

**City of Poughkeepsie
Planning Board
Meeting Agenda**

Common Council Chambers
Tuesday, October 17, 2023
6:00 PM

I. CALL TO ORDER

II. APPROVAL OF MEETING MINUTES

1. Approval of September 12, 2023 meeting minutes

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

1. 110 SOUTH GRAND AVENUE

Review and Public Hearing adjourned to November 14, 2023 meeting.

2. 16 PERSHING AVENUE

Review and Public Hearing adjourned to November 14, 2023 meeting.

IV. SITE PLANS/SPECIAL PERMITS/SUBDIVISIONS

**1. 39 PERSHING AVENUE - TWO FAMILY CONVERSION
EXTENSION REQUEST**

Application for Site Plan/Special Permit Review relative to the proposed conversion of a vacant single-family dwelling at 39 Pershing Avenue to a two family dwelling. Waivers of certain site plan elements are requested. Owner: Pershing 39 LLC; Applicant: James Valencia; Consultant: Paul Tirums, PE; Zoning District: General Commercial (C-3) District; Grid #6162-80-461007; File #2021-068

2. 36 NORTH CLOVER STREET, PELTON MANOR - SITE PLAN

Application for Site Plan Amendment review regarding establishment of 46 residential units and related parking and amenities. Owner/Applicant: Pelton Partners, LLC; Consultant: LRC Group; Grid #6062-75-837228; Zoning District: R-4 (Medium-High Density Residential); File #PB2023-044

3. 10 RINALDI BOULEVARD - SITE PLAN

An application for the addition of a 2,350 square foot community room to the existing building. Owner/Applicant: Rip Van Winkle House LLC; Consultant: Hershberg & Hershberg; Grid #6062-74-749131; Zoning District: Waterfront Transit-Oriented (WTOD); File #2023-011

V. ADJOURNED APPLICATIONS

1. The following applications have been adjourned until the November 21, 2023 meeting:

481 MAIN STREET
SUNFISH COVE PROJECT
LOT #151783 SOUTH HAMILTON AVENUE
4 SOUTH CLINTON STREET
49 CIVIC CENTER PLAZA
149 NORTH HAMILTON STREET
226 CHURCH STREET



City of Poughkeepsie Planning Board Meeting Draft Minutes

Common Council Chambers
Tuesday, September 19, 2023 6:00 PM

Present	Excused	Absent	Staff
Anne Saylor Rosaura Andújar-McNeil Nick DeLucca Chris Pestas	Robert Mallory Marjorie Smith Paul Ackerman	Brian Veltre	Becky Valk, Corporation Counsel Joe Donat, Development Director Tyler Maegerle, Jr. City Planner Lori Garcia, Board Administrative Assistant

I. CALL TO ORDER

II. APPROVAL OF MEETING MINUTES

1. Approval of August 15, 2023 Meeting Minutes

Note to remove Board request to draft a resolution for 34 Cannon Street
Motion to approve with changes
Motion: Nick DeLucca
Second: Rosaura Andújar-McNeil
Carried: 4:0:0

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

1. 34 CANNON STREET - SITE PLAN

An application for a six-story mixed use building with occupied roof space. Owner: 34 Canon Street PK LLC; Applicant: James Sullivan; Consultant: LRC Engineering & Surveying, DPC; Grid #6062-77-063031; Zoning District: Urban Village (PIO-UV); File #2023 -044

Presenting: Jim Sullivan, Owner/Applicant
Sawn Curran, LRC Engineering

Motion to Open the Public Hearing

Motion: Rosaura Andújar-McNeil
Second: Nick DeLucca
Carried: 4:0:0

No speakers

Motion to Close the Public Hearing
Motion: Nick DeLucca
Second: Rosaura Andújar-McNeil
Carried: 4:0:0

Motion was made to approve the resolution with conditions
Motion: Anne Saylor
Second: Nick DeLucca
Carried: 4:0:0

IV. SITE PLANS/SPECIAL PERMITS/SUBDIVISIONS

- 1. 481 MAIN STREET: SITE PLAN**
REVIEW ADJOURNED UNTIL OCTOBER MEETING
- 2. SUNFISH COVE PROJECT: SITE PLAN**
REVIEW ADJOURNED TO OCTOBER MEETING
- 3. LOT#151783 SOUTH HAMILTON AVENUE: SITE PLAN**
REVIEW ADJOURNED TO OCTOBER MEETING
- 4. 50 DELAFIELD STREET - SITE PLAN**
REVIEW ADJOURNED TO OCTOBER MEETING
- 5. 49 CIVIC CENTER PLAZA - SITE PLAN**
REVIEW ADJOURNED TO OCTOBER MEETING
- 6. 36 NORTH CLOVER STREET, PELTON MANOR: SITE PLAN**
Application for Site Plan Amendment review regarding establishment of 46 residential units and related parking and amenities. Owner/Applicant: Pelton Partners, LLC; Consultant: LRC Group; Grid #6062-75-837228
Zoning District: R-4 (Medium-High Density Residential); File #PB2023-044
Review adjourned to October meeting at applicant's request

7. 531 MAIN STREET- SITE PLAN: CHANGE OF USE

An application for the conversion of a mini-mart to a convenience store on a property with existing self-service gas pumps and a single-bay automobile service shop. Owner: AIF Estates, Inc.; Applicant: Kheiraddine Mazouzi; Consultant: Aryeh Siegel Architect; Grid# 6161-23-350986; Zoning District: Neighborhood Commercial (C-1); File #2023-047

Presenting: Kheiraddine Mazouzi, Applicant
Alphonso Clark, Aryeh Siegel Architect
Applicant's lawyer

Motion was made to approve the resolution with conditions
Motion: Rosaura Andújar-McNeil
Second: Nick DeLucca
Carried: 4:0:0

8. 10 RINALDI BOULEVARD - SITE PLAN

An application for the addition of a 2,350 square foot community room to the existing building. Owner/Applicant: Rip VanWinkle House, LLC; Consultant: Hershberg & Hershberg; Grid#: 6062-74749131; Zoning District: Waterfront Transit-Oriented (WTOD); File: #2023-042

Presenting: Rob Kurzon, Kurzon Architects

9. 27 HIGH STREET - SITE PLAN

An application for a mixed use building consisting of 4 live/work lofts, 41 one bedroom units, 19 two bedroom units and office/conference space. Owner: 27 High Street Lofts, LLC; Applicant: KARC Planning Consultants, Inc.; Grid: #6162-62-192294; Zoning District: Medium High-Density Residence (R-4); File: #2023-042

Presenting: Natalie Quinn, KARC Planning Consultants, Inc.

Motion was made to approve the resolution with conditions
Motion: Rosaura Andújar-McNeil
Second: Nick DeLucca
Carried: 4:0:0

10. 332 MAIN STREET/ LUCKEY PLATT- SITE PLAN

Application for site plan review relative to the installation of condenser units on the south exterior of the building, the erection of a wood fence screening surrounding the condensers, the placement of the bike racks inside the building, and the removal of solar panels from the original approval. Owner: Luckey Platt Owner, LLC; Applicant: Eric Baxter; Consultant: Berger Engineering & Surveying PLLC; Grid #6162-77-108053; Zoning District: PID-HC Historic Core District; File #PB2023-012.

Presenting: Natalie Quinn, KARC Planning Consultants, Inc.

Motion was made to approve the resolution with conditions

Motion: Rosaura Andújar-McNeil

Second: Nick DeLucca

Carried: 4:0:0

11. 4 SOUTH CLINTON STREET - SITE PLAN

Site Plan application for the proposed use of an existing accessory building (carriage house) at 4 S. Clinton Street for commercial use as artist studios; Owner/Applicant: 4 S. Clinton, LLC; Consultant: Natalie Quinn, KARC Consulting; Grid #6162-78-243002; Zoned: Central Commercial (C-2) District; File #2023-053

Presenting: Natalie Quinn, KARC Planning Consultants, Inc.

12. 149 NORTH HAMILTON: SITE PLAN

An application for the creation of a parking area for the existing multi-unit building. Owner: RC Home Hamilton Street; Applicant: Roy Campbell; Consultant: Paul Tirums, P.E.; Grid #6062-63-275350; Zoning District: Central Medium Density Residential (R-3A); File #2023-051

Presenting: Paul Tirums, PE

13. 16 PERSHING AVENUE - SPECIAL PERMIT

Special permit application for the proposed use of the property on 16 Pershing Avenue as a motor vehicle repair shop; Owner/Applicant: Devanand Jaikarran; Grid #6161-24-427963; Zoned: Main Street Commercial (C-2A) District; File #2022-051

Presenting: Natya Jaikarran, Owner/Applicant
Matthew Tether, LaBella

Motion was made to declare lead agency

Motion: Rosaura Andújar-McNeil

Second: Nick DeLucca

Carried: 4:0:0

14. 226 CHURCH STREET - SITE PLAN

Application for site plan review relative to the addition of handicap accessible ramp. Owner/Applicant: Care Net Pregnancy Center of the Hudson Valley; Consultant: Whalen Architecture, PLLC; Grid #6161-22-139959; Zoning District: (CE) Creative Edge; File #PB2023-065.

Presenting: Joe Whalen, Whalen Architecture, PLLC

15. 110 SOUTH GRAND AVENUE

Application for site plan review relative to the construction of an addition to a church and renovation of a youth center. Owner/Applicant: Faith Apostolic Ministries Inc; Consultant: Michael R. Berta, AIA Architecture & Planning; Grid #6161-49-620556: 2023-067; Zoning District: Medium Low- Density (R2) District; File #PB2023-067.

Presenting: Michael Berta, AIA Architecture & Planning

Joseph Berger,

Tanisha Clark, Applicant

Motion was made to declare lead agency

Motion: Rosaura Andújar-McNeil

Second: Nick DeLucca

Carried: 4:0:0

Motion was made for a public hearing

Motion: Rosaura Andújar-McNeil

Second: Nick DeLucca

Carried: 4:0:0

Motion was made to circulate the application

Motion: Rosaura Andújar-McNeil

Second: Nick DeLucca

Carried: 4:0:0

Motion was made to establish a \$1,000 escrow

Motion: Rosaura Andújar-McNeil

Second: Nick DeLucca

Carried: 4:0:0

16. 48 COLUMBIA STREET - SITE PLAN

Application for site plan review relative to the request of a parking waiver.

Owner/Applicant: Gary Capitol, LLC; Consultant: Gary E Beck Jr,
Z3Consultants; Grid #6162-36-891827; Zoning District: Hospital-Medical
(H-M) District; File #PB20223-021.

Presenting: Dan Garay, Owner

Motion to adjourn the meeting to October

Motion: Rosaura Andújar-McNeil

Second: Nick DeLucca

Carried: 4:0:0

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

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

February 18, 2022

Jesus Valencia
39 Pershing Avenue
Poughkeepsie, NY 12601

RE: 39 PERSHING AVENUE: TWO FAMILY CONVERSION

Application for Site Plan/Special Permit Review relative to the proposed conversion of a vacant single family dwelling at 39 Pershing Avenue to a two family dwelling. Waivers of certain site plan elements are requested. Owner: Pershing 39 LLC; Applicant: James Valencia; Consultant: Paul Tirums, PE; Zoning District: General Commercial (C-3) District; Grid #6162-80-461007; File #2021-068

Dear Applicant:

This letter is to inform you of the action taken at the Planning Board meeting held on February 15, 2022, relative to the application for site plan approval referenced above. The Board granted approval of the application with the condition noted on the attached resolution dated February 15, 2022.

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 15th day of February, 2022, at 6:00pm, in the matter of the application of Jesus Valencia regarding the property known as 39 Pershing Avenue, Poughkeepsie, New York:

Present

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

Excused

Anne Saylor

WHEREAS, the Planning Board has received an application for conversion of a vacant single family dwelling to a two family dwelling with minor site improvements, a use allowed in the C-3 District in which the property is located with the issuance of a special permit by the Planning Board, pursuant to the provisions of Section 19-3.24(2)(b)(9) of the Zoning Ordinance; and,

WHEREAS, this application for site plan is classified as a Type 2 Action under SEQRA requiring no further action; and,

WHEREAS, a public hearing is required for all special permits and such public hearing was held on February 15, 2022; and,

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

NOW THEREFORE BE IT FURTHER RESOLVED that the Board grant Site Plan and Special Permit approval relative to the conversion of the existing single family dwelling to a two family dwelling, provided that all conditions are satisfied, as follows:

- All conditions noted on a letter from the Engineering Department dated January 27, 2022 shall be addressed to the satisfaction of the department.

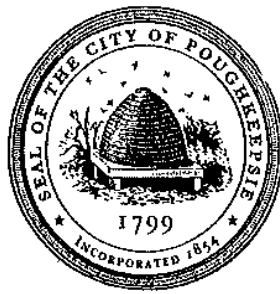
Motion: Marjorie Smith

Second: Nick DeLuccia

Carried: 7:0:0

The motion to approve the application passed unanimously.

Robert S. Levine, Esq.
Planning Board



THE CITY OF POUGHKEEPSIE NEW YORK

PLANNING & ZONING

62 CIVIC CENTER PLAZA, 2ND FLOOR

POUGHKEEPSIE, NY 12601

Phone: (845) 451-4263

Fax: (845) 451-4006

EXTENSION REQUEST FOR 39 PERSHING AVENUE

With regard to our file #2021-068 relative to the proposed conversion of a vacant single-family dwelling to a two-family dwelling with requested waivers and after review of the written request for extension, pursuant to section 19-6.1(3)(a), the planning board grants an approval extension of the original approval date of February 15, 2022, one year to expire on February 15, 2024.

Motion:

Second

Carried:

APPLICATION TO THE PLANNING BOARD
CITY OF POUGHKEEPSIE, NEW YORK

Application for Site Plan, Special Permit & Facade Approval

I. **PROPERTY ADDRESS:** 36 North Clover Street,
Poughkeepsie NY 12601

II. **PROPERTY OWNER:** Pelton Partners LLC
ADDRESS: 33 Arlington Avenue - Suite 8
Poughkeepsie

New York 12603 (state and zip code)
PHONE NUMBER: (845)473-0200 (include area code)

III. **NAME OF APPLICANT:** Pelton Partners LLC
ADDRESS: 33 Arlington Avenue - Suite 8
Poughkeepsie

New York 12603 (state and zip code)
PHONE NUMBER: (845)473-0200 (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:** LRC Group

ADDRESS: 85 Civic Center Plaza - Suite 204
Poughkeepsie

New York 12601 (state and zip code)
PHONE NUMBER: (845)243-2880 (include area code)

V. **PROPOSED USE or ~~FAÇADE CHANGE~~** (Summarize proposed use or uses):
Multi-Family Residence

VI. **ZONING DISTRICT:** R-40 (Medium High-Density Residential District)

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)

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

PROJECT INFORMATION

New construction: X (yes) _____ (no)

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

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

Alteration: X (yes) _____ (no)

Cost of Construction: \$ TBD

LOT AND BULK INFORMATION:

Lot area: 2.46 (acres) 107,290.00 (square feet)

Building Footprint: 17,512 (proposed square feet for new construction)

2,017 (existing square feet for change of
use/expansion)

n/a (additional proposed square feet for expansion)

19,529 (total building footprint, square feet)

Lot Coverage: 18.2% (percentage, building coverage only)

Gross Floor Area: 45,440 (proposed square feet for new construction)

7,956 (existing square feet for change of
use/expansion)

n/a (additional proposed square feet for expansion)

53,396 (total gross floor area, square feet)

Building Height: 3 (stories) 35'-1 1/2" (feet)

Floor Area Ratio: 0.497 (ratio of gross floor area divided by lot area)

VIII. PROJECT PARKING INFORMATION

A) Number of Off-Street Parking Spaces required: 69

B) Number of Off-Street Parking Spaces provided: 67

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

Variance for the 67 spaces was approved on April 11, 2018

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

If yes, name all such municipal facilities: Parking associated with the Poughkeepsie Train Station - Conrail

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

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

n/a (Yes) n/a (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: Multi-Family Residential - Rental
(Townhouse, condominium, multiple residence rental, etc.)

B) Unit Breakdown:

Number of efficiency or "studio" units:	<u>14</u>
Number of one (1) bedroom units:	<u>19</u>
Number of two (2) bedroom unit's	<u>13</u>
Number with three or more bedrooms:	<u>n/a</u>
Total number of units:	<u>46</u>

C) Is funding public? X Yes No
If yes, describe funding source: IDA Tax Exemption is being requested

X. OFFICE PROPOSALS (Medical/Dental Professional Business) *(n/a)*

A) Number of Employees: _____
B) Number of doctors/dentists/medical practitioners: _____
C) Days/Hours of Operation: _____

XI. SERVICE BUSINESS PROPOSALS (n/a)

- 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 _____) (n/a)

- 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 (n/a)

- 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.) (n/a)

- 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, (n/a) 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):
(n/a)

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

April 24, 2023

Date



October 3, 2023

**City of Poughkeepsie Planning Board
62 Civic Center Plaza – 3rd Floor
Poughkeepsie, New York 12601**

**Attention: Ms. Anne Saylor
Planning Board Chairperson**

**Subject: Pelton Mount Carmel
36 N. Clover Street, Poughkeepsie NY 12601
Parcel No. 134001-7057-13-224427**

Dear Ms. Saylor:

On behalf of Pelton Partners, LLC (“Property Owner”), Tinkelman Architecture, PLLC (“Project Architect”) respectfully provides this revised letter and the enclosures for the amended site plan intended for the parcel that is located at 36 North Clover Street (the “Project Site”). This letter and the attached drawings and documents are being provided to the City of Poughkeepsie Planning Board for the reapproval of the current Amended Site Plan whose earlier unanimous approval has presently elapsed. The requested approval will be for the restoration and repurposing of the existing Pelton Mansion and the development of the Property into multi-family residences. This will result in the construction of forty-six (46) multi-family dwelling units that will be located within the existing Mansion and (5) five proposed new buildings.

For this resubmission, we are including specifically the Civil drawing set which will address the current Department of Public Works & Engineering Site plan Review Form #3. This work addresses the modifications to the Civil Drawings to include the stipulations that were established as part of the Certificate of Appropriateness that was granted by HDLPC. These stipulations are outlined in the letter that was provided to the Planning Board with the previous Site Plan Submission dated August 29, 2023.

We are providing for your review and approval the following drawings:

Civil Drawings

SG-1 –	Site Grading – Revision date – 10/03/2023
SD-1 -	Site Drainage – Revision date – 10/03/2023
UT-1 –	Site Utilities – Revision date – 10/03/2023
EC-1 –	Erosion & Sediment Control Plan – Revision date – 10/03/2023
TT-1 -	Truck Turning Plan – Revision date – 10/03/2023
PP-1 -	Water Plan & Profile – Revision date – 10/03/2023
PP-2 -	Sewer Plan & Profile – Revision date – 10/03/2023
NS-1 –	Notes Sheet – Revision date – 10/03/2023
DN-1 –	Sanitary Details – Revision date – 10/03/2023
DN-2 –	Water Details – Revision date – 10/03/2023
DN-3 –	Stormwater Details – Revision date – 10/03/2023

The following documents are included as part of this resubmission of the Amended Site Plan Application:

- This Response Letter which addresses the current questions and comments from the City of Poughkeepsie Department of Public Works & Engineering Department.
- The Response Letter prepared by The LRC Group addressing the questions and comments from the City of Poughkeepsie Department of Public Works & Engineering Department.
- The revised Stormwater Pollution Prevention Plan (SWPPP) last revised October 3, 2023.

A review was conducted of the letter (Form #3) prepared by Joeseeph Kane, Department of Public Works & Engineering, which is dated September 15, 2023. The following are the comment responses that are associated specifically with the work that was conducted by this office. LRC will address the items that are specifically related to the Civil Drawings and the modified SWPPP.

- Comment 6. Recommend Owner/Developer to replace concrete sidewalk panels identified on Sidewalk Plan prepared by LRC as "Cracks and "Trip Hazzard" in addition to clearing locations identified as "Overgrowth". Recommend sidewalk replaced per City Standard details.

Response: As requested, The LRC Group conducted a survey of the condition of the sidewalks that surround the proposed development. A Sidewalk Survey Plan was prepared, and photographs were taken of the condition of the sidewalk panels. These were included with the pervious submission. At this time the repair and the replacement of the sidewalk panels that adjoin the property has not been a request made by the Planning Board of the Owner/Developer. As a condition of the Amended Site Plan Pelton Approval, the Owner/Developer has agreed only to review the current condition of the perimeter stone retaining wall and agrees to restore it, as may be required. This work shall be completed prior to requesting a final Certificate of Occupancy for all work to be completed in the development of the property. The restoration work on the wall will also include any damage that may occur during the construction process, if any. Being that the surrounding sidewalks are not located on the subject property, the repair and maintenance of the sidewalks should be the responsibility of the City of Poughkeepsie.

- Comment 8. Coordinate with City of Poughkeepsie Corporation Counsel on implementing Deed restriction that property owner and/or its successors are responsible for maintenance and operation of all site utilities to include; sanitary sewer, storm sewer, implemented storm sewer management practices and water distribution (domestic and fire) including all appurtenance related to those utilities.

Response: With the sale of the property at 36 N. Clover Street to Pelton Partners LLC on March 29, 2022, there are no current deed restrictions pertaining to the operation and the maintenance of the in-place privately owned sewer mitigation system, sanitary sewer and water utilities. If there is a need to establish maintenance and operation agreements for these systems, the Owner will follow the current governing practices. For this, the Owner will speak with the City of Poughkeepsie Corporation Counsel in regard to this requirement.



- Comment 9. Coordinate with City FD regarding adequacy of fire flow. Owner/Developer to demonstrate what is being requested is achieved as engineering is further developed.

Response: During a conference call between Joe Donat, Joe Franco of the City's Fire Department and yourself, Joe Franco confirmed that there is sufficient water flow and pressure off of the existing main along N. Clover Street to accommodate the needs of both domestic water use as well as the required fire suppression systems that are to be part of this development. The design and the construction of the fire suppression systems to be used throughout the site will be governed by the current NYS Codes and the review and approval processes that are established by the City of Poughkeepsie and the Fire Department. As part of the design of the fire suppression systems, the water flow to and on the site will be validated as part of process. The findings will be used for the design of the systems.

With notification that the "Completeness Review" of this application by the Planning Department has been finished, we ask that this Project be included on the agenda for the upcoming October meeting of the City of Poughkeepsie Planning Board. It is our goal to obtain Final Site Plan Approval at this meeting. Please circulate this information as may be required to the other reviewing departments and agencies. Should you need additional materials or documents, do not hesitate to contact me (845)473-0200.

Kind Regards,

TINKELMAN ARCHITECTURE, PLLC.

Robert E. Turner, RA
Project Architect



October 3, 2023

Joseph T. Kane P.E.
Assistant Civil Engineer
City of Poughkeepsie Department of Public Works & Engineering
62 Civic Center Plaza
Poughkeepsie, NY 12601

Re: Pelton Manor, 36 North Clover Street

Dear Mr. Kane:

Please accept this letter and accompanying revised copies of the plan set as our resubmission for the above referenced project.

Please find below our summary of responses to the Comments received from Joseph T. Kane, Department of Public Works and Engineering in a letter dated September 15, 2023:

ENGINEERING SITE PLAN REVIEW COMMENTS:

1. Overflow from Bio Retention – 2 appears to occur between type III 24-hr. 10 and 100-year storm events per provided SWPPP. This concentrated flow during overflow state not to be routed toward adjoining properties. Engineer to certify routing of all flows not to travel off site to adjoining properties. Recommend increasing capacity of Bio Retention -2 to capture Type III 24 hr. 100-year storm as non-overflow state.

LRC Response: There was a discrepancy on the Site Drainage Plan SD-1. The previous overflow elevation (95.0) was incorrect on the plan. The design elevation for the 100-year flood is correctly identified in the SWPPP and on the plans as elevation 95.25. The 100-year flood elevation is 95.07. The 95.25 elevation noted on the revised SD-1, captures all the 100-year flood event.

2. Show on Site Plan Sheet DN-2 Water Service Abandonment suitable for connections greater than 2" diameter. Detail shown on Sheet DN-2 applies to water service connections that are less than 2" in diameter.

LRC Engineering & Surveying, D.P.C
LRC Engineering and Surveying, LLC
LRC Environmental Services, Inc.
Land Resource Consultants, Inc.

85 Civic Center Plaza, Suite 204
Poughkeepsie, New York 12601
Tel: (845) 243-2880
Fax: (845) 265-8175

LRC Response: Included in the revised engineering submission is clarification for the existing water service. Both meter pits were examined and do not show any existing water services above a size of 2" or greater. Photo documentation has been included in the provided response.

3. Site Plan Sheet PP-1, Water Profile is lacking detail. Provide additional attributes such as size of pipe, elevations of watermain and finished grade, crossings with dimensions, any location where horizontal and/or vertical separation encroaches on standard offsets, change of direction etc.

LRC Response: Sheet PP-1 water profile has been updated to provide additional attributes for the water design.

4. Site Plan Sheet PP-2, Sewer Profile is lacking detail. Provide additional attributes such as size of pipe, elevations, type of pipe, manhole numbers, pipe slope etc. Include manhole numbers on Site Plan Sheet UT-1.

LRC Response: Sheet PP-2 sewer profile has been updated to provide additional attributes for the sewer design.

5. Shown on Site Plan Sheets UT-1 and PP-2 Sanitary Sewer limits to be dedicated to City of Poughkeepsie; MH #7 to MH #8 and STA. 4+22.48 to 5+20. Include notation in Site Plan that as-built drawings of portion dedicated to City to be NYS licensed professional engineer certified. As-Built drawings to be provided to City of Poughkeepsie Engineering Department in both AutoCAD .dwg and Adobe .pdf formats prior to issuance of Building Certificate of Occupancy.

LRC Response: The city dedication notation regarding the new sanitary to Davies Court has been added to the utility plan and sewer plan and profile sheets.

6. Recommend owner/developer to replace concrete sidewalk panels identified on Sidewalk Plan prepared by LRC as "Cracks" and "Trip Hazard" in addition to clearing locations identified as "Overgrowth". Recommend sidewalk replaced per City Standard details.

Response: See response provided by Tinkelman Architecture.

7. On Site Plan Sheet DN-2 add note to "Hydrant and Valve Assembly Detail" indicating hydrants to adhere to both installed minimum and maximum height requirements per NFPA 24.

LRC Response: This requested notation has been placed as notation #6, for the hydrant detail located on sheet DN-2.

8. Coordinate with City of Poughkeepsie Corporation Counsel on implementing Deed restriction that property owner and/or its successors are responsible for maintenance and operation of all site utilities to include; sanitary sewer, storm sewer, implemented storm sewer management practices and water distribution (domestic and fire) including all appurtenance related to those utilities.

Response: See response provided by Tinkelman Architecture.

9. Coordinate with City FD regarding adequacy of fire flow. Owner/developer to demonstrate what is being requested is achieved as engineering is further developed.

Response: See response provided by Tinkelman Architecture.

SWPPP Review Comments:

1. Provide City Engineering with MS4 SWPPP Acceptance Form for signature once development is approved by City of Poughkeepsie Planning.

LRC Response: Comment noted.

2. Provide City Engineering with NOI Acknowledgment letter to when received from NYSDEC.

LRC Response: Comment noted.

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,
LRC Group



Shawn M. Curran







ARCHITECTURAL DRAWINGS:

TS-01	COVER SHEET - Package 3 & Package 4
PZ-01	CHARTS & TABLES - Package 3
PZ-02	ADJOINING PROPERTY OWNERS - Package 3
PZ-03	SITE DEVELOPMENT PLAN - CURRENTLY APPROVED - Package 3
PZ-03	SITE DEVELOPMENT PLAN - PROPOSED - Package 3
PZ-04	SITE SECTION - Package 3
PZ-04.1	SITE SECTION - Package 3
PZ-04.2	SITE SECTION - Package 3
PZ-05	SITE DETAILS - Package 3
PZ-06	SITE DETAILS - Package 3
PZ-08	PRELIMINARY ELEVATIONS - PELTON MANOR - Package 4
PZ-08.1	MATERIAL CALLOUTS - PELTON MANOR - Package 4
PZ-08.2	RENDERED VIEWS - Package 4
PZ-10	PRELIMINARY ELEVATIONS - FISHKILL - Package 4
PZ-12	PRELIMINARY ELEVATIONS - DONGAN - Package 4
PZ-14	PRELIMINARY ELEVATIONS - RIVER - Package 4
PZ-14.1	RIVER ELEVATIONS - Package 4
PZ-16	PRELIMINARY ELEVATIONS - STATION - Package 4
PZ-16.1	STATION ELEVATIONS - Package 4
PZ-18	PRELIMINARY ELEVATIONS - CARRIAGE HOUSE - Package 4
PZ-19	STREET ELEVATIONS - Package 4
PZ-20	ENLARGED MONUMENTAL STAIR PLAN & ELEVATIONS - Package 4
PZ-21	ENLARGED PELTON TERR. & VIEW SHED PLAN & SECTION - Package 4
PZ-22	FRONT ENTRANCE SIGN - Package 3
PZ-23	DONGAN PLACE PATIO PLAN, ELEVATION AND SECTIONS - Package 3
PZ-24	ENTRANCE DRIVEWAY PLAN & WALKWAY RAMP PLAN & SECTION - Package 3
PZ-25	PHOTOMETRIC PLAN & SCHEDULE - Package 3
PZ-26	FALLKILL & DONGAN ELEVATIONS - Package 4
PZ-26.1	FALLKILL & DONGAN ELEVATIONS - Package 4
PZ-27	FALLKILL & DONGAN PATIOS - Package 4

LANDSCAPE DRAWINGS:

- | | |
|-----|---|
| L1 | LANDSCAPE PLANTING PLAN - Package 3 |
| L2 | PLANTING SPECIFICATIONS & NOTES - Package 3 |
| L-3 | PLANT TABLE - Package 3 |
| L4 | PLANT PHOTOGRAPHS/IMAGES - Package 3 |
| L5 | EXISTING TREE INVENTORY - Package 3 |

CIVIL DRAWINGS:

- | | |
|------|---|
| SG-1 | SITE GRADING - Package 3 |
| SD-1 | SITE DRAINAGE - Package 3 |
| UT-1 | SITE UTILITIES - Package 3 |
| EC-1 | EROSION & SEDIMENT CONTROL PLAN - Package 3 |
| TT-1 | TRUCK TURNING PLAN - Package 3 |
| PP-1 | WATER PLAN & PROFILE - Package 3 |
| PP-2 | SEWER PLAN & PROFILE - Package 3 |
| NS-1 | NOTES SHEET - Package 3 |
| DN-1 | SANITARY DETAILS - Package 3 |
| DN-2 | WATER DETAILS - Package 3 |
| DN-3 | STORMWATER DETAILS - Package 3 |

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):

Pelton Partners LLC
33 Arlington Ave, Suite 8
Poughkeepsie, New York 12603

Tinkelman Architecture PLLC
33 Arlington Ave, Suite 8
Poughkeepsie, New York 12603

The Michael Boice Collaboration
11 South Fowlerhouse Road
Wappingers Falls, New York 12590

LRC Group
85 Civic Center Plaza, Suite 204
Poughkeepsie, New York 12601

NOTE: ALL MATERIAL AND FINISH
PRODUCTS/MANUFACTURERS MAY
BE SUBSTITUTED WITH SIMILAR
SELECTED BY ARCHITECT

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



	ISSUED TO PLANNING BOARD	08/29/2012
	ISSUED TO HDLPC	08/29/2012
	ISSUED TO PLANNING BOARD	06/25/2011
	ISSUED TO PLANNING BOARD	06/04/2011
	ISSUED TO PLANNING BOARD	03/26/2011
	ISSUED TO PLANNING BOARD	11/09/2011
	ISSUED TO PLANNING BOARD	10/5/2017
NO.	SUBMISSION DESCRIPTION	DATE

Pelton Partners LLC

33 Arlington Avenue, Suite 8
Poughkeepsie, New York 12603

Pelton Mount Carmel

36 N. Clover Street
Poughkeepsie, New York 12601

COVER SHEET

Date:	05 October, 2017
Project number:	P1022.20

TS-01

BUILDING GROSS AREAS	
<u>FALLKILL GROSS AREA:</u>	
LOWER LEVEL	3,828 SF
FIRST FLOOR	3,979 SF
SECOND FLOOR	3,640 SF
THIRD FLOOR	1,228 SF
TOTAL GROSS AREA	12,667 SF
<u>DONGAN GROSS AREA:</u>	
LOWER LEVEL	1,934 SF
FIRST FLOOR	3,124 SF
SECOND FLOOR	2,859 SF
THIRD FLOOR	1,149 SF
TOTAL GROSS AREA	9,066 SF
<u>RIVER GROSS AREA:</u>	
LOWER LEVEL	1,885 SF
FIRST FLOOR	2,963 SF
SECOND FLOOR	2,963 SF
TOTAL GROSS AREA	7,811 SF
<u>PELTON MANOR GROSS AREA:</u>	
LOWER LEVEL	1,949 SF
FIRST FLOOR	2,338 SF
SECOND FLOOR	1,970 SF
THIRD FLOOR	1,699 SF
TOTAL GROSS AREA	7,956 SF
<u>STATION GROSS AREA:</u>	
LOWER LEVEL	1,631 SF
FIRST FLOOR	2,796 SF
SECOND FLOOR	2,796 SF
TOTAL GROSS AREA	7,223 SF
<u>CARRIAGE HOUSE GROSS AREA:</u>	
FIRST FLOOR	4,311 SF
SECOND FLOOR	4,311 SF
THIRD FLOOR	811 SF
TOTAL GROSS AREA	9,433 SF
<u>BUILDING GROSS AREAS:</u>	
FALLKILL	12,667 SF
DONGAN	9,066 SF
RIVER	7,811 SF
PELTON MANOR	7,956 SF
STATION	7,223 SF
CARRIAGE HOUSE	9,433 SF
GRAND TOTAL	54,156 SF

DWELLING UNITS:

FALLKILL:

STUDIO = 0
ONE BEDROOM = 7
TWO BEDROOM = 2
SUB-TOTAL = 9

DONGAN:

STUDIO = 2
ONE BEDROOM = 3
TWO BEDROOM = 4
SUB-TOTAL = 9

RIVER HOUSE:

STUDIO = 0
ONE BEDROOM = 0
TWO BEDROOM = 8
SUB-TOTAL = 8

CARRIAGE HOUSE:

STUDIO = 2
ONE BEDROOM = 4
TWO BEDROOM = 0
SUB-TOTAL = 6

PELTON MANOR:

STUDIO = 2
ONE BEDROOM = 3
TWO BEDROOM = 1
SUB-TOTAL = 6

STATION:

STUDIO = 8
ONE BEDROOM = 0
TWO BEDROOM = 0
SUB-TOTAL = 8

TOTAL FOR PROJECT:

STUDIO = 14
ONE BEDROOM = 17
TWO BEDROOM = 15
TOTAL DWELLING UNITS = 46

ADA COMPLIANT
DWELLING UNITS:

FALLKILL:

TYPE "B" UNITS = 0

DONGAN:

TYPE "B" UNITS = 2

RIVER HOUSE:

TYPE "B" UNITS = 0

CARRIAGE HOUSE:

TYPE "B" UNITS = 0

PELTON MANOR:

TYPE "B" UNITS = N/A

STATION:

TYPE "B" UNITS = 3

TOTAL FOR PROJECT:

TYPE "B" UNITS = 5

PARKING SCHEDULE:		
USES:	MIN. No. OF OFF-STREET PARKING SPACES:	SPACES REQUIRED:
RESIDENTIAL TENANTS	1 SPACE FOR EA. STUDIO APARTMENT 1.5 SPACES FOR EA. 1 BEDROOM APARTMENT 2 SPACES FOR EA. 2 BEDROOM APARTMENT	14 UNITS X 1 = 14 SPACES 17 UNITS X 1.5 = 25.5 SPACES 15 UNITS X 2 = 30 SPACES SUB-TOTAL = 69.5 SPACES
RESIDENTIAL VISITORS	NOT REQUIRED	0 SPACES
TOTAL SPACES REQUIRED:		70 SPACES, *67 SPACES WITH VARIANCE GRANTED
SPACES PROVIDED - 9 FT X 20 FT: PARKING LOT: 59 SPACES CARRIAGE HOUSE: 8 SPACES TOTAL: 67 SPACES		

*VARIANCE WAS GRANTED ON 4/11/18 TO ALLOW FOR THE REDUCTION IN THE NUMBER OF REQUIRED PARKING SPACES FROM 70 TO 67. - SECTION19.43(11)(a) OFF-STREET PARKING & LOADING.

IMPERVIOUS LOT COVERAGE	
ZONING DISTRICT - R-4	
LOT SIZE = 107,290 SF	
BUILDING FOOTPRINT (LOT COVERAGE):	
FALLKILL	3,979 S.F.
DONGAN	3,124 S.F.
RIVER HOUSE	2,963 S.F.
PELTON MANOR	1,949 S.F.
STATION	2,796 S.F.
CARRIAGE HOUSE	4,311 S.F.
TOTAL	19,123 S.F.
LOT COVERAGE = 19,123 / 107,290 = 17.8%	
WALKWAYS/SITE STEPS	10,381 S.F.
PARKING SPACES	11,188 S.F.
DRIVEWAY	18,675 S.F.
PATIOS	1,646 S.F.
DUMPSTER ENCLOSURE	234 S.F.
CONCRETE PAD	320 S.F.
STONE RETAINING WALLS	1,721 S.F.
MASONRY RETAINING WALLS	310 S.F.
STONE PATIOS	1,329 S.F.
AC CONDENSERS	30.1 S.F.
TRANSFORMERS	64 S.F.
TOTAL IMPERVIOUS 65,021 S.F.	
65,021 / = 107,290 = .606 = 60.6%	
IMPERVIOUS LOT COVERAGE = 60.6%	

PERVIOUS PAVEMENT AREA = 6,444 SF

ZONING & LAND USE REGULATIONS

	REQUIRED/ MINIMUM	PROPOSED
ZONING DISTRICT	R-4	R-4
MINIMUM LOT AREA. (ACRES)	104,000 SF	2.46 ACRES 107,290 SF
MINIMUM LOT WIDTH (FEET)	30 ft	32 ft
MINIMUM LOT FRONTAGE (FEET)	30 ft	32 ft
MINIMUM FRONT YARD	20 ft	175'-8 3/4"
MINIMUM EACH SIDE YARD	15 ft or 1/2 Bldg. Hgt.	8'-8 3/4"/ 17'-11"
TOTAL (2) SIDE YARD	30 ft or 1/2 Bldg. Hgt. X 2	17'-3 1/2'/ 35'-10"
MINIMUM REAR YARD	15 ft or 1/2 Bldg. Hgt.	34'-1 1/2"
MAXIMUM BUILDING HEIGHT (STORIES)	3 Stories or 40 ft	35'-1 1/2"
MAXIMUM LOT COVERAGE	40% 42,916 SF	17.8% 19,123 SF
BUILDING FLOOR AREA RATIO	N/A	N/A
MINIMUM USABLE OPEN SPACE	*13,900 SF	14,470 SF
PARKING (w/ stacking) Based on 9x18 Stall Dimensions	70 Spaces	67 Spaces

SETBACK NOTE:

- VARIANCE WAS GRANTED ON 4/11/18 FOR THE CARRIAGE HOUSE SIDE YARD SETBACK REDUCTION FROM 15'-0" TO 8'-8 3/4". SECTION 19-3.15(4)(e)2 - MEDIUM HIGH - DENSITY RESIDENTIAL DISTRICT R-4.
- VARIANCE WAS GRANTED 4/11/18 FOR A REDUCTION IN THE MINIMUM LOT AREA. CONFORMING A VARIANCE OF 2,110 SF WAS APPROVED.

* USABLE OPEN SPACE CALCULATION:

STUDIO: 19 x 200 SF = 3,800 SF
1 BEDROOM: 15 x 300 SF = 4,500 SF
2 BEDROOM: 14 x 400 SF = 5,600 SF
TOTAL REQUIRED USABLE OPEN SPACE = 13,900 SF

REVISIONS:	
6/30/2023	ISSUED TO PLANNING BOARD
5/31/2023	ISSUED TO PLANNING BOARD
8/29/2019	ISSUED TO HDLPC
7/30/2019	ISSUED TO PLANNING BOARD
6/25/2019	ISSUED TO PLANNING BOARD
3/28/2019	PRE-SUBMISSION - HDLPC
3/26/2018	ISSUED TO PLANNING BOARD
2/6/2018	ISSUE FOR REVIEW
11/9/2017	ISSUED TO PLANNING BOARD
10/5/2017	ISSUED TO PLANNING BOARD



CLIENT:
Pelton Partners LLC
33 Arlington Avenue
Poughkeepsie, NY 12603

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



CHARTS &
TABLES

DRAWN BY:

D.H.

JOB No.

P1022.20

DATE:

5/31/2023

PZ-01

TABLE - ADJ.OINING PROPERTY OWNERS :		
PARCEL NUMBER:	PARCEL ADDRESS:	OWNERS ADDRESS:
131300-6062-67-842251	48 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	CITY OF POUGHKEEPSIE PO BOX 300 POUGHKEEPSIE, NY 12602
131300-6062-68-887266	135 MILL ST POUGHKEEPSIE, NY 12601	MICHAEL L. REED 135 MILL ST POUGHKEEPSIE, NY 12601
131300-6062-67-873252	137 MILL ST POUGHKEEPSIE, NY 12601	MICHAEL L. REED 135 MILL ST POUGHKEEPSIE, NY 12601
131300-6062-68-884258	139 MILL ST POUGHKEEPSIE, NY 12601	MICHAEL L. REED 135 MILL ST POUGHKEEPSIE, NY 12601
131300-6062-76-881247	145 MILL ST POUGHKEEPSIE, NY 12601	STRIPPOLI HOLDINGS LLC 145 MILL ST POUGHKEEPSIE, NY 12601
131300-6062-68-927260	21 CHARLES ST POUGHKEEPSIE, NY 12601	EASTMAN & BIXBY REDEV CO LLC 22 MONTGOMERY ST POUGHKEEPSIE, NY 12601
131300-6062-76-878231	144 MILL ST POUGHKEEPSIE, NY 12601	ANTONIO & MARIA MAZZARELLI 32 SCHOOLHOUSE LANE POUGHKEEPSIE, NY 12603
131300-6062-76-876226	39 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	ROBERT C. CIFONE 321 VINEYARD AVENUE HIGHLAND, NY 12528
131300-6062-76-876222	37 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	GIULIO & GIOVANNI MAZZARELLI TRUSTEE 32 SCHOOLHOUSE LANE POUGHKEEPSIE, NY 12603
131300-6062-76-877219	35 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	GIULIO & GIOVANNI MAZZARELLI TRUSTEE 32 SCHOOLHOUSE LANE POUGHKEEPSIE, NY 12603
131300-6062-76-876214	31 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	GIULIO & GIOVANNI MAZZARELLI TRUSTEE 32 SCHOOLHOUSE LANE POUGHKEEPSIE, NY 12603
131300-6062-76-875209	29 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	ELEANOR M. LOMORIELLO GRACE & TERESA MOSCHETTO 9 EAST ARNOLD ROAD POUGHKEEPSIE, NY 12601
131300-6062-75-874205	27 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	UDITH ALEYDA QUIADA-GUERRA 27 NORTH CLOVER ST POUGHKEEPSIE, NY 12601
131300-6062-75-861236	44 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	GCAABB LLC 44 NORTH CLOVER ST POUGHKEEPSIE, NY 12601
131300-6062-75-860233	42 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	GCAABB LLC 44 NORTH CLOVER ST POUGHKEEPSIE, NY 12601
131300-6062-75-859231	40 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	T ASSOCIATES INC PO BOX 5310 POUGHKEEPSIE, NY 12602
131300-6062-75-859227	38 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	PASQUALE & CONCETTA PROVENZANO 18 MT. CARMEL PL POUGHKEEPSIE, NY 12601
131300-6062-75-856219	32 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	WARREN & SHELLY CONES 20 MT. CARMEL PL POUGHKEEPSIE, NY 12601
131300-6062-75-854216	30 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	RALPH A VILLANO 30 NORTH CLOVER ST POUGHKEEPSIE, NY 12601
131300-6062-75-853212	28 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	GUISEPPINA & CONSTANTINO TROCINO MARTINA MILEA 585 SALT POINT TPKE POUGHKEEPSIE, NY 12601
131300-6062-75-852209	26 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	GUISEPPINA & CONSTANTINO TROCINO MARTINA MILEA 585 SALT POINT TPKE POUGHKEEPSIE, NY 12601
131300-6062-75-851200	18 NORTH CLOVER ST POUGHKEEPSIE, NY 12601	CITY OF POUGHKEEPSIE PO BOX 300 POUGHKEEPSIE, NY 12602
131300-6062-75-837201	18 DAVIS PL POUGHKEEPSIE, NY 12601	HOLY COMFORTER CHURCH 18 DAVIS PL POUGHKEEPSIE, NY 12601
131300-6062-75-820200	19 DAVIS PL POUGHKEEPSIE, NY 12601	L D Z PROPERTIES INC 4 BRISTOL DR PLEASANT VALLEY, NY 12569
131300-6062-75-819210	DAVIS PL POUGHKEEPSIE, NY 12601	CITY OF POUGHKEEPSIE PO BOX 300 POUGHKEEPSIE, NY 12602
131300-6061-27-794956	41 MAIN ST POUGHKEEPSIE, NY 12601	CONRAIL 580 WALNUT ST CINCINNATI, OH 45202



1 ADJ.OINING PROPERTY OWNERS MAP
NOT TO SCALE



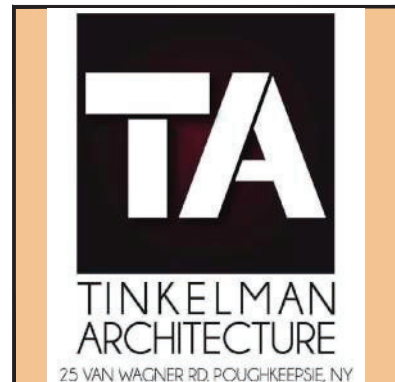
CLIENT:
Pelton Partners LLC
25 Van Wagner Road
Poughkeepsie, NY 12603

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



ADJOINING PROPERTY OWNERS	
DRAWN BY: J.D.	PZ-02
JOB No. Y1022	
DATE: 8/29/17	

REVISIONS:	
6/25/2019	ISSUED TO PLANNING BOARD
3/26/2018	ISSUED TO PLANNING BOARD
10/5/2017	ISSUED TO PLANNING BOARD



© TINKELMAN ARCHITECTURE PLLC, 2017

CLIENT:
Bottini Properties
18 Clinton Street
Wappingers Falls, NY 12590

PROJECT NAME:
Pelton Mount Carmel
300 Westage Business Center Drive
Fishkill, NY 12524



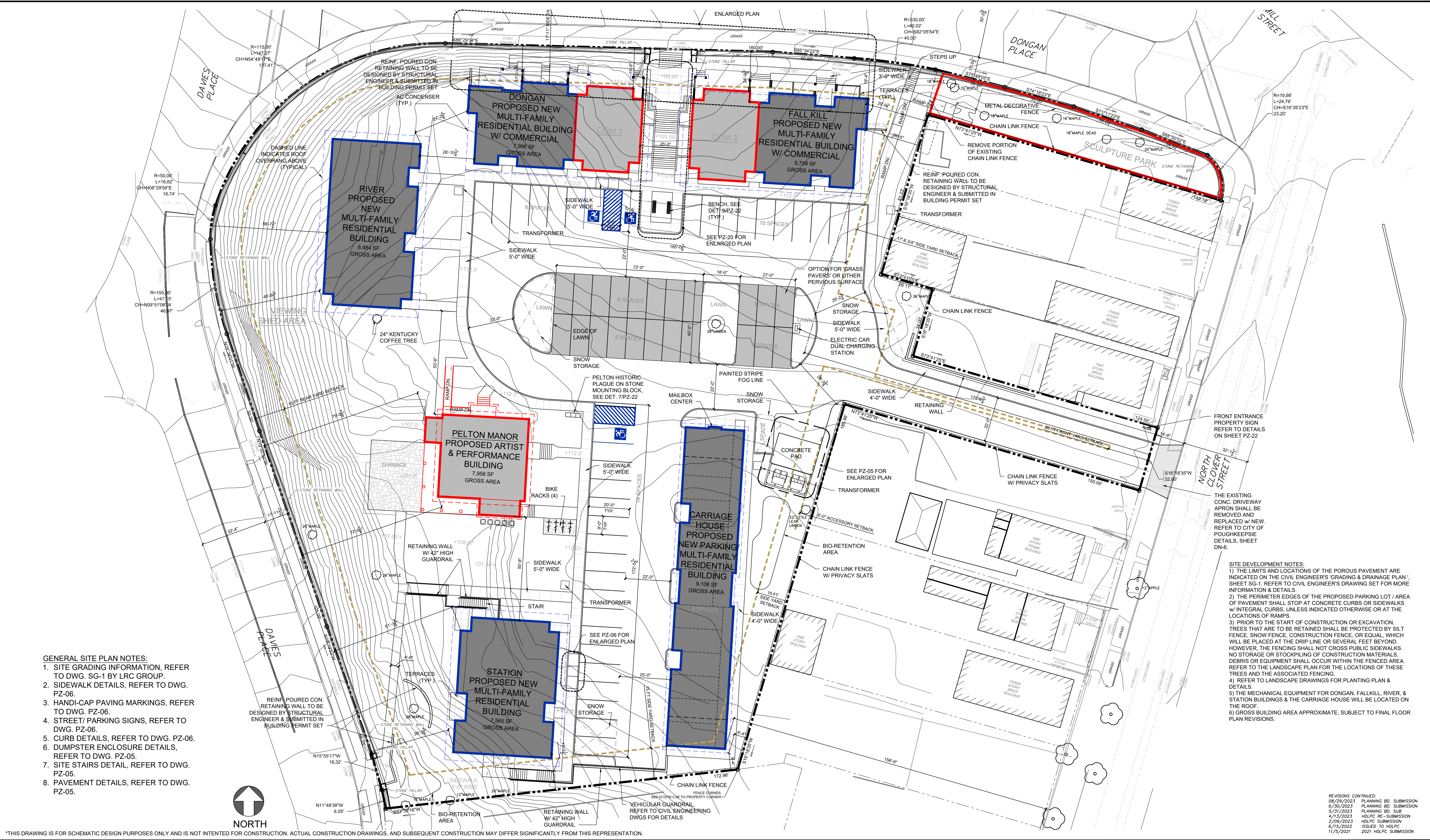
SITE DEVELOPMENT PLAN	
DRAWN BY: J.D.	PZ-03
JOB No. Y1022	
DATE: 8/29/17	

P:\TA Jobs\Y1022 - 36 N Clover\Drawings\Sheets\2019.03.12 Planning Board 2nd Approval\Y1022-PZ-03 SITE DEVELOPMENT PLAN.dwg

- GENERAL SITE PLAN NOTES:
1. SITE GRADING INFORMATION, REFER TO DWG. SG-1 BY LRC GROUP.
 2. SIDEWALK DETAILS, REFER TO DWG. PZ-06.
 3. HANDI-CAP PAVING MARKINGS, REFER TO DWG. PZ-06.
 4. STREET/PARKING SIGNS, REFER TO DWG. PZ-06.
 5. CURB DETAILS, REFER TO DWG. PZ-06.
 6. DUMPSTER ENCLOSURE DETAILS, REFER TO DWG. PZ-05.
 7. SITE STAIRS DETAIL, REFER TO DWG. PZ-05.
 8. PAVEMENT DETAILS, REFER TO DWG. PZ-05.

- SITE DEVELOPMENT NOTES:
- 1) THE LIMITS AND LOCATIONS OF THE POROUS PAVEMENT ARE INDICATED ON THE CIVIL ENGINEER'S 'GRADING & DRAINAGE PLAN', SHEET SG-1. REFER TO CIVIL ENGINEER'S DRAWING SET FOR MORE INFORMATION & DETAILS.
 - 2) THE PERIMETER EDGES OF THE PROPOSED PARKING LOT / AREA OF PAVEMENT SHALL STOP AT CONCRETE CURBS OR SIDEWALKS W/ INTEGRAL CURBS, UNLESS INDICATED OTHERWISE OR AT THE LOCATIONS OF RAMPS.
 - 3) PRIOR TO THE START OF CONSTRUCTION OR EXCAVATION, TREES THAT ARE 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. REFER TO THE LANDSCAPE PLAN FOR THE LOCATIONS OF THESE TREES AND THE ASSOCIATED FENCING.
 - 4) REFER TO LANDSCAPE DRAWINGS FOR PLANTING PLAN & DETAILS.

REVIEWS:	
6/23/2019	ISSUED TO PLANNING BOARD
3/28/2019	PRE-SUBMISSION - HOLPC
11/17/2018	ISSUED TO HOLPC
8/3/2018	ISSUED TO HOLPC
6/4/2018	ISSUED TO PLANNING BOARD
3/26/2018	ISSUED TO PLANNING BOARD
2/13/2018	ISSUED TO PLANNING BOARD
1/25/2018	ISSUED TO SCENIC HUDSON
1/24/2018	ISSUED TO HOLPC
11/9/2017	ISSUED TO PLANNING BOARD
10/5/2017	ISSUED TO PLANNING BOARD



- GENERAL SITE PLAN NOTES:
1. SITE GRADING INFORMATION, REFER TO DWG. SG-1 BY LRC GROUP.
 2. SIDEWALK DETAILS, REFER TO DWG. PZ-06.
 3. HANDI-CAP PAVING MARKINGS, REFER TO DWG. PZ-06.
 4. STREET/ PARKING SIGNS, REFER TO DWG. PZ-06.
 5. CURB DETAILS, REFER TO DWG. PZ-06.
 6. DUMPSTER ENCLOSURE DETAILS, REFER TO DWG. PZ-05.
 7. SITE STAIRS DETAIL, REFER TO DWG. PZ-05.
 8. PAVEMENT DETAILS, REFER TO DWG. PZ-05.

- SITE DEVELOPMENT NOTES:
- 1) THE LIMITS AND LOCATIONS OF THE POROUS PAVEMENT ARE INDICATED ON THE CIVIL ENGINEER'S 'GRADING & DRAINAGE PLAN', SHEET SG-1. REFER TO CIVIL ENGINEER'S DRAWING SET FOR MORE INFORMATION & DETAILS.
 - 2) THE PERIMETER EDGES OF THE PROPOSED PARKING LOT / AREA OF PAVEMENT SHALL STOP AT CONCRETE CURBS OR SIDEWALKS w/ INTEGRAL CURBS, UNLESS INDICATED OTHERWISE OR AT THE LOCATIONS OF RAMPS.
 - 3) PRIOR TO THE START OF CONSTRUCTION OR EXCAVATION, TREES THAT ARE 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. REFER TO THE LANDSCAPE PLAN FOR THE LOCATIONS OF THESE TREES AND THE ASSOCIATED FENCING.
 - 4) REFER TO LANDSCAPE DRAWINGS FOR PLANTING PLAN & DETAILS.
 - 5) THE MECHANICAL EQUIPMENT FOR DONGAN, FALLKILL, RIVER, & STATION BUILDINGS & THE CARRIAGE HOUSE WILL BE LOCATED ON THE ROOF.
 - 6) GROSS BUILDING AREA APPROXIMATE, SUBJECT TO FINAL FLOOR PLAN REVISIONS.

REVISIONS CONTINUED:

08/29/2023	PLANNING BD. SUBMISSION
6/30/2023	PLANNING BD. SUBMISSION
5/31/2023	PLANNING BD. SUB
4/13/2023	HD LPC RE-SUBMISSION
2/09/2023	HD LPC SUBMISSION
6/15/2022	ISSUED TO HD LPC
11/6/2021	2021 HD LPC SUBMISSION



**TINKELMAN
ARCHITECTURE**
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ARCHITECT IS A VIOLATION OF SECTION
7209 SUBDIVISION 2 OF THE NEW YORK
STATUTE EDUCATION LAW.



NO.	SUBMISSION DESCRIPTION	DATE
	ISSUED TO HD LPC	08/29/2019
	ISSUED TO PLANNING BOARD	06/25/2019
	PRE-SUBMISSION - HD LPC	03/28/2019
	ISSUED TO HD LPC	11/07/2018
	ISSUED TO HD LPC	08/03/2018
	ISSUED TO PLANNING BOARD	06/04/2018
	ISSUED TO PLANNING BOARD	03/26/2018
	ISSUED TO PLANNING BOARD	02/13/2018
	ISSUED TO SCENIC HUDSON	01/29/2018
	ISSUED TO PLANNING BOARD	11/09/2017
	ISSUED TO PLANNING BOARD	10/5/2017

CLIENT NAME:

Pelton Partners LLC

33 Arlington Avenue, Suite 8
Poughkeepsie, New York 12603

PROJECT NAME:

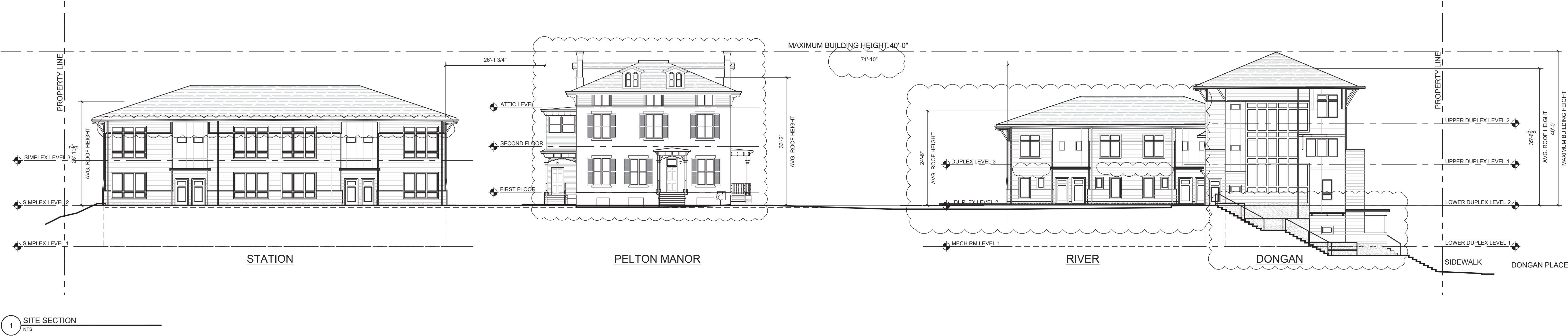
Pelton Mount Carmel

36 N. Clover Street
Poughkeepsie, New York 12601

**SITE
DEVELOPMENT
PLAN**

Date:
05 October, 2017
Project number:
P1022.20

PZ-03



1 SITE SECTION
NTS

REVISIONS:	
6/25/2019	ISSUED TO PLANNING BOARD
3/28/2019	PRE-SUBMISSION - HDLPC
11/07/2018	ISSUED TO HDLPC
8/03/2018	ISSUED TO HDLPC
3/26/2018	ISSUED TO PLANNING BOARD
1/24/2017	ISSUED TO HDLPC
12/18/2017	PRESENTED TO PLANNING BOARD
12/08/2017	ISSUED TO MASS DESIGN
10/5/2017	ISSUED TO PLANNING BOARD



TINKELMAN
ARCHITECTURE
25 VAN WAGNER ROAD POUGHKEEPSIE, NY

CLIENT:

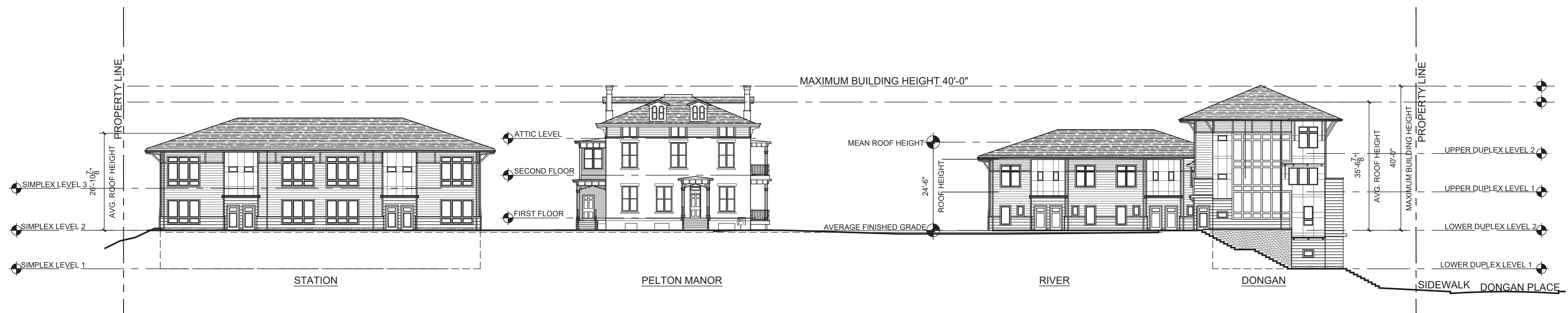
Pelton Partners LLC
25 Van Wagner Road
Poughkeepsie, NY 12603

PROJECT NAME:

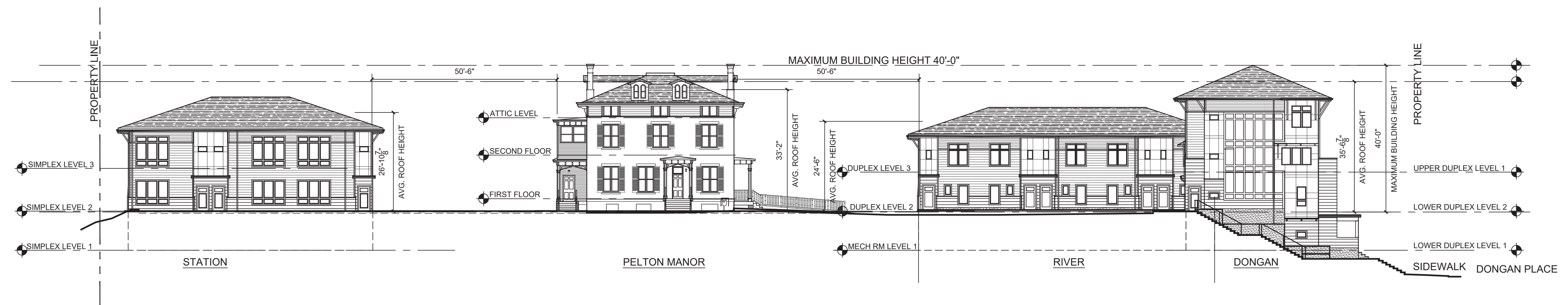
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



SITE SECTION	
DRAWN BY: J.D.	PZ-04
JOB No. Y1022	
DATE: 9/18/17	



1 SITE SECTION - (CURRENTLY APPROVED)
1/16" = 1'-0"



2 SITE SECTION - (PROPOSED)
1/16" = 1'-0"



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CLIENT:
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33 Arlington Avenue
Poughkeepsie, NY 12603

PROJECT NAME:

Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



SITE
SECTIONS

DRAWN BY:

D.H.

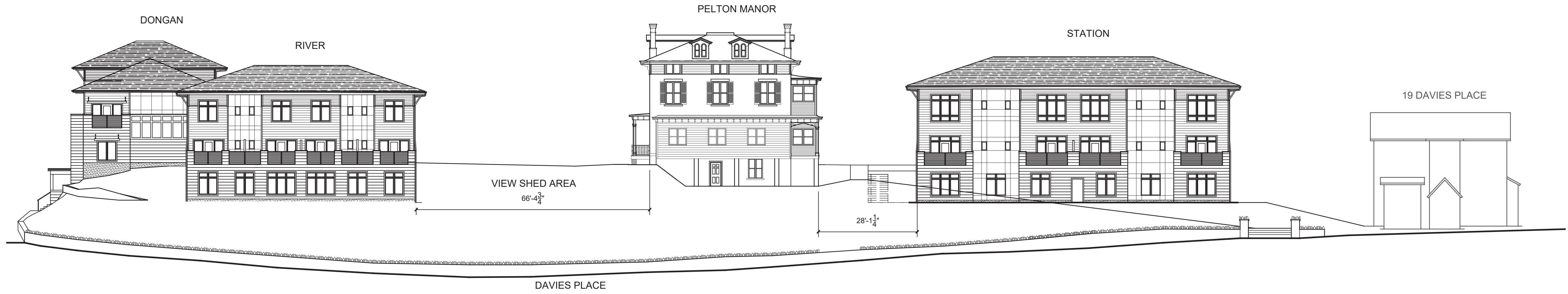
JOB No.

P1022.20

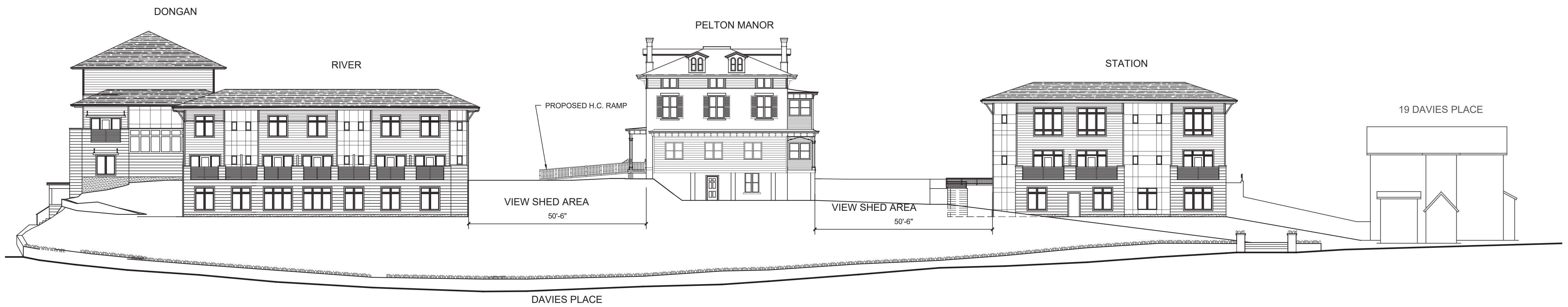
DATE:

5/31/2023

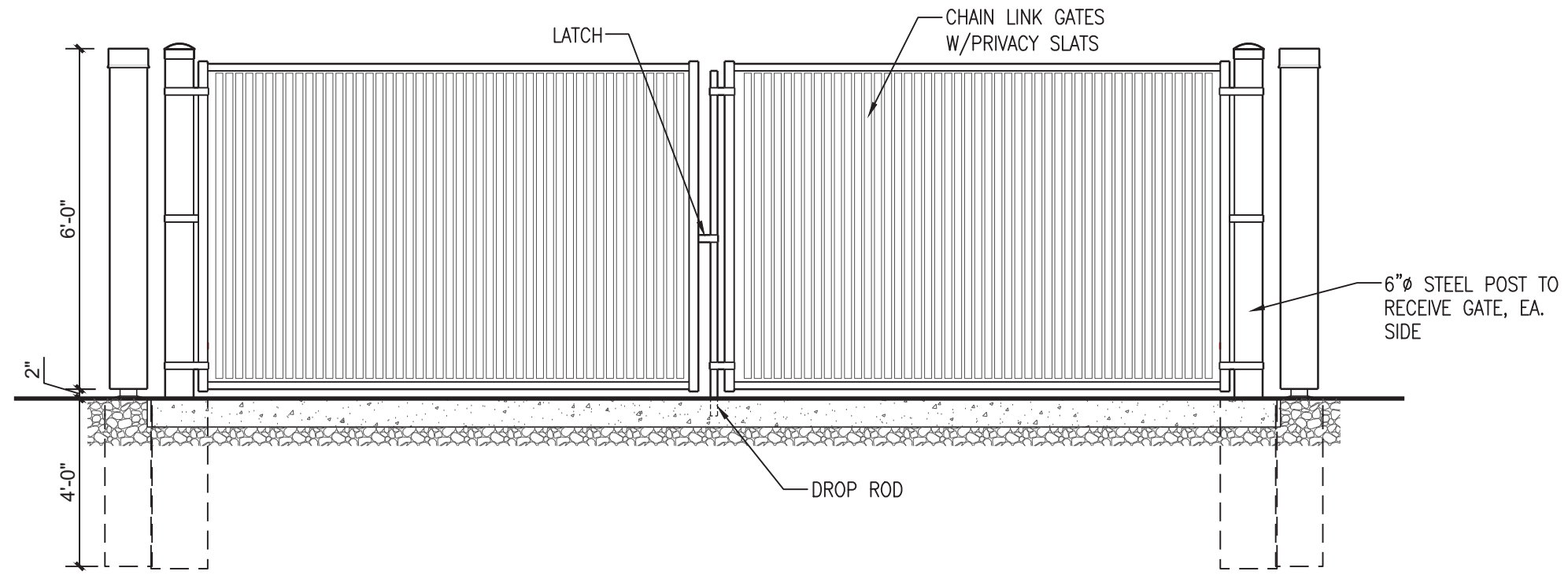
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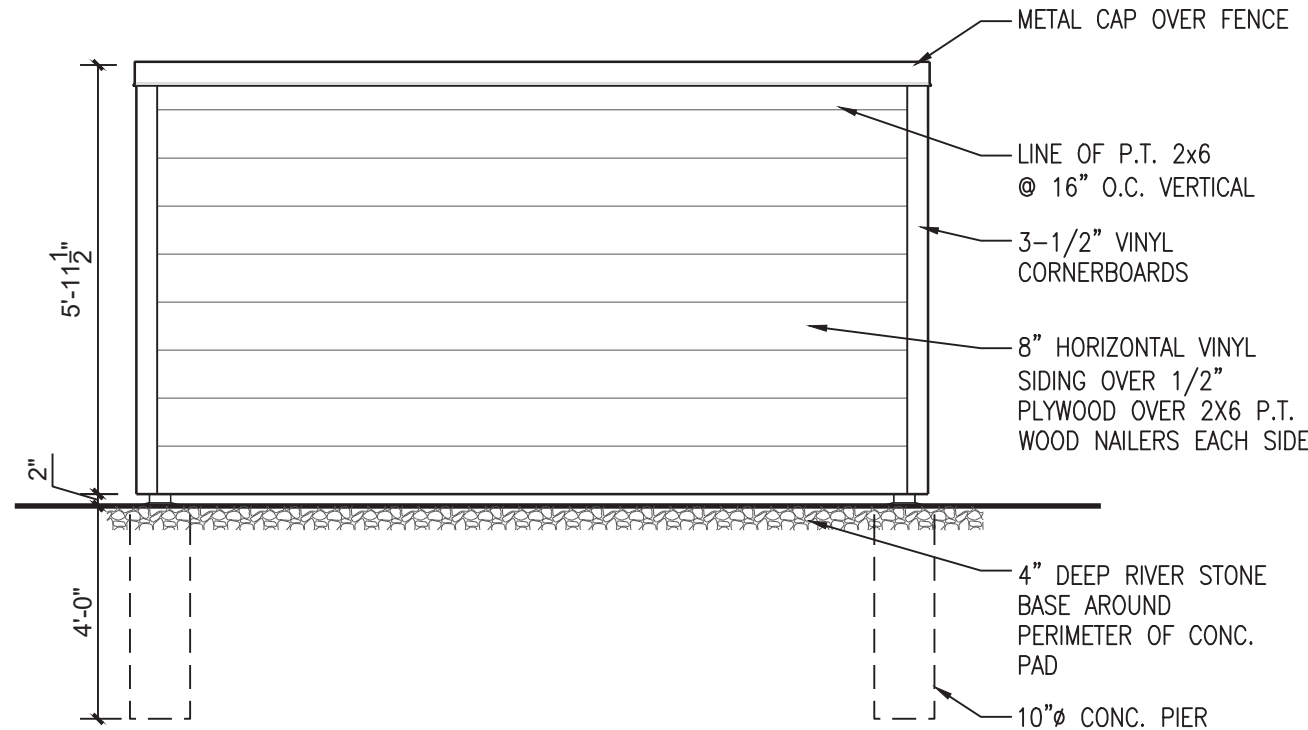
1 STREET VIEW - DAVIES PLACE (CURRENTLY APPROVED)
1/8" = 1'-0"



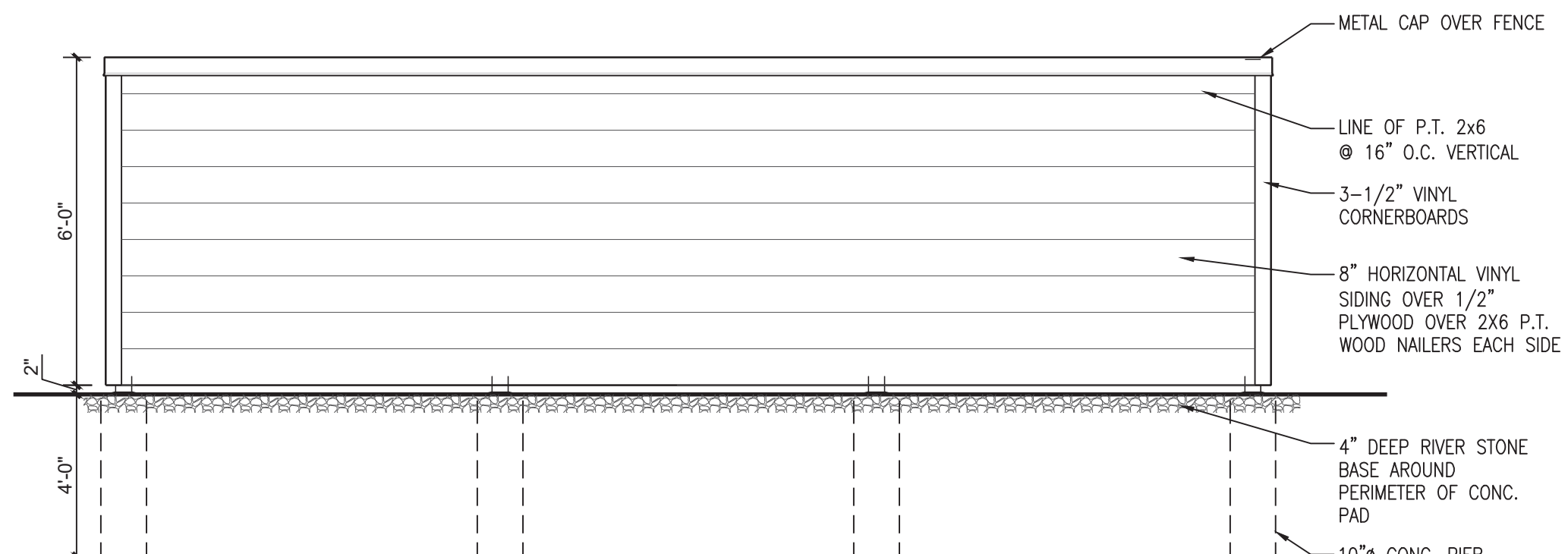
2 STREET VIEW - DAVIES PLACE (PROPOSED)
1/8" = 1'-0"



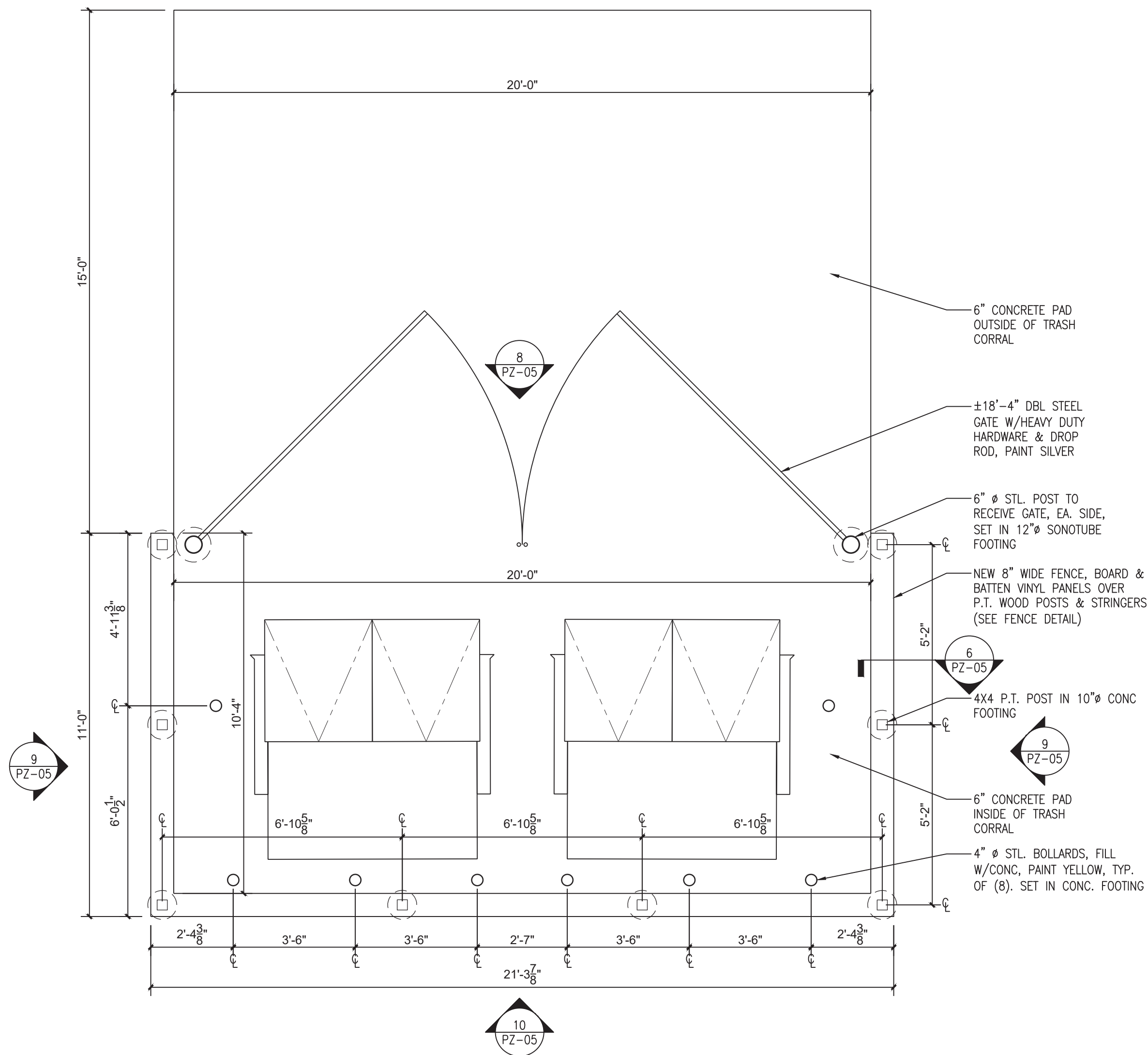
8 FRONT ELEVATION - DUMPSTER ENCLOSURE
3/8" = 1'-0"



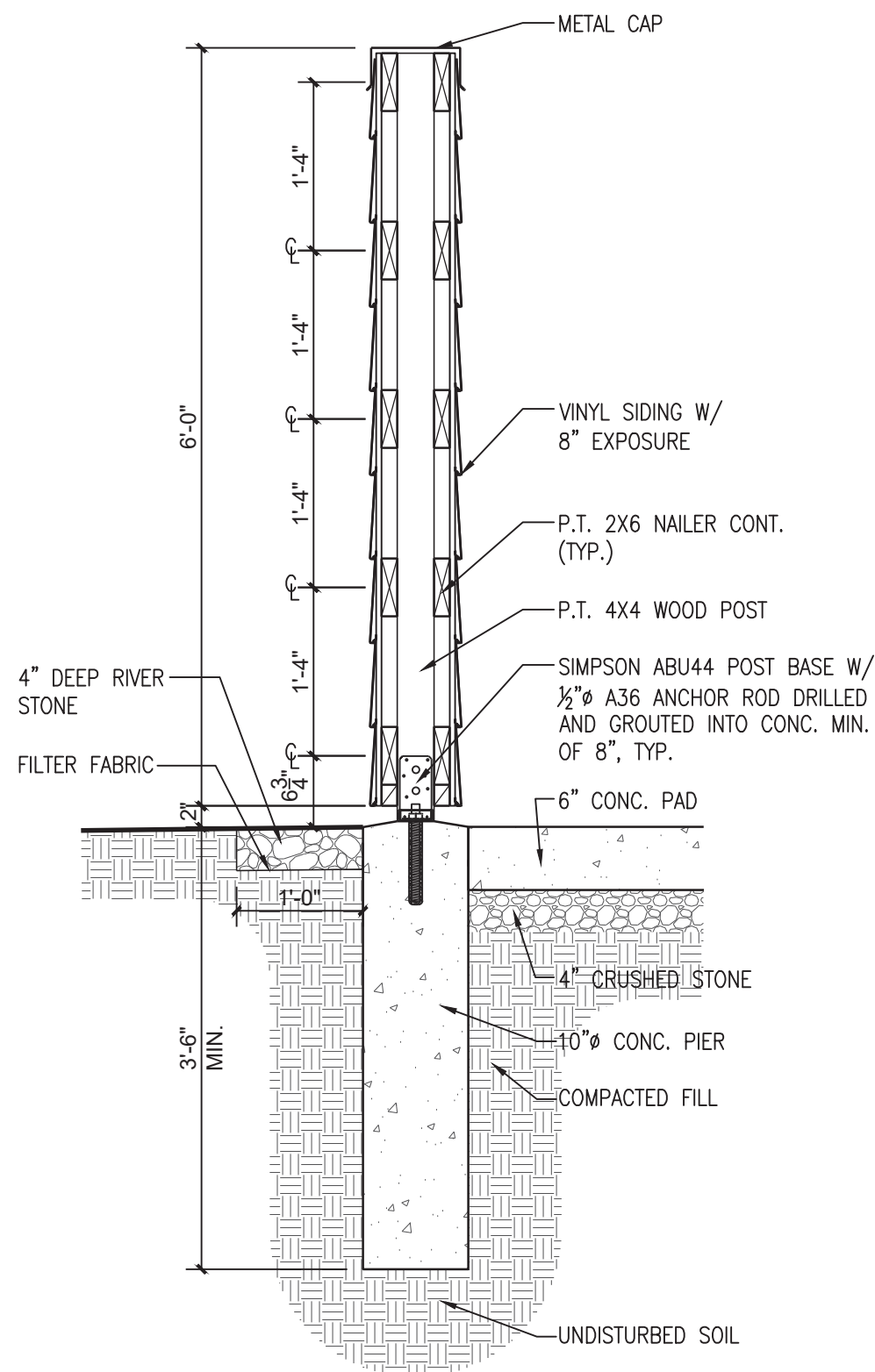
9 LEFT & RIGHT ELEVATIONS - DUMPSTER ENCLOSURE
3/8" = 1'-0"



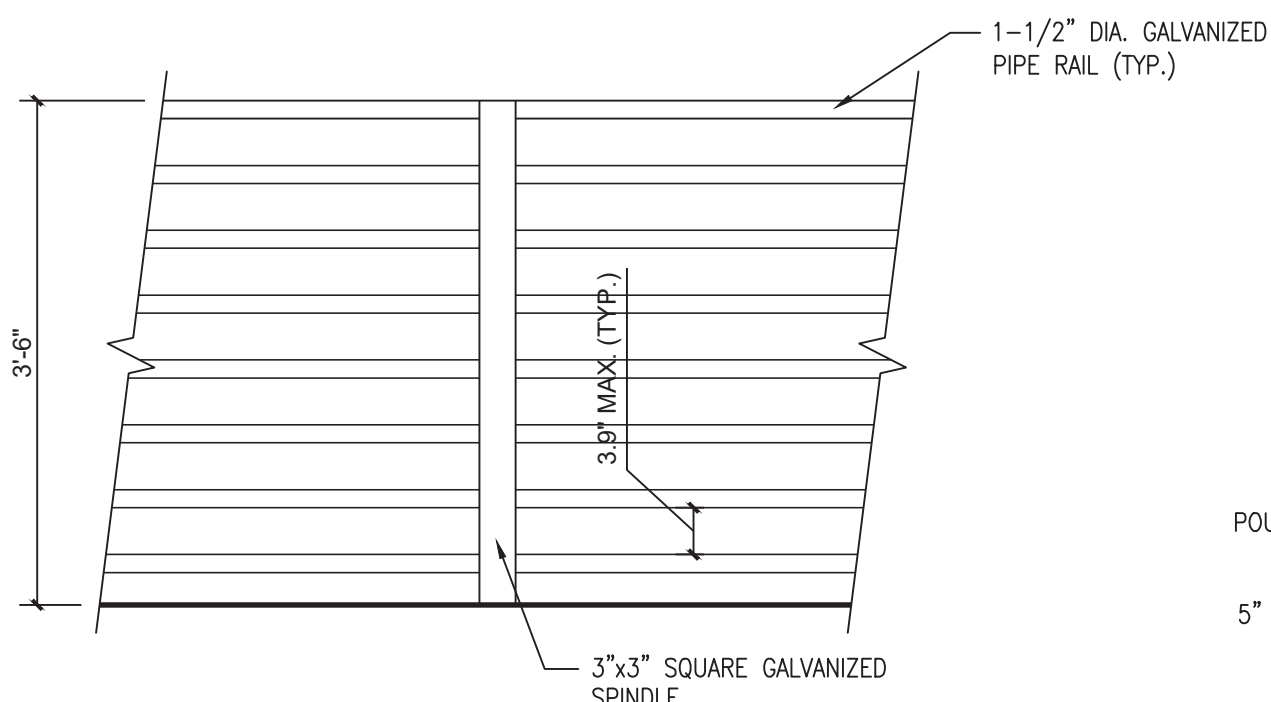
10 REAR ELEVATION - DUMPSTER ENCLOSURE
3/8" = 1'-0"



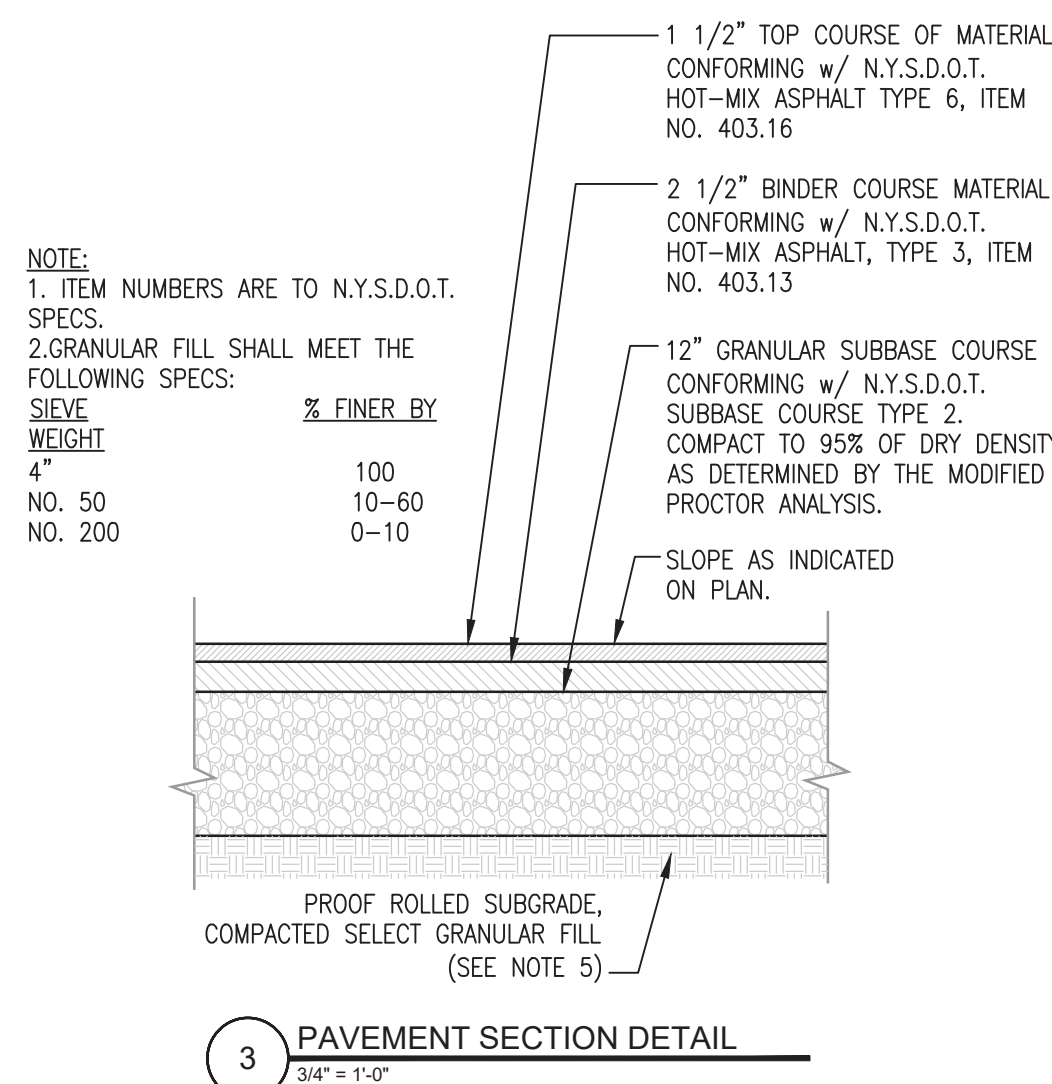
7 FLOOR PLAN - DUMPSTER ENCLOSURE
3/4" = 1'-0"



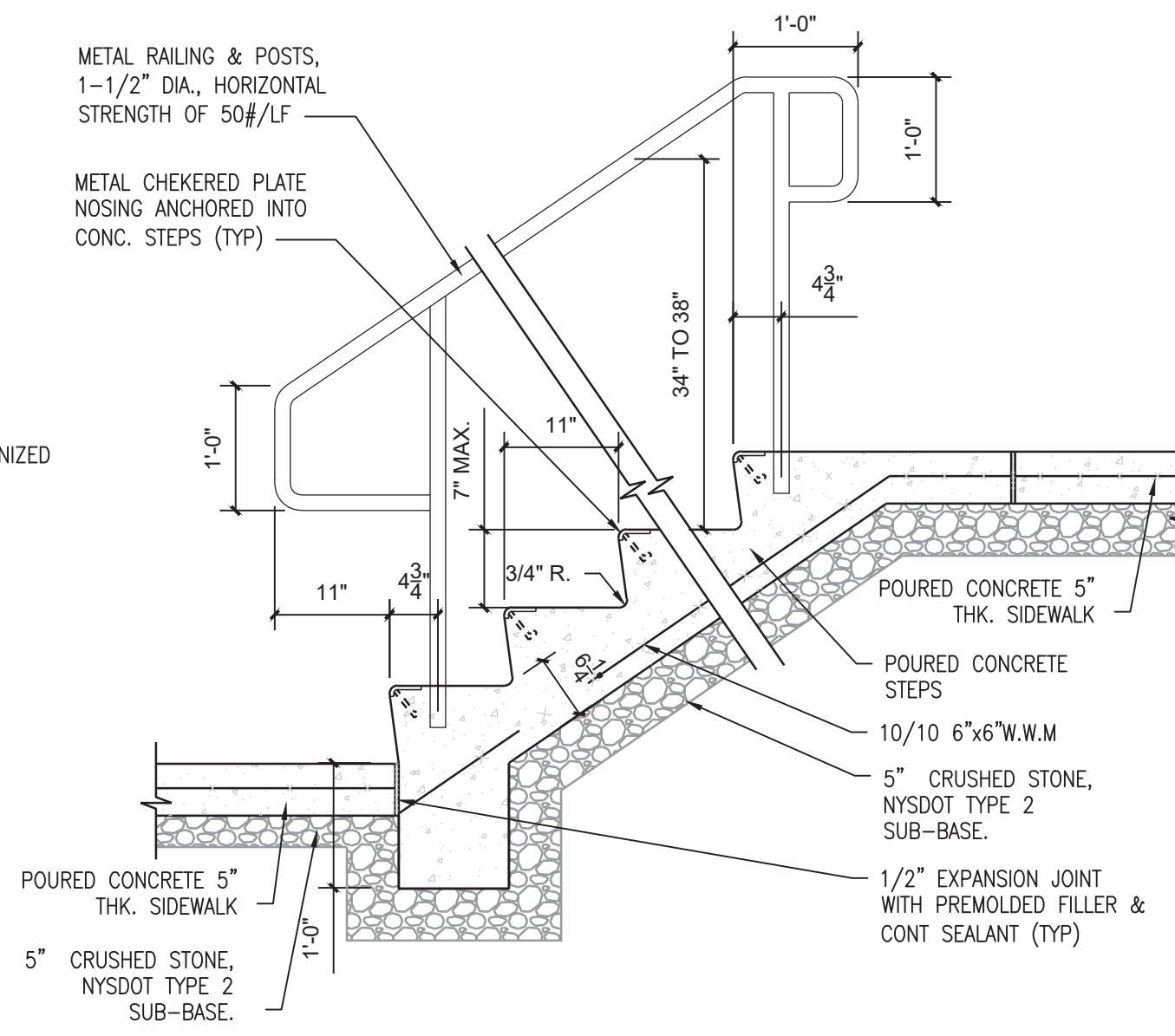
6 DUMPSTER - WALL SECTION
3/4" = 1'-0"



11 TYPICAL GUARDRAIL DETAIL
3/4" = 1'-0"

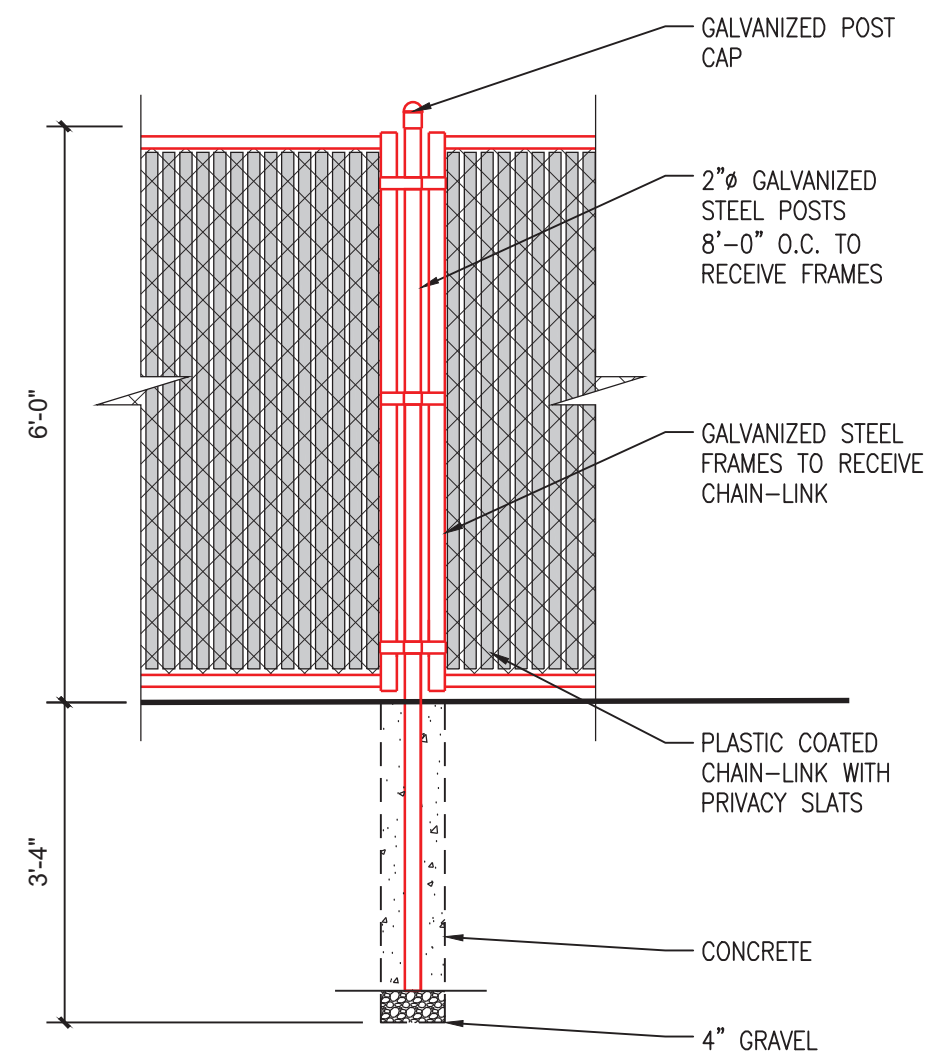


3 PAVEMENT SECTION DETAIL
3/4" = 1'-0"

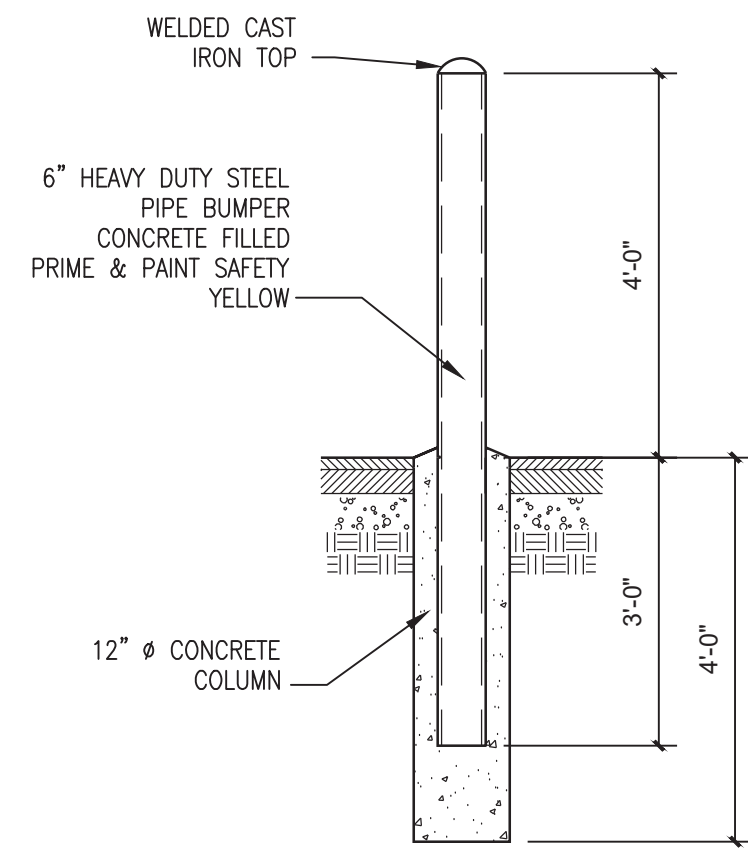


2 CONCRETE STAIR & RAILING DETAIL
3/4" = 1'-0"

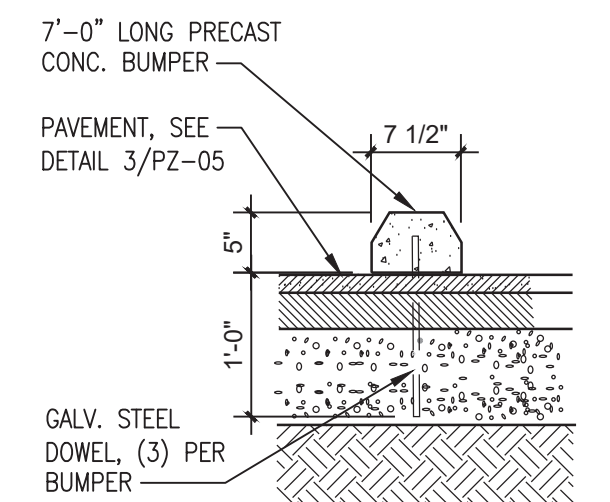
PAVING NOTES:
1. MATERIALS & METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE w/ THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED MAY 1, 2008, & ALL ADDENDA THERETO; THE ONLY EXCEPTION BEING THAT THE WORK OF THIS CONTRACT SHALL BE MEASURED IN ENGLISH UNITS.
2. SUBBASE MATERIAL SHALL CONFORM WITH SECTION 304 - SUBBASE COURSE OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND TYPE CALLED OUT IN THESE DRAWINGS.
3. HOT MIX ASPHALT (HMA) PAVEMENT SHALL CONFORM w/ SECTION 400-HOT MIX ASPHALT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS & THE TYPE CALLED OUT IN THESE DRAWINGS. ALTHOUGH SECTION 400 IN ITS ENTIRETY IS REFERENCED, THE HOT MIX ASPHALT (HMA) PAVEMENT(S) SPECIFIED FOR THESE CONTRACT SHALL BE SPECIFIED UNDER SECTION 40-HOT MIX ASPHALT (HMA) PAVEMENTS FOR MUNICIPALITIES.
4. TACK COAT WHEN SPECIFIED OR CALLED OUT IN THESE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATIONS SHALL CONFORM w/ SECTION 407-TACK COAT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
5. 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 w/ SECTION 203-EXCAVATION & EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.



4 CHAINLINK FENCE DETAIL
1/2" = 1'-0"



1 BOLLARD DETAIL
1/2" = 1'-0"



5 WHEEL STOP ANCHORING DETAIL
3/4" = 1'-0"



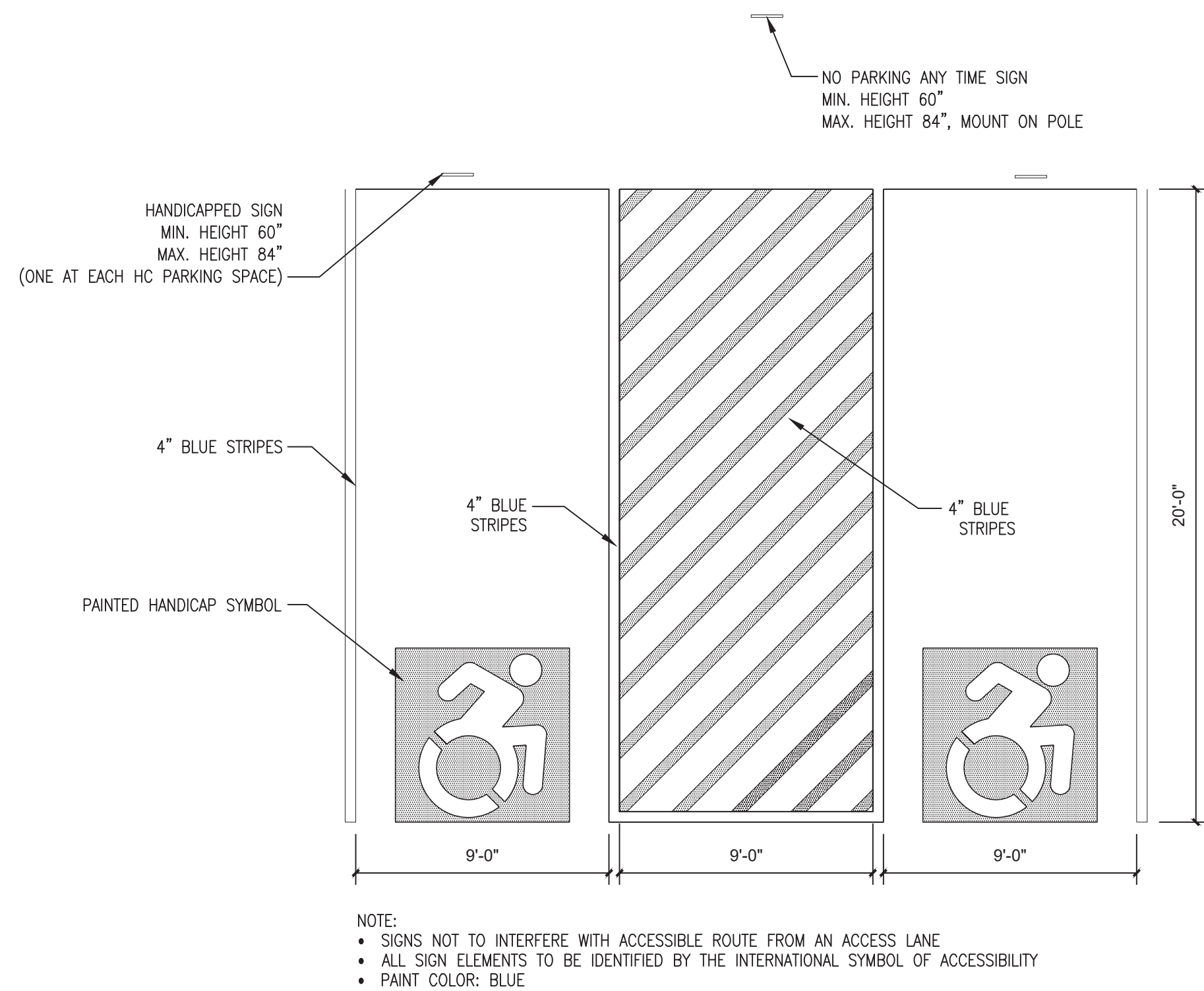
CLIENT:
Pelton Partners LLC
25 Van Wagner Road
Poughkeepsie, NY 12603

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601

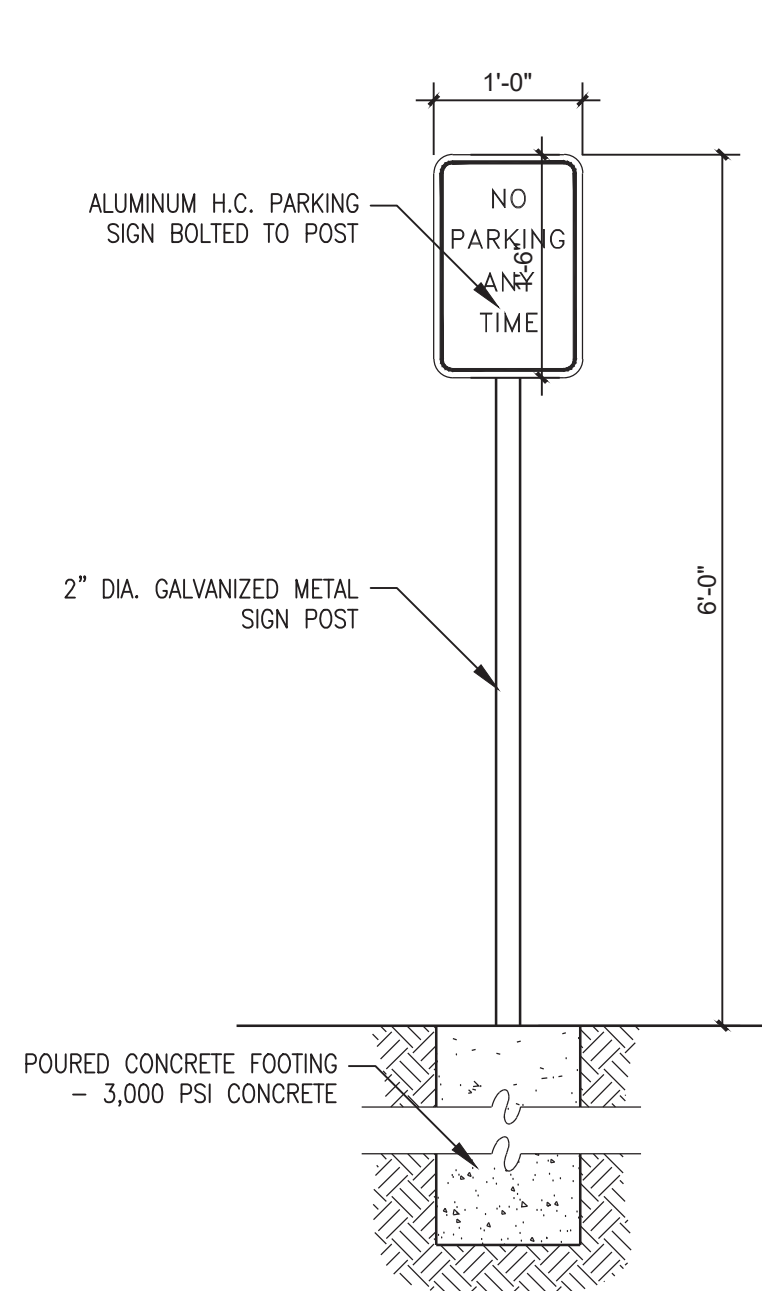


SITE DETAILS
DRAWN BY:
J.O. D.
JOB No.
Y1022
DATE
8/29/17
PZ-05

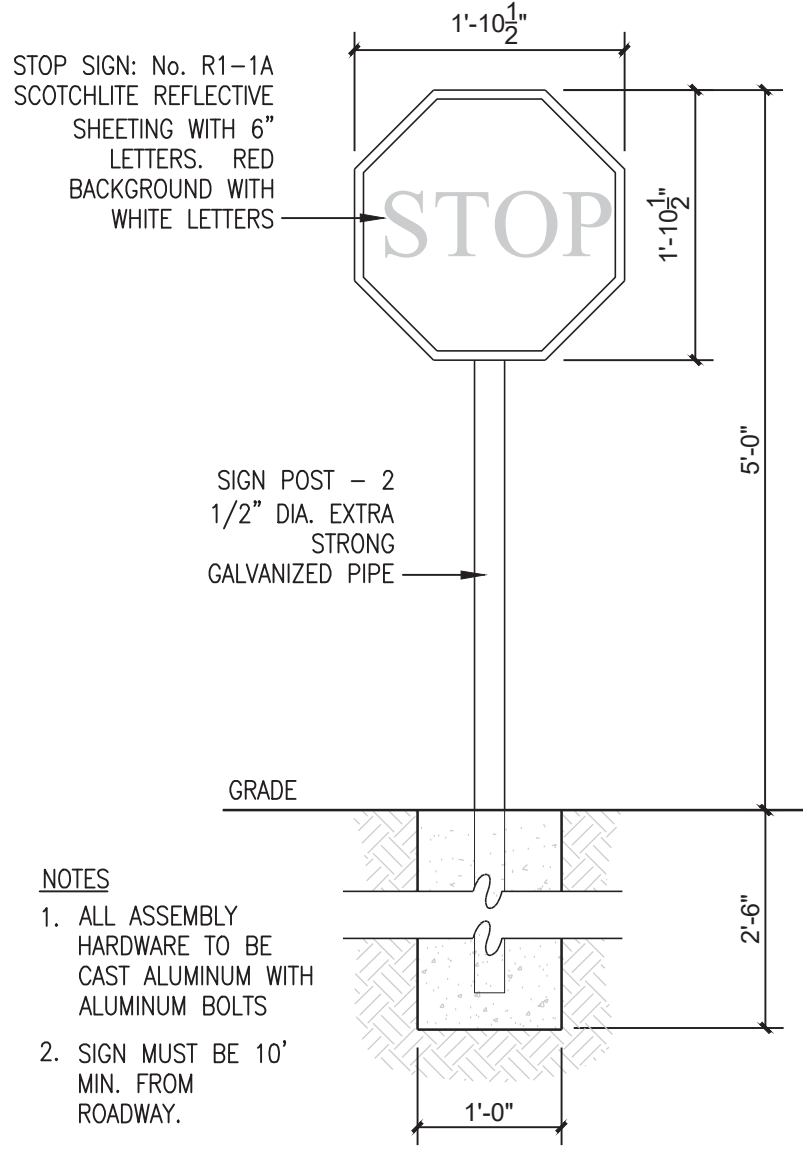
REVISIONS:
8/29/2019 ISSUED TO HDLPC
8/25/2019 ISSUED TO PLANNING BOARD
3/26/2018 ISSUED TO PLANNING BOARD
10/5/2017 ISSUED TO PLANNING BOARD



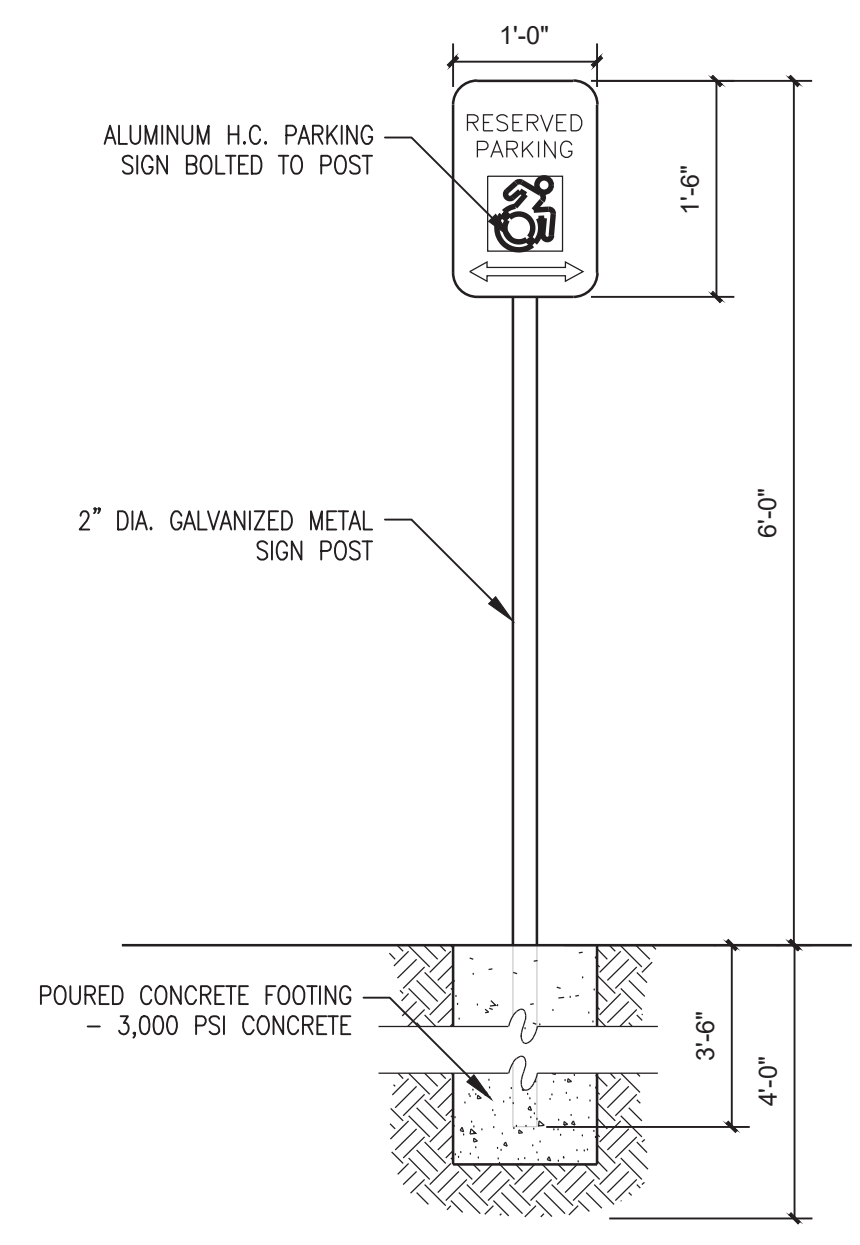
1 PAVING MARKINGS - HANDI-CAP PARKING STALLS
1/4" = 1'-0"



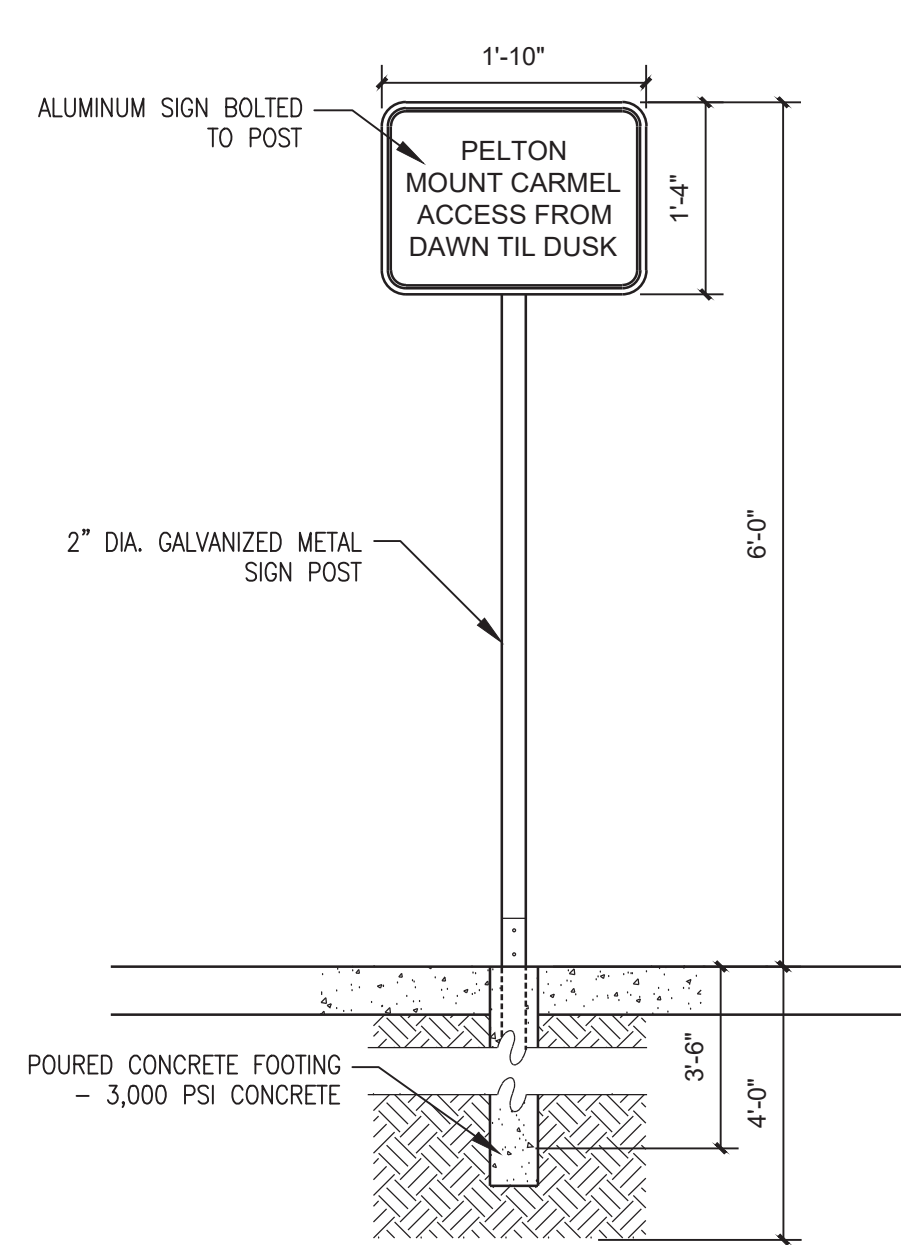
5 NO PARKING SIGN
3/4" = 1'-0"



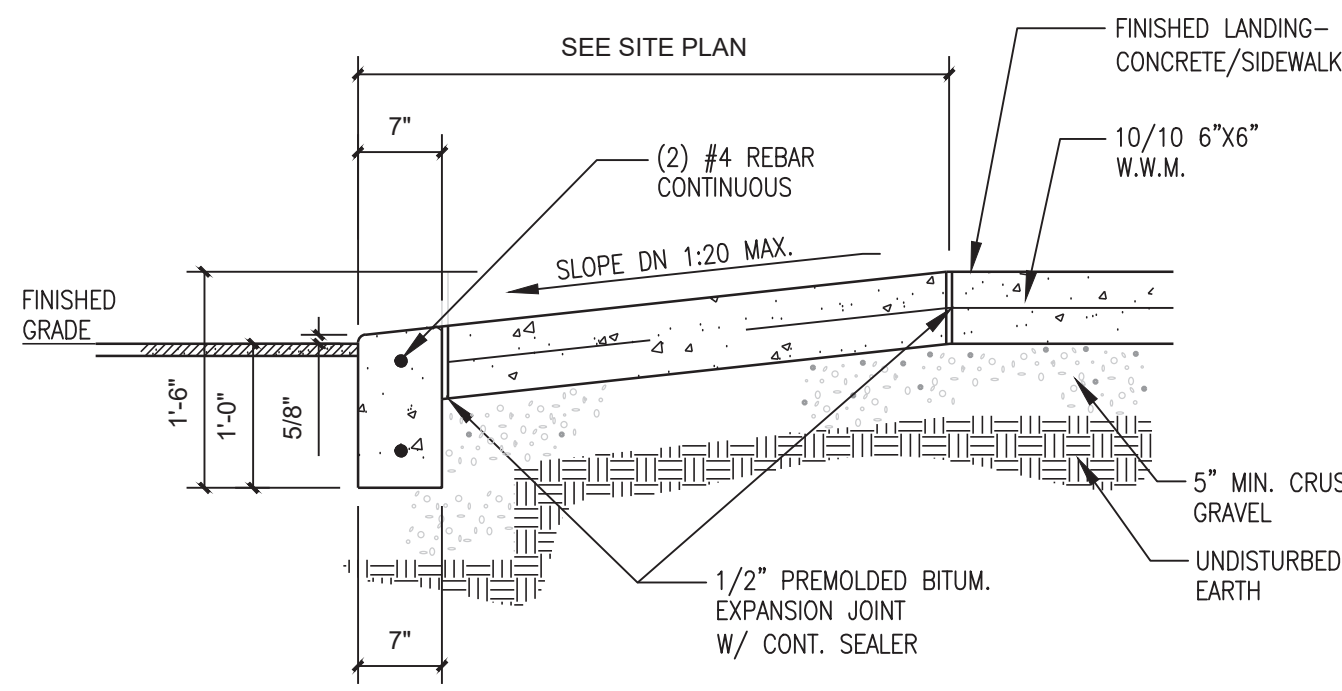
3 STOP SIGN DETAIL
3/4" = 1'-0"



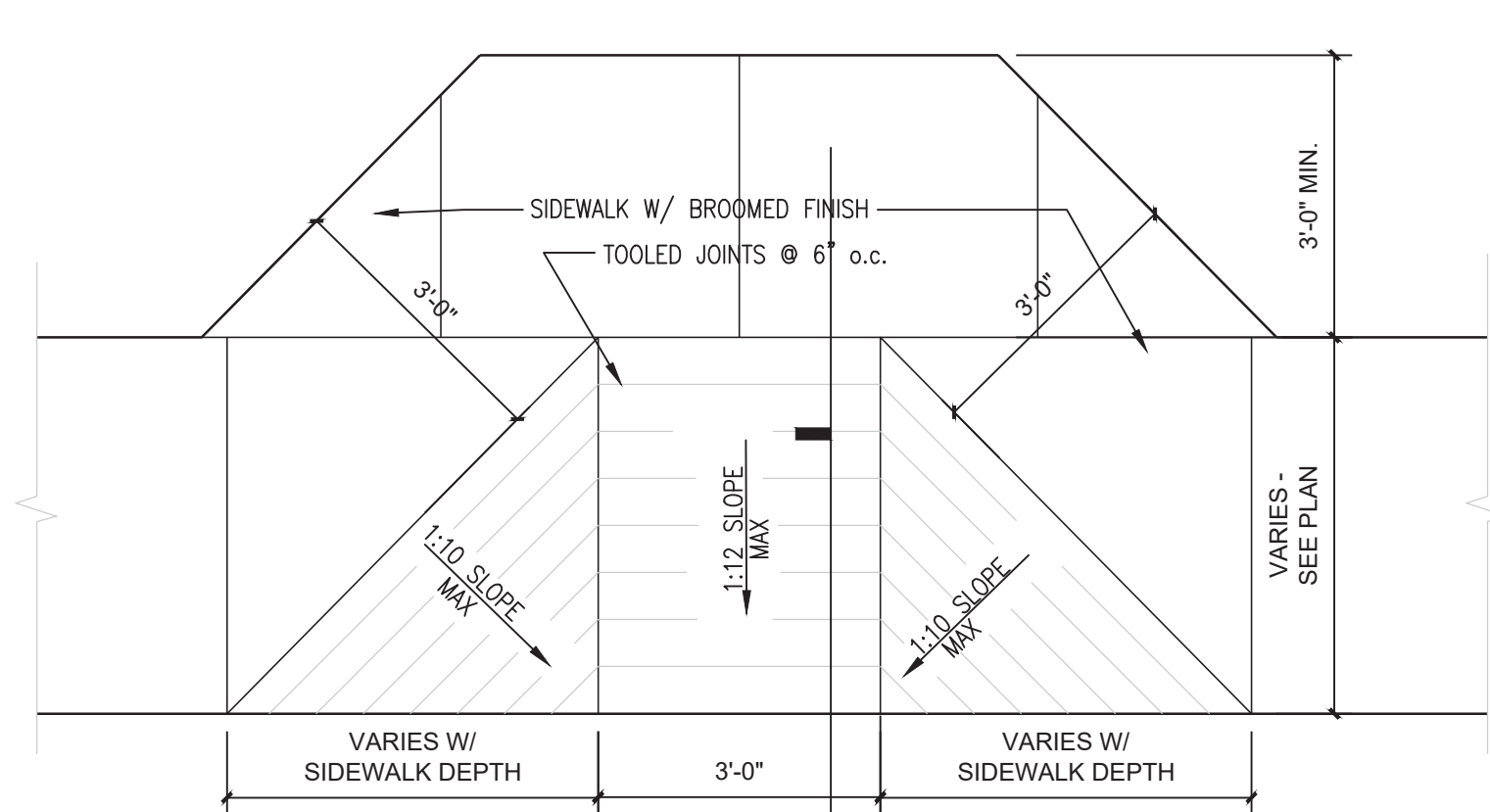
4 HC PARKING SIGN DETAIL
3/4" = 1'-0"



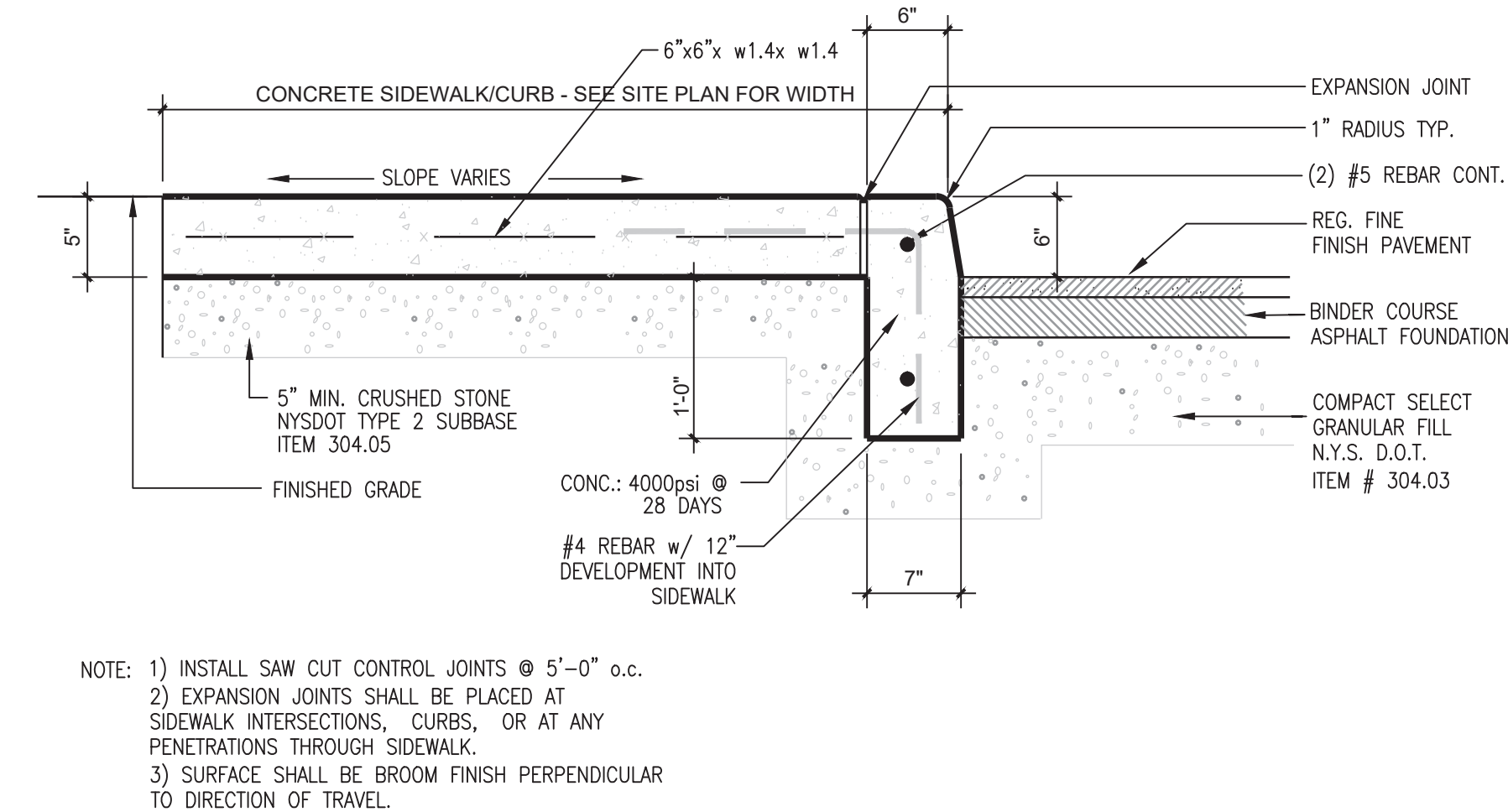
13 PUBLIC ACCESS SIGN DETAIL
3/4" = 1'-0"



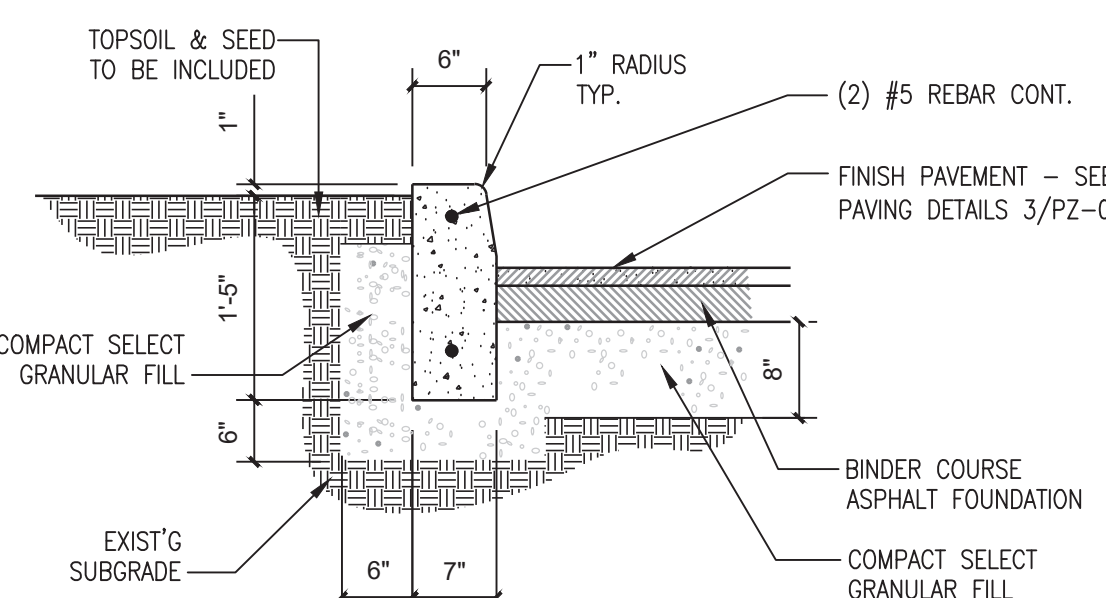
6 HANDI-CAP RAMP - SECTION
3/4" = 1'-0"



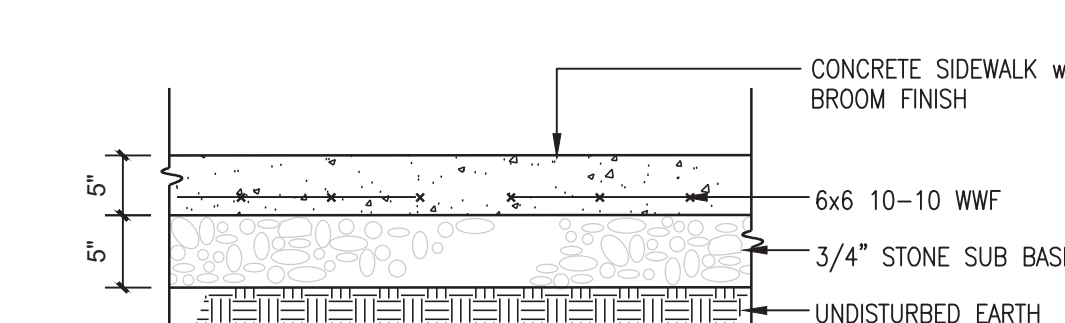
7 HANDI-CAP RAMP - PLAN
1/2" = 1'-0"



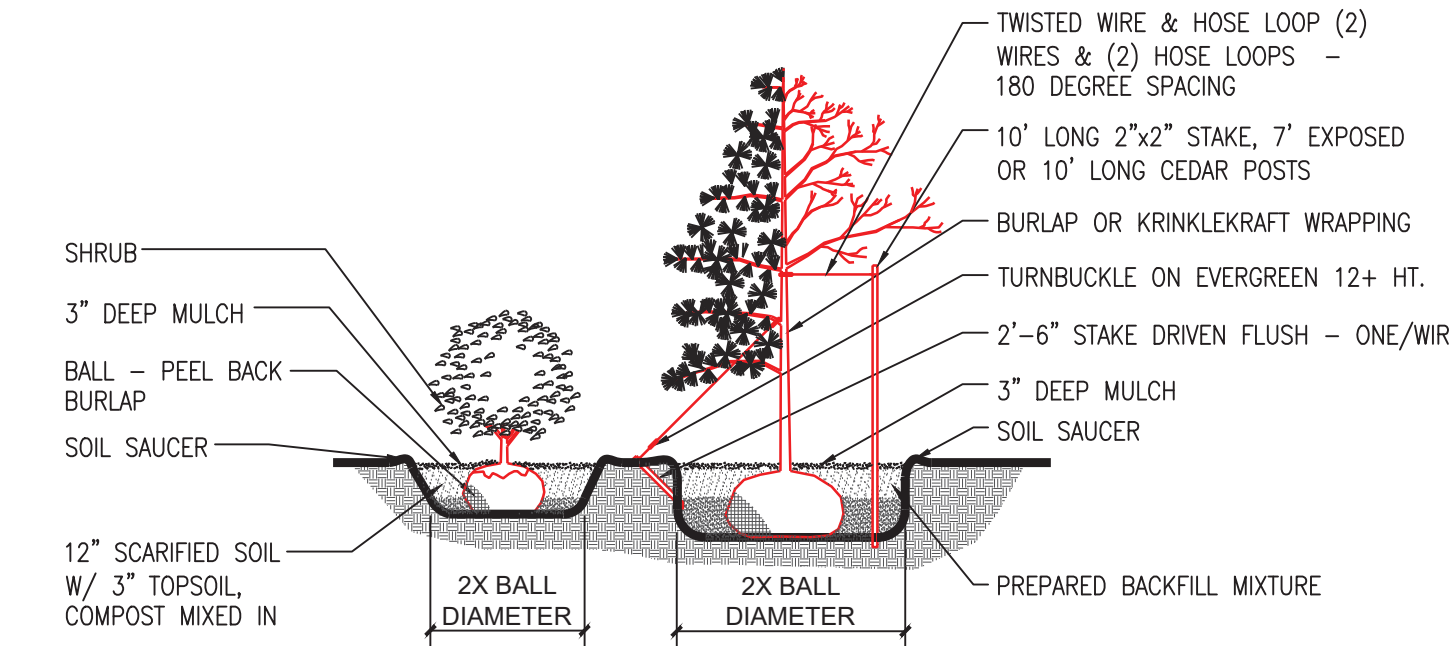
8 POURED CONCRETE SIDEWALK & CURB SECTION
1" = 1'-0"



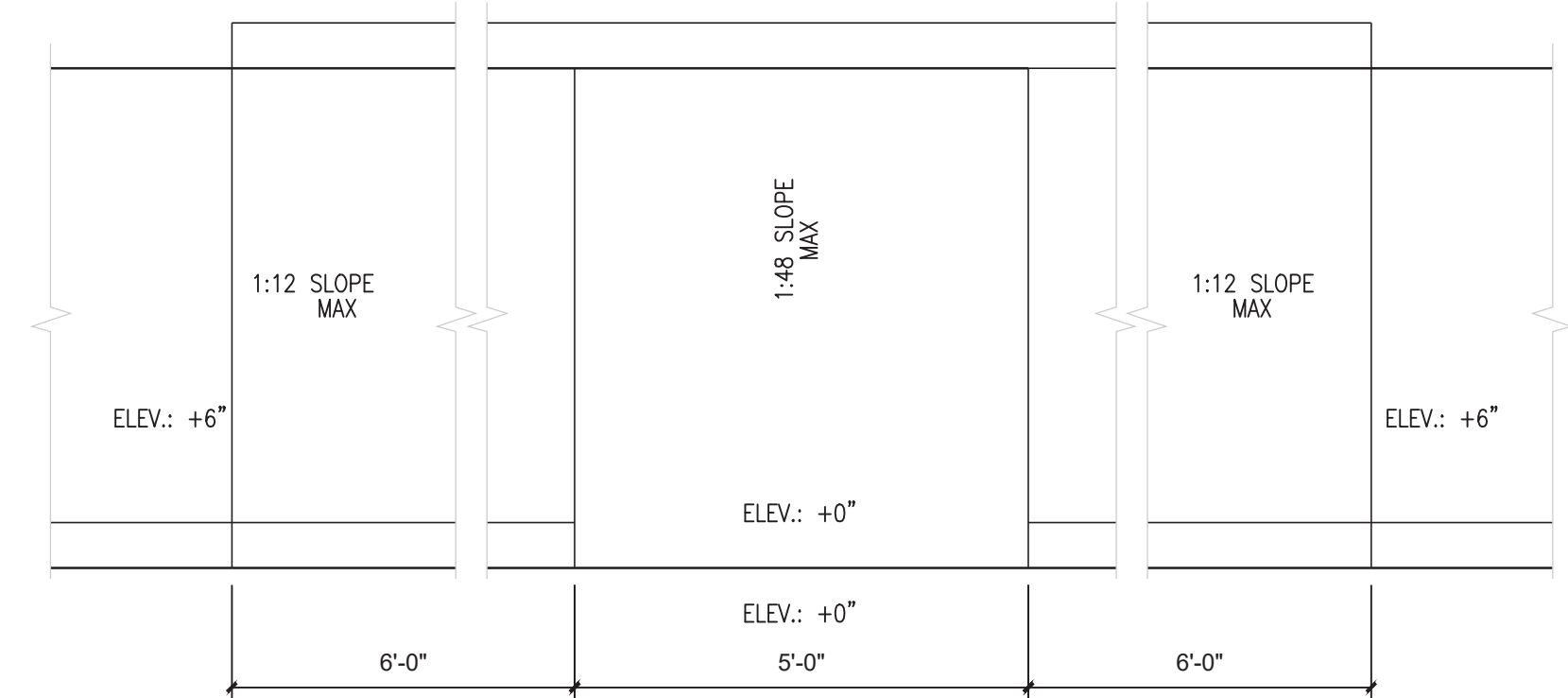
9 POURED CONCRETE CURB DETAIL
3/4" = 1'-0"



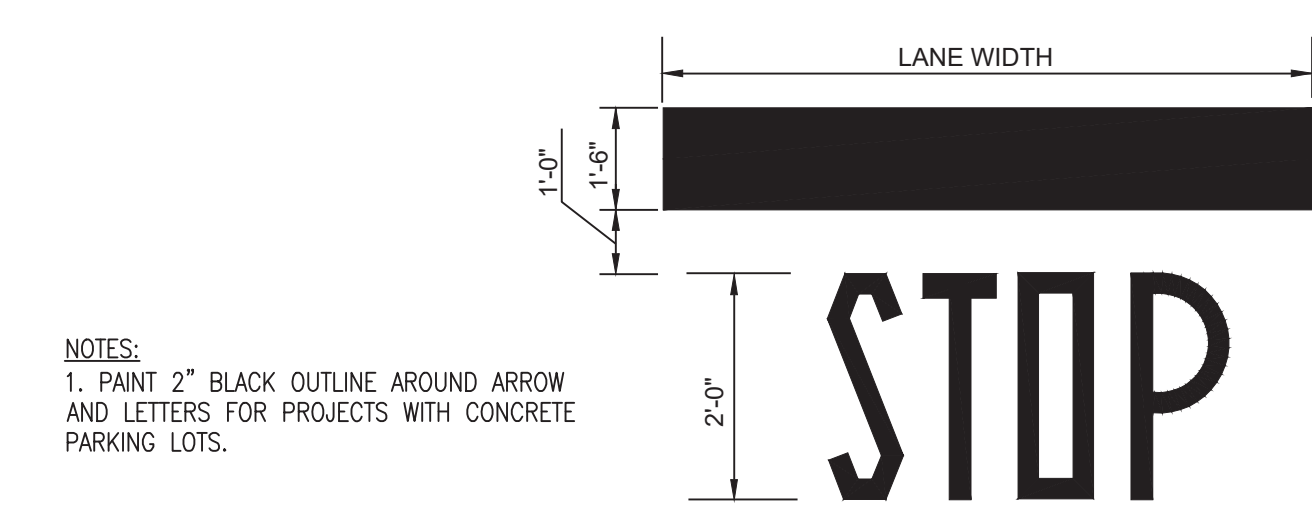
10 POURED CONCRETE SIDEWALK SECTION
3/4" = 1'-0"



