis or swimming clubs per §19-3.12(2)(b)6
	Family day-care homes
	Agency group homes, agency community residences or family care homes per §19-3.12(2)(b)8
	Rented rooms, no greater than two

The Applicant proposes to rezone the property to PRD to allow multifamily development within a development that conforms to the parcel's unique environmental character. The property is identified in the Poughkeepsie's Natural Resource Inventory by Hudsonia Ltd. as one of the last remaining areas within the City of Poughkeepsie where the Fall Kill is not channeled and is permitted to flood naturally. Approximately one-third of the property falls within the City's flood area boundary and contains both upland hardwood forest and upland shrubland habitat. These characteristics make the site ideally suited to the clustering of development away from the creek, which will retain existing habitat. Therefore, rezoning the property to PRD is an appropriate alternative given the PRD's stated purpose and its innate flexibility that is intended to encourage context-specific housing that responds to the characteristics of a site and the character of the surrounding neighborhood.

The purpose of the PRD District Zoning is as follows:

> *It is the purpose of this Planned Residential Development (PRD) section to provide performance criteria as the basis for flexible use and design regulations so that self-contained residential neighborhoods, containing both individual building sites and common property, may be planned and developed in a unified manner on those large tracts of vacant or predominantly vacant land that are appropriate for such use.*

It is further the intent (1) to encourage innovations in residential development so that the growing demands for housing of different types at all economic levels may be met by greater variety in type, design and siting of dwellings; and (2) to encourage the maximum reasonable conservation and the most efficient possible use of large tracts of land. These objectives cannot be achieved through the use of rigid and uniform traditional bulk and use zoning and subdivision regulations.

The rezoning of land to a PRD District by the Common Council replaces the use and dimensional specifications contained elsewhere in the Zoning Ordinance with an approved plan, which becomes the basis for land use controls. The specific objectives of the PRD zoning designation are:

(a) An increase in choices of housing types (one-family detached, semidetached, attached and multifamily dwellings) available to city residents at various economic levels.

The proposed project includes 63 apartment dwelling units, which are anticipated to be leased at market rate.

(b) More usable open space and recreation areas.

Approximately 22,100 SF of usable open space will be provided for tenant use as part of the proposed project.

(c) Preservation of trees and outstanding natural topographic and geological features and prevention of soil erosion.

The rezoning of the property to a PRD District will permit multifamily residential development and is anticipated to result in a more environmentally sensitive development of the property than that of a traditional single-family home development. The development will not directly impact wetlands or the Fallkill Creek and is approximately 146 – 160 feet away from the Creek. The development will occupy less than half of the property allowing for approximately 57% to remain undisturbed including 380 trees or approximately 68% of trees currently found on the site.

The proposed project will require greater than one acre of disturbance and will require coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity. A Stormwater Pollution Prevention Plan will be prepared in conformance with the most current New York State Stormwater Management Design Manual and New York State Standards and Specifications for Erosion and Sediment Control.

(d) More convenience in location of accessory commercial and service areas.

The proposed project does not include accessory commercial or services areas.

(e) A smaller network of utilities and streets which would lower housing and public maintenance costs.

The proposed project would utilize internal driveways, drive aisles and parking. No new streets are proposed. The site is currently served by municipal utilities and it is anticipated that connections to these utilities will be sought.

(f) A more desirable environment than would be possible through the strict application of other provisions of this Chapter.

A strict application of the Medium Low-Density Residential (R-2) Zoning District to the project site could theoretically yield 63 single-family homes. The R-2 Zoning District does allow cluster development, but the residential uses permitted in a cluster development are limited to the residential uses permitted in the underlying zoning district. In the R-2 District, the residential use is single family detached dwellings, which would preclude apartment development. The Applicant proposes to rezone the property to PRD to allow multifamily development within a development that conforms to the parcel's unique environmental character.

Under a PRD zoning designation, the development may not exceed the density standards of the current R-2 zoning designation, which has a minimum lot area of 6,000 SF per dwelling unit, for maximum of 63 dwelling units on 8.713 acres. However, due to the PRD District's flexibility the development may be clustered into two multi-family buildings rather than spread out as detached single-family homes. This allows for development that will better conform to the natural conditions and constraints of the site.

A PRD is required to meet the following standards and general requirements per §19-3.18:

(a) The minimum area to qualify for a PRD District shall be 25 contiguous acres of land. Where the applicant can demonstrate that the characteristics of his holdings will meet the objectives of this section, plans covering lesser acreage may be considered.

The Applicant is proposing construction of a 63-unit clustered multifamily apartment development within two buildings with access off Milton Street on an approximately 8.713-acre property. The site design includes open space and a pool and pool house. Due to the clustered nature of the site design, the development will occupy less than half of the property allowing for approximately 57% to remain undisturbed including 380 trees or approximately 68% of trees currently found on the site. The proposed project does not include accessory commercial or services areas or internal roadways. The strict application of the R-2 zoning for the provision of single-family homes, whether a clustered or conventional subdivision, would result in greater ground disturbance and loss of natural habitat.

(b) A PRD shall have access to an arterial street, as defined in the City of Poughkeepsie ordinances and regulations.

The project will have two accesses (each one-way) off Milton Street, which is not codified as an arterial street by the City of Poughkeepsie. Therefore, the Applicant will seek an area variance from the Zoning Board of Appeals (ZBA). The appeal to allow access to the proposed PRD from Milton Street versus an arterial road is not anticipated to result in an undesirable change to the character of the neighborhood or detriment to nearby properties because there are not

significant adverse impacts to the traffic system from the project and because the development is well screened from Milton Street.

(c) The following shall be permitted uses:

1. Dwelling units of all types, subject to the requirements of Subsection (3)(d) below.

The proposed multifamily development is a permitted use in the PRD Zone. No accessory commercial development is proposed.

2. Retail, personal service and professional office uses, where such uses are scaled primarily to serve the residents of the PRD.

(d) Residential density and standards:

1. The gross density, measured over the entire tract shall not exceed the equivalent of the number of units that are permitted in the zoning district in effect for the subject property immediately prior to the designation of the property for PRD.

The minimum lot area requirement in the R-2 District is 6,000 SF for each single family home; therefore, a maximum of 63 dwellings could theoretically be developed on the site according to the R-2 zoning requirements. The site plan presents 63 dwelling units.

2. There shall be off-street parking facilities, subject to the requirements of Section 19-4.3 of this Chapter.

The site plan proposes 124 spaces be provided as part of the development, which meets the requirements of Section 19-4.3.

3. Required usable open spaces shall be provided at the same ratio as R-4 District [Section 19-3.15(4)(i)], plus there shall be 1,000 square feet of usable open space for every single-family detached dwelling unit.

The City's Zoning Ordinance stipulates that for residential uses located in R-4 there shall be provided in each multiple dwelling not less than 300 square feet of usable open space for each one-bedroom unit; 400 square feet of usable open space for each two-or-more-bedroom unit. For any development containing more than 15 units, such usable open space shall be devoted to improved and landscaped play and sitting areas for use of residents thereof, and the design and layout of the usable open space shall be subject to approval by the Planning Board.

The 32 one-bedroom units would require 9,300 SF of open space. The 32 two-bedroom units would require 12,800 SF of open space. The total required open space is 22,100 SF.

The site plan includes usable open space and a swimming pool with pool house. Therefore, the project complies with the required 22,100 SF of open space.

(e) Commercial density and standards:

1. Commercial uses may be permitted where such uses are scaled to serve the residents of the PRD. Where a PRD contains less than 250 dwelling units, a maximum of 2,500 square feet of floor area may be provided

for retail commercial and personal service use. Where a PRD contains more than 250 dwelling units, an additional 1,000 square feet of retail commercial or personal service use may be provided for each 100 additional dwelling units.

No accessory commercial uses are proposed as part of the development.

2. Not more than one office or studio, other than accessory to a use otherwise permitted, shall be permitted for each 25 dwelling units or major fraction thereof, on the parcel. If such office(s) is in a residential structure, such office or studio may be located only on the first floor. Access to such office or studio shall be separate from access to residential portions of the structure.

No accessory commercial uses are proposed as part of the development.

3. There shall be off-street parking facilities, subject to the requirements of Section 19-4.3 of this Chapter.

No accessory commercial uses are proposed as part of the development.

(f) Common areas and facilities.

1. "Common areas and facilities" in a PRD is defined as a parcel or parcels of land, together with all improvements thereon, the use and enjoyment of which are shared by the owners and occupants of the individual building sites or dwelling units. Where common areas or facilities exist, the ownership of such property may be either public or private. Where such areas or facilities are not dedicated to the City of Poughkeepsie or other public agency, the owner shall provide for and establish an organization for the continued ownership and maintenance thereof. Such organization shall not be dissolved nor shall it dispose of any common areas or facilities by sale or otherwise.

There are residential amenity areas and other common spaces, which will be managed by the owner.

(4) Site and structure requirements.

(a) It shall be the city's policy to preserve and incorporate into the landscaping of the development natural features, such as streams, rock outcrops, trees and shrubs. All trees with a diameter of eight inches or more, measured three feet from the base of the tree, shall be preserved to the fullest extent possible consistent with good design, engineering and reasonable development of the site. Permission to remove any such trees shall be subject to approval by the Planning Board.

The trees with a diameter of eight inches or more, measured three feet from the base of the tree, are intended to be preserved to the fullest extent possible consistent with good design, engineering and reasonable development of the site. The site plan retains 380 trees on the site or approximately 68% of trees currently found on the site. Additionally, a rock outcrop located in the south central part of the site is retained. No development of the Fallkill Creek, wetlands, or floodplain area are proposed as part of the project.

(b) Where adequate surface drainage is not possible by grading alone, a supplementary drainage system approved by the City Engineer shall be required.

The proposed project will require greater than one acre of disturbance and will require coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity. A Stormwater Pollution Prevention Plan will be prepared in conformance with the most current New York State Stormwater Management Design Manual and New York State Standards and Specifications for Erosion and Sediment Control and through coordination with the City Engineer. The Grading and Utility Plan (C140) shows the stormwater being conveyed via swales and subsurface piping to an on-site stormwater bioretention basin. The treated water will outflow to the Fallkill Creek.

(c) All electric, telephone, cable television and similar equipment shall be installed underground in accordance with the New York State Public Service Commission regulations.

The Applicant will work with the local utilities to advance underground connections to the site.

(d) Lot sizes and dimensions and structure heights and locations thereon may be freely disposed and arranged in conformance with the overall density standards set forth herein. In reviewing any application for a PRD, the Planning Board shall be guided by standards set elsewhere in this Chapter for comparable uses and by common good planning practice, to the end that the resulting development shall be compatible with the surroundings, and to assure the stability of the uses proposed to be developed on the site.

The site design avoids sensitive natural resources (e.g. Fallkill Creek, wetlands) leaving approximately 57% of the site undisturbed. The design complies with the bulk and dimensional requirements of the PRD, with the exception of the 50-foot buffer along the east side of the site which abuts the Town of Poughkeepsie. Area variances will be sought to allow the refuse enclosure and parking within the buffer strip and for the pool house location within 120 feet of an apartment building located within the Town of Poughkeepsie, if applicable. The design provides a 131-foot buffer to the Fallkill Creek where Zoning Section 19-4-18(2)(a) requires a minimum 30-foot setback. The proposed parking meets the requirements of the Zoning Ordinance. The buildings are proposed to be 3.5 stories, with three stories visible on the east or front façade and four stories visible on the west façade. Note that the finished floor elevation of the ground floor of the southern most building will be approximately 18 feet lower than Milton Street and the same building will be approximately 240 feet north of Milton Street with a substantial buffer in between.

(e) The right-of-way and pavement widths for internal roads serving multifamily dwellings shall be adequate and sufficient in size, location and design to accommodate the maximum traffic, parking and loading needs and the access of fire-fighting equipment and police or emergency vehicles. The pavement of said roads shall be not less than 22 feet wide and shall be subject to all other applicable city ordinances and standards.

The site design includes access-ways of 20 feet wide. A truck turning template will be provided as the design is advanced to demonstrate suitable access for emergency vehicles.

(f) The developer shall provide all necessary on-site water and sewer facilities, including, if necessary, water storage tanks, storm drainage, highway access, paved service streets, sidewalks, parking and loading facilities, lighting, fire alarm system and other necessary facilities, making reasonable provision

for utility service connections with adjoining properties in other ownerships. Such proposed improvements shall be subject to review and approval by the appropriate city authority. Water supply and distribution sewers, storm drains, streets, sidewalks and paved areas shall be approved by the Department of Public Works and the City Engineer; parking area access, layout and lighting shall be approved by the Police Department; all site plans shall be approved by the Fire Department for access, water pressure and supply and hydrant and call box locations.

The site is currently served by municipal utilities and it is anticipated that connections to these utilities will be sought. Detailed site engineering will continue to advance during the site plan review with regard to utilities, lighting, and other necessary facilities.

(g) Any nonresidential uses within the PRD must be located so as to be compatible with nearby residential uses.

No accessory commercial uses are proposed as part of the development.

(h) A buffer strip shall be provided along the property line and along any street line. Said strip shall be at least 50 feet in depth, measured inward from the street line or property line; provided, however, that in no event shall any structure or building be permitted closer than 120 feet from any residence on any property abutting the PRD property and shall be suitably landscaped with grass and shrubs, trees or other ground cover or such screening as the Planning Board may prescribe. No parking shall be permitted in this area.

The site plan includes parking area and the refuse enclosure within the 50-foot required buffer strip and the pool house is located less than 120 feet from the Mountain Brook apartment building located east of the site in the Town of Poughkeepsie. Area variances will be sought to allow the refuse enclosure and parking with the buffer strip and for the pool house location within 120 feet of an apartment building located within the Town of Poughkeepsie, if applicable. The requested area variances will not result in a detriment to the health, safety and welfare of the neighborhood or community because the development will be located away from Milton Street (approximately 240 feet) with a substantial natural buffer. The requested area variances are critical as these allow the site design to be setback away from the natural resources on site so that no direct impacts to the FallKill Creek or wetlands occurs.

(i) Maximum building coverage of the site shall be 20%.

The site design represents a development comprising approximately 5% building coverage.

In addition to Planning Board meetings, the project underwent two community meetings in 2019 and has received support from Councilwoman Flowers, see Attachment A for a letter of support.

2.2 Public Policy

City of Poughkeepsie Comprehensive Plan, 1998

The City updated its Comprehensive Plan in 1998 with a focus on three areas: Main Street, the Cottage Street Business District, and the Waterfront. These areas were identified as being critically important to

the City's future growth. Other areas of interest updated in the Plan included neighborhood planning issues, the City's Zoning Code, and recreational resources. The Plan outlines the following goals:

- Goal #1: A Traditional Downtown and Main Street;
- Goal #2: Neighborhoods with a Strong Sense of Community;
- Goal #3: A Vibrant Waterfront for Commerce and Recreation;
- Goal #4: Increased Employment Opportunities;
- Goal #5: User-Friendly Transportation Systems;
- Goal #6: A Regional Center for Commerce, Medicine, and Government; and
- Goal #7: Creating New Economic Opportunities.

The Plan states with regard to Goal #2 that, "City government can play a strong role in making the City a safe, healthy place to live. Policies and decisions on zoning issues that define and protect neighborhood character, and capital investment in parks, sidewalks, and streets, should be in keeping with this goal. New housing should maintain a high architectural standard compatible with surrounding buildings; high rises should be avoided. Infill housing should be encouraged, with design standards to ensure that existing housing stock is not devalued. The City should also support renovation and reuse of vacant buildings, and removal and replacement of dilapidated structures."

The proposed rezoning would allow for a PRD that better conforms to the project site's unique characteristics and fits with the community's character. Pending the rezoning, the proposed project would bring infill development to a developed part of the City that is comprised of a diverse mix of land uses. The rezoning is anticipated to be consistent with the City's Comprehensive Plan as it would utilize existing zoning regulations to develop a unique site with a development that is consistent with local land uses and zoning.

Dutchess County Hudson River Valley Greenway Compact Plan, 2000

Dutchess County is one of 13 counties that make up the Hudson River Valley Greenway, which was established by the State by the Hudson River Valley Greenway Act of 1991. In March 2000, the Hudson River Valley Greenway Council approved the Dutchess County Greenway Compact Plan, "Greenway Connections: Greenway Compact Program and Guides for Dutchess County Communities." The Greenway was created to facilitate the development of a voluntary regional strategy for preserving scenic, natural, historic, cultural and recreational resources while encouraging compatible economic development and maintaining the tradition of home rule for land use decision-making. By Local Law Number 1 of 2002, the City became a participating community in the Greenway Compact, and adopted a statement of land use policies, principles and guides entitled, "Greenway Connections: Greenway Compact Program and Guides for Dutchess County Communities." The City requires that consideration of the Greenway Compact Plan policies, principles and guides be used to supplement other established land use policies in the City where discretionary decisions are made.

The proposed action to rezone the property from R-2 to PRD to facilitate the construction of a 63-apartment unit clustered multifamily development will bring infill development to an irregularly shaped parcel that is bound by a mix of land uses, including the Fallkill Creek. The proposed development is anticipated to adhere to the purpose of the PRD District as it will provide multifamily housing within a site design that encourages conservation of natural resources. Therefore, the proposed action is consistent

with the Greenway Compact Plan as it is anticipated to comply with zoning and is consistent with the Greenway Guide and Comprehensive Plan.

Fallkill Watershed Management Plan, October 2006

The Fallkill Watershed covers 19.5 square miles, including portions of the City of Poughkeepsie. The Fallkill is approximately 38 miles long, and where it travels through the City it has been channelized and is contained by stone walls before it charges into the Hudson River. The Fallkill has been evaluated and has been found to contain various chemicals and bacteria, with deterioration being most prevalent within the City. The Plan makes several recommendations to improve the Fallkill, including removal of stone walls channelizing the creek and greater oversight on trash dumping. The vision for this section of the creek is articulated as, "The creek and its immediate environs should be transformed into an attractive community resource that is valued for its aesthetic, recreational, and biological attributes as well as its cultural role in the development and history of the City of Poughkeepsie."[1]

The project site abuts and includes some portions of the Fallkill Creek. No impacts to the Creek, associated wetlands are proposed to occur as part of the proposed project. Pending the approval of the rezoning, a floodplain development permit would be sought for work within the floodplain area, if applicable. The project would be constructed according to a Stormwater Pollution Prevention Plan and proposes connection to the City's storm sewer and sewer systems; therefore, the proposed action will not negatively impact the objectives of the Management Plan.

3.0 COMMUNITY SERVICES

3.1 Emergency Services

Fire emergency/ambulance service is provided by the City of Poughkeepsie. According to the City website, the Fire Department is a 64-man career-staffed department that protects 31,000 people living in an area of 4.78 square miles. It operates three fire stations that respond to almost 5,000 calls per year. The City's apparatus includes four engines, two ladder trucks, one rescue vehicle and a fire/rescue boat. Water for fire protection is obtained from the City of Poughkeepsie water supply. A truck turning radius plan will be submitted during the site plan review. It is anticipated that there is sufficient firefighting capability to meet the minimal increase in demand related to the proposed 63 new residential units.

Police protection is provided by the City of Poughkeepsie Police Department, with support from Dutchess County Sheriff's Department and NYS Police.

4.0 SOILS AND WATER RESOURCES

4.1 Soils

Figure 5 shows the soil types that are expected to be present on the project site, and Table 3 provides characteristics of these soil types, according to the Dutchess County Soil Survey information available in GIS and the Natural Resource Conservation Service website.

[1] Fall Kill Watershed Management Plan, October 2006, Page 5.

Table 3: Characteristics of Soil Types within Project Area

% of SITE	SOIL SYMBOL	SOIL TYPE	SLOPES	DRAINAGE	DEPTH TO WATER TABLE (FEET)	DEPTH TO BEDROCK (INCHES)
	DwC	Dutchess-Cardigan complex, rolling, rocky	5 to 16%	well	>6	
		Dutchess (40%)		well	>6	>60
		Cardigan (30%)		well	>6	20 to 40
	DxC	Dutchess-Cardigan-Urban Land complex, rolling, rocky	5 to 16%			
		Dutchess (25%)		well	>6	>60
		Cardigan (25%)		well	>6	20 to 40
		Urban Land (25%)		well	>2	>10
	Ud	Udorthents, smoothed	mostly 0 to 8% but 8 to 25% on sides of excavations & along highways	somewhat excessively to moderately well	>3.0 Nov-Jun	>60

Most of the site contains the Dutchess-Cardigan complex, rolling, rocky soil series (DwC). An area of the Dutchess-Cardigan-Urban Land complex soil series (DxC) exists along Milton Street, and an area of Udorthents soil series (Ud) exists in the southwest corner of the project parcel. The Dutchess soils and the Cardigan soils are well drained soils. The Udorthents soil series is a somewhat excessively to moderately well drained soil. Urban Land is described as areas covered by buildings, streets, parking lots and other impervious surfaces, which obscure soil identification, so that the actual identification of the soil is not determined for some portions of the site. The Dutchess soil series, the Cardigan soil series, and the Udorthents soil series all have a depth to water table of greater than 6 feet. Urban Land is described as areas covered by buildings, streets, parking lots and other impervious surfaces which obscure soil identification, so that the actual identification of the soil is not determined for some portions of the site. Therefore, the depth to water table for these areas is unknown and is assumed to be greater than 2 feet according to the Soil Survey.

According to the City of Poughkeepsie's Natural Resources Inventory (NRI) Report, the project site's bedrock geology is Graywacke and shale, which is considered less permeable than other types of bedrock found in the City of Poughkeepsie. The surficial geology of the site features bedrock outcrops. These rock outcrop areas are shown on the concept plan.

According to a geotechnical engineering report by Chazen for the previously approved site plan, groundwater was encountered in only one of eight borings.[2] These borings ranged in depth from 5.5 feet to 15.8 feet due to refusal at bedrock, with the exception of the northernmost boring in which refusal occurred at 2.5 feet. Thus, groundwater was generally deeper than 5.5 feet throughout most of the site. The report states that, "groundwater seepage into open excavations is not anticipated at this time, but that the contractor should be prepared to lower the groundwater table two feet below the base of excavations to provide a stable subgrade for construction activities and to maintain the integrity of the natural bearing soils."

If water is encountered above three feet below the surface, footings and footing drains will be designed in accordance with accepted construction practices to alleviate any problems associated with a high water table. With this practice, no significant impacts due to the presence of water above three feet below the surface are anticipated.

Rock encountered during the construction of the proposed residential development will be removed by mechanical methods (ripping), when possible. If blasting is determined to be necessary, all blasting operations will adhere to New York State and local ordinances governing the use of explosives. Proper program guidelines will be established between New York State, the City of Poughkeepsie and the blasting contractor prior to undertaking this activity. If blasting is required, it will be performed in accordance with New York State Department of Transportation (NYSDOT) Geotechnical Engineering Manual #22 "Procedures for Blasting" latest edition.

Based on this information, the proposed project will not result in any significant adverse impacts related to soils.

4.2 Water Resources

According to NYSDEC wetland and stream information available through GIS (Figure 6), the EAF Mapper, and Environmental Resource Map (Figure 7), there is a NYSDEC Class C stream, Fallkill Creek (Regulation 862-393) that travels along the western edge of the property, with approximately 200 linear feet located within the property boundary. Class C streams are not regulated by the NYSDEC. There are no regulated NYSDEC wetlands located on the property. There is a National Wetland Inventory (NWI) freshwater forested/shrub wetland (PFO1E) located on the western part of the site adjoining the area where the Fallkill Creek flows. The NWI identifies the Fallkill Creek as riverine (R3UBH).

Ecological Solutions conducted a site visit on October 15, 2020 to conduct a wetland delineation and habitat assessment. There are 0.776 acres of wetland (associated with the Fallkill Creek) located along the western site boundary. These wetlands are characterized as forested floodplain.

The Fall Kill is identified in the Natural Resources Inventory for the City of Poughkeepsie (referred to herein as the NRI Report) as a natural resource that supports or contributes to beautification, habitat, flood control, history, recreation and climate resilience. The project site is discussed throughout the document as a parcel, "that is undeveloped and contains streamside forests and wetlands within the floodplain. Due to the lack of channelization, this area floods readily without harming buildings or roads. It is an important

[2] *Geotechnical Engineering Report*, The Chazen Companies, September 14, 2005.

flood mitigation area as it is the only segment of the creek in the City of Poughkeepsie where flooding can naturally occur."[3] The Fall Kill is identified as a conservation priority in the NRI Report because it, "provides streamside habitats, helps to reduce and filter surface runoff, provides shading vegetation, and provides organic material that supports the food web and habitat structure of the stream."[4] Based on this rationale a priority conservation zone of 160 feet from the stream edge is recommended to increase habitat area and improve in-stream conditions.

Per Zoning Section 19-4.18, any structure or use of land for other than parking, recreation or open space shall be located not nearer than 30 feet to the top of the banks of the Fall Kill Creek. In addition, the City's PRD Zoning District (Zoning Section 19-3.18-4(h)), requires a buffer strip of at least 50 feet from the property line. The project complies with these requirements as an approximately 131 FT buffer is provided from the stream edge, which preserves the existing habitat without fragmentation. The proposed project will not impact wetlands and the development area is located approximately 146 – 160 feet away from the Creek. Furthermore, with the implementation of the Stormwater Pollution Prevention Plan (SWPPP) no significant adverse impacts to wetlands or to the NYSDEC Fallkill Creek will occur as part of the proposed action.

4.3 Floodplain

The property is identified in the NRI Report as one of the last remaining areas within the City of Poughkeepsie where the Fall Kill is not channelized and is permitted to flood naturally. This section of the Fall Kill is identified as a significant habitat area that provides important flood retention due to the undeveloped forested riparian buffer. The NRI Report explains that during flood events the Fall Kill may overflow into these wetlands, which are located within the flood hazard area or 100-year floodplain. According to the NRI Report, "flooding helps to slow down water, recharge groundwater and increase water quality by letting particulates settle out instead of being carried downstream."[5] According to FEMA Community Panel Number 36027C0358E information (effective 5/12/2012) available through GIS (Figure 6), an area abutting the Fallkill Creek is located within Zone AE (100-year floodplain) or special flood hazard area. The floodplain area is identified on the site plan. Some grading (no construction) may occur within the 100-year floodplain; therefore, a floodplain development permit will be sought. There will be a substantial buffer and distance between the proposed development and the Fall Kill and the implementation of the SWPPP will ensure that no significant adverse impacts to the floodplain will occur.

5.0 UTILITIES

5.1 Water and Wastewater

Municipal water and sewer service currently serve the project site. According to the New York State Department of Environmental Conservation (NYSDEC) *Design Standards for Intermediate Sized Wastewater Treatment Systems,* March 2014, the proposed project is expected to require water usage of

[3] The Environmental Cooperative at Vassar Barns. *Natural Resources Inventory for the City of Poughkeepsie*. 2019. Page 10.
[4] The Environmental Cooperative at Vassar Barns. *Natural Resources Inventory for the City of Poughkeepsie*. 2019. Page 73.
[5] The Environmental Cooperative at Vassar Barns. *Natural Resources Inventory for the City of Poughkeepsie*. 2019. Page 46.

11,410± gallons per day. It is anticipated that the City's municipal water system has capacity to serve the proposed use. The Grading and Utility plan (C140) shows a proposed water tap at the 8" water main available at Milton Street. The previous analysis, submitted for the previously proposed 120-unit project approved in 2006, indicated that sufficient pressure and capacity exists to serve the proposed 63-unit project. The Engineer's Report for the water system will be updated to identify current system conditions with regards to static and residual pressure. Sprinkler pressures and flow rates will be identified to assess flow capabilities at the proposed hydrants. Consultation with the Fire Chief will be undertaken at that time as well.

The Grading and Utility plan (C140) shows a sanitary sewer connection to the existing sanitary sewer main that passes through the site. The previous analysis, submitted for the previously proposed 120-unit project approved in 2006, indicated that sufficient capacity exists to serve the proposed 63-unit project. The Engineer's Report for the sanitary sewer will be updated to identify the conditions of the existing sewer main and its capacity during peak flow from the proposed connection point downstream along the Fallkill Creek through to Mansion Street.

Table 4: Anticipated Water Usage/Wastewater Generation

Type of Use	Units	Gallons per Day	Anticipated Use/Generation
Apartment	Per bedroom	110	31 one-bedroom = 3,410 gpd 32 two-bedroom units = 7,040 gpd
Pool	Per swimmer[1]	10	Approximately 720 SF pool = 48 swimmers 48 swimmers x 10 = 480 gpd
Pool House	Per swimmer	10	48 swimmers x 10 = 480 gpd
			Total = 11,410 gpd

[1] Based on NYS Sanitary Code Subpart 6-1, which requires a minimum of 15 SF of pool surface area per swimmer for a shallow pool.

5.2 Stormwater

The proposed project will require greater than one acre of disturbance and will require coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity. A SWPPP will be prepared in conformance with the most current New York State Stormwater Management Design Manual and New York State Standards and Specifications for Erosion and Sediment Control. The Grading and Utility Plan (C140) shows the stormwater being conveyed via swales and subsurface piping to an on-site stormwater bioretention basin. The treated water will outflow to the Fallkill Creek. Therefore, the proposed project is not expected to result in any adverse impacts in regard to stormwater.

6.0 TRAFFIC AND PARKING

6.1 Traffic

The project would feature two one-way access drives across from Fitchett Street and West Arnold Road. This would distribute traffic between the two access points, rather than concentrating traffic at any one location. Site traffic will then use Mansion Street to disperse travel to the north, south, east, and west. Other local roads likely to be used by site traffic include Corlies Avenue, Pershing Avenue, Innis Avenue, and Smith Street.

Dutchess County's PRL Bus Line is conveniently routed through the neighboring Mountain Brook Apartments. Several routes including the B, E and F travel along the East West Arterial, approximately ½ mile south of the site.

The *Trip Generation Manual, 10th Edition* published by the Institute of Transportation Engineers (ITE) is the industry-standard resource for estimating the traffic generated by various types of land uses and it was used to estimate the site generated trips for this project. Based on data for Multifamily Housing-Mid Rise (Land Use Code 221), the proposed project will generate 22 total trips in the weekday morning and 28 total trips in the evening peak periods, See Table 5. This is a minimum amount of traffic that will be added to the surrounding roadway network, representing about 1 trip every 3 to 10 minutes for the entering and exiting movements.

Table 5: Estimated Traffic Generation

Land Use	AM Peak Hour Trips Entering the Site	AM Peak Hour Trips Exiting the Site	Total AM Peak Trips added to Adjacent Street Traffic	PM Peak Hour Trips Entering the Site	PM Peak Hour Trips Exiting the Site	Total PM Peak Trips added to Adjacent Street Traffic
Multifamily Housing (Mid-Rise) Land Use Code 221	6	16	22	17	11	28

Note: Analysis uses 63 dwelling units and the fitted curve equation in the ITE Manual to determine the AM and PM peak hour trip generation.

A traffic impact study was completed in 2005 for this project. At that time, the project consisted of 163 units and was estimated to generate 76 and 90 total trips for the weekday morning and afternoon peak periods. The traffic study concluded that the project at 163 units would have minimal impact as the studied intersections would continue to operate at acceptable levels of service. Therefore, at the currently proposed 63-units with reduced volumes this project will also have minimal traffic impacts. No improvements are needed.

Additionally, historic traffic volumes collected on roadways in the vicinity of the site were reviewed using NYSDOT's *Traffic Data Viewer*. The data shows that volumes for Mansion Street, Corlies Avenue, Innis Avenue, and Smith Street have decreased between 2012 and 2019 on the order of 1% to 15%. This is further indication that the surrounding roadways expected to serve the proposed project have the capacity available to accommodate the site traffic.

6.2 Parking

The proposed project is required to provide 123 parking spaces per Section 19-4.3 of the City's Zoning Ordinance. As shown in Table 6, the proposed project will provide 124 parking spaces.

Table 6: Multifamily Buildings – Required and Proposed Parking

Required		Proposed
1.5 spaces for each 1-bedroom apartment;	31 one-bedroom units = 47 parking spaces	124 parking spaces
2.0 spaces for each 2-bedroom or larger apartment;	32 two-bedroom units = 64 parking spaces	
Additional 10% of the total required spaces for visitor parking	10% of 111 parking spaces = 11.1 spaces	
Total	Total Required Parking = 123 parking spaces	

7.0 VEGETATION AND WILDLIFE

7.1 Endangered, Threatened, and Rare Species and Significant Habitat

According to the NRI Report, the project site is home to several habitats, including upland shrubland, upland hardwood forest, upland mixed forest and hardwood swamp in addition to wetland and stream areas. Table 7 presents a brief description of these habitats based on information found in the report.

Table 7: Habitat Types on the Project Site

Specific Habitat Type	Brief Description
Upland Shrubland	Open (nonforested) area with shrubs making up >20% of ground cover
Upland Hardwood Forest	Non-wetland forest dominated by hardwood trees (conifers make up 25% of canopy)
Upland Mixed Forest	Non-wetland forest with a mix of hardwoods and conifers (conifers make up 25-75% of canopy)
Hardwood Swamp	Wetland (identified by predominance of hydrophytic vegetation) dominated by trees and/or shrubs

According to the NRI Report, "the Fall Kill is highly impacted by channelization and pollution, nonetheless it continues to serve as an important habitat for migratory fish species such as the American eel and river herring." The Upland Hardwood Forest, which currently dominates the site, is described as a habitat that is also important for cooling derived from shade, carbon sequestration, reducing stormwater runoff, and improvement of air quality. According to the NYSDEC Environmental Resource Map (Figure 7), there are known occurrences of the Blanding's Turtle (State listed threatened species) on or in the vicinity of the project site. In a January 21, 2020 letter the NYSDEC stated that they have no records of rare or state-listed animals or plants, or significant natural communities at the project site. The letter also explained that within 0.8 mile of the project site is a documented location of Blanding's Turtle (Emydoidea blandingii, state listed as Threatened). The turtles may travel 0.8 mile or more from documented locations. There is no NYSDEC Significant Natural Community identified on the project site.

According to the US Fish & Wildlife Service (USFWS) Information for Planning and Consultation[6] (Attachment B), there is potential for the Indiana Bat (endangered) on or in the vicinity of the project site.

The project site is identified in Map 4.4, "Habitat Envelopes and Potential Corridors" within the NRI Report as a Significant Habitat Area. The Report states that, "if new development in these areas cannot be avoided, it should be concentrated near the edges and near existing roads and other development so that as much habitat area as possible is preserved without fragmentation."[7]

Ecological Solutions, LLC completed a threatened and endangered species habitat suitability assessment on October 15, 2020 to assess the existing habitat on site, potential impacts, and possible mitigation for impacts and conservation of the listed species (see Attachment B). Table 8 identifies the habitat that was observed on the site:

Table 8: Habitat Cover Types Identified on the Site

Description	Coverage (acres)	Disturbance (acres)
Fall Kill Creek	1.0	0
Rich Mesophytic Forest	4.7	2.5
Upland Meadow	2.8	0

Rich Mesophytic Forest: The site slopes generally contain rich mesophytic forest upslope of the Fallkill Creek. The dominant trees include a mixture of the following: red maple (Acer rubrum), white ash Fraxinus americana), red oak (Quercus rubra), and black oak (Q. velutina). There is a subcanopy stratum of small trees and tall shrubs dominated by flowering dogwood (Cornus florida), red maple, and black cherry (Prunus serotina). The overstory trees are generally large in the 12 to 24+ inch range with several larger oaks and other tree species on the site. Debris/trash is located in areas throughout the forest.

Fallkill Creek: The Fallkill Creek and associated wetland fringe is located along and is part of the western site boundary. The wetland fringe associated with the Creek is forested floodplain.

Upland Meadow: Within the forested area are openings or pockets upland meadow.

Blanding's Turtle

Blanding's turtles are a mobile species that utilize a variety of wetland and upland habitats for nesting, foraging, overwintering, and drought refuges. Characteristics that indicate core habitat are: shrubby pools/ponds with permanent or intermittent hydroperiod with little flow through; high water depths of 0.5–4.0 feet; tree canopy open or absent; tree fringe present; and a dense cover of shrubs, forbs, lemnids or nymphaeids, with coarse and fine organic debris. In addition to core wetlands it is known that Blanding's turtles use a complex of habitat types during different periods in their life cycle. According to the NYSDEC it is a semi-aquatic species that uses a variety of wetland and upland habitats. Wetland habitat usage by Blanding's turtles includes different types of freshwater systems such as emergent marshes, woodland pools, red maple swamps, buttonbush kettle-holes, ponds including excavated ponds, lakes, rivers, and streams. Juvenile Blanding's are normally associated with shallower water and more densely

[6] Note there is no federal action involved so a formal consultation under Section 7 is not required.
[7] The Environmental Cooperative at Vassar Barns. *Natural Resources Inventory for the City of Poughkeepsie.* 2019. Page 221 or page 85 of Appendix A.

vegetated habitats as compared to that of adults. Open meadows especially with Hoosic gravelly soils are preferred nesting habitats. Upland forest area provides shade during turtle travel and migration.

Based on information gathered during the Habitat Assessment, there is no core habitat on/or immediately adjacent to the site. There are no mapped Hoosic soils on the site. Hoosic soils are associated with turtle nesting when covered by low growing sparsely vegetated upland meadow/agriculture area. The Fallkill Creek may have been utilized in the distant past by this species in some capacity for travel and dispersal but today is unlikely due to the extensive development in this area of the City of Poughkeepsie and lack of potential habitat as a destination. There are no impacts to this species since there is no potential habitat on the site or in the vicinity of the site.

Indiana Bats

The bats typically hibernate in caves/mines in the winter and roosts under bark or in tree crevices in the spring, summer, and fall. The hibernacula - Williams Lake Complex is about 10 miles from the site. Suitable potential summer roosting habitat is characterized by trees (dead, dying, or alive) or snags with exfoliating or defoliating bark, or containing cracks or crevices that could potentially be used by Indiana bats as a roost. The minimum diameter of roost trees observed to date is 2.5 inches for males and 4.3 inches for females. However, maternity colonies generally use trees greater than or equal to 9 inches dbh. Overall, roost tree structure appears to be more important to Indiana bats than a particular tree species or habitat type. Females appear to be more habitat specific than males presumably because of the warmer temperature requirements associated with gestation and rearing of young. As a result, they are generally found at lower elevations than males may be found. Roosts are warmed by direct exposure to solar radiation, thus trees exposed to extended periods of direct sunlight are preferred over those in shaded areas. However, shaded roosts may be preferred in very hot conditions. As larger trees afford a greater thermal mass for heat retention, they appear to be preferred over smaller trees. Streams associated with floodplain forests, and impounded water bodies (ponds, wetlands, reservoirs, etc.) where abundant supplies of flying insects are likely found provide preferred foraging habitat for Indiana bats, some of which may fly up to 2-5 miles from upland roosts on a regular basis. Indiana bats also forage within the canopy of upland forests, over clearings with early successional vegetation (e.g., old fields), along the borders of croplands, along wooded fencerows, and over farm ponds in pastures. While Indiana Bats appear to forage in a wide variety of habitats, they seem to tend to stay fairly close to tree cover. The rich mesophytic forest described in Table 8 occupies about 4.7 acres of the 8.7 acres site. This forested area contains many large trees in the 24+ inch dbh range with some containing holes and crevices that could provide foraging habitat for this species.

Construction of the project will occur over a 6 month - 1 year period. Activities during construction will include grading and earth-moving, building construction, addition of electric lights, increasing impervious surface area and altering site drainage will occur. The project may result in direct and indirect effects on Indiana bats by altering the quality and quantity of their summer habitat including removing trees, generating noise during construction, and creating visual disturbances. There will be an increase in vehicular traffic, parking, and maintenance activities which are anticipated effects from construction and operation of the project to bats.

Since the USFWS list of species for the site indicated that the site is within the range of the threatened/endangered bat, the Applicant will incorporate the following conservation measures to ensure no impact occurs to this species.

Effects from Tree Clearing: Clearing activities could have an adverse impact on foraging and roosting activities. Such impacts will be avoided by conducting all clearing during winter months when bats will be in hibernation off site. Proposed clearing for the project will remove ±2.5 acres of forested habitat. The project will avoid impacts by:

- Implementing tree clearing for site activities during timeframes when bats are not resident on the site October 1 – to March 31 or unless approved by the NYSDEC outside this timeframe, and

- Prior to clearing, the limits of proposed clearing will be clearly demarcated on the site with orange construction fencing (or similar) to prevent inadvertent overclearing of the site since about 2.3 acres of forested habitat will remain.

Effects from Lighting: Site lighting is anticipated after development of the site. To avoid impacts to foraging or roosting bats street lighting on the site will use City of Poughkeepsie Planning Board approved light fixtures that have tops that direct light down to minimize light pollution and not interfere with potential bat foraging activities. These measures will result in minimizing potential adverse effects to Indiana bats so that adverse effects to this species are deemed unlikely.

As explained in earlier sections, a large buffer (131 feet) and distance (146 – 160 feet away) will separate the Fall Kill Creek from the proposed development. Based on the information provided above, no significant adverse impacts will occur to vegetation and wildlife. This information will be provided to NYSDEC.

8.0 HISTORIC AND ARCHEOLOGICAL RESOURCES

According to the NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) Cultural Resource Information System (CRIS) mapping (Figure 8), the project site does not contain and is not adjacent to any National or State Historic Register sites or any sites that were determined to be eligible for listing on the National or State Historic Register. The CRIS mapping indicates that the project site is partially located within a known archeologically sensitive area. Consultation will be undertaken with NYSOPRHP and project information and plans will be uploaded to the CRIS system for their review.

FULL ENVIRONMENTAL ASSESSMENT FORM (FEAF) PART 1 FORM

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: Highview at the Fallkill Creek		
Project Location (describe, and attach a general location map): Milton Street, City of Poughkeepsie, Dutchess County, New York		
Brief Description of Proposed Action (include purpose or need): The Applicant and owner, Maselo Realty, LLC, is proposing the rezoning of an 8.713-acre tax parcel on Milton Street in the City of Poughkeepsie from Medium Low-Density Residential (R-2) to Planned Residential Development (PRD) for the construction of a 63-apartment unit clustered multifamily development within two buildings with two accesses off Milton Street. The parcel is identified as parcel number 131300-6162-73-623227 on the City of Poughkeepsie Tax Map. The Town of Poughkeepsie abuts the eastern edge of the property. The parcel is currently undeveloped and zoned for Medium Low-Density Residential (R-2) within which multifamily development is not permitted. Therefore, to facilitate the proposed project, the Applicant is petitioning the City for a rezoning of the property from R-2 to PRD by the Common Council. Upon completion of the rezoning, the Applicant will seek site plan approval from the Planning Board.		
Name of Applicant/Sponsor: Maselo Realty, LLC (Nate Abikhzer)	Telephone: 845-341-7395 E-Mail: nateabikhzer@gmail.com	
Address: 18 Eastview Road		
City/PO: Monsey	State: NY	Zip Code: 10952
Project Contact (if not same as sponsor; give name and title/role):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)

Government Entity	If Yes: Identify Agency and Approval(s) Required	Application Date (Actual or projected)
a. City Counsel, Town Board, or Village Board of Trustees ☑Yes ☐No	City of Poughkeepsie Common Council - Rezoning to PRD	Oct 2019
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	City of Poughkeepsie Planning Board - Site Plan Approval	Oct 2019
c. City, Town or Village Zoning Board of Appeals ☑Yes ☐No	City of Poughkeepsie Zoning Board of Appeals - Area Variances	To be determined
d. Other local agencies ☑Yes ☐No	City Engineering Dept. - Curb Cut approval; City Zoning Administrator - Floodplain development	To be determined
e. County agencies ☑Yes ☐No	Dutchess County Planning Department - GML 239m Referral; Health Department - Utility Conn.	To be determined
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	NYS Department of Environmental Conservation GP-0-15-002	To be determined
h. Federal agencies ☐Yes ☑No		

i. Coastal Resources.

i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☐Yes ☑No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐Yes ☑No

iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes ☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes ☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes ☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☐Yes ☑No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes ☐No

If Yes, identify the plan(s):

Hudson River National Heritage Area; Fall Kill Watershed Management Plan, October 2006; Dutchess County Hudson River Valley Greenway Compact Plan, 2000

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes ☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
The site is zoned for medium low-density residential (R-2).

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☐ No
Not applicable. Applicant is seeking a rezoning to Planned Residential Development District.

c. Is a zoning change requested as part of the proposed action? ☑ Yes ☐ No
If Yes,
i. What is the proposed new zoning for the site? Rezoning to Planned Residential Development District

C.4. Existing community services.

a. In what school district is the project site located? Poughkeepsie City School District

b. What police or other public protection forces serve the project site?
City of Poughkeepsie Police Department with support from Dutchess County Sheriff's Department and NYS Police

c. Which fire protection and emergency medical services serve the project site?
City of Poughkeepsie Fire Department

d. What parks serve the project site?
Mansion Square Park

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Residential apartments

b. a. Total acreage of the site of the proposed action? 8.713 acres
b. Total acreage to be physically disturbed? 3.7 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 8.713 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☐ Yes ☑ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
ii. Is a cluster/conservation layout proposed? ☐ Yes ☐ No
iii. Number of lots proposed? _____
iv. Minimum and maximum proposed lot sizes? Minimum _____ Maximum _____

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: 12 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase	_____	_____	_____	63 Apartments
At completion of all phases	_____	_____	_____	_____

g. Does the proposed action include new non-residential construction (including expansions)? ☐ Yes ☑ No

If Yes,

i. Total number of structures _____

ii. Dimensions (in feet) of largest proposed structure: _____height; _____width; and _____ length

iii. Approximate extent of building space to be heated or cooled: _____ square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify:

_____

iii. If other than water, identify the type of impounded/contained liquids and their source.

_____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete):

_____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i .What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them.

_____

_____

i*v.* Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe. _____

_____

v. What is the total area to be dredged or excavated? _____acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan: _____

_____

_____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

_____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

_____

_____

_____

_____

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☐No

If Yes, describe: _____

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☐No

If Yes:

- acres of aquatic vegetation proposed to be removed: _____
- expected acreage of aquatic vegetation remaining after project completion: _____
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access): _____

_____

- proposed method of plant removal: _____
- if chemical/herbicide treatment will be used, specify product(s): _____

v. Describe any proposed reclamation/mitigation following disturbance: _____

_____

c. Will the proposed action use, or create a new demand for water? ☑Yes ☐No

If Yes:

i. Total anticipated water usage/demand per day: 11,410 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑Yes ☐No

If Yes:

- Name of district or service area: City of Poughkeepsie
- Does the existing public water supply have capacity to serve the proposal? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No
- Do existing lines serve the project site? ☑Yes ☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☑No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

_____

- Source(s) of supply for the district: _____

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐ Yes ☑No

If, Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- Proposed source(s) of supply for new district: _____

v. If a public water supply will not be used, describe plans to provide water supply for the project: _____

_____

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: _____ gallons/minute.

d. Will the proposed action generate liquid wastes? ☑Yes ☐No

If Yes:

i. Total anticipated liquid waste generation per day: 11,410 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): _____

Sanitary wastewater

_____

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑Yes ☐No

If Yes:

- Name of wastewater treatment plant to be used: City of Poughkeepsie Sewage Treatment Plant
- Name of district: City of Poughkeepsie
- Does the existing wastewater treatment plant have capacity to serve the project? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No

- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will a line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

_____

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 1.82 acres (impervious surface)

_____ Square feet or 8.713 acres (parcel size)

ii. Describe types of new point sources. Subsurface piping and outflow.

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Stormwater will be conveyed via swales and subsurface piping to an on-site stormwater bioretention basin. The treated water will outflow to the Fallkill Creek.

- If to surface waters, identify receiving water bodies or wetlands: Fallkill Creek
- Will stormwater runoff flow to adjacent properties? ☐ Yes ☑ No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑ Yes ☐ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑ Yes ☐ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

Temporary impacts during construction.

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

Natural gas, boilers

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

_____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

_____

_____

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☐Yes ☑No

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☐ Evening ☐Weekend ☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): _____

_____

iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____

iv. Does the proposed action include any shared use parking? ☐Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe:

_____

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☐Yes ☑No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: _____

_____

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other):

_____

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☐No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: Approximately 6:30 AM to 9:00 PM
- Saturday: Approximately 6:30 AM to 9:00 PM
- Sunday: None
- Holidays: None

ii. During Operations:

- Monday - Friday: 24 hours
- Saturday: 24 hours
- Sunday: 24 hours
- Holidays: 24 hours

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

Temporary noise generated during construction activities will be limited to weekdays 6:30 AM to 9 PM.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☑ Yes ☐ No

Describe: The majority of the site is undeveloped wooded area. Approximately 2.246 acres will be cleared; Landscaping pursuant to Zoning Ordinance requirements will be implemented.

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

To be determined

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☑ Yes ☐ No

Describe: The majority of the site is undeveloped wooded area. Approximately 2.246 acres will be cleared; Lighting pursuant to Zoning Ordinance requirements will be implemented.

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:_____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☐ Yes ☑ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: _____ tons per _____ (unit of time)
- Operation : _____ tons per _____ (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: _____
- Operation: _____

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: _____
- Operation: _____

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☑ Urban ☑ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☑ Aquatic ☑ Other (specify): public services

ii. If mix of uses, generally describe:

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.0	1.792	+1.792
• Forested	4.727	2.481	-2.246
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	2.789	3.292	+0.503
• Agricultural (includes active orchards, field, greenhouse etc.)	0.0	0.0	0.0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0.071	0.071	0.0
• Wetlands (freshwater or tidal)	0.776	0.776	0.0
• Non-vegetated (bare rock, earth or fill)	0.098	0.049	-0.049
• Other Describe: _____			

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☐ Yes ☑ No

If Yes,

i. Identify Facilities:

_____

_____

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

_____

_____

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

_____

_____

iii. Describe any development constraints due to the prior solid waste activities: _____

_____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

_____

_____

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☑ No

☐ Yes – Spills Incidents database Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures:_____

_____

_____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☐ Yes ☑ No

If yes, provide DEC ID number(s): _____

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

_____

_____

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? <1 ft to > 5 feet

b. Are there bedrock outcroppings on the project site? ☑ Yes ☐ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? 1 %

c. Predominant soil type(s) present on project site:

Dutchess Cardigan Complex (DwC)	93.6 %
Dutchess Cardigan Urban (DxC)	5.5 %
Udorthents	0.9 %

d. What is the average depth to the water table on the project site? Average: > 2 ft to > 6 feet

e. Drainage status of project site soils:
☑ Well Drained: 99 % of site
☑ Moderately Well Drained: 1 % of site
☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes:
☑ 0-10%: note % of site
☑ 10-15%: note % of site
☑ 15% or greater: note % of site
Note: See Section 4.

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☑ Yes ☐ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☑ Yes ☐ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☑ Yes ☐ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name 862-393 Classification C
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name Federal Waters, Federal Waters, Federal Waters,... Approximate Size 0.776 acres
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☑ Yes ☐ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____
Name - Pollutants - Uses:Fall Kill and tribs – Nutrients – Recreation;Aquatic Life

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☑ Yes ☐ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:
i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:
Common Dutchess County species

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation):
ii. Source(s) of description or evaluation:
iii. Extent of community/habitat:
- Currently: _____ acres
- Following completion of project as proposed: _____ acres
- Gain or loss (indicate + or -): _____ acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐ No

If Yes:
i. Species and listing (endangered or threatened):
Blanding's Turtle (NYSDEC) Indiana Bat (USFWS)

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

If Yes:
i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No
If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No
If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No
i. If Yes: acreage(s) on project site?
ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No
If Yes:
i. CEA name:
ii. Basis for designation:
iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☐ Yes ☑ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☐ Historic Building or District

ii. Name: _____

iii. Brief description of attributes on which listing is based:

_____

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: See Figure 9.

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): See Figure 9.

iii. Distance between project and resource: See Figure 9 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

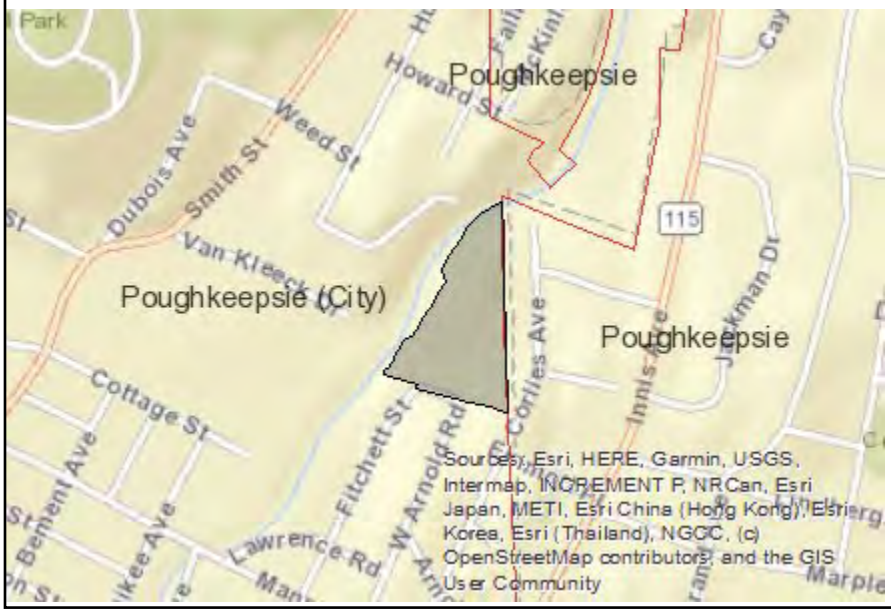
G. Verification

I certify that the information provided is true to the best of my knowledge.

Applicant/Sponsor Name Maselo Realty, LLC Date December 2, 2020

Signature Caren LoBrutto, Agent for Applicant, Chazen Companies Title Senior Planner

PRINT FORM

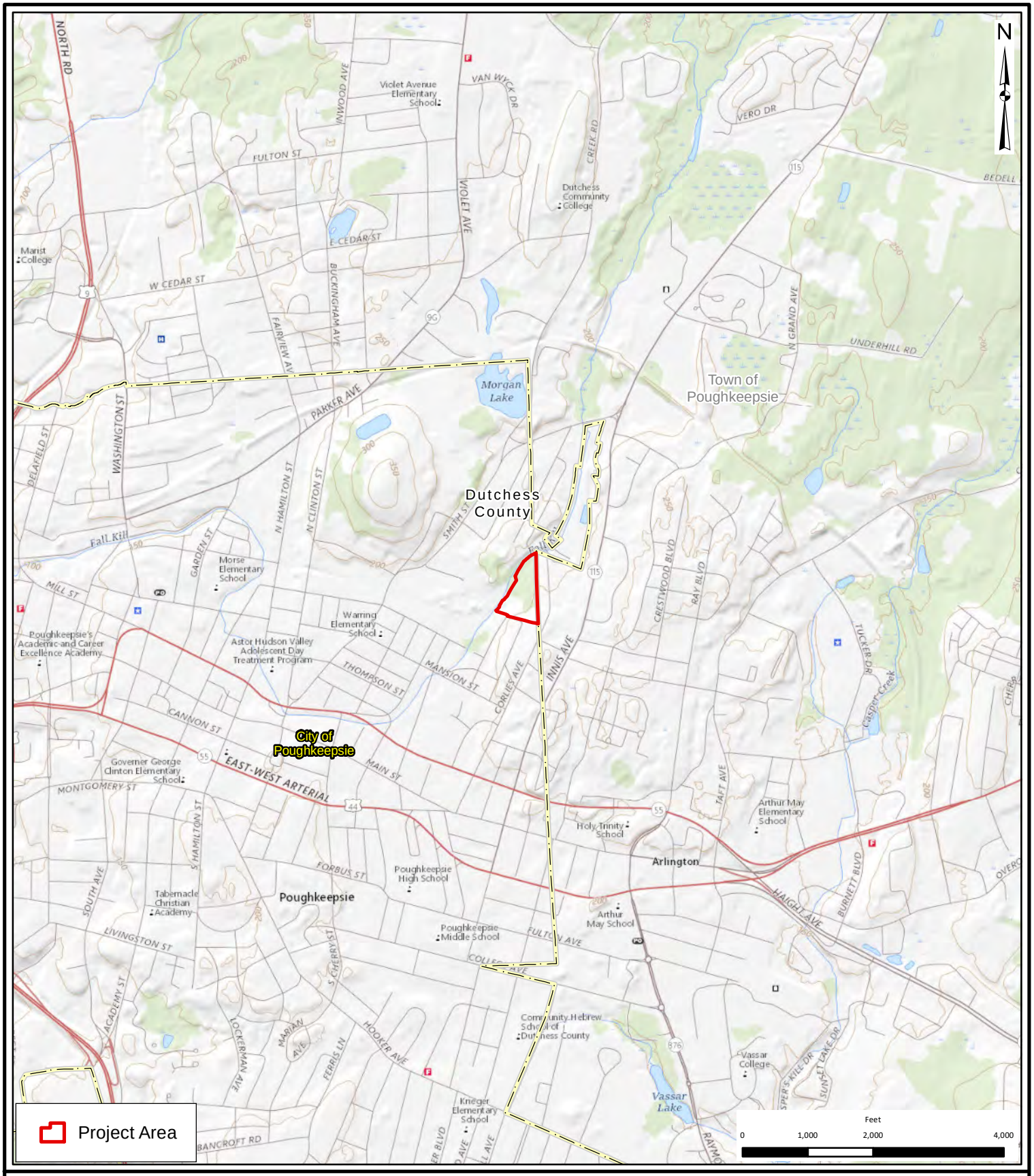


Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Stream Name]	862-393
E.2.h.iv [Surface Water Features - Stream Classification]	C
E.2.h.iv [Surface Water Features - Wetlands Name]	Federal Waters
E.2.h.v [Impaired Water Bodies]	Yes
E.2.h.v [Impaired Water Bodies - Name and Basis for Listing]	Name - Pollutants - Uses:Fall Kill and tribs – Nutrients – Recreation;Aquatic Life
E.2.i. [Floodway]	No

E.2.j. [100 Year Floodplain]	Yes
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Blanding's Turtle
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

FIGURES



THE Chazen COMPANIES

ENGINEERS
LAND SURVEYORS
PLANNERS
ENVIRONMENTAL & SAFETY PROFESSIONALS
LANDSCAPE ARCHITECTS

Dutchess County Office:
21 Fox Street, Poughkeepsie, NY 12601
Phone: (845) 454-3980

Capital District Office:
547 River Street, Troy, NY 12180
Phone: (518) 273-0055

North Country Office:
20 Elm St, Suite 110
Glens Falls, NY 12801
Phone: (518) 812-0513

Highview at the Fallkill Creek

USGS Location Map

Milton St, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	10/13/2019
Scale:	1 in = 2,000 feet
Project:	81947.00
Figure:	1

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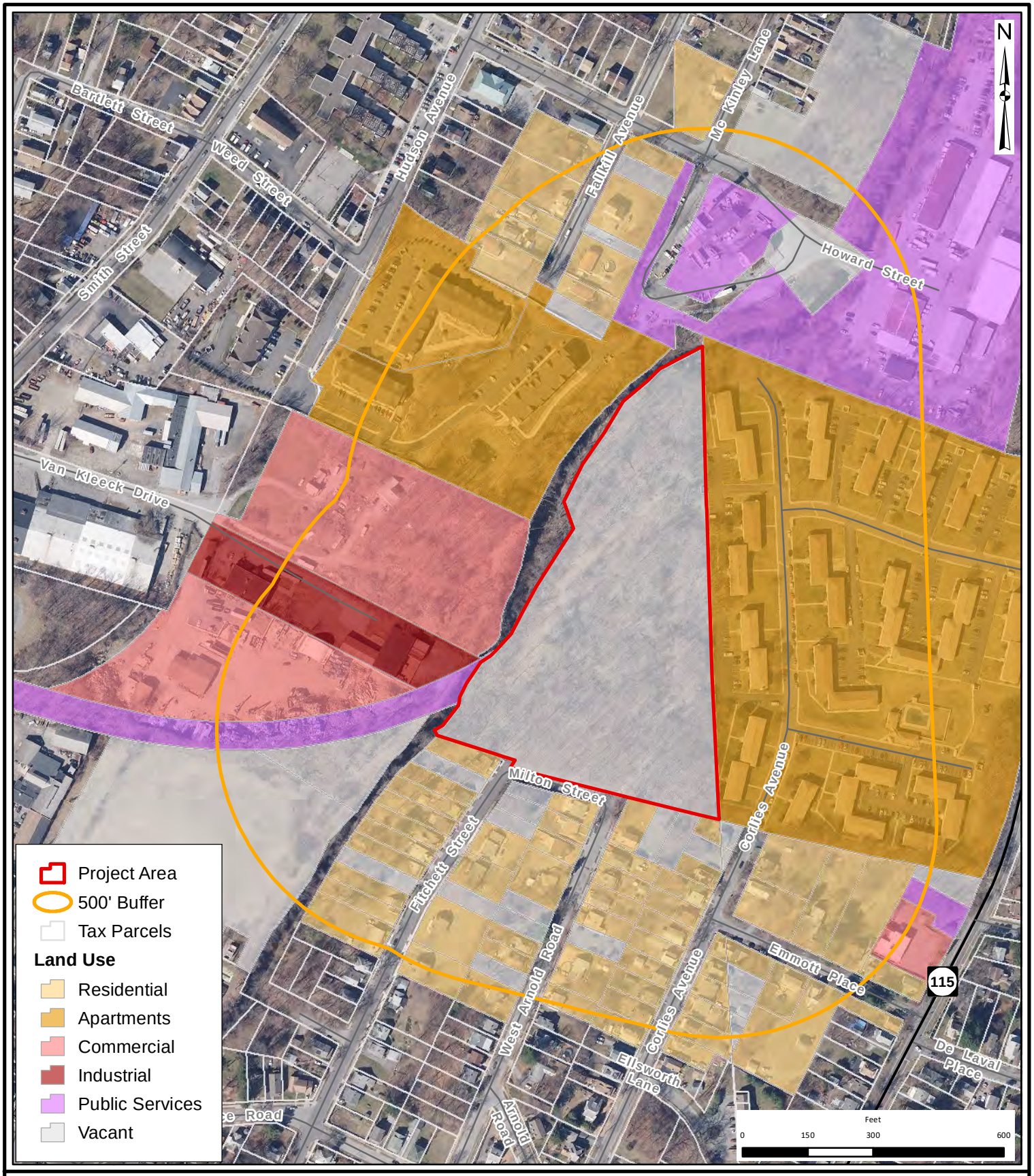
Highview at the Fallkill Creek

Orthophoto Tax Map

Milton St, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	10/13/2019
Scale:	1 in = 200 feet
Project:	81947.00
Figure:	2



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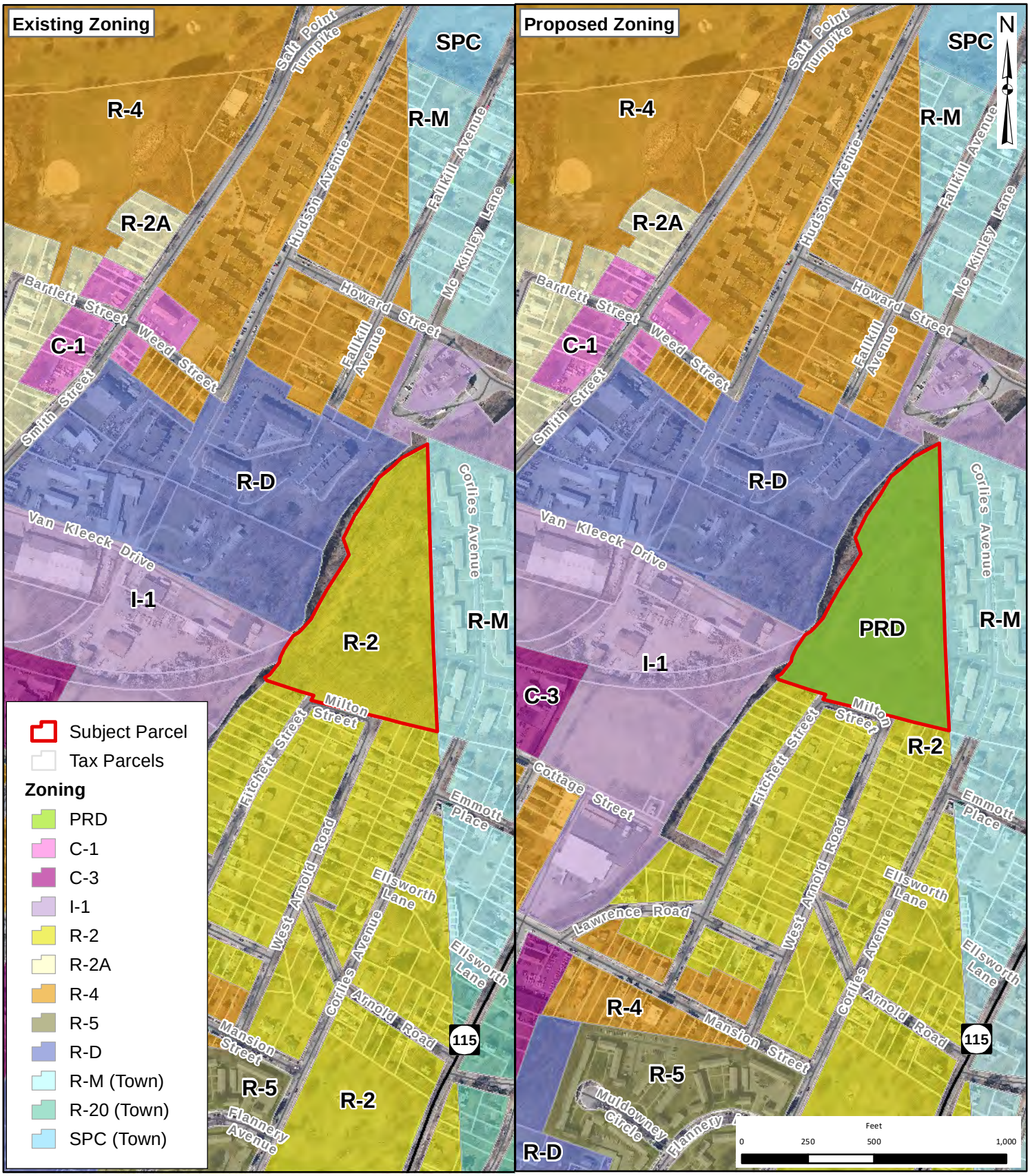
Highview at the Fallkill Creek

Land Use

Milton St, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	10/13/2019
Scale:	1 in = 300 feet
Project:	81947.00
Figure:	3



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Highview at the Fallkill Creek

Existing and Proposed Zoning

Milton St, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	10/13/2019
Scale:	1 in = 500 feet
Project:	81947.00
Figure:	4

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Dutchess County Office:
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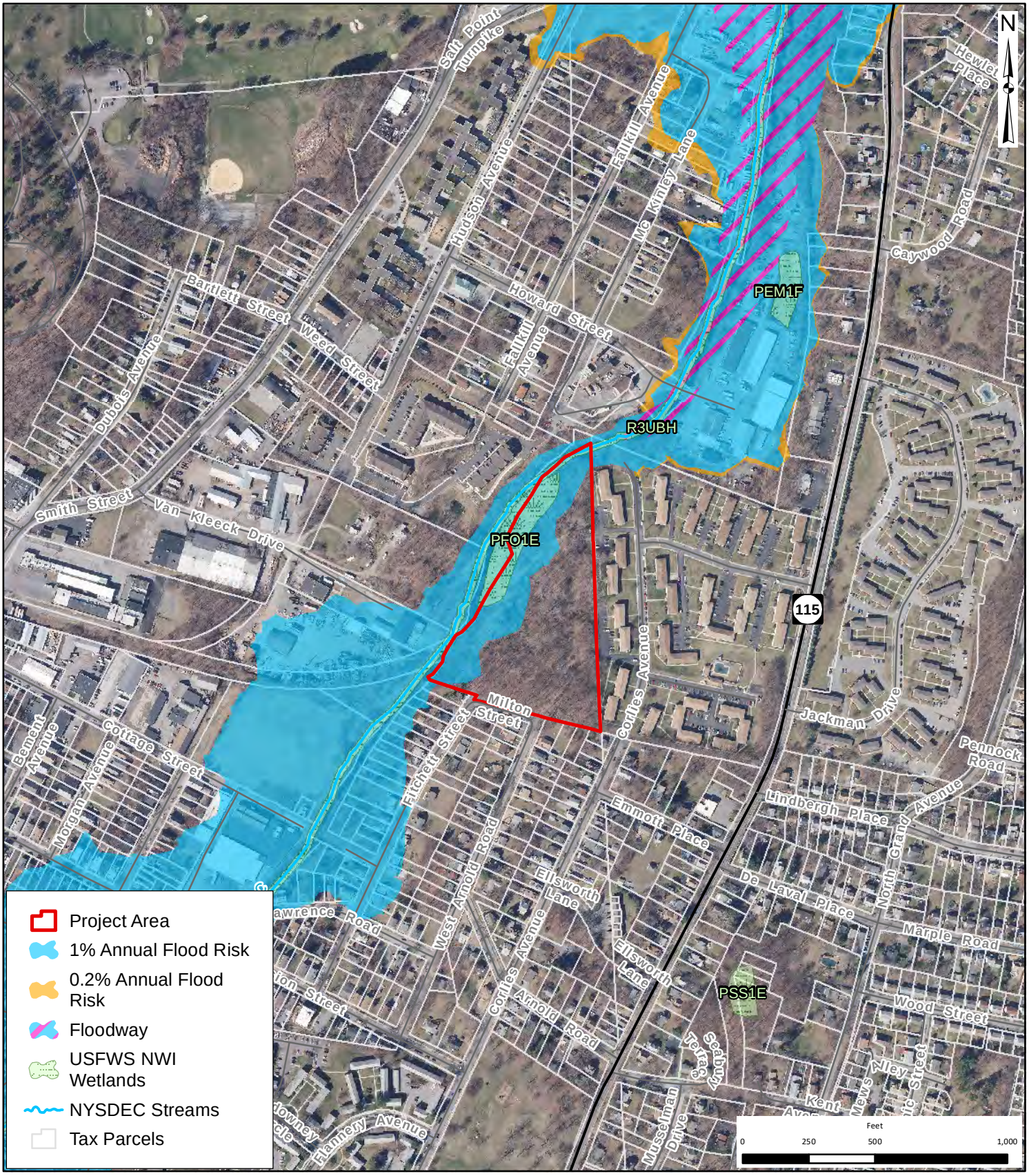
Phone: (518) 812-0513

Highview at the Fallkill Creek

Soils

Milton St, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	10/13/2019
Scale:	1 in = 150 feet
Project:	81947.00
Figure:	5



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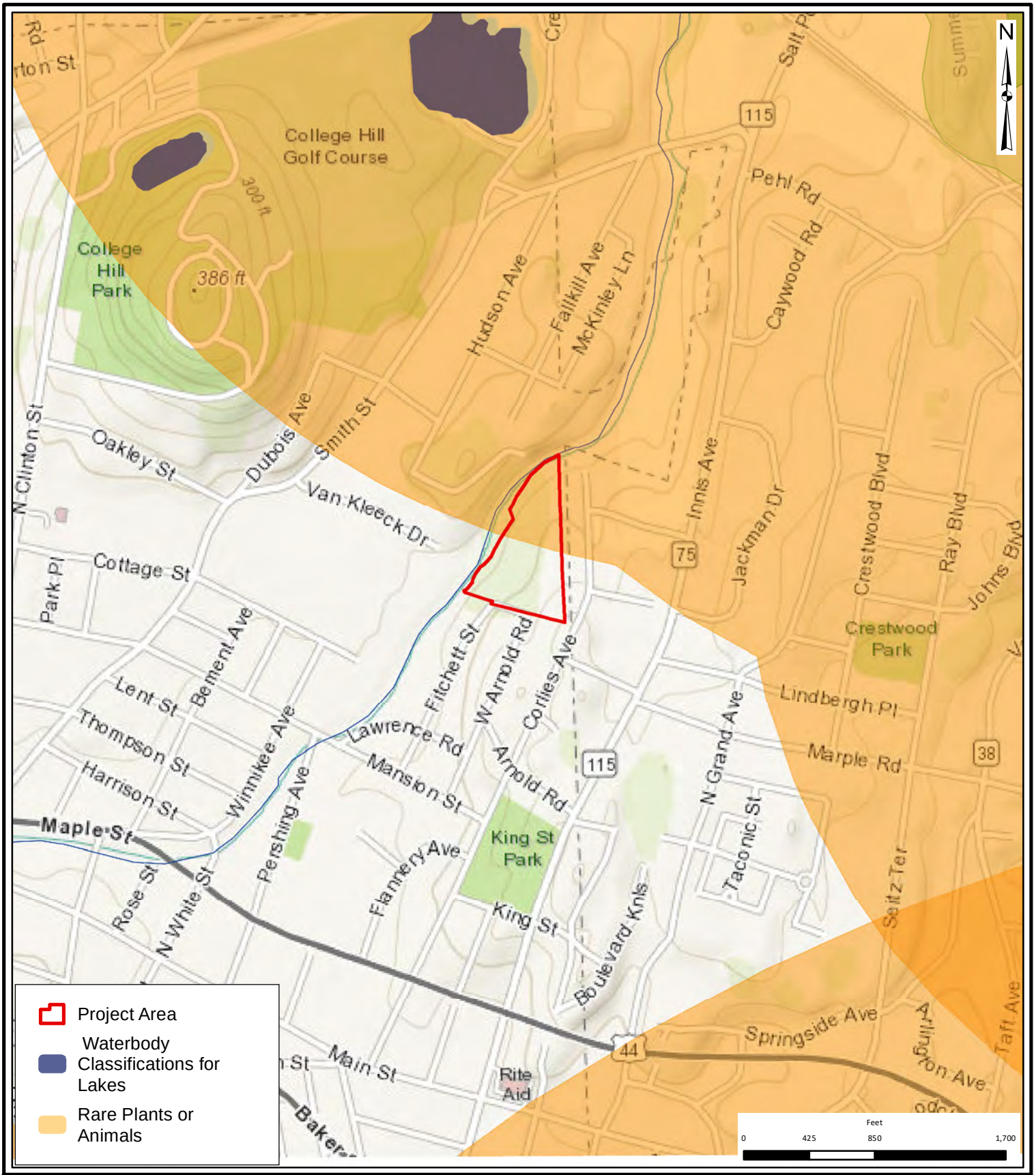
Phone: (518) 812-0513

Highview at the Fallkill Creek

Wetland, Stream and Floodplains

Milton St, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	10/13/2019
Scale:	1 in = 500 feet
Project:	81947.00
Figure:	6



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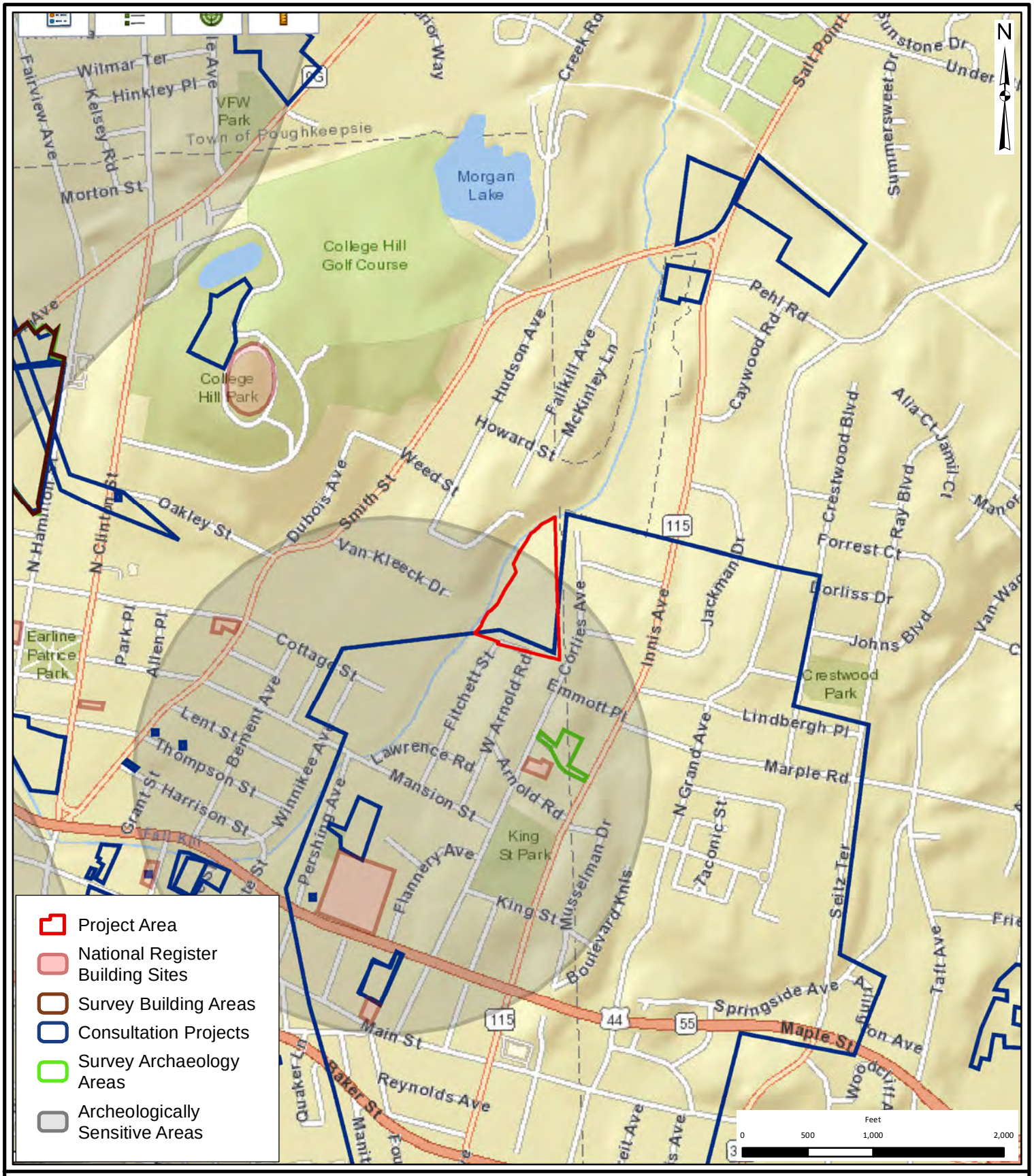
Phone: (518) 812-0513

Highview at the Fallkill Creek

NYSDEC Environmental Resource Map

Milton St, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	10/13/2019
Scale:	1 in = 850 feet
Project:	81947.00
Figure:	7



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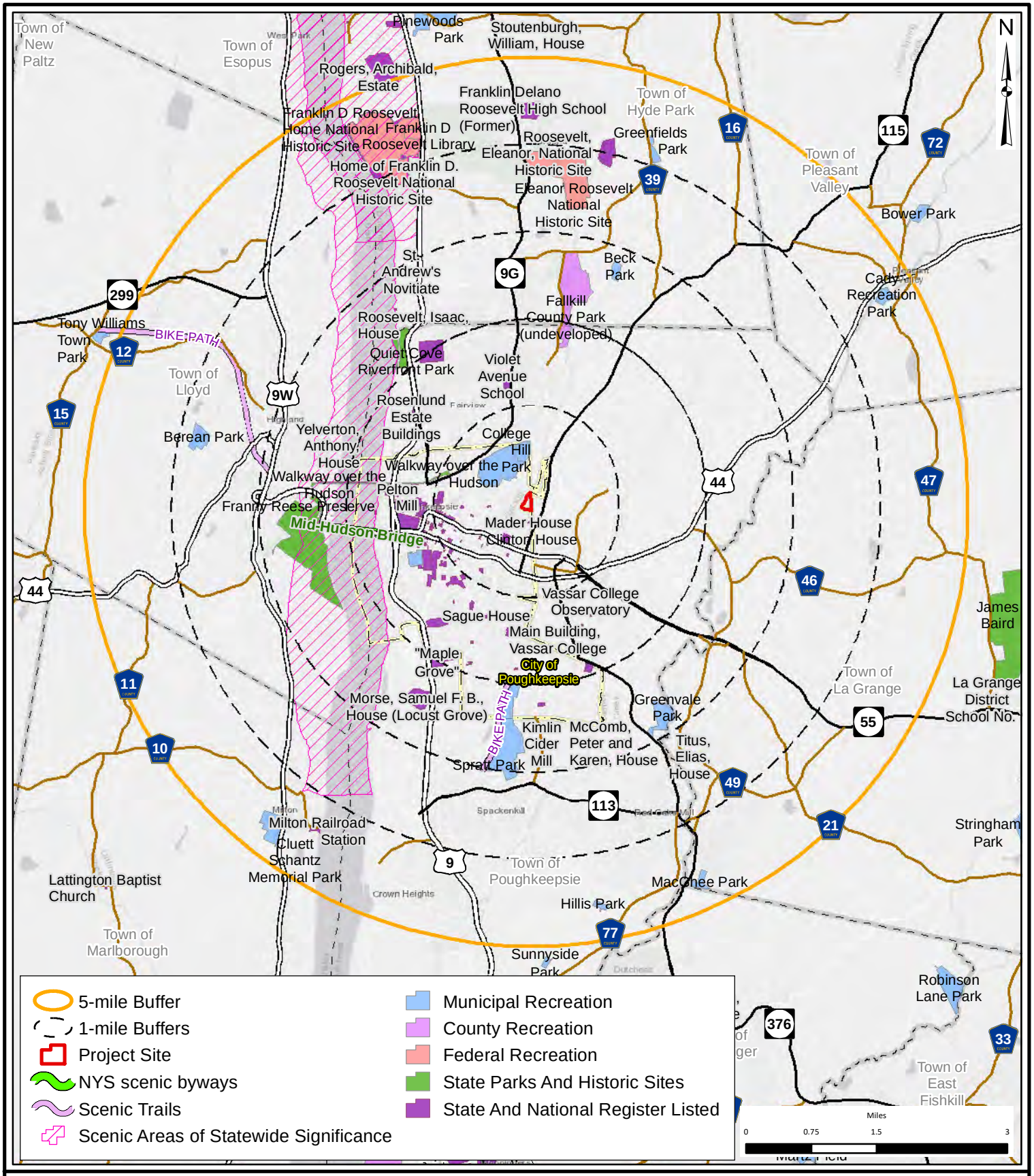
Glens Falls, NY 12801
Phone: (518) 812-0513

Highview at the Fallkill Creek

NYSOPRHP Cultural Resource Information System (CRIS) Map

Milton St, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	10/13/2019
Scale:	1 in = 1,000 feet
Project:	81947.00
Figure:	8



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Phone: (518) 812-0513

Highview at the Fallkill Creek

Publicly Accessible Federal, State, or Local Scenic or Aesthetic Resources within 5 Miles

Milton St, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	10/13/2019
Scale:	1 in = 1.5 miles
Project:	81947.00
Figure:	9

ATTACHMENT A
Councilwoman Flowers Letter of Support

THE CITY OF POUGHKEEPSIE
NEW YORK

August 10, 2020

Ms. Natalie Quinn, Planning Director
City of Poughkeepsie
62 Civic Center Plaza
Poughkeepsie, New York 12601

Re: Highview II: Proposed 64-Unit Residential Development (Maselo Realty LLC)
Milton Street (Tax Parcel 131300-6162-73-623227), City of Poughkeepsie

Dear Ms. Quinn:

I am writing to provide my support for Maselo Realty, LLC's application for a proposed rezoning of the Milton Street property to a Planned Residential Development (PRD) Zoning District to facilitate the construction of a 64-apartment unit clustered multifamily development within two buildings off Milton Street.

The Applicant, represented by Simon and Nate Abikzer, have undertaken community outreach for this project which involved two community meetings that I hosted. One meeting was held at City Hall, Common Council Chambers in which you attended and the other meeting was held at 505 Main Street, Public Safety Bldg. Renderings of the proposed project were shared with the residents who live near the proposed project and many of them asked questions about the project and voiced their concerns.

The meetings were well advertised. I hand delivered flyers to all the residents on Corlies Ave, W. Arnold Road, Fitchett Street and Lawrence Road, explaining the proposed project and inviting them to the meetings. I also sent text messages and call residents who I had contact info, reminding them of the meeting so due diligence was made to inform all residents of the project. Residents of the area who were able to attend were very vocal of what they wanted and not want to see. The exchange of ideas resulted in the current site plan design. The applicant assured the residents that they will be "good neighbors" and ensure that the two buildings will have minimum visibility so it will not infringe on the existing neighborhood.

Based on the fact that the project will be no more than 64 units, the feedback from the residents who attended the meetings and the applicant's genuine efforts in addressing the concerns of the residents in the immediate area, I am in support of the proposed rezoning of the Milton Street property and construction of the 64 apartment unit.

Please feel free to contact me to discuss further if needed.

Thank you

Sincerely,

Councilperson Yvonne Flowers
5th Ward, City of Poughkeepsie
(845) 505-2735/email: yflowers@cityofpoughkeepsie.com

ATTACHMENT B
Natural Resource Information

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

January 21, 2020

Caren LoBrutto
Chazen Companies
21 Fox Street
Poughkeepsie, NY 12601

Re: Highview II
County: Dutchess Town/City: City of Poughkeepsie

Dear Ms. LoBrutto:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site.

Within 0.8 mile of the project site is a documented location of **Blanding's turtle** (*Emydoidea blandingii*, state listed as Threatened). The turtles may travel 0.8 mile or more from documented locations. For information about any permit considerations for your project, please contact the Permits staff at the NYSDEC Region 3 Office, Division of Environmental Permits, at dep.r3@dec.ny.gov.

For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

For information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the Permits staff at the NYSDEC Region 3 Office as described above.

Sincerely,

Andrea Chaloux

Andrea Chaloux
Environmental Review Specialist
New York Natural Heritage Program

39

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

IPaC Information for Planning and Consultation **U.S. Fish & Wildlife Service**

IPaC resource list

We are experiencing intermittent network issues causing large delays in species lists and letters. This is a known issue and we are working to fix it. Thank you for your patience.

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Dutchess County, New York

Local office

New York Ecological Services Field Office

(607) 753-9334
(607) 753-9699

3817 Luker Road
Cortland, NY 13045-9385

http://www.fws.gov/northeast/nyfo/es/section7.htm

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species

[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

NOT FOR CONSULTATION

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Indiana Bat Myotis sodalis There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA

NOT FOR CONSULTATION

	SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Bobolink Dolichonyx oryzivorus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler Cardellina canadensis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Prairie Warbler Dendroica discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

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Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ “Proper Interpretation and Use of Your Migratory Bird Report” before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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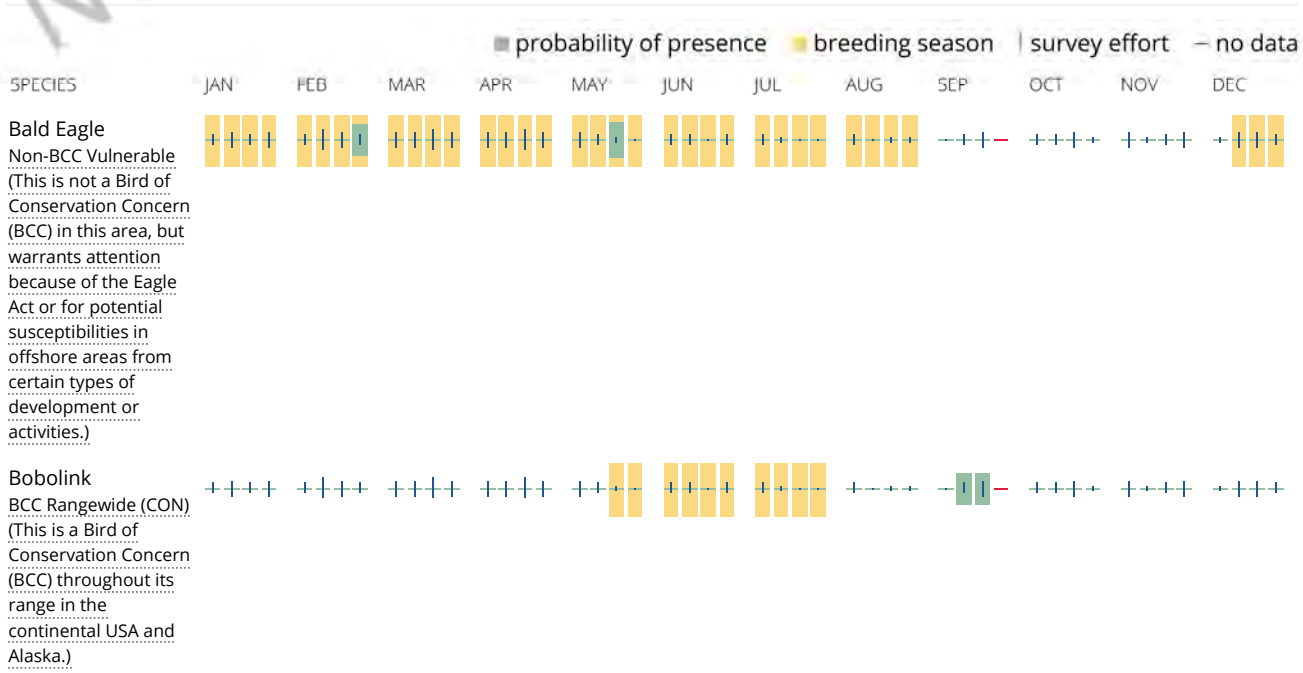
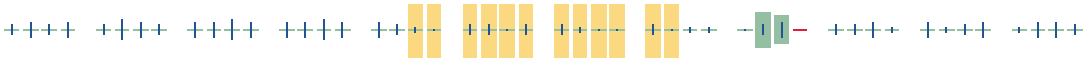
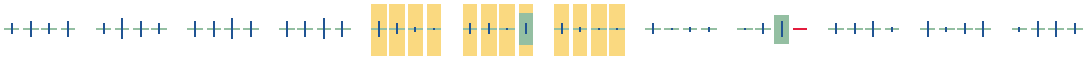


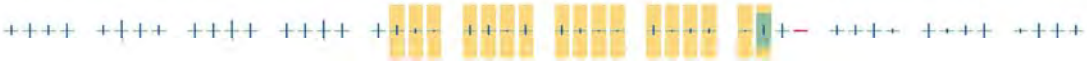
Canada Warbler
BCC Rangewide (CON)
(This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Prairie Warbler
BCC Rangewide (CON)
(This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Red-headed Woodpecker
BCC Rangewide (CON)
(This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Wood Thrush
BCC Rangewide (CON)
(This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

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Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high

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survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

PFO1E

RIVERINE

R3UBH

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

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The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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THE CITY OF POUGHKEEPSIE
NEW YORK

August 10, 2020

Ms. Natalie Quinn, Planning Director
City of Poughkeepsie
62 Civic Center Plaza
Poughkeepsie, New York 12601

Re: Highview II: Proposed 64-Unit Residential Development (Maselo Realty LLC)
Milton Street (Tax Parcel 131300-6162-73-623227), City of Poughkeepsie

Dear Ms. Quinn:

I am writing to provide my support for Maselo Realty, LLC's application for a proposed rezoning of the Milton Street property to a Planned Residential Development (PRD) Zoning District to facilitate the construction of a 64-apartment unit clustered multifamily development within two buildings off Milton Street.

The Applicant, represented by Simon and Nate Abikzer, have undertaken community outreach for this project which involved two community meetings that I hosted. One meeting was held at City Hall, Common Council Chambers in which you attended and the other meeting was held at 505 Main Street, Public Safety Bldg. Renderings of the proposed project were shared with the residents who live near the proposed project and many of them asked questions about the project and voiced their concerns.

The meetings were well advertised. I hand delivered flyers to all the residents on Corlies Ave, W. Arnold Road, Fitchett Street and Lawrence Road, explaining the proposed project and inviting them to the meetings. I also sent text messages and call residents who I had contact info, reminding them of the meeting so due diligence was made to inform all residents of the project. Residents of the area who were able to attend were very vocal of what they wanted and not want to see. The exchange of ideas resulted in the current site plan design. The applicant assured the residents that they will be "good neighbors" and ensure that the two buildings will have minimum visibility so it will not infringe on the existing neighborhood.

Based on the fact that the project will be no more than 64 units, the feedback from the residents who attended the meetings and the applicant's genuine efforts in addressing the concerns of the residents in the immediate area, I am in support of the proposed rezoning of the Milton Street property and construction of the 64 apartment unit.

Please feel free to contact me to discuss further if needed.

Thank you

Sincerely,

Councilperson Yvonne Flowers
5th Ward, City of Poughkeepsie
(845) 505-2735/email: yflowers@cityofpoughkeepsie.com

State Environmental Quality Review
NEGATIVE DECLARATION
Notice of Determination of Non-Significance

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law.

The **CITY OF POUGHKEEPSIE PLANNING BOARD**, as lead agency, has determined that the proposed action described below will not have a significant environmental impact and a Draft Environmental Impact Statement will not be prepared.

Name of Action: **Highview at the Fallkill Creek**

SEQR Status: Type 1 □
Unlisted ■

Conditioned Negative Declaration: □ Yes
■ No

Description of Action:

The project area is the subject of a Rezoning to Planned Residential Development (PRD) by the CITY OF POUGHKEEPSIE COMMON COUNCIL and Site Plan review (Unlisted Action) by the CITY OF POUGHKEEPSIE PLANNING BOARD.

The current project is an application for rezoning of a tax parcel on Milton Street in the City of Poughkeepsie from Medium Low-Density Residential (R-2) to Planned Residential Development (PRD) and Site Plan Approval for the construction of a 63-apartment unit clustered multifamily development within two buildings. The site is currently undeveloped and presently consists of upland hardwood forest, hardwood swamp, and upland shrubland along the Fall Kill Creek. The site is proposed to be served with central water and sewer from the City of Poughkeepsie. Development of the site will also involve the construction of the typical appurtenances associated with residences development such as lighting, asphalt drives, landscaping, sidewalk, pool, and pool house.

The project area is comprised of one parcel being 8.713 acres, Tax ID Number 6162-73-623227.

Access

Access to the proposed project will be from two new driveways off Milton Street.

Parking

The proposed project is required to provide 123 parking spaces per Section 19-4.3 of the City's Zoning Ordinance. As shown in Table 6, the proposed project will provide 124 parking spaces.

The CITY OF POUGHKEEPSIE PLANNING BOARD has been designated Lead Agency for the current project under consideration.

Location:

Milton Street, Tax Parcel Number 6162-73-623227.

Required Permits and Approvals:

1. Rezoning from R-2 to PRD – City of Poughkeepsie Common Council
2. Site Plan – City of Poughkeepsie Planning Board
3. Area Variances – City of Poughkeepsie Zoning Board of Appeals (TBD)
4. Driveway Permit - City of Poughkeepsie Department of Public Works
5. Floodplain Development Permit – City of Poughkeepsie Zoning Administrator
6. Water/Sewer Department approvals - Dutchess County Health Department
7. SPDES General Permit for Discharges during Construction Activities – New York State Department of Environmental Conservation

Documents and Comments Reviewed and Considered by the Lead Agency:

The applicant submitted application materials to the CITY OF POUGHKEEPSIE PLANNING BOARD including the following:

1. Correspondence from The Chazen Companies, dated February 11, 2020
2. Correspondence from The Chazen Companies, dated July 28, 2020
3. Correspondence from The Chazen Companies, dated December 2, 2020
4. Application for Rezoning dated December 5, 2019
5. Part I Full EAF by The Chazen Companies dated December 3, 2019, updated December 2, 2020
6. Natural Resource Inventory Analysis by Chazen Companies dated January 9, 2020

7. Concept Plan from The Chazen Companies dated February 11, 2020
8. Site Plan by The Chazen Companies last revised December 1, 2020
9. Grading and Utility Plan by The Chazen Companies last revised December 1, 2020
10. Landscape Plan by The Chazen Companies last revised December 1, 2020
11. Tree Removal Plan by The Chazen Companies last revised December 1, 2020
12. Wetlands Map by The Chazen Companies dated November 17, 2020
13. Threatened and Endangered Species Habitat Suitability Assessment Report by Ecological Solutions dated October 18, 2020
14. Correspondence from Office of Parks, Recreation and Historic Preservation (OPRHP), dated December 17, 2020
15. Correspondence from NYS DEC Environmental Engineering Technician, Division of Environmental Permits, dated January 19, 2021

The Planning Board initiated the environmental review of the project on October 20, 2020 by declaring its intent to be Lead Agency in a coordinated SEQR process. Notice of intent to be Lead Agency was then circulated to the City of Poughkeepsie Common Council, City of Poughkeepsie Zoning Board of Appeals, Dutchess County Planning Department and New York State Department of Environmental Conservation in line with Part 617 of Title 6 NYCRR. There was no objection to the designation.

The Planning Board considered the application, materials, comments and discussion at regular meetings on February 26, 2020, September 15, 2020, October 20, 2020, and December 15, 2020.

A duly notice public hearing on the matter was opened by the Common Council on November 16, 2020. At which two members of the public registered to speak. Written and oral comments were received by City Engineering Department; Dutchess County Department of Planning; and members of the public. Public comments received were in regards to visual and noise barriers between the proposed structures and Milton Street, dual access and egress driveways onto Milton Street to avoid one-way traffic, stormwater management, and protection of the Fall Kill Creek.

The Lead Agency has reviewed the proposed action to assess the severity of potential environmental impacts of the Rezoning and Site Plan and has determined that for the reasons set forth herein a Draft Environmental Impact Statement will not be required.

Reasons Supporting This Determination:

1. **Impact on Land (Part II EAF # 1)**

The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).

Although the proposed action will disturb more than one acre and create stormwater runoff, paving or construction of other impervious surfaces will be occur only on approximately 20% of the project site and stormwater will be conveyed via swales and subsurface piping to an on-site stormwater bioretention basin. Additionally, the applicant will be required to provide a Grading Plan, Erosion and Sediment Control Plan, and a Stormwater Pollution Prevention Plan to be reviewed and approved by the City of Poughkeepsie Engineer.

Accordingly, any potential adverse impacts to the land associated with the project would be avoided.

2. **Impact on Geological Features (Part II EAF # 2)**

The project as designed will not result in a negative impact to the Geological Features of the project site as the project does not meet the threshold criteria as listed on the Part II EAF and does not contain any unique or unusual land forms on site. Furthermore, the proposed PRD zoning designation will permit minimal disturbance and protection of natural resources.

3. **Impact on Surface Waters (Part II EAF # 3)**

The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.

Although the proposed action will involve construction adjoining a freshwater wetland, the natural habitat along the banks of the Fall Kill and immediately adjacent to the wetland will remain. The nearest construction or clearing will occur approximately 120 feet from the nearest boundary of the wetland. Additionally, the applicant will be required to provide a Grading Plan, Erosion and Sediment Control Plan, and a Stormwater Pollution Prevention Plan to ensure that the adjoining Fall Kill Creek and wetland will not be negatively impact by sediment or stormwater runoff.

Accordingly, any potential adverse impacts to the surface waters adjoining the project would be avoided.

4. **Impact on Groundwater (Part II EAF # 4)**

The project as designed will not result in a negative impact to the Groundwater on or near the project site as the project does not meet the threshold criteria as listed on the Part II EAF and will not result in new or additional use of ground water and is not expected to have potential to introduce contaminants to ground water or an aquifer.

5. Impact on Flooding (Part II EAF # 5)

The proposed action may result in development within a 100 year floodplain.

Although an area of the project site does fall within a 100 year floodplain, no construction will occur within the flood hazard area and minimal clearing and grading may occur. There will be a substantial buffer and distance between the proposed development and Fall Kill and the implementation of a SWPPP will ensure that no significant adverse impacts to the floodplain occur. Furthermore, a floodplain development permit application will be reviewed and approved by the City of Poughkeepsie Building Inspector prior to and grading or construction.

Accordingly, any potential adverse impacts to the floodplain associated with the project would be avoided.

6. Impact on Air (Part II EAF # 6)

The project as designed will not result in a negative impact to the Air Resources on or near the project site as the project does not meet the threshold criteria as listed on the Part II EAF as it does not include a state regulated air emission source.

7. Impact on Plants and Animals (Part II EAF # 7)

The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.

The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.

Although there are known occurrences of the Blanding's Turtle (a threatened species as listed by NYS) on or in the vicinity of the project site, a Habitat Assessment dated October 18, 2020 noted no core habitat on/or immediately adjacent from the site. A January 21, 2020 letter from NYSDEC noted that the project site is within screening distance of a known record. In response, the applicant has created Blanding's Turtle Education and Encounter Plan for measures to take during construction and

operation of this project to minimize impacts to the species and to potential suitable habitat.

Since the USFWS has listed the Indiana Bat as a threatened/endangered species within the area, the applicant has incorporated conservation measures to ensure no impact to the species. The measures include minimal tree clearing (less than 20% of Project Area), scheduling of tree clearing during timeframes when bats are not resident on site, clear demarcation of proposed clearing areas to prevent inadvertent over clearing, and full-shielding of outdoor lights to minimize light pollution and potential adverse effect on bat foraging activities. The Planning Board will require that a note be added to the final site plan prohibiting the cutting of trees between the dates of October 1 and March 31.

Accordingly, any potential adverse impacts to Blanding's Turtles or Indian Bats associated with the project would be avoided.

8. Impact on Agricultural Resources (Part II EAF # 8)

The project is not located within an Agricultural District and therefore will not result in a negative impact to the Agricultural Resources.

9. Impact on Aesthetic Resources (Part II EAF # 9)

The project as designed will not result in a negative impact to the Aesthetic Resources on or near the project site as the project does not meet the threshold criteria as listed on the Part II EAF as it will not create an obvious change or sharp contrast in land use and is not readily visible from or within a scenic resource.

10. Impact on Historic and Archeological Resources (Part II EAF # 10)

According to the NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) Cultural Resource Information System (CRIS) mapping (Figure 8), the project site does not contain and is not adjacent to any National or State Historic Register sites or any sites that were determined to be eligible for listing on the National or State Historic Register. The CRIS mapping indicates that the project site is partially located within a known archeologically sensitive area. Consultation was undertaken with NYSOPRHP, which confirmed that "no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project."

See NYSOPRHP Letter dated December 17, 2020 prepared by Roger Daniel Mackay, Deputy Commissioner for Historic Preservation Division for Historic Preservation.

11. Impact to Open Space and Recreation (Part II EAF # 11)

The project as designed will not result in any impact to Open Space or Recreational areas near the Project Area as the project does not meet the threshold criteria as listed on the Part II EAF as it does not include or is immediately adjacent to Open Spaces or Recreational Areas.

12. Impact to Critical Environmental Areas (Part II EAF # 12)

The project is not located within a Critical Environmental Area and therefore will not result in a negative impact to Critical Environmental Areas.

13. Impact to Transportation (Part II EAF # 13)

The project as designed will not result in any significant impact to existing transportation systems near the Project Area as the project does not meet the threshold criteria as listed on the Part II EAF as it will generate fewer than 100 peak hour vehicle trips per hour.

14. Impact to Energy (Part II EAF # 14)

The project will not result in a negative impact to the Energy resources in the area as the project does not meet the threshold criteria as listed on the Part II EAF.

15. Impact to Noise, Odor and Lights (Part II EAF # 15)

The proposed action may result in light shining onto adjoining properties.

The proposed action may result in lighting creating sky-glow brighter than existing area conditions.

Although the proposed action will include outdoor lighting, the city code of ordinances requires that light does not shine onto adjoining properties and that all lighting be fully-shielded and dark-sky compliant to reduce glare and sky glow impacts.

Accordingly, any potential adverse impacts with regards to outdoor lighting associated with the project would be avoided.

16. Impact to Human Health (Part II EAF # 16)

The project will not result in a negative impact to Human Health as the project does not meet the threshold criteria as listed on the Part II EAF and no impacts to Human Health have therefore been identified.

17. <u>Consistency with Community Plans (Part II EAF # 17)</u>

The proposed action is inconsistent with local land use plans or zoning regulations.

The proposed action includes a rezoning of the Project Area from Medium Low-Density Residential (R-2) to Planned Residential Development (PRD). If the action is successful the proposed action will be consistent with adopted land use plans and zoning regulations. Additionally, the proposed PRD zoning designation requires that the development be kept to the same density standards as the current R-2 zoning designation, which has a minimum lot area of 6,000 SF per dwelling unit, for maximum of 63 dwelling units. Flexibility of building placement and form permitted within the PRD allows units to be clustered into two multi-family buildings rather than spread out as detached single-family homes. This allows for development that will better conform to the natural conditions and constraints of the site, as noted in the City's adopted Natural Resource Inventory.

