City of Poughkeepsie
Planning Board
Meeting Agenda

Common Council Chambers
Tuesday, December 20, 2022
6:00 PM

I. CALL TO ORDER

II. APPROVAL OF MEETING MINUTES

1. Approve previous meeting minutes.

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

1. 135 MAIN STREET: MULTI-FAMILY RESIDENTIAL SUBDIVISION Applications for Site Plan Review and Subdivision for subdivision of the property at 135 Main Street into two lots of record and construction of a new building containing 72 dwelling units on the new lot with the original lot containing an existing multiple dwelling with 119 units, including reconfiguration of off-street parking and open space. Owner: 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

IV. SITE PLANS/SPECIAL PERMITS/SUBDIVISIONS

1. 20-72 VASSAR FARM LANE: ACCESSORY PARKING LOT Application for site plan review relative to the proposed construction of a 40 space parking lot. Owner/Applicant: Vassar College; Consultant: LRC Engineering & Surveying, DPC; Grid #6161-02-900650; Zoning District: Research and Development (R-D) Light Industrial (I-1) District; File #PB2022-049

2. **110 SOUTH GRAND AVENUE: DAY CARE** Application for site plan review for a special permit relative to a two (2) room day care located within the building at 110 South Grand Avenue. Owner: Faith Apostolic Ministries, Inc. Applicant: Tanisha Clarke, Faith Apostolic Ministries, Administrator; Consultant: Michael R. Berta, AIA Architecture & Planning; Grid #6161-49-620556; Zoning District: R-2 Medium-Low Density Residence; File # PB2022-042

3. **SOUTH AVENUE LOT #937583: MULTI-FAMILY RESIDENTIAL BUILDING**Application for Site Plan Review for property at South Avenue lot of record #6061-52-937583 for construction of a 5-story, 87 one (1) bedroom unit, mid-rise multifamily residential development with 60 underground and 84 surface-level parking spaces. South Avenue Real Estate Associates LLC Owner/Applicant: Michael Abuladez, CEO, Argo Development; Consultant: Christopher Lapine, P.E., LEED AP, LaBella Associates; Grid #6061-52-937583; Zoning District: R-D Research and Development District; File #2022-055

4. **117 NORTH HAMILTON STREET**
   REVIEW POSTPONED TO JANUARY AT APPLICANT'S REQUEST

V. SIGN PERMITS

1. **75 N WATER STREET: MIDHUDSON DISCOVERY MUSEUM** Sign review regarding freestanding monument sign with message board. Owner/Applicant: Midhudson Discovery Museum; Consultant: GNS Sign Group; Grid #6062-66-738231; Zoning District: Waterfront District (W); File #PB2022-040

VI. OTHER BUSINESS

1. Approval of 2023 Meeting Schedule

City of Poughkeepsie Planning Board

Common Council Chambers
Tuesday, October 18, 2022 6:00 PM
DRAFT Meeting Minutes

ATTENDANCE:

Board Members
Nick DeLuccia
Marjorie Smith
Anne Saylor
Sean O'Donnell.
Brian Veltre
Rosaura Andújar-McNeil arrived late 6:08 PM

Excused
Robert Levine, Esq.
Robert Mallory

Staff
Natalie Quinn, Development Director for the City of Poughkeepsie
Lori Garcia, Board Administrative Assistant

I. CALL TO ORDER 6:01 PM

II. APPROVAL OF MEETING MINUTES

1. Approval of September 20, 2022 Minutes

   Motion: Marjorie Smith
   Second: Nick DeLuccia
   Carried:5:0:0

III. EXTENSION APPROVALS

1. **58 PARKER AVENUE: OFFICE AND OPEN SPACE** 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 #2021-045

Review was postponed to the end of the meeting.

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

1. **135 MAIN STREET: MULTIFAMILY RESIDENTIAL SUBDIVISION** Applications for Site Plan Review and Subdivision for subdivision of the property at 135 Main Street into two lots of record and construction of a new building containing 72 dwelling units on the new lot with the original lot containing an existing multiple dwelling with 119 units, including reconfiguration of off-street parking and open space. Owner: 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
   ADJOURNED UNTIL NOVEMBER 15, 2022

2. **117 NORTH HAMILTON STREET** Application for site plan review relative to the proposed wholesale storage, warehousing, manufacturing, creative, retail, contracting business. Two structures with 34 off-street parking spaces are planned. Owner: 117 N Hamilton, LLC/North Hamilton Parcel LLC; Applicant: Baxter Development Corp.; Consultant: Rohde, Soyka & Andrews, Consulting Engineers, PC; Grid #6162-63-271278/266293; Zoning District: Light Industrial (I-1) District; File #2022- 020

   Brain Veltre recused.
   Motion to open the public hearing

   Motion: Marjorie Smith
   Second: Sean O'Donnel
   Carried: 4:0:0

   No Speakers

   A motion the adjourn until November 15, 2022

   Motion: Marjorie Smith
   Second: Sean O'Donnel
   Carried: 4:0:0

Rosaura Andújar-McNeil arrived late 6:08 PM

V. SITE PLANS/SPECIAL PERMITS/SUBDIVISIONS

1. **21 FOX STREET** Application for site plan amendment relative the proposed construction of a 12x28 foot (336 square foot) storage shed in the parking lot of the property. Owner/Applicant: Fox Street Condominiums, LLC; Grid #6061-52-911953; Consultant: LaBella Associates; Zoning District: Research & Development (R&D) ; File#2022-043

Speaker Steve Alex, LaBella Associates

Mr. Alex described the project. A pre-constructed 12x28 foot shed to be used as storage for equipment currently stored on a lot that is to be sold. It is to be placed in a section of the building parking lot that is almost always empty. The shed will not be in a permanent foundation, but blocked up and leveled. It is temporary until other real estate is found that can be used as a shop and house the equipment.

Natalie Quinn discussed the Fire Department's comments that were received before the meeting regarding fire hydrants and hazardous material signage.

The board had no further questions.

Anne Saylor read the motion for approval:

With regard to our file number 2022-043, the application at 21 Fox Street.

Insofar as the Planning Board has received an application from Fox Street Condominiums, LLC for the Site Plan Amendment relative to the proposed installation of a 12 by 28 foot, that would be 336 square foot, storage shed in the parking lot of 21 Fox Street, and that the application is classified as a Type two action for the purposes of SEQRA requiring no further environmental review.

The action is more fully detailed on a site plan prepared by the Chazen companies dated October 3rd, 2022 and supplemental documentation.

I would move that the board grant site plan approval relative to the proposed installation of the 12 by 28 foot storage shed in the parking lot.

With the conditions that the information documented on the report from the fire department dated October 18th, 2022, regarding the location of the hydrants as well as some placarding and SDS sheets of disclosures as indicated, be satisfied.

Motion: Marjorie Smith
Second: Nick DeLuccia
Carried: 6:0:0

VI. EXTENSION APPROVALS (cont.)

1. **58 PARKER AVENUE: OFFICE AND OPEN SPACE** 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 #2021-045

Presenter; Caroline Aslup, project director for 58 Parker Avenue at Scenic Hudson.

Ms. Aslup explained there was a delay from the National Park Service this summer and could not start work until that was received. The applicant now has full historic tax credit approval for the project. Construction is planned to start in the Spring to avoid the upcharge for working on frozen ground.

The board had no further questions.

With regard to our file number 2021-45, that being 58 Parker Avenue office conversion.

Based upon these presentations and circumstances, I would move to extend the approval date to October 19th, 2023.

Motion: Anne Saylor
Second: Rosaura Andújar-McNeil
Carried:6:0:0

VII. PLANNING BOARD BUSINESS

1. Presentation by Development Director, Natalie Quinn, on the Draft Zoning Board Regulations.

Natalie Quinn presented details about the zoning board proposed changes.

- Board five regarding changes that are being made and how those tie back to priorities that were put in place through the comprehensive plan.
- Suggested that the board take a look at the draft and then apply the proposed zoning code to an actual parcel in the city
- Confirmed that comments are being taken on the website and logged by the consultant.

There was further discussion regarding the changes to the Zoning Code.

6:38 PM Motion to adjourn the meeting to November 15, 2022.
Motion: Marjorie Smith
Second: Rosaura Andújar-McNeil
Carried:6:0:0

For more details regarding the meeting, please visit the Meeting Webcast or the Agendas and Minutes page on the City of Poughkeepsie website.

City of Poughkeepsie Planning Board
Common Council Chambers
Tuesday, November 15, 2022 6:00 PM
DRAFT MEETING MINUTES

Attendance:
Robert Levine, Esq.
Robert Mallory
Nick DeLuccia left at 6:44
Marjorie Smith
Sean O'Donnell arrived at 6:06

Excused:
Rosaura Andújar-McNeil
Brian Veltre
Anne Saylor

Staff:
Natalie Quinn, Development Director for the City of Poughkeepsie
Lori Garcia, Board Administrative Assistant

I. CALL TO ORDER 6:05 PM

II. APPROVAL OF MEETING MINUTES

1. Approval of October 18, 2022 Minutes

Motion: Marjorie Smith
Second: Robert Mallory
Carried: 3:0:2
Motion does not pass due to two abstentions

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

1. 135 MAIN STREET: MULTIFAMILY RESIDENTIAL SUBDIVISION
Applications for Site Plan Review and Subdivision for subdivision of the property at 135 Main Street into two lots of record and construction of a new building containing 72 dwelling units on the new lot with the original lot containing an existing multiple dwelling with 119 units, including reconfiguration of off-street parking and open space. Owner: 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

APPLICATION REVIEW POSTPONED TO DECEMBER 20, 2022 MEETING

Motion to Open the Public Hearing
Motion: Marjorie Smith
Second: Robert Mallory
Carried: 5:0:0

No Speakers

Motion to Adjourn the Public Hearing and Review to December 20. 2022
Motion: Marjorie Smith
Second: Robert Mallory
Carried: 5:0:0

IV. SITE PLANS/SPECIAL PERMITS/SUBDIVISIONS

1. **117 NORTH HAMILTON STREET** Application for site plan review relative to the proposed wholesale storage, warehousing, manufacturing, creative, retail, contracting business. Two structures with 34 off-street parking spaces are planned. Owner: 117 N Hamilton, LLC/North Hamilton Parcel LLC; Applicant: Baxter Development Corp.; Consultant: Rohde, Soyka & Andrews, Consulting Engineers, PC; Grid #6162-63-271278/266293; Zoning District: Light Industrial (I-1) District; File #2022- 020

APPLICATION REVIEW POSTPONED TO DECEMBER 20, 2022 MEETING

2. **20-72 VASSAR FARM LANE** Application for site plan review relative to the proposed .77 acre permeable pavement parking lot with 40 parking spaces. Owner/Applicant Vassar College; Consultant LRC Engineering & Surveying, DPC; Grid #6161-02-900650; Zoning District Research and Development (R-D) Light Industrial (I-1) District; File #PB2022-049

Presenting:
Marianne Begemann, Dean of Strategic Planning and Academic Resources at Vassar College
Rob Morrison, LRC Group

Ms. Begemann summarized the project as the intent to create a more inviting entrance to the ecological preserve by adding a small 40 car permeable parking area 309 feet from Hooker Avenue and a pedestrian path. The area is already used for temporary parking. The parking in the back by the community gardens and sports field will remain for the gardens etc. The front lot is intended for people using the grounds for hiking, biking and other similar activities. It will also be used for the Farm Project pick-up.

The pedestrian path is intended to give pedestrians a safer route into the preserve. It is only about 5 feet wide. Bike traffic is expected to use the road for entry.

Landscaping was discussed. Because the lot is set so far back from the road, the cars won't really be seen from the road. There are some plantings shown on the plans but would request being able to limit those. The applicant feels that having them there draws attention away from the natural features and to the lot. There already are a few trees on the lot. The intent is to mow the field less frequently to allow it to grow up more naturally. It would be mowed only when needed for large events such as commencement. Because the property is not open at night, there is no proposed lighting.

Robert Levine suggested adding a slight berm to the Hooker Avenue side of the lot for some added protection from visibility but also would maintain the natural look of the field.

Marjorie Smith inquired about snow removal. Mr. Morrison stated that the permeable lots tend to retain less snow because they retain a constant higher temperature. Snow removal would be minimal.

The applicant has discussed the need for a permit from the NYS Department of Transportation because of the proximity to a state road and intersection. They will be involving the DOT and getting the required permits from them.

It was agreed that a public hearing would not be necessary.

Motion made to circulation of the application to the appropriate agencies
Motion: Marjorie Smith
Second: Sean O'Donnell
Carried: 5:0:0

V. SIGN PERMITS

1. MID-HUDSON DISCOVERY MUSEUM - 75 NORTH WATER STREET

Application for sign permit for a freestanding monument sign with a message board. Owner/Applicant Mid-Hudson Discovery Museum; Consultant GNS Sign Group; Grid #6062-66-738231; Zoning District Waterfront District (W); File #PB2022-040

Presenting: Jeff Sasson, Executive Director Mid-Hudson Discovery Museum
Nancy Forrest, GNS Group

Mr. Sasson summarized the recent history of the museum from a financial standpoint.

Robert Levine expressed great concern that the street is one of the narrowest streets in Poughkeepsie and feels that the museum cannot be overlooked when driving. The sign itself seems too large for the location. This concern was mentioned several times throughout the meeting by other members of the board.

The message screen is 6 feet wide. It allows the applicant to thank donors, announce children's birthdays, announce special events etc. Natalie Quinn reminded the applicant later that messages could only be announcing activities. The use to thank donors or to announce birthdays is prohibited by the code.

Marjorie Smith is concerned about a lighted message board being across the street from a residential piano factory building. Mr. Sasson confirmed that it would only be illuminated during office hours.

Sean O'Donnell also stated he felt the sign is larger than it needs to be. It does not seem to fit into the river front and historical nature of the area. Mr. Sasson has taken into account the historic nature of the area and has taken measures to preserve some of the historic features of the museum. Mr. Sasson stated that

another reason for the size of the sign base is to deter the use of the front of the museum to be used as a public parking area for delivery trucks etc.

Robert Levine requested that the applicant return and present the board with some other options. There is overall concern regarding the location of an illuminated sign of that size on such a narrow street and across from a residential building in a historic area. He feels it would be better to be presented with some other options before having a public hearing.

Motion was made to Adjourn Review to December 20, 2022
Motion: Marjorie Smith
Second: Sean O'Donnell
Carried: 4:0:0

7:04 PM Motion to adjourn the meeting to December 20, 2022.
Motion: Marjorie Smith
Second: Sean O'Donnell
Carried:5:0:0

For more details regarding the meeting, please visit the Meeting Webcast or the Agendas and Minutes page on the City of Poughkeepsie website.

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: 135 Main Street, Poughkeepsie, NY 12601

II. PROPERTY OWNER: Omni New York
ADDRESS: 909 Third Avenue
21st Floor
NYC, NY 10022 (state and zip code)
PHONE NUMBER: (646)502-7200 (include area code)

III. NAME OF APPLICANT: Tinkelman Architecture
ADDRESS: 25 Van Wagner Road
Poughkeepsie, NY 12603 (state and zip code)
PHONE NUMBER: 845-473-0200 ext 103 (include area code)
EMAIL ADDRESS: Tink@tinkarch.com

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

IV. CONSULTANT: Ken Casamento
ADDRESS: The LCR Group
85 Civic Center Plaza, Suite 103
Poughkeepsie, NY 12601 (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 multi-family 4/5 story residential apartment building at the corner of Main Street and North Perry Street

VI. ZONING DISTRICT: R-6

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

Revised January 2018: Previous Editions Obsolete

PROJECT INFORMATION

New construction: XX (yes) _____ (no)

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

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

Alteration: _____ (yes) XX (no)

Cost of Construction: $ $13,000,000 (Preliminary)

LOT AND BULK INFORMATION: For all Lot & Bulk Information refer to Addenda 'A' & 'B' for the two separate lots to be created.

Lot area:	Addenda 'A' & 'B'	(acres) _____ (square feet)
Building Footprint:	Addenda 'A' & 'B'	(proposed square feet for new construction)
	Addenda 'A' & 'B'	(existing square feet for change of use/expansion)
	Addenda 'A' & 'B'	(additional proposed square feet for expansion)
	Addenda 'A' & 'B'	(total building footprint, square feet)
Lot Coverage:	Addenda 'A' & 'B'	(percentage, building coverage only)
Gross Floor Area:	61,768 SF	(proposed square feet for new construction) Admiral Halsey Two - Lot One
	86,745 SF	(existing square feet for change of use/expansion) Admiral Halsey One - Lot Two
	N/A	(additional proposed square feet for expansion)
	N/A	(total gross floor area, square feet)
Building Height:	Addenda 'A' & 'B'	(stories) _____ (feet)
Floor Area Ratio:	Addenda 'A' & 'B'	(ratio of gross floor area divided by lot area)

VIII. PROJECT PARKING INFORMATION

A) Number of Off-Street Parking Spaces required: See Addenda 'A' & 'B'

B) Number of Off-Street Parking Spaces provided: See Addenda 'A' & 'B'

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

Is municipal parking available within 600 feet? _____ (Yes) XX (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?

_____ (Yes) XX (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 Family Senior Development
(Townhouse, condominium, multiple residence rental, etc.)

B) Unit Breakdown:

Number of efficiency or "studio" units: See Addenda 'A' & 'B'

Number of one (1) bedroom units: See Addenda 'A' & 'B'

Number of two (2) bedroom unit's See Addenda 'A' & 'B'

Number with three or more bedrooms: See Addenda 'A' & 'B'

Total number of units: See Addenda 'A' & 'B'

C) Is funding public? XX Yes ____ No

If yes, describe funding source: NYC Homes & Community Renewal Program

Section X is 'Not Applicable'

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

A) Number of Employees: _____

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

C) Days/Hours of Operation: _____

Section XI is 'Not Applicable'

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: _____

Section XII is 'Not Applicable'

XII. MERCANTILE PROPOSALS (Retail _____ Wholesale _____)

A) Type of Mercantile (specify): _____

B) Number of Employees: _____

C) Days/Hours of Operation: _____

Section XIII is 'Not Applicable'

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? _____

Section XIV is 'Not Applicable'

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: _____

Section XV is 'Not Applicable'

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, STEVEN TINKELMAN, 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

17 JUN 21

Date

ADDENDUM 'A'

ZONING & LAND USE REGULATIONS
Admiral Halsey Two (Proposed Lot 1)

PROPERTY ADDRESS: 135 MAIN STREET, POUGHKEEPSIE, NY 12601

ZONING DISTRICT: R-6

	REQUIRED	PROPOSED
* MINIMUM LOT AREA (ACRES)	1.33 ACRES (57,600.00 SF)	1.17 ACRES (50,782.00 SF)
MINIMUM LOT WIDTH (FEET)	100 ft	239.46 ft
MINIMUM LOT FRONTAGE (FEET)	100 ft	239.46 ft
MINIMUM FRONT YARD	20 ft	0.385 ft (CANOPY NEW BLDG.) 20.00 ft - (NEW BLDG.)
MINIMUM SIDE YARD #1	34.18 ft	73.25 ft
MINIMUM SIDE YARD #2	34.18 ft	10.31 ft
MINIMUM REAR YARD	34.18 ft	58.06 ft
MAXIMUM BUILDING HEIGHT (STORIES)	None	4/5 STORIES (68.375 FT)
MAXIMUM LOT COVERAGE	70%	25%
** MINIMUM USABLE OPEN SPACE	0.44 ACRES (19,200.00 SF)	0.12 ACRES (5,206.35 SF)
DISTANCE BETWEEN BUILDINGS ON ONE SITE	N/A	N/A
PARKING (w/ stacking) Based on 9x20 Stall Dimensions	40 SPACES	58 SPACES

*MINIMUM LOT AREA CALCULATION:

PROPOSED BUILDING:

STUDIO: 24 x 800 SF =	19,200 SF	
1 BEDROOM: 48 x 800 SF =	38,400 SF	
2 BEDROOM: 0 x 1,200 SF =	0 SF	
TOTAL REQUIRED MIN. LOT AREA =	57,600 SF	(1.33 ACRES)

TOTAL MINIMUM LOT AREA = 57,600 SF (1.33 ACRES)

**USABLE OPEN SPACE CALCULATION:

PROPOSED BUILDING:

STUDIO: 24 x 200 SF =	4,800 SF	
1 BEDROOM: 48 x 300 SF =	14,400 SF	
2 BEDROOM: 0 x 400 SF =	0 SF	
TOTAL REQUIRED USABLE OPEN SPACE =	19,200 SF	(0.44 ACRES)

TOTAL MINIMUM OPEN SPACE = 19,200 SF (0.44 ACRES)

PARKING CALCULATION

PARKING Based on 9x20 Stall Dimensions	FOR DWELLINGS DESIGNED TO BE OCCUPIED AT LEAST 90% BY PERSONS 62 YEARS OF AGE OR OLDER, 0.5 SPACES PER APARTMENT. PROPOSED BUILDING: # OF STUDIO UNITS = 24 = 24 X 0.5 = 12 SPACES # OF 1-BEDROOM UNITS = 48 = 48 X 0.5 = 24 SPACES TOTAL = 36 SPACES VISITOR: 10% OF 36 SPACES = 3.6 = 4 SPACES PROPOSED BUILDING GRAND TOTAL REQUIRED = 40 SPACES TOTAL REQUIRED FOR THE PROJECT = 40 TOTAL PROVIDED FOR THE PROJECT = 58

REQUIRED VARIANCES

1. SECTION 19-3.17(4)(a) - MINIMUM LOT AREA:
   - REQUIRED MINIMUM LOT AREA = 1.33 ACRES (57,600.00 SF)
   - PROVIDED MINIMUM LOT AREA = 1.17 ACRES (50,782.00 SF)
   - AREA SHORTFALL = 6,818 SF
2. SECTION 19-3.17(4)(e) - MINIMUM FRONT YARD.
   - FRONT YARD REQUIRED = 20.00 ft
   - FRONT YARD PROVIDED = 0.385 ft - NEW BUILDING CANOPY
   - DISTANCE SHORTFALL = 19.615 ft
3. SECTION 19-3.17(4)(f)(1) - MINIMUM SIDE & FRONT YARDS:
   - SIDE YARD #2 REQUIRED = 34.18 ft
   - SIDE YARD #2 PROVIDED = 10.31 ft
   - DISTANCE SHORTFALL = 23.87 ft
4. SECTION 19-3.15(4)(i) - REQUIRED OPEN SPACE:
   - REQUIRED OPEN SPACE = 19,200.00 SF
   - PROVIDED OPEN SPACE = 5,206.35 SF
   - OPEN SPACE SHORTFALL = 13,993.65 SF

ADDENDUM 'B'

ZONING & LAND USE REGULATIONS
Admiral Halsey One (Proposed Lot 2)

PROPERTY ADDRESS: 135 MAIN STREET, POUGHKEEPSIE, NY 12601

ZONING DISTRICT: R-6

	REQUIRED	PROPOSED
* MINIMUM LOT AREA. (ACRES)	2.185 ACRES (95,200.00 SF)	1.12 ACRES (48,773.00 SF)
MINIMUM LOT WIDTH (FEET)	100 ft	278.82 ft (NO CHANGE)
MINIMUM LOT FRONTAGE (FEET)	100 ft	278.82 ft (NO CHANGE)
MINIMUM FRONT YARD #1 (CORNER LOT)	20 ft	48.45 ft
MINIMUM FRONT YARD #2 (CORNER LOT)	20 ft	20.54 ft
MINIMUM SIDE YARD	68.04 ft	113.75 ft
MINIMUM REAR YARD	68.04 ft	34.66 ft
MAXIMUM BUILDING HEIGHT (STORIES)	None	13 STORIES (136.083 FEET)
MAXIMUM LOT COVERAGE	70%	14.2%
** MINIMUM USABLE OPEN SPACE	0.82 ACRES (35,700.00 SF)	0.205 ACRES (8,929 SF)
DISTANCE BETWEEN BUILDINGS ON ONE SITE	N/A	N/A
PARKING (w/ stacking) Based on 9x20 Stall Dimensions	66 SPACES	46 SPACES

*MINIMUM LOT AREA CALCULATION:

EXISTING BUILDING:

STUDIO: 0 x 800 SF =	0 SF	
1 BEDROOM: 119 x 800 SF =	95,200 SF	
2 BEDROOM: 0 x 1,200 SF =	0 SF	
TOTAL REQUIRED MIN. LOT AREA =	95,200 SF	(2.185 ACRES)

TOTAL REQUIRED MINIMUM LOT AREA = 95,200 SF (2.185 ACRES)

**USABLE OPEN SPACE CALCULATION:

EXISTING BUILDING:

STUDIO: 0 x 200 SF =	0 SF	
1 BEDROOM: 119 x 300 SF =	35,700 SF	
2 BEDROOM: 0 x 400 SF =	0 SF	
TOTAL REQUIRED USABLE OPEN SPACE =	35,700 SF	(0.819 ACRES)

TOTAL MINIMUM OPEN SPACE = 35,700 SF (0.819 ACRES)

PARKING CALCULATION

PARKING Based on 9x20 Stall Dimensions	FOR DWELLINGS DESIGNED TO BE OCCUPIED AT LEAST 90% BY PERSONS 62 YEARS OF AGE OR OLDER, 0.5 SPACES PER APARTMENT. EXISTING BUILDING: # OF 1-BEDROOM UNITS = 119 =119 X 0.5 = 60 SPACES TOTAL = 60 SPACES VISITOR: 10% OF 60 SPACES = 6 SPACES EXISTING BUILDING GRAND TOTAL REQUIRED = 66 SPACES TOTAL REQUIRED FOR THE PROJECT = 66 TOTAL PROVIDED FOR THE PROJECT = 46

REQUIRED VARIANCES

1. SECTION 19-3.17(4)(a) - MINIMUM LOT AREA:
   REQUIRED MINIMUM LOT AREA = 2.185 ACRES (95,200.00 SF)
   PROVIDED MINIMUM LOT AREA = 1.12 ACRES (48,773.00 SF)
   AREA SHORTFALL = 1.065 ACRES (46,427.00 SF)

2. SECTION 19-3.17 (4)(f)(1) - MINIMUM SIDE & REAR YARDS
   REAR YARD REQUIRED = 68.04 ft
   REAR YARD PROVIDED = 34.66 ft
   DISTANCE SHORTFALL = 33.38 ft

3. SECTION 19-3.15(4)(i) - REQUIRED OPEN SPACE:
   REQUIRED OPEN SPACE = 35,700.00 SF
   PROVIDED OPEN SPACE = 8,929.00 SF
   OPEN SPACE SHORTFALL = 26,771.00 SF

4. SECTION 19-4.3 - OFF-STREET PARKING.
   REQUIRED PARKING = 66
   PROVIDED PARKING = 46
   PARKING SHORTFALL = 20

TINKELMAN ARCHITECTURE

December 6, 2022

City of Poughkeepsie
62 Civic Center Plaza
Poughkeepsie, NY 12601

Attention: **Mr. Robert Levine – Chairman of the Planning Board**
Honorable Members of the City of Poughkeepsie Planning Board

RE: **135 Main Street – Site Plan Review and Subdivision**
Poughkeepsie, New York 12601
Parcel # 131300-6062-76-911183-0000

Dear Chairman Levine and Members of the Planning Board,

I hope that this letter finds you well.

As you should be aware, our meeting on November 8, 2022, with the City of Poughkeepsie Zoning Board of Appeals concluded with the Members of the Board unable to vote being that the resolution for granting the acceptance of the requested variances had not been prepared. The decision was to adjourn the vote on this to December 13, 2022 Meeting.

In preparation of that meeting, our firm is submitting this letter, with the adjoining drawings and documents, to you to be placed on the December 20th, 2022 Meeting of the City of Poughkeepsie Planning Board. The purpose is for the continuation of the process to obtain the approval of the Site Plan and Subdivision Application that was place before the Planning Board in 2021. The most recent time that our Design Team was in front of the Planning Board was on September 20, 2022, where the review of the SEQRA EAF Part II & III had been completed. At this meeting the Members of the Planning Board approved the EAF Parts II & III and adopted the Negative Declaration with the following provisions:

Submission of a revised letter from the State Historic Preservation Office (SHPO); and
The approval of a Stormwater Pollution Prevention Plan (SWPPP) by the City Engineer.

Included with this letter you will find the requested revised letter from the State Historic Preservation Office, as well as the SWPPP with a revision dated of November 29, 2022. Two copies of the SWPPP have been included with the submission due to the number of sheets associated with it. A digital copy of the Report has been included within the Supplemental File included on a flash drive. This can be distributed to the necessary reviewing agencies.

TINKELMAN ARCHITECTURE

Also, as part of this submission an updated Site Plan Set, prepared by LRC, as well as an updated Building Elevation Set, Prepared by Tinkelman Architecture has been included. These sets included adjustments that have been made to the project during the previous meeting with the Planning Board as well as the Zoning Board of Appeals. These include revisiting the Landscaping Plan pertaining to the species of plants selected as well as the incorporation of the image of the proposed gazebo that is the focal point of the common green space which is the center of the campus. Lastly, also provided to you is the Preliminary Engineering Report, revised on November 29, 2022, also prepared by LRC.

Please circulate and distribute these documents and drawings as required. If there is anything that requires further discussion, do not hesitate to contact this office. We look forward to discussing this project further with you at the December 20th Planning Board Meeting.

Kind Regards,

TINKELMAN ARCHITECTURE, PLLC.

Robert E. Turner
Project Architect

tinkarch.com • 845.473.0200
33 Arlington Avenue, 2nd Floor • Poughkeepsie, New York 12603

SITE PLAN SUBMISSION SET

FOR

ADMIRAL HALSEY 11

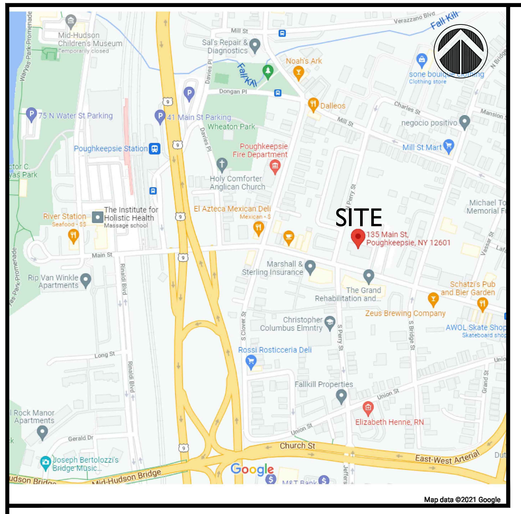
135 MAIN STREET

CITY POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

TAX MAP #6062-76-911183

ORIGINALLY SUBMITTED: JUNE 15, 2021
REVISED: DECEMBER 21, 2021
REVISED:FEBRUARY 28, 2022
REVISED:MARCH 22, 2022

REVISED: NOVEMBER 29, 2022



LOCATION MAP

SCALE: 1"=1,000'

VICINITY MAP

SCALE: 1"=200'

SITE PLANNER / CIVIL ENGINEER:

LRC GROUP

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

85 Civic Center Plaza, Suite 204
Poughkeepsie NY 12601
Tel: 845.243.2880

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

www.lrcconsult.com

- LAND PLANNING
- CIVIL ENGINEERING
- ENVIRONMENTAL SERVICES
- LAND SURVEYING
- LANDSCAPE ARCHITECTURE

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

STATE OF NEW YORK — RODNEY K. MORRISON — 074194 — LICENSED PROFESSIONAL ENGINEER

Rodney Morrison P.E. #074194

ARCHITECT:

TINKELMAN ARCHITECTURE
33 ARLINGTON AVE., 2ND FLOOR
POUGHKEEPSIE, NEW YORK 12603
(845) 473-0200

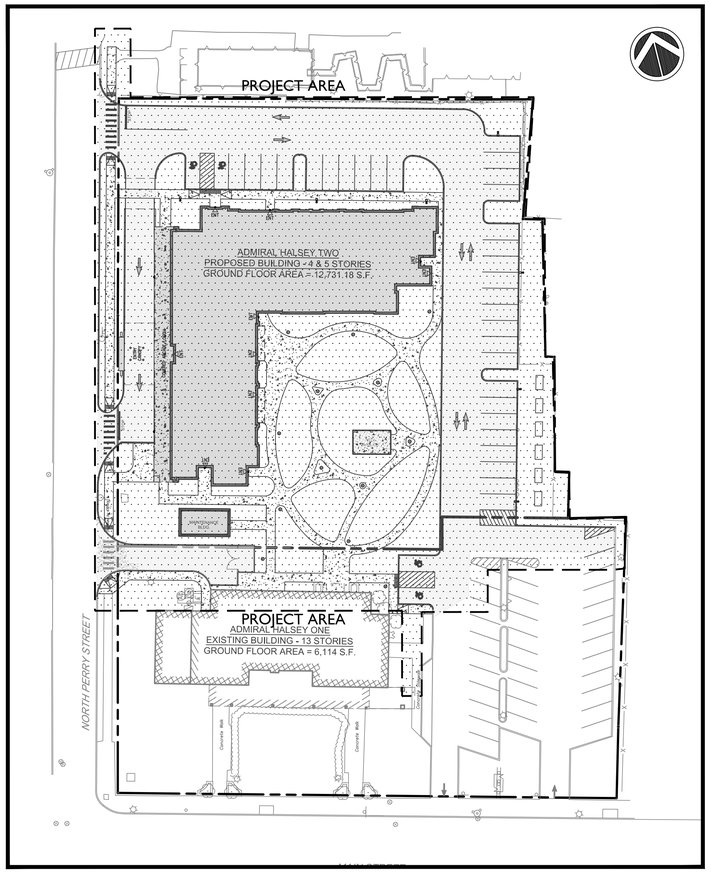
TA — TINKELMAN ARCHITECTURE
33 Arlington Ave., 2nd Floor
Poughkeepsie,
New York 12603
(845)473 - 0200
www.tinkarch.com

OWNER / APPLICANT:

OMNI NEW YORK
909 THIRD AVENUE
21ST FLOOR
NEW YORK CITY, NEW YORK 10022
(646) 502-7200

Omni New York LLC

Omni America LLC



OVERALL SITE PLAN

SCALE: 1"=40'

INDEX OF DRAWINGS

CV-1	COVER SHEET
EX-1	EXISTING CONDITIONS
SUB-1	SUBDIVISION PLAT
DM-1	DEMOLITION PLAN
SP-1	SITE PLAN
SG-1	SITE GRADING
SD-1	SITE DRAINAGE
UT-1	UTILITIES PLAN
EC-1	EROSION & SEDIMENTATION CONTROL PLAN
LL-1	LANDSCAPE PLAN
LP-1	SITE LIGHTING PLAN
TT-1	TRUCK TURNING PLAN
NS-1	NOTES SHEET
DN-1	SITE DETAILS
DN-2	SANITARY / WATER DETAILS
DN-3	STORMWATER DETAILS
DN-4	EROSION CONTROL DETAILS

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

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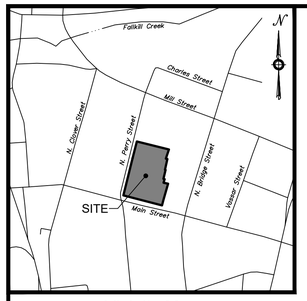
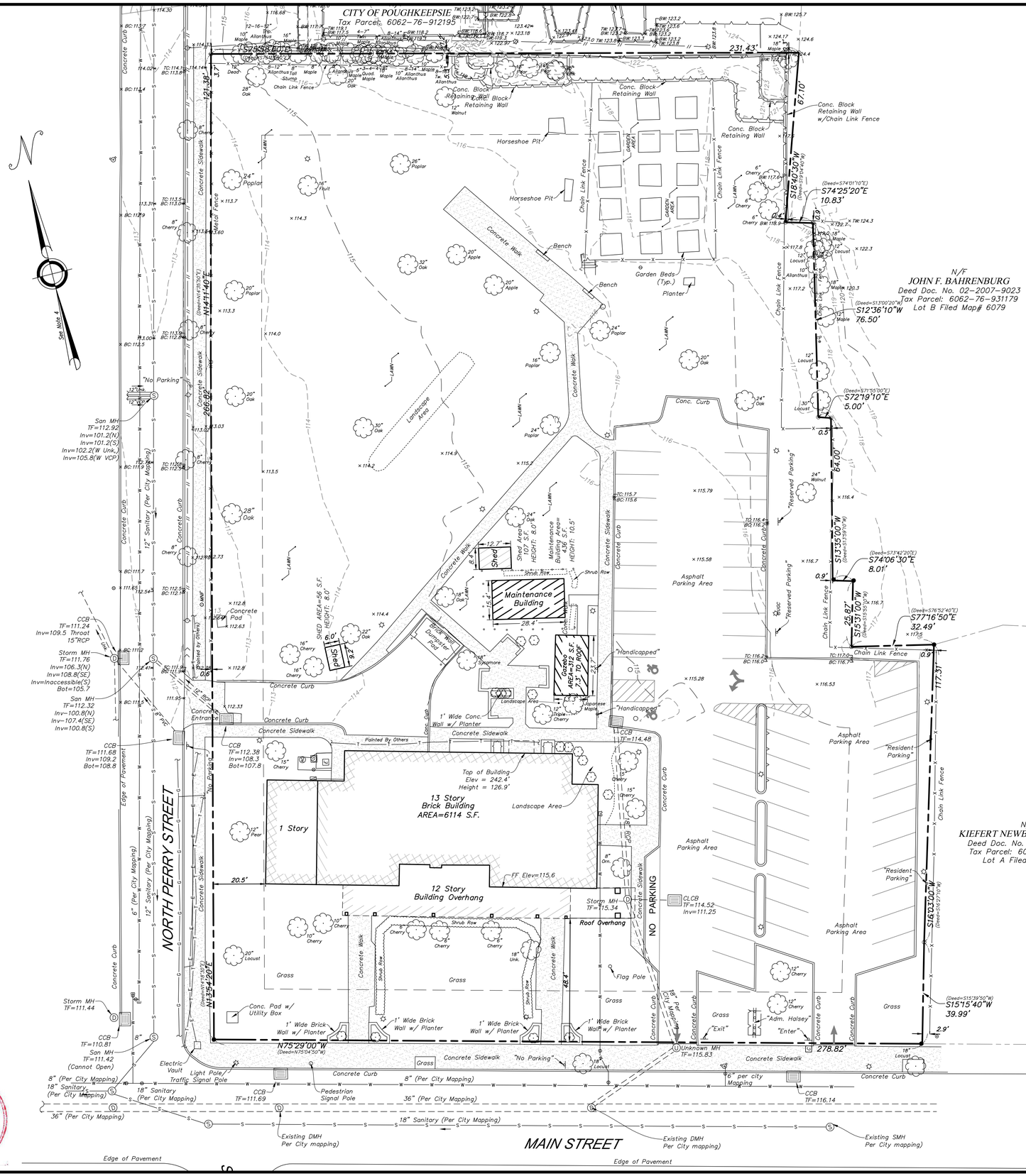


Vicinity Map

Scale: 1"=500'



Legend

Property Line		Iron Pin, Pipe, Rebar, Drill Hole	
Index Contour	200	Calculated Property Corner	
Intermediate Contour		Sign	
Treeline		Bollard	
Hedge/Shrub Line		Existing Spot Grade	×234.0
Retaining Wall		Guy Wire	
Fence		Utility Pole	
Storm Sewer		Water Valve	WV
Sanitary Sewer		Hydrant	HYD
Water Main		Gas Valve	GV
Gas Main		Drainage Manhole	D
Electric Line		Sanitary Manhole	S
Telephone Line		Electric Manhole	E
Overhead Wire		Telephone Manhole	T
		Manhole, Utility Type Unknown	U
		Lamp Post	
		Catch Basin	
		Curbless Catch Basin	
		Deciduous Tree	
		Shrub	
		Handicap Parking	
		Soil Boring	
		Now or Formerly (in Title of)	N/F
		Bituminous Concrete Surface	
		Concrete Surface	

Map Notes

1. Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub-division 2, of the New York State Education Law.
2. Only copies from the original of this survey marked with an original of the land surveyor's seal shall be considered to be a true copy.
3. The above certification shall run only to the person for whom the survey is prepared , and on his behalf to the title company, governmental agency and lending institution. Certifications are not transferable to additional institutions or subsequent owners.
4. North Arrow & Bearings are referenced to the North American Datum of 1983 (NAD83) projected onto the New York State Plane East Zone based on field tie-in to map referenced in Note 7A.
5. Elevations & Contours are referenced to the North American Vertical Datum of 1988 (NAVD88) based on field tie-in to map referenced in Note 7A.
6. Field survey was completed on November 8, 2021.
7. Reference is made to the following maps:
   A. "ALTA/NSPS Land Title Survey Prepared for OMNI New York LLC, City of Poughkeepsie, County of Dutchess, New York", scale 1"=20', dated July 2, 2020, prepared by Chazen Engineering, Land Surveying & Landscape Architecture, Co., D.P.C.
8. Parcel is identified as Tax Section 6062, Block 76, Lot 911183 on the City of Poughkeepsie Assessor's Map.
9. Property is located in Zone "Other Areas – Zone X" (areas determined to be outside the 0.2% annual chance floodplain) as depicted on Flood Insurance Rate Map (FIRM) Panel 0358E, Dutchess County, New York, City of Poughkeepsie, Community Number 360222, Map Number 36027C0358E, effective date: May 2, 2012.
10. The subsurface utilities depicted hereon conform to the following Utility Quality Levels, as defined by the American Society of Civil Engineers (ASCE) in Document CI/ASCE 38-02 titled "Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data":
    - Sanitary Sewer: QLC
    - Storm Sewer: QLC
    - Water: QLC and QLD
    - Natural Gas: QLC and QLD
    - Electric: QLC and QLD
    - Communications: QLC and QLD

    The subsurface utilities were compiled from parol evidence, record drawings, and surficial evidence located during the field survey. The Surveyor has not physically exposed the subsurface utilities, and makes no guarantee that the subsurface utilities depicted hereon comprise all such utilities within the surveyed area, either in service or abandoned. The Surveyor further does not warrant or guarantee that the subsurface utilities are in the exact location depicted, though they have been plotted, in accordance with the standard of care, from information available.

    The contractor is required to utilize the local utility one call system prior to excavation for the purpose of verifying the subsurface utilities in the area.

Certification

I hereby declare this map to be prepared in accordance with the Code of Practice of the New York State Association of Land Surveyors, adopted October, 1996 and revised through July 18, 1997.

STATE OF NEW YORK · JOHN F. WAGENBLATT · 050547 · LICENSED LAND SURVEYOR

JOHN F. WAGENBLATT, L.S. Lic. No. 050,547

Deed References

Deed Doc. No.
02-2007-7084

Total Parcel Area

2.29 Acres

GRAPHIC SCALE

20 0 10 20 40 80

(FEET)
1 inch = 20 ft.

#	Date	Description
4	7/6/2022	REVISED PER COMMENTS
5	7/15/2022	REVISED PER COMMENTS
6	7/25/2022	REVISED PER COMMENTS
7	09/19/2022	REVISED PER TD COMMENTS
8	11/29/2022	REVISED PER COMMENTS

Revisions

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

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

85 Civic Center Plaza, Suite 204
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Tel: 845.243.2880

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

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

MAP OF EXISTING CONDITIONS

ADMIRAL HALSEY II

135 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	BS	CAD File	EX21273001.dwg	Sheet No.
Drawn	SMC	Project No.	20-2370	EX-1
Checked	KFC	Date	2021-06-22	
Approved	REM	Scale	1"=20'	

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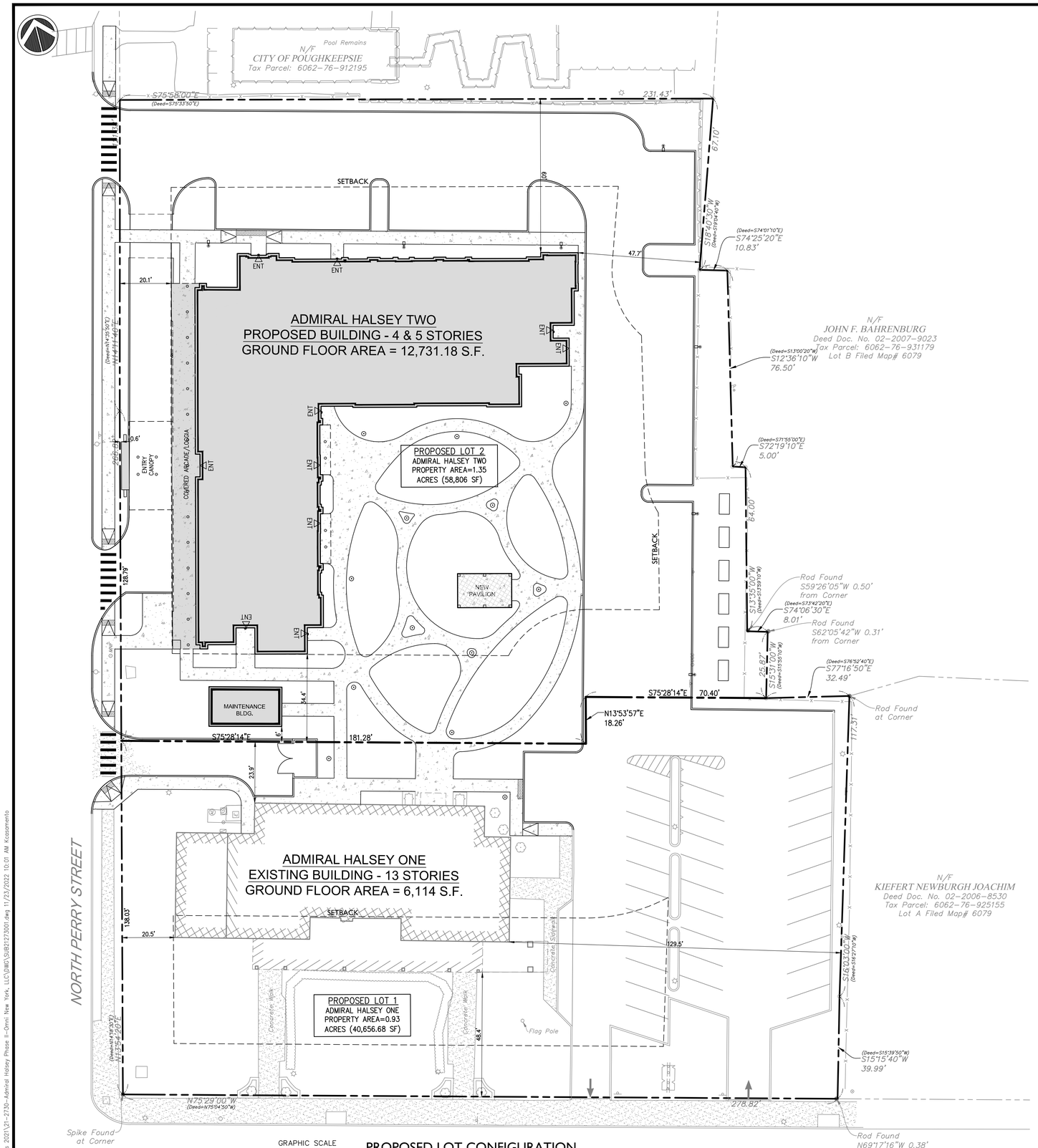
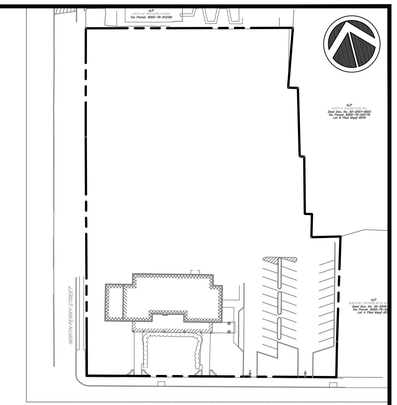


GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

PROPOSED LOT CONFIGURATION

1"=20'



EXISTING LOT CONFIGURATION

1"=80'

GRAPHIC SCALE
80 40 0 80
SCALE IN FEET

LOT AREA CHART

PROPOSED LOT #	AREA
1	40,656.68 SF OR 0.93 AC.
2	58,899.04 SF OR 1.35 AC.
TOTAL	99,555.72 SF OR 2.28 AC.

DUTCHESS COUNTY DEPARTMENT OF HEALTH NOTE

THIS PLAN DOES NOT CONSTITUTE A REALTY SUBDIVISION AS DEFINED BY ARTICLE XI, TITLE II, SECTION 1115, OF THE PUBLIC HEALTH LAW OF THE STATE OF NEW YORK, AND ARTICLE XI OF THE DUTCHESS COUNTY SANITARY CODE.

PERMISSION IS HEREBY GRANTED FOR THE FILING OF THIS MAP WITH THE CLERK OF DUTCHESS COUNTY. APPROVAL FOR ARRANGEMENTS FOR WATER SUPPLY AND / OR SANITARY DISPOSAL IS NEITHER SOUGHT NOR GRANTED.

AUTHORIZED REPRESENTATIVE OF THE COMMISSIONER OF HEALTH — DATE

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 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

ZONING R-6

#	Date	Description
4	7/6/2022	REVISED PER COMMENTS
5	7/15/2022	REVISED PER COMMENTS
6	7/25/2022	REVISED PER COMMENTS
7	09/19/2022	REVISED PER FD COMMENTS
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LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

SUBDIVISION PLAT

ADMIRAL HALSEY II

135 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	BS	CAD File	SUB21273001.dwg	Sheet No.
Drawn	SMC	Project No.	20-2370	SUB-1
Checked	KFC	Date	2021-06-22	
Approved	REM	Scale	AS NOTED	

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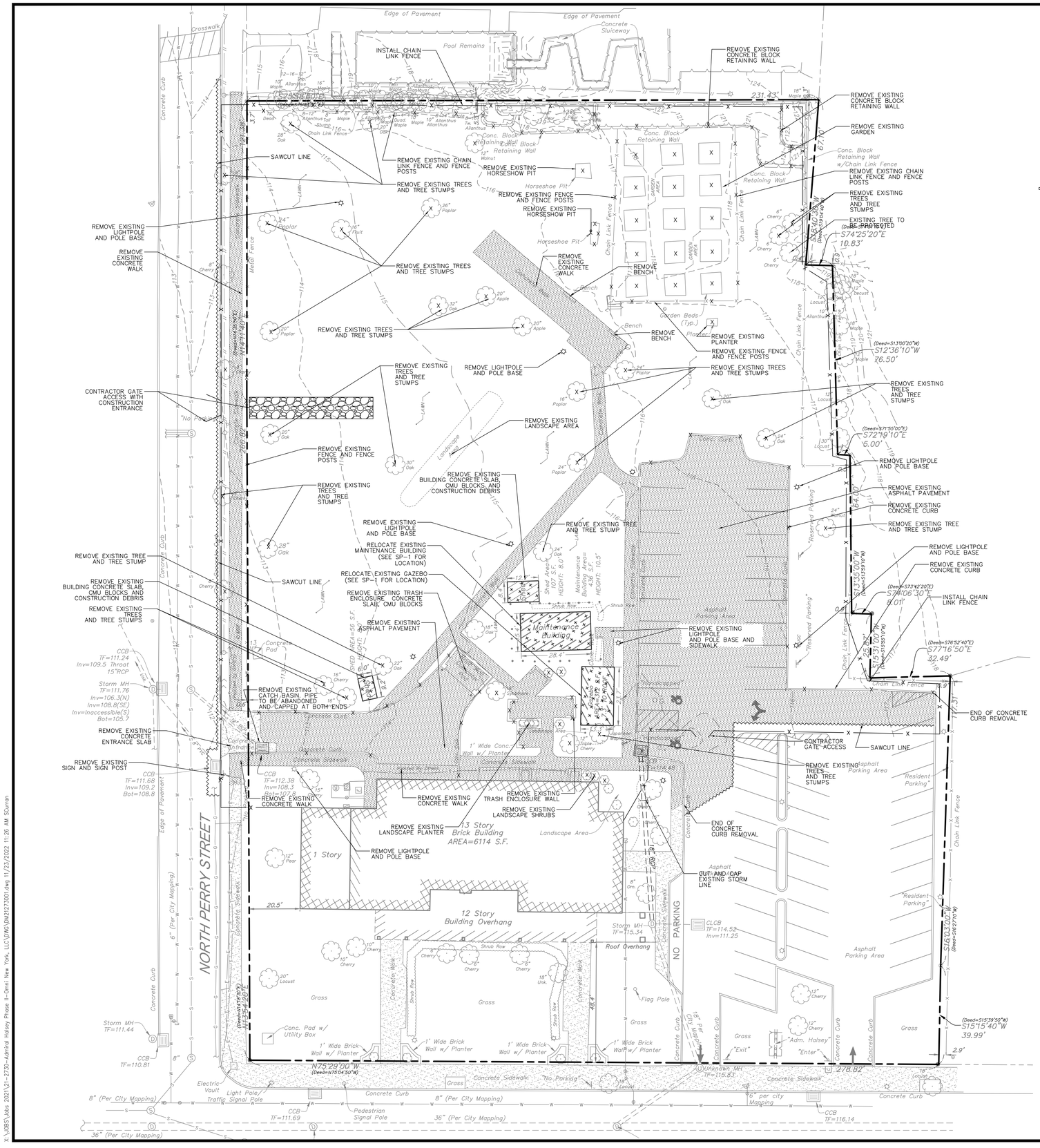

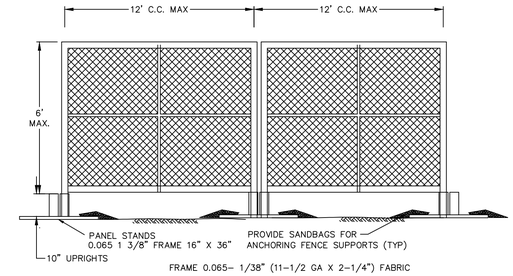

TEMPORARY CHAIN LINK FENCE

NOT TO SCALE

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.
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 SELECTIVE DEMOLITION OPERATIONS AND REMOVE DEBRIS TO ENSURE MINIMUM INTERFERENCE WITH WORK.
21. 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.
22. 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.
23. 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.
24. 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.
25. 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.
26. NO BLASTING IS PROPOSED FOR THE PROJECT.
27. A MINIMUM OF TEN FEET OF EXISTING PIPE SHALL BE REMOVED AROUND ALL EXISTING MANHOLES, WHERE NEW PIPES ARE PROPOSED TO CONNECT.
28. 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.

DEMOLITION LEGEND:

X X X X X X X	ITEM(S) TO BE REMOVED
	BUILDING / STRUCTURE TO BE REMOVED
	PAVEMENT / CONCRETE WALK TO BE REMOVED
	APPROXIMATE SAWCUT LINE

GRAPHIC SCALE

20 10 0 20

SCALE IN FEET

STATE OF NEW YORK · RODNEY E. MORRISON · 074194 · LICENSED PROFESSIONAL ENGINEER

#	Date	Description
4	7/6/2022	REVISED PER COMMENTS
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7	09/19/2022	REVISED PER FD COMMENTS
8	11/29/2022	REVISED PER COMMENTS

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

85 Civic Center Plaza, Suite 204
Poughkeepsie NY 12601
Tel: 845.243.2880

1 International Blvd, Suite 400
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Tel: 908.603.5730

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DEMOLITION PLAN

ADMIRAL HALSEY II

135 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	BS	CAD File	DM21273001.dwg	Sheet No.	DM-1
Drawn	SMC	Project No.	20-2370		
Checked	KFC	Date	2021-06-22		
Approved	REM	Scale	1"=20'		

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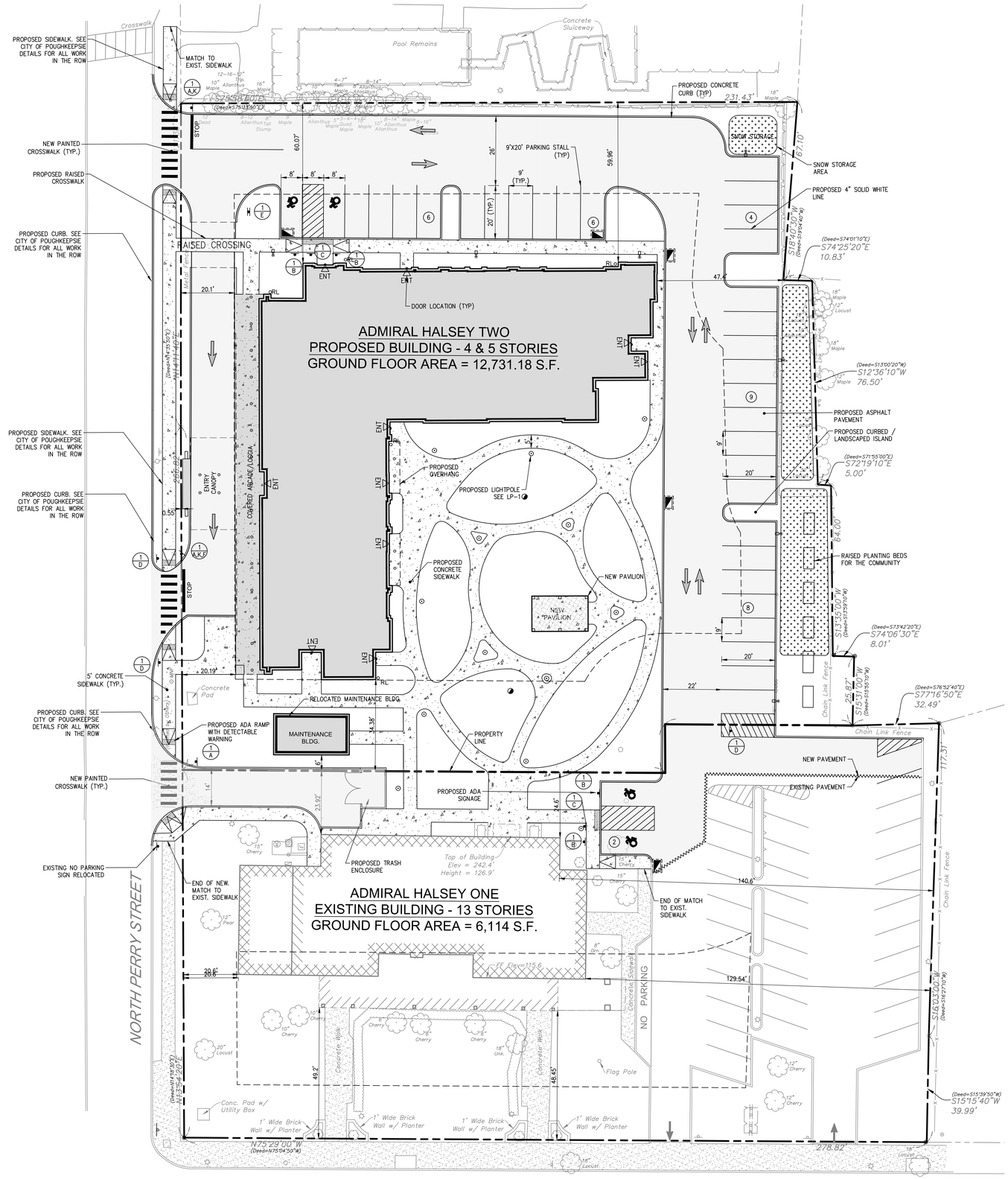

ZONING SUMMARY TABLE
ADMIRAL HALSEY ONE (PROPOSED LOT 1)

ZONING INFORMATION		
ASSESSOR'S LOCATION	6162-76-911183	
ZONING DISTRICT	R-6 DISTRICT	

ITEM	REQUIRED	PROPOSED
MINIMUM LOT AREA (1)	2.19 ACRES (95,200 SF)	0.93 ACRES ** (40,663.84 SF)
MINIMUM LOT WIDTH	100 FT	278.82 FT
MINIMUM FRONTAGE	100 FT	278.82 FT
BUILDING SETBACKS FRONT YARD #1 (MAIN ST) FRONT YARD #2 (N. PERRY) SIDE YARD REAR YARD	 20 FT 20 FT 68.04 FT 68.04 FT	 48.45 FT 20.60 FT 129.54FT. 23.92 FT **
MAXIMUM BUILDING HEIGHT (STORIES)	NONE	13
MAXIMUM LOT COVERAGE (%)	70%	19.3% BLDG/ 64.5% IMP. TOTAL
MINIMUM USEABLE OPEN SPACE (3)	0.82 ACRES (35,700 SFT)	0.36 ACRES ** (16,026 SF)
DISTANCE BETWEEN BUILDINGS ON ONE SITE	N/A	N/A
PARKING	66 SPACES	35 SPACES **

(1) MINIMUM LOT AREA CALCULATION:
EXISTING BUILDING
STUDIO APARTMENTS 0x800 SF = 0 SF
1 BEDROOM APARTMENTS: 119x800 SF = 95,200 SF
2 BEDROOM APARTMENT: 0x1200 SF = 0 SF
TOTAL REQUIRED LOT AREA = 95,200 SF (2.19 ACRES)

(2) REAR AND SIDE YARD SETBACKS ARE CALCULATED BASED ON ONE HALF OF THE BUILDING HEIGHT.

(3) MINIMUM USEABLE OPEN SPACE CALCULATION REQUIREMENT:
EXISTING BUILDING:
STUDIO 0x200 SF = 0 SF
1 BEDROOM: 119x300 SF = 35,700 SF
2 BEDROOM: 0x400 SF = 0 SF
TOTAL REQUIRED MIN. USEABLE OPEN SPACE = 35,700 SF (0.82 ACRES)

PARKING CALCULATION

FOR DWELLINGS DESIGNED TO OCCUPIED A LEAST 90% BY PERSONS 62 YEARS OF AGE OR OLDER, 0.5 SPACES PER APARTMENT

EXISTING BUILDING
# OF 1 BEDROOM UNITS = 119 = 119 x 0.5 = 60 SPACES
TOTAL = 60 SPACES REQUIRED

VISITOR: 10% OF 60 SPACES = 6 SPACES

TOTAL SPACES REQUIRED = 66 SPACES

**REQUIRED VARIANCES

1. SECTION 19-3.17(4)(a) – MINIMUM LOT AREA
REQUIRED MINIMUM LOT AREA = 2.19 ACRES
PROVIDED MINIMUM LOT AREA = 0.93 ACRES
VARIANCE REQUIRED = 1.26 ACRES

2. SECTION 19-3.17(4)(f)(1) – MINIMUM REAR YARD SETBACKS
REQUIRED REAR YARD SETBACK = 68.04 FT
PROVIDED REAR YARD SETBACK = 23.92 FT
VARIANCE REQUIRED =44.12 FT

3. SECTION 19-3.15(4)(i) – REQUIRED OPEN SPACE
REQUIRED OPEN SPACE = 35,700 SF
PROVIDED OPEN SPACE = 16,026 SF
VARIANCE REQUIRED = 19,674 SF

3a. SECTION 19-4.13 ACCESSORY USE FRONT YARD
OPEN SPACE FRONT YARD = 12,215 SF
VARIANCE REQUIRED = 12,215 SF

4. SECTION 19-4.3 – OFF-STREET PARKING
REQUIRED PARKING SPACES = 66 SPACES
PROVIDED PARKING SPACES = 35 SPACES
VARIANCE REQUIRED = 31 SPACES

SEE SHEET DN-4 FOR OPEN SPACE PLAN

ZONING SUMMARY TABLE
ADMIRAL HALSEY TWO (PROPOSED LOT 2)

ZONING INFORMATION	
ASSESSOR'S LOCATION	MAP XX BLOCK XX LOT XX
ZONING DISTRICT	R-6 DISTRICT

ITEM	REQUIRED	PROPOSED
MINIMUM LOT AREA (1)	1.33 ACRES (57,600 SF)	1.35 ACRES (58,883.43 SF)
MINIMUM LOT WIDTH	100 FT	250.16 FT
MINIMUM FRONTAGE	100 FT	250.16 FT
BUILDING SETBACKS FRONT YARD #1 (N. PERRY) FRONT YARD #2 (N. PERRY) SIDE YARD (2) SIDE YARD (2) (MAINT. BLDG) REAR YARD (2)	 20 FT 20 FT 34.18 FT 6 FT 34.18 FT	 0.55 FT (CANOPY NEW BUILDING)** 20.1 FT (NEW BUILDING) 59.96 FT 6 FT 47.4 FT
MAXIMUM BUILDING HEIGHT (STORIES)	NONE	4/5
MAXIMUM LOT COVERAGE (%)	70%	24.4% BLDG / 67.4% TOTAL IMP.
MINIMUM USEABLE OPEN SPACE (3)	0.44 ACRES (19,200 SFT)	0.46 ACRES (20,154 SF)
DISTANCE BETWEEN BUILDINGS ON ONE SITE	N/A	N/A
PARKING	40 SPACES	33 SPACES

(1) MINIMUM LOT AREA CALCULATION:
EXISTING BUILDING
STUDIO APARTMENTS 24x800 SF = 19,200 SF
1 BEDROOM APARTMENTS: 48x800 SF = 38,400 SF
2 BEDROOM APARTMENT: 0x1200 SF = 0 SF
TOTAL REQUIRED LOT AREA = 57,600 SF (1.33 ACRES)

(2) REAR AND SIDE YARD SETBACKS ARE CALCULATED BASED ON ONE HALF OF THE BUILDING HEIGHT.

(3) MINIMUM USEABLE OPEN SPACE CALCULATION REQUIREMENT:
EXISTING BUILDING:
STUDIO 24x200 SF = 4,800 SF
1 BEDROOM: 48x300 SF = 14,400 SF
2 BEDROOM: 0x400 SF = 0 SF
TOTAL REQUIRED MIN. USEABLE OPEN SPACE = 19,200 SF (0.44 ACRES)

PARKING CALCULATION

FOR DWELLINGS DESIGNED TO OCCUPIED A LEAST 90% BY PERSONS 62 YEARS OF AGE OR OLDER, 0.5 SPACES PER APARTMENT
PROPOSED BUILDING
# OF STUDIO UNITS = 24 = 24 x 0.5 = 12 SPACES
# OF 1 BEDROOM UNITS = 48 = 48 x 0.5 = 24 SPACES
TOTAL = 36 SPACES REQUIRED
VISITOR: 10% OF 36 SPACES = 3.6 SPACES= 4 SPACES
TOTAL SPACES REQUIRED = 40 SPACES

**REQUIRED VARIANCES

1. SECTION 19-3.17(4)(e) – MINIMUM FRONT YARD SETBACKS
REQUIRED FRONT YARD SETBACK = 20 FT
PROVIDED FRONT YARD SETBACK = 0.55 FT – NEW BUILDING CANOPY
VARIANCE REQUIRED = 19.45 FT

2. SECTION 19-4.3 – OFF-STREET PARKING
REQUIRED PARKING SPACES = 40 SPACES
PROVIDED PARKING SPACES = 33 SPACES
VARIANCE REQUIRED = 7 SPACES

SIGN LEGEND

NO.	LEGEND	QTY.
A	STOP	3
B	RESERVED PARKING	4
C	NO PARKING ANYTIME	2
D	DO NOT ENTER	3
E	ONE WAY	1
F	ONE WAY	1
K	NO RIGHT TURN	2

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STATE OF NEW YORK · ROBERT E. MORRISON · 074156 · LICENSED PROFESSIONAL ENGINEER

SITE PLAN

ADMIRAL HALSEY II

135 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

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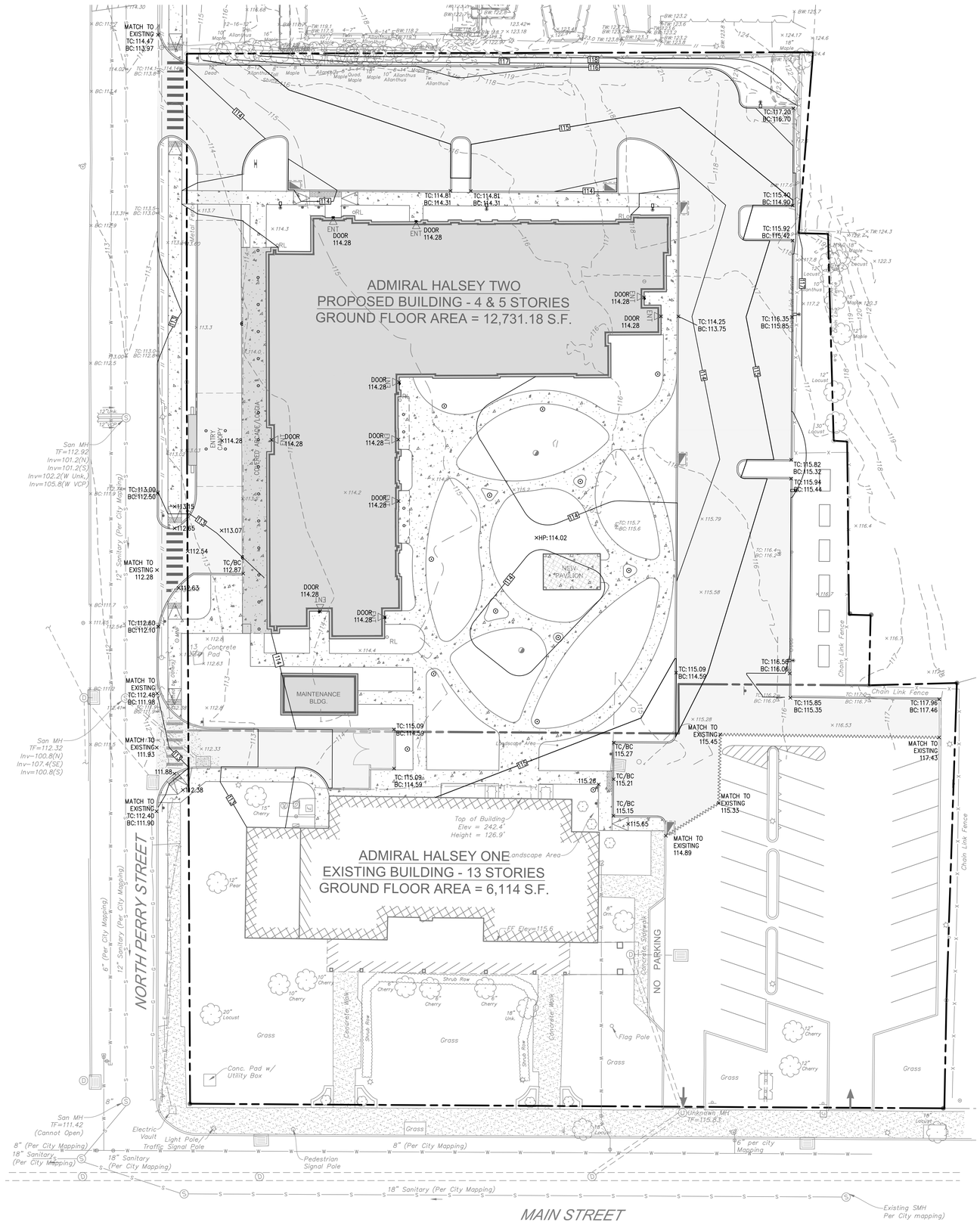

COMPACTION AND BACKFILL NOTES

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

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

STATE OF NEW YORK · RODNEY E. MORRISON · 074196 · LICENSED PROFESSIONAL ENGINEER

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SITE GRADING PLAN

ADMIRAL HALSEY II

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DUTCHESS COUNTY, NEW YORK

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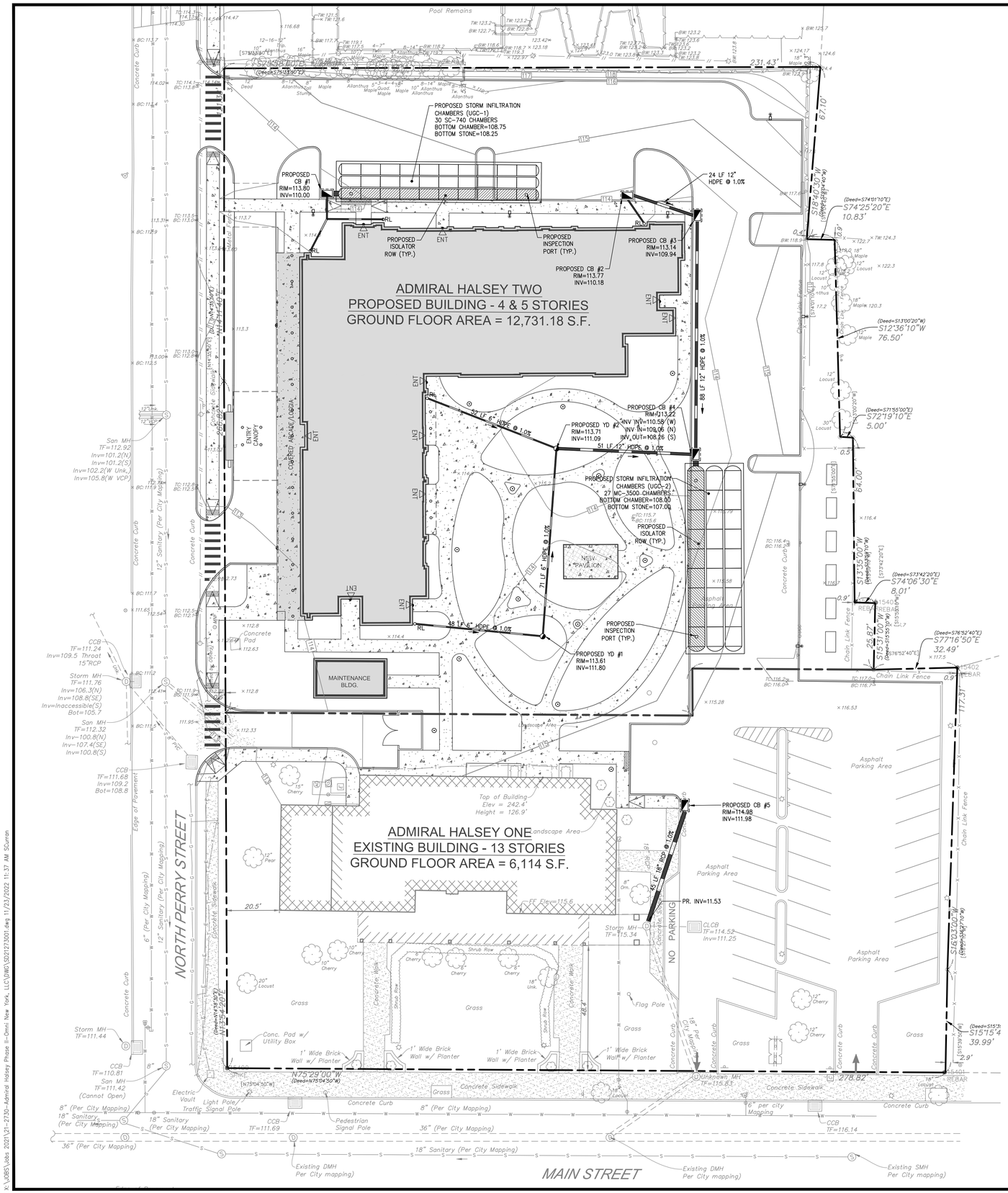

LEGEND

PROPOSED ASPHALT

PROPOSED STORM PIPE

GRAPHIC SCALE

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Cromwell, CT 06416
Tel: 860.635.2877

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Poughkeepsie NY 12601
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Mahwah, NJ 07495
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SITE DRAINAGE PLAN

ADMIRAL HALSEY II

135 MAIN STREET
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DUTCHESS COUNTY, NEW YORK

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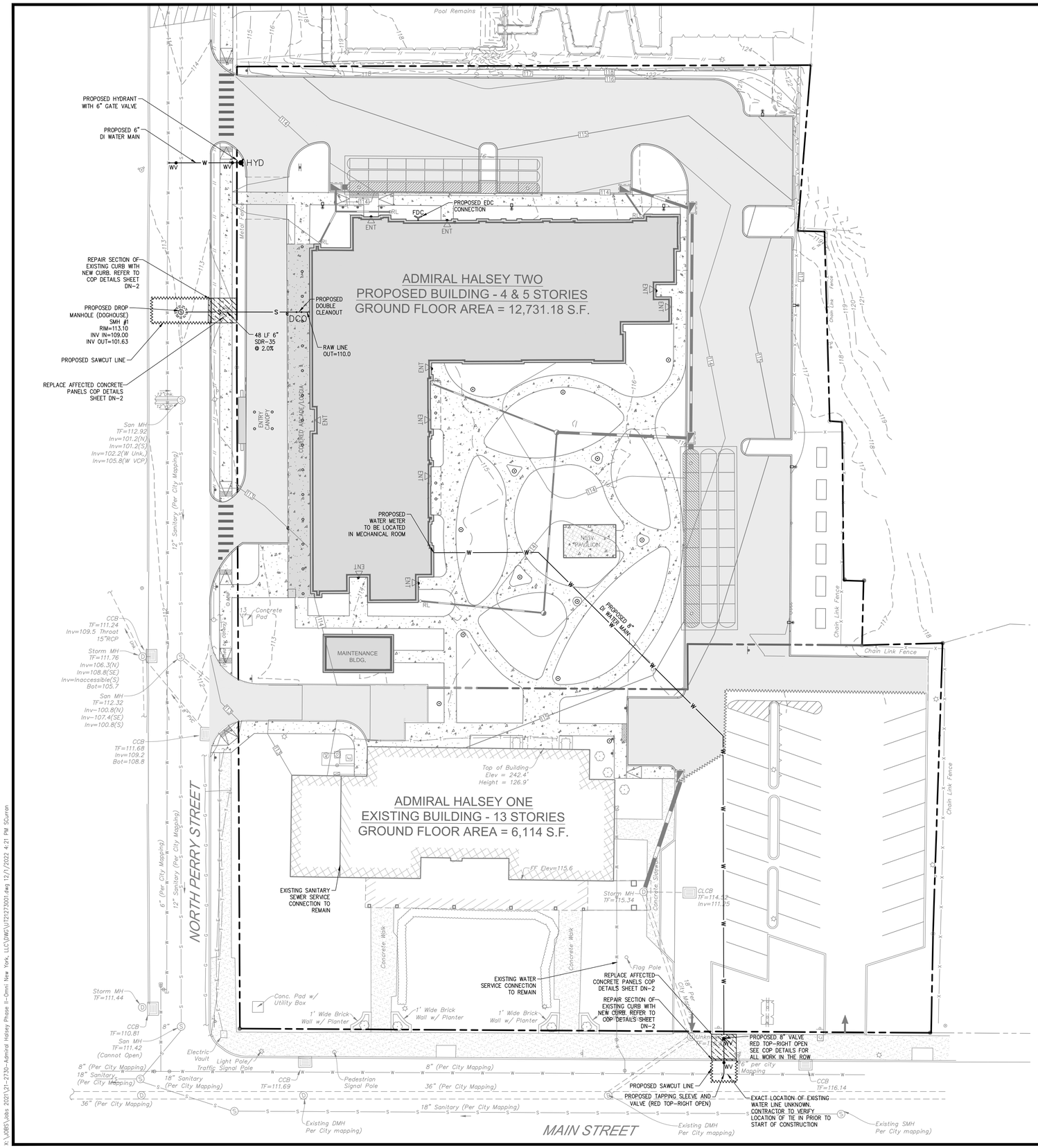

LEGEND

S	PROPOSED SANITARY SERVICE
W	PROPOSED WATER SERVICE
DCO	PROPOSED DOUBLE SANITARY CLEANOUT
WV	PROPOSED WATER SHUT OFF VALVE
	PROPOSED SANITARY MANHOLE
	PROPOSED SAWCUT LINE

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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UTILITIES PLAN

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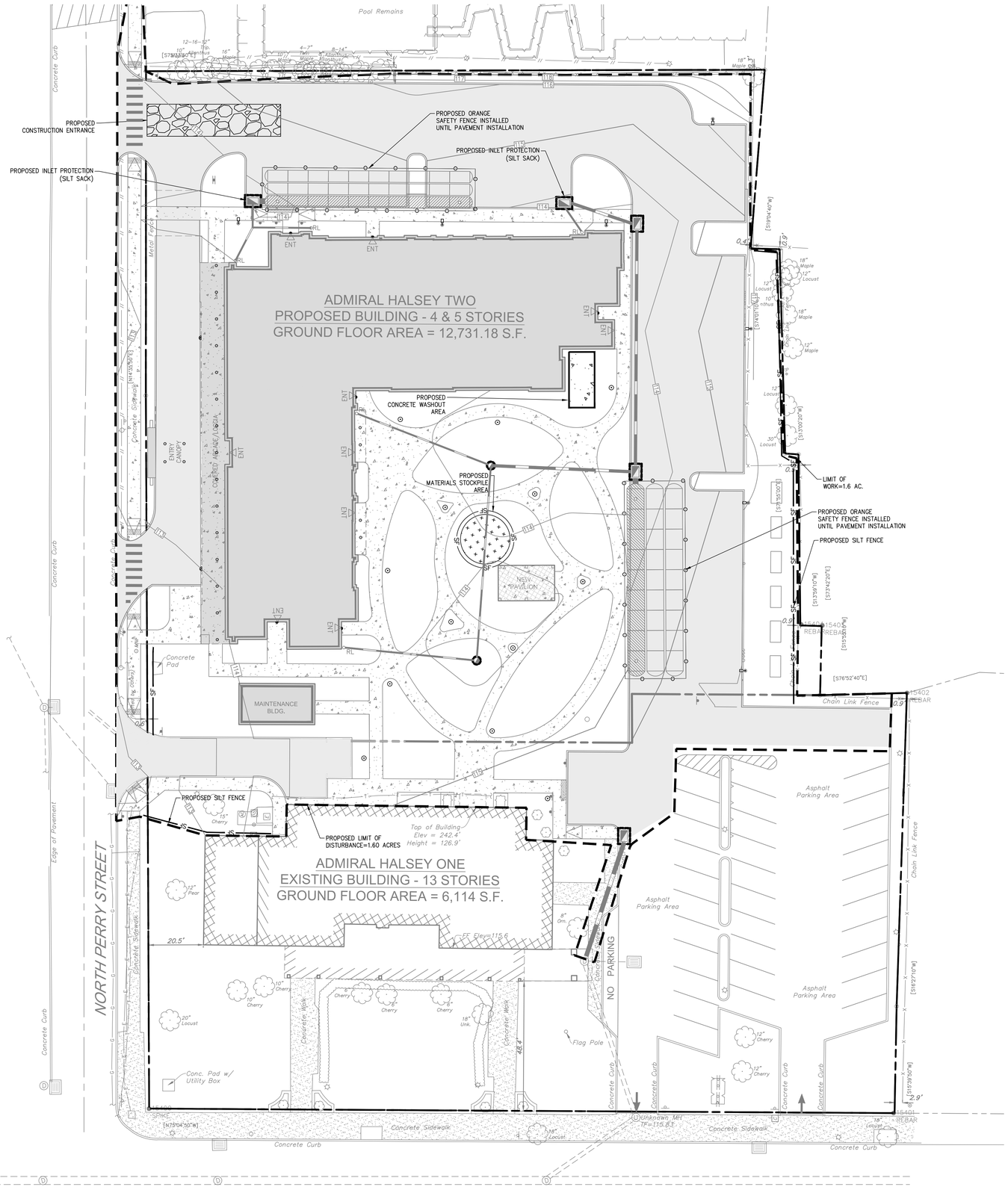

CITY OF POUGHKEEPSIE EROSION AND SILTATION CONTROL NOTES

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.

LEGEND

—— SF ——	PROPOSED SILT FENCE
CE	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.

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 TRENCH TO PREVENT UNDERMINING BY STORM WATER RUN–OFF.

D. BACKFILL THE TRENCH AND COMPACT.

OPERATION AND MAINTENANCE OF SEDIMENTATION AND EROSION CONTROL MEASURES

I. SILTATION FENCE

ALL SILTATION FENCES SHALL BE INSPECTED ONCE EVERY SEVEN DAYS. ALL DETERIORATED FABRIC AND DAMAGED POSTS SHALL BE REPLACED AND PROPERLY REPOSITIONED IN ACCORDANCE WITH THIS PLAN.

SEDIMENT DEPOSITS SHALL BE REMOVED FROM BEHIND THE FENCE WHEN THEY EXCEED A HEIGHT OF ONE FOOT.

II. INLET PROTECTION

ALL INLET PROTECTION DEVICES SHALL BE INSPECTED DAILY BY THE QUALIFIED INSPECTOR TO ENSURE THAT SEDIMENT IS NOT ENTERING ANY STORM DRAIN INLETS. PROTECTION DEVICES ARE TO BE REPAIRED AND/OR REPLACED IF NOT FUNCTIONING AS DESIGNED.

TEMPORARY VEGETATIVE STABILIZATION

1. ESTABLISHMENT OF TEMPORARY STANDS OF GRASS BY SEEDING AND MULCHING EXPOSED SOILS THAT WILL BE EXPOSED. SEED BARE SOIL WITHIN SEVEN (7) DAYS OF EXPOSURE, UNLESS CONSTRUCTION WILL BEGIN WITHIN FOURTEEN (14) DAYS. IF CONSTRUCTION IS SUSPENDED, OR SECTIONS COMPLETED, AREAS SHOULD BE SEEDED DOWN OR MULCHED DOWN IMMEDIATELY. THIS WILL TEMPORARILY STABILIZE THE SOIL WITH A VEGETATIVE COVER THAT WILL PREVENT DAMAGE FROM WIND AND WATER EROSION AND SEDIMENTATION.

2. INSTALLATION: FERTILIZING, SEEDING, AND MULCHING WILL BE USED AS A TEMPORARY E&S CONTROL MEASURE ON ALL NON–PAVED DISTURBED AREAS. EXPOSED SOILS NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL BE SEEDED OR COVERED BY MULCH WITHIN 7 DAYS, INCLUDING STOCKPILED SOIL MATERIALS. WITH REGARD TO THE TEMPORARY SEED MIX, REFER TO THE SEEDING MIXTURE TABLE PROVIDED ON THE E&S CONTROL PLAN DETAIL SHEET.

3. OPERATIONS AND MAINTENANCE: INSPECT SEEDED AREA AT LEAST ONCE A WEEK FOR SEED AND MULCH MOVEMENT AND RILL EROSION. WHERE SEED HAS MOVED OR WHERE SOIL EROSION HAS OCCURRED, DETERMINE CAUSE OF THE FAILURE. BIRD FEEDING MAY BE A PROBLEM IF MULCH WAS APPLIED TOO THINLY TO PROTECT SEED. RE–SEED AND RE–MULCH. IF MOVEMENT WAS A RESULT OF WIND, REPAIR EROSION DAMAGE, REAPPLY SEED, MULCH AND APPLY MULCH ANCHORING. IF FAILURE WAS CAUSED BY CONCENTRATED RUNOFF, INSTALL ADDITIONAL MEASURES TO CONTROL WATER AND SEDIMENT MOVEMENT, REPAIR EROSION DAMAGE, RE–SEED AND RE–APPLY MULCH WITH ANCHORING OR USE EROSION CONTROL BLANKET.

SEEDING AND MULCHING

ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED FOR MORE THAN 7 DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, SHALL IMMEDIATELY RECEIVE SEEDING AND MULCHING. DISTURBED AREAS SHALL BE LIMITED AND BE COVERED WITH A LAYER OF TOPSOIL PRIOR TO SEEDING. SEEDING WILL BE INSPECTED FOR BARE SPOTS, WASH OUTS, AND HEALTHY GROWTH. IF REQUIRED ADDITIONAL SEEDING SHALL BE PERFORMED. THE SEED MIX SPECIFIED FOR THIS SITE IS FROM THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL, TABLE 3.2 (SITE CHOICE 1B) WHICH IS AS FOLLOWS:

	Pure Live Seed Values	
SPECIES (% by weight)	lbs/1000SF	lbs/acre
15% fine fescue	2.0 – 2.6	85 – 114
20% perrenial ryegrass	0.6 – 0.8	26 – 35
65% kentucky bluegrass blend	0.4 – 1.6	19 – 26
	3.0 – 4.0	130 – 175

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Revisions

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Tel: 908.603.5730

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EROSION AND SEDIMENTATION CONTROL PLAN

ADMIRAL HALSEY II

135 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	BS	CAD File	EC21273001.dwg	Sheet No.	EC-1
Drawn	SMC	Project No.	20–2370		
Checked	KFC	Date	2021–06–22		
Approved	REM	Scale	1"=20'		

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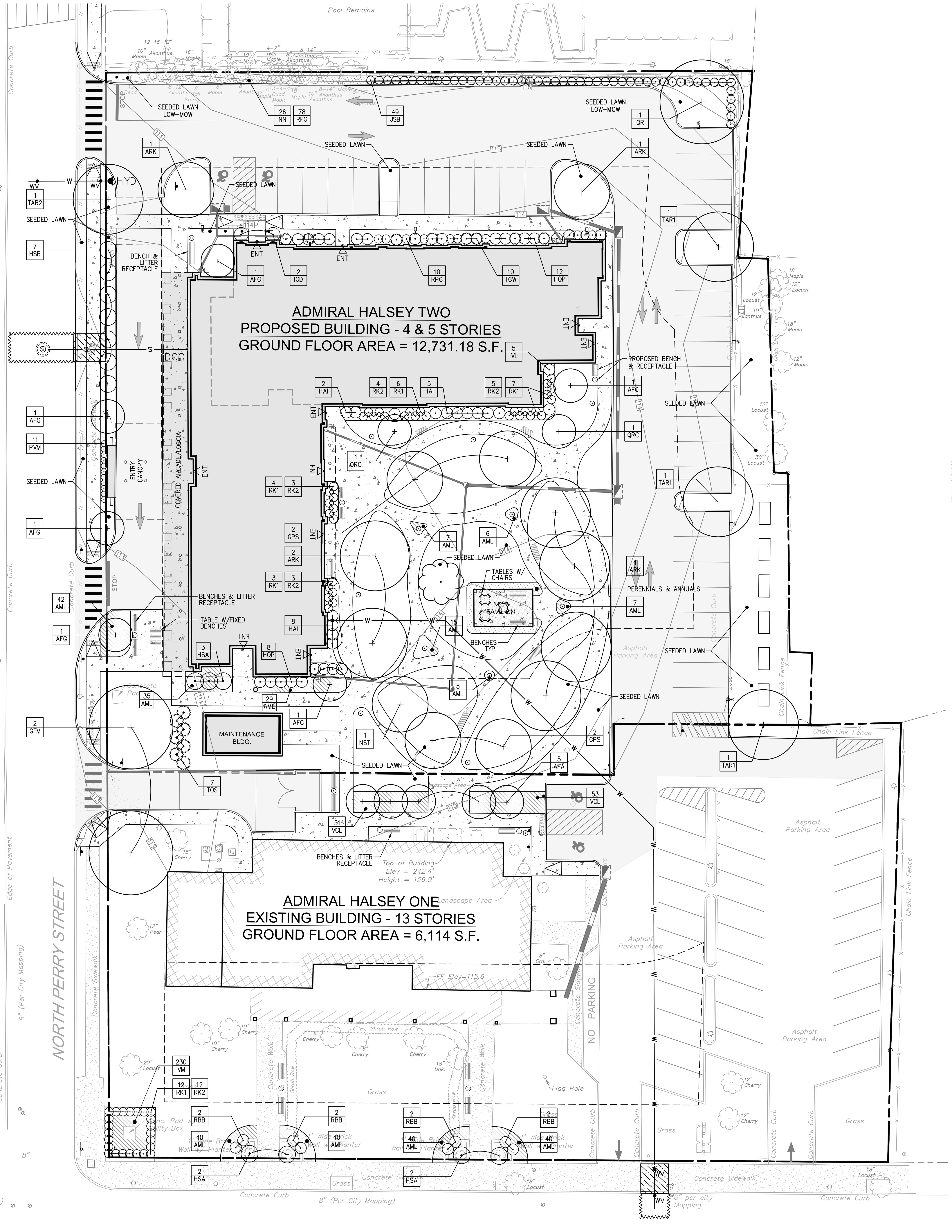

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PLANT LIST:

	CODE	QTY.	BOTANICAL NAME	COMMON NAME	ROOT	SIZE INSTALLED	SIZE MATURE	COMMENTS
TREES:	ARK	8	ACER RUBRUM 'KARPICK'	KARPICK RED MAPLE	B&B	2.5–3" cal.	20x40' ht.	Narrow Pyramidal Crown
	AFA	5	ACER x FREEMANII 'ARMSTRONG'	ARMSTRONG RED MAPLE	B&B	2.5–3" cal.	15x50' ht.	Narrow Upright habit
	AFG	6	ACER x FREEMANII 'ARMSTRONG GOLD'	ARMSTRONG GOLD RED MAPLE	B&B	2.5–3" cal.	15x40' ht.	Narrow Upright habit
	GPS	4	GINKGO BILOBA 'PRINCETON SENTRY'	PRINCETON SENTRY GINKGO TREE (MALE)	B&B	2.5–3" cal.	20x40–50'	
	GTM	2	GLEDITSIA T. INERMIS 'SHADEMASTER'	SHADEMASTER HONEYLOCUST	B&B	3–3.5" cal.	60' ht.	
	NST	1	NYSSA SYLVATICA 'TUPELO TOWER'	TUPELO TOWER BLACK GUM	B&B	2–2.5" cal.	20'x40' ht.	
	QR	1	QUERCUS RUBRA	NORTHERN RED OAK	B&B	2.5–3" cal.	75' ht.	
	QRC	2	QUERCUS ROBUR x ALBA 'CRIMSCHMIDT'	CRIMSON SPIRE RED OAK	B&B	2.5–3" cal.	20x45' ht.	
	TAR1	3	TILIA AMERICANA 'REDMOND'	REDMOND LINDEN	B&B	2.5–3" cal.	25x50' ht.	
	TAR2	1	TILIA AMERICANA 'REDMOND'	REDMOND LINDEN	B&B	3–3.5" cal.	25x50' ht.	
	TOS	7	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD AMERICAN ARBORVITAE	B&B	7–8' HT.	5'x15'	
SHRUBS:	AML	306	ARONIA MEL. LOW SCAPE MOUND	LOW SCAPE MOUND CHOKEBERRY	CONT.	#1	12–24" ht.	2' o.c.
	HAI	15	HYD. ARBORESCENS INVINCIBLE SPIRIT II	SMOOTH HYDRANGEA	CONT.	24–30" ht.	3–4' ht.	Pink
	HQP	17	HYDRANGEA QUERCIFOLIA 'PEEWEE'	PEE WEE OAKLEAF HYDRANGEA	CONT.	24–30" ht.	3–5' ht.	White; Burgundy fall
	HSA	7	HIBISCUS SYRIACUS 'ARDENS'	ROSE OF SHARON	B&B	36–42" ht.	8–10' ht.	Double Rosy Purple
	HSB	7	HIBISCUS SYRIACUS 'BLUE SATIN'	ROSE OF SHARON	B&B	36–42" ht.	8–10' ht.	Single Royal Blue
	IVL	5	ITEA VIRGINICA 'LITTLE HENRY'	LITTLE HENRY SWEETSPIRE	CONT.	24" ht. min.	3–6' ht.	
	JSB	49	JUNIPERUS SCOPULORUM 'BLUE ARROW'	BLUE ARROW JUNIPER	CONT.	36"–42" ht.	2–3'Wx12'H	
	MPS	2	MORELLA PENSYLVANICA 'SILVER SPRITE'	SILVER SPRITE BAYBERRY	CONT.	24" min.ht.	3–5' ht.	
	RK1	32	ROSA 'RADRAZZ'	KNOCK OUT ROSE	CONT.	24" ht. min.	3–4' ht.	30" o.c.; Red
	RK2	27	ROSA 'RADCOR'	RAINBOW KNOCK OUT ROSE	CONT.	24" ht. min.	3–4' ht.	30" o.c.; Pink
	RBB	8	RHODODENDRON 'BLUE BARON'	BLUE BARON RHODODENDRON	CONT.	24" ht. min.	3–4' ht.	Blue–Lav
	RPG	10	RHODODENDRON 'PURPLE GEM'	PURPLE GEM RHODODENDRON	CONT.	18–24" ht.	3' x 3'	
	TGW	10	TAXUS CUSPIDATA 'GREENWAVE'	GREENWAVE JAPANESE YEW	CONT.	24–30" ht.	3'x4'	
	VCL	104	VIBURNUM CASSINOIDES 'LIL DITTY'	LIL DITTY WITHEROD VIBURNUM	CONT.	15" min.ht.	12–24" ht.	
ORNAMENTAL GRASSES/PERENNIALS:	NN	26	NIPPONANTHEMUM NIPPONICUM	MONTAUK DAISY	CONT.	#2 (2 Gal.)	30–36" ht.	
	PVM	11	PANICUM VIRGATUM 'HEAVY METAL"	HEAVY METAL SWITCHGRASS	POT	#2	3–4' ht.	2' o.c.; Blue Green Blades
	RFG	78	RUDBECKIA FUL. var. SULL. 'GOLDSTURM'	GOLDSTURM Black Eyed Susan	CONT.	#SP4	30–36" ht.	24" o.c.; Gold; June–Sept
	VM	230	VINCA MINOR	PERIWINKLE	POT	SP–3/Pint		Plant at 9" o.c.

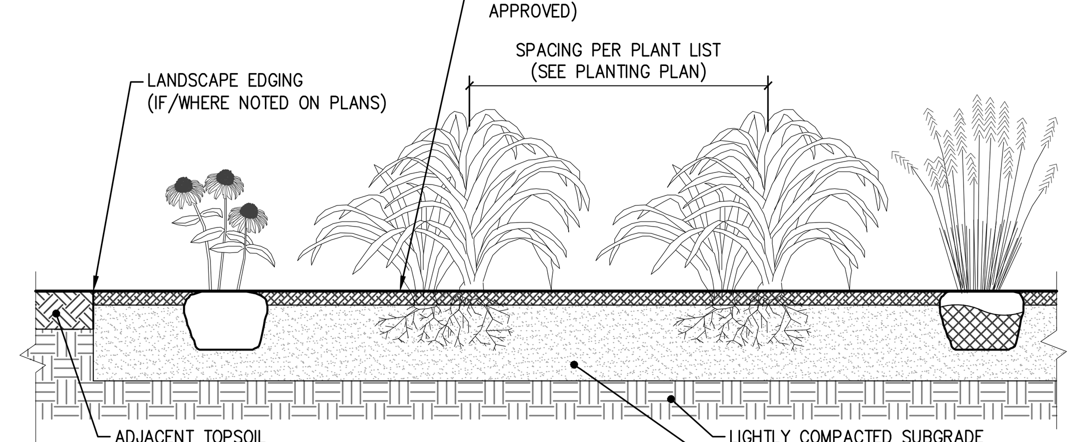
PLANTING NOTES:

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 THIS SHEET 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 (LOW-MOW):

    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."



SECTION THROUGH PERENNIAL BED

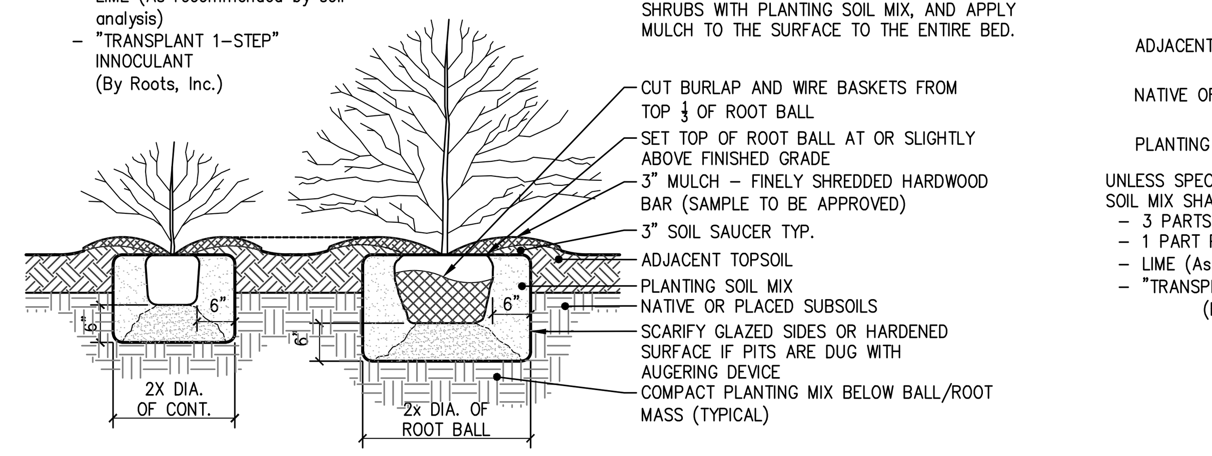
PERENNIAL NOTES:
1. BULB/CORM PERENNIALS TO BE PLANTED IN FALL. POTTED PERENNIALS MAY BE PLANTED APRIL 15 TO OCTOBER 1.
2. ROTOTILL FERTILIZER AND LIME INTO SOIL PRIOR TO PLANTING AND IN ACCORDANCE TO SOIL ANALYSIS RECOMMENDATIONS.
3. DO NOT OVER COMPACT PLANTING BED. WATER THOROUGHLY AFTER PLANTING 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.

3 ANNUAL/PERENNIAL AND GROUND COVER BEDS DETAIL
SCALE: 1/2" = 1'–0"

UNLESS SPECIFIED OTHERWISE, SOIL MIX SHALL BE:
- 3 PARTS TOPSOIL
- 1 PART PEAT MOSS OR COMPOST
- LIME (As recommended by soil analysis)
- "TRANSPLANT 1-STEP" INNOCULANT (By Roots, Inc.)

NOTE: IN AREAS OF MASS PLANTING, EXCAVATE BED AREA CONTINUOUSLY, BACKFILL BETWEEN SHRUBS WITH PLANTING SOIL MIX, AND APPLY MULCH TO THE SURFACE TO THE ENTIRE BED.

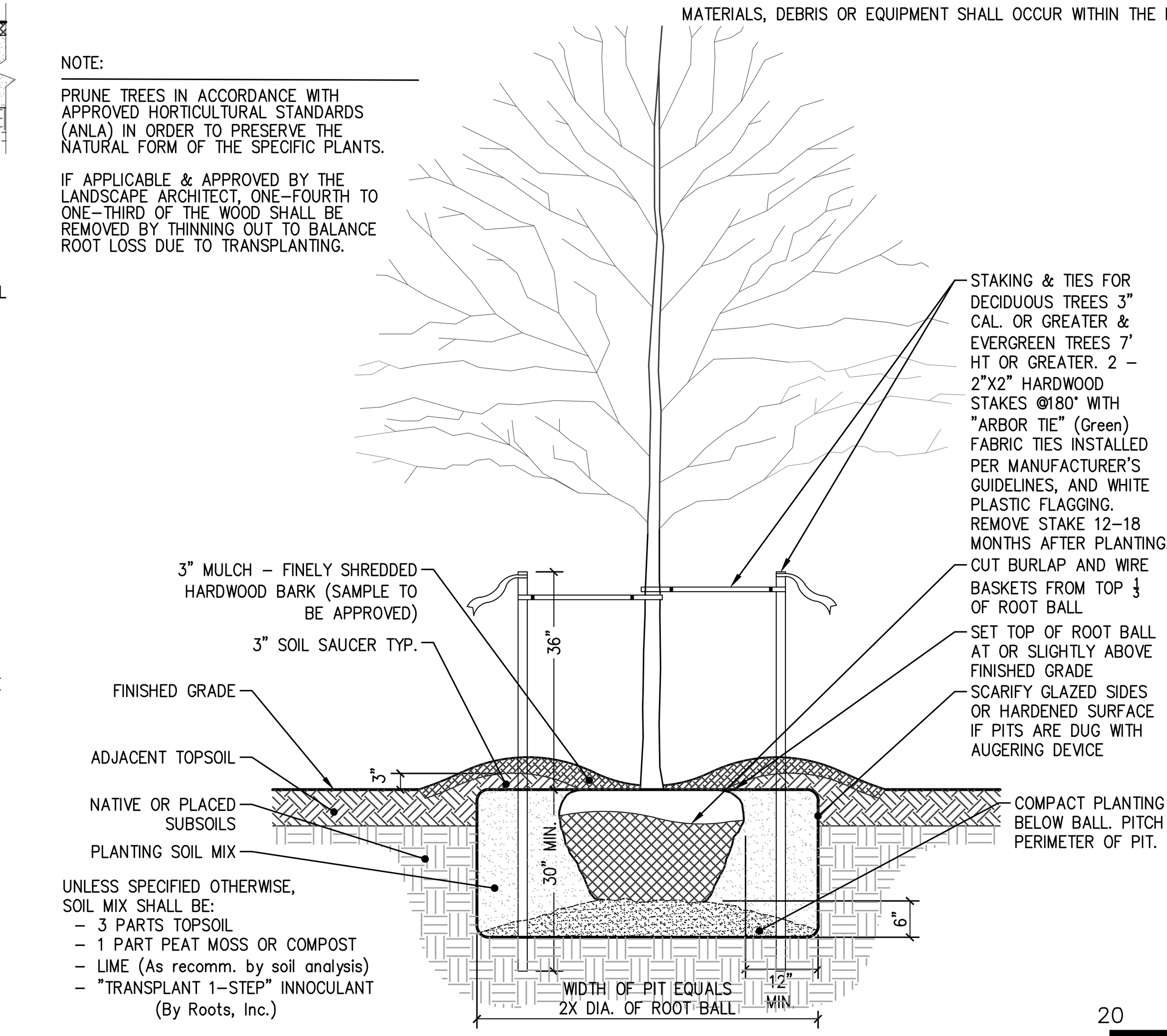


2 SHRUB PLANTING DETAIL
SCALE: 1/2" = 1'–0"

NOTE:

PRUNE TREES IN ACCORDANCE WITH APPROVED HORTICULTURAL STANDARDS (ANLA) IN ORDER TO PRESERVE THE NATURAL FORM OF THE SPECIFIC PLANTS.

IF APPLICABLE & APPROVED BY THE LANDSCAPE ARCHITECT, ONE-FOURTH TO ONE-THIRD OF THE WOOD SHALL BE REMOVED BY THINNING OUT TO BALANCE ROOT LOSS DUE TO TRANSPLANTING.



UNLESS SPECIFIED OTHERWISE, SOIL MIX SHALL BE:
- 3 PARTS TOPSOIL
- 1 PART PEAT MOSS OR COMPOST
- LIME (As recomm. by soil analysis)
- "TRANSPLANT 1-STEP" INNOCULANT (By Roots, Inc.)

1 TREE PLANTING DETAIL
SCALE: 1/2" = 1'–0"

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

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SITE LANDSCAPE PLAN

ADMIRAL HALSEY II

135 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

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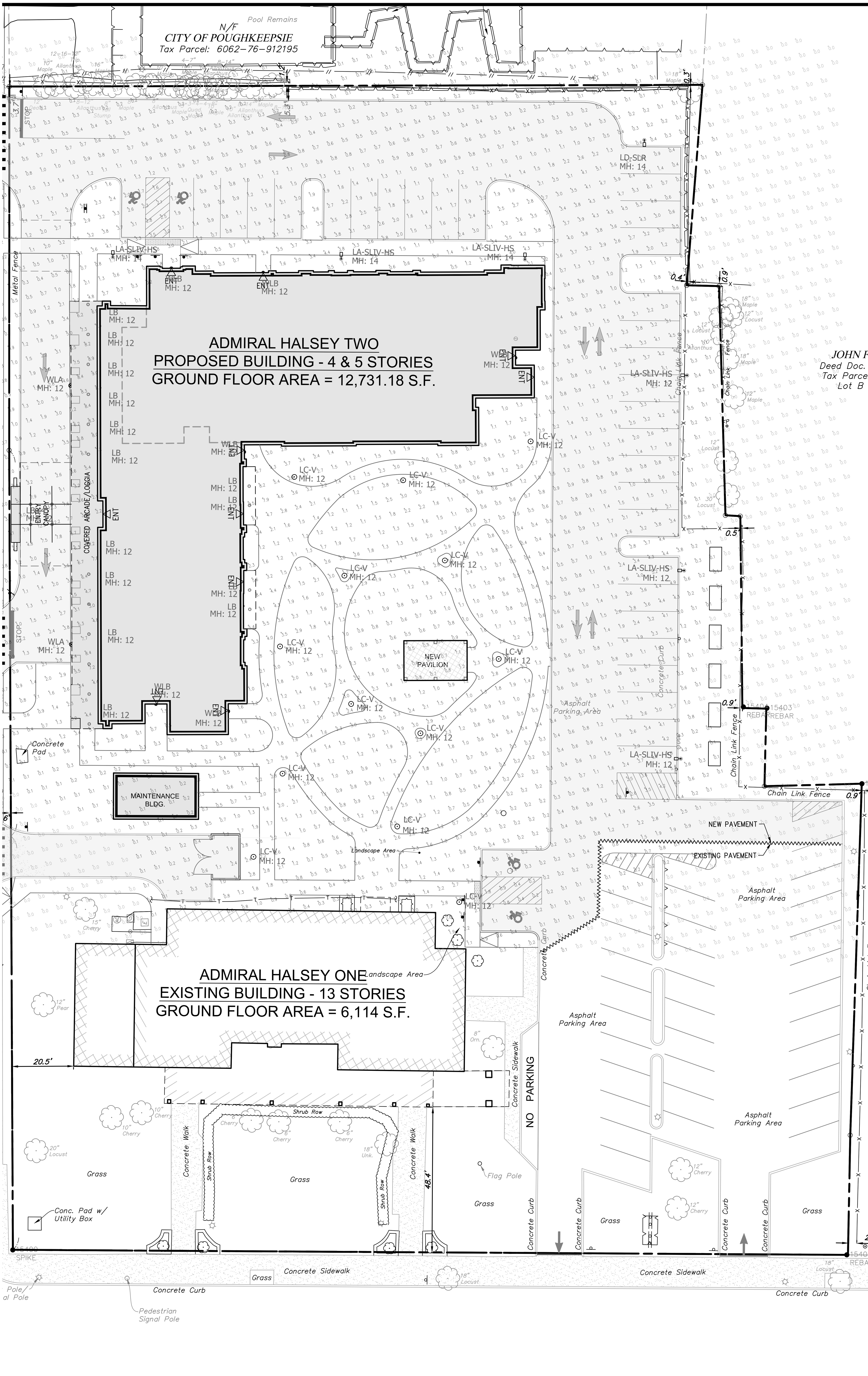
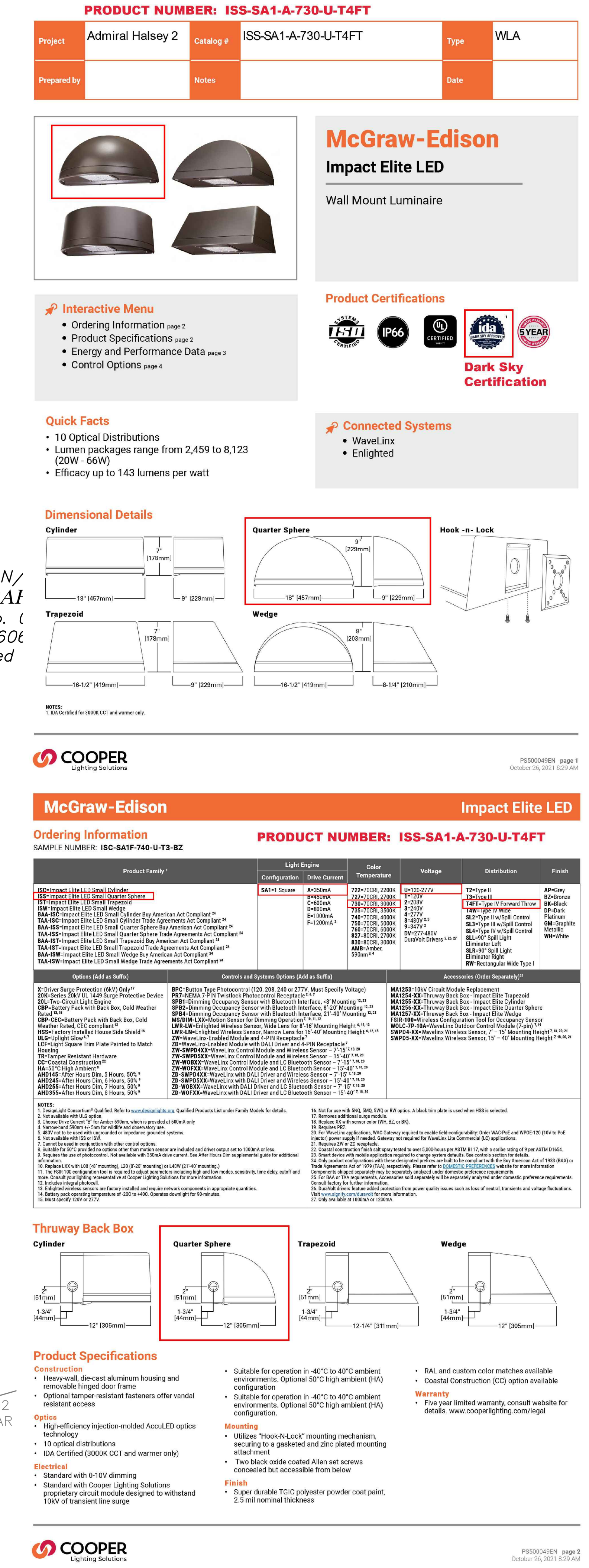
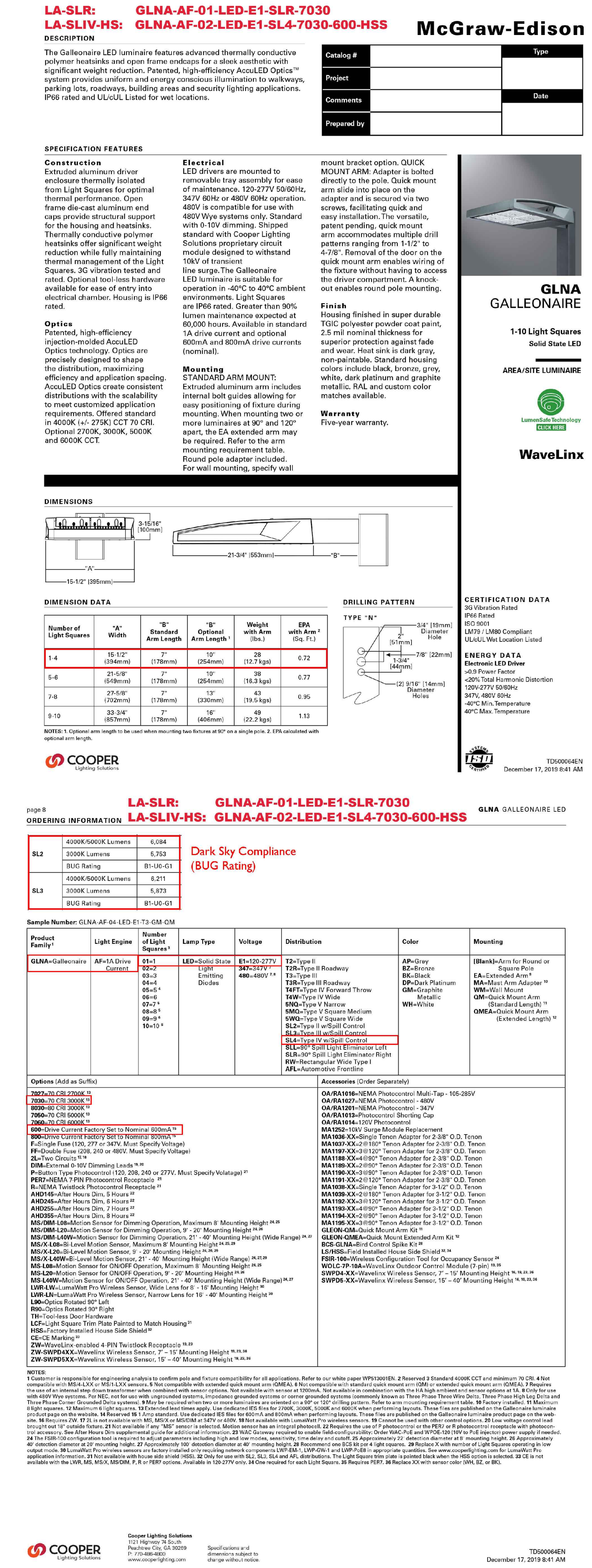


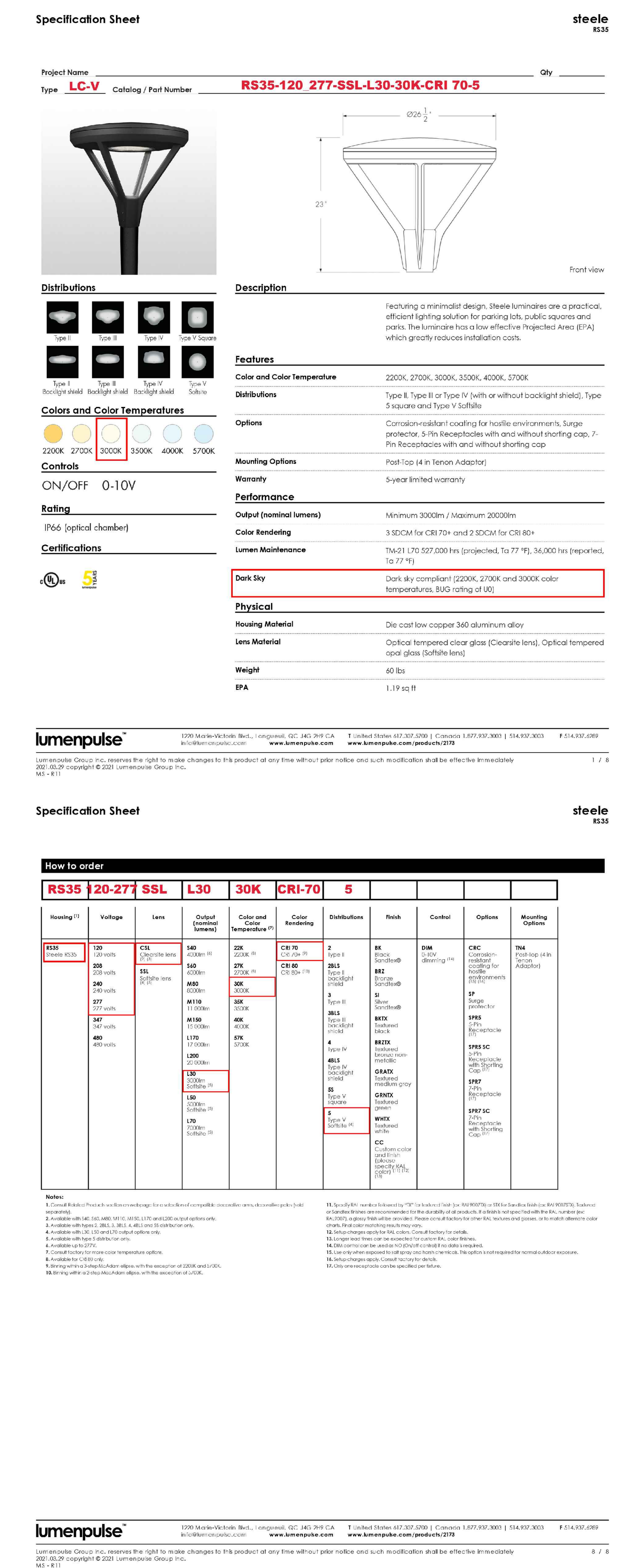
CANOPY MOUNTED WALL LIGHT (WLA):



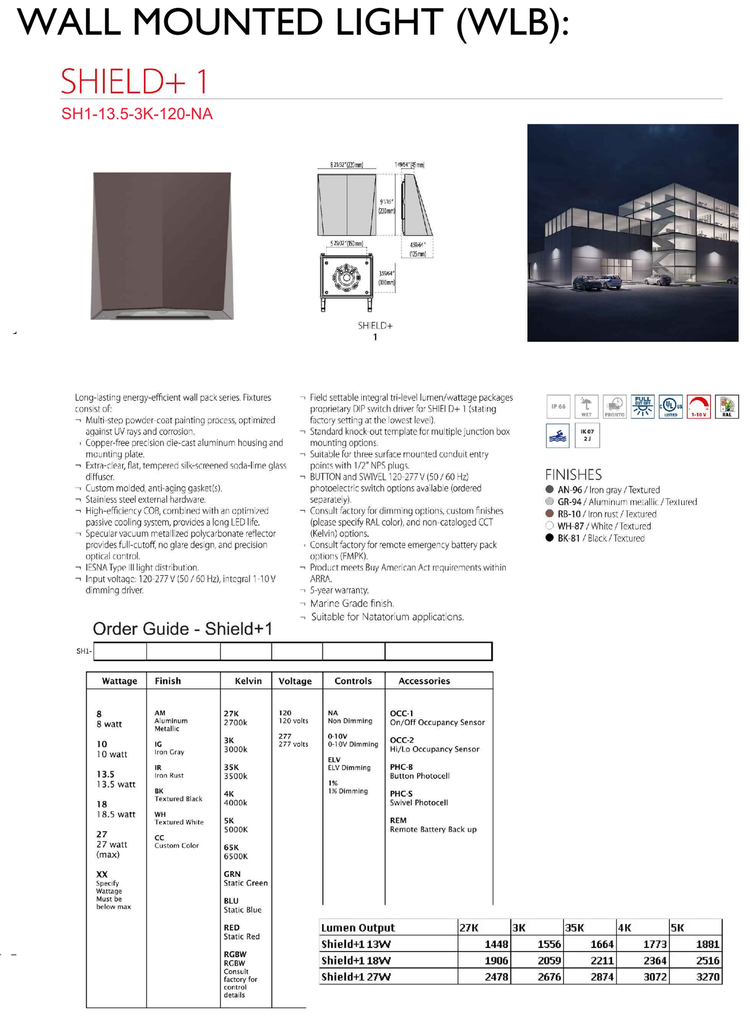
PARKING AREA POST TOP LIGHTS (LA & LD):



PEDESTRIAN AREA POST TOP LIGHT (LC-V):



WALL MOUNTED LIGHT (WLB):



LIGHTING SCHEDULE:

Luminaire Schedule

Symbol	Qty	Label	Arrangement	Lum. Lumens	Lum. Watts	Arr. Watts	Total Watts	LLD	LDD	BF	LLF	BUG Rating	Description
	6	LA-SLIV-HS	SINGLE	5723	66	66	396	0.950	0.950	1.000	0.903	B0-U0-G2	GLNA-AF-02-LED-E1-SL4-7030-600-HSS
	19	LB	SINGLE	1195	9.9	9.9	188.1	0.950	0.950	1.000	0.903	B1-U0-G0	HC610D010-HM60525830-61WDW
	13	LC-V	SINGLE	2156	46	46	598	0.950	0.950	1.000	0.903	B1-U0-G1	RS35-120_277-SSL-L30-30K-CRI 70-5
	2	WLA	SINGLE	2515	20.1	20.1	40.2	0.950	0.950	1.000	0.903	B1-U0-G1	IST-SA1A-730-U-T4FT
	6	WLB	SINGLE	281	12.1872	12.1872	73.1232	0.950	0.950	1.000	0.903	B0-U1-G0	SH1-13.5-3K-120-NA
	1	LD-SLR	SINGLE	5280	59	59	59	0.950	0.950	1.000	0.903	B1-U0-G2	GLNA-AF-01-LED-E1-SLR-7030

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Entire Site	Illuminance	Fc	1.02	12.7	0.0	N.A.	N.A.
Area Under Large Canopy	Illuminance	Fc	5.98	9.0	2.1	2.85	4.29
Drop Off Circle	Illuminance	Fc	3.58	12.7	0.9	3.98	14.11
Front & Side Prkg Lots	Illuminance	Fc	1.69	6.4	0.2	8.45	32.00

Isoline Legend
Illuminance (Fc)

Color	Value
	0.01
	0.1
	0.5

GRAPHIC SCALE
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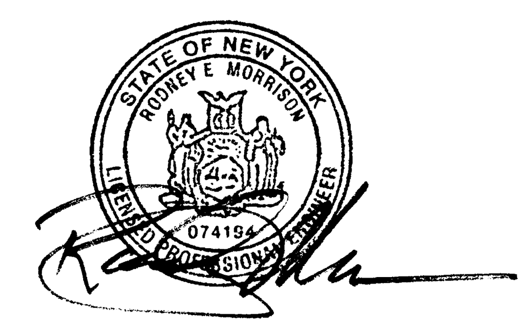

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SITE LIGHTING PLAN

ADMIRAL HALSEY II

135 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

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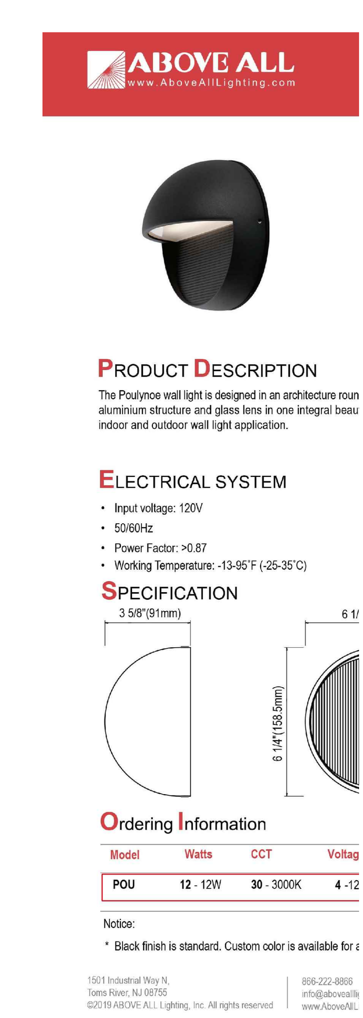
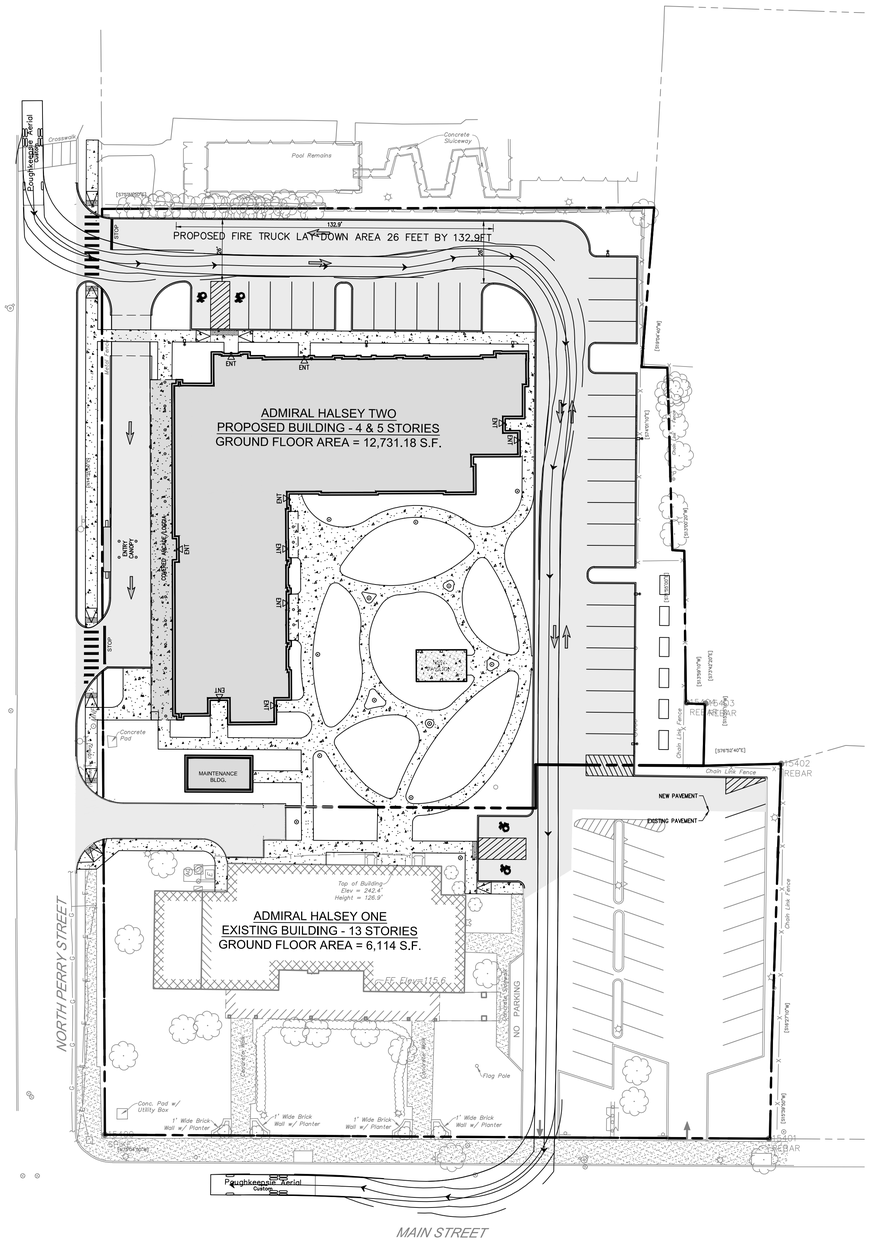
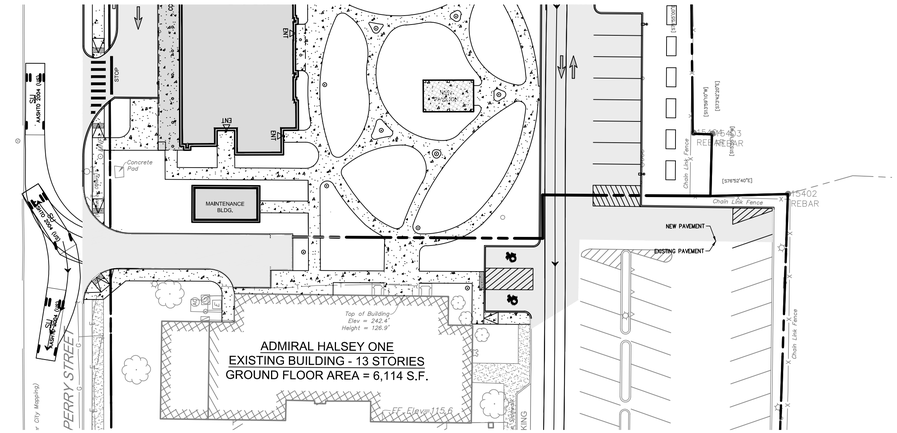
Sheet No. LP-1





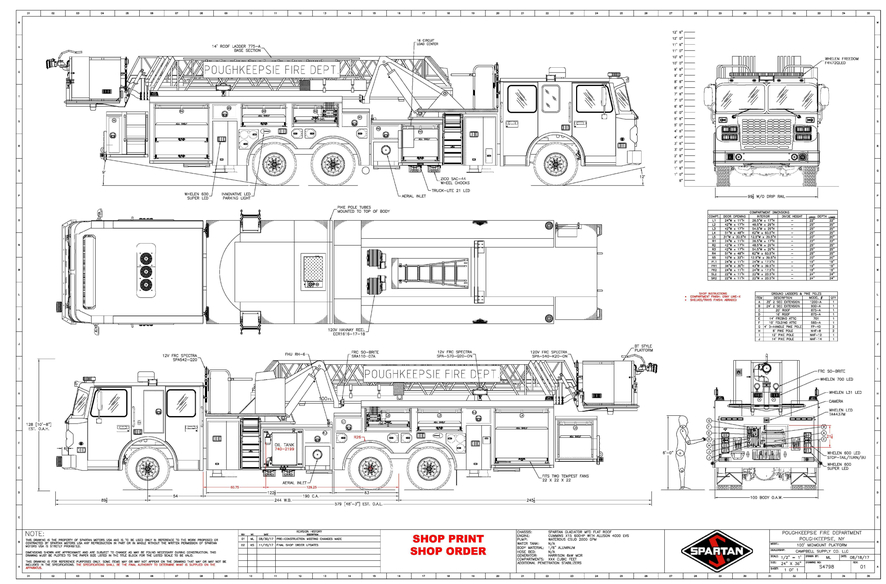
POUGHKEEPSIE SPARTAN FIRE TRUCK IN / OUT

SCALE: 1"=30'



REFUSE VEHICLE

SCALE: 1"=30'

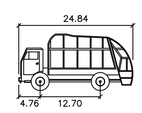


SPARTAN FIRE TRUCK UTILIZED FOR ALL FIRE TRUCK MOVEMENTS

GRAPHIC SCALE

30 15 0 30

SCALE IN FEET



Refuse Vehicle

	feet
Width	: 7.87
Track	: 7.41
Lock to Lock Time	: 6.0
Steering Angle	: 26.5

STATE OF NEW YORK · RODGER E. MORRISON · 074194 · LICENSED PROFESSIONAL ENGINEER

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Revisions

LRC GROUP

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

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

85 Civic Center Plaza, Suite 204
Poughkeepsie NY 12601
Tel: 845.243.2880

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.

TRUCK TURNING PLAN

ADMIRAL HALSEY II

135 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	BS	CAD File	T21273001.dwg	Sheet No.
Drawn	SMC	Project No.	20-2370	TT-1
Checked	KFC	Date	2021-06-22	
Approved	REM	Scale	1"=30'	

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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 BARRELS 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-BIULT 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 SUPERVSION 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.

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.

STATE OF NEW YORK
ROCKEYE MORRISON
074194
LICENSED PROFESSIONAL ENGINEER

#	Date	Description
4	7/6/2022	REVISED PER COMMENTS
5	7/15/2022	REVISED PER COMMENTS
6	7/25/2022	REVISED PER COMMENTS
7	09/19/2022	REVISED PER FD COMMENTS
8	11/29/2022	REVISED PER COMMENTS

Revisions

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

85 Civic Center Plaza, Suite 204
Poughkeepsie NY 12601
Tel: 845.243.2880

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.

NOTES SHEET

ADMIRAL HALSEY II

135 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	BS	CAD File	NS21270301.dwg	Sheet No.
Drawn	SMC	Project No.	20-2370	NS-1
Checked	KFC	Date	2021-06-22	
Approved	REM	Scale	AS NOTED	

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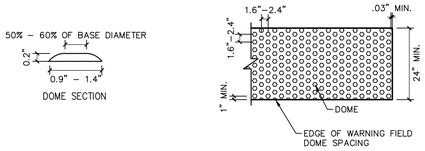


NOTES:

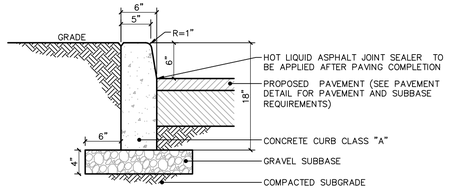
1. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE, THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING UNIT (THE DOMES AND THE ENTIRE 24" LEVEL SURFACE) IS FOR ILLUSTRATION ONLY.
2. THE SIZE OF THE DETECTABLE WARNING FIELD SHALL BE 24" IN THE DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH OF THE 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 TILE SPECS

"DURALAST" CAST IRON WARNING TILES AS FABRICATED BY EAST JORDAN IRON WORKS, 800–626–4653; NATURAL FINISH (NO POWDER COATING)

NOTE: UNIT SIZE FOR RECTANGULAR APPLICATIONS IS 24"x24" AND FOR RADIAL APPLICATIONS IS 18"x24"

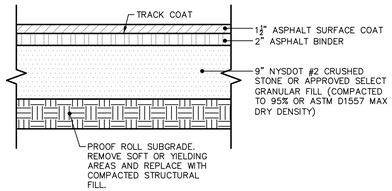
DETECTABLE WARNING DETAIL
SCALE: 1/2" = 1'–0"



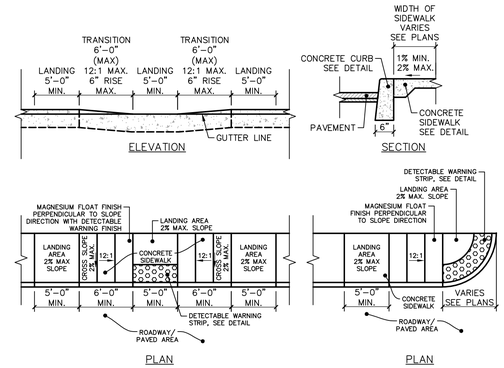
NOTES:

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

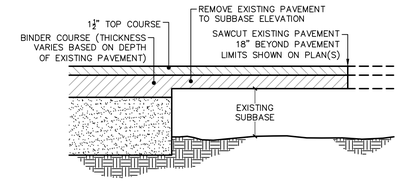
ON-SITE CONCRETE CURB DETAIL
SCALE: 1" = 1'–0"



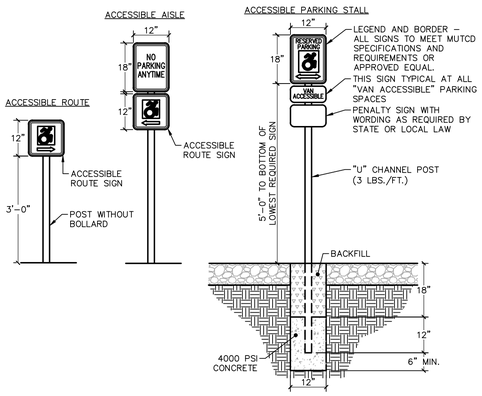
STANDARD ASPHALT PAVING DETAIL
SCALE: 1" = 1'–0"



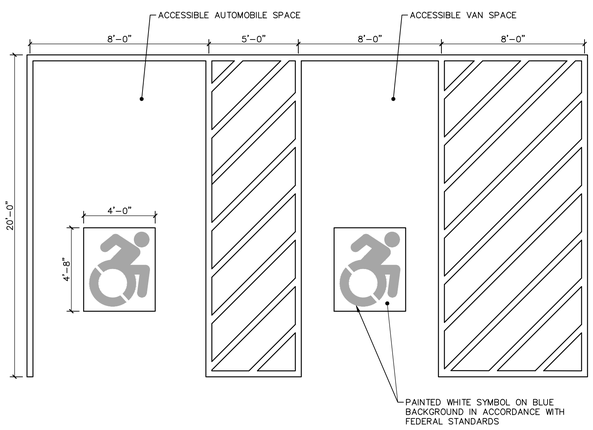
HANDICAP RAMP DETAIL
SCALE: 1/8" = 1'–0"



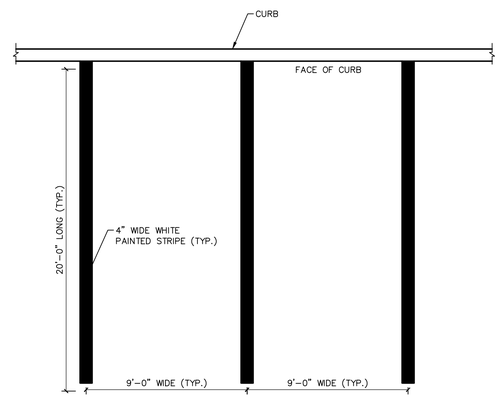
PAVEMENT TRANSITION DETAIL
SCALE: 1" = 1'–0"



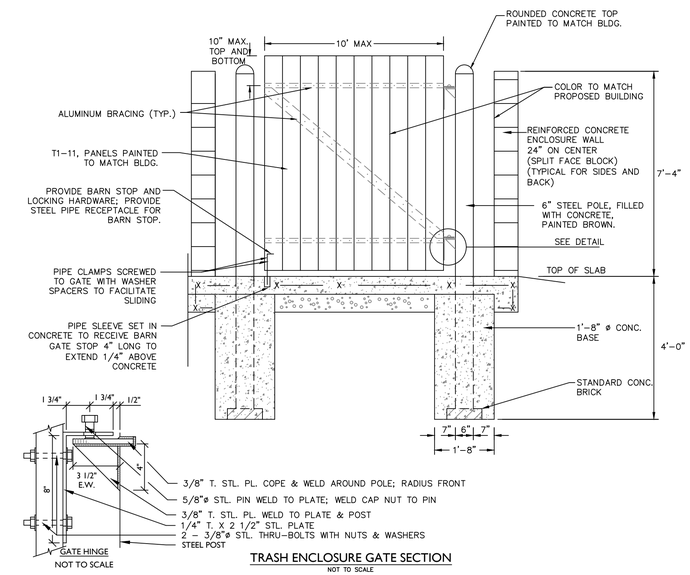
ACCESSIBLE PARKING & ACCESS SIGNS
SCALE: 1/2" = 1'–0"



ACCESSIBLE PARKING SPACE DETAIL
SCALE: 1/4" = 1'–0"



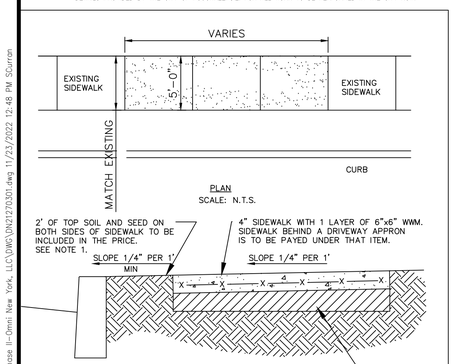
PARKING SPACE STRIPE DETAIL
SCALE: 1/4" = 1'–0"



TRASH ENCLOSURE GATE SECTION
NOT TO SCALE

CONTRACTOR TO PROVIDE SELF CLOSING HINGES FOR GATE

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

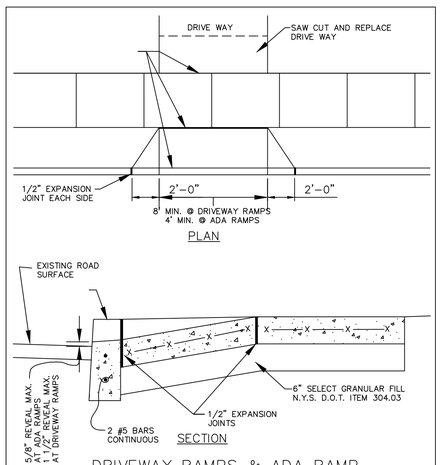


NOTES:
1. WHERE MATERIAL IS NOT USED THE CITY OF POUGHDEEPSIE WILL BE CREDITED IN AREAS WHERE MORE THAN THE SPECIFIED AMOUNT OF MATERIAL IS USED. MAJOR GRADE CHANGES WILL BE APROVED BY THE CITY ENGINEERING DEPT. AND WILL BE PAYED UNDER APROPRIATE ITEMS.

SECTION

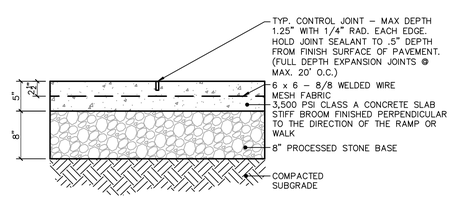
SIDEWALK DETAIL REPLACE & NEW

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

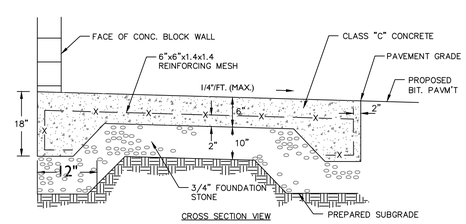


DRIVEWAY RAMPS & ADA RAMP
SCALE: 1"–1'–0"

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.



CONCRETE SIDEWALK SECTION DETAIL
SCALE: 1" = 1'–0"



HEAVY DUTY CONCRETE PAVING AND DUMPSTER PAD DETAIL
NOT TO SCALE

No.	Date	Description
4	7/6/2022	REVISED PER COMMENTS
5	7/15/2022	REVISED PER COMMENTS
6	7/25/2022	REVISED PER COMMENTS
7	09/19/2022	REVISED PER FD COMMENTS
8	11/29/2022	REVISED PER COMMENTS

Revisions

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

SITE DETAILS

ADMIRAL HALSEY II

135 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	BS	CAD File	DN21270301.dwg	Sheet No.	
Drawn	SMC	Project No.	20–2370		
Checked	KFC	Date	2021–06–22		DN-1
Approved	REM	Scale	AS NOTED		

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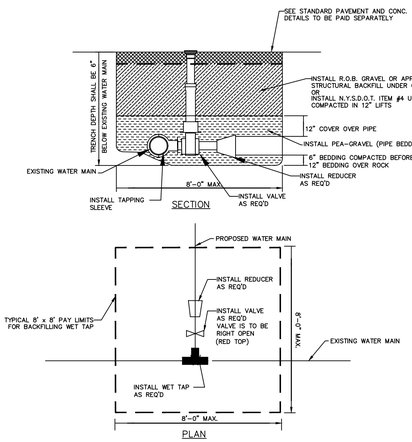
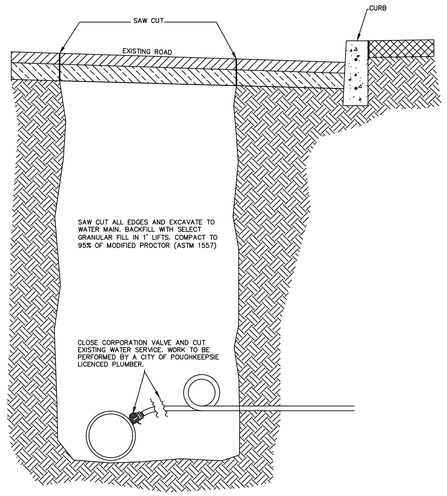


NOTE: ALL BACKFILL TO BE PLACED IN 1' LIFTS AND COMPACTED TO 95% OF MODIFIED PROCTOR (ASTM 1557)

TAPPING SLEEVE & VALVE

SCALE: N.T.S.

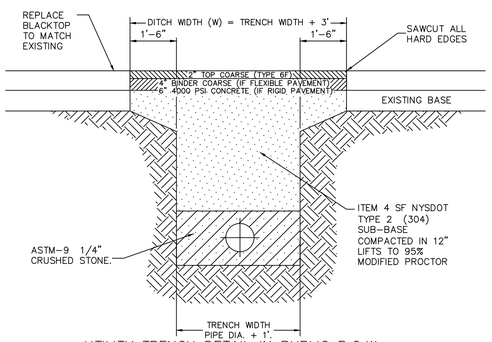
CITY OF POUGHKEEPSIE ENGINEERING DEPARTMENT 80 WASHINGTON STREET POUGHKEEPSIE, NY 12602	FILE NO.: DATE: 3-6-00 SCALE: AS NOTED DRAWN BY: JP	TAPPING SLEEVE & VALVE	1 PAGE NO.



WATER SERVICE DISCONNECT AT MAIN

SCALE: N.T.S.

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

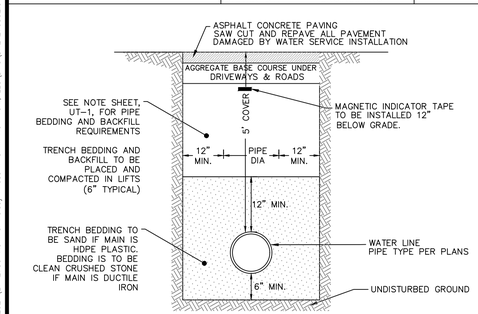


UTILITY TRENCH DETAIL IN PUBLIC R.O.W.

NOTES:

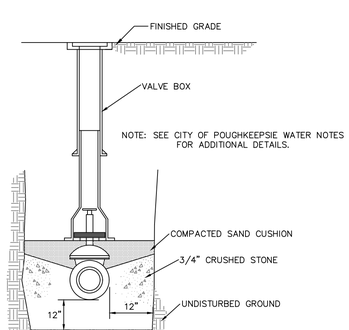
1. DITCH WIDTH SHALL EXTEND A MINIMUM OF ONE AND ONE-HALF FT. FROM THE EDGES OF THE TRENCH.
2. REPLACED BASE MATERIAL OVER TRENCH SHALL BE ITEM 4 COMPACTED IN 12" LIFTS.
3. PIPE BEDDING SHALL BE A MINIMUM OF 6" ABOVE AND BELOW PIPE
4. ALL JOINTS SHALL BE MECHANICALLY SAWED.
5. ALL JOINTS SHALL BE SQUARED 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 DATE: 9-9-04 SCALE: AS NOTED DRAWN BY: ENGINEERING	TRENCH AND PAVEMENT DETAIL	



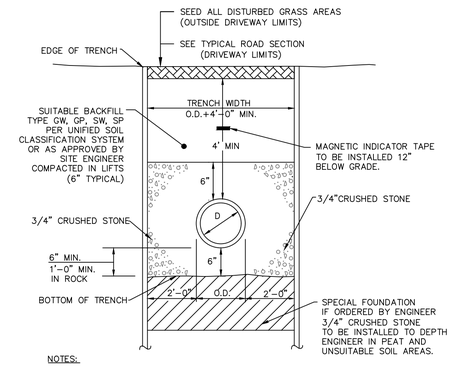
WATER MAIN TRENCH

NOT TO SCALE



VALVE AND VALVE BOX DETAIL

NOT TO SCALE



NOTES:

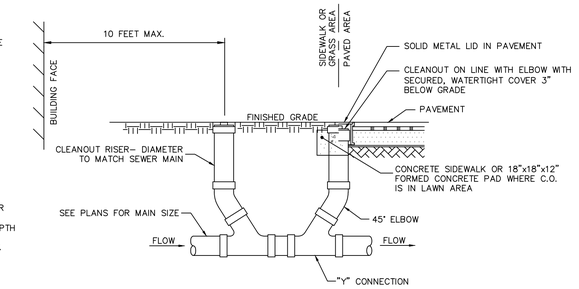
1. IF COVER IS LESS THAN 4 FEET INSULATION IS REQUIRED.

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.

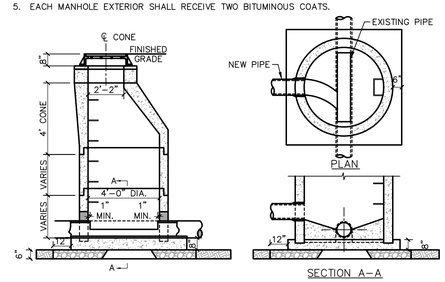


DOUBLE SEWER CLEANOUT DETAIL

NOT TO SCALE

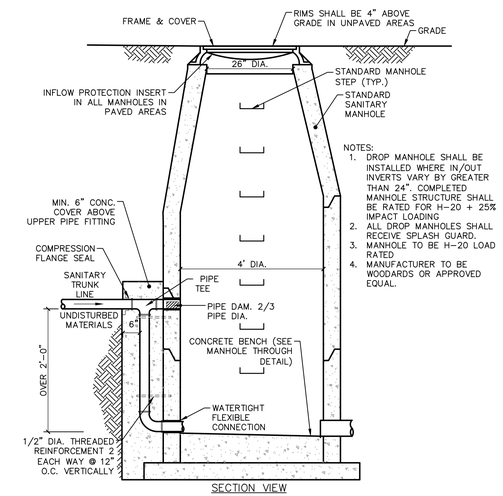
NOTES:

1. INVERT SHALL BE FILLETED.
2. REINFORCEMENT FOR MANHOLE AND SLAB TOP SHALL BE DESIGNED BY A LICENSED CONNECTICUT 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.
3. CONCRETE TO TEST 4000 P.S.I. AT 28 DAYS IN CONFORMANCE WITH A.S.T.M. C-478.
4. BENCH SHALL BE BUILT FOR FLOW BETWEEN INLET AND OUTLET.
5. EACH MANHOLE EXTERIOR SHALL RECEIVE TWO BITUMINOUS COATS.



DOGHOUSE SANITARY SEWER MANHOLE DETAIL

SCALE: 1/4"=1'-0"



NOTES:

1. DROP MANHOLE SHALL BE INSTALLED WHERE IN/OUT INVERTS VARY BY GREATER THAN 24". COMPLETED MANHOLE STRUCTURE SHALL BE RATED FOR H-20 + 25% IMPACT LOADING
2. ALL DROP MANHOLES SHALL RECEIVE SPLASH GUARD.
3. MANHOLE TO BE H-20 LOAD RATED
4. MANUFACTURER TO BE WOODARDS OR APPROVED EQUAL.

SANITARY SEWER DROP MANHOLE DETAIL

SCALE: 1/2" = 1'-0"

STATE OF NEW YORK · RODNEY E. MORRISON · 074194 · LICENSED PROFESSIONAL ENGINEER

#	Date	Description
4	7/6/2022	REVISED PER COMMENTS
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Revisions

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SANITARY / WATER DETAILS

ADMIRAL HALSEY II

135 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	BS	CAD File	DN21270302.dwg	Sheet No.
Drawn	SMC	Project No.	20-2370	DN-2
Checked	KFC	Date	2021-06-22	
Approved	REM	Scale	AS NOTED	

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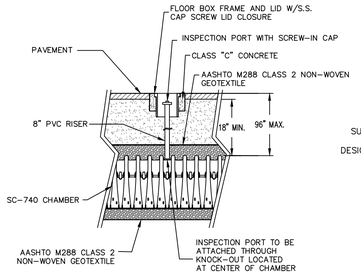
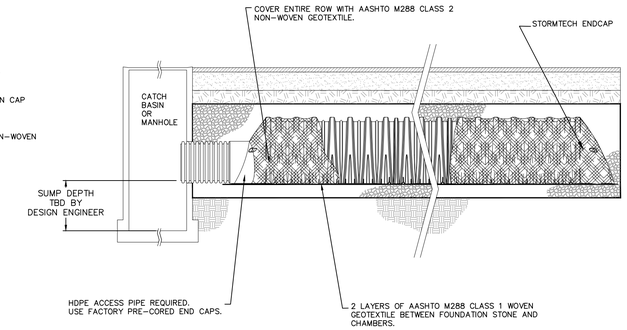


REFER TO PLAN FOR INSPECTION PORT LOCATION ON ISOLATOR ROW.

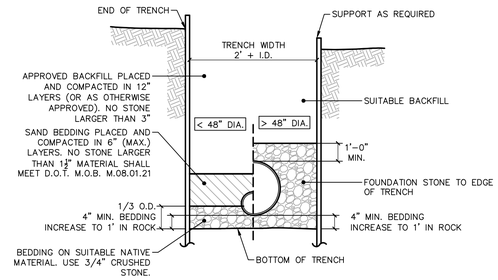
SC-740 INSPECTION PORT DETAIL

NOT TO SCALE



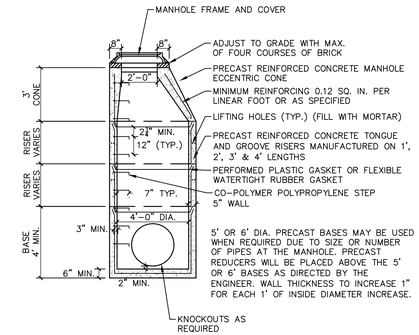
SC-740 ISOLATOR ROW DETAIL

NOT TO SCALE



TYPICAL STORM SEWER TRENCH SECTION DETAIL

SCALE: 1/4" = 1'-0"

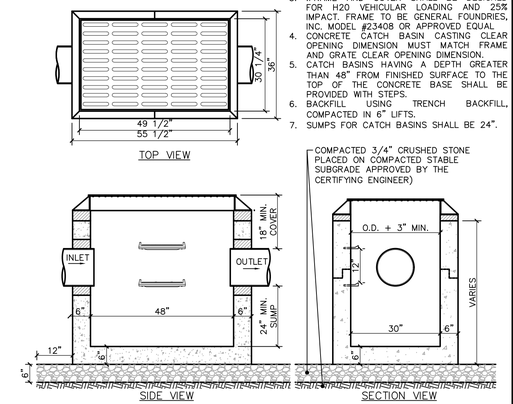


STORM DRAINAGE MANHOLE DETAIL

SCALE: 1/4" = 1'-0"

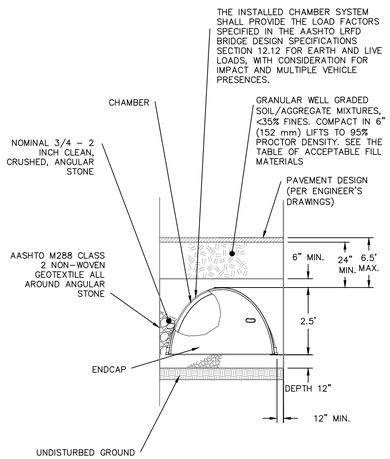
NOTES:

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".



CURB LESS TYPE CATCH BASIN DETAIL

SCALE: 1/2" = 1'-0"



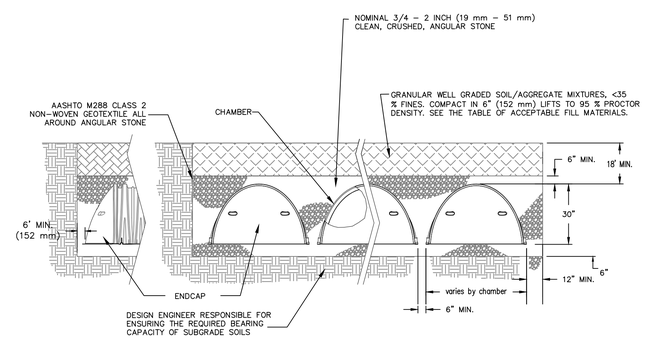
CHAMBER TYPICAL SC 740 CONSTRUCTION SECTION

NOT TO SCALE

PLEASE NOTE:

1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: 'CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE'.

2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9"[229 mm] (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.

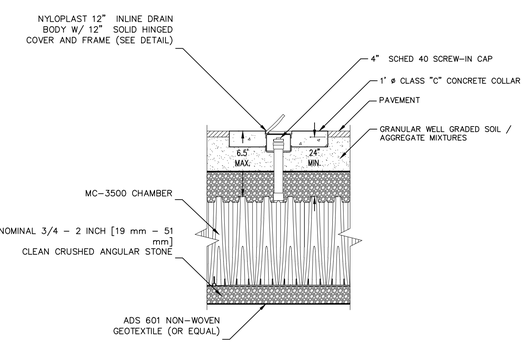


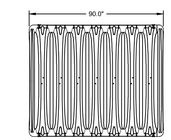
SC 740 CHAMBER TYPICAL CONSTRUCTION SECTION

NOT TO SCALE

NOTES:

1. INSPECTION PORTS MAY BE CONNECTED THROUGH ANY OF (6) CHAMBER CORRUGATION VALLEYS
2. ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED.
3. INSPECTION PORT TO BE LOCATED AT EACH END OF ISOLATOR ROW, SEE PLANS



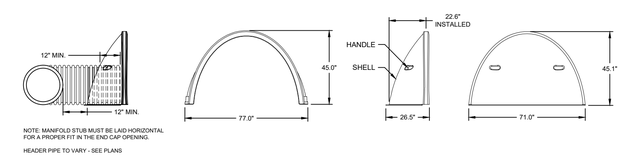


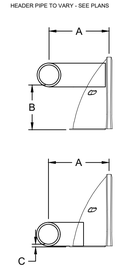
NOMINAL MC-3500 CHAMBER SPECIFICATIONS

SIZE (L x W x H)	90" x 77" x 45"
CHAMBER STORAGE	109.9 ft³
MINIMUM INSTALLED STORAGE	178.9 ft³
WEIGHT	134 lbs.

NOMINAL MC-3500 END CAP SPECIFICATIONS

SIZE (L x W x H)	26.5" x 71" x 45.1"
ENDCAP STORAGE	15.6 ft³
MINIMUM INSTALLED STORAGE	46.9 ft³
WEIGHT	43 lbs.





PART NUMBERS ENDING WITH "B" ARE FOR STUBS AT BOTTOM OF END CAP.
PART NUMBERS ENDING WITH "T" ARE FOR STUBS AT TOP OF END CAP.

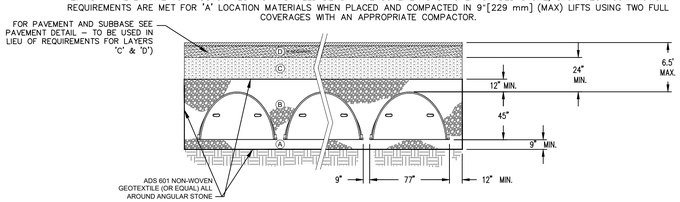
PART#	STUB	B	C
MC3500TEPE12T	12"	26.36"	N/A
MC3500TEPE12B	12"	N/A	1.35"
MC3500TEPE15T	15"	23.39"	N/A
MC3500TEPE15B	15"	N/A	1.50"
MC3500TEPE18T	18"	20.03"	N/A
MC3500TEPE18B	18"	N/A	1.77"
MC3500TEPE24T	24"	14.48"	N/A
MC3500TEPE24B	24"	N/A	2.06"

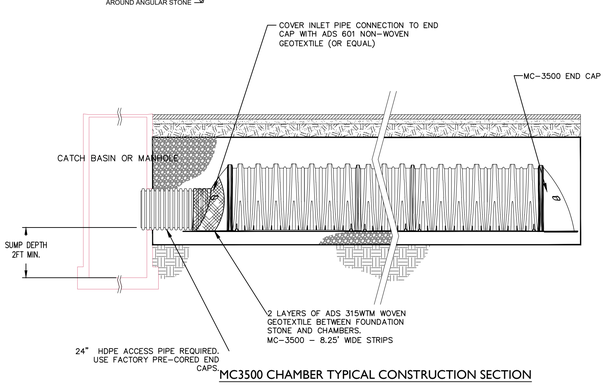
NOTE: ALL DIMENSIONS ARE NOMINAL

PLEASE NOTE:

1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: 'CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE'.

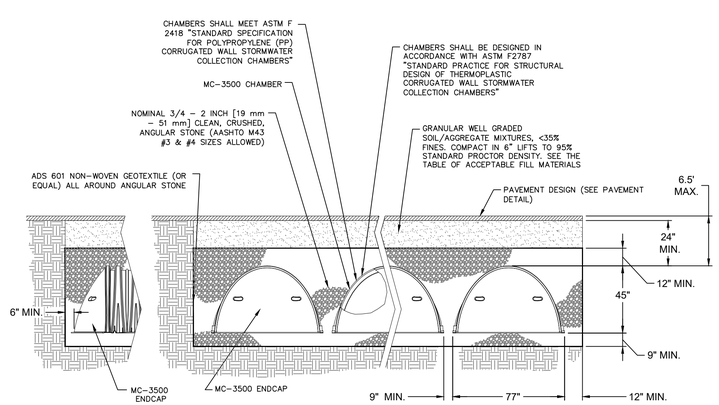
2. AS AN ALTERNATE TO PROCTOR TESTING AND FIELD DENSITY MEASUREMENTS ON OPEN GRADED STONE, STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9"[229 mm] (MAX) LIFTS USING TWO FULL COVERAGES WITH AN APPROPRIATE COMPACTOR.





MC3500 CHAMBER TYPICAL CONSTRUCTION SECTION

NOT TO SCALE



MC3500 CHAMBER TYPICAL CONSTRUCTION SECTION

NOT TO SCALE

STATE OF NEW YORK · RODNEY E. MORRISON · LICENSED PROFESSIONAL ENGINEER · 074194

#	Date	Description
4	7/6/2022	REVISED PER COMMENTS
5	7/15/2022	REVISED PER COMMENTS
6	7/25/2022	REVISED PER COMMENTS
7	09/19/2022	REVISED PER FD COMMENTS
8	11/29/2022	REVISED PER COMMENTS

Revisions

LRC GROUP

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

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

85 Civic Center Plaza, Suite 204
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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.

STORMWATER DETAILS

ADMIRAL HALSEY II

135 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	BS	CAD File	DN21270303.dwg	Sheet No.	DN-3
Drawn	SMC	Project No.	20-2370		
Checked	KFC	Date	2021-06-22		
Approved	REM	Scale	AS NOTED		

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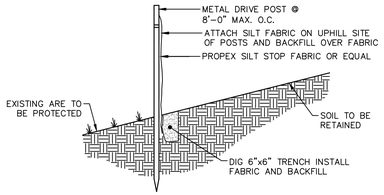
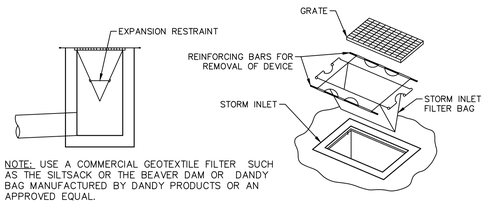


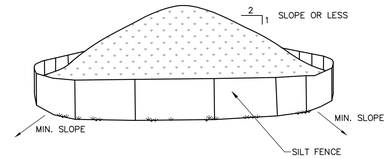
NOTE: FOR SLOPES > 5:1; PERPENDICULAR WINGS PLACED EVERY 100'
FOR SLOPES > 3:1 TO 5:1; PERPENDICULAR WINGS PLACED EVERY 75'
FOR SLOPES > 2:1 TO 3:1; PERPENDICULAR WINGS PLACED EVERY 50'

SILT FENCE DETAIL
SCALE: N.T.S.



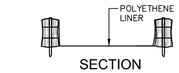
NOTE: USE A COMMERCIAL GEOTEXTILE FILTER SUCH AS THE SILTSACK OR THE BEAVER DAM OR DANDY BAG MANUFACTURED BY DANDY PRODUCTS OR AN APPROVED EQUAL.

SILT SACK DETAIL
SCALE: N.T.S.

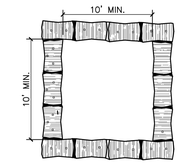


NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.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

MATERIALS STOCKPILE DETAIL
SCALE: N.T.S.



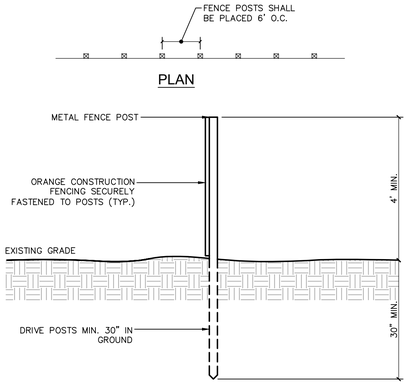
SECTION



PLAN

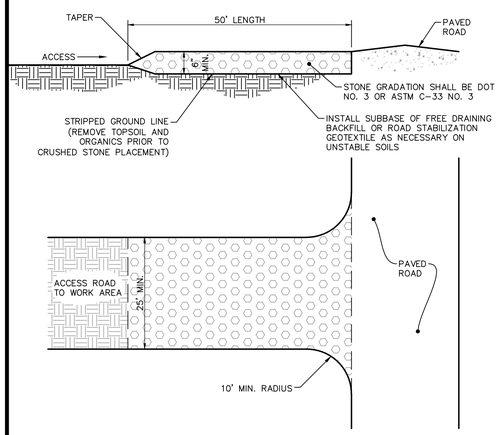
NOTES:
1. CONCRETE WASHOUT SIGN TO BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
2. REMOVE HARDENED CONCRETE WHEN WITHIN 4" FROM TOP OF STRUCTURE.
3. CONSTRUCT NEW FACILITIES ONCE CURRENT FACILITIES ARE TWO-THIRDS FULL. IF CONCRETE HAS NOT HARDENED CONSTRUCT NEW FACILITIES ONCE 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 DETAIL
SCALE: 1/8" = 1'-0"

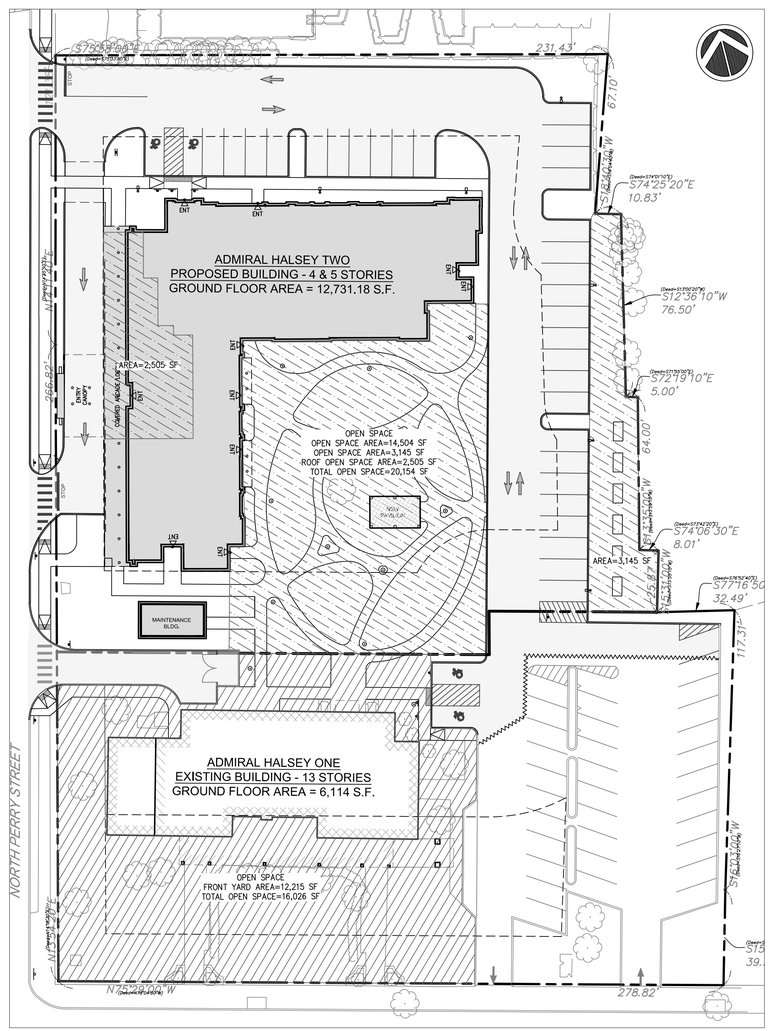


SECTIONAL ELEVATION

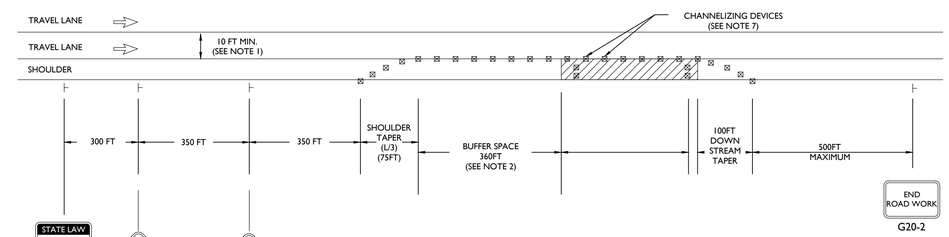
ORANGE CONSTRUCTION FENCE DETAIL
SCALE: 1/2" = 1'-0"



CONSTRUCTION ENTRANCE DETAIL
SCALE: 1/16" = 1'-0"

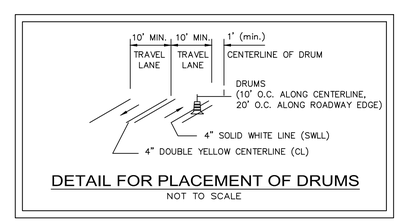


OPEN SPACE PLAN
SCALE: 1"=30'



SHOULDER CLOSURE
1-LANE 1 WAY ROADWAY

WORK ZONE TRAFFIC CONTROL
NOT TO SCALE



DETAIL FOR PLACEMENT OF DRUMS
NOT TO SCALE

GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

STATE OF NEW YORK
RODNEY E. MORRISON
LICENSED PROFESSIONAL ENGINEER
074154

#	Date	Description
4	7/6/2022	REVISED PER COMMENTS
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EROSION CONTROL DETAILS

ADMIRAL HALSEY II

135 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	BS	CAD File	DN21270304.dwg	Sheet No.
Drawn	SMC	Project No.	20-2370	DN-4
Checked	KFC	Date	2021-06-22	
Approved	REM	Scale	AS NOTED	

X:\JOBS\Jobs 2021\21-2730-Admiral Halsey Phase II-Omni New York, LLC\DWG\DN21270304.dwg 11/15/2022 11:50 AM SCurran

PROJECT TITLE:

ADMIRAL HALSEY II

PROJECT ADDRESS:

135 MAIN STREET
POUGHKEEPSIE, NY 12601

CLIENT:

OMNI NEW YORK
909 THIRD AVE., 21ST FLOOR
NEW YORK CITY, NY 10022

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):

CITY OF POUGHKEEPSIE DEPARTMENTAL SIGNATURES
(Required Before Chairman's Signature)

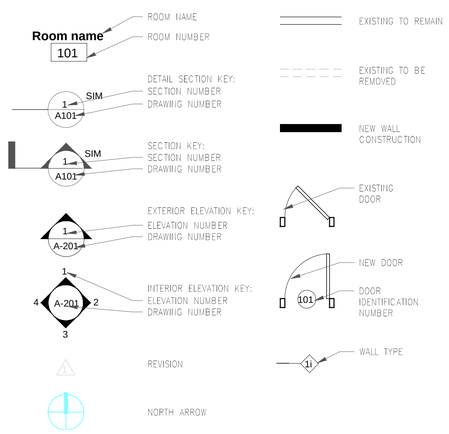
Fire Chief	Date
Police Chief	Date
Building Inspector	Date
City Engineer	Date
Commissioner of Public Works	Date

ABBREVIATIONS

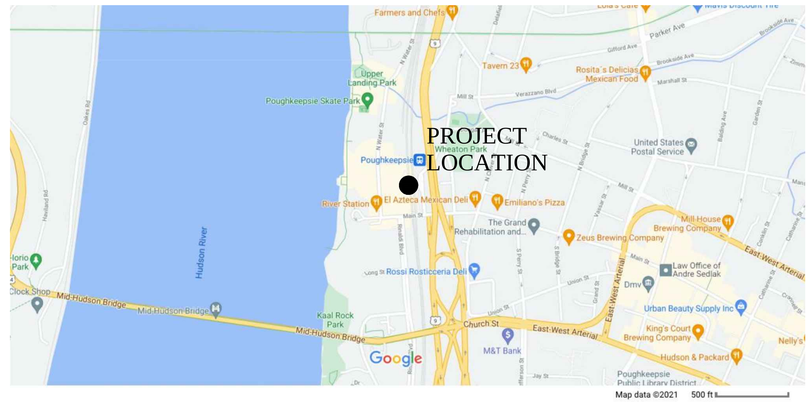
A	ACOUST.	ACOUSTICAL
	A.C.T.	ACOUSTICAL CEILING TILE
	A.F.F.	ABOVE FINISHED FLOOR
	ALUM.	ALUMINUM
	ANOD.	ANODIZED
	APPROX.	APPROXIMATE
	AVG.	AVERAGE
B	B.O.	BOTTOM OF
	BLDG.	BUILDING
	BLK'G.	BLOCKING
	BRG.	BEARING
C	CAB.	CABINET
	CLG.	CEILING
	C.J.	CONTROL JOINT
	C.L.	CENTER LINE
	CLOS.	CLOSET
	CLR.	CLEAR
	C.M.U.	CONCRETE MASONRY UNIT
	CNTR.	COUNTER
	COL.	COLUMN
	CONC.	CONCRETE
	CONSTR.	CONSTRUCTION
	CONT.	CONTINUOUS
	CONTR.	CONTRACTOR
	C.T.	CERAMIC TILE
D	DBL.	DOUBLE
	DIA.	DIAMETER
	DIM.	DIMENSION
	DN.	DOWN
	DR.	DOOR
	DTL.	DETAIL
	DWG	DRAWING
E	EA.	EACH
	E.I.F.S.	EXTERIOR INSULATION FINISH SYSTEM
	ELECT.	ELECTRIC/ELECTRICAL
	ELEV.	ELEVATION
	EQ.	EQUAL
	EQUIP.	EQUIPMENT
	ETC.	ET CETERA
	EXIST.	EXISTING
	EXT.	EXTERIOR
F	F.D.	FLOOR DRAIN
	FDN.	FOUNDATION
	F.E.	FIRE EXTINGUISHER
	FIN.	FINISH
	FIXT.	FIXTURE
	FLR.	FLOOR
	F.R.P.	FIBERGLASS REINF. PLASTIC
	FT.	FEET/FOOT
	FTG.	FOOTING
G	GA.	GAGE/GUAGE
	GALV.	GALVANIZED
	G.C.	GENERAL CONTRACTOR
	GL.	GLASS
	GYP.	GYPSUM
H	H.C.	HANDICAP ACCESSIBLE
	H.C.	HOLLOW CORE
	HDR.	HEADER
	H.M.	HOLLOW METAL
	H.P.	HIGH POINT
	H.R.C.	HEATING & REFRIGERATION CONTRACTOR(S)
	HT.	HEIGHT
	H.V.A.C.	HEATING, VENTILATION, AIR CONDITIONING
I	IN.	INCHES
	INFO.	INFORMATION
	INT.	INTERIOR
	INSUL.	INSULATION
J	J-BOX	JUNCTION BOX
	JST.	JOIST
K	K.E.S.	KITCHEN EQUIPMENT SUPPLIER
L	LAM.	LAMINATE
	LAV.	LAVATORY
	LBS.	POUNDS
	L.F.	LINEAL FOOT
	L.P.	LOW POINT
M	MANUF.	MANUFACTURER
	MAX.	MAXIMUM
	MECH.	MECHANICAL
	MIN.	MINIMUM
	MISC.	MISCELLANEOUS
	M.O.	MASONRY OPENING
	MSRY.	MASONRY
	MTD.	MOUNTED
	MTL.	METAL
N	N.I.C.	NOT IN CONTRACT
	N.T.S.	NOT TO SCALE
O	O.C.	ON CENTER
	O.D.	OUTSIDE DIAMETER
	O.H.	OPPOSITE HAND
	OPNG.	OPENING
	OPP.	OPPOSITE
	OPT.	OPTIONAL
P	PL.	PLATE
	PLUMB.	PLUMBING
	PLYWD.	PLYWOOD
	PNL.	PANEL
	PR.	PAIR
	PREP.	PREPARATION/PREPARED
	PT.	PART/POINT
R	R.A.	RETURN AIR
	RAD.	RADIUS
	RECPT.	RECEPTACLE
	REINF.	REINFORCING
	REQ'D.	REQUIRED
	R.O.	ROUGH OPENING
	R.T.U.	ROOF TOP UNIT
S	S.C.	SOLID CORE
	SCHD.	SCHEDULE
	SF.	STOREFRONT
	SHT.	SHEET
	SIM.	SIMILAR
	SPECS.	SPECIFICATIONS
	SPRINK.	SPRINKLERS
	SQ.	SQUARE
	S.S.	STAINLESS STEEL
	STD.	STANDARD
	STL.	STEEL
	STRUCT.	STRUCTURAL/STRUCTURE
	SUSP.	SUSPENDED
T	T.O.	TOP OF
	T&B	TOP & BOTTOM
	T&G	TONGUE & GROOVE
	TEMP.	TEMPERED
	TYP.	TYPICAL
V	V.	VOLT/VOLTAGE
	V.C.T.	VINYL COMPOSITION TILE
	VERT.	VERTICAL
W	W/	WITH
	W/O	WITHOUT
	W.B.	WALL BASE
	W.C.	WATER CLOSET
	WD.	WOOD
	W.H.	WATER HEATER
	WDW.	WINDOW
	WT.	WEIGHT
	W.W.F.	WELDED WIRE FABRIC

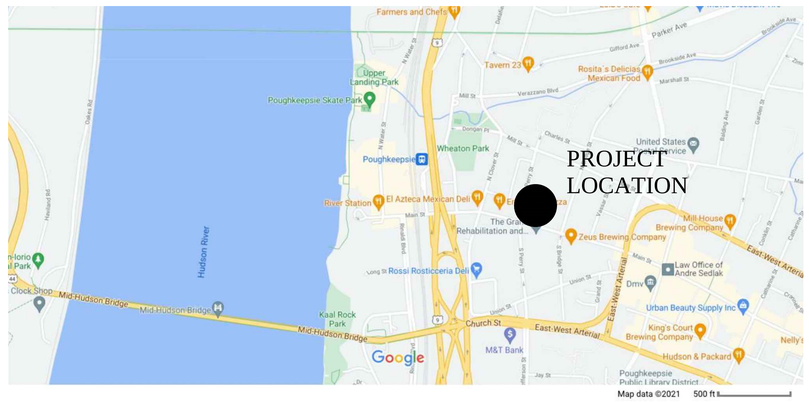
SITE DATA

SYMBOL LEGEND



LOCATION MAP





DRAWING INDEX

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2 - ARCHITECTURAL	
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PZ-101	2ND - 4TH FLOOR PLANS
PZ-102	5TH FLOOR PLAN
PZ-103	WEST ELEVATION / SOUTH ELEVATION
PZ-104	EAST ELEVATION / NORTH ELEVATION
PZ-105	WEST SITE SECTION/SOUTH SITE SECTION
PZ-106	EAST SITE SECTION/NORTH SITE SECTION
PZ-107	RENDERINGS
PZ-108	RENDERINGS
PZ-109	PHOTOS OF ADJACENT PROPERTIES
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PZ-111	GAZEBO PLAN & ELEVATIONS
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CV-1	COVER SHEET - not included this submission
EX-1	EXISTNG CONDITIONS
SUB-1	SUBDIVISION PLAT - not included this submission
DM-1	DEMOLITION PLAN
SP-1	SITE PLAN
SG-1	SITE GRADING - not included this submission
SD-1	SITE DRAINAGE - not included this submission
UT-1	UTILITIES PLAN
EC-1	EROSION & SEDIMENT CONTROL PLAN - not included
LL-1	LANDSCAPE PLAN
LP-1	SITE LIGHTING PLAN
TT-1	TRUCK TURNING PLAN - not included this submission
NS-1	NOTES SHEET - not included this submission
DN-1	SITE DETAILS - not included this submission
DN-2	SANITARY / WATER DETAILS
DN-3	STORMWATER DETAILS - not included this submission
DN-4	EROSION CONTROL DETAILS

REVISION 1: ISSUED TO PLANNING BOARD - 2022.03.01

*THIS DRAWING IS FOR SCHEMATIC DESIGN PURPOSES ONLY AND IS NOT INTENTED FOR CONSTRUCTION. ACTUAL CONSTRUCTION DRAWINGS, AND SUBSEQUENT CONSTRUCTION MAY DIFFER SIGNIFICANTLY FROM THIS REPRESENTATION.