11 TREE & SHRUB PLANTING DETAILS
NOT TO SCALE



12 HANDI-CAP RAMP - PLAN
1/2" = 1'-0"



2 PAVING MARKINGS - DIRECTIONAL
3/8" = 1'-0"



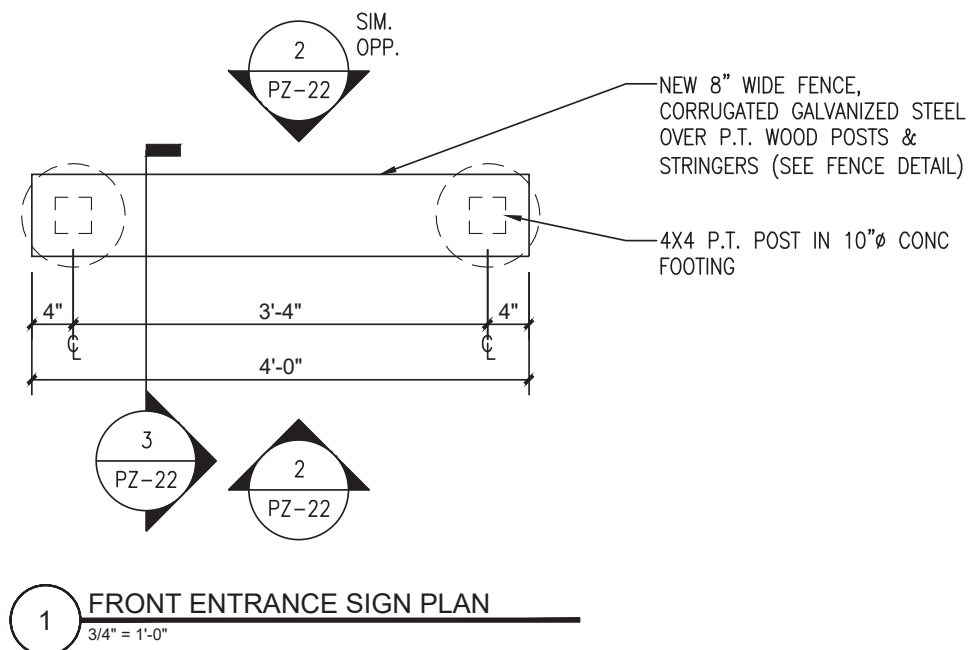
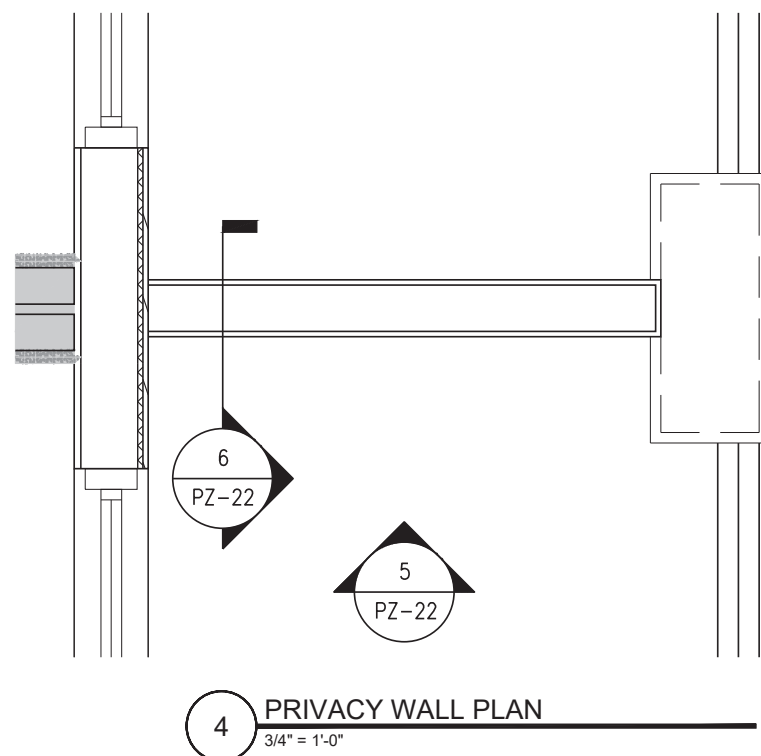
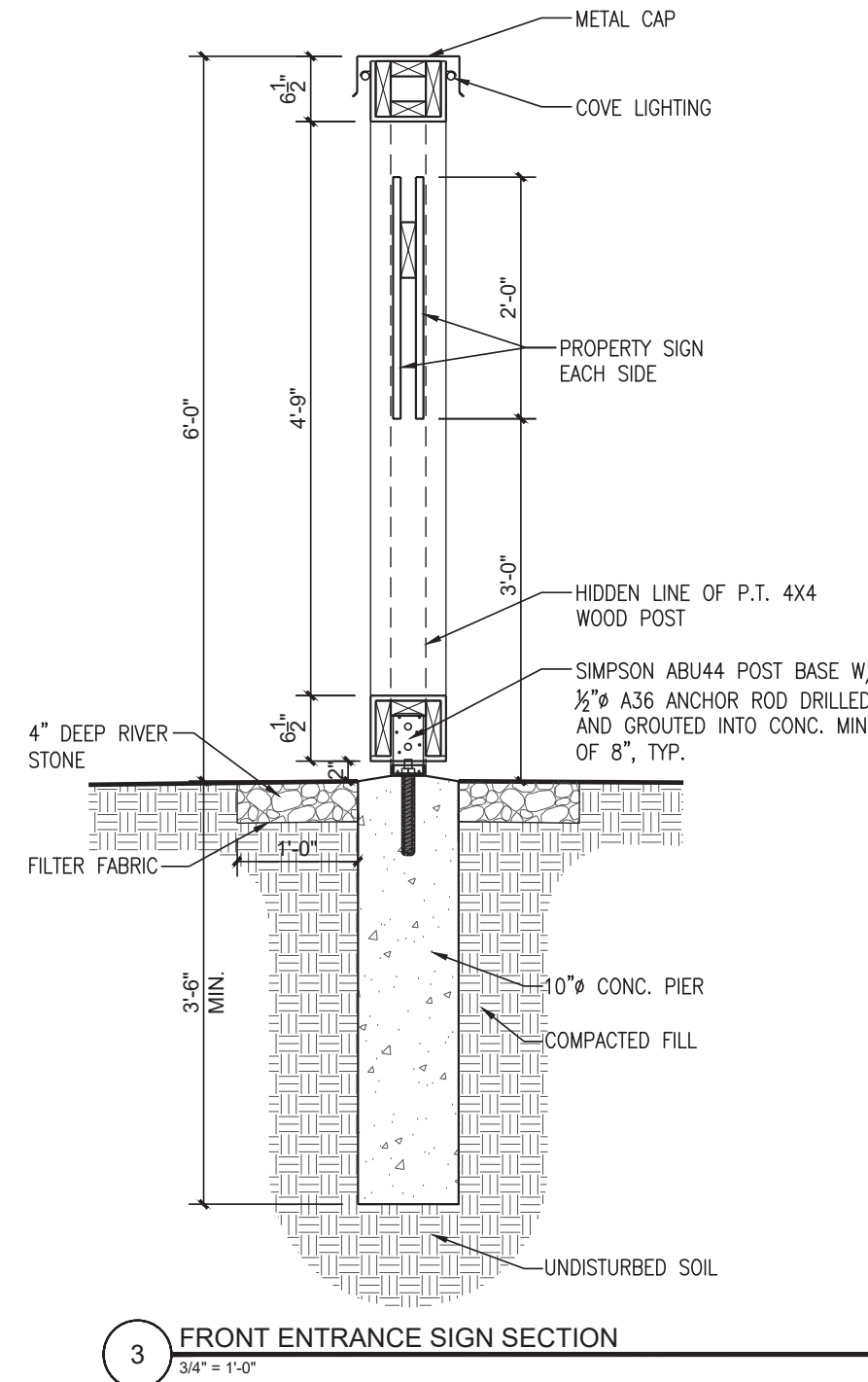
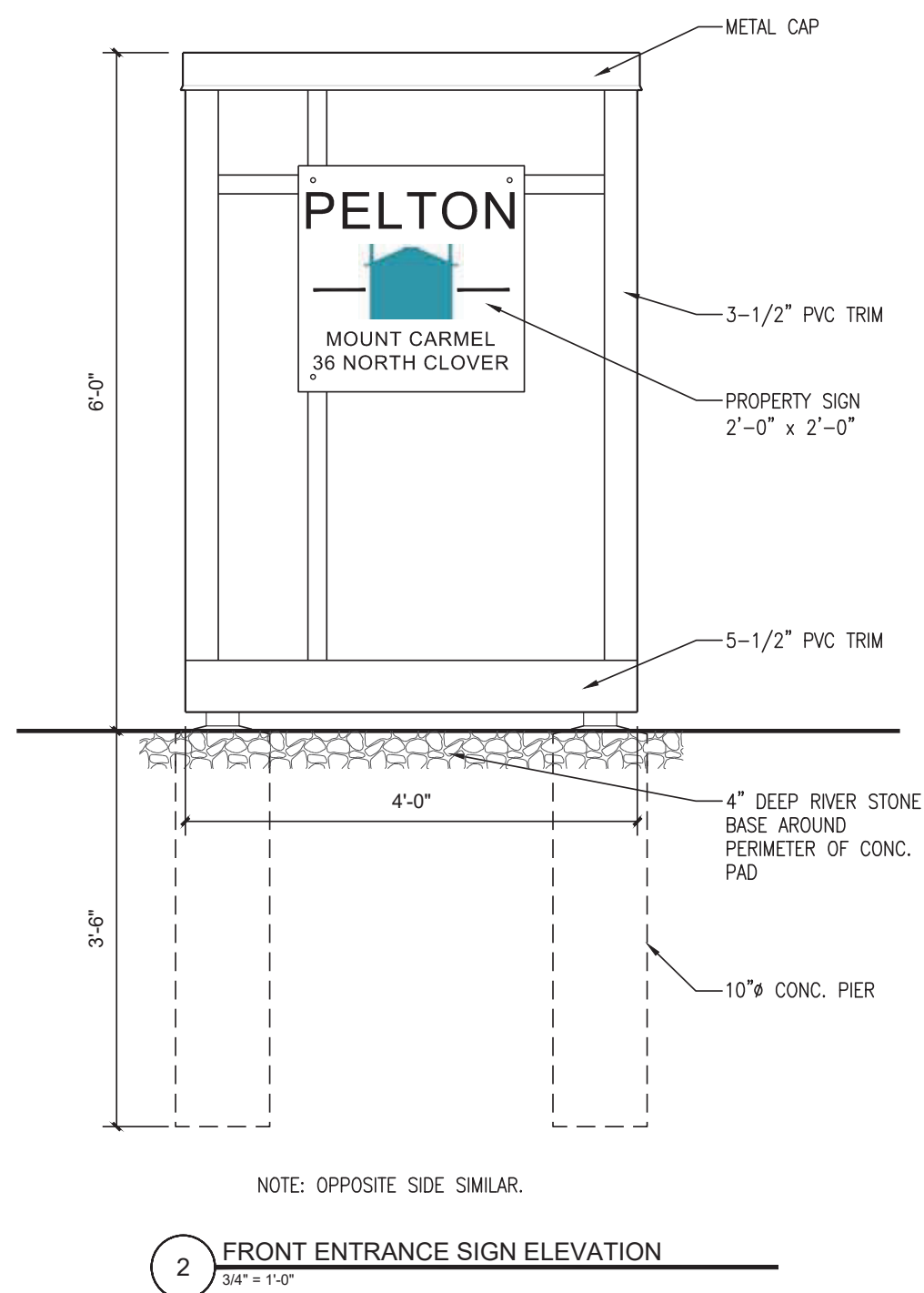
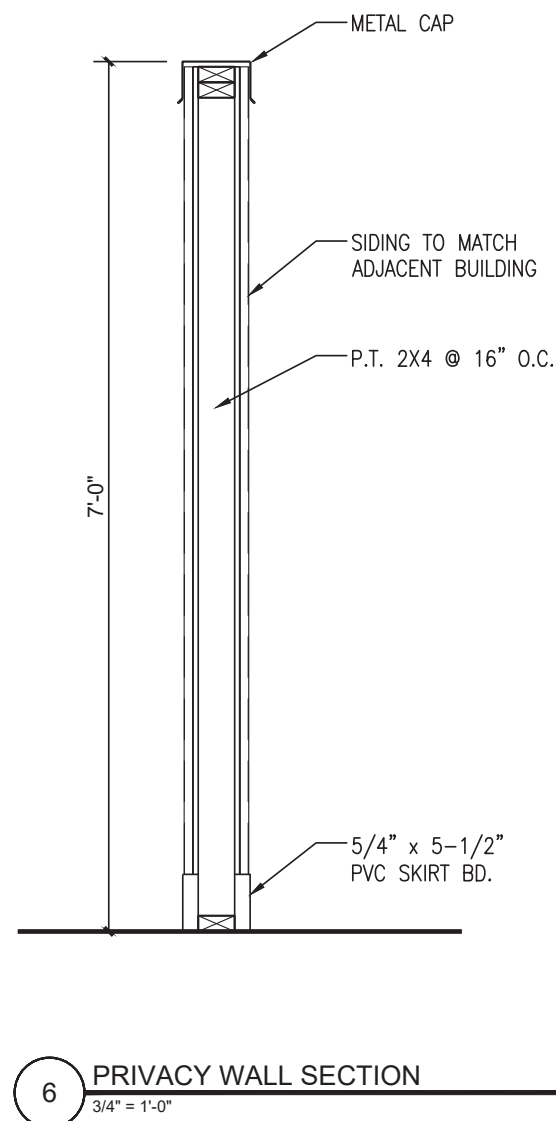
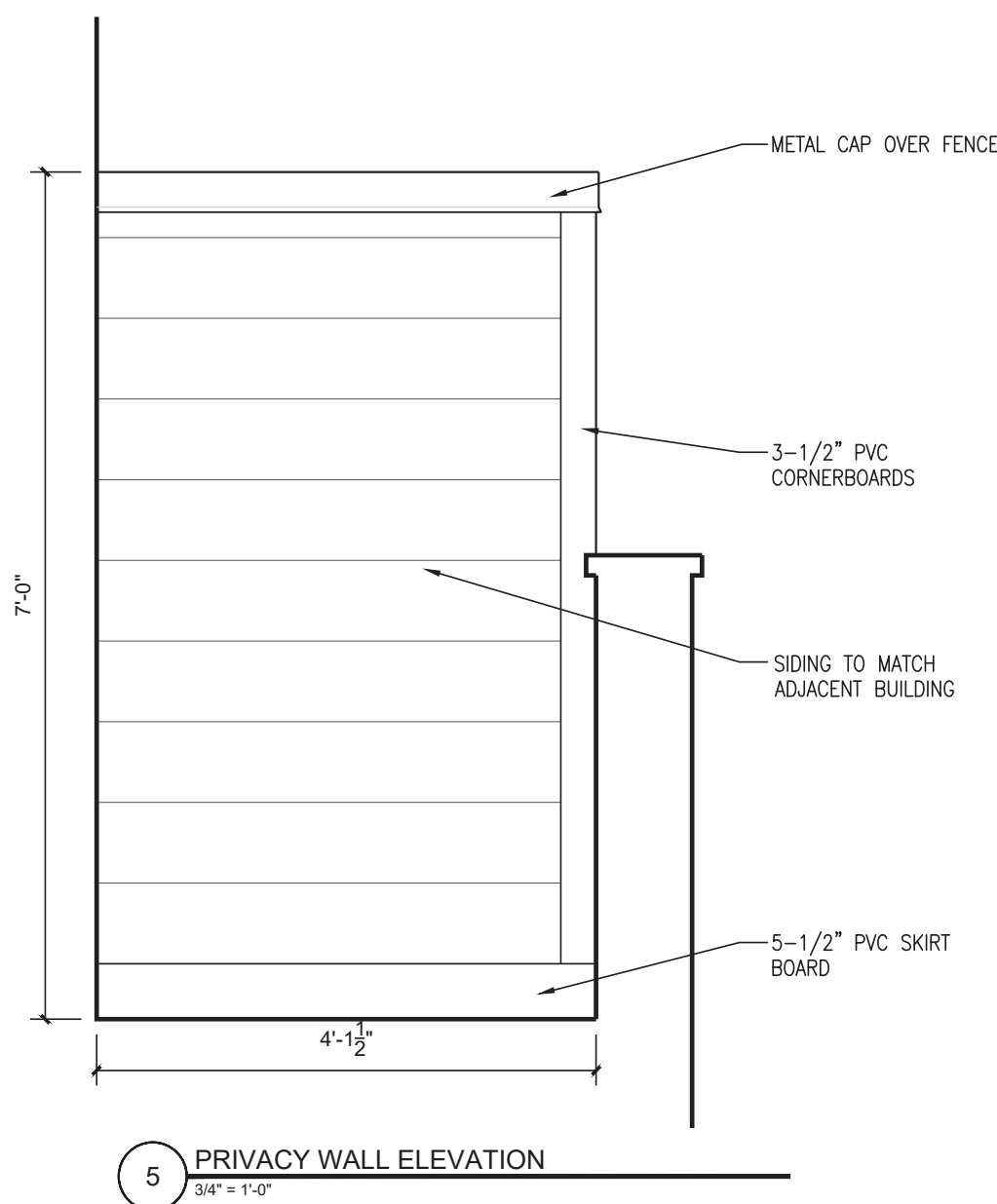
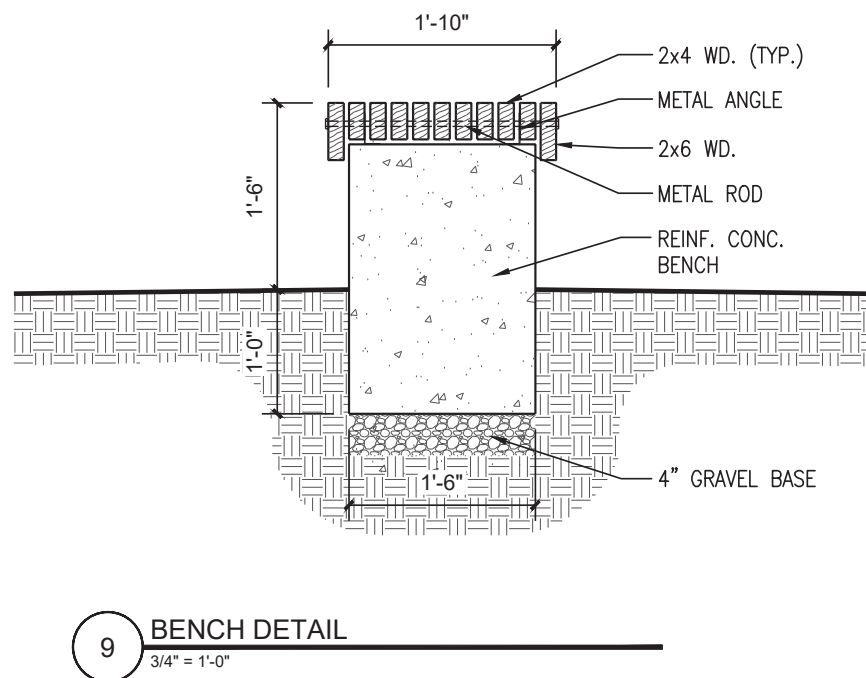
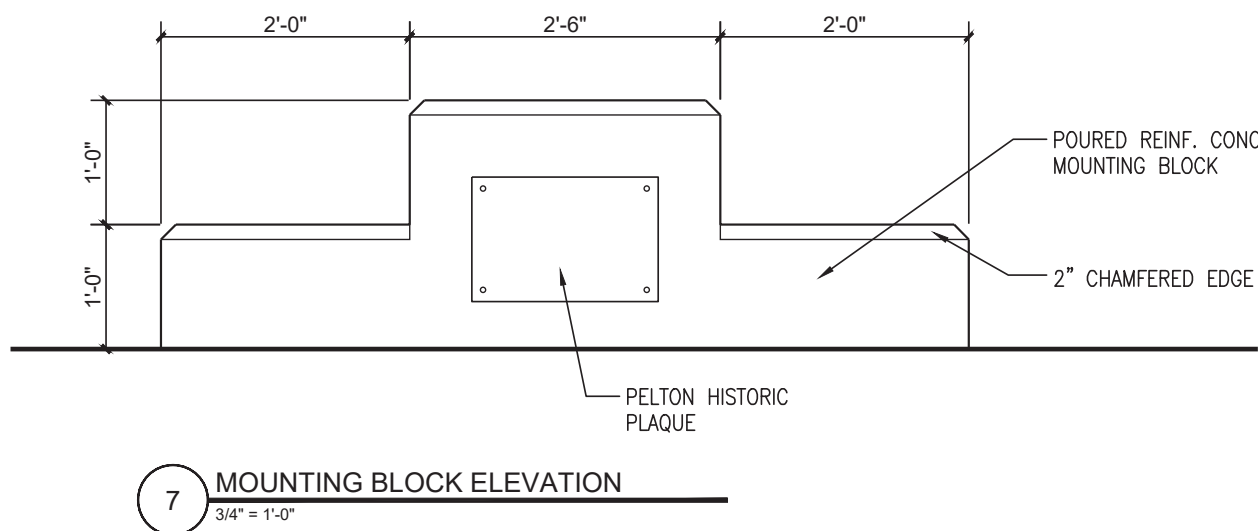
CLIENT:
Pelton Partners LLC
25 Van Wagner Road
Poughkeepsie, NY 12603

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



SITE DETAILS

DRAWN BY: J.O.	PZ-06
JOB No. Y1022	
DATE: 8/29/17	



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CLIENT:
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25 Van Wagner Road
Poughkeepsie, NY 12603

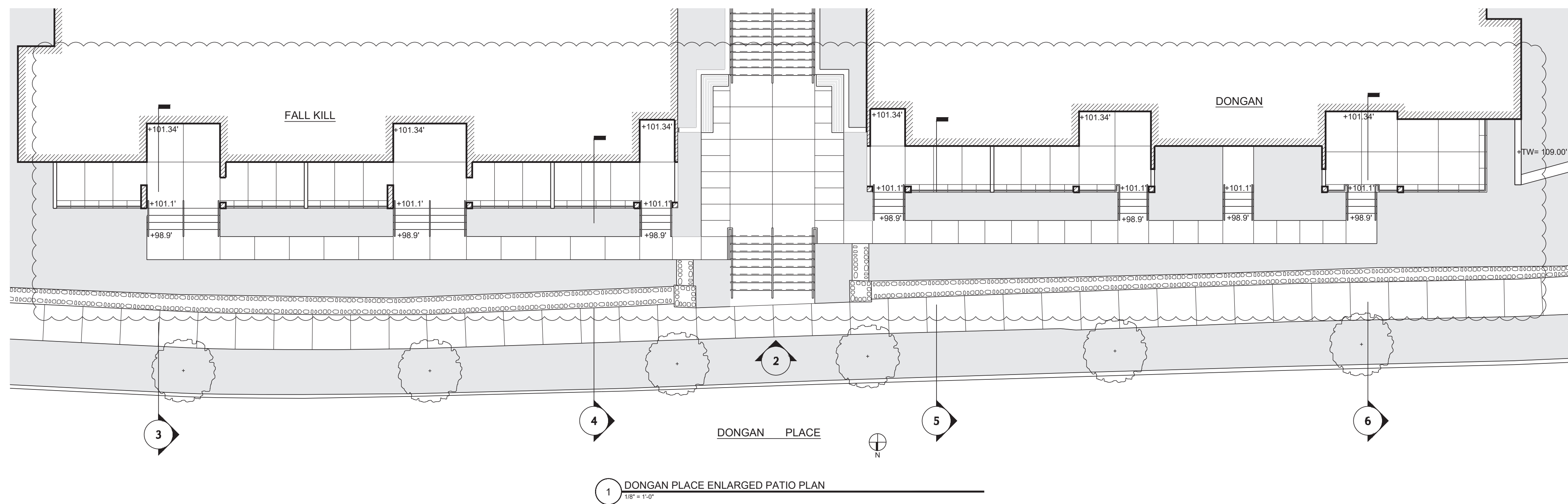
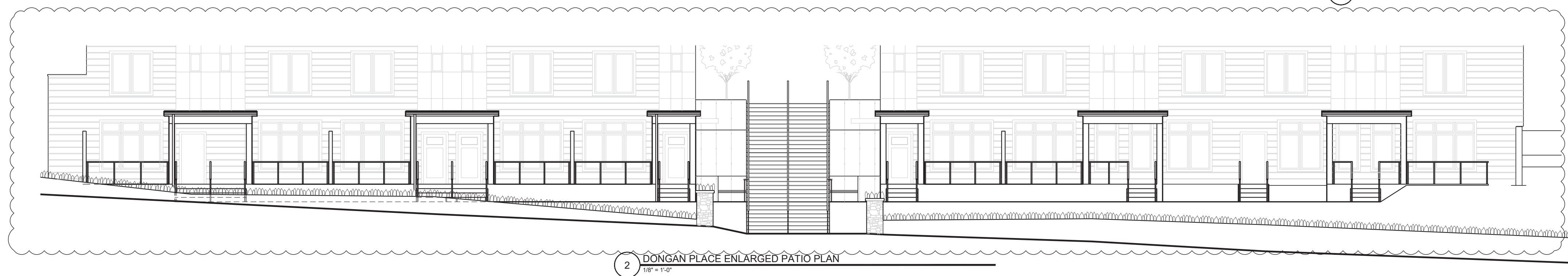
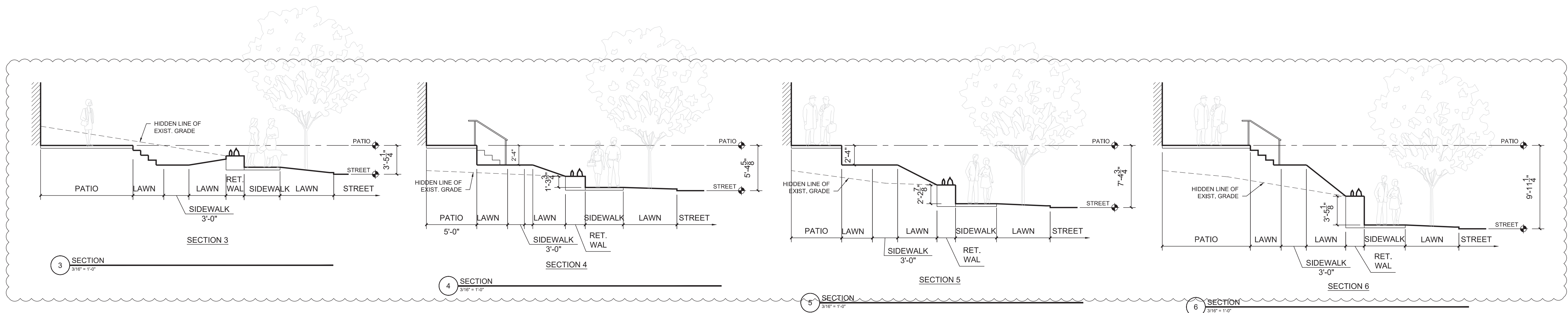
PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



REVISIONS:
6/25/2019 ISSUED TO PLANNING BOARD
3/26/2018 ISSUED TO PLANNING BOARD
11/9/2017 ISSUED TO PLANNING BOARD

FRONT ENTRANCE SIGN	
DRAWN BY: M.C.L.	PZ-22
JOB No. Y1022	
DATE: 19 Nov 2015	

P:\TA Jobs\Y1022 - 36 N Clover\Drawings\Sheets\2019.03.12 Planning Board 2nd Approval\Y1022-PZ-22 FRONT ENTRANCE SIGN.dwg

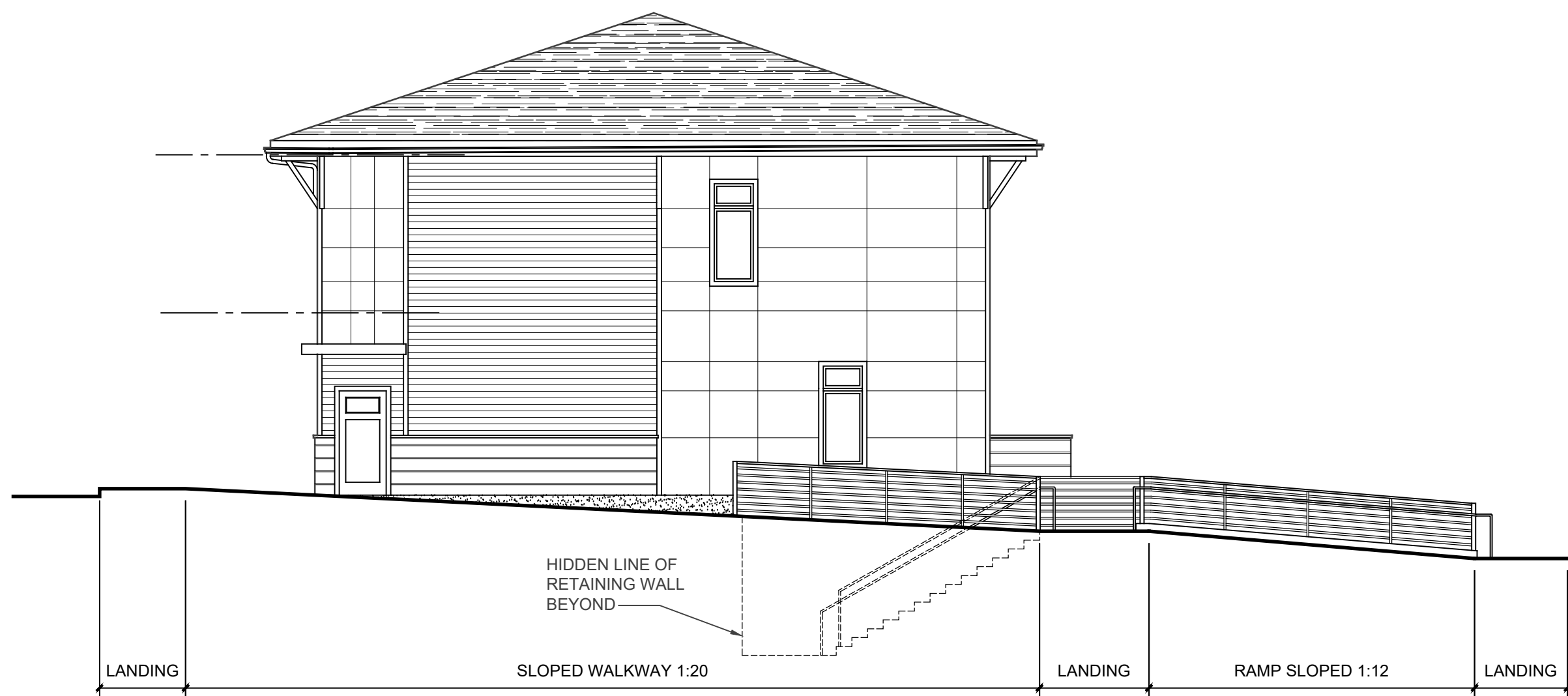


CLIENT:
Pelton Partners LLC
25 Van Wagner Road
Poughkeepsie, NY 12603

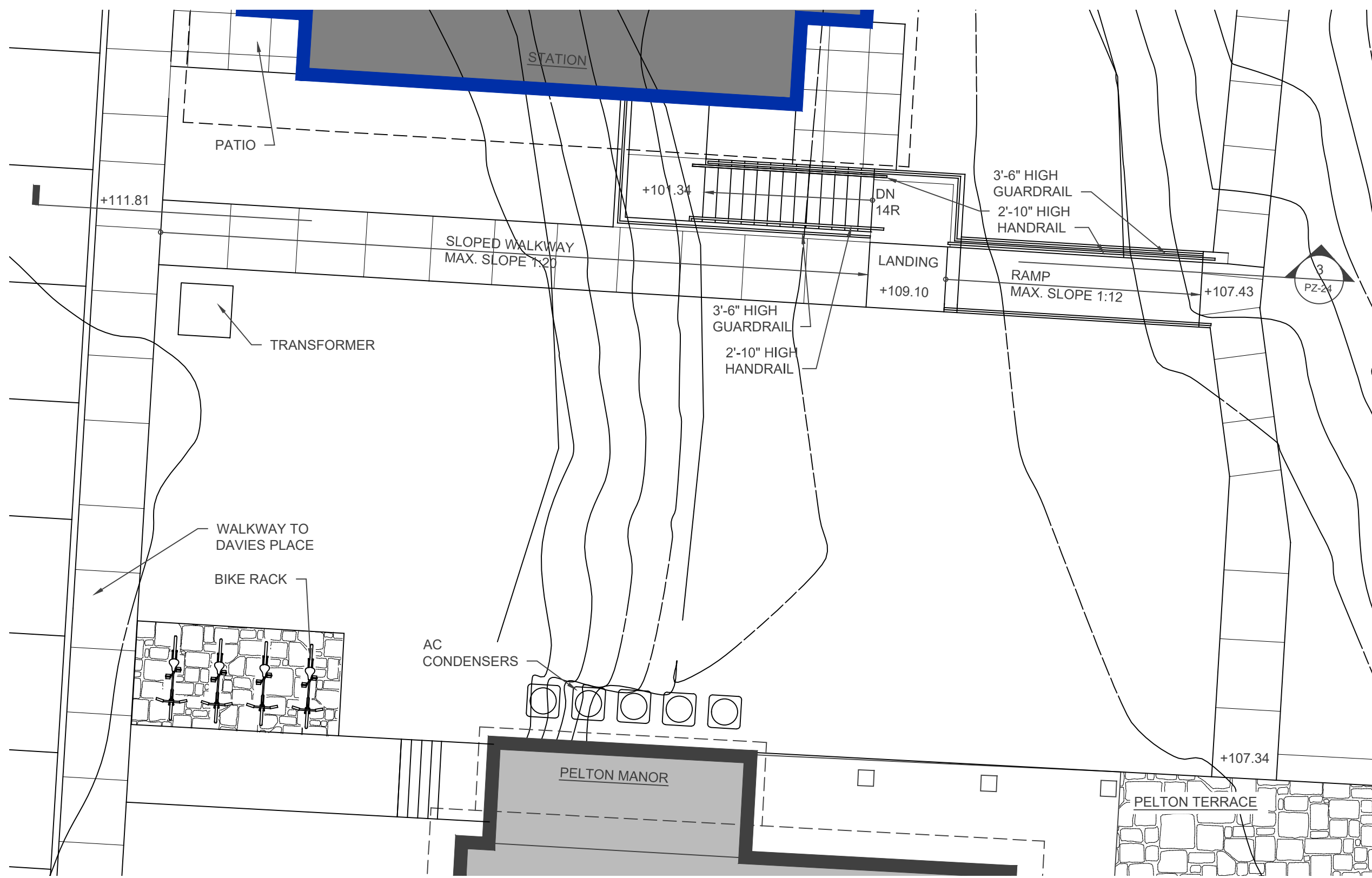
PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



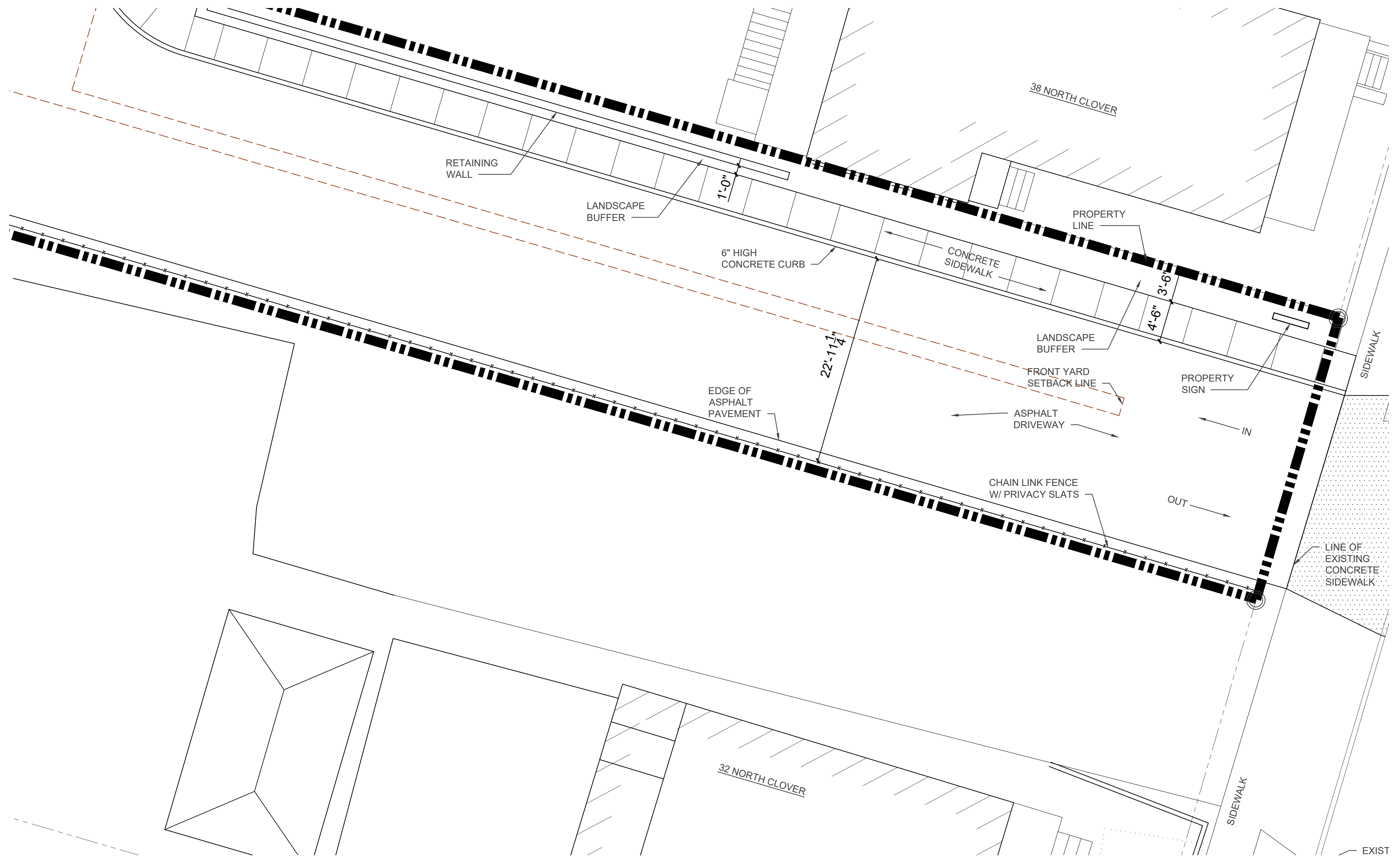
REVISIONS:		ISSUED TO PLANNING BOARD	
6/25/2019	ISSUED TO PLANNING BOARD	3/26/2018	ISSUED TO PLANNING BOARD
11/9/2017	ISSUED TO PLANNING BOARD		
DRAWN BY: M.L.L.		JOB No. Y1022	
DATE: 4/19/18		PZ-23	



3 WALKWAY/RAMP SECTION
1/8" = 1'-0"



2 ENLARGED WALKWAY/RAMP PLAN
1/8" = 1'-0"



1 ENLARGED DRIVEWAY ENTRANCE PLAN
1/8" = 1'-0"

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



**TINKELMAN
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New York 12603
(845)473 - 0200
www.tinkarch.com

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ARCHITECT IS A VIOLATION OF SECTION
7209 SUBDIVISION 2 OF THE NEW YORK
STATED EDUCATION LAW.



NO.	SUBMISSION DESCRIPTION	DATE
	ISSUED TO PLANNING BOARD	08/29/2023
	ISSUED TO PLANNING BOARD	06/25/2019
	ISSUED TO PLANNING BOARD	03/26/2018

CLIENT NAME:

Pelton Partners LLC

33 Arlington Avenue, Suite 8
Poughkeepsie, New York 12603

PROJECT NAME:

Pelton Mount Carmel

36 N. Clover Street
Poughkeepsie, New York 12601

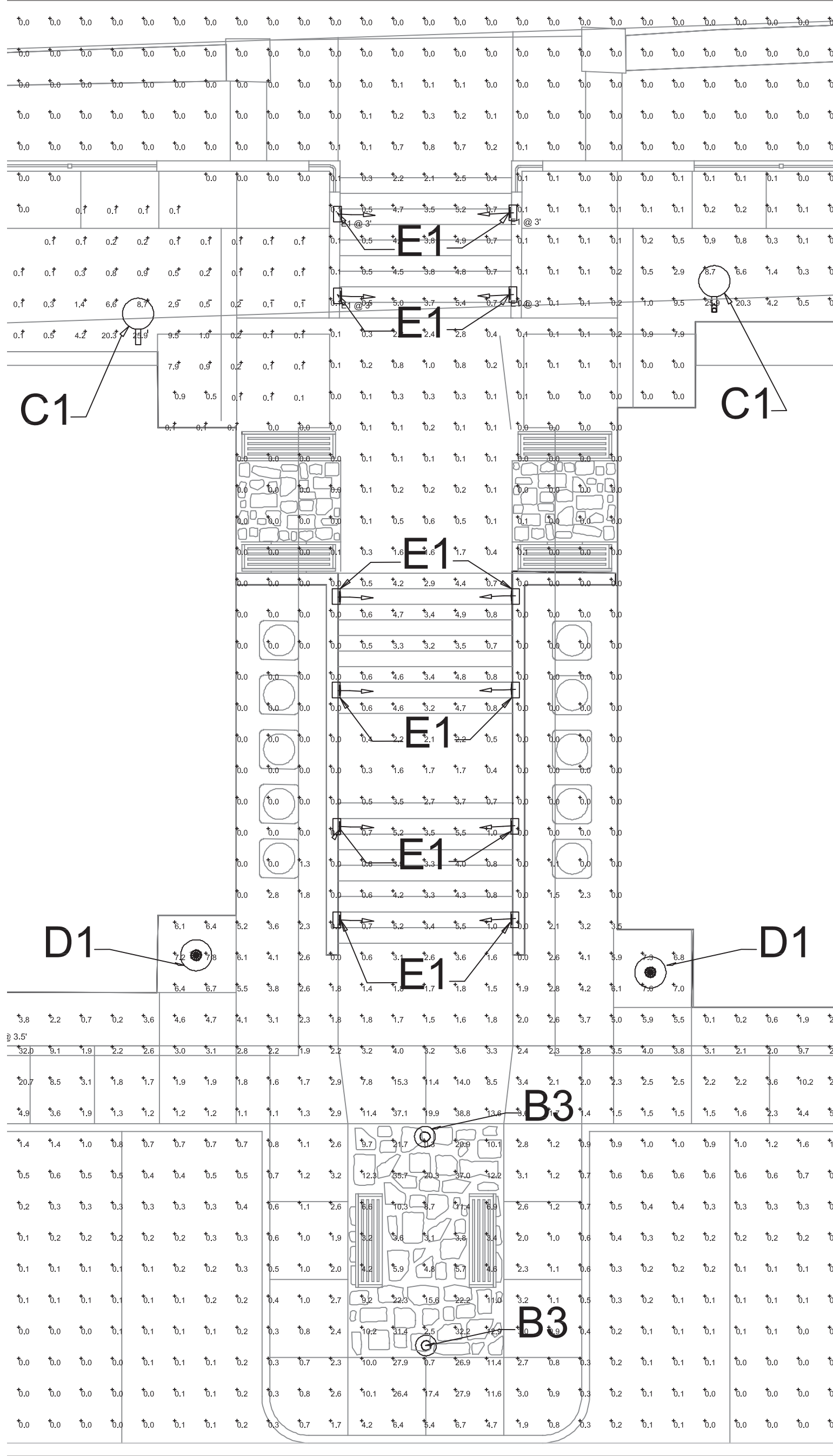
**ENTRANCE DRIVEWAY
PLAN & WALKWAY RAMP
PLAN & SECTION**

Date:
26 March, 2018
Project number:
P1022.20

PZ-24



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



2 PHOTOMETRIC PLAN - ENLARGED STAIR PLAN
NOT TO SCALE

- LIGHTING NOTES:
1. THE DESIGN OF THE PHOTOMETRIC PLAN FOR THE PARKING LOT WAS BASED ON AN AVERAGE 1/2 FOOTCANDLES.
 2. THE LED FIXTURES SHALL BE SHIELDED AND ADJUSTED TO ELIMINATE THE DIFFUSION OF GLARE ONTO THE ADJOINING PROPERTIES AND ROADS.
 3. THE PARKING LOT LIGHT POLES AND SITE BOLLARDS SHALL BE CONTROLLED THROUGH THE USE OF PHOTOMETRIC CELLS TO TURN LIGHTS ON AND OFF. FIXTURES THAT ARE NOT EQUIPPED WITH PHOTOMETRIC CELLS WILL BE REGULATED THROUGH THE USE OF TIMERS.

Schedule											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A1	3	(c) Selux Copyright SXKat V	AVS-S1-0°-L700-R5-40-120 SX 934 42-9	Avanza 600 Typ V w/ 0° Tilt	4853 lm, 72 W	1	AVS-S1-0°-L700-R5-40-120Jes	4952	0.9	144
	A2	4	selux Copyright SXKat V	AVS-S1-0°-L700-R3W-40-120	Avanza 600 w/ 0° Tilt	5605 lm, 71 W	1	AVS-S1-0°-L700-R3W-40-120Jes	5605	0.9	71
	B1	24	SELUX Corporation	IBL-X-3Q-40-XX-120-DS	Cast gray aluminum housing, clear plastic enclosure	Four white LEDs with frosted patterned optics below each	1	IBL-X-3Q-40-XX-120-DSJes	1570	0.9	20.58
	B2	5	SELUX Corporation	IBL-X-2Q90-40-XX-120-DS	Cast gray aluminum housing, clear plastic enclosure	Four white LEDs with frosted patterned optics below each	1	IBL-X-2Q90-40-XX-120-DSJes	1077	0.9	14.19
	B3	2	SELUX Corporation	IBL-X-4Q-40-XX-120-DS	Cast gray aluminum housing, clear plastic enclosure	Four white LEDs with frosted patterned optics below each	1	IBL-X-4Q-40-XX-120-DSJes	2088	0.9	27.06
	C1	23	PRESCOLITE	LD4SD6L40KFL30USP	4inch Cylinder, LED, Spot Uplight and Flood Downlight, 5000K	12- NICHIA 4000K LEDs	1	LD4SD6L40KFL30USPJes	1402	0.9	15.3
	C2	4	PRESCOLITE	LD4SD6L40KFL30BL	4" Linearform LED WALL-MOUNT DOWN-LIGHT CYLINDER - FLOOD	NICHIA 4000K Rnn LEDs	1	LD4SD6L40KFL30BLJes	695	0.9	8.4
	D1	15	THE KIRLIN COMPANY	LRV-07469-1500L-WFL	7" DOWNLIGHT	FOUR WHITE LIGHT EMITTING DIODES (LEDs) EACH WITH CLEAR HEMISPHERICAL INTEGRAL LENS, VERTICAL BASE-UP POSITION.	1	LRV-07469-1500L-WFLJES	1321	0.9	21
	E1	12	PRESCOLITE	SLLED2	LED STEP LIGHT	EMITTING DIODE	1	SLLED2Jes	95	0.9	12.4



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

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STATUTORY EDUCATION LAW.



ISSUED TO PLANNING BOARD		08/29/2023
NO.	SUBMISSION DESCRIPTION	DATE
1	FIXTURE RELOCATION	05/07/2018

CLIENT NAME:

Pelton Partners LLC

33 Arlington Avenue, Suite 8
Poughkeepsie, New York 12603

PROJECT NAME:

Pelton Mount Carmel

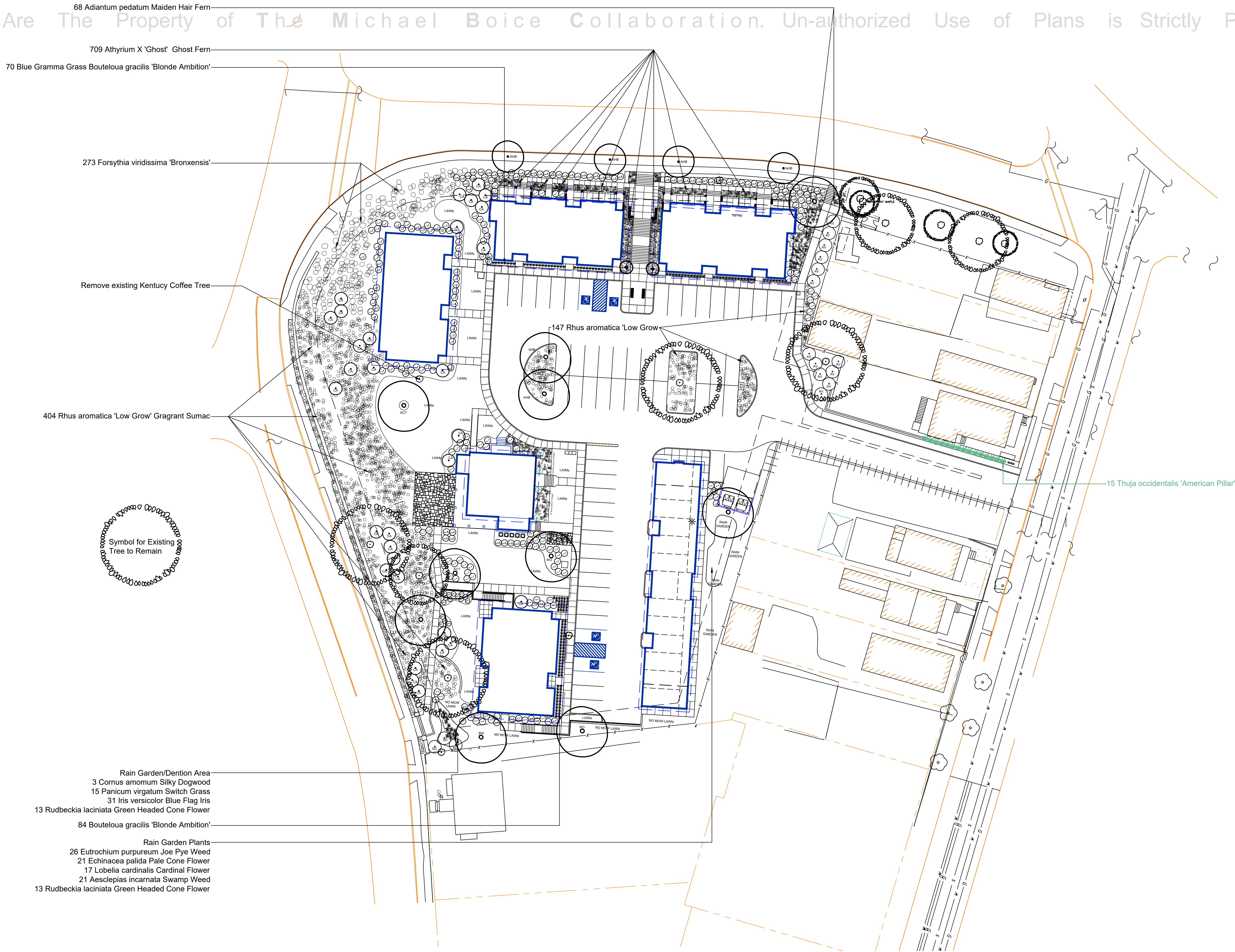
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Poughkeepsie, New York 12601

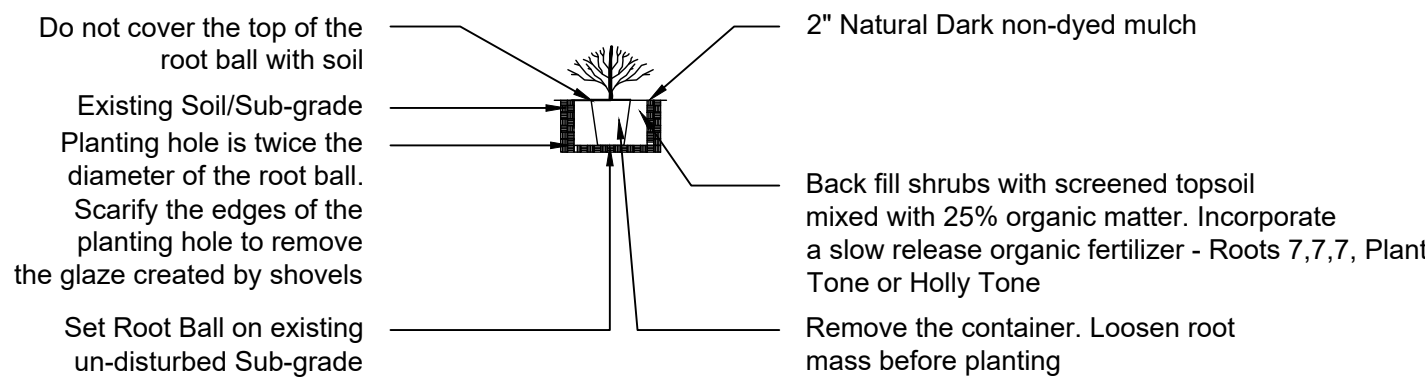
PHOTOMETRIC
PLAN & SCHEDULE

Date:
03 April, 2018
Project number:
P1022.20

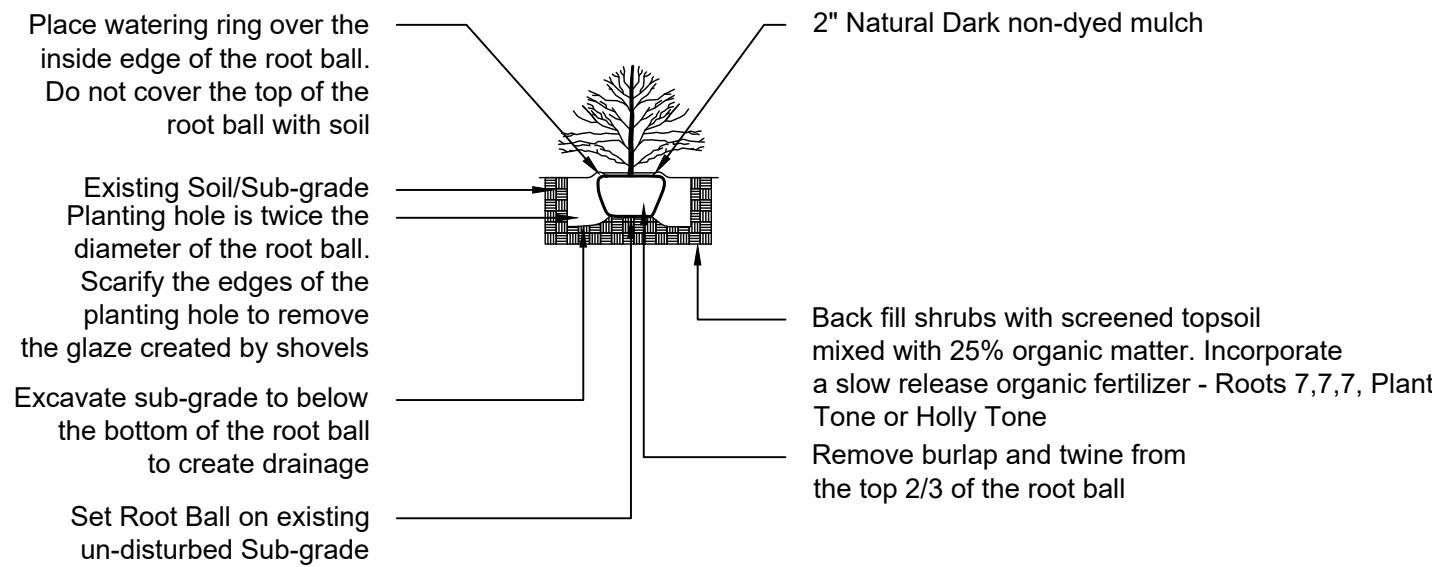
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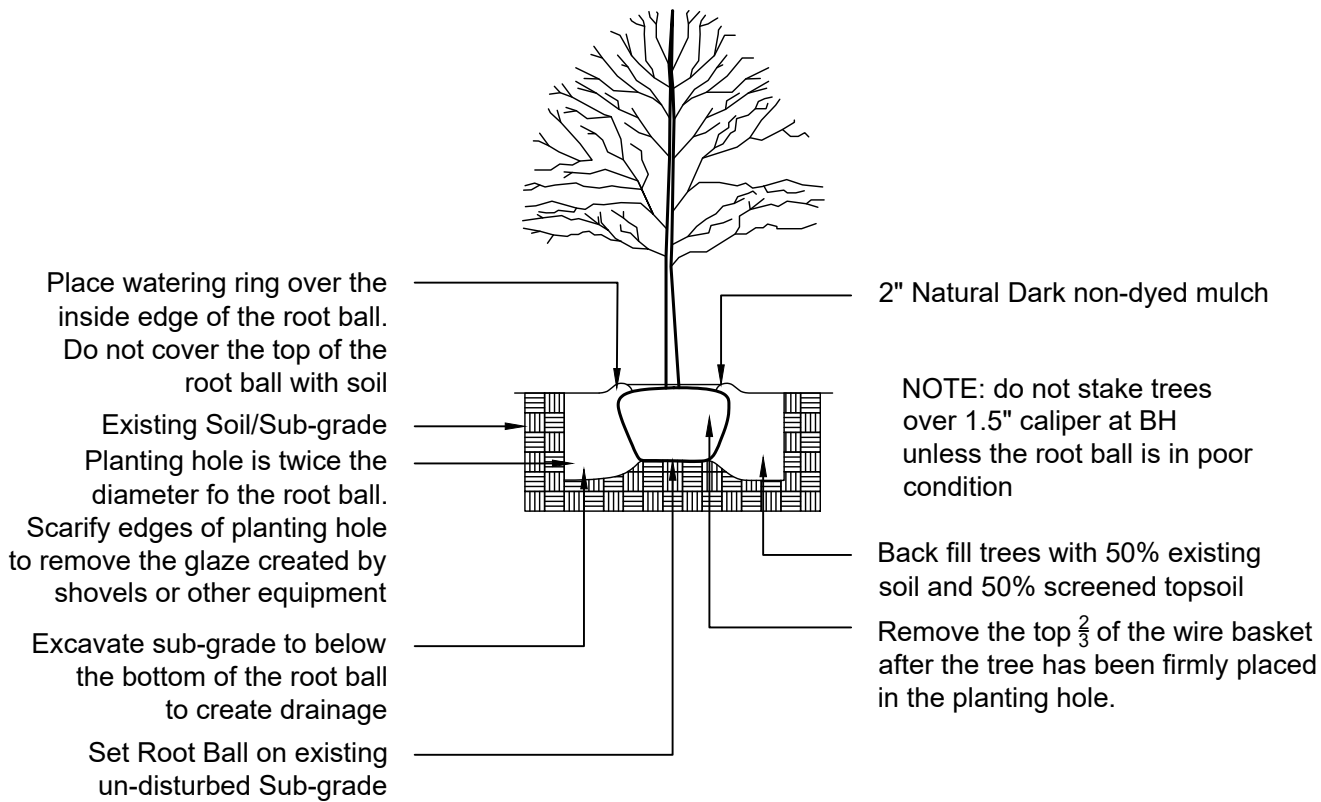




CONTAINER PLANTING SPECIFICATIONS



SHRUB PLANTING SPECIFICATIONS



TREE PLANTING SPECIFICATION

1. All plant material must conform to American Standard for Nursery Stock ANSI Z60.1-2014
2. Voluntary Alternates/Plant substitutions must be approved by the Designer/Landscape Architect

3. All plant material delivered to the site and or planted must be maintained by the Landscape Contractor until the scope of agreed Landscape work is complete

4. All wire baskets must be either removed from the root ball or cut from the root ball after placing the plant in the planting hole

5. All burlap must be removed from root balls or cut away from the root ball after placing the plant in the planting hole. All planting holes must be 50% wider than the root ball or container root mass

- 6a. The indigenous soil or back fill for major trees must be conditioned with 50% screened topsoil and Roots 7-7-7 with Mycorrhizae. Do not use additional planting media. Remove rocks and bris from planting hole

- 6b. Incorporate 50% organic soil media, Pro Mix HP, and Roots 7-7-7 slow release fertilizer with Mycorrhizae per instructions into indigenous soil used to back fill shrubs, perennials and ground cover. **All** bed areas to receive Ornamental Grasses and Fern **MUST** be mechanically tilled in an effort to create a friable soil texture

- 6c. Any soil glazing created by the back of the shovel shall be removed by reversing the shovel and caving in the planting hole

LANDSCAPING NOTES

7. A Sub-soil soil pH test is highly recommended before planting begins

8. All existing unwanted plant material and weeds and their roots systems must be completely removed from planting beds prior to installing new plant material. The use of Round-Up may be required to eliminate invasive/stoloniferous weeds. Only a licensed professional may apply Round-Up

9. Only non-dyed natural mulch may be used. Mulch shall not be made from construction debris, shall not contain plastics, large roots or any toxic chemicals or pressure treated lumber. The mulch shall have been created in the year of or the season of the proposed work installation. Install mulch to a depth of 2" - 3" in all shrubs beds and tree rings.

10. Anchor any trees or plants that may be affected by high wind loads. Use only Duck Bill Earth Anchor Series II Model 40 DTS for 1"-3" caliper and Model 68 DTS for 3" - 6" caliper

11. It is the Landscape Contractor's responsibility to comply with all local and state codes. Any permits required for the Landscape Contractor's work must be obtained by the Landscape Contractor

12. It is the Landscape Contractor's responsibility to coordinate the planting schedule with the owner or the owner's representative. The Landscape contractor shall notify the owner about any deviations from the agreed schedule immediately

13. Any deviations from the design/plans due to unknown site conditions must be brought to the attention of the owner, the owner's representative and or the Designer/Landscape Architect

14. All sub-grades brought to within 6" of finished grade by site contractor

15. The site contractor shall de-compact any planting or lawn areas to 12" below sub-grade that have been compacted by equipment during the construction phase

16. All areas to receive seed or sod shall be covered with 6" of screened topsoil meeting ASTM D-422 Specifications: 60% sand, 25% Silt, 15% Clay, pH 6.8 - 7.2, organic content between 5% - 10% not to exceed 10%. The screened topsoil shall not contain stones greater than 1/2" in any dimension, be free from roots, weeds, clay clods, Litter, toxic chemicals or any materials harmful to plant growth.

17. The topsoil shall not be worked when wet or back-bladed with any equipment which will create a compacted glaze on the surface.

18. The topsoil shall be placed in seeded or sodded areas to a uniform and smooth depth of 6"

19. All Grasses and perennials must be cut back either in fall or early spring - before new foliage emerges. Bouteloua must not be pruned lower than 6". Sedum spirium 'Fuldglut' is an evergreen perennial and does not require any winter maintenance.

20. Annabelle Hydrangea and St. John's Wort can be pruned to 12" - 18" each fall or spring - before new foliage emerges

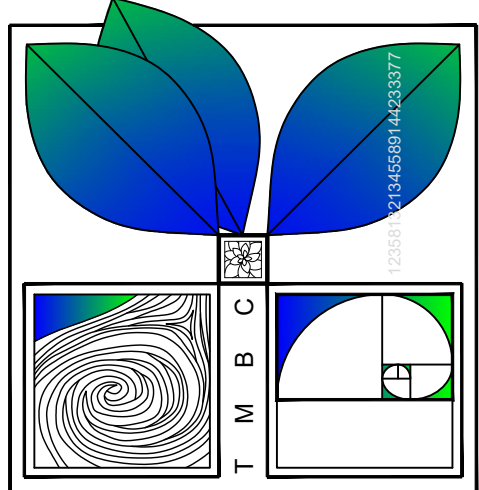
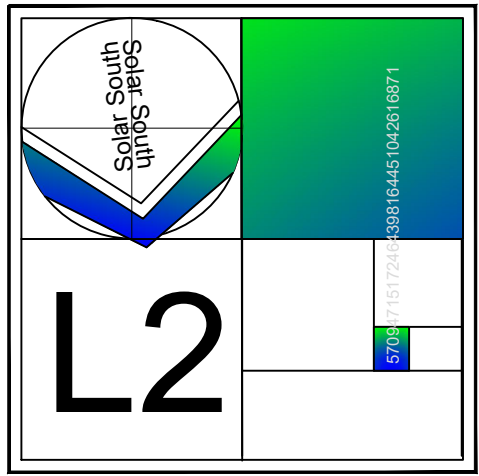
21. Boxwood do not require pruning...prune as desired for shape

22. Prune the Juglans, Gymnocladus, Quercus and Gleditsia tree species for structure and open habit for the first 3-5 seasons.

23. Remove existing water sprouts and suckers from trees that are to remain, specifically from Large Leaf Lindens.

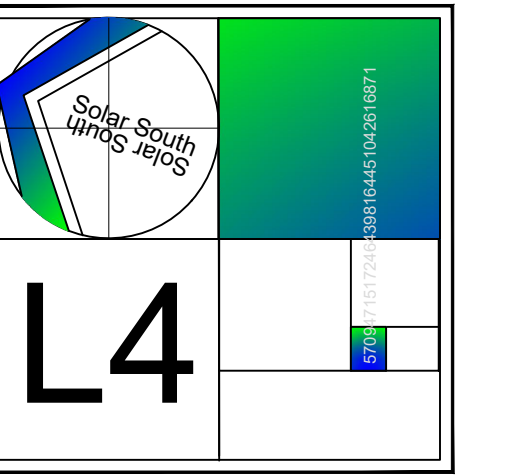
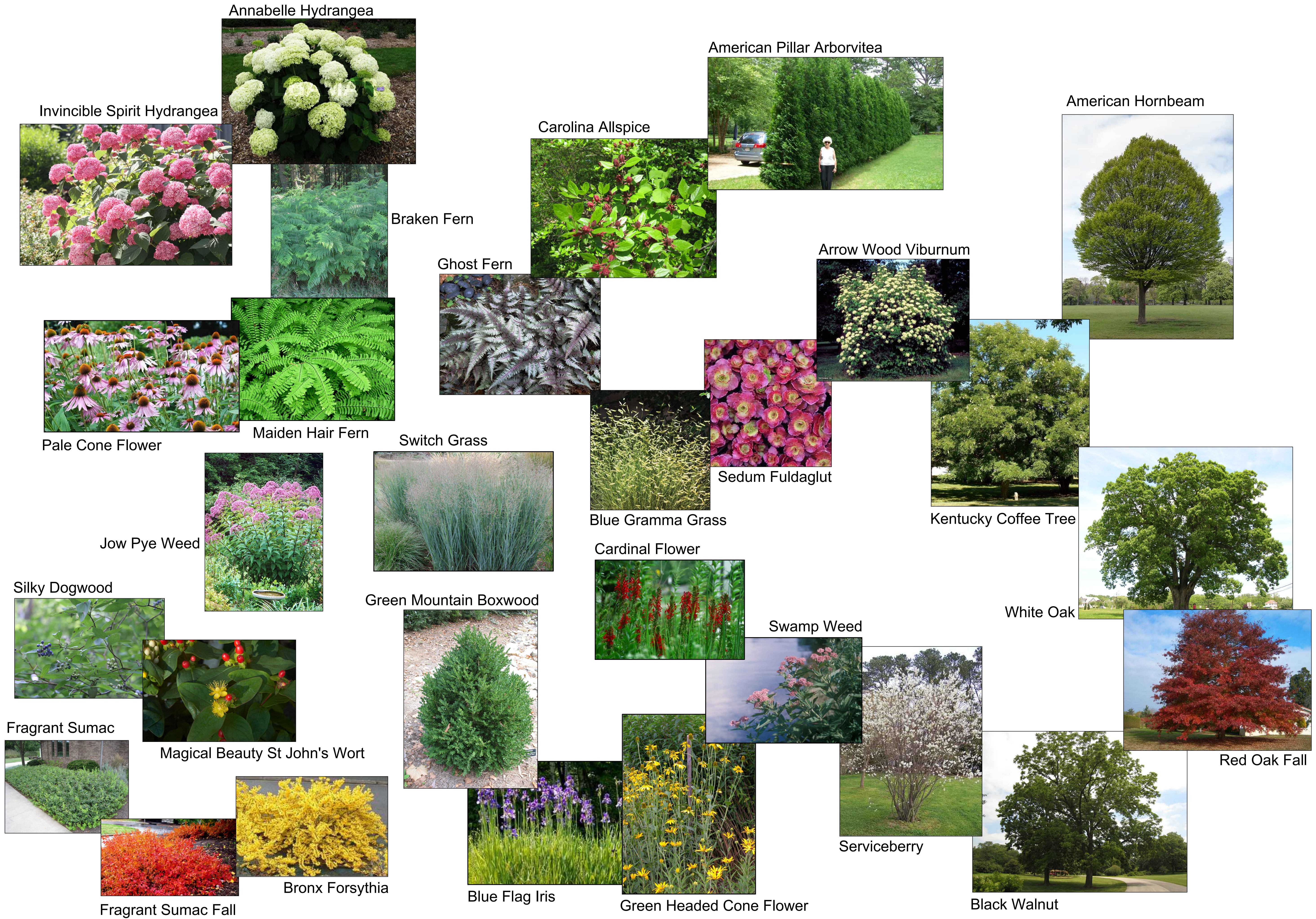
24. It is advised that the contractor install a silt fence along the entire length of the existing walls along Dongon and Daves Place.

25. Any deviations from the plans, whether in plant material choices, availability, timing, coordination must be brought to the owner's attention or the owner's representatives or Designer



Planting List						
Genus Specie	Common Name	Size	Key	Quantity	Notes	Zone
Gymnocladus dioica	Kentucky Coffee Tree	3" - 3.5" Cal	KCT	2	Native	3-8
Juglans nigra	Black Walnut	3" - 3.5" Cal	BW	2	Native	4-9
Quercus alba	White Oak	3" - 3.5" Cal	WO	2	Native	3-9
Quercus rubra	Red Oak	3" - 3.5" Cal	RO	2	Native	4-9
Carpinus caroliniana	American Hornbeam	3" - 3.5" Cal	AHB	6	Native	3-9
Amelacn hier canadensis	Shadblow Serviceberry	8'-10' B&B Multi-Stem	SBS	2	Native	5-7
Thuja occidentalis 'American Pillar'	American Pillar Arborvitea	4'-5'	Labeled	15	Native	2-7
Buxus 'Green Mountain'	Green Mountain Boxwood	30"-36" x 30"-36" B&B	BGM	4	Introduced Evergreen	4-9
Hydrangea macrophylla 'Annabelle'	Annabelle Hydrangea	3 gal	AH	103	Native - White Flowers	3-9
Hydrangea macrophylla 'Invincible Spirit'	Invincible Spirit Hydrangea	3 gal	HVS	65	Annabelle Hybrid - Pink Flowers	3-9
Hypericum inodorum 'Magical Beauty'	Magical Beauty St John's Wort	2 gal	MBSW	82	Yellow flowers, drought tolerant	4-8
Forsythia viridissima 'Bronxensis'	Bronx Forsythia	2 gal	Labeled	273	Dwarf variety, yellow spring flowers, China	5-8
Rhus aromatica 'Low Grow'	Fragrant Sumac	2 gal	FS	551	Native, fragrant when bruised, stoniferous	4-8
Sedum spurium 'Fuldaglut'	Sedum Fuldaglut	1 gal or 4" pot	Labeled	484	Drought and Salt Tolerant	3-9
Viburnum dentatum	Arrowwood Viburnum	3'-4' B&B	AV	13	Native	5-10
Calycanthus floridus	Carolina Allspice	3'-4' B&B	CA	31	Native, drought tolerant,	5-9
Cornus amomum	Solky Dogwood	3 gal	SD	3	Native	5-8
Spirea betulifolia 'Tor'	Birch Leaf Spirea	2 gal	SBC	16	Introduced	4-8
Bouteloua gracilis 'Blonde Ambition'	Blonde Ambition Blue Grama Grass	1 gal	Labeled	254	Native, showy seed heads	3-10
Athyrium X Ghost	Ghost Fern	1 gal	Labeled	709	Introduced - Sage colored leaves	4-8
Pteridium aquilinum	Braken Fern	1 gal	Labeled	172	Native Northern Hemisphere	3-10
Adiantum pedetum	Maiden Hair Fern	1 gal	Labeled	68	Native	3-9
Eutrochium purpureum	Jow Pye Weed	1 gal	Labeled	26	Native	4-9
Echinacea palida	Pale Cone Flower	1 gal	Labeled	21	Native	3-10
Lobelia cardinalis	Cardinal Flower	1 gal	Labeled	17	Native	3-9
Aesclepias incarnata	Swamp Weed	1 gal	Labeled	21	Native	3-6
Panicum virgatum	Switch Grass	1 gal	Labeled	15	Native	5-9
Iris versicolor	Blue Flag Iris	1 gal	Labeled	31	Native	3-9
Rudbeckia laciniata	Green Headed Cone Flower	1 gal	Labeled	26	Native	3-9
* No Mow Seed Mix: 20% Hard, 20% Sheep, 20% Chewings, 20% Red and 20% Creeping Fescue blend * Apply seed by hydroseeding and included a starter fertilizer along with hydro-seeding mulch. Follow the engineer's specifications for steep slope stabilization * Follow the engineer's specifications for steep slope stabilization						

NOTE: Plant table quantities govern total quantities of all plant materials



845-702-1004

11 South Fowlerhouse Road Wappinger Falls, New York 12590

The Michael Boice Collaboration

DESIGNERS AND MAKERS OF FINE LANDSCAPES

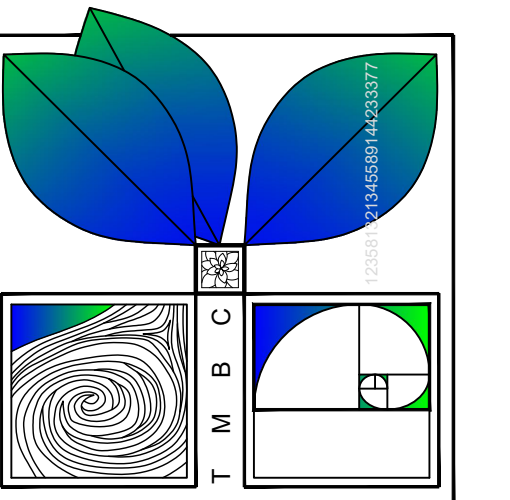
Tinkelman Architects - Pelton Mount Carmel Plant Photos
36 North Clover Street Poughkeepsie, New York

Date | October 4, 2017

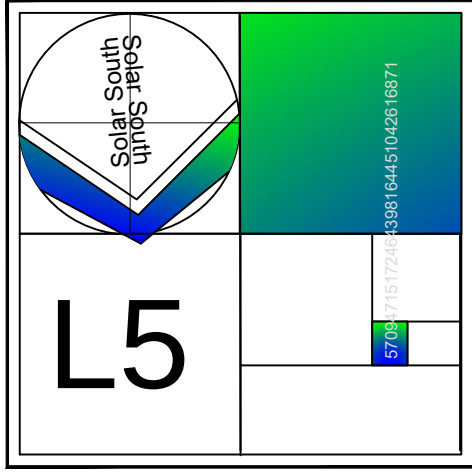
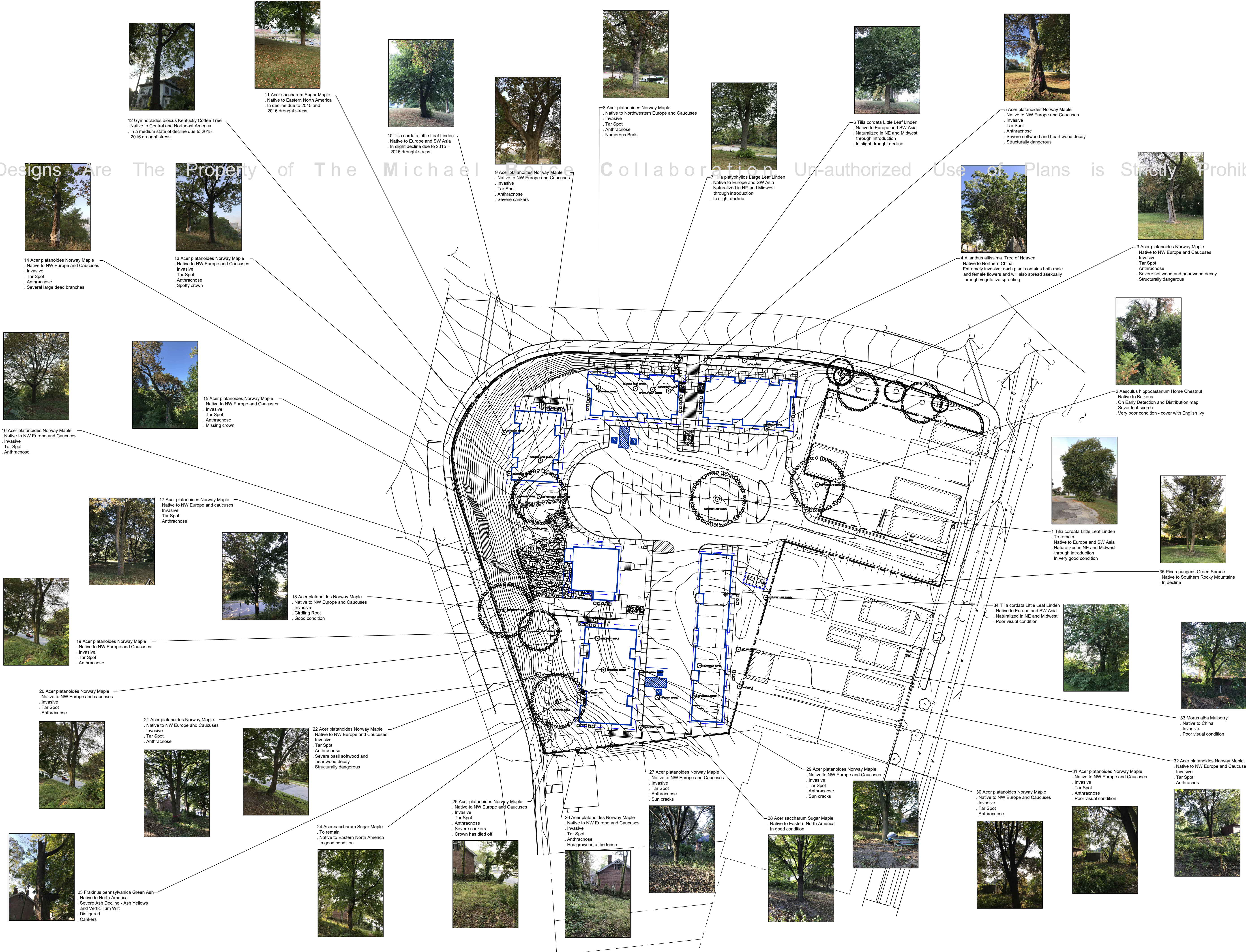
Scale | ...

Revisions |

with March 21, 2018; September 16, 2018; and March 21, 2018; amended photos; original photo.



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11 South Fowlerhouse Road Wappinger Falls, New York 12590

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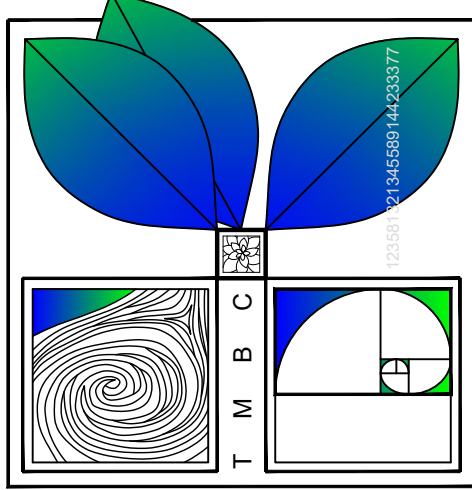
Tinkelman Architects - Pelton Mount Carmel Existing Tree Inventory

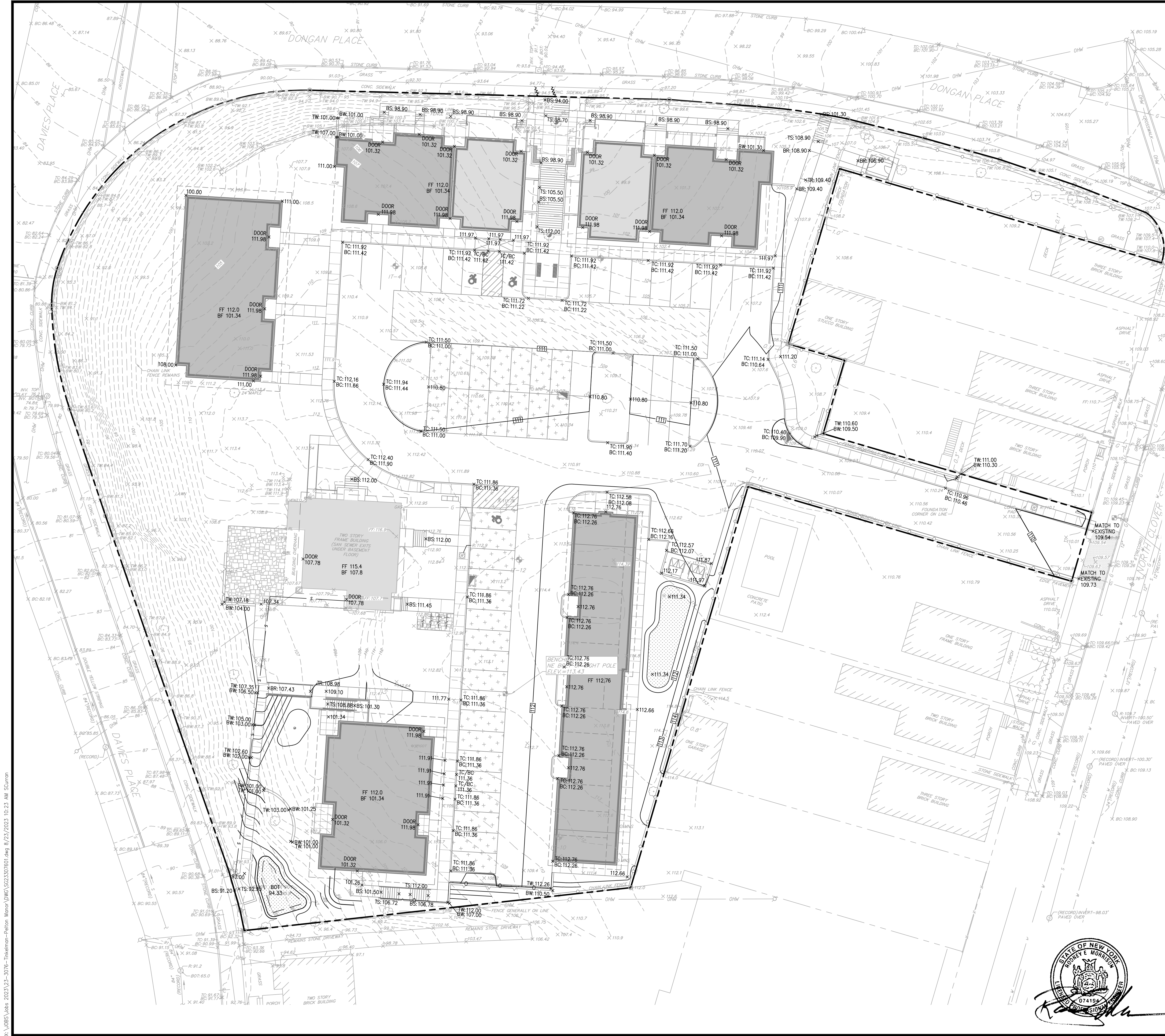
36 North Clover Street Poughkeepsie, New York

Scale | 1" = 40' - 0" Date | Sept. 30, 2017

Revisions |

msb created 1, 2017 existing tree
disposition, photos, report, trees
msb created 20, 2018 remove sugar maple,
msb created 23, 2018



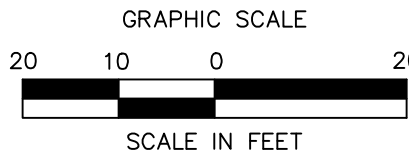


GRADING AND DRAINAGE NOTES

1. ANY DEMOLISHED OR CLEARED MATERIALS MUST BE REMOVED AND DISPOSED OF OFF SITE. ANY BURNING ON SITE SHALL BE SUBJECT TO LOCAL ORDINANCES. THESE INCLUDE ANY OBJECTS NOTED ON THE PLANS, INCLUDING BUT NOT LIMITED TO, TREES, STUMPS, FENCES, WALLS, ETC.
2. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES, HAVING UNDERGROUND UTILITIES ON SITE OR IN THE RIGHT-OF-WAY PRIOR TO EXCAVATION. ALL UTILITIES MUST BE LOCATED AND MARKED OUT PRIOR TO THE START OF ANY SITE GRADING.
3. SITE GRADING SHALL NOT PROCEED UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND INSPECTED.
4. CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION

LEGEND

---	PROPERTY LINE
- - - -	EXISTING MAJOR CONTOUR
- - - -	EXISTING MINOR CONTOUR
×162.25	EXISTING SPOT GRADE
×163.25	PROPOSED SPOT GRADE
- - - -	PROPOSED MAJOR CONTOUR LINE
- - - -	PROPOSED MINOR CONTOUR LINE
- - - -	PROPOSED STORM LINE
- - - -	EXISTING STORM LINE
- - - -	PROPOSED YARD DRAIN
- - - -	PROPOSED INLINE DRAIN
- - - -	EXISTING YARD DRAIN
- - - -	EXISTING CURB CATCH BASIN
- - - -	EXISTING CURBLESS CATCH BASIN
- - - -	PROPOSED CATCH BASIN
- - - -	PROPOSED ROOF LEADER
- - - -	EXISTING STORM MANHOLE
- - - -	PROPOSED STORM MANHOLE



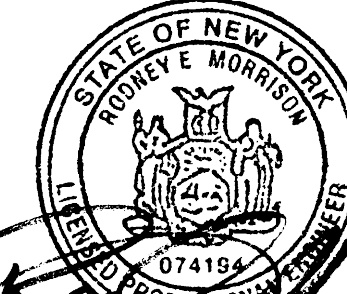
SITE GRADING

PELTON MOUNT CARMEL
36 N. CLOVER STREET
CITY OF POUGHKEEPSIE,
DUTCH COUNTY, NEW YORK

1	08/29/23	SUBMIT FOR SIGNATURES	
2	09/04/23	REVISED PER COMMENTS	
3	03/27/24	REVISED PER COMMENTS	
4	10/25/24	ISSUED TO PLANNING BOARD	
Revisions			

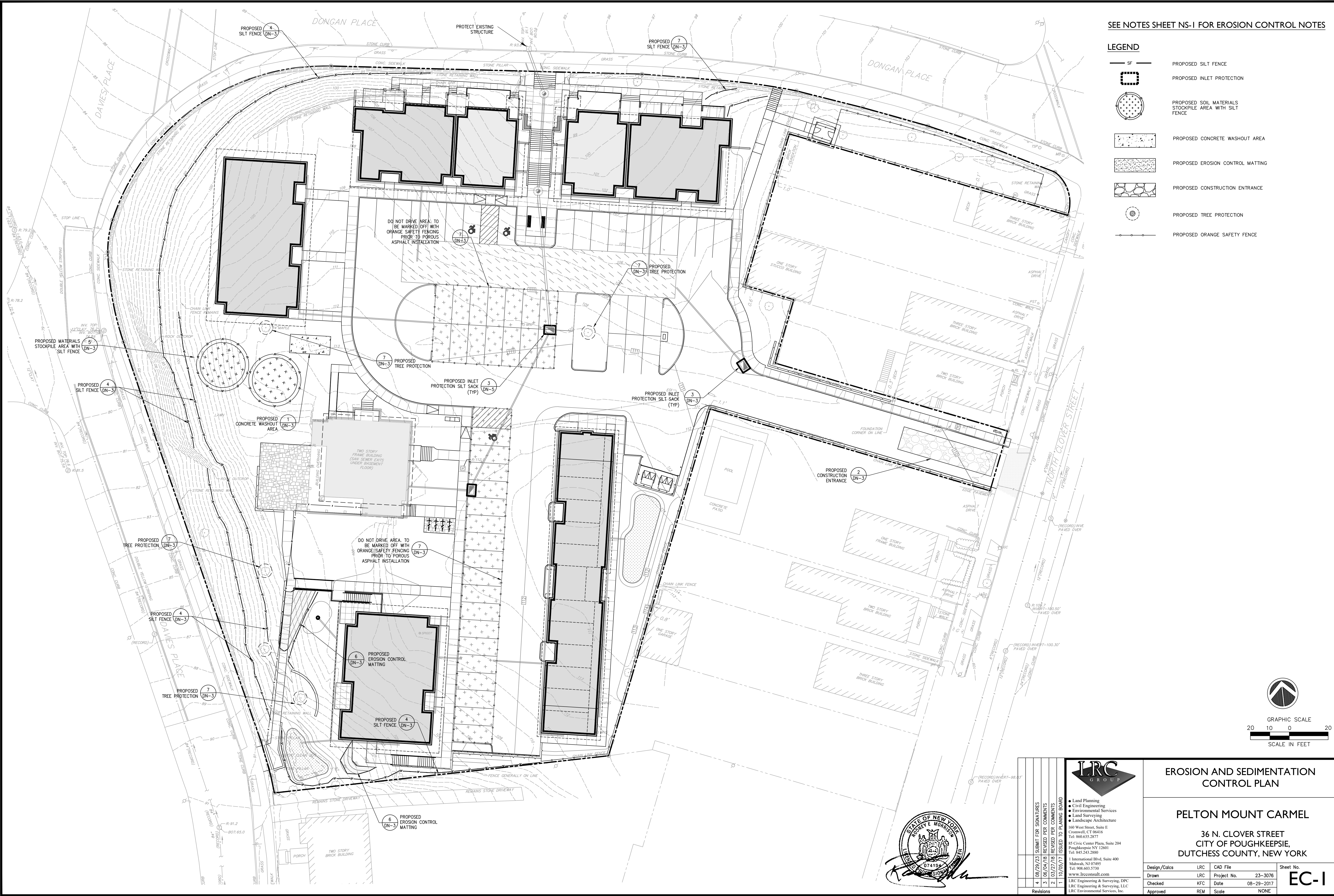


Land Planning
Civil Engineering
Environmental Services
Land Surveying
Landscape Architecture
160 West Street, Suite E
Cromwell, CT 06416
Tel: 860.635.2877
85 Civic Center Plaza, Suite 204
Poughkeepsie, NY 12601
Tel: 845.243.2880
1 International Blvd, Suite 400
Malvern, NJ 07645
Tel: 908.603.5730
www.lrcconsult.com
LRC Engineering & Surveying, DPC
LRC Engineering & Surveying, LLC
LRC Environmental Services, Inc.



Design/Calcs	LRC	CAD File	SG23307601.dwg	Sheet No.
Drawn	LRC	Project No.	23-3076	
Checked	KFC	Date	08-29-2017	
Approved	REM	Scale	1"=20'	

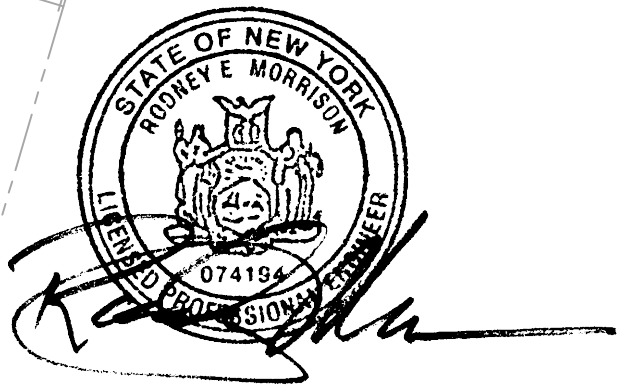
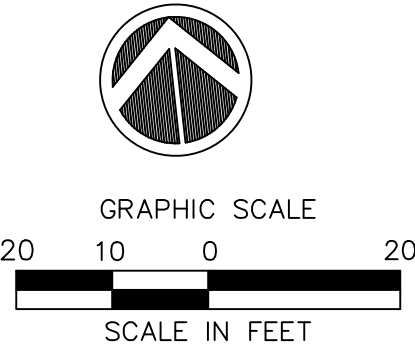
SG-I



SEE NOTES SHEET NS-1 FOR EROSION CONTROL NOTES

LEGEND

- PROPOSED SILT FENCE
- PROPOSED INLET PROTECTION
- PROPOSED SOIL MATERIALS STOCKPILE AREA WITH SILT FENCE
- PROPOSED CONCRETE WASHOUT AREA
- PROPOSED EROSION CONTROL MATTING
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED TREE PROTECTION
- PROPOSED ORANGE SAFETY FENCE



1

08/29/23

SUBMIT FOR SIGNATURES

2

08/29/23

ISSUED TO PLANNING BOARD

3

06/04/18

REVISED PER COMMENTS

4

03/27/18

REVISED PER COMMENTS

LRC
GROUP

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

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**EROSION AND SEDIMENTATION
CONTROL PLAN**

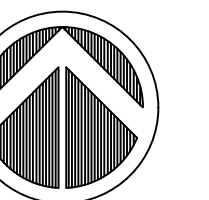
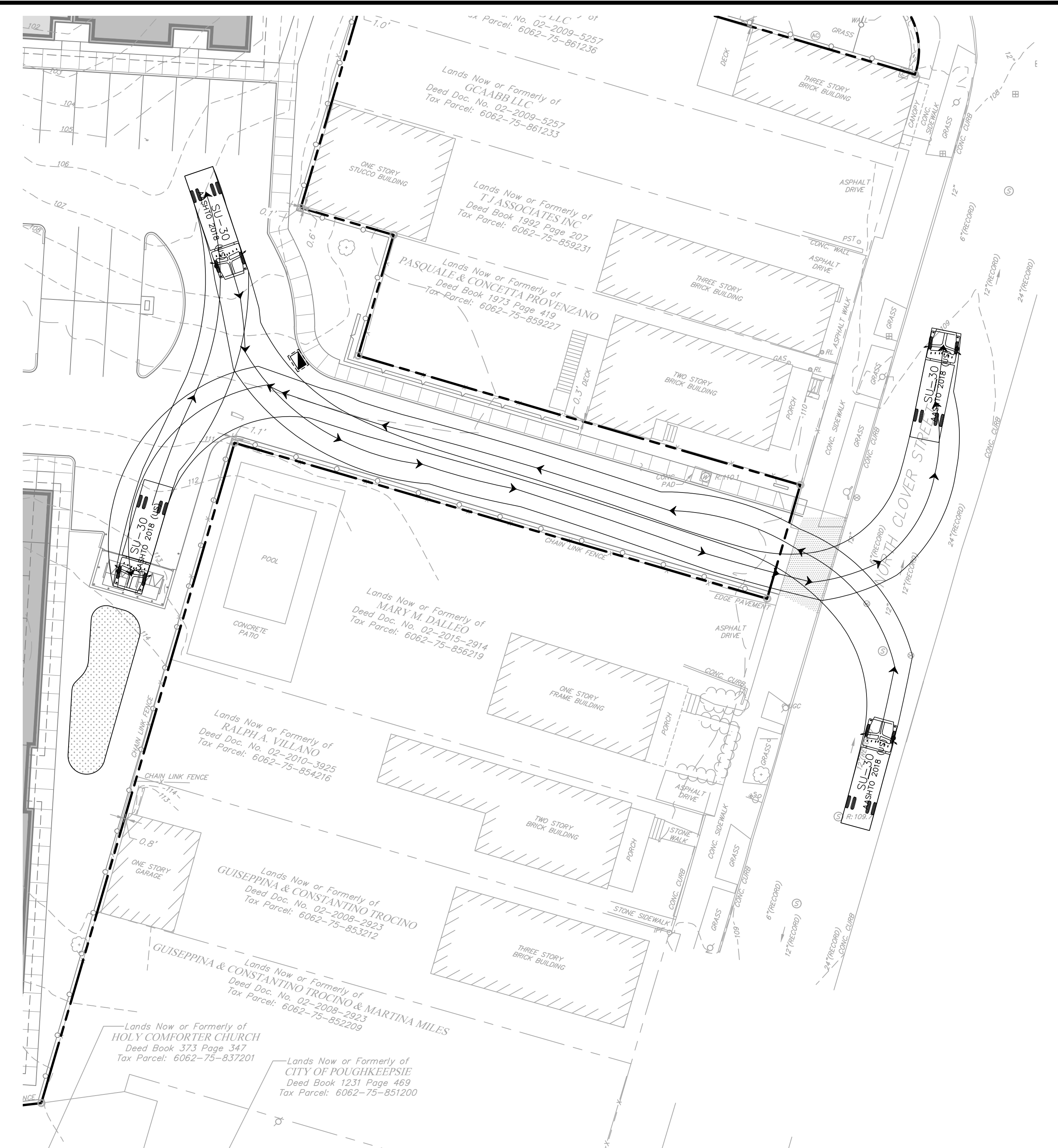
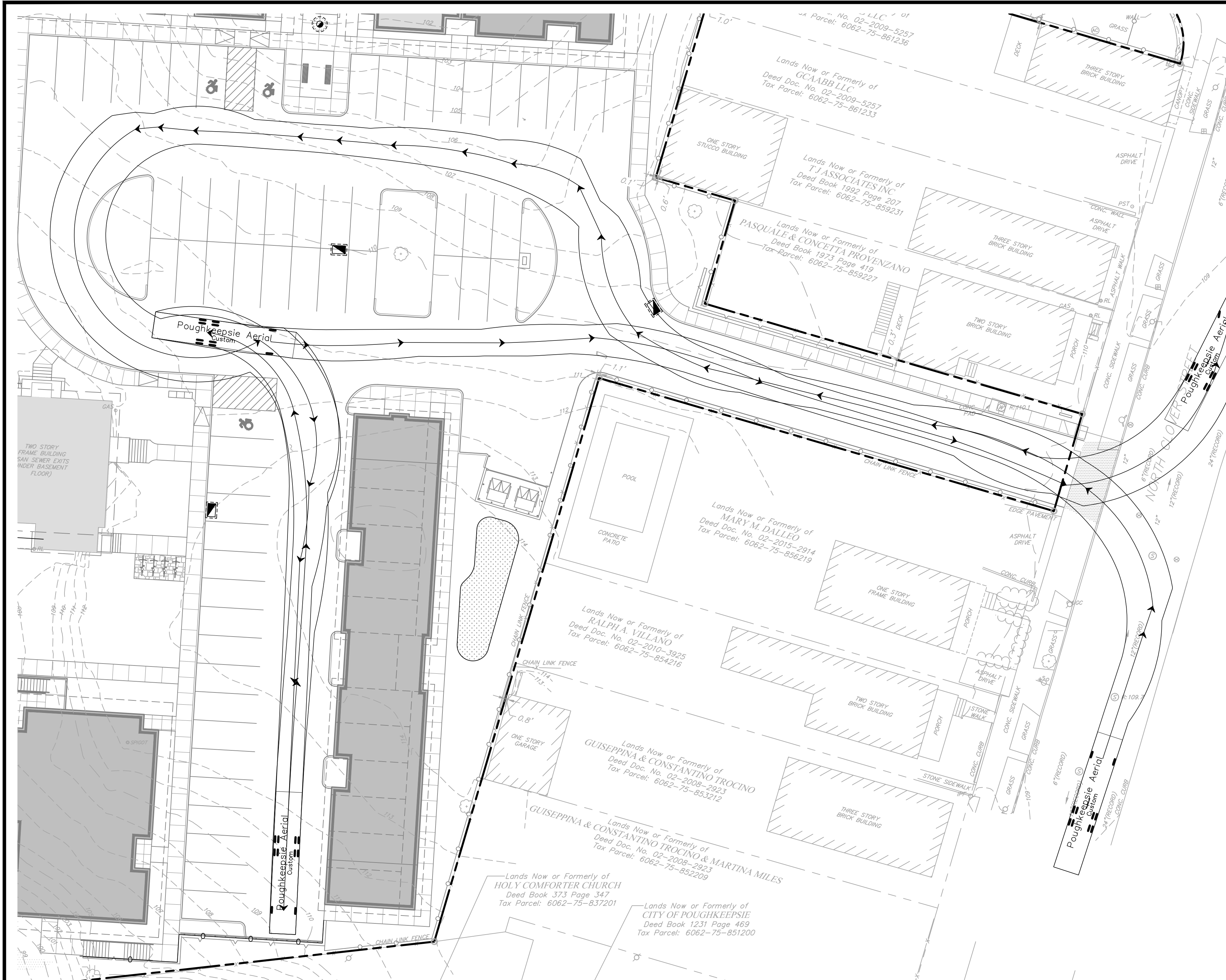
PELTON MOUNT CARMEL

36 N. CLOVER STREET
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	Sheet No.
Drawn	LRC	Project No.	23-3076
Checked	KFC	Date	08-29-2017
Approved	REM	Scale	NONE

EC-1

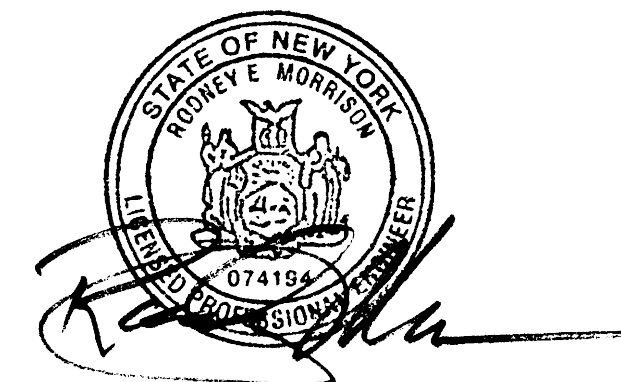
Page 47 of 889



GRAPHIC SCALE

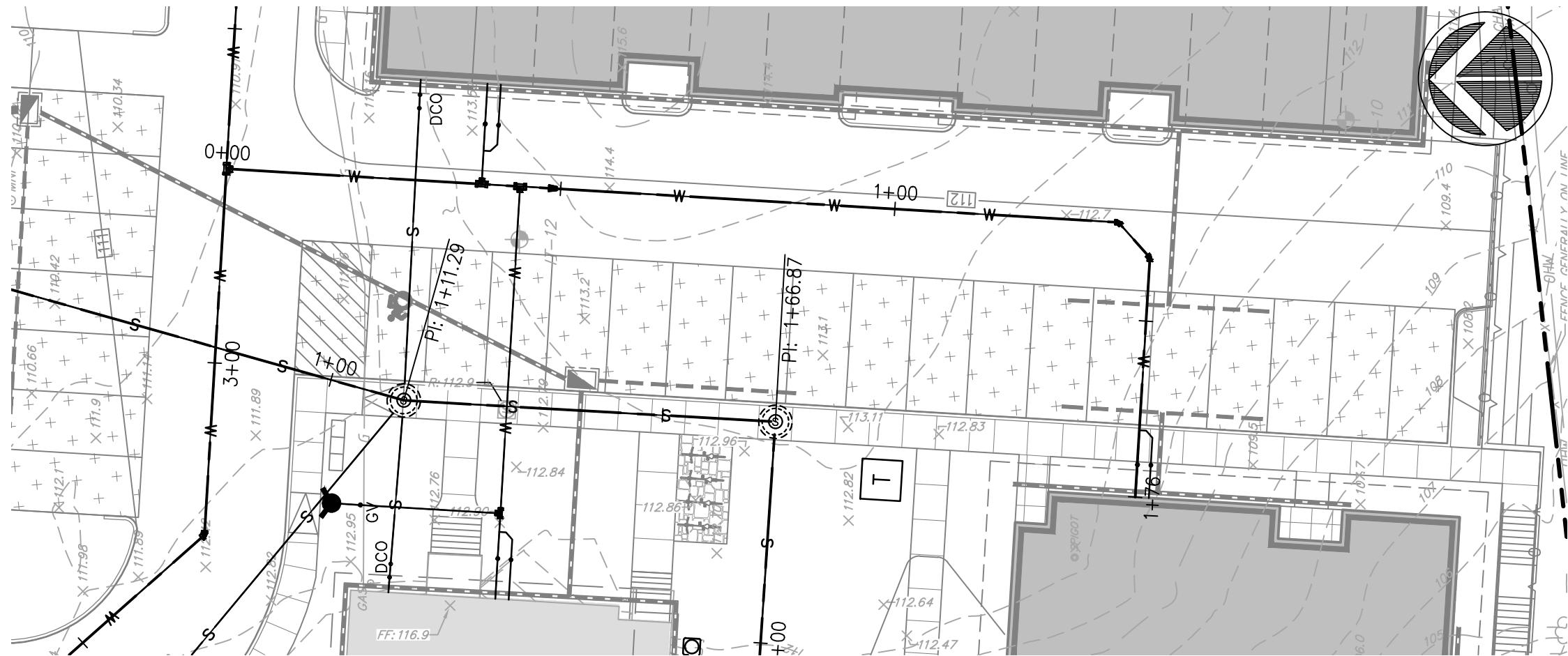
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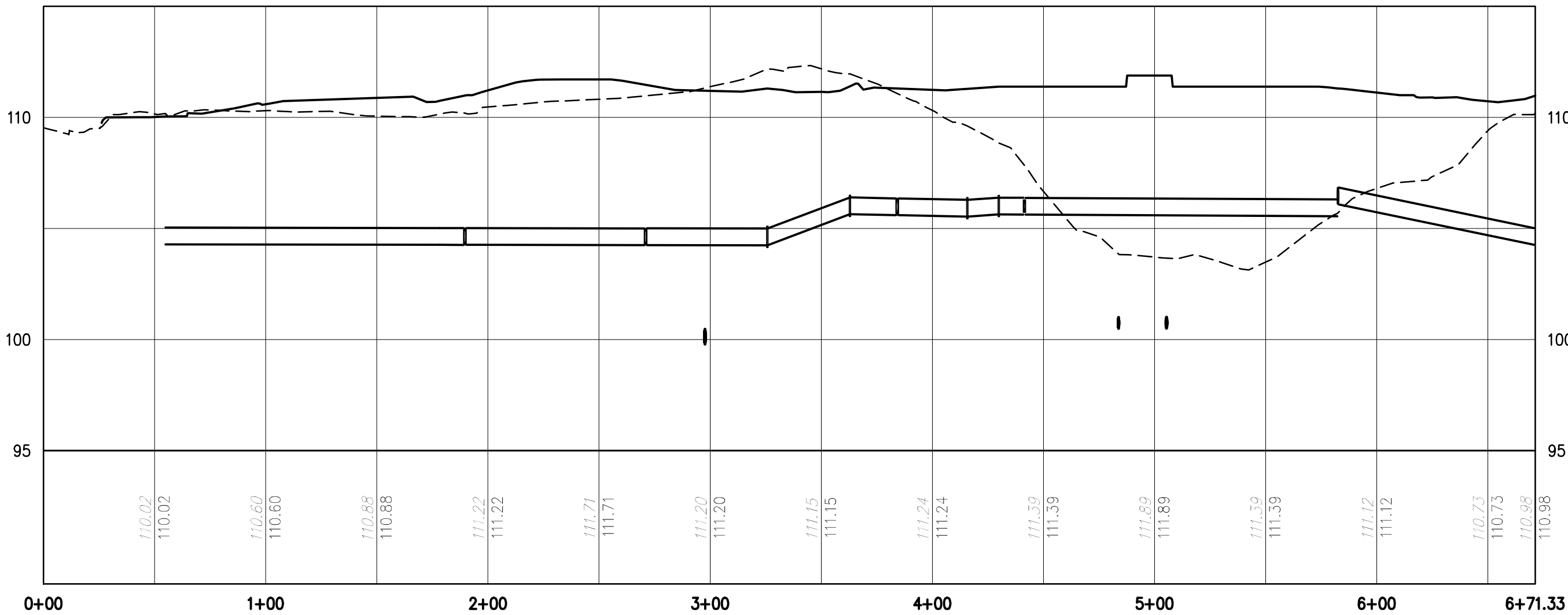
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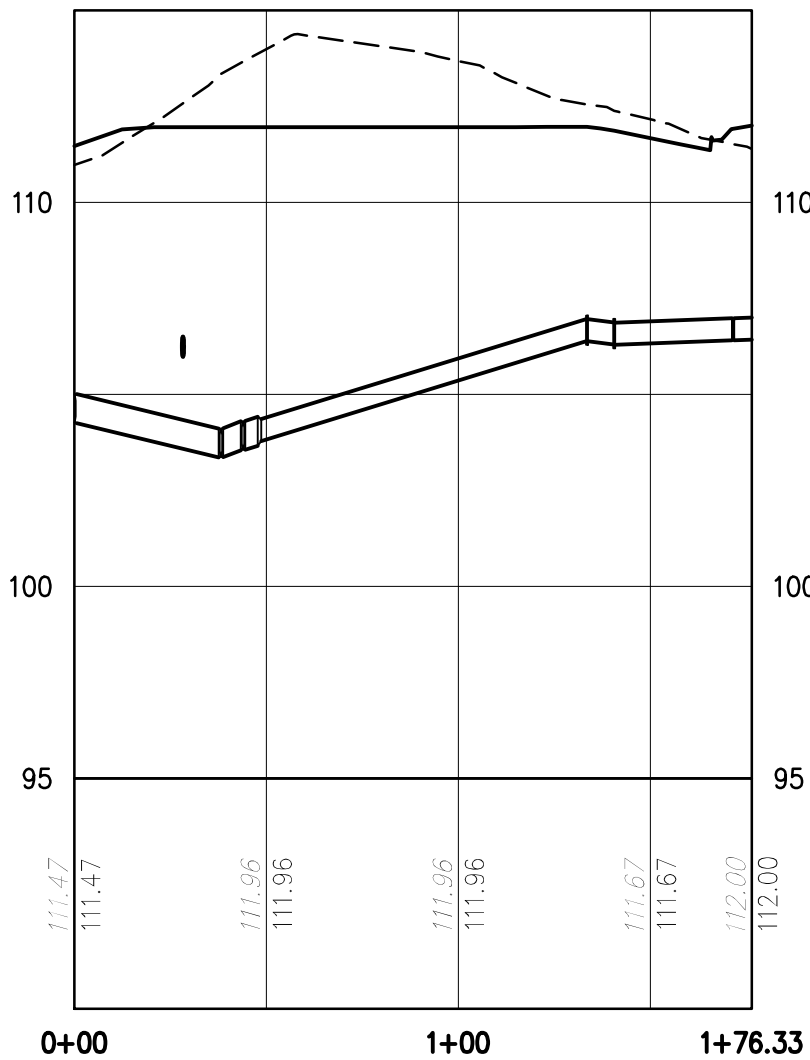
WATER PLAN 0+00 TO 6+71



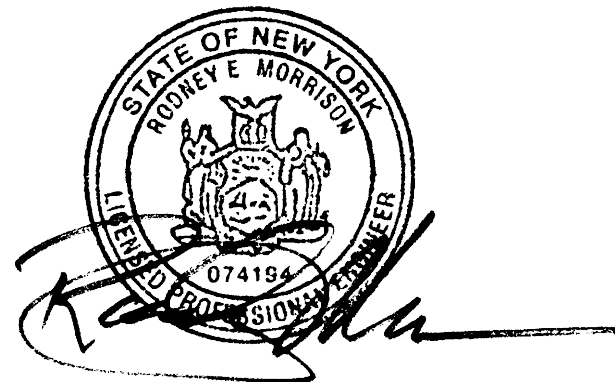
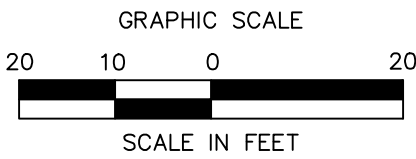
WATER PLAN 0+00 TO 1+76



WATER PROFILE 0+00 TO 6+71



WATER PROFILE 0+00 TO 1+76



			
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160 West Street, Suite E Cromwell, CT 06416 Tel: 860.635.2877			
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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.			
WATER PLAN AND PROFILE			
PELTON MOUNT CARMEL			
36 N. CLOVER STREET CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK			
Design/Calcs	LRC	CAD File	PP23307601.dwg
Drawn	LRC	Project No.	23-3076
Checked	KFC	Date	08-29-2017
Approved	REM	Scale	1"=20'

PP-1

GENERAL NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH CITY OF POUGHKEEPSIE REQUIREMENTS AND SPECIFICATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
3. REFER TO OTHER PLANS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE SITE ENGINEER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO BIDDING. ANY CONFLICT BETWEEN DRAWINGS AND THE SPECIFICATIONS SHALL BE CONFIRMED WITH THE LOCAL CONSTRUCTION MANAGER PRIOR TO BIDDING.
4. REFER TO THE DETAIL SHEETS FOR PAVEMENT, CURBING, AND SIDEWALK INFORMATION.
5. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE SITE ENGINEER, AND THE APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
6. THE CONTRACTOR SHALL RESTORE ANY OF THE FOLLOWING IF THEY ARE NOTED TO REMAIN: UTILITY STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, OR LANDSCAPED AREAS DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE CITY OF POUGHKEEPSIE.
7. TRAFFIC CONTROL MEASURES SHALL BE UTILIZED IN ACCORDANCE WITH CITY OF POUGHKEEPSIE AND NYSDOT.
8. PAVEMENT MARKINGS SHALL BE FAST DRYING TYPE IN ACCORDANCE WITH CITY OF POUGHKEEPSIE SPECIFICATIONS.
9. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS AND PLANT SPECIFICATIONS TO THE SITE ENGINEER AND OWNER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW. APPROVED SHOP DRAWINGS WILL BE PROVIDED BY THE ENGINEER AND COPIED TO THE CITY OF POUGHKEEPSIE.
10. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES AND UNIFORMED TRAFFIC MEN AS REQUIRED OR ORDERED BY THE ENGINEER OR REQUIRED BY THE LOCAL GOVERNING AUTHORITIES. CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS AT ALL TIMES UNLESS WRITTEN APPROVAL FROM THE CITY AND GOVERNING AUTHORITIES IS GRANTED.
11. THE PROJECT DRAWINGS ARE GENERALLY DIAGRAMMATIC IN INDICATING THE PRESENCE OF EXISTING UNDERGROUND UTILITIES. INFORMATION ON EXISTING UTILITIES HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL RECORD MAPS AND IS NOT GUARANTEED TO BE COMPLETE OR CORRECT. IT IS THE CONTRACTOR'S COMPLETE RESPONSIBILITY TO VERIFY THE PRESENCE AND LOCATION OF ALL UTILITIES AND SERVICES. WHEN THE UTILITIES ARE TO BE LEFT IN PLACE, THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING THE EXCAVATION AND BACKFILLING OPERATIONS.
12. PRIOR TO DEMOLITION OR CONSTRUCTION THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 1-800-962-7962 AT LEAST 72 HOURS BEFORE COMMENCEMENT OF WORK TO VERIFY ALL UTILITY LOCATIONS. CONTRACTOR SHALL NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS.
13. IF ANY UNCHARTED OR INCORRECTLY CHARTED EXISTING PIPING OR OTHER UTILITY IS UNCOVERED DURING EXCAVATION, THE CONTRACTOR SHALL CONSULT THE SITE ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH THE WORK.
14. STORAGE OF FLAMMABLE AND HAZARDOUS MATERIALS SHALL BE IN COMPLIANCE WITH THE NYS FIRE AND BUILDING CODE.
15. CONTRACTOR TO PROVIDE SITE ENGINEER WITH SUBMITTALS. ONCE APPROVED, COPIES WILL BE SUPPLIED TO CITY ENGINEER AND APPROPRIATE CITY DEPARTMENTS.

STANDARD FIRE DEPARTMENT NOTES

1. FIRE HYDRANTS ARE TO BE INSTALLED, FLOW TESTED AND APPROVED BY BOTH CITY WATER DEPARTMENT AND APPROPRIATE FD PRIOR TO ANY COMBUSTIBLES BEING BROUGHT ONTO THE CONSTRUCTION SITE. HYDRANT LOCATIONS TO BE APPROVED BY FD. ALL HYDRANTS TO HAVE SNOW FLAGS AND NFPA COLOR BANDING SHOWING DEMONSTRATED FLOW CAPABILITIES. FLOW DATA FOR NEW AND EXISTING WATER MAINS TO BE PROVIDED TO CITY FIRE INSPECTOR AND FD.
2. ALL STREET NAMES AND BUILDING NUMBERING AS REQUIRED BY DUTCHESS COUNTY LAW. STREET SIGNS TO BE INSTALLED PRIOR TO ANY BUILDING CONSTRUCTION. APPROVED STREET NAMES TO BE SHOWN ON FINAL (SIGNED) SITE PLAN.
3. THE NAME OF THE FIRE DISTRICT IN WHICH THE PROJECT IS LOCATED SHALL BE PROMINENTLY DISPLAYED ON THE MAP. FOR PROPERTIES BISECTED BY OR ADJACENT TO A FIRE DISTRICT BOUNDARY, THE LOCATION OF THE BOUNDARY SHALL BE DEPICTED ON THE PLAN WITH THE PROPER NAMES OF THE FIRE DISTRICTS SHOWN ALONG THE BOUNDARY LINE.
4. ALL FIRE PROTECTION SYSTEMS AND NOTIFICATION DEVICES TO BE DESIGNED, INSTALLED, TESTED AND MAINTAINED ACCORDING TO NYS CODE AND/OR THE APPROPRIATE NFPA STANDARD.
5. FIRE SPRINKLER AND/OR STANDPIPE SYSTEMS, FDC DESIGN, AND FIRE DETECTION SYSTEM DESIGNS ARE TO BE REVIEWED IN ADVANCE AND SIGNED OFF BY THE APPROPRIATE FD. FDC LOCATIONS TO BE SHOWN ON SITE PLAN AND APPROVED BY FD. FDC SIGNAGE DESIGN, WORDING AND INSTALLATION LOCATION AS APPROVED BY FD.
6. AN EMERGENCY APPARATUS/TRUCK MOVEMENT PLAN SHALL BE DEPICTED ON THE PROPOSED PLAN, USING APPARATUS SPECIFICATIONS PROVIDED BY THE FD.
7. ON ANY BUILDING WITH AN ALARM SYSTEM, OTHER THAN A SINGLE FAMILY RESIDENCE, A KNOX BOX SHALL BE OBTAINED THROUGH THE APPROPRIATE FD AND INSTALLED AT A LOCATION APPROVED BY THE FD. MASTER KEYS, ELEVATOR KEYS, AND/OR MAGNETIC SWIPE CARDS FOR ALL DOORS SHALL BE PROVIDED. TWO OR MORE COMPLETE SETS OF KEYS, OR AS APPROVED BY THE FD, SHALL BE PROVIDED FOR INSTALLATION IN THE BOX. THE KEY BOX SHALL BE OF SUFFICIENT SIZE TO ACCOMMODATE ALL OF THE REQUIRED KEYS. KNOX PADLOCKS, OR AN APPROVED ALTERNATIVE SHALL BE PROVIDED FOR FD ACCESS WHEN CONSTRUCTION GATES ARE IN PLACE.
8. ON ANY BUILDING WITH A FIRE ALARM SYSTEM, OTHER THAN A SINGLE FAMILY RESIDENCE, AN EXTERIOR STROBE LIGHT, CONNECTED TO THE FIRE ALARM SYSTEM SHALL BE INSTALLED AT A LOCATION APPROVED BY THE FIRE DEPARTMENT. A MECHANICAL WATER GONG, OR 110V. ELECTRONIC WATER FLOW BELL TO BE INSTALLED ON ALL SPRINKLER SYSTEMS, INDEPENDENT OF THE FIRE ALARM SYSTEM. LOCATION OF BELL TO BE NEAR FDC, OR AS OTHERWISE APPROVED BY FD.
9. ZONE MAPS TO BE INSTALLED ADJACENT TO ALL FIRE ALARM SYSTEM ENUNCIATOR PANELS. PROPOSED DISPLAY MESSAGES FOR ENUNCIATOR PANELS TO BE APPROVED IN ADVANCE BY THE APPROPRIATE FD.
10. ONE OR MORE SETS OF FIRE ALARM SYSTEM DESIGN DRAWINGS TO BE MAINTAINED AND KEPT AT THE ALARM PANEL. DRAWINGS TO SHOW ALL ALARM SYSTEM DEVICES, PLUS ANY ROOFTOP UNITS.
11. A REPRESENTATIVE OF THE FIRE DISTRICT SHALL BE PRESENT AT ANY PRE-CONSTRUCTION MEETINGS, AND THE FIRE DISTRICT SHALL BE PROVIDED NO LESS THAN 48 HOURS NOTICE OF ANY PERIODIC MEETINGS AND INSPECTIONS, INCLUDING ANY TESTING OF FIRE SAFETY DEVICES AND HYDRANTS.
12. ANY SPECIAL REQUIREMENTS AND FIELD CHANGES AGREED TO BY THE FIRE DISTRICT THAT ARE ABOVE THE NYS BUILDING RELATED CODES OR LOCAL CITY CODE, SHALL APPEAR ON THE FINAL SITE PLAN MAP, AND APPROPRIATELY HIGHLIGHTED.
13. ALL APPARATUS ACCESS ROADS AND/OR FIRE LANES TO BE EITHER BLACKTOP, CONCRETE OR AS APPROVED BY THE APPROPRIATE FD.
14. ALL ELEVATORS TO BE OF SUFFICIENT SIZE AND CAPACITY TO ACCOMMODATE A RECURRENT PATIENT ON AN AMBULANCE STRETCHER, ATTENDED BY AN EMS CREW.
15. LIGHTWEIGHT TRUSS CONSTRUCTION SIGNAGE, AS DESCRIBED IN NYS CODE, TO BE INSTALLED FOR ALL BUILDING TYPES, EXCEPT FOR SINGLE FAMILY RESIDENCES.

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, ETC., ARE TO BE COMPACTED 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.

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 BE 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 MINIMUM OF SERVICE INTERRUPTION TO EXISTING CUSTOMERS. AT 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) TRANSCIVER 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 LIMIT OF 2" OR LESS. AN ACCEPTABLE MATERIAL SHALL MEET THE FOLLOWING REQUIREMENT:

SIEVE DESIGNATION	% PASSING
2 INCH	100
1 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 AT ALL WATER SERVICE WORK FROM THE CITY WATER CONNECTION POINT TO THE PROPOSED BUILDINGS INTERIOR CONNECTION POINT.
22. INDICATOR TAPE SHALL BE PLACED 12" BELOW FINISHED GRADE DIRECTLY ABOVE ALL WATERLINES.
23. ALL COPPER WATER SERVICE PIPING INSTALLATION, BACKFILL AND TESTING SHALL BE REVIEWED AND APPROVED BY THE CITY OF POUGHKEEPSIE WATER MAINTENANCE SUPERVISOR OR HIS DESIGNEE. BEDDING, PIPE ZONE, AND BACKFILL MATERIAL MUST BE SAND ONLY.
24. THE PIPE SUPPORTS FOR THE METER PIT SHALL BE MADE OF GALVANIZED STEEL AND SHALL BE ADJUSTABLE. THE SUPPORTS ARE TO BE PLACED ONLY BENEATH SPOOL PIECES AND NOT UNDER CRITICAL EQUIPMENT, METERS, ETC.
25. THREE AS-BUILT DRAWINGS WHICH INCLUDE VERIFICATION OF THE WATER INFRASTRUCTURE WILL BE PROVIDED TO THE PLANNING DEPARTMENT FOR DISSEMINATION TO THE ENGINEERING AND WATER DEPARTMENTS PRIOR TO ANY EASEMENT DEDICATION TO THE CITY.

CITY OF POUGHKEEPSIE SANITARY SEWER NOTES

1. FLOOR DRAINS, IF CONSTRUCTED, SHALL BE CONNECTED TO THE SANITARY SEWER. FLOOR DRAINS DO NOT INCLUDE FOUNDATION/FOOTER DRAIN. ALL DISCHARGES TO THE SANITARY SEWER SHALL COMPLY WITH THE EFFLUENT LIMITS OF THE LOCAL AND/OR DUTCHESS COUNTY SANITARY CODE.
2. DEFLECTION TESTS SHALL BE PERFORMED ON ALL FLEXIBLE PIPES. THE TESTS SHALL BE CONDUCTED AFTER FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 5 DAYS. NO PIPE SHALL EXCEED A DEFLECTION OF 5% IF THE DEFLECTION TEST IS TO BE RUN USING A RIGID BALL OR MANDREL, IT SHALL HAVE A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.
3. SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF POUGHKEEPSIE. ALL SANITARY SEWER SYSTEM COMPONENTS SHALL BE INSTALLED BY OR UNDER THE SUPERVISION OF A CITY OF POUGHKEEPSIE LICENSED PLUMBER IN ACCORDANCE WITH THE CITY PLUMBING CODE.
4. MAJOR EARTHWORK SHALL BE COMPLETED PRIOR TO INSTALLATION OF ANY SANITARY SEWER MAINS AND APPURTENANCES. AIR CONNECTING SEWER LINES SHALL BE FLUSHED BEFORE TESTED.
5. MAXIMUM ALLOWABLE INFILTRATION OR EXFILTRATION SHALL NOT EXCEED 100 GALLONS PER INCH DIAMETER PER MILE OF PIPE PER DAY FOR THE SANITARY SEWER. IF AN AIR TEST IS USED, THE TEST, AS A MINIMUM, SHALL CONFORM TO THE PROCEDURE DESCRIBED IN THE ASTM -F-1417 (1992) ENTITLED "STANDARD PRACTICE FOR INSTALLATION ACCEPTANCE OF GRAVITY SEWER LINES USING LOW PRESSURE AIR" (RE-APPROVED 1998). SANITARY MANHOLES SHALL BE VISUALLY INSPECTED AND TESTED FOR LEAKAGE BY EXFILTRATION OR VACUUM. VACUUM TESTING OF MANHOLES SHALL COMPLY WITH THE METHOD OUTLINED IN THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION TECHNICAL INFORMATION PAMPHLET (TIP) NO.15 (REVISED).
6. SANITARY SEWER MAINS ARE TO BE POLYVINYL CHLORIDE (PVC) AND SANITARY LATERALS SHALL BE PVC, SDR-35, UNLESS OTHERWISE NOTED.
7. FINAL SEWER COLLECTION SYSTEM LAYOUT IS SUBJECT TO REVIEW, REVISION AND APPROVAL BY THE CITY OF POUGHKEEPSIE SEWER DEPARTMENT.
8. ALL SANITARY PIPE AND/OR MANHOLES SHALL BE A MINIMUM OF TEN (10) HORIZONTAL FEET FROM THE WATER MAIN. SANITARY PIPE SHALL HAVE A MINIMUM 18" SEPARATION FROM ANY WATER MAIN OR WATER SERVICE LINE. IF FOR SOME REASON THIS SEPARATION CANNOT BE ACHIEVED, SANITARY SEWER PIPE IN THE AREA SHALL BE SDR-26 PRESSURE RATED PIPE (OR BE ENCASED PER THE DETAIL ON DN-1) 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 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.

EROSION AND SEDIMENT CONTROL PLAN

1. LAND DISTURBANCE WILL BE KEPT TO A MINIMUM; RESTABILIZATION WILL BE SCHEDULED AS SOON AS PRACTICABLE.
2. HAY BALE FILTERS OR 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
 - A. 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
 - A. 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.
- III. STABILIZED CONSTRUCTION ENTRANCE
 - A. STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSPECTED DAILY BY THE QUALIFIED INSPECTOR TO ENSURE THAT SEDIMENT AND DEBRIS ARE NOT BEING TRACKED ONTO ANY PUBLIC ROADWAY.

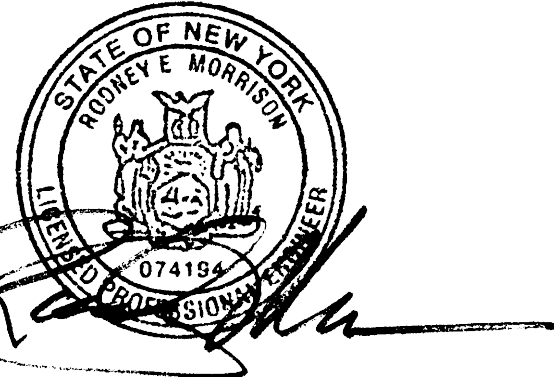
TEMPORARY VEGETATIVE STABILIZATION

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-PAYED 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.

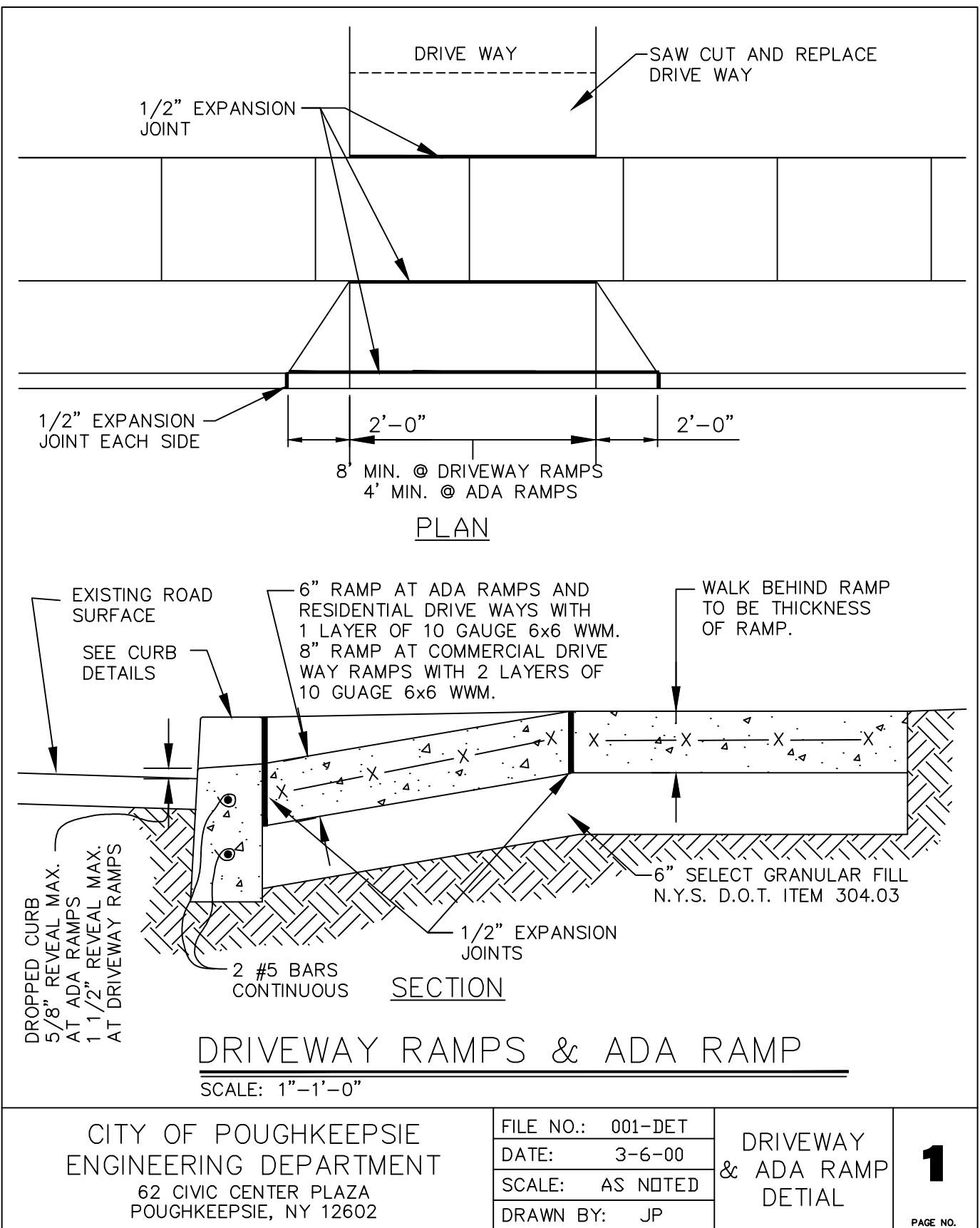
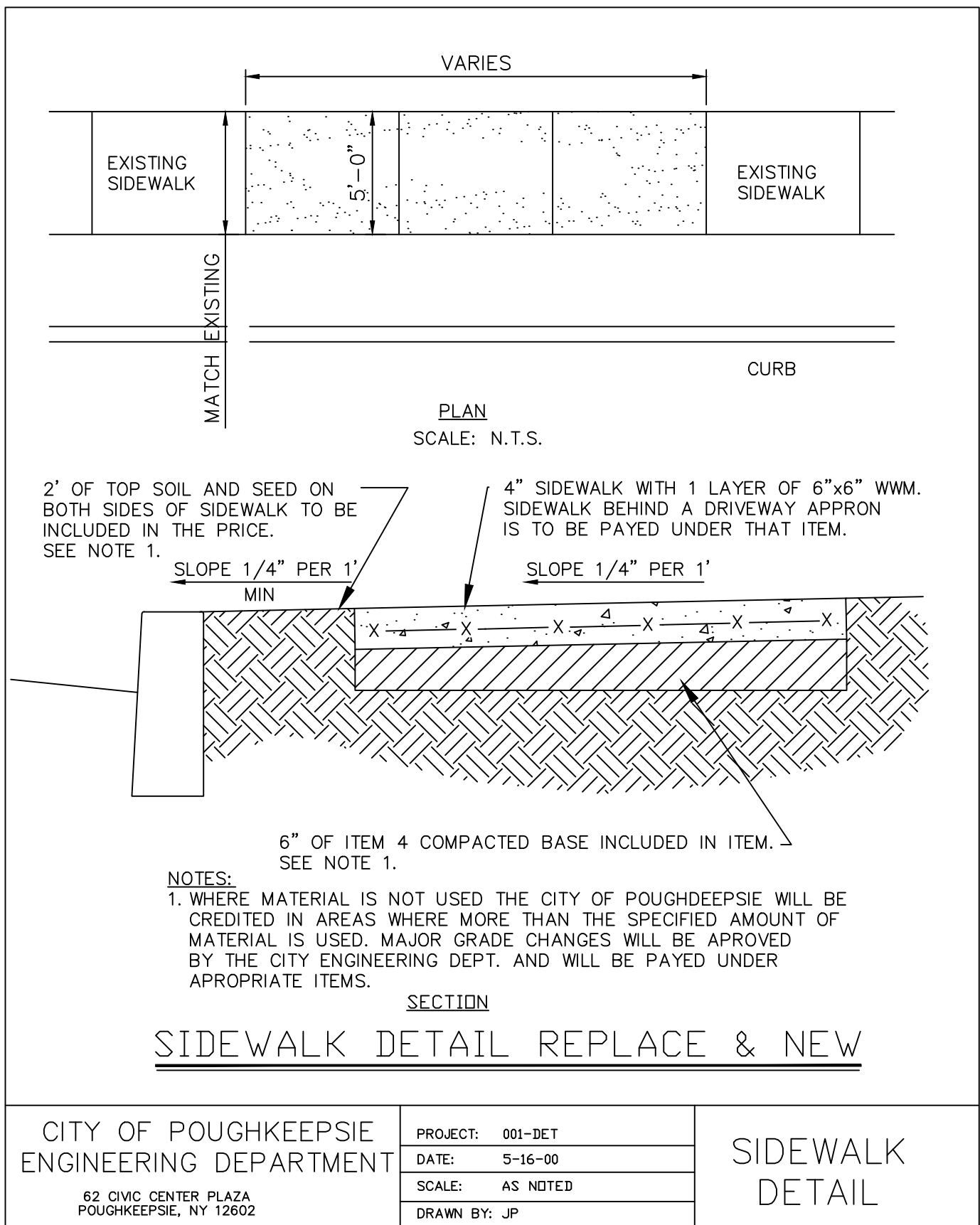
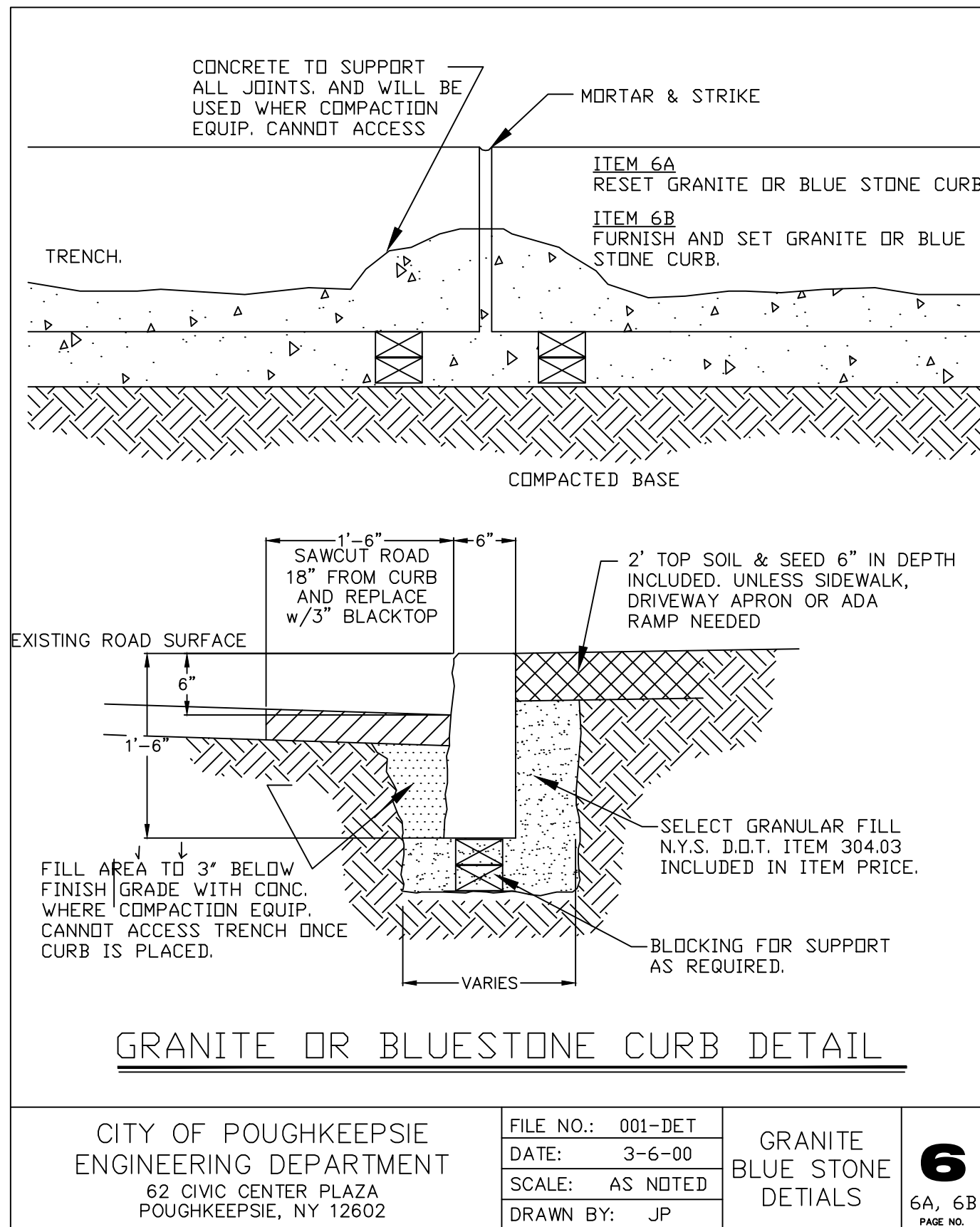
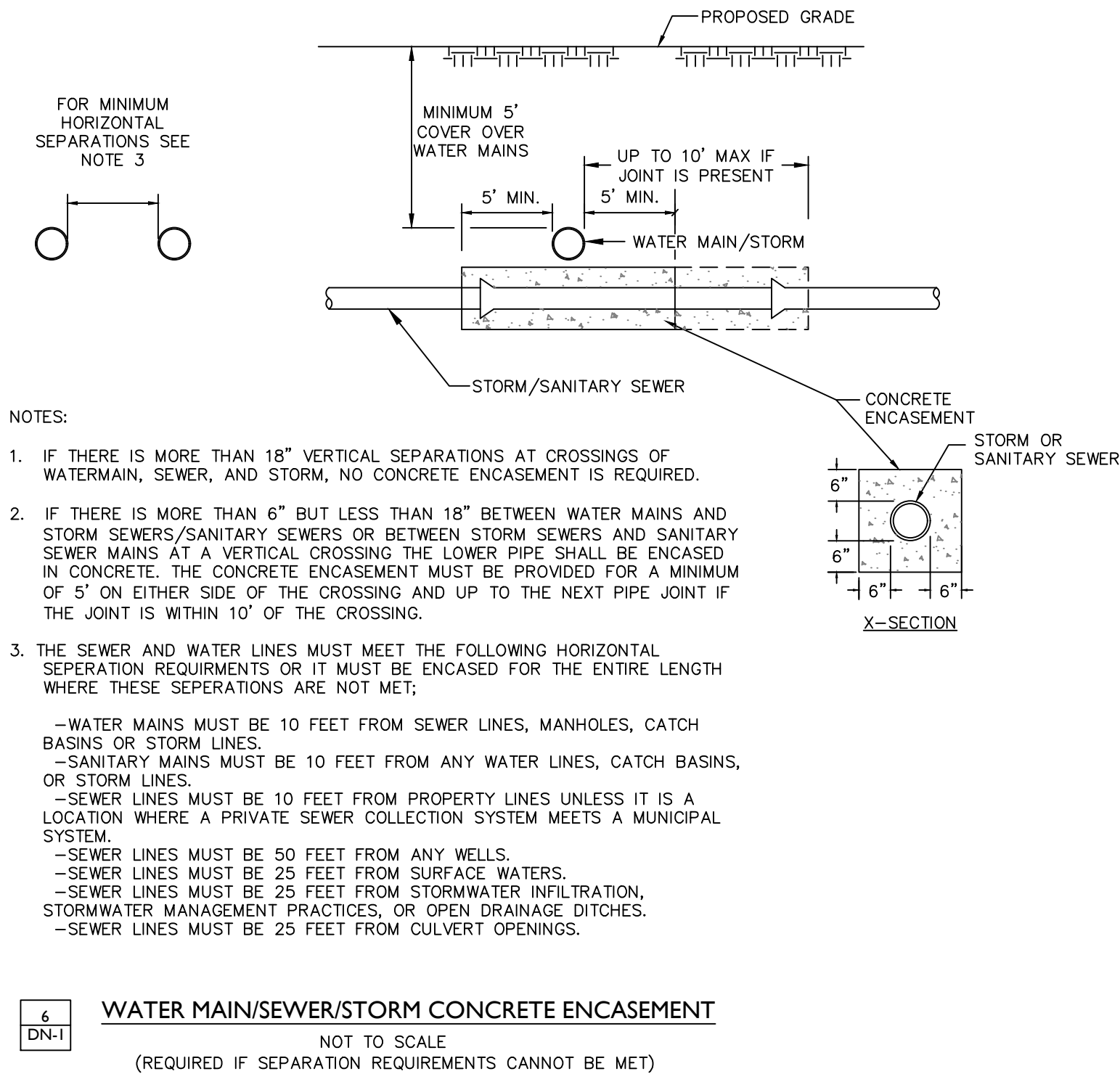
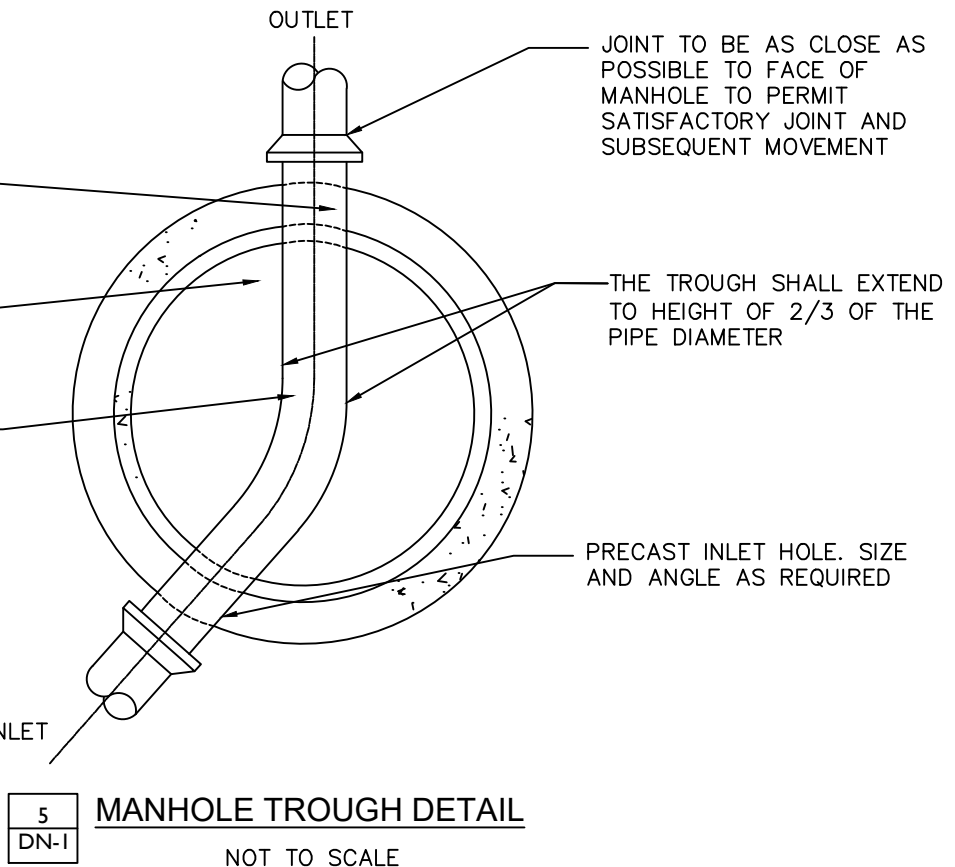
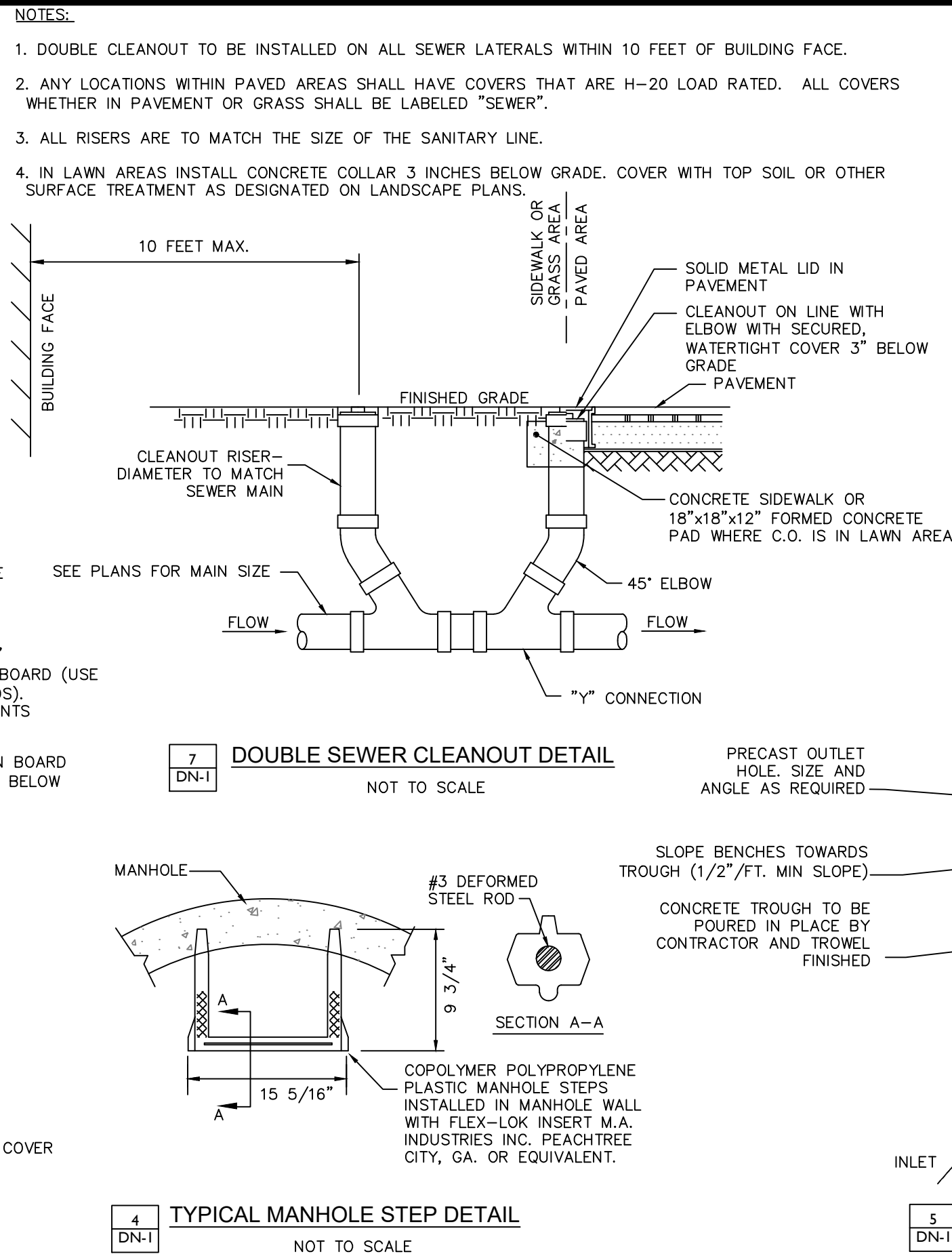
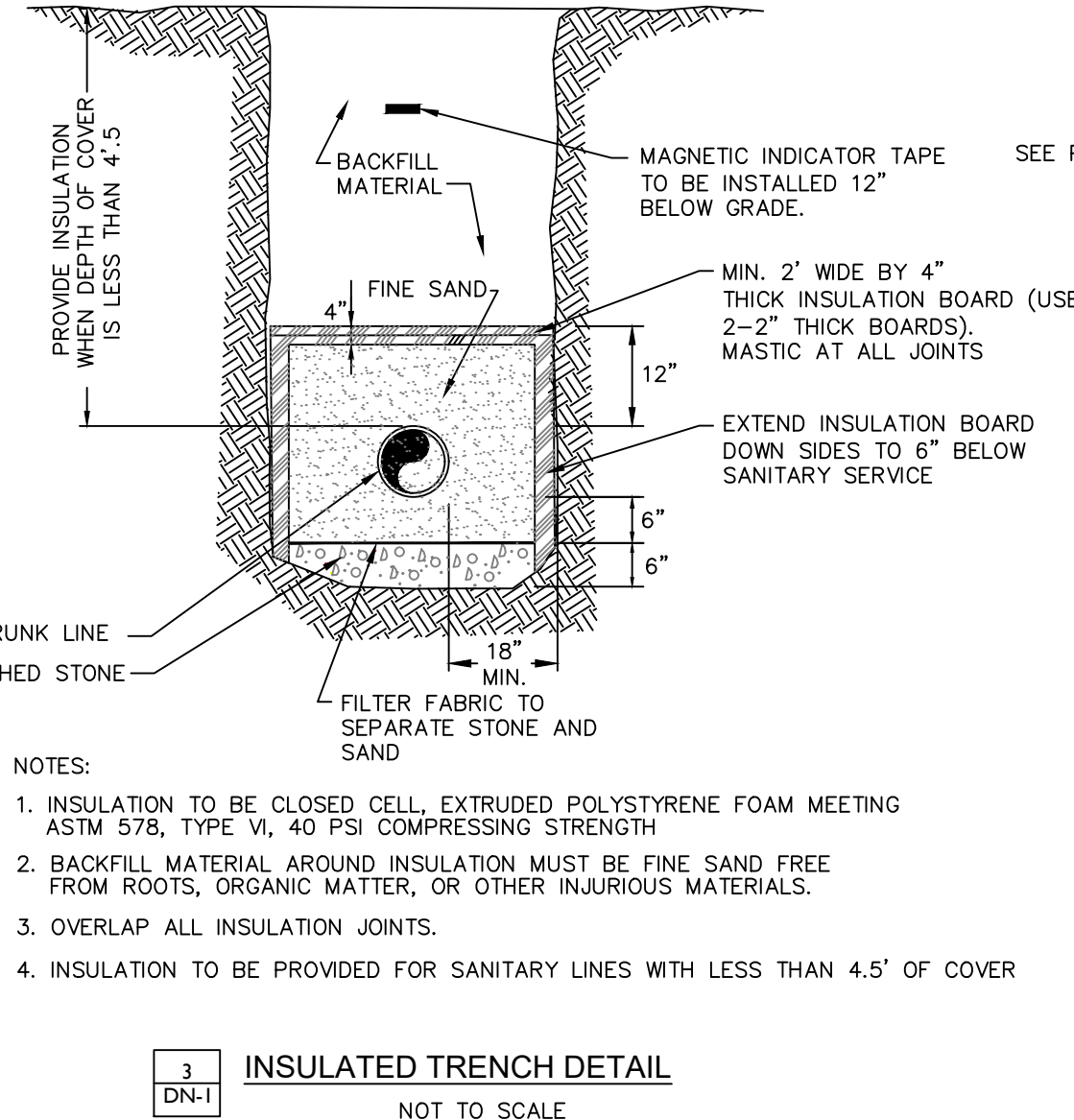
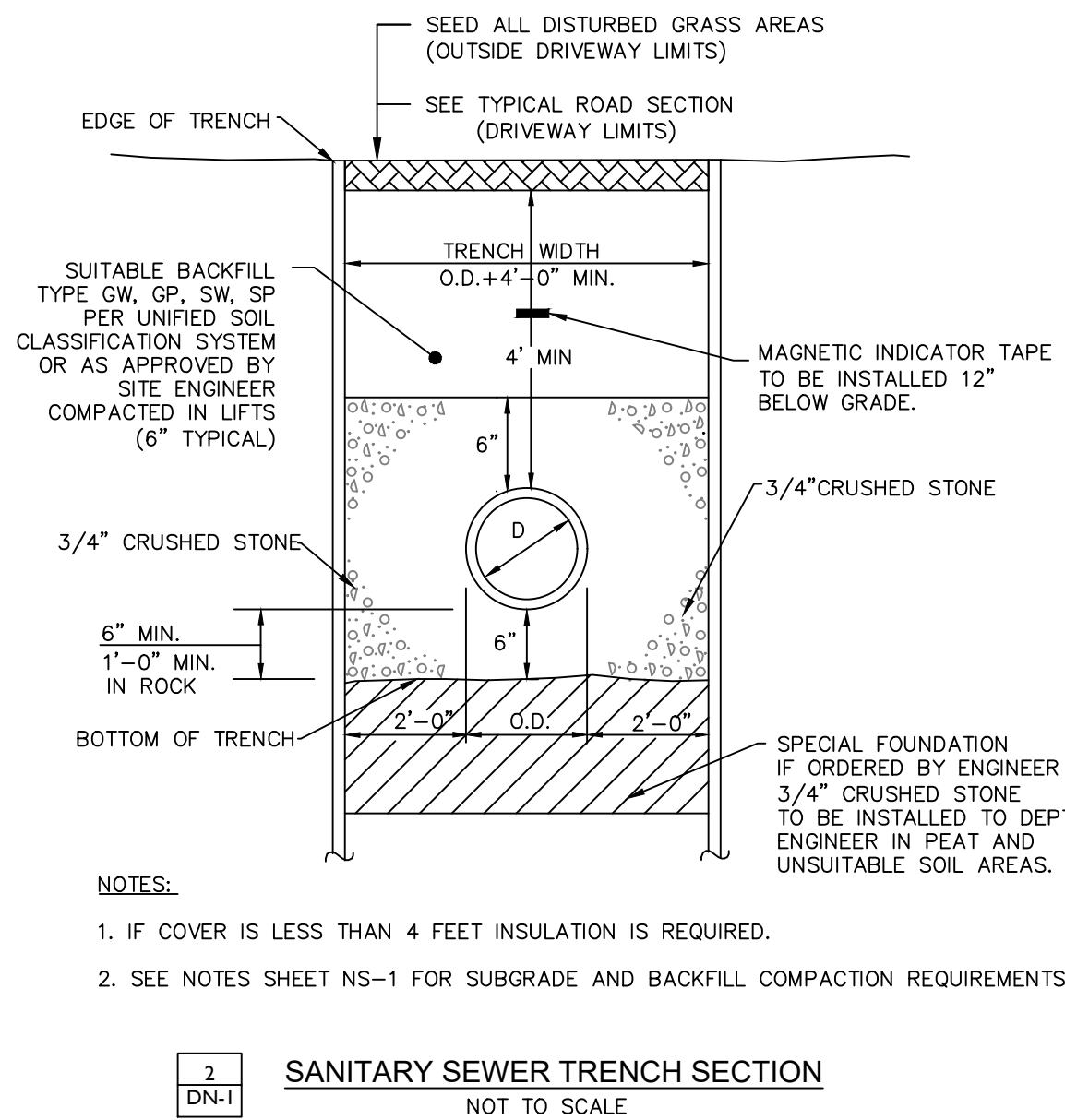
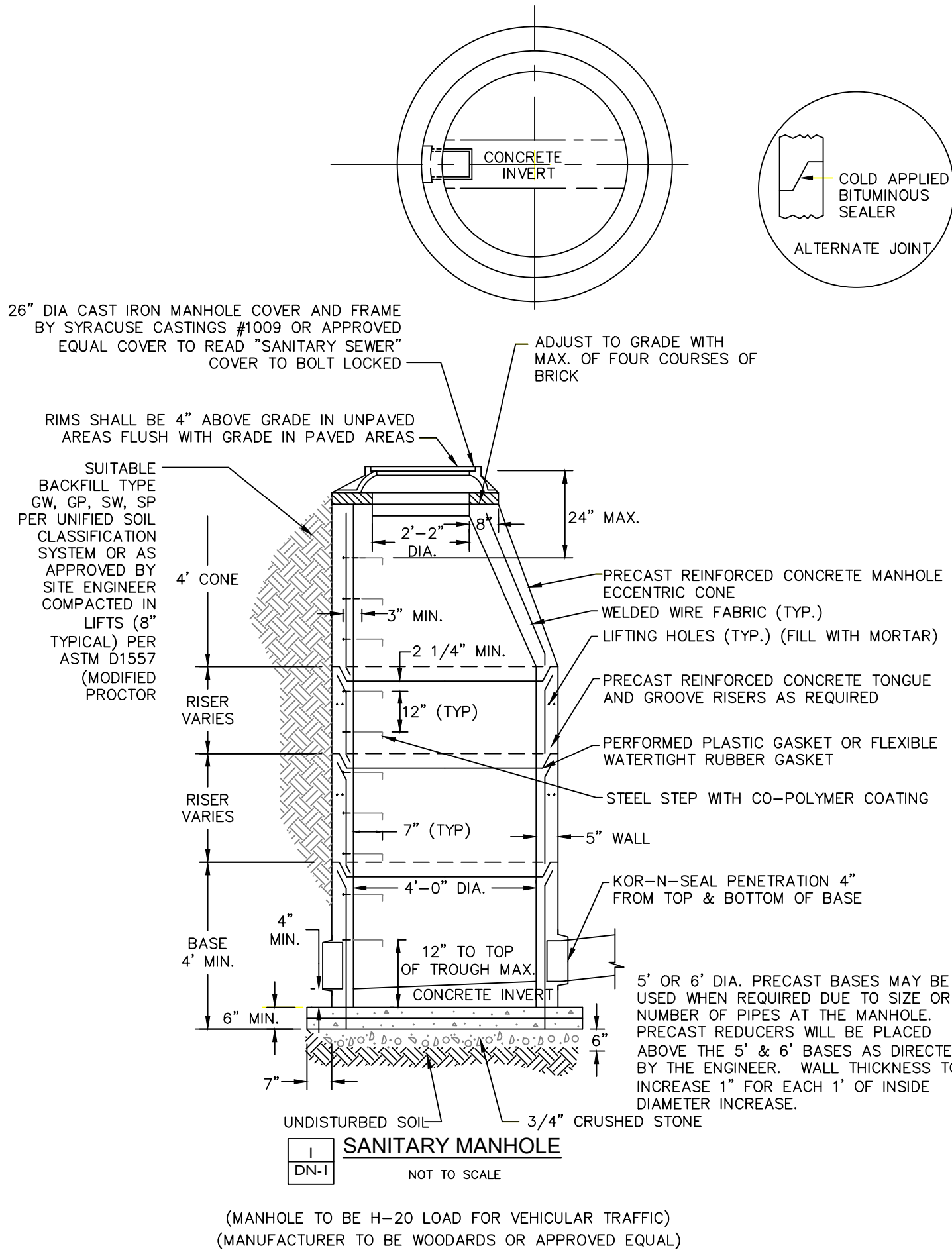
SEEDING AND MULCHING

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:

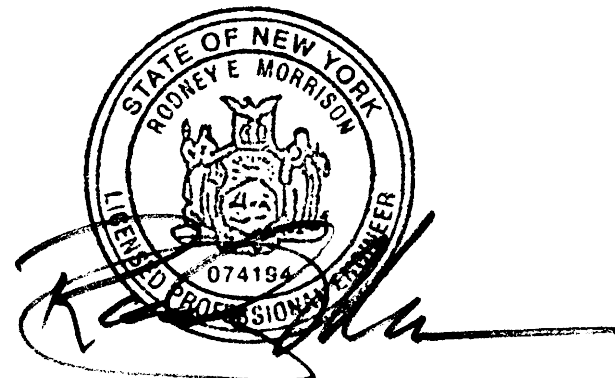
SPECIES (% by weight)	Pure Live lbs/1000SF	Seed Values lbs/acre
15% fine fescue	2.0 – 2.6	85 – 114
20% perennial ryegrass	0.6 – 0.8	26 – 35
65% kentucky bluegrass blend	0.4 – 1.6	19 – 28
	3.0 – 4.0	130 – 175



Revisions				10/26/2021 ISSUED TO PLANNING BOARD			
	4	08/29/23	SUBMIT FOR SIGNATURES				
	3	06/04/18	REVISED PER COMMENTS				
	2	03/27/18	REVISED PER COMMENTS				
	1	02/05/17	ISSUED TO PLANNING BOARD				
				 • Land Planning • Civil Engineering • Environmental Services • Land Surveying • Landscape Architecture 660 West Street, Suite 204 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 Middletown, NJ 07940 Tel: 908.603.5730 www.lrcconsult.com			
				LRC Engineering & Surveying, DPC LRC Engineering & Surveying, LLC LRC Environmental Services, Inc.			
				NOTES SHEET			
				PELTON MOUNT CARMEL			
				36 N. CLOVER STREET CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK			
Design/Calcs		LRC		CAD File		Sheet No.	
Drawn		LRC		Project No.		23-3076	
Checked		KFC		Date		08-29-2017	
Approved		REM		Scale		NONE	



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



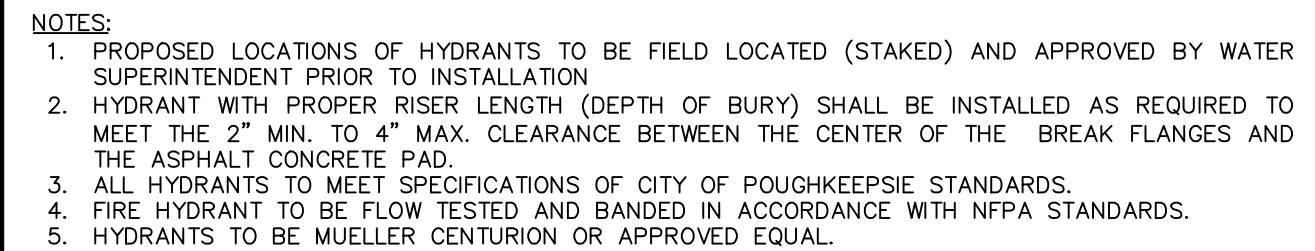
Revisions				Revisions			
1	08/29/23	SUBMIT FOR SIGNATURES		1	08/29/23	SUBMIT FOR SIGNATURES	
2	09/04/23	REVISED PER COMMENTS		2	09/04/23	REVISED PER COMMENTS	
3	03/27/24	REVISED PER COMMENTS		3	03/27/24	REVISED PER COMMENTS	
4	10/25/24	ISSUED TO PLANNING BOARD		4	10/25/24	ISSUED TO PLANNING BOARD	

LRC GROUP		LRC GROUP	
● Land Planning		● Land Planning	
● Civil Engineering		● Civil Engineering	
● Environmental Services		● Environmental Services	
● Land Surveying		● Land Surveying	
● Landscape Architecture		● Landscape Architecture	
160 West Street, Suite E		160 West Street, Suite E	
Cromwell, CT 06416		Cromwell, CT 06416	
Tel: 860.635.2877		Tel: 860.635.2877	
85 Civic Center Plaza, Suite 204		85 Civic Center Plaza, Suite 204	
Poughkeepsie, NY 12601		Poughkeepsie, NY 12601	
Tel: 845.243.2880		Tel: 845.243.2880	
1 International Blvd, Suite 400		1 International Blvd, Suite 400	
Mahwah, NJ 07495		Mahwah, NJ 07495	
Tel: 908.603.5730		Tel: 908.603.5730	
www.lrcconsult.com		www.lrcconsult.com	
LRC Engineering & Surveying, LLC		LRC Engineering & Surveying, LLC	
LRC Engineering & Surveying, LLC		LRC Engineering & Surveying, LLC	
LRC Environmental Services, Inc.		LRC Environmental Services, Inc.	