18. <u>Impact to Community Character (Part II EAF # 18)</u>

The project will not result in a negative impact to Community Character as the project does not meet the threshold criteria as listed on the Part II EAF and no impacts to Community Character have therefore been identified.

For Further Information: Chairman Robert S. Levine
CITY OF POUGHKEEPSIE PLANNING BOARD
Poughkeepsie NY 12601

THIS NEGATIVE DECLARATION WAS AUTHORIZED AT A MEETING OF THE LEAD AGENCY HELD ON JANUARY 20, 2021.

Motion: Marjorie Smith
Seconded: Anne Saylor
Roll Call Vote:
Robert Levine, Chair - Aye
Robert Mallory - Aye
Rosaura Andujar-McNeil - Aye
Marjorie Smith - Aye
Anne Saylor - Aye

A copy of this Type I Negative Declaration must be filed with:

The Clerk of the City of Poughkeepsie

The City of Poughkeepsie Planning Board

The City of Poughkeepsie Common Council

The New York State Department of Environmental Conservation

Any person who has requested a copy

Applicant

MEMORANDUM

To: Nathan Shook, Zoning Board of Appeals Chairman, City of Poughkeepsie
Members of the Zoning Board of Appeals, City of Poughkeepsie
Natalie Quinn, Planning Director, City of Poughkeepsie

From: Thomas R. Johnson, PE, PTOE, Director of Transportation Services, Chazen Companies

cc: Caren LoBrutto, Senior Planner, Chazen Companies
Timothy Lynch, Senior Landscape Architect, Chazen Companies

Date: August 24, 2021

Re: Highview at the Fallkill Creek, City of Poughkeepsie, NY

Job #: 81947.00

Highview at the Fallkill Creek is proposed as a 63unit apartment project. Direct access to the site will be from Fitchett Street and West Arnold Road. Site traffic will then use Mansion Street to disperse for travel to the north, south, east, and west. Other local roads likely to be used by site traffic include Corlies Avenue, Pershing Avenue, Innis Avenue, and Smith Street.

The *Trip Generation Manual, 10th Edition* published by the Institute of Transportation Engineers (ITE) is the industry-standard resource for estimating the traffic generated by various types of land uses and it was used to estimate the site generated trips for this project. Based on data for Multifamily Housing-Mid Rise (Land Use Code 221), the proposed project will generate 22 total trips in the weekday morning and 29 total trips in the evening peak periods. This is a minimum amount of traffic that will be added to the surrounding roadway network, representing about 1 trip every 3 to 10 minutes for the entering and exiting movements.

Table 1
Peak Hour Generated Trips

Land Use	AM Peak Hour			PM Peak Hour		
	Enter	Exit	Total	Enter	Exit	Total
LUC 221: Multifamily Housing-Mid Rise	6	16	22	17	11	28

A traffic impact study was completed in 2005 for this project. At that time, the project consisted of 163 units and was estimated to generate 76 and 90 total trips for the weekday morning and afternoon peak periods. The traffic study concluded that the project at 163 units would have minimal impact as the studied intersections would continue to operate at acceptable levels of service. Therefore, at the currently proposed 63-units with reduced volumes this project will also have minimal traffic impacts. No improvements are needed.

Additionally, historic traffic volumes collected on roadways in the vicinity of the site were reviewed using NYSDOT's *Traffic Data Viewer*. The data shows that volumes for Mansion Street, Corlies Avenue, Innis Avenue, and Smith Street have decreased between 2012 and 2019 on the order of 1% to 15%. This is further indication that the surrounding roadways expected to serve the proposed project have the capacity available to accommodate the site traffic.

As part of previous coordination with Councilwoman Yvonne Flowers and community members, the original single entry was reconfigured to two access points, with one-way exit off Fitchett Street and one-way entrance off West Arnold Street. By breaking up the single entry/exit into two accesses there will be a reduction in the number of conflict points as compared to a single access. In other words, entering and exiting left-turn movements, normally the critical movements at an intersection, will be separated and will not be overlapping. This will also minimize queuing on-site and on Milton Avenue. As it relates to potential conflicts with other traffic on Milton Street this is not considered an issue because there is only one other driveway with access off Milton Street. All other neighborhood traffic is anticipated to travel south on Fitchett Street or West Arnold as Milton Street is not a through street and provides no other connections.

CITY OF POUGHKEEPSIE
ZONING BOARD OF APPEALS
DECISION

In the matter of the appeal of Maselo Realty, LLC, regarding the property at Milton Street (Grid #6162-73-623227), Poughkeepsie, New York:

At a Regular Meeting of the Zoning Board of Appeals held on the 14th day of September, 2021, at 6:30pm:

Present
Nathan Shook Chair
John Gildard
Thomas Klug
Rob Page (arrived late)
Scott Parker
Steven Reifler

Excused
Jessica Vinall

WHEREAS, the Zoning Board of Appeals has received an application from Maselo Realty, LLC, relative to the proposed multi-residential development on Milton Street, consisting of two buildings containing a total of 63 units, with a swimming pool and accessory surface parking, requiring the following variances:

- Section 19-3.18(4)(h) requires that a PRD shall have access to an arterial street, as defined in the City of Poughkeepsie ordinances and regulations. An arterial street is defined by the Zoning Ordinance as "a street providing for through traffic movement between areas and across the city with direct access to abutting property. The street is subject to required traffic control of entrances, exits and curb use." As Milton Street is not an arterial street, the applicant is seeking full relief from this section of the code.
- Section 19-3.183(b) requires that A buffer strip shall be provided along the property line and along any street line. Said strip shall be at least 50 feet in depth, measured inward from the street line or property line. This strip shall be suitably landscaped with grass and shrubs, trees or other ground cover or such screening as the Planning Board may prescribe. No parking shall be permitted in this area. The parking area, drive aisle and refuse enclosure of the development encroaches into the required buffer with a set-back of 9 feet; the applicant is seeking a variance of 41 feet.
- Section 19-3.18(3)(b) provides that in no event shall any structure or building be permitted closer than 120 feet from any residence on any property abutting the PRD property and shall be suitably landscaped with grass and shrubs, trees or other ground cover or such screening as the Planning Board may prescribe. The refuse enclosure of the development encroaches into the required buffer with a 94.8 foot set-back; the applicant is seeking a variance of 25.2 feet.

WHEREAS, the application was accompanied by supporting documentation including a Title Sheet (G001), Site Plan (C130) and a Landscape Plan (C180), all dated 5/25/21, prepared by Chazen Companies; and,

WHEREAS, a public hearing was held on July 13, 2021 and September 14, 2021; and,

WHEREAS, the applicant has demonstrated that the granting of the area variance will not produce an undesirable change in the character of the neighborhood, and will not be a detriment to nearby properties; and,

WHEREAS, the applicant has demonstrated that there is no other feasible method to achieve compliance at this time; and,

WHEREAS, the applicant has demonstrated that the variance requested is not substantial; and,

WHEREAS, the applicant has demonstrated the granting of the variance will not have an adverse effect or impact on the physical or environmental conditions in the neighborhood; and,

WHEREAS, the applicant has demonstrated that the need for the variances is not necessarily self-created:

NOW THEREFORE BE IT FURTHER RESOLVED that the City of Poughkeepsie Zoning Board of Appeals hereby grants the area variances as noted above, with the following conditions:

- Through the site plan review process with the Planning Board, the applicant shall investigate potentially beneficial traffic control measures for Milton Street, Arnold Road and Fitchett Street, and propose any measures as a means of mitigate adverse traffic impacts on the surrounding neighborhood as deemed appropriate

Motion: Steven Reifler
Second: Thomas Klug
Carried: 6:0:0

The motion to grant the variances carried unanimously.

Nathan Shook
Chairman
Zoning Board of Appeals

Amended
09.27.21

APPLICATION TO THE PLANNING BOARD
CITY OF POUGHKEEPSIE, NEW YORK

Application for Site Plan, Special Permit & Facade Approval

OFFICE USE ONLY

CODE: PLSF

ID #_____

FEE: _____
Total, from:
$500, plus
$_____
($150 per 1000 square feet of floor area), plus
$_____
($35 per number of required parking spaces), plus
$_____
($500 for special permit, if applicable)

I. PROPERTY ADDRESS: 6162-69-073173 / 267 Mill Street

II. PROPERTY OWNER: Page Park Associates
ADDRESS: PO Box 792
Poughkeepsie NY 12602
_____ (state and zip code)
PHONE NUMBER: 845.471.0191 (include area code)

III. NAME OF APPLICANT: Kelly Libolt/ Page Park Associates
ADDRESS: _____
_____
_____ (state and zip code)
PHONE NUMBER: _____ (include area code)
EMAIL ADDRESS: kelly@pageparkassociates.com

(If applicant is NOT the owner, proof of owner's consent to the application MUST be provided.)

IV. CONSULTANT: _____
ADDRESS: _____
_____
_____ (state and zip code)
PHONE NUMBER: _____ (include area code)

V. PROPOSED USE or FAÇADE CHANGE (Summarize proposed use or uses):_____
See Attached Renderings

VI. ZONING DISTRICT: CE - Creative Edge

(Proceed to XVII for special permit & façade approval only)

PROJECT INFORMATION

New construction: _____(yes)__X__ (no)

Change of use:__X__ (yes) _____ (no)

Expansion/addition:_____ (yes) __X__ (no)

Alteration:__X__ (yes) _____ (no)

Cost of Construction: $__$450,000__

LOT AND BULK INFORMATION:

Lot area: __0.25 acres__ (acres) _____ (square feet)

Building Footprint: __0__ (proposed square feet for new construction)

__6,334__ (existing square feet for change of use/expansion)

__0__ (additional proposed square feet for expansion)

__6,334__ (total building footprint, square feet)

Lot Coverage: __0.29__ (percentage, building coverage only)

Gross Floor Area: __0__ (proposed square feet for new construction)

__6,334__ (existing square feet for change of use/expansion)

__0__ (additional proposed square feet for expansion)

__6,334__ (total gross floor area, square feet)

Building Height: __3__ (stories) _____ (feet)

Floor Area Ratio: __0.58__ (ratio of gross floor area divided by lot area)

VIII. PROJECT PARKING INFORMATION

A) Number of Off-Street Parking Spaces required: __27__

B) Number of Off-Street Parking Spaces provided: __27__

C) Waiver Requested: _____ (Yes) __X__ (No)

Is municipal parking available within 600 feet? _____ (Yes) _____ (No)

If yes, name all such municipal facilities: _____

_____

_____

(If a waiver is requested based on proximity to municipal facilities, a written request for such waiver, addressed to the City Planning Staff and the Chairman of the Planning Board, must be submitted with the application.)

If a private parking facility is to be utilized, is such facility within 600 feet?

_____ (Yes) _____ (No)

If yes, provide the address of the facility, name of the property owner, number of spaces in the lot, number of spaces available for lease, and length of lease. Attach copy of lease. Additional information may be required by the Planning Board): _____

_____

_____

_____

IX. RESIDENTIAL PROPOSALS

A) Type of Development: Mulfi-Family
(Townhouse, condominium, multiple residence rental, etc.)

B) Unit Breakdown:

Number of efficiency or "studio" units: 0

Number of one (1) bedroom units: 7 (including 2 live/work) AMENDED 09.27.21

Number of two (2) bedroom unit's 1

Number with three or more bedrooms: 0

Total number of units: 8 AMENDED 09.27.21

C) Is funding public? ____ Yes X No

If yes, describe funding source: _____

X. OFFICE PROPOSALS (____ Medical/Dental ____ Professional ____ Business)

A) Number of Employees: _____

B) Number of doctors/dentists/medical practitioners: _____

C) Days/Hours of Operation: _____

XI. SERVICE BUSINESS PROPOSALS

A) Specify Business: _____
(e.g., laundromat, drycleaner, beauty parlor, travel agency, banks)

B) Number of Employees: _____

C) Number of Washing Machines (for laundromat): _____

D) Days/Hours of Operation: _____

XII. MERCANTILE PROPOSALS (Retail _____ Wholesale _____)

A) Type of Mercantile (specify): _____

B) Number of Employees: _____

C) Days/Hours of Operation: _____

XIII. STANDARD RESTAURANT/FAST FOOD RESTAURANT/COFFEE SHOP/DONUT SHOP/NIGHTCLUB/DISCOTHEQUE/BAR PROPOSALS

A) Specify Use: _____

B) Number of seats (excluding bar stools and outdoor seating):_____

C) Meals served (i.e., breakfast, lunch, dinner): _____

D) Type of Menu: _____

E) Days/Hours of Operation: _____

F) Entertainment (live and/or recorded):_____

G) Will the restaurant contain a bar/lounge?: _____ Yes _____ No

H) If yes, how many seats at the bar? _____

I) Is a drive-through window proposed? _____

J) Is a walk-up window proposed? _____

K) Is an outdoor seating area proposed? _____

L) If yes, how many seats are proposed? _____

M) If yes, is outdoor cooking proposed? _____

XIV. INDUSTRIAL/COMMERCIAL PROPOSALS (Automobile repair, taxi, motor vehicle sales, warehouse, manufacturing, animal hospital, research facilities, etc.)

A) Specify Use: _____

B) Number of shifts (if any): _____

C) Number of employees: _____
(If shifts are proposed, list number of employees per shift)

E) Number of work bays (if automobile repair): _____

F) Days/Hours of operation: _____

XV. EDUCATIONAL/INSTITUTIONAL/RECREATIONAL PROPOSALS (e.g., Museums, Theatres, Conference Centers, Hotels, Motels, Hospitals, Nursing Homes, Assisted Living Facilities, Nursery Schools, Private Schools, Day Care Centers, Places of Worship, Marinas, Membership Clubs, etc.)

A) Specify: _____

B) Number of shifts (if any): _____

C) Number of employees: _____
(If shifts are proposed, list number of employees per shift)

D) Number of beds (hospitals, nursing homes, etc): _____

E) Number of seats in largest assembly space: _____

F) Number of classrooms (schools): _____

G) Number of rental units (hotels, motels, etc.) _____

H) Number of boat slips/courts (e.g., tennis, handball, etc.), alleys: _____

I) Days/Hours of Operation: _____

XVI. PROPOSALS NOT MENTIONED ABOVE (Please be specific):

_____

_____

_____

_____

_____

XVII. APPLICANT CERTIFICATION

I, Kelly Libolt _____, certify that the this application has addressed the objectives outlined in the Zoning Ordinance with consideration given to the public health, safety and welfare; the comfort and convenience of the public in general or the residents or users of the proposed development and of the immediate neighborhood.

The applicant certifies that all information contained herein is accurate and complete as of the date of this application.

KLibolt _____ 10.05.20 AMENDED 09.27.21 _____

Signature of Applicant Date

KARC
PLANNING CONSULTANTS, INC.

September 27, 2021

Ms. Natalie Quinn
City of Poughkeepsie Planning Department
62 Civic Center Plaza
Poughkeepsie, NY 12601

Ms. Judy Knauss
City of Poughkeepsie Zoning Administration
62 Civic Center Plaza
Poughkeepsie, NY 12601

Re: 267 Mill Street
Amended Site Plan Application

Dear Ms. Quinn:

Enclosed please find the following:

1. Amended Site Plan Application prepared September 27, 2021
2. Amended Site Plan (SP1) prepared by the LRC Group dated September 14, 2021
3. Amended Basement Floor Plan (A104) prepared by LMV Architects dated September 21, 2021
4. ANSI Standards for Basement Window Well (A801) prepared by LMV Architects dated June 15, 2021

As discussed, the Applicant has received Site Plan approval from the Planning Board. The Applicant is seeking permission to add one more apartment (7 approved + 1 new = 8 apartments) in the ½ basement of the existing structure. The parking lot contains more parking than required and as such there are no changes to the exterior of this building which would affect the site plan review.

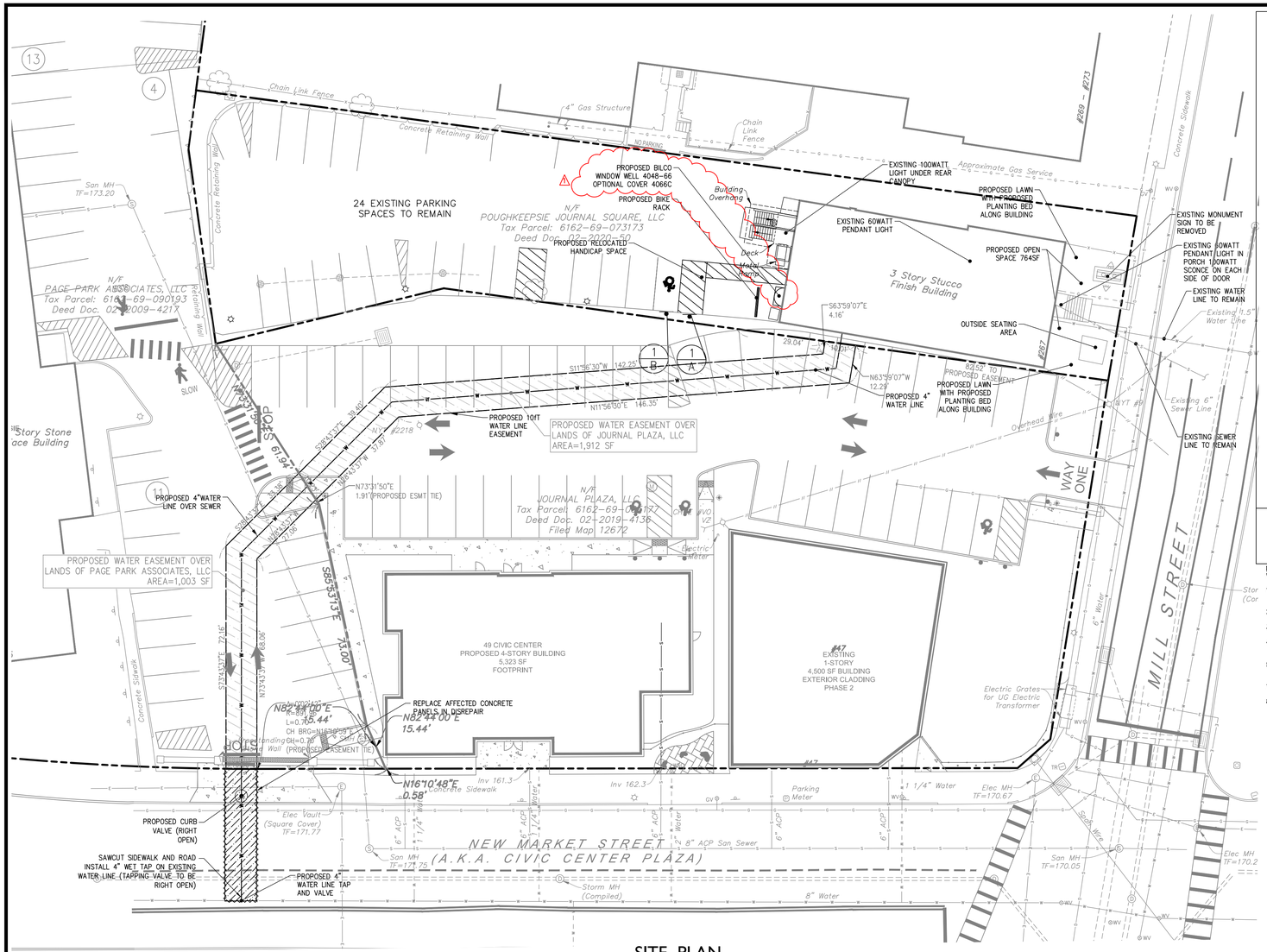
Please advise if you require any further information for this request.

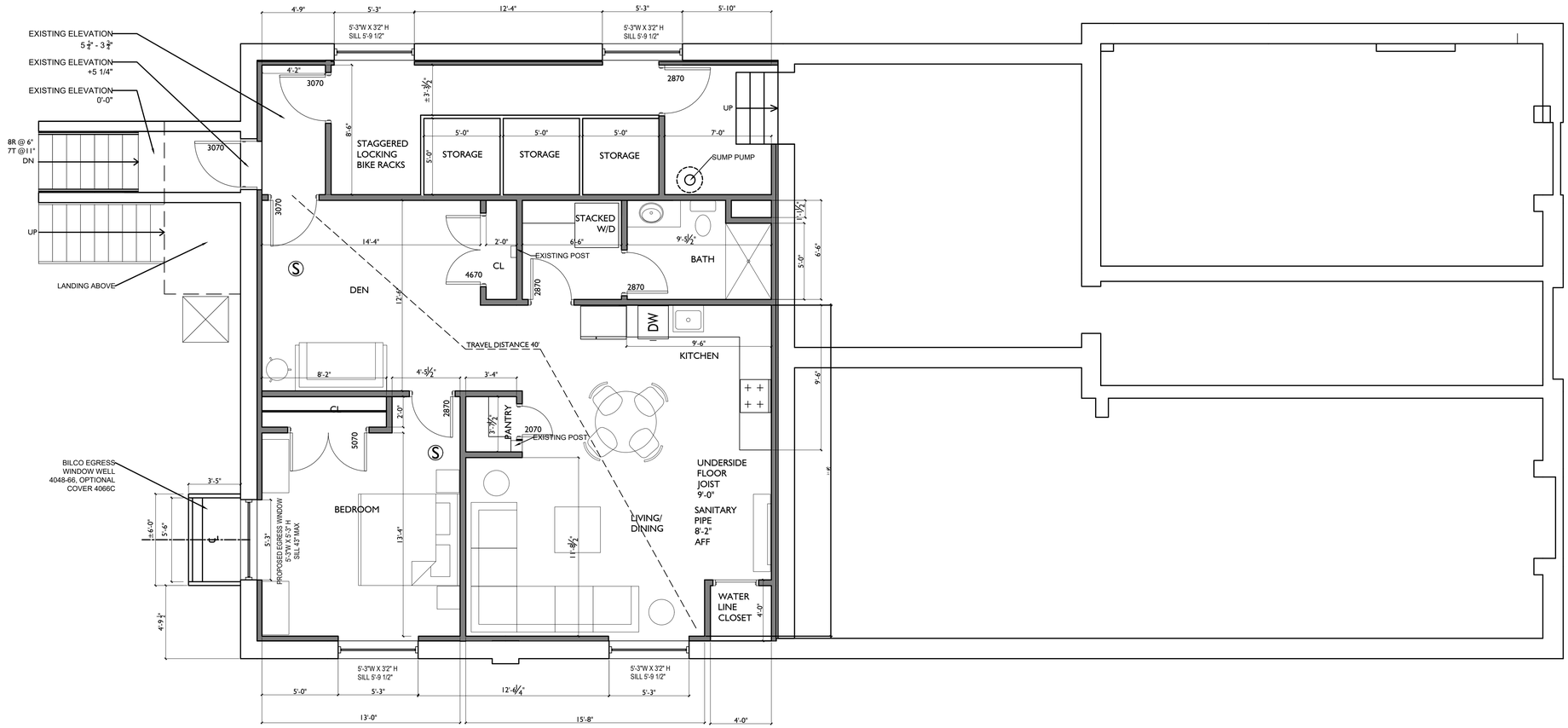
Thank you for your continued assistance with this matter. Please advise when the copies are ready for pick up.

Sincerely,

Kelly Libolt

PO Box 924 | Poughkeepsie, NY 12602 | 845.594.1055 | kelly@karcpc.com
DBE Certified | WBE Certified in NY and NJ | US SBA WOSB & EDWOSB Certified


24 EXISTING PARKING SPACES TO REMAIN
PROPOSED BILCO WINDOW WELL 4048-66 OPTIONAL COVER 4066C
PROPOSED BIKE RACK
PROPOSED RELOCATED HANDICAP SPACE
EXISTING 100WATT LIGHT UNDER REAR CANOPY
EXISTING 60WATT PENDANT LIGHT
PROPOSED LAWN WITH PROPOSED PLANTING BED ALONG BUILDING
PROPOSED OPEN SPACE 764SF
3 Story Stucco Finish Building
OUTSIDE SEATING AREA
EXISTING MONUMENT SIGN TO BE REMOVED
EXISTING 60WATT PENDANT LIGHT IN PORCH 100WATT SCONCE ON EACH SIDE OF DOOR
EXISTING WATER LINE TO REMAIN
EXISTING SEWER LINE TO REMAIN
PROPOSED 10FT WATER LINE EASEMENT
PROPOSED WATER EASEMENT OVER LANDS OF JOURNAL PLAZA, LLC AREA=1,912 SF
PROPOSED WATER EASEMENT OVER LANDS OF PAGE PARK ASSOCIATES, LLC AREA=1,003 SF
PROPOSED 4"WATER LINE OVER SEWER
PROPOSED 4" WATER LINE
49 CIVIC CENTER PROPOSED 4-STORY BUILDING 5,323 SF FOOTPRINT
#47 EXISTING 1-STORY 4,500 SF BUILDING EXTERIOR CLADDING PHASE 2
REPLACE AFFECTED CONCRETE PANELS IN DISREPAIR
PROPOSED CURB VALVE (RIGHT OPEN)
SAWCUT SIDEWALK AND ROAD INSTALL 4" WET TAP ON EXISTING WATER LINE (TAPPING VALVE TO BE RIGHT OPEN)
PROPOSED 4" WATER LINE TAP AND VALVE
NEW MARKET STREET (A.K.A. CIVIC CENTER PLAZA)
MILL STREET
WAY ONE
N/F POUGHKEEPSIE JOURNAL SQUARE, LLC Tax Parcel: 6162-69-073173 Deed Doc. 02-2020-50
N/F PAGE PARK ASSOCIATES, LLC Tax Parcel: 6162-69-090193 Deed Doc. 02-2009-4217
N/F JOURNAL PLAZA, LLC Tax Parcel: 6162-69-091177 Deed Doc. 02-2019-4136 Filed Map 12672
Chain Link Fence
Concrete Retaining Wall
4" Gas Structure
Approximate Gas Service
Concrete Sidewalk
Building Overhang
Deck
Metal Awning
Overhead Wire
Existing 6" Sewer Line
Existing 6" Water
Electric Meter
Electric Grates for UG Electric Transformer
Parking Meter
Elec Vault (Square Cover) TF=171.77
Elec MH TF=170.67
Elec MH TF=170.2
San MH TF=173.20
San MH TF=177.75
San MH TF=170.05
Storm MH (Compiled)
8" ACP San Sewer
8" Water
6" ACP
1 1/4" Water
Inv 161.3
Inv 162.3
#289 - #273
#267
#247
#218
#5 Story Stone Face Building
S11°56'30"W 142.28'
N11°56'00"E 146.35'
S63°59'07"E 4.16'
N63°59'07"W 12.29'
S26°43'37"W 51.87'
N26°43'37"E 51.87'
S63°53'33"E 133.00'
N73°31'50"E 1.91'(PROPOSED ESMT TIE)
N82°44'00"E 15.59'
L=0.78'
CH BRG=N16°10'48"E
CH=0.78'
Bending Wall (PROPOSED EASEMENT TIE)
N16°10'48"E 0.58'
N82°44'00"E 15.44'
S73°41'07"E 79.16'
N73°43'39"W 68.06'
S16°18'21"W 0.58'
N82°44'00"E 15.44'
8252 SF TO PROPOSED EASEMENT
PROPOSED LAWN WITH PROPOSED PLANTING BED ALONG BUILDING
PROPOSED 4" WATER LINE
Concrete Sidewalk
Concrete Retaining Wall
Existing Retaining Wall
SLOPE 6134
SLOPE 6134
SLOPE 6134



NOTES

No.	REVISION/SUBMISSION	DATE
4	ADDED BASEMENT APARTMENT AND STORAGE	9/21/21
3	REVISED TO ADD LAUNDRY IN EACH UNIT	6/15/21
2	REVISED PER INTERIOR DESIGNER CHANGES	6/11/21
1	ADDED ENERGY CODE INFORMATION	5/24/21

Liscum McCormack VanVoorhis LLP
ARCHITECTURE PLANNING INTERIORS
181 CHURCH STREET
POUGHKEEPSIE, NEW YORK 12601
PHONE 845-452-2268 FAX 845-452-3752

PROJECT
PAGE PARK ASSOCIATES
267 MILL STREET - MULTIFAMILY
POUGHKEEPSIE, NEW YORK 12601

DRAWING
BASEMENT FLOOR PLAN

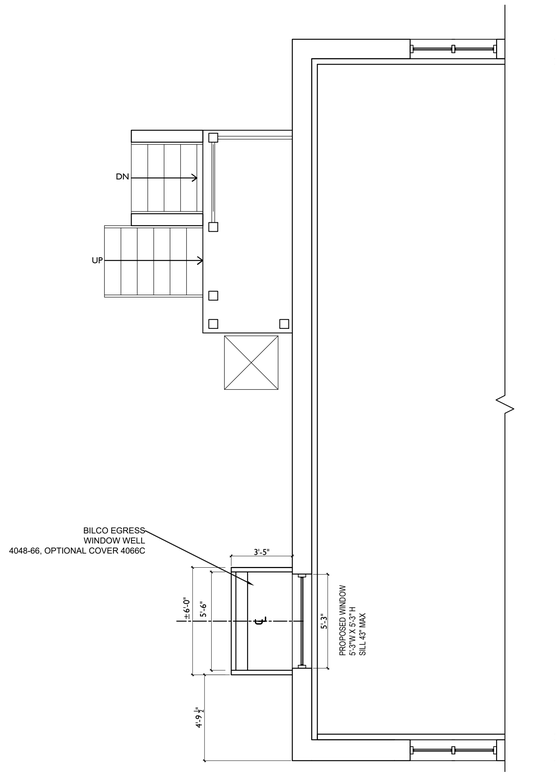
SEAL

DRAWN BY	PROJECT NUMBER
HM/KR	20057
CHECKED BY	DATE
KR	3-23-21

DRAWING NUMBER
A104

FILE P:\2000\JOB # - JOB NAME\

A-1	BASEMENT FLOOR PLAN
1/4"=1'-0"	



BILCO EGRESS WINDOW WELL LOCATION

Language: English [ ] | Login Register Shopping Cart (0)

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Products > RESIDENTIAL > Egress Window Wells > Window Wells > ScapeWEL® Window Wells-Planter Design

ScapeWEL® Window Wells-Planter Design

Adds natural daylight and meets building code requirements for emergency egress in finished basement areas. Innovative step design aids egress and can be landscaped with plants or flowers for added visual enhancement. ScapeWEL features maintenance free high-density polyethylene construction and is available in a number of sizes to accommodate virtually any foundation height or window dimension.

Description Videos Sales Contact Documents Education Accessory Products

ScapeWEL® Emergency Egress Window Wells

Standard Features and Benefits

- Safe... Terraced step design allows occupants to escape quickly and easily from lower level living areas in the event of an emergency.
- Inviting... Allows natural daylight and ventilation into lower-level living areas. Step design can be used as a planter for added visual enhancement.
- Durable... Constructed of maintenance-free materials that will never rust, rot, or need replacing.
- Versatile... Mounding flanges are designed for attachment to a standard window buck or directly to the foundation wall.
- Economical... Component system simply snaps together on site for fast and cost effective installation. Open system drains directly into the perimeter drain.
- Code-Compliant... Satisfies IRC 2018 Building code requirements for emergency egress in finished basement areas.

U.S. Patents 4,876,833 5,107,640 5,657,587

2-Tier Model

BILCO®
an Amesbury Truth company

Selecting the Proper Size ScapeWEL® Egress Window Well

STEP 1:

Measure and calculate dimension A as shown in the detail on the right based on the site's grade conditions and foundation height.

STEP 2:

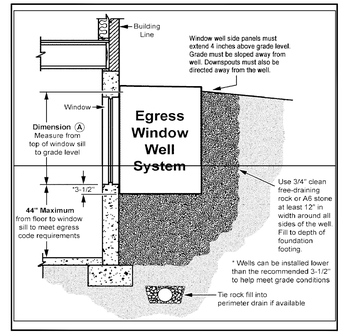
Determine the required window well side panel height by performing this simple calculation:

Required Side Panel Height = Dimension A + 7-1/2"

From the first column in the table below, select the closest side panel height that will meet the site conditions.

STEP 3:

Once the side panel height has been determined, read across and select desired window width. With the window size selected, read across to select the proper window well and cover.



ScapeWEL® STANDARD SIZES AND MODEL NUMBERS

Well Model Number	Number of Tiers (steps)	Inside Width	Projection from Foundation	Side Panel Height			Maximum Window Width		Optional Dome Cover
				Standard	With Extension*				
					Height	Model Number	Wall Mount	Buck Mount	
4048-42	2	42"	41"	48"	X	X	42"	38"	4042C
4048-54	2	54"	41"	48"	X	X	54"	50"	4054C
4048-66	2	66"	41"	48"	X	X	66"	62"	4066C
4862-42	3	42"	49"	62"	81"	3019-42	42"	38"	4842C
4862-54	3	54"	49"	62"	81"	3019-54	54"	50"	4854C
4862-66	3	66"	49"	62"	81"	3019-66	66"	62"	4866C

*Extensions are only available for 3-tier window well models
Note: The distance from the outside of the foundation wall to the inside face of the first step is 30"

BILCO Egress Window Wells satisfy International Building Code requirements for Emergency Escape and Rescue Openings per section R310.

NOTES

No.	REVISION/SUBMISSION	DATE
3	REVISED TO ADD LAUNDRY IN EACH UNIT	6/15/21
2	REVISED PER INTERIOR DESIGNER CHANGES	6/11/21
1	ADDED ENERGY CODE INFORMATION	5/24/21

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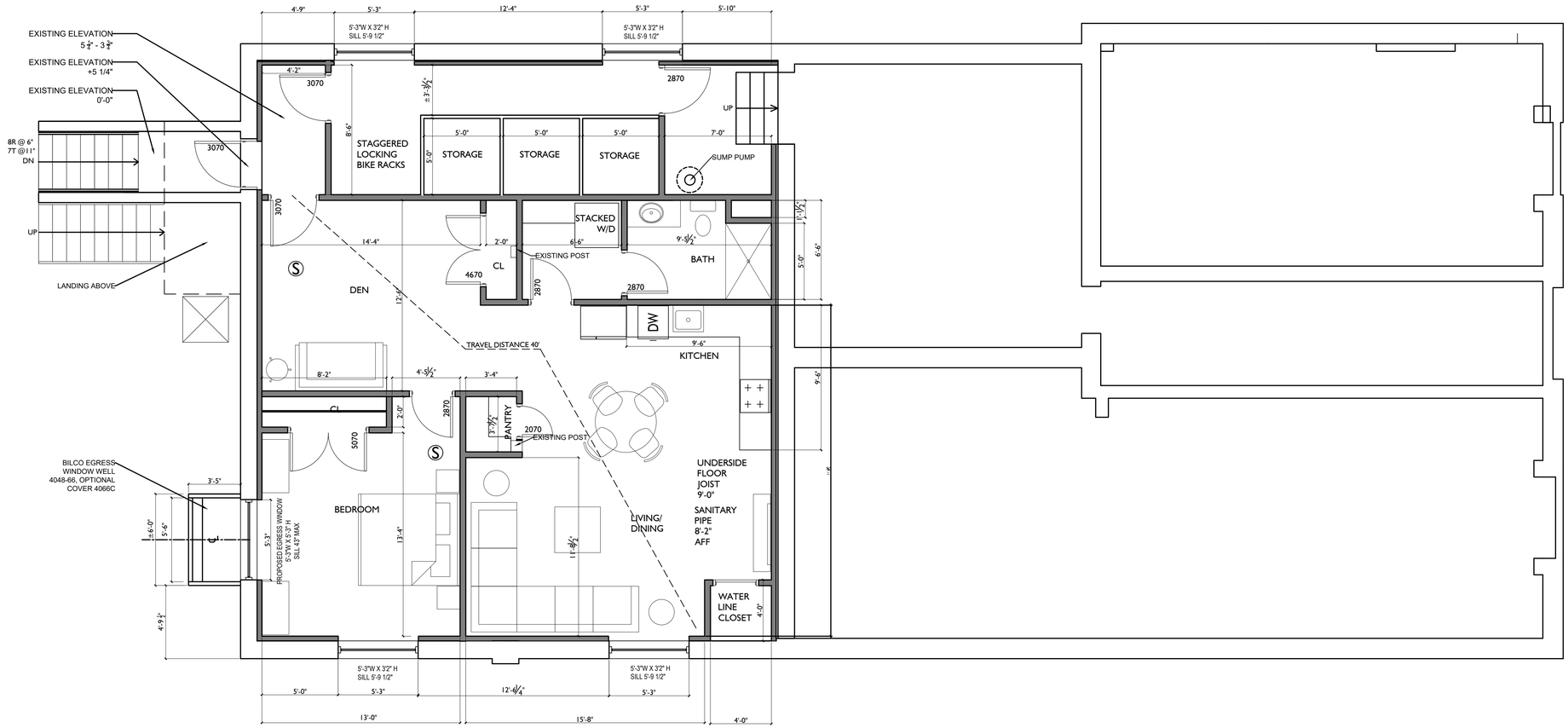
DRAWING
ANSI STANDARDS

SEAL

DRAWN BY	PROJECT NUMBER
HM/KR	20057
CHECKED BY	DATE
KR	3-23-21

DRAWING NUMBER
A801

FILE P:\2000\JOB # - JOB NAME\



A-1	BASEMENT FLOOR PLAN
1/4"=1'-0"	

NOTES

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DRAWING
BASEMENT FLOOR PLAN

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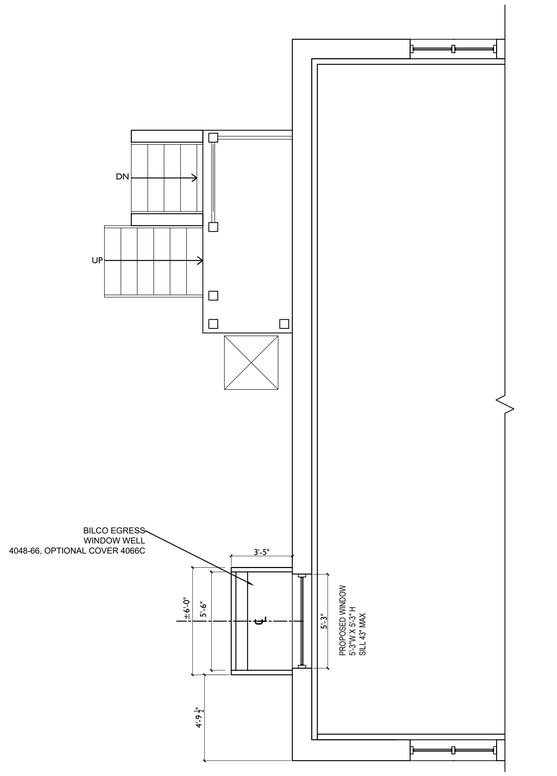


BILCO EGRESS WINDOW WELL LOCATION

Selecting the Proper Size ScapeWEL® Egress Window Well

STEP 1:

Measure and calculate dimension A as shown in the detail on the right based on the site's grade conditions and foundation height.

STEP 2:

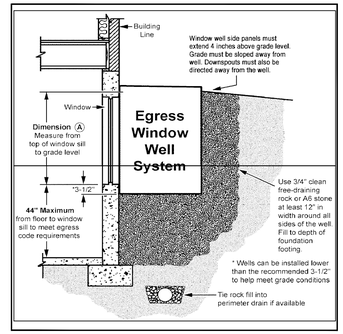
Determine the required window well side panel height by performing this simple calculation:

Required Side Panel Height = Dimension A + 7-1/2"

From the first column in the table below, select the closest side panel height that will meet the site conditions.

STEP 3:

Once the side panel height has been determined, read across and select desired window width. With the window size selected, read across to select the proper window well and cover.



ScapeWEL® STANDARD SIZES AND MODEL NUMBERS

Well Model Number	Number of Tiers (steps)	Inside Width	Projection from Foundation	Side Panel Height			Maximum Window Width		Optional Dome Cover
				Standard	With Extension*				
					Height	Model Number	Wall Mount	Buck Mount	
4048-42	2	42"	41"	48"	X	X	42"	38"	4042C
4048-54	2	54"	41"	48"	X	X	54"	50"	4054C
4048-66	2	66"	41"	48"	X	X	66"	62"	4066C
4862-42	3	42"	49"	62"	81"	3019-42	42"	38"	4842C
4862-54	3	54"	49"	62"	81"	3019-54	54"	50"	4854C
4862-66	3	66"	49"	62"	81"	3019-66	66"	62"	4866C

*Extensions are only available for 3-tier window well models
Note: The distance from the outside of the foundation wall to the inside face of the first step is 30"

BILCO Egress Window Wells satisfy International Building Code requirements for Emergency Escape and Rescue Openings per section R310.

NOTES

No.	REVISION/SUBMISSION	DATE
3	REVISED TO ADD LAUNDRY IN EACH UNIT	6/15/21
2	REVISED PER INTERIOR DESIGNER CHANGES	6/11/21
1	ADDED ENERGY CODE INFORMATION	5/24/21

Liscum McCormack VanVoorhis LLP
ARCHITECTURE PLANNING INTERIORS
181 CHURCH STREET
POUGHKEEPSIE, NEW YORK 12601
PHONE 845-452-2268 FAX 845-452-3752

PROJECT
PAGE PARK ASSOCIATES
267 MILL STREET - MULTIFAMILY
POUGHKEEPSIE, NEW YORK 12601

DRAWING
ANSI STANDARDS

SEAL

DRAWN BY	PROJECT NUMBER
HM/KR	20057
CHECKED BY	DATE
KR	3-23-21

DRAWING NUMBER
A801

FILE P:\2000\JOB # - JOB NAME\

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:
267 Mill Street Lofts

Project Location (describe, and attach a location map):
267 Mill Street

Brief Description of Proposed Action:
Conversion of the existing building into seven (7) multi family units including two (2) live work units.

Name of Applicant or Sponsor:	Telephone: 845.571.0919
Page Park Associates	E-Mail: kelly@pageparkassociates.com

Address:
PO Box 792

City/PO:	State:	Zip Code:
Poughkeepsie	NY	12602

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval:	☑	☐

3. a. Total acreage of the site of the proposed action? 0.25 acres
   b. Total acreage to be physically disturbed? 0 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 3.85 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:
   ☑ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☑

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____ _____	☐	☑

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ _____	☐	☑

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☐	☑
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☐	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☐ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☑	☐
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☐	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☐
If Yes, briefly describe: _____		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment: _____		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe: _____		
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☑	☐
If Yes, describe: _____		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Kelly Liboit Date: 10.05.20

Signature: KLiboit Title: Project Manager

PRINT FORM

THE CITY OF POUGHKEEPSIE

DEPARTMENT OF PUBLIC WORKS & ENGINEERING

SITE PLAN REVIEW
Form #4

1. Date: November 8, 2021

2. Name of Site Plan: 267 Mill Street

3. Address or Location: 267 Mill Street

4. Owner: Page Park Associates

5. Engineer/ Architect: LRC

6. Yes ☐ No ☐ The site plan as forwarded by the Planning Department is acceptable and will be signed off on with no condition(s).

7. Yes ☐ No ☐ The site plan as revised by LRC on 5/72021 is acceptable and will be signed off on with no condition(s).

8. Yes ☒ No ☐ The applicant should be notified that the Dept. of Public Works/Engineering requires the following comment(s) be addressed:

1. Verify existing 6" sewer service and newly installed 4" water service are sufficient for the proposed additional apartment.

Joseph A. Chenier, CPESC, CPMSM
Assistant Civil Engineer

)UGHKEEPSIE POLICE DEPARTMENT

SITE PLAN REVIEW

DATE: 11-08-2021

PROJECT NAME: Poughkeepsie Journal Square

PROJECT ADDRESS: 267 Mill Street

☒ **THE SITE PLAN IS ACCEPTABLE AND WILL BE SIGNED WITH NO CONDITIONS**

☐ **THE SITE PLAN IS UNACCEPTABLE AS SUBMITTED. THE PLAN WILL BE SIGNED IF THE FOLLOWING CONDITIONS ARE SATISFIED.**

CONDITIONS:

APPROVED BY CHIEF THOMAS PAPE OR AGENT:	DATE:
Sgt [signature] #11	11-08-21

APPLICATION TO THE PLANNING BOARD
CITY OF POUGHKEEPSIE, NEW YORK

PAID
JUN 29 2021
CK # 2427
$5863.50
PB-2021-040

Application for Site Plan, Special Permit & Facade Approval

OFFICE USE ONLY
CODE: PLSF
ID # 294080
FEE: _____
Total, from:
$500, plus
$_____
($150 per 1000 square feet of floor area), plus
$_____
($35 per number of required parking spaces), plus
$_____
($500 for special permit, if applicable)

I. PROPERTY ADDRESS: 278-282 Main Street

II. PROPERTY OWNER: Kirchner Realty, Inc.
ADDRESS: 2406 New Hackensack Road

Poughkeepsie, NY 12603 (state and zip code)

PHONE NUMBER: (845) 452-3045 (include area code)

III. NAME OF APPLICANT: Kirchner Realty, Inc.

ADDRESS: 2406 New Hackensack Road

Poughkeepsie, NY 12603 (state and zip code)

PHONE NUMBER: (845) 452-3045 (include area code)

EMAIL ADDRESS: decordovamichael@gmail.com

(If applicant is NOT the owner, proof of owner's consent to the application MUST be provided.)

IV. CONSULTANT: Aryeh Siegel Architect

ADDRESS: 84 Mason Circle

Beacon, NY 12508 (state and zip code)

PHONE NUMBER: 845-838-2490 (include area code)

V. PROPOSED USE or FAÇADE CHANGE (Summarize proposed use or uses): Mixed use commercial and multi-family residential. Renovate existing Main Street facade. New facade at east elevation

VI. ZONING DISTRICT: PID - Historic Core

(Proceed to XVII for special permit & façade approval only)

RECEIVED
JUN 29 2021

Revised January 2018: Previous Editions Obsolete

PROJECT INFORMATION

New construction: _____(yes) X _____ (no)

Change of use: X _____ (yes) _____ (no)

Expansion/addition: X _____ (yes) _____ (no)

Alteration: X _____ (yes) _____ (no)

Cost of Construction: $ $2.5 million _____

LOT AND BULK INFORMATION:

Lot area: 0.56 _____ (acres) _____ (square feet)

Building Footprint: 0 _____ (proposed square feet for new construction)

10,570 _____ (existing square feet for change of use/expansion)

1,588 _____ (additional proposed square feet for expansion)

12,158 _____ (total building footprint, square feet)

Lot Coverage: 50% _____ (percentage, building coverage only)

Gross Floor Area: 0 _____ (proposed square feet for new construction)

27,628 _____ (existing square feet for change of use/expansion)

8,122 _____ (additional proposed square feet for expansion)

35,750 _____ (total gross floor area, square feet)

Building Height: 5 _____ (stories) / _____ (feet)

Floor Area Ratio: 1.47 _____ (ratio of gross floor area divided by lot area)

VIII. PROJECT PARKING INFORMATION

A) Number of Off-Street Parking Spaces required: 0 _____

B) Number of Off-Street Parking Spaces provided: 0 _____

C) Waiver Requested: _____ (Yes) X _____ (No)

Is municipal parking available within 600 feet? X _____ (Yes) _____ (No)

If yes, name all such municipal facilities: _____

_____

_____

(If a waiver is requested based on proximity to municipal facilities, a written request for such waiver, addressed to the City Planning Staff and the Chairman of the Planning Board, must be submitted with the application.)

If a private parking facility is to be utilized, is such facility within 600 feet?

_____ (Yes) X (No)

If yes, provide the address of the facility, name of the property owner, number of spaces in the lot, number of spaces available for lease, and length of lease. Attach copy of lease. Additional information may be required by the Planning Board):

_____

_____

_____

_____

IX. RESIDENTIAL PROPOSALS

A) Type of Development: Multiple residence rental
(Townhouse, condominium, multiple residence rental, etc.)

B) Unit Breakdown:

Number of efficiency or "studio" units: 2

Number of one (1) bedroom units: 14

Number of two (2) bedroom unit's 8

Number with three or more bedrooms: 0

Total number of units: 24

C) Is funding public? ____ Yes X No

If yes, describe funding source: _____

X. OFFICE PROPOSALS (____ Medical/Dental ____ Professional ____ Business)

A) Number of Employees: _____

B) Number of doctors/dentists/medical practitioners: _____

C) Days/Hours of Operation: _____

XV. EDUCATIONAL/INSTITUTIONAL/RECREATIONAL PROPOSALS (e.g., Museums, Theatres, Conference Centers, Hotels, Motels, Hospitals, Nursing Homes, Assisted Living Facilities, Nursery Schools, Private Schools, Day Care Centers, Places of Worship, Marinas, Membership Clubs, etc.)

A) Specify: _____

B) Number of shifts (if any): _____

C) Number of employees: _____
(If shifts are proposed, list number of employees per shift)

D) Number of beds (hospitals, nursing homes, etc): _____

E) Number of seats in largest assembly space: _____

F) Number of classrooms (schools): _____

G) Number of rental units (hotels, motels, etc.) _____

H) Number of boat slips/courts (e.g., tennis, handball, etc.), alleys: _____

I) Days/Hours of Operation: _____

XVI. PROPOSALS NOT MENTIONED ABOVE (Please be specific):

Commercial use will be established when the space is built out.

XVII. APPLICANT CERTIFICATION

I, Michael DeCordova, certify that the this application has addressed the objectives outlined in the Zoning Ordinance with consideration given to the public health, safety and welfare; the comfort and convenience of the public in general or the residents or users of the proposed development and of the immediate neighborhood.

The applicant certifies that all information contained herein is accurate and complete as of the date of this application.

Signature of Applicant

June 29, 2021

Date

Kirchner Realty Inc.
2406 New Hackensack Road
Poughkeepsie, NY 12603
845-546-3626
decordovamichael@gmail.com

November 2, 2021

City of Poughkeepsie
Planning Department
62 Civic Center Plaza
Poughkeepsie, NY 12601

Re: 278-288 Main Street

Dear Members of the Planning Board/Department:

Please find enclosed a submission for the November 2021 Planning Board for the Site Plan Application for 278-288 Main Street.

The project consists of renovations to the existing 4 story building, renovations to the existing Main Street façade and storefronts, a 5th floor addition, a rear fire stair addition, and a stair / elevator tower addition on the east side, as well as site development of a plaza on the east side of the building.

There will be commercial space on the ground floor, and 4 stories of residential apartments above. There are 24 apartments in the building and approximately 11,000 sf of commercial space.

The renovations and addition to the building are meant to recall the building's historic past, while distinguishing the new work in a modern building language. The use of corten steel, which forms a natural rust-colored finish, complements the color of the natural brick on the existing building.

The stair / elevator tower provides a focus for the plaza. The plaza provides the public and the new retail spaces with an open space, related to the building, that can host a variety of activities such as sculpture, music, movies, crafts and other community-building activities.

Since the last submission, the Applicant has revised the building and site designs to respond to comments received at the last meeting. The building is more internally consistent, and the palette of materials has been updated to maximize visual harmony between the existing and proposed building. The new windows have divided lites that correspond to the divided lite transoms on the ground floor storefronts, which echo the historic Main Street storefront that was demolished decades ago. We have provide photometric information, as well as specifications for proposed

windows, lighting, railings, and siding materials. The brick shown in the product specification booklet is similar to what we expect to see when the existing brick is cleaned.

We hope you will like our modifications.

Sincerely,

Michael de Cordova
President
Encls
MdeC:lg

Kirchner Realty Inc.
2406 New Hackensack Road
Poughkeepsie, NY 12603
845-546-3626
decordovamichael@gmail.com

November 2, 2021

City of Poughkeepsie
Planning Department
62 Civic Center Plaza
Poughkeepsie, NY 12601

Re: 278-288 Main Street: Financial Capability

Dear Members of the Planning Board/Department:

I have been asked to provide evidence of Kirchner Realty's financial ability to complete the project that I have presented to your board for approval.

I am enclosing a letter of interest dated December 21, 2021 from The Community Preservation Corporation ("CPC") in regard to the financial viability of the project located at 278-288 Main Street. There have been no material changes to my financial ability or that of the project since this letter was written.

CPC analyzed my personal financial statement, the project's cost and the financial pro forma of it.

While personal resources will account for a majority of the required equity (which personal resources have been verified by CPC) the project seeks a NYS HCR Downtown Anchor Grant in the amount of $500,000. We have also applied for additional funds from Empire State Development in the amount of $864,225 for the first floor, commercial portion of the project. The project will require a PILOT agreement as to the annual tax liability. Many of the 'contingencies' relative to the financing are listed on the last page of the attached letter of interest from CPC, all of which are fairly typical for this type of project.

I hope you find this satisfactory.

Very truly yours,

Michael de Cordova
President
Encls.
MdeC:lg

The Community Preservation Corporation
480 Bedford Road, Suite 4201
Chappaqua, New York 10514

December 21, 2020

Michael de Cordova
2406 New Hackensack Rd.
Poughkeepsie, NY 12603

RE: 278-288 Main St. Poughkeepsie, NY 12601

Dear Mr. de Cordova;

Thank you for the opportunity to finance the above captioned property that you plan to redevelop into a mixed use development that will include 24 residential units and 11,000 sq.ft. commercial/retail spaces. A summary of the terms and conditions for the financing follows:

CONSTRUCTION AND PERMANENT LOAN FINANCING

LENDER:	The Community Preservation Corporation 28 East 28th Street, 9th Floor New York, NY 10016
BORROWER:	Kirchner Realty Inc.
PRINCIPALS:	Michael de Cordova
GUARANTORS:	Michael de Cordova will guaranty completion of construction and provide a repayment guarantee until State of New York Mortgage Agency ("SONYMA") insurance is declared effective. The Permanent Loan shall be non-recourse.
INDEMNITOR:	Environmental indemnity to be provided, subject to review of an environmental report for the project.
PROJECT/PURPOSE:	The project will include a gut renovation and new construction of a 40,000 sq. ft.+/- mixed use building that will include 24 residential units and 11,000 sq. ft. commercial/retail units. There will be one studio, 15 one-bedroom and 8 two-bedroom units. Seven of the units will have lofts and ten units will have two baths.
TYPE:	**Construction Loan**
AMOUNT:	$5,863,000 +/-

TERM:	24 months
AMORTIZATION:	Interest only during term.
INTEREST RATE:	Variable at 30 day LIBOR plus 450 basis points, with a LIBOR floor of .25%.
COLLATERAL:	First mortgage on project site located on 278-288 Main St. Poughkeepsie, NY 12601; together with all other collateral assignments and General Conditions normally associated with this transaction type.
COMMITMENT FEE:	1.00% of the loan amount.

TYPE: **Permanent Loan**

AMOUNT:	$5,863,000 +/-
TERM:	15 years
AMORTIZATION:	30 years
INTEREST RATE:	Estimated at 5.25%. Actual rate shall be determined at rate lock and signing of a commitment. Rate will be fixed for 15 years. Today's 24mo. forward rate is 5.25%.
RATE LOCK:	Borrower may authorize CPC to lock a rate any time prior to the closing of the construction loan. There is a 1% rate lock fee due and payable within 30 days from the day the rate is locked. If the rate lock is cancelled within 60 days from the day of the rate is lock, the 1% fee is fully refunded.
FORWARD COMMITMENT:	The interest rate will be based on a 24-month forward commitment. The fee for the forward commitment is equal to one percent (1%) of the permanent loan. This fee will be refunded upon the timely sale of the permanent loan to the appropriate pension fund. Upon failure for any reason to close the permanent loan and sell it to the appropriate pension fund before the Pension Fund Delivery Date, such sum shall be subject to forfeiture at the rate of 1/12 of such sum for each month (or fraction thereof) which elapses from the Pension Fund Delivery Date until the date of actual delivery to the pension fund. The forward commitment may be subject to additional terms and conditions.

COLLATERAL: First mortgage on project site on 278-288 Main St. Poughkeepsie, NY 12601; together with all other collateral assignments and General Conditions normally associated with this transaction type (see General Conditions), including tax credit equity and developer fee.

COMMITMENT FEE: .5% of the loan amount.

SONYMA: The Permanent loan is conditioned on SONYMA insurance for 100% of the permanent loan amount. SONMYA application fee is 1/10 of 1% of the loan amount.

CONVERSION to PERMANENT LOAN(s):

Conversion is conditioned on several requirements including, but not limited to:

- Certificate of substantial completion as determined by the project architect or engineer and confirmed by CPC's engineer.
- Final review and effectiveness by SONYMA.
- 90% Rental Achievement for 90 days using projected gross rents and ancillary income according to CPC's underwriting, provided these meet SONYMA's calculation of its "income and expense ratio," estimated at 1.05.
- CPC Minimum Debt Coverage Ratio of 1.25 and SONYMA minimum debt coverage of 1.15.

ESCROWS AND OTHER RESERVES: CPC will Escrow monthly for Real Estate Taxes and Insurance. Also a Replacement Reserve shall be funded at not less than $250 per unit annually.

SUBORDINATE FINANCING:

NYS HCR Main St. Downtown Anchor Grant

AMOUNT: $500,000+/

Subject to approval and compliance with NYS HCR Main St. Downtown Anchor Grant Program funding that will be fully subordinate to CPC Loan. As proposed there will be six units set aside for families with income and rent restrictions at 90% of AMI.

CLOSING: To be Determined.

OTHER CONDITIONS: Satisfactory review and CPC approval of the following (as applicable):

1. Subject to satisfactory review of borrower, principal and partners credit review and equity requirements.
2. Subject to MAI Appraisal with LTV not to exceed 80%;
3. Subject to satisfactory Environmental Assessment Report;
4. Subject to satisfactory Engineering Report, site inspection and final project budget;
5. Subject to satisfactory review of Borrowers, guarantors, and developer's organizational documents.
6. Subject to satisfactory review General Contractor and Architect Agreements;
7. Subject to satisfactory underwriting based on financial projections;
8. Subject to IDA inducement for mortgage and sales tax exemption as well as Tax Pilot.
9. Subject to final RE Tax analysis by assessor or Tax Pilot.
10. Subject to submission and final approval by CPC Loan Committee.

REPORT DEPOSIT: A report deposit will be required to pay the estimated costs and expenses involved in obtaining appraisal, environmental, and engineering reports when the Commitment Letter is issued. The estimated report deposit is $ 11,500. (Appraisal est. $4,500, Phase 1 & 2 est. $3,500 and Engineer review of plan and costs est. $3,500.)

Please signify your agreement to make a formal loan application (please complete the attached Loan Application) based on the terms of the above by signing and returning the enclosed copy of this letter, together with a $100 Loan Application payable to The Community Preservation Corporation.

CPC's mortgage committee will determine final approval of any project. This letter is not to be construed as a commitment to finance but merely a letter of interest.

Very truly yours,

The Community Preservation Corporation

By: _____
Name: Mary S. Paden,
Sr. Vice President

Agreed and Accepted To By:
Borrower:

By: Michael de Cordova Date: 12/21/20
Name:

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	11/02/21	PROGRESS SUBMISSION	AJS

BUILDING INSPECTOR

CITY ENGINEER

COMMISIONER OF PUBLIC WORKS

FIRE CHIEF

POLICE CHIEF

Site Plan: Proposed

Scale: 1" = 20'

Photo: North Elevation (Main Street)

STATE BUILDING CODE VARIANCE

A CODE VARIANCE (PETITION NO. 2010-0016) WAS GRANTED ON FEBRUARY 9, 2010, BY THE NYS DEPARTMENT OF STATE - HUDSON VALLEY REGIONAL BOARD OF REVIEW TO ALLOW LOT LINE WINDOWS TO BE INSTALLED ON THE WEST FACADE OF THE BUILDING SUBJECT TO THE CONDITIONS LISTED IN THE DECISION

278-282 Main Street

Location Plan

Scale: NTS

Bulk Zoning Regulations Table

	Maximum Building Height	Proposed Building Height	Maximum Building Coverage	Proposed Building Coverage	Minimum Open Space	Minimum Lot Coverage	Proposed Lot Coverage	Required Setbacks			Proposed Setbacks			Frontage Occupancy	Existing Frontage Occupancy	Actual Lot Area
Zoning District								Front	Side	Rear	Front	Side	Rear			
HC Historic Core	5 Stories	5 Stories	100%	N/A		75%	50%	0	0	0	N/A	N/A	N/A	100%		24,393 sf

Notes:
1 Minimum lot coverage is calculated as a percentage of the total lot area.
2 Minimum open space is calculated as a percentage of the total lot area. Minimum open space requirements are waived for lots under 5,000 square feet. Green roofs may be counted towards open space requirements.
3 Recessed entryways as permitted within frontage types [Section 19-3.37(10)(b)] are not considered setbacks and do not detract from the percentage of frontage occupancy.
4 A side yard shall not be required, but, if provided shall not be less than six feet in width

Zoning Summary

Zoning District:	Poughkeepsie Innovation District (PID) – Historic Core
Tax Map No.:	278 Main Street: 6162-77-059084
	284 Main Street: 6162-77-062084
	286 Main Street: 6162-77-065083
	Wood Lane: 6162-77-060075
	288 Main Street: 6162-77-068081 (Conveyed from City to Applicant)
Total Lot Area:	0.56 Acres
Building Footprint:	10,405 square feet
Historical Core District:	Yes
Parking Required:	Not required for proposed uses
Existing Use:	Vacant. Last used as Assembly/Storage
Proposed Use:	Commercial (Restaurant) / Residential

Parking Requirements

No Off-Street Parking Required for Commercial or Residential in this District	24 apartments total: (2) studio (14) 1 bedroom (8) 2 bedroom	0 parking spaces
Restaurant / Commercial		
No Off-Street Parking Required for Commercial or Residential in this District	10,940 sf	0
Total Required Parking Spaces		***0 Parking Spaces***
Total Proposed Parking Spaces		**0 Parking Spaces**

Notes:

1. Per City of Poughkeepsie Zoning Chapter 19-4.3 (9):

   All or portions of the off-street parking requirement may be waived by the Planning Board, provided that:

   (a) The proposed use is within six hundred (600) feet of a municipally operated off-street parking facility or privately owned parking area.

   (b) The Planning Board shall, at the time of its approval of a site development plan, certify on such plan that the municipally operated off-street parking facility or, in the case where nearby private parking area is to be utilized, the private parking facility has adequate capacity for storage of passenger vehicles generated by activities proposed to be conducted on the subject lot in addition to those generated by any other lots already serviced by such off-street parking facility. In determining the existence of such adequate capacity, the Planning Board shall consider the need for preventing frequent parking on the street by persons visiting or connected with each use which is proposed to be served by such off-street municipal or private parking facility.

3. The hours of operation for the commercial use are 7am – 11pm daily.
4. Site lighting will be on from dusk to dawn, with photocell switching

Index of Drawings

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Sheet 5 of 13 Grading Plan
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Sheet 7 of 13 Site Details
Sheet 8 of 13 Drainage Plan
Sheet 9 of 13 Erosion & Sediment Control Plan
Sheet 10 of 13 Details
Sheet 11 of 13 Floor Plans
Sheet 12 of 13 Elevations
Sheet 13 of 13 Elevations

REGISTERED ARCHITECT
ARYEH JOSEPH SIEGEL
14882
STATE OF NEW YORK

Cover Sheet

Sheet 1 of 13

Owner / Applicant:
Kirchner Realty, Inc.
2406 New Hackensack Road
Poughkeepsie, NY 12603

Architect:
Aryeh Siegel, Architect
514 Main Street
Beacon, New York 12508

Landscape Architect:
Trowbridge Wolf Michaels Landscape Architects
1001 W Seneca St. Suite 201
Ithaca, NY 14850

Civil Engineer/Surveyor:
Hudson Land Design
174 Main St.
Beacon, NY12508

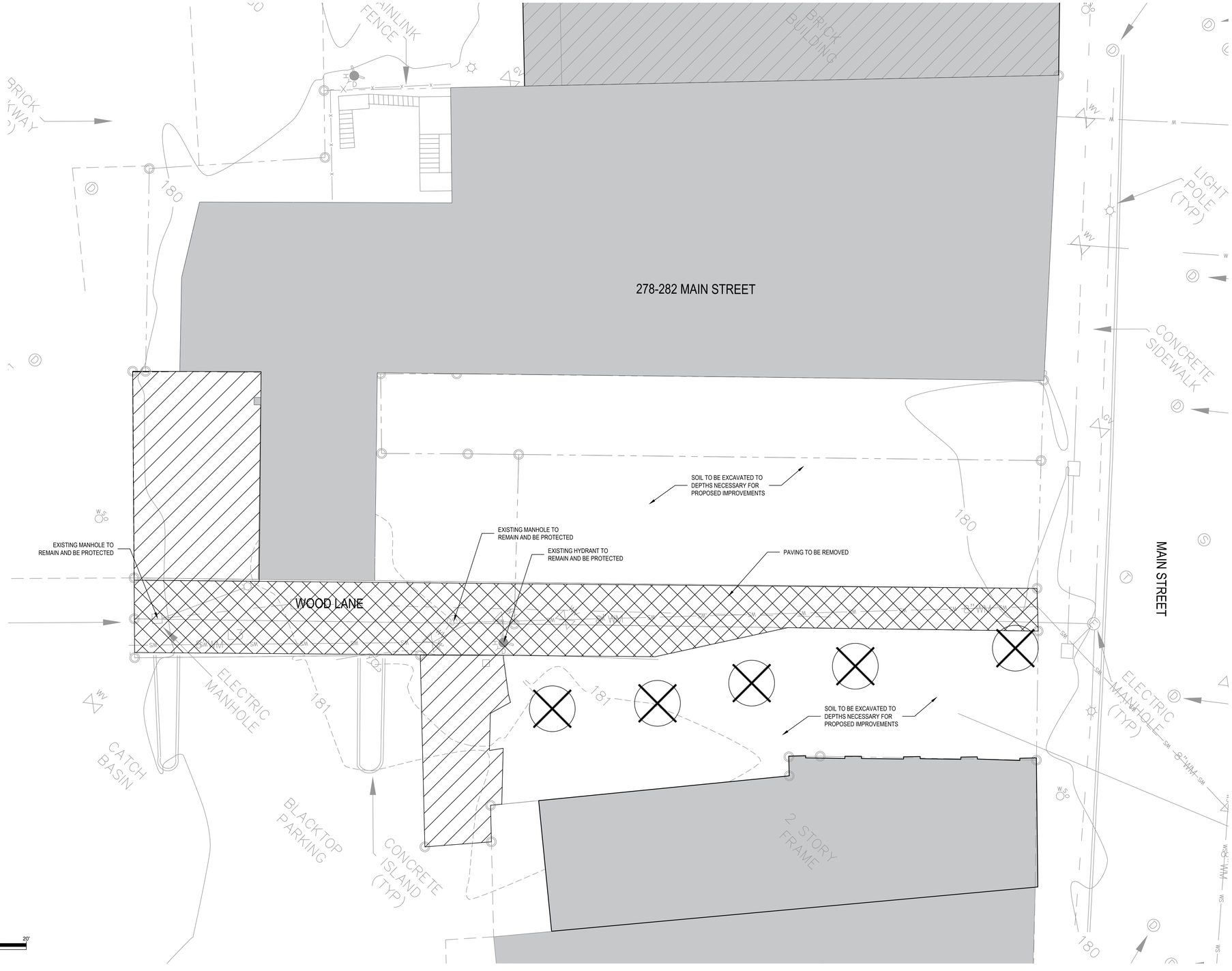
Surveyor:
Robert V. Oswald, LS
175 Walsh Road
Lagrangeville, New York 12540

278-282 Main Street
Poughkeepsie, New York
Scale: As Noted
June 29, 2021

GENERAL SHEET NOTES - DEMOLITION

1. CONSTRUCTION FENCING TO BE INSTALLED AS NECESSARY TO PROTECT PEDESTRIANS, CONTROL VEHICULAR TRAFFIC AND PROTECT ON-SITE CONSTRUCTION MATERIALS.
2. CONTRACTOR TO PROVIDE TEMPORARY WALKWAYS AND TRAFFIC SIGNS TO PROTECT PEDESTRIANS
3. PROVIDE SEDIMENTATION CONTROLS AT ALL EXISTING CATCH BASINS AFFECTED BY NEW CONSTRUCTION.
4. PROTECT ALL SURFACE AND SUBSURFACE UTILITIES TO REMAIN DURING DEMOLITION WORK.
5. ALL REMOVED/DEMOLISHED MATERIAL SHALL BECOME CONTRACTOR'S PROPERTY AND REMOVED FROM SITE, UNLESS NOTED OTHERWISE. OWNER TO RESERVE RIGHT OF FIRST REFUSAL ON ALL DEMOLISHED MATERIAL.
6. ALL TREE STUMPS ARE TO BE REMOVED COMPLETELY, ALONG WITH ALL ROOTS 6" AND LARGER.

KEY	MATERIAL	DETAIL
	TREE TO BE REMOVED	
	UNIT PAVERS TO BE REMOVED	
	ASPHALT PAVING TO BE REMOVED	
	PROPERTY BOUNDARY	



0 10' 20'
SCALE: 1"=10'

Demolition Plan

Sheet 3 of 12

Owner / Applicant:
Kirchner Realty, Inc.
2406 New Hackensack Road
Poughkeepsie, NY 12603

Architect:
Aryeh Siegel, Architect
514 Main Street
Beacon, New York 12508

Landscape Architect:
Trowbridge Wolf Michaels Landscape Architects
1001 W Seneca St. Suite 201
Ithaca, NY 14850

Civil Engineer/Surveyor:
Hudson Land Design
174 Main St.
Beacon, NY12508

REGISTERED LANDSCAPE ARCHITECT · BARBARA A. MICHAELS · 000031-1 · STATE OF NEW YORK

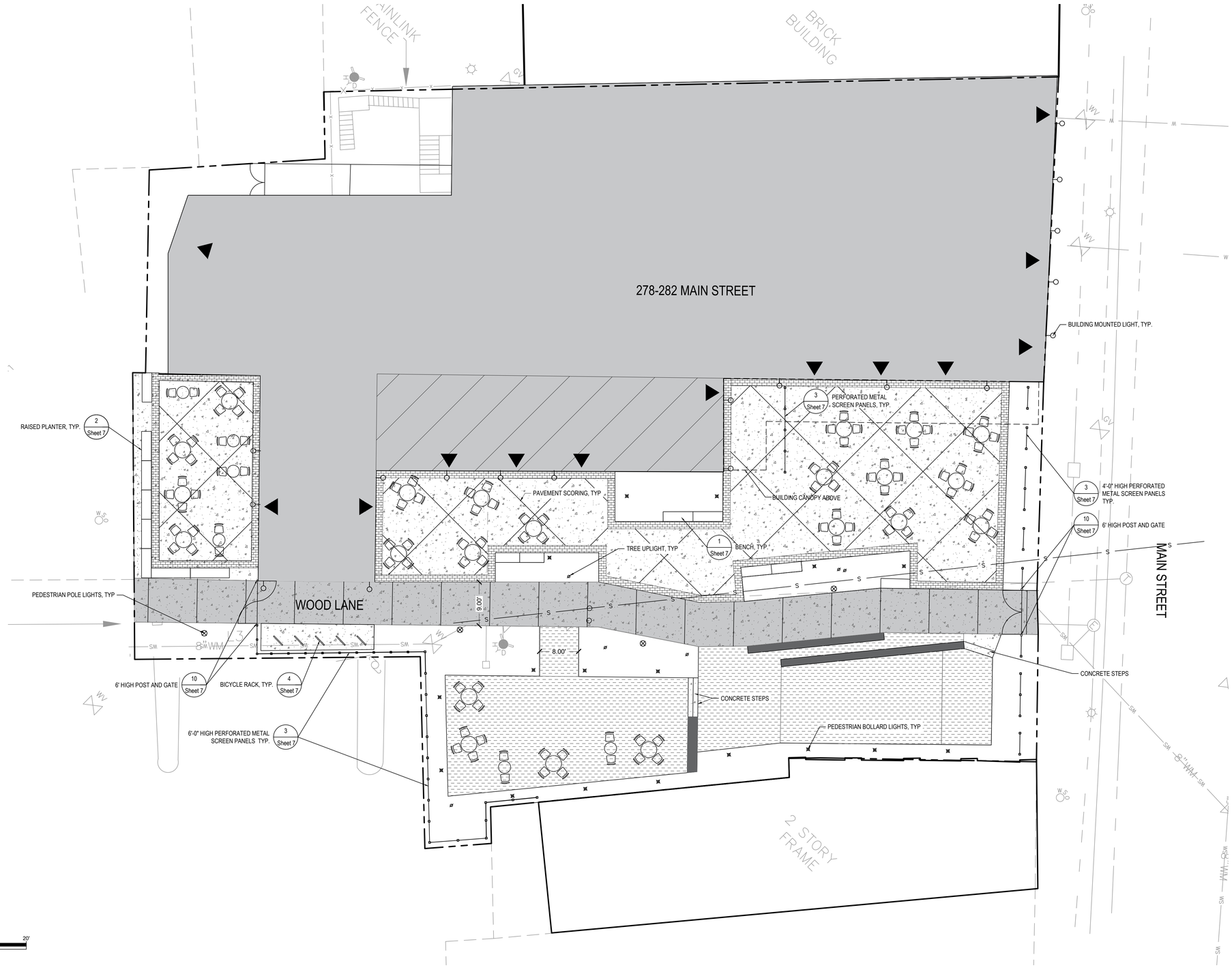
278-282 Main Street
Poughkeepsie, New York
Scale: As Noted
November 2,2021
DRAWINGS NOT FOR CONSTRUCTION

GENERAL SHEET NOTES - LAYOUT

LAYOUT NOTES:

1. GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY OWNERS HAVING UNDERGROUND UTILITIES ON SITE PRIOR TO EXCAVATION.
2. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO ANY EXCAVATION.
3. SEE CIVIL AND ELECTRICAL DRAWINGS FOR LAYOUT OF UNDERGROUND UTILITIES AND SITE LIGHTING.
4. INSTALL EXPANSION JOINTS EVERY 30' MAX IN CONCRETE PAVEMENT AND IN AREAS WHERE CONCRETE ABUTS CURBS OR OTHER FIXED OBJECTS.
5. VERIFY DIMENSIONS AND ACCEPT CONDITIONS BEFORE PROCEEDING WITH WORK. REPORT ANY DISCREPANCIES TO LANDSCAPE ARCHITECT BEFORE PROCEEDING.
6. DO NOT SCALE FROM MEASURING DRAWINGS.
7. WALKS, DRIVES, CURBS AND PARKING TO BE STAKED OUT IN THE FIELD BY A LICENSED SURVEYOR.
8. LAYOUT DIMENSIONS AND RADII ARE TO EDGE OF CONCRETE WALKS AND FACE OF CURB.
9. ALL PAVEMENT RADII ARE 5' UNLESS OTHERWISE NOTED ON PLAN.

KEY	MATERIAL	DETAIL
	MEDIUM DUTY CONCRETE PAVING	9 Sheet 7
	HEAVY DUTY CONCRETE PAVING	8 Sheet 7
	STONE DUST PAVING	5 Sheet 7
	UNIT PAVERS	11 Sheet 7
	SEAT WALL	
	PERFORATED METAL SCREENING PANEL	3 Sheet 7
	SITE FURNISHINGS - TABLES AND CHAIRS	
	PEDESTRIAN POLE LIGHT	
	PEDESTRIAN BOLLARD	
	TREE UPLIGHT	
	EXTERIOR BUILDING LIGHT FIXTURE	
	PROPOSED BUILDING ADDITION	



0 10' 20'

SCALE: 1"=10'

Site Plan

Sheet 4 of 12

Owner / Applicant:
Kirchner Realty, Inc.
2406 New Hackensack Road
Poughkeepsie, NY 12603

Architect:
Aryeh Siegel, Architect
514 Main Street
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Landscape Architect:
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Ithaca, NY 14850

Civil Engineer/Surveyor:
Hudson Land Design
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Beacon, NY12508

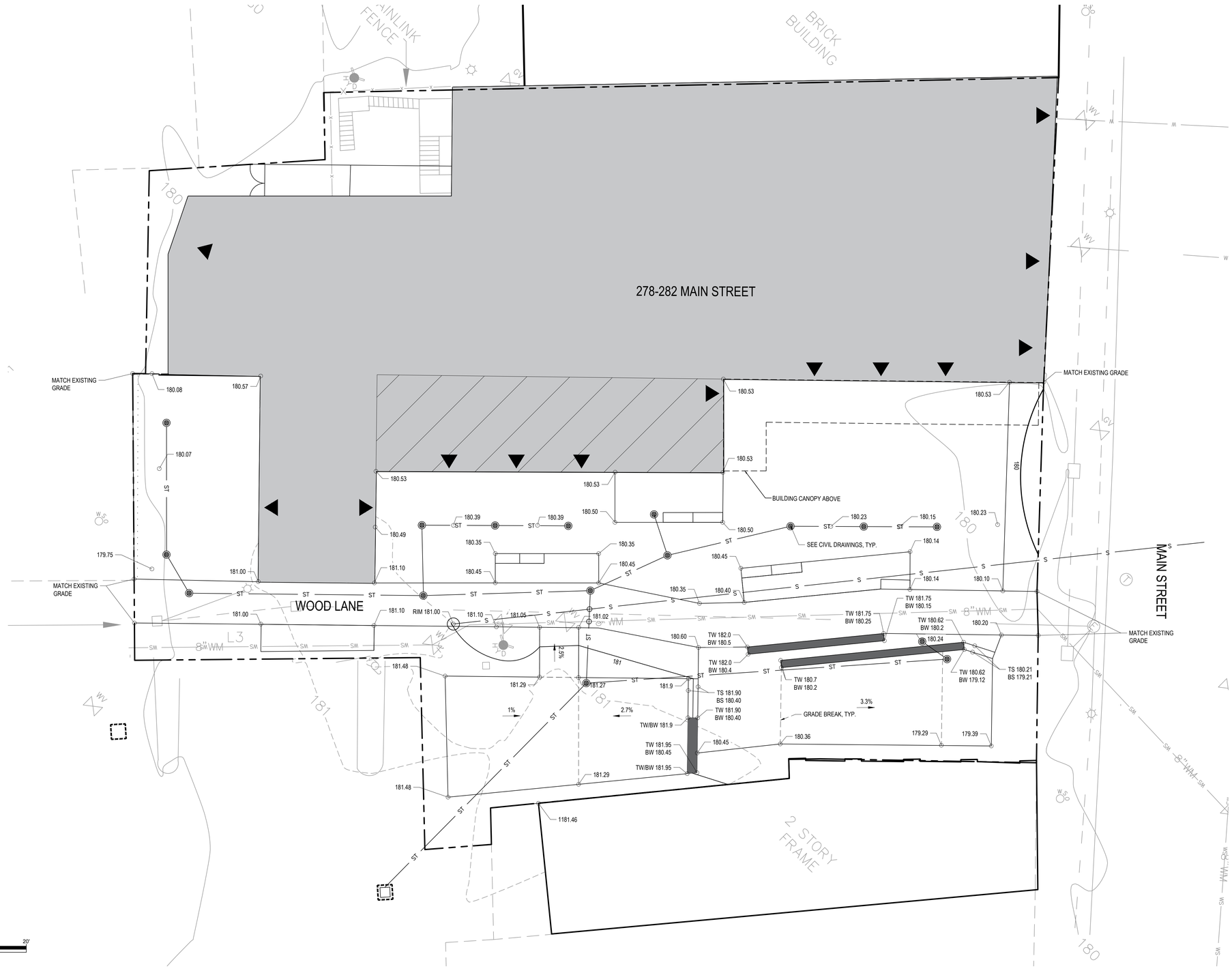
REGISTERED LANDSCAPE ARCHITECT · JEREMY A. MICHAELS · 002031-1 · STATE OF NEW YORK

278-282 Main Street

Poughkeepsie, New York
Scale: As Noted
November 2,2021
DRAWINGS NOT FOR CONSTRUCTION

GENERAL SHEET NOTES - GRADING

1. PROPOSED GRADING PLAN BASED ON 03/12/2012 SURVEY COMPLETED BY ROBERT V. OSWALD LAND SURVEYING.
2. GENERAL CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN RIGHT-OF-WAY PRIOR TO EXCAVATION. CONTRACTOR SHALL CONTACT UTILITY LOCATING COMPANY AND LOCATE ALL UTILITIES PRIOR TO GRADING START.
3. SITE GRADING SHALL NOT PROCEED UNTIL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
4. MATCH EXISTING GRADE AT ALL EDGES WHERE PROJECT WORK MEETS EXISTING SITE.
5. SEE CIVIL DRAWINGS FOR PROPOSED UTILITIES.



- EXISTING CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED CONTOUR
- TC 389.30 BC 388.80 — PROPOSED SPOT ELEVATION
- TC911.60 BC911.17 — EXISTING SPOT ELEVATION
- STORM INLET (SEE CIVIL)
- STORM CULVERT (SEE CIVIL)

TC	=	TOP OF CURB
BC	=	BOTTOM OF CURB
HP	=	HIGH POINT
TW	=	TOP OF WALL
BW	=	BOTTOM OF WALL
RIM	=	RIM ELEVATION
BS	=	BOTTOM OF STAIR
TS	=	TOP OF STAIR
HPS	=	HIGH POINT OF SWALE
FFE	=	FINISH FLOOR ELEVATION
EE	=	ENTRY ELEVATION

- PROPOSED BUILDING ADDITION

0 10' 20'
SCALE: 1"=10'

Grading Plan

Sheet 5 of 12

Owner / Applicant:
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Landscape Architect:
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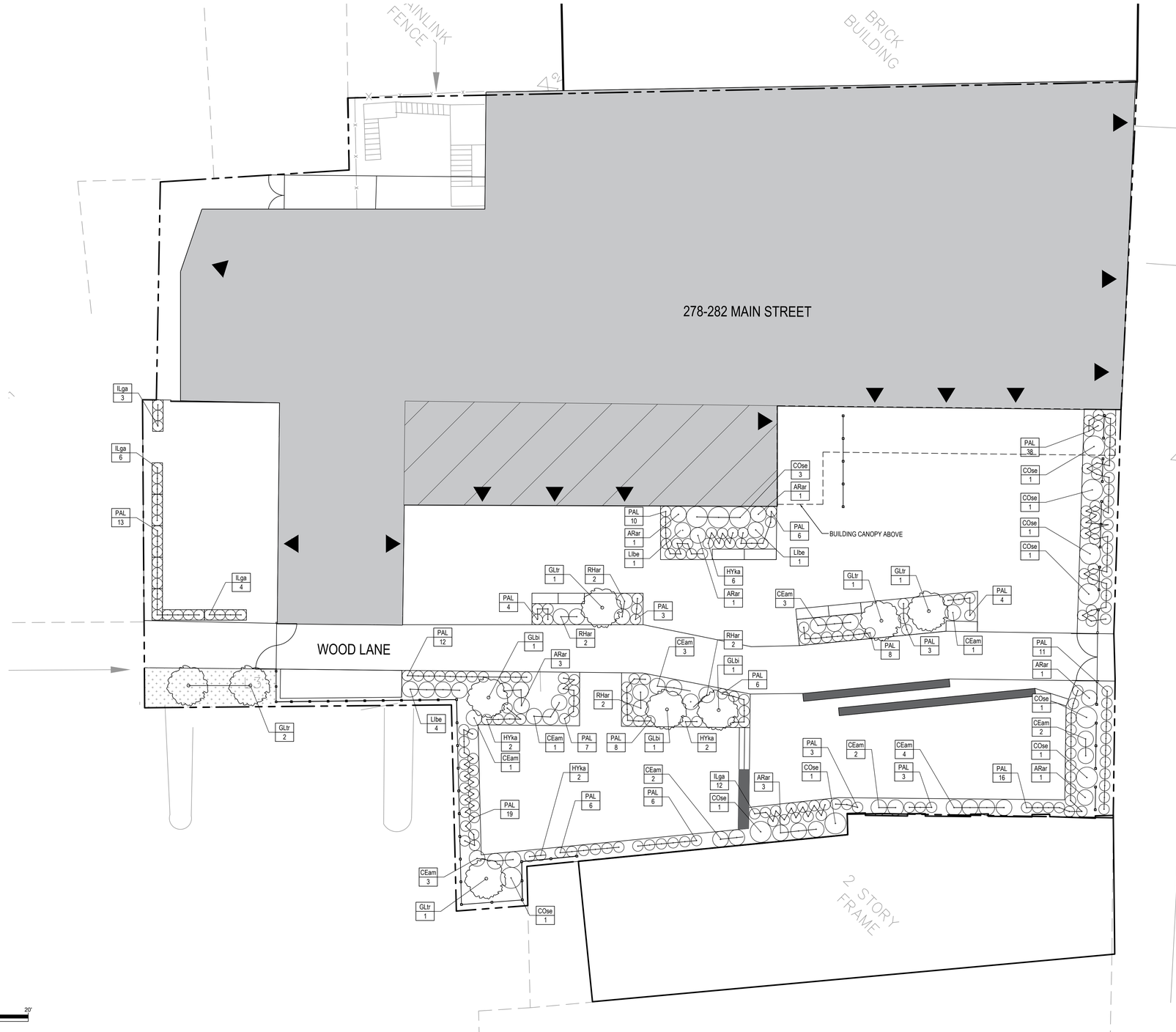
Ithaca, NY 14850

Civil Engineer/Surveyor:
Hudson Land Design
174 Main St.
Beacon, NY12508

REGISTERED LANDSCAPE ARCHITECT — JEFFREY A. MICHAELS — 002031-1 — STATE OF NEW YORK

278-282 Main Street

Poughkeepsie, New York
Scale: As Noted
November 2,2021
DRAWINGS NOT FOR CONSTRUCTION



GENERAL SHEET NOTES - PLANTING

PLANTING NOTES:

1. ALL PLANTING BEDS TO BE PREPARED AS SPECIFIED. SHRUB BEDS TO BE PREPARED IN THEIR ENTIRETY WITH PLANTING SOIL MIX. TREE PITS TO BE DUG TO DEPTH OF ROOTBALL BY 3X THE DIAMETER.
2. AFTER BEDS ARE PREPARED, THE LANDSCAPE CONTRACTOR IS TO LOCATE TREES, SHRUBS AND VINES AS SHOWN ON PLANS. TREE, SHRUB AND PERENNIAL LOCATIONS ARE TO BE APPROVED BY LANDSCAPE ARCHITECT BEFORE THEY ARE PLANTED.
3. ANY AND ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE NOT SHOWN AS PAVED OR PLANTED BED ARE TO BE SEEDED AS TURF, UNLESS INDICATED OTHERWISE. PREPARE AND SEED TURF AS PER SPECIFICATIONS AND DETAILS.
4. ALL TREES AND PLANTS TO COMPLY WITH APPLICABLE REQUIREMENTS OF ANSI 260.1 "AMERICAN STANDARD FOR NURSERY STOCK".
5. MAINTAIN AND WARRANTY ALL LIVING PLANT MATERIAL AS PER SPECIFICATIONS.
6. TURF IS TO BE ESTABLISHED EARLY ENOUGH TO ACHIEVE 80% COVERAGE BY THE END OF THE GROWING SEASON.

KEY	MATERIAL	DETAIL
	LOW MOW GRASS OR TURF	
	SHRUB PLANTING	12 / Sheet 7
	TREE PLANTING	13 / Sheet 7
	PERFORATED METAL SCREEN	3 / Sheet 7
	PROPOSED BUILDING ADDITION	

PLANTING SCHEDULE

KEY		BOTANITAL NAME	COMMON NAME	ROOT	SIZE	NOTES
		TREES				
GLtr	6	*Gleditsia tracanthos*	Honeylocust	B &B	2"-2-1/2	
Glbi	3	*Ginkgo biloba*	Ginkgo	B&B	2" - 2.5" CAL	Male
		SHRUBS				
CEam	22	*Ceanothus americanus*	New Jersey Tea	#3 cont.	18"-24"	
COse	12	*Cornus sericea* 'Farrow' Arctic Fire	Red Twig Dogwood	#3 cont.	18"-24"	
Arar	11	*Aronia arbutifolia*	Red Chokeberry			
Llbe	6	*Lindera benzoin*	Spicebush	#5 cont.	3'-4'	
RHar	8	*Rhus aromatica* 'Gro-Low'	Gro-low Fragrant Sumac	#3 cont.	18"-24"	
HYka	12	Hypericum kalmianum 'Ames'	Ames Kalm St. John's Wort	#3 cont.	15"-18"	
ILgl	25	*Ilex glabra* 'Compacta'	Compact Inkberry	#3 cont.	18"-24"	Five are to be male
		GRASSES				
PAL	186	*Pennisetum alopecuroides 'Hameln'*	Dwarf Fountain Grass	#2 cont.		

Planting Plan

Sheet 6 of 12

Owner / Applicant:
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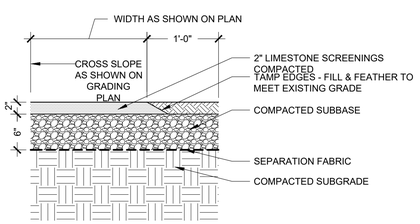
Hudson Land Design
174 Main St.
Beacon, NY12508

278-282 Main Street
Poughkeepsie, New York
Scale: As Noted
November 2,2021
DRAWINGS NOT FOR CONSTRUCTION

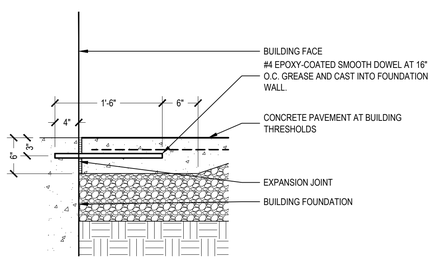
BASIS OF DESIGN: TOURNESOL WILSHIRE BENCH - WCF-48
MATERIAL: CONCRETE
BASE COLOR: CHARCOAL

1 BENCH
Scale: 1/4"=1'-0"

NOTES:
1. 2" MINIMUM CONCRETE COVERAGE AROUND PIN AND MESH



5 STONE DUST PAVING
Scale: 1"=1'-0"

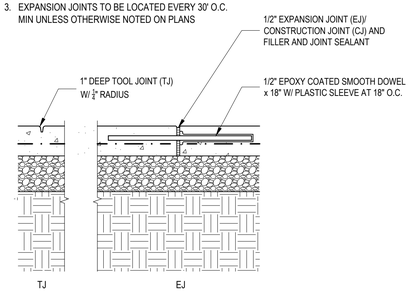


6 PIN AT BUILDING THRESHOLD
Scale: 1"=1'-0"

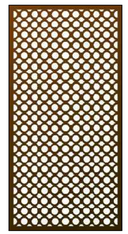
EXAMPLES OF FURNISH RAISED PLANTER
BASIS OF DESIGN: TOURNESOL WILSHIRE PLANTER
COLOR: SHADOW

2 FURNISHED RAISED PLANTERS
Scale: 1/4"=1'-0"

NOTES:
1. SEE PLANS FOR LOCATION AND TYPE OF JOINTS.
2. OVERLAP MESH SHEETS 1'-0" MIN.
3. EXPANSION JOINTS TO BE LOCATED EVERY 30' O.C. MIN UNLESS OTHERWISE NOTED ON PLANS



7 CONCRETE JOINTS
Scale: 1"=1'-0"

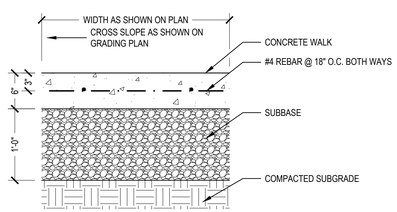


PANELS ON NORTH SIDE OF SITE 4'-0" HIGH
PANELS ON SOUTH SIDE OF THE SITE 6'-0" HIGH
SEE DETAIL 10/SHEET 6 FOR GATE DIMENSIONS

EXAMPLES OF PERFORATED METAL SCREENING PANELS
BASIS OF DESIGN: PARASOLEIL EQUINOX SERIES - LUNAR SCREEN SYSTEM
MATERIAL: ALUMINUM WITH POWDER COAT PATINA FINISH IN COR11
PATTERN: FATHOMS

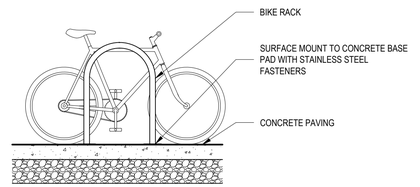
3 PERFORATED METAL SCREENING PANELS
Scale: 1/4"=1'-0"

NOTES:
1. 2" MINIMUM CONCRETE COVERAGE ON REBAR



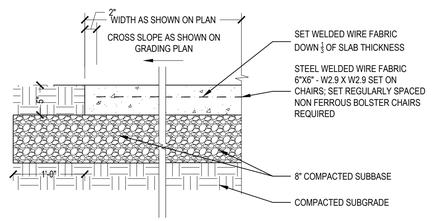
8 HEAVY DUTY CONCRETE PAVEMENT
Scale: 1"=1'-0"

BASIS OF DESIGN: DERO HOOP RACK
FINISH: POWDER COAT
BASE COLOR: BLACK



4 BICYCLE RACK
Scale: 1/2"=1'-0"

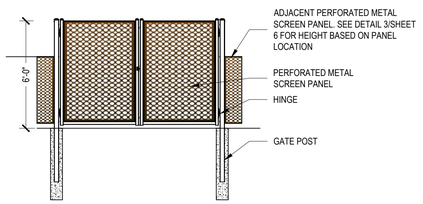
NOTES:
1. WELDED WIRE MESH MUST BE SET ON CHAIRS, PULLING WIRE MESH UP FROM SUB BASE WHEN PLACING CONCRETE IS NOT PERMITTED.
2. 2" MINIMUM CONCRETE COVERAGE ON MESH AND TIES.



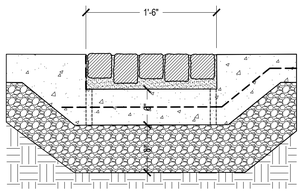
9 MEDIUM DUTY CONCRETE PAVEMENT
Scale: 1"=1'-0"

BASIS OF DESIGN: OMEGA UNIK DOUBLE SWING GATE WITH PERFORATED METAL SCREEN PANEL
COLOR: RUST

GATE HARDWARE TO BE INSTALLED TO ALLOW RESIDENT ACCESS AFTER HOURS

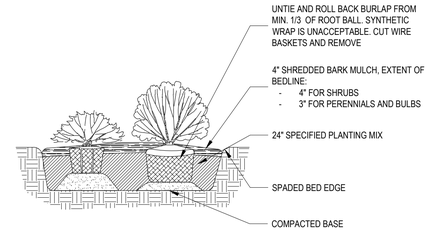


10 POST AND GATE
Scale: 1/4"=1'-0"



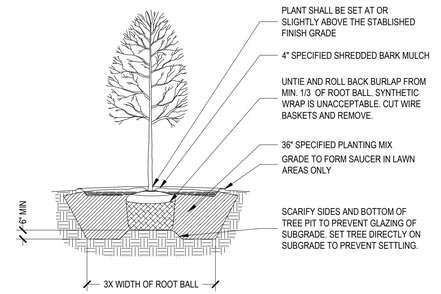
11 UNIT PAVERS
Scale: 1"=1'-0"

NOTES:
1. PLANT AT SAME DEPTH AS PREVIOUSLY PLANTED IN NURSERY OR CONTAINER.
2. PROVIDE COMPACTED BASE UNDER ROOT BALL ONLY TO PREVENT SETTLING.
3. CUT ANY CIRCLING ROOTS AND TEASE APART ROOTS OF POT BOUND CONTAINERIZED PLANTS.
4. DO NOT USE TREATED BURLAP.



12 SHRUB PLANTING
Scale: 1/4"=1'-0"

NOTES:
1. PLANT AT SAME DEPTH AS PREVIOUSLY PLANTED IN NURSERY OR CONTAINER.
2. PROVIDE COMPACTED BASE UNDER ROOT BALL ONLY TO PREVENT SETTLING.
3. ENTIRE BED EXCAVATED AND BACKFILLED WITH SPECIFIED PLANTING MIX.



13 TREE PLANTING
Scale: 1/4"=1'-0"

Site Details

Sheet 7 of 12

Owner / Applicant:
Kirchner Realty, Inc.
2406 New Hackensack Road
Poughkeepsie, NY 12603

Architect:
Aryeh Siegel, Architect
514 Main Street
Beacon, New York 12508

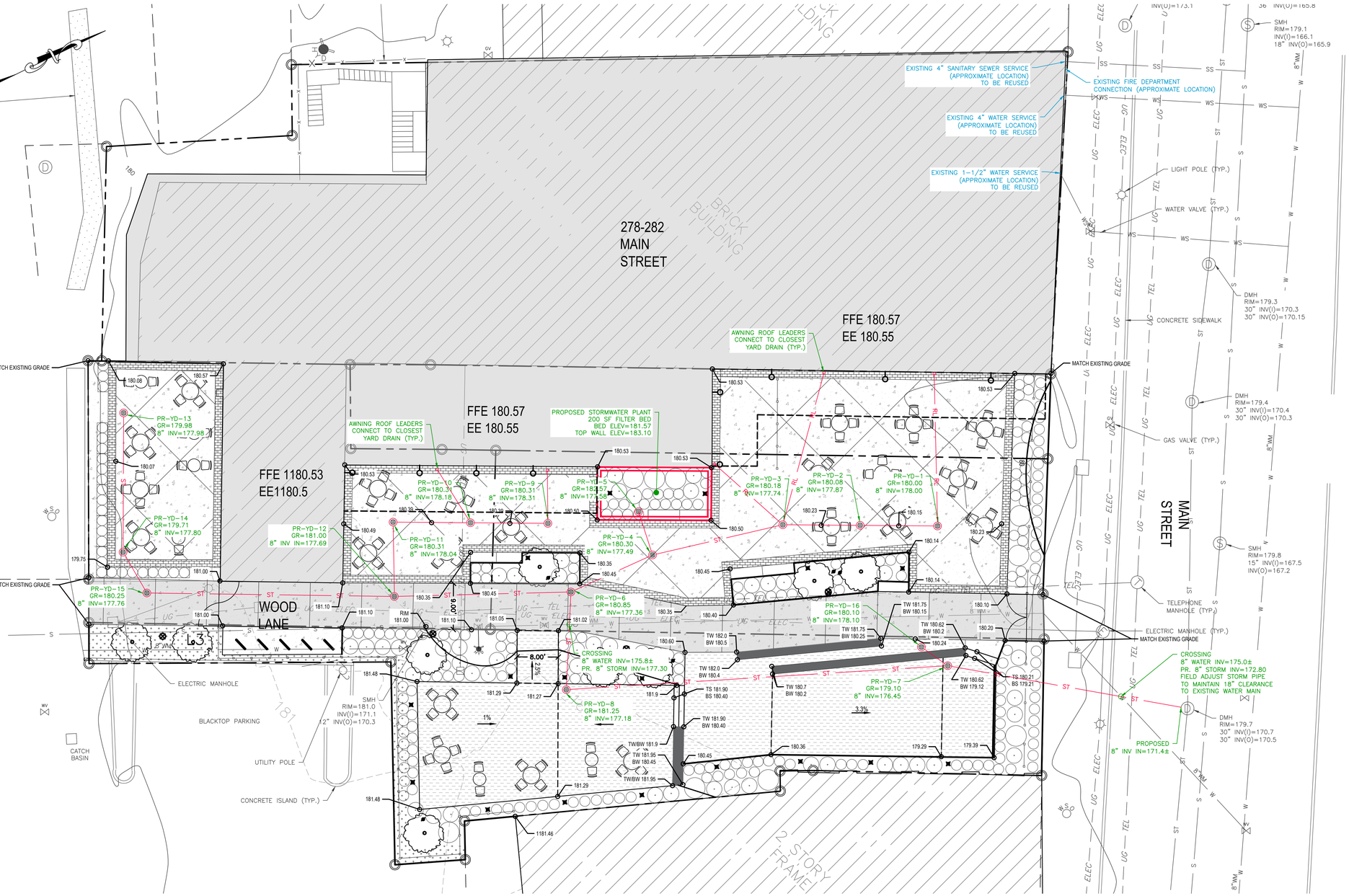
Landscape Architect:
Trowbridge Wolf Michaels Landscape Architects
1001 W Seneca St. Suite 201
Ithaca, NY 14850

Civil Engineer/Surveyor:
Hudson Land Design
174 Main St.
Beacon, NY12508

REGISTERED LANDSCAPE ARCHITECT — TIMOTHY A. MICHAELS — 002031-1 — STATE OF NEW YORK

278-282 Main Street

Poughkeepsie, New York
Scale: As Noted
November 2,2021
DRAWINGS NOT FOR CONSTRUCTION



DRAINAGE PLAN
SCALE: 1" = 10'

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

PROJECT INFORMATION:	
PARCEL OWNER:	KIRCHNER REALTY, INC.; 2406 NEW HACKENSACK RD. POUGHKEEPSIE, NY 12603
PROJECT ENGINEER:	HUDSON LAND DESIGN P.C., 174 MAIN STREET, BEACON NY 12508
PARCEL LOCATION:	278-282 MAIN ST. POUGHKEEPSIE, NY 12601
TAX PARCEL ID:	6162-77-059084, 062084, 065083, 060075, & 068081
PARCEL AREA:	±0.56-ACRES
WATER SUPPLY:	PUBLIC
SEWAGE DISPOSAL:	PUBLIC

MAP REFERENCES:

1. EXISTING FEATURES SHOWN PER A MAP ENTITLED "SUBDIVISION AND LOTLINE REALIGNMENT FOR THE LANDS OF THE CITY OF POUGHKEEPSIE & KIRCHNER REALTY, INC" COMPLETED BY ROBERT V. OSWALD LAND SURVEYING DATED MARCH 27, 2012.
2. REFER TO OTHER SHEETS IN SET PREPARED BY ARYEH SIEGEL, ARCHITECT AND TROWBRIDGE WOLF MICHAELS LANDSCAPE ARCHITECTS.

GENERAL NOTES:

1. NO WETLANDS, WATERCOURSES, OR FEMA FLOOD ZONES EXIST ON THE SUBJECT PARCELS.
2. NO UTILITY EASEMENTS ARE PROPOSED AS PART OF THIS APPLICATION.

UTILITY NOTES:

1. ALL UTILITY CONNECTIONS SHALL COMPLY WITH CITY REQUIREMENTS.
2. NO CELLAR, ROOF, OR FOOTING DRAINS SHALL BE DISCHARGED INTO THE SANITARY SEWER SYSTEM.
3. INVERT AND LOCATION OF EXISTING UTILITIES ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY LOCATION AND CONDITION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
4. ROOF LEADERS WILL BE CONNECTED TO THE PROPOSED STORMWATER PLANTER AS SHOWN ON THIS PLAN.
5. INTERIOR GREASE TRAPS WILL BE PROVIDED FOR EACH KITCHEN SINK AND DISHWASHER. DESIGN OF GREASE TRAPS WILL BE PROVIDED DURING THE BUILDING PERMIT PROCESS.

GRADING & DRAINAGE NOTES:

1. PROPOSED EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND SHALL BE CONTINUALLY IN PLACE UNTIL THE END OF CONSTRUCTION AND STABILIZATION OF DISTURBED EARTH. REFER TO THE E&SC PLAN.
2. NYSDEC SPDES GENERAL PERMIT 0-20-001 COVERAGE IS NOT REQUIRED BASED ON THE SOIL DISTURBANCE ASSOCIATED WITH THE PROJECT BEING LESS THAN ONE (1) ACRE IN AREA.
3. THE CONTRACTOR SHALL ENSURE THAT THERE ARE NO AREAS OF TRAPPED DRAINAGE FOLLOWING CONSTRUCTION. POSITIVE PITCH TO PROMOTE OVERLAND FLOW TO ADEQUATE DISCHARGE LOCATIONS IS REQUIRED.
4. GRADING ADJACENT TO BUILDING SHALL MEET BUILDING CODE REQUIREMENTS.
5. SPOT ELEVATIONS ALONG CURBING DENOTE BOTTOM CURB ELEVATION UNLESS OTHERWISE NOTED.
6. ALL PARKING SPACES AND SIDEWALK GRADES SHALL BE ADA COMPLIANT.