TINKELMAN ARCHITECTURE
25 Van Wagner Road,
Poughkeepsie,
New York 12603
www.tinkarch.com

CLIENT NAME: OMNI NEW YORK
909 THIRD AVE., 21st FLOOR
NEW YORK CITY, NY 10022

PROJECT NAME: ADMIRAL HALSEY II
135 MAIN STREET
POUGHKEEPSIE, NY 12603

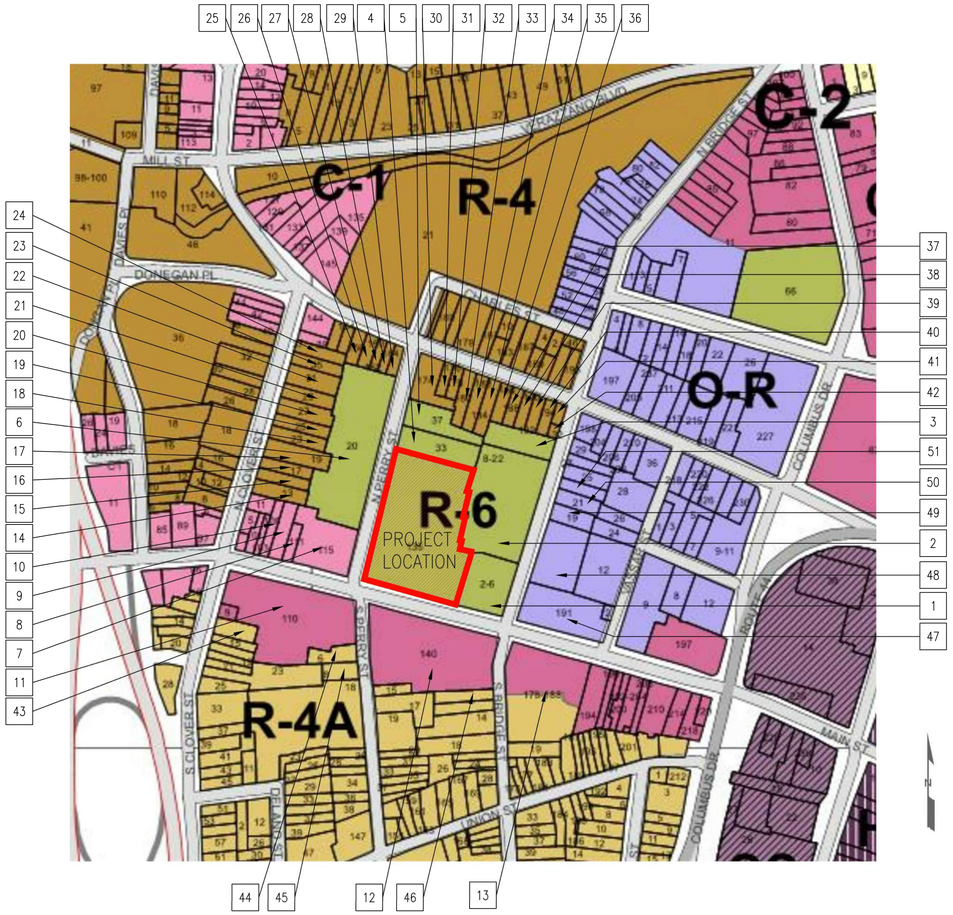
REGISTERED ARCHITECT STEVEN TINKELMAN 16528 STATE OF NEW YORK

TITLE SHEET

Date: 2022.12.06
Project number: C1629.40

T-101

6/3/2021 10:45:37 AM



1 ADJOINING PROPERTY OWNER PLAN
NOT TO SCALE

ADJOINING PROPERTY OWNER LEGEND

ZONE	ID No.	LOT No.	PRIMARY OWNER/ADDRESS
R-1	1	925155	JOACHIM KIEFERT NEWBURGH GmbH 35 MANCHESTER CIRCLE POUGHKEEPSIE, NY 12601
	2	931179	JOHN F. BAHRENBURG – TRUSTEE 248 OVERLOOK ROAD POUGHKEEPSIE, NY 12603
	3	935196	MILL STREET ESTATES LLC 39 HOOSE BLVD FISHKILL, NY 12524
	4	912195	CITY OF POUGHKEEPSIE P.O. BOX 300 POUGHKEEPSIE NY 12602
	5	910206	15037 VICTORY LLC 4530 E. THOUSAND OAKS BLVD WESTAGE VILLAGE, CA 91362
	6	888192	15037 VICTORY LLC 4530 E. THOUSAND OAKS BLVD WESTAGE VILLAGE, CA 91362
	7	840167	DANIEL MILANESE – TRUSTEE 115 MAIN STREET POUGHKEEPSIE, NY 12601
	8	871168	DANIEL MILANESE – TRUSTEE 115 MAIN STREET POUGHKEEPSIE, NY 12601
	9	868171	DANIEL MILANESE – TRUSTEE 115 MAIN STREET POUGHKEEPSIE, NY 12601
	10	865172	RODOLFO GUERRIERO LT 29 WORRALL AVENUE. POUGHKEEPSIE NY 12603
C-2	11	870147	MARSHALL & STERLING REALTY INC. 110 MAIN STREET POUGHKEEPSIE NY 12601
	12	906135	RIVER VALLEY REALTY CO. LP 143-10 20TH AVENUE WHITESTONE, NY 11357
	13	944121	QUEEN CITY LOFT HOUSING DEV. 34 CLAYTON BLVD. BALDWIN PLACE, NY 10505
R-4	14	867182	WILSON F. VILLA 13 NORTH CLOVER STREET POUGHKEEPSIE NY 12601
	15	868186	CAROL E. GUSTAFSON 649 NOXON ROAD POUGHKEEPSIE NY 12601
	16	869189	R.F. REYNOLDS PROPERTY & ACQUISITION CORP. 21 MARWILL STREET ALBANY, NY 12209
	17	873193	POUGHKEEPSIE APOSTOLIC CHURCH 19 N. CLOVER STREET POUGHKEEPSIE NY 12601
	18	872198	HEIDIN N. QUIJADA GUERRA 27 N. CLOVER STREET POUGHKEEPSIE, NY 12601
	19	873201	ELBIN ANTONIO QUIJADA GUERRA 25 N. CLOVER STREET POUGHKEEPSIE, NY 12601
	20	874205	ALEYDA JUDITH QUIJADA GUERRA 27 N. CLOVER STREET POUGHKEEPSIE, NY 12601
	21	875209	ANTAR CAPITAL LLC 3224 CHURCH STREET POUGHKEEPSIE NY 12601
	22	876214	GIULIO MAZZARELLI – TRUSTEE 32 SCHOOLHOUSE LANE POUGHKEEPSIE NY 12603
	23	877219	GIULIO MAZZARELLI – TRUSTEE 32 SCHOOLHOUSE LANE POUGHKEEPSIE NY 12603
	24	878222	GIULIO MAZZARELLI – TRUSTEE 32 SCHOOLHOUSE LANE POUGHKEEPSIE NY 12603
	25	889224	JOHN P. LEONARD 4 KEITH PLACE POUGHKEEPSIE NY 12603
	26	892222	JOHN P. LEONARD 4 KEITH PLACE POUGHKEEPSIE NY 12603
	27	895222	JOHN P. LEONARD 4 KEITH PLACE POUGHKEEPSIE NY 12603

ADJOINING PROPERTY OWNER LEGEND

ZONE	ID No.	LOT No.	PRIMARY OWNER/ADDRESS
R-4	28	898221	3 GEMMS REALTY LLC 30 MANCHESTER ROAD POUGHKEEPSIE, NY 12603
	29	900220	JOHN LEONARD 4 KEITH PLACE POUGHKEEPSIE, NY 12603
	30	909213	JOHN P. LEONARD 4 KEITH PLACE POUGHKEEPSIE, NY 12603
	31	914214	LORY PROPERTIES CORP. P.O. BOX 235 STORMVILLE, NY 12582
	32	917213	333 MANSION LLC 35 MILE HILL ROAD HIGHLAND, NY 12528
	33	920209	SHANE BARTHOLOMEW 70 WHITTIER BLVD POUGHKEEPSIE, NY 12603
	34	923208	TURNOVER 2 LLC 117 EXECUTIVE DRIVE NEW WINDSOR, NY 12553
	35	927207	MICHAEL HOMAK 184 MILL STREET POUGHKEEPSIE, NY 12601
	36	931207	JAMES DOLFINGER 186 MILL STREET POUGHKEEPSIE, NY 12601
	37	934206	KMM PROPERTIES LLC 46 VASSAR ROAD POUGHKEEPSIE NY 12603
	38	937205	TONIO CAPPIELLO 192 MILL STREET POUGHKEEPSIE NY 12601
	39	940204	TONIO CAPPIELLO 192 MILL STREET POUGHKEEPSIE NY 12601
	40	943203	JOSHUA TAYLOR 194 MILL STREET POUGHKEEPSIE, NY 12601
	41	947204	VICTOR JOSEPH TROCINO 158 MORTON ROAD RHINRBECK, NY 12572
	42	945199	T.J. ASSOCIATES INC. P.O. BOX 5310 POUGHKEEPSIE NY 12602
R-4A	43	855143	MARSHALL & STERLING REALTY INC. 110 MAIN STREET POUGHKEEPSIE NY 12601
	44	881134	MARSHALL & STERLING REALTY INC. 110 MAIN STREET POUGHKEEPSIE NY 12601
	45	884129	BURTON GOLD PROPERTIES LLC 12 RAYMOND AVE NE POUGHKEEPSIE, NY 12603
	46	920123	NORTH EASTERN CONFERENCE CORP. 115-50 MERRICK BLVD. JAMAICA, NY 11434
R-4A	47	941153	CMRC LTD 4 BRIDGE STREET BROADALBIN, NY 12025
	48	947163	NORTH EASTERN CONFERENCE CORP. 115-50 MERRICK BLVD. JAMAICA, NY 11434
	49	951174	NORTH EASTERN CONFERENCE CORP. 115-50 MERRICK BLVD. JAMAICA, NY 11434
	50	952178	NORTH EASTERN CONFERENCE CORP. 115-50 MERRICK BLVD. JAMAICA, NY 11434
	51	954182	NORTH EASTERN CONFERENCE CORP. 115-50 MERRICK BLVD. JAMAICA, NY 11434
	52	955186	ANGELA LEMOS 25 N. BRIDGE STREET POUGHKEEPSIE NY 12601

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OMNI NEW YORK

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NEW YORK CITY, NY 10022

PROJECT NAME:

ADMIRAL HALSEY II

135 MAIN STREET
POUGHKEEPSIE, NY 12601

REGISTERED ARCHITECT STEVEN TINKELMAN 18526 STATE OF NEW YORK

ADJOINING PROPERTIES MAP

Date: 2021.12.21

Project number: Y1629.20

G-100

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6/14/2021 7:15:06 AM

1 1ST FLOOR PLAN
1/8" = 1'-0"

0' 4' 8' 16'

FUNCTION LEGEND

- STUDIO UNIT
- ONE BEDROOM UNIT
- TENANT AMENITIES
- TENANT SERVICES
- BUILDING MANAGEMENT
- COMMUNITY AMENITIES
- HCR SERVICES
- BUILDING SERVICES

N

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GROUND FLOOR PLAN

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PZ-100

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1 2ND - 4TH FLOOR PLAN
1/8" = 1'-0"

0' 4' 8' 16'

N

FUNCTION LEGEND	
STUDIO UNIT	
ONE BEDROOM UNIT	
TENANT AMENITIES	
TENANT SERVICES	
BUILDING MANAGEMENT	
COMMUNITY AMENITIES	
HCR SERVICES	
BUILDING SERVICES	

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2ND - 4TH FLOORS

Date: 2022.04.26
Project number: Y1629.20

PZ-101

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3 5TH FLOOR PLAN
1/8" = 1'-0"

1 TYP. STAIR TOWER: 5TH FL / ROOF
1/8" = 1'-0"

FUNCTION LEGEND

- STUDIO UNIT
- ONE BEDROOM UNIT
- TENANT AMENITIES
- TENANT SERVICES
- BUILDING MANAGEMENT
- COMMUNITY AMENITIES
- HCR SERVICES
- BUILDING SERVICES

0' 4' 8' 16'

N

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REGISTERED ARCHITECT STEVEN TINKELMAN 18528 STATE OF NEW YORK

5TH FLOOR

Date: 2022.04.26
Project number: Y1629.20

PZ-102

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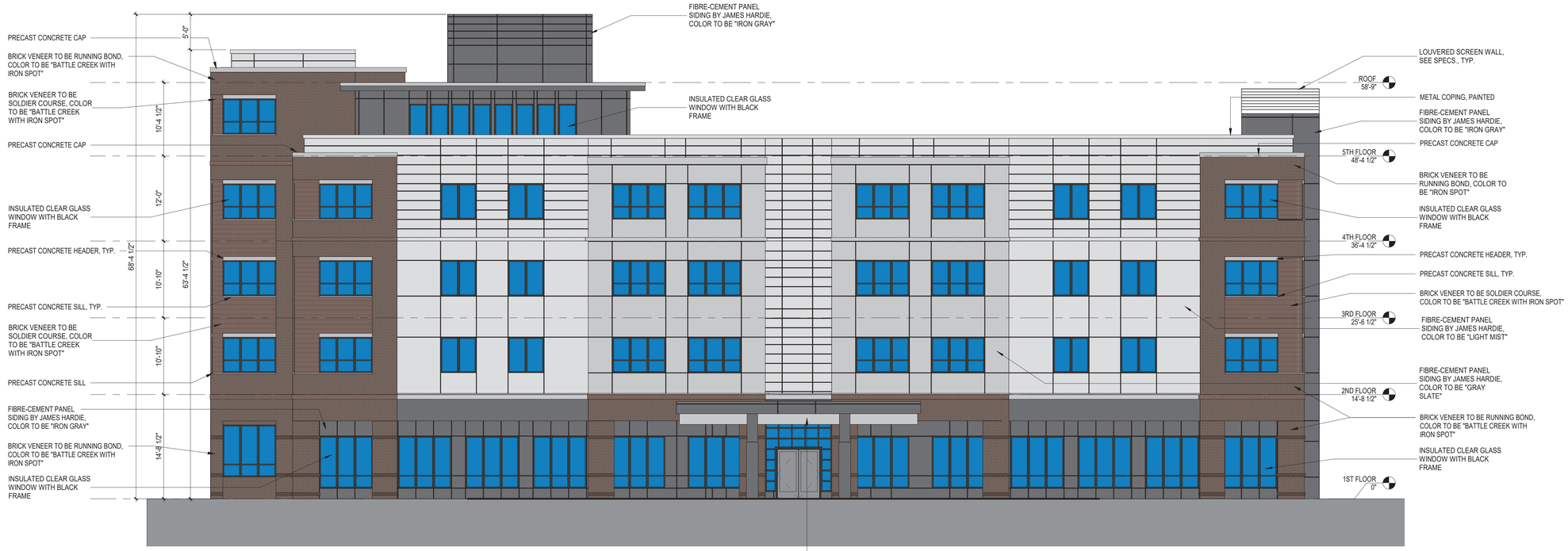

1 WEST ELEVATION
1/8" = 1'-0"

0' 4' 8' 16'

2 SOUTH ELEVATION
1/8" = 1'-0"

0' 4' 8' 16'

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REGISTERED ARCHITECT EVEREN TINKELMAN 18528 STATE OF NEW YORK

WEST ELEVATION
SOUTH ELEVATION

Date: 2022.04.26
Project number: Y1629.20

PZ-103

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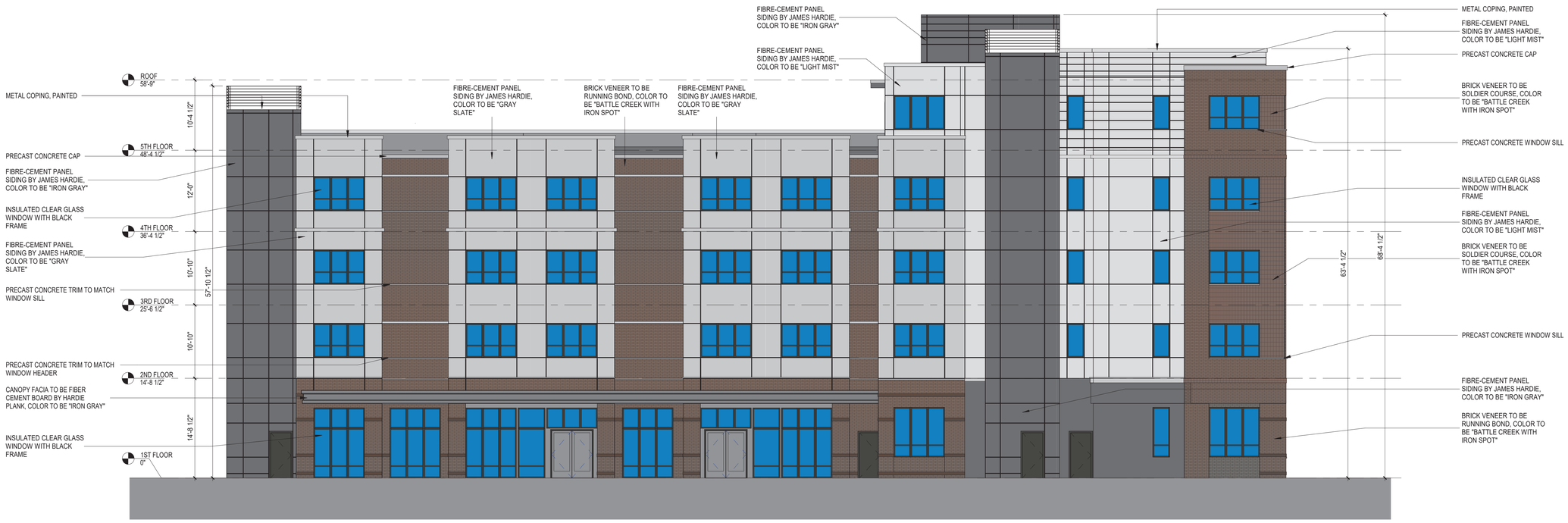

1 EAST ELEVATION
1/8" = 1'-0"

0' 4' 8' 16'

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

0' 4' 8' 16'

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EAST ELEVATION
NORTH ELEVATION

Date: 2022.04.26

Project number: Y1629.20

PZ-104

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4/5/2022 9:31:49 AM

2 SITE SECTION: WEST ELEVATION
NOT TO SCALE

1 SITE SECTION: SOUTH ELEVATION
NOT TO SCALE

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WEST SITE SECTION
SOUTH SITE SECTION

Date: 2022.03.01
Project number: Y1629

PZ-105

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2/24/2022 11:42:22 AM

2 SITE SECTION: EAST ELEVATION
NOT TO SCALE

1 SITE SECTION: NORTH ELEVATION
NOT TO SCALE

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POUGHKEEPSIE, NEW YORK 12601

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EAST SITE SECTION
NORTH SITE SECTION

Date: 2022.03.01
Project number: Y1629

PZ-106

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ADMIRAL HALSEY II

135 MAIN STREET
POUGHKEEPSIE, NEW YORK 12601

REGISTERED ARCHITECT STEVEN TINKELMAN 18528 STATE OF NEW YORK

RENDERINGS

Date: 2022.04.26

Project number: Y1629

PZ-107

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RENDERINGS

Date: 2022.04.26

Project number: Y1629

PZ-108

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1 33 N. Perry St. - Abandon Water Park - 2021.06.01

2 33 N. Perry St. - Abandon Water Park - 2016.11.01

3 N. Perry St. - 2021.06.01

4 NW Corner N. Perry St. - 2016.11.01

5 115 Main Street - 2021.11.01

6 110 Main Street - 2021.06.01

7 140 Main Street - NW - 2021.06.01

8 178-188 Main St - Aerial - 2021.06.01

9 191 Main St - Aerail - 2021.06.01

10 10-135 Main Street - Admiral Halsey One - 2021.06.01

11 PHOTO LEGEND MAP

N

GRAPHIC SCALE
0 50' 100' 200'

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PHOTOS OF ADJOINING PROPERTIES

Date: 2021.12.21

Project number: Y1629.20

PZ-109

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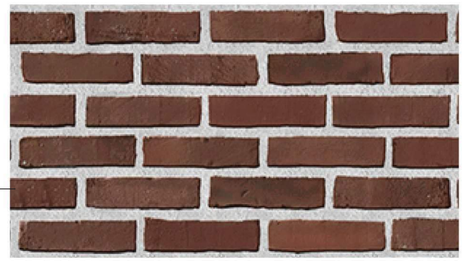
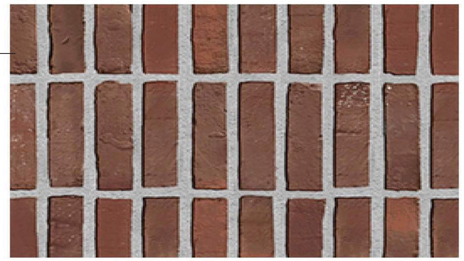


BRICK: GLEN GERY - BATTLE CREEK - RUNNING BOND

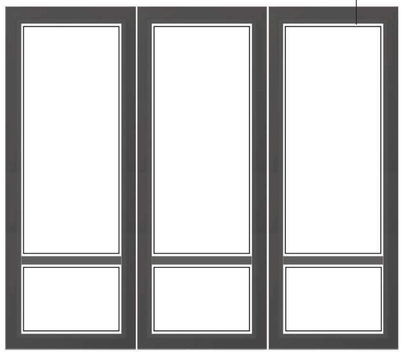


BRICK: GLEN GERY - BATTLE CREEK - STACKED BOND

EXT. DOORS / STOREFRONT: KAWNEER

PANEL: JAMES HARDIE - LIGHT MIST

PANEL: JAMES HARDIE - GRAY SLATE



EXT. WINDOWS: INTUS WINDOWS (FIXED/CASEMENT)

PANEL: JAMES HARDIE - IRON GRAY

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135 MAIN STREET
POUGHKEEPSIE, NEW YORK 12601

REGISTERED ARCHITECT STEVEN TINKELMAN 16528 STATE OF NEW YORK

EXTERIOR MATERIAL BOARD

Date: 2022.03.01

Project number: Y1629

PZ-110

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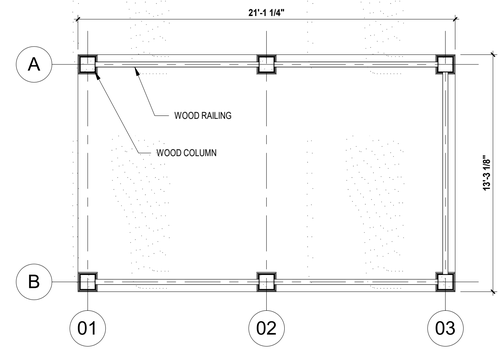
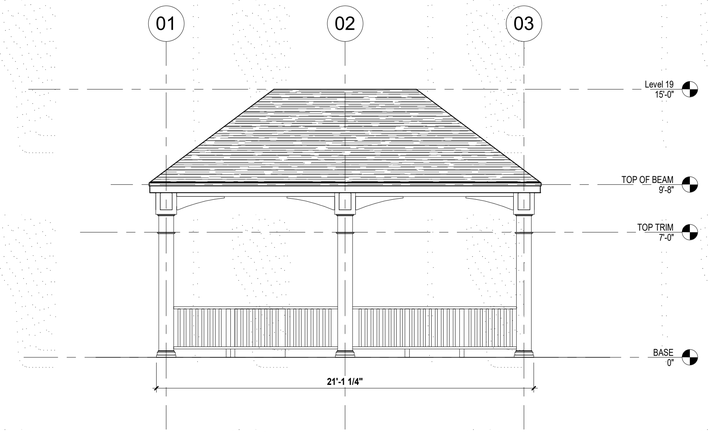
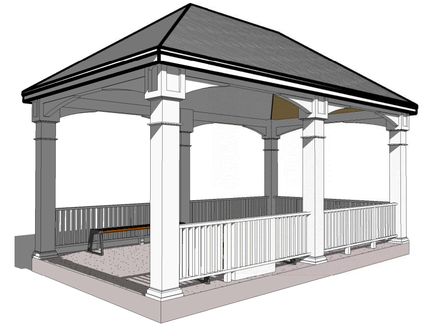


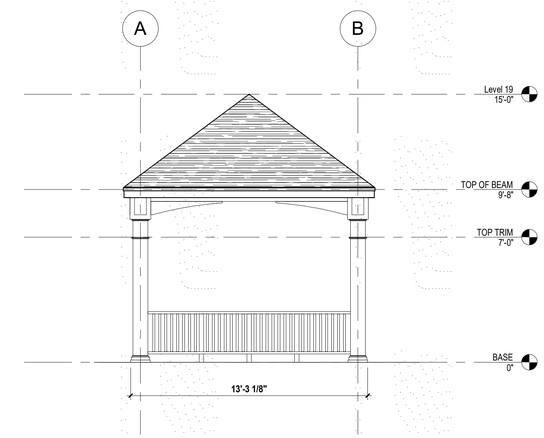
3 FLOOR PLAN
1/4" = 1'-0"



1 LONG ELEVATION
1/4" = 1'-0"



4 GAZEBO VIGNETTE



2 SHORT ELEVATION
1/4" = 1'-0"

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135 MAIN STREET
POUGHKEEPSIE, NY 12601

REGISTERED ARCHITECT
STEVEN TINKELMAN
18526
STATE OF NEW YORK

NO.	SUBMISSION DESCRIPTION	DATE

GAZEBO PLAN & ELEVATIONS

Date: DEC, 06 2022
Project number: C1629.40

PZ-111

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NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

October 12, 2022

Nicole Casamento
LRC Group
85 Civic Center Plaza, Suite 204
Poughkeepsie, NY 12601

Re: DEC
Admiral Halsey Phase II
135 Main St.
Poughkeepsie, Dutchess Co.
22PR05941

Dear Nicole Casamento:

Thank you for requesting the comments of 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).

The project area is bordered by the National Register listed Mill Street-North Clover Street Historic District to the north and the National Register listed Union Street Historic District to the south. Because of this, we have reviewed the project.

The new design is appropriate. It is the opinion OPRHP that the project will have No Adverse Impact on historic resources.

If you have any questions, I can be reached at sloane.bullough@parks.ny or 518-268-2158.

Sincerely,

Sloane Bullough

Sloane Bullough
Historic Sites Restoration Coordinator by email only

PRELIMINARY ENGINEERING REPORT

Prepared for

ADMIRAL HALSEY II

Located at

135 Main Street
City of Poughkeepsie, Dutchess County, NY
Tax ID: 6062-76-911183

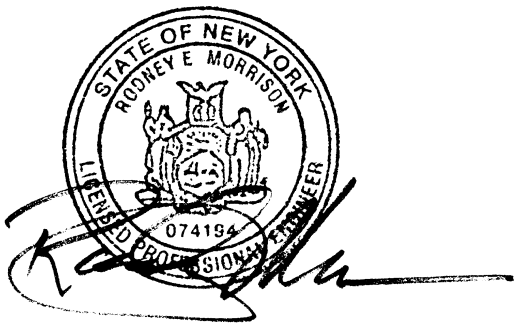
Submitted

December 1, 2021
Last Revised: November 29, 2022

Prepared for

Admiral Halsey II, L.P.

909 Third Avenue, 21st Floor
New York City, NY 10022



Prepared by

Land Planning ♦ Civil Engineering ♦ Environmental Services ♦ Land Surveying ♦ Landscape Architecture

85 Civic Center Plaza, Suite 204
Poughkeepsie, NY 12601
Phone 845-243-2880
Fax 845-265-8175
www.lrcconsult.com

Offices in Connecticut, New York and New Jersey

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

TABLE OF CONTENTS

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2.0 WATER SERVICES
2.1 Domestic Water Demand
2.2 Proposed Water Supply
2.3 Water Infrastructure Improvements
2.4 Fire Suppression
3.0 WASTEWATER SERVICES
3.1 Design Wastewater Flows
3.2 Existing Wastewater Treatment
3.3 Wastewater Infrastructure Improvements
4.0 WATER AND WASTEWATER SERVICES – CONCLUSION

APPENDICES

Appendix A – Sewer and Water Calculations

1.0 INTRODUCTION

The subject property is a 2.285 acre parcel located at 135 Main Street in the City of Poughkeepsie. The property is identified as Tax Parcel 6062-76-911183 according to the Dutchess County Parcel Access Records. The site is located on the east side of North Perry Street and the north side of Main Street. The project has UTM coordinates of 588728 Easting and 4617715 Northing. Below in ***Figure 1*** is a vicinity map showing the outer limits of the property (shown in blue).

The property is located within the R-6 zoning district. The site is currently developed with an existing 13 story high-rise affordable housing building (Admiral Halsey I). The site includes an existing parking area, with associated sidewalks and landscape areas.

The proposed development will subdivide the existing lot into two (2) proposed lots. The existing high-rise building will remain on Lot 1. A proposed 5 story affordable housing building will be constructed on Lot 2 with associated parking, sidewalks and landscaped area.

2.0 WATER SERVICES

2.1 Domestic Water Demand

The estimated consumption values 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:

ADMIRAL HALSEY					
Sanitary Sewer Flow / Water Computation Projections					
EXISTING SITE					
Location	**Use**	**Size**		**Rate**	**Flow (GPD)**
Overall Site	Assisted Living	79,482	SQ FT		
		119	Beds	110	13,090
PROPOSED DEVELOPMENT					
Location	**Use**	**Size**		**Rate**	**Flow (GPD)**
Lot 2	Assisted Living		SQ FT		
		72	Beds	110	7,920
				Total Proposed Daily Flow:	**7,920**
				Overall Daily Flow:	**21,010**

Based on the calculated sewer and water usage, the proposed project will increase the daily flow by 7,920 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 existing building is connected to an existing 6" water main located on the

west side of North Perry Street. The water supply for the purposed building will also connect into the same 12" water main located on the west side of North Perry Street.

2.3 Water Infrastructure Improvements

A water meter and backflow prevention will be installed in the mechanical room in the proposed building. The proposed building will also include an FDC connection on the side of the building.

2.4 Fire Suppression

The proposed building will be equipped with sprinkler systems in accordance with NFPA guidelines. There is one new fire hydrant proposed. Existing municipal fire hydrants are located on the west side of North Perry Street and the north side of Main 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 7,920 GPD for the proposed building. Using a peaking factor of 4.0 as recommended by the NYSDEC the design max hourly flow rate is 22 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 existing 12" municipal line in North Perry Street through a proposed 6" sanitary sewer line. The proposed 6" sewer line will connect to the existing line through a proposed doghouse manhole.

4.0 WATER AND WASTEWATER SERVICES – CONCLUSION

The new development will have total sewer and water usage of 7,920 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 Water District and Sewer District, have adequate infrastructure and capacity, according to the City.

APPENDIX A

Sewer and Water Calculations

Project	Admiral Halsey			Project #:	21-2730
Calculations By:	BLS	Checked By:	KFC	Date:	5/25/2021

Location: 135 Main Street
Parcel ID: 6062-76-911183
Project: Admiral Halsey Proposed Building

ADMIRAL HALSEY					
Sanitary Sewer Flow / Water Computation Projections					
EXISTING SITE					
Location	**Use**	**Size**		**Rate**	**Flow (GPD)**
Overall Site	Assissted Living	79,482	SQ FT		
		119	Beds	110	13,090
PROPOSED DEVELOPMENT					
Location	**Use**	**Size**		**Rate**	**Flow (GPD)**
Lot 2	Assissted Living		SQ FT		
		72	Beds	110	7,920
Total Proposed Additional Daily Flow:					**7,920**
Overall Daily Flow:					**21,010**

STORMWATER POLLUTION PREVENTION PLAN

Prepared for

ADMIRAL HALSEY II

Located at

135 Main Street
City of Poughkeepsie, Dutchess County, NY
Tax ID 6062-76-911183

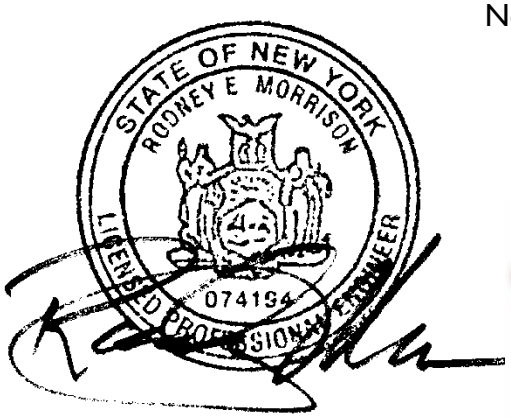
Submitted

December 1, 2021
Last Revised: November 29, 2022

Prepared for

Omni New York

909 Third Avenue, 21st Floor
New York City, New York 10022



Prepared by

Land Planning ♦ Civil Engineering ♦ Environmental Services ♦ Land Surveying ♦ Landscape Architecture

85 Civic Center Plaza, Suite 204
Poughkeepsie, NY 12601
Phone 845-243-2880
Fax 845-265-8175
www.lrcconsult.com

Offices in Connecticut, New York and New Jersey

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

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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)
Notice of Termination (NOT)
NYSDEC SPDES General Permit GP-0-20-001
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

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 infiltration chamber. 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
Admiral Halsey II, L.P. 909 Third Avenue, 21st Floor New York City, NY 10022	**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 subject property is a 2.285 acre parcel located at 135 Main Street in the City of Poughkeepsie. The property is identified as Tax Parcel 6062-76-911183 according to the Dutchess County Parcel Access Records. The site is located on the east side of North Perry Street and the north side of Main Street. The project has UTM coordinates of 588728 Easting and 4617715 Northing. Below in ***Figure 1*** is a vicinity map showing the outer limits of the property (shown in blue).

Figure 1: Vicinity Map

The property is located within the R-6 zoning district. The site is currently developed with an existing 13 story high-rise affordable housing building (Admiral Halsey I). The site includes an existing parking area, with associated sidewalks and landscape areas.

2.2 Topography

Elevations vary slightly throughout the overall site. The sits slopes from the back northeast corner of the property down towards North Perry Street. There are existing retaining walls located in said back northeast corner that raises the elevation up in that corner.

2.3 Land Cover and Site Development

The existing land cover consists of a combination of impervious building structures, asphalt pavement, grass, and wooded areas. Currently, there is an existing 12 story building. The building is surrounded by walkways, patios, and parking for the existing building. There is a combination of grass and trees north of the building turning to a grass lawn area between the existing building. The existing water shed has 0.89 acres of impervious surface which is 38.0% of the watershed. The proposed development will have a total of 1.48 acres of impervious surface which is 63.5% of the watershed. The development is adding 0.59 acres of impervious surface. Detailed land use values for each drainage area can be found in the Hydro CAD reports included in **Appendix C**.

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. Ud: Udorthents, smoothed

According to NRCS soil hydraulic classifications Ud is a "Class A" soil. On-site deep testing and infiltration testing around the site stormwater improvements revealed, primarily, a consistent well-draining "Class A" soil type. 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	
24-Hour Storm Event	**24-Hour Rainfall**
1-Year	2.6
2-Year	3.2
10-Year	4.7
25-Year	5.9
100-Year	8.2

2.6 Streams and Water Bodies

There are no streams or water bodies located onsite. The nearest water body is the Hudson River which is approximately 2,000 feet west of the site.. According to NYSDEC Environmental Resource Mapper and USFWS Wetland Mapper there are no ACOE or NYS DEC wetlands located on site. According to FEMA mapping there are no floodplains located onsite.

2.7 Wetlands and Floodplains

There are no wetlands or floodplains located onsite

2.8 Historical and Cultural Resources

The project area has been reviewed in accordance with Section 106 of the National Historic Preservation Act of 1966. The project will have no effect upon cultural resources in or eligible for inclusion in the National Registers of Historic Places. A letter from the New York State Office of Parks, Recreations and Historic Preservation is included in **Appendix D**.

3.0 PROJECT DESCRIPTION

The proposed development will subdivide the existing lot into two (2) proposed lots. The existing high-rise building will remain on Lot 1. A proposed 4 and 5 story affordable housing building will be constructed on Lot 2. Associated parking, sidewalks, utilities, stormwater management practices and landscaping will also be provided.

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.

Preservation of Buffers

There are no existing stream, river, or wetland vegetated buffers on the project site. There is a small strip of vegetation on the north and east property along the retaining wall that will be maintained as part of the project.

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.

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.

Sidewalk Reduction

The proposed sidewalks are the minimum required by the City regulations.

Driveway Reduction

The drive aisles are the minimum required by the City Regulations.

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.

Parking Reduction

The proposed parking is less than the minimum required by the City but the correct amount required for the proposed use of the building.

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

The project has been designed to take advantage of the good soils in the location of the proposed development. 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; The proposed development is primarily contained within drainage areas DA 2-9 as shown on the pre and post drainage area maps in **Appendix E**.

Water Quality Volume Calculations			STANDARD
Trib Area	1.56	ac	
Imperv Cover:	1.01	ac	
Imperv. %	64.38		
Stormwater Management Practice Selection:			
Underground Infiltration Chambers			
Uniform Sizing Criteria:			
Water Quality (WQv)	P=	1.05	
	I=	*64.4*	
	Rv=	0.6294	
	A=	1.56	
	WQv=	0.09	AC-FT
		3,749.8	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=	0.55		
	Min RRV =	0.071	ac-ft
	Min RRV =	3,112.9	cu ft

The total impervious surface created and or modified by the proposed project is 0.59 acres. The impervious surface treated by the proposed Underground Chambers totals 1.01 acres as shown in the calculations above.

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 underground infiltration chambers. For this design the entire WQv is provided in a runoff reduction practice so 100% of the RRv will be achieved.

Design Parameters		
Select Stormtech Chamber	SC-740	
Stone Porosity (Industry Standard 40%)	40	%
Stone Foundation Depth	6	Inches
Avg Cover Over Chambers	24	Inches
Storage Volume Per Chamber	59	CF
Storage Volume Per End Cap	0	CF

UGC #	Required WQv	Required RRv	Min Chambers Required	Chambers Provied	End Caps Provided	WQv Provided	RRv Provided
1	829.9	453.0	14.1	30	6	2,807.0	2,807.0

Design Parameters		
Select Stormtech Chamber	MC-3500	
Stone Porosity (Industry Standard 40%)	40	%
Stone Foundation Depth	9	Inches
Avg Cover Over Chambers	24	Inches
Storage Volume Per Chamber	194	CF
Storage Volume Per End Cap	0	CF

UGC #	Required WQv	Required RRv	Min Chambers Required	Chambers Provied	End Caps Provided	WQv Provided	RRv Provided
2	2,161.6	1,154.9	11.1	27	6	5,440.0	5,440.0

The proposed underground infiltration chambers exceed 100 percent of the required WQv and RRv.

Pretreatment

For underground infiltration practices designed to treat stormwater runoff through infiltration, the stone bed surface area is the mechanism to provide treatment. The system must be sized to store runoff long enough it can be infiltrated into the subsurface soils. Pretreatment is required to prevent sediments from clogging the stone bed and preventing infiltration. For underground chambers pretreatment is typically provided in isolator rows.

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. Four 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	1.3	1.2	**-0.1**
2	1.9	1.7	**-0.1**
10	3.5	3.3	**-0.2**
100	7.6	7.3	**-0.3**

Peak Flow Discharge Rate DP-2			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	0.5	0.2	**-0.3**
2	0.7	0.3	**-0.5**
10	1.3	0.5	**-0.8**
100	2.7	1.1	**-1.6**

Peak Flow Discharge Rate DP-3			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	0.3	0.2	**-0.2**
2	0.5	0.2	**-0.3**
10	1.0	0.4	**-0.6**
100	2.1	0.9	**-1.3**

Peak Flow Discharge Rate DP-4			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	0.0	0.2	**0.2**
2	0.0	0.4	**0.3**
10	0.7	0.7	**0.1**
100	3.5	1.7	**-1.8**

Peak Flow Discharge Rate OVERALL			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	2.2	1.8	**-0.4**
2	3.1	2.6	**-0.6**
10	6.5	5.0	**-1.5**
100	16.0	10.9	**-5.0**

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 Stormtech Underground Infiltration Chambers

Stormtech underground infiltrator units are design to detain runoff and allow it to infiltrate into the existing site soils. Infiltrator chambers are ideal on sites with well-draining soils and limited open areas for open air vegetated practices. Infiltrator chambers provide storage within the chamber and within the voids that existing in the stone media surrounding the units.

- Flow capacity is sufficient to infiltrate into existing soils.
- Strength is sufficient to withstand the soil cover and vehicle loads.
- Isolator row is accessible via storm structure and 24" diameter conveyance piping.

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.

Erosion Control Blanket

Erosion control blankets are used on steep slopes to provide adequate protection after the slopes has been graded and prior to the establishment of proper vegetation. Blankets are made from many forms of materials and products. Refer to the site specific details for the erosion control blankets to be used for this job. Erosion control mats are required on all slopes which exceed 1V:2H.

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:

<u>Pre-Construction Activities</u>

- 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 Admiral Halsey II project. Overall, the proposed stormwater management system reduces and/or eliminates the impacts of the proposed development by controlling and treating stormwater through the use of catch basins, storm-sewer piping, and underground infiltration chambers. 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.

Owner/Operator Certification Form

SPDES General Permit For Stormwater Discharges From Construction Activity (GP-0-20-001)

Project/Site Name: _____

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

StormTech®
Detention • Retention • Water Quality
A division of ADS

SC-310/SC-740/DC-780

StormTech Construction Guide

REQUIRED MATERIALS AND EQUIPMENT LIST

- Acceptable fill materials per **Table 1**
- Woven and non-woven geotextiles
- StormTech solid end caps and pre-cored end caps
- StormTech chambers
- StormTech manifolds and fittings

IMPORTANT NOTES:

A. This installation guide provides the minimum requirements for proper installation of chambers. Non-adherence to this guide may result in damage to chambers during installation. Replacement of damaged chambers during or after backfilling is costly and very time consuming. It is recommended that all installers are familiar with this guide, and that the contractor inspects the chambers for distortion, damage and joint integrity as work progresses.

B. Use of a dozer to push embedment stone between the rows of chambers may cause damage to chambers and is not an acceptable backfill method. Any chambers damaged by using the "dump and push" method are not covered under the StormTech standard warranty.

C. Care should be taken in the handling of chambers and end caps. Avoid dropping, prying or excessive force on chambers during removal from pallet and initial placement.

Requirements for System Installation

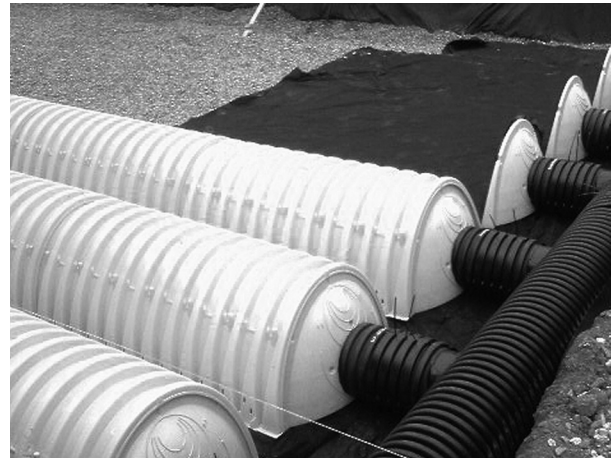
Excavate bed and prepare subgrade per engineer's plans.

Place non-woven geotextile over prepared soils and up excavation walls.

Place clean, crushed, angular stone foundation 6" (150 mm) min. Install underdrains if required. Compact to achieve a flat surface.

Manifold, Scour Fabric and Chamber Assembly

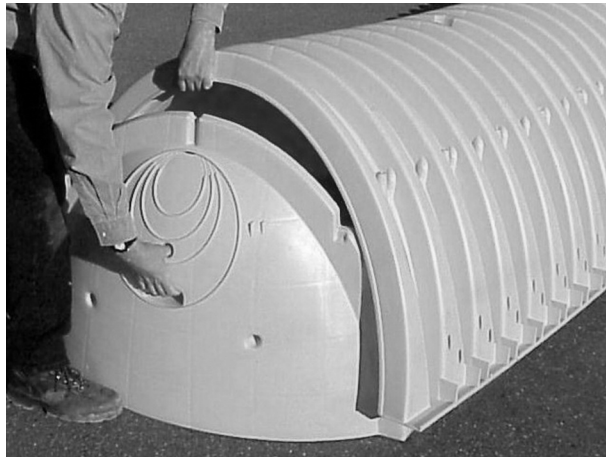
Install manifolds and lay out woven scour geotextile at inlet rows [min. 12.5 ft (3.8 m)] at each inlet end cap. Place a continuous piece (no seams, double layer) along entire length of Isolator® Row(s).



Align the first chamber and end cap of each row with inlet pipes. Contractor may choose to postpone stone placement around end chambers and leave ends of rows open for easy inspection of chambers during the backfill process.

Construct the chamber bed by overlapping the chambers lengthwise in rows. Attach chambers by overlapping the end corrugation of one chamber on to the end corrugation of the last chamber in the row. Be sure that the chamber placement does not exceed the reach of the construction equipment used to place the stone.

Attaching the End Caps



Lift the end of the chamber a few inches off the ground. With the curved face of the end cap facing outward, place the end cap into the chamber's end corrugation.

Prefabricated End Caps

24" (600 mm) inlets are the maximum size that can fit into a SC-740/DC-780 end cap and must be prefabricated with a 24" (600 mm) pipe stub. SC-310 chambers with a 12" (300 mm) inlet pipe must use a prefabricated end cap with a 12" (300 mm) pipe stub.

Isolator Row

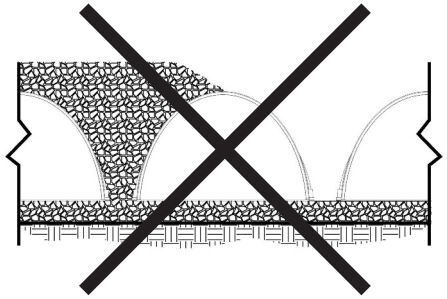
Drape a strip of ADS non-woven geotextile over the row of chambers (not required over DC-780). This is the same type of non-woven geotextile used as a separation layer around the angular stone of the StormTech system.

Initial Anchoring of Chambers – Embedment Stone

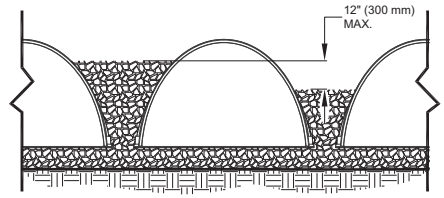
Initial embedment shall be spotted along the centerline of the chamber evenly anchoring the lower portion of the chamber. This is best accomplished with a stone conveyor or excavator reaching along the row.

No equipment shall be operated on the bed at this stage of the installation. Excavators must be located off the bed. Dump trucks shall not dump stone directly on to the bed. Dozers or loaders are not allowed on the bed at this time.

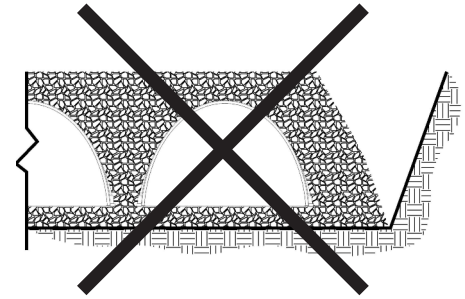
Backfill of Chambers – Embedment Stone



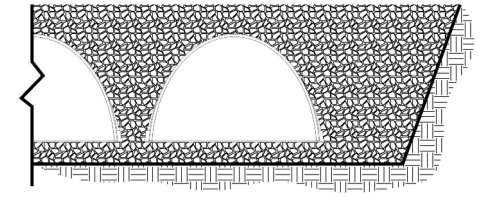
UNEVEN BACKFILL



EVEN BACKFILL



PERIMETER NOT BACKFILLED

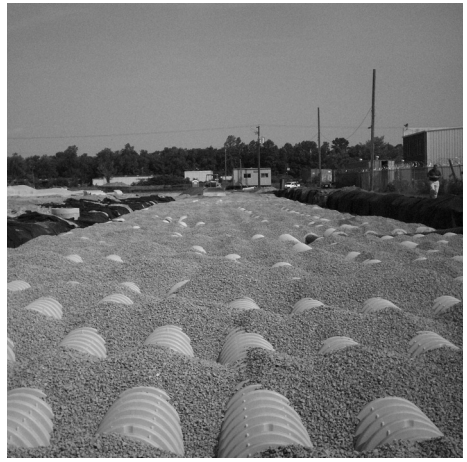


PERIMETER FULLY BACKFILLED

Backfill chambers evenly. Stone column height should never differ by more than 12” (300 mm) between adjacent chamber rows or between chamber rows and perimeter.

Perimeter stone must be brought up evenly with chamber rows. Perimeter must be fully backfilled, with stone extended horizontally to the excavation wall.

Backfill of Chambers – Embedment Stone and Cover Stone



Continue evenly backfilling between rows and around perimeter until embedment stone reaches tops of chambers. Perimeter stone must extend horizontally to the excavation wall for both straight or sloped sidewalls. **Only after chambers have been backfilled to top of chamber and with a minimum 6" (150 mm) of cover stone on top of chambers can small dozers be used over the chambers for backfilling remaining cover stone.**

Small dozers and skid loaders may be used to finish grading stone backfill in accordance with ground pressure limits in Table 2. They must push material parallel to rows only. Never push perpendicular to rows. StormTech recommends that the contractor inspect chambers before placing final backfill. Any chambers damaged by construction shall be removed & replaced.

Final Backfill of Chambers – Fill Material

Install non-woven geotextile over stone. Geotextile must overlap 24" (600 mm) min. where edges meet. Compact each lift of backfill as specified in the site design engineer's drawings. Roller travel parallel with rows.

StormTech Isolator Row Detail

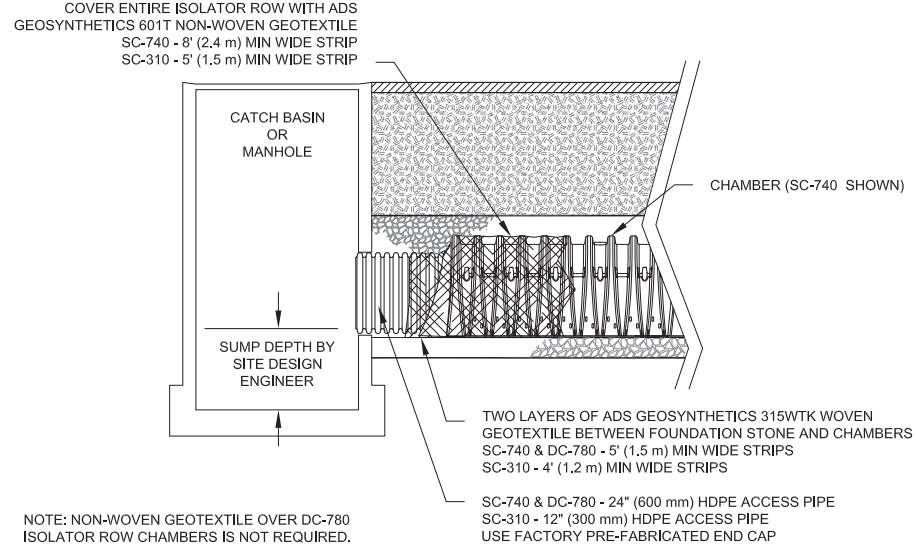


Table 1 – Acceptable Fill Materials

Material Location	Description	AASHTO M43 Designation[1]	Compaction/Density Requirement
Ⓓ **Final Fill:** Fill Material for layer 'D' starts from the top of the 'C' layer to the bottom of flexible pavement or unpaved finished grade above. Note that the pavement subbase may be part of the 'D' layer.	Any soil/rock materials, native soils or per engineer's plans. Check plans for pavement subgrade requirements.	N/A	Prepare per site design engineer's plans. Paved installations may have stringent material and preparation requirements.
Ⓒ **Initial Fill:** Fill Material for layer 'C' starts from the top of the embedment stone ('B' layer) to 18" (450 mm) above the top of the chamber. Note that pavement subbase may be part of the 'C' layer.	Granular well-graded soil/aggregate mixtures, <35% fines or processed aggregate. Most pavement subbase materials can be used in lieu of this layer.	AASHTO M45 A-1, A-2-4, A-3 or AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	Begin compaction after min. 12" (300 mm) of material over the chambers is reached. Compact additional layers in 6" (150 mm) max. lifts to a min. 95% Proctor density for well-graded material and 95% relative density for processed aggregate materials. Roller gross vehicle weight not to exceed 12,000 lbs (53 kN). Dynamic force not to exceed 20,000 lbs (89 kN)
Ⓑ **Embedment Stone:** Embedment Stone surrounding chambers from the foundation stone to the 'C' layer above.	Clean, crushed, angular stone nominal size distribution 3/4 - 2" (20 mm - 50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	No compaction required.
Ⓐ **Foundation Stone:** Foundation Stone below the chambers from the subgrade up to the foot (bottom) of the chamber.	Clean, crushed, angular stone, nominal size distribution 3/4 - 2" (20 mm - 50 mm)	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	Place and compact in 6" (150 mm) lifts using two full coverages with a vibratory compactor.[2, 3]

PLEASE NOTE:

1. ***The listed AASHTO designations are for gradations only. The stone must also be clean, crushed, angular. For example, a specification for #4 stone would state: "clean, crushed, angular no. 4 (AASHTO M43) stone".***
2. ***StormTech compaction requirements are met for 'A' location materials when placed and compacted in 6" (150 mm) (max) lifts using two full coverages with a vibratory compactor.***
3. ***Where infiltration surfaces may be comprised by compaction, for standard installations and standard design load conditions, a flat surface may be achieved by raking or dragging without compaction equipment. For special load designs, contact StormTech for compaction requirements.***

Figure 1 – Inspection Port Detail

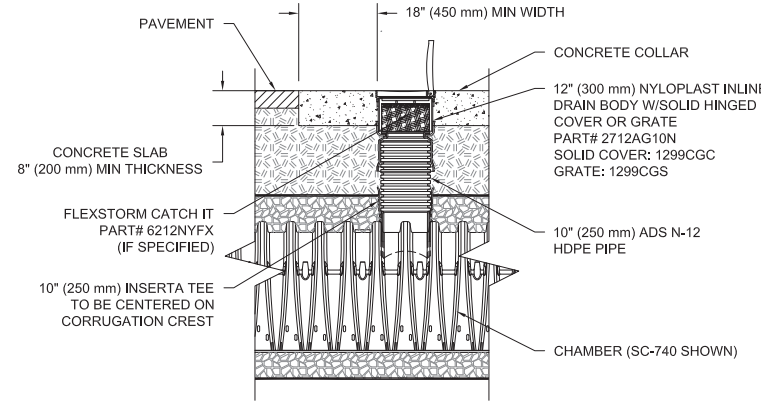
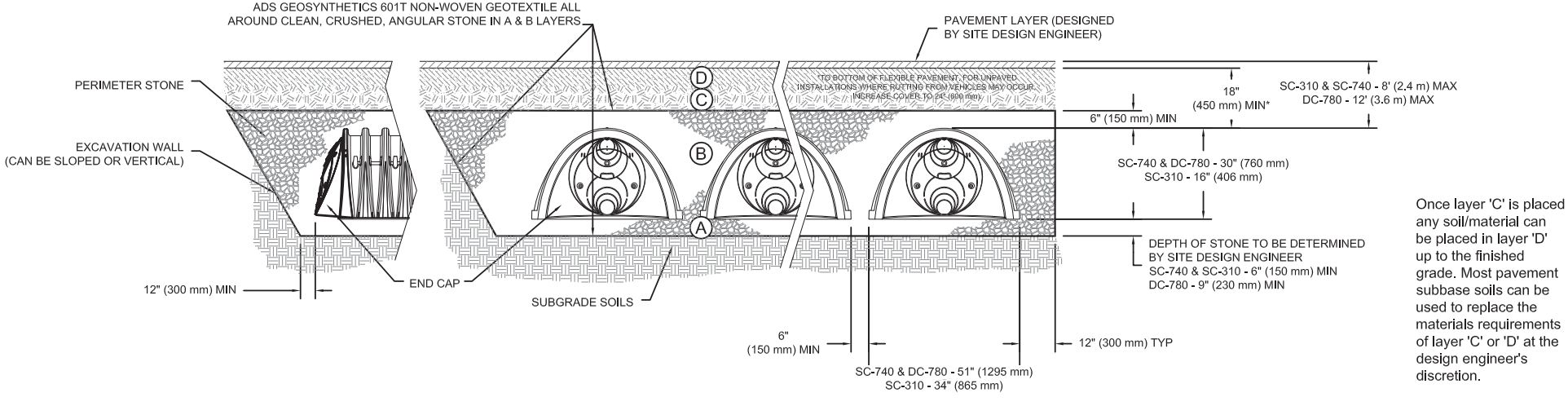


Figure 2 – Fill Material Locations



Once layer 'C' is placed any soil/material can be placed in layer 'D' up to the finished grade. Most pavement subbase soils can be used to replace the materials requirements of layer 'C' or 'D' at the design engineer's discretion.

NOTES:

1. *36" (900 mm) of stabilized cover materials over the chambers is required for full dump truck travel and dumping.*
2. *During paving operations, dump truck axle loads on 18" (450 mm) of cover may be necessary. Precautions should be taken to avoid rutting of the road base layer, to ensure that compaction requirements have been met, and that a minimum of 18" (450 mm) of cover exists over the chambers. Contact StormTech for additional guidance on allowable axle loads during paving.*
3. *Ground pressure for track dozers is the vehicle operating weight divided by total ground contact area for both tracks. Excavators will exert higher ground pressures based on loaded bucket weight and boom extension.*
4. *Mini-excavators (< 8,000lbs/3,628 kg) can be used with at least 12" (300 mm) of stone over the chambers and are limited by the maximum ground pressures in Table 2 based on a full bucket at maximum boom extension.*
5. *Storage of materials such as construction materials, equipment, spoils, etc. should not be located over the StormTech system. The use of equipment over the StormTech system not covered in Table 2 (ex. soil mixing equipment, cranes, etc) is limited. Please contact StormTech for more information.*
6. *Allowable track loads based on vehicle travel only. Excavators shall not operate on chamber beds until the total backfill reaches 3 feet (900 mm) over the entire bed.*

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#090113 09/13

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Table 2 – Maximum Allowable Construction Vehicle Loads[5]

Material Location	Fill Depth over Chambers in. [mm]	Maximum Allowable Wheel Loads		Maximum Allowable Track Loads[6]		Maximum Allowable Roller Loads
		Max Axle Load for Trucks lbs [kN]	Max Wheel Load for Loaders lbs [kN]	Track Width in. [mm]	Max Ground Pressure psf [kPa]	Max Drum Weight or Dynamic Force lbs [kN]
(D) Final Fill Material	36" [900] Compacted	32,000 [142]	16,000 [71]	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	3420 [164] 2350 [113] 1850 [89] 1510 [72] 1310 [63]	38,000 [169]
(C) Initial Fill Material	24" [600] Compacted	32,000 [142]	16,000 [71]	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	2480 [119] 1770 [85] 1430 [68] 1210 [58] 1070 [51]	20,000 [89]
	24" [600] Loose/Dumped	32,000 [142]	16,000 [71]	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	2245 [107] 1625 [78] 1325 [63] 1135 [54] 1010 [48]	20,000 [89] Roller gross vehicle weight not to exceed 12,000 lbs. [53 kN]
	18" [450]	32,000 [142]	16,000 [71]	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	2010 [96] 1480 [71] 1220 [58] 1060 [51] 950 [45]	20,000 [89] Roller gross vehicle weight not to exceed 12,000 lbs. [53 kN]
(B) Embedment Stone	12" [300]	16,000 [71]	NOT ALLOWED	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	1540 [74] 1190 [57] 1010 [48] 910 [43] 840 [40]	20,000 [89] Roller gross vehicle weight not to exceed 12,000 lbs. [53 kN]
	6" [150]	8,000 [35]	NOT ALLOWED	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	1070 [51] 900 [43] 800 [38] 760 [36] 720 [34]	NOT ALLOWED

Table 3 – Placement Methods and Descriptions

Material Location	Placement Methods/ Restrictions	Wheel Load Restrictions	Track Load Restrictions	Roller Load Restrictions
		See Table 2 for Maximum Construction Loads		
(D) Final Fill Material	A variety of placement methods may be used. All construction loads must not exceed the maximum limits in Table 2.	36" (900 mm) minimum cover required for dump trucks to dump over chambers.	Dozers to push parallel to rows until 36" (900mm) compaced cover is reached.[4]	Roller travel parallel to rows only until 36" (900 mm) compacted cover is reached.
(C) Initial Fill Material	Excavator positioned off bed recommended. Small excavator allowed over chambers. Small dozer allowed.	Asphalt can be dumped into paver when compacted pavement subbase reaches 18" (450 mm) above top of chambers.	Small LGP track dozers & skid loaders allowed to grade cover stone with at least 6" (150 mm) stone under tracks at all times. Equipment must push parallel to rows at all times.	Use dynamic force of roller only after compacted fill depth reaches 12" (300 mm) over chambers. Roller travel parallel to chamber rows only.
(B) Embedment Stone	No equipment allowed on bare chambers. Use excavator or stone conveyor positioned off bed or on foundation stone to evenly fill around all chambers to at least the top of chambers.	No wheel loads allowed. Material must be placed outside the limits of the chamber bed.	No tracked equipment is allowed on chambers until a min. 6" (150 mm) cover stone is in place.	No rollers allowed.
(A) Foundation Stone	No StormTech restrictions. Contractor responsible for any conditions or requirements by others relative to subgrade bearing capacity, dewatering or protection of subgrade.			

StormTech®
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MC-3500/MC-4500

StormTech Construction Guide

REQUIRED MATERIALS AND EQUIPMENT LIST

- Acceptable fill materials per **Table 1**
- Woven and non-woven geotextiles
- StormTech solid end caps and pre-cored end caps
- StormTech chambers
- MC-3500 end cap screws (2 ½" [64mm] coarse thread – 3 per end cap)
- MC-4500 chamber joint screws (Fastenal #12-11 x 1" slotted hex washer head sheet metal screw, type A, zinc/steel [SKU 1131123] - 6 per joint)
- StormTech manifolds and fittings

NOTE: MC-3500 chamber pallets are 77" x 90" (2.0 m x 2.3 m) and weigh about 2010 lbs. (912 kg) and MC-4500 pallets are 100" x 52" (2.5 m x 1.3 m) and weight about 840 lbs. (381 kg). Unloading chambers requires 72" (1.8 m) (min.) forks and/or tie downs (straps, chains, etc).

IMPORTANT: This installation guide provides the minimum requirements for proper installation of large chambers. Non-adherence to this guide may result in damage to chambers during installation. Replacement of damaged chambers during or after backfilling is costly and very time consuming. It is recommended that all installers are familiar with this guide, and that the contractor inspects the chambers for distortion, damage and joint integrity as work progresses.

Requirements for System Installation

Excavate bed and prepare subgrade per engineer's plans.

Place non-woven geotextile over prepared soils and up excavation walls.

Place clean, crushed, angular stone foundation 9" (229 mm) min. Install underdrains if required. Compact to achieve a flat surface.

Manifold, Scour Fabric and Chamber Assembly

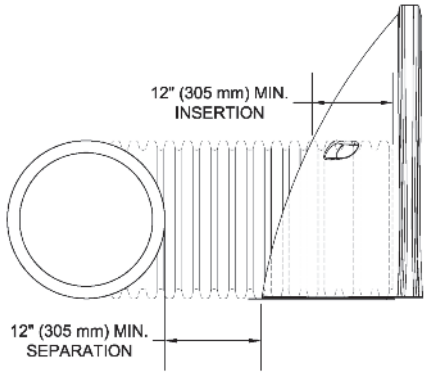
Install manifolds and lay out woven scour geo-textile at inlet rows [min. 17.5 ft (5.33 m)] at each inlet end cap. Place a continuous piece (no seams) along entire length of Isolator® Row(s).

Align the first chamber and end cap of each row with inlet pipes. Each MC-3500 end cap must be fastened to chambers with three 2½" (64 mm) coarse thread screws before backfilling. Contractor may choose to postpone stone placement around end chambers and leave ends of rows open for easy inspection of chambers during the backfill process.

Continue installing chamber rows by overlapping chamber end corrugations. Chamber joints are labeled “Lower Joint— Overlap Here” and “Build This Direction—Upper Joint.” Place non-woven geo-textile over Isolator Row chambers (if specified).

Maintain minimum - 9" (229 mm) spacing between rows

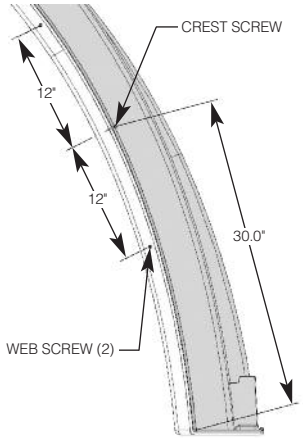
Manifold Insertion

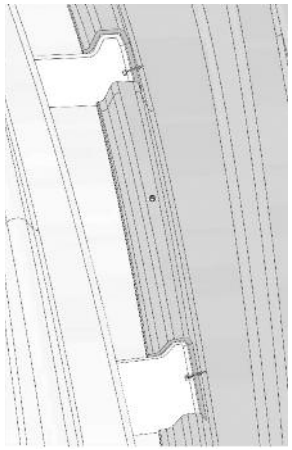


NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN THE END CAP OPENING.

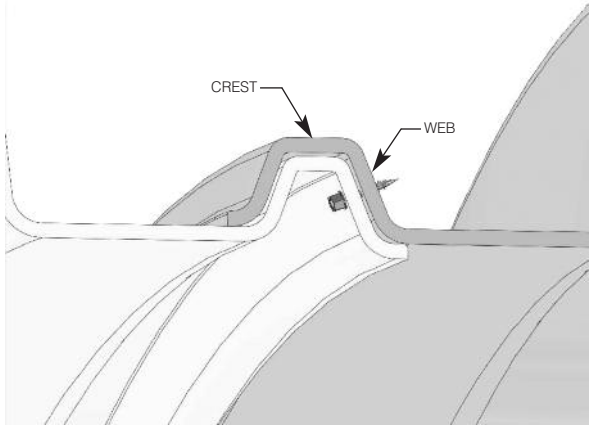
Insert inlet and outlet manifolds a minimum 12" (305 mm) into chamber end caps. Manifold header should be a minimum 12" (305 mm) from base of end cap.

MC-4500 Joint Assembly





Install (6) screws (Fastenal #12-11x1”) at each MC-4500 joint at locations shown. 3 screws on each side of joint. Care must be taken to avoid overtightening and/or “stripping” of screws.



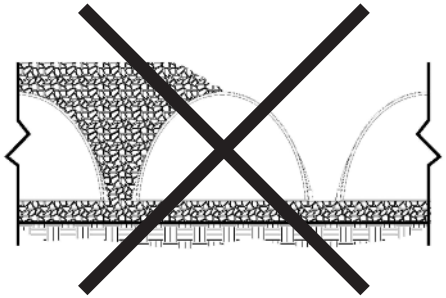
Install the (2) web screws from the inside of the MC-4500 chamber 12" (305 mm) above and below the crest screw.

Initial Anchoring of Chambers – Embedment Stone

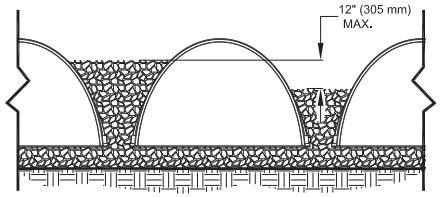
Initial embedment shall be spotted along the centerline of the chamber evenly anchoring the lower portion of the chamber. This is best accomplished with a stone conveyor or excavator reaching along the row.

No equipment shall be operated on the bed at this stage of the installation. Excavators must be located off the bed. Dump trucks shall not dump stone directly on to the bed. Dozers or loaders are not allowed on the bed at this time.

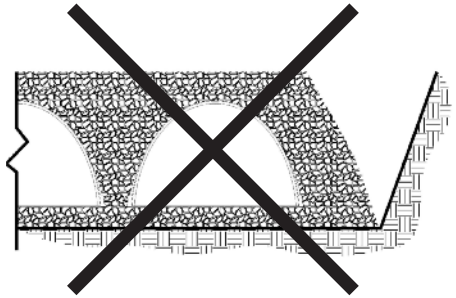
Backfill of Chambers – Embedment Stone



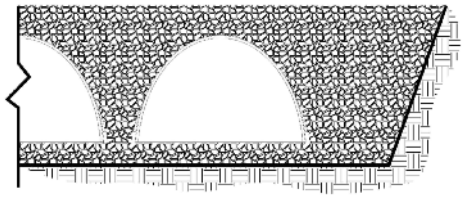
UNEVEN BACKFILL



EVEN BACKFILL



PERIMETER NOT BACKFILLED

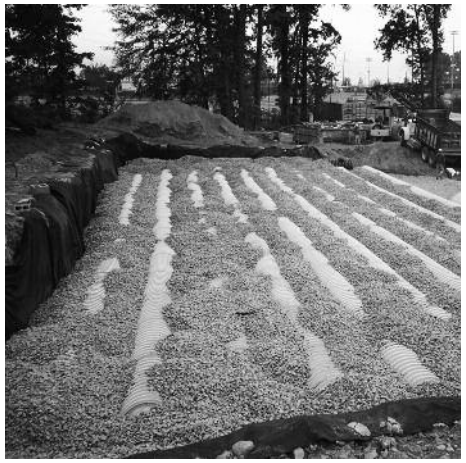


PERIMETER FULLY BACKFILLED

Backfill chambers evenly. Stone column height should never differ by more than 12” (305 mm) between adjacent chamber rows or between chamber rows and perimeter.

Perimeter stone must be brought up evenly with chamber rows. Perimeter must be fully backfilled, with stone extended horizontally to the excavation wall.

Backfill of Chambers – Embedment Stone and Cover Stone



Continue evenly backfilling between rows and around perimeter until embedment stone reaches tops of chambers. Perimeter stone must extend horizontally to the excavation wall for both straight or sloped sidewalls. **Only after chambers have been backfilled to top of chamber and with a minimum 12" (305 mm) of cover stone on top of chambers can small dozers be used over the chambers for backfilling remaining cover stone.**

Small dozers and skid loaders may be used for cover stone backfill in accordance with ground pressure limits in Table 2. Dozers must push material parallel to rows only. Never push perpendicular to rows. StormTech recommends that the contractor inspect chambers before placing final backfill. Any chambers damaged by construction shall be removed & replaced.

Final Backfill of Chambers – Fill Material

Install non-woven geotextile over stone. Geotextile must overlap 24" (610 mm) min. where edges meet. Compact at 24" (610 mm) of fill. Roller travel parallel with rows.

StormTech Isolator Row Detail

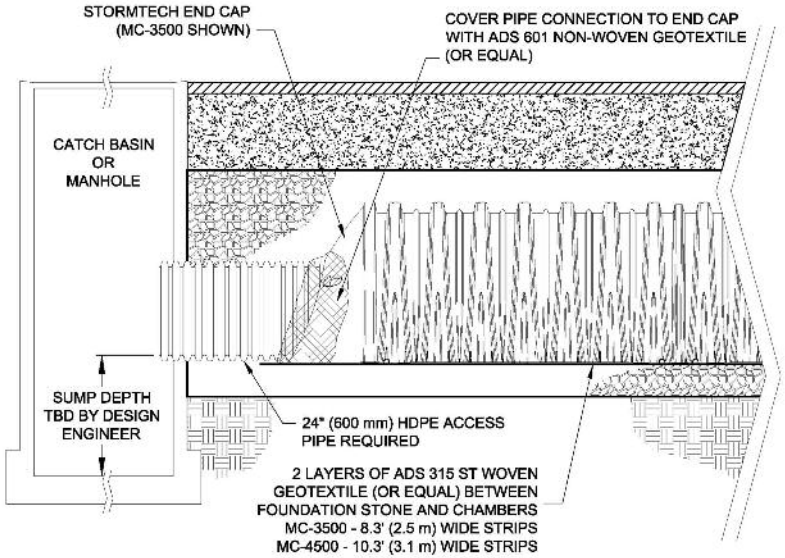


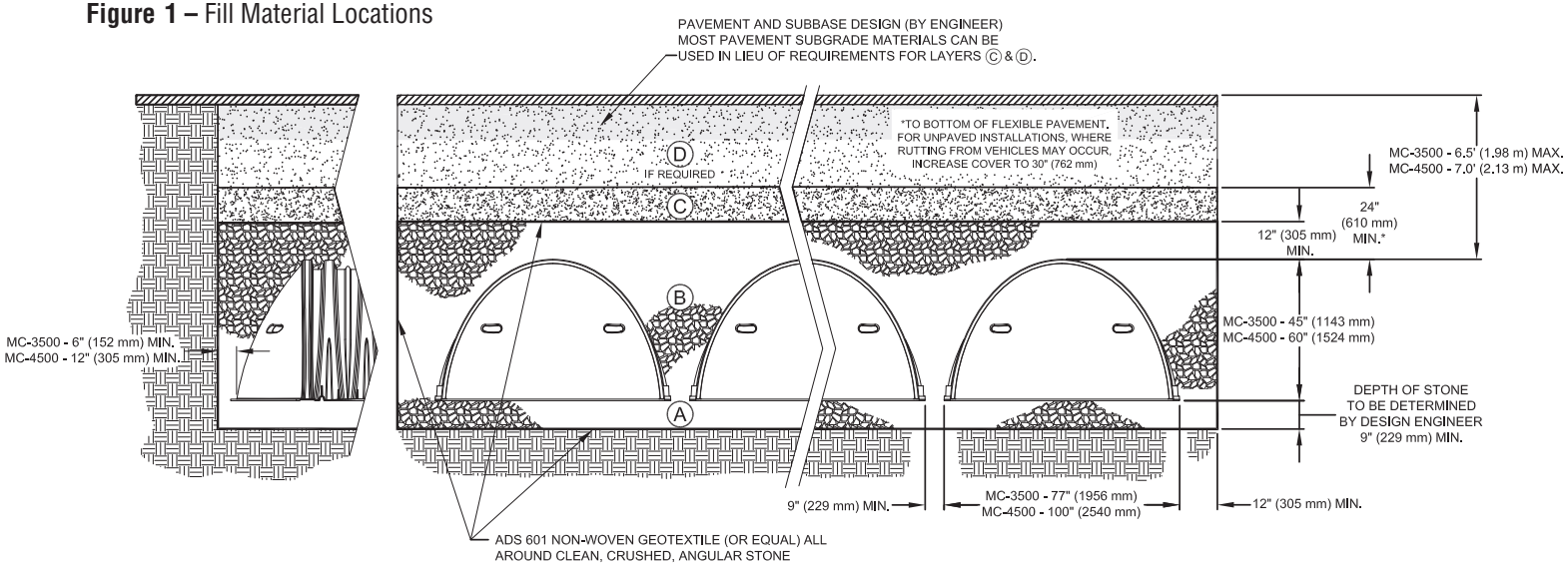
Table 1 – Acceptable Fill Materials

Material Location	Description	AASHTO M43 Designation[1]	Compaction/Density Requirement
(D) Fill Material for layer 'D' starts from the top of the 'C' layer to the bottom of flexible pavement or unpaved finished grade above. Note that the pavement subbase may be part of the 'D' layer.	Any soil/rock materials, native soils or per engineer's plans. Check plans for pavement subgrade requirements.	N/A	Prepare per engineer's plans. Paved installations may have stringent material and preparation requirements.
(C) Fill Material for layer 'C' starts from the top of the embedment stone ('B' layer) to 24" (610 mm) above the top of the chamber. Note that pavement subbase may be part of the 'C' layer.	Granular well-graded soil/aggregate mixtures, <35% fines. Most pavement subbase materials can be used in lieu of this layer. (AASHTO M145 A-1, A-2, A-3)	3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	Begin compaction after min. 24" (610 mm) of material over the chambers is reached. Compact additional layers in 12" (305 mm) max. lifts to a min. 95% Standard Proctor density. (See Tables 2 and 3 for maximum roller loads).
(B) Embedment Stone surrounding chambers from the foundation stone to the 'C' layer above.	Clean, crushed, angular stone nominal particle size distribution 3/4 - 2" (19 mm - 51 mm)	3, 4	No compaction required.
(A) Foundation Stone below the chambers from the subgrade up to the foot (bottom) of the chamber.	Clean, crushed, angular stone, nominal size distribution 3/4-2" (19 mm - 51 mm)	3, 4	Plate compact or roll to achieve a 95% Standard Proctor Density.[2]

PLEASE NOTE:

1. ***The listed AASHTO designations are for gradations only. The stone must also be clean, crushed, angular. For example, a specification for #4 stone would state: "clean, crushed, angular no. 4 (AASHTO M43) stone."***
2. ***As an alternate to Proctor Testing and field density measurements in the 'A' location, StormTech compaction requirements are met for 'A' location materials when placed and compacted in 9" (229 mm) (max.) lifts using two full passes with an appropriate compactor.***

Figure 1 – Fill Material Locations



Once layer 'C' is placed any soil/material can be placed in layer 'D' up to the finished grade. Most pavement subbase soils can be used to replace the materials requirements of layer 'C' or 'D' at the design engineer's discretion.

Table 2 – Maximum Allowable Construction Vehicle Loads[6]

Material Location	Fill Depth over Chambers in. [mm]	Maximum Allowable Wheel Loads		Maximum Allowable Track Loads		Maximum Allowable Roller Loads
		Max Axle Load for Trucks[1,2] lbs [kN]	Max Wheel Load for Loaders lbs [kN]	Track Width in. [mm]	Max Ground Pressure[3] psf [kPa]	Max Drum Weight or Dynamic Force lbs [kN]
(D) Final Fill Material	36" [914] Compacted	32,000 [142]	16,000 [71]	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	3420 [164] 2350 [113] 1850 [89] 1510 [72] 1310 [63]	38,000 [169]
(C) Initial Fill Material	24" [610] Compacted	32,000 [142]	16,000 [71]	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	2480 [119] 1770 [85] 1430 [68] 1210 [58] 1070 [51]	20,000 [89]
	24" [610] Loose/Dumped	24,000 [107]	12,000 [53]	12" [305] 18" [457] 24" [610] 30" [762] 36" [914]	2245 [107] 1625 [78] 1325 [63] 1135 [54] 1010 [48]	16,000 [71]
	18" [457]	24,000 [107]	12,000 [53]	12" [305] 18" [457] 24" [610] 30" [762]	2010 [96] 1480 [71] 1220 [58] 1060 [51]	5,000 [22] (static loads only)[5]
(B) Embedment Stone	12" [305]	NOT ALLOWED	NOT ALLOWED	12" [305] 18" [457] 24" [610] 30" [762]	1100 [53] 715 [34] 660 [32] 580 [28]	NOT ALLOWED
	6" [152]	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED	NOT ALLOWED

Table 3 – Placement Methods and Descriptions

Material Location	Placement Methods/ Restrictions	Wheel Load Restrictions	Track Load Restrictions	Roller Load Restrictions
		See Table 2 for Maximum Construction Loads		
(D) Final Fill Material	A variety of placement methods may be used. All construction loads must not exceed the maximum limits in Table 2.	36" (914 mm) minimum cover required for dump trucks to dump over chambers.		Roller travel parallel to rows only until 36" (914 mm) compacted cover is reached.
(C) Initial Fill Material	Excavator positioned off bed recommended. Small excavator allowed over chambers. Small dozer allowed.	Asphalt can be dumped into paver when compacted pavement subbase reaches 24" (610 mm) above top of chambers.	Dozers to push parallel to rows.[4]	Use dynamic force of roller only after compacted fill depth reaches 24" (610 mm) over chambers. Roller travel parallel to chamber rows only.
(B) Embedment Stone	No equipment allowed on bare chambers. Use excavator or stone conveyor positioned off bed or on foundation stone to evenly fill around all chambers to at least the top of chambers.	No wheel loads allowed. Material must be dumped outside the limits of the chamber bed.	Small LGP track dozers & skid loaders allowed to spread embedment stone with at least 12" (305 mm) stone under tracks at all times. Dozers to push parallel to rows only	No rollers allowed.
(A) Foundation Stone	No StormTech restrictions. Contractor responsible for any conditions or requirements by others relative to subgrade bearing capacity, dewatering or protection of subgrade.			

NOTES:

1. 36" (914 mm) of stabilized cover materials over the chambers is required for full dump truck travel and dumping.

2. During paving operations, dump truck axle loads on 24" (610 mm) of cover may be necessary. Precautions should be taken to avoid rutting of the road base layer, to ensure that compaction requirements have been met, and that a minimum of 24" (610 mm) of cover exists over the chambers. Contact StormTech for additional guidance on allowable axle loads during paving.

3. Ground pressure for track dozers is the vehicle operating weight divided by total ground contact area for both tracks. Excavators will exert higher ground pressures based on loaded bucket weight and boom extension. Excavators shall not operate on chamber beds until the total backfill reaches 3 feet (914 mm).

4. Mini-excavators can be used with at least 12" (305 mm) of stone over the chambers and are limited by the maximum ground pressures in Table 2 based on a full bucket at maximum boom extension.

5. StormTech does not require compaction of initial fill at 18" (457 mm) of cover. However, requirements by others for 6" (152 mm) lifts may necessitate the use of small compactors at 18" (457 mm) of cover.

6. Storage of materials such as construction materials, equipment, spoils, etc. should not be located over the StormTech system. The use of equipment over the StormTech system not covered in Table 2 (ex. soil mixing equipment, cranes, etc) is limited. Please contact StormTech for more information.

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Subsurface Stormwater Management℠

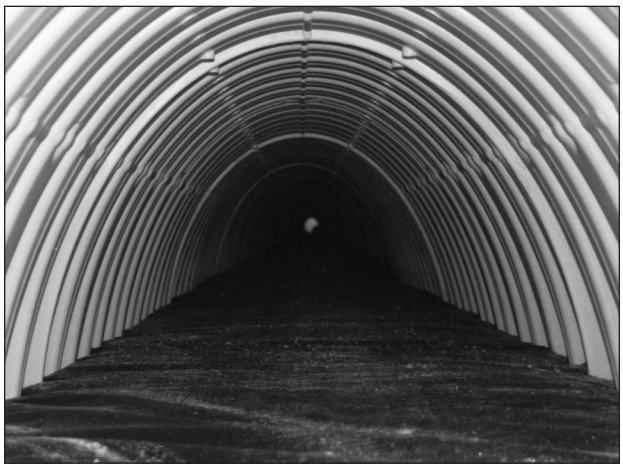
Isolator™ Row O&M Manual

StormTech® Chamber System for Stormwater Management

1.0 The Isolator™ Row

1.1 INTRODUCTION

An important component of any Stormwater Pollution Prevention Plan is inspection and maintenance. The StormTech Isolator Row is a patented technique to inexpensively enhance Total Suspended Solids (TSS) removal and provide easy access for inspection and maintenance.



Looking down the Isolator Row from the manhole opening, woven geotextile is shown between the chamber and stone base.

1.2 THE ISOLATOR™ ROW

The Isolator Row is a row of StormTech chambers, either SC-310, SC-740, DC-780 or MC-3500 models, that is surrounded with filter fabric and connected to a closely located manhole for easy access. The fabric-wrapped chambers provide for settling and filtration of sediment as storm water rises in the Isolator Row and ultimately passes through the filter fabric. The open bottom chambers and perforated sidewalls allow storm water to flow both vertically and horizontally out of the chambers. Sediments are captured in the Isolator Row protecting the storage areas of the adjacent stone and chambers from sediment accumulation.

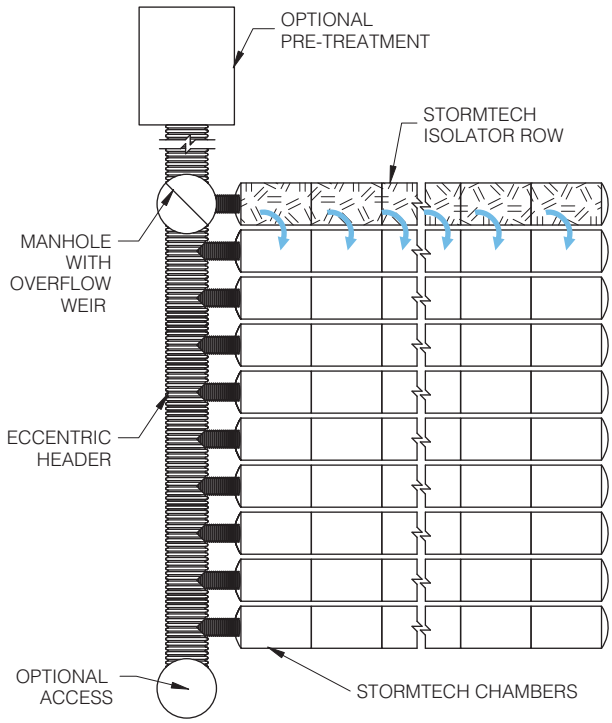
Two different fabrics are used for the Isolator Row. A woven geotextile fabric is placed between the stone and the Isolator Row chambers. The tough geotextile provides a media for storm water filtration and provides a durable surface for maintenance operations. It is also designed to prevent scour of the underlying stone and remain intact during high pressure jetting. A non-woven fabric is placed over the chambers to provide a filter media for flows passing through the perforations in the sidewall of the chamber.

The Isolator Row is typically designed to capture the "first flush" and offers the versatility to be sized on a volume basis or flow rate basis. An upstream manhole not only provides access to the Isolator Row but typically includes a high flow weir such that storm water flowrates or volumes that exceed the capacity of the Isolator Row overtop the over flow weir and discharge through a manifold to the other chambers.

The Isolator Row may also be part of a treatment train. By treating storm water prior to entry into the chamber system, the service life can be extended and pollutants such as hydrocarbons can be captured. Pre-treatment best management practices can be as simple as deep sump catch basins, oil-water separators or can be innovative storm water treatment devices. The design of the treatment train and selection of pretreatment devices by the design engineer is often driven by regulatory requirements. Whether pretreatment is used or not, the Isolator Row is recommended by StormTech as an effective means to minimize maintenance requirements and maintenance costs.

Note: See the StormTech Design Manual for detailed information on designing inlets for a StormTech system, including the Isolator Row.

StormTech Isolator Row with Overflow Spillway
(not to scale)



2.0 Isolator Row Inspection/Maintenance

StormTech

2.1 INSPECTION

The frequency of Inspection and Maintenance varies by location. A routine inspection schedule needs to be established for each individual location based upon site specific variables. The type of land use (i.e. industrial, commercial residential), anticipated pollutant load, percent imperviousness, climate, etc. all play a critical role in determining the actual frequency of inspection and maintenance practices.

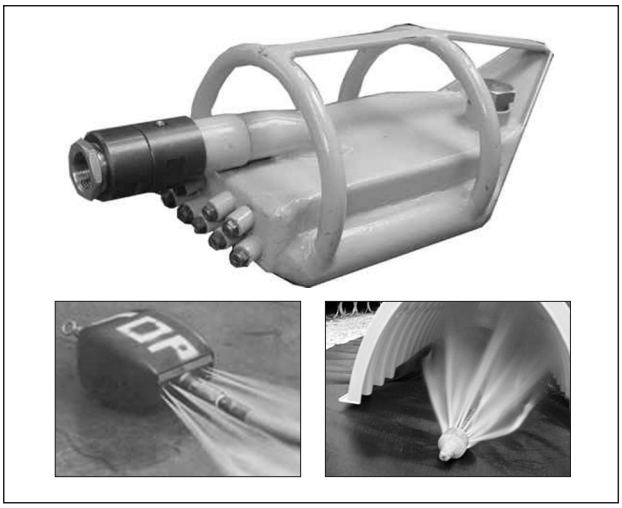
At a minimum, StormTech recommends annual inspections. Initially, the Isolator Row should be inspected every 6 months for the first year of operation. For subsequent years, the inspection should be adjusted based upon previous observation of sediment deposition.

The Isolator Row incorporates a combination of standard manhole(s) and strategically located inspection ports (as needed). The inspection ports allow for easy access to the system from the surface, eliminating the need to perform a confined space entry for inspection purposes.

If upon visual inspection it is found that sediment has accumulated, a stadia rod should be inserted to determine the depth of sediment. When the average depth of sediment exceeds 3 inches throughout the length of the Isolator Row, clean-out should be performed.

2.2 MAINTENANCE

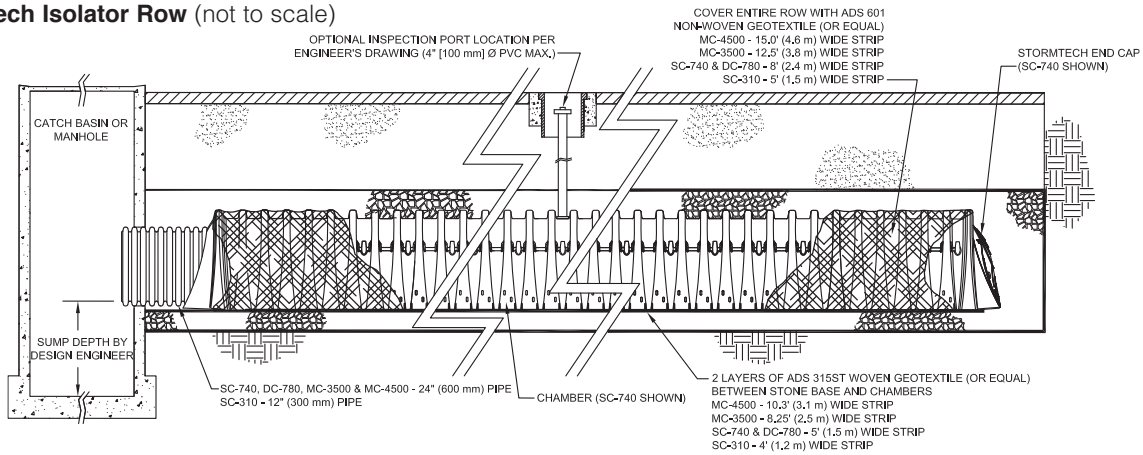
The Isolator Row was designed to reduce the cost of periodic maintenance. By "isolating" sediments to just one row, costs are dramatically reduced by eliminating the need to clean out each row of the entire storage bed. If inspection indicates the potential need for maintenance, access is provided via a manhole(s) located on the end(s) of the row for cleanout. If entry into the manhole is required, please follow local and OSHA rules for a confined space entries.



Examples of culvert cleaning nozzles appropriate for Isolator Row maintenance. (These are not StormTech products.)

Maintenance is accomplished with the JetVac process. The JetVac process utilizes a high pressure water nozzle to propel itself down the Isolator Row while scouring and suspending sediments. As the nozzle is retrieved, the captured pollutants are flushed back into the manhole for vacuuming. Most sewer and pipe maintenance companies have vacuum/JetVac combination vehicles. Selection of an appropriate JetVac nozzle will improve maintenance efficiency. Fixed nozzles designed for culverts or large diameter pipe cleaning are preferable. Rear facing jets with an effective spread of at least 45" are best. Most JetVac reels have 400 feet of hose allowing maintenance of an Isolator Row up to 50 chambers long. **The JetVac process shall only be performed on StormTech Isolator Rows that have AASHTO class 1 woven geotextile (as specified by StormTech) over their angular base stone.**

StormTech Isolator Row (not to scale)



Note: For many applications, the non-woven geotextile over the DC-780, MC-3500 and MC-4500 Isolator Row chambers can be eliminated or substituted with the AASHTO Class 1 woven geotextile. Contact your StormTech representative for assistance.

3.0 Isolator Row Step By Step Maintenance Procedures

Step 1) Inspect Isolator Row for sediment

A) Inspection ports (if present)

i. Remove lid from floor box frame

ii. Remove cap from inspection riser

iii. Using a flashlight and stadia rod, measure depth of sediment and record results on maintenance log.

iv. If sediment is at, or above, 3 inch depth proceed to Step 2. If not proceed to step 3.

B) All Isolator Rows

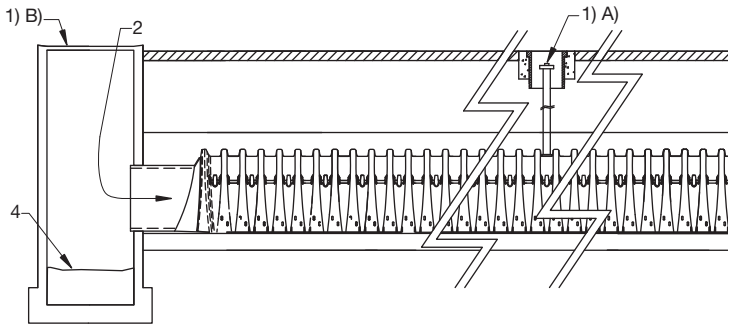
i. Remove cover from manhole at upstream end of Isolator Row

ii. Using a flashlight, inspect down Isolator Row through outlet pipe

1. Mirrors on poles or cameras may be used to avoid a confined space entry
2. Follow OSHA regulations for confined space entry if entering manhole

iii. If sediment is at or above the lower row of sidewall holes (approximately 3 inches) proceed to Step 2. If not proceed to Step 3.

StormTech Isolator Row (not to scale)



Step 2) Clean out Isolator Row using the JetVac process

A) A fixed culvert cleaning nozzle with rear facing nozzle spread of 45 inches or more is preferable

B) Apply multiple passes of JetVac until backflush water is clean

C) Vacuum manhole sump as required

Step 3) Replace all caps, lids and covers, record observations and actions

Step 4) Inspect & clean catch basins and manholes upstream of the StormTech system

Sample Maintenance Log

Date	Stadia Rod Readings		Sediment Depth (1) - (2)	Observations/Actions	Inspector
	Fixed point to chamber bottom (1)	Fixed point to top of sediment (2)			
3/15/01	6.3 ft.	none		New installation. Fixed point is CI frame at grade	djm
9/24/01		6.2	0.1 ft.	Some grit felt	sm
6/20/03		5.8	0.5 ft.	Mucky feel, debris visible in manhole and in Isolator row, maintenance due	rv
7/7/03	6.3 ft.		0	System jetted and vacuumed	djm

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Subsurface Stormwater Management℠

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StormTech products are covered by one or more of the following patents: U.S. Patents: 5,401,459; 5,511,903; 5,716,163; 5,588,778; 5,839,844; Canadian Patents: 2,158,418 Other U.S. and Foreign Patents Pending Printed in U.S.A.

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APPENDIX B

Notice of Intent (NOI)
Notice of Termination (NOT)
NYSDEC SPDES General Permit GP-0-20-001
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)
Admiral Halsey II, L.P.

Owner/Operator Contact Person Last Name (NOT CONSULTANT)
Shevchuk

Owner/Operator Contact Person First Name
Paul

Owner/Operator Mailing Address
909 Third Avenue, 21st Floor

City
New York City

State
NY

Zip
10022 - ____

Phone (Owner/Operator)
646 - 618 - 8715

Fax (Owner/Operator)
___ - ___ - ____

Email (Owner/Operator)
pshevchuk@onyllc.com

FED TAX ID
87 - 1117223 (not required for individuals)

Project Site Information

Project/Site Name
Admiral Halsey II

Street Address (NOT P.O. BOX)
135 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
North Perry Street

Distance to Nearest Cross Street (Feet)
0

Project In Relation to Cross Street
○ **North** ○ **South** ● **East** ○ **West**

Tax Map Numbers
Section-Block-Parcel
6062-76-911183

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): 588728

Y Coordinates (Northing): 4617714

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

Elderly Housing

Post-Development Future Land Use

- ○ SINGLE FAMILY HOME
- ○ SINGLE FAMILY SUBDIVISION — Number of Lots
- ○ 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

Elderly Housing

***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
2.3	1.6	0.4	1.1

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 %	0 %	0 %	0 %

7. Is this a phased project? ○ **Yes** ● **No**

8. Enter the planned start and end dates of the disturbance activities.

Start Date 06/01/2022 – **End Date** 06/01/2024

9. Identify the nearest surface waterbody(ies) to which construction site runoff will discharge.

Name

Hudson River

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, D.P.C.

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: 11/29/2021

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

0.08 **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)			
○ Underground Infiltration System (I-4)			0.807
○ 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

0.19 **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

[ ][ ]6.5[ ] **CFS**

Post-development

[ ][ ]5.0[ ] **CFS**

Total Extreme Flood Control Criteria (Qf)

Pre-Development

[ ]16.0[ ] **CFS**

Post-development

[ ]10.9[ ] **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

Admiral Halsey II, L.P.

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: Paul

MI:

Print Last Name: Shevchuk

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 **<u>not</u>** 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 <u>all</u> 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*, <u>in writing,</u> 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; <u>and</u> all areas of disturbance have achieved *final stabilization*; <u>and</u> all temporary, structural erosion and sediment control measures have been removed; <u>and</u> 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* <u>or</u> *alter the hydrology from pre to post development* conditions, <u>and</u> 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

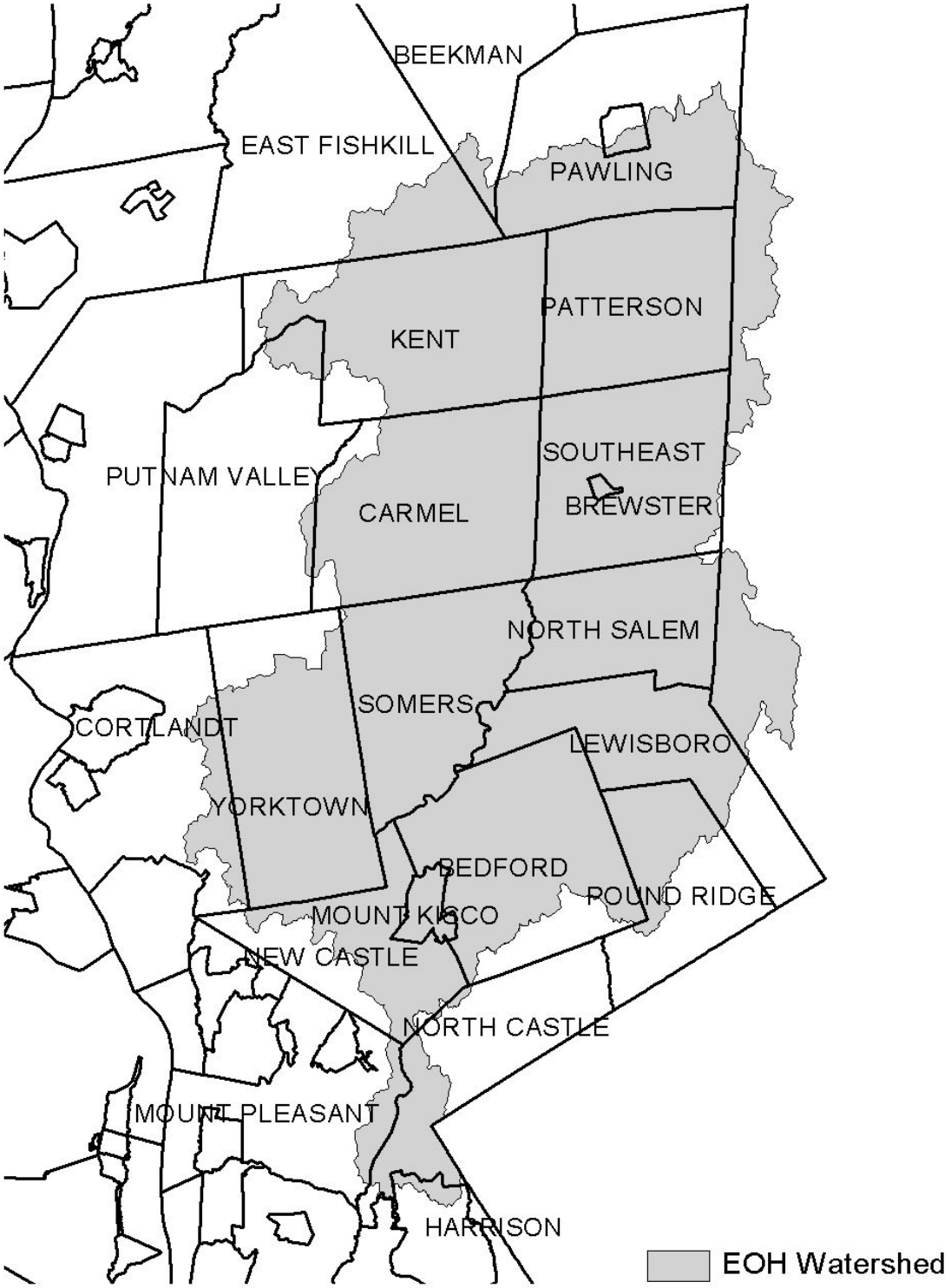


Figure 2 - Onondaga Lake Watershed

Figure 3 - Greenwood Lake Watershed

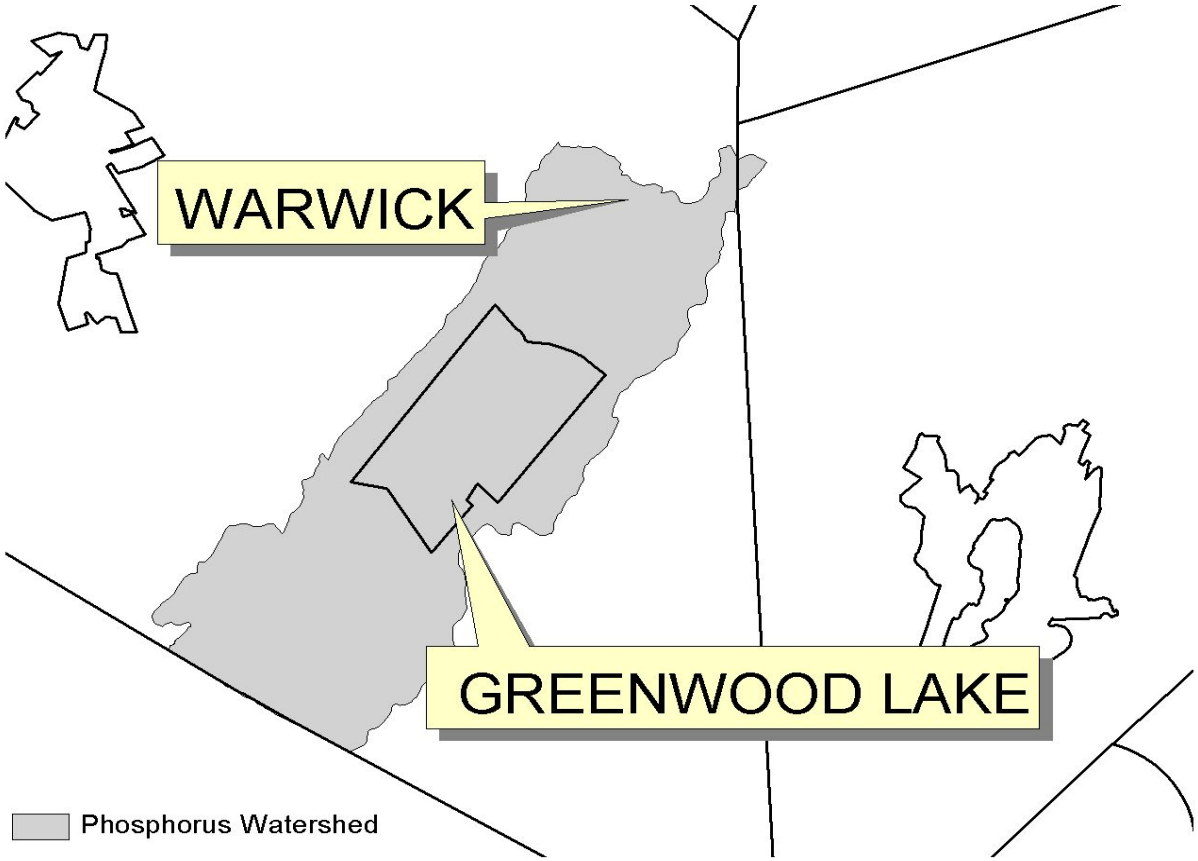


Figure 4 - Oscawana Lake Watershed

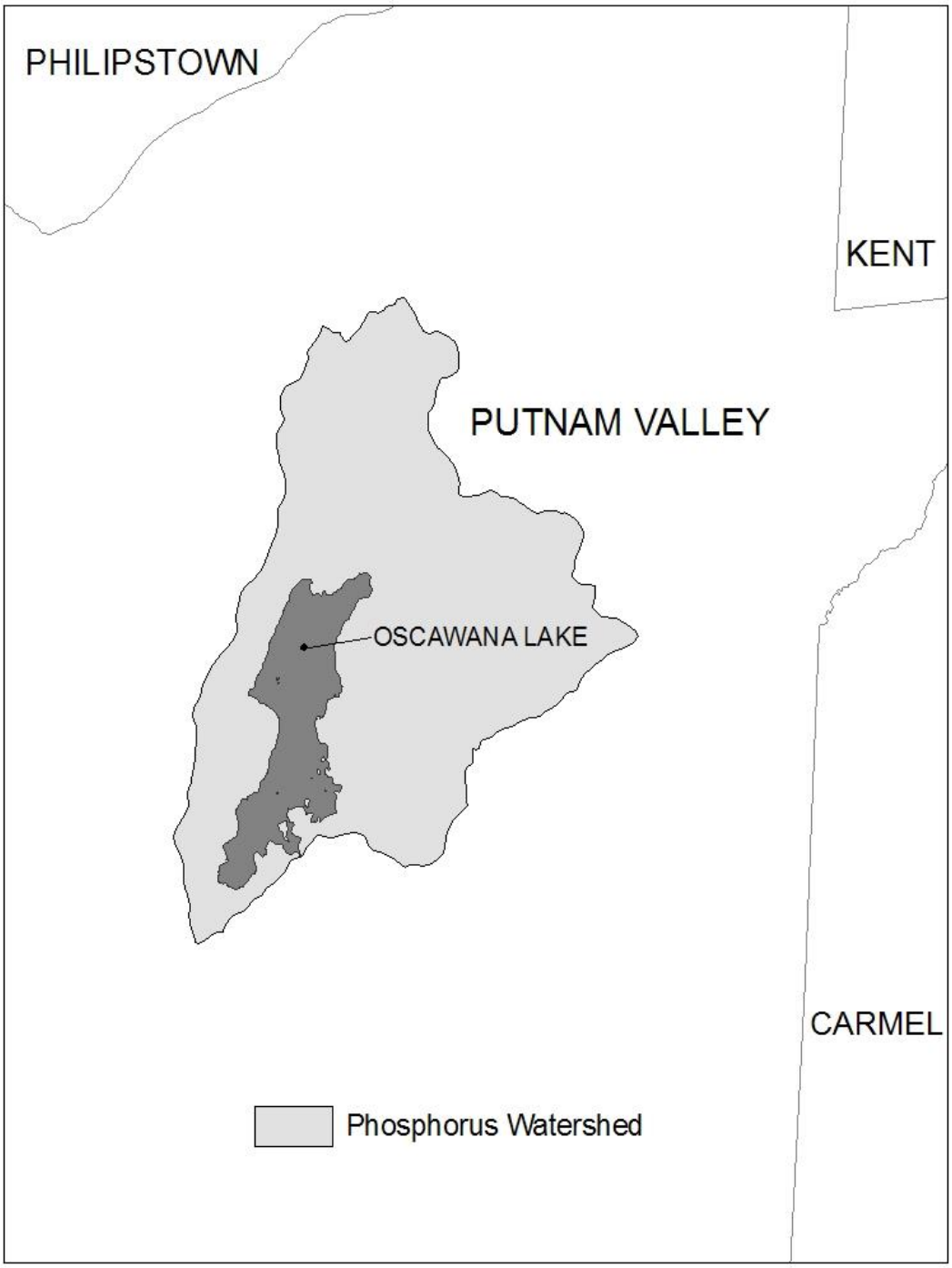
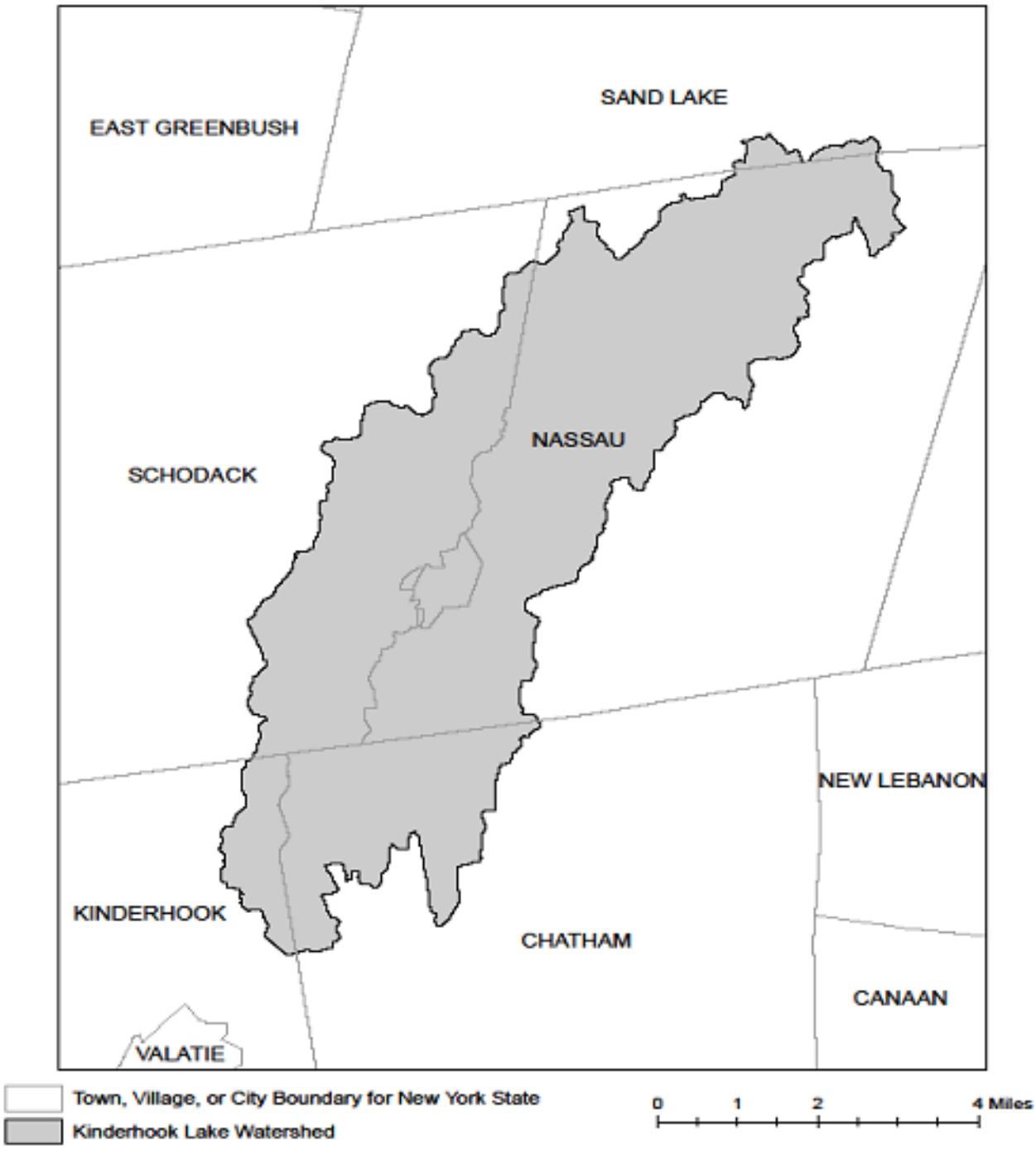


Figure 5 - Kinderhook Lake Watershed



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:

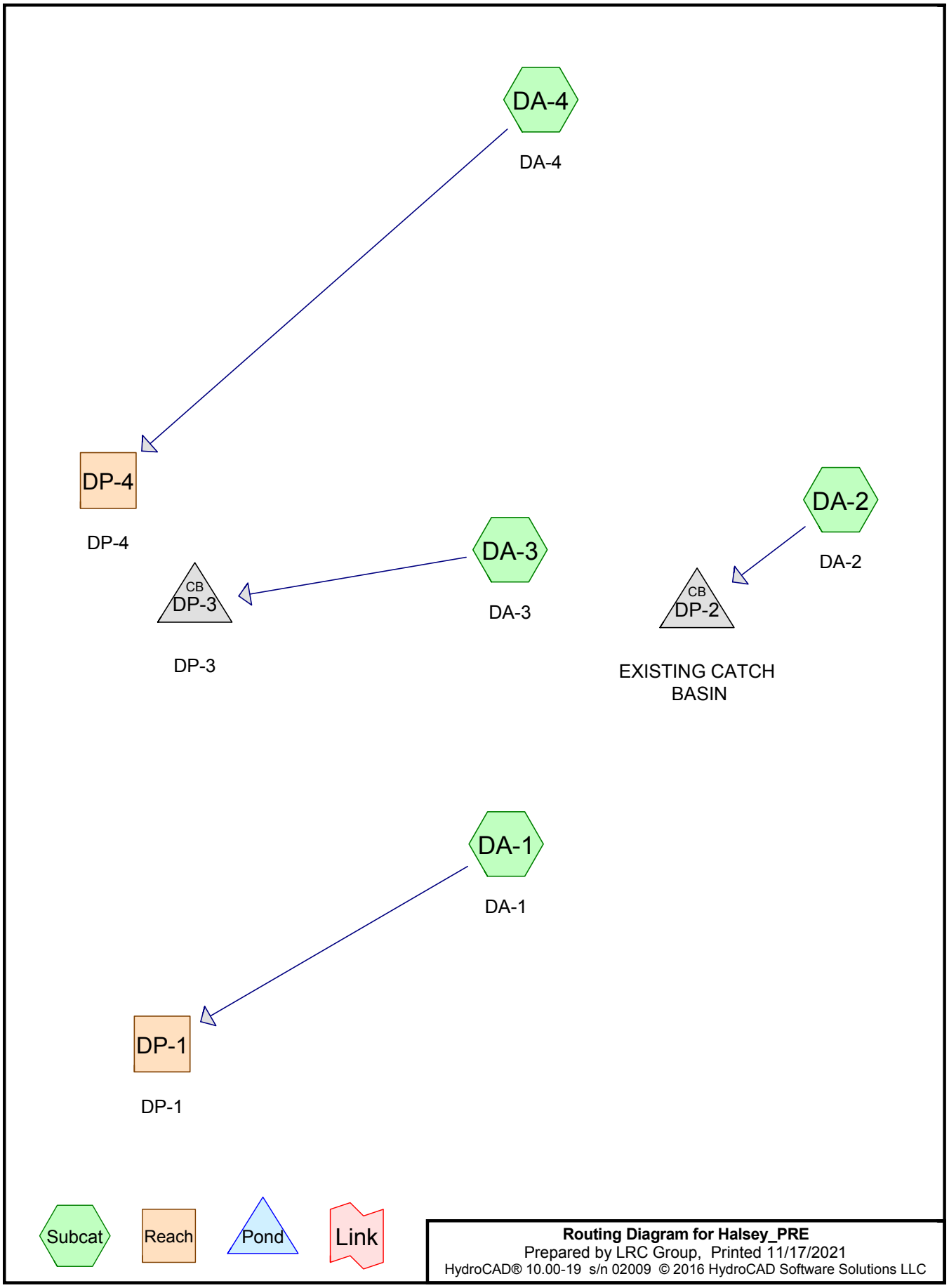
Date:

VI. Additional Information

(NYS DEC - MS4 SWPPP Acceptance Form - January 2015)

APPENDIX C

Pre-Development and Post-Development Run-off Calculations


DA-4
DA-4
DP-4
DP-4
DA-3
DA-3
CB
DP-3
DP-3
DA-2
DA-2
CB
DP-2
EXISTING CATCH BASIN
DA-1
DA-1
DP-1
DP-1
Subcat
Reach
Pond
Link
Routing Diagram for Halsey_PRE
Prepared by LRC Group, Printed 11/17/2021
HydroCAD® 10.00-19 s/n 02009 © 2016 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
62,851	49	50-75% Grass cover, Fair, HSG A (DA-1, DA-2, DA-3, DA-4)
38,588	98	Paved parking, HSG A (DA-1, DA-2, DA-3, DA-4)
101,439	**68**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
101,439	HSG A	DA-1, DA-2, DA-3, DA-4
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
101,439		**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
62,851	0	0	0	0	62,851	50-75% Grass cover, Fair	
38,588	0	0	0	0	38,588	Paved parking	
101,439	**0**	**0**	**0**	**0**	**101,439**	**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	DP-2	112.00	111.50	66.0	0.0076	0.012	18.0	0.0	0.0
2	DP-3	108.30	107.40	32.0	0.0281	0.011	12.0	0.0	0.0

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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=34,302 sf 62.78% Impervious Runoff Depth>0.88"
Tc=6.0 min CN=80 Runoff=1.32 cfs 2,506 cf

Subcatchment DA-2: DA-2 Runoff Area=12,025 sf 66.39% Impervious Runoff Depth>0.99"
Tc=6.0 min CN=82 Runoff=0.52 cfs 987 cf

Subcatchment DA-3: DA-3 Runoff Area=9,993 sf 58.93% Impervious Runoff Depth>0.78"
Tc=6.0 min CN=78 Runoff=0.34 cfs 647 cf

Subcatchment DA-4: DA-4 Runoff Area=45,119 sf 7.05% Impervious Runoff Depth>0.04"
Flow Length=207' Tc=13.6 min CN=52 Runoff=0.01 cfs 152 cf

Reach DP-1: DP-1 Inflow=1.32 cfs 2,506 cf
Outflow=1.32 cfs 2,506 cf

Reach DP-4: DP-4 Inflow=0.01 cfs 152 cf
Outflow=0.01 cfs 152 cf

Pond DP-2: EXISTING CATCH BASIN Peak Elev=112.36' Inflow=0.52 cfs 987 cf
18.0" Round Culvert n=0.012 L=66.0' S=0.0076 '/' Outflow=0.52 cfs 987 cf

Pond DP-3: DP-3 Peak Elev=108.63' Inflow=0.34 cfs 647 cf
12.0" Round Culvert n=0.011 L=32.0' S=0.0281 '/' Outflow=0.34 cfs 647 cf

Total Runoff Area = 101,439 sf Runoff Volume = 4,292 cf Average Runoff Depth = 0.51"
61.96% Pervious = 62,851 sf 38.04% Impervious = 38,588 sf

Summary for Subcatchment DA-1: DA-1

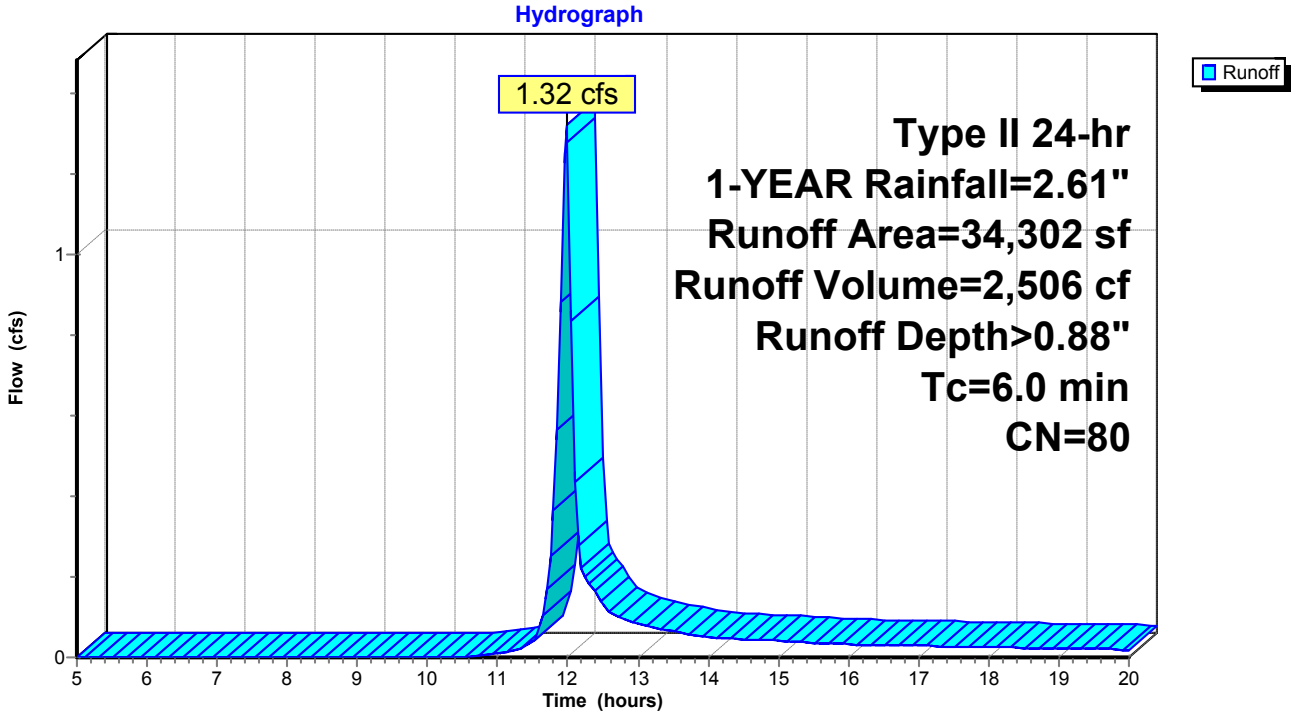
Runoff = 1.32 cfs @ 11.98 hrs, Volume= 2,506 cf, Depth> 0.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
12,767	49	50-75% Grass cover, Fair, HSG A
21,535	98	Paved parking, HSG A
34,302	80	Weighted Average
12,767		37.22% Pervious Area
21,535		62.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-2: DA-2

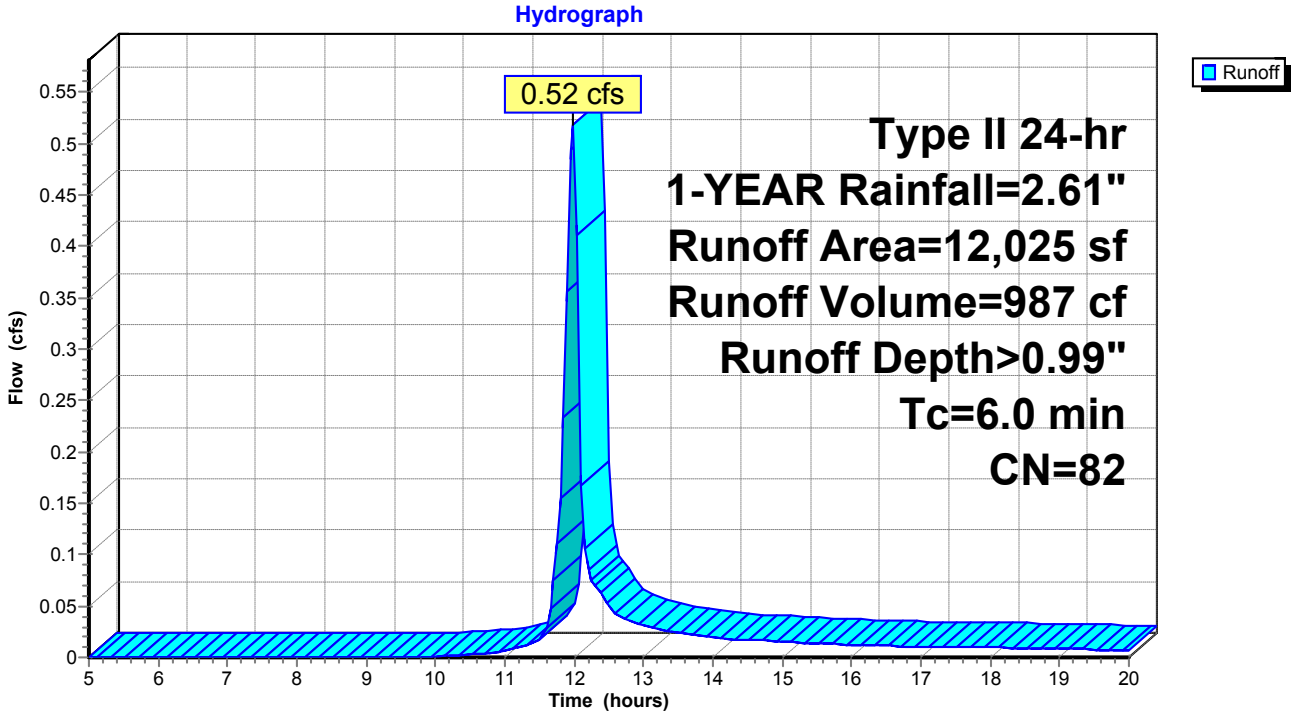
Runoff = 0.52 cfs @ 11.98 hrs, Volume= 987 cf, Depth> 0.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
4,042	49	50-75% Grass cover, Fair, HSG A
7,983	98	Paved parking, HSG A
12,025	82	Weighted Average
4,042		33.61% Pervious Area
7,983		66.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

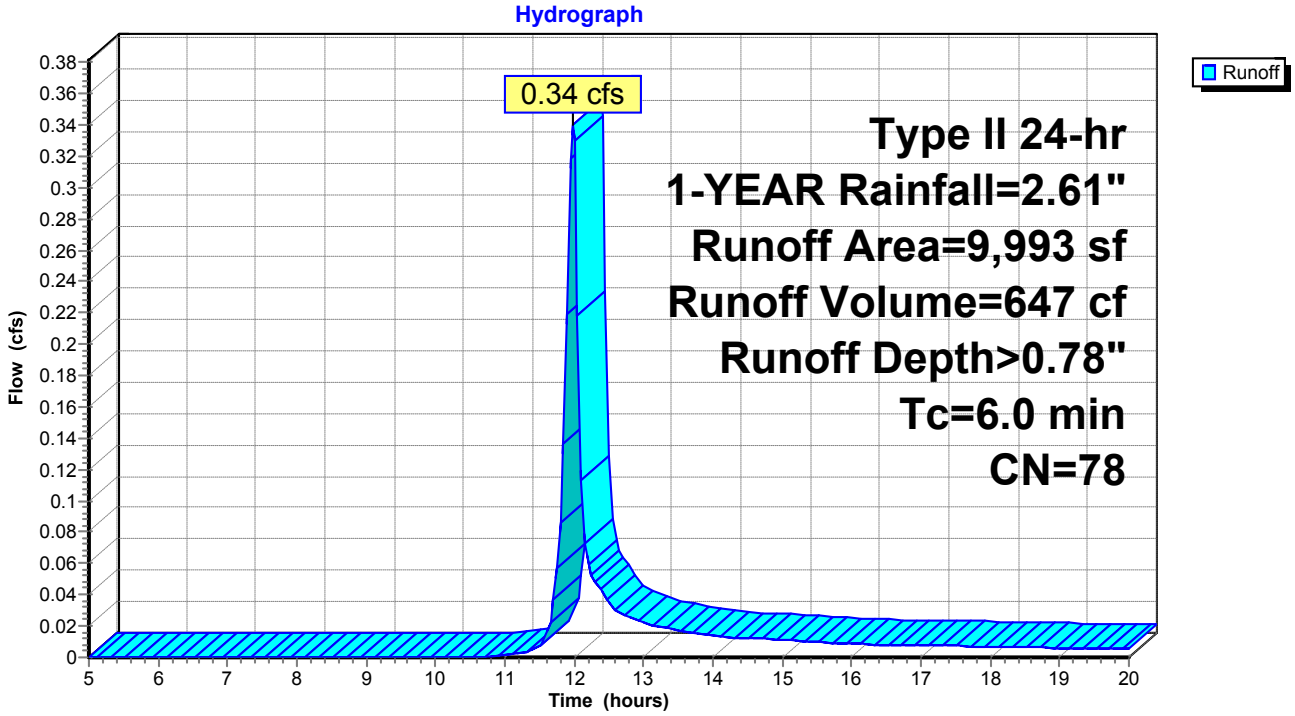
Runoff = 0.34 cfs @ 11.98 hrs, Volume= 647 cf, Depth> 0.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
4,104	49	50-75% Grass cover, Fair, HSG A
5,889	98	Paved parking, HSG A
9,993	78	Weighted Average
4,104		41.07% Pervious Area
5,889		58.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

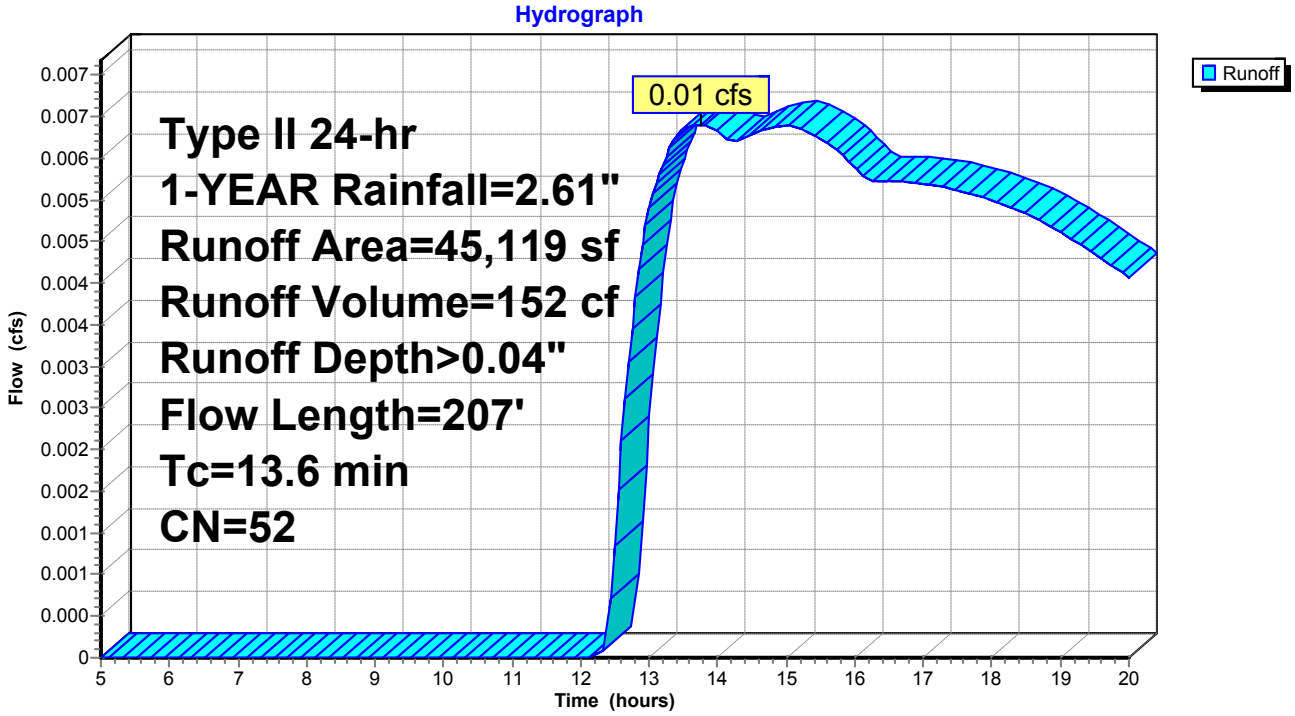
Runoff = 0.01 cfs @ 13.76 hrs, Volume= 152 cf, Depth> 0.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
41,938	49	50-75% Grass cover, Fair, HSG A
3,181	98	Paved parking, HSG A
45,119	52	Weighted Average
41,938		92.95% Pervious Area
3,181		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0325	0.14		**Sheet Flow, A-B** Grass: Dense n= 0.240 P2= 3.16"
1.8	107	0.0210	1.01		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
13.6	207	Total			

Subcatchment DA-4: DA-4

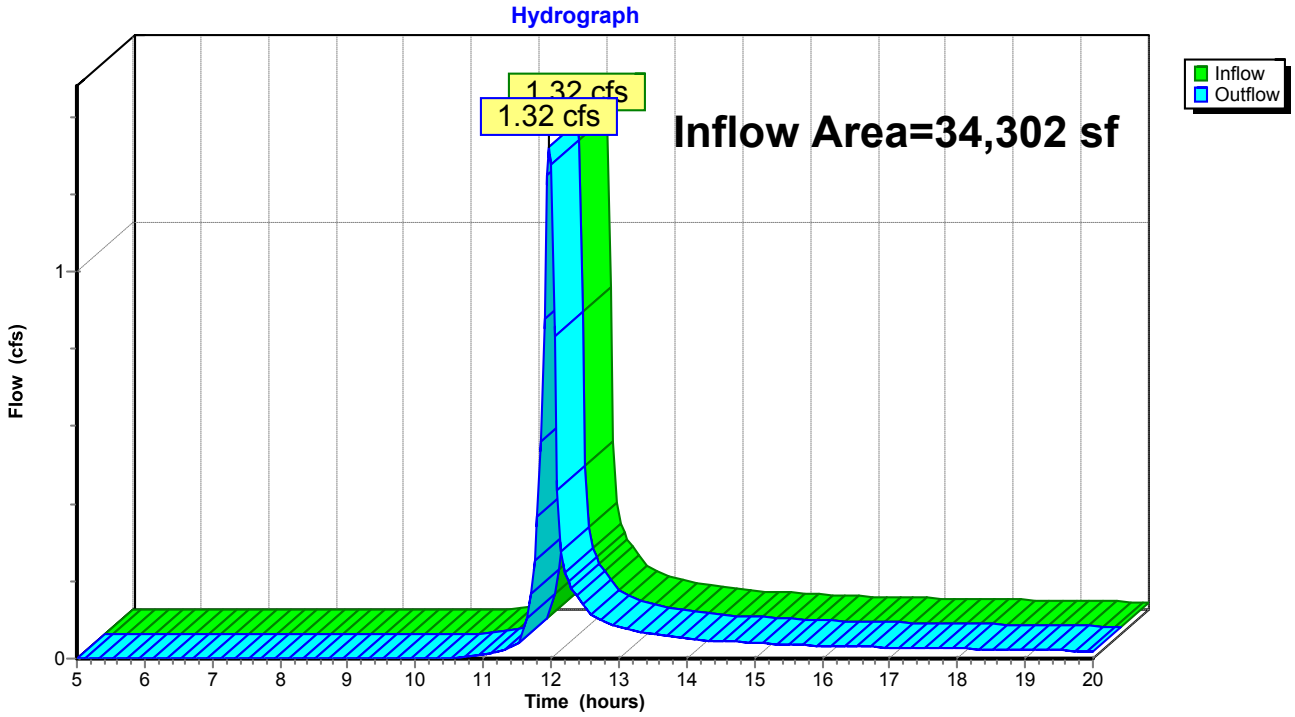


Summary for Reach DP-1: DP-1

Inflow Area = 34,302 sf, 62.78% Impervious, Inflow Depth > 0.88" for 1-YEAR event
Inflow = 1.32 cfs @ 11.98 hrs, Volume= 2,506 cf
Outflow = 1.32 cfs @ 11.98 hrs, Volume= 2,506 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-1: DP-1

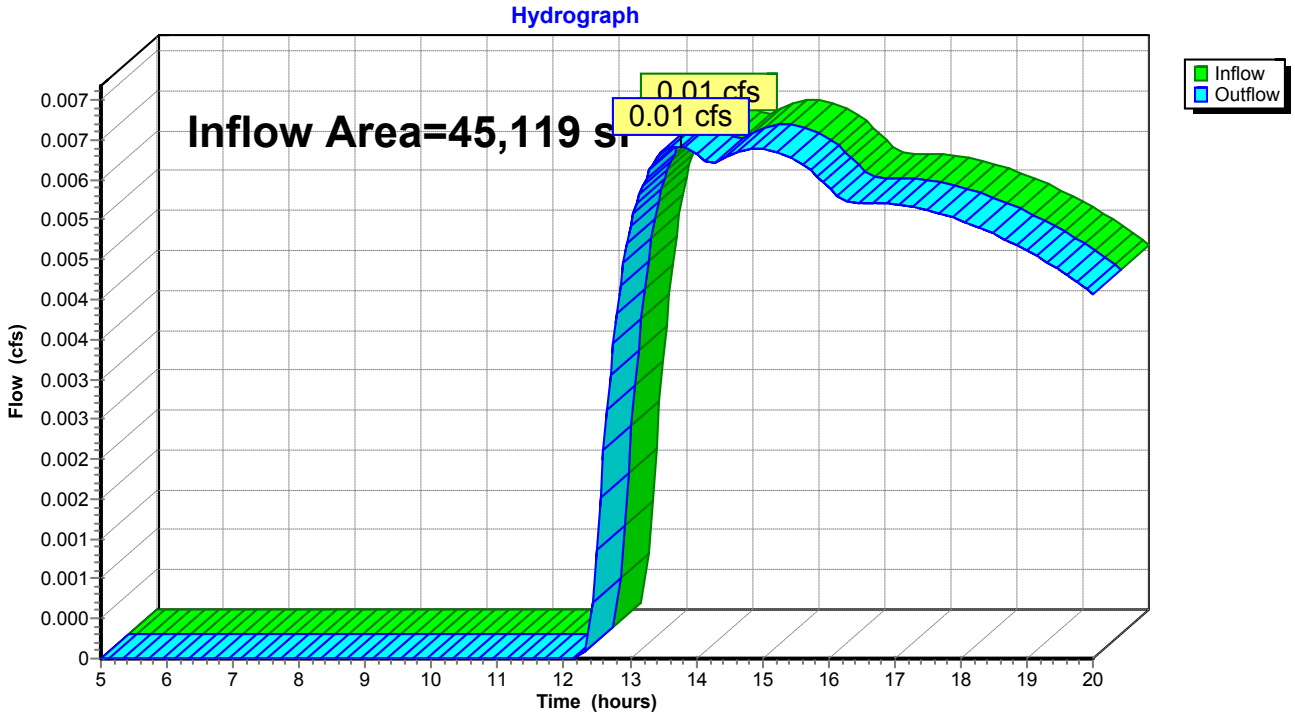


Summary for Reach DP-4: DP-4

Inflow Area = 45,119 sf, 7.05% Impervious, Inflow Depth > 0.04" for 1-YEAR event
Inflow = 0.01 cfs @ 13.76 hrs, Volume= 152 cf
Outflow = 0.01 cfs @ 13.76 hrs, Volume= 152 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-4: DP-4



Summary for Pond DP-2: EXISTING CATCH BASIN

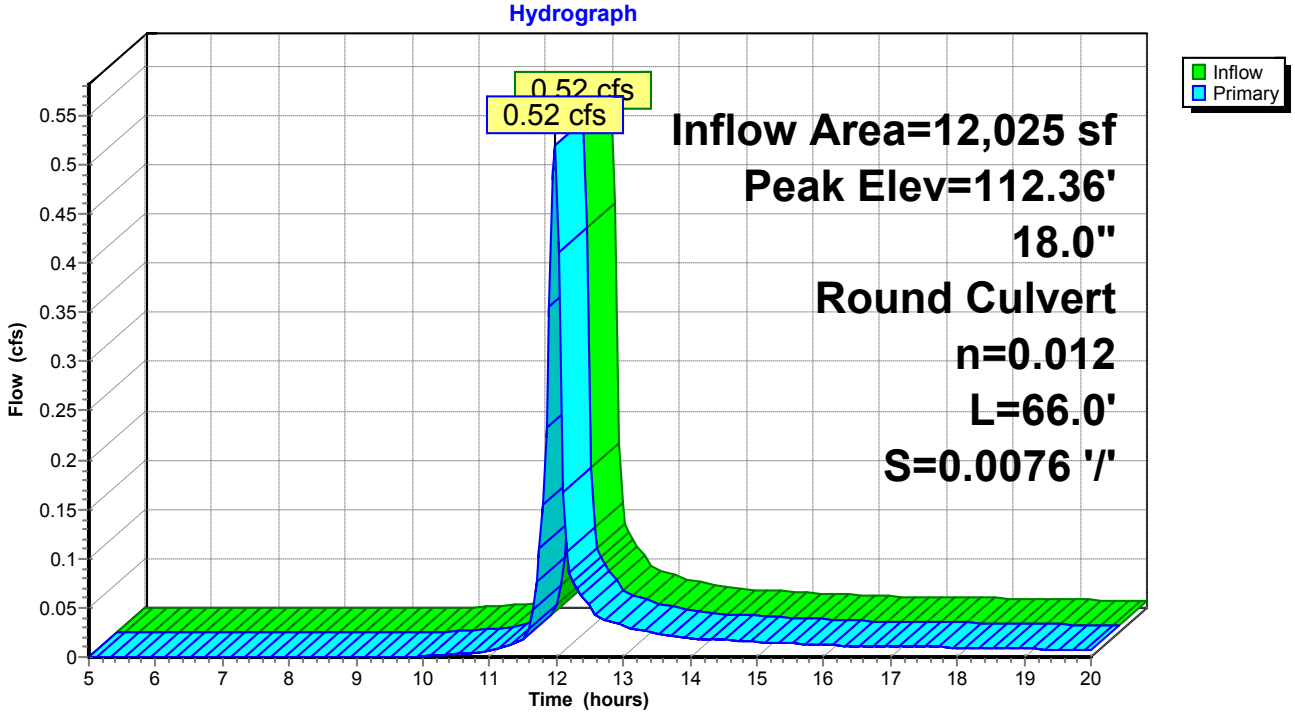
Inflow Area = 12,025 sf, 66.39% Impervious, Inflow Depth > 0.99" for 1-YEAR event
Inflow = 0.52 cfs @ 11.98 hrs, Volume= 987 cf
Outflow = 0.52 cfs @ 11.98 hrs, Volume= 987 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.52 cfs @ 11.98 hrs, Volume= 987 cf

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 112.36' @ 11.98 hrs
Flood Elev= 114.48'

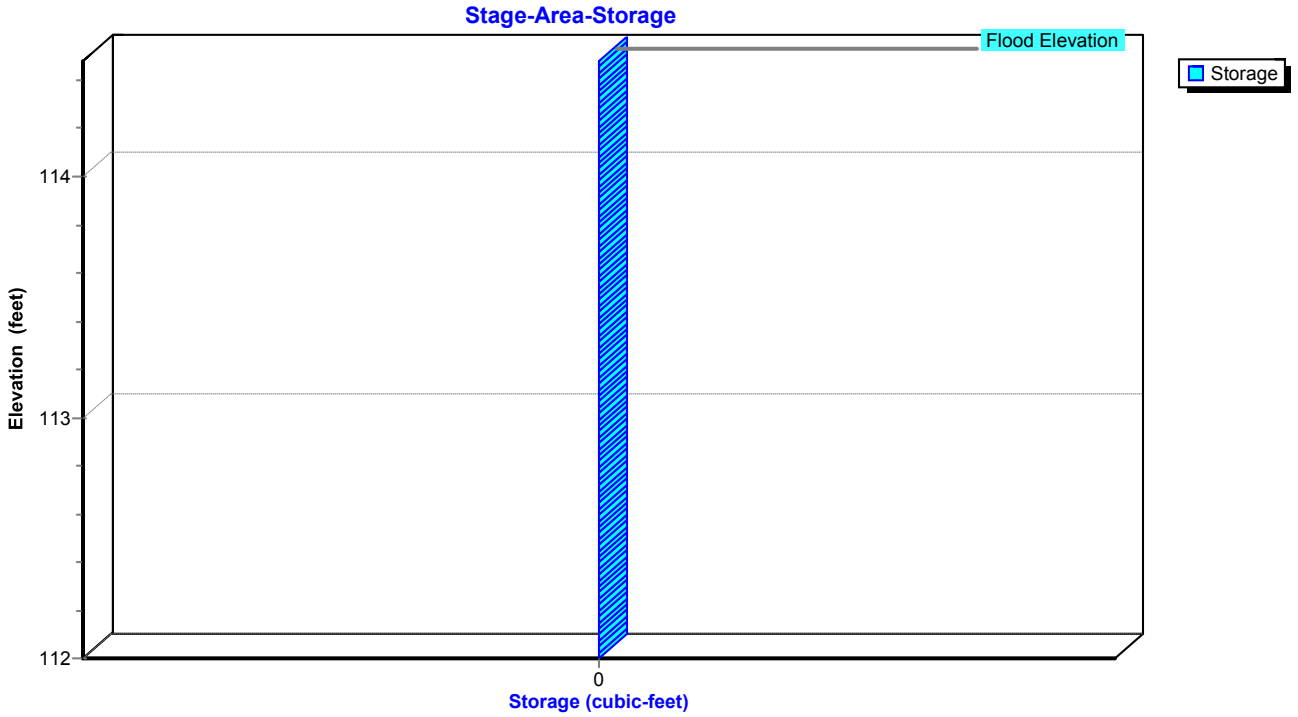
Device	Routing	Invert	Outlet Devices
#1	Primary	112.00'	**18.0" Round Culvert** L= 66.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 112.00' / 111.50' S= 0.0076 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=0.50 cfs @ 11.98 hrs HW=112.35' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.50 cfs @ 1.59 fps)

Pond DP-2: EXISTING CATCH BASIN



Pond DP-2: EXISTING CATCH BASIN



Stage-Area-Storage for Pond DP-2: EXISTING CATCH BASIN

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
112.00	**0**	113.06	0	114.12	0
112.02	0	113.08	0	114.14	0
112.04	0	113.10	0	114.16	0
112.06	0	113.12	0	114.18	0
112.08	0	113.14	0	114.20	0
112.10	0	113.16	0	114.22	0
112.12	0	113.18	0	114.24	0
112.14	0	113.20	0	114.26	0
112.16	0	113.22	0	114.28	0
112.18	0	113.24	0	114.30	0
112.20	0	113.26	0	114.32	0
112.22	0	113.28	0	114.34	0
112.24	0	113.30	0	114.36	0
112.26	0	113.32	0	114.38	0
112.28	0	113.34	0	114.40	0
112.30	0	113.36	0	114.42	0
112.32	0	113.38	0	114.44	0
112.34	0	113.40	0	114.46	0
112.36	0	113.42	0	114.48	0
112.38	0	113.44	0		
112.40	0	113.46	0		
112.42	0	113.48	0		
112.44	0	113.50	0		
112.46	0	113.52	0		
112.48	0	113.54	0		
112.50	0	113.56	0		
112.52	0	113.58	0		
112.54	0	113.60	0		
112.56	0	113.62	0		
112.58	0	113.64	0		
112.60	0	113.66	0		
112.62	0	113.68	0		
112.64	0	113.70	0		
112.66	0	113.72	0		
112.68	0	113.74	0		
112.70	0	113.76	0		
112.72	0	113.78	0		
112.74	0	113.80	0		
112.76	0	113.82	0		
112.78	0	113.84	0		
112.80	0	113.86	0		
112.82	0	113.88	0		
112.84	0	113.90	0		
112.86	0	113.92	0		
112.88	0	113.94	0		
112.90	0	113.96	0		
112.92	0	113.98	0		
112.94	0	114.00	0		
112.96	0	114.02	0		
112.98	0	114.04	0		
113.00	0	114.06	0		
113.02	0	114.08	0		
113.04	0	114.10	0		

Summary for Pond DP-3: DP-3

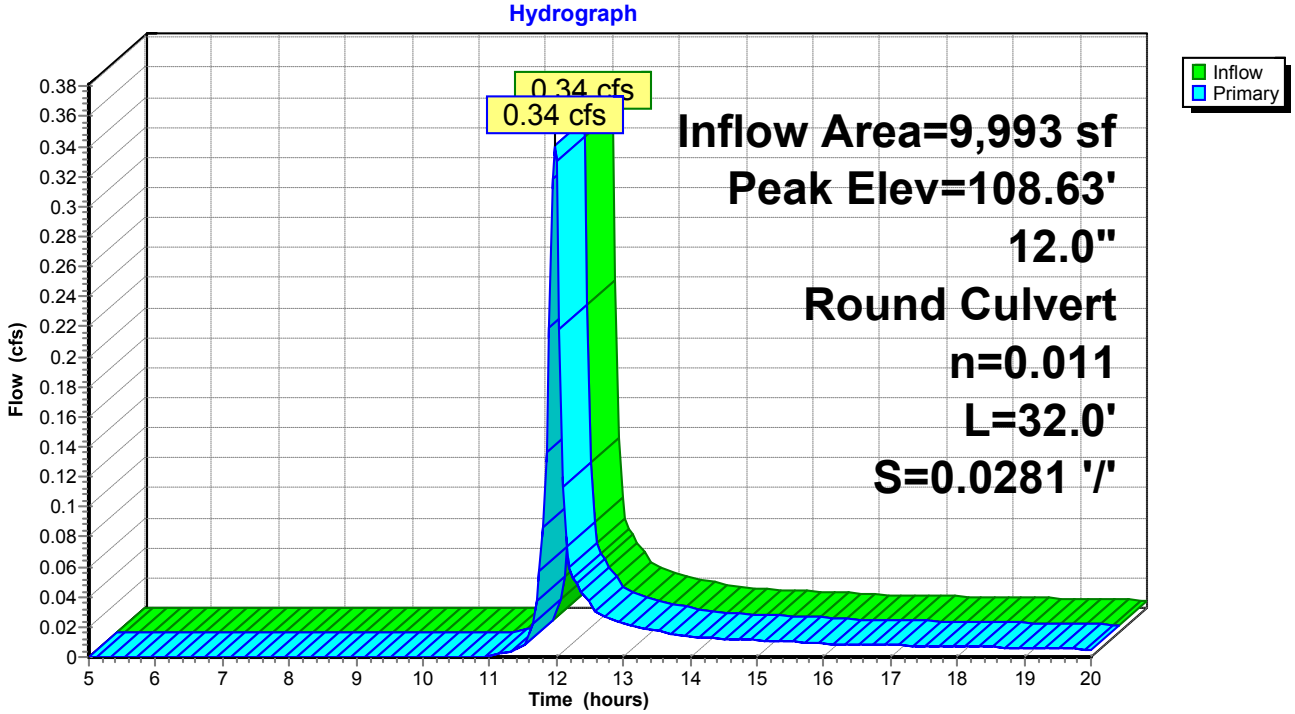
Inflow Area = 9,993 sf, 58.93% Impervious, Inflow Depth > 0.78" for 1-YEAR event
Inflow = 0.34 cfs @ 11.98 hrs, Volume= 647 cf
Outflow = 0.34 cfs @ 11.98 hrs, Volume= 647 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.34 cfs @ 11.98 hrs, Volume= 647 cf

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 108.63' @ 11.98 hrs
Flood Elev= 112.38'

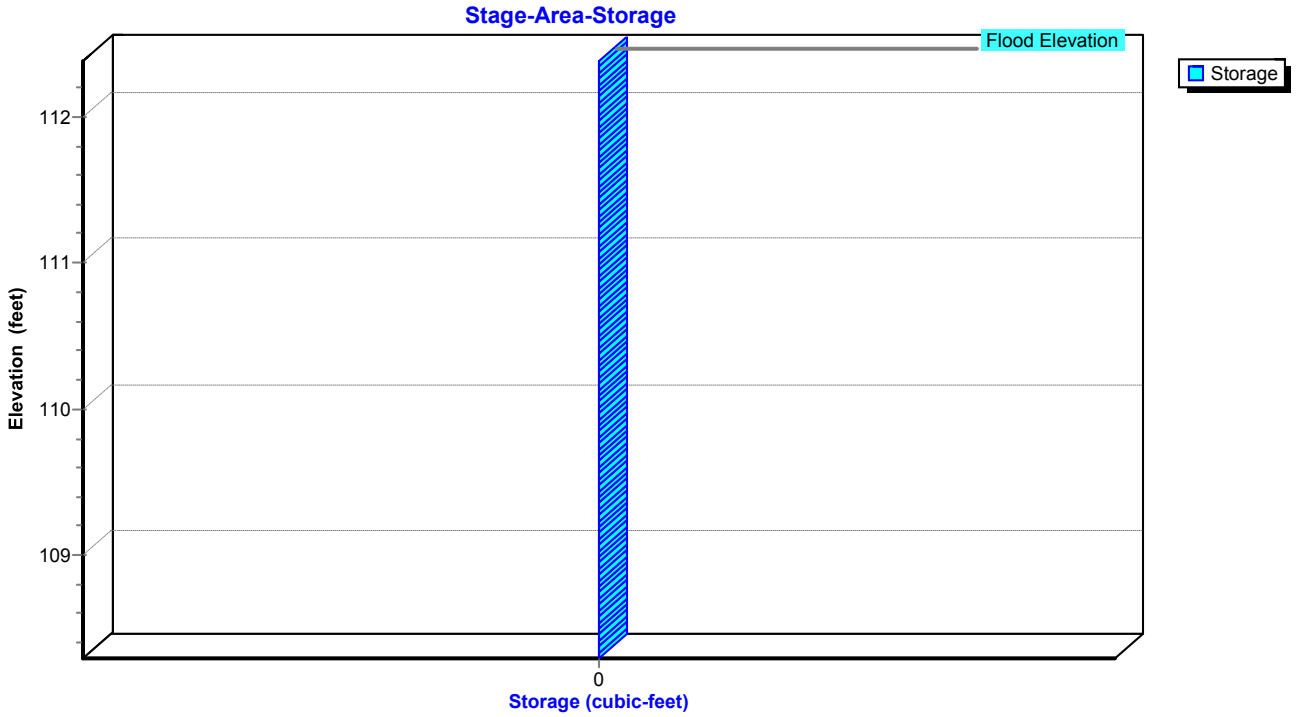
Device	Routing	Invert	Outlet Devices
#1	Primary	108.30'	**12.0" Round Culvert** L= 32.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 107.40' S= 0.0281 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=0.32 cfs @ 11.98 hrs HW=108.62' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.32 cfs @ 1.51 fps)

Pond DP-3: DP-3



Pond DP-3: DP-3


Stage-Area-Storage
Flood Elevation
Storage
Elevation (feet)
112
111
110
109
0
Storage (cubic-feet)

Stage-Area-Storage for Pond DP-3: DP-3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
108.30	**0**	110.95	0
108.35	0	111.00	0
108.40	0	111.05	0
108.45	0	111.10	0
108.50	0	111.15	0
108.55	0	111.20	0
108.60	0	111.25	0
108.65	0	111.30	0
108.70	0	111.35	0
108.75	0	111.40	0
108.80	0	111.45	0
108.85	0	111.50	0
108.90	0	111.55	0
108.95	0	111.60	0
109.00	0	111.65	0
109.05	0	111.70	0
109.10	0	111.75	0
109.15	0	111.80	0
109.20	0	111.85	0
109.25	0	111.90	0
109.30	0	111.95	0
109.35	0	112.00	0
109.40	0	112.05	0
109.45	0	112.10	0
109.50	0	112.15	0
109.55	0	112.20	0
109.60	0	112.25	0
109.65	0	112.30	0
109.70	0	112.35	0
109.75	0		
109.80	0		
109.85	0		
109.90	0		
109.95	0		
110.00	0		
110.05	0		
110.10	0		
110.15	0		
110.20	0		
110.25	0		
110.30	0		
110.35	0		
110.40	0		
110.45	0		
110.50	0		
110.55	0		
110.60	0		
110.65	0		
110.70	0		
110.75	0		
110.80	0		
110.85	0		
110.90	0		

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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=34,302 sf 62.78% Impervious Runoff Depth>1.25"
Tc=6.0 min CN=80 Runoff=1.88 cfs 3,585 cf

Subcatchment DA-2: DA-2 Runoff Area=12,025 sf 66.39% Impervious Runoff Depth>1.38"
Tc=6.0 min CN=82 Runoff=0.72 cfs 1,386 cf

Subcatchment DA-3: DA-3 Runoff Area=9,993 sf 58.93% Impervious Runoff Depth>1.13"
Tc=6.0 min CN=78 Runoff=0.50 cfs 943 cf

Subcatchment DA-4: DA-4 Runoff Area=45,119 sf 7.05% Impervious Runoff Depth>0.13"
Flow Length=207' Tc=13.6 min CN=52 Runoff=0.04 cfs 482 cf

Reach DP-1: DP-1 Inflow=1.88 cfs 3,585 cf
Outflow=1.88 cfs 3,585 cf

Reach DP-4: DP-4 Inflow=0.04 cfs 482 cf
Outflow=0.04 cfs 482 cf

Pond DP-2: EXISTING CATCH BASIN Peak Elev=112.42' Inflow=0.72 cfs 1,386 cf
18.0" Round Culvert n=0.012 L=66.0' S=0.0076 '/' Outflow=0.72 cfs 1,386 cf

Pond DP-3: DP-3 Peak Elev=108.70' Inflow=0.50 cfs 943 cf
12.0" Round Culvert n=0.011 L=32.0' S=0.0281 '/' Outflow=0.50 cfs 943 cf

Total Runoff Area = 101,439 sf Runoff Volume = 6,397 cf Average Runoff Depth = 0.76"
61.96% Pervious = 62,851 sf 38.04% Impervious = 38,588 sf

Summary for Subcatchment DA-1: DA-1

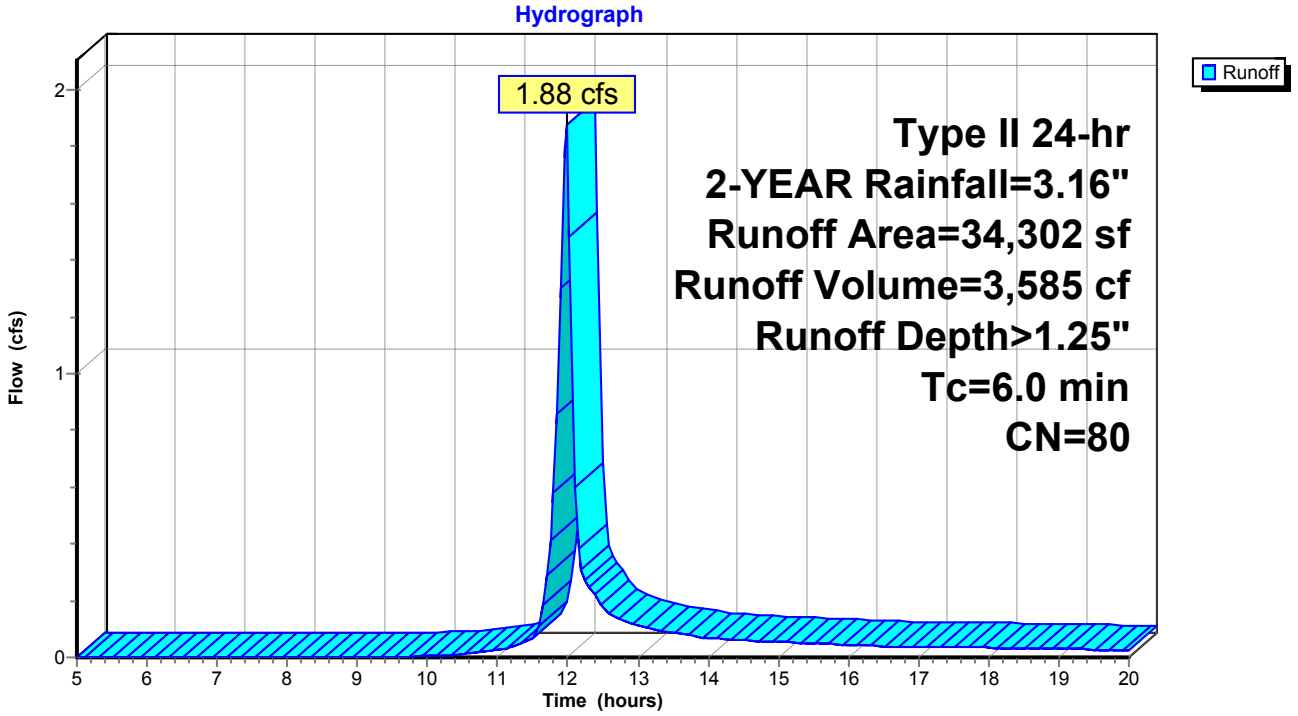
Runoff = 1.88 cfs @ 11.98 hrs, Volume= 3,585 cf, Depth> 1.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
12,767	49	50-75% Grass cover, Fair, HSG A
21,535	98	Paved parking, HSG A
34,302	80	Weighted Average
12,767		37.22% Pervious Area
21,535		62.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-2: DA-2

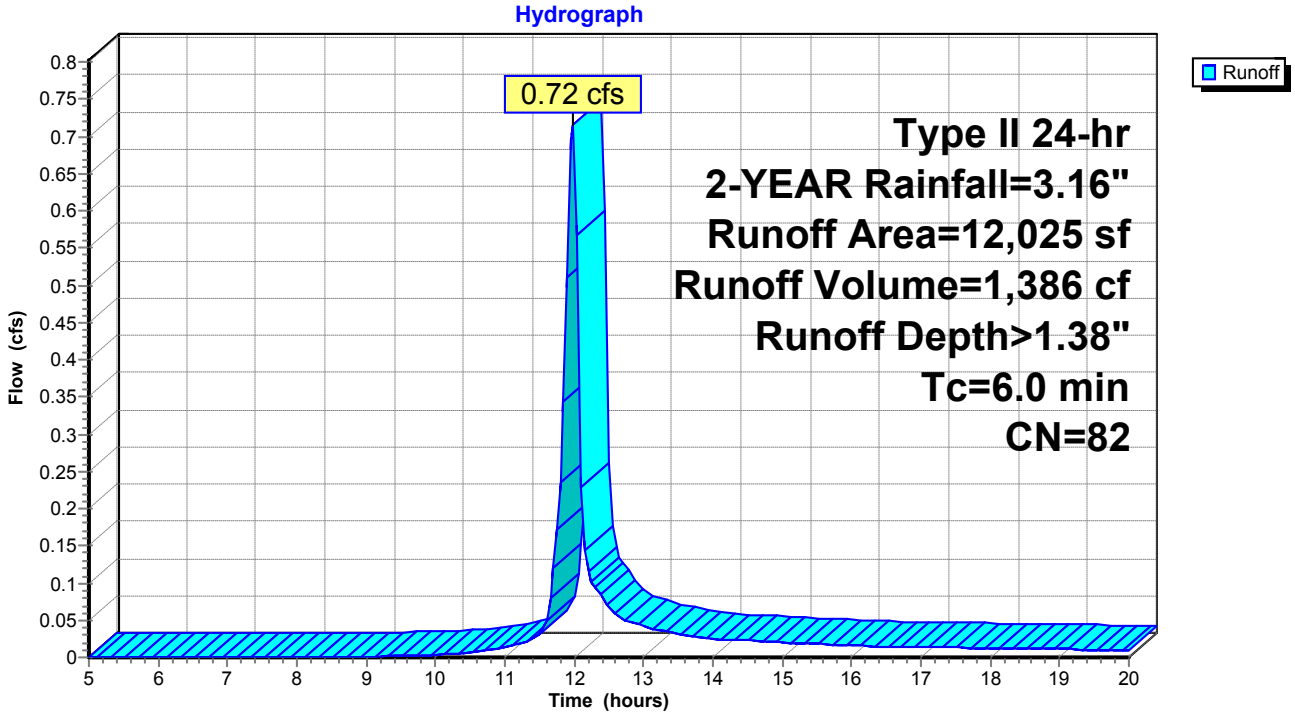
Runoff = 0.72 cfs @ 11.97 hrs, Volume= 1,386 cf, Depth> 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
4,042	49	50-75% Grass cover, Fair, HSG A
7,983	98	Paved parking, HSG A
12,025	82	Weighted Average
4,042		33.61% Pervious Area
7,983		66.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

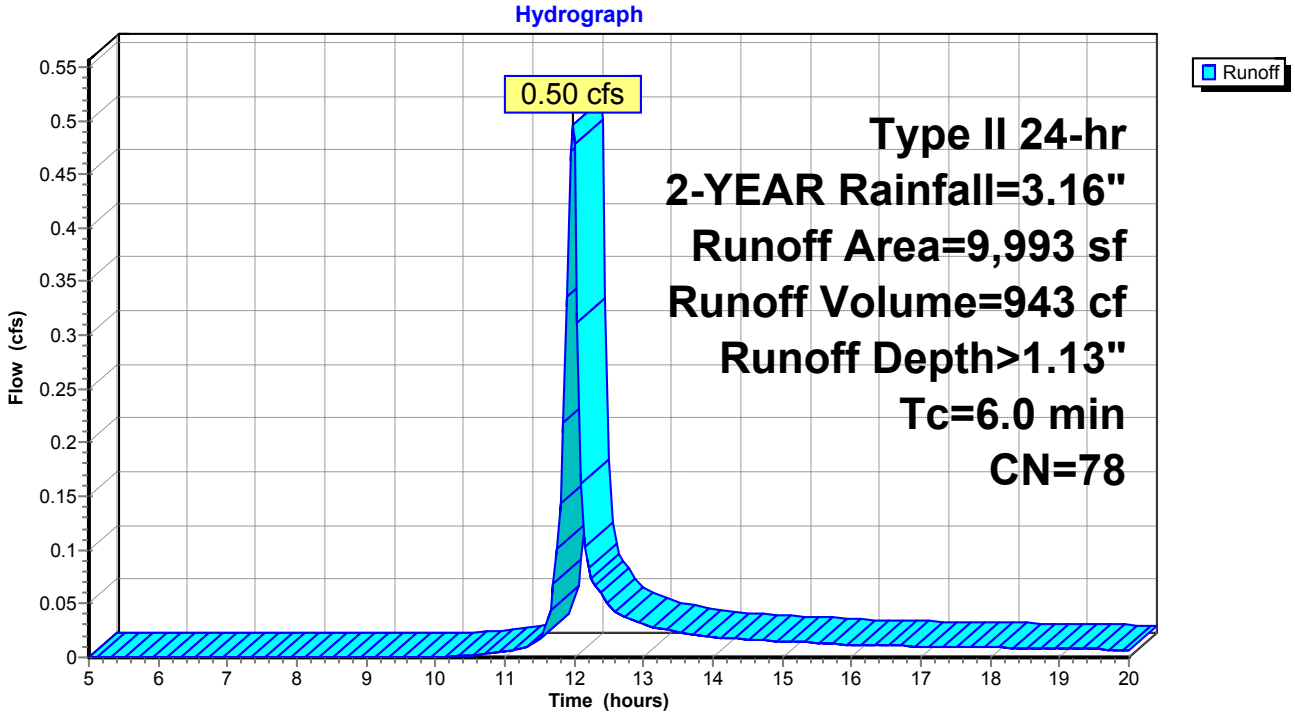
Runoff = 0.50 cfs @ 11.98 hrs, Volume= 943 cf, Depth> 1.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
4,104	49	50-75% Grass cover, Fair, HSG A
5,889	98	Paved parking, HSG A
9,993	78	Weighted Average
4,104		41.07% Pervious Area
5,889		58.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

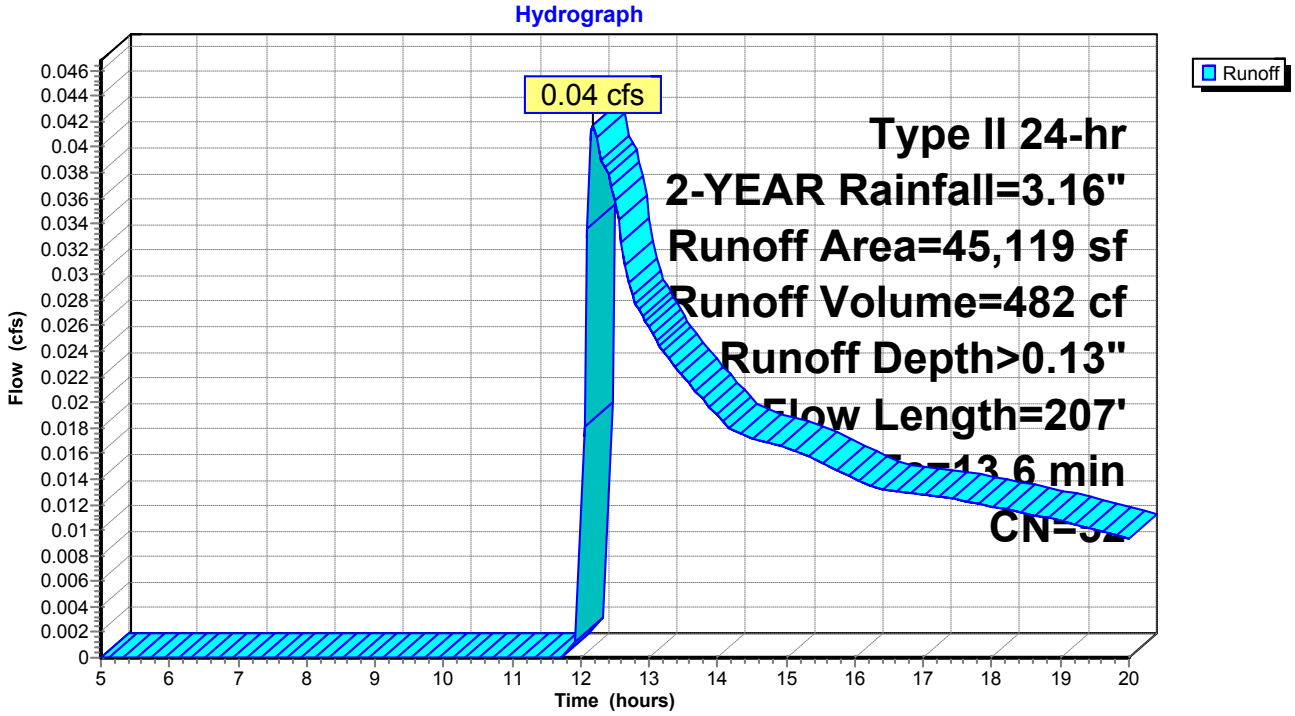
Runoff = 0.04 cfs @ 12.18 hrs, Volume= 482 cf, Depth> 0.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
41,938	49	50-75% Grass cover, Fair, HSG A
3,181	98	Paved parking, HSG A
45,119	52	Weighted Average
41,938		92.95% Pervious Area
3,181		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0325	0.14		**Sheet Flow, A-B** Grass: Dense n= 0.240 P2= 3.16"
1.8	107	0.0210	1.01		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
13.6	207	Total			

Subcatchment DA-4: DA-4

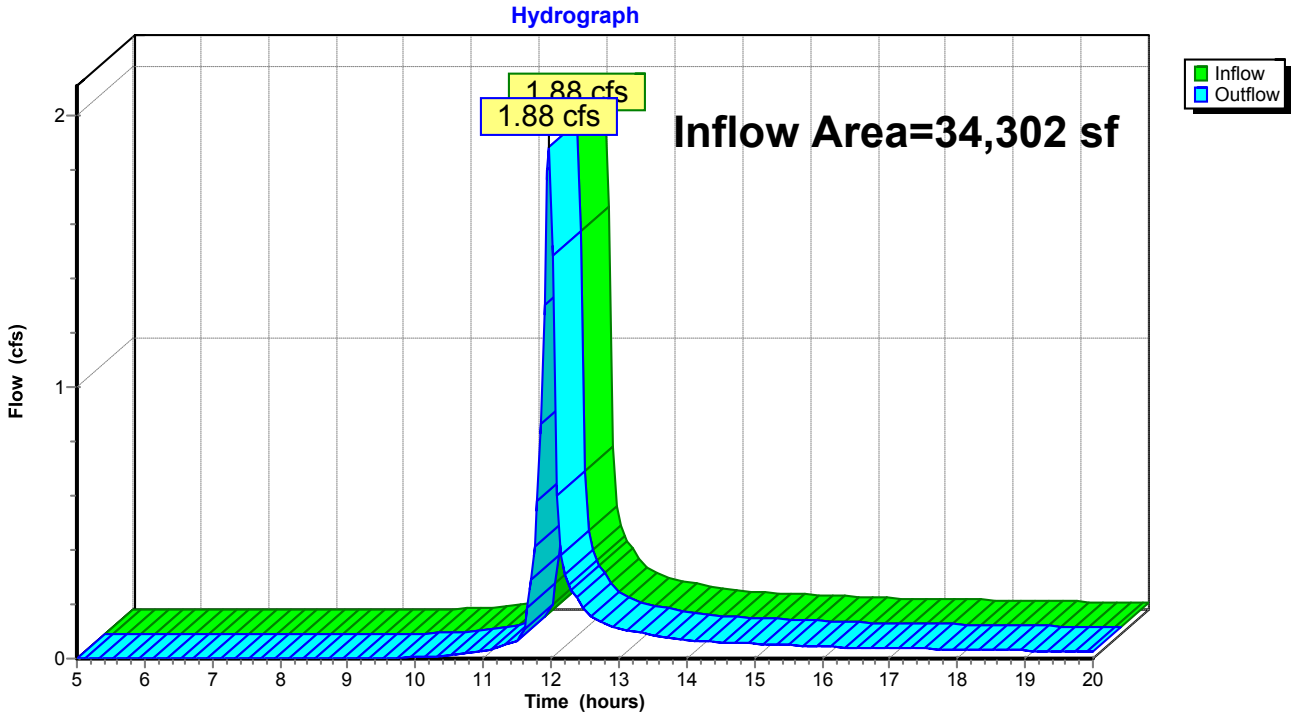


Summary for Reach DP-1: DP-1

Inflow Area = 34,302 sf, 62.78% Impervious, Inflow Depth > 1.25" for 2-YEAR event
Inflow = 1.88 cfs @ 11.98 hrs, Volume= 3,585 cf
Outflow = 1.88 cfs @ 11.98 hrs, Volume= 3,585 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-1: DP-1