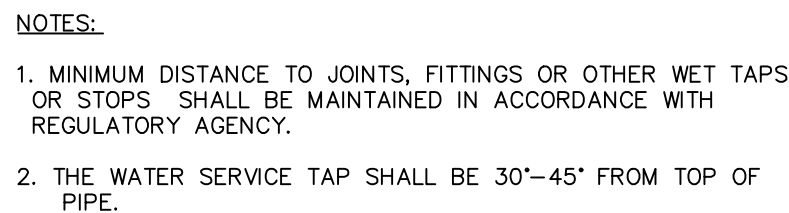
Design/Calcs		LRC	CAD File	Sheet No.
Drawn		LRC	Project No.	
Checked		KFC	Date	
Approved		REM	Scale	

SANITARY DETAILS		SANITARY DETAILS	
PELTON MOUNT CARMEL		PELTON MOUNT CARMEL	
36 N. CLOVER STREET		36 N. CLOVER STREET	
CITY OF Poughkeepsie,		CITY OF Poughkeepsie,	
DUTCHES COUNTY, NEW YORK		DUTCHES COUNTY, NEW YORK	

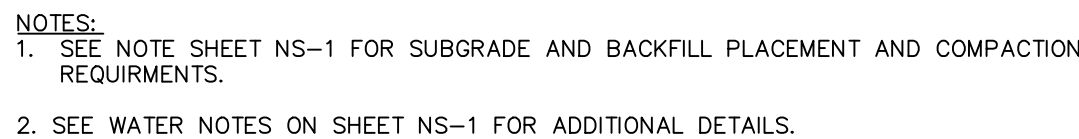
DN-1		DN-1	
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HYDRANT AND VALVE ASSEMBLY DETAIL



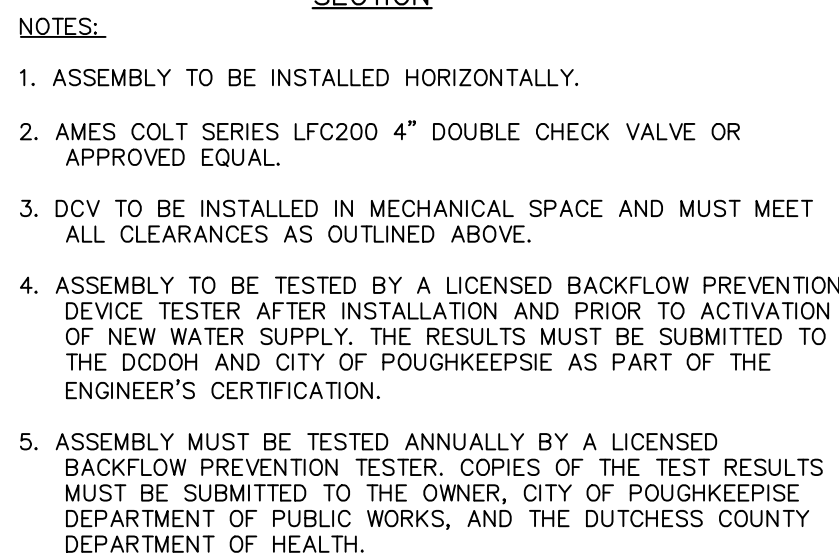
5 **WATER SERVICE DETAIL**
DN-2
 NOT TO SCALE



3
DN-2

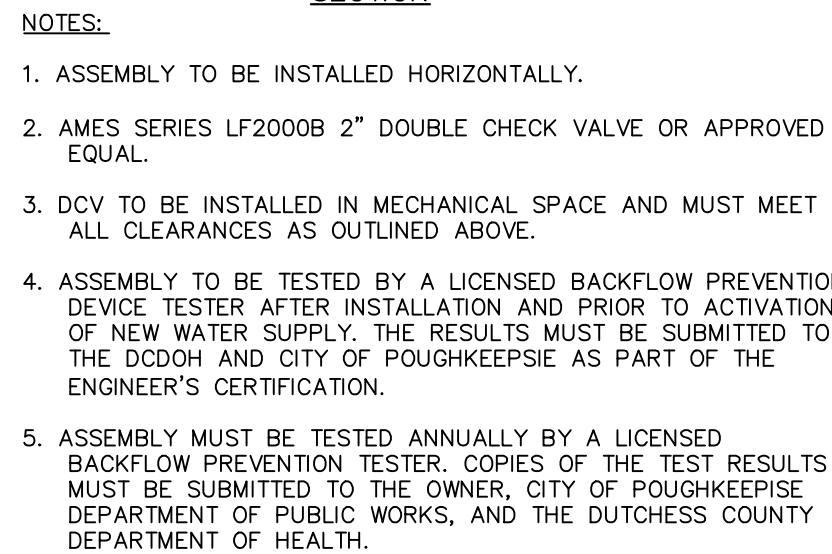
WATER MAIN TRENCH

NOT TO SCALE



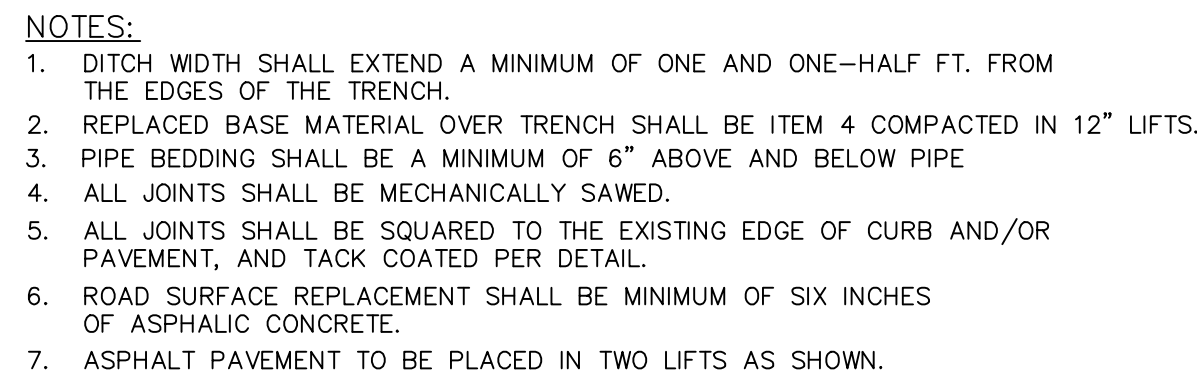
6	FIRE SUPPLY DOUBLE CHECK VALVE DETAIL
DN-2	

NOT TO SCALE



7	DOMESTIC SUPPLY DOUBLE CHECK VALVE DETAIL
DN-2	

NOT TO SCALE



CITY OF POUGHKEEPSIE
ENGINEERING DEPARTMENT
62 CIVIC CENTER PLAZA
POUGHKEEPSIE, NY 12602



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 N



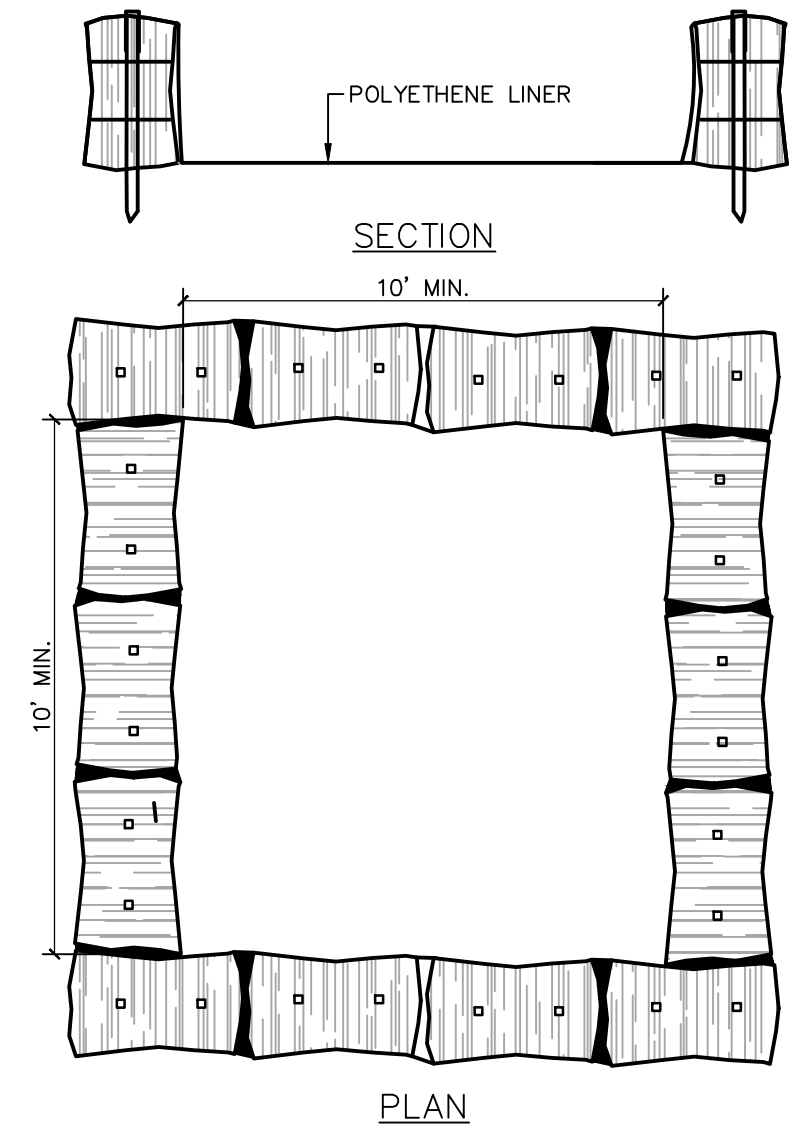
CITY OF POUGHKEEPSIE
ENGINEERING DEPARTMENT
80 WASHINGTON STREET
POUGHKEEPSIE, NY 12602

FILE NO.:	
DATE:	08-21-08
SCALE:	AS NOTED
DRAWN BY:	JTK

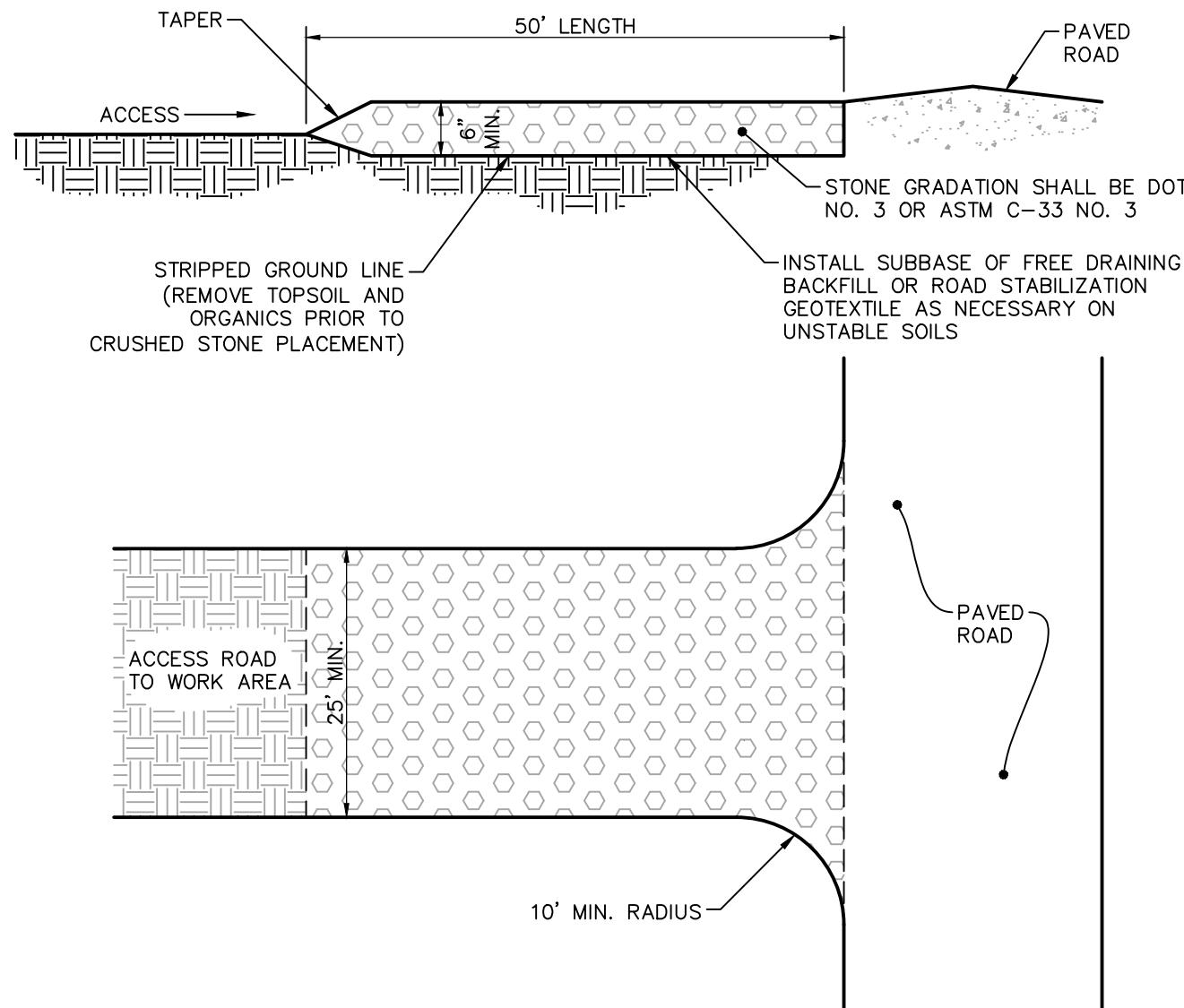
WATER
DISCONNECT
@ MAIN

1

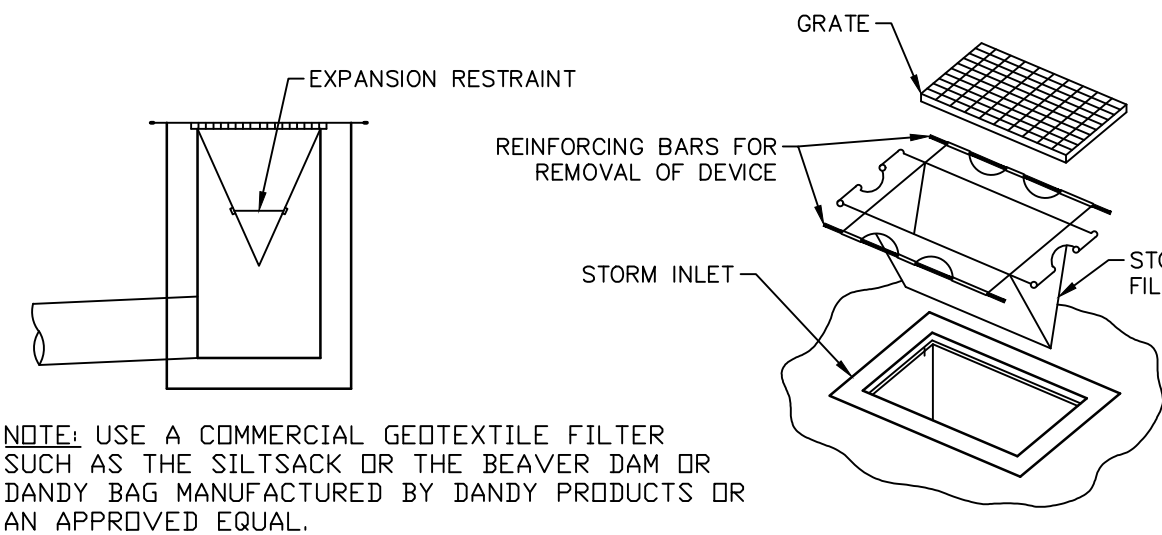
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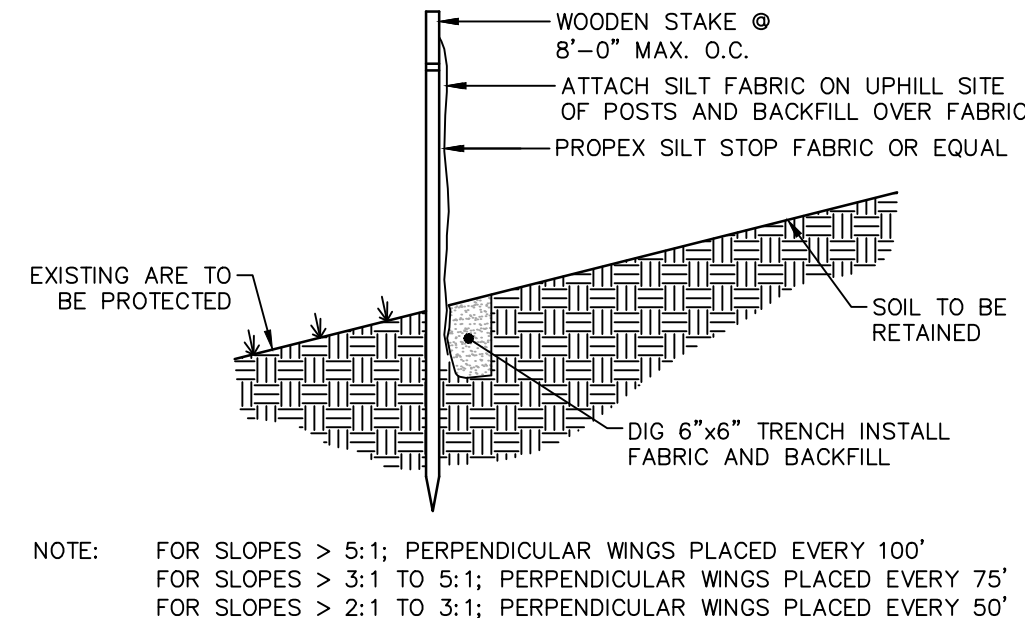
1 ABOVE GROUND TEMPORARY CONCRETE WASHOUT DETAIL
SCALE: 1/4"=1'-0"



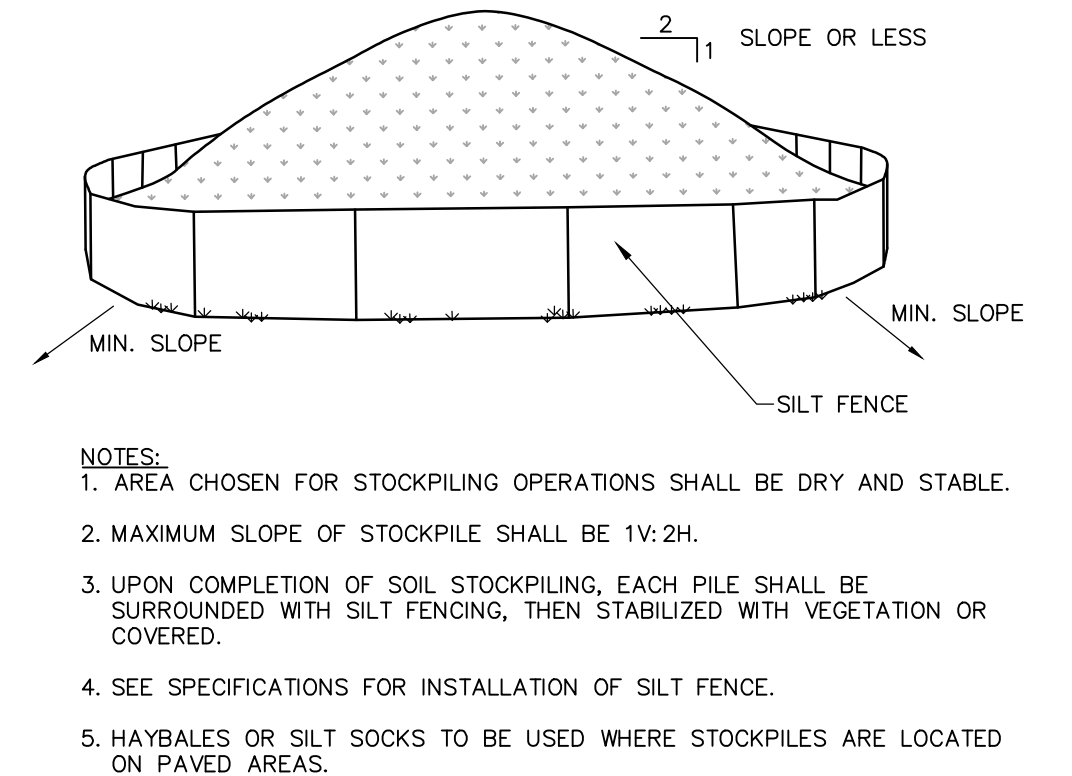
2 CONSTRUCTION ENTRANCE DETAIL
SCALE: 1/16" = 1'-0"



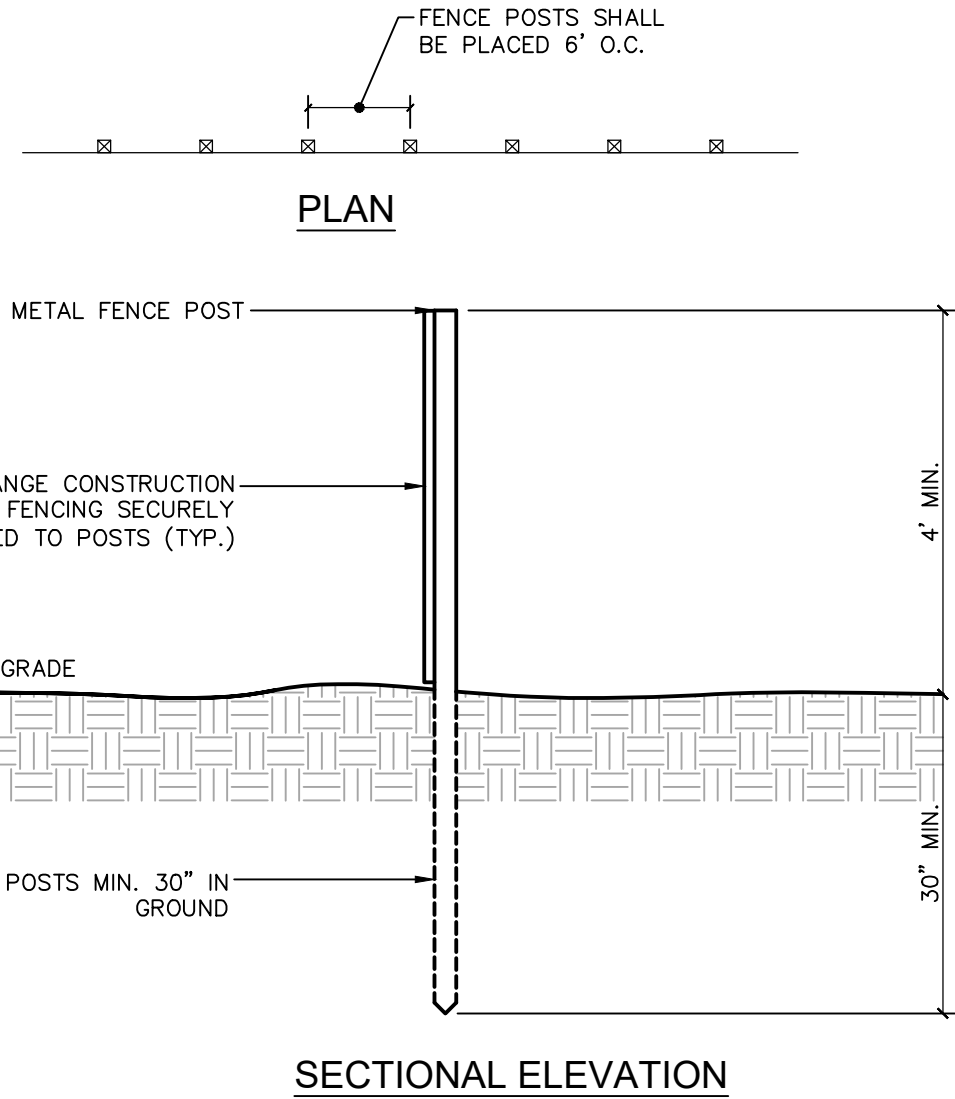
3 SILT SACK DETAIL
SCALE: N.T.S.



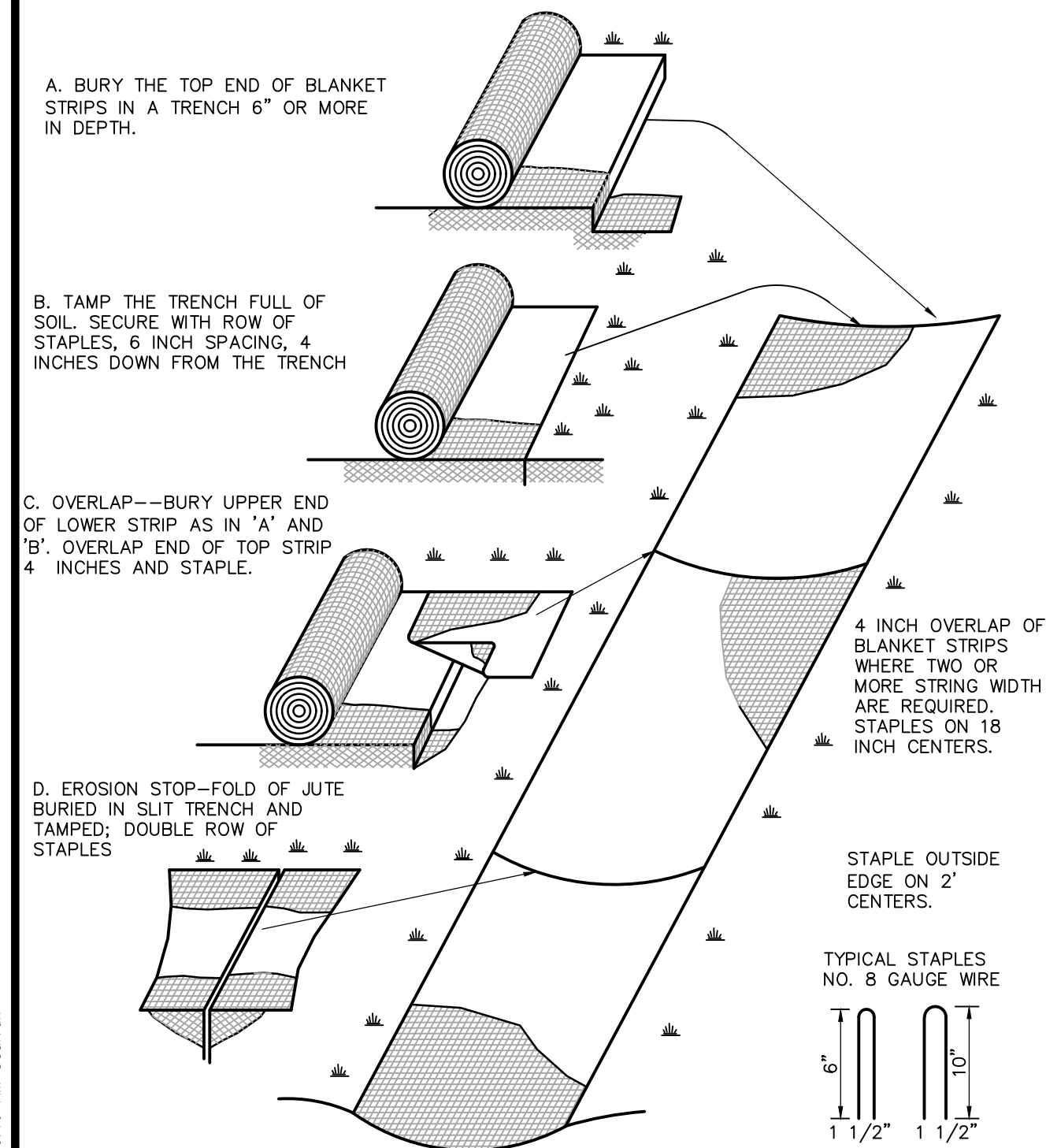
4 SILT FENCE DETAIL
SCALE: N.T.S.



5 MATERIALS STOCKPILE DETAIL
SCALE: N.T.S.



6 EROSION CONTROL BLANKET DETAIL
SCALE: N.T.S.

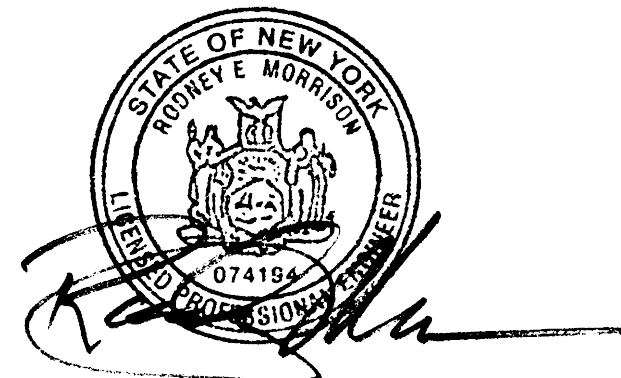


7 ORANGE CONSTRUCTION FENCE DETAIL
SCALE: 1/2" = 1'-0"

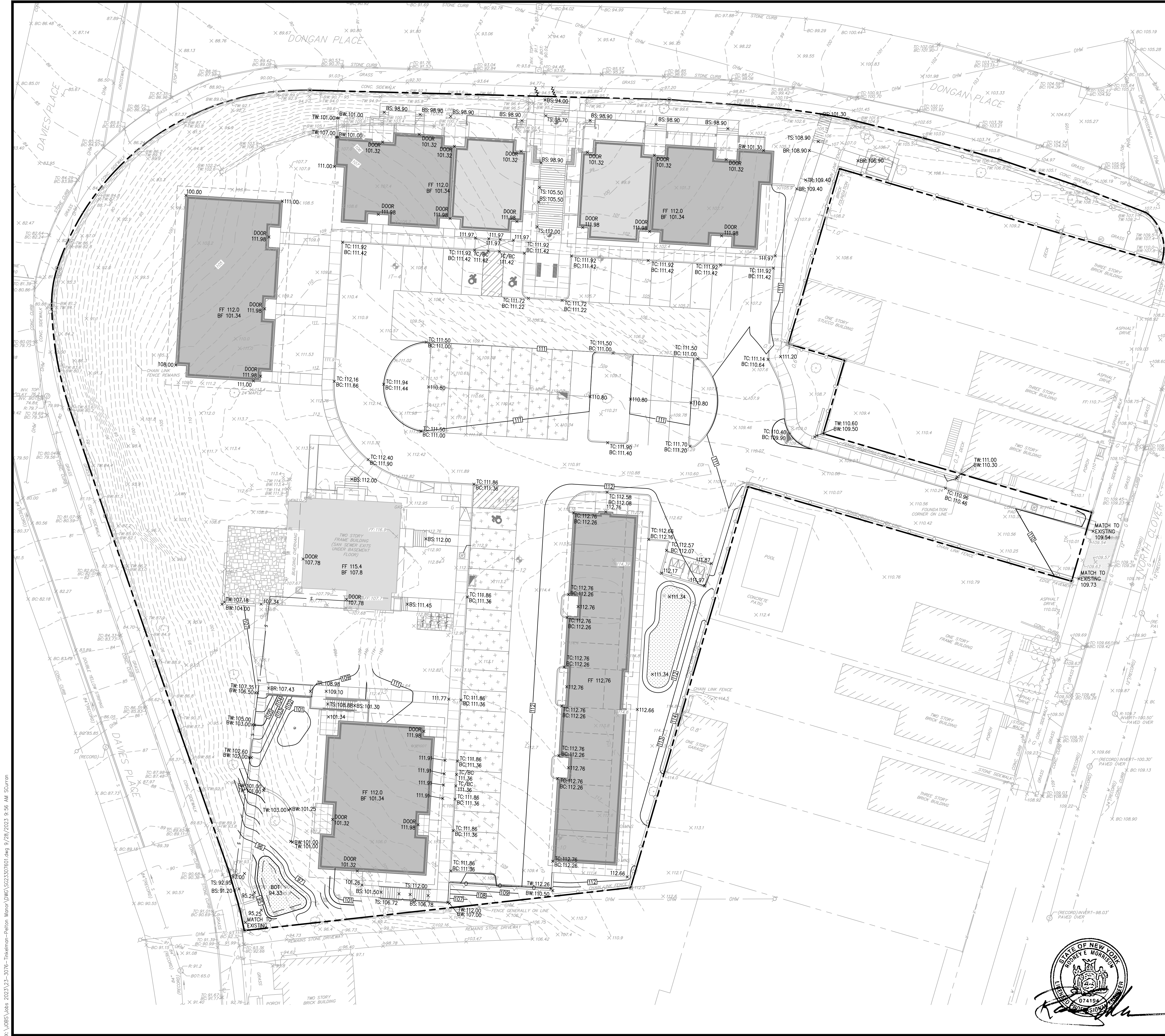
- NOTES:
1. BLANKET IS TO BE INSTALLED ON ANY FINISHED SLOPES THAT ARE 4:1 OR GREATER.
 2. 4:1 SLOPES OR STEEPER WHERE INDICATED ON THE CONTRACT DRAWINGS:

EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN SC 150 OR SHALL BE A GREEN, WOOD FIBER MAT CONSTRUCTED FROM 100% ASPEN CURLED FIBERS WITH A GREEN PHOTO-DEGRADABLE NETTING APPLIED TO ONE SIDE. EROSION CONTROL BLANKET TO BE AS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY, ARLINGTON, TX, "QUICK GRASS" OR APPROVED EQUAL.

6 EROSION CONTROL BLANKET DETAIL
SCALE: N.T.S.



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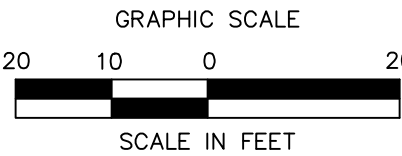
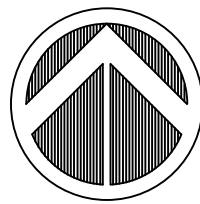


GRADING AND DRAINAGE NOTES

1. ANY DEMOLISHED OR CLEARED MATERIALS MUST BE REMOVED AND DISPOSED OF OFF SITE. ANY BURNING ON SITE SHALL BE SUBJECT TO LOCAL ORDINANCES. THESE INCLUDE ANY OBJECTS NOTED ON THE PLANS, INCLUDING BUT NOT LIMITED TO, TREES, STUMPS, FENCES, WALLS, ETC.
2. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES, HAVING UNDERGROUND UTILITIES ON SITE OR IN THE RIGHT-OF-WAY PRIOR TO EXCAVATION. ALL UTILITIES MUST BE LOCATED AND MARKED OUT PRIOR TO THE START OF ANY SITE GRADING.
3. SITE GRADING SHALL NOT PROCEED UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND INSPECTED.
4. CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION

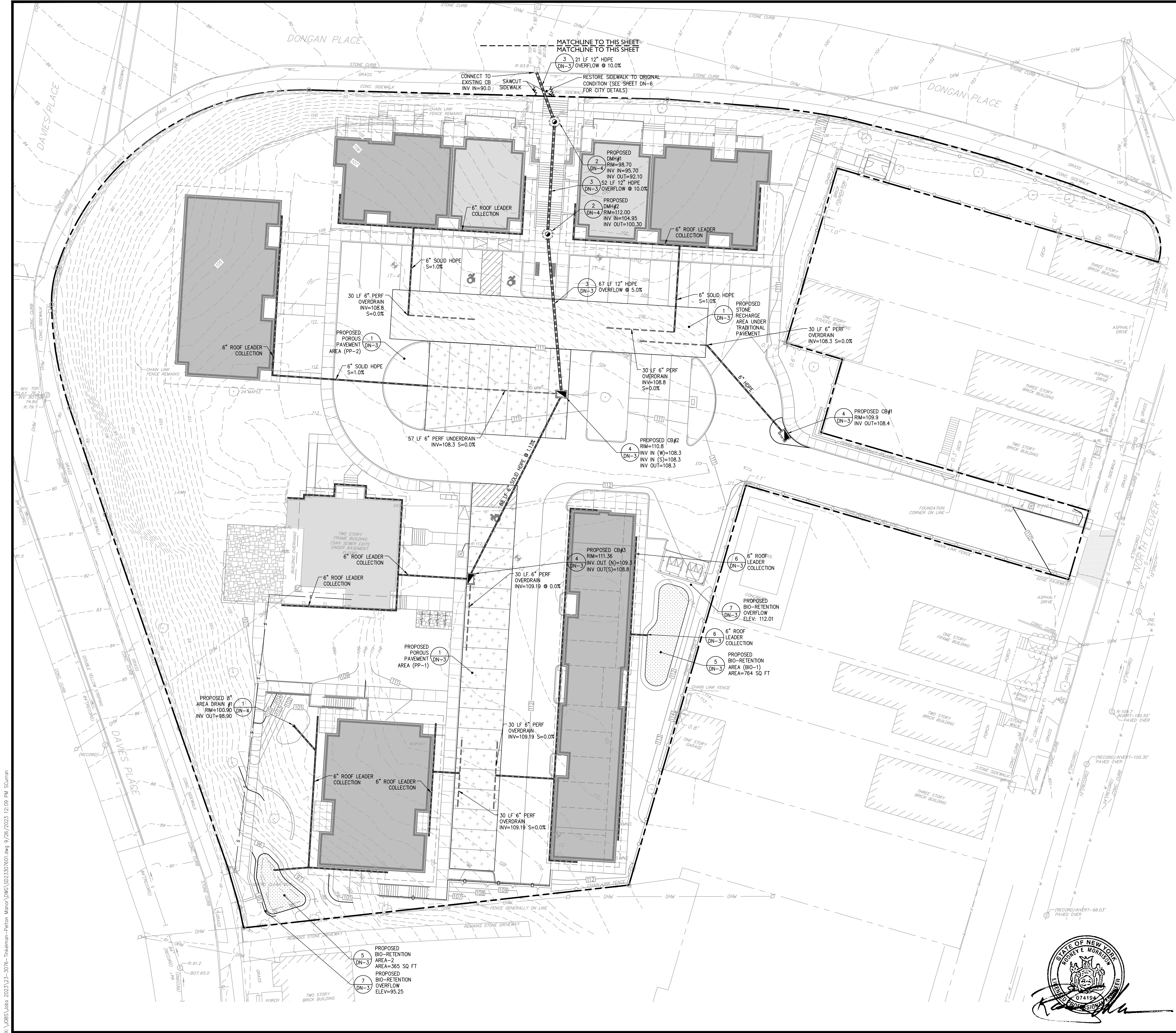
LEGEND

---	PROPERTY LINE
- - - -	EXISTING MAJOR CONTOUR
- - - -	EXISTING MINOR CONTOUR
x162.25	EXISTING SPOT GRADE
x163.25	PROPOSED SPOT GRADE
- - - -	PROPOSED MAJOR CONTOUR LINE
- - - -	PROPOSED MINOR CONTOUR LINE
- - - -	PROPOSED STORM LINE
- - - -	EXISTING STORM LINE
- - - -	PROPOSED YARD DRAIN
- - - -	PROPOSED INLINE DRAIN
- - - -	EXISTING YARD DRAIN
- - - -	EXISTING CURB CATCH BASIN
- - - -	EXISTING CURBLESS CATCH BASIN
- - - -	PROPOSED CATCH BASIN
- - - -	PROPOSED ROOF LEADER
- - - -	EXISTING STORM MANHOLE
- - - -	PROPOSED STORM MANHOLE



10/03/23 SUBMIT FOR SIGNATURES		LRC GROUP		SITE GRADING	
08/29/23 SUBMIT FOR SIGNATURES				PELTON MOUNT CARMEL	
06/04/18 REVISED PER COMMENTS				36 N. CLOVER STREET CITY OF POUGHKEEPSIE, DUTCH COUNTY, NEW YORK	
03/27/18 REVISED PER COMMENTS					
10/25/17 ISSUED TO PLANNING BOARD					
Revisions		LRC Engineering & Surveying, LLC 1 International Blvd, Suite 400 Malwa, NJ 07095 Tel: 845.243.2880 www.lrcconsult.com		Design/Colors LRC Drawn LRC Checked KFC Approved REM	
		LRC Engineering & Surveying, LLC 160 West Street, Suite E Cromwell, CT 06416 Tel: 860.635.2877 www.lrcconsult.com		CAD File SG23307601.dwg Project No. 23-3076 Date 08-29-2017 Scale 1"=20'	
		Sheet No.		SG-I	

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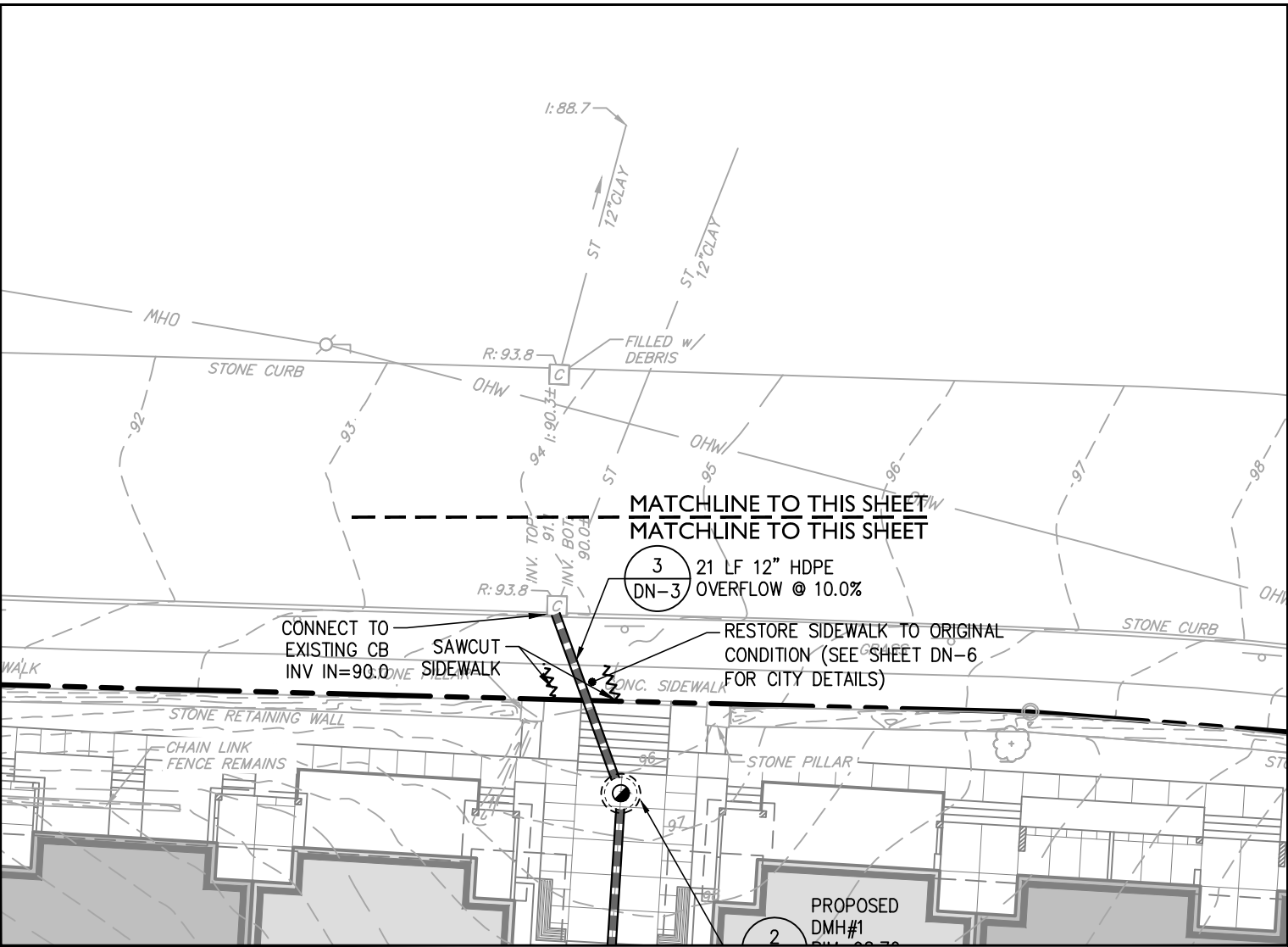


GRADING AND DRAINAGE NOTES

1. ANY DEMOLISHED OR CLEARED MATERIALS MUST BE REMOVED AND DISPOSED OF OFF SITE. ANY BURNING ON SITE SHALL BE SUBJECT TO LOCAL ORDINANCES. THESE INCLUDE ANY OBJECTS NOTED ON THE PLANS, INCLUDING BUT NOT LIMITED TO, TREES, STUMPS, FENCES, WALLS, ETC.
2. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES HAVING UNDERGROUND UTILITIES ON SITE OR IN THE RIGHT-OF-WAY PRIOR TO EXCAVATION. ALL UTILITIES MUST BE LOCATED AND MARKED OUT PRIOR TO THE START OF ANY SITE GRADING.
3. SITE GRADING SHALL NOT PROCEED UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED AND INSPECTED.
4. CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO THE START OF ANY CONSTRUCTION

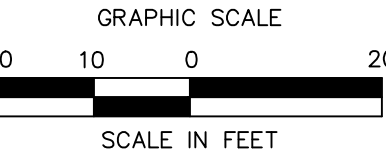
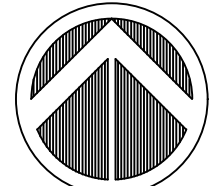
LEGEND

---	PROPERTY LINE
---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	EXISTING SPOT GRADE
---	PROPOSED SPOT GRADE
---	PROPOSED MAJOR CONTOUR LINE
---	PROPOSED MINOR CONTOUR LINE
---	PROPOSED STORM LINE
---	EXISTING STORM LINE
---	PROPOSED YARD DRAIN
---	PROPOSED INLINE DRAIN
---	EXISTING YARD DRAIN
---	EXISTING CURB CATCH BASIN
---	EXISTING CURBLESS CATCH BASIN
---	PROPOSED CATCH BASIN
---	PROPOSED ROOF LEADER
---	EXISTING STORM MANHOLE
---	PROPOSED STORM MANHOLE
---	PROPOSED STONE RECHARGE AREA
---	PROPOSED POROUS PAVEMENT



DRAINAGE CONNECTION AREA

SCALE: 1"=20'



SITE DRAINAGE			
PELTON MOUNT CARMEL			
36 N. CLOVER STREET CITY OF PoughKEEPSIE, DUTCHES COUNTY, NEW YORK			
Design/Calcs	LRC	CAD File	SD23307601.dwg
Drawn	LRC	Project No.	23-3076
Checked	KFC	Date	08-29-2017
Approved	REM	Scale	1"=20'

10/03/23 SUBMIT FOR SIGNATURES

08/29/23 SUBMIT FOR SIGNATURES

06/04/18 REVISED PER COMMENTS

03/27/18 REVISED PER COMMENTS

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• Land Surveying

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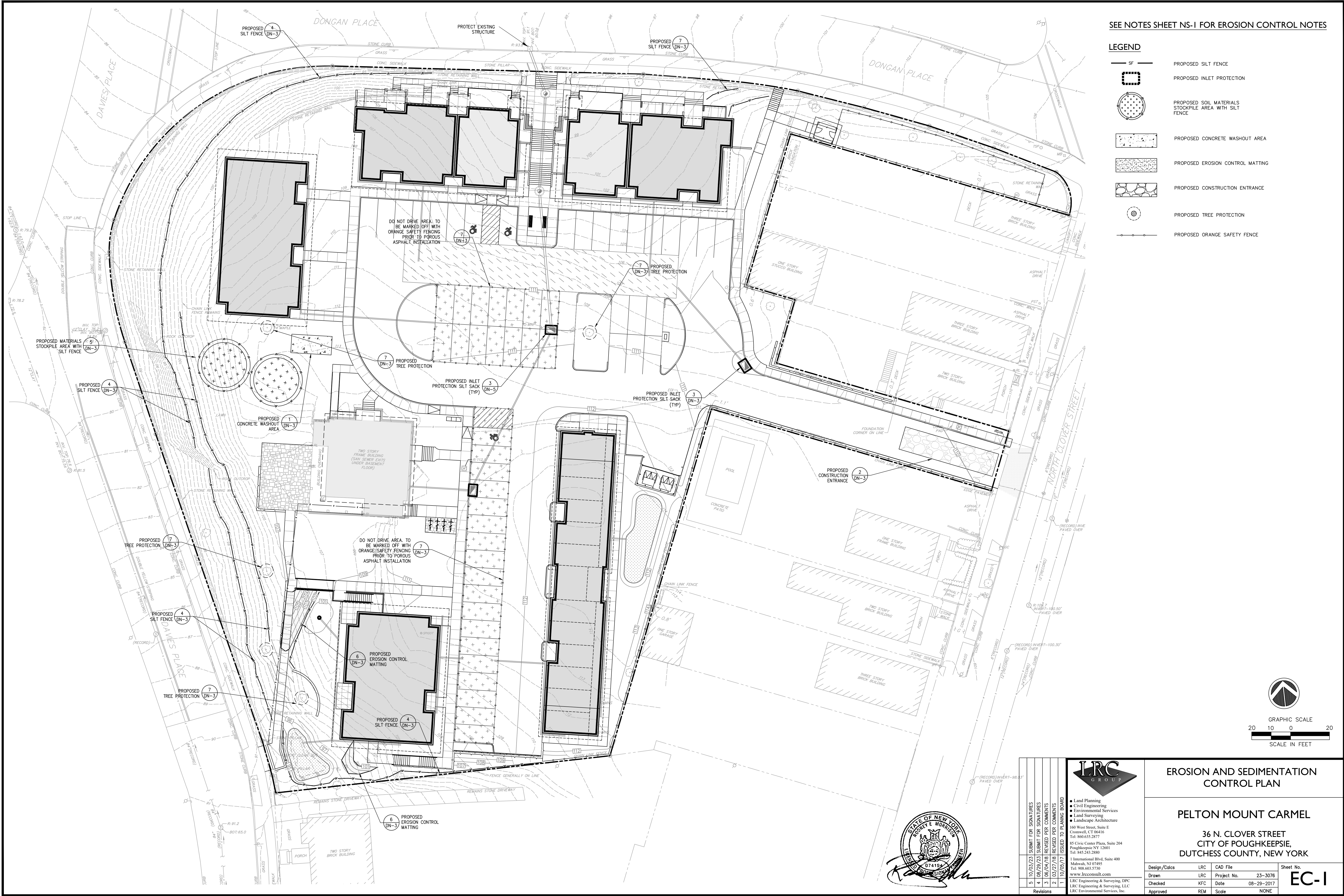
LRC Engineering & Surveying, LLC
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SD-I

Sheet No.



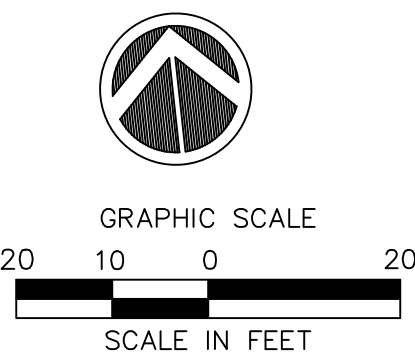
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SEE NOTES SHEET NS-1 FOR EROSION CONTROL NOTES

LEGEND

- PROPOSED SILT FENCE
- PROPOSED INLET PROTECTION
- PROPOSED SOIL MATERIALS STOCKPILE AREA WITH SILT FENCE
- PROPOSED CONCRETE WASHOUT AREA
- PROPOSED EROSION CONTROL MATTING
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED TREE PROTECTION
- PROPOSED ORANGE SAFETY FENCE



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5

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03/27/18 REVISED PER COMMENTS

1

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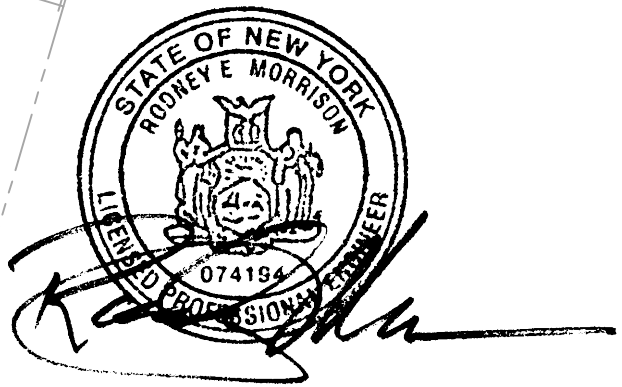
EROSION AND SEDIMENTATION CONTROL PLAN

PELTON MOUNT CARMEL

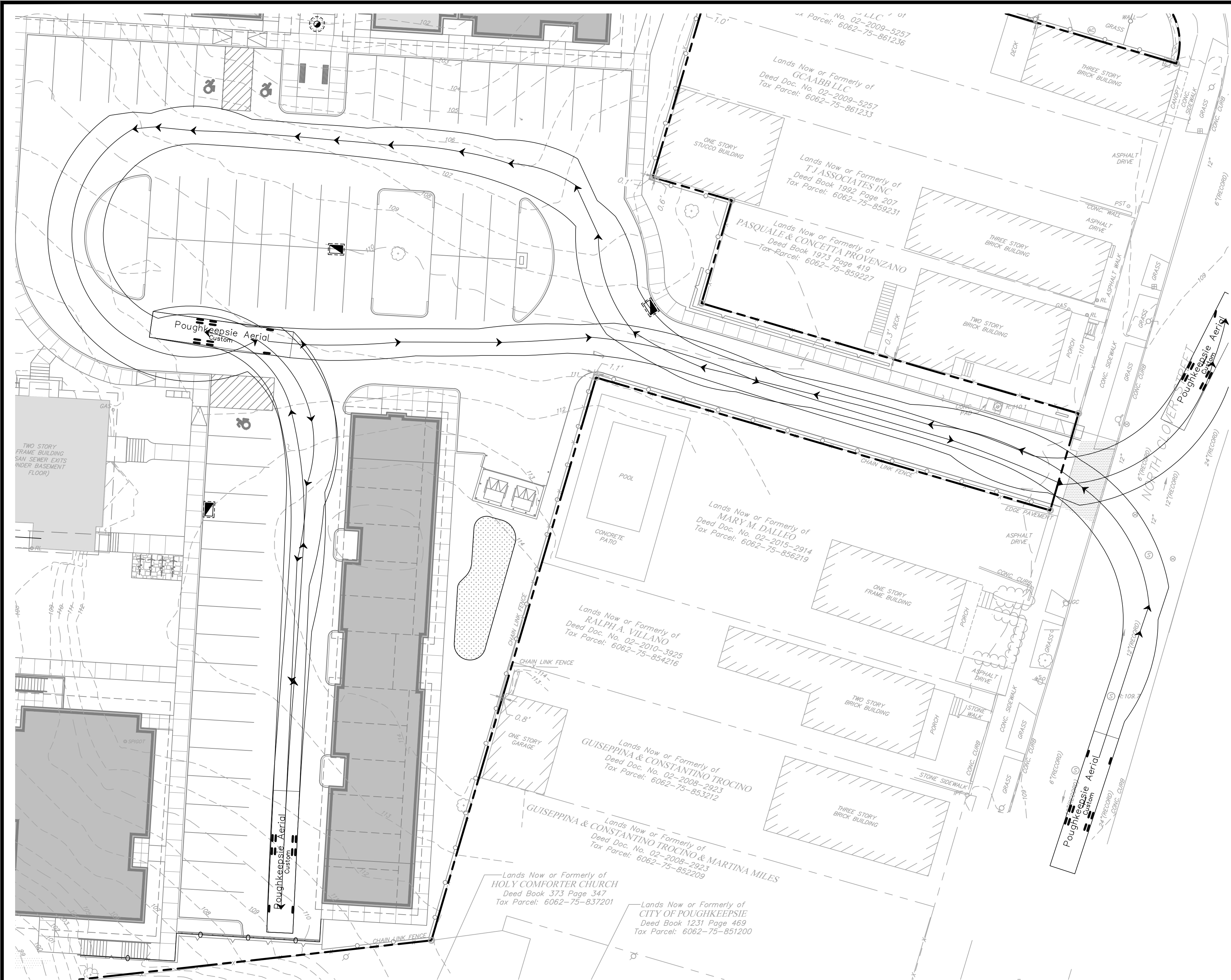
36 N. CLOVER STREET
CITY OF PoughKEEPSIE,
DUTCH COUNTY, NEW YORK

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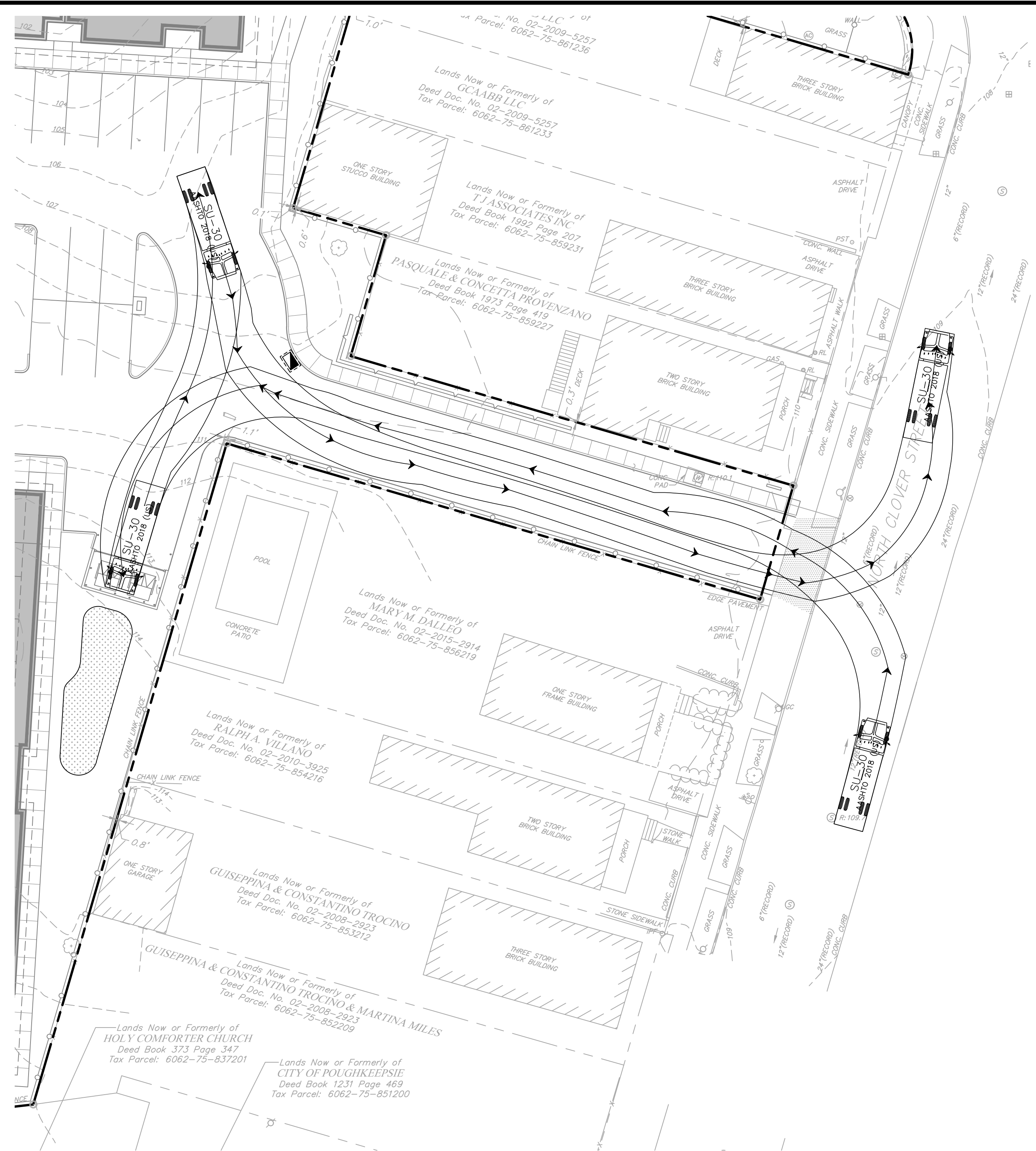
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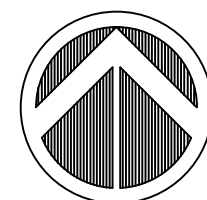
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FIRE DEPARTMENT (APPARATUS) MOVEMENTS



REFUSE MOVEMENTS



GRAPHIC SCALE
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SCALE IN FEET

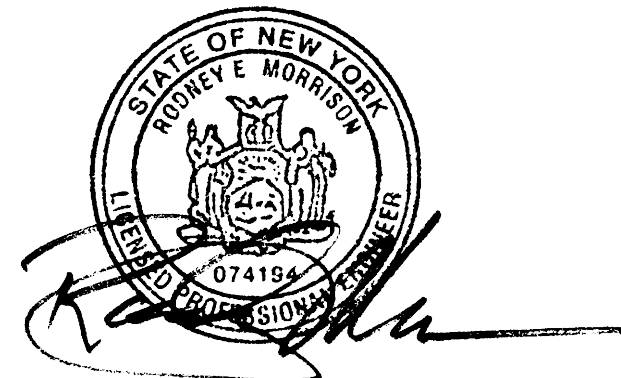
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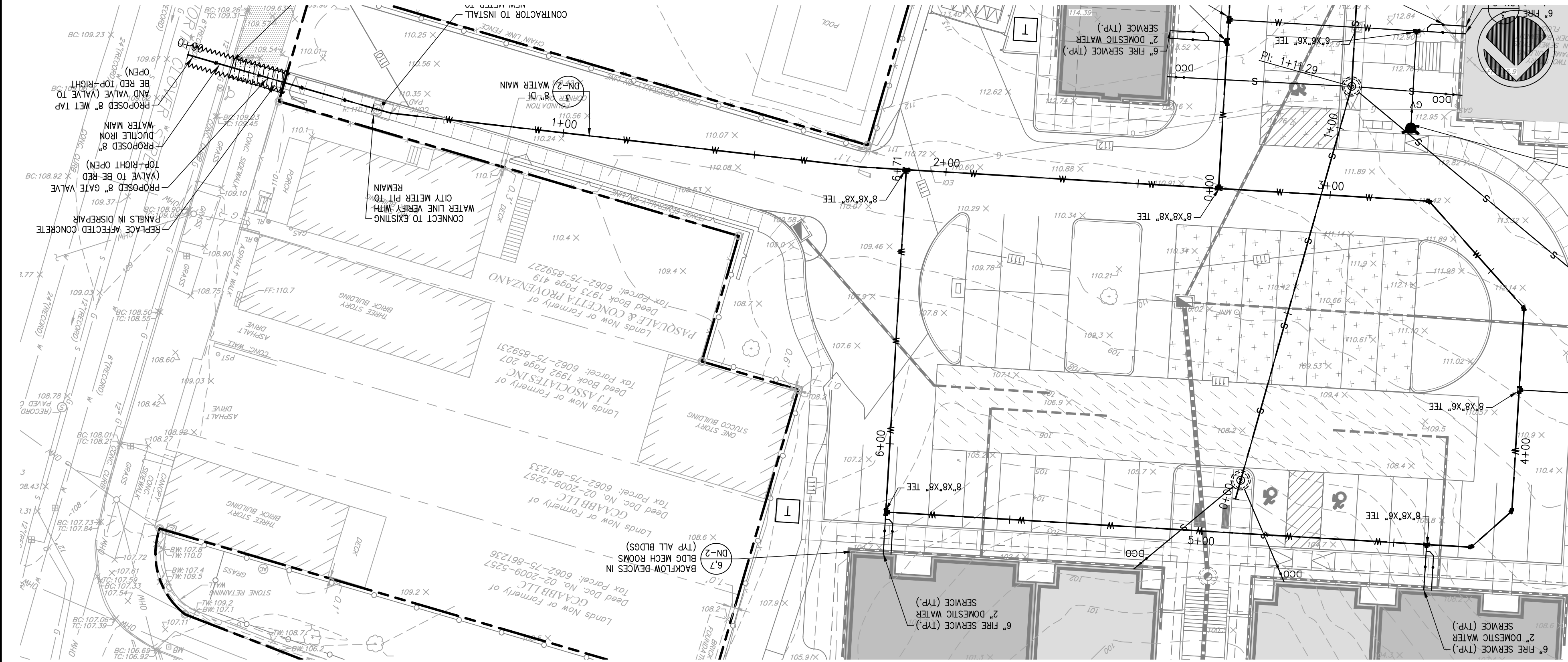
TRUCK TURNING PLAN

PELTON MOUNT CARMEL
36 N. CLOVER STREET
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

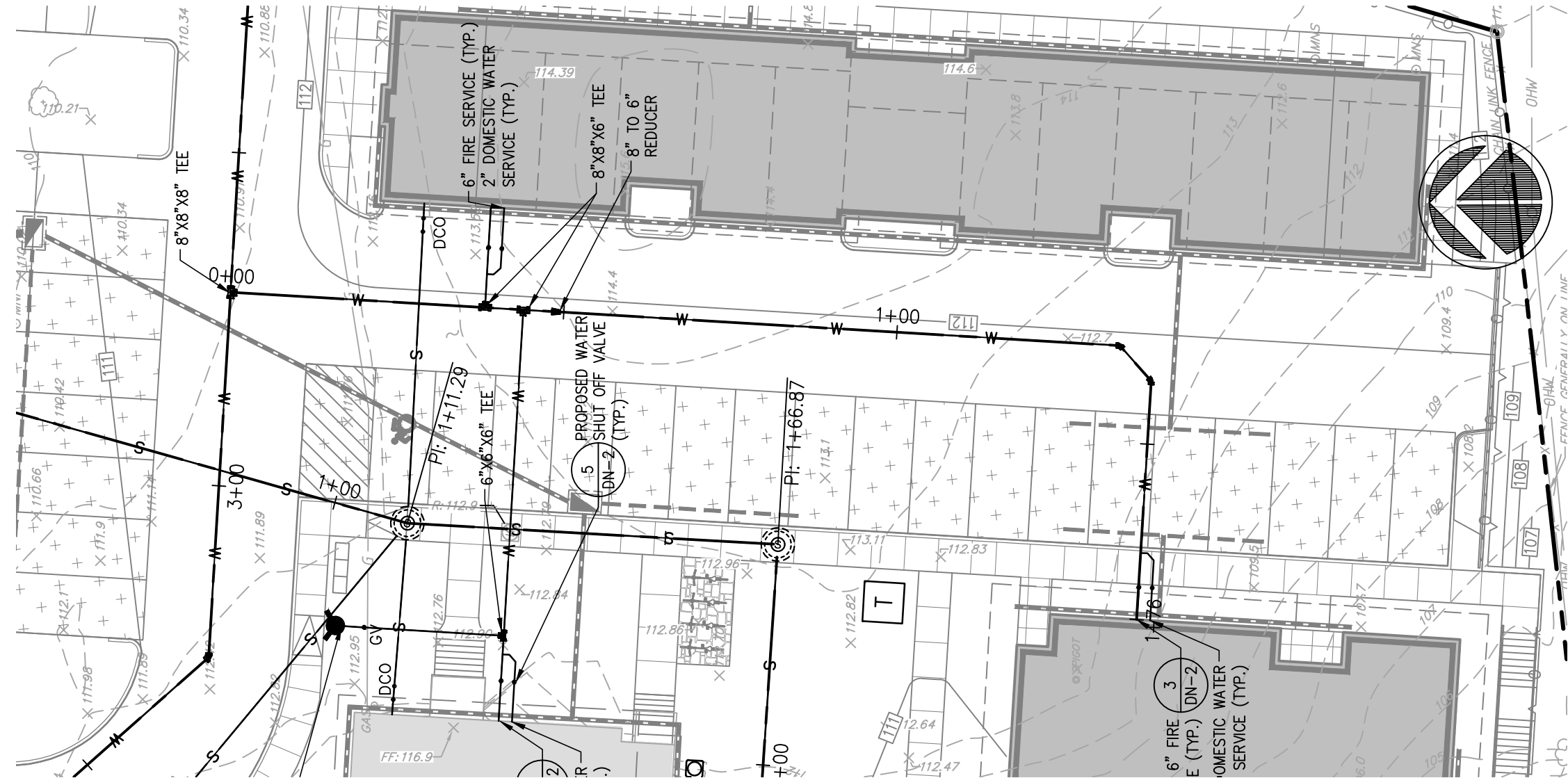
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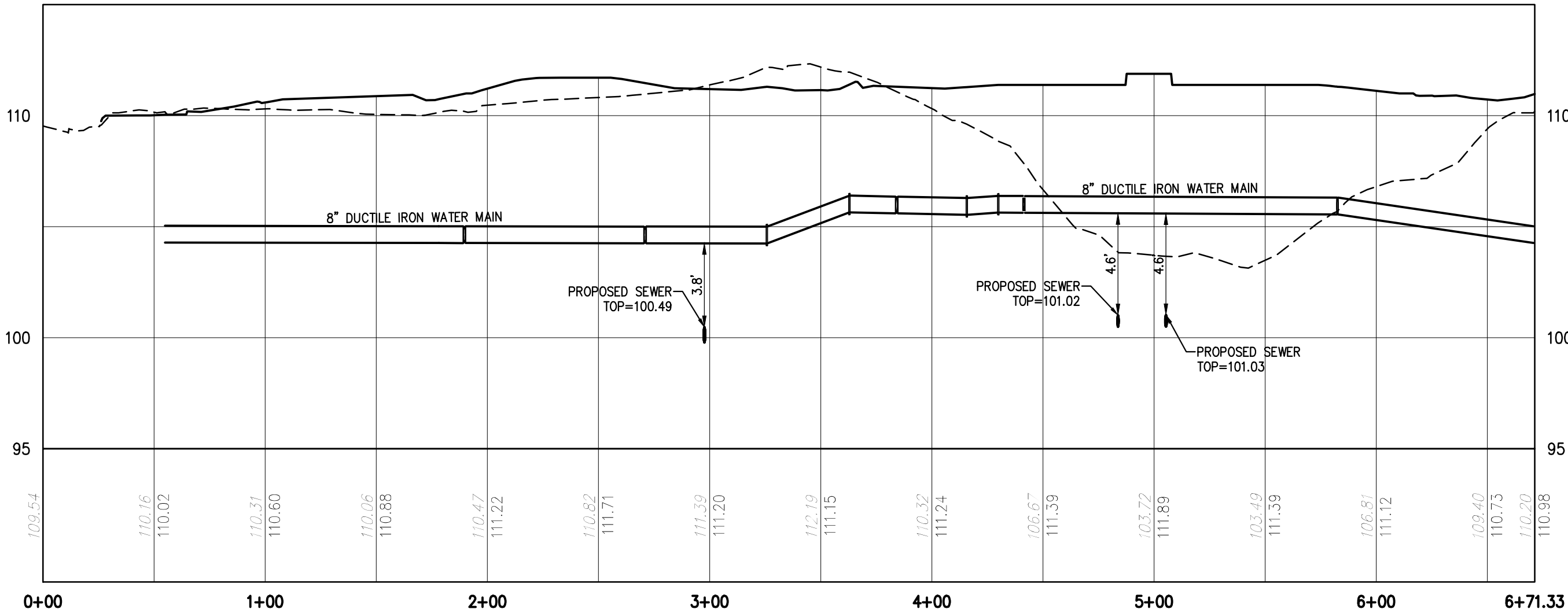
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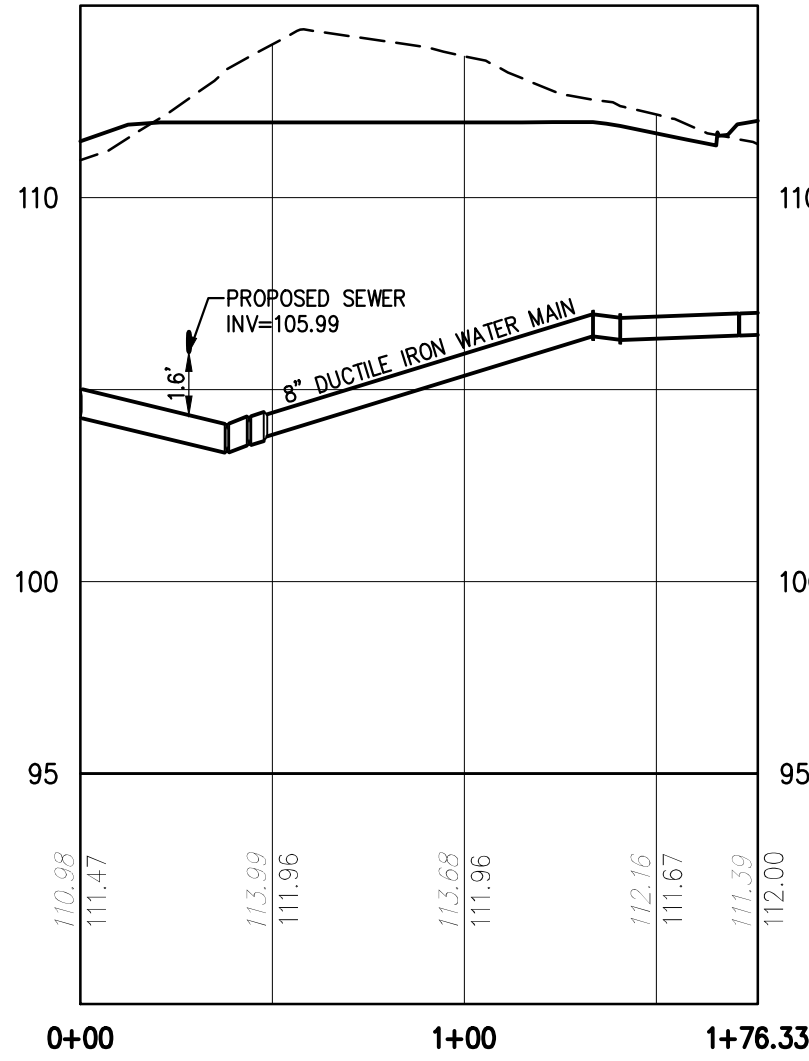
WATER PLAN 0+00 TO 6+71



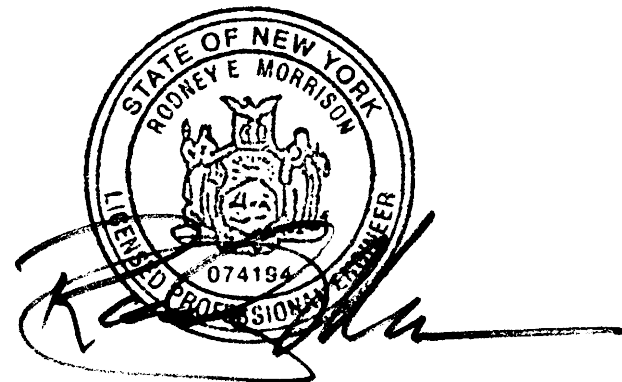
WATER PLAN 0+00 TO 1+76



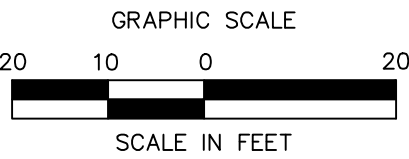
WATER PROFILE 0+00 TO 6+71



WATER PROFILE 0+00 TO 1+76



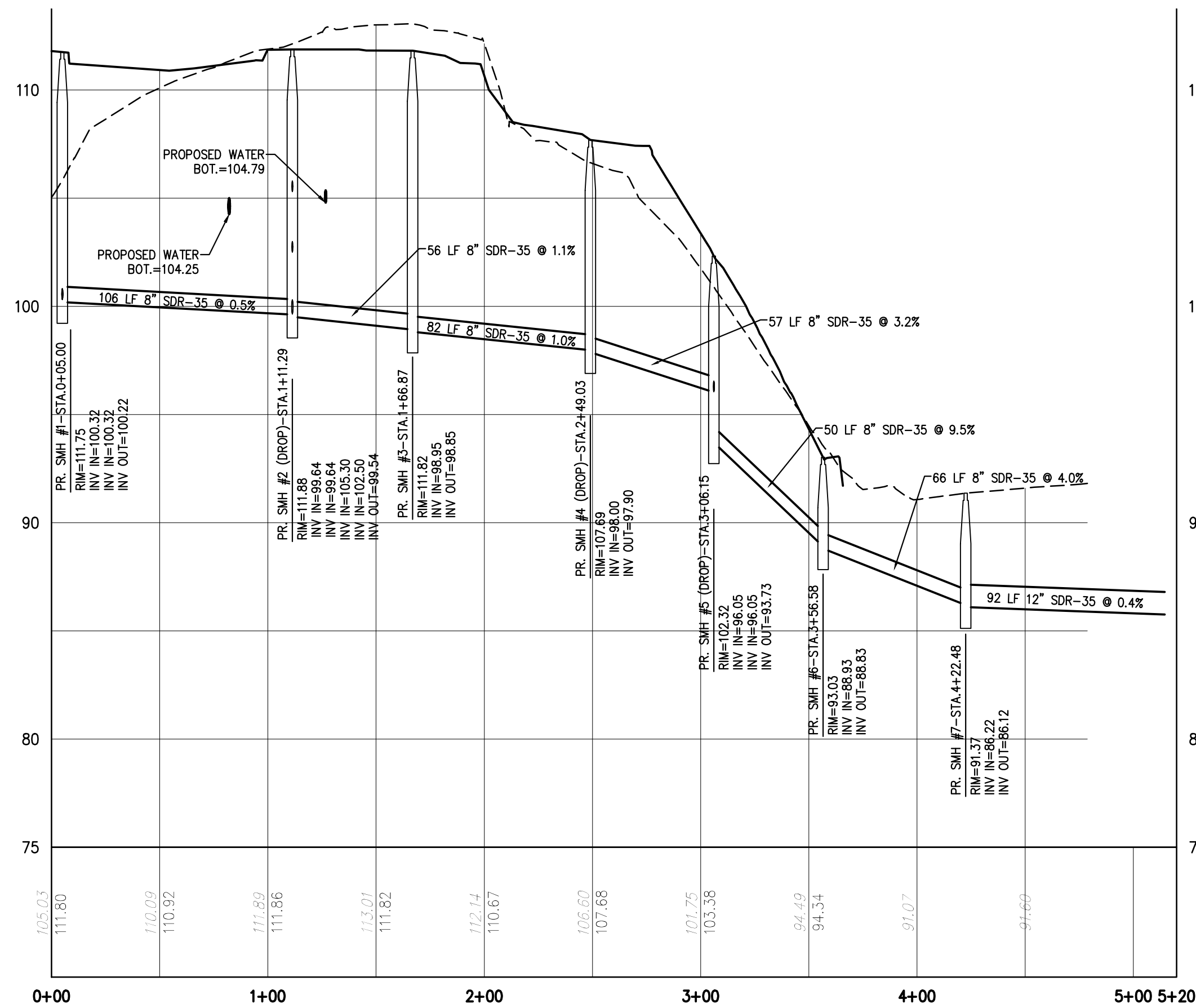
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		● Land Planning ● Civil Engineering ● Environmental Services ● Land Surveying ● Landscape Architecture 160 West Street, Suite E Cromwell, CT 06416 Tel: 860.635.2877 85 Civic Center Plaza, Suite 204 Poughkeepsie, NY 12601 Tel: 845.243.5280 1 International Blvd, Suite 400 Mahwah, NJ 07495 Tel: 908.603.5730 www.lrcconsult.com																						
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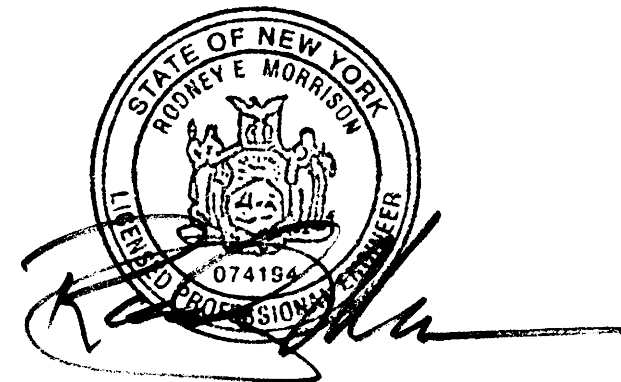
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SEWER PLAN 0+00 TO 5+20



SEWER PROFILE 0+00 TO 5+20



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03/27/18 REVISED PER COMMENTS		LRC GROUP			
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Revisions		LRC GROUP		Design/Calcs LRC CAD File PP23307602.dwg Sheet No.	
Drawn LRC		Project No. 23-3076		PP-2	
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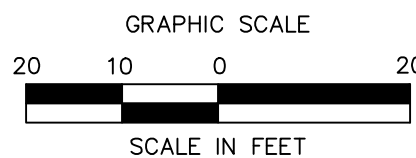
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(MH#7 TO MH#8 STA. 4+22.48 TO 5+20)

AS-BUILT DRAWINGS OF ABOVE SAID PORTION DEDICATED TO THE CITY OF POUGHKEEPSIE TO BE NYS A LICENSED PROFESSIONAL ENGINEER CERTIFIED.

AS-BUILT DRAWINGS TO BE PROVIDED TO THE CITY ENGINEERING DEPARTMENT IN BOTH AUTOCAD (DWG) AND ADOBE (PDF) FORMATS PRIOR TO ISSUANCE TO OF BUILDING CERTIFICATE OF OCCUPANCY.



1. ALL CONSTRUCTION SHALL COMPLY WITH CITY OF POUGHKEEPSIE REQUIREMENTS AND SPECIFICATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL POST ALL BONDS, AND ALL FILES PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NEARBY FOR THIS WORK.
3. REFER TO OTHER PLANS AND DETAIL SHEETS FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE SITE ENGINEER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO BIDDING, AND CONFLICT BETWEEN DRAWINGS AND THE SPECIFICATIONS SHALL BE CONFIRMED WITH THE LOCAL CONSTRUCTION MANAGER PRIOR TO BIDDING.
4. REFER TO THE DETAIL SHEETS FOR PAVEMENT, CURBING, AND SIDEWALK INFORMATION.
5. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE SITE ENGINEER, AND THE APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
6. THE CONTRACTOR SHALL RESTORE ANY OF THE FOLLOWING IF THEY ARE NOTED TO REMAIN: UTILITY STRUCTURE, PIPE, UTILITY, PAVEMENT, CURBS, SIDEWALKS, OR LAND UNDISTURBED OR DISTURBED DURING CONSTRUCTION TO ITS ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE CITY OF POUGHKEEPSIE.
7. TRAFFIC CONTROL MEASURES SHALL BE UTILIZED IN ACCORDANCE WITH CITY OF POUGHKEEPSIE AND NYSDOT.
8. PAVEMENT MARKINGS SHALL BE FAST DRYING TYPE IN ACCORDANCE WITH CITY OF POUGHKEEPSIE SPECIFICATIONS.
9. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS AND PLANT SPECIFICATIONS TO THE SITE ENGINEER AND OWNER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW. APPROVED SHOP DRAWINGS WILL BE PROVIDED BY THE ENGINEER AND COPIED TO THE CITY OF POUGHKEEPSIE.
10. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC DEVICES FOR PROTECTION OF VEHICLES AND PEDESTRIANS CONSISTING OF DRUMS, BARRIERS, SIGNS, LIGHTS, FENCES OR OTHER UNDEGRADED OR SOFTIC MATERIALS AS REQUIRED STRONGLY BY THE ENGINEER OR REQUIRED BY THE LOCAL GOVERNING AUTHORITIES. CONTRACTOR SHALL MAINTAIN ALL TRAFFIC LANES AND PEDESTRIAN WALKWAYS AT ALL TIMES UNLESS WRITTEN APPROVAL FROM THE CITY AND GOVERNING AUTHORITIES IS GRANTED.
11. THE PROJECT DRAWINGS ARE GENERALLY DIAGRAMMATIC IN INDICATING THE PRESENCE OF EXISTING UNDERGROUND UTILITIES. INFORMATION ON EXISTING UTILITIES HAS BEEN OBTAINED FROM AVAILABLE INFORMATION INCLUDING UTILITY COMPANY AND MUNICIPAL RECORD MAPS AND FIELD SURVEY AND IS NOT GUARANTEED TO BE CORRECT OR COMPLETE. UTILITIES ARE SHOWN TO ALERT THE CONTRACTOR OF THEIR PRESENCE AND TO AVOID UNNECESSARY DISRUPTIONS DURING CONSTRUCTION. ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND SERVICES, WHEN THE UTILITIES ARE TO BE LEFT IN PLACE, THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING THE EXCAVATION AND BACKFILLING OPERATIONS.
12. PRIOR TO DEMOLITION OR CONSTRUCTION THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 1-800-962-7962 AT LEAST 72 HOURS BEFORE COMMENCEMENT OF DEMOLITION OR CONSTRUCTION TO AVOID COLLISIONS WITH EXISTING UTILITIES OR UTILITIES SERVING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS.
13. IF ANY UNCHARTED OR INCORRECTLY CHARTED EXISTING PIPING OR OTHER UTILITY IS UNCOVERED DURING EXCAVATION, THE CONTRACTOR SHALL CONSULT THE SITE ENGINEER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH THE WORK.
14. STORAGE OF FLAMMABLE AND HAZARDOUS MATERIALS SHALL BE IN COMPLIANCE WITH THE NYS FIRE AND BUILDING CODE.
15. CONTRACTOR TO PROVIDE SITE ENGINEER WITH SUBMITTALS, ONCE APPROVED, COPIES WILL BE SUPPLIED TO CITY ENGINEER AND APPROPRIATE CITY DEPARTMENTS.

STANDARD FIRE DEPARTMENT NOTES

1. FIRE HYDRANTS ARE TO BE INSTALLED, FLOW TESTED AND APPROVED BY BOTH CITY WATER DEPARTMENT AND APPROPRIATE FIRE DEPARTMENT. ANY CORRECTIONS BEING BROUGHT ONTO THE CONSTRUCTION SITE, HYDRANT LOCATIONS TO BE APPROVED BY FD. ALL HYDRANTS TO HAVE SNOW FLAGS AND NFPA COLOR BANDING SHOWING DEMONSTRATED FLOW CAPABILITIES, FLOW DATA FOR NEW AND EXISTING WATER MAINS TO BE PROVIDED TO CITY FIRE INSPECTOR AND FD.
2. ALL STREET NAMES AND BUILDINGS AS REQUIRED BY DUTCHESS COUNTY LAW. FIRE DEPARTMENT AND APPROPRIATE FIRE DEPARTMENT. ONCE CONSTRUCTION, APPROVED STREET NAMES TO BE SHOWN ON FINAL (SIGNED) SITE PLAN.
3. THE NAME OF THE FIRE DISTRICT IN WHICH THE PROJECT IS LOCATED SHALL BE PROMINENTLY DISPLAYED ON THE MAP. FOR PROPERTIES BISECTED BY OR ADJACENT TO A FIRE DISTRICT BOUNDARY, THE LOCATION OF THE BOUNDARY SHALL BE DEPICTED ON THE PLAN WITH THE PROPER NAMES OF THE FIRE DISTRICTS SHOWN ALONG THE BOUNDARY LINE.
4. ALL FIRE PROTECTION SYSTEMS AND NOTIFICATION DEVICES TO BE DESIGNED, INSTALLED, TESTED AND MAINTAINED ACCORDING TO NYS CODE AND/OR THE APPROPRIATE NFPA STANDARD.
5. FIRE SPRINKLER AND/OR STANDPIPE SYSTEMS, FDC DESIGN, AND FIRE DETECTION SYSTEM DESIGNS ARE TO BE REVIEWED IN ADVANCE AND SIGNED OFF BY THE APPROPRIATE FD. AT A LOCATION APPROVED BY THE FIRE DEPARTMENT. A MECHANICAL WATER CONG. OR WORDING AND INSTALLATION LOCATION AS APPROVED BY FD.
6. AN EMERGENCY APPARATUS/TRUCK MOVEMENT PLAN SHALL BE DEPICTED ON THE PROPOSED PLAN, USING APPARATUS SPECIFICATIONS PROVIDED BY THE FD.
7. ON ANY BUILDING WITH AN ALARM SYSTEM, OTHER THAN A SINGLE FAMILY RESIDENCE, A KNOX BOX SHALL BE OBTAINED THROUGH THE APPROPRIATE FD AND INSTALLED AT A LOCATION APPROVED BY THE FD. MASTER KEYS, ELEVATOR KEYS, AND/OR MAGNETIC SWIPE CARDS FOR ALL DOORS SHALL BE PROVIDED. TWO OR MORE COMPLETE SETS OF KEYS, OR KEYS AND BY PASS, SHALL BE PROVIDED FOR INSTALLATION IN THE BOX. THE KNOX BOX SHALL BE OF SUFFICIENT SIZE TO ACCOMMODATE ALL OF THE REQUIRED KEYS. KNOX PADLOCKS, OR AN APPROVED ALTERNATIVE, SHALL BE PROVIDED FOR FD ACCESS WHEN CONSTRUCTION GATES ARE IN PLACE.
8. ON ANY BUILDING WITH A FIRE ALARM SYSTEM, OTHER THAN A SINGLE FAMILY RESIDENCE, AN EXTERIOR STROBE LIGHT, CONNECTED TO THE FIRE ALARM SYSTEM SHALL BE INSTALLED AT A LOCATION APPROVED BY THE FIRE DEPARTMENT. A MECHANICAL WATER CONG. OR 110V. ELECTRONIC WATER FLOW BELL TO BE INSTALLED ON ALL SPRINKLER SYSTEMS, INDEPENDENT OF THE FIRE ALARM SYSTEM. LOCATION OF BELL TO BE NEAR FDC, OR AS OTHERWISE APPROVED BY FD.
9. ZONE MAPS TO BE INSTALLED ADJACENT TO ALL FIRE ALARM SYSTEM ENUNCIATOR PANELS. PROPOSED DISPLAY MESSAGES FOR ENUNCIATOR PANELS TO BE APPROVED IN ADVANCE BY THE APPROPRIATE FD.
10. ONE OR MORE SETS OF FIRE ALARM SYSTEM DESIGN DRAWINGS TO BE MAINTAINED AND KEPT AT THE FIRE ALARM PANEL. DRAWINGS TO SHOW ALL ALARM SYSTEM DEVICES, PLUS ANY ROOFTOP ULNS.
11. A REPRESENTATIVE OF THE FIRE DISTRICT SHALL BE PRESENT AT ANY PRE-CONSTRUCTION MEETINGS AND THE FIRE DISTRICT SHALL BE PROVIDED NO LESS THAN 48 HOURS NOTICE OF ANY PERIODIC MEETINGS AND INSPECTIONS, INCLUDING ANY TESTING OF FIRE SAFETY DEVICES AND HYDRANTS.
12. ANY SPECIAL REQUIREMENTS AND FIELD CHANGES AGREED TO BY THE FIRE DISTRICT THAT ARE ABOVE THE NYS BUILDING RELATED CODES OR LOCAL CITY CODE, SHALL APPEAR ON THE FINAL SITE PLAN MAP, AND APPROPRIATELY HIGHLIGHTED.
13. ALL APPARATUS ACCESS ROADS AND/OR FIRE LANES TO BE EITHER BLACKTOP, CONCRETE OR AS APPROVED BY THE APPROPRIATE FD.
14. ALL ELEVATORS TO BE OF SUFFICIENT SIZE AND CAPACITY TO ACCOMMODATE A RECURRENT PATIENT ON AN AMBULANCE STRETCHER, ATTENDED BY AN EMS CREW.
15. LIGHTWEIGHT TRUSS CONSTRUCTION SIGNAGE, AS DESCRIBED IN NYS CODE, TO BE INSTALLED FOR ALL BUILDING TYPES, EXCEPT FOR SINGLE FAMILY RESIDENCES.

WATER MAINS SHALL BE CEMENT LINED DUCTILE IRON PIPE, CLASS 32 PUSH-ON JOINT, UNLESS OTHERWISE SPECIFIED BY OR APPROVED BY THE CITY OF POUKGKEEPSIE WATER DEPARTMENT. JOINTING SHALL EMPLOY "MEGALUG" CONNECTIONS, FIELD LOCK GASKET, OR AS ALTERNATIVELY SPECIFIED BY THE CITY OF POUKGKEEPSIE WATER DEPARTMENT. ALL WATER PIPING CONSTRUCTION SHALL BE TO THE SPECIFICATIONS OF THE CITY OF POUKGKEEPSIE WATER DEPARTMENT. WET TAP OF PUBLIC WATER SYSTEM SHALL BE APPROVED AND SUPERVISED BY THE CITY OF POUKGKEEPSIE WATER DEPARTMENT. TAPPING SLEEVE SHALL BE STAINLESS STEEL OR APPROVED EQUAL. ALL MAINLINE VALVES SHALL BE RESILIENT WEDGE OR APPROVED EQUAL.

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' STANDARD LARG 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. 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.

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 LARG 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. 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.

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.

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.

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 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.

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, DISINFECTION RESULTS SHALL BE FURNISHED TO THE CITY WATER MAINTENANCE SUPERVISOR AND DUTCHESS COUNTY DEPARTMENT OF HEALTH AS A CONDITION OF APPROVAL FOR OPERATION.

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 POSSIBLE. 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.

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.

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 OF 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.

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

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

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

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

3. 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 POUKGKEEPSIE 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 POUKGKEEPSIE WATER DEPARTMENT.

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

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

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

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

8. 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

9. 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
1/2 INCH	100
1/4 INCH	30-65
No. 40	5-40
No. 200	0-15

0. 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 POUKGKEEPSIE.

1. 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 TESTING AND CERTIFICATION OF ALL WATER SERVICE WORK FROM THE CITY WATER CONNECTION POINT TO THE PROPOSED BUILDINGS INTERIOR CONNECTION POINT.

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

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

4. 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.

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

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

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

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

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

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

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

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

8. ALL SANITARY PIPE AND/OR MANHOLES SHALL BE A MINIMUM OF TEN (10) HORIZONTAL FEET FROM THE WATER MAIN. SANITARY PIPE SHALL HAVE A MINIMUM 18" SEPARATION FROM ANY WATER MAIN OR WATER SERVICE LINE. IF FOR SOME REASON THIS SEPARATION CANNOT BE ACHIEVED, SANITARY SEWER PIPE IN THE AREA SHALL BE SDR--26 PRESSURE RATED PIPE, (OR BE ENCASED PER THE DETAIL ON DN-1) 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 DDOH 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:

<u>SIZE DESIGNATION</u>	<u>% PASSING</u>
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:

<u>SIZE DESIGNATION</u>	<u>% PASSING</u>
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.

1. LAND DISTURBANCE WILL BE KEPT TO A MINIMUM; RESTABILIZATION WILL BE SCHEDULED AS SOON AS PRACTICABLE.
2. HAY BALE FILTERS OR 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.

- 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.

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 INLET.
PROTECTION DEVICES ARE TO BE REPAIRED AND/OR REPLACED IF NOT FUNCTIONING
AS DESIGNED.

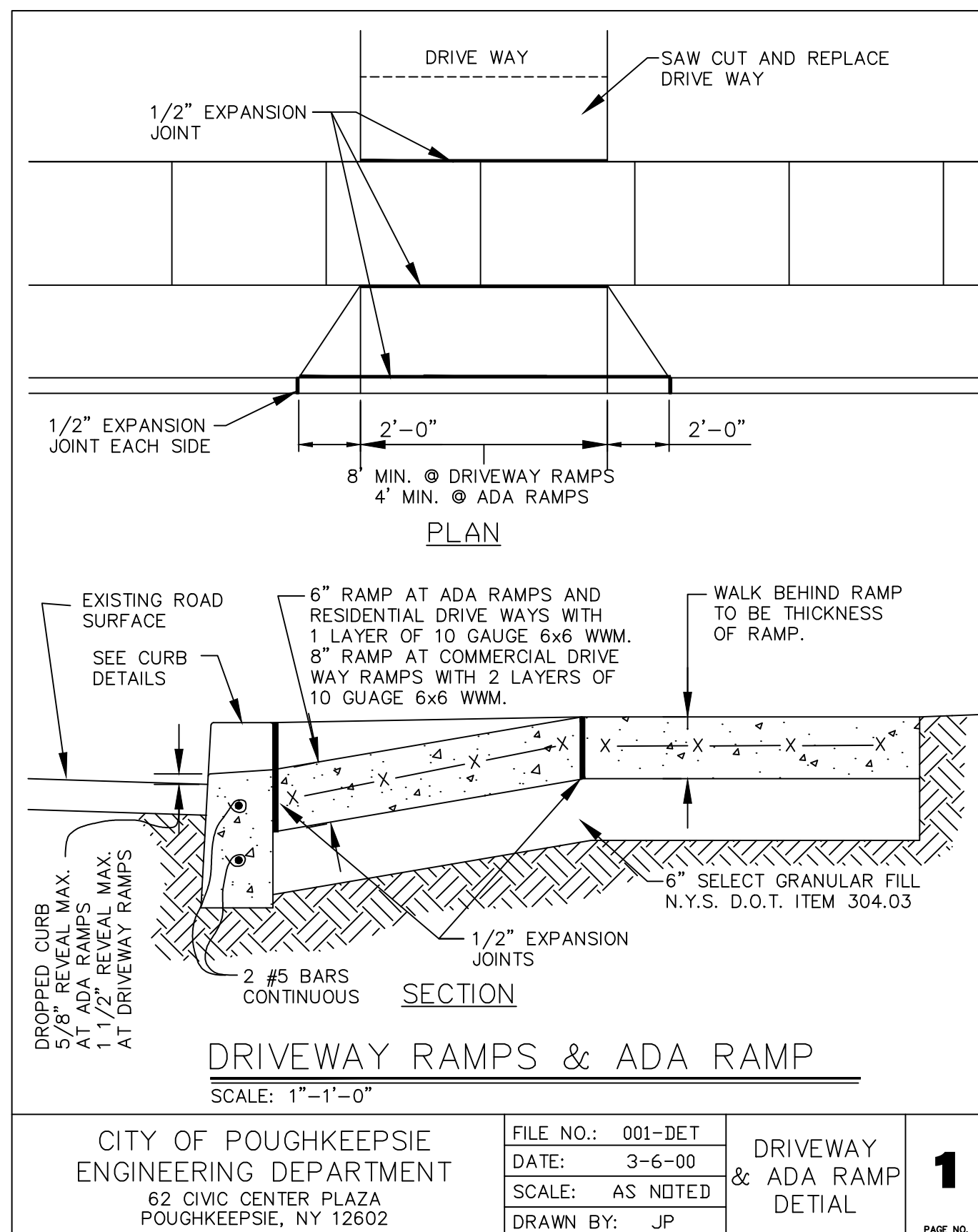
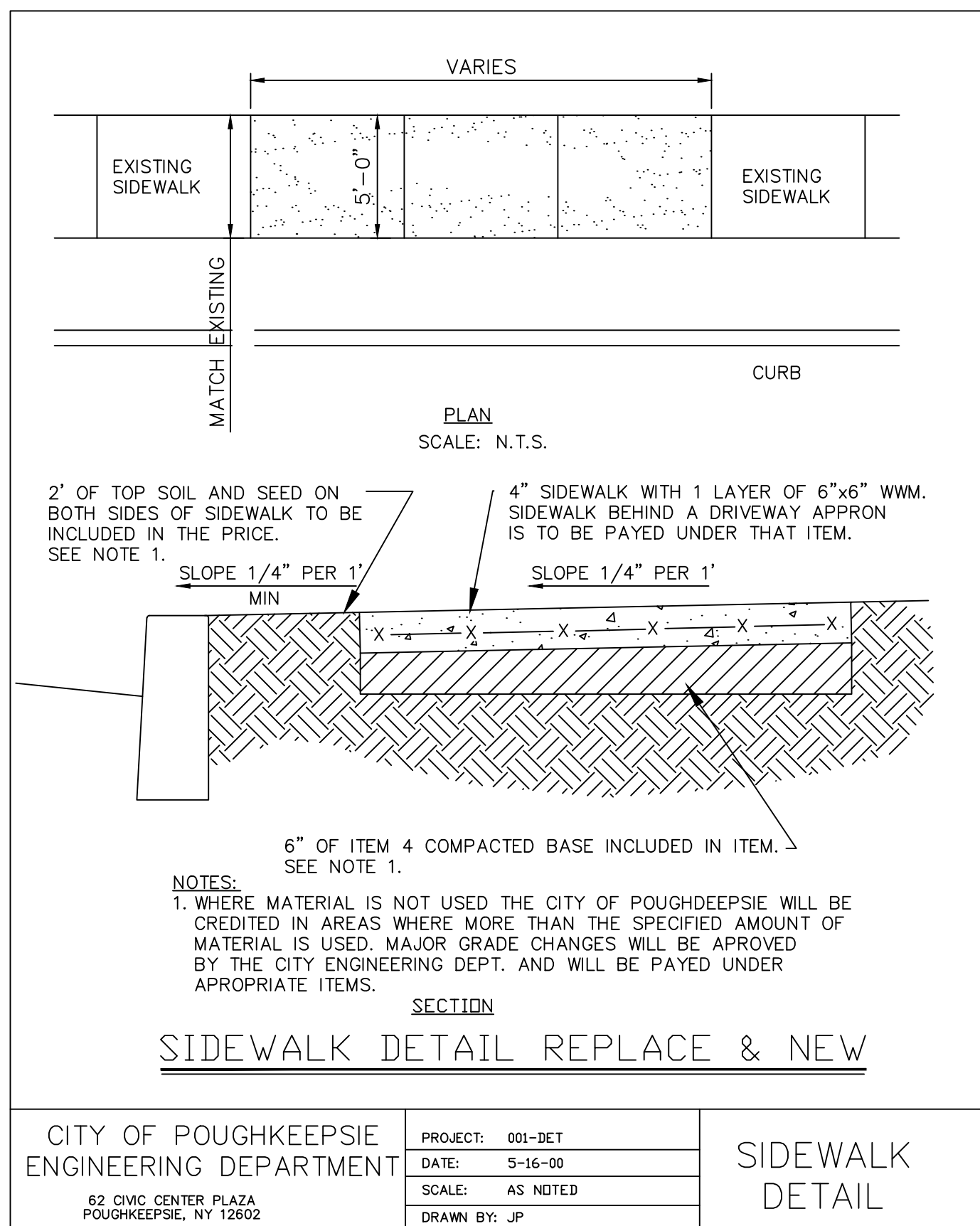
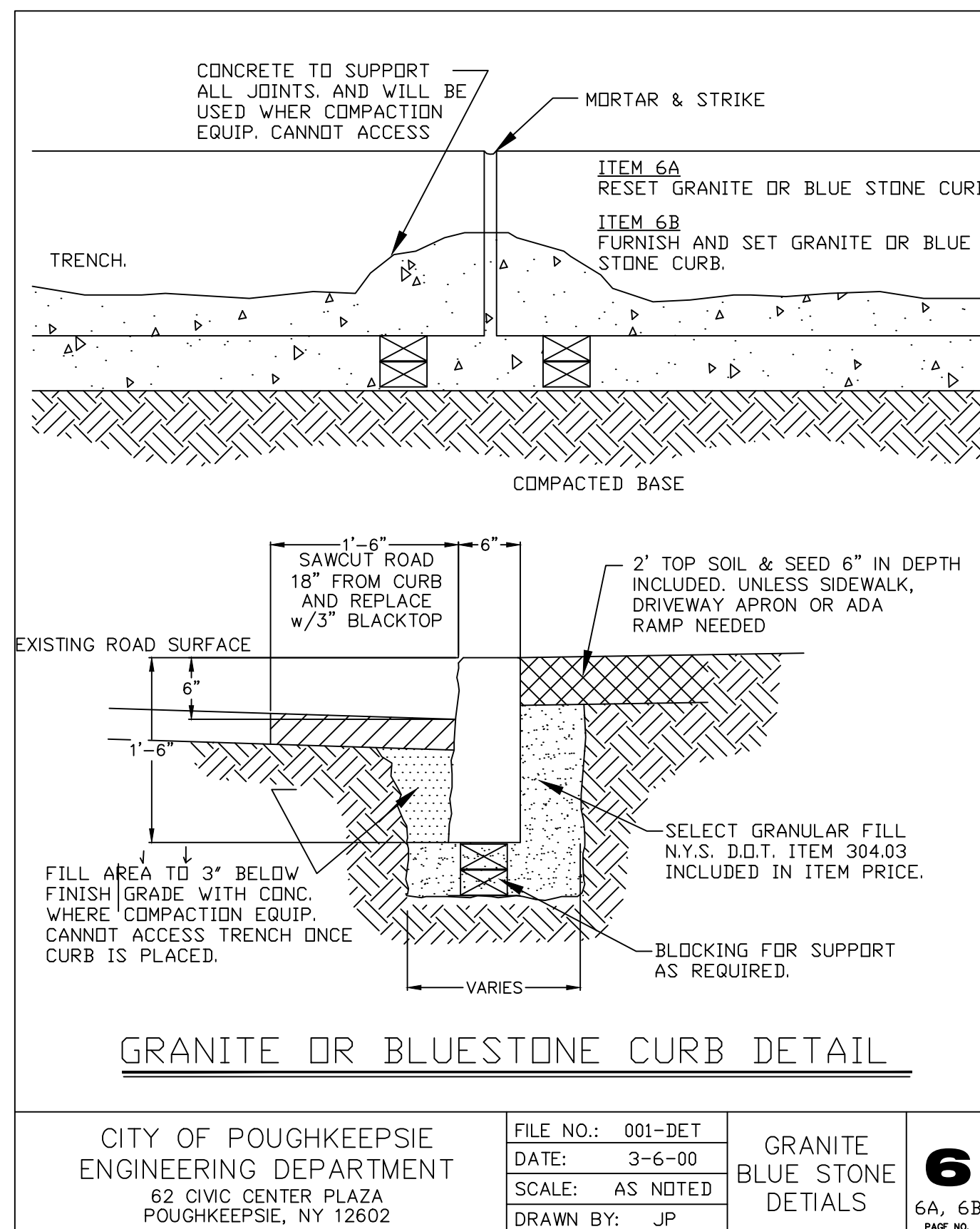
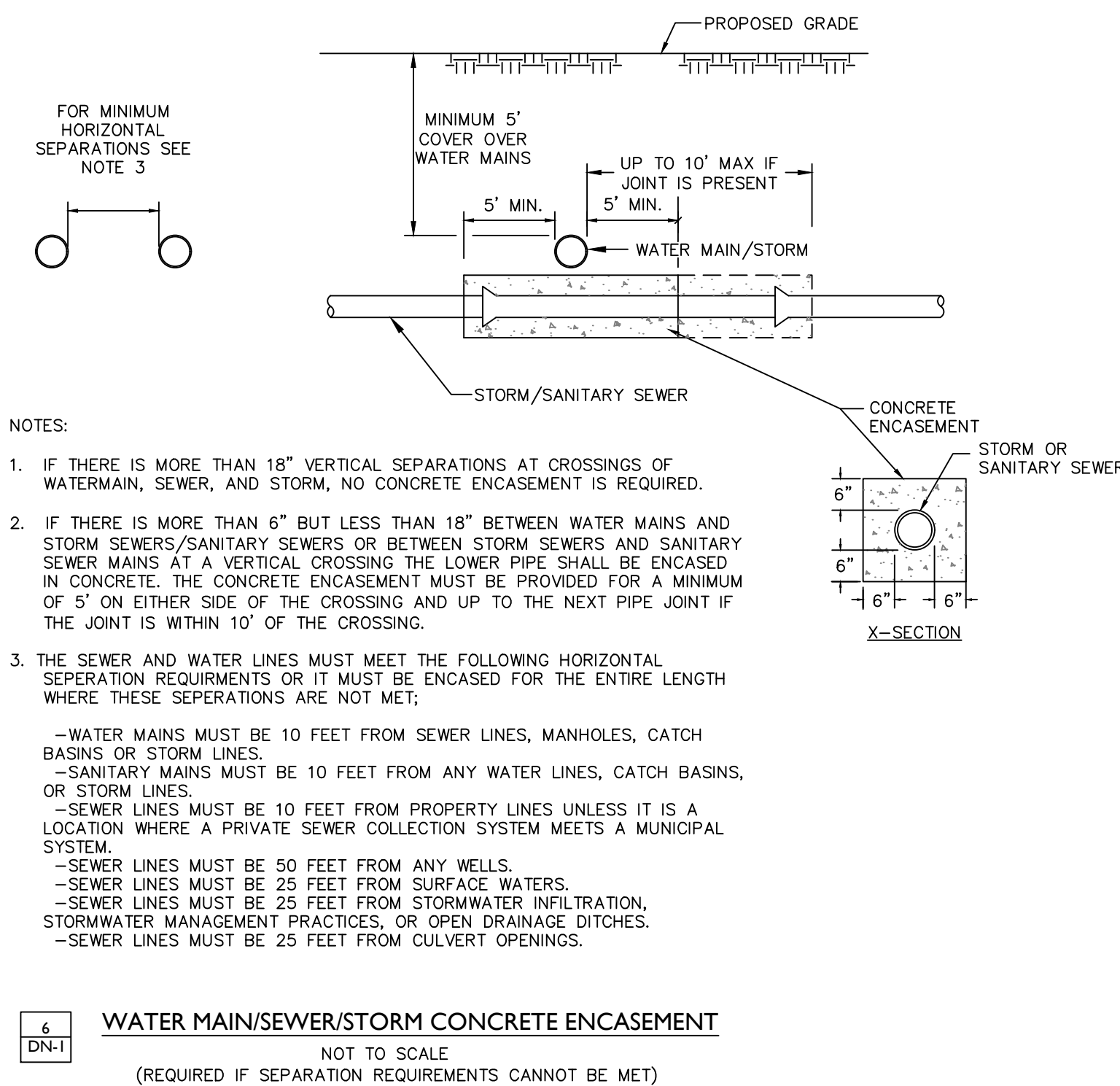
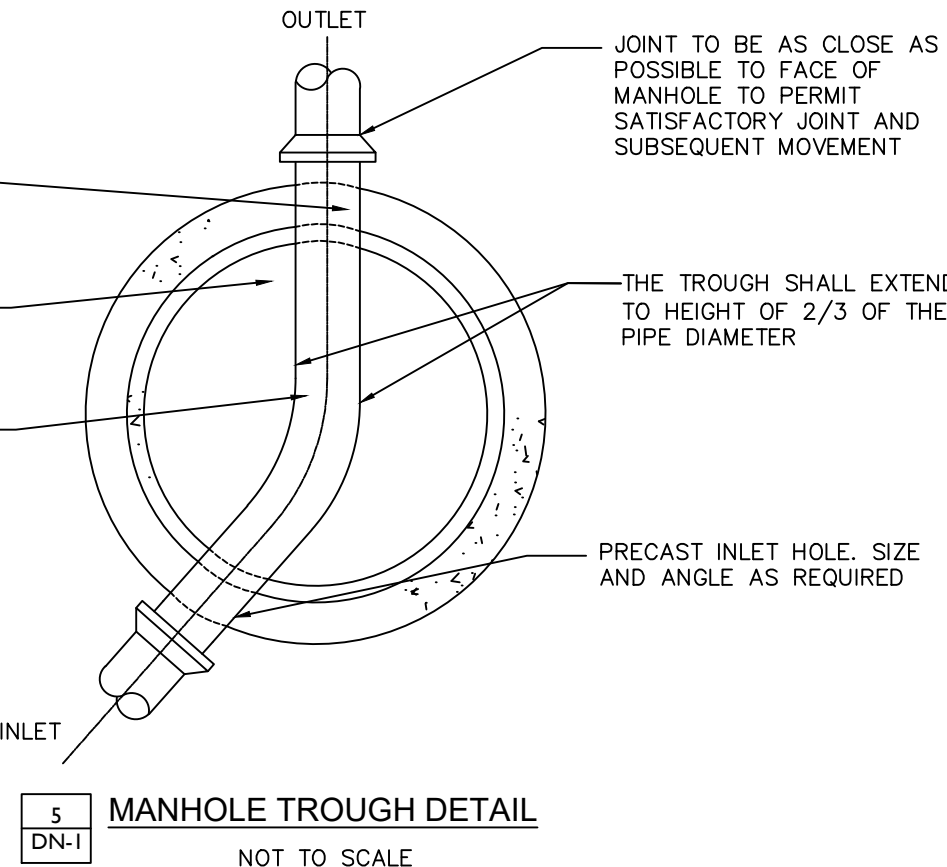
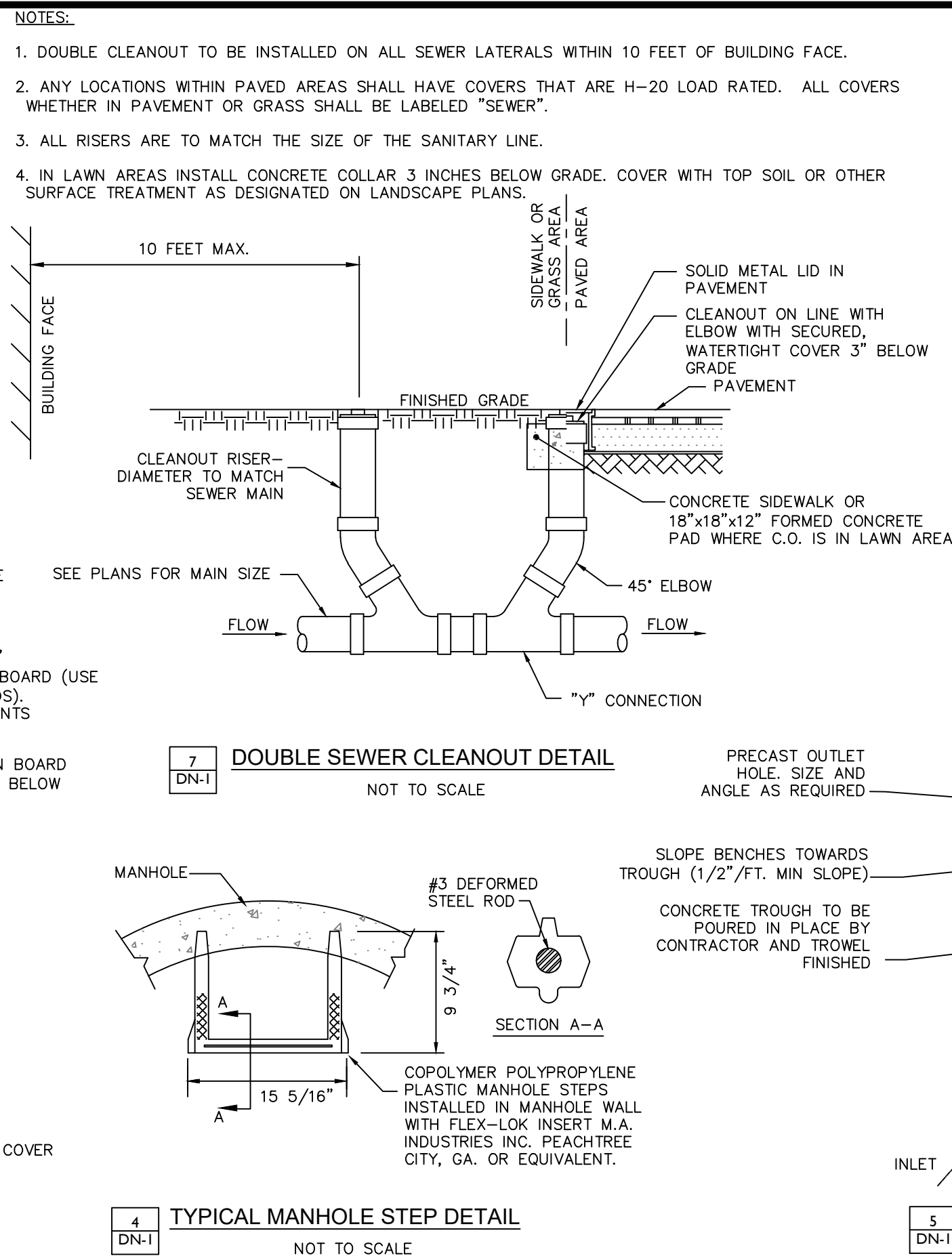
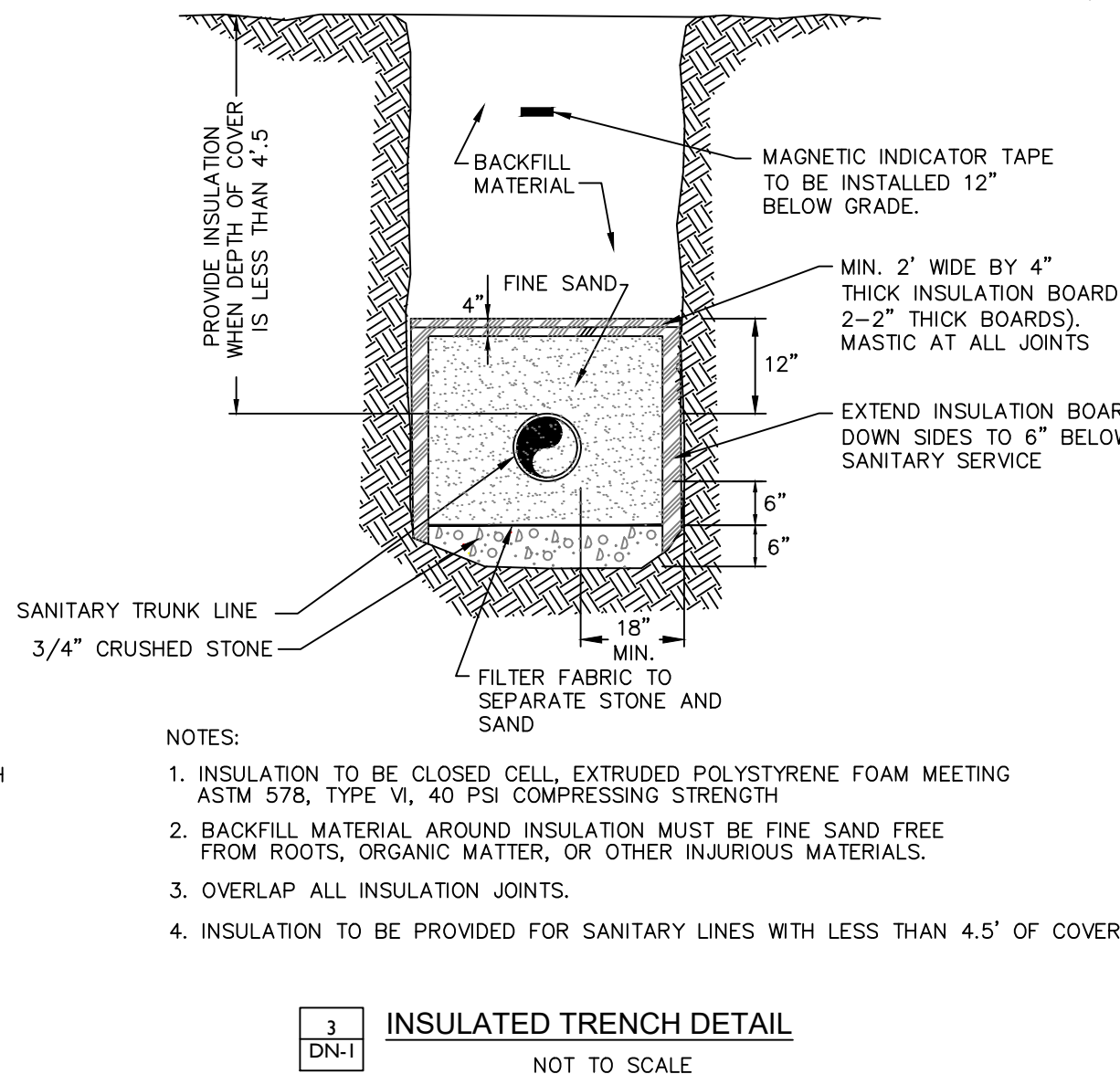
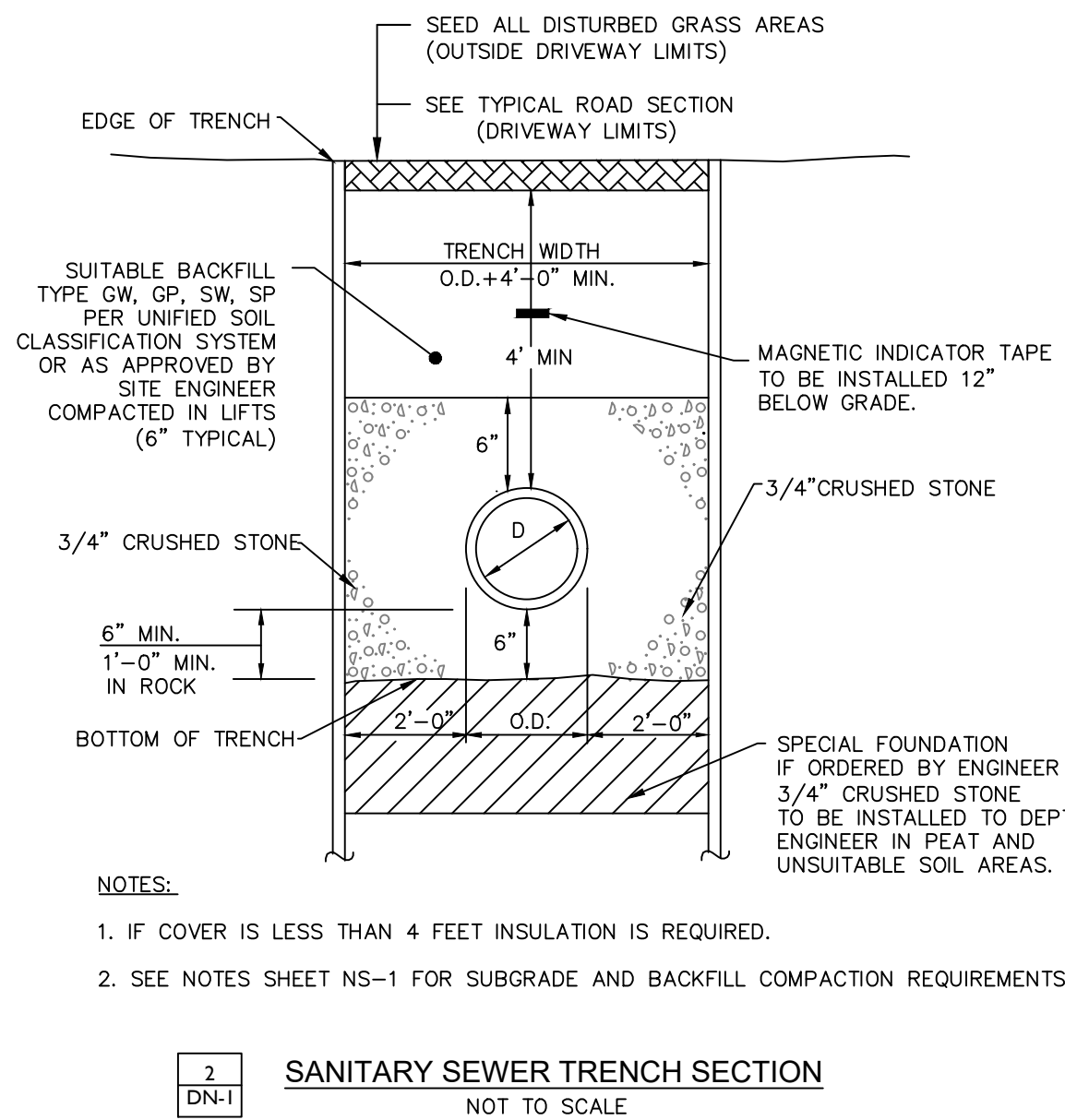
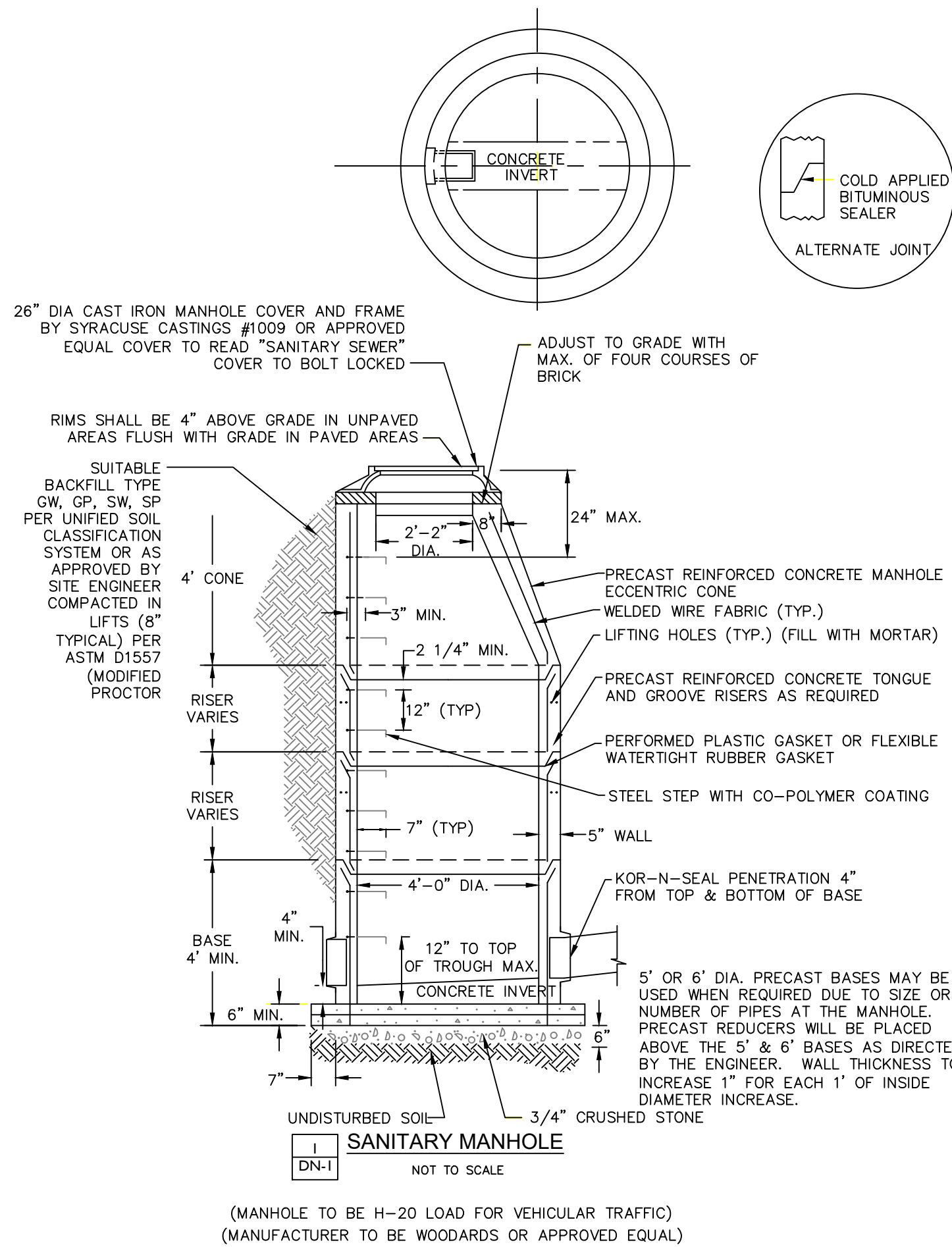
III. STABILIZED CONSTRUCTION ENTRANCE
STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSPECTED DAILY BY THE QUALIFIED
INSPECTOR TO ENSURE THAT SEDIMENT AND DEBRIS ARE NOT BEING TRACKED ON
ANY PUBLIC ROADWAY.

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 CONSTANT TRAFFIC SHALL BE SEEDED OR COVERED BY RE-MULCH WITHIN 7 DAYS, INCLUDING STOCKPOILED 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 CAUSE OF SEED AND MULCH MOVEMENT. IF THIS IS THE CASE, REPAIR EROSION DAMAGE, 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.

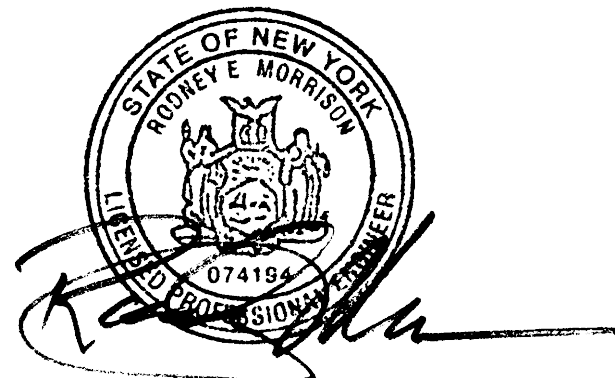
ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED FOR MORE THAN 7 DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, SHALL IMMEDIATELY RECEIVE SEEDING AND MULCHING. DISTURBED AREAS SHALL BE LIMITED AND BE COVERED WITH A LAYER OF TOPSOIL PRIOR TO CONSTRUCTION. THE SEEDING SHALL INSURE THAT THE SOIL IS PROTECTED FROM EROSION, AND THAT THE SOIL IS SUITABLE FOR PLANT 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 SPECIFIC 'B') WHICH IS AS FOLLOWS:

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

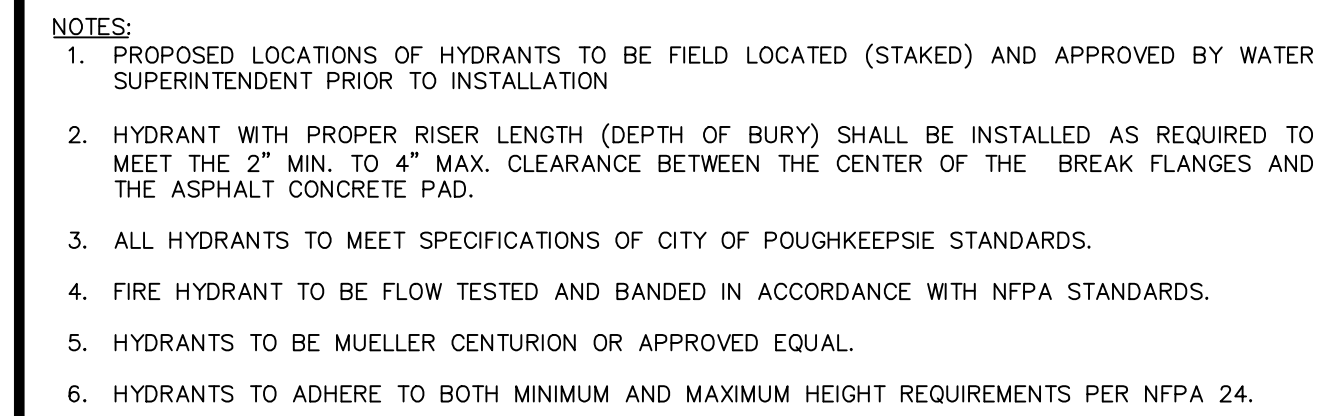
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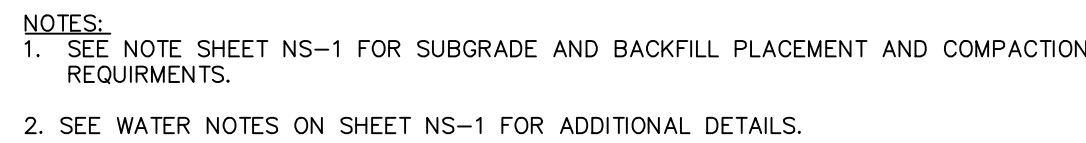
DETAILS PROVIDED BY THE CITY OF POUGHKEEPSIE. FOR ALL WORK TO BE PERFORMED IN THE CITY ROW.



10/03/23 SUBMIT FOR SIGNATURES 08/29/23 SUBMIT FOR SIGNATURES 06/04/18 REVISED PER COMMENTS 03/27/18 REVISED PER COMMENTS 10/25/17 ISSUED TO PLANNING BOARD		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, LLC LRC Engineering & Surveying, LLC LRC Environmental Services, Inc.		SANITARY DETAILS PELTON MOUNT CARMEL 36 N. CLOVER STREET CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK	
Design/Calcs	LRC	CAD File		Sheet No.	
Drawn	LRC	Project No.	23-3076	DN-1	
Checked	KFC	Date	08-29-2017		
Approved	REM	Scale	NONE		



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

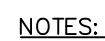


NOT TO SCALE



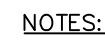
1. MINIMUM DISTANCE TO JOINTS, FITTINGS OR OTHER WET TAPS OR STOPS SHALL BE MAINTAINED IN ACCORDANCE WITH REGULATORY AGENCY.
2. THE WATER SERVICE TAP SHALL BE 30"-45" FROM TOP OF PIPE.

DN-2 NOT TO SCALE



1. ASSEMBLY TO BE INSTALLED HORIZONTALLY.
2. AMES COLI[®] SERIES LFC200 4" DOUBLE CHECK VALVE OR APPROVED EQUAL.
3. DCV TO BE INSTALLED IN MECHANICAL SPACE AND MUST MEET ALL CLEARANCES AS OUTLINED ABOVE.
4. ASSEMBLY TO BE TESTED BY A LICENSED BACKFLOW PREVENTION DEVICE TESTER AFTER INSTALLATION AND PRIOR TO ACTIVATION OF NEW WATER SUPPLY. THE RESULTS MUST BE SUBMITTED TO THE DDOH AND CITY OF POUGHKEEPSIE AS PART OF THE ENGINEER'S CERTIFICATION.
5. ASSEMBLY MUST BE TESTED ANNUALLY BY A LICENSED BACKFLOW PREVENTION TESTER. COPIES OF THE TEST RESULTS MUST BE SUBMITTED TO THE OWNER, CITY OF POUGHKEEPSIE, DEPARTMENT OF PUBLIC WORKS, AND THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.

NOT TO SCALE



1. ASSEMBLY TO BE INSTALLED HORIZONTALLY.
2. AMES SERIES LF2000B 2" DOUBLE CHECK VALVE OR APPROVED EQUAL.
3. DCV TO BE INSTALLED IN MECHANICAL SPACE AND MUST MEET ALL CLEARANCES AS OUTLINED ABOVE.
4. ASSEMBLY TO BE TESTED BY A LICENSED BACKFLOW PREVENTION DEVICE TESTER AFTER INSTALLATION AND PRIOR TO ACTIVATION OF NEW WATER SUPPLY. THE RESULTS MUST BE SUBMITTED TO THE DCDON AND CITY OF POUUGHKEEPSIE AS PART OF THE ENGINEER'S CERTIFICATION.
5. ASSEMBLY MUST BE TESTED ANNUALLY BY A LICENSED BACKFLOW PREVENTION TESTER. COPIES OF THE TEST RESULTS MUST BE SUBMITTED TO THE OWNER, CITY OF POUUGHKEEPSIE, DEPARTMENT OF PUBLIC WORKS, AND THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.

NOT TO SCALE



1. DITCH WIDTH SHALL EXTEND A MINIMUM OF ONE AND ONE-HALF FT. FROM THE EDGES OF THE TRENCH.
2. DEEPER BASE UNDER 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 ASPHALTIC CONCRETE.
7. ASPHALT PAVEMENT TO BE PLACED IN TWO LIFTS AS SHOWN.

FILE NO.:	FLEXPAVE.DWG
DATE:	9-9-04
SCALE:	AS NOTED
DRAWN BY:	ENGINEERING



FILE NO.:	
DATE:	3-6-00
SCALE:	AS NOTED
DRAWN BY:	JP

TAPPING
SLEEVE &
VALVE

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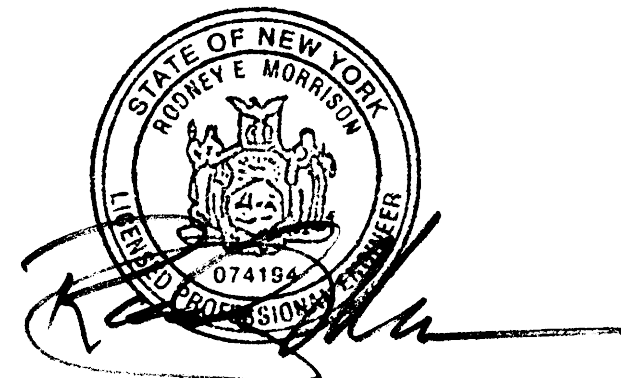


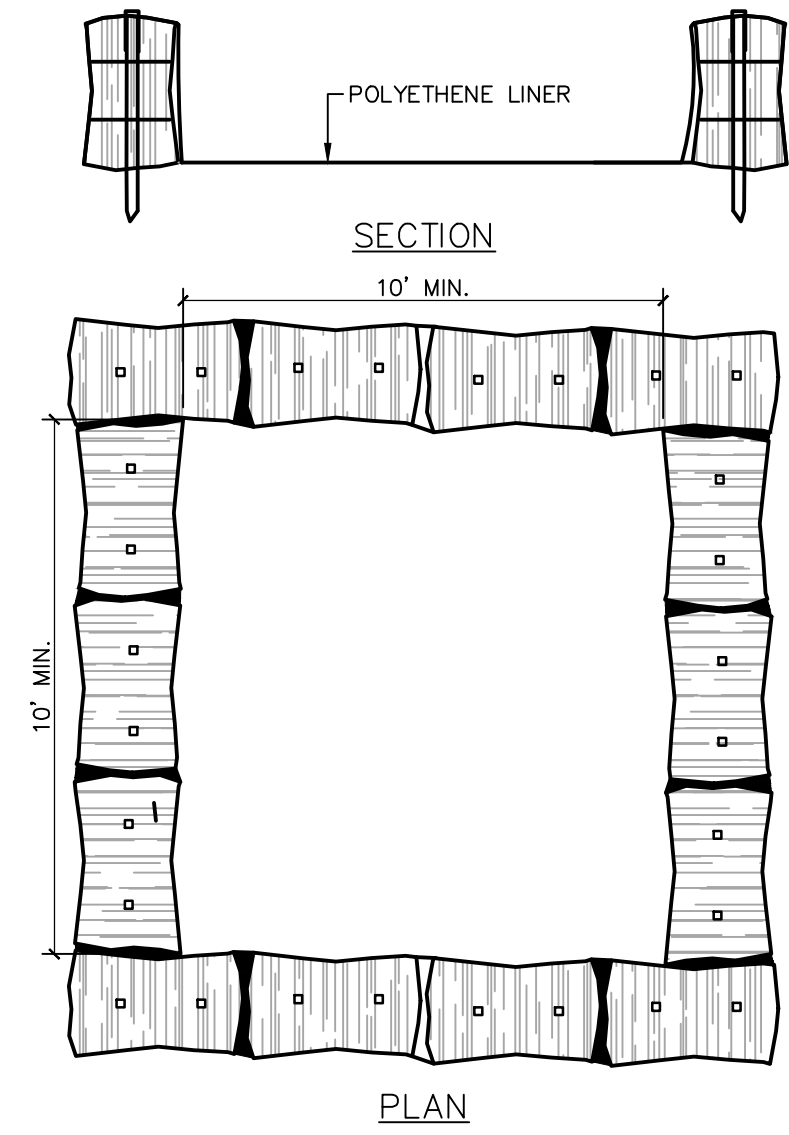
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SCALE:	AS NOTED
DRAWN BY:	JTK

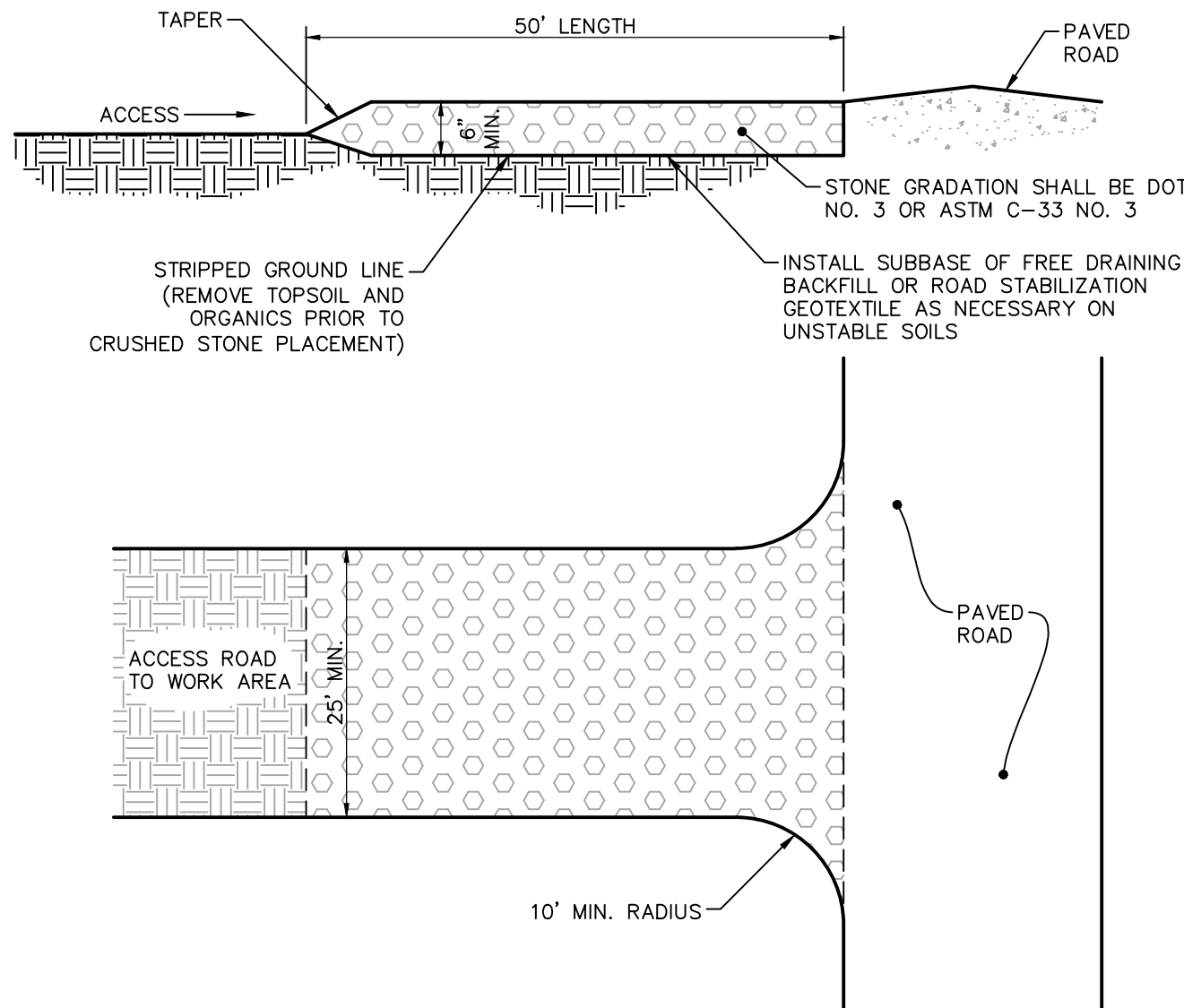
WATER
DISCONNECT
@ MAIN

	WATER DETAILS	
	PELTON MOUNT CARMEL	
10/03/23 SUBMIT FOR SIGNATURES 4/08/23/23 SUBMIT FOR SIGNATURES 5/00/04/18 REVISED PER COMMENTS 2/02/27/18 REVISED PER COMMENTS 1/10/05/17 ISSUED TO PLANNING BOARD	36 N. CLOVER STREET CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK	
Revisions	Design/Cals LRC CAD File Drawn LRC Project No. 23-3076 Checked KFC Date 08-29-2017 Approved REM Scale NONE	

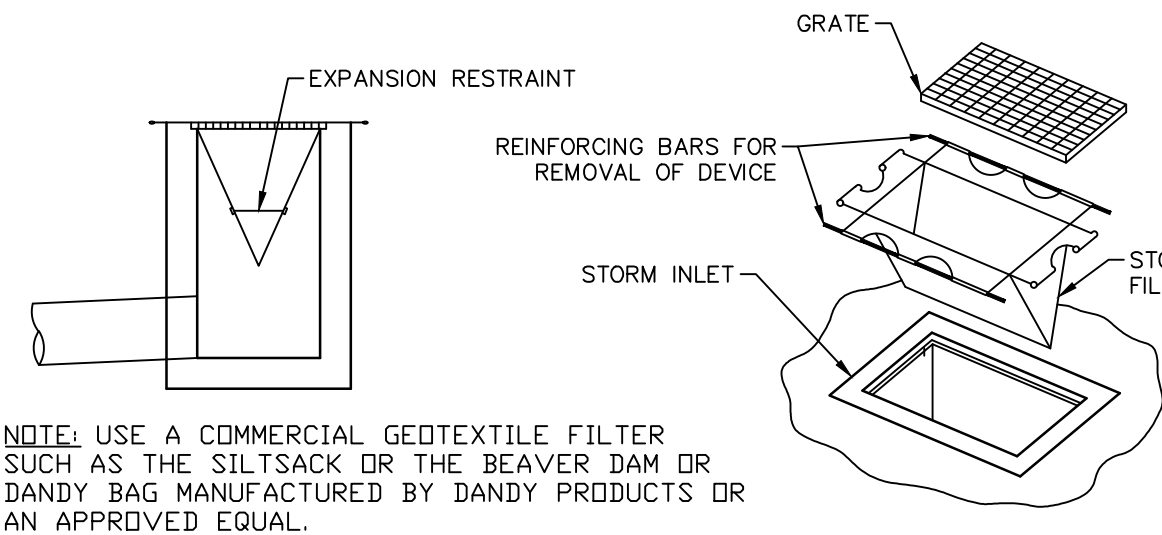




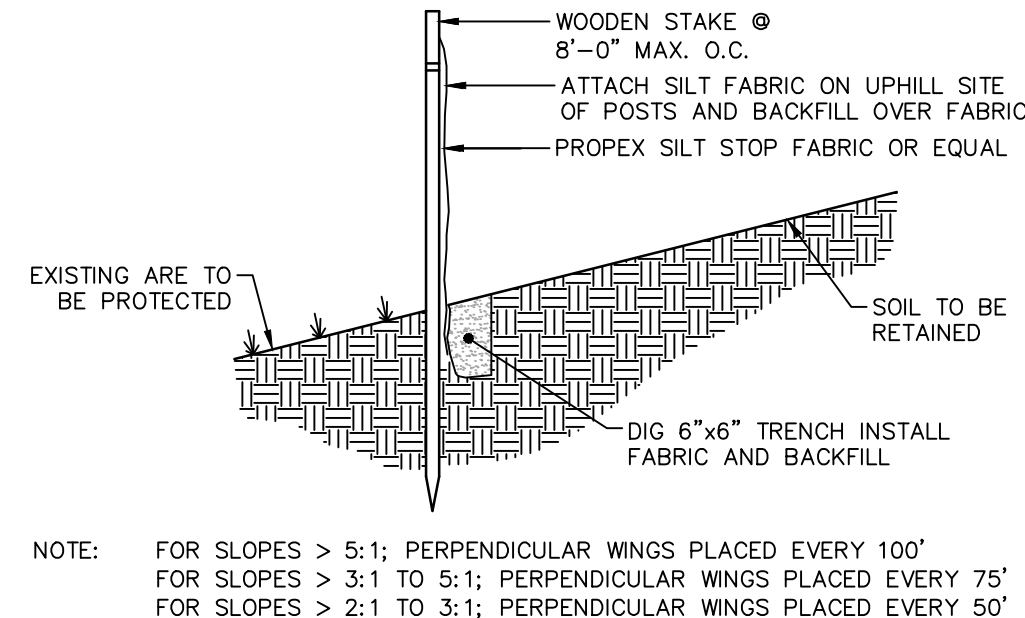
1 ABOVE GROUND TEMPORARY CONCRETE WASHOUT DETAIL
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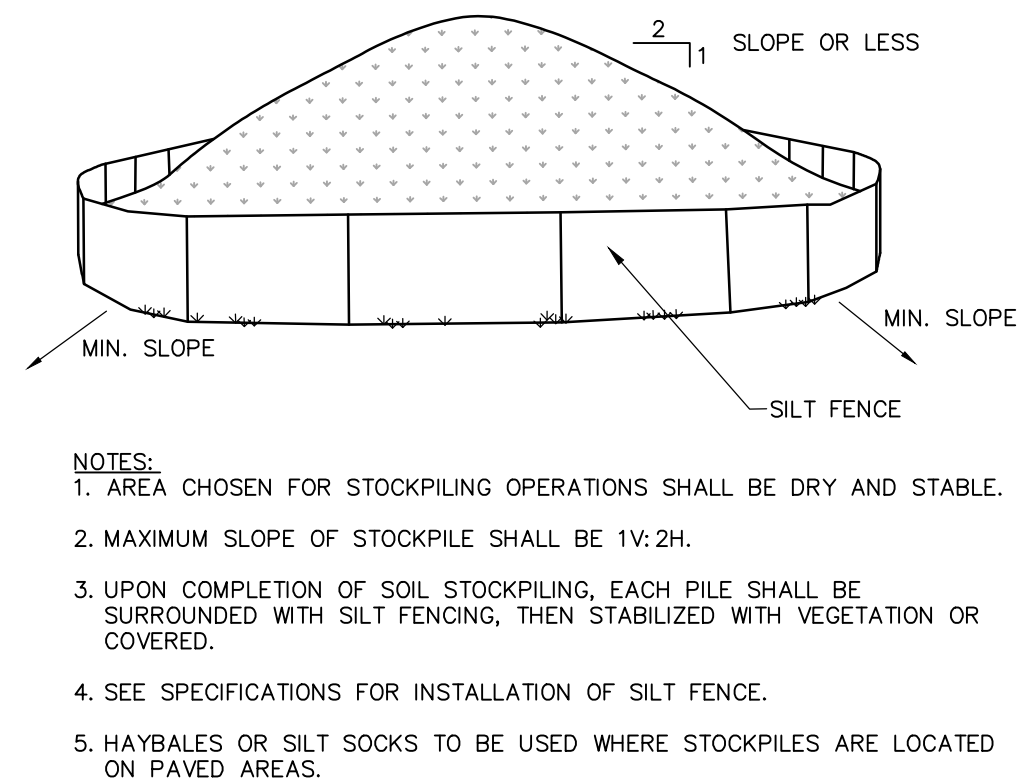
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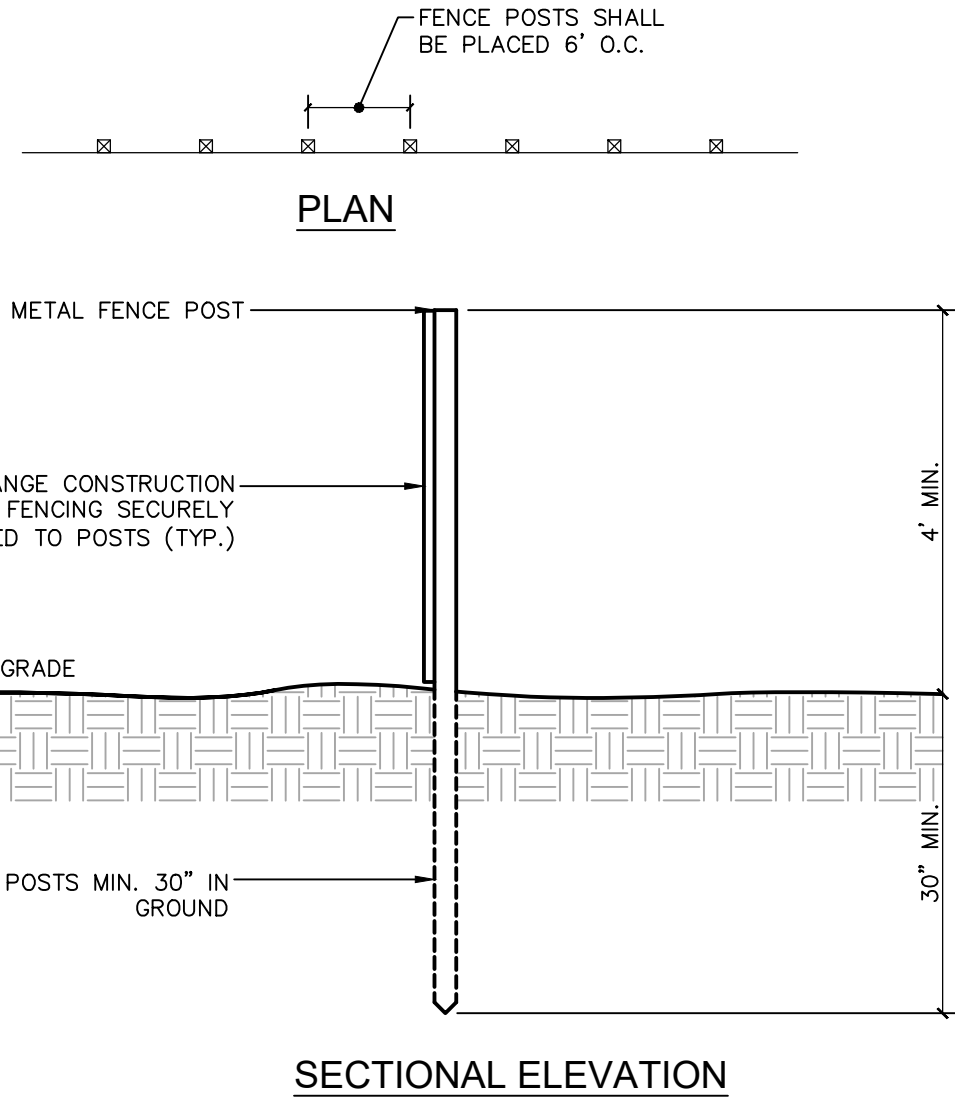
3 SILT SACK DETAIL
SCALE: N.T.S.