DRAWN BY: ESR				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	11/2/21	PER CITY COMMENTS	ESR				

SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

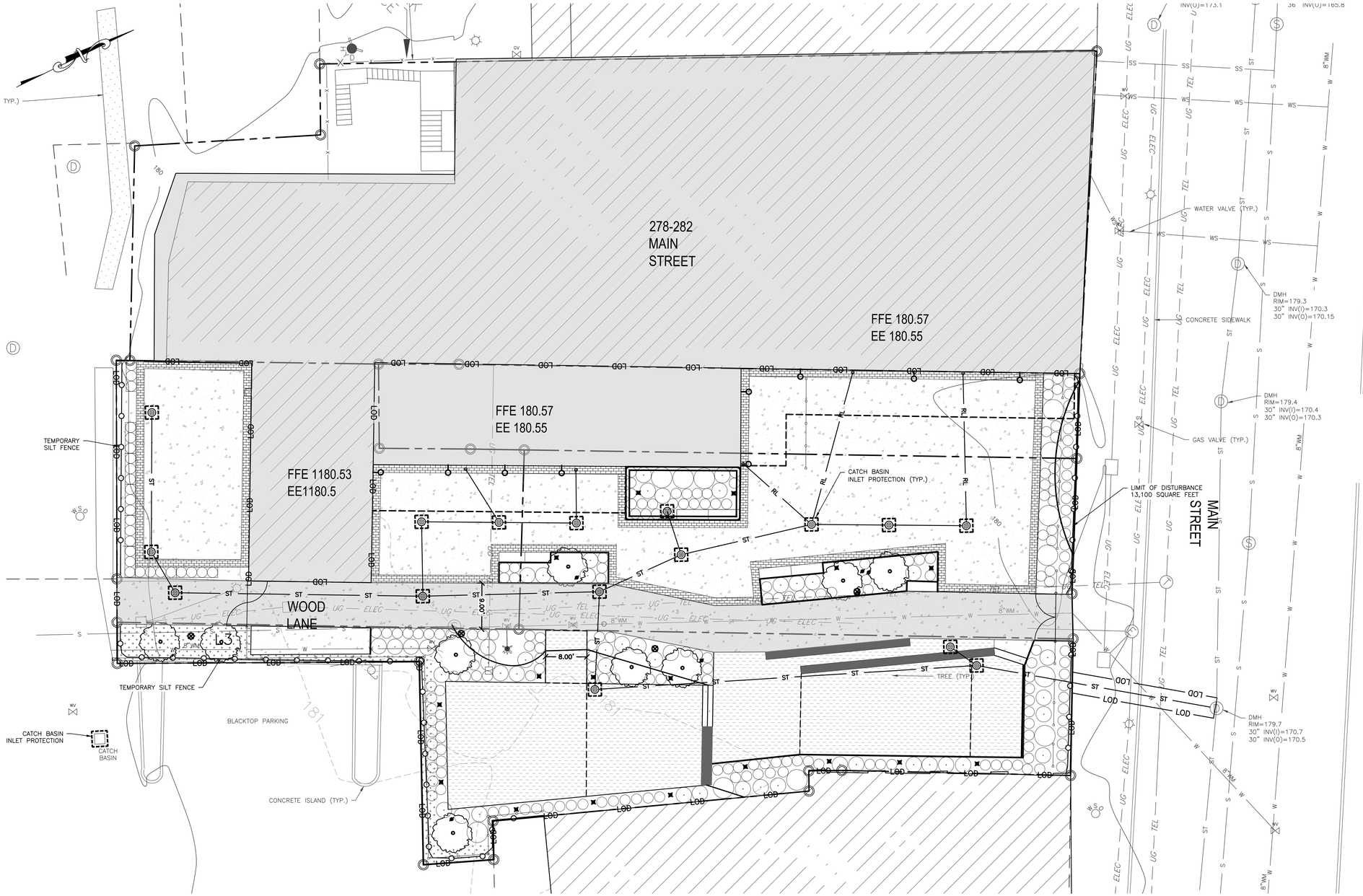
DRAINAGE PLAN

278-282 MAIN STREET

278-282 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK
TAX ID: 6162-77-059084, 062084, 065083, 060075, & 068081

JOB #:	2021:007
DATE:	6/29/2021
SCALE:	1" = 10'
TITLE:	DR-1
SHEET:	8 OF 13

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



EROSION & SEDIMENT CONTROL PLAN

SCALE: 1" = 10'

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

EROSION AND SEDIMENT CONTROL NOTES:

1. NOTIFY 811 AT LEAST FORTY-EIGHT (48) HOURS, EXCLUDING THE DAY OF THE NOTIFICATION, BEFORE ANY GROUND DISTURBANCE HAS COMMENCED AND HAVE THE UNDERGROUND UTILITIES MARKED OUT. WAIT FOR THE AFFECTED UTILITY OPERATORS TO RESPOND, AND THEN CONFIRM THE UTILITIES HAVE BEEN ACCURATELY LOCATED. RESPECT THE IDENTIFIED LOCATIONS AND DIG ACCORDINGLY, TAKING PRECAUTIONS, ESPECIALLY WITHIN THE KNOWN TOLERANCE ZONE. IN THE EVENT MARK OUTS CANNOT BE MAINTAINED AND/OR GROUND DISTURBANCE CONTINUES LONGER THAN TEN (10) DAYS, NOTIFY 811 AND REQUEST A REMARK.

2. THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND/OR STORMWATER POLLUTION PREVENTION PLAN ('SWPPP'), IF APPLICABLE, SHALL NOT BE CONSTRUED TO PROHIBIT THE STATE OF NEW YORK FROM EXERCISING ANY AUTHORITY PURSUANT TO THE ENVIRONMENTAL CONSERVATION LAW, COMMON LAW, OR FEDERAL LAW. ADDITIONALLY, NEW YORK STATE SHALL NOT BE PROHIBITED FROM TAKING ANY MEASURES, WHETHER CIVIL OR CRIMINAL, TO PREVENT VIOLATIONS OF THE LAWS OF THE STATE OF NEW YORK, OR PROTECT THE PUBLIC HEALTH AND SAFETY AND/OR THE ENVIRONMENT.

3. AUTHORIZED REPRESENTATIVES FROM ANY REGULATORY AGENCIES HAVING JURISDICTION MAY ENTER AND INSPECT, AT REASONABLE TIMES, UPON PRESENTATION OF VALID CREDENTIALS TO ENSURE COMPLIANCE WITH SECTION 402 OF THE CLEAN WATER ACT AND ARTICLE 17 OF THE ENVIRONMENTAL CONSERVATION LAW.

4. EROSION AND SEDIMENT CONTROL PRACTICES AND POLLUTION PREVENTION MEASURES, COLLECTIVELY KNOWN AS BEST MANAGEMENT PRACTICES ('BMPS'), SHALL BE INSTALLED PRIOR TO ANY GROUND DISTURBANCE. INSTALLATION SHALL BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN(S), SWPPP, IF APPLICABLE, AND THE LATEST EDITION OF THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

5. ACTIVE DISTURBANCE SHALL BE LIMITED TO A FIVE (5) ACRE MAXIMUM AT ANY TIME, UNLESS AUTHORIZATION FOR A LARGER DISTURBANCE BY THE NYSDEC IS GRANTED.

6. CLEARING, GRUBBING, AND/OR STRIPPING OF TOPSOIL SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. THE AFOREMENTIONED SCOPE OF WORK MAY NOT COMMENCE IN ANY STAGE OF THE CONSTRUCTION SEQUENCE UNTIL THE BMPS SPECIFIED HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, STORMWATER POLLUTION PREVENTION PLAN ('SWPPP'), IF APPLICABLE, AND/OR THE LATEST EDITION OF THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

7. ALL GROUND DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE PROVIDED ON THE EROSION AND SEDIMENT CONTROL PLAN. DEVIATION FROM THAT CONSTRUCTION SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL STORMWATER MANAGEMENT OFFICER AND/OR THE NYSDEC PRIOR TO IMPLEMENTATION.

8. INSPECTION AND MAINTENANCE MUST BE PERFORMED AS NECESSARY TO ENSURE THE INTEGRITY AND EFFECTIVENESS OF INSTALLED BMPS. A TRAINED CONTRACTOR, AT AMINIMUM HAVING CURRENT CREDENTIALS FOR THE NYSDEC 4-HOUR EROSION AND SEDIMNET CONTROL TRAINING, SHALL INSPECT BMPS WITHIN THE ACTIVE WORK AREA DAILY AND AFTER EVERY STORMWATER EVENT, THAT GENERATES RUNOFF. A SIMILARLY QUALIFIED INSPECTOR SHALL INSPECT BMPS AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS. IN THE EVENT DEFICIENCIES ARE IDENTIFIED, THE CONTRACTOR SHALL BEGIN IMPLEMENTING THE NECESSARY CORRECTIVE ACTIONS WITHIN ONE (1) BUSINESS DAY AND COMPLETE CORRECTIVE ACTIONS IN A REASONABLE TIMEFRAME.

9. DUST CONTROL SHALL BE IMPLEMENTED DURING PERIODS OF DRY WEATHER TO PREVENT AIRBORNE MIGRATION OF SOIL PARTICLES. APPROPRIATE DUST CONTROL MAY UTILIZE VEGETATIVE COVER, MULCH, OR SPRINKLING WITH WATER.

10. RE-STABILIZE DISTURBED AREAS AS SOON AS POSSIBLE AFTER CONSTRUCTION IS COMPLETED, INITIATED BY THE END OF THE NEXT BUSINESS DAY AND COMPLETED WITHIN FOURTEEN (14) DAYS. WAITING UNTIL ALL DISTURBED AREAS ARE READY FOR STABILIZATION IS UNACCEPTABLE.

11. TEMPORARY STABILIZATION VIA SEEDING SHALL OCCUR IN ACCORDANCE WITH THE TEMPORARY SEEDING SCHEDULE, GENERALLY SOWN IN SPRING, MARCH THROUGH MAY, AND/OR FALL, SEPTEMBER THROUGH OCTOBER, APPLICATION INTO NOVEMBER IS PERMISSIBLE SHOULD RYE BE UTILIZED. DURING SUMMER MONTHS, JUNE THROUGH AUGUST, AND WINTER MONTHS, DECEMBER THROUGH FEBRUARY, WHEN SEEDING IS FOUND TO BE IMPRACTICABLE, MULCHING ONLY SHALL BE IMPLEMENTED. MULCH THE AREA WITH HAY OR STRAW AT A RATE OF TWO (2) TONS PER ACRE, APPROXIMATELY NINETY (90) LBS. PER 1000 SQ. FT. OR TWO (2) BALES. MULCH ANCHORING WILL BE REQUIRED WHERE WIND OR AREAS OF CONCENTRATED WATER ARE OF CONCERN.

12. PRIOR TO TEMPORARY STABILIZATION, THE AREA SHALL BE ROUGH GRADED AND CONSTRUCTED SLOPES PHYSICALLY STABLE. LARGE DEBRIS AND ROCKS SHALL BE REMOVED.

13. PERMANENT STABILIZATION VIA SEEDING SHALL BE IN ACCORDANCE WITH THE PERMANENT SEEDING SCHEDULE, GENERALLY SOWN FROM MARCH THROUGH MAY OR SEPTEMBER THROUGH OCTOBER, NOVEMBER IF RYE IS UTILIZED. DURING SUMMER MONTHS, JUNE THROUGH AUGUST, AND WINTER MONTHS, DECEMBER THROUGH FEBRUARY, WHEN SEEDING IS FOUND TO BE IMPRACTICABLE, MULCHING ONLY SHALL BE IMPLEMENTED. PERMANENT STABILIZATION VIA SEEDING MAY BE UNDERTAKEN DURING THE SUMMER MONTHS IF PLANS PROVIDE FOR ADEQUATE WATERING. MULCH THE AREA WITH STRAW AT A RATE OF TWO (2) TONS PER ACRE, APPROXIMATELY NINETY (90) LBS. PER 1000 SQ. FT. OR TWO (2) BALES. MULCH ANCHORING WILL BE REQUIRED WHERE WIND OR AREAS OF CONCENTRATED WATER ARE OF CONCERN.

14. PRIOR TO PERMANENT STABILIZATION, ROUGH GRADE OF CONSTRUCTED SLOPES SHALL BE SCARIFIED AND LOOSENED TO A MINIMUM DEPTH OF FOUR (4) INCHES WITH MECHANICAL RAKES PRIOR TO PLACING TOPSOIL. TOPSOIL SHALL BE SPREAD TO A LOOSELY COMPACTED UNIFORM MINIMUM THICKNESS OF FOUR (4) INCHES. TOPSOIL SURFACE SHALL BE FINELY GRADED AND LOOSENED BY MECHANICAL RAKES, AS NEEDED, TO ENSURE SEED ACCEPTANCE AND SEED TO SOIL CONTACT. IT SHALL NOT BE PLACED WHEN IT IS PARTLY FROZEN, MUDDY, SATURATED, OR ON FROZEN SLOPES OR OVER ICE, SNOW, OR STANDING WATER PUDDLES.

15. THE INTEGRITY AND EFFECTIVENESS OF TEMPORARY BMPS SHALL BE MAINTAINED AND NOT REMOVED UNTIL ALL GROUND DISTURBANCE TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED, E.G. EIGHTY (80) PERCENT UNIFORM DENSITY OF PERMANENT VEGETATION OR A PERMANENT APPLICATION OF AN ALTERNATIVE GROUNDCOVER IN ACCORDANCE WITH THE APPROVED SITE PLAN.

16. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT MIGRATION, THE LOCAL STORMWATER MANAGEMENT OFFICER, THEIR INSPECTOR, AND/OR THE NYSDEC SHALL BE NOTIFIED AND APPROPRIATE BMPS SHALL BE IDENTIFIED AND INSTALLED.

17. ADDITIONAL BMPS MAY BE REQUIRED BY THE LOCAL STORMWATER MANAGEMENT OFFICER, THEIR INSPECTOR, AND/OR THE NYSDEC DEPENDENT UPON FIELD CONDITIONS. ANY ADDITIONAL BMPS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.

DRAWN BY: ESR				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	11/2/21	PER CITY COMMENTS	ESR				

SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
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EROSION & SEDIMENT CONTROL PLAN

278-282 MAIN STREET

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CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK
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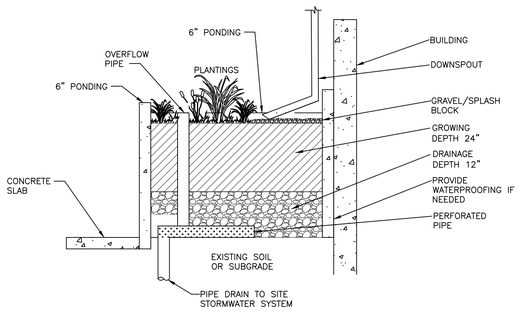
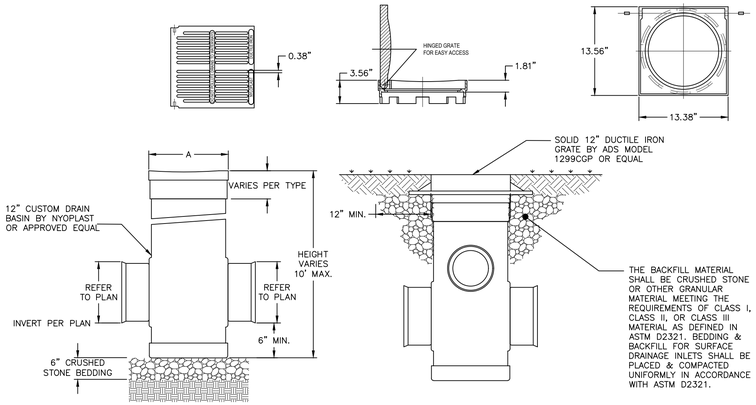
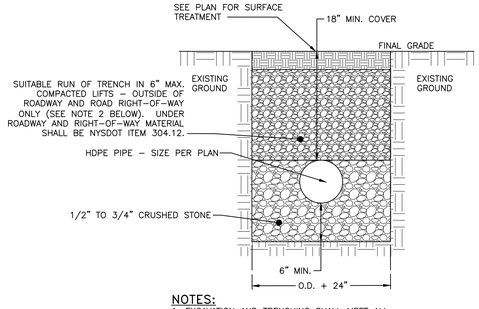


STORMWATER PLANTER DETAIL
NOT TO SCALE

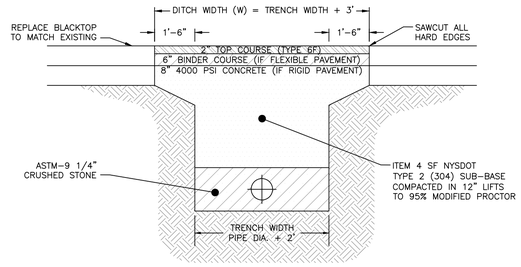


YARD DRAIN DETAIL
NOT TO SCALE



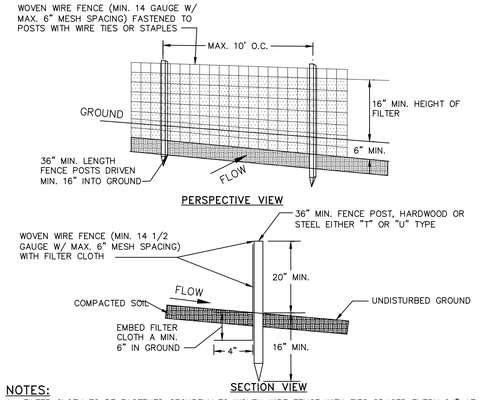
NOTES:
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

STORMWATER PIPE IN TRENCH DETAIL
NOT TO SCALE



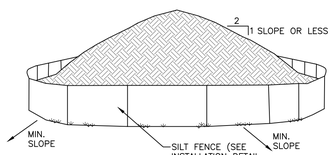
NOTES:
1. DITCH WIDTH SHALL EXTEND A MINIMUM OF ONE AND ONE-HALF FT. FROM THE EDGES OF THE TRENCH.
2. REPLACED BASE MATERIAL OVER TRENCH SHALL BE ITEM 4 COMPACTED IN 12" LIFTS.
3. PIPE BEDDING SHALL BE A MINIMUM 6" ABOVE AND BELOW PIPE.
4. ALL JOINTS SHALL BE MECHANICALLY SAWED.
5. ALL JOINTS SHALL BE SQUARED TO THE EXISTING EDGE OF CURB AND/OR PAVEMENT, AND TACK COATED PER DETAIL.
6. ROAD SURFACE REPLACEMENT SHALL BE A MINIMUM OF SIX INCHES OF ASPHALTIC CONCRETE.
7. BINDER COURSE ASPHALT PAVEMENT TO BE REPLACED IN TWO LIFTS.

UTILITY TRENCH DETAIL IN PUBLIC R.O.W.
NOT TO SCALE



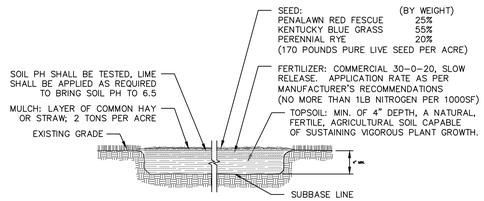
NOTES:
1. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
3. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE OR APPROVED EQUAL.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

SILT FENCE DETAIL
NOT TO SCALE

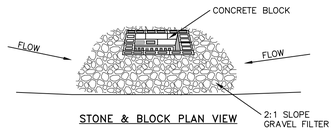


NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN
3. STABILIZED WITH VEGETATION OR COVERED.

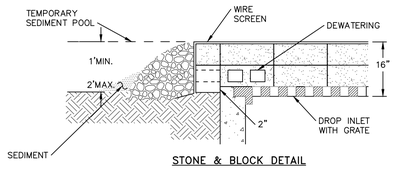
TEMPORARY SOIL STOCKPILE DETAIL
NOT TO SCALE



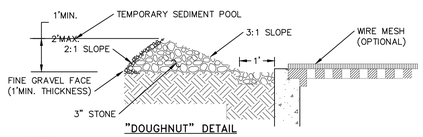
TOPSOIL SEED, FERTILIZER AND MULCH DETAIL
NOT TO SCALE



STONE & BLOCK PLAN VIEW



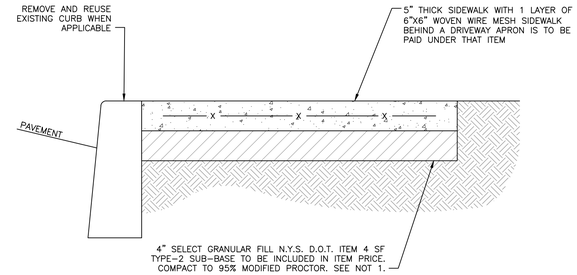
STONE & BLOCK DETAIL



"DOUGHNUT" DETAIL

NOTES:
1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.
MAXIMUM DRAINAGE AREA 1 ACRE

CATCH BASIN INLET PROTECTION DETAIL
NOT TO SCALE



NOTES:
1. ALL CONCRETE SHALL BE 4,000 PSI.
2. WHERE MATERIAL IS NOT USED THE CITY OF POUGHKEEPSIE WILL BE CREDITED IN AREAS WHERE MORE THAN THE SPECIFIED AMOUNT OF MATERIAL IS USED. MAJOR GRADE CHANGES WILL BE APPROVED BY THE CITY ENGINEERING DEPARTMENT AND WILL BE PAID UNDER APPROPRIATE ITEMS.
3. UPON COMPLETION OF CURING ALL CONCRETE SURFACES SHALL BE COATED WITH SODIUM CHLORIDE INHIBITING SEALER AS REQ'D.

SIDEWALK DETAIL REPLACE & NEW
NOT TO SCALE

DRAWN BY: ESR				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	11/2/21	PER CITY COMMENTS	ESR				

SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
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CONSTRUCTION DETAILS

278-282 MAIN STREET

278-282 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK
TAX ID: 6162-77-059084, 062084, 065083, 060075, & 068081

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SHEET: 10 OF 13

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REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	11/02/21	PROGRESS SUBMISSION	AJS

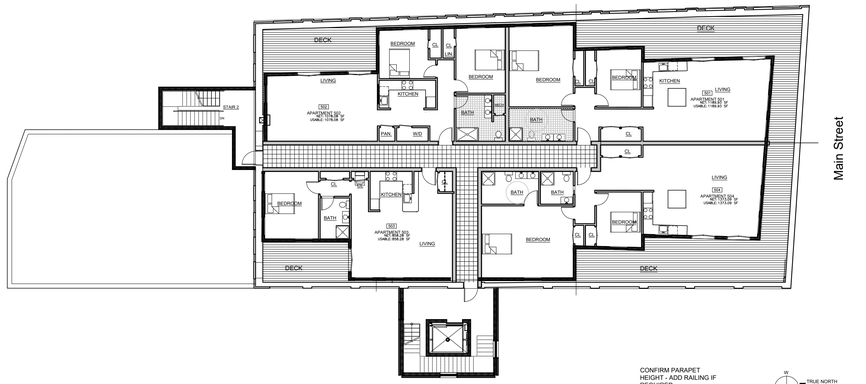
BUILDING INSPECTOR

CITY ENGINEER

COMMISIONER OF PUBLIC WORKS

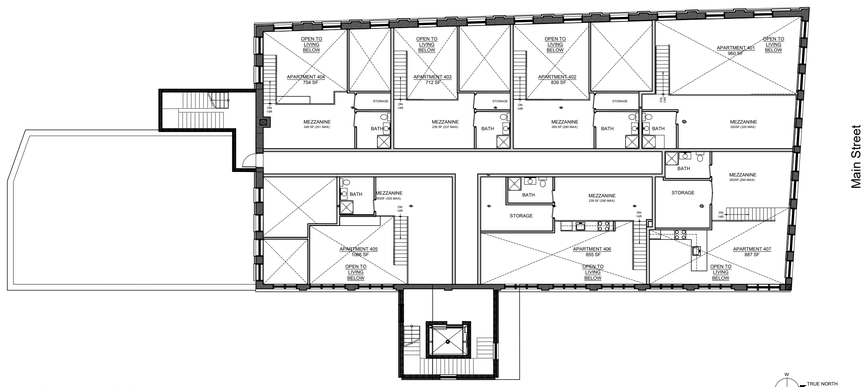
FIRE CHIEF

POLICE CHIEF



5th Floor Plan

Scale: 1/16" = 1'-0"



4th Floor Loft Plan

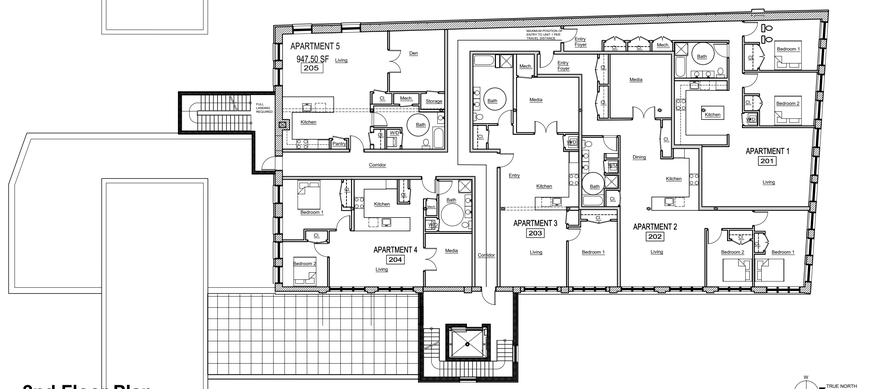
Scale: 1/16" = 1'-0"

4th Floor Plan

Scale: 1/16" = 1'-0"

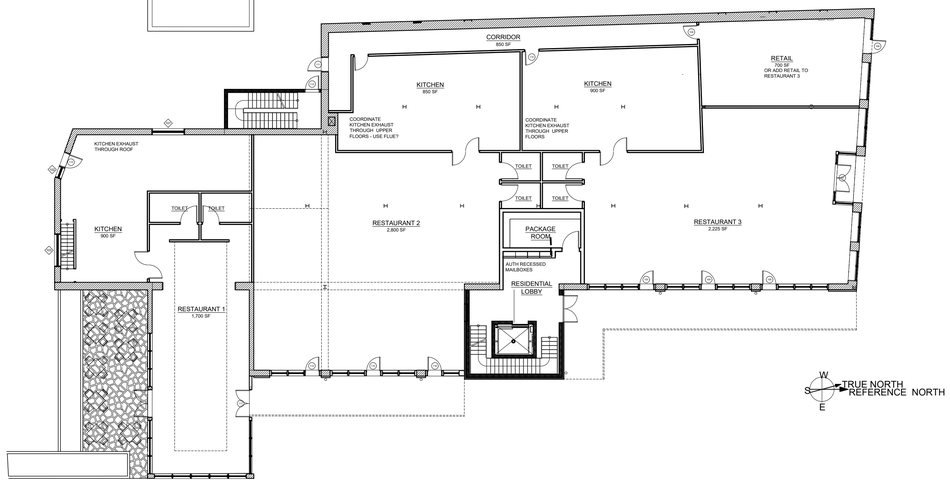
3rd Floor Plan

Scale: 1/16" = 1'-0"



2nd Floor Plan

Scale: 1/16" = 1'-0"



1st Floor Plan

Scale: 1/16" = 1'-0"

REGISTERED ARCHITECT
ARYEH JOSEPH SIEGEL
014892
STATE OF NEW YORK

Floor Plans

Sheet 11 of 13

Owner / Applicant:
Kirchner Realty, Inc.
2406 New Hackensack Road
Poughkeepsie, NY 12603

Architect:
Aryeh Siegel, Architect
514 Main Street
Beacon, New York 12508

Landscape Architect:
Trowbridge Wolf Michaels Landscape Architects
1001 W Seneca St. Suite 201
Ithaca, NY 14850

Civil Engineer/Surveyor:
Hudson Land Design
174 Main St.
Beacon, NY12508

Surveyor:
Robert V. Oswald, LS
175 Walsh Road
Lagrangeville, New York 12540

278-282 Main Street
Poughkeepsie, New York
Scale: As Noted
June 29, 2021

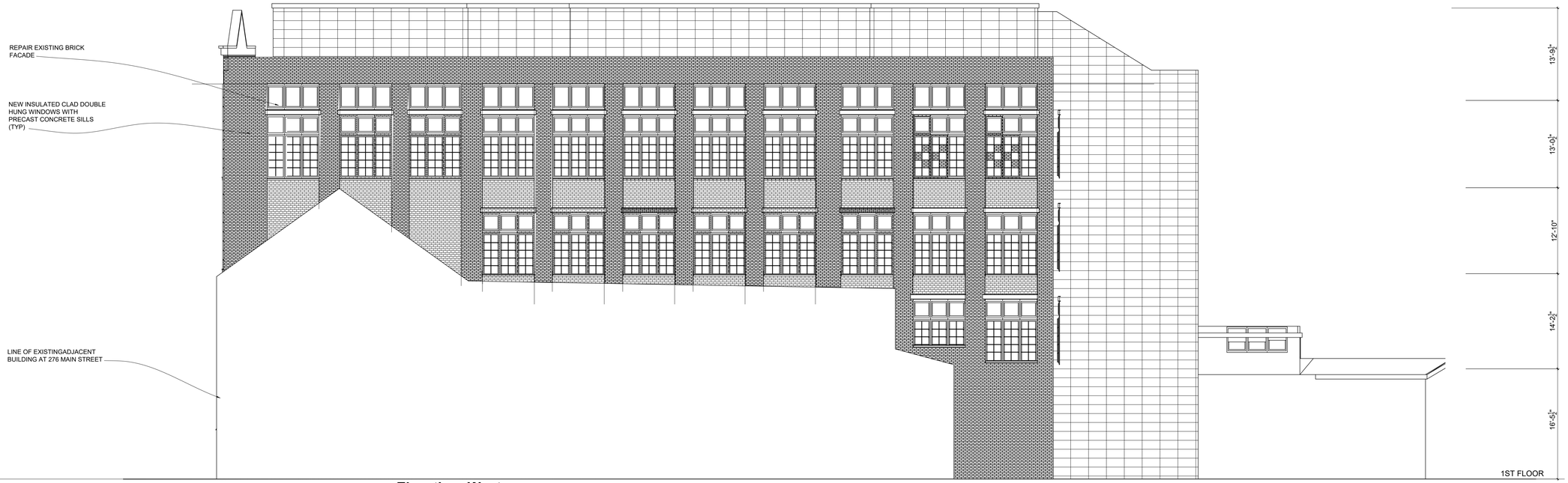


Photo: Historic Main Street Storefront

Elevation: West

Scale: ⅛" = 1'-0"

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	11/02/21	PROGRESS SUBMISSION	AJS

BUILDING INSPECTOR

CITY ENGINEER

COMMISIONER OF PUBLIC WORKS

FIRE CHIEF

POLICE CHIEF

Elevation: East

Scale: ⅛" = 1'-0"

Elevations

Sheet 12 of 13

Owner / Applicant:
Kirchner Realty, Inc.
2406 New Hackensack Road
Poughkeepsie, NY 12603

Architect:
Aryeh Siegel, Architect
514 Main Street
Beacon, New York 12508

Landscape Architect:
Trowbridge Wolf Michaels Landscape Architects
1001 W Seneca St. Suite 201
Ithaca, NY 14850

Civil Engineer/Surveyor:
Hudson Land Design
174 Main St.
Beacon, NY12508

Surveyor:
Robert V. Oswald, LS
175 Walsh Road
Lagrangeville, New York 12540

REGISTERED ARCHITECT ARYEH JOSEPH SIEGEL 024892 STATE OF NEW YORK

278-282 Main Street
Poughkeepsie, New York
Scale: As Noted
June 29, 2021

Elevation: South

Scale: 1/8" = 1'-0"

Elevation: North (With Side View of Stair Tower)

Scale: 1/8" = 1'-0"

BUILDING INSPECTOR

CITY ENGINEER

COMMISIONER OF PUBLIC WORKS

FIRE CHIEF

POLICE CHIEF

REVISIONS:

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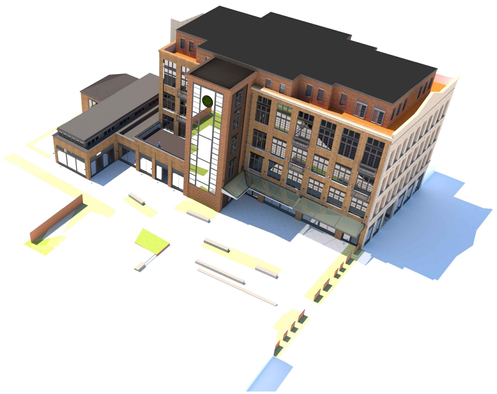
View 1



View 2

View 3

REGISTERED ARCHITECT
ARYEH JOSEPH SIEGEL
028892
STATE OF NEW YORK

Elevations

Sheet 13 of 13

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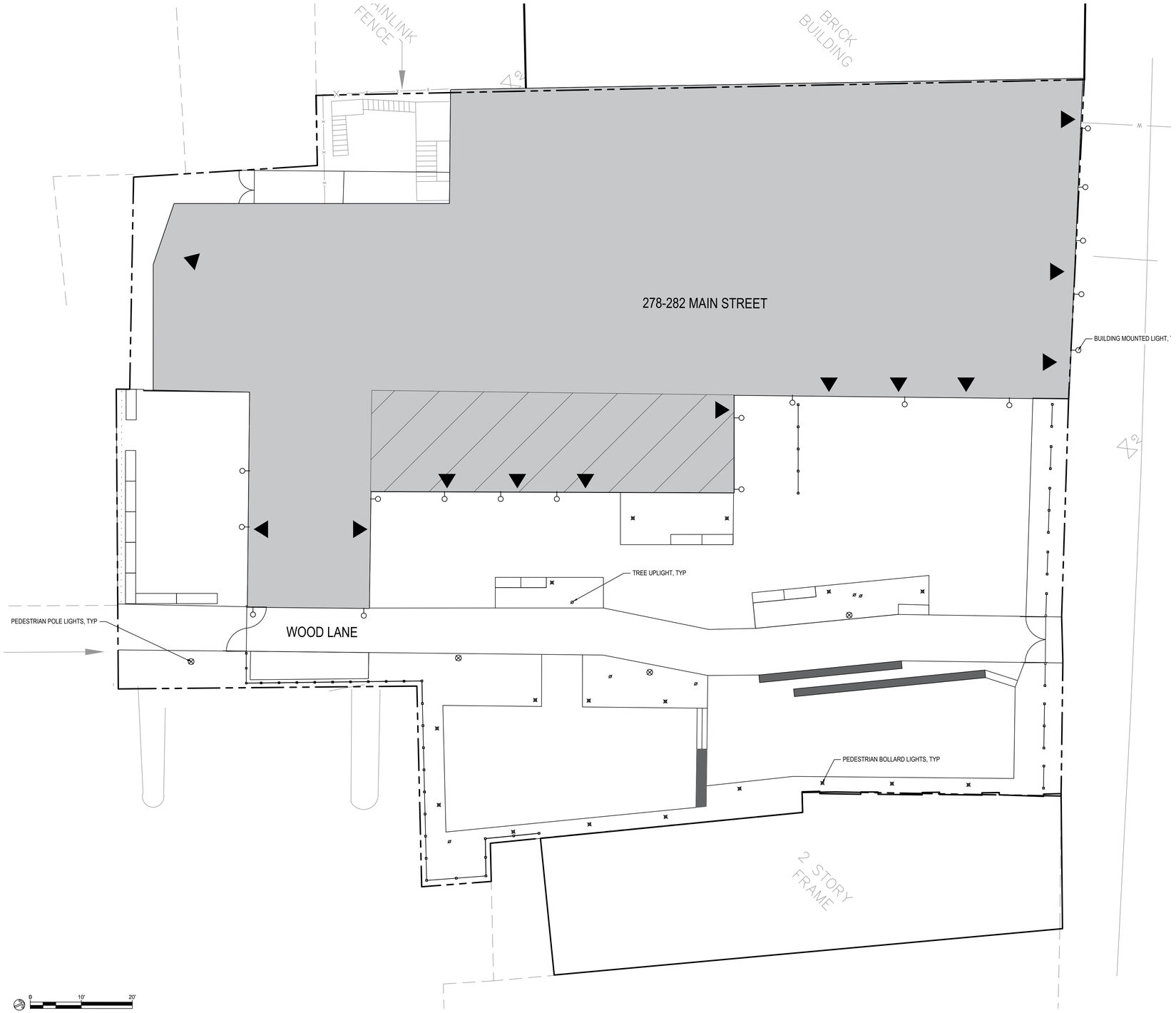
Scale: As Noted
June 29, 2021



SCALE: 1"=10'

KEY	LIGHTING TYPE	COMPANY	PRODUCT	MOUNTING HEIGHT	COLOR TEMP/POWER	FIXTURE COLOR
⊗	PEDESTRIAN POLE LIGHT	SELUX	DISCERA 4 - SINGLE SHORT ARM POLE MOUNT - LED	12'-0"	3000K	BLACK
⊠	PEDESTRIAN BOLLARD	KUZCO	SONOMA BOLLARD - LED	3'-0"	3000K	BLACK
⌀	TREE UPLIGHT	LUMASCAPE	LS782LED ASTELIA	GROUND	6W LED, 3000K	BLACK
○—	EXTERIOR BUILDING LIGHT FIXTURE	BARN LIGHT	AERO SHALLOW BOWL GOOSENECK LIGHT, 12" WITH SHADE	8'-0"	100 WATT LAMP	BLACK
SEE ARCHITECTURE ELEVATIONS	EXTERIOR BUILDING UPLIGHT	BETA CALCO	RAZER RD- EXTERIOR WALL UPLIGHT	32'-0"	3000K	BLACK

PEDESTRIAN POLE LIGHT

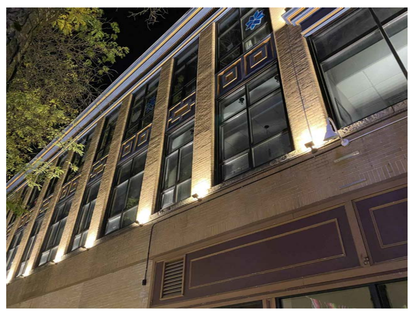
PEDESTRIAN BOLLARD

TREE UPLIGHT

EXTERIOR BUILDING LIGHT FIXTURE

EXTERIOR BUILDING UPLIGHT

EXISTING MAIN ST. NIGHT LIGHTING CONDITION



NEARBY LIBERTY ST. NIGHT LIGHTING

EXTERIOR LIGHTING LOCATIONS AND FIXTURES

278-282 Main Street

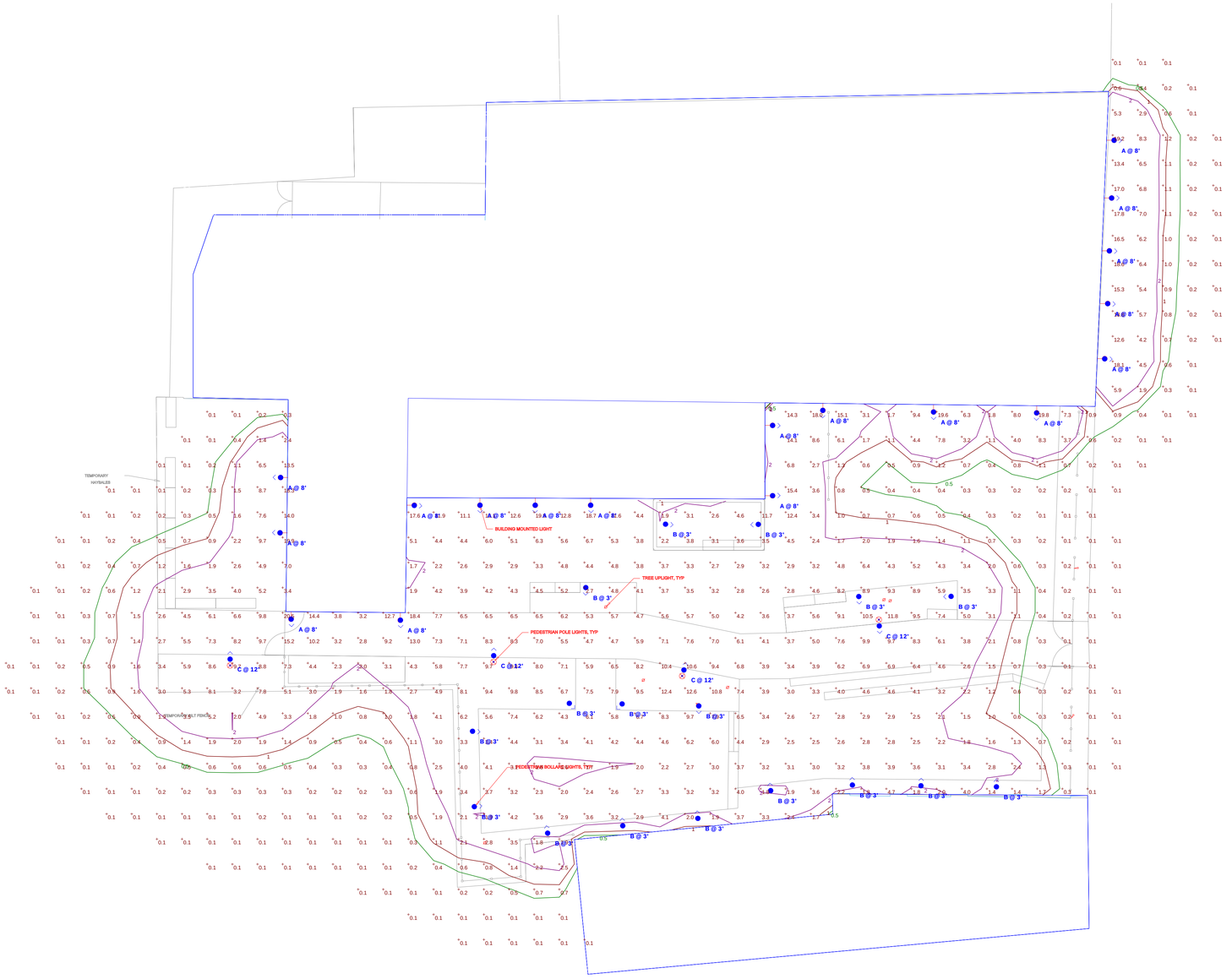
Poughkeepsie, New York
Scale: As Noted
November 2,2021
DRAWINGS NOT FOR CONSTRUCTION

Owner / Applicant:
Kirchner Realty, Inc.
2406 New Hackensack Road
Poughkeepsie, NY 12603

Architect:
Aryeh Siegel, Architect
514 Main Street
Beacon, New York 12508

Landscape Architect:
Trowbridge Wolf Michaels Landscape Architects
1001 W Seneca St. Suite 201
Ithaca, NY 14850

Civil Engineer/Surveyor:
Hudson Land Design
174 Main St.
Beacon, NY12508



Plan View
Scale - 1" = 12ft

Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Filename	Light Loss Factor	Wattage
	A	18	LEDRA BRANDS		AERO SHALLOW BOWL GOOSENECK LIGHT	E26 LED -	3000lumen barn light.ies	0.9	34.6
	C	4	Selux Corporation	DSC4Lx-R3W-5G900-30-XX-XX-UNV	DISCERA - 4 - TYPE 3 W OPTICS	LED 3000K	DSC4Lx-R3W-XX-5G900-30-XX-XX-UNV.ies	0.9	78
	B	17	KIM LIGHTING	EB3036	SONOMA BOLLARD	LED 3000K	EB3036.ies	0.9	23

LIGHTSPEC

Designer

Date
11/01/2021
Scale
Not to Scale
Drawing No.

Summary

1 of 1

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:

278-282 Main Street

Project Location (describe, and attach a location map):

278-282 Main Street, Poughkeepsie NY 12601

Brief Description of Proposed Action:

The applicant wishes to renovate and develop the existing building and lots at 278-282 Main Street in the City of Poughkeepsie's downtown area. The site is comprised of 5 city lots (6162-77-059084, -062084, -065083, -060075 and -068081), which includes the locally historical Kirchner Hall at 278 Main Street. Modifications to Kirchner Hall include the renovation of Kirchner Hall's old facade along its 1st floor frontage with Main Street and the restoration of the Main Street facade above the 1st floor storefront, the replacement of old windows and/or installation of brand new ones, the addition of a brand new 5th story to the existing building and revamping of the building's interior to create 24 new apartments. The existing building's 1st floor will be modified and expanded to accommodate 3 restaurants and a retail store. Additionally a new tower expansion will be constructed on the building's east side which will display a large clock and serve as access staircases/elevator for the apartment residents. For the lots east of Kirchner Hall, the space will be developed to serve as a public space/park for gatherings and outside entertainment as well as outdoor seating for the restaurants.

Name of Applicant or Sponsor:	Telephone: (845) 452-3045
Kirchner Realty, Inc. / Michael DeCordova (contact)	E-Mail: decordovamichael@gmail.com

Address:

2406 New Hackensack Road

City/PO:	State:	Zip Code:
Poughkeepsie	New York	12603

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: City of Poughkeepsie Planing Board- Plan Approval; City of Poughkeepsie Water & Sewer- Approval for utility connections	☐	☑

3. a. Total acreage of the site of the proposed action? 0.56 acres
   b. Total acreage to be physically disturbed? 0.30 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.56 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☑ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☐ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☑

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____ _____	☐	☑

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ _____	☐	☑

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☐	☑
Please see attached sheets of historic places near site, source EAF Mapper Full EAF Form for this Site and CRIS.		
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☑ Urban ☐ Suburban

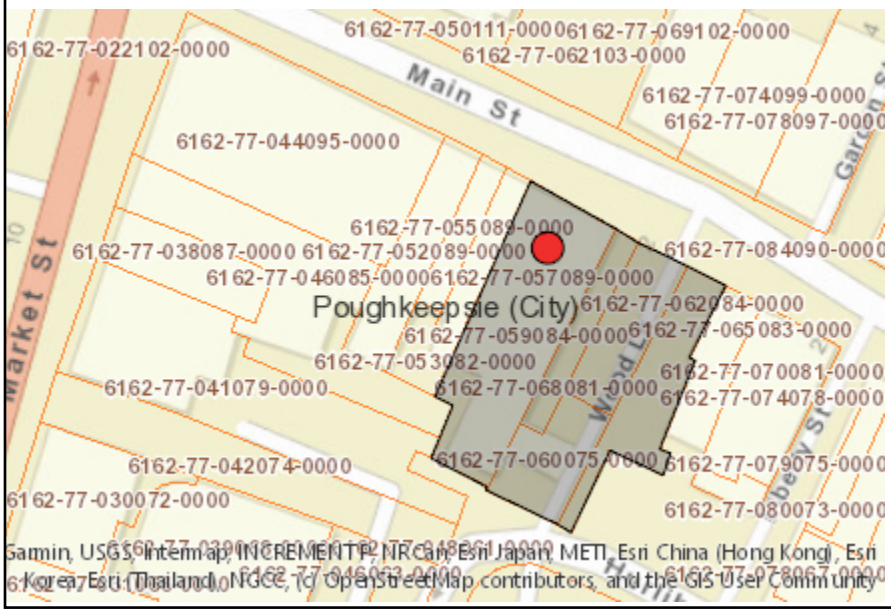
	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☐	☑
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☑
If Yes, briefly describe:		
On site storm management system with overflow to the city's storm collection system.		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?	☑	☐
If Yes, explain the purpose and size of the impoundment:		
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?	☑	☐
If Yes, describe:		
20.Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?	☐	☑
If Yes, describe:		
314071 - C (Completed); C314125 - C (Completed); B00148 - C (Completed); C314126 - A (Active); C314126A - A (Active); C314134 - A (Active); C314122 - A (Active); C314130 - A (Active). Please see attached DEC Site Records for more detail		

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: Hudson Land Design Professional Engineering, P.C. Date: 7/27/21

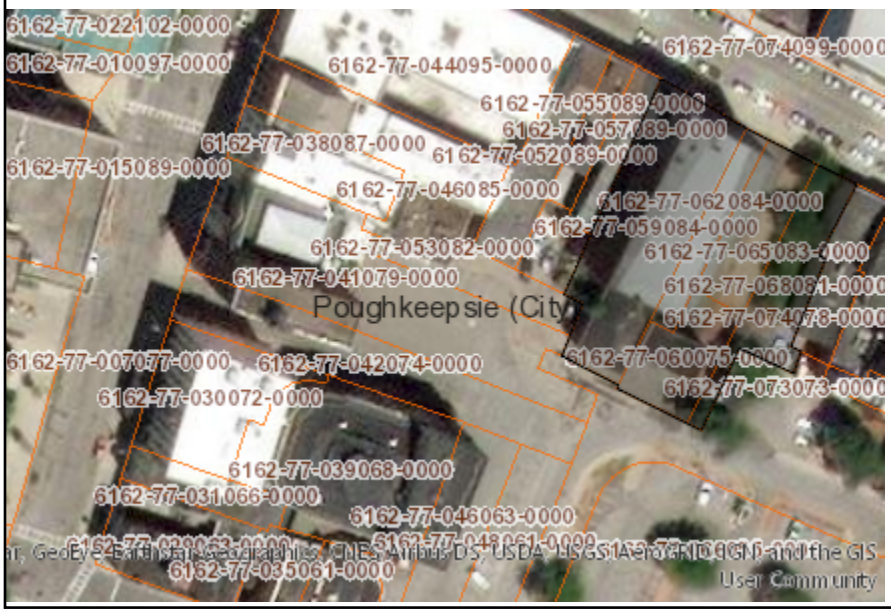
Signature: _____ Title: Daniel G. Koehler, P.E. Engineer for Applicant

PRINT FORM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	Yes
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	No
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	Yes



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B.i.i [Coastal or Waterfront Area]	No
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	314071, C314125, B00148, C314126, C314126A, C314134, 314122, C314130
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	No
E.2.h.iii [Surface Water Features]	No
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	No

E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Eligible property:INSURANCE AND TRAVEL STORE (KEY BANK), Collingwood Opera House and Office Building, Farmer's and Manufacturer's Bank, Luckey, Platt & Company Department Store, New York State Armory, Young Men's Christian Association, Lady Washington Hose Company, Dutchess County Court House, Main Mall Row, Poughkeepsie Trust Company, Poughkeepsie Savings Bank, Church Building, First Baptist Church, Upper-Mill Street Historic District
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

CRIS NYS Cultural Resource Information System

HOME SUBMIT SEARCH COMMUNICATE

We

Criteria | Spatial | Results

Lookup | USN | Survey | National Register | Library

USN Number: ex: 00101.001001

National Register Number: ex: 94NR00710

Survey Number: ex: 14SR00001

Submission Token: ex: ABCDEF012345

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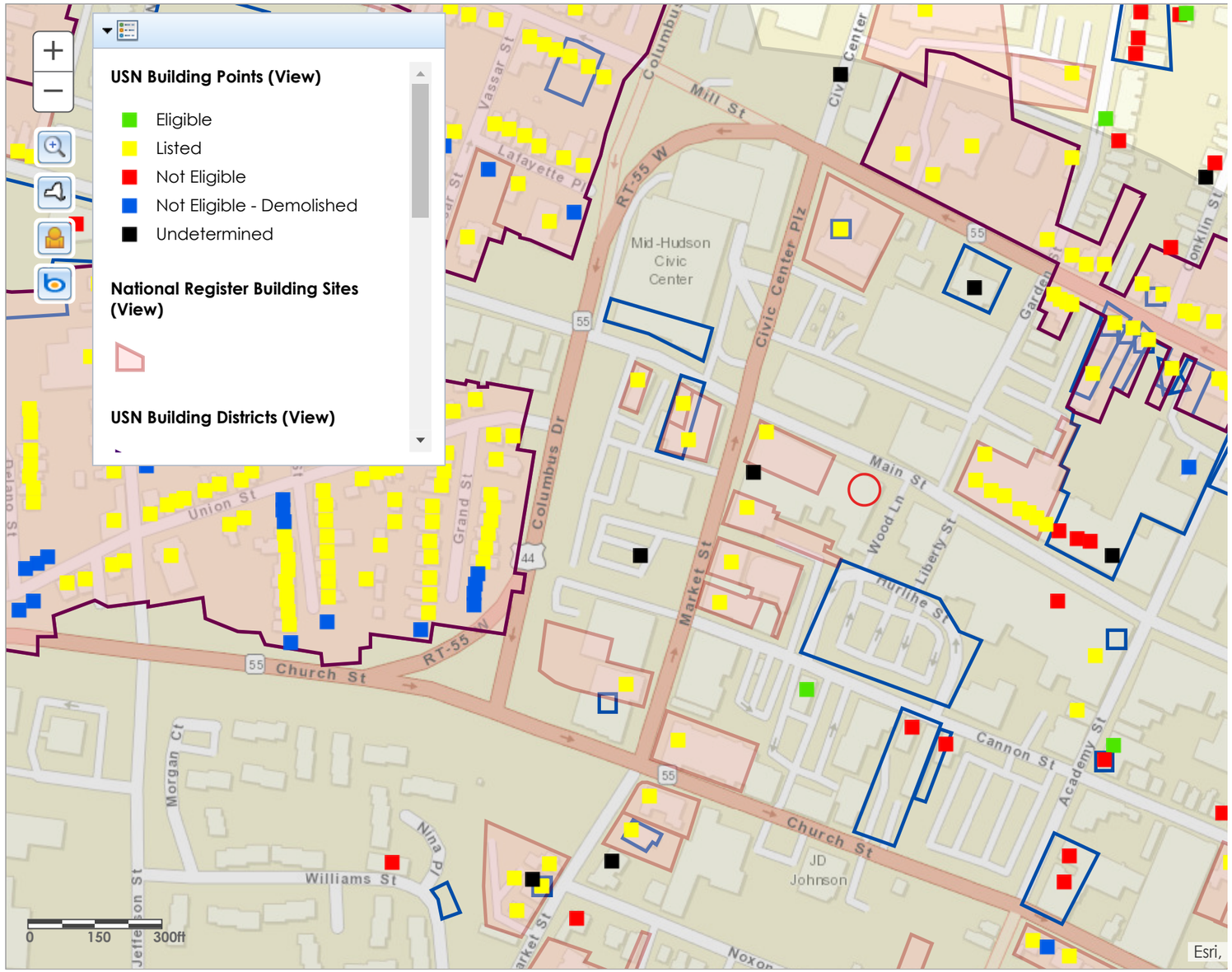

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CRIS NYS Cultural Resource Information System

HOME SUBMIT SEARCH COMMUNICATE

We

Criteria | Spatial | Results

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National Register Number: ex: 94NR00710

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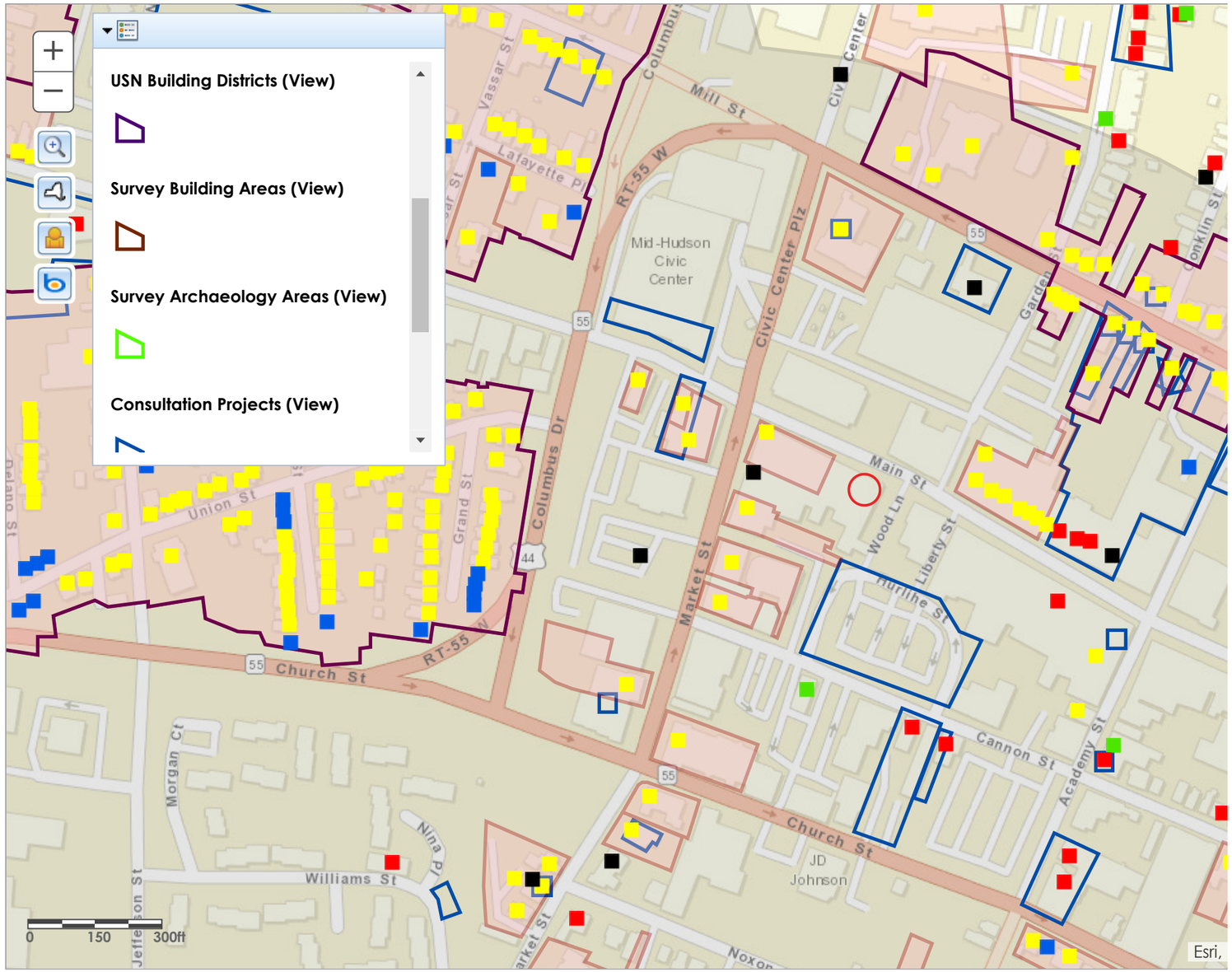

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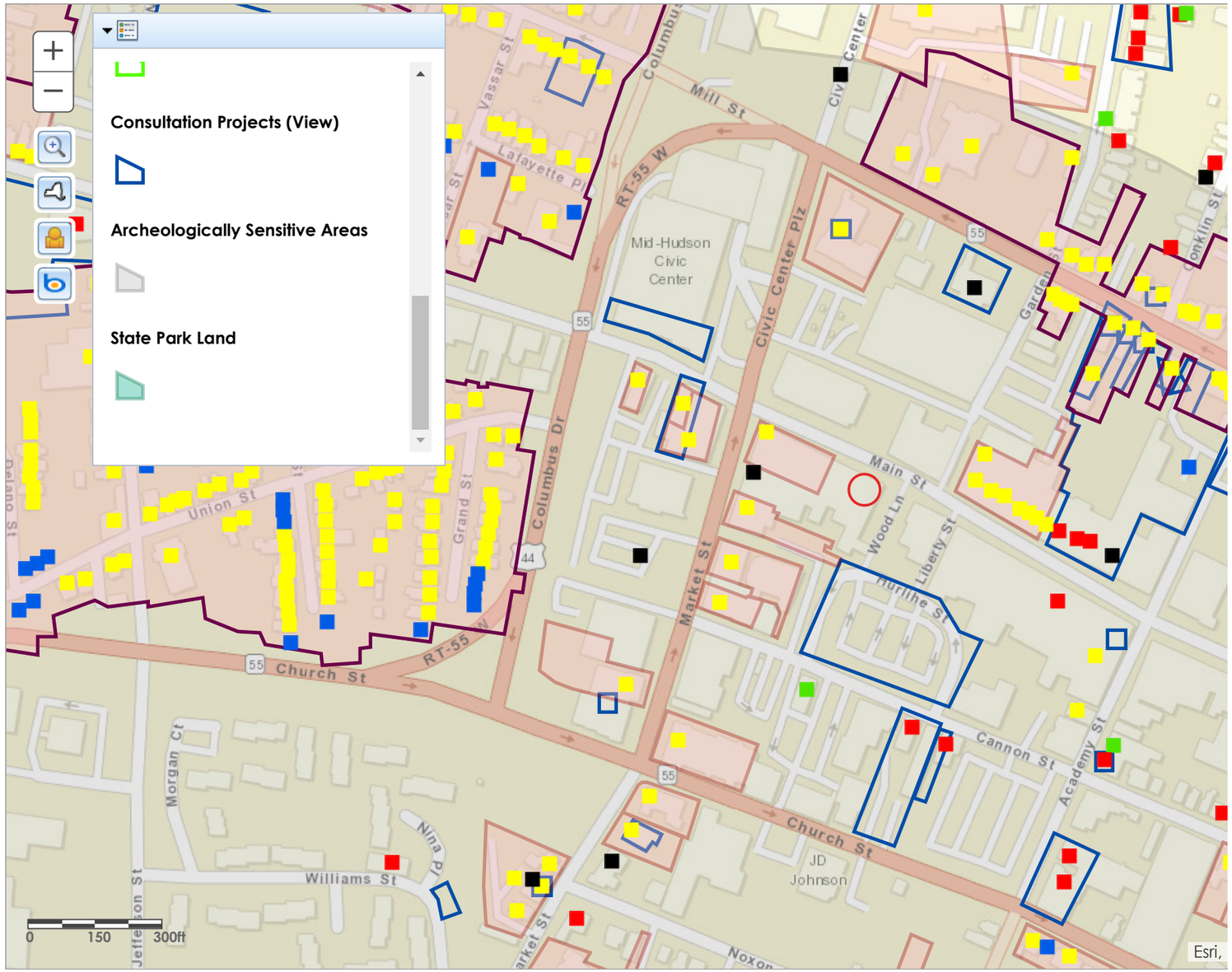

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NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Environmental Site Remediation Database Search Details

Site Record

Document Repository

Site-related documents are available for review through the DECInfo Locator on line at DECInfoLocator

Administrative Information

Site Name: CH - Bayeaux Street Poughkeepsie MGP
Site Code: 314071
Program: State Superfund Program
Classification: C
EPA ID Number:

Location

DEC Region: 3
Address: Main Street and North Perry Street
City: Poughkeepsie Zip: 12601
County: Dutchess
Latitude: 41.706217571
Longitude: -73.932790146
Site Type:
Estimated Size: 1.2 Acres

Site Owner(s) and Operator(s)

Current Owner Name: ADMIRAL HALSEY SENIOR VILLAGE INCORPORATED
Current Owner(s) Address: MAIN STREET AND NORTH PERRY STREET
POUGHKEEPSIE,NY, 12601

Site Description

Site was given a class of R. Decision was made on 3/12/07 to classify as N. Reclassified to C. This was the site of a small MGP on Main Street and North Perry Street in Poughkeepsie. A senior citizens housing development occupies the site today. The site is included in a multi-site Consent Order #D3-0134-89-05 1/12/90. A Site Assessment (PSA) was performed in 1990. No significant MGP waste material was found, and an NFA letter was sent on 03/12/07. As DER's experience with MGP sites grew, a few data gaps were identified in the original PSA. Central Hudson completed additional investigation work in 2006 to more completely cover the full footprint of the site with borings and test

pits. The additional work confirmed the original conclusion that no significant MGP waste was present at the site. A letter stating this conclusion was issued on 03/12/07.

Site Environmental Assessment

The 1990 PSA found little evidence of MGP wastes in the subsurface. Additional work conducted in 2006 addressed potential data gaps in the original PSA. This second round of work also failed to detect significant levels of contamination.

Site Health Assessment

No contact with site-related contaminants is expected.

For more Information: E-mail Us

Refine This Search

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Environmental Site Remediation Database Search Details

Site Record

Document Repository

Site-related documents are available for review through the DECInfo Locator on line at DECInfoLocator

Administrative Information

Site Name: Queen City Lofts
Site Code: C314125
Program: Brownfield Cleanup Program
Classification: C
EPA ID Number:

Location

DEC Region: 3
Address: 178-188 Main Street and 11 South Bridge Street
City: Poughkeepsie Zip: 12601
County: Dutchess
Latitude: 41.704788889
Longitude: -73.932219444
Site Type:
Estimated Size: 1.051 Acres

Institutional And Engineering Controls

Control Type:
Environmental Easement

Control Elements:
Ground Water Use Restriction
Soil Management Plan
Cover System
Landuse Restriction
Building Use Restriction
Monitoring Plan
Site Management Plan
IC/EC Plan

Site Owner(s) and Operator(s)

Current Owner Name: The QCL on Main Limited Partnership

Current Owner(s) Address: 34 Clayton Boulevard
Baldwin Place,NY, 10505

Site Document Repository

Name: Poughkeepsie Public Library District
Address: 93 Market Street
Poughkeepsie,NY 12601

Site Description

Location: The site consists of a portion of one tax lot located at 178-188 Main Street, City of Poughkeepsie, Dutchess County, New York. The site is an irregular shaped, approximately 1.051 acre parcel, which has 236 feet of frontage on the southern side of Main Street and 190 feet of frontage on the eastern side of South Bridge Street. Site Features: The property currently contains a four story mixed use building with restricted residential and commercial uses and an asphalt parking lot. The ground generally slopes from the northwest corner of the site to the southeast. Current Zoning and Land Use: The site is zoned C-2 (Commercial with allowances for mixed-used buildings) and . Past Use of the Site: The site was used for various industrial, commercial, and residential purposes, including a machine shop and laundry facility, from as early as 1887 until the early to mid-1980s when most of the former on-site structures were demolished. In 1973 a fire gutted several of the existing buildings on the site. Site Geology and Hydrogeology: Soils have been reworked by excavation and the construction and demolition of prior buildings on the site. They consist of well drained brown to gray sands, which overlie brown loamy clays. Shallow groundwater in the vicinity of the property follows overall surficial topography and flows to the southwest, toward the Hudson River. Groundwater was encountered between 10 and 12 feet below the ground.

Summary of Project Completion Dates

Projects associated with this site are listed in the Project Completion Dates table and are grouped by Operable Unit (OU). A site can be divided into a number of operable units depending on the complexity of the site and the number of issues associated with a site. Sites are often divided into operable units based on the media to be addressed (such as groundwater or contaminated soil), geographic area, or other factors.

Project Completion Dates

Contaminants of Concern (Including Materials Disposed)

Contaminant Name/Type
1,2,4-trimethylbenzene
benzo(a)anthracene
xylene (mixed)
n-propylbenzene

lead
ethylbenzene
mercury

Site Environmental Assessment

Nature and Extent of Contamination: Remediation at the site is complete. Remedial actions have successfully achieved soil cleanup objectives for restricted residential use. Residual contamination in the soil, groundwater, and soil vapor is being managed under a Site Management Plan. Prior to remediation, the primary contaminants of concern were mercury, lead, and benzo(a)anthracene in soil, lead and ethylbenzene in groundwater, and tetrachloroethene in soil vapor.

Site Health Assessment

Measures are in place to control the potential for coming in contact with remaining residual contamination in subsurface soil, groundwater and soil vapor.

For more Information: E-mail Us

Refine This Search

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Environmental Site Remediation Database Search Details

Site Record

Document Repository

Site-related documents are available for review through the DECInfo Locator on line at DECInfoLocator

Administrative Information

Site Name: "400 Block" Restoration Area
Site Code: B00148
Program: Environmental Restoration Program
Classification: C
EPA ID Number:

Location

DEC Region: 3
Address: 413-441 Main St
City: Poughkeepsie Zip: 12601
County: Dutchess
Latitude: 41.70237425
Longitude: -73.92231127
Site Type:
Estimated Size: 1.7 Acres

Institutional And Engineering Controls

Control Type:
Deed Restriction

Control Elements:
Vapor Mitigation
Soil Management Plan
Cover System
Alternate Water Supply
Landuse Restriction

Site Owner(s) and Operator(s)

Current Owner Name: CITY OF POUGHKEEPSIE
Current Owner(s) Address: CITY HALL, P.O. BOX 3000
POUGHKEEPSIE,NY, 12601

Site Description

Location: The ¿400 Block¿ Restoration Area Site is located at 413-441 Main Street, in Poughkeepsie, Dutchess County, New York on an irregularly shaped 1.5-acre parcel. The Site is located on the northern side of Main Street and the southern side of Mill Street. Site Features: The property contains three, 3-story structures that occupy the entirety of the property¿s southern frontage along Main Street. The southern portion of the property is developed with multi-story brick and wood structures, in which portions of these buildings are partially collapsed. These structures are currently vacant. Historically, these buildings were used for retail, commercial and residential purposes. The central western portion of the property is comprised of an unpaved parking area with overgrown trees and grass. A concrete loading dock extends south from a multi-story brick building located in the north-western portion of the property. An unpaved vacant lot comprised of overgrown lawn is located in the eastern portion of the property. All structures contain ground floor residential and retail commercial uses. The Site is served by storm sewers, sanitary sewers and public water. No surface water is present at the Site. Fall Kill Creek is located approximately 200 feet north of the Site, and the Hudson River is located approximately 1 mile west of the Site. Current Zoning and Land Use: The Site¿s general location is in an urban setting and is presently zoned as commercial land. The surrounding parcels are currently used for a combination of residential and commercial purposes. Manufacturing uses prior to World War II include the production of carriage mountings, fur hats, clothing, sheet metal and brass. During the period 1950-1980, portions of the Site were used for automotive repair, a machine shop, wholesale electrical supply, clothing manufacture, and residences. Past Use of the Site: In 1979, several parcels along Mill Street were acquired by Lomasney Combustion Inc. for the installation and service of oil-fired boilers. This operation included the storage and use of fuel oils, machine lubricants, hydraulic oils, and, possibly, waste oils. This operation may have also been associated with the handling of mercury switches and thermostats, as well as other electrical equipment containing PCBs. These activities continued until 1986. In 1998 the Site was acquired by the City of Poughkeepsie for construction of multi-family homes. A preliminary environmental site assessment was conducted on behalf of the City of Poughkeepsie in 1998. This assessment identified the presence of unregistered above ground storage and underground petroleum storage tanks, and the potential for asbestos- and lead- containing building materials. Test pits and soil borings confirmed the presence of subsurface petroleum contamination in the area of underground storage tanks, and identified lead, cadmium, PCBs, and Polycyclic Aromatic Hydrocarbons (PAHs) in the soil floor of the Lomasney Building. Site Geology and Hydrogeology: The upper layer of Site soils was found to be urban fill consisting of sand, silt, and cobbles, but also including cinders, coal, and brick fragments. At depths ranging from 4 to 6 feet, a thin layer of organic soil was encountered, followed by a layer of silt containing varying amounts of clay and sand. Shale bedrock was encountered at depths ranging from 13 to 17 feet beneath the Site. Groundwater is generally found at depths ranging from 3 to 6 feet beneath the Site, flowing in a westerly direction towards the Hudson River.

Contaminants of Concern (Including Materials Disposed)

Contaminant Name/Type

Site Environmental Assessment

Remediation at the site is complete. Prior to the remediation the primary contaminants of concern at the site are PCBs, mercury and PAH's in the soil, soil vapor and groundwater. Remedial actions have successfully achieved soil cleanup objectives for commercial use. Residual contamination in the soil, soil vapor, and groundwater are being managed under a Site Management Plan.

Site Health Assessment

Soil removal actions have been completed to remove contaminated material found in surface soils. A cover system, consisting of building foundation, clean soils, concrete or asphalt, is in place to prevent contact with any remaining underlying contamination. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. An active sub-slab depressurization system (systems that ventilate/remove the air beneath the building) is no longer needed in one on-site commercial and one residential building since soil vapor intrusion is longer a potential concern.

For more Information: E-mail Us

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Environmental Site Remediation Database Search Details

Site Record

Document Repository

Site-related documents are available for review through the DECInfo Locator on line at DECInfoLocator

Administrative Information

Site Name: 19, 21, & 23 Academy Street
Site Code: C314126
Program: Brownfield Cleanup Program
Classification: A
EPA ID Number:

Location

DEC Region: 3
Address: 19, 21, & 23 Academy Street
City: Poughkeepsie Zip: 12601
County: Dutchess
Latitude: 41.701983333
Longitude: -73.925652778
Site Type:
Estimated Size: 0.216 Acres

Site Owner(s) and Operator(s)

Current Owner Name: PoK 23 Acad, LLC
Current Owner(s) Address: 333 Park Avenue South, Suite 4E
New York,NY, 10010
Current Owner Name: PoK Academy, LLC
Current Owner(s) Address: 93 Fourth Ave #1289
New York,NY, 10276

Site Document Repository

Name: Poughkeepsie Public Library
Address: 93 Market Street
Poughkeepsie,NY 12601

Site Description

Location: The site is located in an urban area at 19, 21 and 23 Academy Street in the City of Poughkeepsie, Dutchess County. The site is an irregular-shaped, 0.216-acre parcel which has 90 feet of frontage on the eastern side of Academy Street. Site Features: The site currently contains three, multi-story, commercial, residential and mixed-use (commercial and residential) buildings. All buildings are currently vacant. The buildings located at 23 Academy Street are undergoing extensive renovation activities. Current Zoning and Land Use: The site properties are zoned C-2, Central Commercial District and consists of three vacant buildings that were previously utilized for commercial and residential uses. Past Uses of the Site: The site was developed sometime prior to 1887 and has a long history of commercial uses, including the operation of a garage and machine shop, dry cleaning and printing facilities, paint storage area, and tire vulcanization. The portion of the Site at 21 Academy Street is listed on the RCRIS database as a site formerly handling halogenated solvents (likely due to historical dry cleaning operations). Site Geology and Hydrogeology: Soils on the subject properties are likely to be derived from glacial till deposits which overlie the Austin Glen Formation (consisting of greywacke and shale). The Urban Land soil series is likely to be located on the property. Subsurface soils consist of brown, variable texture sand and silty sand with gravel overlaying light brown and gray, wet, dense silty clay. Brick inclusions were observed in the 0 to 5 feet below surface grade (bsg) interval in the northeastern and west-central portions of the Site. Generally, soils deeper than 10 feet bsg appeared to be native, undisturbed material. Groundwater ranged between 10.5 to 13 feet bsg. Shallow groundwater flow in the vicinity of the property is inferred to be to the south. There are no surface water bodies, wet areas, or regulated wetlands on the property.

Contaminants of Concern (Including Materials Disposed)

Contaminant Name/Type

cis-1,2-dichloroethene
tetrachloroethene (PCE)
trichloroethene (TCE)

Site Environmental Assessment

Laboratory data generated during the Phase II investigation document on- and off-site groundwater and soil vapor contamination by chlorinated solvents (tetrachloroethylene [PCE] and related breakdown-products), likely resulting from former dry cleaning operations but also potentially associated with other historical commercial uses. Peak concentrations of PCE were detected at the rear of 21 Academy Street (680 ug/L in groundwater) and off-site at 77 Cannon Street (21,000 ug/m3 in soil vapor). Trace to low-level concentrations of PCE were detected in soils. The spatial distribution of PCE contamination suggests a potential source area in the vicinity of the rear portion of 21 Academy Street (former dry cleaning facility). Documented groundwater and soil vapor conditions indicate a likely vapor intrusion condition at both on- and off-site adjoining structures. Historical records indicate the potential presence of gasoline underground storage tanks (USTs) in or near adjoining sidewalks at 19 Academy Street and additional storage tanks may also be associated with

the Site. Field evidence of contamination (gray discoloration, staining, odors, sheen and elevated PID readings) was observed at several borings near the presumed location of the gasoline tank at Academy Street. Three (3) soil samples were collected by Alpha Environmental Services at the rear of 19 Academy Street and one (1) was collected in the basement of the building in September 2016. Analytical results indicate the Site was impacted by metals and polycyclic aromatic hydrocarbon (PAH) contamination.

Site Health Assessment

People will not come into contact with contaminated soil since the site is covered with buildings and pavement. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater and/or soil may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The site is vacant so inhalation of site contaminants in indoor air via soil vapor intrusion in not a current concern. However, the potential exists for inhalation of site contaminants due to soil vapor intrusion for any future on-site development. Environmental sampling indicates soil vapor intrusion is a concern for off-site buildings. Additional off-site sampling for soil vapor intrusion is recommended.

For more Information: E-mail Us

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Environmental Site Remediation Database Search Details

Site Record

Document Repository

Site-related documents are available for review through the DECInfo Locator on line at DECInfoLocator

Administrative Information

Site Name: 19, 21, & 23 Academy Street - Off-site
Site Code: C314126A
Program: Brownfield Cleanup Program
Classification: A
EPA ID Number:

Location

DEC Region: 3
Address: 19, 21, & 23 Academy Street
City: Poughkeepsie Zip: 12601
County: Dutchess
Latitude: 41.701936521
Longitude: -73.92576556
Site Type:
Estimated Size: 0 Acres

Site Owner(s) and Operator(s)

Site Description

Location: The site is located in an urban area at 19, 21 and 23 Academy Street in the City of Poughkeepsie, Dutchess County. The site is an irregular-shaped, 0.216-acre parcel which has 90 feet of frontage on the eastern side of Academy Street. Site Features: The site currently contains three, multi-story, commercial, residential and mixed-use (commercial and residential) buildings. All buildings are currently vacant. The buildings located at 23 Academy Street are undergoing extensive renovation activities. Current Zoning and Land Use: The site properties are zoned C-2, Central Commercial District and consists of three vacant buildings that were previously utilized for commercial and residential uses. Past Uses of the Site: The site was developed sometime prior to 1887 and has a long history of commercial uses, including the operation of a garage and machine shop, dry cleaning and

printing facilities, paint storage area, and tire vulcanization. The portion of the Site at 21 Academy Street is listed on the RCRIS database as a site formerly handling halogenated solvents (likely due to historical dry cleaning operations). Site Geology and Hydrogeology: Soils on the subject properties are likely to be derived from glacial till deposits which overlie the Austin Glen Formation (consisting of greywacke and shale). The Urban Land soil series is likely to be located on the property. Subsurface soils consist of brown, variable texture sand and silty sand with gravel overlaying light brown and gray, wet, dense silty clay. Brick inclusions were observed in the 0 to 5 feet below surface grade (bsg) interval in the northeastern and west-central portions of the Site. Generally, soils deeper than 10 feet bgs appeared to be native, undisturbed material. Groundwater ranged between 10.5 to 13 feet bgs. Shallow groundwater flow in the vicinity of the property is inferred to be to the south. There are no surface water bodies, wet areas, or regulated wetlands on the property.

Site Environmental Assessment

Laboratory data generated during the Phase II investigation document on- and off-site groundwater and soil vapor contamination by chlorinated solvents (tetrachloroethylene [PCE] and related breakdown-products), likely resulting from former dry cleaning operations but also potentially associated with other historical commercial uses. Peak concentrations of PCE were detected at the rear of 21 Academy Street (680 ug/L in groundwater) and off-site at 77 Cannon Street (21,000 ug/m3 in soil vapor). Trace to low-level concentrations of PCE were detected in soils. The spatial distribution of PCE contamination suggests a potential source area in the vicinity of the rear portion of 21 Academy Street (former dry cleaning facility). Documented groundwater and soil vapor conditions indicate a likely vapor intrusion condition at both on- and off-site adjoining structures. Historical records indicate the potential presence of gasoline underground storage tanks (USTs) in or near adjoining sidewalks at 19 Academy Street and additional storage tanks may also be associated with the Site. Field evidence of contamination (gray discoloration, staining, odors, sheen and elevated PID readings) was observed at several borings near the presumed location of the gasoline tank at Academy Street. Three (3) soil samples were collected by Alpha Environmental Services at the rear of 19 Academy Street and one (1) was collected in the basement of the building in September 2016. Analytical results indicate the Site was impacted by metals and polycyclic aromatic hydrocarbon (PAH) contamination.

Site Health Assessment

As information for this site becomes available, it will be reviewed by the NYSDOH to determine if site contamination presents public health exposure concerns.

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Environmental Site Remediation Database Search Details

Site Record

Document Repository

Site-related documents are available for review through the DECInfo Locator on line at DECInfoLocator

Administrative Information

Site Name: Wallace Campus
Site Code: C314134
Program: Brownfield Cleanup Program
Classification: A
EPA ID Number:

Location

DEC Region: 3
Address: 319, 325, 327-329 & 331 Main Street
City: Poughkeepsie Zip: 12601
County: Dutchess
Latitude: 41.703661111
Longitude: -73.925775
Site Type:
Estimated Size: 2.48 Acres

Site Owner(s) and Operator(s)

Current Owner Name: Key Main LLC
Current Owner(s) Address: 80 Washington Street, Suite 400
Poughkeepsie,NY, 12601
Current Owner Name: IIC Properties Inc.
Current Owner(s) Address: 14 Catherine Street
Poughkeepsie,NY, 12601
Current Owner Name: Wallace Campus Manager LLC
Current Owner(s) Address: 48-02 25th Ave, Suite 400
Astoria,NY, 11103

Site Document Repository

Name: Adriance Memorial Library
Address: 93 Market Street
Poughkeepsie,NY 12601

Site Description

Location: The ¿Wallace Campus¿ BCP site consists of the entirety of the contiguous parcels known as 319 Main Street (Block 77, Lot 114098); 325 Main Street (Block 77, Lot 109079), 327-329 Main Street (Block 7, Lot 109077), and 331 Main Street (Block 78, Lot 127091), City of Poughkeepsie, New York. The site is a 2.48-acre commercial property, which is abutted by Mill Street to the north and Main Street to the south. Site Features: The southern portion of 319 Main Street currently contains a two-story building (former restaurant and club), 325 and 327-329 Main Street lots each contain a four-story building with rear two-story sections (former bookstore and residence, and active office building, respectively), and the southern/central portions of 331 Main Street contain a four-story building with a three-story section to the east, utilized for offices and light manufacturing. The remaining northern portions of 319 and 331 Main Street contain paved parking areas, walkways, and yards. Current Zoning and Land Use: The site tax lots are zoned C-2, central commercial district (residential use is excluded), and portions of the site fall within the Poughkeepsie Innovation District (PID) Historic Core and Urban Village Zones.The site consists of a several vacant and active commercial and light manufacturing uses, located on four tax lots. Past Use of the Site: Information regarding site environmental history was obtained from a July 2020 Phase I ESA, which included review of historical maps, ownership and occupant records, local records, regulatory records and previous subsurface investigations. A Phase II ESA was subsequently issued in October 2020. The site, first developed prior to 1887, has primarily been a commercial site with some limited residential use. The most significant commercial uses are generally associated with 331 Main Street, including automotive repair, machining operations, furniture finishing, laundry activities (potentially involving chlorinated solvents), and use of gasoline USTs. A limited Phase II Subsurface Investigation performed in 2013 for the northeastern portion of 331 Main Street did not document any storage tanks or contaminated soil, but elevated levels of lead were found in groundwater at 331 Main Street. The buildings at 319 Main Street and 325 Main Street are currently vacant; 327-329 Main Street building is currently in use as an office building and 331 Main Street is in use as an office building and for light manufacturing. Additional investigative work was conducted in 2020, including geophysical survey, advancement of 24 soil borings to a maximum depth of 15 feet below grade surface (bgs) across the site, the installation of 3 permanent groundwater monitoring wells, and the installation of 6 soil vapor probes. Soils located along the eastern and northern portions of 319 Main Street, within a layer of fill materials that extends to approximately 7 feet bgs, contain polycyclic aromatic hydrocarbons (PAHs) and lead above restricted residential use (RRU) soil cleanup objectives (SCOs), and lead and mercury were reported above RRU SCOs in soil at other portions of the site. Site Geology and Hydrogeology: State geological data indicate that local soils are likely to be derived from glacial till deposits, which overlie metamorphic bedrock. Soils observed during subsurface investigations generally consisted of variable-texture fill (unsorted sand containing debris, primarily brick and concrete, with some coal and ash) to approximately 1 to 7 feet bgs, underlain by sands with gravel to depths of 15 feet bgs, with two borings showing layers of clayey-silt below 12 feet bgs. Soils generally below 8 feet bgs appeared to be native, undisturbed material. Bedrock was not encountered. Groundwater was documented in wells at approximately 15 to 17 feet below the casings and direction of flow was determined to be easterly.

Site Environmental Assessment

Information submitted with the BCP application regarding the environmental condition at the site are currently under review and will be revised as additional information becomes available.

Site Health Assessment

Information submitted with the BCP application regarding the conditions at the site are currently under review and will be revised as additional information becomes available.

For more Information: E-mail Us

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Environmental Site Remediation Database Search Details

Site Record

Document Repository

Site-related documents are available for review through the DECInfo Locator on line at DECInfoLocator

Administrative Information

Site Name: HRH Lead Abatement Site
Site Code: 314122
Program: State Superfund Program
Classification: A
EPA ID Number:

Location

DEC Region: 3
Address: 55 Garden Street
City: Poughkeepsie Zip: 12601
County: Dutchess
Latitude: 41.705761
Longitude: -73.925741
Site Type:
Estimated Size: 0.17 Acres

Site Owner(s) and Operator(s)

Current Owner Name: HRH Neighborhood Development Fund Company
Current Owner(s) Address: 313 Miller Street
Poughkeepsie,NY, 12601

Site Description

Location: The site is located at 55 Garden Street in the City of Poughkeepsie, Dutchess County. Site Features: The 0.17 acre site includes a single family home with small front and rear yards. Current Zoning and Land Use: The site is currently zoned and in use as a single family residence. Past Use of the Site: The site was a single family residence that was abated for lead paint as part of a rehabilitation project. Site Geology and Hydrogeology:

Site Environmental Assessment

The primary contaminant associated with the site is lead, which resulted from the abatement of lead paint as part of the rehabilitation of the structure. All lead resulting from the abatement was containerized and properly disposed off-site.

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Site Record

Document Repository

Site-related documents are available for review through the DECInfo Locator on line at DECInfoLocator

Administrative Information

Site Name: Crannell Square
Site Code: C314130
Program: Brownfield Cleanup Program
Classification: A
EPA ID Number:

Location

DEC Region: 3
Address: 35 Catharine Street
City: Poughkeepsie Zip: 12601
County: Dutchess
Latitude: 41.703861111
Longitude: -73.924555556
Site Type:
Estimated Size: 1.109 Acres

Site Owner(s) and Operator(s)

Current On-Site Operator: City of Poughkeepsie Department of Public Works
Stated Operator(s) Address: 62 Civic Center Plaza
Poughkeepsie,NY 12601

Site Document Repository

Name: Poughkeepsie Public Library
Address: 93 Market Street
Poughkeepsie,NY 12601

Site Description

Location: The site is located at 35 Catharine Street in the City of Poughkeepsie, Dutchess County, New York, on a 1.22-acre parcel. The site is the entirety of tax lot parcel: Section 6162, Block 78, Lot 157094. The site is a rectangular, with approximately 235 feet of frontage on the southern side of Mill

Street (Route 44/55 arterial) and approximately 220 feet of frontage on the eastern side of Catharine Street. The site approximately 0.85 miles east of the Hudson River. Site Features: The site is currently being redeveloped into a multi-story apartment complex with a planned parking lot and landscaped areas. Current Zoning and Land Use: The site is zoned C-2 (Central Commercial District). C-2 zoning allows for multiple dwellings in new structures at urban density (R-6), provided that the first floor is devoted to retail or service use. Currently, the site is used as a municipal parking lot. The surrounding properties are zoned for commercial uses. Past Use of the Site: The site has been used for commercial and residential purposes from as early as 1887 until circa 1960 when all former on-site structures were demolished. Previous uses included: an automotive repair facility, large private garage, warehouse, school, a hotel and multiple dwellings. Notable past commercial uses at adjoining properties and in the surrounding area include manufacturing and automotive repair facilities. The site was developed by the city as a municipal parking lot by 1963. Site Geology and Hydrogeology: Site soils consist of a fill layer extending to 4 feet below ground surface (bgs), overlying brown medium sands to a depth of approximately 10 feet bgs. Soils greater than 10 feet bgs generally consist of native clayey silt. No bedrock was encountered during the investigation of the site, which included borings to a depth of 20 feet bgs. Groundwater depth ranges from 13.3 to 15.4 feet below grade. Groundwater generally flows to the northeast. No waterbodies or wet areas are on the site or in the immediate vicinity of the site.

Contaminants of Concern (Including Materials Disposed)

Contaminant Name/Type

dibenz[a,h]anthracene
lead
tetrachloroethene (PCE)
indeno(1,2,3-CD)pyrene
arsenic
benzo(k)fluoranthene
chloroform
trichloroethene (TCE)
carbon tetrachloride
benzo(a)anthracene
chrysene
mercury
benzo(b)fluoranthene
benzo(a)pyrene

Site Environmental Assessment

Soil and groundwater samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), metals, total petroleum hydrocarbons (TPH), pesticides, and the emerging contaminants per-and-polyfluoroalkyl substances

(PFAS) and 1,4-dioxane. Soil vapor samples were analyzed for VOCs. Based on investigations conducted to date, the primary contaminants of concern include metals and polycyclic aromatic hydrocarbons (PAHs) in soil and VOCs in groundwater and soil vapor. Soil: A total of 44 soil samples were collected at 16 locations at depths ranging from 0 to 20 feet below ground surface (bgs). Several SVOCs and metals were identified in soils at concentrations that exceed their restricted residential soil cleanup objectives (RRSCOs) and unrestricted soil cleanup objectives (USCOs) including benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-c,d)pyrene, lead, mercury, and arsenic. The highest concentration of an SVOC encountered was chrysene at a concentration of 7.77 parts per million (ppm) at a depth of 5 feet bgs compared to the RRSCO of 3.9 ppm. The highest concentrations of metals encountered were 3,110 ppm of lead at 3 feet bgs, compared to the RRSCO of 400, 3.94 ppm of mercury at 4 feet bgs compared to the RRSCO of 0.81 ppm, and 32.2 ppm of arsenic at 15 feet bgs compared to the RRSCO of 16. Metal exceedances were generally encountered within the top 5 feet bgs, with some deeper exceedances of arsenic extending up to 20 feet bgs. PFAS were detected in soil samples throughout the site to depths of 20 feet bgs. The greatest concentration of total PFAS encountered in soil was 1.54 parts per billion (ppb) at the 0-5 feet bgs interval. There were no VOCs, PCBs or pesticides detected in site soils. There is no indication that site-related soil contamination extends off-site. Groundwater: Groundwater samples were collected from six monitoring wells located throughout the site. The VOC chloroform was detected in one monitoring well in exceedance of groundwater standards at a concentration of 13 parts per billion (ppb), compared to the groundwater quality standard of 7 ppb; this is a common by-product of chlorination and may be indicative of leaking water lines in the area. The only other VOCs detected in groundwater were at trace levels as follows: carbon tetrachloride in one well at an estimated concentration 0.32 ppb, and trichloroethene (TCE) in one well as an estimated concentration of 0.29 ppb, compared to their groundwater standard of 5 ppb for each. The laboratory reported these concentrations as estimated values because they are detected below the laboratory¿s contract required quantitation limit and therefore can only be confirmed as present, but not quantified. One SVOC, benzo(b) fluoranthene was detected at 0.01 ppb compared to a standard of 0.002 ppb. For metals, magnesium, manganese, and/or sodium were detected in several overburden wells across the site above their respective groundwater standards, while there was one marginal detection each for cobalt (total 6.7 ppb compared to a standard of 5 ppb), and thallium (total 0.73 ppb compared to a standard of 0.5 ppb). The SVOC and metals are considered to represent typical urban background conditions (associated with presence of historic fill), are naturally occurring, or are due to road salt application. No exceedances were found above the 10 parts per trillion (ppt) screening level for either perfluorooctanoic acid (PFOA) or perfluorooctanesulfonic acid (PFOS). The highest detection of PFOS and PFOA were 9.14 ppt and 6.04 ppt, respectively in one well at the southeast corner of the site. Based on the soil data and the northeasterly groundwater flow direction, and there is no apparent on-site source for PFOA/PFOS in site groundwater. Overall, groundwater quality appears to reflect typical urban background conditions and is likely of similar condition in off-site areas. As such, there is no concern for off-site migration. Soil Vapor: Nine soil vapor samples were collected across the site under the parking lot area. Trace to

low level VOC contamination was noted in site soil vapor, with levels up to 5.3 micrograms per cubic meter (ug/m3) of tetrachloroethylene (PCE), 0.67 ug/m3 of trichloroethene (TCE), and 0.51 ug/m3 of carbon tetrachloride.

Site Health Assessment

People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by site-related contamination. The site is used as parking and covered with asphalt, however, people who enter the site may come into contact with soil and groundwater contamination if they dig below the ground surface. The site is currently vacant of occupied structures, so inhalation of site contaminants in indoor air via soil vapor intrusion is not a current concern. Environmental sampling also indicates that soil vapor intrusion is not a concern for off-site buildings.

For more Information: E-mail Us

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Drainage Report
for
278-282 Main Street

Prepared for:
Kirchner Realty, Inc.
2406 New Hackensack Road
Poughkeepsie, NY 12603

June 29, 2021
Revised November 2, 2021

Prepared by:
Hudson Land Design Professional Engineering, P.C.
174 Main Street
Beacon, NY 12508
Ph: (845) 440-6926
F: (845) 440-6637

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APPENDIX C: HYDROLOGIC MODELING

1.0 INTRODUCTION

The project is located at 278-282 Main Street in the City of Poughkeepsie, Dutchess County, New York. The project consists of three parcels, Tax ID: 6162-77-059084, 062084, 065083, 060075, & 068081 (+/-0.56 acres) and contains an existing sidewalk and vacant land. The project proposes renovations and an addition to existing 4 story building at 278-282 Main Street in downtown Poughkeepsie. A new 5th floor is being added, as well as 2 new stair towers and a new elevator. There are 24 apartments in addition to retail on the 1st floor. The existing Main Street façade is being renovated, and the east façade, facing the plaza, is getting completely upgraded with new windows and storefronts. The plaza is being developed as a multi-functional landscaped space for public use, and potential restaurant seating.

2.0 METHODOLOGY AND REGULATORY COMPLIANCE

The proposed project will result in 405 sqft of additional impervious area and approximately 13,100 sqft of disturbance, and therefore is not subject to the requirements of NYSDEC GP-0-20-001 General Permit for Construction Activities. Pre-development vs. post-development drainage analysis for the project was performed to evaluate stormwater runoff patterns and demonstrate that the post-development runoff rates to the existing stormwater discharge points do not exceed the pre-development runoff rates.

Runoff calculations were performed utilizing HydroCAD® version 10.00 published by HydroCAD Software Solutions, LLC. The software utilizes the principles of TR-55 and TR-20 to generate unit hydrographs. Rainfall events are generated utilizing Soil Conservation Service (SCS) Type III, 24-hour rainfall event for Dutchess County, NY. The Type III rainfall depths for the 1-Year, 2-Year, 10-Year, 25-Year and 100-Year rainfall events are 2.61, 3.16, 4.68, 5.85 and 8.22 inches, respectively. Rainfall Data can be found within Appendix B of this report.

3.0 SOIL CONDITIONS

A review of the Soil Survey of Dutchess County indicates that there are three types of soil present on the project site and its associated contributing drainage area. Table I below summarizes the characteristics of the soil types present within the drainage area.

Table I: Soil Types

Map Unit	Soil Names	Hydrologic Soil Group
Ur	Urban Land	N/A

Source: websoilsurvey.sc.egov.usda.gov

4.0 EXISTING DRAINAGE CONDITIONS

4.1 Design Points

Design Points represent the location where the majority of runoff from an area exits the site. The same design point is identified in post-development conditions, so that a comparison can be made between the pre-development and post-development conditions. One design point for the main project area was selected, and are as follows:

Table II - Stormwater Design/Discharge Point

SDP	Description
1	Existing stormwater collection system to the north and south of the project area

4.2 Existing Watershed Area

The pre-developed watershed is 13,080 sqft in total and includes vacant land and a sidewalk connecting Main Street to the Liberty Street parking area. In the drainage analysis model, the existing pre-development area is delineated as subcatchment 1. Drainage generally flows via sheet flow to the perimeter of the subcatchment, to the City of Poughkeepsie stormwater collection system. The City's stormwater collection system is located to the north and south of the project area.

The Time of Concentration (Tc) is less than 6 minutes, so a minimum of 6 minutes was used, and therefore the Tc is not graphically shown or listed on the drainage map. The watershed area contributing to the SDP is graphically shown and listed on the drainage map, and is also provided within the HydroCAD computations within Appendix C. A drainage map is included within Appendix A.

5.0 PROPOSED DRAINAGE CONDITIONS

5.1 Developed Watershed Area

The proposed project results in a total of approximately 13,100 sqft of disturbance due to the construction of building addition and multi-functional landscaped public plaza. The post-developed watershed area is 13,140 sqft in total and includes the building addition and landscaped space. The post development watershed was divided into two stormwater subcatchments; Subcatchment 10 and Subcatchment 11.

Subcatchment 10 consists of the landscaped public plaza. Soils in this subcatchment were assumed to be hydrologic soil group D. Drainage generally flows via sheet flow to the proposed stormwater collection system and conveyed to design point, SDP1, at the existing manhole in Main Street.

Subcatchment 11 consists of the proposed addition roof. The rooftop runoff is captured and conveyed to the proposed stormwater planter. The stormwater planter outlet is connected to the public plaza stormwater collection system.

The Time of Concentration (Tc) is less than 6 minutes for all analyzed subcatchments, so a minimum of 6 minutes was used, and therefore the Tc is not graphically shown or listed on the drainage map. The watershed area contributing to each SDP is graphically shown and listed on the drainage map. The hydrologic model can be found in Appendix C. A post-development drainage map is included within Appendix A.

6.0 DRAINAGE ANALYSIS CONCLUSIONS

The stormwater runoff rates at SDP1 under pre-development and post-development conditions are summarized below.

Table III - Stormwater Design/Discharge Point Comparison

SDP	1-Year (cfs)		2-Year (cfs)		10-Year (cfs)		25-Year (cfs)		100-Year (cfs)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1	0.65	0.61	0.83	0.77	1.30	1.19	1.66	1.51	2.38	2.37

The runoff rates at the SDP1 decrease from pre-development to post-development conditions with the stormwater planter in place. The runoff from the proposed addition roof will be directed to the proposed stormwater planter.

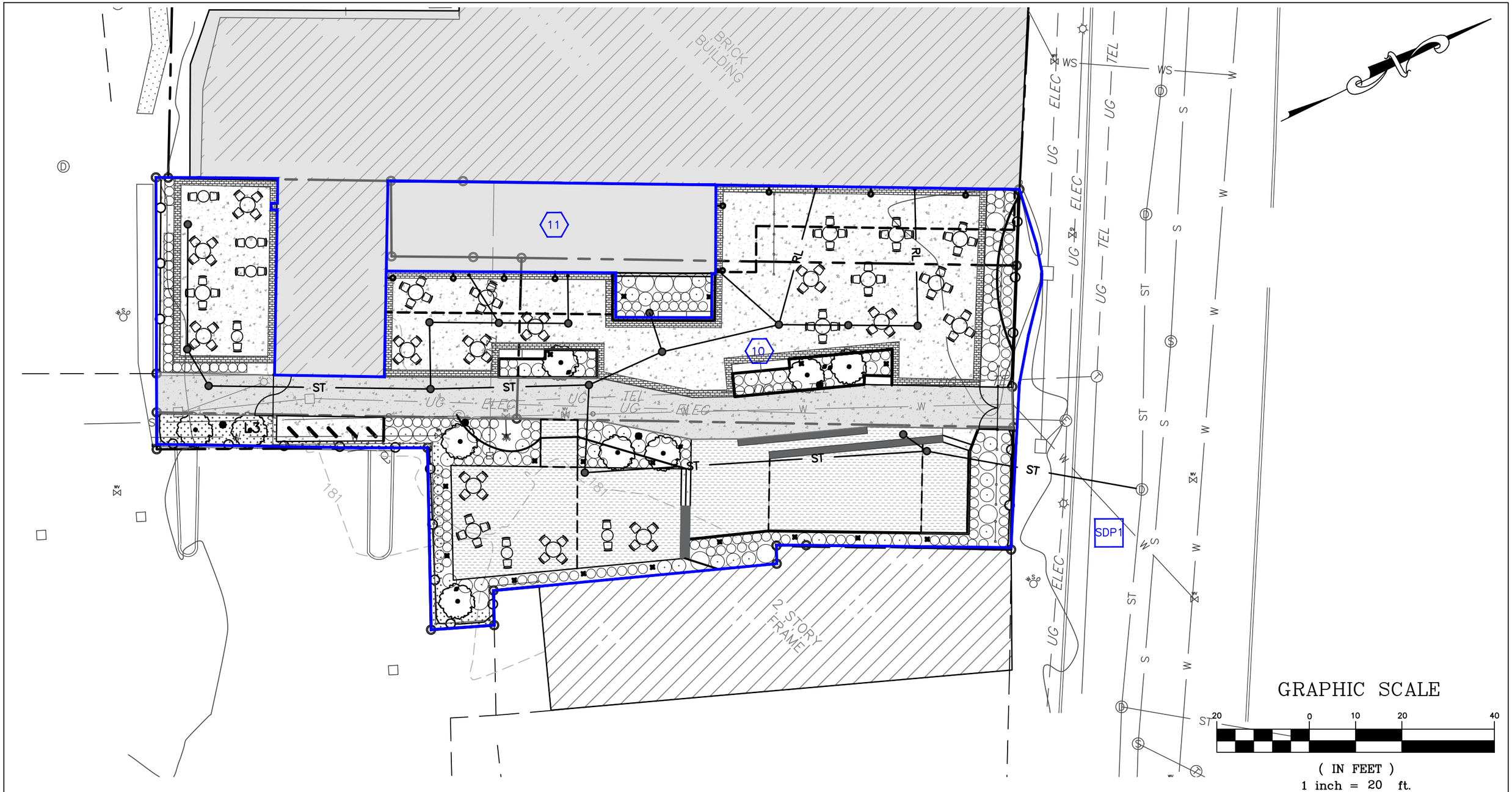
Supporting hydrologic analyses for pre-development and post-development conditions are included in Appendix C.

7.0 EROSION AND SEDIMENT CONTROL

Contractors shall adhere to the temporary and permanent erosion control measures as indicated on the plans. Repairs shall be made as necessary to remain in compliance with the New York State Standards and Specifications for Erosion and Sediment Control, 2016.