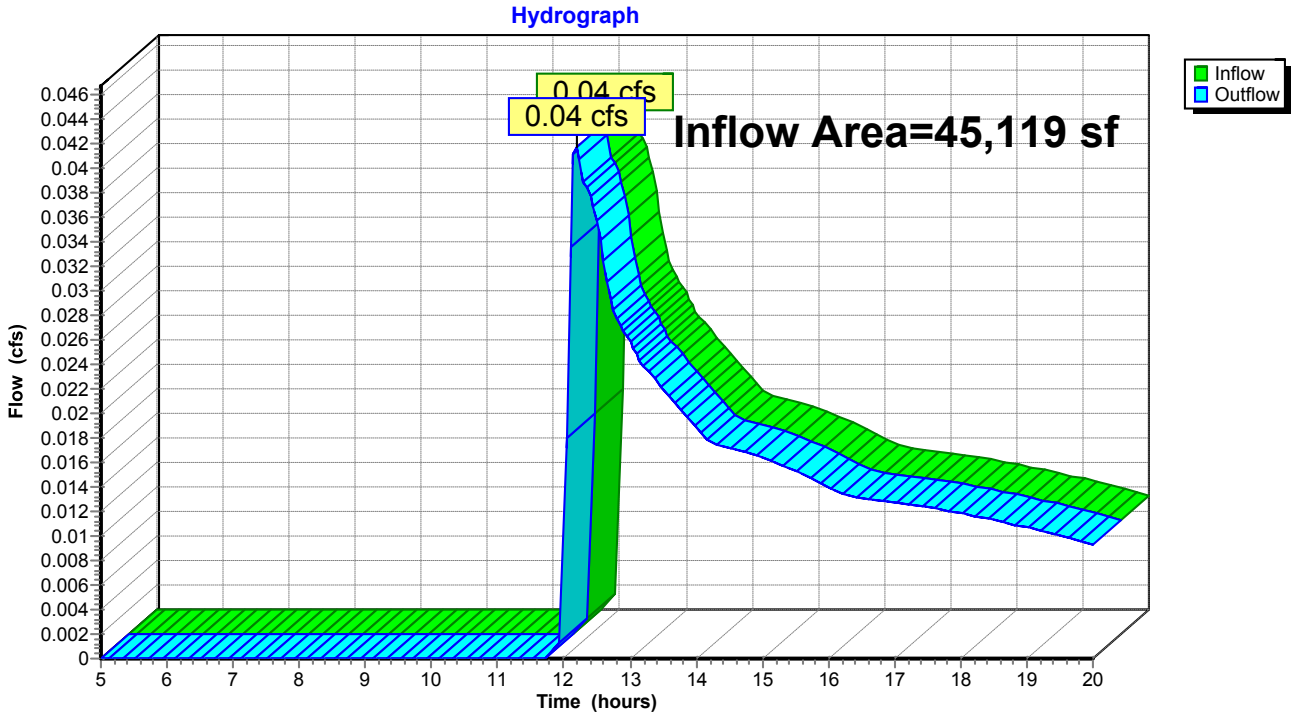


Summary for Reach DP-4: DP-4

Inflow Area = 45,119 sf, 7.05% Impervious, Inflow Depth > 0.13" for 2-YEAR event
Inflow = 0.04 cfs @ 12.18 hrs, Volume= 482 cf
Outflow = 0.04 cfs @ 12.18 hrs, Volume= 482 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-4: DP-4



Summary for Pond DP-2: EXISTING CATCH BASIN

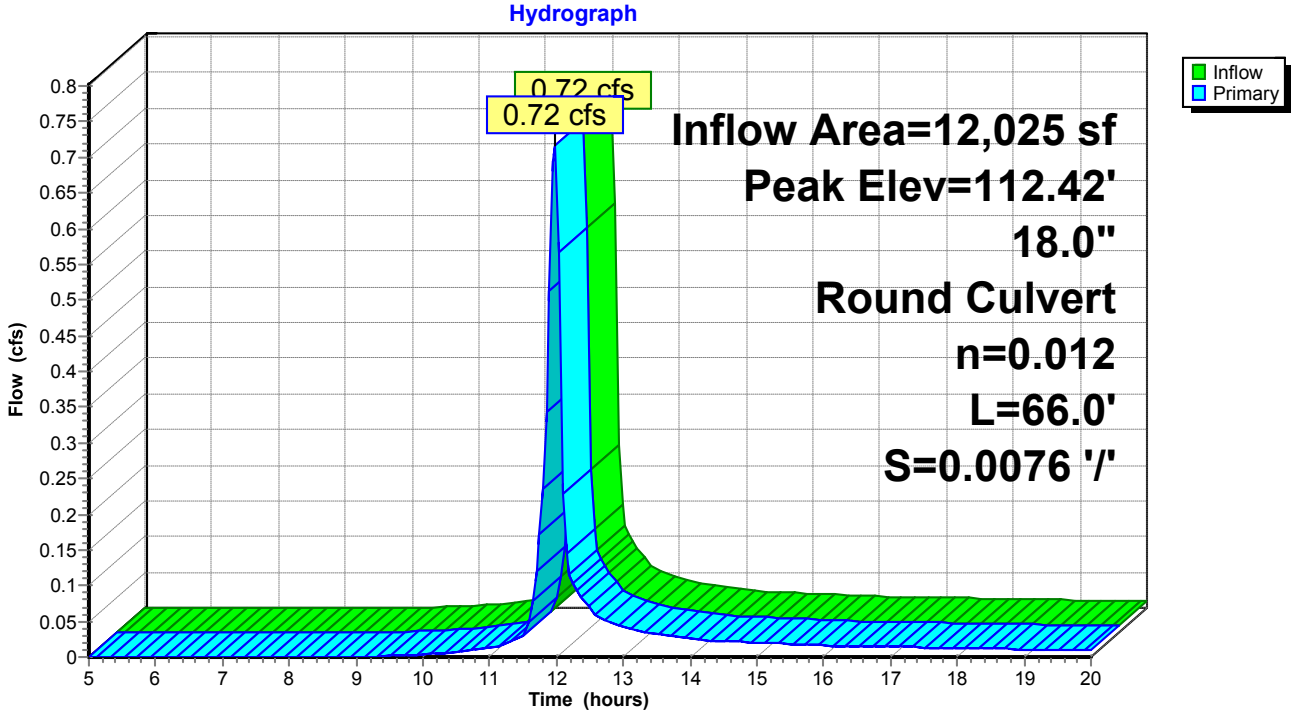
Inflow Area = 12,025 sf, 66.39% Impervious, Inflow Depth > 1.38" for 2-YEAR event
Inflow = 0.72 cfs @ 11.97 hrs, Volume= 1,386 cf
Outflow = 0.72 cfs @ 11.97 hrs, Volume= 1,386 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.72 cfs @ 11.97 hrs, Volume= 1,386 cf

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 112.42' @ 11.97 hrs
Flood Elev= 114.48'

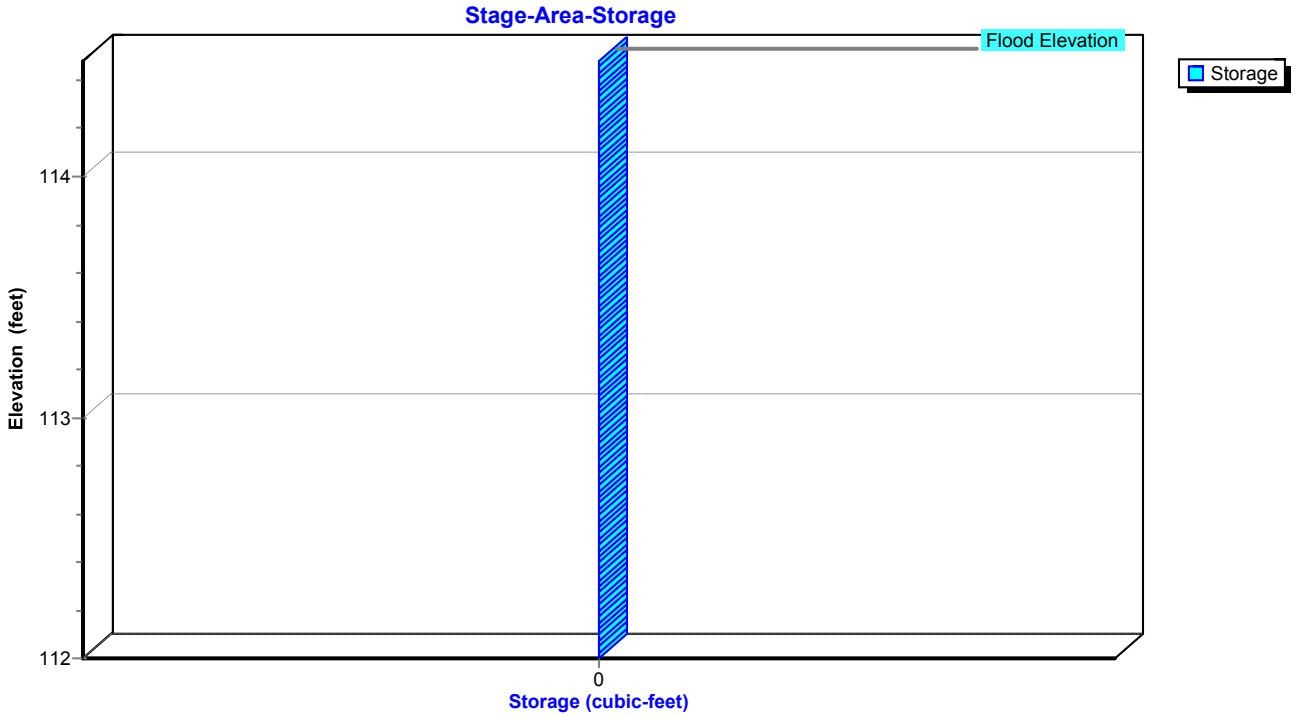
Device	Routing	Invert	Outlet Devices
#1	Primary	112.00'	**18.0" Round Culvert** L= 66.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 112.00' / 111.50' S= 0.0076 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=0.69 cfs @ 11.97 hrs HW=112.42' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.69 cfs @ 1.73 fps)

Pond DP-2: EXISTING CATCH BASIN



Pond DP-2: EXISTING CATCH BASIN



Stage-Area-Storage for Pond DP-2: EXISTING CATCH BASIN

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
112.00	**0**	113.06	0	114.12	0
112.02	0	113.08	0	114.14	0
112.04	0	113.10	0	114.16	0
112.06	0	113.12	0	114.18	0
112.08	0	113.14	0	114.20	0
112.10	0	113.16	0	114.22	0
112.12	0	113.18	0	114.24	0
112.14	0	113.20	0	114.26	0
112.16	0	113.22	0	114.28	0
112.18	0	113.24	0	114.30	0
112.20	0	113.26	0	114.32	0
112.22	0	113.28	0	114.34	0
112.24	0	113.30	0	114.36	0
112.26	0	113.32	0	114.38	0
112.28	0	113.34	0	114.40	0
112.30	0	113.36	0	114.42	0
112.32	0	113.38	0	114.44	0
112.34	0	113.40	0	114.46	0
112.36	0	113.42	0	114.48	0
112.38	0	113.44	0		
112.40	0	113.46	0		
112.42	0	113.48	0		
112.44	0	113.50	0		
112.46	0	113.52	0		
112.48	0	113.54	0		
112.50	0	113.56	0		
112.52	0	113.58	0		
112.54	0	113.60	0		
112.56	0	113.62	0		
112.58	0	113.64	0		
112.60	0	113.66	0		
112.62	0	113.68	0		
112.64	0	113.70	0		
112.66	0	113.72	0		
112.68	0	113.74	0		
112.70	0	113.76	0		
112.72	0	113.78	0		
112.74	0	113.80	0		
112.76	0	113.82	0		
112.78	0	113.84	0		
112.80	0	113.86	0		
112.82	0	113.88	0		
112.84	0	113.90	0		
112.86	0	113.92	0		
112.88	0	113.94	0		
112.90	0	113.96	0		
112.92	0	113.98	0		
112.94	0	114.00	0		
112.96	0	114.02	0		
112.98	0	114.04	0		
113.00	0	114.06	0		
113.02	0	114.08	0		
113.04	0	114.10	0		

Summary for Pond DP-3: DP-3

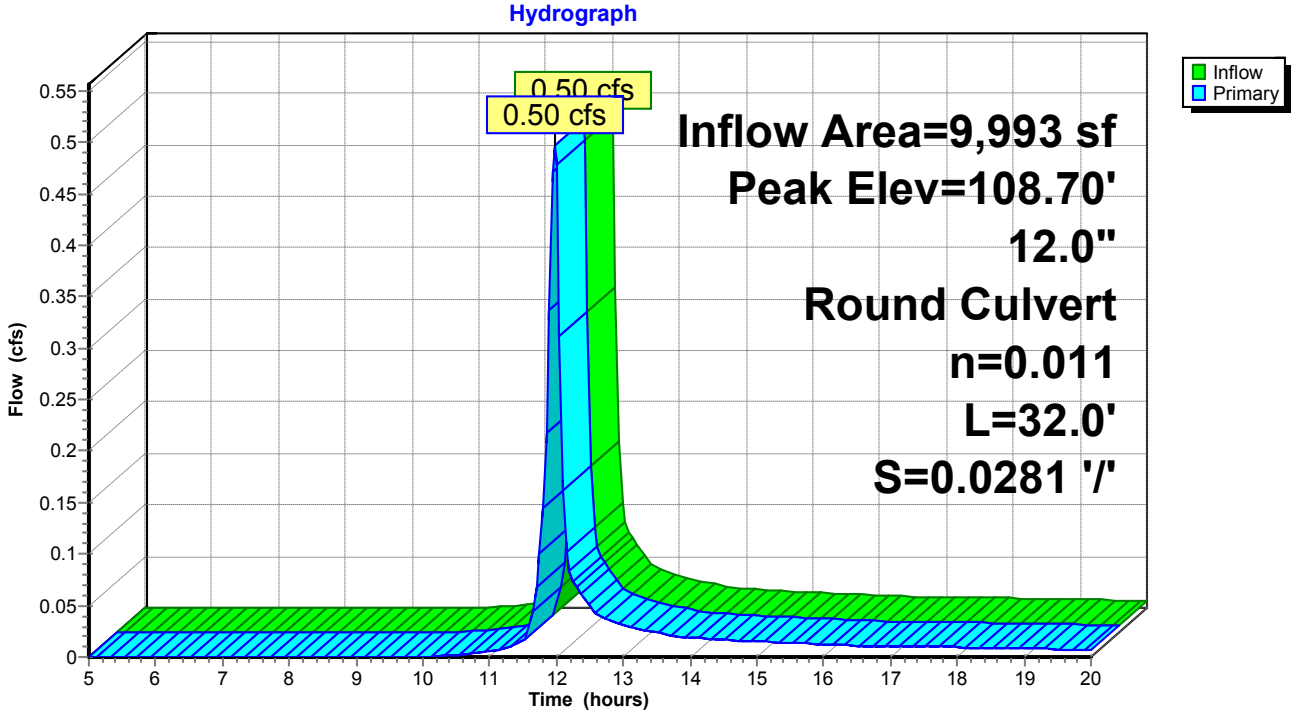
Inflow Area = 9,993 sf, 58.93% Impervious, Inflow Depth > 1.13" for 2-YEAR event
Inflow = 0.50 cfs @ 11.98 hrs, Volume= 943 cf
Outflow = 0.50 cfs @ 11.98 hrs, Volume= 943 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.50 cfs @ 11.98 hrs, Volume= 943 cf

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 108.70' @ 11.98 hrs
Flood Elev= 112.38'

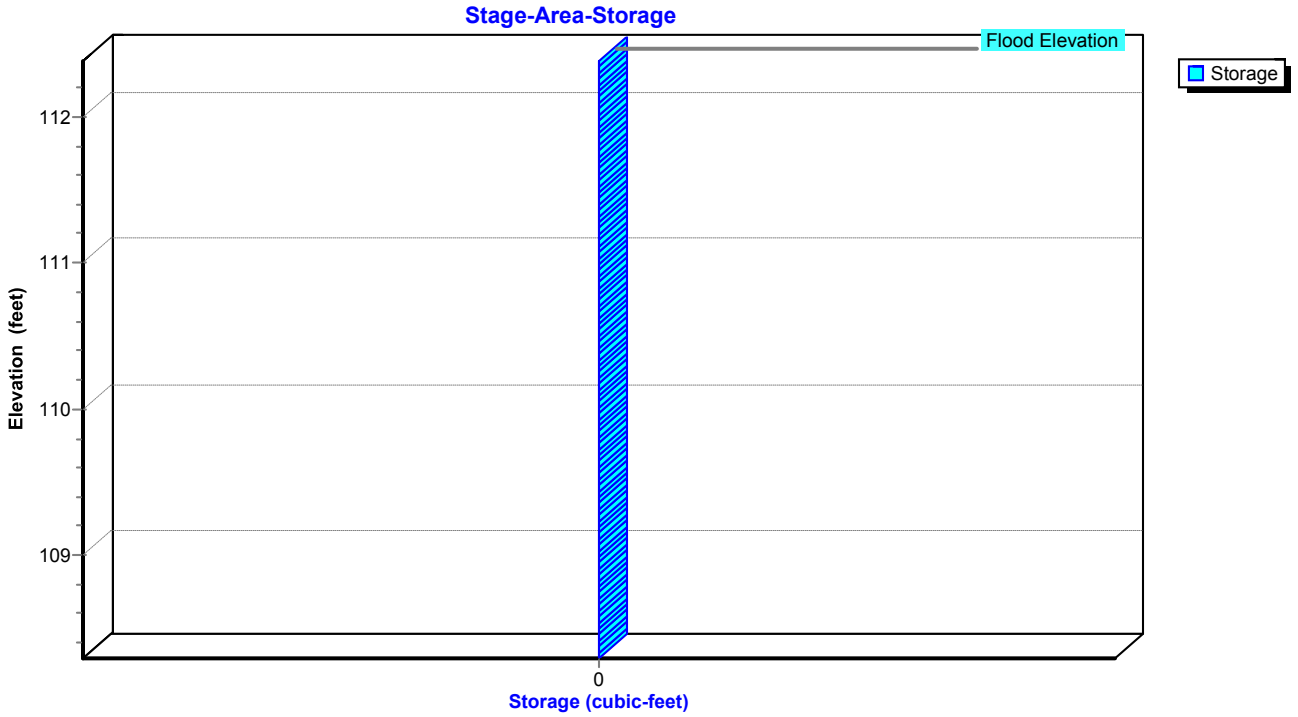
Device	Routing	Invert	Outlet Devices
#1	Primary	108.30'	**12.0" Round Culvert** L= 32.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 107.40' S= 0.0281 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=0.47 cfs @ 11.98 hrs HW=108.69' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.47 cfs @ 1.68 fps)

Pond DP-3: DP-3



Pond DP-3: DP-3


Stage-Area-Storage
Flood Elevation
Storage
112
111
110
109
Elevation (feet)
0
Storage (cubic-feet)

Stage-Area-Storage for Pond DP-3: DP-3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
108.30	**0**	110.95	0
108.35	0	111.00	0
108.40	0	111.05	0
108.45	0	111.10	0
108.50	0	111.15	0
108.55	0	111.20	0
108.60	0	111.25	0
108.65	0	111.30	0
108.70	0	111.35	0
108.75	0	111.40	0
108.80	0	111.45	0
108.85	0	111.50	0
108.90	0	111.55	0
108.95	0	111.60	0
109.00	0	111.65	0
109.05	0	111.70	0
109.10	0	111.75	0
109.15	0	111.80	0
109.20	0	111.85	0
109.25	0	111.90	0
109.30	0	111.95	0
109.35	0	112.00	0
109.40	0	112.05	0
109.45	0	112.10	0
109.50	0	112.15	0
109.55	0	112.20	0
109.60	0	112.25	0
109.65	0	112.30	0
109.70	0	112.35	0
109.75	0		
109.80	0		
109.85	0		
109.90	0		
109.95	0		
110.00	0		
110.05	0		
110.10	0		
110.15	0		
110.20	0		
110.25	0		
110.30	0		
110.35	0		
110.40	0		
110.45	0		
110.50	0		
110.55	0		
110.60	0		
110.65	0		
110.70	0		
110.75	0		
110.80	0		
110.85	0		
110.90	0		

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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=34,302 sf 62.78% Impervious Runoff Depth>2.42"
Tc=6.0 min CN=80 Runoff=3.52 cfs 6,918 cf

Subcatchment DA-2: DA-2 Runoff Area=12,025 sf 66.39% Impervious Runoff Depth>2.59"
Tc=6.0 min CN=82 Runoff=1.31 cfs 2,599 cf

Subcatchment DA-3: DA-3 Runoff Area=9,993 sf 58.93% Impervious Runoff Depth>2.25"
Tc=6.0 min CN=78 Runoff=0.96 cfs 1,876 cf

Subcatchment DA-4: DA-4 Runoff Area=45,119 sf 7.05% Impervious Runoff Depth>0.57"
Flow Length=207' Tc=13.6 min CN=52 Runoff=0.66 cfs 2,145 cf

Reach DP-1: DP-1 Inflow=3.52 cfs 6,918 cf
Outflow=3.52 cfs 6,918 cf

Reach DP-4: DP-4 Inflow=0.66 cfs 2,145 cf
Outflow=0.66 cfs 2,145 cf

Pond DP-2: EXISTING CATCH BASIN Peak Elev=112.59' Inflow=1.31 cfs 2,599 cf
18.0" Round Culvert n=0.012 L=66.0' S=0.0076 '/' Outflow=1.31 cfs 2,599 cf

Pond DP-3: DP-3 Peak Elev=108.88' Inflow=0.96 cfs 1,876 cf
12.0" Round Culvert n=0.011 L=32.0' S=0.0281 '/' Outflow=0.96 cfs 1,876 cf

Total Runoff Area = 101,439 sf Runoff Volume = 13,537 cf Average Runoff Depth = 1.60"
61.96% Pervious = 62,851 sf 38.04% Impervious = 38,588 sf

Summary for Subcatchment DA-1: DA-1

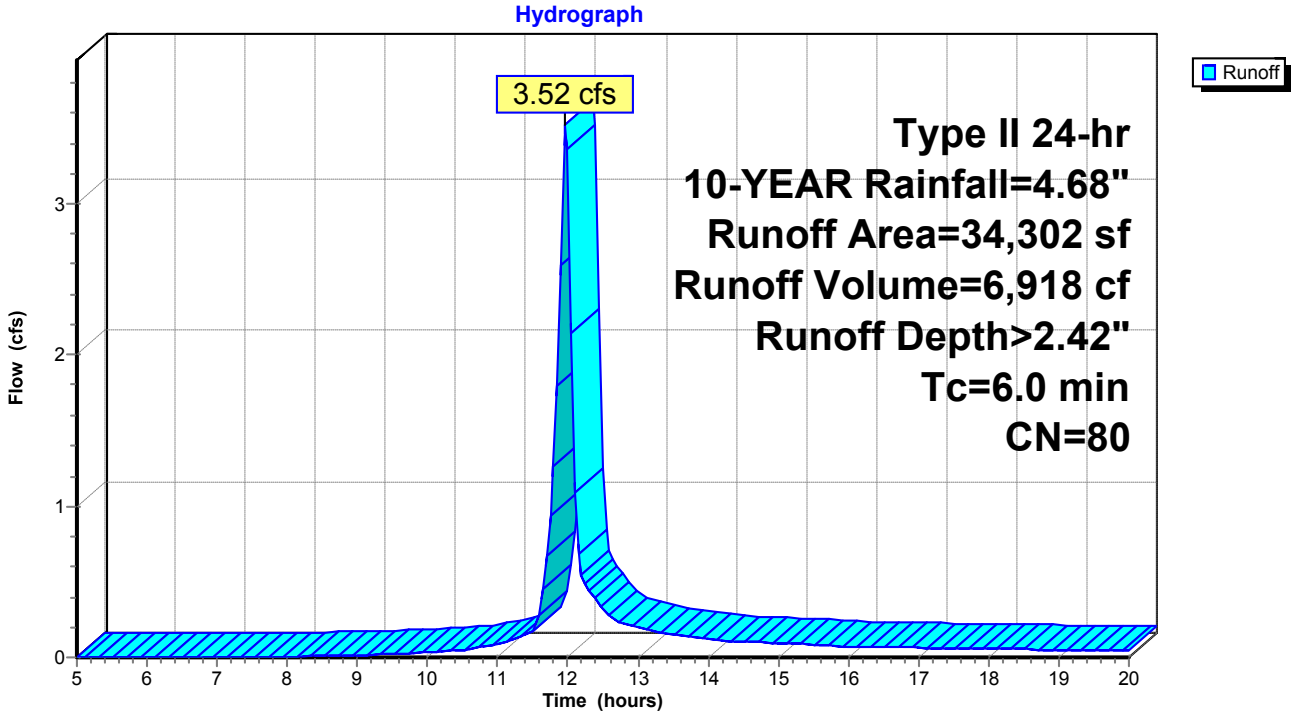
Runoff = 3.52 cfs @ 11.97 hrs, Volume= 6,918 cf, Depth> 2.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
12,767	49	50-75% Grass cover, Fair, HSG A
21,535	98	Paved parking, HSG A
34,302	80	Weighted Average
12,767		37.22% Pervious Area
21,535		62.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-2: DA-2

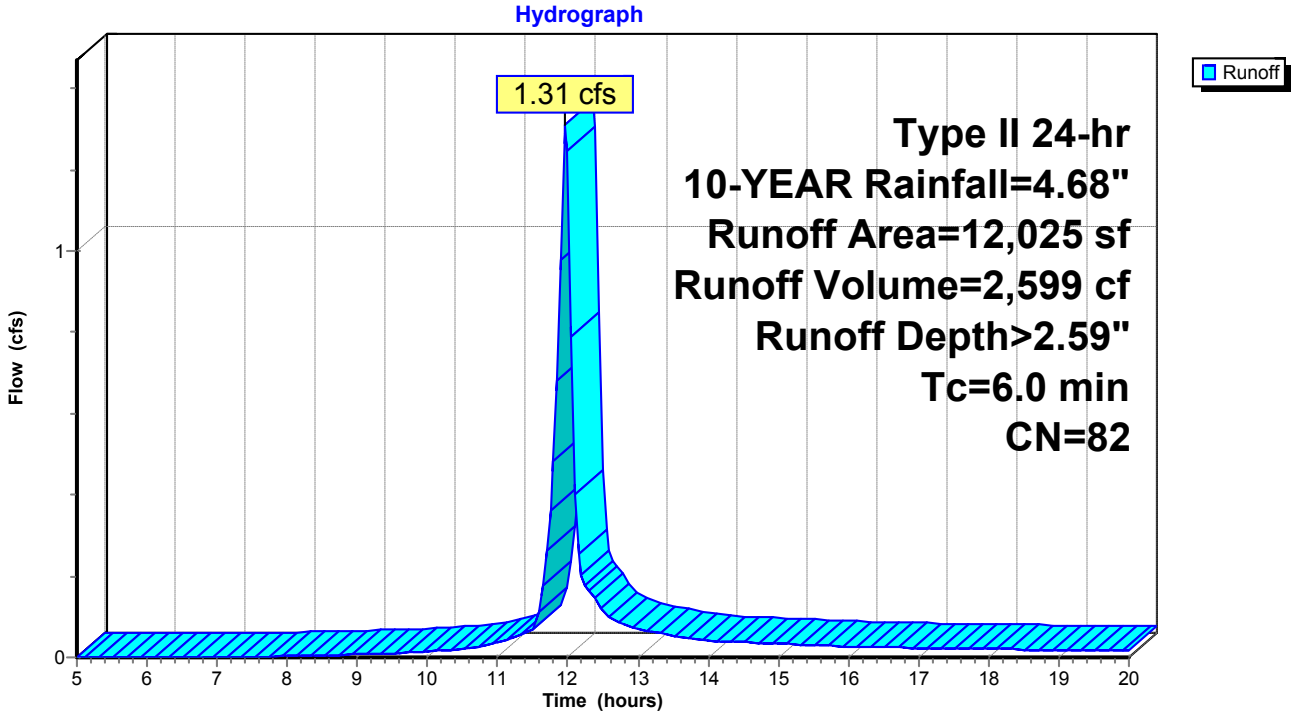
Runoff = 1.31 cfs @ 11.97 hrs, Volume= 2,599 cf, Depth> 2.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
4,042	49	50-75% Grass cover, Fair, HSG A
7,983	98	Paved parking, HSG A
12,025	82	Weighted Average
4,042		33.61% Pervious Area
7,983		66.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

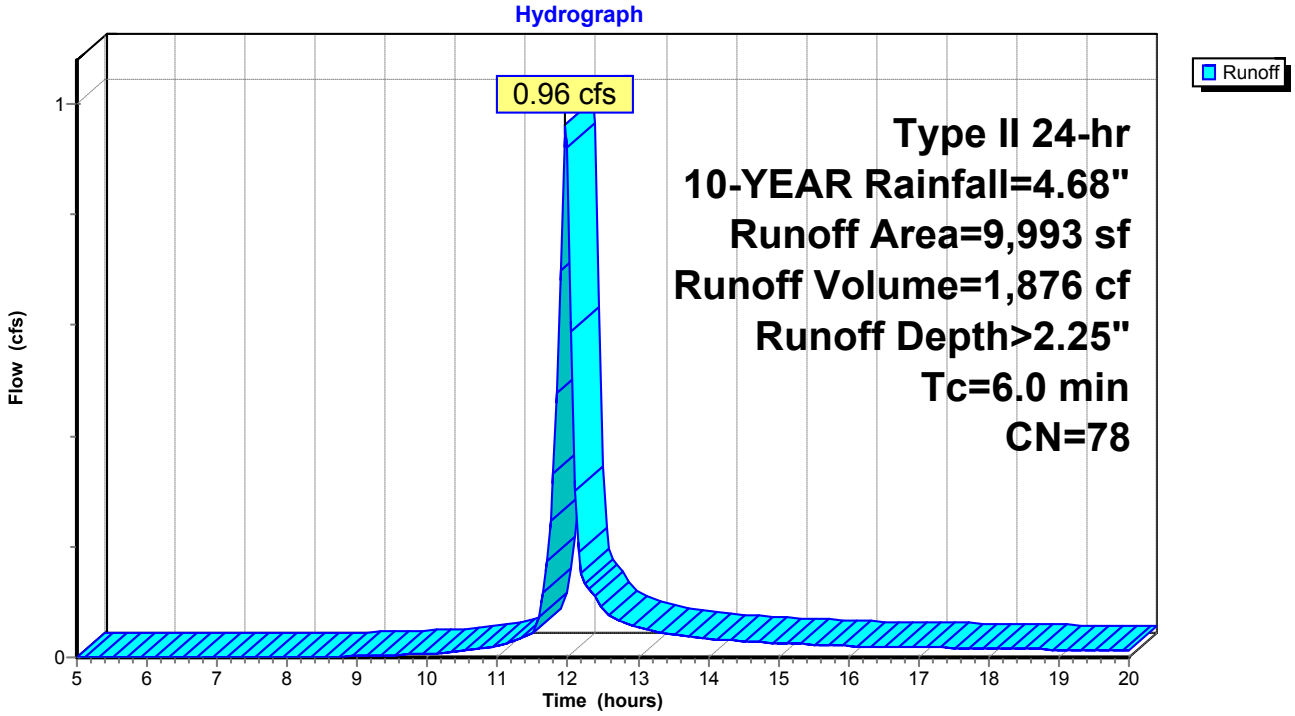
Runoff = 0.96 cfs @ 11.97 hrs, Volume= 1,876 cf, Depth> 2.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
4,104	49	50-75% Grass cover, Fair, HSG A
5,889	98	Paved parking, HSG A
9,993	78	Weighted Average
4,104		41.07% Pervious Area
5,889		58.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

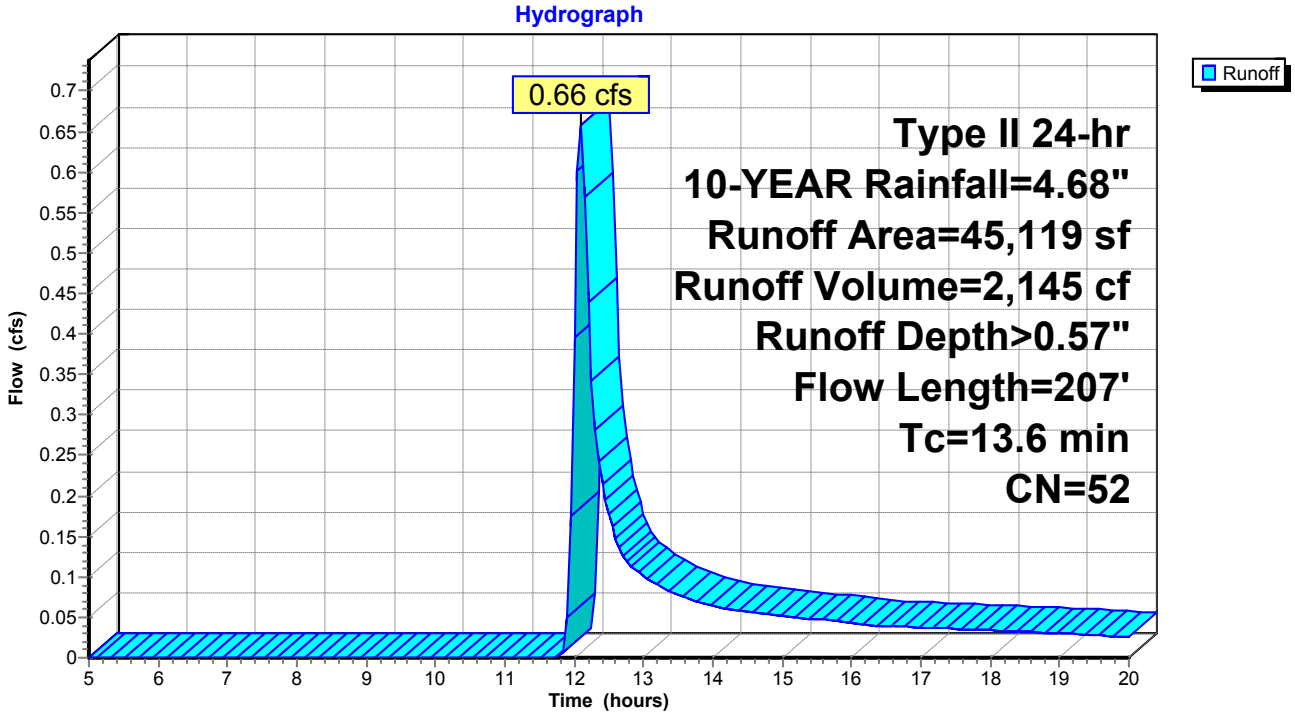
Runoff = 0.66 cfs @ 12.09 hrs, Volume= 2,145 cf, Depth> 0.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
41,938	49	50-75% Grass cover, Fair, HSG A
3,181	98	Paved parking, HSG A
45,119	52	Weighted Average
41,938		92.95% Pervious Area
3,181		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0325	0.14		**Sheet Flow, A-B** Grass: Dense n= 0.240 P2= 3.16"
1.8	107	0.0210	1.01		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
13.6	207	Total			

Subcatchment DA-4: DA-4

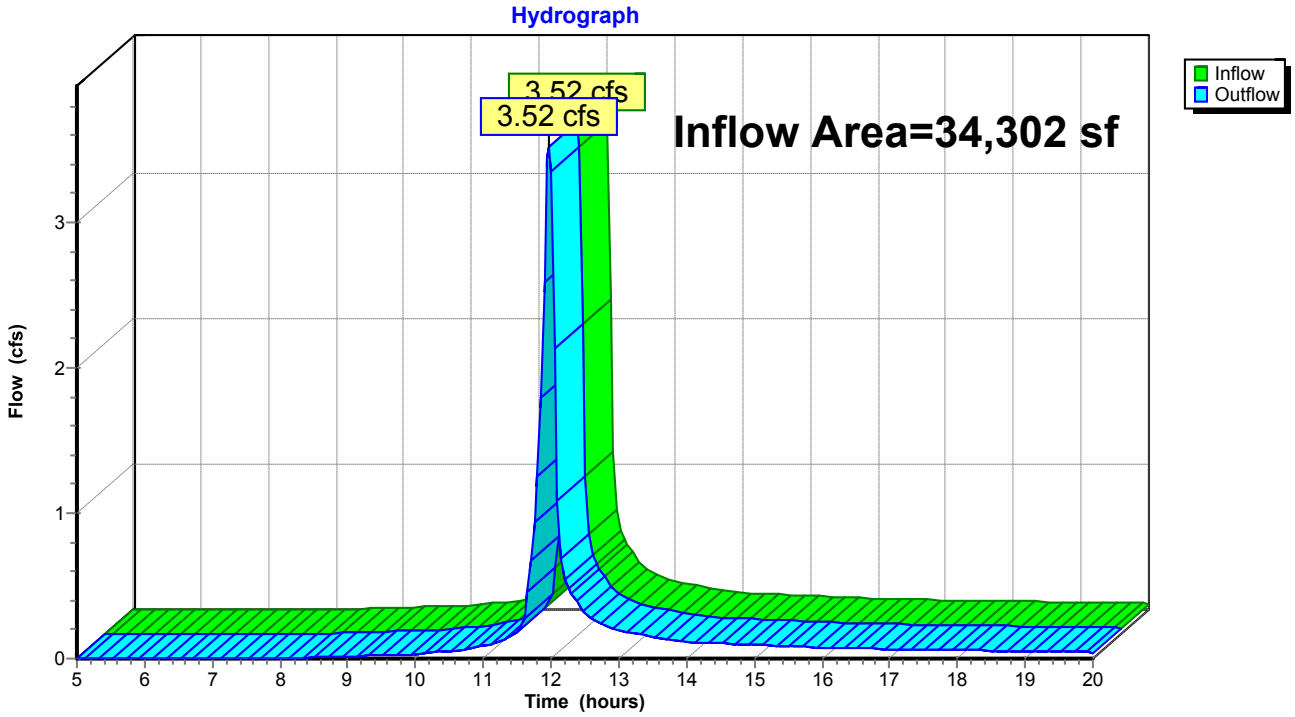


Summary for Reach DP-1: DP-1

Inflow Area = 34,302 sf, 62.78% Impervious, Inflow Depth > 2.42" for 10-YEAR event
Inflow = 3.52 cfs @ 11.97 hrs, Volume= 6,918 cf
Outflow = 3.52 cfs @ 11.97 hrs, Volume= 6,918 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-1: DP-1

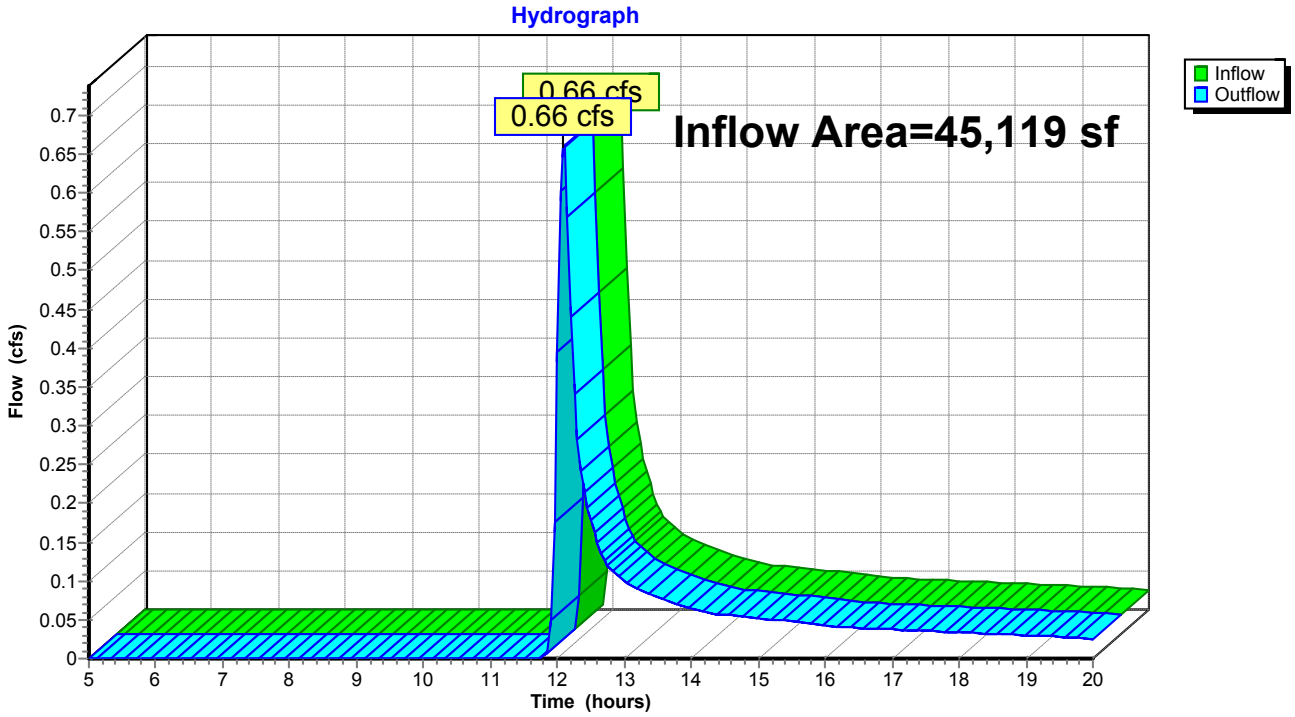


Summary for Reach DP-4: DP-4

Inflow Area = 45,119 sf, 7.05% Impervious, Inflow Depth > 0.57" for 10-YEAR event
Inflow = 0.66 cfs @ 12.09 hrs, Volume= 2,145 cf
Outflow = 0.66 cfs @ 12.09 hrs, Volume= 2,145 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-4: DP-4



Summary for Pond DP-2: EXISTING CATCH BASIN

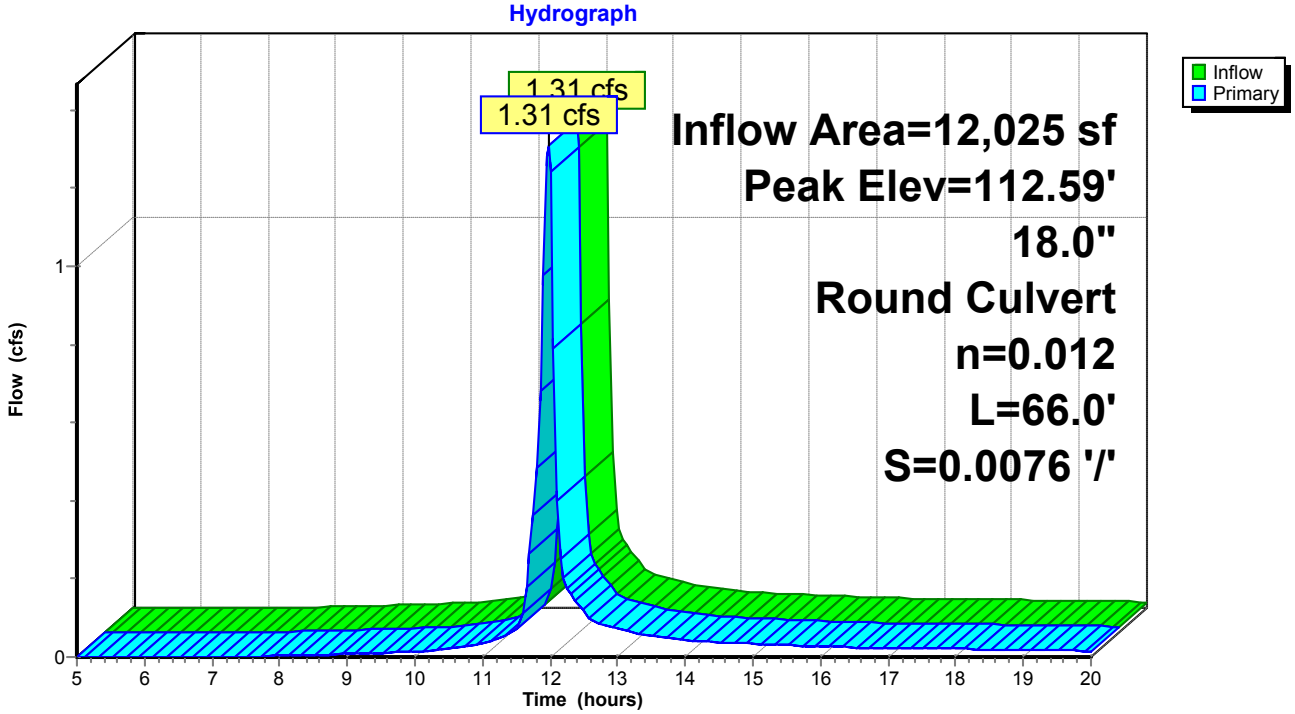
Inflow Area = 12,025 sf, 66.39% Impervious, Inflow Depth > 2.59" for 10-YEAR event
Inflow = 1.31 cfs @ 11.97 hrs, Volume= 2,599 cf
Outflow = 1.31 cfs @ 11.97 hrs, Volume= 2,599 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.31 cfs @ 11.97 hrs, Volume= 2,599 cf

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 112.59' @ 11.97 hrs
Flood Elev= 114.48'

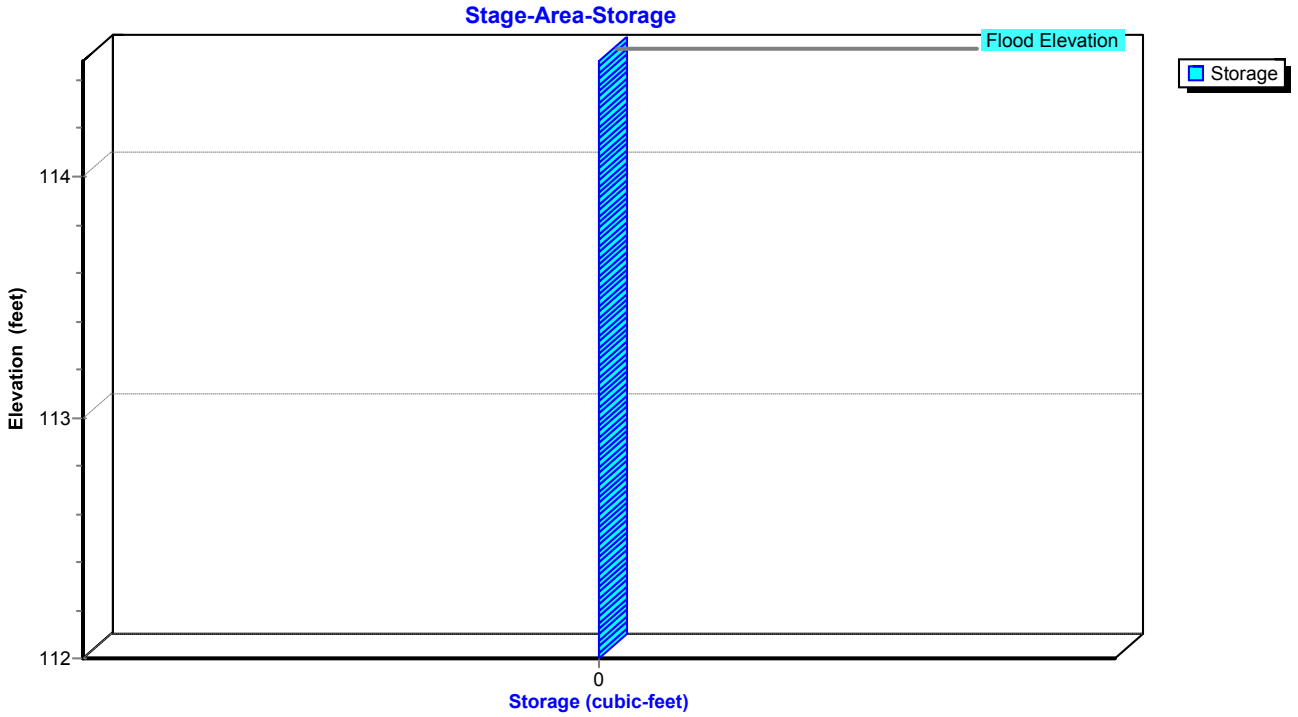
Device	Routing	Invert	Outlet Devices
#1	Primary	112.00'	**18.0" Round Culvert** L= 66.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 112.00' / 111.50' S= 0.0076 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=1.27 cfs @ 11.97 hrs HW=112.57' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.27 cfs @ 2.04 fps)

Pond DP-2: EXISTING CATCH BASIN



Pond DP-2: EXISTING CATCH BASIN



Stage-Area-Storage for Pond DP-2: EXISTING CATCH BASIN

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
112.00	**0**	113.06	0	114.12	0
112.02	0	113.08	0	114.14	0
112.04	0	113.10	0	114.16	0
112.06	0	113.12	0	114.18	0
112.08	0	113.14	0	114.20	0
112.10	0	113.16	0	114.22	0
112.12	0	113.18	0	114.24	0
112.14	0	113.20	0	114.26	0
112.16	0	113.22	0	114.28	0
112.18	0	113.24	0	114.30	0
112.20	0	113.26	0	114.32	0
112.22	0	113.28	0	114.34	0
112.24	0	113.30	0	114.36	0
112.26	0	113.32	0	114.38	0
112.28	0	113.34	0	114.40	0
112.30	0	113.36	0	114.42	0
112.32	0	113.38	0	114.44	0
112.34	0	113.40	0	114.46	0
112.36	0	113.42	0	114.48	0
112.38	0	113.44	0		
112.40	0	113.46	0		
112.42	0	113.48	0		
112.44	0	113.50	0		
112.46	0	113.52	0		
112.48	0	113.54	0		
112.50	0	113.56	0		
112.52	0	113.58	0		
112.54	0	113.60	0		
112.56	0	113.62	0		
112.58	0	113.64	0		
112.60	0	113.66	0		
112.62	0	113.68	0		
112.64	0	113.70	0		
112.66	0	113.72	0		
112.68	0	113.74	0		
112.70	0	113.76	0		
112.72	0	113.78	0		
112.74	0	113.80	0		
112.76	0	113.82	0		
112.78	0	113.84	0		
112.80	0	113.86	0		
112.82	0	113.88	0		
112.84	0	113.90	0		
112.86	0	113.92	0		
112.88	0	113.94	0		
112.90	0	113.96	0		
112.92	0	113.98	0		
112.94	0	114.00	0		
112.96	0	114.02	0		
112.98	0	114.04	0		
113.00	0	114.06	0		
113.02	0	114.08	0		
113.04	0	114.10	0		

Summary for Pond DP-3: DP-3

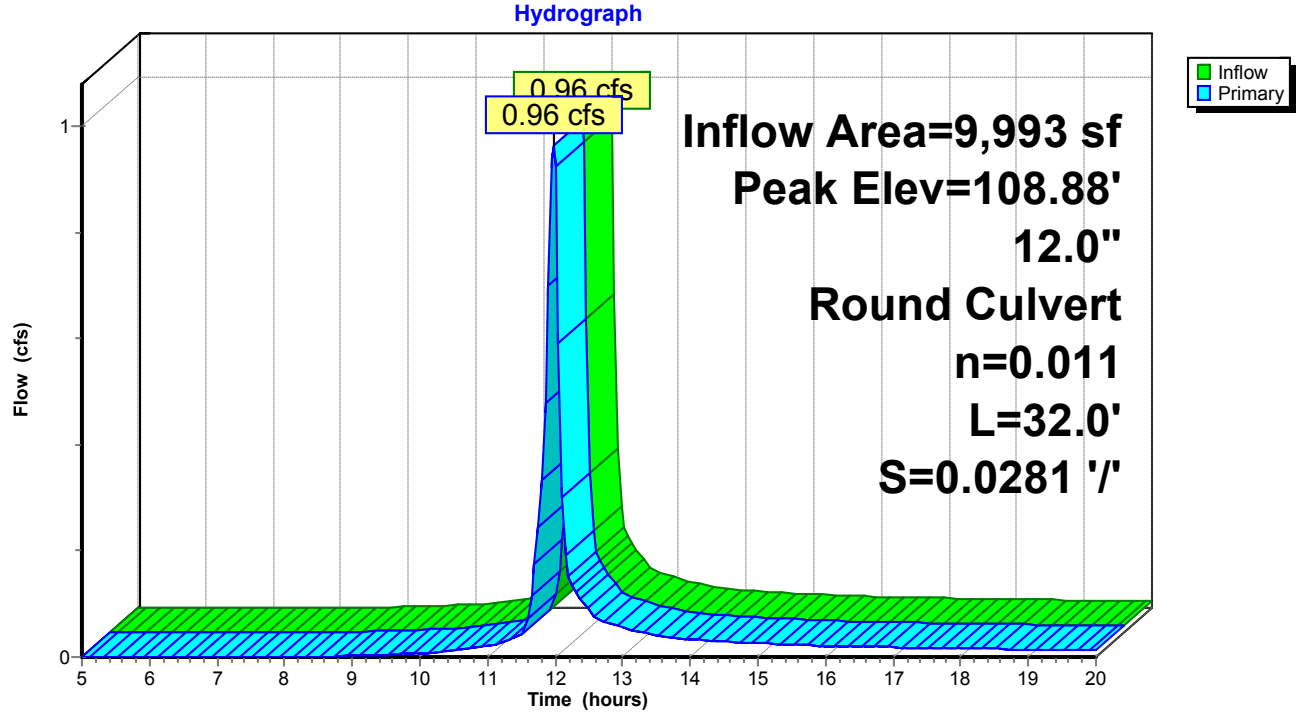
Inflow Area = 9,993 sf, 58.93% Impervious, Inflow Depth > 2.25" for 10-YEAR event
Inflow = 0.96 cfs @ 11.97 hrs, Volume= 1,876 cf
Outflow = 0.96 cfs @ 11.97 hrs, Volume= 1,876 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.96 cfs @ 11.97 hrs, Volume= 1,876 cf

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 108.88' @ 11.97 hrs
Flood Elev= 112.38'

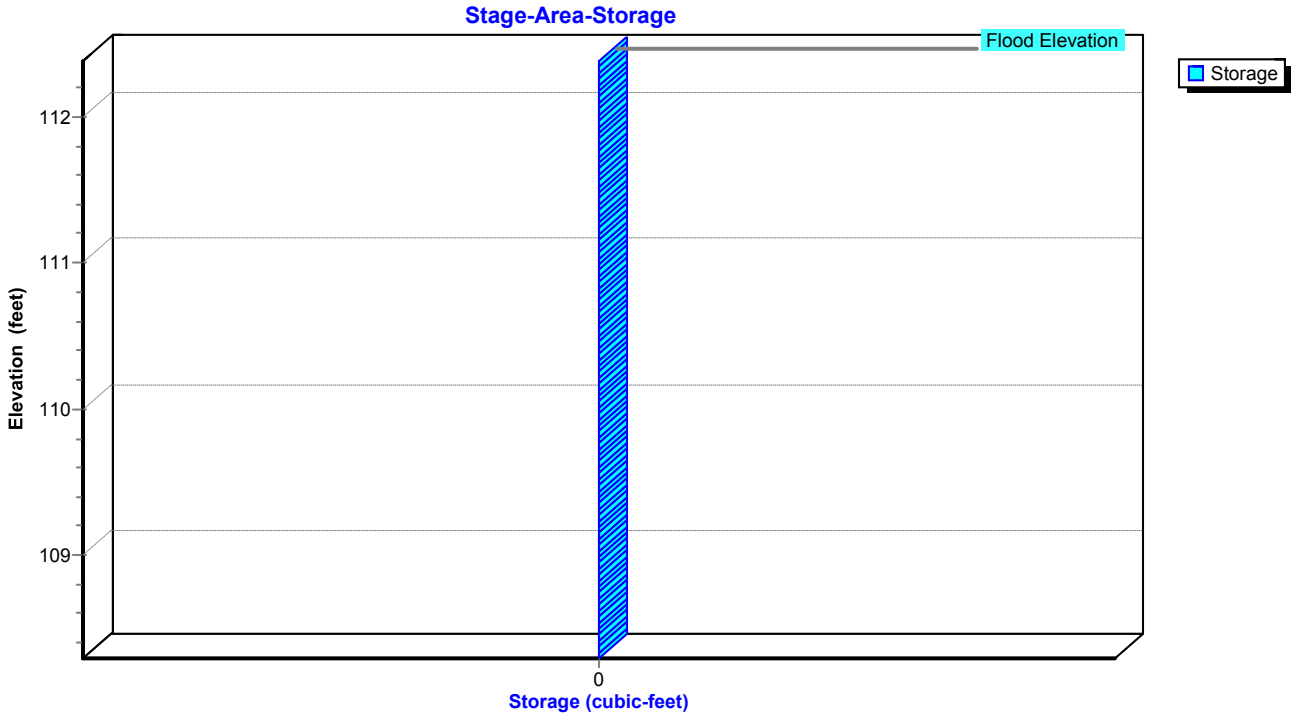
Device	Routing	Invert	Outlet Devices
#1	Primary	108.30'	**12.0" Round Culvert** L= 32.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 107.40' S= 0.0281 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=0.93 cfs @ 11.97 hrs HW=108.87' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.93 cfs @ 2.02 fps)

Pond DP-3: DP-3



Pond DP-3: DP-3


Stage-Area-Storage
Flood Elevation
Storage
112
111
110
109
Elevation (feet)
0
Storage (cubic-feet)

Stage-Area-Storage for Pond DP-3: DP-3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
108.30	**0**	110.95	0
108.35	0	111.00	0
108.40	0	111.05	0
108.45	0	111.10	0
108.50	0	111.15	0
108.55	0	111.20	0
108.60	0	111.25	0
108.65	0	111.30	0
108.70	0	111.35	0
108.75	0	111.40	0
108.80	0	111.45	0
108.85	0	111.50	0
108.90	0	111.55	0
108.95	0	111.60	0
109.00	0	111.65	0
109.05	0	111.70	0
109.10	0	111.75	0
109.15	0	111.80	0
109.20	0	111.85	0
109.25	0	111.90	0
109.30	0	111.95	0
109.35	0	112.00	0
109.40	0	112.05	0
109.45	0	112.10	0
109.50	0	112.15	0
109.55	0	112.20	0
109.60	0	112.25	0
109.65	0	112.30	0
109.70	0	112.35	0
109.75	0		
109.80	0		
109.85	0		
109.90	0		
109.95	0		
110.00	0		
110.05	0		
110.10	0		
110.15	0		
110.20	0		
110.25	0		
110.30	0		
110.35	0		
110.40	0		
110.45	0		
110.50	0		
110.55	0		
110.60	0		
110.65	0		
110.70	0		
110.75	0		
110.80	0		
110.85	0		
110.90	0		

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 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=34,302 sf 62.78% Impervious Runoff Depth>5.45"
Tc=6.0 min CN=80 Runoff=7.59 cfs 15,592 cf

Subcatchment DA-2: DA-2 Runoff Area=12,025 sf 66.39% Impervious Runoff Depth>5.69"
Tc=6.0 min CN=82 Runoff=2.74 cfs 5,697 cf

Subcatchment DA-3: DA-3 Runoff Area=9,993 sf 58.93% Impervious Runoff Depth>5.22"
Tc=6.0 min CN=78 Runoff=2.14 cfs 4,350 cf

Subcatchment DA-4: DA-4 Runoff Area=45,119 sf 7.05% Impervious Runoff Depth>2.34"
Flow Length=207' Tc=13.6 min CN=52 Runoff=3.49 cfs 8,790 cf

Reach DP-1: DP-1 Inflow=7.59 cfs 15,592 cf
Outflow=7.59 cfs 15,592 cf

Reach DP-4: DP-4 Inflow=3.49 cfs 8,790 cf
Outflow=3.49 cfs 8,790 cf

Pond DP-2: EXISTING CATCH BASIN Peak Elev=112.89' Inflow=2.74 cfs 5,697 cf
18.0" Round Culvert n=0.012 L=66.0' S=0.0076 '/' Outflow=2.74 cfs 5,697 cf

Pond DP-3: DP-3 Peak Elev=109.31' Inflow=2.14 cfs 4,350 cf
12.0" Round Culvert n=0.011 L=32.0' S=0.0281 '/' Outflow=2.14 cfs 4,350 cf

Total Runoff Area = 101,439 sf Runoff Volume = 34,429 cf Average Runoff Depth = 4.07"
61.96% Pervious = 62,851 sf 38.04% Impervious = 38,588 sf

Summary for Subcatchment DA-1: DA-1

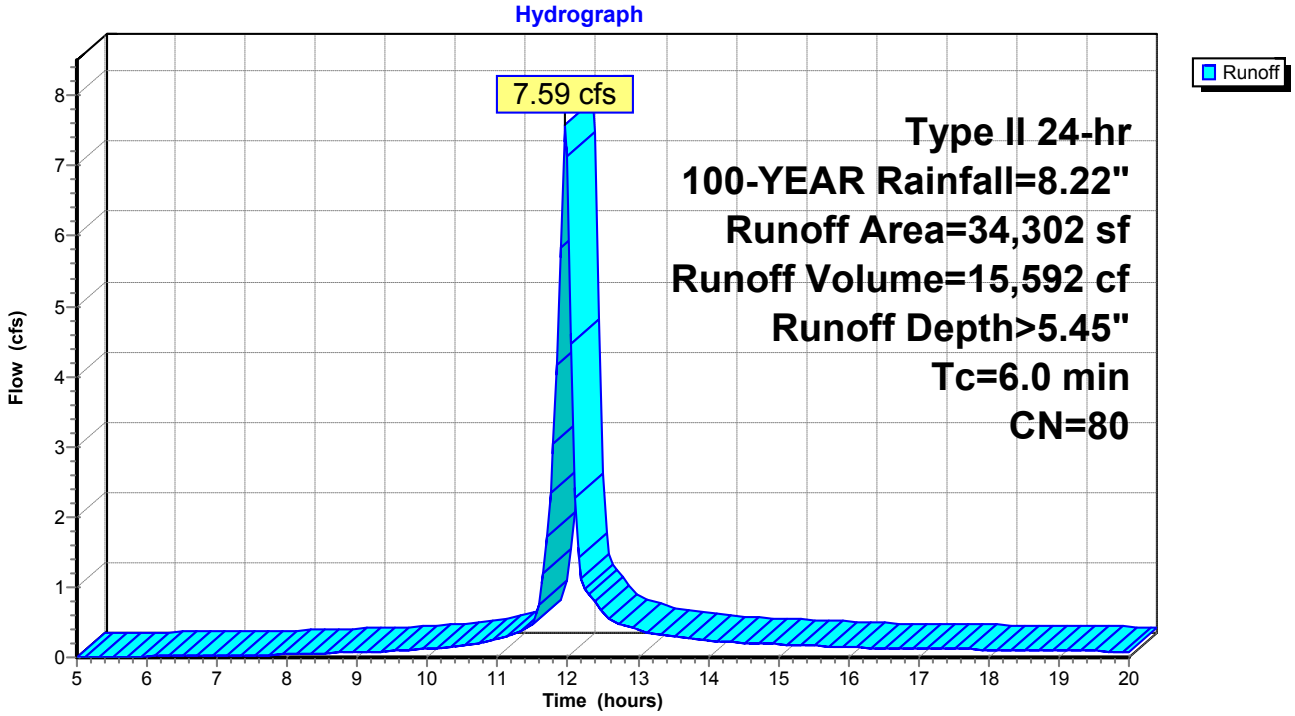
Runoff = 7.59 cfs @ 11.97 hrs, Volume= 15,592 cf, Depth> 5.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
12,767	49	50-75% Grass cover, Fair, HSG A
21,535	98	Paved parking, HSG A
34,302	80	Weighted Average
12,767		37.22% Pervious Area
21,535		62.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-2: DA-2

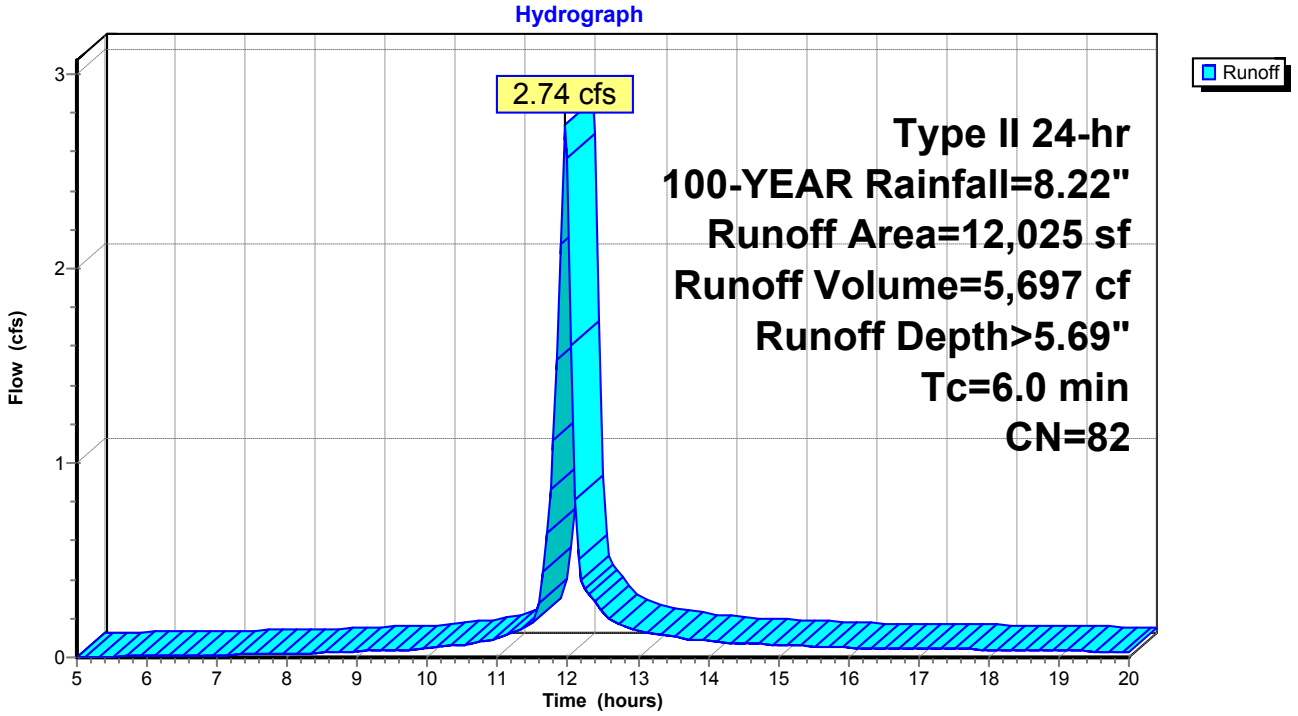
Runoff = 2.74 cfs @ 11.97 hrs, Volume= 5,697 cf, Depth> 5.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
4,042	49	50-75% Grass cover, Fair, HSG A
7,983	98	Paved parking, HSG A
12,025	82	Weighted Average
4,042		33.61% Pervious Area
7,983		66.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

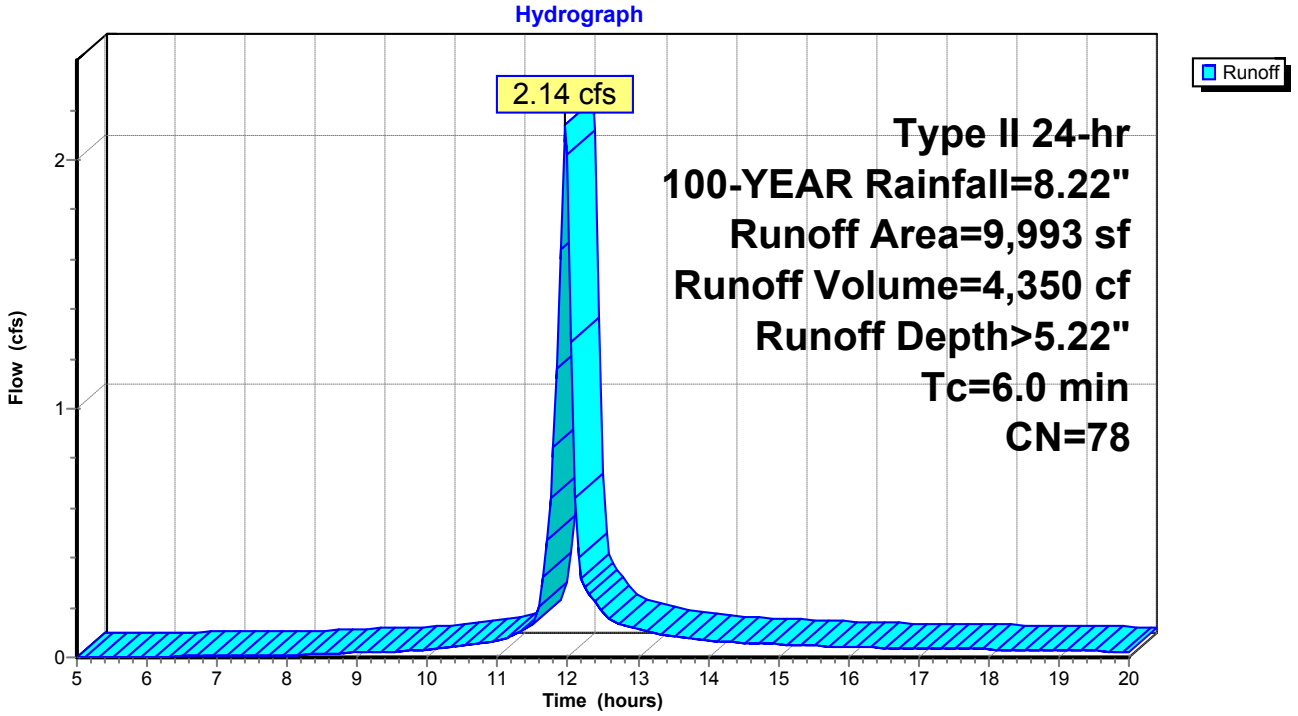
Runoff = 2.14 cfs @ 11.97 hrs, Volume= 4,350 cf, Depth> 5.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
4,104	49	50-75% Grass cover, Fair, HSG A
5,889	98	Paved parking, HSG A
9,993	78	Weighted Average
4,104		41.07% Pervious Area
5,889		58.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

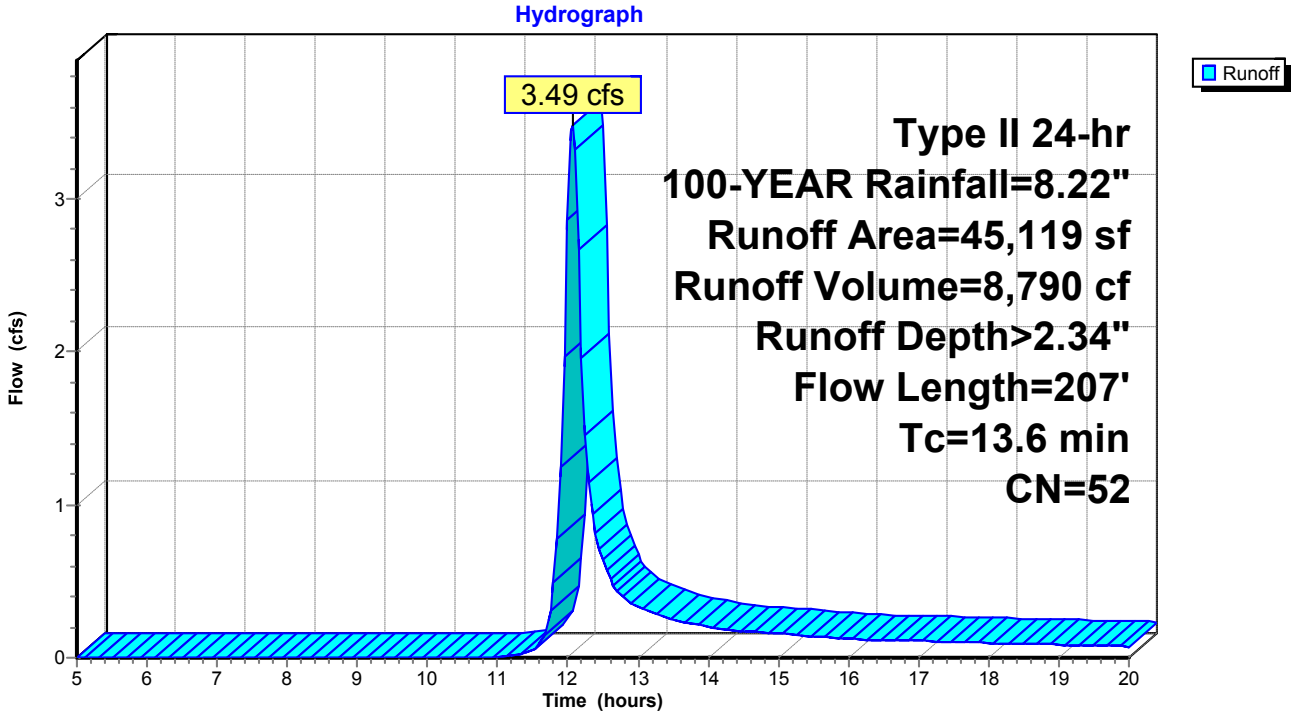
Runoff = 3.49 cfs @ 12.07 hrs, Volume= 8,790 cf, Depth> 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type II 24-hr 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
41,938	49	50-75% Grass cover, Fair, HSG A
3,181	98	Paved parking, HSG A
45,119	52	Weighted Average
41,938		92.95% Pervious Area
3,181		7.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.8	100	0.0325	0.14		**Sheet Flow, A-B** Grass: Dense n= 0.240 P2= 3.16"
1.8	107	0.0210	1.01		**Shallow Concentrated Flow, B-C** Short Grass Pasture Kv= 7.0 fps
13.6	207	Total			

Subcatchment DA-4: DA-4

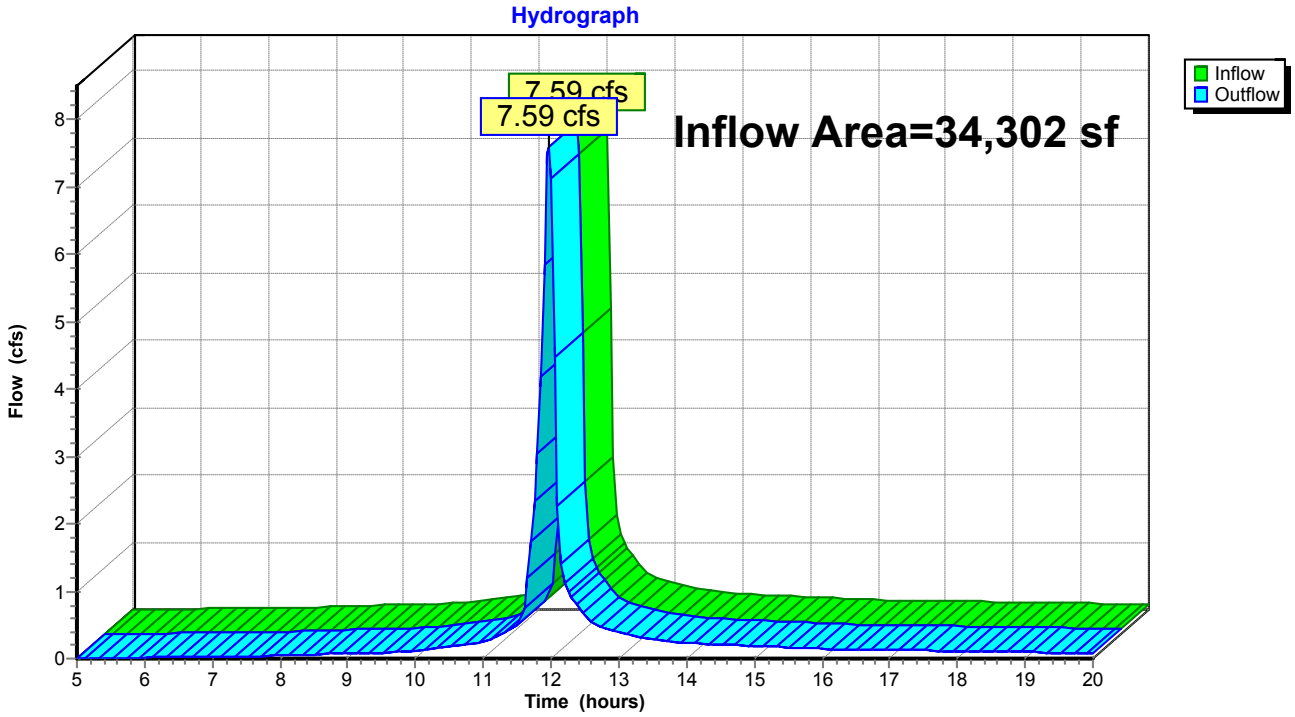


Summary for Reach DP-1: DP-1

Inflow Area = 34,302 sf, 62.78% Impervious, Inflow Depth > 5.45" for 100-YEAR event
Inflow = 7.59 cfs @ 11.97 hrs, Volume= 15,592 cf
Outflow = 7.59 cfs @ 11.97 hrs, Volume= 15,592 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-1: DP-1

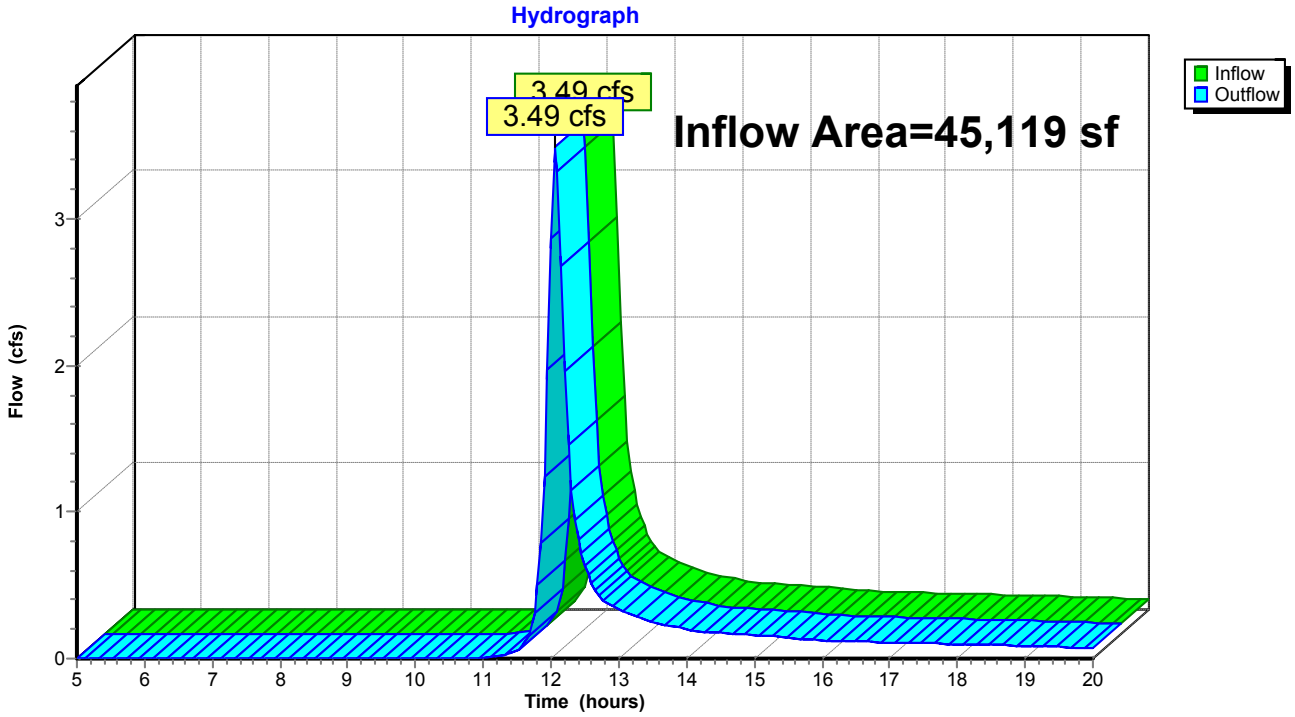


Summary for Reach DP-4: DP-4

Inflow Area = 45,119 sf, 7.05% Impervious, Inflow Depth > 2.34" for 100-YEAR event
Inflow = 3.49 cfs @ 12.07 hrs, Volume= 8,790 cf
Outflow = 3.49 cfs @ 12.07 hrs, Volume= 8,790 cf, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-4: DP-4



Summary for Pond DP-2: EXISTING CATCH BASIN

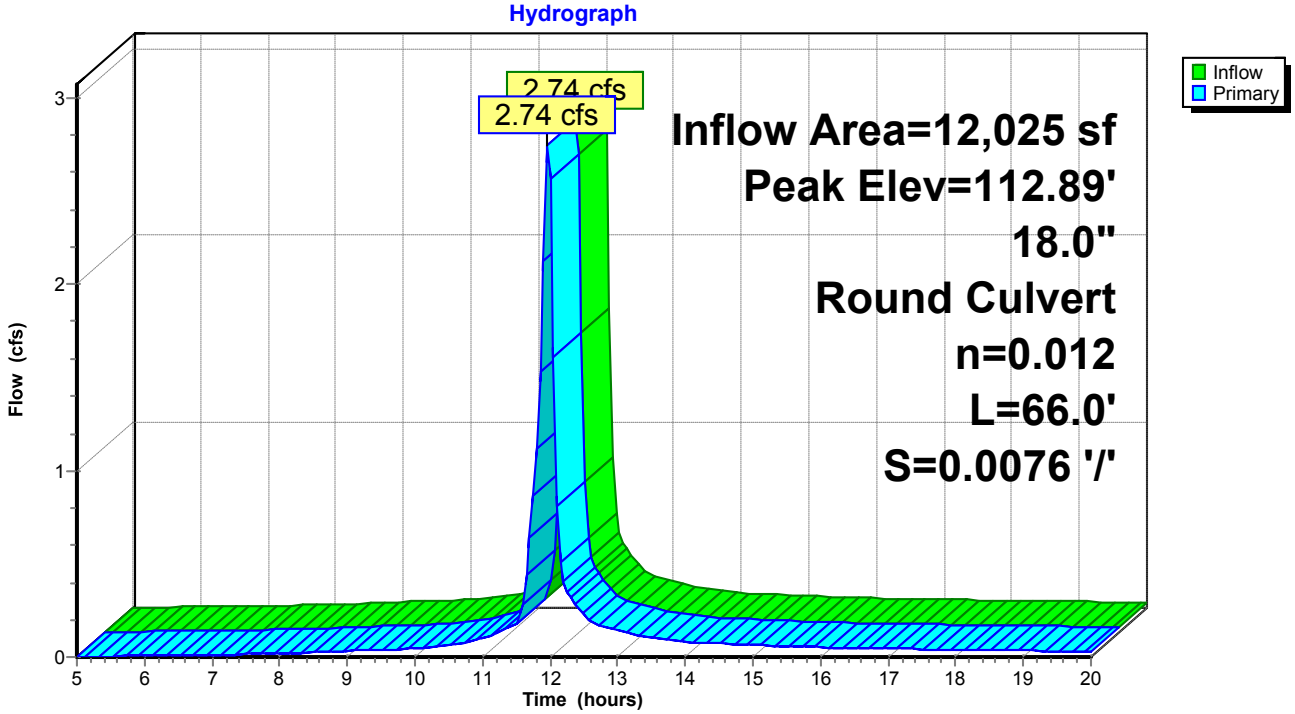
Inflow Area = 12,025 sf, 66.39% Impervious, Inflow Depth > 5.69" for 100-YEAR event
Inflow = 2.74 cfs @ 11.97 hrs, Volume= 5,697 cf
Outflow = 2.74 cfs @ 11.97 hrs, Volume= 5,697 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.74 cfs @ 11.97 hrs, Volume= 5,697 cf

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 112.89' @ 11.97 hrs
Flood Elev= 114.48'

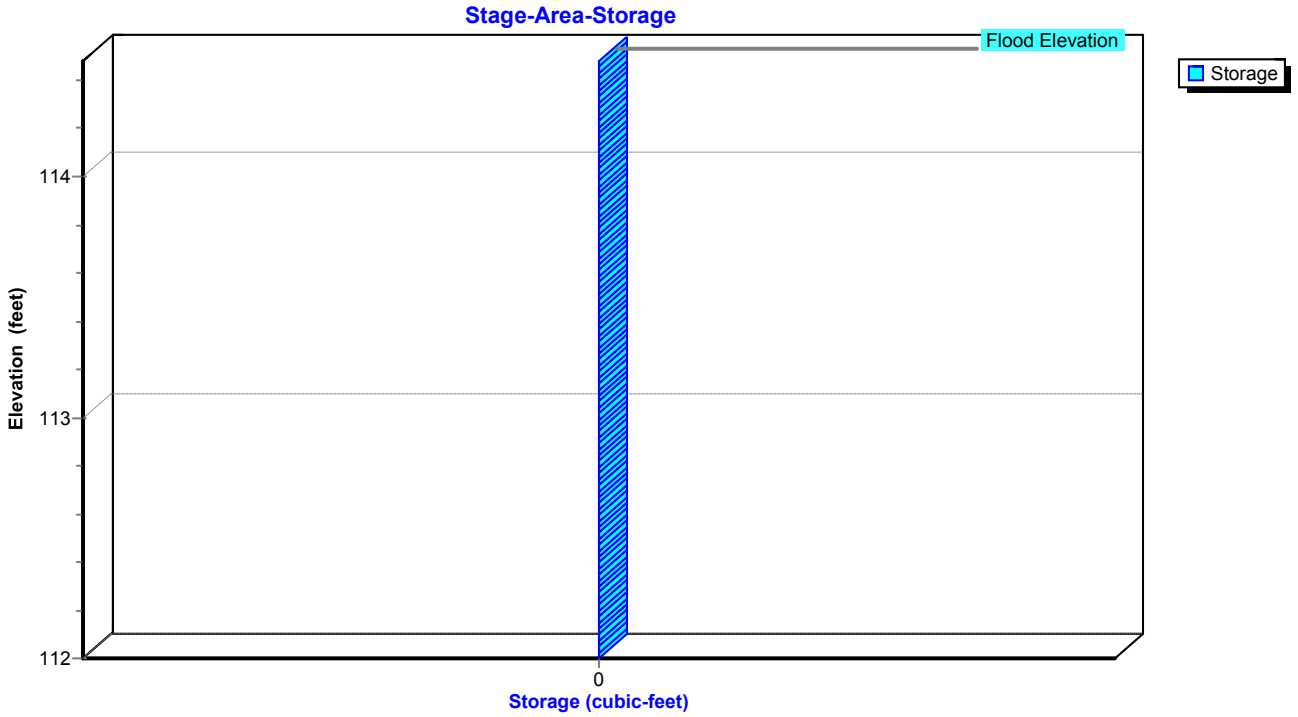
Device	Routing	Invert	Outlet Devices
#1	Primary	112.00'	**18.0" Round Culvert** L= 66.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 112.00' / 111.50' S= 0.0076 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=2.67 cfs @ 11.97 hrs HW=112.87' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.67 cfs @ 2.51 fps)

Pond DP-2: EXISTING CATCH BASIN



Pond DP-2: EXISTING CATCH BASIN



Stage-Area-Storage for Pond DP-2: EXISTING CATCH BASIN

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
112.00	**0**	113.06	0	114.12	0
112.02	0	113.08	0	114.14	0
112.04	0	113.10	0	114.16	0
112.06	0	113.12	0	114.18	0
112.08	0	113.14	0	114.20	0
112.10	0	113.16	0	114.22	0
112.12	0	113.18	0	114.24	0
112.14	0	113.20	0	114.26	0
112.16	0	113.22	0	114.28	0
112.18	0	113.24	0	114.30	0
112.20	0	113.26	0	114.32	0
112.22	0	113.28	0	114.34	0
112.24	0	113.30	0	114.36	0
112.26	0	113.32	0	114.38	0
112.28	0	113.34	0	114.40	0
112.30	0	113.36	0	114.42	0
112.32	0	113.38	0	114.44	0
112.34	0	113.40	0	114.46	0
112.36	0	113.42	0	114.48	0
112.38	0	113.44	0		
112.40	0	113.46	0		
112.42	0	113.48	0		
112.44	0	113.50	0		
112.46	0	113.52	0		
112.48	0	113.54	0		
112.50	0	113.56	0		
112.52	0	113.58	0		
112.54	0	113.60	0		
112.56	0	113.62	0		
112.58	0	113.64	0		
112.60	0	113.66	0		
112.62	0	113.68	0		
112.64	0	113.70	0		
112.66	0	113.72	0		
112.68	0	113.74	0		
112.70	0	113.76	0		
112.72	0	113.78	0		
112.74	0	113.80	0		
112.76	0	113.82	0		
112.78	0	113.84	0		
112.80	0	113.86	0		
112.82	0	113.88	0		
112.84	0	113.90	0		
112.86	0	113.92	0		
112.88	0	113.94	0		
112.90	0	113.96	0		
112.92	0	113.98	0		
112.94	0	114.00	0		
112.96	0	114.02	0		
112.98	0	114.04	0		
113.00	0	114.06	0		
113.02	0	114.08	0		
113.04	0	114.10	0		

Summary for Pond DP-3: DP-3

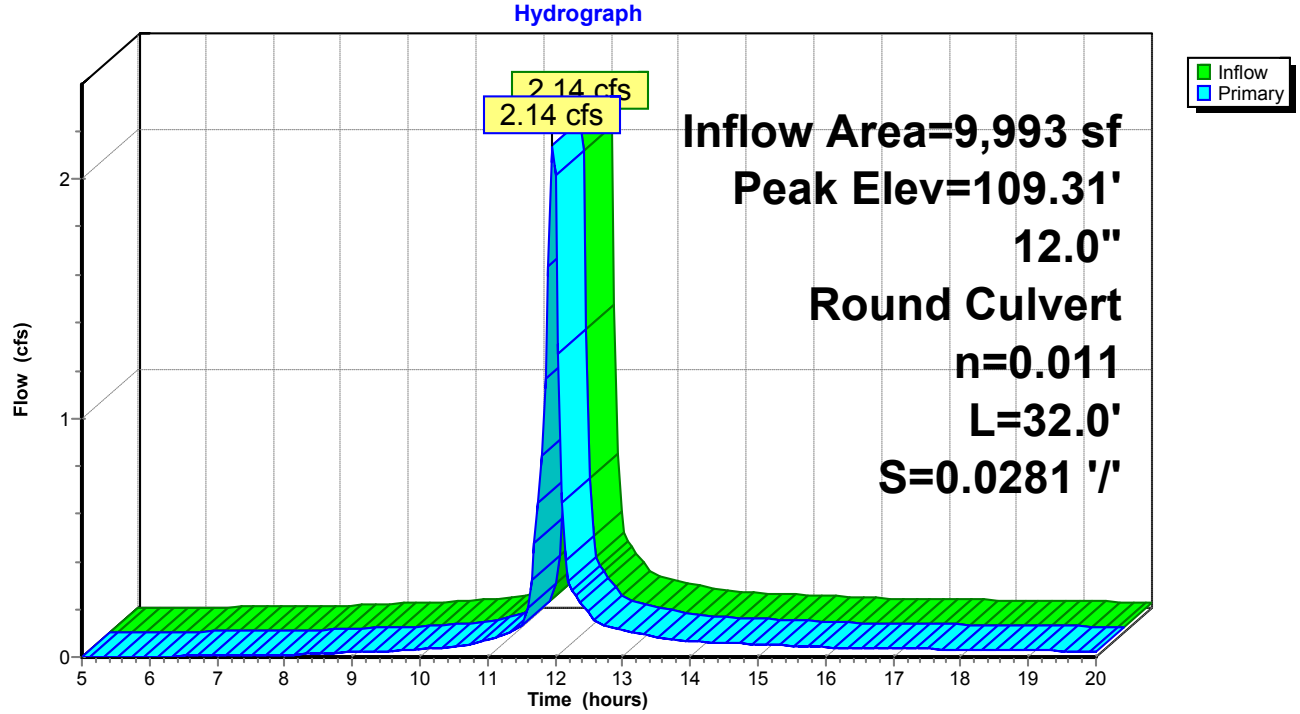
Inflow Area = 9,993 sf, 58.93% Impervious, Inflow Depth > 5.22" for 100-YEAR event
Inflow = 2.14 cfs @ 11.97 hrs, Volume= 4,350 cf
Outflow = 2.14 cfs @ 11.97 hrs, Volume= 4,350 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.14 cfs @ 11.97 hrs, Volume= 4,350 cf

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 109.31' @ 11.97 hrs
Flood Elev= 112.38'

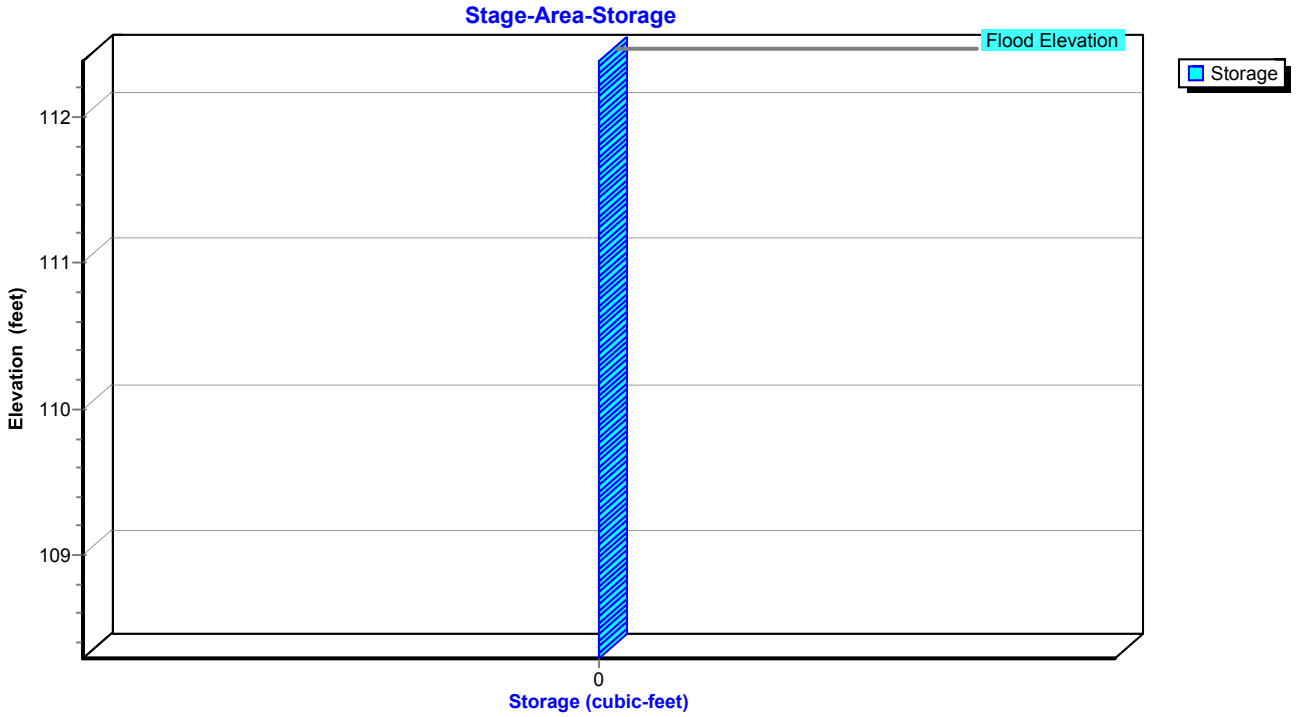
Device	Routing	Invert	Outlet Devices
#1	Primary	108.30'	**12.0" Round Culvert** L= 32.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 107.40' S= 0.0281 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=2.08 cfs @ 11.97 hrs HW=109.28' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.08 cfs @ 2.66 fps)

Pond DP-3: DP-3

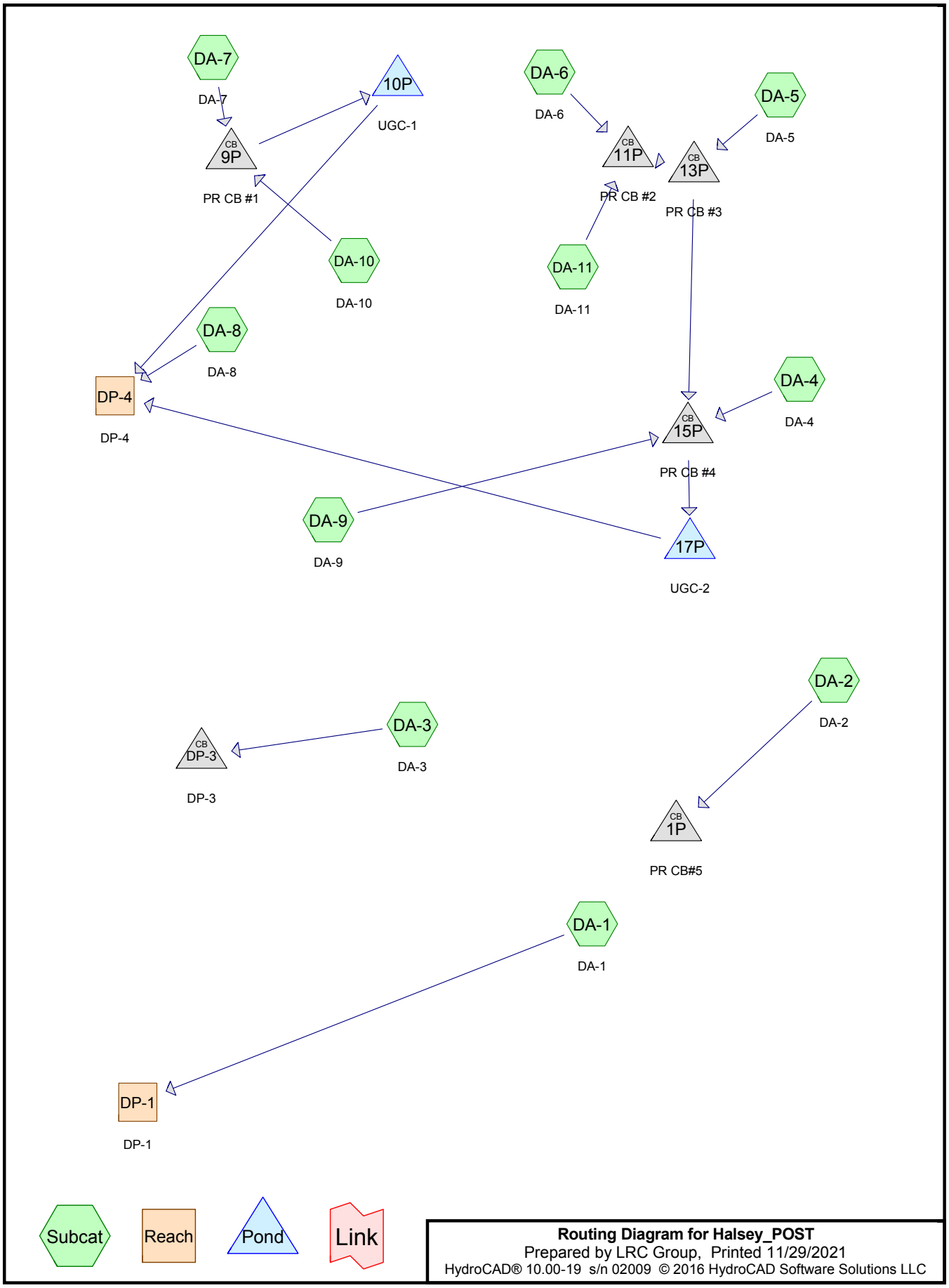


Pond DP-3: DP-3


Stage-Area-Storage
Flood Elevation
Storage
Elevation (feet)
112
111
110
109
0
Storage (cubic-feet)

Stage-Area-Storage for Pond DP-3: DP-3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
108.30	**0**	110.95	0
108.35	0	111.00	0
108.40	0	111.05	0
108.45	0	111.10	0
108.50	0	111.15	0
108.55	0	111.20	0
108.60	0	111.25	0
108.65	0	111.30	0
108.70	0	111.35	0
108.75	0	111.40	0
108.80	0	111.45	0
108.85	0	111.50	0
108.90	0	111.55	0
108.95	0	111.60	0
109.00	0	111.65	0
109.05	0	111.70	0
109.10	0	111.75	0
109.15	0	111.80	0
109.20	0	111.85	0
109.25	0	111.90	0
109.30	0	111.95	0
109.35	0	112.00	0
109.40	0	112.05	0
109.45	0	112.10	0
109.50	0	112.15	0
109.55	0	112.20	0
109.60	0	112.25	0
109.65	0	112.30	0
109.70	0	112.35	0
109.75	0		
109.80	0		
109.85	0		
109.90	0		
109.95	0		
110.00	0		
110.05	0		
110.10	0		
110.15	0		
110.20	0		
110.25	0		
110.30	0		
110.35	0		
110.40	0		
110.45	0		
110.50	0		
110.55	0		
110.60	0		
110.65	0		
110.70	0		
110.75	0		
110.80	0		
110.85	0		
110.90	0		



Routing Diagram for Halsey_POST
Prepared by LRC Group, Printed 11/29/2021
HydroCAD® 10.00-19 s/n 02009 © 2016 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
12,767	49	50-75% Grass cover, Fair, HSG A (DA-1)
21,653	39	>75% Grass cover, Good, HSG A (DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8)
54,287	98	Paved parking, HSG A (DA-1, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8)
12,731	98	Roofs, HSG A (DA-10, DA-11, DA-9)
101,438	**79**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
101,438	HSG A	DA-1, DA-10, DA-11, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9
0	HSG B	
0	HSG C	
0	HSG D	
0	Other	
101,438		**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
12,767	0	0	0	0	12,767	50-75% Grass cover, Fair	
21,653	0	0	0	0	21,653	>75% Grass cover, Good	
54,287	0	0	0	0	54,287	Paved parking	
12,731	0	0	0	0	12,731	Roofs	
101,438	**0**	**0**	**0**	**0**	**101,438**	**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	111.98	111.53	45.0	0.0100	0.012	18.0	0.0	0.0
2	9P	110.00	109.77	23.0	0.0100	0.010	12.0	0.0	0.0
3	11P	110.04	109.94	10.0	0.0100	0.010	12.0	0.0	0.0
4	13P	109.94	109.06	88.0	0.0100	0.010	12.0	0.0	0.0
5	15P	108.06	108.00	4.0	0.0150	0.010	24.0	0.0	0.0
6	DP-3	108.30	107.40	32.0	0.0281	0.011	12.0	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=33,352 sf 61.72% Impervious Runoff Depth=0.91"
Tc=6.0 min CN=79 Runoff=1.21 cfs 2,535 cf

Subcatchment DA-10: DA-10 Runoff Area=4,891 sf 100.00% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=98 Runoff=0.40 cfs 970 cf

Subcatchment DA-11: DA-11 Runoff Area=3,220 sf 100.00% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=98 Runoff=0.26 cfs 639 cf

Subcatchment DA-2: DA-2 Runoff Area=5,279 sf 65.56% Impervious Runoff Depth=0.86"
Tc=6.0 min CN=78 Runoff=0.18 cfs 378 cf

Subcatchment DA-3: DA-3 Runoff Area=4,042 sf 67.84% Impervious Runoff Depth=0.91"
Tc=6.0 min CN=79 Runoff=0.15 cfs 307 cf

Subcatchment DA-4: DA-4 Runoff Area=21,677 sf 48.09% Impervious Runoff Depth=0.40"
Tc=6.0 min CN=67 Runoff=0.29 cfs 728 cf

Subcatchment DA-5: DA-5 Runoff Area=4,633 sf 67.65% Impervious Runoff Depth=0.91"
Tc=6.0 min CN=79 Runoff=0.17 cfs 352 cf

Subcatchment DA-6: DA-6 Runoff Area=5,259 sf 73.44% Impervious Runoff Depth=1.08"
Tc=6.0 min CN=82 Runoff=0.23 cfs 473 cf

Subcatchment DA-7: DA-7 Runoff Area=6,429 sf 78.05% Impervious Runoff Depth=1.27"
Tc=6.0 min CN=85 Runoff=0.32 cfs 679 cf

Subcatchment DA-8: DA-8 Runoff Area=8,036 sf 62.98% Impervious Runoff Depth=0.76"
Tc=6.0 min CN=76 Runoff=0.24 cfs 510 cf

Subcatchment DA-9: DA-9 Runoff Area=4,620 sf 100.00% Impervious Runoff Depth=2.38"
Tc=6.0 min CN=98 Runoff=0.38 cfs 916 cf

Reach DP-1: DP-1 Inflow=1.21 cfs 2,535 cf
Outflow=1.21 cfs 2,535 cf

Reach DP-4: DP-4 Inflow=0.24 cfs 510 cf
Outflow=0.24 cfs 510 cf

Pond 1P: PR CB#5 Peak Elev=112.19' Inflow=0.18 cfs 378 cf
18.0" Round Culvert n=0.012 L=45.0' S=0.0100 '/' Outflow=0.18 cfs 378 cf

Pond 9P: PR CB #1 Peak Elev=110.49' Inflow=0.72 cfs 1,649 cf
12.0" Round Culvert n=0.010 L=23.0' S=0.0100 '/' Outflow=0.72 cfs 1,649 cf

Pond 10P: UGC-1 Peak Elev=108.80' Storage=399 cf Inflow=0.72 cfs 1,649 cf
Outflow=0.17 cfs 1,649 cf

Pond 11P: PR CB #2 Peak Elev=110.44' Inflow=0.49 cfs 1,112 cf
12.0" Round Culvert n=0.010 L=10.0' S=0.0100 '/' Outflow=0.49 cfs 1,112 cf

Pond 13P: PR CB #3 Peak Elev=110.40' Inflow=0.65 cfs 1,464 cf
12.0" Round Culvert n=0.010 L=88.0' S=0.0100 '/' Outflow=0.65 cfs 1,464 cf

Pond 15P: PR CB #4 Peak Elev=108.64' Inflow=1.31 cfs 3,108 cf
24.0" Round Culvert n=0.010 L=4.0' S=0.0150 '/' Outflow=1.31 cfs 3,108 cf

Pond 17P: UGC-2 Peak Elev=107.08' Storage=54 cf Inflow=1.31 cfs 3,108 cf
Outflow=1.21 cfs 3,108 cf

Pond DP-3: DP-3 Peak Elev=108.51' Inflow=0.15 cfs 307 cf
12.0" Round Culvert n=0.011 L=32.0' S=0.0281 '/' Outflow=0.15 cfs 307 cf

Total Runoff Area = 101,438 sf Runoff Volume = 8,488 cf Average Runoff Depth = 1.00"
33.93% Pervious = 34,420 sf 66.07% Impervious = 67,018 sf

Summary for Subcatchment DA-1: DA-1

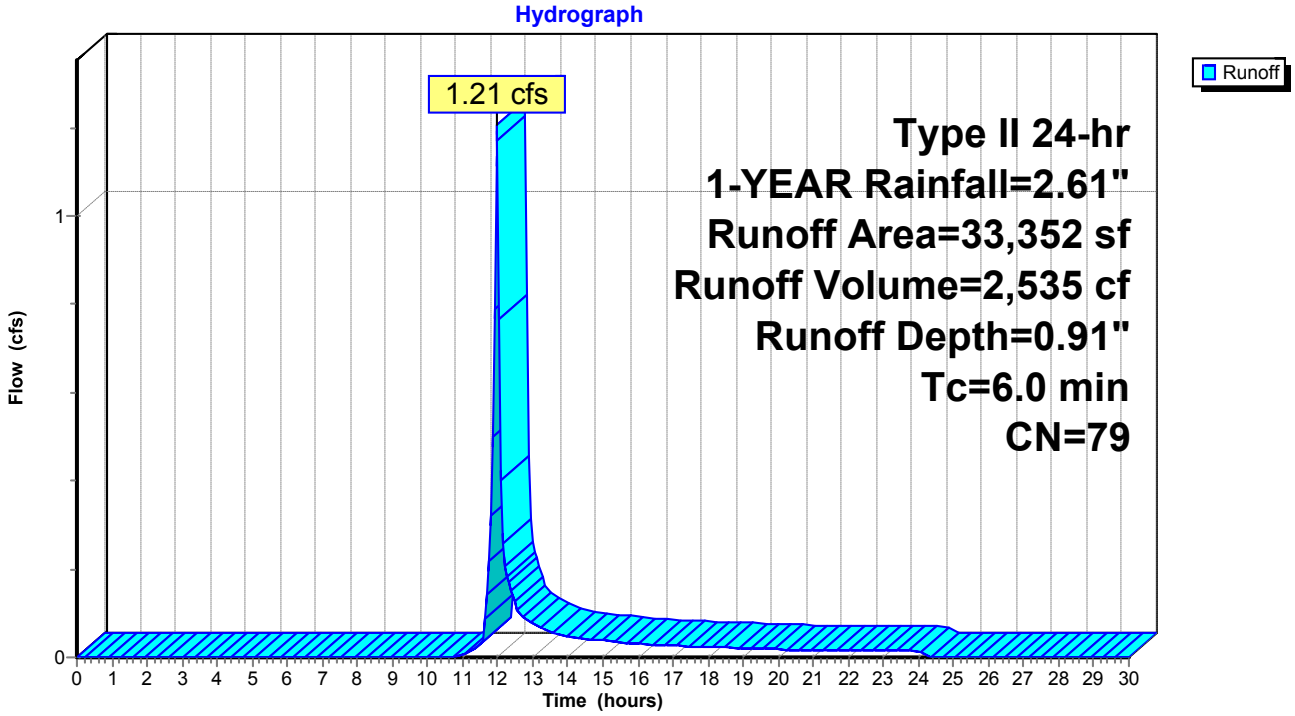
Runoff = 1.21 cfs @ 11.98 hrs, Volume= 2,535 cf, Depth= 0.91"

Runoff 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
12,767	49	50-75% Grass cover, Fair, HSG A
20,585	98	Paved parking, HSG A
33,352	79	Weighted Average
12,767		38.28% Pervious Area
20,585		61.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

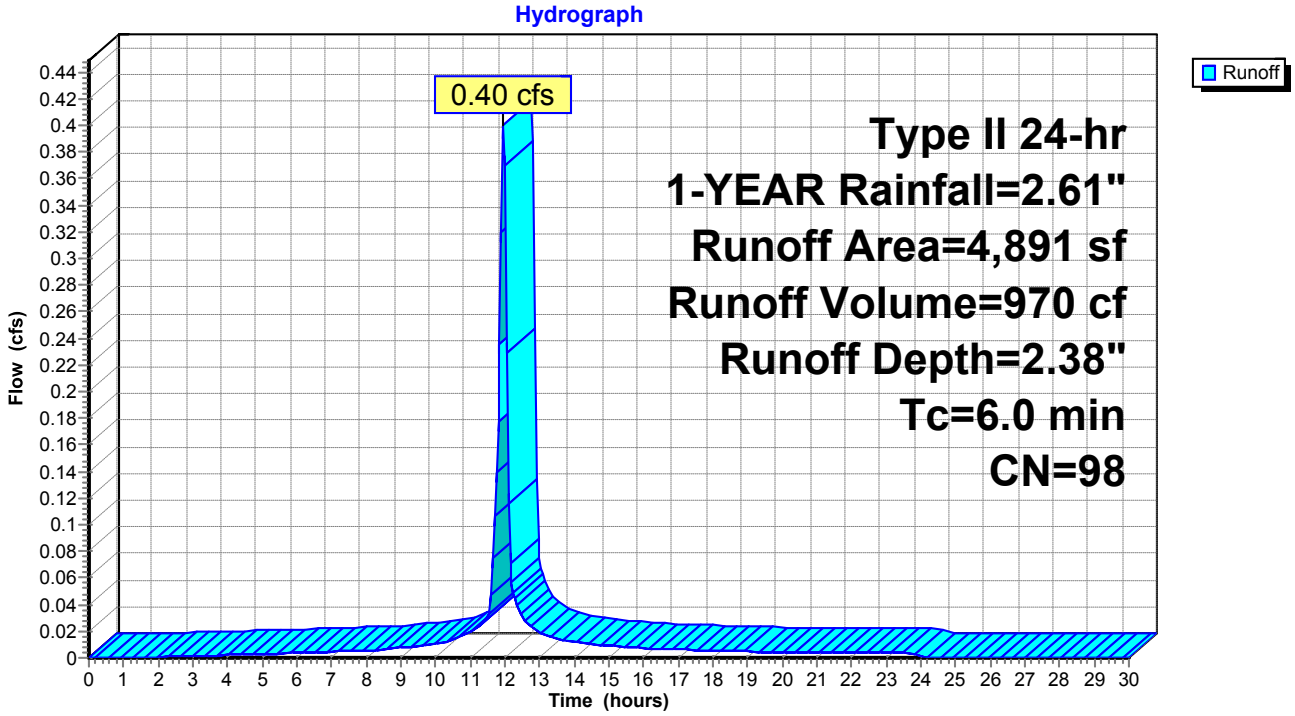
Runoff = 0.40 cfs @ 11.96 hrs, Volume= 970 cf, Depth= 2.38"

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
4,891	98	Roofs, HSG A
4,891		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

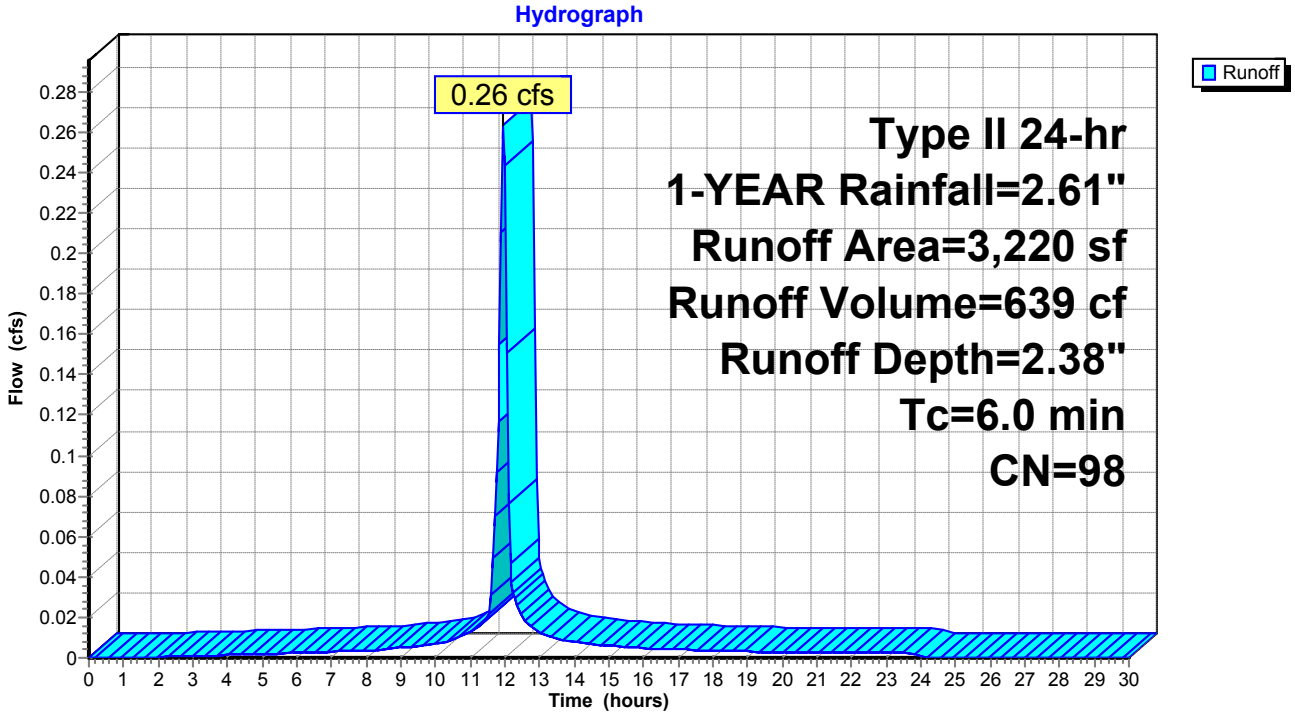
Runoff = 0.26 cfs @ 11.96 hrs, Volume= 639 cf, Depth= 2.38"

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
3,220	98	Roofs, HSG A
3,220		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-2: DA-2

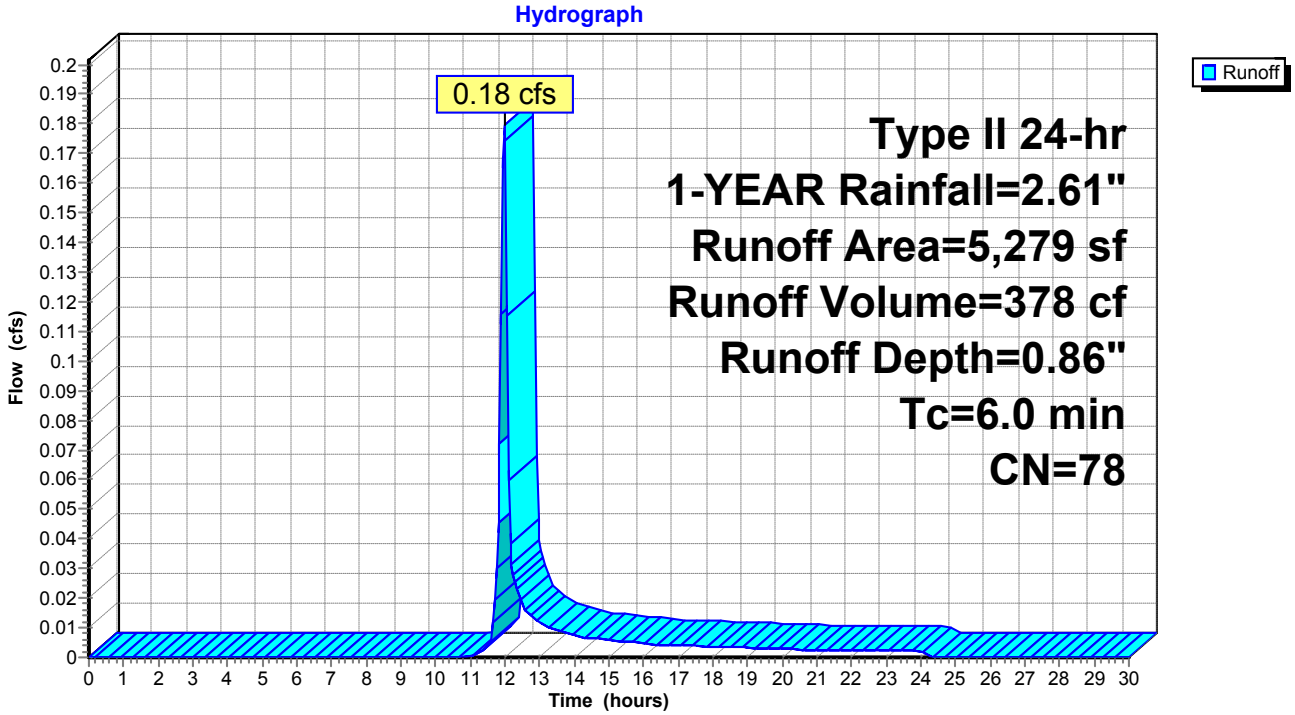
Runoff = 0.18 cfs @ 11.98 hrs, Volume= 378 cf, Depth= 0.86"

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 1-YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,818	39	>75% Grass cover, Good, HSG A
3,461	98	Paved parking, HSG A
5,279	78	Weighted Average
1,818		34.44% Pervious Area
3,461		65.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

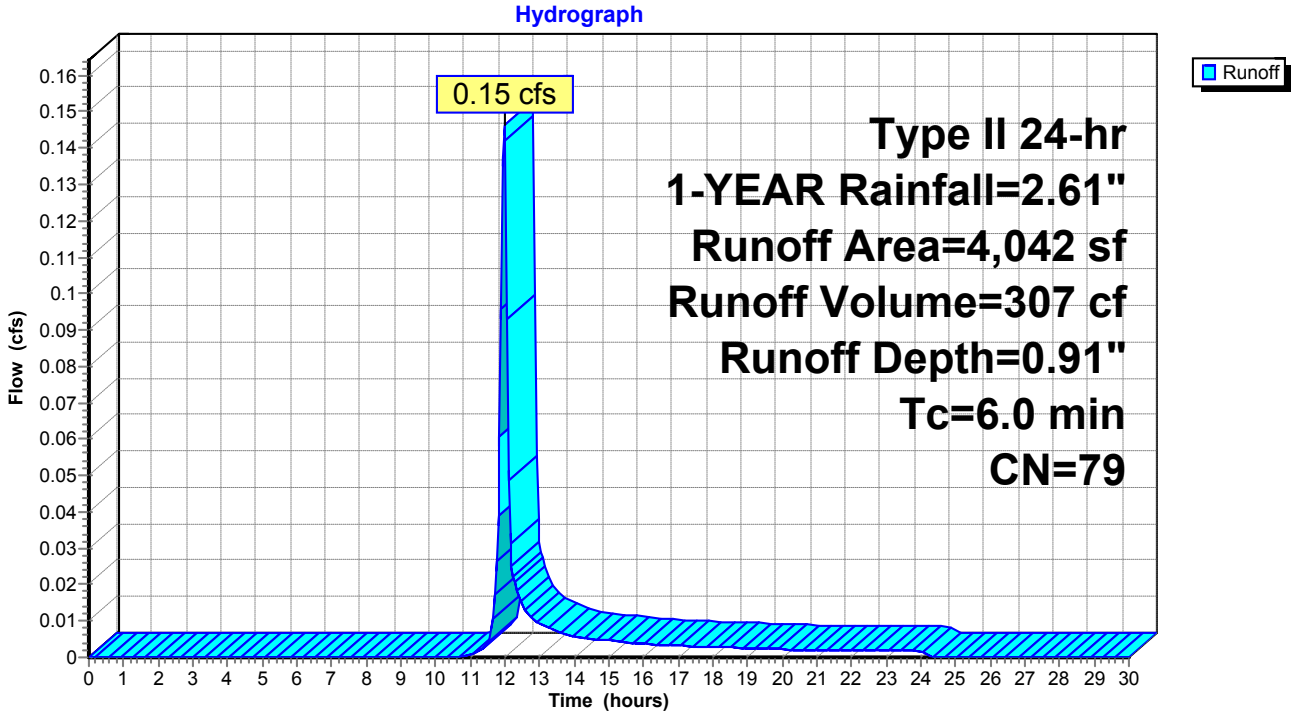
Runoff = 0.15 cfs @ 11.98 hrs, Volume= 307 cf, Depth= 0.91"

Runoff 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
1,300	39	>75% Grass cover, Good, HSG A
2,742	98	Paved parking, HSG A
4,042	79	Weighted Average
1,300		32.16% Pervious Area
2,742		67.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

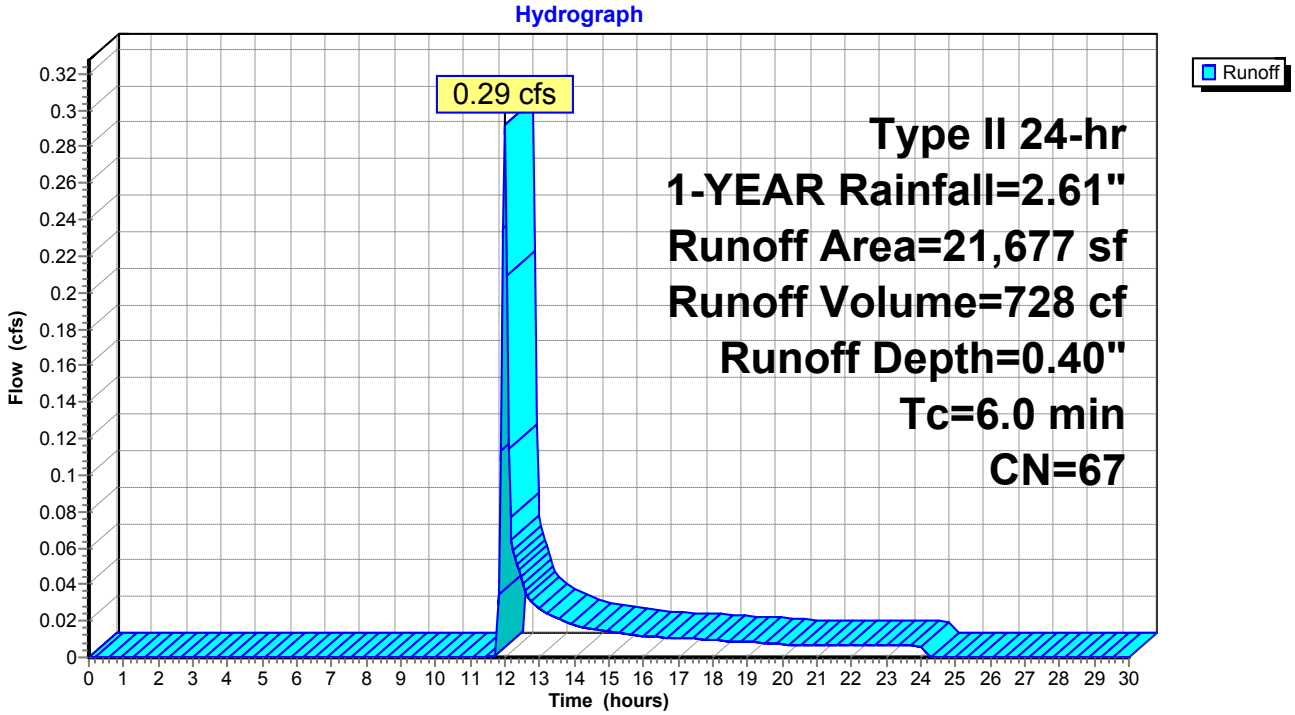
Runoff = 0.29 cfs @ 12.00 hrs, Volume= 728 cf, Depth= 0.40"

Runoff 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
11,253	39	>75% Grass cover, Good, HSG A
10,424	98	Paved parking, HSG A
21,677	67	Weighted Average
11,253		51.91% Pervious Area
10,424		48.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-4: DA-4



Summary for Subcatchment DA-5: DA-5

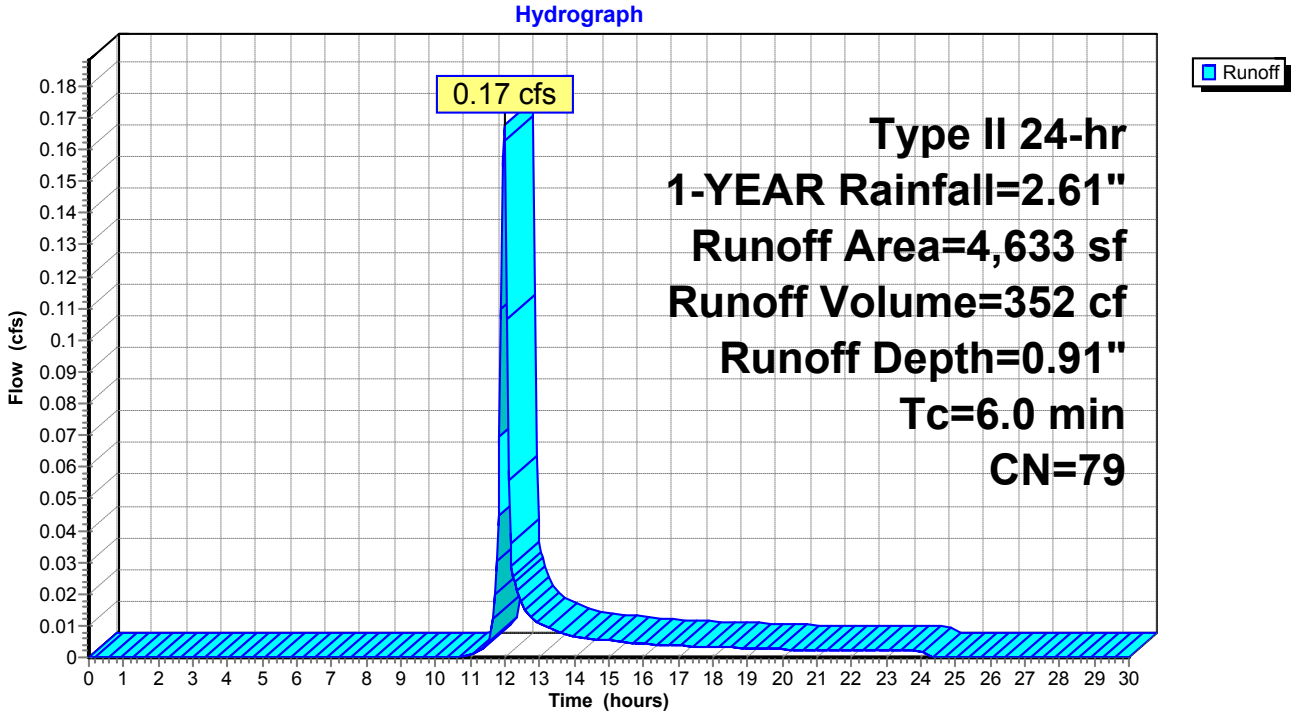
Runoff = 0.17 cfs @ 11.98 hrs, Volume= 352 cf, Depth= 0.91"

Runoff 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
1,499	39	>75% Grass cover, Good, HSG A
3,134	98	Paved parking, HSG A
4,633	79	Weighted Average
1,499		32.35% Pervious Area
3,134		67.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-5: DA-5



Summary for Subcatchment DA-6: DA-6

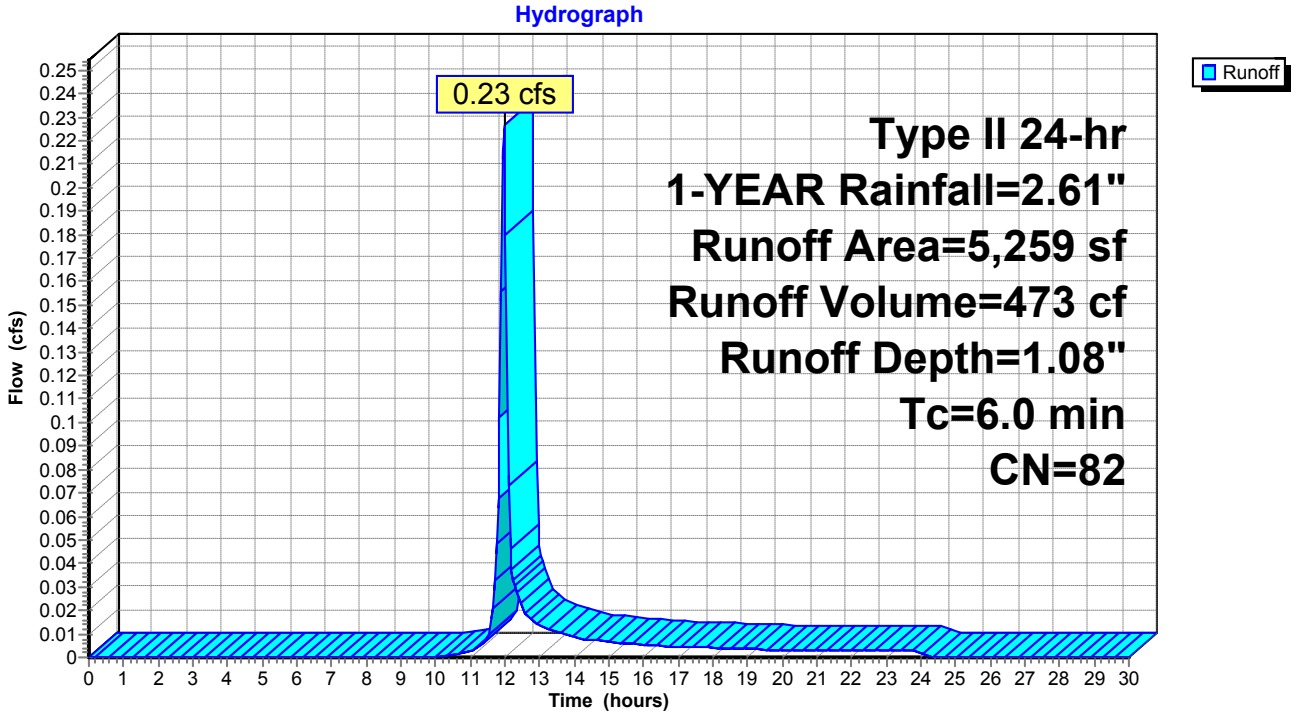
Runoff = 0.23 cfs @ 11.98 hrs, Volume= 473 cf, Depth= 1.08"

Runoff 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
1,397	39	>75% Grass cover, Good, HSG A
3,862	98	Paved parking, HSG A
5,259	82	Weighted Average
1,397		26.56% Pervious Area
3,862		73.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

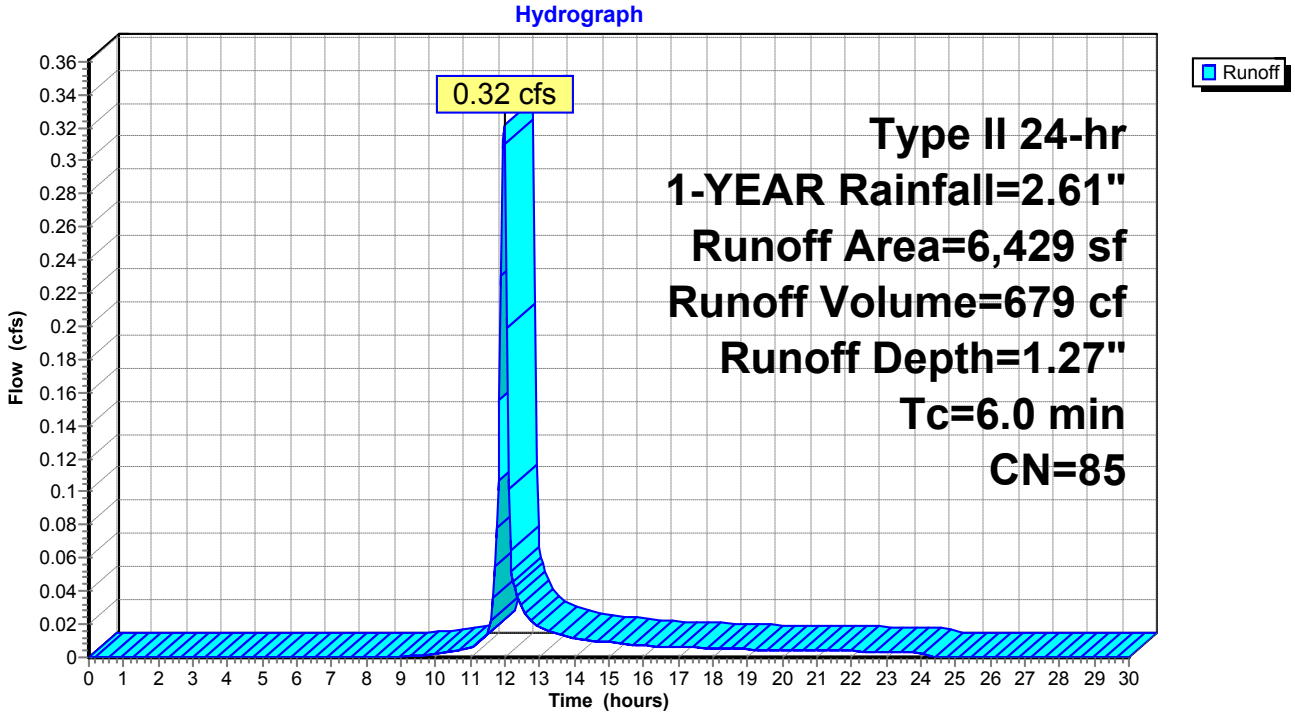
Runoff = 0.32 cfs @ 11.97 hrs, Volume= 679 cf, Depth= 1.27"

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
1,411	39	>75% Grass cover, Good, HSG A
5,018	98	Paved parking, HSG A
6,429	85	Weighted Average
1,411		21.95% Pervious Area
5,018		78.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

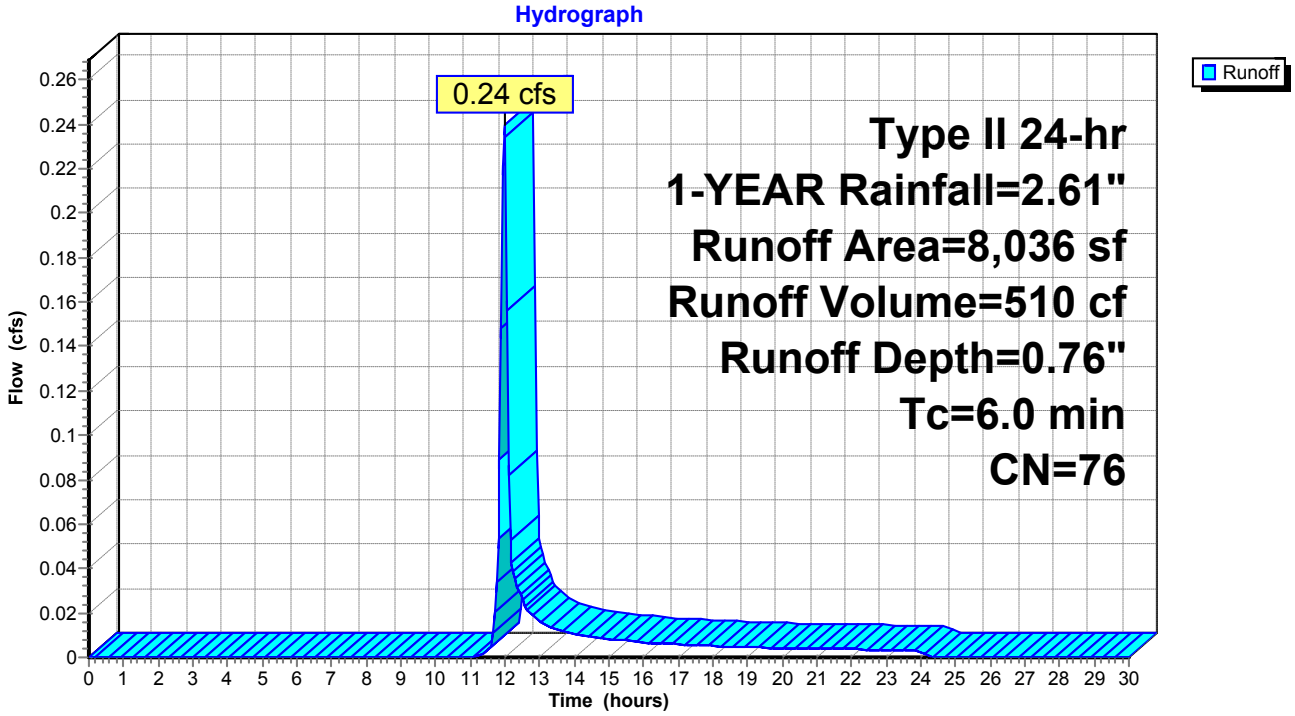
Runoff = 0.24 cfs @ 11.98 hrs, Volume= 510 cf, Depth= 0.76"

Runoff 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
2,975	39	>75% Grass cover, Good, HSG A
5,061	98	Paved parking, HSG A
8,036	76	Weighted Average
2,975		37.02% Pervious Area
5,061		62.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DA-9

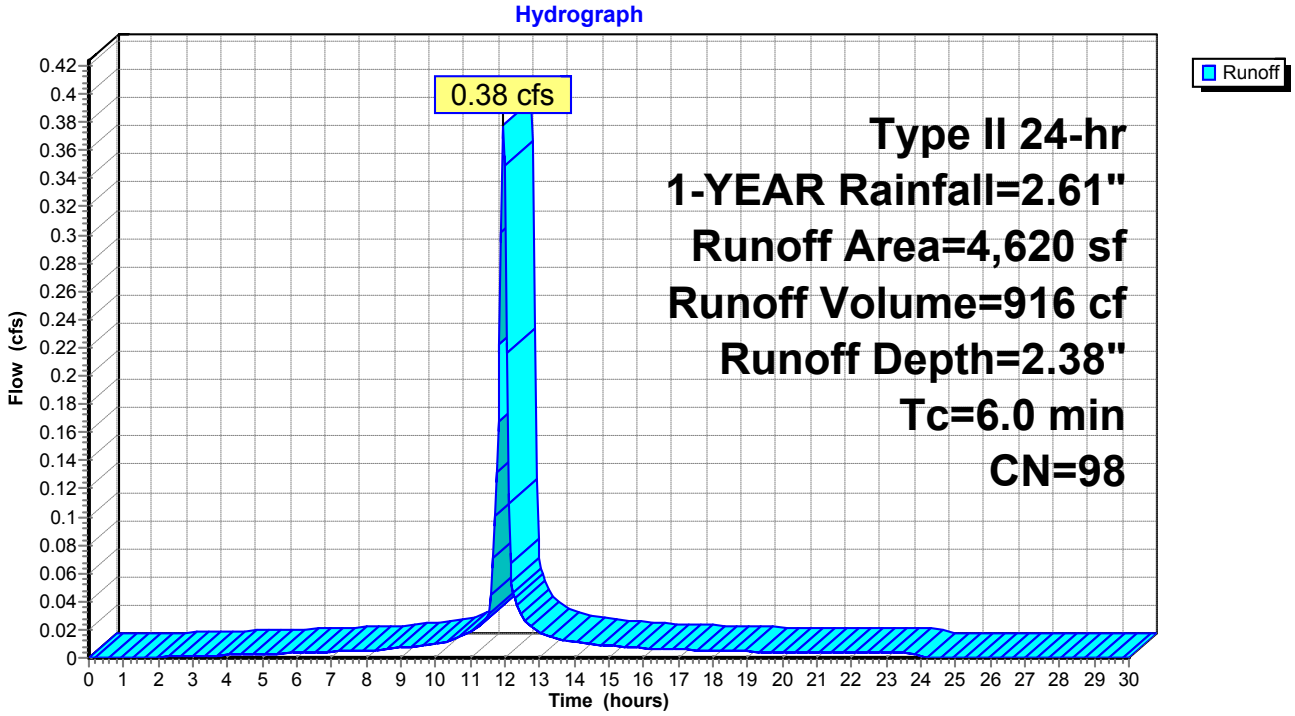
Runoff = 0.38 cfs @ 11.96 hrs, Volume= 916 cf, Depth= 2.38"

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
4,620	98	Roofs, HSG A
4,620		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-9: DA-9

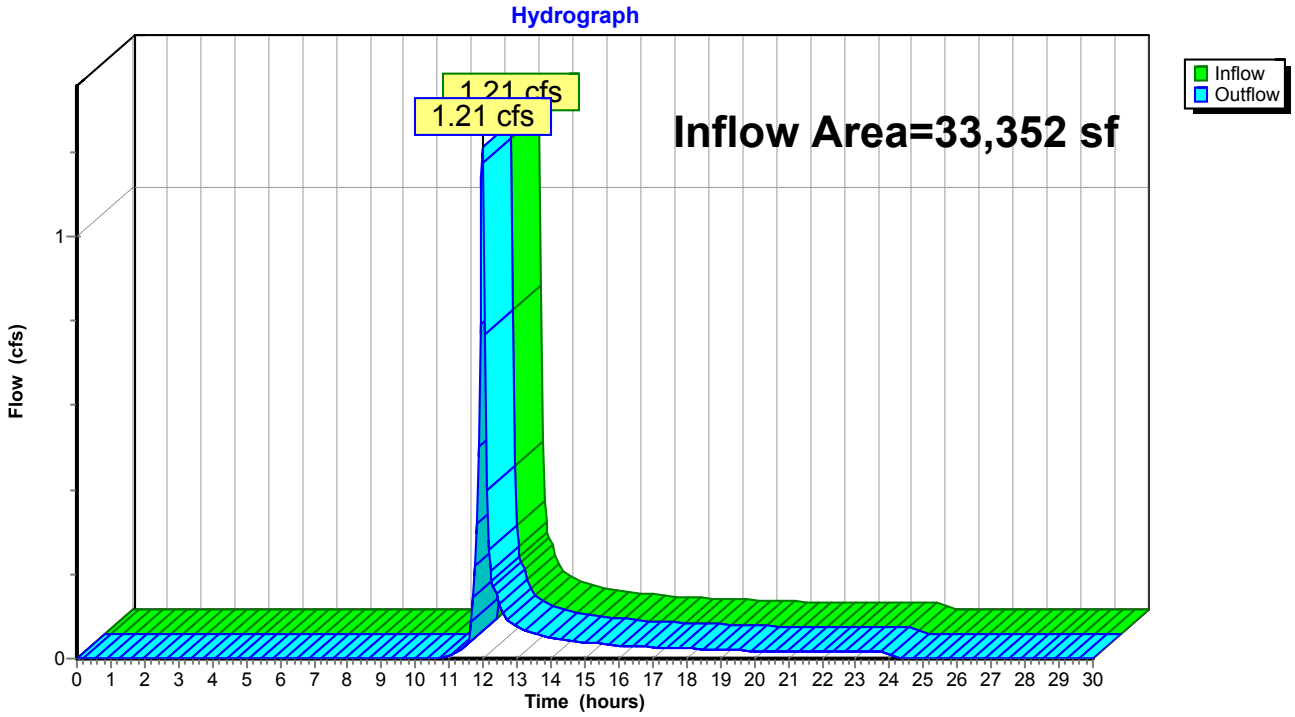


Summary for Reach DP-1: DP-1

Inflow Area = 33,352 sf, 61.72% Impervious, Inflow Depth = 0.91" for 1-YEAR event
Inflow = 1.21 cfs @ 11.98 hrs, Volume= 2,535 cf
Outflow = 1.21 cfs @ 11.98 hrs, Volume= 2,535 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-1: DP-1

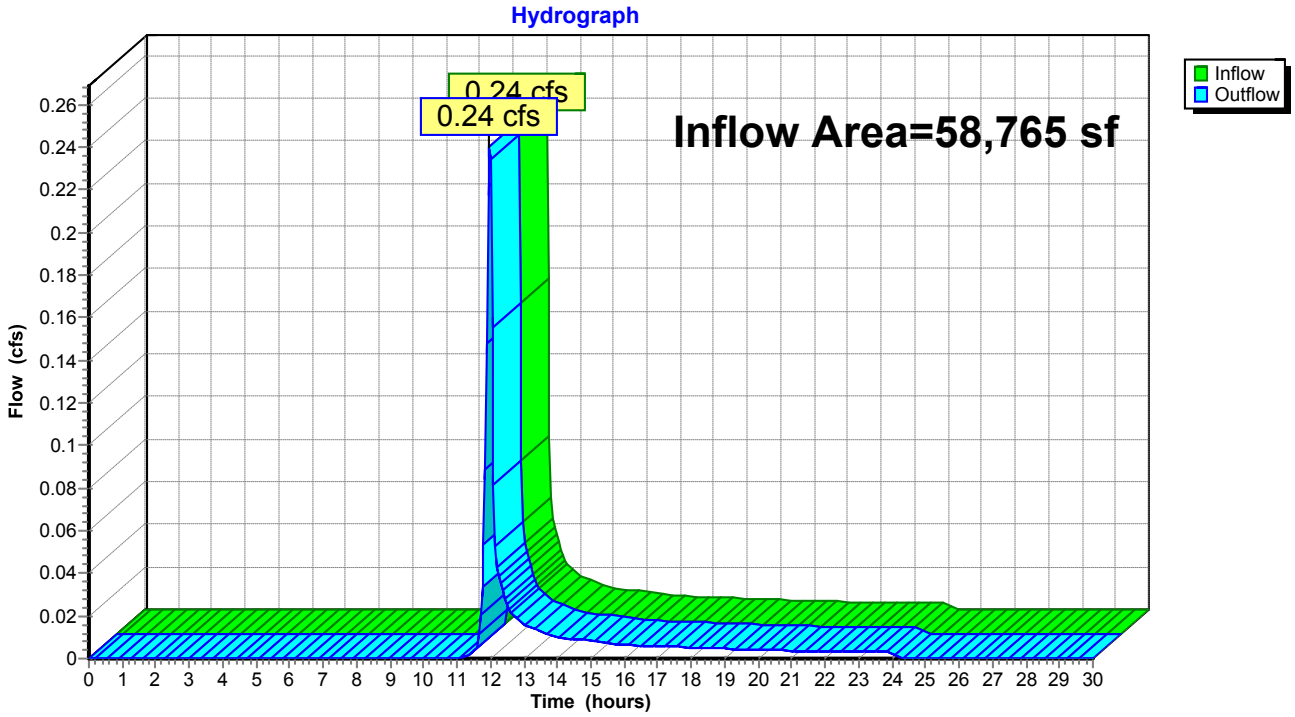


Summary for Reach DP-4: DP-4

Inflow Area = 58,765 sf, 68.46% Impervious, Inflow Depth = 0.10" for 1-YEAR event
Inflow = 0.24 cfs @ 11.98 hrs, Volume= 510 cf
Outflow = 0.24 cfs @ 11.98 hrs, Volume= 510 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-4: DP-4



Summary for Pond 1P: PR CB#5

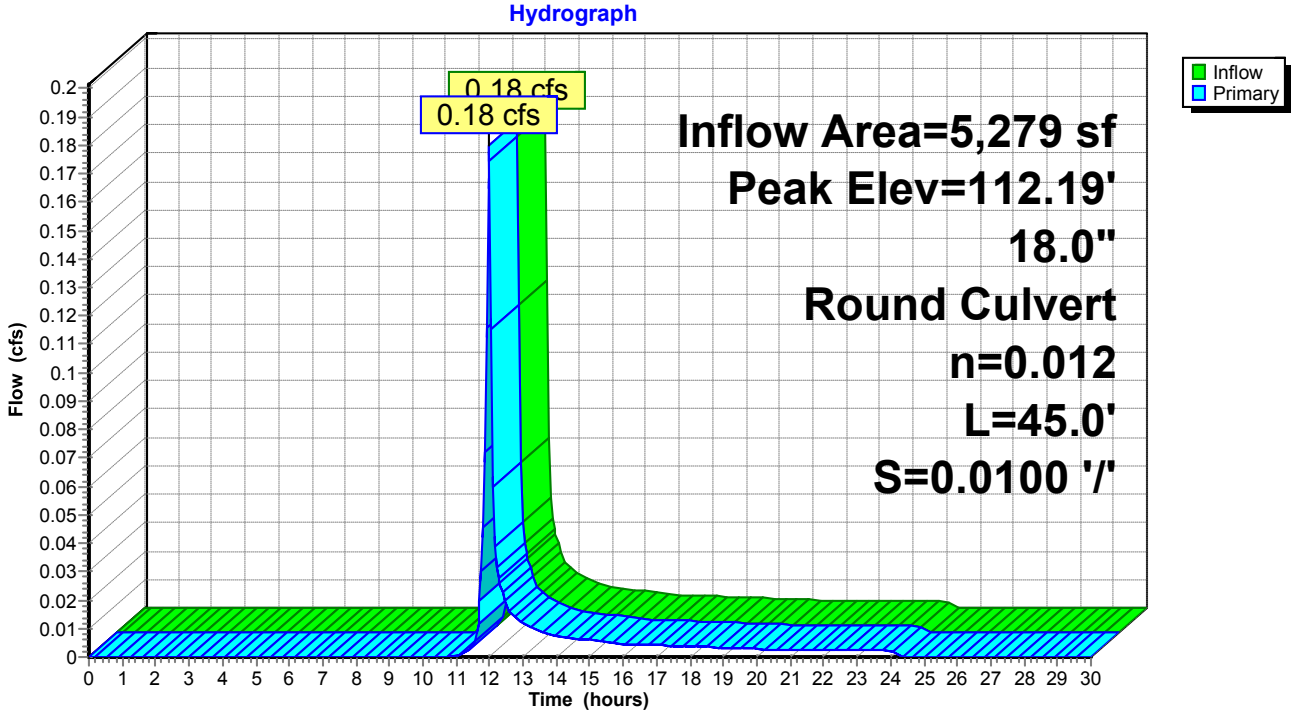
Inflow Area = 5,279 sf, 65.56% Impervious, Inflow Depth = 0.86" for 1-YEAR event
Inflow = 0.18 cfs @ 11.98 hrs, Volume= 378 cf
Outflow = 0.18 cfs @ 11.98 hrs, Volume= 378 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.18 cfs @ 11.98 hrs, Volume= 378 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 112.19' @ 11.98 hrs
Flood Elev= 114.98'

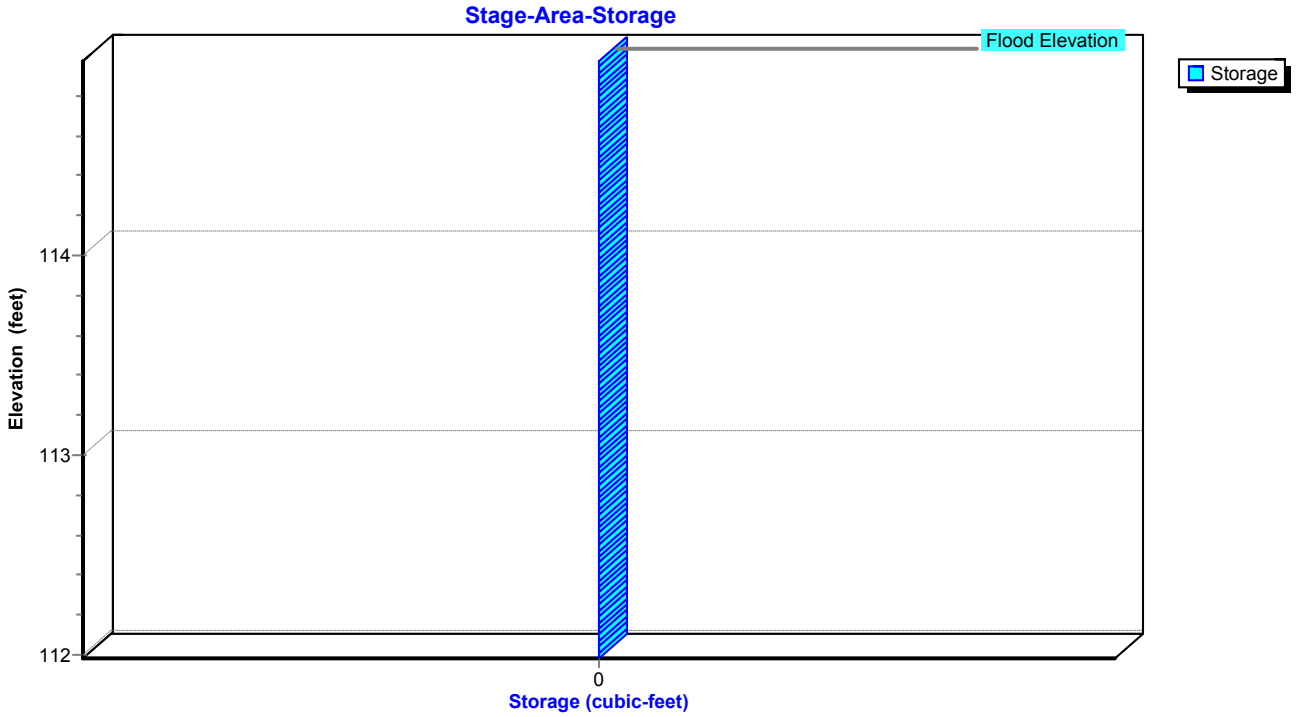
Device	Routing	Invert	Outlet Devices
#1	Primary	111.98'	**18.0" Round Culvert** L= 45.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 111.98' / 111.53' S= 0.0100 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=0.17 cfs @ 11.98 hrs HW=112.18' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.17 cfs @ 1.21 fps)

Pond 1P: PR CB#5



Pond 1P: PR CB#5



Stage-Area-Storage for Pond 1P: PR CB#5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
111.98	**0**	113.04	0	114.10	0
112.00	0	113.06	0	114.12	0
112.02	0	113.08	0	114.14	0
112.04	0	113.10	0	114.16	0
112.06	0	113.12	0	114.18	0
112.08	0	113.14	0	114.20	0
112.10	0	113.16	0	114.22	0
112.12	0	113.18	0	114.24	0
112.14	0	113.20	0	114.26	0
112.16	0	113.22	0	114.28	0
112.18	0	113.24	0	114.30	0
112.20	0	113.26	0	114.32	0
112.22	0	113.28	0	114.34	0
112.24	0	113.30	0	114.36	0
112.26	0	113.32	0	114.38	0
112.28	0	113.34	0	114.40	0
112.30	0	113.36	0	114.42	0
112.32	0	113.38	0	114.44	0
112.34	0	113.40	0	114.46	0
112.36	0	113.42	0	114.48	0
112.38	0	113.44	0	114.50	0
112.40	0	113.46	0	114.52	0
112.42	0	113.48	0	114.54	0
112.44	0	113.50	0	114.56	0
112.46	0	113.52	0	114.58	0
112.48	0	113.54	0	114.60	0
112.50	0	113.56	0	114.62	0
112.52	0	113.58	0	114.64	0
112.54	0	113.60	0	114.66	0
112.56	0	113.62	0	114.68	0
112.58	0	113.64	0	114.70	0
112.60	0	113.66	0	114.72	0
112.62	0	113.68	0	114.74	0
112.64	0	113.70	0	114.76	0
112.66	0	113.72	0	114.78	0
112.68	0	113.74	0	114.80	0
112.70	0	113.76	0	114.82	0
112.72	0	113.78	0	114.84	0
112.74	0	113.80	0	114.86	0
112.76	0	113.82	0	114.88	0
112.78	0	113.84	0	114.90	0
112.80	0	113.86	0	114.92	0
112.82	0	113.88	0	114.94	0
112.84	0	113.90	0	114.96	0
112.86	0	113.92	0	114.98	0
112.88	0	113.94	0		
112.90	0	113.96	0		
112.92	0	113.98	0		
112.94	0	114.00	0		
112.96	0	114.02	0		
112.98	0	114.04	0		
113.00	0	114.06	0		
113.02	0	114.08	0		

Summary for Pond 9P: PR CB #1

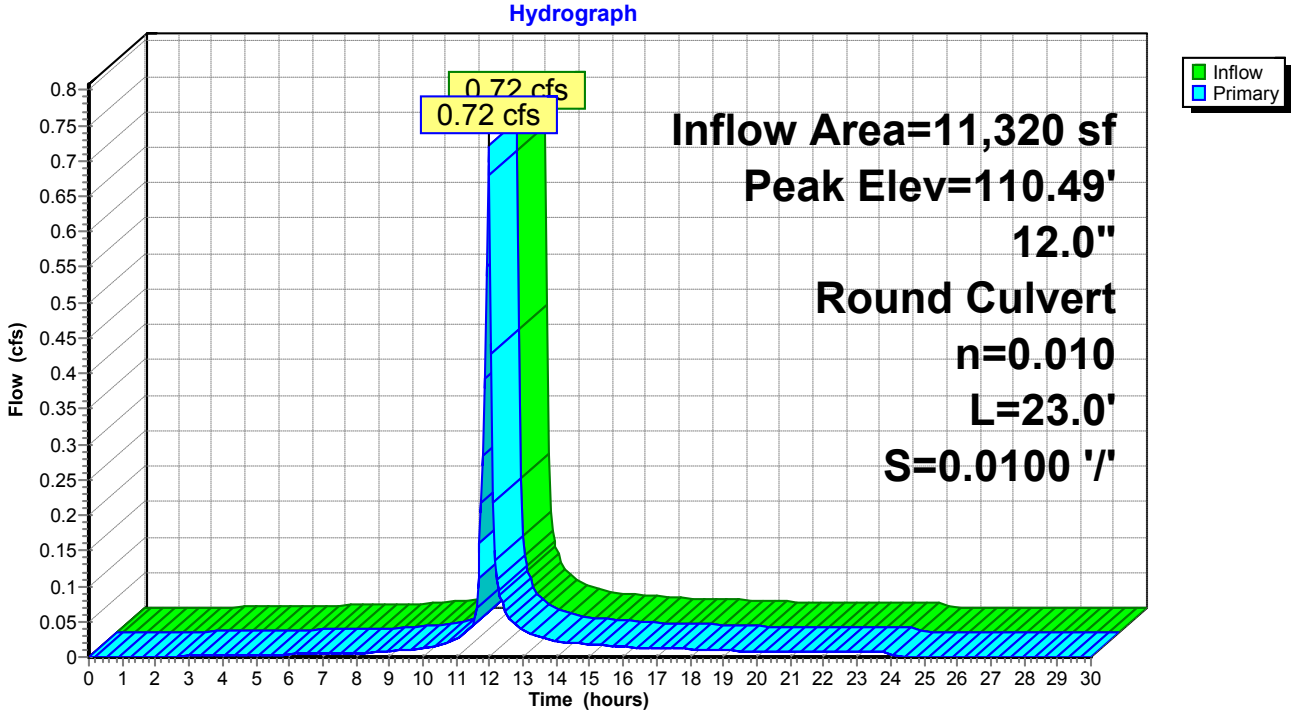
Inflow Area = 11,320 sf, 87.54% Impervious, Inflow Depth = 1.75" for 1-YEAR event
Inflow = 0.72 cfs @ 11.97 hrs, Volume= 1,649 cf
Outflow = 0.72 cfs @ 11.97 hrs, Volume= 1,649 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.72 cfs @ 11.97 hrs, Volume= 1,649 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 110.49' @ 11.97 hrs
Flood Elev= 113.00'

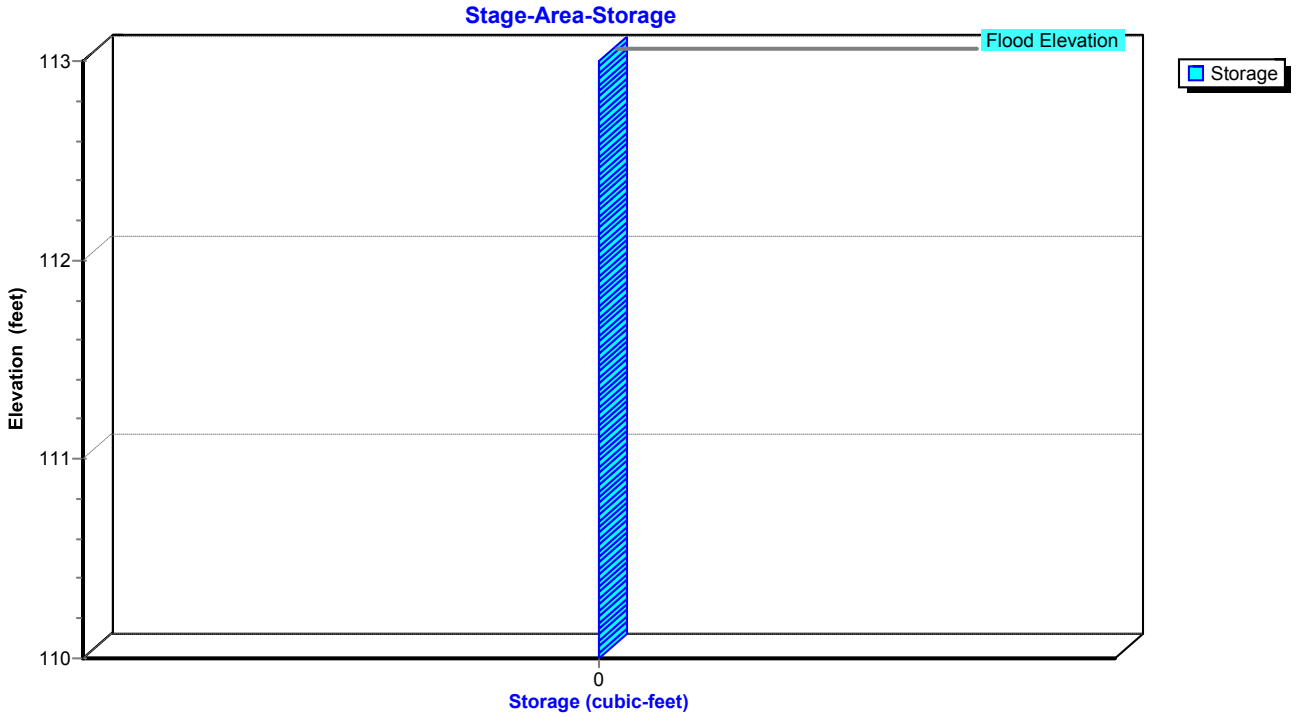
Device	Routing	Invert	Outlet Devices
#1	Primary	110.00'	**12.0" Round Culvert** L= 23.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 110.00' / 109.77' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.70 cfs @ 11.97 hrs HW=110.48' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.70 cfs @ 1.87 fps)

Pond 9P: PR CB #1



Pond 9P: PR CB #1



Stage-Area-Storage for Pond 9P: PR CB #1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
110.00	**0**	111.06	0	112.12	0
110.02	0	111.08	0	112.14	0
110.04	0	111.10	0	112.16	0
110.06	0	111.12	0	112.18	0
110.08	0	111.14	0	112.20	0
110.10	0	111.16	0	112.22	0
110.12	0	111.18	0	112.24	0
110.14	0	111.20	0	112.26	0
110.16	0	111.22	0	112.28	0
110.18	0	111.24	0	112.30	0
110.20	0	111.26	0	112.32	0
110.22	0	111.28	0	112.34	0
110.24	0	111.30	0	112.36	0
110.26	0	111.32	0	112.38	0
110.28	0	111.34	0	112.40	0
110.30	0	111.36	0	112.42	0
110.32	0	111.38	0	112.44	0
110.34	0	111.40	0	112.46	0
110.36	0	111.42	0	112.48	0
110.38	0	111.44	0	112.50	0
110.40	0	111.46	0	112.52	0
110.42	0	111.48	0	112.54	0
110.44	0	111.50	0	112.56	0
110.46	0	111.52	0	112.58	0
110.48	0	111.54	0	112.60	0
110.50	0	111.56	0	112.62	0
110.52	0	111.58	0	112.64	0
110.54	0	111.60	0	112.66	0
110.56	0	111.62	0	112.68	0
110.58	0	111.64	0	112.70	0
110.60	0	111.66	0	112.72	0
110.62	0	111.68	0	112.74	0
110.64	0	111.70	0	112.76	0
110.66	0	111.72	0	112.78	0
110.68	0	111.74	0	112.80	0
110.70	0	111.76	0	112.82	0
110.72	0	111.78	0	112.84	0
110.74	0	111.80	0	112.86	0
110.76	0	111.82	0	112.88	0
110.78	0	111.84	0	112.90	0
110.80	0	111.86	0	112.92	0
110.82	0	111.88	0	112.94	0
110.84	0	111.90	0	112.96	0
110.86	0	111.92	0	112.98	0
110.88	0	111.94	0	113.00	0
110.90	0	111.96	0		
110.92	0	111.98	0		
110.94	0	112.00	0		
110.96	0	112.02	0		
110.98	0	112.04	0		
111.00	0	112.06	0		
111.02	0	112.08	0		
111.04	0	112.10	0		

Summary for Pond 10P: UGC-1

Inflow Area = 11,320 sf, 87.54% Impervious, Inflow Depth = 1.75" for 1-YEAR event
Inflow = 0.72 cfs @ 11.97 hrs, Volume= 1,649 cf
Outflow = 0.17 cfs @ 11.75 hrs, Volume= 1,649 cf, Atten= 77%, Lag= 0.0 min
Discarded = 0.17 cfs @ 11.75 hrs, Volume= 1,649 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 108.80' @ 12.13 hrs Surf.Area= 1,178 sf Storage= 399 cf

Plug-Flow detention time= 12.2 min calculated for 1,649 cf (100% of inflow)
Center-of-Mass det. time= 12.2 min (800.3 - 788.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	108.00'	1,452 cf	**15.75'W x 74.82'L x 4.25'H Field A** 5,008 cf Overall - 1,378 cf Embedded = 3,630 cf x 40.0% Voids
#2A	108.75'	1,378 cf	**ADS_StormTech SC-740 +Cap** x 30 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 3 Rows of 10 Chambers
		2,830 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	108.00'	**6.200 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.17 cfs @ 11.75 hrs HW=108.05' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.17 cfs)

Pond 10P: UGC-1 - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

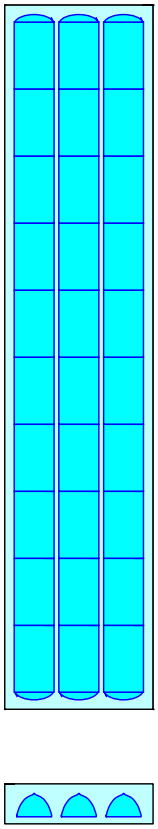
10 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 72.82' Row Length +12.0" End Stone x 2 = 74.82' Base Length
3 Rows x 51.0" Wide + 6.0" Spacing x 2 + 12.0" Side Stone x 2 = 15.75' Base Width
9.0" Base + 30.0" Chamber Height + 12.0" Cover = 4.25' Field Height

30 Chambers x 45.9 cf = 1,378.2 cf Chamber Storage

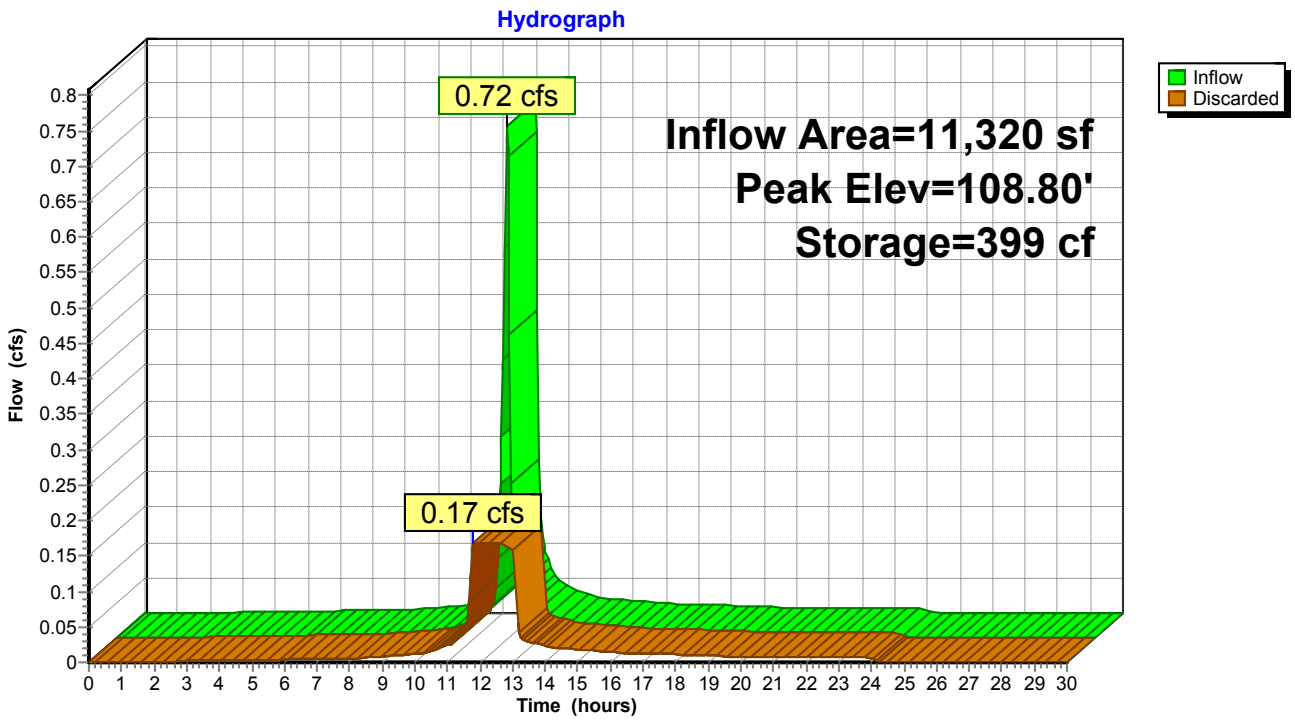
5,008.0 cf Field - 1,378.2 cf Chambers = 3,629.8 cf Stone x 40.0% Voids = 1,451.9 cf Stone Storage

Chamber Storage + Stone Storage = 2,830.1 cf = 0.065 af
Overall Storage Efficiency = 56.5%
Overall System Size = 74.82' x 15.75' x 4.25'

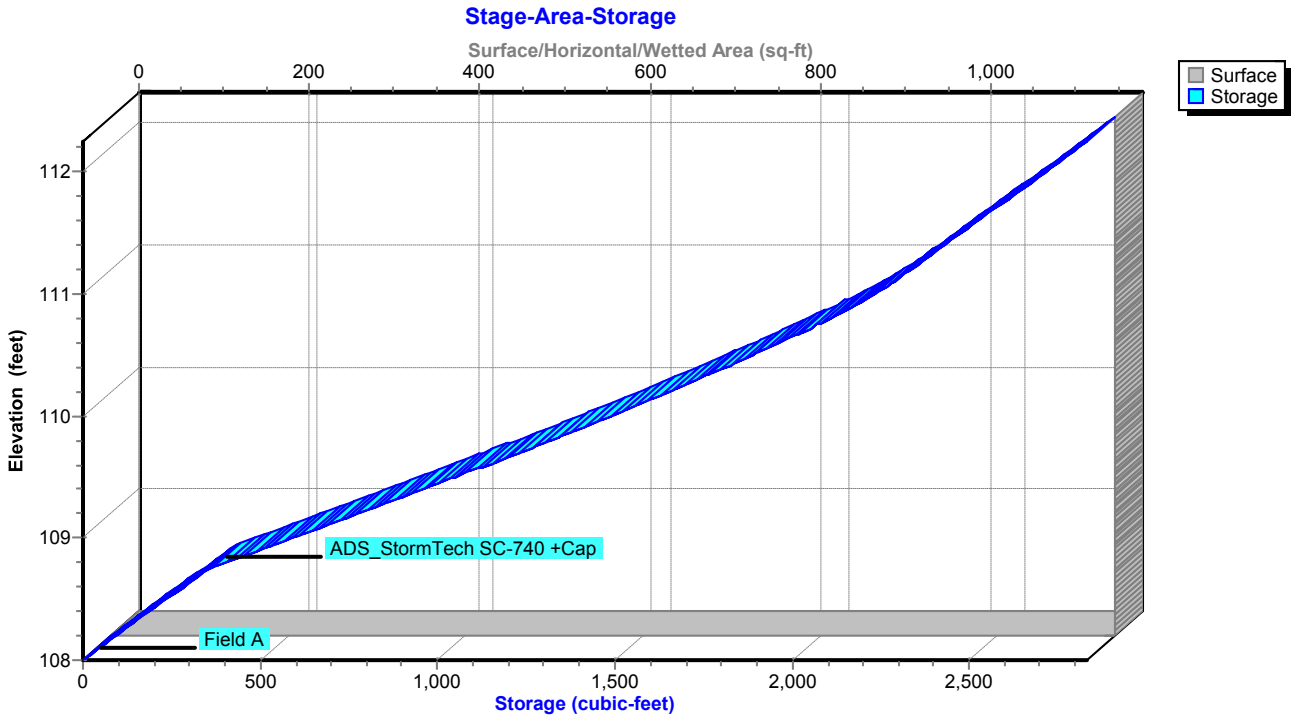
30 Chambers
185.5 cy Field
134.4 cy Stone



Pond 10P: UGC-1



Pond 10P: UGC-1



Stage-Area-Storage for Pond 10P: UGC-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
108.00	**1,178**	0
108.05	1,178	24
108.10	1,178	47
108.15	1,178	71
108.20	1,178	94
108.25	1,178	118
108.30	1,178	141
108.35	1,178	165
108.40	1,178	189
108.45	1,178	212
108.50	1,178	236
108.55	1,178	259
108.60	1,178	283
108.65	1,178	306
108.70	1,178	330
108.75	1,178	354
108.80	1,178	401
108.85	1,178	448
108.90	1,178	496
108.95	1,178	543
109.00	1,178	590
109.05	1,178	637
109.10	1,178	683
109.15	1,178	730
109.20	1,178	776
109.25	1,178	823
109.30	1,178	869
109.35	1,178	915
109.40	1,178	960
109.45	1,178	1,006
109.50	1,178	1,051
109.55	1,178	1,096
109.60	1,178	1,140
109.65	1,178	1,185
109.70	1,178	1,229
109.75	1,178	1,273
109.80	1,178	1,317
109.85	1,178	1,360
109.90	1,178	1,403
109.95	1,178	1,446
110.00	1,178	1,488
110.05	1,178	1,530
110.10	1,178	1,572
110.15	1,178	1,613
110.20	1,178	1,654
110.25	1,178	1,695
110.30	1,178	1,735
110.35	1,178	1,774
110.40	1,178	1,814
110.45	1,178	1,852
110.50	1,178	1,890
110.55	1,178	1,928
110.60	1,178	1,965
110.65	1,178	2,001
110.70	1,178	2,037
110.75	1,178	2,071
110.80	1,178	2,105
110.85	1,178	2,139
110.90	1,178	2,171
110.95	1,178	2,202
111.00	1,178	2,231
111.05	1,178	2,259
111.10	1,178	2,285
111.15	1,178	2,310
111.20	1,178	2,335
111.25	1,178	2,359
111.30	1,178	2,382
111.35	1,178	2,406
111.40	1,178	2,429
111.45	1,178	2,453
111.50	1,178	2,477
111.55	1,178	2,500
111.60	1,178	2,524
111.65	1,178	2,547
111.70	1,178	2,571
111.75	1,178	2,594
111.80	1,178	2,618
111.85	1,178	2,642
111.90	1,178	2,665
111.95	1,178	2,689
112.00	1,178	2,712
112.05	1,178	2,736
112.10	1,178	2,759
112.15	1,178	2,783
112.20	1,178	2,807
112.25	1,178	**2,830**