4 SILT FENCE DETAIL
SCALE: N.T.S.

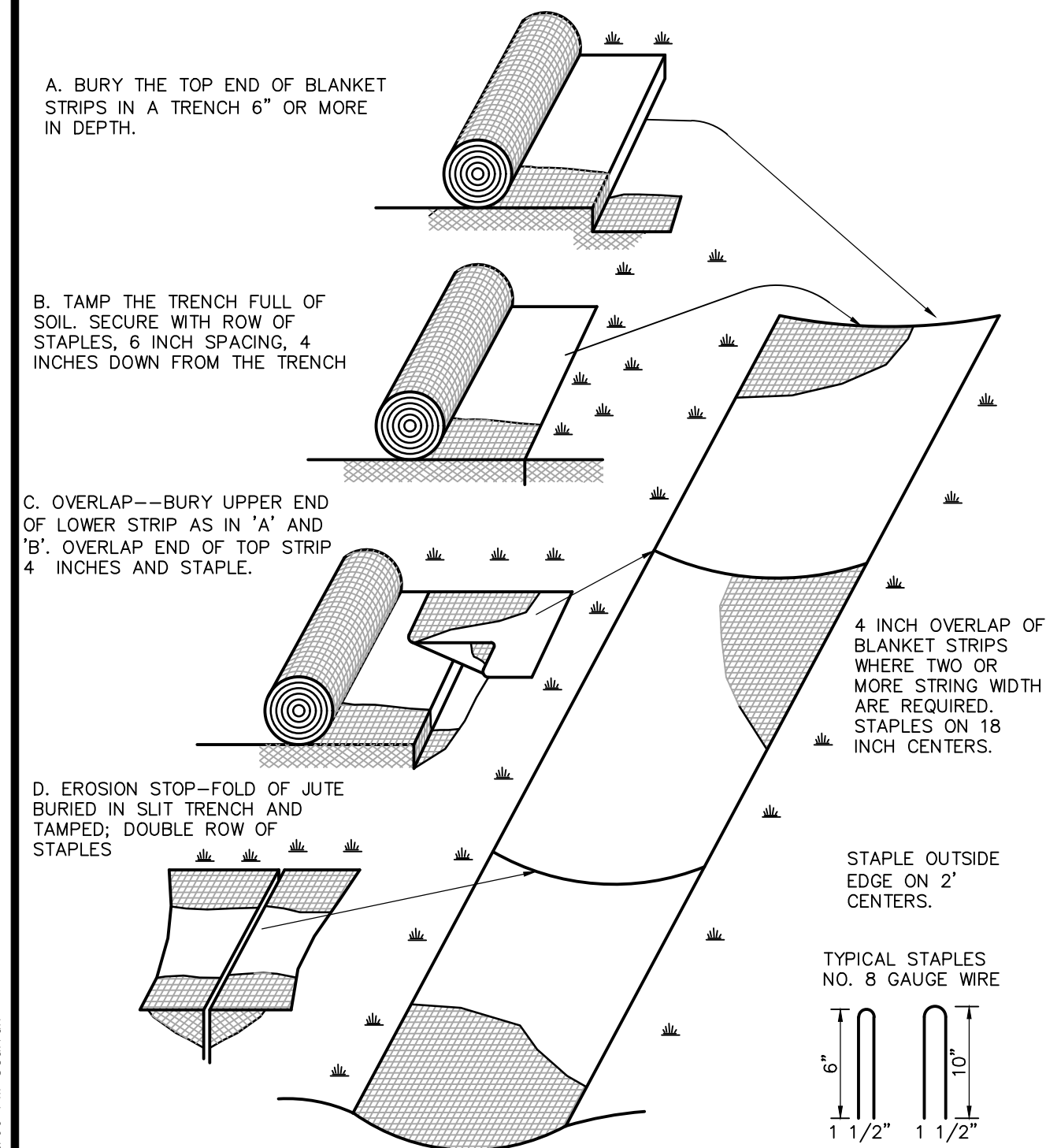


5 MATERIALS STOCKPILE DETAIL
SCALE: N.T.S.



6 EROSION CONTROL BLANKET DETAIL
SCALE: N.T.S.

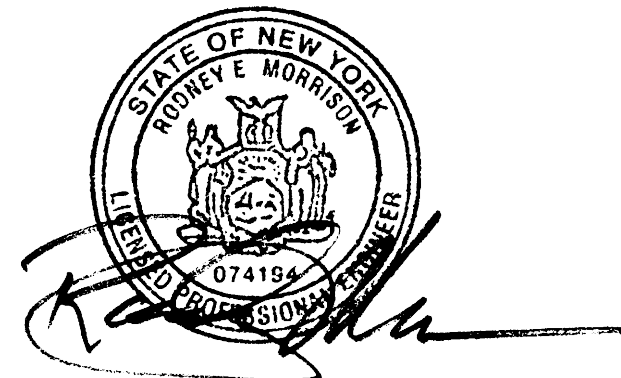
7 ORANGE CONSTRUCTION FENCE DETAIL
SCALE: 1/2" = 1'-0"



- NOTES:
1. BLANKET IS TO BE INSTALLED ON ANY FINISHED SLOPES THAT ARE 4:1 OR GREATER.
 2. 4:1 SLOPES OR STEEPER WHERE INDICATED ON THE CONTRACT DRAWINGS:

EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN SC 150 OR SHALL BE A GREEN, WOOD FIBER MAT CONSTRUCTED FROM 100% ASPEN CURLED FIBERS WITH A GREEN PHOTO-DEGRADABLE NETTING APPLIED TO ONE SIDE. EROSION CONTROL BLANKET TO BE AS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY, ARLINGTON, TX, "QUICK GRASS" OR APPROVED EQUAL.

6 EROSION CONTROL BLANKET DETAIL
SCALE: N.T.S.



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.			
Design/Calcs	LRC	CAD File	Sheet No.
Drawn	LRC	Project No.	23-3076
Checked	KFC	Date	08-29-2017
Approved	REM	Scale	NONE

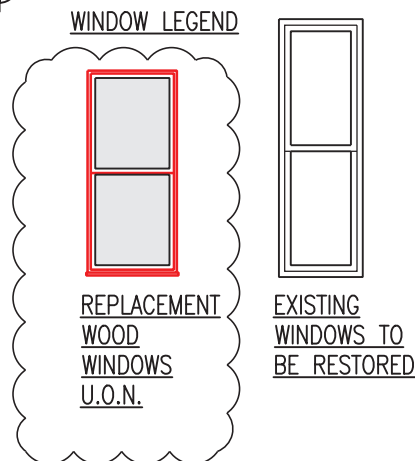
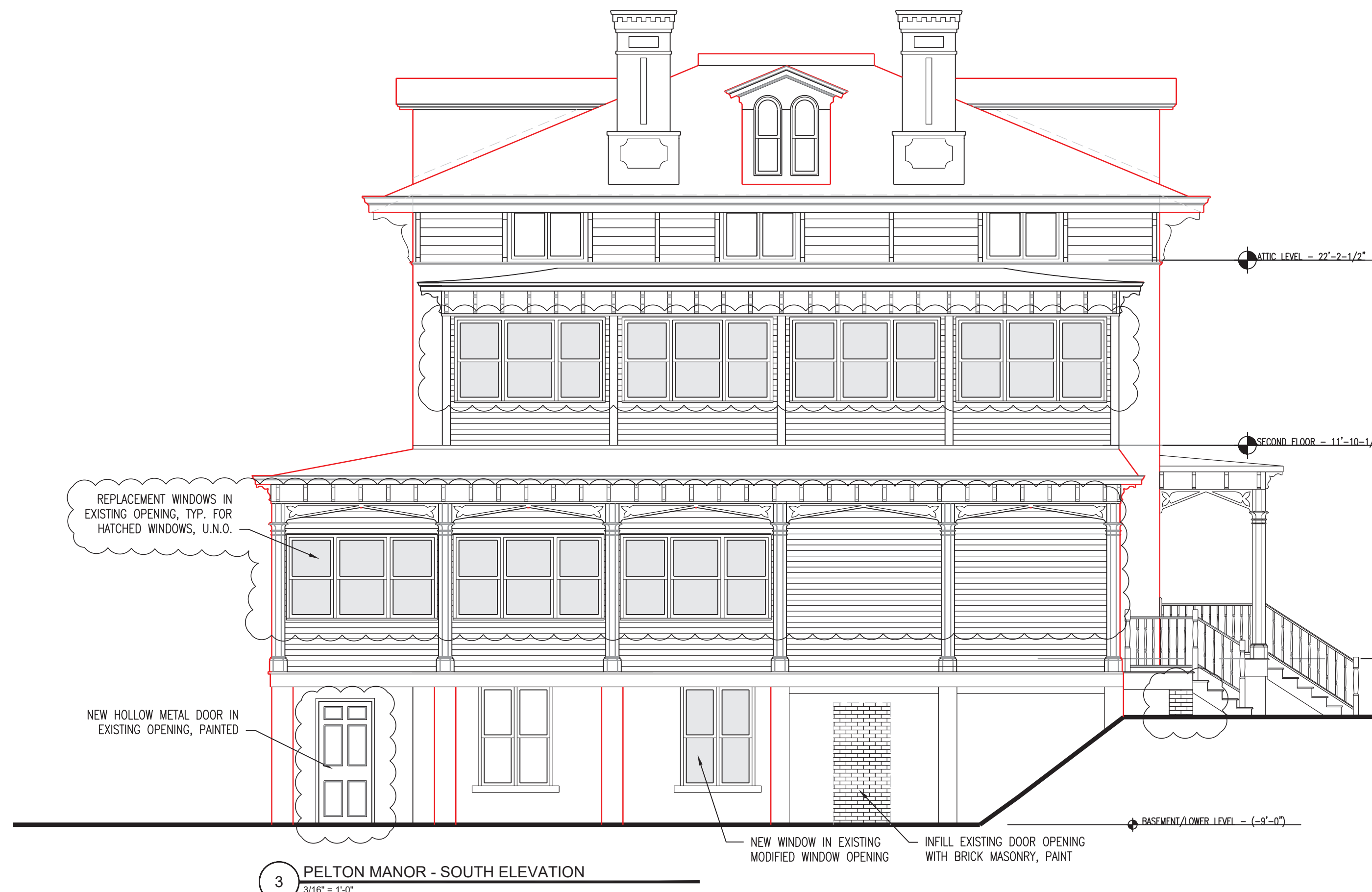
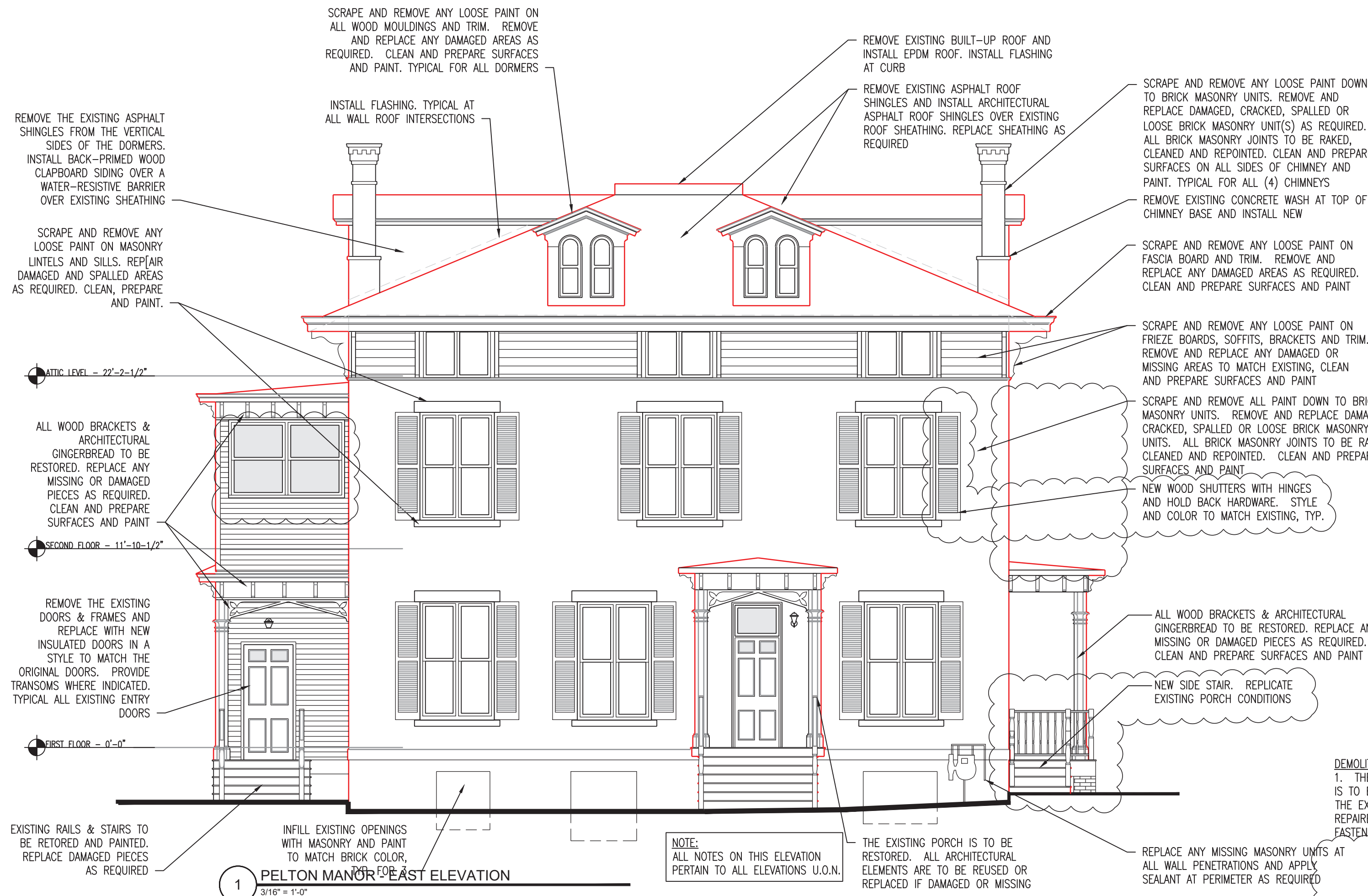
EROSION CONTROL DETAILS

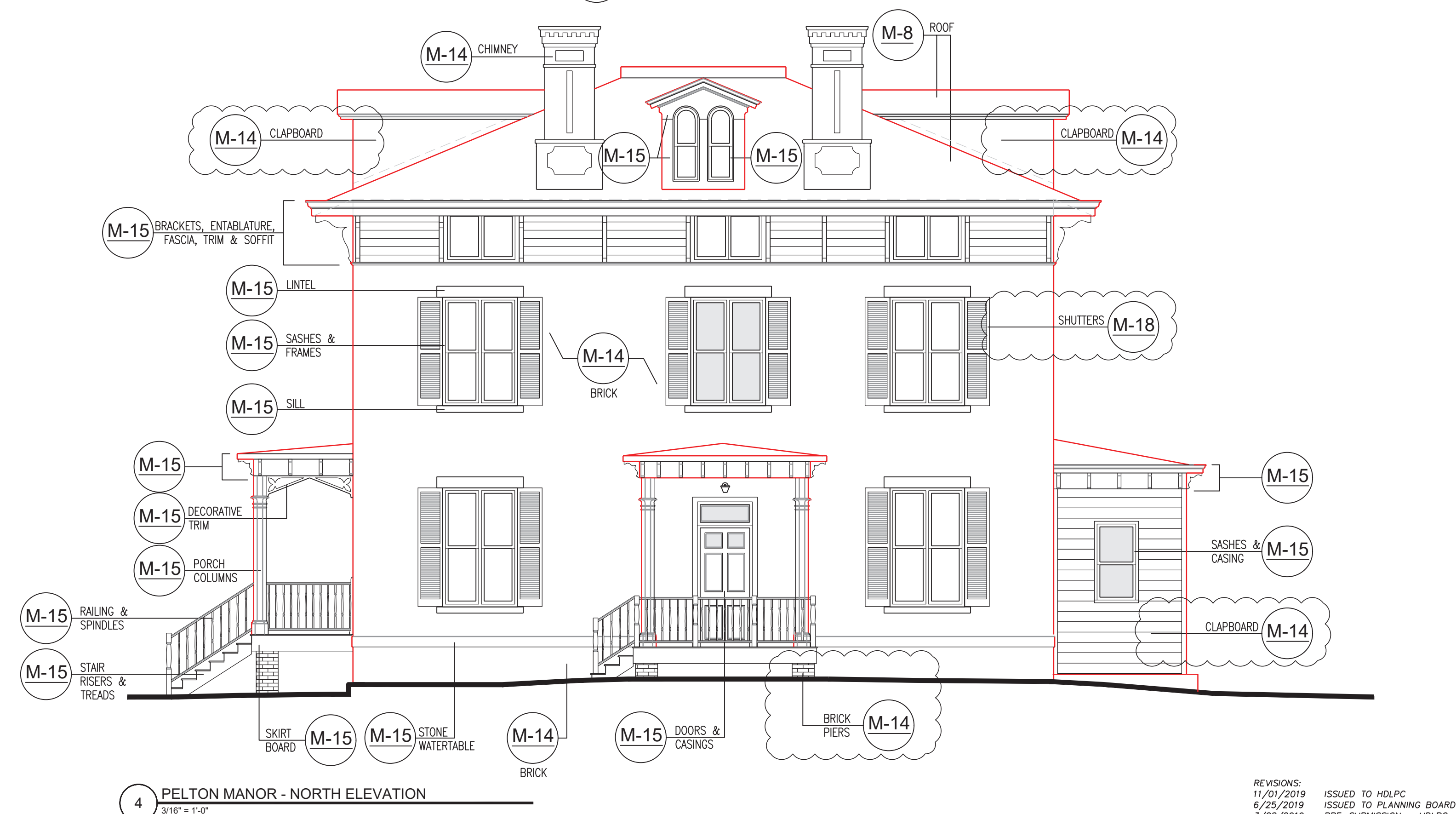
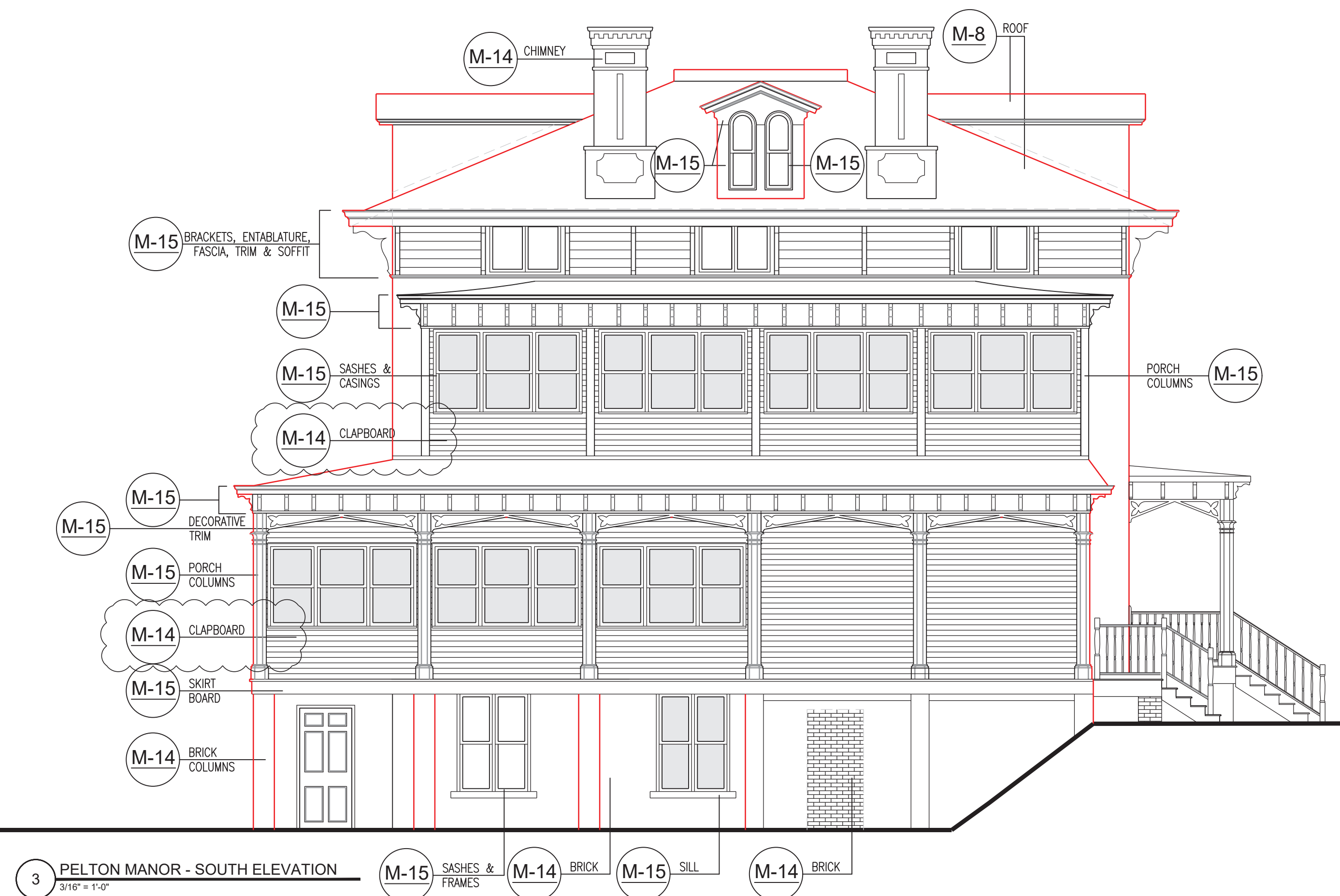
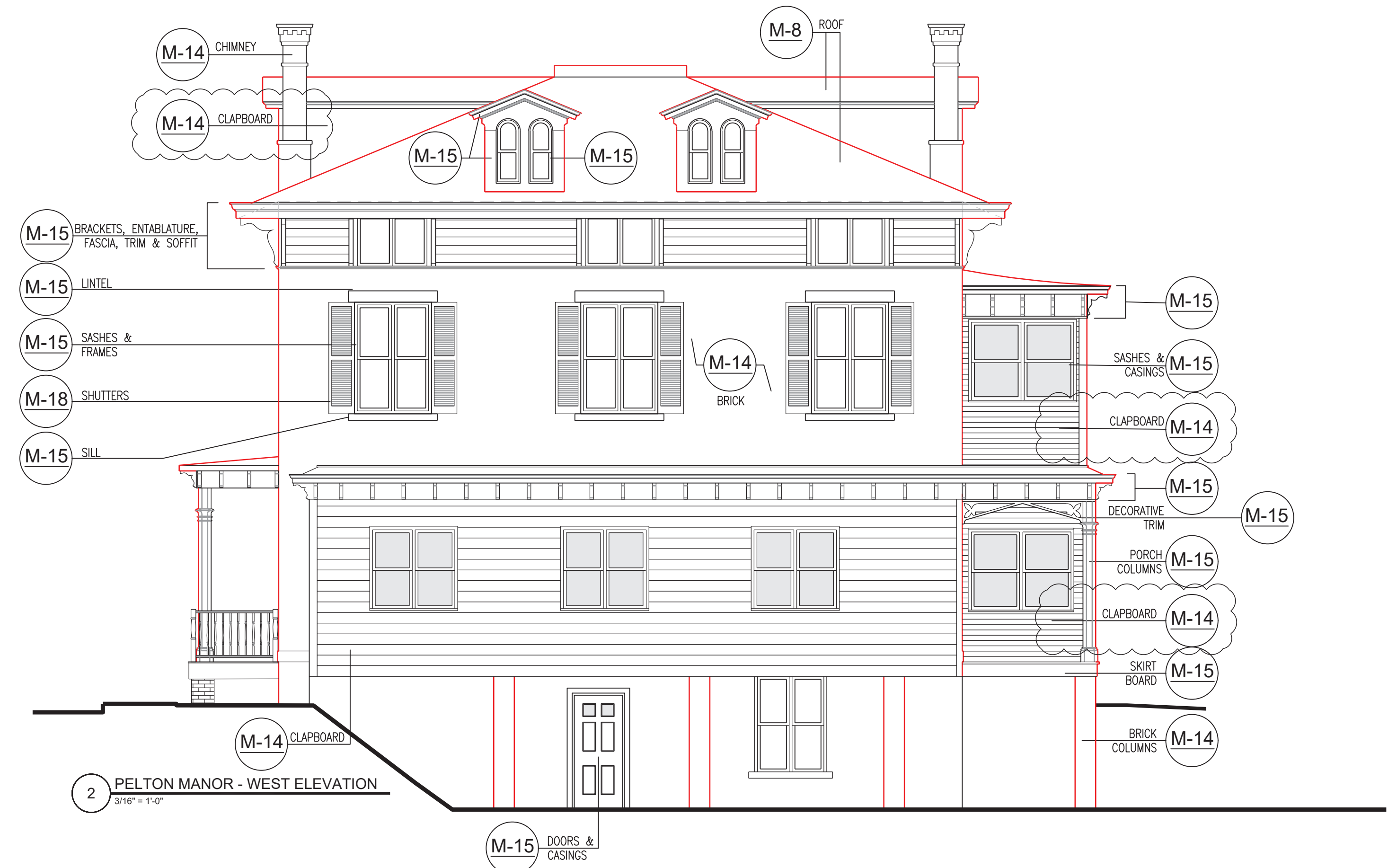
PELTON MOUNT CARMEL

36 N. CLOVER STREET
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

DN-3







REVISIONS:

11/01/2019	ISSUED TO HDLPC
6/25/2019	ISSUED TO PLANNING BOARD
3/28/2019	PRE-SUBMISSION - HDLPC
11/07/18	ISSUED TO HDLPC
10/03/18	ISSUED TO HDLPC
8/03/2018	ISSUED TO HDLPC
3/26/2018	ISSUED TO PLANNING BOARD
10/5/2017	ISSUED TO PLANNING BOARD



CLIENT:

Pelton Partners LLC

25 Van Wagner Road
Poughkeepsie, NY 12603

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



MATERIAL
CALLOUTS
PELTON MANOR

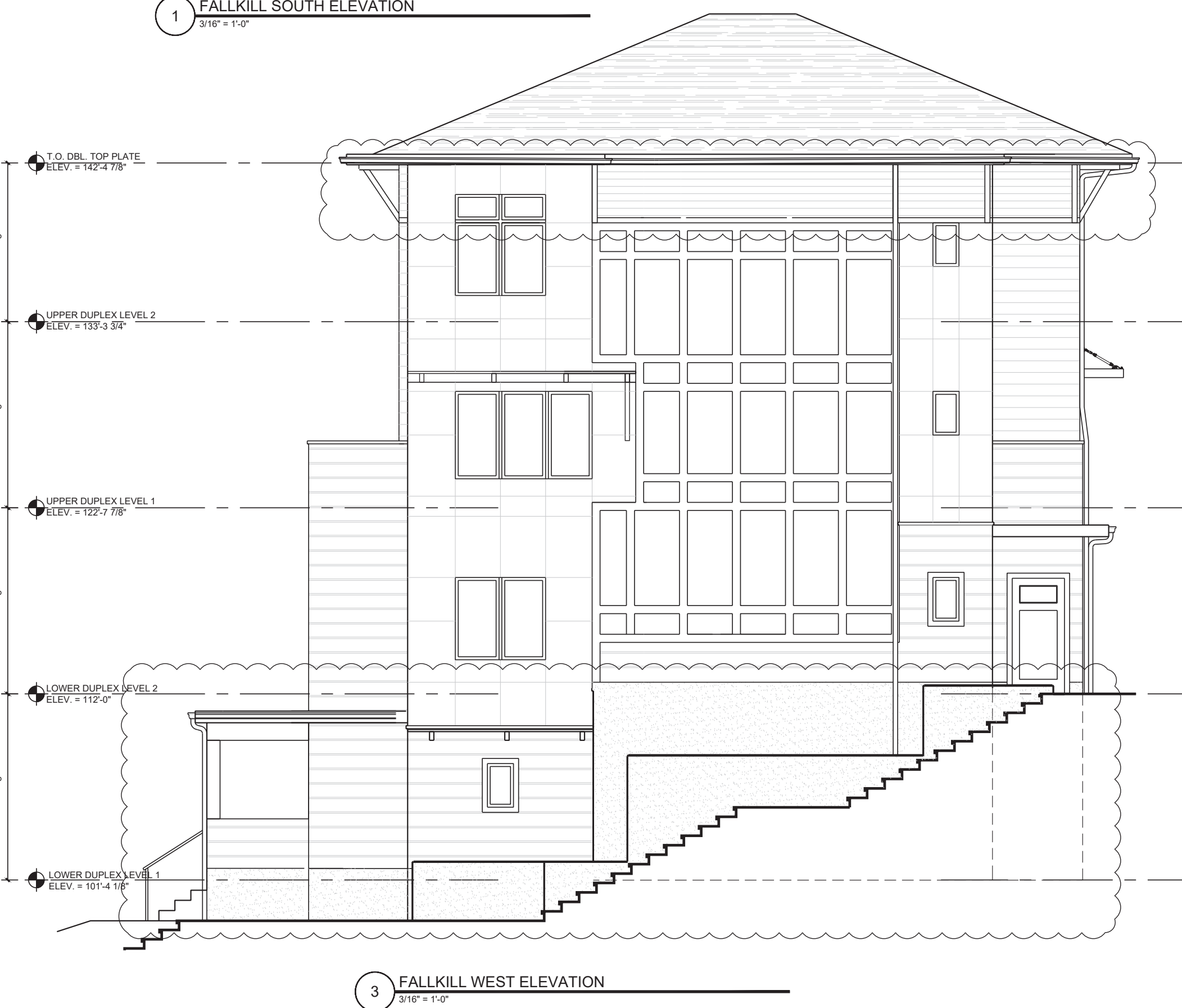
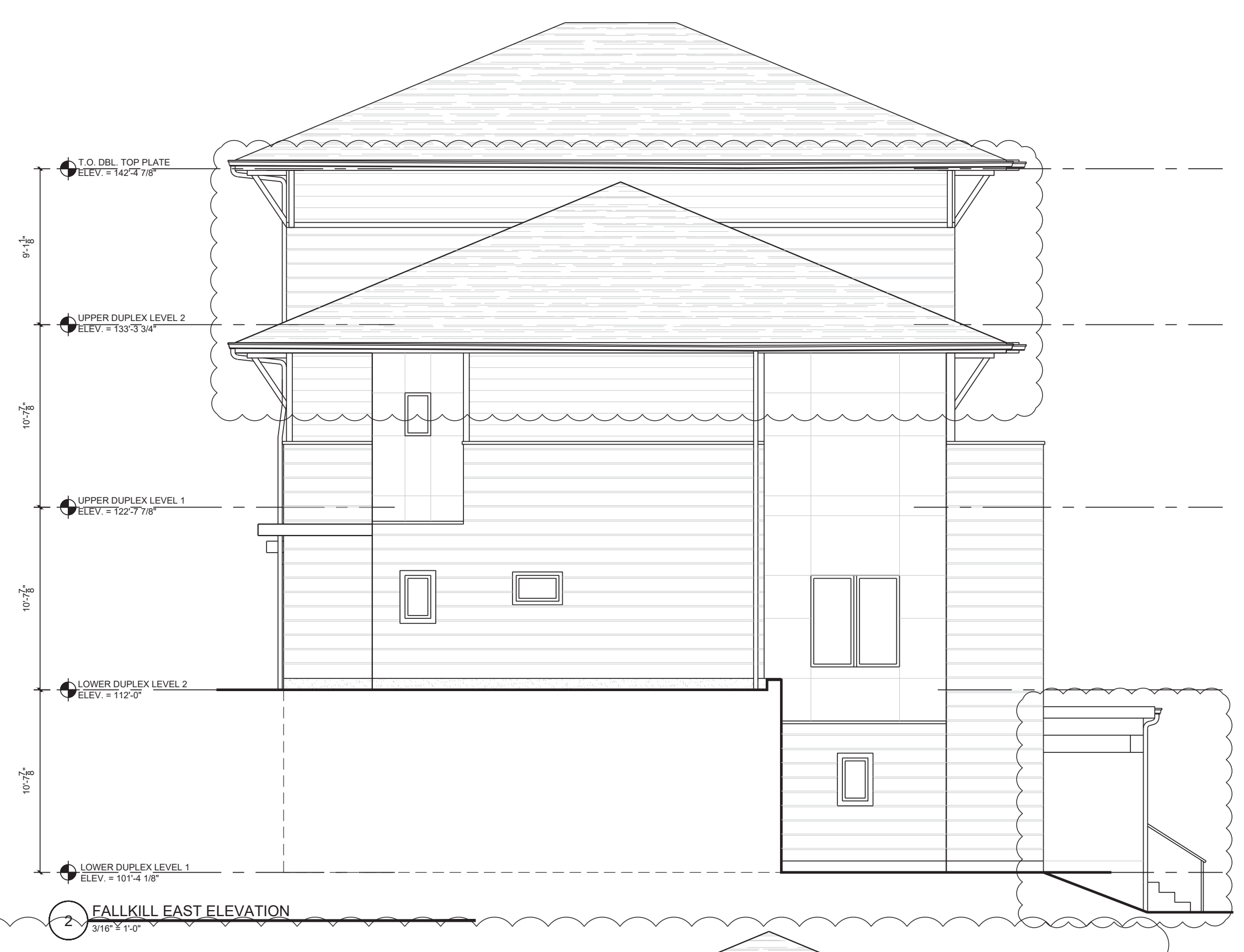
AWN BY: J.D.	PZ-08.1
OB No. Y1022	
DATE: 5/2017	



1 PELTON MANOR RENDER 01
NTS



2 PELTON MANOR RENDER 02
NTS



REVISIONS:
6/25/2019 ISSUED TO PLANNING BOARD
3/28/2019 PRE-SUBMISSION - HDLPC
11/27/2018 ISSUED TO HDLPC
8/23/2018 ISSUED TO HDLPC
3/26/2018 ISSUED TO PLANNING BOARD
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ARCHITECTURE
25 VAN WAGNER ROAD, Poughkeepsie, NY

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Poughkeepsie, NY 12603

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



**PRELIMINARY
ELEVATIONS -
FALKKILL**

DRAWN BY: J.D.	PZ-10
DATE: 7/5/17	

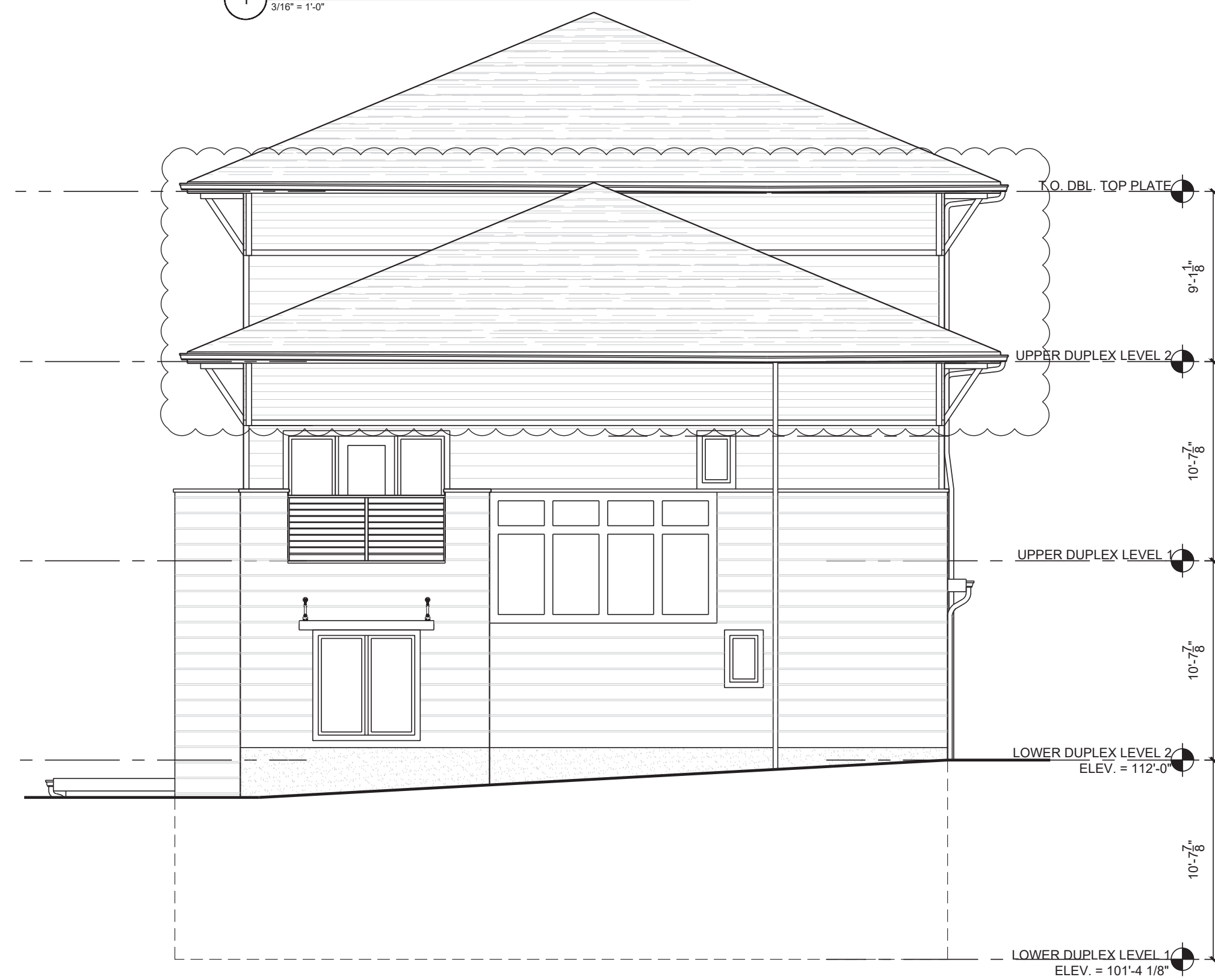
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1 DONGAN SOUTH ELEVATION
3/16" = 1'-0"



2 DONGAN EAST ELEVATION
3/16" = 1'-0"



3 DONGAN WEST ELEVATION
3/16" = 1'-0"



4 DONGAN NORTH ELEVATION
3/16" = 1'-0"

REVISIONS:
4/25/2019 ISSUED TO PLANNING BOARD
3/28/2019 PRE-SUBMISSION - HDLPC
11/07/2018 ISSUED TO HDLPC
3/26/2018 ISSUED TO PLANNING BOARD
11/9/2017 ISSUED TO PLANNING BOARD
10/2/2017 ISSUED TO PLANNING BOARD



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CLIENT:

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25 Van Wagner Road
Poughkeepsie, NY 12603

PROJECT NAME:

Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



**PRELIMINARY
ELEVATIONS -
DONGAN**

DRAWN BY:
J.D.
JOB No.
Y1022
DATE:
7/5/17
PZ-12

P:\17A Jobs\Y1022 - 36 N Clover\Drawings\Sheets\2019.03.12 Planning board and approval\11022-PZ-12 PRELIMINARY ELEVATIONS - DONGAN.dwg



1 RIVER EAST ELEVATION
3/16" = 1'-0"



2 RIVER NORTH ELEVATION
3/16" = 1'-0"



3 RIVER SOUTH ELEVATION
3/16" = 1'-0"



2 RIVER WEST ELEVATION
3/16" = 1'-0"



TINKELMAN
ARCHITECTURE
25 VAN WAGNER RD. POUGHKEEPSIE, NY

CLIENT:
Pelton Partners LLC
25 Van Wagner Road
Poughkeepsie, NY 12603

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



REVISIONS:		ISSUED TO PLANNING BOARD
6/25/2019	PRE-SUBMISSION - HDLPC	
3/28/2019	ISSUED TO HDLPC	
3/26/2018	ISSUED TO PLANNING BOARD	
11/29/2017	ISSUED TO PLANNING BOARD	
10/25/2017	ISSUED TO PLANNING BOARD	

PRELIMINARY ELEVATIONS - RIVER	
DRAWN BY: J.D.	PZ-14
JOB No. Y1022	
DATE: 7/5/17	

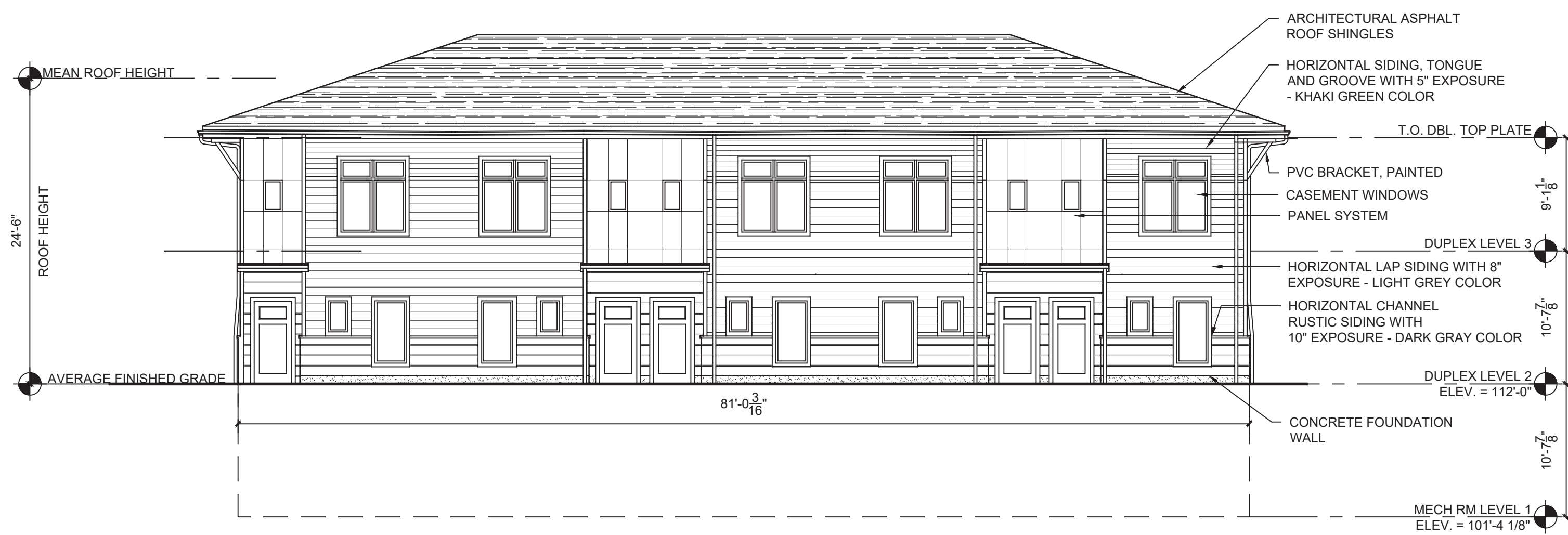
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1 RIVER BUILDING - EAST ELEVATION (CURRENTLY APPROVED)
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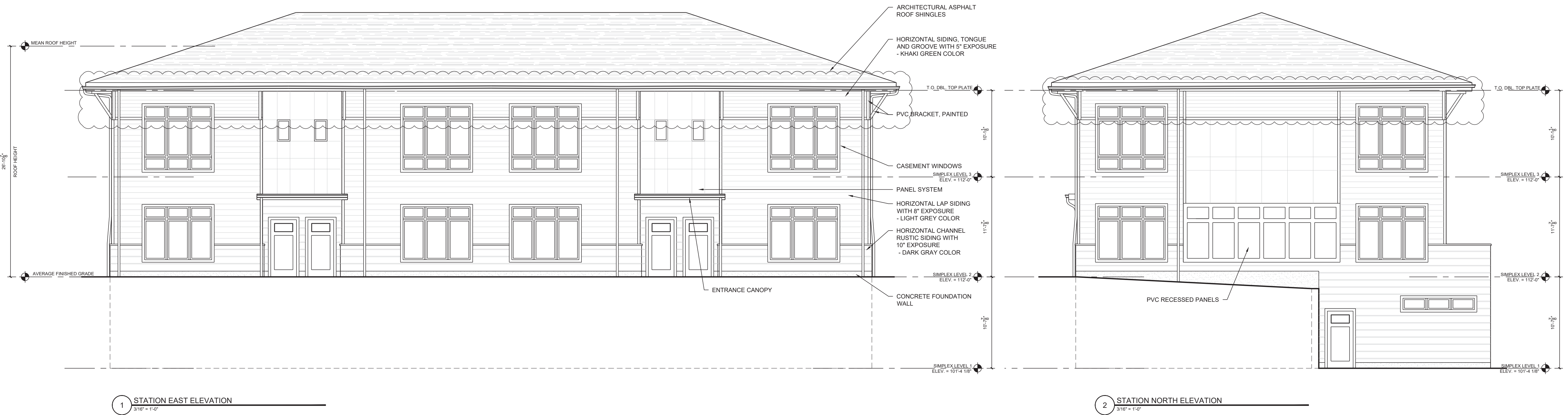
2 RIVER BUILDING - WEST ELEVATION (CURRENTLY APPROVED)
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3 RIVER BUILDING - EAST ELEVATION (PROPOSED)
1/8" = 1'-0"



4 RIVER BUILDING - WEST ELEVATION (PROPOSED)
1/8" = 1'-0"



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CLIENT:
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25 Van Wagner Road
Poughkeepsie, NY 12603

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



PRELIMINARY
ELEVATIONS -
STATION

DRAWN BY:
J.D.

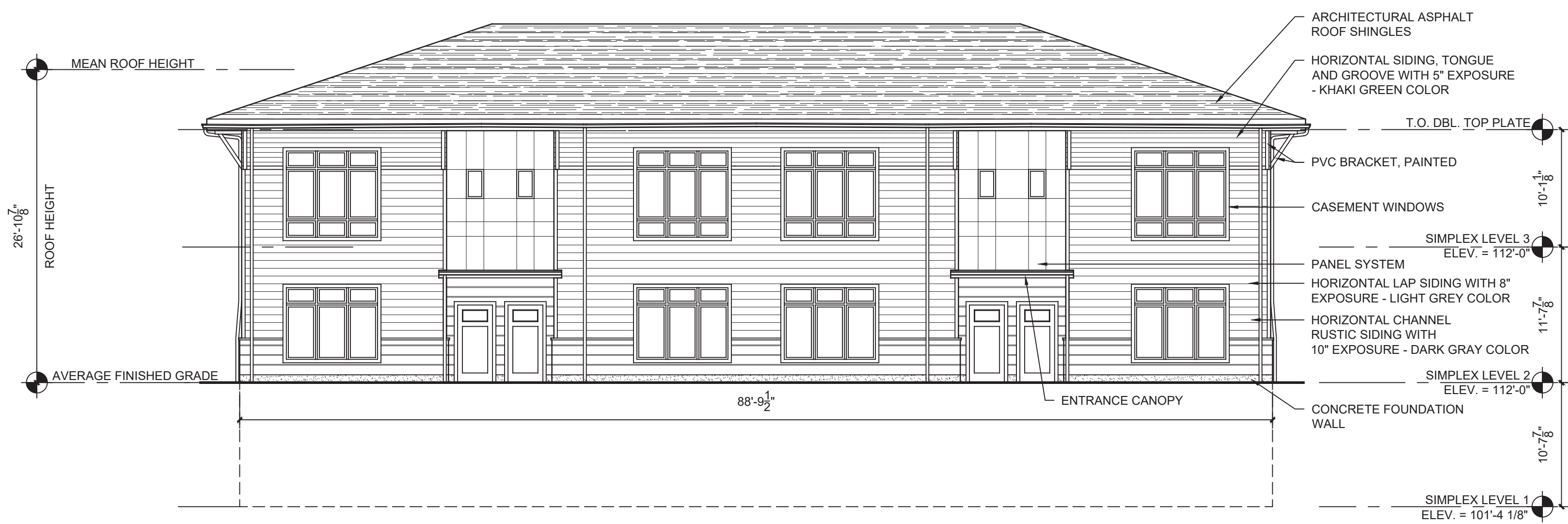
JOB No.
Y1022

DATE:
7/5/17

PZ-16

REVISIONS:
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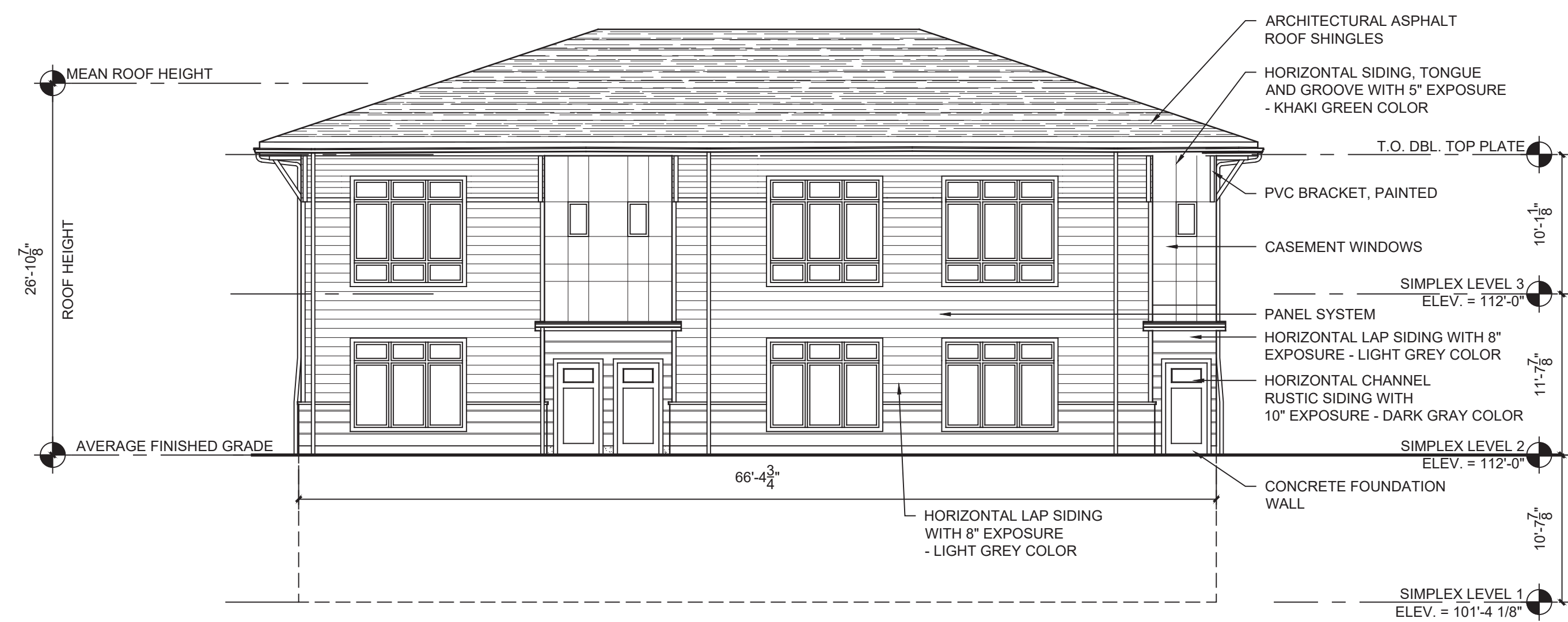
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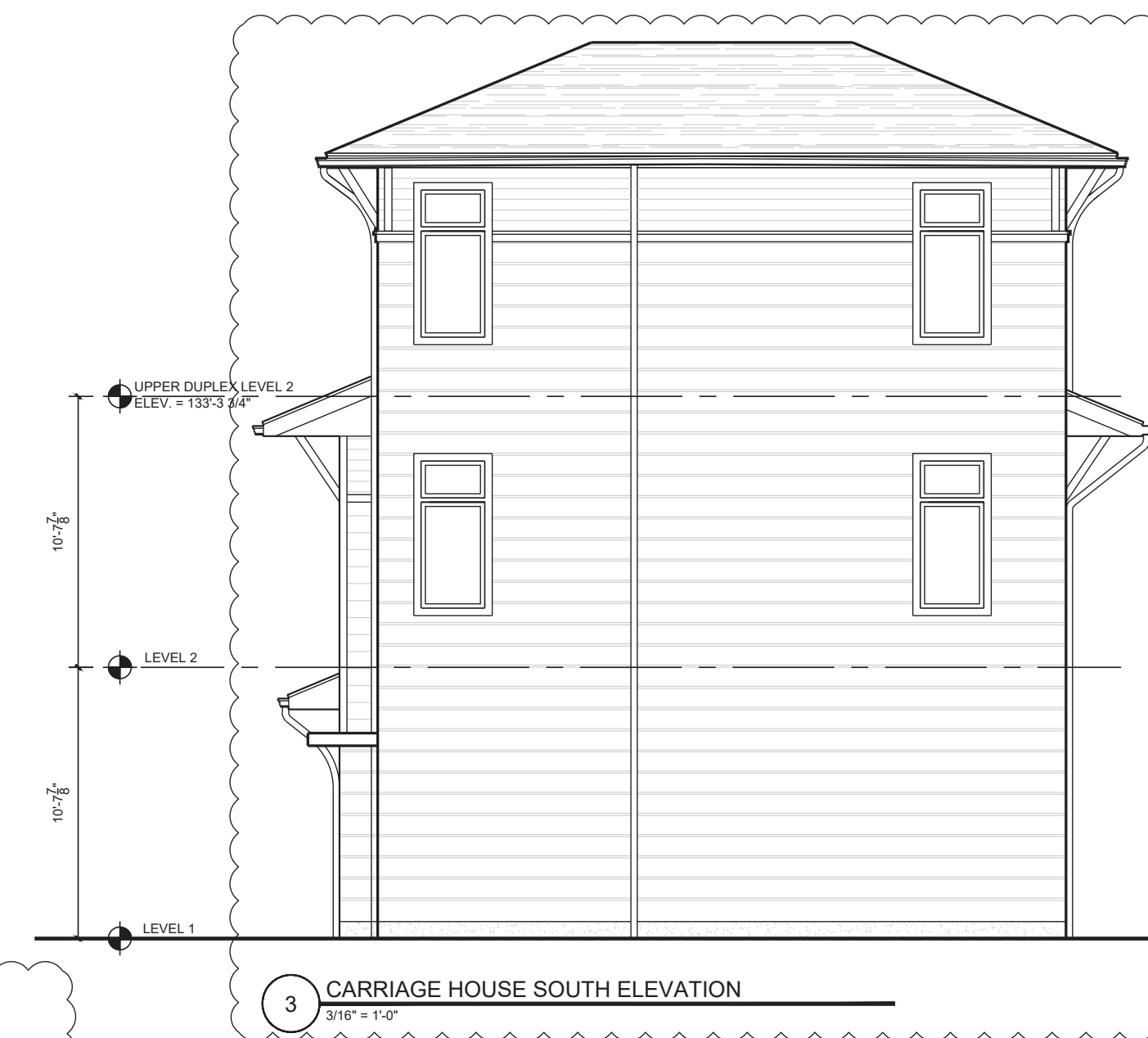
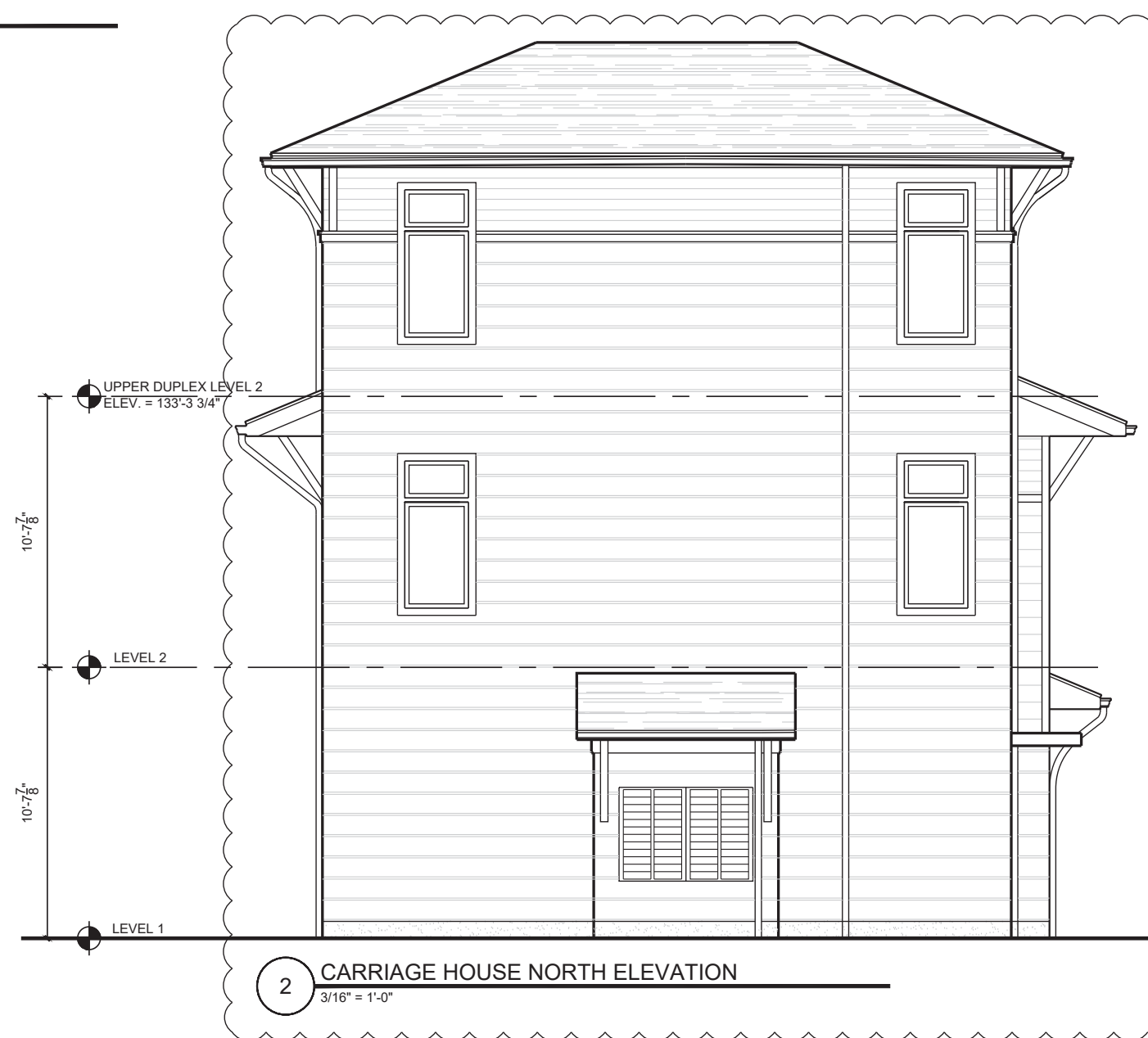
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3 STATION BUILDING - EAST ELEVATION (PROPOSED)
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4 STATION BUILDING - WEST ELEVATION (PROPOSED)
1/8" = 1'-0"



REVISIONS:
5/28/2019 ISSUED TO PLANNING BOARD
3/28/2019 PRE-SUBMISSION - HDLPC
3/28/2018 ISSUED TO PLANNING BOARD
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PROJECT NAME:

Pelton Mount Carmel
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Poughkeepsie, NY 12601



**PRELIMINARY
ELEVATIONS -
CARRIAGE HOUSE**

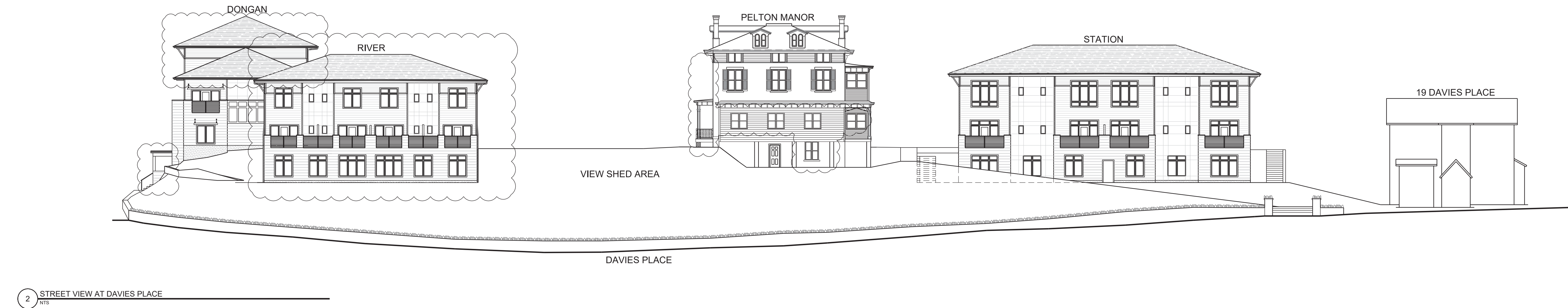
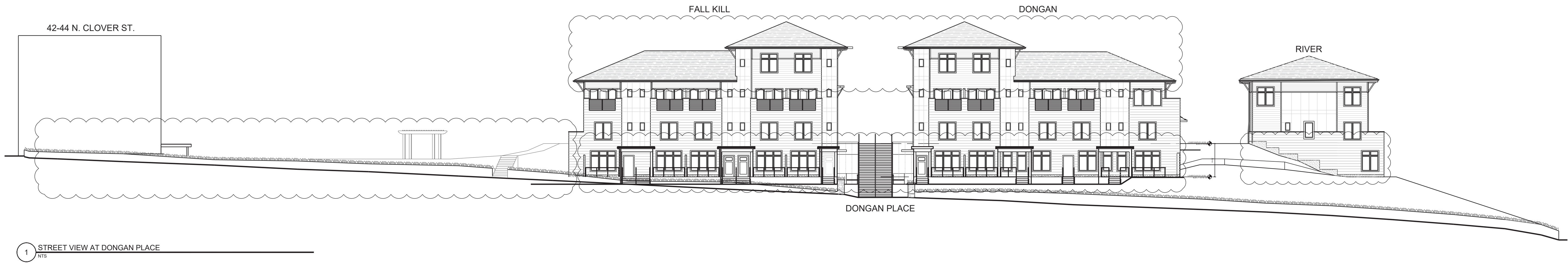
DRAWN BY:
J.D.

JOB No.
Y1022

DATE:
7/5/17

PZ-18

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REVISIONS:
6/25/2019 ISSUED TO HDLPC
3/28/2019 PRE-SUBMISSION - HDLPC
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8/03/2018 ISSUED TO HDLPC
1/26/2018 ISSUED TO PLANNING BOARD
1/24/2017 ISSUED TO HDLPC



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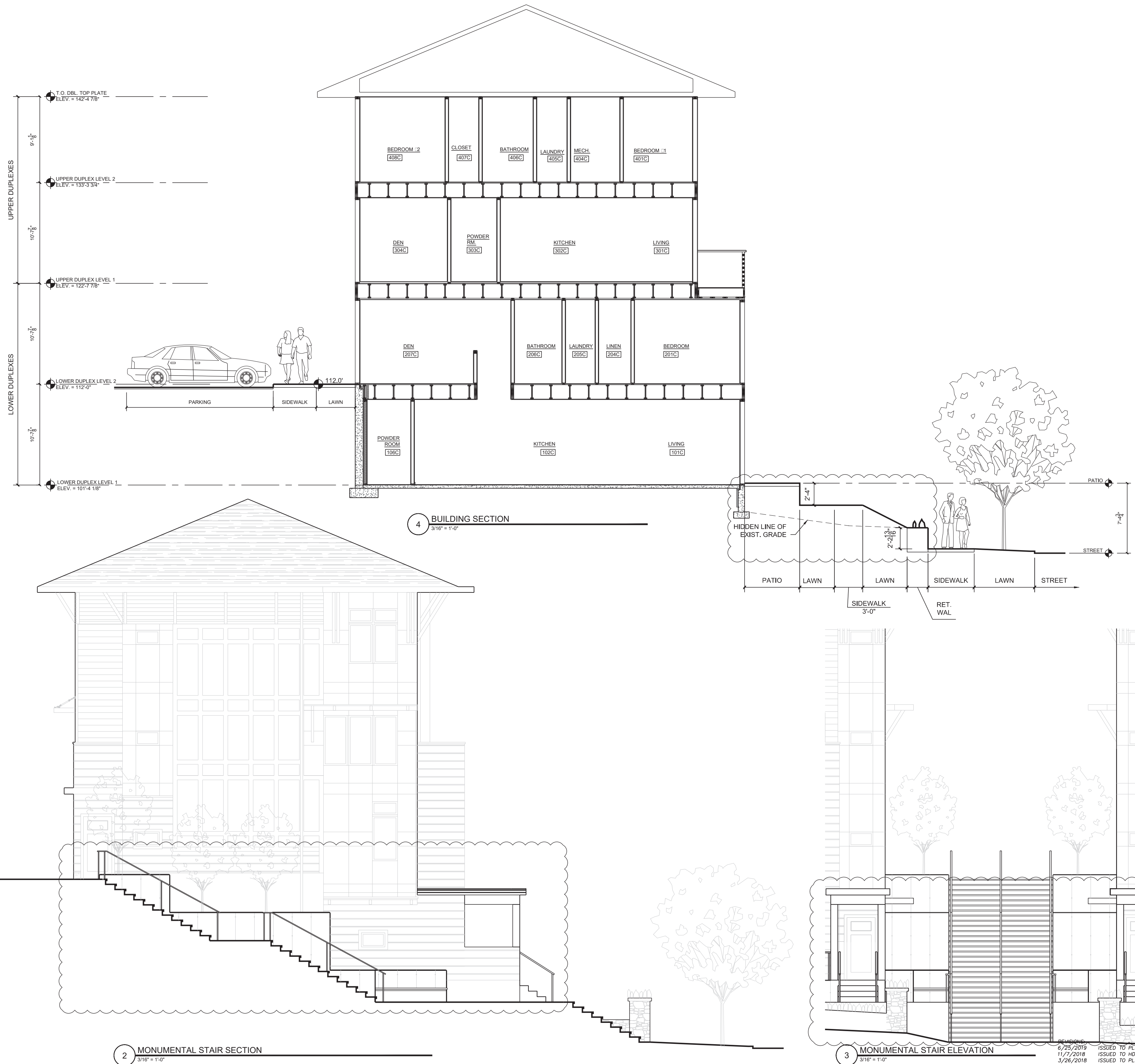
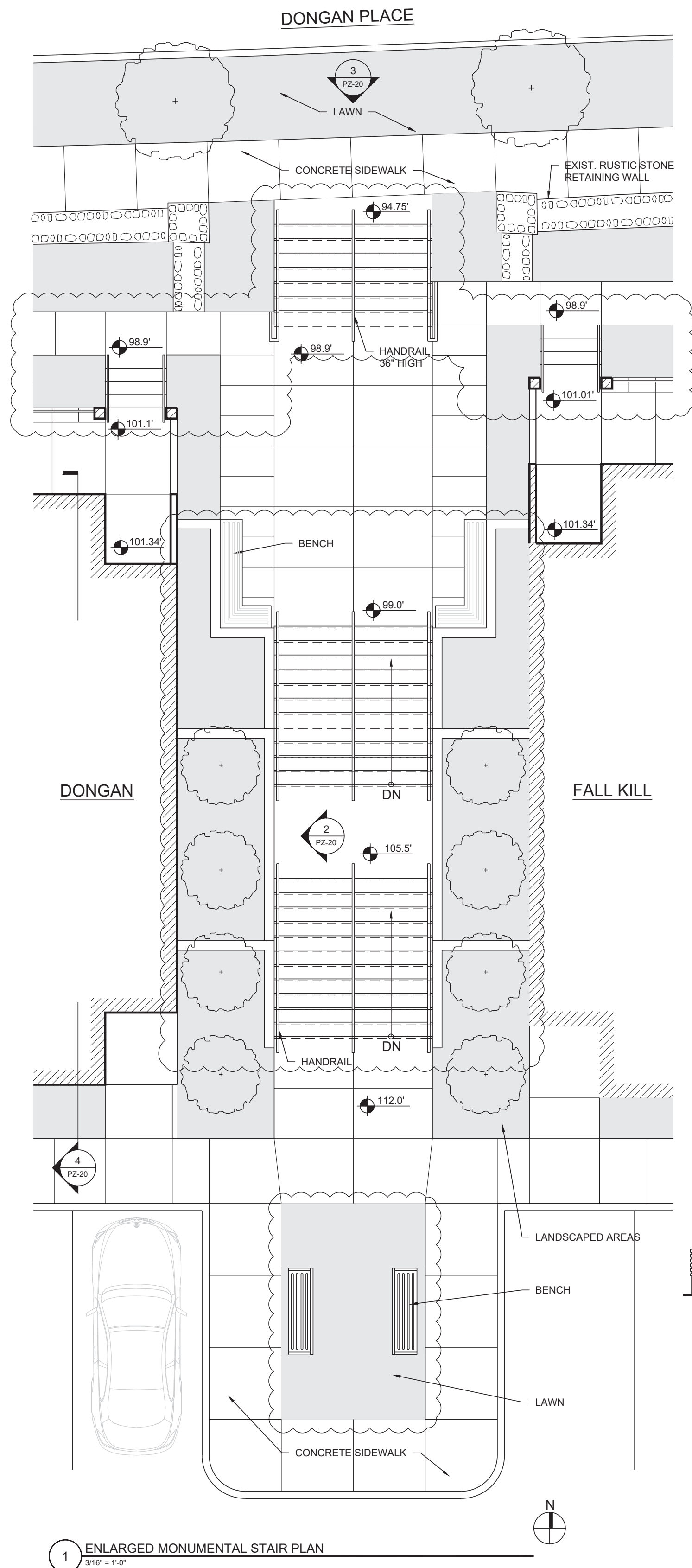
CLIENT:
Pelton Partners LLC
25 Van Wagner Road
Poughkeepsie, NY 12603

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



STREET ELEVATIONS	
DRAWN BY: M.L.L.	PZ-19
JOB No. Y1022	
DATE: 19 Nov 2015	

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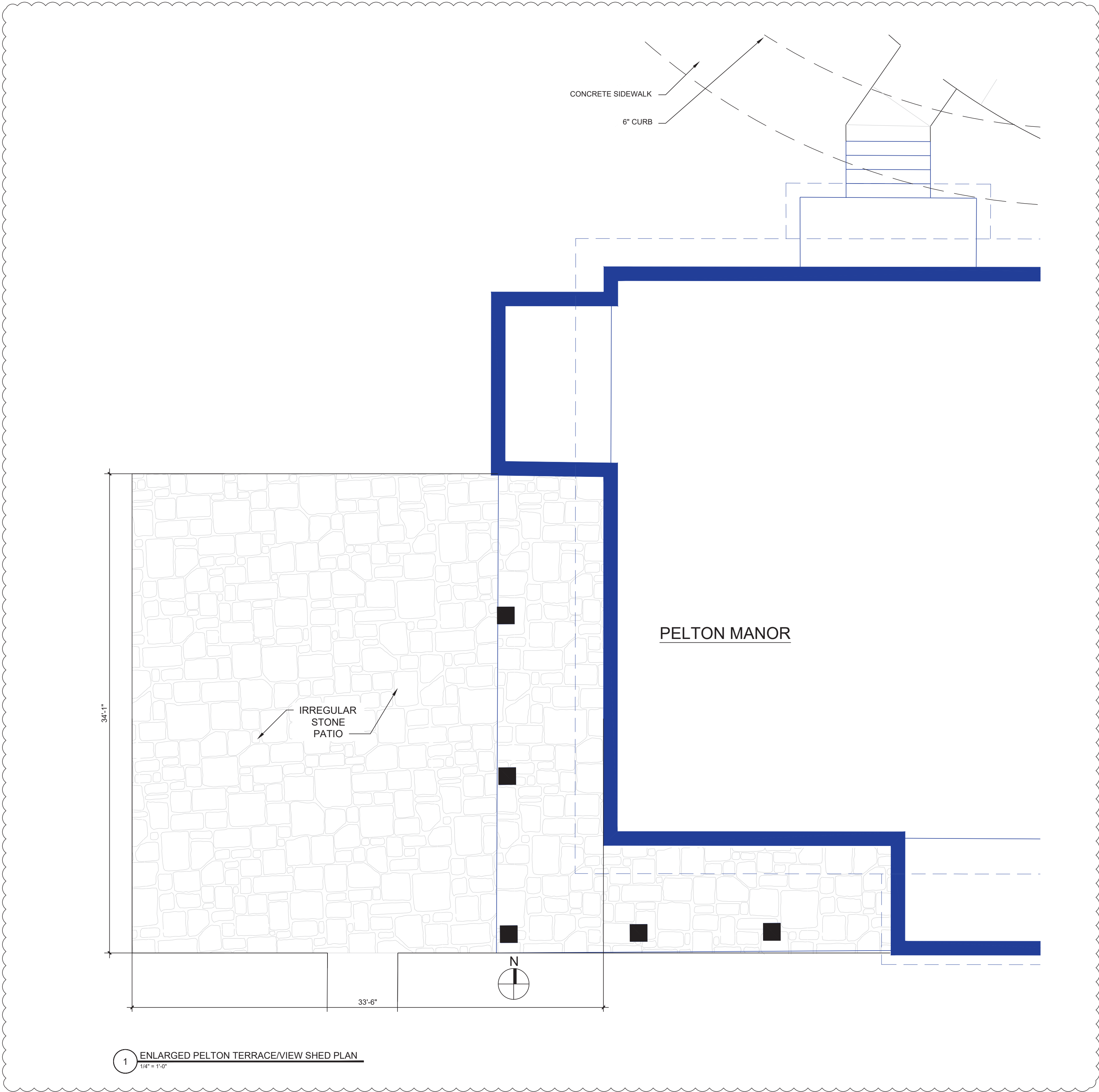
CLIENT:
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25 Van Wagner Road
Poughkeepsie, NY 12603

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



ENLARGED
MONUMENTAL STAIR
PLAN & ELEVATIONS
DRAWN BY:
M.C.L.
JOB No.
Y1022
DATE:
19 Nov 2015

P:\TA Jobs\Y1022 - 36 N. Clover\Drawings\Sheets\2019.03.12 Planning Board 2nd Approval\Y1022-PZ-20 ENLARGED MONUMENTAL STAIR PLAN & ELEVATIONS.dwg



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CLIENT:
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25 Van Wagner Road
Poughkeepsie, NY 12603

PROJECT NAME:
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Poughkeepsie, NY 12601



REVISIONS: 8/23/2019 ISSUED TO PLANNING BOARD 3/28/2019 PRE-SUBMISSION - HOLPC 11/01/2018 ISSUED TO HOLPC 8/03/2018 ISSUED TO HOLPC 3/28/2018 ISSUED TO PLANNING BOARD 11/29/2017 ISSUED TO PLANNING BOARD	
ENLARGED PELTON TERRACE & VIEW SHED PLAN AND SECTION	PZ-21
DRAWN BY: J.O.	
DATE: 8/29/17	

P:\TA Jobs\Y1022 - 36 N Clover\Drawings\Sheets\2019.03.12 Planning Board 2nd Approval\Y1022-PZ-21 ENLARGED PELTON TERRACE PLAN.dwg



1 FALLKILL BUILDING - NORTH ELEVATION (CURRENTLY APPROVED)
1/8" = 1'-0"



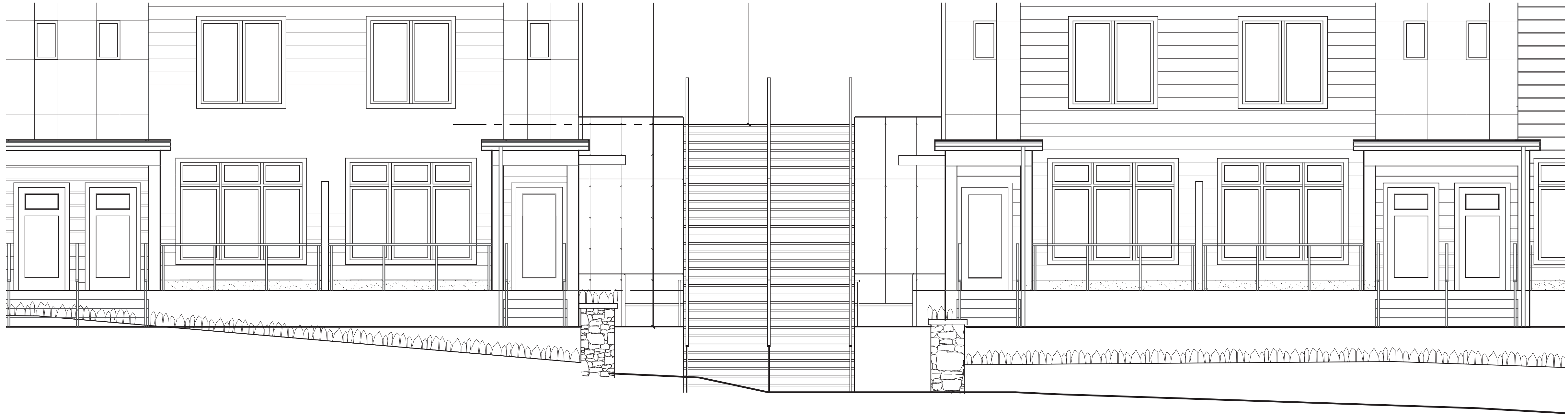
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1/8" = 1'-0"



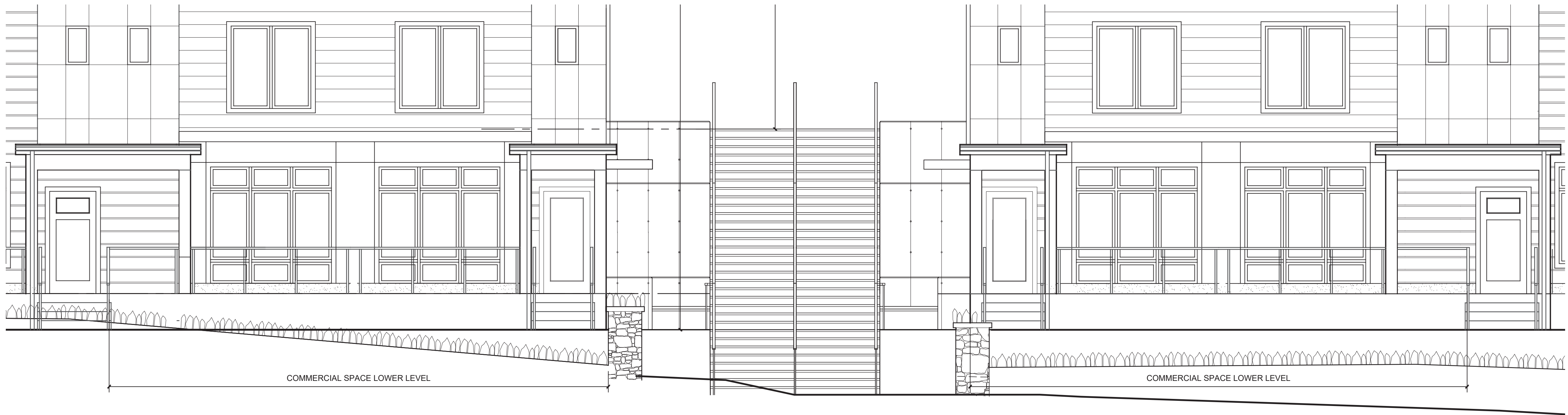
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1/8" = 1'-0"



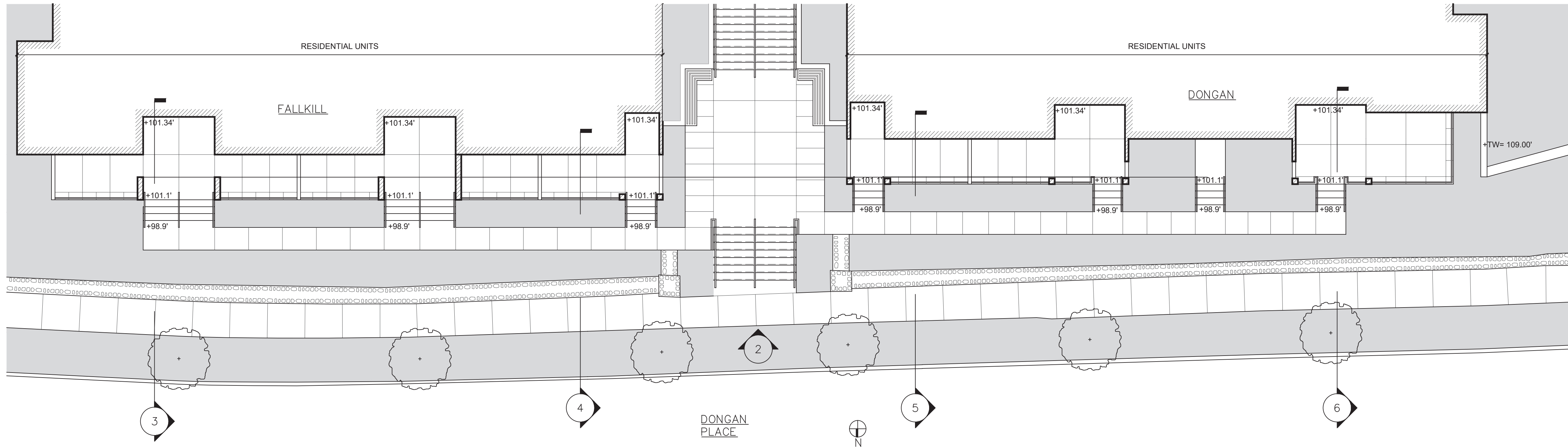
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1/8" = 1'-0"



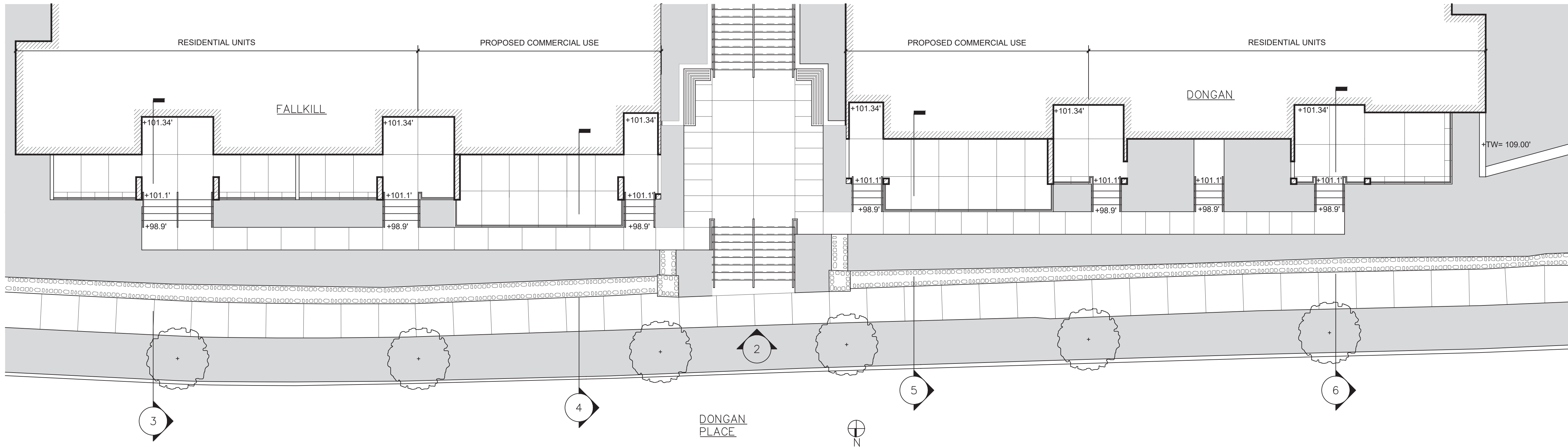
1 FALLKILL & DONGAN BUILDING - ENLARGED NORTH ELEVATION (CURRENTLY APPROVED)
1/4" = 1'-0"



1 FALLKILL & DONGAN BUILDING - ENLARGED NORTH ELEVATION (PROPOSED)
1/4" = 1'-0"



1 FALLKILL & DONGAN - ENLARGED PATIO SPACE (CURRENTLY APPROVED)
1/8" = 1'-0"



2 FALLKILL & DONGAN - ENLARGED PATIO SPACE (PROPOSED)
1/8" = 1'-0"

PELTON MANOR PROJECT
36 North Clover Street, City of Poughkeepsie

STATE ENVIRONMENTAL QUALITY REVIEW
COMPARISON OF IMPACTS

Concept Plan Reviewed for Negative Declaration Adopted 12-21-2015

vs

Currently Proposed Amended Site Plan

On December 21, 2015, the City of Poughkeepsie Common Council, as Lead Agency for State Environmental Quality Review (SEQR), determined that the proposed Pelton Manor project located at 36 North Clover Street in the City of Poughkeepsie would not have a significant adverse environmental impact and that a Draft Impact Statement would not be prepared. The project is situated on a 2.46-acre parcel identified as parcel number 134001-7057-13-224427 on the City of Poughkeepsie official tax map. As the design of the project was further developed, a revised Site Development Plan was prepared in 2018. On June 18, 2018, the City of Poughkeepsie Planning Board determined that the 2018 site plan was consistent with and within the thresholds of the 2015 EAF and adopted negative declaration, and that an amended negative declaration was not required. The Planning Board also granted site plan approval on June 18, 2018.

The Applicant has further revised the site plan and is now seeking amended site plan approval. This document provides a comparison of the current amended site plan with the 2015 concept plan, Full Environmental Assessment Form (FEAF), and SEQRA Negative Declaration. A comparison of the amended site plan to the approved 2018 site plan is also provided.

SUMMARY OF FINDINGS

The Chazen Companies ("Chazen") has reviewed the FEAF revised December 14, 2015 (with supporting information including the concept plan dated October 14, 2015), and the State Environmental Quality Review (SEQR) Negative Declaration adopted December 21, 2015. The plan was conceptual at that time; therefore, the project was anticipated to change slightly as the design was developed. The currently proposed amended site plan dated June 25, 2019, was reviewed and compared to the 2015 FEAF, Negative Declaration, and October 14, 2015, concept plan. Chazen concludes that the current amended site plan is consistent with and within the thresholds of the 2015 FEAF and Negative Declaration, and that the Negative Declaration adopted in 2015 remains applicable to the amended project. Additionally, the amended site plan represents only minor changes from the 2018 approved site plan.

6 NYCRR Part 617 Section 617.7(e)(1) indicates that a lead agency may amend a negative declaration when *"substantive (i) changes are proposed for the project; or (ii) new information is discovered; or (iii) changes in circumstances related to the project arise; that were not previously considered and the lead agency determines that no significant adverse environmental impacts will occur"*. However, the proposed changes are not considered substantial, no new information has been discovered, and no changes in circumstances have arisen; therefore, the original Negative Declaration would remain valid for the amended site plan.

BACKGROUND

2015 Concept Plan

The Applicant, Pelton Partners, LLC, proposed to acquire the 2.46-acre property located at 36 North Clover Street from the City of Poughkeepsie to construct a small apartment complex with associated parking, to be known as Pelton Manor. The parcel contains the Pelton Mansion (AKA Hill House), which is located in the City of Poughkeepsie's Mill Street - North Clover Street Historic District (90NR00369). The building (USN #02740.000702) is designated as "listed" in the NYSOPRHP building survey for this district, and the NYSOPRHP survey record for 36 Clover Street states that contributing landscape features include the stone wall and stone gate posts that line the property. The City of Poughkeepsie Common Council designated 36 North Clover Street as a local landmark on July 29, 2010. The proposed renovations and construction project required site plan approval by the Planning Board, approval of area variances by the Zoning Board of Appeals, and a Certificate of Appropriateness from the City's Historic District and Landmark Preservation Commission. The Applicant proposes to restore the exterior of the Pelton Mansion structure in a historically appropriate manner and utilize the space for additional apartment units. The Pelton Manor development included a community garden and Carriage House that included tenant parking. An area for limited public access for passive recreation consistent with private use of the property was proposed. In addition to the proposed development, the Applicant proposed to make a monetary donation to the City toward the potential future creation of a "pocket park" with a fountain on the corner across Davies Place from the site, or for other recreational investment.

Three concept plans were considered as part of the original SEQR review. Concept Plan B showed 39 apartment units which included 33 two-bedroom units and 6 one-bedroom units. Since the plan was conceptual at that time, the number of bedrooms were anticipated to change slightly as the design was developed.

The proposed action for the purpose of SEQR included the proposed transfer of property from the City of Poughkeepsie to the Applicant; site plan review by the City of Poughkeepsie Planning Board; potential future construction of the pocket park; a Certificate of Appropriateness from the City's Historic District and Landmark Preservation Commission; and area variances, including a parking variance, from the City of Poughkeepsie Zoning Board of Appeals. The project area for the FEAF consisted of the project parcel plus the estimated 0.02-acre area of disturbance for the potential future construction of the pocket park. The potential future pocket park area was located on a 0.02-acre portion of parcel 131300-6061-27-794956, which is currently owned by Conrail and contains the Poughkeepsie Railroad Station.

2018 Site Plan

The site plan was refined in 2018, resulting in an increase in the number of dwelling units from 39 to 44, and a reduction in the number of bedrooms from 72 to 65. Other modifications included the addition of a gymnasium, 26 individual tenant storage facilities, bicycle storage, and a dog wash within a Carriage House, and the provision of 800 SF of meeting space within the Pelton Mansion, all for use by residents. The Carriage House was to contain two of the proposed studio apartments and two of the proposed one-bedroom apartments. The "viewing area" was relocated to an area between the River Building and the Pelton Manor. The "pocket park" was eliminated from the site plan, since the Conrail property was not available to the City for this use. However, the Applicant's pledge of \$25,000 would continue to be honored and provided to the City of Poughkeepsie for future recreational investment.

On June 18, 2018, the City of Poughkeepsie Planning Board determined that the 2018 project was consistent with and within the thresholds of the 2015 EAF and the adopted negative declaration, and that an amended negative declaration was not required. The Planning Board also granted site plan approval on June 18, 2018. Required area variances were granted by the City of Poughkeepsie Zoning Board of Appeals on April 11, 2018.

CURRENTLY PROPOSED PROJECT

The Applicant is now in front of the Planning Board for amended site plan review, and has made modifications to the site plan which include an increase in the number of dwelling units from 44 (in 2018) to 46 and a reduction in the number of bedrooms from 65 (in 2018) to 59. The Carriage House would now contain two studio apartments and four one-bedroom apartments.

Table 1 provides a comparison of the concept plan reviewed for the 2015 Neg Dec, the approved 2018 site plan, and the current amended site plan.

Table 1: Comparison of 2015 Concept Plan, 2018 Approved Site Plan and Current Amended Site Plan

Parameter	Concept Plan Reviewed for 2015 SEQR Neg Dec	2018 Approved Site Plan	Current Amended Site Plan	Change from 2015 Concept Plan and SEQR Neg Dec	Change from 2018 Approved Site Plan
Total # of apartments	39 units	44 units	46 units	+7 units	+2 units
Loft/studio units	0 units	13 units	14 units	+14 units	+1 unit
1-bedroom units	6 units	10 units	19 units	+13 units	+9 units
2-bedroom units	33 units	21 units	13 units	-20 units	-8 units
Total # of bedrooms	72 bedrooms	65 bedrooms	59 bedrooms	-13 bedrooms	-6 bedrooms
Parking Spaces	72 provided (75 required per zoning, 59 required with City contract)	67 provided (69 required per zoning, 66 required with City contract)	67 provided (69 required per zoning and per City contract)	5 less provided spaces	no change
Carriage House	10 spaces	8 spaces plus gymnasium, individual storage, bicycle storage, and dog wash for resident use	same as 2018 site plan	Reduction of 2 spaces; addition of gymnasium, individual storage, bicycle storage, and dog wash for resident use	no change
Area of disturbance	1.65 acres	2.08 acres	same as 2018 site plan	increase of 0.43 acre	no change

Parameter	Concept Plan Reviewed for 2015 SEQR Neg Dec	2018 Approved Site Plan	Current Amended Site Plan	Change from 2015 Concept Plan and SEQR Neg Dec	Change from 2018 Approved Site Plan
Impervious surface	1.2 acres	1.5 acres (includes 0.149 acre of porous pavement)	same as 2018 site plan	increase of 0.3 acre	no change
Minimum required lot area (based on 2,200 SF per efficiency or one-bedroom unit and 2,800 SF per two-bedroom unit)	105,600 SF (parcel is 107,290 SF)	109,400 SF (parcel is 107,290 SF); area variance granted by ZBA	109,000 SF (parcel is 107,290 SF)	increase in required lot area of 3,400 SF; area variance of 3,800 SF granted in 2018	decrease in required lot area of 400 SF
Use of Pelton Mansion	5 dwelling units	5 dwelling units and 800 SF of meeting space for residents	6 dwelling units and 800 SF of meeting space for residents	provision of meeting space	+1 dwelling unit in Pelton Mansion
Potential Vest Park	\$25,000 donation for potential vest park on 0.02-acre Conrail property	Vest Park eliminated since Conrail property is not available to the City for this use. Applicant's pledge of \$25,000 will still be donated to the City.	same as 2018 site plan	no change (pledge will be donated to City for recreational investment)	no change (pledge will be donated to City for recreational investment)
Water usage/wastewater generation (110 gpd per bedroom)	7,920 gpd	7,150 gpd	6,490 gpd	reduction of 1,430 gpd	reduction of 660 gpd
Traffic Generation (added to adjacent street)	20 trips during weekday am peak and 24 trips during weekday pm peak (based on ITE Trip Generation 9 th Edition)	20 trips during the weekday am peak hour and 25 trips during the weekday pm peak hour (based on ITE Trip Generation 10 th Edition)	21 trips during the weekday am peak hour and 25 trips during the weekday pm peak hour	increase of 1 trip in am and 1 trip in pm	increase of 1 trip in the am and no change in pm

As shown in Table 1, the amended site plan results in a slight increase of 2 dwelling units and a reduction in the number of bedrooms as compared to the 2018 approved site plan, and no change in disturbance area or impervious surface from 2018.

6 NYCRR PART 617 SECTION 617-7 CRITERIA

Per Section 617-7 of the SEQR regulations, the following criteria were used to determine that the 2015 proposed Pelton Manor project would not have a significant adverse impact on the environment. Each of these criteria was examined for the amended site plan. The previous reasoning is included below, along with an evaluation of the proposed modifications.

- (i) *A substantial adverse change in existing air quality, ground or surface water quality or quantity, traffic or noise levels; a substantial increase in solid waste production; a substantial increase in potential for erosion, flooding, leaching or drainage problems.*

2015 Concept Plan:

The proposed development will not affect air quality. During construction, a small amount of dust may be generated as a result of vehicle movement on unpaved areas and disturbance of surface soils. Mitigation measures to avoid impacts on air quality during construction are principally designed to prevent blowing of dust off-site. The majority of soil dust emissions are expected to settle out within a few feet of the area of disturbance. Smaller dust particles may, however, become airborne for longer periods of time and, depending on wind velocity and turbulence, could be carried off-site. The following measures will be undertaken to avoid blowing of dust off-site:

- o Placement of any removed topsoil into a topsoil storage area which would be seeded with quick cover vegetation to prevent erosion.
- o Watering all exposed soil and rapidly stabilizing the regraded areas with topsoil, loam and/or seeding.
- o Wetting of the roadways with water as needed.

The project site does not contain any State regulated wetlands or streams or NWI wetlands. A NYSDEC stream, the Fallkill Creek, NYSDEC Stream H-114, flows in a westerly direction just north of Dongan Place. The proposed project is not expected to adversely impact any wetlands or streams.

A Traffic Assessment was prepared which finds that based on the observed traffic patterns and volumes on North Clover Street and the immediate area, and the expected project generated traffic, the proposed Pelton Manor project will not have any significant impact on the local roadway system and no mitigation due to project generated traffic is warranted (Attachment C of the FEAF). Traffic generated by the proposed project is expected to be less than traffic generated by the former day nursery facility.

The existing Pelton Mansion is connected to municipal water and sewer service. The proposed project will also connect to municipal water and sewer service. The proposed development will result in an increase in water usage and wastewater generation over the former use of the site as a day nursery. Correspondence from the City of Poughkeepsie Commissioner of Public Works dated October 26, 2015, and Ed Steeprook, Project Manager of the City water plant operations dated October 28, 2015, indicate that the City has sufficient capacity to provide water and sewer service to the proposed project (Attachment B of FEAF). The City Water and Sewer Departments will have the opportunity to further review the site plan once more detailed plans are generated during the site plan review process.

The proposed project will result in a slight increase in solid waste generation at the site; however, the amount is expected to be insignificant and will not result in any adverse impacts to the Dutchess County Resource Recovery Agency's ability to handle the additional waste.

The Proposed Action requires a NYSDEC SPDES General Permit GP-0-15-002. The proposed project will comply with water quality standards and effluent discharge requirements established by NYSDEC with no significant impacts to surface or groundwater.

Current Amended Site Plan:

The determination regarding air quality, ground or surface water quality or quantity, or potential for erosion, flooding, leaching or drainage problems does not change as a result of the proposed modifications to the site plan, since the development area of the proposed project is similar to the 2015 concept plan and 2018 approved site plan, and there are no wetlands or streams on the project site.

The 2015 project was expected to generate 20 vehicle trip ends (vte's) during the weekday a.m. peak hour of adjacent street traffic and 24 vte's during the weekday p.m. peak hour of adjacent street traffic, based on the Traffic Assessment, which utilized the Institute of Transportation Engineers (ITE) Trip Generation, 9th Edition, 2012. The ITE Trip Generation, 9th Edition, estimated 0.51 vte's per dwelling unit per weekday a.m. peak hour of adjacent street traffic and 0.62 vte's per dwelling unit per weekday p.m. peak hour of adjacent street traffic for Land Use Code 220, Apartment.

A Land Use Code for general "apartment" no longer exists in the 10th Edition of the ITE Trip Generation. Land Use Code 220 for "Multifamily Housing Low-Rise" in the 10th Edition estimates 0.46 vehicle trips during the weekday a.m. peak hour of adjacent street traffic and 0.56 vehicle trips during the weekday p.m. peak hour of adjacent street traffic, which is slightly lower than the previous estimates for "Apartment". Traffic anticipated for 46 dwelling units is 21 vehicle trips during the weekday a.m. peak hour of adjacent street traffic and 25 vehicle trips during the weekday p.m. peak hour of adjacent street traffic, which is similar to the 2015 estimates and to the 2018 site plan estimated traffic generation of 20 vehicle trips during the weekday a.m. peak hour of adjacent street traffic and 25 vehicle trips during the weekday p.m. peak hour of adjacent street traffic. Traffic generation continues to be significantly less than that of the former day nursery use.

The amended site plan results in a further reduction in the number of bedrooms, and thus, number of residents, as compared to the 2015 concept plan and 2018 approved site plan; therefore, it is anticipated that water usage, wastewater generation, and solid waste generation will be reduced from that of the 2015 project (the FEAF does not require an analysis of solid waste generation for residential projects).

The proposed project requires a NYSDEC SPDES General Permit GP-0-15-002, and will comply with water quality standards and effluent discharge requirements established by NYSDEC, with no significant impacts to surface or groundwater.

Therefore, the proposed amended site plan will not affect the project's previous determination, and will not result in any adverse impacts.

- (ii) *The removal or destruction of large quantities of vegetation or fauna; substantial interference with the movement of any resident or migratory fish or wildlife species; impacts on a significant habitat area; substantial adverse impacts on a threatened or endangered species of animal or plant, or the habitat of such a species; or other significant adverse impacts to natural resources.*

2015 Concept Plan:

The project site consists of lawn and landscaped areas with scattered mature trees, including Linden, Red Maple, Norway Maple, Sugar Maple, and one Coffee tree. The project has been designed to preserve mature trees along Davies Place on the west side of the site that are determined to be healthy by a certified arborist. Although some trees will need to be removed for the proposed construction, the site plan will include significant new landscaping with tree species similar in variety to existing trees on the site and in the neighborhood, resulting in a net gain of trees. Detailed landscaping plans will be developed during the site plan approval process.

According to the NYSDEC Environmental Resource Mapper, there are known occurrences of endangered, threatened, or rare species in the vicinity of the project site, and the Hudson River is considered a Significant Natural Community, a tidal river. According to the US Fish & Wildlife Service (USFWS) IPaC Trust Report, there is potential for two endangered and one threatened species in the vicinity of the project site. The IPaC report indicates that no "critical habitat" for these species or any other species has been designated by the USFWS within the project site. The project site is located in an urban area, and most of the proposed development is in previously disturbed areas. The project site is located approximately 1,000 feet from the Hudson River, so no impacts to the Tidal River Significant Natural Community are anticipated. The project will include the removal of some trees; however, all tree clearing will occur between November 1st and March 31st to ensure no potential take of the Indiana bat or NLEB, as during this time, the bats would be hibernating and not present onsite.

Therefore, no adverse impacts in regard to vegetation removal or endangered, threatened, or rare species or significant habitat will occur as a result of the proposed project.

Current Amended Site Plan:

The current USFWS IPaC Resource List for the project area indicates no change in the species of concern that are known to occur in the vicinity of the site. The proposed modifications are minor. An evaluation of the existing trees on the site indicate that there are 33 trees on the site, only 5 of which are in good condition. Twenty-four (24) of these trees are noted to be in a state of decline, and 6 are in very poor condition. Twenty-three (23) of the trees are invasive species.

The amended site plan continues to require the removal of 28 trees which are either in a state of decline or poor condition, or are located in areas that require regrading for new buildings, parking lots, sidewalks, and stormwater structures. Trees to be removed include 5 trees that were determined to be in very poor, structurally dangerous condition, 21 trees that are in a state of decline, and 2 trees that are in good condition. Seven (7) trees will be preserved, including 3 of which are in good condition, 3 in a state of decline, and 1 that is in very poor condition. New landscaping will be added to replace the overgrown ground cover and shrubs that currently exist throughout the site. All new trees and shrubs will be native species that are well-suited for a dry rock site. Ground cover plantings will be species that are adaptable to the sloping conditions that exist on the property. Tree removal will occur between November 1st and March 31st to ensure no

potential take of the Indiana Bat or Northern Long-Eared Bat. Therefore, no adverse impacts in regard to vegetation removal or endangered, threatened, or rare species or significant habitat will occur as a result of the project with the proposed modifications.

- (iii) *The impairment of the environmental characteristics of a Critical Environmental Area as designated pursuant to subdivision 617.14(g) of this Part.*

There are no designated Critical Environmental Areas in the vicinity of the project site.

- (iv) *The creation of a material conflict with a community's current plans or goals as officially approved or adopted.*

2015 Concept Plan:

The project site is located in the Medium High-Density Residential (R-4) zoning district as designated by City of Poughkeepsie Zoning Map. A multifamily use is a permitted use in the R-4 Zoning District, and the proposed site plan complies with the bulk requirements for the R-4 zoning district and with the City's maximum density per Section 19-3.15(4)(c). The number of parking spaces proposed does not meet the City's required parking per Section 19-4.3(11) of the City of Poughkeepsie Zoning Code. The proposed purchase contract between the Applicant and the City of Poughkeepsie contains a provision that 1.5 parking spaces per unit will be provided for all residential units. An area variance from the City of Poughkeepsie Zoning Board of Appeals will be required. The central location of the Pelton Manor project is conducive to pedestrian and transit-oriented travel, with City bus and railroad transportation available and parks and the Walkway Over the Hudson within walking distance. The adjacent parcel to the west is part of the Conrail parcel which contains the Poughkeepsie Railroad Station with Metro North and Amtrak service. The City of Poughkeepsie "Main Street" and "Special" bus routes pass by the site along Davies Place, and the "Shoppers Special" bus route is only a block away. Thus, it is anticipated that many of the future residents of the project will utilize public transportation or walk to nearby destinations. The reduction in the number of parking spaces on the site allows for an increase in the amount of green space.

The project is located in close proximity to the City's new Waterfront Transit Oriented District (WTOD), which is located approximately 200 feet west of the site. The purpose of this district is to "encourage a pedestrian-friendly, urban mix of public, recreational, residential, and compatible commercial uses within walking distance of waterfront parks, the Walkway Over the Hudson elevator, and the Railroad Station." The proposed residential development is ideally located to support this goal, and the project includes features to promote walking and bicycling such as sidewalks, bicycle racks, and an area in the northwest corner of the site for limited public access for passive recreation which will contain an overlook with benches for public use. The Applicant also proposes to make a monetary donation to the City toward the future creation of a "pocket park" with a fountain on the corner across Davies Place from the site or toward improvements at other City parks, which is consistent with the new district's streetscape standards and site standards. The WTOD site standards also recommend the adaptive reuse of existing buildings, with which the project is also consistent. The parking standard for a residential dwelling in the WTOD is only 0.5 space per dwelling unit, which is less than the 1.5 spaces per dwelling unit provided on the proposed concept plan.

The City of Poughkeepsie Comprehensive Plan adopted in 1998 does not provide specific recommendations for the project site, other than recommending "a downtown core surrounded by

professional offices, neighborhood commercial uses, and a mix of office and residential uses surrounding the linear Main Street corridor". The proposed project is consistent with this recommendation.

According to the City of Poughkeepsie Local Waterfront Revitalization Plan (LWRP), the project site is not located within the designated Coastal Zone. The proposed project is consistent with the coastal policies listed in the LWRP.

Therefore, the proposed project is consistent with the City's current plans and goals.

Current Amended Site Plan:

The amended site plan results in an increase in the number of dwelling units from 39 to 46, which represents an increase of 7 dwelling units over the 2015 concept plan and increase of 2 dwelling units over the 2018 approved site plan. The amended site plan results in a reduction in the total number of bedrooms from 72 to 59, which represents a reduction of 13 bedrooms compared to the 2015 concept plan and a reduction of 6 bedrooms from the 2018 approved site plan. The following table provides the minimum required lot area in the R-4 zoning district based on the new total number of dwelling units and the proposed mix of units. The minimum required lot area for the amended site plan is increased from 105,600 SF to 109,000 SF, which is slightly less than the minimum required lot area of 109,400 SF for the 2018 approved site plan.

Residential Units	Minimum Required Lot Area in R-4 District
Efficiency and one-bedroom units (33)	2,200 SF per unit = 72,600 SF
Two-bedroom units (13)	2,800 SF per unit = 36,400 SF
Total required lot area	109,000 SF
Total lot area of parcel	107,290 SF

The 2018 approved site plan required a minimum lot area of 109,400 SF. An area variance to allow a lot area that is 2,110 SF less than the minimum required lot area was granted by the City of Poughkeepsie Zoning Board of Appeals in 2018. The amended site plan slightly reduces the minimum required lot area; thus, the previously granted area variance is sufficient for the amended project.

The amended site plan with 14 loft/studio apartments, 19 one-bedroom apartments, and 13 two-bedroom apartments would require 69 parking spaces, based on Section 19-4.3(11) of the zoning regulations. The purchase contract between the Applicant and the City of Poughkeepsie contains a provision that 1.5 parking spaces per unit will be provided for all residential units, which would also result in 69 required parking spaces. The current amended site plan provides 67 parking spaces, which is less than the required number of parking spaces, similar to the 2015 concept plan and 2018 approved site plan. An area variance was granted by the City of Poughkeepsie Zoning Board of Appeals on April 11, 2018, to allow 67 spaces, when 70 spaces were required for the 2018 approved site plan. Thus, the area variance granted in 2018 is sufficient for the current amended site plan

Additional area variances were granted on April 11, 2018, from the minimum required side yard of 15 feet, to allow the approved Carriage House building to be located 8' 8 ¾" from the eastern property line, and 10' 7 7/8" from the southern property line. The current amended site plan does not result in any change to these setbacks.

The amended site plan continues to provide an area for limited public access for passive recreation which will contain an overlook with benches for public use. The "pocket park" was eliminated from the 2018 approved site plan since the Conrail property is not available to the City for this use. However, the Applicant's pledge of \$25,000 will continue to be honored and provided to the City of Poughkeepsie for future recreational investment.

The amended site plan continues to be consistent with the City's current plans and goals.

- (v) *The impairment of the character or quality of important historical, archeological, architectural, or aesthetic resources or of existing community or neighborhood character.*

2015 Concept Plan:

The project parcel contains the Pelton Mansion, AKA Hill House, which was originally constructed in 1859 and is in the National Register listed Mill Street-North Clover Street Historic District (Listing 90NR00369), and the project site is within a known archeologically sensitive area. The Applicant is determining whether the site is located within a City of Poughkeepsie created historic district. If the site is determined to be located within a City-created historic district, a Certificate of Appropriateness will be requested from the City's Historic District and Landmark Preservation Commission. A Phase 1A Literature Review & Sensitivity Analysis and Phase 1B Archaeological Field Reconnaissance Survey (Attachment D of the FEA) indicates that Hill House (AKA Pelton Mansion) is not listed individually on the National Register. The Phase 1A finds that no National Register eligible properties will be impacted by the proposed project. A Historic Building Assessment of the Pelton Mansion (also known as the Hill House and former Poughkeepsie Day Nursery) was prepared by Hudson Valley Cultural Resource Consultants, Ltd (HVCRC). This Assessment finds that the proposed undertaking, including the renovations to the Pelton Mansion, will not have an adverse effect on the structure or impact its listing as part of the North Clover-Mill Street Historic District.

The Phase 1B report finds that no significant cultural material of any kind was recovered from the shovel tests, and that no further archeological investigation is warranted for the Pelton Manor project. The Phase 1A/1B report was submitted to NYS Office of Parks, Recreation and Historic Preservation (NYSOPRHP) for review (NYSOPRHP Project #15PR06519). Correspondence from Tim Lloyd of NYSOPRHP on December 2, 2015, indicates that he concurs with the report recommendation that no additional archaeological work is necessary.

The Applicant proposes to restore the exterior of the Pelton Mansion structure in a historically appropriate manner and utilize the space for additional apartment units and/or potential full or partial occupancy by a non-profit or governmental agency, to the extent permitted by current zoning. The proposed apartments are a permitted use in the R-4 zoning district and are consistent with other nearby uses and structures. The Applicant has consulted with NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP). Copies of the November 30, 2015, and December 2, 2015, correspondence to NYSOPRHP with attachments (including the revised concept plan) were provided to the Common Council on December 7, 2015 as a supplement to the SEQR documentation. NYSOPRHP issued a letter dated December 10, 2015, stating that NYSOPRHP has

no concerns with the current proposal to rehabilitate the historic building and construct additional housing on the site, and that it is encouraged by plans to rehabilitate Hill House in a historically appropriate manner. The letter finds that the most recently updated site plan is compatible with the historic building, site and historic district. The Applicant will continue to work with NYSOPRHP as construction documents become available at the time of the State level 14.09 review. The proposed plan shows sufficient space around the Pelton Mansion building to preserve the view of the building. The exterior of the Pelton Mansion structure will be restored in accordance with the Applicant's contract with the City of Poughkeepsie. The architectural plans have yet to be developed. Some of the project detailing shall be determined once the final building program has been set. However, some of the work being contemplated includes:

1. Removal of the metal fire escapes;
2. Reconstruction of the existing entry porches;
3. Rebuild and repointing of the exterior masonry;
4. Repair and replacement of all damaged exterior wood trims, fascia, brackets and the like;
5. Repair and/or replacement of all gutters and leaders, as necessary;
6. Replacement of existing windows with new design compatible and energy efficient windows;
7. Modification of the exterior façade where emergency egress doors have previously been installed;
8. Reconstruction of the exterior enclosed porches and windows;
9. Removal of the existing shutters (note: current project would include repair or replacement of existing shutters);
10. Repainting of the existing exterior masonry and woodwork;
11. Installation of new exterior lighting; and
12. Potential uncovering and restoration of the original brick exterior columns that support the porch structures.

The Applicant, as part of the purchase contract with the City of Poughkeepsie, agrees to enter into a façade easement to ensure that the exterior of the building will be properly restored at this time and maintained into the future.

Most of the structures in the vicinity of the Pelton Manor site were constructed during the post-Civil War housing boom. The area as a whole is an untouched 19th Century setting lined with residences interspersed with churches and public buildings representing architectural styles ranging from Greek Revival to Italianate Villas to 1960's Modern. Photos of nearby structures are provided in the Phase 1A Literature Search and Sensitivity Assessment and Archaeological Field Reconnaissance Survey provided as Attachment D of the FEAF. The architectural design of the new buildings will be compatible with the Pelton Mansion building and other existing buildings in the neighborhood. The new structures shall be scaled to reflect the heights and densities found in the surrounding neighborhood. These structures are currently planned to be finished with masonry, vinyl and various cementitious materials to replicate wood siding, porches, railings and trims. The detailing of these new buildings shall be influenced by the many varying historical styles found within the surrounding Mt. Carmel neighborhood. This area, as previously mentioned, is a melting pot of styles and timeframes, and it is the Applicant's intention that the new structures will reflect this architectural diversity. While the project design will reflect the historic past of the surrounding

neighborhood, it will also celebrate its own time in history as well as the surrounding industrial history, such as can be found in the adjacent railroad station complex. There also will be an architectural dialogue between the new buildings and the existing Pelton Mansion.

The siting of the buildings will reflect those shown on the concept site plans, with those structures facing Dongan Place having a more traditional relationship with the adjacent street. While the existing stone wall surrounding the site will be preserved, the buildings facing Dongan Place will be located as close to this historic wall as possible, while also allowing for a connecting sidewalk and landscaping. New street lighting and street trees will also be considered as part of the effort along Dongan Place.

Elevation drawings of Pelton Manor, a conceptual rendering of the proposed new buildings to be placed along Dongan Place along with proposed elevation drawing and site section were submitted to the City Council on December 7, 2015, as a supplement to the SEQR documentation. The site section suggests a different scaling along Dongan Place to that in the inner part of the site. This strategy will help retain the prominence of the existing mansion. Final determinations regarding building massing and placement will be made once the final site mapping has been completed and the property geology has been studied. Images of influential neighboring buildings as well as others found within the City of Poughkeepsie, as sources for design inspiration, were also submitted to the Common Council on December 7, 2015. The mansion is difficult to view during the leaf on season. The landscaping on the site will be thinned and selectively cleared to allow for a stronger presence of the Pelton Mansion, as the site has been seriously overgrown over the past few decades.

Based on this information, the proposed project will not adversely impact any architectural or aesthetic resources or neighborhood character.

Current Amended Site Plan:

The City of Poughkeepsie Common Council designated the 36 Clover Street property as a local historic site on July 29, 2010. A Certificate of Appropriateness will be requested from the City's Historic District and Landmark Preservation Commission. The contract of sale does not include a façade easement; however, the exterior of the Pelton Mansion building will be restored in a historically appropriate manner and maintained in the future as discussed above. The Applicant will continue to consult with NYSOPRHP as appropriate, and architectural plans will be reviewed and approved by the City of Poughkeepsie. Therefore, the amended site plan will not adversely impact any architectural or aesthetic resources or neighborhood character.

- (vi) *A major change in the use of either the quantity or type of energy.*

2015 Concept Plan:

The proposed action will not result in a major change in the quantity or type of energy used. The proposed new buildings will be designed with new and green technology. Water fixtures will be installed with modern water-saving features, and existing windows will be replaced with new energy efficient, design-compatible windows. A temporary increase in energy usage may occur as a result of the operation of construction equipment.

Current Amended Site Plan:

The current amended site plan results in an increase of seven apartment units and a reduction of 13 bedrooms as compared to the 2015 concept plan, and an increase of 2 dwelling units but a further reduction of 6 bedrooms as compared to the 2018 approved site plan. This reduction in the number of bedrooms is expected to result in fewer anticipated residents. Therefore, the proposed project is likely to result in a decrease in energy usage over the 2015 concept plan and 2018 approved site plan.

- (vii) *The creation of a hazard to human health.*

2015 Concept Plan:

The proposed action will not create any hazards to human health. Correspondence from Ronald Knapp, City of Poughkeepsie Police Chief, dated October 23, 2015, indicates that he finds no concerns regarding this project having a negative impact on the operations of the Police Department, and that the Police Department has the capacity to support the advancement of the proposed development plan. Correspondence from Mark Johnson, Chief of the City of Poughkeepsie Fire Department, indicates that he has been involved in the review of the proposed project from the initial stages, and it is his opinion that the City of Poughkeepsie Fire Department is capable of handling the needs of the project as proposed. This correspondence is provided as Attachment B of the FEAF. The City Fire Department and Police Department will have the opportunity to further review the site plan once more detailed plans are generated during the site plan review process.

Current Amended Site Plan:

The City Police Department and Fire Department were given the opportunity to review and comment on the 2018 site plan prior to approval. The proposed modifications to the approved site plan are minor and will not result in any hazards to human health, and will not affect the ability of the City Police Department or Fire Department to provide services and protection to the site.

- (viii) *A substantial change in the use, or intensity of use, of land including agricultural, open space or recreational resources, or in its capacity to support existing uses.*

2015 Concept Plan:

The proposed action will change the current use of the property from a former day nursery to apartments, which are a permitted use in the R-4 zoning district. The adoption of new legislation by New York State (Bill S5812A) authorizes the City of Poughkeepsie to discontinue the use of certain lands as parklands, including the Pelton Mansion site, and to sell and convey such lands to a private entity for a public benefit and economic development, with the dedication of an amount equal to or greater than the fair market value of the property for the acquisition of additional parklands and/or for capital improvements to existing park and recreational facilities. The proposed project includes an area in the northwest corner of the site for limited public access for passive recreation consistent with private use of the property which includes an overlook with benches for public use. Rules related to time of use and conduct will be determined during the site plan approval process. Additionally, as part of the proposed project, the Applicant proposes to make a monetary donation to the City toward the future creation of a "pocket park" with a fountain on the corner

across Davies Place from the site or for improvements at an existing City park. There are no agricultural uses in the vicinity of the project site.

Therefore, the proposed project will not have a significant adverse effect on land use, open space, or recreational resources.

Current Amended Site Plan:

The amended site plan does not change the proposed use of the site, and continues to provide an area for limited public access for passive recreation which will contain an overlook with benches for public use. The 2018 approved site plan eliminated the “pocket park”, since the Conrail property is not available to the City for this use. However, the Applicant’s pledge of \$25,000 will continue to be honored and provided to the City of Poughkeepsie for future recreational investment. The amended site plan continues to include the provision of a gymnasium within the Carriage House structure for use by residents, which represents a positive impact on recreational resources. Thus, the amended site plan will not negatively affect land use, open space, or recreational resources.

- (ix) *The encouraging or attracting of a large number of people to a place or places for more than a few days, compared to the number of people who would come to such place absent the action.*

2015 Concept Plan:

The proposed action will not encourage or attract a large number of people to the site other than an increase in the number of residents who will occupy the new apartments and a temporary increase in visitors to the site during construction activities.

Current Amended Site Plan:

The site plan with the proposed modifications will not encourage or attract a large number of people to the site other than an increase in the number of residents who will occupy the new apartments and a temporary increase in visitors to the site during construction activities.

- (x) *The creation of a material demand for other actions that would result in one of the above consequences.*

2015 Concept Plan:

The proposed action will not result in a material demand for other actions.

Current Amended Site Plan:

The site plan with the proposed modifications will not result in a material demand for other actions.

- (xi) *Changes in two or more elements of the environment, no one of which has a significant impact on the environment, but when considered together result in a substantial adverse impact on the environment.*

2015 Concept Plan:

The proposed action will not result in any significant adverse impacts when considering the combination of any of the described small impacts resulting from the proposed project.

Current Amended Site Plan:

The site plan with the proposed modifications will not result in any significant adverse impacts when considering the combination of any of the described small impacts resulting from the proposed project.

- (xii) *Two or more related actions undertaken, funded or approved by an agency, none of which has or would have a significant impact on the environment, but when considered cumulatively would meet one or more of the criteria in this subdivision.*

2015 Concept Plan:

There are no other actions being undertaken that are related to the proposed action.

Current Amended Site Plan:

There are no other actions being undertaken that are related to the proposed action.

CONCLUSION

The October 14, 2015, plan on which the December 21, 2015, Negative Declaration was based was conceptual and was anticipated to change slightly as the design of the project was developed. The current amended site plan dated June 25, 2019, was reviewed and compared to the 2015 FEAF, Negative Declaration, and concept plan. Chazen concludes that the current amended site plan is consistent with and within the thresholds of the 2015 FEAF and Negative Declaration, and that an amended negative declaration is not required, in accordance with 6 NYCRR Part 617 Section 617.7(e)(1).

Full Environmental Assessment Form

PELTON MANOR
36 North Clover Street
City of Poughkeepsie
Dutchess County, New York

October 30, 2015
Revised December 14, 2015



Engineers
Land Surveyors
Planners
Environmental Professionals
Landscape Architects

Prepared for:
Pelton Partners, LLC
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Poughkeepsie, NY 12603

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Full Environmental Assessment Form

PELTON MANOR

36 North Clover Street

City of Poughkeepsie

Dutchess County, New York

October 30, 2015

Revised December 14, 2015



Engineers
Land Surveyors
Planners
Environmental Professionals
Landscape Architects

Prepared by:

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PROJECT DESCRIPTION

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The Applicant, Pelton Partners, LLC, proposes to purchase the 2.45 acre property located at 36 North Clover Street from the City of Poughkeepsie to construct a small apartment complex with associated parking, to be known as Pelton Manor. The parcel contains the Pelton Mansion (AKA Hill House), which is located in the City of Poughkeepsie's Mill Street-North Clover Street Historic District. The 36 North Clover Street property was designated as a local historic site by the City of Poughkeepsie Common Council on July 29, 2010. The Pelton Mansion building was previously used as a day nursery. The Applicant proposes to restore the exterior of the Pelton Mansion structure in a historically appropriate manner and utilize the space for additional apartment units and/or potential full or partial occupancy by a non-profit or governmental agency. The Pelton Manor development will include a community garden and a parking garage to accommodate ten vehicles. An area for limited public access for passive recreation consistent with private use of the property will be provided. In addition to the proposed development, the Applicant proposes to make a donation to the City toward the future creation of a "pocket park" with a fountain on the corner across Davies Place from the site. The Applicant will seek financial assistance from the City of Poughkeepsie Industrial Development Agency (IDA).

Three concept plans are provided in Attachment A. Concept Plan A shows 38 apartment units (32 two-bedroom and 6 one-bedroom units) and 1,500 SF of non-profit/government space. In the event that a non-profit or governmental agency is not available for occupancy, Concept Plan B shows 39 apartment units (33 two-bedroom and 6 one-bedroom) with no non-profit/governmental space. Concept Plan C shows 38 apartment units (32 two-bedroom and 6 one-bedroom units) and 4,500 SF of non-profit/government space (entire Pelton Mansion). Since the plan is conceptual at this time, the number of bedrooms may change slightly as the design is developed.

Based on a review by the NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP), a fourth plan has been developed. At the recommendation of NYSOPRHP, the new buildings have been relocated along the western edge of the site in adjusted locations and sizes. The two structures adjacent to the Pelton Mansion house are reduced in size to be smaller than the two buildings facing Dongan Park. The southernmost building facing Davies Place has been relocated to allow greater visibility of the Pelton Mansion when viewing from this structure from the south, and so more specimen trees can remain intact. The multifamily building on the north side of the manor house has also been reduced in size to allow the public sitting area to be larger.

The proposed action for the purpose of this Full Environmental Assessment Form (FEAF) includes the proposed transfer of property from the City of Poughkeepsie to the Applicant; site plan review by the City of Poughkeepsie Planning Board for the proposed Pelton Manor residential development with potential non-profit/governmental agency space; potential future construction of the pocket park; Certificate of Appropriateness from the City of Poughkeepsie Historic District and Landmark Preservation Commission, and a parking variance from the City of Poughkeepsie Zoning Board of Appeals. The project area for the FEAF consists of the 2.45 acre project parcel plus the 0.02 acre area of disturbance for the potential future construction of the pocket park, for a total of 2.47 acres. The project parcel is identified as 131300-6062-75-837228 on the City of Poughkeepsie Tax Map. The potential future pocket park area is located on a 0.02 acre portion of parcel 131300-6061-27-794956, which is currently owned by Conrail and contains the Poughkeepsie Railroad Station.

The project area is situated in the Medium High-Density Residential (R-4) zoning district as designated by City of Poughkeepsie Zoning Map. A multifamily use is a permitted use in the R-4 Zoning District, and the proposed site plan complies with the bulk requirements for the R-4 zoning district. The following table shows the project's compliance with the City's maximum density per Section 19-3.15(4)(c).

Residential Units	Minimum Required Lot Area in R-4 District
One-bedroom units (6)	2,200 SF per unit = 13,200 SF
Two-bedroom units (33)	2,800 SF per unit = 92,400 SF
Total required lot area	105,600 SF
Total lot area of parcel	106,722 SF

According to Section 19-4.3(11) of the City of Poughkeepsie Zoning Code, a multifamily use requires 1.5 parking spaces for each one-bedroom apartment, and 2.0 spaces for each two-bedroom apartment, plus an additional 10% of the total required spaces for visitor parking. Required parking for an office use is 1 space per 300 SF of gross floor area. Therefore, required parking for Concept Plan Option A is 86 spaces (72 are provided), required parking for Concept Plan Option B is 83 spaces (72 are provided), and required parking for Concept Plan Option C is 96 spaces (78 are provided). The proposed purchase contract between the Applicant and the City of Poughkeepsie contains a provision that 1.5 parking spaces per unit will be provided for all residential units. An area variance from the City of Poughkeepsie Zoning Board of Appeals will be required.

The site is served by municipal water and sewer service. The proposed development will result in an increase in water usage and wastewater generation over the former use of the site as a day nursery. Calculations for water usage/wastewater generation are provided in the Endnotes section of this document. Correspondence from the City of Poughkeepsie DPW indicates that the City has adequate capacity to provide water and sewer service to the site (Attachment B).

The proposed project is expected to result in a slight reduction in traffic generation as compared to the former use of the site as a day nursery. A Traffic Assessment was performed for the project (Attachment C) which finds that based on the observed traffic patterns and volumes on North Clover Street and the immediate area, and the expected project generated traffic, the proposed Pelton Manor project will not have any significant impact on the local roadway system and no mitigation due to project generated traffic is warranted.

The FEAF was completed utilizing the NYSDEC EAF Mapper. The EAF Mapper tool sometimes indicates limited availability for certain digital data. Endnotes are provided for certain responses to provide clarification of or reference used for the response.

FULL ENVIRONMENTAL ASSESSMENT FORM (FEAF) WITH ENDNOTES

Full Environmental Assessment Form

Part 1 - Project and Setting

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 project sponsor to verify that the information contained in Part 1 is accurate and complete.

A. Project and Sponsor Information.

Name of Action or Project: Pelton Manor		
Project Location (describe, and attach a general location map): 36 North Clover Street, City of Poughkeepsie, Dutchess County, NY; Tax Parcel Number 131300-6062-75-837228 (Refer to Figures 1 and 2).		
Brief Description of Proposed Action (include purpose or need): Pelton Partners, LLC, proposes to purchase the 2.45 acre property located at 36 North Clover Street from the City of Poughkeepsie to construct a small apartment complex with associated parking, to be known as Pelton Manor. The parcel contains the Pelton Mansion (AKA Hill House), which is located in the City of Poughkeepsie Mill Street-North Clover Street Historic District. The 36 North Clover Street property was designated as a local historic site by the City of Poughkeepsie in 2010. The Pelton Mansion building was previously used as a day nursery. The Applicant proposes to restore the exterior of the Pelton Mansion structure in a historically appropriate manner and utilize the space for additional apartment units and/or potential occupancy by a non-profit or governmental agency. The Pelton Manor development will include a community garden and a parking garage to accommodate ten vehicles. An area for limited public access for passive recreation consistent with private use of the property will be provided. The Applicant proposes to make a donation to the City toward the future creation of a "pocket park" with a fountain on the corner across Davies Place from the site. Three concept plans are provided in Attachment A. Concept Plan A shows 38 apartment units and 1,500 SF of non-profit/government space; Concept Plan B shows 39 apartment units with no non-profit/space; and Concept Plan C shows 38 apartments and 4,500 SF of non-profit/government space (entire Pelton Mansion). A fourth concept plan was developed in response to NYSOPRHP comments.		
Name of Applicant/Sponsor: Pelton Partners, LLC (Steven Tinkleman)		Telephone: 845-473-0200
		E-Mail: tink@tinkarch.com
Address: 25 Van Wagner Road		
City/PO: Poughkeepsie	State: NY	Zip Code: 12603
Project Contact (if not same as sponsor; give name and title/role): Same as Applicant		Telephone:
		E-Mail:
Address:		
City/PO:	State:	Zip Code:
Property Owner (if not same as sponsor): City of Poughkeepsie (Mayor John C. Tkazyik)		Telephone: 845-451-4073
		E-Mail: mayor@cityofpoughkeepsie.com
Address: PO Box 300		
City/PO: Poughkeepsie	State: NY	Zip Code: 12602

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 Council, Town Board, ☒ Yes ☐ No or Village Board of Trustees	City Council approval of property sale	Oct 2015
b. City, Town or Village Planning Board or Commission ☒ Yes ☐ No	Planning Board (Site Plan Approval, tree removal permit)	To be determined
c. City Council, Town or Village Zoning Board of Appeals ☒ Yes ☐ No	ZBA (parking variance)	To be determined
d. Other local agencies ☒ Yes ☐ No	City IDA (financial assistance); City Historic District and Landmarks Preservation Commission (Certificate of Appropriateness)	To be determined
e. County agencies ☒ Yes ☐ No	Potential DCDOH (water/sewer connection); DC Dept of Planning & Development (239m review)	To be determined
f. Regional agencies ☐ Yes ☒ No		
g. State agencies ☒ Yes ☐ No	NYSDEC GP-0-15-002 SPDES General Permit; potential NYSDOS Coastal Consistency review	To be determined
h. Federal agencies ☐ Yes ☒ No		
i. Coastal Resources. i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☒ Yes ☐ No ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☐ Yes ☒ No iii. Is the project site within a Coastal Erosion Hazard Area? ☐ Yes ☒ No		

C. Planning and Zoning

C.1. Planning and zoning actions.

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

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

C.2. Adopted land use plans.

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

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

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

If Yes, identify the plan(s):

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. If Yes, what is the zoning classification(s) including any applicable overlay district? Medium High-Density Residential (R-4)	☒ Yes ☐ No
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? If Yes, i. What is the proposed new zoning for the site? _____	☐ Yes ☒ No
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? Refer to correspondence from City Police Dept in Attachment B. City of Poughkeepsie Police Department with support from Dutchess County Sheriff Law Enforcement Division and NYS Police	
c. Which fire protection and emergency medical services serve the project site? Refer to correspondence from City Fire Dept in Attachment B. City of Poughkeepsie Fire Department (North Clover Street Station)	
d. What parks serve the project site? Dongan Park, Waryus Park, Kaal Rock Park, Eastman Park, College Hill 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 and potential non-profit/governmental agency	
b. a. Total acreage of the site of the proposed action?	2.45 acres plus 0.02 acre portion of adjacent parcel to west for future potential pocket park
b. Total acreage to be physically disturbed?	1.65 acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?	2.45 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 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.			
	<u>One Family</u>	<u>Two Family</u>	<u>Three Family</u>
	<u>Multiple Family (four or more)</u>		
Initial Phase	_____	_____	_____ 39 maximum per concept plans
At completion of all phases	_____	_____	_____ 39 maximum per concept plans

g. Does the proposed action include new non-residential construction (including expansions)? ☐ Yes ☒ No	
If Yes, (Project includes restoration of the exterior of the existing Pelton Mansion building, all or a portion of which may be used for non-profit/governmental space).	
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? ☐ Yes ☒ No	
(Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite)	
If Yes:	
i. What is the purpose of the excavation or dredging? _____	
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 proposed action cause or result in disturbance to bottom sediments? ☐ Yes ☐ No
If Yes, describe: _____

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

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

v. Describe any proposed reclamation/mitigation following disturbance: _____

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

i. Total anticipated water usage/demand per day: _____ 7,920+/- gallons/day (Refer to Endnote 1.)

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

- Name of district or service area: City of Poughkeepsie
- Does the existing public water supply have capacity to serve the proposal? [Refer to correspondence in Attachment B.](#) ☒ Yes ☐ No
- Is the project site in the existing district? ☒ Yes ☐ No
- Is expansion of the district needed? ☐ Yes ☒ No
- Do existing lines serve the project site? ☒ Yes ☐ No

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

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

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

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

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

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

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

i. Total anticipated liquid waste generation per day: _____ 7,920+/- gallons/day (Refer to Endnote 1.)

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 sewage

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 WWTP
- 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? _____ • Will line extension within an existing district be necessary to serve the project? _____ If Yes: • Describe extensions or capacity expansions proposed to serve this project: _____	☒ Yes ☐ No ☐ Yes ☒ No
iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? _____	
If Yes: • Applicant/sponsor for new district: _____ • Date application submitted or anticipated: _____ • What is the receiving water for the wastewater discharge? _____	☐ Yes ☒ No
v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge, or describe subsurface disposal plans): _____	
vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____	
e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? _____	
☒ Yes ☐ No	
If Yes: i. How much impervious surface will the project create in relation to total size of project parcel? _____ Square feet or <u>1.2+/-</u> acres (impervious surface) _____ Square feet or <u>2.45</u> acres (parcel size) plus 0.02 acre portion of adjacent parcel to west for future potential pocket park. ii. Describe types of new point sources. <u>Stormwater runoff from new impervious surfaces.</u> _____ 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)? <u>Stormwater will be handled in accordance with the required Stormwater Pollution Prevention Plan (SWPPP) and will be directed to the City of Poughkeepsie municipal stormwater system .</u> _____ • If to surface waters, identify receiving water bodies or wetlands: _____ _____ _____ • Will stormwater runoff flow to adjacent properties? _____	
iv. Does proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? _____	
☐ Yes ☒ No ☒ 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) _____ iii. Stationary sources during operations (e.g., process emissions, large 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) _____ ii. In addition to emissions as calculated in the application, the project will generate: • _____ Tons/year (short tons) of Carbon Dioxide (CO₂) • _____ Tons/year (short tons) of Nitrous Oxide (N₂O) • _____ Tons/year (short tons) of Perfluorocarbons (PFCs) • _____ Tons/year (short tons) of Sulfur Hexafluoride (SF₆) • _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs) • _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)	
☐ Yes ☐ No	

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? (Refer to Endnote 2.) ☐ 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 semi-trailer truck trips/day: _____ iii. Parking spaces: Existing _____ Proposed _____ Net increase/decrease _____ iv. Does the proposed action include any shared use parking? ☐ Yes ☐ No v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: _____ vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☐ Yes ☐ No vii. Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☐ Yes ☐ No viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☐ Yes ☐ No			
k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☒ Yes ☐ No If Yes: i. Estimate annual electricity demand during operation of the proposed action: _____ To be determined ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): <u>Central Hudson Gas & Electric Corporation</u> 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. <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> i. During Construction: • Monday - Friday: <u>Maximum 6:30 AM to 9:00 PM</u> • Saturday: <u>Maximum 6:30 AM to 9:00 PM</u> • Sunday: <u>NA</u> • Holidays: <u>NA</u> </td> <td style="width: 50%; vertical-align: top;"> Residential portion = 24 hours ii. During Operations: Potential non-profit/governmental portion: • Monday - Friday: <u>approx. 8:00 am to 6:00 pm</u> • Saturday: <u>approx. 8:00 am to 6:00 pm</u> • Sunday: <u>NA</u> • Holidays: <u>NA</u> </td> </tr> </table>		i. During Construction: • Monday - Friday: <u>Maximum 6:30 AM to 9:00 PM</u> • Saturday: <u>Maximum 6:30 AM to 9:00 PM</u> • Sunday: <u>NA</u> • Holidays: <u>NA</u>	Residential portion = 24 hours ii. During Operations: Potential non-profit/governmental portion: • Monday - Friday: <u>approx. 8:00 am to 6:00 pm</u> • Saturday: <u>approx. 8:00 am to 6:00 pm</u> • Sunday: <u>NA</u> • Holidays: <u>NA</u>
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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: <i>The proposed construction activities may result in temporary noise that exceeds local ambient noise levels. These activities will be limited to the hours of 6:30 AM to 9:00 PM in accordance with City of Poughkeepsie Code Chapter 13.5, Noise.</i>	☒ Yes ☐ No
ii. Will proposed action remove existing natural barriers that could act as a noise barrier or screen? ☐ Yes ☒ No Describe: _____	☐ Yes ☒ No
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: <i>To be determined. All outdoor lighting will be designed to preclude the diffusion of glare onto adjoining properties and streets.</i>	☒ Yes ☐ No
ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☐ Yes ☒ No Describe: _____	☐ Yes ☒ No
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: _____	☐ Yes ☒ No
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 proposed storage facilities: _____	☐ Yes ☒ No
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): _____	☐ Yes ☒ No
ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No	☐ 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)? NA (Refer to Endnote 3.) ☐ Yes ☐ No If Yes: i. Describe any solid waste(s) to be generated during construction or operation of the facility: • Construction: _____ tons per _____ (unit of time) • Operation : _____ tons per _____ (unit of time) ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste: • Construction: _____ • Operation: _____ iii. Proposed disposal methods/facilities for solid waste generated on-site: • Construction: _____ • Operation: _____	☐ Yes ☐ No

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 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: _____

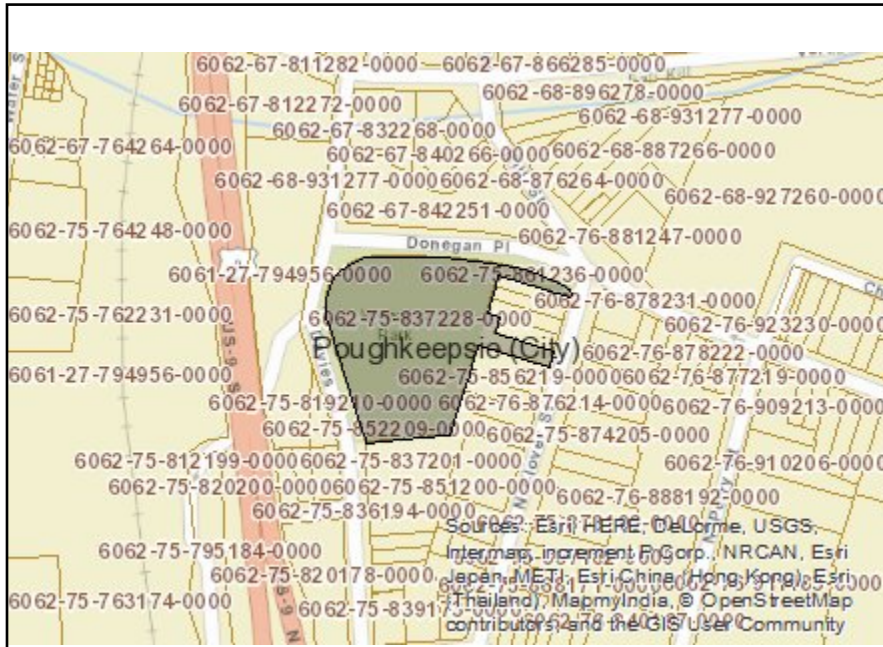
If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility: _____

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. Refer to Figure 3. ☒ Urban ☐ Industrial ☒ Commercial ☐ Residential (suburban) ☐ Rural (non-farm) ☐ Forest ☐ Agriculture ☐ Aquatic ☒ Other (specify): <u>Railroad, community services, religious</u> ii. If mix of uses, generally describe: <u>Residential, Poughkeepsie Railroad Station, playground, Fire Department, commercial (restaurant, small businesses, auto body), office, religious</u>			
b. Land uses and covertypes on the project site. (2.45 acre Pelton Manor site plus 0.02 acre potential future pocket park site)			
Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.43+/-	1.20+/- acres	+0.77+/-
• Forested			
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)			
• Agricultural (includes active orchards, field, greenhouse etc.)			
• Surface water features (lakes, ponds, streams, rivers, etc.)			
• Wetlands (freshwater or tidal)			
• Non-vegetated (bare rock, earth or fill)			
• Other Describe: <u>lawn/landscaped area with scattered trees</u>	2.04+/-	1.27+/-	-0.77+/-

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 Refer to Figure 4 and Endnote 4.	
a. What is the average depth to bedrock on the project site? _____ 1.6 to >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? _____ 1 %	
c. Predominant soil type(s) present on project site:	
Dutchess-Cardigan-Urban land (DxB)	95 %
Urban land (Ur)	5 %
_____	_____ %
d. What is the average depth to the water table on the project site? Average: _____ >6 feet	
e. Drainage status of project site soils: ☒ Well Drained: _____ 100 % of site ☐ Moderately Well Drained: _____ % of site ☐ Poorly Drained _____ % of site	
f. Approximate proportion of proposed action site with slopes: ☒ 0-10%: _____ 80 % of site ☒ 10-15%: _____ 10 % of site ☒ 15% or greater: _____ 10 % 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? Refer to Figure 5 and Endnote 5. ☒ Yes ☐ No	
If Yes to either <i>i</i> or <i>ii</i> , 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 <u>Fallkill Creek located across Dongan Pl to north (H-114)</u> Classification <u>C</u>	
• Lakes or Ponds: Name <u>NA</u> Classification <u>NA</u>	
• Wetlands: Name <u>NA</u> Approximate Size <u>NA</u>	
• Wetland No. (if regulated by DEC) <u>NA</u>	
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: _____ common urban species _____ _____	
n. Does the project site contain a designated significant natural community? ☐ Yes ☒ No If Yes: i. Describe the habitat/community (composition, function, and basis for designation): _____ _____ ii. Source(s) of description or evaluation: _____ iii. Extent of community/habitat: • Currently: _____ acres • Following completion of project as proposed: _____ acres • Gain or loss (indicate + or -): _____ acres	
o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☒ Yes ☐ No Refer to Figure 6 and Endnote 6.	
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	
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: _____	



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]	C314070, 314071, 546031, C314081
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.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.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 Register of Historic Places]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National Register of Historic Places - Name]	Union Street Historic District, Mill Street-North Clover Street Historic District (Boundary Increase), Church of the Holy Comforter, Poughkeepsie Railroad Station, Pelton Mill, Old St. Peter's Roman Catholic Church and Rectory
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

ENDNOTES

1. Water Usage/Wastewater Generation

According to the New York State Department of Environmental Conservation (NYSDEC) *Design Standards for Intermediate Sized Wastewater Treatment Systems*, March 2014, an apartment results in 110 gallons per day (gpd) per bedroom, an office use results in 15 gpd per employee, and a day care facility results in 20 gpd per child plus 15 gpd per employee per shift.

The following table show the water usage/wastewater calculations for each of Concept Plans A, B, and C.

USE	PROPOSED	WATER USAGE/WASTEWATER GENERATION RATE	TOTAL
Concept Plan A:			
Apartments 1-BR	6 (6 bedrooms)	110 gpd per bedroom	660 gpd
Apartments 2-BR	32 (64 bedrooms)	110 gpd per bedroom	7,040 gpd
Non-Profit/Governmental Space in former Pelton Mansion	1,500 SF; 3± employees (1 shift)	15 gpd per employee per shift	45 gpd
TOTAL for Concept Plan A:			7,745 gpd
Concept Plan B:			
Apartments 1-BR	6 (6 bedrooms)	110 gpd per bedroom	660 gpd
Apartments 2-BR	33 (66 bedrooms)	110 gpd per bedroom	7,260 gpd
Non-Profit/Governmental Space in former Pelton Mansion	0	NA	0 gpd
TOTAL for Concept Plan B:			7,920 gpd
Concept Plan C:			
Apartments 1-BR	6 (6 bedrooms)	110 gpd per bedroom	660 gpd
Apartments 2-BR	32 (64 bedrooms)	110 gpd per bedroom	7,040 gpd
Non-Profit/Governmental Space in former Pelton Mansion	4,500 SF; 9± employees (1 shift)	15 gpd per employee per shift	135 gpd
TOTAL for Concept Plan C:			7,835 gpd

Concept Plan B would result in the most water usage/wastewater generation at 7,920 gpd. Since the plans are conceptual at this time, the number of bedrooms may change slightly as the design is developed.

Assuming approximately 15 children and two employees, the former day care facility would be expected to result in 330 gpd water usage and wastewater generation.

Therefore, the proposed project may result in an increase of up to 7,590 gpd water usage and wastewater generation based on the proposed concept plans.

2. Traffic Generation

The Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 9th Edition, 2012, estimates 0.51 vehicle trip ends (vte's) per dwelling unit per weekday a.m. peak hour of adjacent street traffic and 0.62 vte's per dwelling unit per weekday p.m. peak hour of adjacent street traffic for Land Use Code 220, *Apartment*, and 1.56 vte's per 1,000 SF per weekday a.m. peak hour of adjacent street traffic and 1.49 vte's per 1,000 SF per weekday p.m. peak hour of adjacent street traffic for Land Use Code 710, *General Office Building*. The following table provides the ITE trip generation for each of the three concept plans.

USES	PROPOSED	TRIP GENERATION AM PEAK HOUR OF ADJACENT STREET TRAFFIC	TRIP GENERATION PM PEAK HOUR OF ADJACENT STREET TRAFFIC
Concept Plan A:			
Apartments	38	19.38	23.56
Non-Profit/Governmental Space in former Pelton Mansion	1,500 SF	2.34	2.24
TOTAL for Concept Plan A:		21.72	25.80
Concept Plan B:			
Apartments	39	19.89	24.18
Non-Profit/Governmental Space in former Pelton Mansion	0	0.00	0.00
TOTAL for Concept Plan B:		19.89	24.18
Concept Plan C:			
Apartments	38	19.38	23.56
Non-Profit/Governmental Space in former Pelton Mansion	4,500 SF	7.02	6.71
TOTAL for Concept Plan C:		26.40	30.27

Concept Plan C results in the highest traffic generation of the three concept plans at 26 trips during the weekday a.m. peak hour of adjacent street traffic and 30 trips during the weekday p.m. peak hour of adjacent street traffic.

The 2.45 acre site contains a 4,500 SF former day care facility. According to the ITE Trip Generation Report, Land Use Code 565, a *Day Care Center* generates an estimated 12.18 vte's per 1,000 SF gross floor area per weekday a.m. peak hour of adjacent street traffic and 12.34 vte's per 1,000 SF gross floor area per weekday p.m. peak hour of adjacent street traffic, which results in 55± vte's per weekday a.m. peak hour of adjacent street traffic and 56 vte's per weekday p.m. peak hour of adjacent street traffic for the former day care facility.

Therefore, the proposed project may result in a slight reduction in traffic generation at the site of 29± vte's during the a.m. peak hour and 26± vte's during the p.m. peak hour as compared to the former use of the site as a day care facility.