APPENDIX A

DRAINAGE MAPS



DRAWN BY: ESR		CHECKED BY: DGK	
REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	11/2/21	PER CITY COMMENTS	ESR

SEAL

HUDSON LAND DESIGN
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

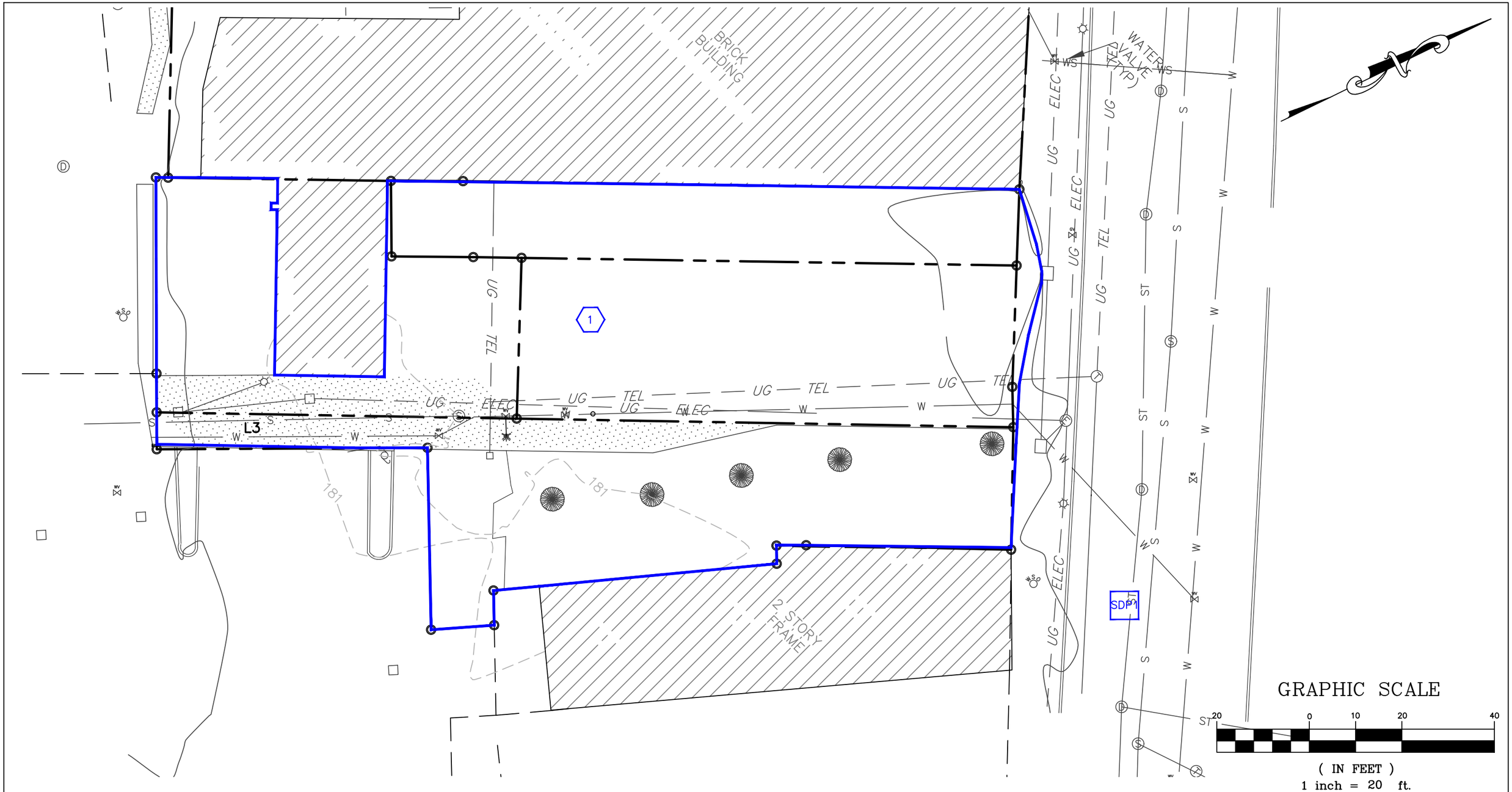
POST-DEVELOPMENT DRAINAGE MAP

278-282 MAIN STREET

278-282 MAIN STREET
CITY OF PEEKSKILL
DUTCHESS COUNTY, NEW YORK
TAX ID: 6162-77-060075, -065083, -062084

JOB #:	2021:007
DATE:	6/25/2021
SCALE:	1" = 20'
TITLE:	DR-2
SHEET:	2 OF 2

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



DRAWN BY: ESR	CHECKED BY: DGK

REVISIONS:

NO.	DATE	DESCRIPTION	BY
1	11/2/21	PER CITY COMMENTS	ESR

SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926
F: 845-440-6637

PRE-DEVELOPMENT DRAINAGE MAP

278-282 MAIN STREET

278-282 MAIN STREET
CITY OF PEEKSKILL
DUTCHESS COUNTY, NEW YORK
TAX ID: 6162-77-060075, -065083, -062084

JOB #:	2021:007
DATE:	6/29/2021
SCALE:	1" = 20'
TITLE:	DR-1
SHEET:	1 OF 2

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

APPENDIX B

SUPPORTING DATA

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New York
Location	
Longitude	73.928 degrees West
Latitude	41.703 degrees North
Elevation	0 feet
Date/Time	Tue, 22 Jun 2021 13:25:23 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.32	0.48	0.60	0.79	0.98	1.22	**1yr**	0.85	1.15	1.40	1.73	2.13	2.61	2.96	**1yr**	2.31	2.85	3.32	3.97	4.58	**1yr**
2yr	0.38	0.58	0.72	0.95	1.20	1.50	**2yr**	1.03	1.38	1.72	2.11	2.59	3.16	3.57	**2yr**	2.80	3.43	3.92	4.62	5.25	**2yr**
5yr	0.45	0.70	0.88	1.17	1.50	1.89	**5yr**	1.30	1.71	2.17	2.67	3.26	3.95	4.50	**5yr**	3.50	4.33	4.95	5.72	6.47	**5yr**
10yr	0.51	0.80	1.01	1.37	1.78	2.26	**10yr**	1.54	2.01	2.60	3.20	3.88	4.68	5.37	**10yr**	4.14	5.17	5.91	6.72	7.59	**10yr**
25yr	0.60	0.95	1.21	1.68	2.23	2.85	**25yr**	1.93	2.49	3.30	4.05	4.90	5.85	6.79	**25yr**	5.18	6.53	7.48	8.33	9.36	**25yr**
50yr	0.68	1.10	1.41	1.97	2.65	3.41	**50yr**	2.29	2.93	3.95	4.84	5.83	6.93	8.12	**50yr**	6.13	7.81	8.95	9.80	10.98	**50yr**
100yr	0.78	1.27	1.64	2.32	3.16	4.08	**100yr**	2.73	3.45	4.73	5.79	6.95	8.22	9.71	**100yr**	7.27	9.33	10.71	11.53	12.89	**100yr**
200yr	0.90	1.47	1.90	2.73	3.77	4.89	**200yr**	3.25	4.07	5.67	6.93	8.28	9.75	11.61	**200yr**	8.63	11.17	12.82	13.58	15.14	**200yr**
500yr	1.10	1.80	2.35	3.40	4.76	6.21	**500yr**	4.11	5.06	7.20	8.78	10.45	12.22	14.72	**500yr**	10.82	14.16	16.28	16.87	18.73	**500yr**

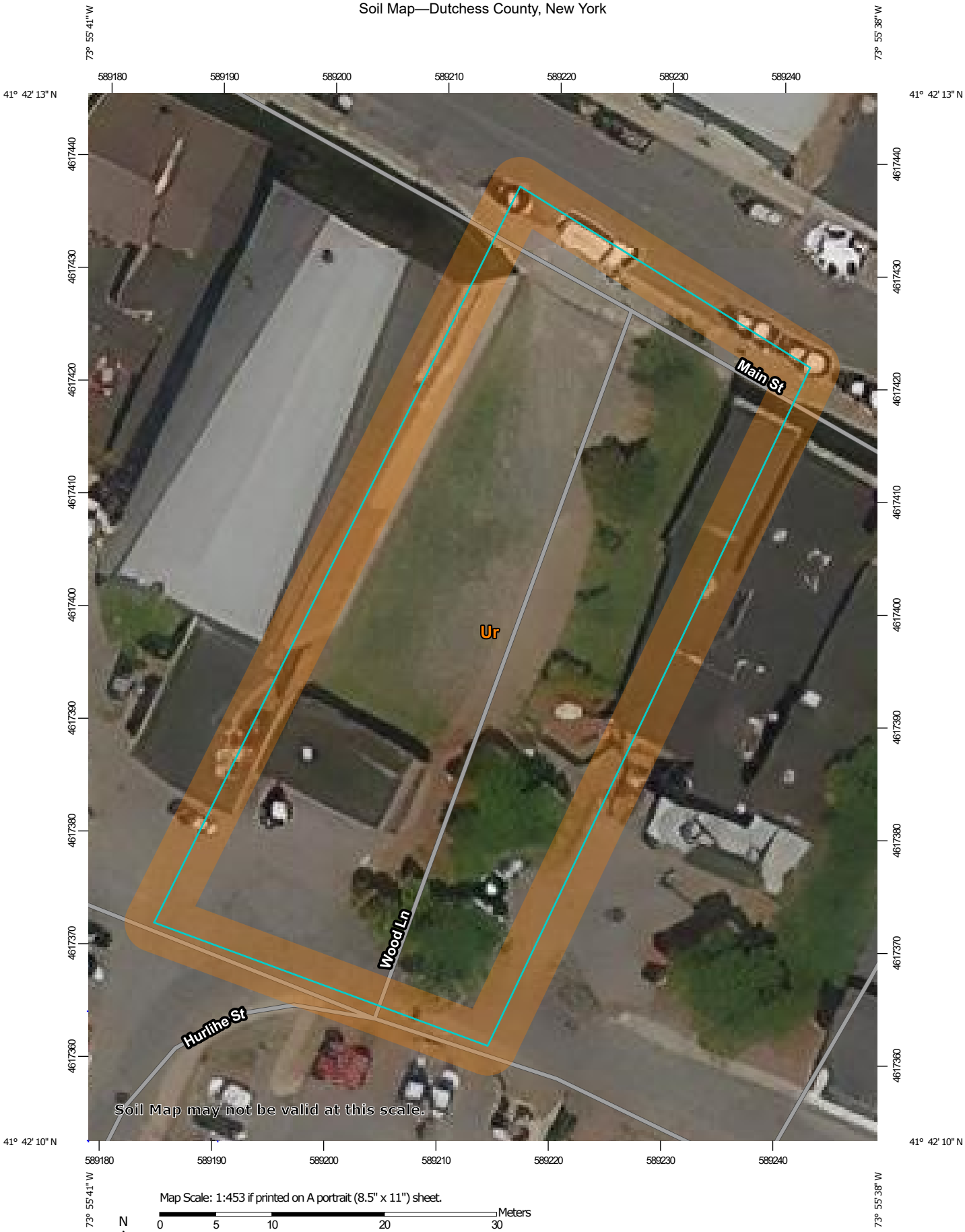
Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.42	0.52	0.70	0.86	1.03	**1yr**	0.74	1.01	1.21	1.53	1.91	2.33	2.57	**1yr**	2.06	2.47	3.07	3.60	4.09	**1yr**
2yr	0.37	0.56	0.69	0.94	1.16	1.36	**2yr**	1.00	1.33	1.54	1.97	2.50	3.05	3.46	**2yr**	2.70	3.33	3.81	4.56	5.18	**2yr**
5yr	0.41	0.64	0.79	1.09	1.38	1.59	**5yr**	1.19	1.56	1.80	2.32	2.88	3.67	4.15	**5yr**	3.24	3.99	4.68	5.42	6.14	**5yr**
10yr	0.46	0.71	0.88	1.23	1.59	1.78	**10yr**	1.37	1.74	2.02	2.59	3.20	4.18	4.75	**10yr**	3.70	4.57	5.40	6.14	6.96	**10yr**
25yr	0.54	0.82	1.02	1.45	1.91	2.05	**25yr**	1.65	2.00	2.33	2.87	3.67	4.99	5.67	**25yr**	4.41	5.45	6.48	7.27	8.23	**25yr**
50yr	0.60	0.92	1.15	1.65	2.22	2.27	**50yr**	1.91	2.22	2.63	3.18	4.09	5.70	6.49	**50yr**	5.05	6.24	7.41	8.26	9.34	**50yr**
100yr	0.69	1.04	1.30	1.88	2.58	2.54	**100yr**	2.22	2.48	2.96	3.52	4.56	6.54	7.42	**100yr**	5.79	7.14	8.48	9.37	10.61	**100yr**
200yr	0.78	1.18	1.50	2.16	3.02	2.82	**200yr**	2.61	2.76	3.33	3.91	5.07	7.48	8.52	**200yr**	6.62	8.19	9.69	10.66	12.04	**200yr**
500yr	0.95	1.41	1.81	2.63	3.74	3.27	**500yr**	3.23	3.20	3.91	4.49	5.85	8.98	10.22	**500yr**	7.95	9.83	11.57	12.63	14.27	**500yr**

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.35	0.54	0.65	0.88	1.08	1.31	**1yr**	0.93	1.28	1.46	1.87	2.35	2.87	3.21	**1yr**	2.54	3.09	3.62	4.23	4.87	**1yr**
2yr	0.39	0.61	0.75	1.02	1.25	1.50	**2yr**	1.08	1.46	1.69	2.18	2.73	3.27	3.72	**2yr**	2.90	3.58	4.10	4.71	5.34	**2yr**
5yr	0.49	0.75	0.93	1.28	1.63	1.91	**5yr**	1.40	1.87	2.21	2.82	3.56	4.27	4.89	**5yr**	3.78	4.70	5.24	6.07	6.83	**5yr**
10yr	0.58	0.89	1.10	1.54	1.99	2.33	**10yr**	1.72	2.28	2.70	3.46	4.37	5.23	6.05	**10yr**	4.63	5.81	6.44	7.37	8.25	**10yr**
25yr	0.73	1.10	1.37	1.96	2.58	3.03	**25yr**	2.23	2.96	3.56	4.72	5.74	6.87	8.01	**25yr**	6.08	7.70	8.50	9.57	10.59	**25yr**
50yr	0.86	1.31	1.63	2.34	3.16	3.70	**50yr**	2.72	3.61	4.39	5.86	7.04	8.43	9.93	**50yr**	7.46	9.55	10.51	11.66	12.83	**50yr**
100yr	1.03	1.55	1.94	2.81	3.85	4.53	**100yr**	3.32	4.43	5.41	7.29	8.65	10.36	12.31	**100yr**	9.17	11.83	13.01	14.23	15.53	**100yr**
200yr	1.22	1.83	2.32	3.36	4.69	5.52	**200yr**	4.04	5.40	6.68	9.05	10.63	12.73	15.27	**200yr**	11.26	14.68	16.14	17.39	18.81	**200yr**
500yr	1.54	2.29	2.95	4.28	6.09	7.21	**500yr**	5.26	7.05	8.81	12.09	13.98	16.69	20.29	**500yr**	14.77	19.51	21.52	22.69	24.29	**500yr**

Powered by ACIS Northeast Regional Climate Center



Map Scale: 1:453 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 5 10 20 30

Feet
0 20 40 80 120

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Dutchess County, New York
Survey Area Data: Version 17, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

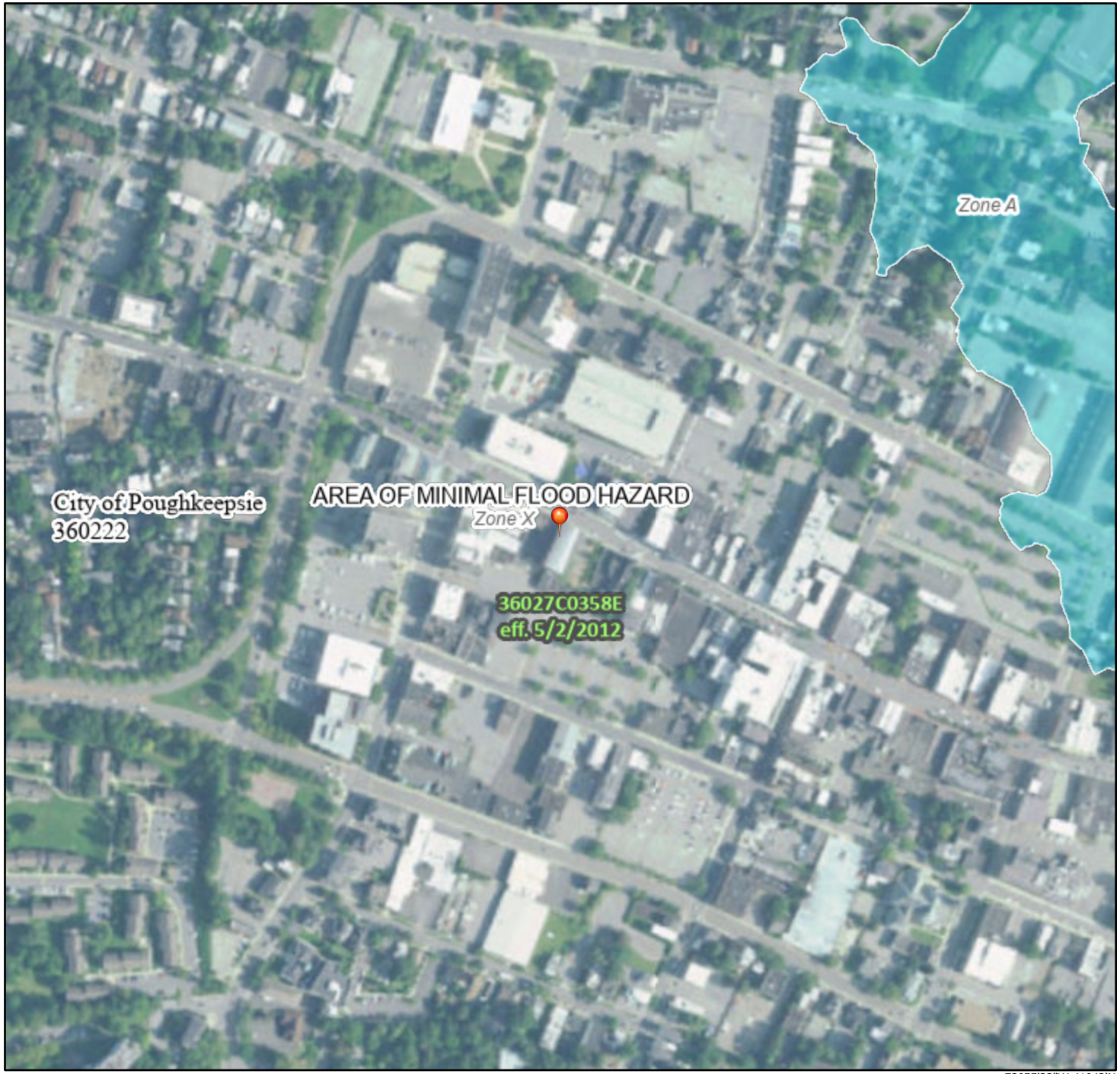
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ur	Urban land	0.5	100.0%
Totals for Area of Interest		**0.5**	**100.0%**

National Flood Hazard Layer FIRMette

FEMA

73°55'59"W 41°42'26"N



73°55'22"W 41°42'N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

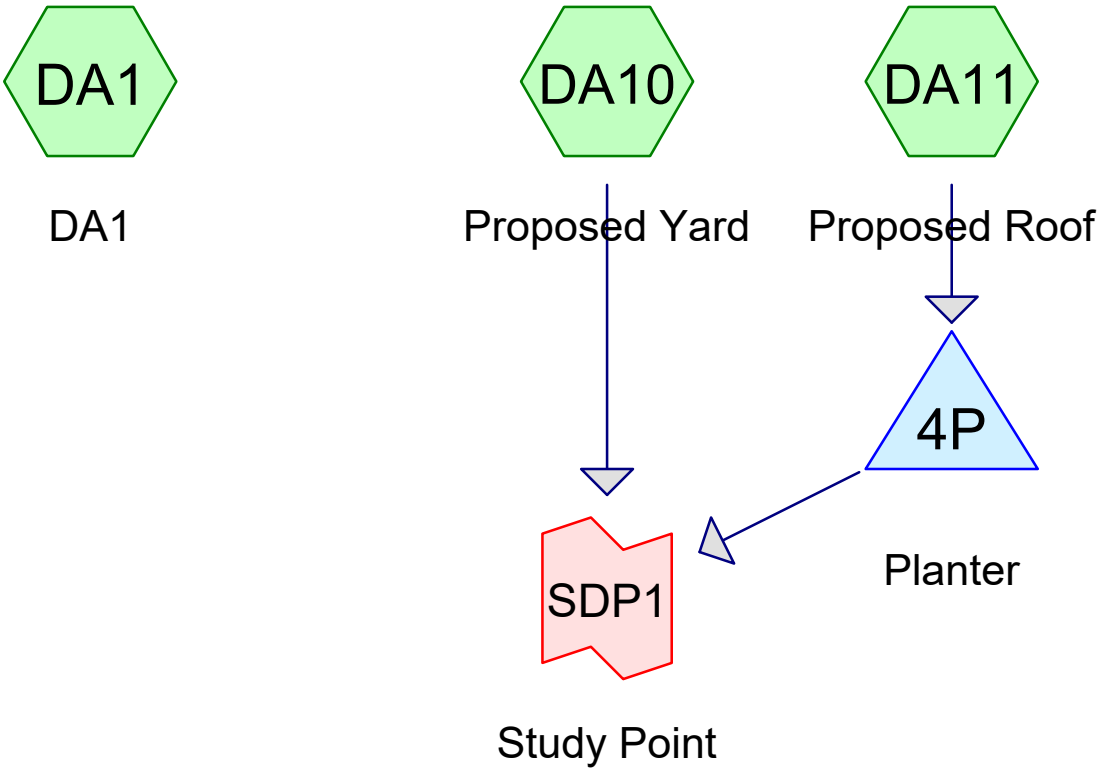
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/24/2021 at 4:13 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX C

HYDROLOGIC MODELING



Subcat Reach Pond Link

Routing Diagram for DeCordova Main Street
Prepared by Hudson Land Design Professional Engineering, P.C., Printed 6/24/2021
HydroCAD® 10.00-24 s/n 04797 © 2018 HydroCAD Software Solutions LLC

Summary for Subcatchment DA1: DA1

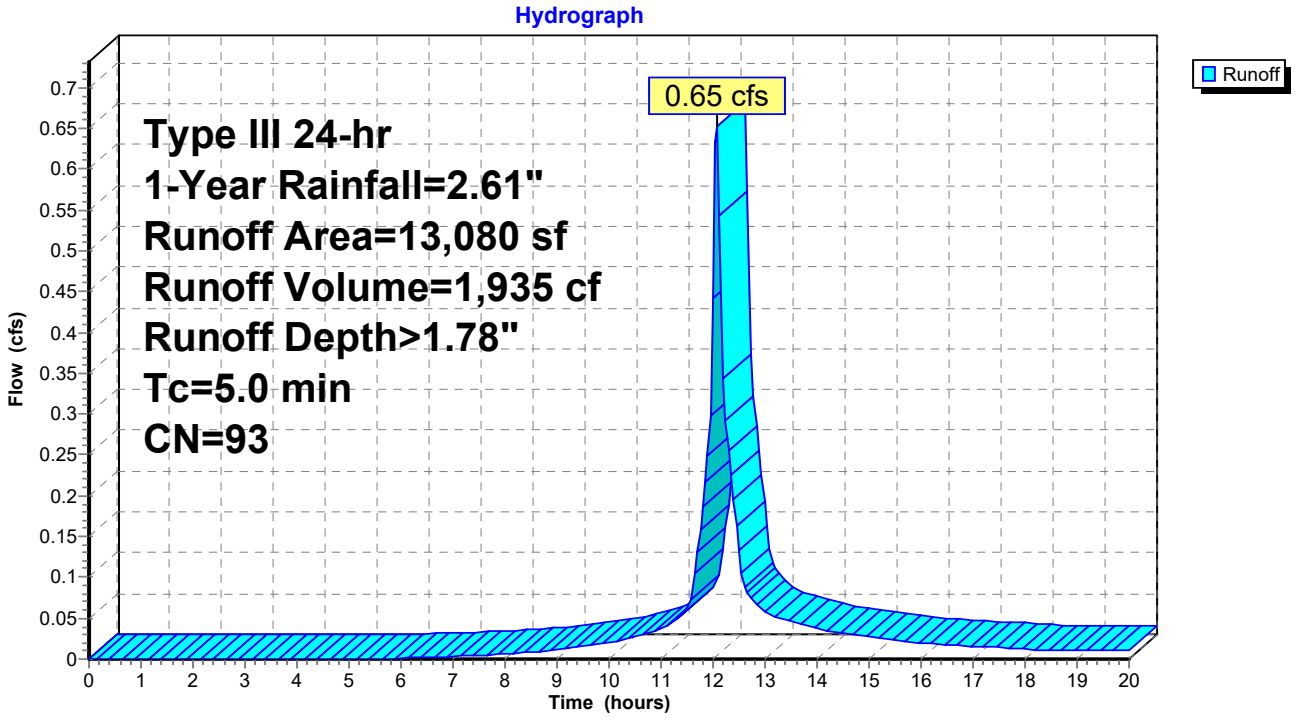
Runoff = 0.65 cfs @ 12.07 hrs, Volume= 1,935 cf, Depth> 1.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.61"

Area (sf)	CN	Description
4,298	98	Paved parking, HSG D
5,729	96	Gravel surface, HSG D
3,053	80	>75% Grass cover, Good, HSG D
13,080	93	Weighted Average
8,782		67.14% Pervious Area
4,298		32.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA1: DA1



Summary for Subcatchment DA10: Proposed Yard

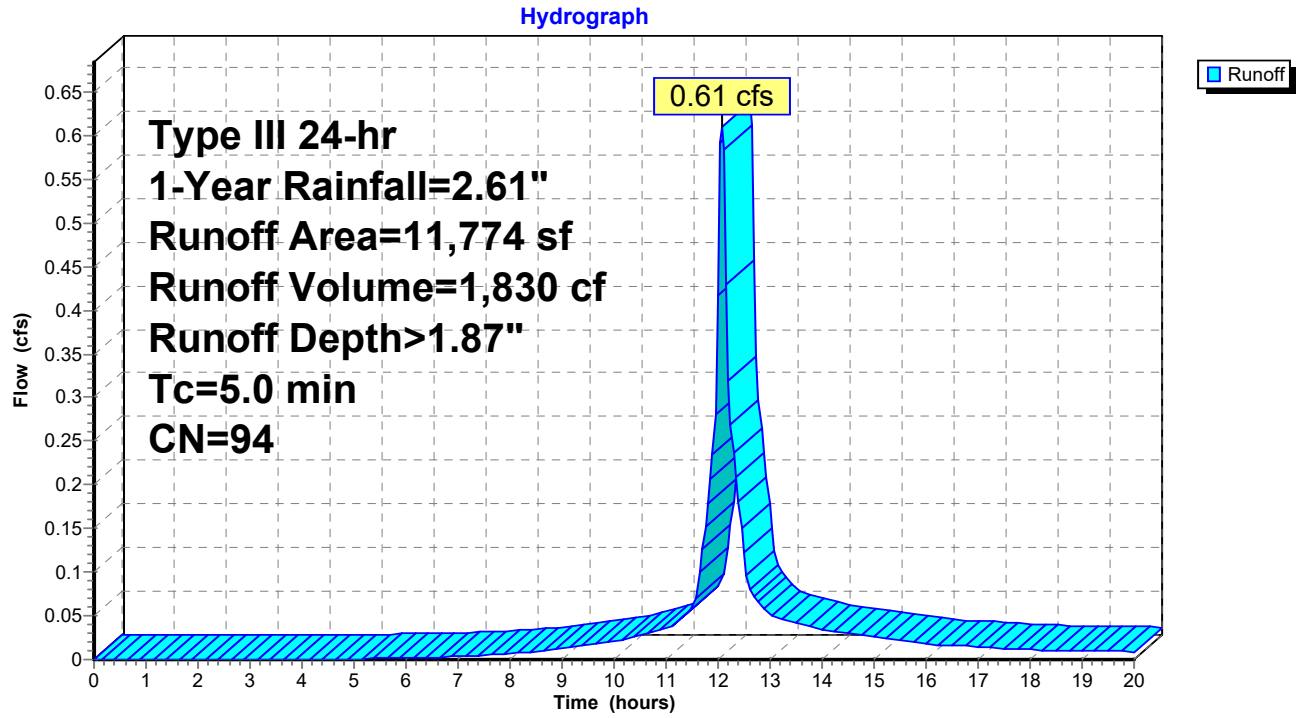
Runoff = 0.61 cfs @ 12.07 hrs, Volume= 1,830 cf, Depth> 1.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.61"

Area (sf)	CN	Description
9,066	98	Paved parking, HSG D
2,708	80	>75% Grass cover, Good, HSG D
11,774	94	Weighted Average
2,708		23.00% Pervious Area
9,066		77.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA10: Proposed Yard



Summary for Subcatchment DA11: Proposed Roof

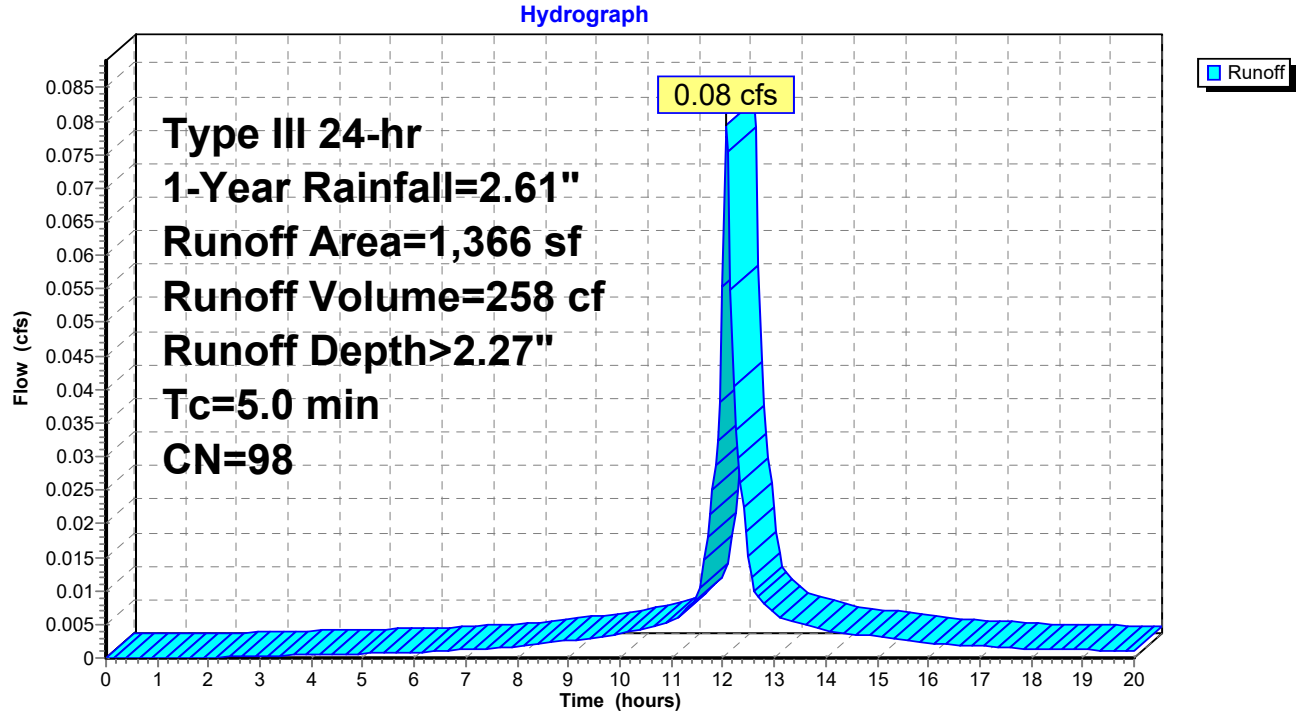
Runoff = 0.08 cfs @ 12.07 hrs, Volume= 258 cf, Depth> 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-Year Rainfall=2.61"

Area (sf)	CN	Description
1,366	98	Paved parking, HSG D
1,366		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA11: Proposed Roof



Summary for Pond 4P: Planter

Inflow Area = 1,366 sf,100.00% Impervious, Inflow Depth > 2.27" for 1-Year event
Inflow = 0.08 cfs @ 12.07 hrs, Volume= 258 cf
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 181.86' @ 20.00 hrs Surf.Area= 400 sf Storage= 258 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	179.07'	200 cf	**Media (Prismatic)** Listed below (Recalc) 500 cf Overall x 40.0% Voids
#2	181.57'	300 cf	**Ponding (Prismatic)** Listed below (Recalc)
		500 cf	Total Available Storage

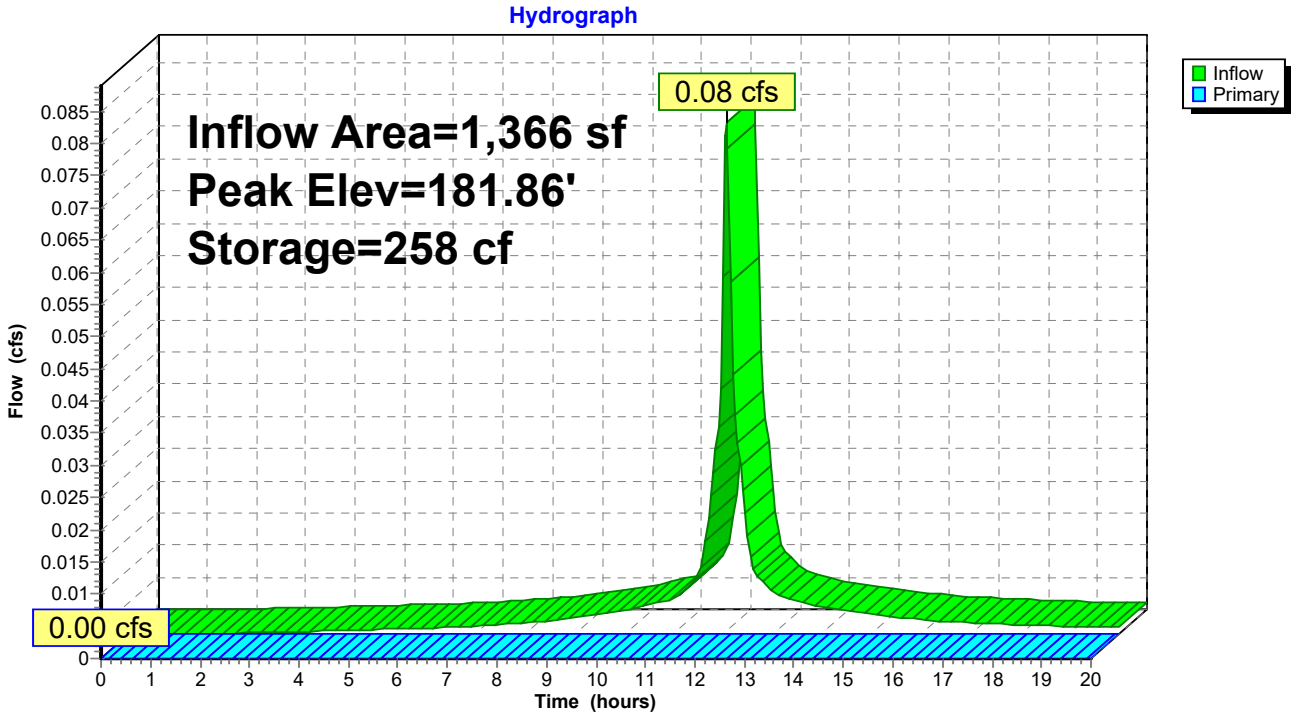
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.07	200	0	0
181.57	200	500	500

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
181.57	200	0	0
183.07	200	300	300

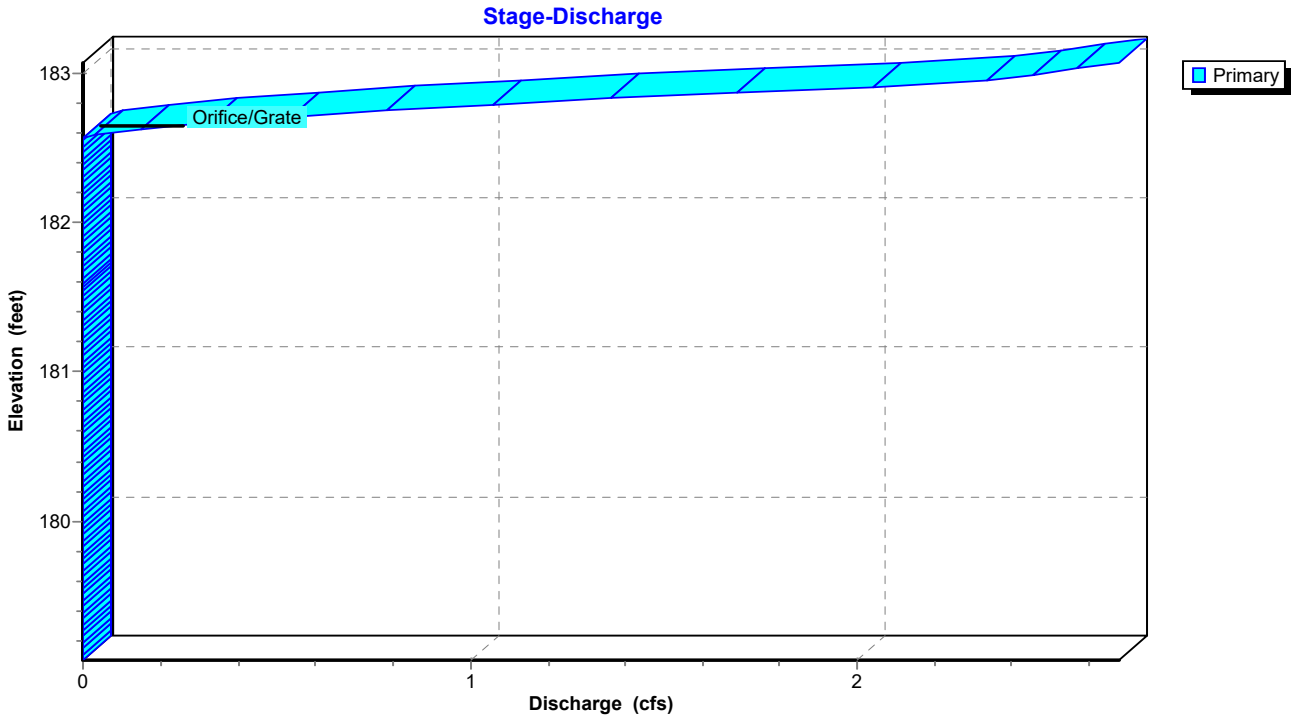
Device	Routing	Invert	Outlet Devices
#1	Primary	182.57'	**12.0" Horiz. Orifice/Grate** C= 0.600 in 12.0" Grate (100% open area) Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=179.07' (Free Discharge)
1=Orifice/Grate (Controls 0.00 cfs)

Pond 4P: Planter



Pond 4P: Planter

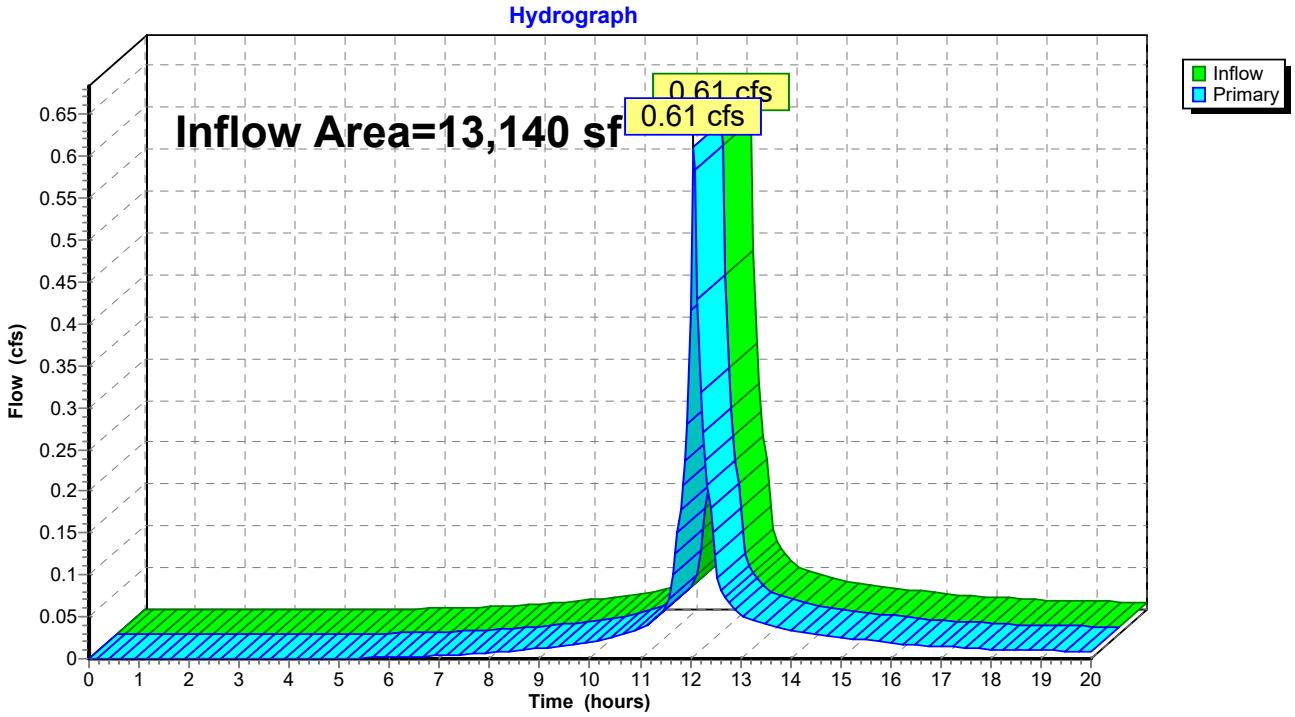


Summary for Link SDP1: Study Point

Inflow Area = 13,140 sf, 79.39% Impervious, Inflow Depth > 1.67" for 1-Year event
Inflow = 0.61 cfs @ 12.07 hrs, Volume= 1,830 cf
Primary = 0.61 cfs @ 12.07 hrs, Volume= 1,830 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs

Link SDP1: Study Point



Summary for Subcatchment DA1: DA1

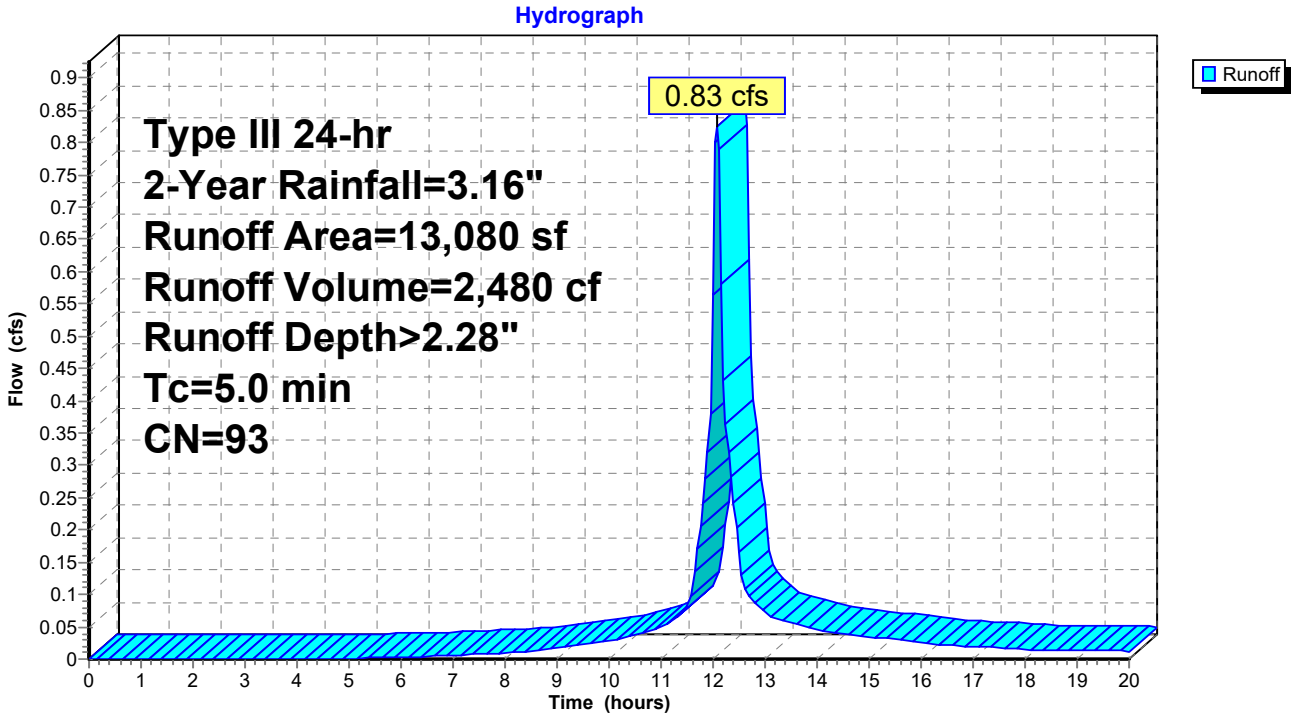
Runoff = 0.83 cfs @ 12.07 hrs, Volume= 2,480 cf, Depth> 2.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.16"

Area (sf)	CN	Description
4,298	98	Paved parking, HSG D
5,729	96	Gravel surface, HSG D
3,053	80	>75% Grass cover, Good, HSG D
13,080	93	Weighted Average
8,782		67.14% Pervious Area
4,298		32.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA1: DA1



Summary for Subcatchment DA10: Proposed Yard

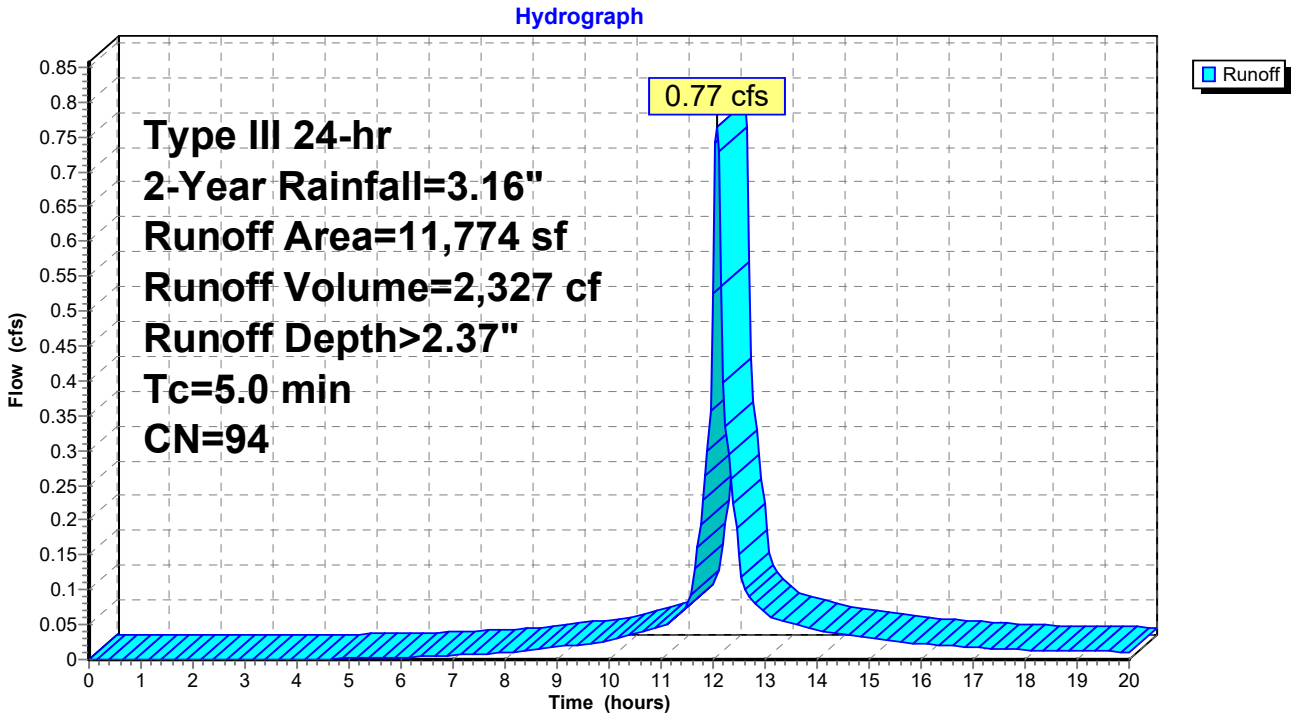
Runoff = 0.77 cfs @ 12.07 hrs, Volume= 2,327 cf, Depth> 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.16"

Area (sf)	CN	Description
9,066	98	Paved parking, HSG D
2,708	80	>75% Grass cover, Good, HSG D
11,774	94	Weighted Average
2,708		23.00% Pervious Area
9,066		77.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA10: Proposed Yard



Summary for Subcatchment DA11: Proposed Roof

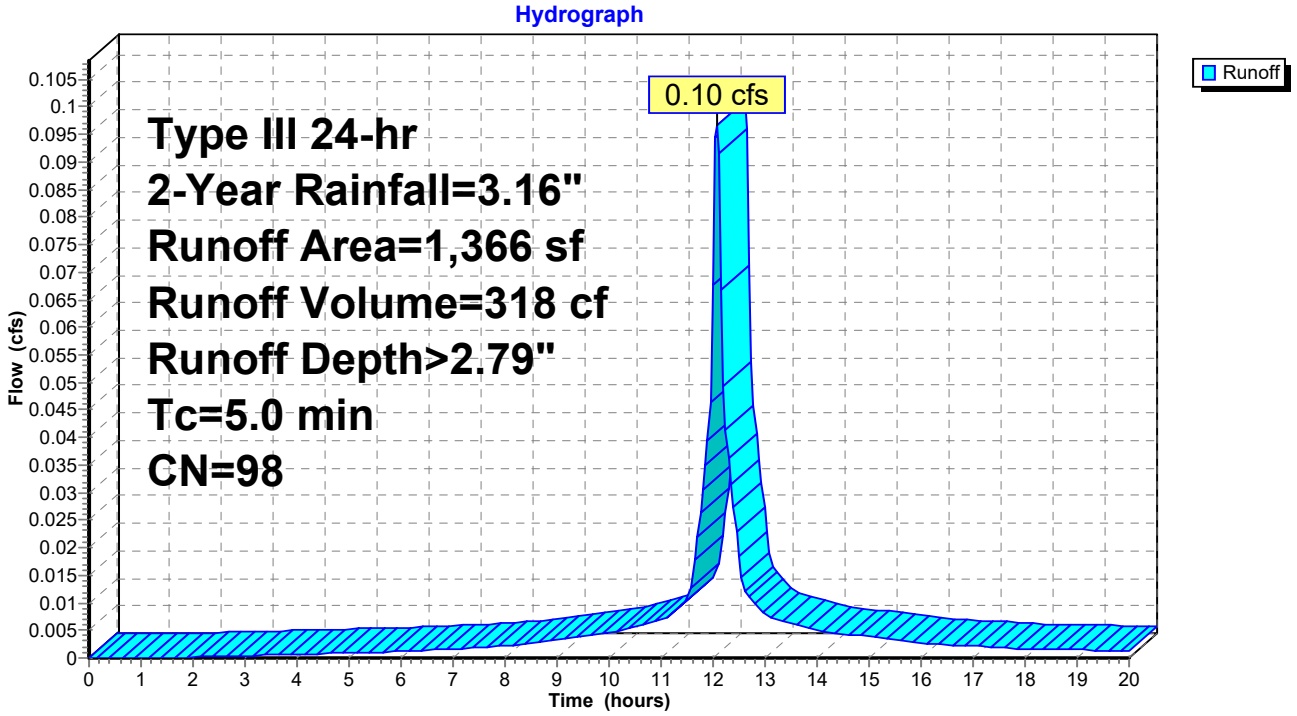
Runoff = 0.10 cfs @ 12.07 hrs, Volume= 318 cf, Depth> 2.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-Year Rainfall=3.16"

Area (sf)	CN	Description
1,366	98	Paved parking, HSG D
1,366		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA11: Proposed Roof



Summary for Pond 4P: Planter

Inflow Area = 1,366 sf,100.00% Impervious, Inflow Depth > 2.79" for 2-Year event
Inflow = 0.10 cfs @ 12.07 hrs, Volume= 318 cf
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 182.16' @ 20.00 hrs Surf.Area= 400 sf Storage= 317 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	179.07'	200 cf	**Media (Prismatic)** Listed below (Recalc) 500 cf Overall x 40.0% Voids
#2	181.57'	300 cf	**Ponding (Prismatic)** Listed below (Recalc)
		500 cf	Total Available Storage

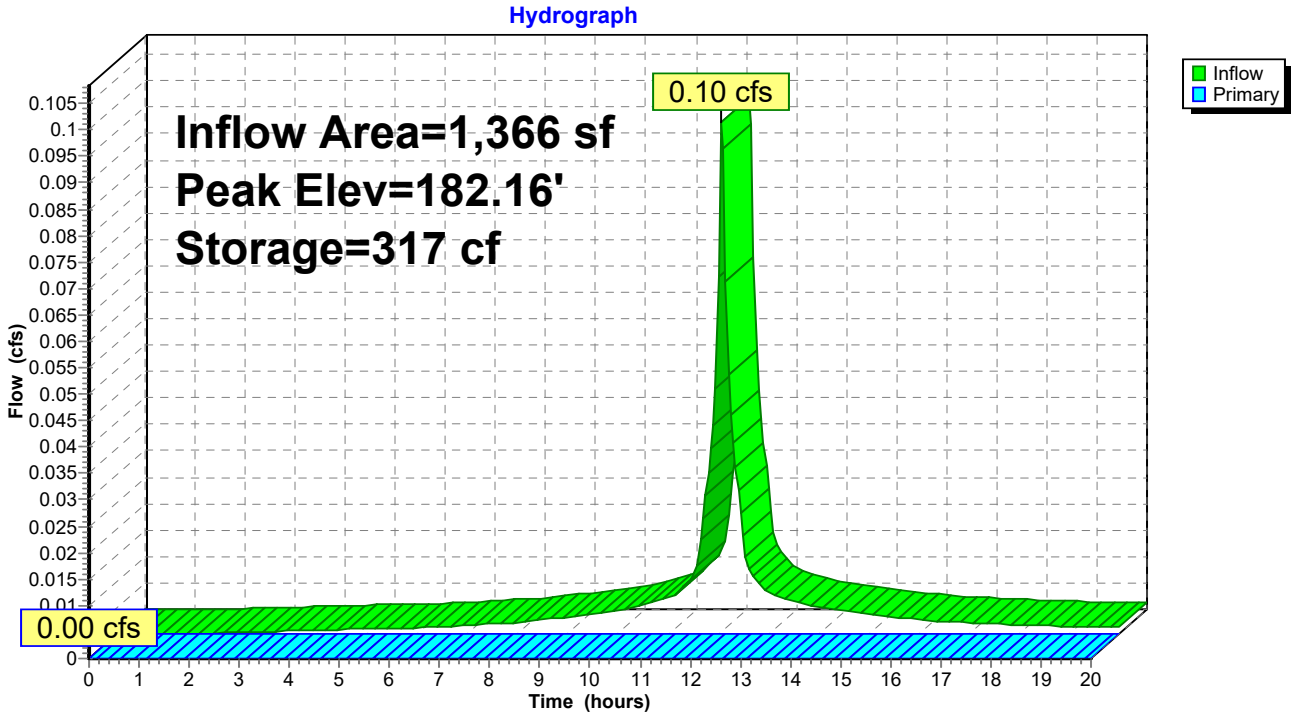
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.07	200	0	0
181.57	200	500	500

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
181.57	200	0	0
183.07	200	300	300

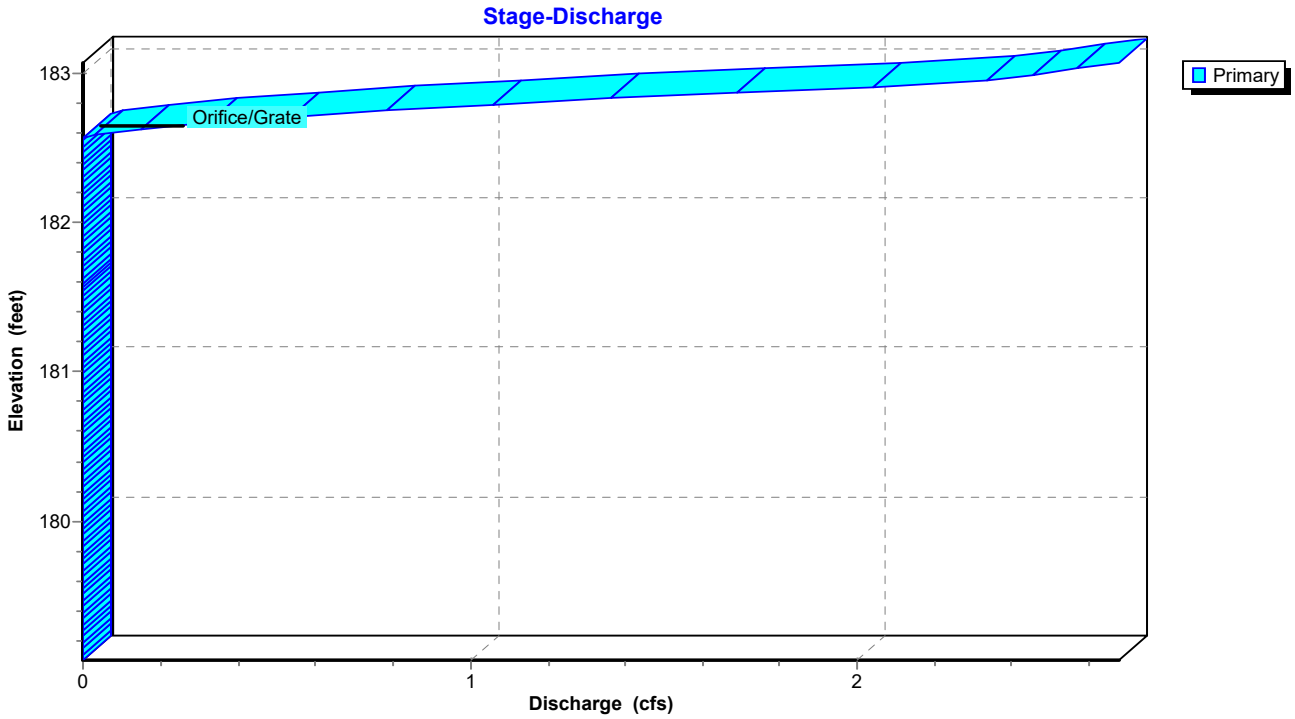
Device	Routing	Invert	Outlet Devices
#1	Primary	182.57'	**12.0" Horiz. Orifice/Grate** C= 0.600 in 12.0" Grate (100% open area) Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=179.07' (Free Discharge)
1=Orifice/Grate (Controls 0.00 cfs)

Pond 4P: Planter



Pond 4P: Planter

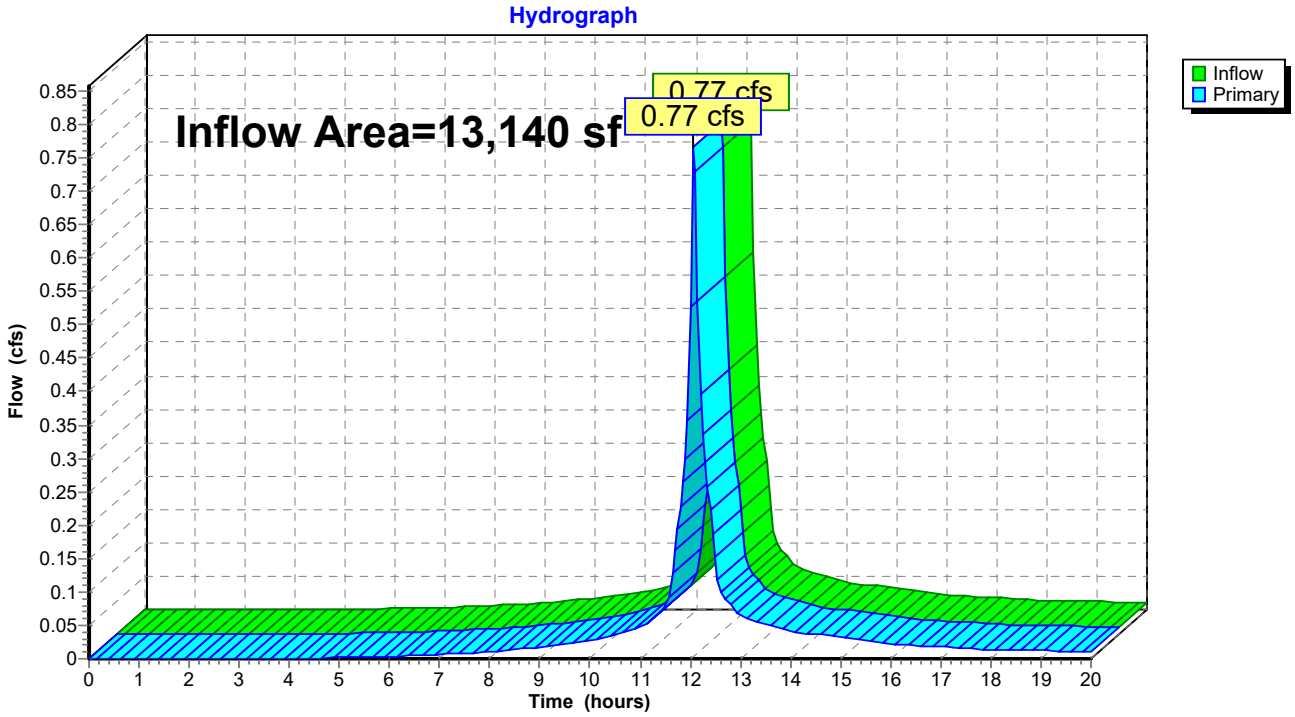


Summary for Link SDP1: Study Point

Inflow Area = 13,140 sf, 79.39% Impervious, Inflow Depth > 2.12" for 2-Year event
Inflow = 0.77 cfs @ 12.07 hrs, Volume= 2,327 cf
Primary = 0.77 cfs @ 12.07 hrs, Volume= 2,327 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs

Link SDP1: Study Point



Summary for Subcatchment DA1: DA1

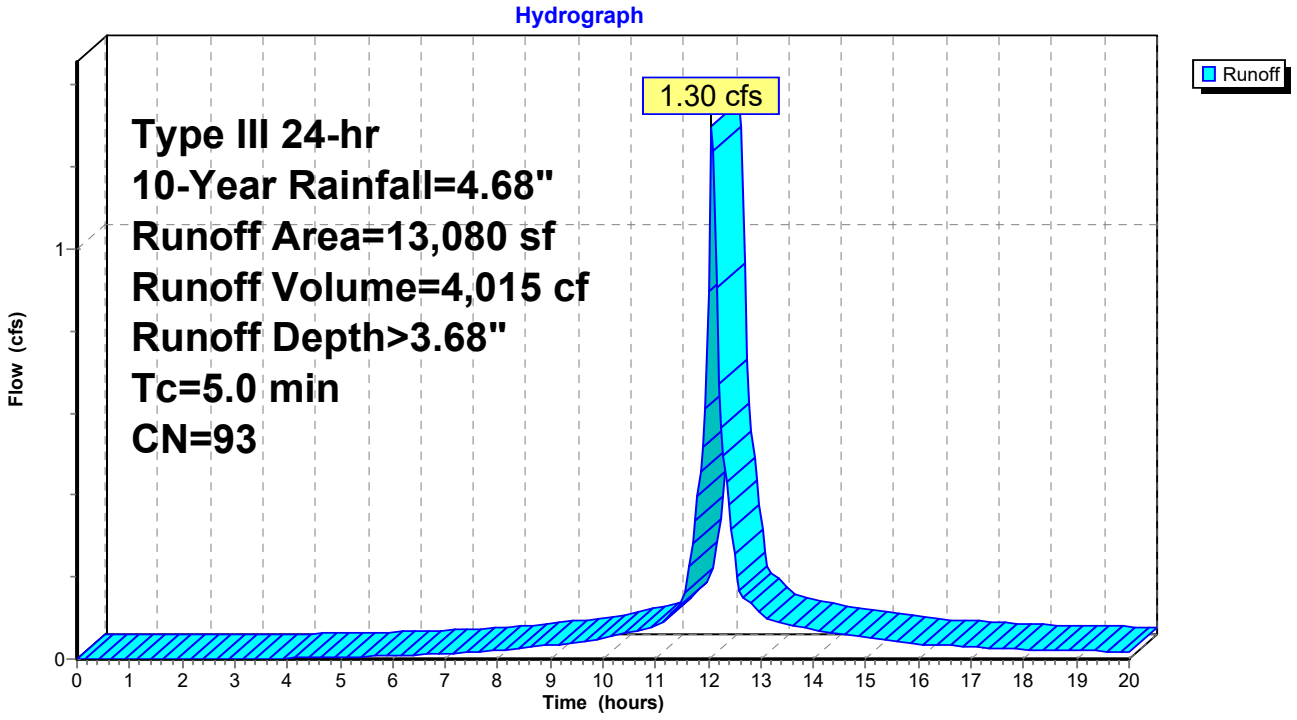
Runoff = 1.30 cfs @ 12.07 hrs, Volume= 4,015 cf, Depth> 3.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.68"

Area (sf)	CN	Description
4,298	98	Paved parking, HSG D
5,729	96	Gravel surface, HSG D
3,053	80	>75% Grass cover, Good, HSG D
13,080	93	Weighted Average
8,782		67.14% Pervious Area
4,298		32.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA1: DA1



Summary for Subcatchment DA10: Proposed Yard

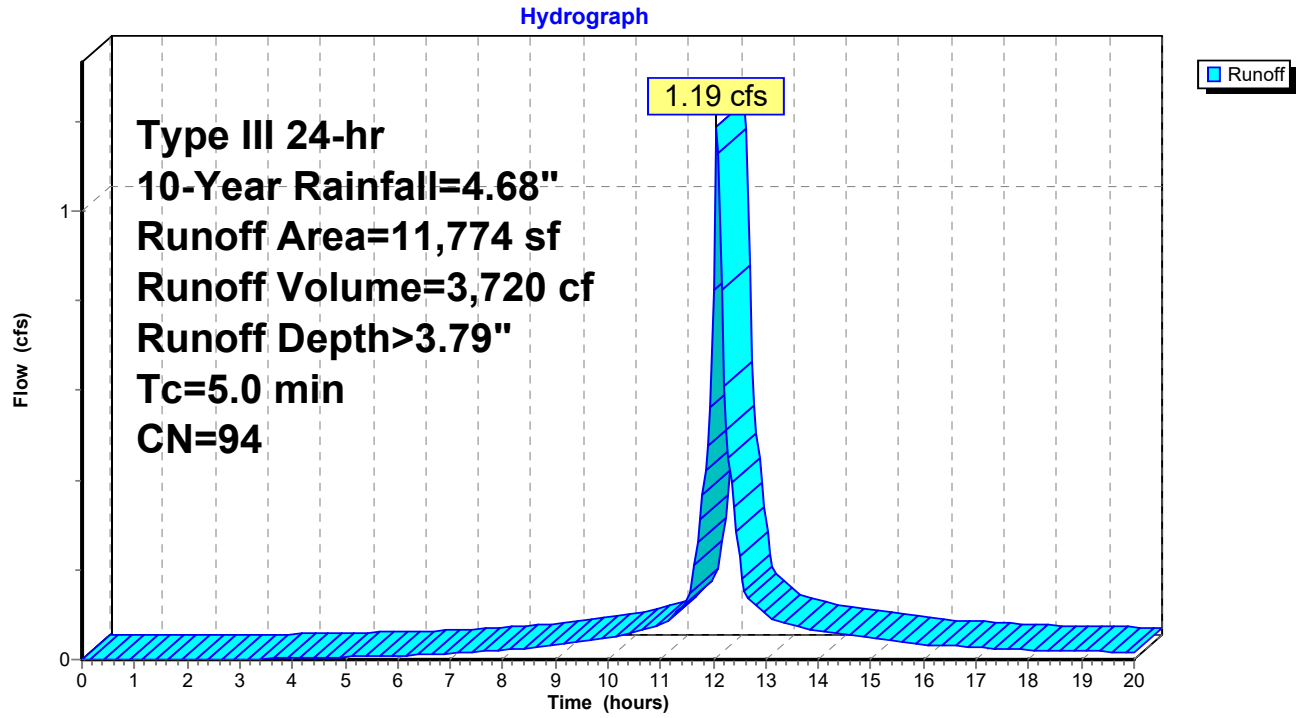
Runoff = 1.19 cfs @ 12.07 hrs, Volume= 3,720 cf, Depth> 3.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.68"

Area (sf)	CN	Description
9,066	98	Paved parking, HSG D
2,708	80	>75% Grass cover, Good, HSG D
11,774	94	Weighted Average
2,708		23.00% Pervious Area
9,066		77.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA10: Proposed Yard



Summary for Subcatchment DA11: Proposed Roof

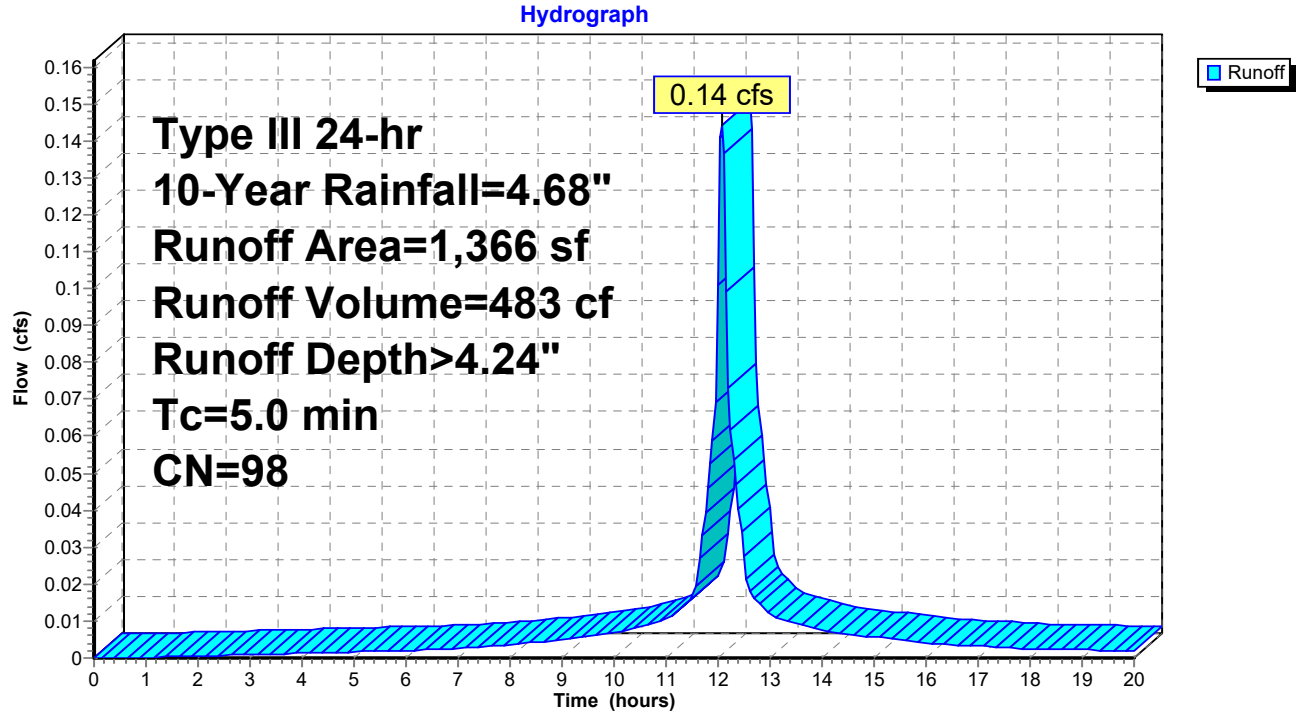
Runoff = 0.14 cfs @ 12.07 hrs, Volume= 483 cf, Depth> 4.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-Year Rainfall=4.68"

Area (sf)	CN	Description
1,366	98	Paved parking, HSG D
1,366		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA11: Proposed Roof



Summary for Pond 4P: Planter

Inflow Area = 1,366 sf,100.00% Impervious, Inflow Depth > 4.24" for 10-Year event
Inflow = 0.14 cfs @ 12.07 hrs, Volume= 483 cf
Outflow = 0.01 cfs @ 14.03 hrs, Volume= 82 cf, Atten= 95%, Lag= 117.7 min
Primary = 0.01 cfs @ 14.03 hrs, Volume= 82 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 182.58' @ 14.03 hrs Surf.Area= 400 sf Storage= 401 cf

Plug-Flow detention time= 517.7 min calculated for 82 cf (17% of inflow)
Center-of-Mass det. time= 252.2 min (973.2 - 721.0)

Volume	Invert	Avail.Storage	Storage Description
#1	179.07'	200 cf	**Media (Prismatic)** Listed below (Recalc) 500 cf Overall x 40.0% Voids
#2	181.57'	300 cf	**Ponding (Prismatic)** Listed below (Recalc)
		500 cf	Total Available Storage

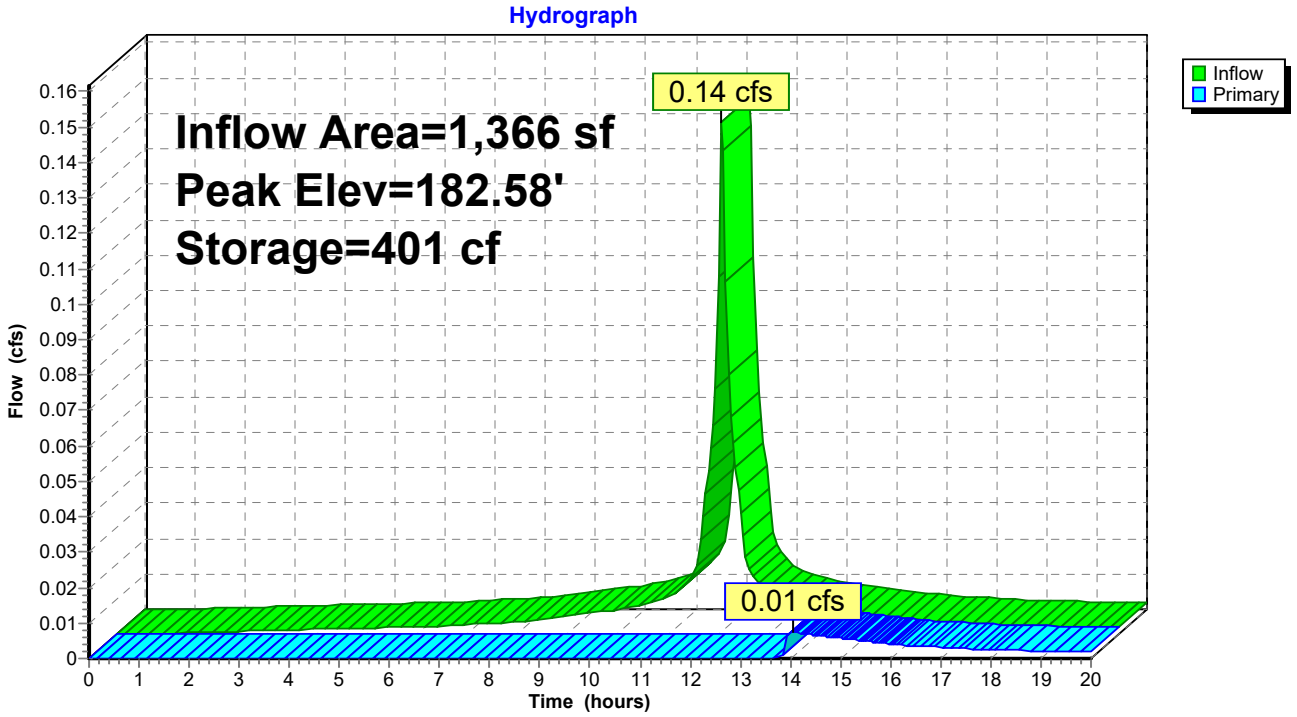
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.07	200	0	0
181.57	200	500	500

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
181.57	200	0	0
183.07	200	300	300

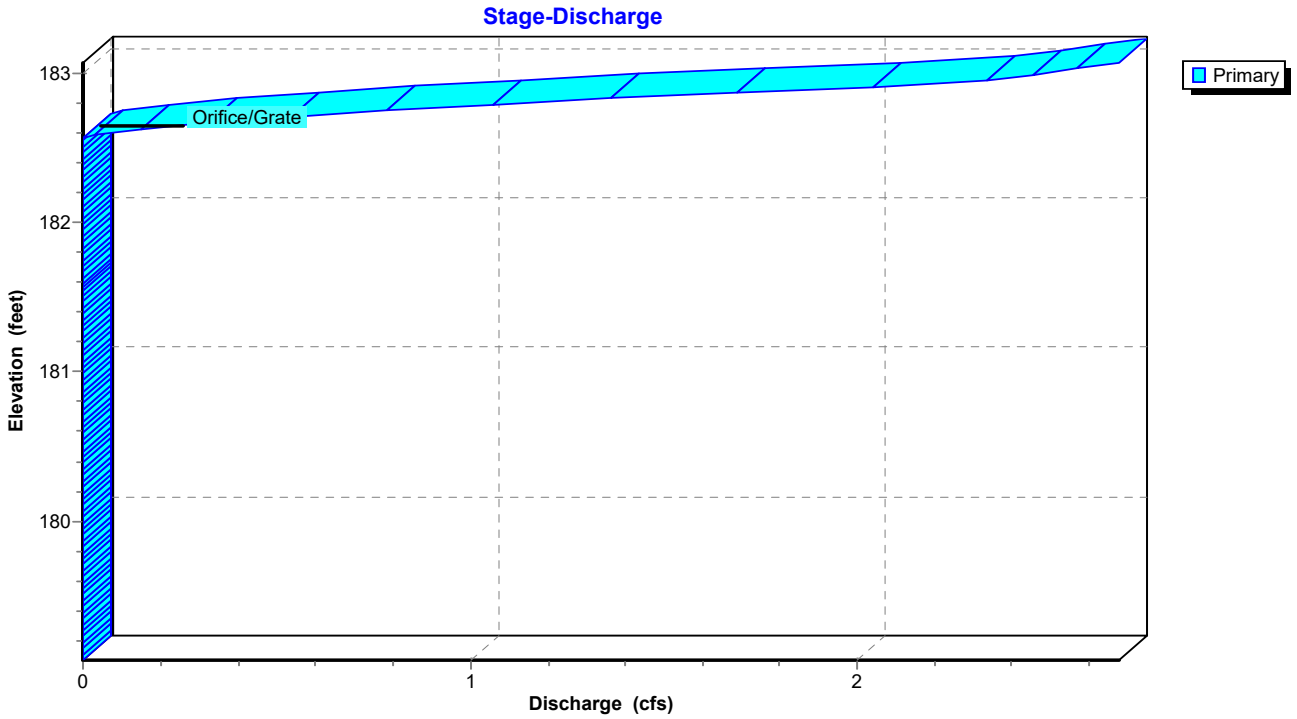
Device	Routing	Invert	Outlet Devices
#1	Primary	182.57'	**12.0" Horiz. Orifice/Grate** C= 0.600 in 12.0" Grate (100% open area) Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 14.03 hrs HW=182.58' (Free Discharge)
↑—**1=Orifice/Grate** (Weir Controls 0.00 cfs @ 0.23 fps)

Pond 4P: Planter



Pond 4P: Planter

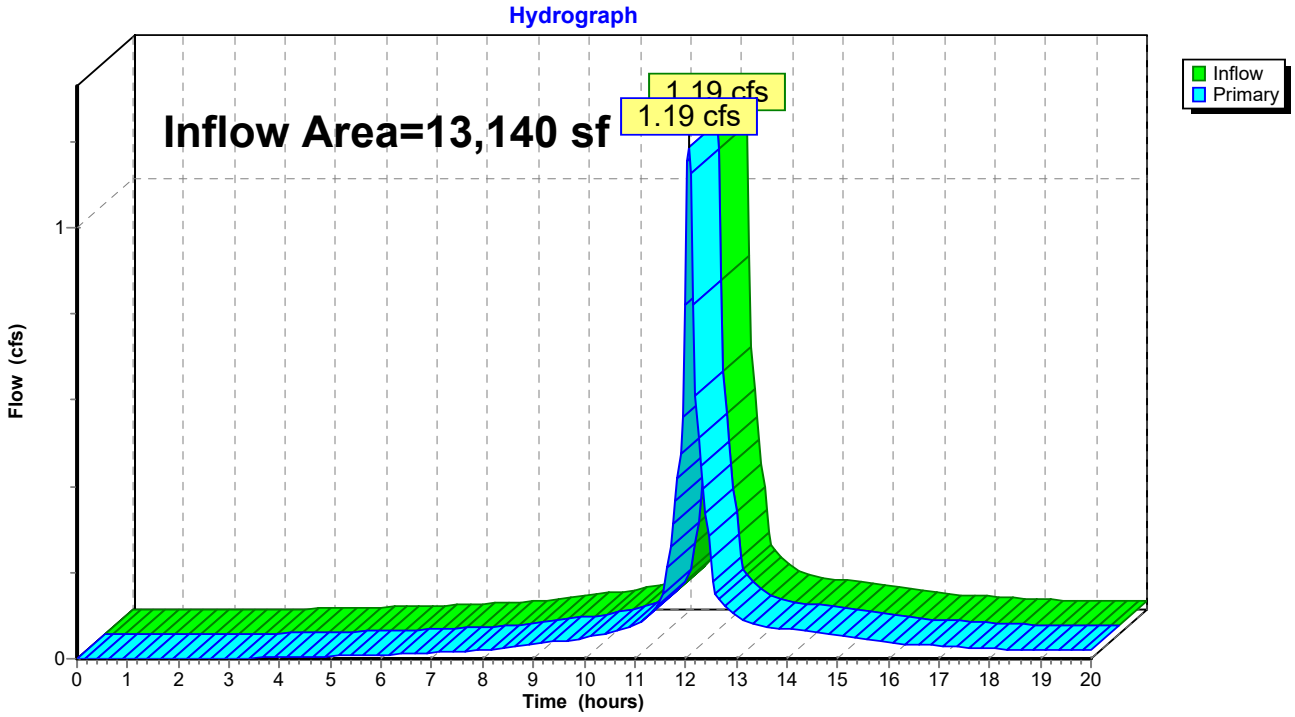


Summary for Link SDP1: Study Point

Inflow Area = 13,140 sf, 79.39% Impervious, Inflow Depth > 3.47" for 10-Year event
Inflow = 1.19 cfs @ 12.07 hrs, Volume= 3,802 cf
Primary = 1.19 cfs @ 12.07 hrs, Volume= 3,802 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs

Link SDP1: Study Point



Summary for Subcatchment DA1: DA1

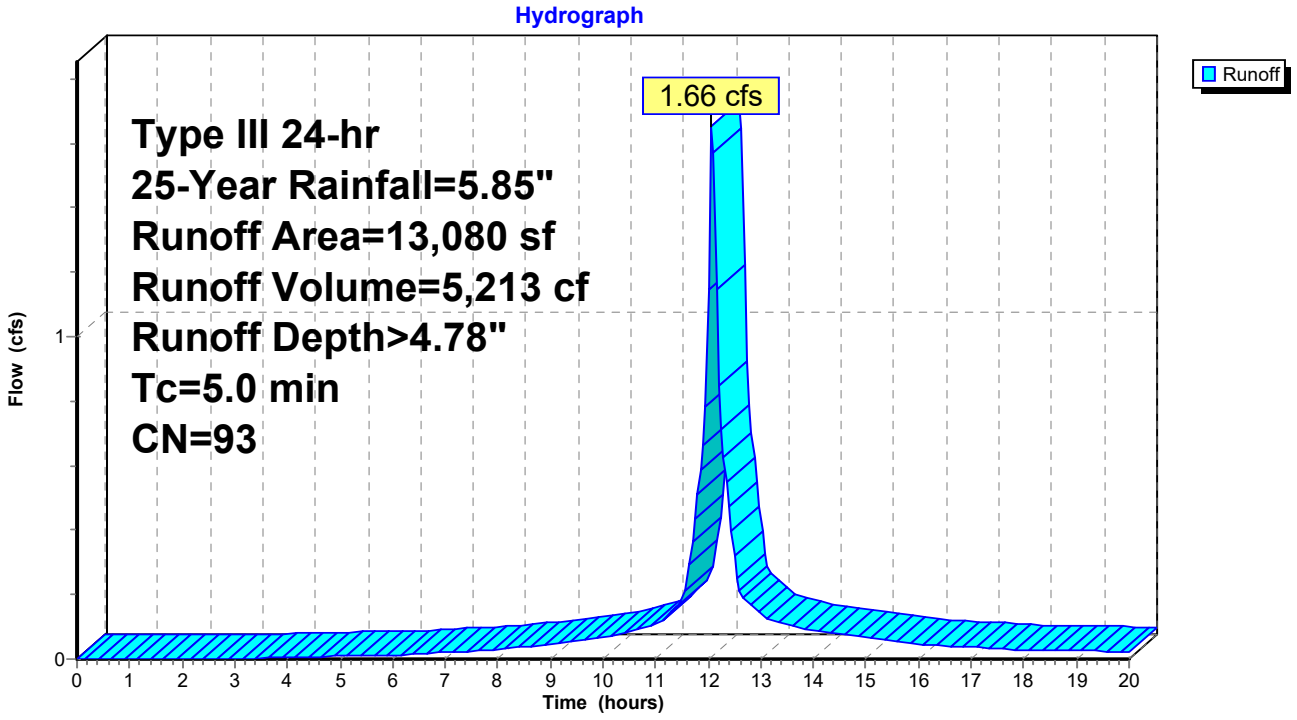
Runoff = 1.66 cfs @ 12.07 hrs, Volume= 5,213 cf, Depth> 4.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.85"

Area (sf)	CN	Description
4,298	98	Paved parking, HSG D
5,729	96	Gravel surface, HSG D
3,053	80	>75% Grass cover, Good, HSG D
13,080	93	Weighted Average
8,782		67.14% Pervious Area
4,298		32.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA1: DA1



Summary for Subcatchment DA10: Proposed Yard

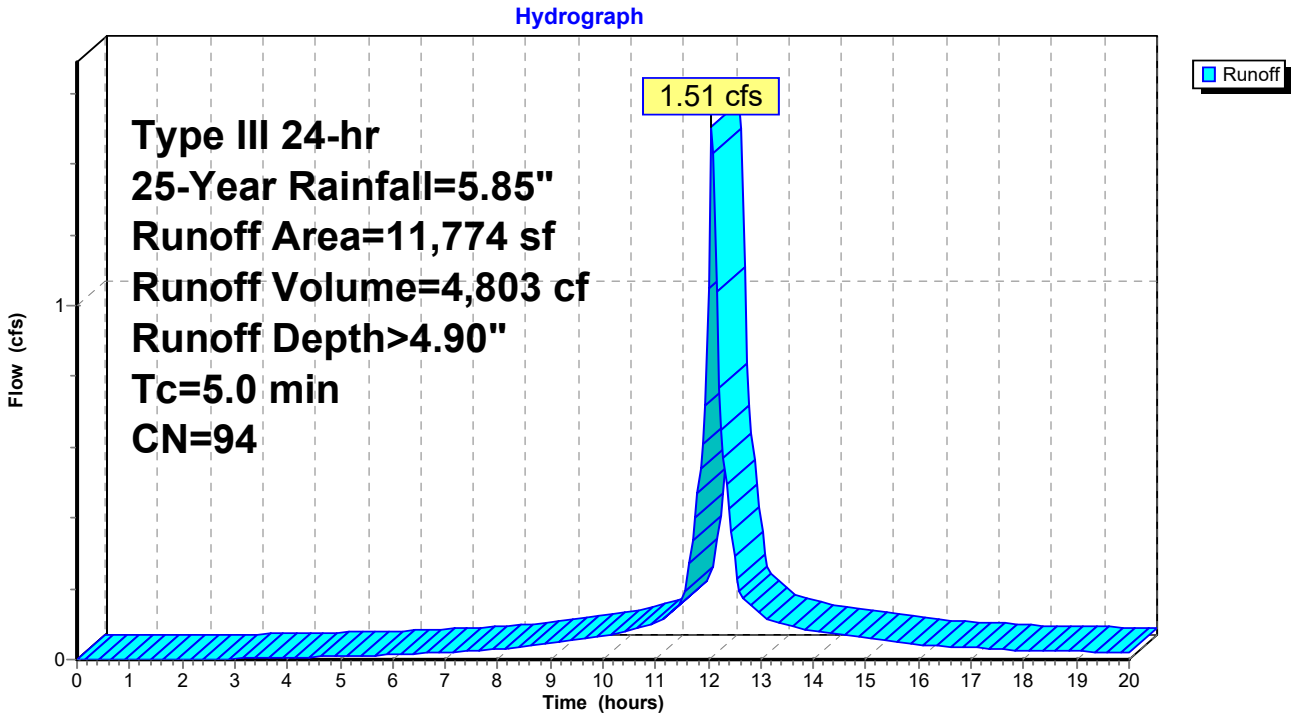
Runoff = 1.51 cfs @ 12.07 hrs, Volume= 4,803 cf, Depth> 4.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.85"

Area (sf)	CN	Description
9,066	98	Paved parking, HSG D
2,708	80	>75% Grass cover, Good, HSG D
11,774	94	Weighted Average
2,708		23.00% Pervious Area
9,066		77.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA10: Proposed Yard



Summary for Subcatchment DA11: Proposed Roof

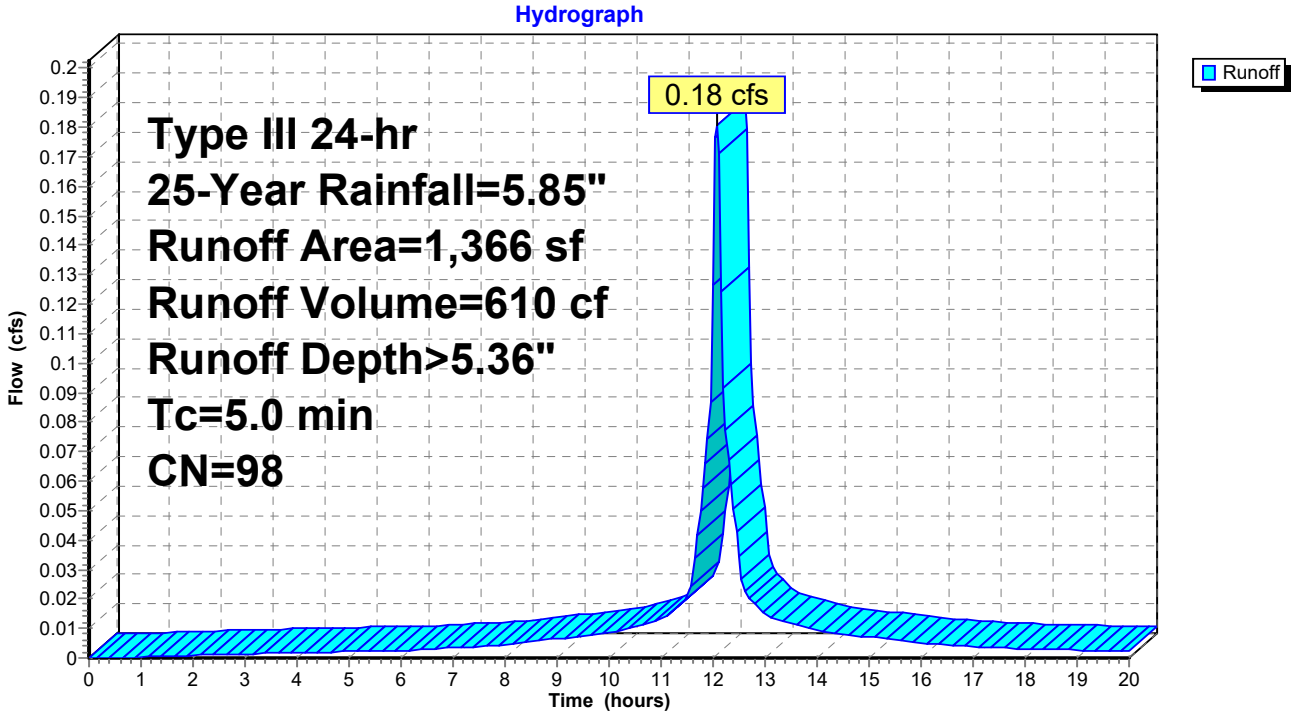
Runoff = 0.18 cfs @ 12.07 hrs, Volume= 610 cf, Depth> 5.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-Year Rainfall=5.85"

Area (sf)	CN	Description
1,366	98	Paved parking, HSG D
1,366		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA11: Proposed Roof



Summary for Pond 4P: Planter

Inflow Area = 1,366 sf,100.00% Impervious, Inflow Depth > 5.36" for 25-Year event
Inflow = 0.18 cfs @ 12.07 hrs, Volume= 610 cf
Outflow = 0.06 cfs @ 12.41 hrs, Volume= 209 cf, Atten= 67%, Lag= 20.3 min
Primary = 0.06 cfs @ 12.41 hrs, Volume= 209 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 182.60' @ 12.41 hrs Surf.Area= 400 sf Storage= 406 cf

Plug-Flow detention time= 313.4 min calculated for 209 cf (34% of inflow)
Center-of-Mass det. time= 154.7 min (872.2 - 717.4)

Volume	Invert	Avail.Storage	Storage Description
#1	179.07'	200 cf	**Media (Prismatic)** Listed below (Recalc) 500 cf Overall x 40.0% Voids
#2	181.57'	300 cf	**Ponding (Prismatic)** Listed below (Recalc)
		500 cf	Total Available Storage

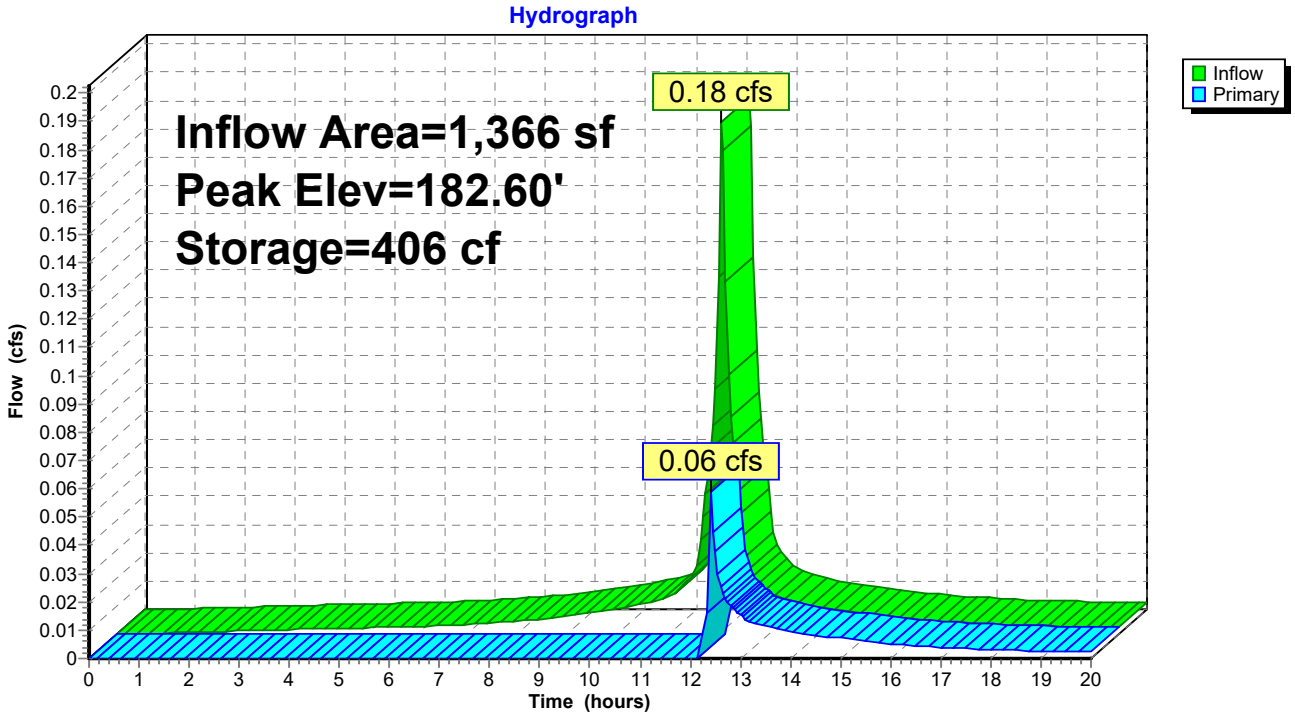
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.07	200	0	0
181.57	200	500	500

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
181.57	200	0	0
183.07	200	300	300

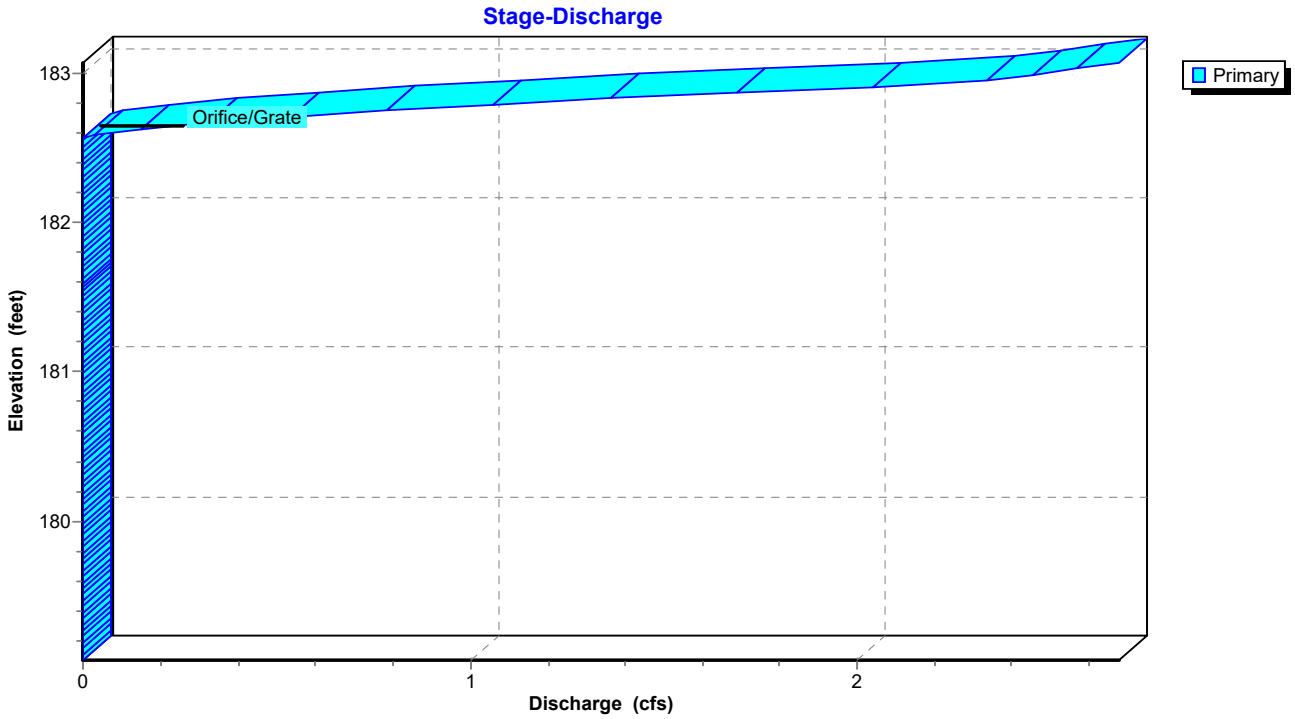
Device	Routing	Invert	Outlet Devices
#1	Primary	182.57'	**12.0" Horiz. Orifice/Grate** C= 0.600 in 12.0" Grate (100% open area) Limited to weir flow at low heads

Primary OutFlow Max=0.05 cfs @ 12.41 hrs HW=182.60' (Free Discharge)
1=Orifice/Grate (Weir Controls 0.05 cfs @ 0.56 fps)

Pond 4P: Planter



Pond 4P: Planter

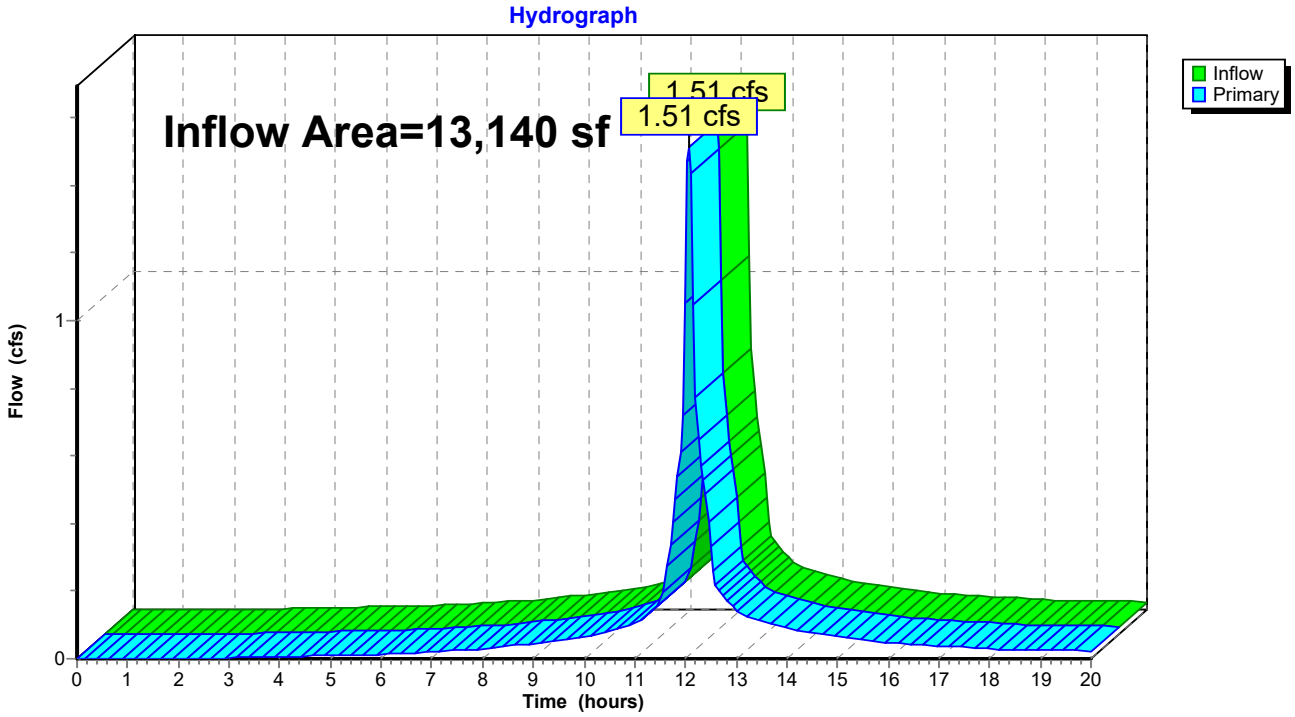


Summary for Link SDP1: Study Point

Inflow Area = 13,140 sf, 79.39% Impervious, Inflow Depth > 4.58" for 25-Year event
Inflow = 1.51 cfs @ 12.07 hrs, Volume= 5,012 cf
Primary = 1.51 cfs @ 12.07 hrs, Volume= 5,012 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs

Link SDP1: Study Point



Summary for Subcatchment DA1: DA1

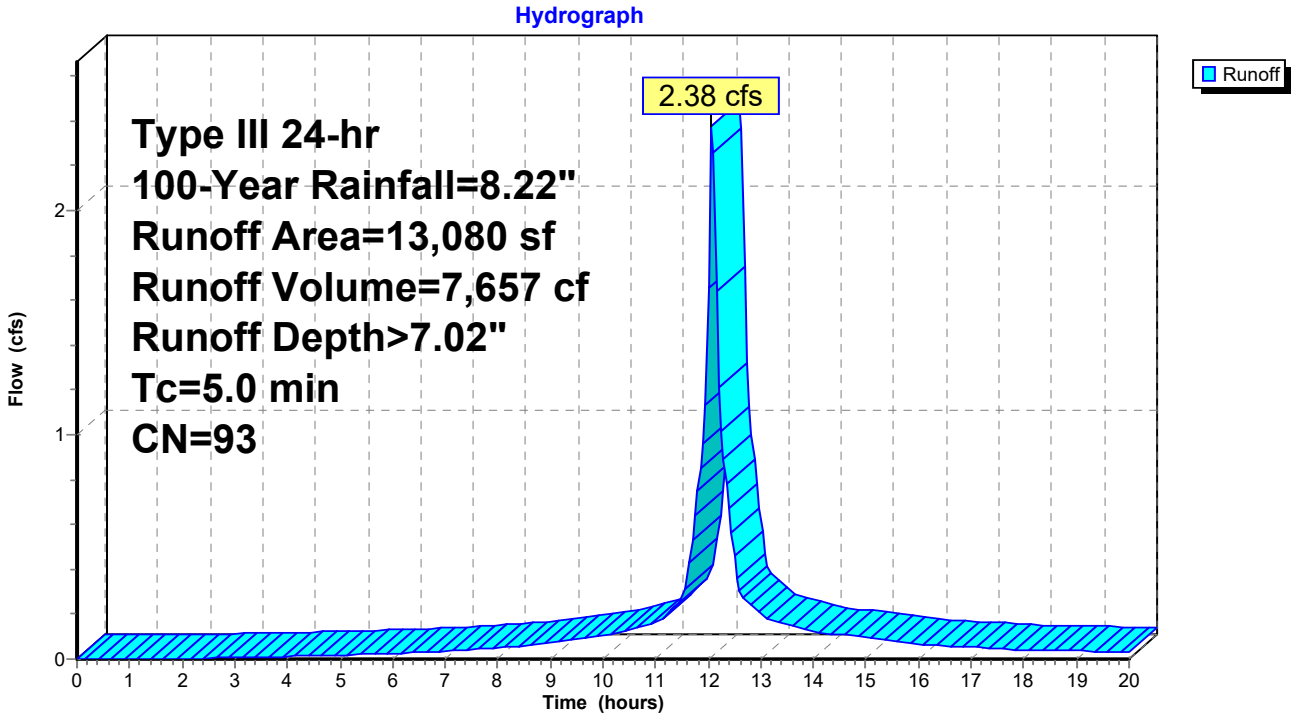
Runoff = 2.38 cfs @ 12.07 hrs, Volume= 7,657 cf, Depth> 7.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=8.22"