Summary for Pond 11P: PR CB #2

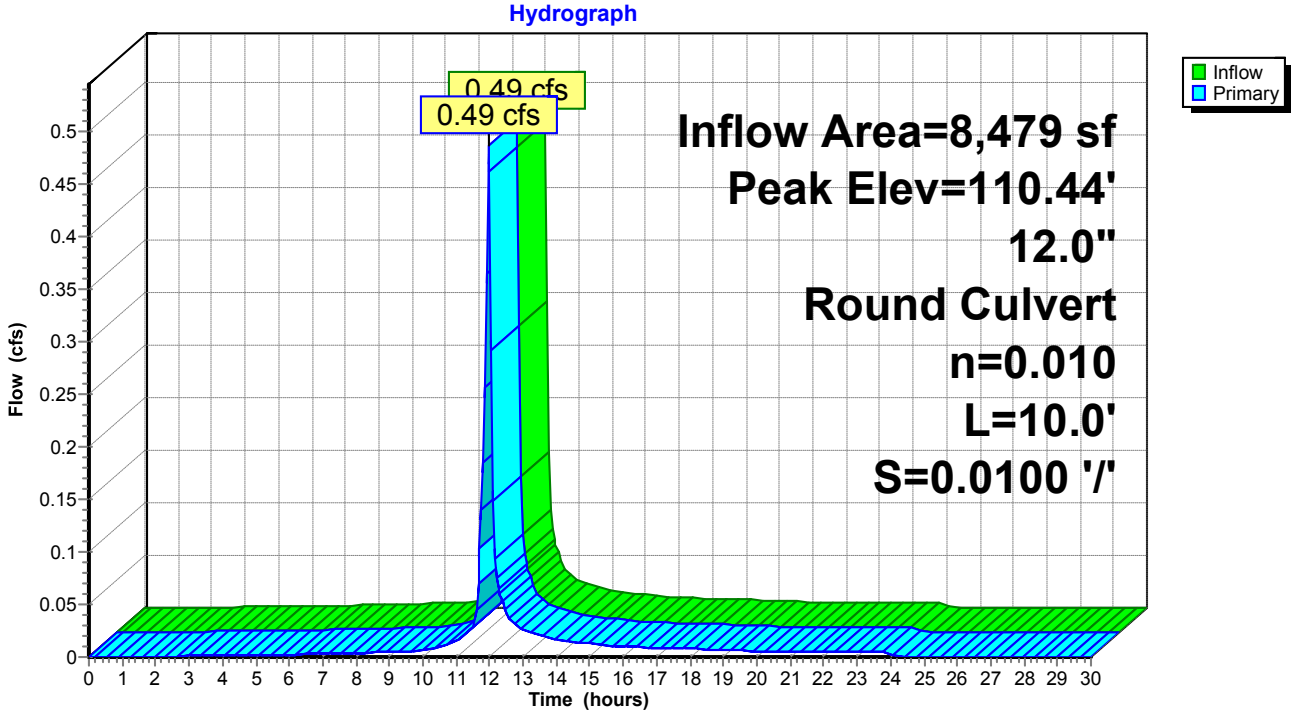
Inflow Area = 8,479 sf, 83.52% Impervious, Inflow Depth = 1.57" for 1-YEAR event
Inflow = 0.49 cfs @ 11.97 hrs, Volume= 1,112 cf
Outflow = 0.49 cfs @ 11.97 hrs, Volume= 1,112 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.49 cfs @ 11.97 hrs, Volume= 1,112 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 110.44' @ 11.97 hrs
Flood Elev= 113.14'

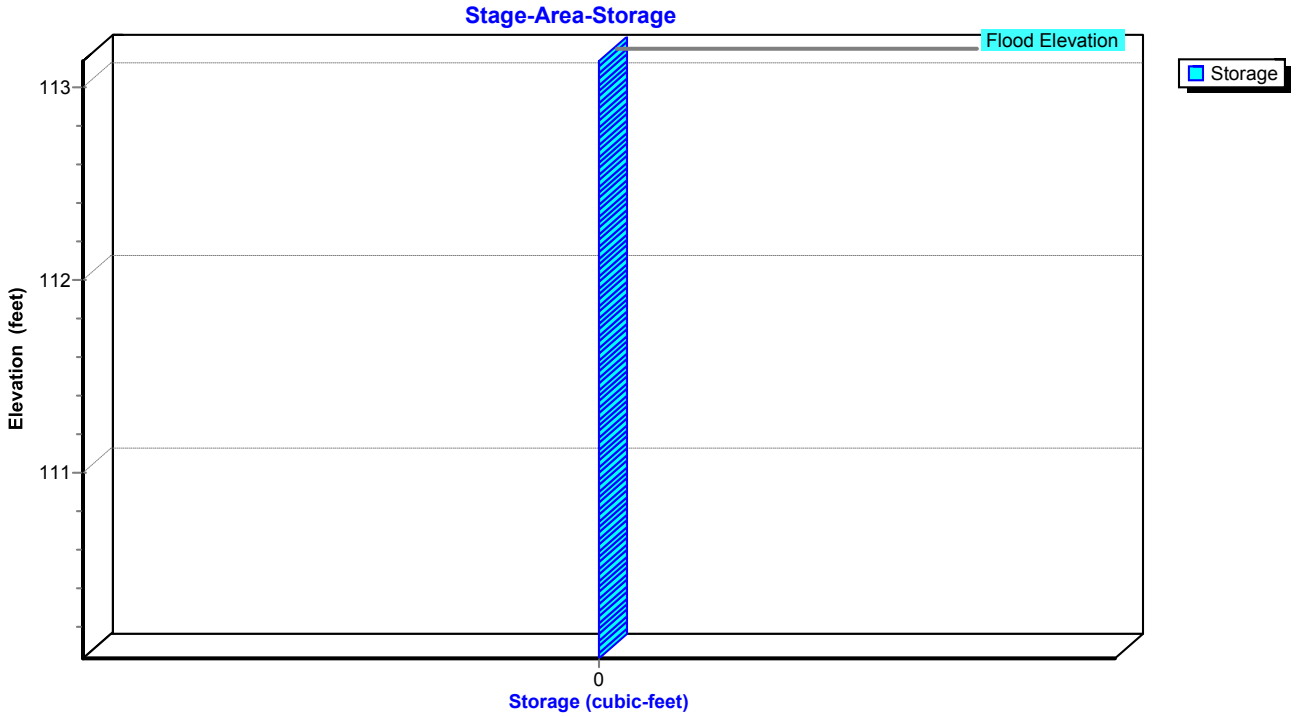
Device	Routing	Invert	Outlet Devices
#1	Primary	110.04'	**12.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 110.04' / 109.94' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.47 cfs @ 11.97 hrs HW=110.44' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.47 cfs @ 2.41 fps)

Pond 11P: PR CB #2



Pond 11P: PR CB #2



Stage-Area-Storage for Pond 11P: PR CB #2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
110.04	**0**	111.10	0	112.16	0
110.06	0	111.12	0	112.18	0
110.08	0	111.14	0	112.20	0
110.10	0	111.16	0	112.22	0
110.12	0	111.18	0	112.24	0
110.14	0	111.20	0	112.26	0
110.16	0	111.22	0	112.28	0
110.18	0	111.24	0	112.30	0
110.20	0	111.26	0	112.32	0
110.22	0	111.28	0	112.34	0
110.24	0	111.30	0	112.36	0
110.26	0	111.32	0	112.38	0
110.28	0	111.34	0	112.40	0
110.30	0	111.36	0	112.42	0
110.32	0	111.38	0	112.44	0
110.34	0	111.40	0	112.46	0
110.36	0	111.42	0	112.48	0
110.38	0	111.44	0	112.50	0
110.40	0	111.46	0	112.52	0
110.42	0	111.48	0	112.54	0
110.44	0	111.50	0	112.56	0
110.46	0	111.52	0	112.58	0
110.48	0	111.54	0	112.60	0
110.50	0	111.56	0	112.62	0
110.52	0	111.58	0	112.64	0
110.54	0	111.60	0	112.66	0
110.56	0	111.62	0	112.68	0
110.58	0	111.64	0	112.70	0
110.60	0	111.66	0	112.72	0
110.62	0	111.68	0	112.74	0
110.64	0	111.70	0	112.76	0
110.66	0	111.72	0	112.78	0
110.68	0	111.74	0	112.80	0
110.70	0	111.76	0	112.82	0
110.72	0	111.78	0	112.84	0
110.74	0	111.80	0	112.86	0
110.76	0	111.82	0	112.88	0
110.78	0	111.84	0	112.90	0
110.80	0	111.86	0	112.92	0
110.82	0	111.88	0	112.94	0
110.84	0	111.90	0	112.96	0
110.86	0	111.92	0	112.98	0
110.88	0	111.94	0	113.00	0
110.90	0	111.96	0	113.02	0
110.92	0	111.98	0	113.04	0
110.94	0	112.00	0	113.06	0
110.96	0	112.02	0	113.08	0
110.98	0	112.04	0	113.10	0
111.00	0	112.06	0	113.12	0
111.02	0	112.08	0	113.14	0
111.04	0	112.10	0		
111.06	0	112.12	0		
111.08	0	112.14	0		

Summary for Pond 13P: PR CB #3

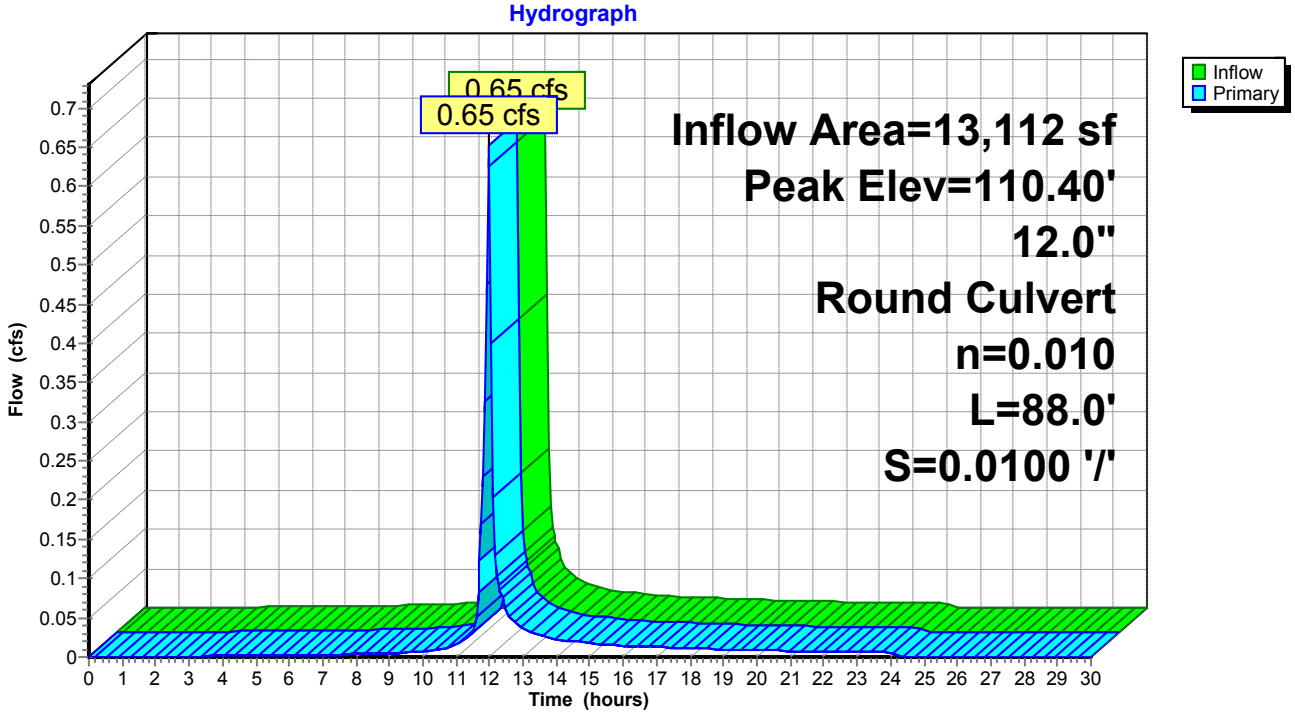
Inflow Area = 13,112 sf, 77.91% Impervious, Inflow Depth = 1.34" for 1-YEAR event
Inflow = 0.65 cfs @ 11.97 hrs, Volume= 1,464 cf
Outflow = 0.65 cfs @ 11.97 hrs, Volume= 1,464 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.65 cfs @ 11.97 hrs, Volume= 1,464 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 110.40' @ 11.97 hrs
Flood Elev= 113.14'

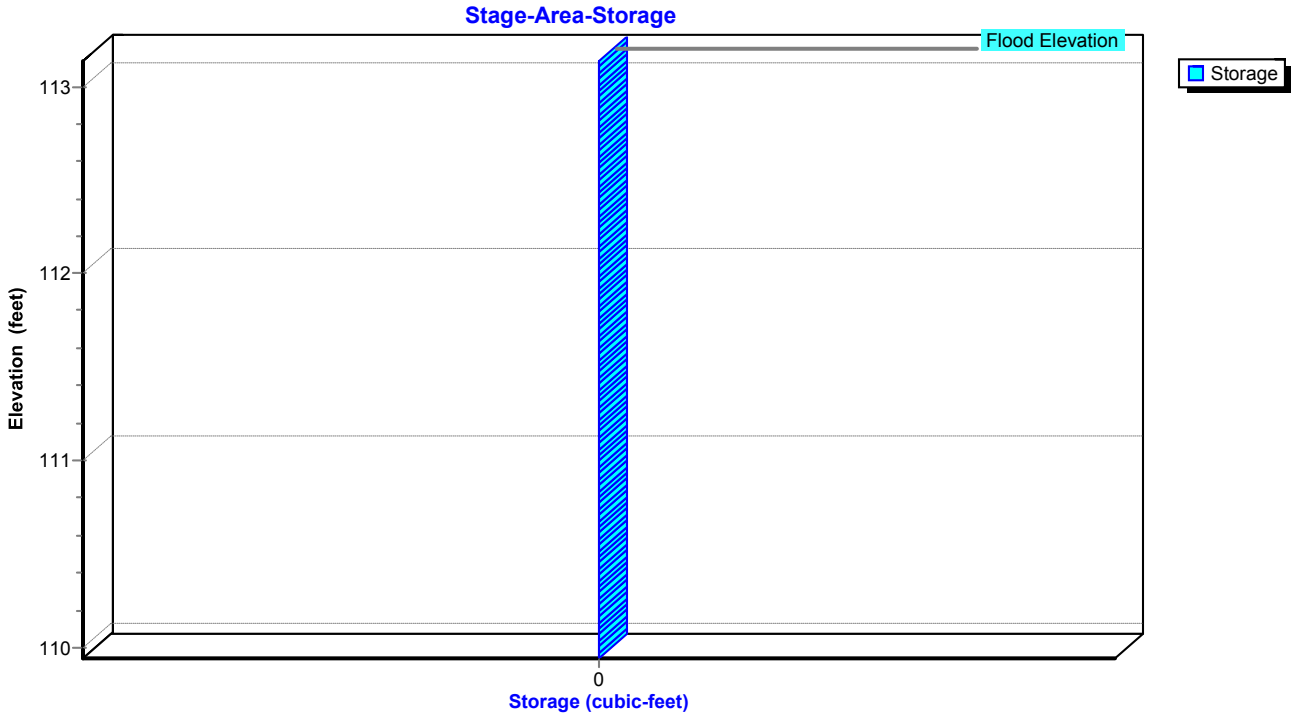
Device	Routing	Invert	Outlet Devices
#1	Primary	109.94'	**12.0" Round Culvert** L= 88.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 109.94' / 109.06' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.63 cfs @ 11.97 hrs HW=110.40' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.63 cfs @ 1.81 fps)

Pond 13P: PR CB #3



Pond 13P: PR CB #3



Stage-Area-Storage for Pond 13P: PR CB #3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
109.94	**0**	112.59	0
109.99	0	112.64	0
110.04	0	112.69	0
110.09	0	112.74	0
110.14	0	112.79	0
110.19	0	112.84	0
110.24	0	112.89	0
110.29	0	112.94	0
110.34	0	112.99	0
110.39	0	113.04	0
110.44	0	113.09	0
110.49	0	113.14	0
110.54	0		
110.59	0		
110.64	0		
110.69	0		
110.74	0		
110.79	0		
110.84	0		
110.89	0		
110.94	0		
110.99	0		
111.04	0		
111.09	0		
111.14	0		
111.19	0		
111.24	0		
111.29	0		
111.34	0		
111.39	0		
111.44	0		
111.49	0		
111.54	0		
111.59	0		
111.64	0		
111.69	0		
111.74	0		
111.79	0		
111.84	0		
111.89	0		
111.94	0		
111.99	0		
112.04	0		
112.09	0		
112.14	0		
112.19	0		
112.24	0		
112.29	0		
112.34	0		
112.39	0		
112.44	0		
112.49	0		
112.54	0		

Summary for Pond 15P: PR CB #4

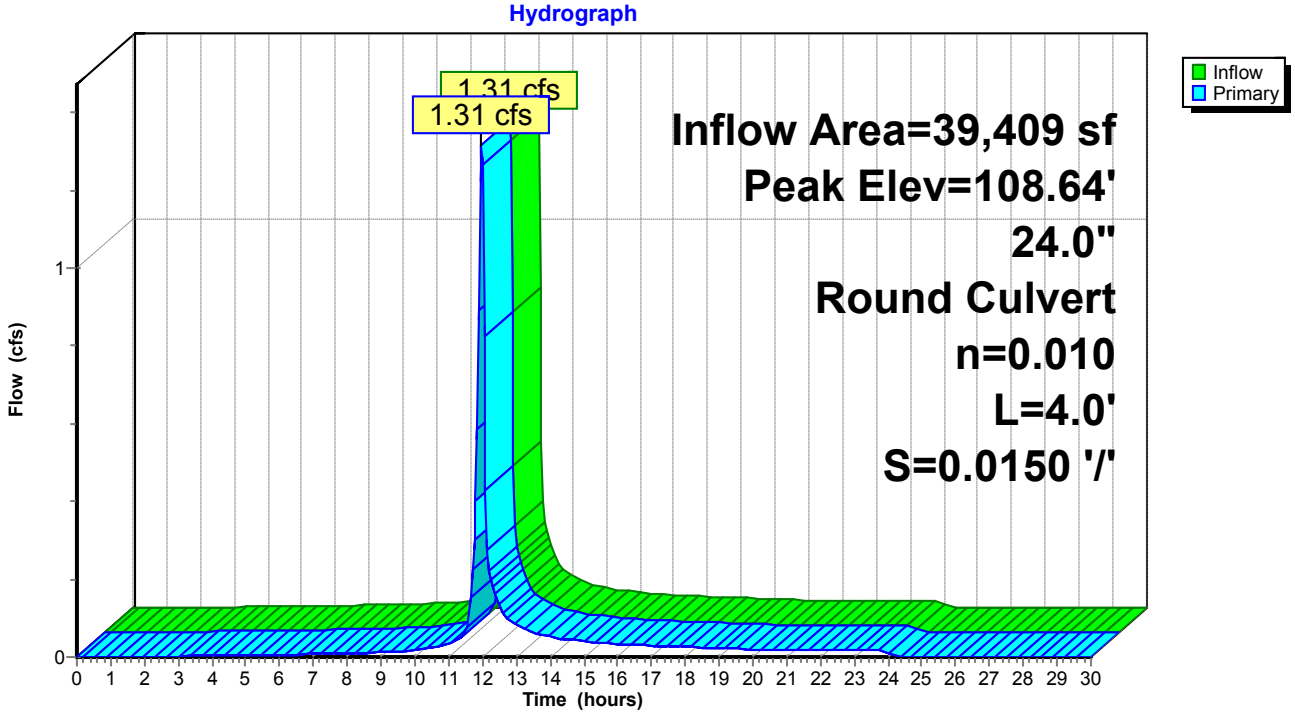
Inflow Area = 39,409 sf, 64.10% Impervious, Inflow Depth = 0.95" for 1-YEAR event
Inflow = 1.31 cfs @ 11.98 hrs, Volume= 3,108 cf
Outflow = 1.31 cfs @ 11.98 hrs, Volume= 3,108 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.31 cfs @ 11.98 hrs, Volume= 3,108 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 108.64' @ 11.98 hrs
Flood Elev= 113.22'

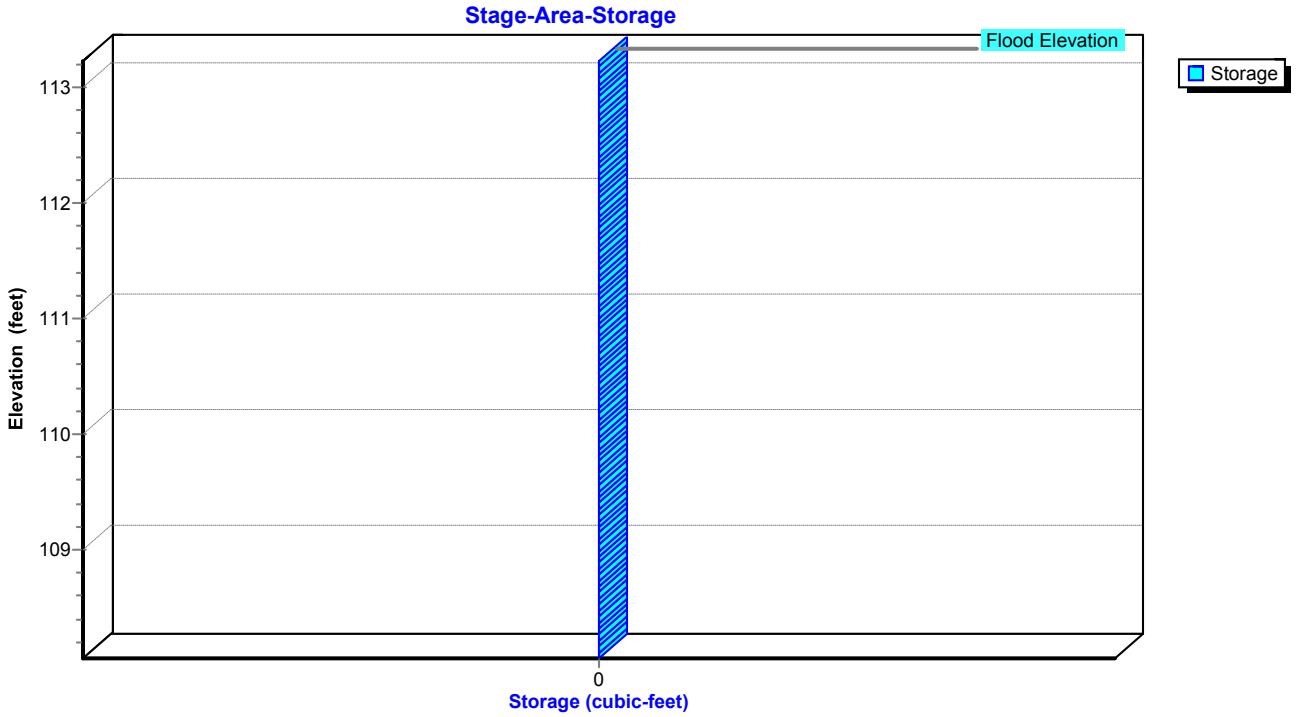
Device	Routing	Invert	Outlet Devices
#1	Primary	108.06'	**24.0" Round Culvert** L= 4.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.06' / 108.00' S= 0.0150 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=1.26 cfs @ 11.98 hrs HW=108.63' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.26 cfs @ 2.57 fps)

Pond 15P: PR CB #4



Pond 15P: PR CB #4



Stage-Area-Storage for Pond 15P: PR CB #4

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
108.06	**0**	110.18	0	112.30	0
108.10	0	110.22	0	112.34	0
108.14	0	110.26	0	112.38	0
108.18	0	110.30	0	112.42	0
108.22	0	110.34	0	112.46	0
108.26	0	110.38	0	112.50	0
108.30	0	110.42	0	112.54	0
108.34	0	110.46	0	112.58	0
108.38	0	110.50	0	112.62	0
108.42	0	110.54	0	112.66	0
108.46	0	110.58	0	112.70	0
108.50	0	110.62	0	112.74	0
108.54	0	110.66	0	112.78	0
108.58	0	110.70	0	112.82	0
108.62	0	110.74	0	112.86	0
108.66	0	110.78	0	112.90	0
108.70	0	110.82	0	112.94	0
108.74	0	110.86	0	112.98	0
108.78	0	110.90	0	113.02	0
108.82	0	110.94	0	113.06	0
108.86	0	110.98	0	113.10	0
108.90	0	111.02	0	113.14	0
108.94	0	111.06	0	113.18	0
108.98	0	111.10	0	113.22	0
109.02	0	111.14	0		
109.06	0	111.18	0		
109.10	0	111.22	0		
109.14	0	111.26	0		
109.18	0	111.30	0		
109.22	0	111.34	0		
109.26	0	111.38	0		
109.30	0	111.42	0		
109.34	0	111.46	0		
109.38	0	111.50	0		
109.42	0	111.54	0		
109.46	0	111.58	0		
109.50	0	111.62	0		
109.54	0	111.66	0		
109.58	0	111.70	0		
109.62	0	111.74	0		
109.66	0	111.78	0		
109.70	0	111.82	0		
109.74	0	111.86	0		
109.78	0	111.90	0		
109.82	0	111.94	0		
109.86	0	111.98	0		
109.90	0	112.02	0		
109.94	0	112.06	0		
109.98	0	112.10	0		
110.02	0	112.14	0		
110.06	0	112.18	0		
110.10	0	112.22	0		
110.14	0	112.26	0		

Summary for Pond 17P: UGC-2

Inflow Area = 39,409 sf, 64.10% Impervious, Inflow Depth = 0.95" for 1-YEAR event
Inflow = 1.31 cfs @ 11.98 hrs, Volume= 3,108 cf
Outflow = 1.21 cfs @ 11.98 hrs, Volume= 3,108 cf, Atten= 8%, Lag= 0.0 min
Discarded = 1.21 cfs @ 11.98 hrs, Volume= 3,108 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 107.08' @ 12.00 hrs Surf.Area= 1,609 sf Storage= 54 cf

Plug-Flow detention time= 0.5 min calculated for 3,103 cf (100% of inflow)
Center-of-Mass det. time= 0.5 min (816.6 - 816.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	107.00'	2,478 cf	**22.92'W x 70.23'L x 5.75'H Field A** 9,254 cf Overall - 3,058 cf Embedded = 6,196 cf x 40.0% Voids
#2A	108.00'	3,058 cf	**ADS_StormTech MC-3500 d +Cap** x 27 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 3 Rows of 9 Chambers Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
		5,537 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	107.00'	**31.400 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.17 cfs @ 11.98 hrs HW=107.07' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 1.17 cfs)

Pond 17P: UGC-2 - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-3500 d +Cap (ADS StormTech® MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf

77.0" Wide + 10.0" Spacing = 87.0" C-C Row Spacing

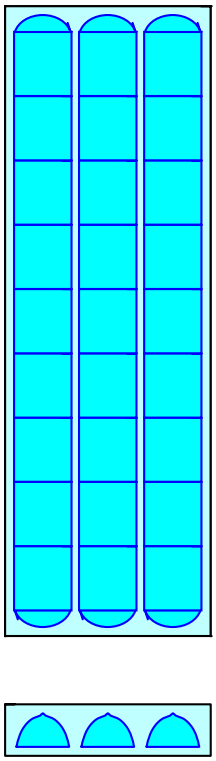
9 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 68.23' Row Length +12.0" End Stone x 2 = 70.23' Base Length
3 Rows x 77.0" Wide + 10.0" Spacing x 2 + 12.0" Side Stone x 2 = 22.92' Base Width
12.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.75' Field Height

27 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 3 Rows = 3,058.1 cf Chamber Storage

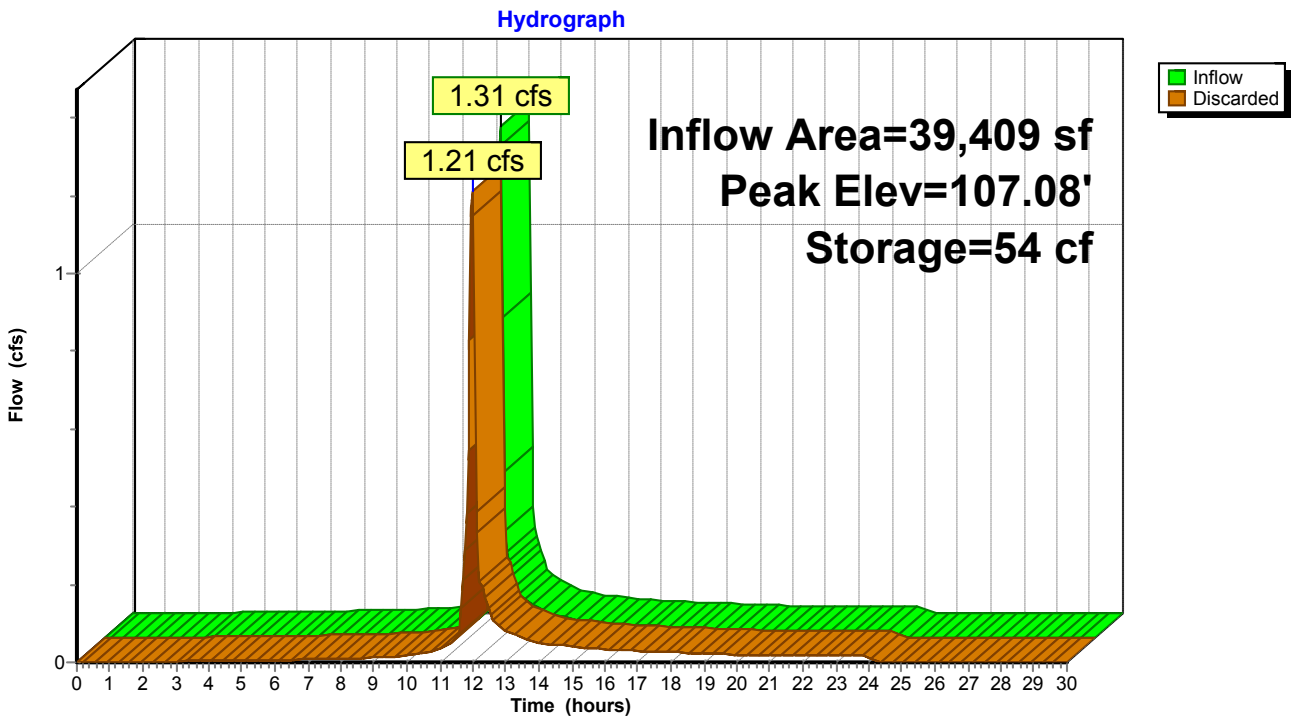
9,254.3 cf Field - 3,058.1 cf Chambers = 6,196.2 cf Stone x 40.0% Voids = 2,478.5 cf Stone Storage

Chamber Storage + Stone Storage = 5,536.6 cf = 0.127 af
Overall Storage Efficiency = 59.8%
Overall System Size = 70.23' x 22.92' x 5.75'

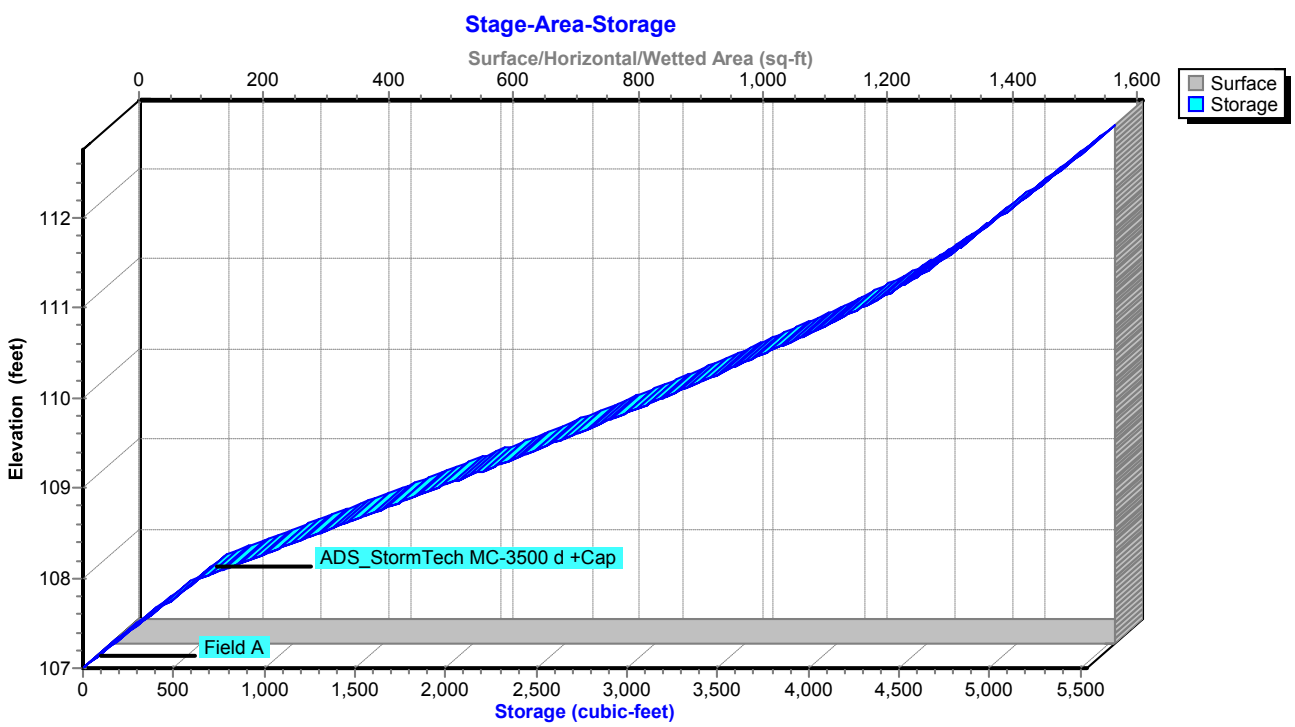
27 Chambers
342.8 cy Field
229.5 cy Stone



Pond 17P: UGC-2



Pond 17P: UGC-2



Stage-Area-Storage for Pond 17P: UGC-2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
107.00	**1,609**	0
107.10	1,609	64
107.20	1,609	129
107.30	1,609	193
107.40	1,609	258
107.50	1,609	322
107.60	1,609	386
107.70	1,609	451
107.80	1,609	515
107.90	1,609	579
108.00	1,609	644
108.10	1,609	778
108.20	1,609	912
108.30	1,609	1,046
108.40	1,609	1,178
108.50	1,609	1,311
108.60	1,609	1,443
108.70	1,609	1,574
108.80	1,609	1,704
108.90	1,609	1,834
109.00	1,609	1,963
109.10	1,609	2,092
109.20	1,609	2,219
109.30	1,609	2,346
109.40	1,609	2,472
109.50	1,609	2,597
109.60	1,609	2,720
109.70	1,609	2,843
109.80	1,609	2,965
109.90	1,609	3,085
110.00	1,609	3,204
110.10	1,609	3,321
110.20	1,609	3,437
110.30	1,609	3,551
110.40	1,609	3,664
110.50	1,609	3,775
110.60	1,609	3,884
110.70	1,609	3,990
110.80	1,609	4,094
110.90	1,609	4,196
111.00	1,609	4,295
111.10	1,609	4,390
111.20	1,609	4,482
111.30	1,609	4,569
111.40	1,609	4,649
111.50	1,609	4,723
111.60	1,609	4,793
111.70	1,609	4,860
111.80	1,609	4,925
111.90	1,609	4,989
112.00	1,609	5,054
112.10	1,609	5,118
112.20	1,609	5,182
112.30	1,609	5,247
112.40	1,609	5,311
112.50	1,609	5,376
112.60	1,609	5,440
112.70	1,609	**5,504**

Summary for Pond DP-3: DP-3

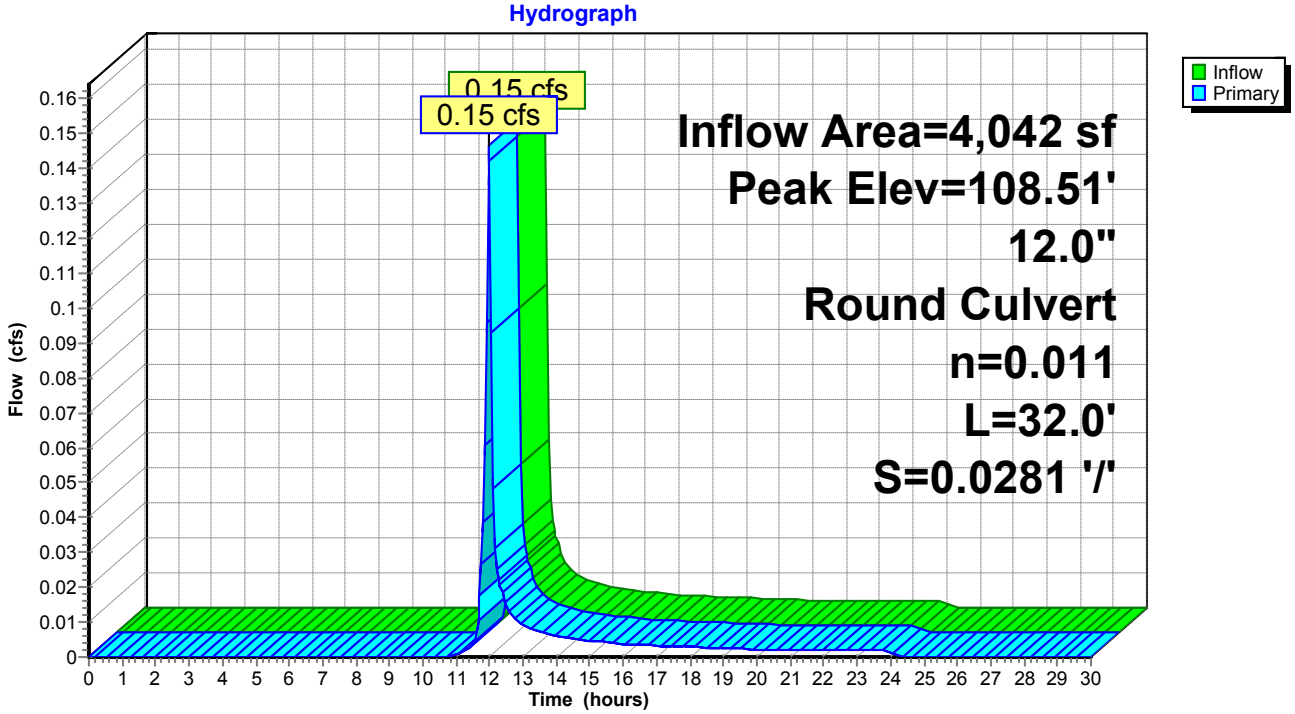
Inflow Area = 4,042 sf, 67.84% Impervious, Inflow Depth = 0.91" for 1-YEAR event
Inflow = 0.15 cfs @ 11.98 hrs, Volume= 307 cf
Outflow = 0.15 cfs @ 11.98 hrs, Volume= 307 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.15 cfs @ 11.98 hrs, Volume= 307 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 108.51' @ 11.98 hrs
Flood Elev= 112.38'

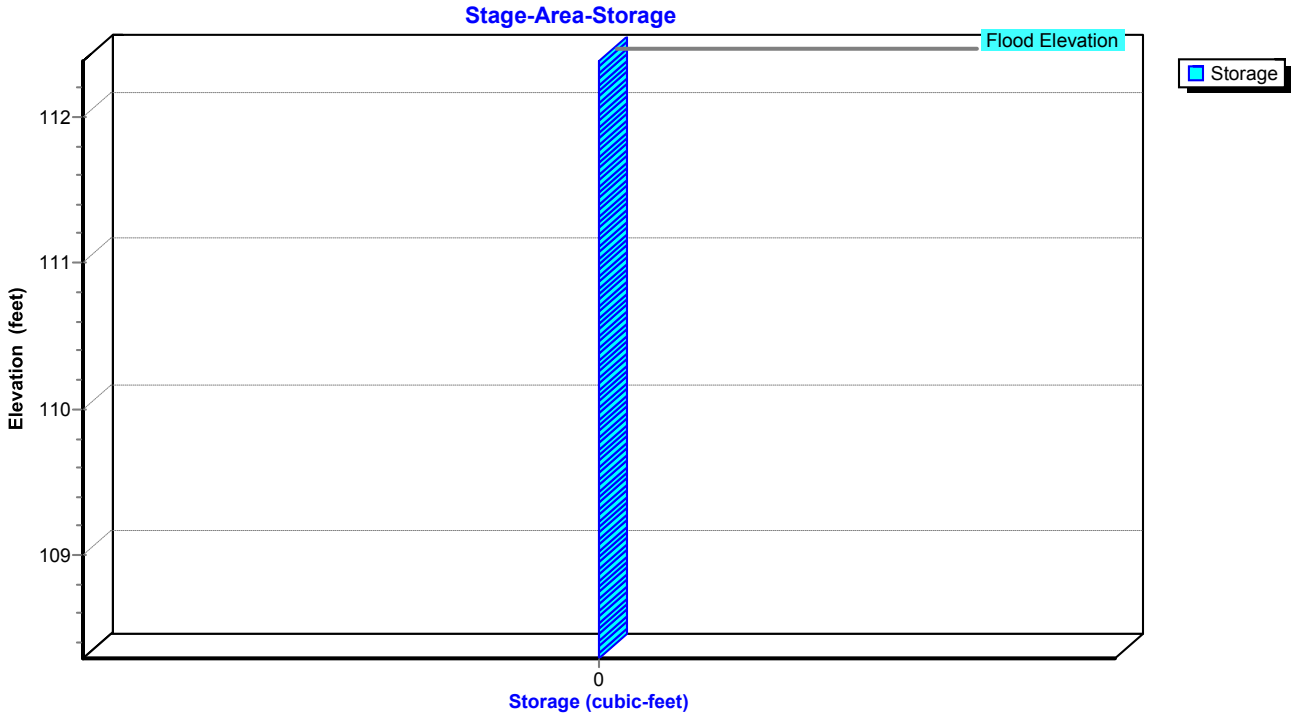
Device	Routing	Invert	Outlet Devices
#1	Primary	108.30'	**12.0" Round Culvert** L= 32.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 107.40' S= 0.0281 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=0.14 cfs @ 11.98 hrs HW=108.50' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.14 cfs @ 1.21 fps)

Pond DP-3: DP-3



Pond DP-3: DP-3


Stage-Area-Storage
Flood Elevation
Storage
112
111
110
109
Elevation (feet)
0
Storage (cubic-feet)

Stage-Area-Storage for Pond DP-3: DP-3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
108.30	**0**	110.95	0
108.35	0	111.00	0
108.40	0	111.05	0
108.45	0	111.10	0
108.50	0	111.15	0
108.55	0	111.20	0
108.60	0	111.25	0
108.65	0	111.30	0
108.70	0	111.35	0
108.75	0	111.40	0
108.80	0	111.45	0
108.85	0	111.50	0
108.90	0	111.55	0
108.95	0	111.60	0
109.00	0	111.65	0
109.05	0	111.70	0
109.10	0	111.75	0
109.15	0	111.80	0
109.20	0	111.85	0
109.25	0	111.90	0
109.30	0	111.95	0
109.35	0	112.00	0
109.40	0	112.05	0
109.45	0	112.10	0
109.50	0	112.15	0
109.55	0	112.20	0
109.60	0	112.25	0
109.65	0	112.30	0
109.70	0	112.35	0
109.75	0		
109.80	0		
109.85	0		
109.90	0		
109.95	0		
110.00	0		
110.05	0		
110.10	0		
110.15	0		
110.20	0		
110.25	0		
110.30	0		
110.35	0		
110.40	0		
110.45	0		
110.50	0		
110.55	0		
110.60	0		
110.65	0		
110.70	0		
110.75	0		
110.80	0		
110.85	0		
110.90	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=33,352 sf 61.72% Impervious Runoff Depth=1.31"
Tc=6.0 min CN=79 Runoff=1.74 cfs 3,632 cf

Subcatchment DA-10: DA-10 Runoff Area=4,891 sf 100.00% Impervious Runoff Depth=2.93"
Tc=6.0 min CN=98 Runoff=0.49 cfs 1,193 cf

Subcatchment DA-11: DA-11 Runoff Area=3,220 sf 100.00% Impervious Runoff Depth=2.93"
Tc=6.0 min CN=98 Runoff=0.32 cfs 786 cf

Subcatchment DA-2: DA-2 Runoff Area=5,279 sf 65.56% Impervious Runoff Depth=1.24"
Tc=6.0 min CN=78 Runoff=0.26 cfs 547 cf

Subcatchment DA-3: DA-3 Runoff Area=4,042 sf 67.84% Impervious Runoff Depth=1.31"
Tc=6.0 min CN=79 Runoff=0.21 cfs 440 cf

Subcatchment DA-4: DA-4 Runoff Area=21,677 sf 48.09% Impervious Runoff Depth=0.67"
Tc=6.0 min CN=67 Runoff=0.54 cfs 1,203 cf

Subcatchment DA-5: DA-5 Runoff Area=4,633 sf 67.65% Impervious Runoff Depth=1.31"
Tc=6.0 min CN=79 Runoff=0.24 cfs 505 cf

Subcatchment DA-6: DA-6 Runoff Area=5,259 sf 73.44% Impervious Runoff Depth=1.51"
Tc=6.0 min CN=82 Runoff=0.31 cfs 660 cf

Subcatchment DA-7: DA-7 Runoff Area=6,429 sf 78.05% Impervious Runoff Depth=1.72"
Tc=6.0 min CN=85 Runoff=0.44 cfs 923 cf

Subcatchment DA-8: DA-8 Runoff Area=8,036 sf 62.98% Impervious Runoff Depth=1.12"
Tc=6.0 min CN=76 Runoff=0.36 cfs 753 cf

Subcatchment DA-9: DA-9 Runoff Area=4,620 sf 100.00% Impervious Runoff Depth=2.93"
Tc=6.0 min CN=98 Runoff=0.46 cfs 1,127 cf

Reach DP-1: DP-1 Inflow=1.74 cfs 3,632 cf
Outflow=1.74 cfs 3,632 cf

Reach DP-4: DP-4 Inflow=0.36 cfs 753 cf
Outflow=0.36 cfs 753 cf

Pond 1P: PR CB#5 Peak Elev=112.23' Inflow=0.26 cfs 547 cf
18.0" Round Culvert n=0.012 L=45.0' S=0.0100 '/' Outflow=0.26 cfs 547 cf

Pond 9P: PR CB #1 Peak Elev=110.56' Inflow=0.92 cfs 2,117 cf
12.0" Round Culvert n=0.010 L=23.0' S=0.0100 '/' Outflow=0.92 cfs 2,117 cf

Pond 10P: UGC-1 Peak Elev=109.00' Storage=586 cf Inflow=0.92 cfs 2,117 cf
Outflow=0.17 cfs 2,117 cf

Pond 11P: PR CB #2 Peak Elev=110.51' Inflow=0.63 cfs 1,446 cf
12.0" Round Culvert n=0.010 L=10.0' S=0.0100 '/' Outflow=0.63 cfs 1,446 cf

Pond 13P: PR CB #3 Peak Elev=110.49' Inflow=0.87 cfs 1,950 cf
12.0" Round Culvert n=0.010 L=88.0' S=0.0100 '/' Outflow=0.87 cfs 1,950 cf

Pond 15P: PR CB #4 Peak Elev=108.77' Inflow=1.86 cfs 4,281 cf
24.0" Round Culvert n=0.010 L=4.0' S=0.0150 '/' Outflow=1.86 cfs 4,281 cf

Pond 17P: UGC-2 Peak Elev=107.42' Storage=273 cf Inflow=1.86 cfs 4,281 cf
Outflow=1.17 cfs 4,281 cf

Pond DP-3: DP-3 Peak Elev=108.55' Inflow=0.21 cfs 440 cf
12.0" Round Culvert n=0.011 L=32.0' S=0.0281 '/' Outflow=0.21 cfs 440 cf

Total Runoff Area = 101,438 sf Runoff Volume = 11,770 cf Average Runoff Depth = 1.39"
33.93% Pervious = 34,420 sf 66.07% Impervious = 67,018 sf

Summary for Subcatchment DA-1: DA-1

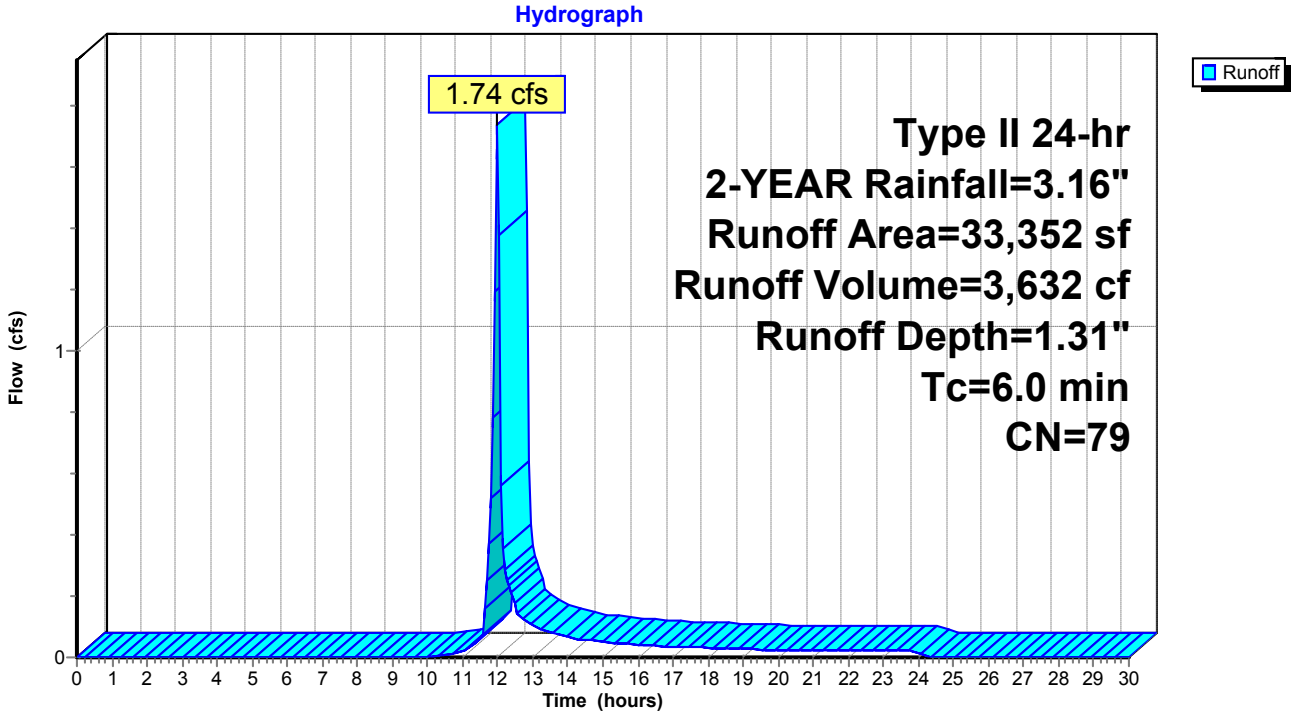
Runoff = 1.74 cfs @ 11.98 hrs, Volume= 3,632 cf, Depth= 1.31"

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
12,767	49	50-75% Grass cover, Fair, HSG A
20,585	98	Paved parking, HSG A
33,352	79	Weighted Average
12,767		38.28% Pervious Area
20,585		61.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

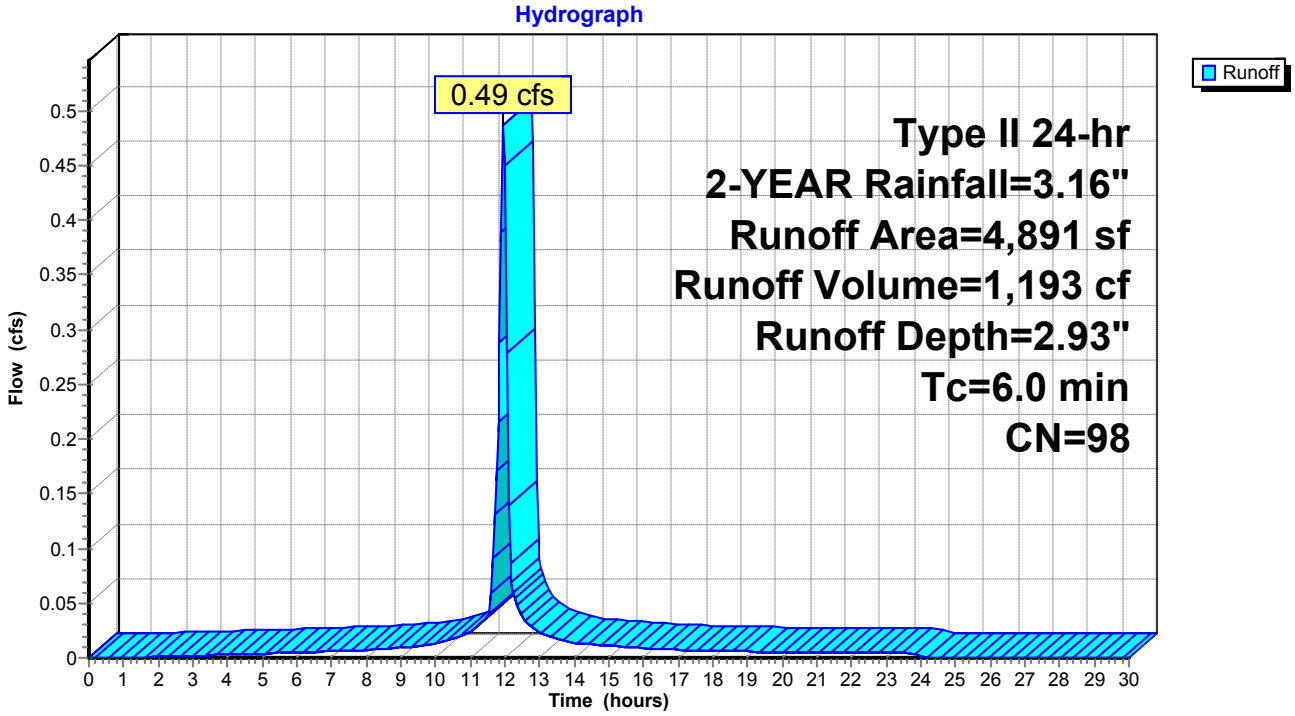
Runoff = 0.49 cfs @ 11.96 hrs, Volume= 1,193 cf, Depth= 2.93"

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
4,891	98	Roofs, HSG A
4,891		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

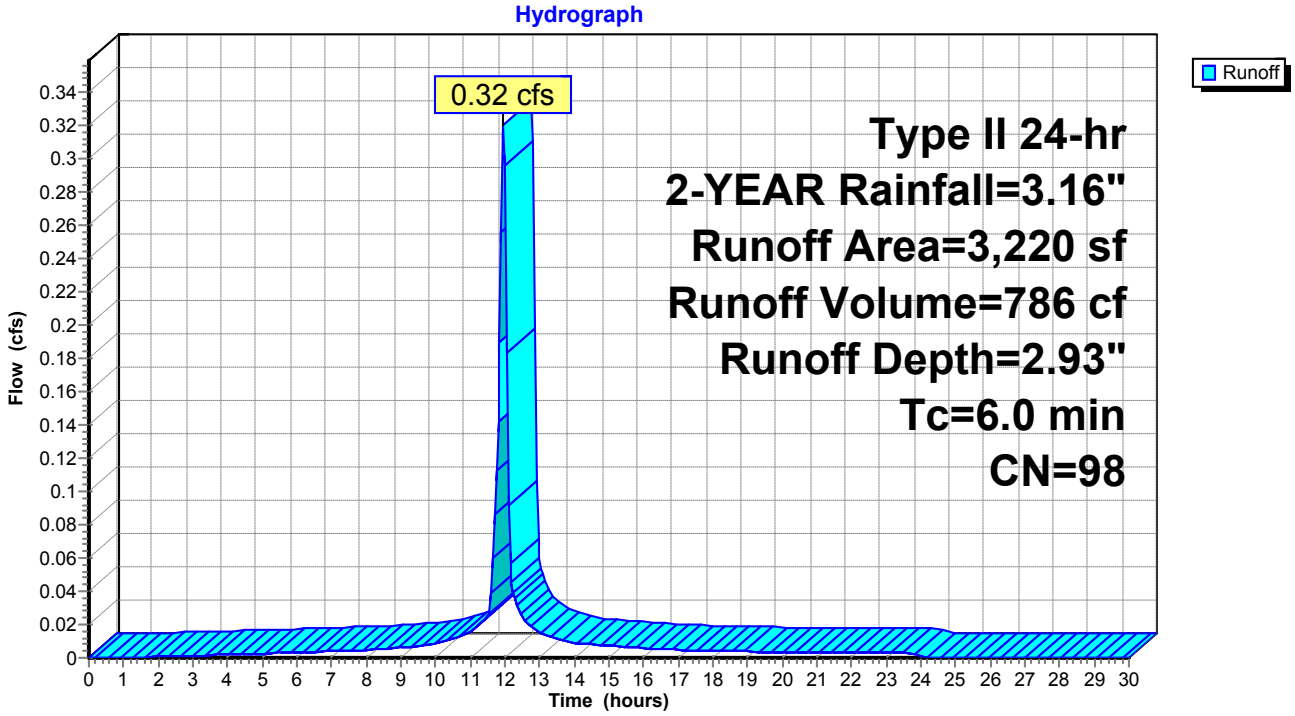
Runoff = 0.32 cfs @ 11.96 hrs, Volume= 786 cf, Depth= 2.93"

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
3,220	98	Roofs, HSG A
3,220		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-2: DA-2

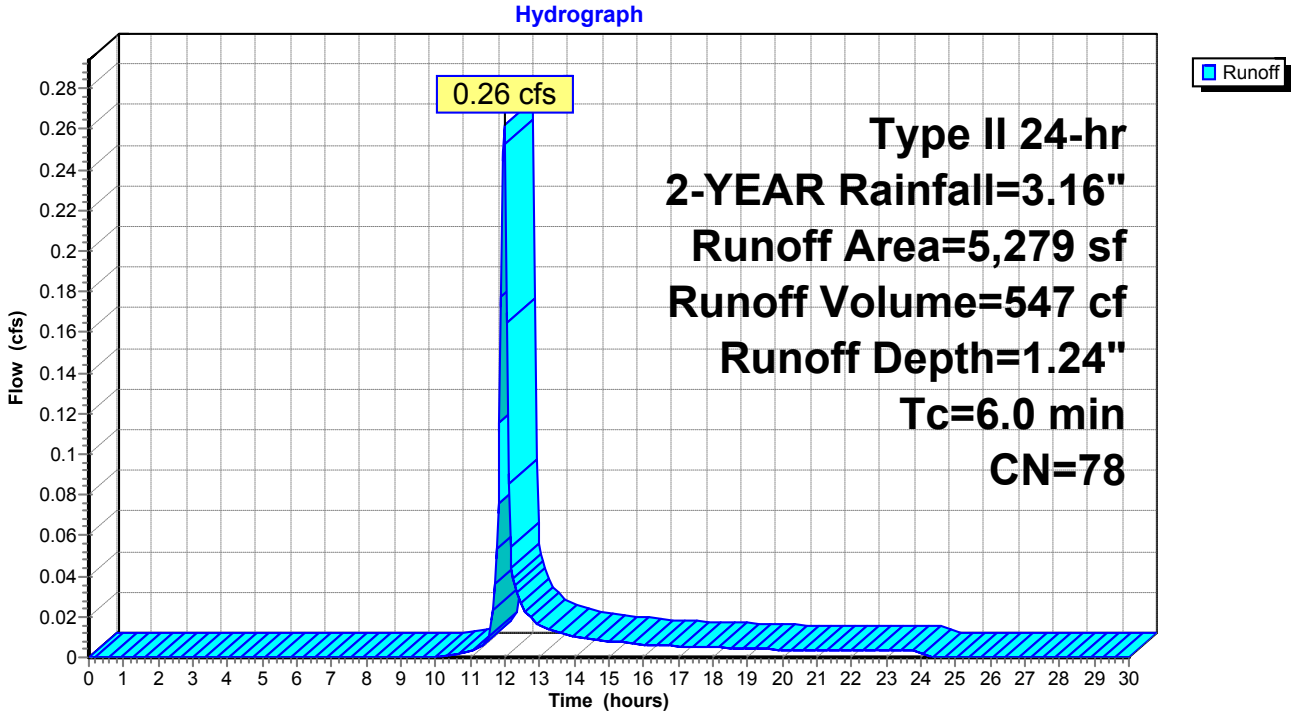
Runoff = 0.26 cfs @ 11.98 hrs, Volume= 547 cf, Depth= 1.24"

Runoff 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
1,818	39	>75% Grass cover, Good, HSG A
3,461	98	Paved parking, HSG A
5,279	78	Weighted Average
1,818		34.44% Pervious Area
3,461		65.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

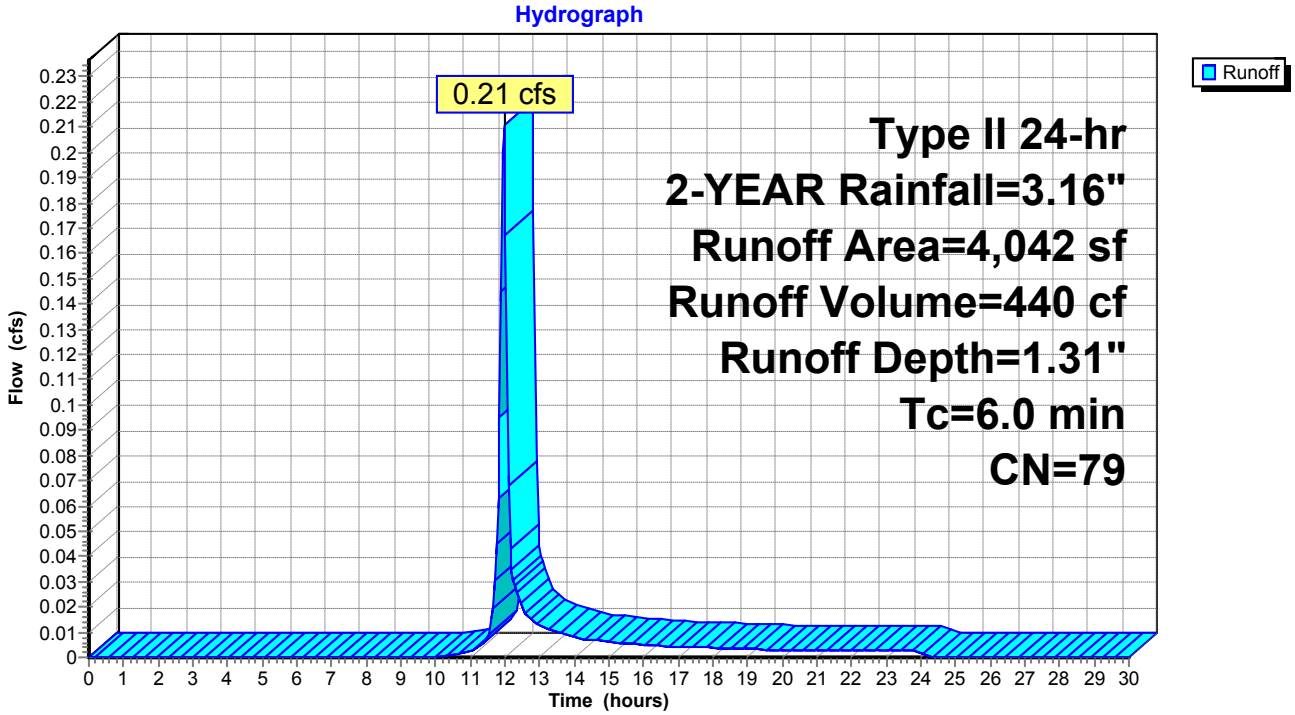
Runoff = 0.21 cfs @ 11.98 hrs, Volume= 440 cf, Depth= 1.31"

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
1,300	39	>75% Grass cover, Good, HSG A
2,742	98	Paved parking, HSG A
4,042	79	Weighted Average
1,300		32.16% Pervious Area
2,742		67.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

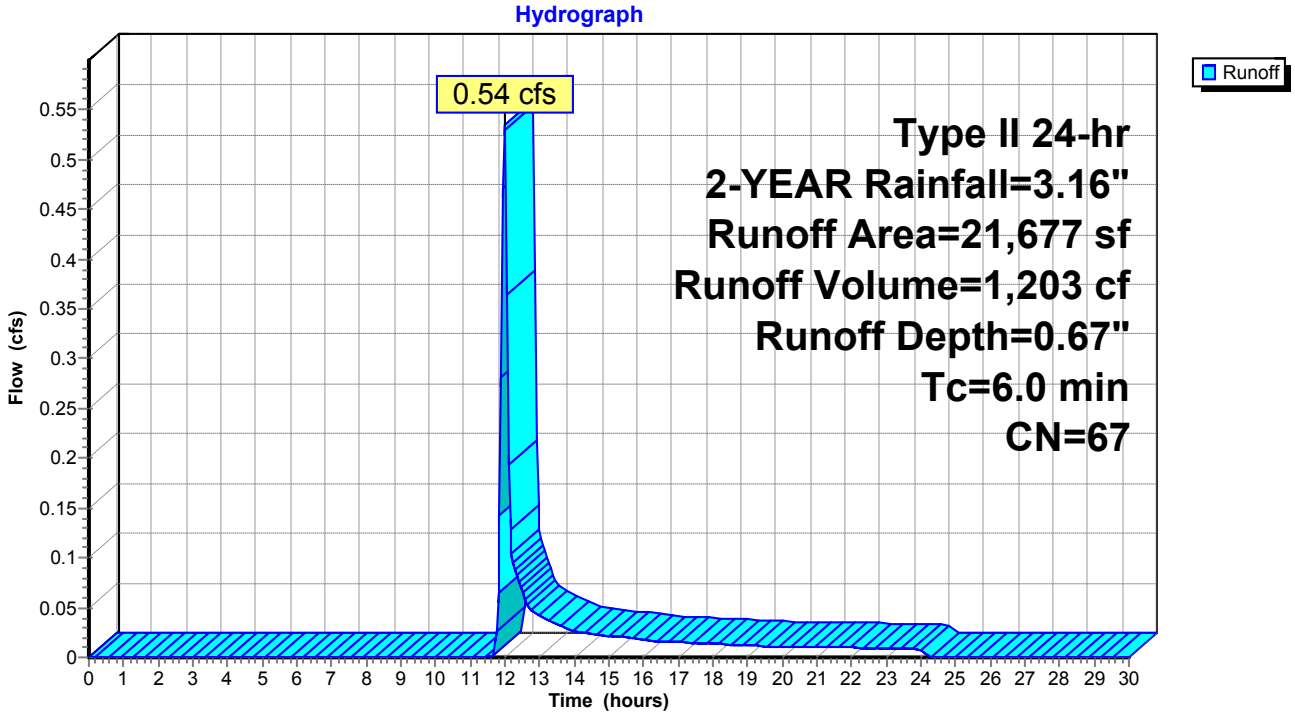
Runoff = 0.54 cfs @ 11.99 hrs, Volume= 1,203 cf, Depth= 0.67"

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 2-YEAR Rainfall=3.16"

Area (sf)	CN	Description
11,253	39	>75% Grass cover, Good, HSG A
10,424	98	Paved parking, HSG A
21,677	67	Weighted Average
11,253		51.91% Pervious Area
10,424		48.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-4: DA-4



Summary for Subcatchment DA-5: DA-5

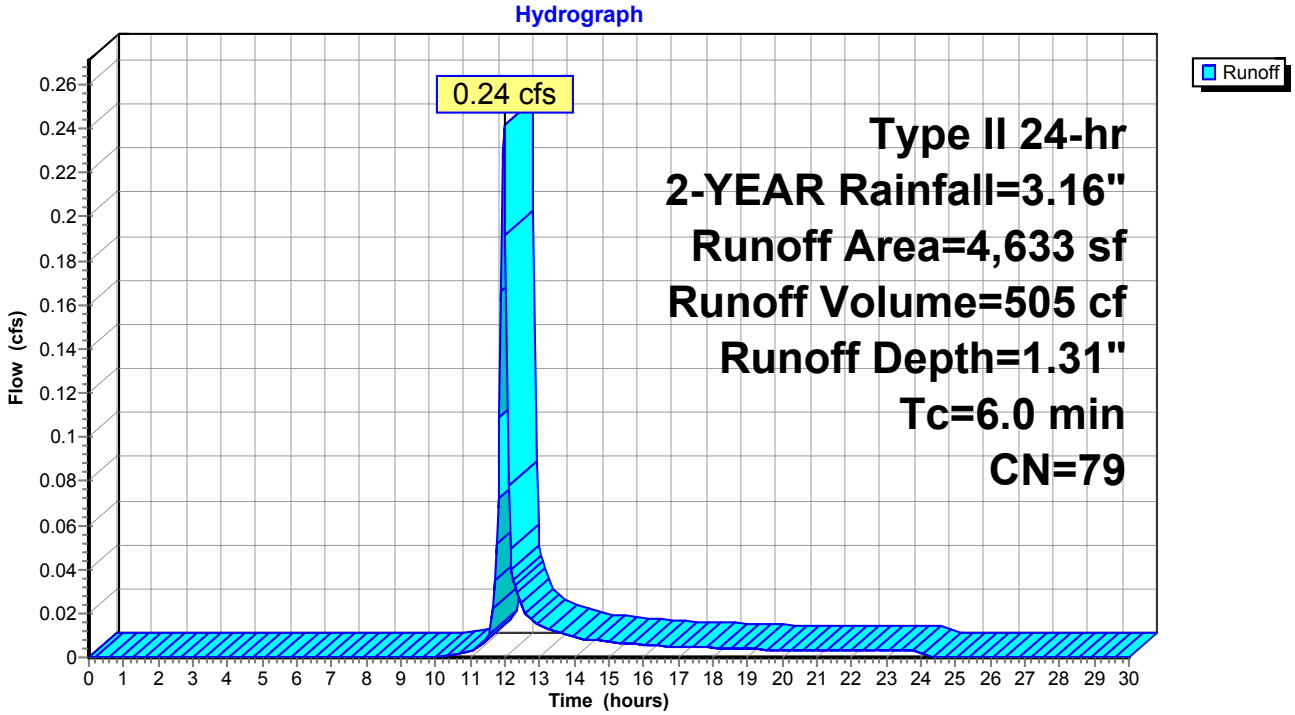
Runoff = 0.24 cfs @ 11.98 hrs, Volume= 505 cf, Depth= 1.31"

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
1,499	39	>75% Grass cover, Good, HSG A
3,134	98	Paved parking, HSG A
4,633	79	Weighted Average
1,499		32.35% Pervious Area
3,134		67.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-5: DA-5



Summary for Subcatchment DA-6: DA-6

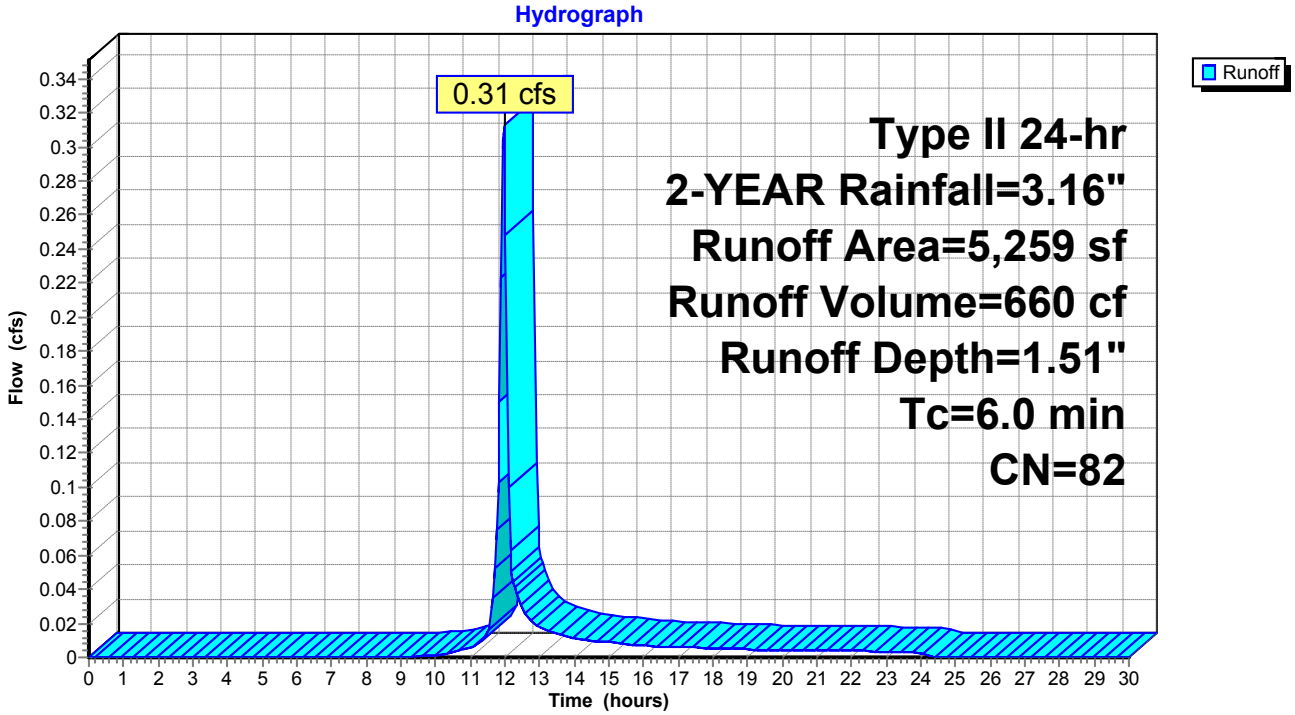
Runoff = 0.31 cfs @ 11.97 hrs, Volume= 660 cf, Depth= 1.51"

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
1,397	39	>75% Grass cover, Good, HSG A
3,862	98	Paved parking, HSG A
5,259	82	Weighted Average
1,397		26.56% Pervious Area
3,862		73.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

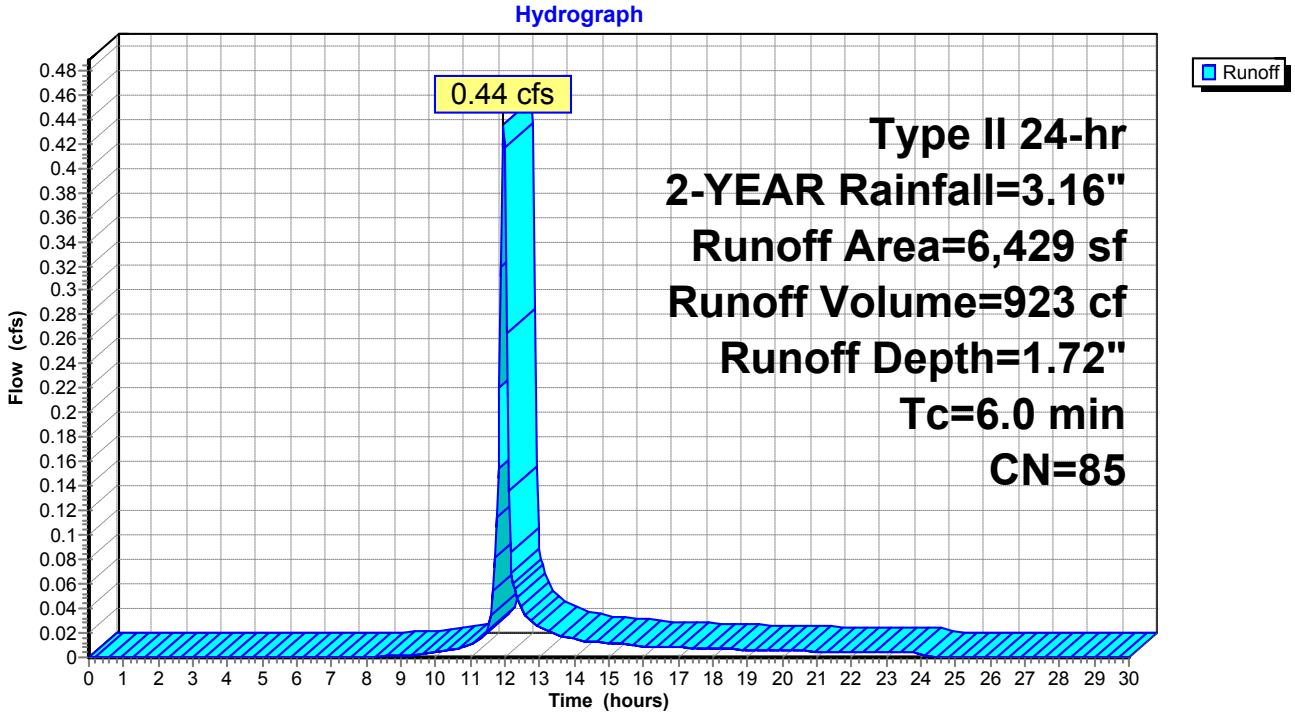
Runoff = 0.44 cfs @ 11.97 hrs, Volume= 923 cf, Depth= 1.72"

Runoff 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
1,411	39	>75% Grass cover, Good, HSG A
5,018	98	Paved parking, HSG A
6,429	85	Weighted Average
1,411		21.95% Pervious Area
5,018		78.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

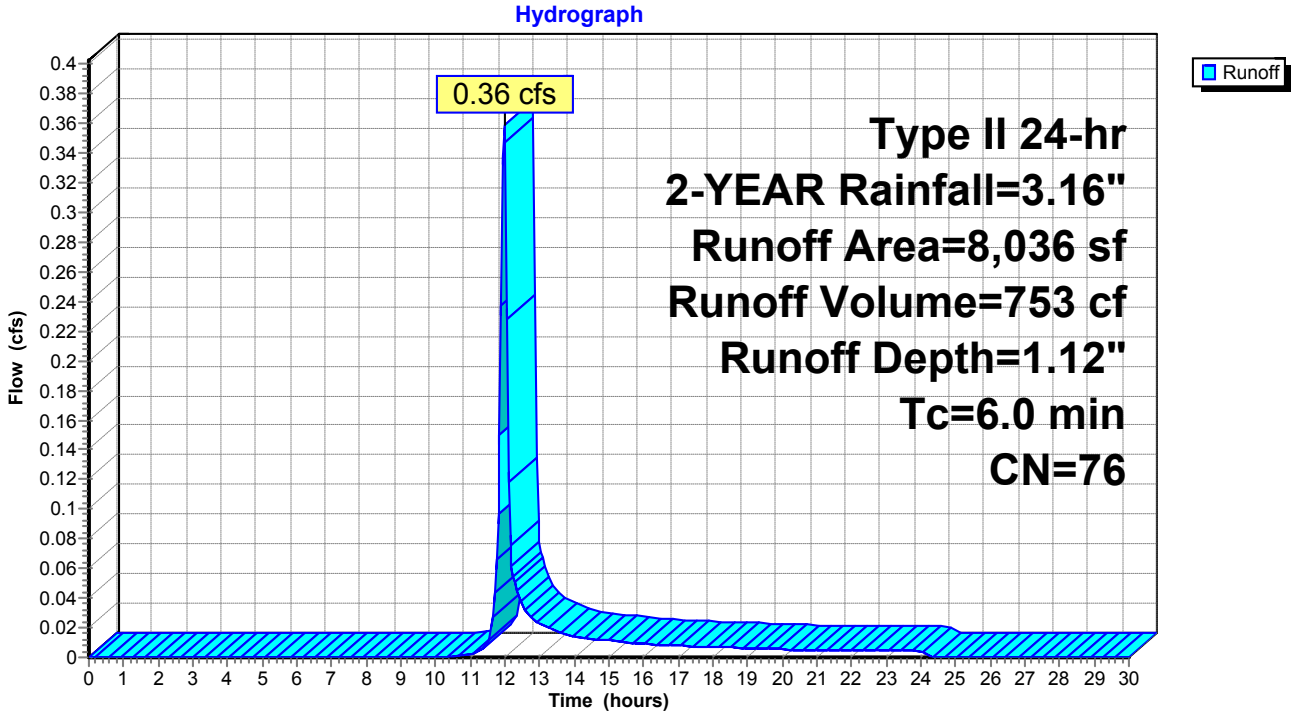
Runoff = 0.36 cfs @ 11.98 hrs, Volume= 753 cf, Depth= 1.12"

Runoff 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
2,975	39	>75% Grass cover, Good, HSG A
5,061	98	Paved parking, HSG A
8,036	76	Weighted Average
2,975		37.02% Pervious Area
5,061		62.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DA-9

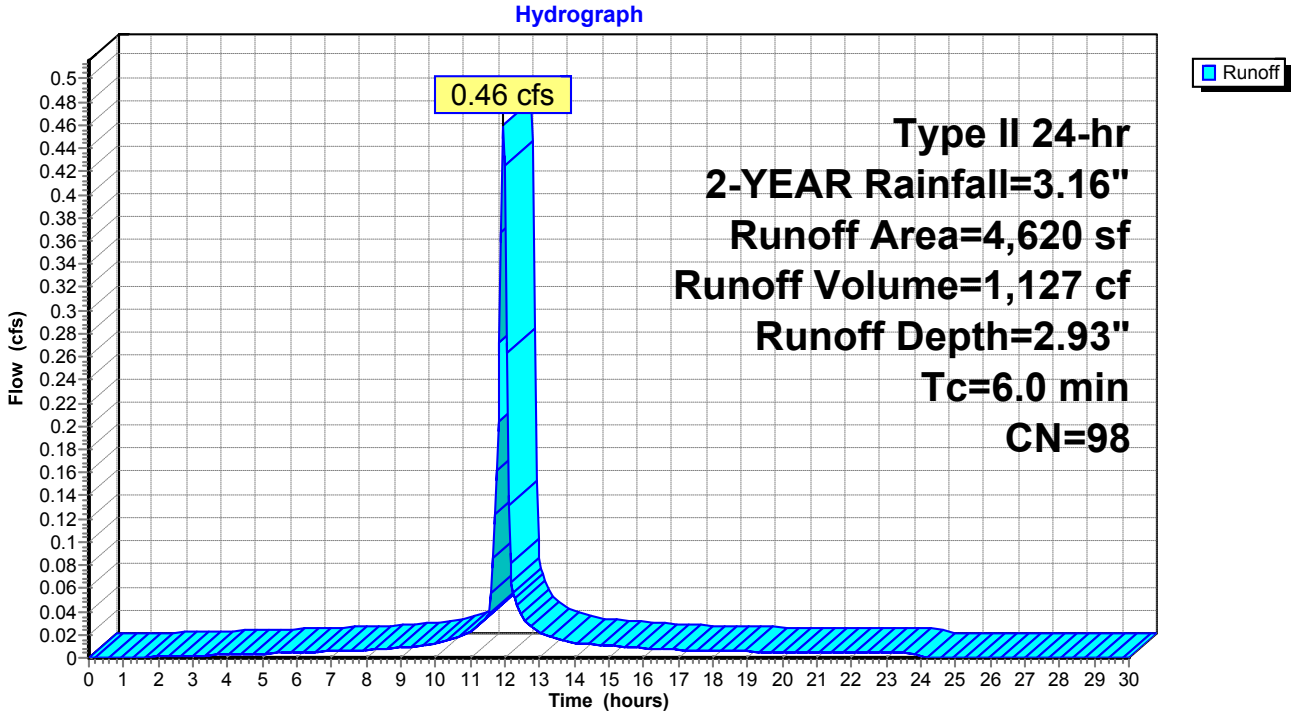
Runoff = 0.46 cfs @ 11.96 hrs, Volume= 1,127 cf, Depth= 2.93"

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
4,620	98	Roofs, HSG A
4,620		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-9: DA-9

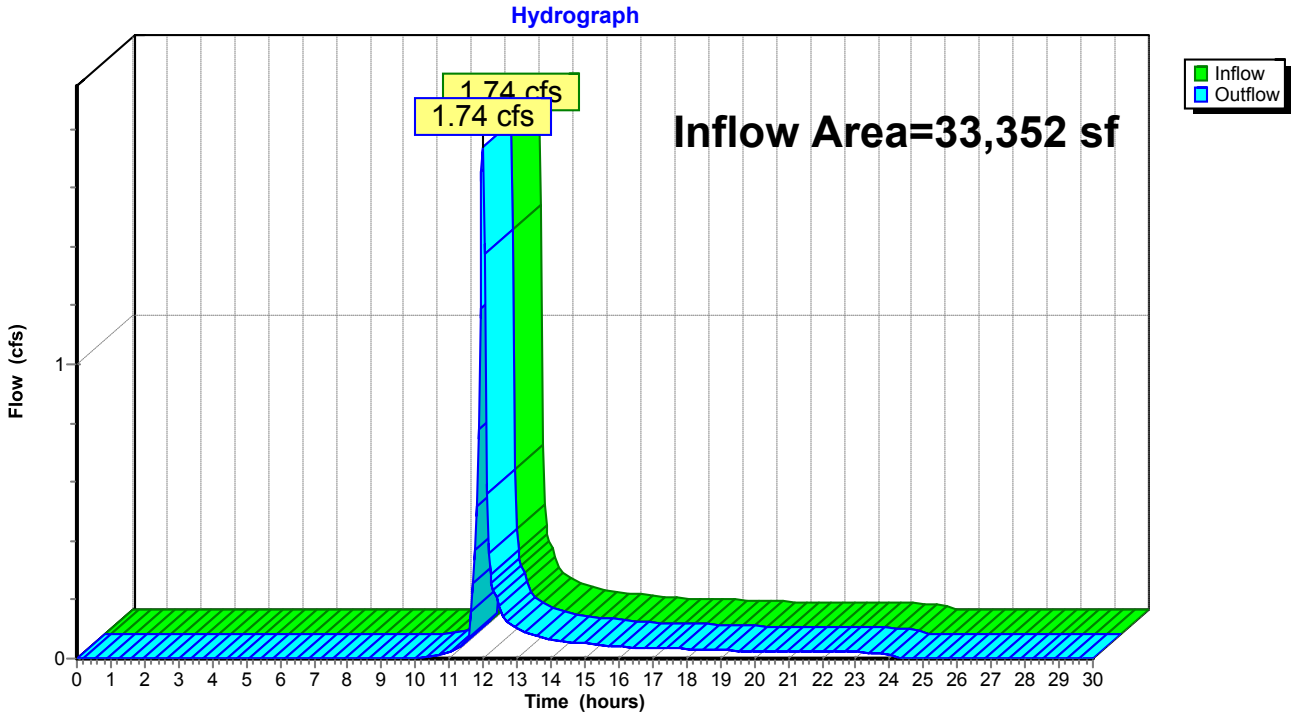


Summary for Reach DP-1: DP-1

Inflow Area = 33,352 sf, 61.72% Impervious, Inflow Depth = 1.31" for 2-YEAR event
Inflow = 1.74 cfs @ 11.98 hrs, Volume= 3,632 cf
Outflow = 1.74 cfs @ 11.98 hrs, Volume= 3,632 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-1: DP-1

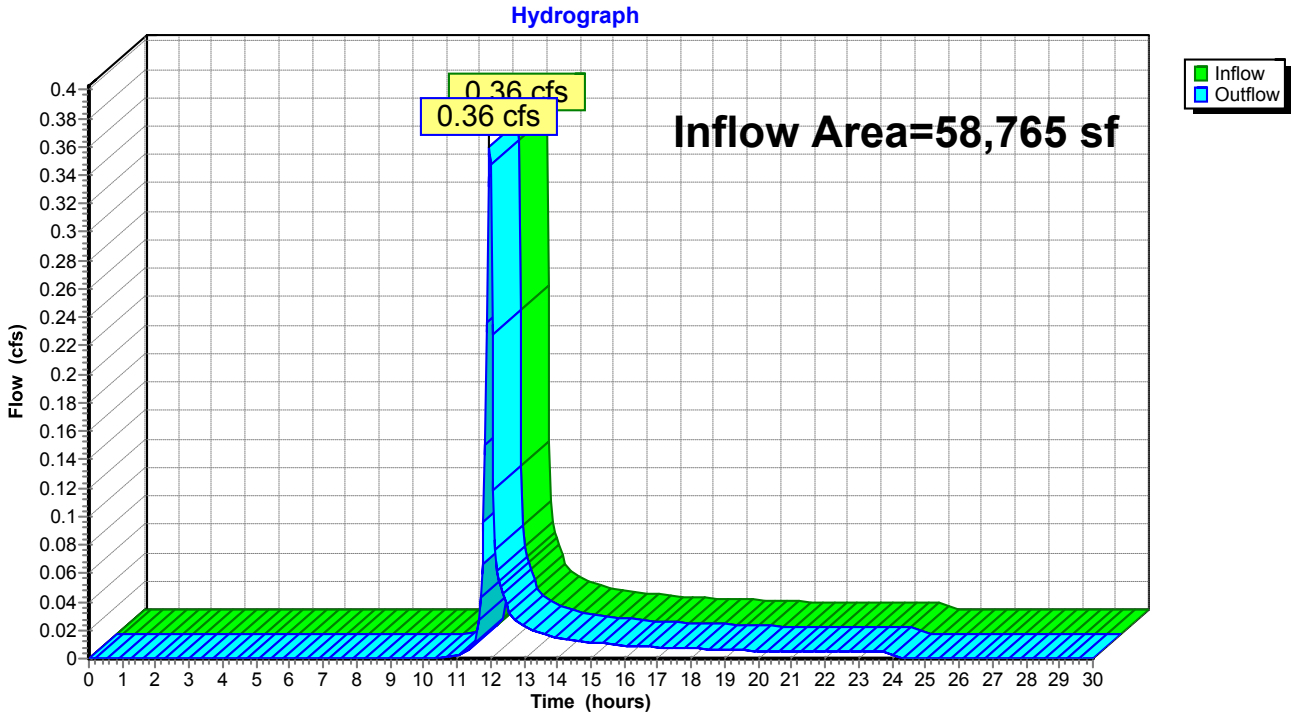


Summary for Reach DP-4: DP-4

Inflow Area = 58,765 sf, 68.46% Impervious, Inflow Depth = 0.15" for 2-YEAR event
Inflow = 0.36 cfs @ 11.98 hrs, Volume= 753 cf
Outflow = 0.36 cfs @ 11.98 hrs, Volume= 753 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-4: DP-4



Summary for Pond 1P: PR CB#5

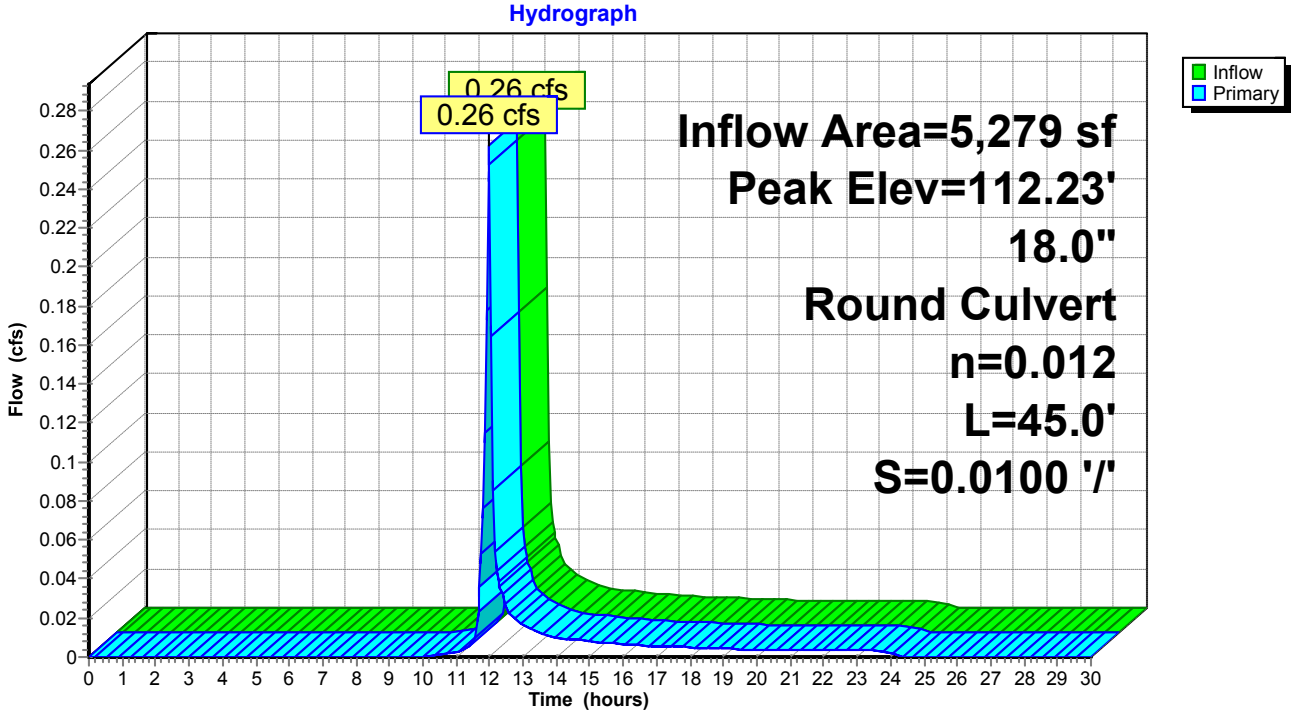
Inflow Area = 5,279 sf, 65.56% Impervious, Inflow Depth = 1.24" for 2-YEAR event
Inflow = 0.26 cfs @ 11.98 hrs, Volume= 547 cf
Outflow = 0.26 cfs @ 11.98 hrs, Volume= 547 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.26 cfs @ 11.98 hrs, Volume= 547 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 112.23' @ 11.98 hrs
Flood Elev= 114.98'

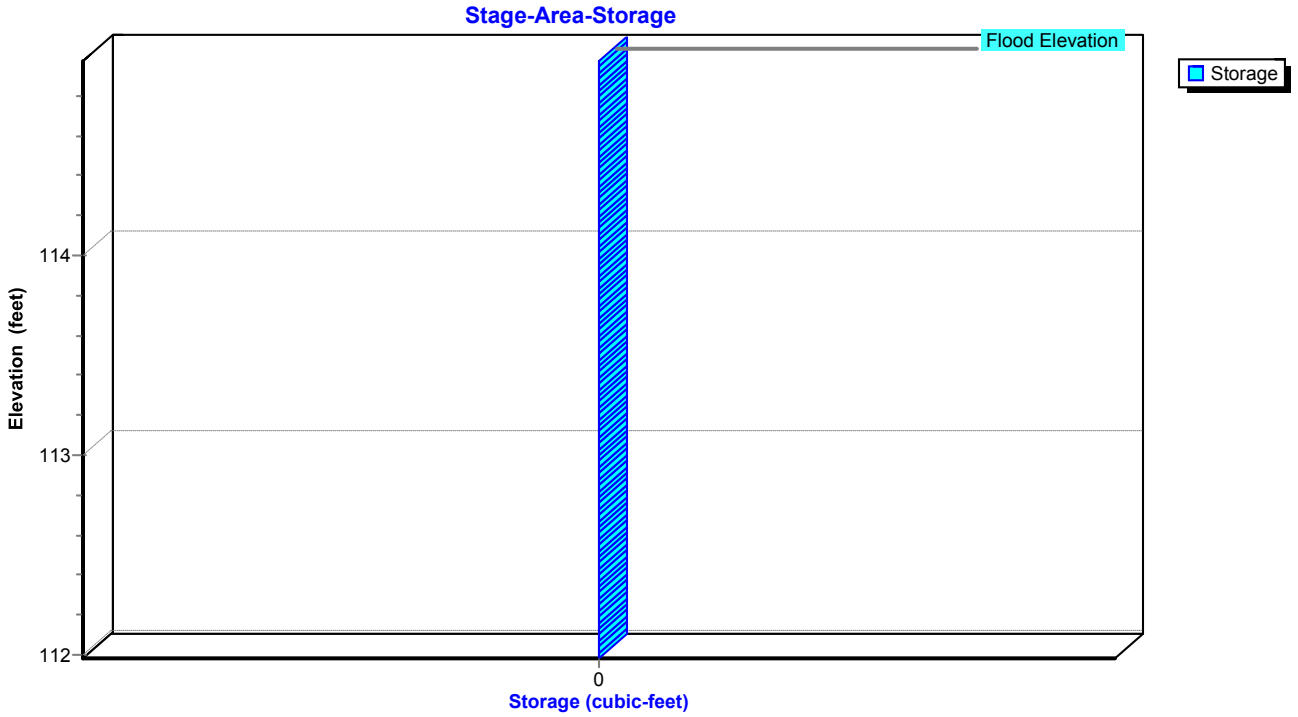
Device	Routing	Invert	Outlet Devices
#1	Primary	111.98'	**18.0" Round Culvert** L= 45.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 111.98' / 111.53' S= 0.0100 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=0.25 cfs @ 11.98 hrs HW=112.23' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.25 cfs @ 1.33 fps)

Pond 1P: PR CB#5



Pond 1P: PR CB#5



Stage-Area-Storage for Pond 1P: PR CB#5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
111.98	**0**	113.04	0	114.10	0
112.00	0	113.06	0	114.12	0
112.02	0	113.08	0	114.14	0
112.04	0	113.10	0	114.16	0
112.06	0	113.12	0	114.18	0
112.08	0	113.14	0	114.20	0
112.10	0	113.16	0	114.22	0
112.12	0	113.18	0	114.24	0
112.14	0	113.20	0	114.26	0
112.16	0	113.22	0	114.28	0
112.18	0	113.24	0	114.30	0
112.20	0	113.26	0	114.32	0
112.22	0	113.28	0	114.34	0
112.24	0	113.30	0	114.36	0
112.26	0	113.32	0	114.38	0
112.28	0	113.34	0	114.40	0
112.30	0	113.36	0	114.42	0
112.32	0	113.38	0	114.44	0
112.34	0	113.40	0	114.46	0
112.36	0	113.42	0	114.48	0
112.38	0	113.44	0	114.50	0
112.40	0	113.46	0	114.52	0
112.42	0	113.48	0	114.54	0
112.44	0	113.50	0	114.56	0
112.46	0	113.52	0	114.58	0
112.48	0	113.54	0	114.60	0
112.50	0	113.56	0	114.62	0
112.52	0	113.58	0	114.64	0
112.54	0	113.60	0	114.66	0
112.56	0	113.62	0	114.68	0
112.58	0	113.64	0	114.70	0
112.60	0	113.66	0	114.72	0
112.62	0	113.68	0	114.74	0
112.64	0	113.70	0	114.76	0
112.66	0	113.72	0	114.78	0
112.68	0	113.74	0	114.80	0
112.70	0	113.76	0	114.82	0
112.72	0	113.78	0	114.84	0
112.74	0	113.80	0	114.86	0
112.76	0	113.82	0	114.88	0
112.78	0	113.84	0	114.90	0
112.80	0	113.86	0	114.92	0
112.82	0	113.88	0	114.94	0
112.84	0	113.90	0	114.96	0
112.86	0	113.92	0	114.98	0
112.88	0	113.94	0		
112.90	0	113.96	0		
112.92	0	113.98	0		
112.94	0	114.00	0		
112.96	0	114.02	0		
112.98	0	114.04	0		
113.00	0	114.06	0		
113.02	0	114.08	0		

Summary for Pond 9P: PR CB #1

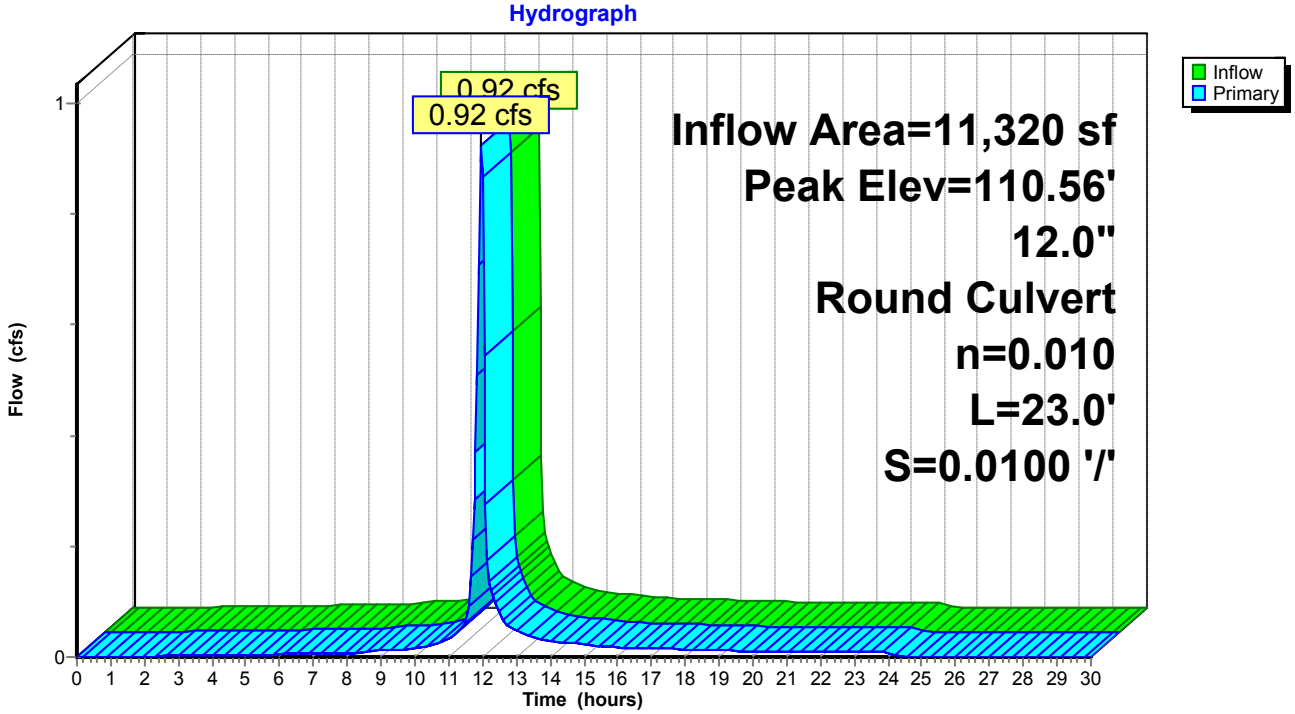
Inflow Area = 11,320 sf, 87.54% Impervious, Inflow Depth = 2.24" for 2-YEAR event
Inflow = 0.92 cfs @ 11.97 hrs, Volume= 2,117 cf
Outflow = 0.92 cfs @ 11.97 hrs, Volume= 2,117 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.92 cfs @ 11.97 hrs, Volume= 2,117 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 110.56' @ 11.97 hrs
Flood Elev= 113.00'

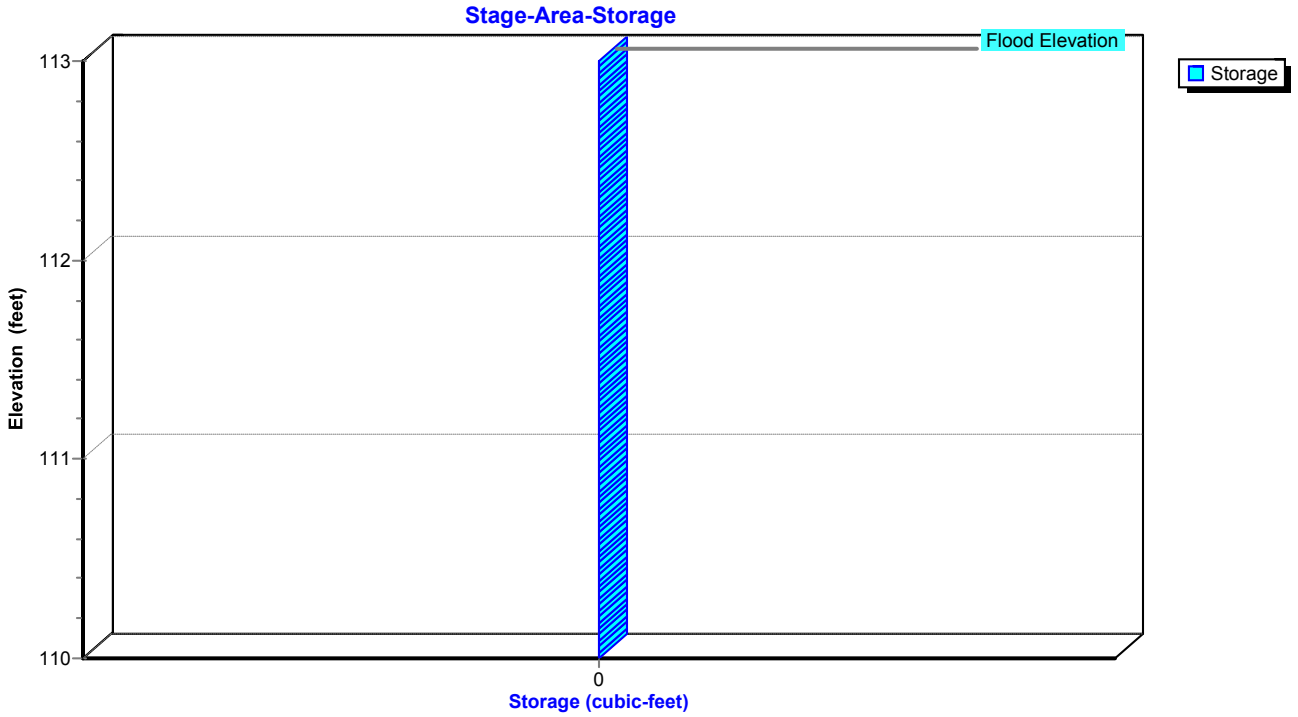
Device	Routing	Invert	Outlet Devices
#1	Primary	110.00'	**12.0" Round Culvert** L= 23.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 110.00' / 109.77' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.90 cfs @ 11.97 hrs HW=110.55' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.90 cfs @ 2.00 fps)

Pond 9P: PR CB #1



Pond 9P: PR CB #1



Stage-Area-Storage for Pond 9P: PR CB #1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
110.00	**0**	111.06	0	112.12	0
110.02	0	111.08	0	112.14	0
110.04	0	111.10	0	112.16	0
110.06	0	111.12	0	112.18	0
110.08	0	111.14	0	112.20	0
110.10	0	111.16	0	112.22	0
110.12	0	111.18	0	112.24	0
110.14	0	111.20	0	112.26	0
110.16	0	111.22	0	112.28	0
110.18	0	111.24	0	112.30	0
110.20	0	111.26	0	112.32	0
110.22	0	111.28	0	112.34	0
110.24	0	111.30	0	112.36	0
110.26	0	111.32	0	112.38	0
110.28	0	111.34	0	112.40	0
110.30	0	111.36	0	112.42	0
110.32	0	111.38	0	112.44	0
110.34	0	111.40	0	112.46	0
110.36	0	111.42	0	112.48	0
110.38	0	111.44	0	112.50	0
110.40	0	111.46	0	112.52	0
110.42	0	111.48	0	112.54	0
110.44	0	111.50	0	112.56	0
110.46	0	111.52	0	112.58	0
110.48	0	111.54	0	112.60	0
110.50	0	111.56	0	112.62	0
110.52	0	111.58	0	112.64	0
110.54	0	111.60	0	112.66	0
110.56	0	111.62	0	112.68	0
110.58	0	111.64	0	112.70	0
110.60	0	111.66	0	112.72	0
110.62	0	111.68	0	112.74	0
110.64	0	111.70	0	112.76	0
110.66	0	111.72	0	112.78	0
110.68	0	111.74	0	112.80	0
110.70	0	111.76	0	112.82	0
110.72	0	111.78	0	112.84	0
110.74	0	111.80	0	112.86	0
110.76	0	111.82	0	112.88	0
110.78	0	111.84	0	112.90	0
110.80	0	111.86	0	112.92	0
110.82	0	111.88	0	112.94	0
110.84	0	111.90	0	112.96	0
110.86	0	111.92	0	112.98	0
110.88	0	111.94	0	113.00	0
110.90	0	111.96	0		
110.92	0	111.98	0		
110.94	0	112.00	0		
110.96	0	112.02	0		
110.98	0	112.04	0		
111.00	0	112.06	0		
111.02	0	112.08	0		
111.04	0	112.10	0		

Summary for Pond 10P: UGC-1

Inflow Area = 11,320 sf, 87.54% Impervious, Inflow Depth = 2.24" for 2-YEAR event
Inflow = 0.92 cfs @ 11.97 hrs, Volume= 2,117 cf
Outflow = 0.17 cfs @ 11.70 hrs, Volume= 2,117 cf, Atten= 82%, Lag= 0.0 min
Discarded = 0.17 cfs @ 11.70 hrs, Volume= 2,117 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 109.00' @ 12.16 hrs Surf.Area= 1,178 sf Storage= 586 cf

Plug-Flow detention time= 19.0 min calculated for 2,113 cf (100% of inflow)
Center-of-Mass det. time= 18.9 min (802.6 - 783.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	108.00'	1,452 cf	**15.75'W x 74.82'L x 4.25'H Field A** 5,008 cf Overall - 1,378 cf Embedded = 3,630 cf x 40.0% Voids
#2A	108.75'	1,378 cf	**ADS_StormTech SC-740 +Cap** x 30 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 3 Rows of 10 Chambers
		2,830 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	108.00'	**6.200 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.17 cfs @ 11.70 hrs HW=108.04' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.17 cfs)

Pond 10P: UGC-1 - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

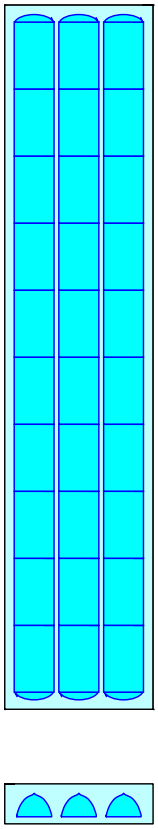
10 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 72.82' Row Length +12.0" End Stone x 2 = 74.82' Base Length
3 Rows x 51.0" Wide + 6.0" Spacing x 2 + 12.0" Side Stone x 2 = 15.75' Base Width
9.0" Base + 30.0" Chamber Height + 12.0" Cover = 4.25' Field Height

30 Chambers x 45.9 cf = 1,378.2 cf Chamber Storage

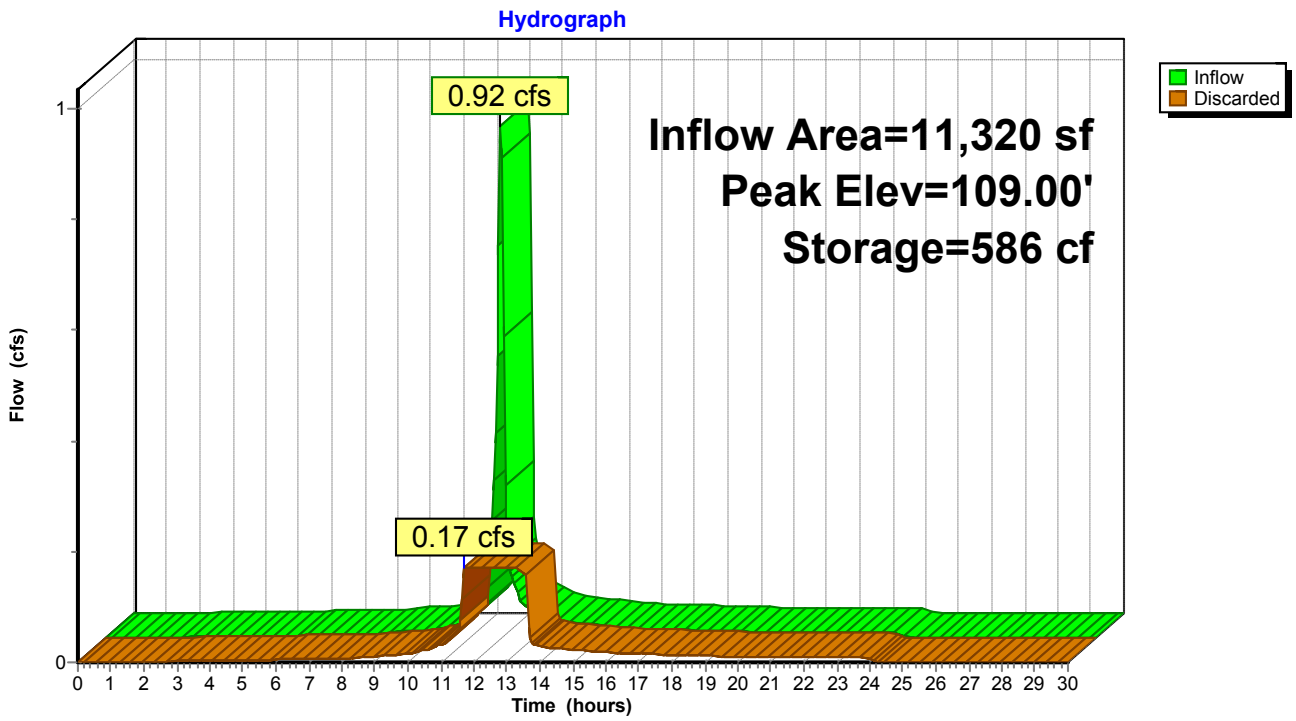
5,008.0 cf Field - 1,378.2 cf Chambers = 3,629.8 cf Stone x 40.0% Voids = 1,451.9 cf Stone Storage

Chamber Storage + Stone Storage = 2,830.1 cf = 0.065 af
Overall Storage Efficiency = 56.5%
Overall System Size = 74.82' x 15.75' x 4.25'

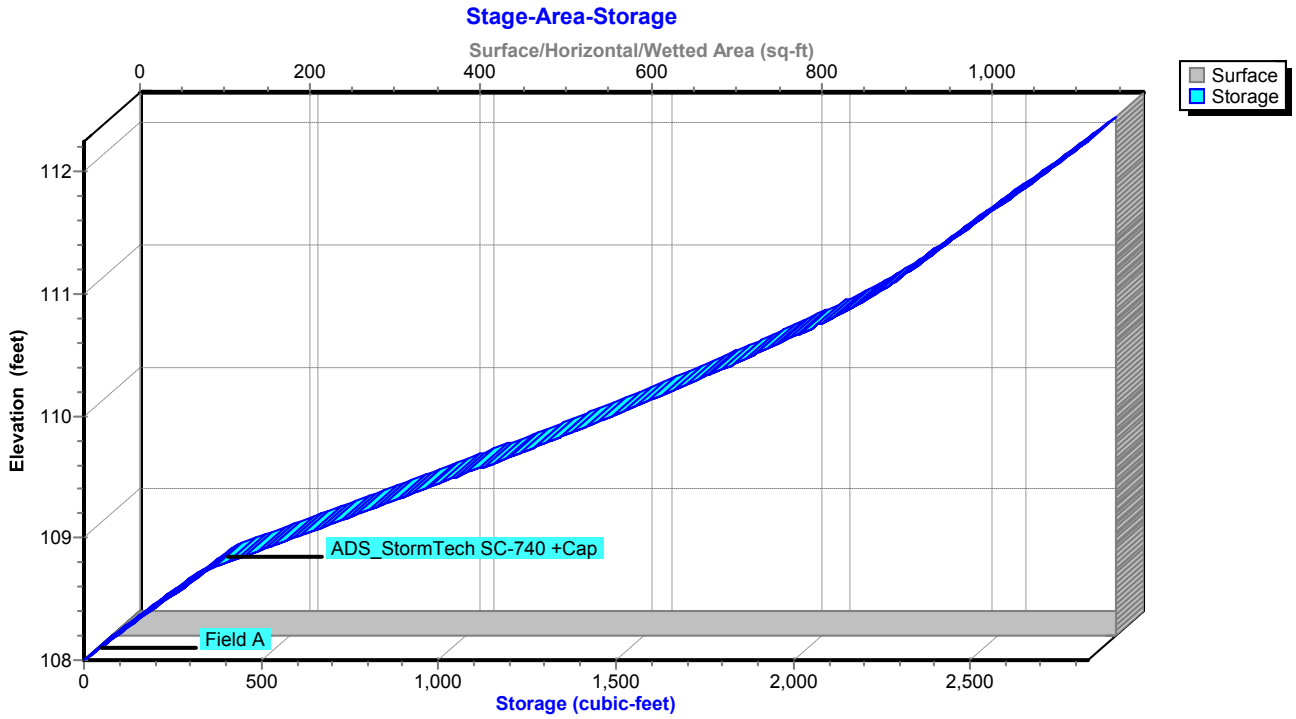
30 Chambers
185.5 cy Field
134.4 cy Stone



Pond 10P: UGC-1



Pond 10P: UGC-1



Stage-Area-Storage for Pond 10P: UGC-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
108.00	**1,178**	0
108.05	1,178	24
108.10	1,178	47
108.15	1,178	71
108.20	1,178	94
108.25	1,178	118
108.30	1,178	141
108.35	1,178	165
108.40	1,178	189
108.45	1,178	212
108.50	1,178	236
108.55	1,178	259
108.60	1,178	283
108.65	1,178	306
108.70	1,178	330
108.75	1,178	354
108.80	1,178	401
108.85	1,178	448
108.90	1,178	496
108.95	1,178	543
109.00	1,178	590
109.05	1,178	637
109.10	1,178	683
109.15	1,178	730
109.20	1,178	776
109.25	1,178	823
109.30	1,178	869
109.35	1,178	915
109.40	1,178	960
109.45	1,178	1,006
109.50	1,178	1,051
109.55	1,178	1,096
109.60	1,178	1,140
109.65	1,178	1,185
109.70	1,178	1,229
109.75	1,178	1,273
109.80	1,178	1,317
109.85	1,178	1,360
109.90	1,178	1,403
109.95	1,178	1,446
110.00	1,178	1,488
110.05	1,178	1,530
110.10	1,178	1,572
110.15	1,178	1,613
110.20	1,178	1,654
110.25	1,178	1,695
110.30	1,178	1,735
110.35	1,178	1,774
110.40	1,178	1,814
110.45	1,178	1,852
110.50	1,178	1,890
110.55	1,178	1,928
110.60	1,178	1,965
110.65	1,178	2,001
110.70	1,178	2,037
110.75	1,178	2,071
110.80	1,178	2,105
110.85	1,178	2,139
110.90	1,178	2,171
110.95	1,178	2,202
111.00	1,178	2,231
111.05	1,178	2,259
111.10	1,178	2,285
111.15	1,178	2,310
111.20	1,178	2,335
111.25	1,178	2,359
111.30	1,178	2,382
111.35	1,178	2,406
111.40	1,178	2,429
111.45	1,178	2,453
111.50	1,178	2,477
111.55	1,178	2,500
111.60	1,178	2,524
111.65	1,178	2,547
111.70	1,178	2,571
111.75	1,178	2,594
111.80	1,178	2,618
111.85	1,178	2,642
111.90	1,178	2,665
111.95	1,178	2,689
112.00	1,178	2,712
112.05	1,178	2,736
112.10	1,178	2,759
112.15	1,178	2,783
112.20	1,178	2,807
112.25	1,178	**2,830**

Summary for Pond 11P: PR CB #2

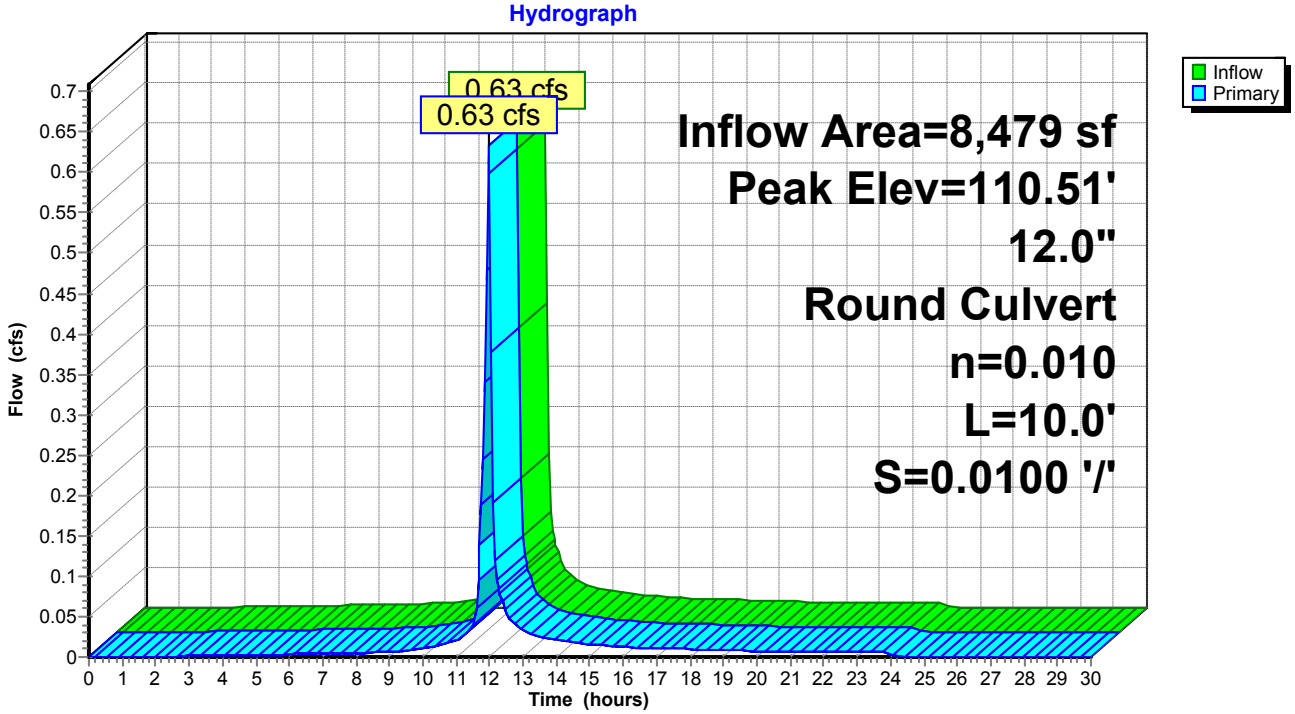
Inflow Area = 8,479 sf, 83.52% Impervious, Inflow Depth = 2.05" for 2-YEAR event
Inflow = 0.63 cfs @ 11.97 hrs, Volume= 1,446 cf
Outflow = 0.63 cfs @ 11.97 hrs, Volume= 1,446 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.63 cfs @ 11.97 hrs, Volume= 1,446 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 110.51' @ 11.97 hrs
Flood Elev= 113.14'

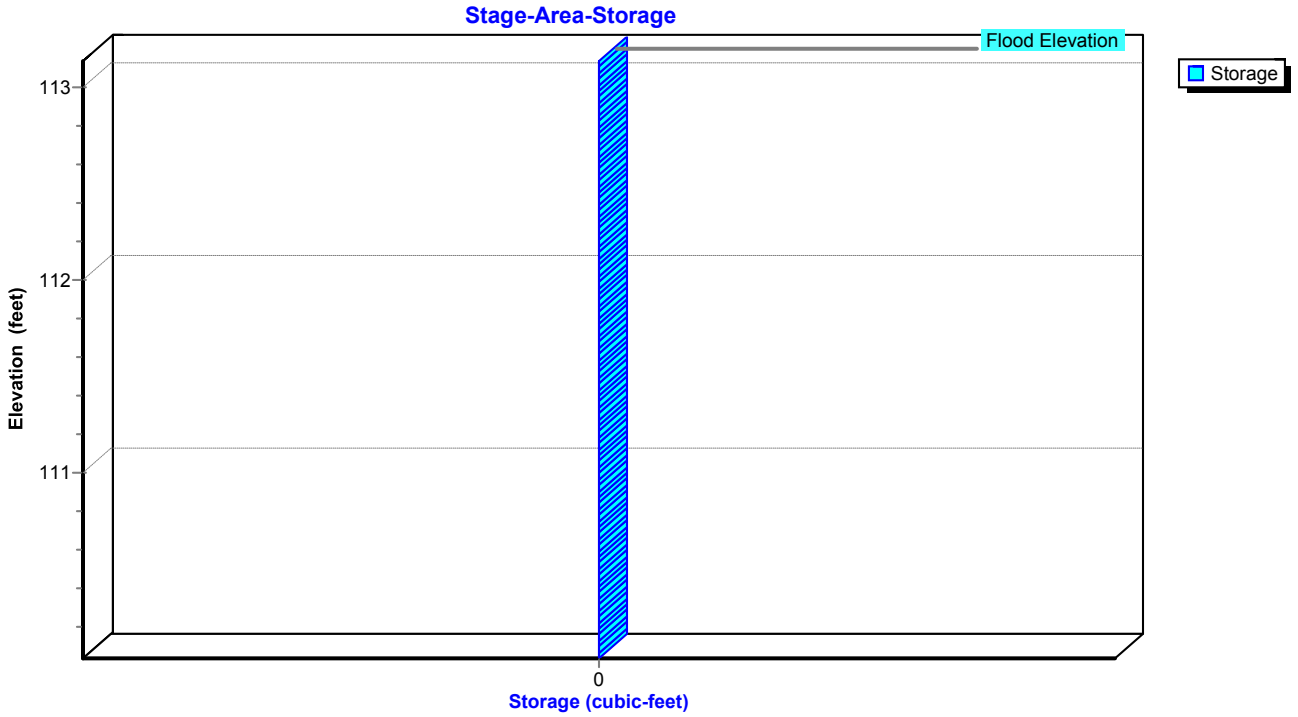
Device	Routing	Invert	Outlet Devices
#1	Primary	110.04'	**12.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 110.04' / 109.94' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.61 cfs @ 11.97 hrs HW=110.50' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.61 cfs @ 2.53 fps)

Pond 11P: PR CB #2



Pond 11P: PR CB #2



Stage-Area-Storage for Pond 11P: PR CB #2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
110.04	**0**	111.10	0	112.16	0
110.06	0	111.12	0	112.18	0
110.08	0	111.14	0	112.20	0
110.10	0	111.16	0	112.22	0
110.12	0	111.18	0	112.24	0
110.14	0	111.20	0	112.26	0
110.16	0	111.22	0	112.28	0
110.18	0	111.24	0	112.30	0
110.20	0	111.26	0	112.32	0
110.22	0	111.28	0	112.34	0
110.24	0	111.30	0	112.36	0
110.26	0	111.32	0	112.38	0
110.28	0	111.34	0	112.40	0
110.30	0	111.36	0	112.42	0
110.32	0	111.38	0	112.44	0
110.34	0	111.40	0	112.46	0
110.36	0	111.42	0	112.48	0
110.38	0	111.44	0	112.50	0
110.40	0	111.46	0	112.52	0
110.42	0	111.48	0	112.54	0
110.44	0	111.50	0	112.56	0
110.46	0	111.52	0	112.58	0
110.48	0	111.54	0	112.60	0
110.50	0	111.56	0	112.62	0
110.52	0	111.58	0	112.64	0
110.54	0	111.60	0	112.66	0
110.56	0	111.62	0	112.68	0
110.58	0	111.64	0	112.70	0
110.60	0	111.66	0	112.72	0
110.62	0	111.68	0	112.74	0
110.64	0	111.70	0	112.76	0
110.66	0	111.72	0	112.78	0
110.68	0	111.74	0	112.80	0
110.70	0	111.76	0	112.82	0
110.72	0	111.78	0	112.84	0
110.74	0	111.80	0	112.86	0
110.76	0	111.82	0	112.88	0
110.78	0	111.84	0	112.90	0
110.80	0	111.86	0	112.92	0
110.82	0	111.88	0	112.94	0
110.84	0	111.90	0	112.96	0
110.86	0	111.92	0	112.98	0
110.88	0	111.94	0	113.00	0
110.90	0	111.96	0	113.02	0
110.92	0	111.98	0	113.04	0
110.94	0	112.00	0	113.06	0
110.96	0	112.02	0	113.08	0
110.98	0	112.04	0	113.10	0
111.00	0	112.06	0	113.12	0
111.02	0	112.08	0	113.14	0
111.04	0	112.10	0		
111.06	0	112.12	0		
111.08	0	112.14	0		

Summary for Pond 13P: PR CB #3

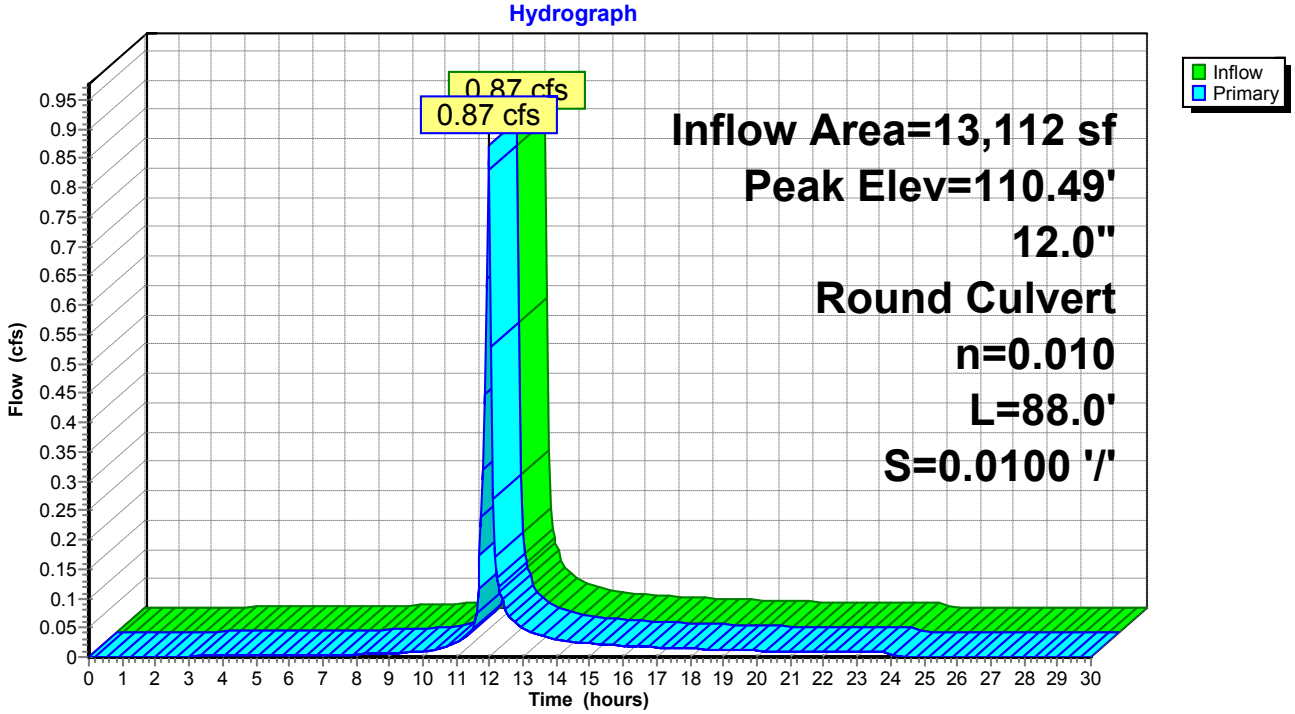
Inflow Area = 13,112 sf, 77.91% Impervious, Inflow Depth = 1.78" for 2-YEAR event
Inflow = 0.87 cfs @ 11.97 hrs, Volume= 1,950 cf
Outflow = 0.87 cfs @ 11.97 hrs, Volume= 1,950 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.87 cfs @ 11.97 hrs, Volume= 1,950 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 110.49' @ 11.97 hrs
Flood Elev= 113.14'

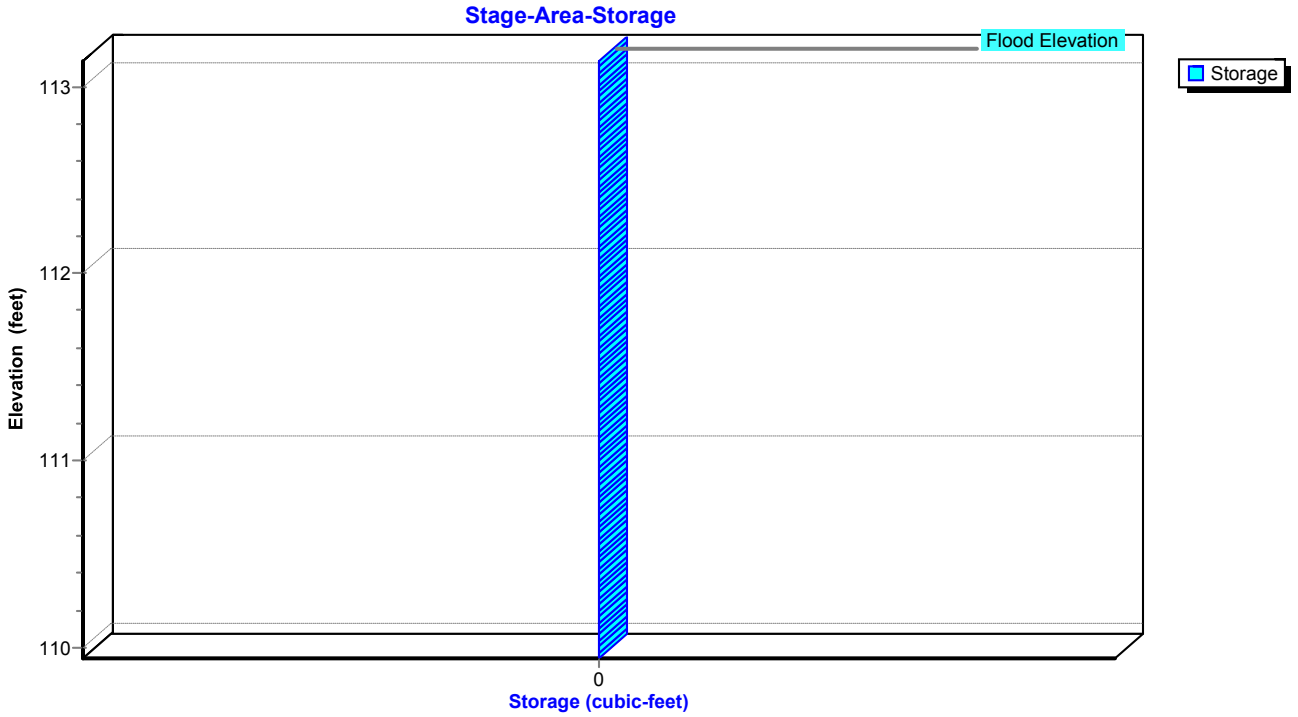
Device	Routing	Invert	Outlet Devices
#1	Primary	109.94'	**12.0" Round Culvert** L= 88.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 109.94' / 109.06' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.84 cfs @ 11.97 hrs HW=110.48' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.84 cfs @ 1.97 fps)

Pond 13P: PR CB #3



Pond 13P: PR CB #3



Stage-Area-Storage for Pond 13P: PR CB #3

Elevation (feet)	Storage (cubic-feet)
109.94	**0**
109.99	0
110.04	0
110.09	0
110.14	0
110.19	0
110.24	0
110.29	0
110.34	0
110.39	0
110.44	0
110.49	0
110.54	0
110.59	0
110.64	0
110.69	0
110.74	0
110.79	0
110.84	0
110.89	0
110.94	0
110.99	0
111.04	0
111.09	0
111.14	0
111.19	0
111.24	0
111.29	0
111.34	0
111.39	0
111.44	0
111.49	0
111.54	0
111.59	0
111.64	0
111.69	0
111.74	0
111.79	0
111.84	0
111.89	0
111.94	0
111.99	0
112.04	0
112.09	0
112.14	0
112.19	0
112.24	0
112.29	0
112.34	0
112.39	0
112.44	0
112.49	0
112.54	0
112.59	0
112.64	0
112.69	0
112.74	0
112.79	0
112.84	0
112.89	0
112.94	0
112.99	0
113.04	0
113.09	0
113.14	0

Summary for Pond 15P: PR CB #4

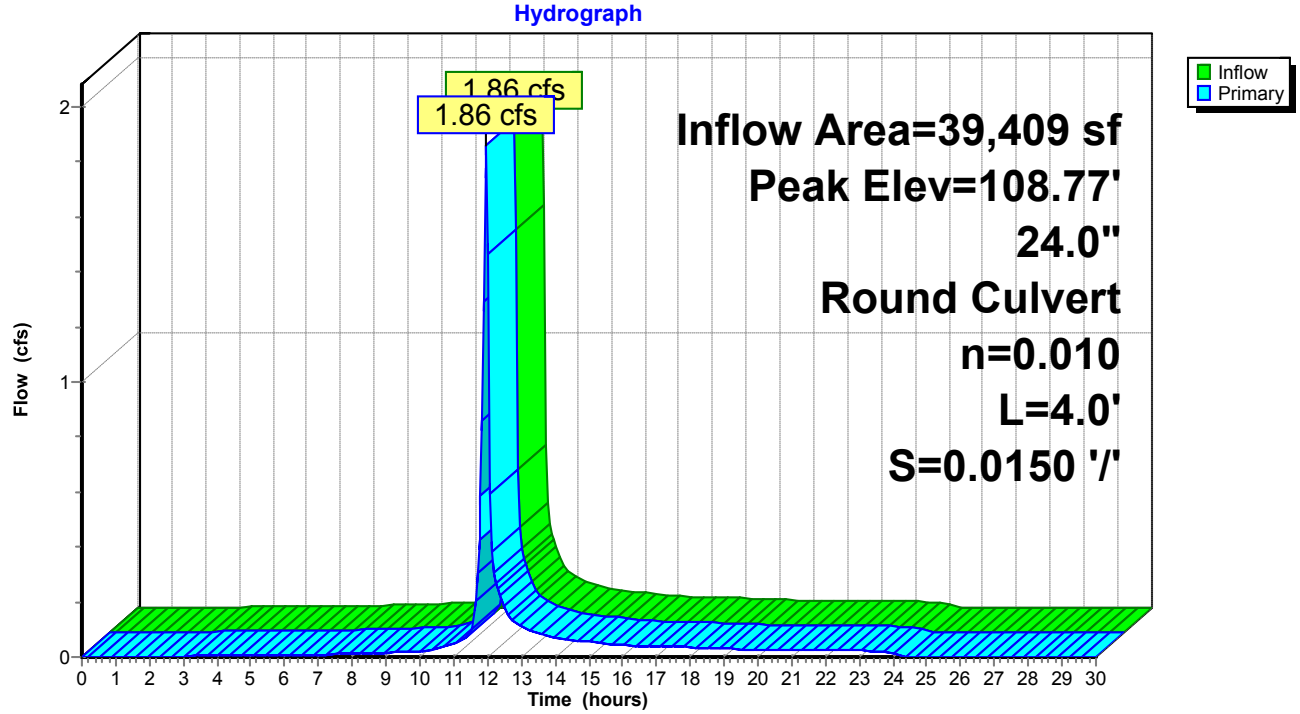
Inflow Area = 39,409 sf, 64.10% Impervious, Inflow Depth = 1.30" for 2-YEAR event
Inflow = 1.86 cfs @ 11.98 hrs, Volume= 4,281 cf
Outflow = 1.86 cfs @ 11.98 hrs, Volume= 4,281 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.86 cfs @ 11.98 hrs, Volume= 4,281 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 108.77' @ 11.98 hrs
Flood Elev= 113.22'

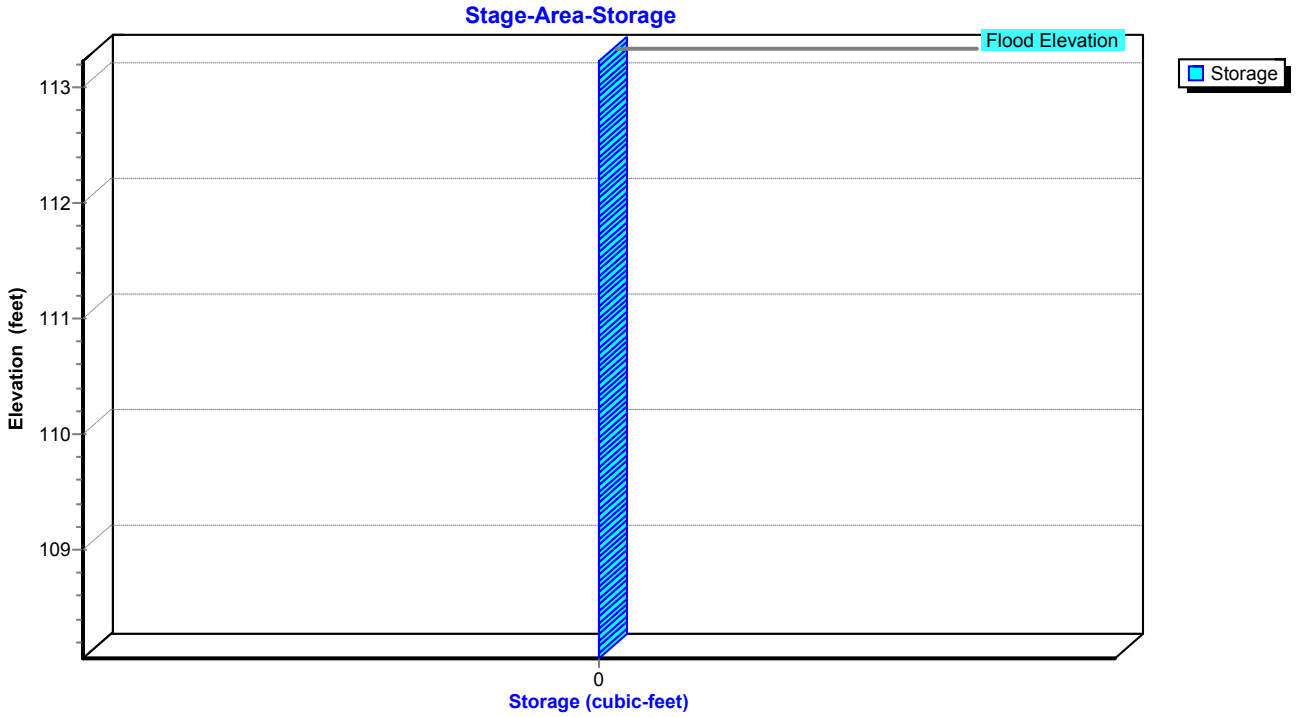
Device	Routing	Invert	Outlet Devices
#1	Primary	108.06'	**24.0" Round Culvert** L= 4.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.06' / 108.00' S= 0.0150 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=1.78 cfs @ 11.98 hrs HW=108.75' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.78 cfs @ 2.77 fps)

Pond 15P: PR CB #4



Pond 15P: PR CB #4



Stage-Area-Storage for Pond 15P: PR CB #4

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
108.06	**0**	110.18	0	112.30	0
108.10	0	110.22	0	112.34	0
108.14	0	110.26	0	112.38	0
108.18	0	110.30	0	112.42	0
108.22	0	110.34	0	112.46	0
108.26	0	110.38	0	112.50	0
108.30	0	110.42	0	112.54	0
108.34	0	110.46	0	112.58	0
108.38	0	110.50	0	112.62	0
108.42	0	110.54	0	112.66	0
108.46	0	110.58	0	112.70	0
108.50	0	110.62	0	112.74	0
108.54	0	110.66	0	112.78	0
108.58	0	110.70	0	112.82	0
108.62	0	110.74	0	112.86	0
108.66	0	110.78	0	112.90	0
108.70	0	110.82	0	112.94	0
108.74	0	110.86	0	112.98	0
108.78	0	110.90	0	113.02	0
108.82	0	110.94	0	113.06	0
108.86	0	110.98	0	113.10	0
108.90	0	111.02	0	113.14	0
108.94	0	111.06	0	113.18	0
108.98	0	111.10	0	113.22	0
109.02	0	111.14	0		
109.06	0	111.18	0		
109.10	0	111.22	0		
109.14	0	111.26	0		
109.18	0	111.30	0		
109.22	0	111.34	0		
109.26	0	111.38	0		
109.30	0	111.42	0		
109.34	0	111.46	0		
109.38	0	111.50	0		
109.42	0	111.54	0		
109.46	0	111.58	0		
109.50	0	111.62	0		
109.54	0	111.66	0		
109.58	0	111.70	0		
109.62	0	111.74	0		
109.66	0	111.78	0		
109.70	0	111.82	0		
109.74	0	111.86	0		
109.78	0	111.90	0		
109.82	0	111.94	0		
109.86	0	111.98	0		
109.90	0	112.02	0		
109.94	0	112.06	0		
109.98	0	112.10	0		
110.02	0	112.14	0		
110.06	0	112.18	0		
110.10	0	112.22	0		
110.14	0	112.26	0		

Summary for Pond 17P: UGC-2

Inflow Area = 39,409 sf, 64.10% Impervious, Inflow Depth = 1.30" for 2-YEAR event
Inflow = 1.86 cfs @ 11.98 hrs, Volume= 4,281 cf
Outflow = 1.17 cfs @ 11.90 hrs, Volume= 4,281 cf, Atten= 37%, Lag= 0.0 min
Discarded = 1.17 cfs @ 11.90 hrs, Volume= 4,281 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 107.42' @ 12.05 hrs Surf.Area= 1,609 sf Storage= 273 cf

Plug-Flow detention time= 1.0 min calculated for 4,274 cf (100% of inflow)
Center-of-Mass det. time= 1.0 min (814.3 - 813.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	107.00'	2,478 cf	**22.92'W x 70.23'L x 5.75'H Field A** 9,254 cf Overall - 3,058 cf Embedded = 6,196 cf x 40.0% Voids
#2A	108.00'	3,058 cf	**ADS_StormTech MC-3500 d +Cap** x 27 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 3 Rows of 9 Chambers Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
		5,537 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	107.00'	**31.400 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.17 cfs @ 11.90 hrs HW=107.07' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 1.17 cfs)

Pond 17P: UGC-2 - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-3500 d +Cap (ADS StormTech® MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf

77.0" Wide + 10.0" Spacing = 87.0" C-C Row Spacing

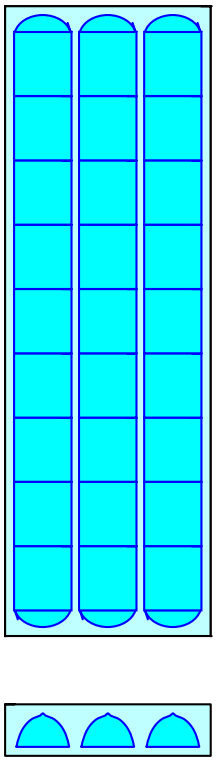
9 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 68.23' Row Length +12.0" End Stone x 2 = 70.23' Base Length
3 Rows x 77.0" Wide + 10.0" Spacing x 2 + 12.0" Side Stone x 2 = 22.92' Base Width
12.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.75' Field Height

27 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 3 Rows = 3,058.1 cf Chamber Storage

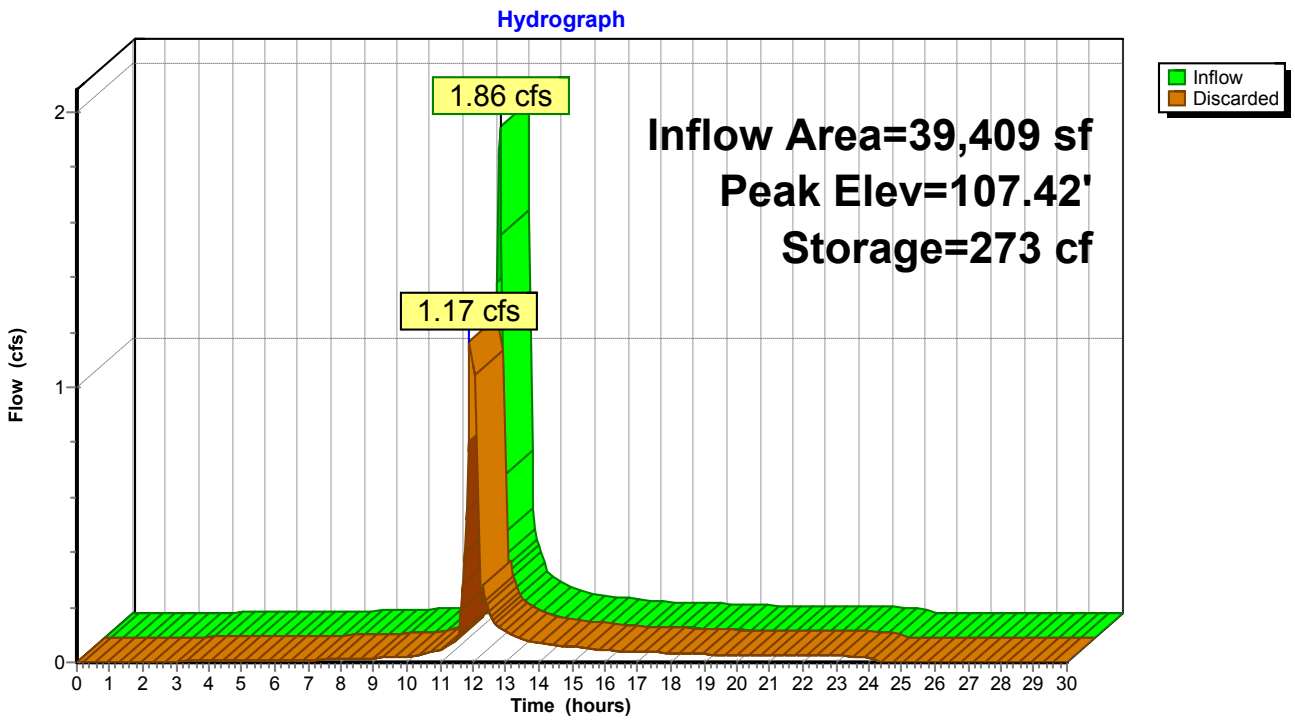
9,254.3 cf Field - 3,058.1 cf Chambers = 6,196.2 cf Stone x 40.0% Voids = 2,478.5 cf Stone Storage

Chamber Storage + Stone Storage = 5,536.6 cf = 0.127 af
Overall Storage Efficiency = 59.8%
Overall System Size = 70.23' x 22.92' x 5.75'

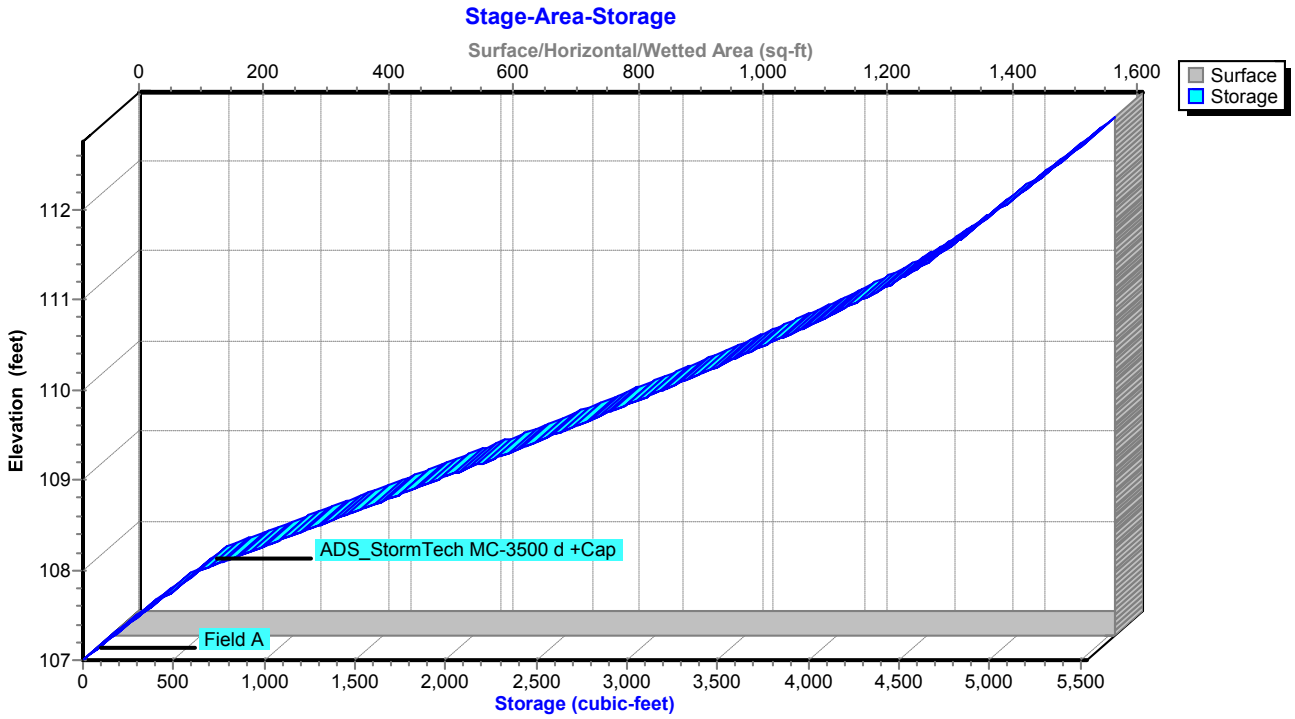
27 Chambers
342.8 cy Field
229.5 cy Stone



Pond 17P: UGC-2



Pond 17P: UGC-2



Stage-Area-Storage for Pond 17P: UGC-2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
107.00	**1,609**	0
107.10	1,609	64
107.20	1,609	129
107.30	1,609	193
107.40	1,609	258
107.50	1,609	322
107.60	1,609	386
107.70	1,609	451
107.80	1,609	515
107.90	1,609	579
108.00	1,609	644
108.10	1,609	778
108.20	1,609	912
108.30	1,609	1,046
108.40	1,609	1,178
108.50	1,609	1,311
108.60	1,609	1,443
108.70	1,609	1,574
108.80	1,609	1,704
108.90	1,609	1,834
109.00	1,609	1,963
109.10	1,609	2,092
109.20	1,609	2,219
109.30	1,609	2,346
109.40	1,609	2,472
109.50	1,609	2,597
109.60	1,609	2,720
109.70	1,609	2,843
109.80	1,609	2,965
109.90	1,609	3,085
110.00	1,609	3,204
110.10	1,609	3,321
110.20	1,609	3,437
110.30	1,609	3,551
110.40	1,609	3,664
110.50	1,609	3,775
110.60	1,609	3,884
110.70	1,609	3,990
110.80	1,609	4,094
110.90	1,609	4,196
111.00	1,609	4,295
111.10	1,609	4,390
111.20	1,609	4,482
111.30	1,609	4,569
111.40	1,609	4,649
111.50	1,609	4,723
111.60	1,609	4,793
111.70	1,609	4,860
111.80	1,609	4,925
111.90	1,609	4,989
112.00	1,609	5,054
112.10	1,609	5,118
112.20	1,609	5,182
112.30	1,609	5,247
112.40	1,609	5,311
112.50	1,609	5,376
112.60	1,609	5,440
112.70	1,609	**5,504**

Summary for Pond DP-3: DP-3

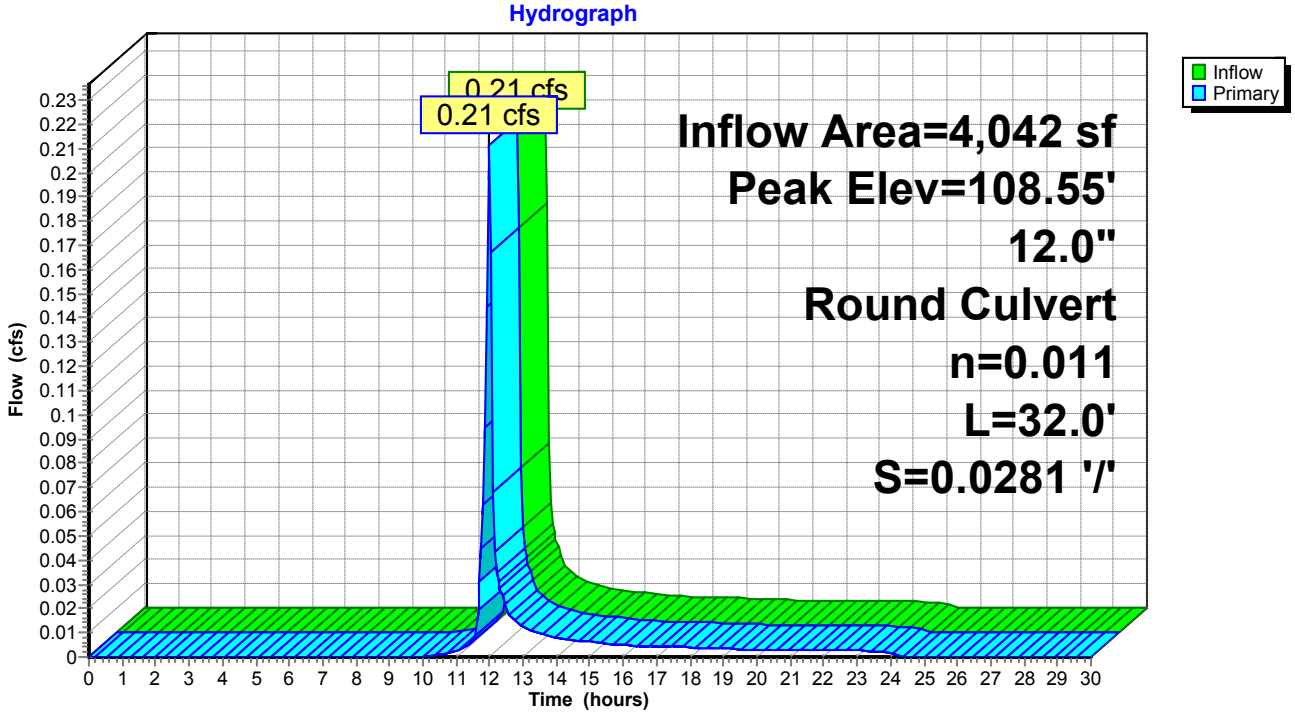
Inflow Area = 4,042 sf, 67.84% Impervious, Inflow Depth = 1.31" for 2-YEAR event
Inflow = 0.21 cfs @ 11.98 hrs, Volume= 440 cf
Outflow = 0.21 cfs @ 11.98 hrs, Volume= 440 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.21 cfs @ 11.98 hrs, Volume= 440 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 108.55' @ 11.98 hrs
Flood Elev= 112.38'

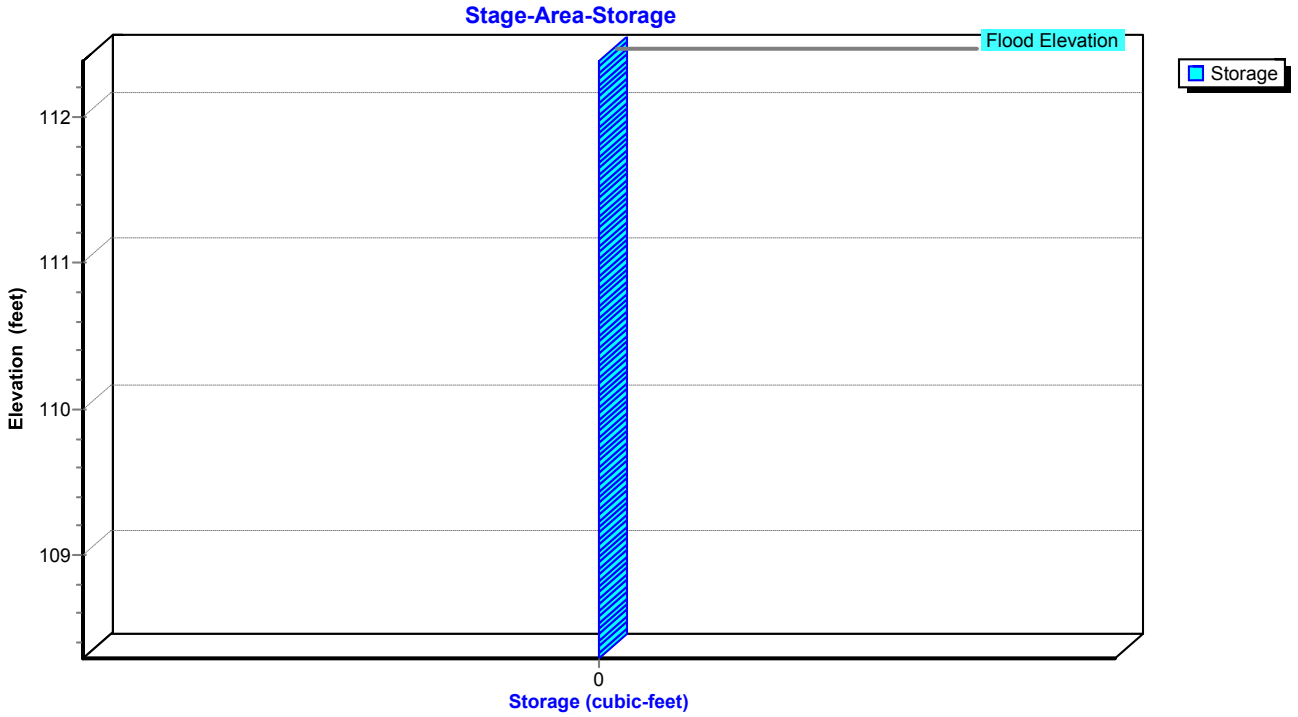
Device	Routing	Invert	Outlet Devices
#1	Primary	108.30'	**12.0" Round Culvert** L= 32.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 107.40' S= 0.0281 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=0.20 cfs @ 11.98 hrs HW=108.55' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.20 cfs @ 1.34 fps)

Pond DP-3: DP-3



Pond DP-3: DP-3


Stage-Area-Storage
Flood Elevation
Storage
Elevation (feet)
112
111
110
109
0
Storage (cubic-feet)

Stage-Area-Storage for Pond DP-3: DP-3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
108.30	**0**	110.95	0
108.35	0	111.00	0
108.40	0	111.05	0
108.45	0	111.10	0
108.50	0	111.15	0
108.55	0	111.20	0
108.60	0	111.25	0
108.65	0	111.30	0
108.70	0	111.35	0
108.75	0	111.40	0
108.80	0	111.45	0
108.85	0	111.50	0
108.90	0	111.55	0
108.95	0	111.60	0
109.00	0	111.65	0
109.05	0	111.70	0
109.10	0	111.75	0
109.15	0	111.80	0
109.20	0	111.85	0
109.25	0	111.90	0
109.30	0	111.95	0
109.35	0	112.00	0
109.40	0	112.05	0
109.45	0	112.10	0
109.50	0	112.15	0
109.55	0	112.20	0
109.60	0	112.25	0
109.65	0	112.30	0
109.70	0	112.35	0
109.75	0		
109.80	0		
109.85	0		
109.90	0		
109.95	0		
110.00	0		
110.05	0		
110.10	0		
110.15	0		
110.20	0		
110.25	0		
110.30	0		
110.35	0		
110.40	0		
110.45	0		
110.50	0		
110.55	0		
110.60	0		
110.65	0		
110.70	0		
110.75	0		
110.80	0		
110.85	0		
110.90	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=33,352 sf 61.72% Impervious Runoff Depth=2.53"
Tc=6.0 min CN=79 Runoff=3.32 cfs 7,027 cf

Subcatchment DA-10: DA-10 Runoff Area=4,891 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.73 cfs 1,811 cf

Subcatchment DA-11: DA-11 Runoff Area=3,220 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.48 cfs 1,192 cf

Subcatchment DA-2: DA-2 Runoff Area=5,279 sf 65.56% Impervious Runoff Depth=2.44"
Tc=6.0 min CN=78 Runoff=0.51 cfs 1,074 cf

Subcatchment DA-3: DA-3 Runoff Area=4,042 sf 67.84% Impervious Runoff Depth=2.53"
Tc=6.0 min CN=79 Runoff=0.40 cfs 852 cf

Subcatchment DA-4: DA-4 Runoff Area=21,677 sf 48.09% Impervious Runoff Depth=1.58"
Tc=6.0 min CN=67 Runoff=1.36 cfs 2,861 cf

Subcatchment DA-5: DA-5 Runoff Area=4,633 sf 67.65% Impervious Runoff Depth=2.53"
Tc=6.0 min CN=79 Runoff=0.46 cfs 976 cf

Subcatchment DA-6: DA-6 Runoff Area=5,259 sf 73.44% Impervious Runoff Depth=2.79"
Tc=6.0 min CN=82 Runoff=0.57 cfs 1,225 cf

Subcatchment DA-7: DA-7 Runoff Area=6,429 sf 78.05% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=85 Runoff=0.76 cfs 1,647 cf

Subcatchment DA-8: DA-8 Runoff Area=8,036 sf 62.98% Impervious Runoff Depth=2.27"
Tc=6.0 min CN=76 Runoff=0.72 cfs 1,523 cf

Subcatchment DA-9: DA-9 Runoff Area=4,620 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.69 cfs 1,711 cf

Reach DP-1: DP-1 Inflow=3.32 cfs 7,027 cf
Outflow=3.32 cfs 7,027 cf

Reach DP-4: DP-4 Inflow=0.72 cfs 1,523 cf
Outflow=0.72 cfs 1,523 cf

Pond 1P: PR CB#5 Peak Elev=112.33' Inflow=0.51 cfs 1,074 cf
18.0" Round Culvert n=0.012 L=45.0' S=0.0100 '/' Outflow=0.51 cfs 1,074 cf

Pond 9P: PR CB #1 Peak Elev=110.76' Inflow=1.49 cfs 3,458 cf
12.0" Round Culvert n=0.010 L=23.0' S=0.0100 '/' Outflow=1.49 cfs 3,458 cf

Pond 10P: UGC-1 Peak Elev=109.63' Storage=1,163 cf Inflow=1.49 cfs 3,458 cf
Outflow=0.17 cfs 3,458 cf

Pond 11P: PR CB #2 Peak Elev=110.68' Inflow=1.05 cfs 2,417 cf
12.0" Round Culvert n=0.010 L=10.0' S=0.0100 '/' Outflow=1.05 cfs 2,417 cf

Pond 13P: PR CB #3 Peak Elev=110.70' Inflow=1.51 cfs 3,393 cf
12.0" Round Culvert n=0.010 L=88.0' S=0.0100 '/' Outflow=1.51 cfs 3,393 cf

Pond 15P: PR CB #4 Peak Elev=109.07' Inflow=3.53 cfs 7,965 cf
24.0" Round Culvert n=0.010 L=4.0' S=0.0150 '/' Outflow=3.53 cfs 7,965 cf

Pond 17P: UGC-2 Peak Elev=108.56' Storage=1,391 cf Inflow=3.53 cfs 7,965 cf
Outflow=1.17 cfs 7,965 cf

Pond DP-3: DP-3 Peak Elev=108.66' Inflow=0.40 cfs 852 cf
12.0" Round Culvert n=0.011 L=32.0' S=0.0281 '/' Outflow=0.40 cfs 852 cf

Total Runoff Area = 101,438 sf Runoff Volume = 21,899 cf Average Runoff Depth = 2.59"
33.93% Pervious = 34,420 sf 66.07% Impervious = 67,018 sf

Summary for Subcatchment DA-1: DA-1

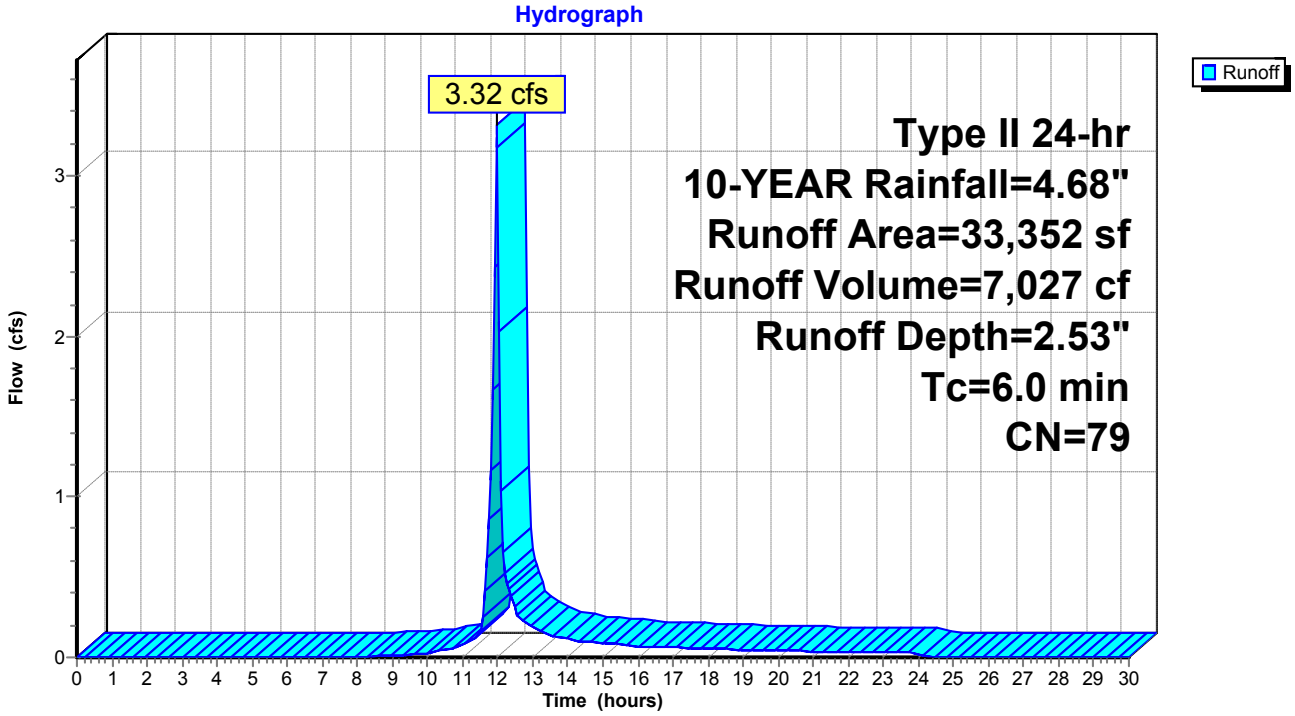
Runoff = 3.32 cfs @ 11.97 hrs, Volume= 7,027 cf, Depth= 2.53"

Runoff 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
12,767	49	50-75% Grass cover, Fair, HSG A
20,585	98	Paved parking, HSG A
33,352	79	Weighted Average
12,767		38.28% Pervious Area
20,585		61.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

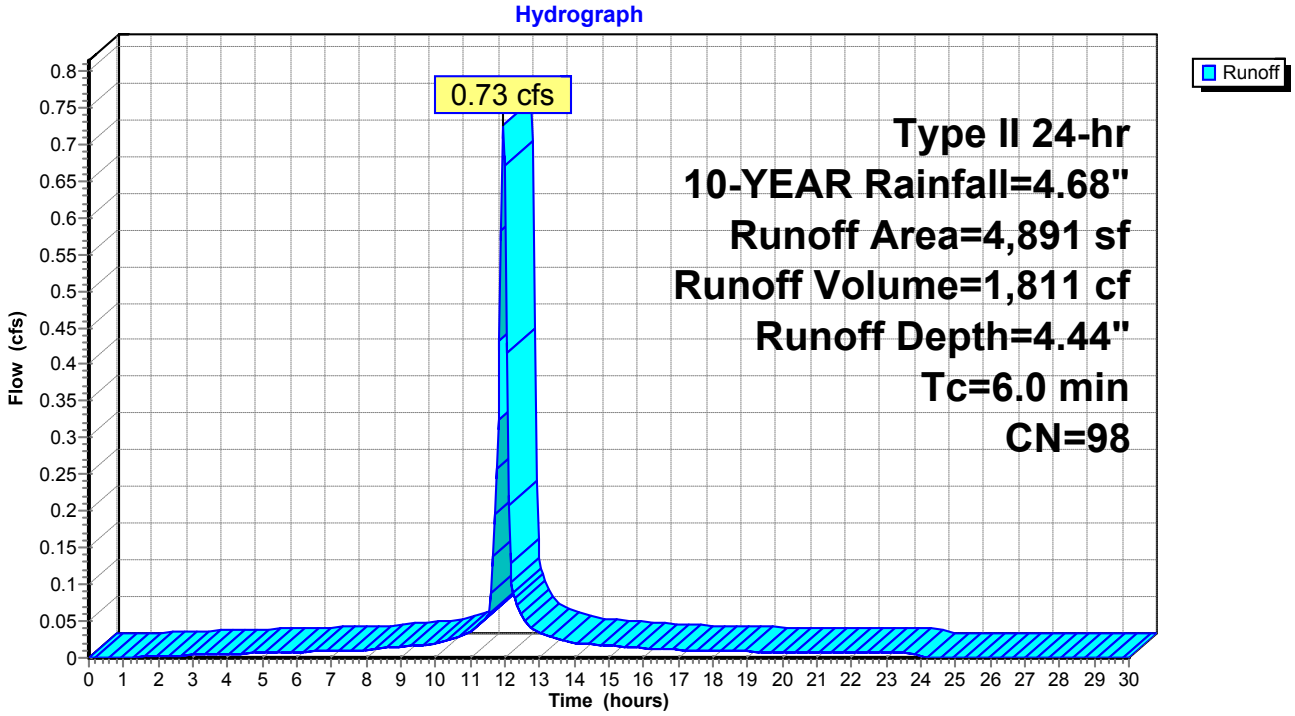
Runoff = 0.73 cfs @ 11.96 hrs, Volume= 1,811 cf, Depth= 4.44"

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
4,891	98	Roofs, HSG A
4,891		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

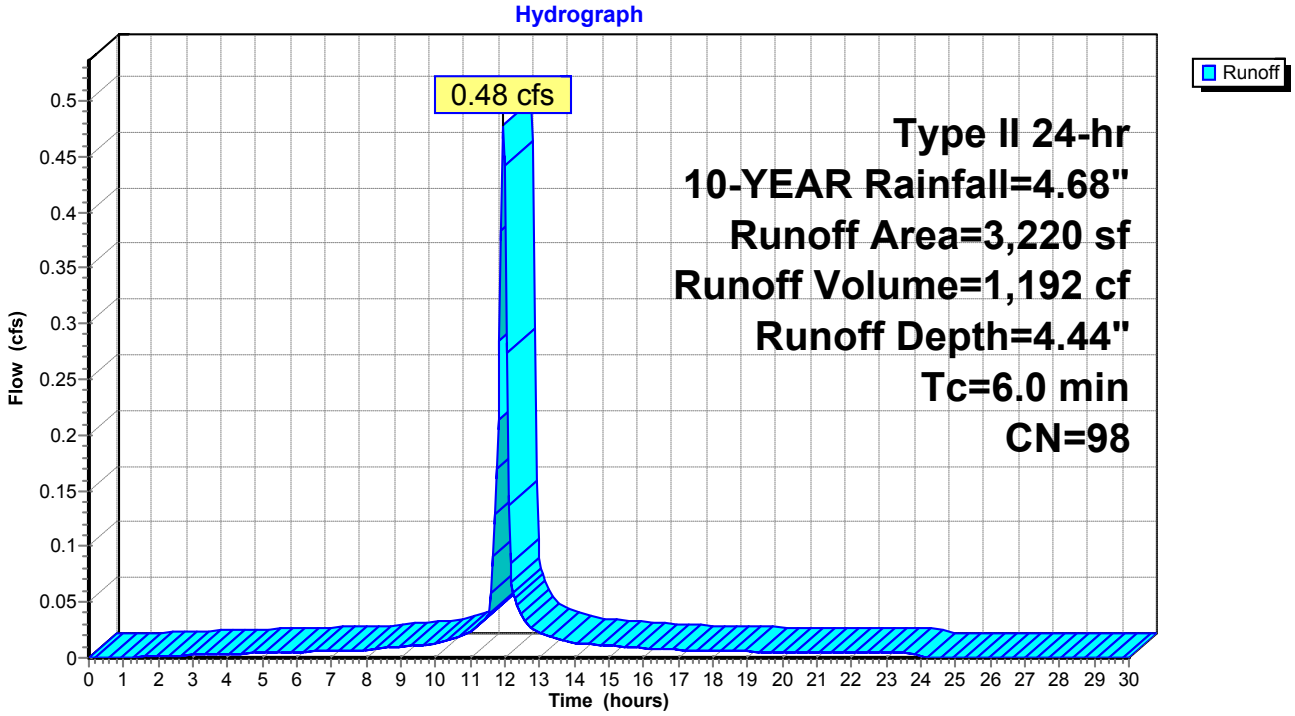
Runoff = 0.48 cfs @ 11.96 hrs, Volume= 1,192 cf, Depth= 4.44"

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
3,220	98	Roofs, HSG A
3,220		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-2: DA-2

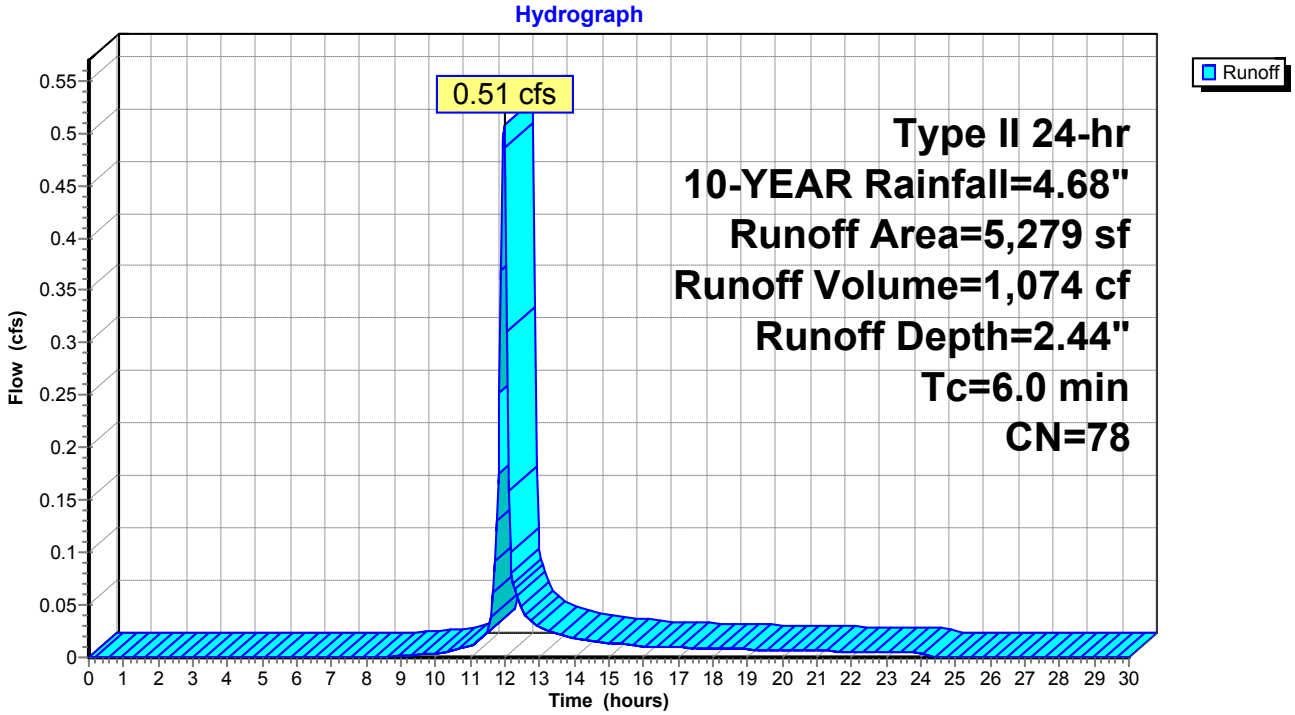
Runoff = 0.51 cfs @ 11.97 hrs, Volume= 1,074 cf, Depth= 2.44"