A Traffic Assessment was prepared and is included as Attachment C. This Assessment finds that based on the observed traffic patterns and volumes on North Clover Street and the immediate area, and the expected project generated traffic, the proposed Pelton Manor project will not have any significant impact on the local roadway system and no mitigation due to project generated traffic is warranted.

3. The proposed apartments and potential non-profit/governmental space will generate a small amount of solid waste. However, this project is not a commercial or industrial project; therefore, question D.2.r. is not applicable to the project.
4. Soils

According to available Geographic Information Systems (GIS) information (Figure 4) and the USDA Natural Resources Conservation Service website (<http://efotg.sc.egov.usda.gov/treemenuFS.aspx>), the site contains the Dutchess-Cardigan-Urban land complex (DxB) and Urban land (Ur) soil types. The following table provides the soil characteristics for these soil types.

SOIL SYMBOL	SOIL TYPE	SLOPES	DRAINAGE	DEPTH TO WATER TABLE (FT)	DEPTH TO BEDROCK (INCHES)
DxB	Dutchess-Cardigan-Urban Land complex, undulating, rocky	1 to 6%			
	Dutchess (25%)		well	>6	>60
	Cardigan (25%)		well	>6	20 to 40
	Urban Land (25%)		well	>2	>10
Ur	Urban Land	0 to 8%	well	>2	>10

Urban Land is described as areas covered by buildings, streets, parking lots and other impervious surfaces, which obscure soil identification, so that the actual identification of the soil is not determined for this portion of the site. These areas are considered to be well drained since stormwater drainage from these areas is controlled.

5. Wetlands and Surface Waters

According to NYSDEC EAF Mapper and Environmental Resource Mapper (<http://www.dec.ny.gov/imsmaps/ERM/viewer.htm>), the site does not contain any State regulated wetlands or streams. A NYSDEC stream, the Fallkill Creek, NYSDEC Stream H-114, flows in a westerly direction just north of Dongan Place. According to National Wetland Inventory information available through GIS, the property does not contain nor is contiguous to a NWI wetland. Please refer to Figure 5, *Wetland and Stream Map*, and Figure 6, *NYSDEC Environmental Resource Map*.

6. Endangered, Threatened, and/or Rare Species and Significant Natural Communities

According to the NYSDEC Environmental Resource Mapper (Figure 6), there are known occurrences of endangered, threatened, or rare species in the vicinity of the project site, and the Hudson River is considered a Significant Natural Community, a tidal river. According to the US

Fish & Wildlife Service (USFWS) IPaC Trust Report, there is potential for the following species on or in the vicinity of the project site: Dwarf wedgemussel (endangered), Indiana bat (endangered), and Northern long-eared bat (threatened). The IPaC report indicates that no “critical habitat” for these species or any other species has been designated by the USFWS within the project site. It is recommended that tree clearing occur between October 1st and March 31st to ensure no potential take of the Indiana bat or NLEB, as during this time, the bats would be hibernating and not present onsite. If any clearing is proposed outside of this range, additional consultation with USFWS and NYSDEC may be required.

7. Cultural/Historic Resources

According to the NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP) Cultural Resource Information System (CRIS) mapping (Figure 7), the project parcel contains the Pelton Mansion, AKA Hill House, which is in the Mill Street-North Clover Street Historic District and was constructed in 1859. The 36 North Clover Street property was also designated as a local historic site by the City of Poughkeepsie Common Council on July 29, 2010; therefore, the proposed renovations and construction will require a Certificate of Appropriateness from the City’s Historic District and Landmark Preservation Commission. The CRIS mapping indicates that the project site is within a known archeologically sensitive area. A Phase 1A Literature Review & Sensitivity Analysis and Phase 1B Archaeological Field Reconnaissance Survey were conducted by Hudson Valley Cultural Resource Consultants, Ltd. (HVCRC) and are provided as Attachment D.

The Phase 1A report indicates that Hill House (AKA Pelton Mansion) is not listed individually on the National Register. The Phase 1A lists numerous National Register eligible properties in the vicinity of the project area, and finds that none of these eligible properties will be impacted by the proposed project. A Historic Building Assessment of the Hill House, which evaluates the structure using the National Register Evaluation Criteria for historic significance, was conducted by the HVCRC (Appendix A of the HVCRC’s report). This Assessment finds that the proposed undertaking, including the renovations to the Hill House, will not have an adverse effect on the structure or impact its listing as part of the North Clover-Mill Street Historic District.

The Phase 1B report finds that no significant cultural material of any kind was recovered from the shovel tests, and that no further archeological investigation is warranted for the Pelton Manor Project.

The Phase 1A/1B report was submitted to NYS Office of Parks, Recreation and Historic Preservation (NYSOPRHP) for review (NYSOPRHP Project #15PR06519). Correspondence from Tim Lloyd of NYSOPRHP on December 2, 2015, indicates that he concurs with the report recommendation that no additional archaeological work is necessary.

The Applicant proposes to restore the exterior of the Pelton Mansion structure in a historically appropriate manner and utilize the space for additional apartment units and/or potential full or partial occupancy by a non-profit or governmental agency, to the extent permitted by current zoning. The proposed apartments are a permitted use in the R-4 zoning district and are consistent with other nearby uses and structures. The Applicant has consulted with NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP). Copies of the November 30, 2015, and December 2, 2015, correspondence to NYSOPRHP with attachments, including the revised concept

plan, were provided to the Common Council on December 7, 2015. NYSOPRHP issued a letter dated December 10, 2015, stating that NYSOPRHP has no concerns with the current proposal to rehabilitate the historic building and construct additional housing on the site, and that it is encouraged by plans to rehabilitate Hill House (Pelton Manor) in a historically appropriate manner. The letter finds that the most recently updated site plan is compatible with the historic building, site and historic district. The Applicant will continue to work with NYSOPRHP as construction documents become available at the time of the State level 14.09 review. The proposed plan shows sufficient space around the Pelton Mansion building to preserve the view of the building. The exterior of the Pelton Mansion structure will be restored in accordance with the Applicant's contract with the City of Poughkeepsie. The architectural plans have yet to be developed. Some of the project detailing shall be determined once the final building program has been set. However, some of the work being contemplated includes:

1. Removal of the metal fire escapes;
2. Reconstruction of the existing entry porches;
3. Rebuild and repointing of the exterior masonry;
4. Repair and replacement of all damaged exterior wood trims, fascia, brackets and the like;
5. Repair and/or replacement of all gutters and leaders, as necessary;
6. Replacement of existing windows with new design compatible and energy efficient windows;
7. Modification of the exterior façade where emergency egress doors have previously been installed;
8. Reconstruction of the exterior enclosed porches and modification of the window types and locations;
9. Removal of the existing shutters;
10. Repainting of the existing exterior masonry and woodwork;
11. Installation of new exterior lighting; and
12. Potential uncovering and restoration of the original brick exterior columns that support the porch structures.

The Applicant, as part of the purchase contract with the City of Poughkeepsie, agrees to enter into a façade easement to ensure that the exterior of the building will be properly restored at this time and maintained into the future.

Most of the structures in the vicinity of the Pelton Manor site were constructed during the post-Civil War housing boom. The area as a whole is an untouched 19th Century setting lined with residences interspersed with churches and public buildings representing architectural styles ranging from Greek Revival to Italianate Villas to 1960's Modern. Photos of nearby structures are provided in the Phase 1A Literature Search and Sensitivity Assessment and Archaeological Field Reconnaissance Survey provided as Attachment D of the FEA. The architectural design of the new buildings will be compatible with the Pelton Mansion building and other existing buildings in

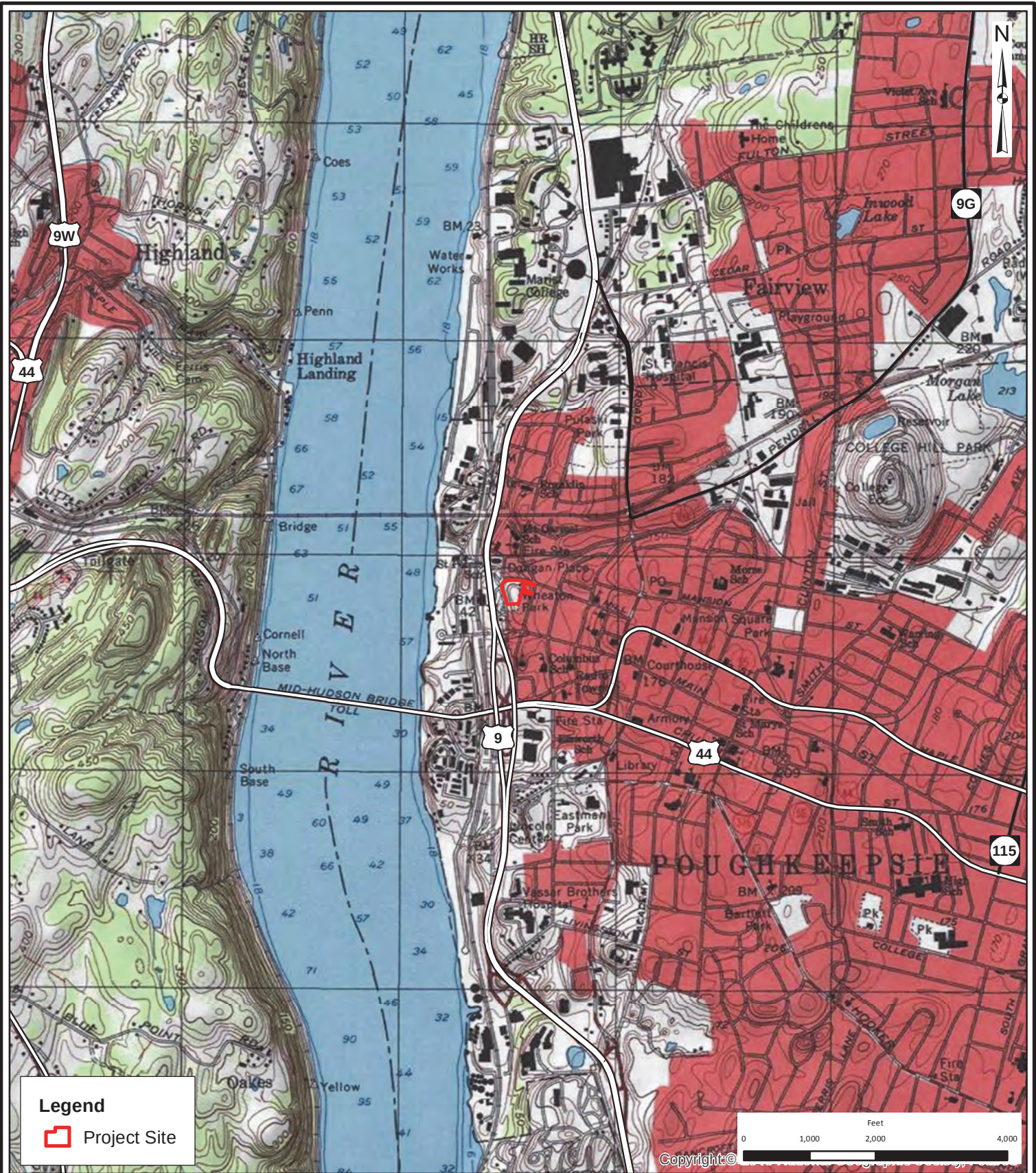
the neighborhood. The new structures shall be scaled to reflect the heights and densities found in the surrounding neighborhood. These structures are currently planned to be finished with masonry, vinyl and various cementitious materials to replicate wood siding, porches, railings and trims. The detailing of these new buildings shall be influenced by the many varying historical styles found within the surrounding Mt. Carmel neighborhood. This area, as previously mentioned, is a melting pot of styles and timeframes, and it is the Applicant's intention that the new structures will reflect this architectural diversity. While the project design will reflect the historic past of the surrounding neighborhood, it will also celebrate its own time in history as well as the surrounding industrial history, such as can be found in the adjacent railroad station complex. There also will be an architectural dialogue between the new buildings and the existing Pelton Mansion.

The siting of the buildings will reflect those shown on the concept site plans, with those structures facing Dongan Place having a more traditional relationship with the adjacent street. While the existing stone wall surrounding the site will be preserved, the buildings facing Dongan Place will be located as close to this historic wall as possible, while also allowing for a connecting sidewalk and landscaping. New street lighting and street trees will also be considered as part of the effort along Dongan Place.

Elevation drawings of Pelton Manor, a conceptual rendering of the proposed new buildings to be placed along Dongan Place along with proposed elevation drawing and site section were submitted to the City Common Council on December 7, 2015, as a supplement to the SEQR documentation. The site section suggests a different scaling along Dongan Place to that in the inner part of the site. This strategy will help retain the prominence of the existing mansion. Final determinations regarding building massing and placement will be made once the final site mapping has been completed and the property geology has been studied. Images of influential neighboring buildings as well as others found within the City of Poughkeepsie, as sources for design inspiration, were also submitted to the Common Council on December 7, 2015. The mansion is difficult to view during the leaf-on season. The landscaping on the site will be thinned and selectively cleared to allow for a stronger presence of the Pelton Mansion, as the site has been seriously overgrown over the past few decades.

Based on this information, the proposed project will not adversely impact any architectural or aesthetic resources and will be consistent with neighborhood character.

FIGURES



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COMPANIES

ENGINEERS
LAND SURVEYORS
PLANNERS
ENVIRONMENTAL & SAFETY PROFESSIONALS
LANDSCAPE ARCHITECTS

Dutchess County Office:
21 Fox Street, Poughkeepsie, NY 12601
Phone: (845) 454-3980

Capital District Office:
547 River Street, Troy, NY 12180
Phone: (518) 273-0055

North Country Office:
375 Bay Road, Queensbury, NY 12804
Phone: (518) 812-0513

Pelton Manor

USGS Location Map

36 North Clover Street, City of Poughkeepsie - Dutchess County, NY

RLB

Date: 10/9/2015

Scale: 1 in = 2,000 ft

Project: 81549.00

Figure: 1



Legend

- Project Site
- Other Tax Parcels

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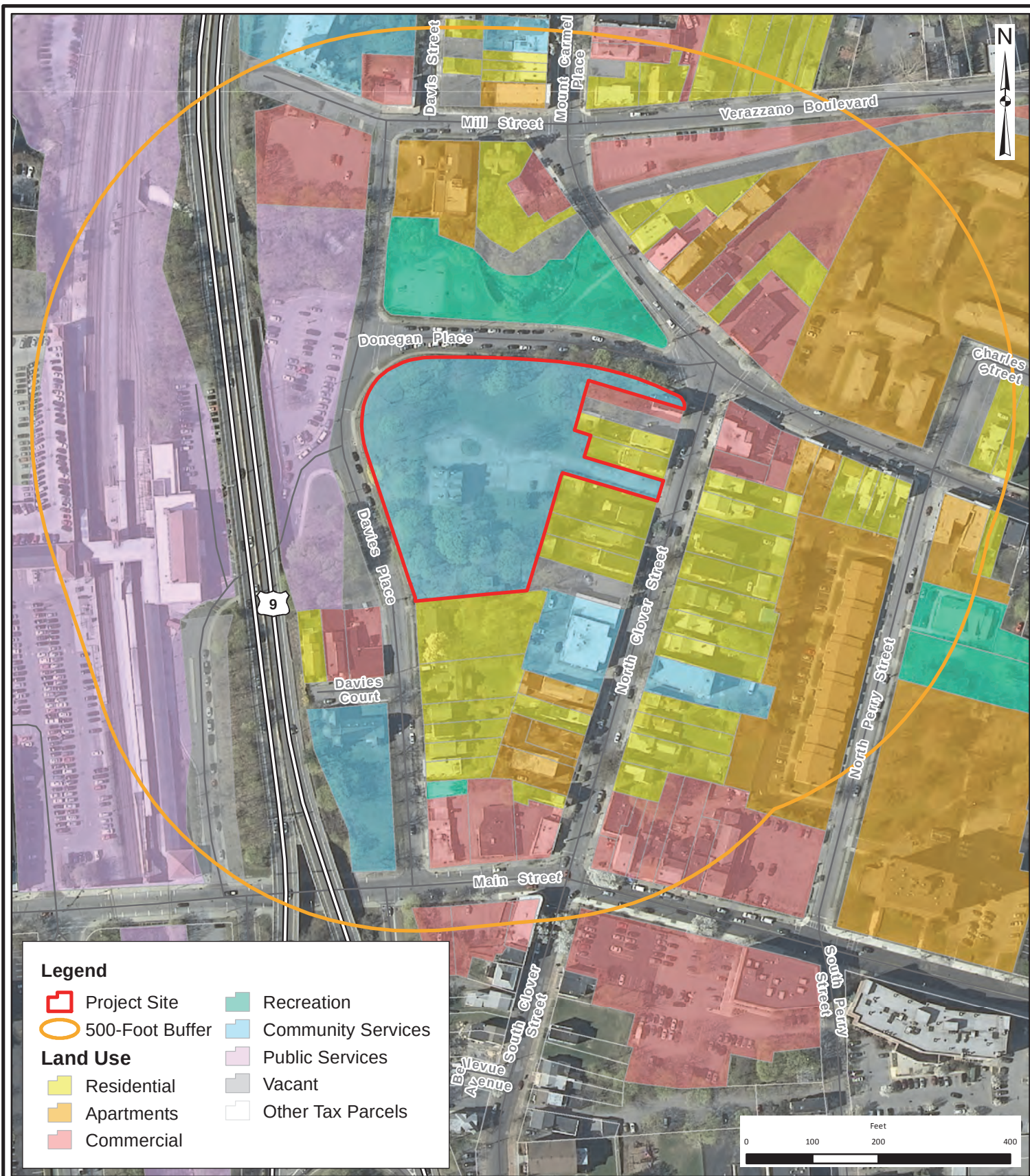
North Country Office:
375 Bay Road, Queensbury, NY 12804
Phone: (518) 812-0513

Pelton Manor

Orthophoto Tax Map

36 North Clover Street, City of Poughkeepsie - Dutchess County, NY

Drawn:	RLB
Date:	10/9/2015
Scale:	1 in = 120 feet
Project:	81549.00
Figure:	2



Dutchess County Office:
21 Fox Street, Poughkeepsie, NY 12601
Phone: (845) 454-3980

Capital District Office:
547 River Street, Troy, NY 12180
Phone: (518) 273-0055

North Country Office:
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Phone: (518) 812-0513

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Pelton Manor

Land Use Map

36 North Clover Street, City of Poughkeepsie - Dutchess County, NY

Drawn:	RLB
Date:	10/9/2015
Scale:	1 in = 200 feet
Project:	81549.00
Figure:	3



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Phone: (845) 454-3980

Capital District Office:
547 River Street, Troy, NY 12180
Phone: (518) 273-0055

North Country Office:
375 Bay Road, Queensbury, NY 12804
Phone: (518) 812-0513

Pelton Manor

Soils Map

36 North Clover Street, City of Poughkeepsie - Dutchess County, NY

Drawn:	RLB
Date:	10/9/2015
Scale:	1 in = 120 feet
Project:	81549.00
Figure:	4



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LANDSCAPE ARCHITECTS

Dutchess County Office:
21 Fox Street, Poughkeepsie, NY 12601
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547 River Street, Troy, NY 12180
Phone: (518) 273-0055

North Country Office:
375 Bay Road, Queensbury, NY 12804
Phone: (518) 812-0513

Pelton Manor

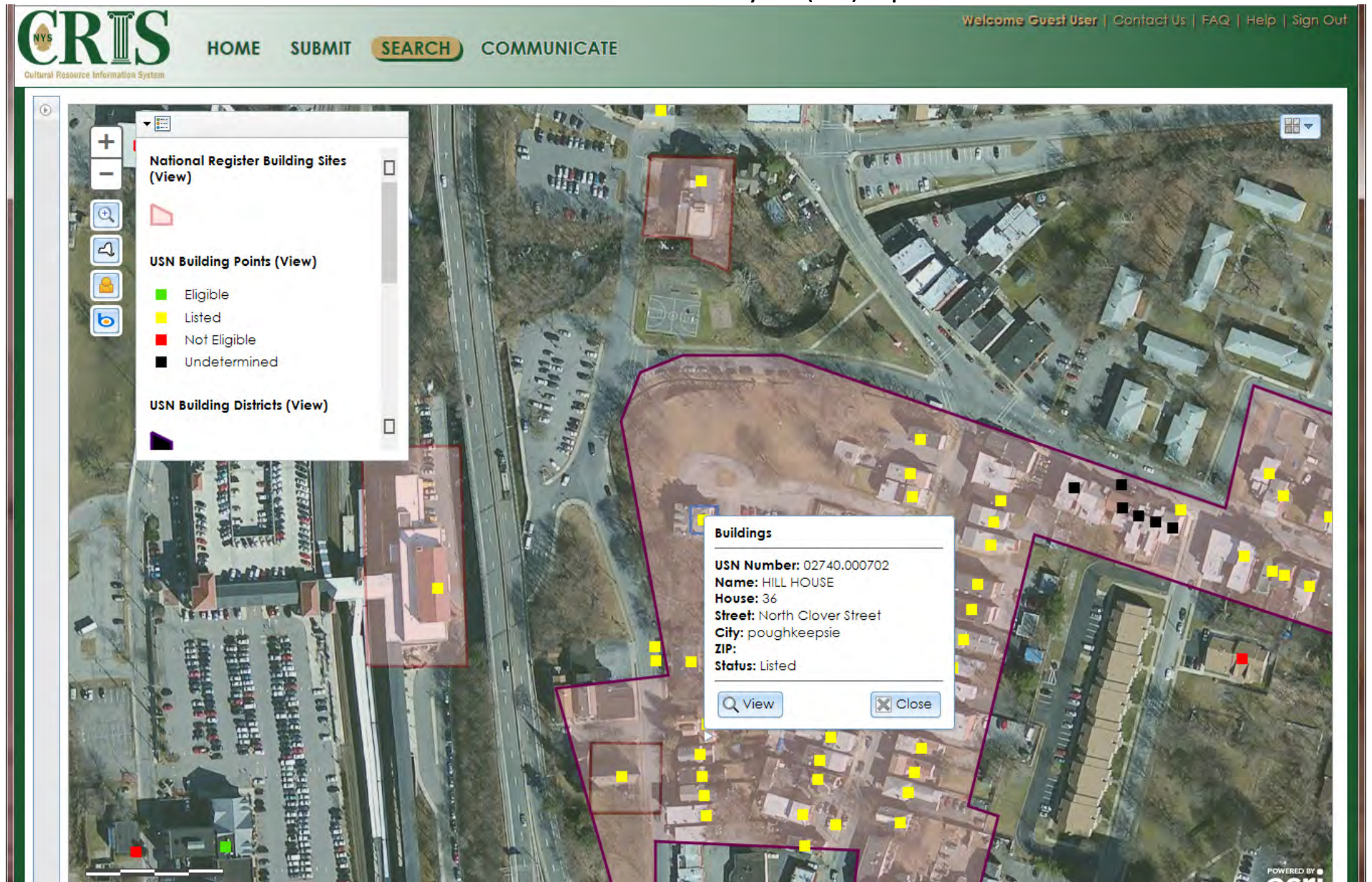
Wetlands and Streams Map

36 North Clover Street, City of Poughkeepsie - Dutchess County, NY

Drawn:	RLB
Date:	10/9/2015
Scale:	1 in = 120 feet
Project:	81549.00
Figure:	5



Figure 7
NYS Office of Parks, Recreation, & Historic Preservation (NYSOPRHP)
Cultural Resource Information System (CRIS) Map



ATTACHMENT A

Concept Plans



CLIENT:
CONCEPT SITE PLAN A

PROJECT NAME:
Pelton Manor
36 N. Clover St.
Poughkeepsie, NY 12601

SITE PLAN
CONCEPT PLAN A

DATE: 01/11/17	SP04
DATE: 02/15/17	
DATE: 03/15/17	

P:\116_000\116027 - 36 N. Clover\Drawings\Drawings\116027-SP04 SITE PLAN 2015-03-11.dwg



CLIENT:
CONCEPT SITE PLAN B

PROJECT NAME:
Pelton Manor
36 N. Clover St.
Poughkeepsie, NY 12601

SITE PLAN
CONCEPT PLAN B
SP04

P:\116_2019\11022 - 36 N. Clover\Drawings\Drawings\11022-SP04 SITE PLAN 2019-03-11.dwg



CLIENT:
CONCEPT SITE PLAN C

PROJECT NAME:
Pelton Manor
36 N. Clover St.
Poughkeepsie, NY 12601

SITE PLAN
CONCEPT PLAN C

SP04

P:\116_000\116022 - 36 N. Clover\Drawings\Drawings\116022-SP04 SITE PLAN 2015-03-11.dwg

ATTACHMENT B

Correspondence

Debbie Hubbard

From: Debbie Hubbard
Sent: Wednesday, October 28, 2015 8:19 AM
To: Debbie Hubbard
Subject: FW: Wheaton Park/Pelton Mansion

From: [Knapp, Ron](#)
Sent: Friday, October 23, 2015 1:34 PM
To: ['Wayne Nussbickel'](#)
Subject: RE: Wheaton Park/Pelton Mansion

I have reviewed the specifics of your proposal (below) and find no concerns regarding this project having a negative impact on the operations of the Police Department. We have the capacity to support the advancement of this development plan.

Ronald J. Knapp, Chief of Police
City of Poughkeepsie Police Department
62 Civic Center Plaza
Poughkeepsie, NY 12601

(845) 451-4182 (Fax: 845-451-4133)

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From: Wayne Nussbickel [<mailto:wnussbickel@nssupply.com>]
Sent: Friday, October 23, 2015 1:04 PM
To: Knapp, Ron
Subject: Wheaton Park/Pelton Mansion

October 23, 2015

Pelton Partners, LLC
25 Van Wagner Road
Poughkeepsie, NY 12603

Mr. Ronald Knapp
Chief of Police
City of Poughkeepsie Police Department
62 Civic Center Plaza
Poughkeepsie, NY 12601

Dear Chief Knapp,

Steve Tinkelman and I responded to a City of Poughkeepsie Request for Proposal (RFP) in the fall of 2014 to purchase the city owned property known as Wheaton Park, located at 36 North Clover Street. The Common Council has selected our proposal and we are in the process of creating a contract of sale. Steve and I formed an entity called Pelton Partners LLC. to bring the proposed project to fruition.

The Mount Carmel neighborhood is in decline and has experienced little or no new investment in decades. This neighborhood is rich in history and has tremendous character. We feel that an investment in the Pelton property will go a long way in rebuilding not just the neighborhood but also have a very positive impact for the City of Poughkeepsie as a whole.

Our proposal includes the restoration and repurposing of the former Pelton Mansion so that it may house appropriate non-profit organizations, or failing this, return it to residential use. The plan also calls for us to construct approx. 38 market rate rental housing units on the 2.4 acre site. The dwellings will be modern in feel, but will be in keeping with the history and character of the Mt. Carmel historic district. The project calls for the creation of a welcoming “pocket park” across the street adjacent to the entry to the Poughkeepsie Train Station, where we will reintroduce the beehive fountain that once graced the Main Mall. We will be donating funds for the revitalization of Donegan Park and Steve Tinkelman’s firm, Tinkelman Architecture will provide designs for that revitalization. Public space will be available on the site for residents and neighbors to enjoy the sweeping views.

We feel this project will have a lasting, positive “game changing” impact on the neighborhood and the City. It has received overwhelming support from both residents and the business community.

As a component of the contract of sale, Pelton Partners is required to provide the City with an Environmental Assessment Form (EAF). One component of the EAF is that we obtain from the City of Poughkeepsie Police Department a positive response stating that your department has the capacity to service the development.

I’ve attached a copy of the proposed conceptual site plan for your review. Although this may not necessarily be the exact configuration of the site it is close to what we envision. The maximum proposal includes 4 newly constructed buildings which include 32 – 2 Bedroom apartments, 6 - 1 bedroom apartments and approx. 4500 sq. ft. of government/non-profit office space in the Mansion.

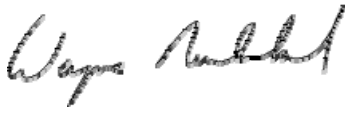
Chief Knapp, if you are of the opinion that the City of Poughkeepsie Police Department has the adequate capacity to safely service this development, we respectfully ask that you return this email with positive comment in order for us to complete our EAF application. By doing so you would be confirming that the conceptual site plan was reviewed, the proposal is for 38 apartments and 4500 sq. ft. of government / non-profit office space and that your department has adequate capacity to safely service this development.

The Pelton Manor Revitalization Project has received the support of the Mayor, City Council, the Dutchess County Regional Chamber of Commerce and the Poughkeepsie Journal, along with many members of the community. We truly believe this is a sound project that will serve as a benchmark for the turnaround of the Mt Carmel neighborhood as well as the City of Poughkeepsie.

Please feel free to call either Steve or myself if you have any questions. Steve can be reached at (845) 473-0200 and I can be reached at (914) 456-9200.

We would greatly appreciate it if you could respond as soon as possible. We thank you in advance for your assistance in this matter!

Respectfully yours,

A handwritten signature in black ink, appearing to read "Wayne Nussbickel".

Wayne Nussbickel
Pelton Partners, LLC

Debbie Hubbard

From: Debbie Hubbard
Sent: Wednesday, October 28, 2015 8:22 AM
To: Debbie Hubbard
Subject: FW: Wheaton Park/Pelton Mansion

From: [Johnson, Mark](#)
Sent: Friday, October 23, 2015 2:00 PM
To: [Wayne Nussbickel](#)
Subject: RE: Wheaton Park/Pelton Mansion

Mr. Nussbikel,

I have been involved in reviewing this project from the initial stages of your proposal to the City .

It is my opinion that the City of Poughkeepsie Fire Department is capable of handling the needs of your project as proposed.

Good luck and if you need anything further please do not hesitate to contact me.

Mark W Johnson
Chief of Department
City of Poughkeepsie Fire Department
845-451-4079
mjohnson@cityofpoughkeepsie.com

From: Wayne Nussbickel [<mailto:wnussbickel@nssupply.com>]
Sent: Friday, October 23, 2015 1:35 PM
To: Johnson, Mark <MJohnson@cityofpoughkeepsie.com>
Subject: Fw: Wheaton Park/Pelton Mansion

October 23, 2015

Pelton Partners, LLC
25 Van Wagner Road
Poughkeepsie, NY 12603

Mr. Mark W Johnson, Fire Chief
City of Poughkeepsie Fire Department
505 Main Street, Second Floor
Poughkeepsie, NY 12603

Dear Chief Johnson,

Steve Tinkelman and I responded to a City of Poughkeepsie Request for Proposal (RFP) in the fall of 2014 to purchase the city owned property known as Wheaton Park, located at 36 North Clover Street. The Common Council has selected our proposal and we are in the process of creating a contract of sale. Steve and I formed an entity called Pelton Partners LLC. to bring the proposed project to fruition.

The Mount Carmel neighborhood is in decline and has experienced little or no new investment in decades. This neighborhood is rich in history and has tremendous character. We feel that an investment in the Pelton property will go a long way in rebuilding not just the neighborhood but also have a very positive impact for the City of Poughkeepsie as a whole.

Our proposal includes the restoration and repurposing of the former Pelton Mansion so that it may house appropriate non-profit organizations, or failing this, return it to residential use. The plan also calls for us to construct approx. 38 market rate rental housing units on the 2.4 acre site. The dwellings will be modern in feel, but will be in keeping with the history and character of the Mt. Carmel historic district. The project calls for the creation of a welcoming “pocket park” across the street adjacent to the entry to the Poughkeepsie Train Station, where we will reintroduce the beehive fountain that once graced the Main Mall. We will be donating funds for the revitalization of Donegan Park and Steve Tinkelman’s firm, Tinkelman Architecture will provide designs for that revitalization. Public space will be available on the site for residents and neighbors to enjoy the sweeping views.

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I’ve attached a copy of the proposed conceptual site plan for your review. Although this may not necessarily be the exact configuration of the site it is close to what we envision. The maximum proposal includes 4 newly constructed buildings which include 32 – 2 Bedroom apartments, 6 - 1 bedroom apartments and approx. 4500 sq. ft. of government/non-profit office space in the Mansion.

Chief Johnson, if you are of the opinion that the City of Poughkeepsie Fire Department has the adequate capacity to safely service this development, we respectfully ask that you return this email with positive comment in order for us to complete our EAF application. By doing so you would be confirming that the conceptual site plan was reviewed, the proposal is for 38 apartments and 4500 sq. ft. of government / non-profit office space and that your department has adequate capacity to safely service this development.

The Pelton Manor Revitalization Project has received the support of the Mayor, City Council, the Dutchess County Regional Chamber of Commerce and the Poughkeepsie Journal, along with many members of the community. We truly believe this is a sound project that will serve as a benchmark for the turnaround of the Mt Carmel neighborhood as well as the City of Poughkeepsie.

Please feel free to call either Steve or myself if you have any questions. Steve can be reached at (845) 473-0200 and I can be reached at (914) 456-9200.

We would greatly appreciate it if you could respond as soon as possible.

We thank you in advance for your assistance in this matter!

Respectfully yours,

A rectangular box with a black border, containing a small red 'X' icon in the top-left corner, indicating a redacted signature.

Wayne Nussbickel

THE CITY OF POUGHKEEPSIE

DEPARTMENT OF PUBLIC WORKS
26 HOWARD STREET
POUGHKEEPSIE, NEW YORK 12601



PHONE: 845-451-4100
FAX: 845-451-4103

10/26/15

To:
DEBBIE HUBBARD
CHAZEN COMPANIES

RE:
PELTON MANOR PROJECT 36 N CLOVER ST

I RECEIVED YOUR PRELIMINARY WATER DESIGN CALCULATIONS FOR YOUR PROJECT LOCATED AT 36 NORTH CLOVER STREET. IT APPEARS THE WORST CASE WATER DEMAND WOULD BE 8,000 GPD.

THERE IS A HYDRANT LOCATED ACROSS THE STREET THAT HAS BEEN TESTED AT 661 GPM. IT APPEARS WE CAN PROVIDE YOUR PROJECT WITH THE NECESSARY FLOW.

AS WITH ALL PROJECTS HOWEVER PROFESSIONAL ENGINEER TESTING WILL NEED TO BE PERFORMED TO CONFIRM ALL FLOWS AND DESIGNS.

CHRIS GENT
COMMISSIONER OF PUBLIC WORKS

Debbie Hubbard

From: Debbie Hubbard
Sent: Wednesday, October 28, 2015 4:29 PM
To: Debbie Hubbard
Subject: FW: Pelton Manor project - confirmation of capacity to provide wastewater service to the project

From: Steeprock, Edward [<mailto:edward.steeprock@veolia.com>]
Sent: Wednesday, October 28, 2015 4:23 PM
To: Gent, Chris
Cc: Debbie Hubbard; Chenier, Joe
Subject: Re: Pelton Manor project - confirmation of capacity to provide water and wastewater service to the project

Chris,

The WPCP currently has sufficient capacity to accept an additional 8000 GPD.

Ed Steeprock
Project Manager, Operations
Municipal & Commercial Business
VEOLIA NORTH AMERICA

tel
+1 845 471 8165
/ cell

+1 914 447 8775
fax +1 845 471 5498

173 Kittredge Place, Poughkeepsie, NY 12601
edward.steeprock@veolia.com
www.veolianorthamerica.com

On Wed, Oct 28, 2015 at 1:55 PM, Gent, Chris <CGent@cityofpoughkeepsie.com> wrote:

Ed can the wastewater handle an additional 8000 GPD for a potential new development?

From: Debbie Hubbard [<mailto:dhubbard@chazencompanies.com>]
Sent: Monday, October 26, 2015 3:46 PM
To: Gent, Chris <CGent@cityofpoughkeepsie.com>
Subject: RE: Pelton Manor project - confirmation of capacity to provide water and wastewater service to the project

Thanks very much for the quick response, Mr. Gent! We also need a letter that confirms that there is sufficient sewer capacity for 8,000 gpd as well - is it possible to revise your letter to include that the City has adequate capacity to provide sewer service for an additional 8,000 gpd as well?

Thanks again...have a good evening..

Debbie

From: Gent, Chris [<mailto:CGent@cityofpoughkeepsie.com>]
Sent: Monday, October 26, 2015 11:12 AM
To: Debbie Hubbard
Subject: RE: Pelton Manor project - confirmation of capacity to provide water and wastewater service to the project

Let me know if you need anything else.

From: Debbie Hubbard [<mailto:dhubbard@chazencompanies.com>]
Sent: Thursday, October 22, 2015 4:15 PM
To: Gent, Chris <CGent@cityofpoughkeepsie.com>
Subject: Pelton Manor project - confirmation of capacity to provide water and wastewater service to the project

Hi Mr. Gent,

Per our telephone conversation, our client, Pelton Partners, LLC, is proposing to purchase the 2.45 acre property located at 36 North Clover Street from the City of Poughkeepsie to construct a small apartment complex with associated parking, to be known as Pelton Manor. The project may include space for a non-profit/governmental agency within the existing Pelton Mansion structure, if one becomes available; otherwise, the Pelton Mansion structure will be utilized for apartments. Our client has produced three potential concept plans.

According to the New York State Department of Environmental Conservation (NYSDEC) Design Standards for Intermediate Sized Wastewater Treatment Systems, March 2014, an apartment results in 110 gallons per day (gpd) per bedroom and an office use results in 15 gpd per employee. The table below provides calculations for water/usage and wastewater generation for the three concept plans. Concept Plan B is expected to have the highest water usage/wastewater generation at approximately 8,000 gpd. Please provide a letter that confirms that the City of Poughkeepsie has adequate capacity to provide water and wastewater services to the proposed development.

USE	PROPOSED	WATER USAGE/WASTEWATER GENERATION RATE	TOTAL
Concept Plan A:			
Apartments 1-BR	6 (6 bedrooms)	110 gpd per bedroom	660 gpd
Apartments 2-BR	32 (64 bedrooms)	110 gpd per bedroom	7,040 gpd
Non-Profit/Governmental Space in former Pelton Mansion	1,500 SF; 3± employees (1 shift)	15 gpd per employee per shift	45 gpd
TOTAL for Concept Plan A:			7,745 gpd
Concept Plan B:			
Apartments 1-BR	6 (6 bedrooms)	110 gpd per bedroom	660 gpd
Apartments 2-BR	33 (66 bedrooms)	110 gpd per bedroom	7,260 gpd
Non-Profit/Governmental Space in former Pelton Mansion	0	NA	0 gpd
TOTAL for Concept Plan B:			7,920 gpd
Concept Plan C:			
Apartments 1-BR	6 (6 bedrooms)	110 gpd per bedroom	660 gpd
Apartments 2-BR	32 (64 bedrooms)	110 gpd per bedroom	7,040 gpd

Non-Profit/Governmental Space in former Pelton Mansion	4,500 SF; 9± employees (1 shift)	15 gpd per employee per shift	135 gpd
TOTAL for Concept Plan C:			7,835 gpd

Thank you very much...have a good evening!

Debbie

Deborah S. Hubbard

Planner

The Chazen Companies

21 Fox Street

Poughkeepsie, NY 12601

Phone: 845-486-1529

Fax: 845-454-4026

Email: dhubbard@chazencompanies.com

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ATTACHMENT C

Traffic Assessment

October 27, 2015

City of Poughkeepsie Common Council
62 Civic Center Plaza
Poughkeepsie, NY 12601

*Re: Pelton Manor
36 North Clover Street
Traffic Assessment*

Dear Gentlemen and Ladies:

We have reviewed the proposed Pelton Manor residential project relative to traffic impacts associated with project generated traffic. Our review focused on field observations of the immediate local roadway network during commuter peak periods of activity, on the trips estimated to be generated by the proposed project, and on sight distances from the site access driveway. Based on this review the Pelton Manor project will not have any significant impact on the local roadway network.

The project proposes to construct a small apartment complex with 39 units and the possibility for a small amount of space for occupancy by a non-profit or governmental agency. The site contains the Pelton Mansion which will be restored under the project and had previously been utilized as the Poughkeepsie Day Nursery. Pelton Manor will continue to use the existing access/egress driveway onto North Clover Street. North Clover Street connects Mill Street to the north and Main Street to the south at signalized intersections. The north side of the site is bounded by Dongan Place, a one way westbound street which carries traffic west to the Poughkeepsie Train Station. Access is not proposed for Dongan Place.

The Poughkeepsie Train Station is immediately to the west of the project site, separated by local streets. The vast majority of parking for the station is contained in a large parking garage located to the west of the station and tracks. The garage is accessed from Main Street and North Water Street. Limited traffic, mostly taxi cabs, buses, and vehicles dropping off and picking up train passengers, would utilize Mill Street and the intersection with North Clover Street.

Field observations of North Clover Street traffic were conducted for the normal commuter peak period of 4:00 to 6:00 PM on Monday October 26th, and on October 27th during the normal commuter peak period of 7:00 to 9:00 AM. Traffic during both periods was minimal on North Clover and at no time extended from the Mill Street traffic signal back to the site driveway. Any traffic queued at the signal cleared the intersection during the allotted green interval. Traffic from Pelton Manor to the train station would most likely be mainly pedestrian traffic due to close proximity of the planned project.

The ITE (Institute of Transportation Engineers) Trip Generation Manual, 9th Edition, was utilized to estimate trips generated by the proposed project. This document is the nationally accepted source for trip generations. Based on ITE data the proposed project of 39 residential units would generate 20 trips (4 entering/16 exiting) in the morning peak hour and 24 (16 entering/8 exiting) trips during the evening peak hour. Based on primary destinations such as the Poughkeepsie Arterial, Route 9, and the Mid-Hudson Bridge, most of the minimal site traffic would be expected to head south on North Clover Street toward to Main Street, and not utilize the Mill Street signal and system of local streets around the train station.

It is noted that the estimated trips expected from the Pelton Manor project are fewer than would have been expected from a day care center, which formally occupied the site. A 4,500 sf day care center would have generated 55 trips during the weekday AM peak hour and 56 trips during the PM peak hour.

Sight distances were also reviewed in the field. AASHTO (American Association of State Highways and Transportation Officials) provides recommended sight distance data and is the source document for NYSDOT on sight distance requirements. Sight distance looking north from the site driveway, influenced by the Mill/North Quaker/Dongan signalized intersection, is 200 feet, with an AASHTO recommended distance of 290 feet. Sight distance looking south is greater than 350 feet in the absence of parked vehicles on North Clover, with an AASHTO recommended distance of 335 feet. While both actual distances may be problematic due to field conditions, both fall at or under the critical sight distance for the installation of an advance warning sign as per the NYSDOT MUTCD. Considering that the site is in an urban location, the limiting conditions described above are normal, and no mitigation is determined to be necessary.

Given the observed traffic patterns and volumes on North Clover Street and the immediate area, and the expected project generated traffic, the proposed Pelton Manor project will not have any significant impact on the local roadway system and no mitigation due to project generated traffic is determined to be warranted.

Sincerely,

A handwritten signature in black ink that reads "Michael Hartman". The signature is written in a cursive, flowing style.

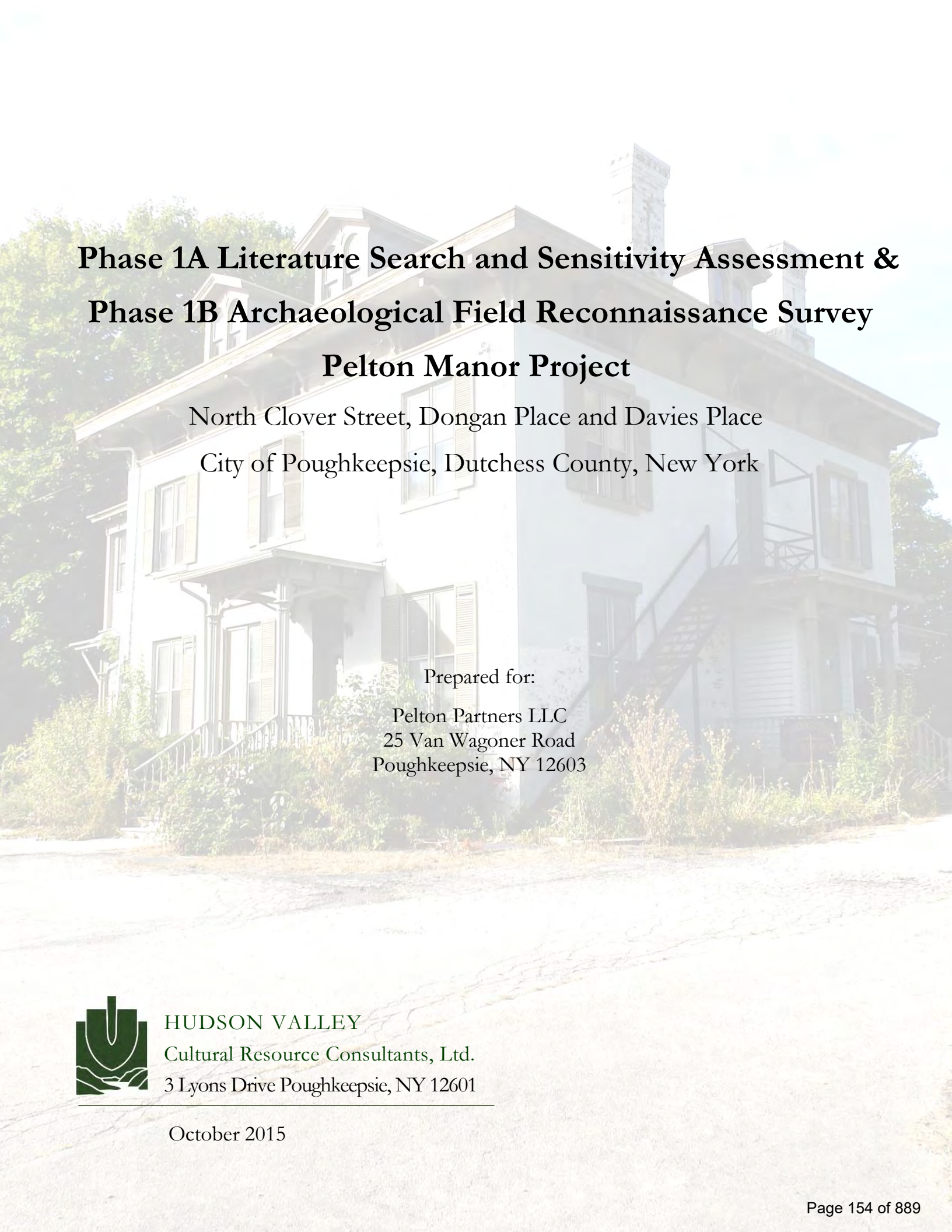
Michael E. Hartman P.E.

Senior Transportation Engineer

MH/mh

ATTACHMENT D

Phase 1A Literature Review & Sensitivity Analysis and Phase 1B Archaeological Field Reconnaissance Survey



Phase 1A Literature Search and Sensitivity Assessment & Phase 1B Archaeological Field Reconnaissance Survey Pelton Manor Project

North Clover Street, Dongan Place and Davies Place
City of Poughkeepsie, Dutchess County, New York

Prepared for:

Pelton Partners LLC
25 Van Wagoner Road
Poughkeepsie, NY 12603



HUDSON VALLEY
Cultural Resource Consultants, Ltd.
3 Lyons Drive Poughkeepsie, NY 12601

October 2015

Management Summary

SHPO Project Review Number (if available):

Involved State and Federal Agencies:

Phase of Survey: **Phase 1A Literature Review & Sensitivity Analysis & Phase 1B Archaeological Field Reconnaissance Survey**

Location Information:

Location: **North Clover Street, Dongan Place, and Davies Place**

Minor Civil Division: **City of Poughkeepsie**

County: **Dutchess County**

Survey Area (Metric & English)

Length: **341.78'/104.7 m**

Width: **420'/128 m**

Depth (when appropriate):

Number of Acres Surveyed: **2.8 acres (1.13 hectares)**

Number of Square Meters & Feet Excavated (Phase II, Phase III only): **N/A**

Percentage of the Site Excavated (Phase II, Phase III only):

USGS 7.5 Minute Quadrangle Map: **Poughkeepsie**

Archaeological Survey Overview

Number & Interval of Shovel Tests: **30 shovel tests at varying intervals**

Number & Size of Units: **N/A**

Width of Plowed Strips: **N/A**

Surface Survey Transect Interval: **N/A**

Results of Archaeological Survey

Number & name of prehistoric sites identified: **0**

Number & name of historic sites identified: **0**

Number & name of sites recommended for Phase II/Avoidance: **N/A**

Results of Architectural Survey

Number of buildings/structures/cemeteries within project area: **1: Hill House**

Number of buildings/structures/cemeteries adjacent to project area:

Number of previously determined NR listed or eligible buildings/structures/cemeteries/districts: **0**

Number of identified eligible buildings/structures/cemeteries/districts: **North Clover Mill Street Historic District**

Report Author (s): Beth Selig, MA, RPA. Stephanie Roberg-Lopez MA, RPA

Date of Report: **October 2015**

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I. Phase 1A Literature Search and Sensitivity Assessment

A. Pelton Manor Project Description

In September of 2015, Hudson Valley Cultural Resource Consultants (HVCRC) was retained by Pelton Partners LLC to complete a Phase 1A Literature Review and Sensitivity Analysis of the Pelton Manor project, located at 36 North Clover Street, and is within the boundaries of Wheaton Park in the City of Poughkeepsie. The property is located on the southern side of Dongan Place, east of North Clover Road, and west of Davies Place. The property is bounded to the south by residential properties that front along Davies Place and North Clover Street. All work was completed in accordance with the Standards for Cultural Resource Investigations and the Curation of Archeological Collections published by the New York Archeological Council (NYAC) and recommended for use by New York State Office of Parks, Recreation and Historic Preservation (OPRHP). The report complies with New York State ORPHP's Phase 1 Archaeological Report Format Requirements, established in 2005.

The Pelton Manor Project (hereafter "the project area") is located on the southern side of Dongan Place, east of North Clover Road, and west of Davies Place. The property is bounded to the south by residential properties that front along Davies Place and North Clover Street. The project area currently contains the former Poughkeepsie Day Nursery School, a 19th century Italianate structure built by the Pelton Family in 1859. The former Pelton Mansion was known a Hill House and will be retained as part of the proposed undertaking. Access to the property is from North Clover Road, via an asphalt covered driveway. This asphalt driveway provides parking areas and access to the former nursery school. Decorative stone walls border the northern and western boundaries of the property. In the southwestern portion of the property, is an area that has been fenced, and was the former location of the nursery school playground. A small wooden shed is located in the northern portion of the fenced area. The ground surface within the interior of the fenced area has been previously covered with gravel.

The Pelton Manor Project encompasses ± 2.8 acres (1.13 ha) of developed and undeveloped land within the northeastern portion of the City of Poughkeepsie. A site visit was made on October 6, 2015 to examine the existing conditions of the site, photograph the existing structures within and adjacent to the project area boundaries and identify areas of prior disturbance. The visual inspection of the existing conditions identified areas of ground disturbance along the existing asphalt driveway. At the time of the site visit, the City of Poughkeepsie was using the area to store equipment being used to complete road upgrades along North Clover Street.

The proposed undertaking involves the rehabilitation of the existing Italianate structure, Hill House (also known as the Pelton Mansion), and the construction of additional townhouses in the northern and southern portions of the project area. The southeastern corner of the site will be used for parking, as will the central portion of the site. A small patio and overlook is proposed in the northwestern corner of the site.

The project area currently consists of a single parcel of land known as Wheaton Park. Wheaton Park has been a city park since 1910, when the City of Poughkeepsie purchased it from the Pelton heirs.

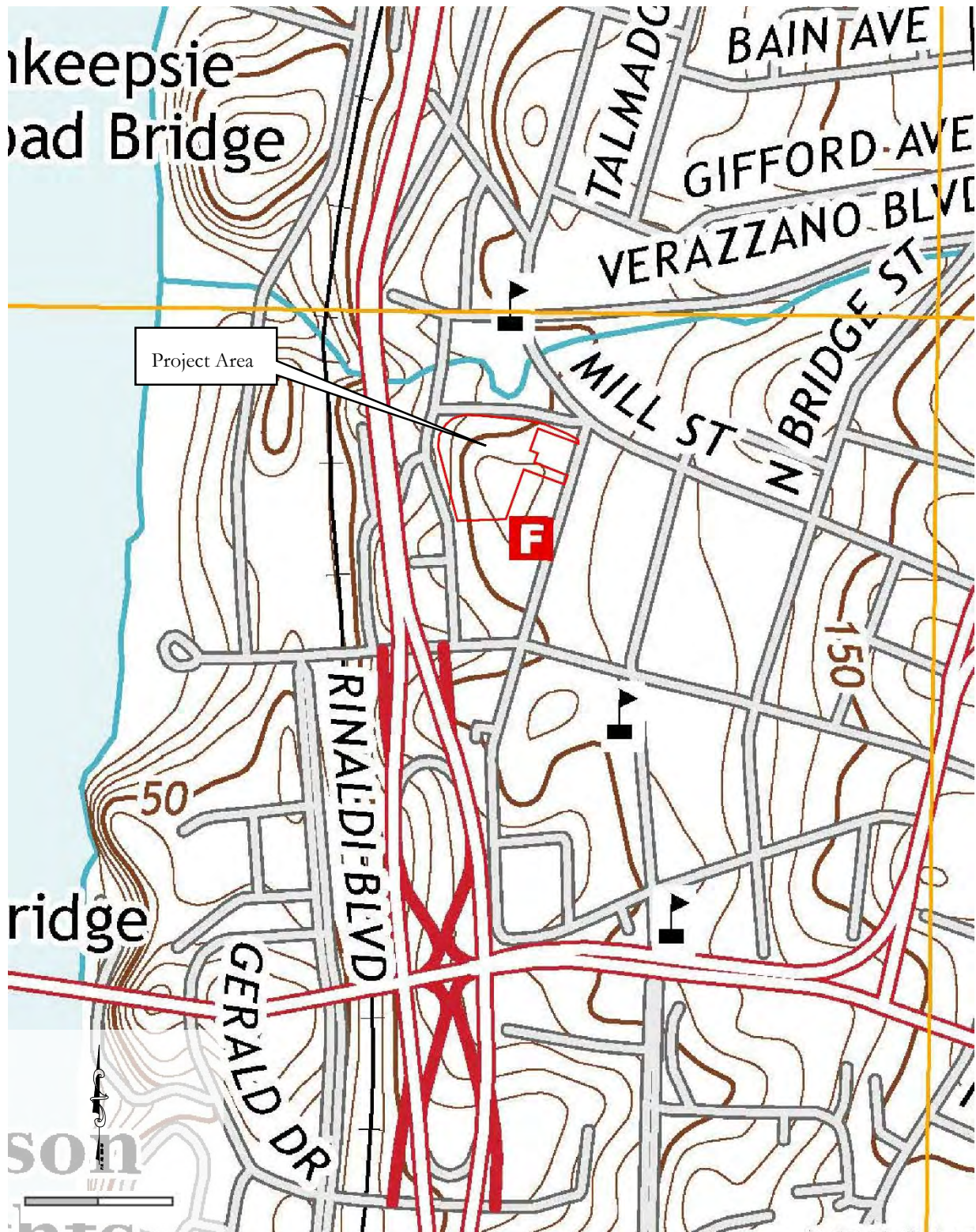


Figure 1: Detail of the 2014 USGS Topographical Map. Poughkeepsie NY Quadrangle. 7.5 Minute Series. (Source: USGS.gov.) Scale: 1"=485'.



Photo 1: Steep slopes are located in the northern portion of the project area. View north toward Dongan Place.



Photo 2: Level lawn areas are located within the central portion of the project area. View to the east.



Photo 3: The landscape north of the house descends to Dongan Place. View to the west.



Photo 4: The former Pelton Estate is bordered by stone walls. View to the northeast along Dongan Place.



Photo 5: View to the north from the parking area on the eastern side of Hill House. Portions of Wheaton Park are located on the northern side of Dongan Place, outside the boundaries of the project area.



Photo 6: View of the southeast from Dongan Place across the project area. Buildings in far ground front along North Clover Street.



Photo 7: The original entrance to the Pelton Estate was from Davies Place. The stone gates for the driveway are still present. View to the southwest.



Photo 8: Hill House, an Italianate style structure built in 1859, is located within the central portion of the project area. The house served as the Poughkeepsie Day Nursery School for nearly 100 years. The structure is currently vacant. View to the southwest.

B: Environmental Conditions

The landscape within the project area consists primarily of undeveloped land. An asphalt driveway provides access to the interior of the site from North Clover Street. The asphalt parking area is located adjacent to the driveway and abuts the southeastern and northern sides of the building. The landscape around the house is a mix of lightly wooded areas and mown lawn. At the time of the site visit the landscape was being utilized to store construction equipment and supplies for the ongoing improvements to the infrastructure along North Clover Street. This wooded area consists of deciduous trees and undergrowth consistent with that found in the Northern Hardwood Forest Zone and the Appalachian Oak Forest Zone. Typically, oak, beech, maple, birch and hemlock trees are identified within these zones. This vegetation zone is described as a transitional area in which oak and northern hardwood species intermingle with one another, particularly in the deeper and wetter soils within the Hudson Valley (De Laubenfels 1975).

Moderate changes in elevation exist within the project area, with the landscape falling from 120' (36.5m) Above Mean Sea Level (AMSL) in the central portion of the site to , 70' (21.3m) along the northern adjacent to Dongan Place.

Geology

The Hudson-Highlands is the predominant, if not dominant, physiographic province of the eastern part of the Hudson River Valley. The Hudson Highlands province is a northeast-southwest trending band of igneous and metamorphic rocks, which extend from New England through New York, crossing the Hudson River in the vicinity of Cold Spring and West Point. (Spectra 2004: Appendix C).

Surficial geological deposits distributed throughout the Hudson Valley consist of almost all of the types of glacial deposits that are associated with continental glaciation. The ice deposited a thick sequence of till over much of the area in the form of ground moraines (lodgement till), drumlins, and later, ablation till. The Hudson Highlands are almost entirely blanketed by a thin layer of glacial till, with frequent bedrock outcrops. Outwash sand and gravel occupy some of the river and stream valleys that border and run through the Highlands. Examples of these are the Ramapo and Mahwah Rivers and the Moodna and Woodbury Creeks. Recent alluvium is also found in most, if not all, of these valleys. (Spectra 2004: Appendix C).

The bedrock of the Hudson Lowlands is primarily composed of easily eroded sedimentary rock, such as siltstone, shale, and greywacke that was laid down in the Cambrian and Ordovician periods (USDA 2002:12). More specifically, the project area falls within the Austin-Glen Formation, which is composed of greywacke and shale.

Drainage

The Fall Kill is located on the northern side of Dongan Place, which is adjacent to the northern boundary of the project area. The Fall Kill, which was channelized as part of the development of the City of Poughkeepsie in the late 19th century, flows west to the Hudson River. There are no wetland areas or other bodies of water identified within or adjacent to the project area boundaries.

Soils

The soils within the project area consist of primarily well-drained urban lands. The Dutchess-Cardigan-Urban Land Complex is a classification made for soils that are disturbed but maintain a measurable percentage of their parent matrix. A soil complex consists of two or more soils in such an intricate pattern or in such small areas that they cannot be shown separately on the maps (Natural Resources Conservation Service, 2014). The mixed nature of the soil units within the complex lowers the potential for the site to contain intact historic or prehistoric cultural deposits.



Figure 2: Aerial Image showing soil units within the project area. (Source: National Resources Conservation Service.) Scale: 1"=95'.

Table 1: Soil Unit Descriptions (Natural Resources Conservation Service, 2014)					
Map Unit Symbol	Map Unit Name	Soil Horizons & Texture	Slope	Drainage	Landform
DxB	Dutchess Cardigan-Urban Land Complex	<i>Cardigan Soil Profile</i> H1 - 0 to 8": (0-20 cm) channery silt loam H2 - 8 to 20": (20-50 cm) channery loam H3 - 20 to 30": (50-70 cm) channery silt loam H4 - 30 to 34": (70-86 cm) unweathered bedrock	0 to 6%	Well Drained	Ridges, Hills
		<i>Urban Land Soil Profile</i> H1 - 0 to 6": (0-15 cm) variable	Nearly level	Well Drained	Made Lands
		<i>Dutchess Soil Profile</i> H1 - 0 to 8": (0-20 cm) silt loam H2 - 8 to 28": (20-72 cm) silt loam H3 - 28 to 86": (72-218 cm) channery silt loam	8 to 15%		Hills, Ridges
Ur	Urban Land	<i>Urban Land Soil Profile</i> H1 - 0 to 6": (0-15 cm) variable	Nearly level	Well Drained	Made Lands

C: Recorded Archaeological Sites and Surveys

In order to gather information on the history and prehistory of the Project Area and the surrounding region, HVCRC consulted historical documents and maps available at the Library of Congress, David Rumsey Cartography Associates and the New York Public Library. HVCRC reviewed the combined site files of the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP) and the New York State Museum (NYSM) for information regarding previously recorded archeological sites within one mile (1.6 km) of Project Area. HVCRC also consulted OPRHP and regional prehistoric sources (e.g. Beauchamp 1900; Parker 1920; Ritchie 1980; Ritchie and Funk 1973) for descriptions of regional archeological sites. In addition, HVCRC consulted the files at the OPRHP for information regarding cultural resources listed on the State and/or National Register of Historic Places (S/NRHP) within one mile of the Project Area. Materials available at the Adriance Library Local History Room were also reviewed.

Previously Recorded Archaeological Sites

Table 2: Previously Recorded Archaeological Sites within one mile radius					
Site Number	Site Name	Distance from Project Area	Time Period	Site Type	Materials Recovered
02740.000847	Railroad Roundhouse Site	725"/1454.2 m	19 th century	Industrial	Stall floors and pier supports, fieldstone and brick construction
027140.00045	Dump Site in Wheaton Park	140'/42.6 m	19 th century	Unstratified fill	19 th century debris & fill
02714.000395	Rosenlund Gatehouse Site	5280'/1600 m	19 th century	Domestic	Ceramics, hardware, faunal material, glass
NYSM 3162	Traces of Occupation	5280'/1600 m	Prehistoric	A.C. Parker 1920	No Information
NYSM 3141	Traces of Occupation	5280'/1600 m	Prehistoric	A.C. Parker 1920	No Information
02740.000867	59-63 Tulip Street Historic Site	3600'/1097 m	Historic	19 th century domestic	Traces of 19 th century residential sites
02740.000866	W A Southsick Tannery Site	3980'/1213 m	Historic	19 th century industrial	Traces of tanning complex & privy

The Dump Site in Wheaton Park is located on the northern side of Dongan Place, adjacent to the Fall Kill. In a report completed by L. Johnson in 1972, the dump site was identified through a series of test trenches unstratified fill. The area was surveyed in 1976 for the Community Development Activity No. 6d, Mill Street Basin, City of Poughkeepsie, and Dutchess County New York but at this time, no significant cultural resources were identified and the dump site was not mentioned.

Although some prehistoric sites have been located in the general vicinity of the project area, relatively few prehistoric archeological sites have been identified within the City of Poughkeepsie. A few prehistoric sites have been identified to the north of the project area along the banks of the Hudson River, as well as to the south in the Town of Poughkeepsie. Smaller specific resource procurement sites would be expected to occur along some of the tributaries that drain into the Hudson River, such as the Fall Kill. However, due the level of development that took place in the City of Poughkeepsie in the 19th century, including the channelization of the Fall Kill, it is unlikely that prehistoric sites remain in-situ.

Previously Completed Archaeological Surveys

As part of the research for this project area, surveys completed for sites in the general area were consulted, identifying a total of six surveys completed within a one mile radius of the project area.

Table 3: Previously Completed Archaeological Surveys within one mile radius		
Project Name	Survey Findings	Reference
Phase 1A Literature Search and Sensitivity Assessment, Dutchess County Justice and Transition Center City of Poughkeepsie, Dutchess County, New York	Phase 1A investigated 12 acres (4.85 hectares), consisting of the existing Dutchess County Jail, Sheriff's Office and James Taylor Manufacturing building. No additional work was recommended	HVCRC, 2015
Phase 1B Archaeological Survey, Marist College McCann Center Additions Project	Phase 1B investigated 0.5 acres (0.34 hectares), with the excavation of 12 shovel tests. No significant cultural material was identified, and no further work recommended	HAA, 2010
Phase 1 Archaeological Investigation Letter Report, Marist College, Student Center Additions (and Addendum) Marist College, Town of Poughkeepsie, Dutchess County, New York.	Phase 1B investigated one acre (2.71 hectares), with the excavation of 6 shovel tests. No significant cultural material was identified, and no further work recommended.	HAA 2012
Cultural Resource Management Program 2011-2012 Highway Program. Phase 3 Data Recovery Report. Rosenlund Gatehouse Site (SUBi -2857)	The Rosenlund Gatehouse Site was constructed in the 1860s by Edward Bech as part of his Rosenlund Estate. The site consists of sheet midden deposits related to the Van Anden household from the early 19th century.	PAF, 2012
Phase 1A Literature Review and Sensitivity Analysis Dutton Lumber Yard, City of Poughkeepsie, Dutchess County, NY	Phase 1A Investigation of the former lumberyard, and history of the site on the western edge of the City of Poughkeepsie NY.	CITY/SCAPE 2008

None of the sites identified by these surveys have been recommended for additional archaeological investigation, nor are they considered to be eligible for listing on the National/State Register of Historic Places.



Photo 9: The Fall Kill is located on the northern side of Dongan Place, north of the project area. View to the northeast.



Photo 10: Looking northeast along the former driveway to Hill House from Davies Place.

D: Historic Context

The following discussion of the historic and cartographic research provides information concerning the likelihood of encountering Map Documented Structures (MDS) and other intact historic cultural resources within the boundaries of the project area.

Historic Background

Located about half way between New York City and Albany, the City of Poughkeepsie is situated on the eastern banks of the Hudson River. The name of “Poughkeepsie” is first found in an Indian deed dated 1683 after the waterfall *Pooghkepesing* and the *Minnisingh*. The local nomenclature interprets *Pooghkepesingh* as “where the water breaks,” or “where the water falls over.” The first landowners in Poughkeepsie were Jan Smeedes and Peter Lansigh, both of Dutch descent. Early settlement in Poughkeepsie was slow, with a few farmers utilizing the meadow along the Fall Kill and Casper Kill for pasture (Hasbrouck 1909).

By 1740, the town had begun to grow, with the influx of a large number of immigrants who came from the south, primarily the Long Island area of New York State. River trade gradually increased and a storehouse was built at the foot of Pine Street, with another later built at the foot of Union Street. Farms were cleared and settled, and goods transported for trade along the Hudson River. There was an early mill located at the mouth of the Fall Kill (Smith 1882).

Poughkeepsie became the center for committee meetings during the Revolutionary War. Committees strategized and planned the defense of the Hudson River, as well as commissioned furnishings and provisions for the army. The American Navy built several frigates here, and portions of the “great chain” were forged at the Fall Kill/Poughkeepsie Iron Works. While still only a village, Poughkeepsie received considerable attention during the Revolutionary War, and subsequently became a rendezvous and place of residence for many famous men, such as Cadwallader Colden, Gilbert Livingston and James Kent (Platt 1905).

Poughkeepsie was officially chartered as a village in 1799. The village trustees immediately began public works projects that included the digging of new wells and the construction of a village courthouse and a fire engine house. The courthouse was later destroyed by fire. The Vassar Brewery served as the county jail for a time, when the current courthouse was being constructed. The courthouse that stands today was built in 1902 (Hasbrouck 1909). In the year 1815, Poughkeepsie was a growing village, and during the mid-19th century Poughkeepsie experienced rapid development culminating in a real estate boom that led to the village laying out streets and lots (Platt 1905).

The Poughkeepsie Improvement Party, started by George P. Oakley, Walter Cunningham and Nathan Tallmadge initiated this notable real estate boom. Many acres of land were divided into lots and sold, mostly at Mansion Square and the old French farm, where Christ Church was built. The Improvement Party funded large projects, including The Whaling Company, silk factories and the layout of the village roads. The party went so far as to delegate certain streets, such as Delafield Street, as residential only, with the houses set fifty feet from the road. The establishment of the first central water supply was in 1834, with a large reservoir at the top of Cannon Street. Water was pumped from the Fall Kill and the great reservoir through pipes in the streets, and was used mainly for fire extinguishing purposes (Hasbrouck 1909).

As the dominant geophysical feature near Poughkeepsie, and a travel corridor for millennia, the Hudson River became a vital resource in the growth of the city. Capitalizing on the growing river traffic, the steamboat reached the highest point of its commercial usefulness during the early 19th century, becoming a major contributor to the growth of Poughkeepsie. In 1827 the Poughkeepsie Steamboat Company was founded by James Tallmadge. The steamboat was the main source of river transport from New York City to Albany until the Hudson River Railroad was built in 1849, running from New York City to Poughkeepsie. Heavy rock obstructions to the north were a source of significant delay, and the first train did not pass through the Poughkeepsie Station until December of 1850 (Platt 1905, Hasbrouck 1909).

The Improvement Party did not solely focus their efforts on the municipal infrastructure of the City of Poughkeepsie, but also invested their energies into the building of churches and schools. It was through these efforts that the Poughkeepsie academies and seminaries attained some degree of preeminence in the state, as well as attracting pupils from all over the county. Their crowning achievement was the purchase and improvement of a commanding elevation north of the village, and the erection of College Hill School (Poughkeepsie Collegiate), modeled after the Parthenon. The Poughkeepsie Female Seminary was incorporated in 1834 on lots purchased from Henry Livingston, with an additional piece of land extending to the Fall Kill.

In 1841, Poughkeepsie had seventy-nine streets and one thousand and fifty-five dwelling houses, exclusive of other buildings, with nearly a score of citizens engaged in mercantile businesses. The telegraph came to Poughkeepsie in 1846.

The City of Poughkeepsie was incorporated in 1854 and experienced a decline in the years following the 1857 financial panic and the Civil War. The most important local enterprise of the period succeeding the Civil War was the Poughkeepsie Bridge. Construction took place from 1873 through 1888 when the first train crossed over the bridge.

The Fall Kill River was, for many years, an important factor in the industrial development of Poughkeepsie. The first large mill pond was located above Smith Street and was known as the Red Mill Pond. In later years it was known as the Winnikee Pond. The first dam was constructed in this location as early as 1730, by Frans LeRoy. It was later owned by Benjamin Crannell in 1770. There was a small mill pond above the falls near the mouth of the creek, but the first large storage reservoir was built in this location in 1803. This mill pond was later known as Pelton's Pond (Hasbrouck 1909).

The Pelton Family

George Philip Pelton and Charles Muir Pelton's lineage can be traced back to John Pelton, who settled in Boston Massachusetts in 1630 -1632. Platt Pelton son of John Pelton, of the fifth generation of New York Pelton's, who settled in Monticello in 1806, and cleared land for his tannery. He contributed to the community in Monticello as a member of the Free Mason's at Sullivan Lodge, and at one time served as a county judge. Platt Pelton had nine children, none of whom resided in Monticello after reaching the age of their majority. Charles Muir Pelton was born in 1805, and married Parthenia Jones in 1832. Charles was a highly respected man and was a member and elder in the church community until his death in 1878. He started a business manufacturing carpets and pins, which after his death was continued by his brother and sons (Pelton 1892). Charles and George Pelton, who built Hill House, are the sons of Platt Pelton.

George Philip Pelton was born in 1820 and moved to Poughkeepsie with his older brother Charles Muir Pelton in 1837. He lived and worked within the city until his death in 1897 (Pelton 1892). George Pelton never married, but was a highly regarded member of the community. He repeatedly declined offers to serve in political offices, but served as postmaster for four years during President Buchanan's administration. George Pelton, in addition to running the Pelton's carpet factory and pin manufacturing plant, served as the president of the New York and Massachusetts Railroad, later the Poughkeepsie and Eastern Railroad (Pelton 1892).

George and Charles opened their carpet business under the names of C.M. & G.P. Pelton and manufactured two ply and three ply ingrain carpets and pins at the lower end of Mill Street. The business was established in 1837, and operated on site until it closed in 1891. In 1839, the factory was producing 300,000 yards of carpet per year. At first, only carpets were manufactured, however the pin business was added in 1848. The carpet manufacture took place primarily on the lower floor, while pins were made on the upper floor. The factory building was partially destroyed by fire in July of 1854. The factory, located along the northern bank of the Fall Kill, employed more than 100 people, more than half of whom were women (Smith 1882). By the 1870s, children constituted one-sixth of the Pelton's work force (Flad & Griffen 2009). The factory relied primarily on steam power, but also utilized two turbine water wheels in addition to the steam engines.

By the 1870s, the use of water power had decreased in value and steam had become regarded as the only reliable source of power for driving machinery. The installation of the water and sewer systems in the City of Poughkeepsie were the most notable public improvements of the period, but the Fall Kill Improvement project was also a significant and very expensive change. The reconfiguration and channelization of the natural stream diminished the usefulness of the stream as a source of water power. Pelton's Pond (formerly Booth's Pond and the Great Reservoir) which had once extended to what is now Dongan Place, had been significantly reduced in size in the 1870's (Figure 8). The size of the pond was reduced again in 1884 and the pond was finally filled in when the dam on the Fall Kill was removed in 1899. The City of Poughkeepsie water commission compensated all who had water rights to Pelton's Pond a total sum of \$15, 000 (Documents of the NYS Assembly). The cost of draining and filling in the Pelton's Mill Pond was reported by the City of Poughkeepsie treasurer, to be \$21,776. The removal of water power as a manufacturing resource, as well as the overall change in the industrial patterns within the City of Poughkeepsie, forced the Pelton's to cease their carpet manufacture in 1891, although a few smaller operations continued in the building.

The changes to the Fall Kill combined with the changes in the patterns of River traffic on the Hudson also changed the industrial nature of Poughkeepsie, to the extent that by the early 20th century, many of the 19th century manufacturers had gone out of business, including the Pelton's. The Pelton's building continued to be used for other business until the mid-20th century (Flad & Griffen 2009).

In 1866, the Poughkeepsie and Eastern Railroad was chartered, leasing track from the Dutchess and Columbia railroad which ran between Stissing Junction and Pine Plains. In June of 1874 the Poughkeepsie and Eastern Railroad went into receivership, and was sold in April of 1875 to George Pelton of Poughkeepsie as Trustee for the bondholders, who reorganized the rail line as the Poughkeepsie, Hartford and Boston Railroad Company. In 1886 the railroad was sold under foreclosure and in January, it was reorganized as the New York and Massachusetts Railway Company. George Pelton remained an investor with the railroad, and was a strong promoter of the Poughkeepsie Railroad Bridge.

Lower Mill Street, which opened after 1910 and crossed the Fall Kill east of the Poughkeepsie train station, encompassed a mixture of industrial, residential and commercial land use. The Pelton's large home had become part of the City's Wheaton Park, just uphill from the railroad station (Flad & Griffen 2009). By the early 20th century, this neighborhood was inhabited primarily by Irish and Italian immigrant families. After the turn of the century, developers and fashionable families increasingly settled streets south of Main Street such as South Hamilton, Academy and Garfield Streets, which were considered to be upper class neighborhoods (Flad & Griffen 2009).

At the time of George Pelton's death, none of his nieces or nephews resided at Hill House. Charles Pelton's widow had resided there until her death in 1895. The heirs of Charles Pelton, George having never married or had children, pursued careers in finance and banking. This change in occupation combined with the changes in the neighborhood at the time, led the Pelton's to move to the more stylish and elite neighborhoods in the southeastern portion of the city.

In 1900 the Pelton' heirs leased Hill House to the Gallaudet Home for Deaf Mutes, as temporary quarters for the deaf mutes who were awaiting the completion of their new home. The original Gallaudet Home had been previously built outside the boundaries of Poughkeepsie, and was one of the first large institutions established within the City of Poughkeepsie.

In addition to the changing economic profiles within Poughkeepsie, humanitarian social movements were taking root within the city boundaries. Lucy Maynard Salmon, an active philanthropist and humanitarian, campaigned for the cleaning up of the Fall Kill and the neighborhoods south of Mill Street. She was also the force behind the establishment of the City's first playground in 1911. Caroline Wheaton, who died in 1908, left a sum of \$4000.00 to be used for the establishment of a children's park with in the city, west of North

Hamilton Street. Father John Sheehan was an advocate for the purchase of the now abandoned Pelton Mansion and grounds by the City, to be used as a park (Wahlberg, 2010).

The City of Poughkeepsie Mayor, John Sague, advocated for public use of the Pelton Mansion as well, and that Fall Kill creek could provide clean water to inexpensively fill a swimming pool. In 1908 the City put \$4000.00 bequeathed by Caroline Wheaton, toward the \$10,000.00 purchase price of the Pelton Mansion and grounds (Wahlberg 2010). At the time of the purchase, Dongan Place had not been constructed and the Pelton land extended north to the southern bank of the Fall Kill. The northern portion of the park near the Fall Kill was the location of the 1912 swimming pool and bathhouse. By 1917, use of the swimming pool averaged 350 people per day. The pool remained as a feature on the site until the mid-20th century, when it was filled in.

The Poughkeepsie Day Nursery

The Poughkeepsie Day nursery, established in Poughkeepsie in 1907, began operations in Hill House in 1912. The initial tuition at the nursery was five cents per day. The Nursery school relied primarily on charitable funds to operate. Because the nursery school relied on charitable funds, services were provided only to mothers whose circumstance required them to work, such as widows or single mothers. In the early part of the 20th century, the nursery housed the “Pure Milk Station,” where the city’s public health nurse provided high quality milk for the same cost as “regular milk.” (Wahlberg 2010).

By 1916, the nursery had outgrown its allotted space on the first floor of the house, and the rooms on the second floor were renovated to create a kitchen, bathroom, rooms for sleeping and playing. At this time a second story porch was added to the southern side of the building (Wahlberg 2010).

In 1949, the city proposed that Hill House should be demolished to make room for public housing, however due to the overwhelming public outcry, the City moved the public housing development North Perry Street. In 1979 Hill House suffered a significant fire, set by an arsonist. The fire destroyed most of the first floor rooms and severely damaged the second story. As a result, the interior of the structure was “gutted” and reconstruction and repair of the building took place in November 1979. Additional renovations to the building were planned in 1992, to make the building more functional, but neither the City nor the school could acquire the needed funds, and the renovations did not take place.

Cartographic Research

HVCRC examined historical maps of Dutchess County to identify possible structures, previous road alignments and other landscape features or alterations that could affect the likelihood that archeological and/or historic resources could be located within the Project Area. These maps are included in this report, with the boundaries of the Project Area superimposed. Nineteenth century maps frequently lack the accuracy of location and scale present in modern surveys. As a result of this common level of inaccuracy on the historic maps, the location of the project area is drafted relative to the roads, structures, and other features as they are drawn, and should be regarded as approximate.

The historic maps included in this report depict the sequence of road construction and settlement/development in the vicinity of the Project Area. In the City of Poughkeepsie, early development took place near the docks and on the elevated terraces overlooking the River.

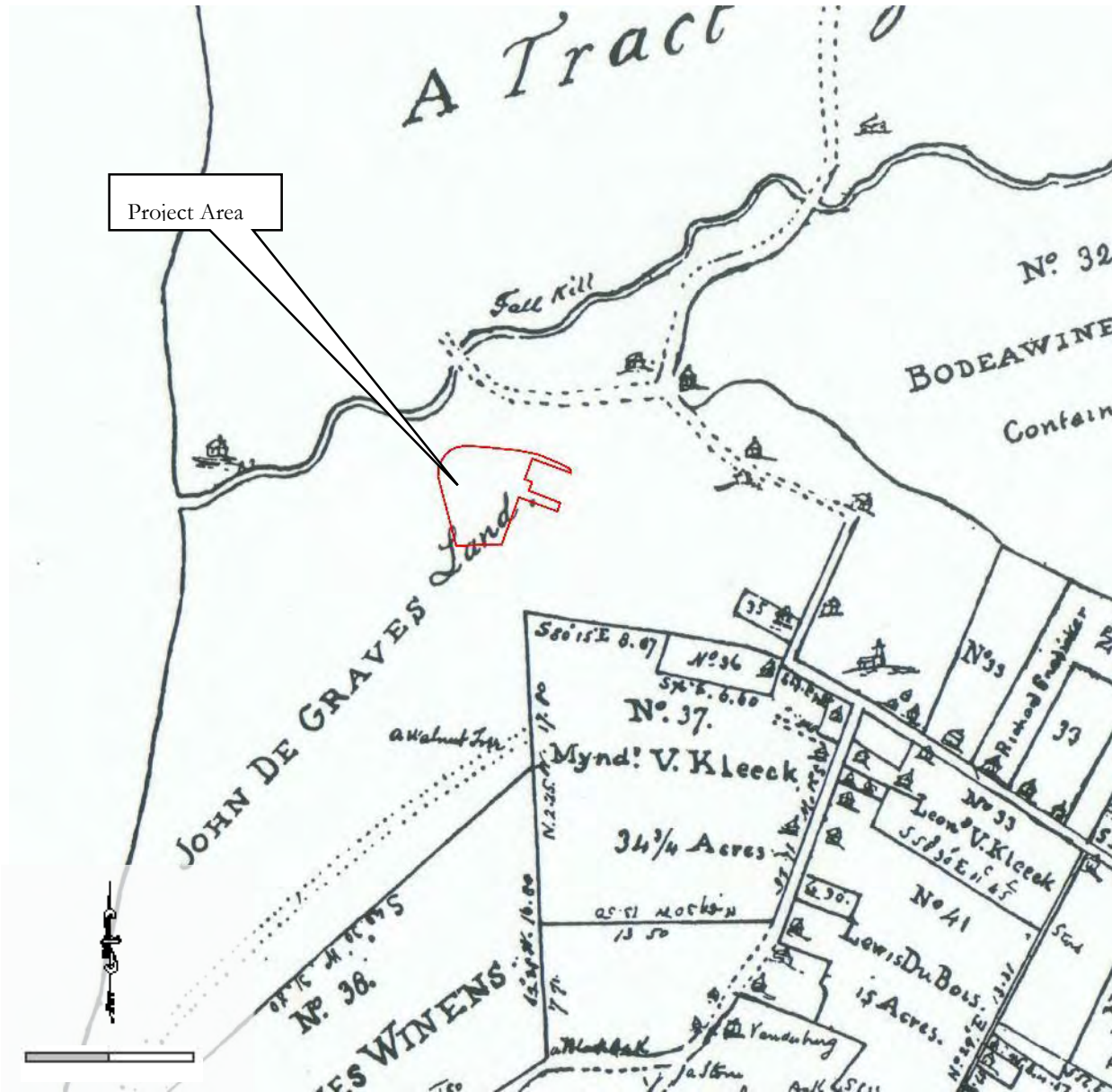


Figure 3: 1770 Will Cockburn *Part of Map of Lands Held Under the Sanders-Harmans Patent*. Scale: Unknown. (Source: Platt 1905)

In 1905 Edmund Platt published a map drafted by Will Cockburn entitled *Part of Map of Lands Held Under the Sanders-Harmans Patent*, showing land divisions as they existed in Poughkeepsie in 1770 (Figure 3). This map does not indicate all the roads that had been laid out by this date, nor all the landowners present in Poughkeepsie at this time. The map was drafted to show land divisions as opposed to marking the locations of houses or manors (Platt 1905). On this map the lands within the project area are owned by John De Graves. The map indicates that Mill Street is located to the north of the project area, crossing the Fall Kill. No mill ponds are depicted along the Fall Kill.



Figure 4: 1834 Henry Whinfield *A Map of the Incorporated Village of Poughkeepsie, Dutchess County, State of New York*. Scale: 1"=485'. (Source: Library of Congress)

Most early 19th century maps do not indicate landowners; instead they show the turnpikes and established roads. However, the 1834 map drafted by Henry Whinfield entitled *A Map of the Incorporated Village of Poughkeepsie, Dutchess County, State of New York* (Figure 4), indicates that by this date, the land that includes the project area was owned by J. Lockwood, who owns a series of mills along the Fall Kill. On the northeastern side of Mill Street, is the “Great Reservoir,” later known as Booth’s Pond and Pelton’s Pond. In 1834, this mill pond, created by the damming of the Fall Kill, extended as far north as the southern side of Mansion Street. The reservoir was used primarily as a water source for the first fire departments in the City of Poughkeepsie, and was not potable water.

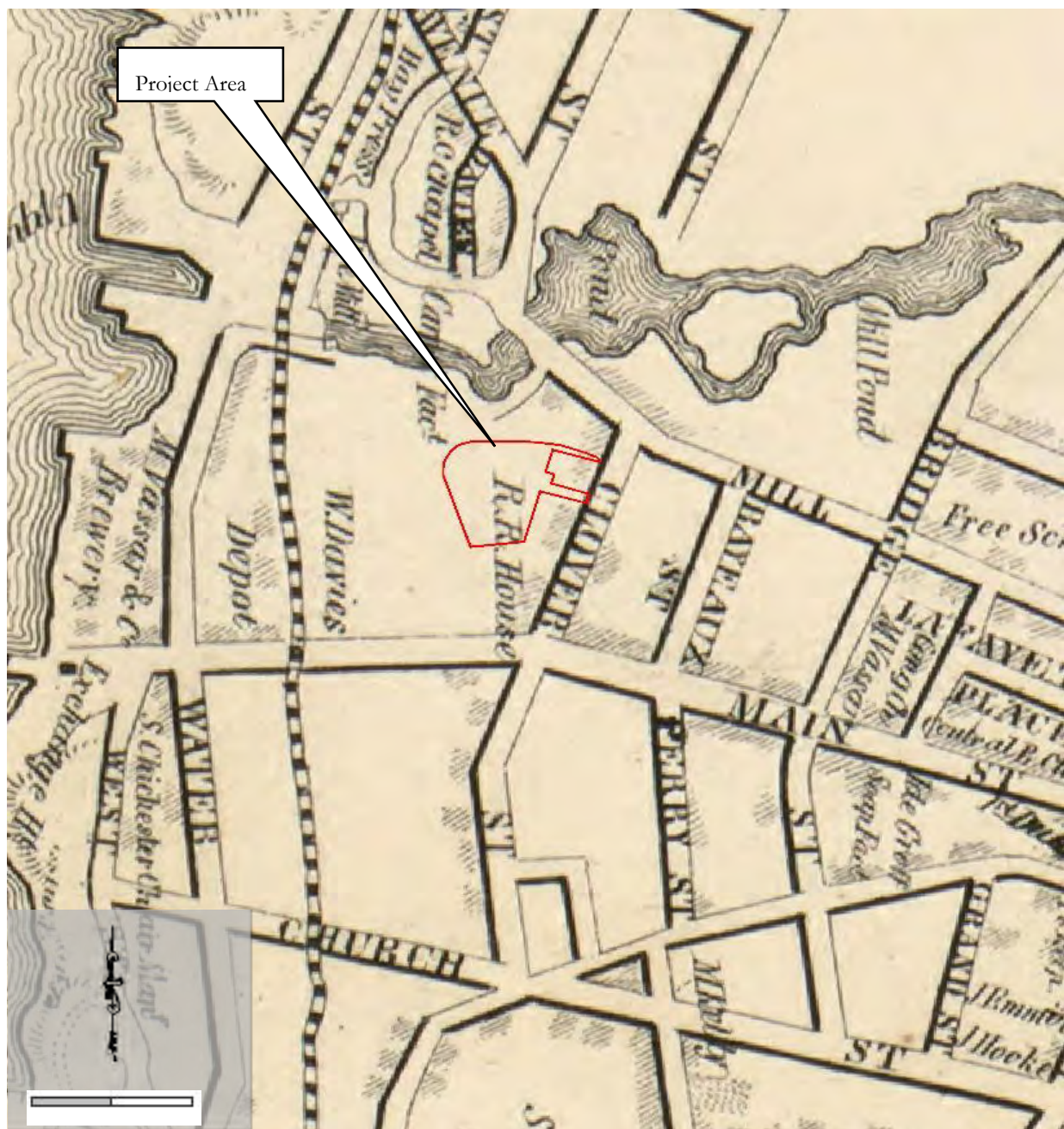




Figure 6: 1858 J. E. Gillette. Map of Dutchess County, New York. Scale: 1"=485'. (Source: Library of Congress)

In contrast to the 1850 map, the 1858 *Map of Dutchess County New York*, surveyed by Charles Bachman and G.H. Corey, (Figure 6) shows the location of the existing buildings located within and adjacent to the project area. No structures are shown within the project area. The Pelton's are identified as owning the land, and it is possible that Hill House (circa 1859) was under construction. No structures are shown within the project area, however there are numerous buildings fronting on North Clover Road.

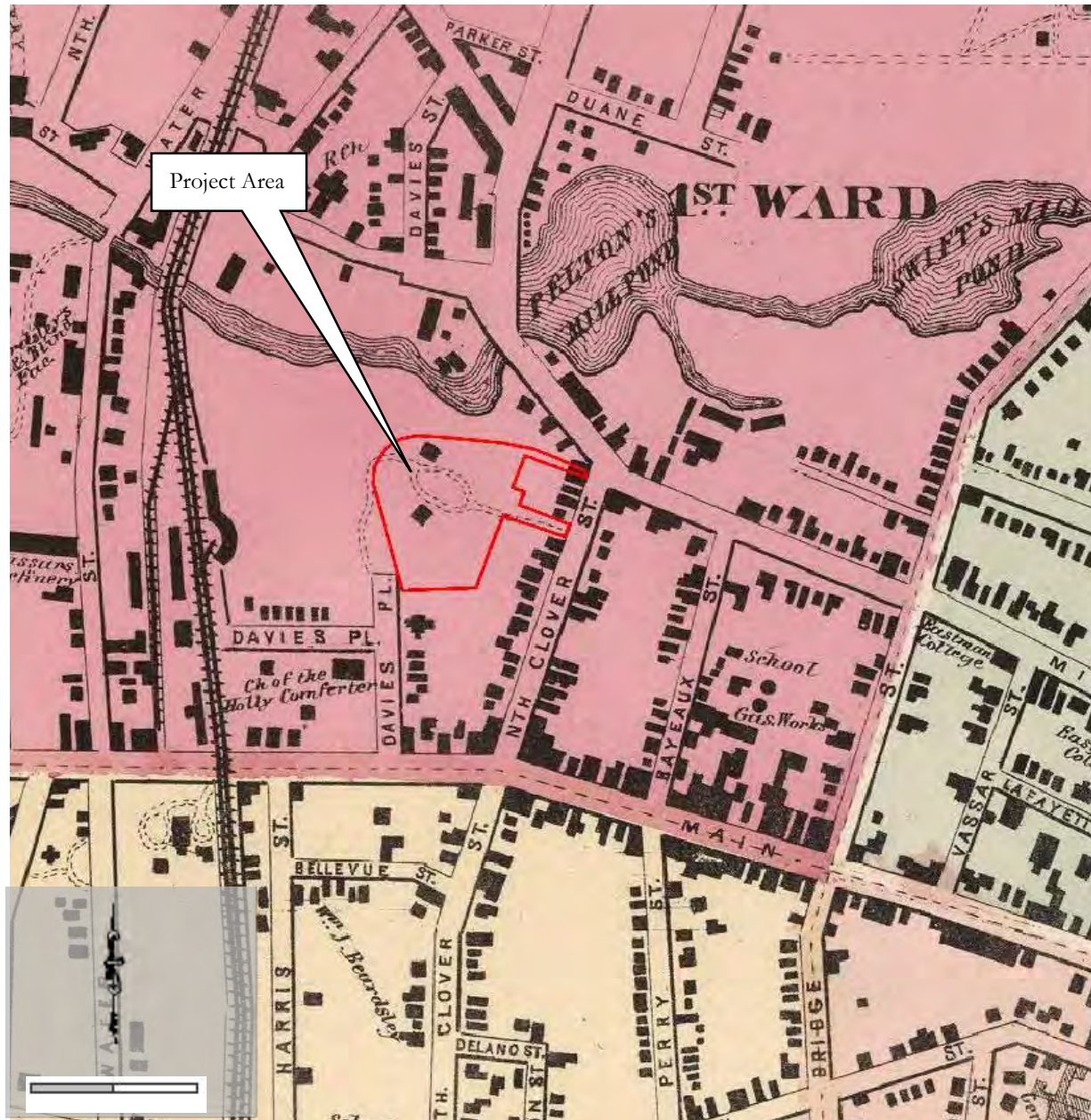


Figure 7: 1867 F.W. Beers. *Map of the City of Poughkeepsie, N.Y.* Scale: 1"=400'. (Source: David Rumsey Cartography Associates)

In 1867 F.W. Beers published the *Plan of the City of Poughkeepsie, Dutchess County, New York*. (Figure 7) On this map, there are three structures shown within the project area. In the central portion of the project area, on the southern side of a circular drive, is Hill House. The structure on the northern side of the circular drive is likely a carriage house. The third structure, which based on information provided on the Sanborn Maps (Figure 10- Figure 11) is likely a commercial building with residential space in the upper stories, is located on the northeastern portion of the project area adjacent to North Clover Street. By this time Davies Place has been opened south of the project area, and access to Hill House can be accessed from both Davies Place and North Clover Road. The Fall Kill is shown to the north, with Pelton's Pond extending nearly to Duane Street and Swift's Pond, located further to the east.

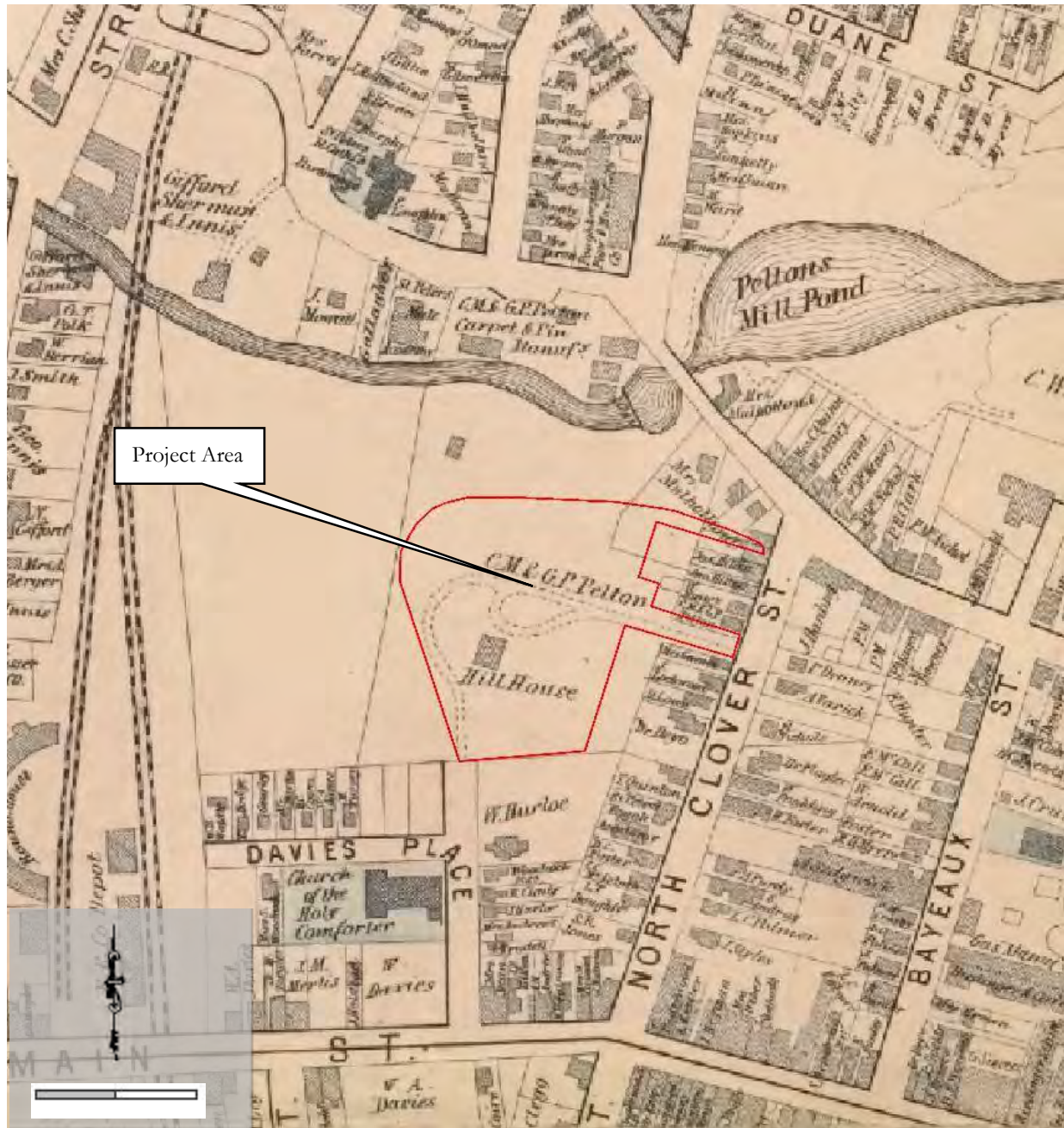


Figure 8: 1876 F.A. Davis. *Map of Poughkeepsie* Scale: 1"=220'.. (Source: Library of Congress)

Unlike earlier city maps, the *Map of Poughkeepsie* published in 1876 by F.A. Davis for the Reading Publishing Company depicts the structures, as well as landowner information. (Figure 8) On this map Hill House is identified within the central portion of the project area. The second structure shown on the 1867 map is no longer present. In the northeastern portion of the project area, a building is shown as belonging to Mrs. Mulholland. North of the project area, Pelton's pond has been significantly reduced, and the former boundary of the pond is indicated by a dashed line. This change is the result of the City of Poughkeepsie's installation of sewer lines and water treatment systems in 1872 (Platt 905).



Figure 9: 1891 F.W. Beers. *Atlas of the Hudson River, New York City to Troy*. Scale: 1"=680.' (Source: David Rumsey Cartography Associates)

By 1891, When J. B. Beers published the *Atlas of The Hudson River, New York City to Troy*, the city of Poughkeepsie had been incorporated and was an important commercial hub. (Figure 9) Pelton's Pond is the only mill pond still depicted along the Fall Kill whose path east of the pond has been channelized to take a direct path through the City of Poughkeepsie. Individual structures and their owners are not identified on this map, but the land within project area is identified belonging to C.M. & G. Pelton. A school is depicted along North Clover Street, south of the project area.

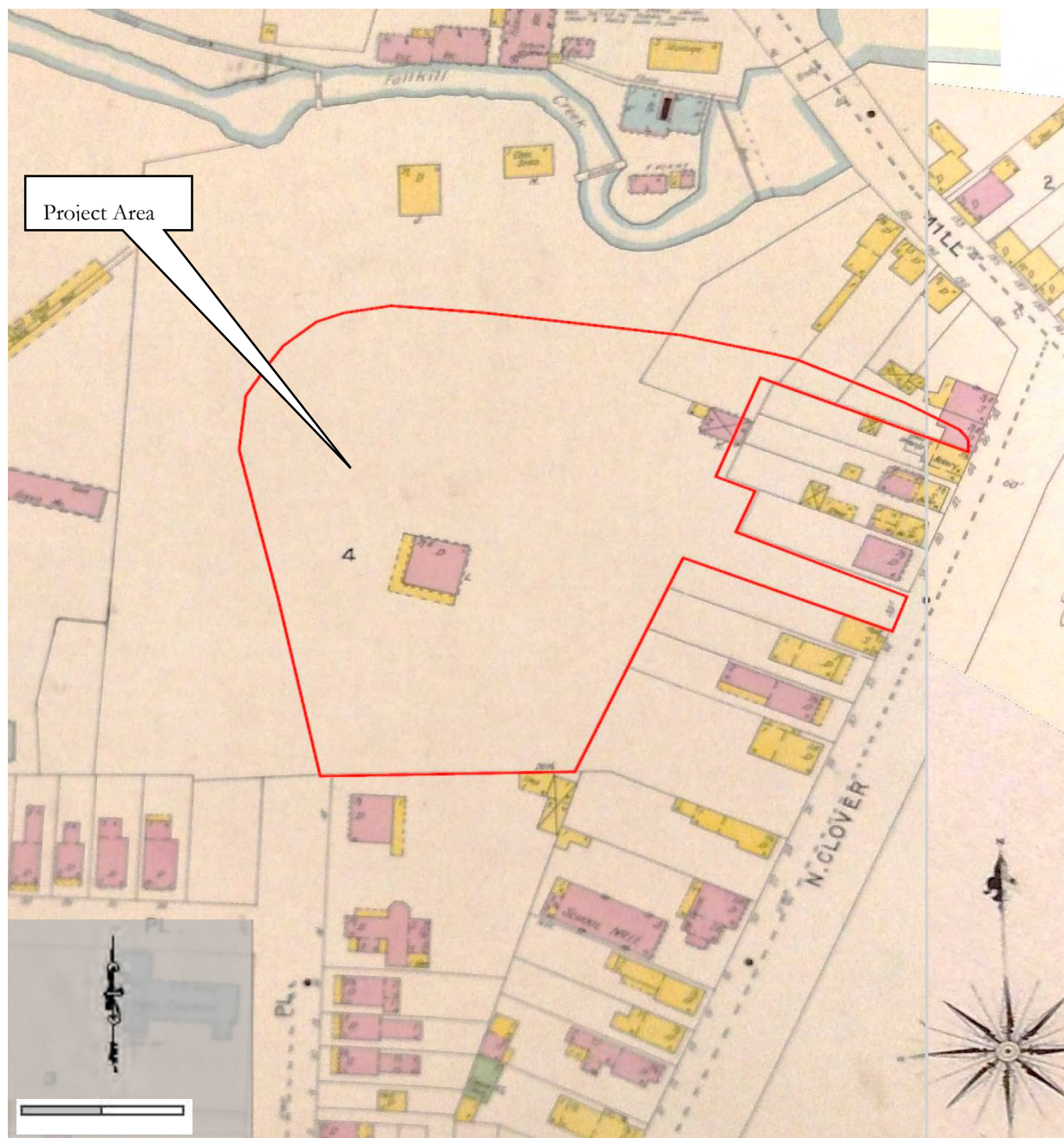


Figure 10: 1895 Sanborn Fire Insurance Map, City of Poughkeepsie Dutchess County New York. Scale: 1"=125'. (Source: Adriance Memorial Library, Local History Room).

In addition to the 19th century maps discussed above, the Sanborn Fire Insurance Maps for the area were reviewed (Figure 10). In 1895, Hill House is shown within the center portion of the project area. The building is shown as a 2 ½ story brick structure with a basement. The southern and western sides of the building feature a single story wood porch. A single story brick outbuilding with a wooden entryway on the western side of the structure is located the northeastern portion of the project area. At the northeastern boundary of the project area, there is a brick structure that fronts onto North Clover Street. This map indicates that Dongan Place has not been opened, and that Pelton's Pond, although significantly reduced, is still shown at Mill Street.

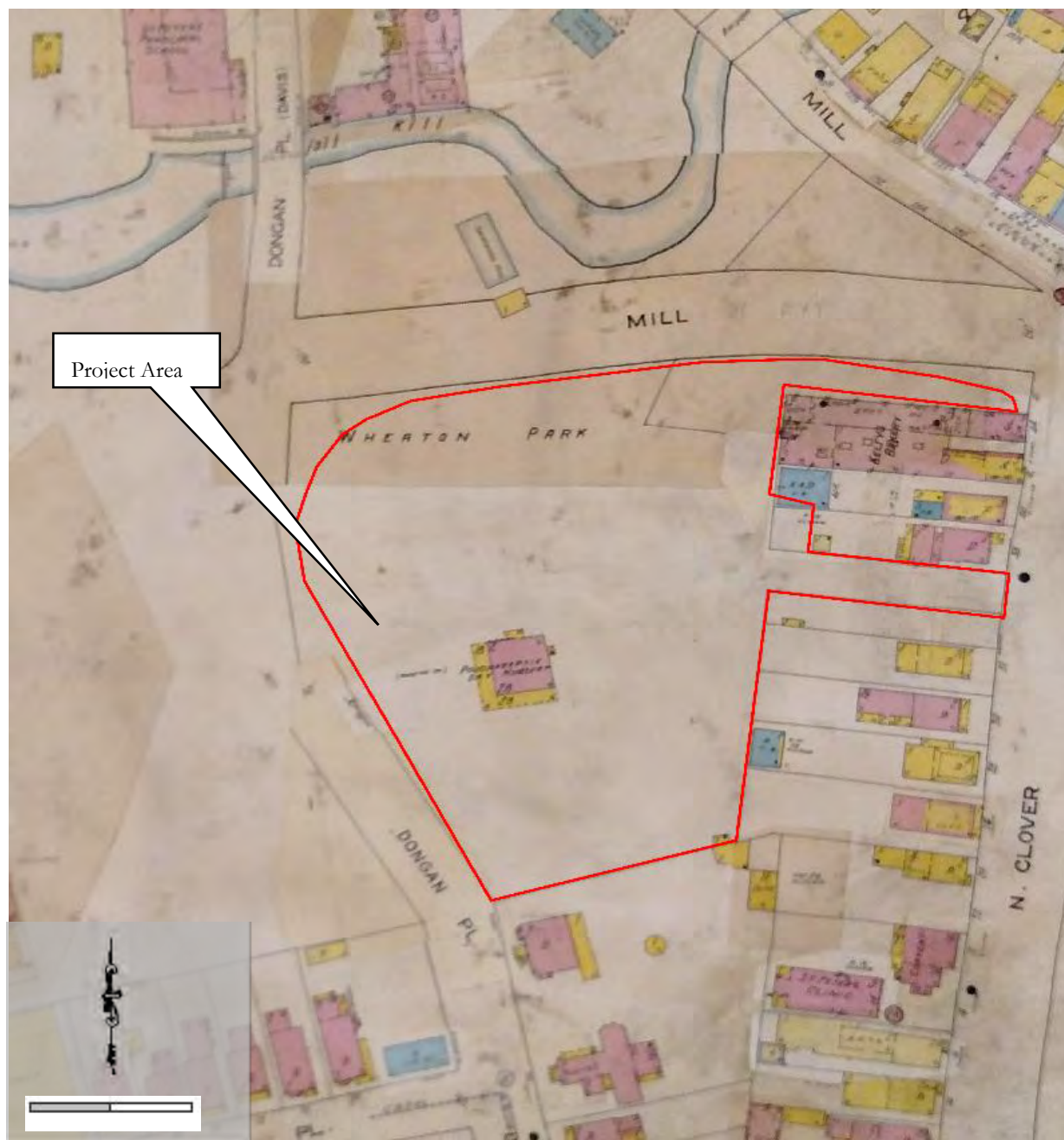


Figure 11: 1948 Sanborn Fire Insurance Map, City of Poughkeepsie Dutchess County New York. Scale: 1"=115'.(Source: Adriance Memorial Library, Local History Room)

A review of the 1948 Sanborn map shows that there have been several changes to Hill House. On this map, the structure is depicted as a two story brick structure with a basement. The porch on the southern and western side of the house is now shown as being two stories high. In addition, wooden entryways have been built on the northern and eastern sides of the building. The brick outbuilding depicted in 1895, has been removed. The buildings shown on the northeastern boundary have been removed. On this map Dongan Place is shown, but is identified as Mill Street Extension. On the northern side of Mill Street Extension, a swimming pool and bath house are shown. This map indicates that Wheaton Park extends up to the banks of the Fall Kill. None of the former mill ponds are shown on this map. Adjacent to the northeastern boundary of the project area is a commercial bakery with extensive ovens.

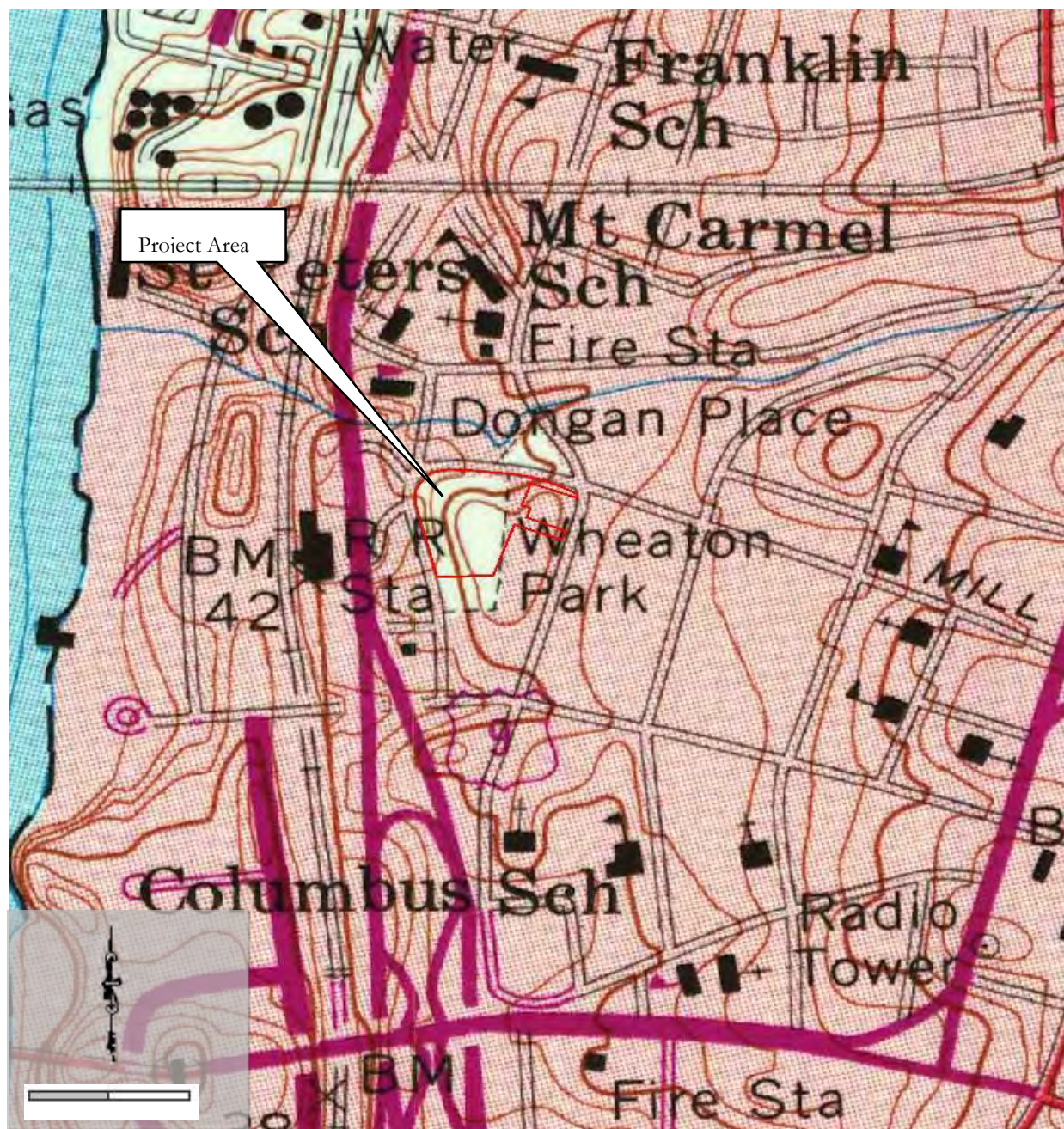


Figure 12: 1967 USGS Topographical Map. Poughkeepsie Quadrangle. 7.5 Minute Series. (Source: USGS.gov) Scale: 1"=565.'

The 1967 topographical quadrangle (Figure 12) shows the boundaries of Wheaton Park within the city of Poughkeepsie. This figure does not indicate the individual structures located within the project area, but rather characterizes the area as an urban environment. On this map, the park is delineated as the land along the eastern side of Davies Place, which now extends north to Dongan Place. This map indicates that the landscape on the northern side of Dongan Place is parkland. No structures are shown within the boundaries of the project area.

E: National Register Eligible/Listed Sites

The National Register Database and OPRHP files were reviewed to identify structures on or in the vicinity of the project area that have been listed on the National Register of Historic Places, or identified as National Register Eligible.

Hill House (02740.000702) has been listed on the National Register as part of the North Clover Street-Mill Street Historic District. This residential section of Poughkeepsie comprises approximately fourteen blocks located on the plateau and river slope in downtown Poughkeepsie. Most of the structures were built during the post-civil war housing boom. The facades are homogenous, yet each house had individual details in trim, lintels, cornices and doors. As a whole, this area is an untouched 19th Century setting of brick paved streets lined with residences interspersed with churches and public buildings representing architectural styles ranging from Greek Revival to Italianate Villas. Hill House is not listed individually on the National Register, nor is it identified within the North Clover Street-Mill Street Historic District as being a contributing or non-contributing structure. A historic building assessment was completed as part of the Phase 1A Literature Search and Sensitive Assessment and is included within this report as Appendix A.

There are eight NRE properties located within the vicinity of the project area.

Table 4: NR properties located within a ¼ mile radius of the project area, outside the Pelton Manor site			
Site Name	Time Period	Site Type	Significance
Union Street Historic District	Early -mid. 19 th century	Architectural district	Urban working class neighborhood
Church of the Holy Comforter	M. 19 th century	Individual structure	19 th century ecclesiastical Gothic Revival Architecture/ John Upjohn
The Poughkeepsie Railroad Bridge	19 th century	Industrial	Political, economic and engineering achievements of the period
Pelton Mill	Early -mid. 19 th century	Individual structure	Poughkeepsie's oldest extant factory building
Poughkeepsie Railroad Station	m.-l. 19 th century	Individual structure	19 th century transportation/rail station
Vassar Institute	l. 19 th century	Individual structure	19 th century Victorian Italianate Gothic, Second Empire architectural construction/Historic association with the Vassar Family
Second Baptist Church	19 th century	Individual structure	19 th century ecclesiastical Greek revival architecture
Vassar Home for Aged Men	l. 19 th century	Individual structure	19 th century Italianate Second Empire architectural construction & Vassar Family residence

None of these structures located outside the boundaries of the project area will be impacted by the proposed undertaking. As part of the proposed undertaking the existing structure within the project area, Hill House, will be rehabilitated and incorporated into the proposed development plan.



Photo 11: Entrance to the project area is from N. Clover Street along an asphalt driveway. View to the west.



Photo 12: A large parking area is located on the eastern side of the house. View to the west.

F: Assessment of Sensitivity for Cultural Resources

Prehistoric Sensitivity

The banks of the Hudson River were populated by prehistoric peoples for millennia, making this landscape highly sensitive for prehistoric cultural resources. The project area is located east of the Hudson River along the Fall Kill, a major tributary of the Hudson River. Only two prehistoric sites have been identified within a one mile radius of the project area. These sites were identified by A. C. Parker as being traces of occupation and are located nearly one mile from the project area. Given the proximity of the site to the Hudson River, The Pelton Manor project would normally be considered to have a high sensitivity for prehistoric sites. However, the profound disturbance on the site, as indicated by the soil classifications, along with visual inspection, has eliminated stratigraphic integrity, making the potential for the site to yield intact prehistoric cultural material low.

Historic Sensitivity

Five historic sites have been identified within one mile of the project area, however these structures will not be impacted by the proposed project. The dump site, identified as being within Wheaton Park, is located in the portion of the park between Dongan Place and Mill Street, outside the project area. L. Johnson of Vassar College tested this area through the excavation of deep trenches, however only unstratified fill associated with the filling in of Pelton's pond was identified.

Within the boundaries of the project area is a historic structure, built in 1859. It is possible that shaft features and sheet middens associated with this building may remain within the boundaries of the project area. Modern features such as asphalt parking areas and subsurface infrastructure have been added to the landscape surrounding the house, rendering the overall potential for the site to contain historic cultural resources to be moderate.

G: Summary and Recommendations

Based on the information identified in this report, the Pelton Manor Project has the potential to yield historic cultural deposits. It is therefore recommended that a Phase 1B Archaeological Field Reconnaissance Survey be undertaken on those undisturbed areas within the Pelton Manor Project APE that are assessed to have the potential to yield cultural resources.

II: Phase 1B Archaeological Field Reconnaissance Survey

H: Archaeological Survey Methodology

In October of 2015, HVCRC conducted an initial walkover of the Pelton Manor Project in order to assess the existing conditions of the Area of Potential Effect. Areas selected for subsurface testing were identified and areas of disturbance, slope and wetland were eliminated from testing.

Archaeological fieldwork was supervised by Beth Selig, M.A., R.P.A. Field technicians included Franco Zani Jr. and Frank Spada. The final report was completed by Beth Selig and Stephanie Roberg-Lopez, M.A., R.P.A. Site photography, shovel test records and the Field Reconnaissance Map were completed by Beth Selig.

Results of the Phase 1A confirmed that the site is located in an area of historic activity. In addition, the landscape closely conforms to an ecological model that indicates that the level, undisturbed portions of the project area, if present, are moderate to highly sensitive for prehistoric cultural materials. The testing strategy for the site was structured around the knowledge that portions of the property possessed the potential to yield historic and prehistoric cultural remains.

The field methodology employed at the Pelton Manor Project site consisted of several stages of investigation. These included:

- A walkover and visual inspection of the site to assess areas of potential sensitivity for prehistoric cultural remains.
- Systematic visual inspection of the land surface to rule out the presence of rock faces and overhangs.
- Shovel testing in the areas identified as having potential sensitivity for prehistoric or historic remains.
- Photographic documentation of the overall site.

Shovel tests pits (STPs) measured approximately 40 cm in diameter and were spaced along transects at 50 foot (15 m) intervals and 100' intervals (30 m). Shovel tests were normally excavated to a minimum of four inches (10 cm) into sterile subsoil, unless impeded by rocks or other obstructions. This subsurface testing strategy was used in areas that were characterized by relatively intact soils (i.e. no obvious evidence of significant soil disturbance). All excavated soils were passed through a one-quarter-inch hardware cloth. Shovel test profiles were recorded on standard field forms and included stratigraphic levels, Munsell soil color, texture and inclusions, evidence of disturbance and any artifacts recovered. The locations of all STPs were recorded on a base map of the Project APE. The excavations and existing conditions across the Project Area were photographed. Items recovered from the screens were assigned to the stratum from which they were obtained. (See Appendix B) All cultural materials recovered were bagged, labeled, and returned to the laboratory for processing. These materials are listed in Appendix D.



Photo 13: Field Technicians excavating shovel tests along TR 2. View to the east.



Photo 14: Field Technicians completing shovel tests along TR 6. The site is currently being used for equipment and supply storage for the City of Poughkeepsie's improvement of North Clover Street. View to the east.

I: Archaeological Survey Results

Once a testing strategy had been established and areas unsuitable for testing eliminated from the survey, potentially sensitive areas were systematically shovel tested. The areas subjected to shovel testing represent the undisturbed, level and well drained areas within the project area.

Testing began in the northeastern portion of the site, with Transect 1 and Transect 2 beginning adjacent to the eastern property boundary. These two transects progressed westward, testing the northern portion of the project area at a 50' (15 m) interval. East of Transect 1, the field crew noted a thick concrete slab adjacent to the project area boundary. This brick and concrete foundation is in the same location as the industrial ovens identified on the 1948 Sanborn map (Photo 16) (Figure 11). The second shovel test on Transect 1, STP 2 identified a layer of coal ash and cinder, on top of the original A horizon (Photo 15). The soils identified along Transect 1, with the exception of STP 2, consisted of dark brown silty sand overlying a yellowish brown silty clay (Appendix B: Shovel Test Records). Transect 2, located 50' south of TR 1 identified a variety of 19th century and modern artifacts from mixed soils. Along Transect 2, the shovel tests revealed an upper stratum of dark brown silty sand with gravel overlying a compacted yellowish brown silty clay with channery. The artifacts recovered from TR 2 consisted of ceramic, nails, bottle glass, window glass and coal slag. A description of these materials is included in Appendix D. This deposit, which include a mix of modern and 19th century artifacts, is not considered to represent a historic feature.

Testing then moved to the landscape on the western side of the house. Transects 3 and TR 4, were aligned north to south and spaced at 25' (7.5m) intervals. The shovel tests completed along these transects identified a very dark brown silty loam with dense gravel, overlying a dark yellowish brown silty clay with dense gravel. Shovel test 17 identified modern artifacts, including bottle glass, window glass, a steel nail and modern ceramic tile. The soils in this area showed evidence of having been graded, with the dense gravel suggesting that the area had been used as driveway at some time. On the southwestern corner of the house, modern additions were noted in the form of poured concrete support pillars and concrete structures surrounding the oil tank located adjacent to the exterior of the foundation.

Transect 5, containing four shovel tests, was excavated at 25' (7.5m) intervals. This transect tested an area adjacent to the former driveway from Davies Place. The shovel tests in this area, in addition to identifying bedrock close to the surface, identified a subsurface stratum of dark yellowish brown silty clay with dense gravel. No significant archaeological deposits were identified on this side of the house.

Transect 6 was excavated on the east side of the existing house within the project area. Beginning at the southeastern corner of the house, shovel testing progressed east to the eastern project area boundary. Three shovel tests, excavated at 50' intervals, identified soil stratigraphy consisting of dark brown silty sand overlying a yellowish brown silty clay. Shovel test 25 on TR 6 terminated at a thick level of compact tar. A piece of window glass and three nails were identified in ST 25.

The last area to be tested was the interior of the "playground" area located in the southeastern portion of the project area. The surface in this area was covered with a thick layer of pea gravel. In addition, the landscape appeared to have been leveled. Transect 7 and Transect 8, which tested this area at 50' intervals, identified a brown silty loam with dense gravel overlying a dark yellowish brown silty clay with gravel. In the southeastern corner of the site the stratigraphy consisted of dark brown sand with pea gravel.

No significant cultural materials were recovered from any of the shovel tests on the Pelton Manor Project site.



Photo 15: Photo of the stratigraphy of STP 2, showing the layers of fill overlying the original soil horizons.



Photo 16: A large brick and concrete feature was identified outside of the northeastern project boundary. Sanborn maps indicate this is an industrial bakery oven.



 HUDSON VALLEY
Cultural Resource Consultants, Ltd.

Figure 13: Pelton Manor
Phase 1B Field Reconnaissance Map
Scale 1" = 40'

LEGEND

- ST Sterile Shovel Test Location
- ST Positive Historic Shovel Test Location
- ①➡ Photographic View

GRAPHIC SCALE



(IN FEET)
1 inch = 40 ft.

J: Conclusions and Recommendations

In October of 2015, HVCRC completed a Phase 1A Literature Search & Sensitivity Assessment and a Phase 1B Field Reconnaissance survey of the Pelton Manor Project in the City of Poughkeepsie, Dutchess County, New York. Based on the information identified in the Phase 1A report, it was determined that the project area had the potential to yield cultural deposits. It was therefore recommended that a Phase 1B Archaeological Field Reconnaissance Survey be undertaken on those undisturbed areas within the Pelton Manor Project Area of potential Effect.

A total of 30 shovel tests were excavated in the Pelton Manor Project APE in areas considered to have the potential to yield prehistoric cultural material. No significant historic or prehistoric cultural resources of any kind were identified.

With regard to the North Clover-Mill Street National Register Historic District, of which the project area is a part. The buildings included within this district consists of a mix of residential and commercial structures, consisting of a wide range of architectural styles, and of a variety of conditions (Appendix B). Based on the current conditions, the proposed undertaking is not considered to have an adverse effect on the North Clover-Mill Street Historic District.

Based on these findings, no further archaeological work is recommended for the Pelton Manor Project.

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Appendix A: Hill House Historic Building Assessment

A. Hill House: 36 North Clover Street - Description

The following building assessment of Hill House, located at 36 North Clover Road, in the City of Poughkeepsie, Dutchess County, New York was prepared for the Pelton Partners, LLC by Hudson Valley Cultural Resource Consultants Ltd. As part of the proposed project, the existing Italianate structure, known as Hill House, and listed on the National Register of Historic Places within the North Clover-Mill Street District will be retained and rehabilitated.

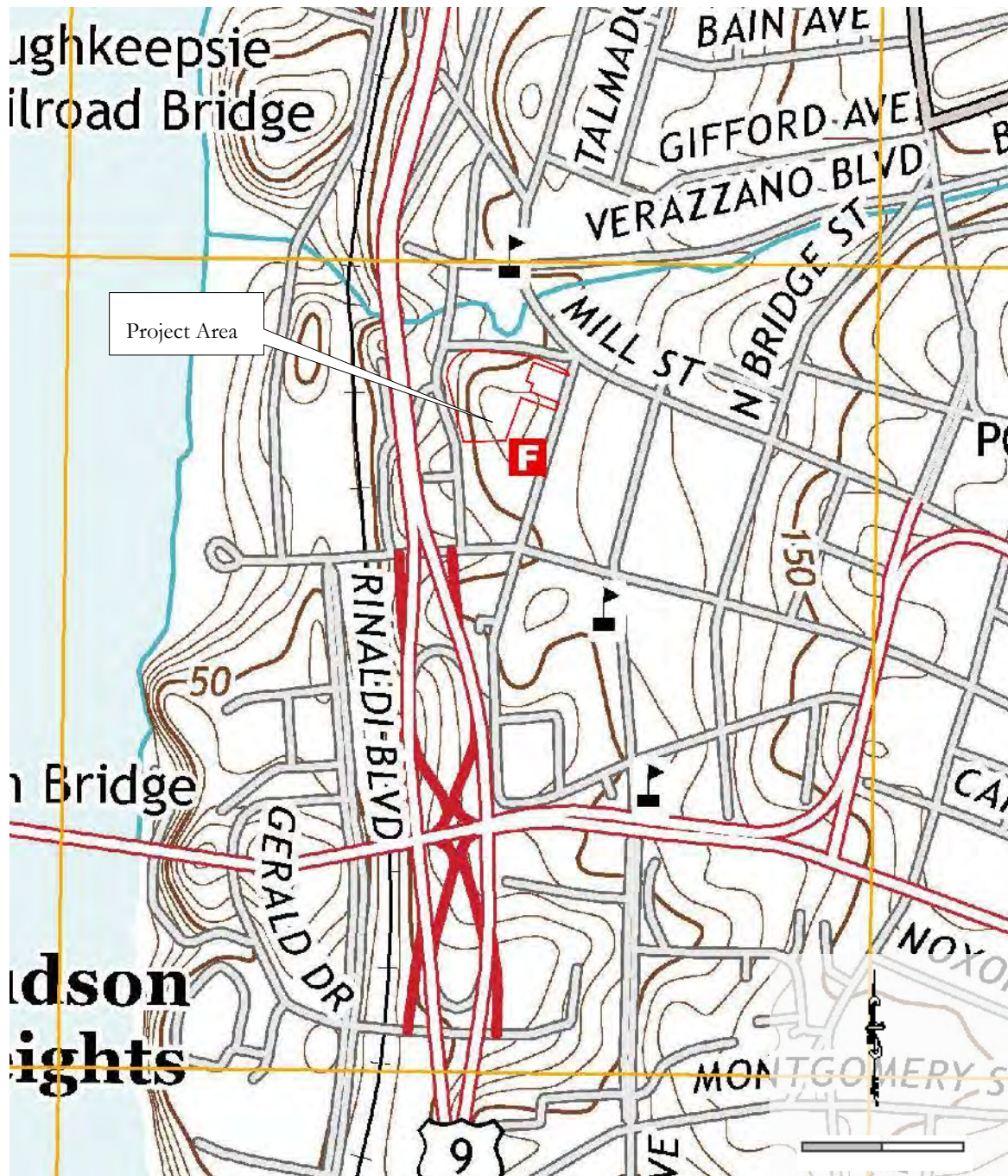


Figure 1: 2013 USGS Topographical Map. Poughkeepsie Quadrangle. 7.5 Minute Series. Scale: 1"=485'. (Source: USGS.Gov)

B. Description of Hill House: Exterior

Built in 1859 by George and Charles Pelton, Hill House is constructed in an Italianate architecture style known as “Italian Villa.” The style was popularized in the United States by Alexander Jackson Davis in the 1840s as an alternative to Gothic or Greek revival styles. The architectural characteristics of Italian Villa style included generous verandas, deeply projecting cornice eaves and a compact cubic form. The Pelton Mansion features six arched dormers on the top story of the building. A second story was added to the veranda 1916. The building currently exhibits evidence of significant structural repairs that were made necessary after a fire destroyed portions of the interior in 1979. In addition, entry ways on the northern and eastern side of the building have been added. The materials used in the renovations after 1979, and to construct the porches for the entry way are late 20th century construction grade materials.



Photo 1: The northern elevation of Hill House. The fire escape and associated doorway were added to the original structure in the mid-20th century. The shutters on the windows, as well as the small porch and wooden entryway also represent 20th century additions to the building. .



Photo 2: The eastern and southern elevations of Hill House. View to the north.

On the eastern side of the structure, the modern additions consist of the entryway near the northeastern corner, and the entry way at the southeastern corner into the now enclosed porch (shown on left side of the house in this photo). The porch was originally a single story open veranda. The second story was added in 1916, and both areas were enclosed in the mid-20th century.



Photo 3: Eastern elevation of Hill House. Photo taken from the eastern boundary of the property. View to the west.



Photo 4: Ground level view of the western elevation. Tree cover prevented a view of the entire elevation. View to the south.

The ground level on the western elevation features late 20th century additions, included a cinderblock enclosure for a fuel tank, as well as poured or formed concrete support pillars. Concrete slabs are located along the exterior of the building. The original veranda would have extended around this side of the house. However, the current enclosed porch (seen as the second story) is constructed from 20th century materials.



Photo 5: Upper stories on west elevation. The lower attic windows, cornice brackets and eaves have all been replaced with mid-20th century materials.



Photo 6: Arched dormers located on the east elevation. The dormers originally had single pane arched windows on the sides of the gabled dormers. These windows have been covered with asphalt shingle (see left gable) or replaced with air vents (right gable).



Photo 7: Four ornately decorated brick chimneys are located at each of the four corners of the hipped roof. The chimneys feature a dentil pattern at the top edge. View to the west of the chimneys at southern portion of the house.



Photo 8: The wide cornice brackets under the eaves have been replaced and designed to match the smaller cornice brackets featured on the porch addition. The eaves have been fitted with aluminum drain spouts. The plywood used in the mid-20th century renovation is rotting away in several locations. View west of the southeast corner of Hill House.



Photo 9: The enclosure of the original veranda included the construction of a new entryway. This area was damaged by a fire in 1974 and was subsequently rebuilt. View of the first level entry to the porch on the south elevation.



Photo 9: View of the southeastern corner of Hill House after the fire in May 1979. (Source: Poughkeepsie Day Nursery Files: Adriance Memorial Library).



Photo 10: View of the eastern elevation after the 1979 fire. (Source: Poughkeepsie Day Nursery Files: Adriance Memorial Library).



Photo 11: Undated photo showing extensive renovations to the southern side of Hill House. (Source: Poughkeepsie Day Nursery Files: Adriance Memorial Library)



Photo 12: 1971 Photograph of the east elevation of Hill House. Photo included in the North Clover-Mill Street Historic District National Register Nomination Form.



Photo 13: Postcard dated March 1980, showing the completed renovations to Hill House. View west of the eastern elevation.



Photo 14: 2015 Photograph of Hill House showing the eastern and northern elevations. View to the southwest.

Significant alterations to Hill House were made in the latter part of the 20th century. Photo 12 documents the existing features of the building when it was included in the National Register Listing for the North Clover-Mill Street Historic District. At this time the building already featured 20th century alterations, including the enclosed second story on the veranda on the southern side of the house. The original windows did not feature the decorative shutters. In 1971, the windows on the first story appear to be original to the house, whereas the second story windows appear to be single pane replacements. In 1971 the entryway does not have a porch, although it is evident based on discoloration to the brick face that the original entryway on the east side of the house has been removed. The original entryway, based on the shading on the brick exterior, likely featured a decorative transom or capital. In addition to these changes, small arched windows on the sides of the attic gables have been covered. (Photo 12).

By March of 1980, the renovations necessitated by the fire of 1979 have been completed. The entry way on the east side of the house now features a small porch. The decorative shutters now on the exterior windows were not yet added to the building. All the windows within the building appear to have been replaced with late 20th century aluminum and wood framed windows. In Photo 13, the fire escape and main entrance can be seen. It is unclear exactly when the fire escape was added, but it was most likely added in the mid-20th century.

Hill House has been included in the North Clover–Mill Street Historic District, however it is not indicated in the nomination form whether this individual structure has contributing or non-contributing status. This residential historic district represents a section of Poughkeepsie that was built up during the post-civil war housing boom. The facades of the structures within the district are homogenous, however each house has individual details in trim, lintels, cornices and doors. At the time of the nomination, the neighborhood was described as “an untouched 19th century setting of brick-paved -streets lined with residences interspersed with churches and public buildings representing architectural styles ranging from Greek revival to Italianate Villas.”

C. Description of Hill House, Interior

The Pelton Family ceased to reside at Hill House in 1897, when George Pelton died. The house stood empty for several years, only temporarily serving as a residence for the Gallaudet Home for Deaf mutes. In 1912, the Poughkeepsie Day Nursery moved into the first floors of what was locally known as the Pelton Mansion. The upper floors of the mansion were renovated in 1916 to provide additional space for the nursery school. The photos included in this document identify, to the extent possible, the original features of the interior of Hill House. As previously discussed, the house experienced a significant fire in 1979, which destroyed portions of the interior. Floor plans dating to 1979 are included to identify the interior rooms described in the photographs.

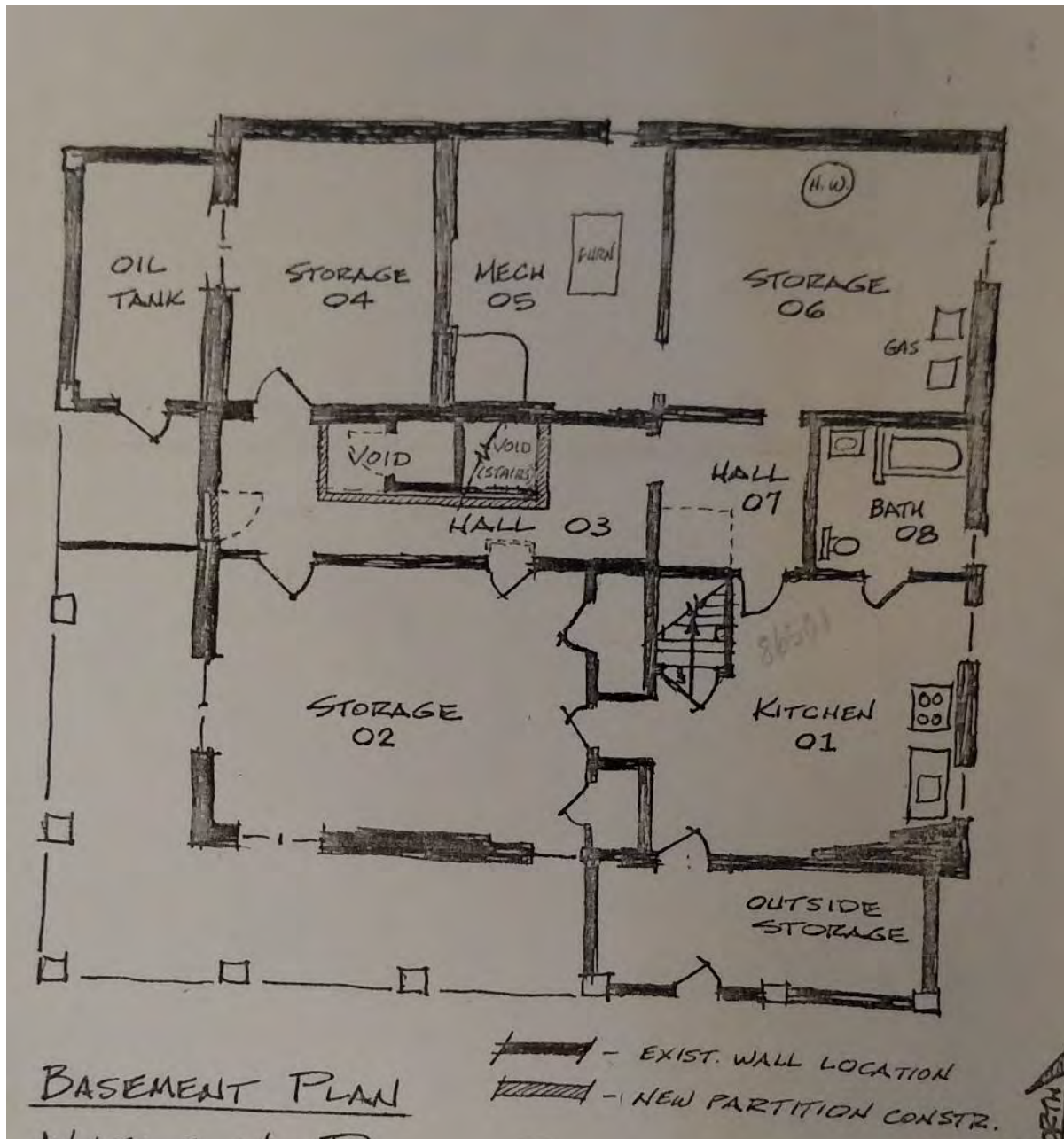


Figure 2: Floor plan dated 1979 showing the rooms on the basement floor of Hill House. Not to scale.



Photo 15: Stairs leading from the first level to the basement/ground level.



Photo 16: The room identified on floor plan as Storage 06, is a below grade room constructed of brick and fieldstone. Framing around the window on the far wall appears to be original. View to the east.



Photo 17: Room identified as Storage 02. View looking toward stairway seen in Photo 15. This room features sheetrock walls, baseboard heating and linoleum flooring. The drop ceiling hides original floor supports. The doorways between the rooms feature modern trim material.



Photo 18: Room identified on floor plan as Mech 05. The heating system and furnace indicate that the structure has been extensively renovated to accommodate modern heating technology.



Photo 19: A kitchen is located in southeastern corner of basement area. The materials show extensive upgrades to modernize the room.



Photo 20: A series of pipes and electrical wires pass through a walled doorway. The area on far side of the wall is identified on the basement floor plan as a void/former stairwell.

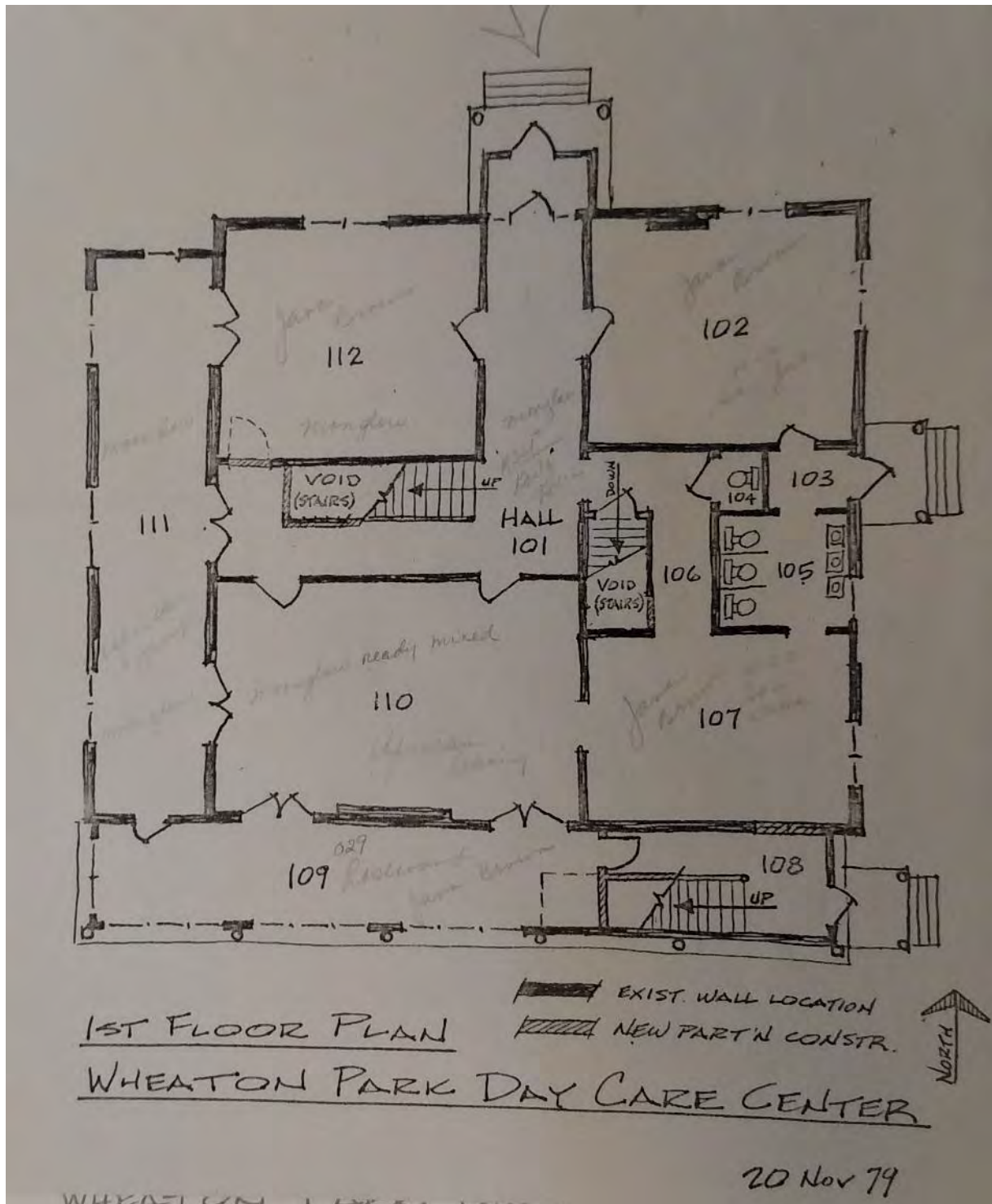


Figure 3: 1979 floor plan showing the rooms on the First Floor of Hill House. Not to scale.



Photo 21: View to the northeast of Room identified on Figure 3 as 102. The marble mantel and cast iron stove are the only intact fireplaces remaining within the house. The heating registers date to the mid-20th century. The room has been rehabilitated with a drop ceiling and carpet. The walls are also sheet rock, as the fire of 1979 required the original plaster and lathe to be removed from the structures.



Photo 22: This room is identified on the First Floor Plan as 107. Patching along the floor trim suggests that a fireplace was once located in the area where heating register cover is laying on the floor. View to the east.



Photo 23: This room is identified on First Floor Plan as 105, and is the first floor bathroom. Changes along the floor trim suggest the linoleum is laid over plywood.



Photo 24: This room is identified on the First Floor Plan as 110. Doorways lead to the enclosed veranda.



Photo 25: The original servant's stairwell has been converted into a storage closet. Identified on the First Floor plan as adjacent to Room 106, which is a small hallway.

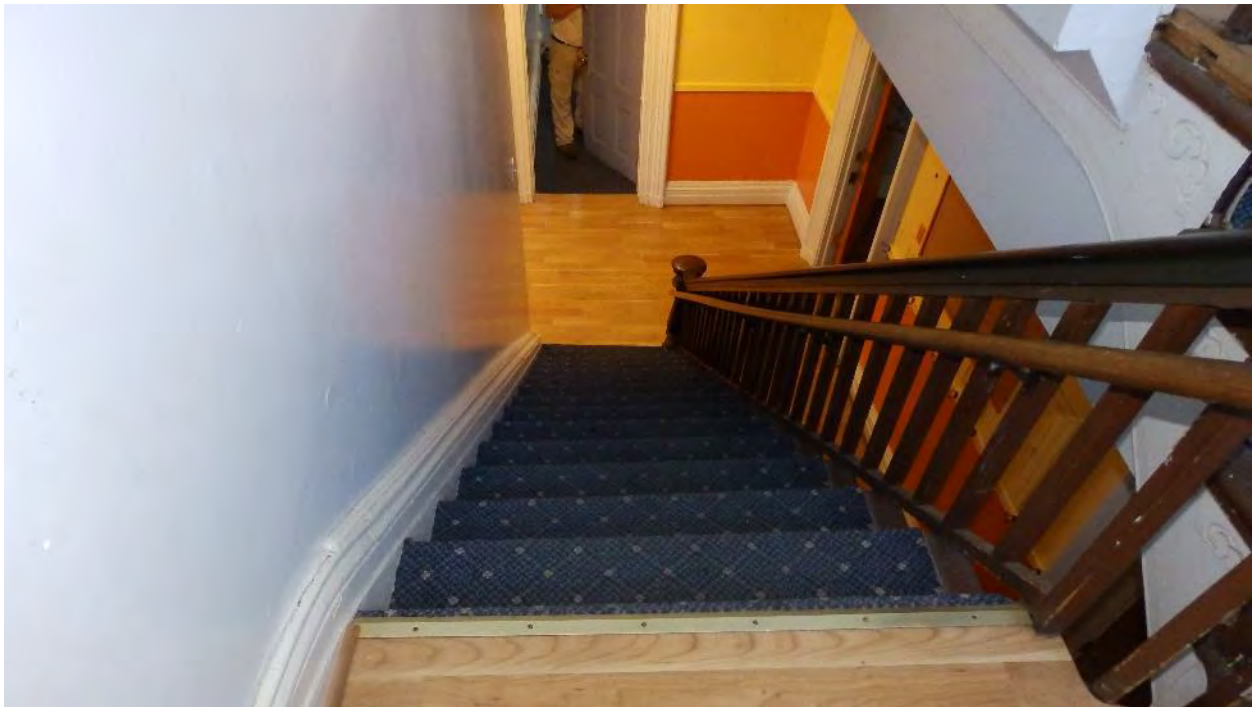


Photo 26: View of the main stairwell leading to the second story. View down from the landing to the first floor hallway. The banister and decorative woodwork appear to be original to the house.





Photo 27: View to the southeast of the Room identified on Figure 4 as 206. The mantel remains, but no evidence of a fireplace or stove remains. The windows open out to the second story of the enclosed porch identified on the Second Floor plan as 207.



Photo 28: This room is identified on the Second Floor Plan as 202. Wooden trim patching in the baseboard suggests that a fireplace was once located in the wall in the right of the photo.



Photo 29: This room is identified on the Second Floor Plan as 209. As with the other interior rooms, the floor has been carpeted and the original walls have been replaced with sheetrock.



Photo 30: The second story of the veranda/porch. Originally constructed in 1916, this feature was rebuilt after the 1979 fire. The second floor plan identifies the area as room 207. View east of stairs descending to entrance on the first floor.



Photo 31: View of the western portion of the third/attic floor. The stairs to the left provide access to the roof.



Photo 32: Attic room located on at the southeastern corner of the house. The room shows the original plaster and lathe over brick construction. The chimney is located to the right, on the far wall next to the steel shelves. The window appears to be a mid-20th century replacement.



Photo 33: Four chimney can be identified within the attic space. View of the attic windows and chimneys located on the northern elevation.



Photo 32: View east from the arched window in eastern attic elevation. The arched side windows are present, but have been covered. Windows are shuttered from the inside, and appear original.



Photo 35: Cast iron pipes and aluminum duct work located in the attic illustrate the extent to which the heating systems within Hill House have changed during the 20th century.



Photo 35: 19th century images pasted on the wall of a room in the southwestern corner of the attic floor identify the New York Institute for the Instruction of the Deaf and the Dumb. These photos may have been posted by an occupant at the turn of the century, when Hill House was a temporary residence for the members of the Gallaudet Home for Deaf mutes, who were awaiting the completion of their new home.

D. Conclusion

Based on a visual inspection of the exterior and interior of Hill House, it appears that the structure is in in good condition. Hill House experienced a significant amount of renovation in the latter part of the 20th century. These renovations, along with building rehabilitation and subsequent additions to the structure have, however, altered it from its original architectural form.

Hill House is listed on the National Register of Historic Places as part of the North Clover-Mill Street Historic District. The structure was evaluated using the National Register Evaluation Criteria for historic significance. These criteria evaluate the quality of the building, as well as the building's significance in American history. Also considered are architecture, archeology, engineering, cultural character present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and;

- (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) that are associated with the lives of persons significant in our past; or
- (c) that embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) that have yielded, or may be likely to yield, information important to prehistory or history.

Based on the examination of the Hill House building, it is the opinion of Hudson Valley Cultural Resource Consultants that the building known variously as the Pelton Mansion, Hill House, and former Poughkeepsie Day Nursery does not meet the criteria outlined by the Secretary of the Interior. The building has been significantly altered during the 20th century, and no longer retains the characteristics of a type, period or method of construction, nor does it represent the work of a master. Taken as a whole, the building, constructed in the mid-19th century, has been significantly altered using modern materials and no longer retains the integrity of a standard architectural style. In addition the house is not associated with events that have made a significant contribution to the broad patterns of our history or of persons significant to our past.

It is, therefore, the opinion of Hudson Valley Cultural Resource Consultants that the proposed undertaking, which includes the rehabilitation of Hill House to its original Italianate Style, will not have an adverse effect on the structure or impact its listing as part of the North Clover-Mill Street Historic District.

Appendix B: Architectural Photos



Photo 1: Vacant residential structure located at 18 Davies Place. View to the east. Structure is listed as part of the North Clover-Mill Street District.



Photo 2: Commercial structure located at 19 Davis Place. Steeple of the Church of the Holy Comforter is located to the south.



Photo 3: The Church of the Holy Comforter is listed on the National Register of Historic Places. View to the northwest.



Photo 4: Building located at 16 Davies Place is listed on the National Register of Historic Places as part of the North Clover-Mill Street Historic District.



Photo 5: A monument to Governor Thomas Dongan, located at the intersection of Mill Street and Dongan Place northeast of Pelton Manor Project. View to northwest.



Photo 6: Buildings along the northern side of Mill Street are a mix of residential and commercial structures. View to the northeast. The buildings on north side of Mill Street are not included in the North Clover-Mill Street Historic District.



Photo 7: View of northeastern side of North Clover Street, included in the North Clover Mill Street Historic District.



Photo 8: Buildings located on the southeastern side of North Clover Street. These buildings are included in the North Clover Mill Street Historic District.



Photo 9: Residential Structures located at 32-28 North Clover Street are included in the North Clover Mill Street Historic District.



Photo 10: Residential building at 17 North Clover Street. View to the east.



Photo 11: Residential Structures located at 11-17 North Clover Street are included in the North Clover Mill Street Historic District.



Photo 12: Residential Structures located at 12-16 North Clover Street are included in the North Clover Mill Street Historic District. Although many original historic elements remain these structures have been upgraded with modern materials.



Photo 13: Residential structure located at 30 North Clover Street is included in the North Clover Mill Street Historic District. This building retains many of its 19th century stylistic elements.



Photo 14: The Clover Street Fire Station at 16 North Clover Street is included within the boundaries of the North Clover Mill Street Historic District, but is not considered a contributing structure.