Area (sf)	CN	Description
4,298	98	Paved parking, HSG D
5,729	96	Gravel surface, HSG D
3,053	80	>75% Grass cover, Good, HSG D
13,080	93	Weighted Average
8,782		67.14% Pervious Area
4,298		32.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA1: DA1



Summary for Subcatchment DA10: Proposed Yard

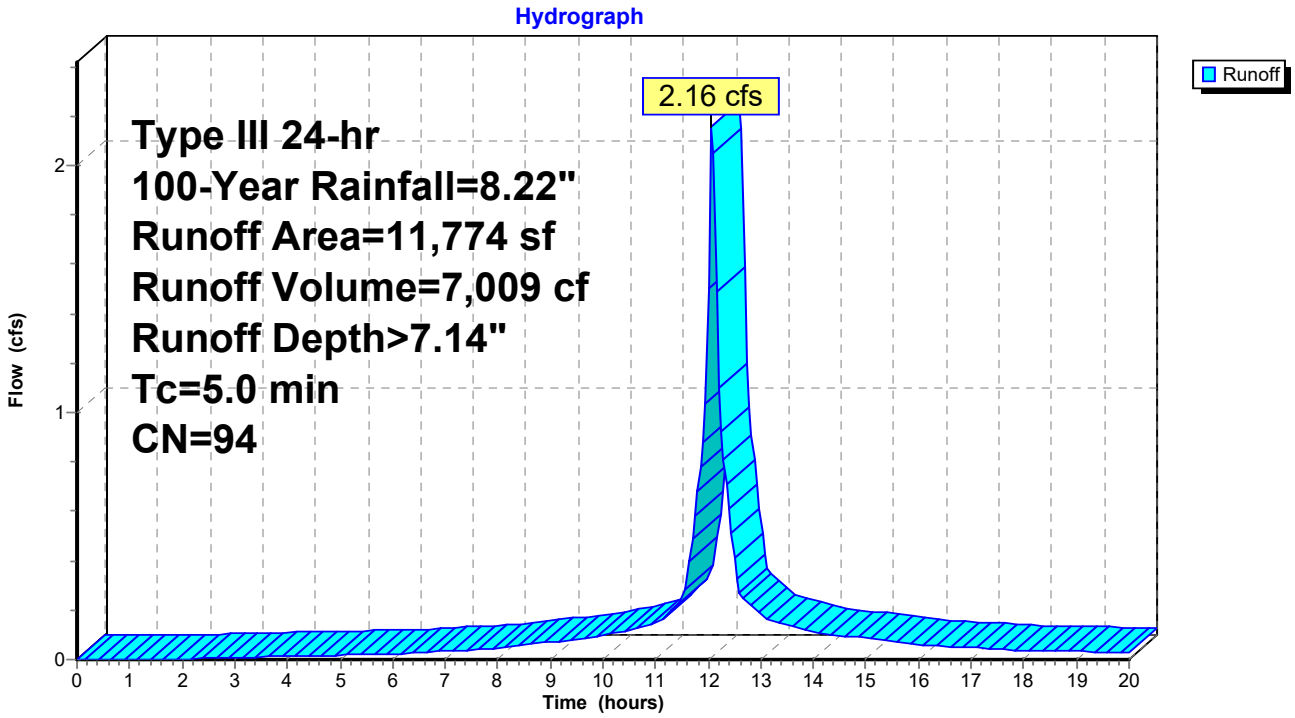
Runoff = 2.16 cfs @ 12.07 hrs, Volume= 7,009 cf, Depth> 7.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=8.22"

Area (sf)	CN	Description
9,066	98	Paved parking, HSG D
2,708	80	>75% Grass cover, Good, HSG D
11,774	94	Weighted Average
2,708		23.00% Pervious Area
9,066		77.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA10: Proposed Yard



Summary for Subcatchment DA11: Proposed Roof

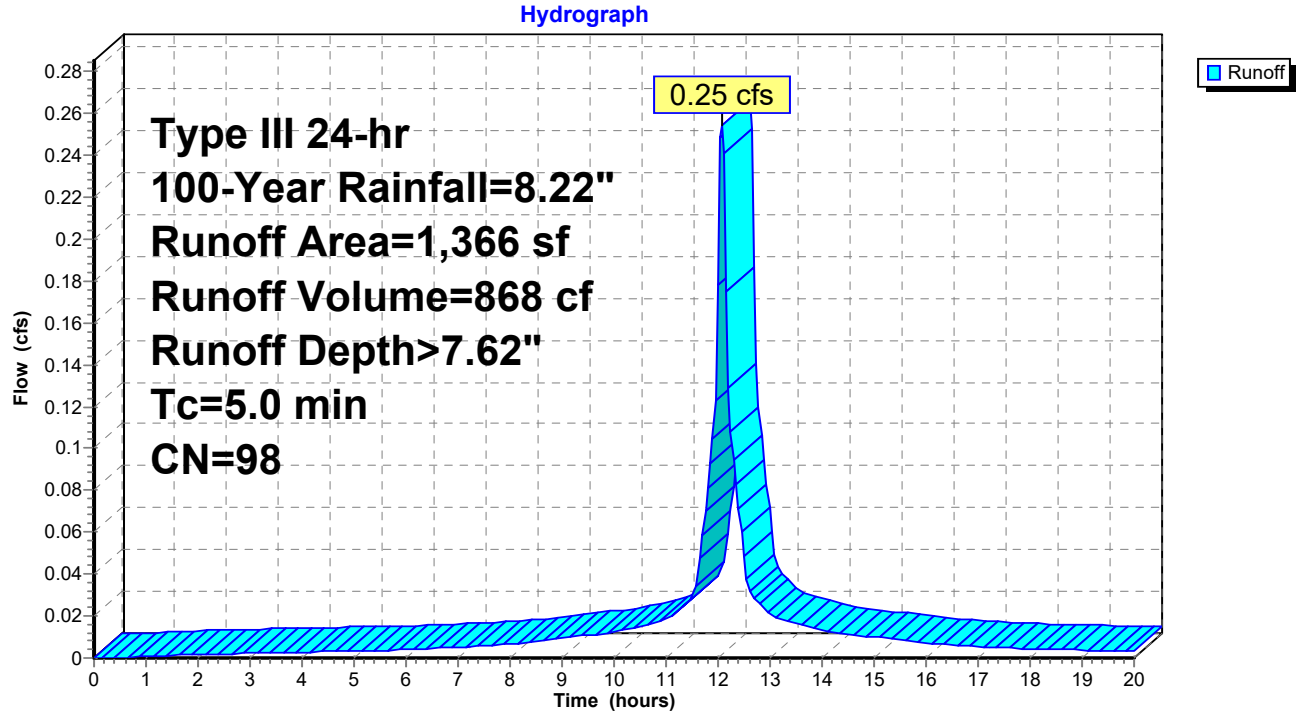
Runoff = 0.25 cfs @ 12.07 hrs, Volume= 868 cf, Depth> 7.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-Year Rainfall=8.22"

Area (sf)	CN	Description
1,366	98	Paved parking, HSG D
1,366		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry, Direct**

Subcatchment DA11: Proposed Roof



Summary for Pond 4P: Planter

Inflow Area = 1,366 sf,100.00% Impervious, Inflow Depth > 7.62" for 100-Year event
Inflow = 0.25 cfs @ 12.07 hrs, Volume= 868 cf
Outflow = 0.29 cfs @ 12.11 hrs, Volume= 467 cf, Atten= 0%, Lag= 2.2 min
Primary = 0.29 cfs @ 12.11 hrs, Volume= 467 cf

Routing by Stor-Ind method, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 182.66' @ 12.11 hrs Surf.Area= 400 sf Storage= 418 cf

Plug-Flow detention time= 209.6 min calculated for 467 cf (54% of inflow)
Center-of-Mass det. time= 106.7 min (819.6 - 712.9)

Volume	Invert	Avail.Storage	Storage Description
#1	179.07'	200 cf	**Media (Prismatic)** Listed below (Recalc) 500 cf Overall x 40.0% Voids
#2	181.57'	300 cf	**Ponding (Prismatic)** Listed below (Recalc)
		500 cf	Total Available Storage

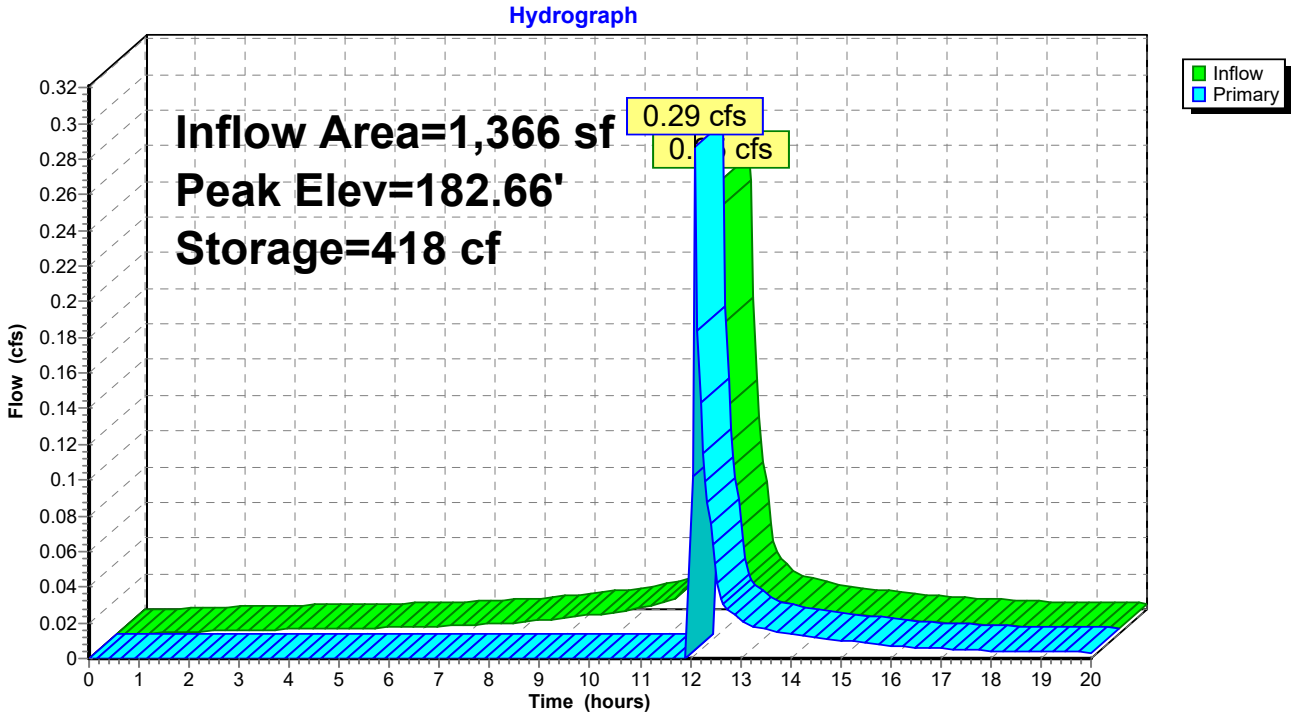
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
179.07	200	0	0
181.57	200	500	500

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
181.57	200	0	0
183.07	200	300	300

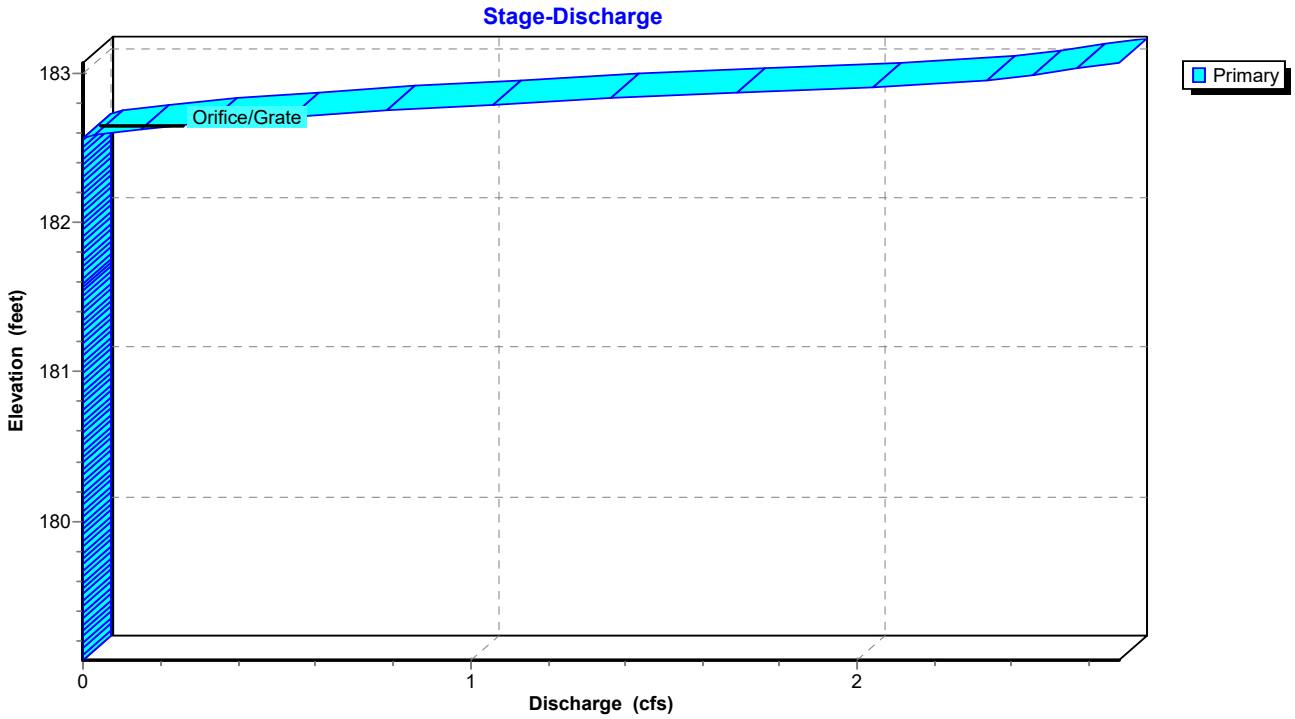
Device	Routing	Invert	Outlet Devices
#1	Primary	182.57'	**12.0" Horiz. Orifice/Grate** C= 0.600 in 12.0" Grate (100% open area) Limited to weir flow at low heads

Primary OutFlow Max=0.26 cfs @ 12.11 hrs HW=182.66' (Free Discharge)
1=Orifice/Grate (Weir Controls 0.26 cfs @ 0.97 fps)

Pond 4P: Planter



Pond 4P: Planter

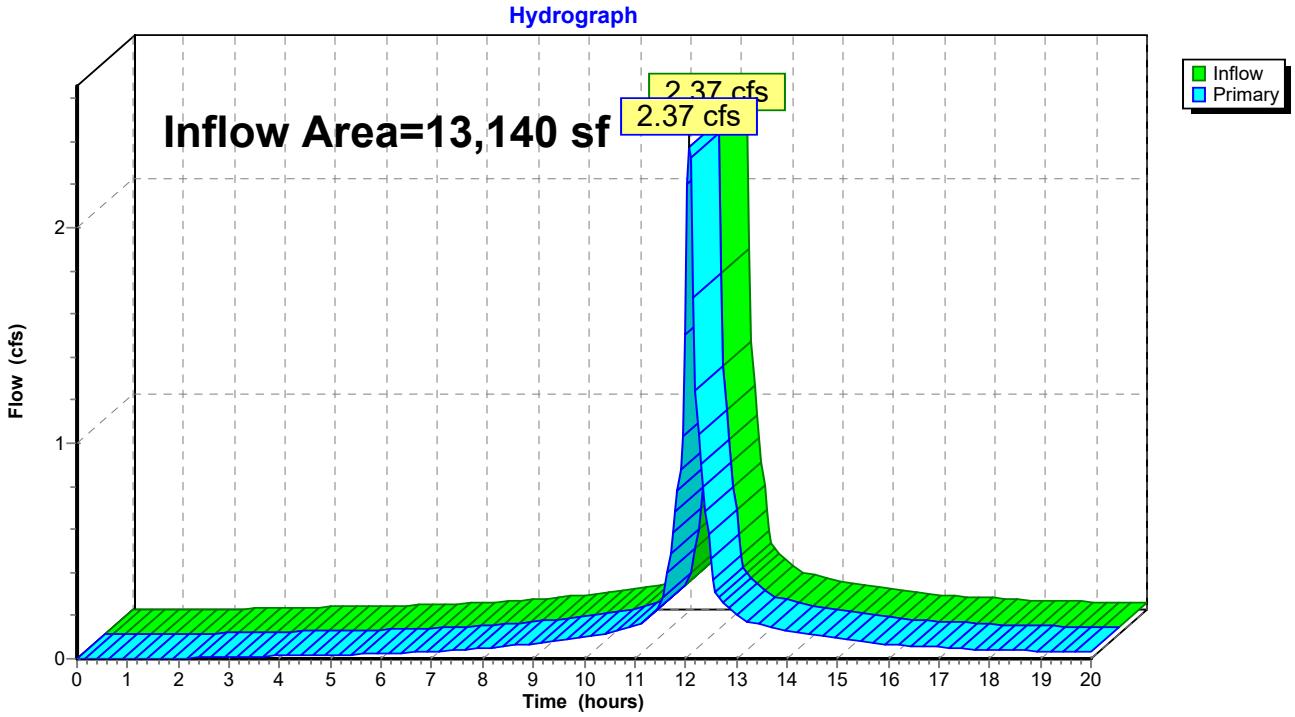


Summary for Link SDP1: Study Point

Inflow Area = 13,140 sf, 79.39% Impervious, Inflow Depth > 6.83" for 100-Year event
Inflow = 2.37 cfs @ 12.08 hrs, Volume= 7,476 cf
Primary = 2.37 cfs @ 12.08 hrs, Volume= 7,476 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-20.00 hrs, dt= 0.05 hrs

Link SDP1: Study Point



278-282 MAIN STREET

Poughkeepsie, New York

Basis of Design Products

Architect:

Aryeh Siegel, Architect

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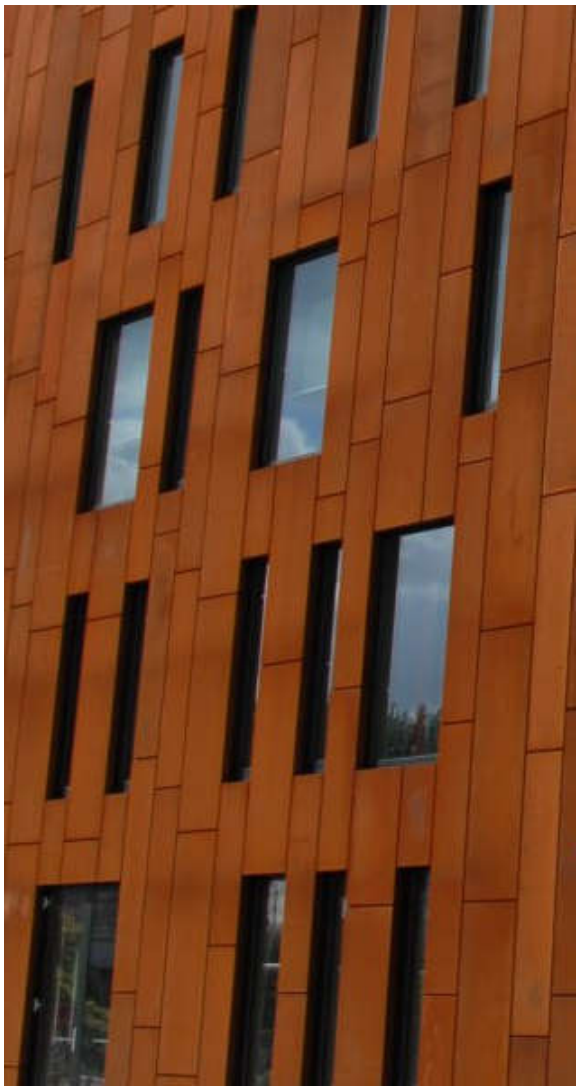
CORTEN

WESTERN STATES METAL ROOFING (RUSTWALL)



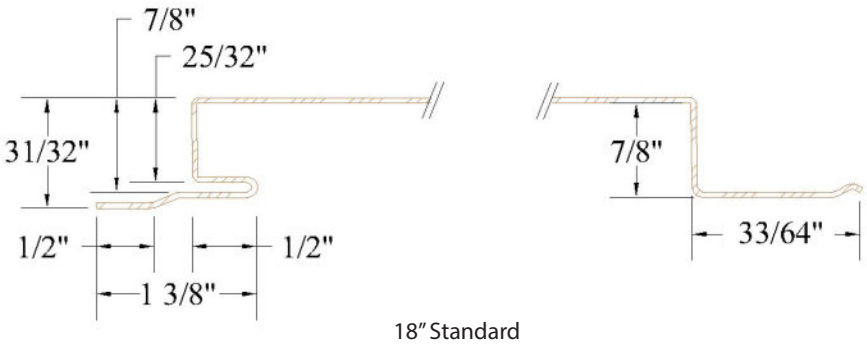
1

WESTERN STATES METAL ROOFING

901 W. Watkins St., Phoenix, AZ 85007
(855) 426-7836 | cortenroofing.com

Rustwall®

Available in A606-4 (aka Corten®) or Bare Cold Rolled Steel



18" Standard
Custom widths available upon request

SPECIFICATIONS

Material Type: Rustwall®
Rib Height: 1"
Standard Width: 18"
Custom Widths: 10", 12" 14" 16", 20"
Available Gauges:
- **A606-4 (aka Corten®):** 22
- **Bare Cold Rolled:** 22

Substrate: A606-4 or Bare Cold Rolled
Fasteners: Concealed
Panel Length: 1' to 35'
Installation: Over a solid substrate

RECOMMENDATIONS AND CAUTIONS

- A606-4 and Bare Steel performs best in environments with low humidity
- Load calculations and load tables DO NOT APPLY TO ANY A606 OR BARE STEEL PRODUCT.
- A606-4 should not be used with dissimilar metals other than stainless steel. This will decrease the lifespan of the product.
- Screws and clips for A606-4/Corten MUST be stainless steel. Screw head will be painted brown.
- Underlayment Should be a HIGH TEMPERATURE UNDERLAYMENT.
- Not recommended near salt spray environments and frequent rain locations as it will shorten the life expectancy of the products.
- Acid washing will degrade steel performance.
- Rust runoff will likely stain the surrounding surfaces.
- NO WARRANTIES FOR THESE PRODUCTS

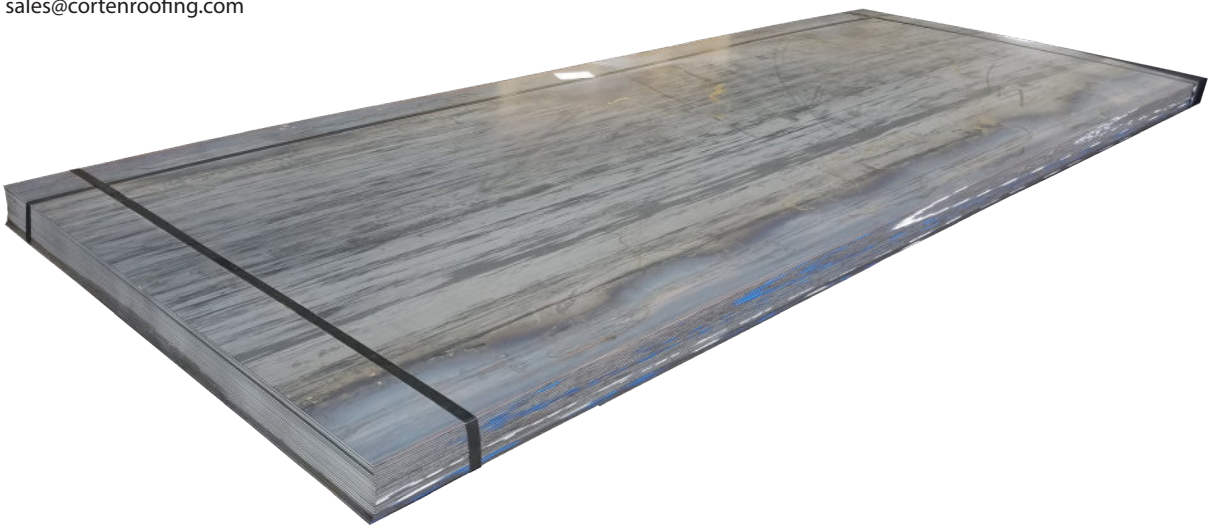
Material does not arrive pre-rusted. Panel will rust naturally with exposure to the weather. Use stainless steel fasteners with a painted brown screw head.

WESTERN STATES METAL ROOFING

901 W. Watkins St., Phoenix, AZ 85007
(855) 426-7836 | cortenroofing.com
sales@cortenroofing.com

CORTEN FLAT SHEETS
A606-4 AND A588 WEATHERING STEEL

48”/60”/72” Widths x 96”/120”/144” Lengths
Custom Widths and Lengths also Available.



Flat Sheets Availability Chart

Gauge/Thickness

Width	22	20	18	16	14	12	11	10	8	3/16”	1/4”	3/8”	1/2”	3/4”
72”	■	■	■	■	■	■	■	■	■	●	●	●	●	●
60”	■	■	■	●	●	●	●	●	●	●	●	●	●	●
48”	●	●	●	●	●	●	●	●	●	●	●	●	●	●
46”	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
43”	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
24”	●	●	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
22”	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
20”	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
18”	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
14”	●	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

● In Stock ▲ Custom Order ■ Not Available

RECOMMENDATIONS AND CAUTIONS

- A606-4 and Bare Steel performs best in environments with low humidity
- A606-4 should not be used with dissimilar metals other than stainless steel. This will decrease the lifespan of the product.
- Screws and clips for A606-4/Corten MUST be stainless steel. Screw head will be painted brown.
- Roofing underlayment should be a HIGH TEMPERATURE UNDERLAYMENT.
- Not recommended near salt spray environments and frequent rain locations as it will shorten the life expectancy of the products.
- Acid washing will degrade steel performance.
- Rust runoff will likely stain the surrounding surfaces.
- NO WARRANTIES FOR THESE PRODUCTS

Material does not arrive pre-rusted. Panel will rust naturally with exposure to the weather. Use stainless steel fasteners with a painted brown screw head.

BRICK

GLEN-GERY BRICK (53-DD)
W/ HISTORIC MORTAR (G601)

2

Glen-Gery

PRODUCT PROFILE

Revised 1/2019

Glen-Gery Clay Thin Brick

(1/2", 3/4" and 1" thick)

General

Glen-Gery provides clay thin brick in a multitude of shades and textures to accommodate the visual and application requirements of most projects. Sizes range from 8 to 16 inch and from extruded to handmade providing the widest range of thin brick available for any application.

The thickness of the thin brick available is based on the method of manufacture and the desired texture/uniformity.

Extruded thin brick available in 1/2" thickness are typically extruded as thin brick with unique surface textures and colors meeting Type TBS tolerances.

Glen-Gery's greatest variety of thin brick are available in molded and extruded 3/4" thickness. This thickness allows units to be cut from full units often specifically manufactured with larger coring and thinner webs to facilitate cutting while reducing the quantity of raw material required for manufacture. Material cut from the thin brick can be ground and reused to manufacture thin or full size units. In addition, Glen-Gery's unique large scale custom cutting operation allows thin brick to be cut from a specific lot of full brick to ensure color matching of both full and thin brick.

Handmade thin brick are available in 1" thickness to accommodate the inherent variation expected from handmade units.

Today's thin brick are installed in a wide variety of different wall systems including thickset, thinset, metal panel systems (such as Glen-Gery Thin Tech® Panels) as well as precast and tilt-up concrete wall systems. The appearance of thin brick, as well as the method of manufacture, affects the potential use of the thin brick in the various wall systems available. The thickness of the individual thin brick typically has minimal, if any, effect on any of the applications.

While each of the three categories of thin brick previously listed can be installed in most of thin brick wall systems, the precast and tilt-up concrete wall systems require thin brick with very rigid tolerances and surface textures limited to smooth or velour (wirecut) textures. In addition the cleaning techniques utilized by concrete panel manufacturers may also limit colors typical of full size units. See additional information at the end of this Profile regarding thin brick for use with precast and tilt-up concrete wall systems.

Additional information is available from your Glen-Gery representative for each thin brick wall system.

Unit Specifications

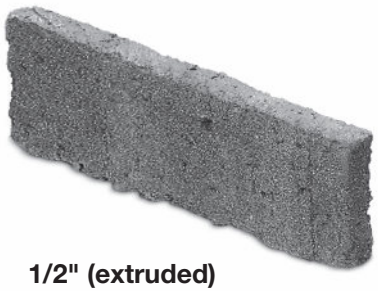
Glen-Gery thin brick are typically manufactured to conform to the requirements of American Society for Testing and Materials (ASTM) Standard Specification C 1088, Grade Exterior. Depending upon the particular product selected, Type TBA, TBS, or TBX may be available. These products also conform to the requirements of ASTM C 1088, Grade Interior. When specifying this product, the specifications should cite:

1) The product name and state "as manufactured by Glen-Gery Corporation."

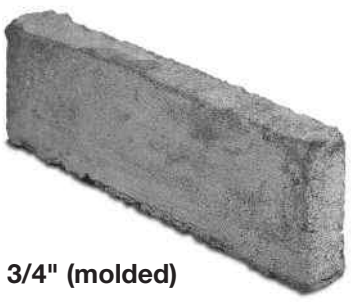
2) Conformance to the requirements ASTM C 1088, Grade Exterior.

3) The actual unit dimensions listed as thickness x height x length.

Example: Harding Blend thin brick as manufactured by Glen-Gery Corporation to conform to the requirements of ASTM C 1088, Grade Exterior, Type TBS. The units shall have dimensions of 3/4" X 2-1/4" X 7-5/8".



1/2" (extruded)



3/4" (molded)

3/4" (extruded)

1" (handmade)

Design Criteria

Size:

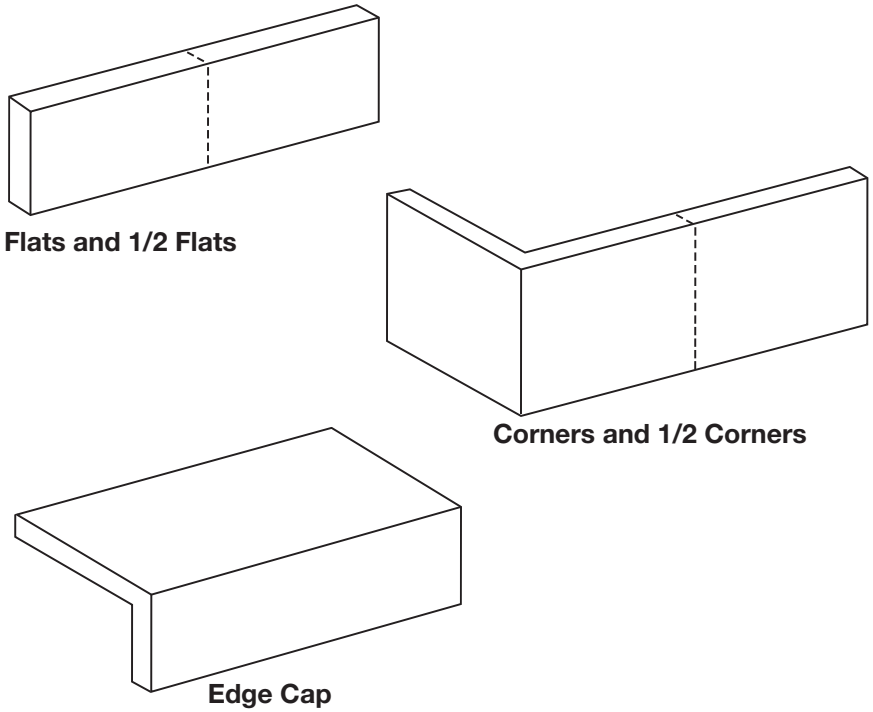
Table 1 provides the many sizes in which Glen-Gery manufactures thin brick.

Dimensional Tolerances:

Glen-Gery thin brick are manufactured to provide specific dimensional tolerances. The dimensional tolerances of the product are intended to be within the requirements of ASTM C 1088, Type TBS for general use. Some products (including but not limited to those manufactured at the Hanley Plant) are manufactured to meet Type TBX. Products with colors matching Handmade bricks are manufactured to meet Type TBA. The product ordered will generally contain a number of units which are over or under the specified dimensions.

CONTINUED ON PAGE 3

FIGURE A



Flats and 1/2 Flats

Corners and 1/2 Corners

Edge Cap

TABLE 1

Thin Brick Size, Coverage and Weight

Thin Brick Size	Specified Dimension						Thin Brick per square foot	Average Weight	
	Thickness (inches)	(mm)	Height (inches)	(mm)	Length (inches)	(mm)		per unit	(kg)
Queen	3/4	20	2-3/4	70	7-5/8	194	5.63	1.6	0.7
Lightweight Modular	3/4	20	2-1/4	57	7-5/8	194	6.75	1.0	0.5
Lightweight Engineer Modular	3/4	20	2-3/4	70	7-5/8	194	5.63	1.0	0.5
1/2-Modular (extruded)	1/2	13	2-1/4	57	7-5/8	194	6.75	0.7	0.3
3/4-Modular (extruded/molded)	3/4	20	2-1/4	57	7-5/8	194	6.75	1.1	0.5
Modular (handmade)	1	25	2-1/4	57	7-5/8	194	6.75	1.1	0.5
1/2-Engineer Modular	1/2	13	2-3/4	70	7-5/8	194	5.63	0.8	0.4
3/4- Engineer Modular	3/4	20	2-3/4	70	7-5/8	194	5.63	1.6	0.7
Econo	3/4	20	3-5/8	92	7-5/8	194	4.50	1.5	0.7
Standard	3/4	20	2-1/4	57	8	203	6.55	1.1	0.5
Engineer Standard	3/4	20	2-3/4	70	8	203	5.39	1.7	0.8
Handmade Oversized	1	25	2-3/4	70	8-1/2	216	5.00	1.7	0.8
King Narrow-Bed	3/4	20	2-3/4	70	9-5/8	244	4.55	1.5	0.7
Engineer King	3/4	20	2-3/16	71	9-5/8	244	4.55	1.5	0.7
King	3/4	20	3-5/8	92	9-5/8	244	4.55	1.5	0.7
Roman	3/4	20	1-5/8	41	11-5/8	295	6.00	1.0	0.5
Norman	3/4	20	2-1/4	57	11-5/8	295	4.50	1.5	0.7
Utility	3/4	20	3-5/8	57	11-5/8	295	3.00	2.4	1.1
Kingston	3/4	20	2-3/4	70	11-5/8	295	3.75	1.9	0.9
Viking			1-5/8	41	15-5/8	397	4.50	5.9	2.7
Saxon	3/4	20	2-1/4	57	15-5/8	397	3.38	2.0	0.9
Titan	3/4	20	3-5/8	92	15-5/8	397	2.25	3.0	1.4

Product Features

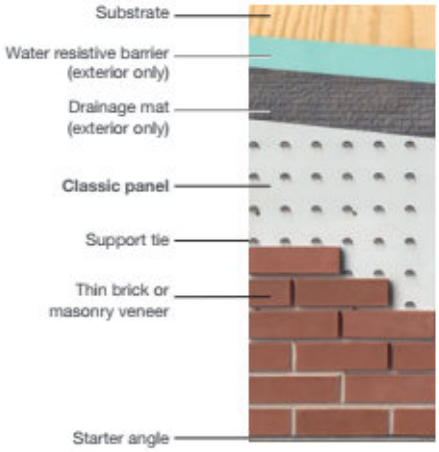
Light, strong and durable

Glen-Gery is the only brick manufacturer to produce a thin veneer metal panel system for brick and stone that is suitable for exterior and interior usage. Offered in the traditional Classic and high-performance Elite series, each are tailored to the needs of specific applications. Glen-Gery Thin Tech products are offered with extended warranties lasting up to fifty years.

Classic

Ideal for interior applications.

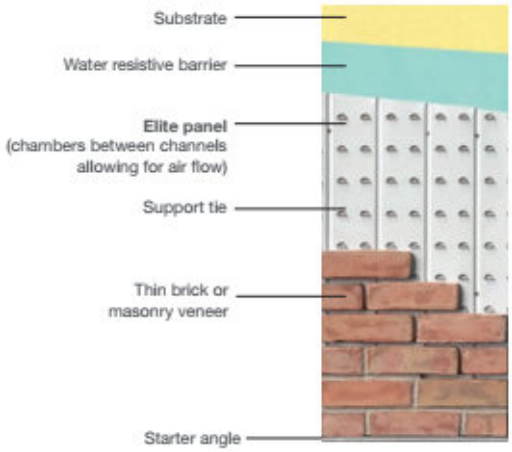
Thin Tech Classic offers the thinnest, most resilient masonry veneer support structure specifically designed to accommodate thin brick. The Classic series works in conjunction with traditional mortar to secure the veneer.



Elite

Ideal for exterior applications.

Thin Tech Elite is the most advanced masonry support system ever designed. It features all the advantages of the Classic series, but with enhanced product performance: superior drainage, ventilation, pressure equalization and bond strength.



Warranties

Thin Tech Classic: 25-year warranty.
Thin Tech Elite: 50-year warranty.

STOREFRONT

KAWNEER – TRIFAB 451T (BLACK)

3

KAWNEER

Design + Performance Versatility with Unmatched Fabrication Flexibility

Geisinger Professional Building
Jenkins Township, Pennsylvania
ARCHITECT
Mericle Commercial Real Estate Services
Wilkes-Barre, Pennsylvania
GLAZING CONTRACTOR
Sterling Glass, Inc., Scranton, Pennsylvania
PHOTOGRAPHER
© Perzel Photography Group

Trifab® VersaGlaze® is built on the proven and successful Trifab® platform – with all the versatility its name implies. There are enough framing system choices, fabrication methods, design options and performance levels to please the most discerning building owner, architect and installer. The 4.5" depth Trifab® VersaGlaze® Framing System family is available with non-thermal, thermal and ultra-thermal performance levels. The ultra-thermal Trifab® 451UT Framing System, is designed for the most demanding thermal performance and employs a dual Isolock® thermal break.

AESTHETICS

Trifab® VersaGlaze® Framing Systems offer designers a choice of front-, center-, back- or multi-plane glass applications. Structural silicone glazing (SSG) and weatherseal glazing options further expand designers' choices, allowing for a greater range of possibilities for specific project requirements and architectural styles. All systems have a 4-1/2" frame depth; Trifab® VersaGlaze® 450 has 1-3/4" sightlines, while Trifab® VersaGlaze® 451/451T and Trifab® 451UT have 2" sightlines.

With seamless incorporation of Kawneer entrances or windows, including GLASSvent® visually frameless ventilators, Trifab® framing can be used on almost any project. These framing systems can also be packaged with Kawneer curtain walls and overhead glazing, thereby providing a full range of proven, and tested, quality products for the owner, architect and installer from a single-source supplier.

ECONOMY

Trifab® VersaGlaze® 450/451/451T/451UT Framing Systems offer a variety of fabrication choices to suit your project:

- **Screw Spline** – for economical continuous runs utilizing two-piece vertical members that provide the option to pre-assemble units with controlled shop labor costs and smaller field crews for handling and installation. (available for all systems)
- **Shear Block** – for punched openings or continuous runs using tubular moldings with shear block clips that provide tight joints for transporting large pre-assembled multi-lite units. (available for 450/451/451T systems)
- **Stick** – for fast, easy field fabrication. Field measurements and material cuts can be done when metal is on the jobsite. (available for 450/451/451T systems)
- **Pre-glazed** – The combination of screw spline construction with pre-glazing in the shop accelerates installation and reduces field labor time while minimizing disruption to the surrounding area or existing tenants. Making it an exceptional choice for new or retrofit applications, particularly in urban areas or where space is limited. (available for 451/451T/451UT framing)

Brighton Landing
Cambridge, Massachusetts
ARCHITECT
ADD Inc., Cambridge, Massachusetts
GLAZING CONTRACTOR
Ipswich Bay Glass Company,Inc., Rowley, Massachusetts
PHOTOGRAPHER
© Gordon Schenck, Jr.

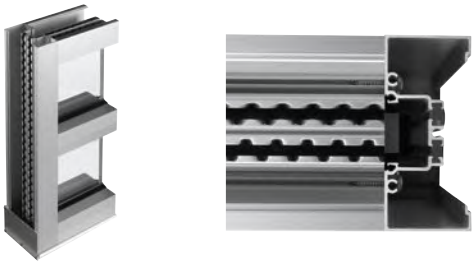
All systems can be flush glazed from either the inside or outside. The weatherseal option provides an alternative to SSG vertical mullions for Trifab® VersaGlaze® 450/451/451T. This ABS/ASA rigid polymer extrusion allows complete inside glazing and creates a flush glass appearance on the building exterior without the added labor of scaffolding or swing stages. Additionally, high-performance flashing options are engineered to eliminate perimeter sill fasteners and associated blind seals.

FOR THE FINISHING TOUCH

Architectural Class I anodized aluminum and painted finishes in fluoropolymer (AAMA 2605) and solvent-free powder coatings (AAMA 2604) offer a variety of color choices.

PERFORMANCE

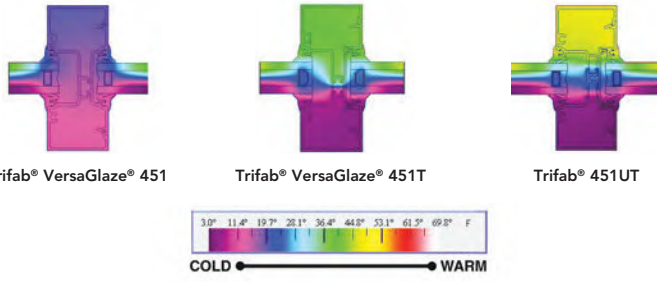
Kawneer's Isolock® thermal break technology creates a composite section, prevents dry shrinkage and is available on Trifab® VersaGlaze® 451T. For even greater thermal performance, a dual Isolock® thermal break is used on Trifab® 451UT.



Trifab® 451UT uses a dual Isolock® thermal break (right) and features a new high-performance sill design, which incorporates a screw-applied end dam (left), ensuring positive engagement and tight joints between the sill flashing and end dam.

U-factor, CRF values and STC ratings for Trifab® framing systems vary depending upon the glass plane application. Project-specific U-factors can be determined for each individual project. (See the Kawneer Architectural Manual or Kawneer.com for additional information.)

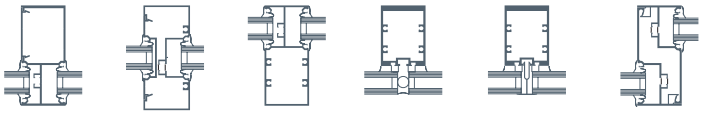
Thermal simulations showing temperature variations from exterior/cold side to interior/warm side.



Trifab® VersaGlaze® 451 **Trifab® VersaGlaze® 451T** **Trifab® 451UT**

PERFORMANCE TEST STANDARDS

Air Infiltration	ASTM E283
Water	AAMA 501, ASTM E331
Structural	ASTM E330
Thermal	AAMA 1503
Thermal Break	AAMA 505, AAMA TIR-A8
Acoustical	AAMA 1801, ASTM E1425



Front **Center** **Back** **SSG** **Weatherseal** **Multi-Plane**

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Kawneer Company, Inc.
Technology Park / Atlanta
555 Guthridge Court
Norcross, GA 30092
770.449.5555
kawneer.com

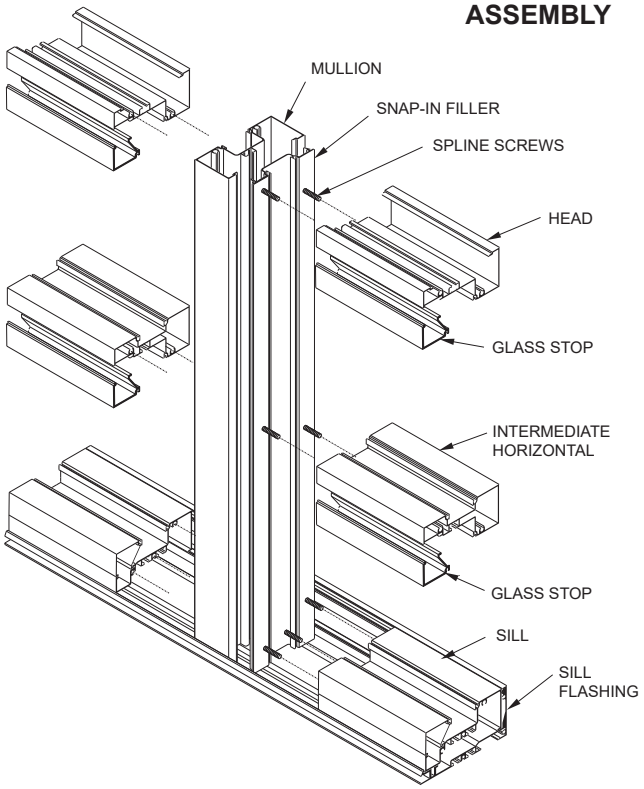
KAWNEER

ARCHITECTURAL SYSTEMS | ENTRANCES + FRAMING | CURTAIN WALLS | WINDOWS

Trifab® VG 451/451T Framing System

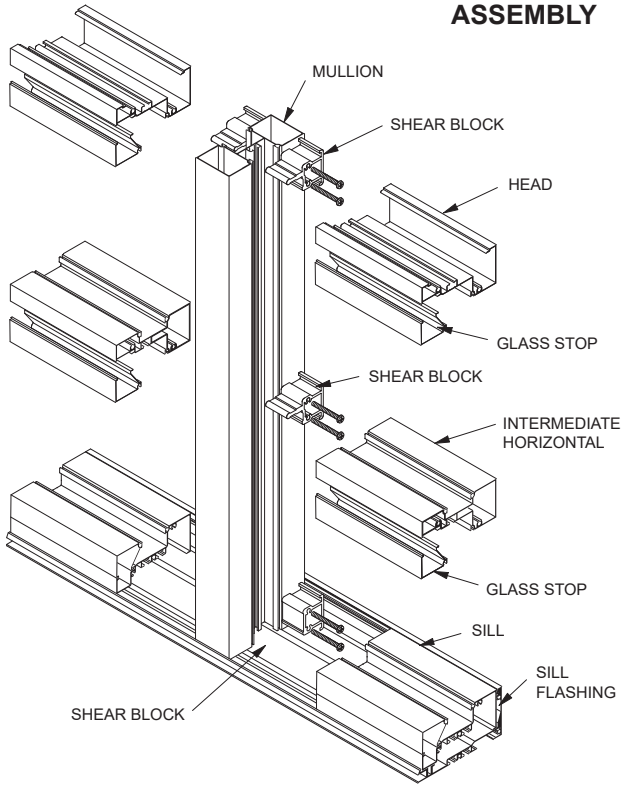
The split vertical in the **Screw Spline** system allows a frame to be installed from unitized assemblies. Screws are driven through the back of the verticals into splines extruded in the horizontal framing members. The Individual units are then snapped together to form a complete frame.

SCREW SPLINE ASSEMBLY

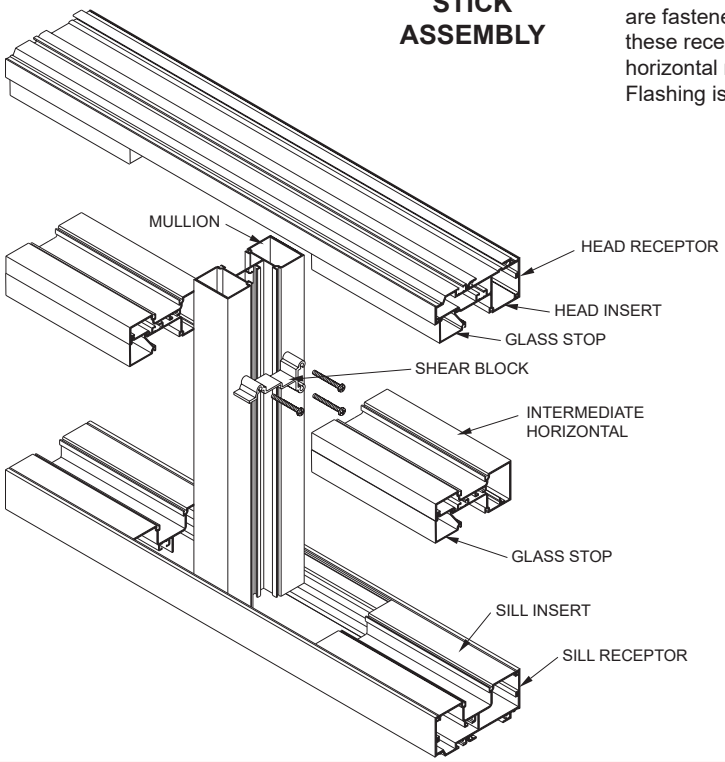


The **Shear Block** system of fabrication allows a frame to be pre-assembled as a single unit. Horizontals are attached to the verticals with shear blocks.

SHEAR BLOCK ASSEMBLY



STICK ASSEMBLY



The **Stick** system allows on-site construction. Head and sill receptors are fastened to the surround. Vertical mullions are then installed in these receptors and are held in place by snap-in inserts. Intermediate horizontal members are attached to the verticals with shear blocks. Flashing is not required.

NOTE:
If the end reaction of the mullion (mullion spacing (ft.) times height (ft.) times specified wind load (psf) divided by two) is more than 500 lbs., the optional mullion anchors must be used. (See page 16)

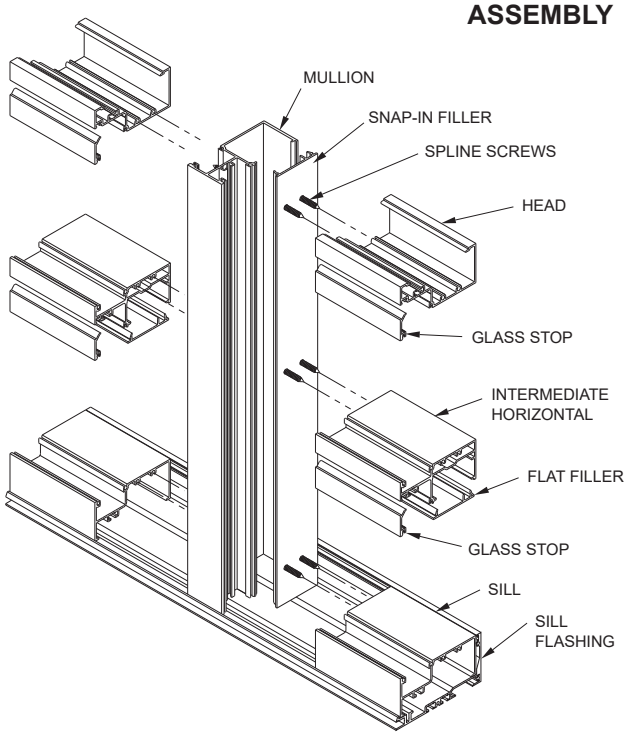
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

© 2018, Kawneer Company, Inc.

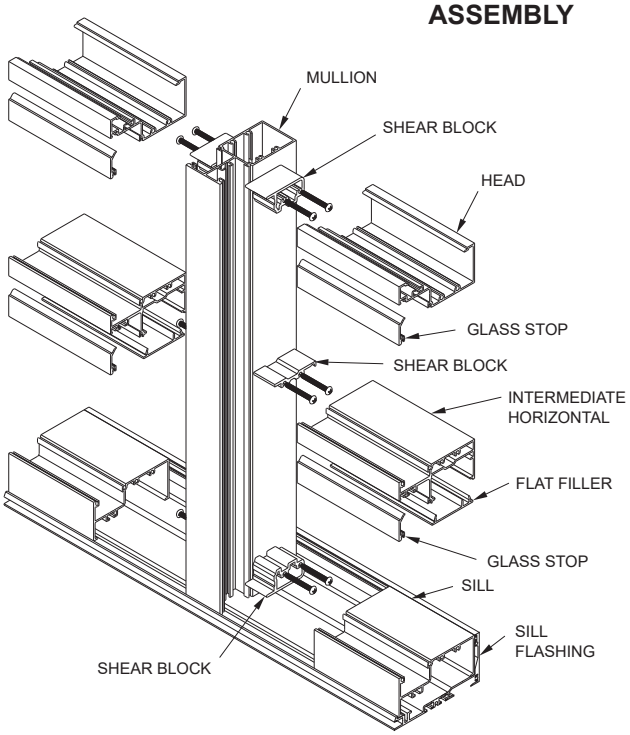
The split vertical in the **Screw Spline** system allows a frame to be installed from unitized assemblies. Screws are driven through the back of the verticals into splines extruded in the horizontal framing members. The Individual units are then snapped together to form a complete frame.

SCREW SPLINE ASSEMBLY

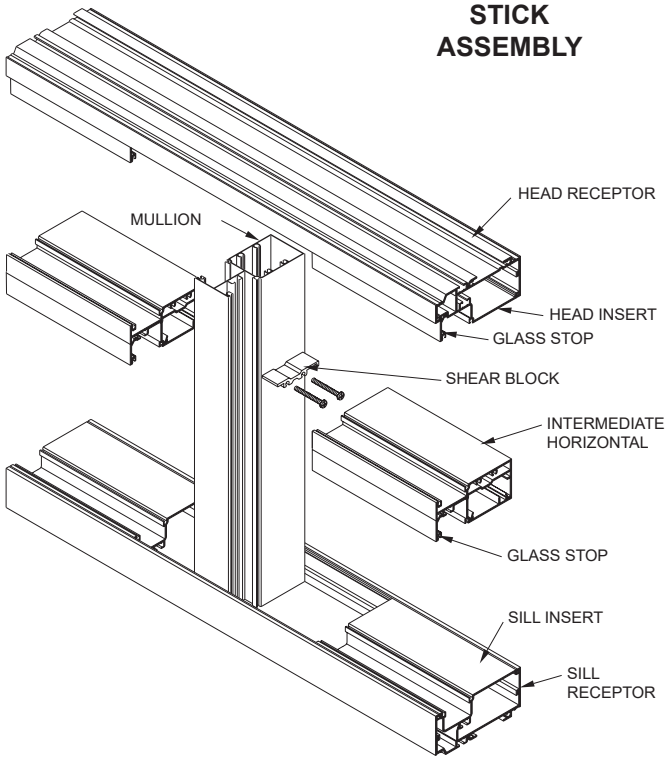


The **Shear Block** system of fabrication allows a frame to be pre-assembled as a single unit. Horizontals are attached to the verticals with shear blocks.

SHEAR BLOCK ASSEMBLY



STICK ASSEMBLY



The **Stick** system allows on-site construction. Head and sill receptors are fastened to the surround. Vertical mullions are then installed in these receptors and are held in place by snap-in inserts. Intermediate horizontal members are attached to the verticals with shear blocks. Flashing is not required.

NOTE:
If the end reaction of the mullion (mullion spacing (ft.) times height (ft.) times specified wind load (psf) divided by two) is more than 500 lbs., the optional mullion anchors must be used. (See page 38)

Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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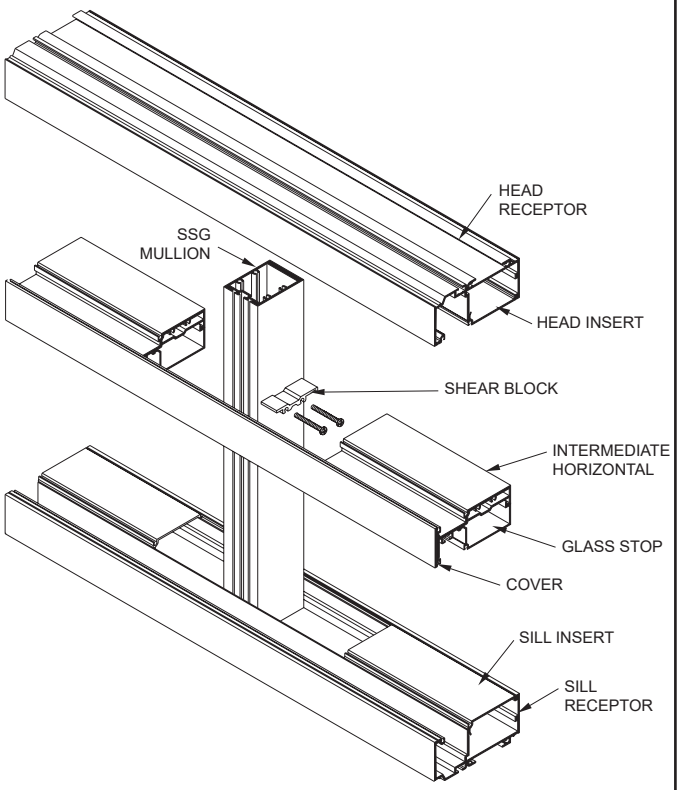
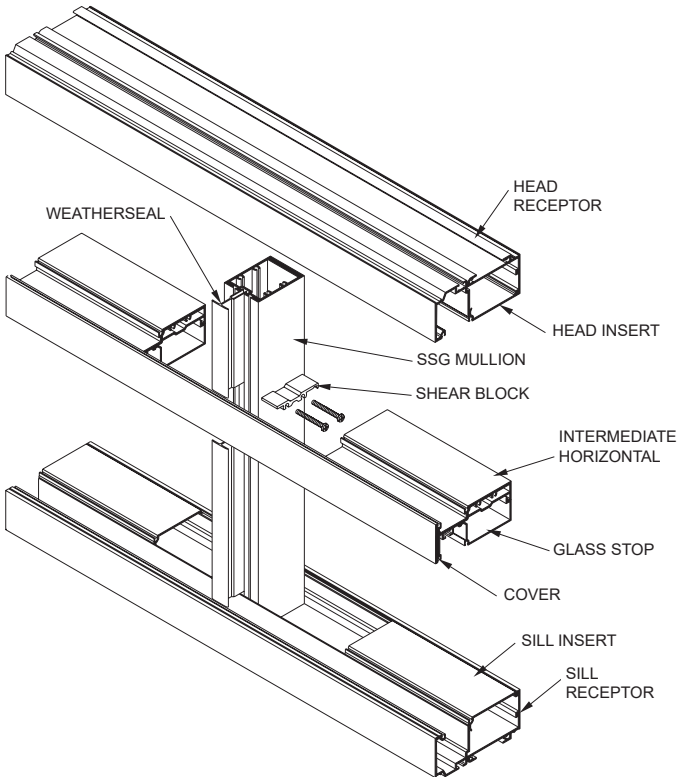
Trifab® VG 451/451T Framing System

The **Stick** system allows on-site construction. Head and sill receptors are fastened to the surround. Vertical mullions are then installed in these receptors and are held in place by snap-in inserts. Intermediate horizontal members are attached to the verticals with shear blocks. Flashing is not required.

STICK ASSEMBLY (SSG)



STICK ASSEMBLY (WEATHERSEAL)



NOTE:
If the end reaction of the mullion (mullion spacing (ft.) times height (ft.) times specified wind load (psf) divided by two) is more than 500 lbs., the optional mullion anchors must be used. (See page 38)

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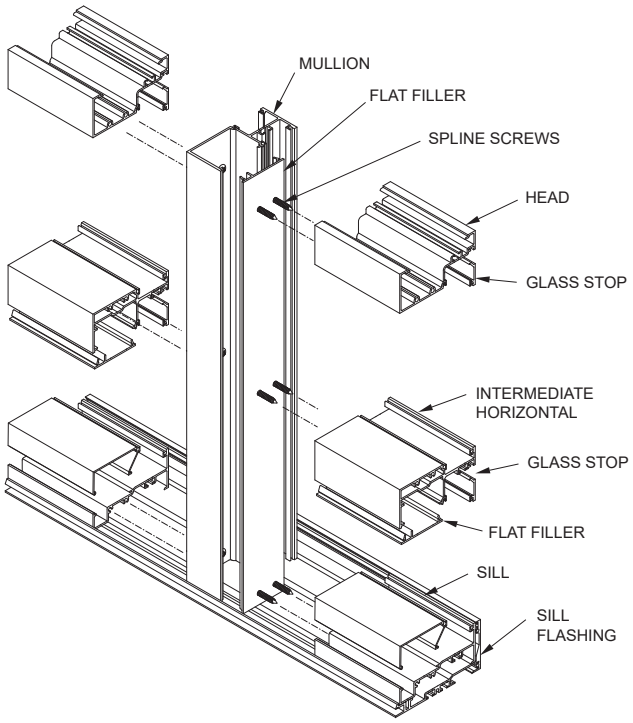
Trifab® VG 451/451T Framing System

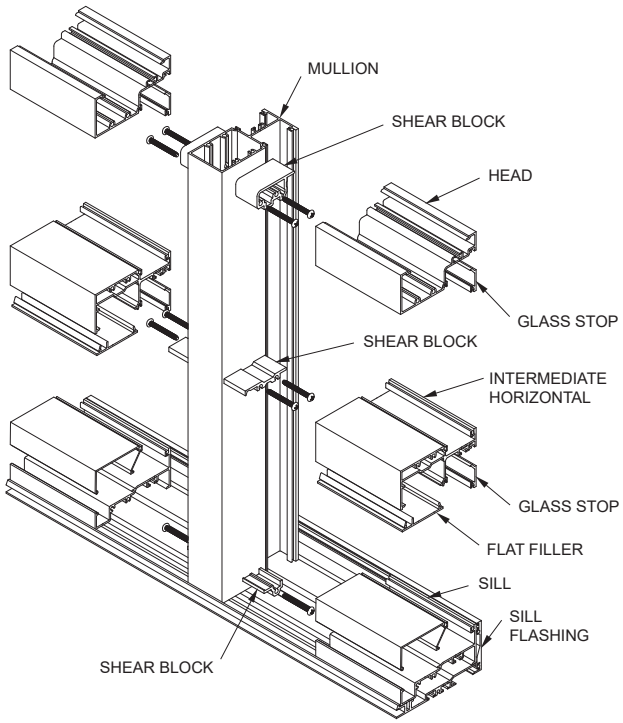
The split vertical in the **Screw Spline** system allows a frame to be installed from unitized assemblies. Screws are driven through the back of the verticals into splines extruded in the horizontal framing members. The Individual units are then snapped together to form a complete frame.

SCREW SPLINE ASSEMBLY

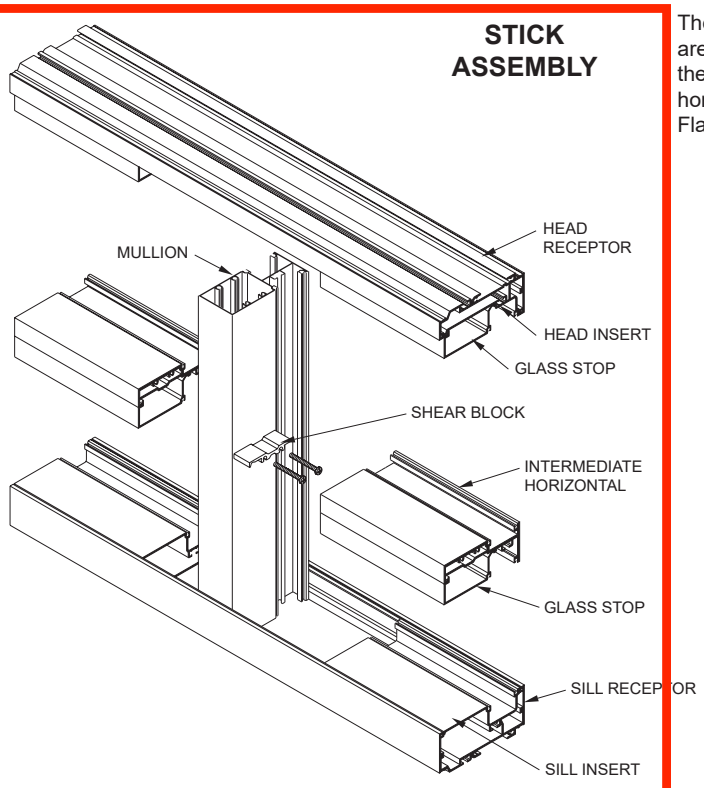


The **Shear Block** system of fabrication allows a frame to be pre-assembled as a single unit. Horizontals are attached to the verticals with shear blocks.

SHEAR BLOCK ASSEMBLY



STICK ASSEMBLY



The **Stick** system allows on-site construction. Head and sill receptors are fastened to the surround. Vertical mullions are then installed in these receptors and are held in place by snap-in inserts. Intermediate horizontal members are attached to the verticals with shear blocks. Flashing is not required.

NOTE:
If the end reaction of the mullion (mullion spacing (ft.) times height (ft.) times specified wind load (psf) divided by two) is more than 500 lbs., the optional mullion anchors must be used. (See page 49)

Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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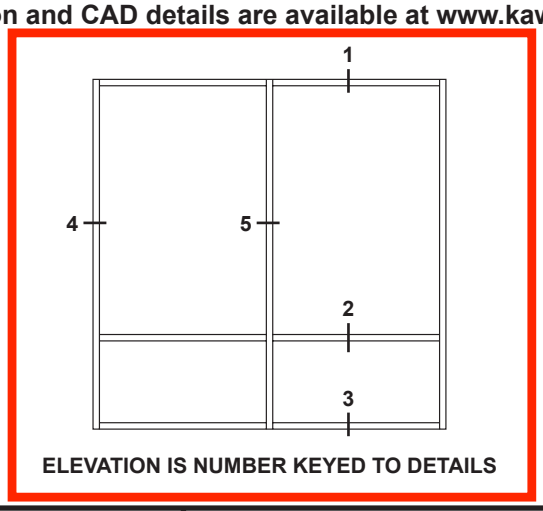
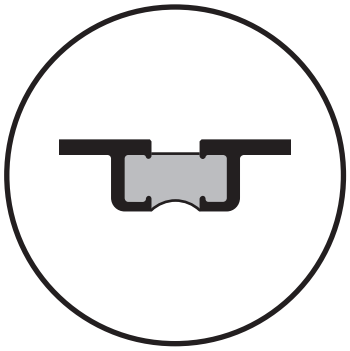
Trifab® VG 451/451T Framing System

BASIC FRAMING DETAILS (FRONT - Outside Glazed)

Additional information and CAD details are available at www.kawneer.com

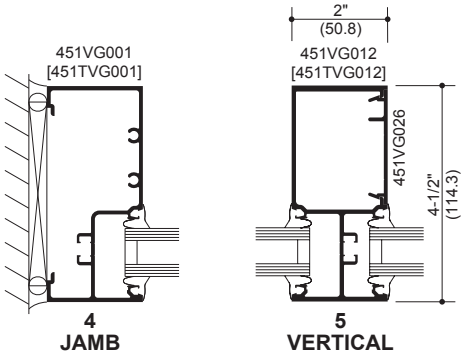


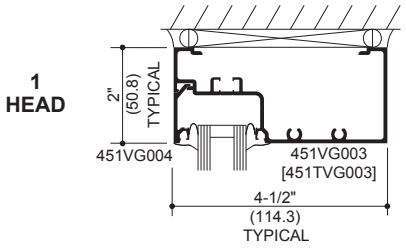
ELEVATION IS NUMBER KEYED TO DETAILS

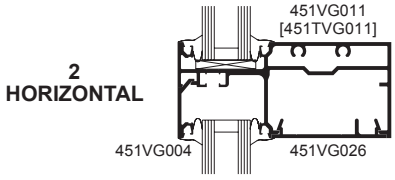


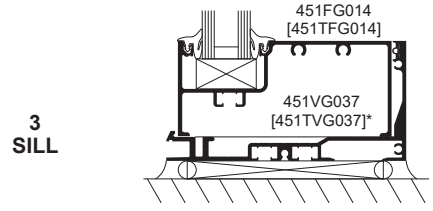
NUMBERS IN BRACKETS ARE THERMALLY BROKEN MEMBERS

SCREW SPLINE



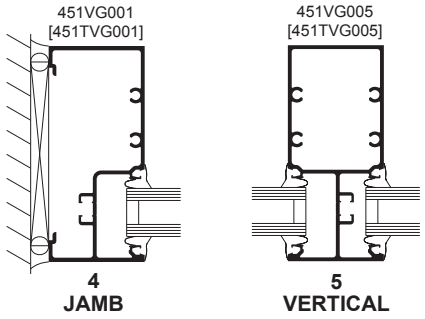


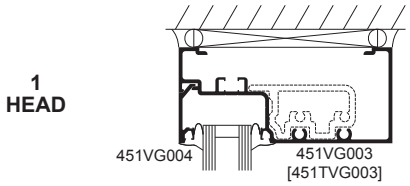


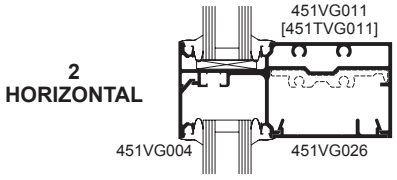


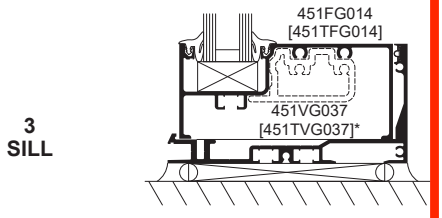
* HP Sill Flashing shown with optional gasket.

SHEAR BLOCK



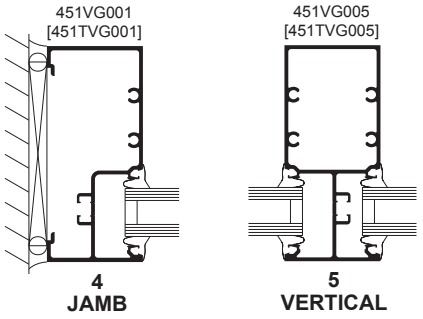


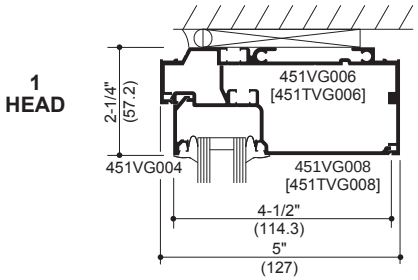


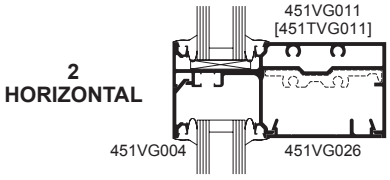


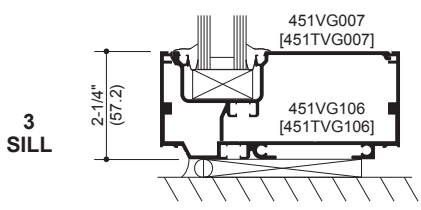
* HP Sill Flashing shown with optional gasket.

STICK









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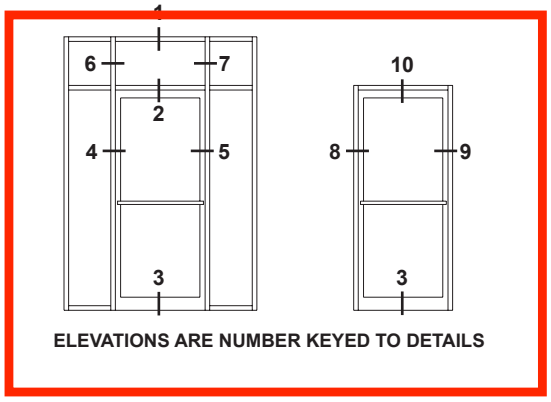
Additional information and CAD details are available at www.kawneer.com

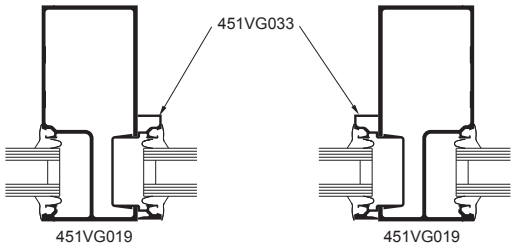
Trifab® VG 451 FRAMING INCORPORATING KAWNEER® "190" DOORS.

DOOR FRAMING NON-THERMAL ONLY

NOTE: OTHER TYPES OF KAWNEER DOORS MAY BE USED WITH THIS FRAMING SYSTEM. SEE ENTRANCE DETAILS FOR ADDITIONAL INFORMATION.

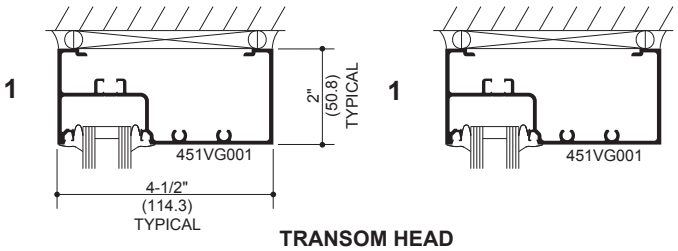


ELEVATIONS ARE NUMBER KEYED TO DETAILS

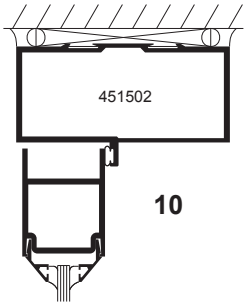


6 TRANSOM JAMBS 7

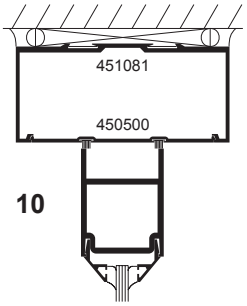
Transom area for both double or single acting doors with glass surround. Jambs above transom bar are routed out to accept glass holding insert.



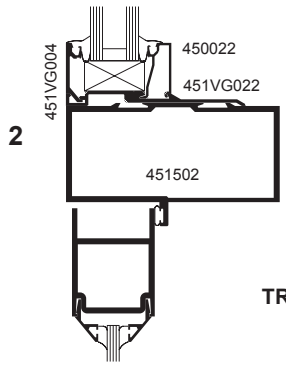
TRANSOM HEAD

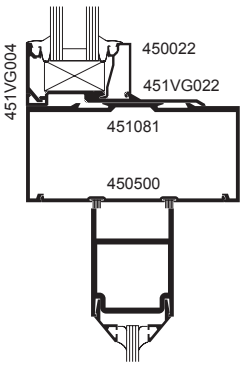


SINGLE ACTING HEADER

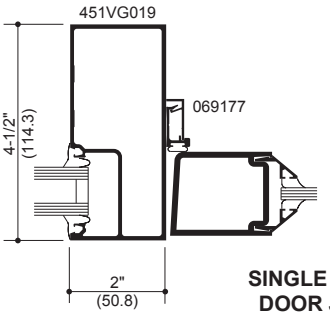


DOUBLE ACTING HEADER





TRANSOM BAR



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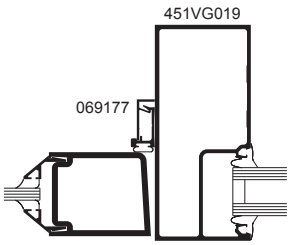
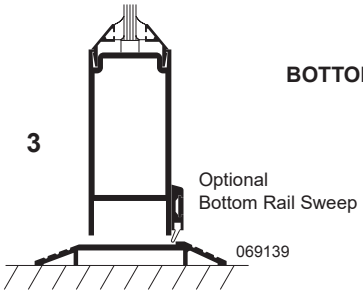
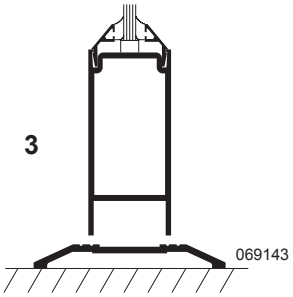


SINGLE ACTING DOOR JAMBS 5

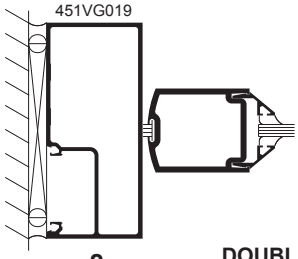


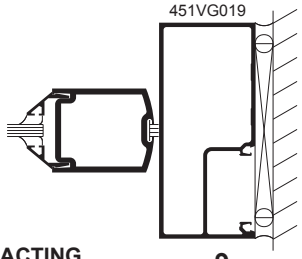
SINGLE ACTING

BOTTOM RAIL



DOUBLE ACTING





DOUBLE ACTING DOOR JAMBS

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ALUMINUM CLAD WOOD WINDOWS

LINCOLN CASEMENT & FIXED (BLACK)

4

TECHNICAL GUIDE

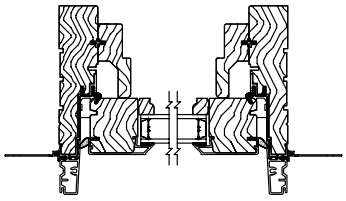
LINCOLN WOOD PRODUCTS, INC.

03/2020

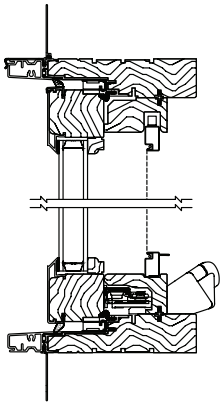
This data accurate as of 03/2020. Reference www.lincolnwindows.com for most current information.

Casement

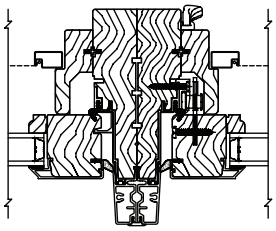
Scale: 2"=1' (all sections)



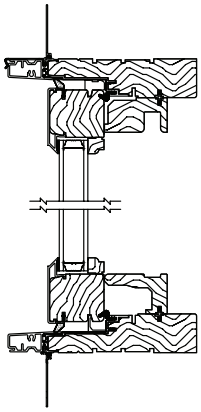
Clad Horizontal Section



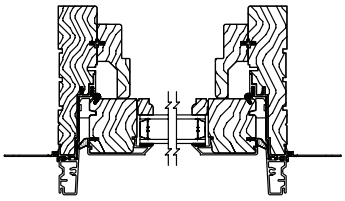
Clad Vertical Section



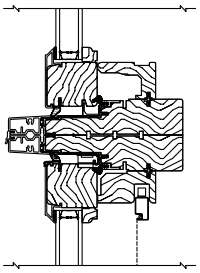
Clad Vertical Mull
Horizontal Section



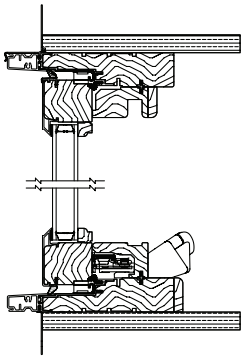
Clad Studio
Vertical Section



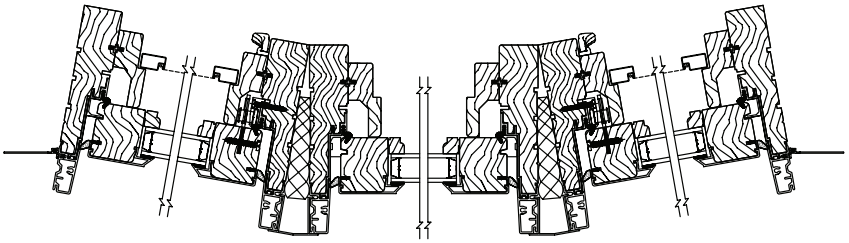
Clad Studio
Horizontal Section



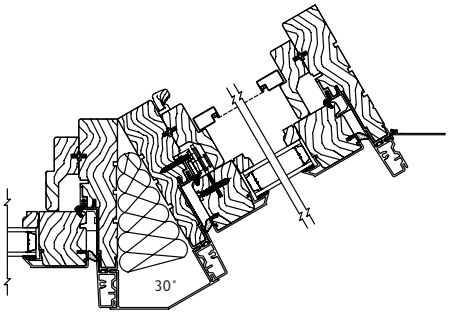
Clad Horizontal Mull
Vertical Section



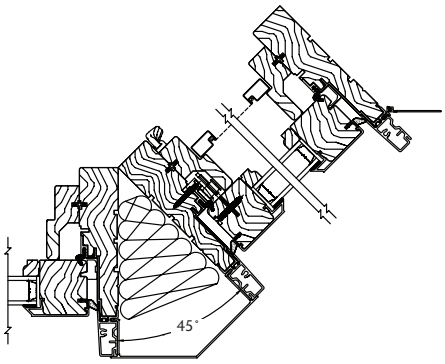
Clad Bow & Bay
Vertical Section



Clad Bow Horizontal Section



Clad 30° Bay Mull Horizontal Section

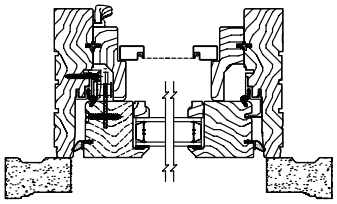


Clad 45° Bay Mull Horizontal Section

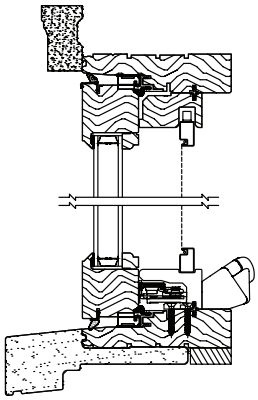
2 CROSS SECTIONS

Casement

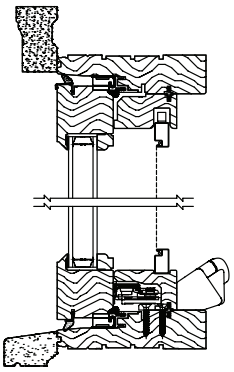
Scale: 2"=1' (all sections)



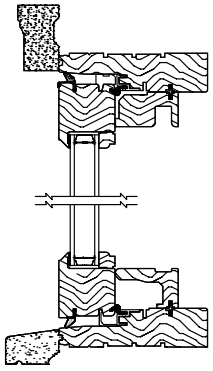
Primed Horizontal Section



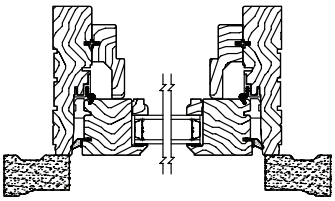
Primed with 2" Sill Nosing
Vertical Section



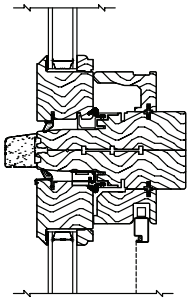
Primed Vertical Section



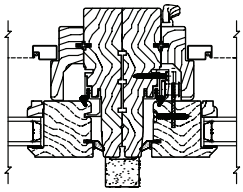
Primed Studio
Vertical Section



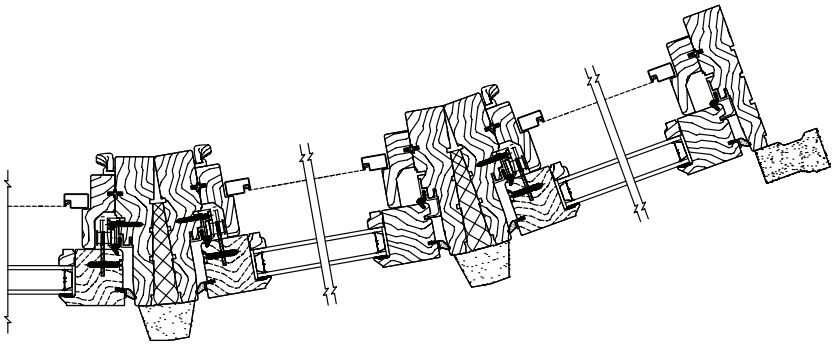
Primed Studio
Horizontal Section



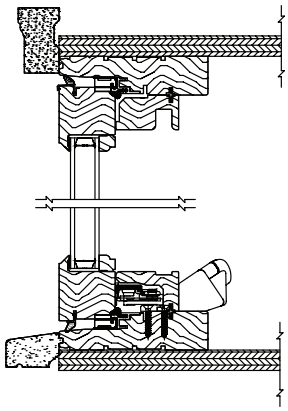
Primed Horizontal Mull
Vertical Section



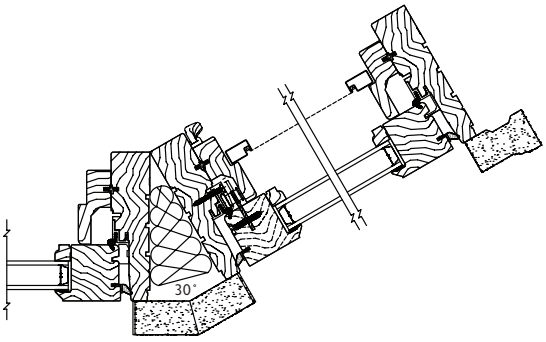
Primed Vertical Mull
Horizontal Section



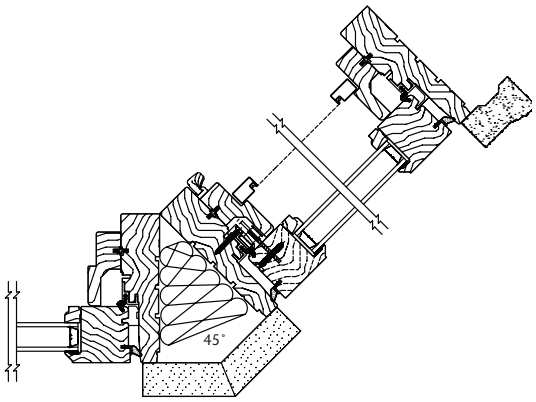
Primed Bow Mull Horizontal Section



Primed Bow & Bay
Vertical Section



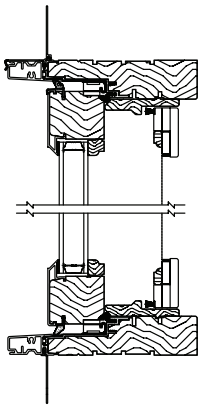
Primed 30° Bay Mull Horizontal
Section



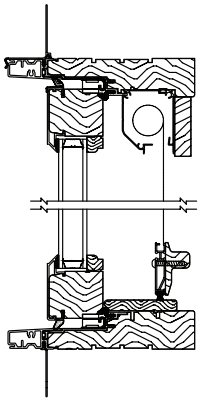
Primed 45° Bay Mull Horizontal
Section

Casement - Push-Out Hardware

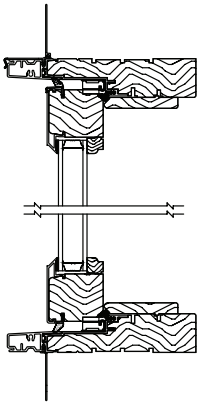
Scale: 2"=1' (all sections)



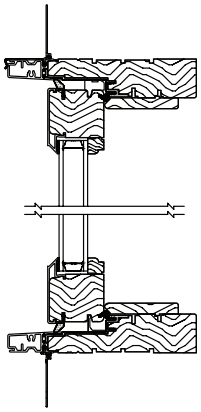
Clad Push-Out with
Wood Screen
Vertical Section



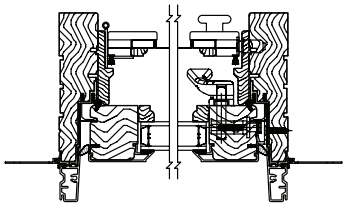
Clad Push-Out with
Retractable Screen
Vertical Section



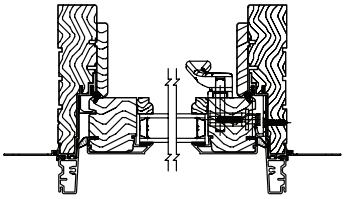
Clad Push-Out with
No Screen
Vertical Section



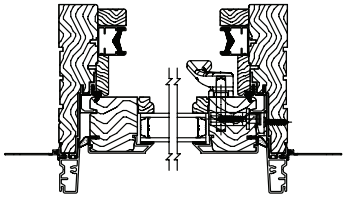
Clad Push-Out Studio
Vertical Section



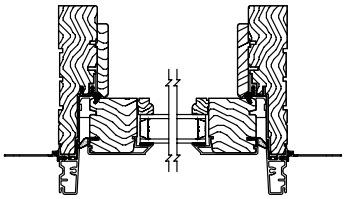
Clad Push-Out with
Wood Screen
Horizontal Section



Clad Push-Out with
No Screen
Horizontal Section



Clad Push-Out with
Retractable Screen
Horizontal Section

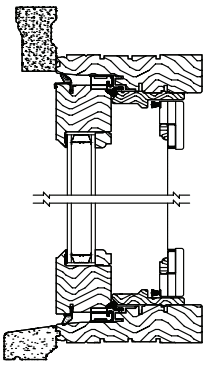


Clad Push-Out Studio
Horizontal Section

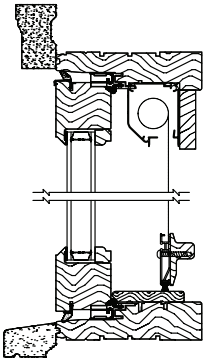
6 CROSS SECTIONS

Casement - Push-Out Hardware

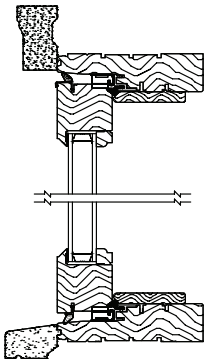
Scale: 2"=1' (all sections)



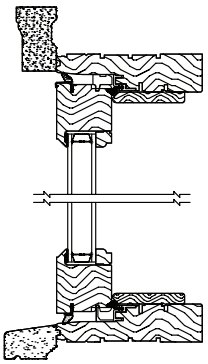
Primed Push-Out with
Wood Screen
Vertical Section



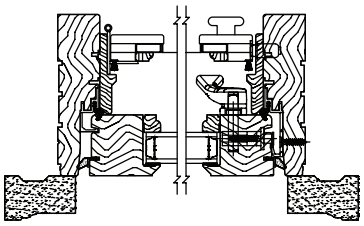
Primed Push-Out with
Retractable Screen
Vertical Section



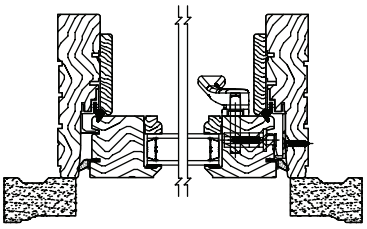
Primed Push-Out with
No Screen
Vertical Section



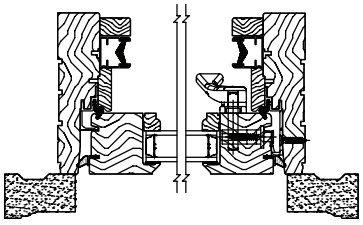
Primed Push-Out Studio
Vertical Section



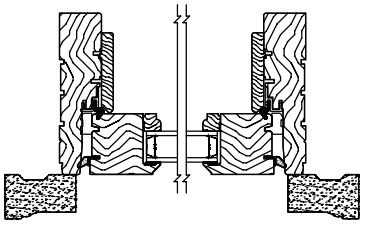
Primed Push-Out with
Wood Screen
Horizontal Section



Primed Push-Out with
No Screen
Horizontal Section



Primed Push-Out with
Retractable Screen
Horizontal Section

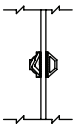


Primed Push-Out Studio
Horizontal Section

Grille Options

Not Scaled

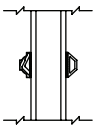
Simulated Divided Lites

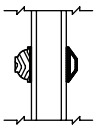

5/8" SDL
Single Glazed

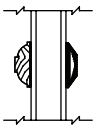
7/8" Profiled SDL
Single Glazed

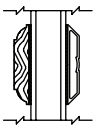
1-1/8" SDL
Single Glazed

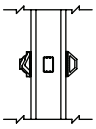
2" SDL
Single Glazed

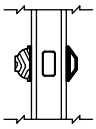

5/8" SDL
w/o Internal Grille

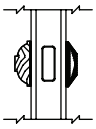

7/8" SDL
w/o Internal Grille

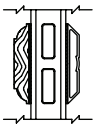

1-1/8" SDL
w/o Internal Grille

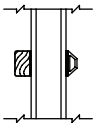

2" SDL
w/o Internal Grille

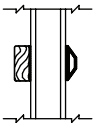

5/8" SDL
with Internal Grille

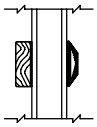

7/8" SDL
with Internal Grille

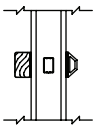

1-1/8" SDL
with Internal Grille

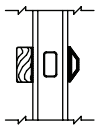

2" SDL
with Internal Grille

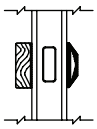

5/8" Square interior SDL
w/o Internal Grille

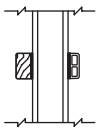

7/8" Square interior SDL
w/o Internal Grille

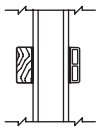

1-1/8" Square interior SDL
w/o Internal Grille

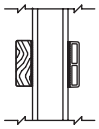

5/8" Square interior SDL
with Internal Grille

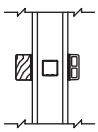

7/8" Square interior SDL
with Internal Grille

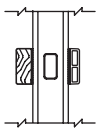

1-1/8" Square interior SDL
with Internal Grille

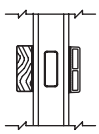

5/8" Square Int/Ext SDL
w/o Internal Grille


7/8" Square Int/Ext SDL
w/o Internal Grille

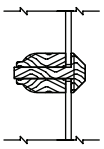

1-1/8" Square Int/Ext SDL
w/o Internal Grille

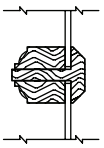

5/8" Square Int/Ext SDL
with Internal Grille

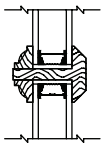

7/8" Square Int/Ext SDL
with Internal Grille


1-1/8" Square Int/Ext SDL
with Internal Grille

True Divided Lites


7/8" True Divided Lite
Single Glazed


1-1/4" True Divided Lite
Single Glazed


1-1/4" True Divided Lite

METAL RAILING

WAGNER COMPANIES (BLACK)

5

Square Tube Flush Weld Elbows

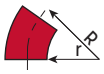
Stock ***Square Tubing Elbows*** have a .083" wall ***Tubing*** except as noted. Contact **Wagner** regarding availability of other radii and wall thicknesses - ***rfq@mailwagner.com.***

r = Inside Radius
R = Center Line Radius
C-C = Center to Center Diameter

Made in MILWAUKEE

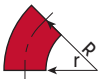
STEEL	A53, A500
ALUMINUM	6063
Upon request:	
STAINLESS STEEL	Type 304

35° Elbow



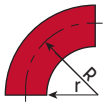
Square Tube	r	R	STEEL
1.50"	3 3/4"	4 1/2"	6360
2.00"	7"	8"	6380†

45° Elbow



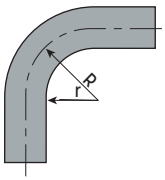
Square Tube	r	R	STEEL
1.25"	3 1/8"	3 3/4"	**6332**
1.50"	3 3/4"	4 1/2"	6362
2.00"	7"	8"	6382†

90° Elbow



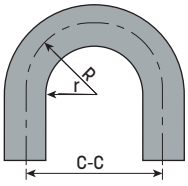
Square Tube	r	R	STEEL
1.00"	2 1/2"	3"	**6306**
1.25"	3 1/8"	3 3/4"	**6336**
1.50"	3 3/4"	4 1/2"	**6366**
2.00"	7"	8"	**6386†**

90° Elbow with Two 2" Tangents



Square Tube	r	R	STEEL	ALUMINUM
1.00"	2 1/2"	3"	**6308**	6408
1.25"	3 1/8"	3 3/4"	6338	
1.50"	3 3/4"	4 1/2"	**6368**	
2.00"	7"	8"	6388†	

180° Elbow with Two 2" Tangents



Square Tube	r	R	C-C	STEEL	ALUMINUM
1.00"	2 1/2"	3"	6"	6313ß	6413
1.25"	3 1/8"	3 3/4"	7 1/2"	**6343ß**	
1.50"	3 3/4"	4 1/2"	9"	6373ß	
2.00"	7"	8"	16"	6393†ß	

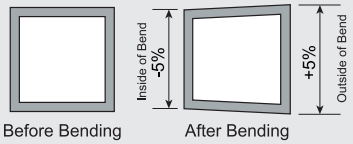
ß Available with two untrimmed tangents.
Add a **B** at the end of the number when ordering

Deformity Issues with Stock Bends

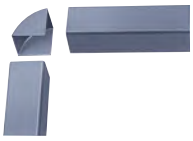
The process of bending ***Pipe*** and ***Tube*** results in unavoidable deformation.

In ***Square*** and ***Rectangular*** Tube sections, the ***Tube*** will tend towards a trapezoidal deformation. The deformation may be as much as -5% on the inside of the bend and +5% on the outside of the bend.

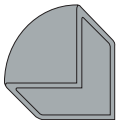
This may be avoided by ordering ***Elbows with Tangents*** since the tangent sections will be unaffected by the bending process.



Square Tube Flush Weld Corner



No Miter - No Sharp Corners
This cost-cutting corner simplifies fit-up and shortens fabrication. Simply square cut your ***Tubing.***



Radius equals the tube size. Not recommended for ***Square Corner Extruded Tube.***

Square Tube	Wall Thick.	STEEL	ALLOY 304 STAINLESS
1.00"	.080"	**9210**	**9212**
1.25"	.080"	**9215**	9217
1.50"	.080"	**9220**	**9222**
2.00"	.080"	**9225**	**9227**
4.00"	.104"	**3900136B**	

Elbows *are supplied with a mill finish. They are also available galvanized, zinc plated, anodized or polished to a satin or bright finish.*

† Denotes .120" wall.

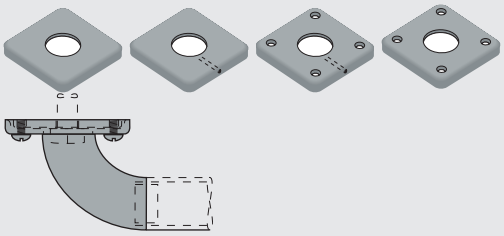
Square Flush Base Flanges

Available in Steel, Aluminum Alloy 3003 and Stainless Steel Type 304. Contact **Wagner** at ***rfq@mailwagner.com*** regarding availability in Brass, Bronze, Alloy 316 Stainless Steel and finishes.

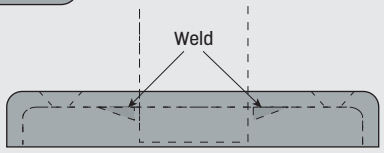
These ***Flanges*** may be combined with square or round ***Elbows*** from pages 39 - 46 to create ***Wall Returns*** as noted below.

Square Flanges with Round Holes

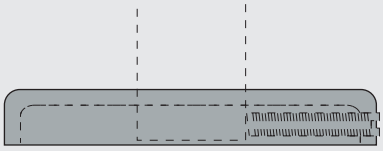
To order ***Square Flanges*** with round holes for ***Pipe*** or ***OD Tubing***, add **P** after the fitting number for ***Pipe*** of that size or **T** after fitting number for ***Round Tube*** of that size.



Returns with ***Square Flush Base Flanges*** and ***Elbows***



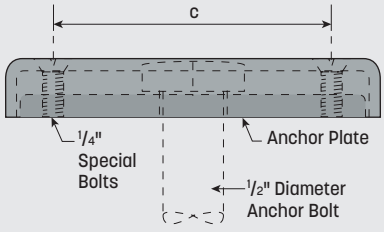
Floor or Wall Cover Plate



Threaded Flanges with Set Screw

Square Floor and Wall Formed Flanges with Anchor Plate

When an ***Anchor Plate*** is used with a ***Flange***, fasten ***Plate*** to floor then attach ***Flange*** to ***Plate*** with four 1/4-20 screws provided.



Cover Flange Size	c	Hole Dia.	Height	Thick.	Stainless Steel Thick.
3" × 3"	2"	5/16"	1/2"	10 Ga.	11 Ga.
3 3/4" × 3 3/4"	2 3/4"	5/16"	1/2"	10 Ga.	11 Ga.
5 3/16" × 5 3/16"	3 3/4"	7/16"	7/16"	16 Ga.	16 Ga.

Plain Flange

8708

Tube Size	Cover Flange Size	10 GA. STEEL	.125" ALUMINUM	304 STAINLESS
3/4" × 3/4"	3" × 3"	**8701**	**8771**	8841
1" × 1"	3" × 3"	**8708**	8778	8848
1 1/4" × 1 1/4"	3" × 3"	**8715**	**8785**	**8855**
1 1/2" × 1 1/2"	3 3/4" × 3 3/4"	**8722**	**8792**	**8862*†**
1 3/4" × 1 3/4"	3 3/4" × 3 3/4"	**8734**	8804	8874
2" × 2"	3 3/4" × 3 3/4"	**8729**	**8799**	**8869**
2 1/2" × 2 1/2"	5 3/16" × 5 3/16"	**88057***	88027*	**88097***
3" × 3"	5 3/16" × 5 3/16"	**88064***	**88034***	88004*
1" × 1 1/2"	3 3/4" × 3 3/4"	**8750**		**8890**
1" × 2"	3 3/4" × 3 3/4"	**8757**	8827	**8897**
1 1/2" × 2"	3 3/4" × 3 3/4"	8764	8834	**89004**

* Also available from stock with a satin finish. Order **8862.4**

† Also available in 316 Alloy.

Plain Flange with Set Screw†

8718

Tube Size	Cover Flange Size	10 GA. STEEL	.125" ALUMINUM	304 STAINLESS
3/4" × 3/4"	3" × 3"	**8704**		**8844**
1" × 1"	3" × 3"	**8711**	**8781**	**8851**
1 1/4" × 1 1/4"	3" × 3"	**8718**		**8858**
1 1/2" × 1 1/2"	3 3/4" × 3 3/4"	**8725**	**8795**	**8865** †
1 3/4" × 1 3/4"	3 3/4" × 3 3/4"	**8736**	**8806**	
2" × 2"	3 3/4" × 3 3/4"	**8732**	**8802**	**8872** †
1" × 1 1/2"	3 3/4" × 3 3/4"	**8753**		
1 1/2" × 2"	3 3/4" × 3 3/4"	**8767**		

† Also available in 316 Alloy.

Flange with Four Countersunk Holes

8709

Tube Size	Cover Flange Size	10 GA. STEEL	.125" ALUMINUM	304 STAINLESS
3/4" × 3/4"	3" × 3"	**8702**		
1" × 1"	3" × 3"	**8709**	8779	8849
1 1/4" × 1 1/4"	3" × 3"	**8716**	8786	**8856**
1 1/2" × 1 1/2"	3 3/4" × 3 3/4"	**8723**	**8793**	**8863**
1 3/4" × 1 3/4"	3 3/4" × 3 3/4"	**8735**	**8805**	**8875**
2" × 2"	3 3/4" × 3 3/4"	**8730**	**8800**	8870
3" × 3"	5 5/16" × 5 5/16"	88065*		
1" × 1 1/2"	3 3/4" × 3 3/4"	**8751**		8891

Flange with Set Screw† and Four Countersunk Holes

8719

Tube Size	Cover Flange Size	10 GA. STEEL	304 STAINLESS
1 1/4" × 1 1/4"	3" × 3"		**8859**
1 1/2" × 1 1/2"	3 3/4" × 3 3/4"	**8726**	**8866**
2" × 2"	3 3/4" × 3 3/4"	**8733**	

Universal Anchor Plate

8727

Tube Size	Plate Size	STEEL	304 STAINLESS
3/4" × 3/4"	2 5/8" × 2 5/8"	**8706**	**8846**
1" × 1"	2 5/8" × 2 5/8"	**8706**	**8846**
1 1/4" × 1 1/4"	2 5/8" × 2 5/8"	**8706**	**8846**
1 1/2" × 1 1/2"	3 3/8" × 3 3/8"	**8727**	**8867**
1 3/4" × 1 3/4"	3 3/8" × 3 3/8"	**8727**	**8867***
2" × 2"	3 3/8" × 3 3/8"	**8727**	**8867***
1" × 1 1/2"	3 3/8" × 3 3/8"	**8727**	**8867***
1" × 2"	3 3/8" × 3 3/8"	**8727**	**8867***
1 1/2" × 2"	3 3/8" × 3 3/8"	**8727**	**8867***

*Available in 316 Alloy

All ***Anchor Plates*** are 3/16" thick with 1/4" × 3/8" ***Bolts.***

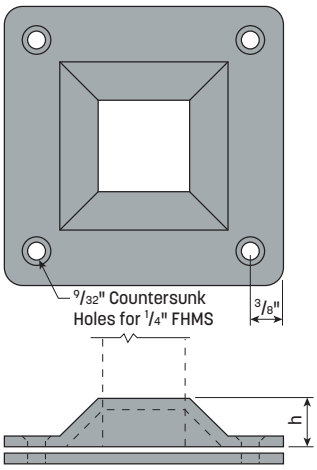
NUMBERS IN BOLD TYPE are typically in stock. Other items may not be available for immediate shipment or are modified-to-order - requiring a minimum quantity and a longer lead time. Visit shop.wagnercompanies.com for availability.