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
1,818	39	>75% Grass cover, Good, HSG A
3,461	98	Paved parking, HSG A
5,279	78	Weighted Average
1,818		34.44% Pervious Area
3,461		65.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

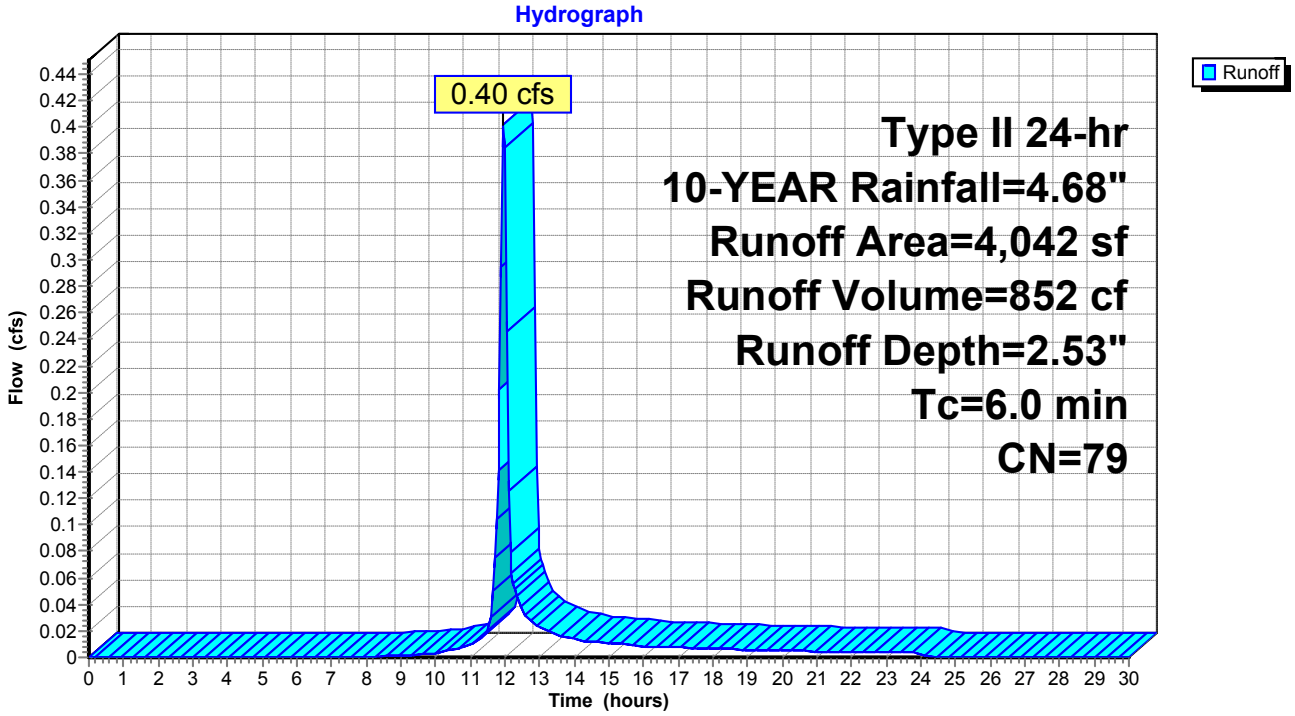
Runoff = 0.40 cfs @ 11.97 hrs, Volume= 852 cf, Depth= 2.53"

Runoff 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
1,300	39	>75% Grass cover, Good, HSG A
2,742	98	Paved parking, HSG A
4,042	79	Weighted Average
1,300		32.16% Pervious Area
2,742		67.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

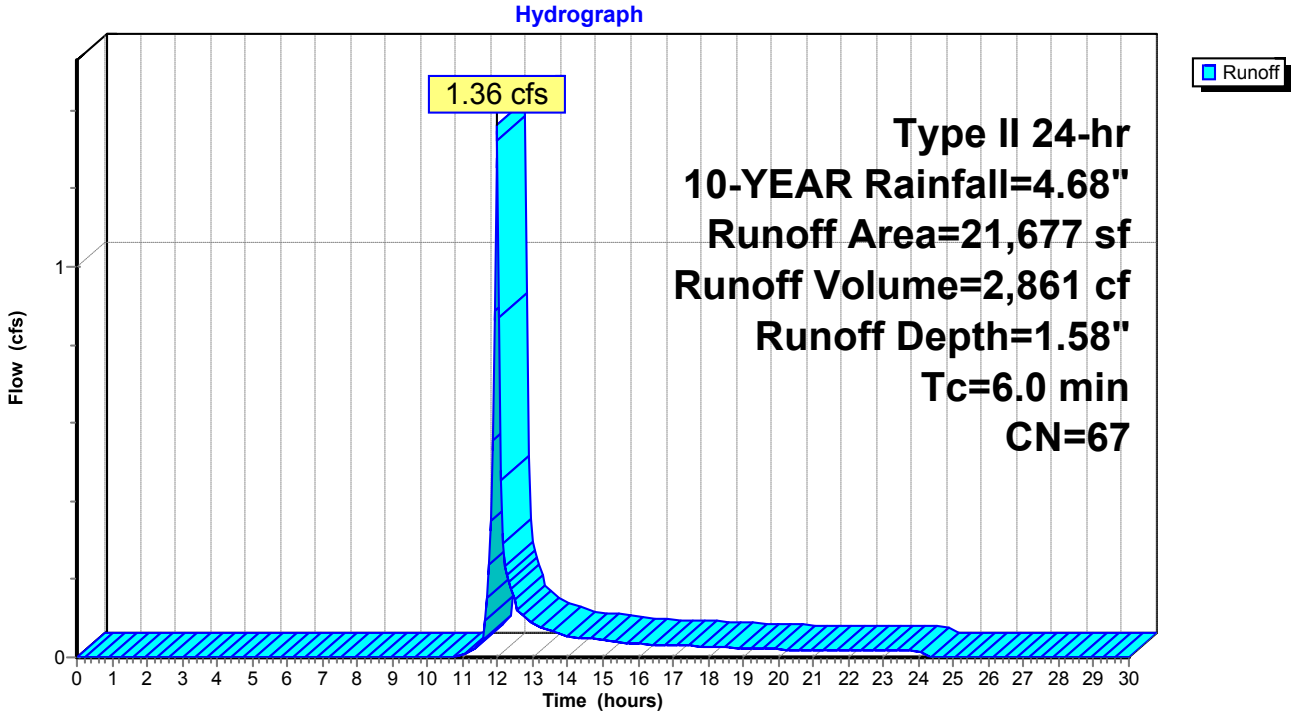
Runoff = 1.36 cfs @ 11.98 hrs, Volume= 2,861 cf, Depth= 1.58"

Runoff 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
11,253	39	>75% Grass cover, Good, HSG A
10,424	98	Paved parking, HSG A
21,677	67	Weighted Average
11,253		51.91% Pervious Area
10,424		48.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-4: DA-4



Summary for Subcatchment DA-5: DA-5

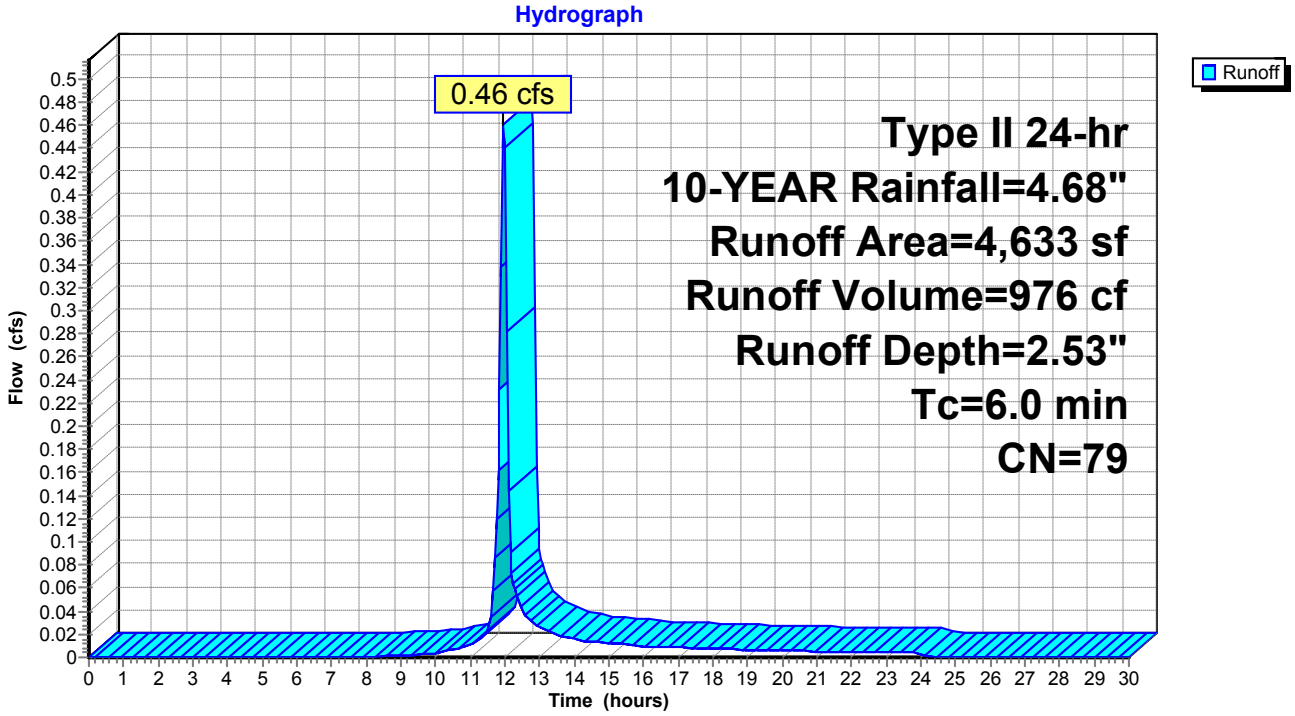
Runoff = 0.46 cfs @ 11.97 hrs, Volume= 976 cf, Depth= 2.53"

Runoff 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
1,499	39	>75% Grass cover, Good, HSG A
3,134	98	Paved parking, HSG A
4,633	79	Weighted Average
1,499		32.35% Pervious Area
3,134		67.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-5: DA-5



Summary for Subcatchment DA-6: DA-6

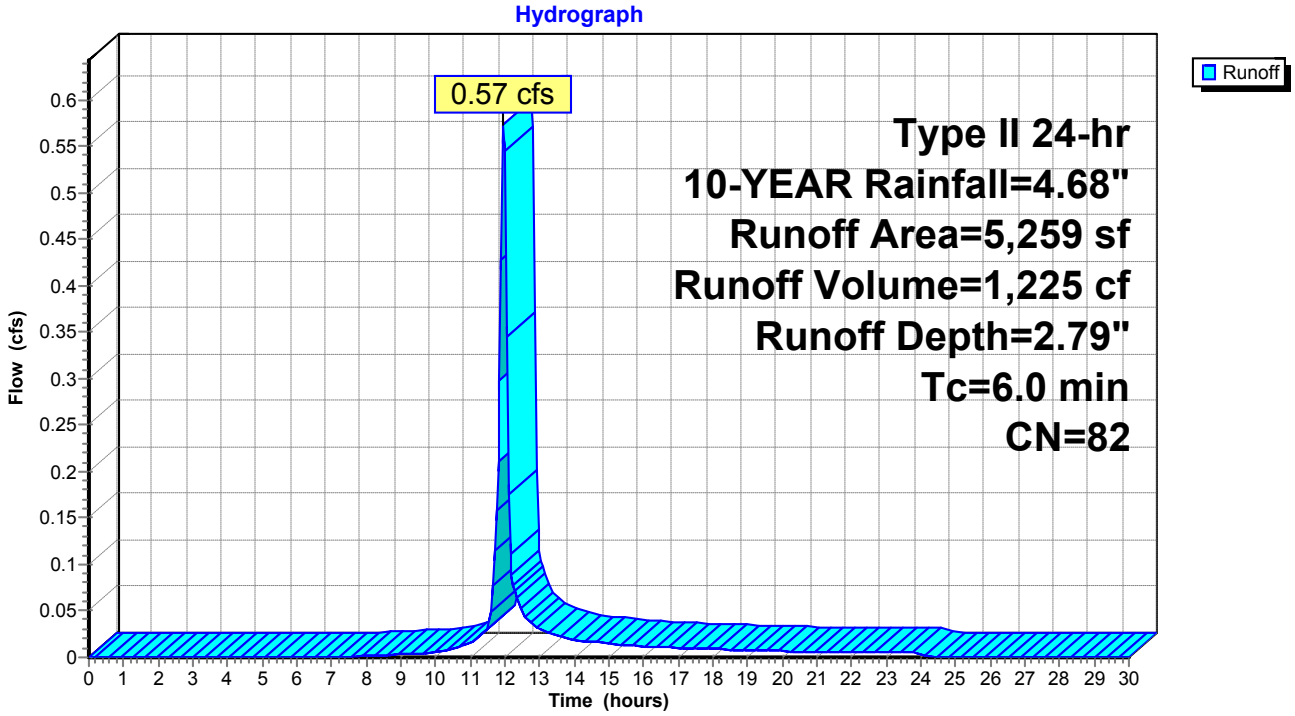
Runoff = 0.57 cfs @ 11.97 hrs, Volume= 1,225 cf, Depth= 2.79"

Runoff 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
1,397	39	>75% Grass cover, Good, HSG A
3,862	98	Paved parking, HSG A
5,259	82	Weighted Average
1,397		26.56% Pervious Area
3,862		73.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

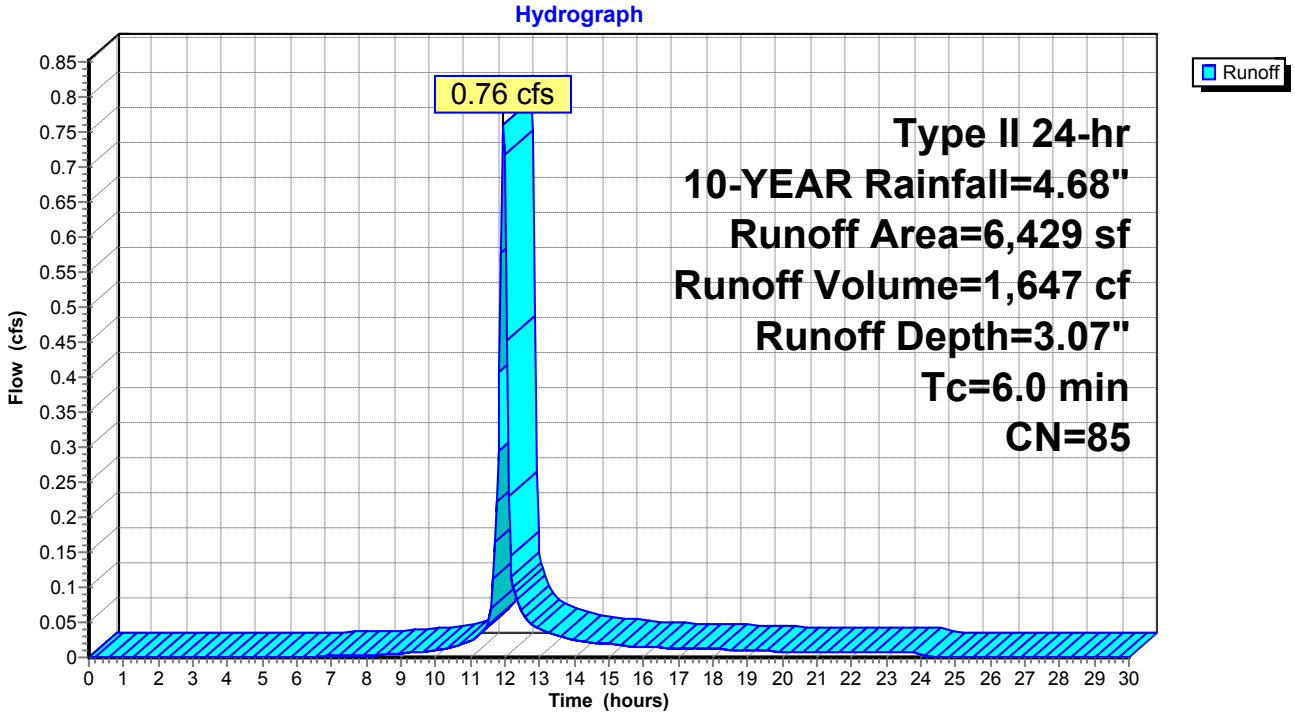
Runoff = 0.76 cfs @ 11.97 hrs, Volume= 1,647 cf, Depth= 3.07"

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 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,411	39	>75% Grass cover, Good, HSG A
5,018	98	Paved parking, HSG A
6,429	85	Weighted Average
1,411		21.95% Pervious Area
5,018		78.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

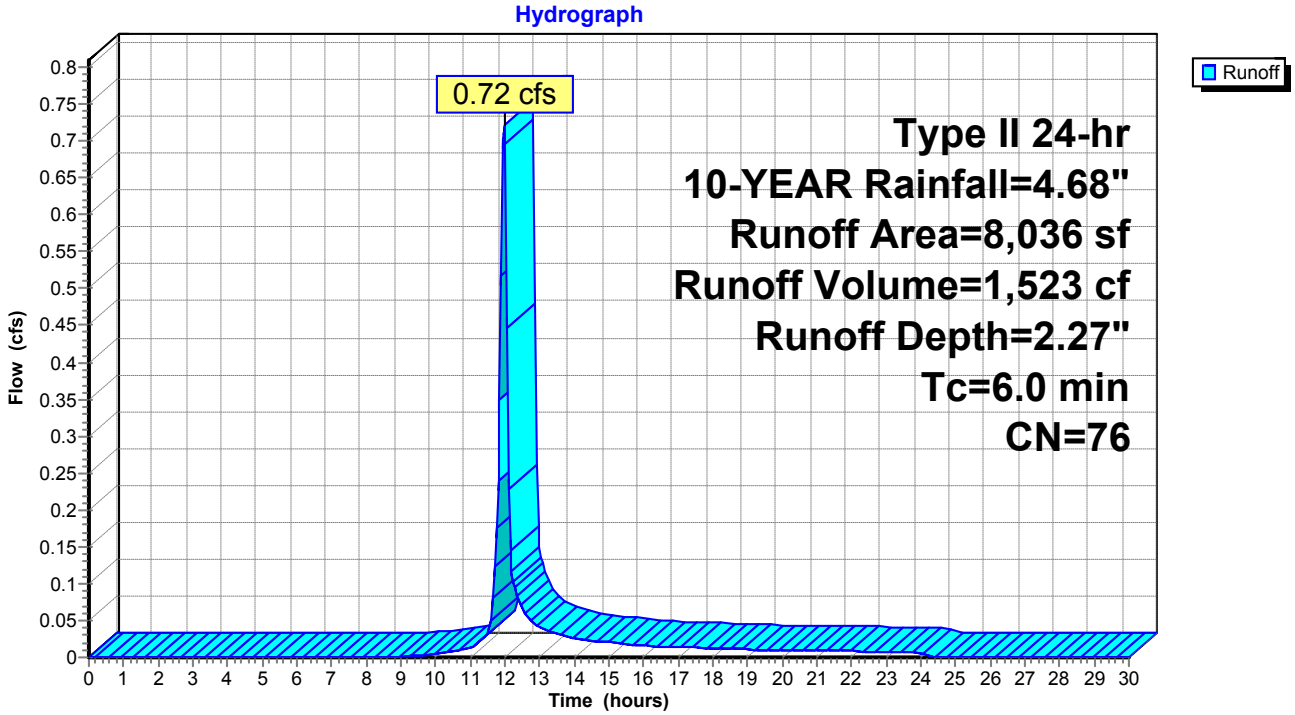
Runoff = 0.72 cfs @ 11.97 hrs, Volume= 1,523 cf, Depth= 2.27"

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 10-YEAR Rainfall=4.68"

Area (sf)	CN	Description
2,975	39	>75% Grass cover, Good, HSG A
5,061	98	Paved parking, HSG A
8,036	76	Weighted Average
2,975		37.02% Pervious Area
5,061		62.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DA-9

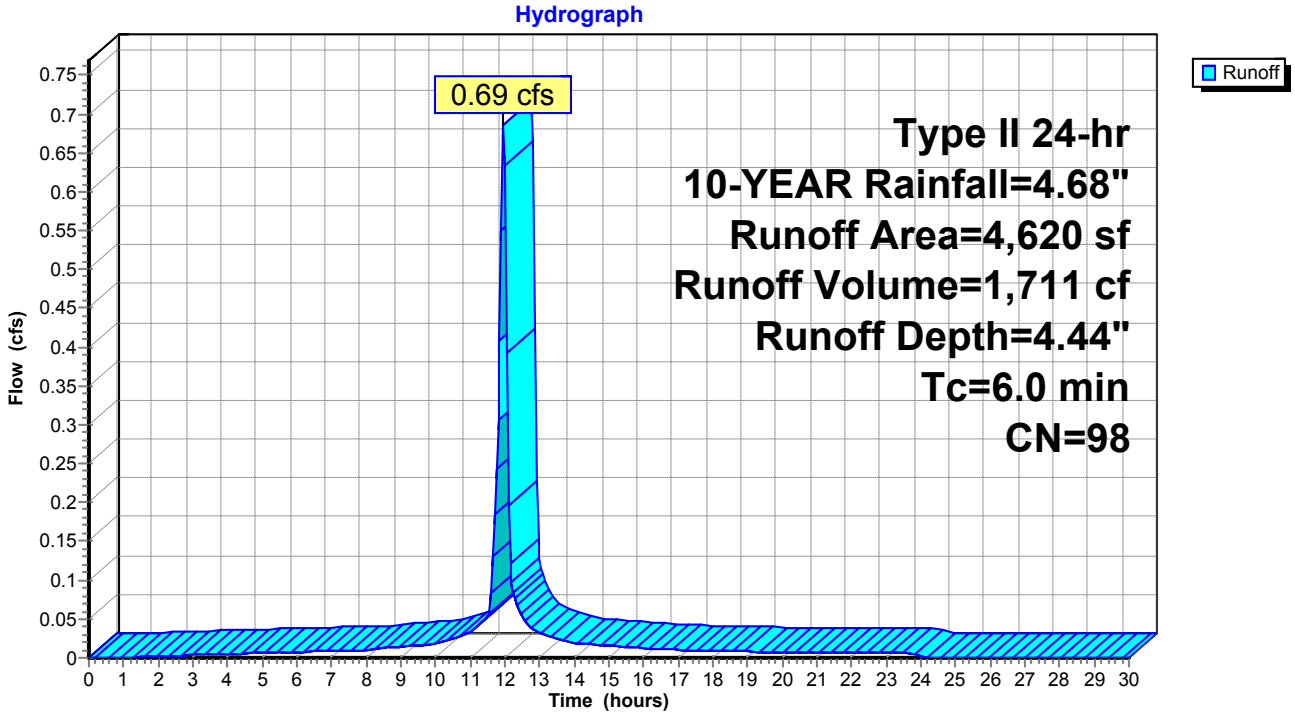
Runoff = 0.69 cfs @ 11.96 hrs, Volume= 1,711 cf, Depth= 4.44"

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
4,620	98	Roofs, HSG A
4,620		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-9: DA-9

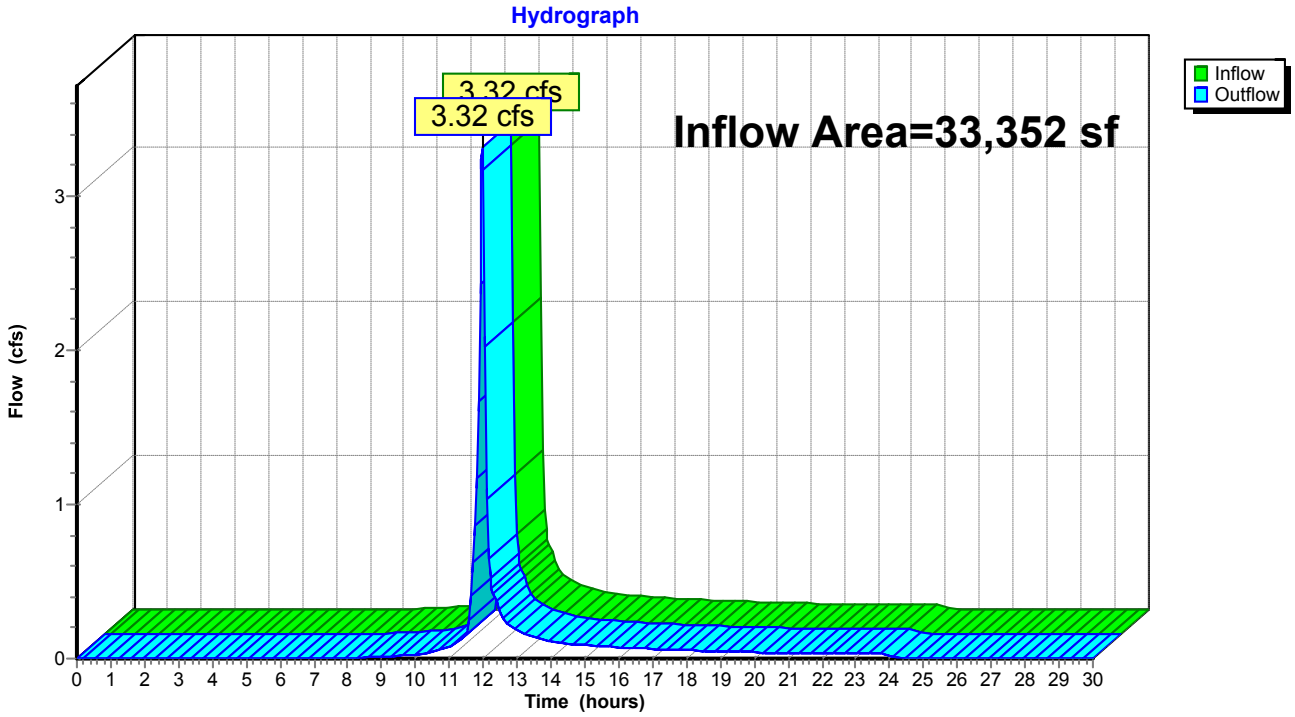


Summary for Reach DP-1: DP-1

Inflow Area = 33,352 sf, 61.72% Impervious, Inflow Depth = 2.53" for 10-YEAR event
Inflow = 3.32 cfs @ 11.97 hrs, Volume= 7,027 cf
Outflow = 3.32 cfs @ 11.97 hrs, Volume= 7,027 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-1: DP-1

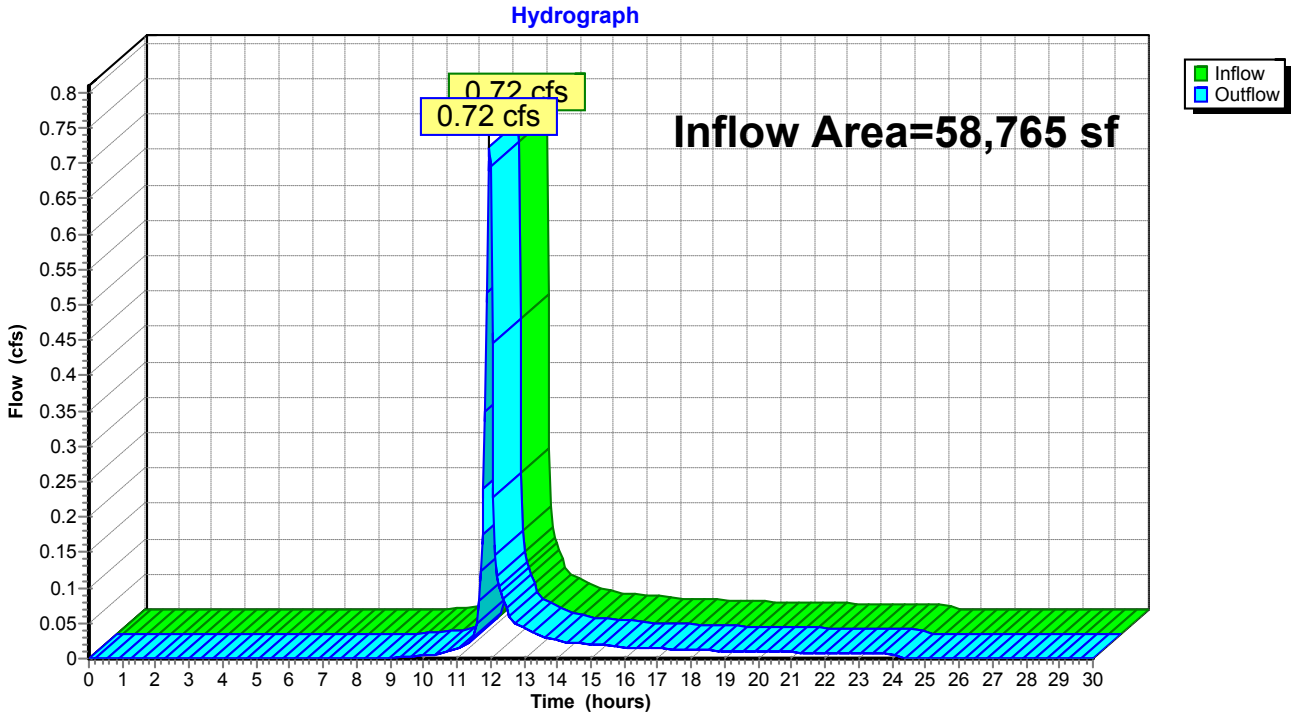


Summary for Reach DP-4: DP-4

Inflow Area = 58,765 sf, 68.46% Impervious, Inflow Depth = 0.31" for 10-YEAR event
Inflow = 0.72 cfs @ 11.97 hrs, Volume= 1,523 cf
Outflow = 0.72 cfs @ 11.97 hrs, Volume= 1,523 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-4: DP-4



Summary for Pond 1P: PR CB#5

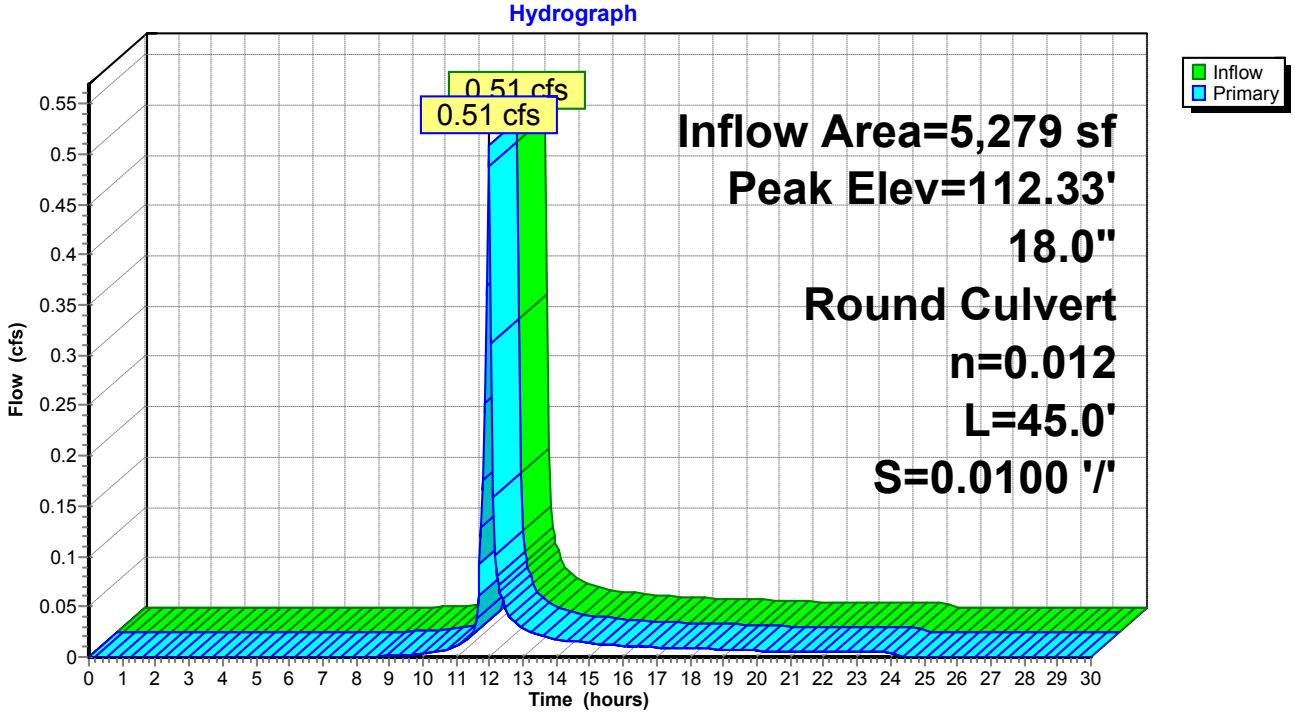
Inflow Area = 5,279 sf, 65.56% Impervious, Inflow Depth = 2.44" for 10-YEAR event
Inflow = 0.51 cfs @ 11.97 hrs, Volume= 1,074 cf
Outflow = 0.51 cfs @ 11.97 hrs, Volume= 1,074 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.51 cfs @ 11.97 hrs, Volume= 1,074 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 112.33' @ 11.97 hrs
Flood Elev= 114.98'

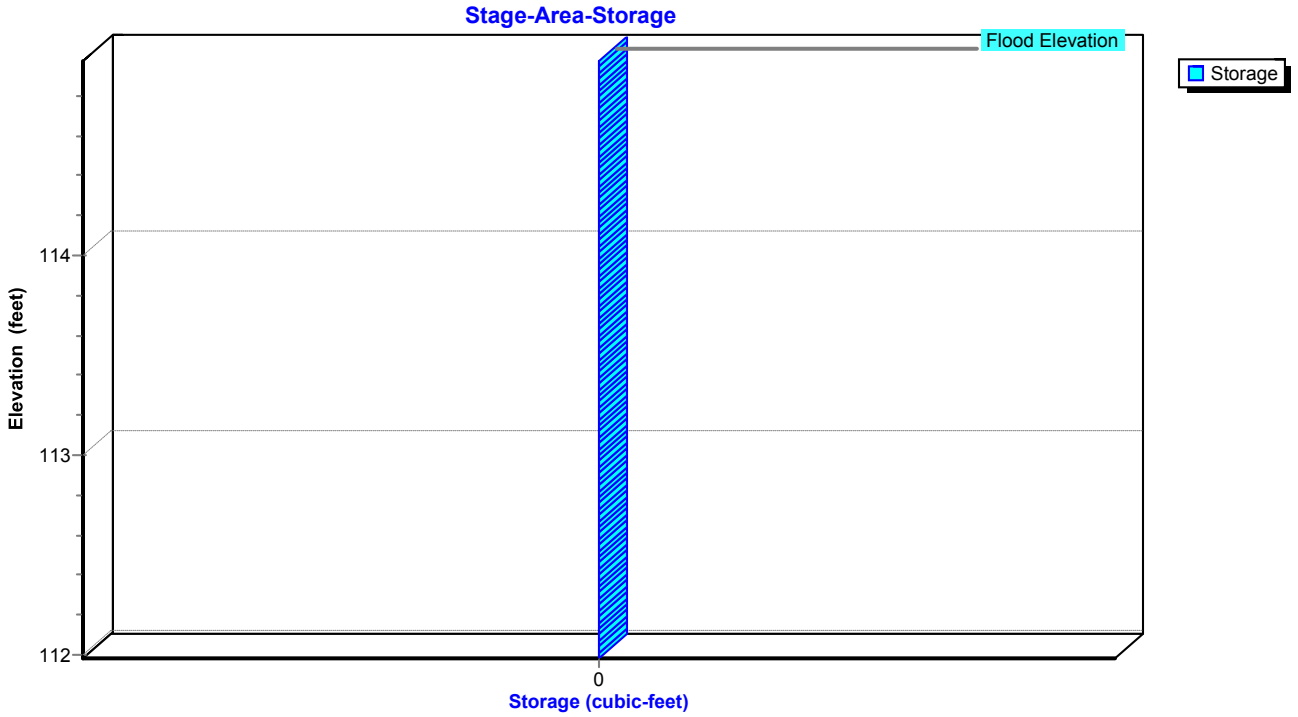
Device	Routing	Invert	Outlet Devices
#1	Primary	111.98'	**18.0" Round Culvert** L= 45.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 111.98' / 111.53' S= 0.0100 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=0.49 cfs @ 11.97 hrs HW=112.33' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.49 cfs @ 1.58 fps)

Pond 1P: PR CB#5



Pond 1P: PR CB#5



Stage-Area-Storage for Pond 1P: PR CB#5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
111.98	**0**	113.04	0	114.10	0
112.00	0	113.06	0	114.12	0
112.02	0	113.08	0	114.14	0
112.04	0	113.10	0	114.16	0
112.06	0	113.12	0	114.18	0
112.08	0	113.14	0	114.20	0
112.10	0	113.16	0	114.22	0
112.12	0	113.18	0	114.24	0
112.14	0	113.20	0	114.26	0
112.16	0	113.22	0	114.28	0
112.18	0	113.24	0	114.30	0
112.20	0	113.26	0	114.32	0
112.22	0	113.28	0	114.34	0
112.24	0	113.30	0	114.36	0
112.26	0	113.32	0	114.38	0
112.28	0	113.34	0	114.40	0
112.30	0	113.36	0	114.42	0
112.32	0	113.38	0	114.44	0
112.34	0	113.40	0	114.46	0
112.36	0	113.42	0	114.48	0
112.38	0	113.44	0	114.50	0
112.40	0	113.46	0	114.52	0
112.42	0	113.48	0	114.54	0
112.44	0	113.50	0	114.56	0
112.46	0	113.52	0	114.58	0
112.48	0	113.54	0	114.60	0
112.50	0	113.56	0	114.62	0
112.52	0	113.58	0	114.64	0
112.54	0	113.60	0	114.66	0
112.56	0	113.62	0	114.68	0
112.58	0	113.64	0	114.70	0
112.60	0	113.66	0	114.72	0
112.62	0	113.68	0	114.74	0
112.64	0	113.70	0	114.76	0
112.66	0	113.72	0	114.78	0
112.68	0	113.74	0	114.80	0
112.70	0	113.76	0	114.82	0
112.72	0	113.78	0	114.84	0
112.74	0	113.80	0	114.86	0
112.76	0	113.82	0	114.88	0
112.78	0	113.84	0	114.90	0
112.80	0	113.86	0	114.92	0
112.82	0	113.88	0	114.94	0
112.84	0	113.90	0	114.96	0
112.86	0	113.92	0	114.98	0
112.88	0	113.94	0		
112.90	0	113.96	0		
112.92	0	113.98	0		
112.94	0	114.00	0		
112.96	0	114.02	0		
112.98	0	114.04	0		
113.00	0	114.06	0		
113.02	0	114.08	0		

Summary for Pond 9P: PR CB #1

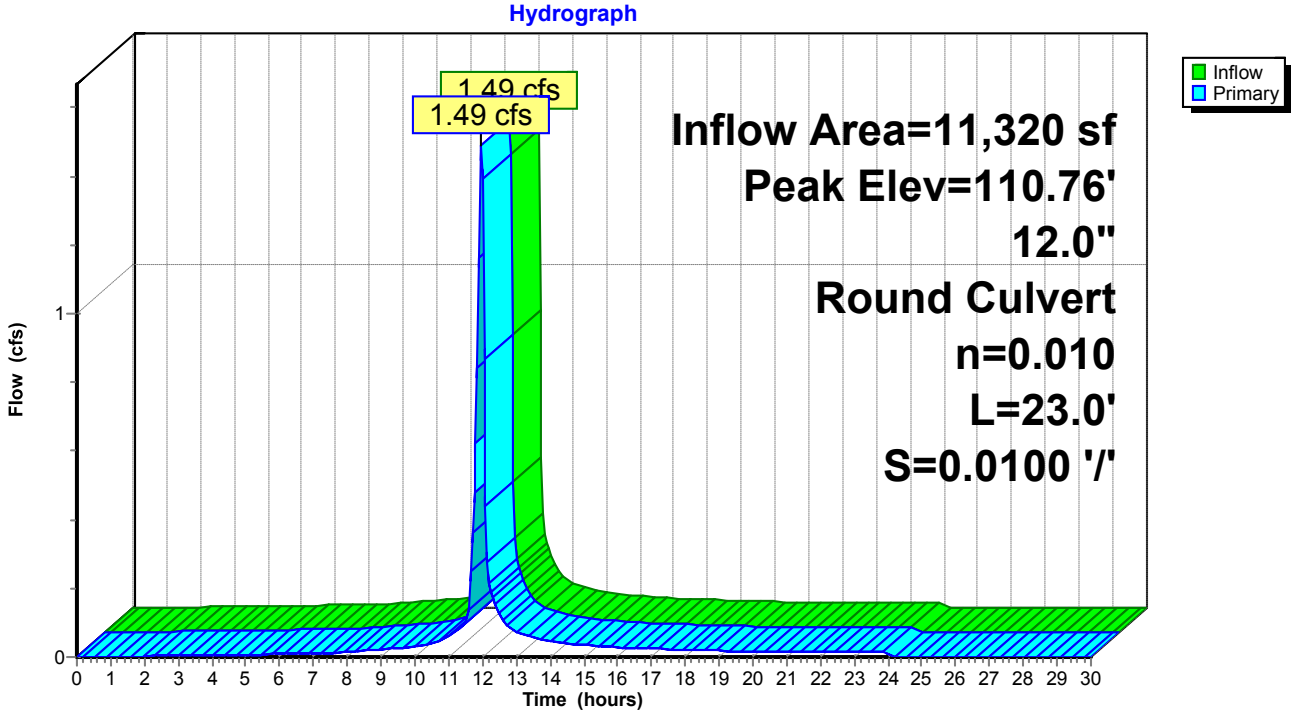
Inflow Area = 11,320 sf, 87.54% Impervious, Inflow Depth = 3.67" for 10-YEAR event
Inflow = 1.49 cfs @ 11.96 hrs, Volume= 3,458 cf
Outflow = 1.49 cfs @ 11.96 hrs, Volume= 3,458 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.49 cfs @ 11.96 hrs, Volume= 3,458 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 110.76' @ 11.96 hrs
Flood Elev= 113.00'

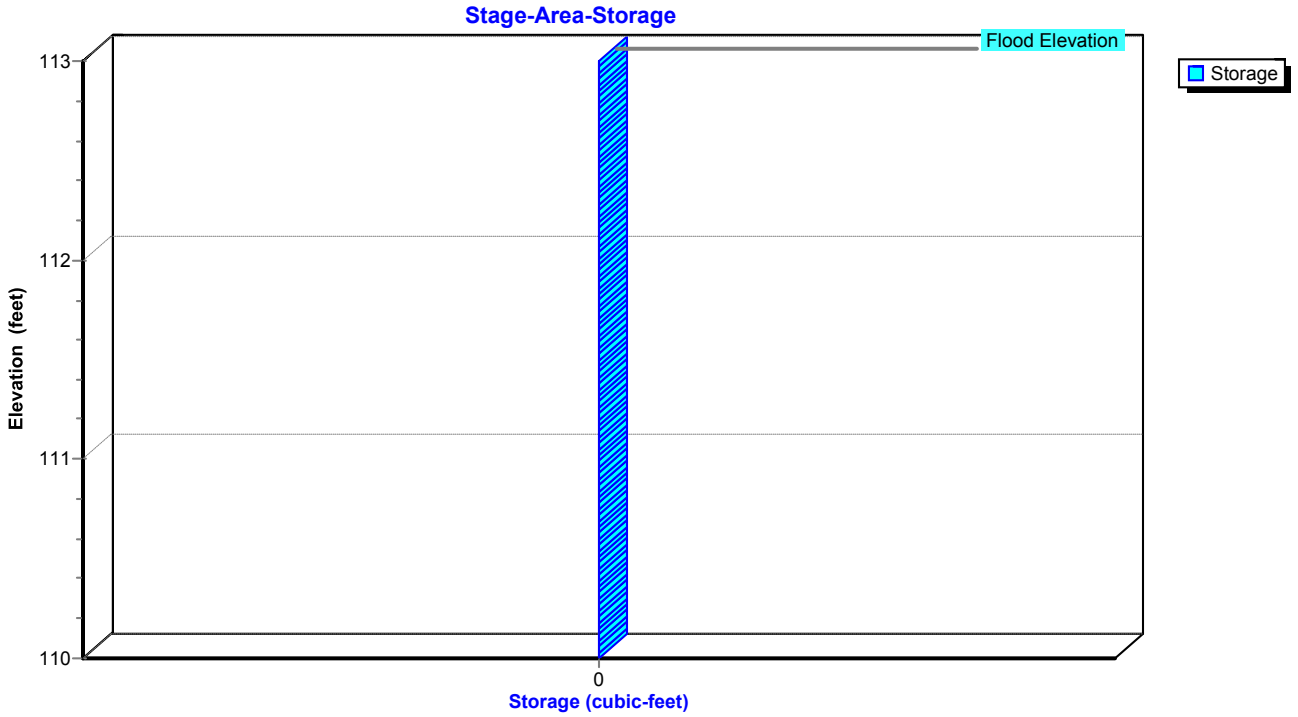
Device	Routing	Invert	Outlet Devices
#1	Primary	110.00'	**12.0" Round Culvert** L= 23.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 110.00' / 109.77' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.45 cfs @ 11.96 hrs HW=110.74' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.45 cfs @ 2.32 fps)

Pond 9P: PR CB #1



Pond 9P: PR CB #1



Stage-Area-Storage for Pond 9P: PR CB #1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
110.00	**0**	111.06	0	112.12	0
110.02	0	111.08	0	112.14	0
110.04	0	111.10	0	112.16	0
110.06	0	111.12	0	112.18	0
110.08	0	111.14	0	112.20	0
110.10	0	111.16	0	112.22	0
110.12	0	111.18	0	112.24	0
110.14	0	111.20	0	112.26	0
110.16	0	111.22	0	112.28	0
110.18	0	111.24	0	112.30	0
110.20	0	111.26	0	112.32	0
110.22	0	111.28	0	112.34	0
110.24	0	111.30	0	112.36	0
110.26	0	111.32	0	112.38	0
110.28	0	111.34	0	112.40	0
110.30	0	111.36	0	112.42	0
110.32	0	111.38	0	112.44	0
110.34	0	111.40	0	112.46	0
110.36	0	111.42	0	112.48	0
110.38	0	111.44	0	112.50	0
110.40	0	111.46	0	112.52	0
110.42	0	111.48	0	112.54	0
110.44	0	111.50	0	112.56	0
110.46	0	111.52	0	112.58	0
110.48	0	111.54	0	112.60	0
110.50	0	111.56	0	112.62	0
110.52	0	111.58	0	112.64	0
110.54	0	111.60	0	112.66	0
110.56	0	111.62	0	112.68	0
110.58	0	111.64	0	112.70	0
110.60	0	111.66	0	112.72	0
110.62	0	111.68	0	112.74	0
110.64	0	111.70	0	112.76	0
110.66	0	111.72	0	112.78	0
110.68	0	111.74	0	112.80	0
110.70	0	111.76	0	112.82	0
110.72	0	111.78	0	112.84	0
110.74	0	111.80	0	112.86	0
110.76	0	111.82	0	112.88	0
110.78	0	111.84	0	112.90	0
110.80	0	111.86	0	112.92	0
110.82	0	111.88	0	112.94	0
110.84	0	111.90	0	112.96	0
110.86	0	111.92	0	112.98	0
110.88	0	111.94	0	113.00	0
110.90	0	111.96	0		
110.92	0	111.98	0		
110.94	0	112.00	0		
110.96	0	112.02	0		
110.98	0	112.04	0		
111.00	0	112.06	0		
111.02	0	112.08	0		
111.04	0	112.10	0		

Summary for Pond 10P: UGC-1

Inflow Area = 11,320 sf, 87.54% Impervious, Inflow Depth = 3.67" for 10-YEAR event
Inflow = 1.49 cfs @ 11.96 hrs, Volume= 3,458 cf
Outflow = 0.17 cfs @ 11.65 hrs, Volume= 3,458 cf, Atten= 89%, Lag= 0.0 min
Discarded = 0.17 cfs @ 11.65 hrs, Volume= 3,458 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 109.63' @ 12.32 hrs Surf.Area= 1,178 sf Storage= 1,163 cf

Plug-Flow detention time= 42.7 min calculated for 3,452 cf (100% of inflow)
Center-of-Mass det. time= 42.6 min (817.2 - 774.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	108.00'	1,452 cf	**15.75'W x 74.82'L x 4.25'H Field A** 5,008 cf Overall - 1,378 cf Embedded = 3,630 cf x 40.0% Voids
#2A	108.75'	1,378 cf	**ADS_StormTech SC-740 +Cap** x 30 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 3 Rows of 10 Chambers
		2,830 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	108.00'	**6.200 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.17 cfs @ 11.65 hrs HW=108.05' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.17 cfs)

Pond 10P: UGC-1 - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

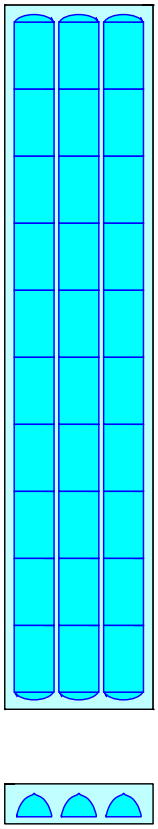
10 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 72.82' Row Length +12.0" End Stone x 2 = 74.82' Base Length
3 Rows x 51.0" Wide + 6.0" Spacing x 2 + 12.0" Side Stone x 2 = 15.75' Base Width
9.0" Base + 30.0" Chamber Height + 12.0" Cover = 4.25' Field Height

30 Chambers x 45.9 cf = 1,378.2 cf Chamber Storage

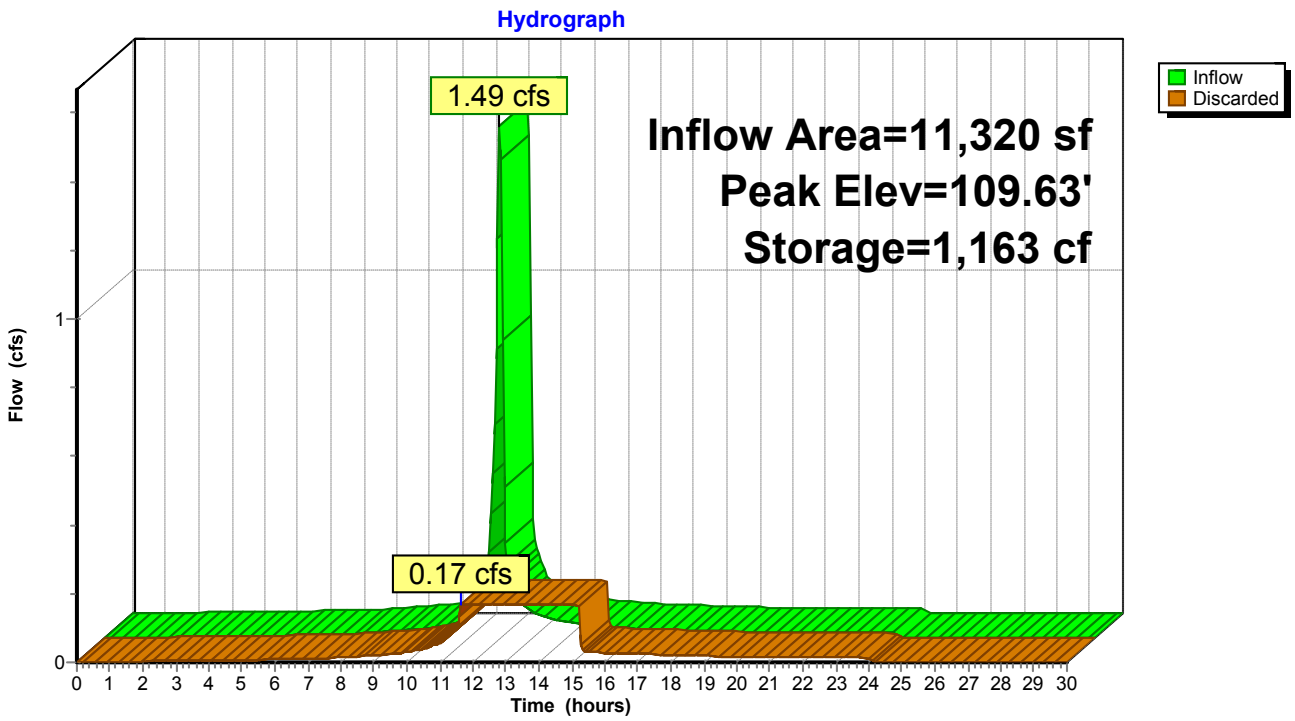
5,008.0 cf Field - 1,378.2 cf Chambers = 3,629.8 cf Stone x 40.0% Voids = 1,451.9 cf Stone Storage

Chamber Storage + Stone Storage = 2,830.1 cf = 0.065 af
Overall Storage Efficiency = 56.5%
Overall System Size = 74.82' x 15.75' x 4.25'

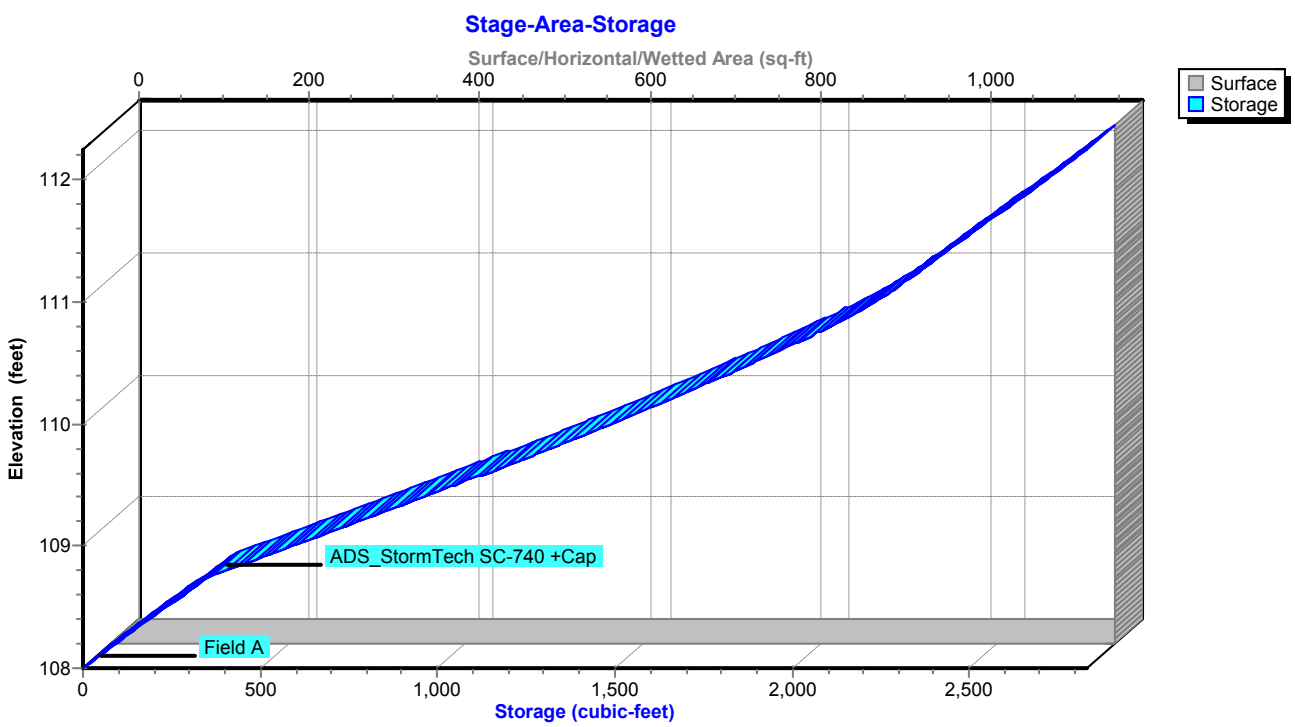
30 Chambers
185.5 cy Field
134.4 cy Stone



Pond 10P: UGC-1



Pond 10P: UGC-1



Stage-Area-Storage for Pond 10P: UGC-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
108.00	**1,178**	0
108.05	1,178	24
108.10	1,178	47
108.15	1,178	71
108.20	1,178	94
108.25	1,178	118
108.30	1,178	141
108.35	1,178	165
108.40	1,178	189
108.45	1,178	212
108.50	1,178	236
108.55	1,178	259
108.60	1,178	283
108.65	1,178	306
108.70	1,178	330
108.75	1,178	354
108.80	1,178	401
108.85	1,178	448
108.90	1,178	496
108.95	1,178	543
109.00	1,178	590
109.05	1,178	637
109.10	1,178	683
109.15	1,178	730
109.20	1,178	776
109.25	1,178	823
109.30	1,178	869
109.35	1,178	915
109.40	1,178	960
109.45	1,178	1,006
109.50	1,178	1,051
109.55	1,178	1,096
109.60	1,178	1,140
109.65	1,178	1,185
109.70	1,178	1,229
109.75	1,178	1,273
109.80	1,178	1,317
109.85	1,178	1,360
109.90	1,178	1,403
109.95	1,178	1,446
110.00	1,178	1,488
110.05	1,178	1,530
110.10	1,178	1,572
110.15	1,178	1,613
110.20	1,178	1,654
110.25	1,178	1,695
110.30	1,178	1,735
110.35	1,178	1,774
110.40	1,178	1,814
110.45	1,178	1,852
110.50	1,178	1,890
110.55	1,178	1,928
110.60	1,178	1,965
110.65	1,178	2,001
110.70	1,178	2,037
110.75	1,178	2,071
110.80	1,178	2,105
110.85	1,178	2,139
110.90	1,178	2,171
110.95	1,178	2,202
111.00	1,178	2,231
111.05	1,178	2,259
111.10	1,178	2,285
111.15	1,178	2,310
111.20	1,178	2,335
111.25	1,178	2,359
111.30	1,178	2,382
111.35	1,178	2,406
111.40	1,178	2,429
111.45	1,178	2,453
111.50	1,178	2,477
111.55	1,178	2,500
111.60	1,178	2,524
111.65	1,178	2,547
111.70	1,178	2,571
111.75	1,178	2,594
111.80	1,178	2,618
111.85	1,178	2,642
111.90	1,178	2,665
111.95	1,178	2,689
112.00	1,178	2,712
112.05	1,178	2,736
112.10	1,178	2,759
112.15	1,178	2,783
112.20	1,178	2,807
112.25	1,178	**2,830**

Summary for Pond 11P: PR CB #2

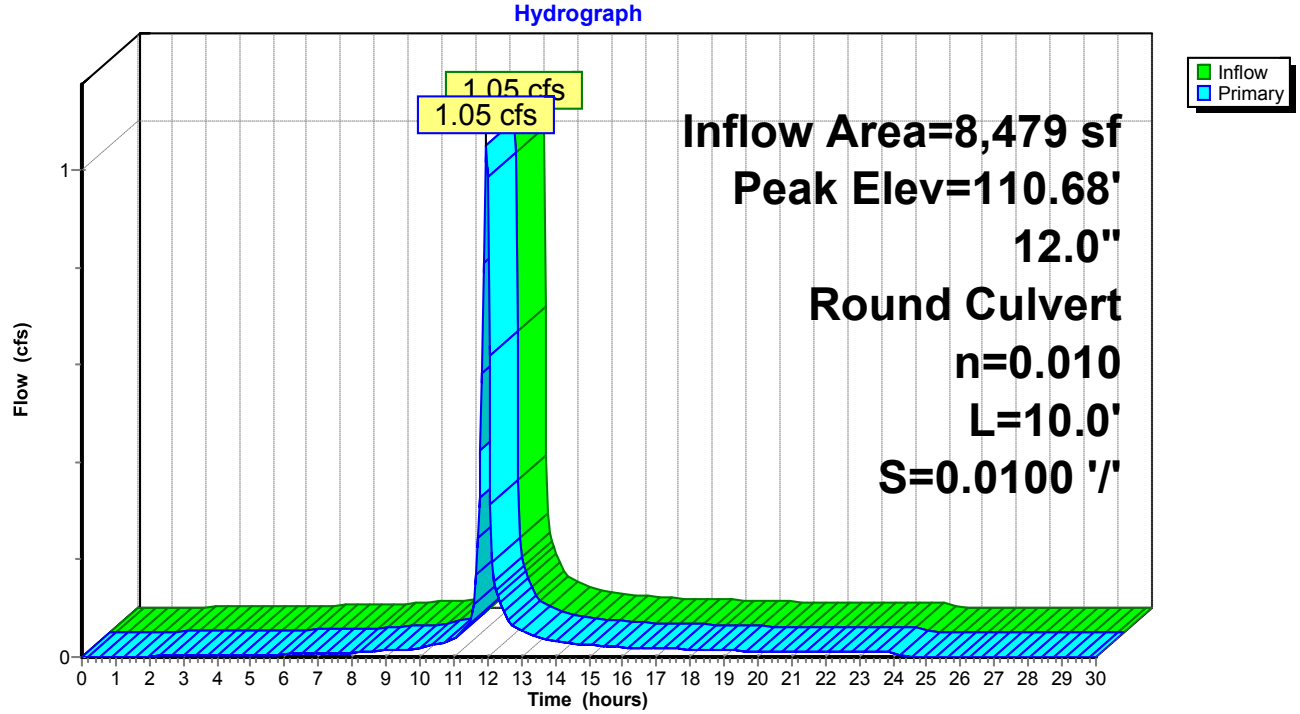
Inflow Area = 8,479 sf, 83.52% Impervious, Inflow Depth = 3.42" for 10-YEAR event
Inflow = 1.05 cfs @ 11.97 hrs, Volume= 2,417 cf
Outflow = 1.05 cfs @ 11.97 hrs, Volume= 2,417 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.05 cfs @ 11.97 hrs, Volume= 2,417 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 110.68' @ 11.97 hrs
Flood Elev= 113.14'

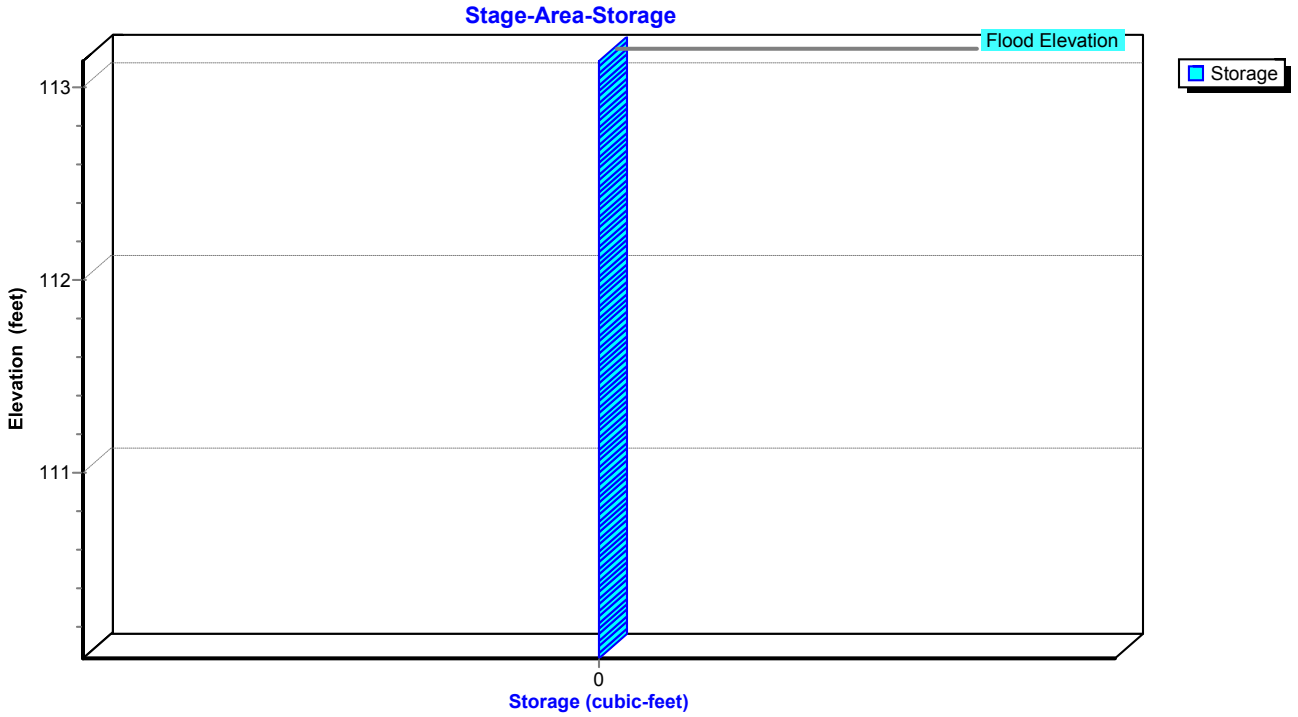
Device	Routing	Invert	Outlet Devices
#1	Primary	110.04'	**12.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 110.04' / 109.94' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.02 cfs @ 11.97 hrs HW=110.67' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.02 cfs @ 2.81 fps)

Pond 11P: PR CB #2



Pond 11P: PR CB #2



Stage-Area-Storage for Pond 11P: PR CB #2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
110.04	**0**	111.10	0	112.16	0
110.06	0	111.12	0	112.18	0
110.08	0	111.14	0	112.20	0
110.10	0	111.16	0	112.22	0
110.12	0	111.18	0	112.24	0
110.14	0	111.20	0	112.26	0
110.16	0	111.22	0	112.28	0
110.18	0	111.24	0	112.30	0
110.20	0	111.26	0	112.32	0
110.22	0	111.28	0	112.34	0
110.24	0	111.30	0	112.36	0
110.26	0	111.32	0	112.38	0
110.28	0	111.34	0	112.40	0
110.30	0	111.36	0	112.42	0
110.32	0	111.38	0	112.44	0
110.34	0	111.40	0	112.46	0
110.36	0	111.42	0	112.48	0
110.38	0	111.44	0	112.50	0
110.40	0	111.46	0	112.52	0
110.42	0	111.48	0	112.54	0
110.44	0	111.50	0	112.56	0
110.46	0	111.52	0	112.58	0
110.48	0	111.54	0	112.60	0
110.50	0	111.56	0	112.62	0
110.52	0	111.58	0	112.64	0
110.54	0	111.60	0	112.66	0
110.56	0	111.62	0	112.68	0
110.58	0	111.64	0	112.70	0
110.60	0	111.66	0	112.72	0
110.62	0	111.68	0	112.74	0
110.64	0	111.70	0	112.76	0
110.66	0	111.72	0	112.78	0
110.68	0	111.74	0	112.80	0
110.70	0	111.76	0	112.82	0
110.72	0	111.78	0	112.84	0
110.74	0	111.80	0	112.86	0
110.76	0	111.82	0	112.88	0
110.78	0	111.84	0	112.90	0
110.80	0	111.86	0	112.92	0
110.82	0	111.88	0	112.94	0
110.84	0	111.90	0	112.96	0
110.86	0	111.92	0	112.98	0
110.88	0	111.94	0	113.00	0
110.90	0	111.96	0	113.02	0
110.92	0	111.98	0	113.04	0
110.94	0	112.00	0	113.06	0
110.96	0	112.02	0	113.08	0
110.98	0	112.04	0	113.10	0
111.00	0	112.06	0	113.12	0
111.02	0	112.08	0	113.14	0
111.04	0	112.10	0		
111.06	0	112.12	0		
111.08	0	112.14	0		

Summary for Pond 13P: PR CB #3

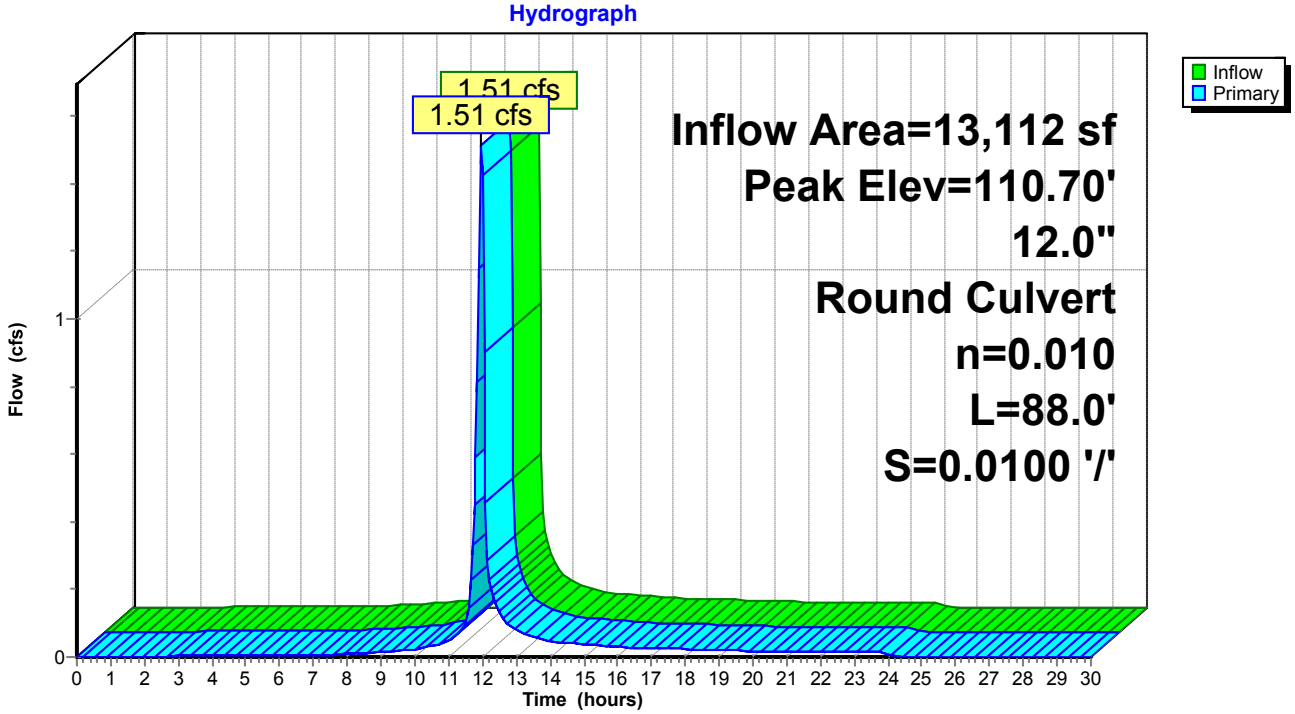
Inflow Area = 13,112 sf, 77.91% Impervious, Inflow Depth = 3.11" for 10-YEAR event
Inflow = 1.51 cfs @ 11.97 hrs, Volume= 3,393 cf
Outflow = 1.51 cfs @ 11.97 hrs, Volume= 3,393 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.51 cfs @ 11.97 hrs, Volume= 3,393 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 110.70' @ 11.97 hrs
Flood Elev= 113.14'

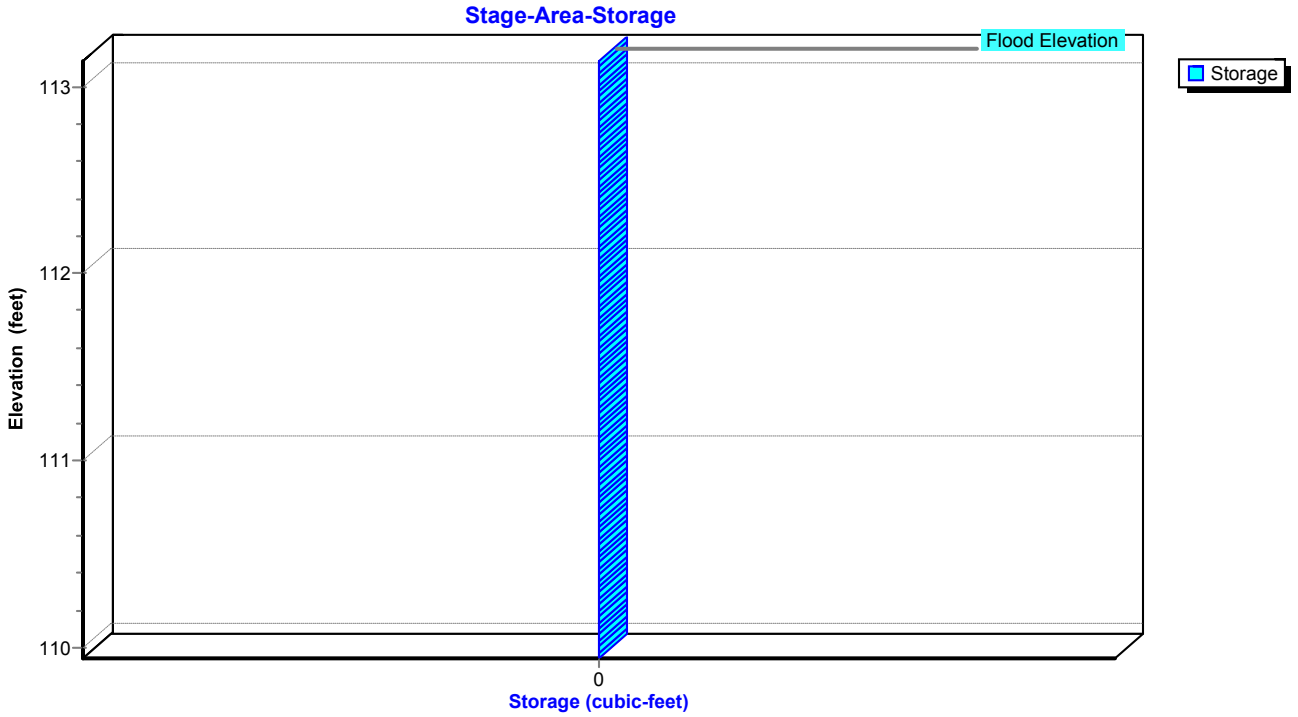
Device	Routing	Invert	Outlet Devices
#1	Primary	109.94'	**12.0" Round Culvert** L= 88.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 109.94' / 109.06' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.47 cfs @ 11.97 hrs HW=110.69' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.47 cfs @ 2.33 fps)

Pond 13P: PR CB #3



Pond 13P: PR CB #3



Stage-Area-Storage for Pond 13P: PR CB #3

Elevation (feet)	Storage (cubic-feet)
109.94	**0**
109.99	0
110.04	0
110.09	0
110.14	0
110.19	0
110.24	0
110.29	0
110.34	0
110.39	0
110.44	0
110.49	0
110.54	0
110.59	0
110.64	0
110.69	0
110.74	0
110.79	0
110.84	0
110.89	0
110.94	0
110.99	0
111.04	0
111.09	0
111.14	0
111.19	0
111.24	0
111.29	0
111.34	0
111.39	0
111.44	0
111.49	0
111.54	0
111.59	0
111.64	0
111.69	0
111.74	0
111.79	0
111.84	0
111.89	0
111.94	0
111.99	0
112.04	0
112.09	0
112.14	0
112.19	0
112.24	0
112.29	0
112.34	0
112.39	0
112.44	0
112.49	0
112.54	0
112.59	0
112.64	0
112.69	0
112.74	0
112.79	0
112.84	0
112.89	0
112.94	0
112.99	0
113.04	0
113.09	0
113.14	0

Summary for Pond 15P: PR CB #4

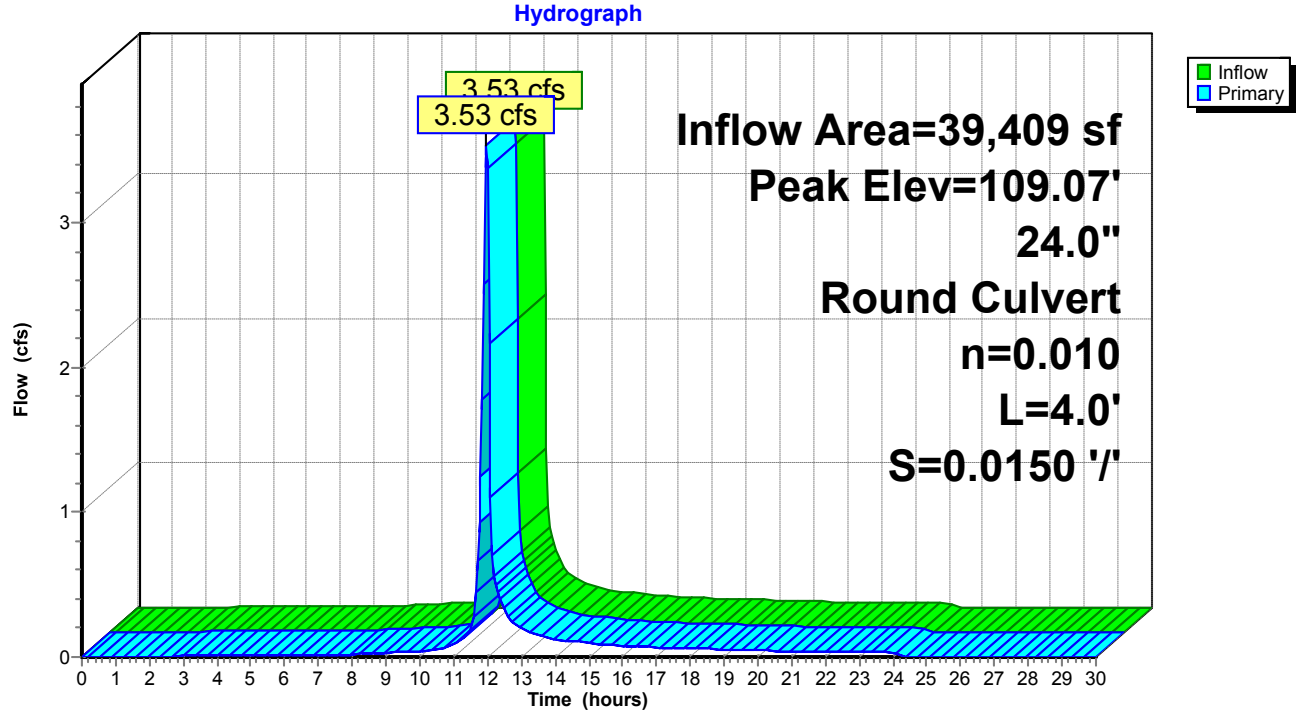
Inflow Area =	39,409 sf, 64.10% Impervious, Inflow Depth = 2.43" for 10-YEAR event				
Inflow =	3.53 cfs @	11.97 hrs, Volume=	7,965 cf		
Outflow =	3.53 cfs @	11.97 hrs, Volume=	7,965 cf, Atten= 0%, Lag= 0.0 min		
Primary =	3.53 cfs @	11.97 hrs, Volume=	7,965 cf		

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 109.07' @ 11.97 hrs
Flood Elev= 113.22'

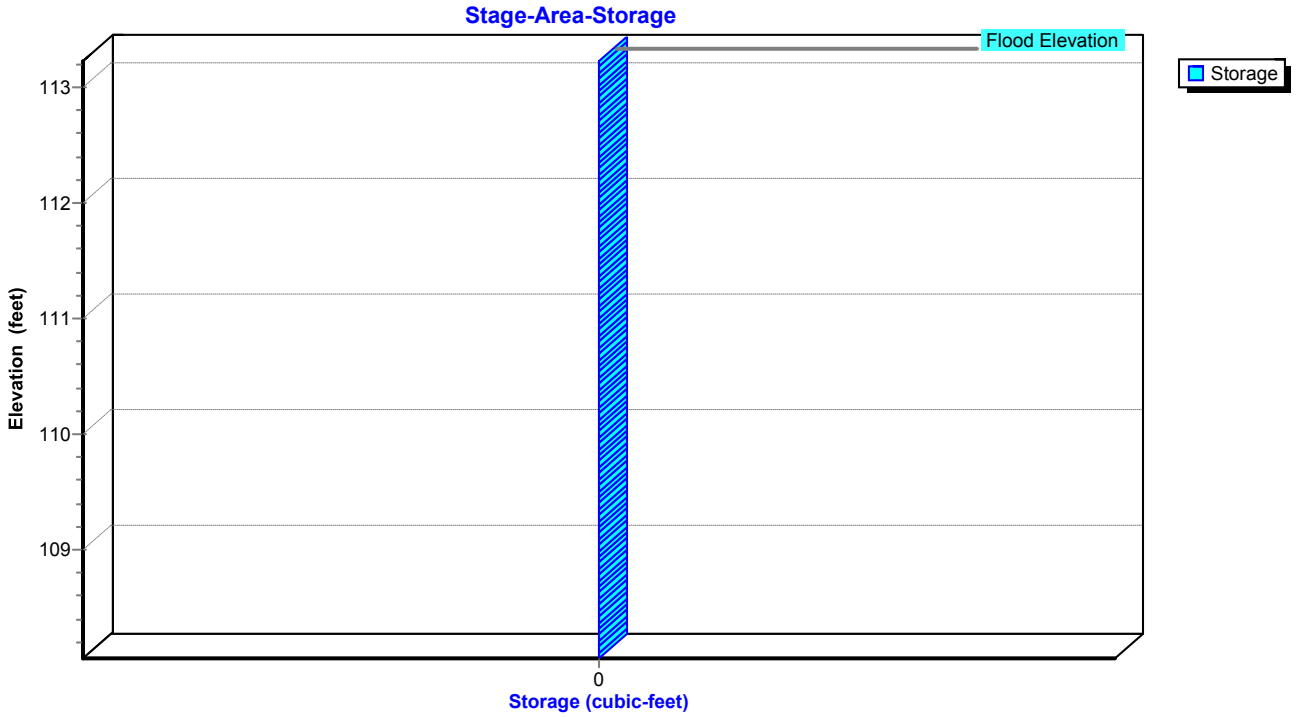
Device	Routing	Invert	Outlet Devices
#1	Primary	108.06'	**24.0" Round Culvert** L= 4.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.06' / 108.00' S= 0.0150 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=3.42 cfs @ 11.97 hrs HW=109.05' (Free Discharge)
└**1=Culvert** (Barrel Controls 3.42 cfs @ 3.20 fps)

Pond 15P: PR CB #4



Pond 15P: PR CB #4



Stage-Area-Storage for Pond 15P: PR CB #4

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
108.06	**0**	110.18	0	112.30	0
108.10	0	110.22	0	112.34	0
108.14	0	110.26	0	112.38	0
108.18	0	110.30	0	112.42	0
108.22	0	110.34	0	112.46	0
108.26	0	110.38	0	112.50	0
108.30	0	110.42	0	112.54	0
108.34	0	110.46	0	112.58	0
108.38	0	110.50	0	112.62	0
108.42	0	110.54	0	112.66	0
108.46	0	110.58	0	112.70	0
108.50	0	110.62	0	112.74	0
108.54	0	110.66	0	112.78	0
108.58	0	110.70	0	112.82	0
108.62	0	110.74	0	112.86	0
108.66	0	110.78	0	112.90	0
108.70	0	110.82	0	112.94	0
108.74	0	110.86	0	112.98	0
108.78	0	110.90	0	113.02	0
108.82	0	110.94	0	113.06	0
108.86	0	110.98	0	113.10	0
108.90	0	111.02	0	113.14	0
108.94	0	111.06	0	113.18	0
108.98	0	111.10	0	113.22	0
109.02	0	111.14	0		
109.06	0	111.18	0		
109.10	0	111.22	0		
109.14	0	111.26	0		
109.18	0	111.30	0		
109.22	0	111.34	0		
109.26	0	111.38	0		
109.30	0	111.42	0		
109.34	0	111.46	0		
109.38	0	111.50	0		
109.42	0	111.54	0		
109.46	0	111.58	0		
109.50	0	111.62	0		
109.54	0	111.66	0		
109.58	0	111.70	0		
109.62	0	111.74	0		
109.66	0	111.78	0		
109.70	0	111.82	0		
109.74	0	111.86	0		
109.78	0	111.90	0		
109.82	0	111.94	0		
109.86	0	111.98	0		
109.90	0	112.02	0		
109.94	0	112.06	0		
109.98	0	112.10	0		
110.02	0	112.14	0		
110.06	0	112.18	0		
110.10	0	112.22	0		
110.14	0	112.26	0		

Summary for Pond 17P: UGC-2

Inflow Area = 39,409 sf, 64.10% Impervious, Inflow Depth = 2.43" for 10-YEAR event
Inflow = 3.53 cfs @ 11.97 hrs, Volume= 7,965 cf
Outflow = 1.17 cfs @ 11.80 hrs, Volume= 7,965 cf, Atten= 67%, Lag= 0.0 min
Discarded = 1.17 cfs @ 11.80 hrs, Volume= 7,965 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 108.56' @ 12.11 hrs Surf.Area= 1,609 sf Storage= 1,391 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 5.0 min (810.6 - 805.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	107.00'	2,478 cf	**22.92'W x 70.23'L x 5.75'H Field A** 9,254 cf Overall - 3,058 cf Embedded = 6,196 cf x 40.0% Voids
#2A	108.00'	3,058 cf	**ADS_StormTech MC-3500 d +Cap** x 27 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 3 Rows of 9 Chambers Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
		5,537 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	107.00'	**31.400 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.17 cfs @ 11.80 hrs HW=107.06' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 1.17 cfs)

Pond 17P: UGC-2 - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-3500 d +Cap (ADS StormTech® MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf

77.0" Wide + 10.0" Spacing = 87.0" C-C Row Spacing

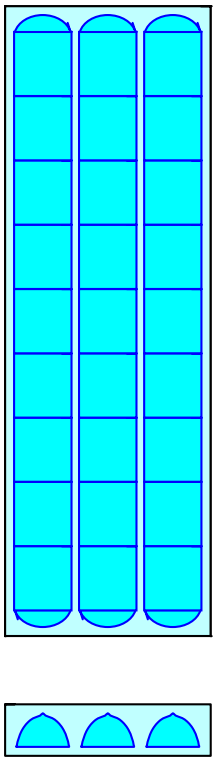
9 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 68.23' Row Length +12.0" End Stone x 2 = 70.23' Base Length
3 Rows x 77.0" Wide + 10.0" Spacing x 2 + 12.0" Side Stone x 2 = 22.92' Base Width
12.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.75' Field Height

27 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 3 Rows = 3,058.1 cf Chamber Storage

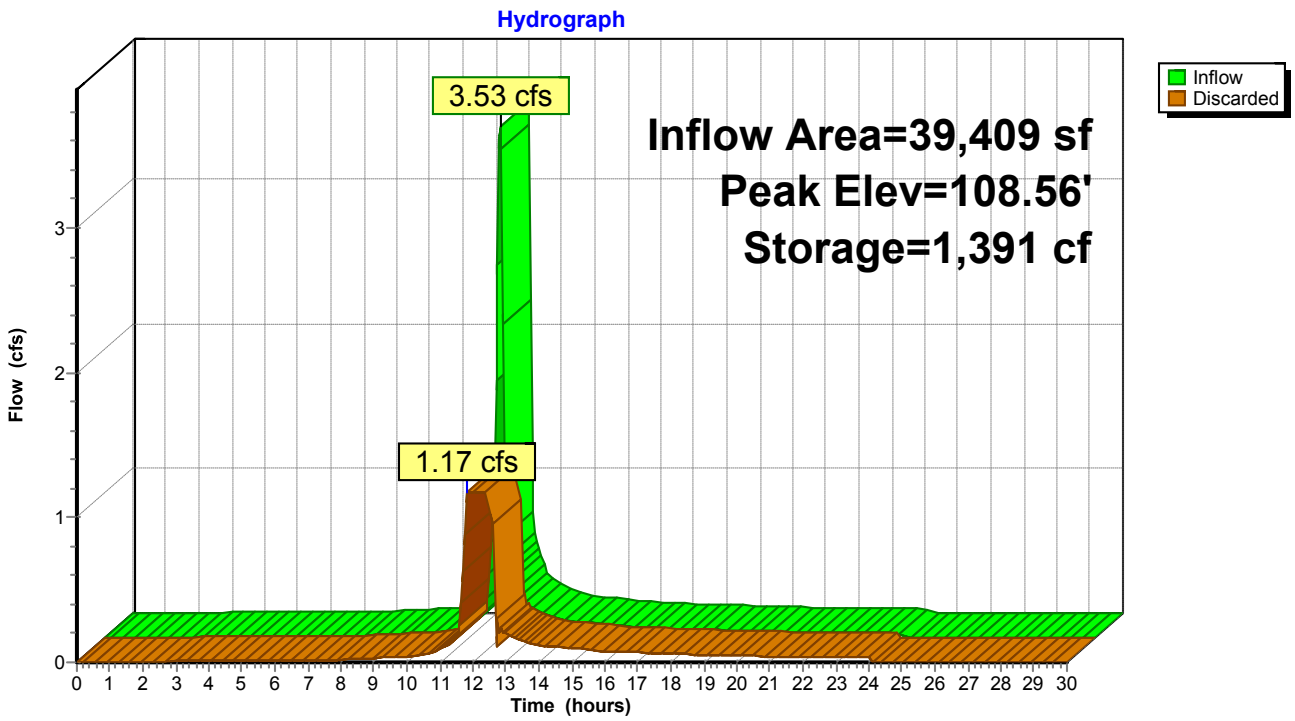
9,254.3 cf Field - 3,058.1 cf Chambers = 6,196.2 cf Stone x 40.0% Voids = 2,478.5 cf Stone Storage

Chamber Storage + Stone Storage = 5,536.6 cf = 0.127 af
Overall Storage Efficiency = 59.8%
Overall System Size = 70.23' x 22.92' x 5.75'

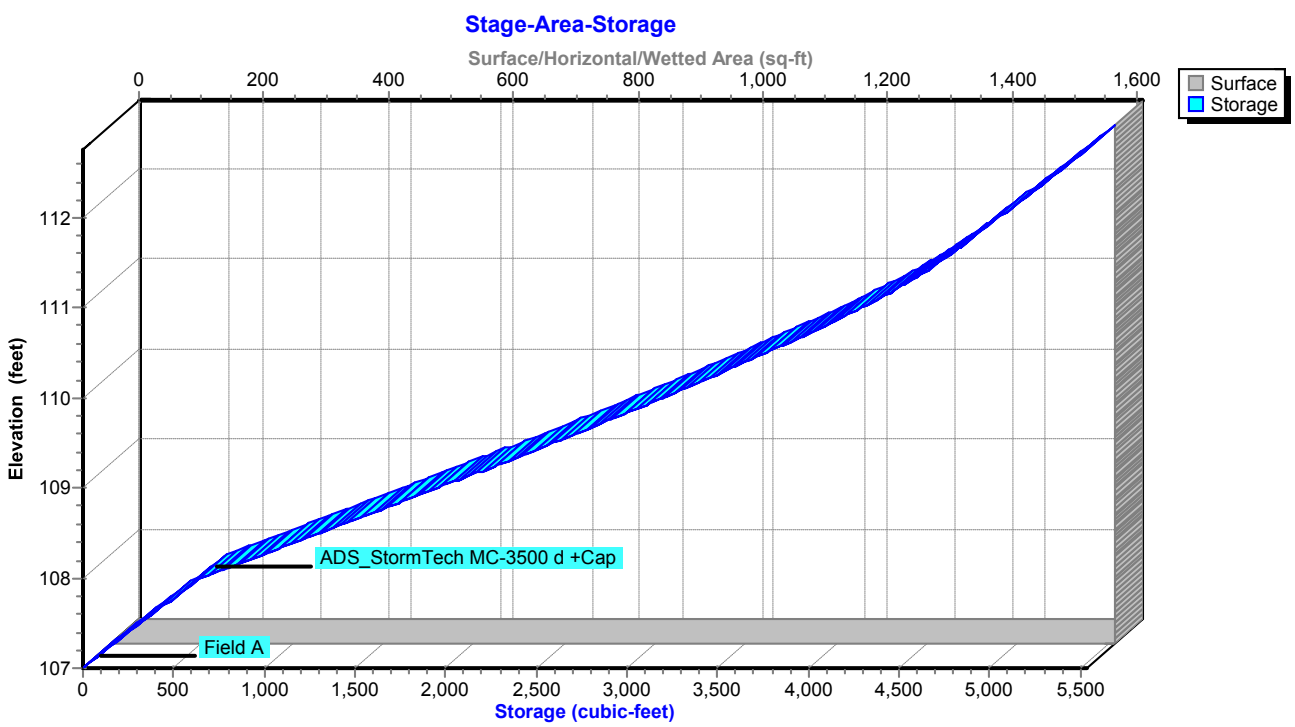
27 Chambers
342.8 cy Field
229.5 cy Stone



Pond 17P: UGC-2



Pond 17P: UGC-2



Stage-Area-Storage for Pond 17P: UGC-2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
107.00	**1,609**	0
107.10	1,609	64
107.20	1,609	129
107.30	1,609	193
107.40	1,609	258
107.50	1,609	322
107.60	1,609	386
107.70	1,609	451
107.80	1,609	515
107.90	1,609	579
108.00	1,609	644
108.10	1,609	778
108.20	1,609	912
108.30	1,609	1,046
108.40	1,609	1,178
108.50	1,609	1,311
108.60	1,609	1,443
108.70	1,609	1,574
108.80	1,609	1,704
108.90	1,609	1,834
109.00	1,609	1,963
109.10	1,609	2,092
109.20	1,609	2,219
109.30	1,609	2,346
109.40	1,609	2,472
109.50	1,609	2,597
109.60	1,609	2,720
109.70	1,609	2,843
109.80	1,609	2,965
109.90	1,609	3,085
110.00	1,609	3,204
110.10	1,609	3,321
110.20	1,609	3,437
110.30	1,609	3,551
110.40	1,609	3,664
110.50	1,609	3,775
110.60	1,609	3,884
110.70	1,609	3,990
110.80	1,609	4,094
110.90	1,609	4,196
111.00	1,609	4,295
111.10	1,609	4,390
111.20	1,609	4,482
111.30	1,609	4,569
111.40	1,609	4,649
111.50	1,609	4,723
111.60	1,609	4,793
111.70	1,609	4,860
111.80	1,609	4,925
111.90	1,609	4,989
112.00	1,609	5,054
112.10	1,609	5,118
112.20	1,609	5,182
112.30	1,609	5,247
112.40	1,609	5,311
112.50	1,609	5,376
112.60	1,609	5,440
112.70	1,609	**5,504**

Summary for Pond DP-3: DP-3

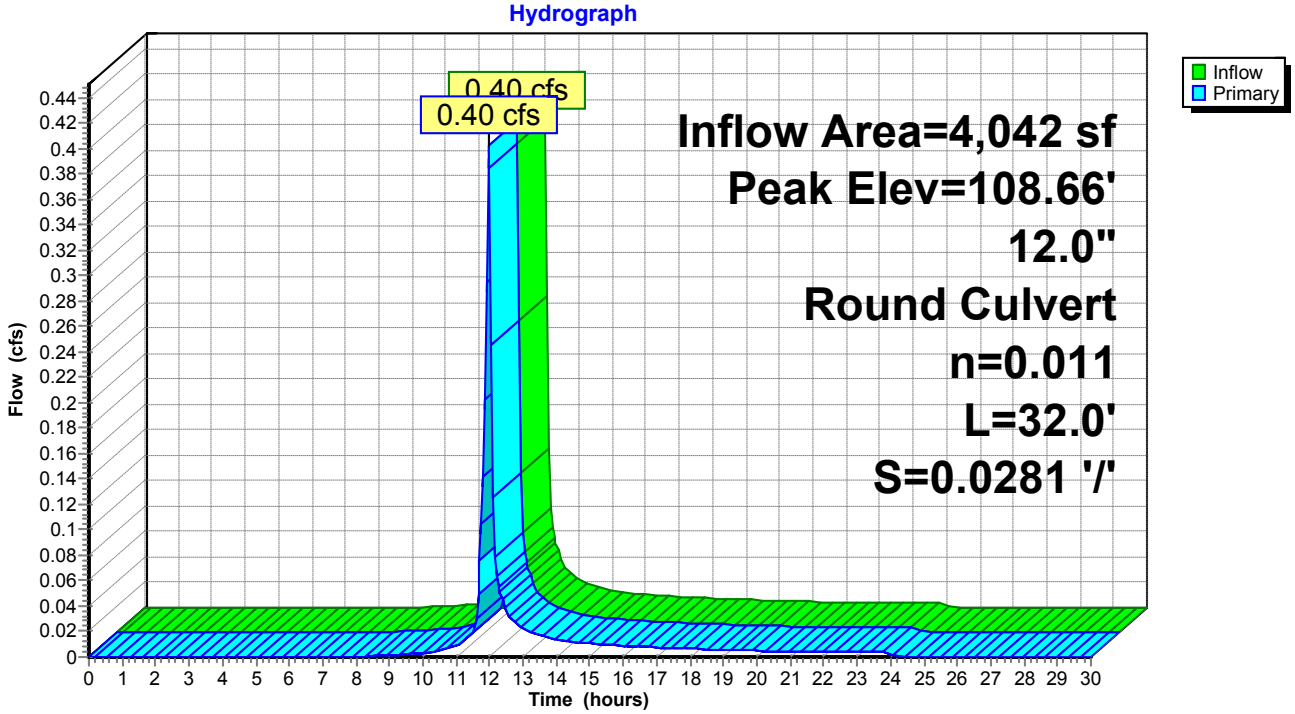
Inflow Area =	4,042 sf, 67.84% Impervious, Inflow Depth = 2.53" for 10-YEAR event				
Inflow =	0.40 cfs @	11.97 hrs, Volume=	852 cf		
Outflow =	0.40 cfs @	11.97 hrs, Volume=	852 cf, Atten= 0%, Lag= 0.0 min		
Primary =	0.40 cfs @	11.97 hrs, Volume=	852 cf		

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 108.66' @ 11.97 hrs
Flood Elev= 112.38'

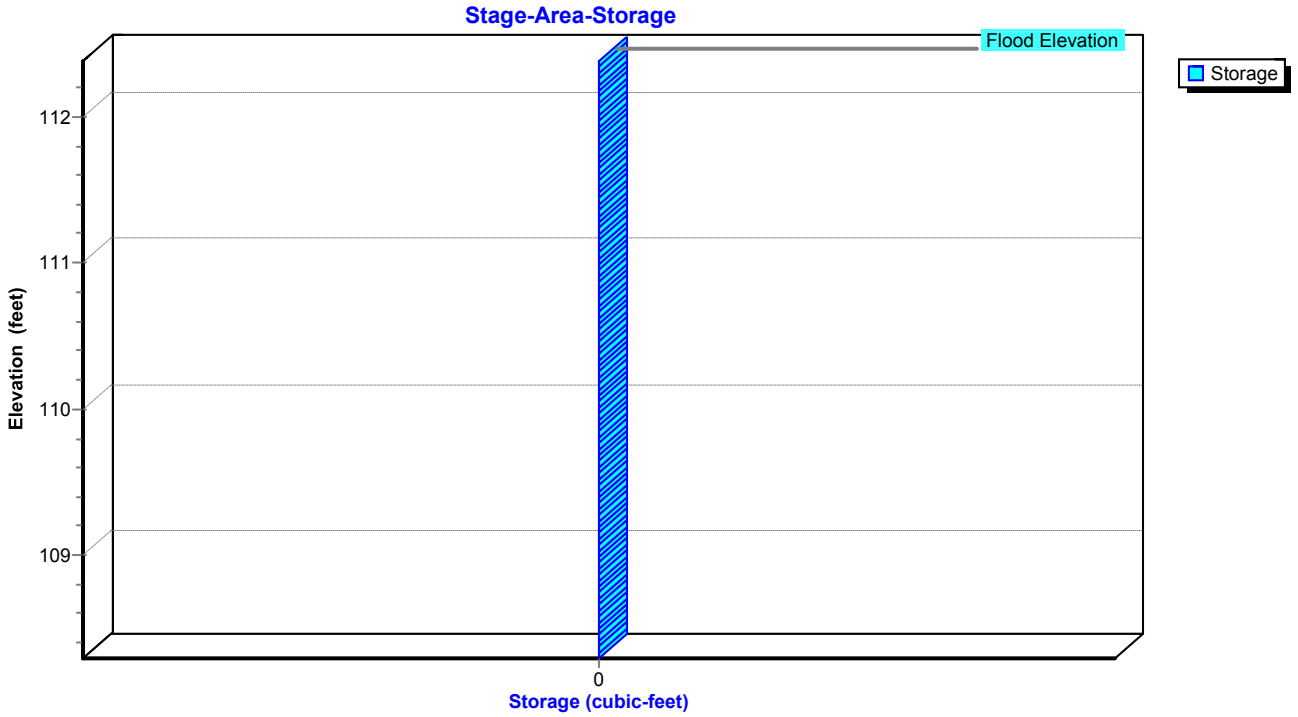
Device	Routing	Invert	Outlet Devices
#1	Primary	108.30'	**12.0" Round Culvert** L= 32.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 107.40' S= 0.0281 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=0.39 cfs @ 11.97 hrs HW=108.65' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.39 cfs @ 1.59 fps)

Pond DP-3: DP-3



Pond DP-3: DP-3


Stage-Area-Storage
Flood Elevation
Storage
Elevation (feet)
112
111
110
109
0
Storage (cubic-feet)

Stage-Area-Storage for Pond DP-3: DP-3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
108.30	**0**	110.95	0
108.35	0	111.00	0
108.40	0	111.05	0
108.45	0	111.10	0
108.50	0	111.15	0
108.55	0	111.20	0
108.60	0	111.25	0
108.65	0	111.30	0
108.70	0	111.35	0
108.75	0	111.40	0
108.80	0	111.45	0
108.85	0	111.50	0
108.90	0	111.55	0
108.95	0	111.60	0
109.00	0	111.65	0
109.05	0	111.70	0
109.10	0	111.75	0
109.15	0	111.80	0
109.20	0	111.85	0
109.25	0	111.90	0
109.30	0	111.95	0
109.35	0	112.00	0
109.40	0	112.05	0
109.45	0	112.10	0
109.50	0	112.15	0
109.55	0	112.20	0
109.60	0	112.25	0
109.65	0	112.30	0
109.70	0	112.35	0
109.75	0		
109.80	0		
109.85	0		
109.90	0		
109.95	0		
110.00	0		
110.05	0		
110.10	0		
110.15	0		
110.20	0		
110.25	0		
110.30	0		
110.35	0		
110.40	0		
110.45	0		
110.50	0		
110.55	0		
110.60	0		
110.65	0		
110.70	0		
110.75	0		
110.80	0		
110.85	0		
110.90	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=33,352 sf 61.72% Impervious Runoff Depth=5.71"
Tc=6.0 min CN=79 Runoff=7.27 cfs 15,879 cf

Subcatchment DA-10: DA-10 Runoff Area=4,891 sf 100.00% Impervious Runoff Depth=7.98"
Tc=6.0 min CN=98 Runoff=1.28 cfs 3,253 cf

Subcatchment DA-11: DA-11 Runoff Area=3,220 sf 100.00% Impervious Runoff Depth=7.98"
Tc=6.0 min CN=98 Runoff=0.84 cfs 2,141 cf

Subcatchment DA-2: DA-2 Runoff Area=5,279 sf 65.56% Impervious Runoff Depth=5.59"
Tc=6.0 min CN=78 Runoff=1.13 cfs 2,461 cf

Subcatchment DA-3: DA-3 Runoff Area=4,042 sf 67.84% Impervious Runoff Depth=5.71"
Tc=6.0 min CN=79 Runoff=0.88 cfs 1,924 cf

Subcatchment DA-4: DA-4 Runoff Area=21,677 sf 48.09% Impervious Runoff Depth=4.30"
Tc=6.0 min CN=67 Runoff=3.68 cfs 7,776 cf

Subcatchment DA-5: DA-5 Runoff Area=4,633 sf 67.65% Impervious Runoff Depth=5.71"
Tc=6.0 min CN=79 Runoff=1.01 cfs 2,206 cf

Subcatchment DA-6: DA-6 Runoff Area=5,259 sf 73.44% Impervious Runoff Depth=6.07"
Tc=6.0 min CN=82 Runoff=1.20 cfs 2,660 cf

Subcatchment DA-7: DA-7 Runoff Area=6,429 sf 78.05% Impervious Runoff Depth=6.43"
Tc=6.0 min CN=85 Runoff=1.53 cfs 3,443 cf

Subcatchment DA-8: DA-8 Runoff Area=8,036 sf 62.98% Impervious Runoff Depth=5.36"
Tc=6.0 min CN=76 Runoff=1.66 cfs 3,588 cf

Subcatchment DA-9: DA-9 Runoff Area=4,620 sf 100.00% Impervious Runoff Depth=7.98"
Tc=6.0 min CN=98 Runoff=1.21 cfs 3,072 cf

Reach DP-1: DP-1 Inflow=7.27 cfs 15,879 cf
Outflow=7.27 cfs 15,879 cf

Reach DP-4: DP-4 Inflow=1.66 cfs 3,588 cf
Outflow=1.66 cfs 3,588 cf

Pond 1P: PR CB#5 Peak Elev=112.52' Inflow=1.13 cfs 2,461 cf
18.0" Round Culvert n=0.012 L=45.0' S=0.0100 '/' Outflow=1.13 cfs 2,461 cf

Pond 9P: PR CB #1 Peak Elev=111.38' Inflow=2.81 cfs 6,695 cf
12.0" Round Culvert n=0.010 L=23.0' S=0.0100 '/' Outflow=2.81 cfs 6,695 cf

Pond 10P: UGC-1 Peak Elev=112.01' Storage=2,719 cf Inflow=2.81 cfs 6,695 cf
Outflow=0.17 cfs 6,695 cf

Pond 11P: PR CB #2 Peak Elev=111.02' Inflow=2.04 cfs 4,801 cf
12.0" Round Culvert n=0.010 L=10.0' S=0.0100 '/' Outflow=2.04 cfs 4,801 cf

Pond 13P: PR CB #3 Peak Elev=111.48' Inflow=3.05 cfs 7,007 cf
12.0" Round Culvert n=0.010 L=88.0' S=0.0100 '/' Outflow=3.05 cfs 7,007 cf

Pond 15P: PR CB #4 Peak Elev=109.69' Inflow=7.94 cfs 17,855 cf
24.0" Round Culvert n=0.010 L=4.0' S=0.0150 '/' Outflow=7.94 cfs 17,855 cf

Pond 17P: UGC-2 Peak Elev=112.53' Storage=5,392 cf Inflow=7.94 cfs 17,855 cf
Outflow=1.17 cfs 17,881 cf

Pond DP-3: DP-3 Peak Elev=108.85' Inflow=0.88 cfs 1,924 cf
12.0" Round Culvert n=0.011 L=32.0' S=0.0281 '/' Outflow=0.88 cfs 1,924 cf

Total Runoff Area = 101,438 sf Runoff Volume = 48,402 cf Average Runoff Depth = 5.73"
33.93% Pervious = 34,420 sf 66.07% Impervious = 67,018 sf

Summary for Subcatchment DA-1: DA-1

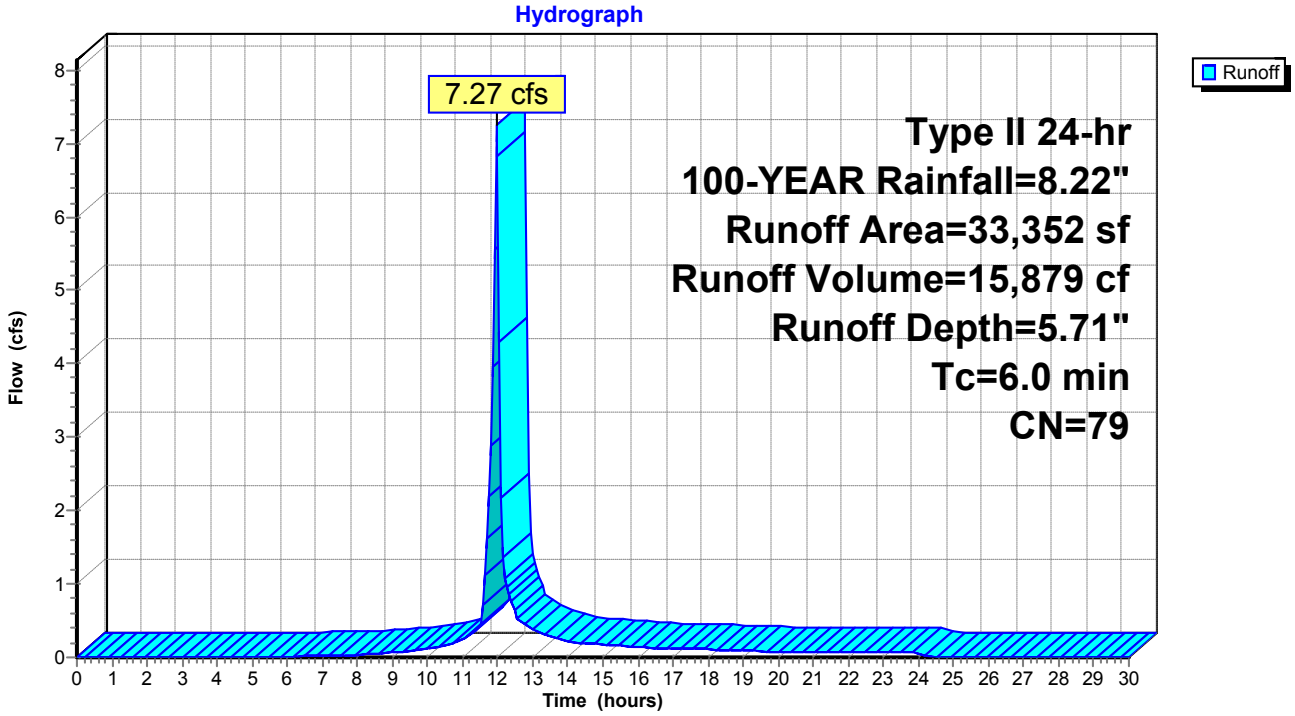
Runoff = 7.27 cfs @ 11.97 hrs, Volume= 15,879 cf, Depth= 5.71"

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 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
12,767	49	50-75% Grass cover, Fair, HSG A
20,585	98	Paved parking, HSG A
33,352	79	Weighted Average
12,767		38.28% Pervious Area
20,585		61.72% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-1: DA-1



Summary for Subcatchment DA-10: DA-10

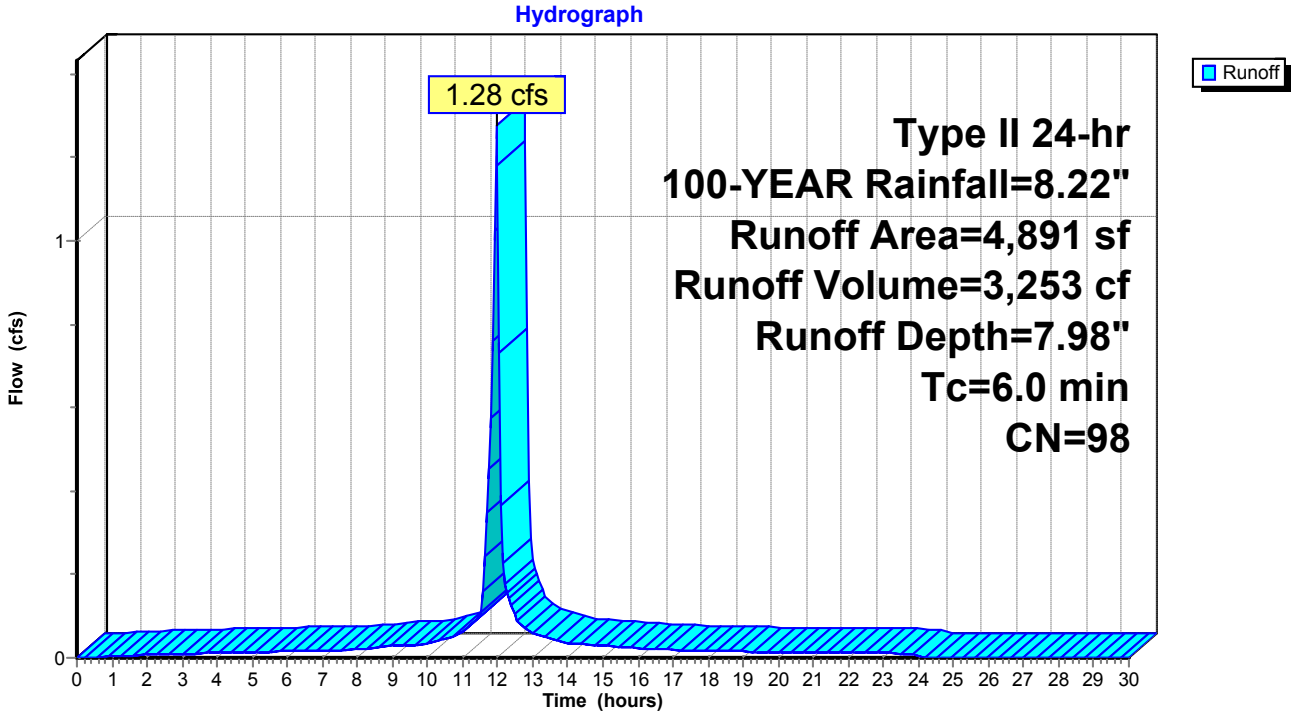
Runoff = 1.28 cfs @ 11.96 hrs, Volume= 3,253 cf, Depth= 7.98"

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
4,891	98	Roofs, HSG A
4,891		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-10: DA-10



Summary for Subcatchment DA-11: DA-11

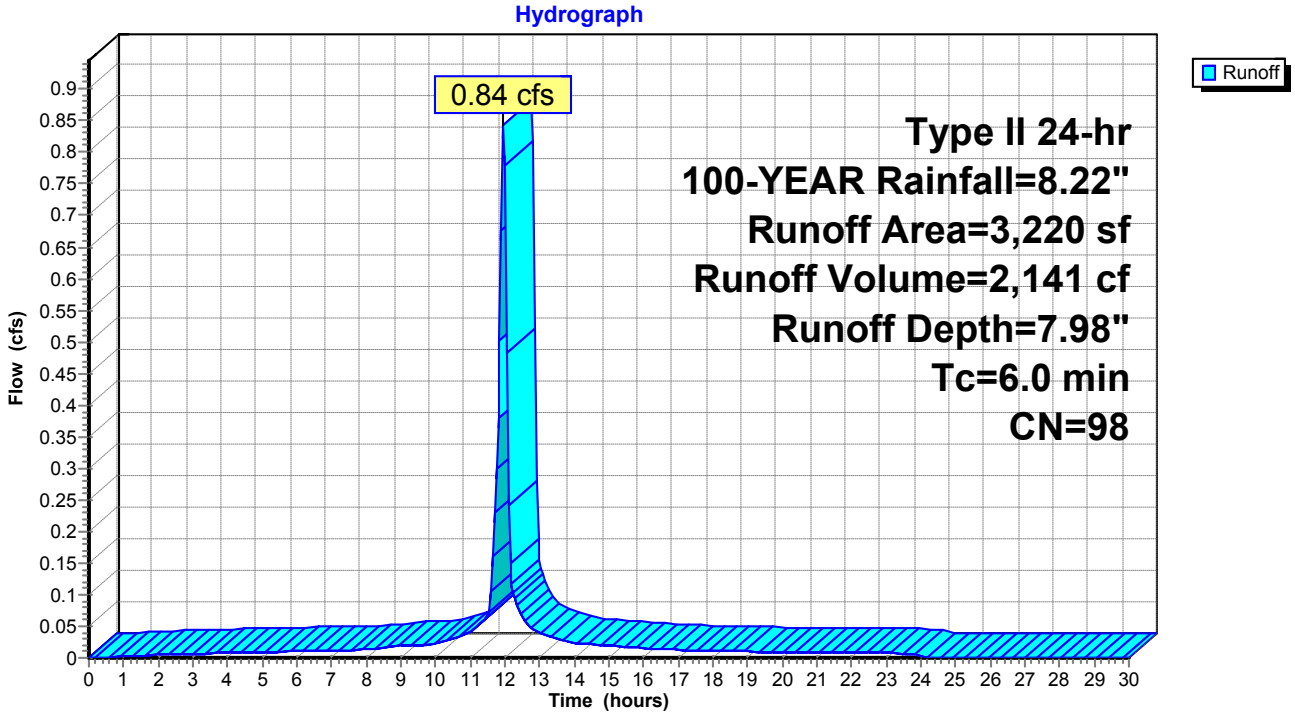
Runoff = 0.84 cfs @ 11.96 hrs, Volume= 2,141 cf, Depth= 7.98"

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
3,220	98	Roofs, HSG A
3,220		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-11: DA-11



Summary for Subcatchment DA-2: DA-2

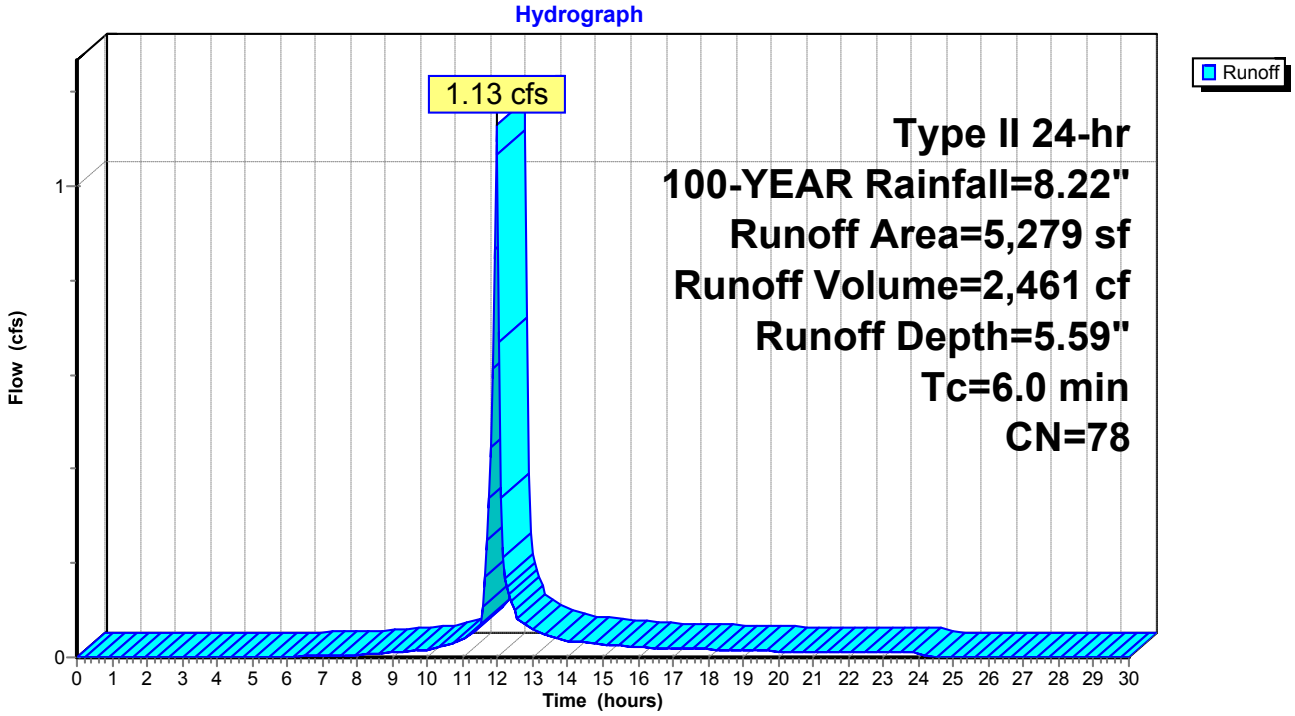
Runoff = 1.13 cfs @ 11.97 hrs, Volume= 2,461 cf, Depth= 5.59"

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 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,818	39	>75% Grass cover, Good, HSG A
3,461	98	Paved parking, HSG A
5,279	78	Weighted Average
1,818		34.44% Pervious Area
3,461		65.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-2: DA-2



Summary for Subcatchment DA-3: DA-3

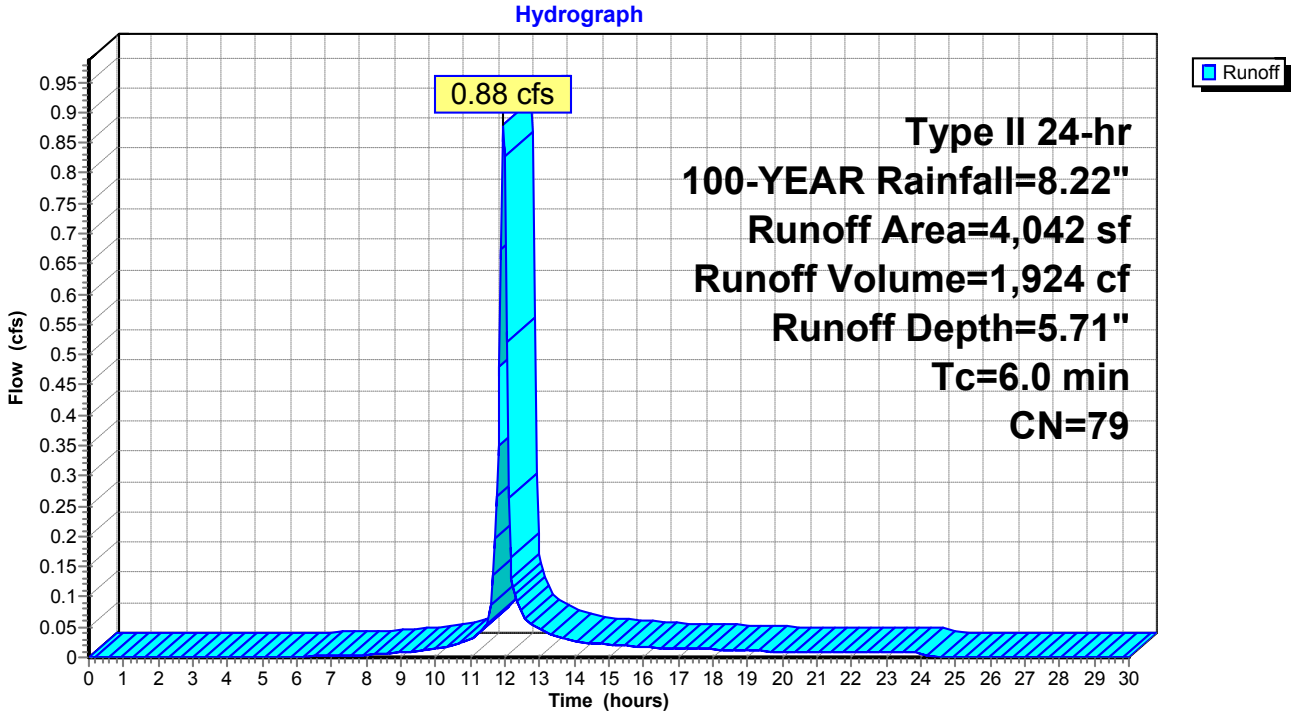
Runoff = 0.88 cfs @ 11.97 hrs, Volume= 1,924 cf, Depth= 5.71"

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 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,300	39	>75% Grass cover, Good, HSG A
2,742	98	Paved parking, HSG A
4,042	79	Weighted Average
1,300		32.16% Pervious Area
2,742		67.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-3: DA-3



Summary for Subcatchment DA-4: DA-4

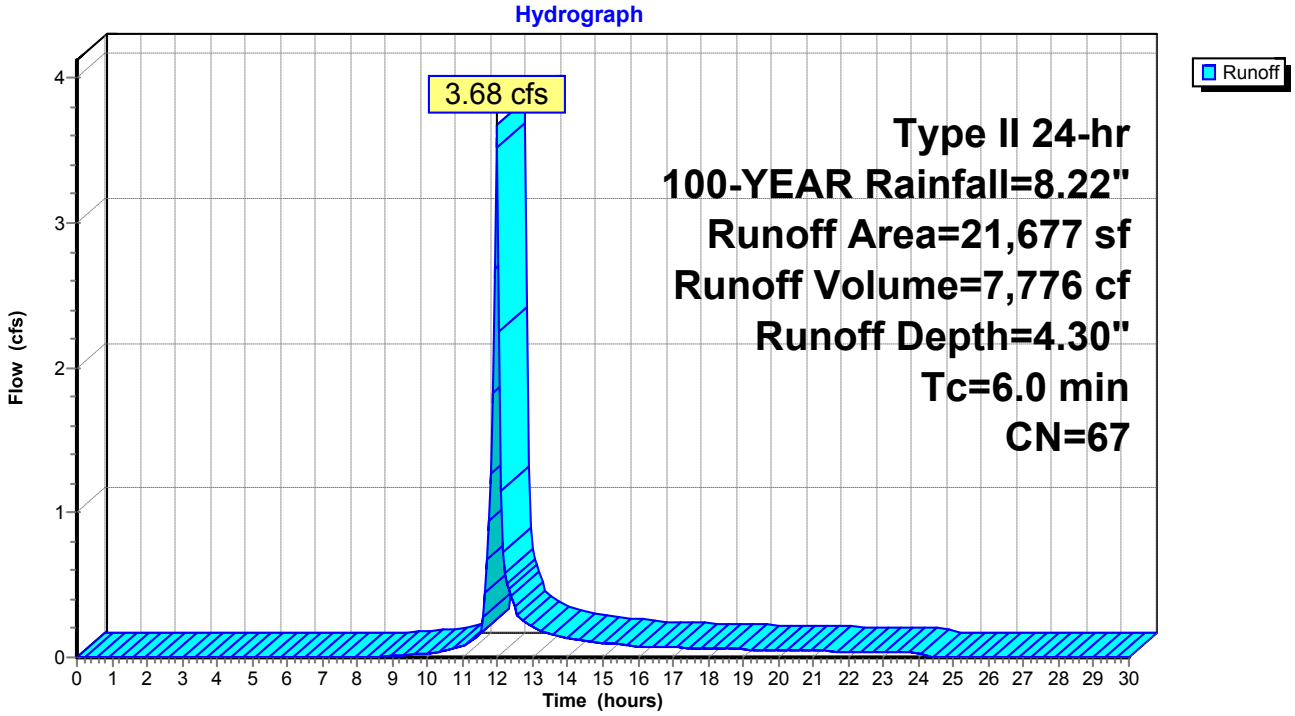
Runoff = 3.68 cfs @ 11.97 hrs, Volume= 7,776 cf, Depth= 4.30"

Runoff 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
11,253	39	>75% Grass cover, Good, HSG A
10,424	98	Paved parking, HSG A
21,677	67	Weighted Average
11,253		51.91% Pervious Area
10,424		48.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-4: DA-4



Summary for Subcatchment DA-5: DA-5

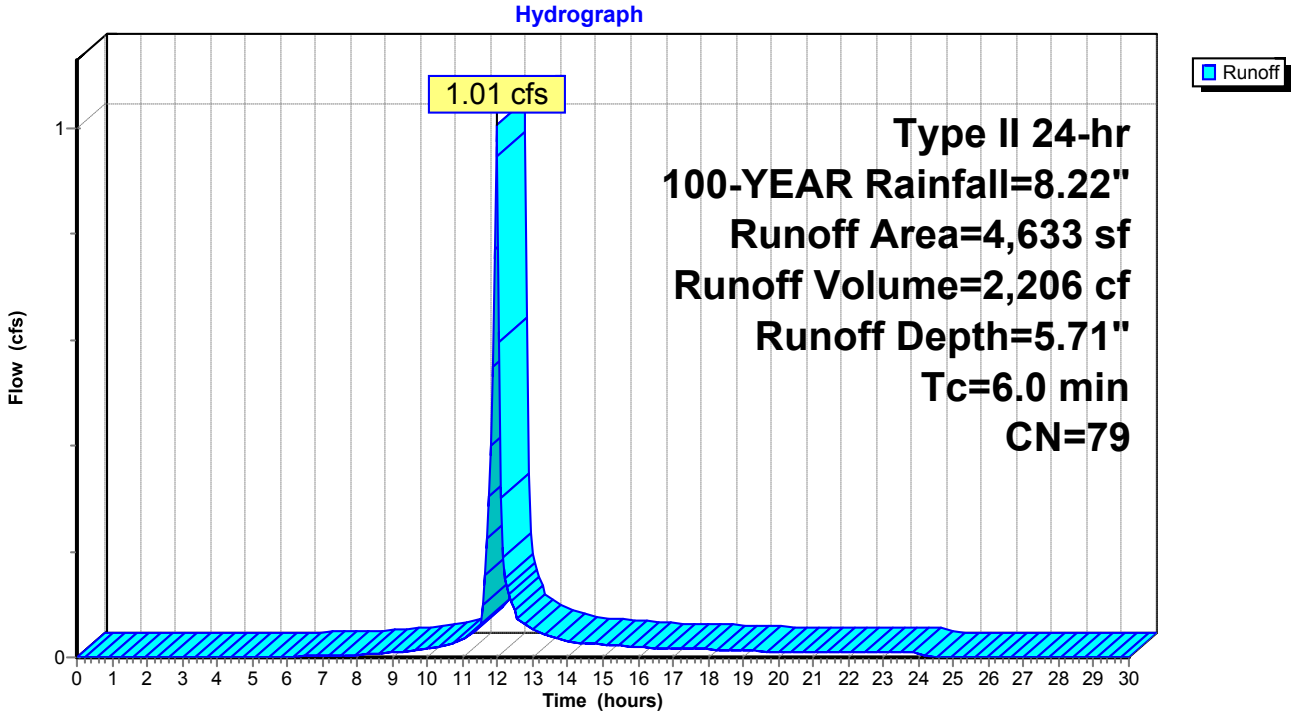
Runoff = 1.01 cfs @ 11.97 hrs, Volume= 2,206 cf, Depth= 5.71"

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 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,499	39	>75% Grass cover, Good, HSG A
3,134	98	Paved parking, HSG A
4,633	79	Weighted Average
1,499		32.35% Pervious Area
3,134		67.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-5: DA-5



Summary for Subcatchment DA-6: DA-6

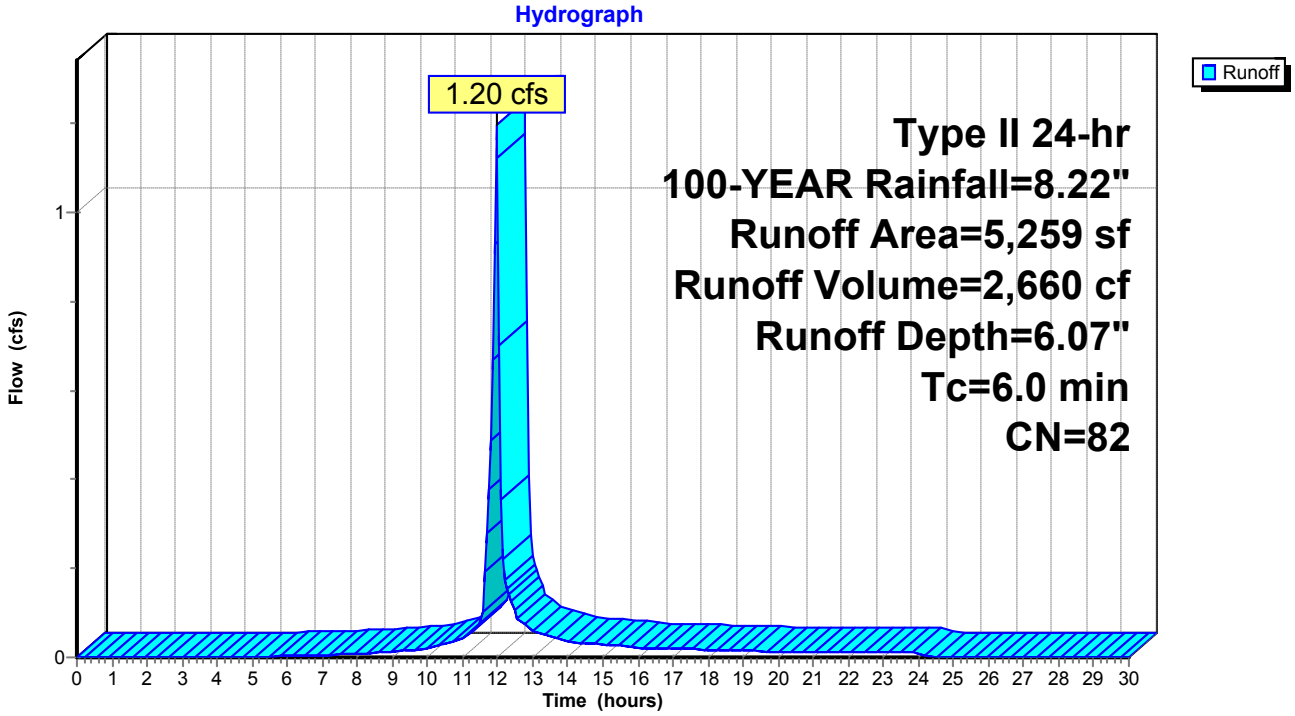
Runoff = 1.20 cfs @ 11.97 hrs, Volume= 2,660 cf, Depth= 6.07"

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 100-YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,397	39	>75% Grass cover, Good, HSG A
3,862	98	Paved parking, HSG A
5,259	82	Weighted Average
1,397		26.56% Pervious Area
3,862		73.44% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-6: DA-6



Summary for Subcatchment DA-7: DA-7

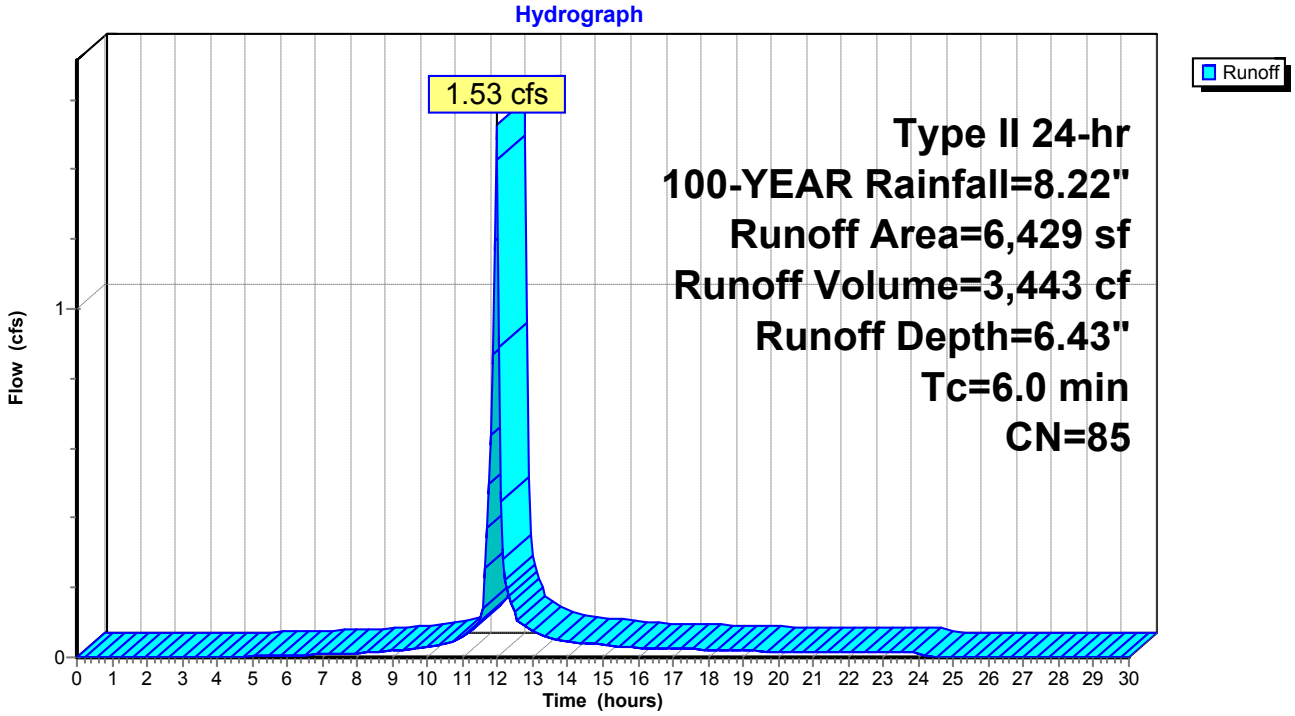
Runoff = 1.53 cfs @ 11.96 hrs, Volume= 3,443 cf, Depth= 6.43"

Runoff 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
1,411	39	>75% Grass cover, Good, HSG A
5,018	98	Paved parking, HSG A
6,429	85	Weighted Average
1,411		21.95% Pervious Area
5,018		78.05% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-7: DA-7



Summary for Subcatchment DA-8: DA-8

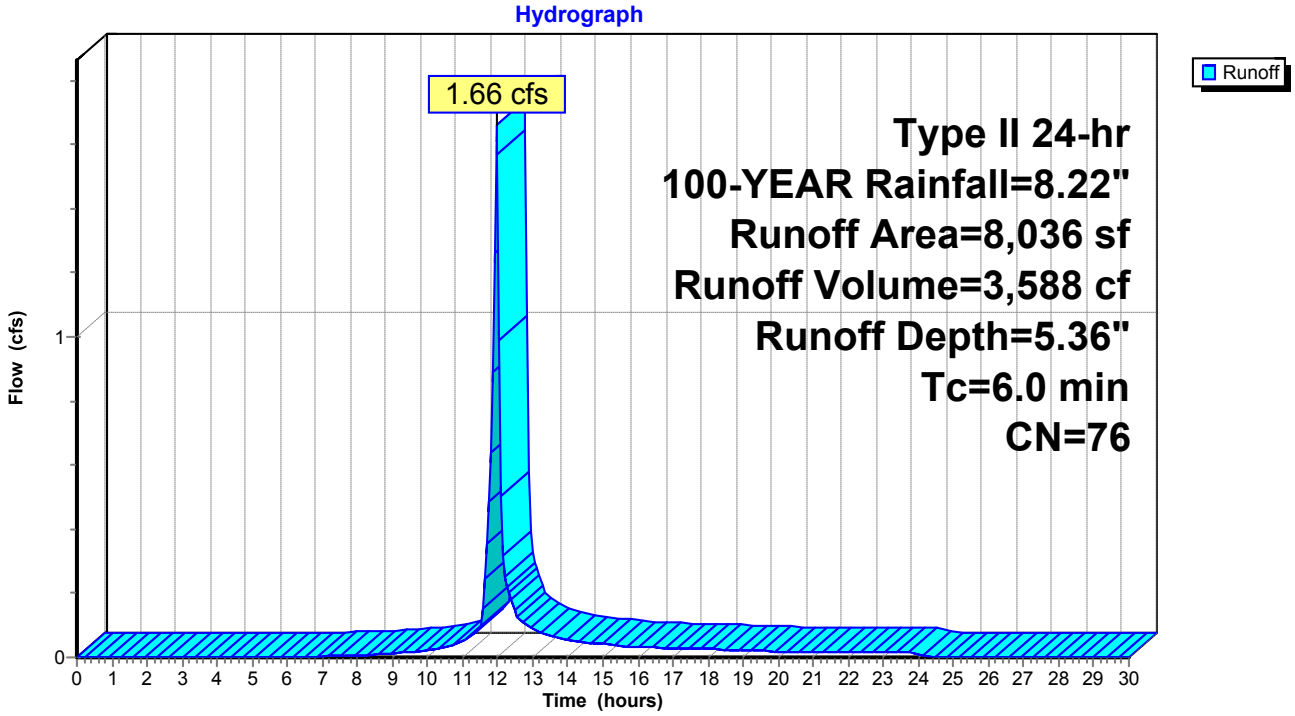
Runoff = 1.66 cfs @ 11.97 hrs, Volume= 3,588 cf, Depth= 5.36"

Runoff 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
2,975	39	>75% Grass cover, Good, HSG A
5,061	98	Paved parking, HSG A
8,036	76	Weighted Average
2,975		37.02% Pervious Area
5,061		62.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-8: DA-8



Summary for Subcatchment DA-9: DA-9

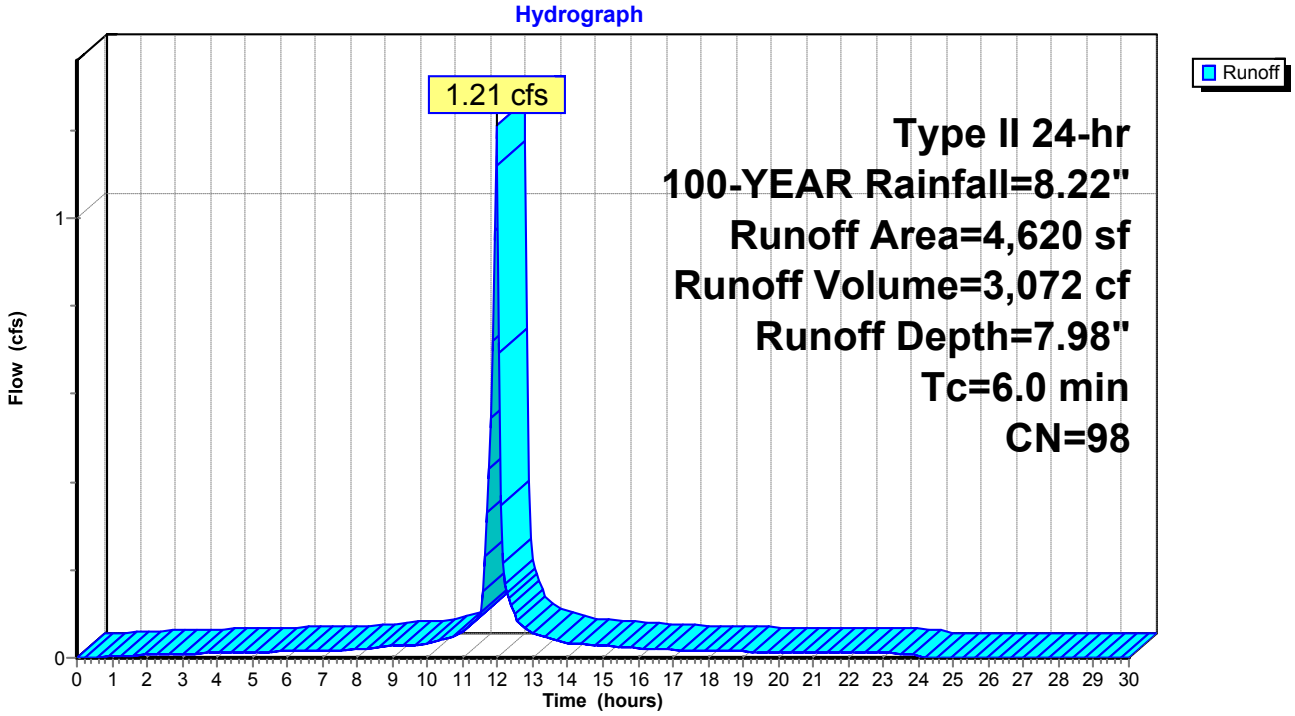
Runoff = 1.21 cfs @ 11.96 hrs, Volume= 3,072 cf, Depth= 7.98"

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
4,620	98	Roofs, HSG A
4,620		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, MIN TC**

Subcatchment DA-9: DA-9

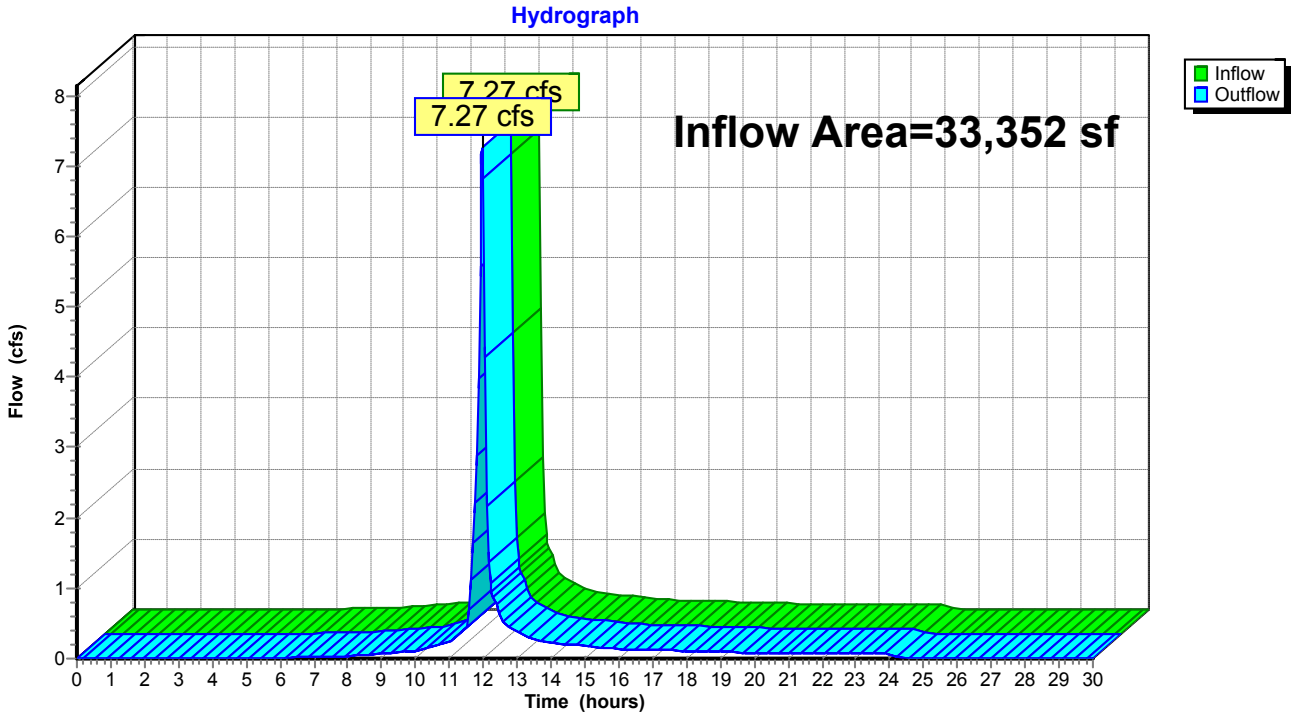


Summary for Reach DP-1: DP-1

Inflow Area = 33,352 sf, 61.72% Impervious, Inflow Depth = 5.71" for 100-YEAR event
Inflow = 7.27 cfs @ 11.97 hrs, Volume= 15,879 cf
Outflow = 7.27 cfs @ 11.97 hrs, Volume= 15,879 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-1: DP-1

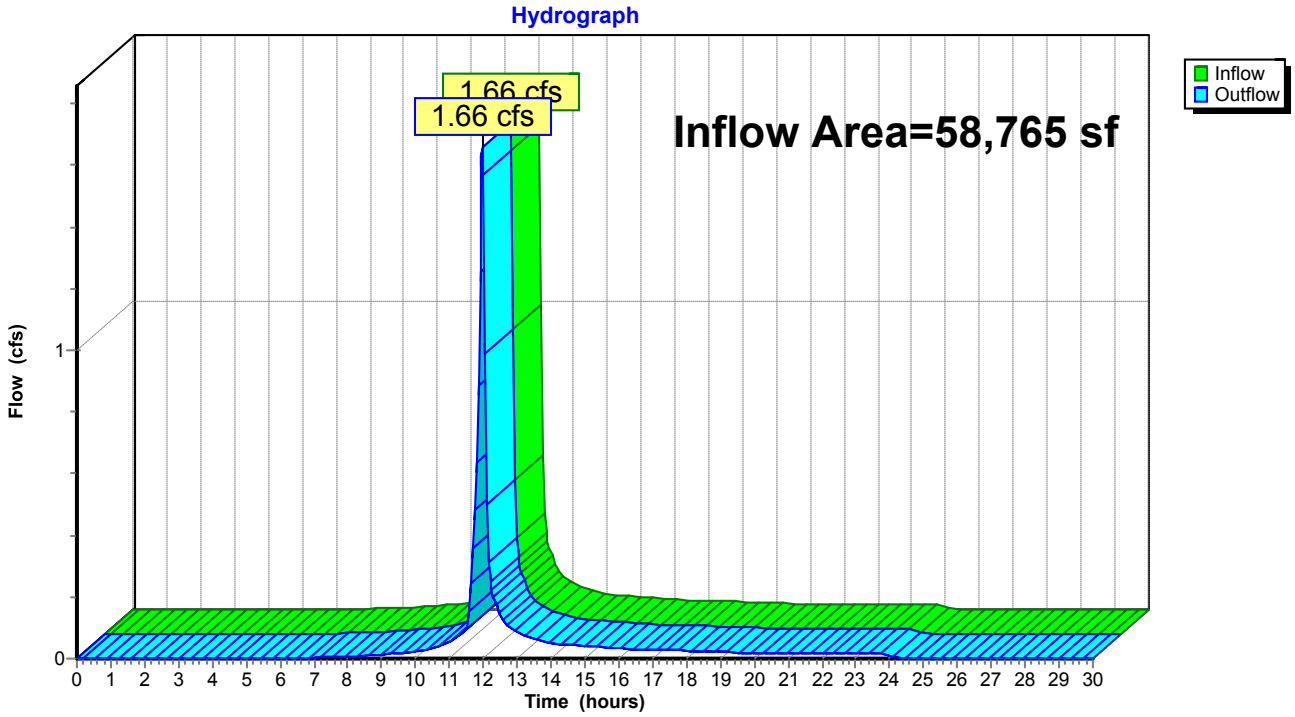


Summary for Reach DP-4: DP-4

Inflow Area = 58,765 sf, 68.46% Impervious, Inflow Depth = 0.73" for 100-YEAR event
Inflow = 1.66 cfs @ 11.97 hrs, Volume= 3,588 cf
Outflow = 1.66 cfs @ 11.97 hrs, Volume= 3,588 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-4: DP-4



Summary for Pond 1P: PR CB#5

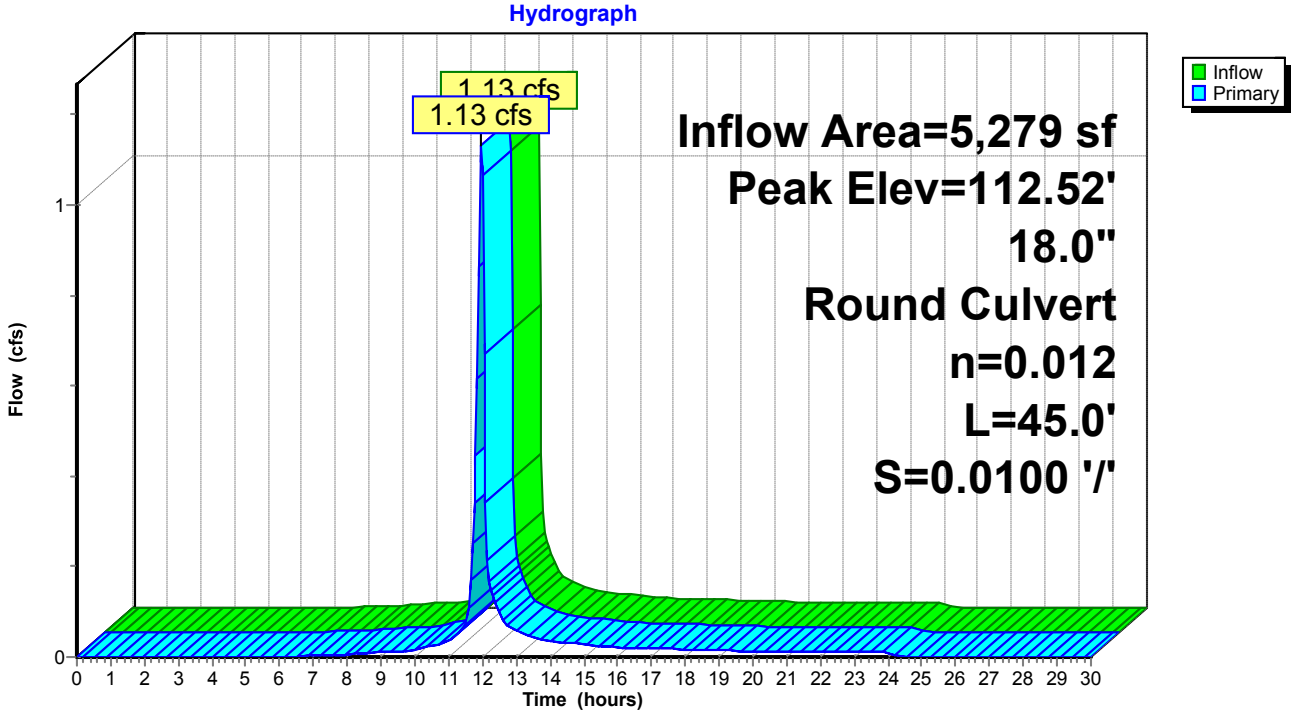
Inflow Area = 5,279 sf, 65.56% Impervious, Inflow Depth = 5.59" for 100-YEAR event
Inflow = 1.13 cfs @ 11.97 hrs, Volume= 2,461 cf
Outflow = 1.13 cfs @ 11.97 hrs, Volume= 2,461 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.13 cfs @ 11.97 hrs, Volume= 2,461 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 112.52' @ 11.97 hrs
Flood Elev= 114.98'

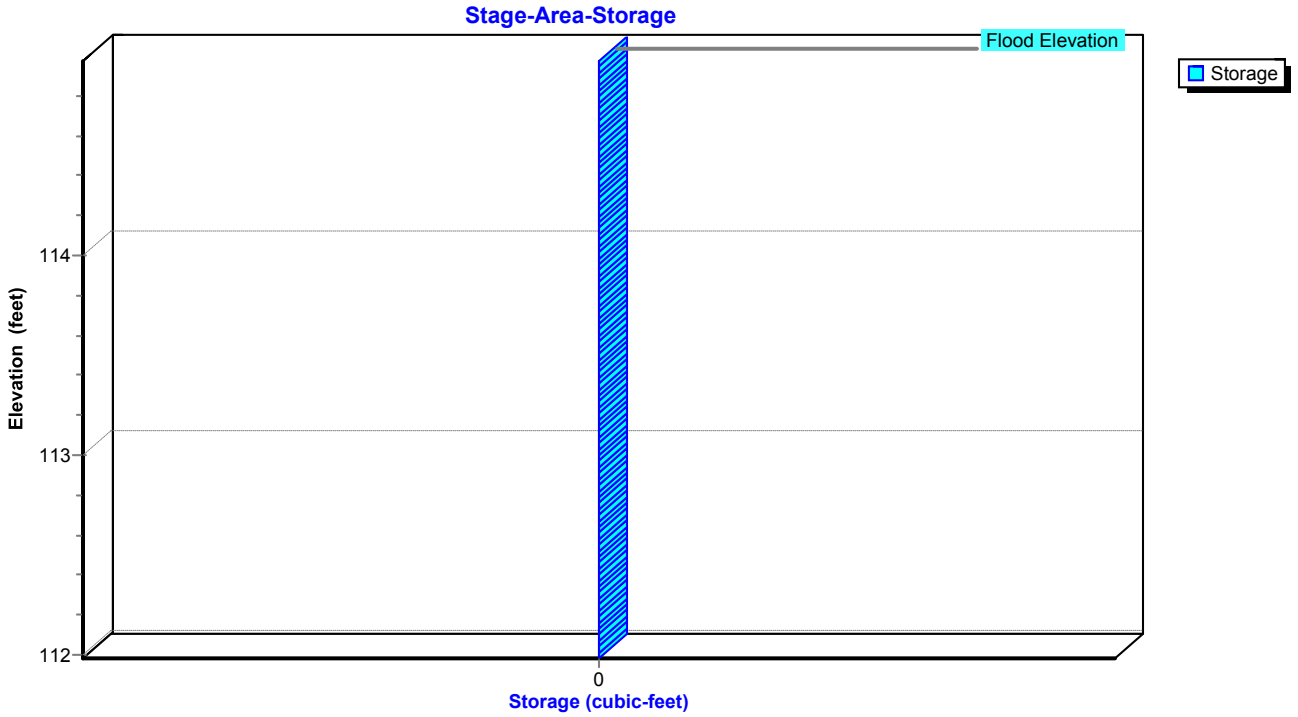
Device	Routing	Invert	Outlet Devices
#1	Primary	111.98'	**18.0" Round Culvert** L= 45.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 111.98' / 111.53' S= 0.0100 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=1.10 cfs @ 11.97 hrs HW=112.51' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.10 cfs @ 1.96 fps)

Pond 1P: PR CB#5



Pond 1P: PR CB#5



Stage-Area-Storage for Pond 1P: PR CB#5

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
111.98	**0**	113.04	0	114.10	0
112.00	0	113.06	0	114.12	0
112.02	0	113.08	0	114.14	0
112.04	0	113.10	0	114.16	0
112.06	0	113.12	0	114.18	0
112.08	0	113.14	0	114.20	0
112.10	0	113.16	0	114.22	0
112.12	0	113.18	0	114.24	0
112.14	0	113.20	0	114.26	0
112.16	0	113.22	0	114.28	0
112.18	0	113.24	0	114.30	0
112.20	0	113.26	0	114.32	0
112.22	0	113.28	0	114.34	0
112.24	0	113.30	0	114.36	0
112.26	0	113.32	0	114.38	0
112.28	0	113.34	0	114.40	0
112.30	0	113.36	0	114.42	0
112.32	0	113.38	0	114.44	0
112.34	0	113.40	0	114.46	0
112.36	0	113.42	0	114.48	0
112.38	0	113.44	0	114.50	0
112.40	0	113.46	0	114.52	0
112.42	0	113.48	0	114.54	0
112.44	0	113.50	0	114.56	0
112.46	0	113.52	0	114.58	0
112.48	0	113.54	0	114.60	0
112.50	0	113.56	0	114.62	0
112.52	0	113.58	0	114.64	0
112.54	0	113.60	0	114.66	0
112.56	0	113.62	0	114.68	0
112.58	0	113.64	0	114.70	0
112.60	0	113.66	0	114.72	0
112.62	0	113.68	0	114.74	0
112.64	0	113.70	0	114.76	0
112.66	0	113.72	0	114.78	0
112.68	0	113.74	0	114.80	0
112.70	0	113.76	0	114.82	0
112.72	0	113.78	0	114.84	0
112.74	0	113.80	0	114.86	0
112.76	0	113.82	0	114.88	0
112.78	0	113.84	0	114.90	0
112.80	0	113.86	0	114.92	0
112.82	0	113.88	0	114.94	0
112.84	0	113.90	0	114.96	0
112.86	0	113.92	0	114.98	0
112.88	0	113.94	0		
112.90	0	113.96	0		
112.92	0	113.98	0		
112.94	0	114.00	0		
112.96	0	114.02	0		
112.98	0	114.04	0		
113.00	0	114.06	0		
113.02	0	114.08	0		

Summary for Pond 9P: PR CB #1

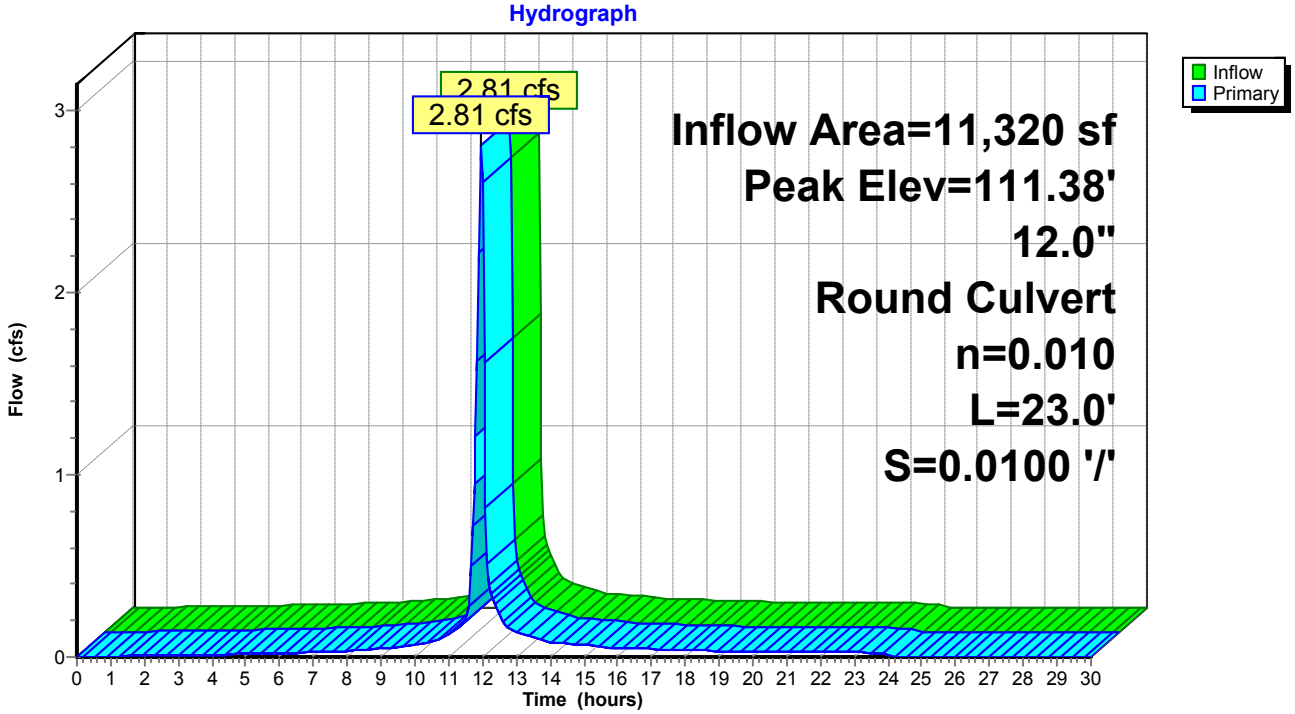
Inflow Area = 11,320 sf, 87.54% Impervious, Inflow Depth = 7.10" for 100-YEAR event
Inflow = 2.81 cfs @ 11.96 hrs, Volume= 6,695 cf
Outflow = 2.81 cfs @ 11.96 hrs, Volume= 6,695 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.81 cfs @ 11.96 hrs, Volume= 6,695 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 111.38' @ 11.96 hrs
Flood Elev= 113.00'

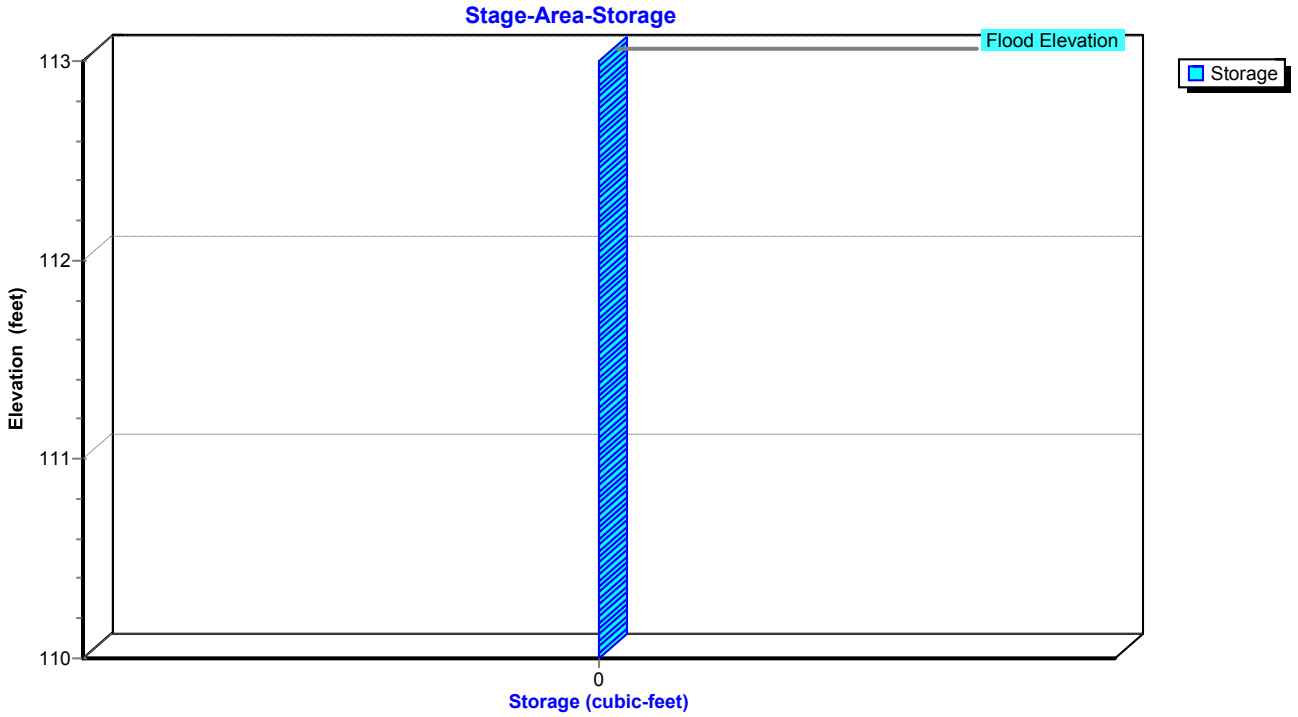
Device	Routing	Invert	Outlet Devices
#1	Primary	110.00'	**12.0" Round Culvert** L= 23.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 110.00' / 109.77' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.74 cfs @ 11.96 hrs HW=111.34' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.74 cfs @ 3.49 fps)

Pond 9P: PR CB #1



Pond 9P: PR CB #1



Stage-Area-Storage for Pond 9P: PR CB #1

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
110.00	**0**	111.06	0	112.12	0
110.02	0	111.08	0	112.14	0
110.04	0	111.10	0	112.16	0
110.06	0	111.12	0	112.18	0
110.08	0	111.14	0	112.20	0
110.10	0	111.16	0	112.22	0
110.12	0	111.18	0	112.24	0
110.14	0	111.20	0	112.26	0
110.16	0	111.22	0	112.28	0
110.18	0	111.24	0	112.30	0
110.20	0	111.26	0	112.32	0
110.22	0	111.28	0	112.34	0
110.24	0	111.30	0	112.36	0
110.26	0	111.32	0	112.38	0
110.28	0	111.34	0	112.40	0
110.30	0	111.36	0	112.42	0
110.32	0	111.38	0	112.44	0
110.34	0	111.40	0	112.46	0
110.36	0	111.42	0	112.48	0
110.38	0	111.44	0	112.50	0
110.40	0	111.46	0	112.52	0
110.42	0	111.48	0	112.54	0
110.44	0	111.50	0	112.56	0
110.46	0	111.52	0	112.58	0
110.48	0	111.54	0	112.60	0
110.50	0	111.56	0	112.62	0
110.52	0	111.58	0	112.64	0
110.54	0	111.60	0	112.66	0
110.56	0	111.62	0	112.68	0
110.58	0	111.64	0	112.70	0
110.60	0	111.66	0	112.72	0
110.62	0	111.68	0	112.74	0
110.64	0	111.70	0	112.76	0
110.66	0	111.72	0	112.78	0
110.68	0	111.74	0	112.80	0
110.70	0	111.76	0	112.82	0
110.72	0	111.78	0	112.84	0
110.74	0	111.80	0	112.86	0
110.76	0	111.82	0	112.88	0
110.78	0	111.84	0	112.90	0
110.80	0	111.86	0	112.92	0
110.82	0	111.88	0	112.94	0
110.84	0	111.90	0	112.96	0
110.86	0	111.92	0	112.98	0
110.88	0	111.94	0	113.00	0
110.90	0	111.96	0		
110.92	0	111.98	0		
110.94	0	112.00	0		
110.96	0	112.02	0		
110.98	0	112.04	0		
111.00	0	112.06	0		
111.02	0	112.08	0		
111.04	0	112.10	0		

Summary for Pond 10P: UGC-1

Inflow Area = 11,320 sf, 87.54% Impervious, Inflow Depth = 7.10" for 100-YEAR event
Inflow = 2.81 cfs @ 11.96 hrs, Volume= 6,695 cf
Outflow = 0.17 cfs @ 11.35 hrs, Volume= 6,695 cf, Atten= 94%, Lag= 0.0 min
Discarded = 0.17 cfs @ 11.35 hrs, Volume= 6,695 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 112.01' @ 12.71 hrs Surf.Area= 1,178 sf Storage= 2,719 cf

Plug-Flow detention time= 116.8 min calculated for 6,684 cf (100% of inflow)
Center-of-Mass det. time= 116.6 min (878.8 - 762.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	108.00'	1,452 cf	**15.75'W x 74.82'L x 4.25'H Field A** 5,008 cf Overall - 1,378 cf Embedded = 3,630 cf x 40.0% Voids
#2A	108.75'	1,378 cf	**ADS_StormTech SC-740 +Cap** x 30 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 3 Rows of 10 Chambers
		2,830 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	108.00'	**6.200 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.17 cfs @ 11.35 hrs HW=108.04' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.17 cfs)

Pond 10P: UGC-1 - Chamber Wizard Field A

Chamber Model = ADS_StormTech SC-740 +Cap (ADS StormTech® SC-740 with cap length)
Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf
Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap

51.0" Wide + 6.0" Spacing = 57.0" C-C Row Spacing

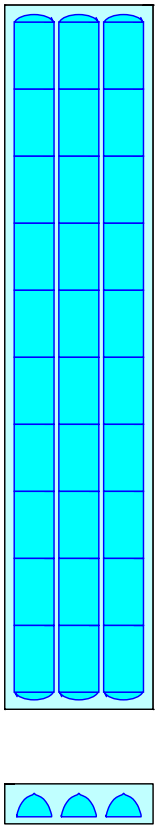
10 Chambers/Row x 7.12' Long +0.81' Cap Length x 2 = 72.82' Row Length +12.0" End Stone x 2 = 74.82' Base Length
3 Rows x 51.0" Wide + 6.0" Spacing x 2 + 12.0" Side Stone x 2 = 15.75' Base Width
9.0" Base + 30.0" Chamber Height + 12.0" Cover = 4.25' Field Height

30 Chambers x 45.9 cf = 1,378.2 cf Chamber Storage

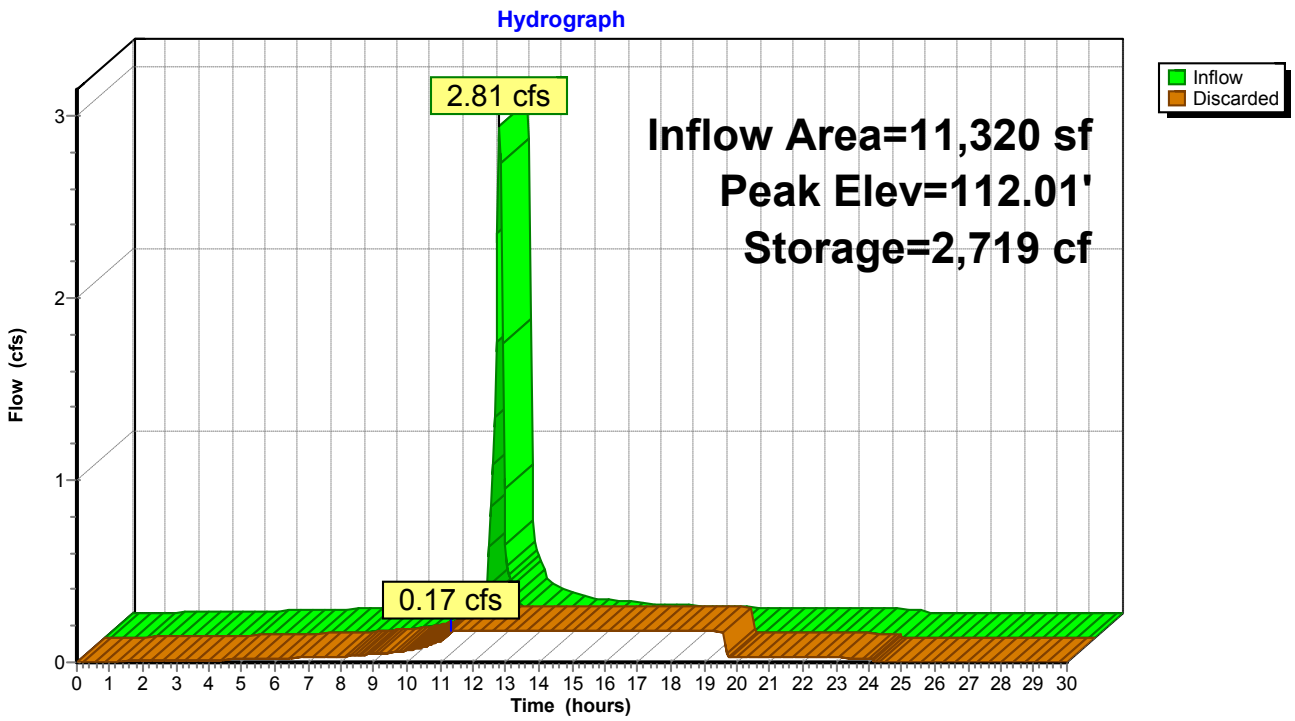
5,008.0 cf Field - 1,378.2 cf Chambers = 3,629.8 cf Stone x 40.0% Voids = 1,451.9 cf Stone Storage

Chamber Storage + Stone Storage = 2,830.1 cf = 0.065 af
Overall Storage Efficiency = 56.5%
Overall System Size = 74.82' x 15.75' x 4.25'

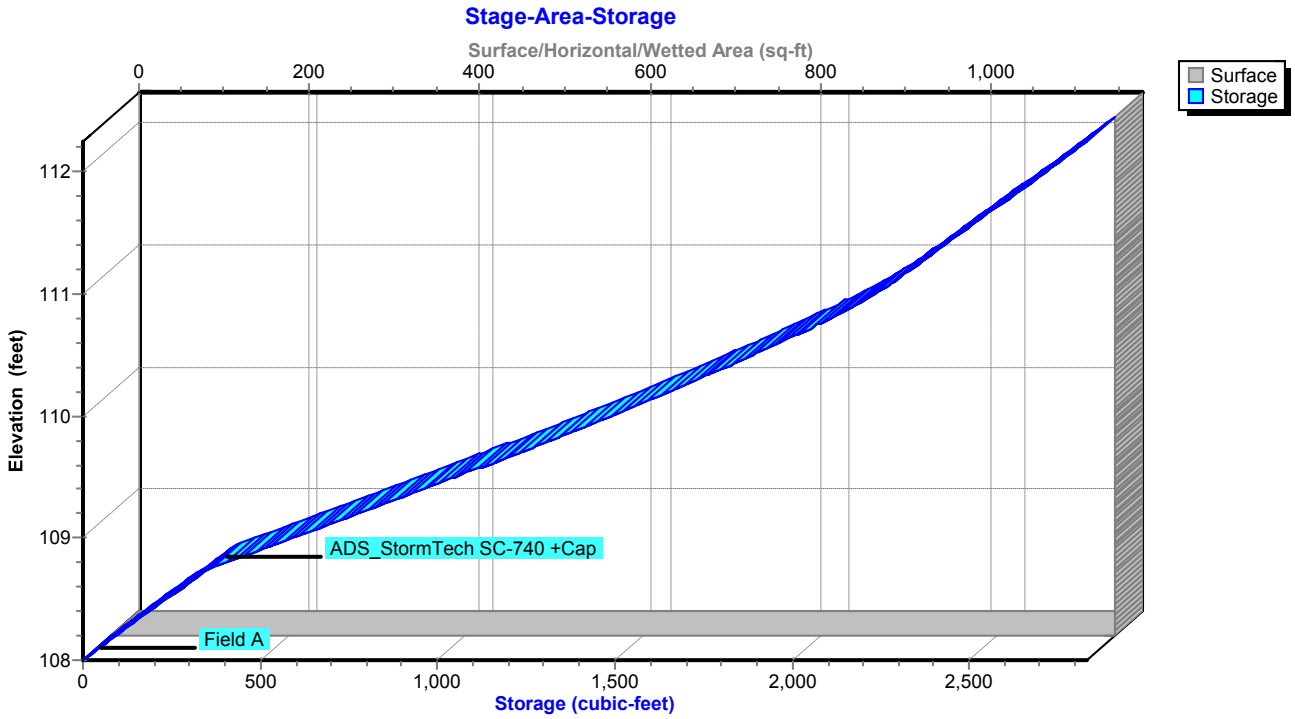
30 Chambers
185.5 cy Field
134.4 cy Stone