Appendix C: Shovel Test Records

Transect	STP	Level	Depth (in)	Depth (cm)	Munsell	Soil Description	Cultural Material
TR 1	1	1	0-3	0-8	10YR3/4	brown silty sand	cement, brick and mortar
		2	3-12	8-30	10YR4/6	dense silty sand with gravel fill	NCM
	2	1	0-2	0-5	10YR3/4	brown silty sand	NCM
		2	2-12	5-30	10YR3/4 & 10YR4/6	dense silty sand with gravel fill	ceramic, glass
		3	12-14	30-35	-	Coal and cinder ash	
		4	14-20	35-50	10YR3/4	brown silty sand	NCM
		5	20-26	50-65	10YR5/6	silty clay loam	NCM
	3	1	0-4	0-10	10YR3/4	brown silty sand	glass
		2	4-10	10-25	10YR6/8	brownish yellow silty clay with dense gravel	NCM
		3	10-11	25-28	10YR5/6	silty clay loam	NCM
	4	1	0-10	0-25	10YR3/2	very dark brown silty loam with dense gravel, terminated at rock obstruction	NCM
	5	1	0-8	0-20	10YR3/2	very dark brown silty loam with dense gravel, terminated at rock obstruction	NCM
	6	1	0-50	0-21	10YR3/3	brown silty loam with dense gravel, terminated at rock	glass, nail
	7	1	0-24	0-60	10YR3/3	brown silty loam with dense gravel	ceramic, nail, glass
		2	24-28	60-73	10YR5/6	dark yellowish brown silty clay with channery	NCM
TR 2	8	1	0-12	0-29	10YR3/3	brown silty loam with dense gravel	glass, ceramic
		2	12-17	29-42	10YR5/6	dark yellowish brown silty clay with channery	NCM
	9	1	0-13	0-33	10YR3/3	brown silty loam with dense gravel, terminated at rock	ceramic, fauna
	10	1	0-8	0-21	10YR3/3	brown silty loam with dense gravel	NCM
		2	8-13	21-33	10YR5/6	dark yellowish brown silty clay with channery	NCM
TR 3	11	1	0-8	0-20	10YR3/2	very dark brown silty loam with dense gravel	NCM
		2	8-12	20-30	10YR5/4	dark yellowish brown silty clay with dense gravel	NCM
	12	1	0-12	0-30	10YR3/2	very dark brown silty loam with dense gravel, terminated at rock obstruction	NCM
	13	1	0-14	0-35	10YR3/2	very dark brown silty loam with dense gravel	NCM
		2	14-16	35-40	10YR5/4	dark yellowish brown silty clay with dense gravel	NCM

Transect	STP	Level	Depth (in)	Depth (cm)	Munsell	Soil Description	Cultural Material
TR 4	14	1	0-12	0-30	10YR3/2	very dark brown silty loam with dense gravel, terminated at rock obstruction	NCM
	15	1	0-12	0-30	10YR3/2	very dark brown silty loam with dense gravel, terminated at rock obstruction	NCM
	16	1	0-8	0-20	10YR3/2	very dark brown silty loam with dense gravel, terminated at rock obstruction	NCM
	17	1	0-6	0-15	10YR2/2	very dark grayish brown silt loam	ceramic, glass, nail
		2	6-12	15-30	10YR5/4	dark yellowish brown silty clay with dense gravel	NCM
	18	1	0-4	0-10	10YR3/3	very dark brown silty loam with dense gravel	NCM
		2	4-10	10-25	10YR5/4	dark yellowish brown silty clay with dense gravel	NCM
	19	1	0-4	0-10	10YR3/3	very dark brown silty loam with dense gravel, terminated at rock and asphalt	NCM
TR 5	20	1	0-8	0-20	10YR2/2	very dark grayish brown silt loam	NCM
		2	8-14	20-35	10YR5/4	dark yellowish brown silty clay with dense gravel	NCM
	21	1	0-5	0-8	10YR2/2	very dark grayish brown silt loam	NCM
		2	5-7	8-18	10YR2/2	very dark grayish brown silt loam, terminated at rock obstruction	NCM
	22	1	0-8	0-20	10YR2/2	very dark grayish brown silt loam, terminated at rock obstruction	NCM
	23	1	0-6	0-15	10YR2/2	very dark grayish brown silt loam, terminated at rock obstruction	NCM
TR 6	24	1	0-8	0-21	10YR3/3	brown silty loam with dense gravel	nail, ceramic, glass
		2	8-13	21-33	10YR5/6	dark yellowish brown silty clay with channery	NCM
	25	1	0-10	0-24	10YR3/3	brown silty loam with dense gravel	glass, nails
		2	10-11	24-26	10YR5/6	dark yellowish brown silty clay with channery, terminated at a thick level of tar	NCM
	26	1	0-12	0-29	10YR3/3	brown silty loam with dense gravel	NCM
		2	12-17	29-44	10YR5/6	dark yellowish brown silty clay with channery	NCM
TR 7	27	1	0-13	0-34	10YR3/3	brown silty loam with dense gravel	NCM
		2	13-17	34-44	10YR5/6	dark yellowish brown silty clay with gravel	NCM
	28	1	0-12	0-29	10YR3/3	dark brown compact silt loam with rock and gravel, terminated at rock obstruction	NCM
TR 8	29	1	0-20	0-50	10YR3/3	dark brown compact silt loam with rock and gravel, terminated at rock obstruction	NCM
	30	1	0-16	0-40	10YR3/3	dark brown sand with pea gravel.	NCM

Appendix D: Artifact Catalog

Transect	STP	Level	Count	Class	Material	Type	Color & Glaze	Age
1	2	2	1	Food Service	Ceramic	ironstone		
1	2	2	1	Food Prep & Storage	glass	bottle	clear	
1	2	2	1	Food Prep & Storage	glass	bottle	amber	
1	3	1	1	Food Prep & Storage	Glass	canning jar lid	white	
1	3	1	1	Architectural	Glass	window	clear	
1	3	1	1	Food Prep & Storage	Glass	bottle	clear	
2	6	1	9	Food Prep & Storage	glass	bottle	clear	
2	6	1	2	Food Prep & Storage	glass	bottle	amber	
2	6	1	1	Food Prep & Storage	glass	bottle	green	
2	6	1	1	Architectural	Metal	nail	round	1910-2010
2	6	1	1	Architectural	Metal	nail	machine cut	1835-1910
2	7	1	3	Food Service	Ceramic	whiteware	plain	1830-1900
2	7	1	1	Food Prep & Storage	Ceramic	stoneware	brown slip/ salt glaze	
2	7	1	3	Food Prep & Storage	glass	bottle	clear	
2	7	1	1	Food Prep & Storage	glass	bottle	aqua	
2	7	1	1	Architectural	Ceramic	brick		
2	7	1	2	Architectural	Metal	nail	rusted	
2	7	1	1	Architectural	Metal	wire		
2	7	1	1	Fauna	bone	mammal		
2	7	1	1	Personal	Kaolin	Pipe bowl		
2	8	1	10	Food Prep & Storage	glass	bottle	clear	
2	8	1	3	Architectural	Glass	window	light gray chert	
2	8	1	1	Food Prep & Storage	glass	bottle	green	
2	8	1	4	Food Service	Ceramic	whiteware	plain	1830-1900
2	8	1	1	Furnishings	vinyl	record		
2	9	1	2	Food Service	Ceramic	creamware	plain	1780-1820
2	9	1	2	Fauna	bone	mammal	cut/ butchered	
2	9	1	1	Food Prep & Storage	glass	bottle	clear	
4	17	1	1	Architectural	Ceramic	tile	white	
4	17	1	1	Architectural	Metal	nail	wire	
4	17	1	2	Food Prep & Storage	Glass	bottle	clear	
4	17	1	1	Food Prep & Storage	Glass	bottle	green	
4	17	1	1	Food Prep & Storage	Glass	bottle	amber	
6	25	1	3	Architectural	Metal	nail	machine cut	1835-1910
6	25	1	1	Architectural	Glass	window		
6	26	1	5	Architectural	Glass	window	clear	
6	26	1	2	Architectural	Ceramic	redware	flower pot	
6	26	1	2	Architectural	Ceramic	ironstone		

Transect	STP	Level	Count	Class	Material	Type	Color & Glaze	Age
6	26	1	1	Architectural	Ceramic	furnishing		
6	26	1	3	Food Prep & Storage	Glass	bottle	amber	
6	26	1	1	Architectural	Metal	nail	machine cut	1835-1910
6	26	1	1	Food Prep & Storage	Glass	bottle	green	
6	26	1	1	Architectural	Metal	washer		
6	26	1	1	Modern	wax	crayon		
7	27	1	2	Food Service	Ceramic	whiteware	plain	1830-1900

Full Environmental Assessment Form
Part 2 - Identification of Potential Project Impacts

Agency Use Only [If applicable]

Project :

Date :

Part 2 is to be completed by the lead agency. Part 2 is designed to help the lead agency inventory all potential resources that could be affected by a proposed project or action. We recognize that the lead agency's reviewer(s) will not necessarily be environmental professionals. So, the questions are designed to walk a reviewer through the assessment process by providing a series of questions that can be answered using the information found in Part 1. To further assist the lead agency in completing Part 2, the form identifies the most relevant questions in Part 1 that will provide the information needed to answer the Part 2 question. When Part 2 is completed, the lead agency will have identified the relevant environmental areas that may be impacted by the proposed activity.

If the lead agency is a state agency **and** the action is in any Coastal Area, complete the Coastal Assessment Form before proceeding with this assessment.

Tips for completing Part 2:

- Review all of the information provided in Part 1.
- Review any application, maps, supporting materials and the Full EAF Workbook.
- Answer each of the 18 questions in Part 2.
- If you answer “**Yes**” to a numbered question, please complete all the questions that follow in that section.
- If you answer “**No**” to a numbered question, move on to the next numbered question.
- Check appropriate column to indicate the anticipated size of the impact.
- Proposed projects that would exceed a numeric threshold contained in a question should result in the reviewing agency checking the box “Moderate to large impact may occur.”
- The reviewer is not expected to be an expert in environmental analysis.
- If you are not sure or undecided about the size of an impact, it may help to review the sub-questions for the general question and consult the workbook.
- When answering a question consider all components of the proposed activity, that is, the “whole action”.
- Consider the possibility for long-term and cumulative impacts as well as direct impacts.
- Answer the question in a reasonable manner considering the scale and context of the project.

1. Impact on Land Proposed action may involve construction on, or physical alteration of, the land surface of the proposed site. (See Part 1. D.1) <i>If “Yes”, answer questions a - j. If “No”, move on to Section 2.</i> ☐ NO ☒ YES			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may involve construction on land where depth to water table is less than 3 feet.	E2d	☒	☐
b. The proposed action may involve construction on slopes of 15% or greater.	E2f	☒	☐
c. The proposed action may involve construction on land where bedrock is exposed, or generally within 5 feet of existing ground surface.	E2a	☒	☐
d. The proposed action may involve the excavation and removal of more than 1,000 tons of natural material.	D2a	☒	☐
e. The proposed action may involve construction that continues for more than one year or in multiple phases.	D1e	☒	☐
f. The proposed action may result in increased erosion, whether from physical disturbance or vegetation removal (including from treatment by herbicides).	D2e, D2q	☒	☐
g. The proposed action is, or may be, located within a Coastal Erosion hazard area.	B1i	☒	☐
h. Other impacts: _____ _____		☐	☐

2. Impact on Geological Features

The proposed action may result in the modification or destruction of, or inhibit access to, any unique or unusual land forms on the site (e.g., cliffs, dunes, minerals, fossils, caves). (See Part 1. E.2.g)

☒ NO☐ YES

If "Yes", answer questions a - c. If "No", move on to Section 3.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Identify the specific land form(s) attached: _____ _____	E2g	☐	☐
b. The proposed action may affect or is adjacent to a geological feature listed as a registered National Natural Landmark. Specific feature: _____	E3c	☐	☐
c. Other impacts: _____ _____		☐	☐

3. Impacts on Surface Water

The proposed action may affect one or more wetlands or other surface water bodies (e.g., streams, rivers, ponds or lakes). (See Part 1. D.2, E.2.h)

☒ NO☐ YES

If "Yes", answer questions a - l. If "No", move on to Section 4.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may create a new water body.	D2b, D1h	☐	☐
b. The proposed action may result in an increase or decrease of over 10% or more than a 10 acre increase or decrease in the surface area of any body of water.	D2b	☐	☐
c. The proposed action may involve dredging more than 100 cubic yards of material from a wetland or water body.	D2a	☐	☐
d. The proposed action may involve construction within or adjoining a freshwater or tidal wetland, or in the bed or banks of any other water body.	E2h	☐	☐
e. The proposed action may create turbidity in a waterbody, either from upland erosion, runoff or by disturbing bottom sediments.	D2a, D2h	☐	☐
f. The proposed action may include construction of one or more intake(s) for withdrawal of water from surface water.	D2c	☐	☐
g. The proposed action may include construction of one or more outfall(s) for discharge of wastewater to surface water(s).	D2d	☐	☐
h. The proposed action may cause soil erosion, or otherwise create a source of stormwater discharge that may lead to siltation or other degradation of receiving water bodies.	D2e	☐	☐
i. The proposed action may affect the water quality of any water bodies within or downstream of the site of the proposed action.	E2h	☐	☐
j. The proposed action may involve the application of pesticides or herbicides in or around any water body.	D2q, E2h	☐	☐
k. The proposed action may require the construction of new, or expansion of existing, wastewater treatment facilities.	D1a, D2d	☐	☐

l. Other impacts: _____ _____		☐	☐
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4. Impact on groundwater The proposed action may result in new or additional use of ground water, or may have the potential to introduce contaminants to ground water or an aquifer. (See Part 1. D.2.a, D.2.c, D.2.d, D.2.p, D.2.q, D.2.t) <i>If “Yes”, answer questions a - h. If “No”, move on to Section 5.</i>			
		☒ NO	☐ YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may require new water supply wells, or create additional demand on supplies from existing water supply wells.	D2c	☐	☐
b. Water supply demand from the proposed action may exceed safe and sustainable withdrawal capacity rate of the local supply or aquifer. Cite Source: _____	D2c	☐	☐
c. The proposed action may allow or result in residential uses in areas without water and sewer services.	D1a, D2c	☐	☐
d. The proposed action may include or require wastewater discharged to groundwater.	D2d, E2l	☐	☐
e. The proposed action may result in the construction of water supply wells in locations where groundwater is, or is suspected to be, contaminated.	D2c, E1f, E1g, E1h	☐	☐
f. The proposed action may require the bulk storage of petroleum or chemical products over ground water or an aquifer.	D2p, E2l	☐	☐
g. The proposed action may involve the commercial application of pesticides within 100 feet of potable drinking water or irrigation sources.	E2h, D2q, E2l, D2c	☐	☐
h. Other impacts: _____ _____		☐	☐

5. Impact on Flooding The proposed action may result in development on lands subject to flooding. (See Part 1. E.2) <i>If “Yes”, answer questions a - g. If “No”, move on to Section 6.</i>			
		☒ NO	☐ YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in development in a designated floodway.	E2i	☐	☐
b. The proposed action may result in development within a 100 year floodplain.	E2j	☐	☐
c. The proposed action may result in development within a 500 year floodplain.	E2k	☐	☐
d. The proposed action may result in, or require, modification of existing drainage patterns.	D2b, D2e	☐	☐
e. The proposed action may change flood water flows that contribute to flooding.	D2b, E2i, E2j, E2k	☐	☐
f. If there is a dam located on the site of the proposed action, is the dam in need of repair, or upgrade?	E1e	☐	☐

g. Other impacts: _____ _____		☐	☐
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6. Impacts on Air The proposed action may include a state regulated air emission source. (See Part 1. D.2.f., D.2.h, D.2.g) <i>If “Yes”, answer questions a - f. If “No”, move on to Section 7.</i>				☒ NO	☐ YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
a. If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels:					
i. More than 1000 tons/year of carbon dioxide (CO ₂)	D2g	☐	☐		
ii. More than 3.5 tons/year of nitrous oxide (N ₂ O)	D2g	☐	☐		
iii. More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs)	D2g	☐	☐		
iv. More than .045 tons/year of sulfur hexafluoride (SF ₆)	D2g	☐	☐		
v. More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions	D2g	☐	☐		
vi. 43 tons/year or more of methane	D2h	☐	☐		
b. The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.	D2g	☐	☐		
c. The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs. per hour, or may include a heat source capable of producing more than 10 million BTU's per hour.	D2f, D2g	☐	☐		
d. The proposed action may reach 50% of any of the thresholds in “a” through “c”, above.	D2g	☐	☐		
e. The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.	D2s	☐	☐		
f. Other impacts: _____ _____		☐	☐		

7. Impact on Plants and Animals The proposed action may result in a loss of flora or fauna. (See Part 1. E.2. m.-q.) <i>If “Yes”, answer questions a - j. If “No”, move on to Section 8.</i>				☒ NO	☐ YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur		
a. The proposed action may cause reduction in population or loss of individuals of any threatened or endangered species, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2o	☐	☐		
b. The proposed action may result in a reduction or degradation of any habitat used by any rare, threatened or endangered species, as listed by New York State or the federal government.	E2o	☐	☐		
c. The proposed action may cause reduction in population, or loss of individuals, of any species of special concern or conservation need, as listed by New York State or the Federal government, that use the site, or are found on, over, or near the site.	E2p	☐	☐		
d. The proposed action may result in a reduction or degradation of any habitat used by any species of special concern and conservation need, as listed by New York State or the Federal government.	E2p	☐	☐		

e. The proposed action may diminish the capacity of a registered National Natural Landmark to support the biological community it was established to protect.	E3c	☐	☐
f. The proposed action may result in the removal of, or ground disturbance in, any portion of a designated significant natural community. Source: _____	E2n	☐	☐
g. The proposed action may substantially interfere with nesting/breeding, foraging, or over-wintering habitat for the predominant species that occupy or use the project site.	E2m	☐	☐
h. The proposed action requires the conversion of more than 10 acres of forest, grassland or any other regionally or locally important habitat. Habitat type & information source: _____	E1b	☐	☐
i. Proposed action (commercial, industrial or recreational projects, only) involves use of herbicides or pesticides.	D2q	☐	☐
j. Other impacts: _____		☐	☐

8. Impact on Agricultural Resources The proposed action may impact agricultural resources. (See Part 1. E.3.a. and b.) ☒ NO ☐ YES <i>If "Yes", answer questions a - h. If "No", move on to Section 9.</i>			
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may impact soil classified within soil group 1 through 4 of the NYS Land Classification System.	E2c, E3b	☐	☐
b. The proposed action may sever, cross or otherwise limit access to agricultural land (includes cropland, hayfields, pasture, vineyard, orchard, etc).	E1a, E1b	☐	☐
c. The proposed action may result in the excavation or compaction of the soil profile of active agricultural land.	E3b	☐	☐
d. The proposed action may irreversibly convert agricultural land to non-agricultural uses, either more than 2.5 acres if located in an Agricultural District, or more than 10 acres if not within an Agricultural District.	E1b, E3a	☐	☐
e. The proposed action may disrupt or prevent installation of an agricultural land management system.	E1 a, E1b	☐	☐
f. The proposed action may result, directly or indirectly, in increased development potential or pressure on farmland.	C2c, C3, D2c, D2d	☐	☐
g. The proposed project is not consistent with the adopted municipal Farmland Protection Plan.	C2c	☐	☐
h. Other impacts: _____		☐	☐

9. Impact on Aesthetic Resources The land use of the proposed action are obviously different from, or are in sharp contrast to, current land use patterns between the proposed project and a scenic or aesthetic resource. (Part 1. E.1.a, E.1.b, E.3.h.) <i>If "Yes", answer questions a - g. If "No", go to Section 10.</i>			
		☐ NO	☒ YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Proposed action may be visible from any officially designated federal, state, or local scenic or aesthetic resource.	E3h	☒	☐
b. The proposed action may result in the obstruction, elimination or significant screening of one or more officially designated scenic views.	E3h, C2b	☒	☐
c. The proposed action may be visible from publicly accessible vantage points: i. Seasonally (e.g., screened by summer foliage, but visible during other seasons) ii. Year round	E3h	☒ ☒	☐ ☐
d. The situation or activity in which viewers are engaged while viewing the proposed action is: i. Routine travel by residents, including travel to and from work ii. Recreational or tourism based activities	E3h E2q, E1c	☒ ☒	☐ ☐
e. The proposed action may cause a diminishment of the public enjoyment and appreciation of the designated aesthetic resource.	E3h	☒	☐
f. There are similar projects visible within the following distance of the proposed project: 0-1/2 mile 1/2 -3 mile 3-5 mile 5+ mile	D1a, E1a, D1f, D1g	☒	☐
g. Other impacts: _____ _____		☐	☐

10. Impact on Historic and Archeological Resources The proposed action may occur in or adjacent to a historic or archaeological resource. (Part 1. E.3.e, f. and g.) <i>If "Yes", answer questions a - e. If "No", go to Section 11.</i>			
		☐ NO	☒ YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may occur wholly or partially within, or substantially contiguous to, any buildings, archaeological site or district which is listed on or has been nominated by the NYS Board of Historic Preservation for inclusion on the State or National Register of Historic Places.	E3e	☒	☐
b. The proposed action may occur wholly or partially within, or substantially contiguous to, an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory.	E3f	☒	☐
c. The proposed action may occur wholly or partially within, or substantially contiguous to, an archaeological site not included on the NY SHPO inventory. Source: _____	E3g	☒	☐

d. Other impacts: _____ _____		☐	☐
e. If any of the above (a-d) are answered “Yes”, continue with the following questions to help support conclusions in Part 3:			
i. The proposed action may result in the destruction or alteration of all or part of the site or property.	E3e, E3g, E3f	☐	☐
ii. The proposed action may result in the alteration of the property’s setting or integrity.	E3e, E3f, E3g, E1a, E1b	☐	☐
iii. The proposed action may result in the introduction of visual elements which are out of character with the site or property, or may alter its setting.	E3e, E3f, E3g, E3h, C2, C3	☐	☐

11. Impact on Open Space and Recreation The proposed action may result in a loss of recreational opportunities or a reduction of an open space resource as designated in any adopted municipal open space plan. (See Part 1. C.2.c, E.1.c., E.2.q.) <i>If “Yes”, answer questions a - e. If “No”, go to Section 12.</i>			
		☒ NO	☐ YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in an impairment of natural functions, or “ecosystem services”, provided by an undeveloped area, including but not limited to stormwater storage, nutrient cycling, wildlife habitat.	D2e, E1b E2h, E2m, E2o, E2n, E2p	☐	☐
b. The proposed action may result in the loss of a current or future recreational resource.	C2a, E1c, C2c, E2q	☐	☐
c. The proposed action may eliminate open space or recreational resource in an area with few such resources.	C2a, C2c E1c, E2q	☐	☐
d. The proposed action may result in loss of an area now used informally by the community as an open space resource.	C2c, E1c	☐	☐
e. Other impacts: _____ _____		☐	☐

12. Impact on Critical Environmental Areas The proposed action may be located within or adjacent to a critical environmental area (CEA). (See Part 1. E.3.d) <i>If “Yes”, answer questions a - c. If “No”, go to Section 13.</i>			
		☒ NO	☐ YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may result in a reduction in the quantity of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
b. The proposed action may result in a reduction in the quality of the resource or characteristic which was the basis for designation of the CEA.	E3d	☐	☐
c. Other impacts: _____ _____		☐	☐

13. Impact on Transportation

The proposed action may result in a change to existing transportation systems.

☒ NO

☐ YES

(See Part 1. D.2.j)

If "Yes", answer questions a - g. If "No", go to Section 14.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. Projected traffic increase may exceed capacity of existing road network.	D2j	☐	☐
b. The proposed action may result in the construction of paved parking area for 500 or more vehicles.	D2j	☐	☐
c. The proposed action will degrade existing transit access.	D2j	☐	☐
d. The proposed action will degrade existing pedestrian or bicycle accommodations.	D2j	☐	☐
e. The proposed action may alter the present pattern of movement of people or goods.	D2j	☐	☐
f. Other impacts: _____ _____		☐	☐

14. Impact on Energy

The proposed action may cause an increase in the use of any form of energy.

☒ NO

☐ YES

(See Part 1. D.2.k)

If "Yes", answer questions a - e. If "No", go to Section 15.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action will require a new, or an upgrade to an existing, substation.	D2k	☐	☐
b. The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.	D1f, D1q, D2k	☐	☐
c. The proposed action may utilize more than 2,500 MWhrs per year of electricity.	D2k	☐	☐
d. The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.	D1g	☐	☐
e. Other Impacts: _____ _____			

15. Impact on Noise, Odor, and Light

The proposed action may result in an increase in noise, odors, or outdoor lighting.

☒ NO

☐ YES

(See Part 1. D.2.m., n., and o.)

If "Yes", answer questions a - f. If "No", go to Section 16.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may produce sound above noise levels established by local regulation.	D2m	☐	☐
b. The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.	D2m, E1d	☐	☐
c. The proposed action may result in routine odors for more than one hour per day.	D2o	☐	☐

d. The proposed action may result in light shining onto adjoining properties.	D2n	☐	☐
e. The proposed action may result in lighting creating sky-glow brighter than existing area conditions.	D2n, E1a	☐	☐
f. Other impacts: _____ _____		☐	☐

16. Impact on Human Health

The proposed action may have an impact on human health from exposure to new or existing sources of contaminants. (See Part 1.D.2.q., E.1. d. f. g. and h.)

☒ NO

☐ YES

If "Yes", answer questions a - m. If "No", go to Section 17.

	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action is located within 1500 feet of a school, hospital, licensed day care center, group home, nursing home or retirement community.	E1d	☐	☐
b. The site of the proposed action is currently undergoing remediation.	E1g, E1h	☐	☐
c. There is a completed emergency spill remediation, or a completed environmental site remediation on, or adjacent to, the site of the proposed action.	E1g, E1h	☐	☐
d. The site of the action is subject to an institutional control limiting the use of the property (e.g., easement or deed restriction).	E1g, E1h	☐	☐
e. The proposed action may affect institutional control measures that were put in place to ensure that the site remains protective of the environment and human health.	E1g, E1h	☐	☐
f. The proposed action has adequate control measures in place to ensure that future generation, treatment and/or disposal of hazardous wastes will be protective of the environment and human health.	D2t	☐	☐
g. The proposed action involves construction or modification of a solid waste management facility.	D2q, E1f	☐	☐
h. The proposed action may result in the unearthing of solid or hazardous waste.	D2q, E1f	☐	☐
i. The proposed action may result in an increase in the rate of disposal, or processing, of solid waste.	D2r, D2s	☐	☐
j. The proposed action may result in excavation or other disturbance within 2000 feet of a site used for the disposal of solid or hazardous waste.	E1f, E1g E1h	☐	☐
k. The proposed action may result in the migration of explosive gases from a landfill site to adjacent off site structures.	E1f, E1g	☐	☐
l. The proposed action may result in the release of contaminated leachate from the project site.	D2s, E1f, D2r	☐	☐
m. Other impacts: _____ _____			

17. Consistency with Community Plans The proposed action is not consistent with adopted land use plans. (See Part 1. C.1, C.2. and C.3.) <i>If “Yes”, answer questions a - h. If “No”, go to Section 18.</i>			
		☒ NO	☐ YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action’s land use components may be different from, or in sharp contrast to, current surrounding land use pattern(s).	C2, C3, D1a E1a, E1b	☐	☐
b. The proposed action will cause the permanent population of the city, town or village in which the project is located to grow by more than 5%.	C2	☐	☐
c. The proposed action is inconsistent with local land use plans or zoning regulations.	C2, C2, C3	☐	☐
d. The proposed action is inconsistent with any County plans, or other regional land use plans.	C2, C2	☐	☐
e. The proposed action may cause a change in the density of development that is not supported by existing infrastructure or is distant from existing infrastructure.	C3, D1c, D1d, D1f, D1d, E1b	☐	☐
f. The proposed action is located in an area characterized by low density development that will require new or expanded public infrastructure.	C4, D2c, D2d D2j	☐	☐
g. The proposed action may induce secondary development impacts (e.g., residential or commercial development not included in the proposed action)	C2a	☐	☐
h. Other: _____ _____		☐	☐

18. Consistency with Community Character The proposed project is inconsistent with the existing community character. (See Part 1. C.2, C.3, D.2, E.3) <i>If “Yes”, answer questions a - g. If “No”, proceed to Part 3.</i>			
		☐ NO	☒ YES
	Relevant Part I Question(s)	No, or small impact may occur	Moderate to large impact may occur
a. The proposed action may replace or eliminate existing facilities, structures, or areas of historic importance to the community.	E3e, E3f, E3g	☒	☐
b. The proposed action may create a demand for additional community services (e.g. schools, police and fire)	C4	☒	☐
c. The proposed action may displace affordable or low-income housing in an area where there is a shortage of such housing.	C2, C3, D1f D1g, E1a	☒	☐
d. The proposed action may interfere with the use or enjoyment of officially recognized or designated public resources.	C2, E3	☒	☐
e. The proposed action is inconsistent with the predominant architectural scale and character.	C2, C3	☒	☐
f. Proposed action is inconsistent with the character of the existing natural landscape.	C2, C3 E1a, E1b E2g, E2h	☒	☐
g. Other impacts: _____ _____		☐	☐

Project :

Date :

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts
and
Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☒ Type 1 ☐ Unlisted

Identify portions of EAF completed for this Project: ☒ Part 1 ☒ Part 2 ☐ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the
City of Poughkeepsie Common Council _____ as lead agency that:

☒ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.d).

☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Pelton Manor

Name of Lead Agency: City of Poughkeepsie Common Council

Name of Responsible Officer in Lead Agency: Christopher D. Petsas

Title of Responsible Officer: Chairman

Signature of Responsible Officer in Lead Agency:

Date:

Signature of Preparer (if different from Responsible Officer)

Date:

For Further Information:

Contact Person:

Address:

Telephone Number:

E-mail:

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)

Other involved agencies (if any)

Applicant (if any)

Environmental Notice Bulletin: <http://www.dec.ny.gov/enb/enb.html>

PRINT FULL FORM

**State Environmental Quality Review
NEGATIVE DECLARATION
Notice of Determination of Non-Significance**

Project Number:

Date:

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law.

The City of Poughkeepsie as Lead Agency has determined that the proposed action described below will not have a significant adverse environmental impact and a Draft Impact Statement will not be prepared.

Name of Action: Pelton Manor

SEQR Status: Type I

Conditioned Negative Declaration: No.

Location of Action: 36 North Clover Street, City of Poughkeepsie
(Parcel Number 134001-7057-13-224427 on the City of Poughkeepsie official tax map)

Description of Action:

The Applicant, Pelton Partners, LLC, proposes to purchase the 2.45 acre property located at 36 North Clover Street from the City of Poughkeepsie to construct a small apartment complex with associated parking, to be known as Pelton Manor. The parcel contains the Pelton Mansion (AKA Hill House), which is located in the City of Poughkeepsie's Mill Street - North Clover Street Historic District. The 36 North Clover Street property was also designated as a local historic site by the City of Poughkeepsie Common Council on July 29, 2010; therefore, the proposed renovations and construction will require a Certificate of Appropriateness from the City's Historic District and Landmark Preservation Commission. The Pelton Mansion building was previously used as a day nursery. The Applicant proposes to restore the exterior of the Pelton Mansion structure in a historically appropriate manner and utilize the space for additional apartment units and/or potential full or partial occupancy by a non-profit or governmental agency, to the extent permitted by current zoning regulations. The Pelton Manor development will include a community garden and a parking garage to accommodate ten vehicles. The Applicant will seek financial assistance from the City of Poughkeepsie Industrial Development Agency (IDA). An area for limited public access for passive recreation consistent with private use of the property will be provided. In addition to the proposed development, the Applicant proposes to make a monetary donation to the City toward the future creation of a "pocket park" with a fountain on the corner across Davies Place from the site.

Three concept plans were provided in Attachment A of the FEAF. Concept Plan A shows 38 apartment units (32 two-bedroom and 6 one-bedroom units) and 1,500 SF of non-profit/government space. In the event that a non-profit or governmental agency is not available for occupancy, Concept Plan B shows 39 apartment units (33 two-bedroom and 6 one-bedroom units) with no non-profit/governmental space. Concept Plan C shows 38 apartment units (32 two-bedroom and 6 one-bedroom units) and 4,500 SF of

non-profit/government space (entire Pelton Mansion). Since the plan is conceptual at this time, the number of bedrooms may change slightly as the design is developed.

Based on a review by the NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP), a fourth plan has been developed. At the recommendation of NYSOPRHP, the new buildings have been relocated along the western edge of the site in adjusted locations and sizes. The two structures adjacent to the Pelton Mansion house are reduced in size to be smaller than the two buildings facing Dongan Park. The southernmost building facing Davies Place has been relocated to allow greater visibility of the Pelton Mansion when viewing from this structure from the south, and so more specimen trees can remain intact. The multifamily building on the north side of the manor house has also been reduced in size to allow the public sitting area to be larger.

The proposed action for the purpose of SEQR review includes the proposed transfer of property from the City of Poughkeepsie to the Applicant; site plan review by the City of Poughkeepsie Planning Board for the proposed Pelton Manor residential development with potential non-profit/governmental agency space (to the extent permitted by current zoning regulations); potential future construction of the pocket park; a Certificate of Appropriateness from the City's Historic District and Landmark Preservation Commission; and a parking variance from the City of Poughkeepsie Zoning Board of Appeals. The project area for the FEAFF consists of the 2.45 acre project parcel plus the estimated 0.02 acre area of disturbance for the potential future construction of the pocket park, for a total of 2.47 acres. Please refer to Attachment A of the FEAFF, *Concept Plans*. The project parcel is identified as 131300-6062-75-837228 on the City of Poughkeepsie Tax Map. The potential future pocket park area is located on a 0.02 acre portion of parcel 131300-6061-27-794956, which is currently owned by Conrail and contains the Poughkeepsie Railroad Station.

Reasons Supporting This Determination:

A Part 1 Full Environmental Assessment Form was circulated by the Lead Agency on November 6, 2015. The Lead Agency conducted its own independent review and analysis of the information provided and the potential environmental effects.

Per Section 617-7 of the SEQR regulations, the following criteria were used to determine whether the proposed Type I action may have a significant adverse impact on the environment.

- (i) *A substantial adverse change in existing air quality, ground or surface water quality or quantity, traffic or noise levels; a substantial increase in solid waste production; a substantial increase in potential for erosion, flooding, leaching or drainage problems.*

The proposed development will not affect air quality. During construction, a small amount of dust may be generated as a result of vehicle movement on unpaved areas and disturbance of surface soils. Mitigation measures to avoid impacts on air quality during construction are principally designed to prevent blowing of dust off-site. The majority of soil dust emissions are expected to settle out within a few feet of the area of disturbance. Smaller dust particles may, however, become airborne for longer periods of time and, depending on wind velocity and turbulence, could be carried off-site. The following measures will be undertaken to avoid blowing of dust off-site:

- o Placement of any removed topsoil into a topsoil storage area which would be seeded with quick cover vegetation to prevent erosion.

- o Watering all exposed soil and rapidly stabilizing the regraded areas with topsoil, loam and/or seeding.
- o Wetting of the roadways with water as needed.

The project site does not contain any State regulated wetlands or streams or NWI wetlands. A NYSDEC stream, the Fallkill Creek, NYSDEC Stream H-114, flows in a westerly direction just north of Dongan Place. The proposed project is not expected to adversely impact any wetlands or streams.

A Traffic Assessment was prepared which finds that based on the observed traffic patterns and volumes on North Clover Street and the immediate area, and the expected project generated traffic, the proposed Pelton Manor project will not have any significant impact on the local roadway system and no mitigation due to project generated traffic is warranted (Attachment C of the FEAF). Traffic generated by the proposed project is expected to be less than traffic generated by the former day nursery facility.

The existing Pelton Mansion is connected to municipal water and sewer service. The proposed project will also connect to municipal water and sewer service. The proposed development will result in an increase in water usage and wastewater generation over the former use of the site as a day nursery. Correspondence from the City of Poughkeepsie Commissioner of Public Works dated October 26, 2015, and Ed Steeprock, Project Manager of the City water plant operations dated October 28, 2015, indicate that the City has sufficient capacity to provide water and sewer service to the proposed project (Attachment B of FEAF). The City Water and Sewer Departments will have the opportunity to further review the site plan once more detailed plans are generated during the site plan review process.

The proposed project will result in a slight increase in solid waste generation at the site; however, the amount is expected to be insignificant and will not result in any adverse impacts to the Dutchess County Resource Recovery Agency's ability to handle the additional waste.

The Proposed Action requires a NYSDEC SPDES General Permit GP-0-15-002. The proposed project will comply with water quality standards and effluent discharge requirements established by NYSDEC with no significant impacts to surface or groundwater.

- (ii) *The removal or destruction of large quantities of vegetation or fauna; substantial interference with the movement of any resident or migratory fish or wildlife species; impacts on a significant habitat area; substantial adverse impacts on a threatened or endangered species of animal or plant, or the habitat of such a species; or other significant adverse impacts to natural resources.*

The project site consists of lawn and landscaped areas with scattered mature trees, including Linden, Red Maple, Norway Maple, Sugar Maple, and one Coffee tree. The project has been designed to preserve mature trees along Davies Place on the west side of the site that are determined to be healthy by a certified arborist. Although some trees will need to be removed for the proposed construction, the site plan will include significant new landscaping with tree species similar in variety to existing trees on the site and in the neighborhood, resulting in a net gain of trees. Detailed landscaping plans will be developed during the site plan approval process.

According to the NYSDEC Environmental Resource Mapper, there are known occurrences of endangered, threatened, or rare species in the vicinity of the project site, and the Hudson River is

considered a Significant Natural Community, a tidal river. According to the US Fish & Wildlife Service (USFWS) IPaC Trust Report, there is potential for two endangered and one threatened species in the vicinity of the project site. The IPaC report indicates that no "critical habitat" for these species or any other species has been designated by the USFWS within the project site. The project site is located in an urban area, and most of the proposed development is in previously disturbed areas. The project site is located approximately 1,000 feet from the Hudson River, so no impacts to the Tidal River Significant Natural Community are anticipated. The project will include the removal of some trees; however, all tree clearing will occur between October 1st and March 31st to ensure no potential take of the Indiana bat or NLEB, as during this time, the bats would be hibernating and not present onsite.

Therefore, no adverse impacts in regard to vegetation removal or endangered, threatened, or rare species or significant habitat will occur as a result of the proposed project.

- (iii) *The impairment of the environmental characteristics of a Critical Environmental Area as designated pursuant to subdivision 617.14(g) of this Part.*

There are no designated Critical Environmental Areas in the vicinity of the project site.

- (iv) *The creation of a material conflict with a community's current plans or goals as officially approved or adopted.*

The project site is located in the Medium High-Density Residential (R-4) zoning district as designated by City of Poughkeepsie Zoning Map. A multifamily use is a permitted use in the R-4 Zoning District, and the proposed site plan complies with the bulk requirements for the R-4 zoning district and with the City's maximum density per Section 19-3.15(4)(c). The number of parking spaces proposed does not meet the City's required parking per Section 19-4.3(11) of the City of Poughkeepsie Zoning Code. The proposed purchase contract between the Applicant and the City of Poughkeepsie contains a provision that 1.5 parking spaces per unit will be provided for all residential units. An area variance from the City of Poughkeepsie Zoning Board of Appeals will be required. The central location of the Pelton Manor project is conducive to pedestrian and transit oriented travel, with City bus and railroad transportation available and parks and the Walkway Over the Hudson within walking distance. The adjacent parcel to the west is part of the Conrail parcel which contains the Poughkeepsie Railroad Station with Metro North and Amtrak service. The City of Poughkeepsie "Main Street" and "Special" bus routes pass by the site along Davies Place, and the "Shoppers Special" bus route is only a block away. Thus, it is anticipated that many of the future residents of the project will utilize public transportation or walk to nearby destinations. The reduction in the number of parking spaces on the site allows for an increase in the amount of green space.

The project is located in close proximity to the City's new Waterfront Transit Oriented District (WTOD), which is located approximately 200 feet west of the site. The purpose of this district is to "encourage a pedestrian-friendly, urban mix of public, recreational, residential, and compatible commercial uses within walking distance of waterfront parks, the Walkway Over the Hudson elevator, and the Railroad Station." The proposed residential development is ideally located to support this goal, and the project includes features to promote walking and bicycling such as sidewalks, bicycle racks, and an area in the northwest corner of the site for limited public access for passive recreation which will contain an overlook with benches for public use. The Applicant also proposes to make a monetary donation to the City toward the future creation of a "pocket

park" with a fountain on the corner across Davies Place from the site or toward improvements at other City parks, which is consistent with the new district's streetscape standards and site standards. The WTOD site standards also recommend the adaptive reuse of existing buildings, with which the project is also consistent. The parking standard for a residential dwelling in the WTOD is only 0.5 space per dwelling unit, which is less than the 1.5 spaces per dwelling unit provided on the proposed concept plan.

The City of Poughkeepsie Comprehensive Plan adopted in 1998 does not provide specific recommendations for the project site, other than recommending *"a downtown core surrounded by professional offices, neighborhood commercial uses, and a mix of office and residential uses surrounding the linear Main Street corridor"*. The proposed project is consistent with this recommendation.

According to the City of Poughkeepsie Local Waterfront Revitalization Plan (LWRP), the project site is not located within the designated Coastal Zone. The proposed project is consistent with the coastal policies listed in the LWRP.

Therefore, the proposed project is consistent with the City's current plans and goals.

- (v) *The impairment of the character or quality of important historical, archeological, architectural, or aesthetic resources or of existing community or neighborhood character.*

The project parcel contains the Pelton Mansion, AKA Hill House, which was originally constructed in 1859 and is in the National Register listed Mill Street-North Clover Street Historic District (Listing 90NR00369), and the project site is within a known archeologically sensitive area. The Applicant is determining whether the site is located within a City of Poughkeepsie created historic district. If the site is determined to be located within a City-created historic district, a Certificate of Appropriateness will be requested from the City's Historic District and Landmark Preservation Commission. A Phase 1A Literature Review & Sensitivity Analysis and Phase 1B Archaeological Field Reconnaissance Survey (Attachment D of the FEAF) indicates that Hill House (AKA Pelton Mansion) is not listed individually on the National Register. The Phase 1A finds that no National Register eligible properties will be impacted by the proposed project. A Historic Building Assessment of the Pelton Mansion (also known as the Hill House and former Poughkeepsie Day Nursery) was prepared by Hudson Valley Cultural Resource Consultants, Ltd (HVCRC). This Assessment finds that the proposed undertaking, including the renovations to the Pelton Mansion, will not have an adverse effect on the structure or impact its listing as part of the North Clover-Mill Street Historic District.

The Phase 1B report finds that no significant cultural material of any kind was recovered from the shovel tests, and that no further archeological investigation is warranted for the Pelton Manor project. The Phase 1A/1B report was submitted to NYS Office of Parks, Recreation and Historic Preservation (NYSOPRHP) for review (NYSOPRHP Project #15PR06519). Correspondence from Tim Lloyd of NYSOPRHP on December 2, 2015, indicates that he concurs with the report recommendation that no additional archaeological work is necessary.

The Applicant proposes to restore the exterior of the Pelton Mansion structure in a historically appropriate manner and utilize the space for additional apartment units and/or potential full or partial occupancy by a non-profit or governmental agency, to the extent permitted by current zoning. The proposed apartments are a permitted use in the R-4 zoning district and are consistent

with other nearby uses and structures. The Applicant has consulted with NYS Office of Parks, Recreation, and Historic Preservation (NYSOPRHP). Copies of the November 30, 2015, and December 2, 2015, correspondence to NYSOPRHP with attachments (including the revised concept plan) were provided to the Common Council on December 7, 2015 as a supplement to the SEQR documentation. NYSOPRHP issued a letter dated December 10, 2015, stating that NYSOPRHP has no concerns with the current proposal to rehabilitate the historic building and construct additional housing on the site, and that it is encouraged by plans to rehabilitate Hill House in a historically appropriate manner. The letter finds that the most recently updated site plan is compatible with the historic building, site and historic district. The Applicant will continue to work with NYSOPRHP as construction documents become available at the time of the State level 14.09 review. The proposed plan shows sufficient space around the Pelton Mansion building to preserve the view of the building. The exterior of the Pelton Mansion structure will be restored in accordance with the Applicant's contract with the City of Poughkeepsie. The architectural plans have yet to be developed. Some of the project detailing shall be determined once the final building program has been set. However, some of the work being contemplated includes:

1. Removal of the metal fire escapes;
2. Reconstruction of the existing entry porches;
3. Rebuild and repointing of the exterior masonry;
4. Repair and replacement of all damaged exterior wood trims, fascia, brackets and the like;
5. Repair and/or replacement of all gutters and leaders, as necessary;
6. Replacement of existing windows with new design compatible and energy efficient windows;
7. Modification of the exterior façade where emergency egress doors have previously been installed;
8. Reconstruction of the exterior enclosed porches and modification of the window types and locations;
9. Removal of the existing shutters;
10. Repainting of the existing exterior masonry and woodwork;
11. Installation of new exterior lighting; and
12. Potential uncovering and restoration of the original brick exterior columns that support the porch structures.

The Applicant, as part of the purchase contract with the City of Poughkeepsie, agrees to enter into a façade easement to ensure that the exterior of the building will be properly restored at this time and maintained into the future.

Most of the structures in the vicinity of the Pelton Manor site were constructed during the post-Civil War housing boom. The area as a whole is an untouched 19th Century setting lined with residences interspersed with churches and public buildings representing architectural styles ranging from Greek Revival to Italianate Villas to 1960's Modern. Photos of nearby structures are provided in the Phase 1A Literature Search and Sensitivity Assessment and Archaeological Field Reconnaissance Survey provided as Attachment D of the FEA. The architectural design of the

new buildings will be compatible with the Pelton Mansion building and other existing buildings in the neighborhood. The new structures shall be scaled to reflect the heights and densities found in the surrounding neighborhood. These structures are currently planned to be finished with masonry, vinyl and various cementitious materials to replicate wood siding, porches, railings and trims. The detailing of these new buildings shall be influenced by the many varying historical styles found within the surrounding Mt. Carmel neighborhood. This area, as previously mentioned, is a melting pot of styles and timeframes, and it is the Applicant's intention that the new structures will reflect this architectural diversity. While the project design will reflect the historic past of the surrounding neighborhood, it will also celebrate its own time in history as well as the surrounding industrial history, such as can be found in the adjacent railroad station complex. There also will be an architectural dialogue between the new buildings and the existing Pelton Mansion.

The siting of the buildings will reflect those shown on the concept site plans, with those structures facing Dongan Place having a more traditional relationship with the adjacent street. While the existing stone wall surrounding the site will be preserved, the buildings facing Dongan Place will be located as close to this historic wall as possible, while also allowing for a connecting sidewalk and landscaping. New street lighting and street trees will also be considered as part of the effort along Dongan Place.

Elevation drawings of Pelton Manor, a conceptual rendering of the proposed new buildings to be placed along Dongan Place along with proposed elevation drawing and site section were submitted to the City Council on December 7, 2015, as a supplement to the SEQR documentation. The site section suggests a different scaling along Dongan Place to that in the inner part of the site. This strategy will help retain the prominence of the existing mansion. Final determinations regarding building massing and placement will be made once the final site mapping has been completed and the property geology has been studied. Images of influential neighboring buildings as well as others found within the City of Poughkeepsie, as sources for design inspiration, were also submitted to the Common Council on December 7, 2015. The mansion is difficult to view during the leaf on season. The landscaping on the site will be thinned and selectively cleared to allow for a stronger presence of the Pelton Mansion, as the site has been seriously overgrown over the past few decades.

Based on this information, the proposed project will not adversely impact any architectural or aesthetic resources or neighborhood character.

(vi) A major change in the use of either the quantity or type of energy.

The proposed action will not result in a major change in the quantity or type of energy used. The proposed new buildings will be designed with new and green technology. Water fixtures will be installed with modern water-saving features, and existing windows will be replaced with new energy efficient, design-compatible windows. A temporary increase in energy usage may occur as a result of the operation of construction equipment.

(vii) The creation of a hazard to human health.

The proposed action will not create any hazards to human health. Correspondence from Ronald Knapp, City of Poughkeepsie Police Chief, dated October 23, 2015, indicates that he finds no concerns regarding this project having a negative impact on the operations of the Police

Department, and that the Police Department has the capacity to support the advancement of the proposed development plan. Correspondence from Mark Johnson, Chief of the City of Poughkeepsie Fire Department, indicates that he has been involved in the review of the proposed project from the initial stages, and it is his opinion that the City of Poughkeepsie Fire Department is capable of handling the needs of the project as proposed. This correspondence is provided as Attachment B of the FEAF. The City Fire Department and Police Department will have the opportunity to further review the site plan once more detailed plans are generated during the site plan review process.

- (viii) *A substantial change in the use, or intensity of use, of land including agricultural, open space or recreational resources, or in its capacity to support existing uses.*

The proposed action will change the current use of the property from a former day nursery to apartments, which are a permitted use in the R-4 zoning district. The adoption of new legislation by New York State (Bill S5812A) authorizes the City of Poughkeepsie to discontinue the use of certain lands as parklands, including the Pelton Mansion site, and to sell and convey such lands to a private entity for a public benefit and economic development, with the dedication of an amount equal to or greater than the fair market value of the property for the acquisition of additional parklands and/or for capital improvements to existing park and recreational facilities. The proposed project includes an area in the northwest corner of the site for limited public access for passive recreation consistent with private use of the property which includes an overlook with benches for public use. Rules related to time of use and conduct will be determined during the site plan approval process. Additionally, as part of the proposed project, the Applicant proposes to make a monetary donation to the City toward the future creation of a "pocket park" with a fountain on the corner across Davies Place from the site or for improvements at an existing City park. There are no agricultural uses in the vicinity of the project site.

Therefore, the proposed project will not have a significant adverse effect on land use, open space, or recreational resources.

- (ix) *The encouraging or attracting of a large number of people to a place or places for more than a few days, compared to the number of people who would come to such place absent the action.*

The proposed action will not encourage or attract a large number of people to the site other than an increase in the number of residents who will occupy the new apartments and a temporary increase in visitors to the site during construction activities.

- (x) *The creation of a material demand for other actions that would result in one of the above consequences.*

The proposed action will not result in a material demand for other actions.

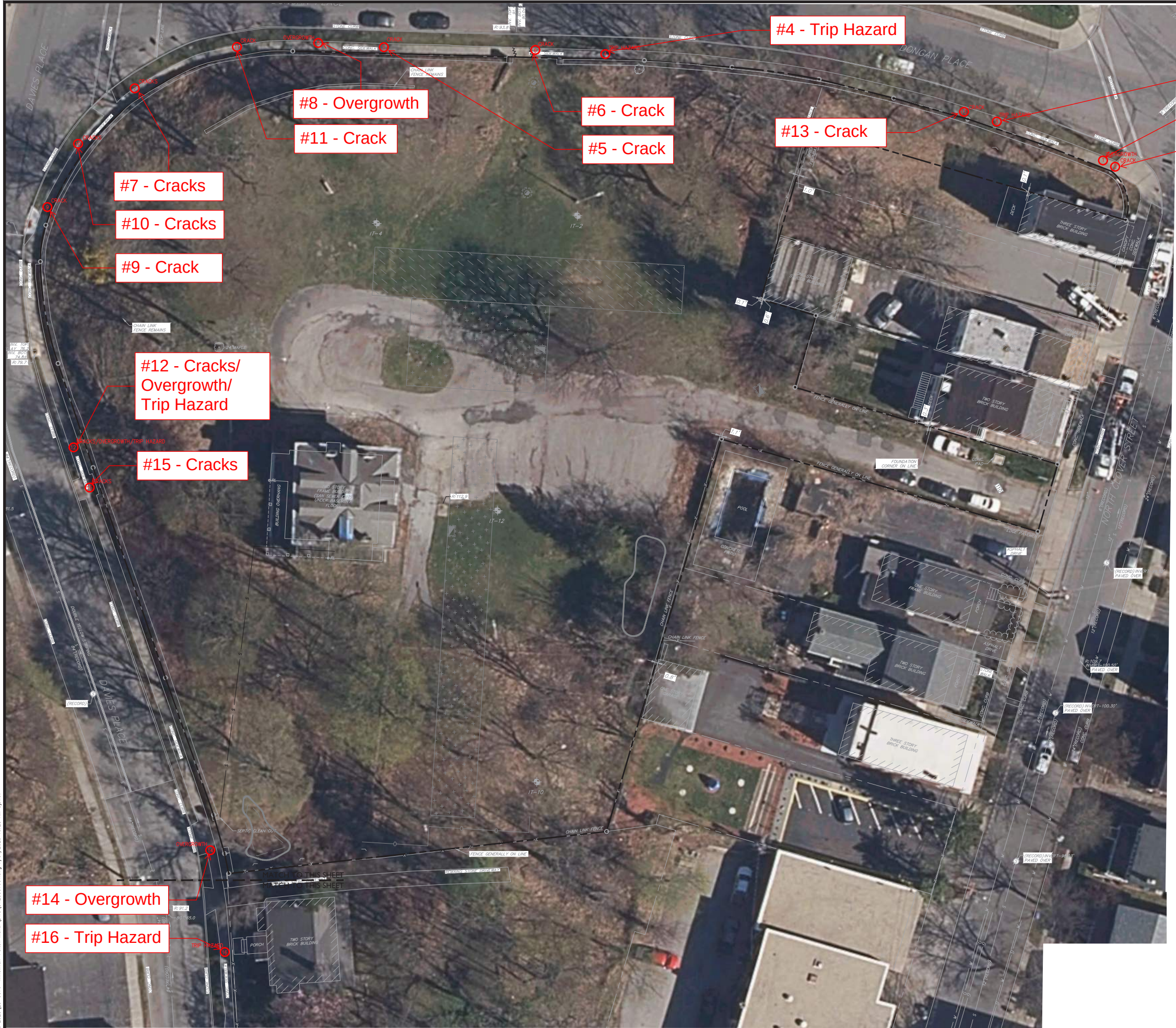
- (xi) *Changes in two or more elements of the environment, no one of which has a significant impact on the environment, but when considered together result in a substantial adverse impact on the environment.*

The proposed action will not result in any significant adverse impacts when considering the combination of any of the described small impacts resulting from the proposed project.

- (xii) *Two or more related actions undertaken, funded or approved by an agency, none of which has or would have a significant impact on the environment, but when considered cumulatively would meet one or more of the criteria in this subdivision.*

There are no other actions being undertaken that are related to the proposed action.

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GRAPHIC SCALE
20 10 0 20
SCALE IN FEET

Revisions			
3	06/04/18	REVISED PER COMMENTS	
2	03/27/18	REVISED PER COMMENTS	
1	10/05/17	ISSUED TO PLANNING BOARD	



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SIDEWALK PLAN

PELTON MOUNT CARMEL
36 N. CLOVER STREET
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	SW23307601.dwg	Sheet No.
Drawn	LRC	Project No.	23-3076	
Checked	KFC	Date	08-29-2017	
Approved	REM	Scale	1"=20'	

SW-I



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16

STORMWATER POLLUTION PREVENTION PLAN

Prepared for

PELTON MOUNT CARMEL

Located at

**36 North Clover Street
City of Poughkeepsie, Dutchess County, NY
Tax ID 6062-75-837228**

Submitted

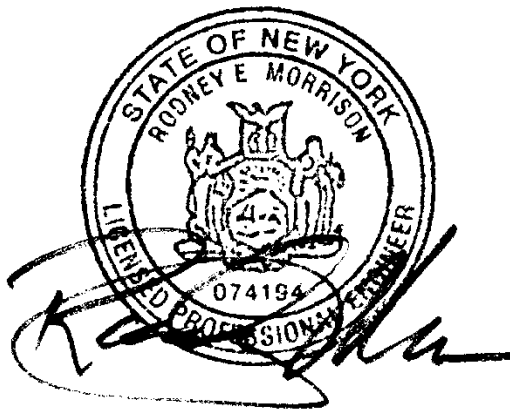
March 27, 2018

Last Revised: October 3, 2023

Prepared for

Pelton Partners, LLC

25 Van Wagner Road
Poughkeepsie, NY 12603



Prepared by



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1.0 INTRODUCTION

This Water Quality and Quantity Plan and Stormwater Pollution Prevention Plan (SWPPP) have been prepared pursuant to the Environmental Protection Agencies' (EPA) and the New York State Department of Environmental Conservations (NYSDEC) Phase II Storm Water Regulations. All parties, as defined below, are responsible for executing the SWPPP and for complying with the requirements set forth in the EPA's National Pollution Discharge Elimination System (NPDES) General Permit, the NYSDEC's State Pollution Discharge Elimination System (SPDES) General Permit GP-0-20-001, and any local governing agencies having jurisdiction with regard to erosion and sediment control.

The purpose of the SWPPP, described herein, is to provide for the proper control and treatment of water quality and quantity impacts due to the proposed project. These controls and treatments will be achieved through the use of appropriate features such as conveyance piping, bio-retention and porous pavement. 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 B**.
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 E** and certify the SWPPP by signing the Owner/Developer's Certification statement contained in **Appendix B** 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 B** 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 B**.
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 B** 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 B** 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
Pelton Partners, LLC 25 Van Wagner Road Poughkeepsie, NY 12603 (845) 473-0200	LRC Engineering & Surveying, PC 85 Civic Center Plaza, Suite 204 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 consists of one existing parcel with a total of 2.46 acres located at 36 North Clover Street, in the City of Poughkeepsie, NY. The property is identified as Tax Parcels 6062-75-837228 according to Dutchess County Parcel Access records. The entrance to the site is located on the west side of North Clover Street and the property also abuts Dongan Street to the North and Davis Place to the West. The project has UTM coordinates of 588513 Easting and 4617843 Northing.

2.2 Topography

The topography at the site can best be described as a rolling ridgeline. The site is located along the high point of the ridge with steeper slopes to the north and west and runoff sheet flows in all directions from the high points on the ridge. The existing site runoff, in the location of the proposed project, drains primarily from east to west and south to north and discharges offsite by sheet flow across the property line towards Donegan Place and Davis Place. The high point of the site is in the southeasterly corner at 115.6 ft, east of the existing Pelton Manor Building. The lowest point on the site is approximately 80 ft located at the intersection of Donegan and Davis Place on the northwester corner of the site. Some runoff also drains south to Spruce Street and east to Delafield Street.

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 Pelton Manor House. The building is surrounded by walkways, patios, and parking for the existing building. There is a combination of grass and trees north and west of the building. The existing Paved Parking area will be resurfaced as part of the proposed project. The existing water shed has 0.55 acres of impervious surface. The proposed development will add 1.04 acres for a total of 1.59 acres of impervious surface.

Offsite drainage areas have been compiled from available mapping, site inspections, and county topographic data. Impervious calculations in this report and used for stormwater calculations are based on total watershed area and may differ from other calculations which are site specific. Detailed land use values for each drainage area can be found in the Hydro CAD reports included in **Appendix I and J**.

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. DxB: Dutchess-Cardigan-Urban Land Complex
 - a. These soil formations consist of very deep, well drained Dutchess Soils and moderately deep, well drained Cardigan Soils. These soils are typically found on hill tops and undulating till plains underlain by folded shale bedrock. Slopes are typically complex and range from 1 to 6 percent.
2. Ur: Urban Land

- a. At the time of the soil survey these areas consisted of impervious surface covering the underlying soil. Slopes range from 0 to 5 percent.

According to NRCS soil hydraulic classifications Dx B is a "Class B" soil. On-site deep testing and infiltration testing around the site stormwater improvements revealed, primarily, a consistent well-draining "Class B" soil type. The results of the onsite soil tests can be found in **Appendix K**.

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 K**.

24-Hour Storm Event	24-hour rainfall
1 year	2.61
2 year	3.16
10 year	4.68
25 year	5.85
100 year	8.22

2.6 Streams and Water Bodies

There are no streams or waterbodies onsite. The nearest water body is the Fall Kill Creek located offsite, to the north

2.7 Wetlands and Floodplains

According to NYSDEC Environmental Resource Mapper there are no ACOE or NYS DEC wetlands located on site. According to FEMA mapping there are no 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, Recreation and Historic Preservation is included in **Appendix N**.

3.0 PROJECT DESCRIPTION

The proposed project will redevelop the existing property. The proposed project will renovate the existing manor house. The project will also construct five new buildings on the site. The project will add parking, walks, patios, and the associated utilities needed to service the existing and new buildings.

The proposed site has been designed to incorporate green infrastructure practices for the detention and treatment of stormwater onsite. The project includes two bio retention basins and 2 porous pavement areas.

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 proposed project consists of redeveloping a portion of the existing site in accordance with Chapter 9 of the NYSDEC Stormwater design Manual. The redevelopment also includes an increase in impervious and that portion

of the project has been designed to meet the entire WQv and RRv volumes. 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. The project avoids impacts to the steep slopes on the west side of the site that will remain undisturbed.

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 west property on the steeper slopes which will be protected and preserved by limiting construction and disturbance to the steep slopes.

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. By placing the development where it is proposed the project avoids disturbance to the steep slopes on the west side of the site.

Open Space Design

The proposed development is designed so the buildings are grouped together. The project is planned to avoid development in the steep slopes to the west which will remain open space.

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 sidewalks are the minimum width to meet City and ADA standards and are proposed where pedestrian circulation is needed.

Driveway Reduction

The drive aisles designed per City code and safe emergency vehicle circulation.

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 parking provided is the minimum needed to meet City code.

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 M**.

5.1 Proposed Runoff Treatment – Water Quality

The project has been designed to take advantage of the good soils on the site 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 L**.

The table below summarizes the volumes required and provided for runoff reduction and water quality; The proposed redevelopment is primarily contained within drainage areas DA 4, through 16 as shown on the pre and post drainage area maps in **Appendix O**. As stated above the site is designed as a redevelopment project with an increase in imperious surface. The new impervious surface is sized to provide 100% WQv and RRv while the redevelopment is designed in accordance with Chapter 9 which allows a reduction to 25% of the required WQv and RRr. Full WQv and RRv calculations can be found in **Appendix L**.

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 bio retention and porous pavement. For this design the entire WQv is provided in a runoff reduction practice so 100% of the RRv will be achieved.

The proposed bio retention and porous pavement exceed 100 percent of the required WQv and RRv.

Pretreatment

According to section 6.4.3 the required pretreatment for bio retention is typically a sedimentation basin over the sand filter bed sized to hold at least 25% of the WQv or 100% WQv when the soil infiltration rate exceeds 5 inches per hour. As shown in Appendix D the bio retention basins meet or exceed the required pretreatment as summarized below;

Bio Retention 1:

WQv: 257.1 cu ft

Pretreatment Required, 100% of WQv: 257.1 cu ft

Pretreatment Surface Ponding Volume: 511.9 cu ft

Bio Retention 2:

WQv: 242.7 cu ft

100% of WQv: 242.7 cu ft

Pretreatment Surface Ponding Volume: 244.55 cu ft

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. three 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 O**. 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	0.10	0.10	0.00
2	0.13	0.12	-0.01
10	0.21	0.19	-0.02
100	0.41	0.35	-0.06

Peak Flow Discharge Rate DP-2			
Storm Event	Pre (cfs)	Post (cfs)	Net Reduction (cfs)
1	1.13	0.17	-0.96
2	1.68	0.27	-1.41

10	3.37	0.57	-2.80
100	7.62	1.72	-5.90

Peak Flow Discharge Rate DP-3			
Storm Event	Pre (cfs)	Post (cfs)	Net Reduction (cfs)
1	0.51	0.39	-0.12
2	0.89	0.63	-0.26
10	2.19	1.42	-0.77
100	5.81	4.19	-1.62

Peak Flow Discharge Rate OVERALL			
Storm Event	Pre (cfs)	Post (cfs)	Net Reduction (cfs)
1	1.74	0.66	-1.08
2	2.70	1.02	-1.68
10	5.77	2.18	-3.59
100	13.84	6.26	-7.58

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 Bio-Retention Areas

Bio Retention Basins are proposed to collect and treat runoff. Bio Retention Basins areas are shallow stormwater basins or landscaped areas which utilize engineered soils and vegetation to capture and treat runoff. In general the basins have been designed so that:

- Flow capacity is sufficient to infiltrate into existing soils.
- Storage and exfiltration rates are sufficient to accommodate water quality volumes.
- Outlet and flow capacity is sufficient to by-pass flows from larger storms.
- The maximum contributing drainage area is less than or equal to 5.0 Acres.

6.3 Porous Pavement

Porous Pavement provides an alternative to conventional asphalt or concrete pavement surfaces and is designed to convey rainfall through the surface and into an underlying reservoir where it can infiltrate.

Porous Pavement is a NYSDEC Approved runoff reduction practice and if designed properly can provide the detention needed to meet the water quantity requirements as described in Section 5.2.

The porous pavement will be limited to the parking stall which will have minimal traffic movement. Traditional paving methods will be used for all access aisles and not porous pavement areas. The porous pavement stone reservoir may extend under the traditional pavement in some locations as needed to accommodate the runoff detention.

- Flow capacity is sufficient to infiltrate into existing soils.
- Storage and exfiltration rates are sufficient to accommodate water quality volumes.

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:

Pre-Construction Activities

- Identify all natural resources and mark and protect them as necessary i.e trees, vegetation, limits of disturbance.
- Identify on-site and downstream surface water bodies and install controls to protect them from sedimentation.
- Establish temporary stone construction entrance pads to capture mud and debris from the tires of construction vehicles.
- Install perimeter sediment controls such as silt fences, as shown on the project plans.
- Install temporary construction fencing as shown on the project plans or as directed by the site engineer.
- All earth disturbances during this phase should be limited to work necessary to install erosion and sedimentation controls.

During Construction Activities

- Complete building demolition in accordance with notes and procedures identified on the demolition plan.
- As site grading is completed install runoff and drainage controls as shown on the project plans and as necessary. These controls should reduce run-off flow rates and velocities, as well as, divert off site and clean run-off.
- Stabilize the conveyance system i.e. ditches, swales, berms etc. by seeding, mulching and installing rock check dams.
- Utilize practices to infiltrate stormwater runoff as much as possible when applicable.
- Stabilize all stormwater runoff outlets as shown on the project plans and as necessary.
- Limit soil disturbance to small areas and preserve as much of the existing vegetation as practical.
- Complete all underground utility improvements prior to installation of hard surface improvements.
- All topsoil stockpiles should be staged in an area away from surface waters and storm drains and should be protected and stabilized.
- Earth disturbance is not allowed in established buffers, within any regulated distance from wetlands, or within the high water line of a body of water affected by tidal action or other such protected zones.
- At any location where surface run-off from disturbed or graded areas may flow off-site, sedimentation control measures must be installed to prevent sedimentation from being transported.
- Regular inspections and maintenance should be performed as described in the following section.

Post-Construction Activities

- Identify the permanent structural or non-structural practices that will remain on the site.
- Provide an Operation & Maintenance (O&M) manual to the new Owner/Developer who is expected to conduct the necessary O&M over the life of the structures as described in Section 10.0 of this report.

9.0 IMPLEMENTING THE SWPPP

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 B** 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 B** 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 C and D** 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 C and D**.

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, coarse 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 C and D**.

11.0 CONCLUSION

The Engineer has designed a NYSDEC-compliant Stormwater Management Plan for the Pelton Mount Carmel project. Overall, the proposed stormwater management system reduces and/or eliminates the impacts of the proposed re-development by controlling and treating stormwater through the use of catch basins, storm-sewer piping, bio retention, and porous pavement. 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

**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 professional¹ conduct an assessment of the site prior to the commencement of construction² 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 stabilization³ 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

CONSTRUCTION DURATION INSPECTIONS
Runoff Control Practices (continued)

Page 3 of _____

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 1 acre 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.

b. Modifications to the SWPPP (To be completed as described below)

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

a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or

3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

This image shows a full page of blank white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for writing or drawing. There are no margins, text, or other markings on the paper.

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.

APPENDIX B

Owner/Developer and Contactor Certification Forms



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

APPENDIX C

Pre/Duration Construction Maintenance Inspection Checklist (NYSDEC Sample)



85 Civic Center Plaza, Suite 103
Poughkeepsie, NY 12601
Phone: (845) 243-2880
Fax: (845) 265-8175

Porous Pavement Operation and Maintenance Checklist

Location:
Site Status:
Date:
Time:
Inspector:

1. SEASONAL MAINTENANCE		
Construction Sequence	Satisfactory / Unsatisfactory	Comments
Vegetated areas maintained		
Paved areas swept		
Litter and debris removed after mowing / sweep operation		
Leaves removed to prevent clogging of porous pavement		
Catch basin sumps cleaned		
Trash racks or hoods cleaned of debris		
2. WINTER MAINTENANCE		
Construction Sequence	Satisfactory / Unsatisfactory	Comments
Snow removed from porous pavement		
Environmentally friendly deicing materials used		
Sweeping and/or vacuuming of deicing materials		
3. UNDERGROUND PRACTICES MAINTENANCE		
Construction Sequence	Satisfactory / Unsatisfactory	Comments

Outlets installed correctly		
Underdrain		
Pretreatment devices installed		
Soil bed composition and texture		
4. VEGETATION		
Construction Sequence	Satisfactory / Unsatisfactory	Comments
Complies with planting specs		
Topsoil adequate in composition and placement		
Adequate erosion control measures in place		
5. FINAL INSPECTION		
Construction Sequence	Satisfactory / Unsatisfactory	Comments
Dimensions		
Proper stone diaphragm		
Proper outlet		
Soil/filter bed permeability testing		
Effective stand of vegetation and stabilization		
Construction generated sediments removed		
Contributing watershed stabilized before flow is diverted to the practice		

Comments:

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on its right side, suggesting it's resting on a surface.

Actions to be Taken:

[illegible]

Bioretention Construction Inspection Checklist

Project:
Location:
Site Status:

Date:

Time:

Inspector:

CONSTRUCTION SEQUENCE	SATISFACTORY/ UNSATISFACTORY	COMMENTS
1. Pre-Construction		
Pre-construction meeting		
Runoff diverted		
Facility area cleared		
If designed as exfilter, soil testing for permeability		
Facility location staked out		
2. Excavation		
Size and location		
Lateral slopes completely level		
If designed as exfilter, ensure that excavation does not compact subsoils.		
Longitudinal slopes within design range		

CONSTRUCTION SEQUENCE	SATISFACTORY / UNSATISFACTORY	COMMENTS
3. Structural Components		
Stone diaphragm installed correctly		
Outlets installed correctly		
Underdrain		
Pretreatment devices installed		
Soil bed composition and texture		
4. Vegetation		
Complies with planting specs		
Topsoil adequate in composition and placement		
Adequate erosion control measures in place		
5. Final Inspection		
Dimensions		
Proper stone diaphragm		
Proper outlet		
Soil/ filter bed permeability testing		
Effective stand of vegetation and stabilization		
Construction generated sediments removed		
Contributing watershed stabilized before flow is diverted to the practice		

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

This image shows a full page of white paper with horizontal black lines, resembling notebook paper. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines in total. A thicker, bolder line runs horizontally across the middle of the page, dividing it into two sections. This line is slightly darker than the others. The rest of the lines are standard weight. The margins are consistent on all sides.

APPENDIX D

Post Construction Operation and Maintenance

Bioretention Operation, Maintenance and Management Inspection Checklist

Project:

Location:

Site Status:

Date:

Time:

Inspector:

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
1. Debris Cleanout (Monthly)		
Bioretention and contributing areas clean of debris		
No dumping of yard wastes into practice		
Litter (branches, etc.) have been removed		
2. Vegetation (Monthly)		
Plant height not less than design water depth		
Fertilized per specifications		
Plant composition according to approved plans		
No placement of inappropriate plants		
Grass height not greater than 6 inches		
No evidence of erosion		
3. Check Dams/Energy Dissipaters/Sumps (Annual, After Major Storms)		
No evidence of sediment buildup		

MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
Sumps should not be more than 50% full of sediment		
No evidence of erosion at downstream toe of drop structure		
4. Dewatering (Monthly)		
Dewaterers between storms		
No evidence of standing water		
5. Sediment Deposition (Annual)		
Swale clean of sediments		
Sediments should not be > 20% of swale design depth		
6. Outlet/Overflow Spillway (Annual, After Major Storms)		
Good condition, no need for repair		
No evidence of erosion		
No evidence of any blockages		
7. Integrity of Filter Bed (Annual)		
Filter bed has not been blocked or filled inappropriately		

Comments:

Actions to be Taken:

POROUS PAVEMENT OPERATION & MAINTENANCE

Seasonal Maintenance

1. Vegetated areas should be maintained to promote vigorous and dense growth in all up land areas. Lawn areas should be mowed at least three times a year but may require more frequent mowing's depending on the growth rate. A solid vegetated growth is needed to minimize soil and sediment erosion onto the porous pavement surface. Mowing should be done such that clippings are not directed onto the porous pavement surface.
2. Over time fine particles of silt build up within the top portion of the porous pavement. Paved areas should be vacuumed at least twice a year, in the early spring for removal of deicing materials and in the fall. The regenerative air sweeper is the most common type of vacuum sweeper in the US and uses a blast and suction cycle to dislodge and pick up surface deposited particles. (Mechanical broom sweepers are not appropriate for cleaning porous pavement and will grind particles into the pavement.) The regenerative air sweeper will not restore a clogged surface but is adequate for routine cleaning.

In order to easily clean out fines and silt material the porous pavement needs to be dry. For dust suppression, vacuum sweepers are designed to dampen the surface before vacuuming. To avoid wetting the pavement the hoppers are preloaded with water so that dust particles can be caught within them. The regenerative air sweeper in full regenerative mode needs to be operated carefully and may still create large amounts of dust because of its strong air blast.

3. If the surface becomes clogged and the infiltration rate decreases by 50% a restoration vacuuming must occur. The more powerful but less common vacuum sweeper is the "pure vacuum sweeper" that has a more powerful suction and works on the same principle as a common vacuum cleaner. It can lift particles out from further down into the pavement and is good for restoring clogged porous pavement. It can also be used for routine maintenance at a low vacuum level.
4. Accumulation of litter and debris should be removed during each mowing or sweep operation. Leafs should be removed weekly during the fall to prevent clogging of the porous pavement.
5. All catch basin sumps and/or roof leader clean outs shall be cleaned out twice a year to prevent the building up of sediment in the basin. If roof drains connect to the porous pavement recharge bed the gutters must be cleaned out twice a year to prevent buildup of sediment and debris. Screens must be maintained on roof leader downspouts.
6. If trash racks or hood are specified on the design plans they shall be kept clean and clear of debris and maintained. If damaged or clogged the trash rack or hood shall be replaced in a timely manner.

Winter Maintenance

1. Snow removed from paved areas should not be piled on the porous pavement.
2. Use of deicing materials should be limited to salt and environmentally friendly chemical products. Use of salt mixtures should be kept to a minimum.
3. Materials used for de-icing should be removed during the early spring by sweeping and/or vacuuming.

4. Sand and dirt shall not be used on porous pavement areas.

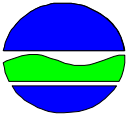
Underground Practices Maintenance

1. A consistent schedule of inspection shall be observed for all system components to insure continued effective operation. All inspections shall be logged. A specific schedule, on a quarterly basis, shall be maintained by the system owner/operator.
2. Areas surrounding the surface access points shall be kept clear of overgrowth.
3. Inspect surface area for settling, cracking, or soft spots and repair as needed.
4. A surface infiltration test must be performed once a year, following the winter clean up and sweeping. The test results must be logged with the inspections and monitored for any decline in infiltration rates.

APPENDIX E

Notice of Intent (NOI)

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)

P e l t o n P a r t n e r s , L L C

Owner/Operator Contact Person Last Name (NOT CONSULTANT)

T i n k e l m a n

Owner/Operator Contact Person First Name

S t e v e n

Owner/Operator Mailing Address

2 5 V a n W a g n e r R o a d

City

P o u g h k e e p s i e

State

N Y

Zip

1 2 6 0 3 -

Phone (Owner/Operator)

8 4 5 - 4 7 3 - 0 2 0 0

Fax (Owner/Operator)

- - -

Email (Owner/Operator)

t i n k @ t i n k a r c h . c o m

FED TAX ID

- (not required for individuals)

Project Site Information

Project/Site Name

P e l t o n M o u n t C a r m e l

Street Address (NOT P.O. BOX)

3 6 N o r t h C l o v e r S t r e e t

Side of Street

☐ North ☐ South ☐ East ☒ West

City/Town/Village (THAT ISSUES BUILDING PERMIT)

C i t y o f P o u g h k e e p s i e

State

N Y

Zip

1 2 6 0 1 -

County

D u t c h e s s

DEC Region

3

Name of Nearest Cross Street

D o n g a n S t r e e t

Distance to Nearest Cross Street (Feet)

0

Project In Relation to Cross Street

☐ North ☒ South ☐ East ☐ West

Tax Map Numbers

Section-Block-Parcel

6 0 6 2 - 7 5 - 8 3 7 2 2 8

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)

5 8 8 5 1 3

Y Coordinates (Northing)

4 6 1 7 8 4 3

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

M u n i c i p a l

**Post-Development
Future Land Use**

- ☐ SINGLE FAMILY HOME
☐ SINGLE FAMILY SUBDIVISION
☐ TOWN HOME RESIDENTIAL
☒ MULTIFAMILY RESIDENTIAL
☐ INSTITUTIONAL/SCHOOL
☐ INDUSTRIAL
☐ COMMERCIAL
☐ MUNICIPAL
☐ ROAD/HIGHWAY
☐ RECREATIONAL/SPORTS FIELD
☐ BIKE PATH/TRAIL
☐ LINEAR UTILITY (water, sewer, gas, etc.)
☐ PARKING LOT
☐ CLEARING/GRADING ONLY
☐ DEMOLITION, NO REDEVELOPMENT
☐ WELL DRILLING ACTIVITY *(Oil, Gas, etc.)
☐ OTHER

Number of Lots

--	--	--

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***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**

			2	.	5
--	--	--	---	---	---

**Total Area To
Be Disturbed**

			2	.	1
--	--	--	---	---	---

**Existing Impervious
Area To Be Disturbed**

			0	.	6
--	--	--	---	---	---

**Future Impervious
Area Within
Disturbed Area**

			1	.	6
--	--	--	---	---	---

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

		0
--	--	---

 %

B

1	0	0
---	---	---

 %

C

		0
--	--	---

 %

D

		0
--	--	---

 %

7. Is this a phased project? ☐ Yes ☒ No

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

Start Date

1	0	/	0	1	/	2	0	2	3
---	---	---	---	---	---	---	---	---	---

End Date

1	0	/	0	1	/	2	0	2	5
---	---	---	---	---	---	---	---	---	---

[illegible][illegible]

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)

9b. How was the wetland identified?

[illegible][illegible]

11. Is this project located in one of the Watersheds identified in Appendix C of GP-0-20-001? ☐ Yes ☒ No

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?

.

Page 4 of 14

☒ Yes ☐ No ☐ Unknown

[illegible]

☐ Yes ☒ No ☐ Unknown

☐ Yes ☒ No

☐ Yes ☒ No

☐ Yes ☒ No

☒ Yes ☐ No

☒ Yes ☐ No

☒ 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

[illegible]

SWPPP Preparer

[illegible]

Contact Name (Last, Space, First)

[illegible]

Mailing Address

8	5		C	i	v	i	c		C	e	n	t	e	r		P	l	a	z	a	,		S	u	i	t	e		2	0	4									
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City

[illegible]

State Zip

N	Y
---	---

1	2	6	0	1
---	---	---	---	---

-

--	--	--	--

Phone

8	4	5
---	---	---

-

2	4	3
---	---	---

-

2	8	8	0
---	---	---	---

Fax

--	--	--	--	--	--	--

Email

[illegible][illegible]

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

[illegible]

MI

E

Last Name

[illegible]

Signature

Date _____

$$\boxed{} \boxed{} \boxed{8} / \boxed{2} \boxed{9} / \boxed{2} \boxed{0} \boxed{2} \boxed{3}$$

25. Has a construction sequence schedule for the planned management practices been prepared? ☒ Yes ☐ No

☒ 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

Other

[illegible]

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

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

. **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)**

<u>RR Techniques (Area Reduction)</u>	<u>Total Contributing Area (acres)</u>	<u>Total Contributing Impervious Area (acres)</u>												
☐ Conservation of Natural Areas (RR-1) ...	<table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>							and/or <table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>						
☐ Sheetflow to Riparian Buffers/Filters Strips (RR-2)	<table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>							and/or <table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>						
☐ Tree Planting/Tree Pit (RR-3)	<table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>							and/or <table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>						
☐ Disconnection of Rooftop Runoff (RR-4) ..	<table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>							and/or <table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>						
<u>RR Techniques (Volume Reduction)</u>														
☐ Vegetated Swale (RR-5)		<table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>												
☐ Rain Garden (RR-6)		<table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>												
☐ Stormwater Planter (RR-7)		<table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>												
☐ Rain Barrel/Cistern (RR-8)		<table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>												
☐ Porous Pavement (RR-9)		<table border="1"><tr><td></td><td>1</td><td></td></tr></table> . <table border="1"><tr><td>2</td><td>6</td><td></td></tr></table>		1		2	6							
	1													
2	6													
☐ Green Roof (RR-10)		<table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>												
<u>Standard SMPs with RRv Capacity</u>														
☐ Infiltration Trench (I-1)		<table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>												
☐ Infiltration Basin (I-2)		<table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>												
☐ Dry Well (I-3)		<table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>												
☐ Underground Infiltration System (I-4)		<table border="1"><tr><td></td><td></td><td></td></tr></table> . <table border="1"><tr><td></td><td></td><td></td></tr></table>												
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Alternative SMP

[illegible]

[illegible][illegible]

30. Indicate the Total RRv provided by the RR techniques (Area/Volume Reduction) and Standard SMPs with RRv capacity identified in question 29.

		0	.	1	7	
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acre-feet

- ☒ Yes ☐ No

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.

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acre-feet

- ☐ Yes ☐ No

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

5 . 8 CFS

Post-development

2 . 2 CFS

Total Extreme Flood Control Criteria (Qf)

Pre-Development

1 3 . 8 CFS

Post-development

6 . 3 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

- ☒ Yes ☐ No

If Yes, Identify the entity responsible for the long term
Operation and Maintenance

[illegible]

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						
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[illegible]

☐ 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?
(If No, skip question 43)

☒ Yes ☐ No

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	P				
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N	Y	R						
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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

S	t	e	v	e	n														
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MI

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Print Last Name

T	i	n	k	e	l	m	a	n											
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Owner/Operator Signature

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Date

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APPENDIX F

Notice of Termination (NOT)

**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)

APPENDIX G

NYSDEC SPDES General Permit GP-0-20-001



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

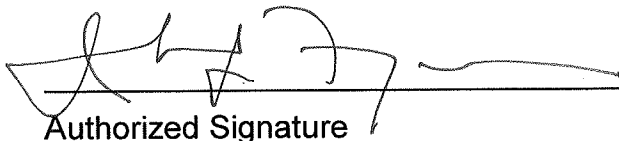
Issued Pursuant to Article 17, Titles 7, 8 and Article 70
of the Environmental Conservation Law

Effective Date: January 29, 2020

Expiration Date: January 28, 2025

John J. Ferguson

Chief Permit Administrator



Authorized Signature

1-23-20
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

Discharges 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 discharges*;
 - (ii) Control stormwater *discharges*, 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 *discharges* from the site;
 - (vi) Provide and maintain *natural buffers* around surface waters, direct stormwater to vegetated areas and maximize stormwater infiltration to reduce *pollutant discharges*, 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.** *Discharges* from *dewatering* activities, including *discharges* 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 *discharges* 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 *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.

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 *discharges* 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 *discharges* 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 *discharges* 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 *discharges* 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 *discharges*; 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 *discharges* from *construction site* de-watering operations. All non-stormwater discharges must be identified in the SWPPP. Under all circumstances, the *owner or operator* must still comply with *water quality standards* in Part I.D of this permit.
4. The *owner or operator* must maintain permit eligibility to *discharge* under this permit. Any *discharges* that are not compliant with the eligibility conditions of this permit are not authorized by the permit and the *owner or operator* must either apply for a separate permit to cover those ineligible *discharges* or take steps necessary to make the *discharge* eligible for coverage.

F. Activities Which Are Ineligible for Coverage Under This General Permit

All of the following are **not** authorized by this permit:

1. *Discharges after construction activities* have been completed and the site has undergone *final stabilization*;
2. *Discharges* 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 *discharges* 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 *discharges* 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. *Discharges from construction activities* that are subject to an existing SPDES individual or general permit where a SPDES permit for *construction activity* has been terminated or denied; or where the *owner or operator* has failed to renew an expired individual permit.

Part II. PERMIT COVERAGE

A. How to Obtain Coverage

1. An *owner or operator* of a *construction activity* that is not subject to the requirements of a regulated, traditional land use control MS4 must first prepare a SWPPP in accordance with all applicable requirements of this permit and then submit a completed Notice of Intent (NOI) to the Department to be authorized to discharge under this permit.
2. An *owner or operator* of a *construction activity* that is subject to the requirements of a *regulated, traditional land use control MS4* must first prepare a SWPPP in accordance with all applicable requirements of this permit and then have the SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department. The *owner or operator* shall have the “MS4 SWPPP Acceptance” form signed in accordance with Part VII.H., and then submit that form along with a completed NOI to the Department.
3. The requirement for an *owner or operator* to have its SWPPP reviewed and accepted by the *regulated, traditional land use control MS4* prior to submitting the NOI to the Department does not apply to an *owner or operator* that is obtaining permit coverage in accordance with the requirements in Part II.F. (Change of Owner or Operator) or where the *owner or operator* of the *construction activity* is the *regulated, traditional land use control MS4*. This exemption does not apply to *construction activities* subject to the New York City Administrative Code.

B. Notice of Intent (NOI) Submittal

1. Prior to December 21, 2020, an owner or operator shall use either the electronic (eNOI) or paper version of the NOI that the Department prepared. Both versions of the NOI are located on the Department's website (<http://www.dec.ny.gov/>). The paper version of the NOI shall be signed in accordance with Part VII.H. of this permit and submitted to the following address:

**NOTICE OF INTENT
NYS DEC, Bureau of Water Permits
625 Broadway, 4th Floor
Albany, New York 12233-3505**

2. Beginning December 21, 2020 and in accordance with EPA's 2015 NPDES Electronic Reporting Rule (40 CFR Part 127), the *owner or operator* must submit the NOI electronically using the *Department's* online NOI.
3. The *owner or operator* shall have the SWPPP preparer sign the "SWPPP Preparer Certification" statement on the NOI prior to submitting the form to the Department.
4. As of the date the NOI is submitted to the Department, the *owner or operator* shall make the NOI and SWPPP available for review and copying in accordance with the requirements in Part VII.F. of this permit.

C. Permit Authorization

1. An *owner or operator* shall not *commence construction activity* until their authorization to *discharge* under this permit goes into effect.
2. Authorization to *discharge* under this permit will be effective when the *owner or operator* has satisfied all of the following criteria:
 - a. project review pursuant to the State Environmental Quality Review Act ("SEQRA") have been satisfied, when SEQRA is applicable. See the Department's website (<http://www.dec.ny.gov/>) for more information,
 - b. where required, all necessary Department permits subject to the *Uniform Procedures Act* ("UPA") (see 6 NYCRR Part 621), or the equivalent from another New York State agency, have been obtained, unless otherwise notified by the Department pursuant to 6 NYCRR 621.3(a)(4). *Owners or operators of construction activities* that are required to obtain UPA permits

must submit a preliminary SWPPP to the appropriate DEC Permit Administrator at the Regional Office listed in Appendix F at the time all other necessary *UPA* permit applications are submitted. The preliminary SWPPP must include sufficient information to demonstrate that the *construction activity* qualifies for authorization under this permit,

- c. the final SWPPP has been prepared, and
 - d. a complete NOI has been submitted to the Department in accordance with the requirements of this permit.
3. An *owner or operator* that has satisfied the requirements of Part II.C.2 above will be authorized to *discharge* stormwater from their *construction activity* in accordance with the following schedule:
- a. For *construction activities* that are not subject to the requirements of a *regulated, traditional land use control MS4*:
 - (i) Five (5) business days from the date the Department receives a complete electronic version of the NOI (eNOI) for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.; or
 - (ii) Sixty (60) business days from the date the Department receives a complete NOI (electronic or paper version) for *construction activities* with a SWPPP that has not been prepared in conformance with the design criteria in technical standard referenced in Part III.B.1. or, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C., the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, or;
 - (iii) Ten (10) business days from the date the Department receives a complete paper version of the NOI for *construction activities* with a SWPPP that has been prepared in conformance with the design criteria in the technical standard referenced in Part III.B.1 and the *performance criteria* in the technical standard referenced in Parts III.B., 2 or 3, for *construction activities* that require post-construction stormwater management practices pursuant to Part III.C.

- b. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*:
 - (i) Five (5) business days from the date the Department receives both a complete electronic version of the NOI (eNOI) and signed “MS4 SWPPP Acceptance” form, or
 - (ii) Ten (10) business days from the date the Department receives both a complete paper version of the NOI and signed “MS4 SWPPP Acceptance” form.
- 4. Coverage under this permit authorizes stormwater *discharges* from only those areas of disturbance that are identified in the NOI. If an *owner or operator* wishes to have stormwater *discharges* from future or additional areas of disturbance authorized, they must submit a new NOI that addresses that phase of the development, unless otherwise notified by the Department. The *owner or operator* shall not *commence construction activity* on the future or additional areas until their authorization to *discharge* under this permit goes into effect in accordance with Part II.C. of this permit.

D. General Requirements For Owners or Operators With Permit Coverage

- 1. The *owner or operator* shall ensure that the provisions of the SWPPP are implemented from the *commencement of construction activity* until all areas of disturbance have achieved *final stabilization* and the Notice of Termination (“NOT”) has been submitted to the Department in accordance with Part V. of this permit. This includes any changes made to the SWPPP pursuant to Part III.A.4. of this permit.
- 2. The *owner or operator* shall maintain a copy of the General Permit (GP-0-20-001), NOI, *NOI Acknowledgment Letter*, SWPPP, MS4 SWPPP Acceptance form, inspection reports, responsible contractor’s or subcontractor’s certification statement (see Part III.A.6.), and all documentation necessary to demonstrate eligibility with this permit at the *construction site* until all disturbed areas have achieved *final stabilization* and the NOT has been submitted to the Department. The documents must be maintained in a secure location, such as a job trailer, on-site construction office, or mailbox with lock. The secure location must be accessible during normal business hours to an individual performing a compliance inspection.
- 3. The *owner or operator* of a *construction activity* shall not disturb greater than five (5) acres of soil at any one time without prior written authorization from the Department or, in areas under the jurisdiction of a *regulated, traditional land*

use control MS4, the regulated, traditional land use control MS4 (provided the regulated, traditional land use control MS4 is not the owner or operator of the construction activity). At a minimum, the owner or operator must comply with the following requirements in order to be authorized to disturb greater than five (5) acres of soil at any one time:

- a. The *owner or operator* shall have a *qualified inspector* conduct **at least** two (2) site inspections in accordance with Part IV.C. of this permit every seven (7) calendar days, for as long as greater than five (5) acres of soil remain disturbed. The two (2) inspections shall be separated by a minimum of two (2) full calendar days.
 - b. In areas where soil disturbance activity has temporarily or permanently ceased, the application of soil stabilization measures must be initiated by the end of the next business day and completed within seven (7) days from the date the current soil disturbance activity ceased. The soil stabilization measures selected shall be in conformance with the technical standard, New York State Standards and Specifications for Erosion and Sediment Control, dated November 2016.
 - c. The *owner or operator* shall prepare a phasing plan that defines maximum disturbed area per phase and shows required cuts and fills.
 - d. The *owner or operator* shall install any additional site-specific practices needed to protect water quality.
 - e. The *owner or operator* shall include the requirements above in their SWPPP.
4. In accordance with statute, regulations, and the terms and conditions of this permit, the Department may suspend or revoke an *owner's or operator's* coverage under this permit at any time if the Department determines that the SWPPP does not meet the permit requirements or consistent with Part VII.K..
 5. Upon a finding of significant non-compliance with the practices described in the SWPPP or violation of this permit, the Department may order an immediate stop to all activity at the site until the non-compliance is remedied. The stop work order shall be in writing, describe the non-compliance in detail, and be sent to the *owner or operator*.
 6. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4*, the *owner or operator* shall notify the

regulated, traditional land use control MS4 in writing of any planned amendments or modifications to the post-construction stormwater management practice component of the SWPPP required by Part III.A. 4. and 5. of this permit. Unless otherwise notified by the *regulated, traditional land use control MS4*, the *owner or operator* shall have the SWPPP amendments or modifications reviewed and accepted by the *regulated, traditional land use control MS4* prior to commencing construction of the post-construction stormwater management practice.

E. Permit Coverage for Discharges Authorized Under GP-0-15-002

1. Upon renewal of SPDES General Permit for Stormwater Discharges from *Construction Activity* (Permit No. GP-0-15-002), an *owner or operator* of a *construction activity* with coverage under GP-0-15-002, as of the effective date of GP- 0-20-001, shall be authorized to *discharge* in accordance with GP- 0-20-001, unless otherwise notified by the Department.

An *owner or operator* may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization. However, they must comply with the other, non-design provisions of GP-0-20-001.

F. Change of Owner or Operator

1. When property ownership changes or when there is a change in operational control over the construction plans and specifications, the original *owner or operator* must notify the new *owner or operator*, in writing, of the requirement to obtain permit coverage by submitting a NOI with the Department. For *construction activities* subject to the requirements of a *regulated, traditional land use control MS4*, the original *owner or operator* must also notify the MS4, in writing, of the change in ownership at least 30 calendar days prior to the change in ownership.
2. Once the new *owner or operator* obtains permit coverage, the original *owner or operator* shall then submit a completed NOT with the name and permit identification number of the new *owner or operator* to the Department at the address in Part II.B.1. of this permit. If the original *owner or operator* maintains ownership of a portion of the *construction activity* and will disturb soil, they must maintain their coverage under the permit.
3. Permit coverage for the new *owner or operator* will be effective as of the date the Department receives a complete NOI, provided the original *owner or*

operator was not subject to a sixty (60) business day authorization period that has not expired as of the date the Department receives the NOI from the new *owner or operator*.

Part III. STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. General SWPPP Requirements

1. A SWPPP shall be prepared and implemented by the *owner or operator* of each *construction activity* covered by this permit. The SWPPP must document the selection, design, installation, implementation and maintenance of the control measures and practices that will be used to meet the effluent limitations in Part I.B. of this permit and where applicable, the post-construction stormwater management practice requirements in Part I.C. of this permit. The SWPPP shall be prepared prior to the submittal of the NOI. The NOI shall be submitted to the Department prior to the *commencement of construction activity*. A copy of the completed, final NOI shall be included in the SWPPP.
2. The SWPPP shall describe the erosion and sediment control practices and where required, post-construction stormwater management practices that will be used and/or constructed to reduce the *pollutants* in stormwater *discharges* and to assure compliance with the terms and conditions of this permit. In addition, the SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater *discharges*.
3. All SWPPPs that require the post-construction stormwater management practice component shall be prepared by a *qualified professional* that is knowledgeable in the principles and practices of stormwater management and treatment.
4. The *owner or operator* must keep the SWPPP current so that it at all times accurately documents the erosion and sediment controls practices that are being used or will be used during construction, and all post-construction stormwater management practices that will be constructed on the site. At a minimum, the *owner or operator* shall amend the SWPPP, including construction drawings:
 - a. whenever the current provisions prove to be ineffective in minimizing *pollutants* in stormwater *discharges* from the site;

- b. whenever there is a change in design, construction, or operation at the *construction site* that has or could have an effect on the *discharge* of *pollutants*;
 - c. to address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department or other regulatory authority; and
 - d. to document the final construction conditions.
5. The Department may notify the *owner or operator* at any time that the SWPPP does not meet one or more of the minimum requirements of this permit. The notification shall be in writing and identify the provisions of the SWPPP that require modification. Within fourteen (14) calendar days of such notification, or as otherwise indicated by the Department, the *owner or operator* shall make the required changes to the SWPPP and submit written notification to the Department that the changes have been made. If the *owner or operator* does not respond to the Department's comments in the specified time frame, the Department may suspend the *owner's or operator's* coverage under this permit or require the *owner or operator* to obtain coverage under an individual SPDES permit in accordance with Part II.D.4. of this permit.
6. Prior to the *commencement of construction activity*, the *owner or operator* must identify the contractor(s) and subcontractor(s) that will be responsible for installing, constructing, repairing, replacing, inspecting and maintaining the erosion and sediment control practices included in the SWPPP; and the contractor(s) and subcontractor(s) that will be responsible for constructing the post-construction stormwater management practices included in the SWPPP. The *owner or operator* shall have each of the contractors and subcontractors identify at least one person from their company that will be responsible for implementation of the SWPPP. This person shall be known as the *trained contractor*. The *owner or operator* shall ensure that at least one *trained contractor* is on site on a daily basis when soil disturbance activities are being performed.

The *owner or operator* shall have each of the contractors and subcontractors identified above sign a copy of the following certification statement below before they commence any *construction activity*:

"I hereby certify under penalty of law that I understand and agree to comply with the terms and conditions of the SWPPP and agree to implement any corrective actions identified by the *qualified inspector* during a site inspection. I also understand that the *owner or operator* must comply with

the terms and conditions of the most current version of the New York State Pollutant Discharge Elimination System ("SPDES") general permit for stormwater *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"

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

- I. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.
5. Within one business day of the completion of an inspection, the *qualified inspector* shall notify the *owner or operator* and appropriate contractor or subcontractor identified in Part III.A.6. of this permit of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame.
6. All inspection reports shall be signed by the *qualified inspector*. Pursuant to Part II.D.2. of this permit, the inspection reports shall be maintained on site with the SWPPP.

Part V. TERMINATION OF PERMIT COVERAGE

A. Termination of Permit Coverage

1. An *owner or operator* that is eligible to terminate coverage under this permit must submit a completed NOT form to the address in Part II.B.1 of this permit. The NOT form shall be one which is associated with this permit, signed in accordance with Part VII.H of this permit.
2. An *owner or operator* may terminate coverage when one or more the following conditions have been met:
 - a. Total project completion - All *construction activity* identified in the SWPPP has been completed; and all areas of disturbance have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational;

- b. Planned shutdown with partial project completion - All soil disturbance activities have ceased; and all areas disturbed as of the project shutdown date have achieved *final stabilization*; and all temporary, structural erosion and sediment control measures have been removed; and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational;
 - c. A new *owner or operator* has obtained coverage under this permit in accordance with Part II.F. of this permit.
 - d. The *owner or operator* obtains coverage under an alternative SPDES general permit or an individual SPDES permit.
3. For *construction activities* meeting subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *qualified inspector* perform a final site inspection prior to submitting the NOT. The *qualified inspector* shall, by signing the “*Final Stabilization*” and “Post-Construction Stormwater Management Practice certification statements on the NOT, certify that all the requirements in Part V.A.2.a. or b. of this permit have been achieved.
4. For *construction activities* that are subject to the requirements of a *regulated, traditional land use control MS4* and meet subdivision 2a. or 2b. of this Part, the *owner or operator* shall have the *regulated, traditional land use control MS4* sign the “MS4 Acceptance” statement on the NOT in accordance with the requirements in Part VII.H. of this permit. The *regulated, traditional land use control MS4* official, by signing this statement, has determined that it is acceptable for the *owner or operator* to submit the NOT in accordance with the requirements of this Part. The *regulated, traditional land use control MS4* can make this determination by performing a final site inspection themselves or by accepting the *qualified inspector’s* final site inspection certification(s) required in Part V.A.3. of this permit.
5. For *construction activities* that require post-construction stormwater management practices and meet subdivision 2a. of this Part, the *owner or operator* must, prior to submitting the NOT, ensure one of the following:
- a. the post-construction stormwater management practice(s) and any right-of-way(s) needed to maintain such practice(s) have been deeded to the municipality in which the practice(s) is located,

- b. an executed maintenance agreement is in place with the municipality that will maintain the post-construction stormwater management practice(s),
- c. for post-construction stormwater management practices that are privately owned, the *owner or operator* has a mechanism in place that requires operation and maintenance of the practice(s) in accordance with the operation and maintenance plan, such as a deed covenant in the *owner or operator's* deed of record,
- d. for post-construction stormwater management practices that are owned by a public or private institution (e.g. school, university, hospital), government agency or authority, or public utility; the *owner or operator* has policy and procedures in place that ensures operation and maintenance of the practices in accordance with the operation and maintenance plan.

Part VI. REPORTING AND RETENTION RECORDS

A. Record Retention

The *owner or operator* shall retain a copy of the NOI, NOI Acknowledgment Letter, SWPPP, MS4 SWPPP Acceptance form and any inspection reports that were prepared in conjunction with this permit for a period of at least five (5) years from the date that the Department receives a complete NOT submitted in accordance with Part V. of this general permit.

B. Addresses

With the exception of the NOI, NOT, and MS4 SWPPP Acceptance form (which must be submitted to the address referenced in Part II.B.1 of this permit), all written correspondence requested by the Department, including individual permit applications, shall be sent to the address of the appropriate DOW Water (SPDES) Program contact at the Regional Office listed in Appendix F.

Part VII. STANDARD PERMIT CONDITIONS

A. Duty to Comply

The *owner or operator* must comply with all conditions of this permit. All contractors and subcontractors associated with the project must comply with the terms of the SWPPP. Any non-compliance with this permit constitutes a violation of the Clean Water

Act (CWA) and the ECL and is grounds for an enforcement action against the *owner or operator* and/or the contractor/subcontractor; permit revocation, suspension or modification; or denial of a permit renewal application. Upon a finding of significant non-compliance with this permit or the applicable SWPPP, the Department may order an immediate stop to all *construction activity* at the site until the non-compliance is remedied. The stop work order shall be in writing, shall describe the non-compliance in detail, and shall be sent to the *owner or operator*.

If any human remains or archaeological remains are encountered during excavation, the *owner or operator* must immediately cease, or cause to cease, all *construction activity* in the area of the remains and notify the appropriate Regional Water Engineer (RWE). *Construction activity* shall not resume until written permission to do so has been received from the RWE.

B. Continuation of the Expired General Permit

This permit expires five (5) years from the effective date. If a new general permit is not issued prior to the expiration of this general permit, an *owner or operator* with coverage under this permit may continue to operate and *discharge* in accordance with the terms and conditions of this general permit, if it is extended pursuant to the State Administrative Procedure Act and 6 NYCRR Part 621, until a new general permit is issued.

C. Enforcement

Failure of the *owner or operator*, its contractors, subcontractors, agents and/or assigns to strictly adhere to any of the permit requirements contained herein shall constitute a violation of this permit. There are substantial criminal, civil, and administrative penalties associated with violating the provisions of this permit. Fines of up to \$37,500 per day for each violation and imprisonment for up to fifteen (15) years may be assessed depending upon the nature and degree of the offense.

D. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for an *owner or operator* in an enforcement action that it would have been necessary to halt or reduce the *construction activity* in order to maintain compliance with the conditions of this permit.

E. Duty to Mitigate

The *owner or operator* and its contractors and subcontractors shall take all reasonable steps to *minimize* or prevent any *discharge* in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

F. Duty to Provide Information

The *owner or operator* shall furnish to the Department, within a reasonable specified time period of a written request, all documentation necessary to demonstrate eligibility and any information to determine compliance with this permit or to determine whether cause exists for modifying or revoking this permit, or suspending or denying coverage under this permit, in accordance with the terms and conditions of this permit. The NOI, SWPPP and inspection reports required by this permit are public documents that the *owner or operator* must make available for review and copying by any person within five (5) business days of the *owner or operator* receiving a written request by any such person to review these documents. Copying of documents will be done at the requester's expense.

G. Other Information

When the *owner or operator* becomes aware that they failed to submit any relevant facts, or submitted incorrect information in the NOI or in any of the documents required by this permit, or have made substantive revisions to the SWPPP (e.g. the scope of the project changes significantly, the type of post-construction stormwater management practice(s) changes, there is a reduction in the sizing of the post-construction stormwater management practice, or there is an increase in the disturbance area or *impervious area*), which were not reflected in the original NOI submitted to the Department, they shall promptly submit such facts or information to the Department using the contact information in Part II.A. of this permit. Failure of the *owner or operator* to correct or supplement any relevant facts within five (5) business days of becoming aware of the deficiency shall constitute a violation of this permit.

H. Signatory Requirements

1. All NOIs and NOTs shall be signed as follows:
 - a. For a corporation these forms shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

- (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
 - (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
- b. For a partnership or sole proprietorship these forms shall be signed by a general partner or the proprietor, respectively; or
- c. For a municipality, State, Federal, or other public agency these forms shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - (i) the chief executive officer of the agency, or
 - (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
- 2. The SWPPP and other information requested by the Department shall be signed by a person described in Part VII.H.1. of this permit or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part VII.H.1. of this permit;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field,

superintendent, position of *equivalent* responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position) and,

- c. The written authorization shall include the name, title and signature of the authorized representative and be attached to the SWPPP.
3. All inspection reports shall be signed by the *qualified inspector* that performs the inspection.
4. The MS4 SWPPP Acceptance form shall be signed by the principal executive officer or ranking elected official from the *regulated, traditional land use control MS4*, or by a duly authorized representative of that person.

It shall constitute a permit violation if an incorrect and/or improper signatory authorizes any required forms, SWPPP and/or inspection reports.

I. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations. *Owners or operators* must obtain any applicable conveyances, easements, licenses and/or access to real property prior to *commencing construction activity*.

J. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

K. Requirement to Obtain Coverage Under an Alternative Permit

1. The Department may require any owner or operator authorized by this permit to apply for and/or obtain either an individual SPDES permit or another SPDES general permit. When the Department requires any discharger authorized by a general permit to apply for an individual SPDES permit, it shall notify the discharger in writing that a permit application is required. This notice shall

include a brief statement of the reasons for this decision, an application form, a statement setting a time frame for the owner or operator to file the application for an individual SPDES permit, and a deadline, not sooner than 180 days from owner or operator receipt of the notification letter, whereby the authorization to discharge under this general permit shall be terminated. Applications must be submitted to the appropriate Permit Administrator at the Regional Office. The Department may grant additional time upon demonstration, to the satisfaction of the Department, that additional time to apply for an alternative authorization is necessary or where the Department has not provided a permit determination in accordance with Part 621 of this Title.

2. When an individual SPDES permit is issued to a discharger authorized to *discharge* under a general SPDES permit for the same *discharge(s)*, the general permit authorization for outfalls authorized under the individual SPDES permit is automatically terminated on the effective date of the individual permit unless termination is earlier in accordance with 6 NYCRR Part 750.

L. Proper Operation and Maintenance

The *owner or operator* shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the *owner or operator* to achieve compliance with the conditions of this permit and with the requirements of the SWPPP.

M. Inspection and Entry

The *owner or operator* shall allow an authorized representative of the Department, EPA, applicable county health department, or, in the case of a *construction site* which *discharges* through an *MS4*, an authorized representative of the *MS4* receiving the discharge, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the owner's or operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this permit;
2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit; and

3. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment), practices or operations regulated or required by this permit.
4. Sample or monitor at reasonable times, for purposes of assuring permit compliance or as otherwise authorized by the Act or ECL, any substances or parameters at any location.

N. Permit Actions

This permit may, at any time, be modified, suspended, revoked, or renewed by the Department in accordance with 6 NYCRR Part 621. The filing of a request by the *owner or operator* for a permit modification, revocation and reissuance, termination, a notification of planned changes or anticipated noncompliance does not limit, diminish and/or stay compliance with any terms of this permit.

O. Definitions

Definitions of key terms are included in Appendix A of this permit.

P. Re-Opener Clause

1. If there is evidence indicating potential or realized impacts on water quality due to any stormwater discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or alternative general permit in accordance with Part VII.K. of this permit or the permit may be modified to include different limitations and/or requirements.
2. Any Department initiated permit modification, suspension or revocation will be conducted in accordance with 6 NYCRR Part 621, 6 NYCRR 750-1.18, and 6 NYCRR 750-1.20.

Q. Penalties for Falsification of Forms and Reports

In accordance with 6NYCRR Part 750-2.4 and 750-2.5, any person who knowingly makes any false material statement, representation, or certification in any application, record, report or other document filed or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished in accordance with ECL §71-1933 and or Articles 175 and 210 of the New York State Penal Law.

R. Other Permits

Nothing in this permit relieves the *owner or operator* from a requirement to obtain any other permits required by law.

APPENDIX A – Acronyms and Definitions

Acronyms

APO – Agency Preservation Officer
BMP – Best Management Practice
CPESC – Certified Professional in Erosion and Sediment Control
Cpv – Channel Protection Volume
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
DOW – Division of Water
EAF – Environmental Assessment Form
ECL - Environmental Conservation Law
EPA – U. S. Environmental Protection Agency
HSG – Hydrologic Soil Group
MS4 – Municipal Separate Storm Sewer System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
OPRHP – Office of Parks, Recreation and Historic Places
Qf – Extreme Flood
Qp – Overbank Flood
RRv – Runoff Reduction Volume
RWE – Regional Water Engineer
SEQR – State Environmental Quality Review
SEQRA - State Environmental Quality Review Act
SHPA – State Historic Preservation Act
SPDES – State Pollutant Discharge Elimination System
SWPPP – Stormwater Pollution Prevention Plan
TMDL – Total Maximum Daily Load
UPA – Uniform Procedures Act
USDA – United States Department of Agriculture
WQv – Water Quality Volume

Definitions

All definitions in this section are solely for the purposes of this permit.

Agricultural Building – a structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products; excluding any structure designed, constructed or used, in whole or in part, for human habitation, as a place of employment where agricultural products are processed, treated or packaged, or as a place used by the public.

Agricultural Property – means the land for construction of a barn, *agricultural building*, silo, stockyard, pen or other structural practices identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State” prepared by the Department in cooperation with agencies of New York Nonpoint Source Coordinating Committee (dated June 2007).

Alter Hydrology from Pre to Post-Development Conditions - means the post-development peak flow rate(s) has increased by more than 5% of the pre-developed condition for the design storm of interest (e.g. 10 yr and 100 yr).

Combined Sewer - means a sewer that is designed to collect and convey both “sewage” and “stormwater”.

Commence (Commencement of) Construction Activities - means the initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. See definition for “*Construction Activity(ies)*” also.

Construction Activity(ies) - means any clearing, grading, excavation, filling, demolition or stockpiling activities that result in soil disturbance. Clearing activities can include, but are not limited to, logging equipment operation, the cutting and skidding of trees, stump removal and/or brush root removal. Construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Construction Site – means the land area where *construction activity(ies)* will occur. See definition for “*Commence (Commencement of) Construction Activities*” and “*Larger Common Plan of Development or Sale*” also.

Dewatering – means the act of draining rainwater and/or groundwater from building foundations, vaults or excavations/trenches.

Direct Discharge (to a specific surface waterbody) - means that runoff flows from a *construction site* by overland flow and the first point of discharge is the specific surface waterbody, or runoff flows from a *construction site* to a separate storm sewer system

and the first point of discharge from the separate storm sewer system is the specific surface waterbody.

Discharge(s) - means any addition of any pollutant to waters of the State through an outlet or *point source*.

Embankment – means an earthen or rock slope that supports a road/highway.

Endangered or Threatened Species – see 6 NYCRR Part 182 of the Department’s rules and regulations for definition of terms and requirements.

Environmental Conservation Law (ECL) - means chapter 43-B of the Consolidated Laws of the State of New York, entitled the Environmental Conservation Law.

Equivalent (Equivalence) – means that the practice or measure meets all the performance, longevity, maintenance, and safety objectives of the technical standard and will provide an equal or greater degree of water quality protection.

Final Stabilization - means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock rip-rap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

General SPDES permit - means a SPDES permit issued pursuant to 6 NYCRR Part 750-1.21 and Section 70-0117 of the ECL authorizing a category of discharges.

Groundwater(s) - means waters in the saturated zone. The saturated zone is a subsurface zone in which all the interstices are filled with water under pressure greater than that of the atmosphere. Although the zone may contain gas-filled interstices or interstices filled with fluids other than water, it is still considered saturated.

Historic Property – means any building, structure, site, object or district that is listed on the State or National Registers of Historic Places or is determined to be eligible for listing on the State or National Registers of Historic Places.

Impervious Area (Cover) - means all impermeable surfaces that cannot effectively infiltrate rainfall. This includes paved, concrete and gravel surfaces (i.e. parking lots, driveways, roads, runways and sidewalks); building rooftops and miscellaneous impermeable structures such as patios, pools, and sheds.

Infeasible – means not technologically possible, or not economically practicable and achievable in light of best industry practices.

Larger Common Plan of Development or Sale - means a contiguous area where multiple separate and distinct *construction activities* are occurring, or will occur, under one plan. The term “plan” in “larger common plan of development or sale” is broadly defined as any announcement or piece of documentation (including a sign, public notice or hearing, marketing plan, advertisement, drawing, permit application, State Environmental Quality Review Act (SEQRA) environmental assessment form or other documents, zoning request, computer design, etc.) or physical demarcation (including boundary signs, lot stakes, surveyor markings, etc.) indicating that *construction activities* may occur on a specific plot.

For discrete construction projects that are located within a larger common plan of development or sale that are at least 1/4 mile apart, each project can be treated as a separate plan of development or sale provided any interconnecting road, pipeline or utility project that is part of the same “common plan” is not concurrently being disturbed.

Minimize – means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer (MS4) - a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a *combined sewer*; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

National Pollutant Discharge Elimination System (NPDES) - means the national system for the issuance of wastewater and stormwater permits under the Federal Water Pollution Control Act (Clean Water Act).

Natural Buffer – means an undisturbed area with natural cover running along a surface water (e.g. wetland, stream, river, lake, etc.).

New Development – means any land disturbance that does not meet the definition of Redevelopment Activity included in this appendix.

New York State Erosion and Sediment Control Certificate Program – a certificate program that establishes and maintains a process to identify and recognize individuals who are capable of developing, designing, inspecting and maintaining erosion and sediment control plans on projects that disturb soils in New York State. The certificate program is administered by the New York State Conservation District Employees Association.

NOI Acknowledgment Letter - means the letter that the Department sends to an owner or operator to acknowledge the Department's receipt and acceptance of a complete Notice of Intent. This letter documents the owner's or operator's authorization to discharge in accordance with the general permit for stormwater discharges from *construction activity*.

Nonpoint Source - means any source of water pollution or pollutants which is not a discrete conveyance or *point source* permitted pursuant to Title 7 or 8 of Article 17 of the Environmental Conservation Law (see ECL Section 17-1403).

Overbank –means flow events that exceed the capacity of the stream channel and spill out into the adjacent floodplain.

Owner or Operator - means the person, persons or legal entity which owns or leases the property on which the *construction activity* is occurring; an entity that has operational control over the construction plans and specifications, including the ability to make modifications to the plans and specifications; and/or an entity that has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions.

Performance Criteria – means the design criteria listed under the “Required Elements” sections in Chapters 5, 6 and 10 of the technical standard, New York State Stormwater Management Design Manual, dated January 2015. It does not include the Sizing Criteria (i.e. WQv, RRv, Cpv, Qp and Qf) in Part I.C.2. of the permit.

Point Source - means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel or other floating craft, or landfill leachate collection system from which *pollutants* are or may be discharged.

Pollutant - means dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, agricultural waste and ballast discharged into water; which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 NYCRR Parts 700 et seq .

Qualified Inspector - means a person that is knowledgeable in the principles and practices of erosion and sediment control, such as a licensed Professional Engineer, Certified Professional in Erosion and Sediment Control (CPESC), Registered Landscape Architect, New York State Erosion and Sediment Control Certificate Program holder or other Department endorsed individual(s).

It can also mean someone working under the direct supervision of, and at the same company as, the licensed Professional Engineer or Registered Landscape Architect, provided that person has training in the principles and practices of erosion and sediment control. Training in the principles and practices of erosion and sediment control means that the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect has received four (4) hours of Department endorsed training in proper erosion and sediment control principles from a Soil and Water Conservation District, or other Department endorsed entity. After receiving the initial training, the individual working under the direct supervision of the licensed Professional Engineer or Registered Landscape Architect shall receive four (4) hours of training every three (3) years.

It can also mean a person that meets the *Qualified Professional* qualifications in addition to the *Qualified Inspector* qualifications.

Note: Inspections of any post-construction stormwater management practices that include structural components, such as a dam for an impoundment, shall be performed by a licensed Professional Engineer.

Qualified Professional - means a person that is knowledgeable in the principles and practices of stormwater management and treatment, such as a licensed Professional Engineer, Registered Landscape Architect or other Department endorsed individual(s). Individuals preparing SWPPPs that require the post-construction stormwater management practice component must have an understanding of the principles of hydrology, water quality management practice design, water quantity control design, and, in many cases, the principles of hydraulics. All components of the SWPPP that involve the practice of engineering, as defined by the NYS Education Law (see Article 145), shall be prepared by, or under the direct supervision of, a professional engineer licensed to practice in the State of New York.

Redevelopment Activity(ies) – means the disturbance and reconstruction of existing impervious area, including impervious areas that were removed from a project site within five (5) years of preliminary project plan submission to the local government (i.e. site plan, subdivision, etc.).

Regulated, Traditional Land Use Control MS4 - means a city, town or village with land use control authority that is authorized to discharge under New York State DEC's

SPDES General Permit For Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s) or the City of New York's Individual SPDES Permit for their Municipal Separate Storm Sewer Systems (NY-0287890).

Routine Maintenance Activity - means *construction activity* that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of a facility, including, but not limited to:

- Re-grading of gravel roads or parking lots,
- Cleaning and shaping of existing roadside ditches and culverts that maintains the approximate original line and grade, and hydraulic capacity of the ditch,
- Cleaning and shaping of existing roadside ditches that does not maintain the approximate original grade, hydraulic capacity and purpose of the ditch if the changes to the line and grade, hydraulic capacity or purpose of the ditch are installed to improve water quality and quantity controls (e.g. installing grass lined ditch),
- Placement of aggregate shoulder backing that stabilizes the transition between the road shoulder and the ditch or *embankment*,
- Full depth milling and filling of existing asphalt pavements, replacement of concrete pavement slabs, and similar work that does not expose soil or disturb the bottom six (6) inches of subbase material,
- Long-term use of equipment storage areas at or near highway maintenance facilities,
- Removal of sediment from the edge of the highway to restore a previously existing sheet-flow drainage connection from the highway surface to the highway ditch or *embankment*,
- Existing use of Canal Corp owned upland disposal sites for the canal, and
- Replacement of curbs, gutters, sidewalks and guide rail posts.

Site limitations – means site conditions that prevent the use of an infiltration technique and or infiltration of the total WQv. Typical site limitations include: seasonal high groundwater, shallow depth to bedrock, and soils with an infiltration rate less than 0.5 inches/hour. The existence of site limitations shall be confirmed and documented using actual field testing (i.e. test pits, soil borings, and infiltration test) or using information from the most current United States Department of Agriculture (USDA) Soil Survey for the County where the project is located.

Sizing Criteria – means the criteria included in Part I.C.2 of the permit that are used to size post-construction stormwater management control practices. The criteria include; Water Quality Volume (WQv), Runoff Reduction Volume (RRv), Channel Protection Volume (Cpv), *Overbank Flood* (Qp), and *Extreme Flood* (Qf).

State Pollutant Discharge Elimination System (SPDES) - means the system established pursuant to Article 17 of the ECL and 6 NYCRR Part 750 for issuance of permits authorizing discharges to the waters of the state.

Steep Slope – means land area designated on the current United States Department of Agriculture (“USDA”) Soil Survey as Soil Slope Phase “D”, (provided the map unit name is inclusive of slopes greater than 25%) , or Soil Slope Phase E or F, (regardless of the map unit name), or a combination of the three designations.

Streambank – as used in this permit, means the terrain alongside the bed of a creek or stream. The bank consists of the sides of the channel, between which the flow is confined.

Stormwater Pollution Prevention Plan (SWPPP) – means a project specific report, including construction drawings, that among other things: describes the construction activity(ies), identifies the potential sources of pollution at the *construction site*; describes and shows the stormwater controls that will be used to control the pollutants (i.e. erosion and sediment controls; for many projects, includes post-construction stormwater management controls); and identifies procedures the *owner or operator* will implement to comply with the terms and conditions of the permit. See Part III of the permit for a complete description of the information that must be included in the SWPPP.

Surface Waters of the State - shall be construed to include lakes, bays, sounds, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic ocean within the territorial seas of the state of New York and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters that do not combine or effect a junction with natural surface waters), which are wholly or partially within or bordering the state or within its jurisdiction. Waters of the state are further defined in 6 NYCRR Parts 800 to 941.

Temporarily Ceased – means that an existing disturbed area will not be disturbed again within 14 calendar days of the previous soil disturbance.

Temporary Stabilization - means that exposed soil has been covered with material(s) as set forth in the technical standard, New York Standards and Specifications for Erosion and Sediment Control, to prevent the exposed soil from eroding. The materials can include, but are not limited to, mulch, seed and mulch, and erosion control mats (e.g. jute twisted yarn, excelsior wood fiber mats).

Total Maximum Daily Loads (TMDLs) - A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and *nonpoint sources*. 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 sources*, 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 <u>not</u> located in one of the watersheds listed in Appendix C or <u>not directly discharging</u> 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 <u>not</u> located in one of the watersheds listed in Appendix C and <u>not</u> directly discharging to one of the 303(d) segments listed in Appendix E • Construction of a barn or other <i>agricultural building</i>, silo, stock yard or pen.
The following construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land: All construction activities located in the watersheds identified in Appendix D that involve soil disturbances between five thousand (5,000) square feet and one (1) acre of land.
The following construction activities that involve soil disturbances of one (1) or more acres of land: • Installation of underground, linear utilities; such as gas lines, fiber-optic cable, cable TV, electric, telephone, sewer mains, and water mains • Environmental enhancement projects, such as wetland mitigation projects, stormwater retrofits and stream restoration projects • Pond construction • Linear bike paths running through areas with vegetative cover, including bike paths surfaced with an impervious cover • Cross-country ski trails and walking/hiking trails • Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are not part of residential, commercial or institutional development; • Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that include incidental shoulder or curb work along an existing highway to support construction of the sidewalk, bike path or walking path. • Slope stabilization projects • Slope flattening that changes the grade of the site, but does not significantly change the runoff characteristics

**Table 1 (Continued) CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP
THAT ONLY INCLUDES EROSION AND SEDIMENT CONTROLS**

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Spoil areas that will be covered with vegetation
- Vegetated open space projects (i.e. recreational parks, lawns, meadows, fields, downhill ski trails) excluding projects that *alter hydrology from pre to post development* conditions,
- Athletic fields (natural grass) that do not include the construction or reconstruction of *impervious area* and do not *alter hydrology from pre to post development* conditions
- Demolition project where vegetation will be established, and no redevelopment is planned
- Overhead electric transmission line project that does not include the construction of permanent access roads or parking areas surfaced with *impervious cover*
- Structural practices as identified in Table II in the “Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State”, excluding projects that involve soil disturbances of greater than five acres and construction activities that include the construction or reconstruction of impervious area
- Temporary access roads, median crossovers, detour roads, lanes, or other temporary impervious areas that will be restored to pre-construction conditions once the construction activity is complete

Table 2
CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES
POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Single family home located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family home that disturbs five (5) or more acres of land
- Single family residential subdivisions located in one of the watersheds listed in Appendix C or *directly discharging* to one of the 303(d) segments listed in Appendix E
- Single family residential subdivisions that involve soil disturbances of between one (1) and five (5) acres of land with greater than 25% impervious cover at total site build-out
- Single family residential subdivisions that involve soil disturbances of five (5) or more acres of land, and single family residential subdivisions that involve soil disturbances of less than five (5) acres that are part of a larger common plan of development or sale that will ultimately disturb five or more acres of land
- Multi-family residential developments; includes duplexes, townhomes, condominiums, senior housing complexes, apartment complexes, and mobile home parks
- Airports
- Amusement parks
- Breweries, cideries, and wineries, including establishments constructed on agricultural land
- Campgrounds
- Cemeteries that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development conditions*
- Commercial developments
- Churches and other places of worship
- Construction of a barn or other *agricultural building* (e.g. silo) and structural practices as identified in Table II in the "Agricultural Management Practices Catalog for Nonpoint Source Pollution in New York State" that include the construction or reconstruction of *impervious area*, excluding projects that involve soil disturbances of less than five acres.
- Golf courses
- Institutional development; includes hospitals, prisons, schools and colleges
- Industrial facilities; includes industrial parks
- Landfills
- Municipal facilities; includes highway garages, transfer stations, office buildings, POTW's, water treatment plants, and water storage tanks
- Office complexes
- Playgrounds that include the construction or reconstruction of impervious area
- Sports complexes
- Racetracks; includes racetracks with earthen (dirt) surface
- Road construction or reconstruction, including roads constructed as part of the construction activities listed in Table 1

Table 2 (Continued)

**CONSTRUCTION ACTIVITIES THAT REQUIRE THE PREPARATION OF A SWPPP THAT INCLUDES
POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES**

The following construction activities that involve soil disturbances of one (1) or more acres of land:

- Parking lot construction or reconstruction, including parking lots constructed as part of the construction activities listed in Table 1
- Athletic fields (natural grass) that include the construction or reconstruction of impervious area (>5% of disturbed area) or *alter the hydrology from pre to post development* conditions
- Athletic fields with artificial turf
- Permanent access roads, parking areas, substations, compressor stations and well drilling pads, surfaced with *impervious cover*, and constructed as part of an over-head electric transmission line project, wind-power project, cell tower project, oil or gas well drilling project, sewer or water main project or other linear utility project
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a residential, commercial or institutional development
- Sidewalk, bike path or walking path projects, surfaced with an impervious cover, that are part of a highway construction or reconstruction project
- All other construction activities that include the construction or reconstruction of *impervious area* or *alter the hydrology from pre to post development* conditions, and are not listed in Table 1

APPENDIX C – Watersheds Requiring Enhanced Phosphorus Removal

Watersheds where *owners or operators* of construction activities identified in Table 2 of Appendix B must prepare a SWPPP that includes post-construction stormwater management practices designed in conformance with the Enhanced Phosphorus Removal Standards included in the technical standard, New York State Stormwater Management Design Manual (“Design Manual”).

- Entire New York City Watershed located east of the Hudson River - Figure 1
- Onondaga Lake Watershed - Figure 2
- Greenwood Lake Watershed -Figure 3
- Oscawana Lake Watershed – Figure 4
- Kinderhook Lake Watershed – Figure 5

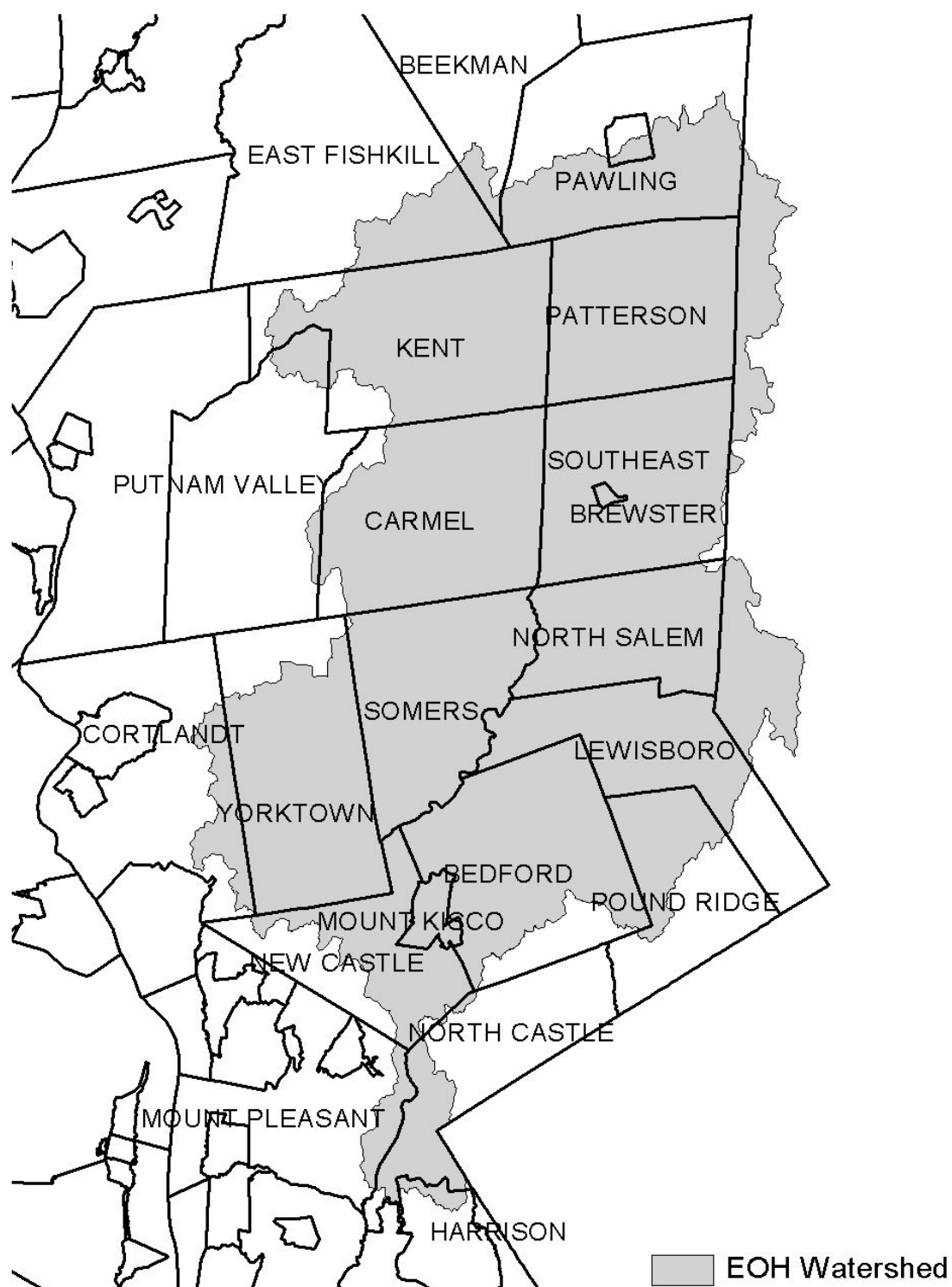
Figure 1 - New York City Watershed East of the Hudson

Figure 2 - Onondaga Lake Watershed

Figure 3 - Greenwood Lake Watershed

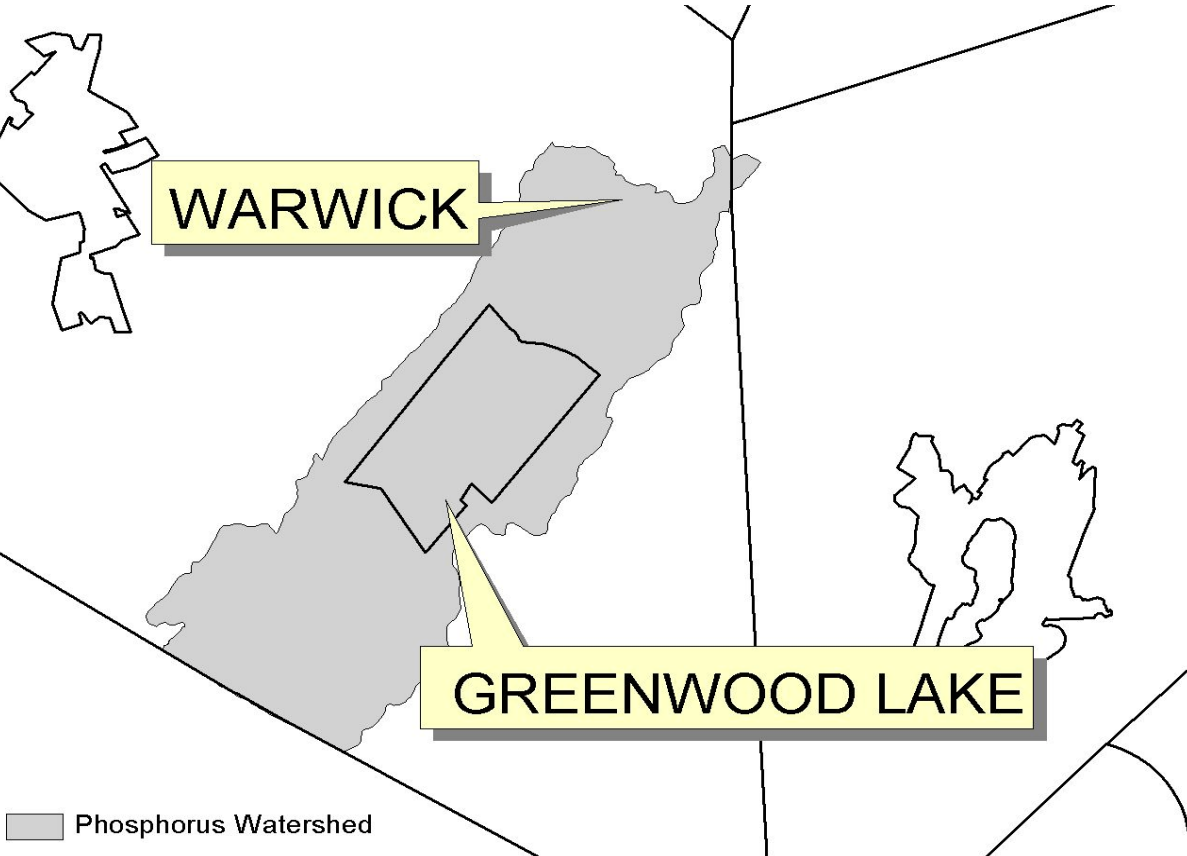


Figure 4 - Oscawana Lake Watershed

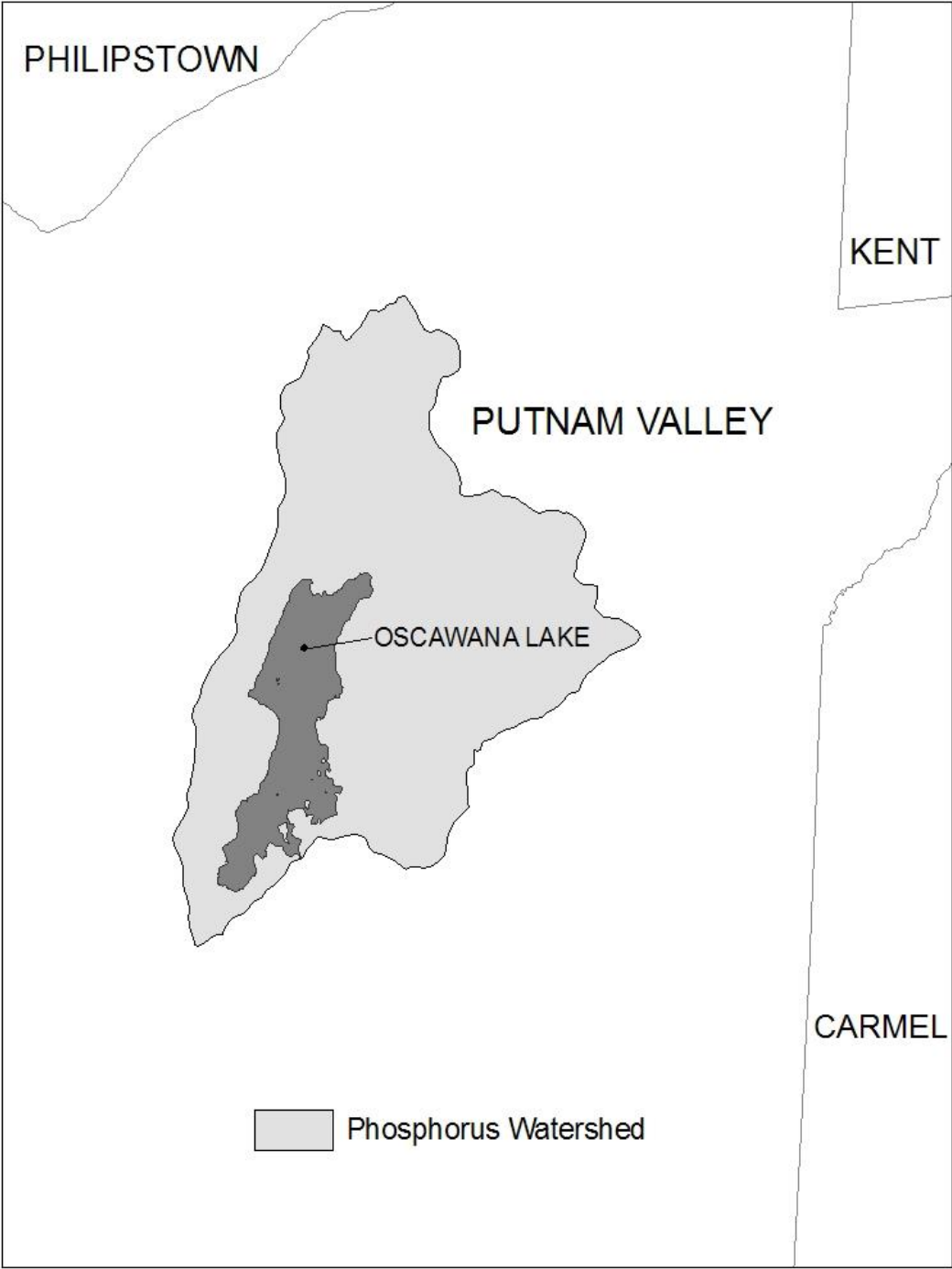
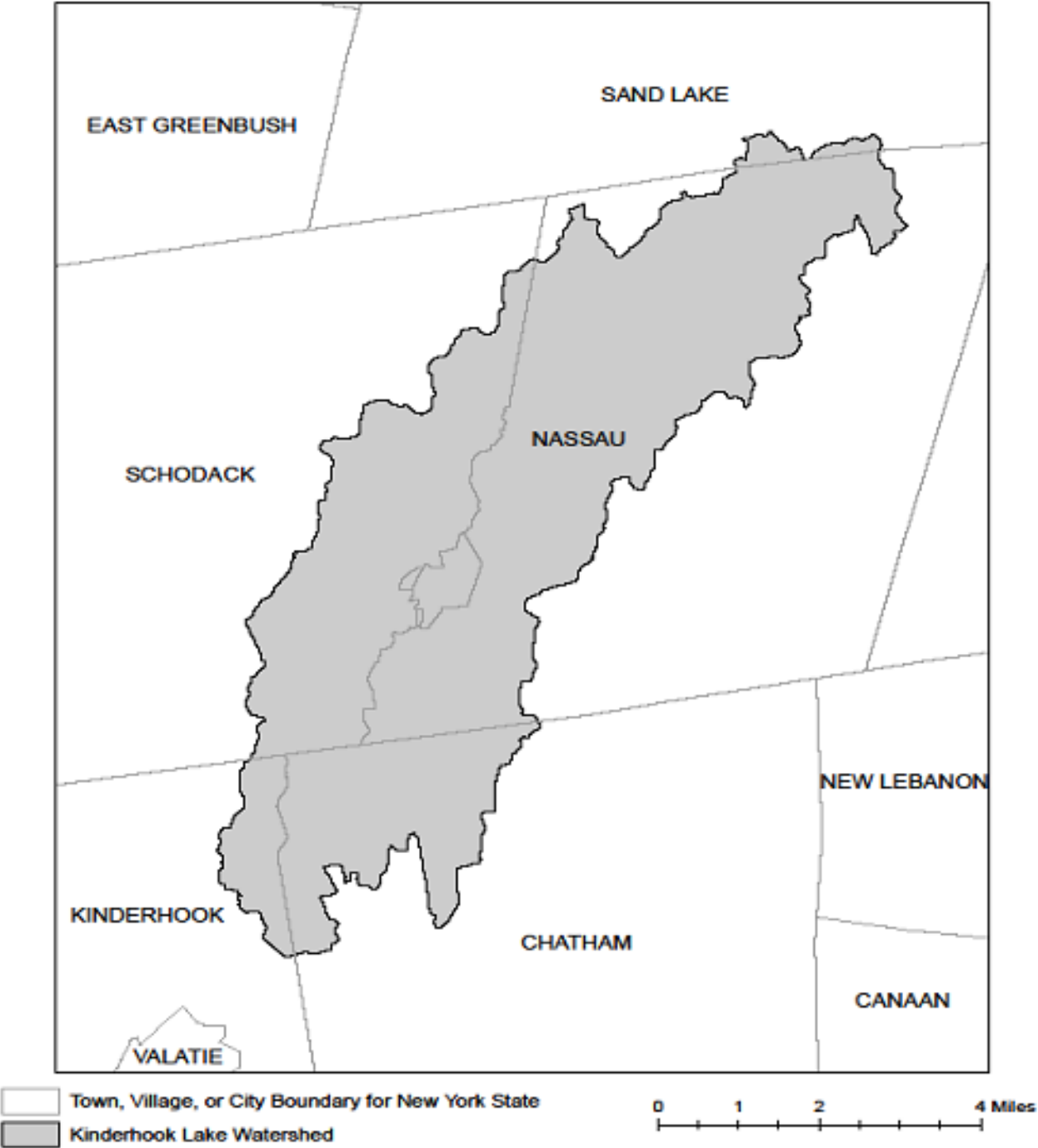


Figure 5 - Kinderhook Lake Watershed



APPENDIX D – Watersheds with Lower Disturbance Threshold

Watersheds where *owners or operators* of construction activities that involve soil disturbances between five thousand (5000) square feet and one (1) acre of land must obtain coverage under this permit.

Entire New York City Watershed that is located east of the Hudson River - See Figure 1 in Appendix C
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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	Tribes 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

<u>Region</u>	<u>COVERING THE FOLLOWING COUNTIES:</u>	<u>DIVISION OF ENVIRONMENTAL PERMITS (DEP) PERMIT ADMINISTRATORS</u>	<u>DIVISION OF WATER (DOW) WATER (SPDES) PROGRAM</u>
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

APPENDIX H

MS4 Acceptance Form



Department of
Environmental
Conservation

NYS Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, New York 12233-3505

MS4 Stormwater Pollution Prevention Plan (SWPPP) Acceptance Form

for

Construction Activities Seeking Authorization Under SPDES General Permit

*(NOTE: Attach Completed Form to Notice Of Intent and Submit to Address Above)

I. Project Owner/Operator Information

1. Owner/Operator Name:

2. Contact Person:

3. Street Address:

4. City/State/Zip:

II. Project Site Information

5. Project/Site Name:

6. Street Address:

7. City/State/Zip:

III. Stormwater Pollution Prevention Plan (SWPPP) Review and Acceptance Information

8. SWPPP Reviewed by:

9. Title/Position:

10. Date Final SWPPP Reviewed and Accepted:

IV. Regulated MS4 Information

11. Name of MS4:

12. MS4 SPDES Permit Identification Number: NYR20A _____

13. Contact Person:

14. Street Address:

15. City/State/Zip:

16. Telephone Number:

MS4 SWPPP Acceptance Form - continued

V. Certification Statement - MS4 Official (principal executive officer or ranking elected official) or Duly Authorized Representative

I hereby certify that the final Stormwater Pollution Prevention Plan (SWPPP) for the construction project identified in question 5 has been reviewed and meets the substantive requirements in the SPDES General Permit For Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s). Note: The MS4, through the acceptance of the SWPPP, assumes no responsibility for the accuracy and adequacy of the design included in the SWPPP. In addition, review and acceptance of the SWPPP by the MS4 does not relieve the owner/operator or their SWPPP preparer of responsibility or liability for errors or omissions in the plan.