Square Tube Flanges

	Standard Alloys	Thickness
Steel	1006-1010	as noted
Aluminum	3003	as noted

8045-NH

8041



8057

Other alloys are available on special request. Supplied with a mill finish. Contact **Wagner** *at* ***rfq@mailwagner.com*** *regarding polishing, plating, galvanizing, anodizing or special finishes.*

Plain Flange – No Mounting Holes

Tube Size	Base Size	Height	Thickness	STEEL	ALUMINUM
3/4" × 3/4"	3 3/4" × 3 3/4"	7/8"	10 Ga.	**8041-3NH**	8042-3NH*
1" × 1"	3 3/4" × 3 3/4"	7/8"	10 Ga.	**8041-NH**	**8042-NH***
1 1/4" × 1 1/4"	3 3/4" × 3 3/4"	7/8"	10 Ga.	**8045-NH**	**8046-NH***
1 1/2" × 1 1/2"	3 3/4" × 3 3/4"	7/8"	10 Ga.	**8047-NH**	**8048-NH***
2" × 2"	5" × 5"	1"	7 Ga.	**8051-NH**	**8052-NH**
2 1/2" × 2 1/2"	5" × 5"	1"	7 Ga.	8049-NH	**8050-NH**
3" × 3"	5" × 5"	5/8"	7 Ga.	**8096-NH**	**8098-NH**
1" × 1 1/2"	5" × 5"	1"	7 Ga.	8053-NH	

* Thickness = 3/16"

Flange with Four Countersunk Holes

Tube Size	Base Size	Height	Thickness	STEEL	ALUMINUM
3/4" × 3/4"	3 3/4" × 3 3/4"	7/8"	10 Ga.	8041-3	8042-3*
1" × 1"	3 3/4" × 3 3/4"	7/8"	10 Ga.	**8041**	**8042***
1 1/4" × 1 1/4"	3 3/4" × 3 3/4"	7/8"	10 Ga.	**8045**	**8046***
1 1/2" × 1 1/2"	3 3/4" × 3 3/4"	7/8"	10 Ga.	**8047**	**8048**
2" × 2"	5" × 5"	1"	7 Ga.	**8051**	**8052**
2 1/2" × 2 1/2"	5" × 5"	1"	7 Ga.	**8049**	**8050**
1" × 1 1/2"	5" × 5"	1"	7 Ga.	8053	**8054**
1" × 2"	5" × 5"	1"	7 Ga.	8055	
1 1/2" × 2"	4" × 4"	1"	7 Ga.	**8055-2**	

* Thickness = 3/16"

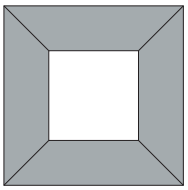
Anchor Plate

Anchor Plate includes four 1/4" × 5/16" ***Flat Head Machine Screws*** (FHMS).

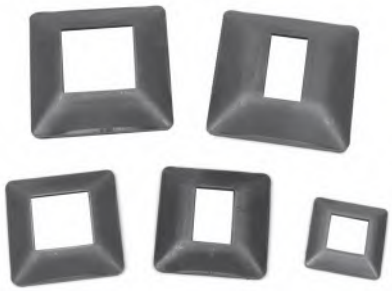
Flange Size	Height	Thickness	STEEL
3 3/4" × 3 3/4"	3/16"	3/16"	**8057**
5" × 5"	3/16"	3/16"	**8043**

Cover Plate

	Standard Alloys	Thickness
Steel	1006-1010	1/8"
Aluminum	3003	1/8"



8081



Other alloys are available on special request. Supplied with a mill finish. Contact **Wagner** *at* ***rfq@mailwagner.com*** *regarding polishing, plating, galvanizing, anodizing or special finishes.*

Slip-On Cover Plate

Tube Size	Base Size	Height	Thickness	STEEL	ALUMINUM
3/4" × 3/4"	2" × 2"	7/16"	10 Ga.	8077	**8078**
1" × 1"	2" × 2"	3/8"	10 Ga.	**8079**	8080
1 1/4" × 1 1/4"	3" × 3"	5/8"	10 Ga.	**8081**	**8082**
1 1/2" × 1 1/2"	3" × 3"	5/8"	10 Ga.	**8083**	**8084**
2" × 2"	4" × 4"	13/16"	7 Ga.	**8085**	**8086**
[illegible]	[illegible]	[illegible]	[illegible]	**8089**	8090
1" × 2"	4" × 4"	7/8"	7 Ga.	**8091**	8092
1 1/2" × 2"	4" × 4"	7/8"	7 Ga.	8091-2	8092-2

Disks and Plates

Items on this page are stocked for quick shipment at competitive prices. Call **Wagner** for large quantity pricing. ***Disks*** and ***Plates*** are supplied in mill finish. They can be supplied in special finishes, custom sizes and hole configurations. Any custom size ***Disk*** or ***Plate*** can be ***Laser Cut.*** Contact ***rfq@mailwagner.com*** for details and pricing.

Laser Cut Custom Disks, Plates and Hole Configurations Are Available.

D321H

Blank Plates with Radius Corners and Holes

Four 7/16" Holes for 3/8" ***Bolt.***

Diam.	Thick.	STEEL	ALUMINUM	304 STAINLESS
2 5/8"	3/16"	**D321H***		**D323H***
3 3/8"	3/16"	**D324H**		**D326H**
4"	1/4"	**D480H**	**D481H**	D482H†
4 5/8"	1/4"	**D484H**	D485H	D486H†

*Denotes items that have four 5/16" holes.
†Denotes items that have 3/16" thickness.

3206-1

Plates with Radius Corners

Dimensions	Thick.	STEEL	ALUMINUM	304 STAINLESS	BRASS
1" × 1"	1/8"	**3206-1**	**3206-1A**	**3206-1SS**	
1 1/4" × 1 1/4"	1/8"	**3207-1**	**3207-1A**	**3207-1SS**	
1 1/2" × 1 1/2"	1/8"	**3220-D**	**3220-DA**	3220-DSS	
2" × 2"	1/8"	**3221-D**	**3221-DA**	**3221-DSS**	
2 5/8" × 2 5/8"	3/16"	3221-1D	3221-1A	3221-1SS	BRS3221-1D
3 3/8" × 3 3/8"	3/16"	**3221-2D**	3221-2A	3221-2SS	BRS3221-2D
5" × 5"	3/16"	3221-3D	3221-3A		BRS3221-3D
4" × 6"	3/16"	D372			
4" × 4"	1/4"	**D480**	D481	**D482†**	D483
4 5/8" × 4 5/8"	1/4"	D484		D486†	

†Denotes items that have 3/16" thickness.

D135H

Round Disks with Holes

Three 5/16" Holes.

Diam.	Thick.	STEEL	ALUMINUM	304 STAINLESS
3"	1/8"	D135H	**D136H**	D137H
3"	1/4"	**D143H**	D144H	**D145H**
3 1/2"	1/4"	**D173H**	**D174H**	D175H
4"	1/4"	**D203H**	D204H	**D205H**
4 1/2"	1/4"	**D246H**	D247H	D248H

D500

Heavy Round Disks

Steel Only.

Diam.	Thick.	STEEL
3"	3/8"	**D500**
3"	1/2"	D501
4"	3/8"	**D502**
4"	1/2"	D503
5"	3/8"	D504
5"	1/2"	D505
6"	3/8"	D506
6"	1/2"	D507

Blank Round Disks

Disks are available in other diameters, thicknesses and alloys contact **Wagner**

D015

Diameter	Thickness	STEEL	ALUMINUM	304 STAINLESS	C26000 BRASS
1"	1/8"	**D001**	**D002**	**D003**	**D004**
1"	1/4"	**D009**		D011	D012
1 1/4"	1/8"	**D015**	**D016**	**D017**	**D018**
1 1/4"	1/4"	**D023**	**D024**	**D025**	D026
1 5/16"	1/8"	**D030**	D031	**D032**	D033
1 5/16"	3/16"	**3227**	**3247**	**3267**	
1 5/16"	1/4"	D035	D036	D037	**D038**
1 1/2"	1/8"	**D045**	**D046**	**D047**	**D048**
1 1/2"	3/16"	**D049**	D050	D051	
1 1/2"	1/4"	**D053**	D054	**D055**	D056
1 5/8"	1/8"	**D060**	**D061**	**D062**	D063
1 5/8"	3/16"	**3228**	**3248**	**3268**	
1 5/8"	1/4"	**D065**	**D066**	**D067**	
1 3/4"	1/8"	**D069-1**	D069-2	**D069-3**	**D069-4**
1 3/4"	1/4"	**D071-1**	D071-2	D071-3	D071-4
1 7/8"	1/8"	**D075**	D076	**D077**	**D078**
1 7/8"	3/16"	**3229**	**3249**	**3269**	
1 7/8"	1/4"	**D080**	D081	**D082**	D083
2"	1/8"	**D090**	**D091**	**D092**	**D093**
2"	3/16"	**D094**	**D095**	**D096**	D097
2"	1/4"	**D098**	**D099**	**D100**	**D101**
2 3/8"	1/8"	**D105**	D106	**D107**	D108
2 3/8"	3/16"	**3230**	**3250**	**3270**	D109
2 3/8"	1/4"	**D110**	**D111**	D112	D113
2 1/2"	1/8"	**D120**	D121	**D122**	**D123**
2 1/2"	1/4"	**D128**	**D129**	**D130**	D131
2 7/8"	1/8"	**D132-1**	D132-2	D132-3	D132-4
2 7/8"	3/16"	**D133-1**	D133-2	D133-3	
2 7/8"	1/4"	**D134-1**	D134-2	D134-3	
3"	1/8"	**D135**	**D136**	**D137**	**D138**
3"	3/16"	**D139**	D140	**D141**	D142
3"	1/4"	**D143**	**D144**	**D145**	D146
3 1/4"	1/8"	**D150**	D151	D152	D153
3 1/4"	3/16"	**D154**	**D155**	D156	
3 1/4"	1/4"	**D158**	**D159**	D160	**D161**
3 1/2"	1/8"	**D165**	D166	**D167**	**D168**
3 1/2"	3/16"	**D169**	**D170**	**D171**	D172
3 1/2"	1/4"	**D173**	D174	**D175**	D176
3 3/4"	1/8"	**D180**	D181	D182	
3 3/4"	1/4"	D188	D189	**D190**	
4"	1/8"	**D195**	D196	**D197**	D198
4"	3/16"	**D199**	D200	**D201**	D202
4"	1/4"	**D203**	**D204**	**D205**	D206
4 1/8"	1/4"	D218			
4 1/4"	1/8"	**D225**	D226	D227	D228
4 1/4"	1/4"	**D233**		D235	
4 1/2"	1/8"	**D240**	**D241**	D242	**D242D**
4 1/2"	3/16"	**D243**	**D244**	**D245**	
4 1/2"	1/4"	**D246**	**D247**	**D248**	D248D
4 11/16"	1/4"		D264		
5"	1/8"	**D285**	D286	D287	D288
5"	1/4"	**D293**	D294	**D295**	D296
5 1/8"	1/8"	D300	D301	D302	D303
5 1/8"	1/4"	**D308**	D309	D310	
6"	1/4"	**D327-1**	D328-1	D329-1	
6 1/8"	1/8"	**D330**	**D331**	D332	
6 1/8"	1/4"	**D338**	D339		
6 5/8"	3/16"	**D345**	**D346**	D347	
7"	1/8"	**D360**	**D361**	D362	
7"	1/4"	**D368**	**D369**	D370	D371
8"	1/8"	**D400**	D401	D402	
8"	1/4"	**D406**	D407	D408	
9"	1/4"	**D436**	D437		
10"	1/8"	D450	D451	D452	
10"	1/4"	D456	D457		
12"	1/8"	**D470**	D471	D472	
12"	1/4"	**D476**	D477		

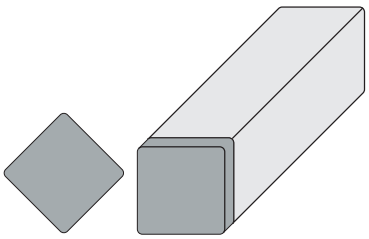
NUMBERS IN BOLD TYPE are typically in stock. Other items may not be available for immediate shipment or are made-to-order - requiring a minimum quantity and a longer lead time. Visit shop.wagnercompanies.com for availability.

Post Cap - Pressed

Pressed, except as noted. Pressed ***Caps*** have radius corners. When used with Aluminum architectural ***Tubing,*** you will need to relieve corners to drive on ***Cap.***

Tube Size	STEEL	PRE - GALV. STEEL	ZINC PLATED STEEL	ALUMINUM	STAINLESS
3/4" × 3/4"	**5174**			5175	5176
1" × 1"	**5150**			5152	5154
1 1/4" × 1 1/4"	**5162**			5163	**5164**
1 1/2" × 1 1/2"	**5156**			5158	**5160**
2" × 2"	**5100**			**5101**	**5103**
2 1/2" × 2 1/2"	**5104**	**G5104***		**5105**	**5111**
3" × 3"	**5106**	G5106*		**5107**	**5109**
3 1/2" × 3 1/2"	**5112**			5113	**5115**
4" × 4"	**5120**	G5120*	**PL5120**	**5121**	**5123**
3/4" × 1 1/2"	5170				
1" × 2"	**5165**			**5166**	5167
3" × 4"	**5124**				
3" × 6"	5132				
4" × 6"	**5136**				
5" × 5"	**5147**			5147A	
6" × 6"	**5149**			5149A	

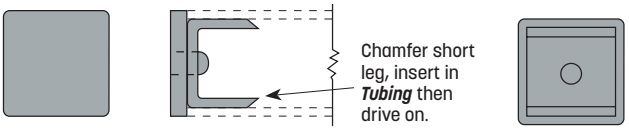
*Manufactured from pre-galvanized sheet - 18GA



Flush Square Tubing Weld-On Cap

Contact **Wagner** regarding availability in Stainless Steel.

Tube Size	Thickness	STEEL	ALUMINUM
1" × 1"	1/8"	**3206-1**	**3206-1A**
1 1/4" × 1 1/4"	1/8"	**3207-1**	**3207-1A**
1 1/2" × 1 1/2"	1/8"	**3220-D**	**3220-DA**
2" × 2"	1/8"	**3221-D**	**3221-DA**



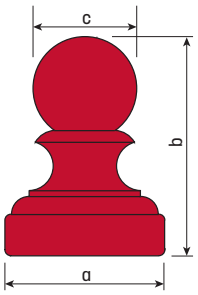
Flush Square Tubing Drive-On Cap

Tube Size	.073"/.083" WALL STEEL	.120" WALL STEEL	.120" WALL GALV. STEEL	.188" WALL STEEL	.125" WALL ALUMINUM
1" × 1"	**3206**	**3206-11**			**3206-A**
1 1/4" × 1 1/4"	**3207**	**3207-11**			3207-A
1 1/2" × 1 1/2"	**3204**	**3204-11**	G3204-11		**3204-A**
2" × 2"	**3202**	**3202-11**		**3202-188**	**3202-A**

Cast Post Cap

Cast ***Caps*** have radiused outside corners and round inside corners.

ALUMINUM	Satin Finish
BRONZE	Satin Finish
CAST IRON	As Cast



BC4040

Ball Cap

Slips over square ***Post*** - size as noted.

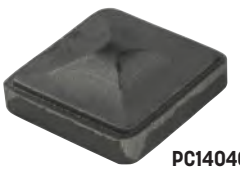
a	b	c	CAST IRON	To Fit
1 3/8"	2 1/4"	1 1/8"	**BC1010**	1" × 1"
2 3/8"	3 3/4"	1 3/4"	**BC2020**	2" × 2"
3 1/2"	4 1/2"	2"	**BC3030**	3" × 3"
4 1/2"	5 1/2"	2 3/4"	**BC4040**	4" × 4"

PC12050

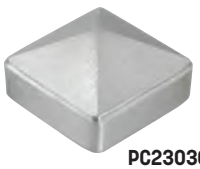
Rectangular - Cast Iron

Round Inside Corners.

Tube Size	CAST IRON
2" × 5"	**PC12050**
3" × 5"	**PC13050**
4" × 6"	**PC14060**



PC14040



PC23030

PC52020

Square - Cast

Round Inside Corners.

Tube Size	CAST IRON	ALUMINUM	BRONZE
1" × 1"	**PC11010**		
1 1/2" × 1 1/2"	**PC11515**		
2" × 2"	**PC12020**		PC52020
2 1/2" × 2 1/2"	**PC12525**		
3" × 3"	**PC13030**	**PC23030**	
4" × 4"	**PC14040**		

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BUILDING MOUNTED LIGHT

BARN LIGHT ELECTRIC – ‘AERO SHALLOW BOWL GOOSENECK LIGHT’
FINISH: BLACK
LIGHT SOURCE: 100-WATT LAMP (2700K)

6

REV 08.08.19

AERO SHALLOW BOWL GOOSENECK LIGHT

BARN LIGHT QUICK SHIP COLLECTION

Max Weight: 10.0 lbs

PROJECT NAME 278-282 Main St.

PROJECT TYPE

SPS-0333

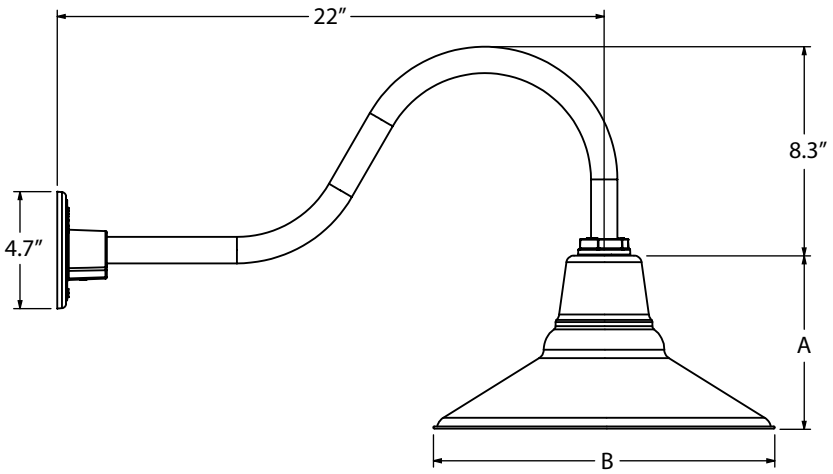
BLE - QS - G - SBA12 (A) - 100 (B) - G26 (C) - NA (D)

Order Example: BLE - QS - G - SBA16 - 975 - G1 - NA

A - SHADE SIZE		B - FINISHES		C - GOOSENECK ARMS	D - WIRE CAGE	
SBA12	12″ Aero Shade	*POWDER COAT FINISHES[1]:*		*GOOSENECK OPTIONS:*	**NA**	None/No Wire Cage
SBA16	16″ Aero Shade	**100**	Black	**G1**	**WC**	Wire Cage[2]
		200	White	**G15**		
		300	Dark Green	**G22**		
		975	Galvanized	**G26**		

IMPORTANT: *(1) All Powder Coat finished shades, Galvanized excluded, feature a white interior (2) If selected, wire cage finish will match selection in Section B*

DIMENSIONAL DRAWING



SHOWN WITH:
12" SHADE & G22 GOOSENECK ARM

SHADE CODE	HEIGHT (A)	DIAMETER (B)
SBA12	6.25″	12″
SBA16	7.75″	16″

LIGHT SOURCE

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. To obtain an IES file specific to your project, please contact the factory.

OPTION	WATTAGE	LUMENS *Avg. value, actual value dependent on bulb used	CRI	VOLTAGE	DIMMING
INCANDESCENT (MED E26)					
E26	200W Max	*3000	*100	120 VAC	Bulb Dependant

QUICK SHIP COLLECTION

REV 09.27.18

POWDER COAT FINISHES

To ensure every space receives its ideal look, Quick Ship Lights are available with some of our most popular finish options. 200-White and 100-Black coordinate with nearly every design sensibility, while 300-Dark Green offers a classic touch of color. For an industrial-inspired style, 975-Galvanized gives the fixture an authentic rugged character.

With the exception of 975-Galvanized, Quick Ship Shades feature a white interior. All powder coat finishes are applied entirely by hand in our Florida-based manufacturing facility, indicative of our commitment to quality.

100 BLACK

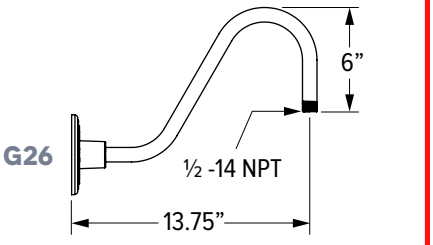
200 WHITE

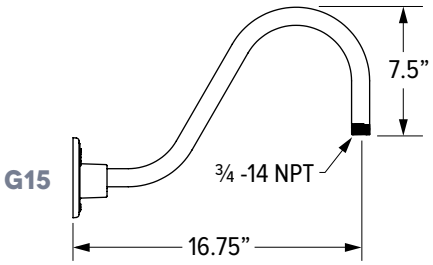
300 DARK GREEN

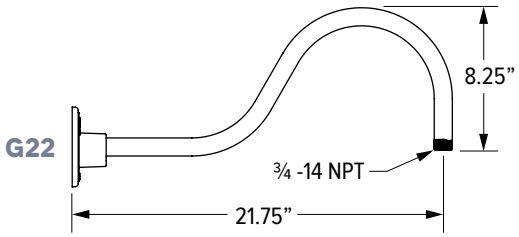
975 GALVANIZED

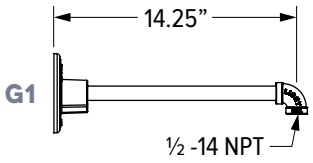
MOUNTING OPTIONS: GOOSENECK LIGHTS

With iconic barn style, these gooseneck arms position the shade away from the mounting surface and protect the wiring in exterior and high-traffic installations.









Date: _____ Customer: _____

Project: _____

Type: _____ Qty: _____

selux

Discera 4
Gen5

Order Code: DSC4L - _____ - S1 - _____ - _____ - 3000K - _____ - BK - 120 _____

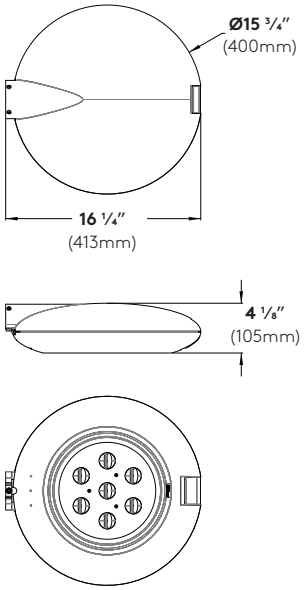
Pole Order Code: _____ - _____ - _____ - _____ * See pages 6 and 7

DSC4L	Series	**DSC4L** Discera 4 Gen5							
_____	Optics	**R1** Type I	**R2** Type II	**R3** Type III	**R3W** (Wide) Type III	**R4** Type IV	**R5R** (Round) Type V	**DG** Diffuse Flat Glass	
S1	Mounting	**S1** Single Short Arm Mount	**S2** Double Short Arm (180° Mount	**L1** Single Long Arm Mount	**L2** Double Long Arm Mount (180°)	**SW** Short Arm Wall Mount	**LW** Long Arm Wall Mount	**LG1** Single Long Arm Mount with Gusset	**LG2** Double Long Arm Mount with Gusset (180°)	**LGW** Long Arm Wall Mount with Gusset
_____	Comfort Light Engine (DG)	**MP350** nominal 33W/2965lm	**MP530** nominal 48W/4443lm	**MP700** nominal 61W/5613lm	**MP900** nominal 79W/6951lm					*Based on 3000K CCT
_____	Technical Light Engine (R1-R5R)	**5G350** nominal 32W/3,357lm	**5G530** nominal 47W/4,875lm	**5G700** nominal 62W/6,325lm	**5G900** nominal 78W/7,548lm					*Based on R1 optics and 3000K CCT
3000K	CCT	**27**[1] 2700K	**30**[1] 3000K	**40** 4000K						[1] 2700K and 3000K IDA Approved *For Amber and other CCTs please consult factory
_____	Power Cord Length	**12** 12'	**15** 15'	**18** 18'	**20** 20'	**25** 25'	**XX**[2] XX'			[2] Add length of arm and height of pole to determine power cord length.
BK	Finish	**WH** White	**BL** Semi-Matte Black	**BK** Black	**BZ** Bronze	**SV** Silver	**SP** Specify Premium Color			
120	Voltage	**UNV**[3,4] 120-277V	**120** 120V	**240** 240V	**277** 277V	**347**[3,4] 347V	**480**[3,4] 480V			[3] Not available with HLXX option [4] Step down transformer provided. 5G900 and MP900 not available at 480V.
_____	Options	**DM**[6] Dimming (0-10V)	**HL30**[5,6] Hi-Lo Switching Low Output 30%	**HL50**[5,6] Hi-Lo Switching Low Output 50%	**HS**[8] House Side Shield (180°)	**TLR**[6] 7-pin NEMA socket	**TLRP** Twist Lock Photocell 3-Pin with Photocell	**TLRLL**[6] Twist Lock Receptacle 7-Pin with Lutron Limelight Sensor		[5] 120V, 240V, 277V only [6] DM, HLXX, or TLR only. Cannot be combined. [7] Only available with 120/230/240/277V. Consult factory for 208/347/480V [8] Type I, II, III, and IV only
		BS Bird Spikes (consult factory)	**MS**[7] **Motion Sensor** (Meets Title 24 Requirements) See page 7 for order code							

IP65 IK09

In a continuing effort to offer the best product possible, we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product. Specification sheets found at www.selux.us are the most recent versions and supercede all other printed or electronic versions.

DSC4L



EPA = 0.43ft² (0.04m²)
Weight = 16 lbs. (7.3kg)

(Shown with R1)

Specifications

Fixture Housing - Made from high pressure die cast, low copper aluminum alloy.

Gasketing - Continuous silicone gasket provides weatherproofing, dust and insect control at all luminaire connections.

LED Array - High flux LEDs mounted to PC boards and attached to aluminum heat sink for maximum LED\performance and life. CCT tolerance 3-step binning for 2700K, 3000K, and 4000K. CRI minimum 80. Complete light engine can be removed easily for future upgrade.

LED Optics - Technical Optics (R1, R2, R3, R3W, R4, and R5R) use Selux signature light pattern acrylic lens holder to secure proprietary silicone optics. Internal micro house side shield available for distributions types I, II, III & IV. Comfort Optics (DG) use mid-power LEDs and highly diffuse dish for uniformity and glare control.

LED Driver - LEDs are driven by RoHS compliant constant current programmable LED driver. Driver includes 0-10V dimming to 10%, meets the requirements of IP65. Driver assembly located inside the head.

Glass Lens - Tempered glass lens protects and seals optical chamber to IP65.

Toolless Latch - Toolless stainless steel latch for easy access to light engine.

Access Door - Lower casting features a stainless steel hinge that attaches to upper casting on mounting arm side. Other side is secured with toolless latch for ease of maintenance.

Surge Protection - Designed to protect luminaire from electrical surge (20kA).

Exterior Luminaire Finish -
Selux utilizes a high quality Polyester Powder Coating. All Selux luminaires and poles are finished in our Tiger Drylac certified facility and undergo a five stage intensive pretreatment process where product is thoroughly cleaned, phosphated and sealed. Selux powder coated products provide excellent salt and humidity resistance as well as ultra violet resistance for color retention. All products are tested in accordance with test specifications for coatings from ASTM and PCI.

Standard exterior colors are White (WH), Black (BK), Semi-Matte Black (BL), Bronze (BZ), and Silver (SV). Selux premium colors (SP) are available, please specify from your Selux color selection guide.

5 Year Limited LED Luminaire Warranty - Selux offers a 5 Year Limited Warranty to the original purchaser that the Selux LED luminaire shall be free from defects in material and workmanship for up to five (5) years from date of shipment. This limited warranty covers the fixture, LED driver, and LED light engine when installed and operated according to Selux instructions. Fixture suitable for ambient temperatures between -40°C (-40°F) and 40°C (104°F). For details and exclusions, see "Selux Terms and Condition of Sale."

Listings and Ratings: Luminaire and LEDs tested to IP65, IK09 and IESNA LM-79-08 standards. LEDs tested to LM-80 standards. LEDs tested at 25°C ambient temperature.

Visit selux.us for our LED End of Life recycling policy.

For Buy American compliance on poles, please consult the factory.

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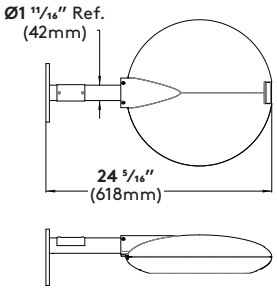
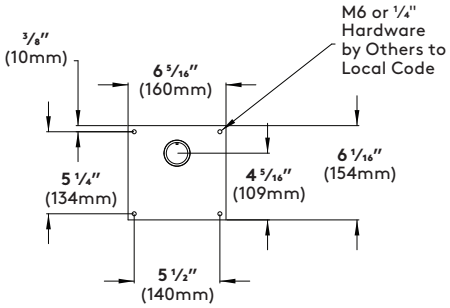
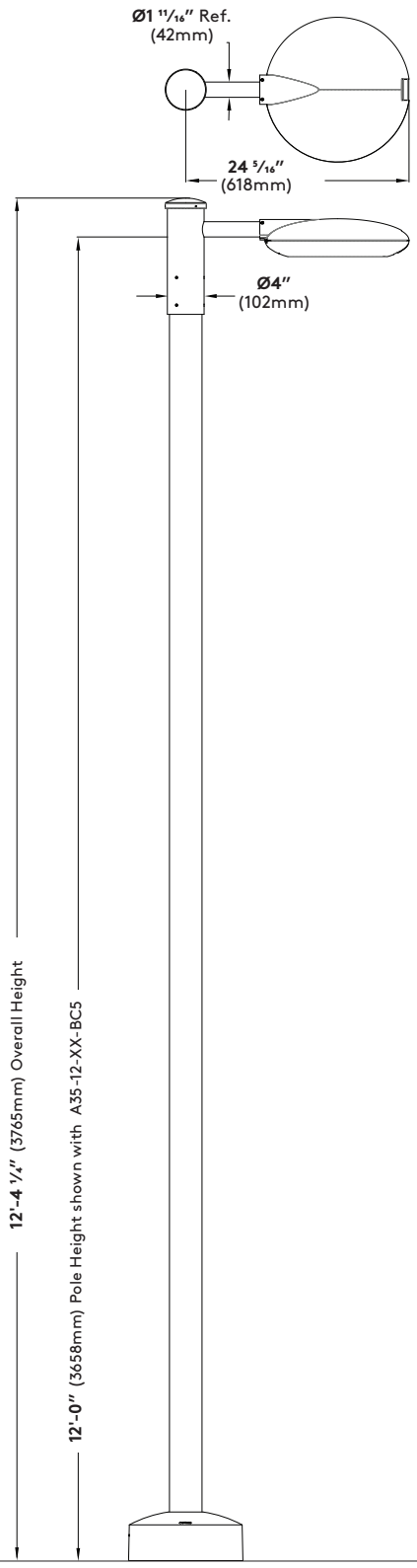
Mounting

SW Short Arm Wall
EPA = 0.39ft² (0.04m²)
Weight = 23 lbs. (10kg)

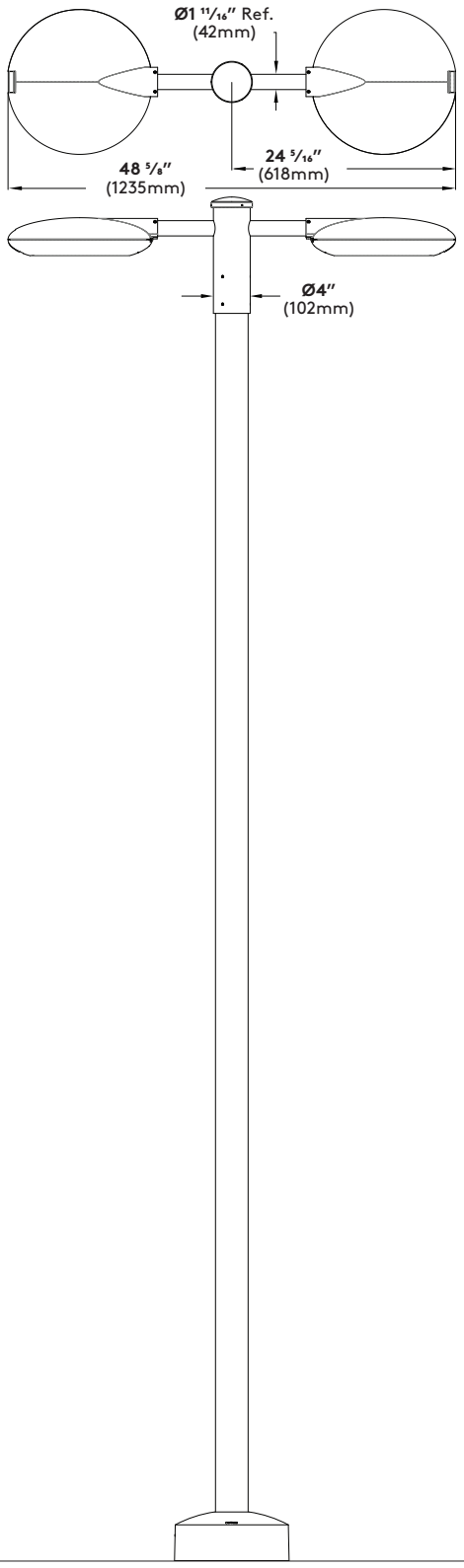




S1 Single Short Arm
EPA = 0.47ft² (0.05m²)
Weight = 23 lbs. (10kg)



S2 Double Short Arm
EPA = 1.05ft² (0.10m²)
Weight = 46 lbs. (21kg)



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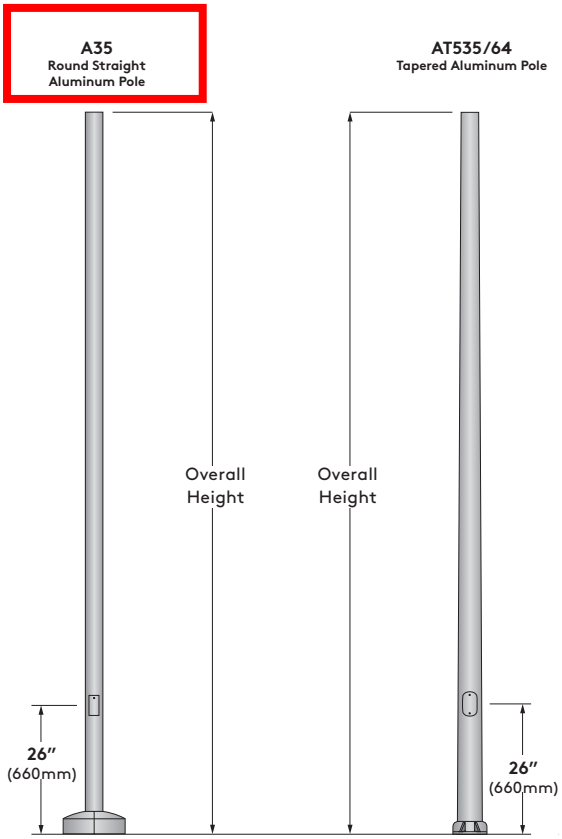
Pole Information

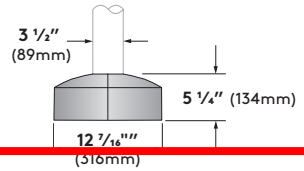
Refer to pole specification sheets for construction details, anchorage information and additional options.



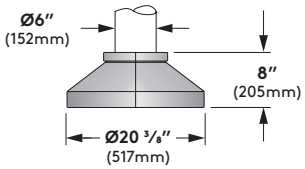
Optional Base Covers for Poles

Die cast aluminum, one or two-piece field installable base covers.

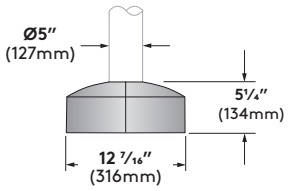
BC5 Standard Base Cover (A35)
Die cast aluminum, two-piece field installable base cover.



BC9 Optional Base Cover (AT64)
Die cast aluminum, two-piece field installable base cover.



BC3 Optional Base Cover (AT535)
Die cast aluminum, two-piece field installable base cover.



Pole Data Chart

Pole Series	Bolt Circle	EPA Information (ft2)											Pole Height	Finish	Options
		85 mph	90 mph	100 mph	110 mph	120 mph	130 mph	140 mph	150 mph	160 mph	170 mph	180 mph			
A35 3 ½" Round Straight Aluminum Pole	7-¾"	7.4	6.4	4.9	3.8	2.9	2.2	1.8	1.5	1.2	1.0	0.9	**10** 10ft	**WH** White **BK** Black **BL** Semi-Matte Black **BZ** Bronze **SV** Silver **SP** Specify Pre-mium Color	**BC3** Decorative Cast Aluminum Base Cover (AT535 poles only) **BC5** Decorative Cast Aluminum Base Cover (A35 pole only) **BC9** Decorative Cast Aluminum Base Cover(AT64 poles only) **REC** GFCI Receptacle with weatherproof cover (120V only) **REC2** GFCI Receptacle with padlockable in-use cover (120V only) **REC3** USB & Duplex Receptacle with weatherproof cover **REC4** USB & Duplex Receptacle with weatherproof padlockable in-use cover **MS*** Motion Sensor with Optional Photocell (Meets Title 24 Requirements) **T35** 3 ½" Tenon (Required for AT64 poles for arm mounting) * See page 7 to specify motion sensor details
A35 3½" Round Straight Aluminum Pole	7-¾"	5.6	4.8	3.5	2.6	1.8	1.3	0.9	0.7	0.6	-	-	**12** 12ft		
AT535 5" to 3 ½" Round Tapered Aluminum Pole	8-⅝"	15.2	13.4	10.5	8.4	6.9	5.8	4.9	4.2	3.6	3.2	2.8			
A35 3-½" Round Straight Aluminum Pole	7-¾"	4.2	3.5	2.4	1.6	1.0	0.5	-	-	-	-	-	**14** 14ft		
AT535 5" to 3 ½" Round Tapered Aluminum Pole	8-⅝"	12.8	11.2	8.7	6.9	5.5	4.6	3.8	3.3	2.8	2.4	2.1			
A35 3 ½" Round Straight Aluminum Pole	7-¾"	2.7	2.1	1.2	0.6	-	-	-	-	-	-	-	**16** 16ft		
AT535 5" to 3 ½" Round Tapered Aluminum Pole	8-⅝"	10.5	9.1	6.9	5.4	4.3	3.4	2.9	2.4	2.0	1.7	1.5			
AT535 5" to 3 ½" Round Tapered Aluminum Pole	8-⅝"	10.7	9.2	7.0	5.4	4.2	3.4	2.8	2.3	2.0	1.7	1.4	**18** 18ft		
AT64 6" to 4" Round Tapered Aluminum Pole	9-½"	13.6	11.9	9.2	7.3	6.0	4.9	4.2	3.5	3.0	2.6	2.2			
AT64 6" to 4" Round Tapered Aluminum Pole	9-½"	11.4	9.9	7.5	5.9	4.7	3.9	3.2	2.7	2.3	1.9	1.6	**20** 20ft		

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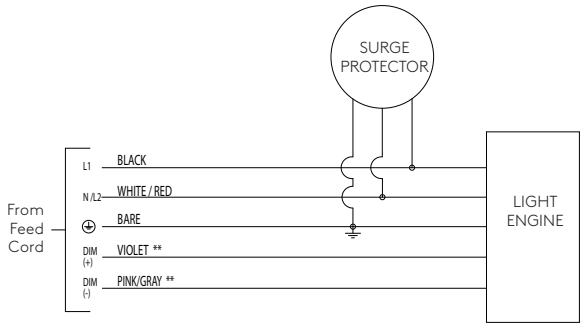
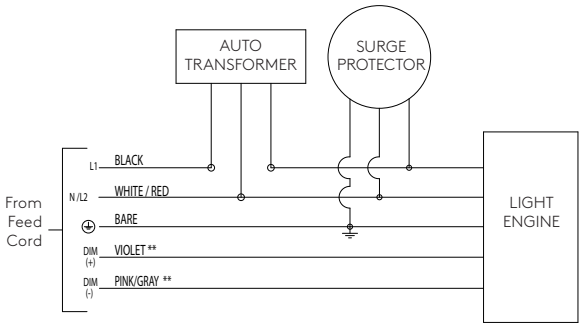
Wiring Diagrams

Standard Wiring (120V-277V)
**When dimming is not required, cap dimming wires

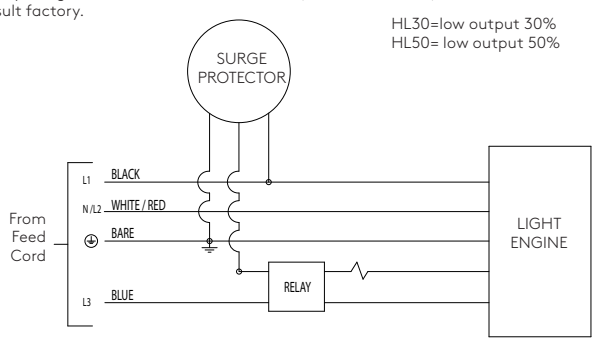


Standard Wiring (347V-480V with Step-Down Transformer)
**When dimming is not required, cap dimming wires

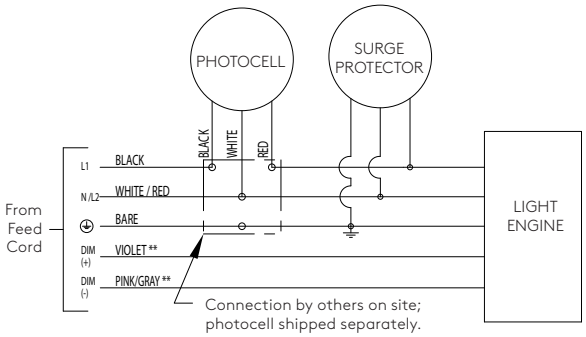


Hi-Lo Switching Option (HL) Wiring HL30 and HL50 Only
120V, 240V, 277V. When blue is energized, light output will be at "Lo" level. Specify low-level by using one of the 2 levels listed below (i.e. HL30 or HL50). For other combinations, consult factory.

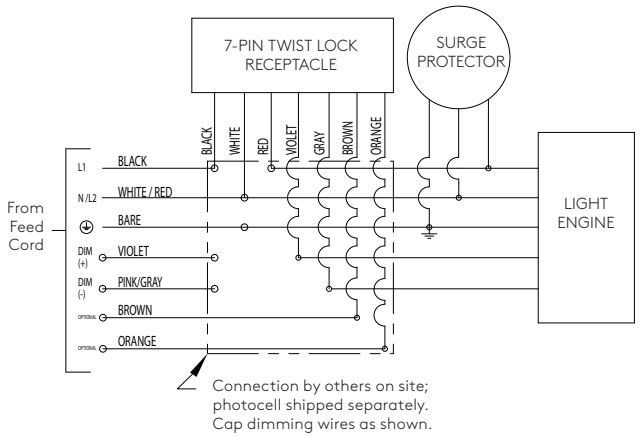
HL30=low output 30%
HL50= low output 50%



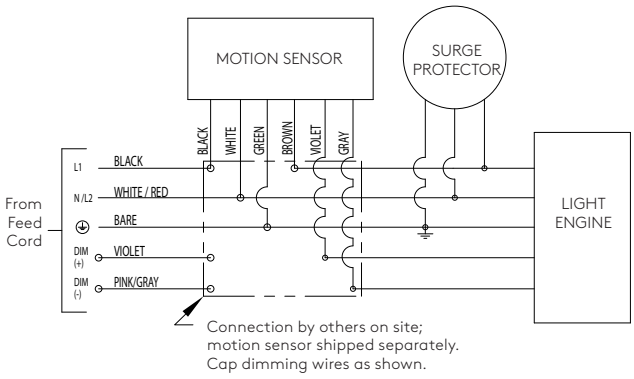
Photocell Option (TLRP) Wiring
**When dimming is not required, cap dimming wires



7-Pin Twist Lock Receptacle (TLR) Wiring



Motion Sensor Option (MS) Wiring (120V-277V)



Wire Designation Table		
Source Voltage (VAC)	**Wire Color**	**Wire Designation**
120V, 277V, or 347V	Black	L1
	White	Neutral
208V, 240V, or 480V	Black	L1
	Red	L2
UNV (120V-277V)	Black	L1
	White	Neutral (120V/227V or 208V/240V)

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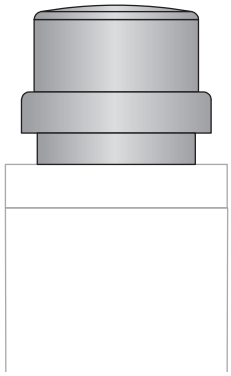
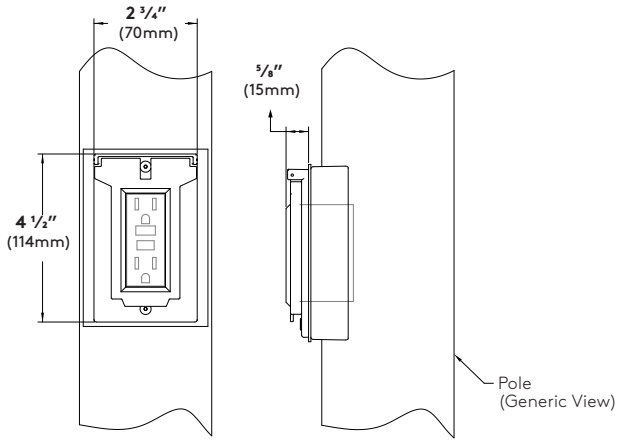
Optional Accessories

TLR and TLRP (7-pin twist-lock receptacle and twist-lock photocell)
Note: Photocell is available for all arm mounting configurations except wall mount (SW and LW)

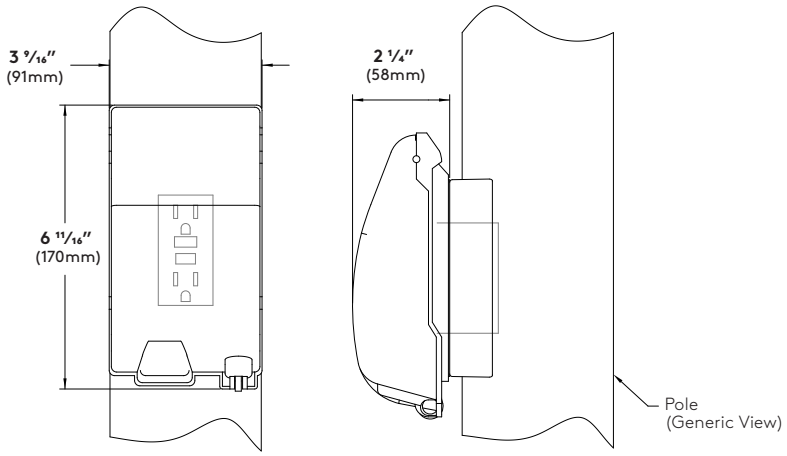


REC and REC3



Cover shown in the closed position

REC2 and REC4



Cover shown in the closed position

GFCI Receptacle (REC) - 120V 15A GFCI duplex receptacle with weatherproof, self-closing cover; located 36" (915mm) o.c. from base of pole, in-line with hand hole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel (120V only).

USB & Duplex Receptacle (REC3) (not shown) - 120V 20A duplex receptacle with USB combination ports. (1) type A and (1) type C high power 5A, 5V USB outlets. With weatherproof, self-closing cover; located 36" (915mm) o.c. from base of pole, in-line with hand hole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel.

REC3 does not incorporate GFCI (Ground Fault Circuit Interrupter) protection, and shall be powered by a GFCI protected branch circuit (by others).

GFCI Receptacle (REC2) - 120V 15A GFCI duplex receptacle with weatherproof, self-closing, padlockable in-use cover; located 36" (915mm) o.c. from base of pole, in-line with hand hole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel (120V only).

USB & Duplex Receptacle (REC4) (not shown)- 120V 20A duplex receptacle with USB combination ports. (1) type A and (1) type C high power 5A, 5V USB outlets. With weatherproof, self-closing padlockable in-use cover; located 36" (915mm) o.c. from base of pole, in-line with hand hole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel.

REC4 does not incorporate GFCI (Ground Fault Circuit Interrupter) protection, and shall be powered by a GFCI protected branch circuit (by others).

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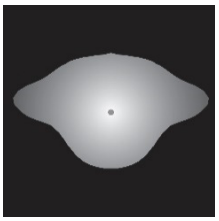
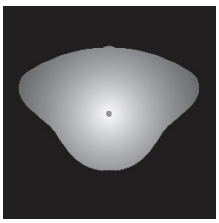
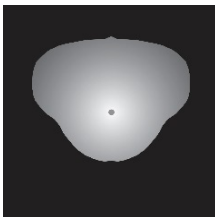
Photometry



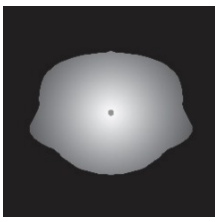
R1 - Gen5 Distribution Type I/II				
Light Engine	Lumens	CCT	Input Watts	lm/W
5G350	3,357	3000K	32	105
5G530	4,875	3000K	47	104
5G700	6,325	3000K	62	102
5G900	7,548	3000K	78	97



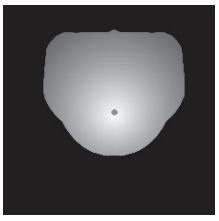
R2 - Gen5 Distribution Type II				
Light Engine	Lumens	CCT	Input Watts	lm/W
5G350	3,355	3000K	32	105
5G530	4,854	3000K	47	103
5G700	6,321	3000K	62	102
5G900	7,543	3000K	78	97



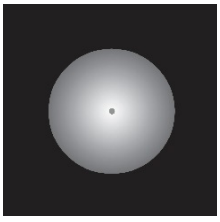
R3 - Gen5 Distribution Type III				
Light Engine	Lumens	CCT	Input Watts	lm/W
5G350	3,533	3000K	32	110
5G530	4,875	3000K	47	104
5G700	6,657	3000K	62	107
5G900	7,943	3000K	78	102



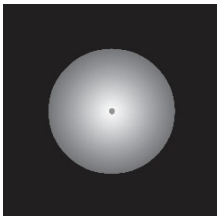
R3W - Gen5 Distribution Type III (Wide)				
Light Engine	Lumens	CCT	Input Watts	lm/W
5G350	3,409	3000K	32	107
5G530	4,932	3000K	47	105
5G700	6,423	3000K	62	104
5G900	7,664	3000K	78	98



R4 - Gen5 Distribution Type III/IV				
Light Engine	Lumens	CCT	Input Watts	lm/W
5G350	3,342	3000K	32	104
5G530	4,835	3000K	47	103
5G700	6,297	3000K	62	102
5G900	7,513	3000K	78	96



R5R - Gen5 Distribution Type V (Round)				
Light Engine	Lumens	CCT	Input Watts	lm/W
5G350	3,624	3000K	32	113
5G530	5,243	3000K	47	112
5G700	6,297	3000K	62	102
5G900	7,513	3000K	78	96



DG - Diffuse Glass Distribution Type V (Round)				
Light Engine	Lumens	CCT	Input Watts	lm/W
MP350	3,399	3000K	33	103
MP530	4,944	3000K	48	103
MP700	6,283	3000K	61	103
MP900	7,943	3000K	77	103

Photometry

CCT Multiplier	
2700K	0.962
3000K	1.000
4000K	1.063

TM-21 Lifetime Calculation					
Light Engine[2]	Ambient Temp (°C)	Lumen Maintenance (% at hours)			Reported L_{90}[1]
		25K	50K	60K	
5G350	25°C	99.8%	99.8%	99.8%	L_{90}(12K) > 70,000 hours
	40°C	99.8%	99.8%	99.8%	L_{90}(12K) > 70,000 hours
5G530	25°C	99.8%	99.8%	99.8%	L_{90}(12K) > 70,000 hours
	40°C	99.1%	98.5%	98.0%	L_{90}(12K) > 73,000 hours
5G700	25°C	99.8%	99.8%	99.8%	L_{90}(12K) > 70,000 hours
	40°C	99.1%	98.5%	98.0%	L_{90}(12K) > 73,000 hours
5G900	25°C	99.1%	98.5%	98.0%	L_{90}(12K) > 73,000 hours
	40°C	96.6%	95.0%	93.8%	L_{90}(12K) > 73,000 hours

[1] Calculated in accordance with IESNA TM-21-11, projected values are within six times (6x) the IESNA LM-80-08 test duration
[2] Thermal measurements based on Order Code: DSC4L-R4-xx-5Gxxx-30-xx-SV-xx-UNV

TM-21 Lifetime Calculation						
Light Engine[2]	Ambient Temp (°C)	Lumen Maintenance (% at hours)				Reported L_{70}[1]
		25K	50K	75K	90K	
MP350	25°C	97.4%	94.5%	91.8%	90.2%	L_{70}(15K) > 90,000 hours
	40°C	96.0%	92.2%	88.5%	86.4%	L_{70}(15K) > 90,000 hours
MP530	25°C	96.3%	92.8%	89.4%	87.5%	L_{70}(15K) > 90,000 hours
	40°C	94.9%	90.1%	85.5%	82.9%	L_{70}(15K) > 90,000 hours
MP700	25°C	95.2%	90.8%	86.5%	84.0%	L_{70}(15K) > 90,000 hours
	40°C	92.7%	85.3%	78.6%	74.8%	L_{70}(15K) > 90,000 hours
MP900	25°C	93.1%	86.1%	79.6%	76.0%	L_{70}(15K) > 90,000 hours
	40°C	83.1%	68.6%	56.7%	50.5%	L_{70}(15K) > 47,000 hours

[1] Calculated in accordance with IESNA TM-21-11, projected values are within six times (6x) the IESNA LM-80-08 test duration
[2] Thermal measurements based on Order Code: DSC4L-DG-X-MPxxx-30-XX-BL-UNV

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SONOMA
EB3036

BOLLARDS

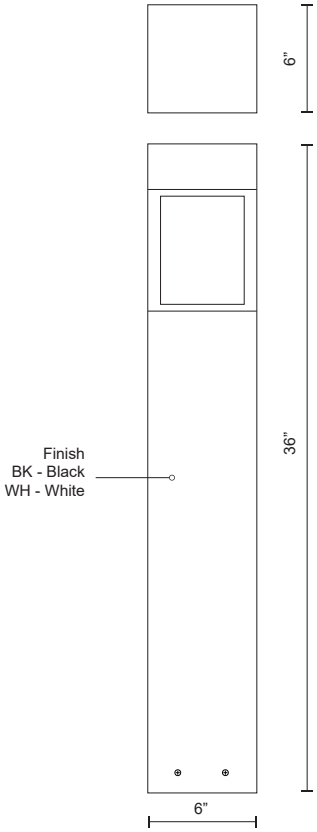
PROJECT

EB3036-BK
Black

EB3036-WH
White

DESCRIPTION

Designed to emulate rectilinear architectural forms the Sonoma exterior bollard radiates light downwards through the four openings in the structure. The gaps serve to elevate the die-cast aluminum square housing higher while providing ample space to radiate the LED luminance. Available in two heights and a curated collection of finishes for a cultivated exterior environment.



SPECIFICATION DETAILS

* For custom options, consult factory for details.

Fixture Dimensions	L6" x W6" x H36"
Light Source	LED
Wattage	12W
Total Lumens	1000lm
Delivered Lumens	BK-562lm*; WH-843lm*;
Voltage	120V
Color Temperature	3000K
CRI (Ra)	>90
Optional Color Temps	2700K - 5000K Available, Minimum Order Quantities Apply
LED Rated Life	50,000 hours
Dimming	100% - 10%, ELV Dimmer (Not Included)
Diffuser Details	Clear Glass Diffuser
Location	Wet
Warranty	5 Years

KUZCO

19054 28TH AVENUE
SURREY - BC V3Z 6M3
CANADA

WWW.KUZCOLIGHTING.COM

COMMENT

Intertek

1300 Industrial Road, Unit #19
San Carlos, CA 94070
FREE CALL 1-866-695-5862 US & Canada
info@lumascape.com

LUMASCAPE USA INC.

LS782LED Astelia

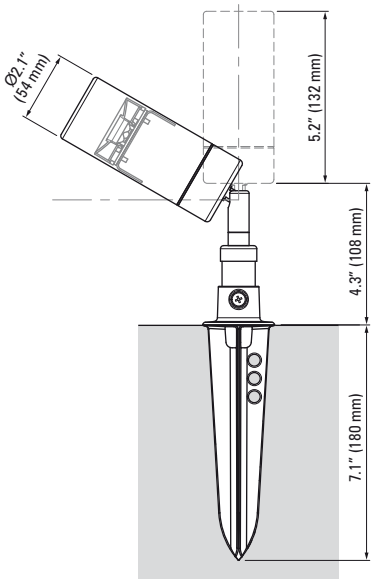
At Grade

humantouch™ microantileach™

CADdetails d5 Dimmable IP65 c ETL US LISTED Intertek

The Astelia is an excellent option for LED landscape lighting, featuring aim and tilt adjustability, a choice of finishes and long service life. The Astelia features new Lumascape d5 driver technology as a standard inclusion, providing a high level of control: When high output is required, it can be deployed in its full output, 6 W configuration; If a lower level of light is required, it can be set as low as 0.6 W, (either by the factory or in the field).

LS782LED Astelia



Specifications

Lamp Source	6 W LED □ White (4 300 K typical) ■ Warm white (3 000 K typical) ■ Blue (470 nm)
Approved Use	Suitable for wet locations
Control Options	0-10 V (current sourcing) PWM On-site or factory-programmable brightness
IP Rating	IP65
Construction	Powder coated aluminum ■ Black ■ Silver Polished copper
Installation Type	Spike mount
Remote Transformers / Power Supplies *Order separately*	Refer to Technical Data section for application specific options
Ambient Operating Temperature	-4 °F to 104 °F (-20 °C to 40 °C)
Photometrics	Refer to www.lumascape.com

Any luminaire can become hot - take care with appropriate use and placement

LS782LED → [ ] → [ ] → 13-DIM → [ ]

LAMP

Description	Wattage	Color	Code
LED	6 W	White (4 300 K typical)	6W4
		Warm white (3 000 K typical)	6H6
		Blue (470 nm)	6B4

OPTICAL SYSTEM

Beam		Code
Narrow	14°	NR
Narrow Medium	25°	NM
Medium	30°	ME
Wide	40°	WD

INPUT VOLTAGE

Description	Code
0-10 V or PWM Dimmable Driver, 12-15 V, 60 Hz or 12-24 V DC	13-DIM[1]

[1] Requires appropriate transformer.

FINISH

Description	Material	Code
Black, powder coated	Aluminum	CB
Silver, powder coated	Aluminum	CS
Polished	Copper	CU

Dimmable Wiring Diagram Reference

Input Voltage	LED Color	Control Type	Wiring Diagram
13-DIM	Single Color	PWM	2,3,4

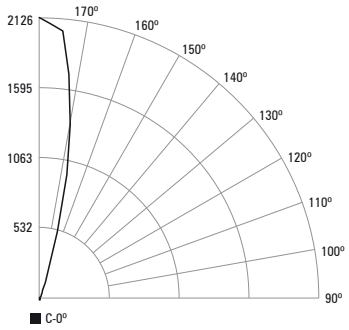
Photometrics

Photometric data is based on test results from a NIST traceable testing lab. IES data is available at www.lumascape.com.
Note: No depreciation factor is applied to the data shown.

LS782LED 4 300 K 25° Beam Angle

Power Input	7.1
Lumens	403
Efficacy	57 lm/W

Polar Candela Distribution



	C 0°	C 15°	C 30°	C 45°	C 60°	C 75°	C 90°
90°	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0
130°	3	1	1	2	1	4	2
140°	15	17	18	25	25	23	17
150°	36	39	39	39	40	39	39
160°	287	224	202	216	273	319	202
170°	1433	1446	1447	1425	1407	1392	1404
180°	2126	2126	2126	2126	2126	2126	2126

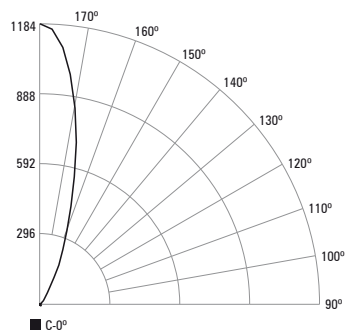
Illuminance at a Distance

ft	Center Beam fc	Beam Ø
5	85	2 ft
10	21.3	4 ft
15	9.4	7 ft
25	3.4	11 ft
30	2.4	13 ft
40	1.3	18 ft
50	0.9	22 ft

LS782LED 4 300 K 30° Beam Angle

Power Input	6.9
Lumens	365
Efficacy	53 lm/W

Polar Candela Distribution



	C 0°	C 15°	C 30°	C 45°	C 60°	C 75°	C 90°
90°	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0
130°	3	3	3	3	3	3	4
140°	19	18	16	16	18	20	23
150°	81	89	96	94	88	87	89
160°	315	326	333	334	333	333	333
170°	821	834	841	841	841	839	850
180°	1184	1184	1184	1184	1184	1184	1184

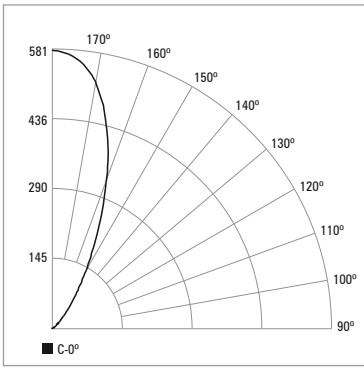
Illuminance at a Distance

ft	Center Beam fc	Beam Ø
5	47.4	3 ft
10	11.8	5 ft
15	5.3	8 ft
25	1.9	13 ft
30	1.3	16 ft
40	0.7	21 ft
50	0.5	27 ft

LS782LED 4 300 K 40° Beam Angle

Power Input	7.5
Lumens	359
Efficacy	48 lm/W

Polar Candela Distribution

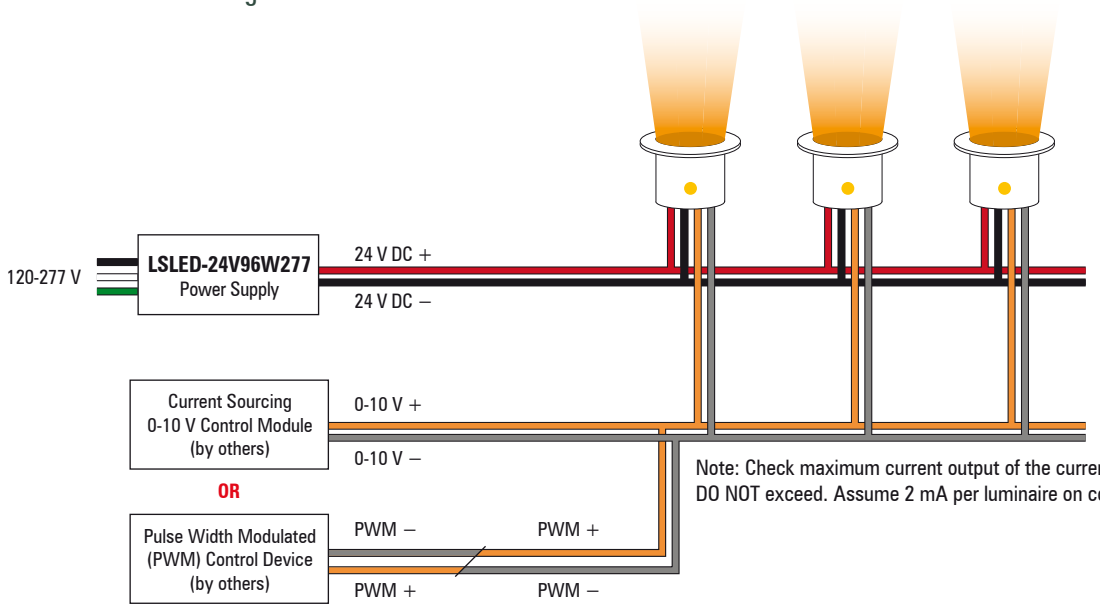


	C 0°	C 15°	C 30°	C 45°	C 60°	C 75°	C 90°
90°	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0
120°	1	1	1	1	0	0	0
130°	16	15	13	12	12	13	14
140°	51	48	44	41	41	45	48
150°	147	140	129	121	119	123	127
160°	336	325	312	300	291	287	286
170°	523	517	512	506	501	498	497
180°	581	581	581	581	581	581	581

Illuminance at a Distance

ft	Center Beam fc	Beam Ø
5	23.2	4 ft
10	5.8	7 ft
15	2.6	11 ft
25	0.9	18 ft
30	0.6	22 ft
40	0.4	29 ft
50	0.2	36 ft

Diagram 2 - 0-10 V Dimming Via Current Sourcing Module, or Pulse Width Modulated Dimming (PWM) - Low Voltage LED Luminaire with d5 Driver on 24 V DC Circuit

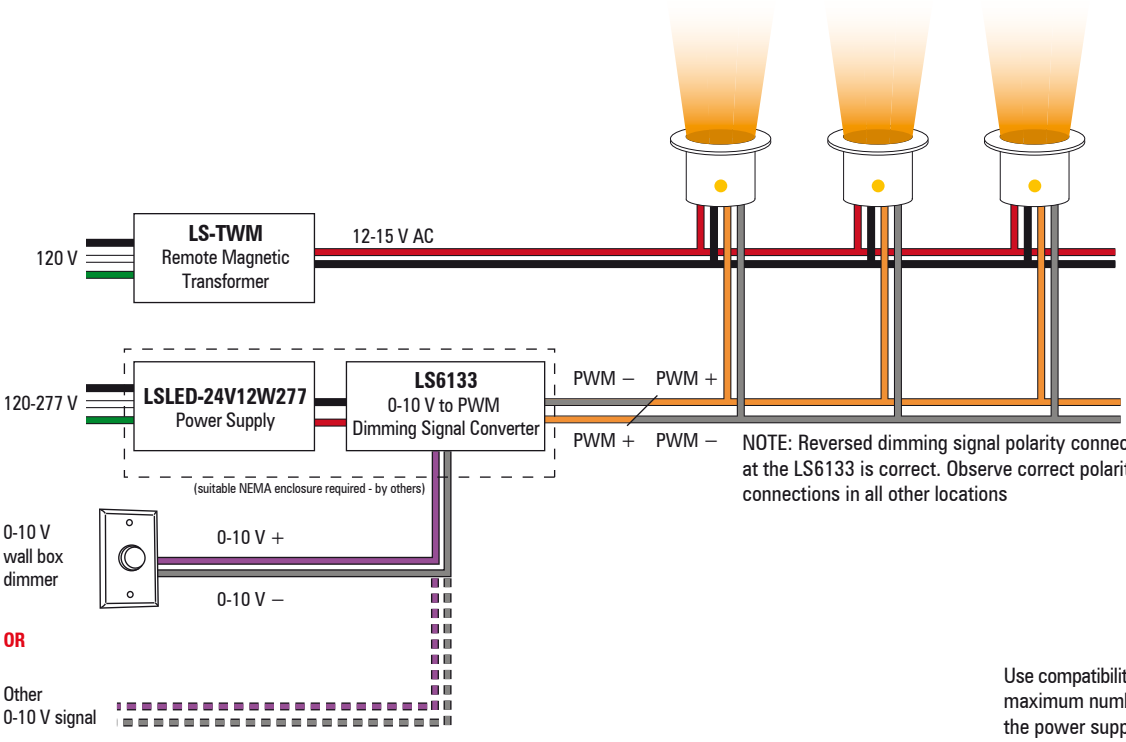


Note: Check maximum current output of the current sourcing module. DO NOT exceed. Assume 2 mA per luminaire on control circuit.

NOTE: Reversed dimming signal polarity connection at the PWM Control device is correct. Observe correct polarity connections in all other locations

Use compatibility table to determine maximum number of luminaires the power supply can support.

Diagram 3 - 0-10 V Dimming - Low Voltage LED Luminaire with d5 Driver on 12-15 V AC Circuit



NOTE: Reversed dimming signal polarity connection at the LS6133 is correct. Observe correct polarity connections in all other locations

Use compatibility table to determine maximum number of luminaires the power supply can support.

NOTE: The above diagrams are intended to show electrical pathways between luminaires and ancillary devices. These diagrams are not intended to show type or color of cord/wire, wire gauge or approved use of the cord/wire supplied with luminaires.

Consult the luminaire-specific cutsheet or the factory for detailed specifications.

Transformers and Power Supplies for Low Voltage LED Luminaires

The following list of transformers and power supplies are for use with luminaires specifically described as being compatible with either 12 V AC (wirewound only) transformers or with 12-24 V DC power supplies. Compatibility will be noted in the ordering code of the luminaire concerned, and will typically be referenced by Voltage Code '13' or '13-DIM'. In the case of '13-DIM' additional components may be required. Refer to the applicable wiring diagram/s.

Compatibility with each transformer or power supply is indicated by the value mentioned, representing the maximum number of luminaires that may be powered from each transformer or power supply. Please note, this does not take into consideration voltage drop or ampacity limits of the branch circuit. For assistance, please contact factory.

	Wall Mounted Landscape Lighting Transformers			Wall Mounted Transformers				Class 2 Power Supply	Direct Burial Transformer
	LS-TWM-1-300	**LS-TWM-2-600**	**LS-TWM-3-900**	**LS-TWM-50**	**LS-TWM-100**	**LS-TWM-150**	**LS-TWM-250**	**LSLED-24V96W277**	**LS-TDB1-300**
Input Voltage	120 V, 60 Hz	120 V, 60 Hz	120 V, 60 Hz	120 V, 60 Hz	120 V, 60 Hz	120 V, 60 Hz	120 V, 60 Hz	120-277 V, 50/60 Hz	120 V, 60 Hz
Output Voltage	12/13/14/15 V 60 Hz	12/13/14/15 V 60 Hz	12/13/14/15 V 60 Hz	12 V, 60 Hz	12 V, 60 Hz	12 V, 60 Hz	12 V, 60 Hz	24 V DC	12.5 V, 60 Hz
Wattage	1 x 300 W circuit	2 x 300 W circuits	3 x 300 W circuits	50 W	100 W	150 W	250 W	96 W	300 W
LS782LED	23	46	69						23

Transformers for Landscape Lighting Applications

LS-TWM-1-300

Magnetic transformer - wall mounted

Input	120 V
Rating	300 W
Output	12/13/14/15 V
Output Circuits	1
Protection	Electrostatic shield, magnetic breaker
Approvals	UL, CUL
NEMA Rating	3R
Construction	Stainless steel
Dimensions	**H** 17.6" (447 mm) **W** 6.8" (173 mm) **D** 6.19" (157 mm)
Weight	27 lb (12.3 kg)

LS-TWM-2-600

Magnetic transformer - wall mounted

Input	120 V
Rating	600 W
Output	12/13/14/15 V
Output Circuits	2
Protection	Electrostatic shield, magnetic breaker
Approvals	UL, CUL
NEMA Rating	3R
Construction	Stainless steel
Dimensions	**H** 17.6" (447 mm) **W** 6.8" (173 mm) **D** 6.19" (157 mm)
Weight	29 lb (13.2 kg)

LS-TWM-3-900

Magnetic transformer - wall mounted

Input	120 V
Rating	900 W
Output	12/13/14/15 V
Output Circuits	3
Protection	Electrostatic shield, magnetic breaker
Approvals	UL, CUL
NEMA Rating	3R
Construction	Stainless steel
Dimensions	**H** 18.6" (472 mm) **W** 7.8" (198 mm) **D** 6.19" (157 mm)
Weight	34 lb (15.5 kg)

LS-TDB1-300

Magnetic transformer - direct burial

Input	120 V
Rating	300 W
Output	12.5 V
Output Circuits	1
Protection	Circuit breaker
Approvals	ETL (US and Canada)
NEMA Rating	12
Construction	Reinforced composite
Dimensions	**H** 9" (229 mm) **W** 9" (229 mm) **D** 7" (178 mm)
Weight	8 lb (3.6 kg)

Control Related Equipment

LS6133

0-10 V to PWM translator - NEMA enclosure required (by others)

Input	24 V DC
Rating	96 W max
Output	4 A max
Output Circuits	1
Approvals	UL, CUL Recognized, Class 2
IP Rating	IP66
Dimensions	**H** 5.2" (132 mm) **W** 1.3" (33 mm) **D** 1" (25 mm)
Weight	0.2 lb (0.1 kg)

LS67100

DMX to PWM translator - dry location only

Input	24 V DC
Rating	4 x 60 W max
Output	4 x 2.5 A max
Output Circuits	4
Approvals	UL, CUL
IP Rating	N/A
Dimensions	**H** 11.25" (286 mm) **W** 4.6" (117 mm) **D** 3.2 (82 mm)
Weight	0.5 lb (0.2 kg)

REV 08.08.19

AERO SHALLOW BOWL GOOSENECK LIGHT

BARN LIGHT QUICK SHIP COLLECTION

Max Weight: 10.0 lbs

PROJECT NAME _____

PROJECT TYPE _____

SPS-0333

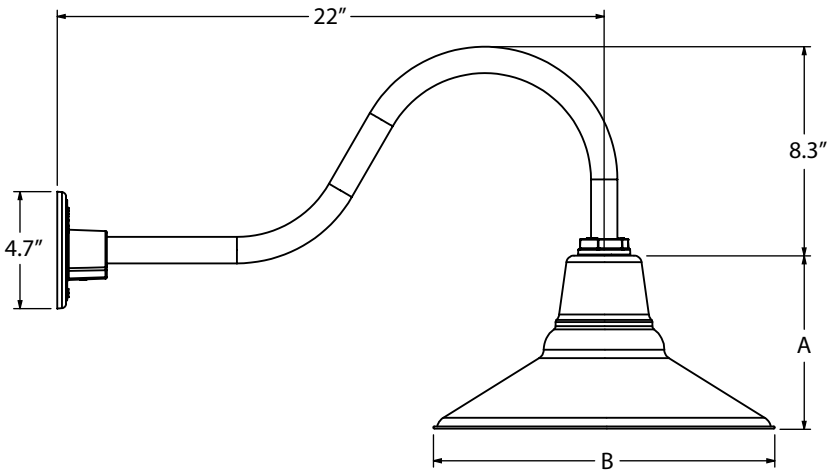
BLE - QS - G - SBA12 (A) - 100 (B) - G22 (C) - NA (D)

Order Example: BLE - QS - G - SBA16 - 975 - G1 - NA

A - SHADE SIZE		B - FINISHES		C - GOOSENECK ARMS	D - WIRE CAGE	
SBA12	12″ Aero Shade	*POWDER COAT FINISHES[1]:*		*GOOSENECK OPTIONS:*	**NA**	None/No Wire Cage
SBA16	16″ Aero Shade	**100**	Black	**G1**	**WC**	Wire Cage[2]
		200	White	**G15**		
		300	Dark Green	**G22**		
		975	Galvanized	**G26**		

IMPORTANT: *(1) All Powder Coat finished shades, Galvanized excluded, feature a white interior (2) If selected, wire cage finish will match selection in Section B*

DIMENSIONAL DRAWING



SHOWN WITH:
12" SHADE & G22 GOOSENECK ARM

SHADE CODE	HEIGHT (A)	DIAMETER (B)
SBA12	6.25″	12″
SBA16	7.75″	16″

LIGHT SOURCE

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. To obtain an IES file specific to your project, please contact the factory.

OPTION	WATTAGE	LUMENS *Avg. value, actual value dependent on bulb used	CRI	VOLTAGE	DIMMING
INCANDESCENT (MED E26)					
E26	200W Max	*3000	*100	120 VAC	Bulb Dependant

SPECIFICATIONS

CERTIFICATIONS, LISTINGS & WARRANTY

MADE IN THE USA
Manufactured and Hand-Crafted in Our 60,000 Square Foot Facility Located in Titusville, FL

CSA LISTED FOR WET LOCATIONS

LIMITED WARRANTY
For Additional Information on Our Limited Warranty, Please See Our Terms & Conditions

DESIGN

AERO SHALLOW BOWL SHADE
Hand-Spun from High Purity 0.050" Thick 3003-O Temper Aluminum

POWDER COAT FINISHES
Polyester Powder Coat Finishes Are Electro-Statically Applied and Thermocured

GOOSENECK
1/2" Nominal (0.84" Actual) or 3/4" Nominal (1.05" Actual) Sch 40, 6063 Aluminum Gooseneck

RAZER RD

WEB PIN 729

©2021 Beta-Calco Inc.
Specifications are subject to change without notice

betacalco.com
+1 416-531-9942 | sales@betacalco.com

RAZER RD

WEB PIN 729

©2021 Beta-Calco Inc.
Specifications are subject to change without notice

GENERAL SPECIFICATION

Product Overview:

- Sleek robust design
- Available with 2 beam angles, 3° narrow and 75° wide
- Direct, indirect or direct/indirect light distributions
- Ideally suited for entryways and building facades

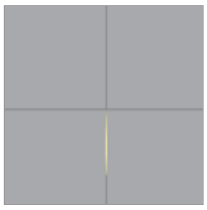
Body and trim: Die-cast aluminum.
Finish: Powder coated.
Lens: Tempered safety glass.
Gaskets: Heat resistant silicone.
External screws: 304 stainless steel.
Ambient temperature operating range: -13°F (-25°C) to 95°F (35°C)
Drivers: Integral, HPF electronic for 120-277V, (EU-240V).
Mechanical: Mounts directly over a 2" x 3" electrical junction box (by others - North America only).
Delivered Lumens: Delivered lumens & LPW based on 4000K (min 80 CRI).

MOUNTING & OPTICS

Ext-Wall Downlight

Ext-Wall Up/Down

Ext-Wall Uplight


3°

75°

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Specifications are subject to change without notice

HOW TO ORDER

A SPECIFY LUMINAIRE

Code	Light Direction
RARD1W01	One Direction
RARD2W01	Two Direction

Additional Information

Stainless steel screw on Direction A.

B SPECIFY BEAM ANGLE (DIRECTION ONE)

Code	Beam	Wattage	Delivered lms
BA00	Not required		
BA03	3°	3W	59
BA75	75°	7W	482

C SPECIFY BEAM ANGLE (DIRECTION TWO)

Code	Beam	Wattage	Delivered lms
BB00	Not required		
BB03	3°	3W	59
BB75	75°	7W	482

D SPECIFY CRI

CR80	CRI 80+

E SPECIFY CCT

CTA00	Not required
CTA30	3000K
CTA35	3500K
CTA40	4000K

F SPECIFY VOLTAGE

V1	120/277V
V2	240V [1]

Additional Information

[1] Not available in North America.

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Specifications are subject to change without notice

G SPECIFY DIMMING

DA00	Not required
DA10	0-10V Dimming (10%) [1]

Additional Information

[1] Dimming not availabe for direct only version using 3° narrow beam.

H SPECIFY FINISH

FA02	Black Metallic - Textured
FA20	Silver Metallic - Textured
FA27	Wood grain - Light Cherry [1]
FB28	Wood grain - Dark Walnut [1]
FA44	Midnight Blue Metallic - Textured
FA46	Charcoal Metallic - Textured
FA47	Bronze Metallic - Textured
FA53	Red Metallic - Textured

Additional Information

[1] Longer lead times may apply, consult factory. Note: Wood grain pattern will vary pre fixture.

EXAMPLE CODE

RARD2W01/BA03/BB75/CR80/CTA35/CTB35/V1/DA10/FA46

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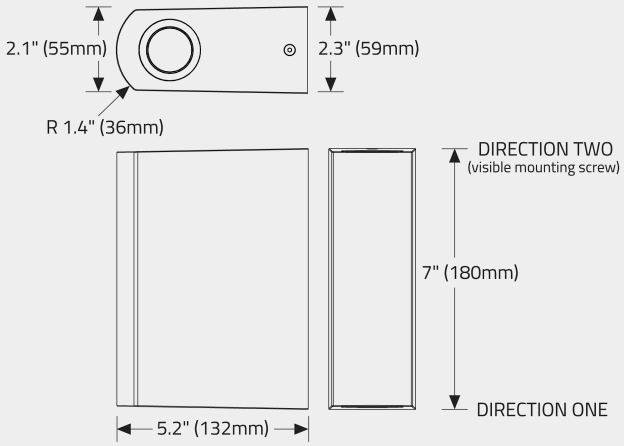
Specifications are subject to change without notice

DIMENSIONAL DIAGRAMS



APPROVALS

505 Main Street
Poughkeepsie, NY 12601

Poughkeepsie Fire Department

To : Planning Department

From : Fire Chief Johnson

Date : 09/04/ 2021

Subject : SITE PLAN REVIEW

SITE PLAN NAME **278 Main Street**
LOCATION **278 Main Street**

_X_ The Site Plan as forwarded by the Zoning Administrator is acceptable and will be signed with conditions*.

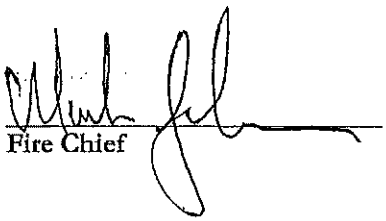
_____ The Site Plan as forwarded by the Zoning Administrator is acceptable and has been signed without conditions.

_____ The Site Plan as forwarded by the Zoning Administrator is unacceptable and will not be signed until the following items are satisfied:

_____

_____

*Conditions: (1) A Standpipe / Sprinkler system will be installed as per Code,
(2) An approved Fire alarm system will be installed throughout
(3) An approved Fire suppression system will be installed in all cooking areas as per Code and connected to Alarm system (commercial Kitchens)
(4) A Knox box entry system will be installed, and keys supplied for building
(5) For Public Assembly areas, occupancy permits, will be required.
(6) Where Elevators are installed, a FEO K1 Fire Dept override key shall be installed.
(7) All site driveways, entries and parking areas must meet Fire Apparatus Turning radius formulas



Fire Chief

Fire Headquarters
(845)451-4079
(845)451-4191Fax

)UGHKEEPSIE POLICE DEPARTMENT

SITE PLAN REVIEW

DATE: 09-08-2021

PROJECT NAME: 278-282 Main Street

PROJECT ADDRESS: 278-282 Main Street

☒ **THE SITE PLAN IS ACCEPTABLE AND WILL BE SIGNED WITH NO CONDITIONS**

☐ **THE SITE PLAN IS UNACCEPTABLE AS SUBMITTED. THE PLAN WILL BE SIGNED IF THE FOLLOWING CONDITIONS ARE SATISFIED.**

CONDITIONS:

RECEIVED

SEP 09 2021

APPROVED BY CHIEF THOMAS PAPE OR AGENT:	DATE:
	9-8-21

THE CITY OF POUGHKEEPSIE

DEPARTMENT OF PUBLIC WORKS & ENGINEERING

SITE PLAN REVIEW

Form #1

1. Date: September 16, 2021

2. Name of Site Plan: 278-282 Main Street

3. Address or Location: 278-282 Main Street

4. Owner: Kirchner Realty, Inc.

5. Engineer/ Architect: Aryeh Siegel Architect

6. Yes ☐ No ☐ The site plan as forwarded by the Planning Department is acceptable and will be signed off on with no condition(s).

7. Yes ☐ No ☐ The site plan as forwarded by the Planning Department is acceptable and has been signed off on with no condition(s).

8. Yes ☒ No ☐ The applicant should be notified that the Dept. of Public Works/Engineering requires the following comment(s) be addressed:

    1. Provide utility report verifying sanitary sewer capacities are sufficient for proposed development. Design professional/ developer required to meet with City Fire Department to establish domestic and fire suppression water needs. Developer to demonstrate what is being requested is achieved.
    2. Provide and show on site plan survey boundary information, adjoiners and any found or placed property corner monuments.
    3. Provide and show on site plan size of existing sanitary and water pipe utility information. This information can be obtained from the Office of the City Engineer. Provide flow direction arrows and verify direction/ connection point of sanitary sewer main to Cannon Street, Main Street and/ or both.
    4. Applicant's design professional to contact Greg Bolner w/ CPL, Engineer of Record, for the existing project at the Liberty Street Parking Lot GIGP Project. Design Professional should verify Design Point of Stormwater design will remain valid and not changed/ modified as part of that project. Verify adequate capacity at connection point and downstream to Main Street storm sewer.
    5. Show existing water and sanitary sewer connection(s) from building to main. Provide and show location of water meter(s).
    6. Provide and show on site plan detail of proposed dumpster containment pad and screening.
    7. E&SC Plan indicates use of hay bales at the south end of the site. Provide NYS Standards & Specifications for E&SC approved practice at this location.
    8. Show and indicate City utility easements on site plan.
    9. Any proposed food prep areas within development requires properly sized and design grease trap. Provide size, maintenance schedule and location on site plan, if applicable.
    10. Provide an estimate of costs for site work.

Joseph T. Kane
Assistant Civil Engineer

MARCUS J. MOLINARO
COUNTY EXECUTIVE

EOIN WRAFTER, AICP
COMMISSIONER

COUNTY OF DUTCHESS

DEPARTMENT OF PLANNING AND DEVELOPMENT

October 7, 2021

To: Planning Board, City of Poughkeepsie
Re: ZR21-273, 278-282 Main Street Site Plan
Lot: 059084/062084/065083/060075, Main Street

The Dutchess County Department of Planning and Development has reviewed the subject referral within the framework of General Municipal Law (Article 12B, §239-l/m).

ACTION

The applicant is seeking site plan approval to convert an existing building to include ground-floor commercial/restaurant space and 24 residential units on the upper floors. The proposal includes construction of a fifth story and elevator tower addition, associated façade renovations, and site alterations to pedestrian areas, lighting and landscaping.

COMMENTS

No lighting details, photometrics, or fixture specification sheets were included, though "pedestrian light fixtures" are located on the site plan, and the building elevations shown on Sheet 10 indicate uplighting is proposed "at bottom of each pier location above 2nd floor". The Board and applicant should ensure that overall site lighting levels are evenly distributed and range from 0.1-1.0 footcandles, and that all fixtures are downlit, fully shielded, dark-sky compliant, and have a color temperature no higher than 3,000K.

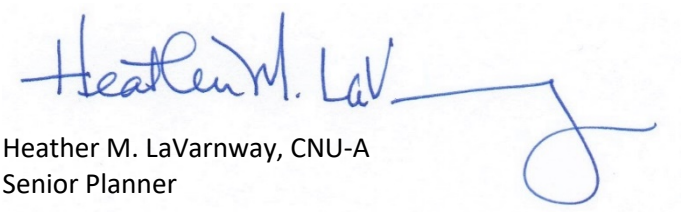
Some of the architectural elevation details are incomplete or difficult to evaluate as shown. Labels are missing from the "Typical Storefront Section" on Sheet 10, and the color renderings shown on Sheet 11 are small, making details difficult to discern. Fully labeled elevations, along with larger color renderings of the views shown as well as each façade elevation would aid in understanding the proposed architectural additions/changes to this building. Notes on Sheet 10 and 11 indicate the existing brick on the east façade would be painted charcoal gray while the brick on the west façade is to be covered with stucco cladding and the north/south facades are to remain and be cleaned/refurbished. However, the color renderings appear to show a gray façade color on all sides except on the new elevator tower. The applicant should clarify the proposed façade treatments for each side of the building and ensure any representative renderings accurately reflect what is proposed.

The functionality of the outdoor area east of Wood Lane is unclear. The seating area in the southern portion is almost fully enclosed by the adjacent building (blank wall) and proposed planters; it appears to be programmed for outdoor dining, however no restaurant is adjacent to this space. The remainder of the area closer to Main Street includes large concrete steps with seat walls. On a day-to-day basis, what is the expectation for how residents and the public would use this space? In addition, we note the proposed gates at each end of Wood Lane. Given how these parcels provide a natural connection between Main Street and a large public parking lot to the south, consideration could be given to retaining a more open and inviting approach to this pedestrian area.

RECOMMENDATION

The Department recommends that the Board rely upon its own study of the facts in the case with due consideration of the above comments.

Eoin Wrafter, AICP, Commissioner
By



Heather M. LaVarnway, CNU-A
Senior Planner

Dutchess County Department of Planning and Development

Fax Info Only		
To	Date	#pgs
Co./Dept.	From	
Fax #	Phone #	

239 Planning/Zoning Referral - Exemption Communities

Please Fill in this section

Municipality: **City of Poughkeepsie**

Referring Agency: **Planning Board**

Tax Parcel Numbers(s): **0590840000, 0620840000, 0650830000, 0600750000, 0680810000**

Project Name: **278 - 282 Main Street**

Applicant: **Kirchner Realty, Inc / Michael DeCordova**

Address of Property: **278 Main St, Poughkeepsie, NY 126010000**

**Exempt Actions:*
239 Review is NOT Required**

- Administrative Amendments (fees, procedures, penalties, etc.)
- Special Permits for residential uses (accessory apts, home occupations, etc.)
- Use Variances for residential uses
- Area Variances for residential uses
- Renewals/Extension of Site Plans or Special Permits that have no changes from previous approvals

No Authority to review these Actions

- Subdivisions / Lot Line Adjustments
- Interpretations

☐ Exempt Action submitted for informal review

Actions Requiring 239 Review

- ☐ Comprehensive/Master Plans
- ☐ Zoning Amendments (standards, uses, definitions, district regulations, etc.)
- ☐ Other Local Laws associated with zoning (wetlands, historic preservation, affordable housing, architectural review, etc.)
- ☐ Rezonings involving all map changes
- ☐ Architectural Review
- ☑ Site Plans (all)
- ☐ Special Permits for all non-residential uses
- ☐ Use Variances for all non-residential uses
- ☐ Area Variances for all non-residential uses
- ☐ Other (Describe):

Parcels within 500 feet of:

- ☐ State Road:
- ☐ County Road:
- ☐ State Property (with recreation area or public building)
- ☑ County Property (with recreation area or public building)
- ☐ Municipal Boundary
- ☐ Farm operation in an Agricultural District

Date Response Requested: **9/20/2021**

Entered By: **Quinn, Natalie**

These actions are only exempt in municipalities that signed an intermunicipal agreemment with Dutchess County to that effect.

For County Office Use Only

Response From Dutchess County Department of Planning and Development

No Comments:

- ☐ Matter of Local Concern
- ☐ No Jurisdiction
- ☐ No Authority
- ☐ Withdrawn
- ☐ Incomplete - municipality must resubmit to County
- ☐ Exempt from 239 Review
- ☐ None

Comments Attached:

- ☑ Local Concern with Comments
- ☐ Conditional
- ☐ Denial
- ☐ Incomplete with Comments- municipality must resubmit to County
- ☐ Informal Comments Only (Action Exempt from 239 Review)

Date Submitted: **9/8/2021**	Notes: **Hand-delivered to DCP 9/8.**	☑ Major Project
Date Received: **9/8/2021**		Referral #: **ZR21-273**
Date Requested: **9/20/2021**		
Date Required: **10/7/2021**	☐ Also mailed hard copy	Reviewer: Heather M. LaV
Date Transmitted: **10/7/2021**		

2021 - 049

APPLICATION TO THE PLANNING BOARD
CITY OF POUGHKEEPSIE, NEW YORK

Application for Site Plan, Special Permit & Facade Approval

I. **PROPERTY ADDRESS:** 204 Hooker ave (AKA198-204 Hooker Ave)

II. **PROPERTY OWNER:** 198 Hooker Ave LLC - Attn: Sean Mulcahy
ADDRESS: 31 Walnut Hill Rd
Poughkeepsie
New York 12603 (state and zip code)
PHONE NUMBER: 914-456-2331 (include area code)

III. **NAME OF APPLICANT:** Paul S. Pilon, R.A. - S&P Architects, PC
ADDRESS: 1022 Rte 376 - Suite 21
Wappinger Falls
NY 12590 (state and zip code)
PHONE NUMBER: 845-790-0968 (include area code)
EMAIL ADDRESS: sparchitects@optonline.net

(If applicant is NOT the owner, proof of owner's consent to the application MUST be provided.)

IV. **CONSULTANT:** Paul S. Pilon, R.A. - S&P Architects, P.C.
ADDRESS: 1022 Rte 376 - Suite 21
Wappinger Falls
NY 12590 (state and zip code)
PHONE NUMBER: 845-790-0968 (include area code)

V. **PROPOSED USE or FAÇADE CHANGE** (Summarize proposed use or uses): Change of use of 2nd floor of existing building from OFFICE use to Multi- Family (apartments)

VI. **ZONING DISTRICT:** C-1

OFFICE USE ONLY
CODE: PLSF
ID #
FEE: 1505.00
Total, from:
$500, plus
$
($150 per 1000 square feet of floor area), plus
$
($35 per number of required parking spaces), plus
$
($500 for special permit, if applicable)

PAID 8/31/21

(Proceed to XVII for special permit & façade approval only)

Revised January 2018: Previous Editions Obsolete

PROJECT INFORMATION

New construction: _____(yes) X (no)

Change of use: X (yes) _____ (no)

Expansion/addition: _____ (yes) X (no)

Alteration: X (yes) _____ (no)

Cost of Construction: $ 200,000.00

LOT AND BULK INFORMATION:

Lot area: 0.37 (acres) 16,117.2 (square feet)

Building Footprint: 0 (proposed square feet for new construction)

4364 (gross) (existing square feet for change of use/expansion)

0 (additional proposed square feet for expansion)

7185 (total building footprint, square feet)

Lot Coverage: 44.5 % (percentage, building coverage only)

Gross Floor Area: 0 (proposed square feet for new construction)

4364 (gross) (existing square feet for change of use/expansion)

0 (additional proposed square feet for expansion)

12,494 (total gross floor area, square feet)

Building Height: 2 (stories) 28 (feet)

Floor Area Ratio: 77.5% (ratio of gross floor area divided by lot area)

VIII. PROJECT PARKING INFORMATION

A) Number of Off-Street Parking Spaces required: 10

B) Number of Off-Street Parking Spaces provided: 10

C) Waiver Requested: _____ (Yes) X (No)

Is municipal parking available within 600 feet? _____ (Yes) X (No)

If yes, name all such municipal facilities: _____

_____

_____

(If a waiver is requested based on proximity to municipal facilities, a written request for such waiver, addressed to the City Planning Staff and the Chairman of the Planning Board, must be submitted with the application.)

If a private parking facility is to be utilized, is such facility within 600 feet?

_____ (Yes) __X__ (No)

If yes, provide the address of the facility, name of the property owner, number of spaces in the lot, number of spaces available for lease, and length of lease. Attach copy of lease. Additional information may be required by the Planning Board):

_____

_____

_____

_____

IX. RESIDENTIAL PROPOSALS

A) Type of Development: Multiple Residence Rental (apartments)
(Townhouse, condominium, multiple residence rental, etc.)

B) Unit Breakdown:

Number of efficiency or "studio" units: 0

Number of one (1) bedroom units: 4 (1 existing + 3 new)

Number of two (2) bedroom unit's 2

Number with three or more bedrooms: 0

Total number of units: 6 Units

C) Is funding public? ____ Yes __X__ No
If yes, describe funding source: _____

X. OFFICE PROPOSALS (____ Medical/Dental ____ Professional ____ Business)

A) Number of Employees: _____
B) Number of doctors/dentists/medical practitioners: _____
C) Days/Hours of Operation: _____

XI. SERVICE BUSINESS PROPOSALS

A) Specify Business: _____
(e.g., laundromat, drycleaner, beauty parlor, travel agency, banks)

B) Number of Employees: _____

C) Number of Washing Machines (for laundromat): _____

D) Days/Hours of Operation: _____

XII. MERCANTILE PROPOSALS (Retail _____ Wholesale _____)

A) Type of Mercantile (specify): _____

B) Number of Employees: _____

C) Days/Hours of Operation: _____

XIII. STANDARD RESTAURANT/FAST FOOD RESTAURANT/COFFEE SHOP/DONUT SHOP/NIGHTCLUB/DISCOTHEQUE/BAR PROPOSALS

A) Specify Use: _____

B) Number of seats (excluding bar stools and outdoor seating):_____

C) Meals served (i.e., breakfast, lunch, dinner): _____

D) Type of Menu: _____

E) Days/Hours of Operation: _____

F) Entertainment (live and/or recorded):_____

G) Will the restaurant contain a bar/lounge?: _____ Yes _____ No

H) If yes, how many seats at the bar? _____

I) Is a drive-through window proposed? _____

J) Is a walk-up window proposed? _____

K) Is an outdoor seating area proposed? _____

L) If yes, how many seats are proposed? _____

M) If yes, is outdoor cooking proposed? _____

XIV. INDUSTRIAL/COMMERCIAL PROPOSALS (Automobile repair, taxi, motor vehicle sales, warehouse, manufacturing, animal hospital, research facilities, etc.)

A) Specify Use: _____

B) Number of shifts (if any): _____

C) Number of employees: _____
(If shifts are proposed, list number of employees per shift)

E) Number of work bays (if automobile repair): _____

F) Days/Hours of operation: _____

XV. EDUCATIONAL/INSTITUTIONAL/RECREATIONAL PROPOSALS (e.g., Museums, Theatres, Conference Centers, Hotels, Motels, Hospitals, Nursing Homes, Assisted Living Facilities, Nursery Schools, Private Schools, Day Care Centers, Places of Worship, Marinas, Membership Clubs, etc.)

A) Specify: _____

B) Number of shifts (if any): _____

C) Number of employees: _____
(If shifts are proposed, list number of employees per shift)

D) Number of beds (hospitals, nursing homes, etc): _____

E) Number of seats in largest assembly space: _____

F) Number of classrooms (schools): _____

G) Number of rental units (hotels, motels, etc.) _____

H) Number of boat slips/courts (e.g., tennis, handball, etc.), alleys: _____

I) Days/Hours of Operation: _____

XVI. PROPOSALS NOT MENTIONED ABOVE (Please be specific):

_____

_____

_____

_____

_____

XVII. APPLICANT CERTIFICATION

I, Paul S. Pilon, certify that the this application has addressed the objectives outlined in the Zoning Ordinance with consideration given to the public health, safety and welfare; the comfort and convenience of the public in general or the residents or users of the proposed development and of the immediate neighborhood.

The applicant certifies that all information contained herein is accurate and complete as of the date of this application.

Paul S. Pilon

Signature of Applicant

08-27-21

Date

Revised January 2018: Previous Editions Obsolete

S&P ARCHITECTS, P.C.
1022 RTE 376 - SUITE 21 WAPPINGERS FALLS, NY 12590 PH: 845-790-0968

Memo

Date: 10-25-21

To: Natalie Quinn/Judith Knauss
City of Poughkeepsie, Planning and Zoning

From: Paul S. Pilon, R.A.
S&P Architects, P.C.

Re: 198-204 Hooker Ave – Site Plan application

Dear Ms Quinn and Ms. Knauss,

Attached, please find 1 copy of the revised drawings for the above referenced project. We submitted these previously with the Site Plan Application, Short Form EAF, Owner Consent letter, Owner financial capability letter, and the application for Special Use Permit on 08-30-21. These drawings have been revised based upon the Site Plan Check Sheet I received from your office. Specifically, the following has been added or revised from the previous submission.

1. Graphic scale on all Site related plnas
2. Corrections to note as indicated.
3. Elevations of the building indicating materials.
4. Utilities Plan for existing utilities to the building.
5. Site Lighting Plan – showing existing light levels taken from field measurements. Please note that much of the lighting on the site is from utility lights on the street.
6. Trash recepticles have been relocated to be 6 feet from property lines.
7. Snow storage area has been indicated.
8. Residential entrances have been indicated on the site plans as well as the architectural plans.

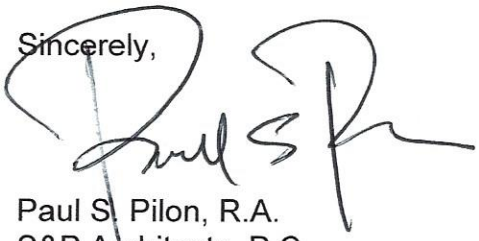
Note that the application, Short Form EAF, Owner Consent Letter and Owner Financial Capability Letter, as well as an application for a special use permit were previously submitted and have not been revised as of this letter.

I will be sending via e-mail the electronic format of these documents to you, in the format you have requested.

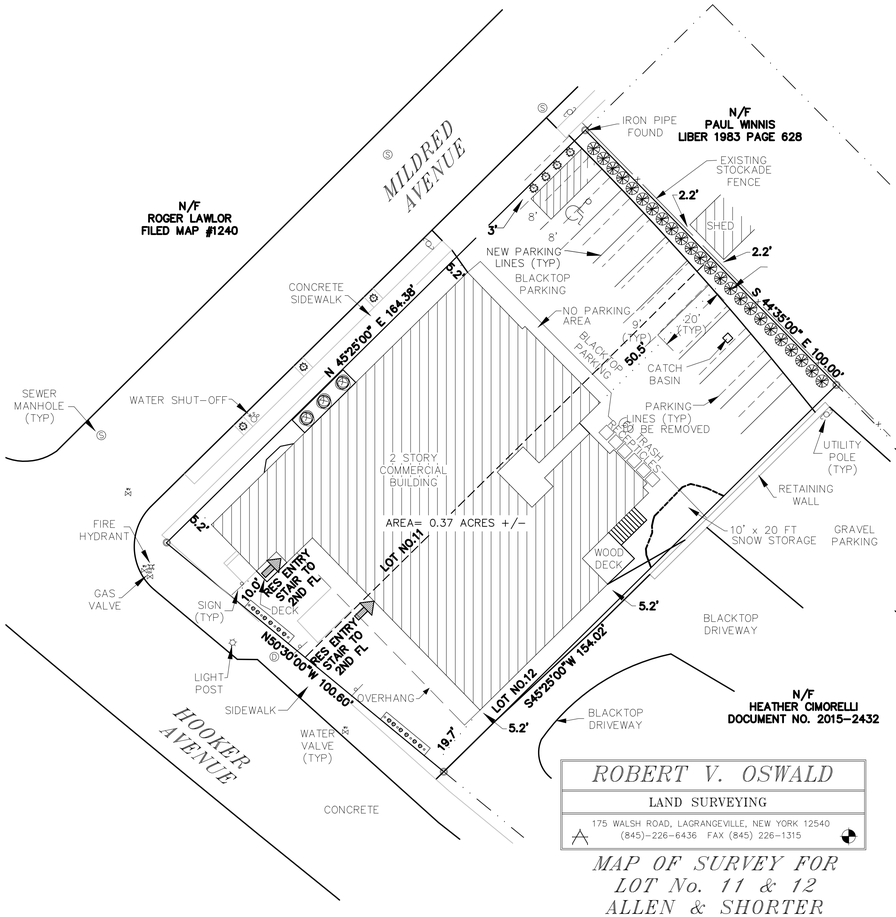
We are submitting this and asked to have it reviewed and placed on the agenda for the next Planning Board Meeting.

If additional material is needed, please feel free to contact me. Thank you for your assistance.