Pond 10P: UGC-1



Pond 10P: UGC-1



Stage-Area-Storage for Pond 10P: UGC-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
108.00	**1,178**	0
108.05	1,178	24
108.10	1,178	47
108.15	1,178	71
108.20	1,178	94
108.25	1,178	118
108.30	1,178	141
108.35	1,178	165
108.40	1,178	189
108.45	1,178	212
108.50	1,178	236
108.55	1,178	259
108.60	1,178	283
108.65	1,178	306
108.70	1,178	330
108.75	1,178	354
108.80	1,178	401
108.85	1,178	448
108.90	1,178	496
108.95	1,178	543
109.00	1,178	590
109.05	1,178	637
109.10	1,178	683
109.15	1,178	730
109.20	1,178	776
109.25	1,178	823
109.30	1,178	869
109.35	1,178	915
109.40	1,178	960
109.45	1,178	1,006
109.50	1,178	1,051
109.55	1,178	1,096
109.60	1,178	1,140
109.65	1,178	1,185
109.70	1,178	1,229
109.75	1,178	1,273
109.80	1,178	1,317
109.85	1,178	1,360
109.90	1,178	1,403
109.95	1,178	1,446
110.00	1,178	1,488
110.05	1,178	1,530
110.10	1,178	1,572
110.15	1,178	1,613
110.20	1,178	1,654
110.25	1,178	1,695
110.30	1,178	1,735
110.35	1,178	1,774
110.40	1,178	1,814
110.45	1,178	1,852
110.50	1,178	1,890
110.55	1,178	1,928
110.60	1,178	1,965
110.65	1,178	2,001
110.70	1,178	2,037
110.75	1,178	2,071
110.80	1,178	2,105
110.85	1,178	2,139
110.90	1,178	2,171
110.95	1,178	2,202
111.00	1,178	2,231
111.05	1,178	2,259
111.10	1,178	2,285
111.15	1,178	2,310
111.20	1,178	2,335
111.25	1,178	2,359
111.30	1,178	2,382
111.35	1,178	2,406
111.40	1,178	2,429
111.45	1,178	2,453
111.50	1,178	2,477
111.55	1,178	2,500
111.60	1,178	2,524
111.65	1,178	2,547
111.70	1,178	2,571
111.75	1,178	2,594
111.80	1,178	2,618
111.85	1,178	2,642
111.90	1,178	2,665
111.95	1,178	2,689
112.00	1,178	2,712
112.05	1,178	2,736
112.10	1,178	2,759
112.15	1,178	2,783
112.20	1,178	2,807
112.25	1,178	**2,830**

Summary for Pond 11P: PR CB #2

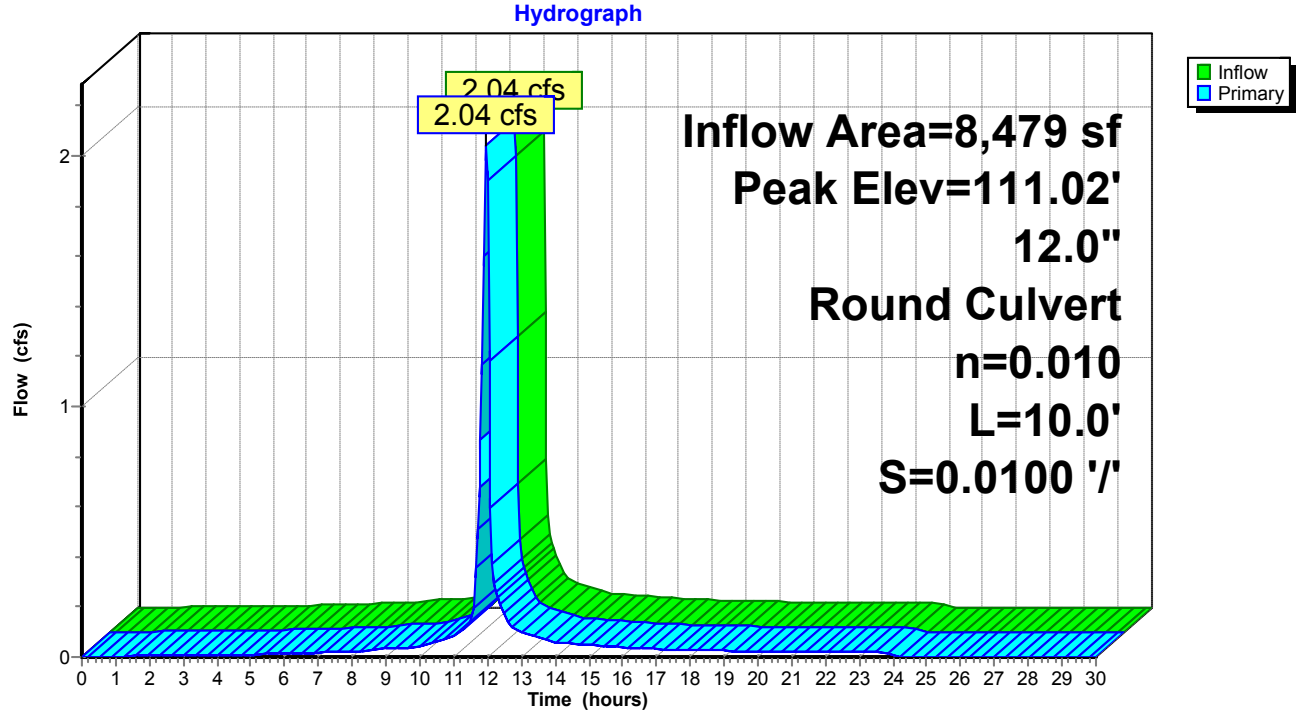
Inflow Area = 8,479 sf, 83.52% Impervious, Inflow Depth = 6.79" for 100-YEAR event
Inflow = 2.04 cfs @ 11.96 hrs, Volume= 4,801 cf
Outflow = 2.04 cfs @ 11.96 hrs, Volume= 4,801 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.04 cfs @ 11.96 hrs, Volume= 4,801 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 111.02' @ 11.96 hrs
Flood Elev= 113.14'

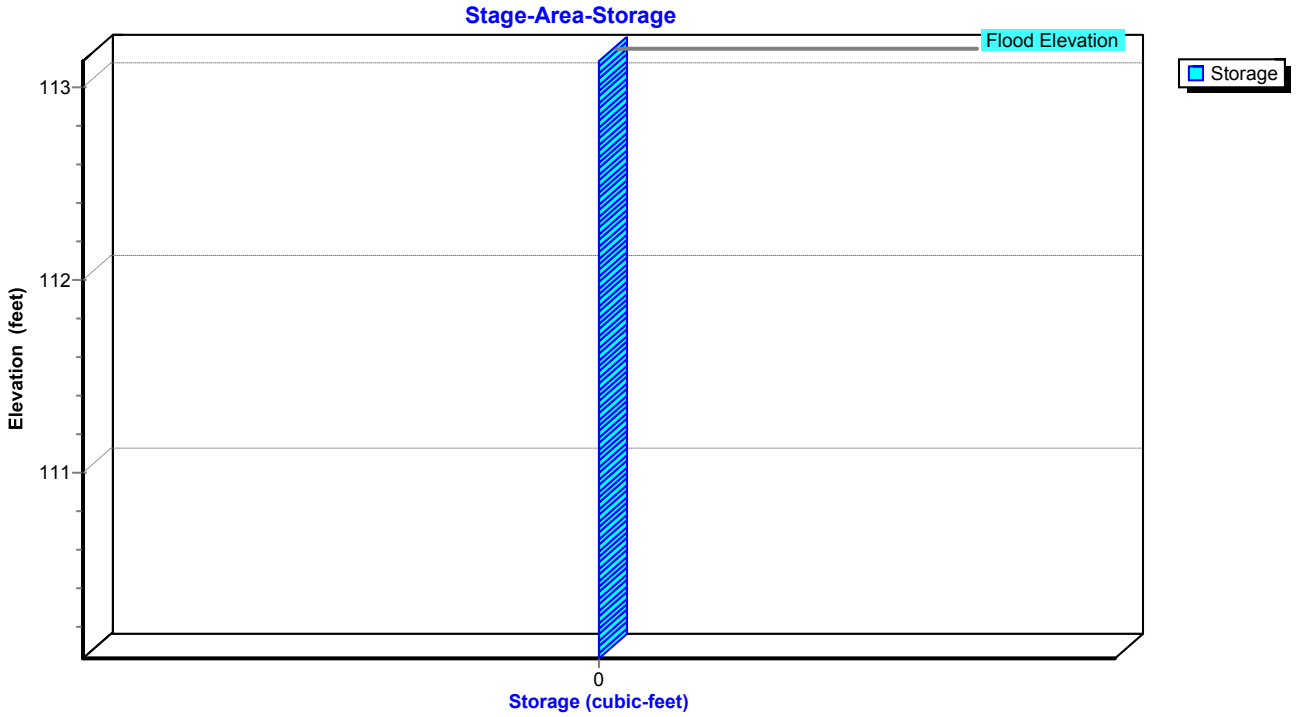
Device	Routing	Invert	Outlet Devices
#1	Primary	110.04'	**12.0" Round Culvert** L= 10.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 110.04' / 109.94' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.99 cfs @ 11.96 hrs HW=111.00' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.99 cfs @ 3.28 fps)

Pond 11P: PR CB #2



Pond 11P: PR CB #2



Stage-Area-Storage for Pond 11P: PR CB #2

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
110.04	**0**	111.10	0	112.16	0
110.06	0	111.12	0	112.18	0
110.08	0	111.14	0	112.20	0
110.10	0	111.16	0	112.22	0
110.12	0	111.18	0	112.24	0
110.14	0	111.20	0	112.26	0
110.16	0	111.22	0	112.28	0
110.18	0	111.24	0	112.30	0
110.20	0	111.26	0	112.32	0
110.22	0	111.28	0	112.34	0
110.24	0	111.30	0	112.36	0
110.26	0	111.32	0	112.38	0
110.28	0	111.34	0	112.40	0
110.30	0	111.36	0	112.42	0
110.32	0	111.38	0	112.44	0
110.34	0	111.40	0	112.46	0
110.36	0	111.42	0	112.48	0
110.38	0	111.44	0	112.50	0
110.40	0	111.46	0	112.52	0
110.42	0	111.48	0	112.54	0
110.44	0	111.50	0	112.56	0
110.46	0	111.52	0	112.58	0
110.48	0	111.54	0	112.60	0
110.50	0	111.56	0	112.62	0
110.52	0	111.58	0	112.64	0
110.54	0	111.60	0	112.66	0
110.56	0	111.62	0	112.68	0
110.58	0	111.64	0	112.70	0
110.60	0	111.66	0	112.72	0
110.62	0	111.68	0	112.74	0
110.64	0	111.70	0	112.76	0
110.66	0	111.72	0	112.78	0
110.68	0	111.74	0	112.80	0
110.70	0	111.76	0	112.82	0
110.72	0	111.78	0	112.84	0
110.74	0	111.80	0	112.86	0
110.76	0	111.82	0	112.88	0
110.78	0	111.84	0	112.90	0
110.80	0	111.86	0	112.92	0
110.82	0	111.88	0	112.94	0
110.84	0	111.90	0	112.96	0
110.86	0	111.92	0	112.98	0
110.88	0	111.94	0	113.00	0
110.90	0	111.96	0	113.02	0
110.92	0	111.98	0	113.04	0
110.94	0	112.00	0	113.06	0
110.96	0	112.02	0	113.08	0
110.98	0	112.04	0	113.10	0
111.00	0	112.06	0	113.12	0
111.02	0	112.08	0	113.14	0
111.04	0	112.10	0		
111.06	0	112.12	0		
111.08	0	112.14	0		

Summary for Pond 13P: PR CB #3

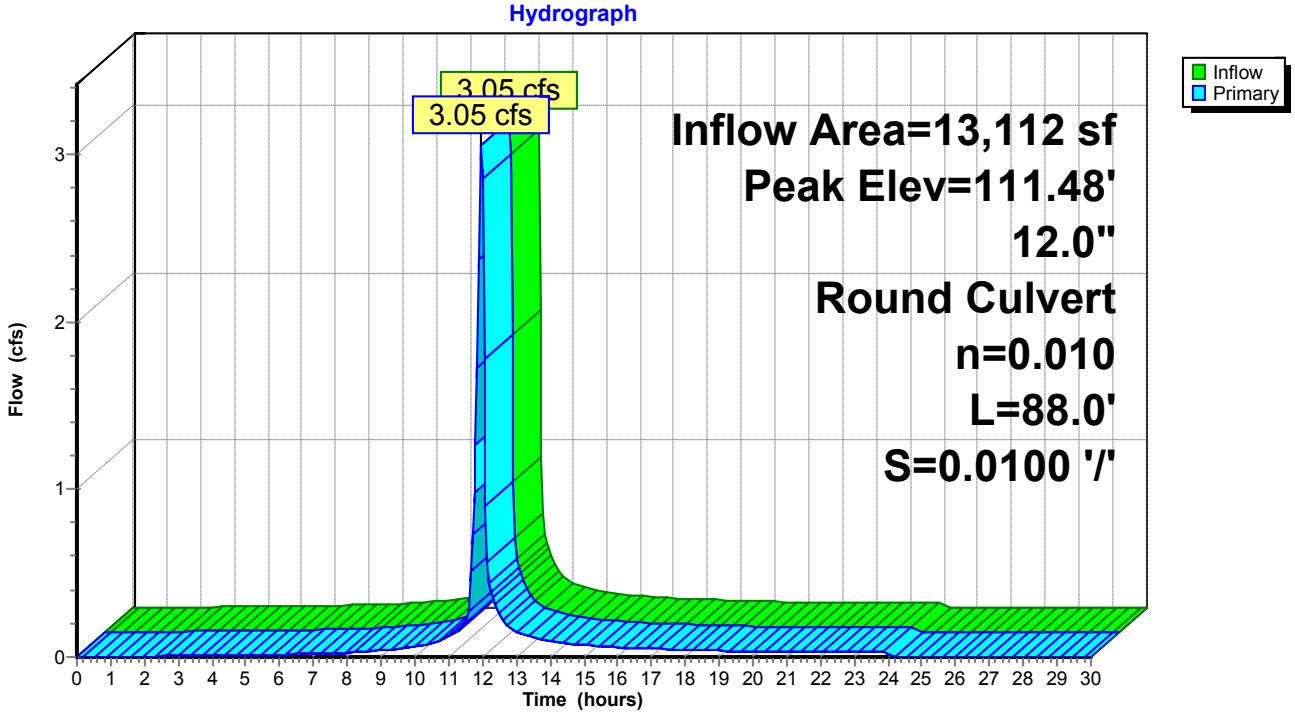
Inflow Area = 13,112 sf, 77.91% Impervious, Inflow Depth = 6.41" for 100-YEAR event
Inflow = 3.05 cfs @ 11.96 hrs, Volume= 7,007 cf
Outflow = 3.05 cfs @ 11.96 hrs, Volume= 7,007 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.05 cfs @ 11.96 hrs, Volume= 7,007 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 111.48' @ 11.96 hrs
Flood Elev= 113.14'

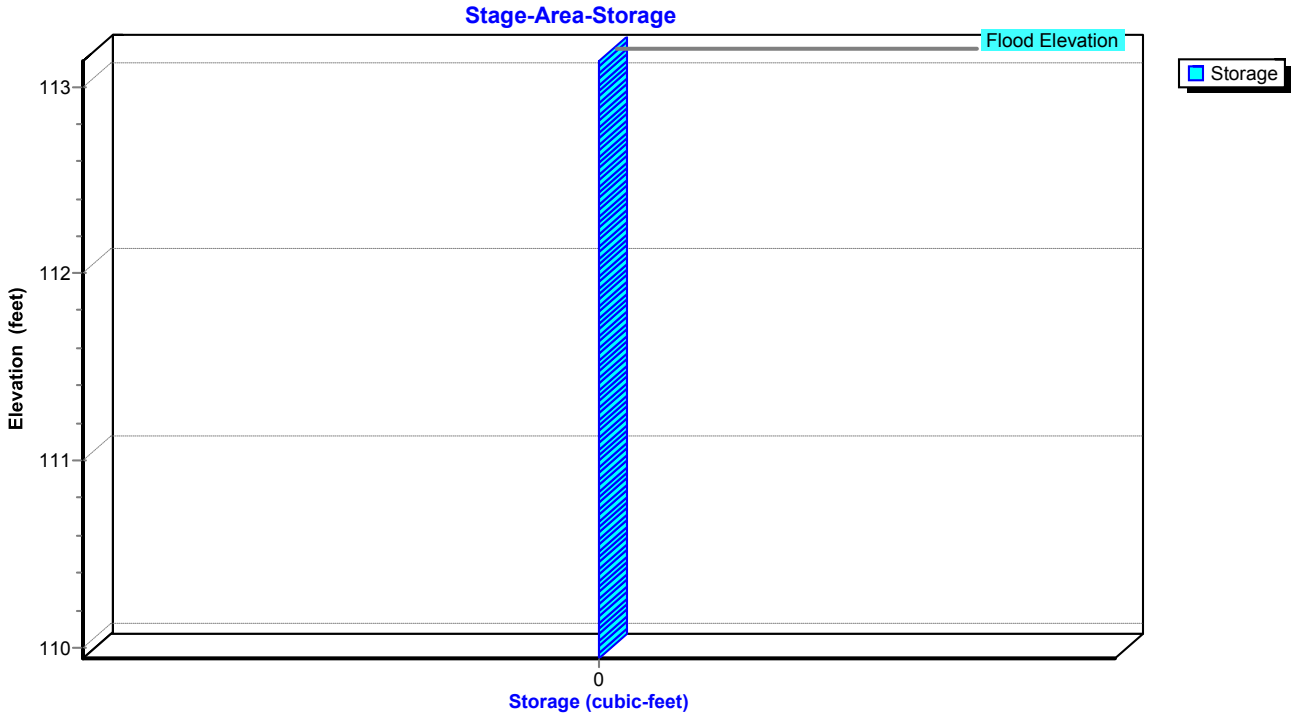
Device	Routing	Invert	Outlet Devices
#1	Primary	109.94'	**12.0" Round Culvert** L= 88.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 109.94' / 109.06' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.97 cfs @ 11.96 hrs HW=111.43' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.97 cfs @ 3.78 fps)

Pond 13P: PR CB #3



Pond 13P: PR CB #3



Stage-Area-Storage for Pond 13P: PR CB #3

Elevation (feet)	Storage (cubic-feet)
109.94	**0**
109.99	0
110.04	0
110.09	0
110.14	0
110.19	0
110.24	0
110.29	0
110.34	0
110.39	0
110.44	0
110.49	0
110.54	0
110.59	0
110.64	0
110.69	0
110.74	0
110.79	0
110.84	0
110.89	0
110.94	0
110.99	0
111.04	0
111.09	0
111.14	0
111.19	0
111.24	0
111.29	0
111.34	0
111.39	0
111.44	0
111.49	0
111.54	0
111.59	0
111.64	0
111.69	0
111.74	0
111.79	0
111.84	0
111.89	0
111.94	0
111.99	0
112.04	0
112.09	0
112.14	0
112.19	0
112.24	0
112.29	0
112.34	0
112.39	0
112.44	0
112.49	0
112.54	0
112.59	0
112.64	0
112.69	0
112.74	0
112.79	0
112.84	0
112.89	0
112.94	0
112.99	0
113.04	0
113.09	0
113.14	0

Summary for Pond 15P: PR CB #4

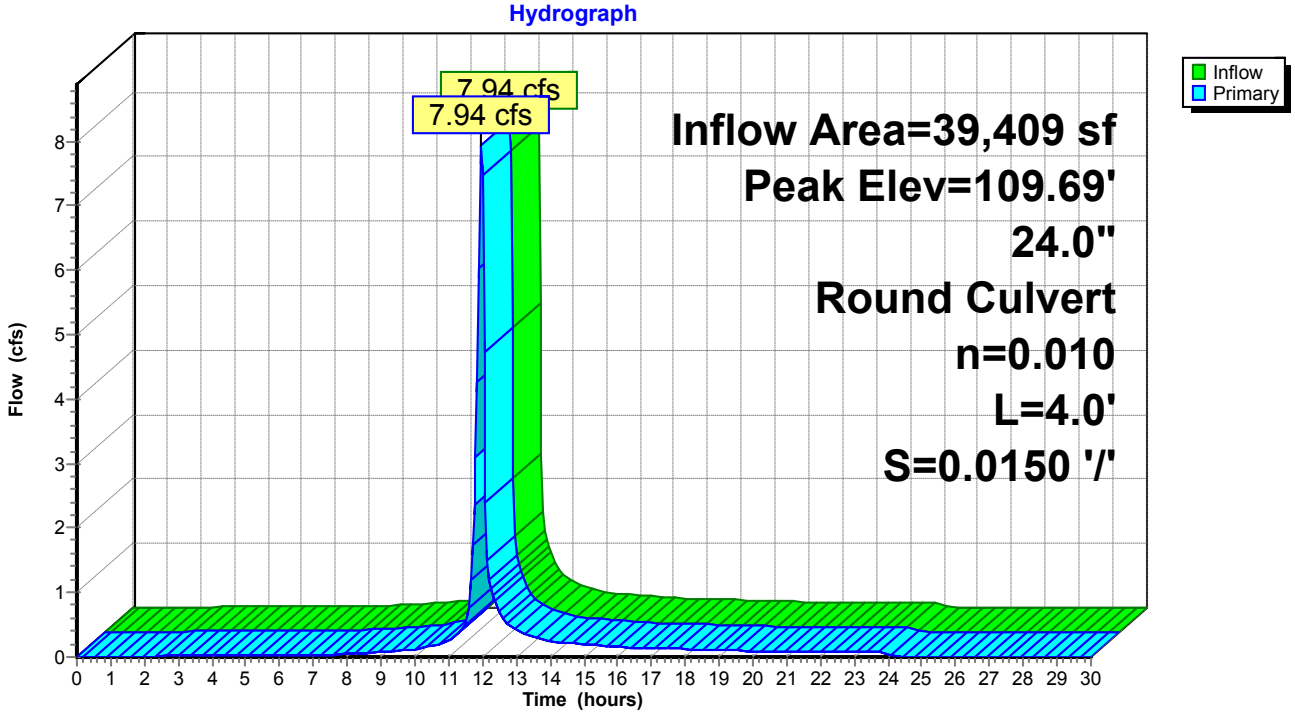
Inflow Area = 39,409 sf, 64.10% Impervious, Inflow Depth = 5.44" for 100-YEAR event
Inflow = 7.94 cfs @ 11.97 hrs, Volume= 17,855 cf
Outflow = 7.94 cfs @ 11.97 hrs, Volume= 17,855 cf, Atten= 0%, Lag= 0.0 min
Primary = 7.94 cfs @ 11.97 hrs, Volume= 17,855 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 109.69' @ 11.97 hrs
Flood Elev= 113.22'

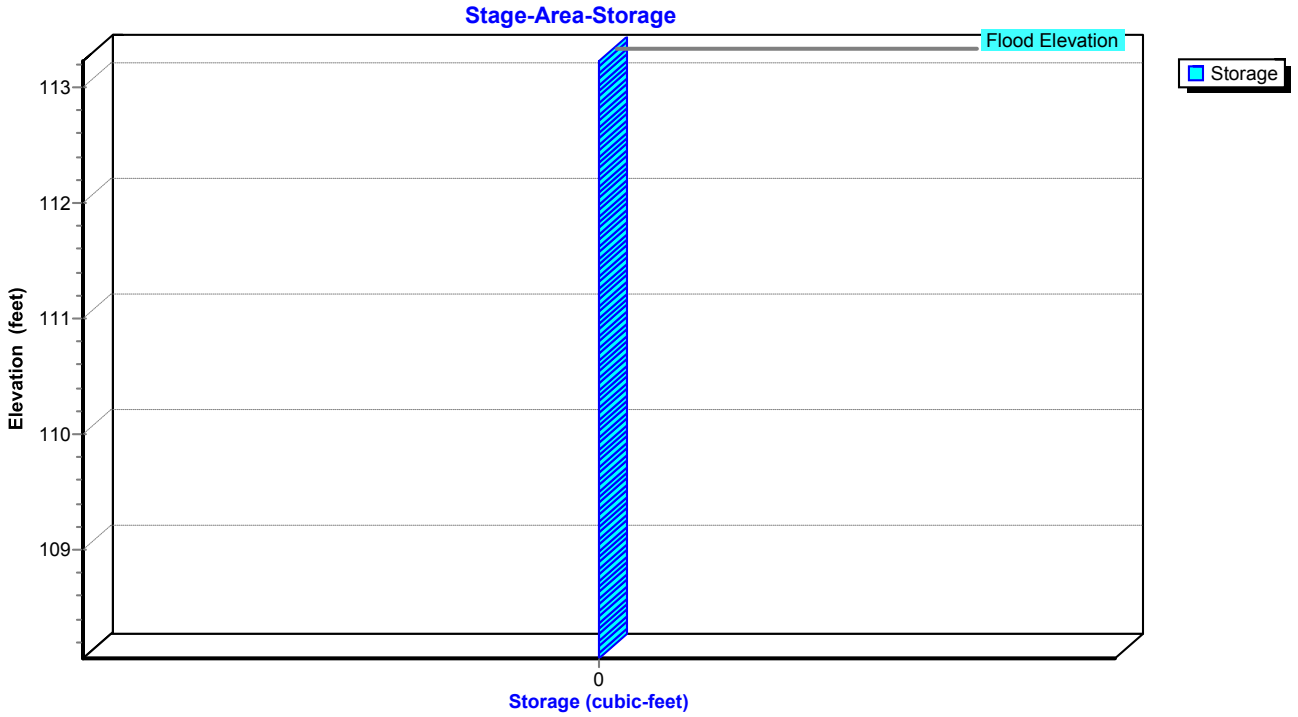
Device	Routing	Invert	Outlet Devices
#1	Primary	108.06'	**24.0" Round Culvert** L= 4.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.06' / 108.00' S= 0.0150 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=7.70 cfs @ 11.97 hrs HW=109.66' (Free Discharge)
└**1=Culvert** (Barrel Controls 7.70 cfs @ 3.92 fps)

Pond 15P: PR CB #4



Pond 15P: PR CB #4



Stage-Area-Storage for Pond 15P: PR CB #4

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
108.06	**0**	110.18	0	112.30	0
108.10	0	110.22	0	112.34	0
108.14	0	110.26	0	112.38	0
108.18	0	110.30	0	112.42	0
108.22	0	110.34	0	112.46	0
108.26	0	110.38	0	112.50	0
108.30	0	110.42	0	112.54	0
108.34	0	110.46	0	112.58	0
108.38	0	110.50	0	112.62	0
108.42	0	110.54	0	112.66	0
108.46	0	110.58	0	112.70	0
108.50	0	110.62	0	112.74	0
108.54	0	110.66	0	112.78	0
108.58	0	110.70	0	112.82	0
108.62	0	110.74	0	112.86	0
108.66	0	110.78	0	112.90	0
108.70	0	110.82	0	112.94	0
108.74	0	110.86	0	112.98	0
108.78	0	110.90	0	113.02	0
108.82	0	110.94	0	113.06	0
108.86	0	110.98	0	113.10	0
108.90	0	111.02	0	113.14	0
108.94	0	111.06	0	113.18	0
108.98	0	111.10	0	113.22	0
109.02	0	111.14	0		
109.06	0	111.18	0		
109.10	0	111.22	0		
109.14	0	111.26	0		
109.18	0	111.30	0		
109.22	0	111.34	0		
109.26	0	111.38	0		
109.30	0	111.42	0		
109.34	0	111.46	0		
109.38	0	111.50	0		
109.42	0	111.54	0		
109.46	0	111.58	0		
109.50	0	111.62	0		
109.54	0	111.66	0		
109.58	0	111.70	0		
109.62	0	111.74	0		
109.66	0	111.78	0		
109.70	0	111.82	0		
109.74	0	111.86	0		
109.78	0	111.90	0		
109.82	0	111.94	0		
109.86	0	111.98	0		
109.90	0	112.02	0		
109.94	0	112.06	0		
109.98	0	112.10	0		
110.02	0	112.14	0		
110.06	0	112.18	0		
110.10	0	112.22	0		
110.14	0	112.26	0		

Summary for Pond 17P: UGC-2

Inflow Area = 39,409 sf, 64.10% Impervious, Inflow Depth = 5.44" for 100-YEAR event
Inflow = 7.94 cfs @ 11.97 hrs, Volume= 17,855 cf
Outflow = 1.17 cfs @ 11.70 hrs, Volume= 17,881 cf, Atten= 85%, Lag= 0.0 min
Discarded = 1.17 cfs @ 11.70 hrs, Volume= 17,881 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 112.53' @ 12.21 hrs Surf.Area= 1,609 sf Storage= 5,392 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 26.6 min (818.9 - 792.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	107.00'	2,478 cf	**22.92'W x 70.23'L x 5.75'H Field A** 9,254 cf Overall - 3,058 cf Embedded = 6,196 cf x 40.0% Voids
#2A	108.00'	3,058 cf	**ADS_StormTech MC-3500 d +Cap** x 27 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 3 Rows of 9 Chambers Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf
		5,537 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	107.00'	**31.400 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.17 cfs @ 11.70 hrs HW=107.15' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 1.17 cfs)

Pond 17P: UGC-2 - Chamber Wizard Field A

Chamber Model = ADS_StormTech MC-3500 d +Cap (ADS StormTech® MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= +14.9 cf x 2 x 3 rows = 89.4 cf

77.0" Wide + 10.0" Spacing = 87.0" C-C Row Spacing

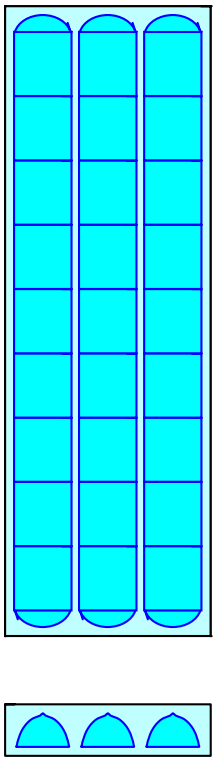
9 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 68.23' Row Length +12.0" End Stone x 2 = 70.23' Base Length
3 Rows x 77.0" Wide + 10.0" Spacing x 2 + 12.0" Side Stone x 2 = 22.92' Base Width
12.0" Base + 45.0" Chamber Height + 12.0" Cover = 5.75' Field Height

27 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 3 Rows = 3,058.1 cf Chamber Storage

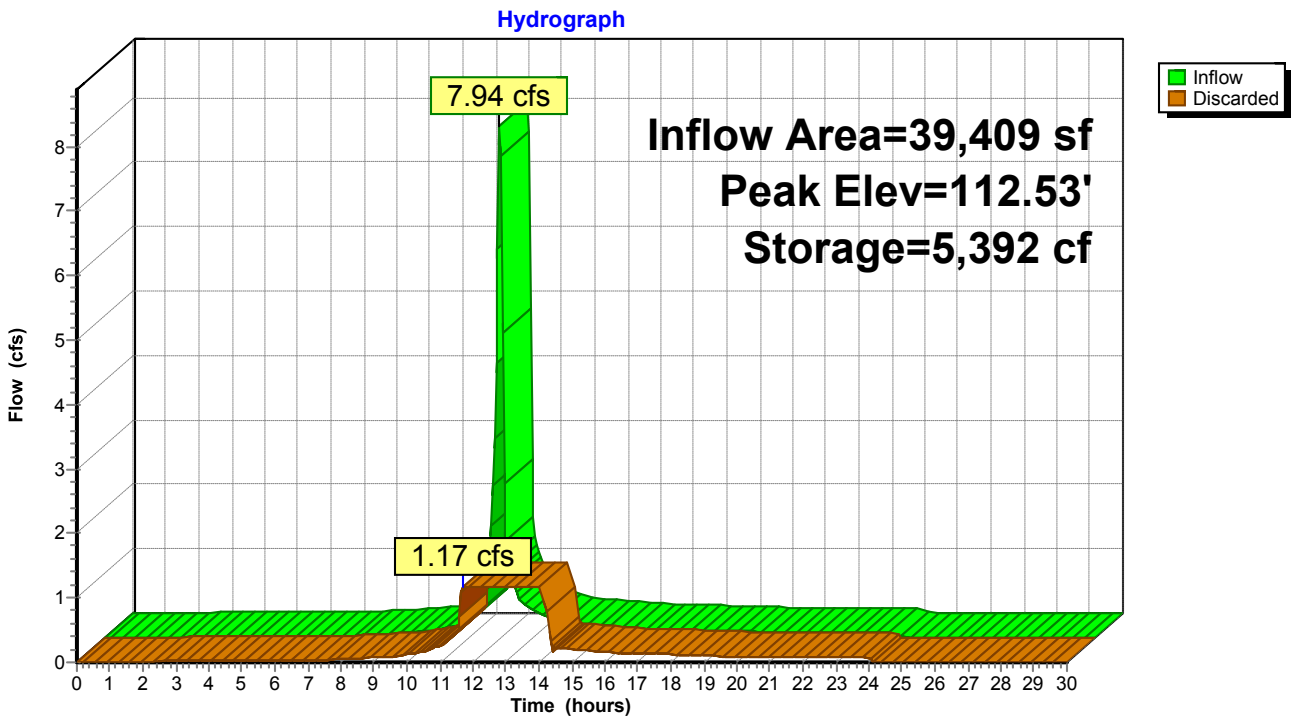
9,254.3 cf Field - 3,058.1 cf Chambers = 6,196.2 cf Stone x 40.0% Voids = 2,478.5 cf Stone Storage

Chamber Storage + Stone Storage = 5,536.6 cf = 0.127 af
Overall Storage Efficiency = 59.8%
Overall System Size = 70.23' x 22.92' x 5.75'

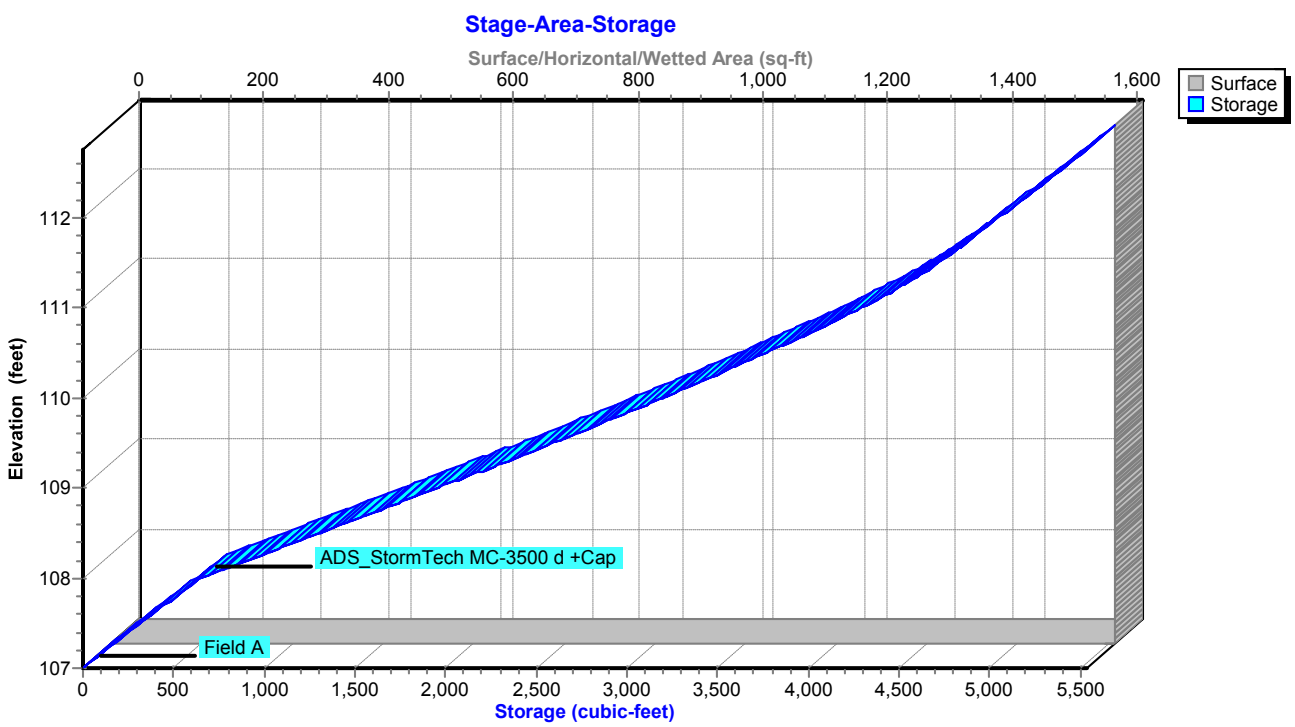
27 Chambers
342.8 cy Field
229.5 cy Stone



Pond 17P: UGC-2



Pond 17P: UGC-2



Stage-Area-Storage for Pond 17P: UGC-2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
107.00	**1,609**	0
107.10	1,609	64
107.20	1,609	129
107.30	1,609	193
107.40	1,609	258
107.50	1,609	322
107.60	1,609	386
107.70	1,609	451
107.80	1,609	515
107.90	1,609	579
108.00	1,609	644
108.10	1,609	778
108.20	1,609	912
108.30	1,609	1,046
108.40	1,609	1,178
108.50	1,609	1,311
108.60	1,609	1,443
108.70	1,609	1,574
108.80	1,609	1,704
108.90	1,609	1,834
109.00	1,609	1,963
109.10	1,609	2,092
109.20	1,609	2,219
109.30	1,609	2,346
109.40	1,609	2,472
109.50	1,609	2,597
109.60	1,609	2,720
109.70	1,609	2,843
109.80	1,609	2,965
109.90	1,609	3,085
110.00	1,609	3,204
110.10	1,609	3,321
110.20	1,609	3,437
110.30	1,609	3,551
110.40	1,609	3,664
110.50	1,609	3,775
110.60	1,609	3,884
110.70	1,609	3,990
110.80	1,609	4,094
110.90	1,609	4,196
111.00	1,609	4,295
111.10	1,609	4,390
111.20	1,609	4,482
111.30	1,609	4,569
111.40	1,609	4,649
111.50	1,609	4,723
111.60	1,609	4,793
111.70	1,609	4,860
111.80	1,609	4,925
111.90	1,609	4,989
112.00	1,609	5,054
112.10	1,609	5,118
112.20	1,609	5,182
112.30	1,609	5,247
112.40	1,609	5,311
112.50	1,609	5,376
112.60	1,609	5,440
112.70	1,609	**5,504**

Summary for Pond DP-3: DP-3

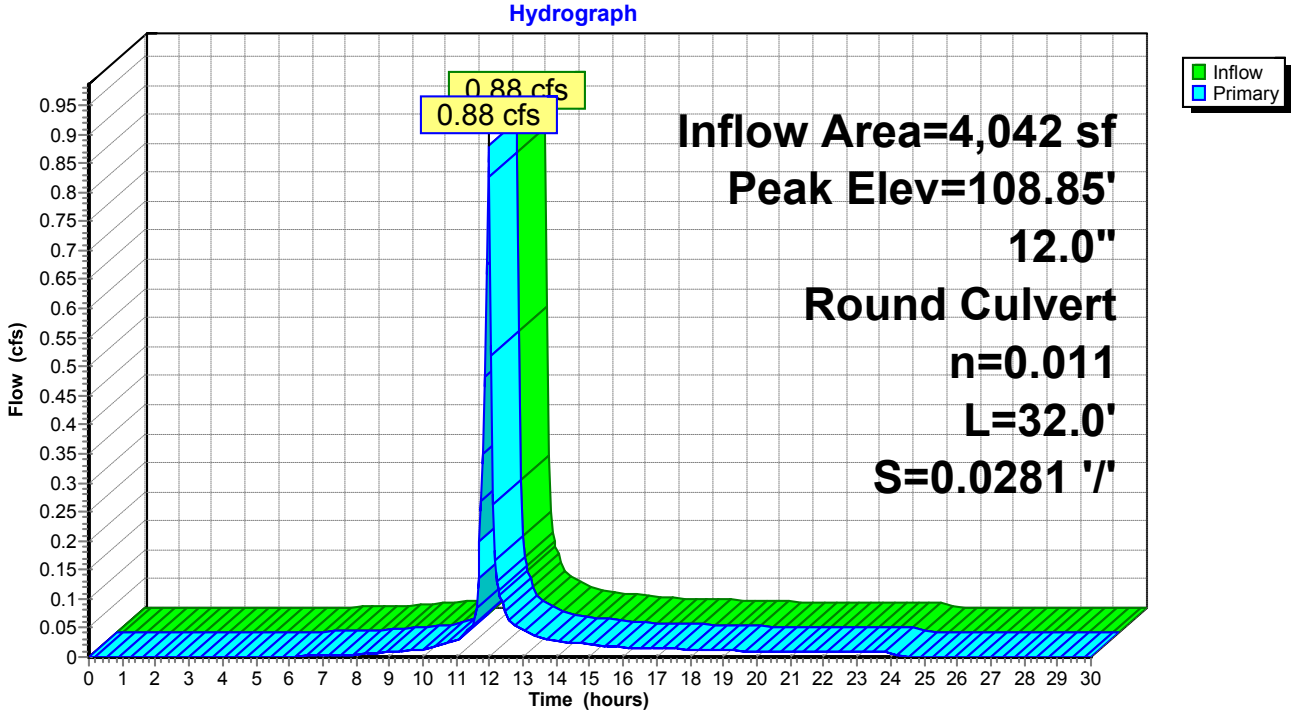
Inflow Area = 4,042 sf, 67.84% Impervious, Inflow Depth = 5.71" for 100-YEAR event
Inflow = 0.88 cfs @ 11.97 hrs, Volume= 1,924 cf
Outflow = 0.88 cfs @ 11.97 hrs, Volume= 1,924 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.88 cfs @ 11.97 hrs, Volume= 1,924 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 108.85' @ 11.97 hrs
Flood Elev= 112.38'

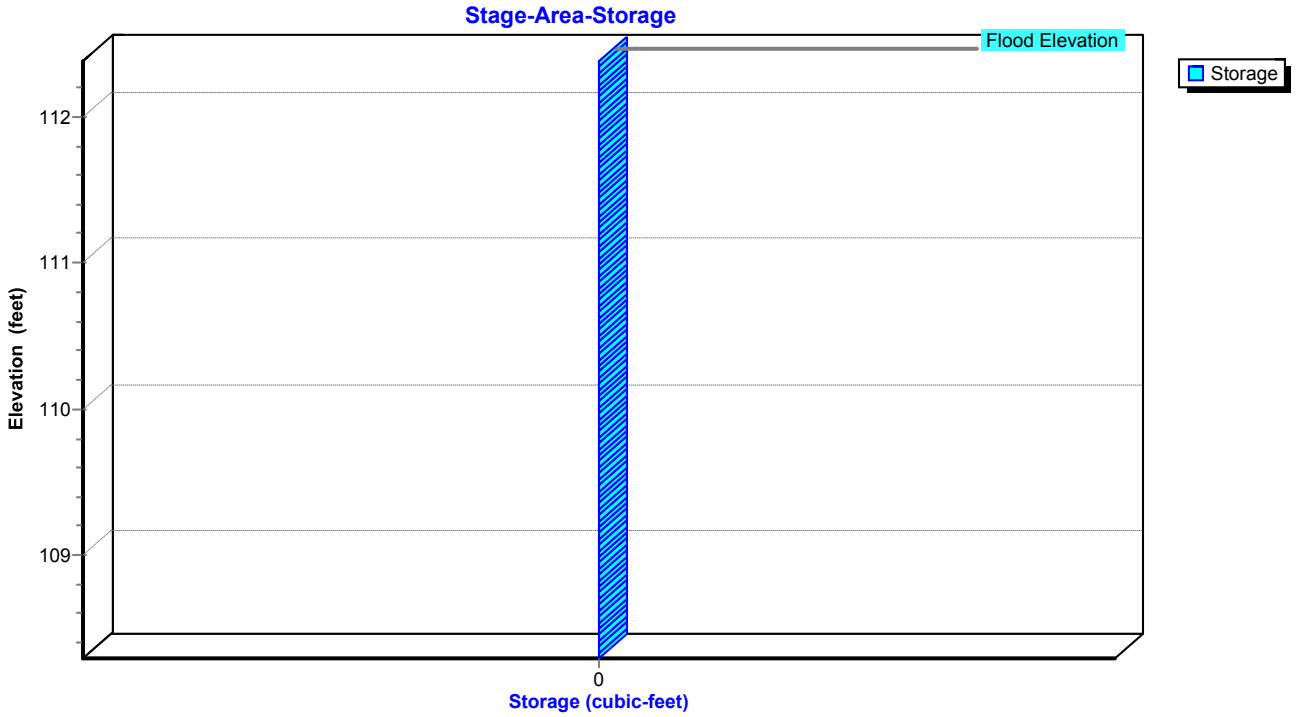
Device	Routing	Invert	Outlet Devices
#1	Primary	108.30'	**12.0" Round Culvert** L= 32.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 107.40' S= 0.0281 '/' Cc= 0.900 n= 0.011 Concrete pipe, straight & clean, Flow Area= 0.79 sf

Primary OutFlow Max=0.85 cfs @ 11.97 hrs HW=108.84' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.85 cfs @ 1.98 fps)

Pond DP-3: DP-3



Pond DP-3: DP-3


Stage-Area-Storage
Flood Elevation
Storage
Elevation (feet)
112
111
110
109
0
Storage (cubic-feet)

Stage-Area-Storage for Pond DP-3: DP-3

Elevation (feet)	Storage (cubic-feet)	Elevation (feet)	Storage (cubic-feet)
108.30	**0**	110.95	0
108.35	0	111.00	0
108.40	0	111.05	0
108.45	0	111.10	0
108.50	0	111.15	0
108.55	0	111.20	0
108.60	0	111.25	0
108.65	0	111.30	0
108.70	0	111.35	0
108.75	0	111.40	0
108.80	0	111.45	0
108.85	0	111.50	0
108.90	0	111.55	0
108.95	0	111.60	0
109.00	0	111.65	0
109.05	0	111.70	0
109.10	0	111.75	0
109.15	0	111.80	0
109.20	0	111.85	0
109.25	0	111.90	0
109.30	0	111.95	0
109.35	0	112.00	0
109.40	0	112.05	0
109.45	0	112.10	0
109.50	0	112.15	0
109.55	0	112.20	0
109.60	0	112.25	0
109.65	0	112.30	0
109.70	0	112.35	0
109.75	0		
109.80	0		
109.85	0		
109.90	0		
109.95	0		
110.00	0		
110.05	0		
110.10	0		
110.15	0		
110.20	0		
110.25	0		
110.30	0		
110.35	0		
110.40	0		
110.45	0		
110.50	0		
110.55	0		
110.60	0		
110.65	0		
110.70	0		
110.75	0		
110.80	0		
110.85	0		
110.90	0		

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	73.934 degrees West
Latitude	41.706 degrees North
Elevation	0 feet
Date/Time	Mon, 08 Nov 2021 07:19:12 -0500

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**	1.29	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	2.25	**10yr**	1.53	2.01	2.60	3.19	3.88	4.68	5.37	**10yr**	4.14	5.17	5.91	6.72	7.58	**10yr**
25yr	0.60	0.95	1.21	1.67	2.23	2.85	**25yr**	1.92	2.49	3.29	4.05	4.90	5.85	6.79	**25yr**	5.18	6.53	7.47	8.32	9.35	**25yr**
50yr	0.68	1.10	1.40	1.97	2.65	3.40	**50yr**	2.28	2.93	3.94	4.83	5.82	6.93	8.11	**50yr**	6.13	7.80	8.94	9.78	10.97	**50yr**
100yr	0.78	1.27	1.63	2.31	3.15	4.07	**100yr**	2.72	3.45	4.72	5.78	6.94	8.22	9.70	**100yr**	7.27	9.32	10.69	11.51	12.87	**100yr**
200yr	0.90	1.46	1.90	2.72	3.75	4.87	**200yr**	3.24	4.07	5.65	6.91	8.27	9.74	11.60	**200yr**	8.62	11.15	12.79	13.55	15.11	**200yr**
500yr	1.09	1.79	2.34	3.39	4.74	6.18	**500yr**	4.09	5.06	7.18	8.76	10.43	12.22	14.70	**500yr**	10.81	14.14	16.24	16.82	18.69	**500yr**

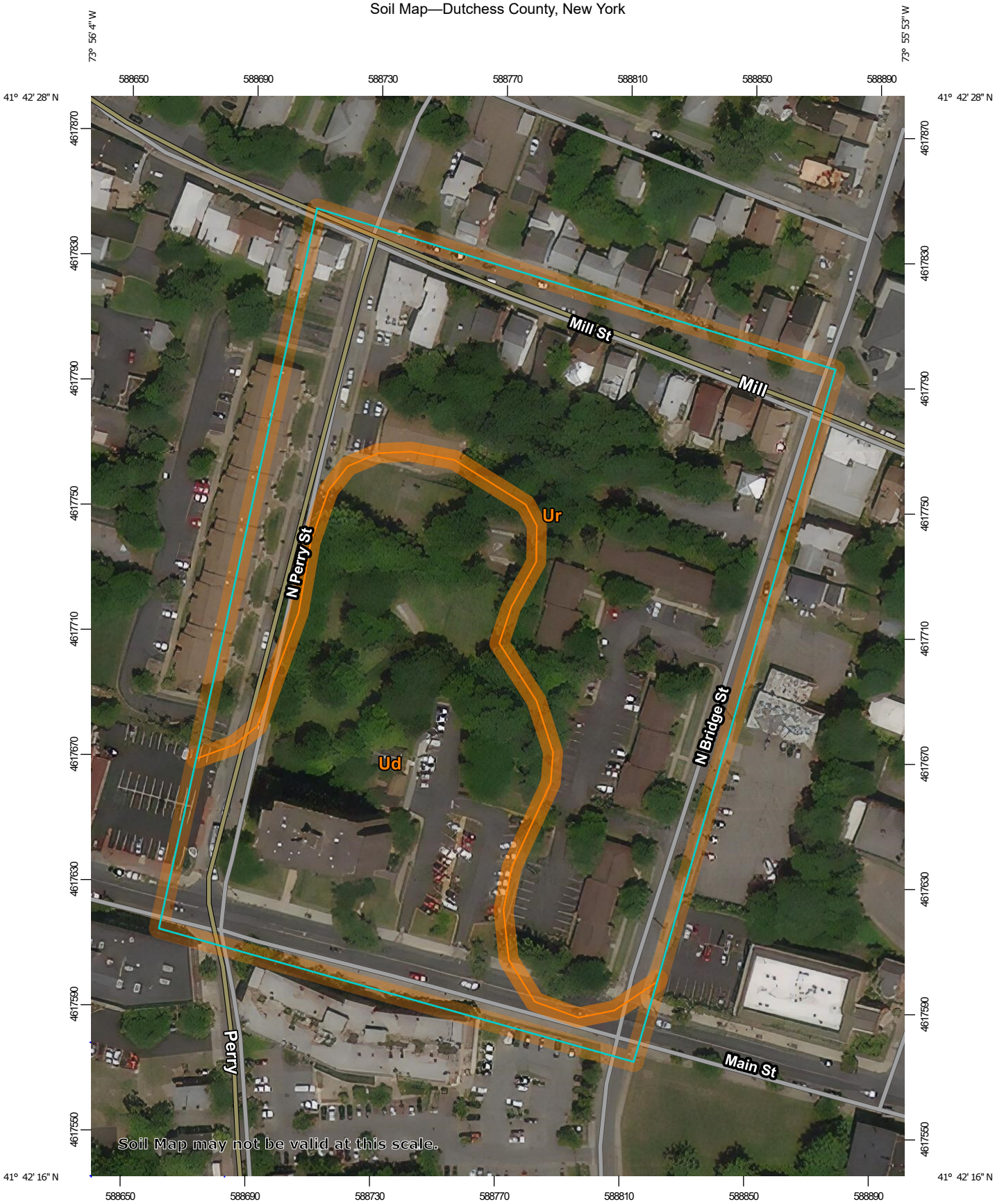
Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.28	0.43	0.52	0.70	0.86	1.03	**1yr**	0.74	1.01	1.21	1.52	1.91	2.37	2.57	**1yr**	2.10	2.47	3.06	3.61	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	3.47	**2yr**	2.70	3.33	3.81	4.56	5.18	**2yr**
5yr	0.41	0.64	0.79	1.08	1.38	1.59	**5yr**	1.19	1.56	1.80	2.32	2.88	3.66	4.14	**5yr**	3.24	3.99	4.68	5.41	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	4.74	**10yr**	3.70	4.56	5.40	6.14	6.96	**10yr**
25yr	0.54	0.81	1.01	1.45	1.90	2.05	**25yr**	1.64	2.00	2.33	2.87	3.67	4.97	5.65	**25yr**	4.40	5.43	6.48	7.26	8.23	**25yr**
50yr	0.60	0.91	1.14	1.64	2.20	2.27	**50yr**	1.90	2.22	2.62	3.18	4.09	5.68	6.45	**50yr**	5.03	6.20	7.40	8.25	9.34	**50yr**
100yr	0.68	1.03	1.29	1.87	2.56	2.53	**100yr**	2.21	2.48	2.95	3.52	4.56	6.50	7.36	**100yr**	5.75	7.08	8.48	9.36	10.61	**100yr**
200yr	0.78	1.17	1.48	2.15	3.00	2.82	**200yr**	2.59	2.75	3.31	3.91	5.08	7.42	8.41	**200yr**	6.57	8.09	9.68	10.64	12.05	**200yr**
500yr	0.94	1.40	1.80	2.61	3.71	3.26	**500yr**	3.20	3.19	3.89	4.50	5.86	8.88	10.03	**500yr**	7.86	9.64	11.57	12.60	14.28	**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	0.53	0.65	0.88	1.08	1.31	**1yr**	0.93	1.28	1.46	1.87	2.35	2.88	3.21	**1yr**	2.55	3.09	3.63	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	3.28	3.72	**2yr**	2.90	3.57	4.07	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	4.90	**5yr**	3.78	4.71	5.24	6.07	6.82	**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	5.25	6.06	**10yr**	4.65	5.83	6.44	7.36	8.24	**10yr**
25yr	0.73	1.10	1.37	1.96	2.58	3.03	**25yr**	2.23	2.96	3.56	4.72	5.73	6.93	8.05	**25yr**	6.13	7.74	8.48	9.54	10.57	**25yr**
50yr	0.86	1.31	1.63	2.34	3.15	3.70	**50yr**	2.72	3.62	4.39	5.86	7.03	8.53	10.00	**50yr**	7.55	9.62	10.48	11.63	12.79	**50yr**
100yr	1.02	1.55	1.94	2.80	3.84	4.54	**100yr**	3.32	4.44	5.41	7.29	8.64	10.51	12.43	**100yr**	9.31	11.96	12.97	14.18	15.48	**100yr**
200yr	1.22	1.83	2.32	3.36	4.68	5.54	**200yr**	4.04	5.41	6.68	9.05	10.62	12.96	15.47	**200yr**	11.47	14.88	16.08	17.32	18.73	**200yr**
500yr	1.54	2.29	2.94	4.28	6.08	7.23	**500yr**	5.25	7.07	8.82	12.09	13.97	17.07	20.67	**500yr**	15.11	19.87	21.43	22.57	24.17	**500yr**

Powered by ACIS
Northeast Regional Climate Center



Map Scale: 1:1,680 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 20 40 80 120

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 18, Sep 1, 2021

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
Ud	Udorthents, smoothed	3.8	40.0%
Ur	Urban land	5.8	60.0%
Totals for Area of Interest		**9.6**	**100.0%**

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

November 17, 2020

Kenneth Spillberg
Senior VP Development - Omni New York LLC
909 Third Avenue
Floor 21
New York, NY 10022

Re: NYSHCR
Admiral Halsey Senior Village Phase II: New Construction
135 Main St, Poughkeepsie, NY 12601
20PR07157

Dear Mr. Spillberg:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

The project area is located between the Mill Street-North Clover Street Historic District and the Union Street Historic District, both of which are listed in the State and National Registers of Historic Places. Our office has reviewed the proposed construction of a new 7-story residential building. Based upon our review, it is the SHPO's opinion that the project will have No Adverse Effect on historic or archaeological resources. If there are substantive changes to the project consultation with our office should resume.

If you have any questions, I can be reached by email.

Sincerely,

Derek Rohde
Historic Site Restoration Coordinator
e-mail: derek.rohde@parks.ny.gov

via e-mail only

Design Criteria & Performance Summary

SUMMARY OF OVERALL WATERSHEDS

Design Criteria	*min req'd*		Performance Summary:		
criteria	*amount*	*unit*	*Provided*		*notes/information*
WQv:					
total	3,280 0.08	cft ac-ft	8,247 0.19	cft ac-ft	Underground Infiltration Chambers
Cpv:					
volume	NA	cft	NA	cft	NA if reduction of CPv achieed through RRv Practices
Qp:					
discharge	6.5	cfs	5.0	cfs	Pre to Post reduced See Hydro CAD
Qf					
discharge	16.0	cfs	10.9	cfs	Pre to Post reduced See Hydro CAD
RRv Min:	2,742 0.06	cft ac-ft	8,247 0.19	cft 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	0.77	0.47	61.72	1.05	0.61	0.04	1,767.0	0.55	0.022	941.1
2	0.12	0.08	65.56	1.05	0.64	0.01	295.6	0.55	0.004	158.2
3	0.09	0.06	67.84	1.05	0.66	0.01	233.6	0.55	0.003	125.4
4	0.50	0.24	48.09	1.05	0.48	0.02	915.7	0.55	0.011	476.6
5	0.11	0.07	67.65	1.05	0.66	0.01	267.1	0.55	0.003	143.3
6	0.12	0.09	73.44	1.05	0.71	0.01	327.1	0.55	0.004	176.6
7	0.15	0.12	78.05	1.05	0.75	0.01	423.3	0.55	0.005	229.4
8	0.18	0.12	62.98	1.05	0.62	0.01	433.7	0.55	0.005	231.4
9	0.11	0.11	100.00	1.05	0.95	0.01	384.0	0.55	0.005	211.2
10	0.11	0.11	100.00	1.05	0.95	0.01	406.6	0.55	0.005	223.6
11	0.07	0.07	100.00	1.05	0.95	0.01	267.7	0.55	0.003	147.2
TOTAL	**2.33**	**1.54**					**5,721.5**		**0.070**	**3064.0**

Water Quality Volume Calculations STANDARD

Trib Area	1.38	ac
Imperv Cover:	0.88	ac
Imperv. %	63.90	

Stormwater Management Practice Selection:

Underground Infiltration Chambers

Uniform Sizing Criteria:

Water Quality (WQv)	P=	1.05	
	I=	*63.9*	
	Rv=	0.6251	
	A=	1.38	
	WQv=	0.08	AC-FT
		3,280.2	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= 0.55

Min RRV =	0.063	ac-ft
Min RRV =	2,742.0	cu ft

STORMTECH SUBSURFACE STORMWATER CHAMBERS
SIZING PER CHAPTER 6 OF THE NYS STORM WATER DESIGN MANUAL

Design Parameters		
Select Stormtech Chamber	SC-740	
Stone Porosity (Industry Standard 40%)	40	%
Stone Foundation Depth	6	Inches
Avg Cover Over Chambers	24	Inches
Storage Volume Per Chamber	59	CF
Storage Volume Per End Cap	0	CF

UGC #	Required WQv	Required RRv	Min Chambers Required	Chambers Provied	End Caps Provided	WQv Provided	RRv Provided
1	829.9	453.0	14.1	30	6	2,807.0	2,807.0

Design Parameters		
Select Stormtech Chamber	MC-3500	
Stone Porosity (Industry Standard 40%)	40	%
Stone Foundation Depth	9	Inches
Avg Cover Over Chambers	24	Inches
Storage Volume Per Chamber	194	CF
Storage Volume Per End Cap	0	CF

UGC #	Required WQv	Required RRv	Min Chambers Required	Chambers Provied	End Caps Provided	WQv Provided	RRv Provided
2	2,161.6	1,154.9	11.1	27	6	5,440.0	5,440.0

WQv REQUIRED	
UGC-1	830
UGC-2	2162
TOTAL (CU FT)	2991
TOTAL (AC FT)	**0.07**

WQv PROVIDED	
UGC-1	2807
UGC-2	5440
TOTAL (CU FT)	8247
TOTAL (AC FT)	**0.19**

RRv REQUIRED	
UGC-1	453
UGC-2	1155
TOTAL (CU FT)	1608
TOTAL (AC FT)	**0.04**

RRv PROVIDED	
UGC-1	2807
UGC-2	5440
TOTAL (CU FT)	8247
TOTAL (AC FT)	**0.19**

Peak Flow Discharge Rate DP-1			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	1.3	1.2	**-0.1**
2	1.9	1.7	**-0.1**
10	3.5	3.3	**-0.2**
100	7.6	7.3	**-0.3**

Peak Flow Discharge Rate DP-2			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	0.5	0.2	**-0.3**
2	0.7	0.3	**-0.5**
10	1.3	0.5	**-0.8**
100	2.7	1.1	**-1.6**

Peak Flow Discharge Rate DP-3			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	0.3	0.2	**-0.2**
2	0.5	0.2	**-0.3**
10	1.0	0.4	**-0.6**
100	2.1	0.9	**-1.3**

Peak Flow Discharge Rate DP-4			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	0.0	0.2	**0.2**
2	0.0	0.4	**0.3**
10	0.7	0.7	**0.1**
100	3.5	1.7	**-1.8**

Peak Flow Discharge Rate OVERALL			
Storm Event	**Pre (cfs)**	**Post (cfs)**	**Net Reduction (cfs)**
1	2.2	1.8	**-0.4**
2	3.1	2.6	**-0.6**
10	6.5	5.0	**-1.5**
100	16.0	10.9	**-5.0**

TEST PIT LOG

Admiral Halsey II

Completed By: AH

Dated: November 15, 2021

Test Hole	Total Depth	Water Level	Rock Level	Soils
1	7'	7'	N/A	0-6" Topsoil
				6"-2.5' Fill: brick, asphalt
				2.5-7' Sandy brown soil, stones, wet
3	6.5'	5.5'	N/A	0-6" Topsoil
				6"-1.5' Fill: hard asphalt
				1.5-5.5' Clay
				5.5-6.5' Heavy groundwater
4	7.5'	N/A	N/A	0-6" Topsoil
				6"-3' Fill: bricks, asphalt
				3-7.5' Light brown silt/sand
5	7'	N/A	N/A	0-6" Topsoil
				6"-3' Fill: bricks, hard asphalt
				3-7' Brown silt/sand, fill
6	7'	N/A	N/A	0-6" Topsoil
				6"-3' Fill: bricks, asphalt
				3-6' Virgin topsoil (brown silt/sand)
				6-7' Light brown clay, wet

Location of test pits shown on DA-1

TEST PIT LOG

Admiral Halsey II

Completed By: AH

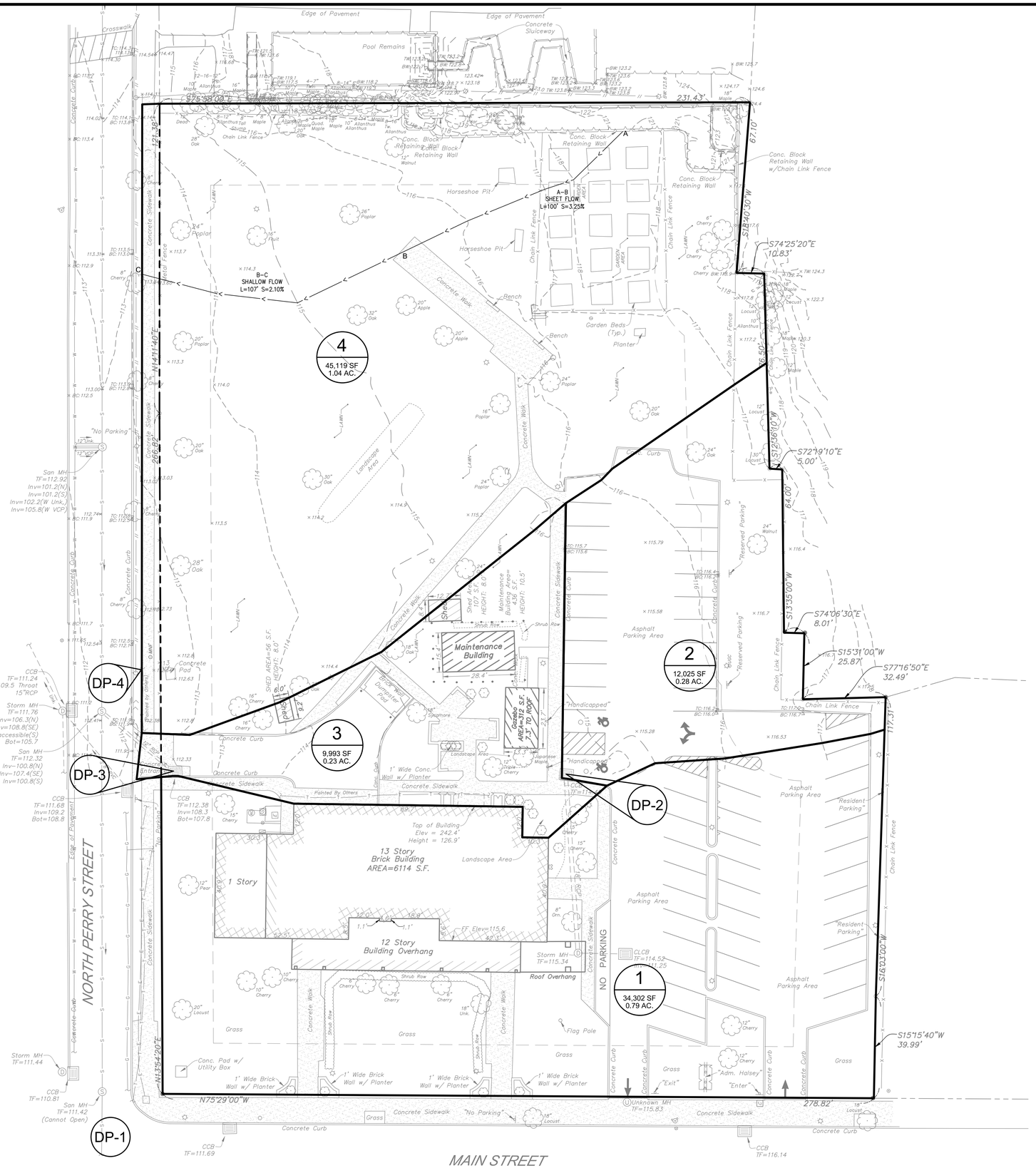
Dated: November 15, 2021

Test Hole	Total Depth	Run One (in/hr)	Run Two (in/hr)	Run Three (in/hr)	Average Run (in/hr)
TP-1		6.5	6.5	5.5	6.2
TP-3		125	66.5	55	82.2
TP-4		1.75	1.5	0.5	1.3
TP-6		60.5	63.5	60.5	61.5

Location of Infiltration Tests shown on DA-1

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

#	Date	Description
1	12/21/2021	REVISED PER COMMENTS

Revisions

STATE OF NEW YORK · RODNEY E. MORRISON · 074195 · LICENSED PROFESSIONAL ENGINEER

LRC GROUP

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

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

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

DRAINAGE AREA MAP (PRE-CONDITIONS)

ADMIRAL HALSEY II

125 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	BS	CAD File	DA21273001.dwg	Sheet No.
Drawn	SMC	Project No.	20-2370	DA-1
Checked	KFC	Date	2021-06-22	
Approved	REM	Scale	1"=20'	

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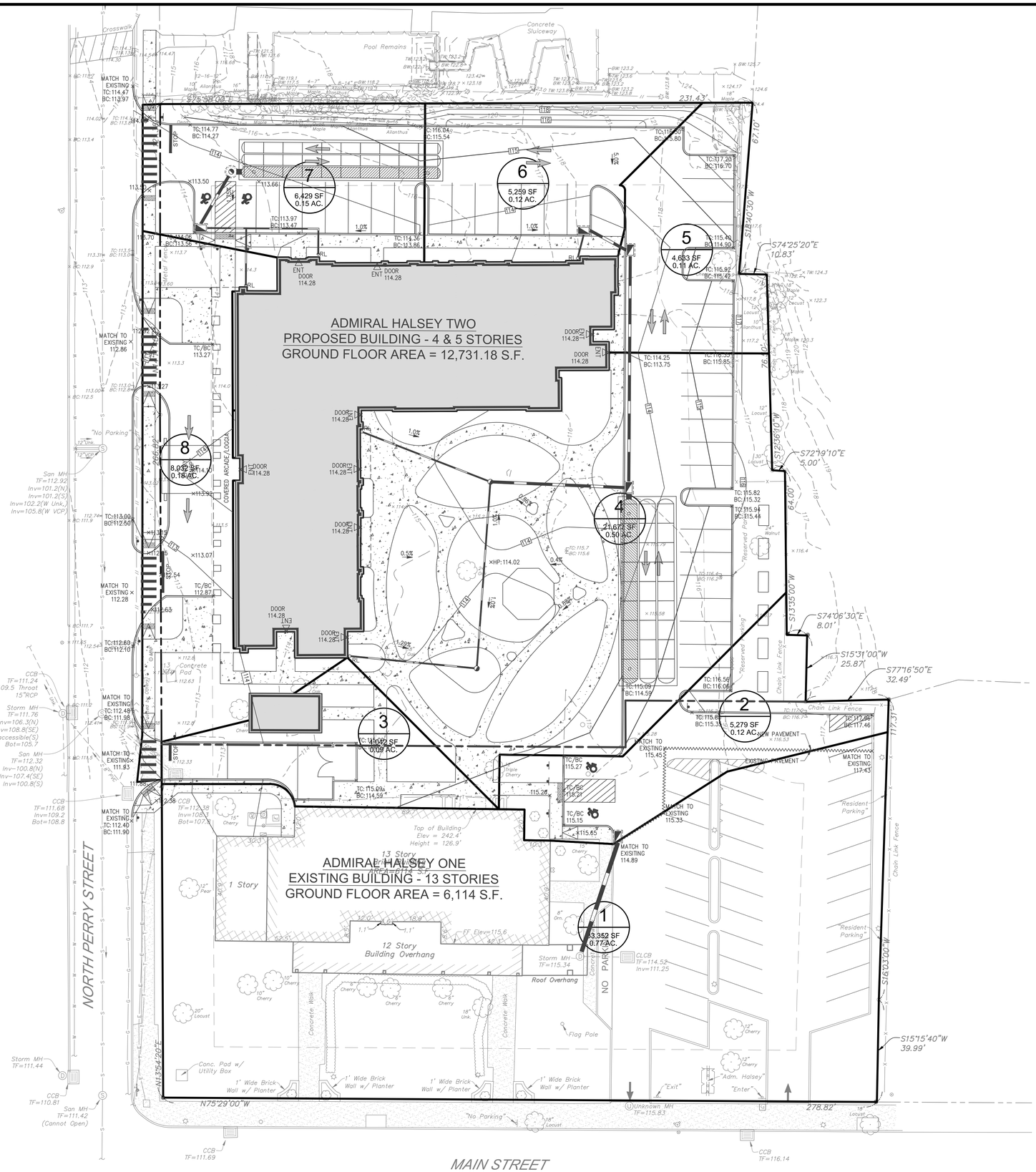

LEGEND

— — 120 — —	EXISTING MAJOR CONTOUR LINE
— — — 123 — — —	EXISTING MINOR CONTOUR LINE
120	PROPOSED MAJOR CONTOUR LINE
123	PROPOSED 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

Revisions			
1.	12/21/2021	REVISED PER COMMENTS	

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- Civil Engineering
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- Landscape Architecture

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LRC Environmental Services, Inc.

STATE OF NEW YORK · RODNEY E. MORRISON · 074154 · LICENSED PROFESSIONAL ENGINEER

DRAINAGE AREA MAP (POST-CONDITIONS)

ADMIRAL HALSEY II

125 MAIN STREET
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	BS	CAD File	DA21273002.dwg	Sheet No.
Drawn	SMC	Project No.	20-2370	DA-2
Checked	KFC	Date	2021-06-22	
Approved	REM	Scale	1"=20'	

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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: 20-72 Vassar Farm Lane, Poughkeepsie, NY

II. PROPERTY OWNER: Vassar College
ADDRESS: 124 Raymond Avenue
Poughkeepsie
NY, 12604 (state and zip code)
PHONE NUMBER: 845-437-7000 (include area code)

III. NAME OF APPLICANT: Vassar College
ADDRESS: 124 Raymond Avenue
Poughkeepsie
NY, 12604 (state and zip code)
PHONE NUMBER: 845-437-7000 (include area code)
EMAIL ADDRESS: begemann@vassar.edu

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

IV. CONSULTANT: LRC Engineering & Surveying, DPC
ADDRESS: 85 Civic Center Plaza, Suite 204
Poughkeepsie
NY, 12601 (state and zip code)
PHONE NUMBER: 845-243-2880 (include area code)

V. PROPOSED USE or FAÇADE CHANGE (Summarize proposed use or uses): Proposed permeable pavement parking lot.

VI. ZONING DISTRICT: R-D

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

PROJECT INFORMATION

New construction: _____(yes)X_____ (no)

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

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

Alteration:X_____ (yes) _____ (no)

Cost of Construction: $TBD_____

LOT AND BULK INFORMATION:

Lot area: 228.4 _____ (acres) 9,949,104 _____ (square feet)

Building Footprint: N/A _____ (proposed square feet for new construction)

N/A _____ (existing square feet for change of use/expansion)

N/A _____ (additional proposed square feet for expansion)

N/A _____ (total building footprint, square feet)

Lot Coverage: N/A _____ (percentage, building coverage only)

Gross Floor Area: N/A _____ (proposed square feet for new construction)

N/A _____ (existing square feet for change of use/expansion)

N/A _____ (additional proposed square feet for expansion)

N/A _____ (total gross floor area, square feet)

Building Height: N/A _____ (stories) N/A _____ (feet)

Floor Area Ratio: N/A _____ (ratio of gross floor area divided by lot area)

VIII. PROJECT PARKING INFORMATION

A) Number of Off-Street Parking Spaces required: N/A _____

B) Number of Off-Street Parking Spaces provided: 40 _____

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?

X____ (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): Vassar College parking lot

_____

_____

_____

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: Permeable Parking lot for Farm Preserve

B) Number of shifts (if any): N/A

C) Number of employees: N/A
(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: N/A

F) Number of classrooms (schools): N/A

G) Number of rental units (hotels, motels, etc.) N/A

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

I) Days/Hours of Operation: _____

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

Vassar College proposes a permeable parking lot for the Gateway Farm Preserve Preserve, the project will reduce vehicle traffic to the interior of the Preserve and create a more pedestrian friendly environment.

XVII. APPLICANT CERTIFICATION

I, Marianne Begemann, 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.

Marianne Begemann — 10-21-22

Signature of Applicant — Date

December 6, 2022

City of Poughkeepsie Planning Department
62 Civic Center Plaza
Poughkeepsie, NY 12603

Re: Site Plan Review
Vassar Gateway Project
20-72 Vassar Farm Lane

Dear Chairman Levine and Members of the Planning Board:

Please accept this letter and accompanying revised copies of the plan set and documents as our resubmission for the above referenced project. Below, please find our responses to comments received from our previous submission to the City of Poughkeepsie Planning Board on November 7, 2022:

Please find below our summary of responses to the Comments received from The City of Poughkeepsie Department of Public Works & Engineering in a letter dated November 15, 2022:

1. Provide stabilized construction entrance detail on Sheet DN-2.

   LRC Response: *A construction entrance detail has been provided on detail sheet DN-2.*

2. Provide an estimate of costs for sitework.

   LRC Response: *A cost estimate for sitework has been provided.*

Please find below our summary of responses to the Comments received from The City of Poughkeepsie Fire Department in a letter dated November 28, 2022:

1. Site plan legend to clearly show hydrants in relation to the proposed lot.

   LRC Response: *The site grading / drainage & EC Plan, sheet SG-1 has the existing fire hydrant location and information shown. The legend on the sheet has been updated accordingly.*

2. Documentation that the Fire Protection Water Supplies meet the applicable FCNYS 507 sections.

   LRC Response: *A notation for flow testing and color banding has been provided on sheet SG-1.*

3. Annual Inspection, testing and maintenance as required by FCNYS 507.5.2 and FCNYS 507.5.3.

   LRC Response: A testing and inspection note has been provided on sheet SG-1.

We appreciate your efforts to review our revised plans and look forward to satisfying any outstanding concerns as soon as possible.

Thank you for your time and effort.

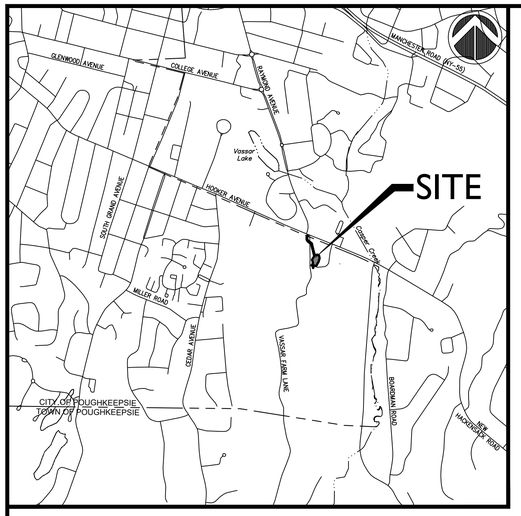
Sincerely,
The LRC Group

Ken Casamento, CPESC
Principal

VASSAR GATEWAY PROJECT

20-72 VASSAR FARM LANE
CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK STATE

REVISED: DECEMBER 6, 2022

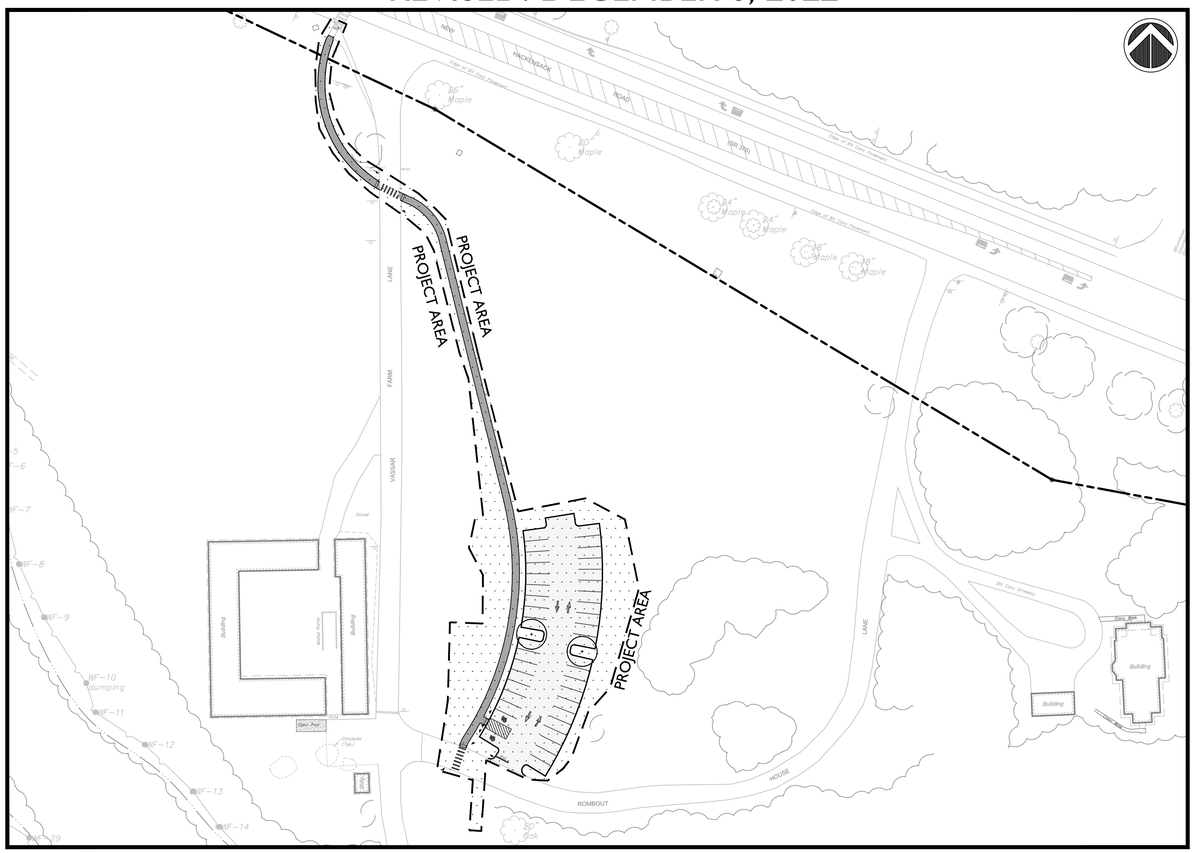


LOCATION MAP

SCALE: 1"=1,500'

VICINITY MAP

SCALE: 1"=200'



OVERALL SITE PLAN

SCALE: 1"=60'

INDEX OF DRAWINGS

CV-1 COVER SHEET
EX-1 EXISTING CONDITIONS
SP-1 SITE PLAN / LANDSCAPE PLAN
SG-1 SITE GRADING / DRAINAGE & EC PLAN
DN-1 PROJECT DETAILS
DN-2 PROJECT DETAILS

SITE PLANNER / CIVIL ENGINEER:

LRC GROUP

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

85 Civic Center Plaza, Suite 204
Poughkeepsie NY 12601
Tel: 845.243.2880

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

www.lrcconsult.com

- LAND PLANNING
- CIVIL ENGINEERING
- ENVIRONMENTAL SERVICES
- LAND SURVEYING
- LANDSCAPE ARCHITECTURE

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

STATE OF NEW YORK · RODNEY E. MORRISON · 074194 · LICENSED PROFESSIONAL ENGINEER

Rodney Morrison P.E. #074194

OWNER / APPLICANT:

VASSAR COLLEGE
124 RAYMOND AVE
POUGHKEEPSIE, NY, 12601

FIRE CHIEF

POLICE CHIEF

BUILDING INSPECTOR

CITY ENGINEER

COMMISSIONER OF PUBLIC WORKS

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)

REVISED: 2022-12-06
ORIGINALLY SUBMITTED: 2022-10-25

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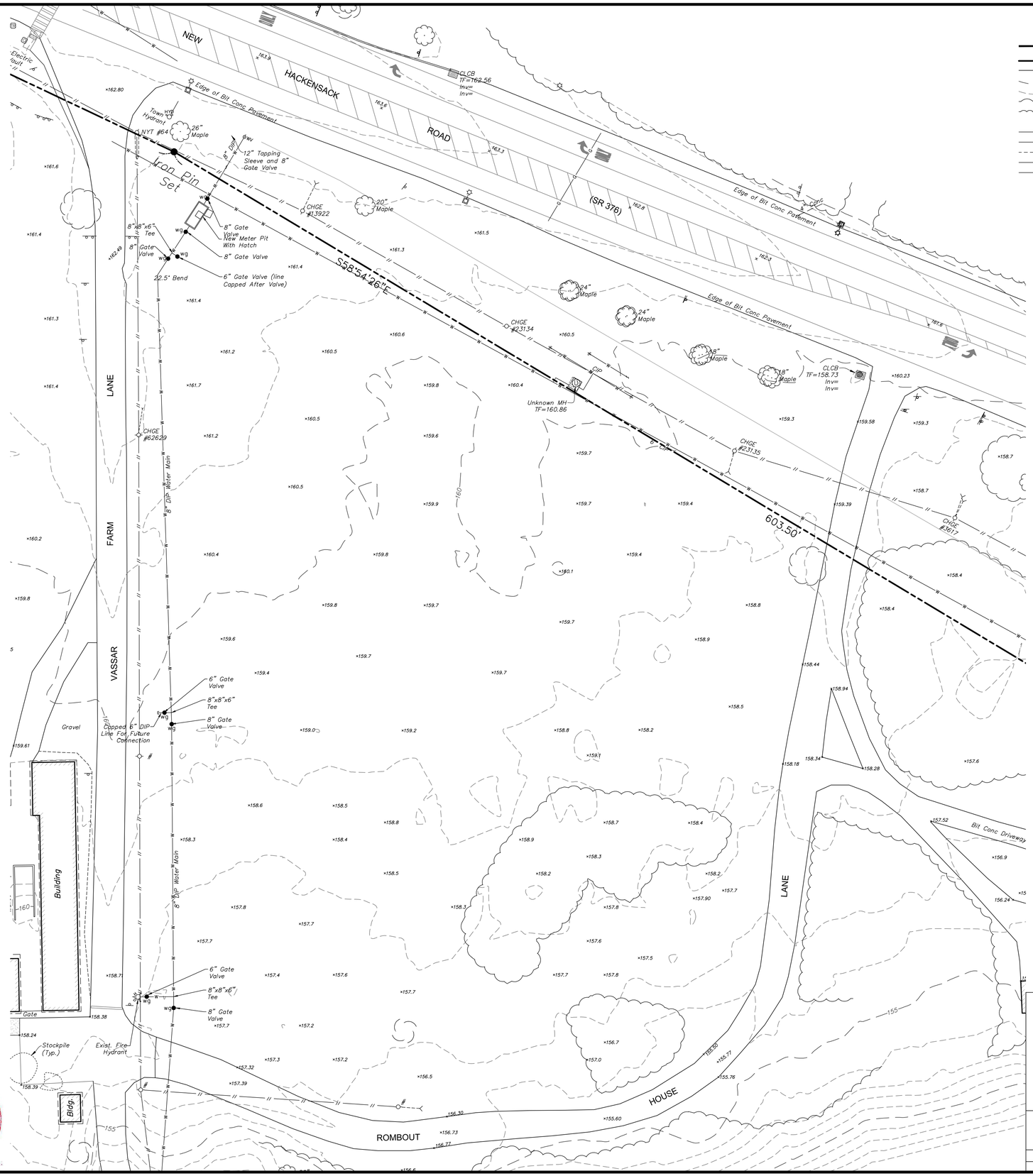
CV-1
SHEET 1 OF 6



LEGEND

- Property Line
- Easement Line
- Index Contour
- Intermediate Contour
- Treeline
- Hedge/Shrub Line
- Detectable Warning Strip
- Gas Line
- Water Line (Vassar)–Domestic & Fire Protection
- Water Line (Vassar) Abandoned
- Water Line (Town)
- Overhead Wires
- Bituminous Concrete Surface
- Concrete Surface
- Gravel Surface
- Deciduous Tree
- Coniferous Tree
- Sign
- Water Valve (Vassar)
- Water Valve (Town)
- Hydrant (Vassar)
- Hydrant (Town)
- Curbless Catch Basin
- Utility Pole with Light
- Guy Wire
- Street Light

Map Notes

1. Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub-division 2, of the New York State Education Law.
2. Only copies from the original of this survey marked with an original of the land surveyor's seal shall be considered to be a true copy.
3. The above certification shall run only to the person for whom the survey is prepared , and on his behalf to the title company, governmental agency and lending institution. Certifications are not transferable to additional institutions or subsequent owners.
4. North Arrow and Bearings are referenced to the North American Datum of 1983 (NAD83) projected onto the New York State Plane East Zone based on GPS observations made on June 23, 2022 utilizing the NYSNET GPS network.
5. Elevations and Contours are referenced to North American Vertical Datum of 1988 (NAVD88) based on GPS observations made on December 2, 2020 utilizing the NYSNET GPS network.
6. Topographic survey performed by the LRC Group. LiDar data collected by Thew Associates using unmanned aerial lidar collection methods in July 2022. Field survey was completed on July 13, 2022.
7. New Hackensack Road – Route 376 highway lines were surveyed by the LRC Group. A boundary determination for property parcel lines has not been made.
8. Parcel is identified as Tax ID number 6161–84–910090 according to the Dutchess County Parcel Access.
9. A portion of the property is located in Zone "A" as depicted on Flood Insurance Rate Map (FIRM) Panel 0367E, Dutchess County, New York, Town of Lagrange, community number 361011, City of Poughkeepsie, community number 360222, Town of Poughkeepsie, community number 361142, map number 36027C0367E, effective date: May 2, 2012.
10. The subsurface utilities depicted hereon conform to the following Utility Quality Levels, as defined by the American Society of Civil Engineers (ASCE) in Document CI/ASCE 38–02 titled "Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data":
    - Sanitary Sewer: QLC
    - Storm Sewer: QLC
    - Water: QLC and QLD
    - Natural Gas: QLC and QLD
    - Electric: QLC and QLD
    - Communications: QLC and QLD

    The subsurface utilities were compiled from parol evidence, record drawings, and surficial evidence located during the field survey. The Surveyor has not physically exposed the subsurface utilities, and makes no guarantee that the subsurface utilities depicted hereon comprise all such utilities within the surveyed area, either in service or abandoned. The Surveyor further does not warrant or guarantee that the subsurface utilities are in the exact location depicted, though they have been plotted, in accordance with the standard of care, from information available.

    The contractor is required to utilize the local utility one call system prior to excavation for the purpose of verifying the subsurface utilities in the area.

Certification

I hereby declare this map to be prepared in accordance with the Code of Practice of the New York State Association of Land Surveyors, adopted October, 1996 and revised through July 18, 1997.

STATE OF NEW YORK · JOHN F. WAGENBLATT · 050547 · LICENSED LAND SURVEYOR

JOHN F. WAGENBLATT, L.S. Lic. No. 050,547

GRAPHIC SCALE

30 0 15 30 60 120

(FEET)
1 inch = 30 ft.

No.	Revisions	
1.	12-06-2022	REVISED PER COMMENTS

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

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LRC Environmental Services, Inc.

EXISTING CONDITIONS

VASSAR GATEWAY PROJECT

20-72 VASSAR FARM LANE
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	FM/JW	CAD File	EX21283901.dwg	Sheet No.
Drawn	RN	Project No.	21-2839	EX-1
Checked	JW	Date	2022-10-25	
Approved	JW	Scale	1"=30'	

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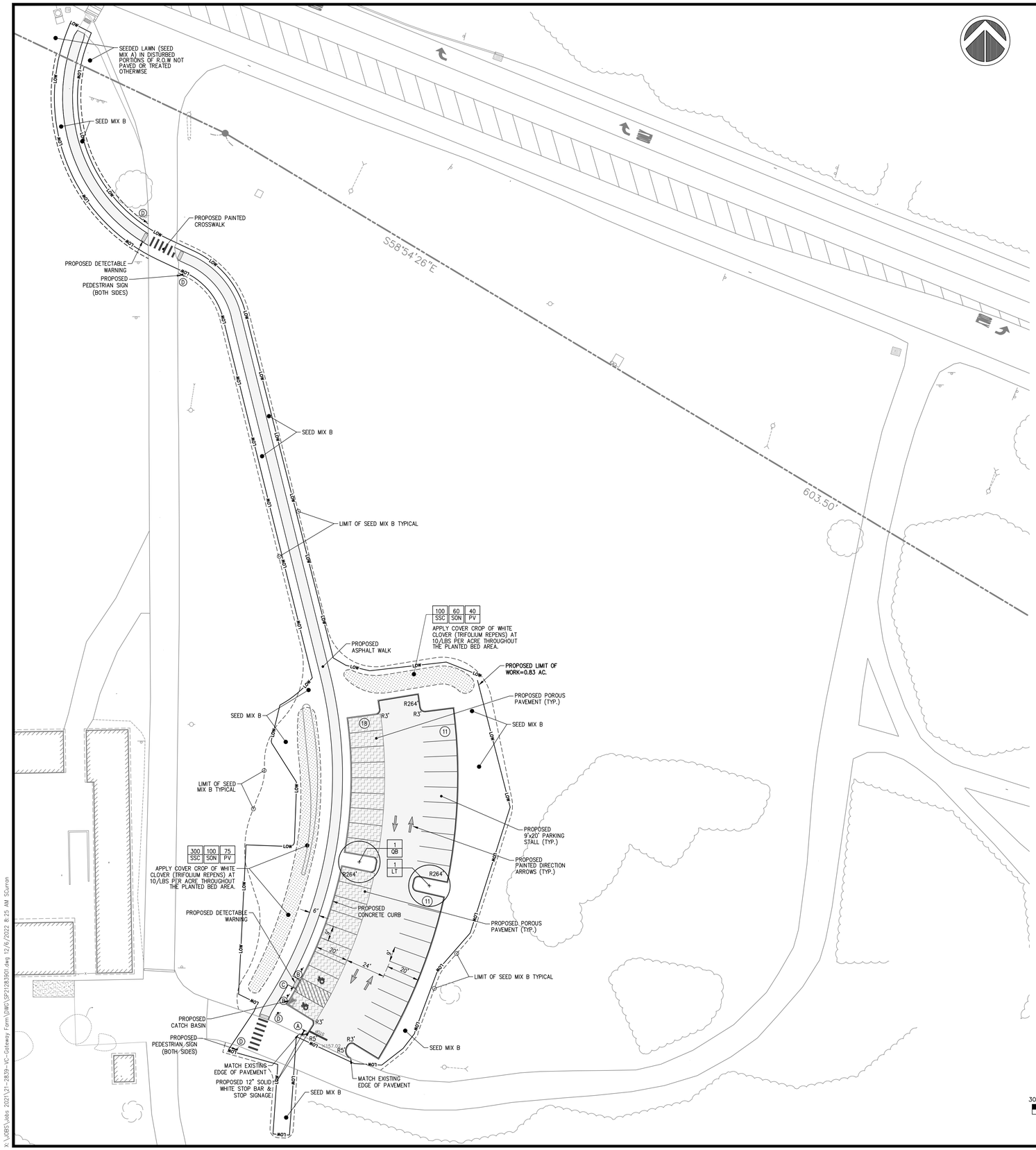
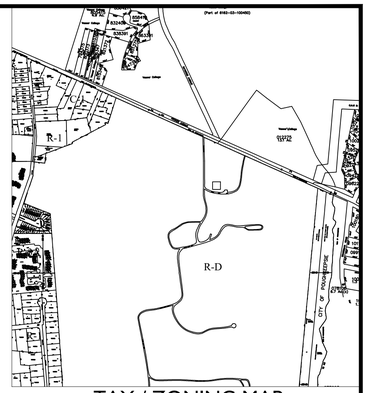


PLANTING NOTES: (SEE DN-1 FOR PLANTING DETAILS)

1. THE LANDSCAPE PLAN AND RELATED DETAILS ARE FOR LANDSCAPING INFORMATION ONLY. PLEASE REFER TO THE SITE PLAN 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 TREE AND SHRUB RINGS OR BEDS 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. 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. COMPACTED SUBGRADE AND ROCK SHALL BE REMOVED TO FULL DEPTH PLANTING PITS OR TO A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL PLANTING SOIL MIX AS DESCRIBED IN THESE NOTES.
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 COMPOST
   - 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. ALL SLOPES GREATER THAN 3:1 RECEIVING A GRASS SEEDING MIXTURE SHALL BE COVERED WITH AN EROSION CONTROL BLANKET.
11. ALL DISTURBED AREAS NOT OTHERWISE DEVELOPED SHALL BE SEEDED WITH SEED MIX "B".



TAX / ZONING MAP

SCALE: 1"=800'

PLANT LIST:

	CODE	QTY.	BOTANICAL NAME	COMMON NAME	ROOT	SIZE INSTALLED	SIZE MATURE	COMMENTS
TREES:	LT	1	LIRIODENDRON TULIPIFERA	TULIP TREE	B&B	2.5–3" cal.	80' ht.	
	QB	1	QUERCUS BICOLOR	SWAMP WHITE OAK	B&B	2.5–3" cal.	50–60' ht.	
POTTED GRASSES:	PV	115	PANICUM VIRGATUM	SWITCHGRASS	CONT.	#1	4–6' ht.	Green Blades; 2' o.c.
	SSC	400	SCHIZACHRIUM SCOPARUM	LITTLE BLUESTEM	CONT.	#SP5	2–3' ht.	Small bluestems w/inflor.
	SON	160	SORGHASTRUM NUTANS	INDIAN GRASS	CONT.	#1	3–6' ht.	Med. Green leaf/w/inflor.

SEED MIXES:

SEED MIX A – LOW-MOW 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.

SEED MIX B:

CUSTOM SEED MIX AS DESCRIBED BELOW – AVAILABLE AT ERNST CONSERVATION SEEDS, 844 MERCER TURNPIKE, MEADVILLE, PA 16335; WWW.ERNSTSEED.COM; ADJUST SEED TYPES AS MAY BE RECOMMENDED BY ERNST.

90.00 % BOUTELOUA CURTIPENDULA	SIDE OATS GRAMA
5.00 % ASCLEPIAS TUBEROSA	BUTTERFLY MILKWEED
2.00 % CHAMAECRISTA FASCICULATA	PARTRIDGE PEA
2.00 % CHAMAECRISTA NICTITANS	SENSITIVE PEA
0.50 % OENOTHERA FRUTICOSA	SUNDROPS
0.50 % PENSTEMON HIRSUTUS	HAIRY BEARDTONGUE

SEEDING RATE: 8.0 LBS PER ACRE. (ADD 10% TO QUANTITY IF HYDROSEEDED). SEED WITH A COVER CROP AS RECOMMENDED BY ERNST FOR SPECIFIC SITE & SEASONAL CONDITIONS.
SEEDING DATES: AUGUST 15 – OCTOBER 1 AND APRIL 15 – JUNE 15 UNLESS OTHERWISE APPROVED BY THE OWNER OR LANDSCAPE ARCHITECT/CIVIL ENGINEER.

SIGN LEGEND

NO.	LEGEND	QTY.
A	STOP	1
B	RESERVED PARKING	2
C	NO PARKING ANYTIME	1
D		4

NOTES:

1. THERE ARE NO EASEMENTS OR DEED RESTRICTIONS PERTAINING TO THE SITE.
2. THERE ARE NO WATERCOURSES, WOODED AREA, ROCK OUTCROPS, OR ANY TREES LARGER THAN (8").
3. SITE IS NOT LOCATED WITHIN THE FEMA FLOODPLAIN.

PARKING SUMMARY TABLE

ITEM	REQUIRED	EXISTING	PROPOSED
NUMBER OF SPACES		N/A	40
MINIMUM PARKING DIMENSIONS	9' x 20'	N/A	9' x 20'
MINIMUM AISLE WIDTH	24' TWO-WAY	N/A	24'
HANDICAP SPACES FOR 40 SPACES = 2 REQUIRED, 2 PROVIDED			

LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT LINE
- BUILDING SETBACK LINE
- PROPOSED ASPHALT SURFACE
- PROPOSED CONCRETE SIDEWALK
- PROPOSED CONCRETE CURB
- PROPOSED EDGE OF BITUMINOUS CONCRETE

PROPERTY OWNER:

VASSAR COLLEGE
124 RAYMOND AVE
POUGHKEEPSIE, NY12601

GRAPHIC SCALE
30 15 0 30
SCALE IN FEET

STATE OF NEW YORK · RUDOLPH E. MORRISON · LICENSED PROFESSIONAL ENGINEER · 074195

No.	Revisions
1.	12-06-2022 REVISED PER COMMENTS

LRC GROUP
● Land Planning
● Civil Engineering
● Environmental Services
● Land Surveying
● Landscape Architecture
160 West Street, Suite E
Cromwell, CT 06416
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Tel: 908.603.5730
www.lrcconsult.com
LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.

SITE / LANDSCAPE PLAN

VASSAR GATEWAY PROJECT

20-72 VASSAR FARM LANE
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	SMC	CAD File	SP21283901.dwg	Sheet No.
Drawn	BLS	Project No.	21–2839	SP-1
Checked	LRC	Date	2022–10–25	
Approved	REM	Scale	1"=30'	SHEET 3 OF 6

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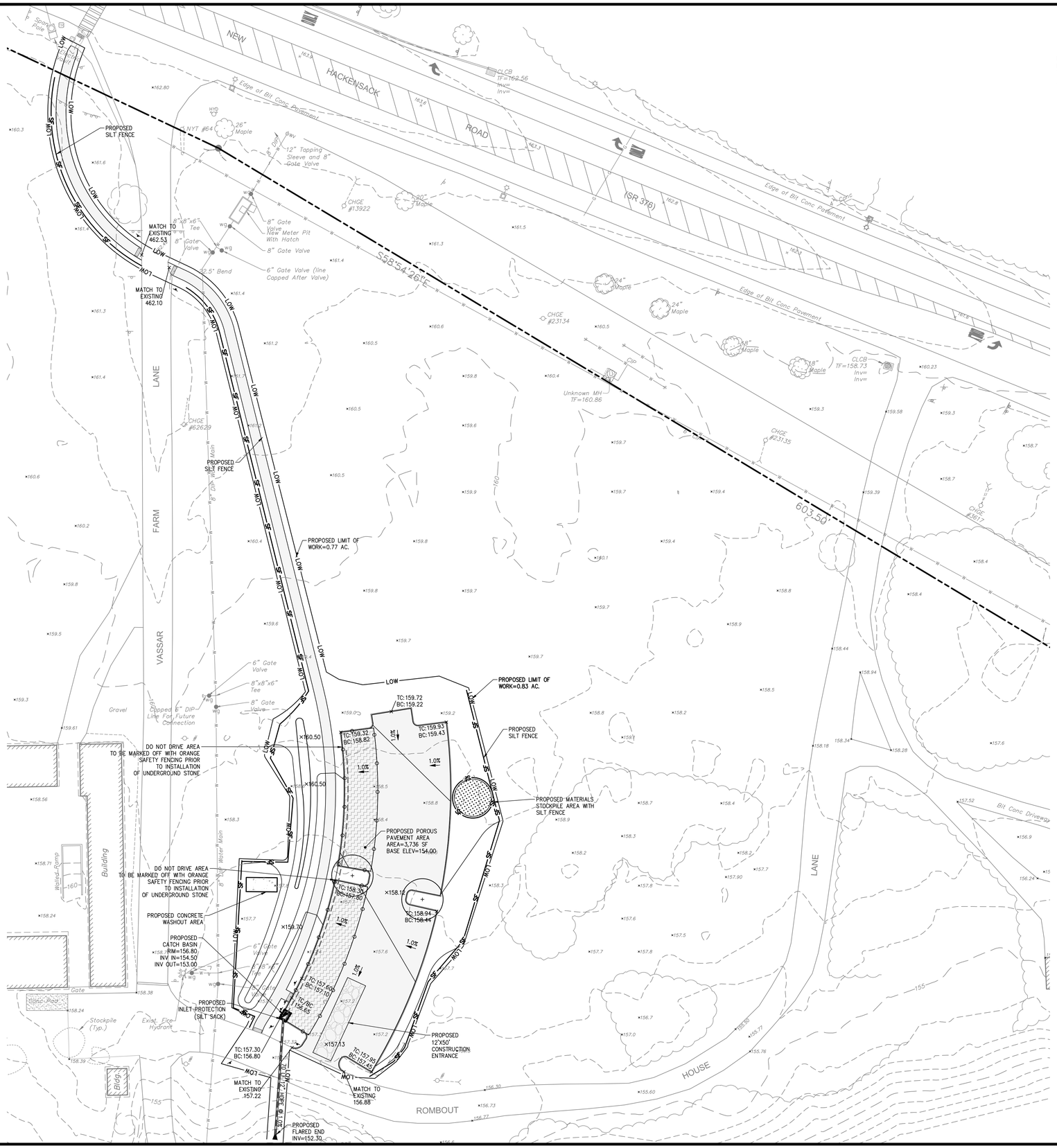

HYDRANT NOTE

FIRE HYDRANT IS TO BE FLOW TESTED. HYDRANT SHALL TO HAVE SNOW FLAG AND NFPA COLOR BANDING SHOWING DEMONSTRATED FLOW CAPABILITIES. FLOW DATA FOR EXISTING WATER HYDRANT(S) TO BE PROVIDED.

THE EXISTING HYDRANT IS TO INSPECTED AND FLOW TESTED ANNUALLY.

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.

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

	PROPERTY LINE
160	EXISTING MAJOR CONTOUR
162	EXISTING MINOR CONTOUR
×163.25	EXISTING SPOT GRADE
×163.25	PROPOSED SPOT GRADE
160	PROPOSED MAJOR CONTOUR LINE
162	PROPOSED MINOR CONTOUR LINE
	PROPOSED STORM LINE
	EXISTING STORM LINE
	EXISTING CURB CATCH BASIN
	EXISTING CURBLESS CATCH BASIN
	PROPOSED CATCH BASIN WITH INLET PROTECTION (SILT SACKS)
	PROPOSED POROUS PAVEMENT
SF	PROPOSED SILT FENCE
LOW	PROPOSED LIMIT OF WORK
	PROPOSED CONCRETE WASHOUT AREA
	PROPOSED CONSTRUCTION ENTRANCE
	PROPOSED SOIL MATERIALS STOCKPILE AREA WITH SILT FENCE
HYD	EXISTING FIRE HYDRANT

GRAPHIC SCALE
30 15 0 30
SCALE IN FEET

No.	Revisions
1.	12-06-2022 REVISED PER COMMENTS

STATE OF NEW YORK · ROBERT E. MONTGOMERY · LICENSED PROFESSIONAL ENGINEER · 074194

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

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

85 Civic Center Plaza, Suite 204
Poughkeepsie NY 12601
Tel: 845.243.2880

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.

SITE GRADING / DRAINAGE & EC PLAN

VASSAR GATEWAY PROJECT

20-72 VASSAR FARM LANE
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	SMC	CAD File	SG21283901.dwg	Sheet No.	
Drawn	BLS	Project No.	21-2839	SG-1	
Checked	LRC	Date	2022-10-25		
Approved	REM	Scale	1"=30'	SHEET 4 OF 6	

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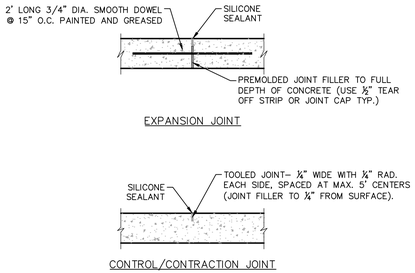
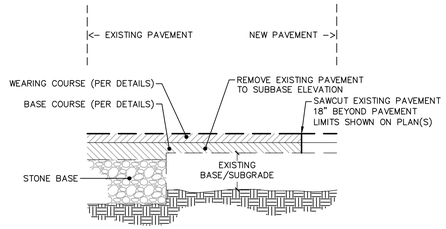
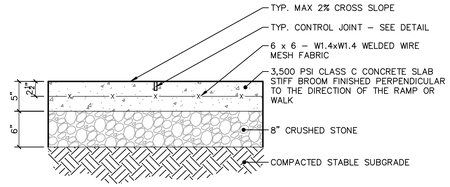


NOTES:
1. CONTROL JOINT TO BE PROVIDED EVERY 5 FEET MAX. WITH AN EXPANSION JOINT EVERY 20 FEET MIN OR JOINTS LOCATED AS SHOWN ON PLAN.
2. PROVIDE EXPANSION JOINT AT TOP AND BOTTOM OF CURB RAMPS AND STAIRS.

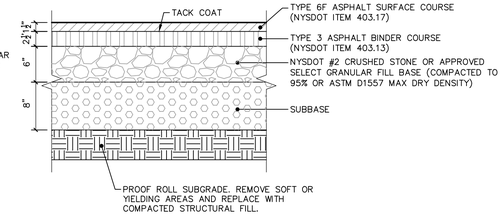
CONCRETE SIDEWALK JOINT DETAIL
SCALE: 1" = 1'–0"



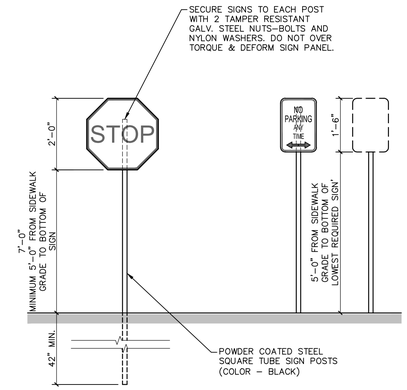
PAVEMENT TRANSITION DETAIL
SCALE: 1" = 1'–0"



CONCRETE SIDEWALK SECTION DETAIL
SCALE: 1" = 1'–0"

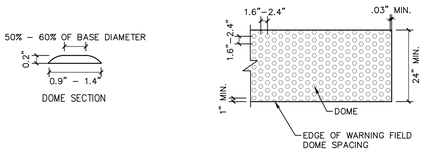


STANDARD ROADWAY BIT. CONC. PAVING DETAIL
SCALE: 1" = 1'–0"



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

TRAFFIC CONTROL SIGNAGE: TYPICAL INSTALLATION
SCALE: 1/2" = 1'–0"



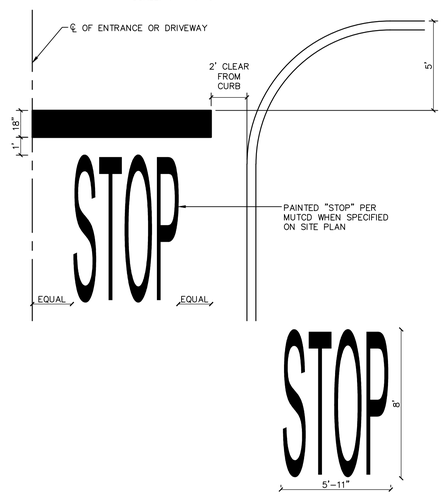
NOTES:
1. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE, THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING UNIT (THE DOMES AND THE ENTIRE 24" LEVEL SURFACE) IS FOR ILLUSTRATION ONLY.
2. THE SIZE OF THE DETECTABLE WARNING FIELD SHALL BE 24" IN THE DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH 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 TILE SPECS

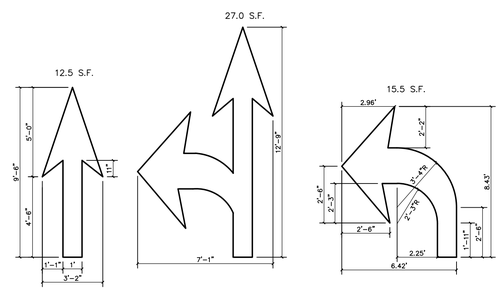
24" WIDE "ARMOR TILE" TACTILE WARNING (2.35" DOME SPACING)CAST INTO CONC. PAD PER MANUFACTURER'S INSTRUCTIONS.

NOTE: UNIT SIZE FOR RECTANGULAR APPLICATIONS IS 24"x24" AND FOR RADIAL APPLICATIONS IS 18"x24"

DETECTABLE WARNING DETAIL
SCALE: 1/2" = 1'–0"

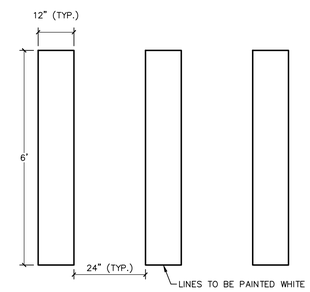


STOP BAR DETAIL
SCALE: 1/4"=1'–0"



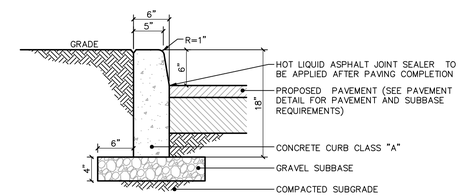
REFER TO ADJACENT VIEWS FOR DIMENSIONS
(WHITE)
(ARROWS TO BE CENTERED IN TRAVEL LANE)

PAVEMENT ARROW DETAIL
SCALE: 1/4"=1'–0"

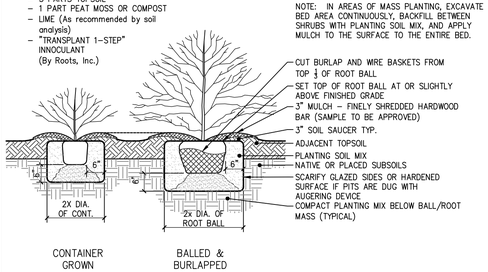


NOTES:
1. PROVIDE TWO COATS OF PAINT ON ALL SURFACES.
2. SEE PLANS FOR LOCATION OF CROSSWALKS.
3. ALL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE NATIONAL MUTCD AND NYS SUPPLEMENT.

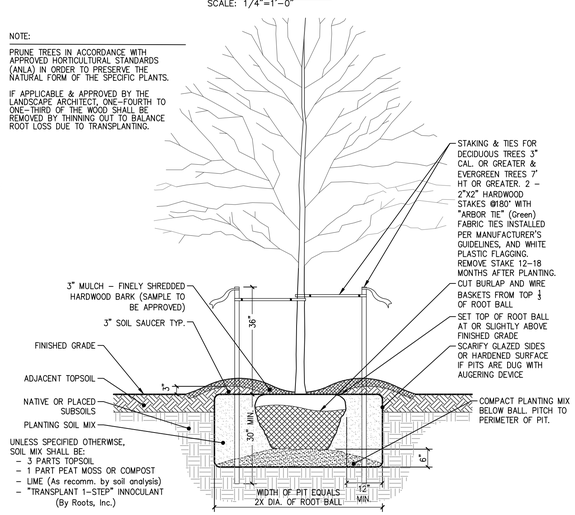
PAINTED CROSSWALK STRIPING DETAIL
SCALE: 1/2" = 1'–0"



ON-SITE CONCRETE CURB DETAIL
SCALE: 1" = 1'–0"



SHRUB PLANTING DETAIL
SCALE: 1/4" = 1'–0"



TREE PLANTING DETAIL
SCALE: 1/4" = 1'–0"

Revisions		
1.	12-06-2022	REVISED PER COMMENTS

LRC GROUP
● Land Planning
● Civil Engineering
● Environmental Services
● Land Surveying
● Landscape Architecture
160 West Street, Suite E
Clonmell, CT 06416
Tel: 860.635.2877
85 Civic Center Plaza, Suite 204
Poughkeepsie NY 12601
Tel: 845.243.2880
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 · ROBERT E. MORGAN · 074152 · LICENSED PROFESSIONAL ENGINEER

PROJECT DETAILS

VASSAR GATEWAY PROJECT

20-72 VASSAR FARM LANE
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	SMC	CAD File	DN21283901.dwg	Sheet No.	
Drawn	BLS	Project No.	21–2839	DN-1	
Checked	LRC	Date	2022–10–25		
Approved	REM	Scale	NTS	SHEET 5 OF 6	

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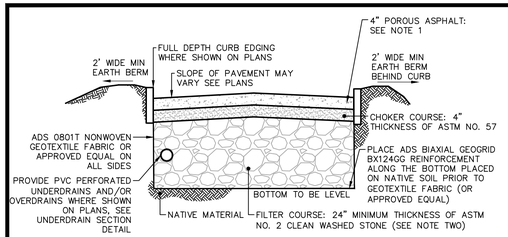


POROUS PAVEMENT CONSTRUCTION GUIDELINES

POROUS PAVEMENT MUST BE INSTALLED IN ACCORDANCE WITH NYSDOT SPECIFICATION ITEM 420.50030004, 420.50090004, AND 420.70090004

1. PAVEMENT SPEC PER NAPA SERIES 131 OR NYSDOT APPROVED EQUAL

AGGREGATE MIX:

3/4" (19 mm)	100%
1/2" (12.5 mm)	85–100%
3/8" (9.5 mm)	55–75%
#4 (4.75 mm)	10–25%
#8 (2.36 mm)	5–10%
#200 (0.075 mm)	2–4%

AIR VOIDS BY ASTM D3203 MIN 16%
ASPHALT CONTENT 5.75% TO 6% BY WEIGHT OF TOTAL MIX
DRAINDOWN OF 0.3 % MAXIMUM IN ACCORDANCE WITH ASTM D6390–05
USE NEAT ASPHALT BINDER MODIFIED WITH ELASTOMETRIC POLYMER TO PRODUCE BINDER MEETING THE REQUIREMENTS OF PG–76–22. THE ELASTIC POLYMER SHALL BE STYREME–BUTADIENE–STYRENE (SBS), OR APPROVED EQUAL, APPLIED AT A RATE OF 3% BY TOTAL WEIGHT OF THE BINDER. THE COMPOSITION MATERIAL SHALL BE THOROUGHLY BLENDED AT THE ASPHALT REFINERY OR TERMINAL PRIOR TO BEING LOADED INTO THE TRANSPORT VEHICLE. THE POLYMER MODIFIED BINDER SHALL BE HEAT AND STORAGE STABLE.

ADD HYDRATED LIME AT A DOSAGE RATE OF 1.0% BY WEIGHT OF THE TOTAL DRY AGGREGATE TO MIXES CONTAINING GRANITE. HYDRATED LIME SHALL MEET THE REQUIREMENTS OF ASTM C 977. THE ADDITIVE MUST BE ABLE TO PREVENT THE SEPARATION OF THE ASPHALT BINDER FROM THE AGGREGATE AND ACHIEVE A REQUIRED TENSILE STRENGTH RATIO (TSR) OF AT LEAST 80% OF THE ASPHALT MIX.

CHOKER COURSE:
(ASTM 57–CLEAN WASHED)

1.5" (37mm)	100%
1" (25 mm)	95–100%
1/2" (12.5 mm)	25–60%
#4 (4.75 mm)	0–10%
#8 (2.36 mm)	0–5%

FILTER COURSE:
(ASTM NO. 2–CLEAN WASHED)

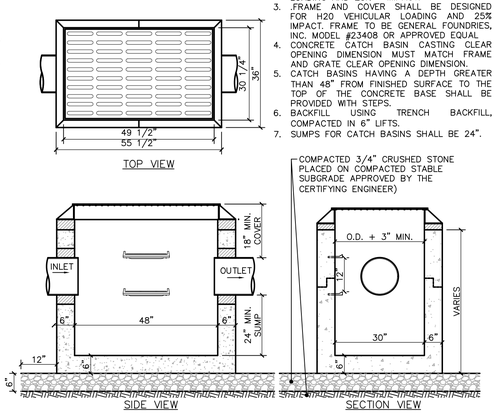
3" (75 mm)	100%
2.5" (63 mm)	90–100%
2" (50 mm)	35–70%
1.5" (37 mm)	0–15%
3/4" (12.5 mm)	0–5%

1. THE CONTRACTOR SHALL PROVIDE SUBMITTALS FOR EACH STONE COURSE, FILTER FABRIC, GEO GRID, AND THE POROUS PAVEMENT MIX. THE SUBMITTALS MUST BE APPROVED BY THE SITE ENGINEER PRIOR TO THE START OF CONSTRUCTION. ALL STONE TO BE CLEAN WASHED AND TO BE INSPECTED BY THE SITE ENGINEER PRIOR TO PLACEMENT. THE CONTRACTOR SHALL NOTIFY THE SITE ENGINEER AND ADVISE OF SCHEDULING CONSTRUCTION OF THE STONE THAT IS TO BE PLACED SO THAT AN INSPECTION ON THE STONE GRADATION AND CLEANLINESS CAN BE BE CONFIRMED PRIOR TO ANY FILTER AND CHOCKER STONE INSTALLATION.
2. BASE OF INFILTRATION BED TO BE INSTALLED LEVEL. SURFACE PAVEMENT ELEVATION TO VARY PER GRADING PLAN. ADJUST FILTER COURSE LEVEL TO ACHIEVE CHANGE IN GRADE.
3. THE SUBGRADE CANNOT BE OVERLY COMPACTED WITH THE INCLUSION OF FINE PARTICULATES. FOLLOW THE INSTALLATION GUIDELINES ON THE PLANS AND THOSE OUTLINED IN THE NYSDEC STORMWATER DESIGN MANUAL.
4. WEATHER CONDITIONS AT THE TIME OF INSTALLATION CAN AFFECT THE FINAL PRODUCT. EXTREMELY HIGH OR LOW TEMPERATURES SHOULD BE AVOIDED DURING CONSTRUCTION OF PERVIOUS ASPHALT AND CONCRETE PAVEMENTS. TEMPERATURE AT THE TIME OF POROUS PAVEMENT INSTALLATION MUST BE GREATER THAN 50 DEGREES AND LESS THAN 90 DEGREES.
5. AREAS FOR POROUS PAVEMENT SYSTEMS SHALL BE CLEARLY MARKED BEFORE ANY SITE WORK BEGINS TO AVOID SOIL DISTURBANCE AND COMPACTION DURING CONSTRUCTION.
6. IF AREAS CANNOT BE AVOIDED DURING THE CONSTRUCTION OF THE SURROUNDING AREAS OR THE EXCAVATION FOR THE INSTALLATION OF THE STONE RECHARGE BED THE CONTRACTOR SHOULD DE–COMPACT THE EXISTING SUBBASE PER THE DESIGN ENGINEER'S SPECIFICATIONS.
7. PERVIOUS PAVEMENT AND OTHER INFILTRATION PRACTICES SHOULD BE INSTALLED TOWARD THE END OF THE CONSTRUCTION PERIOD. UPSTREAM CONSTRUCTION SHALL BE COMPLETED AND STABILIZED BEFORE CONNECTION TO POROUS PAVEMENT SYSTEM. A DENSE AND VIGOROUS VEGETATIVE COVER SHALL BE ESTABLISHED OVER ANY CONTRIBUTING PERVIOUS DRAINAGE AREAS BEFORE RUNOFF CAN BE ACCEPTED INTO THE FACILITY.
8. SUBSURFACE AREA SHOULD BE EXCAVATED TO PROPOSED DEPTH. EXISTING SUBGRADE SHALL NOT BE COMPACTED OR SUBJECT TO EXCESSIVE CONSTRUCTION EQUIPMENT PRIOR TO PLACEMENT OF GEOTEXTILE AND STONE BED. WHERE EROSION OF SUBGRADE HAS CAUSED ACCUMULATION OF FINE MATERIALS AND/OR SURFACE PONDING, THIS MATERIAL SHALL BE REMOVED WITH LIGHT EQUIPMENT AND THE UNDERLYING SOILS SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES WITH A YORK RAKE OR EQUIVALENT AND LIGHT TRACTOR.
9. PLACE GEOTEXTILE AND RECHARGE BED AGGREGATE IMMEDIATELY AFTER APPROVAL OF SUBGRADE PREPARATION TO PREVENT ACCUMULATION OF DEBRIS OR SEDIMENT. PREVENT RUNOFF AND SEDIMENT FROM ENTERING THE STORAGE BED DURING THE PLACEMENT OF THE GEOTEXTILE AND AGGREGATE BED.
10. PLACE GEOTEXTILE IN ACCORDANCE WITH MANUFACTURER'S STANDARDS AND RECOMMENDATIONS. ADJACENT STRIPS OF FILTER FABRIC SHALL OVERLAP A MINIMUM OF 16 INCHES. FABRIC SHALL BE SECURED AT LEAST 4 FEET OUTSIDE OF BED. THIS EDGE STRIP SHOULD REMAIN IN PLACE UNTIL ALL BARE SOILS CONTIGUOUS TO BEDS ARE STABILIZED AND VEGETATED. AS THE SITE IS FULLY STABILIZED, EXCESS GEOTEXTILE CAN BE CUT BACK TO THE EDGE OF THE BED.
11. INSTALL DRAINAGE PIPES IF REQUIRED, AS SHOWN ON PLANS.
12. PLACE STONE AGGREGATE FOR STONE RECHARGE BEDS, TAKING CARE NOT TO DAMAGE THE FILTER FABRIC. AGGREGATE SHOULD BE DUMPED AT THE EDGE OF THE BED AND PLACED IN LAYERS OF 6 TO 8 INCHES USING CLEAN TRACK EQUIPMENT. COMPACT EACH LIFT WITH A SINGLE PASS OF A LIGHT ROLLER. (DO NOT USE VIBRATION) INSTALL AGGREGATE TO GRADES INDICATED ON THE DRAWINGS.
13. THE POROUS PAVEMENT LAYER IS TO BE INSTALLED AS ONE FOUR INCH LIFT USING TRACK PAVERS. FOLLOW NYSDOT SPECIFICATIONS FOR OPEN–GRADED ASPHALT MIX PLACEMENT. THE ASPHALT MUST BE COMPACTED WITH TWO TO FOUR PASSES OF A TEN TON STATIC ROLLER.
14. THE CONTRACTOR MUST PROVIDE AN INDEPENDENT LABORATORY TO PROVIDE A DENSITY GAUGE OPERATOR. THE DENSITY GAUGE OPERATOR MUST TEST THE IN PLACE DENSITY TO ENSURE A COMPACTED TARGET DENSITY OF 81% OF THE MIXTURE MAXIMUM THEORETICAL DENSITY. PERFORM A MINIMUM OF ONE DENSITY GAUGE READING FOR EVERY 200 FEET. THE ACCEPTABLE IN PLACE DENSITY GAUGE READING AT EACH LOCATION WILL BE BETWEEN 95% AND 105% OF THE TARGET DENSITY.
15. AFTER FINAL ROLLING, TRAFFIC MUST BE RESTRICTED FOR THE FIRST 24 HOURS.
16. THE CONTRACTOR IS TO PERFORM A POROSITY TEST 24 HOURS AFTER PLACEMENT. PERFORM A MINIMUM OF 3 POROSITY TESTS AT LOCATIONS DETERMINED BY THE SITE ENGINEER. PERFORM THE TEST BY APPLYING WATER AT A RATE OF 5 GALLONS PER MINUTE FROM A HOSE FOR A MINIMUM OF 3 MINUTES. ALL WATER SHALL INFILTRATE WITHOUT FORMING PUDDLES OR SURFACE WATER. THE TEST SHALL BE MONITORED BY THE SITE ENGINEER.

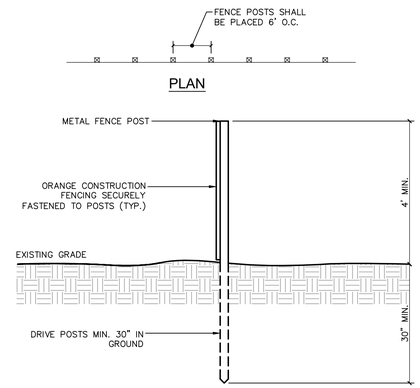
INSTALLATION OF POROUS PAVEMENT MUST BE INSTALLED IN ACCORDANCE WITH NYSDOT ITEM 420.50030004 "POROUS ASPHALT PAVEMENT SPECIFICATIONS"

POROUS ASPHALT PAVEMENT DETAIL
SCALE: 1/2" = 1'–0"

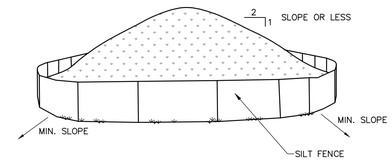
NOTES:
1. PRECAST CONCRETE CATCH BASIN SECTIONS AS MANUFACTURED BY FORT MILLER OR APPROVED EQUAL.
2. CATCH BASIN SHALL BE PRECAST CONCRETE. DESIGNED FOR H20 VEHICULAR LOADING AND 25% IMPACT.
3. FRAME AND COVER SHALL BE DESIGNED FOR H20 VEHICULAR LOADING AND 25% IMPACT. FRAME TO BE GENERAL FOUNDRIES, INC. MODEL #2340B 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".



CURB LESS TYPE CATCH BASIN DETAIL
SCALE: 1/2" = 1'–0"

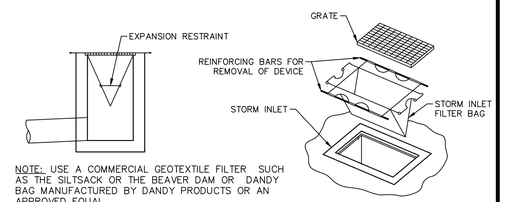


ORANGE CONSTRUCTION FENCE DETAIL
SCALE: 1/2" = 1'–0"



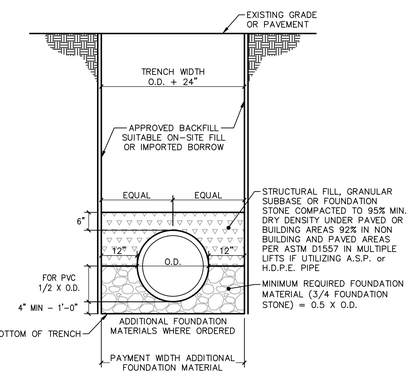
NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.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

MATERIALS STOCKPILE DETAIL
SCALE: N.T.S.

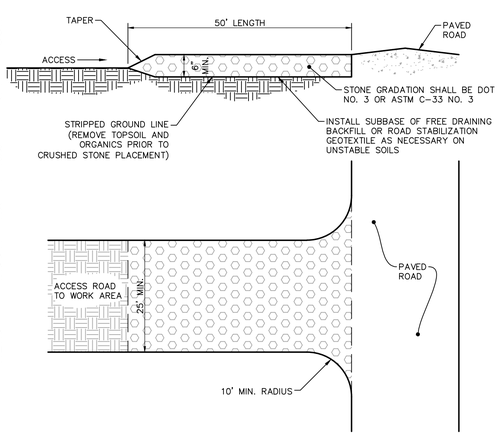


NOTE: USE A COMMERCIAL GEOTEXTILE FILTER SUCH AS THE SILTSACK OR THE BEAVER DAM OR DANDY BAG MANUFACTURED BY DANDY PRODUCTS OR AN APPROVED EQUAL.

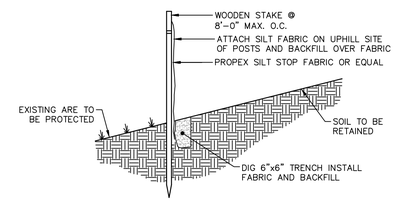
SILT SACK DETAIL
SCALE: N.T.S.



TYPICAL STORM SEWER TRENCH SECTION
SCALE: 1/2" = 1'–0"

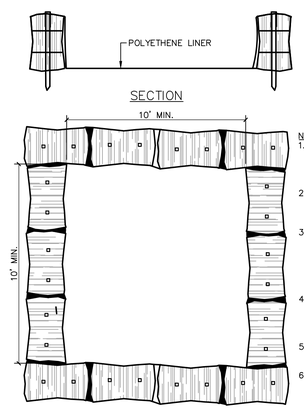


CONSTRUCTION ENTRANCE DETAIL
SCALE: 1/16" = 1'–0"



NOTE: FOR SLOPES > 5:1; PERPENDICULAR WINGS PLACED EVERY 100'
FOR SLOPES > 3:1 TO 5:1; PERPENDICULAR WINGS PLACED EVERY 75'
FOR SLOPES > 2:1 TO 3:1; PERPENDICULAR WINGS PLACED EVERY 50'

SILT FENCE DETAIL
SCALE: N.T.S.



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 WASHOUT DETAIL
SCALE: 1/4"=1'–0"

STATE OF NEW YORK · ROBERT E. MORGAN · LICENSED PROFESSIONAL ENGINEER · 074192

Revisions		
1.	12-06-2022	REVISED PER COMMENTS

LRC GROUP
● Land Planning
● Civil Engineering
● Environmental Services
● Land Surveying
● Landscape Architecture
160 West Street, Suite E
Cromwell, CT 06416
Tel: 860.635.2877
85 Civic Center Plaza, Suite 204
Poughkeepsie NY 12601
Tel: 845.243.2880
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.

PROJECT DETAILS

VASSAR GATEWAY PROJECT

20-72 VASSAR FARM LANE
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	SMC	CAD File	DN21283902.dwg	Sheet No.	DN-2
Drawn	BLS	Project No.	21–2839		
Checked	LRC	Date	2022–10–25		
Approved	REM	Scale	NTS		SHEET 6 OF 6

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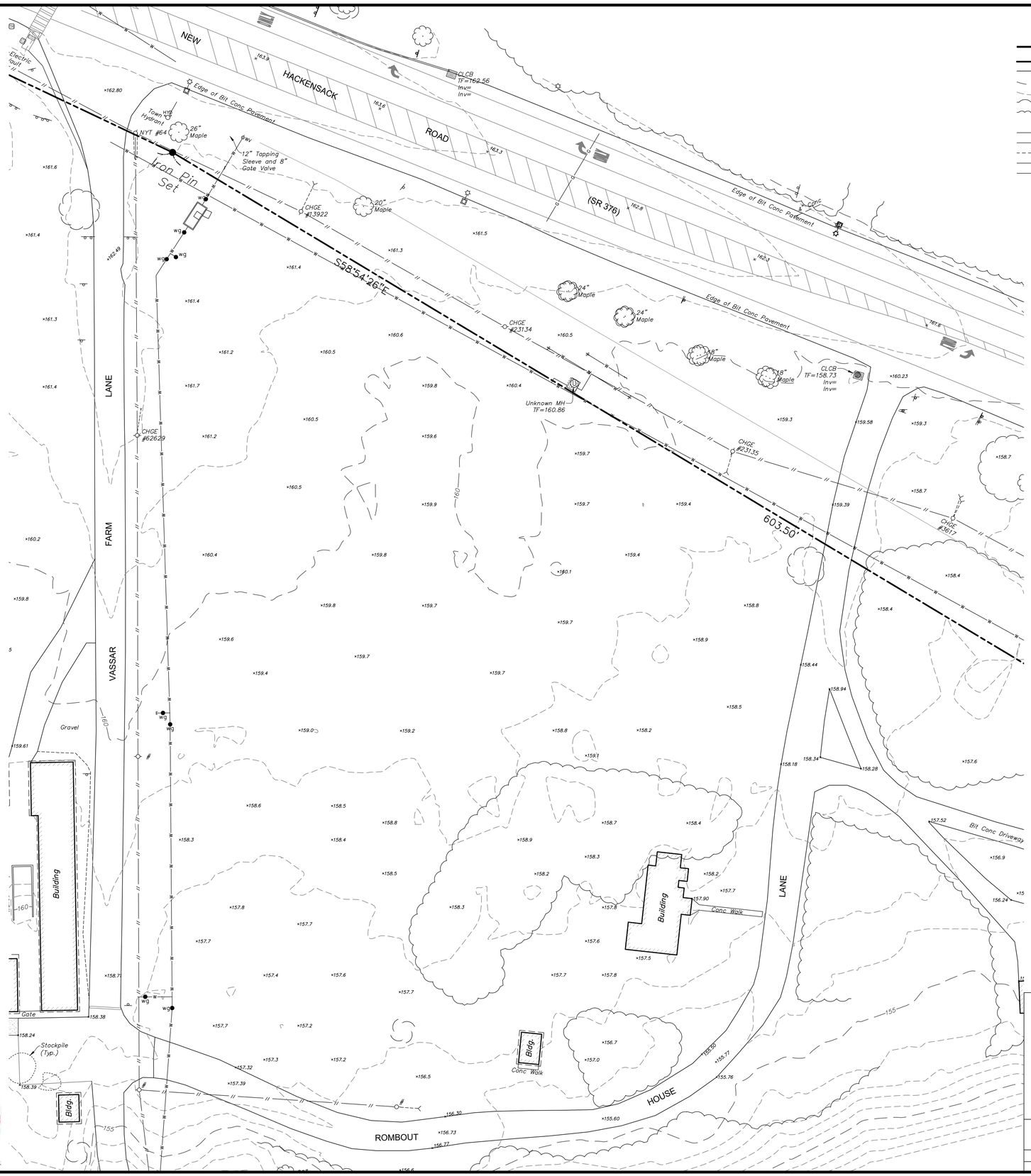

LEGEND

- Property Line
- Easement Line
- Index Contour
- Intermediate Contour
- Treeline
- Hedge/Shrub Line
- Detectable Warning Strip
- Gas Line
- Water Line (Vassar)–Domestic & Fire Protection
- Water Line (Vassar) Abandoned
- Water Line (Town)
- Overhead Wires
- Bituminous Concrete Surface
- Concrete Surface
- Gravel Surface
- Deciduous Tree
- Coniferous Tree
- Sign
- Water Valve (Vassar)
- Water Valve (Town)
- Hydrant (Vassar)
- Hydrant (Town)
- Curbless Catch Basin
- Utility Pole with Light
- Guy Wire
- Street Light

Map Notes

1. Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub–division 2, of the New York State Education Law.
2. Only copies from the original of this survey marked with an original of the land surveyor's seal shall be considered to be a true copy.
3. The above certification shall run only to the person for whom the survey is prepared , and on his behalf to the title company, governmental agency and lending institution. Certifications are not transferable to additional institutions or subsequent owners.
4. North Arrow and Bearings are referenced to the North American Datum of 1983 (NAD83) projected onto the New York State Plane East Zone based on GPS observations made on June 23, 2022 utilizing the NYSNET GPS network.
5. Elevations and Contours are referenced to North American Vertical Datum of 1988 (NAVD88) based on GPS observations made on December 2, 2020 utilizing the NYSNET GPS network.
6. Topographic survey performed by the LRC Group. LiDar data collected by Thew Associates using unmanned aerial lidar collection methods in July 2022. Field survey was completed on July 13, 2022.
7. New Hackensack Road – Route 376 highway lines were surveyed by the LRC Group. A boundary determination for property parcel lines has not been made.
8. Parcel is identified as Tax ID number 6161–84–910090 according to the Dutchess County Parcel Access.
9. A portion of the property is located in Zone "A" as depicted on Flood Insurance Rate Map (FIRM) Panel 0367E, Dutchess County, New York, Town of Lagrange, community number 361011, City of Poughkeepsie, community number 360222, Town of Poughkeepsie, community number 361142, map number 36027C0367E, effective date: May 2, 2012.
10. The subsurface utilities depicted hereon conform to the following Utility Quality Levels, as defined by the American Society of Civil Engineers (ASCE) in Document CI/ASCE 38–02 titled "Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data":
    - Sanitary Sewer: QLC
    - Storm Sewer: QLC
    - Water: QLC and QLD
    - Natural Gas: QLC and QLD
    - Electric: QLC and QLD
    - Communications: QLC and QLD

    The subsurface utilities were compiled from parol evidence, record drawings, and surficial evidence located during the field survey. The Surveyor has not physically exposed the subsurface utilities, and makes no guarantee that the subsurface utilities depicted hereon comprise all such utilities within the surveyed area, either in service or abandoned. The Surveyor further does not warrant or guarantee that the subsurface utilities are in the exact location depicted, though they have been plotted, in accordance with the standard of care, from information available.

    The contractor is required to utilize the local utility one call system prior to excavation for the purpose of verifying the subsurface utilities in the area.

Certification

I hereby declare this map to be prepared in accordance with the Code of Practice of the New York State Association of Land Surveyors, adopted October, 1996 and revised through July 18, 1997.

STATE OF NEW YORK · JOHN F. WAGENBLATT · 050547 · LICENSED LAND SURVEYOR

JOHN F. WAGENBLATT, L.S. Lic. No. 050,547

GRAPHIC SCALE

30 0 15 30 60 120

(FEET)
1 inch = 30 ft.

Revisions

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

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

85 Civic Center Plaza, Suite 204
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1 International Blvd, Suite 400
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Tel: 908.603.5730

www.lrcconsult.com

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

EXISTING CONDITIONS

VASSAR GATEWAY PROJECT

20-72 VASSAR FARM LANE
CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK

Design/Calcs	FM/JW	CAD File	EX21283901.dwg	Sheet No.
Drawn	RN	Project No.	21–2839	EX-1
Checked	JW	Date	2022–10–25	
Approved	JW	Scale	1"=30'	

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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:
Vassar Gateway Farm

Project Location (describe, and attach a location map):
20-72 Vassar Farm Lane, Poughkeepsie, NY 12603

Brief Description of Proposed Action:
Vassar College proposes to create a porous pavement parking lot, consisting of 40 parking spaces, near the entrance to the Preserve. The college has chosen to install porous pavement to improve water quality and decrease runoff within the watershed although not required as part of this project. The project is intended to reduce vehicle traffic to the interior of the preserve and create a more pedestrian friendly environment. The project will disturb approximately 0.77 acre and therefore no SWPPP is required.

Name of Applicant or Sponsor:	Telephone: 845-437-7000
Vassar College	E-Mail: begemann@vassar.edu

Address:
124 Raymond Avenue

City/PO:	State:	Zip Code:
City of Poughkeepsie	NY	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: NYSDOT	☐	☑

3. a. Total acreage of the site of the proposed action? 228.4 acres
   b. Total acreage to be physically disturbed? 0.77 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 228.4 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: _____ N/A	☐	☐

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ N/A	☐	☐

	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?	☐	✓
Eligible properties:Residence, Outbuilding, Barn, Rombout House, no eligible properties will be effected by the proposed project.		
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? The Indiana Bat per the EAF Mapper and IPac report (See Appendix B & C). No tree clearing is proposed, therefore, they will not be effected.	☐	☑
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: Proposed porous pavement parking area is a stormwater treatment 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:	☑	☐

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Kenneth F Casamento - As Agent For Applicant Date: 10/25/2022

Signature: Kenneth Casamento Title: Principal

PRINT FORM

ParcelAccess

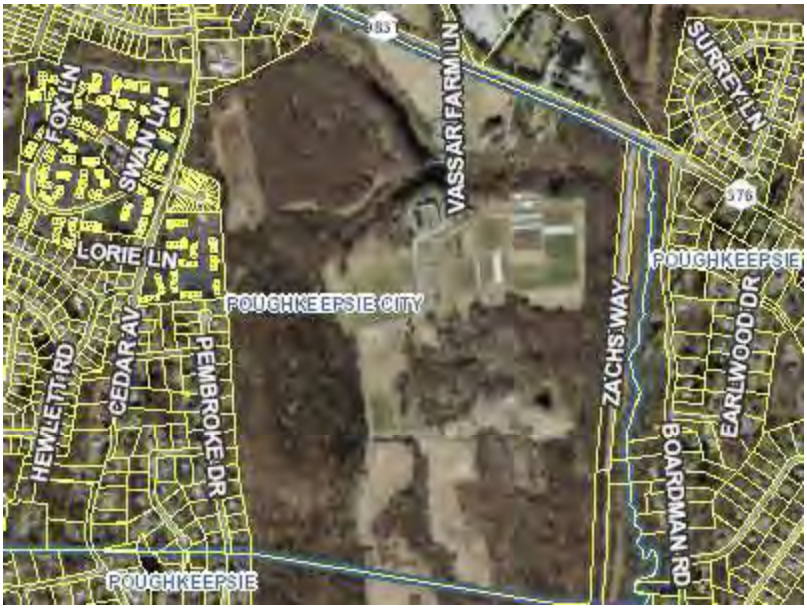
Tentative Roll

Parcel Grid Identification #:
131300-6161-84-910090-0000
Municipality: City of Poughkeepsie

Parcel Location
20-72 Vassar Farm Ln

Owner Name on March 1
Vassar College , *(P)*

Primary *(P)* Owner Mail Address
124 Raymond Ave
PO Box 12
Poughkeepsie NY 126040000



Parcel Details

Size (acres):	228.4 Ac	Land Use Class:	(311) Vacant Land: Residential: Residential Vacant Land
File Map:		Agri. Dist.:	(0)
File Lot #:		School District:	(131300) Poughkeepsie City School District
Split Town			

Assessment Information (Current)

Land:	Total:	County Taxable:	Town Taxable:	School Taxable:	Village Taxable:
$5586000	$5586000	$0	$0	$0	$0

Tax Code:	Roll Section:	Uniform %:	Full Market Value:
N: Non-Homestead	8	100	$ 5586000

Tent. Roll:	Final. Roll:	Valuation:
5/1/2022	7/1/2022	7/1/2021

Last Sale/Transfer

Sales Price:	Sale Date:	Deed Book:	Deed Page:	Sale Condition:	No. Parcels:
$0	0	0281	0032	( )	0

Site Information:
Site Number: 1

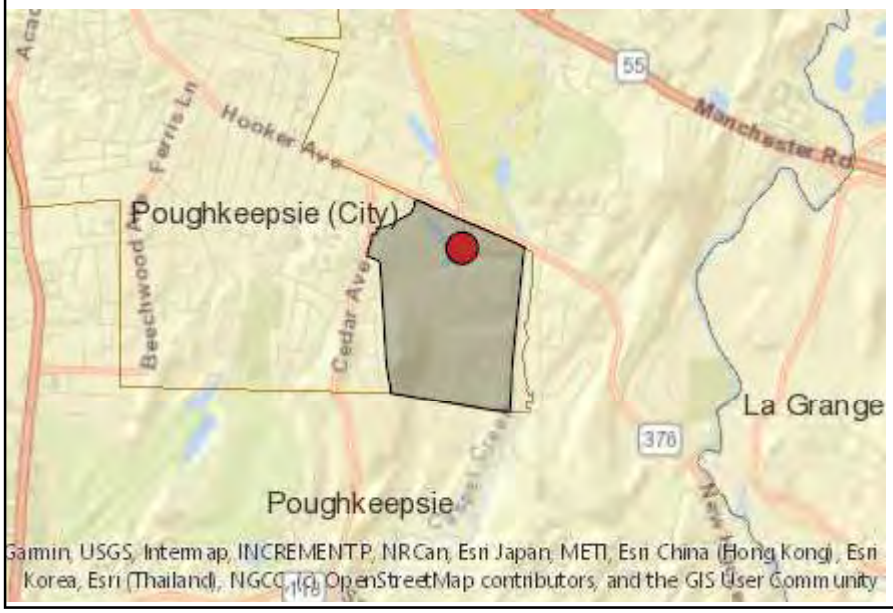
Water Supply:	Sewer Type:	Desirability:	Zoning Code:	Used As:
(3) Comm/public	(3) Comm/public	(2) Typical		( )

Exemption Information:
Exemption: 25300

Name:	Amount:
Non Profit Permissive	$5586000

ABSOLUTELY NO ACCURACY OR COMPLETENESS GUARANTEE IS IMPLIED OR INTENDED. ALL INFORMATION ON THIS MAP IS SUBJECT TO CHANGE BASED ON A COMPLETE TITLE SEARCH OR FIELD SURVEY.

This report was produced with ParcelAccess Internet on 5/27/2022. Developed and maintained by OCIS - Dutchess County, NY.



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]	Yes
Part 1 / Question 15 [Threatened or Endangered Animal - Name]	Indiana Bat
Part 1 / Question 16 [100 Year Flood Plain]	Yes
Part 1 / Question 20 [Remediation Site]	No

IPaC resource list

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

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

NOT FOR CONSULTATION

NAME	STATUS
Indiana Bat Myotis sodalis Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://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. https://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 https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.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. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
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

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
Evening Grosbeak Coccothraustes vespertinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Aug 10
Lesser Yellowlegs Tringa flavipes This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
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

NOT FOR CONSULTATION

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.

NOT FOR CONSULTATION

Bald Eagle
Non-BCC Vulnerable (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.)

Black-billed Cuckoo
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

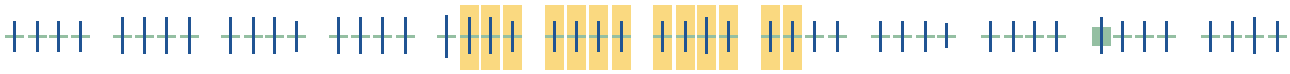
Blue-winged Warbler
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)

Bobolink
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Canada Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

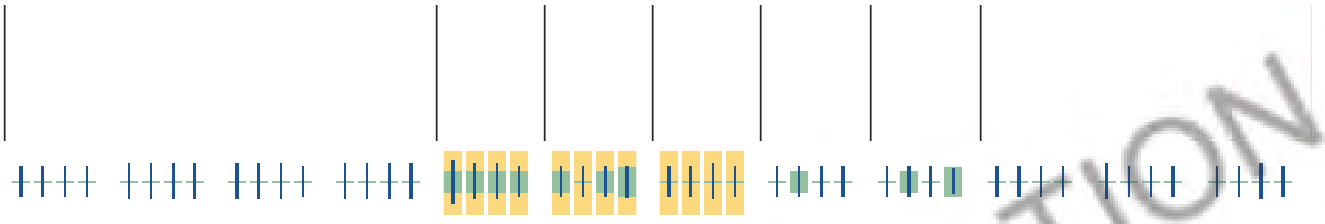
NOT FOR CONSULTATION

Evening Grosbeak BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Lesser Yellowlegs 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.)

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

NOT FOR CONSULTATION

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 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.

NOT FOR CONSULTATION

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the

boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

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 EMERGENT WETLAND

- Palustrine

NOT FOR CONSULTATION

RIVERINE

Riverine

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

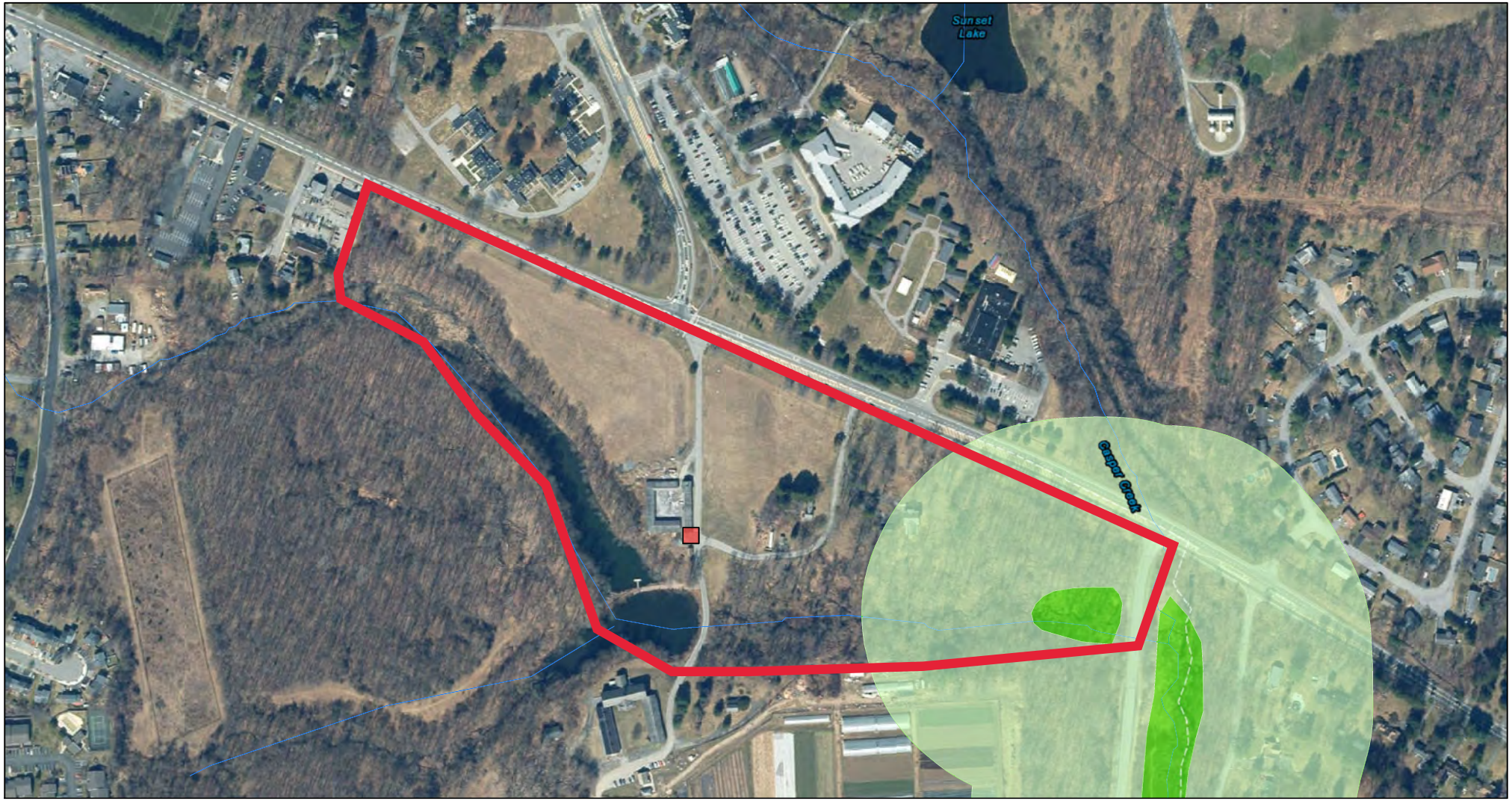
Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and 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.

NOT FOR CONSULTATION

Environmental Resource Mapper



May 27, 2022

1:4,514

0 0.04 0.09 0.17 mi

0 0.05 0.1 0.2 km

Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

NYS Department of Environmental Conservation
Not a legal document

U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetlands

May 27, 2022

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

Soil Map—Dutchess County, New York

Map Scale: 1:3,140 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 45 90 180 270

Feet: 0 150 300 600 900

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 18, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 8, 2020—Oct 14, 2020

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
Fr	Fredon silt loam	1.7	9.4%
HsA	Hoosic gravelly loam, nearly level	16.4	90.6%
Totals for Area of Interest		**18.1**	**100.0%**

Environmental Resource Mapper

May 27, 2022

1:4,514

0 0.04 0.09 0.17 mi

0 0.05 0.1 0.2 km

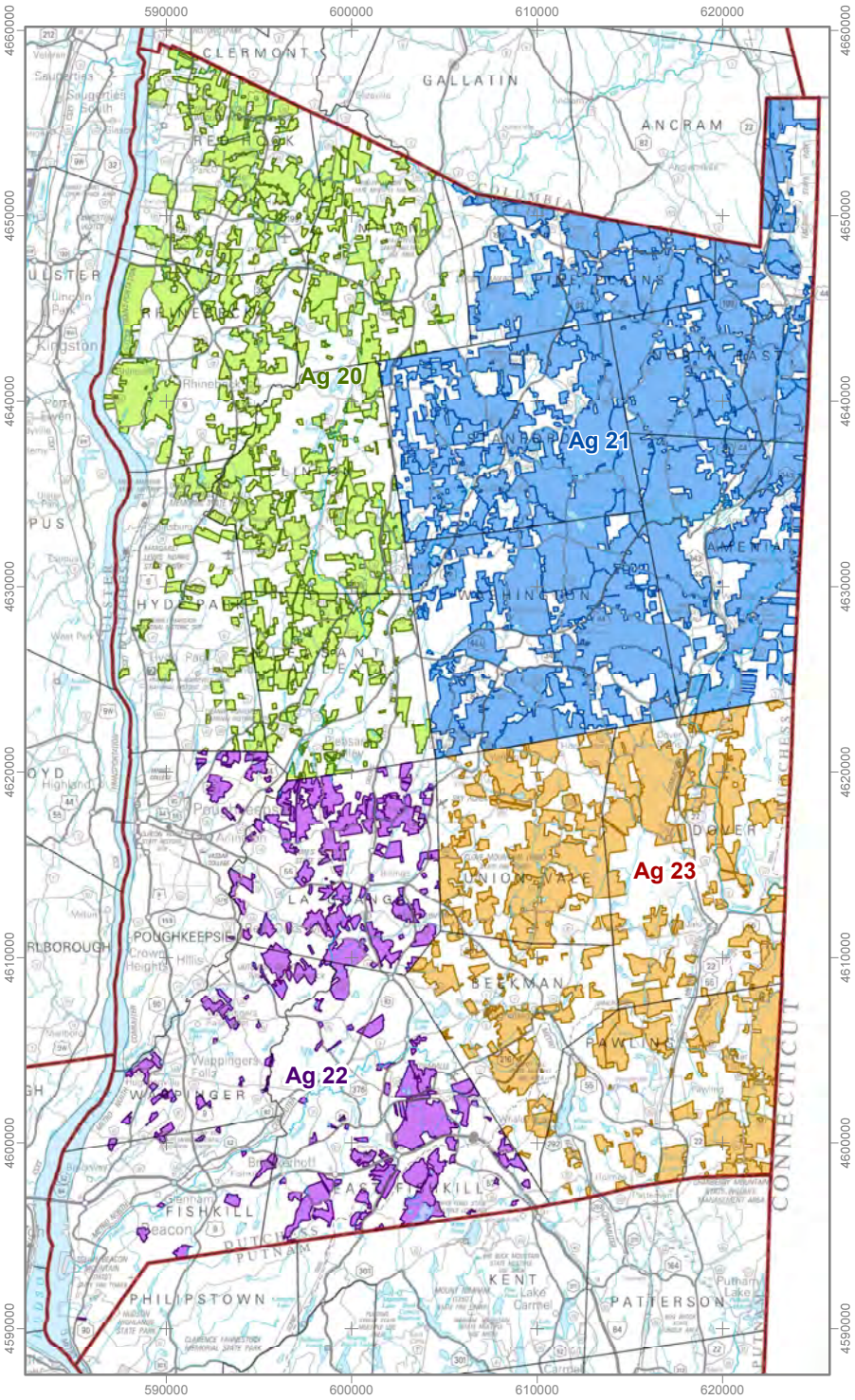
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

NYS Department of Environmental Conservation
Not a legal document

New York State Dept of Agriculture and Markets

DUTCHESS COUNTY

Agricultural Districts 2017



KEY

- Ag. District 20
- Ag. District 21
- Ag. District 22
- Ag. District 23

DISTRICT CERTIFICATIONS and TOWNS

DISTRICT 20
CERTIFIED 6/1/2016

Clinton, Hyde Park, Milan, Pleasant Valley, Red Hook, Rhinebeck

DISTRICT 21
CERTIFIED 6/1/2016

Amenia, Northeast, Pine Plains, Stanford, Washington

DISTRICT 22
CERTIFIED 6/1/2016

East Fishkill, Fishkill, LaGrange, Poughkeepsie, Wappinger

DISTRICT 23
CERTIFIED 6/1/2016

Beekman, Dover, Pawling, Unionvale

MAP PROJECTION
UTM Zone 18, NAD83 meters

5 4 3 2 1 0 5 miles

10,000 5,000 0 10,000 meters

MAP SOURCE INFORMATION

Map created at Cornell IRIS (Institute for Resource Information Sciences) <http://iris.css.cornell.edu> for the NYS Department of Agriculture and Markets

Agricultural Districts boundary data is available at CUGIR (Cornell University Geospatial Information Repository) website: <http://cugir.mannlib.cornell.edu>

Base Map: state250_bw.tif 1998
Scale: 1:250,000; County boundaries imported from the file nyshore.e00 from the NYSGIS Clearinghouse website: <http://gis.ny.gov>

Base map contains data copyrighted by the NYS ITS GIS Program.

DISCLAIMER
This is a general reference to Agricultural District boundaries; not a legal substitute for actual tax parcel information.

Boundaries as certified in June 2016

Open Enrollment Annual Additions are not included in this data. Check with county agencies to confirm the status of individual parcels.

THE CITY OF POUGHKEEPSIE
NEW YORK
DEVELOPMENT DEPARTMENT
62 CIVIC CENTER PLAZA, 2ND FLOOR
POUGHKEEPSIE, NY 12601
Phone: (845) 451-4010 Fax: (845) 451-4006

MEMORANDUM

To: Vassar College, Applicant

From Natalie Quinn, Development Director

Date: November 2, 2022

Re: 20-72 Vassar Farm Lane PB#2022-049 – SEQR Classification

Upon review of project materials provided by the applicant, including Short EAF Part 1 with attachment and site plan application, it is my understanding that the proposed action to be undertaken includes construction of a surface parking lot (approximately 33,550 square feet) for 40 parking spaces with porous pavement and landscaping at 20-72 Vassar Farm Lane.

Based on the above description it is the determination of the planning division that the proposed action is classified as an Unlisted Action with regards to SEQRA, and therefore is subject to an uncoordinated or coordinated (optional) environmental review. This determination was made due to the fact that the proposed action was not expressly listed in 6 NYCRR Section 617.4 (Type I Actions) or 617.5 (Type II Actions).

VASSAR COLLEGE

DEAN OF STRATEGIC PLANNING AND ACADEMIC RESOURCES

4 November, 2022

RE: 20 – 72 Vassar Farm Lane, Poughkeepsie, NY

To Whom It May Concern:

Please accept this letter as written affirmation that Vassar College has the financial capability to complete the proposed development of this site.

Sincerely,

Marianne H. Begemann, Dean of Strategic Planning and Academic Resources

BOX 714 · 124 RAYMOND AVENUE· POUGHKEEPSIE · NY 12604-0714
PHONE (845) 437-7970
FAX (845) 437-7443

CONSTRUCTION COST ESTIMATE

Gateway Farm Vassar

Estimate Based on

Description	Unit	Quantity	Unit Cost	Total Cost	Notes
Erosion and Sedimentation Control				**$ 2,911.03**	
Silt Fence	LF	600	$ 4.00	$ 2,400.00	
Construction Entrance Fabric	SY	66.6	$ 0.50	$ 33.30	
Construction Entrance Stone	CY	11.11	$ 43.00	$ 477.73	
Stormwater Improvements				**$ 42,000.00**	
Porous Pavement Parking Lot	SF	3500	$ 12.00	$ 42,000.00	
Site Work				**$ 27,792.00**	
Pedestrian Sidewalk 5'Wide with stone	LF	3100	$ 5.75	$ 17,825.00	
Stop Bar and stop sign	EA	1	$ 525.00	$ 525.00	
Handicap Parking Striping	EA	1	$ 500.00	$ 500.00	
Parking Striping	LF	200	$ 1.50	$ 300.00	
Landscaping- Seed Mixes	AC	0.83	$ 2,400.00	$ 1,992.00	
Landscaping- Plantings	EA	2	$700.00	$ 1,400.00	
Construction fencing	LF	700	$ 7.50	$ 5,250.00	
Paving				**$ 54,625.00**	
Asphalt Paving	SF	9500	$ 5.75	$ 54,625.00	
1.5" Top/3.5" Base/9" Subbase				$ -	
TOTALS					
Subtotal				$ 127,328.03	
TOTAL				**$ 127,328.03**	

THE CITY OF POUGHKEEPSIE

DEPARTMENT OF PUBLIC WORKS & ENGINEERING

SITE PLAN REVIEW
Form #1

1. Date: November 15, 2022

2. Name of Site Plan: Vassar Gateway Project

3. Address or Location: 20-72 Vassar Farm Lane

4. Owner: Vassar College

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 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 stabilized construction entrance detail on sheet DN-2.
   2. Provide an estimate of costs for site work.

Joseph A. Chenier
Assistant Civil Engineer, CPESC, CPMSM

THE CITY OF POUGHKEEPSIE FIRE DEPARTMENT

505 MAIN STREET
POUGHKEEPSIE, NY 12601
TEL: 845-451-4079 FAX: 845-451-4191
FIRE CHIEF JOSEPH FRANCO

TO: Planning Board

FROM: Joe Franco, Fire Chief

Date: November 28, 2022

ADDRESS: 20-72 Vassar Farm Lane

The site plan for the above address is acceptable and will be signed with the following conditions:

1. Site plan legend to clearly show hydrants in relation to the proposed parking lot
2. Documentation that the Fire Protection Water Supplies meet the applicable FCNYS 507 sections.
3. Annual Inspection, testing and maintenance as required by FCNYS 507.5.2 and FCNYS 507.5.3

Joseph Franco, Fire Chief

Marcus J. Molinaro
County Executive

Eoin Wrafter, AICP
Commissioner

County of Dutchess

Department of Planning and development

December 7, 2022

To: Planning Board, City of Poughkeepsie
Re: ZR22-337, Vassar Farm Lane Gateway – Site Plan
Lot: 910090, Vassar Farm Lane and NY Route 376

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 construct a 40-car parking lot and pedestrian path along Vassar Farm Lane.

Comments

On the SEAF, the applicant states that the purpose of this project is to "reduce vehicle traffic to the interior of the preserve and create a more pedestrian friendly environment." It is unclear why parking isn't provided closer to the multiple destinations that visitors are likely to access, such as the CSA barn and fields, the Environmental Cooperative building, and the open fields that host sports. The project does not include any improvements to the pedestrian experience between the proposed parking lot and these destinations; for example, the crosswalk from the new lot across Rombout House Lane does not connect to anything. Instead, this plan continues to require people to walk down a narrow roadway alongside moving vehicles, traversing downhill and uphill sections before arriving at the core activity area. The applicant may want to consider relocating the additional parking closer to the on-site destinations to improve access and safety for visitors. It is likely that people will first drive into the site to check for parking near their destination, and only backtrack to this overflow lot if they can't find parking closer in, thus increasing, rather than reducing, vehicle traffic into the site.

Regarding the proposed asphalt path, it is unclear why this path connects the parking lot with the intersection at Raymond Avenue. If the intention is for users of the Vassar Farm site to park here, then any new pedestrian path should improve access further into the site. If pedestrians are visiting Vassar Farm from the main campus or surrounding area, they would likely enter the site just west of Vassar Farm Lane and should remain on that side of the road rather than being required to cross the road and follow a somewhat meandering path past the overflow parking lot. In addition, a more environmentally-friendly path material such as compacted stone dust or a permeable pavement, could be considered as an alternative to asphalt.

Portions of this project may conflict with the NYS Department of Transportation's planned roundabout for the intersection of Route 376, Hooker Avenue, and Raymond Avenue. The roundabout project has received funding, design may already be underway, and it is slated for construction in 2024. The applicant should coordinate with the NYS DOT to ensure that this project will be compatible with the design for the roundabout, and that careful thought is given to how pedestrian connections at the intersection will interact with this property.

If the parking lot remains as sited, we suggest:

- Incorporating pedestrian infrastructure to improve access and safety for people walking between this parking lot and the interior of the site;
- Reconfiguring the northerly path to more safely and directly connect pedestrians from the north to the interior of the site;
- Including some larger tree rows around the north end of the parking lot to help screen it from the surrounding area, in keeping with the farm aesthetic of the parcel.

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): **9100900000**

Project Name: **Vassar Farm Lane Gateway**

Applicant: **Vassar College**

Address of Property: **20-72 Vassar Farm Ln, Poughkeepsie, NY 126030000**

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:

Entered By: **Garcia, Lori**

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: **11/9/2022**	Notes:	☐ Major Project
Date Received: **11/9/2022**		Referral #: **ZR22-337**
Date Requested:		
Date Required: **12/8/2022**	☐ Also mailed hard copy	Reviewer: Heather M. Lal
Date Transmitted: **12/7/2022**		

CITY OF POUGHKEEPSIE POLICE DEPARTMENT

SITE PLAN REVIEW

DATE: 11/28/2022

PROJECT NAME: Vassar College Gateway Farm

PROJECT ADDRESS: Vassar College Gateway Farm

☒ **THE SITE PLAN IS ACCEPTABLE AND WILL BE SIGNED WITH NO CONDITIONS**

☐ **THE SITE PLAN IS UNACCEPTABLE.**

CONDITIONS:

APPROVED BY CHIEF THOMAS PAPE OR AGENT:	DATE:
Sgt E. A #112 SGT. E. ACKEN #112	11/28/2022

RECEIVED
SEP 29 2022

APPLICATION TO THE PLANNING BOARD
CITY OF POUGHKEEPSIE, NEW YORK

Application for Site Plan, Special Permit & Facade Approval

PB 2022-042

OFFICE USE ONLY
CODE: PLSF
ID # 192167
FEE: _____
Total, from:
$500, plus
$_____
($150 per 1000 square feet of floor area), plus
$_____
($35 per number of required parking spaces), plus
$ 500
($500 for special permit, if applicable)

N 0721

PAID
SEP 29 2022
JG

I. **PROPERTY ADDRESS:** 110 south Grand Avenue

II. **PROPERTY OWNER:** Faith Apostolic min
ADDRESS: 110 South Grand avenue Poughkeepsie NY 12603 (state and zip code)

PHONE NUMBER: 347 772 0851 (include area code)

III. **NAME OF APPLICANT:** Tanisha Clarke

ADDRESS: 9 cornwell street Poughquag NY 12570 (state and zip code)

PHONE NUMBER: 347 772 0851 (include area code)

EMAIL ADDRESS: faithapostolicny@gmail.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): open 2 room total of 20 kids for daycare

VI. **ZONING DISTRICT:** _____ Rooms 100 + 101 only

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

Revised January 2018: Previous Editions Obsolete

PROJECT INFORMATION

New construction: _____(yes)_____ (no)

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

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

Alteration:_____ (yes) _____ (no)

Cost of Construction: $_____

LOT AND BULK INFORMATION:

Lot area: _____ (acres) _____ (square feet)

Building Footprint: _____ (proposed square feet for new construction)

_____ (existing square feet for change of use/expansion)

_____ (additional proposed square feet for expansion)

_____ (total building footprint, square feet)

Lot Coverage: _____ (percentage, building coverage only)

Gross Floor Area: _____ (proposed square feet for new construction)

_____ (existing square feet for change of use/expansion)

_____ (additional proposed square feet for expansion)

_____ (total gross floor area, square feet)

Building Height: _____ (stories) _____ (feet)

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

VIII. PROJECT PARKING INFORMATION

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

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

C) Waiver Requested: _____ (Yes) _____ (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: _____
(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: _____

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

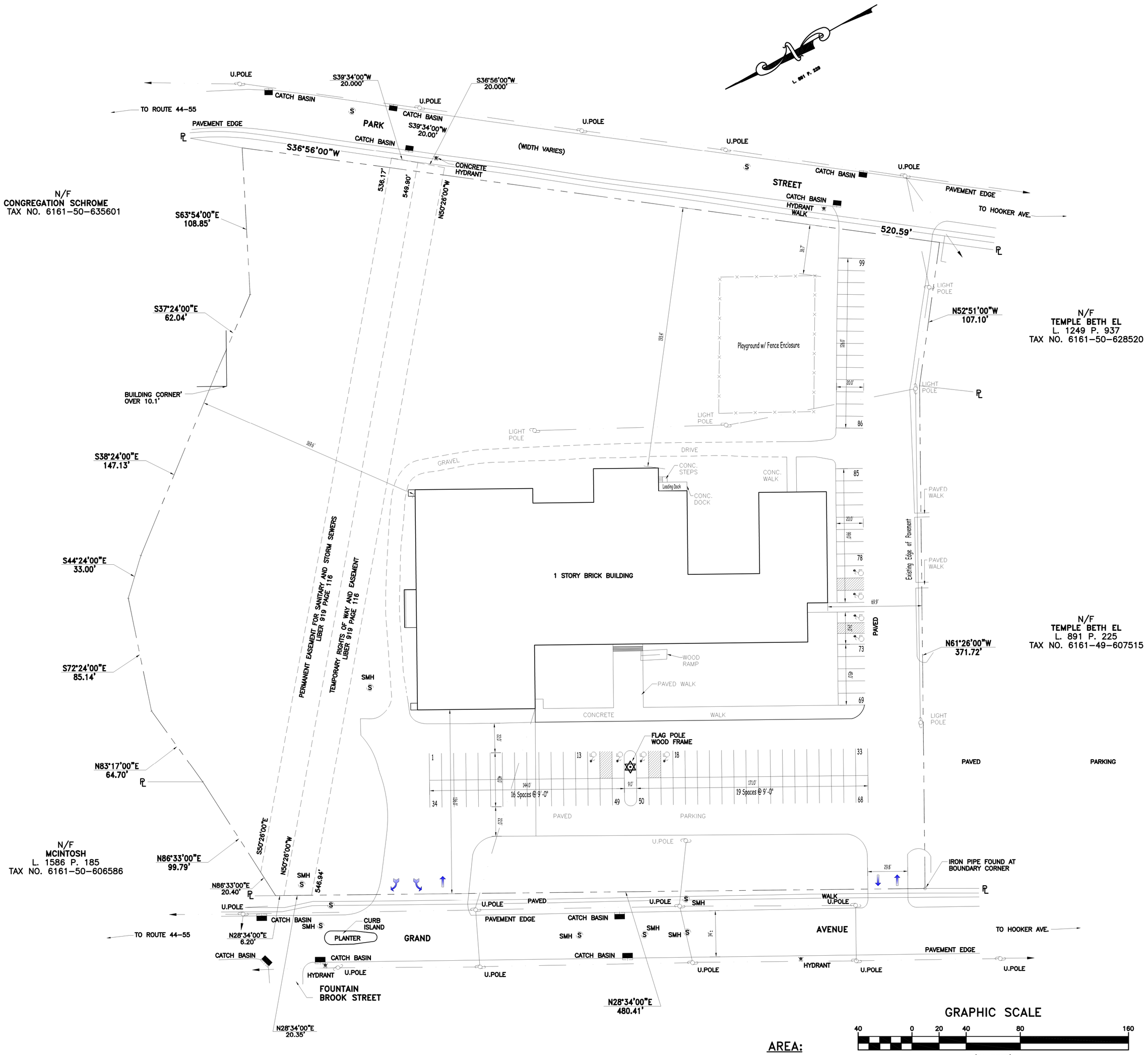
I, Tanisha Clarke, certify that the this application has addressed the objectives outlined in the Zoning Ordinance with consideration given to the public health, safety and welfare; the comfort and convenience of the public in general or the residents or users of the proposed development and of the immediate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

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

TC _____ 9/25/22

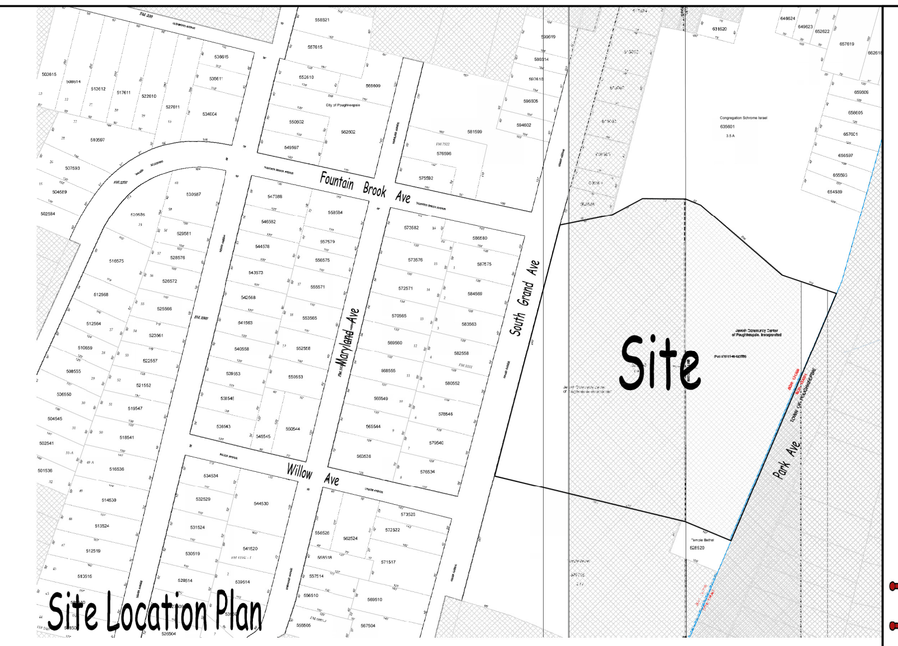
Signature of Applicant Date

Revised January 2018: Previous Editions Obsolete



Site Plan

Scale: 1" = 40'-0"



Site Data

Tax Map No	131300-6161-49-620556-0000	
Zone	R-2 (Medium Low Density Residence)	
Use	Mixed Use (Church & Daycare)	
	Required	**Provided**
Lot Area	10,000 SF	6.39 ac (278,336.39 sf)
Min Lot Dimensions		
Frontage	30'	287.77'
Width	50'	287.77'
Setbacks		
Front	20'	136.00' (Existing)
Side	10'	169.6'' (Existing)
Side	10'	69.9' (Existing)
Rear	15% of Lot Depth = 82.5' (Not Less Than 15')	194.42' (Existing)
Building Hgt (Height / Stories)	35' / 2 1/2	28' / 1 story (Existing)
Maximum Lot Coverage	30 % 278,336.39 sf x .30 = 83,500.90 sf	13 % 36,082 sf

Off Street Parking					
Church	1 Space per 4 seats	275 Seats / 4	=	69 Spaces
Daycare	1 Space per Staff Member	16 Staff Members	=	16 Spaces
Classroom	1 Space per Classroom	5 Classrooms	=	5 Spaces
			=	90 Spaces Required

99 Spaces Required
(Includes 8 Handicapped Spaces)

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

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Do Not Scale Prints

Michael R. Berta. AIA
Architecture & Planning
7 Robert Rd, Poughkeepsie, NY 12603
(845) 489-1638
www.bertaarchitects.com · mike@bertaarchitects.com

REGISTERED ARCHITECT MICHAEL RANDOLPH BERTA STATE OF NEW YORK

These plans are not valid for a building permit unless originally signed and sealed by the Architect

Date	Revision

Proposed Site Plan

Proposed Compliance Plan For
Faith Apostolic Ministries Inc
110 South Grand Ave.
Poughkeepsie, New York

Date	December 5, 2022
Job No	2022-052
Scale	As Noted
Drawing	SP-1
Of	One

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Michael R. Berta. AIA
Architecture & Planning

December 5, 2022

RECEIVED
DEC 0 6 2022

Planning Department
City of Poughkeepsie
62 Civic Center Plaza, 2nd Floor
Poughkeepsie, NY 12601

Re: 110 S. Grand Avenue
Planning Board Application
Waiver Request

Mr. Chairman and Members of the Board

We are currently working on an addition and renovation project that we will be meeting submitting in the near future, but our client has an immediate need to add a daycare function in their existing building prior to the application for the larger project.

As part of the application for the daycare we ask for the following waivers,

- Existing contours or spot elevations and proposed grading.
- All watercourses, wooded area, rock outcrops and isolated trees.
- Storm water / floodplains.
- Proposed buildings or improvements.
- Details elevations.
- Utilities and service connections.
- Screening and landscaping.
- Lighting plan and photometrics.
- Storm water improvements.
- Erosion control plan and site fencing plan.

The current application for the daycare will have no exterior construction or change in the existing utilities, all proposed work will be inside of the building.

Thank you again for your time and I look forward to discussing the project with you.

Sincerely Yours.