Printed Name:

Title/Position:

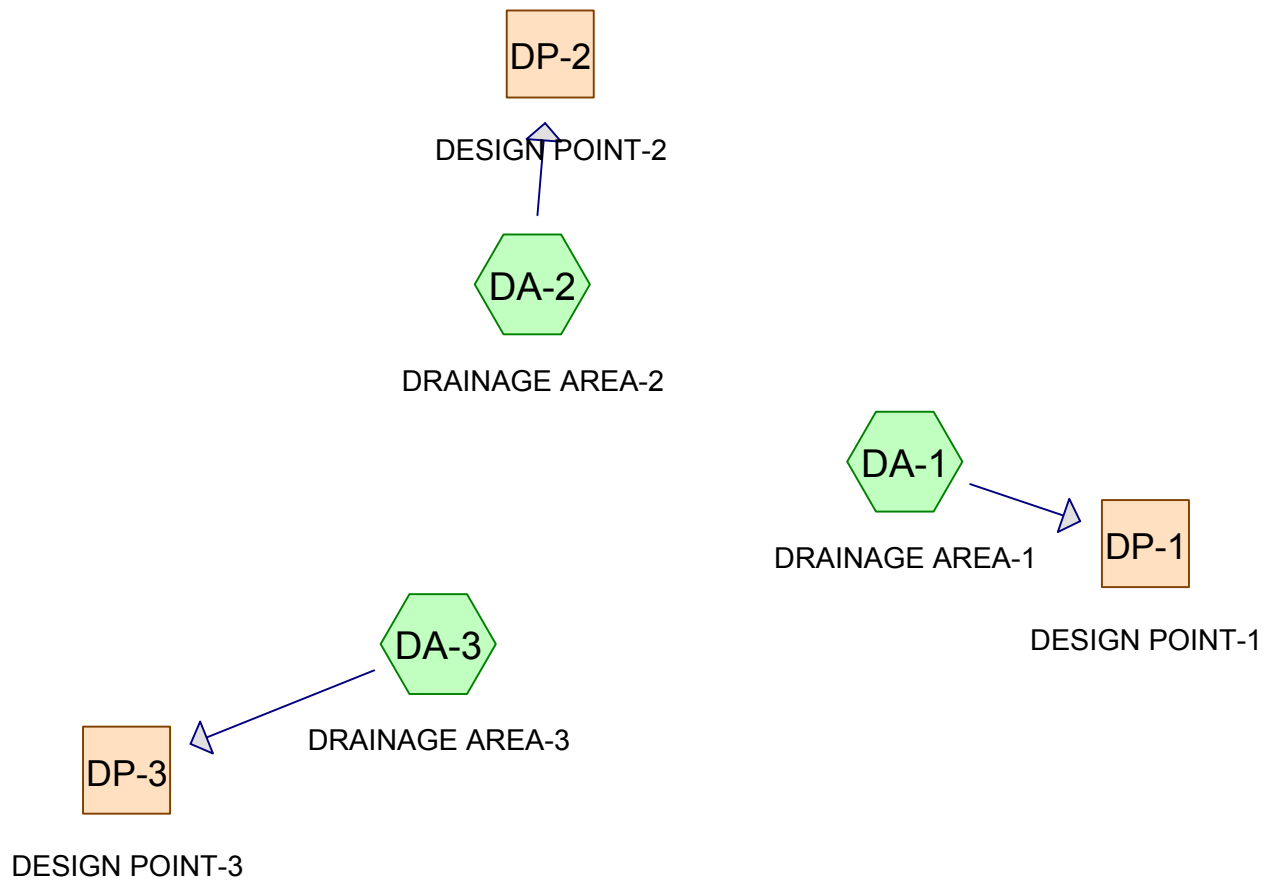
Signature:

Date:

VI. Additional Information

APPENDIX I

Pre-Development Run-off Calculations



Routing Diagram for PRE-Pelton

Prepared by LRC Group, Printed 3/15/2018

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PRE-Pelton

Prepared by LRC Group

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.156	69	50-75% Grass cover, Fair, HSG B (DA-1, DA-2, DA-3)
0.553	98	Paved parking, HSG B (DA-1, DA-2, DA-3)
0.749	65	Woods/grass comb., Fair, HSG B (DA-2, DA-3)
2.458	74	TOTAL AREA

PRE-Pelton

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
2.458	HSG B	DA-1, DA-2, DA-3
0.000	HSG C	
0.000	HSG D	
0.000	Other	
2.458		TOTAL AREA

PRE-Pelton

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Type III 24-hr 1 YEAR Rainfall=2.61"

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Summary for Subcatchment DA-1: DRAINAGE AREA-1

Runoff = 0.10 cfs @ 12.09 hrs, Volume= 0.006 af, Depth> 1.38"

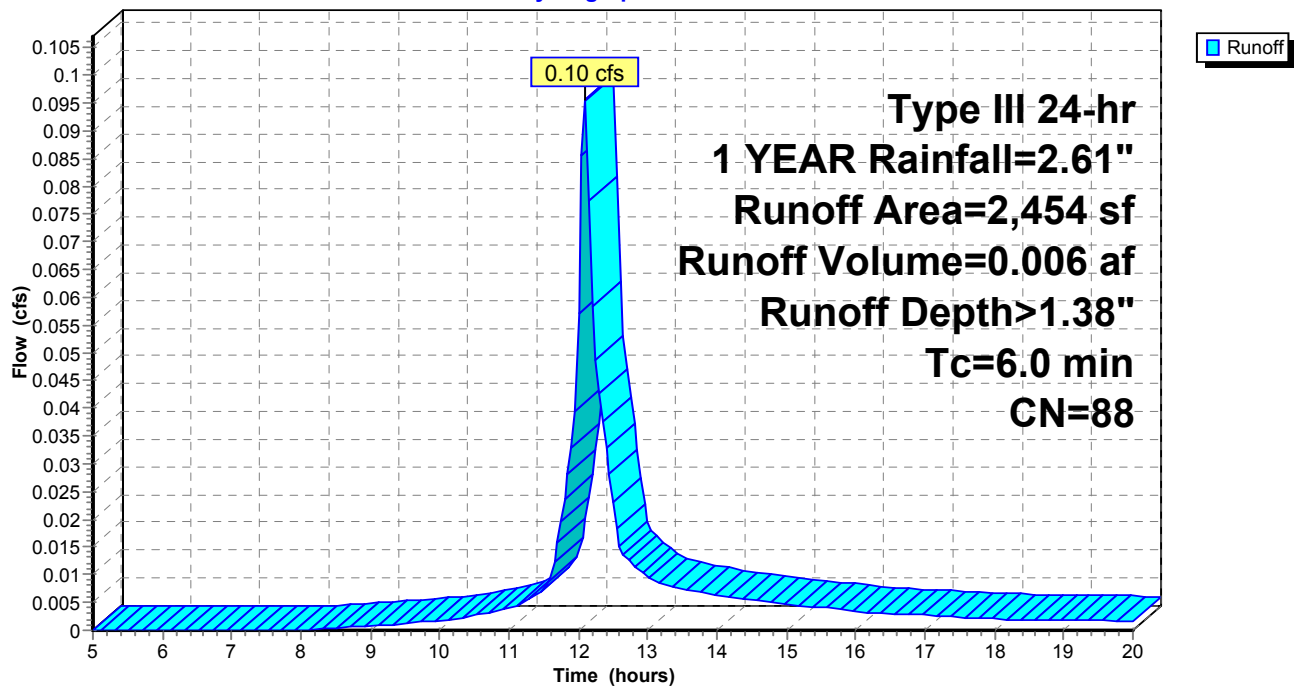
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
883	69	50-75% Grass cover, Fair, HSG B
1,571	98	Paved parking, HSG B
2,454	88	Weighted Average
883		35.98% Pervious Area
1,571		64.02% Impervious Area

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

Subcatchment DA-1: DRAINAGE AREA-1

Hydrograph



PRE-Pelton

Prepared by LRC Group

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Type III 24-hr 1 YEAR Rainfall=2.61"

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Summary for Subcatchment DA-2: DRAINAGE AREA-2

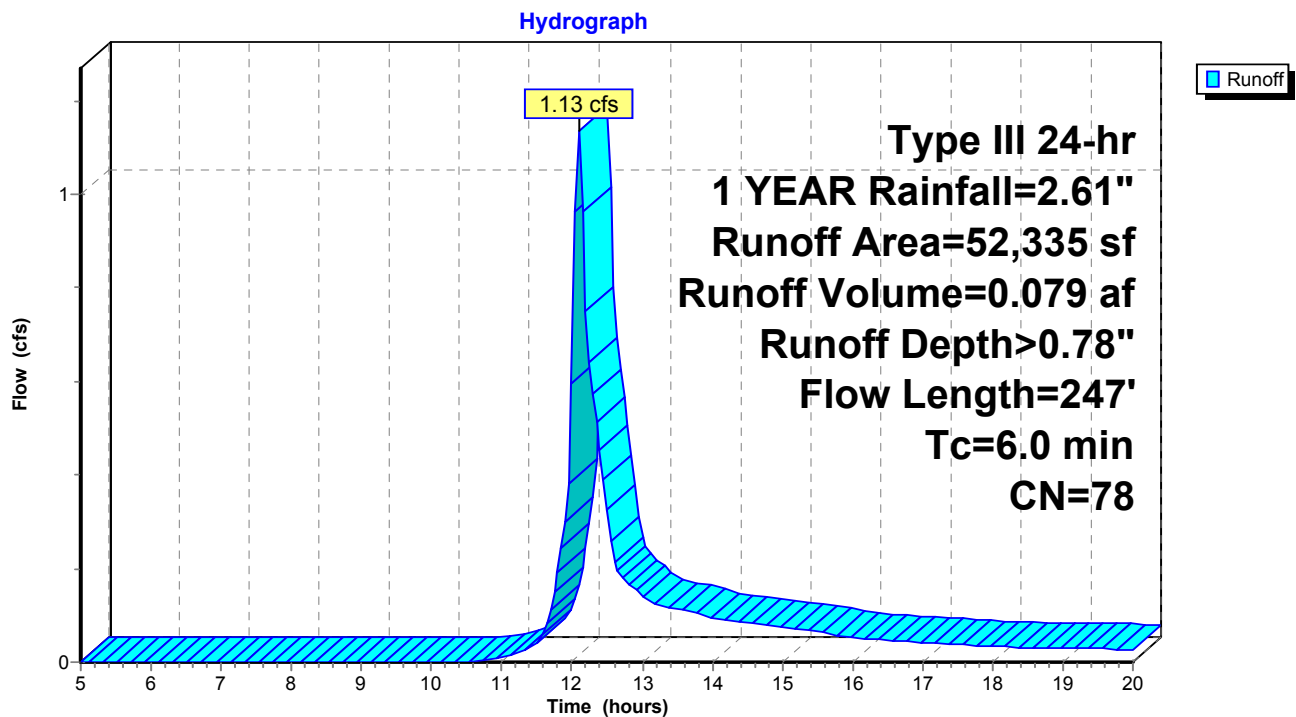
Runoff = 1.13 cfs @ 12.10 hrs, Volume= 0.079 af, Depth> 0.78"

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

Area (sf)	CN	Description
9,608	65	Woods/grass comb., Fair, HSG B
24,336	69	50-75% Grass cover, Fair, HSG B
18,391	98	Paved parking, HSG B
52,335	78	Weighted Average
33,944		64.86% Pervious Area
18,391		35.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	18	0.0670	0.19		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.16"
0.6	82	0.0780	2.26		Sheet Flow, B-C Smooth surfaces n= 0.011 P2= 3.16"
0.1	17	0.0710	5.41		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
0.2	23	0.0690	1.84		Shallow Concentrated Flow, D-E Short Grass Pasture Kv= 7.0 fps
0.3	107	0.0950	6.26		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
2.7	247	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-2: DRAINAGE AREA-2



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Type III 24-hr 1 YEAR Rainfall=2.61"

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Summary for Subcatchment DA-3: DRAINAGE AREA-3

Runoff = 0.51 cfs @ 12.16 hrs, Volume= 0.045 af, Depth> 0.45"

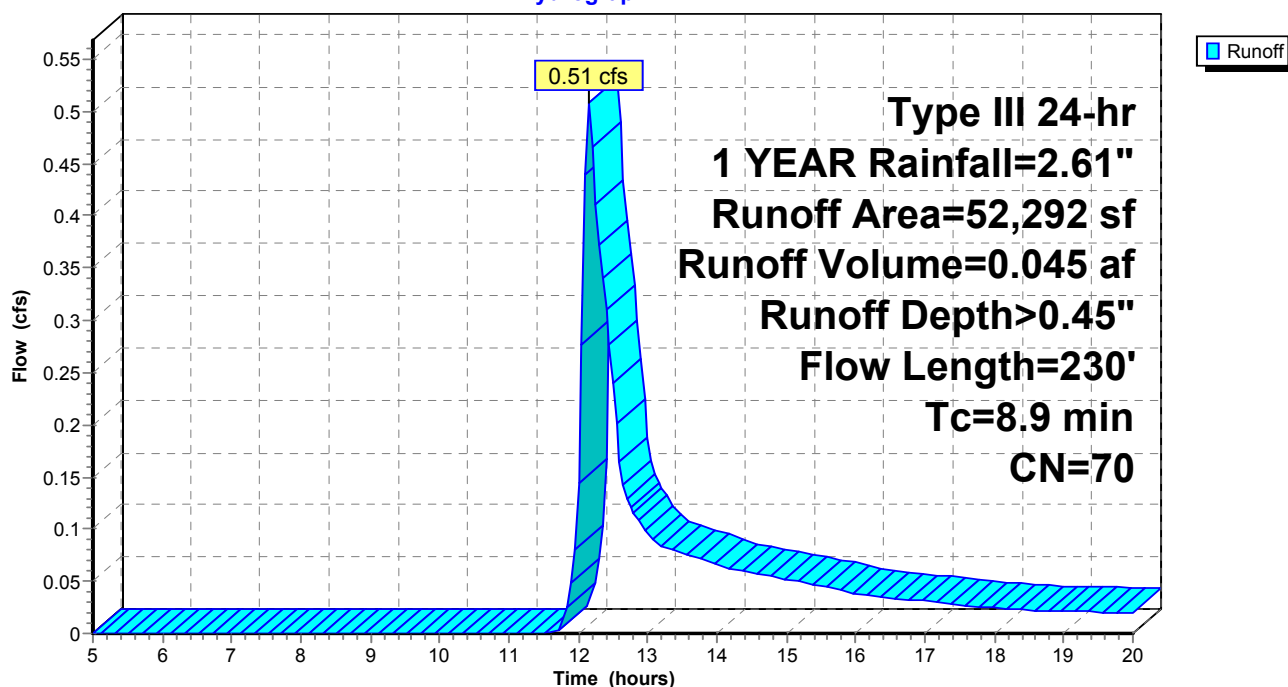
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
23,016	65	Woods/grass comb., Fair, HSG B
25,139	69	50-75% Grass cover, Fair, HSG B
4,137	98	Paved parking, HSG B
52,292	70	Weighted Average
48,155		92.09% Pervious Area
4,137		7.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.0310	0.20		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.16"
0.5	82	0.1510	2.72		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
0.1	48	0.1670	8.30		Shallow Concentrated Flow, C-D
					Paved Kv= 20.3 fps
8.9	230	Total			

Subcatchment DA-3: DRAINAGE AREA-3

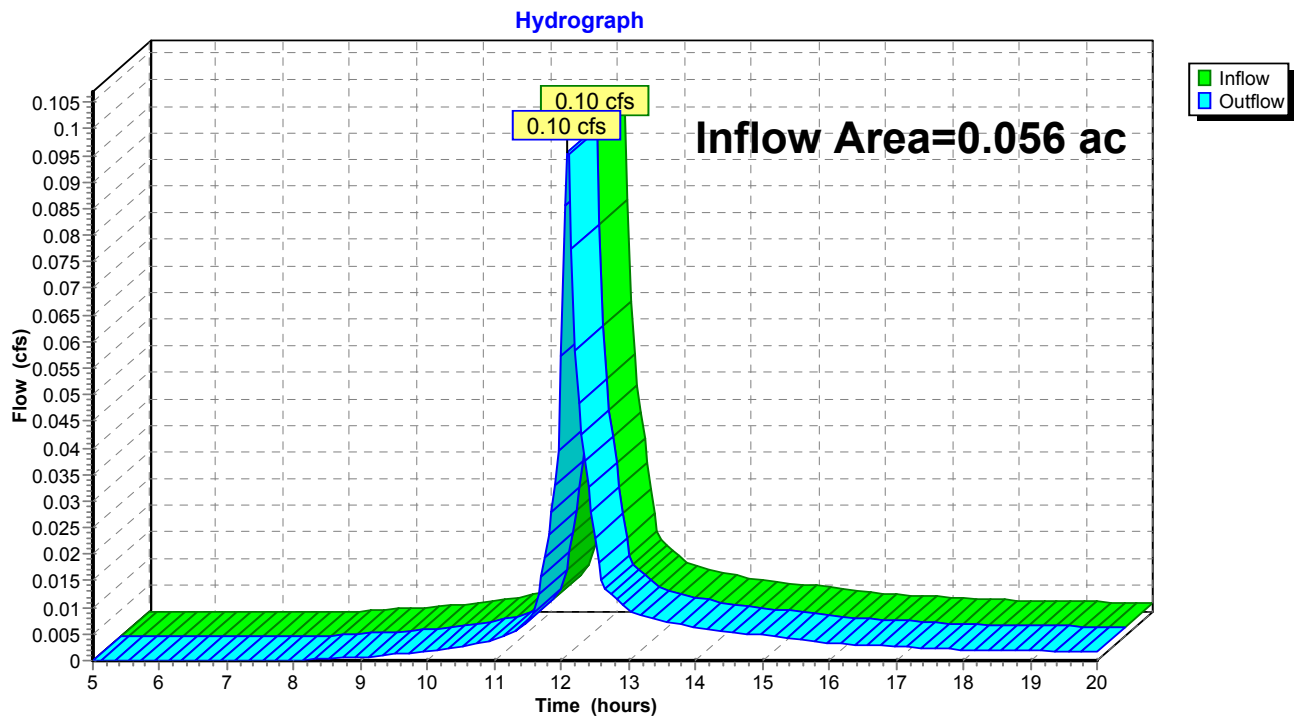
Hydrograph



Summary for Reach DP-1: DESIGN POINT-1

Inflow Area = 0.056 ac, 64.02% Impervious, Inflow Depth > 1.38" for 1 YEAR event
Inflow = 0.10 cfs @ 12.09 hrs, Volume= 0.006 af
Outflow = 0.10 cfs @ 12.09 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

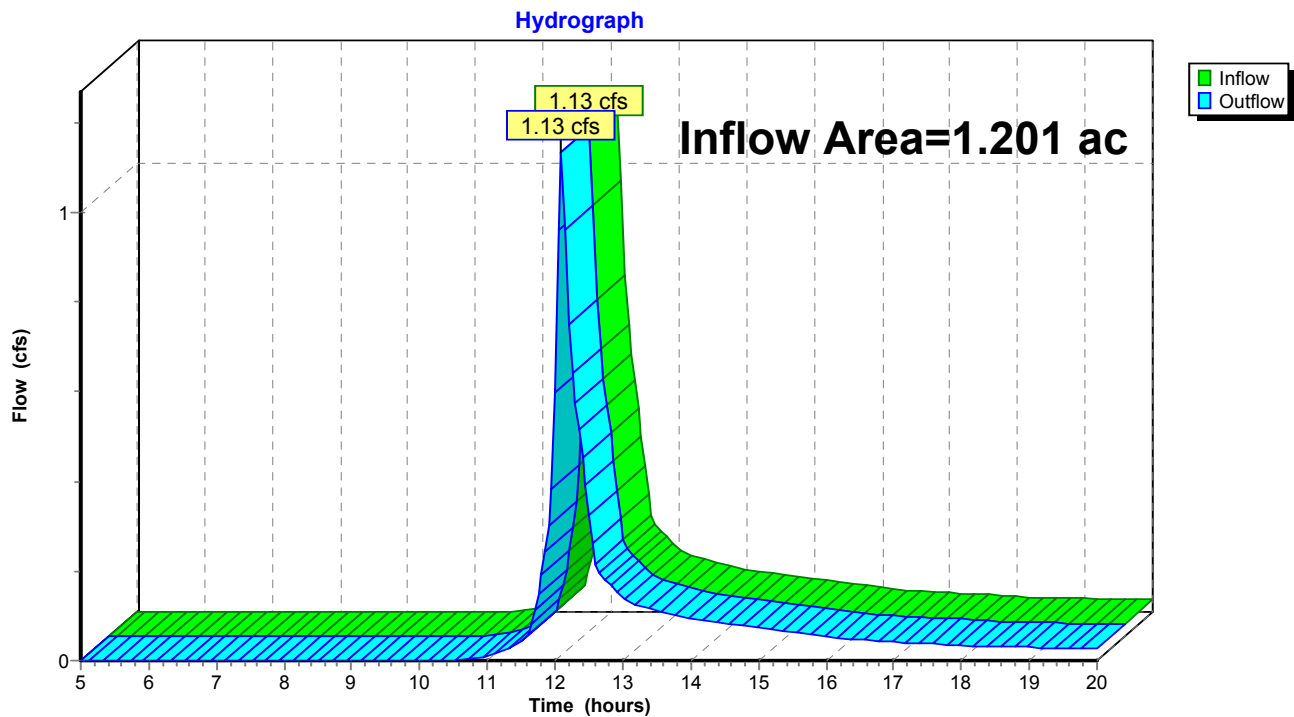
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-1: DESIGN POINT-1

Summary for Reach DP-2: DESIGN POINT-2

Inflow Area = 1.201 ac, 35.14% Impervious, Inflow Depth > 0.78" for 1 YEAR event
Inflow = 1.13 cfs @ 12.10 hrs, Volume= 0.079 af
Outflow = 1.13 cfs @ 12.10 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min

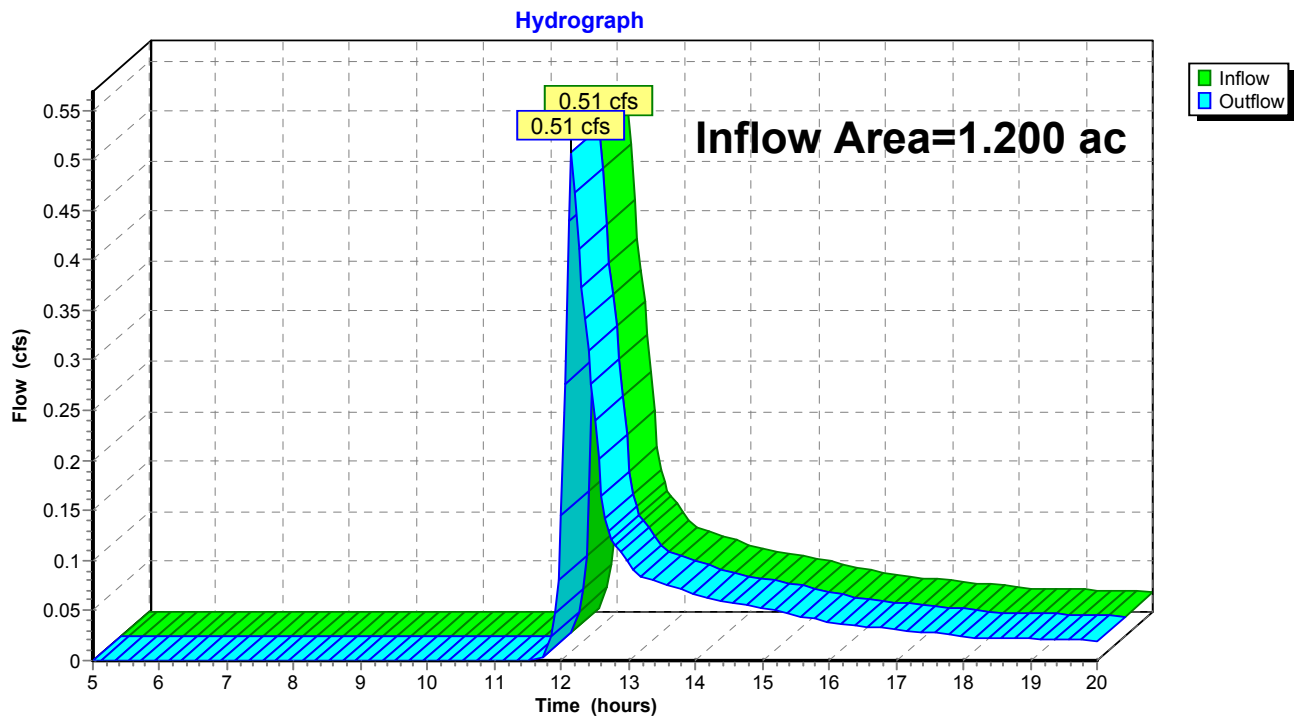
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-2: DESIGN POINT-2

Summary for Reach DP-3: DESIGN POINT-3

Inflow Area = 1.200 ac, 7.91% Impervious, Inflow Depth > 0.45" for 1 YEAR event
Inflow = 0.51 cfs @ 12.16 hrs, Volume= 0.045 af
Outflow = 0.51 cfs @ 12.16 hrs, Volume= 0.045 af, 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-3: DESIGN POINT-3

PRE-Pelton

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Type III 24-hr 2 YEAR Rainfall=3.16"

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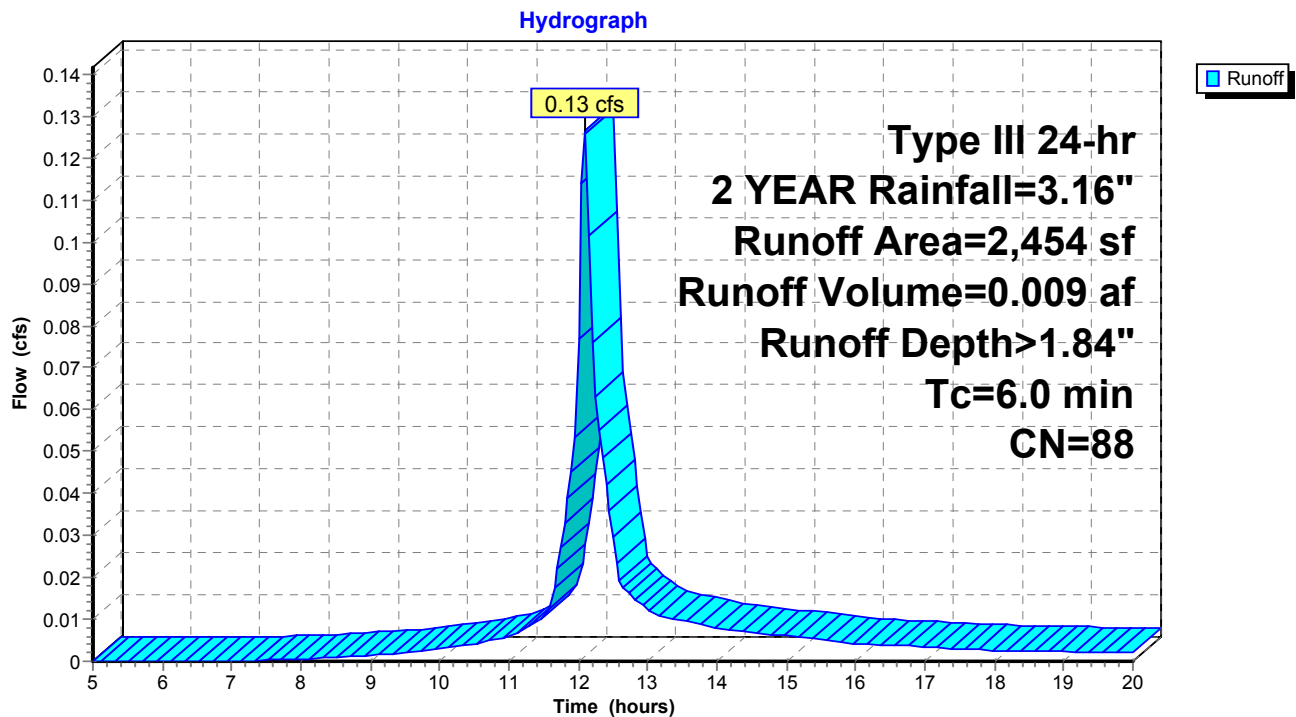
Summary for Subcatchment DA-1: DRAINAGE AREA-1

Runoff = 0.13 cfs @ 12.09 hrs, Volume= 0.009 af, Depth> 1.84"

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

Area (sf)	CN	Description
883	69	50-75% Grass cover, Fair, HSG B
1,571	98	Paved parking, HSG B
2,454	88	Weighted Average
883		35.98% Pervious Area
1,571		64.02% Impervious Area

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

Subcatchment DA-1: DRAINAGE AREA-1

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Type III 24-hr 2 YEAR Rainfall=3.16"

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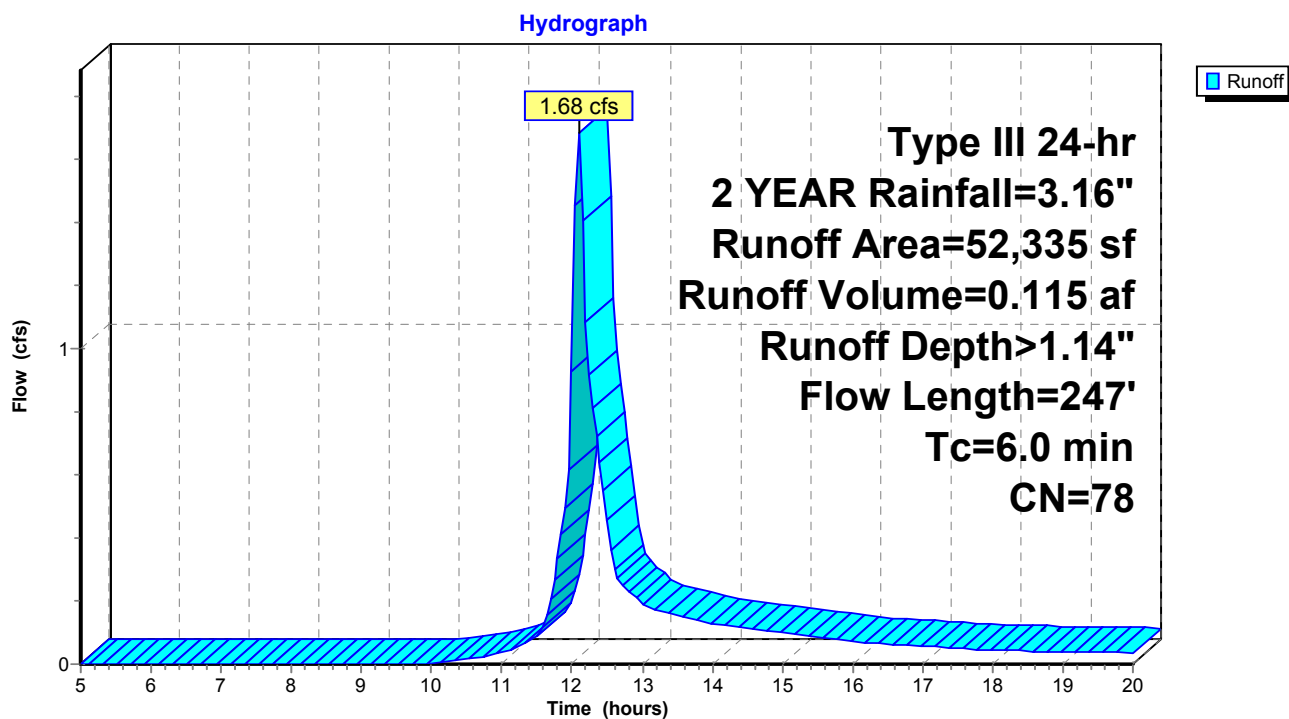
Summary for Subcatchment DA-2: DRAINAGE AREA-2

Runoff = 1.68 cfs @ 12.10 hrs, Volume= 0.115 af, Depth> 1.14"

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

Area (sf)	CN	Description
9,608	65	Woods/grass comb., Fair, HSG B
24,336	69	50-75% Grass cover, Fair, HSG B
18,391	98	Paved parking, HSG B
52,335	78	Weighted Average
33,944		64.86% Pervious Area
18,391		35.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	18	0.0670	0.19		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.16"
0.6	82	0.0780	2.26		Sheet Flow, B-C Smooth surfaces n= 0.011 P2= 3.16"
0.1	17	0.0710	5.41		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
0.2	23	0.0690	1.84		Shallow Concentrated Flow, D-E Short Grass Pasture Kv= 7.0 fps
0.3	107	0.0950	6.26		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
2.7	247	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-2: DRAINAGE AREA-2

PRE-Pelton

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Type III 24-hr 2 YEAR Rainfall=3.16"

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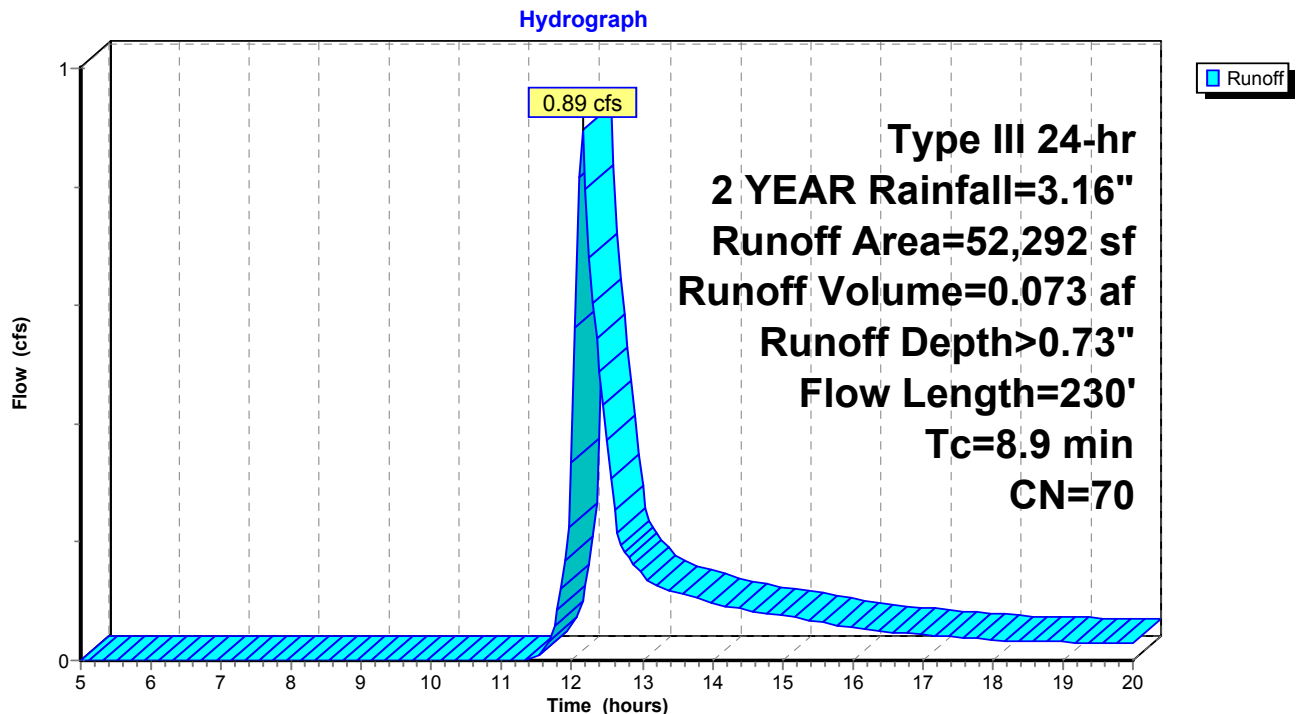
Summary for Subcatchment DA-3: DRAINAGE AREA-3

Runoff = 0.89 cfs @ 12.15 hrs, Volume= 0.073 af, Depth> 0.73"

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

Area (sf)	CN	Description
23,016	65	Woods/grass comb., Fair, HSG B
25,139	69	50-75% Grass cover, Fair, HSG B
4,137	98	Paved parking, HSG B
52,292	70	Weighted Average
48,155		92.09% Pervious Area
4,137		7.91% Impervious Area

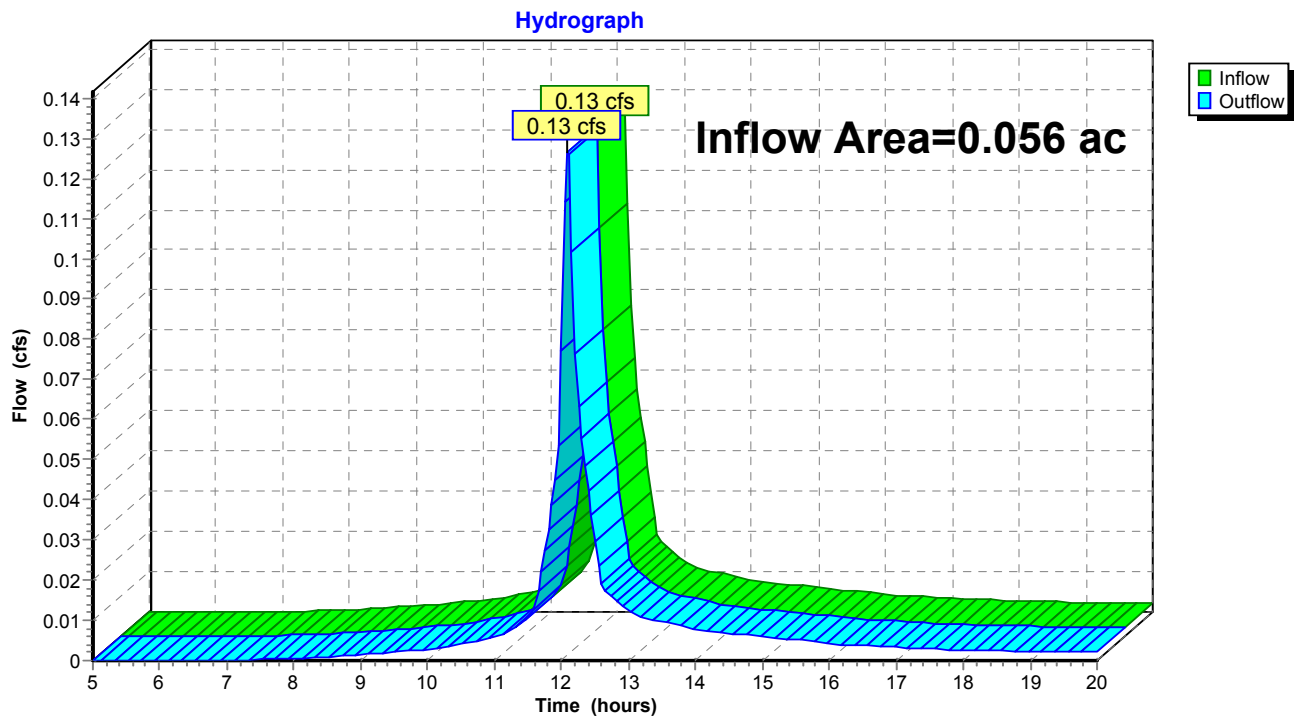
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.0310	0.20		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.16"
0.5	82	0.1510	2.72		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
0.1	48	0.1670	8.30		Shallow Concentrated Flow, C-D
					Paved Kv= 20.3 fps
8.9	230	Total			

Subcatchment DA-3: DRAINAGE AREA-3

Summary for Reach DP-1: DESIGN POINT-1

Inflow Area = 0.056 ac, 64.02% Impervious, Inflow Depth > 1.84" for 2 YEAR event
Inflow = 0.13 cfs @ 12.09 hrs, Volume= 0.009 af
Outflow = 0.13 cfs @ 12.09 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min

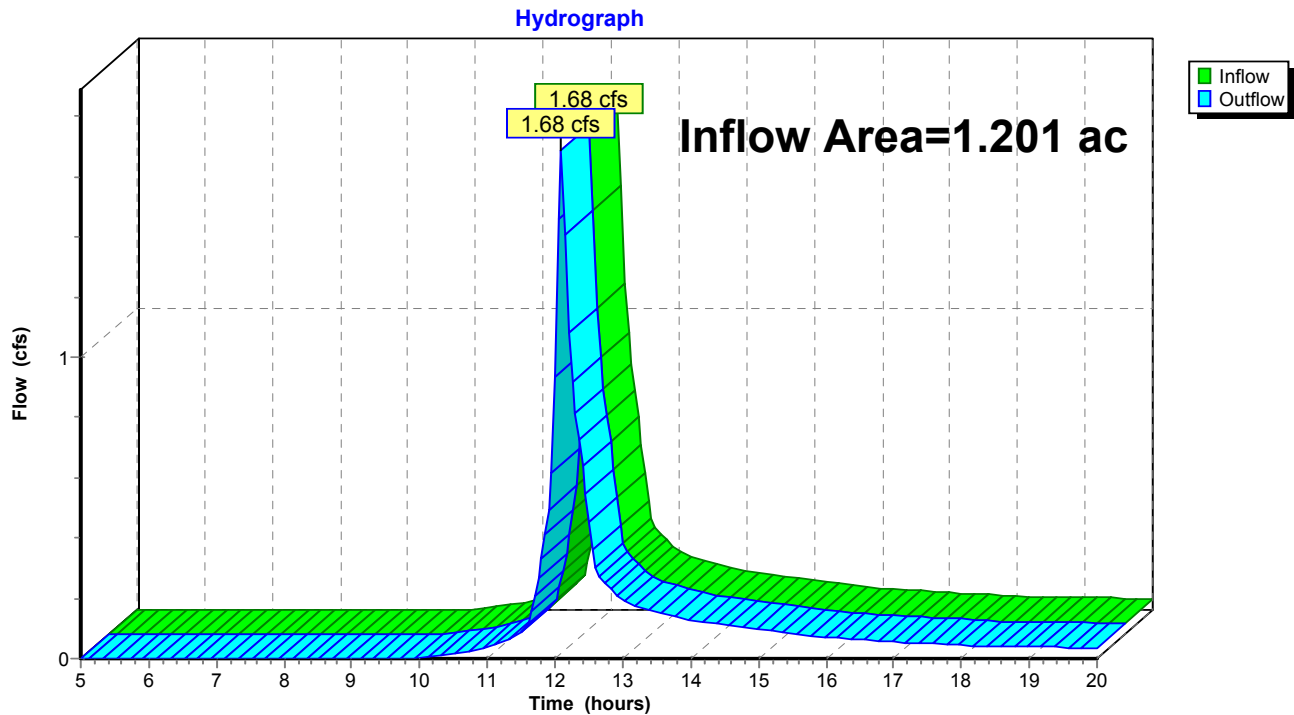
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-1: DESIGN POINT-1

Summary for Reach DP-2: DESIGN POINT-2

Inflow Area = 1.201 ac, 35.14% Impervious, Inflow Depth > 1.14" for 2 YEAR event
Inflow = 1.68 cfs @ 12.10 hrs, Volume= 0.115 af
Outflow = 1.68 cfs @ 12.10 hrs, Volume= 0.115 af, Atten= 0%, Lag= 0.0 min

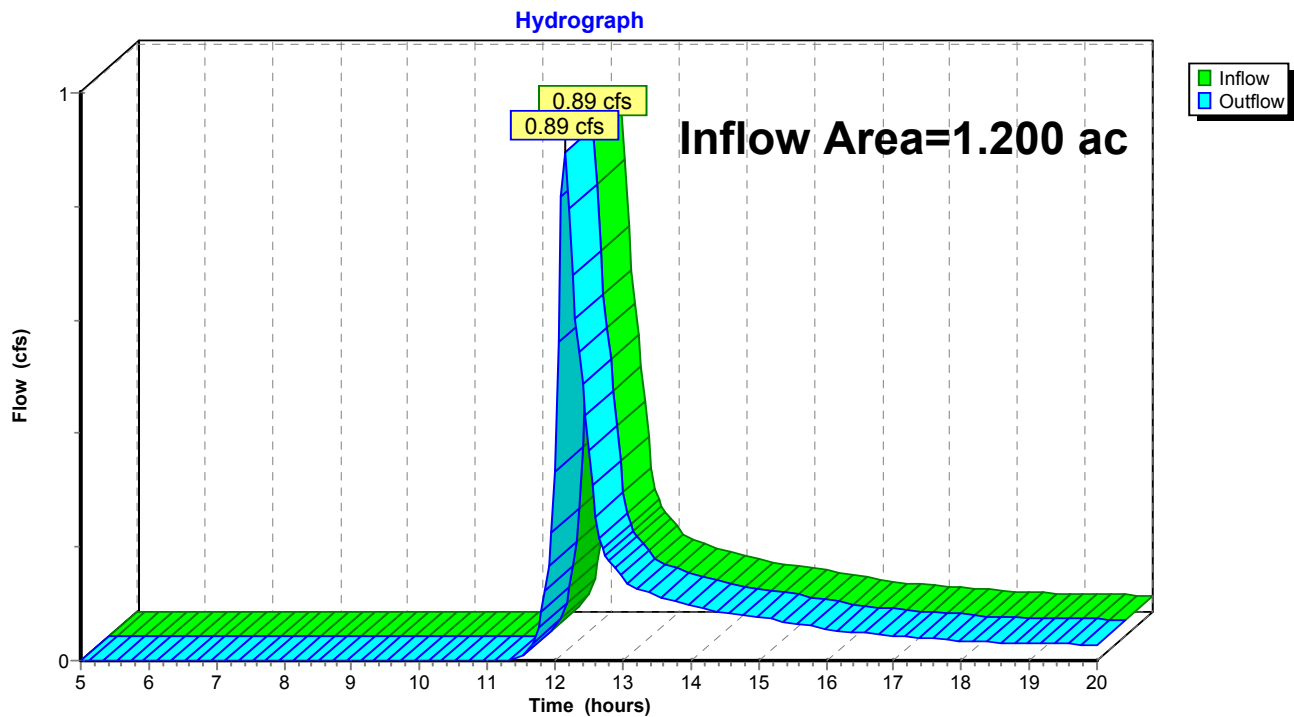
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-2: DESIGN POINT-2

Summary for Reach DP-3: DESIGN POINT-3

Inflow Area = 1.200 ac, 7.91% Impervious, Inflow Depth > 0.73" for 2 YEAR event
Inflow = 0.89 cfs @ 12.15 hrs, Volume= 0.073 af
Outflow = 0.89 cfs @ 12.15 hrs, Volume= 0.073 af, 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-3: DESIGN POINT-3

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Type III 24-hr 10 YEAR Rainfall=4.68"

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Summary for Subcatchment DA-1: DRAINAGE AREA-1

Runoff = 0.21 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 3.17"

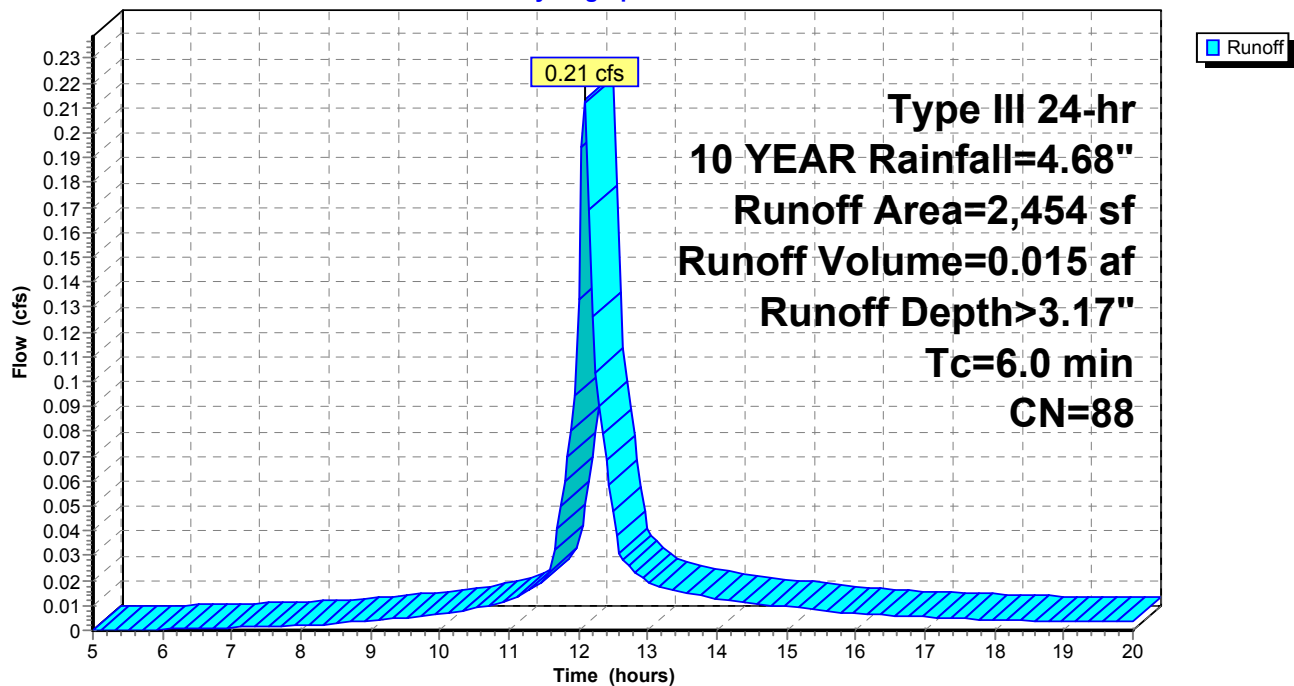
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
883	69	50-75% Grass cover, Fair, HSG B
1,571	98	Paved parking, HSG B
2,454	88	Weighted Average
883		35.98% Pervious Area
1,571		64.02% Impervious Area

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

Subcatchment DA-1: DRAINAGE AREA-1

Hydrograph



PRE-Pelton

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Type III 24-hr 10 YEAR Rainfall=4.68"

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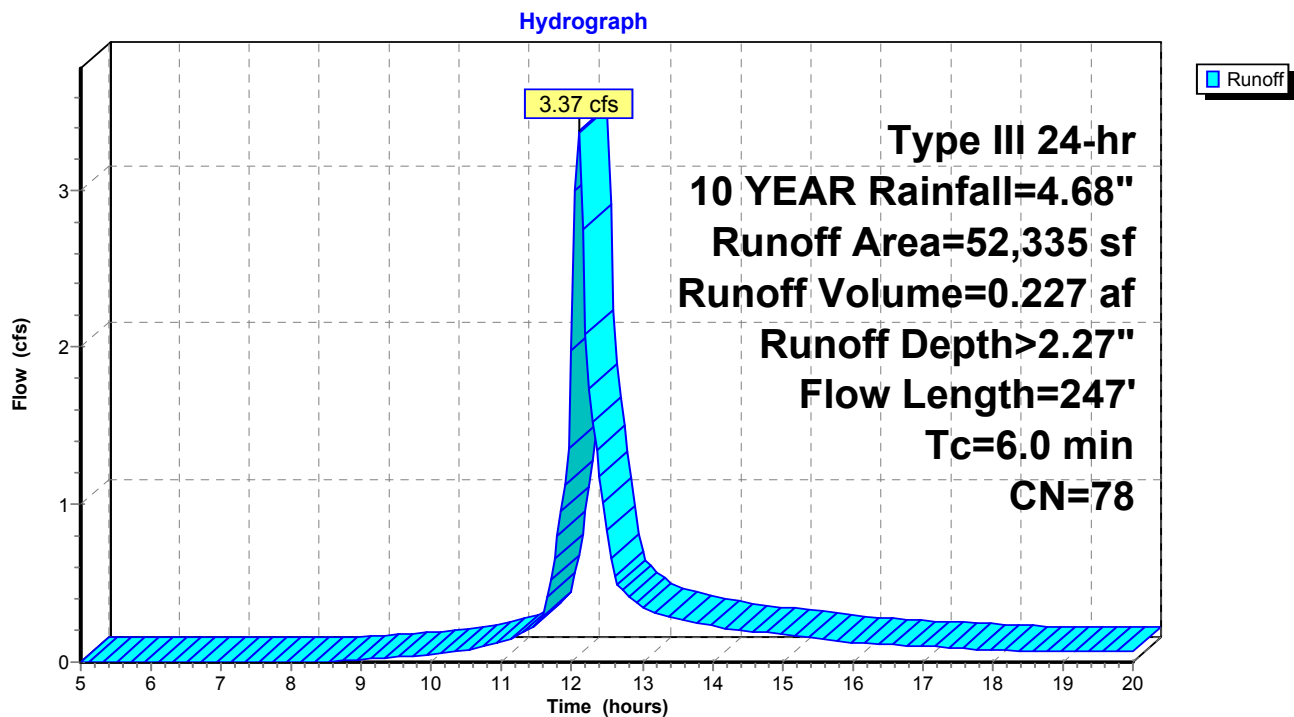
Summary for Subcatchment DA-2: DRAINAGE AREA-2

Runoff = 3.37 cfs @ 12.09 hrs, Volume= 0.227 af, Depth> 2.27"

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

Area (sf)	CN	Description
9,608	65	Woods/grass comb., Fair, HSG B
24,336	69	50-75% Grass cover, Fair, HSG B
18,391	98	Paved parking, HSG B
52,335	78	Weighted Average
33,944		64.86% Pervious Area
18,391		35.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	18	0.0670	0.19		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.16"
0.6	82	0.0780	2.26		Sheet Flow, B-C Smooth surfaces n= 0.011 P2= 3.16"
0.1	17	0.0710	5.41		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
0.2	23	0.0690	1.84		Shallow Concentrated Flow, D-E Short Grass Pasture Kv= 7.0 fps
0.3	107	0.0950	6.26		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
2.7	247	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-2: DRAINAGE AREA-2

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Type III 24-hr 10 YEAR Rainfall=4.68"

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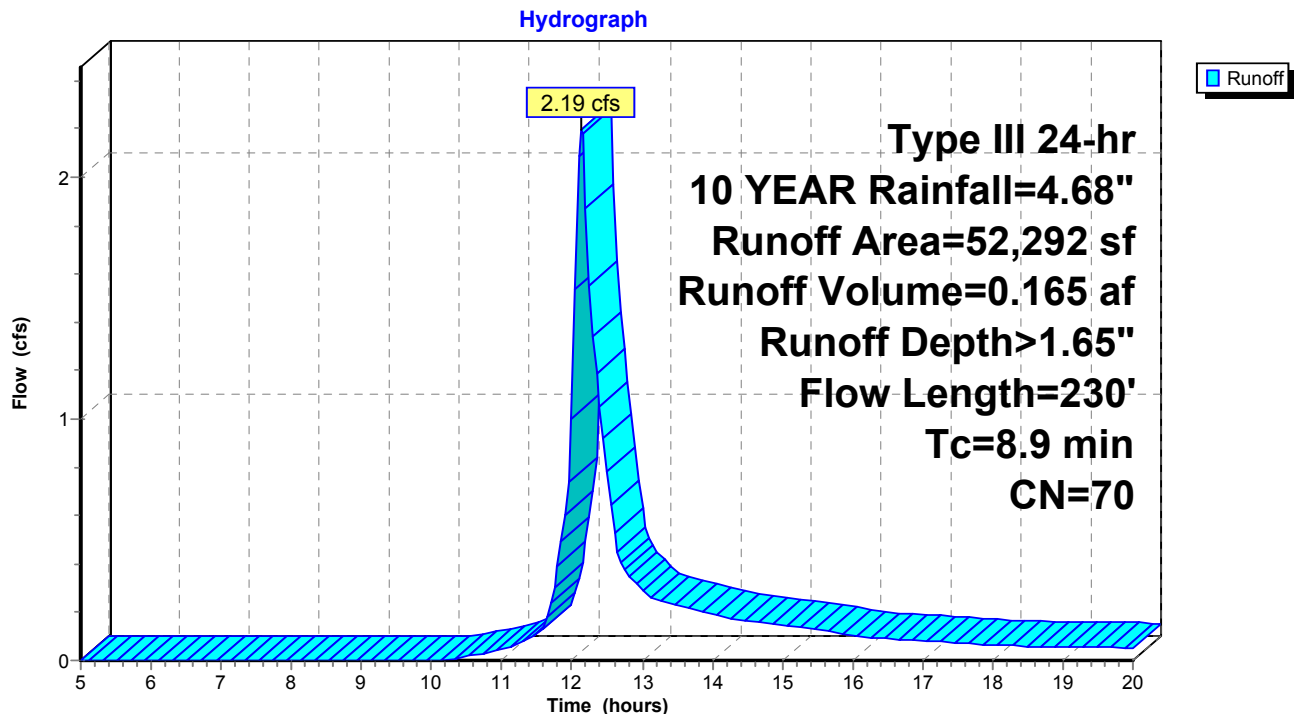
Summary for Subcatchment DA-3: DRAINAGE AREA-3

Runoff = 2.19 cfs @ 12.14 hrs, Volume= 0.165 af, Depth> 1.65"

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

Area (sf)	CN	Description
23,016	65	Woods/grass comb., Fair, HSG B
25,139	69	50-75% Grass cover, Fair, HSG B
4,137	98	Paved parking, HSG B
52,292	70	Weighted Average
48,155		92.09% Pervious Area
4,137		7.91% Impervious Area

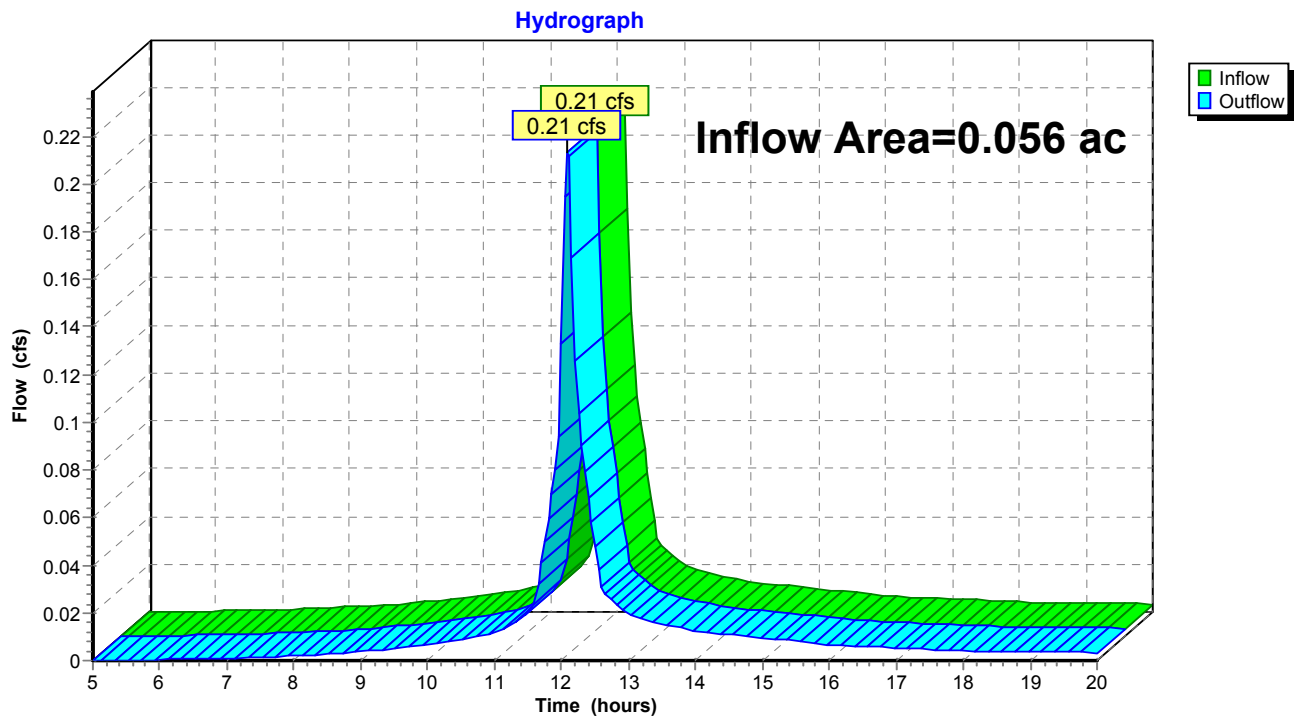
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.0310	0.20		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.16"
0.5	82	0.1510	2.72		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
0.1	48	0.1670	8.30		Shallow Concentrated Flow, C-D
					Paved Kv= 20.3 fps
8.9	230	Total			

Subcatchment DA-3: DRAINAGE AREA-3

Summary for Reach DP-1: DESIGN POINT-1

Inflow Area = 0.056 ac, 64.02% Impervious, Inflow Depth > 3.17" for 10 YEAR event
Inflow = 0.21 cfs @ 12.09 hrs, Volume= 0.015 af
Outflow = 0.21 cfs @ 12.09 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min

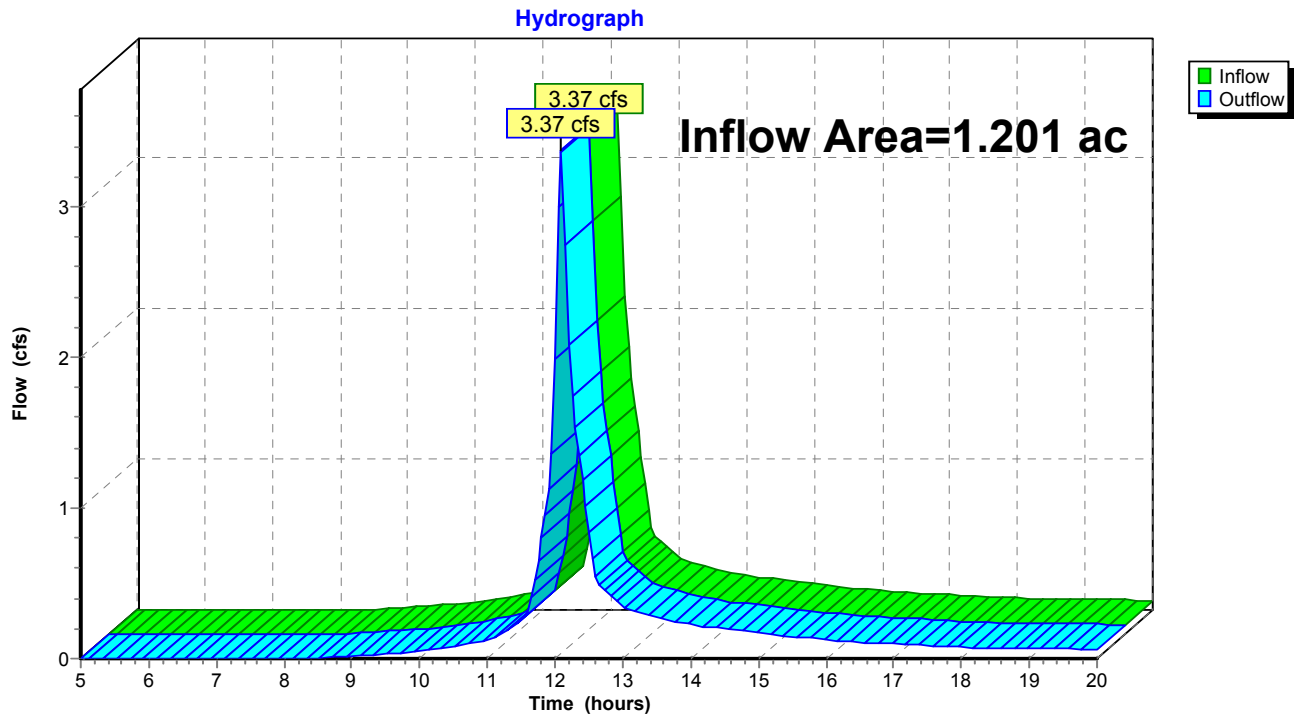
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-1: DESIGN POINT-1

Summary for Reach DP-2: DESIGN POINT-2

Inflow Area = 1.201 ac, 35.14% Impervious, Inflow Depth > 2.27" for 10 YEAR event
Inflow = 3.37 cfs @ 12.09 hrs, Volume= 0.227 af
Outflow = 3.37 cfs @ 12.09 hrs, Volume= 0.227 af, Atten= 0%, Lag= 0.0 min

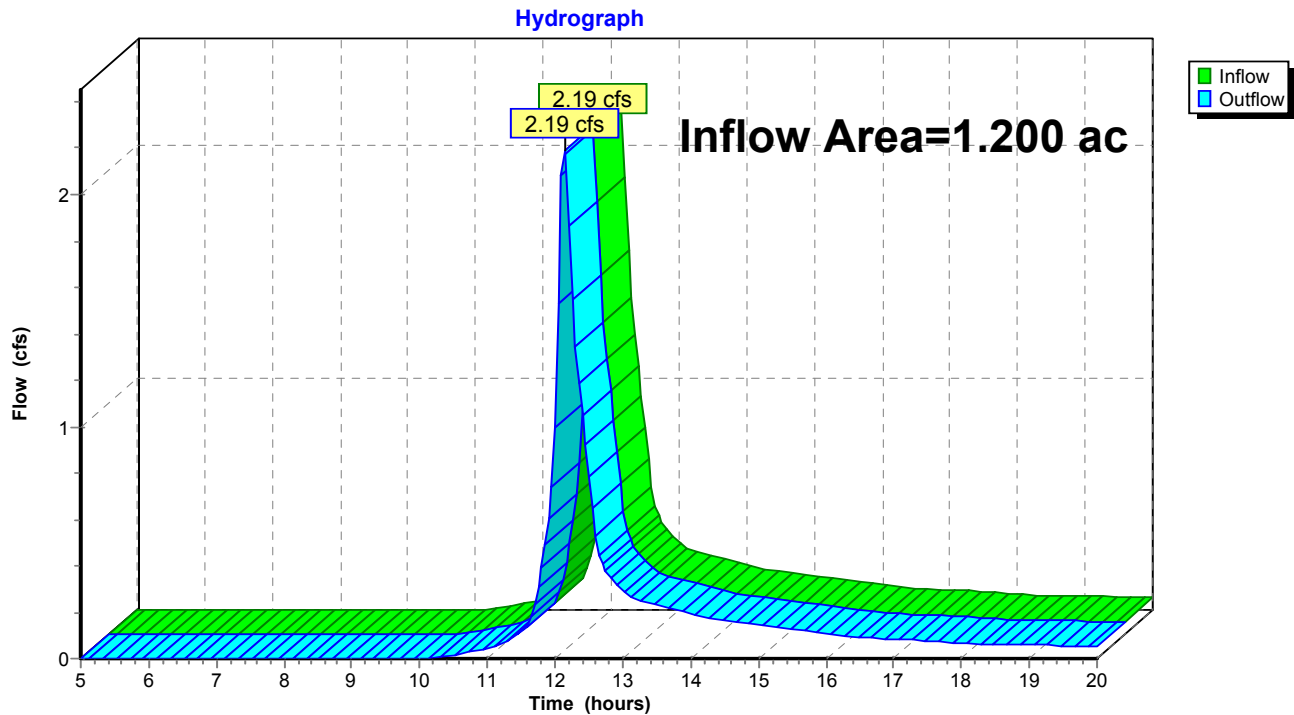
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-2: DESIGN POINT-2

Summary for Reach DP-3: DESIGN POINT-3

Inflow Area = 1.200 ac, 7.91% Impervious, Inflow Depth > 1.65" for 10 YEAR event
Inflow = 2.19 cfs @ 12.14 hrs, Volume= 0.165 af
Outflow = 2.19 cfs @ 12.14 hrs, Volume= 0.165 af, 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-3: DESIGN POINT-3

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Type III 24-hr 100 YEAR Rainfall=8.22"

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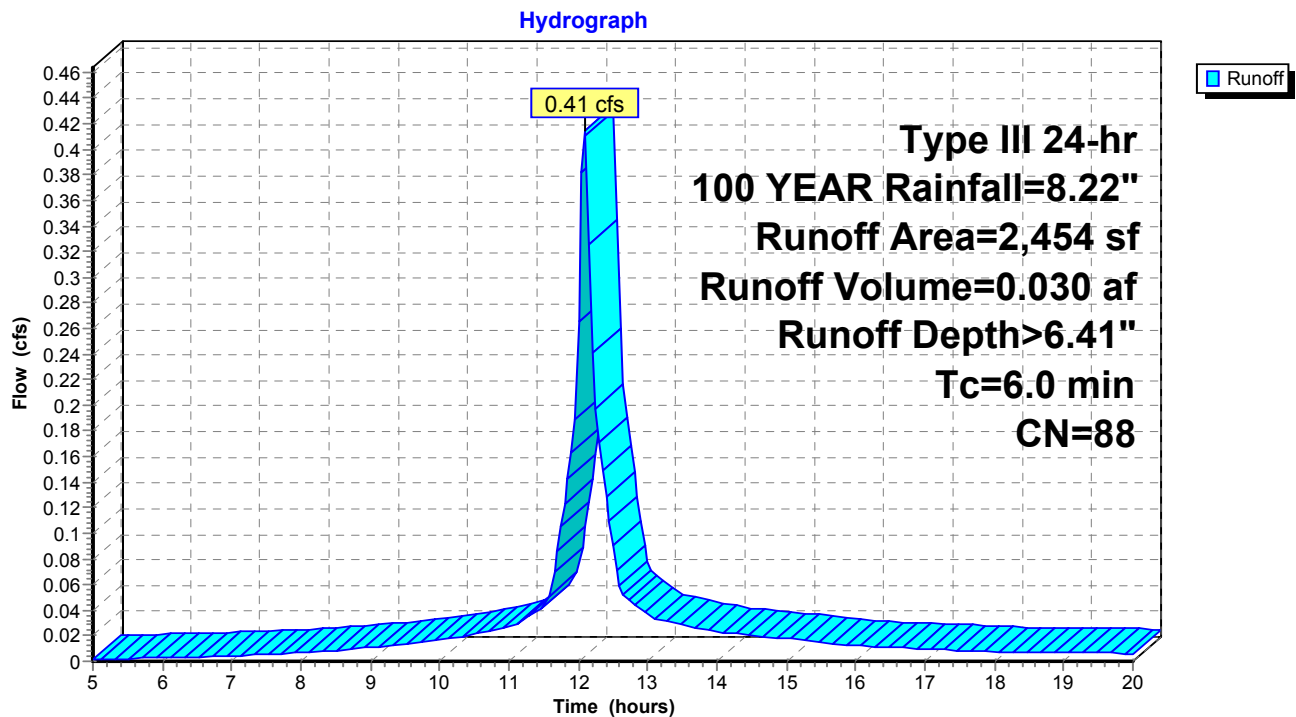
Summary for Subcatchment DA-1: DRAINAGE AREA-1

Runoff = 0.41 cfs @ 12.09 hrs, Volume= 0.030 af, Depth> 6.41"

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

Area (sf)	CN	Description
883	69	50-75% Grass cover, Fair, HSG B
1,571	98	Paved parking, HSG B
2,454	88	Weighted Average
883		35.98% Pervious Area
1,571		64.02% Impervious Area

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

Subcatchment DA-1: DRAINAGE AREA-1

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Type III 24-hr 100 YEAR Rainfall=8.22"

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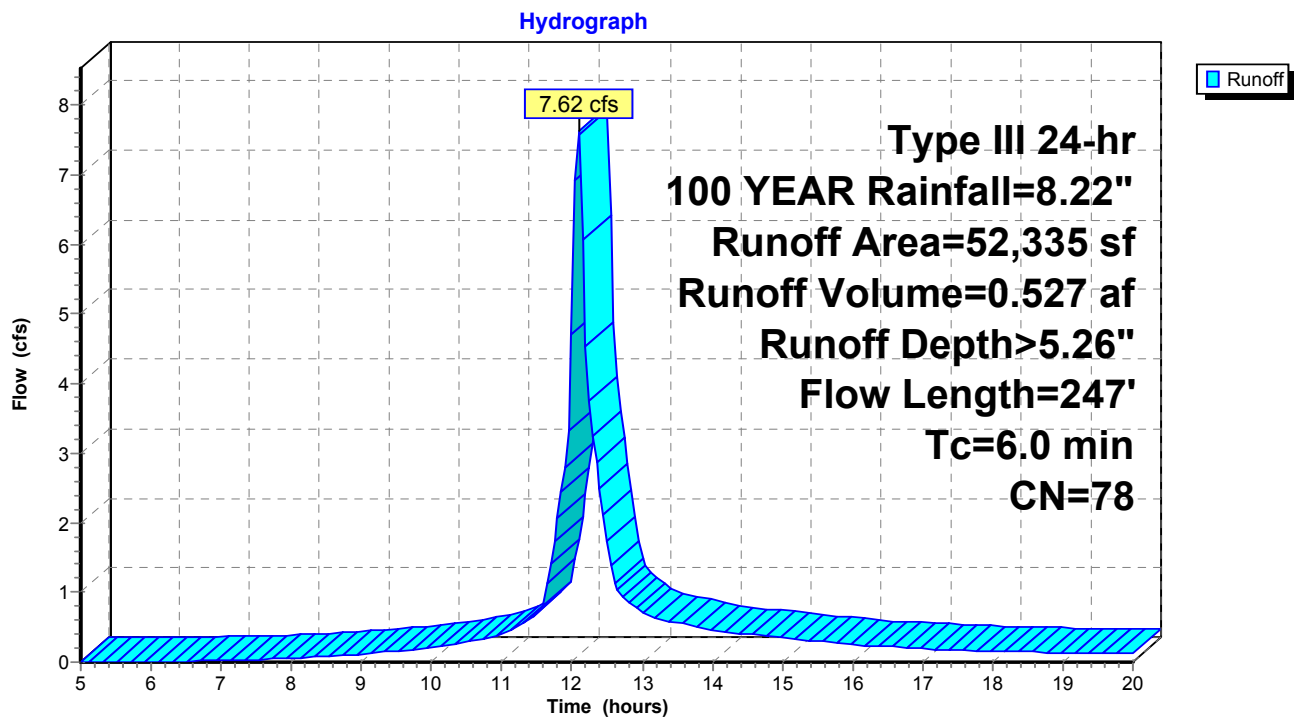
Summary for Subcatchment DA-2: DRAINAGE AREA-2

Runoff = 7.62 cfs @ 12.09 hrs, Volume= 0.527 af, Depth> 5.26"

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

Area (sf)	CN	Description
9,608	65	Woods/grass comb., Fair, HSG B
24,336	69	50-75% Grass cover, Fair, HSG B
18,391	98	Paved parking, HSG B
52,335	78	Weighted Average
33,944		64.86% Pervious Area
18,391		35.14% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	18	0.0670	0.19		Sheet Flow, A-B Grass: Short n= 0.150 P2= 3.16"
0.6	82	0.0780	2.26		Sheet Flow, B-C Smooth surfaces n= 0.011 P2= 3.16"
0.1	17	0.0710	5.41		Shallow Concentrated Flow, C-D Paved Kv= 20.3 fps
0.2	23	0.0690	1.84		Shallow Concentrated Flow, D-E Short Grass Pasture Kv= 7.0 fps
0.3	107	0.0950	6.26		Shallow Concentrated Flow, E-F Paved Kv= 20.3 fps
2.7	247	Total, Increased to minimum Tc = 6.0 min			

Subcatchment DA-2: DRAINAGE AREA-2

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Type III 24-hr 100 YEAR Rainfall=8.22"

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Summary for Subcatchment DA-3: DRAINAGE AREA-3

Runoff = 5.81 cfs @ 12.13 hrs, Volume= 0.434 af, Depth> 4.34"

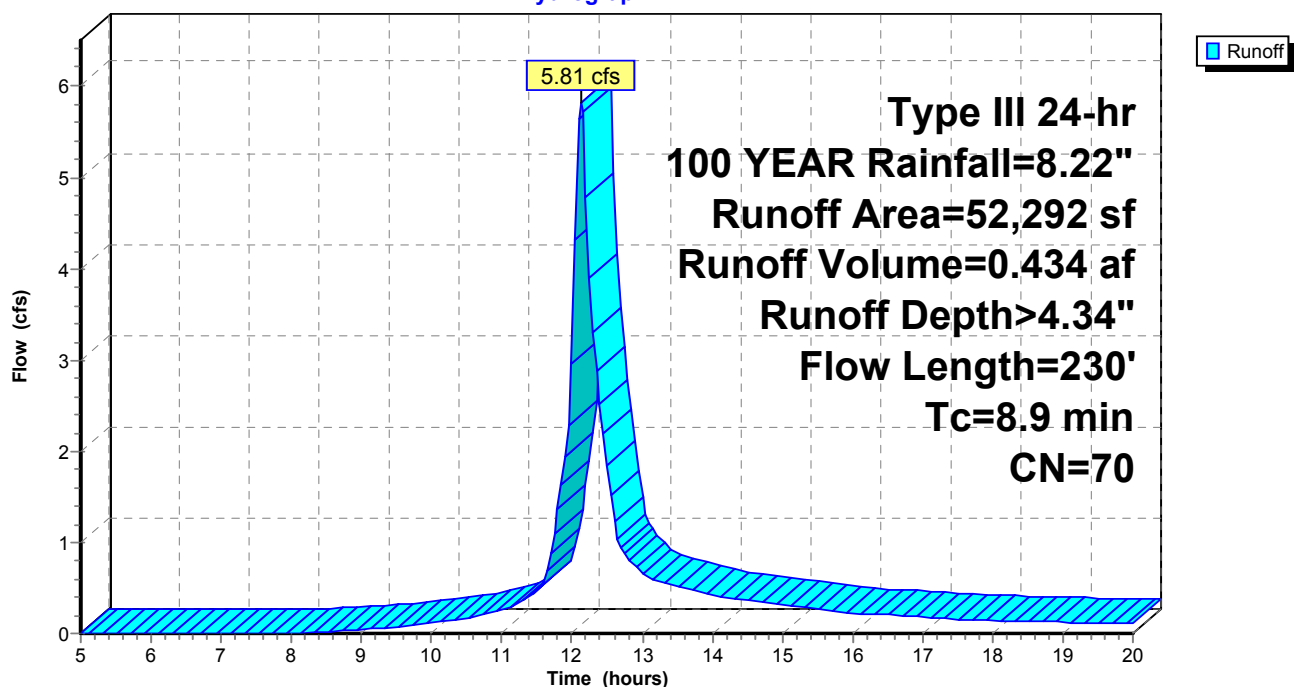
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
23,016	65	Woods/grass comb., Fair, HSG B
25,139	69	50-75% Grass cover, Fair, HSG B
4,137	98	Paved parking, HSG B
52,292	70	Weighted Average
48,155		92.09% Pervious Area
4,137		7.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	100	0.0310	0.20		Sheet Flow, A-B
					Grass: Short n= 0.150 P2= 3.16"
0.5	82	0.1510	2.72		Shallow Concentrated Flow, B-C
					Short Grass Pasture Kv= 7.0 fps
0.1	48	0.1670	8.30		Shallow Concentrated Flow, C-D
					Paved Kv= 20.3 fps
8.9	230	Total			

Subcatchment DA-3: DRAINAGE AREA-3

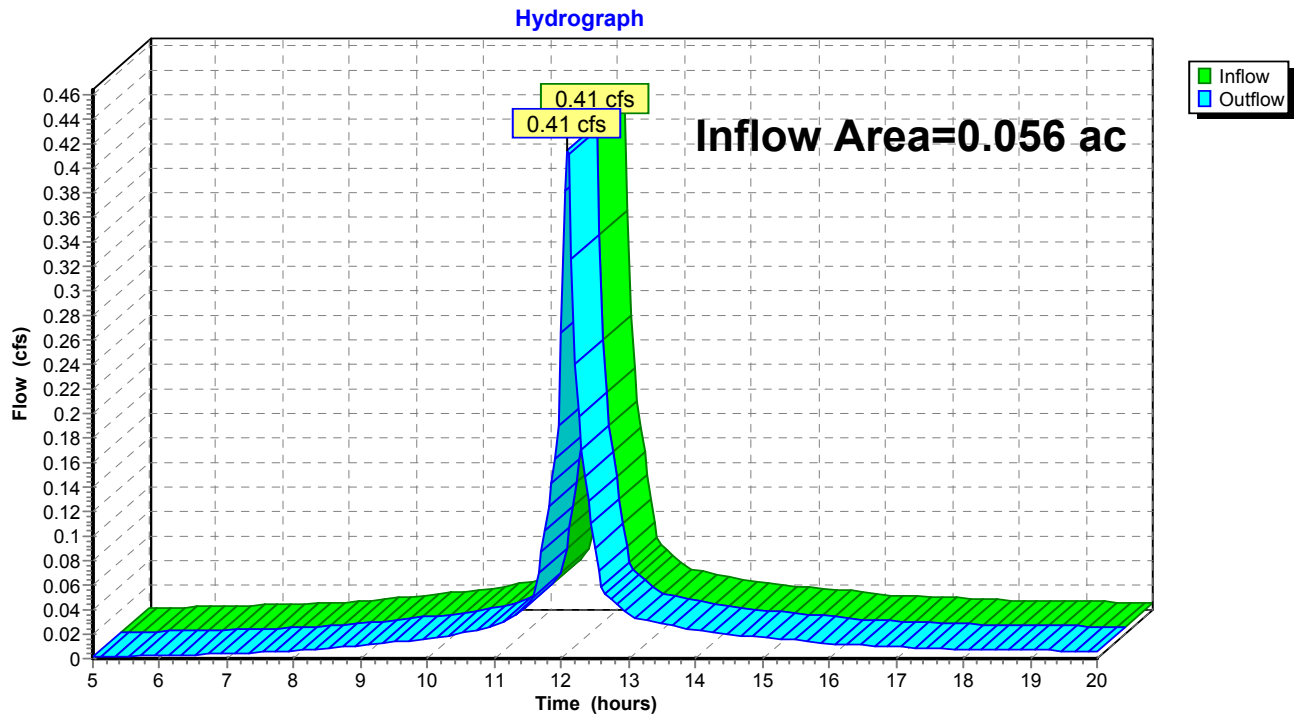
Hydrograph



Summary for Reach DP-1: DESIGN POINT-1

Inflow Area = 0.056 ac, 64.02% Impervious, Inflow Depth > 6.41" for 100 YEAR event
Inflow = 0.41 cfs @ 12.09 hrs, Volume= 0.030 af
Outflow = 0.41 cfs @ 12.09 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 min

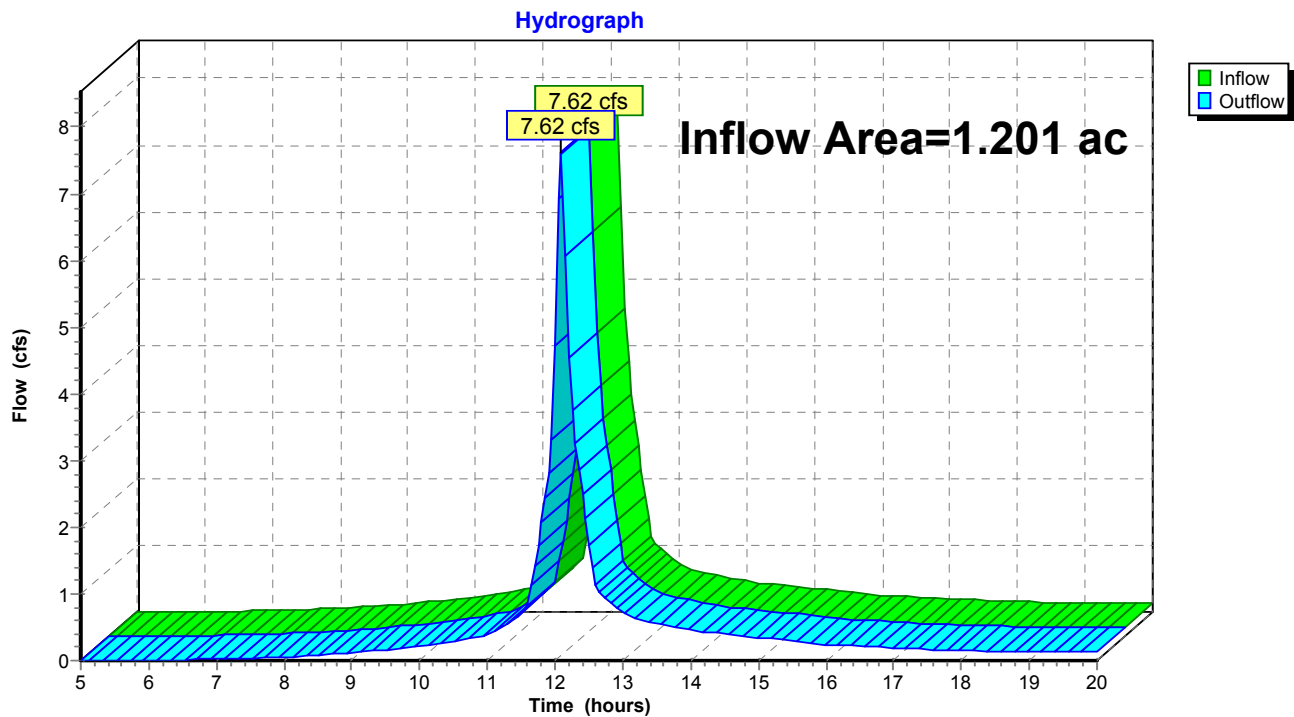
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-1: DESIGN POINT-1

Summary for Reach DP-2: DESIGN POINT-2

Inflow Area = 1.201 ac, 35.14% Impervious, Inflow Depth > 5.26" for 100 YEAR event
Inflow = 7.62 cfs @ 12.09 hrs, Volume= 0.527 af
Outflow = 7.62 cfs @ 12.09 hrs, Volume= 0.527 af, Atten= 0%, Lag= 0.0 min

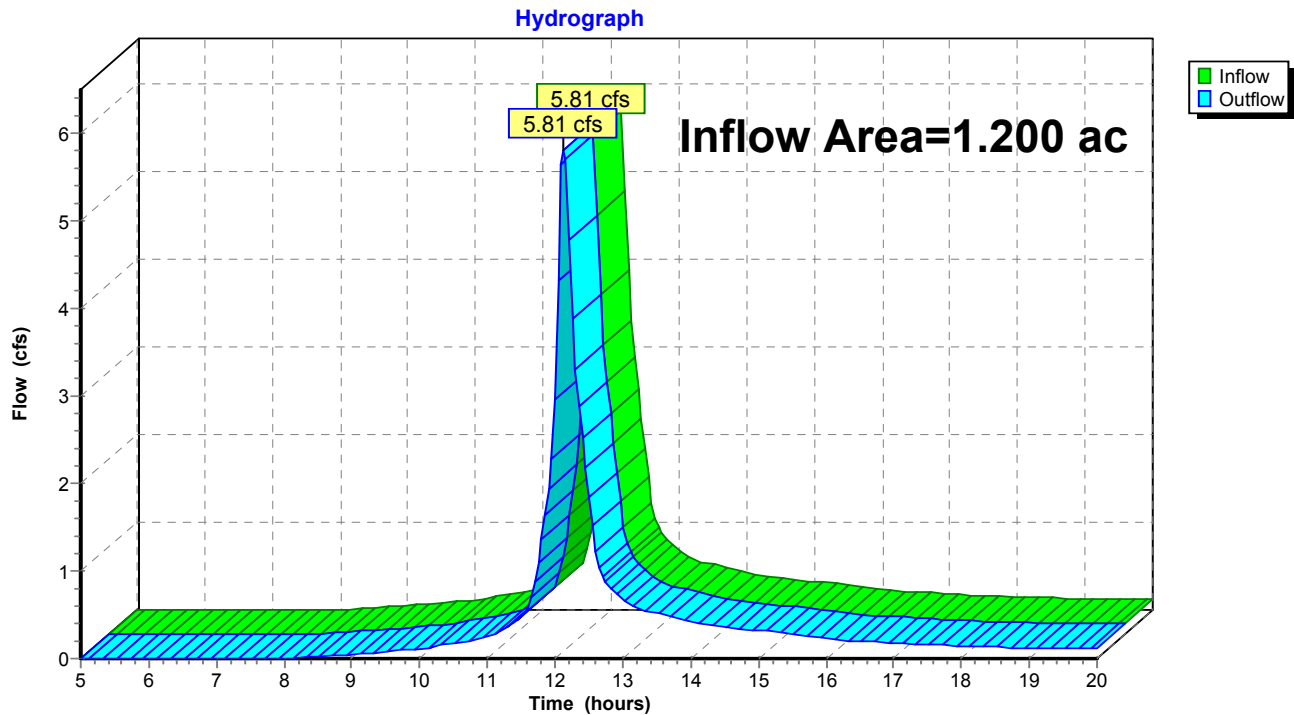
Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Reach DP-2: DESIGN POINT-2

Summary for Reach DP-3: DESIGN POINT-3

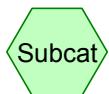
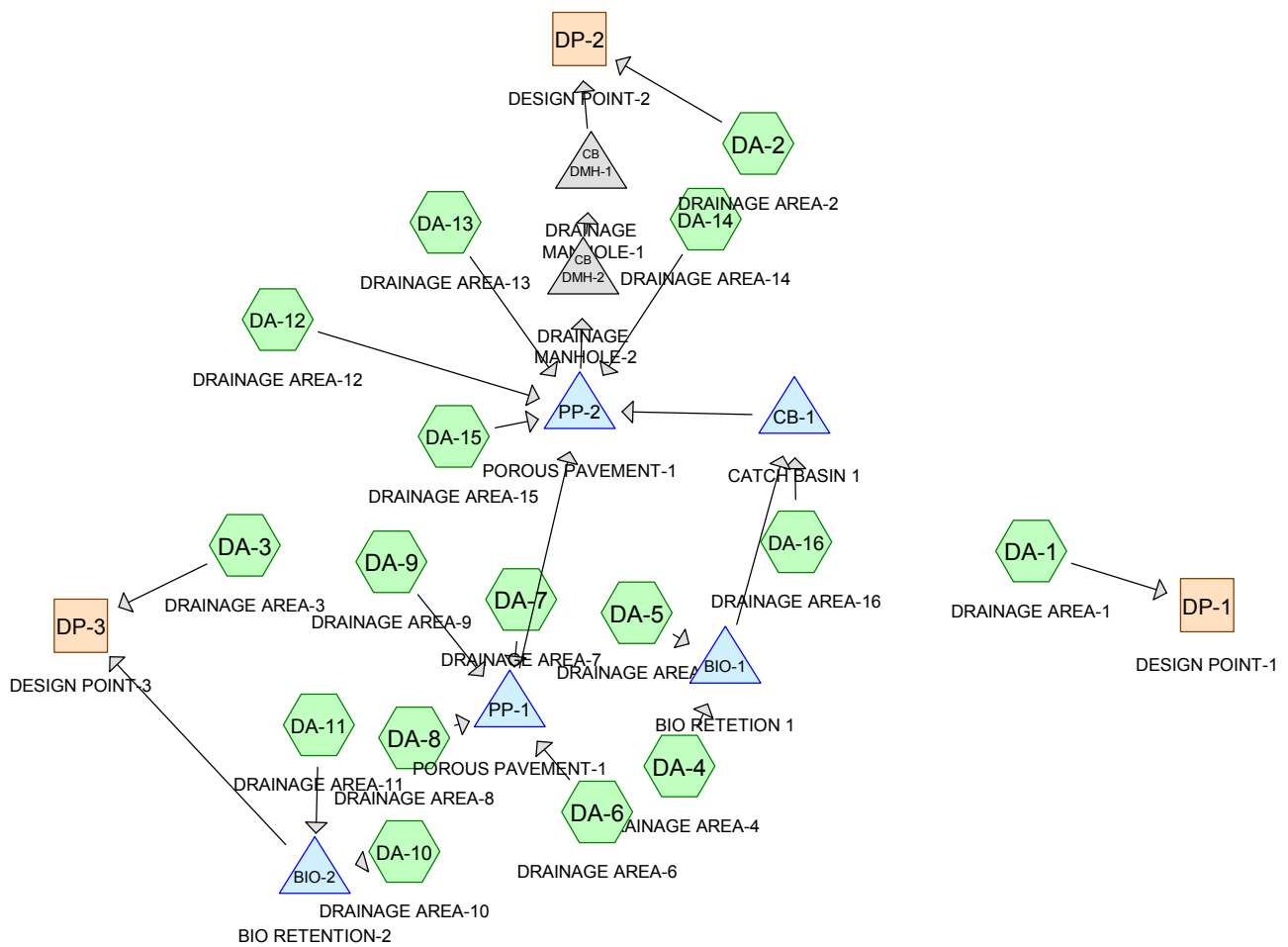
Inflow Area = 1.200 ac, 7.91% Impervious, Inflow Depth > 4.34" for 100 YEAR event
Inflow = 5.81 cfs @ 12.13 hrs, Volume= 0.434 af
Outflow = 5.81 cfs @ 12.13 hrs, Volume= 0.434 af, Atten= 0%, Lag= 0.0 min

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

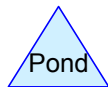
Reach DP-3: DESIGN POINT-3

APPENDIX J

Post-Development Run-off Calculations



Reach



Routing Diagram for POST-Pelton

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POST-Pelton

Prepared by The LRC Group

Printed 9/26/2023

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1 YEAR	Type III 24-hr		Default	24.00	1	2.61	2
2	2 YEAR	Type III 24-hr		Default	24.00	1	3.16	2
3	10 YEAR	Type III 24-hr		Default	24.00	1	4.68	2
4	100 YEAR	Type III 24-hr		Default	24.00	1	8.22	2

POST-Pelton

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.533	69	50-75% Grass cover, Fair, HSG B (DA-1, DA-11, DA-15, DA-16, DA-2, DA-3, DA-4, DA-7)
1.594	98	Paved parking, HSG B (DA-1, DA-10, DA-12, DA-13, DA-14, DA-15, DA-16, DA-2, DA-3, DA-5, DA-6, DA-7, DA-8, DA-9)
0.332	65	Woods/grass comb., Fair, HSG B (DA-2, DA-3)
2.458	87	TOTAL AREA

POST-Pelton

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
2.458	HSG B	DA-1, DA-10, DA-11, DA-12, DA-13, DA-14, DA-15, DA-16, DA-2, DA-3, DA-4, DA-5, DA-6, DA-7, DA-8, DA-9
0.000	HSG C	
0.000	HSG D	
0.000	Other	
2.458		TOTAL AREA

POST-Pelton

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.533	0.000	0.000	0.000	0.533	50-75% Grass cover, Fair	DA-1, DA-11, DA-15, DA-16, DA-2, DA-3, DA-4, DA-7
0.000	1.594	0.000	0.000	0.000	1.594	Paved parking	DA-1, DA-10, DA-12, DA-13, DA-14, DA-15, DA-16, DA-2, DA-3, DA-5, DA-6, DA-7, DA-8, DA-9
0.000	0.332	0.000	0.000	0.000	0.332	Woods/grass comb., Fair	DA-2, DA-3
0.000	2.458	0.000	0.000	0.000	2.458	TOTAL AREA	

POST-Pelton

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	CB-1	108.80	108.30	50.0	0.0100	0.013	0.0	6.0	0.0	
2	DMH-1	91.60	90.00	16.0	0.1000	0.013	0.0	12.0	0.0	
3	DMH-2	104.95	91.60	52.0	0.2567	0.013	0.0	12.0	0.0	
4	PP-1	109.30	108.30	67.0	0.0149	0.013	0.0	0.5	0.0	
5	PP-2	108.30	104.95	67.0	0.0500	0.013	0.0	12.0	0.0	
6	PP-2	108.30	108.30	30.0	0.0000	0.013	0.0	6.0	0.0	

POST-Pelton

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Type III 24-hr 1 YEAR Rainfall=2.61"

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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: DRAINAGE AREA-1	Runoff Area=1,992 sf 82.78% Impervious Runoff Depth=1.88" Tc=6.0 min CN=93 Runoff=0.10 cfs 0.007 af
Subcatchment DA-10: DRAINAGE AREA-10	Runoff Area=2,704 sf 100.00% Impervious Runoff Depth=2.38" Tc=6.0 min CN=98 Runoff=0.15 cfs 0.012 af
Subcatchment DA-11: DRAINAGE AREA-11	Runoff Area=1,024 sf 0.00% Impervious Runoff Depth=0.47" Tc=6.0 min CN=69 Runoff=0.01 cfs 0.001 af
Subcatchment DA-12: DRAINAGE AREA-12	Runoff Area=3,697 sf 100.00% Impervious Runoff Depth=2.38" Tc=6.0 min CN=98 Runoff=0.21 cfs 0.017 af
Subcatchment DA-13: DRAINAGE AREA-13	Runoff Area=3,949 sf 100.00% Impervious Runoff Depth=2.38" Tc=6.0 min CN=98 Runoff=0.22 cfs 0.018 af
Subcatchment DA-14: DRAINAGE AREA-14	Runoff Area=3,949 sf 100.00% Impervious Runoff Depth=2.38" Tc=6.0 min CN=98 Runoff=0.22 cfs 0.018 af
Subcatchment DA-15: DRAINAGE AREA-15	Runoff Area=21,601 sf 89.31% Impervious Runoff Depth=2.07" Tc=6.0 min CN=95 Runoff=1.13 cfs 0.086 af
Subcatchment DA-16: DRAINAGE AREA-16	Runoff Area=9,241 sf 79.92% Impervious Runoff Depth=1.80" Tc=6.0 min CN=92 Runoff=0.43 cfs 0.032 af
Subcatchment DA-2: DRAINAGE AREA-2	Runoff Area=9,245 sf 29.41% Impervious Runoff Depth=0.76" Tc=6.0 min CN=76 Runoff=0.17 cfs 0.013 af
Subcatchment DA-3: DRAINAGE AREA-3	Runoff Area=26,772 sf 19.47% Impervious Runoff Depth=0.63" Tc=6.0 min CN=73 Runoff=0.39 cfs 0.032 af
Subcatchment DA-4: DRAINAGE AREA-4	Runoff Area=2,445 sf 0.00% Impervious Runoff Depth=0.47" Tc=6.0 min CN=69 Runoff=0.02 cfs 0.002 af
Subcatchment DA-5: DRAINAGE AREA-5	Runoff Area=2,578 sf 100.00% Impervious Runoff Depth=2.38" Tc=6.0 min CN=98 Runoff=0.15 cfs 0.012 af
Subcatchment DA-6: DRAINAGE AREA-6	Runoff Area=2,578 sf 100.00% Impervious Runoff Depth=2.38" Tc=6.0 min CN=98 Runoff=0.15 cfs 0.012 af
Subcatchment DA-7: DRAINAGE AREA-7	Runoff Area=10,274 sf 84.40% Impervious Runoff Depth=1.88" Tc=6.0 min CN=93 Runoff=0.50 cfs 0.037 af
Subcatchment DA-8: DRAINAGE AREA-8	Runoff Area=2,697 sf 100.00% Impervious Runoff Depth=2.38" Tc=6.0 min CN=98 Runoff=0.15 cfs 0.012 af
Subcatchment DA-9: DRAINAGE AREA-9	Runoff Area=2,335 sf 100.00% Impervious Runoff Depth=2.38" Tc=6.0 min CN=98 Runoff=0.13 cfs 0.011 af

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Type III 24-hr 1 YEAR Rainfall=2.61"

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Reach DP-1: DESIGN POINT-1

Inflow=0.10 cfs 0.007 af

Outflow=0.10 cfs 0.007 af

Reach DP-2: DESIGN POINT-2

Inflow=0.17 cfs 0.013 af

Outflow=0.17 cfs 0.013 af

Reach DP-3: DESIGN POINT-3

Inflow=0.39 cfs 0.032 af

Outflow=0.39 cfs 0.032 af

Pond BIO-1: BIO RETENTION 1

Peak Elev=111.35' Storage=5 cf Inflow=0.17 cfs 0.014 af

Discarded=0.17 cfs 0.014 af Primary=0.00 cfs 0.000 af Outflow=0.17 cfs 0.014 af

Pond BIO-2: BIO RETENTION-2

Peak Elev=94.50' Storage=53 cf Inflow=0.16 cfs 0.013 af

Discarded=0.07 cfs 0.013 af Primary=0.00 cfs 0.000 af Outflow=0.07 cfs 0.013 af

Pond CB-1: CATCH BASIN 1

Peak Elev=109.38' Storage=24 cf Inflow=0.43 cfs 0.032 af

6.0" Round Culvert n=0.013 L=50.0' S=0.0100 '/' Outflow=0.43 cfs 0.031 af

Pond DMH-1: DRAINAGE MANHOLE-1

Peak Elev=91.60' Inflow=0.00 cfs 0.000 af

12.0" Round Culvert n=0.013 L=16.0' S=0.1000 '/' Outflow=0.00 cfs 0.000 af

Pond DMH-2: DRAINAGE MANHOLE-2

Peak Elev=104.95' Inflow=0.00 cfs 0.000 af

12.0" Round Culvert n=0.013 L=52.0' S=0.2567 '/' Outflow=0.00 cfs 0.000 af

Pond PP-1: POROUS PAVEMENT-1

Peak Elev=108.71' Storage=24 cf Inflow=0.93 cfs 0.072 af

Discarded=0.93 cfs 0.072 af Primary=0.00 cfs 0.000 af Outflow=0.93 cfs 0.072 af

Pond PP-2: POROUS PAVEMENT-1

Peak Elev=108.17' Storage=101 cf Inflow=2.21 cfs 0.170 af

Discarded=1.97 cfs 0.170 af Primary=0.00 cfs 0.000 af Outflow=1.97 cfs 0.170 af

Total Runoff Area = 2.458 ac Runoff Volume = 0.322 af Average Runoff Depth = 1.57"
35.17% Pervious = 0.865 ac 64.83% Impervious = 1.594 ac

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Type III 24-hr 1 YEAR Rainfall=2.61"

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Summary for Subcatchment DA-1: DRAINAGE AREA-1

Runoff = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af, Depth= 1.88"
Routed to Reach DP-1 : DESIGN POINT-1

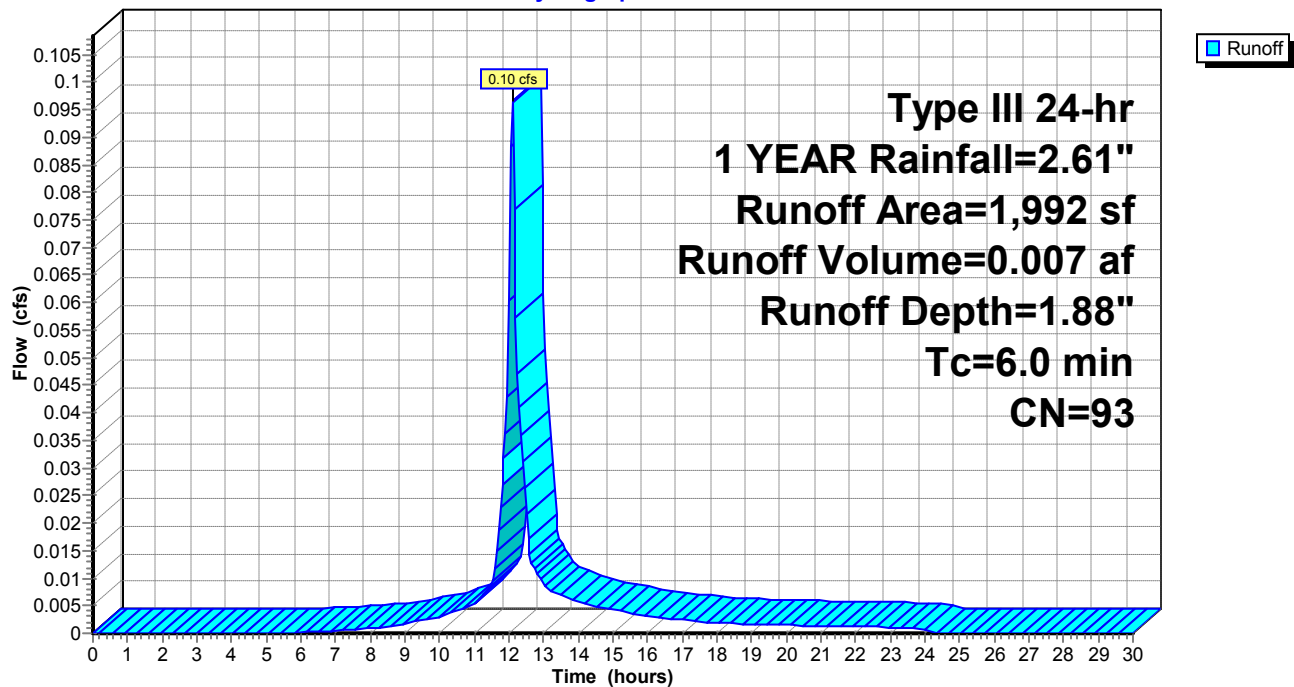
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
343	69	50-75% Grass cover, Fair, HSG B
1,649	98	Paved parking, HSG B
1,992	93	Weighted Average
343		17.22% Pervious Area
1,649		82.78% Impervious Area

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

Subcatchment DA-1: DRAINAGE AREA-1

Hydrograph



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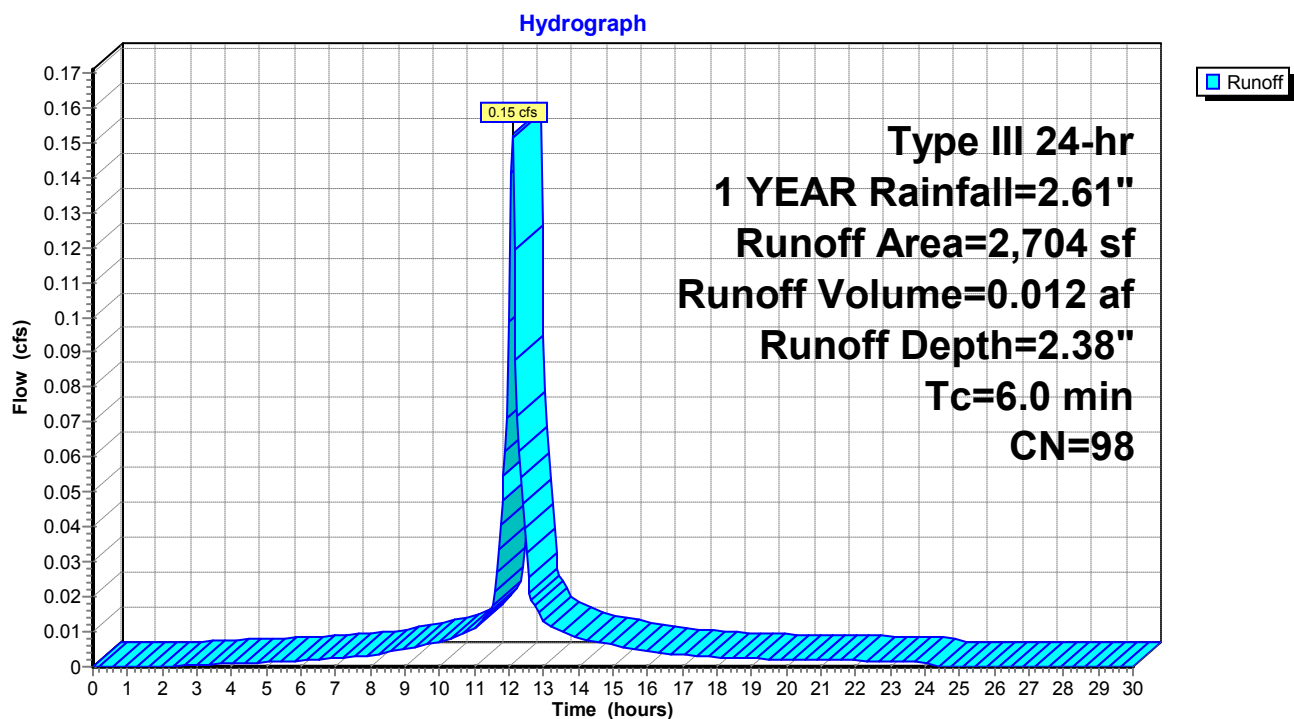
Summary for Subcatchment DA-10: DRAINAGE AREA-10

Runoff = 0.15 cfs @ 12.09 hrs, Volume= 0.012 af, Depth= 2.38"
Routed to Pond BIO-2 : BIO RETENTION-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,704	98	Paved parking, HSG B
2,704	98	Weighted Average
2,704		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: DRAINAGE AREA-10

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Type III 24-hr 1 YEAR Rainfall=2.61"

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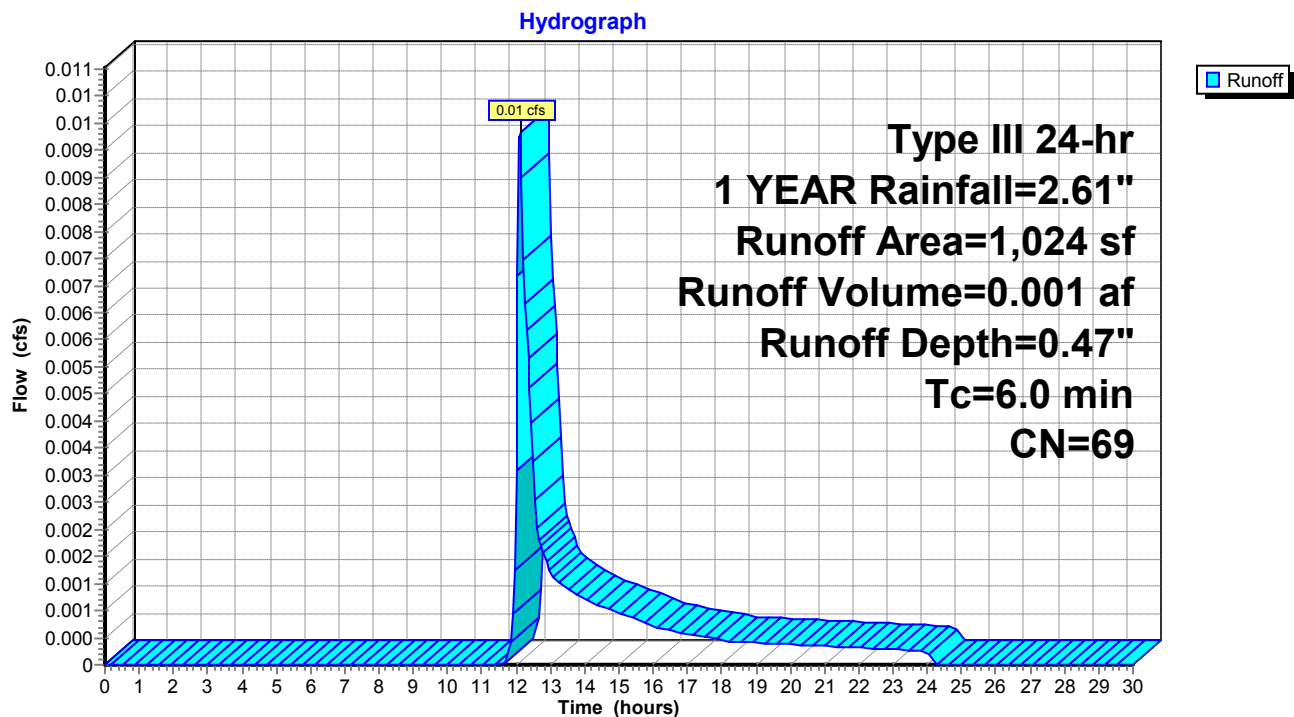
Summary for Subcatchment DA-11: DRAINAGE AREA-11

Runoff = 0.01 cfs @ 12.11 hrs, Volume= 0.001 af, Depth= 0.47"
Routed to Pond BIO-2 : BIO RETENTION-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,024	69	50-75% Grass cover, Fair, HSG B
0	98	Paved parking, HSG B
1,024	69	Weighted Average
1,024		100.00% Pervious Area

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

Subcatchment DA-11: DRAINAGE AREA-11

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Type III 24-hr 1 YEAR Rainfall=2.61"

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Summary for Subcatchment DA-12: DRAINAGE AREA-12

Runoff = 0.21 cfs @ 12.09 hrs, Volume= 0.017 af, Depth= 2.38"
Routed to Pond PP-2 : POROUS PAVEMENT-1

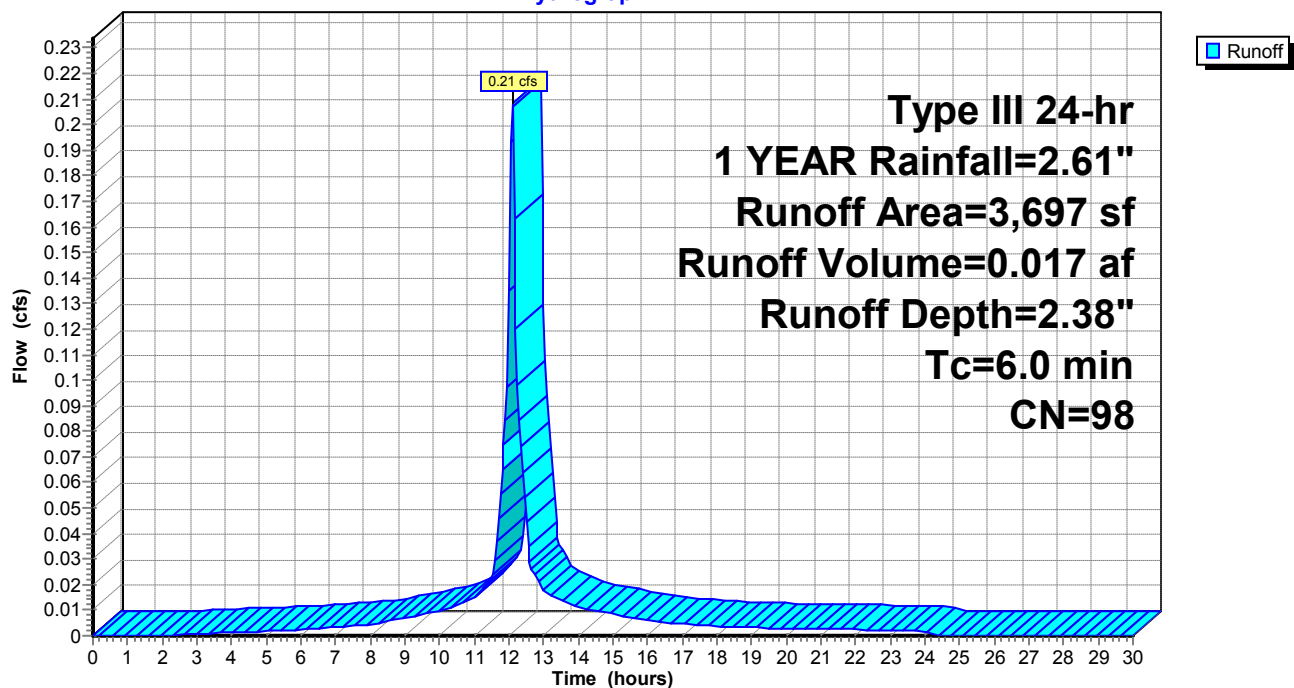
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
3,697	98	Paved parking, HSG B
3,697	98	Weighted Average
3,697		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-12: DRAINAGE AREA-12

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Summary for Subcatchment DA-13: DRAINAGE AREA-13

Runoff = 0.22 cfs @ 12.09 hrs, Volume= 0.018 af, Depth= 2.38"
Routed to Pond PP-2 : POROUS PAVEMENT-1

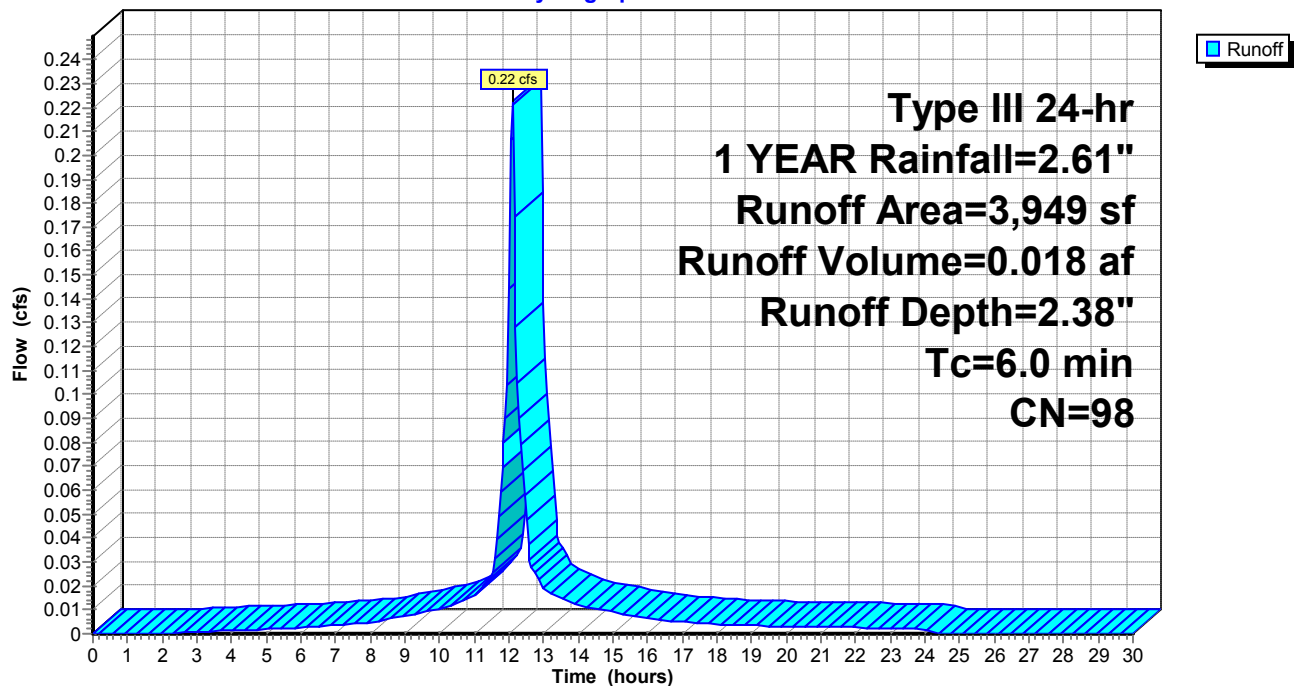
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
3,949	98	Paved parking, HSG B
3,949	98	Weighted Average
3,949		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-13: DRAINAGE AREA-13

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Type III 24-hr 1 YEAR Rainfall=2.61"

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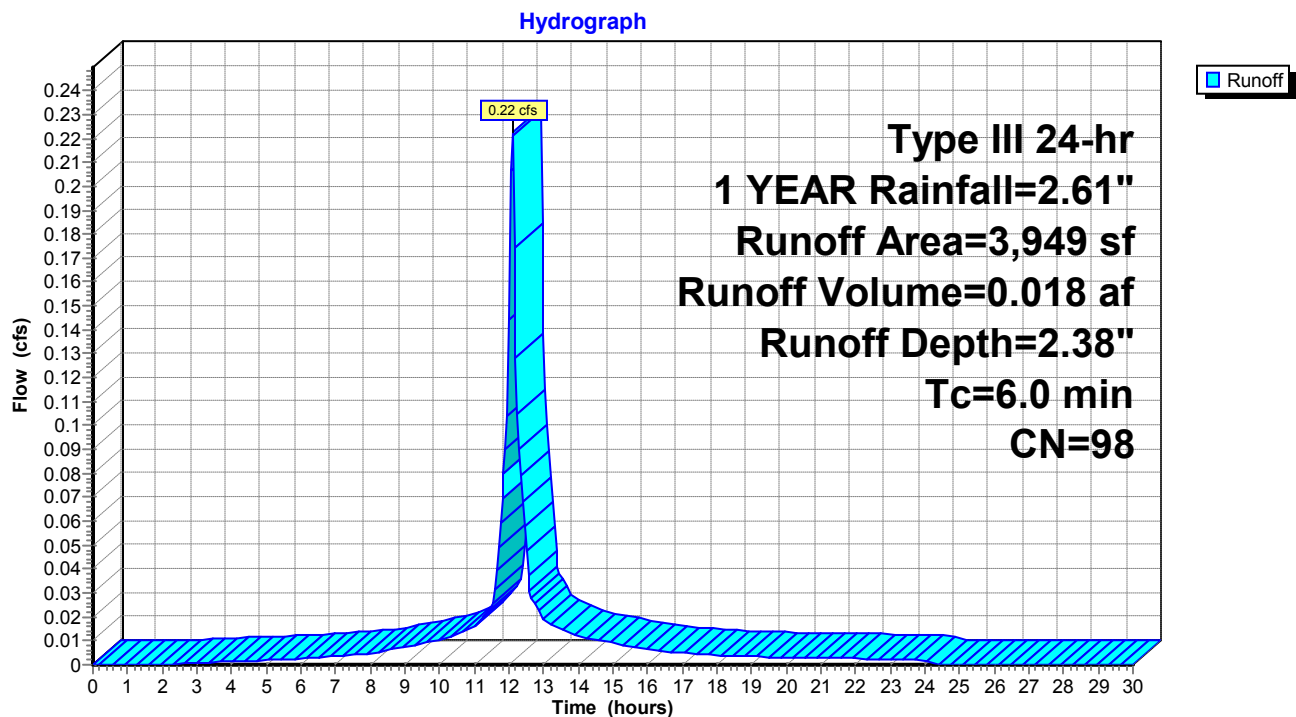
Summary for Subcatchment DA-14: DRAINAGE AREA-14

Runoff = 0.22 cfs @ 12.09 hrs, Volume= 0.018 af, Depth= 2.38"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
3,949	98	Paved parking, HSG B
3,949	98	Weighted Average
3,949		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-14: DRAINAGE AREA-14

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Type III 24-hr 1 YEAR Rainfall=2.61"

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Summary for Subcatchment DA-15: DRAINAGE AREA-15

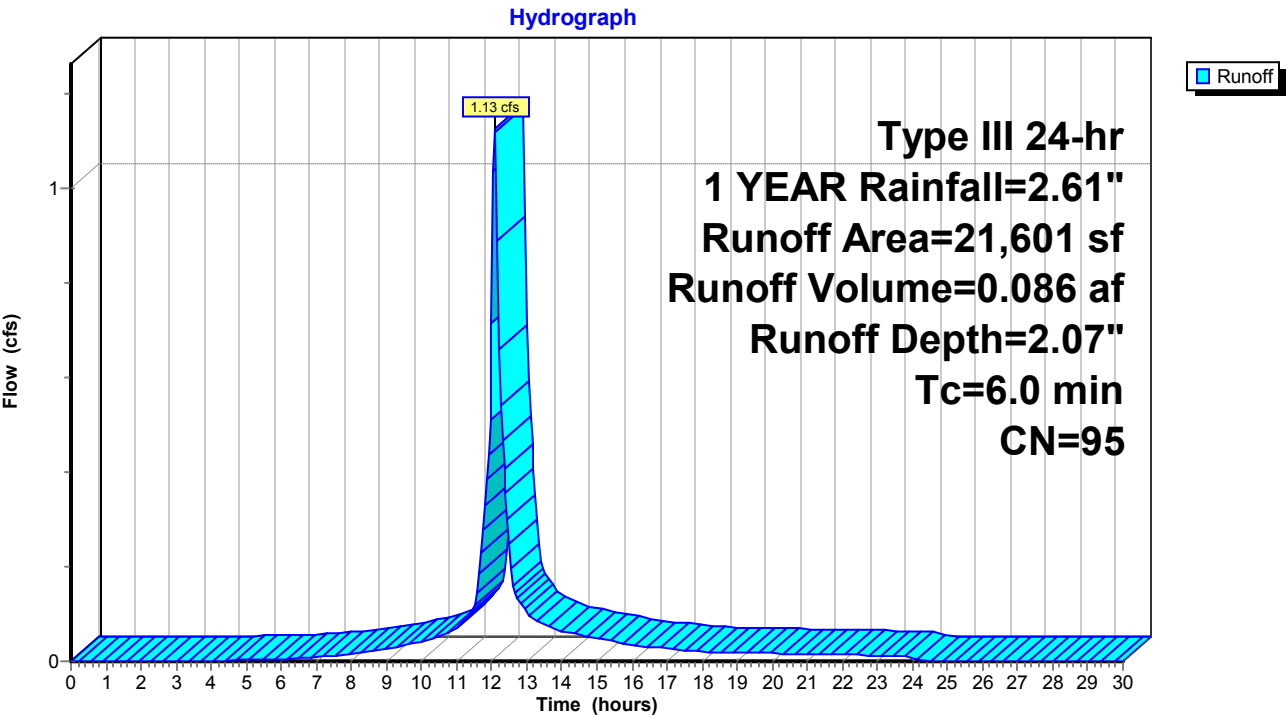
Runoff = 1.13 cfs @ 12.09 hrs, Volume= 0.086 af, Depth= 2.07"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
2,309	69	50-75% Grass cover, Fair, HSG B
19,292	98	Paved parking, HSG B
21,601	95	Weighted Average
2,309		10.69% Pervious Area
19,292		89.31% Impervious Area

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

Subcatchment DA-15: DRAINAGE AREA-15



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Type III 24-hr 1 YEAR Rainfall=2.61"

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Summary for Subcatchment DA-16: DRAINAGE AREA-16

Runoff = 0.43 cfs @ 12.09 hrs, Volume= 0.032 af, Depth= 1.80"
Routed to Pond CB-1 : CATCH BASIN 1

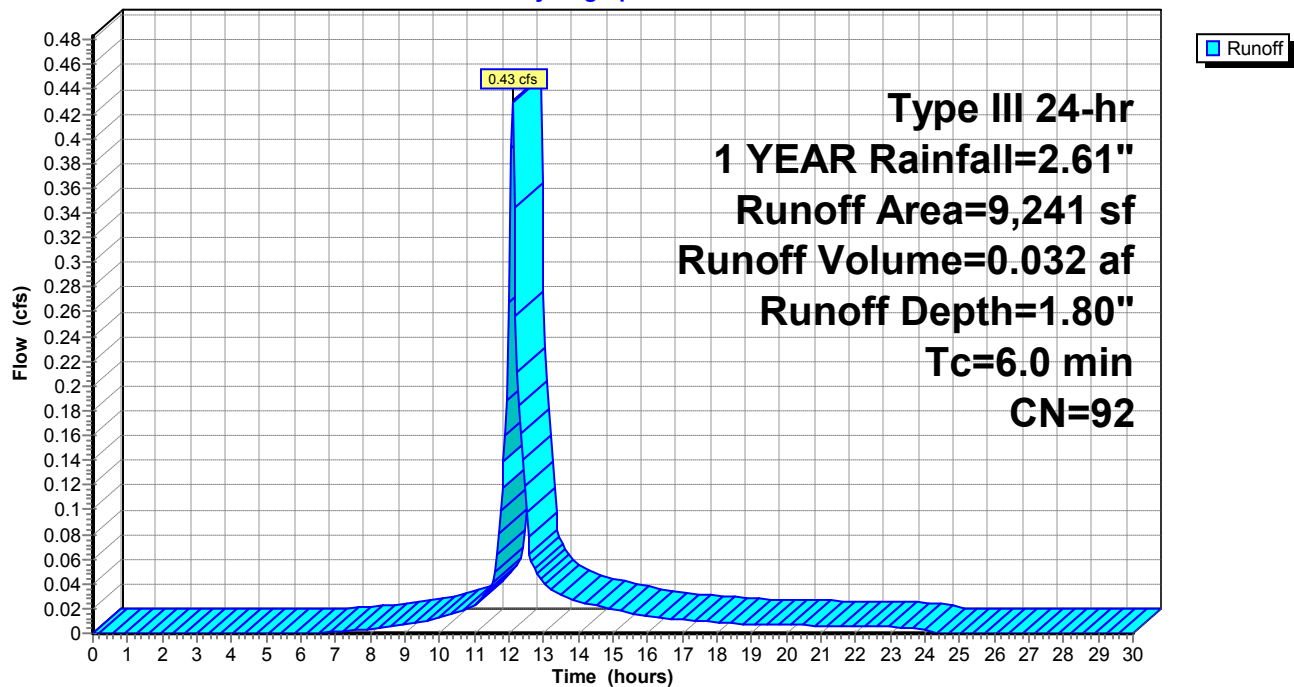
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,856	69	50-75% Grass cover, Fair, HSG B
7,385	98	Paved parking, HSG B
9,241	92	Weighted Average
1,856		20.08% Pervious Area
7,385		79.92% Impervious Area

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

Subcatchment DA-16: DRAINAGE AREA-16

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Type III 24-hr 1 YEAR Rainfall=2.61"

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Summary for Subcatchment DA-2: DRAINAGE AREA-2

Runoff = 0.17 cfs @ 12.10 hrs, Volume= 0.013 af, Depth= 0.76"
Routed to Reach DP-2 : DESIGN POINT-2

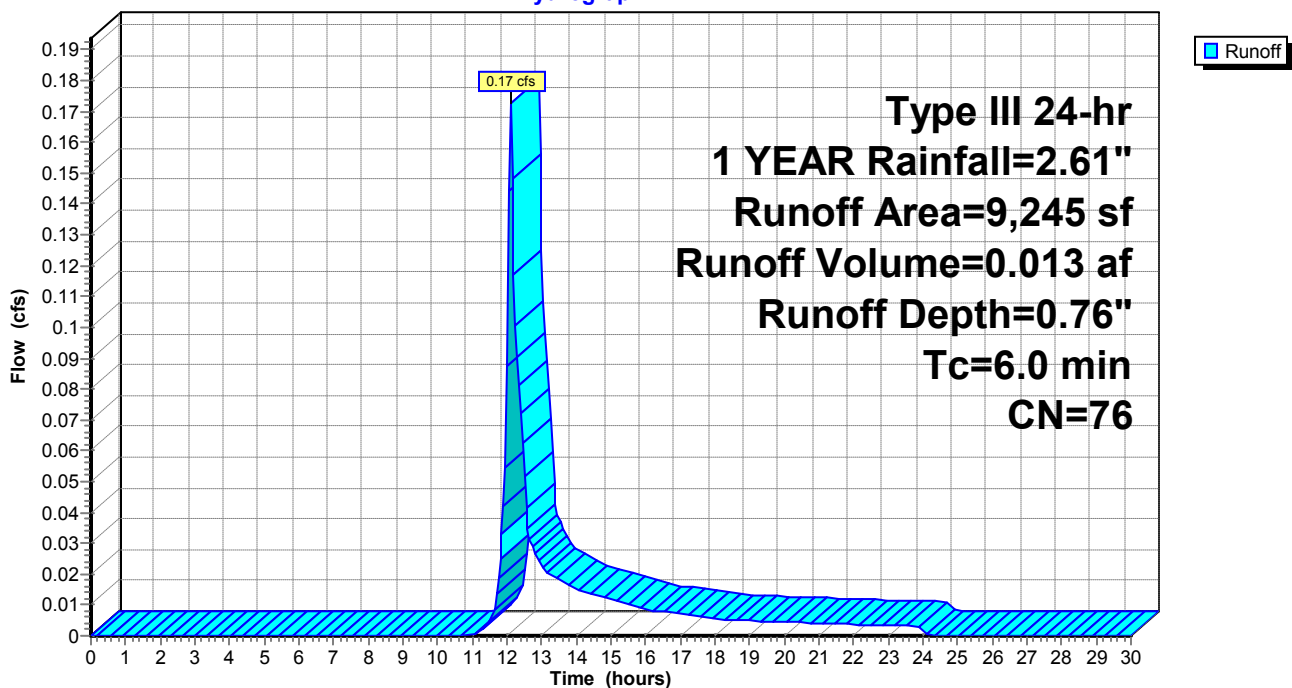
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
2,617	65	Woods/grass comb., Fair, HSG B
3,909	69	50-75% Grass cover, Fair, HSG B
2,719	98	Paved parking, HSG B
9,245	76	Weighted Average
6,526		70.59% Pervious Area
2,719		29.41% Impervious Area

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

Subcatchment DA-2: DRAINAGE AREA-2

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Type III 24-hr 1 YEAR Rainfall=2.61"

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Summary for Subcatchment DA-3: DRAINAGE AREA-3

Runoff = 0.39 cfs @ 12.11 hrs, Volume= 0.032 af, Depth= 0.63"
Routed to Reach DP-3 : DESIGN POINT-3

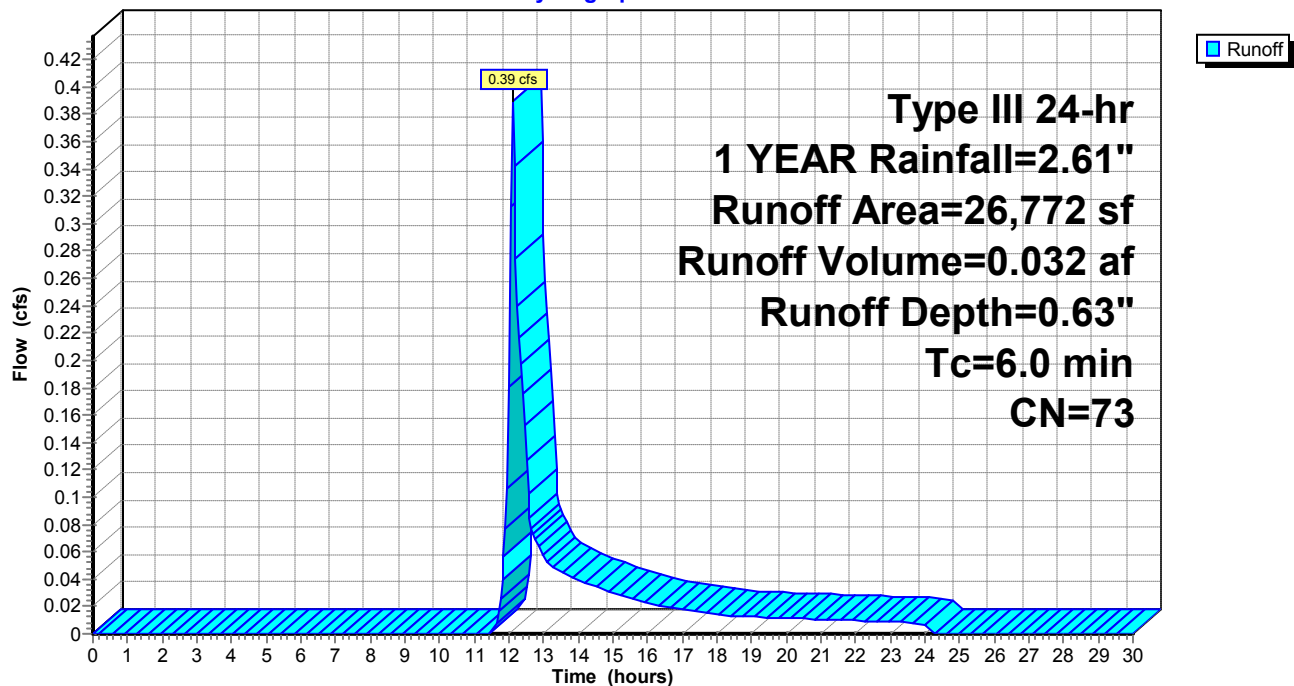
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
11,839	65	Woods/grass comb., Fair, HSG B
9,720	69	50-75% Grass cover, Fair, HSG B
5,213	98	Paved parking, HSG B
26,772	73	Weighted Average
21,559		80.53% Pervious Area
5,213		19.47% Impervious Area

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

Subcatchment DA-3: DRAINAGE AREA-3

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Type III 24-hr 1 YEAR Rainfall=2.61"

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Summary for Subcatchment DA-4: DRAINAGE AREA-4

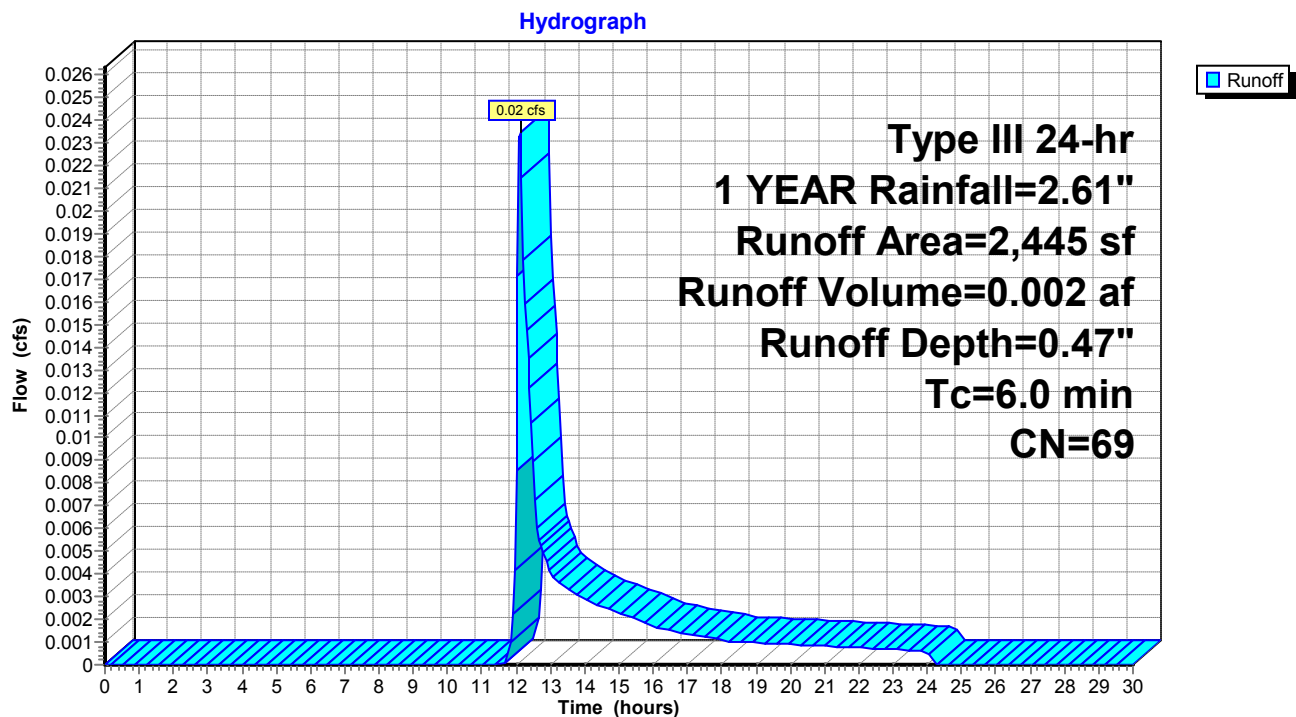
Runoff = 0.02 cfs @ 12.11 hrs, Volume= 0.002 af, Depth= 0.47"
Routed to Pond BIO-1 : BIO RETENTION 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
2,445	69	50-75% Grass cover, Fair, HSG B
0	98	Paved parking, HSG B
2,445	69	Weighted Average
2,445		100.00% Pervious Area

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

Subcatchment DA-4: DRAINAGE AREA-4



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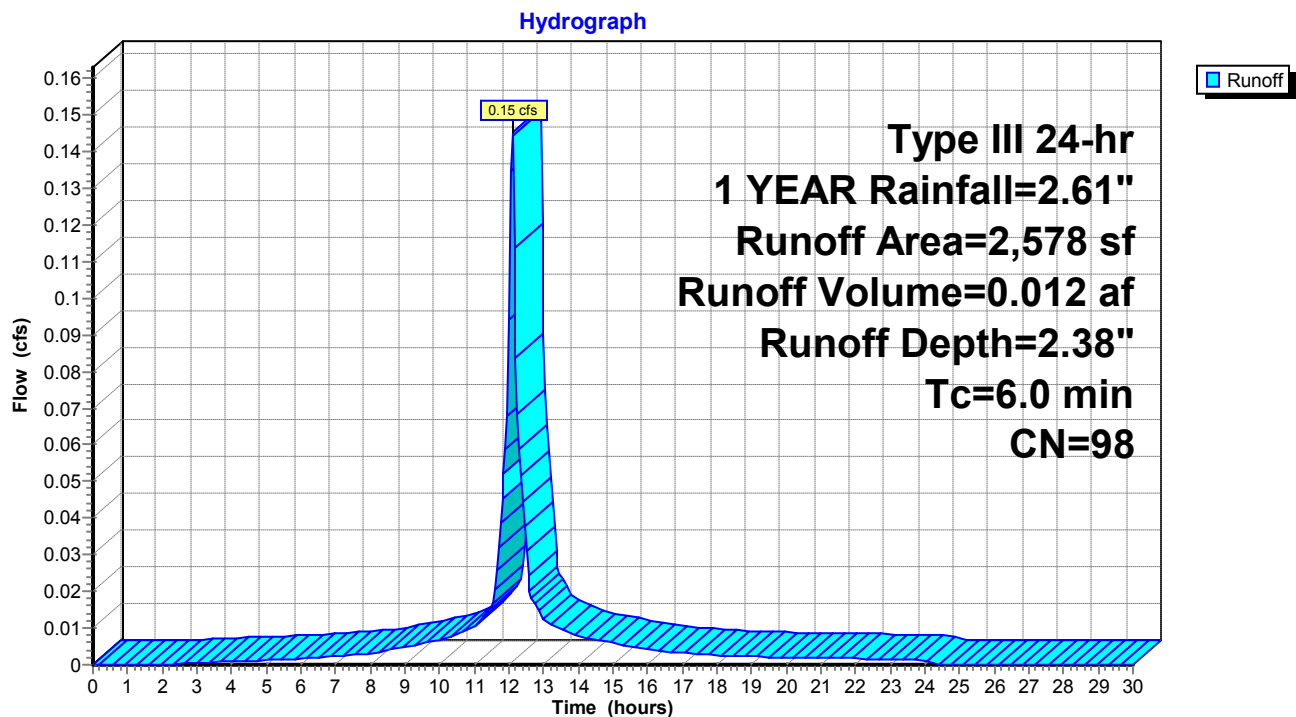
Summary for Subcatchment DA-5: DRAINAGE AREA-5

Runoff = 0.15 cfs @ 12.09 hrs, Volume= 0.012 af, Depth= 2.38"
Routed to Pond BIO-1 : BIO RETENTION 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,578	98	Paved parking, HSG B
2,578	98	Weighted Average
2,578		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-5: DRAINAGE AREA-5

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Summary for Subcatchment DA-6: DRAINAGE AREA-6

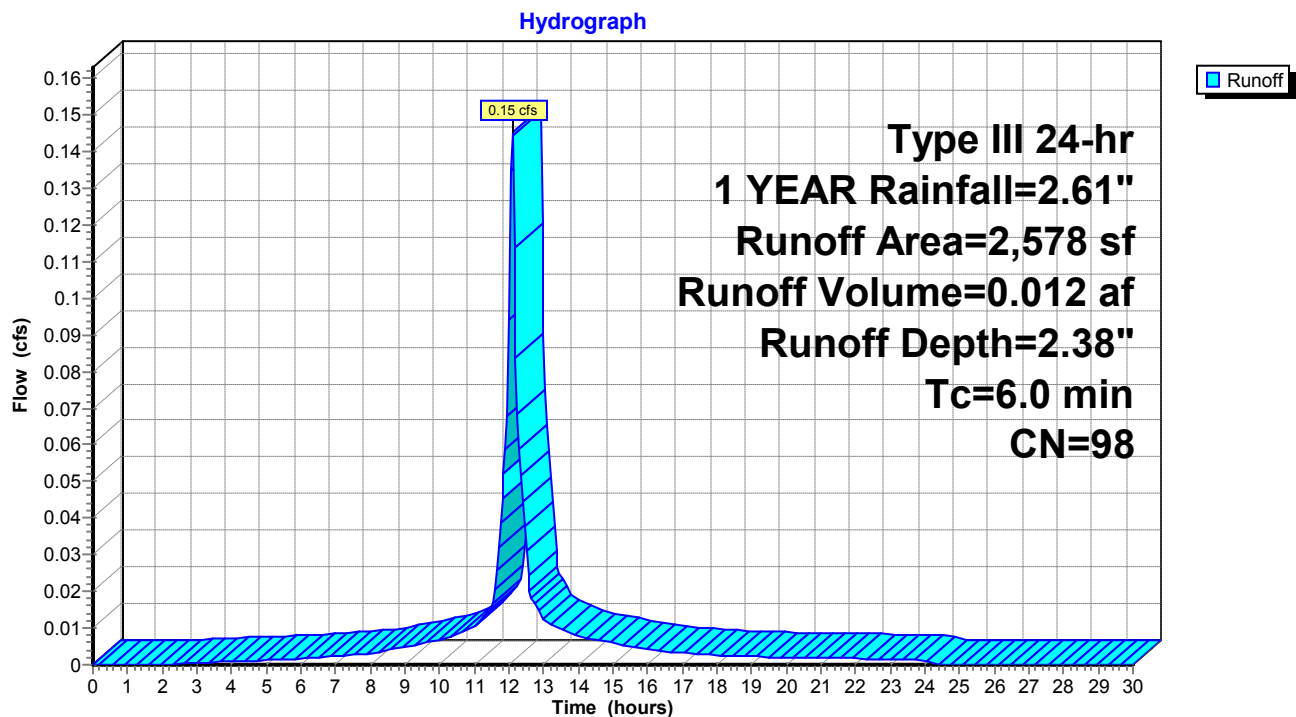
Runoff = 0.15 cfs @ 12.09 hrs, Volume= 0.012 af, Depth= 2.38"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,578	98	Paved parking, HSG B
2,578	98	Weighted Average
2,578		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-6: DRAINAGE AREA-6



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Summary for Subcatchment DA-7: DRAINAGE AREA-7

Runoff = 0.50 cfs @ 12.09 hrs, Volume= 0.037 af, Depth= 1.88"
Routed to Pond PP-1 : POROUS PAVEMENT-1

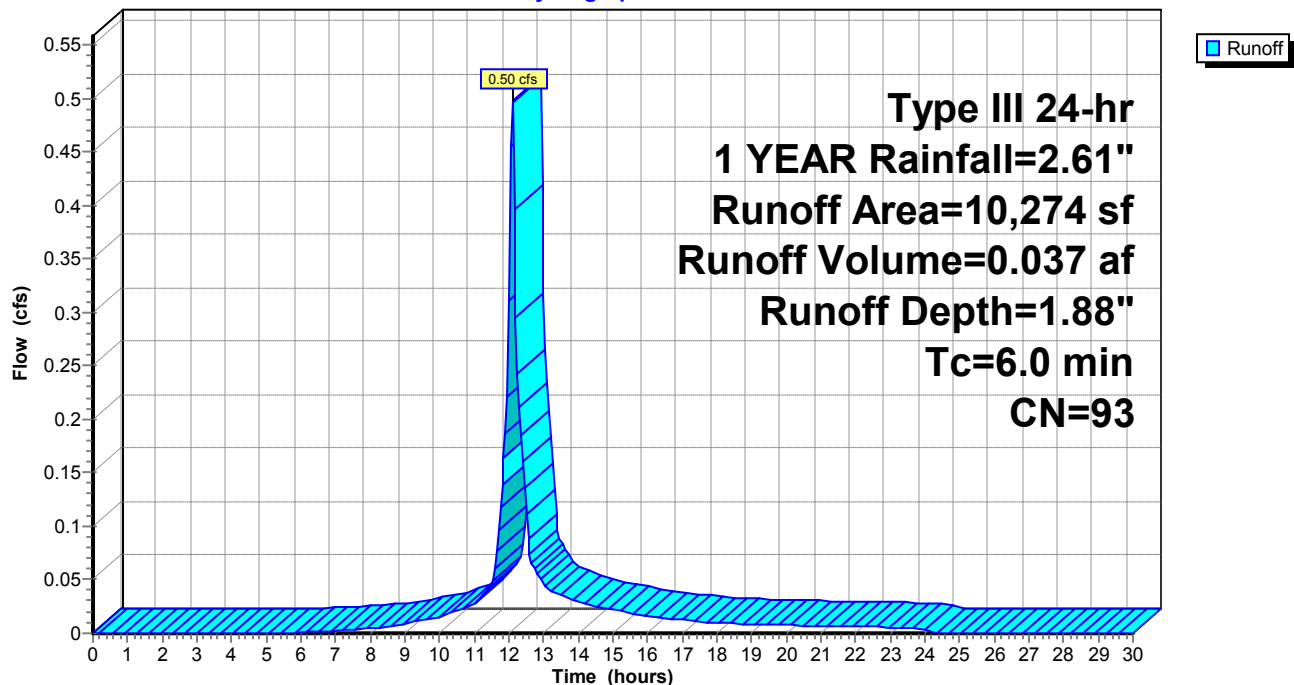
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
1,603	69	50-75% Grass cover, Fair, HSG B
8,671	98	Paved parking, HSG B
10,274	93	Weighted Average
1,603		15.60% Pervious Area
8,671		84.40% Impervious Area

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

Subcatchment DA-7: DRAINAGE AREA-7

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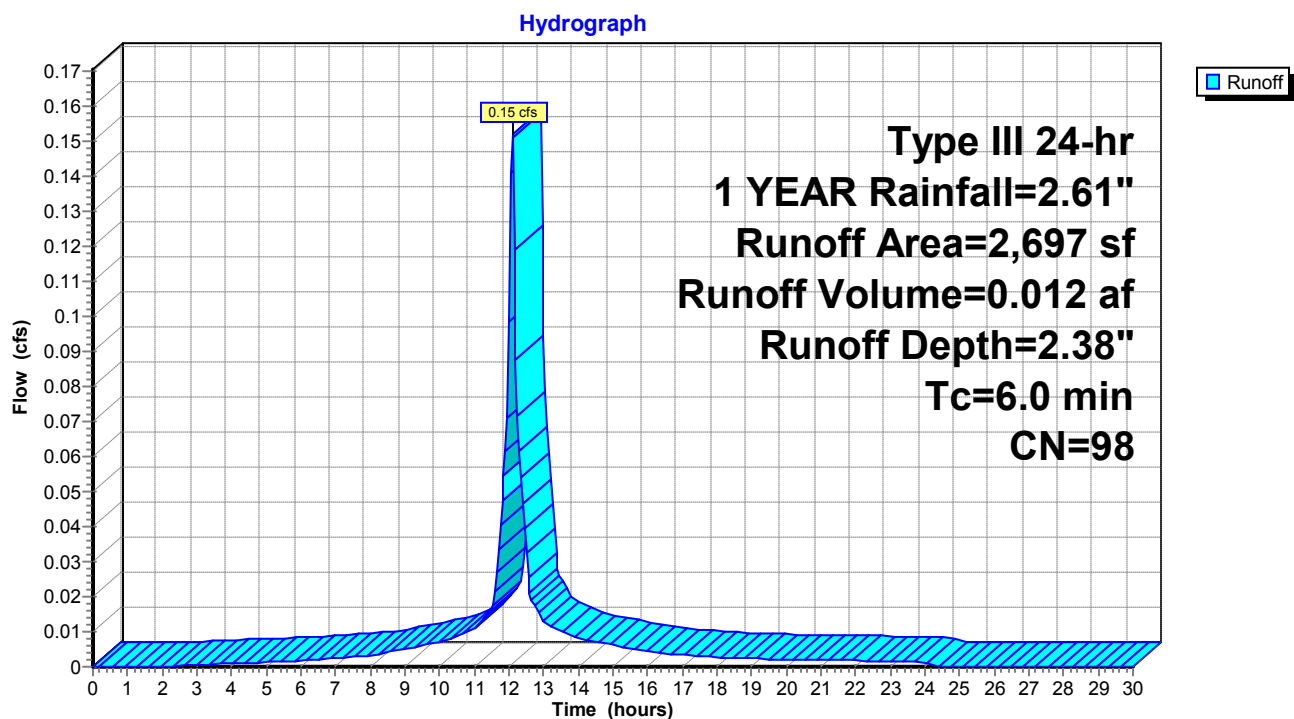
Summary for Subcatchment DA-8: DRAINAGE AREA-8

Runoff = 0.15 cfs @ 12.09 hrs, Volume= 0.012 af, Depth= 2.38"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,697	98	Paved parking, HSG B
2,697	98	Weighted Average
2,697		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-8: DRAINAGE AREA-8

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Summary for Subcatchment DA-9: DRAINAGE AREA-9

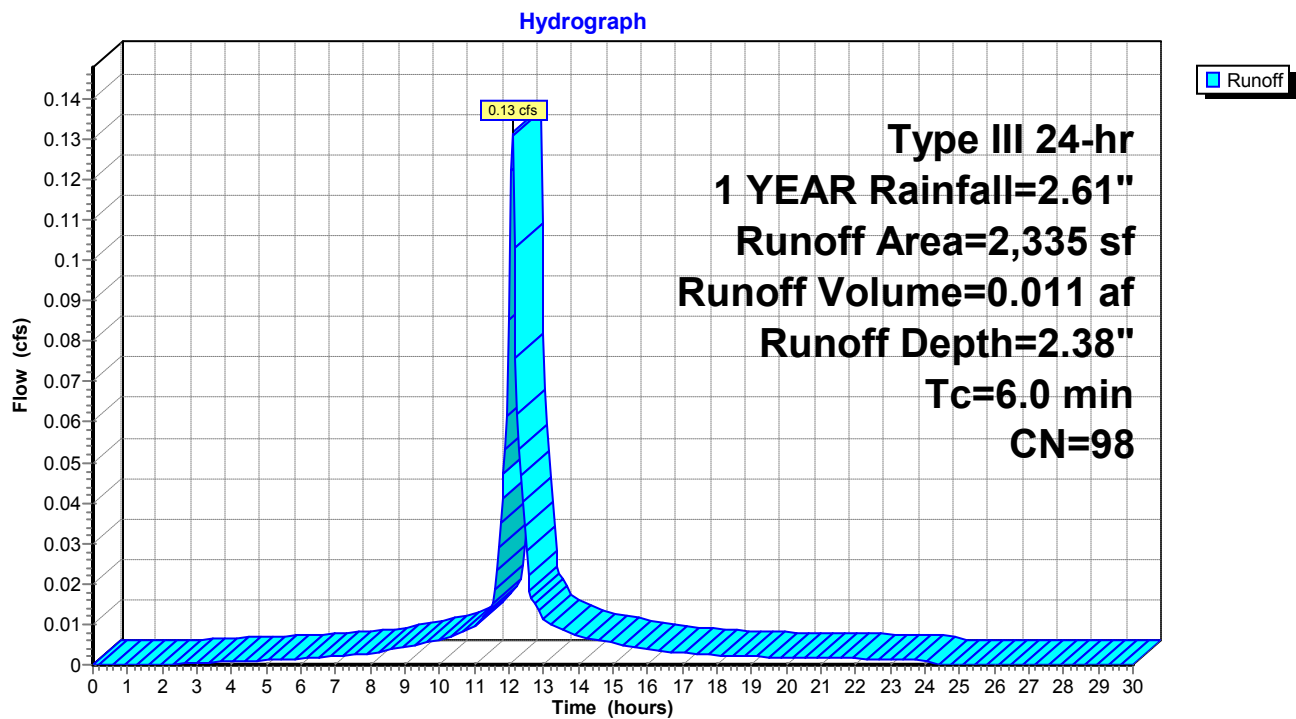
Runoff = 0.13 cfs @ 12.09 hrs, Volume= 0.011 af, Depth= 2.38"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YEAR Rainfall=2.61"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,335	98	Paved parking, HSG B
2,335	98	Weighted Average
2,335		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: DRAINAGE AREA-9

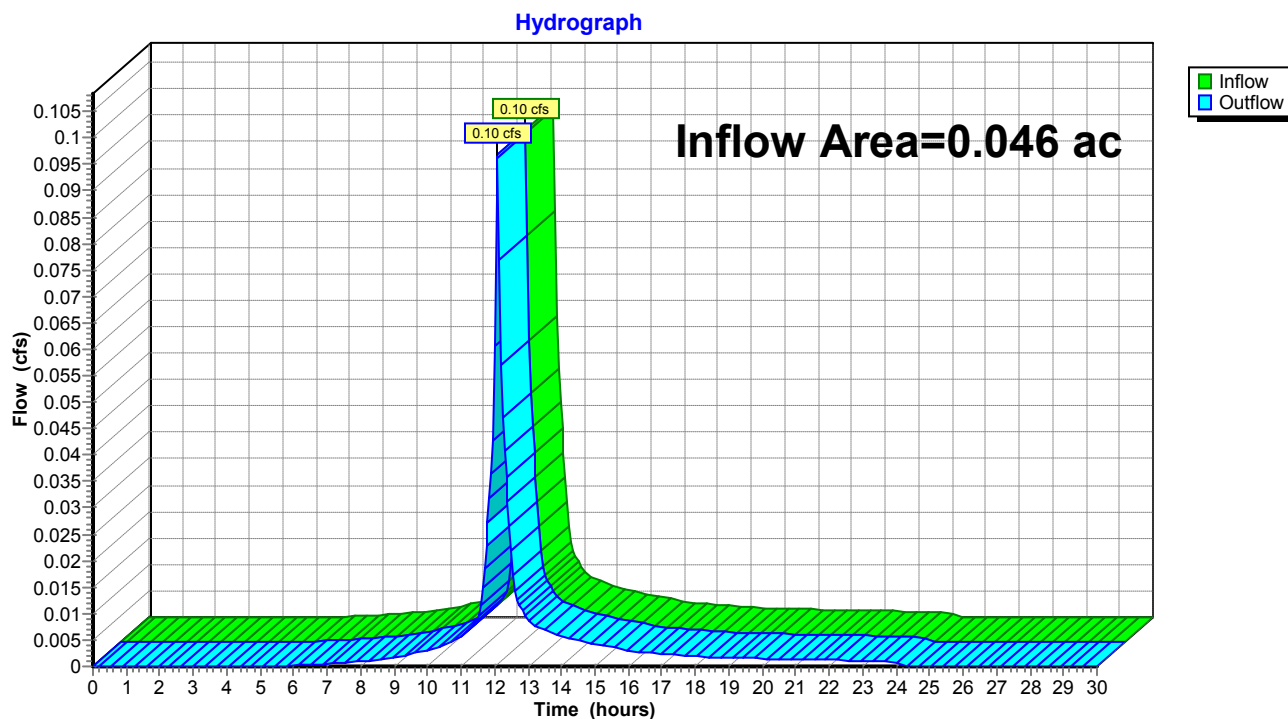


Summary for Reach DP-1: DESIGN POINT-1

Inflow Area = 0.046 ac, 82.78% Impervious, Inflow Depth = 1.88" for 1 YEAR event
 Inflow = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af
 Outflow = 0.10 cfs @ 12.09 hrs, Volume= 0.007 af, 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: DESIGN POINT-1

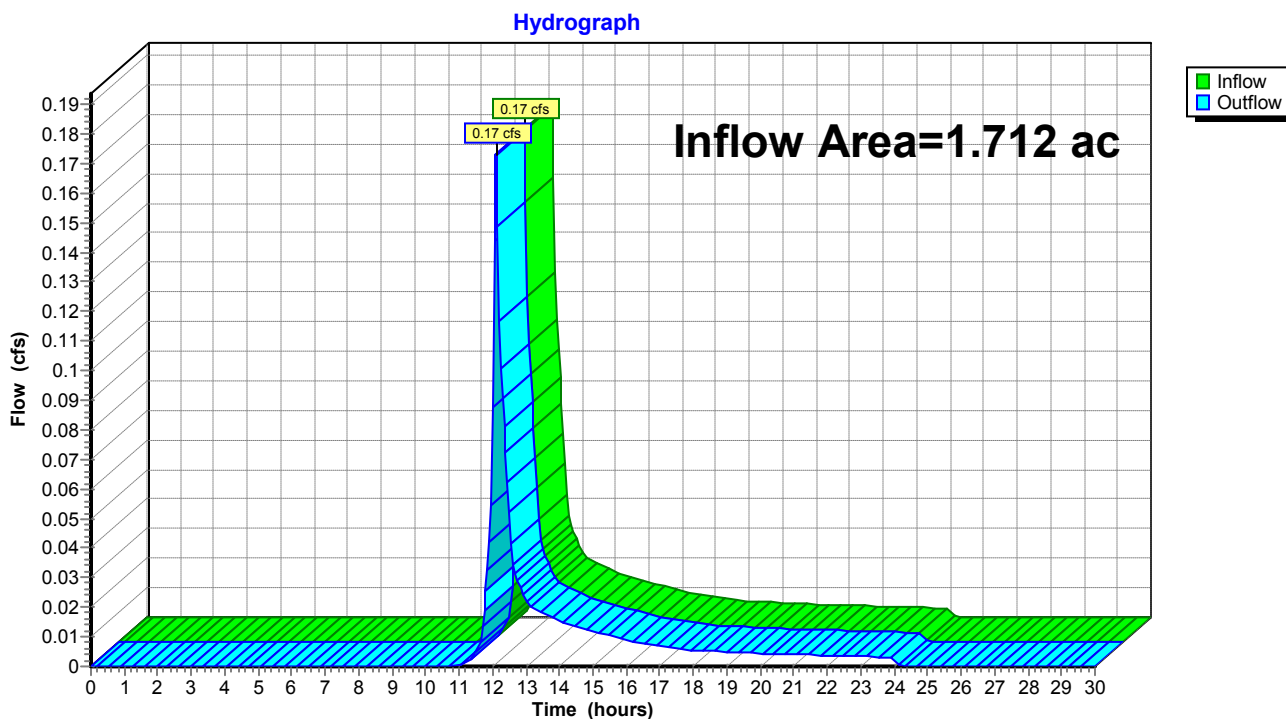


Summary for Reach DP-2: DESIGN POINT-2

Inflow Area = 1.712 ac, 80.24% Impervious, Inflow Depth = 0.09" for 1 YEAR event
 Inflow = 0.17 cfs @ 12.10 hrs, Volume= 0.013 af
 Outflow = 0.17 cfs @ 12.10 hrs, Volume= 0.013 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: DESIGN POINT-2