Sincerely,

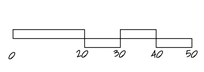


Paul S. Pilon, R.A.
S&P Architects, P.C.
845-790-0968
sparchitects@optonline.net



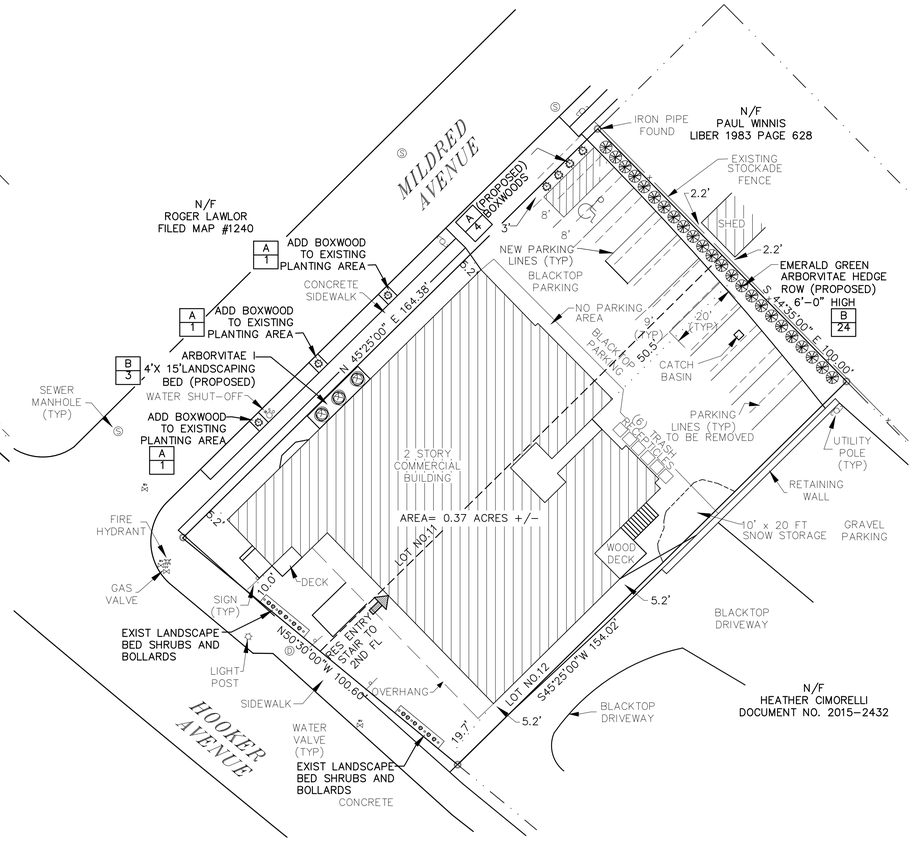
ROBERT V. OSWALD
LAND SURVEYING
175 WALSH ROAD, LAGRANGEVILLE, NEW YORK 12540
(845)-226-6436 FAX (845) 226-1315

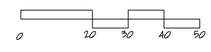
MAP OF SURVEY FOR
LOT No. 11 & 12
ALLEN & SHORTER
CITY OF POUGHKEEPSIE DUTCHESS CO.,N.Y.
SCALE: 1" = 20' JANUARY 9, 2019



NORTH

1 S-1 SITE PLAN 1" = 20'





NORTH

2 S-1 LANDSCAPE PLAN 1" = 20'

PLANTING SCHEDULE X ID PER SCHEDULE / N QUANTITY

ID	COMMON NAME	SCIENTIFIC NAME	SIZE	QTY
A	AMERICAN BOXWOOD	BUXUS AEMPERVIRENS	2 GAL	6 TOTAL
B	EMERALD GREEN ARBORVITAE	THUJA OCCIDENTALIS "EMERALD GREEN"	6 FT TALL	5 TOTAL

NOTE:
CHANGE OF USE LIMITED TO PORTION OF EXISTING SECOND FLOOR. NO ALTERATIONS TO FOOTPRINT OF EXISTING BUILDING OR PARKING AREAS ARE PROPOSED.

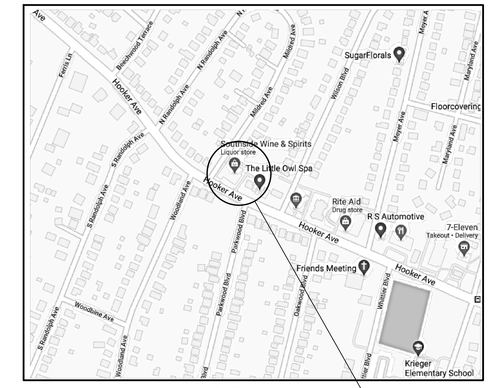
THERE ARE NO PROPOSED CHANGES TO THE EXISTING GRADES ON THE SITE.

THERE ARE NO KNOWN EASEMENTS ADJACENT OR THROUGH THE PROPERTY

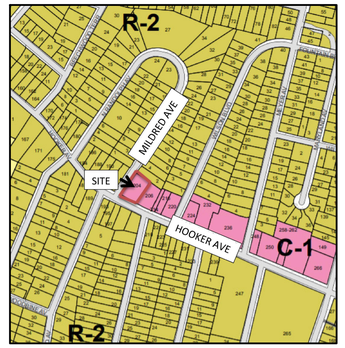
THERE ARE NO KNOW WATER COURSES, MARSHES, WOODED AREAS OR ROCK OUT-CROPPINGS ON THE SITE.

THE SUBJECT PROPERTY IN NOT WITHIN THE FEMA 100 YEAR FLOOR PLAIN

NO ADDITIONAL IMPERVIOUS SURFACES WILL BE CONSTRUCTED. THERE WILL BE NO INCREASE IN STORM WATER DISCHARGE



LOCATION MAP
NTS



ZONING MAP
NTS

OWNER OF RECORD
198 HOOKER AVE LLC
ATTN: SEAN MULCHAY
31 WALNUT HILL RD
POUGHKEEPSIE NY 12603

LOT AREA = +/- 0.37 AC 16,172 SF PER SURVEY

ZONING DISTRICT: C-1 NEIGHBORHOOD COMMERCIAL DISTRICT

TAX MAP 131300-6161-48-445058

EXISTING BUILDING AREA - BY FLOOR & USE

	COMMERCIAL		RESIDENTIAL	
	GROSS	NET	GROSS	NET
1ST FLOOR	7185 SF	6234 SF	0 SF	0 SF
2ND FLOOR *	4364 SF	3445 SF	945 SF	883 SF
TOTALS	11,549 SF	9679 SF	945 SF	883 SF

BUILDING TOTAL = 12,494 GROSS SF - 10,562 NET SF

* EXISTING 2ND FLOOR COMMERCIAL SPACE TO BE "CHANGE OF USE" FROM COMMERCIAL (OFFICE) TO MULTI-FAMILY (APARTMENTS)

PROPOSED BUILDING AREA - BY FLOOR & USE

	COMMERCIAL		RESIDENTIAL	
	GROSS	NET	GROSS	NET
1ST FLOOR	7185 SF	6234 SF	0 SF	0 SF
2ND FLOOR	0 SF	0 SF	5309 SF	4328 SF
TOTALS	7185 SF	6234 SF	5309 SF	4328 SF

BUILDING TOTAL = 12,494 GROSS SF - 10,562 NET SF

DWELLING UNITS - BY NUMBER OF BEDRMS - PROPOSED

QTY	BEDRMS	PROPOSED/EXISTING	TOTAL # OF BEDRMS
3	1 BDRM	PROPOSED	3 BEDRMS
2	2 BDRM	PROPOSED	4 BEDRMS
5 NEW DWELLING UNITS PROPOSED			7 NEW BEDROOMS (PROPOSED)

1	1 BDRM	EXISTING	1 BEDRM
6 TOTAL DWELLING UNITS (EXISTING + PROPOSED)			8 TOTAL BEDROOMS (EXISTING + PROPOSED)

RESIDENTIAL UNITS - DATA TABLE - NET SQUARE FEET BY UNIT

UNIT	BEDRMS	NET AREA (SF)	PROPOSED/EXISTING
A	1 BDRM	575 SF	PROPOSED
B	1 BDRM	596 SF	PROPOSED
C	1 BDRM	570 SF	PROPOSED
D	2 BDRM	926 SF	PROPOSED
E	2 BDRM	838 SF	PROPOSED
F	1 BDRM	883 SF	EXISTING

COMMERCIAL UNITS - DATA TABLE

UNIT	NET AREA (SF)	PROPOSED/EXISTING
SALON	564 SF	EXISTING
LIQUOR STORE	1790 SF	EXISTING
DELI	2340 SF	EXISTING
FLOWER SHOP	1630 SF	EXISTING

NOTE: NET SQUARE FOOTAGE TAKEN INTERIOR SIDE OF EXTERIOR WALL AND INCLUDES SUPPORT SPACES SUCH AS STORAGE CLOSETS AND LAVATORIES/BATHROOMS

SECTION 19-3.22(4)(b) REQUIREMENTS - LOT AREA

LOT AREA PER BEDROOM

2200 SF / 1 BEDROOM APT = 4 X 2200 = 8800 SF
2800 SF / 2-BEDROOM APT = 2 X 2800 = 5600 SF
TOTAL LOT AREA REQUIRED = 14,400 SF
TOTAL LOT AREA PROVIDED = 16,172 SF

SECTION 19-3.22(2)(b)(16)(iii) REQUIREMENTS - IMPROVED COMMERCIAL SPACE

MAXIMUM PERMITTED BY CODE 8000 SQ FT
IMPROVED COMMERCIAL SPACE (EXISTING) = 7185 SQ FT

SECTION 19-4.3(11) PARKING REQUIREMENTS

RESIDENTIAL (PROPOSED ONLY)
1.5 SPACE PER 1-BEDROOM APT (3) 1-BDRM X 1.5 = 4.5 SPACES
2.0 SPACE PER 2-BEDROOM APT (2) 2-BEDRM X 2.0 = 4.0 SPACES
TOTAL FOR NEW RESIDENTIAL = 8.5 SPACES

RESIDENTIAL (EXISTING)
1.5 SPACE PER 1-BEDROOM APT (1) 2-BEDRM X 1.5 = 1.5 SPACES
TOTAL FOR ALL RESIDENTIAL = 10 SPACES

COMMERCIAL (EXISTING TO REMAIN)
1.0 SPACE PER 300 SF FLOOR AREA
7185 GROSS SQ FT / 300 = 24 SPACES

TOTAL SPACES REQUIRED = 34 SPACES
TOTAL SPACES PROVIDED = 10 SPACES
VARIANCE REQUIRED FOR 24 SPACES

NOTE:
VARIANCE FOR 24 PARKING SPACES GRANTED BY THE CITY OF POUGHKEEPSIE ZONING BOARD OF APPEALS AT THE JULY 13, 2021 MEETING.

ZONING TABLE
ZONING: C-1 NEIGHBORHOOD COMMERCIAL DISTRICT

	REQUIRED	PROVIDED
LOT AREA	14,400 SF	16,172.0 SF
LOT WIDTH	N/A	100.60 FT
LOT FRONTAGE	40 FT	264.38 FT
REQUIRED YARDS		
FRONT	15 FT	10 FT (EXISTING)
SIDE (EACH)	0 OR 15 FT	5.2 FT (EXISTING)
SIDE (BOTH)	0 OR 15 FT	10.4 (EXISTING)
REAR	25 FT	50.5 FT
BUILDING HGT (STORIES/FEET)	3 STORIES/40 FT	2 STORIES/ 28 FT
LOT COVERAGE - BUILDING AREA	80%	44.5%
USEABLE OPEN SPACE *	2000 SF *	0 SF *
FLOOR AREA RATIO	-	77.5%
PARKING SPACES *	10 *	10 *

* VARIANCE FROM THIS REQUIREMENT GRANTED BY THE CITY OF POUGHKEEPSIE ZONING BOARD OF APPEALS AT THE JULY 13TH, 2021 MEETING

CITY PLANNING BOARD
CITY OF POUGHKEEPSIE, NY

SITE PLAN APPROVAL

FILE NO:
PROJECT NAME: PARTIAL CHANGE OF USE - OFFICE TO MULTI-FAMILY APTS
PROJECT LOCATION: 198-204 HOOKER AVE, C/POUGHKEEPSIE, NY
APPLICANT: PAUL S. PILON, R.A.
OFFICIALLY APPROVED:
AT THE PLANNING BOARD MEETING HELD
THE ____ DAY OF _____, 20__.
PLANNING CHAIR:
DESIGNEE:
DATE SIGNED
CONDITIONS:

DEPARTMENT SIGNATURES:

FIRE CHIEF DATE

POLICE CHIEF DATE

BUILDING INSPECTOR DATE

CITY ENGINEER DATE

COMMISSIONER OF PUBLIC WORKS DATE

S&P ARCHITECTS, P.C.
1022 RTE 376 - SUITE 21
WAPPINGERS FALLS, NY 12590
PH 845-790-0368
PAUL S. PILON, R.A. • SABRINA B. PILON, R.A.

PROPOSED CONVERSION & ALTERATION
FOR
SEAN MULCAHY
198 HOOKER AVE LLC
198-204 HOOKER AVE
C/POUGHKEEPSIE NY

LICENSED ARCHITECT PAUL SCOTT PILON 026984 STATE OF NEW YORK

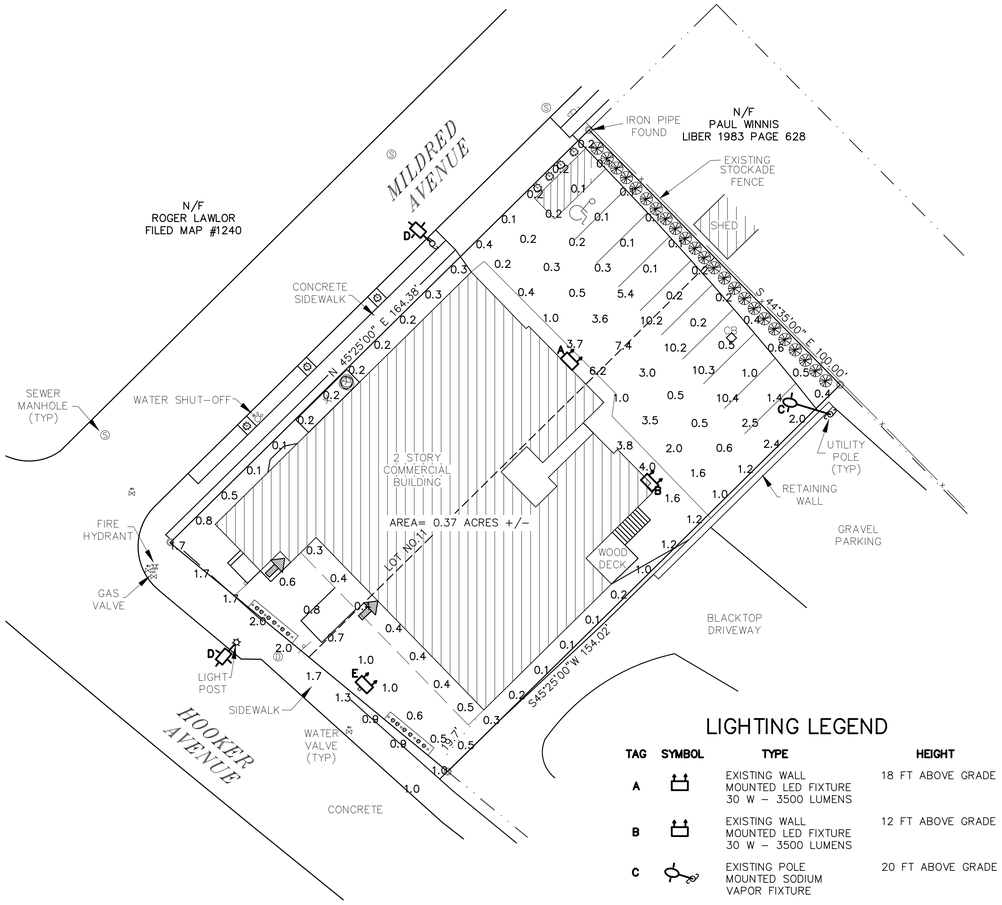
SITE & LANDSCAPE PLANS

S-1

AS NOTED

10-25-21

PLOT DATE:



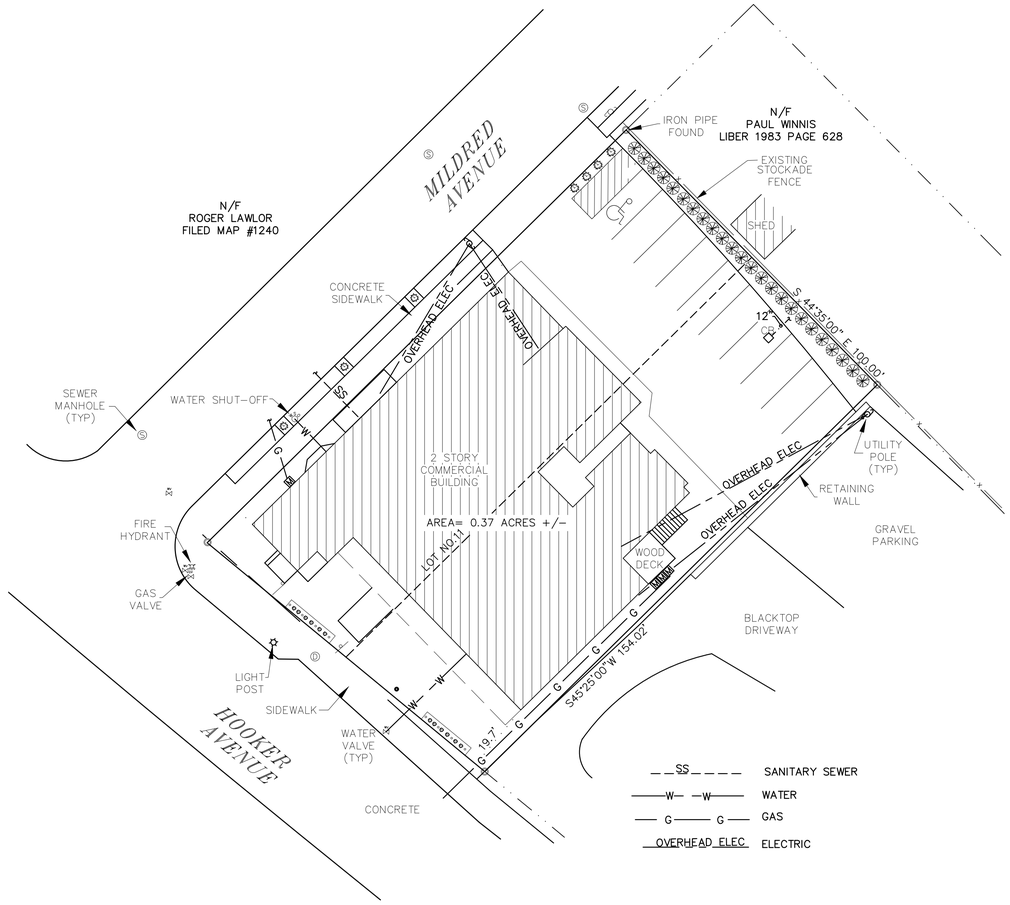
LIGHTING LEGEND

TAG	SYMBOL	TYPE	HEIGHT
A		EXISTING WALL MOUNTED LED FIXTURE 30 W – 3500 LUMENS	18 FT ABOVE GRADE
B		EXISTING WALL MOUNTED LED FIXTURE 30 W – 3500 LUMENS	12 FT ABOVE GRADE
C		EXISTING POLE MOUNTED SODIUM VAPOR FIXTURE	20 FT ABOVE GRADE
D		EXISTING POLE MOUNTED LED FIXTURE 30 W – 3500 LUMENS	24 FT ABOVE GRADE
E		EXISTING WALL MOUNTED LED FIXTURE 30 W – 3500 LUMENS	15 FT ABOVE GRADE

0 10 30 40 50

NORTH

1 / S-2 SITE LIGHTING PLAN
1" = 20'



SS SANITARY SEWER
W WATER
G GAS
OVERHEAD ELEC ELECTRIC

0 10 30 40 50

NORTH

2 / S-2 SITE UTILITIES PLAN
1" = 20'

S&P ARCHITECTS, P.C.
1222 RTE 376 – SUITE 21
WAPPINGERS FALLS, NY 12590
PH 845-790-0368
PAUL S. PILON, R.A. • SABRINA D. PILON, R.A.

PROPOSED CONVERSION & ALTERATION

FOR
SEAN MULCAHY
198 HOOKER AVE LLC
198-204 HOOKER AVE
C/POUGHKEEPSIE NY

REGISTERED ARCHITECT
PAUL SCOTT PILON
025984
STATE OF NEW YORK

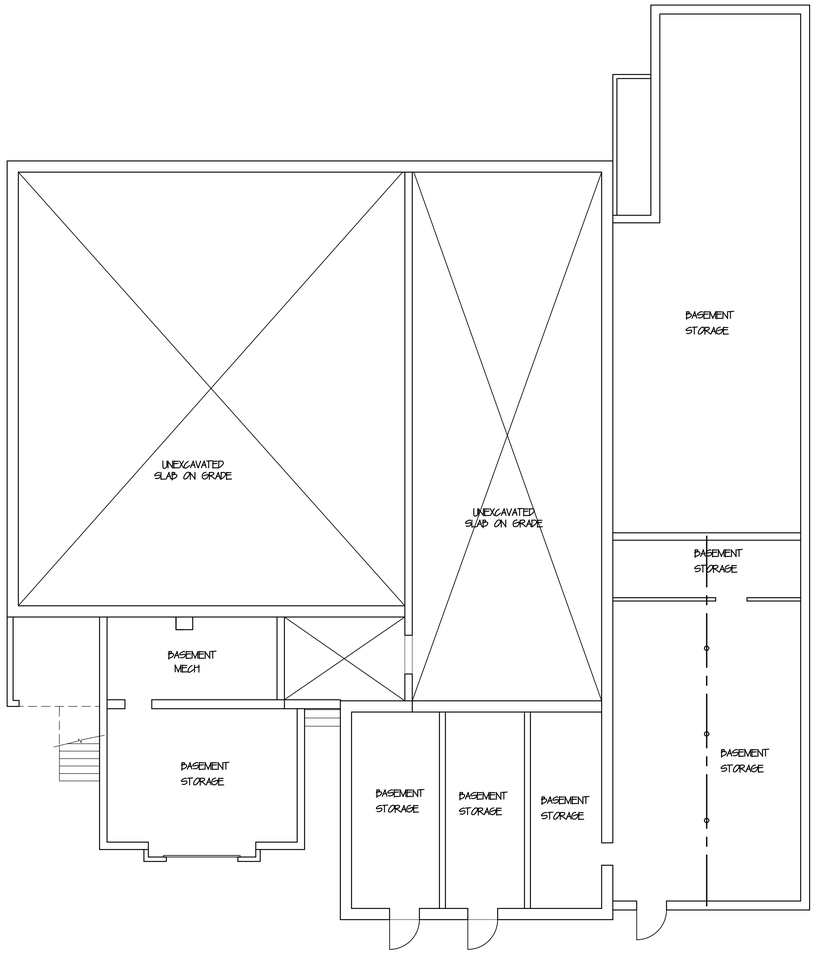
SITE LIGHTING & UTILITIES PLANS

S-2

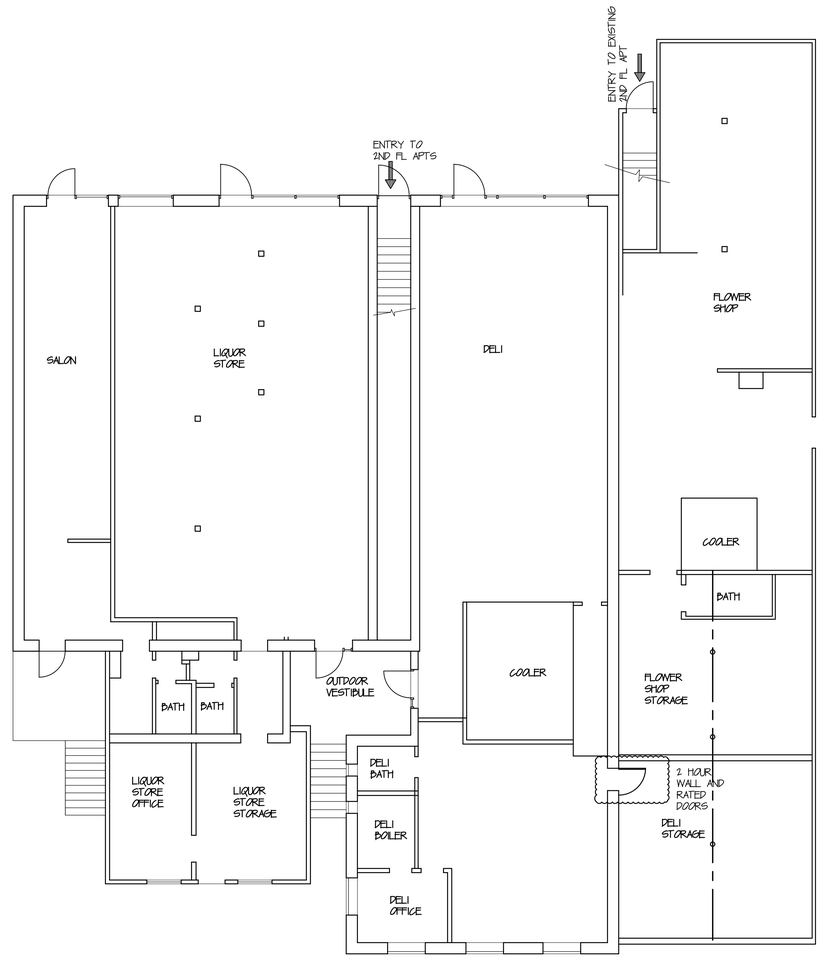
AS NOTED

10-25-21

PLOT DATE:



1 / A-1 BASEMENT PLAN (EXISTING)
1/8" = 1'-0"



2 / A-1 1ST FLOOR PLAN (EXISTING)
1/8" = 1'-0"

S&P ARCHITECTS, P.C.
1022 RTE 376 – SUITE 21
WAPPINGERS FALLS, NY 12590
PH 845-790-0968
PAUL S. PILON, R.A. • SABRINA B. PILON, R.A.

PROPOSED CONVERSION & ALTERATION

FOR
SEAN MULCAHY
198 HOOKER AVE LLC
198-204 HOOKER AVE
C/POUGHKEEPSIE NY

REGISTERED ARCHITECT PAUL SCOTT PILON 023984 STATE OF NEW YORK

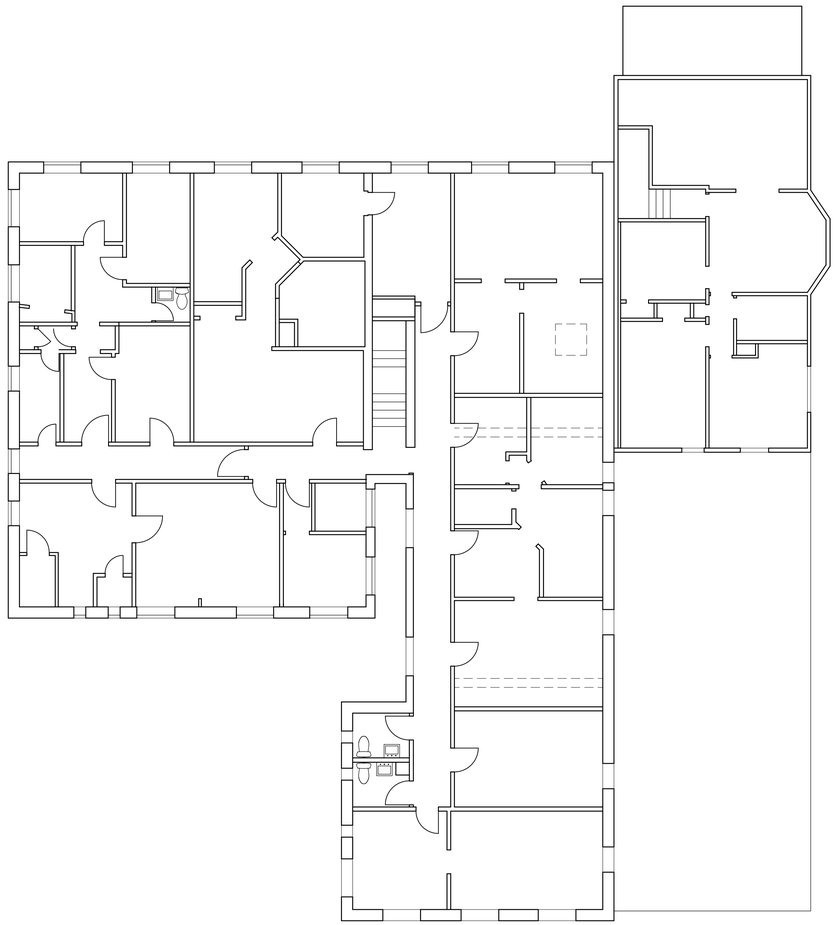
BASEMENT & 1ST FL PLANS

A-1

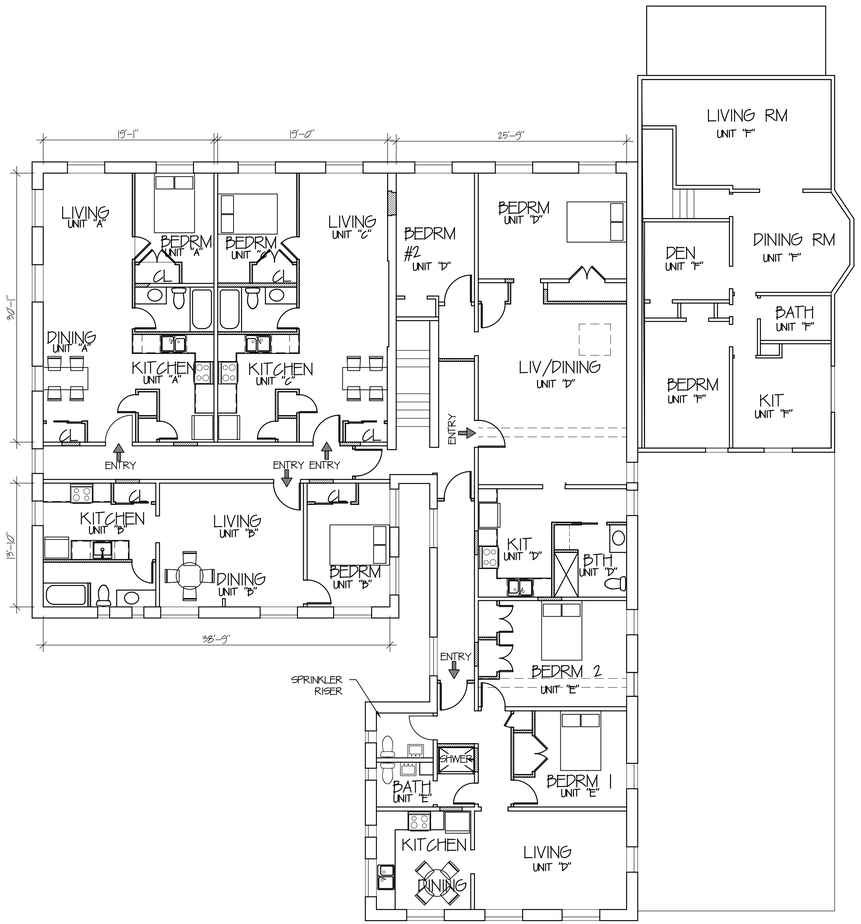
AS NOTED

10-25-21

PLOT DATE:



EXISTING
SECOND FLOOR PLAN
1/8" = 1'-0"



PROPOSED
SECOND FLOOR PLAN
1/8" = 1'-0"

NOTE:

- ENTIRE BUILDING TOP BE PROVIDED WITH NFPA 13 COMPLIANT FIRE SPRINKLER SYSTEM
- BUILDING CODE COMPLIANCE TO BE IN ACCORDANCE WITH CHAPTER 13 OF THE EXISTING BUILDING CODE OF NEW YORK STATE
- EXTERIOR ALTERATIONS TO CONSIST OF REPLACEMENT OF EXISTING WINDOWS WITH NEW WINDOWS WHICH PROVIDE EGRESS COMPLIANCE

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WAPPINGERS FALLS, NY 12590
PH 845-790-0368
PAUL S. PILON, R.A. • SABRINA B. PILON, R.A.

PROPOSED CONVERSION & ALTERATION
FOR
SEAN MULCAHY
198 HOOKER AVE LLC
198-204 HOOKER AVE
C/POUGHKEEPSIE NY

REGISTERED ARCHITECT
PAUL SCOTT PILON
STATE OF NEW YORK

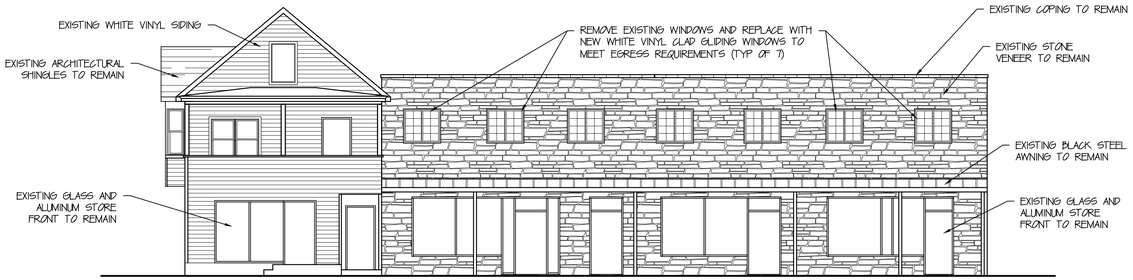
EXT & PROP 2ND FP & REAR ELEV

A-2

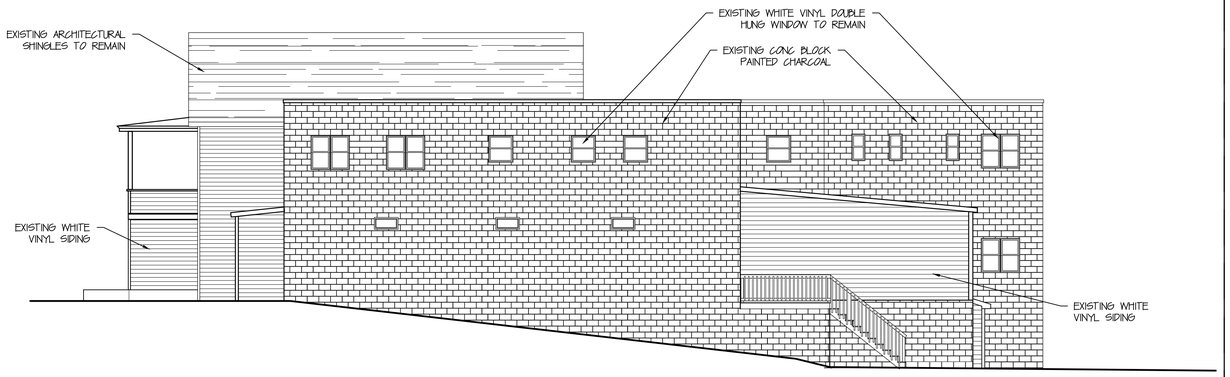
AS NOTED

10-25-21

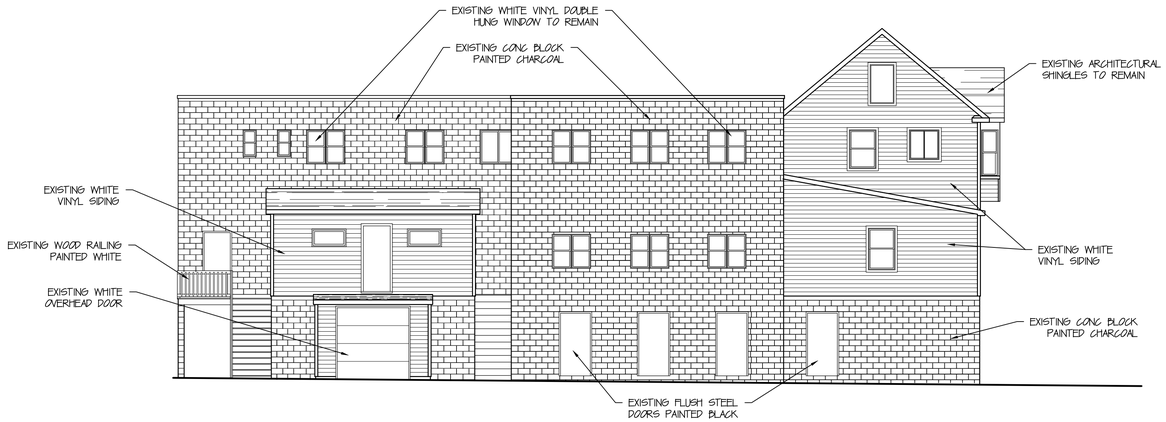
PLOT DATE:



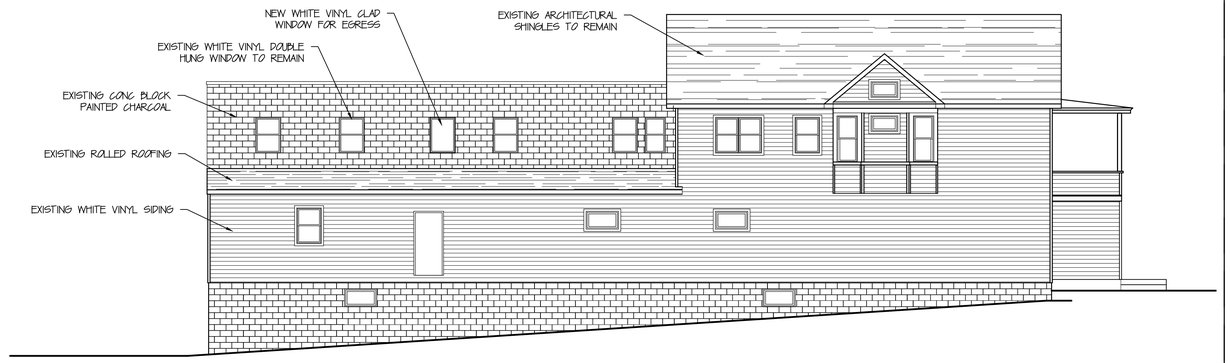
1 A-3 SOUTH ELEVATION
1/8" = 1'-0"



2 A-3 EAST ELEVATION
1/8" = 1'-0"



3 A-3 NORTH ELEVATION
1/8" = 1'-0"



4 A-3 WEST ELEVATION
1/8" = 1'-0"

ANDERSEN WINDOWS & DOORS

200 SERIES GLIDING WINDOW

Interior

Exterior

Summary

Product ID#	244GW4040
Unit Width	47 1/2"
Unit Height	47 1/2"
Interior Color	White
Glass	Low-E Glass
Hardware	Lock and Keeper, White
Optional Hardware	None, White
Grille Pattern	None
Exterior Color	White
Exterior Trim Profile	None

5 A-3 NEW WINDOW DETAIL/SPEC
NTS

S&P ARCHITECTS, P.C.
1022 RTE 376 – SUITE 21
WAPPINGERS FALLS, NY 12590
PH 845-790-0968
PAUL S. PILON, R.A. • SABRINA B. PILON, R.A.

PROPOSED CONVERSION & ALTERATION
FOR
SEAN MULCAHY
198 HOOKER AVE LLC
198-204 HOOKER AVE
C/POUGHKEEPSIE NY

REGISTERED ARCHITECT PAUL SCOTT PILON 023984 STATE OF NEW YORK

EXTERIOR ELEVATIONS

A-3

AS NOTED

10-25-21

PLOT DATE:

REMOVE AND REPLACE 2ND FLOOR WINDOWS WITH NEW GLIDING WINDOW (TYP 7)

1 A-4 SOUTH ELEV/PHOTO (FRONT)
NTS

2 A-4 EAST ELEV/PHOTO (SIDE)
NTS

REMOVE AND REPLACE 2ND FLOOR WINDOWS WITH NEW GLIDING WINDOW (TYP 2)

3 A-4 PARTIAL WEST ELEV/PHOTO (MILDRED AVE SIDE)
NTS

REMOVE AND REPLACE 2ND FLOOR WINDOW WITH NEW GLIDING WINDOW (TYP 1)

4 A-4 NORTH ELEV/PHOTO (REAR)
NTS

S&P ARCHITECTS, P.C.
1022 RTE 376 – SUITE 21
WAPPINGERS FALLS, NY 12590
PH 845-790-0368
PAUL S. PILON, R.A. • SABRINA B. PILON, R.A.

PROPOSED CONVERSION & ALTERATION

FOR
SEAN MULCAHY
198 HOOKER AVE LLC
198-204 HOOKER AVE
C/POUGHKEEPSIE NY

REGISTERED ARCHITECT
PAUL SCOTT PILON
No. 022398
STATE OF NEW YORK

EXT ELEV/PHOTOS
WINDOW SAMPLE

A-4

NONE

10-25-21

PLOT DATE:

Short Environmental Assessment Form

Part 1 - Project Information

RECEIVED
AUG 31 2021

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Change of use of portion of existing building from Office use to Multi-Family Residential

Name of Action or Project:

Proposed Change of Use and Alterations at 198-204 Hooker Ave for 198 hooker Ave LLC

Project Location (describe, and attach a location map):

198-204 Hooker Ave, City of Poughkeepsie, NY. Site is located at southeast corner of intersetion of Hooker Ave and Mildred Ave

Brief Description of Proposed Action:

The project consists of converting approximately 4364 gross sq feet of existing office space into a total of 5 new apartments [(3) 1-Bedroom apartments and (2) 2-bedroom apartments]. Change of use to occur within exterior walls of existing second floor of two story building.

Remainder of existing building to remain as-is.

Name of Applicant or Sponsor:	Telephone: 845-790-0968
Paul S. Pilon, R.A.	E-Mail: sparchitects@optonline.net

Address:

1022 Rte 376- Ste 21

City/PO:	State:	Zip Code:
Wappingers Falls	NY	12590

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: Site Plan/Special Permit - C/Poughkeepsie Planning Bd; Building Permit - C/ Poughkeepsie Building Dept	☐	☑

3. a. Total acreage of the site of the proposed action? 0.37 acres
   b. Total acreage to be physically disturbed? 0.37 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.37 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

☑ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☐ Residential (suburban)

☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):

☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☑

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____ _____	☐	☑

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ _____	☐	☑

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☑	☐
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☑	☐

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☑	☐
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____ _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☑ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	☑	☐
16. Is the project site located in the 100-year flood plan?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☑
If Yes, briefly describe: Existing site is developed. Existing footprint of building will remain unchanged. There will be no increase in stormwater flow upon completion of the change of use. The exterior of the building will remain unchanged, therfore, stormwater quantity and collection will remain "as-is"		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☑	☐
20.Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	☑	☐

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Paul S. Pilon, R.A. Date: 08-30-21

Signature: _____ Title: R.A.

PRINT FORM

CITY OF POUGHKEEPSIE
ZONING BOARD OF APPEALS DECISION

In the matter of the appeal of Paul Pilon, regarding the property at 204 (198-204) Hooker Avenue, Poughkeepsie, New York:

At a Regular Meeting of the Zoning Board of Appeals held on the 13th day of July, 2021, at 6:30pm:

Present	**Excused**
Nathan Shook Chair	John Gildard
Thomas Klug	Rob Page
Scott Parker	
Steven Reifler	
Jessica Vinall	

WHEREAS, the Zoning Board of Appeals has received an application from Paul Pilon relative to the proposed conversion of the mixed use building at 198-204 Hooker Avenue containing commercial space, offices and a single dwelling unit to a mixed use building containing first floor commercial uses with a total of six apartments on the second floor requiring variances with regards to usable open space, parking and landscaping, as outlined above; and,

WHEREAS, the application was accompanied by additional materials, including a Site Plan dated 5/27/21, prepared by S&PArchitects; and,

WHEREAS, a public hearing was held on July 13, 2021; and,

WHEREAS, the action is considered to be a Type 2 Action under SEQRA requiring no further action; and,

WHEREAS, the applicant has demonstrated that the granting of the area variance will not produce an undesirable change in the character of the neighborhood, and will not be a detriment to nearby properties; and,

WHEREAS, the applicant has demonstrated that there is no other feasible method to achieve compliance at this time; and,

WHEREAS, the applicant has demonstrated that the variance requested is not substantial; and,

WHEREAS, the applicant has demonstrated the granting of the variance will not have an adverse effect or impact on the physical or environmental conditions in the neighborhood; and,

WHEREAS, the applicant has demonstrated that the need for the variances is not necessarily self-created:

CITY OF POUGHKEEPSIE
ZONING BOARD OF APPEALS DECISION

NOW THEREFORE BE IT FURTHER RESOLVED that the City of Poughkeepsie Zoning Board of Appeals hereby grants the area variances as noted above.

Motion: Steven Reifler
Second: Jessica Vinall
Carried: 5:0:0

The motion to grant the variances carried unanimously.

Nathan Shook
Chairman
Zoning Board of Appeals

PAID
OCT 12 2021
$965
BY Ck# 1011

APPLICATION TO THE PLANNING BOARD
CITY OF POUGHKEEPSIE, NEW YORK

Application for Site Plan, Special Permit & Facade Approval

PB-2021-061

OFFICE USE ONLY
CODE: PLSF
ID # 205135
FEE: _____
Total, from:
$500, plus
$_____
($150 per 1000 square feet of floor area), plus
$_____
($35 per number of required parking spaces), plus
$_____
($500 for special permit, if applicable)

I. **PROPERTY ADDRESS:** 29 North Hamilton

II. **PROPERTY OWNER:** Family Services Inc.
ADDRESS: 29 North Hamilton St
Poughkeepsie
NY 12601 (state and zip code)
PHONE NUMBER: 845-473-8414 (include area code)

III. **NAME OF APPLICANT:** Brian Doyle, CEO
ADDRESS: 29 North Hamilton St.
Poughkeepsie
NY 12601 (state and zip code)
PHONE NUMBER: 845-473-8414 (include area code)
EMAIL ADDRESS: bdoyle@familyservicesny.org

(If applicant is NOT the owner, proof of owner's consent to the application MUST be provided.)

IV. **CONSULTANT:** Model of Architecture Serving Society, LLC (MASS)
ADDRESS: 289 Main St
Suite 101, Poughkeepsie
NY 12601 (state and zip code)
PHONE NUMBER: 845-473-4003 (include area code)

V. **PROPOSED USE or FAÇADE CHANGE** (Summarize proposed use or uses): Entry addition for handicapped accessibility

VI. **ZONING DISTRICT:** R-4

(Proceed to XVII for special permit & façade approval only)

Revised January 2018: Previous Editions Obsolete

PROJECT INFORMATION

New construction: _____(yes) X _____ (no)

Change of use: _____ (yes) X _____ (no)

Expansion/addition: X _____ (yes) _____ (no)

Alteration: _____ (yes) X _____ (no)

Cost of Construction: $ 1M _____

LOT AND BULK INFORMATION:

Lot area: 4.42 _____ (acres) 192,535 _____ (square feet)

Building Footprint: N/A _____ (proposed square feet for new construction)

36,633 _____ (existing square feet for change of use/expansion)

1,772 _____ (additional proposed square feet for expansion)

38,405 _____ (total building footprint, square feet)

Lot Coverage: 20% _____ (percentage, building coverage only)

Gross Floor Area: N/A _____ (proposed square feet for new construction)

105,000 _____ (existing square feet for change of use/expansion)

1,772 _____ (additional proposed square feet for expansion)

106,772 _____ (total gross floor area, square feet)

Building Height: 3 _____ (stories) ~60 _____ (feet)

Floor Area Ratio: 0.55 _____ (ratio of gross floor area divided by lot area)

VIII. PROJECT PARKING INFORMATION

A) Number of Off-Street Parking Spaces required: 6 addl _____

B) Number of Off-Street Parking Spaces provided: 6 addl, see Civil _____

C) Waiver Requested: _____ (Yes) X _____ (No)

Is municipal parking available within 600 feet? X _____ (Yes) _____ (No)

If yes, name all such municipal facilities: 53 Catherine Street Parking Lot

(If a waiver is requested based on proximity to municipal facilities, a written request for such waiver, addressed to the City Planning Staff and the Chairman of the Planning Board, must be submitted with the application.)

If a private parking facility is to be utilized, is such facility within 600 feet?

_____ (Yes) X (No)

If yes, provide the address of the facility, name of the property owner, number of spaces in the lot, number of spaces available for lease, and length of lease. Attach copy of lease. Additional information may be required by the Planning Board):

IX. RESIDENTIAL PROPOSALS

A) Type of Development: _____
(Townhouse, condominium, multiple residence rental, etc.)

B) Unit Breakdown:

Number of efficiency or "studio" units: _____

Number of one (1) bedroom units: _____

Number of two (2) bedroom unit's _____

Number with three or more bedrooms: _____

Total number of units: _____

C) Is funding public? ____ Yes ____ No

If yes, describe funding source: _____

X. OFFICE PROPOSALS (____ Medical/Dental ____ Professional ____ Business)

A) Number of Employees: _____

B) Number of doctors/dentists/medical practitioners: _____

C) Days/Hours of Operation: _____

XI. SERVICE BUSINESS PROPOSALS

A) Specify Business: _____
(e.g., laundromat, drycleaner, beauty parlor, travel agency, banks)

B) Number of Employees: _____

C) Number of Washing Machines (for laundromat): _____

D) Days/Hours of Operation: _____

XII. MERCANTILE PROPOSALS (Retail _____ Wholesale _____)

A) Type of Mercantile (specify): _____

B) Number of Employees: _____

C) Days/Hours of Operation: _____

XIII. STANDARD RESTAURANT/FAST FOOD RESTAURANT/COFFEE SHOP/DONUT SHOP/NIGHTCLUB/DISCOTHEQUE/BAR PROPOSALS

A) Specify Use: _____

B) Number of seats (excluding bar stools and outdoor seating):_____

C) Meals served (i.e., breakfast, lunch, dinner): _____

D) Type of Menu: _____

E) Days/Hours of Operation: _____

F) Entertainment (live and/or recorded):_____

G) Will the restaurant contain a bar/lounge?: _____ Yes _____ No

H) If yes, how many seats at the bar? _____

I) Is a drive-through window proposed? _____

J) Is a walk-up window proposed? _____

K) Is an outdoor seating area proposed? _____

L) If yes, how many seats are proposed? _____

M) If yes, is outdoor cooking proposed? _____

XIV. INDUSTRIAL/COMMERCIAL PROPOSALS (Automobile repair, taxi, motor vehicle sales, warehouse, manufacturing, animal hospital, research facilities, etc.)

A) Specify Use: _____

B) Number of shifts (if any): _____

C) Number of employees: _____
(If shifts are proposed, list number of employees per shift)

E) Number of work bays (if automobile repair): _____

F) Days/Hours of operation: _____

XV. EDUCATIONAL/INSTITUTIONAL/RECREATIONAL PROPOSALS (e.g., Museums, Theatres, Conference Centers, Hotels, Motels, Hospitals, Nursing Homes, Assisted Living Facilities, Nursery Schools, Private Schools, Day Care Centers, Places of Worship, Marinas, Membership Clubs, etc.)

A) Specify: Social Services Center

B) Number of shifts (if any): 1

C) Number of employees: 130 Staff/Employees at Family Partnership Center
(If shifts are proposed, list number of employees per shift)

D) Number of beds (hospitals, nursing homes, etc): N/A

E) Number of seats in largest assembly space: 792 Auditorium, inc. Balcony

F) Number of classrooms (schools): N/A

G) Number of rental units (hotels, motels, etc.) 61

H) Number of boat slips/courts (e.g., tennis, handball, etc.), alleys: 1 Volleyball, 1

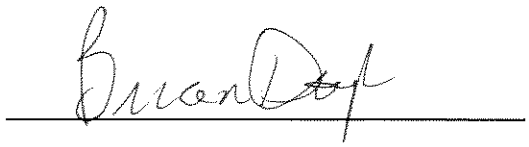
I) Days/Hours of Operation: 7am-9pm M-F, 7am-6pm Sat, 8am-12pm Sun

XVI. PROPOSALS NOT MENTIONED ABOVE (Please be specific):

XVII. APPLICANT CERTIFICATION

I, Brian Doyle, certify that the this application has addressed the objectives outlined in the Zoning Ordinance with consideration given to the public health, safety and welfare; the comfort and convenience of the public in general or the residents or users of the proposed development and of the immediate neighborhood.

The applicant certifies that all information contained herein is accurate and complete as of the date of this application.



Signature of Applicant

October 11, 2021

Date

October 29, 2021

MASS DESIGN GROUP

289 Main Street, Suite 101
Poughkeepsie, NY 12601

hello@massdesigngroup.org
+1 857 233 5788

massdesigngroup.org

Ms. Natalie Quinn
City of Poughkeepsie Planning Administrator
62 Civic Center Plaza
Poughkeepsie, NY 12601

Ms. Judith Knauss
City of Poughkeepsie Zoning Administrator
62 Civic Center Plaza
Poughkeepsie, NY 12601

Re: 29 N. Hamilton Street - Family Partnership Center

Dear Ms. Quinn, Ms. Knauss and the City of Poughkeepsie Planning Board,

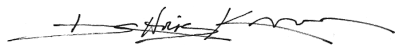
We are pleased to send you an application and drawing package for your review and circulation on the behalf of Family Services, Inc. As you will see in the documents, Family Services is working to add an addition to the front of the Family Partnership Center at 29 N. Hamilton Street. This new room helps to solve three urgent problems: a rapidly deteriorating front terrace, sidewalk and pavement cracks, and providing a dignified and accessible entry sequence for community clients.

In terms of financial readiness for this project, please find the attached grant award letter from NYS Homes and Community Renewal program regarding the NYS Consolidated Funding in 2019. This funding, in addition to government, private and foundation dollars, are allowing these essential upgrades to take place.

As this time, we are submitting six (6) copies of the following for your review:

1. Application for Site Plan
2. This Cover Letter
3. Site Plan Drawings prepared by Model of Architecture Serving Society, LLC
4. Elevation Drawings prepared by Model of Architecture Serving Society, LLC
5. SEQRA - Short Form EAF (Signed)

Sincerely,
Chris Kroner



Principal
ckroner@mass-group.org

NEW YORK STATE OF OPPORTUNITY. | Homes and Community Renewal | Housing Trust Fund Corporation

ANDREW M. CUOMO
Governor

RUTHANNE VISNAUSKAS
Commissioner/CEO

December 19, 2019

Mr. Brian Doyle
CEO
Family Services, Inc.
29 North Hamilton Street
Poughkeepsie, New York 12601

Re: New York Main Street (NYMS)
SHARS ID # 20190247
REDC CFA # 92178

Dear Mr. Doyle:

Congratulations. On behalf of Governor Andrew Cuomo and the Housing Trust Fund Corporation (HTFC), it is my pleasure to inform you that Family Services, Inc. has been awarded $490,000 in New York Main Street (NYMS) Program funds as part of the 2019 Regional Economic Development Council (REDC) Consolidated Funding Application (CFA) round.

In 2011, Governor Cuomo launched the Regional Economic Development Councils and the Consolidated Funding Application (CFA) to provide each region with the tools to create and implement their own roadmap for economic prosperity and job creation. This community-based model uses local assets to drive local economic growth and has resulted in unprecedented partnerships and collaboration that are building a reinvigorated economy.

After eight successful rounds, the 2019 CFA made over $750 million in economic development resources available from over thirty programs across ten state agencies. The programs provide resources for projects focused on community development and job creation, tourism, waterfront revitalization, energy and environmental improvements, sustainability, and low-cost financing. NYS Homes & Community Renewal is proud to have contributed $26 million to this year's Consolidated Funding Application.

Our agency will contact you shortly to outline the procedures necessary to advance the NYMS award, and satisfy the conditions of the grant agreement. Please be advised that no work can be performed, nor any cost incurred, prior to the execution of the grant agreement and approval of all required environmental review materials. HTFC reserves the right to rescind an award and deobligate funds for projects unable to satisfy all requirements.

If you applied for funding from other programs or other State agencies, you will receive information from those programs/agencies separately.

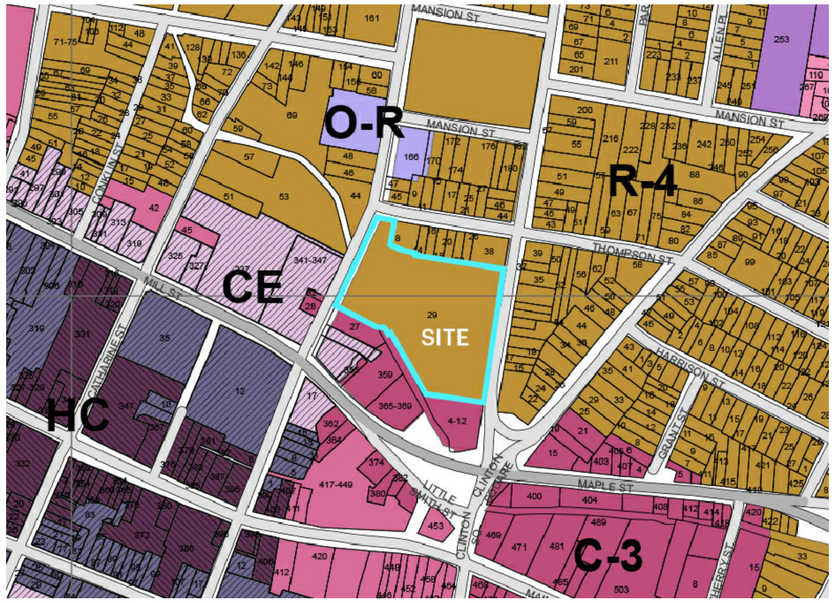
Congratulations again. We look forward to working with you on the implementation of this and other important community development projects in your community. Should you have any questions in the interim, please contact Patricia O'Reilly at (315) 478-7179 extension 205.

Sincerely,

RuthAnne Visnauskas
Commissioner/CEO

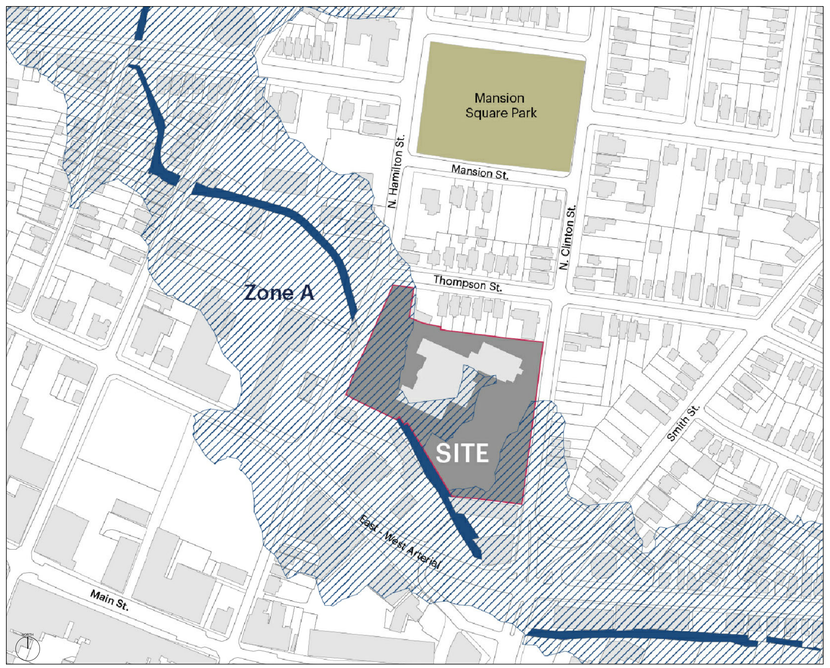
cc: Crystal Loffler, Deputy Commissioner, Office of Community Renewal

FAMILY PARTNERSHIP CENTER ENTRY



Drawing List

G.000	COVER SHEET
G.001	CIVIL NOTES
---	SURVEY
C.110	PARKING PLAN
C.120	DEMOLITION PLAN
C.130	SITE PLAN
C.530	SITE DETAILS
C.531	SITE DETAILS 2
L.100	SITE INFO
A.100X	EXISTING CONDITIONS



FEMA Flood Hazard Zone A:
Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

LOT & BULK REQUIREMENTS

DISTRICT: R-4 MEDIUM-HIGH DENSITY RESIDENCE DISTRICT

29 N HAMILTON				
R-4 DISTRICT	**REQUIRED (MINIMUM)**	**REQUIRED (MAXIMUM)**	**EXISTING**	**PROPOSED**
LOT STANDARDS				
LOT AREA	14,000 SF		4.42 Ac/192,535 SF	--
LOT WIDTH	30 FT		255'	--
FRONTAGE	100 FT		147'	--
LOT COVERAGE	40%		19.1%	20.0%
SETBACKS				
FRONT SETBACK	20 FT		147'	--
SIDES (EACH)	10 FT		17'/54'	
REAR	15 FT		44'	
BUILDING STANDARDS				
PRINCIPAL BUILDING HEIGHT		3 STORIES OR 40 FT	3 STORIES	--

ADJOINING LOTS

PARCEL	PARCEL ADDRESS	OWNER NAME	CURRENT USE	ACREAGE
238100	29 N Hamilton	Family Services, Inc.	Benevolent (632)	4.42 Ac
252067	4-12 N Clinton	6 North Clinton Street LLC	Auto body (433)	0.48 Ac
232070	365-369 Mill St Rear	Woodman Poughkeepsie Realty	Auto carwash (434)	0.43 Ac
225079	359 Mill St	Most Properties, Inc.	Det row bldg (482)	0.5 Ac
217082	355 Mill St	Most Properties, Inc.	Other Storage (449)	0.03 Ac
211086	N Hamilton St	Most Properties, Inc.	Parking Lot (438)	0.28 Ac
216091	N Hamilton St	Most Properties, Inc.	Res vac land (311)	0.17 Ac
218096	27 N Hamilton St	Arias, Jose L.	Apartment (411)	0.26 Ac
234126	8 Thompson St	Family Services, Inc.	Misc com srv (690)	0.17 Ac
240124	14 Thompson St	Alexander, James L	2 Family res (220)	34x100
243124	16 Thompson St	Beezle LLC	2 Family res (220)	0.07 Ac
246123	18 Thompson St	James, Deborah G	2 Family res (220)	33x100
249123	20 Thompson St	Mullings, Simnel	2 Family res (220)	0.06 Ac
252123	22 Thompson St	Aviles, Angel M	1 Family res (210)	27x100
255122	26 Thompson	Merte, Eunice C	2 Family res (220)	30x100
261120	38 Clinton St	Hudson River Housing, Inc.	Living accom (410)	0.38 Ac

NOTES

* Above information gathered from Dutchess County Parcel Access on September 30, 2021.

PARKING REQUIREMENTS

BUILDING	TOTAL BLDG AREA	PROPOSED USE	# OF SPACES REQUIRED
Existing Building	36633 sf	Office	See Civil C.110
Addition	1772 sf	Office	6
TOTAL APPLICABLE AREA FOR PARKING COUNTS	**1772 sf**		
		TOTAL REQUIRED # OF PARKING SPACES	**6**
		TOTAL PROPOSED # OF PARKING SPACES	**6 (added to municipal lot)**
		REQUIRED PARKING WAIVER	**No**

Drawing Issue

NO.	DATE	DESCRIPTION	BY
01	10.12.21	PLANNING BOARD	EK

Key Plan

Client
FAMILY SERVICES
29 N Hamilton Street Suite 109 Poughkeepsie, NY
Tel. (845) 452-1110

Architecture
MASS DESIGN GROUP LLC
289 Main Street, Suite 101 Poughkeepsie, NY 12601
Tel: (857) 233-5788

Civil
CHAZEN COMPANIES
21 Fox St, Poughkeepsie, NY 12601
Tel: (845) 454-3980

Structural
CHAZEN COMPANIES
21 Fox St, Poughkeepsie, NY 12601
Tel: (845) 454-3980

Mechanical/Electrical/Plumbing
OLA Consulting Engineers
50 Broadway, Ste 2, Hawthorne, NY 10532
Tel: (914) 747-2800

MASS.

FAMILY PARTNERSHIP CENTER FRONT ENTRY

Drawing Title
COVER SHEET

Drawing Date
10.27.21

Drawing Number
G.000

MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES:

PERMANENT AND TEMPORARY VEGETATION:
INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. ALL AREAS DAMAGED BY EROSION OR WHERE SEED HAS NOT ESTABLISHED SHALL BE REPAIRED AND RESTABILIZED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE:
INSPECT THE ENTRANCE PAD EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. CHECK FOR MUD, SEDIMENT BUILD-UP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING WET WEATHER. RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL. WASH AND REPLACE STONE AS NEEDED. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF-SITE BY VEHICLES. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. REMOVE TEMPORARY CONSTRUCTION ENTRANCE AS SOON AS THEY ARE NO LONGER NEEDED TO PROVIDE ACCESS TO THE SITE.

SILT FENCE:
INSPECT FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE FENCE. IF FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.

SOIL STOCKPILE:
INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE OR HAY BALE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANYWAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCK PILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.

DUST CONTROL:
SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORK. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WATER). STRUCTURAL MEASURES (MULCH, SEEDING) SHALL BE INSTALLED IN DISTURBED AREAS BEFORE SIGNIFICANT BLOWING PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.

STORM DRAIN INLET PROTECTION:
INSPECT ALL STORM DRAIN INLET PROTECTION DEVICES EVERY SEVEN DAYS & AFTER EVERY RAIN EVENT. MAKE REPAIRS AS NEEDED, REMOVE SEDIMENT FROM THE POOL AREA AS NECESSARY.

DEWATERING PITS:
(IF REQUIRED) -- INSPECT DAILY DURING OPERATION FOR CLOGGING OR OVERFLOW. CLEAR INLET AND DISCHARGE PIPES OF OBSTRUCTIONS. IF A FILTER MATERIAL BECOMES CLOGGED WITH SEDIMENT, PIT SHALL BE DISMANTLED AND CONSTRUCT NEW PITS AS NEEDED.

SNOW AND ICE CONTROL:
PARKING LOTS, ROADWAYS, AND DRIVEWAYS ADJACENT TO WATER QUALITY FILTERS SHALL NOT BE SANDED DURING SNOW EVENTS DUE TO HIGH POTENTIAL FOR CLOGGING FROM SAND IN SURFACE WATER RUNOFF. USE SALT ONLY FOR SNOW AND ICE CONTROL.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IN STRICT COMPLIANCE WITH "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL", NOVEMBER 2016.
2. EXCESS SOIL TO BE STOCKPILED WITHIN THE LIMITS OF SITE DISTURBANCE IF NOT USED IMMEDIATELY FOR GRADING PURPOSES. INSTALL SILT FENCE AROUND SOIL STOCKPILES.
3. APPLY SURFACE STABILIZATION AND RESTORATION MEASURES. AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS DELAYED, SUSPENDED, OR INCOMPLETE AND WILL NOT BE REDISTURBED FOR 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS CEASED. (SEE SPECIFICATIONS FOR TEMPORARY VEGETATIVE COVER). AREAS UNDERGOING CLEARING OR GRADING AND ANY AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WHERE WORK IS COMPLETE AND WILL NOT BE REDISTURBED SHALL BE STABILIZED AND RESTORED WITH PERMANENT VEGETATIVE COVER AS SOON AS SITE AREAS ARE AVAILABLE AND WITHIN 14 DAYS AFTER WORK IS COMPLETE. (SEE SPECIFICATIONS FOR PERMANENT VEGETATIVE COVER). SEEDING FOR PERMANENT VEGETATIVE COVER SHALL BE WITHIN THE SEASONAL LIMITATIONS. PROVIDE STABILIZATION WITH TEMPORARY VEGETATIVE COVER WITHIN 14 DAYS AFTER WORK IS COMPLETE, FOR SEEDING OUTSIDE PERMITTED SEEDING PERIODS.
4. SEEDED AREAS TO BE MULCHED WITH STRAW OR HAY MULCH IN ACCORDANCE WITH VEGETATIVE COVER SPECIFICATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE COURSE OF CONSTRUCTION.
6. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED. THE CONTRACTOR IS TO SUPPLY ALL EQUIPMENT AND WATER.
7. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED.

STRIPING REMOVAL NOTES:

1. REMOVAL OF EXISTING PAVEMENT STRIPING SHALL BE ACCOMPLISHED EITHER BY WATERBLASTING OR DRY SANDBLASTING. THE WORK SHALL BE PERFORMED IN SUCH A MANNER THAT THE FINISHED PAVEMENT IS NOT DAMAGE OR LEFT IN A PATTERN THAT WILL MISLEAD OR MISDIRECT THE MOTORISTS. WHEN THESE OPERATIONS ARE COMPLETED THE PAVEMENT SURFACE SHALL FIRST BE POWER BROOMED AND THEN BLOWN OFF WITH COMPRESSED AIR TO REMOVE RESIDUE AND DEBRIS RESULTING FROM THE WORK. ALL SUCH DEBRIS THAT REMAINS ON THE ROADWAY, INCLUDING BROKEN PARTS FROM CLEANING EQUIPMENT, SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH FEDERAL AND STATE GUIDELINES.

2. THE CONTRACTOR SHALL CONDUCT THE REMOVAL AND CLEANING WORK IN SUCH A MANNER AS TO MINIMIZE AIRBORNE DUST AND SMALLER DEBRIS, SO AS TO PREVENT A HAZARD TO MOTOR VEHICLE OPERATION OR NUISANCE TO PROPERTY OWNERS.

TOPSOIL SPECIFICATIONS:

1. EXISTING EXCESS TOPSOIL SHALL BE REMOVED AND STORED IN TOPSOIL STOCKPILES SUFFICIENTLY REMOVED FROM OTHER EXCAVATION OR DISTURBANCE TO AVOID MIXING. SILT FENCE SHALL BE INSTALLED AROUND TOPSOIL STOCKPILE AREAS.

SITE PREPARATION:
1. COMPLETE ROUGH GRADING AND FINAL GRADE, ALLOWING FOR DEPTH OF TOPSOIL TO BE ADDED.
2. SCARIFY ALL COMPACT, SLOWLY PERMEABLE, MEDIUM AND FINE TEXTURED SUBSOIL AREAS. SCARIFY AT APPROXIMATELY RIGHT ANGLES TO THE SLOPE DIRECTION IN SOIL AREAS THAT ARE STEEPER THAN 5%.
3. REMOVE REFUSE, WOODY PLANT PARTS, STONES OVER 3 INCHES IN DIAMETER, AND OTHER LITTER.

TOPSOIL MATERIALS:
1. NEW TOPSOIL SHALL BE BETTER THAN OR EQUAL TO THE QUALITY OF THE EXISTING ADJACENT TOPSOIL. IT SHALL MEET THE FOLLOWING CRITERIA:
   A. ORIGINAL LOAM TOPSOIL, WELL DRAINED HOMOGENEOUS TEXTURE AND OF UNIFORM GRADE, WITHOUT THE ADMIXTURE OF SUBSOIL MATERIAL AND FREE OF DENSE MATERIAL, HARDPAN, CLAY, STONES, SOD OR OTHER OBJECTIONABLE MATERIAL.
   B. CONTAINING NOT LESS THAN 5% NOR MORE THAN 20% ORGANIC MATTER IN THAT PORTION OF A SAMPLING PASSING A 1/4" SIEVE WHEN DETERMINED BY THE WET COMBUSTION METHOD ON A SAMPLE DRIED AT 105°C.
   C. CONTAINING A PH VALUE WITHIN THE RANGE OF 6.5 TO 7.5 ON THAT PORTION OF THE SAMPLE WHICH PASSES A 1/4" SIEVE.
   D. CONTAINING THE FOLLOWING WASHED GRADATIONS:

SIEVE DESIGNATION	% PASSING
1"	100
1/4"	97-100
NO 200	20-60

APPLICATION AND GRADING:
1. TOPSOIL SHALL BE DISTRIBUTED TO A UNIFORM DEPTH OF 4" OVER THE AREA. IT SHALL NOT BE PLACED WHEN IT IS PARTLY FROZEN, MUDDY, OR ON FROZEN SLOPES OR OVER ICE, SNOW, OR STANDING WATER.
2. TOPSOIL PLACED AND GRADED ON SLOPES STEEPER THAN 5% SHALL BE PROMPTLY FERTILIZED, SEEDED, MULCHED AND STABILIZED BY "TRACKING" WITH SUITABLE EQUIPMENT.

VEGETATIVE COVER SPECIFICATIONS:

TEMPORARY VEGETATIVE COVER (DURING CONSTRUCTION):
1. SITE PREPARATION
   (SAME AS PERMANENT VEGETATIVE COVER)
2. SEED MIX: (APPLY AT RATE OF 3 TO 4 LBS PER 1000 SF)

AMOUNT BY: WEIGHT	SPECIES OR VARIETY	MINIMUM % PURITY	GERMINATION
100%	ANNUAL RYEGRASS	98%	90%

3. SEEDING
   (SAME AS PERMANENT VEGETATIVE COVER)

PERMANENT VEGETATIVE COVER (AFTER CONSTRUCTION):
1. SITE PREPARATION
   A. BRING AREA TO BE SEEDED TO REQUIRED GRADE. A MINIMUM OF 4" OF TOPSOIL IS REQUIRED.
   B. PREPARE SEEDBED BY LOOSENING SOIL TO A DEPTH OF 4 INCHES.
   C. REMOVE ALL STONES OVER 1 INCH IN DIAMETER, STICKS AND FOREIGN MATTER FROM THE SURFACE.
   D. LIME TO PH OF 6.5.
   E. FERTILIZER: USE 5-10-5 (NPK) OR EQUIVALENT. APPLY AT RATE OF 4 LBS/1000 SF.
   F. INCORPORATE LIME AND FERTILIZER IN THE TOP 4 INCHES OF TOPSOIL.
   G. SMOOTH AND FIRM THE SEEDBED.

2. SEED MIXTURE FOR USE ON LAWN AREAS:
   PROVIDE FRESH, CLEAN, NEW-CROP SEED MIXED IN THE PROPORTIONS SPECIFIED FOR SPECIES AND VARIETY, AND CONFORMING TO FEDERAL AND STATE STANDARDS.

   LAWN SEED MIX: (APPLY AT RATE OF 5 TO 6 LBS PER 1000 SF)

   SUN AND PARTIAL SHADE:

AMOUNT BY: WEIGHT	SPECIES OR VARIETY	MINIMUM % PURITY	GERMINATION
50%	KENTUCKY BLUE GRASS*	95%	80%
20%	PERENNIAL RYE	98%	90%
30%	CREEPING RED FESCUE	97%	85%
100%			

   *MINIMUM 2 (EQUAL PROPORTIONS) VARIETIES AS LISTED IN CORNELL RECOMMENDATIONS FOR TURFGRASS.

   SHADE:

AMOUNT BY: WEIGHT	SPECIES OR VARIETY	MINIMUM % PURITY	GERMINATION
25%	KENTUCKY BLUE GRASS**	95%	80%
20%	PERENNIAL RYE	98%	90%
35%	CREEPING RED FESCUE	97%	85%
20%	CHEWINGS RED FESCUE	97%	85%
100%			

   **SHADE TOLERANT VARIETY

3. SEEDING
   A. APPLY SEED UNIFORMLY BY CYCLONE SEEDER CULTI-PACKER OR HYDRO-SEEDER AT RATE INDICATED.
   B. ALL SEEDED AREAS SHALL BE PROTECTED FROM EROSION BY ONE OF THE FOLLOWING METHODS:
      i. A UNIFORM BLANKET OF STRAW APPLIED AT A RATE OF 2 TONS /ACRE MIN., TO BE APPLIED ONCE SEEDING IS COMPLETE.
      ii. WOOD FIBER CELLULOSE APPLIED WITH SEED MIX BY HYDROSEEDER AT RATE OF 2,000 LBS/ACRE.
   C. ALL SEEDED SLOPES 3:1 OR GREATER SHALL BE PROTECTED FROM EROSION WITH JUTE MESH OR APPROVED EQUAL.
   D. IRRIGATE TO FULLY SATURATE SOIL LAYER, BUT NOT TO DISLODGE PLANTING SOIL.
   E. UNLESS OTHERWISE DIRECTED IN WRITING, SEED FROM MARCH 15TH TO JUNE 15TH, AND FROM AUGUST 15TH TO OCTOBER 15TH.

COMPACTION REQUIREMENTS

LOCATION	COMPACTION	TESTING FREQUENCY
PIPE TRENCH BACKFILL (IN PAVED AREAS)	95% ASTM D1557	1 SERIES OF TESTS FOR EACH 150 FT OR LESS OF TRENCH LENGTH. SERIES INCLUDE 3 COMPACTION TESTS SPREAD EVENLY ALONG TRENCH PROFILE.
PIPE TRENCH BACKFILL (IN UNPAVED AREAS)	90% ASTM D1557	1 SERIES OF TESTS FOR EACH 150 LF OR LESS OF TRENCH LENGTH. SERIES INCLUDE 3 COMPACTION TESTS SPREAD EVENLY ALONG TRENCH PROFILE.
PIPE BEDDING AND PIPE ZONE BACKFILL	95% ASTM D1557	1 TEST FOR EACH 150 FT OR LESS OF TRENCH LENGTH.
PAVEMENT SUBBASE AND LAST LIFT OF SELECT GRANULAR FILL (FILL BETWEEN SHEET PILES)	95% ASTM D1557	1 TEST FOR EVERY 2,000 SQ FT, OF LIFT AREA BUT NO FEWER THAN TWO TESTS PER LIFT

DEMOLITION NOTES:

1. REFER TO REQUIREMENTS OUTLINED IN THE MATERIALS MANAGEMENT, HEALTH AND SAFETY, AND EROSION & SEDIMENT CONTROL PLANS & NOTES PRIOR TO COMMENCEMENT OF WORK.
2. CONFORM TO APPLICABLE CODE FOR SAFETY OF ADJACENT STRUCTURES, DUST CONTROL, RUNOFF CONTROL, AND HAULING, DISPOSAL AND STORAGE OF DEBRIS.
3. PROVIDE, ERECT, AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES.
4. MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS. DO NOT INTERRUPT EXISTING UTILITIES SERVING OPERATING FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY OWNER AND AUTHORITIES HAVING JURISDICTION.
5. NOTIFY ADJACENT OWNERS OF WORK THAT MAY AFFECT THEIR PROPERTY, POTENTIAL NOISE, UTILITY OUTAGE, OR DISRUPTION. COORDINATE WITH OWNER.
6. PREVENT MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES. PROVIDE BRACING AND SHORING.
7. LOCATE AND IDENTIFY ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION AREA. DISCONNECT AND SEAL OR CAP OFF UTILITY SERVICES THAT WILL BE AFFECTED BY THIS PROJECT. NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS. VERIFY THAT UTILITIES HAVE BEEN DISCONNECTED AND CAPPED.
8. DEMOLISH AND REMOVE COMPONENTS IN AN ORDERLY AND CAREFUL MANNER.
9. PROTECT EXISTING FEATURES THAT ARE NOT TO BE DEMOLISHED.
10. CONDUCT OPERATIONS WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESSES.
11. MAINTAIN EGRESS AND ACCESS AT ALL TIMES. DO NOT CLOSE OR OBSTRUCT ROADWAYS, OR SIDEWALKS WITHOUT PERMITS. COORDINATE W/ AUTHORITY HAVING JURISDICTION.
12. CEASE OPERATIONS IMMEDIATELY IF ADJACENT STRUCTURES APPEAR TO BE IN DANGER. NOTIFY AUTHORITY HAVING JURISDICTION.
13. ROUGH GRADE AND COMPACT AREAS AFFECTED BY DEMOLITION TO MAINTAIN SITE GRADES AND CONTOURS.
14. FIELD VERIFY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED ON DEMOLITION PLAN TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
15. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH SELECTIVE DEMOLITION OPERATIONS.
16. CONDUCT DEMOLITION OPERATIONS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN. ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA.
17. USE WATER MIST, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS TO LIMIT THE SPREAD OF DUST AND DIRT. COMPLY WITH GOVERNING ENVIRONMENTAL PROTECTION REGULATIONS. DO NOT USE WATER WHEN IT MAY DAMAGE EXISTING CONSTRUCTION, SUCH AS CAUSING ICING, FLOODING, AND TRANSPORTING POLLUTANTS.
18. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
19. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE START OF SELECTIVE DEMOLITION.
20. PROMPTLY DISPOSE OF DEMOLISHED MATERIALS. ALL DEBRIS RESULTING FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF-SITE AT A FACILITY APPROVED TO RECEIVE THE DEBRIS. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE. DO NOT BURN DEMOLISHED MATERIALS ON-SITE.
21. PRIOR TO THE START OF CONSTRUCTION OR EXCAVATION, TREES TO BE RETAINED SHALL BE PROTECTED BY SILT FENCE, SNOW FENCE, CONSTRUCTION FENCE, OR EQUAL, WHICH WILL BE PLACED AT THE DRIP LINE OR SEVERAL FEET BEYOND. HOWEVER, THE FENCING SHALL NOT CROSS PUBLIC SIDEWALKS. NO STORAGE OR STOCKPILING OF CONSTRUCTION MATERIALS, DEBRIS, OR EQUIPMENT SHALL OCCUR WITHIN THE FENCED AREA.
22. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH LOCAL DUST CONTROL AND/OR MONITORING ORDINANCES, IF ANY EXIST.

UTILITY PLAN NOTES:

GENERAL CONSTRUCTION:

1. ALL UNDERGROUND UTILITIES ARE SHOWN IN THEIR RELATIVE POSITION AND ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO VERIFY THEIR ACTUAL LOCATION IN THE FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. ANY CONDITION ENCOUNTERED IN THE FIELD DIFFERING FROM THOSE SHOWN HEREON, SHALL BE REPORTED TO THE DESIGN ENGINEER BEFORE CONSTRUCTION IS TO PROCEED.
3. ALL PROPOSED UTILITIES SHALL TERMINATE 5 FEET FROM ANY PROPOSED BUILDING FACE. CONTRACTOR TO COORDINATE WITH BUILDING PLANS FOR ANY CONNECTIONS.
4. ALL STORM SEWER SHALL BE SMOOTH INTERIOR HDPE UNLESS OTHERWISE SPECIFIED.
5. CONTRACTOR TO VERIFY STATUS OF ALL UTILITY SERVICES PRIOR TO INTERRUPTION.
6. EXPLORATORY EXCAVATIONS SHALL BE PERFORMED BY THE CONTRACTOR AT ALL UTILITY CONNECTION LOCATIONS AND AS NEEDED TO VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK.
7. BEFORE CONSTRUCTING LINES TO CONNECT TO EXISTING UTILITIES, VERIFY EXISTING UTILITY INVERTS AND NOTIFY THE ENGINEER IF ANY VARIATION FROM THE PLAN IS REQUIRED.
8. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES IN SERVICE FOR THE DURATION OF THE WORK.
9. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS AND ASSOCIATED CONDITIONS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING UTILITY TRENCHES AND EXCAVATIONS AND FOR THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF THE WORK.
11. CONTRACTOR SHALL PROVIDE AN AS-BUILT PLAN OF THE PROPOSED IMPROVEMENTS BY A LICENSED NYS SURVEYOR. IT SHALL INCLUDE BUT NOT BE LIMITED TO BUILDINGS, ROADWAYS, WALLS, UTILITIES (INCLUDING INVERTS, RIMS, PIPE SIZE AND DIMENSIONS), SIDEWALKS, ROADWAY RAMPS, CURBING, PARKING LOTS (INCLUDING STRIPING), LANDSCAPE AREAS, ETC. HARDCOPY AND ELECTRONIC COPIES SHALL BE PROVIDED TO OWNER AND PROJECT ENGINEER.

SITE PLAN NOTES:

GENERAL CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE ENGINEER OR OWNER, SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE AND UNDER THE SUPERVISION OF A NEW YORK STATE LICENSED LAND SURVEYOR.
2. ALL PAVEMENT RESTORATION SHALL MEET AND MATCH EXISTING GRADES.
3. ALL SAWCUT LINES SHALL BE PARALLEL AND CURVILINEAR TO EXISTING OR PROPOSED CURBING AND SHALL BE A CONSTANT DISTANCE OF 18" MIN AWAY.
4. NOTIFY ENGINEER 48 HOURS PRIOR TO INITIALIZATION OF ANY WORK ON SITE.
5. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT PRIOR REVIEW FROM THE ENGINEER.
6. CONTRACTOR IS RESPONSIBLE FOR EMPLOYING AND MAINTAINING ALL TRAFFIC CONTROL AND SAFETY MEASURES DURING CONSTRUCTION.
7. CONTRACTOR IS RESPONSIBLE FOR PROPERLY & SAFELY MAINTAINING AREA BETWEEN ALL ADJOINING PROPERTIES.
8. NO WORK, STORAGE OR TRESPASS SHALL BE PERMITTED BEYOND THE SITE PROPERTY LINES OR PUBLIC RIGHT-OF-WAY. ADJACENT PROPERTY OWNED BY THE DEVELOPER MAY BE BE USED FOR EQUIPMENT STORAGE DURING CONSTRUCTION OF THE PROPERTY.
9. ALL EXISTING LAWN AREA, CURBING, PAVING, SIDEWALKS, CULVERTS OR OTHER PUBLIC OR PRIVATE PROPERTY DAMAGED BY TRENCHING OR EXCAVATION OPERATIONS SHALL BE REPLACED OR REPAIRED TO A CONDITION EQUAL TO EXISTING, AS DESCRIBED IN CONTRACT DOCUMENTS OR AS ORDERED BY ENGINEER (AOBE). MAILBOXES, SIGN POSTS, ETC SHALL BE PROTECTED OR REMOVED AND REPLACED EXACTLY AS THEY WERE BEFORE BEING DISTURBED. REMOVE AND REPLACE AFFECTED CURBING AND SIDEWALK TO NEAREST JOINT. REMOVE PAVEMENT AND REPLACE TO SAW CUT LINE, SAW CUT IN STRAIGHT LINE TO POINT NEEDED TO BLEND GRADE, REMOVE LAWN AND REPLACE TO MINIMUM LIMIT OF EXCAVATION.

LAYOUT NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL FIELD LAYOUT. THE CONTRACTOR SHALL TAKE TIES TO ALL UTILITY CONNECTIONS AND PROVIDE MARKED-UP AS BUILT PLANS FOR ALL UTILITIES SHOWING TIES TO CONNECTIONS, BENDS, VALVES, LENGTHS OF LINES AND INVERTS. AS-BUILT PLANS SHALL BE REVIEWED BY THE OWNER AND THE ENGINEER. THE CONTRACTOR SHALL PROVIDE ANY CORRECTION OR ADDITIONS TO THE SATISFACTION OF THE OWNER AND THE ENGINEER BEFORE UTILITIES WILL BE ACCEPTED.
2. BUILDING DIMENSIONS TO BE TAKEN FROM ARCHITECTURAL BUILDING PLANS. NOTIFY THE ENGINEER OF ANY DEVIATION FROM CONDITIONS SHOWN ON THIS PLAN.
3. PRIOR TO THE START OF CONSTRUCTION OR EXCAVATION, TREES TO BE RETAINED SHALL BE PROTECTED BY SILT FENCE, SNOW FENCE, CONSTRUCTION FENCE, OR EQUAL, WHICH WILL BE PLACED AT THE DRIP LINE OR SEVERAL FEET BEYOND.
4. FENCING SHALL NOT CROSS PUBLIC SIDEWALKS.
5. NO STORAGE OR STOCKPILING OF CONSTRUCTION MATERIALS, DEBRIS, OR EQUIPMENT SHALL OCCUR WITHIN THE FENCED AREA.
6.

ROCK REMOVAL NOTES:

ROCK REMOVAL IF REQUIRED, BY MECHANICAL MEANS ONLY, IS ANTICIPATED FOR THE INSTALLATION OF THE PROPOSED WORK. BLASTING IS NOT PERMITTED.

PAVING NOTES:

1. NO VEHICULAR TRAFFIC OF ANY SORT SHALL BE PERMITTED ON THE SURFACE OF SUBBASE COURSE MATERIAL ONCE IT HAS BEEN FINE GRADED, COMPACTED, AND IS READY FOR PAVING. SUBBASE MATERIAL SO PREPARED FOR PAVING SHALL BE PAVED WITHIN THREE DAYS OF PREPARATION.
2. SUBBASE MATERIAL AND THE VARIOUS ASPHALT CONCRETE MATERIALS CALLED FOR IN THESE DRAWINGS SHALL CONFORM WITH THE REFERENCED SECTION OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED 2017. CONSTRUCTION SHALL BE AS FURTHER SET FORTH IN THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
3. PLACE ASPHALT CONCRETE MIXTURE ON PREPARED SURFACE, SPREAD AND STRIKE-OFF USING A SELF-PROPELLED PAVING MACHINE, WITH VIBRATING SCREED. PLACEMENT IN INACCESSIBLE AND SMALL AREAS MAY BE BY HAND.
4. PROVIDE JOINTS BETWEEN OLD AND NEW PAVEMENTS OR BETWEEN SUCCESSIVE DAY'S WORK.
5. TACK COAT WHEN SPECIFIED OR CALLED OUT ON THE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATION SHALL CONFORM WITH THE FOLLOWING:
   A. TACK COAT SHALL MEET THE MATERIAL REQUIREMENTS OF 702-90 ASPHALT EMULSION FOR TACK COAT OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED 2017, SHALL BE APPLIED IN ACCORDANCE WITH SECTION 407 - TACK COAT SHALL BE IN ACCORDANCE WITH THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
   B. REMOVE LOOSE AND FOREIGN MATERIAL FROM ASPHALT SURFACE BEFORE PAVING NEXT COURSE. USE POWER BROOMS, BLOWERS OR HAND BROOM.
   C. APPLY TACK COAT TO ASPHALT PAVEMENT SURFACES & AND SURFACES OF CURBS, GUTTERS, MANHOLES, AND OTHER STRUCTURES PROJECTING INTO OR ABUTTING PAVEMENT. DRY TO A "TACKY" CONSISTENCY BEFORE PAVING.
   D. TACK COAT ENTIRE VERTICAL SURFACE OF ABUTTING EXISTING PAVEMENT.
6. AFTER COMPLETION OF PAVING AND SURFACING OPERATIONS, CLEAN SURFACES OF EXCESS OR SPILLED ASPHALT, GRAVEL OR STONE MATERIALS TO THE SATISFACTION OF THE ENGINEER.

GRADING NOTES:

1. PRIOR TO SITE DISTURBANCE, CONTRACTOR TO INSTALL EROSION & SEDIMENT CONTROL MEASURES.
2. BOX ALL TREES AND HOUSE ALL SHRUBS AND HEDGES BEFORE PLACING EARTH AGAINST OR NEAR THEM. ORNAMENTAL TREES, SHRUBS AND HEDGES WHICH MUST BE REMOVED DURING CONSTRUCTION SHALL BE HEALED IN AND RE-PLANTED IN AS GOOD A CONDITION AS THEY WERE BEFORE THEIR REMOVAL. ANY DAMAGED TREES, SHRUBS, AND/OR HEDGES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
3. ALL EARTHWORK SHALL BE SMOOTHLY AND EVENLY BLENDED INTO EXISTING CONDITIONS. NO WORK, STORAGE OR TRESPASS SHALL BE PERMITTED BEYOND THE BOUNDARIES OF ANY EASEMENT OR PROPERTY LINE.
4. REMOVE ALL VEGETATION, TREES, STUMPS, GRASSES, ORGANIC SOILS, DEBRIS AND DELETERIOUS MATERIALS WITHIN THE AREAS SLATED FOR CONSTRUCTION.
5. IF PREVIOUSLY UNKNOWN CULTURAL, ARCHEOLOGICAL, OR HISTORIC REMAINS OR ARTIFACTS ARE DISCOVERED IN THE COURSE OF CONSTRUCTION OF THIS PROJECT, THE PROJECT SPONSORS SHALL SUSPEND CONSTRUCTION OPERATIONS IN THE PERTINENT AREA AND SHALL NOTIFY THE PROJECT ENGINEER. CONSTRUCTION IN THAT AREA SHALL RESUME ONLY AFTER COMPLETION OF FEDERAL, TRIBAL, AND STATE COORDINATION TO DETERMINE WHETHER PROTECTION OR RECOVERY OF THE REMAINS IS WARRANTED, OR WHETHER THE SITE IS ELIGIBLE FOR LISTING IN THE NATIONAL REGISTER OF HISTORIC PLACES.

CONCEPT PLAN - NOT FOR CONSTRUCTION

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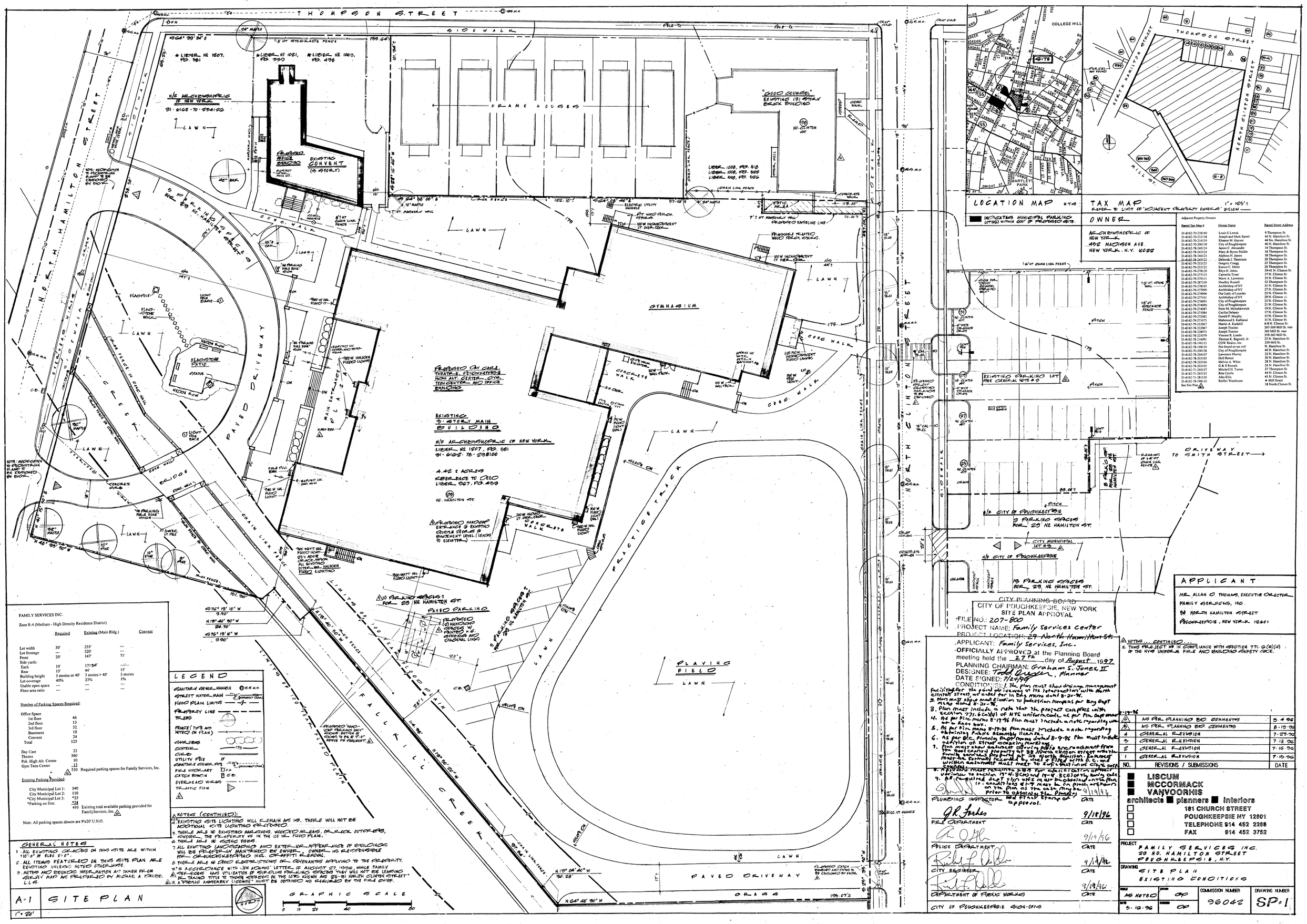
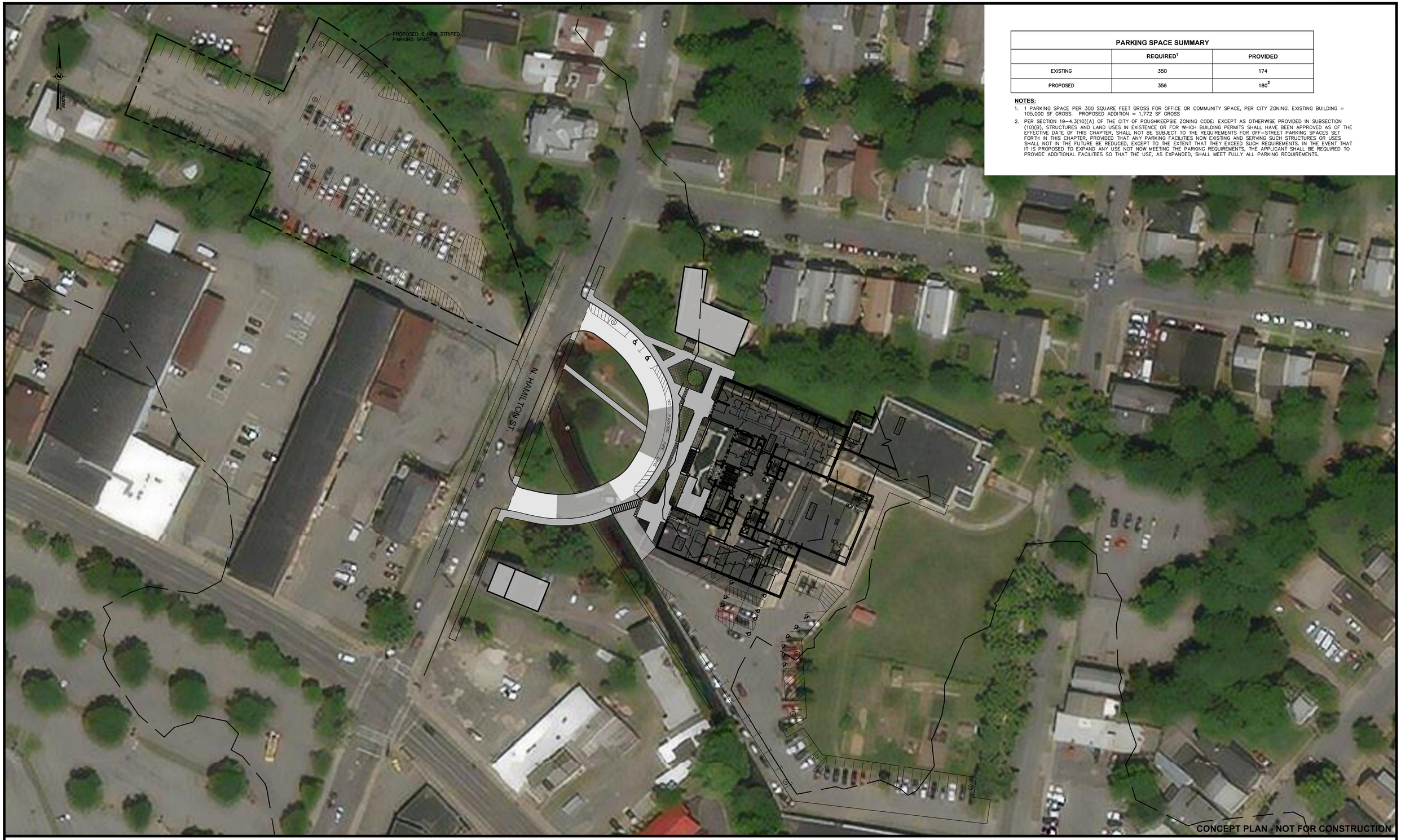

THOMPSON STREET
NORTH HAMILTON STREET
SIDEWALK
FRAME HOUSES
"GOOD COUNSEL" EXISTING (3) STORY BRICK BUILDING
N/F ARCHDIOCESE OF NEW YORK
31-6162-70-594126
LIBER NE 1207, PG. 581
LIBER NO 1081, PG. 330
LIBER NE 1008, PG. 438
PROPOSED OFFICE BUILDING
EXISTING CONVENT (3 STORY)
SPRING ST.
NO. HAMILTON ST.
NO. CLINTON ST.
GYMNASIUM
CONCRETE WALK
PAVED DRIVEWAY
FLAGPOLE
FLAG STONE WALK
FLAGSTONE PATIO
STATUE
MAGNOLIA
CHAIN LINK FENCE
CONC. WALL
CONC. STEPS
CONC. RAMP
EXISTING CONCRETE STEPS
EXISTING BRICK STEPS
EXISTING BRICK WALL
EXISTING CONCRETE WALL
EXISTING CONCRETE RETAINING WALL
EXISTING CONCRETE RAMP
EXISTING CONCRETE STEPS
EXISTING CONCRETE WALK
EXISTING BRICK WALK
EXISTING BRICK PAVING
EXISTING CONCRETE PAVING
EXISTING ASPHALT PAVING
EXISTING CHAIN LINK FENCE
EXISTING WOOD FENCE
EXISTING WOOD RAMP
EXISTING WOOD STEPS
EXISTING WOOD DECK
EXISTING WOOD PORCH
EXISTING WOOD PORCH STEPS
EXISTING WOOD PORCH RAMP
EXISTING WOOD PORCH DECK
EXISTING WOOD PORCH WALL
EXISTING WOOD PORCH RAILING
EXISTING WOOD PORCH COLUMN
EXISTING WOOD PORCH BEAM
EXISTING WOOD PORCH JOIST
EXISTING WOOD PORCH RAFTER
EXISTING WOOD PORCH SHEATHING
EXISTING WOOD PORCH TRIM
EXISTING WOOD PORCH SOFFIT
EXISTING WOOD PORCH FASCIA
EXISTING WOOD PORCH GUTTER
EXISTING WOOD PORCH DOWNSPOUT
EXISTING WOOD PORCH FLASHING
EXISTING WOOD PORCH CAULKING
EXISTING WOOD PORCH PAINT
EXISTING WOOD PORCH STAIN
EXISTING WOOD PORCH VARNISH
EXISTING WOOD PORCH SEALER
EXISTING WOOD PORCH PRIMER
EXISTING WOOD PORCH TOPCOAT
EXISTING WOOD PORCH FINISH
EXISTING WOOD PORCH COLOR
EXISTING WOOD PORCH TEXTURE
EXISTING WOOD PORCH PATTERN
EXISTING WOOD PORCH DETAIL
EXISTING WOOD PORCH CONSTRUCTION
EXISTING WOOD PORCH MATERIAL
EXISTING WOOD PORCH SIZE
EXISTING WOOD PORCH SHAPE
EXISTING WOOD PORCH LOCATION
EXISTING WOOD PORCH ORIENTATION
EXISTING WOOD PORCH ELEVATION
EXISTING WOOD PORCH SECTION
EXISTING WOOD PORCH PLA



PARKING SPACE SUMMARY		
	REQUIRED[1]	PROVIDED
EXISTING	350	174
PROPOSED	356	180[2]

NOTES:

1. 1 PARKING SPACE PER 300 SQUARE FEET GROSS FOR OFFICE OR COMMUNITY SPACE, PER CITY ZONING. EXISTING BUILDING = 105,000 SF GROSS. PROPOSED ADDITION = 1,772 SF GROSS
2. PER SECTION 19-4.3(10)(A) OF THE CITY OF POUGHKEEPSIE ZONING CODE: EXCEPT AS OTHERWISE PROVIDED IN SUBSECTION (10)(B), STRUCTURES AND LAND USES IN EXISTENCE OR FOR WHICH BUILDING PERMITS SHALL HAVE BEEN APPROVED AS OF THE EFFECTIVE DATE OF THIS CHAPTER, SHALL NOT BE SUBJECT TO THE REQUIREMENTS FOR OFF-STREET PARKING SPACES SET FORTH IN THIS CHAPTER, PROVIDED THAT ANY PARKING FACILITIES NOW EXISTING AND SERVING SUCH STRUCTURES OR USES SHALL NOT IN THE FUTURE BE REDUCED, EXCEPT TO THE EXTENT THAT THEY EXCEED SUCH REQUIREMENTS. IN THE EVENT THAT IT IS PROPOSED TO EXPAND ANY USE NOT NOW MEETING THE PARKING REQUIREMENTS, THE APPLICANT SHALL BE REQUIRED TO PROVIDE ADDITIONAL FACILITIES SO THAT THE USE, AS EXPANDED, SHALL MEET FULLY ALL PARKING REQUIREMENTS.