Michael R. Berta, AIA
Architect

7 Robert Road Poughkeepsie, New York 12603 (845) 489-1638 fax (845) 483-9887
E-Mail mike@bertaarchitects.com Web Site www.bertaarchitects.com

Faith Apostolic Ministries
110 South Grand Avenue
Poughkeepsie NY 12603
845-471-0430

12/9/22

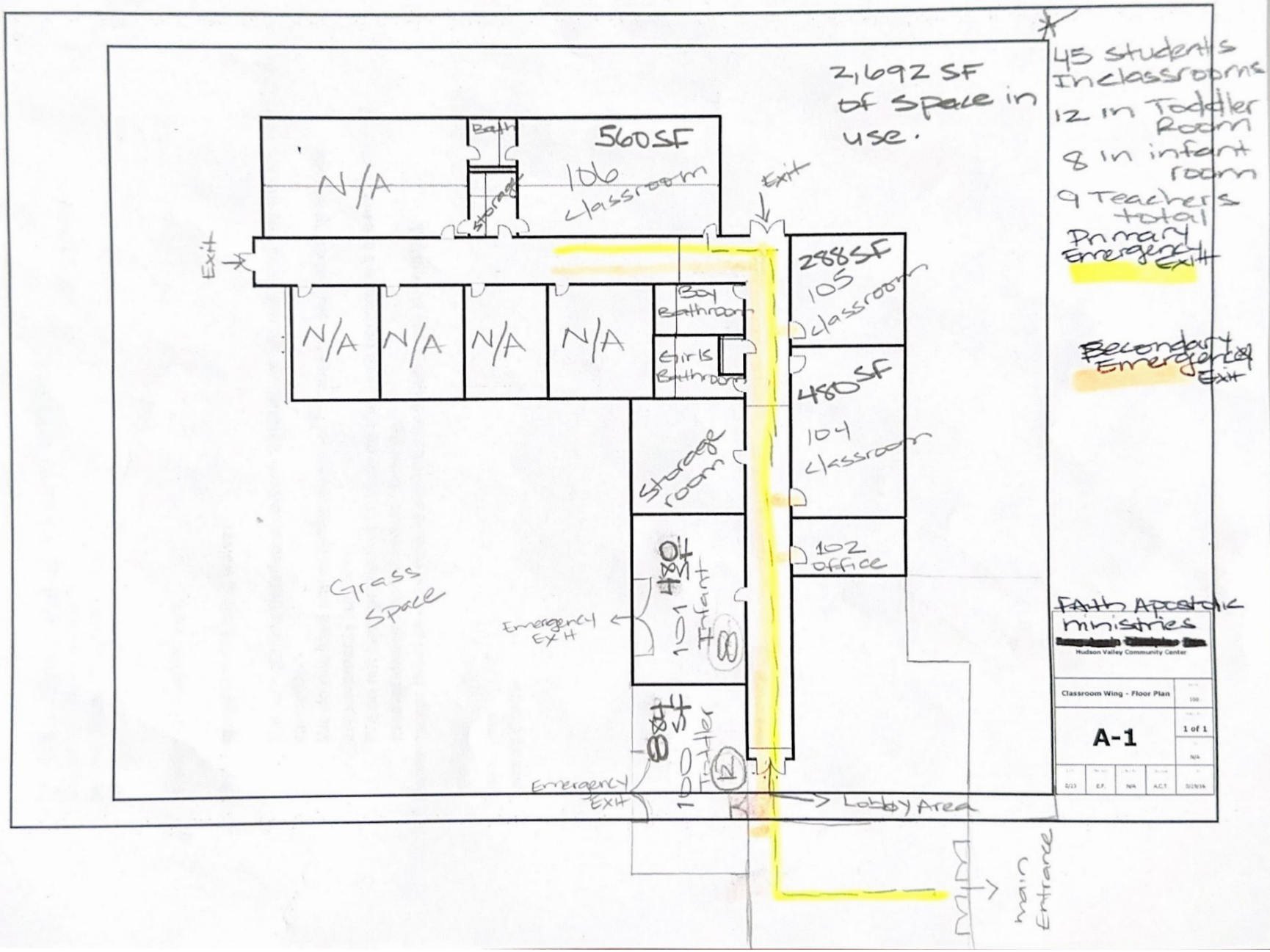
To whom it may concern,

Please except the following waivers.

- We do not have detailed elevations because we are not doing any site improvements currently.
- We do not have any outlined easement because we are not doing any site improvements currently
- We do not have protection of trees on site plans because we are not doing any excavations or improvements currently.

Please except these as waivers to the starred items on pages submitted.

Thank you,
Tanisha Clarke


2,692 SF of Space in use.
45 students In classrooms
12 in Toddler Room
8 in infant room
9 Teachers total
Primary Emergency Exit
Secondary Emergency Exit
N/A
Bath
storage
560SF
106 classroom
Exit
288SF
105 classroom
480SF
104 classroom
102 office
Boy Bathroom
Girls Bathroom
N/A
N/A
N/A
N/A
storage room
480 SF
101 Infant
8
880 SF
100 Toddler
12
Grass Space
Emergency Exit
Emergency Exit
Lobby Area
Main Entrance
Faith Apostolic ministries
Hudson Valley Community Center
Classroom Wing - Floor Plan
A-1
1 of 1
N/A
2/23
E.P.
N/A
A.C.T.
02/8/16

THE CITY OF POUGHKEEPSIE
NEW YORK
DEVELOPMENT DEPARTMENT
62 CIVIC CENTER PLAZA, 2ND FLOOR
POUGHKEEPSIE, NY 12601
Phone: (845) 451-4010 Fax: (845) 451-4006

MEMORANDUM

To: Tanisha Clarke, Applicant

From Natalie Quinn, Development Director

Date: December 2, 2022

Re: 110 South Grand Avenue, PB#2022-042 – SEQR Classification

---

Upon review of project materials provided by the applicant, including Short EAF Part 1 and site plan application, it is my understanding that the proposed action to be undertaken includes establishment of a daycare facility in a portion of the existing building at 110 South Grand Avenue

Based on the above description it is the determination of the planning division that the proposed action is classified as an Unlisted Action with regards to SEQRA, and therefore is subject to an uncoordinated or coordinated (optional) environmental review. This determination was made due to the fact that the proposed action was not expressly listed in 6 NYCRR Section 617.4 (Type I Actions) or 617.5 (Type II Actions).

Could maybe be Type II
Section (c)(18) Reuse of a residential or commercial structure, or of a structure containing mixed residential and commercial uses, where the residential or commercial use is a permitted use under the applicable zoning law or ordinance, including permitted by special use permit, and the action does not meet or exceeds any of the thresholds in section 617.4

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: Faith Apostolic Ministries

Project Location (describe, and attach a location map): 110 South Grand Ave

Brief Description of Proposed Action: Daycare opening a daycare with just infants and toddlers

Name of Applicant or Sponsor: Tanisha Clarke

Telephone: 347 772 0851

E-Mail: faithapostolicny@gmail

Address: 110 South Grand Ave

City/PO: Poughkeepsie

State: NY

Zip Code: 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:	☒	☐

3. a. Total acreage of the site of the proposed action? 6.39 acres
   b. Total acreage to be physically disturbed? Ø acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 6.39 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

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	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?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	☑	☐
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?	☐	☑
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: _____	☐	☑
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____	☐	☑
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____	☐	☑
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?	☑	☐
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: _____	☑	☐

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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: Tanisha Clarke Date: 11/10/22

Signature: [signature] Title: Administrator

PRINT FORM

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CITY OF POUGHKEEPSIE, NY
BUILDING, PLANNING & ENGINEERING DEPARTMENTS

SITE PLAN CHECK SHEET

ADDRESS: 110 S Grand

The following is a list of deficiencies noted to exist in the submission relative to the requirements for site plan review.

I) APPLICATION REQUIREMENTS AND GENERAL SITE PLAN INFORMATION

Compliance Certified			Item Description
☐ YES	☑ NO		Properly completed application form, including accurate contact information and applicant signature.
☑ YES	☐ NO		Required fees submitted: ☐ Site Plan: $500, plus $150 for 1000 square feet of floor area; ☐ Special Permit: $250 ☐ Full EAF: $500; ☐ $35 x _____ (# of Required Parking Spaces) = _____ TOTAL: _____
☐ YES	☑ NO		Short Environmental Assessment Form submitted.
☐ YES	☐ NO	NA	Full Environmental Assessment Form submitted.
☐ YES	☑ NO		Name and address of owner of record appears on plan. Not current
☑ YES	☐ NO		Name and address of person, firm or organization preparing the plan.
☑ YES	☐ NO		Date (including any revision dates), north arrow, written and graphic scale.
☐ YES	☑ NO		Vicinity map (i.e., Sanborn, tax map).
☐ YES	☑ NO		Existing zoning (lot and bulk tables are not required, but if provided must be accurate).
☑ YES	☐ NO		Professional signature and seal on plan, as required by law. Survey
☐ YES	☑ NO		Names of owners of adjoining properties, as shown on the latest tax records.
☐ YES	☑ NO		A statement indicating the financial capability of the applicant to complete the proposed development.
☐ YES	☑ NO		Are any waivers requested? If so, list here (and provide a written request for waiver, outlining the item to be waived and the rational for waiver: Lighting and landscape

SITE PLAN CHECK SHEET PAGE 2
ADDRESS: _____

II) EXISTING SITE CONDITIONS

Compliance Certified			Item Description
☑ YES	☐ NO		Site plan is prepared under the direction of a licensed surveyor or licensed professional engineer or references a properly prepared survey with surveyor name, license number and survey date indicated. If a city digital map is utilized, field verification of all features and elevations must be certified by a licensee surveyor or licensed professional engineer.
☑ YES	☐ NO		Location, width and purpose of all existing easements, rights-of-way, setbacks, reservations and rears dedicated to public use, outline of existing covenants and deed restrictions within, adjacent or otherwise pertaining to the property.
☐ YES	☑ NO		Plan view must show all existing features extending a minimum of twenty-five (25) feet past property boundary lines. Such features include all of the following:
☐ YES	☐ NO	NA	Existing contours with intervals of five (5) feet or less, referred to a datum satisfactory to the Planning Board. If parcel is relatively flat, contours MAY be waived if spot elevations are shown which indicate the general slope of the terrain;
☑ YES	☐ NO		Paved areas, walkways, parking areas, vehicular access to public streets, internal drives (detailed as required by material type: i.e., asphalt, concrete, stone, etc); existing landscaping, screening and fences (detailed);
☑ YES	☐ NO		Outlines and descriptions of all structures;
☐ YES	☐ NO	NA	All 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, curbs, sidewalks, adjacent streets with names and widths, and any other significant features.
☐ YES	☐ NO	NA	Show locations of ALL existing utilities, underground and aboveground, within and adjacent to property and in the street, including, but not limited to: sanitary, storm, water, gas and electric, and any utility poles, including light poles. Show all existing connections.
☐ YES	☐ NO	NA	Approximate boundaries of any areas subject to storm water overflows (reference FEMA 100 year floodplain panel or study).

SITE PLAN CHECK SHEET PAGE 3
ADDRESS: 110 S Grand

III) PROPOSED SITE IMPROVEMENTS

Compliance Certified			Item Description
☐ YES	☐ NO	NA	The location of all proposed buildings or structural improvements.
— ☐ YES	☑ NO		Detailed elevations of all proposed principal and accessory structures.
☐ YES	☐ NO	NA	Show locations, size and material of all proposed utilities and service connections.
☐ YES	☑ NO		The location and design of all uses not requiring structures, such as off-street parking and loading areas, walkways, other paved areas and any open space for tenant recreational purposes for residential development. Profiles indication grading and cross sections showing location and width or roadways and walkways. Any proposed direct pedestrian connection to public parking lots or structures will also be shown.
☐ YES	☐ NO	NA	Proposed screening and landscaping, including a planting plan, in accordance with Section 19-4.11 of the Zoning Ordinance.
— ☐ YES	☑ NO		Location, direction, power and time of use of any proposed outdoor lighting or public address systems. Provide an Isometric Footcandle Distribution Diagram, maximum illuminance levels shown in footcandle measurements on a grid of the site showing readings in every ten-foot square, overlaid on the site plan, as a separate sheet or view. One-half (1/2) foot candle is recommended. All lights to be shielded to prevent glare on adjoining properties, including public property.
☐ YES	☐ NO	NA	Any proposed new grades, indicating clearly how such grades will met existing grades of adjacent properties or the street.
☐ YES	☐ NO	NA	An outline of any proposed easements, deed restrictions, covenants or rights-of-way and a notation of any areas to be dedicated to a public agency, and any public improvements contemplated on or adjoining the property.
☐ YES	☑ NO		Location of any fire alarm boxes and/or connections to the city fire alarm system.
☐ YES	☐ NO	NA	A determination of storm water quality requirements based on NYDES Phase II requirements. Further, ANY improvements within the Fallkill Creek watershed, which has been declared a 303(D) impaired watershed, require full stormwater treatment as per NYSDEC.

SITE PLAN CHECK SHEET PAGE 4
ADDRESS: _____

IV) OTHER REQUIRED PLAN NOTES

Compliance Certified			Item Description
☐ YES	☐ NO	NA	Show plans for all proposed stormwater improvements. Applicant shall mitigate storm to historic run-off rates for the 10-year storm.
☐ YES	☐ NO	NA	The following note concerning the protection of trees must be shown on all site plans where existing trees are proposed 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 on the plan, the location of the protective fencing must be shown on the site plan or landscape plan. Where a trees close proximity to a proposed building, driveway, parking area, or construction vehicle access way prevents the installation of fencing at the drip line, the modification of the fence position shall be shown on the site 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.

V) REQUIRED REFERRALS TO OTHER AGENCIES OR BOARDS

☐ YES	☑ NO	Dutchess County Planning Department
☐ YES	☑ NO	Zoning Board of Appeals
☐ YES	☑ NO	Historic District and Landmark Preservation Commission
☐ YES	☑ NO	Waterfront Advisory Committee
☐ YES	☑ NO	Shade Tree Commission

ADDITIONAL COMMENTS

No short EAF

_____ _____

Natalie Quinn, Senior Planner
Judith Knauss, Deputy Zoning Administrator
Lori Garcia, Municipal Administrative Assist.

Date

ZONING REVIEW RECORD

LOCATION: 110 S. Grand Ave APPLICATION DATE: 9/29/22

PROPOSAL: Addition of 2 Room Daycare to Existing Church

REVIEWER: Joe O'Brien REVIEW DATE: 10/5/22

ZONING DISTRICT: (R-2) Medium Low-Density Residence District

THE USE IS:

(a)	Permitted by Right	☐	Section 19-
(b)	Permitted after Site Plan Review	☐	Section 19-
(c)	Permitted by Special Permit	☑	Section 19- 3.12(2)(b)3.
(d)	Not Permitted in this District	☐	Section 19-
(e)	Change in Legal Nonconforming Use	☐	Section 19-

LOT AND BULK REQUIREMENTS

ITEM	REQUIRED	SECTION	PROVIDED
Minimum Lot Area	20,000 SF	19-3.13(4)(a) 2	278,784 SF
Minimum Lot Width	50'	19-3.13(4)(b)	480'
Minimum Frontage	30'	19-3.13(4)(c)	480'
Minimum Yards	—	19-3.	—
Front	20'	19-3.13(4)(d) 1	0'
Side	10'	19-3.13(4)(d) 2	Right side 0', Left side 169.1
Rear	15% lot depth, not less than 15'	19-3.13(4)(d) 3	5'
Maximum FAR	—	19-3.	—
Maximum Height	2½ stories or 35'	19-3.13(4)(e)	Not provided
Maximum Lot Coverage	30%	19-3.13(4)(f)	Not provided
Open Space	—	19-3.	—

PARKING AND LOADING REQUIREMENTS

ITEM	REQUIRED	SECTION	PROVIDED
Parking Spaces	See notes page 3.	19-4.3(11)	Not provided
Parking Space Size	9' x 20'	19-4.3(5) (b)	Not provided
Access to Parking			Not provided
a) 4 or fewer spaces	8' – 15'	19-4.13(2)	
b) More than 4	One 15' Lane	19-4.3(5) (a)	
c) More than 20	Two 10' Lanes	19-4.3(5) (a)	
Aisle Width	22'	19-4.3(5) (b)	Not provided
Plantings	Site plans	19-4.3(1)	Not provided
Screening	N/A	19-4.3(2)	N/A

Is a public or private parking facility available within 600'? ☐ Yes ☑ No

Revised 6/28/1

PARKING AND LOADING REQUIREMENTS (continued)

ITEM	REQUIRED	SECTION	PROVIDED
Loading Berths		19-4.3(12) (a)	
Loading Berth Size	15' x 45' x 14'	19-4.3(12) (b)	
Access to Berth			
a) To berth alone	10'	19-4.3(12 (c))	
b) Combined access	25'	19-4.3(12) (c)	
c)		19-4.3(5) (a)	
Location of Exits and Entrances		19-4.3(5) (b)	
a) Parking lots with more Than 4 spaces	Prohibited within 50' of any street intersection	19-4.3(5) (a)	
Loading areas		19-4.3(12) (c)	

LANDSCAPING REQUIREMENTS

ITEM	REQUIRED	SECTION	PROVIDED
General Landscaping	YES	19.4.11(1) (a)	NOT PROVIDED
Landscape Strips	SITE PLAN	19.4.11(1) (b)	NOT PROVIDED

ACCESSORY USES

ITEM	REQUIRED	SECTION	PROVIDED
Swimming Pools	—	19-4.7	—
Tennis Courts (etc.)	—	19-4.8	—
Other:		19-4.13	

SIGN REQUIREMENTS

TYPE OF SIGN:
SECTION: 19-4.9 ( )

NOT PROVIDED

Revised 6/28/1

ZONING REVIEW RECORD **PROPERTY :** 110 S. GRAND AVE

ADDITIONAL COMMENTS

SECTION	COMMENT
19-4.3(11)	CHURCHES - 1 SPACE PER 4 SEATS, DAY CARE - 1 SPACE PER STAFF MEMBER PLUS 1 SPACE PER CLASSROOM

IS THE PROPERTY IN THE CITY'S HISTORIC DISTRICT? ☐ YES See 19-4.5 ☑ NO

IS THE PROPERTY LISTED ON THE NATIONAL REGISTER? ☐ YES See 19-4.17 ☑ NO

IS THE ACTION PROPOSED A TYPE ONE ACTION? ☐ YES ☑ NO

IS THE PROPERTY LOCATED IN A FLOOD PLAIN: ☐ YES See 19-4.6 ☑ NO

COMMENTS:

ADDITIONAL REVIEWS REQUIRED	YES	NO	FORWARDED	DATE
PLANNING BOARD (Site Plan)	☐	☐		
PLANNING BOARD (Special Permit	☑	☐		
HISTORIC DISTRICT COMMISSION	☐	☑		
OTHER:	☐	☑		

DISPOSITION

DATE: 10/5/22

Signature:

Revised 6/28/1

NYS Child Day Care Facility Application and Management System (FAMS) Application Received Notification

Inbox

pop Apr 27

to Faithapostolicny

Dear Kedisha Wray,

Your application has been received by the office for FAITH ACADEMY, 883483 and will now be considered for review. Please note: You have 90 days from the date of this message to complete any outstanding information before your application is withdrawn. If your application is withdrawn and you wish to resume working on it, you must contact your Regulator (FAMS) for more information. Your Regulator will be:

Stacey Rosborough
Telephone: (845) 708-2400
E-mail: Stacey.Rosborough@ocfs.ny.gov
Fax: ( ) -
Address:
117 East Stevens Avenue
Valhalla, NY 10595

RECEIVED
DEC 09 2022

Do not reply to this email, click here to be redirected to the FAMS landing page.

Documentation/Information	Status	Comments
Personal Information - Kedisha S. Wray, Director		upload new Director. Shana-Kay Dennis
• Certificates - Director	Not Received	
• Child Care Experience - Director	Not Received	
• Child Care Supervisory Experience - Director	Not Received	
• Criminal Conviction Statement - Director	Under Review	
• Diploma, Degree, or Transcript - Director	Under Review	
• Medical Statement - Director	Not Received	
• Plan of Study Commitment for Director of Child Day Care Center	Under Review	
• References - Director	Under Review	
• Relevant Training - Director	Not Received	
• SCR Result Letter - Director	Under Review	
• SEL Result Email - Director	Not Received	
• Statewide Central Registry Database Check - Director	Under Review	
Personal Information - Shana-Kay M. Dennis, Employee		
• Criminal Conviction Statement	Complete	
• Criminal History Review	Complete	
• Fingerprints	Complete	
• Justice Center Database Check	Not Received	
• SCR Clearance	Not Received	
Personal Information - Tanisha N. Clarke, Employee		
• Criminal Conviction Statement	Incomplete	
• Criminal History Review	Incomplete	
• Fingerprints	Complete	
• Justice Center Database Check	Not Received	
• SCR Clearance	Not Received	
Business Information		
• Board Members	Complete	
• Filing Receipt	Under Review	not acceptable.
• Formation Papers	Under Review	
Required Documents		
• Applicant Compliance Agreement	Complete	
• Certificate of Liability Insurance	Complete	
• Certificate of Occupancy (Local)	~~Complete~~	upload
• Child Supervision Policy	Under Review	
• Electronic - Background Review	Complete	

November 23, 2022

Kedisha S. Wray
FAITH ACADEMY
110 SOUTH GRAND AVENUE
POUGHKEEPSIE, NY 12603

RE: 883483-DCC

County: Dutchess

Dear Kedisha Wray:

The attached information summarizes the status of each component of your application. Requirements with a status of Not Received have not been submitted as of the date of this letter. Documents with a status of Under Review have been submitted, but not yet evaluated. A status of Needs Review indicates that additional information or documentation must be submitted. Items with a status of Complete have been reviewed, but remain subject to supervisory evaluation as part of the licensing/registration process.
Please have all documetns uploaded into FAMS by December 23, 2022.

All required application documentation must be submitted to the Office within 90 days after the date of the first piece of documentation that was received or your application will be deemed to be withdrawn. **This means that all required documentation must be submitted to the Office by Jul 26, 2022 or your application will be deemed to be withdrawn.**

If you have any questions or are no longer interested in completing the application process, please call me at (914) 801-3243. Thank you in advance for your cooperation and interest in child care.

Sincerely,

Stacey Rosborough
Licensor

Enclosure(s)

Application Review Checklist
Revised 12/2018

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: South Avenue, City of Poughkeepsie, Dutchess Co., New York; Tax Parcel ID 6061-52-937583

II. PROPERTY OWNER: South Ave Real Est Assoc LLC

ADDRESS: 510 Haight Avenue, Poughkeepsie, NY 12603

New York, 12603 (state and zip code)

PHONE NUMBER: 914-494-2610 (include area code)

III. NAME OF APPLICANT: ARGO Development (Contact: Mr. Michael Abuladze, CEO)

ADDRESS: 95 Chestnut Ridge Road, Montvale, NJ 07645

New Jersey, 07045 (state and zip code)

PHONE NUMBER: 914-494-2610 (include area code)

EMAIL ADDRESS: mike@argodev.com

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

IV. CONSULTANT: Christopher Lapine, P.E., LEED AP

ADDRESS: 21 Fox Street, Poughkeepsie, NY 12601

New York, 12601 (state and zip code)

PHONE NUMBER: 845-486-1478 (include area code)

V. PROPOSED USE or FAÇADE CHANGE (Summarize proposed use or uses): 87-unit, 5-story mid-rise multifamily residential development with underground and surface-level parking.

VI. ZONING DISTRICT: R-D, Research and Development District

(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: $__9.3 million__

LOT AND BULK INFORMATION:

Lot area: __2.76__ (acres) __~120,226__ (square feet)

Building Footprint: __22,640__ (proposed square feet for new construction)

__NA__ (existing square feet for change of use/expansion)

__NA__ (additional proposed square feet for expansion)

__22,640__ (total building footprint, square feet)

Lot Coverage: __~19%__ (percentage, building coverage only)

Gross Floor Area: __113,200__ (proposed square feet for new construction)

__NA__ (existing square feet for change of use/expansion)

__NA__ (additional proposed square feet for expansion)

__113,200__ (total gross floor area, square feet)

Building Height: 5 stories of MF residential units over one level of underground parking. (stories) __70__ (feet)

Floor Area Ratio: __0.94__ (ratio of gross floor area divided by lot area)

VIII. PROJECT PARKING INFORMATION

A) Number of Off-Street Parking Spaces required: __143.5__

B) Number of Off-Street Parking Spaces provided: __144__

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

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

If yes, name all such municipal facilities: NA

(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): NA

IX. RESIDENTIAL PROPOSALS

A) Type of Development: Multifamily residential development with underground and surface-level parking.
(Townhouse, condominium, multiple residence rental, etc.)

B) Unit Breakdown:

Number of efficiency or "studio" units: 0

Number of one (1) bedroom units: 87

Number of two (2) bedroom unit's 0

Number with three or more bedrooms: 0

Total number of units: 87

C) Is funding public? ____ Yes X No
If yes, describe funding source: ARGO Development

NA

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

A) Number of Employees: _____
B) Number of doctors/dentists/medical practitioners: _____
C) Days/Hours of Operation: _____

NA **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: _____

NA **XII. MERCANTILE PROPOSALS** (Retail _____ Wholesale _____)

A) Type of Mercantile (specify): _____

B) Number of Employees: _____

C) Days/Hours of Operation: _____

NA **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? _____

NA **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: _____

NA **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: _____

NA

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):

NA

XVII. APPLICANT CERTIFICATION

I, Mr. Michael Abuladze, CEO of ARGO Development, 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.

_____ 11/29/22

Signature of Applicant Date

LaBella
Powered by partnership.

November 29, 2022

Mr. Robert Levine, Chair
62 Civic Center Plaza
3rd Floor
Poughkeepsie, NY 12601

RE: ARGO Development – South Avenue Multi-Family Housing
South Avenue, Poughkeepsie, NY, 12601
Tax Lot 937583

Chairman Levine:

The Applicant, ARGO Development, is seeking site plan approval from the City of Poughkeepsie to develop an 87-unit, mid-rise multifamily residential development with underground and surface-level parking. The proposed action will be located on an approximately 2.76-acre parcel on the west side of South Avenue (Tax Lot 937583) in the City of Poughkeepsie. The proposed action includes construction of a five-story building with 87, one-bedroom, apartments located over one level of underground parking (60 spaces), and 84 off-street surface parking spaces. The parcel is currently a wooded lot.

The parcel is located within the R-D, Research and Development District. Residential development is a permitted use within the R-D zone, subject to the requirements of the High-Density R-5 District Permitted Uses [Section 19-3.16(2)], and further subject to all other requirements applicable to High-Density R-5 District residential development. Primary access will be provided via South Avenue. Municipal water and sanitary sewer are available at the project site, and the proposed action will utilize existing hook-ups. The proposed ground disturbance is approximately 2.5 acres. Since the site will have more than 1 acre of ground disturbance, the proposed action will also require a SPDES General Permit for stormwater.

Please find enclosed:

- 1 copy of the Planning Board Application
- 1 copy of the site plan set dated 11/29/2022
- 1 copy of the EAF, dated 11/29/2022
- 1 copy of the SWPPP, dated 11/29/2022
- 1 copy of the Architectural Renderings dated 11/28/2022
- 1 copy of the Architectural Elevations dated 11/28/2022
- 1 copy of the NRI, dated 11/29/2022
- Check for $22,500 for the Application Plan Fee

If these items are acceptable, additional copies can be provided. An electronic copy has been provided to the Planning Board secretary.

Respectfully submitted,

LaBella Associates

Christopher Lapine

Christopher Lapine, PE
LaBella Associates | Senior Civil Engineer
Regional Marketing Leader

Cc:
Michael Abuladze

SITE PLAN

SOUTH AVENUE MULTI-FAMILY DEVELOPMENT

SOUTH AVENUE

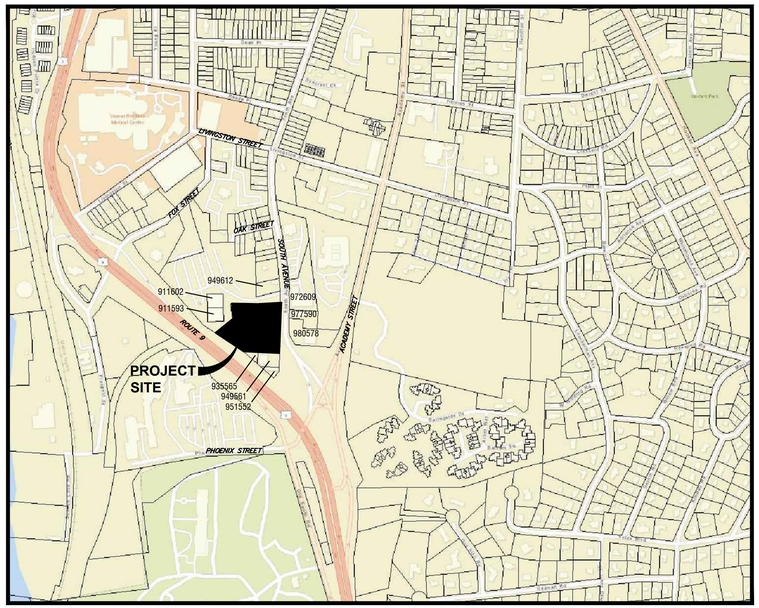
POUGHKEEPSIE, NY 12601

PROJECT NO: 2222201

NOVEMBER 28, 2022

INDEX OF DRAWINGS

PAGE NO.	REV	SHEET NO.	DATE	DESCRIPTION
1	0	G001	11/28/22	COVER SHEET
2	0	G002	11/28/22	NOTES
3	0	SVY1	11/04/22	MAP OF EXISTING CONDITIONS PREPARED FOR ARGO DEVELOPMENT
4	0	C120	11/28/22	DEMOLITION PLAN
5	0	C130	11/28/22	SITE PLAN
6	0	C131	11/28/22	TRUCK MANEUVERING PLAN
7	0	C140	11/28/22	GRADING AND EROSION &SEDIMENT CONTROL PLAN
8	0	C160	11/28/22	UTILITY PLAN
9	0	C180	11/28/22	LANDSCAPE PLAN
10	0	C190	11/28/22	PHOTOMETRIC LIGHTING PLAN
11	0	C530	11/28/22	SITE DETAILS
12	0	C531	11/28/22	SITE DETAILS
13	0	C540	11/28/22	EROSION AND SEDIMENT CONTROL DETAILS
14	0	C550	11/28/22	STORM SEWER DETAILS
15	0	C551	11/28/22	STORM SEWER DETAILS
16	0	C560	11/28/22	WATER SYSTEM DETAILS
17	0	C570	11/28/22	SANITARY SEWER DETAILS
18	0	C580	11/28/22	LANDSCAPE DETAILS



LOCATION MAP

1"=500'

Parcel #	Owner/ Owner Address
980578	Spyglass Lane LLC 235 South Ave Poughkeepsie, NY 12601
935565	City Of Poughkeepsie PO Box 300 Poughkeepsie, NY 12602
911602	Vassar Brothers Hospital 54 Page Park Dr Poughkeepsie, NY 12603
911593	Fox Street Condominiums LLC 21 Fox St Poughkeepsie, NY 12601
951552	Latham Interests Inc 250 South Ave Poughkeepsie, NY 12601
977590	South Ave of Dutchess LLC 278 Mill St Ste 100 Poughkeepsie, NY 12601
949661	John R. Satterfield, Jr 248 South Av Poughkeepsie, NY 12601
937583	South Ave Real Est Assoc LLC 510 Haight Ave Poughkeepsie, NY 12603
972609	Executive Park Assoc No 2 Ltd 60 Morrow Ave Scarsdale, NY 10583
949612	Sharad Deedwaniya PO Box 1995 Poughkeepsie, NY 12602

BULK TABLE:

CITY OF POUGHKEEPSIE ZONING DISTRICT: R-5

ZONING REQUIREMENTS:	REQUIRED	PROPOSED
MINIMUM LOT AREA	20,000 SF	121,000± SF
MINIMUM LOT WIDTH	50 FT	321 FT
MINIMUM SETBACK REQUIREMENTS		
FRONT	20 FT	21 FT
SIDES	35 FT	36 FT
REAR	35 FT	98 FT
MAXIMUM BUILDING HEIGHT	6 STORIES OR 70 FT	5 STORIES OVER 1-STORY GARAGE, 70 FT
MAXIMUM BUILDING LOT COVERAGE	50%	22,640 SF OR 18.8%
MINIMUM GREEN SPACE	26,100 SF	47,529 SF

PARKING SPACES REQUIRED OFF-STREET PARKING	# UNITS	REQUIRED SPACES	PROPOSED SPACES
1.0 SPACE FOR EACH STUDIO OR EFFICIENCY APARTMENT;	0 UNITS X 1.0	0 SPACES	0 SPACES
1.5 SPACES FOR EACH 1-BEDROOM APARTMENT;	87 UNITS X 1.5	130.5 SPACES	131 SPACES
2.0 SPACES FOR EACH 2-BEDROOM OR LARGER APARTMENT;	0 UNITS X 2.0	0 SPACES	0 SPACES
PLUS AN ADDITIONAL 10% OF THE TOTAL REQUIRED SPACES FOR VISITOR PARKING IN ALL CASES.	PLUS 10% VISITOR	13 SPACES	13 SPACES
TOTAL	87 UNITS	143.5 SPACES REQUIRED	144 SPACES PROPOSED

OWNER/ APPLICANT:

ARGO DEVELOPMENT
95 CHESTNUT ROAD
MONTVALE, NJ 07645

TAX MAP INFORMATION:

CITY OF POUGHKEEPSIE
SECTION 6061, BLOCK 52, LOT 937583

AREA:

TOTAL PROJECT ACREAGE : 2.77± ACRES

UTILITY COMPANIES:

ELECTRIC: CENTRAL HUDSON GAS & ELECTRIC CORP
284 SOUTH AVENUE
POUGHKEEPSIE, NY 12601
(845) 452-2700

GAS: CENTRAL HUDSON GAS & ELECTRIC CORP
284 SOUTH AVENUE
POUGHKEEPSIE, NY 12601
(845) 452-2700

WATER: CITY OF POUGHKEEPSIE WATER DEPARTMENT
62 CIVIC CENTER PLAZA,
POUGHKEEPSIE, NY 12601
(845) 451-4173

SEWER: CITY OF POUGHKEEPSIE WASTEWATER (SEWER) DEPARTMENT
62 CIVIC CENTER PLAZA,
POUGHKEEPSIE, NY 12601
(845) 451-4173

CITY OF POUGHKEEPSIE DEPARTMENTAL SIGNATURES

Fire Chief — Date

Police Chief — Date

Building Inspector — Date

City Engineer — Date

Commissioner of Public Works — Date

OWNER/APPLICANT SIGNATURE

THE UNDERSIGNED APPLICANT FOR THE PROPERTY AND THE UNDERSIGNED OWNER OF THE PROPERTY SHOWN HEREON, STATE THAT THEY ARE FAMILIAR WITH THIS MAP, ITS NOTES AND ITS CONTENTS, AND HEREBY CONSENT TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

THE APPLICANT AND OWNER UNDERSTAND THEIR OBLIGATION TO THE TOWN TO KEEP THIS SITE AS PER SITE PLAN APPROVAL BY THE TOWN PLANNING BOARD UNTIL A NEW OR REVISED SITE PLAN IS APPROVED FOR THE SITE. THE APPLICANT AND OWNER UNDERSTAND THEIR OBLIGATION TO THE TOWN NOT TO OCCUPY THE PREMISES BEFORE A CO IS ISSUED BY THE TOWN BUILDING DEPARTMENT.

APPLICANT — DATE

OWNER — DATE

CITY PLANNING BOARD
CITY OF POUGHKEEPSIE, NEW YORK
SITE PLAN APPROVAL

FILE NO:

PROJECT NAME: SOUTH AVENUE MULTI-FAMILY DEVELOPMENT

PROJECT LOCATION: SOUTH AVENUE

APPLICANT: ARGO DEVELOPMENT

OFFICIALLY APPROVED at the Planning Board

meeting held the ____ day of _____ 2____

PLANNING CHAIR:

DESIGNEE:

DATE SIGNED:

CONDITION(S):

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APPLICANT NAME & ADDRESS:

ARGO DEVELOPMENT
95 CHESTNUT RIDGE ROAD
MONTVALE, NJ 07645

PROJECT NAME & LOCATION:

SOUTH AVE MULTI-FAMILY DEVELOPMENT
SOUTH AVENUE
CITY OF POUGHKEEPSIE, NY 12601

PROJECT NUMBER: 2222201

DRAWN BY:

REVIEWED BY: CPL

ISSUED FOR: PLANNING BOARD REVIEW

DATE: 11/28/2022

DRAWING NAME:

COVER SHEET

DRAWING NUMBER:

G001

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DEMOLITION NOTES:

1. REFER TO REQUIREMENTS OUTLINED IN THE MATERIALS MANAGEMENT, HEALTH AND SAFETY, AND EROSION & SEDIMENT CONTROL PLANS AND NOTES & REMEDIAL NOTES (THIS SHEET) 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, AND REMEDIAL ACTION WORK PLAN PREPARED FOR THE SITE.

GENERAL CONSTRUCTION NOTES:

1. ALL UNDERGROUND UTILITIES ARE SHOWN IN THEIR RELATIVE POSITION AND DEPTH 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 STORM SEWER SHALL BE SMOOTH INTERIOR HDPE WITH WATER TIGHT FITTINGS.
4. CONTRACTOR TO VERIFY STATUS OF ALL UTILITY SERVICES PRIOR TO INTERRUPTION.
5. EXPLORATORY EXCAVATIONS SHALL BE PERFORMED BY THE CONTRACTOR AT ALL UTILITY CONNECTION LOCATIONS AND AS NEEDED TO VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK.
6. BEFORE CONSTRUCTING LINES TO CONNECT TO EXISTING UTILITIES, VERIFY EXISTING UTILITY INVERTS AND NOTIFY THE ENGINEER IF ANY VARIATION FROM THE PLAN IS REQUIRED.
7. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING UTILITIES IN SERVICE FOR THE DURATION OF THE WORK.
8. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS AND ASSOCIATED CONDITIONS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING UTILITY TRENCHES AND EXCAVATIONS AND FOR THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF THE WORK.
10. 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.
11. ALL PROPOSED UTILITIES SHALL TERMINATE 5 FEET FROM ANY PROPOSED BUILDING FACE. CONTRACTOR TO COORDINATE WITH BUILDING PLANS FOR ANY CONNECTIONS.
12. ALL GRAVITY SANITARY SEWER SHALL BE SDR 21 PVC UNLESS OTHERWISE SPECIFIED.
13. IF ROCK REMOVAL BY BLASTING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVALS AND PERMITS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
14. REDUCE PRESSURE ZONE VALVE TO BE PROVIDED ON FIRE SUPPLY AND DOUBLE CHECK VALVE ON DOMESTIC SUPPLY AT EACH LOCATION WHERE WATER LINE ENTERS THE BUILDING. BACKFLOW ASSEMBLES SHALL BE LISTED IN UNIVERSITY OF SOUTHERN CALIFORNIA LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLES.
15. ALL BACKFLOW PREVENTION AND METER SHALL BE LOCATED INSIDE THE BUILDING.
16. 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 SEE CITY OF POUGHKEEPSIE NOTES.
17. UNDERGROUND ELECTRIC SHOWN ON THIS PLAN FOR REFERENCE ONLY. REFER TO MEP AND LIGHTING PLANS.

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, REFER TO LANDSCAPE DRAWINGS.
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, REFER TO LANDSCAPE DRAWINGS.
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.

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.

ROCK REMOVAL NOTES:

ROCK REMOVAL IS NOT ANTICIPATED. IF ROCK REMOVAL SHALL BE NECESSARY FOR THE INSTALLATION OF THE PROPOSED WORK, SHALL BE BY MECHANICAL MEANS ONLY. 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 MOST RECENT REFERENCED SECTION OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS. 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.

CITY OF POUGHKEEPSIE PLANNING BOARD - 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. 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.
3. MAJOR EARTHWORK SHALL BE COMPLETED PRIOR TO INSTALLATION OF ANY SANITARY SEWER MAINS AND APPURTENANCES. ALL CONNECTING SEWER LINES SHALL BE FLUSHED BEFORE TESTED.
4. CITY SANITARY SEWER MAINS ARE TO BE POLYVINYL CHLORIDE (PVC) SDR-21. PROJECT SANITARY LATERALS SHALL BE PVC, SDR-35, UNLESS OTHERWISE NOTED.
5. FINAL SEWER COLLECTION SYSTEM LAYOUT IS SUBJECT TO REVIEW, REVISION AND APPROVAL BY THE MUNICIPAL SEWER DEPARTMENT.
6. 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-21 PRESSURE RATED PIPE, 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 MUNICIPAL SEWER DEPARTMENT.
7. 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 AS A CONDITION OF APPROVAL FOR OPERATION.
8. ALL SANITARY SEWER CONSTRUCTION SHALL BE SUBJECT TO INSPECTION BY THE MUNICIPAL SEWER SUPERINTENDENT PRIOR TO BACKFILLING. PIPE BEDDING AND PIPE ZONE MATERIAL SHALL BE IN ACCORDANCE WITH THIS SHEET, DETAIL 1.
9. ALL NEW SANITARY SEWER MANHOLE COVERS SHALL BE MINIMUM NOMINAL 24" DIAMETER CAST IRON AND SHALL READ "SANITARY SEWER". FRAMES SHALL BE 8-INCHES IN HEIGHT.
10. INDICATOR TAPE SHALL BE PLACED 12" BELOW FINISHED GRADE DIRECTLY ABOVE ALL SANITARY LINES.
11. 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 MUNICIPAL SUPERINTENDENT OF SEWERS WHERE LOCATIONS ARE NOT SPECIFICALLY SHOWN.
12. EXTERNAL DROP MANHOLES SHALL BE USED FOR SEWERS ENTERING AT AN ELEVATION OF 24 INCHES OR HIGHER AT THE INLET OF A SEWER MANHOLE.

TESTING GRAVITY SEWER SYSTEM:

1. CONTRACTOR SHALL INSPECT AND TEST THE INSTALLATIONS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION WHEN WORK IS READY FOR TESTING. AFTER ALL TESTS HAVE BEEN PERFORMED, EVIDENCE OF COMPLIANCE SHALL BE FORWARDED TO OWNER/ENGINEER AND THE AUTHORITY HAVING JURISDICTION PRIOR TO ACCEPTANCE.
2. THE CONTRACTOR SHALL TEST AND INSPECT FOR ALIGNMENT OF ALL SANITARY SEWERS.
3. EACH MANHOLE-TO-MANHOLE SECTION SHALL BE REJECTED OR ACCEPTED BASED ONLY ON RESULTS OF ITS OWN INDEPENDENT SECTION TEST AND NOT ON RESULTS OF ANY ONE TEST RUN SIMULTANEOUSLY OVER MORE THAN ONE CONSECUTIVE MANHOLE-TO-MANHOLE SECTION. THE ONLY EXCEPTION ALLOWED: ACCEPTING SEVERAL CONSECUTIVE MANHOLE-TO-MANHOLE SECTIONS BASED ON ONE COMBINED INFILTRATION TEST INDICATING ZERO INFILTRATION.
4. LOW PRESSURE AIR TESTING SHALL BE PERFORMED UNDER DIRECTION OF ENGINEER ACCORDING TO ASTM F1417. LOW PRESSURE AIR TEST IS A COMPARISON OF THE MEASURED TIME NECESSARY FOR ONE (1) PSIG PRESSURE DROP TO OCCUR, IF AT ALL, WITH MINIMUM ALLOWABLE TIME FOR THAT PRESSURE DROP TO OCCUR DETERMINED BY METHODS INDICATED IN ASTM F1417. IF THE ONE (1) PSIG PRESSURE DROP OCCURS FASTER THAN ALLOWABLE TIME, SECTION IS UNACCEPTABLE.
5. AN AIR TEST SHALL NOT BE RUN UNTIL SECTION OF LINE TO BE TESTED HAS BEEN CLEANED OF ALL FOREIGN MATERIAL BY FLUSHING AND HAS BEEN VISUALLY INSPECTED AND APPROVED BY THE ENGINEER. CERTAIN PIPE MATERIALS PRODUCE MORE CONSISTENT RESULTS WHEN INTERIOR OF PIPE IS WETTED PRIOR TO TESTING.
6. WHERE FLEXIBLE PIPE IS USED, CONTRACTOR SHALL TEST ALL MAINLINE PIPE FOR MAXIMUM ALLOWABLE DEFLECTION OF 5% OF OUTSIDE DIAMETER. DEFLECTION TESTS SHALL BE PERFORMED USING A CIRCULAR STEEL BALL ON SLED 1/16-INCH IN DIAMETER SMALLER THAN ALLOWABLE INSIDE DIAMETER OF FLEXIBLE PIPE WHEN DEFLECTED A MAXIMUM OF 5% OF OUTSIDE DIAMETER. DEFLECTION TESTING OF ANY PIPE SHALL BE DONE NO SOONER THAN 30 DAYS AFTER DATE OF INSTALLATION OF PIPE SECTION UNLESS WRITTEN EXCEPTION.
7. SEWERS SHALL BE LAID WITH STRAIGHT ALIGNMENT BETWEEN MANHOLES. STRAIGHT ALIGNMENT SHALL BE CHECKED EITHER USING A LASER BEAM OR LAMPING. TESTING SHALL COMPLY WITH REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
8. MANHOLES, WHICH CANNOT BE PROPERLY AIR TESTED, SHOULD BE VISUALLY INSPECTED AND LEAKAGE-TESTED USING INTERNAL OR EXTERNAL HYDROSTATIC PRESSURE. LEAKAGE TESTING SHALL COMPLY WITH REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
9. IN AREAS WHERE CONVENTIONAL TESTING IS IMPRACTICAL (I.E. AREAS DESIGNATED BY ENGINEER WHERE EXISTING SERVICES ARE TIED INTO NEW LINE IMMEDIATELY AND ANY BLOCKAGE COULD RESULT IN HEALTH PROBLEMS) NO LINES SHALL BE BACKFILLED UNTIL EACH PIPE SECTION AND CONNECTION IS INSPECTED AND APPROVED.
10. WHERE SEWERS ARE CONSTRUCTED OF PRESSURE-RATED PIPE AND INSTALLED WITH LESS THAN 18 INCHES VERTICAL SEPARATION FROM EXISTING OR PROPOSED WATER MAINS, SEWERS SHALL BE HYDROSTATICALLY TESTED AT 150 PSI TO ASSURE WATER TIGHTNESS. HYDROSTATIC ACCEPTANCE TESTS SHALL BE CONDUCTED AS SPECIFIED FOR TESTING WATER MAINS, EXCEPT THAT TESTING MAY BE PERFORMED WITH THE PIPE SECTION PARTIALLY BACK-FILLED.
11. IF THE ALLOWABLE RATE OF AIR LEAKAGE IS EXCEEDED, THE CONTRACTOR SHALL LOCATE POINTS OF EXCESSIVE LEAKAGE AND SHALL PROMPTLY CORRECT, REPAIR, AND BRING SYSTEM UP TO THE STANDARD. COSTS OF ALL SUCH REPAIRS AND CORRECTIVE MEASURES, INCLUDING COSTS OF REPEATED TESTS, SHALL BE BORN BY CONTRACTOR, THE SEWER LINE SECTION (INCLUDING MANHOLES AND BUILDING SERVICES) UNDER TEST SHALL NOT BE ACCEPTED UNTIL THESE TEST CRITERIA ARE MET.
12. SANITARY MANHOLES SHALL BE VACUUM TESTED IN ACCORDANCE WITH ASTM C1244. A VACUUM OF 10 INCHES OF Hg SHOULD BE DRAWN ON THE MANHOLE AFTER ALL HOLES ARE PLUGGED, AND INLETS/OUTLETS ARE TEMPORARILY PLUGGED AND SECURED. THE TIME IS MEASURED FOR THE VACUUM TO DROP TO 9 INCHES Hg. THE MANHOLE IS ACCEPTED IF THE MEASURED TIME MEETS OR EXCEEDS THE VALVES PRESENTED IN TABLE 1 OF ASTM C1244. IF THE MANHOLE FAILS THE INITIAL TEST, IT SHALL BE REPAIRED BY AN APPROVED METHOD UNTIL A SATISFACTORY TEST IS OBTAINED. MANHOLES, WHICH CANNOT BE PROPERLY AIR TESTED, SHOULD BE VISUALLY INSPECTED AND LEAKAGE-TESTED USING INTERNAL OR EXTERNAL HYDROSTATIC PRESSURE. LEAKAGE TESTING SHALL COMPLY WITH REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.

WATER MAIN DISINFECTION NOTES:

1. APPROVED AND TESTED WATER MAIN SHALL BE DISINFECTED PER A.W.W.A. SECTION C651, LATEST EDITION. TABLET OR POWDERED METHOD IS NOT ALLOWED.
2. THE CONTRACTOR SHALL NOTIFY THE MUNICIPALITY AND THE PROJECT ENGINEER 48 HOURS PRIOR TO DISINFECTING THE SERVICE LINES.
3. DISINFECTED WATER MUST REMAIN IN THE WATER MAINS FOR A MINIMUM OF 24 HOURS BEFORE BEING THOROUGHLY FLUSHED OUT.
4. WATER SERVICE LINES SHALL BE DISINFECTED AS PER AWWA SECTION C651 WHERE:
   A. CHLORINE CONCENTRATION IN WATER LINES SHALL BE NO LESS THAN 50 MG/L AT START OF 24-HOUR TEST.
   B. CHLORINE RESIDUAL SHALL BE NO LESS THAN 10 MG/L AT END OF TEST.
5. PRIOR TO RECEIVING CERTIFICATE OF OCCUPANCY, MICROBIOLOGICAL SAMPLES SHALL BE COLLECTED FROM BOTH ENDS AND THE MIDDLE OF EACH NEW LINE. ALL LINES SHALL NOT BE USED UNTIL MICROBIOLOGICAL SAMPLES ARE ACCEPTED BY THE CITY OF POUGHKEEPSIE. RESULTS OF ALL MICROBIOLOGICAL TESTING SHALL BE SUBMITTED TO THE CITY OF POUGHKEEPSIE ALONG WITH ENGINEER'S CERTIFICATE OF COMPLETION.

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 MAINS INSTALLED. LEAKAGE TEST SHALL BE CONDUCTED CONCURRENTLY WITH PRESSURE TEST. TEST SECTION SHALL BE LIMITED TO 1,500 FT (MAX.). TESTS SHOULD BE CONDUCTED TO FIRST VALVE IN BUILDING.
2. AFTER ALL TESTS AND INSPECTIONS HAVE BEEN PERFORMED EVIDENCE OF COMPLIANCE SHALL BE FORWARDED TO OWNER/ENGINEER AND THE CITY OF POUGHKEEPSIE 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 LATER 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

8. 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.

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

CITY OF POUGHKEEPSIE 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 CITY OF POUGHKEEPSIE WATER DEPARTMENT. JOINING SHALL EMPLOY MECHANICAL JOINT RESTRAINT CONNECTIONS SUCH AS CLOW F-1058, MEGALUG, STAR PIPE SERIES 600 "MEGALUG" CONNECTIONS, FIELD LOK 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 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 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.
8. ALL WATER MAIN FITTINGS NOT RECEIVING 24-HOUR CHLORINE DISINFECTION TIME MUST BE SWAB-DISINFECTED 30 MINUTES PRIOR TO INSTALLATION.
9. THE SAMPLING POINT(S) MUST BE DECONTAMINATED BY FLAMING.
10. FIRE HYDRANTS ARE NOT ACCEPTABLE SAMPLING POINTS.
11. FIRE HYDRANTS WEEP HOLES (DRAINS) SHALL BE PLUGGED WHEN GROUND WATER IS ENCOUNTERED WITHIN SEVEN FEET OF THE FINISHED GRADE. WHEN DRAINS ARE PLUGGED, THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. SUCH HYDRANTS SHALL BE IDENTIFIED BY MARKINGS APPROVED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT.
12. PROPOSED WATER METERS LOCATED WITHIN THE METER PIT OR BUILDING SHALL BE A COMPATIBLE REMOTE STYLE TYPE (SENSUS OR APPROVED EQUAL), AND SHALL BE APPROVED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT PRIOR TO INSTALLATION. WATER METERS SHALL BE EQUIPPED WITH (RADIO TYPE) TRANSCEIVER PROVIDED BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT.
13. THE WATER LINE SHALL BE INSTALLED AT A CONTINUOUS GRADE WITH NO ABRUPT HIGH POINTS OR LOW POINTS.
14. FINAL WATER DISTRIBUTION SYSTEM IS SUBJECT TO REVIEW, REVISION AND APPROVAL BY THE CITY OF POUGHKEEPSIE WATER DEPARTMENT.
15. ALL WATER MAINS AND RELATED APPURTENANCES SHALL BE CONSTRUCTED TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF POUGHKEEPSIE.
16. THE WATER MAIN SHALL NOT BE PLACED INTO SERVICE UNTIL SO AUTHORIZED BY THE CITY OF POUGHKEEPSIE.
17. ALL WATER SERVICE CONSTRUCTION SHALL BE SUBJECT TO INSPECTION BY THE CITY WATER DEPARTMENT PRIOR TO BACKFILLING.
18. 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.
19. ALL WATER SERVICE PIPING INSTALLATION, BACKFILL AND TESTING SHALL BE REVIEWED, AND APPROVED BY THE CITY OF POUGHKEEPSIE WATER MAINTENANCE SUPERVISOR OR HIS DESIGNEE.
20. PIPE BEND FITTINGS SHOWN ON THE DRAWINGS ARE INDICATIVE OF PROBABLE DIRECTIONAL CHANGES IN THE PROPOSED WATER MAIN ALIGNMENT. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL FITTINGS, EITHER SHOWN OR FIELD REQUIRED, AS PART OF THE CONTRACTOR'S CONTRACT AT NO ADDITIONAL COST TO THE OWNER.
21. THE CONTRACTOR SHALL PROVIDE AND INSTALL BRASS WEDGES ACROSS ALL PIPE JOINTS TO ENSURE ELECTRICAL CONDUCTIVITY. THE LOCATION AND THE NUMBER OF WEDGES TO BE PROVIDED SHALL BE ACCORDING TO THE PIPE MANUFACTURER'S RECOMMENDATIONS AND THE SPECIFICATIONS.
22. SHEETING AND EXCAVATION BRACING FOR THE WATERMAIN INSTALLATION SHALL BE PROVIDED IN ACCORDANCE WITH OSHA REQUIREMENTS TO SUIT EXISTING SOIL CONDITIONS. SHEETING, IF REQUIRED, SHALL BE TIGHT WOOD SHEETING AND SHALL BE LEFT IN PLACE, AND AFTER BACKFILLING SHALL BE CUT AT GROUND LEVEL OR AS ORDERED BY THE OWNER'S REPRESENTATIVE.

DUTCHESS COUNTY STANDARD NOTES FOR SEWER/WATER SYSTEMS:

THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:

- "NEW YORK STATE DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTEWATER TREATMENT SYSTEMS", NYSDEC
- "RECOMMENDED STANDARDS FOR SEWAGE TREATMENT WORKS, (TEN STATES)."
- "RECOMMENDED STANDARDS FOR WATER WORKS, (TEN STATES)."
- "NEW YORK STATE DEPARTMENT OF HEATH AND DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION POLICIES, PROCEDURES AND STANDARDS."
- "DUTCHESS COUNTY AND NEW YORK STATE SANITARY CODES."
- "DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION CERTIFICATE OF APPROVAL LETTER."

THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES FOR ARRANGEMENT OF SEWAGE DISPOSAL AND WATER SUPPLY FACILITIES.

UPON COMPLETION OF THE FACILITIES, THE FINISHED WORKS SHALL BE INSPECTED, TESTED, AND CERTIFIED COMPLETE TO THE DC EHSD BY THE NEW YORK STATE LICENSED PROFESSIONAL ENGINEER SUPERVISING CONSTRUCTION. NO PART OF THE FACILITIES SHALL BE PLACED INTO SERVICE UNTIL ACCEPTED BY THE DC EHSD.

APPROVAL OF ANY PLAN(S) OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF APPROVAL. FOLLOWING THE EXPIRATION OF SAID APPROVAL, THE PLAN(S) SHALL BE RE-SUBMITTED TO THE COMMISSIONER OF HEALTH FOR CONSIDERATION FOR RE-APPROVAL. RE-SUBMISSION OR REVISED SUBMISSION OF PLANS AND/OR ASSOCIATED DOCUMENTS SHALL BE SUBJECT TO COMPLIANCE WITH THE TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES IN EFFECT AT THE TIME OF THE RE-SUBMISSION.

NO CELLAR, FOOTING, FLOOR, GARAGE, COOLER OR ROOF DRAINS SHALL BE DISCHARGED INTO THE SEWAGE COLLECTION SYSTEM.

ALL BUILDINGS SHALL BE CONSTRUCTED AT AN ELEVATION HIGH ENOUGH TO ENSURE GRAVITY FLOW TO THE SEWAGE COLLECTION SYSTEM.

ALL REQUIRED EROSION & SEDIMENT CONTROL AND STORMWATER POLLUTION PREVENTION WATER QUALITY & QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.

THE DC EHSD SHALL BE NOTIFIED SIXTY DAYS PRIOR TO ANY CHANGE IN USE; USE CHANGES MAY REQUIRE RE-APPROVAL BY THE DC EHSD.

NO BUILDINGS ARE TO BE OCCUPIED AND THE NEW WATER SYSTEM SHALL NOT BE PLACED INTO SERVICE, UNTIL A "COMPLETED WORKS APPROVAL" IS USED UNDER SECTION 5-1.22(D) OF PART 5 OF THE NEW YORK STATE SANITARY CODE (10NYCRR5)

NO BUILDINGS ARE TO BE OCCUPIED AND THE NEW WASTEWATER COLLECTION SYSTEM SHALL NOT BE PLACED INTO SERVICE UNTIL, A "CERTIFICATE OF CONSTRUCTION COMPLIANCE" IS ISSUED UNDER SECTION 19.7 OF ARTICLE 19 OF THE DUTCHESS COUNTY SANITARY CODE

ALL SERVICE LINES ARE THE RESPONSIBILITY OF THE OWNER UP TO THE PROPERTY LINE. THE WATER AND SEWER COMPANIES SHALL BE RESPONSIBLE FOR ALL VALVES AND PIPES WHICH ARE NOT ON THE OWNER'S PROPERTY.

THE UNDERSIGNED OWNERS OF THE PROPERTY HEREON STATE THAT THEY ARE FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENT TO ALL SAID TERMS AND CONDITIONS STATES HEREON.

TREE CLEARING NOTES:

1. TREE CLEARING SHALL BE LIMITED TO THE PERIOD BETWEEN OCTOBER 30TH AND MARCH 31ST TO ENSURE NO POTENTIAL TAKE OF BAT SPECIES.

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APPLICANT NAME & ADDRESS:

ARGO DEVELOPMENT
95 CHESTNUT RIDGE ROAD
MONTVALE, NJ 07645

PROJECT NAME & LOCATION:

SOUTH AVE MULTI-FAMILY DEVELOPMENT
SOUTH AVENUE
CITY OF POUGHKEEPSIE, NY 12601

PROJECT NUMBER: 2222201

DRAWN BY:

REVIEWED BY: CPL

ISSUED FOR: PLANNING BOARD REVIEW

DATE: 11/28/2022

DRAWING NAME: **NOTES**

DRAWING NUMBER: **G002**

11/29/2022 1:24:09 PM
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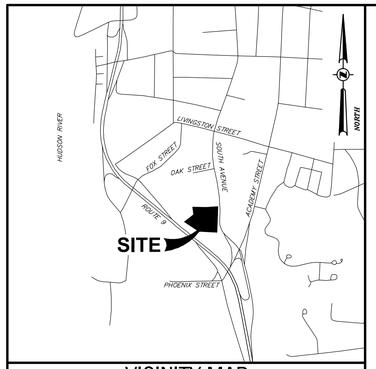
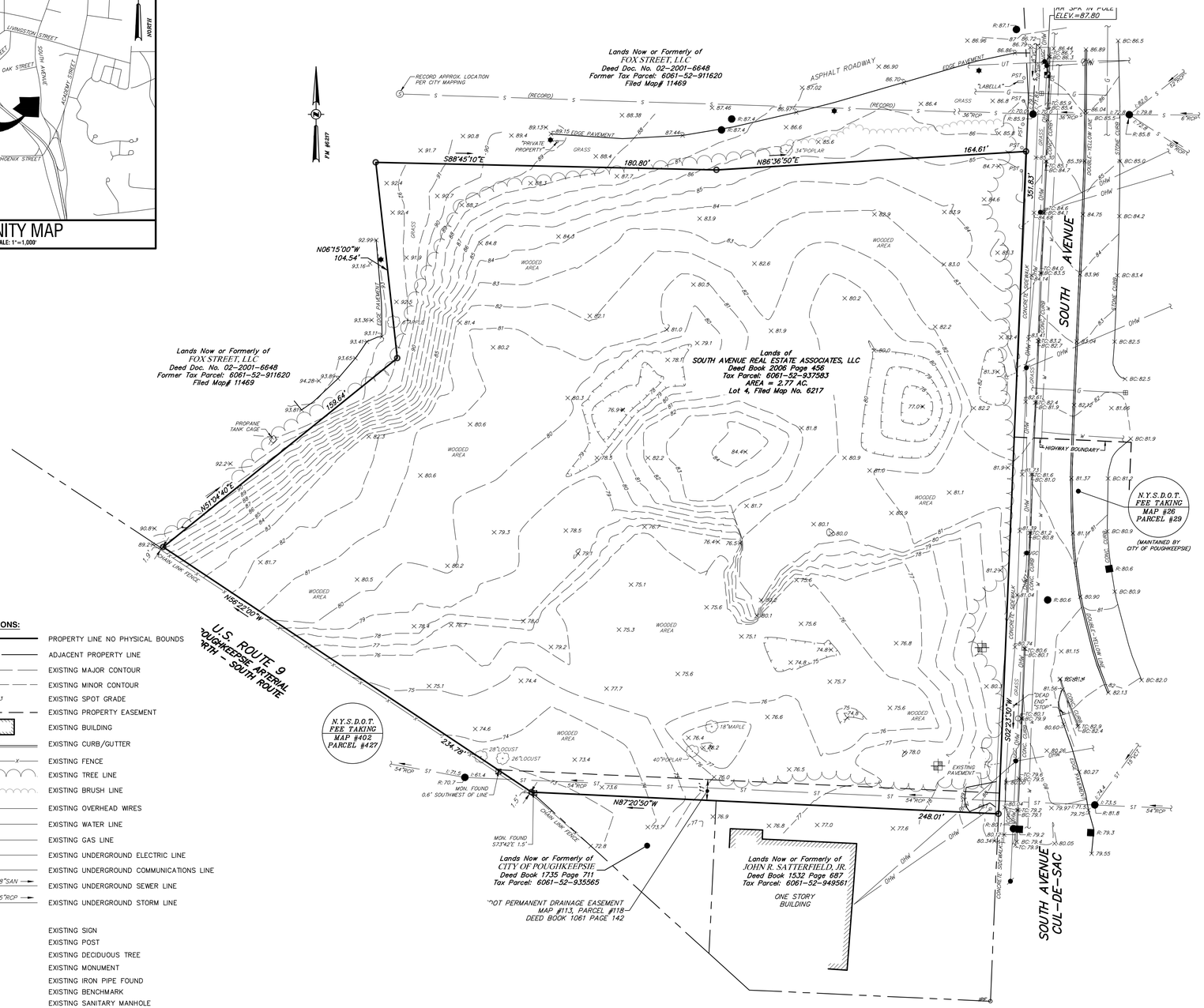


VICINITY MAP
SCALE: 1"=1,000'



LEGEND:

EXISTING CONDITIONS:

- PROPERTY LINE NO PHYSICAL BOUNDS
- ADJACENT PROPERTY LINE
- 110 — EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- ×200.3 — EXISTING SPOT GRADE
- EXISTING PROPERTY EASEMENT
- EXISTING BUILDING
- CONC. CURB — EXISTING CURB/GUTTER
- X — EXISTING FENCE
- EXISTING TREE LINE
- EXISTING BRUSH LINE
- OHW — EXISTING OVERHEAD WIRES
- W — EXISTING WATER LINE
- G — EXISTING GAS LINE
- UE — EXISTING UNDERGROUND ELECTRIC LINE
- UT — EXISTING UNDERGROUND COMMUNICATIONS LINE
- S 8"SAN — EXISTING UNDERGROUND SEWER LINE
- ST 15"RCP — EXISTING UNDERGROUND STORM LINE

SYMBOLS:

- EXISTING SIGN
- PST — EXISTING POST
- EXISTING DECIDUOUS TREE
- EXISTING MONUMENT
- IPF — EXISTING IRON PIPE FOUND
- EXISTING BENCHMARK
- EXISTING SANITARY MANHOLE
- EXISTING DRAINAGE MANHOLE
- EXISTING CATCH BASIN
- EXISTING ELECTRIC MANHOLE
- EXISTING ELECTRIC BOX
- EXISTING GUY WIRE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- UGC — EXISTING CONDUIT TO/FROM UNDERGROUND
- EXISTING GAS VALVE
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING TEST PIT

ABBREVIATIONS:

- ×BC:200.3 — EXISTING SPOT GRADE BOTTOM CURB
- ×TC:200.3 — EXISTING SPOT GRADE TOP CURB
- ×R:216.3 — EXISTING RIM ELEVATION
- ×I:200.3 — EXISTING INVERT ELEVATION

1 / SV1 EXISTING CONDITIONS SURVEY
SCALE: 1" = 30'

N

NOTES:

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

SURVEYED WITHOUT THE BENEFIT OF A TITLE SEARCH.

SUBJECT TO COVENANTS, EASEMENTS, RESTRICTIONS, CONDITIONS AND AGREEMENTS OF RECORD.

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SUBSURFACE STRUCTURES NOT VISIBLE OR READILY APPARENT ARE NOT SHOWN AND THEIR LOCATION AND EXTENT ARE NOT CERTIFIED.

TOPOGRAPHY SHOWN HEREON WAS COMPILED FROM A FIELD SURVEY COMPLETED SEPTEMBER 26, 2022 BY LABELLA ASSOCIATES PC, DATUM NAVD-88, 1 FOOT CONTOUR INTERVAL.

NORTH ORIENTATION IS PER FILED MAP NO. 6217, SEE FILED MAP REFERENCE NO. 1 BELOW.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

THE CONTRACTOR SHALL COMPLY WITH NEW YORK STATE INDUSTRIAL CODE RULE 753 - 48 HOURS PRIOR TO DIGGING CALL DIGSAFELY NEW YORK 1-800-962-7962 TO HAVE PUBLIC UTILITY LOCATIONS PAINTED.

FILED MAP REFERENCE:

1. REFERENCE IS HEREBY MADE TO A CERTAIN MAP ENTITLED "SUBDIVISION PLAT BENDERSON DEVELOPMENT CO. INC., SITUATE IN THE CITY OF POUGHKEEPSIE DUTCHESS CO., N.Y." AND FILED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON OCTOBER 6, 1981 AS FILED MAP NO. 6217.
2. REFERENCE IS HEREBY MADE TO A CERTAIN MAP ENTITLED "FOX STREET, LLC. SUBDIVISION PLAT OF LANDS OF FOX STREET, LLC., CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK" AND FILED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON NOVEMBER 1, 2002 AS FILED MAP NO. 11469.

DEED REFERENCE:

1. CITY OF POUGHKEEPSIE TO SOUTH AVENUE REAL ESTATE ASSOCIATES, LLC, DATED FEBRUARY 18, 1998 AND RECORDED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON MARCH 10, 1998 AS LIBER 2006 OF DEEDS AT PAGE 456.

TAX PARCEL DESIGNATION:

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK
6061-52-937583

AREA:

2.77 AC.

FLOOD ZONE NOTE:

PARCEL IS SHOWN TO LIE WITHIN "OTHER AREAS, ZONE X" AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM) FOR THE CITY OF POUGHKEEPSIE, IDENTIFIED AS MAP NUMBER 36027C0358E, BEARING AN EFFECTIVE DATE OF MAY 2, 2012.

David H. Dippel, L.S. NYS #050677

SURVEYOR'S CERTIFICATE:

I HEREBY CERTIFY THAT THIS SURVEY MAP IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED ON OCTOBER 4, 2022 AND THAT THIS SURVEY MAP WAS MADE BY ME OR UNDER MY DIRECTION, AND CONFORMS WITH THE MINIMUM STANDARD OF PRACTICE ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS.

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ARGO DEVELOPMENT
95 CHESTNUT RIDGE ROAD
MONTVALE, NJ 07645

SOUTH AVE MULTI-FAMILY DEVELOPMENT
SOUTH AVENUE
CITY OF POUGHKEEPSIE, NY 12601

30 0 30
SCALE IN FEET
1"=30'

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2222201
DRAWN BY: FJM
REVIEWED BY: DHD
ISSUED FOR:
DATE: 10/04/2022
DRAWING NAME:

MAP OF EXISTING CONDITIONS PREPARED FOR ARGO DEVELOPMENT

DRAWING NUMBER:

SV1

11/16/2022 9:04:27 AM
Z:\2022\Projects\ARGO\2222201 - South Ave Multi Family Dev\06_Drawings\Survey\dwg\05_SV1_2222201-EXCOND.dwg

4999

1 C-120 DEMOLITIONS PLAN

SCALE: 1" = 30'

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
- TREE PROTECTION FENCING
- N.I.C. — NOT IN CONTRACT
- EXISTING STRUCTURE TO BE REMOVED, N.I.C
- PAVEMENT SAWCUT LINE

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APPLICANT NAME & ADDRESS:

ARGO DEVELOPMENT
95 CHESTNUT RIDGE ROAD
MONTVALE, NJ 07645

PROJECT NAME & LOCATION:

SOUTH AVE MULTI-FAMILY DEVELOPMENT
SOUTH AVENUE
CITY OF POUGHKEEPSIE, NY 12601

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2222201

DRAWN BY:

REVIEWED BY: CPL

ISSUED FOR: PLANNING BOARD REVIEW

DATE: 11/28/2022

DRAWING NAME:

DEMOLITION PLAN

DRAWING NUMBER:

C120

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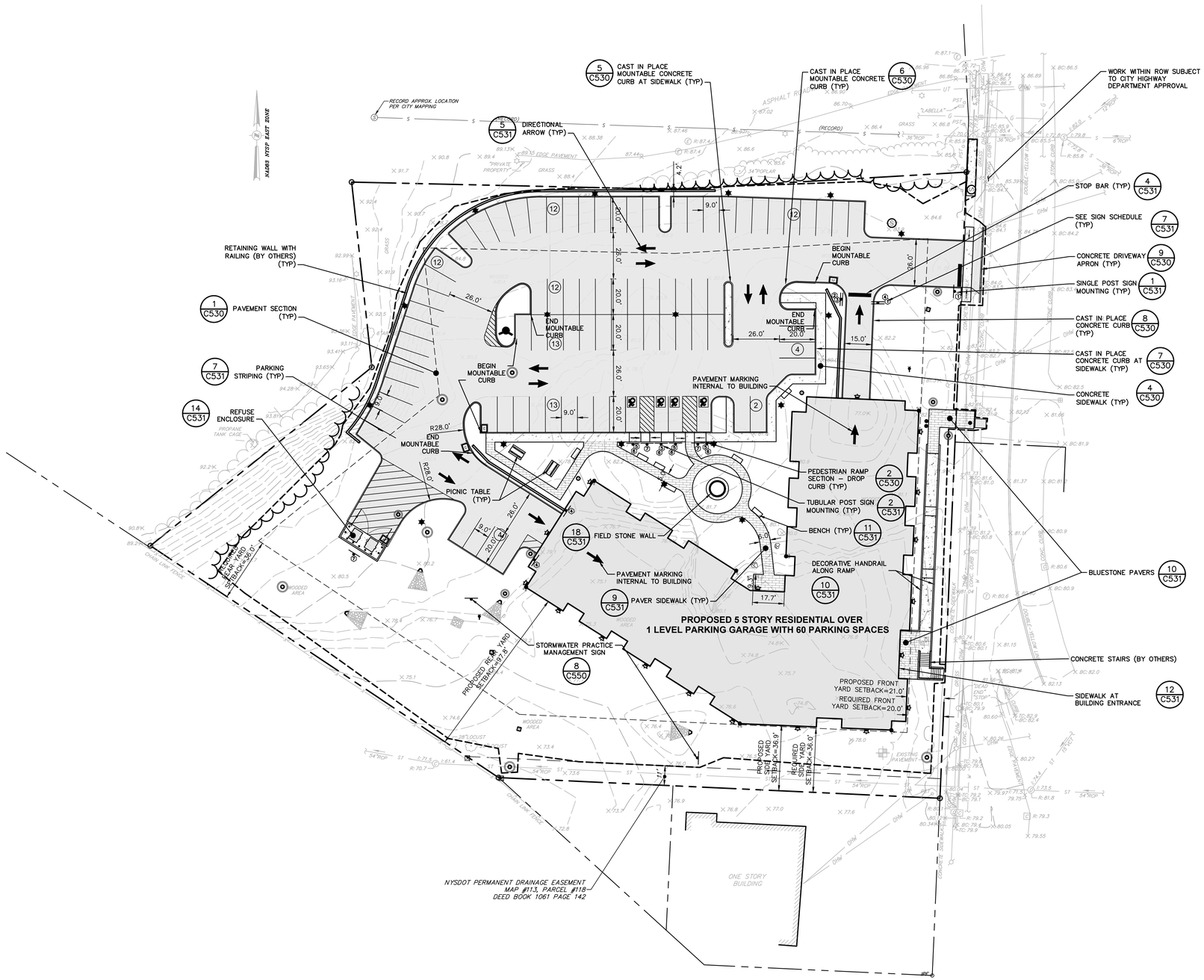

1 C-130 SITE PLAN
SCALE: 1" = 30'

SITE LEGEND:

- PROPERTY LINE
- SETBACK LINE
- BUILDING
- PAVEMENT
- ROAD CENTER LINE
- SIDEWALK
- CURB
- WORK LIMITS
- CONCRETE SURFACE
- ROAD LINING & STRIPING
- SIGN
- 2 POSTED SIGN
- BOLLARD
- MAILBOX
- PARKING COUNT

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ISSUED FOR: PLANNING BOARD REVIEW

DATE: 11/28/2022

DRAWING NAME:

SITE PLAN

DRAWING NUMBER:

C130

11/29/2022 1:24:52 PM
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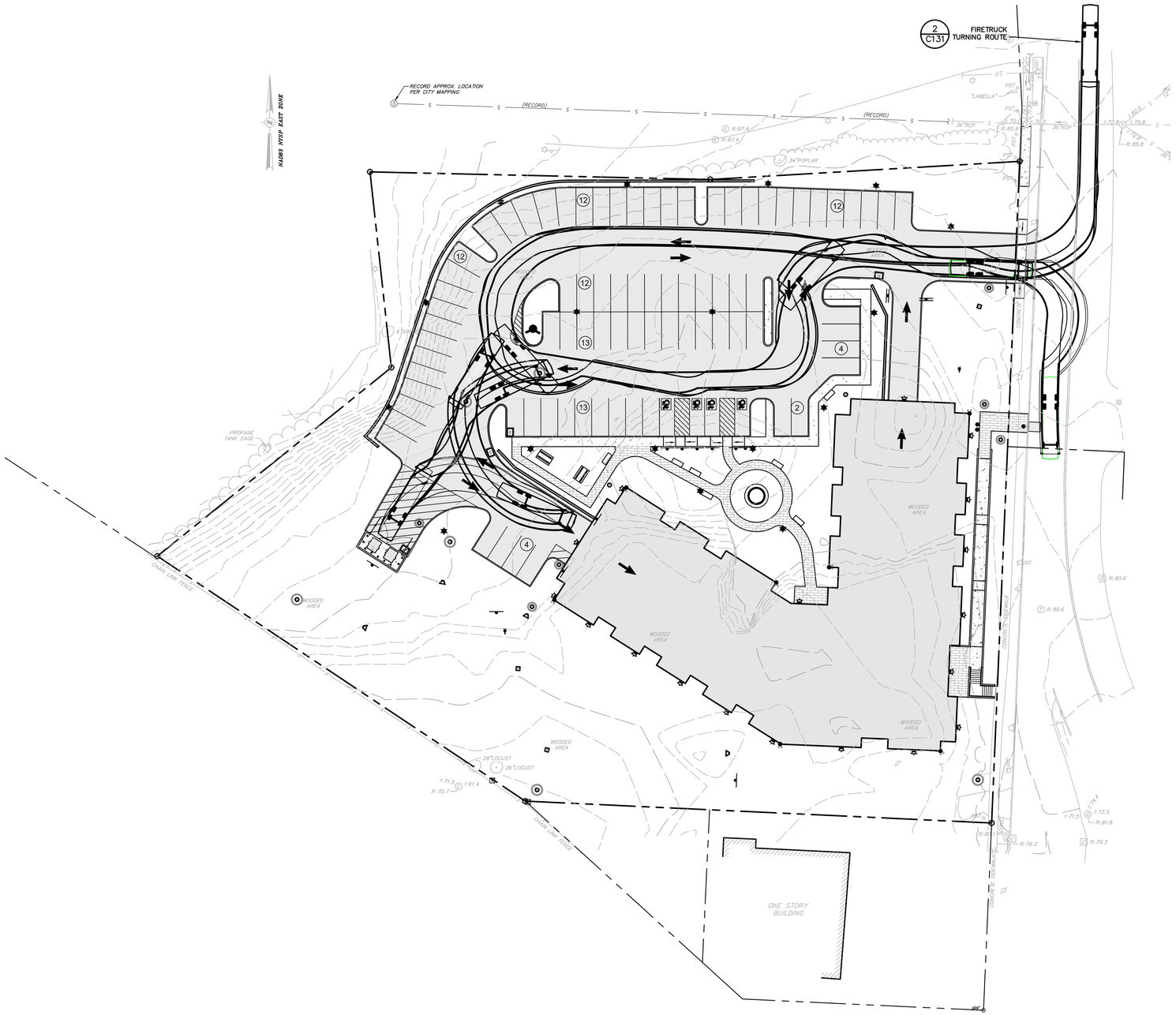

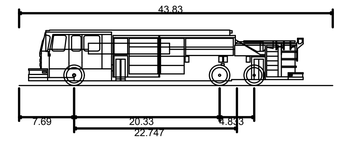

100 ft Tower Ladder 2-City Pok NY	
Overall Length	43.830ft
Overall Width	8.167ft
Overall Body Height	7.745ft
Min Body Ground Clearance	0.656ft
Track Width	8.167ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	35.440ft

2 / C-131 CITY OF POUGHKEEPSIE LADDER TRUCK

SCALE: NTS

1 / C-131 TRUCK MANEUVERING PLAN

SCALE: 1" = 30'

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PROJECT NUMBER: 2222201

DRAWN BY:

REVIEWED BY: CPL

ISSUED FOR: PLANNING BOARD REVIEW

DATE: 11/28/2022

DRAWING NAME:

TRUCK MANEUVERING PLAN

DRAWING NUMBER:

C131

11/29/2022 1:25:14 PM
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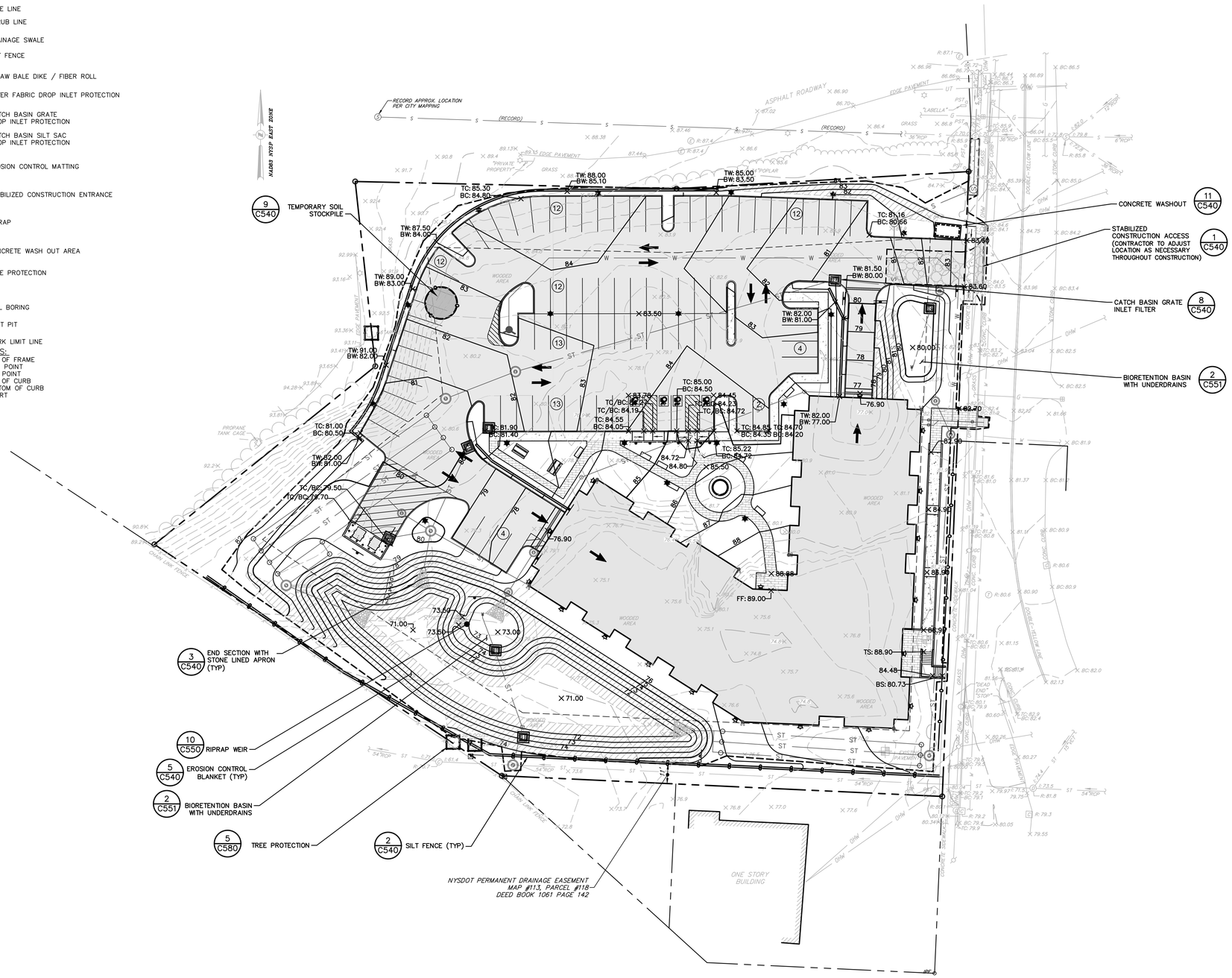
ESC AND GRADING LEGEND:

- PROPERTY LINE
- BUILDING
- XXX — 10 FT CONTOUR
- XXX — 2 FT CONTOUR
- XXX.X — SPOT GRADE
- TREE LINE
- SHRUB LINE
- DRAINAGE SWALE
- SILT FENCE
- STRAW BALE DIKE / FIBER ROLL
- FILTER FABRIC DROP INLET PROTECTION
- CATCH BASIN GRATE DROP INLET PROTECTION
- CATCH BASIN SILT SAC DROP INLET PROTECTION
- EROSION CONTROL MATTING
- STABILIZED CONSTRUCTION ENTRANCE
- RIPRAP
- CONCRETE WASH OUT AREA
- TREE PROTECTION
- SOIL BORING
- TEST PIT
- WORK LIMIT LINE

ABBREVIATIONS:

TF	TOP OF FRAME
HP	HIGH POINT
LP	LOW POINT
TC	TOP OF CURB
BC	BOTTOM OF CURB
INV	INVERT



1 C-140 GRADING AND EROSION & SEDIMENT CONTROL PLAN

SCALE: 1" = 30'

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MONTVALE, NJ 07645

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SOUTH AVENUE
CITY OF POUGHKEEPSIE, NY 12601

NO:	DATE:	DESCRIPTION:
Revisions		

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DRAWN BY:

REVIEWED BY: CPL

ISSUED FOR: PLANNING BOARD REVIEW

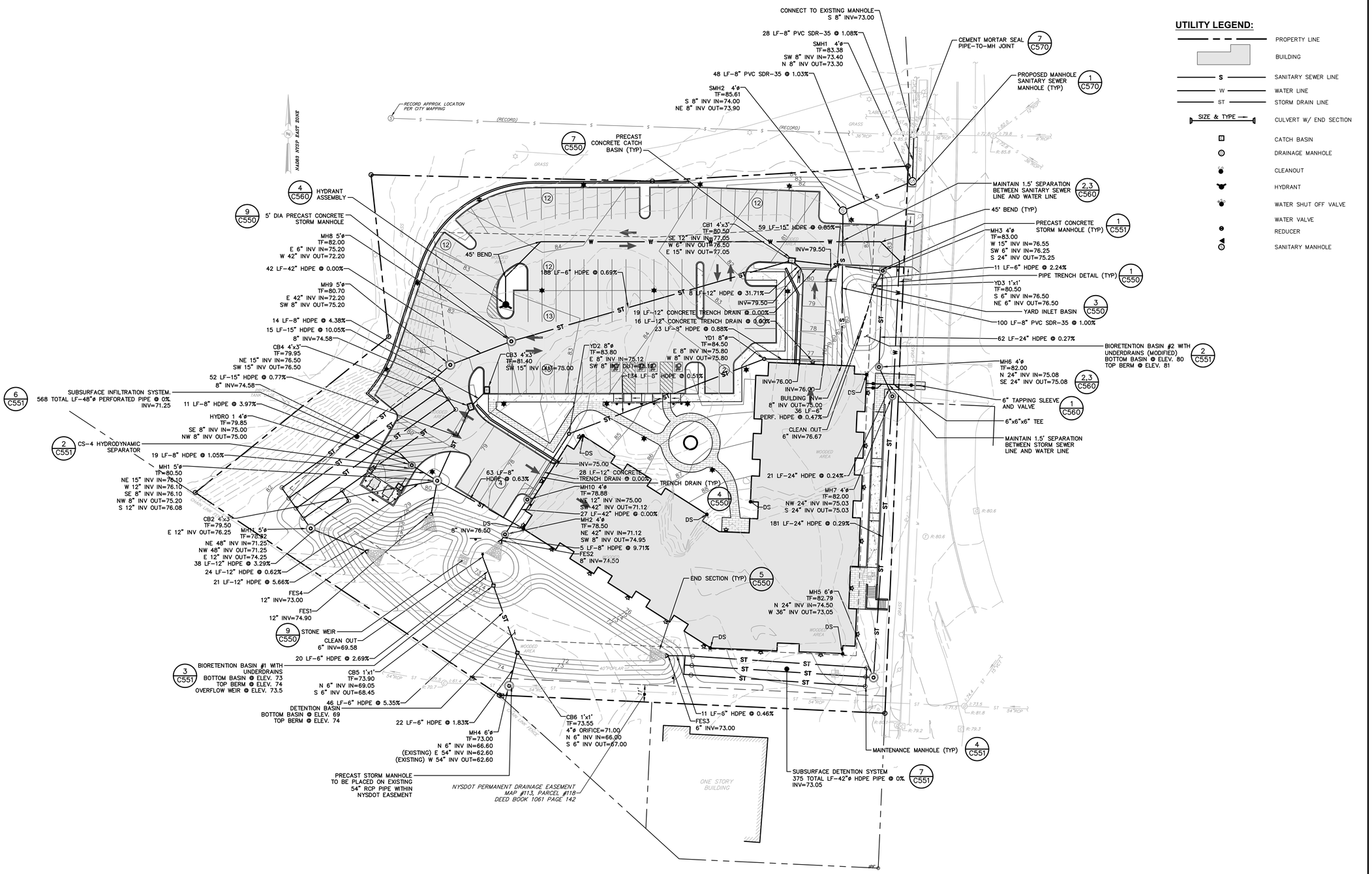
DATE: 11/28/2022

DRAWING NAME:

GRADING AND EROSION & SEDIMENT CONTROL PLAN

DRAWING NUMBER:

C140



1 C-160 UTILITY PLAN
SCALE: 1" = 30'

UTILITY LEGEND:

- PROPERTY LINE
- BUILDING
- S — SANITARY SEWER LINE
- W — WATER LINE
- ST — STORM DRAIN LINE
- SIZE & TYPE — CULVERT W/ END SECTION
- CATCH BASIN
- DRAINAGE MANHOLE
- CLEANOUT
- HYDRANT
- WATER SHUT OFF VALVE
- WATER VALVE
- REDUCER
- SANITARY MANHOLE

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Revisions		

PROJECT NUMBER: 2222201

DRAWN BY:

REVIEWED BY: CPL

ISSUED FOR: PLANNING BOARD REVIEW

DATE: 11/28/2022

DRAWING NAME:

UTILITY PLAN

DRAWING NUMBER:

C160

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LANDSCAPING & LIGHTING LEGEND:

- PROPOSED BUILDING
- PROPOSED TREE LINE
- LANDSCAPE BED EDGING
- PROPOSED DECIDUOUS TREES
- PROPOSED CONIFEROUS TREES
- PROPOSED SHRUBS
- 43 CO — PLANT QUANTITY / PLANT NAME

1 C-180 LANDSCAPE PLAN
SCALE: 1" = 30'

PLANT LIST

QTY	ABRV						
TREES							
1	AR	Acer rubrum 'Red Sunset'	October Glory Red Maple	2"–2.5" Cal.	B&B	As Shown	
6	BY	Betula papyrifera	Paper Birch	8'–10' Clump	B&B	As Shown	
3	CF	Cornus florida	Flowering Dogwood	6' – 7' Ht.	B&B	As Shown	
5	GT	Gleditsia triacanthos inermis	Thornless Honeylocust	2"–2.5" Cal.	B&B	As Shown	
1	QM	Quercus macrocarpa	Burr Oak	2"–2.5" Cal.	B&B	As Shown	Fall Digging Hazard
2	QR	Quercus rubra	Red Oak	2"–2.5" Cal.	B&B	As Shown	
1	TC	Tilia cordata 'Greenspire'	Greenspire Linden	2"–2.5" Cal.	B&B	As Shown	
3	PG	Picea pungens glauca	Colorado Blue Spruce	8' – 10'	B&B	As Shown	
SHRUBS							
10	Am	Amelanchier canadensis	Serviceberry	30"–36" Ht.	Cont	As Shown	
17	Bm	Buxus x 'Green Mountain'	'Green Mountain' Boxwood	#3 Cont.		3' O.C.	
3	Kt	Kalmia latifolia	Mountain Laurel	30"–36"	Cont.	As Shown	
15	Xg	Ilex glabra 'Compacta'	Compact Inkberry	#5 Cont.		As Shown	
5	Vm	Viburnum latana 'Mohican'	Mohican Viburnum	30"–36" Ht.	Cont.	As Shown	
PERNNIALS/GRASSES							
19	nmf	Adiantum pedatum	Northern Maidenhair Fern	#2 cont.		24" O.C.	mulched bed
12	pa	Pennisetum alopecuroides 'Hamlen'	Dwarf Fountain Grass	#2	Cont.	As Shown	
5	pv	Panicum virgatum 'Shenandoah'	Switch Grass	#2	Cont.	24" O.C.	
13	hc	Hemerocallis 'Happy Returns'	Happy Returns Dwarf Daylily	FLAT OF 24		18" O.C.	White & Purple Flowering Variety
11	hh	Hemerocallis 'Hyperion'	Hyperion Daylily	#2 Cont		24" O.C.	Canary yellow, mid / late summe
9	ha	Hemerocallis 'Autumn Accent'	Autumn Accent Daylily	#2 Cont		24" O.C.	crimson, late summer bloom

* ALL DISTURBED AREAS NOT SPECIFICALLY CALLED OUT FOR NEW IMPROVEMENTS SHALL BE TOPSOILED, SEEDED WITH LAWN SEED MIX, & MULCHED (TYP)

2 C-180 PLANT LIST
SCALE: NTS

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DRAWN BY:

REVIEWED BY: CPL

ISSUED FOR: PLANNING BOARD REVIEW

DATE: 11/28/2022

DRAWING NAME:

LANDSCAPE PLAN

DRAWING NUMBER:

C180

11/29/2022 2:10:51 PM
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Drawing Name: Z:\2022Projects\ARGO\2222201 – South Ave Multi Family Dev\06_Drawings\Civil\01_C180_2222201_LANDSC.dwg
Xref's Attached: XBORDER_2222201; XLAYOUT-2222201; XLANDSC-2222201; XENG_2222201; XBASE-ENG_2222201
Date Printed: Nov 29, 2022, 2:02pm

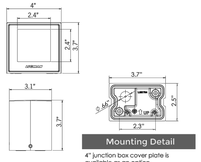
LEGEND:

- PROPOSED BUILDING
- WALL MOUNTED LIGHT
- POST–TOP MOUNTED LUMINAIRE / POLE
- $\times^{1.2}$ FOOT CANDLE SPOT VALUES AT GROUND
- PHOTOMETRIC CONTOUR, FOOT CANDLE VALUE
- EXISTING UTILITY POLE
- HSS LIGHT SHIELD, ALSO KNOWN AS A "HOUSE–SIDE"SHIELD
- LP LIGHT POLE
- W WALL MOUNTED

LIGHTING NOTES:

1. PROPOSED LIGHTING AS MANUFACTURED BY ARCHITECTURAL AREA LIGHTING /CURRENT, AND LIGMAN LIGHTING.
2. GRID NUMBERS SHOWN REPRESENT FOOT CANDLE VALUES AT GROUND PLANE.
3. THE LIGHTING FIXTURES, SURFACE LOCATIONS AND ASSOCIATED PHOTOMETRIC VALUES ARE IDENTIFIED BY LABELLA ASSOCIATES. DETAILED DESIGN OF THE LIGHTING SPECIFICATIONS, LIGHTING CONDUIT, WIRING, AND CONTROL CIRCUITRY SHALL BE BY OTHERS.
4. IF DISCREPANCIES EXIST BETWEEN THE LIGHTING SCHEDULE AND LIGHTING PLAN, THE PLAN SHALL DICTATE.
5. THE EXISTING STREET LIGHTS IN THE RIGHT–OF–WAYS HAVE NOT BEEN INCLUDED IN THIS PHOTOMETRIC ANALYSIS. THE LIGHT LEVELS SHOWN HEREON REFLECT THE PROPOSED LIGHTING ON SITE.
6. EXISTING AND PROPOSED UTILITIES NOT SHOWN ON THIS SHEET FOR CLARITY. REFER TO SHEET C160 FOR UTILITY PLANS.
7. ALL LIGHTING FIXTURES SHALL BE FULL CUT–OFF.
8. PER CITY OF POUGHKEEPSIE CODE, ALLOWABLE LIGHT LEVEL AT PROPERTY BOUNDARY IS ____ FOOTCANDLES.

5.5w LED 570 Lumens
IP65 • Suitable For Wet Locations
IK07 • Impact Resistant
Weight 1.7 lbs



Mounting Detail

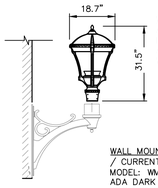
4" junction box cover plate is available as an option

NOTE:

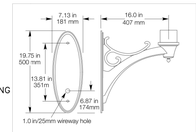
1. WALL MOUNTED FIXTURE SHALL BE INSTALLED WITH THE LIGHT IN THE DOWNWARD POSITION.

WALL MOUNTED LUMINAIRE:
MANUFACTURER: LIGMAN LIGHTING
MODEL: ULEE–30001 LEEDS 2 SMALL SURFACE DOWNLIGHT
ADA DARK SKY APPROVED, FULL CUT–OFF
WARM WHITE (2700K), AND AMBER

4 C190 **WALL MOUNTED LIGHTING FIXTURE DETAIL**
SCALE: NTS

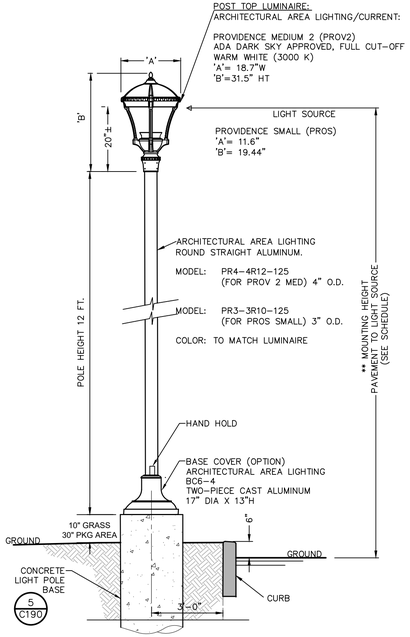


WALL MOUNTED LUMINAIRE:
ARCHITECTURAL AREA LIGHTING / CURRENT
PROVIDENCE MEDIUM 2 (PROV2)
ADA DARK SKY APPROVED, FULL CUT–OFF
WARM WHITE (3000 K)



WALL MOUNT ARM: ARCHITECTURAL AREA LIGHTING / CURRENT
MODEL: WM56 FOR PROVIDENCE SMALL (PROS)
ADA DARK SKY APPROVED, FULL CUT–OFF
WARM WHITE (3000 K)

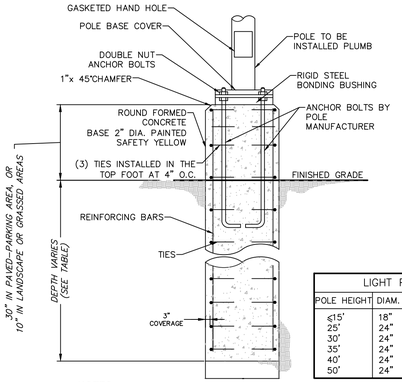
3 C190 **WALL MOUNTED LIGHTING FIXTURE DETAIL**
SCALE: NTS



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.

2 C190 **PEDESTRIAN SCALE LIGHTING FIXTURE DETAIL**
SCALE: N.T.S.



LIGHT POLE FOUNDATIONS				
POLE HEIGHT	DIAM.	DEPTH*	REINF BARS	TIES
≤15'	18"	5'–0"	(6)#6	#3@18"
25'	24"	5'–0"	(6)#6	#3@12"
30'	24"	5'–6"	(6)#6	#3@12"
35'	24"	6'–0"	(6)#6	#3@12"
40'	24"	6'–0"	(6)#6	#3@12"
50'	24"	7'–0"	(6)#8	#3@12"

* DEPTH OF FOUNDATION BELOW GRADE

NOTES:

1. CONDUITS AND GROUNDING SHALL BE AS REQUIRED BY THE ELECTRICAL DESIGN.
2. ALL CONCRETE SHALL BE **4,500 PSI @** 28 DAYS.
3. ALL REINFORCING STEEL SHALL BE GRADE 60.
4. DESIGNED FOR **90 MPH** WIND WITH FIXTURE AREA OF **13 SF.**
5. FOUNDATION DIAMETER AND REINFORCING CIRCLE SHALL BE COORDINATED WITH ANCHOR BOLT LIMITS.
6.
7. FOUNDATIONS SHALL BE AUGGERED INTO UNDISTURBED NATURAL SOIL OR COMPACTED FILL PER SITE GRADING PLANS.

5 C190 **CONCRETE BASE FOR LIGHT POLE**
SCALE: N.T.S.

1 C-190 **PHOTOMETRIC PLAN**
SCALE: 1" = 30'

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Stat Zone # 1_TO PROPERTY LINE	×	0.4 fc	3.6 fc	0.0 fc	N/A	N/A
Stat Zone # 2_PAVEMENT	+	0.8 fc	3.6 fc	0.2 fc	18.0:1	4.0:1
Stat Zone # 3_PED. WALKS	◇	1.2 fc	2.4 fc	0.4 fc	6.0:1	3.0:1
Calc Zone #2	+	0.3 fc	3.6 fc	0.0 fc	N/A	N/A

Schedule

PLAN DESIGNATION	QTY	MOUNT HEIGHT	POLE LENGTH	Manufacturer	Catalog	Description	Number Lamps	Lamp Output LUMINS	LLF	Input Power WATTS	Notes
LP-A	1	15 FT	12 FT	ARCHITECTURAL AREA LIGHTING	PROV2-36L-295-3K7-2	PROVIDENCE MEDIUM 2.0	1	3596	0.94	34.1	
LP-B	1	15 FT	12 FT	ARCHITECTURAL AREA LIGHTING	PROV2-36L-295-3K7-3 -HS	PROVIDENCE MEDIUM 2.0	1	1688	0.94	34.1	HSS
LP-C	7	15 FT	12 FT & -- FT *	ARCHITECTURAL AREA LIGHTING	PROV2-36L-295-3K7-4W- -HS	PROVIDENCE MEDIUM 2.0	1	2043	0.94	34.1	HSS
LP-D	3	15 FT	12 FT	ARCHITECTURAL AREA LIGHTING	PROV2-36L-295-3K7-4W	PROVIDENCE MEDIUM 2.0	1	3498	0.94	34.1	
W -E	1	12 FT	--	ARCHITECTURAL AREA LIGHTING	PROV2-36L-295-3K7-4W- -HS	PROVIDENCE MEDIUM 2.0	1	2043	0.94	34.1	WALL MOUNT / HSS
LP-F	3	15' & 16.2**	12 FT	ARCHITECTURAL AREA LIGHTING	PROV2-36L-295-3K7-5W	PROVIDENCE MEDIUM 2.0	1	3528	0.94	34.1	
LP-G	3	12 FT	10 FT	ARCHITECTURAL AREA LIGHTING	PROS-Y3-2030	PROVIDENCE SMALL WITH CLEAR FLAT GLASS LENS	1	1830	0.95	25.1	
W -H	2	12 FT	--	ARCHITECTURAL AREA LIGHTING	PROS-Y3-2030	PROVIDENCE SMALL WITH CLEAR FLAT GLASS LENS	1	1830	0.95	25.1	WALL MOUNT
W -K	6	12 FT	--	LIGMAN	ULEE-30001-T2-W27	Leeds 2 Surface wall luminaires	1	568	0.95	8	WALL MOUNT
W -L	9	12 FT	--	LIGMAN	ULEE-30011-EW-Amber	Leeds One side	2	197	0.95	10.4	WALL MOUNT/AMBER

* (LP-C) (TYP. OF 4) POLE HEIGHT FOR POLES SITUATED BEHIND RETAINING WALL:
** (LP-F) (TYP.OF 2) POLE HEIGHT FOR POLES SITUATED IN PAVED PARKING AREA: 12 FT. WITH A MOUNTING HEIGHT OF 16.2 FT.

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21 Fox Street
Poughkeepsie, NY 12601
(845) 454-3980

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APPLICANT NAME & ADDRESS:

ARGO DEVELOPMENT
95 CHESTNUT RIDGE ROAD
MONTVALE, NJ 07645

PROJECT NAME & LOCATION:

SOUTH AVE MULTI-FAMILY DEVELOPMENT
SOUTH AVENUE
CITY OF POUGHKEEPSIE, NY 12601

DRAFT 11/14/2022

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2222201

DRAWN BY:

REVIEWED BY: CPL

ISSUED FOR: PLANNING BOARD REVIEW

DATE: 11/28/2022

DRAWING NAME:

PHOTOMETRIC PLAN

DRAFT 11/14/2022

DRAWING NUMBER:

C190

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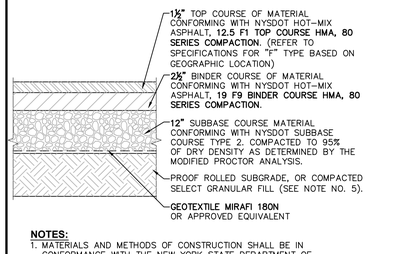
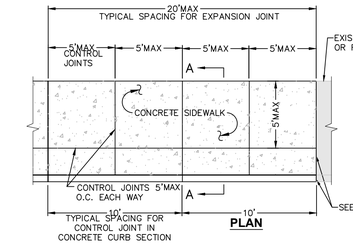


NOTES:

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.

© 1 **PAVEMENT SECTION DETAIL**
SCALE: NOT TO SCALE



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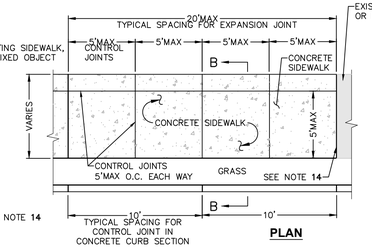

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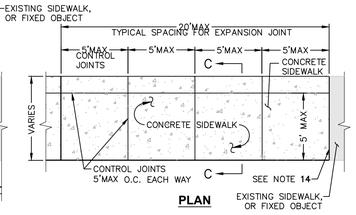

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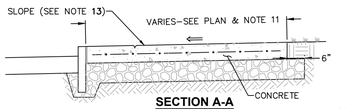
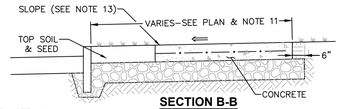
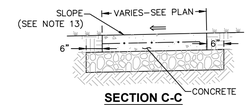


SECTION A-A



SECTION B-B



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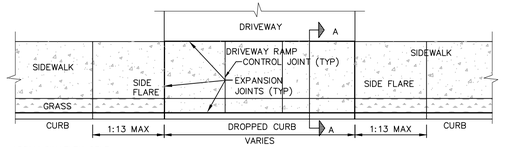

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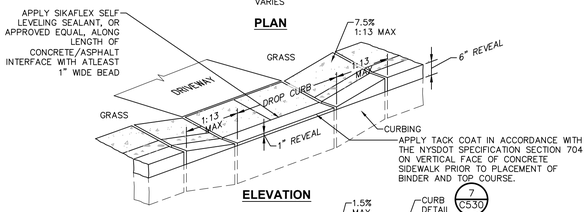
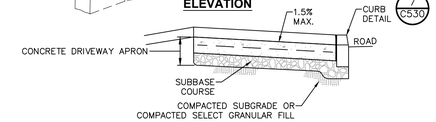


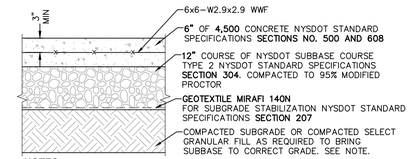
ELEVATION



SECTION A–A

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.

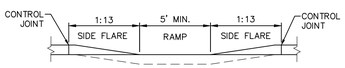


NOTES:

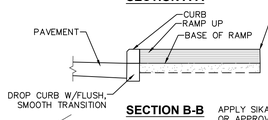
1. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMANCE WITH **SECTION 203**– EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.

CONCRETE SECTION

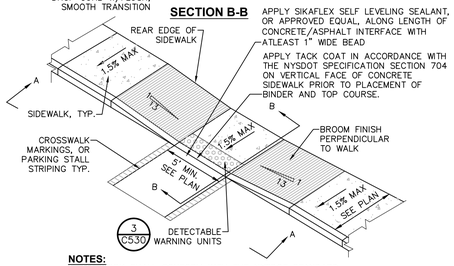
© 9 **CONCRETE DRIVEWAY RAMP WITH DROP CURB**
SCALE: NOT TO SCALE



SECTION A-A



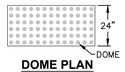
SECTION B-B



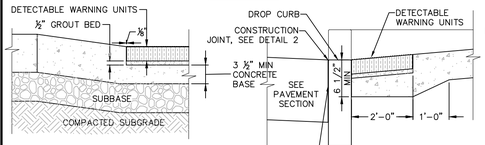
NOTES:

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.

© 2 **PEDESTRIAN RAMP SECTION - DROP CURB**
SCALE: NOT TO SCALE



DOME PLAN



SECTION A-A THRU RAMP

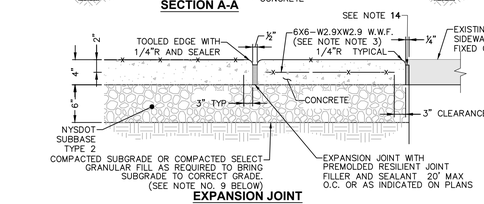
SECTION B-B THRU RAMP

APPLY TACK COAT IN ACCORDANCE WITH THE NYSDOT SPECIFICATION SECTION 704 ON VERTICAL FACE OF CONCRETE SIDEWALK PRIOR TO PLACEMENT OF BINDER AND TOP COURSE.

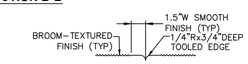
NOTES:

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.

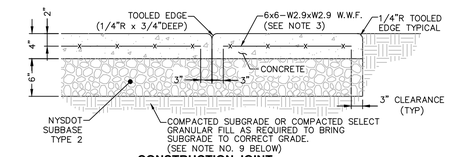
© 3 **DETECTABLE WARNING UNITS FOR RAMPS**
SCALE: NOT TO SCALE



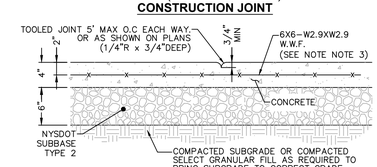
EXPANSION JOINT



TOOLED EDGE



CONSTRUCTION JOINT

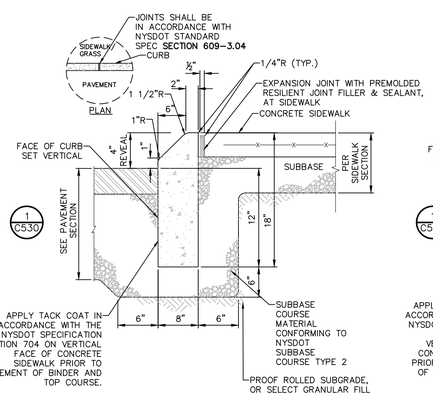


CONTROL JOINT

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.

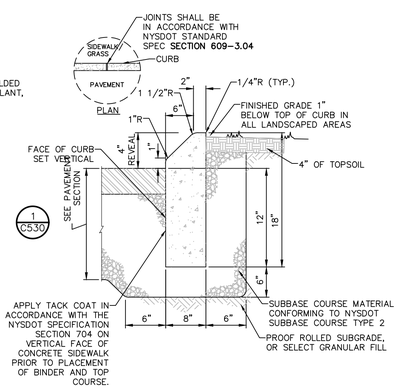
© 4 **CONCRETE SIDEWALK DETAIL**
SCALE: NOT TO SCALE



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.**

© 5 **CAST IN PLACE MOUNTABLE CONCRETE CURB AT SIDEWALK**
SCALE: NOT TO SCALE



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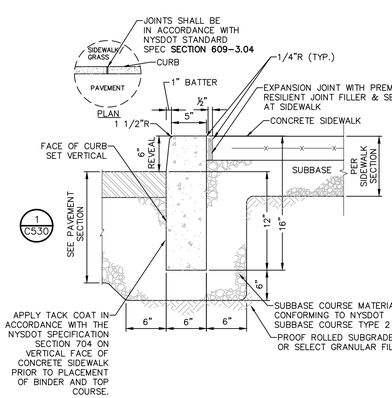
© 6 **CAST IN PLACE MOUNTABLE CONCRETE CURB**
SCALE: NOT TO SCALE



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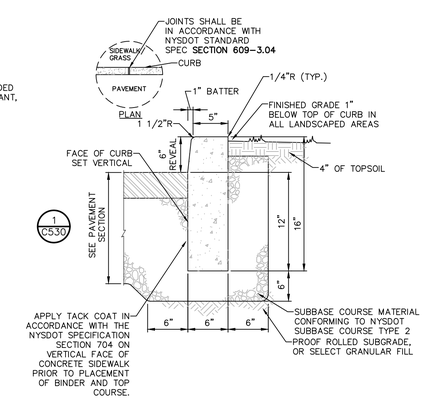
© 7 **CAST IN PLACE CONCRETE CURB AT SIDEWALK**
SCALE: NOT TO SCALE



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© 8 **CAST IN PLACE CONCRETE CURB**
SCALE: NOT TO SCALE

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Poughkeepsie, NY 12601
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APPLICANT NAME & ADDRESS:

ARGO DEVELOPMENT
95 CHESTNUT RIDGE ROAD
MONTVALE, NJ 07645

PROJECT NAME & LOCATION:

SOUTH AVE MULTI-FAMILY DEVELOPMENT
SOUTH AVENUE
CITY OF POUGHKEEPSIE, NY 12601

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2222201

DRAWN BY:

REVIEWED BY: CPL

ISSUED FOR: PLANNING BOARD REVIEW

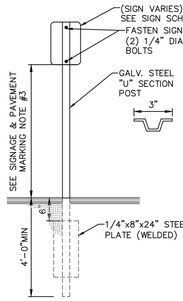
DATE: 11/28/2022

DRAWING NAME:

SITE DETAILS

DRAWING NUMBER:

C530



SINGLE POST SIGN MOUNTING DETAIL
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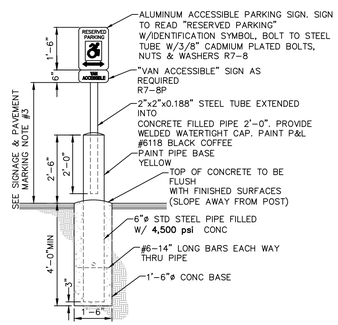

TUBULAR POST SIGN MOUNTING DETAIL
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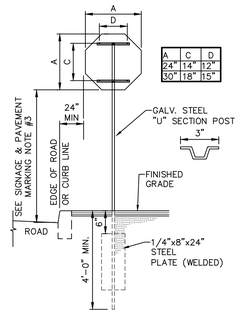

A	C	D
24"	14"	12"
30"	18"	15"

SINGLE POST STOP SIGN MOUNTING DETAIL
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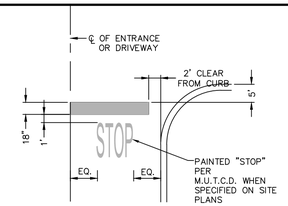
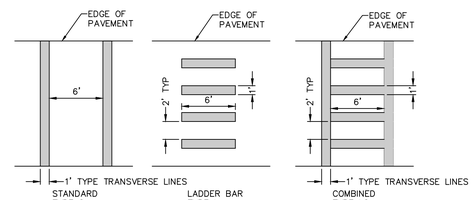


PAVEMENT MARKING DETAIL STOP BAR
SCALE: NOT TO SCALE

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	3 C531
2	ONE WAY	R6-1L	36"x12"	BLACK	WHITE	1 C531
3	ONE WAY	R6-1R	36"x12"	BLACK	WHITE	1 C531
4	DO NOT ENTER	R5-1	30"x30"	RED	WHITE	1 C531
5	RESERVED PARKING	NY R7-8D	12"x18"	WHITE/ BLUE	GREEN/ WHITE	2 C531
6	VAN ACCESSIBLE	R7-8P	12"x6"	WHITE	BLUE	2 C531
7	NO PARKING ANY TIME	R7-1	12"x18"	WHITE	RED	1 C531
8	ELECTRIC VEHICLE CHARGING STATION	AS SHOWN	12"x18"	WHITE	GREEN	1 C531

MUTCD SIGN SCHEDULE
SCALE: NOT TO SCALE

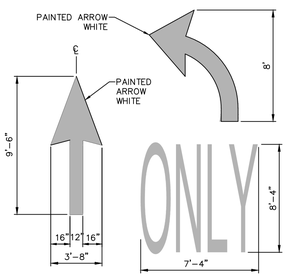


NOTES:
1. ALL CROSS WALK STRIPING SHALL BE WHITE
2. TYPE S CROSS WALK SHALL BE USED IN LOW TRAFFIC VOLUME STREET CROSSINGS.
3. TYPE L CROSS WALK SHALL BE USED IN MEDIUM TRAFFIC VOLUME STREET CROSSINGS.
4. TYPE LS CROSS WALK SHALL BE USED IN HIGH TRAFFIC VOLUME STREET CROSSINGS.

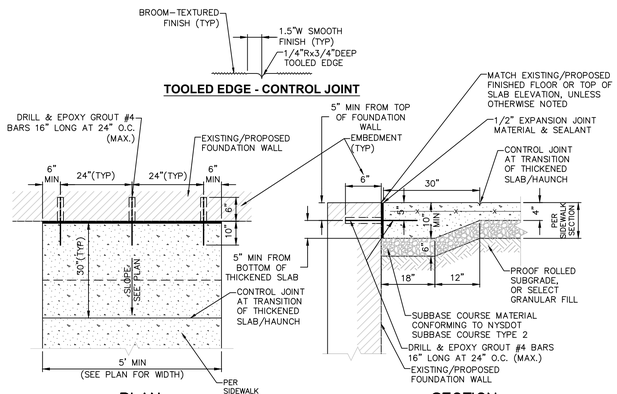
PAVEMENT MARKING DETAIL CROSS WALK STRIPING
SCALE: NOT TO SCALE

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**.

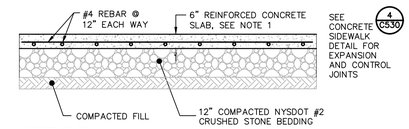


PAVEMENT MARKING DETAIL DIRECTIONAL ARROW
SCALE: NOT TO SCALE



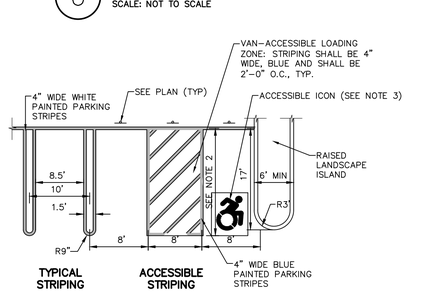
NOTE:
1. THICKENED (HAUNCH) & ADDITIONALLY REINFORCED CONCRETE SIDEWALK ENDS ARE REQUIRED AT ALL EXISTING/PROPOSED BUILDING ENTRANCES.
2. SEE CONCRETE SIDEWALK DETAIL FOR ADDITIONAL DETAILS & NOTES.

CONCRETE SIDEWALK AT BUILDING ENTRANCES
SCALE: NOT TO SCALE



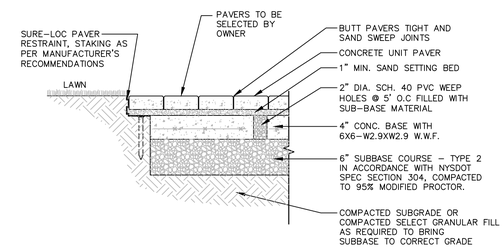
CONCRETE SLAB:
1. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED MAY 1, 2008, AND ALL ADDENDA THERETO.
2. CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 4500 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 SURFACED 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.

CONCRETE SLAB
SCALE: NOT TO SCALE

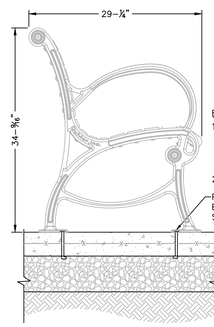


NOTES:
1. ALL DIMENSIONS SHALL BE IN ACCORDANCE WITH ADA STANDARD AND CURRENT ZONING AND SITE REGULATIONS. REFER TO TOWN OF **WAPPINGER ZONING CODE 240 ATTACHMENT 5.**
2. PARKING SPACE LENGTH SHALL BE 20'. WHERE ACCESS AISLE IS 26' WIDE PARKING SPACE LENGTH MAY BE REDUCED TO 18'.
3. PAINTED ACCESSIBLE LOGO TO BE IN ACCORDANCE W/ NEW YORK STATE LAW.
4. SLOPE OF PAVEMENT SURFACE IN ACCESSIBLE PARKING AREA SHALL NOT EXCEED 1.5% IN ANY DIRECTION.
5. SEE PLAN FOR ACTUAL LOCATION OF SIGNAGE

PAVEMENT MARKING DETAIL PARKING STRIPING
SCALE: NOT TO SCALE



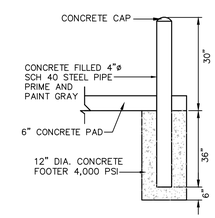
UNIT PAVERS OVER CONCRETE WITH EDGE RESTRAINT
SCALE: NOT TO SCALE



BENCH:
1. MODEL 447 PL WITH WALNUT COMPOSITE SLATS AS MANUFACTURED BY DUMOR
   LENGTH: 6'-0"
   COLOR: BLACK
2. OR APPROVED EQUAL

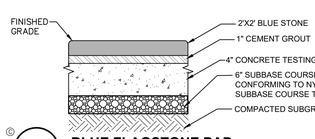
PROVIDE & INSTALL ANCHOR BOLTS PER MANUFACTURER'S SPECIFICATIONS

BENCH DETAIL WITH BACK
SCALE: NOT TO SCALE

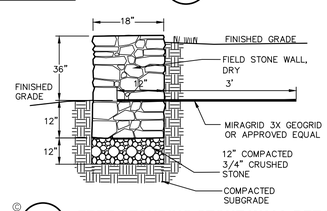


NOTES
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS WITH A MINIMUM CEMENT CONTENT OF 600 POUNDS PER CUBIC YARD FOR ALL FOOTINGS.
2. ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 3"-5" TO WITHIN A TOLERANCE OF 0"-1".
3. ALL EXPOSED CONCRETE SHALL BE 5% AIR-ENTRAINED (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.

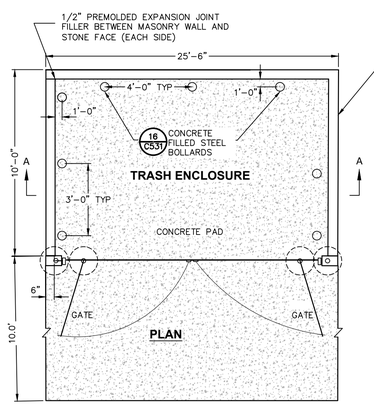
BOLLARD DETAIL - FOR REFUSE ENCLOSURE
SCALE: NOT TO SCALE

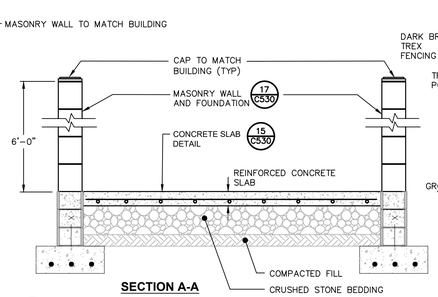


BLUE FLAGSTONE PAD
SCALE: NOT TO SCALE

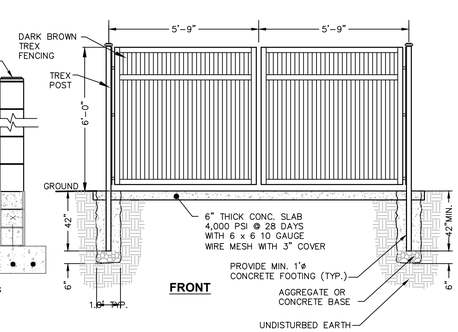


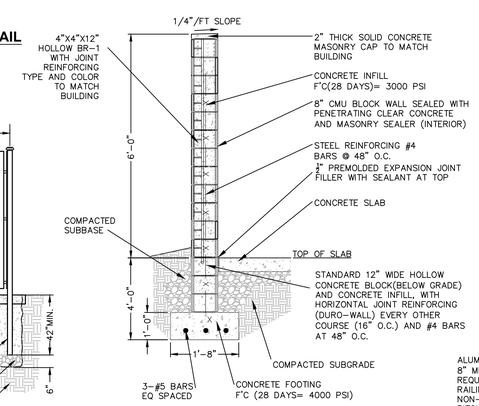
FREE-STANDING STONE WALL DETAIL
SCALE: NOT TO SCALE



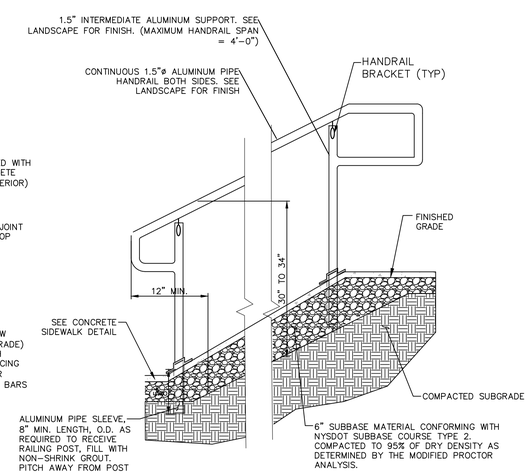


REFUSE ENCLOSURE
SCALE: NOT TO SCALE





MASONRY WALL DETAIL FOR REFUSE ENCLOSURE
SCALE: NOT TO SCALE



SIDEWALK RAMP HAND RAIL DETAIL
SCALE: NOT TO SCALE

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Poughkeepsie, NY 12601
(845) 454-3980
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APPLICANT NAME & ADDRESS:
ARGO DEVELOPMENT
95 CHESTNUT RIDGE ROAD
MONTVALE, NJ 07645

PROJECT NAME & LOCATION:
SOUTH AVE MULTI-FAMILY DEVELOPMENT
SOUTH AVENUE
CITY OF POUGHKEEPSIE, NY 12601

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2222201
DRAWN BY:
REVIEWED BY: CPL
ISSUED FOR: PLANNING BOARD REVIEW
DATE: 11/28/2022
DRAWING NAME:

SITE DETAILS

DRAWING NUMBER:
C531

11/28/2022 12:27:25 PM
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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.

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", LATEST EDITION.
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.

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. REFER TO REMEDIAL ACTION WORK PLAN FOR SPECIFICATIONS REGARDING STOCKPILING OF CONTAMINATED SOILS.

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.

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.

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 GROUNDWATER IS ENCOUNTERED DURING EXCAVATION AND REQUIRES REMOVAL, GROUNDWATER WILL BE PUMPED , VIA SUBMERSIBLE PUMPS INTO APPROVED HOLDING CONTAINERS (NYSDOT RATED 55 GALLON DRUMS). CONTAINERS SHOULD BE STAGED ON SITE IN A SECURE, LOCKED AREA PENDING CHARACTERIZATION. Samples OF THE CONTAINERIZED WATER SHALL BE COLLECTED AND ANALYZED TO DETERMINE THE APPROPRIATE DISPOSAL FACILITY. BASED ON THE RESULTS OF THE ANALYSIS THE ON-SITE REMEDIAL CONSULTANT WILL DETERMINE MEANS OF OFF-SITE DISPOSAL AND TREATMENT (AS REQUIRED).

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.

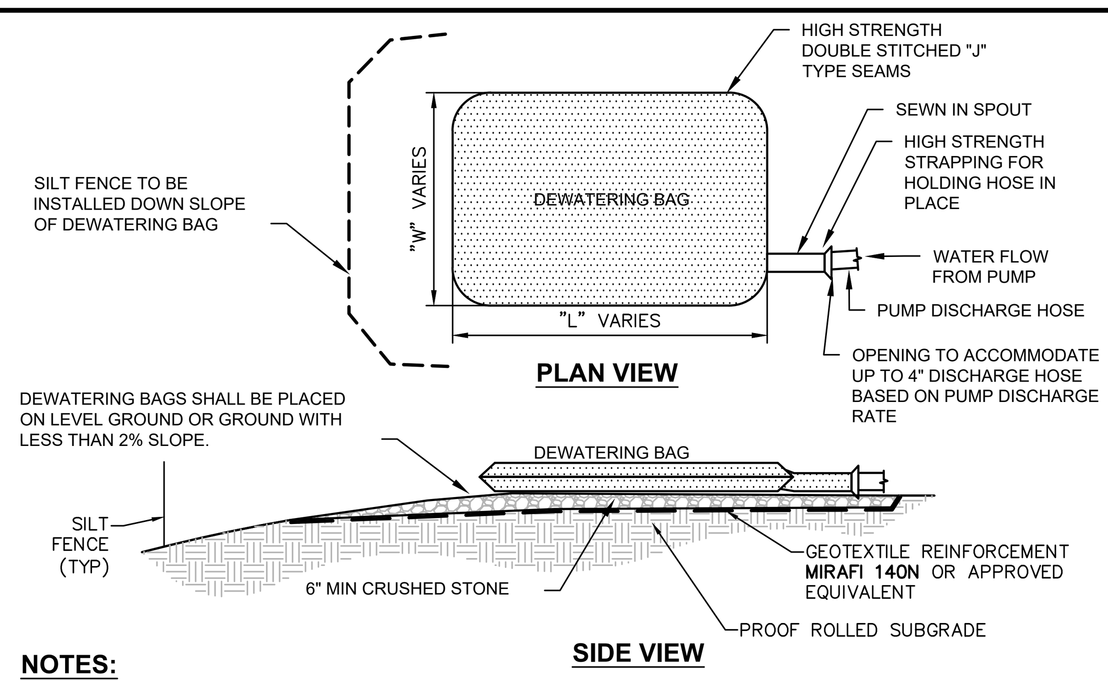
GENERAL NOTES:

1. EROSION AND SEDIMENT CONTROL MEASURES SHALL NOT BE PLACED IN PUBLIC ACCESS AREAS OR INTERFERE WITH PUBLIC ACCESS.
2. ALL OFF-SITE ROADS AND CORRIDORS SHALL BE KEPT CLEAN AT ALL TIMES DURING CONSTRUCTION. THIS SHALL INCLUDE STREET CLEANING AND SWEEPING OF PARKER AVENUE AND BROOKSVILLE AVENUE AS NEEDED OR DIRECTED BY THE REMEDIATION ENGINEER OR QUALIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL PERFORMING EROSION AND SEDIMENT CONTROL INSPECTION (QPESC). THE CONTRACTOR SHALL IMMEDIATELY CLEAN UP SPILLS OR TRACKED DEBRIS ON OR OFF-SITE.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SNOW REMOVAL DURING THE COURSE OF CONSTRUCTION, TO INCLUDE ALL WORK AREAS AND ASSOCIATED PUBLIC ACCESS WAYS AND SIDEWALKS ALONG PROPERTY, CONSTRUCTION ACCESS CORRIDORS, AND STAGING AREAS.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES PROTECT THE PUBLIC. OPEN TRENCHES, HOLES AND CONSTRUCTION OPERATIONS ARE TO BE SEPARATED FROM PUBLIC ACCESS WAYS BY CONSTRUCTION FENCE AND OTHER METHODS SET A PRUDENT DISTANCE FROM OPENINGS.
5. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING OPERATIONS AS REQUIRED FOR CONSTRUCTION.
6. THE WORD "PROVIDE," WHEN USED IN CONNECTION WITH SERVICES, MATERIALS, OR EQUIPMENT, SHALL MEAN TO FURNISH AND INSTALL SAID SERVICES, MATERIALS, OR EQUIPMENT COMPLETE AND READY FOR INTENDED USE.
7. CONTRACTOR SHALL PROVIDE AND INSTALL TEMPORARY CHAIN LINK FENCE WITH SCREENING AROUND LIMITS OF WORK, AS APPROVED BY OWNER.

SPDES GENERAL PERMIT GP-0-20-001 COMPLIANCE NOTES:

THIS PLAN SET AND THE ACCOMPANYING SWPPP ENTITLED "SOUTH AVENUE MULTI-FAMILY DEVELOPMENT" WILL BE 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 AND FOLLOWING DOCUMENTS.

1. REFER TO REQUIREMENTS OUTLINED IN THE MATERIALS MANAGEMENT, HEALTH AND SAFETY, AND EROSION & SEDIMENT CONTROL PLANS & NOTES PRIOR TO COMMENCEMENT OF WORK.

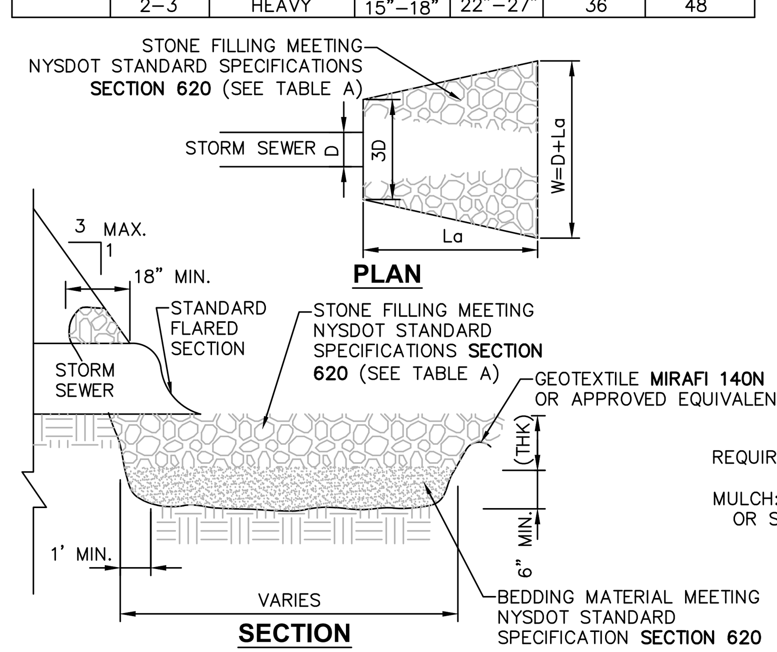


NOTES:
1. SEDIMENT COLLECTION BAG SHALL BE EQUAL TO DIRTBAG® 55, AS MARKETED BY ACF ENVIRONMENTAL. RICHMOND. VIRGINIA (800-448-3636). OR APPROVED EQUIVALENT.
2. SEDIMENT COLLECTION BAG SHALL BE A NONWOVEN BAG SEWN WITH HIGH STRENGTH THREAD. THE SEAMS SHALL BE HIGH STRENGTH, DOUBLE STITCHED, "J" TYPE SEAMS.
3. BAGS SHALL HAVE SEWN IN FILL SPOUT LARGE ENOUGH TO ACCOMMODATE UP TO A 4" DISCHARGE HOSE. FILL SPOUT SHALL HAVE HIGH STRENGTH STRAPPING TO HOLD HOSE IN PLACE AND PREVENT PUMPED WATER FROM ESCAPING WITHOUT BEING FILTERED.
4. SEDIMENT COLLECTION BAGS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS, OR AS DIRECTED BY THE ENGINEER.
5. SEDIMENT COLLECTED SHALL BE DISPOSED OF AT AN APPROPRIATE FACILITY.
6. SEDIMENT COLLECTION BAGS SHALL BE REMOVED AND REPLACED UNDER ANY OF THE FOLLOWING CONDITIONS:
   - WHEN BAGS ARE FULL.
   - WHEN BAGS HAVE BEEN IN PLACE FOR MORE THAN 30 DAYS (REMOVAL REQUIRED DUE TO ULTRAVIOLET DETERIORATION).
   - WHEN BAGS ARE DAMAGED.
4. ALL SEDIMENT COLLECTION BAGS SHALL BE INSPECTED DAILY BY THE CONTRACTOR.
5. CARE SHALL BE TAKEN DURING REMOVAL TO MINIMIZE LOSS OF ENTRAPPED SEDIMENT.

© 7 **SEDIMENT COLLECTION DEWATERING BAG DETAIL**
SCALE: NOT TO SCALE

STONE APRON SIZING REQUIREMENT - TABLE "A"

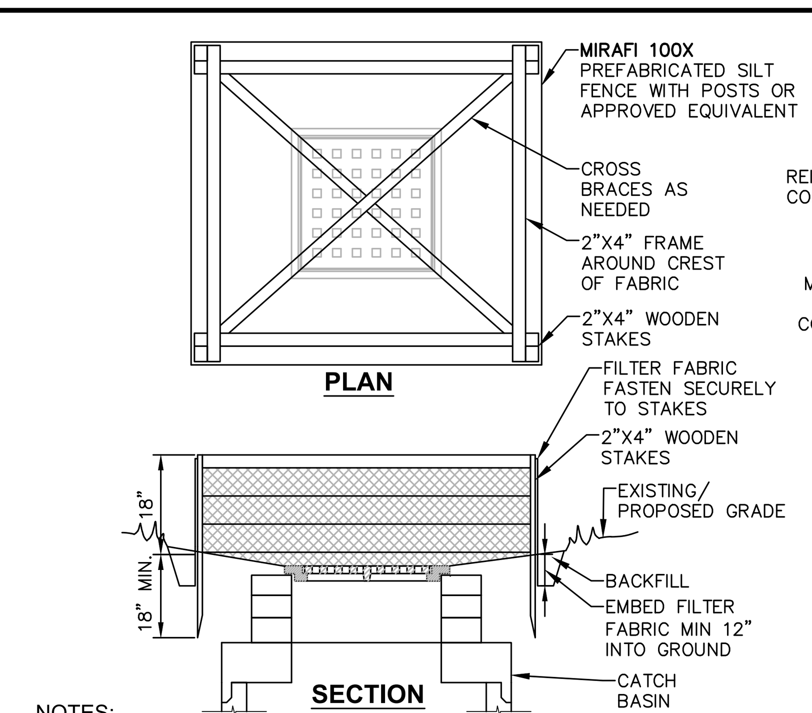
CULVERT DIA. (D)	CULVERT SLOPE, %	NYSDOT STANDARD STONE FILLING APRON MATERIAL	d50	dMAX	MINIMUM APRON THICKNESS (IN)	MINIMUM OUTLET APRON LENGTH(FT) (La)
12"	< 8	LIGHT	6"	9"	18	10
	8–10	MEDIUM	9"–12"	14"–18"	24	10
18"	< 4	LIGHT	6"	9"	18	10
	4–6	MEDIUM	9"–12"	14"–18"	24	12
	6–8	HEAVY	15"–18"	22"–27"	36	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



© 3 **END SECTION WITH STONE LINED APRON DETAIL**
SCALE: NOT TO SCALE

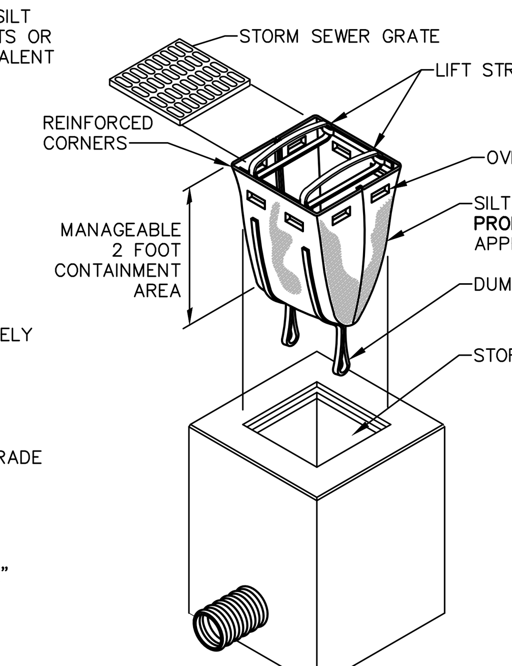
CONSTRUCTION SEQUENCING NOTES:

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 CONTRACTOR SHALL COMMENCE SITE CONSTRUCTION ACTIVITIES INCLUDING CLEARING & GRADING OF THE PROPOSED AREA OF DISTURBANCE AS REQUIRED.
4. INSTALL PROTECTIVE MEASURES AT THE LOCATIONS OF ALL GRATE INLETS, CURB INLETS, AND AT THE ENDS OF ALL EXPOSED STORM SEWER PIPES.
5. 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.
6. FINALIZE PAVEMENT SUB-GRADE PREPARATION.
7. REMOVE PROTECTIVE MEASURES AROUND INLETS AND MANHOLES NO MORE THAN 24 HOURS PRIOR TO PLACING STABILIZED BASE COURSE.
8. INSTALL SUB-BASE MATERIAL AS REQUIRED FOR PAVEMENT.
9. PRIOR TO FINALIZING CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY, ALL CATCH BASINS AND DRAINAGE LINES SHALL BE CLEANED OF ALL SILT AND SEDIMENT.
10. UPON COMPLETION OF SITE CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL FINALIZE CONSTRUCTION OF THE STORMWATER MANAGEMENT FACILITY. CONTRACTOR SHALL FINISH GRADE THE FORBAY(S) AND STABILIZE AS INDICATED IN THE PROJECT DRAWINGS.
11. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AND IMMEDIATELY ESTABLISH PERMANENT VEGETATION ON THE AREAS DISTURBED DURING THEIR REMOVAL.

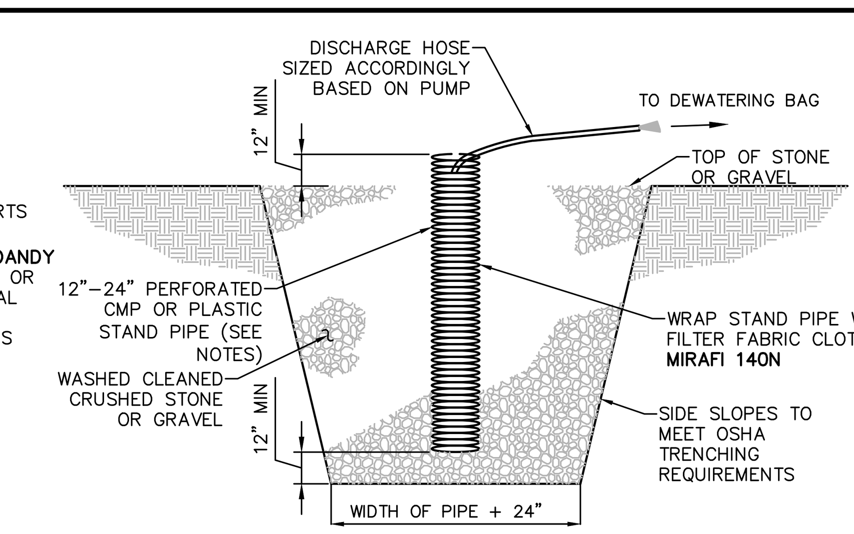


NOTES:
1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85.
2. CUT FABRIC FROM CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED, OVERLAP TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2"x4" WOOD OR EQUIVALENT, WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART 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.

© 6 **TEMPORARY OUT OF PAVEMENT FILTER FABRIC DROP INLET PROTECTION DETAIL**
SCALE: NOT TO SCALE



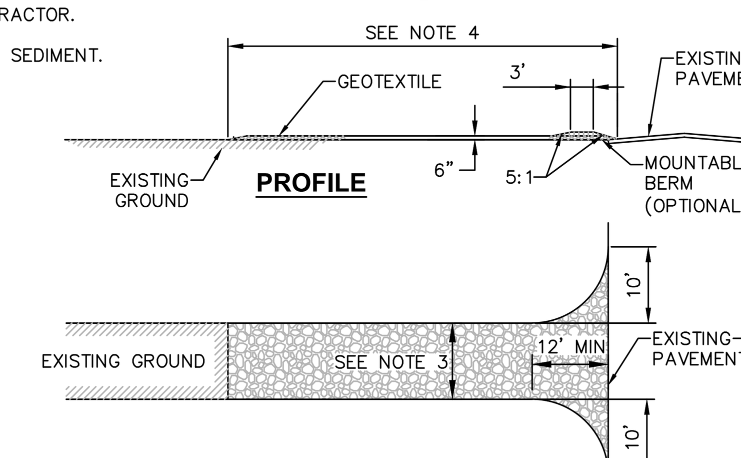
© 8 **SILT SACK DETAIL**
SCALE: NOT TO SCALE



TYPICAL SECTION OF SUMP PIT

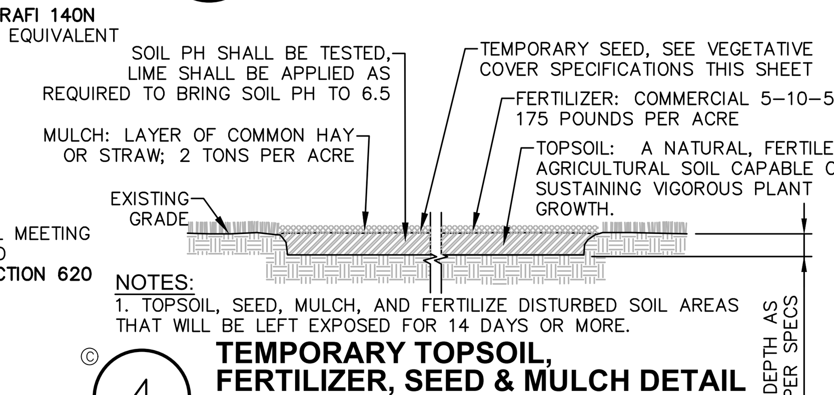
NOTES:
1. SUMP PIT QUANTITY & LOCATION SHALL BE DETERMINED BY CONTRACTOR.
2. PERFORATIONS IN THE STANDPIPE SHALL BE EITHER CIRCULAR OR SLOTS. PERFORATION SIZE SHALL NOT EXCEED 1/2" INCH DIAMETER. PUMP RATE SHALL NOT EXCEED INFLOW RATE INTO STAND PIPE.
3. CRUSHED STONE OR GRAVEL SHALL BE NYSDOT #2 SIZE OR EQUIVALENT AND SHALL BE WASHED PRIOR TO PLACEMENT WITHIN SUMP.
4. DISCHARGE SHALL BE THROUGH DEWATERING BAGS, OR AS DIRECTED BY ENGINEER.
5. CONTRACTOR TO SUBMIT DEWATERING PLAN TO ENGINEER FOR REVIEW & APPROVAL.

© 10 **DEWATERING & SUMP PIT DETAIL**
SCALE: NOT TO SCALE



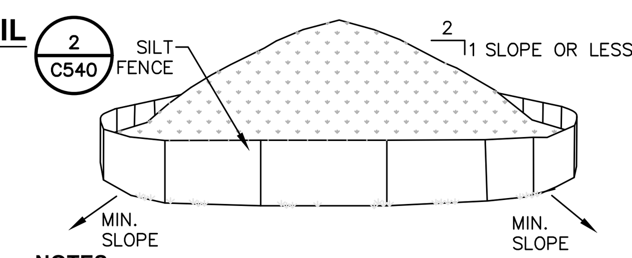
CONSTRUCTION ENTRANCE SPECIFICATIONS:
1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. THICKNESS – NOT LESS THAN SIX (6) INCHES.
3. WIDTH – TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY FOUR (24) FEET IF SINGLE 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



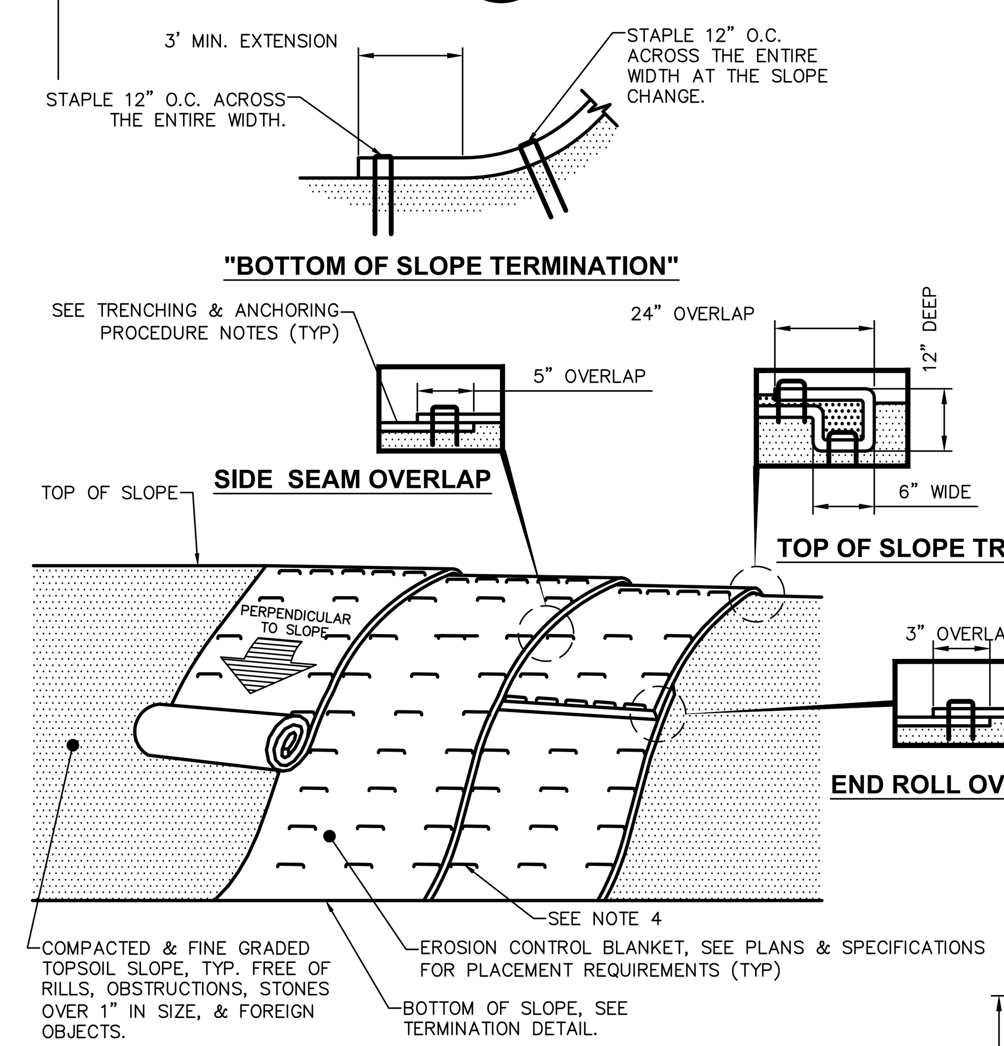
NOTES:
1. TOPSOIL, SEED, MULCH, AND FERTILIZE DISTURBED SOIL AREAS THAT WILL BE LEFT EXPOSED FOR 14 DAYS OR MORE.

© 4 **TEMPORARY TOPSOIL, FERTILIZER, SEED & MULCH 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.

© 9 **TEMPORARY SOIL STOCKPILE 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.

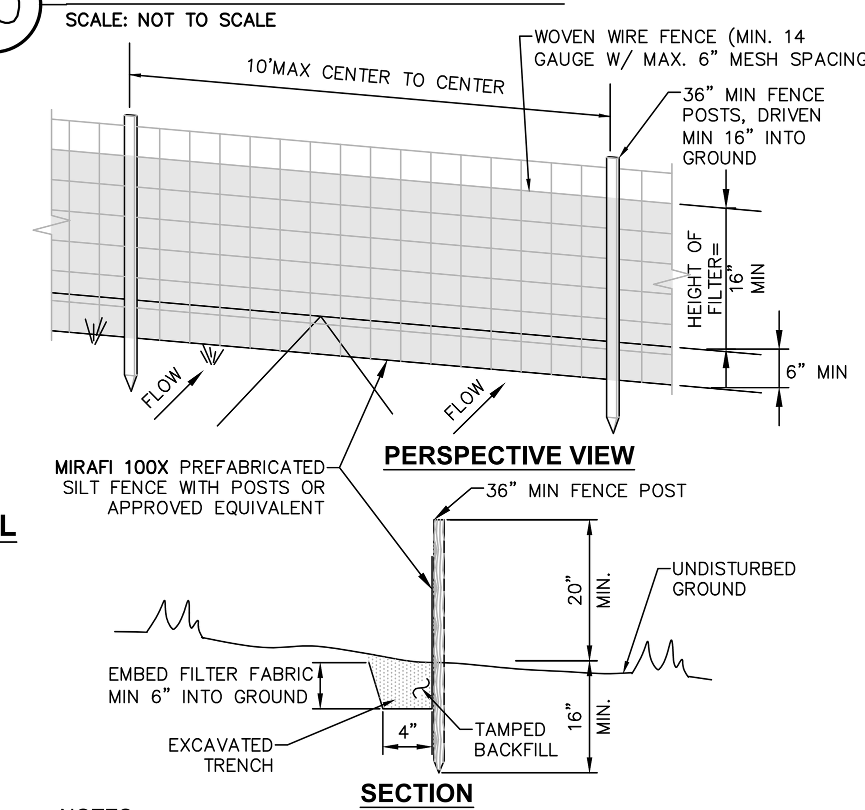
TRENCHING & ANCHORING PROCEDURE NOTES:

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.

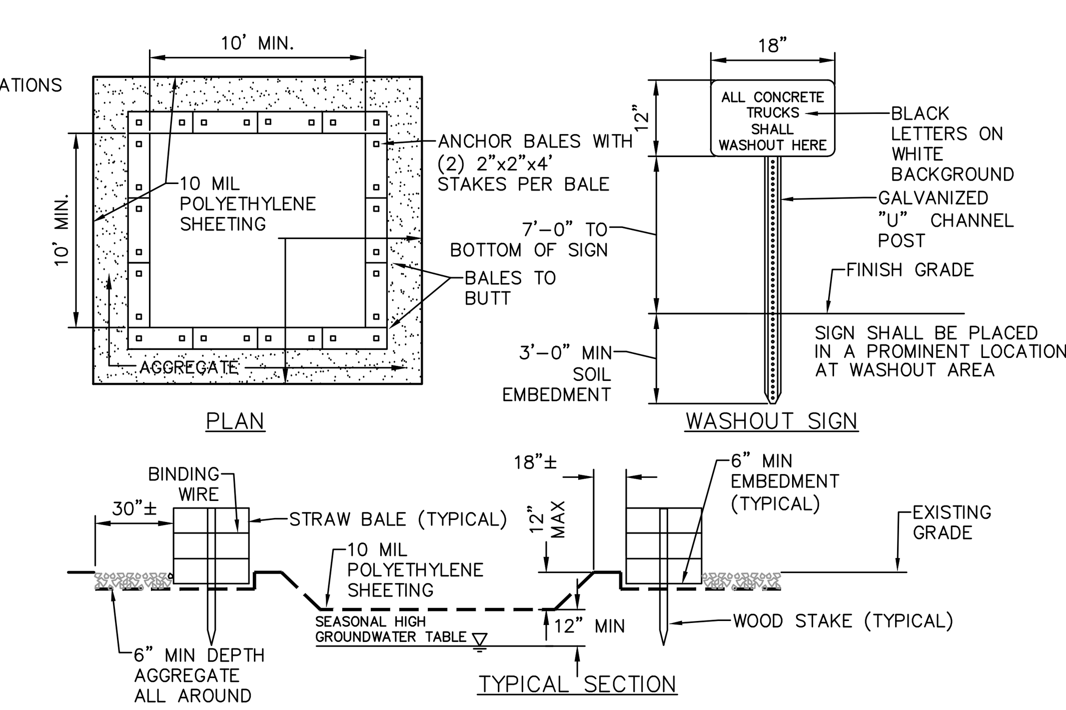
© 5 **EROSION CONTROL BLANKET INSTALLATION DETAIL**
SCALE: NTS



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



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.

© 11 **CONCRETE WASHOUT AREA DETAIL**
SCALE: NOT TO SCALE

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APPLICANT NAME & ADDRESS:
ARGO DEVELOPMENT
95 CHESTNUT RIDGE ROAD
MONTVALE, NJ 07645

PROJECT NAME & LOCATION:
SOUTH AVE MULTI-FAMILY DEVELOPMENT
SOUTH AVENUE
CITY OF POUGHKEEPSIE, NY 12601

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2222201
DRAWN BY:
REVIEWED BY: CPL
ISSUED FOR: PLANNING BOARD REVIEW
DATE: 11/28/2022
DRAWING NAME:
EROSION SEDIMENT CONTROL DETAILS
DRAWING NUMBER:
C540

11/29/2022 1:27:39 PM
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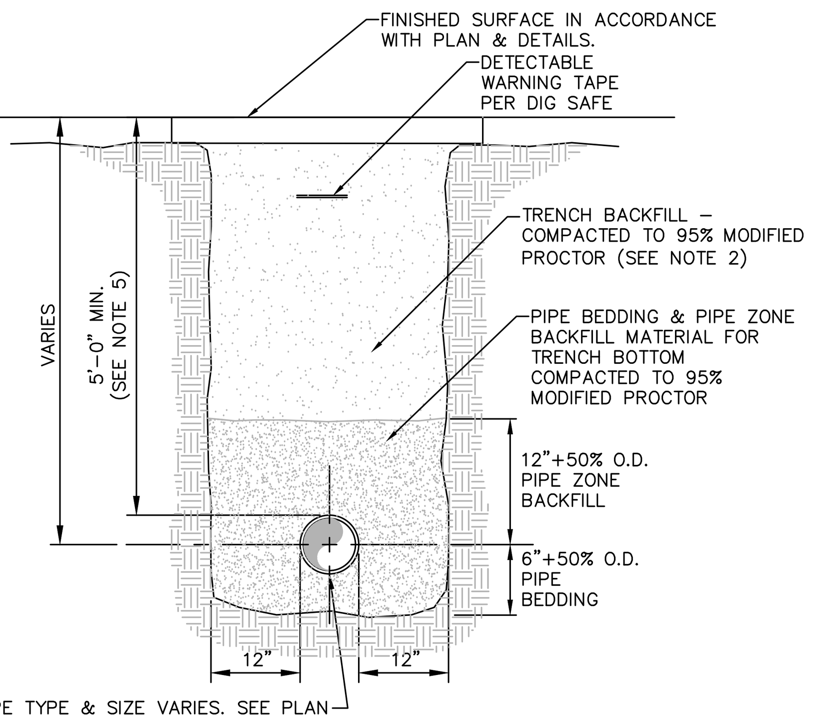


NOTES:

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%

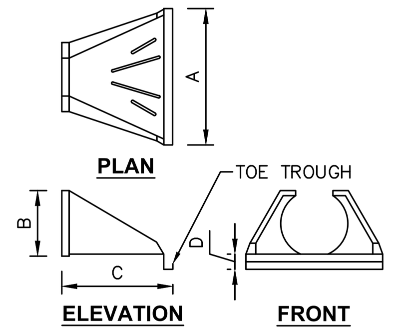
IN NON–TRAFFIC UNPAVED AREAS TRENCH BACKFILL CAN BE MATERIALS EXCAVATED FROM THE TRENCH AS APPROVED BY THE ENGINEER AND COMPACTED TO 90% MODIFIED PROCTOR.

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.
6. **DEWATERING:**
7. **TRENCH BOX:**

© 1 **PIPE TRENCH DETAIL (TYPICAL)**
SCALE: NOT TO SCALE

TYPICAL HDPE END SECTION

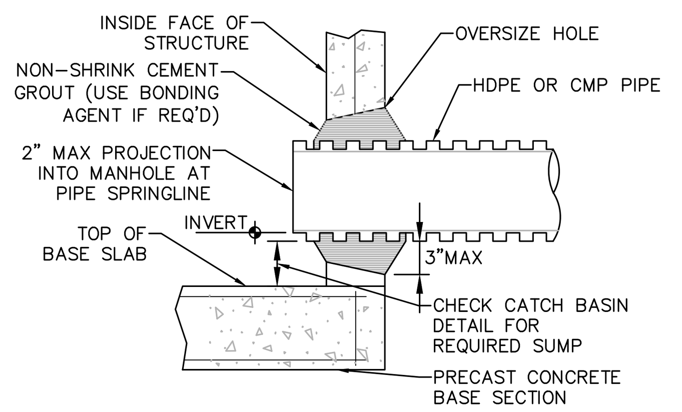
PIPE DIA.	END SECTION DIMENSIONS A	B	C	D
12"	42"	14"	34"	6"
15"	42"	17"	34"	6"
18"	59"	21"	48"	6"
24"	59"	27"	48"	6"
30"	82"	34"	58"	6"
36"	82"	41"	58"	6"



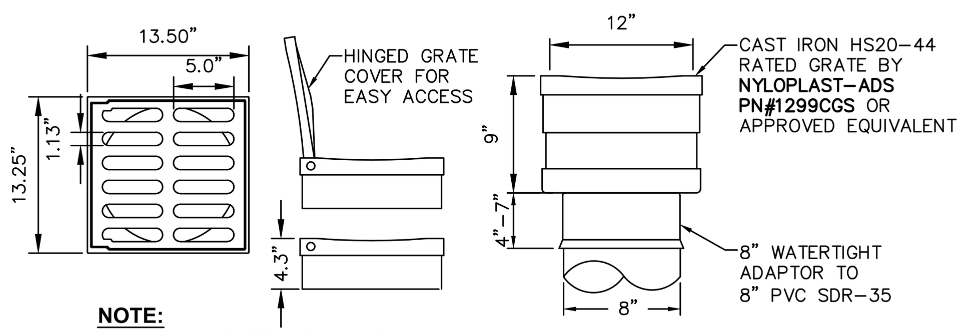
NOTES:

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.

© 5 **TYPICAL END SECTION - HDPE**
SCALE: NOT TO SCALE



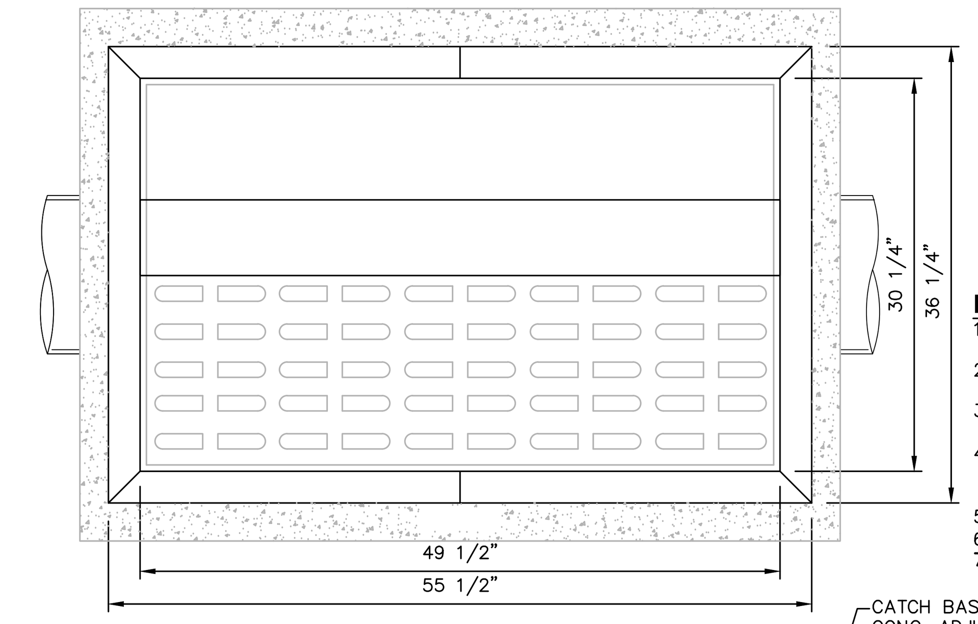
© 2 **PIPE CONNECTION TO DRAINAGE STRUCTURE- CMP OR HDPE CEMENT GROUT SEAL JOINT**
SCALE: NOT TO SCALE



NOTE:

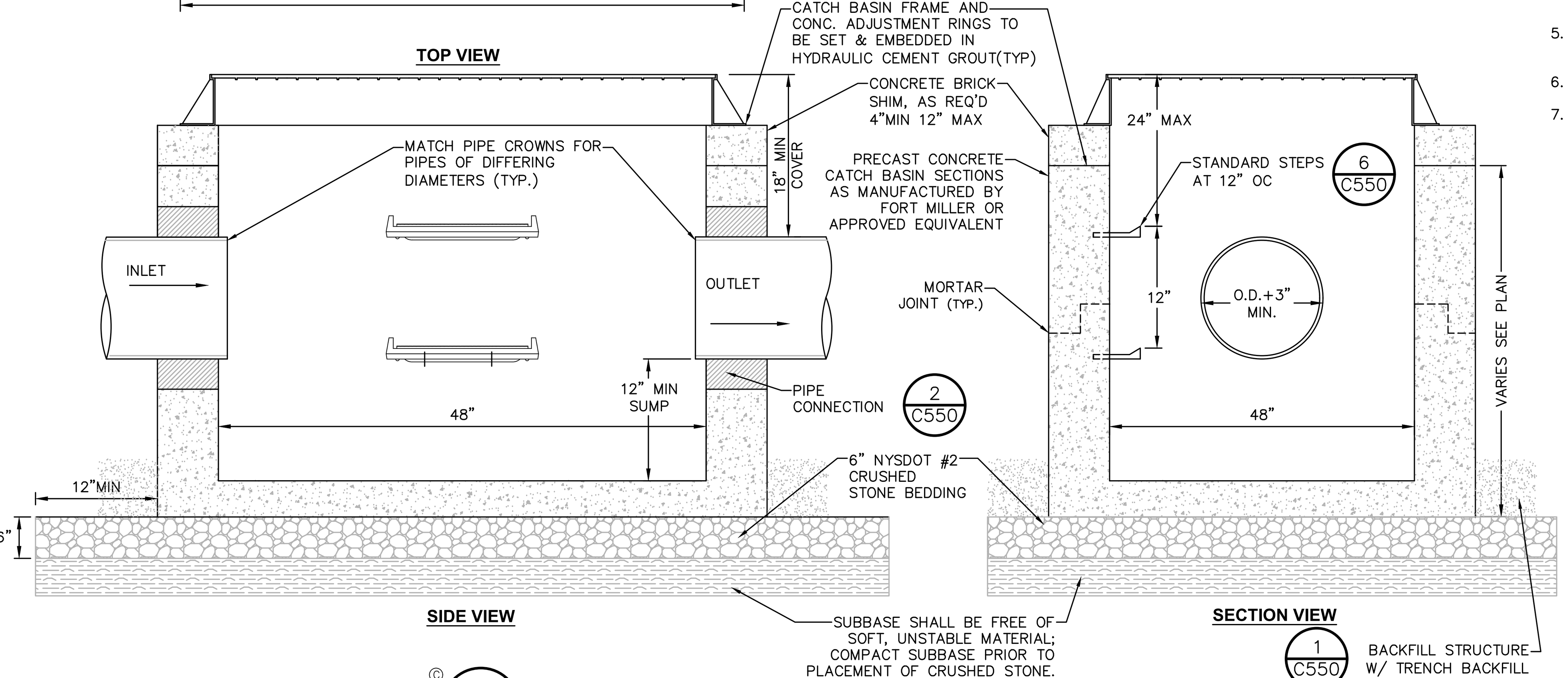
1. CASTINGS RATED STANDARD HS20–44 LOADING
2. MATERIAL SHALL CONFORM TO **ASTM A48–CLASS 30B**
3. PAINT: CASTINGS TO BE FURNISHED WITH A BLACK PAINT
4. IN–LINE DRAIN BY NYLOPLAST OR APPROVED EQUIVALENT
5. DRAIN AREA = 62.7 SQ. INCH

© 3 **12" IN-LINE DRAIN & GRATE**
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.



© 7 **PRECAST CONCRETE RECTANGULAR CATCH BASIN DETAIL**
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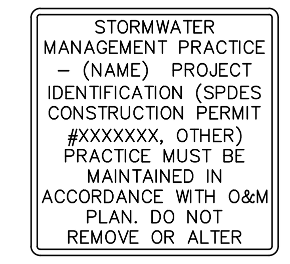
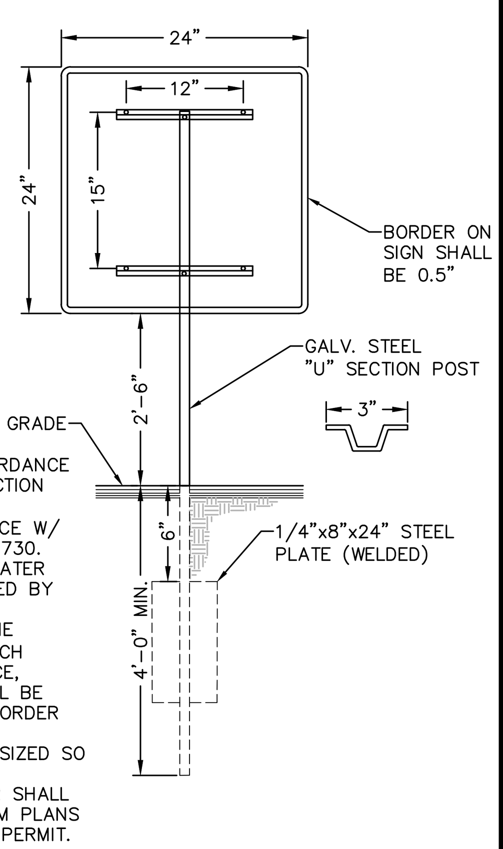
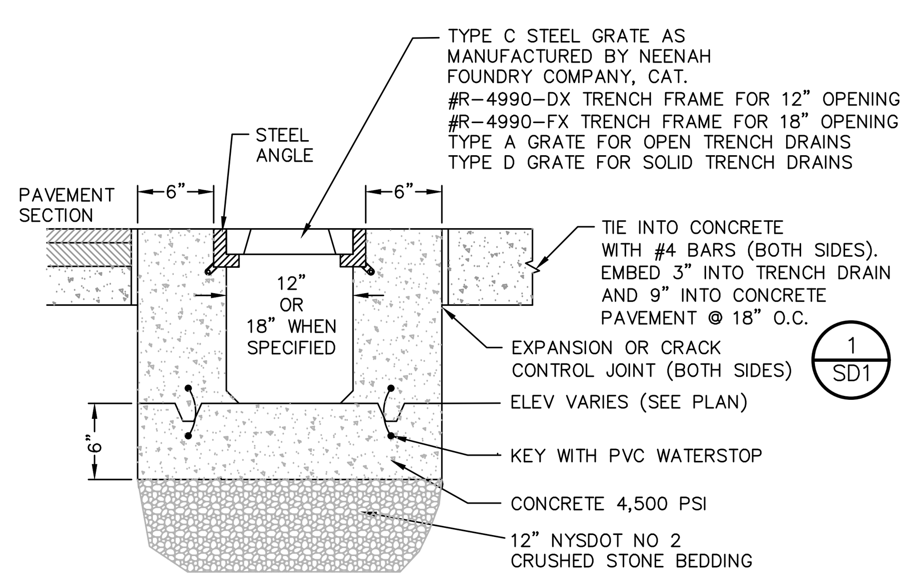




NOTES:

1. SIGN SHALL BE ALUMINUM IN ACCORDANCE WITH NYSDOT STANDARD SPECS SECTION 730.
2. SIGN POST SHALL BE IN ACCORDANCE W/ NYSDOT STANDARD SPECS SECTION 730.
3. ANY DAMAGED OR MISSING STORMWATER PRACTICE SIGNS SHALL BE REPLACED BY THE GOVERNING HOA.
4. CONTRACTOR SHALL ERECT SIGN THE IMMEDIATE VICINITY (NOT IN) OF EACH STORMWATER MANAGEMENT PRACTICE,
5. BACKGROUND COLOR OF SIGN SHALL BE MUTCD BROWN, THE LEGEND AND BORDER SHALL BE MUTCD WHITE.
6. LETTERING OF THE SIGN SHALL BE SIZED SO THAT SIGN IS LEGIBLE.
7. NAMES AND SPDES PERMIT NUMBER SHALL BE OBTAINED BY CONTRACTOR FROM PLANS AND ISSUED SPDES CONSTRUCTION PERMIT.

© 8 **STORMWATER MANAGEMENT PRACTICE PERMANENT SIGN**
SCALE: NOT TO SCALE



NOTES:

1. DEPTH OF TRENCH DRAINS VARY. SEE GRADING AND DRAINAGE PLAN FOR DIMENSIONS OF EACH INDIVIDUAL TRENCH DRAIN.
2. ALL GRATES SHALL BE "BICYCLE SAFETY" APPROVED.
3. PROVIDE HORIZONTAL OUTLET END PLATES AT DOWNSTREAM END OF EACH TRENCH DRAIN.

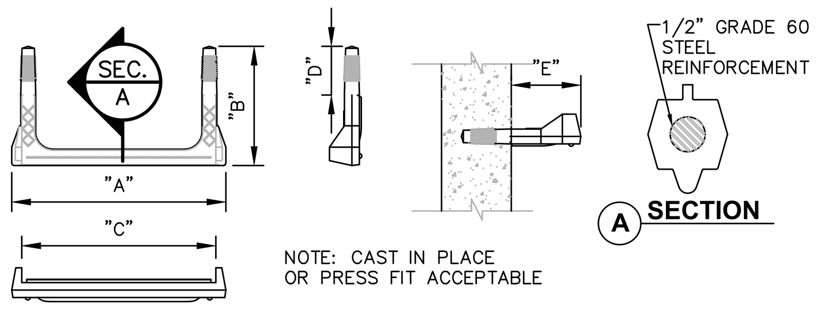
© 4 **TRENCH DRAIN DETAIL**
SCALE: NOT TO SCALE

ACCEPTABLE MANHOLE STEPS

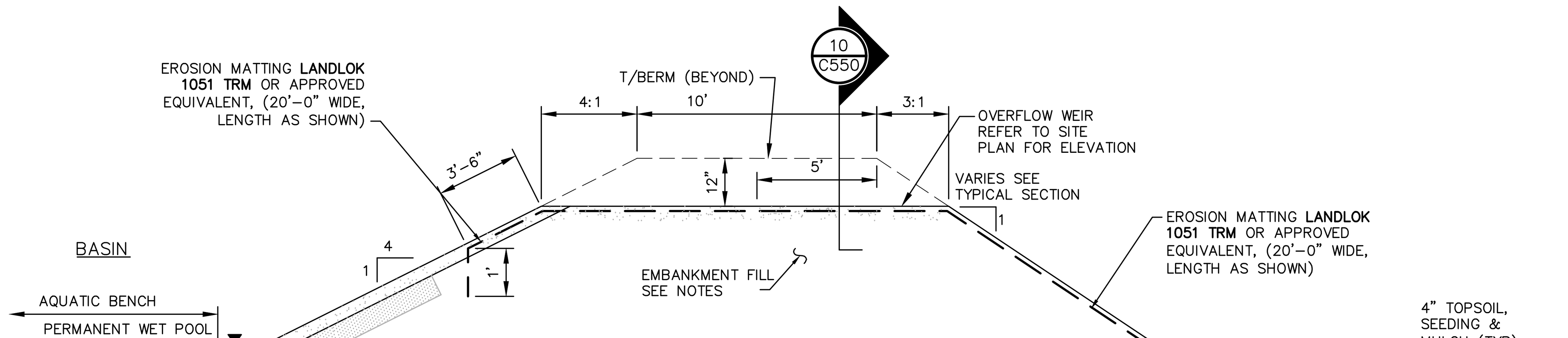
MANUFACTURER	PATTERN NUMBER	"A" STEP WIDTH	"B" LEG LENGTH	"C" RUNG CLEAR	"D" EMBED–MENT	"E" RUNG CLEAR
M.A. INDUSTRIES INC*	**PS2–PF**	14 3/4	9 1/4	13 3/4	3 3/8	5 7/8
M.A. INDUSTRIES INC*	**PS2–PFS**	14 3/4	8 1/4	13 3/4	3 3/8	4 7/8

* OR EQUIVALENT

MH STEP DESIGN AND INSTALLATION SHALL COMPLY WITH ALL OSHA REGULATIONS



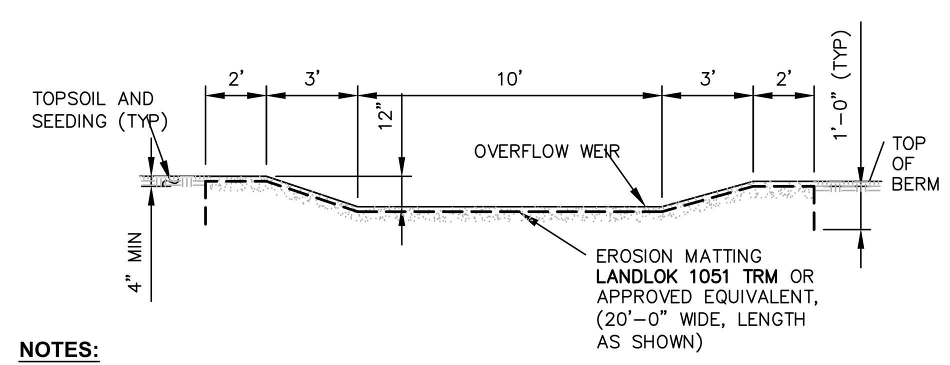
© 6 **COPOLYMER POLYPROPYLENE MH STEP**
SCALE: NOT TO SCALE



NOTES:

1. EMBANKMENT FILL FOR THE STORM WATER BASIN BERM SHALL CONSIST OF A CLEAN WELL GRADED MIXTURE OF SILT, CLAY,SAND AND GRAVEL WITH NO PARTICLES LARGER THAN 6 INCHES. IF SUITABLE, EXCAVATED ON SITE SOILS SHALL BE SELECTIVELY STOCKPILED FOR USE AS EMBANKMENT FILL IN AREAS DESIGNATED BY THE ENGINEER. SOIL SUITABLE FOR USE AS EMBANKMENT FILL SHALL HAVE AT LEAST 40 PERCENT BY WEIGHT FINER THAN THE No. 200 SIEVE AND NO MORE THAN 15 PERCENT BY WEIGHT COARSER THAN THE No. 4 SIEVE. THE FILL SHALL BE FREE OF VEGETATION, ORGANIC MATERIAL AND FROZEN SOIL.
2. ALL AREAS TO BE FILLED SHALL BE FIRST PREPARED BY STRIPPING ALL TOPSOIL AND REMOVING ALL SOFT, WET OR ORGANIC SOIL THAT CANNOT BE COMPACTED BY PROOFROLLING WITH A VIBRATOR ROLLER WEIGHING AT LEAST 10 TONS. PROOFROLLING SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER AND SOIL WHICH CANNOT BE COMPACTED SHALL BE REMOVED.
3. ALL FILL SHALL BE PLACED IN LIFTS NOT EXCEEDING 8 INCHES IN THICKNESS WHEN LOOSE AND BE COMPACTED TO A DENSITY OF AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED IN ACCORDANCE WITH **ASTM–1557**. ROUGH UP SUBGRADE TO BLEND WITH FIRST LIFT.