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0 1 2 3
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- New York City, NY

rev.	date	description

FAMILY SERVICES, INC. - FACADE RENOVATION

PARKING PLAN

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
MET	KGA
date	scale
10/04/21	1"=40'
project no.	
32195.00	
sheet no.	
C110	

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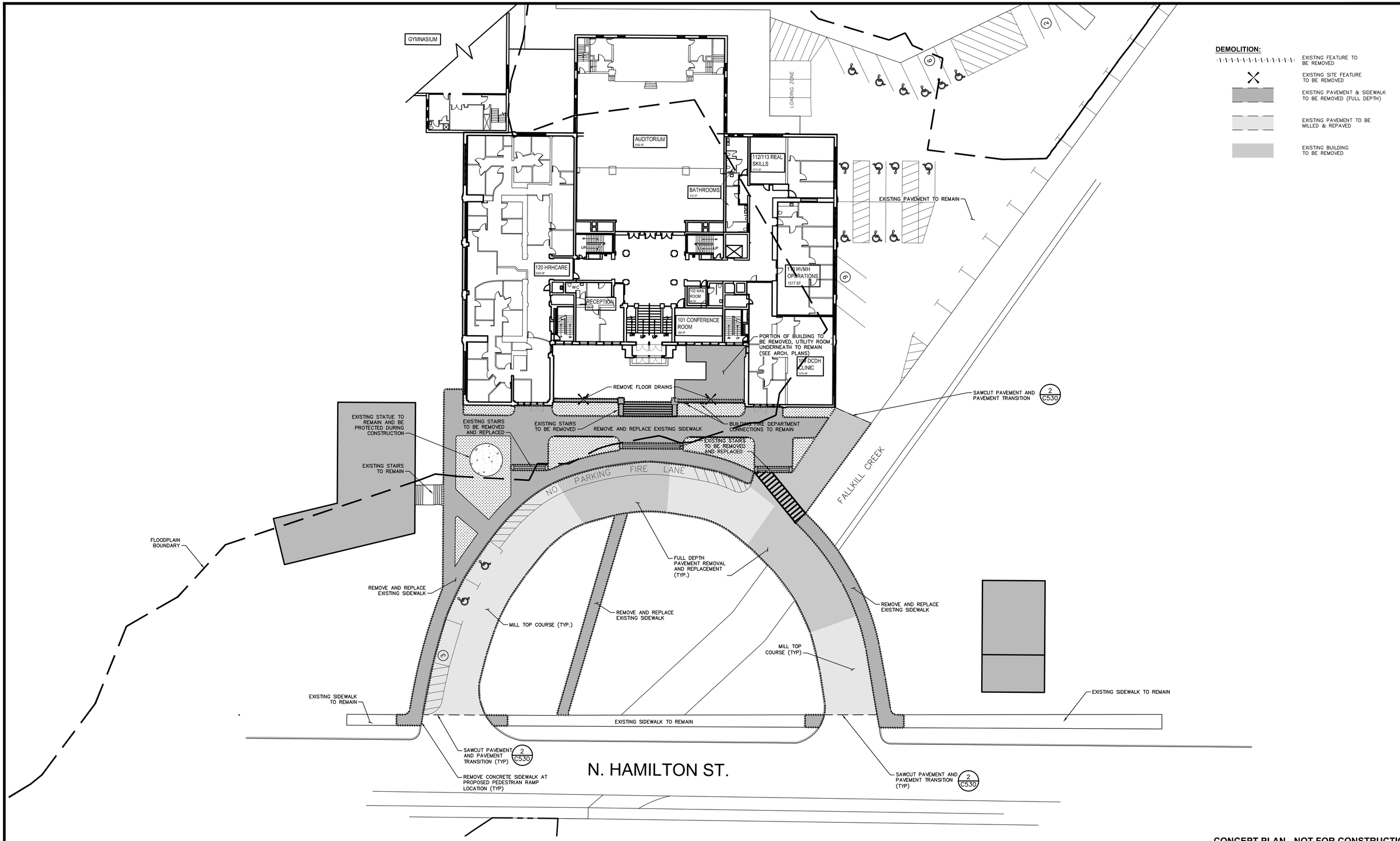
Date Printed: Oct 12, 2021, 2:32pm



CONCEPT PLAN - NOT FOR CONSTRUCTION

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rev.	date	description

FAMILY SERVICES, INC. - FACADE RENOVATION

DEMOLITION PLAN

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
MET	KGA
date	scale
10/04/21	1"=20'
project no.	
32195.00	
sheet no.	
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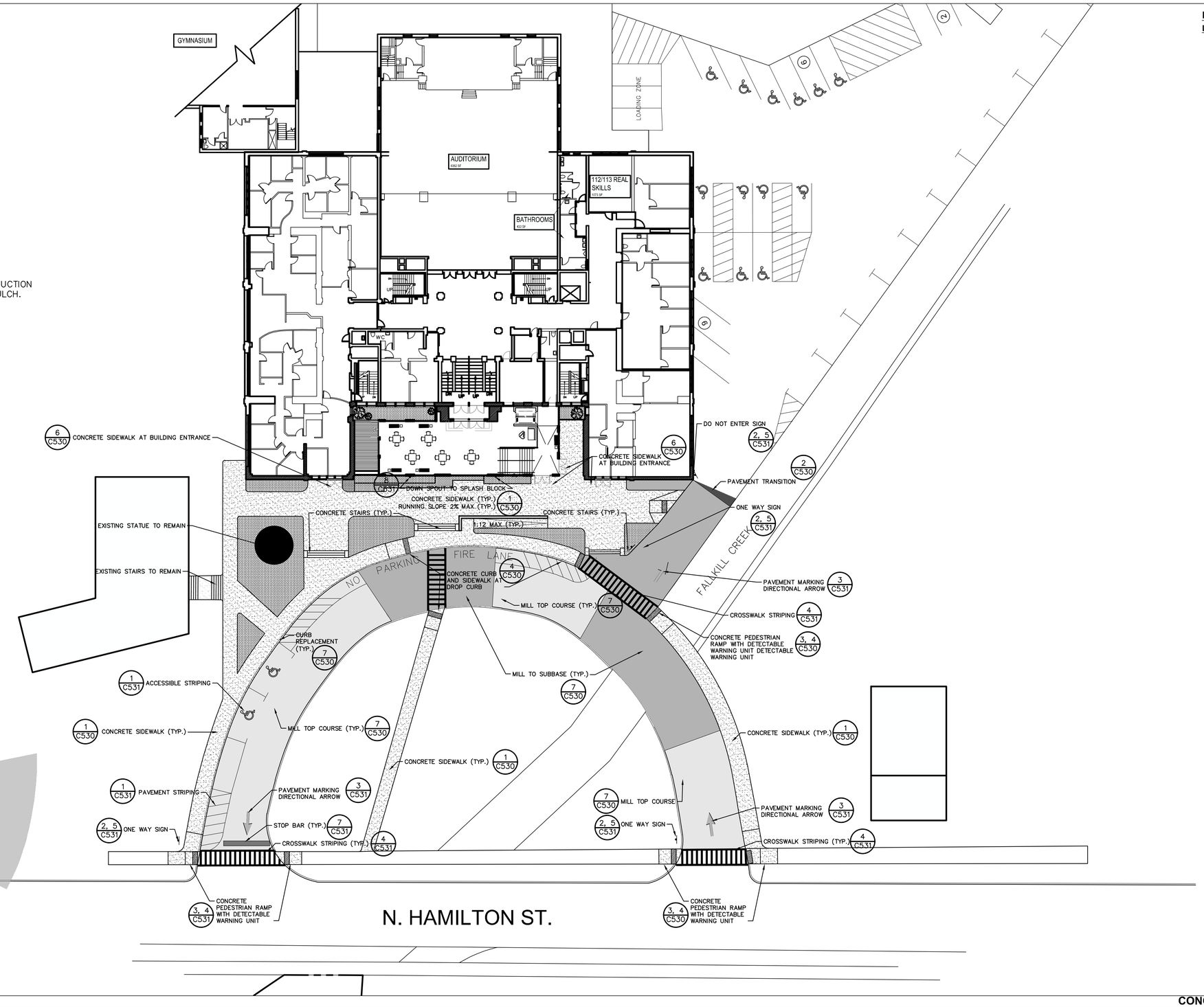
NOTE:
ANY GRASS AREAS DISTURBED DURING CONSTRUCTION SHALL RECEIVE TOPSOIL, GRASS SEED, AND MULCH.



LEGEND:

LAYOUT:

- PROPERTY LINE
- SETBACK LINE
- EASEMENT LINE
- BUILDING (WITH DOOR LOCATION)
- PAVED ROAD
- ROAD CENTER LINE
- SIDEWALK
- CURB (CONC. CURB)
- ASPHALT DRIVEWAY
- LIMIT OF WORK BOUNDARY
- GUIDERAIL
- CHAIN LINK FENCE
- STOCKADE FENCE
- RIPRAP
- CONCRETE
- STABILIZED CONSTRUCTION ENTRANCE
- ROAD LINING & STRIPING
- ASPHALT PARKING AREA
- DOWN SPOUT
- HYDRANT
- SIGN

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rev.	date	description

FAMILY SERVICES, INC. - FACADE RENOVATION

SITE PLAN

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

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MET	KGA
date	scale
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project no.	
32195.00	
sheet no.	
C130	

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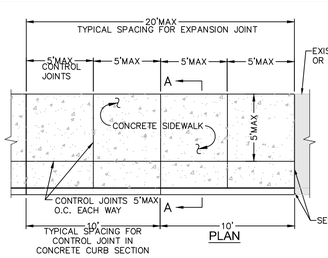

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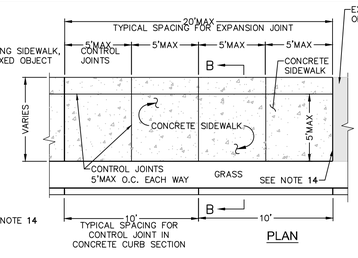

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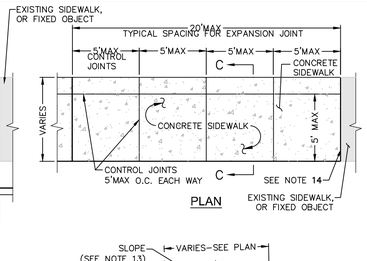

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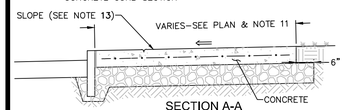
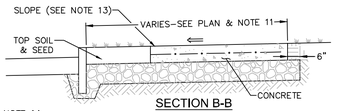


SECTION A-A



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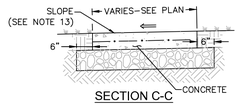

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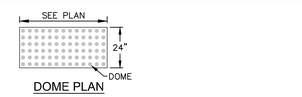
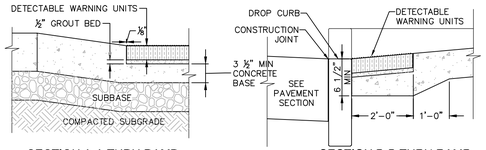


DOME PLAN

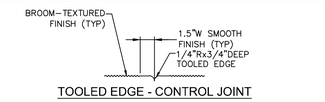


SECTION A-A THRU RAMP

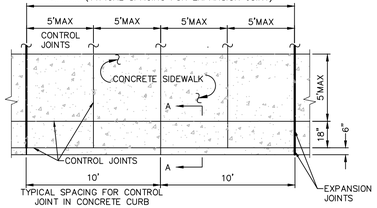
SECTION B-B THRU RAMP

NOTES:
1. COORDINATE W/ OWNER FOR COLOR.
2. DETECTABLE WARNING UNIT SHALL BE ADA COMPLIANT, AND SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
3. MATERIALS: UNIT SHALL BE 24–INCH DETECTABLE WARNING ADA PAVERS, DOME STRAIGHT ROW SPACING PATTERN ADA–2 OR ADA–3, ADA COMPLIANT WARNING PAVER AS MANUFACTURED BY WAUSAU TILE OR CAST IRON, CAST IN PLACE ADA COMPLIANT WARNING PLATE A MANUFACTURED BY TUFTILE OR EQUAL.

© 3 DETECTABLE WARNING UNITS FOR RAMPS
SCALE: NOT TO SCALE



TOOLED EDGE - CONTROL JOINT



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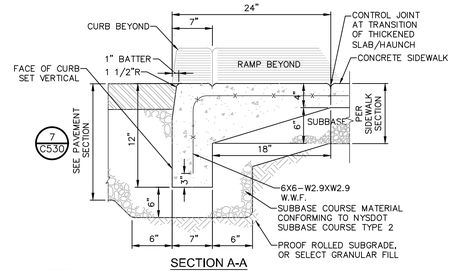
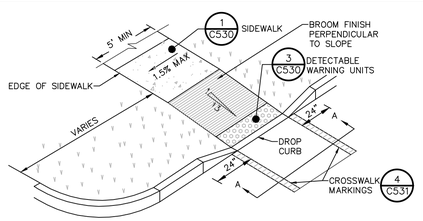


SECTION A-A

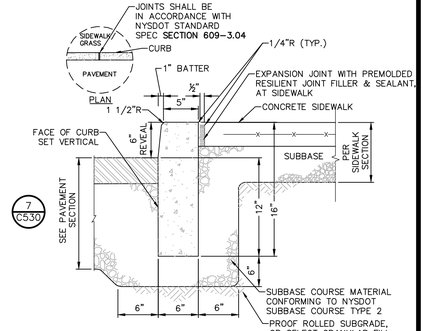
NOTES:
1. CONCRETE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION **SECTION 609.**
2. SEE CONCRETE SIDEWALK DETAIL FOR ADDITIONAL DETAILS & NOTES.

© 4 INTEGRAL CONCRETE CURB & SIDEWALK @ DROP CURB
SCALE: NOT TO SCALE



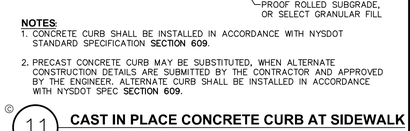
NOTES:
1. ALL WORK SHALL CONFORM WITH THE NYSDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS DATED, **"CURRENT VERSION"**, AND ALL ADDENDA THERE TO; SPECIFICALLY **SECTION 608**– SIDEWALKS, DRIVEWAYS, AND BICYCLE PATHS.
2. SLOPE RAMP AND SIDE FLARES AS INDICATED IN THE PLANS OR AS ORDERED BY THE ENGINEER.
3. DETECTABLE WARNING UNITS SHALL BE PROVIDED ON ALL RAMPS IN ACCORDANCE W/ ADA REQUIREMENTS.

© 5 PEDESTRIAN RAMP SECTION - DROP CURB
SCALE: NOT TO SCALE

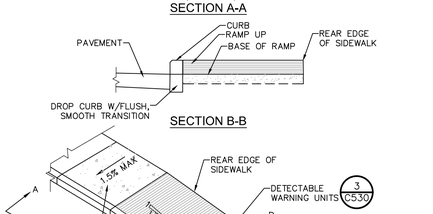


NOTES:
1. CONCRETE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION **SECTION 609.**
2. PRECAST CONCRETE CURB MAY BE SUBSTITUTED, WHEN ALTERNATE CONSTRUCTION DETAILS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. ALTERNATE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT SPEC **SECTION 609.**

© 11 CAST IN PLACE CONCRETE CURB AT SIDEWALK
SCALE: NOT TO SCALE



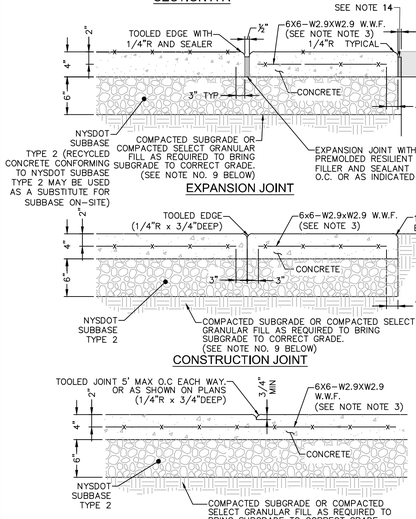
SECTION A-A



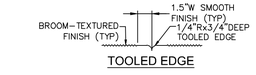
SECTION B-B

NOTES:
1. ALL WORK SHALL CONFORM WITH THE NYSDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS DATED, **"CURRENT VERSION"**, AND ALL ADDENDA THERE TO; SPECIFICALLY **SECTION 608**– SIDEWALKS, DRIVEWAYS, AND BICYCLE PATHS.
2. SLOPE RAMP AND SIDE FLARES AS INDICATED IN THE PLANS OR AS ORDERED BY THE ENGINEER.
3. DETECTABLE WARNING UNITS SHALL BE PROVIDED ON ALL RAMPS IN ACCORDANCE W/ ADA REQUIREMENTS.

© 12 PEDESTRIAN RAMP SECTION - DROP CURB
SCALE: NOT TO SCALE

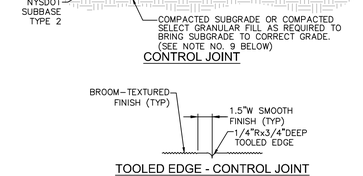


EXPANSION JOINT



TOOLED EDGE

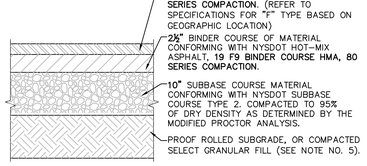
CONSTRUCTION JOINT



CONTROL JOINT

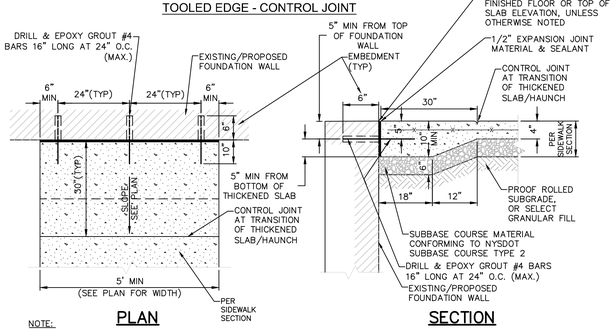
NOTES:
1. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED "CURRENT VERSION", AND ALL ADDENDA THERE TO.
2. ALL CONCRETE SHALL BE **4,500** CONCRETE. CONCRETE MATERIALS, PLACEMENT, AND CONSTRUCTION SHALL CONFORM WITH **SECTION 500** OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
3. REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH SECTION 556 – REINFORCING STEEL FOR CONCRETE STRUCTURES OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND AS SPECIFICALLY CALLED OUT IN THE DRAWINGS.
4. ALL EXPOSED SURFACES SHALL HAVE A BROOM TEXTURED FINISH & TOOLED EDGES. TOOL SHALL PROVIDE MAX 1–1/2" WIDE SMOOTH TROWEL FINISH AT JOINT.
5. EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20' ON CENTER, OR AS INDICATED ON PLANS.
6. JOINTS SHALL NOT BE SAW CUT.
7. EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH **"SUREBOND" 1100 RESIN–BASED, WATER EMULSION CONCRETE CURING COMPOUND**, OR EQUAL. RATE AND METHOD OF APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
8. SUBBASE MATERIAL SHALL CONFORM WITH **SECTION 304** OF THE ABOVE REFERENCED NYSDOT STANDARD.
9. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN ACCORDANCE WITH SECTION 203–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
10. ALL WORK SHALL CONFORM WITH **SECTION 608**–SIDEWALK, DRIVEWAYS, AND BICYCLE PATHS OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
11. ALL WORK SHALL CONFORM WITH AASHTO GEOMETRIC DESIGN OF HIGHWAYS AND STREET 2011, ICC A117.1 2009. OR LATEST EDITION.
12. SIDEWALK WIDTH SHOWN ON THE PLANS IS TO BE MEASURED FROM THE BACK OF THE CURB.
13. SIDEWALKS SHALL HAVE A CROSS SLOPE OF **1.5%** MAX. UNLESS OTHERWISE NOTED ON PLAN.
14. INSTALL EXPANSION JOINT WITH PREMOLDED RESILIENT JOINT FILLER & SEALANT AT ALL EXISTING SIDEWALKS, CURBS, FIXED OBJECTS, ETC., INCLUDING THOSE PLACED ON PREVIOUS DAYS.

© 1 CONCRETE SIDEWALK DETAIL
SCALE: NOT TO SCALE



NOTES:
1. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED **"CURRENT VERSION"**, AND ALL ADDENDA THERE TO.
2. SUBBASE MATERIAL SHALL CONFORM WITH **SECTION 304** – SUBBASE COURSE OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND THE TYPE CALLED OUT IN THESE DRAWINGS.
3. HOT MIX ASPHALT (HMA) PAVEMENT SHALL CONFORM WITH **SECTION 400**–HOT MIX ASPHALT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND THE TYPE CALLED OUT IN THESE DRAWINGS. ALTHOUGH **SECTION 400** IN ITS ENTIRETY IS REFERENCED, THE HOT MIX ASPHALT (HMA) PAVEMENT(S) SPECIFIED FOR THIS CONTRACT SHALL BE AS SPECIFIED UNDER **SECTION 402**–HOT MIX ASPHALT (HMA) PAVEMENTS.
4. TACK COAT WHEN SPECIFIED OR CALLED OUT IN THESE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATIONS SHALL CONFORM WITH **SECTION 407**–TACK COAT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
5. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSES OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMANCE WITH **SECTION 203**–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
6. PAVEMENT SECTION SHOWN IS PRELIMINARY. PRIOR TO BIDDING AND COMMENCEMENT OF CONSTRUCTION, THE FINAL DESIGN OF THE PAVEMENT SECTION MUST BE PREPARED BY A NYS LICENSED PROFESSIONAL ENGINEER AND MUST BE BASED ON A CURRENT GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT.

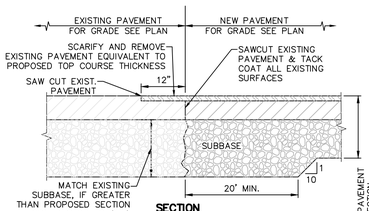
© 7 PAVEMENT SECTION DETAIL
SCALE: NOT TO SCALE



PLAN SECTION

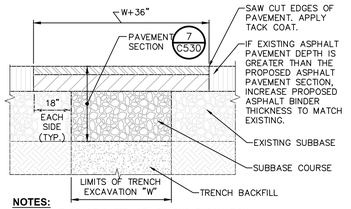
NOTE:
1. THICKENED (HAUNCH) & ADDITIONALLY REINFORCED CONCRETE SIDEWALK ENDS ARE REQUIRED AT ALL EXISTING/PROPOSED BUILDING ENTRANCES.
2. SEE CONCRETE SIDEWALK DETAIL FOR ADDITIONAL DETAILS & NOTES.

© 6 CONCRETE SIDEWALK AT BUILDING ENTRANCES
SCALE: NOT TO SCALE



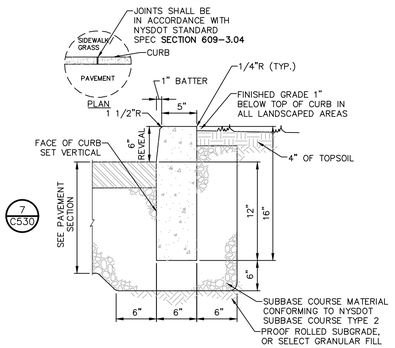
SECTION

© 2 PAVEMENT TRANSITION DETAIL
SCALE: NOT TO SCALE



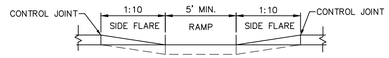
NOTES:
1. SAW CUT AS INDICATED, 18" BEYOND EXCAVATION.
2. FURNISH, PLACE, AND COMPACT SUBBASE.
3. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.
4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.

© 9 TRENCH SURFACE RESTORATION IN ASPHALT PAVEMENT
SCALE: NOT TO SCALE

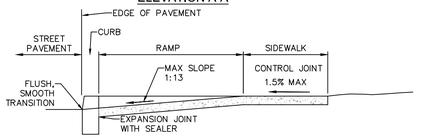


NOTES:
1. CONCRETE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION **SECTION 609.**
2. PRECAST CONCRETE CURB MAY BE SUBSTITUTED, WHEN ALTERNATE CONSTRUCTION DETAILS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. ALTERNATE CURB SHALL BE INSTALLED IN ACCORDANCE WITH NYSDOT SPEC **SECTION 609.**

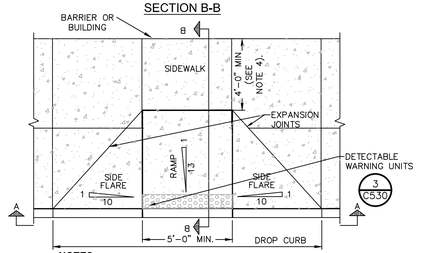
© 8 CAST IN PLACE CONCRETE CURB
SCALE: NOT TO SCALE



ELEVATION A-E



SECTION B-B



NOTES:
1. ALL WORK SHALL CONFORM WITH THE NYSDOT STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS DATED, **"CURRENT VERSION"**, AND ALL ADDENDA THERE TO; SPECIFICALLY **SECTION 608**– SIDEWALKS, DRIVEWAYS, AND BICYCLE PATHS.
2. SLOPE RAMP AND SIDE FLARES AS INDICATED IN THE PLANS OR AS ORDERED BY THE ENGINEER.
3. DETECTABLE WARNING UNITS SHALL BE PROVIDED ON ALL RAMPS IN ACCORDANCE W/ ADA REQUIREMENTS.
4. WHERE THIS DIMENSION IS LESS THAN 4'–0", THE SIDE FLARES SHALL HAVE A SLOPE OF 1:13 OR FLATTER.

© 10 PEDESTRIAN RAMP WITH FLARED SLOPES
SCALE: NOT TO SCALE

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- New York City, NY

rev.	date	description

FAMILY SERVICES, INC. - FACADE RENOVATIONS

SITE DETAILS

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
MET	KGA
date	scale
10/04/21	AS SHOWN
project no.	
32195.00	
sheet no.	
C530	

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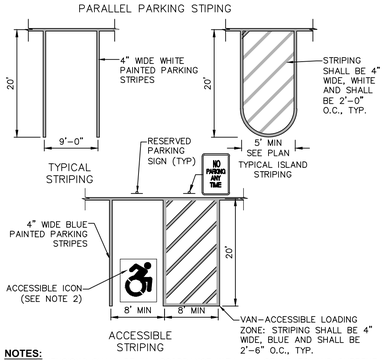
Date Printed: Oct 05, 2021, 10:34am

CONCEPT PLAN - NOT FOR CONSTRUCTION



NOTES:

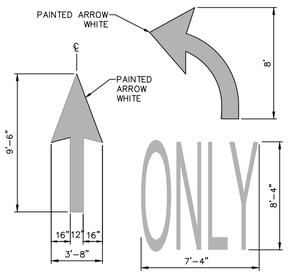
1. ALL DIMENSIONS SHALL BE IN ACCORDANCE WITH ADA STANDARD AND CURRENT ZONING AND SITE REGULATIONS.
2. PAINTED ACCESSIBLE LOGO TO BE IN ACCORDANCE W/ NEW YORK STATE LAW.
3. SLOPE OF PAVEMENT SURFACE IN ACCESSIBLE PARKING AREA SHALL NOT EXCEED 1.5% IN ANY DIRECTION.
4. SEE PLAN FOR ACTUAL LOCATION OF SIGNAGE

© 1 **PAVEMENT MARKING DETAIL PARKING STRIPING**
SCALE: NOT TO SCALE

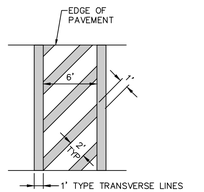
MUTCD SIGN SCHEDULE

SIGN NO.	SIGN FACE	MUTCD NUMBER	MIN SIZE	COLORS BCK GRND	COLORS LEGEND	MOUNTING
1	STOP	R1-1	30"x30"	RED	WHITE	14 / 25.30
3	ONE WAY	R6-1L	36"x12"	BLACK	WHITE	14 / 25.30
4	ONE WAY	R6-1R	36"x12"	BLACK	WHITE	14 / 25.30
5		W11-2	24"x24"	YELLOW/ FYG	BLACK	14 / 25.30
6		W16-7P	24"x12"	YELLOW/ FYG	BLACK	14 / 25.30
7	DO NOT ENTER	R5-1	30"x30"	RED	WHITE	14 / 25.30
8	RESERVED PARKING	NY R7-8D	12"x18"	WHITE/ BLUE	GREEN/ WHITE	14 / 25.30
9	VAN ACCESSIBLE	R7-8P	12"x6"	WHITE	BLUE	14 / 25.30
10	NO PARKING ANY TIME	R7-1	12"x18"	WHITE	RED	14 / 25.30

© 2 **MUTCD SIGN SCHEDULE**
SCALE: NOT TO SCALE

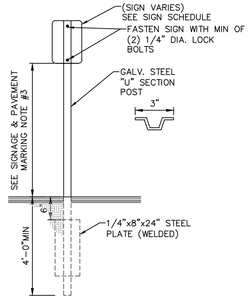


© 3 **PAVEMENT MARKING DETAIL DIRECTIONAL ARROW**
SCALE: NOT TO SCALE



NOTES:
1. ALL CROSS WALK STRIPING SHALL BE WHITE

© 4 **PAVEMENT MARKING DETAIL CROSS WALK STRIPING**
SCALE: NOT TO SCALE



© 5 **SINGLE POST SIGN MOUNTING DETAIL**
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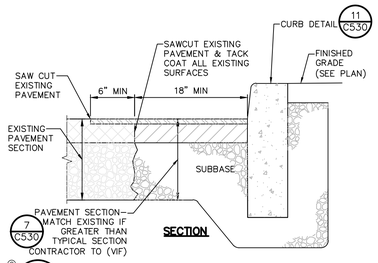

© 6 **CURB REPLACEMENT DETAIL**
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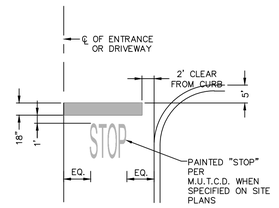
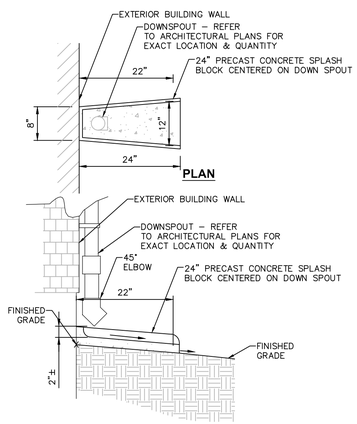
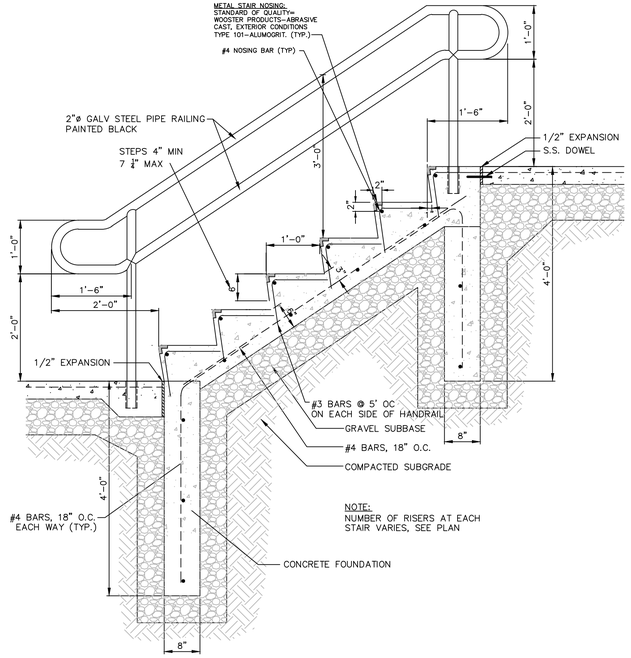


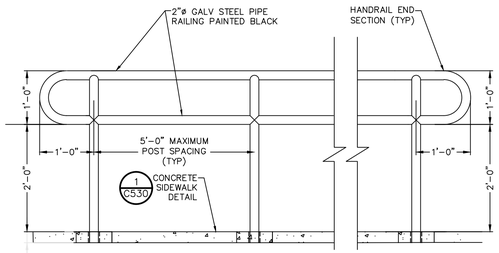
© 7 **PAVEMENT MARKING DETAIL STOP BAR**
SCALE: NOT TO SCALE



© 8 **DOWN SPOUT TO SPLASH BLOCK IN LAWN / LANDSCAPED AREAS**
SCALE: NOT TO SCALE



© 9 **CONCRETE STAIR AND RAILING**
SCALE: 3/4"=1'-0"



© 10 **STEEL PIPE HANDRAIL DETAIL**
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rev.	date	description

FAMILY SERVICES, INC. - FACADE RENOVATIONS

SITE DETAILS

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed MET	checked KGA
date 10/04/21	scale AS SHOWN
project no. 32195.00	
sheet no. C531	

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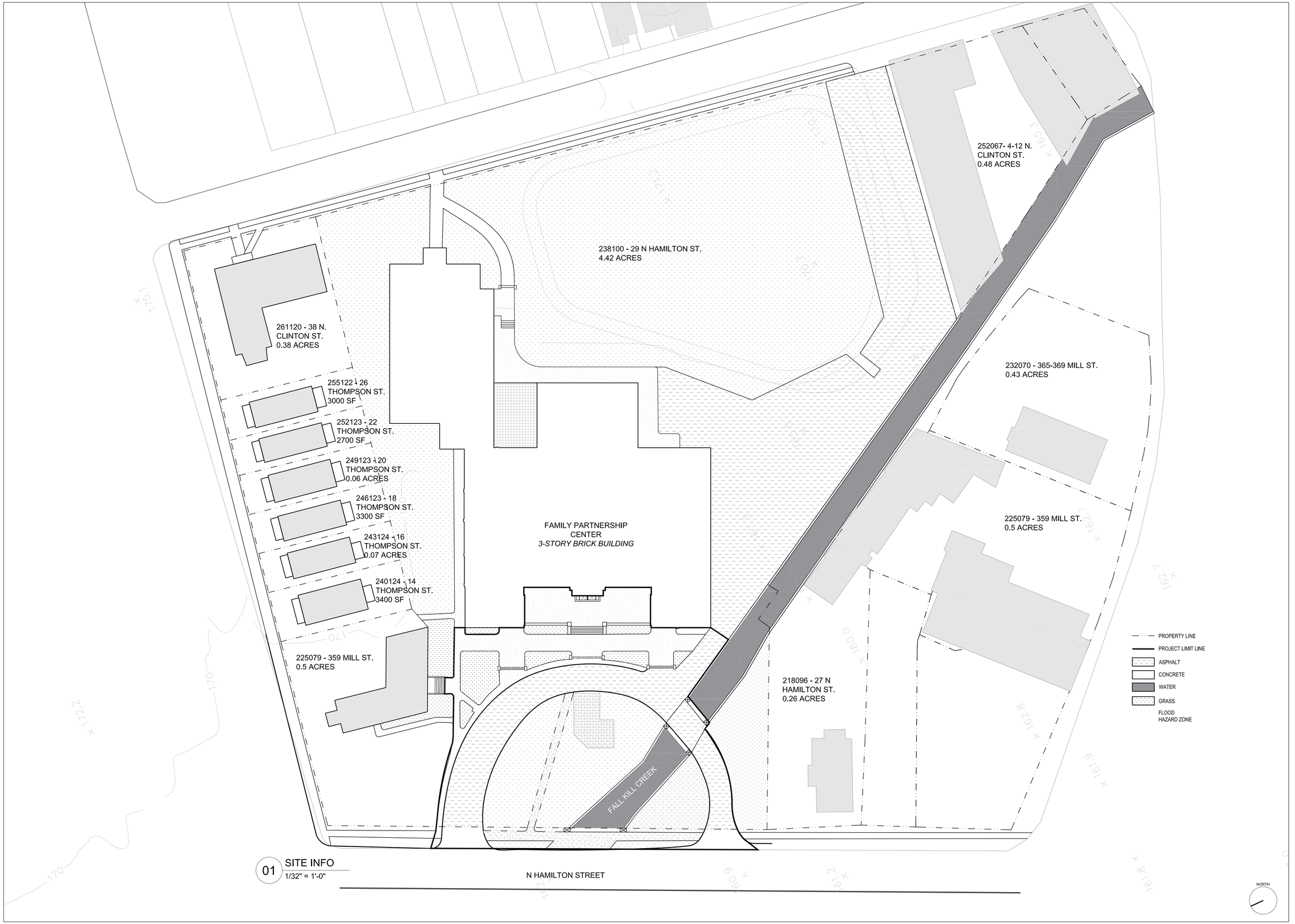

01 SITE INFO
1/32" = 1'-0"

Drawing Issue

NO.	DATE	DESCRIPTION	BY
01	10.12.21	PLANNING BOARD	EK
02	10.27.21	PLANNING BOARD	EK

Key Plan

Client
FAMILY SERVICES
29 N Hamilton Street Suite 109 Poughkeepsie, NY
Tel. (845) 452-1110

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MASS DESIGN GROUP LLC
289 Main Street, Suite 101 Poughkeepsie, NY 12601
Tel: (857) 233-5788

Civil
CHAZEN COMPANIES
21 Fox St, Poughkeepsie, NY 12601
Tel: (845) 454-3980

Structural
CHAZEN COMPANIES
21 Fox St, Poughkeepsie, NY 12601
Tel: (845) 454-3980

Mechanical/Electrical/Plumbing
OLA Consulting Engineers
50 Broadway Ste 2, Hawthorne, NY 10532
Tel: (914) 747-2800

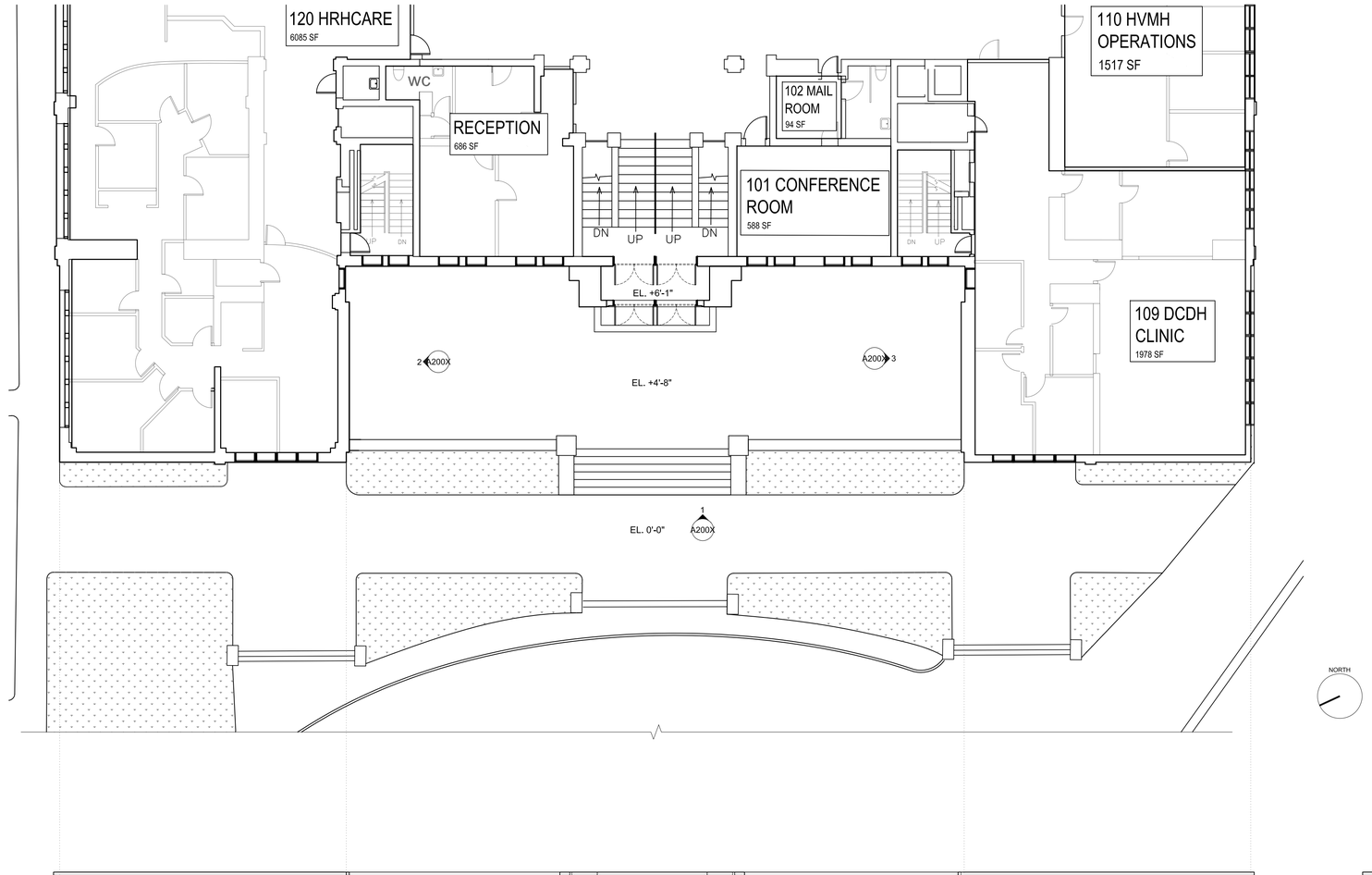
MASS.

FAMILY PARTNERSHIP CENTER FRONT ENTRY

Drawing Title
SITE INFO

Drawing Date
10.27.21

Drawing Number
L.100



03 NORTH ELEVATION - EXISTING
1/16" = 1'-0"

01 EAST ELEVATION - EXISTING
1/16" = 1'-0"

03 SOUTH ELEVATION - EXISTING
1/16" = 1'-0"

Drawing Issue

NO.	DATE	DESCRIPTION	BY
01	10.12.21	PLANNING BOARD	EK

Key Plan

Client
FAMILY SERVICES
29 N Hamilton Street Suite 109 Poughkeepsie, NY
Tel. (845) 452-1110

Architecture
MASS DESIGN GROUP LLC
289 Main Street, Suite 101 Poughkeepsie, NY 12601
Tel: (857) 233-5788

Civil
CHAZEN COMPANIES
21 Fox St, Poughkeepsie, NY 12601
Tel: (845) 454-3980

Structural
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Tel: (845) 454-3980

Mechanical/Electrical/Plumbing
OLA Consulting Engineers
50 Broadway Ste 2, Hawthorne, NY 10532
Tel: (914) 747-2800

MASS.

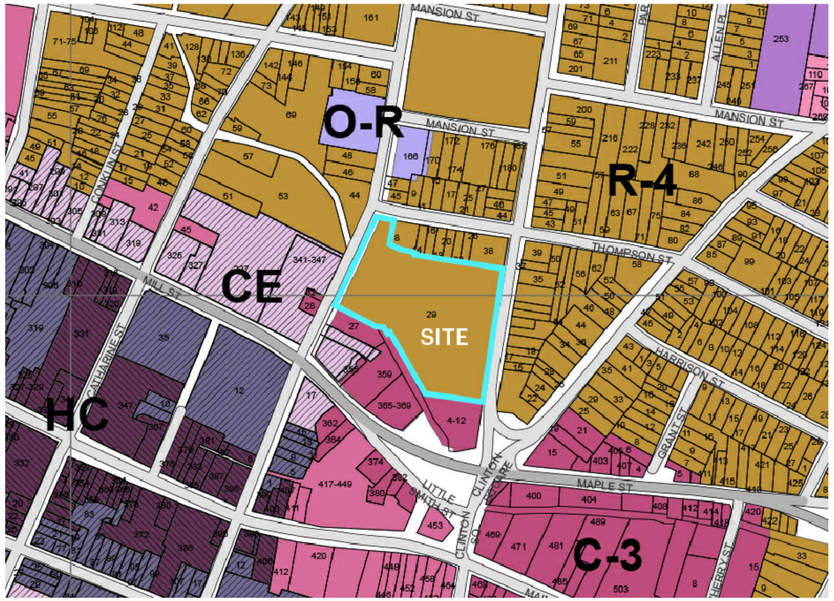
FAMILY PARTNERSHIP CENTER FRONT ENTRY

Drawing Title
EXISTING CONDITIONS

Drawing Date
10.12.21

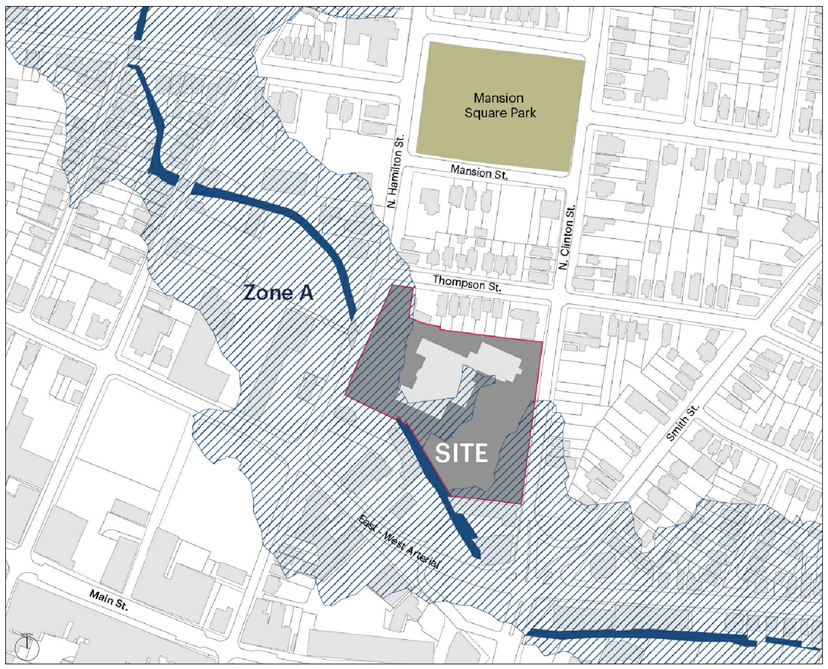
Drawing Number
A.100X

FAMILY PARTNERSHIP CENTER ENTRY



Drawing List

A.101	PROPOSED FLOOR PLAN
A.102	PROPOSED ROOF PLAN
A.201	PROPOSED ELEVATIONS
A.600	MATERIAL BOARD
A.601	LIGHTING CUT SHEETS



FEMA Flood Hazard Zone A:
Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

LOT & BULK REQUIREMENTS

DISTRICT: R-4 MEDIUM-HIGH DENSITY RESIDENCE DISTRICT

29 N HAMILTON				
R-4 DISTRICT	**REQUIRED (MINIMUM)**	**REQUIRED (MAXIMUM)**	**EXISTING**	**PROPOSED**
LOT STANDARDS				
LOT AREA	14,000 SF		4.42 Ac/192,535 SF	--
LOT WIDTH	30 FT		255'	--
FRONTAGE	100 FT		147'	--
LOT COVERAGE	40%		19.1%	20.0%
SETBACKS				
FRONT SETBACK	20 FT		147'	--
SIDES (EACH)	10 FT		17'/54'	
REAR	15 FT		44'	
BUILDING STANDARDS				
PRINCIPAL BUILDING HEIGHT		3 STORIES OR 40 FT	3 STORIES	--

ADJOINING LOTS

PARCEL	PARCEL ADDRESS	OWNER NAME	CURRENT USE	ACREAGE
238100	29 N Hamilton	Family Services, Inc.	Benevolent (632)	4.42 Ac
252067	4-12 N Clinton	6 North Clinton Street LLC	Auto body (433)	0.48 Ac
232070	365-369 Mill St Rear	Woodman Poughkeepsie Realty	Auto carwash (434)	0.43 Ac
225079	359 Mill St	Most Properties, Inc.	Det row bldg (482)	0.5 Ac
217082	355 Mill St	Most Properties, Inc.	Other Storage (449)	0.03 Ac
211086	N Hamilton St	Most Properties, Inc.	Parking Lot (438)	0.28 Ac
216091	N Hamilton St	Most Properties, Inc.	Res vac land (311)	0.17 Ac
218096	27 N Hamilton St	Arias, Jose L.	Apartment (411)	0.26 Ac
234126	8 Thompson St	Family Services, Inc.	Misc com srv (690)	0.17 Ac
240124	14 Thompson St	Alexander, James L	2 Family res (220)	34x100
243124	16 Thompson St	Beezle LLC	2 Family res (220)	0.07 Ac
246123	18 Thompson St	James, Deborah G	2 Family res (220)	33x100
249123	20 Thompson St	Mullings, Simnel	2 Family res (220)	0.06 Ac
252123	22 Thompson St	Aviles, Angel M	1 Family res (210)	27x100
255122	26 Thompson	Merte, Eunice C	2 Family res (220)	30x100
261120	38 Clinton St	Hudson River Housing, Inc.	Living accom (410)	0.38 Ac

NOTES
* Above information gathered from Dutchess County Parcel Access on September 30, 2021.

PARKING REQUIREMENTS

BUILDING	TOTAL BLDG AREA	PROPOSED USE	# OF SPACES REQUIRED
Existing Building	36633 sf	Office	See Civil C.110
Addition	1772 sf	Office	6
TOTAL APPLICABLE AREA FOR PARKING COUNTS	**1772 sf**		
		TOTAL REQUIRED # OF PARKING SPACES	**6**
		TOTAL PROPOSED # OF PARKING SPACES	**6 (added to municipal lot)**
		REQUIRED PARKING WAIVER	**No**

Drawing Issue

NO.	DATE	DESCRIPTION	BY
01	10.12.21	PLANNING BOARD	EK

Key Plan

Client
FAMILY SERVICES
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Architecture
MASS DESIGN GROUP LLC
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Mechanical/Electrical/Plumbing
OLA Consulting Engineers
50 Broadway Ste 2, Hawthorne, NY 10532
Tel: (914) 747-2800

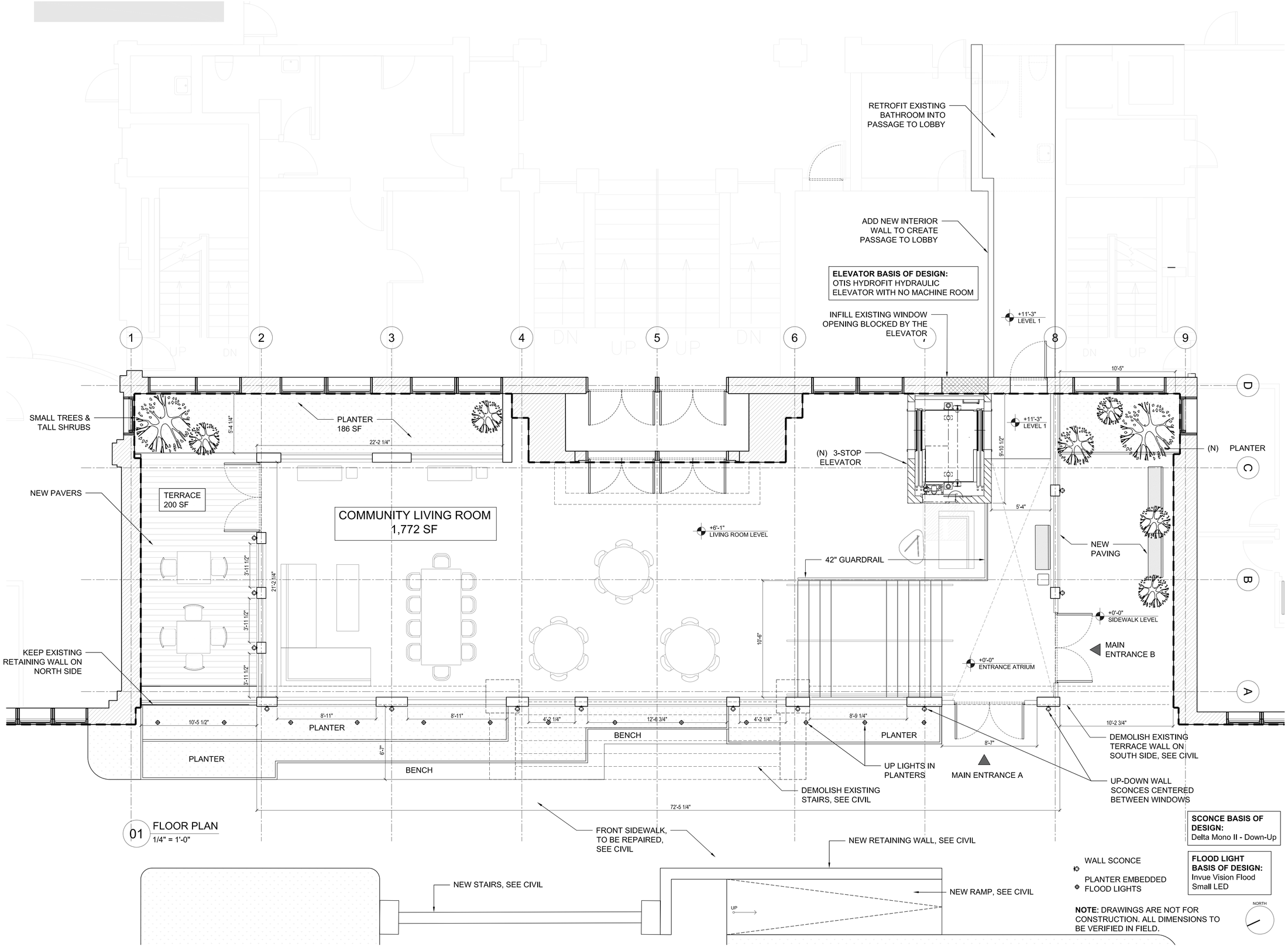
MASS.

FAMILY PARTNERSHIP CENTER FRONT ENTRY

Drawing Title
COVER SHEET

Drawing Date
10.12.21

Drawing Number
G.000



01 FLOOR PLAN
1/4" = 1'-0"

Drawing Issue

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01	10.12.21	PLANNING BOARD	EK

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MASS.

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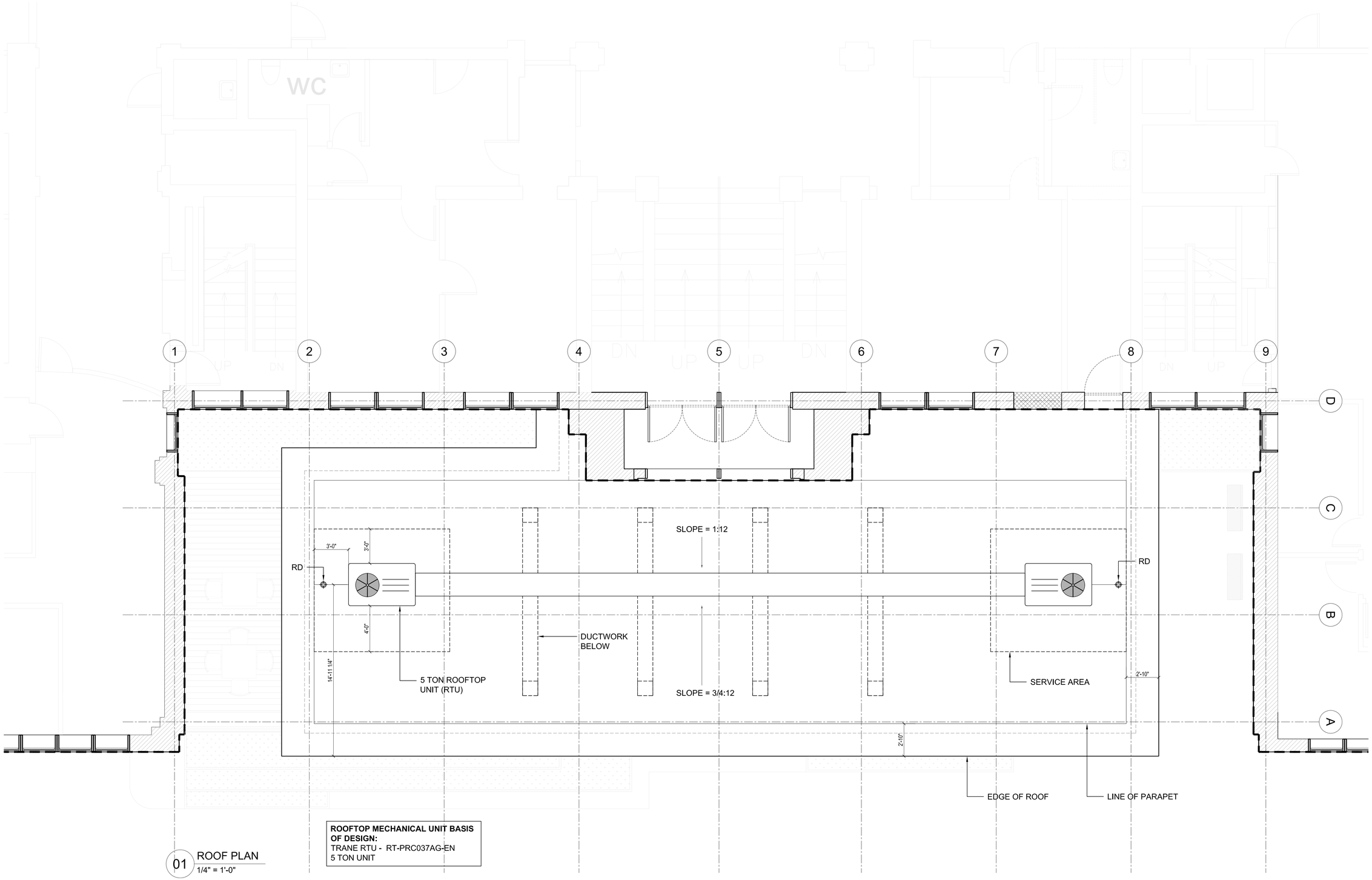
Drawing Title
PROPOSED FLOOR PLAN

Drawing Date
10.12.21

Drawing Number
A.101



01 ROOF PLAN
1/4" = 1'-0"

ROOFTOP MECHANICAL UNIT BASIS OF DESIGN:
TRANE RTU - RT-PRC037AG-EN
5 TON UNIT

NOTE: DRAWINGS ARE NOT FOR CONSTRUCTION. DESIGN OF MECHANICAL SYSTEMS TO BE CONFIRMED BY MECHANICAL ENGINEER.

NORTH

Drawing Issue

NO.	DATE	DESCRIPTION	BY
01	10.12.21	PLANNING BOARD	EK

Key Plan

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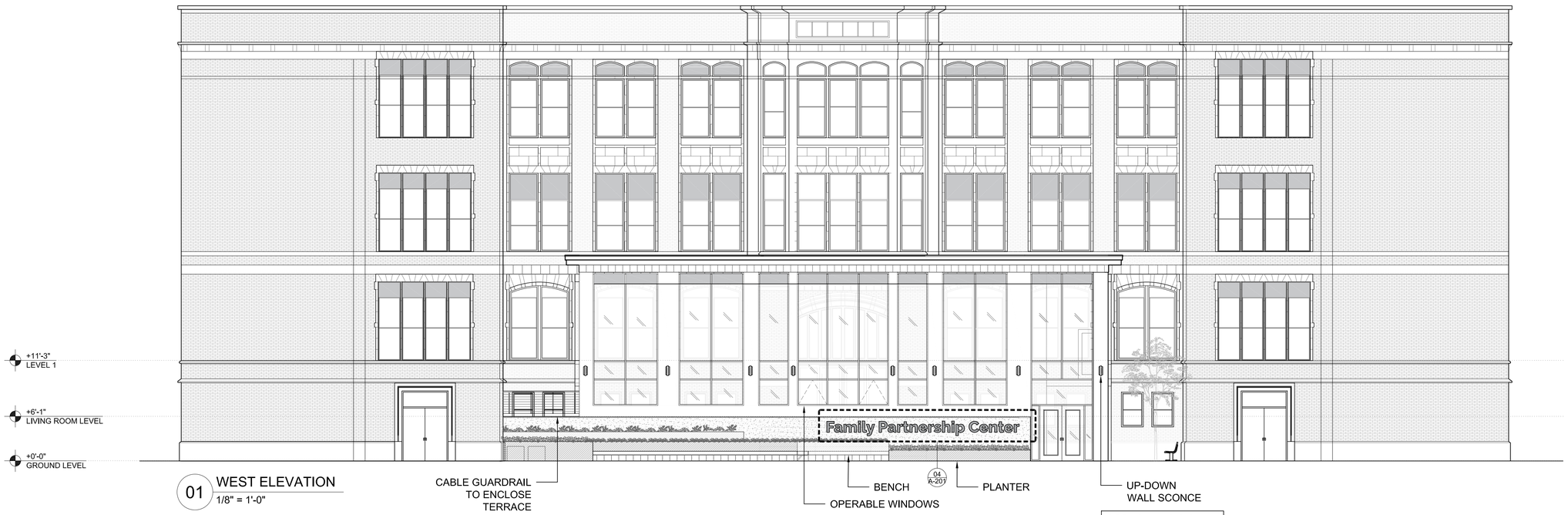
MASS.

FAMILY PARTNERSHIP CENTER FRONT ENTRY

Drawing Title
PROPOSED ROOF PLAN

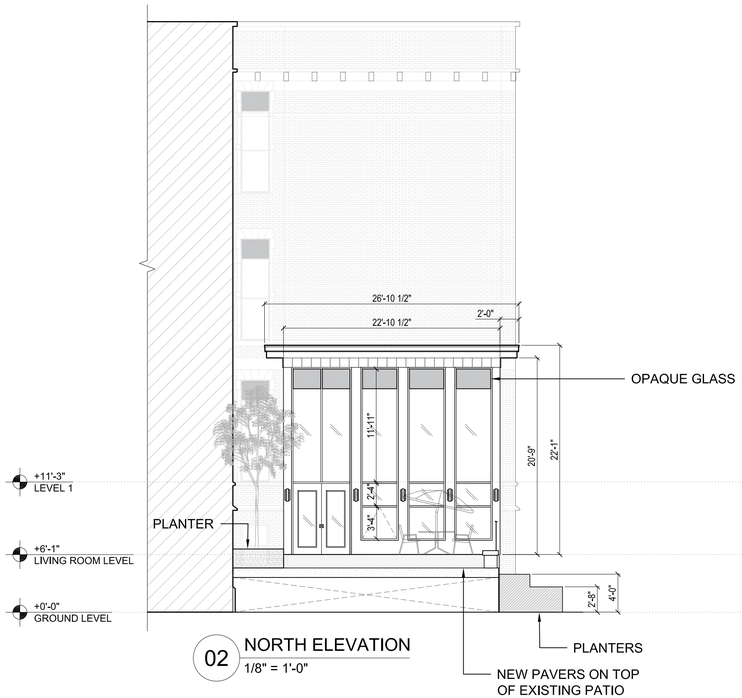
Drawing Date
10.12.21

Drawing Number
A.101

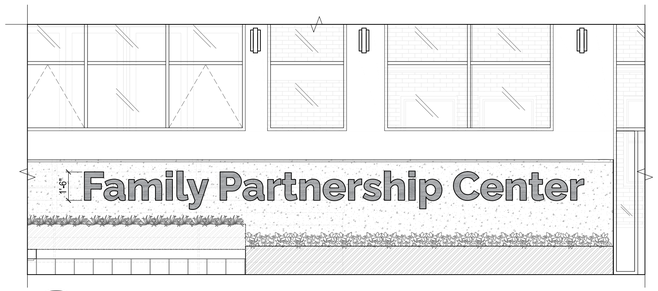


01 WEST ELEVATION
1/8" = 1'-0"

SCONCE BASIS OF DESIGN:
Delta Mono II - Down-Up

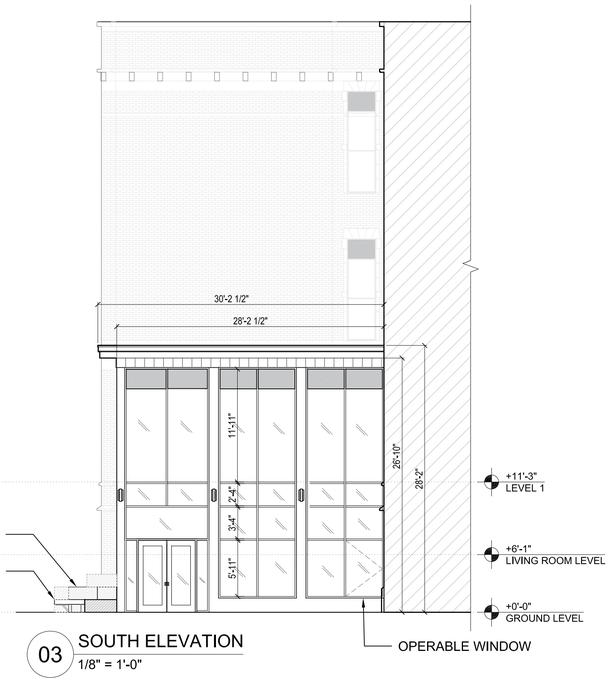


02 NORTH ELEVATION
1/8" = 1'-0"



04 SIGNAGE DETAIL
1/4" = 1'-0"

SIGNAGE:
Font: Raleway Extra Bold
Material: Stainless Steel
Height: 1'-6"



03 SOUTH ELEVATION
1/8" = 1'-0"

NOTE: DIMENSIONS ARE BASED ON ALIGNMENTS WITH EXISTING BUILDING AND NEED TO BE VERIFIED IN FIELD.

Drawing Issue

NO.	DATE	DESCRIPTION	BY
01	10.12.21	PLANNING BOARD	EK

Key Plan

Client
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Tel: (914) 747-2800

MASS.

FAMILY PARTNERSHIP CENTER FRONT ENTRY

Drawing Title
PROPOSED ELEVATIONS

Drawing Date
10.12.21

Drawing Number
A.201

EXISTING MATERIALS

TERRACOTTA

BRICK ABOVE PRECAST

ANNODIZED ALUMINUM WINDOWS ABOVE PRECAST

PROPOSED MATERIALS

ANNOD. ALUM STOREFRONT WINDOWS

ALUMINUM TRIMS

PRECAST (ALT: STUCCO)

Drawing Issue

NO.	DATE	DESCRIPTION	BY

Key Plan

Client
FAMILY SERVICES
29 N Hamilton St # 109, Poughkeepsie, NY 12601
Tel. (845) 452-1110

Architecture
MASS DESIGN GROUP LLC
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Tel: (845) 454-3980

Civil Engineering
CHAZEN COMPANIES
21 Fox St, Poughkeepsie, NY 12601
Tel: (845) 454-3980

MEP Engineering
OLA ENGINEERS
50 Broadway Ste 2, Hawthorne, NY 10532
Tel: (914) 747-2800

MASS.

Family Partnership Center Entry

Drawing Title
MATERIALS BOARD

Drawing Date
10.12.21

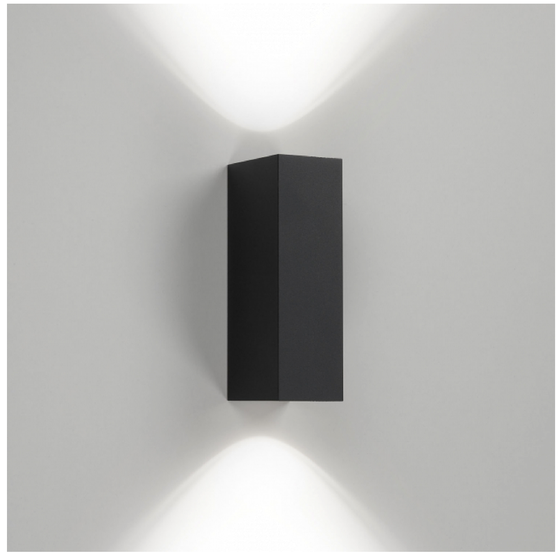
Drawing Number
A600.00

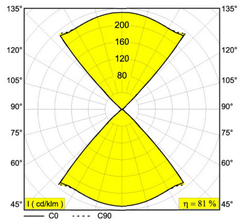
Specification Sheet

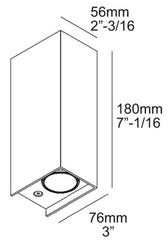
MONO II DOWN-UP LED 1 930

6 223 531 812 930

Weblink







Available colors:
ALU GREY (6 223 531 812 930 A)
DARK GREY (6 223 531 812 930 N)

NON ADJUSTABLE
2 x (LED 7,1W / CRI>90 / 3000K / 812lm)
INCL.2 x LENS
EXCL.LED POWER SUPPLY 48V-DC (non dimmable)
For other CRI or KELVIN, contact factory

LED Technics:	Light source: 1624 lm // 14 W // 115 lm/W Luminaire: 1321 lm // 16 W // 81 lm/W
48V-DC	
Class 2	Yes
Ada	N.a.
Installation methods	1/2" EMT INSTALLATION MUD KIT INSTALLATION
Weight:	1.6 LBS
Protection level:	IP54 - suitable for wet locations
Minimum distance:	n.a.
Options:	MUD KIT 1 COVERPLATE S 122

Requirements :
LED POWER SUPPLY 48V-DC (Remote)

For detailed installation instructions, please consult the manual. 6_223_531_812_XXX_HAND.pdf

VFS
VISION FLOOD
SMALL LED

ARCHITECTURAL FLOOD LUMINAIRE

CERTIFICATION DATA
40°C Ambient Temperature Rating
UL and cUL Listed
ISO 9001
IP66 Luminaire
LM79 / LM80 Compliant
2G Vibration Tested

ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V 50/60Hz, 347V/60Hz, 480V/60Hz
-40°C Minimum Temperature

EPA
Effective Projected Area (Sq. Ft.):
1.19

SHIPPING DATA
Approximate Net Weight:
18 lbs. (8 kgs.)

TD506009EN
July 5, 2018 10:14 AM

DELIVERED LUMENS BY DISTRIBUTION, LED QUANTITY AND DRIVE CURRENT

Voltage	Drive Current / LED Quantity						IES NEMA Type (H x V)
	350mA		525mA		700mA		
	20 LEDs	40 LEDs	20 LEDs	40 LEDs	20 LEDs	40 LEDs	
TS (Tight Spot)	2,082	3,877	2,877	5,421	3,399	6,070	3 x 3
TBS (Tight Spot Baffle)	1,260	2,347	--	--	--	--	1 x 1
WST (Wide Symmetric Rectangular)	2,219	4,132	3,066	5,774	3,264	6,470	7 x 6
MST (Medium Symmetric Rectangular)	2,261	4,210	3,123	5,885	3,692	6,590	6 x 5
VAT (Vertical Asymmetric Rectangular)	2,243	4,177	3,100	5,840	3,663	6,540	6 x 6
NSR (Narrow Symmetric Round)	2,112	3,943	2,918	5,496	3,450	6,158	3 x 3
MSR (Medium Symmetric Round)	2,183	4,065	3,016	5,880	3,565	6,361	4 x 4

NOTE: Lumens values based upon 4000K CCT and 25°C ambient operating temperatures.

INPUT WATTS BY VOLTAGE, LED QUANTITY AND DRIVE CURRENT

Voltage	Input by Drive Current / LED Quantity					
	350mA		525mA		700mA	
	20 LEDs	40 LEDs	20 LEDs	40 LEDs	20 LEDs	40 LEDs
Input Watts @ 120-277V	24W	46W	35W	67W	49W	94W
Input Watts @ 347V	27W	48W	38W	70W	52W	97W
Input Watts @ 480V	31W	52W	42W	73W	55W	100W

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.04
15°C	1.03
25°C	1.00
40°C	0.96
50°C	0.92

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000

Drawing Issue

NO.	DATE	DESCRIPTION	BY
01	10.12.21	PLANNING BOARD	EK

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OLA Consulting Engineers
50 Broadway Ste 2, Hawthorne, NY 10532
Tel: (914) 747-2800

MASS.

FAMILY PARTNERSHIP CENTER FRONT ENTRY

Drawing Title
LIGHTING

Drawing Date
10.27.21

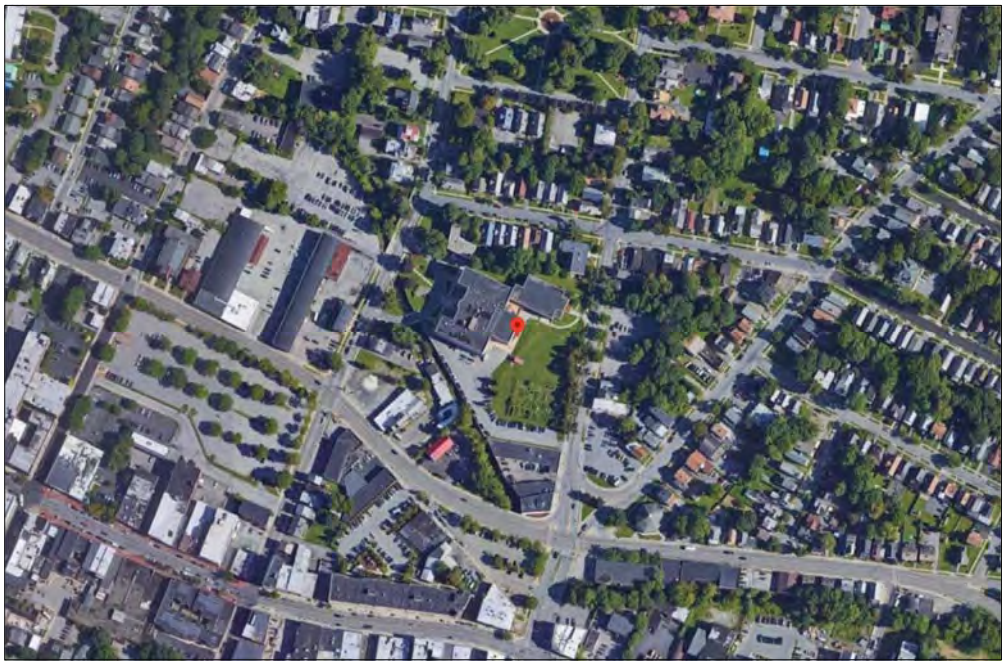
Drawing Number
A.601

THE Chazen COMPANIES®
Proud to Be Employee Owned
Engineers
Land Surveyors
Planners
Environmental & Safety Professionals
Landscape Architects

Short Environmental Assessment Form Part 1

Family Services Inc.
Facade Renovation and Accessibility Improvements

29 North Hamilton Street, City of Poughkeepsie, NY
Dutchess County, New York



Issued: October 5, 2021

Prepared for:
Mr. Brian Doyle
Chief Executive Office
Family Services Inc.
50 N. Hamilton Street
Poughkeepsie, New York 12601

Prepared by:

Chazen Engineering, Land Surveying & Landscape Architecture Co., D.P.C.
20 Elm Street, Suite 110
Glens Falls, NY 12801
518-812-0513

Chazen Project No. 32195.00

TABLE OF CONTENTS

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SHORT ENVIRONMENTAL ASSESSMENT FORM PART 1 FORM & ENDNOTES

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Figure 2: Orthophoto Tax Map
Figure 3: Land Use Map
Figure 4: Soils Map
Figure 5: Wetland, Stream, and Floodplain Map
Figure 6: NYSDEC Environmental Resource Map
Figure 7: Cultural Resource Information System (CRIS) Map

ATTACHMENTS

Attachment A: USFWS Information for Planning and Consultation (IPAC)

PROJECT NARRATIVE

1.0 PROJECT DESCRIPTION

1.1 Introduction

Family Services Inc. (the "Applicant") is seeking site plan approval from the City of Poughkeepsie Planning Board for a proposed façade renovation and ADA accessibility improvements to the existing Family Partnership Center building. The building is located on a 4.42-acre parcel (Tax Lot # 238100) at 29 North Hamilton Street in the City of Poughkeepsie (the "Project Site"), which is located within the Medium High-Density Residential (R-4) Zoning District. The Applicant is seeking to renovate and repair the front entry of the main building with ADA accessibility improvements and construct a new enclosed, clear glass atrium replacing the front, outdoor stairs (the "Proposed Project"). Figures 1-4 show the site location, tax map, land use, and soils on the Project Site.

The area of disturbance is less than 1 acre (approximately 0.4 acres) and will include removing and replacing approximately 11,810 square feet (sf) of concrete sidewalk around the building, including associated repair of the adjust asphalt pavement. Accessibility improvements will encompass the front sidewalk, rear sidewalk and driveway. By making the building accessible and safer, the proposed façade renovation will provide access for all persons seeking health and human services.

The project is classified as an Unlisted Action under the State Environmental Quality Review Act (SEQRA). A Short Environmental Assessment Form (SEAF) has been prepared for the proposed project using the New York State Department of Environmental Conservation (NYSDEC) EAF Mapper, which provides automated responses to certain questions. The EAF Mapper tool sometimes indicates limited availability for some digital data. Further project details are provided in the “Endnotes” section of this document for clarification of, or reference information used in the response.

SHORT ENVIRONMENTAL ASSESSMENT FORM (SEAF)
PART 1 FORM & ENDNOTES

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information

Name of Action or Project:

Family Services Inc - Facade Renovation and Accessibility Improvements

Project Location (describe, and attach a location map):

29 North Hamilton Street, Poughkeepsie, NY, Dutchess County, NY

Brief Description of Proposed Action:

Family Services Inc. (the "Applicant") is seeking site plan approval from the City of Poughkeepsie Planning Board for a proposed façade renovation and ADA accessibility improvements to the existing Family Partnership Center building. The building is located on a 4.42-acre parcel (Tax Lot # 238100) at 29 North Hamilton Street in the City of Poughkeepsie (the "Project Site"), which is located within the Medium High-Density Residential (R-4) Zoning District. The Applicant seeks to renovate and repair the front entry of the main building with ADA accessibility improvements and construct a new enclosed, clear glass atrium replacing the front, outdoor stairs (the "Proposed Project"). The area of disturbance is less than 1 acre (approximately 0.4 acres) and will include removing and replacing approximately 11,810 square feet (sf) of concrete sidewalk around the building, including associated repair of the adjust asphalt pavement. Accessibility improvements will encompass the front sidewalk, rear sidewalk and driveway. By making the building accessible and safer, the proposed façade renovation will provide access for all persons seeking health and human services. See Figures 1 - 4.

Name of Applicant or Sponsor:	Telephone: 845-452-1110, ext 3100
Family Services Inc., Mr. Brian Doyle, Chief Executive Officer	E-Mail: bdoyle@familyservicesny.org

Address:

50 N. Hamilton Street

City/PO:	State:	Zip Code:
Poughkeepsie	NY	12601

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: NYSOPRHP consultation, GML 239M Referral Dutchess County Planning	☐	☑

3. a. Total acreage of the site of the proposed action? 4.42 acres
   b. Total acreage to be physically disturbed? 0.4 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 4.59 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☑ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☐ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☑ Other(Specify): Institutional
   ☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☐	☑
b. Consistent with the adopted comprehensive plan?	☐	☐	☑

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☑

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____ N/A - the project does not involve the construction of any new facilities that require water service. _____	☐	☐

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ N/A - the project does not involve the construction of any new facilities that require wastewater service. _____	☐	☐

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☐	☑
Family Partnership Center, Former Our Lady of Lourdes Sisters' Residence, and Former Our Lady of Lourdes Brothers' Residence See Figure 7. b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☑	☐

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ Fall Kill Creek (862-393C) - The Proposed Project will not physically alter or encroach upon the Creek. See Figure 5. _____ _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☑ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered? NYSDEC: None; USFWS: Indiana Bat. See Figure 6 and Attachment A.	☑	☐
16. Is the project site located in the 100-year flood plan?	☐	☑
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☑	☐
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☑	☐
If Yes, briefly describe: No new stormwater discharges. Two roof drains will be disconnected from the underground collection system and will instead be discharged to landscaped area.		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☑	☐
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: Spill # 8704001, Out Lady of Lords, unknown amount of #2 fuel oil spilled on groundwater (8/13/87-11/20/87; CLOSED); Spill # 0404154, Fall Kill Creek, unknown amount of petroleum spilled into Creek (7/18/04-7/18/04; CLOSED); Spill # 0700700, Family Planning Center, unknown amount of #2 fuel oil spilled on soil (4/18/07 - 11/19/09' CLOSED)	☐	☑

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Family Services Inc. Mr. Brian Doyle, Chief Executive Officer Date: 10/5/21

Signature: Caren LoBrutto, Agent for Applicant Title: Senior Planner, Chazen Companies

PRINT FORM

Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	Yes
Part 1 / Question 12b [Archeological Sites]	No
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	Yes
Part 1 / Question 20 [Remediation Site]	Yes

1.0 HISTORIC AND ARCHEOLOGICAL RESOURCES

According to the NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) Cultural Resource Information System (CRIS) mapping, 38 North Clinton Street, 8 Thompson Street, and 29 North Hamilton Streets all consist of properties that appear to be eligible as contributing buildings to the Former Our Lady of Lourdes High School Complex in the City of Poughkeepsie. This complex was deemed architecturally significant under Criterion C, as an excellent example of early and mid-twentieth century institutional architecture. It also possesses historical significance under Criterion A for representing the response of the City to the expanding school age population and the educational reform movement.

The Project Site, located on 29 North Hamilton Street, which consists of the Family Partnership Center building (USN # 02740.000834), was listed on the State and National Registers of Historic Places as an eligible resource in December of 2018 (see Figure 7). This property, formerly known as the Former Poughkeepsie High School and as the Former Our Lady of Lourdes High School was built in 1914, with additions constructed in 1961. The four-story H-shaped brick building is an example of a simplified Collegiate Gothic style of architecture, exhibits characteristics typical of city schools of the same period including masonry construction, symmetrical façade with large, grouped windows, and decorative stone or terra cotta trim. The Collegiate Gothic style was popular in institutional buildings in the late 19th and early 20th centuries. Characteristic features of the style shown at the former High School include the accentuated center entrance, groups of double-hung sash windows with stone mullions and surrounds, and stone belt course. In 1961, an Annex and Gym building was constructure with the main entrance facing east towards North Clinton Street. The 1961 buff-colored brick building has a prominent entrance that features patterned screening on the façade and stone surround.

According to the NYSOPRHP CRIS, the Project Site is located adjacent to 8 Thompson Street, the Former Our Lady of Lourdes Sisters' Residence (USN # 02740.000917), which was listed on the State and National Registers of Historic Places as an eligible resource in December of 2018. This property was built in 1961, and is a three-story, L-shape, buff-colored brick building, with the entrance stairs leading up to a paneled door with transom and side lights and a stone surround. The entrance is also flanked by decorative brickwork.

According to the NYSOPRHP CRIS, the Project Site is located adjacent to 38 North Clinton Street, the Former Our Lady of Lourdes Brothers' Residence (USN # 02740.000918), which was listed on the State and National Registers of Historic Places as an eligible resource in December of 2018. This property was also built in 1961, and is a three-story, L-shape, buff-colored brick building. Although many windows were replaced, the openings remain the same size and feature stone sills. Patterned screens are seen on all elevations and the entrance is accented by a zigzag canopy.

The proposed project will be submitted for NYSOPRHP review via CRIS.

2.0 WATER RESOURCES

2.1 Wetlands & Streams

Figure 5 shows mapped wetlands and streams expected to be present on or in the vicinity of the project area. According to the NYS DEC Environmental Resource Mapper (ERM), the Fall Kill River (862-393) a NYS DEC Class C stream, is mapped across the southwest corner of the Project Site. Class C waters support

fisheries and are suitable for non-contact activities. The Fall Kill is channelized where it travels on and near to the site. The proposed façade and ADA improvements will not result in adverse impacts to wetlands or the stream.

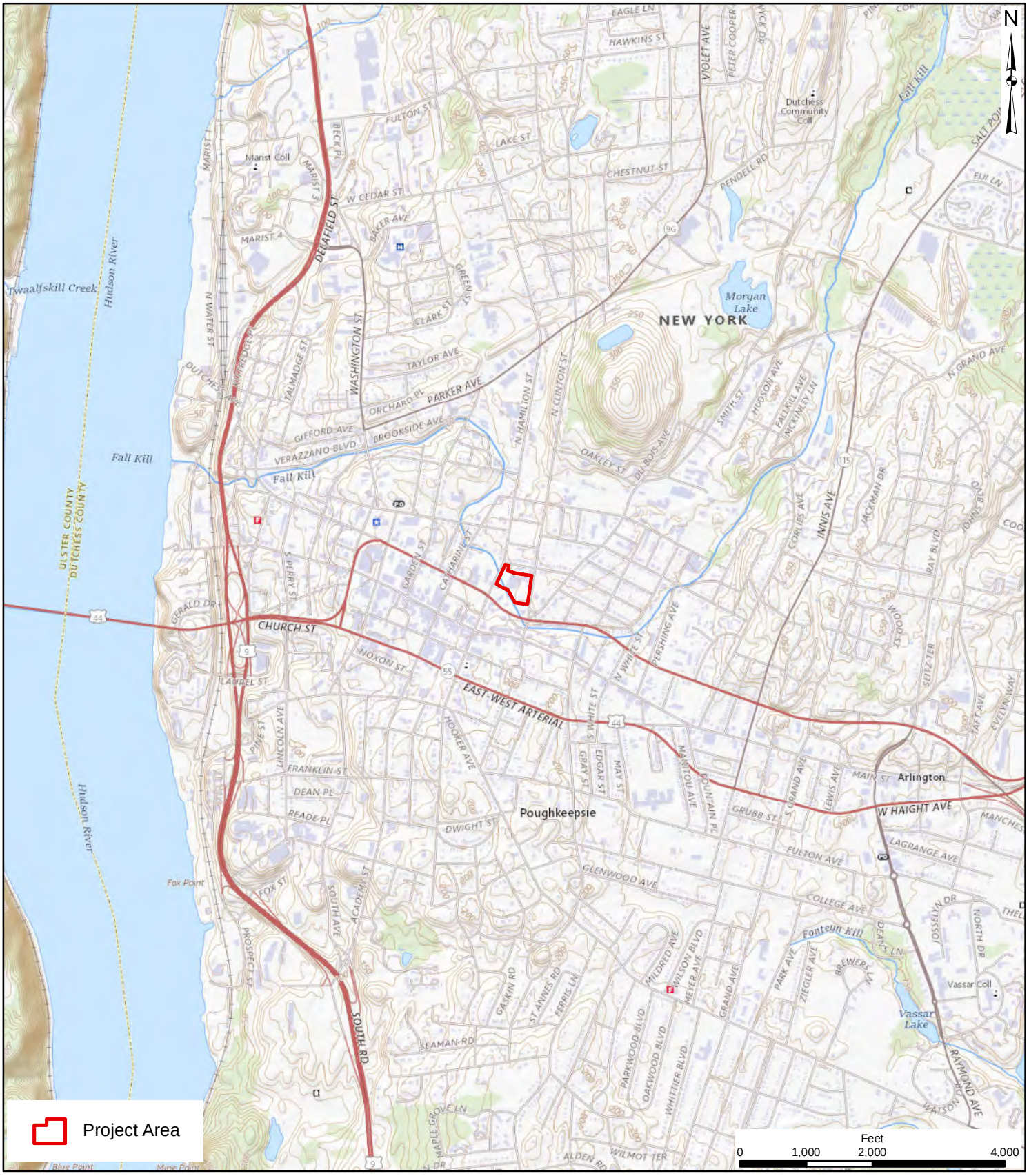
2.2 Floodways and Floodplains

The SEAF Mapper indicates that a portion of the project area is located within the 100-year floodplain (Figure 5). The proposed project consists of façade renovations and accessibility improvements, which will result in disturbance to areas mapped as floodplain. These areas will be replaced largely in kind to existing grades. Therefore, the proposed project would not result in any adverse impacts related to floodplains.

3.0 VEGETATION AND WILDLIFE

The SEAF mapper indicates that the project area does not contain any threatened or endangered animals in or around the Project Site. The NYSDEC Environmental Resource Mapper (Figure 6) also indicates that the project area is not located in the vicinity of any significant natural communities or rare plants and animals. According to the US Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Informal Species List for the project area (Attachment A), the Project Site may provide habitat for Indiana Bat, which is an endangered species in New York State. Additionally, the IPaC states that potential habitat for monarch butterflies, a candidate species, may be found on the Project Site. Candidate species are not regulated by the USFWS. The project is occurring in an urban area and will not require tree clearing; therefore, no significant adverse impacts to these species will occur.

FIGURES



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Westchester County Office:
1 North Broadway, Suite 803, White Plains, NY 10601

www.chazencompanies.com Phone: (888) 539-9073

Family Services Project

USGS Location Map

29 North Hamilton Street, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	09/30/2021
Scale:	1 inch = 2,000 feet
Project:	32195.00
Figure:	1

Document Path: E:\NY_Projects\32195\32195_USGS_8x11.mxd

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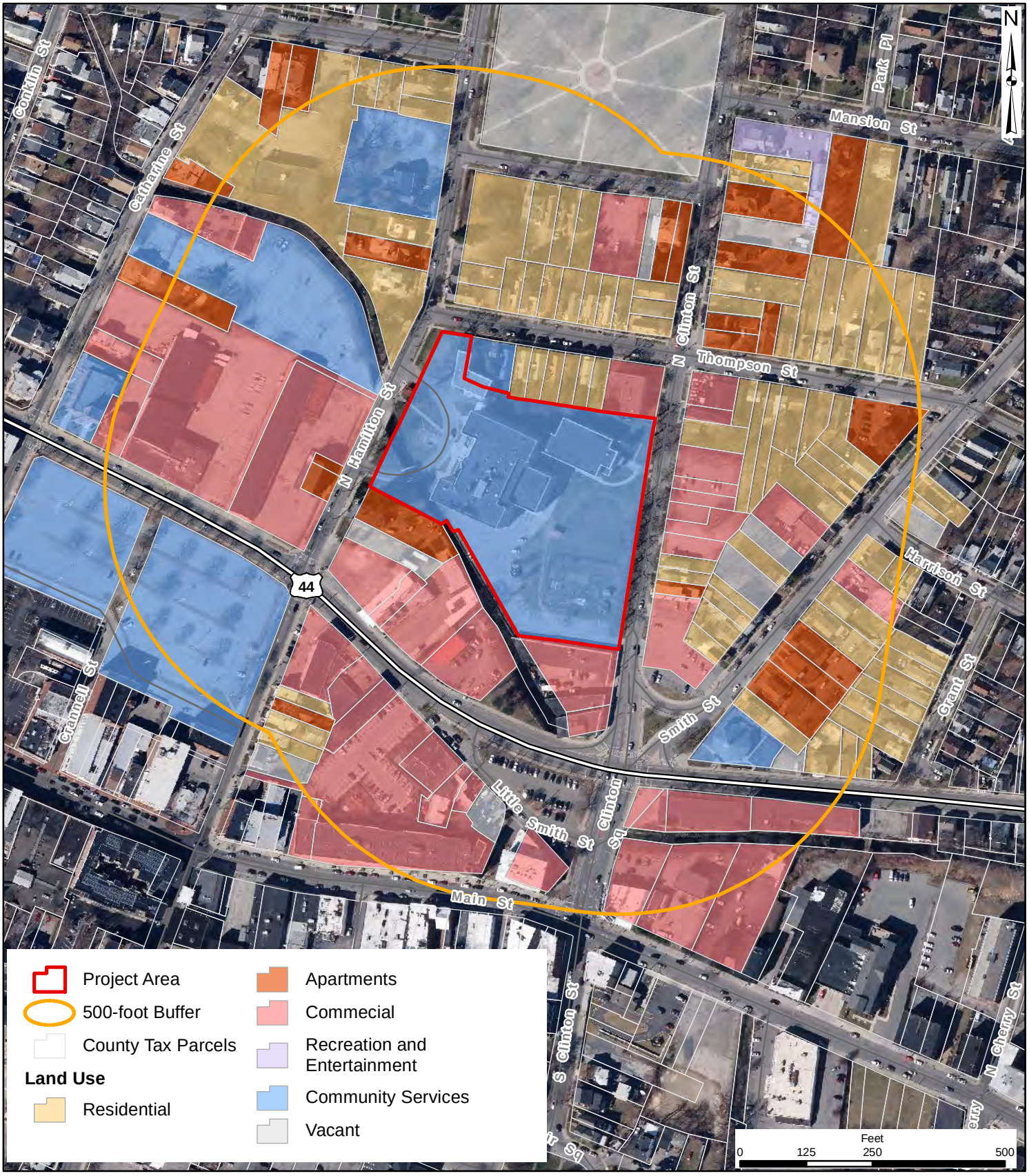
Family Services Project

Orthophoto Tax Map

29 North Hamilton Street, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	09/30/2021
Scale:	1 inch = 100 feet
Project:	32195.00
Figure:	2

Document Path: E:\NY_Projects\32195\32195_Ortho_8x11.mxd



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Family Services Project

Land Use

29 North Hamilton Street, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	09/30/2021
Scale:	1 inch = 250 feet
Project:	32195.00
Figure:	3

Document Path: E:\NY_Projects\32195\32195_LandUse_8x11.mxd

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Family Services Project

Soils

29 North Hamilton Street, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	09/30/2021
Scale:	1 inch = 100 feet
Project:	32195.00
Figure:	4

Document Path: E:\NY_Projects\32195\32195_Soils_8x11.mxd

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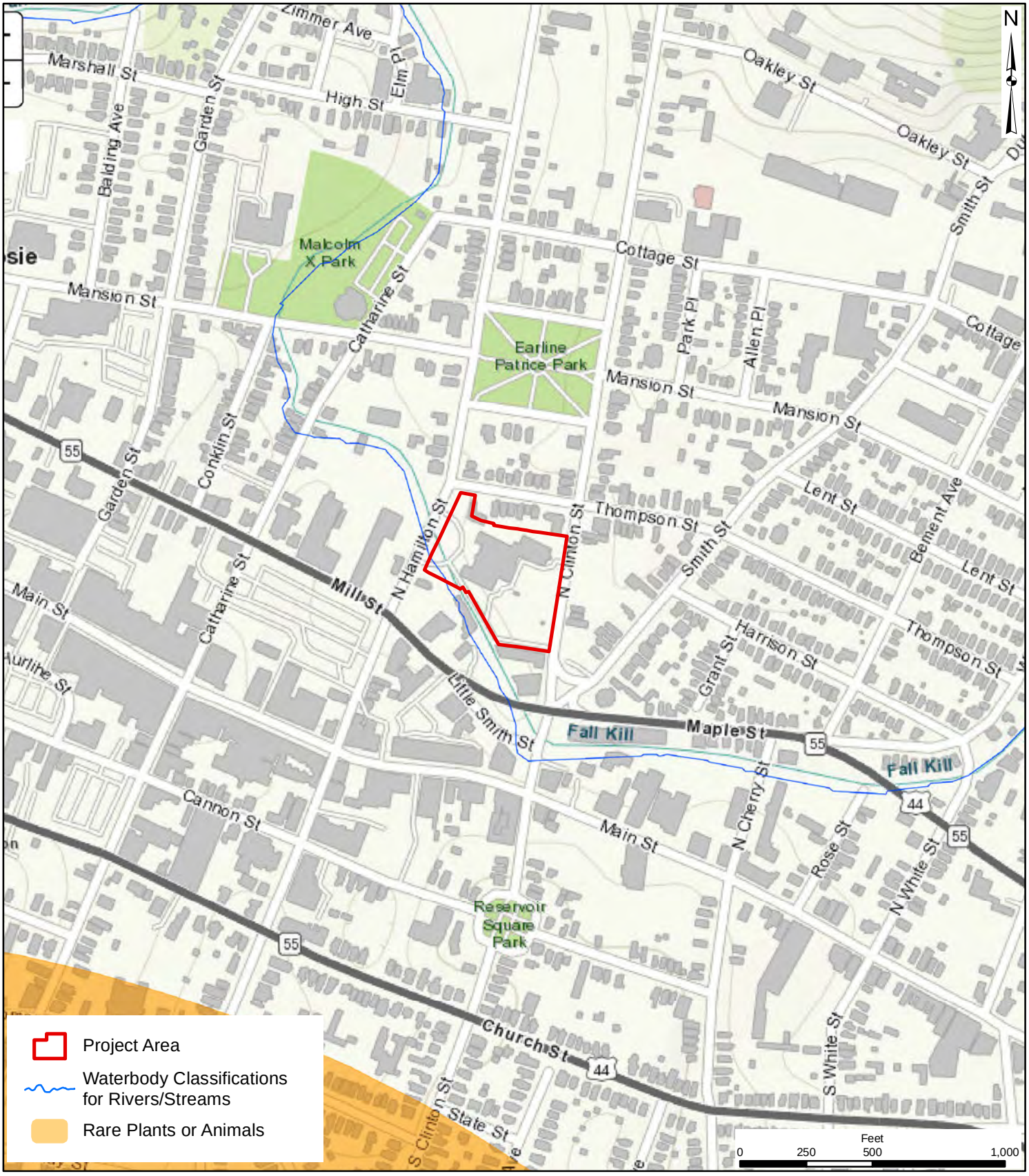
Family Services Project

Wetlands, Streams and Flood Zones

29 North Hamilton Street, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	09/30/2021
Scale:	1 inch = 250 feet
Project:	32195.00
Figure:	5

Document Path: E:\NY_Projects\32195\32195_Wetland_Stream_Flood_8x11.mxd



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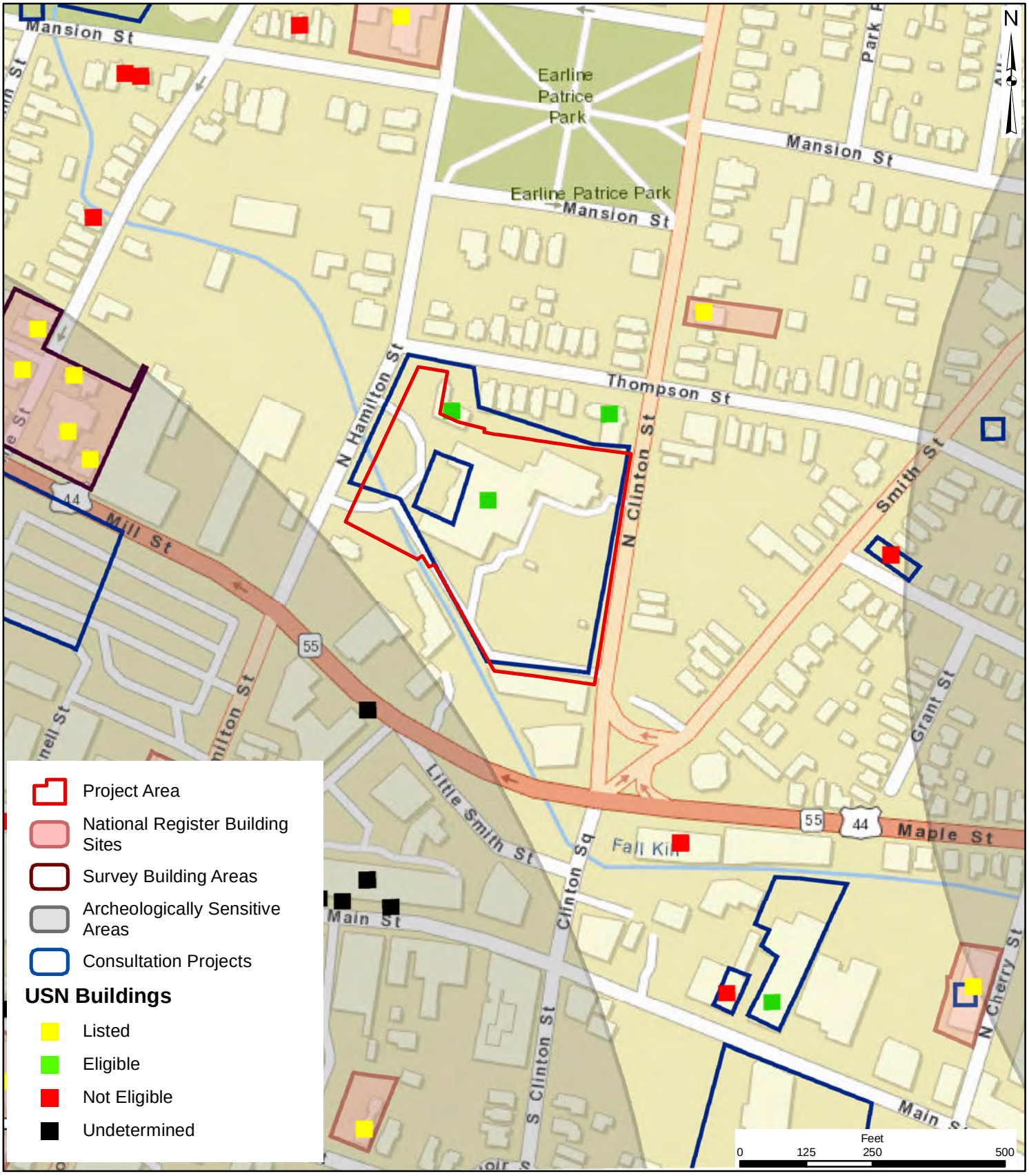
Family Services Project

NYSDEC Environmental Resource Map

29 North Hamilton Street, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	09/30/2021
Scale:	1 inch = 500 feet
Project:	32195.00
Figure:	6

Document Path: E:\NY_Projects\32195\32195_DECERM_8x11.mxd



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Family Services Project

NYSOPRHP
Cultural Resource Information System (CRIS) Map

29 North Hamilton Street, City of Poughkeepsie - Dutchess County, NY

Drawn:	RL-B
Date:	09/30/2021
Scale:	1 inch = 250 feet
Project:	32195.00
Figure:	7

Document Path: E:\NY_Projects\32195\32195_CRIS_8x11.mxd

ATTACHMENT A
USFWS Information for Planning and Consultation (IPAC)

IPaC resource list

IPaC is experiencing an issue with documents being slow to generate. We are working on the issue and hope to have it resolved soon. ×

This re habitat (collec
jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

Location

Dutchess County, New York

Local office

New York Ecological Services Field Office

(607) 753-9334
(607) 753-9699

3817 Luker Road
Cortland, NY 13045-9385

http://www.fws.gov/northeast/nyfo/es/section7.htm

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS

NOT FOR CONSULTATION

Indiana Bat Myotis sodalis Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/5949	Endangered

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

NOT FOR CONSULTATION

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NOT FOR CONSULTATION

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. http://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Blue-winged Warbler Vermivora pinus This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Canada Warbler Cardellina canadensis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Eastern Whip-poor-will Antrostomus vociferus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20

Prairie Warbler Dendroica discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

NOT FOR CONSULTATION

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

NOT FOR CONSULTATION

NOT FOR CONSULTATION

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

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Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R3UBH

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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NEW YORK STATE OF OPPORTUNITY. | Homes and Community Renewal | Housing Trust Fund Corporation

ANDREW M. CUOMO
Governor

RUTHANNE VISNAUSKAS
Commissioner/CEO

December 19, 2019

Mr. Brian Doyle
CEO
Family Services, Inc.
29 North Hamilton Street
Poughkeepsie, New York 12601

Re: New York Main Street (NYMS)
SHARS ID # 20190247
REDC CFA # 92178

Dear Mr. Doyle:

Congratulations. On behalf of Governor Andrew Cuomo and the Housing Trust Fund Corporation (HTFC), it is my pleasure to inform you that Family Services, Inc. has been awarded $490,000 in New York Main Street (NYMS) Program funds as part of the 2019 Regional Economic Development Council (REDC) Consolidated Funding Application (CFA) round.

In 2011, Governor Cuomo launched the Regional Economic Development Councils and the Consolidated Funding Application (CFA) to provide each region with the tools to create and implement their own roadmap for economic prosperity and job creation. This community-based model uses local assets to drive local economic growth and has resulted in unprecedented partnerships and collaboration that are building a reinvigorated economy.

After eight successful rounds, the 2019 CFA made over $750 million in economic development resources available from over thirty programs across ten state agencies. The programs provide resources for projects focused on community development and job creation, tourism, waterfront revitalization, energy and environmental improvements, sustainability, and low-cost financing. NYS Homes & Community Renewal is proud to have contributed $26 million to this year's Consolidated Funding Application.

Our agency will contact you shortly to outline the procedures necessary to advance the NYMS award, and satisfy the conditions of the grant agreement. Please be advised that no work can be performed, nor any cost incurred, prior to the execution of the grant agreement and approval of all required environmental review materials. HTFC reserves the right to rescind an award and deobligate funds for projects unable to satisfy all requirements.

If you applied for funding from other programs or other State agencies, you will receive information from those programs/agencies separately.

Congratulations again. We look forward to working with you on the implementation of this and other important community development projects in your community. Should you have any questions in the interim, please contact Patricia O'Reilly at (315) 478-7179 extension 205.

Sincerely,

RuthAnne Visnauskas
Commissioner/CEO

cc: Crystal Loffler, Deputy Commissioner, Office of Community Renewal