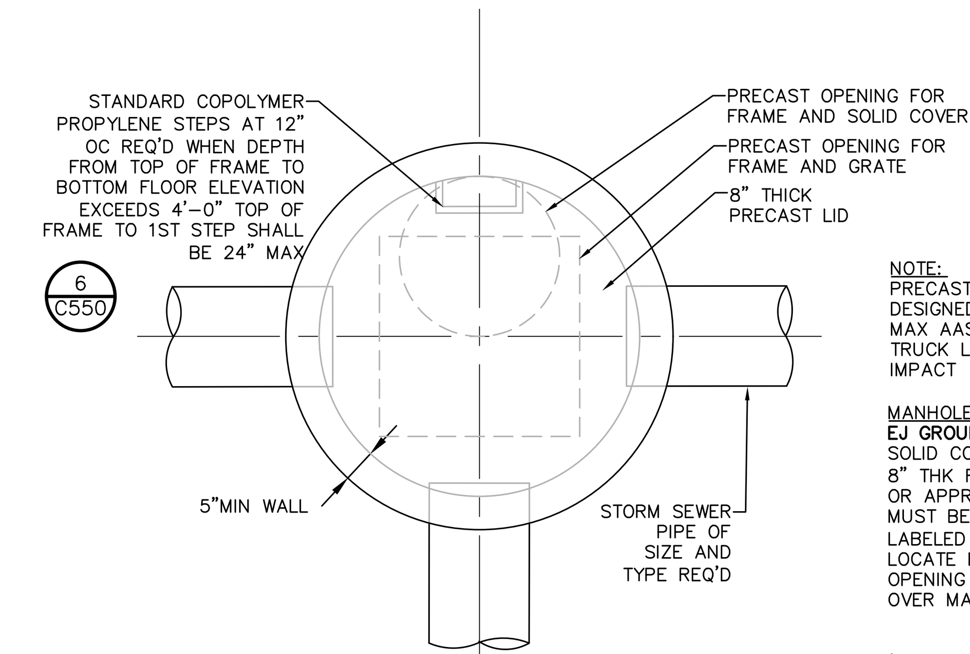
© 9 **TYPICAL SECTION THRU OVERFLOW WEIR**
SCALE: NOT TO SCALE



NOTES:

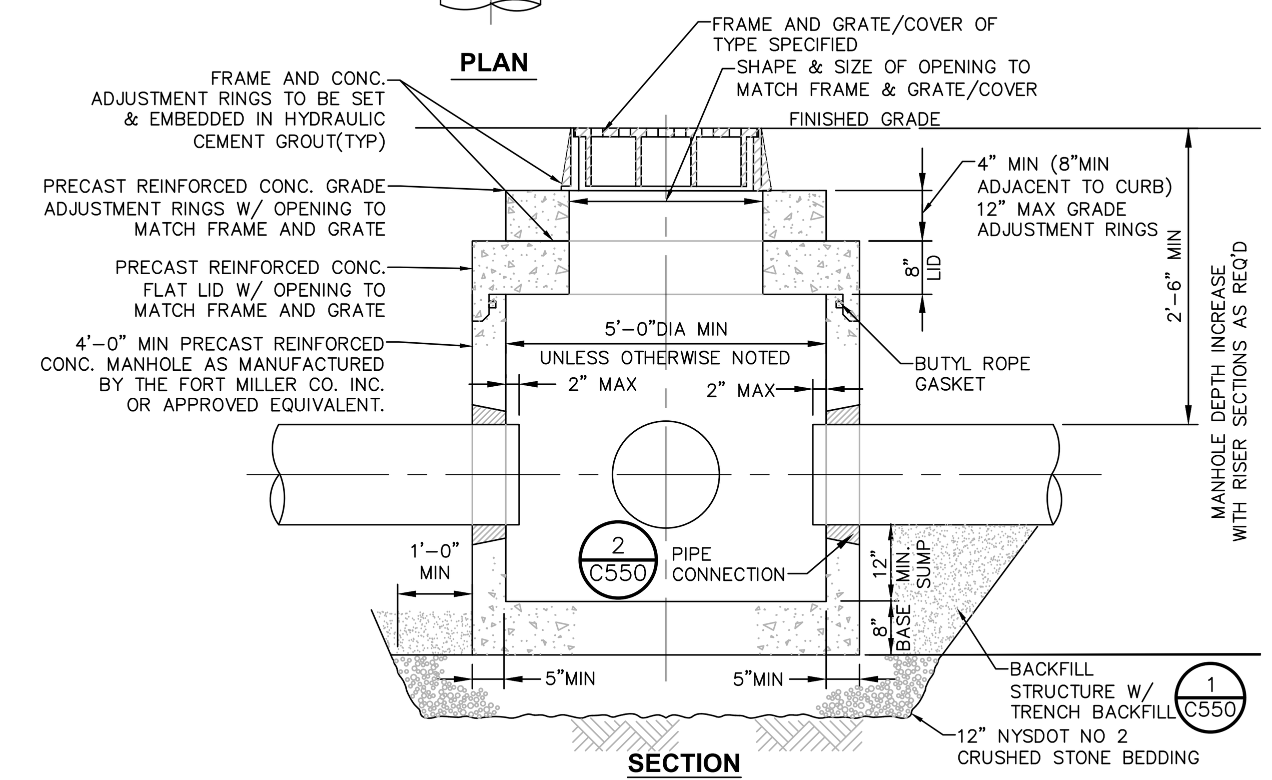
1. SEE LANDLOCK "INSTALLATION GUIDELINES" FOR EMERGENCY OVERFLOW WEIR EROSION CONTROL INSTALLATION.

© 10 **SECTION THRU STORM WATER MANAGEMENT BASIN OVER FLOW WEIR**
SCALE: NOT TO SCALE



NOTE:
PRECAST LID TO BE DESIGNED TO WITHSTAND MAX AASHTO HS20–44 TRUCK LOADINGS & 25% IMPACT

MANHOLES:
EJ GROUP
SOLID COVER **PN# 00120329**
8" THK FRAME **PN#00120715**
OR APPROVED EQUAL. COVER MUST BE CLEARLY LABELED "STORM SEWER" LOCATE MANHOLE COVER OPENING DIRECTLY OVER MANHOLE STEPS



NOTES:

1. STRUCTURE 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 LID CLEAR OPENING DIMENSION MUST MATCH FRAME AND GRATE CLEAR OPENING DIMENSION.
4. STRUCTURES HAVING A DEPTH GREATER THAN 48" FROM FINISHED SURFACE TO THE FLOOR 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. ECCENTRIC CONE TOP CAN BE USED FOR MANHOLES DEPTH GREATER THAN 7 FEET.
8. SEE CHART FOR REQUIRED MANHOLE DIAMETERS.
9. ALL PRECAST CONSTRUCTION IN ACCORDANCE W/**ASTM C478**
10. ALL PRECAST CONCRETE SHALL BE COATED INSIDE AND OUTSIDE (TOP ONLY) WITH A CLEAR POLYMER RESIN.
11. MH #1 IS 6' IN DIAMETER.

© 9 **PRECAST CONCRETE MANHOLE - 5' DIAMETER DETAIL**
SCALE: NOT TO SCALE

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APPLICANT NAME & ADDRESS:
ARGO DEVELOPMENT
95 CHESTNUT RIDGE ROAD
MONTVALE, NJ 07645

PROJECT NAME & LOCATION:
SOUTH AVE MULTI-FAMILY DEVELOPMENT
SOUTH AVENUE
CITY OF POUGHKEEPSIE, NY 12601

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2222201
DRAWN BY:
REVIEWED BY: CPL
ISSUED FOR: PLANNING BOARD REVIEW
DATE: 11/28/2022
DRAWING NAME:
STORM SEWER DETAILS
DRAWING NUMBER:
C550

11/29/2022 1:28:27 PM
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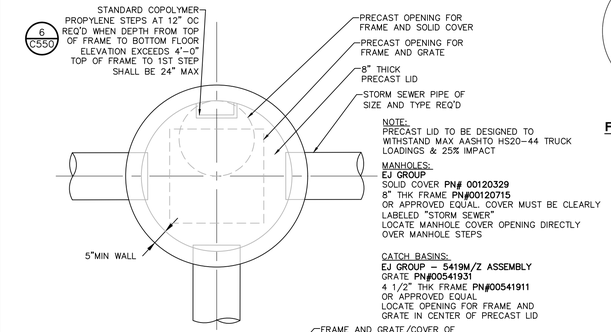
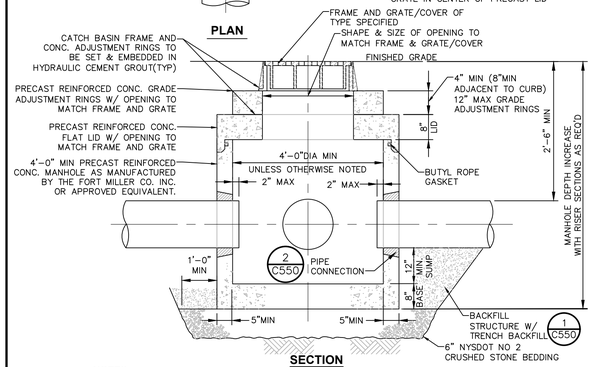


NOTE:
PRECAST LID TO BE DESIGNED TO WITHSTAND MAX AASHTO HS20–44 TRUCK LOADINGS & 25% IMPACT

MANHOLES:
EJ GROUP
SOLID COVER PN# 00120329
8" THK FRAME PN#00120715
OR APPROVED EQUAL. COVER MUST BE CLEARLY LABELED "STORM SEWER"
LOCATE MANHOLE COVER OPENING DIRECTLY OVER MANHOLE STEPS

CATCH BASINS:
EJ GROUP – 5419M/Z ASSEMBLY
GRATE PN#00541931
4 1/2" THK FRAME PN#00541911
OR APPROVED EQUAL
LOCATE OPENING FOR FRAME AND GRATE IN CENTER OF PRECAST LID

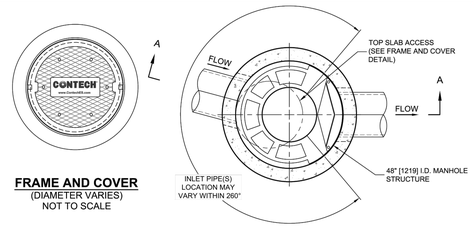
PLAN



SECTION

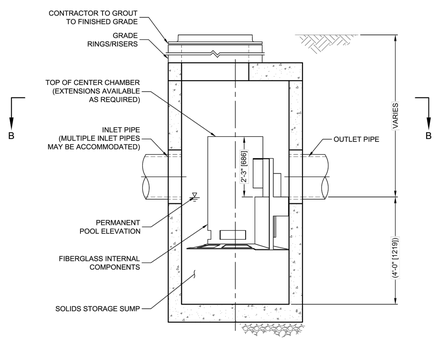
NOTES:
1. CATCH BASIN SHALL BE PRECAST CONCRETE. DESIGNED FOR HS20–44 VEHICULAR LOADING AND 25% IMPACT.
2. FRAME AND COVER SHALL BE DESIGNED FOR HS20–44 VEHICULAR LOADING & 25% IMPACT.
3. CONCRETE CATCH BASIN LID CLEAR OPENING DIMENSION MUST MATCH FRAME AND GRATE CLEAR OPENING DIMENSION.
4. CATCH BASINS HAVING A DEPTH GREATER THAN 48" FROM FINISHED SURFACE TO THE FLOOR 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. ECCENTRIC CONE TOP CAN BE USED FOR MANHOLES DEPTH GREATER THAN 7 FEET.
8. SEE CHART FOR REQUIRED MANHOLES / CATCH BASINS DIAMETERS.
9. ALL PRECAST CONSTRUCTION IN ACCORDANCE W/ASTM C478

© 1 **PRECAST CONCRETE CATCH BASIN/MANHOLE DETAIL**
SCALE: NOT TO SCALE



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

PLAN VIEW B-B
NOT TO SCALE

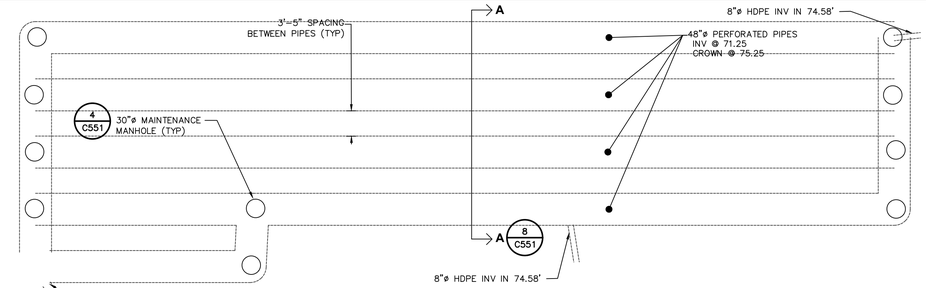


ELEVATION A-A
NOT TO SCALE

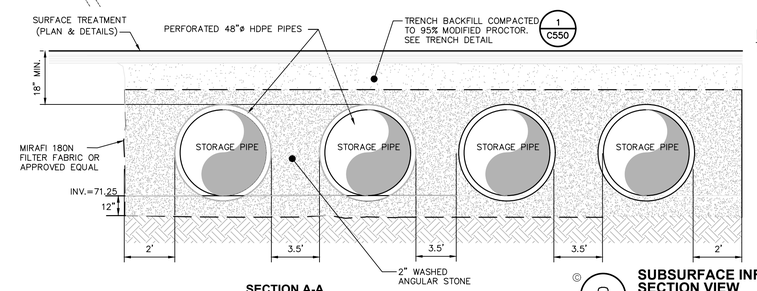
GENERAL NOTES
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
3. CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
4. CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
5. CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
6. ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

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 CASCADE SEPARATOR MANHOLE STRUCTURE.
C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
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.

© 2 **CONTECH CS-4 HYDRODYNAMIC SEPERATOR**
SCALE: NOT TO SCALE



© 6 **SUBSURFACE INFILTRATION SYSTEM - PLAN VIEW**
SCALE: NOT TO SCALE



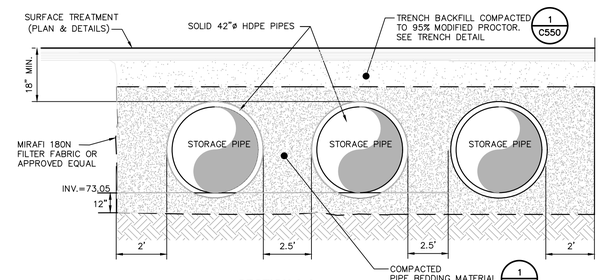
SECTION A-A

NOTES:
1. PIPE BEDDING MATERIAL SHALL BE COMPOSED OF CRUSHED STONE OR GRAVEL FREE OF SOFT NONDURABLE PARTICLES, ORGANIC MATERIALS AND THIN OR ELONGATED PARTICLES WITH THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
3/4"	100
3/8"	95–100
1/4"	0–15
No. 40	0–5

2. ALL CONNECTIONS SHALL BE WATERTIGHT AND PROVIDED TO ENGINEER FOR REVIEW.
3. HEADERS, MAINTENANCE MANHOLE/BARREL CONNECTIONS, INLET/BARREL CONNECTIONS, INLET/MAINTENANCE MANHOLE/ BARREL CONNECTIONS, SHALL BE PRE–FABRICATED BY MANUFACTURER.
4. MAINTENANCE SHALL BE IN ACCORDANCE WITH SWPPP.

© 8 **SUBSURFACE INFILTRATION SYSTEM - SECTION VIEW**
SCALE: NOT TO SCALE



SECTION A-A

NOTES:
1. PIPE BEDDING MATERIAL SHALL BE COMPOSED OF CRUSHED STONE OR GRAVEL FREE OF SOFT NONDURABLE PARTICLES, ORGANIC MATERIALS AND THIN OR ELONGATED PARTICLES WITH THE FOLLOWING GRADATION REQUIREMENTS:

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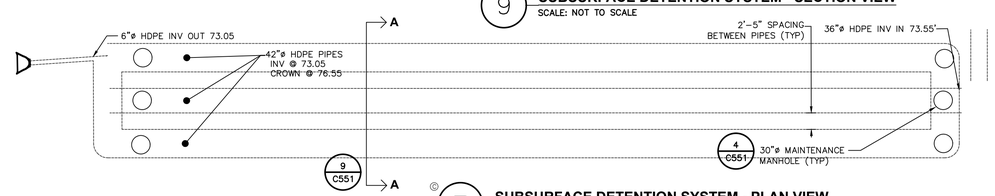
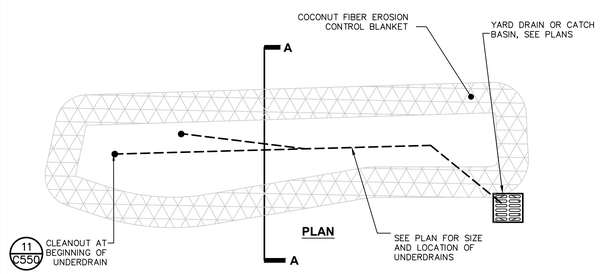
No. 40	0–5

2. ALL CONNECTIONS SHALL BE WATERTIGHT AND PROVIDED TO ENGINEER FOR REVIEW.
3. HEADERS, MAINTENANCE MANHOLE/BARREL CONNECTIONS, INLET/BARREL CONNECTIONS, INLET/MAINTENANCE MANHOLE/ BARREL CONNECTIONS, SHALL BE PRE–FABRICATED BY MANUFACTURER.
4. MAINTENANCE SHALL BE IN ACCORDANCE WITH SWPPP.

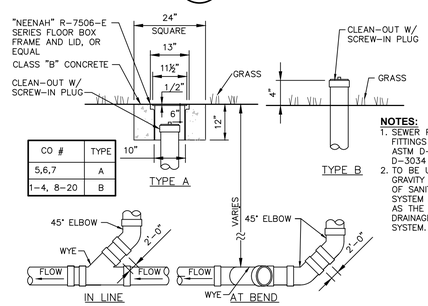
© 9 **SUBSURFACE DETENTION SYSTEM - SECTION VIEW**
SCALE: NOT TO SCALE



© 7 **SUBSURFACE DETENTION SYSTEM - PLAN VIEW**
SCALE: NOT TO SCALE



PLAN

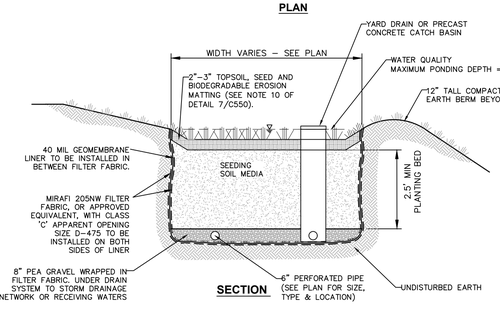


CO #	TYPE
5,6,7	A
1–4, 8–20	B

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 DRAINAGE SYSTEM.

© 11 **CLEAN OUT - NON TRAFFIC AREA**
SCALE: NOT TO SCALE

PLAN



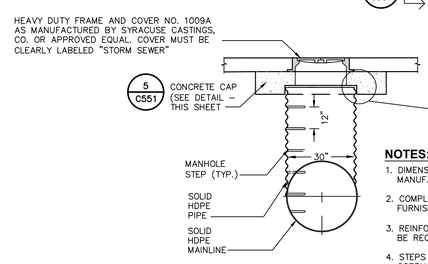
SECTION

NOTES:
1. BIORETENTION AREA SHALL BE SURROUNDED WITH SILT FENCE BARRIER AND BARRIER SHALL NOT BE REMOVED UNTIL ALL UPSTREAM AREAS ARE STABILIZED.
2. BACK FILLING OF BIORETENTION FACILITY SHALL BE PLACED IN 12" LIFTS.
3. MAIN COLLECTOR PIPE OF THE UNDER DRAIN SYSTEM SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS OR CLEAN OUT PIPES MUST BE PLACED EVERY 1000SF OF SURFACE AREA.
4. BIORETENTION AREA MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
5. PIPE SHALL BE SCHEDULE 40 3/8" PERFORATED AT 6" ON CENTER, 4 HOLES PER ROW
6. BASIN FLOOR SEEDING TO BE BIORETENTION BASIN FLOOR MIX APPROVED BY ENGINEER.
7. INSPECT AND REPAIR/REPLACE TREATMENT AREA COMPONENTS AFTER SIGNIFICANT RAIN EVENTS.
8. BIORETENTION AREA SHALL NOT BE USED AS SEDIMENT TRAP. RUNOFF SHALL NOT BE DISCHARGED TO BIORETENTION AREA UNTIL VEGETATIVE COVER IS ESTABLISHED.
9. BIORETENTION AREA 1 SHALLE HAVE A MEDIA DEPTH OF 4.0' AND BIORETENTION AREA 2 SHALL HAVE A MEDIA DEPTH OF 2.5'.

MATERIALS SPECIFICATION FOR BIORETENTION

PARAMETERS	SPECIFICATIONS	SIZE	NOTES:
SEEDING SOIL: ERNMX–126 RETENTION BASIN FLOOR SEEDING–LOW MAINTENANCE	SAND 35–60% SILT 30-55% CLAY 10–25%	N/A	USDA SOIL TYPES LOAMY SAND, SANDY LOAM OR LOAM
UNDERDRAIN	PEA GRAVEL: ASTM D 448 ORNAMENTAL STONE: WASHED COBBLES	PEA GRAVEL: NO 6 STONE: 2"–5"	
GEOTEXTILE	CLASS "C" APPARENT OPENING SIZE (ASTM–D–4751) GRAB TENSILE STRENGTH (ASTM–D–4632) BURST STRENGTH (ASTM–D–4833)	N/A	FOR USE AS NECESSARY BENEATH UNDERDRAINS ONLY
UNDERDRAIN GRAVEL	AASHTO M–43. NO. 67.	0.25" – 0.75"	3/8" PERF. @ 6" O.C., 4 HOLES PER ROW; MINIMUM OF 3" GRAVEL OVER PIES. NOT NECESSARY UNDERNEATH PIPES
UNDERDRAIN PIPING	ASTM D 1785 OR AASHTO M–278	6" RIGID SCHEDULE 40 PVC	3/8" PERF. @ 6" O.C., 4 HOLES PER ROW

© 3 **BIORETENTION DETAIL**
SCALE: NTS

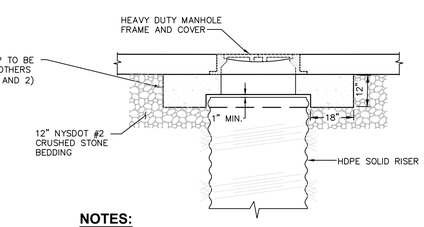


NOTES:
1. DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
2. COMPLETE SHOP DRAWINGS SHALL BE FURNISHED FOR FABRICATION.
3. REINFORCEMENT AND/OR SLIP JOINT MAY BE REQUIRED FOR MANHOLE RISER.
4. STEPS TO EXTEND TO BOTTOM OF CORRUGATED PIPE.

CROSS-SECTION

AN ALUMINUM WARNING PLATE SHALL BE RIVETED OR OTHERWISE PERMANENTLY ATTACHED TO EACH ACCESS 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 LATEST EDITION (TEN STATES STANDARDS)

© 4 **MAINTENANCE MANHOLE DETAIL**
SCALE: NOT TO SCALE



NOTES:
1. THE CONCRETE CAP SHALL BE SIZED AND DESIGNED SO THAT LOADS ARE TRANSMITTED TO THE SOIL AND NOT THE RISER. DESIGN FOR H–20 LOADING.
2. THE CONCRETE CAP SHALL BE SIZED TO PROVIDE AN ADEQUATE BOTTOM AREA BASED ON THE ALLOWABLE BEARING CAPACITY OF THE SOIL.

© 5 **CONCRETE CAP**
SCALE: NOT TO SCALE

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21 Fox Street
Poughkeepsie, NY 12601
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APPLICANT NAME & ADDRESS:
ARGO DEVELOPMENT
95 CHESTNUT RIDGE ROAD
MONTVALE, NJ 07645

PROJECT NAME & LOCATION:
SOUTH AVE MULTI-FAMILY DEVELOPMENT
SOUTH AVENUE
CITY OF POUGHKEEPSIE, NY 12601

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2222201
DRAWN BY:
REVIEWED BY: CPL
ISSUED FOR: PLANNING BOARD REVIEW
DATE: 11/28/2022
DRAWING NAME:

STORM SEWER DETAILS

DRAWING NUMBER:
C551

11/28/2022 1:28:50 PM
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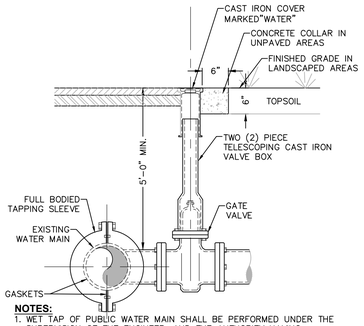
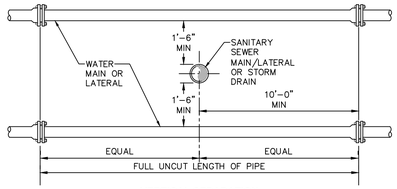
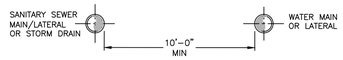


NOTES:
1. WET TAP OF PUBLIC WATER MAIN SHALL BE PERFORMED UNDER THE SUPERVISION OF THE ENGINEER, AND THE AUTHORITY HAVING JURISDICTION.
2. TAPPING SLEEVE AND VALVE SUPPORT SHALL BE COORDINATED WITH THE ENGINEER TO SUIT FIELD CONDITIONS.
3. MINIMUM DISTANCE TO JOINTS, FITTINGS, OR OTHER WET TAPS OR STOPS 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.

© 1 **TAPPING SLEEVE AND VALVE DETAIL**
SCALE: NOT TO SCALE



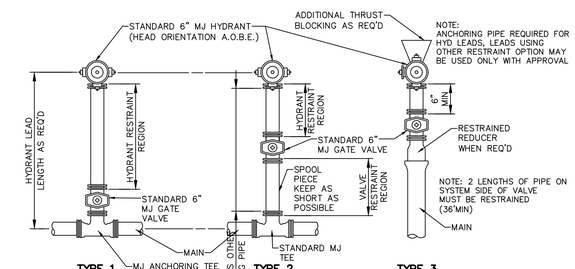
VERTICAL SEPARATION

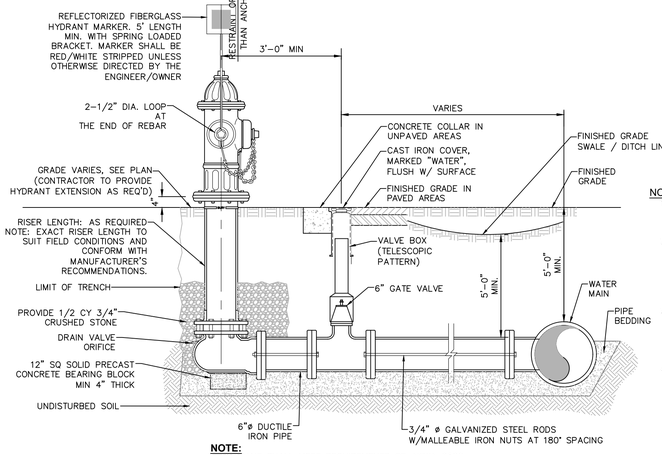


HORIZONTAL SEPARATION

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.

© 2 **SANITARY/STORM SEWER AND WATERMAIN SEPARATION DETAIL**
SCALE: NOT TO SCALE

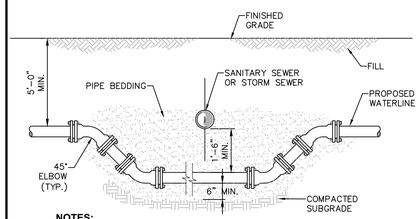




NOTES:
1. HYDRANTS SHALL BE **MUELLER SUPER CENTURION 250** OR APPROVED EQUIVALENT BY THE AUTHORITY HAVING JURISDICTION. HYDRANTS SHALL MEET REQUIREMENTS OF **AWWA STANDARD C-502.**
2. HYDRANTS SHALL BE CAST IRON BODY, DRY BARREL DESIGN, COMPRESSION-TYPE VALVE, OPENING AGAINST PRESSURE AND CLOSING WITH 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 INSTALLATION OR TRANSIT.

NOTE:
1. HYDRANT SHALL MEET REQUIREMENTS OF **AWWA C502.**

© 4 **HYDRANT ASSEMBLY 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.

© 3 **WATERLINE OFFSET DETAIL**
SCALE: NOT TO SCALE

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Revisions		

PROJECT NUMBER: 2222201
DRAWN BY:
REVIEWED BY: CPL
ISSUED FOR: PLANNING BOARD REVIEW
DATE: 11/28/2022
DRAWING NAME:

WATER SYSTEM DETAILS

DRAWING NUMBER:

C560

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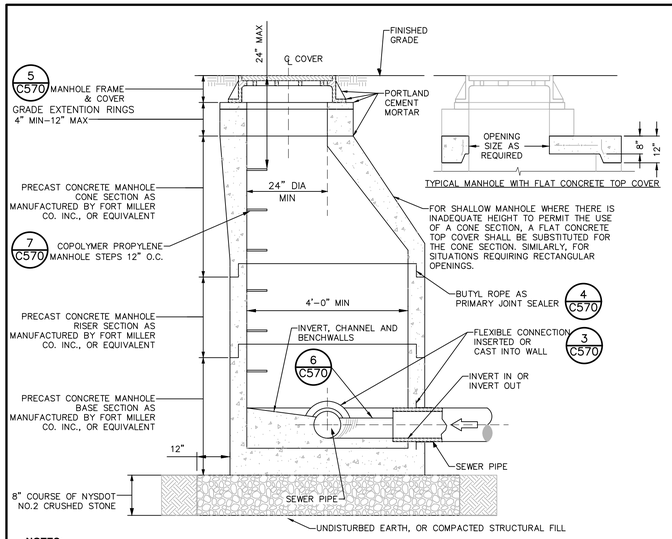


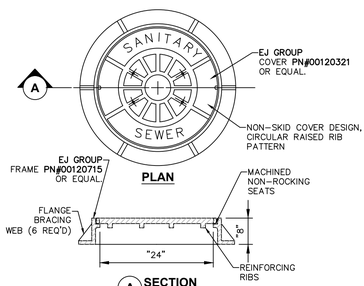
NOTES: USE ONLY WET–CAST UNITS. DRY–CAST NOT ACCEPTABLE

1.

CONE DIMENSIONS	
DIAM. OPENING	HEIGHT
24"	24" OR 42"
30"	34"

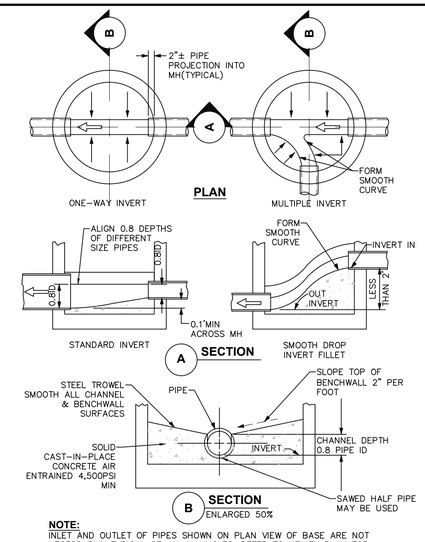
2. INVERT SHALL BE FILLETED.
3. REINFORCEMENT FOR MANHOLE COMPONENTS SHALL BE DESIGNED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW. STRUCTURE SHALL BE DESIGNED FOR HS20–44 VEHICULAR LOADING PLUS 25% IMPACT.
4. CONCRETE TO TEST **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.

© 1 **PRECAST CONCRETE MANHOLE**
SCALE: NOT TO SCALE



NOTE:
1. FRAME AND COVER SHALL BE DESIGNED FOR HS20–44 VEHICLE LOADING AND 25% IMPACT.

© 5 **HEAVY DUTY STANDARD CAST IRON MH COVER**
SCALE: NOT TO SCALE

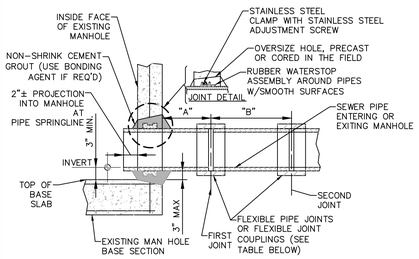


NOTE:
INLET AND OUTLET OF PIPES SHOWN ON PLAN VIEW OF BASE ARE NOT NECESSARILY TYPICAL OF ALL MANHOLES. REFER TO UTILITY PLAN FOR INLET AND OUTLET DIRECTIONS.

© 6 **INVERT, CHANNEL AND BENCHWALLS**
SCALE: NOT TO SCALE

MANHOLES AND OTHER BELOW GRADE STRUCTURES:

1. STRUCTURAL DESIGN FOR MANHOLES AND OTHER BELOW–GRADE PRECAST CONCRETE STRUCTURES:
   A. NON–TRAFFIC LOADS:
      BELOW GRADE PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO WITHSTAND LOADS IMPOSED BY STRUCTURE WEIGHT, EARTH COVER, LATERAL PRESSURE FROM EARTH AND GROUND WATER, AND LIVE LOADS SUCH AS PEDESTRIAN TRAFFIC OR MACHINERY ON OR ABOVE THE STRUCTURE; AND
   B. TRAFFIC LOADS:
      BELOW GRADE PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO ALSO WITHSTAND TRAFFIC LOADS CREATED BY AN HS20–44 TRUCK PLUS 25% IMPACT AS DEFINED IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) DESIGN STANDARDS.
2. MATERIAL WHICH SHALL BE UTILIZED IN THE CONSTRUCTION OF PRECAST CONCRETE STRUCTURES:
   CEMENT: ASTM C–150, TYPES **I,II,III,VI**
   SAND: NYSDOT STD. SPEC. SECTION NO. 703–0 CONCRETE SAND
   STONE: NYSDOT STD. SPEC. SECTION NO. 703–02 COARSE AGGREGATE
   STEEL BAR REINFORCEMENT: ASTM A615, GRADE 60
   WIRE MESH REINFORCEMENT: ASTM A185 PLAIN
   CONCRETE STRENGTH (28 DAY): 4,500 PSI (F'C)
   ENTRAINED AIR: 5% MIN.
3. ALL CASTINGS (FRAMES AND COVERS, FRAMES AND GRATES, ETC.) FOR USE IN CONJUNCTION WITH MANHOLES AND OTHER BELOW GRADE STRUCTURES SHALL BE MANUFACTURED FROM GRAY IRON OR DUCTILE IRON. GRAY IRON SHALL CONFORM WITH ASTM A 48, CLASS 30B AND DUCTILE IRON SHALL CONFORM WITH ASTM A 536 AND BE OF A GRADE APPROPRIATE TO ITS INTENDED USE.
4. ALL CASTINGS (FRAMES AND COVERS, FRAMES AND GRATES, ETC.) FOR USE IN CONJUNCTION WITH MANHOLES AND OTHER BELOW GRADE STRUCTURES SHALL BE DESIGNED TO WITHSTAND AASHTO HS 20–44 HIGHWAY LOADING PLUS 25% IMPACT.
5. ALL ASTM REFERENCES SHALL BE FOR THE LATEST ACTIVE STANDARD.



FLEXIBLE JOINT & WATERSTOP REQUIREMENTS

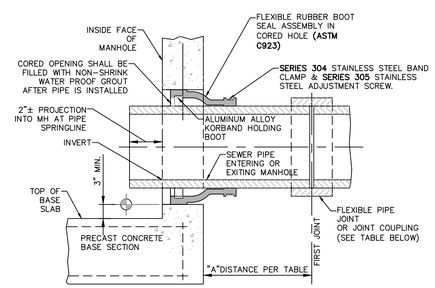
SEWER PIPE TYPE	FLEXIBLE JOINT TYPE IN & OUT	"A"DISTANCE (FEET)	"B"DISTANCE (FEET)	MH WATER STOP REQD
DUCTILE IRON	STD RUBBER GASKET PIPE JOINT ONLY	10'MAX	NO LIMIT	YES
PVC	SPECIAL FLEXIBLE JOINT COUPLING	1'MAX	3'MAX	YES

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.

© 2 **PIPE CONNECTION TO EXISTING MANHOLE- CEMENT GROUT SEAL WITH WATER STOP**
SCALE: NOT TO SCALE

MANHOLES AND OTHER BELOW GRADE STRUCTURES:

1. STRUCTURAL DESIGN FOR MANHOLES AND OTHER BELOW–GRADE PRECAST CONCRETE STRUCTURES:
   A. NON–TRAFFIC LOADS:
      BELOW GRADE PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO WITHSTAND LOADS IMPOSED BY STRUCTURE WEIGHT, EARTH COVER, LATERAL PRESSURE FROM EARTH AND GROUND WATER, AND LIVE LOADS SUCH AS PEDESTRIAN TRAFFIC OR MACHINERY ON OR ABOVE THE STRUCTURE; AND
   B. TRAFFIC LOADS:
      BELOW GRADE PRECAST CONCRETE STRUCTURES SHALL BE DESIGNED TO ALSO WITHSTAND TRAFFIC LOADS CREATED BY AN HS20–44 TRUCK PLUS 25% IMPACT AS DEFINED IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) DESIGN STANDARDS.
2. MATERIAL WHICH SHALL BE UTILIZED IN THE CONSTRUCTION OF PRECAST CONCRETE STRUCTURES:
   CEMENT: ASTM C–150, TYPES **I,II,III,VI**
   SAND: NYSDOT STD. SPEC. **SECTION NO. 703–0** CONCRETE SAND
   STONE: NYSDOT STD. SPEC. **SECTION NO. 703–02** COARSE AGGREGATE
   STEEL BAR REINFORCEMENT: **ASTM A615,** GRADE 60
   WIRE MESH REINFORCEMENT: **ASTM A185** PLAIN
   CONCRETE STRENGTH (28 DAY): **4,500** PSI (F'C)
   ENTRAINED AIR: 5% MIN.
3. ALL CASTINGS (FRAMES AND COVERS, FRAMES AND GRATES, ETC.) FOR USE IN CONJUNCTION WITH MANHOLES AND OTHER BELOW GRADE STRUCTURES SHALL BE MANUFACTURED FROM GRAY IRON OR DUCTILE IRON. GRAY IRON SHALL CONFORM WITH ASTM A 48, CLASS 30B AND DUCTILE IRON SHALL CONFORM WITH **ASTM A 536** AND BE OF A GRADE APPROPRIATE TO ITS INTENDED USE.
4. ALL CASTINGS (FRAMES AND COVERS, FRAMES AND GRATES, ETC.) FOR USE IN CONJUNCTION WITH MANHOLES AND OTHER BELOW GRADE STRUCTURES SHALL BE DESIGNED TO WITHSTAND AASHTO HS 20–44 HIGHWAY LOADING PLUS 25% IMPACT.
5. ALL ASTM REFERENCES SHALL BE FOR THE LATEST ACTIVE STANDARD.

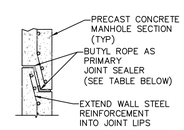


FLEXIBLE JOINT REQUIREMENTS

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.

© 3 **PIPE CONNECTION TO MANHOLE- PRECAST OR CORED HOLE W/ INSERTED FLEXIBLE BOOT**
SCALE: NOT TO SCALE



MANHOLE INSIDE DIAMETER	SIZE OF BUTYL ROPE JOINT SEALER
4'–0"	1"
5'–0" & LARGER	1 1/2"

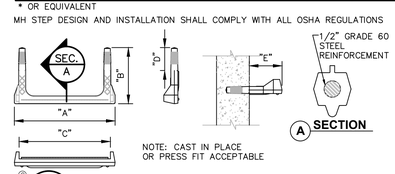
© 4 **MANHOLE JOINT**
SCALE: NOT TO SCALE

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



© 7 **COPOLYMER POLYPROPYLENE MH STEP**
SCALE: NOT TO SCALE

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MONTVALE, NJ 07645

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SANITARY SEWER DETAILS

DRAWING NUMBER:
C570

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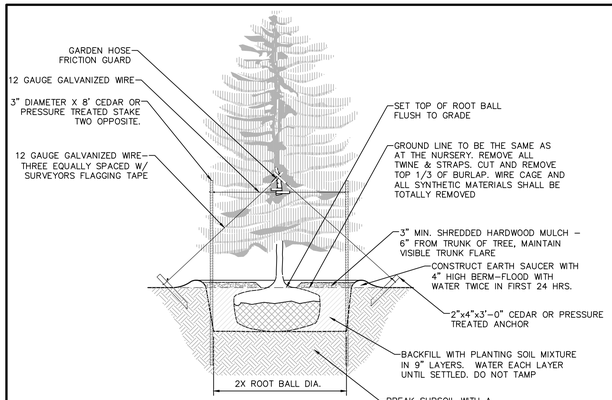
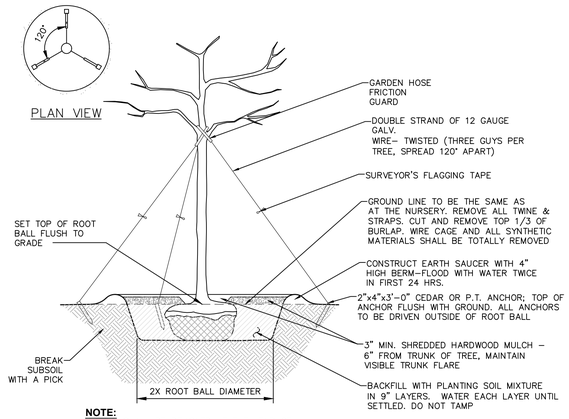


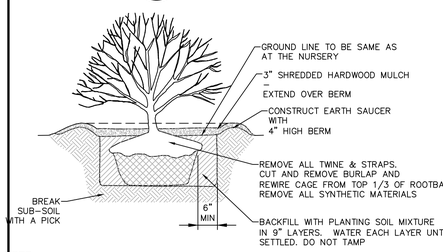
NOTES:
1. SPRAY WITH ANTIDESICCANT IN ACCORDANCE WITH MFG.'S RECOMMENDATIONS.
2. TREES LESS THAN 3" CALIPER SHALL BE STAKED.
3. TREES GREATER THAN 3" CALIPER AND UP SHALL BE GUYED AND ANCHORED.
4. STAKES SHALL BE REMOVED AT THE END OF THE FIRST GROWING SEASON AFTER PLANTING.

1 EVERGREEN PLANTING DETAIL
SCALE: NOT TO SCALE



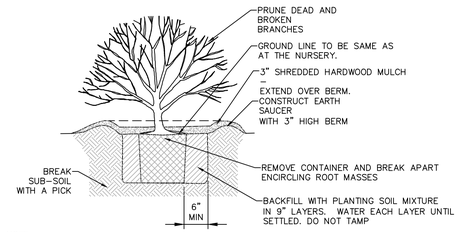
NOTE:
STAKES SHALL BE REMOVED AT THE END OF THE FIRST GROWING SEASON AFTER PLANTING

2 PLANTING AND GUYING DETAILS-FOR TREES 3" CALIPER AND LARGER, BALLED AND BURLAPPED
SCALE: NOT TO SCALE



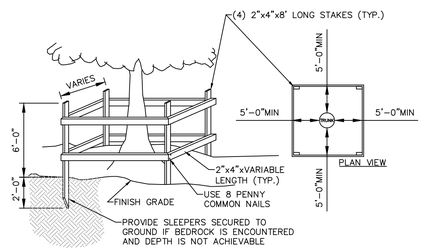
NOTE:
SPRAY WITH ANTIDESICCANT IN ACCORDANCE WITH MFG.'S RECOMMENDATIONS IF FOLIAGE IS PRESENT.

3 SHRUB PLANTING DETAIL FOR ALL SHRUBS BALLED AND BURLAPPED
SCALE: NOT TO SCALE



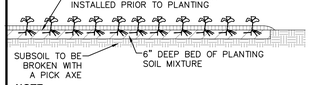
NOTE:
SPRAY WITH ANTI DESICCANT IN ACCORDANCE WITH MFG.'S RECOMMENDATIONS IF FOLIAGE IS PRESENT.

4 SHRUB PLANTING DETAIL FOR CONTAINERIZED SHRUBS
SCALE: NOT TO SCALE



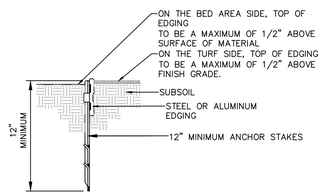
NOTE:
SEE LANDSCAPING PLAN FOR ADDITIONAL TREE PROTECTION NOTES.

5 TEMPORARY TREE PROTECTION DETAIL
SCALE: NOT TO SCALE



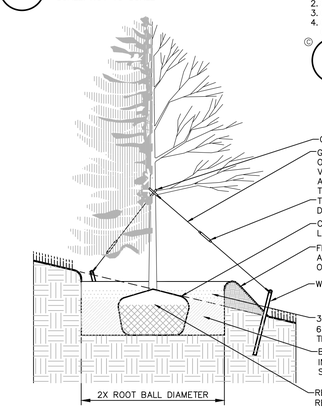
NOTE:
GROUND COVERS SHOULD BE POT OR CONTAINER GROWN.

6 GROUND COVER/ ANNUAL PLUG PLANTING
SCALE: NOT TO SCALE



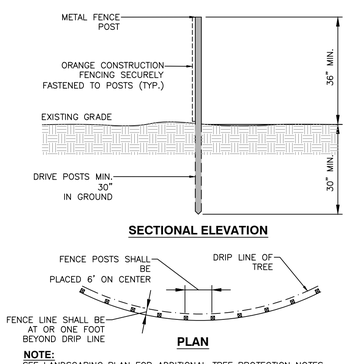
NOTES:
1. 16'–0" SECTIONS TO INCLUDE FIVE (5) 12" STAKES
2. 8'–0" SECTIONS TO INCLUDE THREE (3) 12" STAKES
3. COMPACT GRADES ADJACENT TO EDGING TO MINIMIZE SETTLING
4. CORNERS – CUT BASE OF EDGING HALF WAY AND FORM A CONTINUOUS CORNER.

7 LANDSCAPE BED EDGING
SCALE: NOT TO SCALE



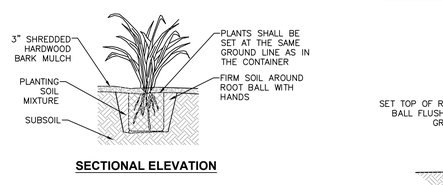
NOTE:
DETAIL SHALL BE UTILIZED FOR DECIDUOUS AND CONIFEROUS TREE PLANTING ON SLOPE.

8 TREE PLANTING ON SLOPE
SCALE: NOT TO SCALE



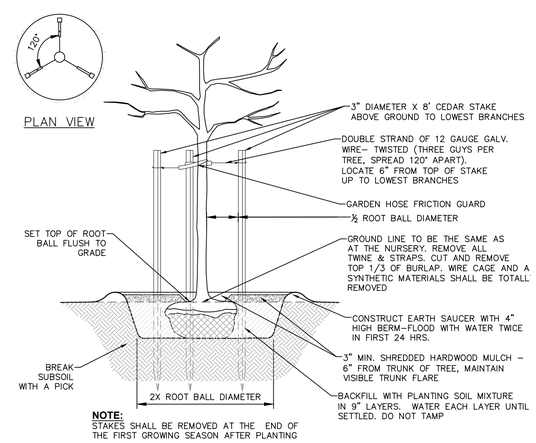
NOTE:
SEE LANDSCAPING PLAN FOR ADDITIONAL TREE PROTECTION NOTES.

9 TREE PROTECTION FENCING DETAIL
SCALE: NOT TO SCALE



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.

10 CONTAINERIZED PERENNIAL PLANTING
SCALE: NOT TO SCALE



NOTE:
STAKES SHALL BE REMOVED AT THE END OF THE FIRST GROWING SEASON AFTER PLANTING

11 PLANTING AND GUYING DETAILS-FOR TREES SMALLER THAN 3" CALIPER, BALLED AND BURLAPPED
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	MINIMUM % 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	MINIMUM % 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	MINIMUM % 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 (B.D.I) 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.

LaBella
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21 Fox Street
Poughkeepsie, NY 12601
(845) 454-3980
labellapc.com

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APPLICANT NAME & ADDRESS:
ARGO DEVELOPMENT
95 CHESTNUT RIDGE ROAD
MONTVALE, NJ 07645

PROJECT NAME & LOCATION:
SOUTH AVE MULTI-FAMILY DEVELOPMENT
SOUTH AVENUE
CITY OF POUGHKEEPSIE, NY 12601

NO:	DATE:	DESCRIPTION:
Revisions		

PROJECT NUMBER: 2222201
DRAWN BY:
REVIEWED BY: CPL
ISSUED FOR: PLANNING BOARD REVIEW
DATE: 11/28/2022
DRAWING NAME:

LANDSCAPE DETAILS

DRAWING NUMBER:
C580

11/29/2022 1:29:45 PM
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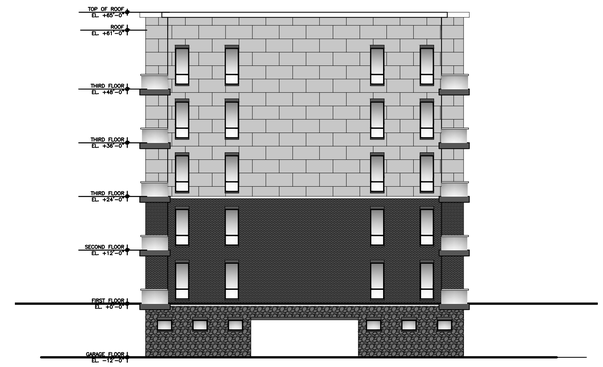
SOUTH AVENUE MULTI-FAMILY DEVELOPMENT

EAST (SOUTH AVENUE) ELEVATION

SOUTH ELEVATION



NORTHWEST ELEVATION

WEST (INTERIOR COURTYARD) ELEVATION NORTHWEST (INTERIOR COURTYARD) ELEVATION

NORTH ELEVATION

0 8' 16' 32'

SCALE: 1/16" = 1'-0"

11.28.22
22054

ARGO CONSTRUCTION AND DEVELOPMENT

LISCUM McCORMACK VANVOORHIS
ARCHITECTS PLANNERS INTERIORS
181 CHURCH STREET
POUGHKEEPSIE NY 12601

Full Environmental Assessment Form

South Avenue Multi-Family Development
South Avenue

City of Poughkeepsie
Dutchess County, New York

Issued: November 29, 2022

Prepared for:
ARGO Development
95 Chestnut Ridge Road
Montvale, NJ 07645

Prepared by:
LaBella Associates
21 Fox Street Suite 201
Poughkeepsie, NY 12601
845-486-1541

LaBella Project No. 2222201

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FULL ENVIRONMENTAL ASSESSMENT FORM, PART 1

FIGURES

Figure 1: USGS Location Map
Figure 2: Orthophoto Tax Map
Figure 3: Land Use Map
Figure 4: Soils Map
Figure 5: Wetlands and Streams Map
Figure 6: DEC Environmental Resources Map
Figure 7: CRIS Map
Figure 8: Scenic Resources Map

ATTACHMENTS

Attachment A - United States Fish and Wildlife Service (USFWS) Informal Species List

Site Plan Set will be submitted separately

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1.0 PROJECT DESCRIPTION

1.1 Introduction

The Applicant, ARGO Development is seeking site plan approval from the City of Poughkeepsie, to develop an 87-unit, mid-rise multifamily residential development with underground and surface-level parking. The proposed action will be located on an approximately 2.76-acre parcel on the west side of South Avenue (Tax Lot 937583) in the City of Poughkeepsie. The proposed action includes construction of a five-story building with 87, one-bedroom, apartments located over one level of underground parking (60 spaces), and 84 off-street surface parking spaces. The parcel is currently a wooded lot. The parcel is located within the R-D, Research and Development District. Residential development is a permitted use within the R-D zone, subject to the requirements of the High-Density R-5 District Permitted Uses [Section 19-3.16(2)], and further subject to all other requirements applicable to High-Density R-5 District residential development. Primary access will be provided via South Avenue. Municipal water and sanitary sewer are available in South Road. The proposed ground disturbance is approximately 2.5 acres. Since the site will have more than 1 acre of ground disturbance, the proposed action will also require a SPDES General Permit for stormwater.

1.2 Approvals, Consultations and Referrals

The following approvals are required for the implementation of the proposed project:

1. City of Poughkeepsie Planning Board- Site Plan Approval
2. City of Poughkeepsie Department of Public Works (DPW) – Highway Work Permit; Water and Sewer Connections
3. Dutchess County Planning Board – GML 239-m referral
4. NYS Department of Environmental Conservation (NYSDEC) – State Pollutant Discharge Elimination System (SPDES) General Permit GP-0-20-001
5. NYS Office of Parks, Recreation, and Historic Preservation (OPRHP) – SHPO Consult

2.0 ENVIRONMENTAL ASSESSMENT

2.1 Land Use, Zoning and Public Policy

2.1.1 Land Use

The project site is located in the Research and Development District (R&D). The land uses located within 1,000 feet of the project site are characterized by commercial (office buildings with associated parking), vacant (wooded areas), public services (Central Hudson Gas & Electric), and single-family residential properties (see Figure 3).

The proposed use, as an 87-unit, mid-rise multifamily residential development with underground and surface-level parking, is a permitted use within the R&D zone, subject to the requirements of the High-Density R-5 District Permitted Uses [Section 19-3.16(2)],798 and

further subject to all other requirements applicable to High-Density R-5 District residential development.

The proposed use is permitted and will be consistent with the mixed land use character of the area.

2.1.2 Zoning

In the City of Poughkeepsie, the project site is located within the R&D zoning district. Residential development is classified as a permitted use within the R-D zone, subject to the requirements of the High-Density R-5 District Permitted Uses and all other requirements applicable to High-Density R-5 District residential development.

Per ZS 19-3.16(2)(a)(4), multifamily dwellings are classified as permitted uses within the R-5 District.

Per ZS 19-3.16(3)(a), off-street parking is classified as an accessory use within the R-5 District.

The proposed project will comply with all of the lot, bulk, and design requirements and standards included in ZS 19-3.16(4), ZS 19-3.16(5), and ZS 19-3.16(6).

2.1.3 Public Policy

The 2022 City of Poughkeepsie Comprehensive Plan, PK4 Keeps, discusses expanding access to good and affordable housing opportunities, strengthening civic life and commercial vitality, as well as improving residential quality of life, as three of five chosen priorities for the City. The Comprehensive Plan classifies the project site as within the Type 2 residential block type. Goals for this block type include a combination of condition stabilization and inclusive reinvestment that leverages the presence of stronger properties and community assets. The proposed multifamily development will signify reinvestment in the South Avenue community and will revitalize the immediate area. The Comprehensive Plan also classifies the project site as within a five-minute walkshed area, thus creating convenience and accessibility to commercial uses in the immediate vicinity.

2.2 Utilities

The proposed project will involve greater than one acre of ground disturbance; therefore, coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities will be sought. A Stormwater Pollution Prevention Plan (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.

Municipal water and sanitary sewer are available, and the project is proposed to connect to water and sewer infrastructure within South Road. The Applicant will coordinate with the City of Poughkeepsie Department of Public Works for water and sewer connections.

2.3 Soils and Water Resources

2.3.1 Soils

The following table provides the soil characteristics for each soil type expected to be found on the project site, according to the USDA Natural Resources Conservation Service website (see Figure 4). Groundwater encountered during the construction will be pumped from the open excavations and discharged to approved sediment trapping devices in accordance with NYSDEC guidelines.

Table 1: Characteristics of Anticipated Soil Types within Project Site

% of SITE	SOIL SYMBOL	SOIL TYPE	FARMLAND CLASSIFICATION	SLOPES	DRAINAGE	DEPTH TO WATER TABLE	DEPTH TO BEDROCK
98.2	Ud	Udorthents, smoothed	Not prime farmland	0-8%	Well drained	~36 to 72 inches	>80 inches
1.8	Ur	Urban Land	Not prime farmland				

2.3.2 Surface Water Resources and Floodplains

According to NYSDEC Wetland and Stream information available through GIS (Figure 5), the EAF Mapper, and National Wetland Inventory mapping, there are no wetlands or other waterbodies on or near the project site.

Therefore, the proposed project will not result in any adverse impacts to wetlands or streams.

2.4 Vegetation and Wildlife

According to the NYSDEC Environmental Resource Mapper (Figure 6), there are known occurrences of the atlantic sturgeon, shortnose sturgeon, and bald eagle on or in the vicinity of the project site.

According to the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), the project lies within the range of records for indiana bat (endangered) and the monarch butterfly, a candidate species. Candidate species are not regulated by the USFWS (See Attachment A). The IPaC also states that there are no critical habitats at the project location.

The proposed project will require clearing of the entire wooded site (2.5 acres) for construction of the proposed apartment building. To avoid direct or indirect take of bat species, it is recommended that any forest clearing take place between October 30 and March 31, as during this time, the bats would be hibernating and not present onsite.

The atlantic sturgeon and shortnose sturgeon are aquatic species and are found within the Hudson River or immediately adjacent tributaries. The Hudson River is approximately 1,450 feet away from the project site, and therefore the proposed project will not result in any adverse impacts to these species.

An information request has been submitted to NYSDEC for further information regarding the bald eagle. However, based on the NYSDEC Environmental Resource Mapper, the centroid for the bald eagle element occurrence record appears to lie in the vicinity of the Poughkeepsie Rural Cemetery. The heavily traveled NYS Route 9 and the offices for Central Hudson Gas & Electric, lie between the project site and the element occurrence record.

Based on Google Earth, the area within 330 feet of the southern edge of the property is dominated by the heavily traveled NYS Route 9 and the northern portion of the Central Hudson Gas & Electric offices. From 330 to 660 feet from the southern property boundary, the area is dominated by the parking lots for Central Hudson Gas & Electric offices. From 660 to approximately 2,795 feet, the area is dominated by the Poughkeepsie Rural Cemetery. A pond, in the center of the Poughkeepsie Rural Cemetery, which may be close to the location of the bald eagle nest, is more than a ½ mile (2,795 feet) from the southern limits of the project area. Given the intervening highway and commercial land use, and the ½ mile distance from the project area, it is unlikely that the construction or operation of the proposed project will have adverse impacts on the bald eagle. LaBella is making an inquiry to NYSDEC Region 3 to determine the location of the nest and to consult on the bald eagle as necessary.

The project site lies in the vicinity of a significant natural community as shown by the crosshatched pattern on figure 6. This significant natural community is the Hudson River Estuary. The project site lies approximately 1,450 feet away from the Hudson River, and thus is not expected to have any effect on the significant natural community.

2.5 Historic and Archaeological Resources

According to the NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) Cultural Resource Information System (CRIS) mapping (Figure 7), there are no National or State Historic Register sites on the project site nor are there any located substantially contiguous to the site.

Approximately 500 feet away from the project site, along the eastern border of Academy Street, there is a National Register Historic Building Site. The Matthew Vassar Estate (NR# 90PR04179) is located at Academy Street in the City of Poughkeepsie and is listed on the National Register. The estate was nominated for its significance based on National Register Criterion C, due to its representation of Mid-19th Century Gothic Revival Architecture

The project site is located within a known archaeologically sensitive area. Therefore, a consultation request has been submitted to NYSOPRHP.

2.6 Environmental Contamination

Historic uses of the project site include a filling station (circa 1952), with no indication of automotive work that would generate waste oils was provided. Other former uses of the project site include a freight yard, warehouse, coal and coke storage, and a fuel company with five apparent storage tanks.

Central Hudson Gas and Electric (CHG&E) facility at 284 South Avenue is identified on the Recovered Govt. Archives Landfill (RGA LF) Database in the years 1992 to 1996. This property is adjoining the Subject Property to the southwest but is approximately 250 feet away across Route 9. CHG&E is listed as a RCRA small quantity generator and a RCRA large quantity

generator, generating mercury, paint thinner, and corrosive and ignitable waste. No information has been provided indicating a release of hazardous waste to the property and this facility is downgradient of the project site. Therefore, the RCRA generator status of this facility is not expected to have impacted the project site's soil, groundwater, or soil vapor quality.

2.7 Traffic

According to the Institute of Transportation Engineers (ITE) Traffic Generation Manual, 11th Edition, multifamily housing, specifically 87 apartment units, (Land Use Code 221) is expected to generate 27 vehicle trip ends (vtes) per weekday a.m. peak hour of adjacent street traffic (6 entry/21 exit) and 34 vtes per weekday p.m. peak hour of adjacent street traffic (21 entry/13 exit). The total of 27 a.m. peak hour vtes and total of 34 p.m. peak hour vtes, are each below the NYSDOT and ITE guideline of 100 peak hour trips for warranting a detailed traffic analysis.

Therefore, it is safe to assume that the proposed project will not adversely affect the traffic operations on the surrounding roadway network.

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FULL ENVIRONMENTAL ASSESSMENT FORM PART 1

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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: South Avenue Multi-Family Development		
Project Location (describe, and attach a general location map): South Avenue, City of Poughkeepsie, Dutchess Co., New York ; Tax Parcel ID 6061-52-937583		
Brief Description of Proposed Action (include purpose or need): The Applicant, ARGO Development is seeking site plan approval from the City of Poughkeepsie, to develop an 87-unit, mid-rise multifamily residential development with underground and surface-level parking. The proposed action will be located on an approximately 2.76-acre parcel on the west side of South Avenue (Tax Lot 937583) in the City of Poughkeepsie. The proposed action includes construction of a five-story building with 87, one-bedroom, apartments located over one level of underground parking (60 spaces), and 84 off-street surface parking spaces. The parcel is currently a wooded lot. The parcel is located within the R-D, Research and Development District. Residential development is a permitted use within the R-D zone, subject to the requirements of the High-Density R-5 District Permitted Uses [Section 19-3.16(2)], and further subject to all other requirements applicable to High-Density R-5 District residential development. Primary access will be provided via South Avenue. Municipal water and sanitary sewer connections are available in South Road. The proposed ground disturbance is approximately 2.5 acres. Since the site will have more than 1 acre of ground disturbance, the proposed action will also require a SPDES General Permit for stormwater.		
Name of Applicant/Sponsor: ARGO Development (Contact: Mr. Michael Abuladze, CEO)	Telephone: 914-494-2610 E-Mail: mike@argodev.com	
Address: 95 Chestnut Ridge Road		
City/PO: Montvale	State: NJ	Zip Code: 07645
Project Contact (if not same as sponsor; give name and title/role): Same as Applicant/Sponsor	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): South Ave Real Est Assoc LLC	Telephone: 914-494-2610 E-Mail: mike@argodev.com	
Address: 510 Haight Ave		
City/PO: Poughkeepsie	State: NY	Zip Code: 12603

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		
b. City, Town or Village Planning Board or Commission ☑Yes ☐No	City of Poughkeepsie Planning Board - Site Plan Approval	Winter 2022
c. City, Town or Village Zoning Board of Appeals ☐Yes ☑No		
d. Other local agencies ☑Yes ☐No	City of Poughkeepsie DPW - Highway Work Permit; Water & Sewer Connections	Winter 2022/2023
e. County agencies ☑Yes ☐No	Dutchess County Planning - GML 239-m Referral	Winter 2022
f. Regional agencies ☐Yes ☑No		
g. State agencies ☑Yes ☐No	NYSDEC - SPDES GP-0-20-001; SWPPP; NYSOPRHP SHPO consult	Winter 2022/2023
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):

Dutchess County Greenway Compact Program; Hudson River Valley Greenway

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?
Research and Development District (R-D)

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? Poughkeepsie City 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?
Eastman Park, Harriet Tubman Park, Murphy Park, Mansion Square Park, Kaal Rock 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 Development - Apartments

b. a. Total acreage of the site of the proposed action? 2.76 acres
b. Total acreage to be physically disturbed? ~2.5 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 2.76 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	0	0	0	87
At completion of all phases	0	0	0	87

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.

_____

_____

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? _____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: The apartment units would require 110 gallons per day. Assuming 87 apartment units (110 gpd) x 87 units = 9,570 GPD.

i. Total anticipated water usage/demand per day: 9,570 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: The City of Poughkeepsie Townwide Water District
- 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:
NA

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

d. Will the proposed action generate liquid wastes? ☑Yes ☐No
If Yes: The apartment units would require 110 gallons per day. Assuming 87 apartment units (110 gpd) x 87 units = 9,570 GPD.

i. Total anticipated liquid waste generation per day: 9,570 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):

NA

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

None

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 1.48 acres (impervious surface)

_____ Square feet or 2.76 acres (parcel size)

ii. Describe types of new point sources. New building, parking lot, sidewalks, pavement

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)?

Areas impacted by development will be diverted to on-site stormwater practices focused on meeting NYSDEC detention and qualitative requirements. In areas not impacted by proposed development, stormwater runoff will continue to flow along existing flow paths.

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

  No
- 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 sources during construction

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

Boilers, Electric generation

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): NA

iii. Parking spaces: Existing 0 Proposed 144 Net increase/decrease +144

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:

Primary access will be provided via South Avenue.

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? EV vehicles may be included inside the parking garage. ☑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:

NA

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

NA

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: 6:30AM-9PM
- Saturday: 6:30AM-9PM
- Sunday: 6:30AM-9PM
- Holidays: 6:30AM-9PM

ii. During Operations:

- Monday - Friday: 24/7
- Saturday: 24/7
- Sunday: 24/7
- Holidays: 24/7

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:

The proposed construction activities may result in noise that exceeds local ambient noise levels. These activities are temporary and will be limited to the hours stated in subsection l above.

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☑ Yes ☐ No

Describe: The entire project site will be cleared. Adjoining properties are commercial uses.

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:

Lightpoles and wall mounted lighting (3000K). Full cut-off. Surrounding properties are commercial uses.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☐ No

Describe: The entire project site will be cleared. Adjoining properties are commercial uses.

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):

NA

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: NA tons per NA (unit of time)
- Operation : NA tons per NA (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: NA
- Operation: NA

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: NA
- Operation: NA

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): parking lots

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	1.48	+1.48
• Forested	2.56	0.08	-2.48
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0.20	1.20	+1.00
• 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: None	0	0	0

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:

Precious Keepers LLC (adult day care center); Vassar Brothers Hospital

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? **Unknown** ☐ Yes ☐ No

- If yes, cite sources/documentation: Central Hudson Gas & Electric - Recovered Govt. Archives Landfill (RGA LF) Database

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

See FEAF Section 2.6 Environmental Contamination for more info

iii. Describe any development constraints due to the prior solid waste activities: _____

See FEAF Section 2.6 Environmental Contamination for more info

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:

See FEAF Section 2.6 Environmental Contamination for more info

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: _____

CHG&E is listed as a RCRA small quantity generator and a RCRA large Quantity generator. Located downgradient with no impact to project site.

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): B00190, 546031

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

1. Hudson River Waterfront-DeLaval Property (B00190) - Class C: Remediation was successfully completed through the Environmental Restoration Program, and there is an Environmental Easement on the property. 2. Hudson River PCB Sediments (546031) - Class 2: State Superfund Program; Remedial actions vary from deploying signs to installing various covers and are intended to reduce exposures to PCBs in floodplain soils until a permanent remedy is developed. Additionally, a remedial investigation to address floodplain soils in the Upper Hudson River Floodplain under USEPA and State oversight is now underway.

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? >6 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:

Udorthents, smoothed (Ud)	98.2 %
Urban Land (Ur)	1.8 %
	%

d. What is the average depth to the water table on the project site? Average: ~3-6 feet

e. Drainage status of project site soils:
- ☑ Well Drained: 98.2 % of site
- ☐ Moderately Well Drained: _____% of site
- ☐ Poorly Drained _____% of site

f. Approximate proportion of proposed action site with slopes:
- ☑ 0-10%: 98.2 % 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: _____
Wildlife native to Dutchess County _____ _____ _____
_____ _____ _____

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No
If Yes: The project site does not contain a designated significant natural community, however it is near the Hudson River Estuary, which is located off-site and west of the project site.
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): _____
NYSDEC: Atlantic Sturgeon, Bald Eagle, Shortnose Sturgeon; IPaC: Indiana Bat
_____

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: The historic resource is not substantially contiguous to the project site.

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☑ Historic Building or District

ii. Name: Vassar, Matthew, Estate

iii. Brief description of attributes on which listing is based:

Mid-19th Century Gothic Revival Architecture

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: Refer to Figure 8

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Refer to Figure 8

iii. Distance between project and resource: 0-5 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 Michael Abuladze, ARGO Development Date 11/29/22

Signature Krithika Prabhakaran, Agent for Applicant *Krithika Prabhakaran* Title Urban Planner, LaBella Associates

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]	Yes
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]	B00190, 546031
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]	Yes

E.2.o. [Endangered or Threatened Species - Name]	Atlantic Sturgeon, Bald Eagle, Shortnose Sturgeon
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]	Vassar, Matthew, Estate
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

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FIGURES

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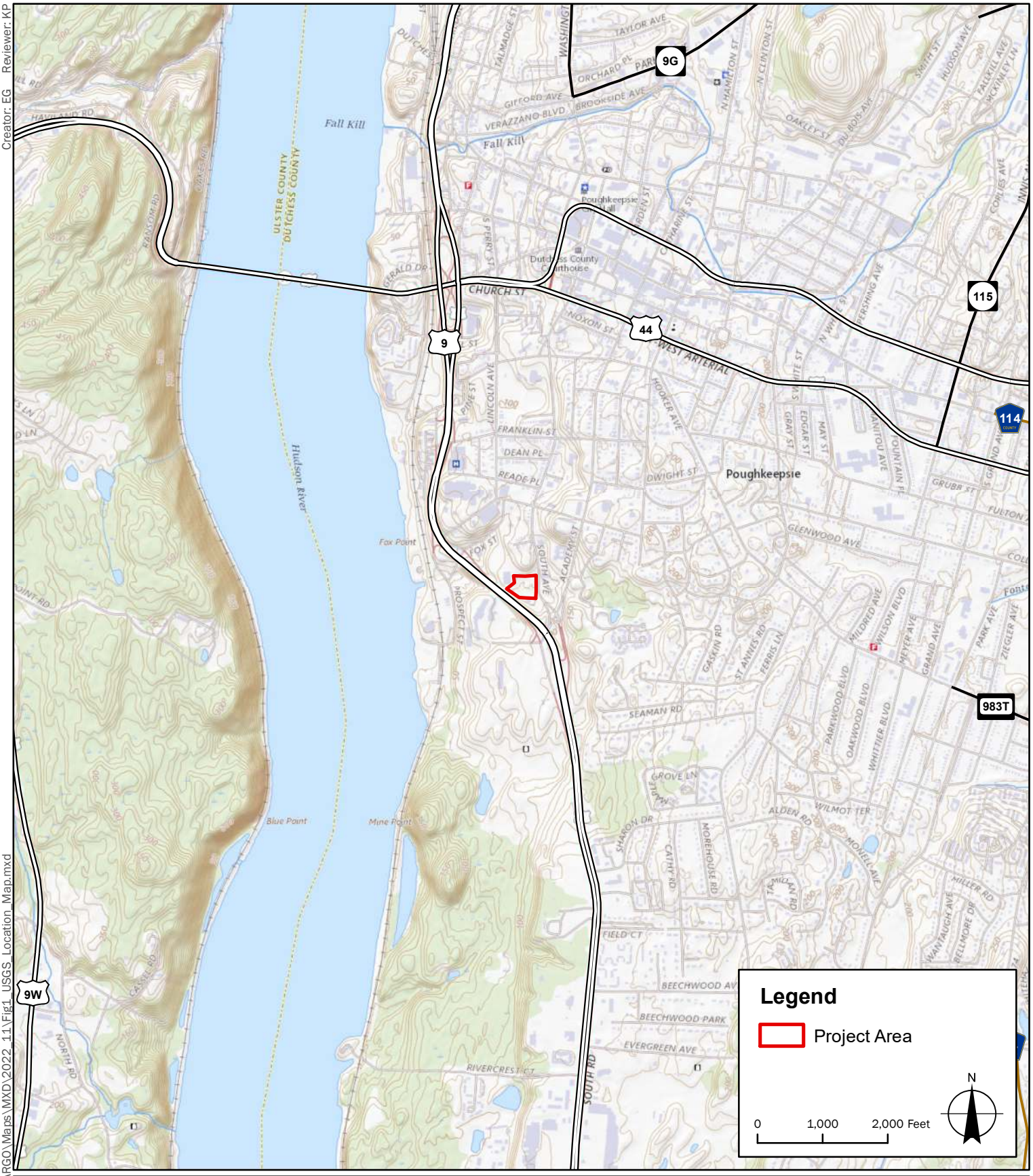
Creator: EG Reviewer: KP



Sources:
1. Project Area: LaBella 2022; Regrid 2021
2. Streets: NYS GIS Program Office 2022
3. Basemap: USGS Topo Map

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South Avenue,
City of Poughkeepsie,
Dutchess Co., New York

South Avenue
ARGO Development

LaBella Project No: 2222201
Date: 11/14/2022

USGS Location Map

FIGURE 1

Path: B:\GIS\DIG\Projects\FEAF\ARGO\Maps\MXD\2022_11\Fig1_USGS_Location_Map.mxd

Creator: EG Reviewer: KP

Path: B:\GIS\DIG\Projects\FEAF\ARGO\Maps\MXD\2022_11\Fig2_Orthophoto_Tax_Map.mxd

Sources:
1. Project Area: LaBella 2022
2. Tax Parcels: Regrid 2021
3. Streets: NYS GIS Program Office 2022
4. Basemap: Bing Maps

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South Avenue,
City of Poughkeepsie,
Dutchess Co., New York

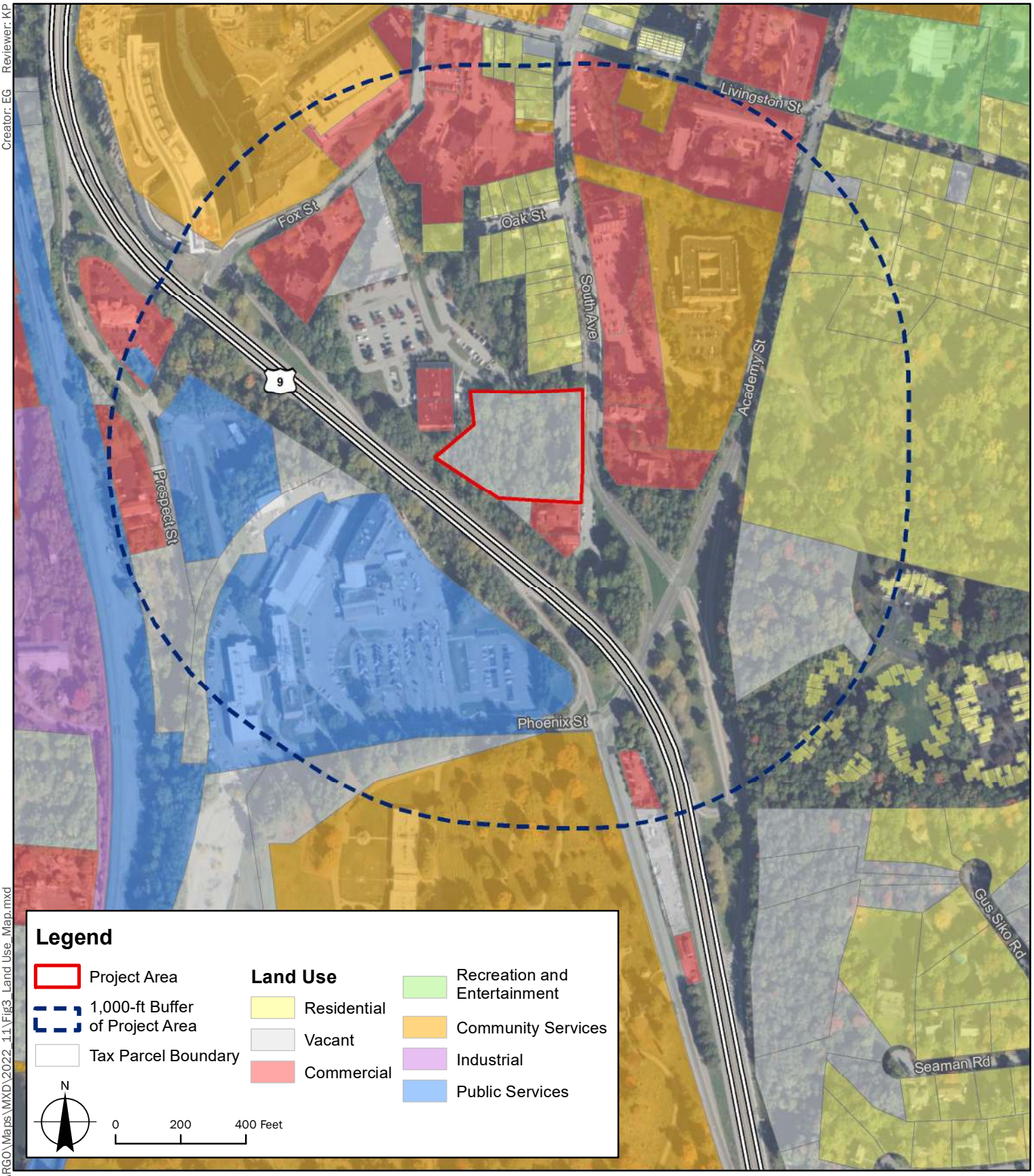
South Avenue
ARGO Development

LaBella Project No: 2222201
Date: 11/14/2022

Orthophoto Tax Map

FIGURE 2

Creator: EG Reviewer: KP



Path: B:\GIS\DIG\Projects\FEAF\ARGO\Maps\MXD\2022_11\Fig3_Land Use_Map.mxd

Sources:
1. Project Area: LaBella, 2022
2. Tax Parcels: Regrid, 2021
3. Land Use: Regrid, 2021
4. Streets: NYS GIS Program Office, 2022
5. Basemap: Bing Maps

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Dutchess Co., New York

South Avenue
ARGO Development

LaBella Project No: 2222201
Date: 11/14/2022

Land Use Map

FIGURE 3

Creator: EG Reviewer: KP

Path: B:\GIS\DIG\Projects\FEAF\ARGO\Maps\MXD\2022_11\Fig4_Soils_Map.mxd

Sources:
1. Project Area: LaBella 2022
2. Soil Map Unit: USDA/NRCS 2021
3. Streets: NYS GIS Program Office 2022
4. Basemap: Bing Maps

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South Avenue,
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Dutchess Co., New York

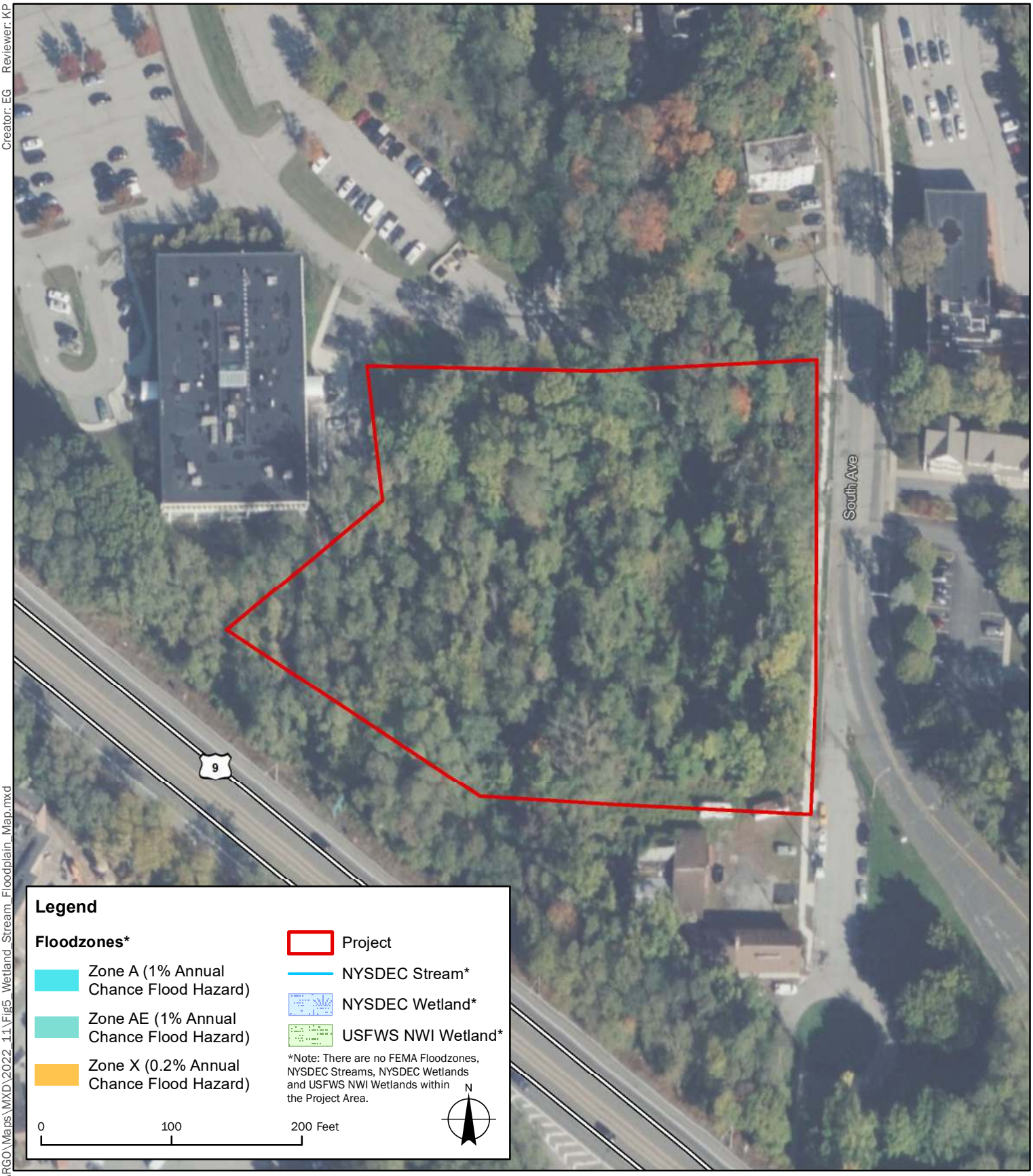
South Avenue
ARGO Development

LaBella Project No: 2222201
Date: 11/14/2022

Soils Map

FIGURE 4

Creator: EG Reviewer: KP



Sources:
1. Project Area: LaBella 2022; Regrid 2021
2. NYSDEC Streams: NYSDEC 2021
3. NYSDEC Wetlands: NYSDEC 2006
4. NWI Wetlands: USFWS 2022
5. Flood Zones: FEMA 2021
6. Streets: NYS GIS Program Office 2022
7. Basemap: Bing Maps

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ARGO Development

LaBella Project No: 2222201
Date: 11/14/2022

Wetland, Stream, and Floodplain Map

FIGURE 5

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Creator: EG Reviewer: KP

Path: B:\GIS\DIG\Projects\FEAF\ARGO\Maps\MXD\2022_11\Fig6_DEC_ERM_Map.mxd

Sources:
1. Project Area: LaBella 2022
2. Rare Plants or Animals and Significant Natural Communities: NYSDEC Environmental Resource Mapper (ERM) 2022
3. NYSDEC Wetlands: NYSDEC 2006
4. Streets: NYS GIS Program Office 2022
5. Basemap: Bing Maps

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Dutchess Co., New York

South Avenue
ARGO Development

LaBella Project No: 2222201
Date: 11/15/2022

NYSDEC Environmental Resource Map

FIGURE 6

Creator: EG Reviewer: KP

Path: B:\GIS\DIG\Projects\FEAF\ARGO\Maps\MXD\2022_11\Fig7_CRIS.mxd

Sources:
1. Project Area: LaBella, 2022
2. Archaeologically Sensitive Areas/National Register Sites: NYSOPRHP Cultural Resource Information System (CRIS), 2022
3. Streets: NYS GIS Program Office, 2022
4. Basemap: Bing Maps

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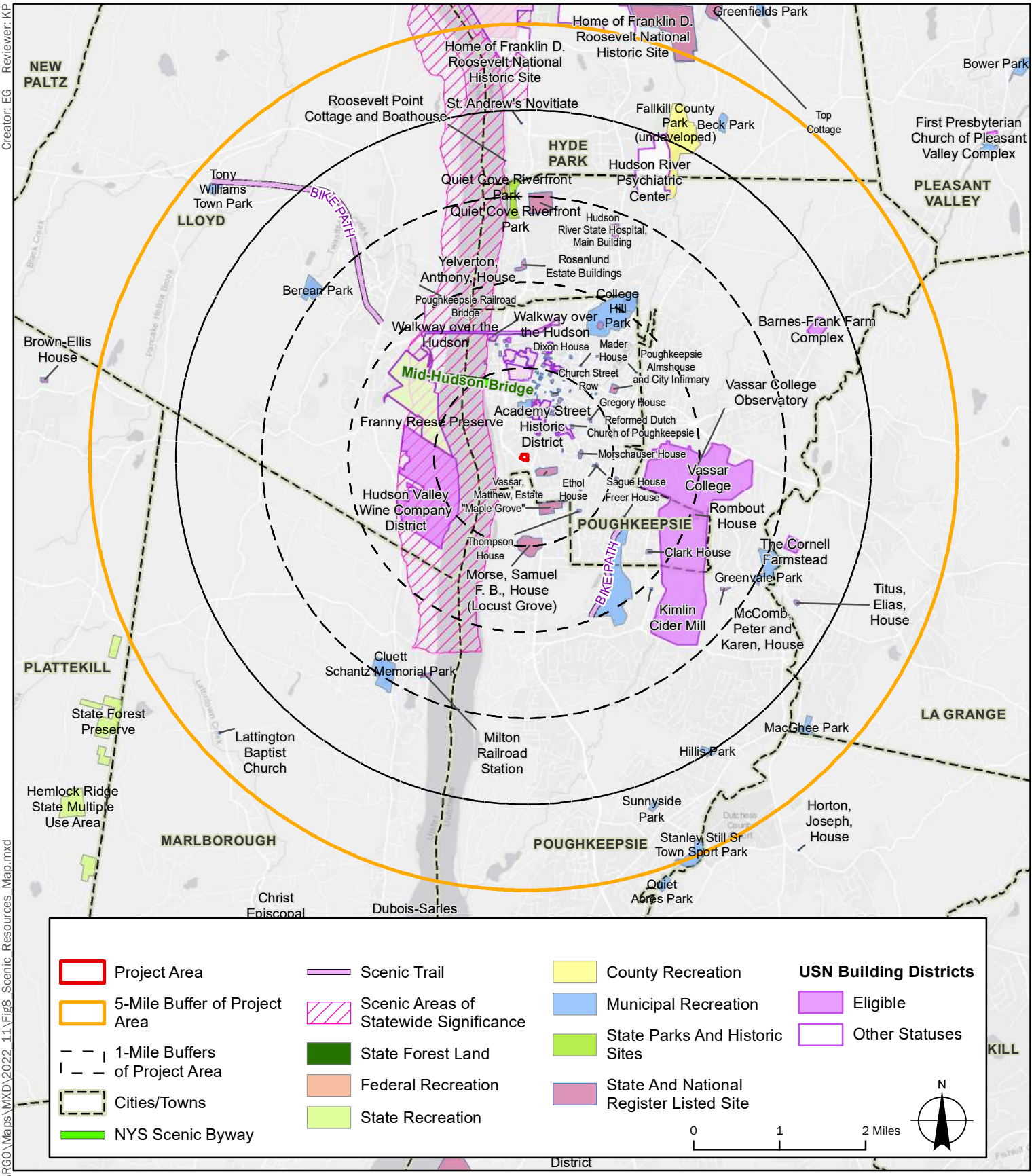
Dutchess Co., New York

South Avenue
ARGO Development

LaBella Project No: 2222201
Date: 11/15/2022

NYSOPRHP Cultural Resource Information System (CRIS) Map

FIGURE 7



Sources:
1. Project Area: LaBella 2022
2. Streets: NYS GIS Program Office 2022
3. Scenic Resources: NYS GIS Program Office; NYSDEC; NYSDOT; NYSOPRHP; CRIS 2022
4. Basemap: Bing

Note: National and State building districts shown. However, isolated listed and eligible buildings are too many to show at this scale.

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South Avenue,
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Dutchess Co., New York

South Avenue
ARGO Development

LaBella Project No: 2222201
Date: 11/15/2022

Publicly Accessible Federal, State, or Local Scenic or Aesthetic Resources Map

FIGURE 8

Creator: EG Reviewer: KP

Path: B:\GIS\DIG\Projects\FEAF\ARGO\Maps\MXD\2022_11\Fig8_Scenic_Resources_Map.mxd

Attachment A
United States Fish and Wildlife Service (USFWS) Informal Species List

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IPaC resource list

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

NOT FOR CONSULTATION

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).

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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 Wherever found There is **final** critical habitat for this species. The location of the critical habitat is not available. https://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. https://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.

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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 https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.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.

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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. https://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

NOT FOR CONSULTATION

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.

■ probability of presence ■ breeding season | survey effort – no data

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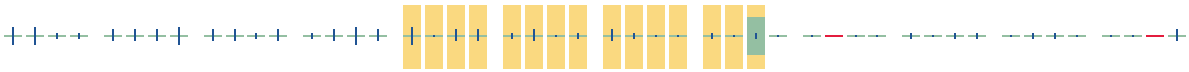
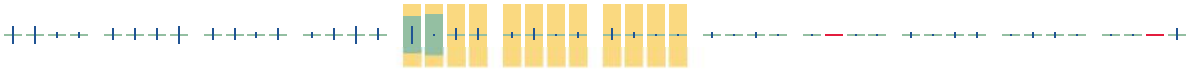
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Bald Eagle Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)												
Blue-winged Warbler BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)												
Canada Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)												

NOT FOR CONSULTATION

Eastern Whip-poor-will BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

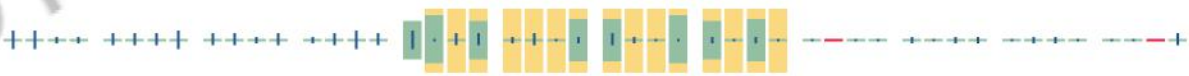


Prairie Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



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 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

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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 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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Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

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Facilities

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

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.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

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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Poughkeepsie Natural Resource Inventory
Conservation Analysis
South Avenue Multi-Family Development
South Avenue

City of Poughkeepsie
Dutchess County, New York

Issued: November 29, 2022

Prepared for:
ARGO Development
95 Chestnut Ridge Road
Montvale, NJ 07645

Prepared by:
LaBella Associates
21 Fox Street Suite 201
Poughkeepsie, NY 12601
845-486-1541

LaBella Project No. 2222201

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1.0 INTRODUCTION

1.1 Project Summary

The Applicant, ARGO Development is seeking site plan approval from the City of Poughkeepsie, to develop an 87-unit, mid-rise multifamily residential development with underground and surface-level parking. The proposed action will be located on an approximately 2.76-acre parcel on the west side of South Avenue (Tax Lot 937583) in the City of Poughkeepsie. The proposed action includes construction of a five-story building with 87, one-bedroom, apartments located over one level of underground parking (60 spaces), and 84 off-street surface parking spaces. The parcel is currently a wooded lot. The parcel is located within the R-D, Research and Development District. Residential development is a permitted use within the R-D zone, subject to the requirements of the High-Density R-5 District Permitted Uses [Section 19-3.16(2)], and further subject to all other requirements applicable to High-Density R-5 District residential development. Primary access will be provided via South Avenue. Municipal water and sanitary sewer connections are available in South Road. The proposed ground disturbance is approximately 2.5 acres. Since the site will have more than 1 acre of ground disturbance, the proposed action will also require a SPDES General Permit for stormwater.

1.2 Background

The total project site area is comprised of approximately 2.76 acres and is zoned Research and Development (R-D). The project site is comprised of one parcel, identified as follows:

• Tax parcel 6061-52-937583 (South Avenue, approximately 2.76 ac.)

Residential development is classified as a permitted use within the R-D zone, subject to the requirements of the High-Density R-5 District Permitted Uses and all other requirements applicable to High-Density R-5 District residential development.

Per ZS 19-3.16(2)(a)(4), multifamily dwellings are classified as permitted uses within the R-5 District.

Per ZS 19-3.16(3)(a), off-street parking is classified as an accessory use within the R-5 District.

The proposed project will comply with all of the lot, bulk, and design requirements and standards included in ZS 19-3.16(4), ZS 19-3.16(5), and ZS 19-3.16(6).

1.3 Site and Surrounding Area Description

The site is currently undeveloped and wooded. The land uses located within 1,000 feet of the project site are characterized by commercial (office buildings with associated parking), vacant (wooded areas), public services (Central Hudson Gas & Electric), and single-family residential properties. The site abuts vacant and commercial area (Poughkeepsie Imported

Car Parts) to the south, New York State Route 9 to the west, commercial (office) and residential land to the north and east, and South Avenue to the east.

The project site is not located within a floodway, 100-year floodplain, or 500-year floodplain. The project site is also not located over an aquifer.

1.4 Approvals, Consultations and Referrals

Table 1 provides a list of the approvals/permits that are anticipated for the project.

Table 1: Anticipated Approvals and Permits

Agency	Approval/Permit
City of Poughkeepsie Planning Board	Site plan Approval
City of Poughkeepsie Department of Public Works (DPW)	Highway Work Permit; Water and Sewer Hook-ups
Dutchess County Department of Planning and Development	GML 239m referral
NYS Department of Environmental Conservation	SPDES General Permit GP-0-020-001
NYS Office of Parks, Recreation, and Historic Preservation (OPRHP)	SHPO Consult

2.0 CONSERVATION ANALYSIS

The project has been evaluated according to the Natural Resources Inventory (NRI) for the City of Poughkeepsie as discussed in the following sections.

2.1 Geology and Soils

According to the NRI Report, Figure 1, the project site's bedrock geology is Taconic melange (Otm), which is considered permeable in the City of Poughkeepsie. The surficial geology of the site is described in the report as featuring glacial till, which is described in the NRI as having a variable texture (boulders to silt).[1] Table 2 provides characteristics of soil types expected to be found on site according to the NRI, Dutchess County Soil Survey information available in GIS, and the Natural Resource Conservation Service website.

[1] The Environmental Cooperative at Vassar Barns. *Natural Resources Inventory for the City of Poughkeepsie.* 2019. Map 2.2 Surficial Geology. Page 27.

Table 2: Characteristics of Anticipated Soil Types within Project Site

% of SITE	SOIL SYMBOL	SOIL TYPE	FARMLAND CLASSIFICATION	SLOPES	DRAINAGE	DEPTH TO WATER TABLE	DEPTH TO BEDROCK
98.2	Ud	Udorthents, smoothed	Not prime farmland	0-8%	Well drained	~36 to 72 inches	>80 inches
1.8	Ur	Urban Land	Not prime farmland				

The site is almost entirely comprised of Udorthents, smoothed soil (Ud). The Udorthents, smoothed soils are well drained soils and have a depth to water table of about 3 to 6 feet.

Groundwater encountered during the construction will be pumped from the open excavations and discharged to approved sediment trapping devices in accordance with NYSDEC guidelines.

2.2 Water Resources

According to Figure 2, which is drawn from the NRI mapping service, the project site includes three wetlands. However, according to NYSDEC Wetland and Stream information available through GIS, and the EAF Mapper, there are no wetlands or other waterbodies on or near the project site.

The project development will involve greater than one acre of ground disturbance; therefore, coverage under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities will be sought. A Stormwater Pollution Prevention Plan (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. With the implementation of the SWPPP, no significant adverse impacts to wetlands and watercourses located off site will occur.

2.3 Habitat

The NRI maps significant habitats in Map 4.1, page 70. This map indicates that the project site is comprised of hardwood swamps and upland hardwood forest land uses. The parcel is currently a wooded, undeveloped lot.

According to the NRI online mapping tool, the same parts of the project site are characterized by hardwood swamps and upland hardwood forest (see Figure 3). The upland hardwood forest habitat is characterized by closed (forested) area with wetlands underneath.

Map 4.4 on page 76 identifies Habitat Envelopes and Potential Corridors, with Significant Habitat Areas identified. In this map, the project site is identified as Significant Habitat Area.

According to the NYSDEC Environmental Resource Mapper (Figure 6), there are known occurrences of the atlantic sturgeon, shortnose sturgeon, and bald eagle on or in the vicinity of the project site.

According to the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC), the project lies within the range of records for indiana bat (endangered) and the monarch butterfly, a candidate species. Candidate species are not regulated by the USFWS (See Attachment A). The IPaC also states that there are no critical habitats at the project location.

The proposed project will require clearing of the entire wooded site (2.5 acres) for construction of the proposed apartment building. To avoid direct or indirect take of bat species, it is recommended that any forest clearing take place between October 30 and March 31, as during this time, the bats would be hibernating and not present onsite.

The atlantic sturgeon and shortnose sturgeon are aquatic species and are found within the Hudson River or immediately adjacent tributaries. The Hudson River is approximately 1,450 feet away from the project site, and therefore the proposed project will not result in any adverse impacts to these species.

An information request has been submitted to NYSDEC for further information regarding the bald eagle. However, based on the NYSDEC Environmental Resource Mapper, the centroid for the bald eagle element occurrence record appears to lie in the vicinity of the Poughkeepsie Rural Cemetery. The heavily traveled NYS Route 9 and the offices for Central Hudson Gas & Electric, lie between the project site and the element occurrence record.

Based on Google Earth, the area within 330 feet of the southern edge of the property is dominated by the heavily traveled NYS Route 9 and the northern portion of the Central Hudson Gas & Electric offices. From 330 to 660 feet from the southern property boundary, the area is dominated by the parking lots for Central Hudson Gas & Electric offices. From 660 to approximately 2,795 feet, the area is dominated by the Poughkeepsie Rural Cemetery. A pond, in the center of the Poughkeepsie Rural Cemetery, which may be close to the location of the bald eagle nest, is more than a ½ mile (2,795 feet) from the southern limits of the project area. Given the intervening highway and commercial land use, and the ½ mile distance from the project area, it is unlikely that the construction or operation of the proposed project will have adverse impacts on the bald eagle. LaBella is making an inquiry to NYSDEC Region 3 to determine the location of the nest and to consult on the bald eagle as necessary.

The project site lies in the vicinity of a significant natural community as shown by the crosshatched pattern on figure 6. This significant natural community is the Hudson River Estuary. The project site lies approximately 1,450 feet away from the Hudson River, and thus is not expected to have any effect on the significant natural community.

2.4 Land Use

The project site is located in the Research and Development District (R&D). It is not located on agriculturally farmed land and is not within the County's Agricultural District. The project site is currently wooded and undeveloped.

According to City Zoning Section (ZS) 19-3.16(1), the City of Poughkeepsie created the R&D District to provide areas for intense residential development accessible to all commercial, cultural and community services and major transportation facilities and to provide opportunity for limited nonresidential activity that will enrich the urban environment.

The land uses located within 1,000 feet of the project site are characterized by commercial, residential, public and community services, vacant and wooded areas (see Figure 5). The site abuts vacant and commercial area (Poughkeepsie Imported Car Parts) to the south, New York State Route 9 to the west, commercial (office) and residential land to the north and east, and South Avenue to the east.

The proposed use, as an 87-unit, mid-rise multifamily residential development with underground and surface-level parking, is a permitted use within the R&D zone, subject to the requirements of the High-Density R-5 District Permitted Uses [Section 19-3.16(2)], and further subject to all other requirements applicable to High-Density R-5 District residential development.

Per ZS 19-3.16(2)(a)(4), multifamily dwellings are classified as permitted uses within the R-5 District. And, per ZS 19-3.16(3)(a), off-street parking is classified as an accessory use within the R-5 District. The proposed project will comply with all of the lot, bulk, and design requirements and standards included in ZS 19-3.16(4), ZS 19-3.16(5), and ZS 19-3.16(6) and is consistent with area land uses.

2.5 Historic and Archaeological Resources

According to the NRI (Figure 6), the project site does not contain and is not substantially contiguous to any Local, National or State Historic Register site nor is it within a historic district.

According to the NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) Cultural Resource Information System (CRIS) mapping (Figure 7), there are no National or State Historic Register sites on or substantially contiguous to the project site.

The project site is located within a known archaeologically sensitive area. Therefore, a consultation request will be submitted to NYSOPRHP.

2.6 Recreational Resources

The site does not abut any recreational resources. The project site is located on privately-owned land that is not currently used by the public for recreation (see Figure 7).

2.7 Conclusion

The project site is identified in the NRI Report as a site that includes hardwood swamps and upland hardwood forest. The proposed project involves the development of a 2.76-acre wooded and undeveloped site, into an 87-unit, 5-story mid-rise multifamily residential development with underground and surface-level parking. The site is zoned for the proposed use and has been modified from its natural condition by the construction of the adjoining uses and roadways and historic development as far back as 1936. The site does not contain

wetlands or watercourses and the NYSDEC has been consulted with regard to the bald eagle concern. A consultation with NYSOPRHP will also be undertaken. For these reasons, the proposed project is consistent with the policy objectives of the Natural Resources Inventory for the City of Poughkeepsie.

FIGURES

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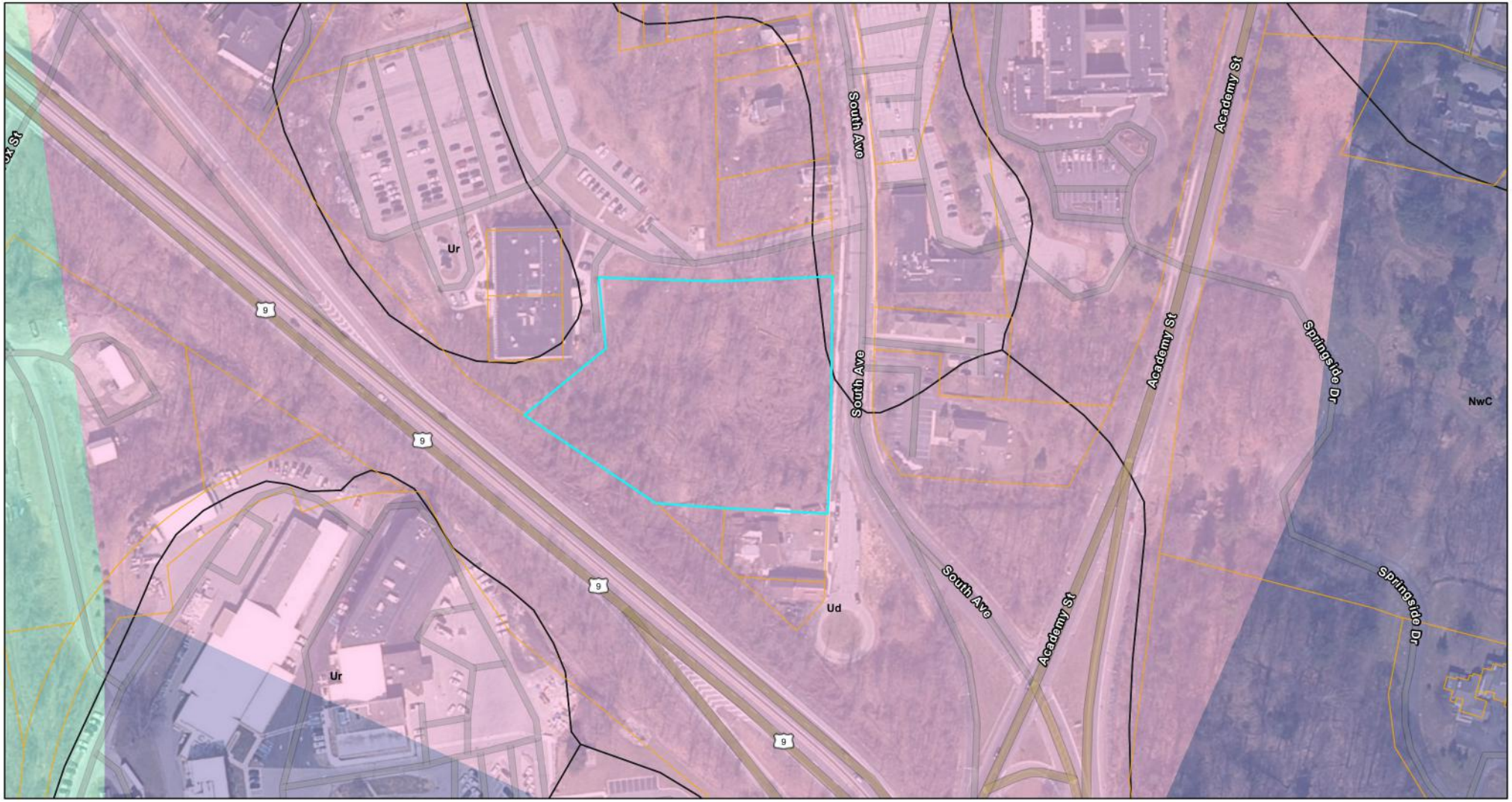
South Avenue ARGO Development: Geology and Soils



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City of Poughkeepsie Boundary

Parcel Boundaries

Soils

Bedrock Geology

Graywacke, shale (Oag)

Taconic melange (Otm)

Water

1:2,257

0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

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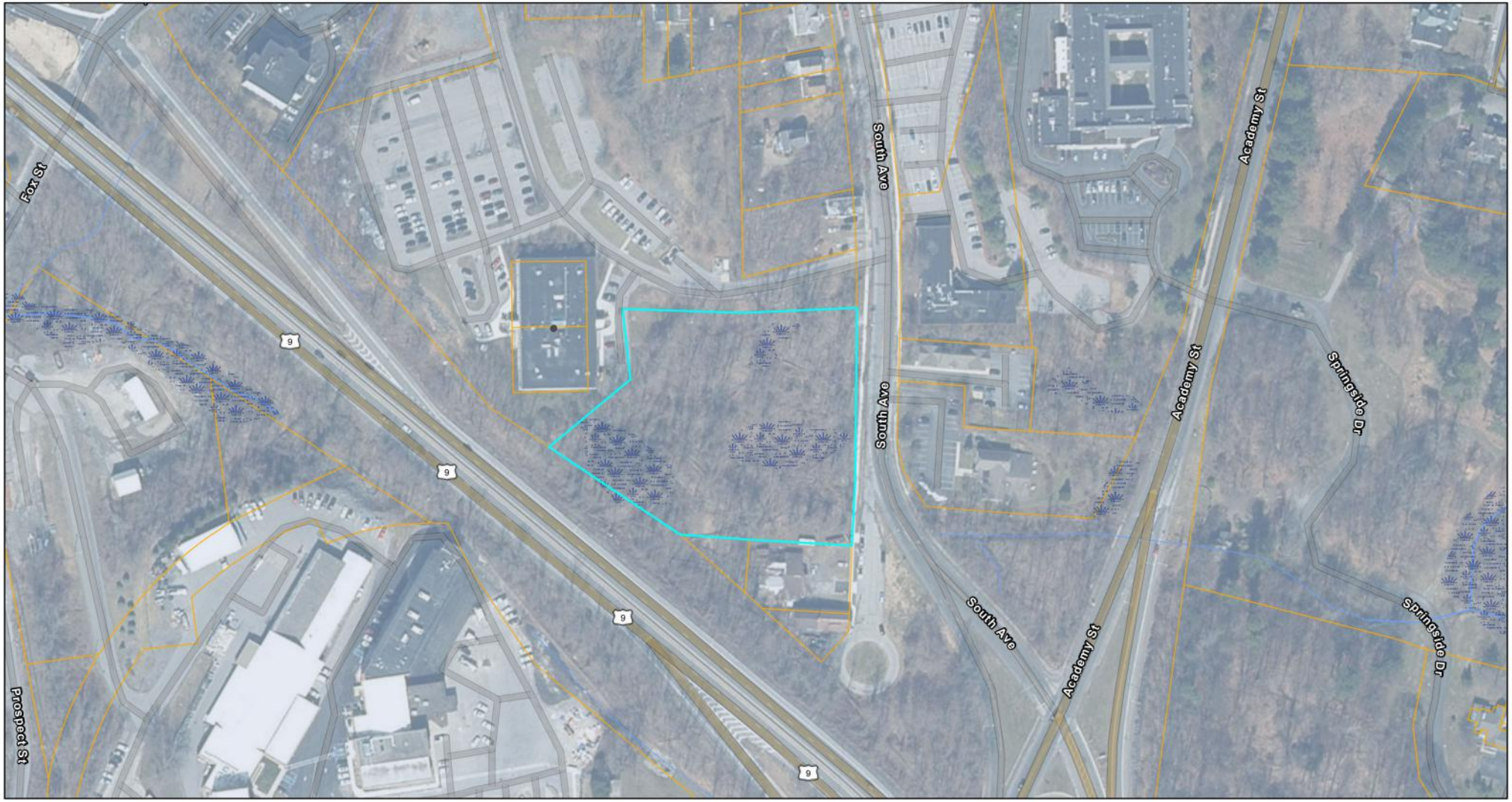
South Avenue ARGO Development: Water Resources



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Parcel Boundaries

City of Poughkeepsie Boundary

Wetlands

Streams

Intermittennt

Watershed

Hudson River Direct Drainage E

1:2,257

0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

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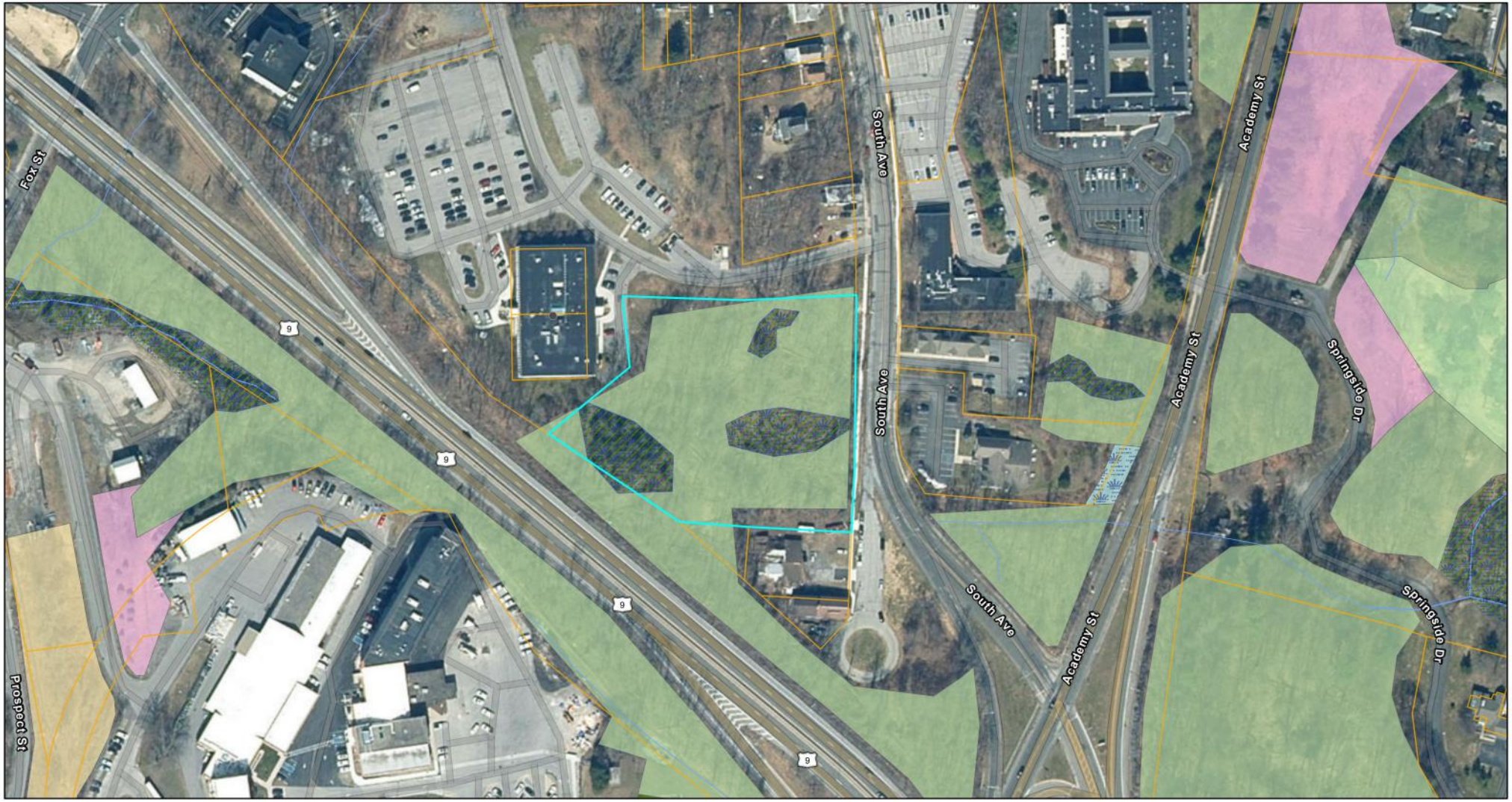
South Avenue ARGO Development: Habitats



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Parcel Boundaries
City of Poughkeepsie Boundary
Wetlands

Hudsonia Streams
Intermittennt
Hudsonia Habitats
Developed
Cultural
Hardwood swamp
Upland shrubland
Wet meadow
Upland meadow
Upland hardwood forest
Upland conifer forest

1:2,257

0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

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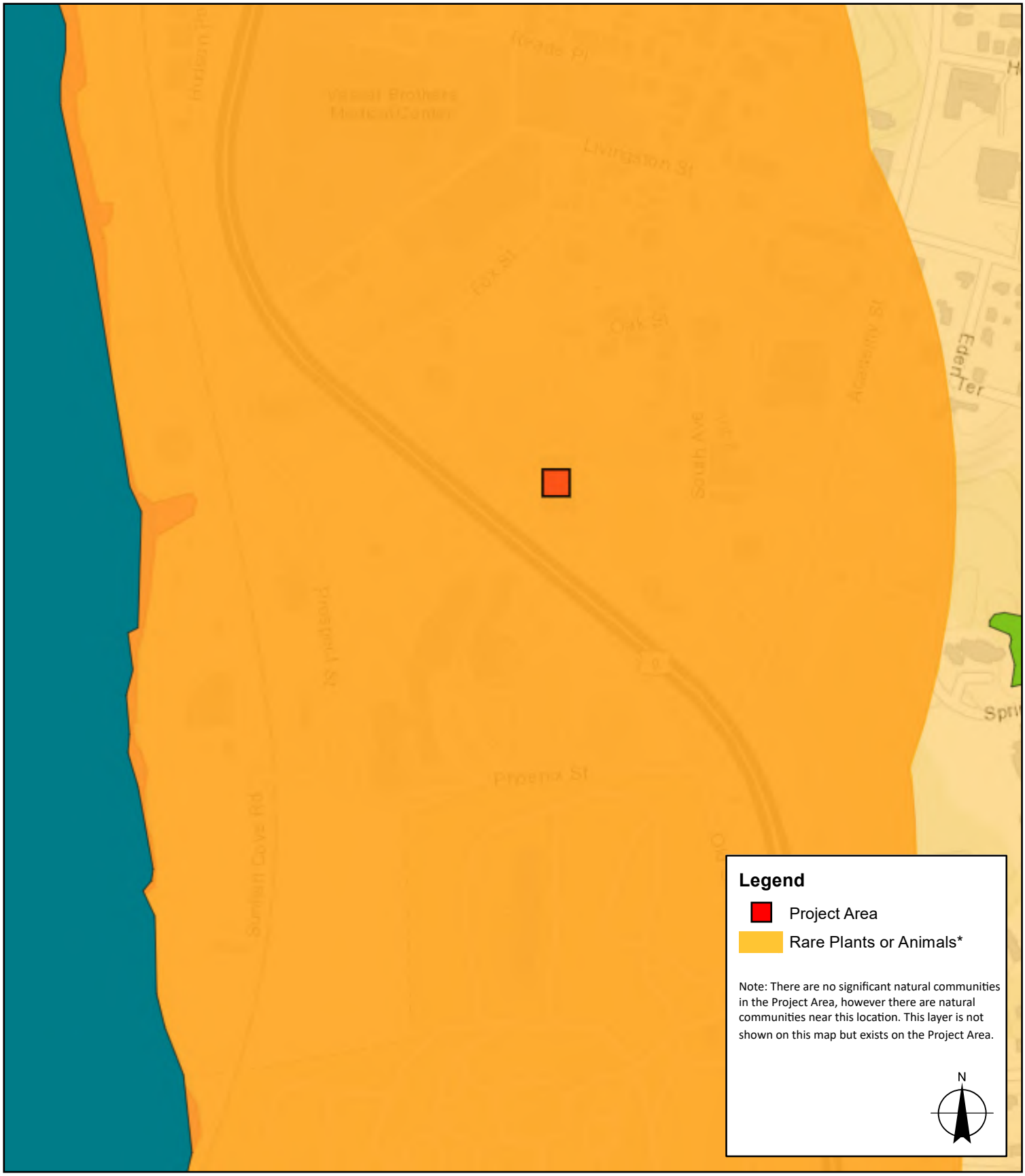

Sources:

1. Rare Plants or Animals and Significant Natural Communities: NYSDEC Environmental Resource Mapper (ERM) 2022

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Poughkeepsie, NY
12601

South Avenue
ARGO Development

LaBella Project No: 2222201
Date: 11/29/2022

NYSDEC Environmental Resource Map

FIGURE 4

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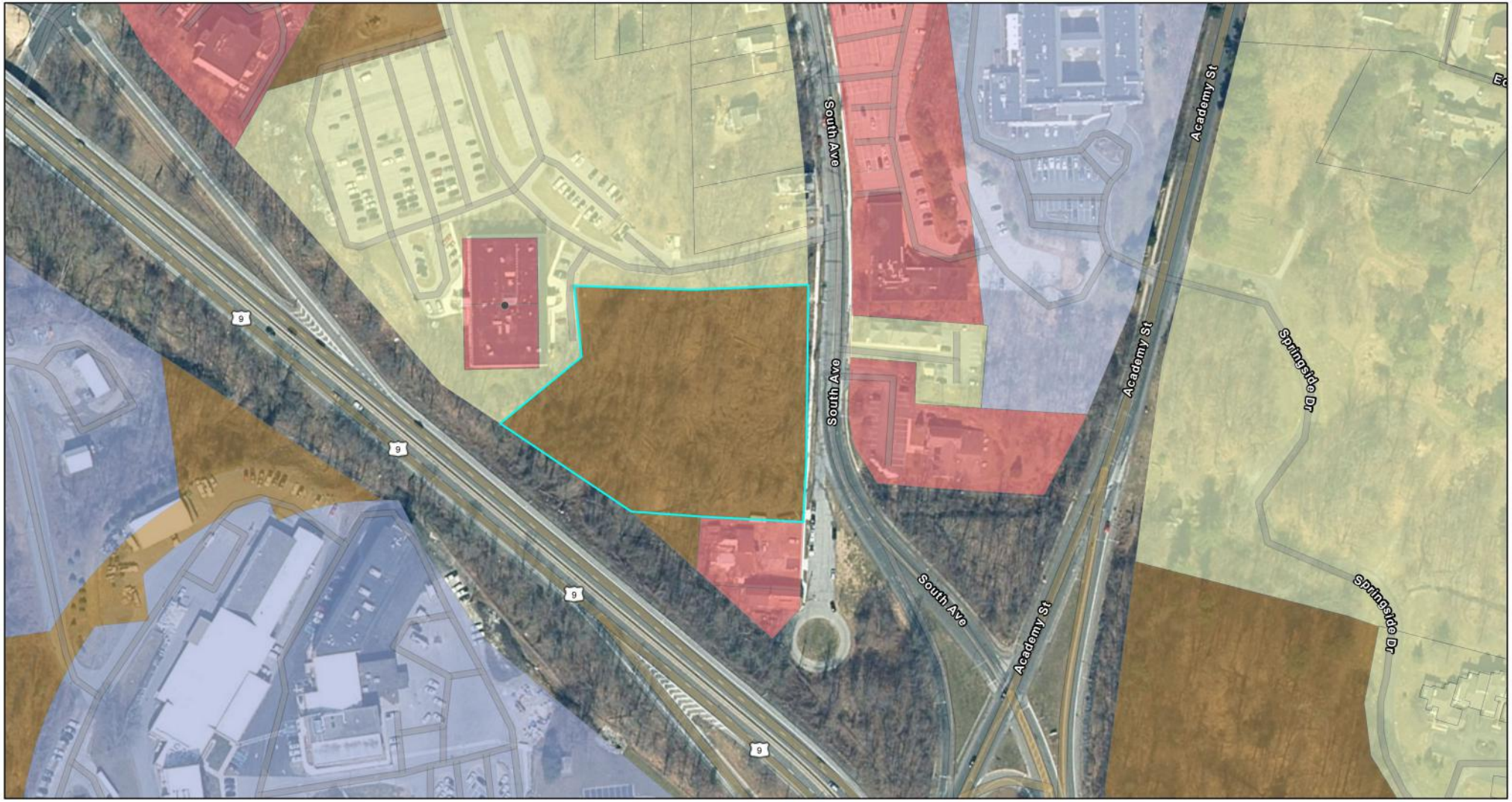
South Avenue ARGO Development: Land Use



11/16/2022, 1:56:37 PM

City of Poughkeepsie Boundary

Land Use by Parcel

Commercial

Community Services

Public Services

Residential

Vacant Land

1:2,257

0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

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ArcGIS Web AppBuilder

New York State, Maxar, Microsoft | Esri Community Maps Contributors, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA |

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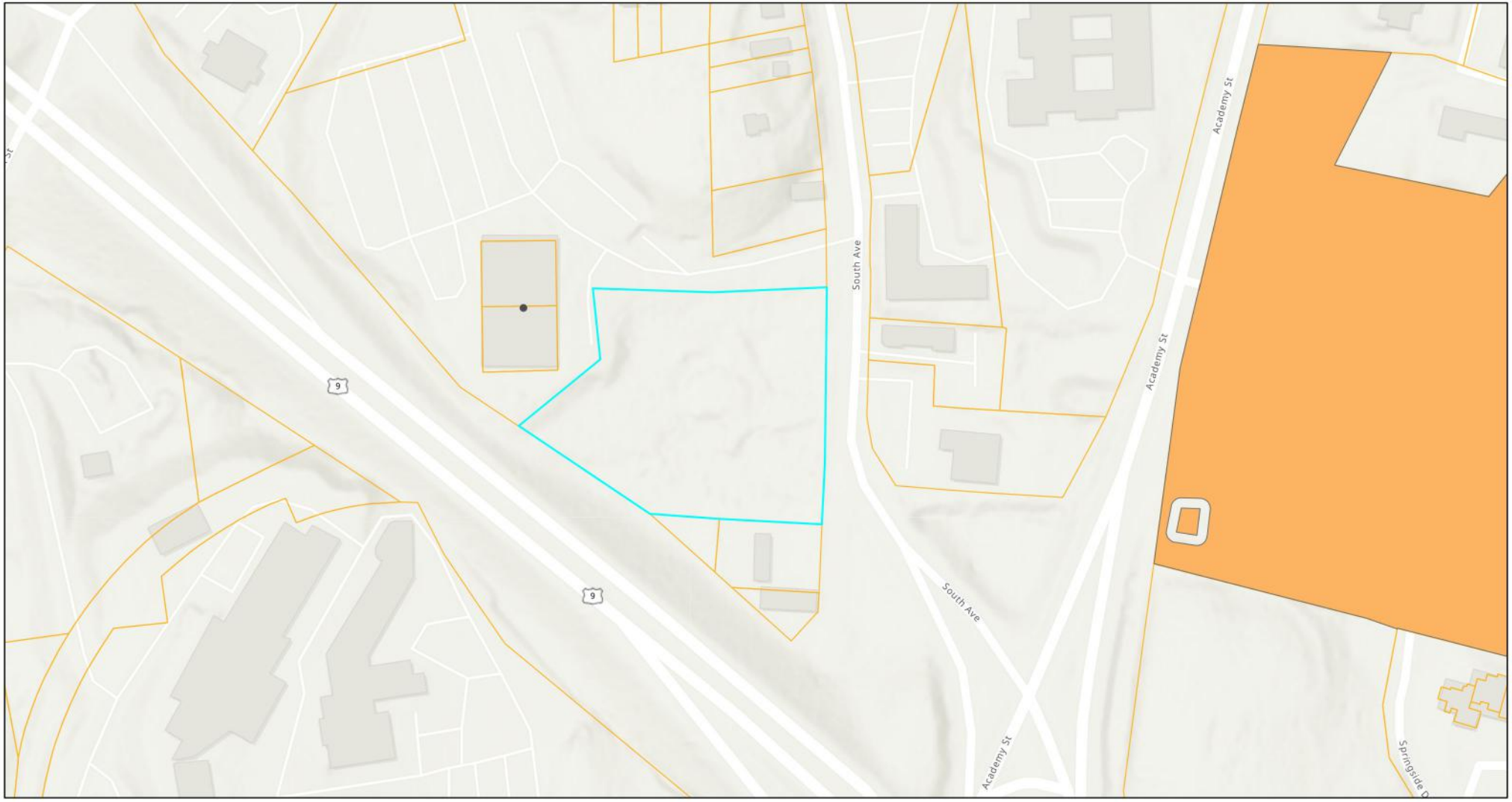
South Avenue ARGO Development: Historic Resources



11/16/2022, 2:00:16 PM

Parcel Boundaries

Historic Sites (2021)

Local, State, and National

City of Poughkeepsie Boundary

1:2,257

0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

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ArcGIS Web AppBuilder

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South Avenue ARGO Development: Recreational Resources

11/16/2022, 2:02:27 PM

Parcel Boundaries

City of Poughkeepsie Boundary

Trails

Parks and Open Spaces

1:2,257

0 0.02 0.04 0.08 mi

0 0.03 0.07 0.13 km

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Applicant

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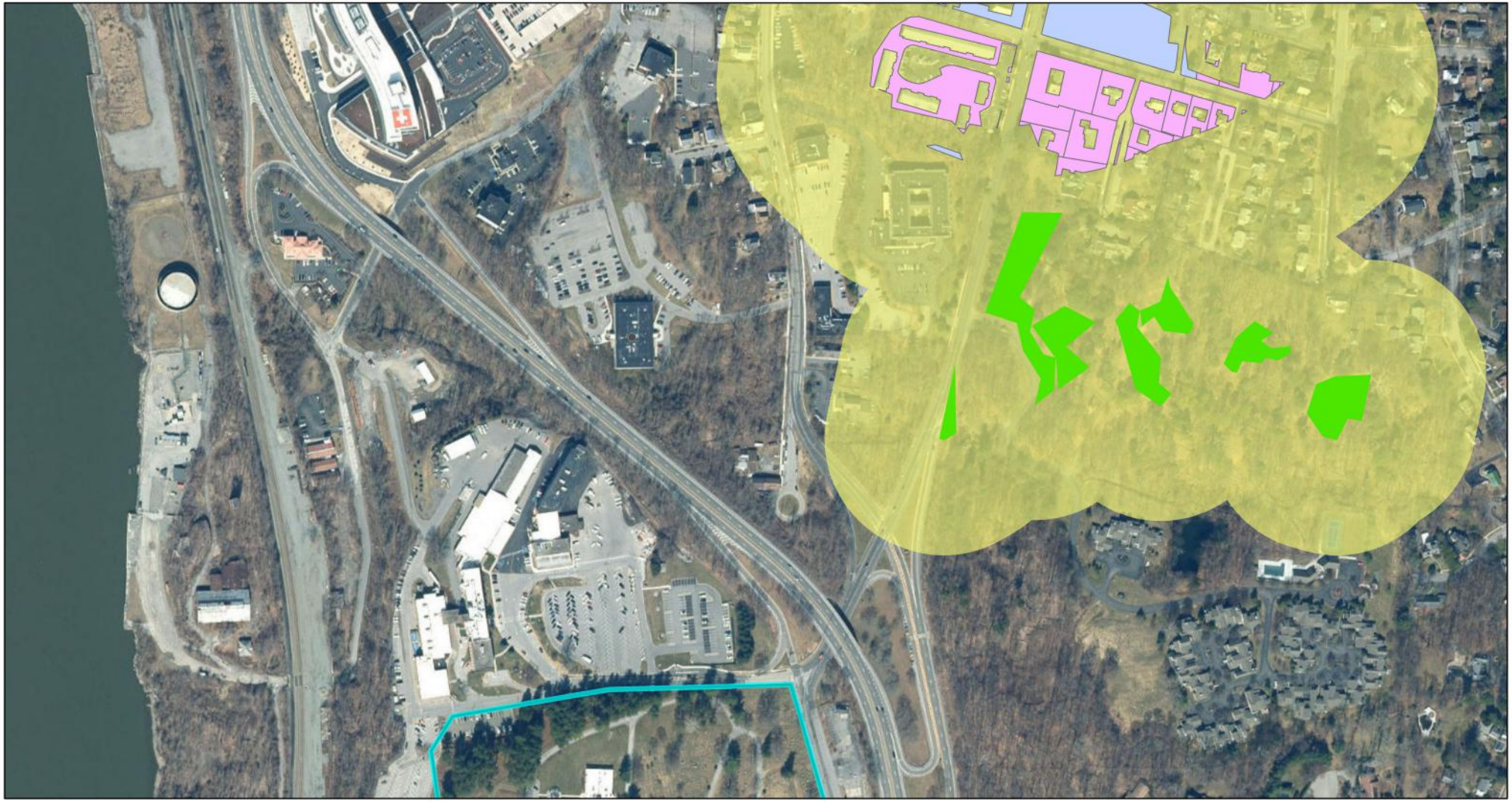
South Avenue ARGO Development: Pollinator Pathway



11/16/2022, 2:04:53 PM

Poughkeepsie Greenspace
Subject to Site Review
Poughkeepsie Boundary
Overlapping Parcels
Potential Pathway
Dutchess County Parks
Not Subject to Site Review

1:4,514

0 0.04 0.09 0.17 mi

0 0.05 0.1 0.2 km

New York State, Maxar

ArcGIS Web AppBuilder
New York State, Maxar |

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SOUTH AVENUE MULTI-FAMILY DEVELOPMENT

11.28.22
22054

ARGO CONSTRUCTION AND DEVELOPMENT

LISCUM McCORMACK VANVOORHIS
ARCHITECTS PLANNERS INTERIORS
181 CHURCH STREET
POUGHKEEPSIE NY 12601

THE CITY OF POUGHKEEPSIE
NEW YORK
PLANNING & ZONING

62 CIVIC CENTER PLAZA, 2ND FLOOR
POUGHKEEPSIE, NY 12601
Phone: (845) 451-4007 Fax: (845) 451-4006

FILE #
FEE: $300.00
CODE: SNIP
ID#

APPLICATION FOR SIGN PERMIT

(Type or print neatly. Illegible applications will be rejected. Faxed copies will not be accepted.)

ADDRESS: 75 North Water Street Mid hudson Discovery Museum
ZONING DISTRICT: WATER FRONT DISTRICT 19-3.34
APPLICANT'S NAME: GNS Sign group
APPLICANT'S ADDRESS: 97 N. Clinton Street
Poughkeepsie, NY 12601 (zip code)
APPLICANT'S PHONE #: 845.471.43666
APPLICANT'S EMAIL: Jackie@gnsgroupltd.com
PROPERTY OWNER (If not applicant):
(If applicant is not the **property** owner, a letter of authorization from the owner **MUST** accompany this application.)

SIGN COMPANY AND CONTACT NAME: GNS Sign Group Jackie
SIGN COMPANY PHONE #: 845. 471. 43666
SIGN COMPANY EMAIL: Jackie@gnsgroupltd.com

SIGN INFORMATION

TYPE OF SIGN: ☐ Freestanding ☐ Interior/Window ☐ Marquee/Awning/Canopy
☐ Interior/Window ☐ Wall ☐ Projecting/Vertical Blade ☐ Three Dimensional Sign
☐ Changeable Copy ☐ Neon ☒ Other: monument (Specify)

BASIC DIMENSIONS: Total Square Feet: 771 sq Ft. Height: 104" Width/Length: 89"

ILLUMINATION: ☐ None ☐ Externally Illuminated ☒ Internally Illuminated ☐ Halo/Back-Lit

DESCRIPTION OF MATERIALS: fabricated illuminum with stencilcut push-thru Acrylic plate. Lexan faces. white LED's

APPLICANT'S CERTIFICATION: Applicant certifies that all information contained herein is accurate.

Applicant's signature 9.7.2022 Date

FOR OFFICE USE ONLY

Planning Department Action: ☐ Approved ☐ Denied pursuant to Section 19.4-9
Planning Board approval required: ☐ Yes ☐ No

Conditions of Approval, if any:

Planning Director/Deputy Zoning Administrator Date

ONE SIGN PER APPLICATION FORM
Revised July 2020: Previous Editions Obsolete

GNS GROUP
97 N. CLINTON ST.
POUGHKEEPSIE, NY 12601
P 845.471.4366 F 845.471.0987

NOTICE of Owner's Consent

Date: September 8, 2022

Owner of Record: Mid-Hudson Children's Museum
Address: 75 North Water Street
Poughkeepsie, NY 12601

Phone: 845-471-0589

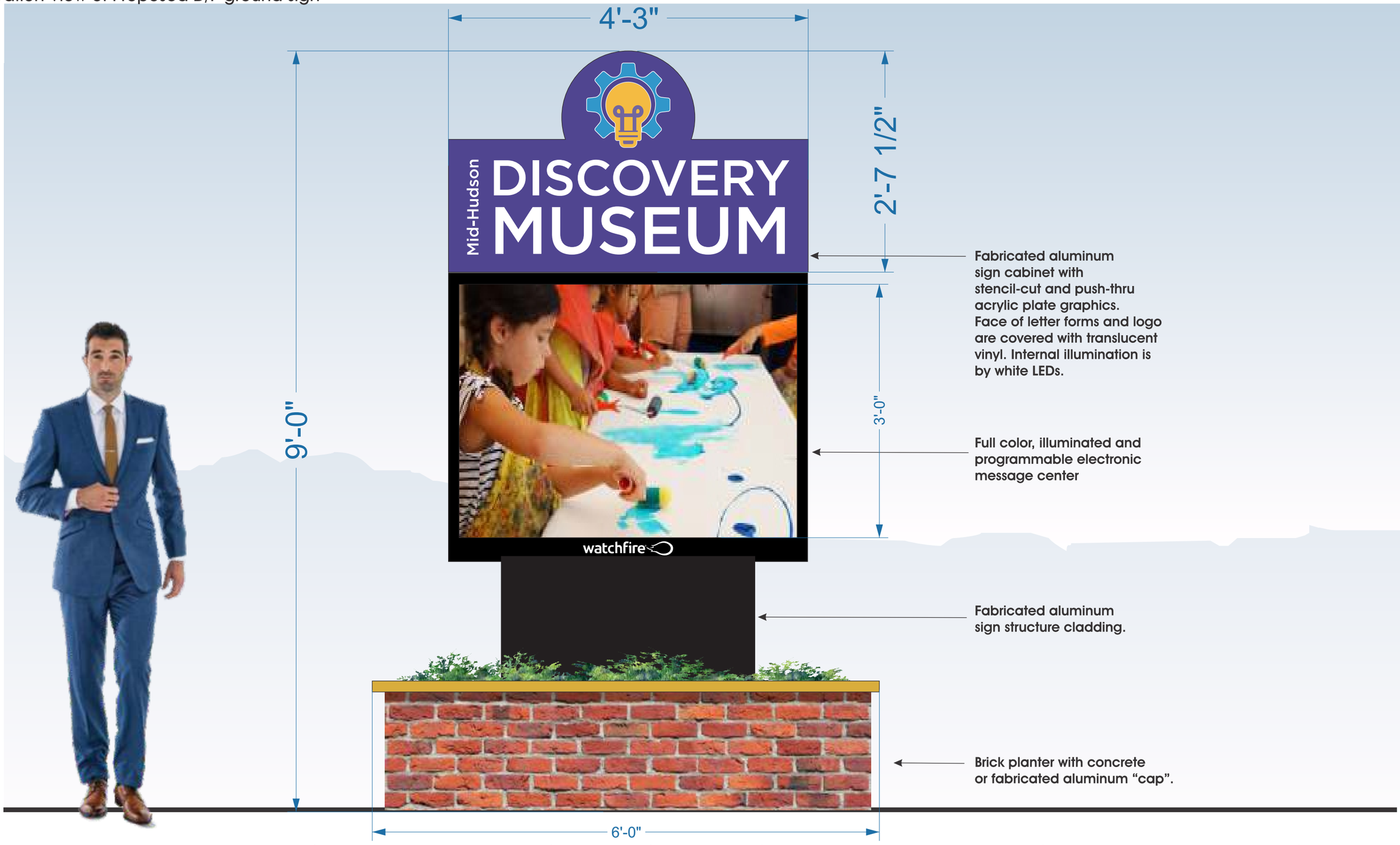
I (we) Jeffrey Sasson hereby give consent to the GNS Group, Ltd., Gloede Signs to act as my (our) agent with regard to this application.

Signed
Print Jeffrey Sasson
Title Executive Director
(must be notarized)

Jessica Deacon

JESSICA DEACON
Notary Public, State of New York
No. 01DE6334919
Qualified in Dutchess County
Commission Expires December 28, 2023

Elevation View of Proposed D/F ground sign



GNS GROUP
97 North Clinton Street
Poughkeepsie, NY 12601
845-471-4366 - phone
845-471-0987 - fax
www.gnsgroupltd.com

Client/Project location:
Mid-Hudson Children's Museum
75 North Water Street
Poughkeepsie, NY 12601

File Name:
Freestanding SIgn, Water St rvsd post PB review.cdr

Date:
12/6/2022
Scale:
3/4"=1'-0"

Client Approval: _____

Date: _____

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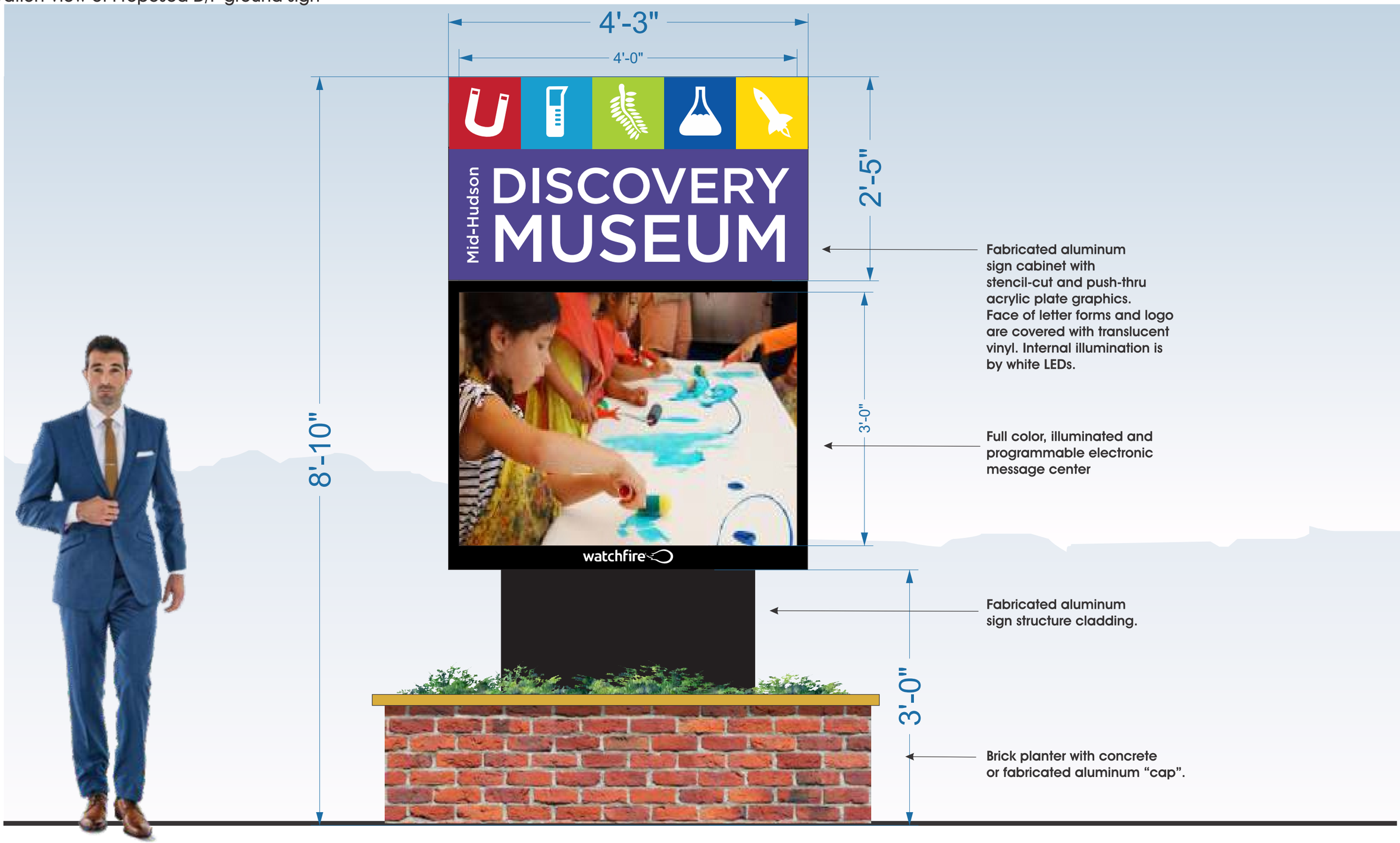
Sheet:
G.1

Elevation View of Proposed D/F ground sign



GNS GROUP
97 North Clinton Street
Poughkeepsie, NY 12601
845-471-4366 - phone
845-471-0987 - fax
www.gnsgroupltd.com

Client/Project location:
Mid-Hudson Children's Museum
75 North Water Street
Poughkeepsie, NY 12601

File Name:
Freestanding SIgn, Water St rvsd post PB review.cdr

Date:
12/6/2022
Scale:
3/4"=1'-0"

Client Approval: _____

Date: _____

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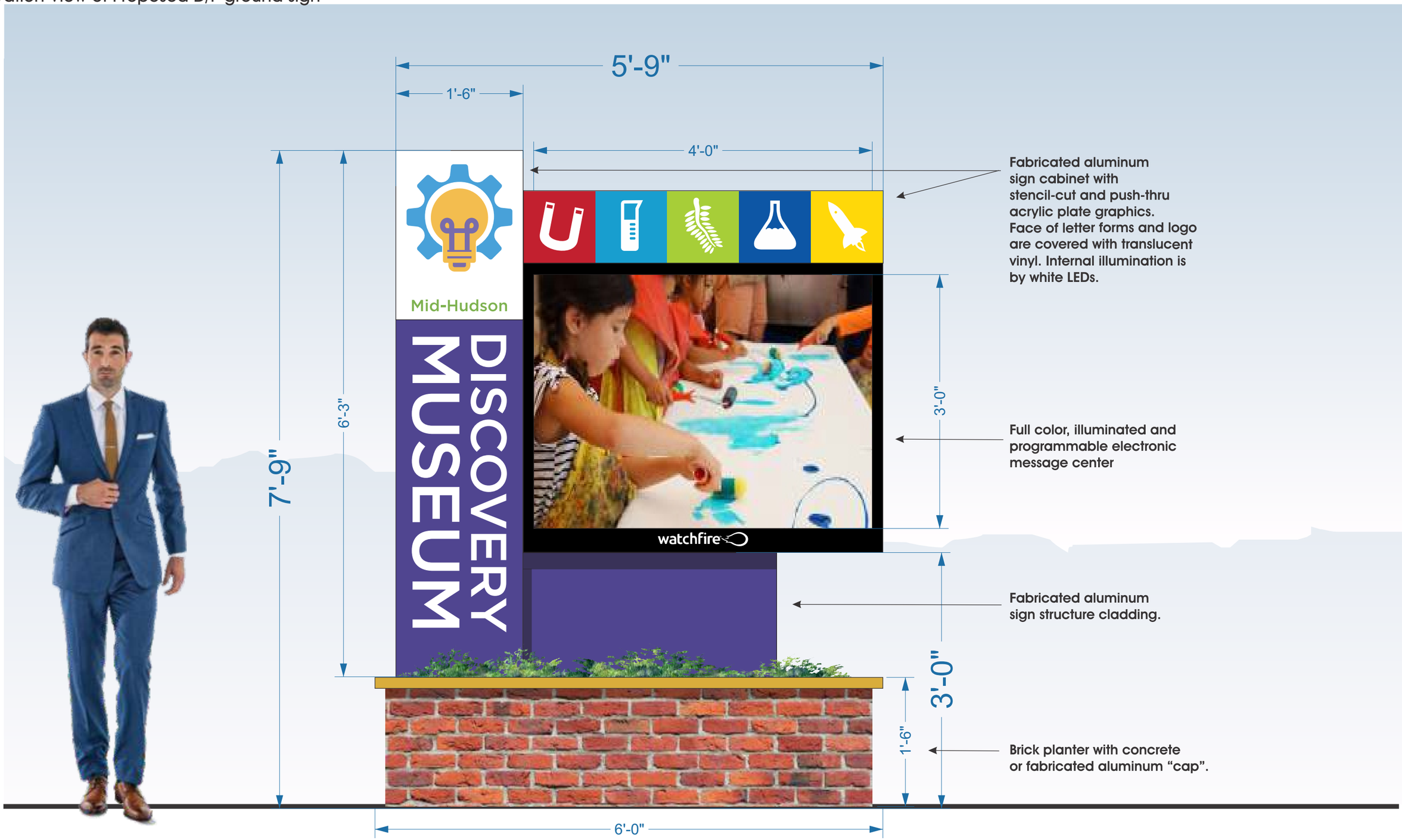
Elevation View of Proposed D/F ground sign



GNS GROUP
97 North Clinton Street
Poughkeepsie, NY 12601
845-471-4366 - phone
845-471-0987 - fax
www.gnsgroupltd.com

Client/Project location:
Mid-Hudson Children's Museum
75 North Water Street
Poughkeepsie, NY 12601

File Name:
Freestanding SIgn, Water St rvsd post PB review.cdr

Date:
12/6/2022
Scale:
3/4"=1'-0"

Client Approval: _____

Date: _____

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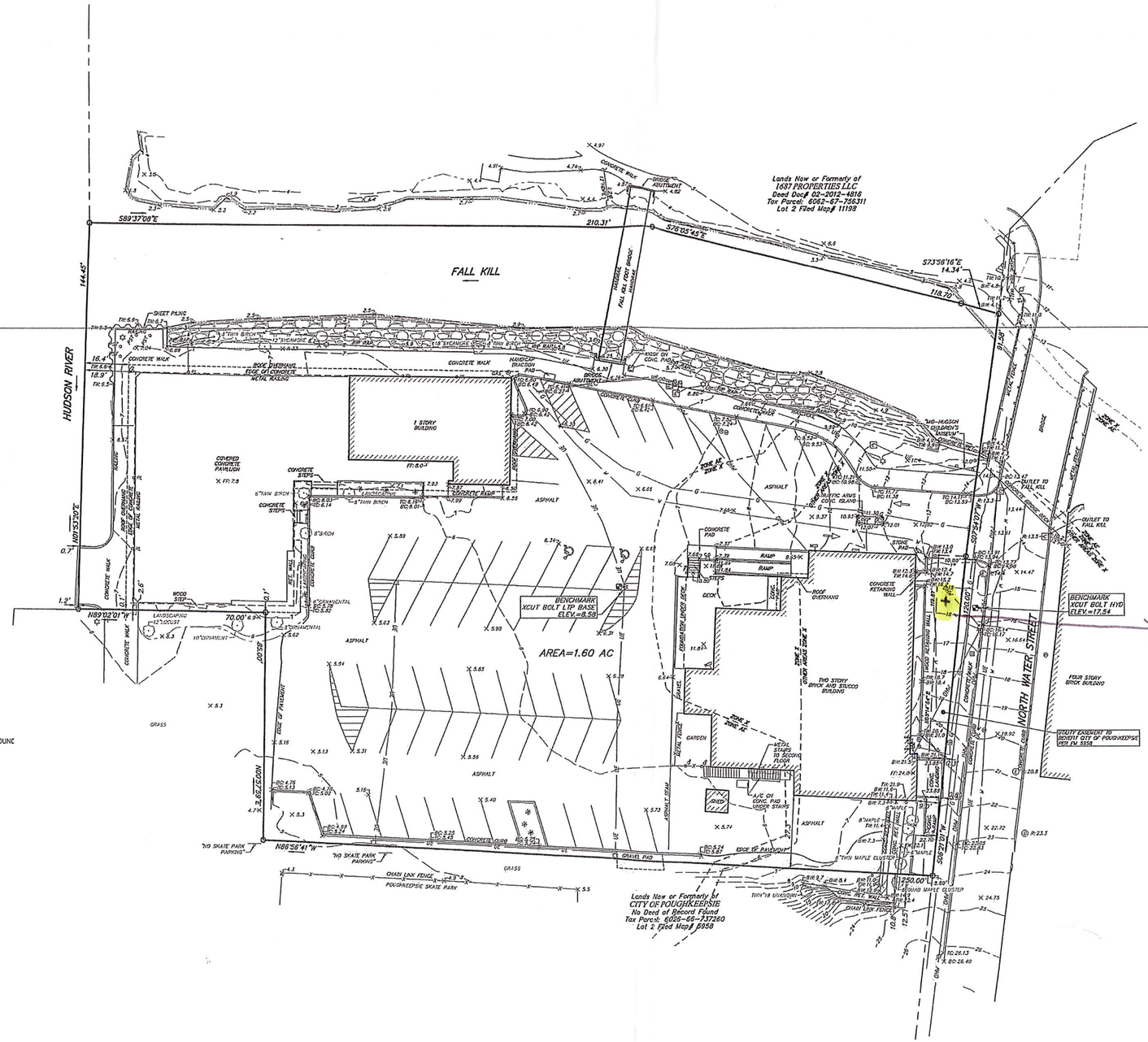

LEGEND:

EXISTING CONDITIONS:

- PROPERTY LINE NO PHYSICAL BOUNDS
- ADJACENT PROPERTY LINE
- 110 — EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- ZONE AE ZONE X — EXISTING APPROX. FEMA FLOOD LINE
- X 250.3 — EXISTING SPOT GRADE
- EXISTING BUILDING
- EXISTING BUILDING FOUNDATION
- CONC. CURB — EXISTING CURB/GUTTER
- EXISTING GUIDERAIL
- X X X — EXISTING FENCE
- EXISTING POND/LAKE
- OHW — EXISTING OVERHEAD WIRES
- W — EXISTING WATER LINE
- G — EXISTING GAS LINE
- UE — EXISTING UNDERGROUND ELECTRIC LINE
- 15"RCP ST — EXISTING UNDERGROUND STORM LINE

SYMBOLS:

- EXISTING SIGN
- EXISTING SIGN
- EXISTING BOLLARD
- EXISTING FENCE POST
- PST — EXISTING POST
- EXISTING DECIDUOUS TREE
- EXISTING SHRUB
- EXISTING BENCHMARK
- EXISTING CLEANOUT
- EXISTING DRAINAGE MANHOLE
- DL — EXISTING DOWN LEADER
- EXISTING ELECTRIC MANHOLE
- EXISTING ELECTRIC METER
- EXISTING ELECTRIC BOX
- EXISTING GUY WIRE
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING PANEL/SWITCH BOX
- EXISTING CONDUIT TO/FROM UNDERGROUNC
- EXISTING CAMERA
- EXISTING GAS METER
- GAS — EXISTING GAS STRUCTURE
- EXISTING GAS VALVE
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- X BC:200.3 — EXISTING SPOT GRADE BOTTOM CURB
- X TC:200.3 — EXISTING SPOT GRADE TOP CURB
- X BW:200.3 — EXISTING SPOT BOTTOM WALL
- X TW:200.3 — EXISTING SPOT TOP WALL
- X FF:200.3 — EXISTING FINISHED FLOOR ELEVATION
- X R:216.3 — EXISTING RIM ELEVATION
- X I:200.3 — EXISTING INVERT ELEVATION

NOTES:

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THE LOCATION OF UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS ARE NOT ALWAYS KNOWN AND OFTEN MUST BE ESTIMATED. IF ANY UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS EXIST OR ARE SHOWN, THE IMPROVEMENTS OR ENCROACHMENTS ARE NOT COVERED BY THIS CERTIFICATE.

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SURVEYED FROM RECORD DESCRIPTION AND AS IN POSSESSION.

HORIZONTAL DATUM AND NORTH ORIENTATION ARE BASED ON THE NYS PLANE COORDINATE SYSTEM (NAD83–NY EAST ZONE) UTILIZING GNSS OBSERVATIONS ON THE NYSDOT RTN NETWORK, NAVD88, GEOID 18 AT THE TIME OF FIELD SURVEY SEPTEMBER 20, 2021.

VERTICAL CONTROL IS BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AS DERIVED FROM ON SITE GNSS OBSERVATIONS ON THE NYSDOT RTN NETWORK, DATED SEPTEMBER 20, 2021.

TOPOGRAPHY SHOWN HEREON WAS COMPILED FROM A FIELD SURVEY COMPLETED SEPTEMBER 21, 2021 BY CHAZEN ENGINEERING, LAND SURVEYING, LANDSCAPE ARCHITECTURE & GEOLOGY CO., D.P.C. DATUM NAVD–88, 1 FOOT CONTOUR INTERVAL.

UNDERGROUND UTILITIES SHOWN HEREON ARE THE RESULT OF AN UNDERGROUND UTILITY DESIGNATION COMPLETED BY THE CHAZEN COMPANIES ON SEPTEMBER 2021, AND FROM DATA OBTAINED FROM RECORD MAPS AND DRAWINGS. CHAZEN'S UTILITY DESIGNATION WAS COMPLETED IN ACCORDANCE WITH THE STANDARD PROCEDURES SET FORTH IN ASCE 38–02. ALL ABOVE GROUND STRUCTURES, SURFACE FEATURES AND THE LOCATION OF THE MARK OUT ARE THE RESULT OF AN INSTRUMENT SURVEY COMPLETED BY CHAZEN UNLESS OTHERWISE NOTED. THERE MAY BE OTHER UNDERGROUND UTILITIES, THE EXISTENCE OF WHICH ARE NOT KNOW OR CERTIFIED BY THE UNDERSIGNED. THE SIZE AND LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES MUST BE VERIFIED BY THE APPROPRIATE AUTHORITIES AND DIG SAFELY NEW YORK MUST BE NOTIFIED PRIOR TO CONDUCTING TEST BORINGS, EXCAVATION OR CONSTRUCTION.

THE CONTRACTOR SHALL COMPLY WITH NEW YORK STATE INDUSTRIAL CODE RULE 753 – 48 HOURS PRIOR TO DIGGING CALL DIGSAFELY NEW YORK 1–800–962–7962 TO HAVE PUBLIC UTILITY LOCATIONS PAINTED.

FILED MAP REFERENCE:

REFERENCE IS HEREBY MADE TO A CERTAIN MAP ENTITLED "SUBDIVISION PLAT OF A PORTION OF LANDS OF CITY OF POUGHKEEPSIE" AND FILED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON 10/08/1980 AS FILED MAP NO. 5958.

DEED REFERENCE:

CITY OF POUGHKEEPSIE INDUSTRIAL DEVELOPMENT AGENCY TO THE MID–HUDSON CHILDREN'S MUSEUM, DATED 12/23/2010 IN DEED DOC# 02–2010–6410.

TAX PARCEL DESIGNATION:

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK
6062–66–738231

FLOOD ZONE NOTE:

PARCEL IS SHOWN TO LIE WITHIN FLOOD ZONE AE, BASE FLOOD ELEVATIONS DETERMINED, FLOOD ZONE X, AREAS OF 0.2% ANNUAL CHANCE FLOOD, AND ZONE X 'OTHER AREAS', AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM) FOR THE CITY OF POUGHKEEPSIE, IDENTIFIED AS MAP NUMBER 36027C0354E BEARING AN EFFECTIVE DATE OF MAY 2, 2012.

20 0 20
SCALE IN FEET
1"=20'

0 1 2 3
ORIGINAL SCALE IN INCHES

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I HEREBY CERTIFY THAT THIS SURVEY MAP IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED SEPTEMBER 24, 2021 AND THAT THIS SURVEY MAP WAS MADE BY ME OR UNDER MY DIRECTION, AND CONFORMS WITH THE MINIMUM STANDARD OF PRACTICE ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS.

STATE OF NEW YORK · DAVID H. DIPPEL · LICENSED PROFESSIONAL LAND SURVEYOR · 050771

DAVID H. DIPPEL, PLS
LIC. #050771

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LANDSCAPE ARCHITECTURE & GEOLOGY CO., D.P.C.
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Office Locations
- Glens Falls, NY
- Latham, NY
- Poughkeepsie, NY
- White Plains, NY
- New York City, NY

rev.	date	description

75 NORTH WATER STREET

MAP OF EXISTING CONDITIONS PREPARED FOR MID-HUDSON CHILDREN'S MUSEUM

CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK

designed	checked
MTH	DHD
date	scale
09/29/21	1"=20'
project no.	
42151.00	
sheet no.	
SV1	

Drawing Name: Z:\projects\42100-42199\42151_00-MidHudsonChildrensMuseum\SVY\dwg\05-SVY_42151-00_EXCONB.dwg
Xref's Attached: XBASE-SVY_42151-00
Date Printed: Oct 08, 2021, 8:47am

7096

Proposed condition

or D/F ground sign - Design option A

linton Street
sie, NY 12601
366 - phone
0987 - fax
roupltd.com

Client/Project location:
Mid-Hudson Children's Museum
75 North Water Street
Poughkeepsie, NY 12601

File Name:

Date:
8.9.22
Scale:
NTS

Client Approval: _____

Date: _____

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consent until such time an agre
been reached as to the terms a
of the sale of this diagram.

Existing Sign to be removed

Children's
MUSEUM
NO
PARKING
ANY
TIME

Elevation View of Proposed D/F ground sign

GNS GROUP
97 North Clinton Street
Poughkeepsie, NY 12601
845-471-4366 - phone
845-471-0987 - fax
www.gnsgroupltd.com

Client/Project location:
Mid-Hudson Children's Museum
75 North Water Street
Poughkeepsie, NY 12601

File Name:

Date:
8.24.22
Scale:
3/4"=1'-0"

Client Approval: _____

Date: _____

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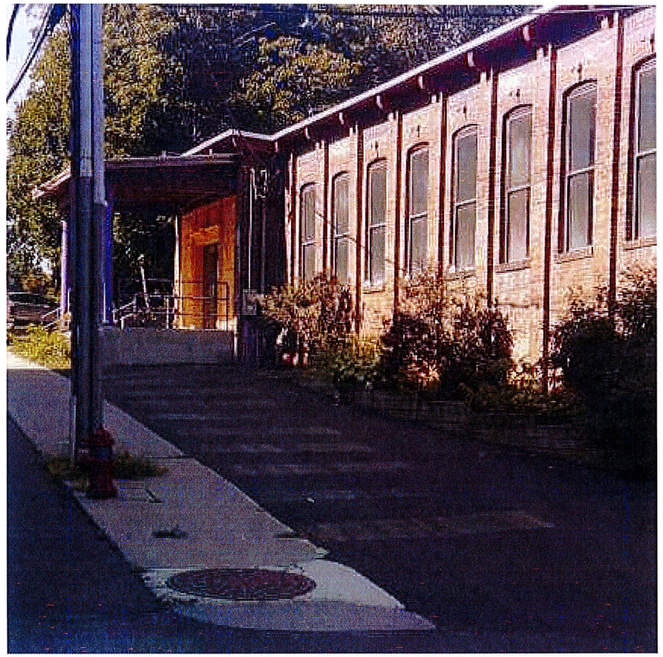
Sheet:



92'
(Linear Ft of Building front)

Elevation View of Proposed D/F ground sign

GNS GROUP
97 North Clinton Street
Poughkeepsie, NY 12601
845-471-4366 - phone
845-471-0987 - fax
www.gnsgroupltd.com

Client/Project location:
Mid-Hudson Children's Museum
75 North Water Street
Poughkeepsie, NY 12601

File Name:

Date:
8.24.22
Scale:
3/4"=1'-0"

Client Approval: _____

Date: _____

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Elevation View of Proposed D/F ground sign

GNS GROUP
97 North Clinton Street
Poughkeepsie, NY 12601
845-471-4366 - phone
845-471-0987 - fax
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Date:
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3/4"=1'-0"

Client Approval: _____

Date: _____

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Sheet:

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: Mid Hudson Discovery Museum

Project Location (describe, and attach a location map): 75 N Water St. Poughkeepsie, NY 12601

Brief Description of Proposed Action: Front of Museum / Freestanding sign

Installation of a double sided internally illuminated freestanding monument sign with an electronic reader board

Name of Applicant or Sponsor: GNS Group, Ltd.	Telephone: 845-471-4366 E-Mail: nforrest@gnsgroupltd.com
Address: 97 N Clinton St.	
City/PO: Poughkeepsie, NY	State: NY Zip Code: 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:	☒	☐

3. a. Total acreage of the site of the proposed action? 0 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? 0 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?	☐	☒
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	☒	☐
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?	☐	☒
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: _____	☐	☒
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____	☒	☐
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____	☒	☐
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?	☒	☐
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: Nancy Forrest Date: 10/11/22

Signature: Nancy Forrest Title: Contractor

PRINT FORM

THE CITY OF POUGHKEEPSIE
NEW YORK
DEVELOPMENT DEPARTMENT
62 CIVIC CENTER PLAZA, 2ND FLOOR
POUGHKEEPSIE, NY 12601
Phone: (845) 451-4010 Fax: (845) 451-4006

MEMORANDUM

To: GNS Sign Group, Applicant

From Natalie Quinn, Development Director

Date: October 24, 2022

Re: 75 Water Street - Sign - SEQR Classification

Upon review of project materials provided by the applicant, including Short EAF Part 1 and sign application form, it is my understanding that the proposed action to be undertaken includes installation of a double-sided, internally-illuminated electronic message display sign at 75 Water Street.

Based on the above description it is the determination of the planning division staff that **the proposed action is classified as an Unlisted Action** with regards to SEQRA, and therefore is subject to an uncoordinated or coordinated (optional) environmental review. This determination was made due to the fact that the proposed action was not expressly listed in 6 NYCRR Section 617.4 (Type I Actions) or 617.5 (Type II Actions).

watchfire
Time-O-Matic

Conformance of Watchfire Signs to OAAA/ISA Lighting Guidelines

The Outdoor Advertising Association of America (OAAA) and the International Sign Association (ISA) have published their recommendations for brightness standards for outdoor LED signs. Watchfire has validated that all Watchfire LED displays can comply with these guidelines.

The guidelines highlight the importance of ensuring appropriate brightness settings to promote energy conservation, community goodwill and extend the life expectancy of the display.

All Watchfire signs incorporate a sunrise/sunset calculation algorithm that uses the sign's latitude and longitude coordinates to correctly dim the sign at dusk and brighten it at dawn in several steps. An additional photocell option is available that will also allow the sign to dim in response to severe overcast weather during the day.

LED sign brightness is usually specified in NITs or candelas per square meter. The instruments for measuring NITs are expensive and not commonly available to sign companies or communities. The new guidelines offer a means to specify the sign brightness using a foot-candle meter, which is relatively inexpensive and more readily available.

Watchfire signs ship with the night brightness settings between 300-750 NITs depending on model. The day maximum brightness is between 7,500 and 10,000 NITs depending on model. During normal operation an average of 30-40% of the pixels are on, so normal brightness is less than half of the maximum on average.

The brightness guidelines specify that signs will not be more than 0.3 foot candles brighter than the ambient light levels at night at a specified distance. The distance depends on the size of the sign. Since the specification is relative to conditions, the brightness of the surrounding area is taken into consideration.

In most cases, the default settings on Watchfire signs meet these guidelines. Areas with little or no ambient lighting may require additional manual dimming. This is a simple setting that can be made at the factory or in the field to any new or old Watchfire sign. The brightness settings are password-protected. The user cannot change the setting without assistance from Watchfire's Service and Support Department.

The default day settings of Watchfire signs also fall under the guidelines which indicate that 7,500-10,000 NITs is needed to overcome the full sunlight. Watchfire models that ship with higher day settings can be adjusted down if necessary.

The detailed specification and measurement method may be downloaded from ISA's website at www.signs.org.

a copy
and Subm
Lori

© 2013, Time-O-Matic, Inc. · version: 102813

Compliance Information

FCC Class A Compliance

All equipment in use by Watchfire has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference in which case the user will be required to correct the interference at the user's own expense.

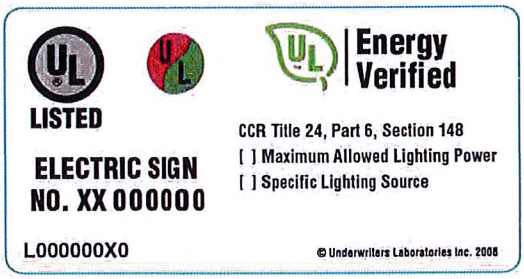
Changes or modifications not expressly approved by Watchfire could void the user's authority to operate the equipment.

National Electric Code

Watchfire signs are intended to be installed in accordance with the requirements of the National Electrical Code, NFPA 70, and any other applicable local codes. This includes proper grounding and bonding of the sign.

UL / CUL Compliance

Underwriters Laboratories (UL) certification is for manufacturers of electric signs built in accordance with the National Electric Code, NFPA 70. UL signs require pre-testing by UL before being allowed to use the UL mark. All Watchfire LED signs and digital billboards have been UL48 tested and approved.
Price Watcher™ gas price signs have been UL879 and UL879A tested and approved.

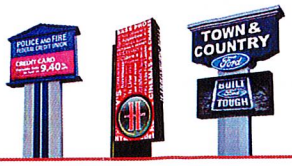


UL Energy Efficiency Certification

By marking our signs with the UL energy verified label (also referred to as the UL green leaf label), Watchfire verifies that its LED signs and digital billboards meet the California Energy Commission (CEC) 2008 building Energy Efficiency Standards Title 24, Part 6, and Section 148 of the California Code of Regulation.

Watchfire products meet option B of the standard, the specific lighting approach. The signs use 100% LEDs for lighting. The LEDs are powered by a power supply that is at least 80% efficient. Efficiency is defined as the ratio of output wattage to input wattage at 100% load.

On Premise Quote



watchfire

QUOTE NUMBER: 2216143.2 (Revision 2) DATE: 8/15/2022 **SIGN ID: 1680877 w6-S**

Gloede Neon Signs Ltd 1718600
Grace Ruseskas,
97 N Clinton St
Poughkeepsie, NY 12601-2032
(845) 471-4366
gruseskas@gnsgroupltd.com

Shipping Destination
Gloede Neon Signs Ltd
97 N Clinton St
Poughkeepsie, NY 12601-2032

Job Site
Name: Children's Discovery Museum - Poughkeepsie
Address:
City:
State: Zip:

PRODUCT SPECIFICATIONS

Pixel Pitch:	W6mm LED RGB
Pixel Matrix:	96 X 288
Ventilation Style:	Front Ventilation
Cabinet Size:	29in H x 6ft 3in L x 5in D
Viewing Area:	24in H x 6ft L
Cabinet Style:	Double Face (Slim)
Character Size:	10 lines / 57.6 Characters at a 2" type
Approx. Weight:	396.00 Lbs.
Warranty:	Standard 5 Year Watchfire warranty applies.
Mfg. Lead Time:	8-10 weeks (after this document is signed & returned and receipt of down payment).
Electrical Service:	120 VOLT 18.0 amps (9.00 per face) Single Phase Service. Refer to the Installation manual for details on wiring. Based on 18 hours of operation a day, plus or minus 10% depending on how the sign is programmed. *Example: 11.2 KWHrs a day x $0.07 = $0.78/Day*

STANDARD FEATURES

Brightness	Daytime 7500 NITs Maximum;Nighttime 700 NITs Maximum
Color	LED RGB
Color Capability	Min. 1.2 Quintillion
Includes	Ignite Graphics Software
Video	up to 30 FPS
Viewing Angles	150 Horizontal/95 Vertical

OPTIONS

Software	Ignite OP (PC-based)
Software Training	Web Based Software Training
Communications	4G Wireless with Watchfire Cellular Data Plan
Wireless Data Plan	Life-of-sign Data Plan
Cabinet Separation	Standard Up To 15 Feet
Power Requirements	Standard As Quoted
Temperature Sensor	w/100-Step Photocell w/15 ft Cable
Sign Mounting Kit	Not Ordered / Not Required
Warranty	Standard 5-Year Parts Warranty
Technician On-Site	Not Ordered

NOTES

****** Special Competitive Pricing******

ORDER ACCEPTANCE

QUOTE VALID UNTIL 9/29/2022

System Price: 6mm Highbrightness Color LED Message Center - Front Ventilation

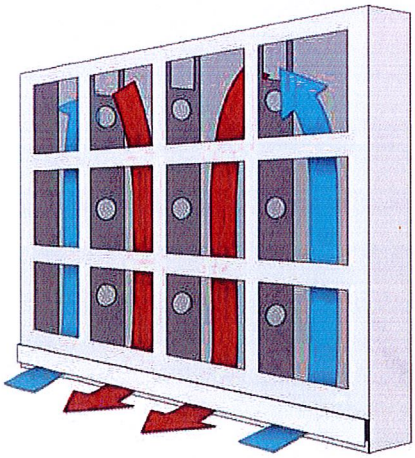
System Price	**$14,859.00 USD**
Crating & Shipping *To Poughkeepsie,NY via Common LTL Carrier*	**Add: 713.00 USD**
Grand Total:	**$15,572.00 USD**

To order Sign ID 1680877, sign here and return with down payment

Signature:_____ Date:_____

Buyer acknowledges that prior to executing this Agreement Buyer has read or has had the opportunity and means to review the TERMS OF SALE and Seller's LIMITED WARRANTY, SOFTWARE LICENSE, AND LIMITATION OF LIABILITIES AND REMEDIES at http://watchfiresigns.com/terms-and-conditions-of-sale or in the alternative, a hard copy has been provided to Buyer and its receipt is acknowledged.
This quote/offer is expressly limited to the acceptance by the buyer of its exact terms, including the terms of sale and seller's limited warranty, software license, and limitation of liabilities and remedies, all of which are a part of the agreement. Any purchase order or related documents buyer issues to seller (even if it contains terms in addition to or inconsistent with the terms of this agreement) for this transaction shall constitute buyer's unconditional agreement to be bound exclusively by the seller's terms and conditions of this agreement, and buyer hereby agrees that such additional or inconsistent terms shall not apply nor become a part of this agreement.

Watchfire cabinets are designed to minimize heat and provide durable protection from the elements. The rear side of our cabinet features mill-finish aluminum. Contact your Watchfire representative if a painted finish is required.



VENTILATION DESIGNS

Improperly ventilated signs risk overheating, which will affect the life and operation of the sign.

Front-vent Cabinets (Price Watcher Included)

Watchfire front-vent cabinets and Price Watcher models draw air in through vents on the lower edge of the cabinet. Patented multi-chamber cooling provides built-in fans to ensure brighter, longer lasting LEDs with no need for additional wiring or fan kits.

DO NOT BLOCK the air intake, exhaust or LED modules located on the front face with any part of the metal cabinet or coverings.

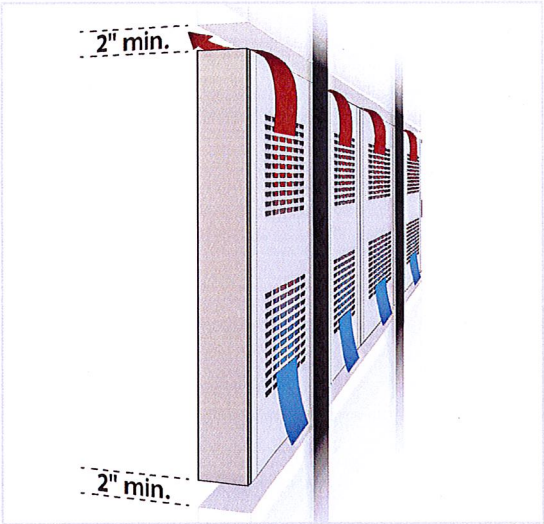
Rear-vent Cabinets

Watchfire rear-vent cabinets draw air in through a vent at the bottom of the cabinet's rear side, and use cooling fans located inside the top of the cabinet to draw cool air up.

Ventilation must be completely unobstructed by mesh or louvers. To conceal a gap, calculate the open air portion of the concealment material and (for each cabinet) allow 24 (or more) square inches of total air intake and 24 (or more) square inches of total air exhaust per foot of cabinet length.

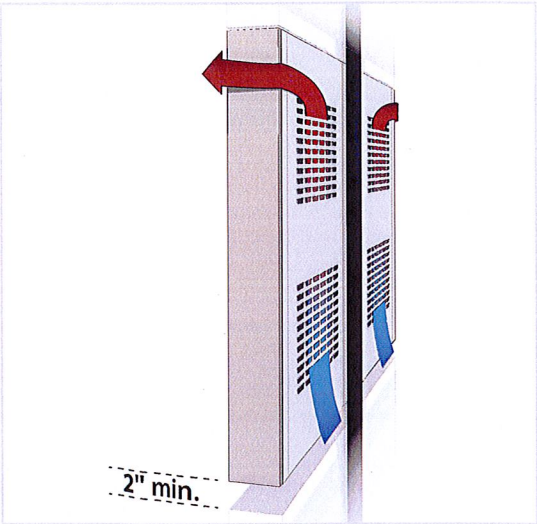
Optimal Ventilation

For signs 16' in length or longer OR signs with multiple pole installation – allow a minimum 2" gap above and below the LED cabinet. Although ends may be sealed, it is best to use a loose mesh material or leave area open to allow for maximum airflow.



Alternate Ventilation (Single Pole)

For signs up to 16' in length installed on a single pole – allow a minimum 2" gap below the LED cabinet for optimal ventilation. **DO NOT SEAL ENDS** if no gap exists above the cabinet.



DO NOT RESTRICT AIRFLOW on the cabinet's rear side. A minimum 2" gap per face behind each cabinet is necessary. For wall-mounted rear-vent cabinets, airflow must be unobstructed from top to bottom, in addition to leaving a minimum 3" gap between the sign and wall.

To: City of Poughkeepsie Planning Board

Re: Application for electronic sign for Mid Hudson Discovery Museum located

75 N Water St.

To Whom it May Concern;

As per the representative from Watchfire , manufacturer of the electronic sign, the following is confirmed.

The brightness of the sign can be reduced to 5,000 nits or less during daylight hours and 250 nits in the evening hours.

The Museum confirms that the display will not run more than 12 consecutive hours without change.

It is also confirmed that the sign will convert to a black screen when there is any type of malfunction.

Regards,

Nancy Forrest

Nancy Forrest

GNS Group , Ltd.

845-471-4366

Kirchner Realty, Inc.
2406 New Hackensack Road
Poughkeepsie, NY 12603
845-546-3626
decordovamichael@gmail.com

November 15, 2022

City of Poughkeepsie
Planning Board
62 Civic Center Plaza
Poughkeepsie, NY 12603
Attention Natalie Quinn/Lori Garcia

Re: 278-288 Main Street, request for extension of Site Plan approval

Dear Planning Board:

We are requesting a one year extension to the Planning Board's approval of our site plan (granted on January 19, 2022) for Kirchner Realty's mixed-use project located at 278-288 Main Street.

As you know, construction costs have skyrocketed. To complete our project we will need: 1) additional funds and/or 2) to modify the scope of our project. We await Empire State Development's Restore NY grant with hope.

In the meanwhile, we would respectfully request you consider a one year extension to our approval and hope you could put this request on the City of Poughkeepsie Planning Board's agenda for your meeting on December 20,2022.

Thank you for your consideration.

Sincerely,

Michael de Cordova
President

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

January 25, 2022

Kirchner Realty, Inc.
2406 New Hackensack Road
Poughkeepsie, NY 12603

RE: 278 – 282 MAIN STREET: MIXED USE CONVERSION
Application for Site Plan Review for 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

Dear Applicant:

This letter is to inform you of the action taken at the Planning Board meeting held on January 19, 2022, relative to the application for site plan approval referenced above. The Board granted approval of the application with the following conditions:

- All conditions noted on a letter from the Fire Department dated September 4, 2021 shall be addressed to the satisfaction of the department
- All conditions noted on a letter from the Engineering Department dated January 5, 2021 shall be addressed to the satisfaction of the department
- The note on the plan be corrected to read "Gate, 4' Tall"

Please bring two full size copies of the plan to the Planning Department in order to obtain the Planning Board stamp of approval and all required City Department Head sign-offs. One set will be retained by the Planning Department and the other set will be returned to you to copy as necessary to apply for any required permits. Pursuant to section 19-6.1(k)(3)(a), site plan approval by the Planning Board is valid for a period of one year for purposes of obtaining any necessary building permits. Failure to obtain a permit within the time-period shall cause the approval to become null and void. Upon application, for good cause, the Planning Board may extend the validity of the approval, one time, for a period not to exceed one year.

Very truly yours,

Robert S. Levine, Esq
Chairman
Planning Board

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

PLANNING BOARD RESOLUTION

At a Regular Meeting of the Planning Board held on the 19th day of January, 2022, at 6:00pm, in the matter of the application of Kirchner Realty/Michael DeCordova regarding the property known as 278-282 Main Street, Poughkeepsie, New York:

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

Excused
Robert Mallory

WHEREAS, the Planning Board has received an application for the conversion of the existing building 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 and development of a courtyard.; and,

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

WHEREAS, the applicant submitted a Short Environmental Assessment Form which adequately describes the proposed action; and,

WHEREAS, the action is more fully detailed on plans by Aryeh Siegel, Architect, with a revision date of 1/7/22, 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 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 File PB #2021-040, as detailed in the application and the above referenced plans.

Motion: Marjorie Smith
Second: Rosaura Andujar-McNeil
Carried: 7:0:0

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,

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

NOW THEREFORE BE IT FURTHER RESOLVED that the Board grant Site Plan approval relative to the to the conversion of the existing building 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 and development of a courtyard, provided that all conditions are satisfied, as follows:

- All conditions noted on a letter from the Fire Department dated September 4, 2021 shall be addressed to the satisfaction of the department
- All conditions noted on a letter from the Engineering Department dated January 5, 2021 shall be addressed to the satisfaction of the department
- The note on the plan be corrected to read "Gate, 4' Tall"

Motion: Marjorie Smith
Second: Sean O'Donnell
Carried: 7:0:0

The motion to approval the site plan carried.

Robert S. Levine, Esq.
Chairman
Planning Board

CITY OF POUGHKEEPSIE
PLANNING BOARD
MEETING DATES 2023

City Hall – Common Council Chambers at 6:00 P.M.

The agenda will be posted on the city's website one (1) week prior to the scheduled meeting.
Applications to be considered must be submitted three (3) weeks prior to the scheduled meeting.

WEDNESDAY, JANUARY 18

WEDNESDAY, FEBRUARY 22

TUESDAY, MARCH 21

TUESDAY, APRIL 18

TUESDAY, MAY 16

WEDNESDAY, JUNE 21

TUESDAY, JULY 18

TUESDAY, AUGUST 15

TUESDAY, SEPTEMBER 19

TUESDAY, OCTOBER 17

TUESDAY, NOVEMBER 21

TUESDAY, DECEMBER 19