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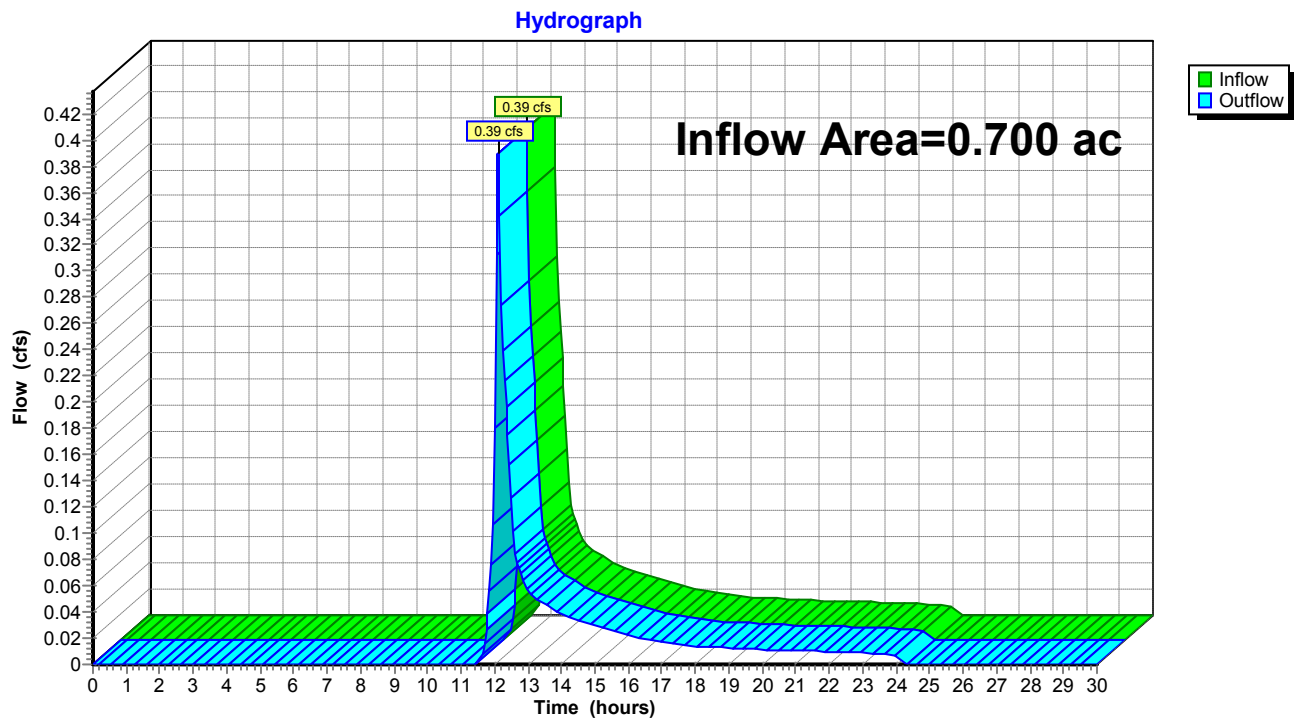
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Summary for Reach DP-3: DESIGN POINT-3

Inflow Area = 0.700 ac, 25.96% Impervious, Inflow Depth = 0.55" for 1 YEAR event
Inflow = 0.39 cfs @ 12.11 hrs, Volume= 0.032 af
Outflow = 0.39 cfs @ 12.11 hrs, Volume= 0.032 af, 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-3: DESIGN POINT-3



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Summary for Pond BIO-1: BIO RETENTION 1

Inflow Area = 0.115 ac, 51.32% Impervious, Inflow Depth = 1.45" for 1 YEAR event
 Inflow = 0.17 cfs @ 12.09 hrs, Volume= 0.014 af
 Outflow = 0.17 cfs @ 12.10 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.5 min
 Discarded = 0.17 cfs @ 12.10 hrs, Volume= 0.014 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond CB-1 : CATCH BASIN 1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 111.35' @ 12.10 hrs Surf.Area= 537 sf Storage= 5 cf

Plug-Flow detention time= 0.5 min calculated for 0.014 af (100% of inflow)
 Center-of-Mass det. time= 0.5 min (783.0 - 782.6)

Volume	Invert	Avail.Storage	Storage Description
#1	111.34'	841 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

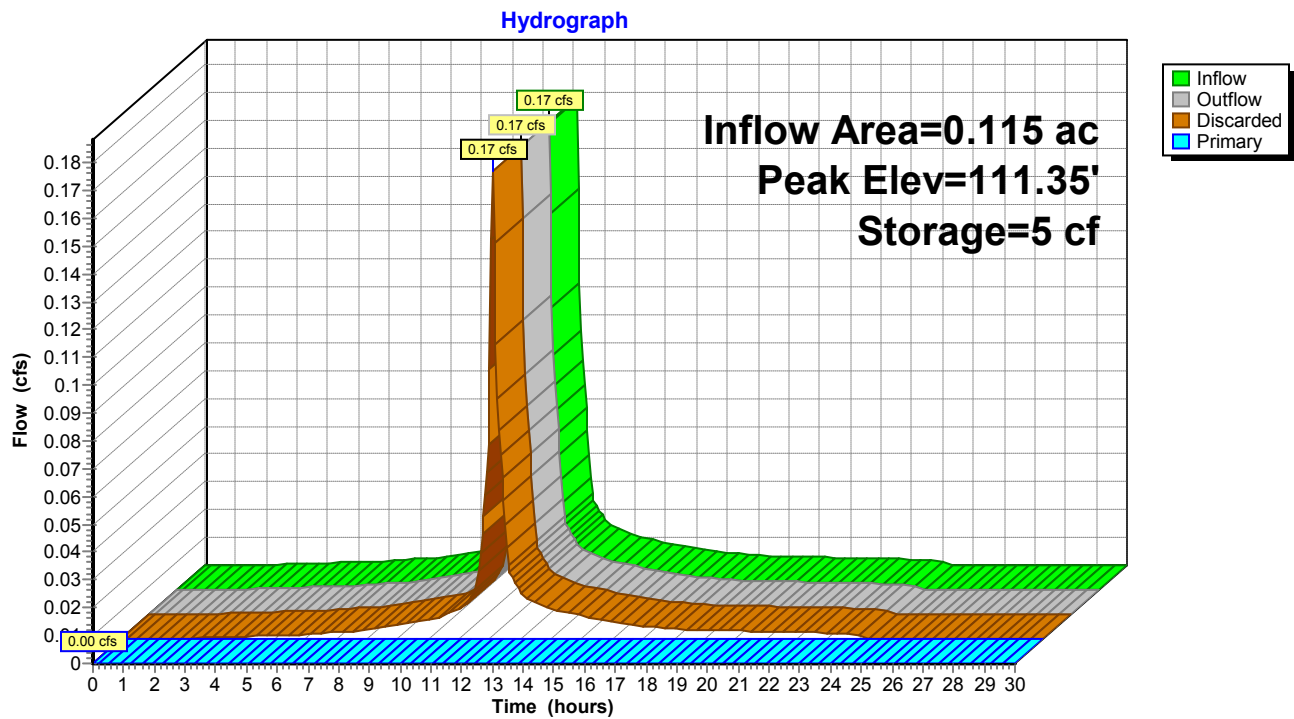
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
111.34	534	0	0
112.00	764	428	428
112.50	885	412	841

Device	Routing	Invert	Outlet Devices
#1	Discarded	111.34'	18.000 in/hr Exfiltration over Surface area
#2	Primary	112.00'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Discarded OutFlow Max=0.22 cfs @ 12.10 hrs HW=111.35' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.22 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=111.34' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond BIO-1: BIO RETENTION 1



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Stage-Area-Storage for Pond BIO-1: BIO RETENTION 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
111.34	534	0	112.38	856	736
111.36	541	11	112.40	861	753
111.38	548	22	112.42	866	771
111.40	555	33	112.44	870	788
111.42	562	44	112.46	875	805
111.44	569	55	112.48	880	823
111.46	576	67	112.50	885	841
111.48	583	78			
111.50	590	90			
111.52	597	102			
111.54	604	114			
111.56	611	126			
111.58	618	138			
111.60	625	151			
111.62	632	163			
111.64	639	176			
111.66	646	189			
111.68	652	202			
111.70	659	215			
111.72	666	228			
111.74	673	241			
111.76	680	255			
111.78	687	269			
111.80	694	283			
111.82	701	296			
111.84	708	311			
111.86	715	325			
111.88	722	339			
111.90	729	354			
111.92	736	368			
111.94	743	383			
111.96	750	398			
111.98	757	413			
112.00	764	428			
112.02	769	444			
112.04	774	459			
112.06	779	475			
112.08	783	490			
112.10	788	506			
112.12	793	522			
112.14	798	538			
112.16	803	554			
112.18	808	570			
112.20	812	586			
112.22	817	602			
112.24	822	619			
112.26	827	635			
112.28	832	652			
112.30	837	668			
112.32	841	685			
112.34	846	702			
112.36	851	719			

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Summary for Pond BIO-2: BIO RETENTION-2

Inflow Area = 0.086 ac, 72.53% Impervious, Inflow Depth = 1.86" for 1 YEAR event
 Inflow = 0.16 cfs @ 12.09 hrs, Volume= 0.013 af
 Outflow = 0.07 cfs @ 12.27 hrs, Volume= 0.013 af, Atten= 54%, Lag= 11.0 min
 Discarded = 0.07 cfs @ 12.27 hrs, Volume= 0.013 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach DP-3 : DESIGN POINT-3

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 94.50' @ 12.27 hrs Surf.Area= 320 sf Storage= 53 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 3.2 min (773.6 - 770.5)

Volume	Invert	Avail.Storage	Storage Description
#1	94.33'	429 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
94.33	305	0	0
95.00	365	224	224
95.50	452	204	429

Device	Routing	Invert	Outlet Devices
#1	Discarded	94.33'	10.000 in/hr Exfiltration over Surface area
#2	Primary	95.25'	15.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

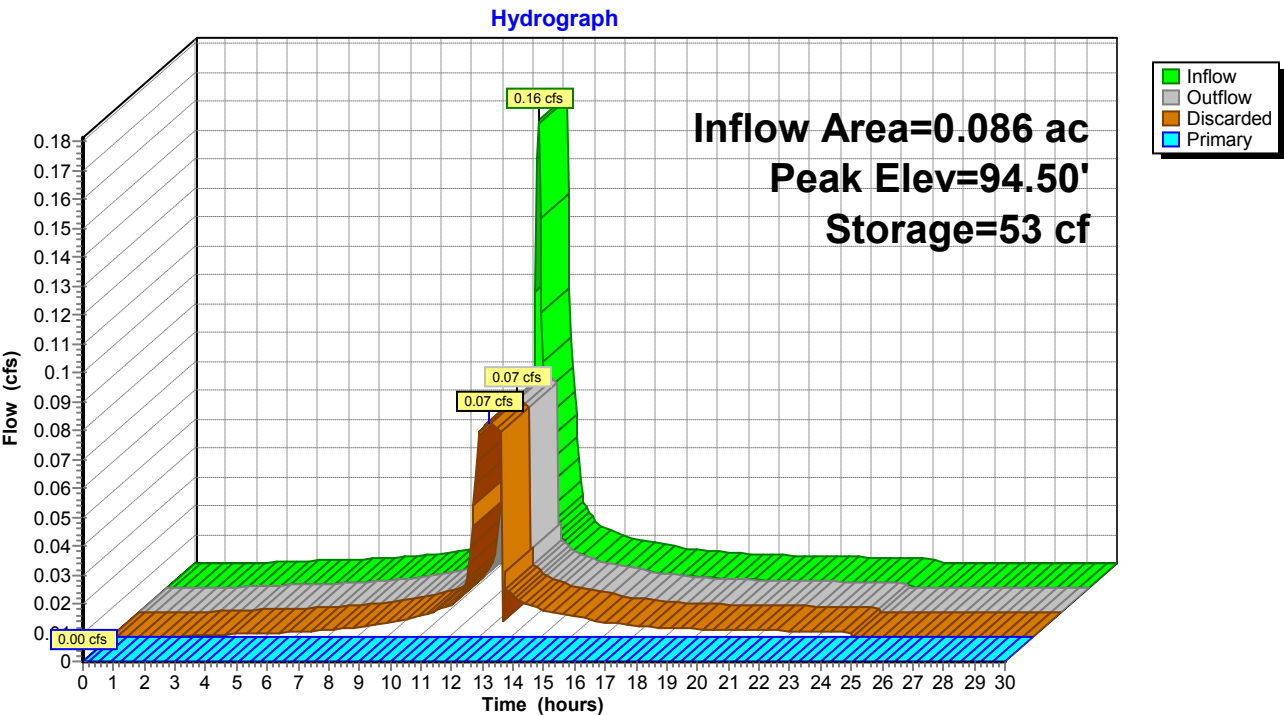
Discarded OutFlow Max=0.07 cfs @ 12.27 hrs HW=94.50' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=94.33' (Free Discharge)

↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond BIO-2: BIO RETENTION-2



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Stage-Area-Storage for Pond BIO-2: BIO RETENTION-2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
94.33	305	0	95.37	429	371
94.35	307	6	95.39	433	380
94.37	309	12	95.41	436	389
94.39	310	18	95.43	440	397
94.41	312	25	95.45	443	406
94.43	314	31	95.47	447	415
94.45	316	37	95.49	450	424
94.47	318	44			
94.49	319	50			
94.51	321	56			
94.53	323	63			
94.55	325	69			
94.57	326	76			
94.59	328	82			
94.61	330	89			
94.63	332	96			
94.65	334	102			
94.67	335	109			
94.69	337	116			
94.71	339	122			
94.73	341	129			
94.75	343	136			
94.77	344	143			
94.79	346	150			
94.81	348	157			
94.83	350	164			
94.85	352	171			
94.87	353	178			
94.89	355	185			
94.91	357	192			
94.93	359	199			
94.95	361	206			
94.97	362	214			
94.99	364	221			
95.01	367	228			
95.03	370	235			
95.05	374	243			
95.07	377	250			
95.09	381	258			
95.11	384	266			
95.13	388	273			
95.15	391	281			
95.17	395	289			
95.19	398	297			
95.21	402	305			
95.23	405	313			
95.25	409	321			
95.27	412	329			
95.29	415	338			
95.31	419	346			
95.33	422	354			
95.35	426	363			

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Summary for Pond CB-1: CATCH BASIN 1

Inflow Area = 0.327 ac, 69.85% Impervious, Inflow Depth = 1.16" for 1 YEAR event
 Inflow = 0.43 cfs @ 12.09 hrs, Volume= 0.032 af
 Outflow = 0.43 cfs @ 12.09 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.2 min
 Primary = 0.43 cfs @ 12.09 hrs, Volume= 0.031 af
 Routed to Pond PP-2 : POROUS PAVEMENT-1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 109.38' @ 12.09 hrs Surf.Area= 8 sf Storage= 24 cf
 Flood Elev= 109.90' Surf.Area= 8 sf Storage= 28 cf

Plug-Flow detention time= 13.7 min calculated for 0.031 af (99% of inflow)
 Center-of-Mass det. time= 5.2 min (810.6 - 805.3)

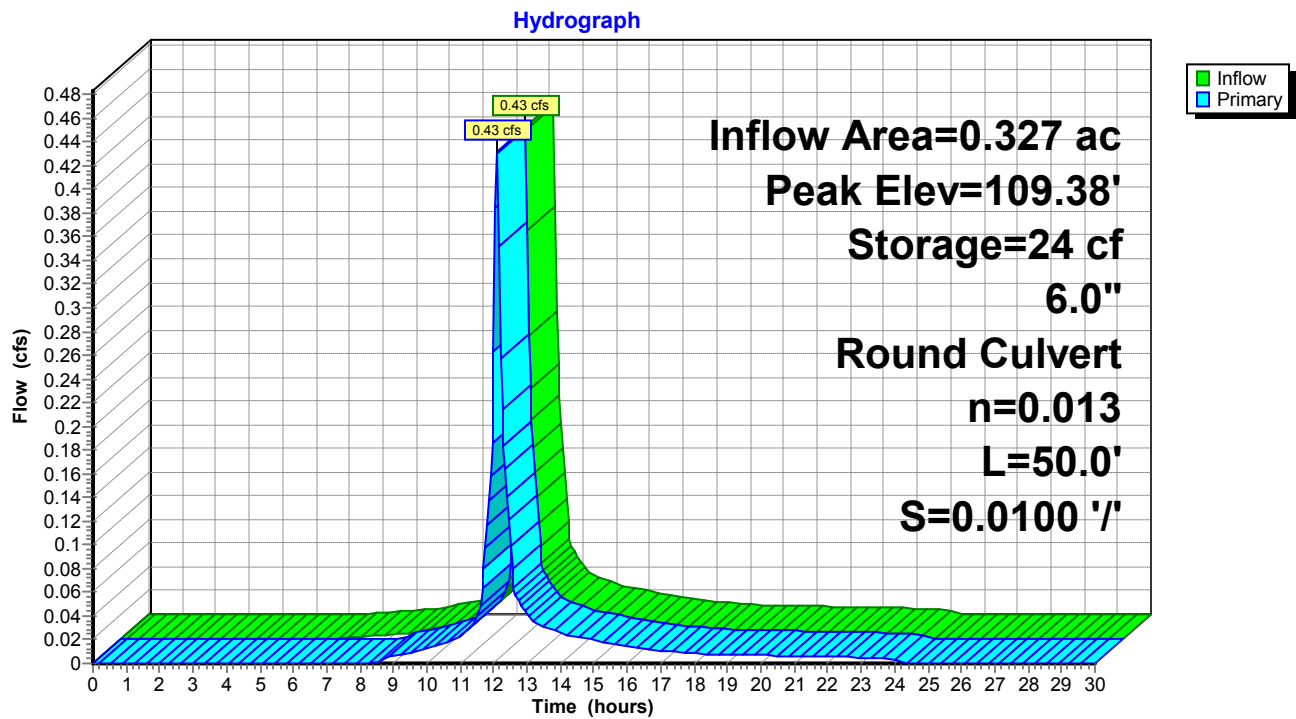
Volume	Invert	Avail.Storage	Storage Description
#1	106.40'	455 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
106.40	8	0	0
109.90	8	28	28
110.00	87	5	33
110.50	1,074	290	323
110.60	1,560	132	455

Device	Routing	Invert	Outlet Devices
#1	Primary	108.80'	6.0" Round Culvert L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.80' / 108.30' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.42 cfs @ 12.09 hrs HW=109.37' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 0.42 cfs @ 2.16 fps)

Pond CB-1: CATCH BASIN 1



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Stage-Area-Storage for Pond CB-1: CATCH BASIN 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
106.40	8	0	109.00	8	21
106.45	8	0	109.05	8	21
106.50	8	1	109.10	8	22
106.55	8	1	109.15	8	22
106.60	8	2	109.20	8	22
106.65	8	2	109.25	8	23
106.70	8	2	109.30	8	23
106.75	8	3	109.35	8	24
106.80	8	3	109.40	8	24
106.85	8	4	109.45	8	24
106.90	8	4	109.50	8	25
106.95	8	4	109.55	8	25
107.00	8	5	109.60	8	26
107.05	8	5	109.65	8	26
107.10	8	6	109.70	8	26
107.15	8	6	109.75	8	27
107.20	8	6	109.80	8	27
107.25	8	7	109.85	8	28
107.30	8	7	109.90	8	28
107.35	8	8	109.95	48	29
107.40	8	8	110.00	87	33
107.45	8	8	110.05	186	40
107.50	8	9	110.10	284	51
107.55	8	9	110.15	383	68
107.60	8	10	110.20	482	90
107.65	8	10	110.25	581	116
107.70	8	10	110.30	679	148
107.75	8	11	110.35	778	184
107.80	8	11	110.40	877	225
107.85	8	12	110.45	975	272
107.90	8	12	110.50	1,074	323
107.95	8	12	110.55	1,317	383
108.00	8	13	110.60	1,560	455
108.05	8	13			
108.10	8	14			
108.15	8	14			
108.20	8	14			
108.25	8	15			
108.30	8	15			
108.35	8	16			
108.40	8	16			
108.45	8	16			
108.50	8	17			
108.55	8	17			
108.60	8	18			
108.65	8	18			
108.70	8	18			
108.75	8	19			
108.80	8	19			
108.85	8	20			
108.90	8	20			
108.95	8	20			

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Summary for Pond DMH-1: DRAINAGE MANHOLE-1

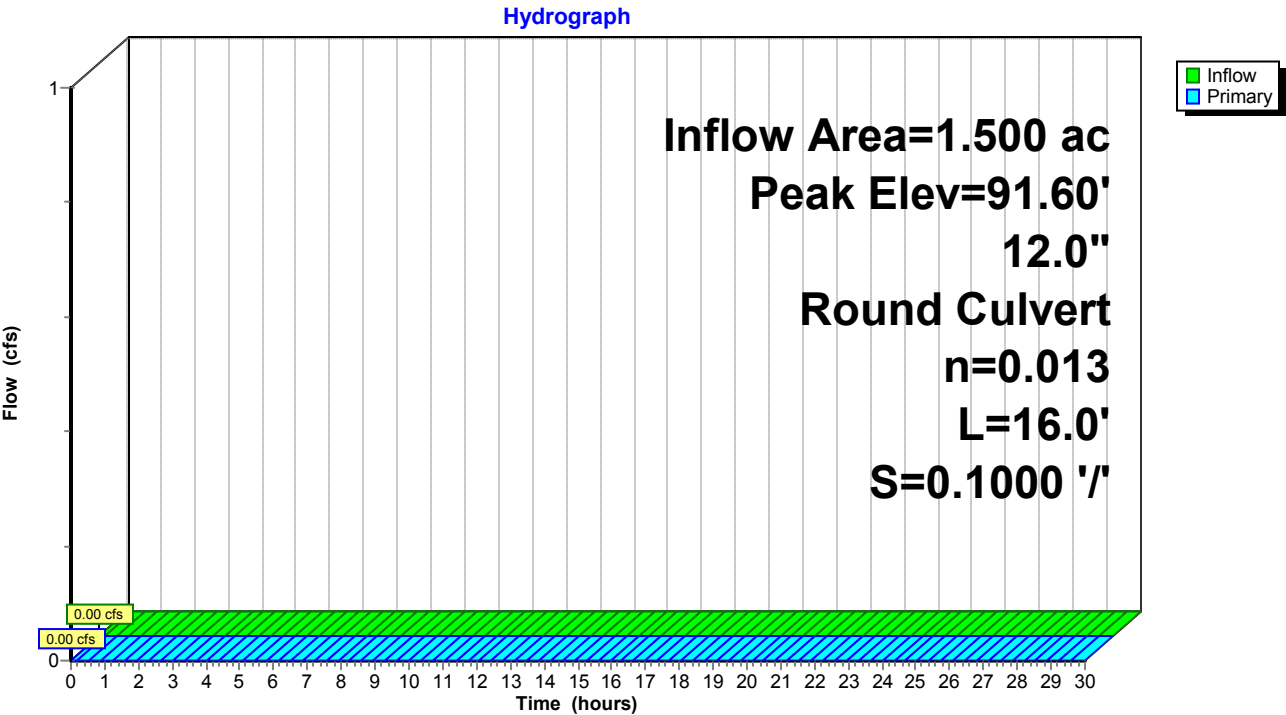
Inflow Area = 1.500 ac, 87.43% Impervious, Inflow Depth = 0.00" for 1 YEAR event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-2 : DESIGN POINT-2

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 91.60' @ 0.00 hrs
Flood Elev= 96.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	91.60'	12.0" Round Culvert L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 91.60' / 90.00' S= 0.1000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=91.60' (Free Discharge)
↑1=Culvert (Controls 0.00 cfs)

Pond DMH-1: DRAINAGE MANHOLE-1



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Stage-Area-Storage for Pond DMH-1: DRAINAGE MANHOLE-1

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
91.60	0.000	94.20	0.000
91.65	0.000	94.25	0.000
91.70	0.000	94.30	0.000
91.75	0.000	94.35	0.000
91.80	0.000	94.40	0.000
91.85	0.000	94.45	0.000
91.90	0.000	94.50	0.000
91.95	0.000	94.55	0.000
92.00	0.000	94.60	0.000
92.05	0.000	94.65	0.000
92.10	0.000	94.70	0.000
92.15	0.000	94.75	0.000
92.20	0.000	94.80	0.000
92.25	0.000	94.85	0.000
92.30	0.000	94.90	0.000
92.35	0.000	94.95	0.000
92.40	0.000	95.00	0.000
92.45	0.000	95.05	0.000
92.50	0.000	95.10	0.000
92.55	0.000	95.15	0.000
92.60	0.000	95.20	0.000
92.65	0.000	95.25	0.000
92.70	0.000	95.30	0.000
92.75	0.000	95.35	0.000
92.80	0.000	95.40	0.000
92.85	0.000	95.45	0.000
92.90	0.000	95.50	0.000
92.95	0.000	95.55	0.000
93.00	0.000	95.60	0.000
93.05	0.000	95.65	0.000
93.10	0.000	95.70	0.000
93.15	0.000	95.75	0.000
93.20	0.000	95.80	0.000
93.25	0.000	95.85	0.000
93.30	0.000	95.90	0.000
93.35	0.000	95.95	0.000
93.40	0.000	96.00	0.000
93.45	0.000		
93.50	0.000		
93.55	0.000		
93.60	0.000		
93.65	0.000		
93.70	0.000		
93.75	0.000		
93.80	0.000		
93.85	0.000		
93.90	0.000		
93.95	0.000		
94.00	0.000		
94.05	0.000		
94.10	0.000		
94.15	0.000		

Summary for Pond DMH-2: DRAINAGE MANHOLE-2

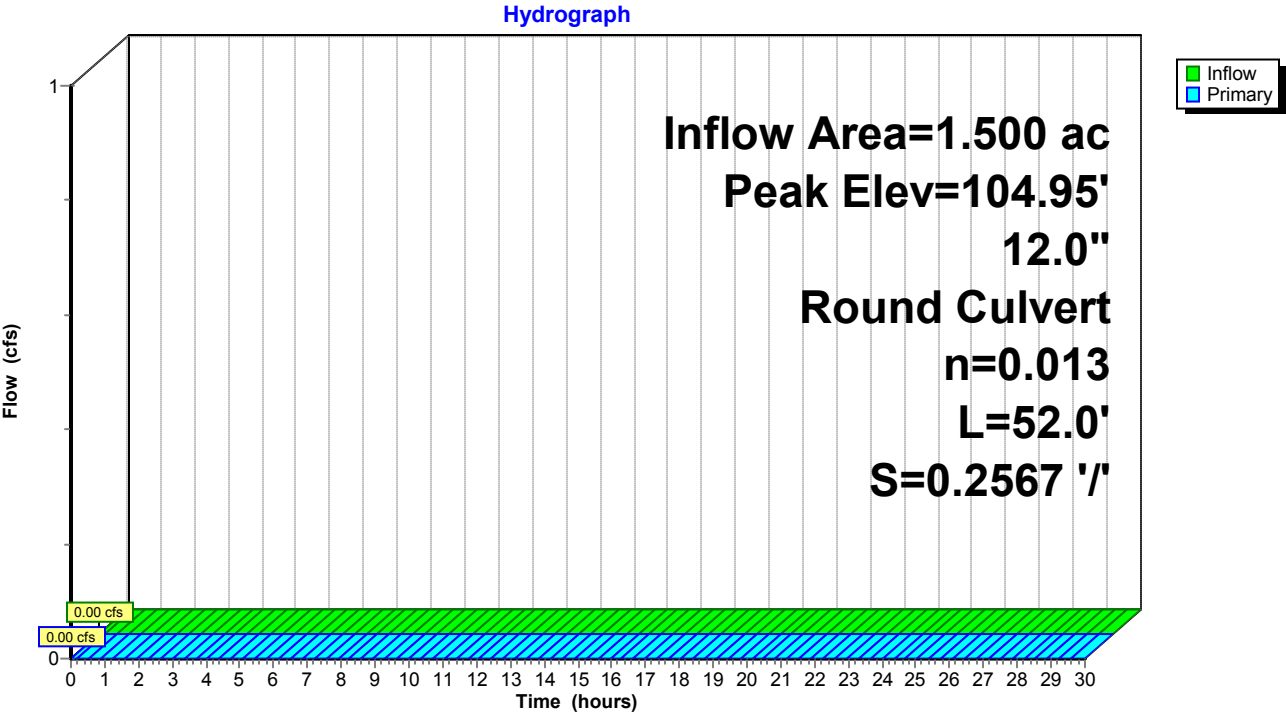
Inflow Area = 1.500 ac, 87.43% Impervious, Inflow Depth = 0.00" for 1 YEAR event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Pond DMH-1 : DRAINAGE MANHOLE-1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 104.95' @ 0.00 hrs
Flood Elev= 112.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	104.95'	12.0" Round Culvert L= 52.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 104.95' / 91.60' S= 0.2567 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=104.95' (Free Discharge)
↑1=Culvert (Controls 0.00 cfs)

Pond DMH-2: DRAINAGE MANHOLE-2



Stage-Area-Storage for Pond DMH-2: DRAINAGE MANHOLE-2

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
104.95	0.000	107.55	0.000	110.15	0.000
105.00	0.000	107.60	0.000	110.20	0.000
105.05	0.000	107.65	0.000	110.25	0.000
105.10	0.000	107.70	0.000	110.30	0.000
105.15	0.000	107.75	0.000	110.35	0.000
105.20	0.000	107.80	0.000	110.40	0.000
105.25	0.000	107.85	0.000	110.45	0.000
105.30	0.000	107.90	0.000	110.50	0.000
105.35	0.000	107.95	0.000	110.55	0.000
105.40	0.000	108.00	0.000	110.60	0.000
105.45	0.000	108.05	0.000	110.65	0.000
105.50	0.000	108.10	0.000	110.70	0.000
105.55	0.000	108.15	0.000	110.75	0.000
105.60	0.000	108.20	0.000	110.80	0.000
105.65	0.000	108.25	0.000	110.85	0.000
105.70	0.000	108.30	0.000	110.90	0.000
105.75	0.000	108.35	0.000	110.95	0.000
105.80	0.000	108.40	0.000	111.00	0.000
105.85	0.000	108.45	0.000	111.05	0.000
105.90	0.000	108.50	0.000	111.10	0.000
105.95	0.000	108.55	0.000	111.15	0.000
106.00	0.000	108.60	0.000	111.20	0.000
106.05	0.000	108.65	0.000	111.25	0.000
106.10	0.000	108.70	0.000	111.30	0.000
106.15	0.000	108.75	0.000	111.35	0.000
106.20	0.000	108.80	0.000	111.40	0.000
106.25	0.000	108.85	0.000	111.45	0.000
106.30	0.000	108.90	0.000	111.50	0.000
106.35	0.000	108.95	0.000	111.55	0.000
106.40	0.000	109.00	0.000	111.60	0.000
106.45	0.000	109.05	0.000	111.65	0.000
106.50	0.000	109.10	0.000	111.70	0.000
106.55	0.000	109.15	0.000	111.75	0.000
106.60	0.000	109.20	0.000	111.80	0.000
106.65	0.000	109.25	0.000	111.85	0.000
106.70	0.000	109.30	0.000	111.90	0.000
106.75	0.000	109.35	0.000	111.95	0.000
106.80	0.000	109.40	0.000	112.00	0.000
106.85	0.000	109.45	0.000		
106.90	0.000	109.50	0.000		
106.95	0.000	109.55	0.000		
107.00	0.000	109.60	0.000		
107.05	0.000	109.65	0.000		
107.10	0.000	109.70	0.000		
107.15	0.000	109.75	0.000		
107.20	0.000	109.80	0.000		
107.25	0.000	109.85	0.000		
107.30	0.000	109.90	0.000		
107.35	0.000	109.95	0.000		
107.40	0.000	110.00	0.000		
107.45	0.000	110.05	0.000		
107.50	0.000	110.10	0.000		

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Type III 24-hr 1 YEAR Rainfall=2.61"

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Summary for Pond PP-1: POROUS PAVEMENT-1

Inflow Area = 0.411 ac, 91.04% Impervious, Inflow Depth = 2.09" for 1 YEAR event
 Inflow = 0.93 cfs @ 12.09 hrs, Volume= 0.072 af
 Outflow = 0.93 cfs @ 12.10 hrs, Volume= 0.072 af, Atten= 0%, Lag= 0.5 min
 Discarded = 0.93 cfs @ 12.10 hrs, Volume= 0.072 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond PP-2 : POROUS PAVEMENT-1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 108.71' @ 12.10 hrs Surf.Area= 3,448 sf Storage= 24 cf
 Flood Elev= 111.36' Surf.Area= 3,448 sf Storage= 3,682 cf

Plug-Flow detention time= 0.4 min calculated for 0.072 af (100% of inflow)
 Center-of-Mass det. time= 0.4 min (781.5 - 781.0)

Volume	Invert	Avail.Storage	Storage Description
#1	108.69'	3,682 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 9,206 cf Overall x 40.0% Voids

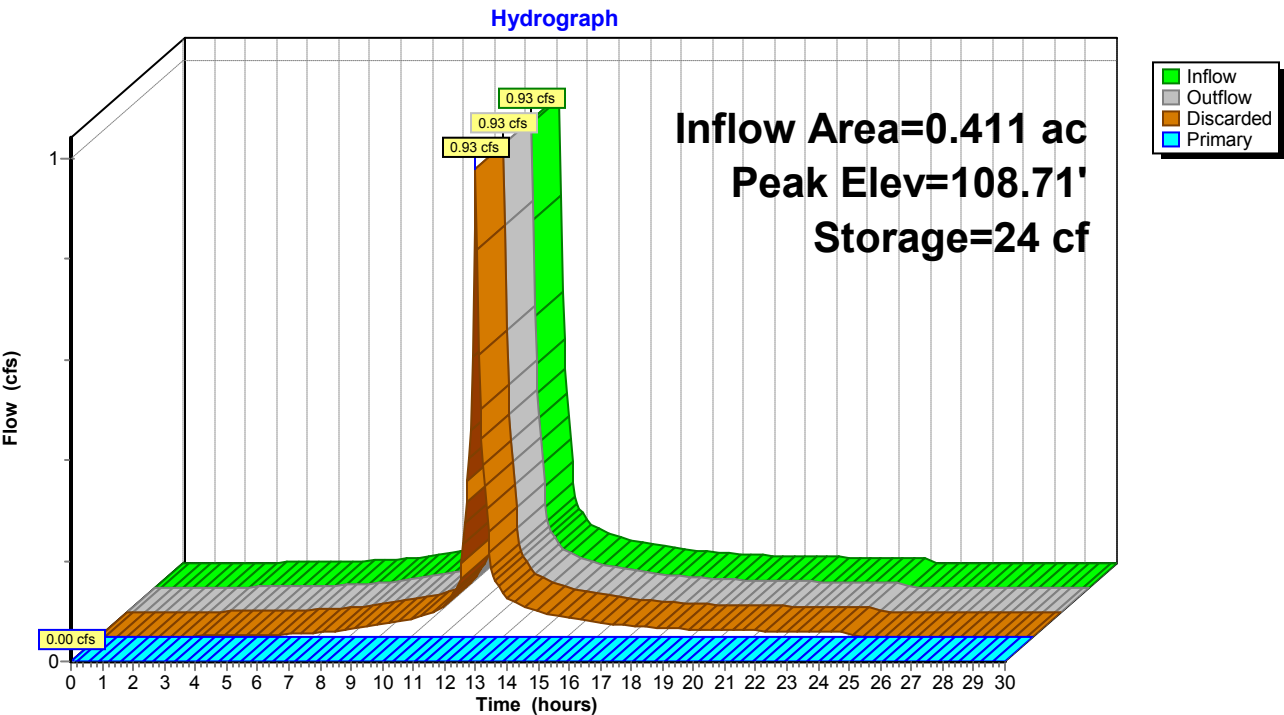
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
108.69	3,448	0	0
111.36	3,448	9,206	9,206

Device	Routing	Invert	Outlet Devices
#1	Discarded	108.69'	18.000 in/hr Exfiltration over Surface area
#2	Primary	109.30'	0.5" Round Culvert L= 67.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 109.30' / 108.30' S= 0.0149 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.00 sf

Discarded OutFlow Max=1.44 cfs @ 12.10 hrs HW=108.71' (Free Discharge)
 ↑ **1=Exfiltration** (Exfiltration Controls 1.44 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=108.69' (Free Discharge)
 ↑ **2=Culvert** (Controls 0.00 cfs)

Pond PP-1: POROUS PAVEMENT-1



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Stage-Area-Storage for Pond PP-1: POROUS PAVEMENT-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
108.69	3,448	0	111.29	3,448	3,586
108.74	3,448	69	111.34	3,448	3,655
108.79	3,448	138			
108.84	3,448	207			
108.89	3,448	276			
108.94	3,448	345			
108.99	3,448	414			
109.04	3,448	483			
109.09	3,448	552			
109.14	3,448	621			
109.19	3,448	690			
109.24	3,448	759			
109.29	3,448	828			
109.34	3,448	896			
109.39	3,448	965			
109.44	3,448	1,034			
109.49	3,448	1,103			
109.54	3,448	1,172			
109.59	3,448	1,241			
109.64	3,448	1,310			
109.69	3,448	1,379			
109.74	3,448	1,448			
109.79	3,448	1,517			
109.84	3,448	1,586			
109.89	3,448	1,655			
109.94	3,448	1,724			
109.99	3,448	1,793			
110.04	3,448	1,862			
110.09	3,448	1,931			
110.14	3,448	2,000			
110.19	3,448	2,069			
110.24	3,448	2,138			
110.29	3,448	2,207			
110.34	3,448	2,276			
110.39	3,448	2,345			
110.44	3,448	2,414			
110.49	3,448	2,483			
110.54	3,448	2,552			
110.59	3,448	2,620			
110.64	3,448	2,689			
110.69	3,448	2,758			
110.74	3,448	2,827			
110.79	3,448	2,896			
110.84	3,448	2,965			
110.89	3,448	3,034			
110.94	3,448	3,103			
110.99	3,448	3,172			
111.04	3,448	3,241			
111.09	3,448	3,310			
111.14	3,448	3,379			
111.19	3,448	3,448			
111.24	3,448	3,517			

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Summary for Pond PP-2: POROUS PAVEMENT-1

Inflow Area = 1.500 ac, 87.43% Impervious, Inflow Depth = 1.36" for 1 YEAR event
 Inflow = 2.21 cfs @ 12.09 hrs, Volume= 0.170 af
 Outflow = 1.97 cfs @ 12.13 hrs, Volume= 0.170 af, Atten= 11%, Lag= 2.2 min
 Discarded = 1.97 cfs @ 12.13 hrs, Volume= 0.170 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond DMH-2 : DRAINAGE MANHOLE-2

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 108.17' @ 12.13 hrs Surf.Area= 6,064 sf Storage= 101 cf
 Flood Elev= 110.80' Surf.Area= 6,064 sf Storage= 6,476 cf

Plug-Flow detention time= 0.6 min calculated for 0.169 af (100% of inflow)
 Center-of-Mass det. time= 0.6 min (784.0 - 783.5)

Volume	Invert	Avail.Storage	Storage Description
#1	108.13'	6,476 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 16,191 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
108.13	6,064	0	0
110.80	6,064	16,191	16,191

Device	Routing	Invert	Outlet Devices
#1	Discarded	108.13'	14.000 in/hr Exfiltration over Surface area
#2	Primary	108.30'	12.0" Round Culvert L= 67.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 104.95' S= 0.0500 ' S= 0.0500 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	108.30'	6.0" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 108.30' S= 0.0000 ' S= 0.0000 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=1.97 cfs @ 12.13 hrs HW=108.17' (Free Discharge)

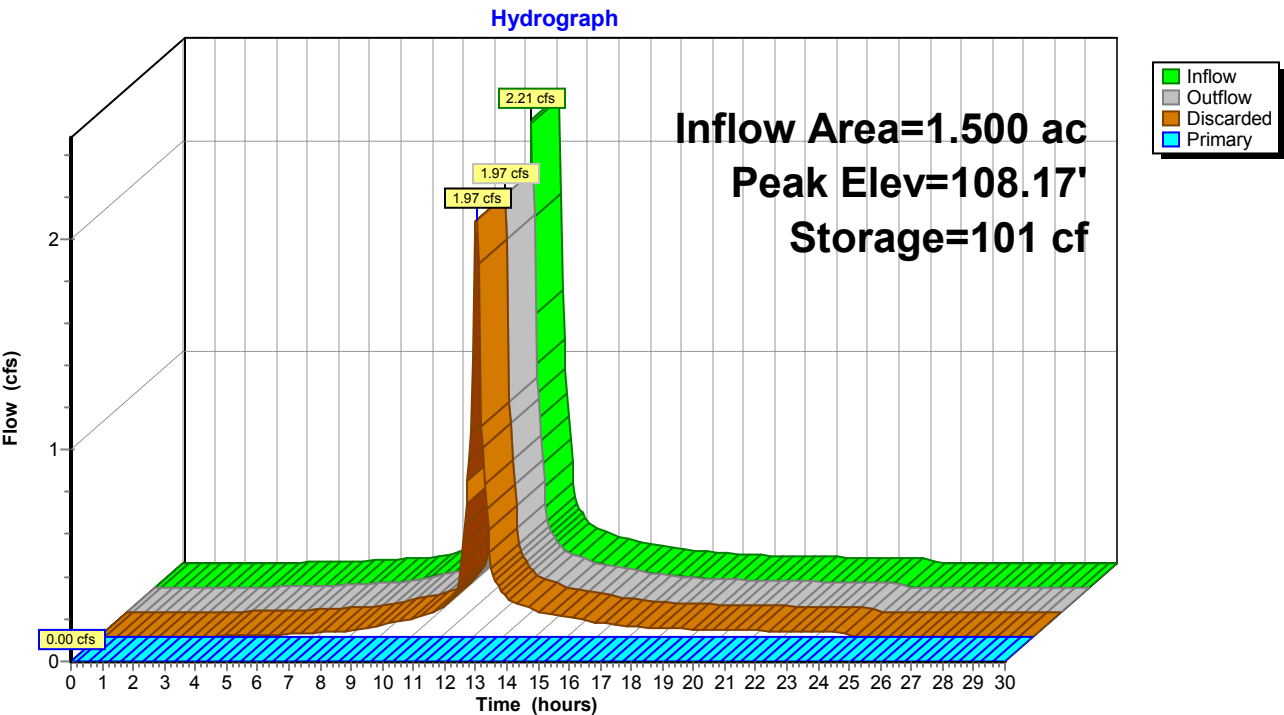
↑ **1=Exfiltration** (Exfiltration Controls 1.97 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=108.13' (Free Discharge)

↑ **2=Culvert** (Controls 0.00 cfs)

↑ **3=Culvert** (Controls 0.00 cfs)

Pond PP-2: POROUS PAVEMENT-1



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Stage-Area-Storage for Pond PP-2: POROUS PAVEMENT-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
108.13	6,064	0	110.73	6,064	6,307
108.18	6,064	121	110.78	6,064	6,428
108.23	6,064	243			
108.28	6,064	364			
108.33	6,064	485			
108.38	6,064	606			
108.43	6,064	728			
108.48	6,064	849			
108.53	6,064	970			
108.58	6,064	1,092			
108.63	6,064	1,213			
108.68	6,064	1,334			
108.73	6,064	1,455			
108.78	6,064	1,577			
108.83	6,064	1,698			
108.88	6,064	1,819			
108.93	6,064	1,940			
108.98	6,064	2,062			
109.03	6,064	2,183			
109.08	6,064	2,304			
109.13	6,064	2,426			
109.18	6,064	2,547			
109.23	6,064	2,668			
109.28	6,064	2,789			
109.33	6,064	2,911			
109.38	6,064	3,032			
109.43	6,064	3,153			
109.48	6,064	3,275			
109.53	6,064	3,396			
109.58	6,064	3,517			
109.63	6,064	3,638			
109.68	6,064	3,760			
109.73	6,064	3,881			
109.78	6,064	4,002			
109.83	6,064	4,124			
109.88	6,064	4,245			
109.93	6,064	4,366			
109.98	6,064	4,487			
110.03	6,064	4,609			
110.08	6,064	4,730			
110.13	6,064	4,851			
110.18	6,064	4,972			
110.23	6,064	5,094			
110.28	6,064	5,215			
110.33	6,064	5,336			
110.38	6,064	5,458			
110.43	6,064	5,579			
110.48	6,064	5,700			
110.53	6,064	5,821			
110.58	6,064	5,943			
110.63	6,064	6,064			
110.68	6,064	6,185			

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Type III 24-hr 2 YEAR Rainfall=3.16"

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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: DRAINAGE AREA-1	Runoff Area=1,992 sf 82.78% Impervious Runoff Depth=2.41" Tc=6.0 min CN=93 Runoff=0.12 cfs 0.009 af
Subcatchment DA-10: DRAINAGE AREA-10	Runoff Area=2,704 sf 100.00% Impervious Runoff Depth=2.93" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.015 af
Subcatchment DA-11: DRAINAGE AREA-11	Runoff Area=1,024 sf 0.00% Impervious Runoff Depth=0.76" Tc=6.0 min CN=69 Runoff=0.02 cfs 0.001 af
Subcatchment DA-12: DRAINAGE AREA-12	Runoff Area=3,697 sf 100.00% Impervious Runoff Depth=2.93" Tc=6.0 min CN=98 Runoff=0.25 cfs 0.021 af
Subcatchment DA-13: DRAINAGE AREA-13	Runoff Area=3,949 sf 100.00% Impervious Runoff Depth=2.93" Tc=6.0 min CN=98 Runoff=0.27 cfs 0.022 af
Subcatchment DA-14: DRAINAGE AREA-14	Runoff Area=3,949 sf 100.00% Impervious Runoff Depth=2.93" Tc=6.0 min CN=98 Runoff=0.27 cfs 0.022 af
Subcatchment DA-15: DRAINAGE AREA-15	Runoff Area=21,601 sf 89.31% Impervious Runoff Depth=2.61" Tc=6.0 min CN=95 Runoff=1.40 cfs 0.108 af
Subcatchment DA-16: DRAINAGE AREA-16	Runoff Area=9,241 sf 79.92% Impervious Runoff Depth=2.31" Tc=6.0 min CN=92 Runoff=0.55 cfs 0.041 af
Subcatchment DA-2: DRAINAGE AREA-2	Runoff Area=9,245 sf 29.41% Impervious Runoff Depth=1.12" Tc=6.0 min CN=76 Runoff=0.27 cfs 0.020 af
Subcatchment DA-3: DRAINAGE AREA-3	Runoff Area=26,772 sf 19.47% Impervious Runoff Depth=0.96" Tc=6.0 min CN=73 Runoff=0.63 cfs 0.049 af
Subcatchment DA-4: DRAINAGE AREA-4	Runoff Area=2,445 sf 0.00% Impervious Runoff Depth=0.76" Tc=6.0 min CN=69 Runoff=0.04 cfs 0.004 af
Subcatchment DA-5: DRAINAGE AREA-5	Runoff Area=2,578 sf 100.00% Impervious Runoff Depth=2.93" Tc=6.0 min CN=98 Runoff=0.18 cfs 0.014 af
Subcatchment DA-6: DRAINAGE AREA-6	Runoff Area=2,578 sf 100.00% Impervious Runoff Depth=2.93" Tc=6.0 min CN=98 Runoff=0.18 cfs 0.014 af
Subcatchment DA-7: DRAINAGE AREA-7	Runoff Area=10,274 sf 84.40% Impervious Runoff Depth=2.41" Tc=6.0 min CN=93 Runoff=0.63 cfs 0.047 af
Subcatchment DA-8: DRAINAGE AREA-8	Runoff Area=2,697 sf 100.00% Impervious Runoff Depth=2.93" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.015 af
Subcatchment DA-9: DRAINAGE AREA-9	Runoff Area=2,335 sf 100.00% Impervious Runoff Depth=2.93" Tc=6.0 min CN=98 Runoff=0.16 cfs 0.013 af

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Reach DP-1: DESIGN POINT-1Inflow=0.12 cfs 0.009 af
Outflow=0.12 cfs 0.009 af**Reach DP-2: DESIGN POINT-2**Inflow=0.27 cfs 0.020 af
Outflow=0.27 cfs 0.020 af**Reach DP-3: DESIGN POINT-3**Inflow=0.63 cfs 0.049 af
Outflow=0.63 cfs 0.049 af**Pond BIO-1: BIO RETENTION 1**Peak Elev=111.35' Storage=6 cf Inflow=0.22 cfs 0.018 af
Discarded=0.22 cfs 0.018 af Primary=0.00 cfs 0.000 af Outflow=0.22 cfs 0.018 af**Pond BIO-2: BIO RETENTION-2**Peak Elev=94.62' Storage=91 cf Inflow=0.20 cfs 0.017 af
Discarded=0.08 cfs 0.017 af Primary=0.00 cfs 0.000 af Outflow=0.08 cfs 0.017 af**Pond CB-1: CATCH BASIN 1**Peak Elev=109.59' Storage=26 cf Inflow=0.55 cfs 0.041 af
6.0" Round Culvert n=0.013 L=50.0' S=0.0100 '/' Outflow=0.55 cfs 0.040 af**Pond DMH-1: DRAINAGE MANHOLE-1**Peak Elev=91.60' Inflow=0.00 cfs 0.000 af
12.0" Round Culvert n=0.013 L=16.0' S=0.1000 '/' Outflow=0.00 cfs 0.000 af**Pond DMH-2: DRAINAGE MANHOLE-2**Peak Elev=104.95' Inflow=0.00 cfs 0.000 af
12.0" Round Culvert n=0.013 L=52.0' S=0.2567 '/' Outflow=0.00 cfs 0.000 af**Pond PP-1: POROUS PAVEMENT-1**Peak Elev=108.71' Storage=30 cf Inflow=1.15 cfs 0.090 af
Discarded=1.16 cfs 0.090 af Primary=0.00 cfs 0.000 af Outflow=1.16 cfs 0.090 af**Pond PP-2: POROUS PAVEMENT-1**Peak Elev=108.26' Storage=326 cf Inflow=2.75 cfs 0.213 af
Discarded=1.97 cfs 0.213 af Primary=0.00 cfs 0.000 af Outflow=1.97 cfs 0.213 af**Total Runoff Area = 2.458 ac Runoff Volume = 0.416 af Average Runoff Depth = 2.03"**
35.17% Pervious = 0.865 ac 64.83% Impervious = 1.594 ac

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Summary for Subcatchment DA-1: DRAINAGE AREA-1

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.009 af, Depth= 2.41"
Routed to Reach DP-1 : DESIGN POINT-1

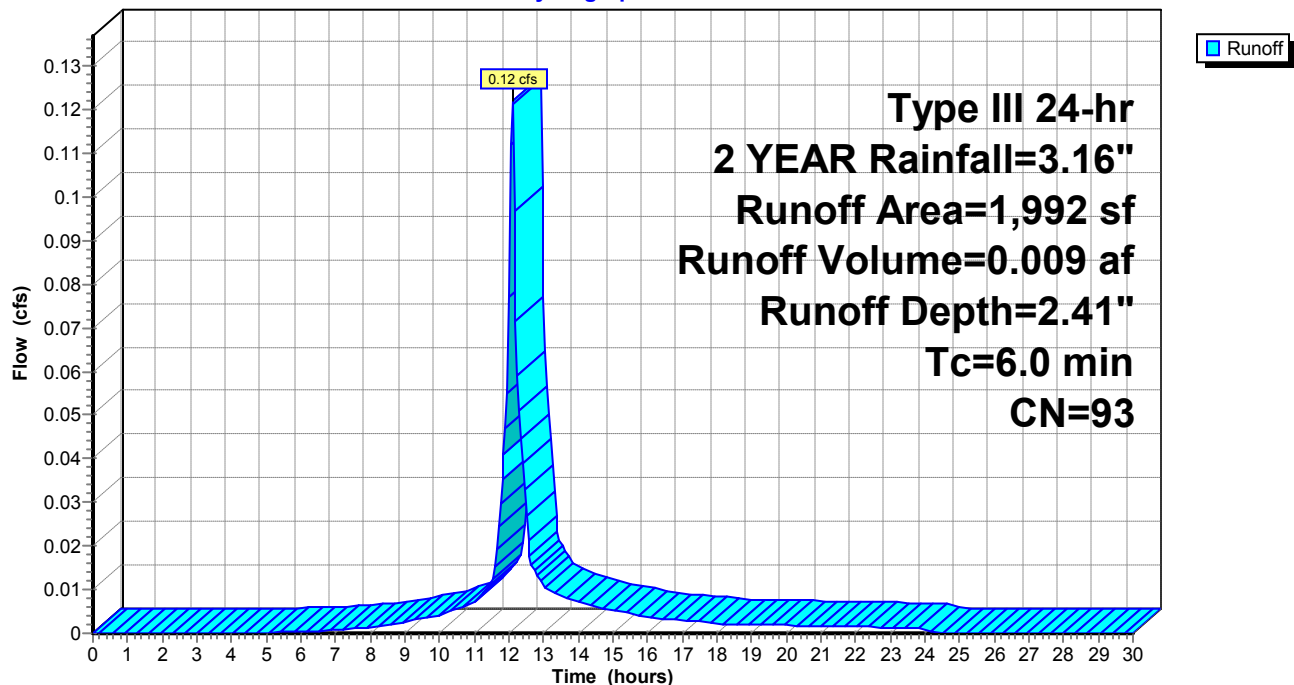
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
343	69	50-75% Grass cover, Fair, HSG B
1,649	98	Paved parking, HSG B
1,992	93	Weighted Average
343		17.22% Pervious Area
1,649		82.78% Impervious Area

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

Subcatchment DA-1: DRAINAGE AREA-1

Hydrograph



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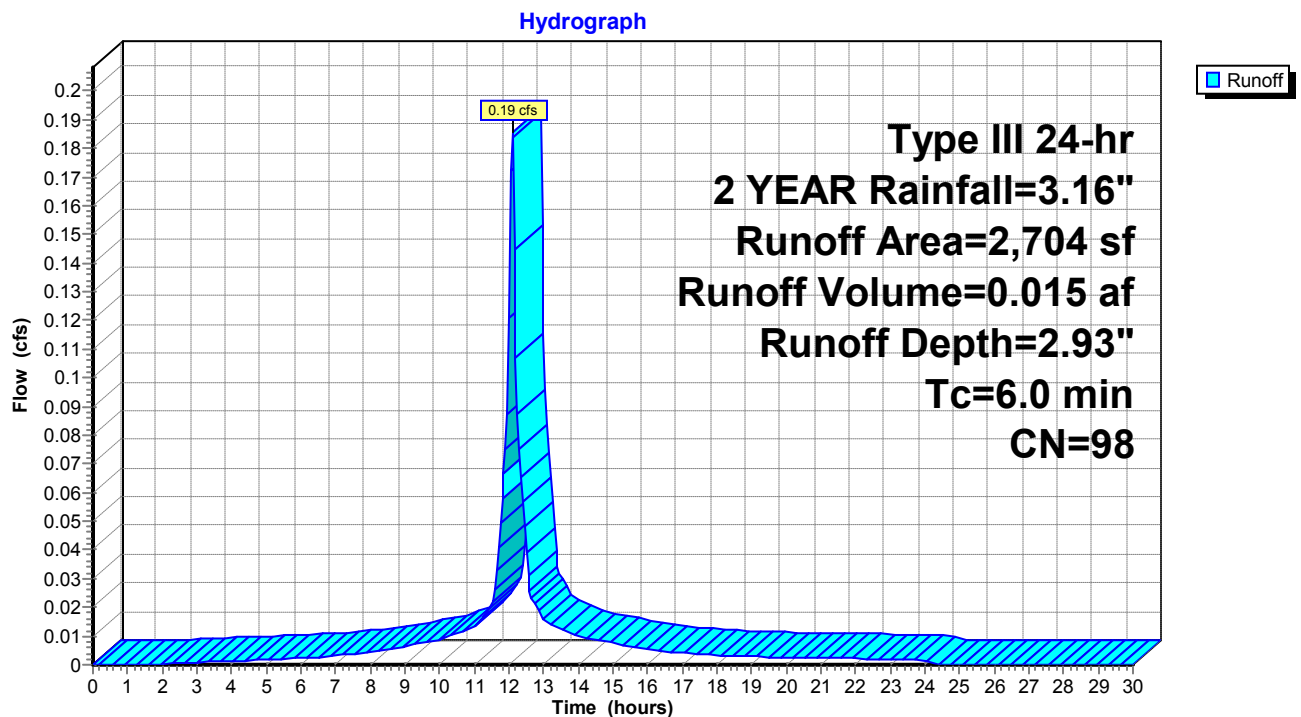
Summary for Subcatchment DA-10: DRAINAGE AREA-10

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 0.015 af, Depth= 2.93"
Routed to Pond BIO-2 : BIO RETENTION-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,704	98	Paved parking, HSG B
2,704	98	Weighted Average
2,704		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: DRAINAGE AREA-10

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Type III 24-hr 2 YEAR Rainfall=3.16"

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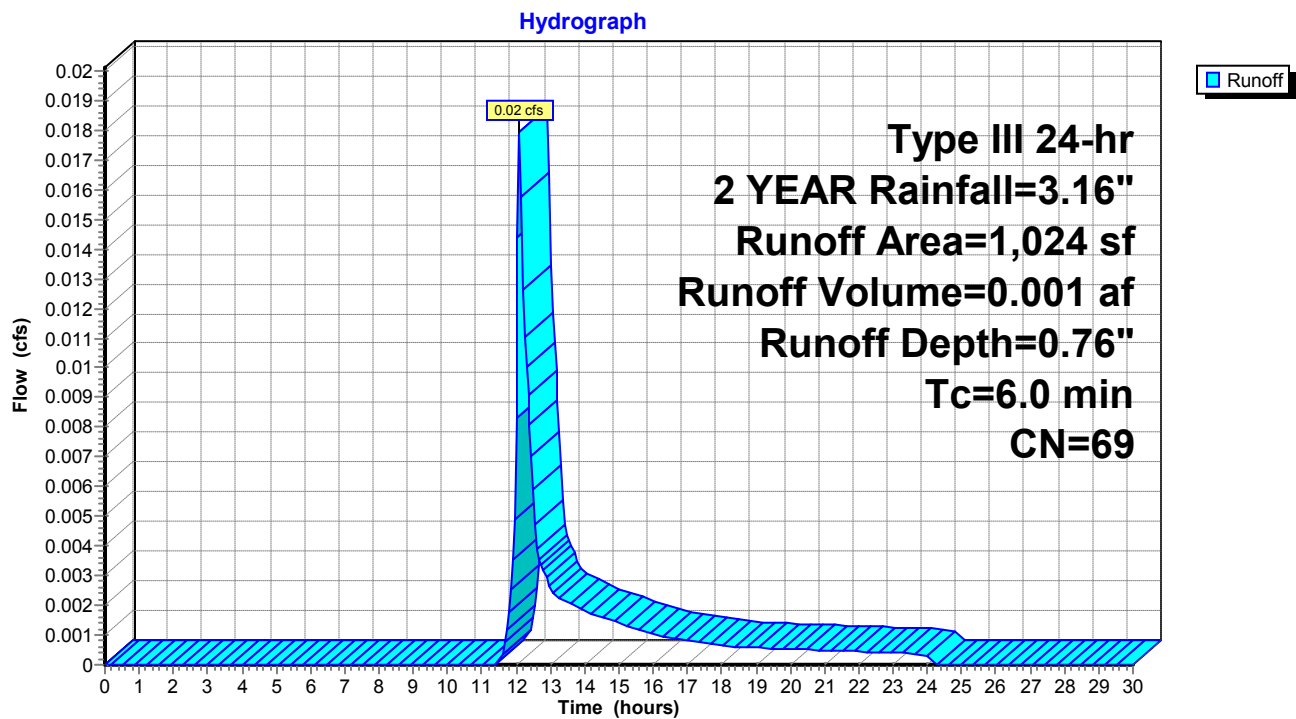
Summary for Subcatchment DA-11: DRAINAGE AREA-11

Runoff = 0.02 cfs @ 12.11 hrs, Volume= 0.001 af, Depth= 0.76"
Routed to Pond BIO-2 : BIO RETENTION-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,024	69	50-75% Grass cover, Fair, HSG B
0	98	Paved parking, HSG B
1,024	69	Weighted Average
1,024		100.00% Pervious Area

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

Subcatchment DA-11: DRAINAGE AREA-11

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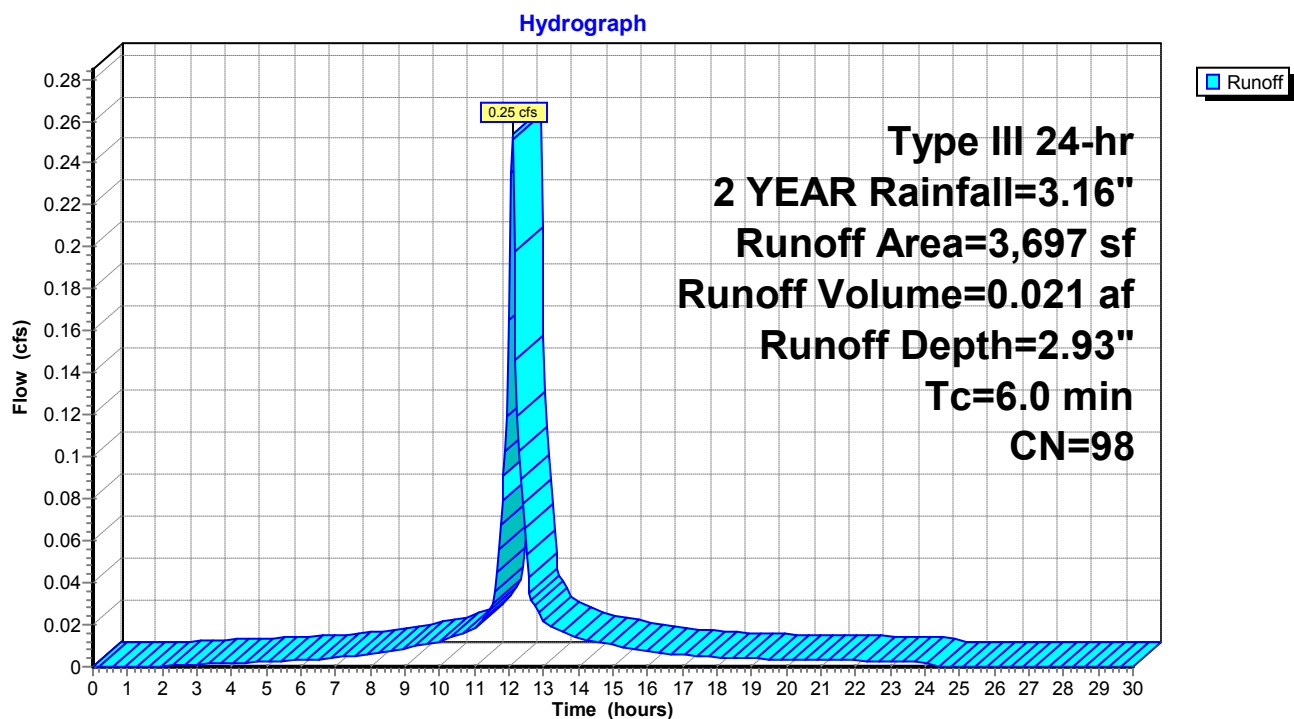
Summary for Subcatchment DA-12: DRAINAGE AREA-12

Runoff = 0.25 cfs @ 12.09 hrs, Volume= 0.021 af, Depth= 2.93"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
3,697	98	Paved parking, HSG B
3,697	98	Weighted Average
3,697		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-12: DRAINAGE AREA-12

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Type III 24-hr 2 YEAR Rainfall=3.16"

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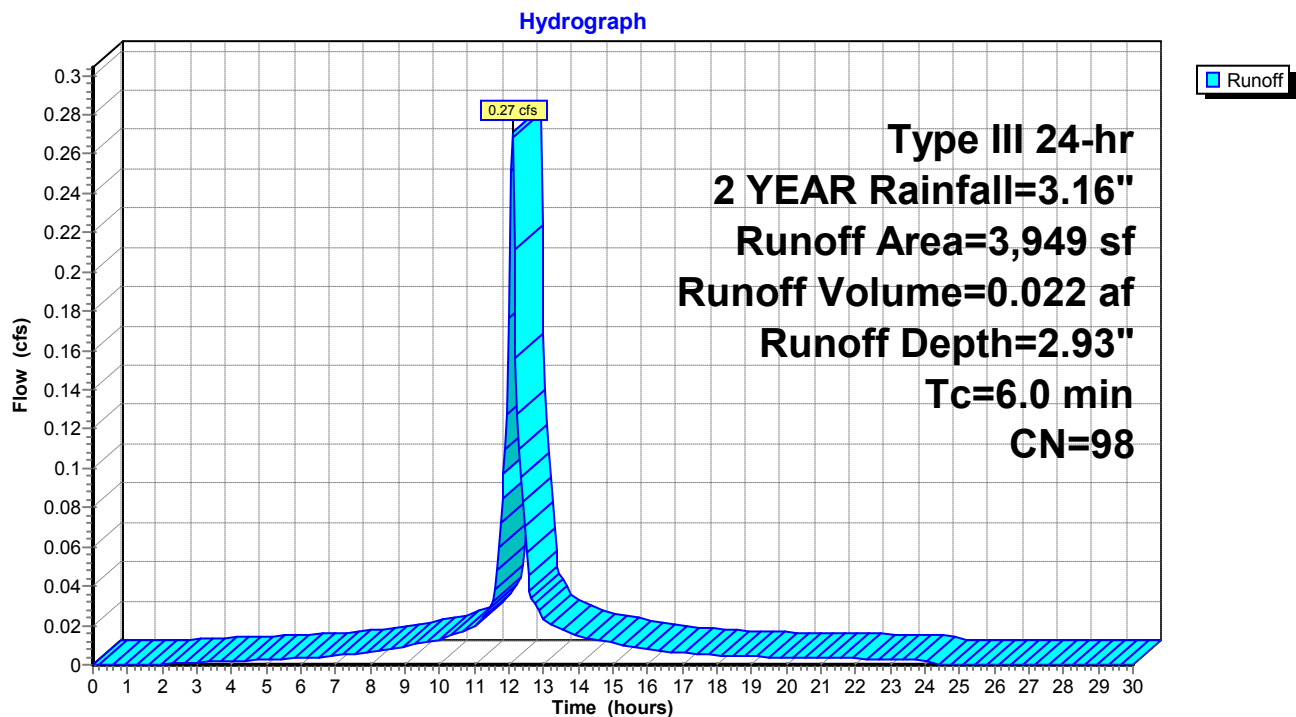
Summary for Subcatchment DA-13: DRAINAGE AREA-13

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.022 af, Depth= 2.93"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
3,949	98	Paved parking, HSG B
3,949	98	Weighted Average
3,949		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-13: DRAINAGE AREA-13

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Type III 24-hr 2 YEAR Rainfall=3.16"

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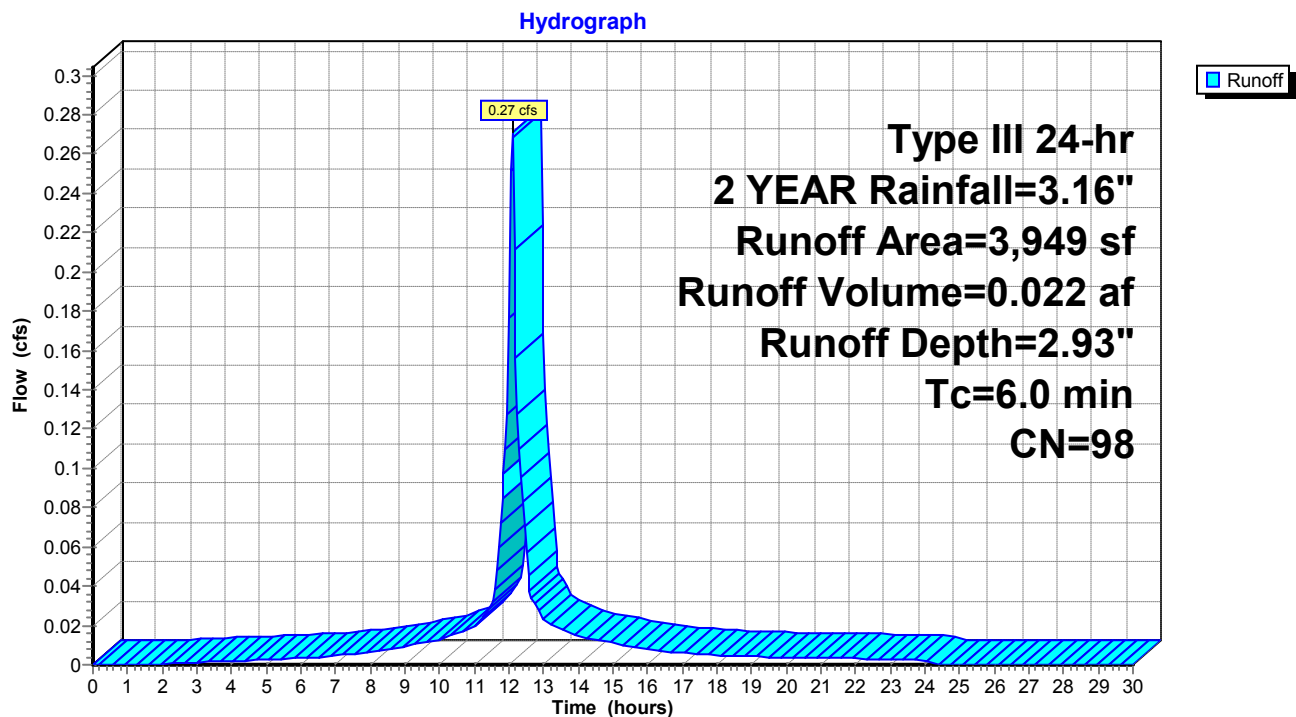
Summary for Subcatchment DA-14: DRAINAGE AREA-14

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.022 af, Depth= 2.93"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
3,949	98	Paved parking, HSG B
3,949	98	Weighted Average
3,949		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-14: DRAINAGE AREA-14

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Type III 24-hr 2 YEAR Rainfall=3.16"

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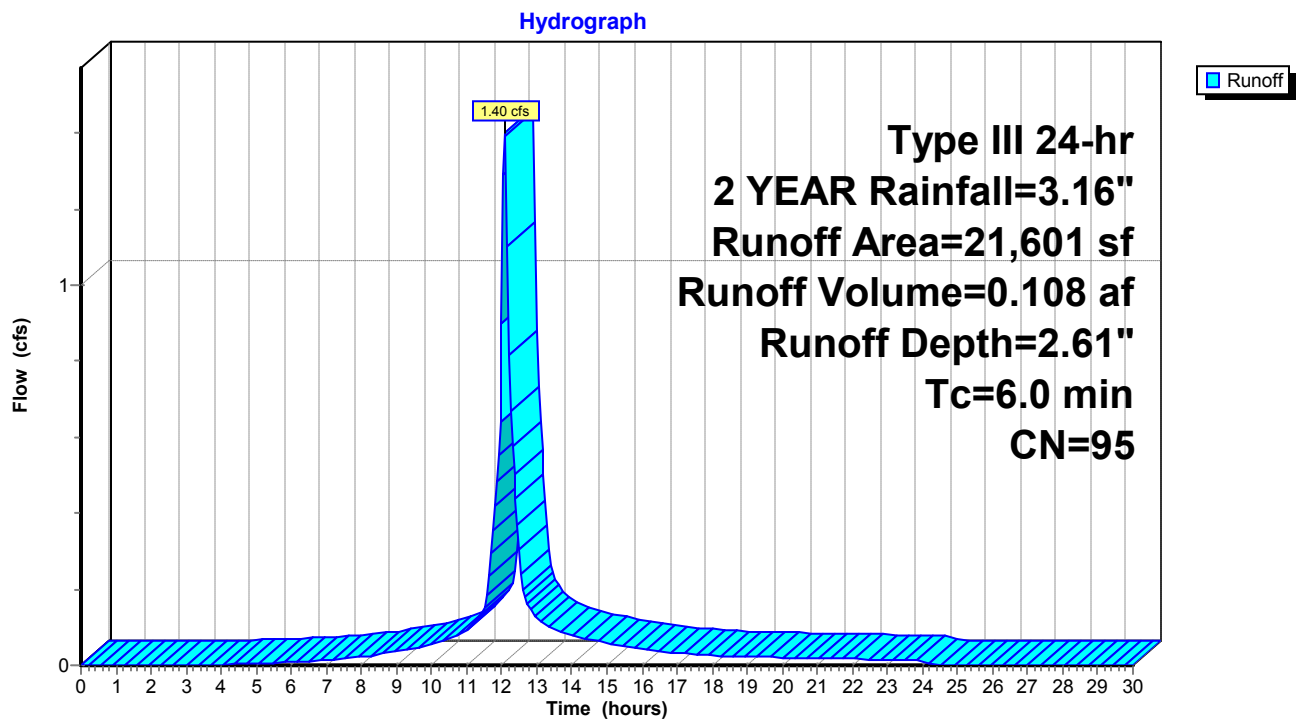
Summary for Subcatchment DA-15: DRAINAGE AREA-15

Runoff = 1.40 cfs @ 12.09 hrs, Volume= 0.108 af, Depth= 2.61"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
2,309	69	50-75% Grass cover, Fair, HSG B
19,292	98	Paved parking, HSG B
21,601	95	Weighted Average
2,309		10.69% Pervious Area
19,292		89.31% Impervious Area

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

Subcatchment DA-15: DRAINAGE AREA-15

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Type III 24-hr 2 YEAR Rainfall=3.16"

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Summary for Subcatchment DA-16: DRAINAGE AREA-16

Runoff = 0.55 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 2.31"
Routed to Pond CB-1 : CATCH BASIN 1

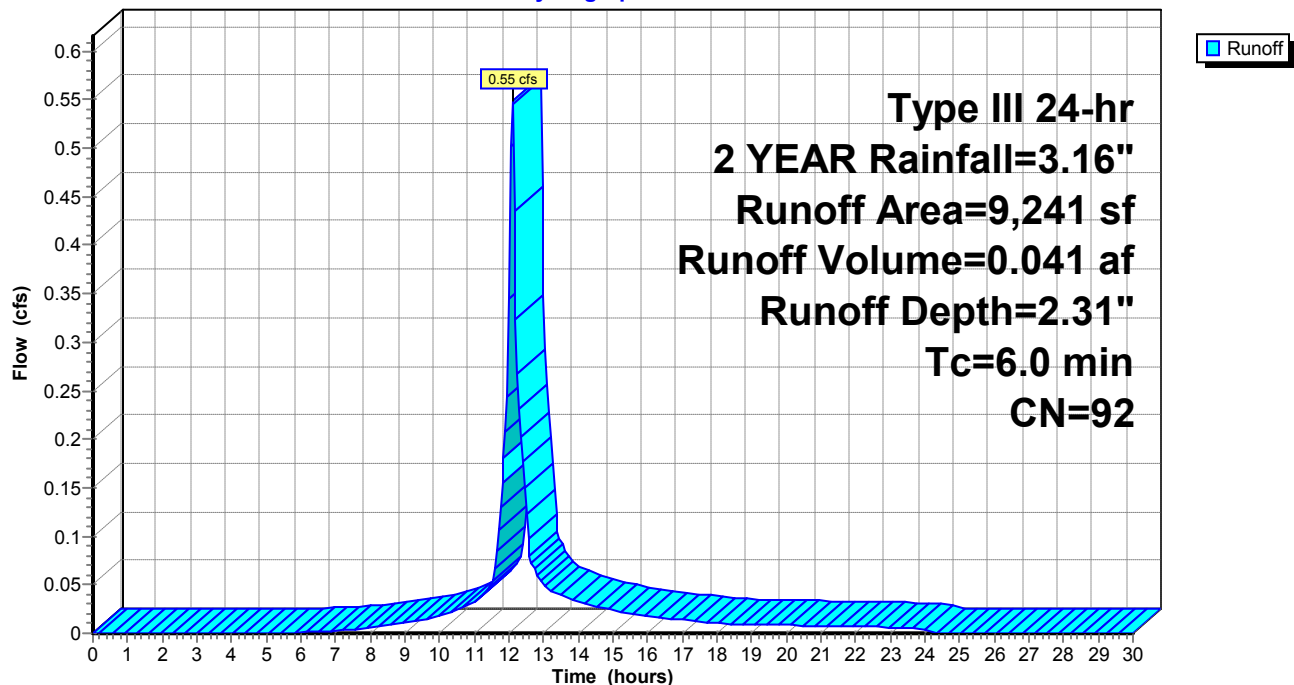
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,856	69	50-75% Grass cover, Fair, HSG B
7,385	98	Paved parking, HSG B
9,241	92	Weighted Average
1,856		20.08% Pervious Area
7,385		79.92% Impervious Area

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

Subcatchment DA-16: DRAINAGE AREA-16

Hydrograph



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Type III 24-hr 2 YEAR Rainfall=3.16"

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Summary for Subcatchment DA-2: DRAINAGE AREA-2

Runoff = 0.27 cfs @ 12.10 hrs, Volume= 0.020 af, Depth= 1.12"
Routed to Reach DP-2 : DESIGN POINT-2

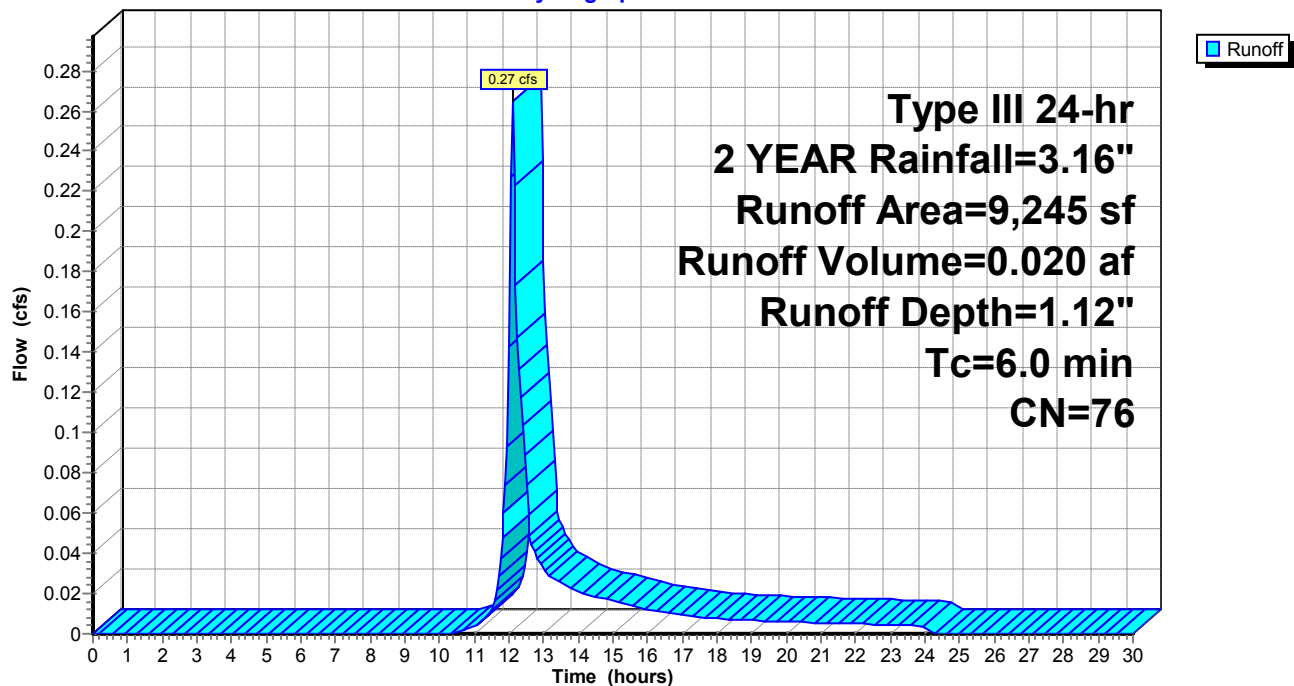
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
2,617	65	Woods/grass comb., Fair, HSG B
3,909	69	50-75% Grass cover, Fair, HSG B
2,719	98	Paved parking, HSG B
9,245	76	Weighted Average
6,526		70.59% Pervious Area
2,719		29.41% Impervious Area

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

Subcatchment DA-2: DRAINAGE AREA-2

Hydrograph



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Type III 24-hr 2 YEAR Rainfall=3.16"

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Summary for Subcatchment DA-3: DRAINAGE AREA-3

Runoff = 0.63 cfs @ 12.10 hrs, Volume= 0.049 af, Depth= 0.96"
Routed to Reach DP-3 : DESIGN POINT-3

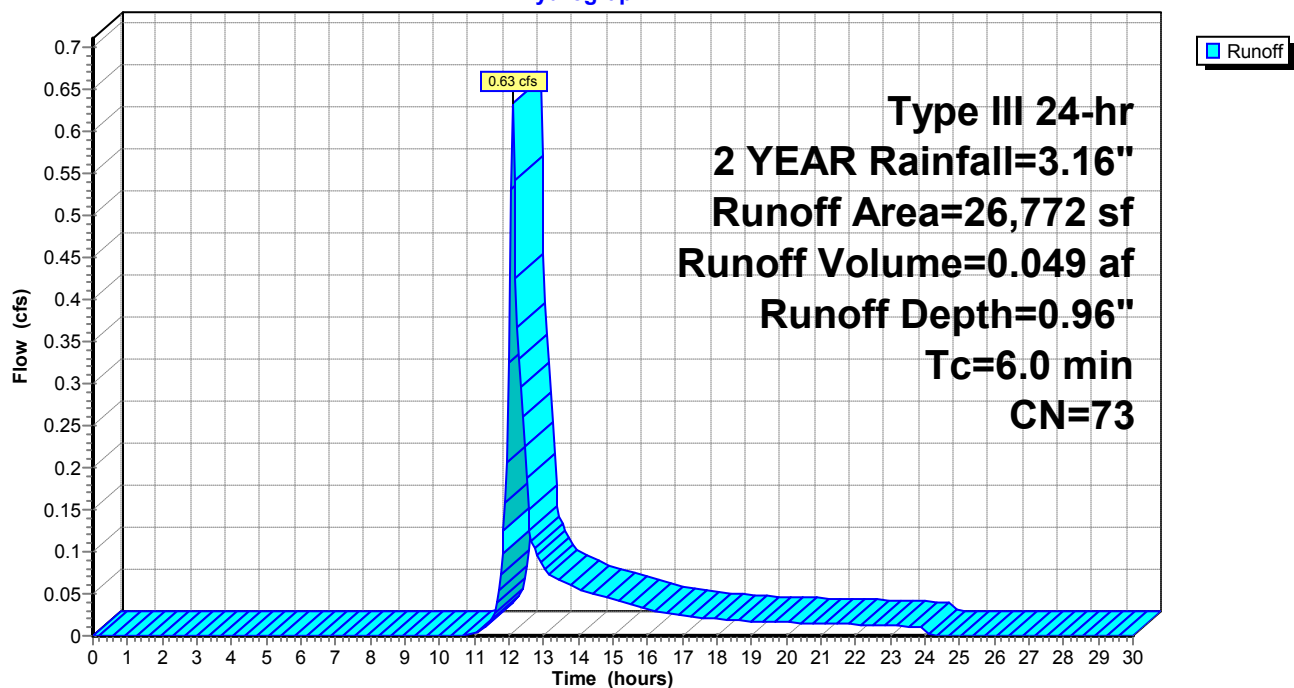
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
11,839	65	Woods/grass comb., Fair, HSG B
9,720	69	50-75% Grass cover, Fair, HSG B
5,213	98	Paved parking, HSG B
26,772	73	Weighted Average
21,559		80.53% Pervious Area
5,213		19.47% Impervious Area

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

Subcatchment DA-3: DRAINAGE AREA-3

Hydrograph



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Type III 24-hr 2 YEAR Rainfall=3.16"

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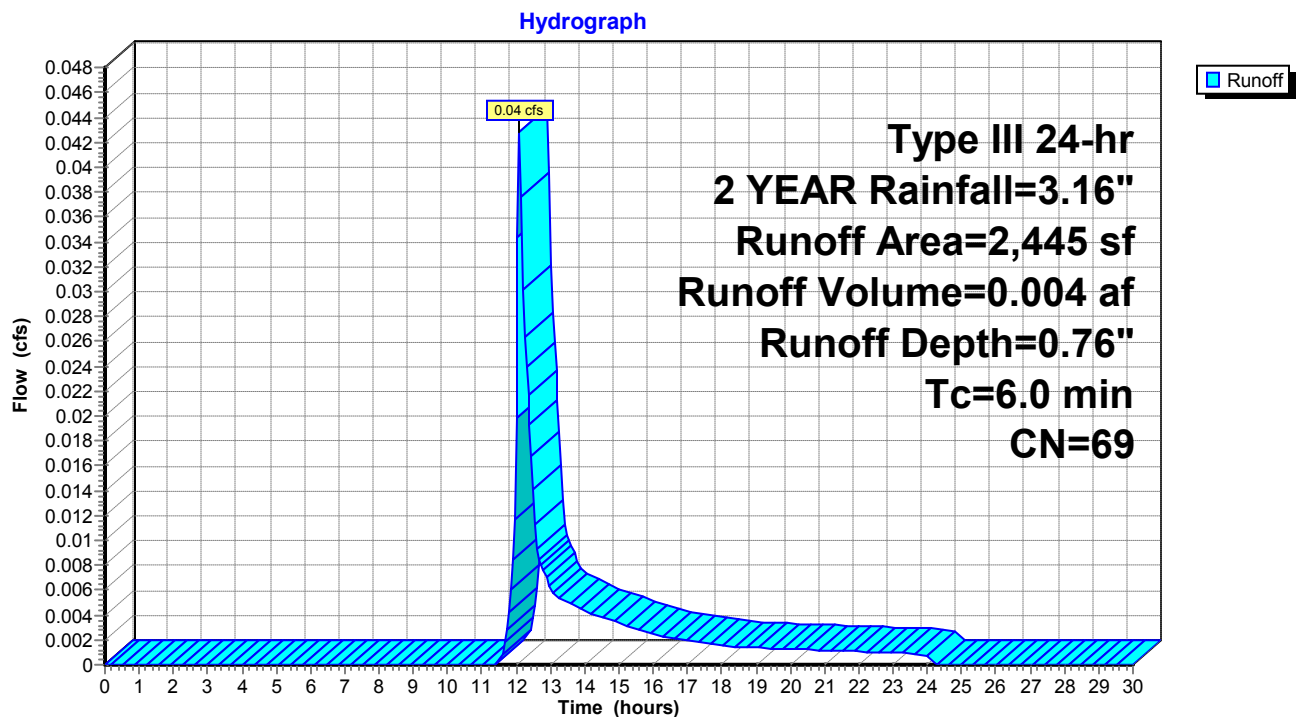
Summary for Subcatchment DA-4: DRAINAGE AREA-4

Runoff = 0.04 cfs @ 12.11 hrs, Volume= 0.004 af, Depth= 0.76"
Routed to Pond BIO-1 : BIO RETENTION 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
2,445	69	50-75% Grass cover, Fair, HSG B
0	98	Paved parking, HSG B
2,445	69	Weighted Average
2,445		100.00% Pervious Area

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

Subcatchment DA-4: DRAINAGE AREA-4

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Type III 24-hr 2 YEAR Rainfall=3.16"

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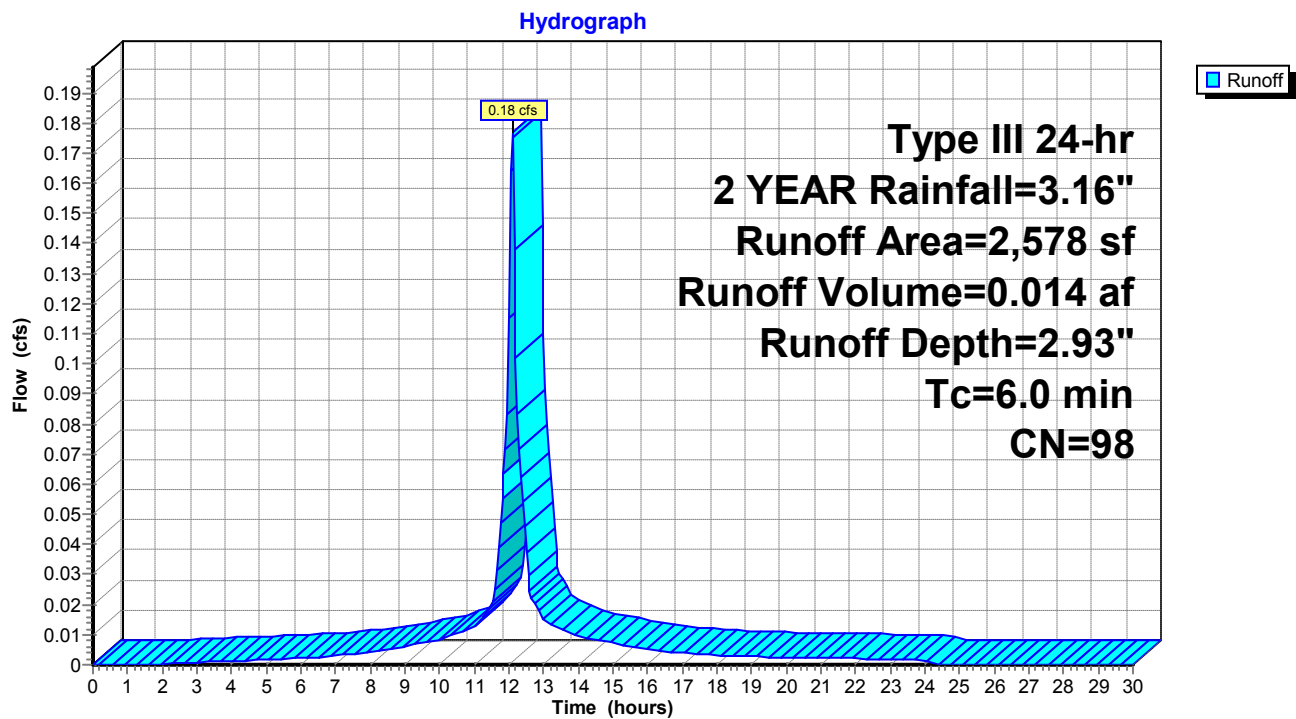
Summary for Subcatchment DA-5: DRAINAGE AREA-5

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.014 af, Depth= 2.93"
Routed to Pond BIO-1 : BIO RETENTION 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,578	98	Paved parking, HSG B
2,578	98	Weighted Average
2,578		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-5: DRAINAGE AREA-5

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Type III 24-hr 2 YEAR Rainfall=3.16"

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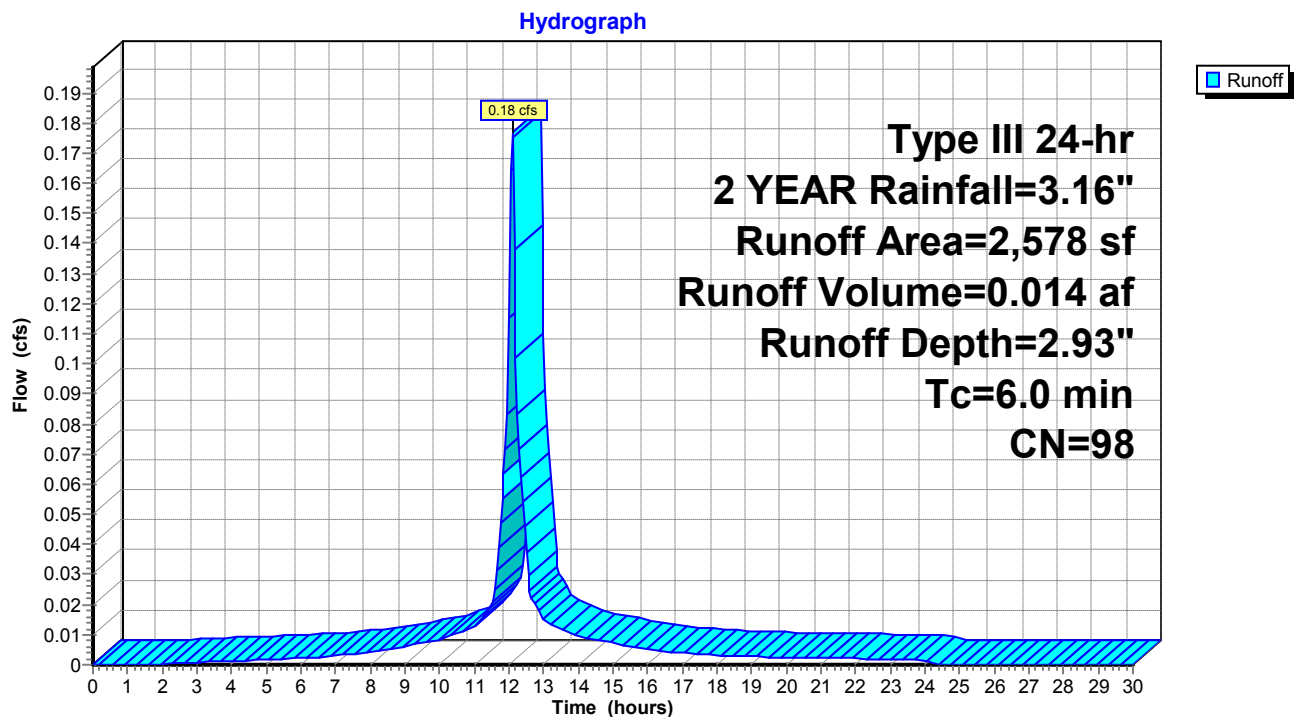
Summary for Subcatchment DA-6: DRAINAGE AREA-6

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.014 af, Depth= 2.93"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,578	98	Paved parking, HSG B
2,578	98	Weighted Average
2,578		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-6: DRAINAGE AREA-6

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Type III 24-hr 2 YEAR Rainfall=3.16"

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Summary for Subcatchment DA-7: DRAINAGE AREA-7

Runoff = 0.63 cfs @ 12.09 hrs, Volume= 0.047 af, Depth= 2.41"
Routed to Pond PP-1 : POROUS PAVEMENT-1

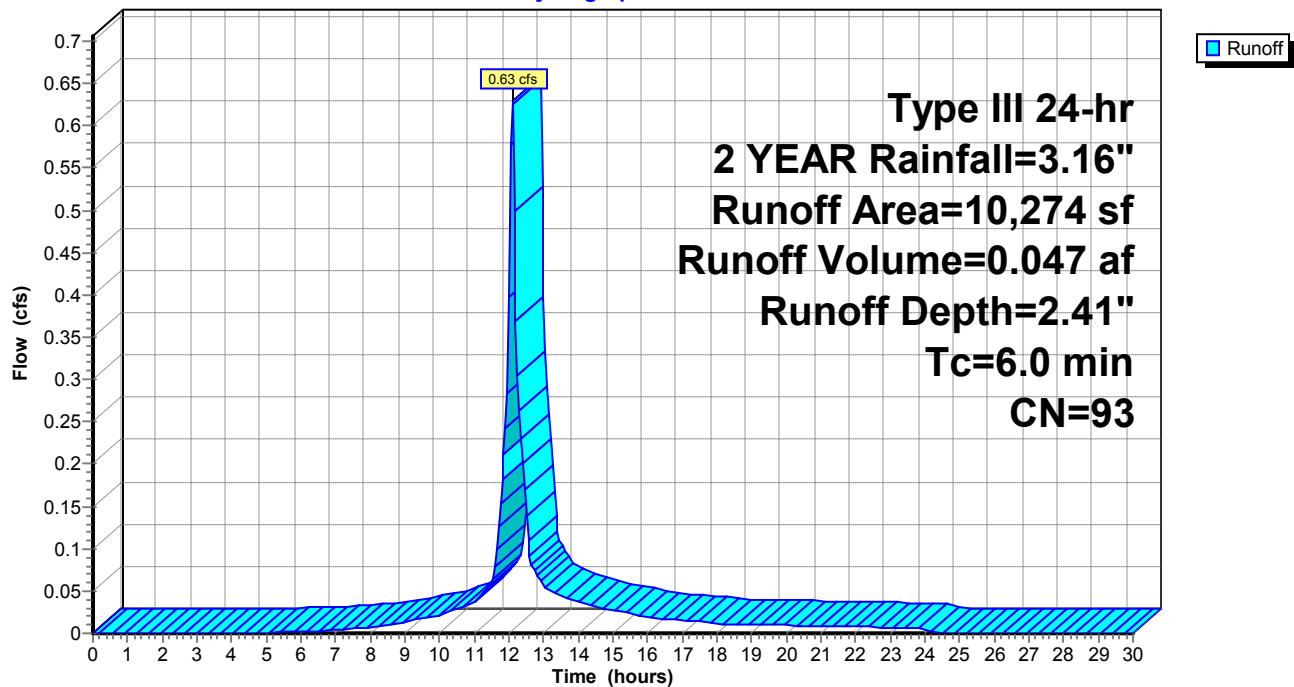
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
1,603	69	50-75% Grass cover, Fair, HSG B
8,671	98	Paved parking, HSG B
10,274	93	Weighted Average
1,603		15.60% Pervious Area
8,671		84.40% Impervious Area

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

Subcatchment DA-7: DRAINAGE AREA-7

Hydrograph



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Type III 24-hr 2 YEAR Rainfall=3.16"

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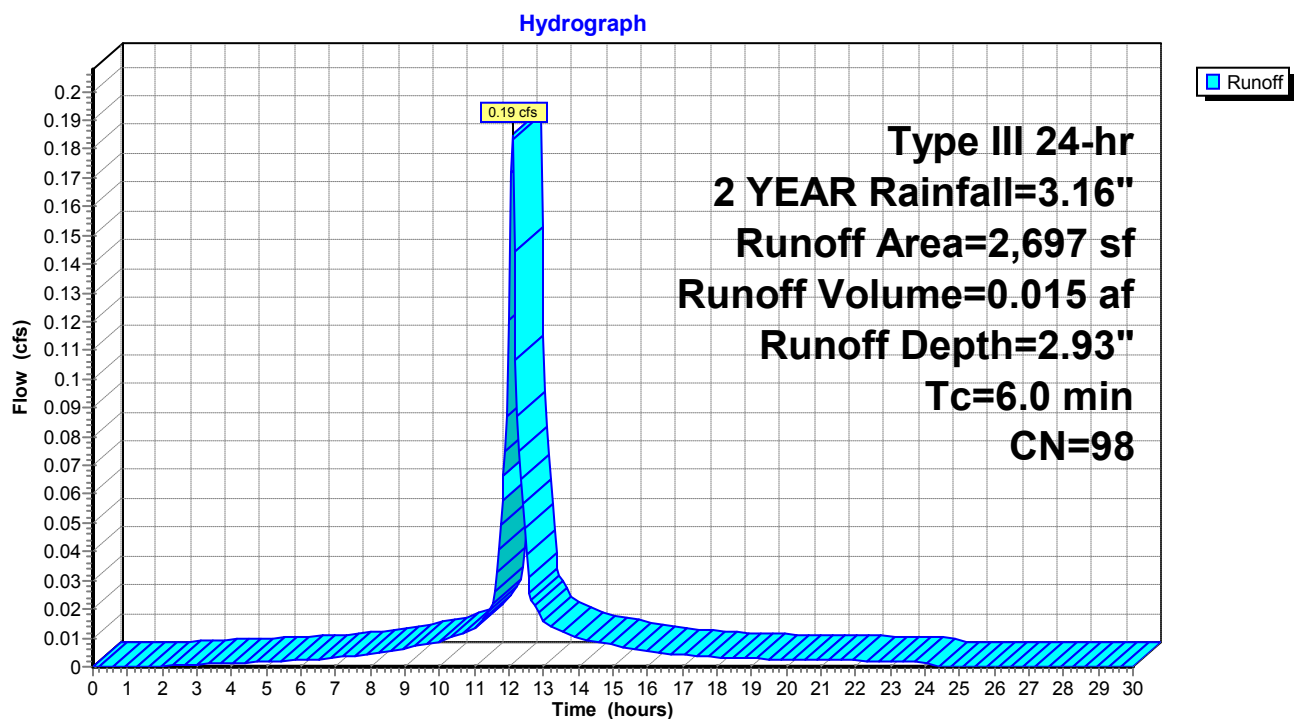
Summary for Subcatchment DA-8: DRAINAGE AREA-8

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 0.015 af, Depth= 2.93"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,697	98	Paved parking, HSG B
2,697	98	Weighted Average
2,697		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-8: DRAINAGE AREA-8

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Type III 24-hr 2 YEAR Rainfall=3.16"

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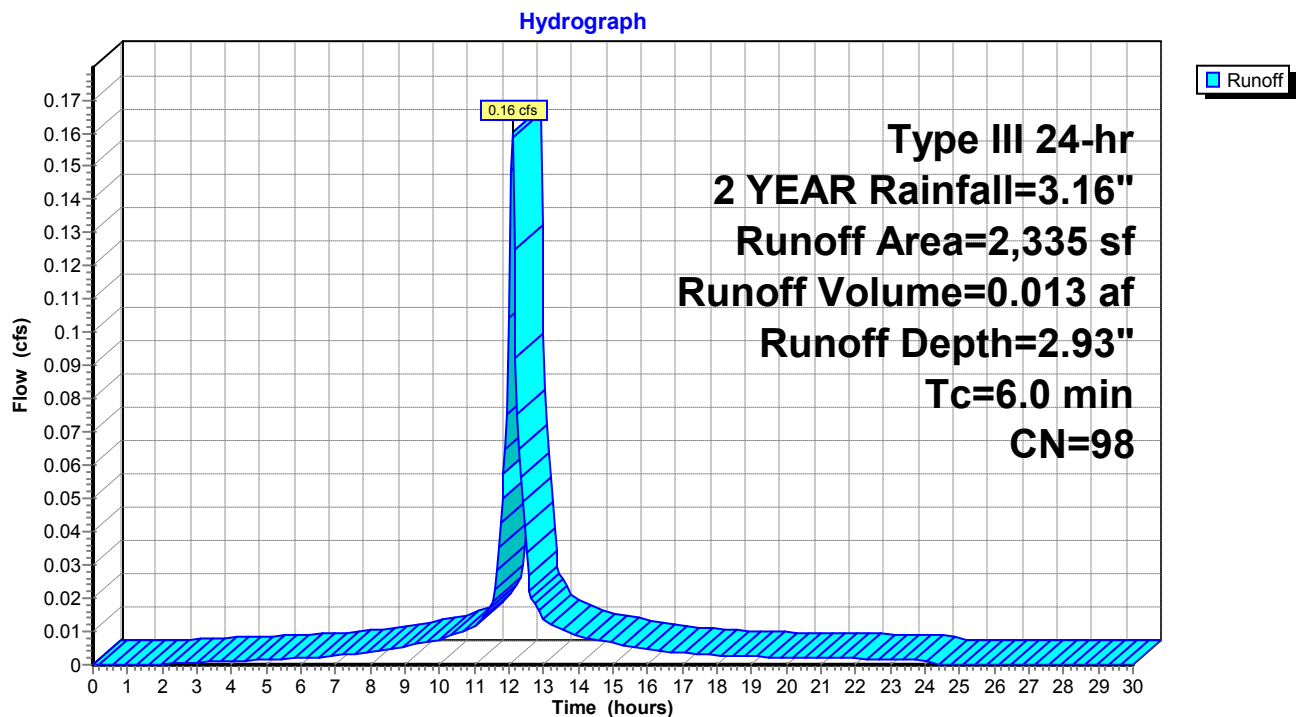
Summary for Subcatchment DA-9: DRAINAGE AREA-9

Runoff = 0.16 cfs @ 12.09 hrs, Volume= 0.013 af, Depth= 2.93"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YEAR Rainfall=3.16"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,335	98	Paved parking, HSG B
2,335	98	Weighted Average
2,335		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: DRAINAGE AREA-9

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Type III 24-hr 2 YEAR Rainfall=3.16"

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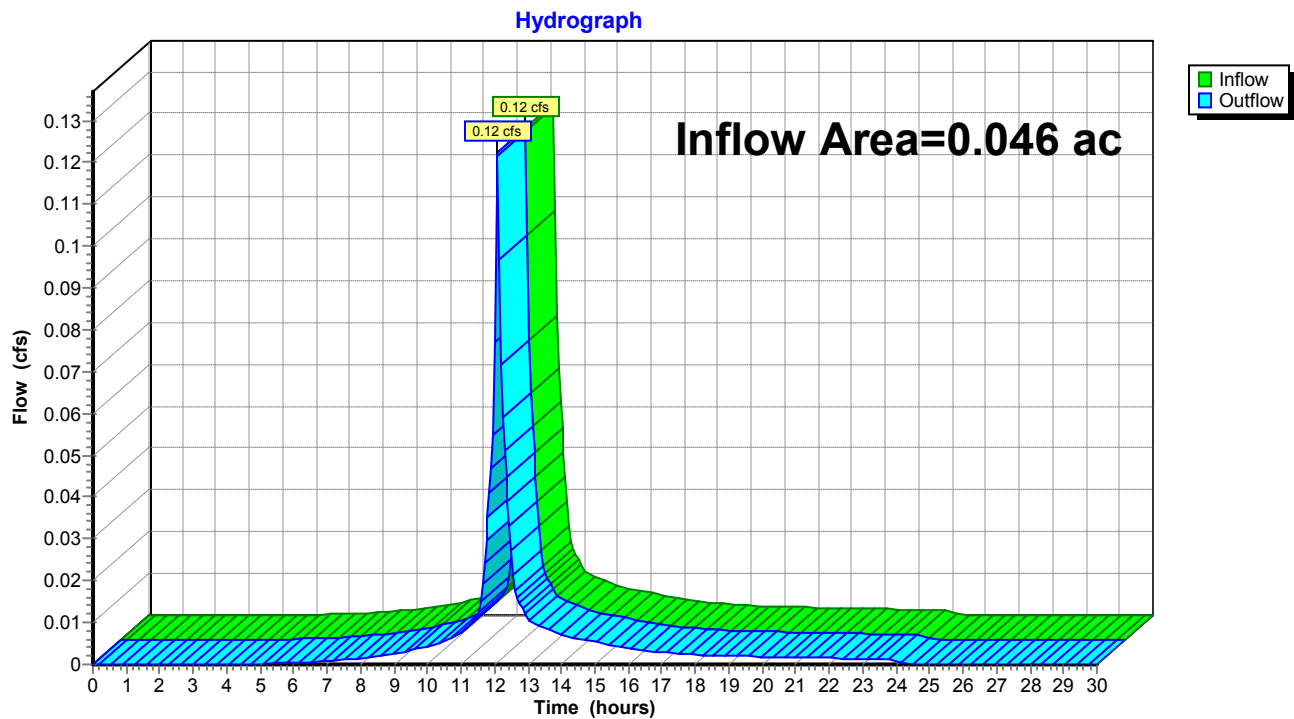
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Summary for Reach DP-1: DESIGN POINT-1

Inflow Area = 0.046 ac, 82.78% Impervious, Inflow Depth = 2.41" for 2 YEAR event
Inflow = 0.12 cfs @ 12.09 hrs, Volume= 0.009 af
Outflow = 0.12 cfs @ 12.09 hrs, Volume= 0.009 af, 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: DESIGN POINT-1

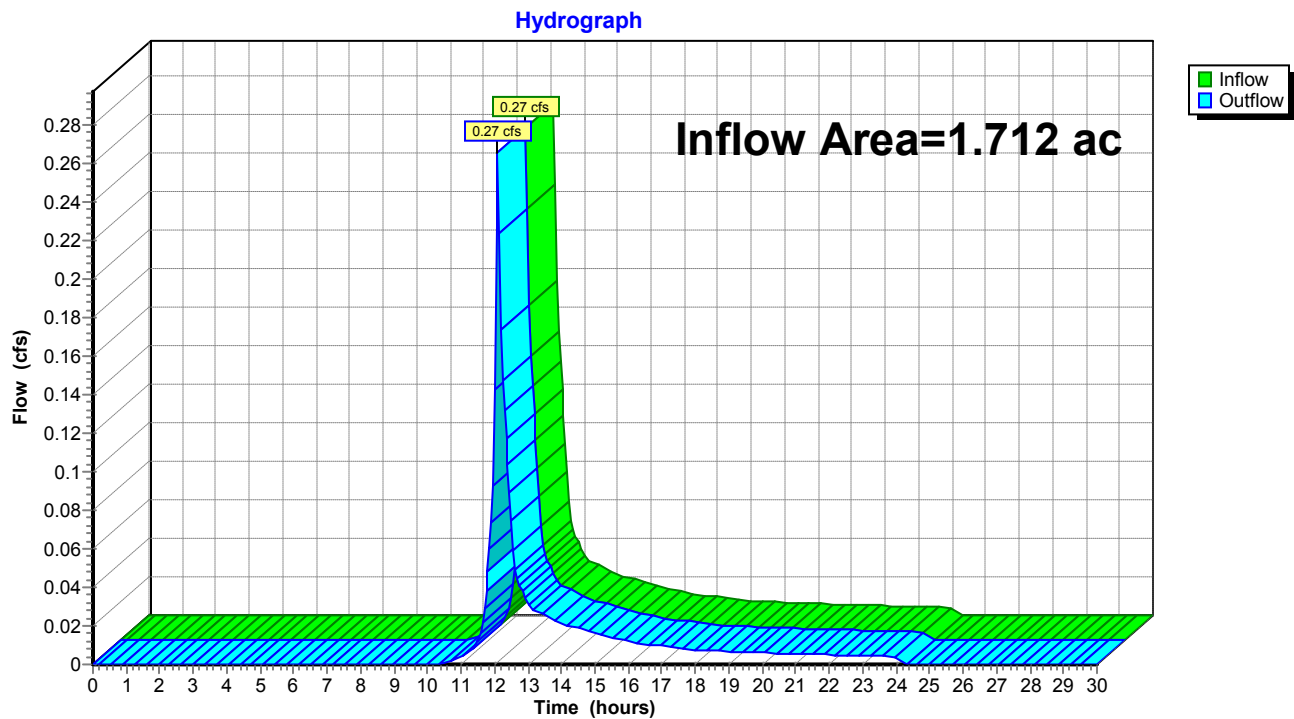


Summary for Reach DP-2: DESIGN POINT-2

Inflow Area = 1.712 ac, 80.24% Impervious, Inflow Depth = 0.14" for 2 YEAR event
 Inflow = 0.27 cfs @ 12.10 hrs, Volume= 0.020 af
 Outflow = 0.27 cfs @ 12.10 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: DESIGN POINT-2

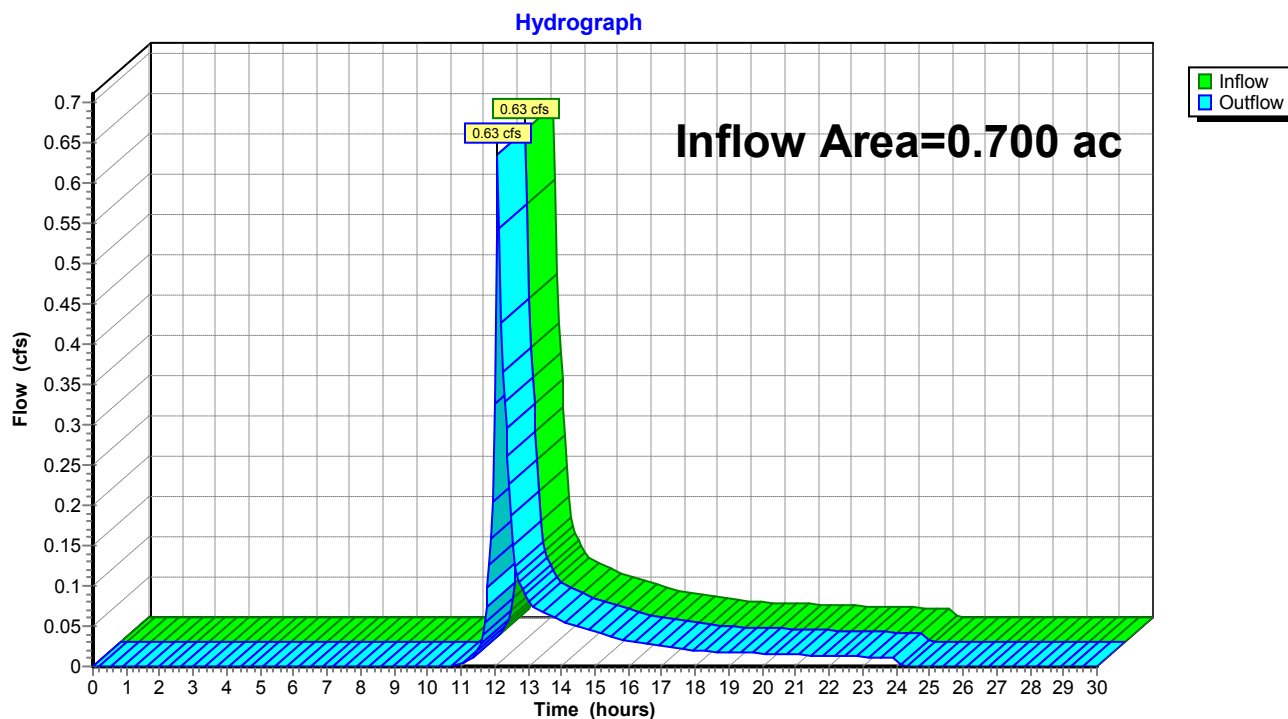


Summary for Reach DP-3: DESIGN POINT-3

Inflow Area = 0.700 ac, 25.96% Impervious, Inflow Depth = 0.84" for 2 YEAR event
 Inflow = 0.63 cfs @ 12.10 hrs, Volume= 0.049 af
 Outflow = 0.63 cfs @ 12.10 hrs, Volume= 0.049 af, 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-3: DESIGN POINT-3



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Type III 24-hr 2 YEAR Rainfall=3.16"

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Summary for Pond BIO-1: BIO RETENTION 1

Inflow Area = 0.115 ac, 51.32% Impervious, Inflow Depth = 1.87" for 2 YEAR event
 Inflow = 0.22 cfs @ 12.09 hrs, Volume= 0.018 af
 Outflow = 0.22 cfs @ 12.10 hrs, Volume= 0.018 af, Atten= 0%, Lag= 0.5 min
 Discarded = 0.22 cfs @ 12.10 hrs, Volume= 0.018 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond CB-1 : CATCH BASIN 1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 111.35' @ 12.10 hrs Surf.Area= 538 sf Storage= 6 cf

Plug-Flow detention time= 0.5 min calculated for 0.018 af (100% of inflow)
 Center-of-Mass det. time= 0.5 min (781.5 - 781.0)

Volume	Invert	Avail.Storage	Storage Description
#1	111.34'	841 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

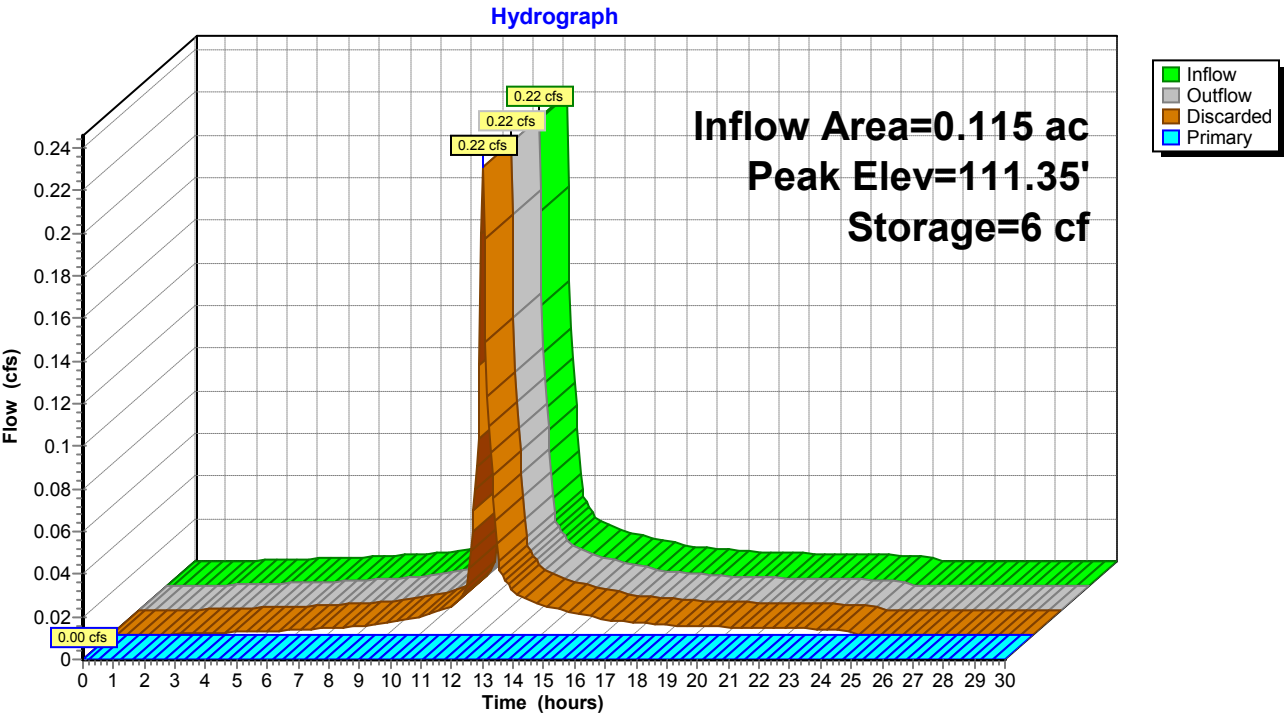
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
111.34	534	0	0
112.00	764	428	428
112.50	885	412	841

Device	Routing	Invert	Outlet Devices
#1	Discarded	111.34'	18.000 in/hr Exfiltration over Surface area
#2	Primary	112.00'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Discarded OutFlow Max=0.22 cfs @ 12.10 hrs HW=111.35' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.22 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=111.34' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond BIO-1: BIO RETENTION 1



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Type III 24-hr 2 YEAR Rainfall=3.16"

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Stage-Area-Storage for Pond BIO-1: BIO RETENTION 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
111.34	534	0	112.38	856	736
111.36	541	11	112.40	861	753
111.38	548	22	112.42	866	771
111.40	555	33	112.44	870	788
111.42	562	44	112.46	875	805
111.44	569	55	112.48	880	823
111.46	576	67	112.50	885	841
111.48	583	78			
111.50	590	90			
111.52	597	102			
111.54	604	114			
111.56	611	126			
111.58	618	138			
111.60	625	151			
111.62	632	163			
111.64	639	176			
111.66	646	189			
111.68	652	202			
111.70	659	215			
111.72	666	228			
111.74	673	241			
111.76	680	255			
111.78	687	269			
111.80	694	283			
111.82	701	296			
111.84	708	311			
111.86	715	325			
111.88	722	339			
111.90	729	354			
111.92	736	368			
111.94	743	383			
111.96	750	398			
111.98	757	413			
112.00	764	428			
112.02	769	444			
112.04	774	459			
112.06	779	475			
112.08	783	490			
112.10	788	506			
112.12	793	522			
112.14	798	538			
112.16	803	554			
112.18	808	570			
112.20	812	586			
112.22	817	602			
112.24	822	619			
112.26	827	635			
112.28	832	652			
112.30	837	668			
112.32	841	685			
112.34	846	702			
112.36	851	719			

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Summary for Pond BIO-2: BIO RETENTION-2

Inflow Area = 0.086 ac, 72.53% Impervious, Inflow Depth = 2.33" for 2 YEAR event
 Inflow = 0.20 cfs @ 12.09 hrs, Volume= 0.017 af
 Outflow = 0.08 cfs @ 12.34 hrs, Volume= 0.017 af, Atten= 62%, Lag= 15.2 min
 Discarded = 0.08 cfs @ 12.34 hrs, Volume= 0.017 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach DP-3 : DESIGN POINT-3

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 94.62' @ 12.34 hrs Surf.Area= 331 sf Storage= 91 cf

Plug-Flow detention time= 5.3 min calculated for 0.017 af (100% of inflow)
 Center-of-Mass det. time= 5.3 min (773.0 - 767.7)

Volume	Invert	Avail.Storage	Storage Description
#1	94.33'	429 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

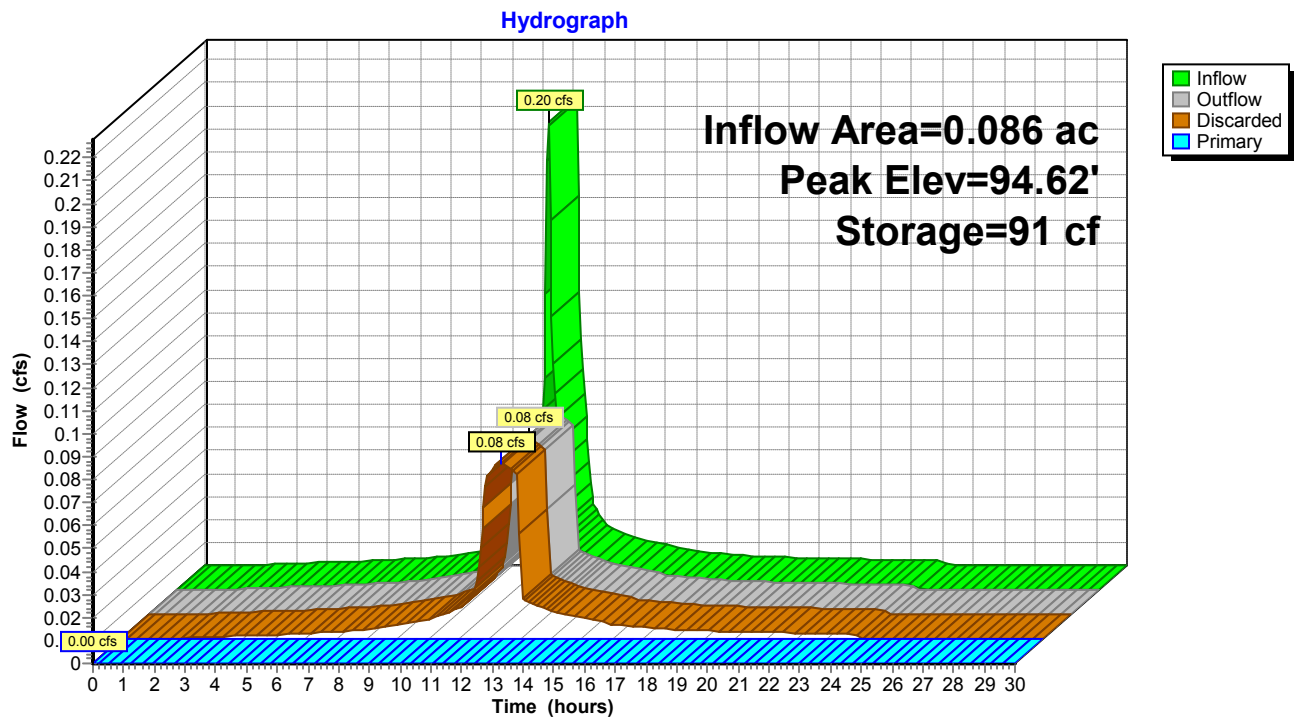
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
94.33	305	0	0
95.00	365	224	224
95.50	452	204	429

Device	Routing	Invert	Outlet Devices
#1	Discarded	94.33'	10.000 in/hr Exfiltration over Surface area
#2	Primary	95.25'	15.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Discarded OutFlow Max=0.08 cfs @ 12.34 hrs HW=94.62' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=94.33' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond BIO-2: BIO RETENTION-2



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Stage-Area-Storage for Pond BIO-2: BIO RETENTION-2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
94.33	305	0	95.37	429	371
94.35	307	6	95.39	433	380
94.37	309	12	95.41	436	389
94.39	310	18	95.43	440	397
94.41	312	25	95.45	443	406
94.43	314	31	95.47	447	415
94.45	316	37	95.49	450	424
94.47	318	44			
94.49	319	50			
94.51	321	56			
94.53	323	63			
94.55	325	69			
94.57	326	76			
94.59	328	82			
94.61	330	89			
94.63	332	96			
94.65	334	102			
94.67	335	109			
94.69	337	116			
94.71	339	122			
94.73	341	129			
94.75	343	136			
94.77	344	143			
94.79	346	150			
94.81	348	157			
94.83	350	164			
94.85	352	171			
94.87	353	178			
94.89	355	185			
94.91	357	192			
94.93	359	199			
94.95	361	206			
94.97	362	214			
94.99	364	221			
95.01	367	228			
95.03	370	235			
95.05	374	243			
95.07	377	250			
95.09	381	258			
95.11	384	266			
95.13	388	273			
95.15	391	281			
95.17	395	289			
95.19	398	297			
95.21	402	305			
95.23	405	313			
95.25	409	321			
95.27	412	329			
95.29	415	338			
95.31	419	346			
95.33	422	354			
95.35	426	363			

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Type III 24-hr 2 YEAR Rainfall=3.16"

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Summary for Pond CB-1: CATCH BASIN 1

Inflow Area = 0.327 ac, 69.85% Impervious, Inflow Depth = 1.50" for 2 YEAR event
 Inflow = 0.55 cfs @ 12.09 hrs, Volume= 0.041 af
 Outflow = 0.55 cfs @ 12.09 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.3 min
 Primary = 0.55 cfs @ 12.09 hrs, Volume= 0.040 af
 Routed to Pond PP-2 : POROUS PAVEMENT-1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 109.59' @ 12.09 hrs Surf.Area= 8 sf Storage= 26 cf
 Flood Elev= 109.90' Surf.Area= 8 sf Storage= 28 cf

Plug-Flow detention time= 11.1 min calculated for 0.040 af (99% of inflow)
 Center-of-Mass det. time= 4.6 min (802.8 - 798.2)

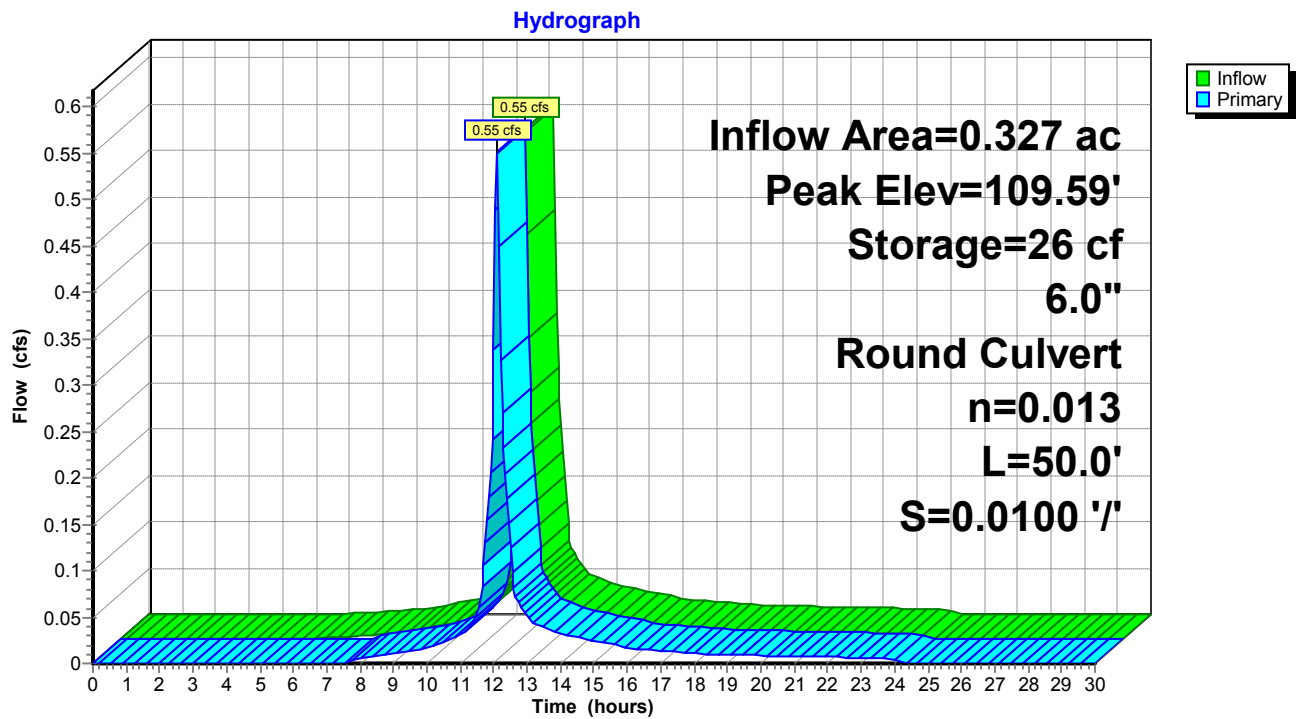
Volume	Invert	Avail.Storage	Storage Description
#1	106.40'	455 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
106.40	8	0	0
109.90	8	28	28
110.00	87	5	33
110.50	1,074	290	323
110.60	1,560	132	455

Device	Routing	Invert	Outlet Devices
#1	Primary	108.80'	6.0" Round Culvert L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.80' / 108.30' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.54 cfs @ 12.09 hrs HW=109.58' (Free Discharge)

↑ **1=Culvert** (Inlet Controls 0.54 cfs @ 2.76 fps)

Pond CB-1: CATCH BASIN 1



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Stage-Area-Storage for Pond CB-1: CATCH BASIN 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
106.40	8	0	109.00	8	21
106.45	8	0	109.05	8	21
106.50	8	1	109.10	8	22
106.55	8	1	109.15	8	22
106.60	8	2	109.20	8	22
106.65	8	2	109.25	8	23
106.70	8	2	109.30	8	23
106.75	8	3	109.35	8	24
106.80	8	3	109.40	8	24
106.85	8	4	109.45	8	24
106.90	8	4	109.50	8	25
106.95	8	4	109.55	8	25
107.00	8	5	109.60	8	26
107.05	8	5	109.65	8	26
107.10	8	6	109.70	8	26
107.15	8	6	109.75	8	27
107.20	8	6	109.80	8	27
107.25	8	7	109.85	8	28
107.30	8	7	109.90	8	28
107.35	8	8	109.95	48	29
107.40	8	8	110.00	87	33
107.45	8	8	110.05	186	40
107.50	8	9	110.10	284	51
107.55	8	9	110.15	383	68
107.60	8	10	110.20	482	90
107.65	8	10	110.25	581	116
107.70	8	10	110.30	679	148
107.75	8	11	110.35	778	184
107.80	8	11	110.40	877	225
107.85	8	12	110.45	975	272
107.90	8	12	110.50	1,074	323
107.95	8	12	110.55	1,317	383
108.00	8	13	110.60	1,560	455
108.05	8	13			
108.10	8	14			
108.15	8	14			
108.20	8	14			
108.25	8	15			
108.30	8	15			
108.35	8	16			
108.40	8	16			
108.45	8	16			
108.50	8	17			
108.55	8	17			
108.60	8	18			
108.65	8	18			
108.70	8	18			
108.75	8	19			
108.80	8	19			
108.85	8	20			
108.90	8	20			
108.95	8	20			

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Summary for Pond DMH-1: DRAINAGE MANHOLE-1

Inflow Area = 1.500 ac, 87.43% Impervious, Inflow Depth = 0.00" for 2 YEAR event
Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Reach DP-2 : DESIGN POINT-2

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Peak Elev= 91.60' @ 0.00 hrs

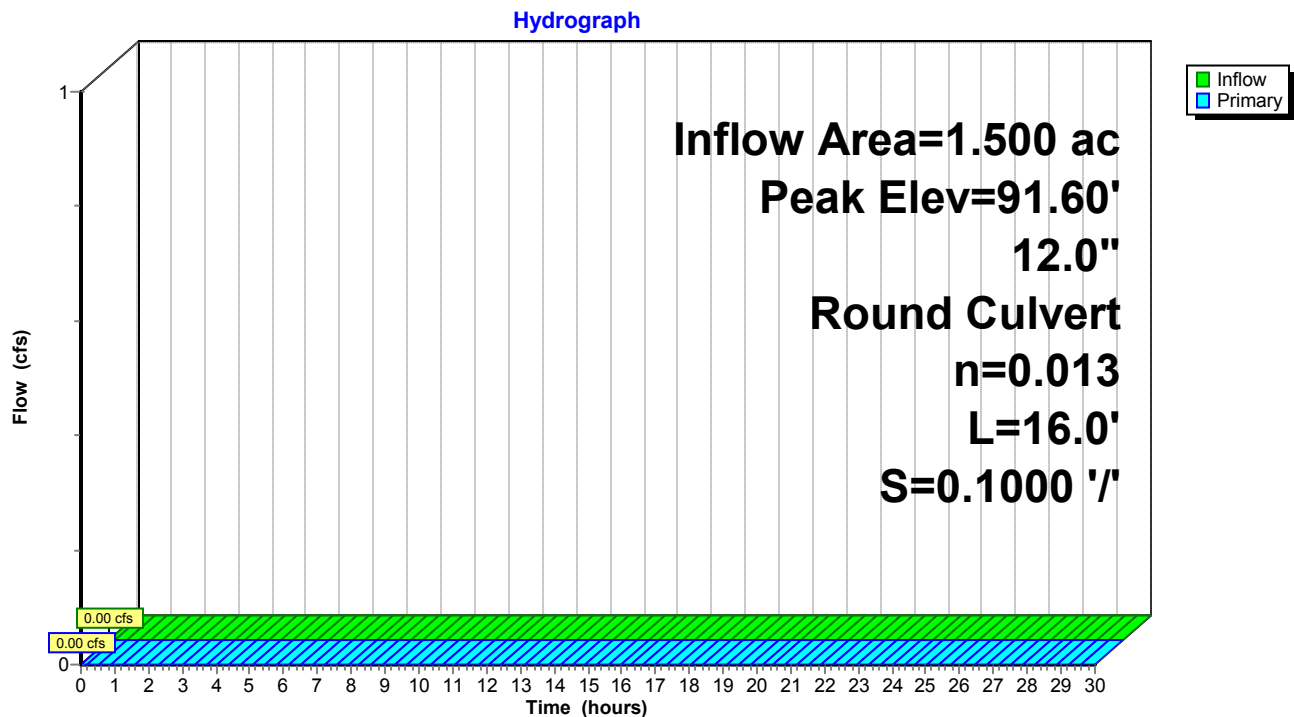
Flood Elev= 96.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	91.60'	12.0" Round Culvert L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 91.60' / 90.00' S= 0.1000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=91.60' (Free Discharge)

↑1=Culvert (Controls 0.00 cfs)

Pond DMH-1: DRAINAGE MANHOLE-1



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Stage-Area-Storage for Pond DMH-1: DRAINAGE MANHOLE-1

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
91.60	0.000	94.20	0.000
91.65	0.000	94.25	0.000
91.70	0.000	94.30	0.000
91.75	0.000	94.35	0.000
91.80	0.000	94.40	0.000
91.85	0.000	94.45	0.000
91.90	0.000	94.50	0.000
91.95	0.000	94.55	0.000
92.00	0.000	94.60	0.000
92.05	0.000	94.65	0.000
92.10	0.000	94.70	0.000
92.15	0.000	94.75	0.000
92.20	0.000	94.80	0.000
92.25	0.000	94.85	0.000
92.30	0.000	94.90	0.000
92.35	0.000	94.95	0.000
92.40	0.000	95.00	0.000
92.45	0.000	95.05	0.000
92.50	0.000	95.10	0.000
92.55	0.000	95.15	0.000
92.60	0.000	95.20	0.000
92.65	0.000	95.25	0.000
92.70	0.000	95.30	0.000
92.75	0.000	95.35	0.000
92.80	0.000	95.40	0.000
92.85	0.000	95.45	0.000
92.90	0.000	95.50	0.000
92.95	0.000	95.55	0.000
93.00	0.000	95.60	0.000
93.05	0.000	95.65	0.000
93.10	0.000	95.70	0.000
93.15	0.000	95.75	0.000
93.20	0.000	95.80	0.000
93.25	0.000	95.85	0.000
93.30	0.000	95.90	0.000
93.35	0.000	95.95	0.000
93.40	0.000	96.00	0.000
93.45	0.000		
93.50	0.000		
93.55	0.000		
93.60	0.000		
93.65	0.000		
93.70	0.000		
93.75	0.000		
93.80	0.000		
93.85	0.000		
93.90	0.000		
93.95	0.000		
94.00	0.000		
94.05	0.000		
94.10	0.000		
94.15	0.000		

Summary for Pond DMH-2: DRAINAGE MANHOLE-2

Inflow Area = 1.500 ac, 87.43% Impervious, Inflow Depth = 0.00" for 2 YEAR event
 Inflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Outflow = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond DMH-1 : DRAINAGE MANHOLE-1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Peak Elev= 104.95' @ 0.00 hrs

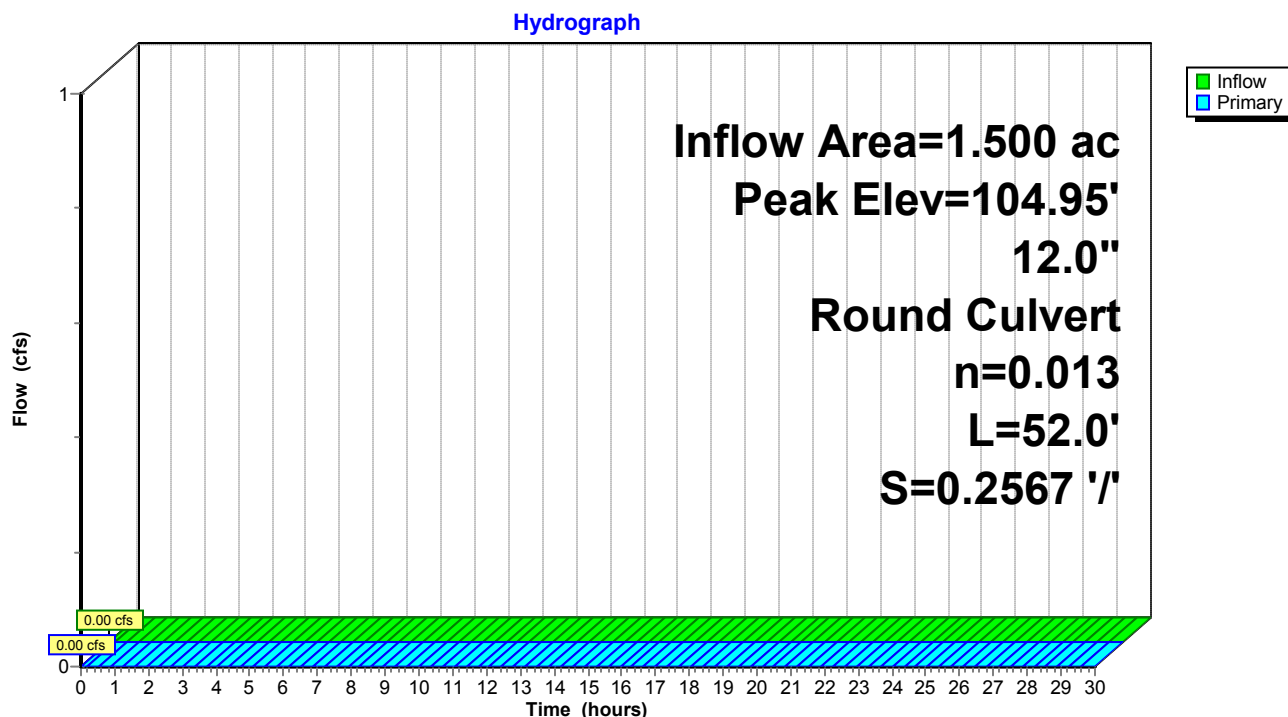
Flood Elev= 112.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	104.95'	12.0" Round Culvert L= 52.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 104.95' / 91.60' S= 0.2567 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=104.95' (Free Discharge)

↑1=Culvert (Controls 0.00 cfs)

Pond DMH-2: DRAINAGE MANHOLE-2



Stage-Area-Storage for Pond DMH-2: DRAINAGE MANHOLE-2

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
104.95	0.000	107.55	0.000	110.15	0.000
105.00	0.000	107.60	0.000	110.20	0.000
105.05	0.000	107.65	0.000	110.25	0.000
105.10	0.000	107.70	0.000	110.30	0.000
105.15	0.000	107.75	0.000	110.35	0.000
105.20	0.000	107.80	0.000	110.40	0.000
105.25	0.000	107.85	0.000	110.45	0.000
105.30	0.000	107.90	0.000	110.50	0.000
105.35	0.000	107.95	0.000	110.55	0.000
105.40	0.000	108.00	0.000	110.60	0.000
105.45	0.000	108.05	0.000	110.65	0.000
105.50	0.000	108.10	0.000	110.70	0.000
105.55	0.000	108.15	0.000	110.75	0.000
105.60	0.000	108.20	0.000	110.80	0.000
105.65	0.000	108.25	0.000	110.85	0.000
105.70	0.000	108.30	0.000	110.90	0.000
105.75	0.000	108.35	0.000	110.95	0.000
105.80	0.000	108.40	0.000	111.00	0.000
105.85	0.000	108.45	0.000	111.05	0.000
105.90	0.000	108.50	0.000	111.10	0.000
105.95	0.000	108.55	0.000	111.15	0.000
106.00	0.000	108.60	0.000	111.20	0.000
106.05	0.000	108.65	0.000	111.25	0.000
106.10	0.000	108.70	0.000	111.30	0.000
106.15	0.000	108.75	0.000	111.35	0.000
106.20	0.000	108.80	0.000	111.40	0.000
106.25	0.000	108.85	0.000	111.45	0.000
106.30	0.000	108.90	0.000	111.50	0.000
106.35	0.000	108.95	0.000	111.55	0.000
106.40	0.000	109.00	0.000	111.60	0.000
106.45	0.000	109.05	0.000	111.65	0.000
106.50	0.000	109.10	0.000	111.70	0.000
106.55	0.000	109.15	0.000	111.75	0.000
106.60	0.000	109.20	0.000	111.80	0.000
106.65	0.000	109.25	0.000	111.85	0.000
106.70	0.000	109.30	0.000	111.90	0.000
106.75	0.000	109.35	0.000	111.95	0.000
106.80	0.000	109.40	0.000	112.00	0.000
106.85	0.000	109.45	0.000		
106.90	0.000	109.50	0.000		
106.95	0.000	109.55	0.000		
107.00	0.000	109.60	0.000		
107.05	0.000	109.65	0.000		
107.10	0.000	109.70	0.000		
107.15	0.000	109.75	0.000		
107.20	0.000	109.80	0.000		
107.25	0.000	109.85	0.000		
107.30	0.000	109.90	0.000		
107.35	0.000	109.95	0.000		
107.40	0.000	110.00	0.000		
107.45	0.000	110.05	0.000		
107.50	0.000	110.10	0.000		

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Summary for Pond PP-1: POROUS PAVEMENT-1

Inflow Area = 0.411 ac, 91.04% Impervious, Inflow Depth = 2.63" for 2 YEAR event
 Inflow = 1.15 cfs @ 12.09 hrs, Volume= 0.090 af
 Outflow = 1.16 cfs @ 12.10 hrs, Volume= 0.090 af, Atten= 0%, Lag= 0.5 min
 Discarded = 1.16 cfs @ 12.10 hrs, Volume= 0.090 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond PP-2 : POROUS PAVEMENT-1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 108.71' @ 12.10 hrs Surf.Area= 3,448 sf Storage= 30 cf
 Flood Elev= 111.36' Surf.Area= 3,448 sf Storage= 3,682 cf

Plug-Flow detention time= 0.4 min calculated for 0.090 af (100% of inflow)
 Center-of-Mass det. time= 0.4 min (776.3 - 775.8)

Volume	Invert	Avail.Storage	Storage Description
#1	108.69'	3,682 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 9,206 cf Overall x 40.0% Voids

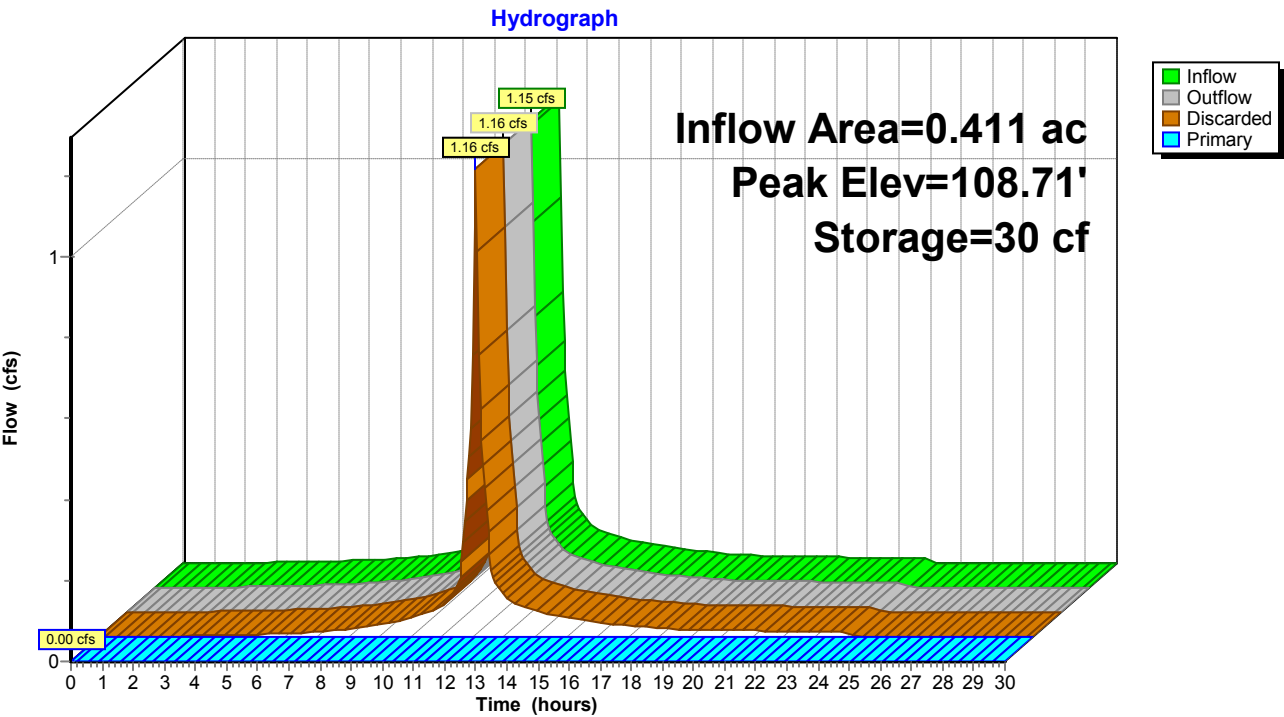
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
108.69	3,448	0	0
111.36	3,448	9,206	9,206

Device	Routing	Invert	Outlet Devices
#1	Discarded	108.69'	18.000 in/hr Exfiltration over Surface area
#2	Primary	109.30'	0.5" Round Culvert L= 67.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 109.30' / 108.30' S= 0.0149 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.00 sf

Discarded OutFlow Max=1.44 cfs @ 12.10 hrs HW=108.71' (Free Discharge)
 ↑ **1=Exfiltration** (Exfiltration Controls 1.44 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=108.69' (Free Discharge)
 ↑ **2=Culvert** (Controls 0.00 cfs)

Pond PP-1: POROUS PAVEMENT-1



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Stage-Area-Storage for Pond PP-1: POROUS PAVEMENT-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
108.69	3,448	0	111.29	3,448	3,586
108.74	3,448	69	111.34	3,448	3,655
108.79	3,448	138			
108.84	3,448	207			
108.89	3,448	276			
108.94	3,448	345			
108.99	3,448	414			
109.04	3,448	483			
109.09	3,448	552			
109.14	3,448	621			
109.19	3,448	690			
109.24	3,448	759			
109.29	3,448	828			
109.34	3,448	896			
109.39	3,448	965			
109.44	3,448	1,034			
109.49	3,448	1,103			
109.54	3,448	1,172			
109.59	3,448	1,241			
109.64	3,448	1,310			
109.69	3,448	1,379			
109.74	3,448	1,448			
109.79	3,448	1,517			
109.84	3,448	1,586			
109.89	3,448	1,655			
109.94	3,448	1,724			
109.99	3,448	1,793			
110.04	3,448	1,862			
110.09	3,448	1,931			
110.14	3,448	2,000			
110.19	3,448	2,069			
110.24	3,448	2,138			
110.29	3,448	2,207			
110.34	3,448	2,276			
110.39	3,448	2,345			
110.44	3,448	2,414			
110.49	3,448	2,483			
110.54	3,448	2,552			
110.59	3,448	2,620			
110.64	3,448	2,689			
110.69	3,448	2,758			
110.74	3,448	2,827			
110.79	3,448	2,896			
110.84	3,448	2,965			
110.89	3,448	3,034			
110.94	3,448	3,103			
110.99	3,448	3,172			
111.04	3,448	3,241			
111.09	3,448	3,310			
111.14	3,448	3,379			
111.19	3,448	3,448			
111.24	3,448	3,517			

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Summary for Pond PP-2: POROUS PAVEMENT-1

Inflow Area = 1.500 ac, 87.43% Impervious, Inflow Depth = 1.70" for 2 YEAR event
 Inflow = 2.75 cfs @ 12.09 hrs, Volume= 0.213 af
 Outflow = 1.97 cfs @ 12.05 hrs, Volume= 0.213 af, Atten= 28%, Lag= 0.0 min
 Discarded = 1.97 cfs @ 12.05 hrs, Volume= 0.213 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond DMH-2 : DRAINAGE MANHOLE-2

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 108.26' @ 12.17 hrs Surf.Area= 6,064 sf Storage= 326 cf
 Flood Elev= 110.80' Surf.Area= 6,064 sf Storage= 6,476 cf

Plug-Flow detention time= 0.8 min calculated for 0.213 af (100% of inflow)
 Center-of-Mass det. time= 0.8 min (778.7 - 777.9)

Volume	Invert	Avail.Storage	Storage Description
#1	108.13'	6,476 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 16,191 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
108.13	6,064	0	0
110.80	6,064	16,191	16,191

Device	Routing	Invert	Outlet Devices
#1	Discarded	108.13'	14.000 in/hr Exfiltration over Surface area
#2	Primary	108.30'	12.0" Round Culvert L= 67.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 104.95' S= 0.0500 ' S= 0.0500 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	108.30'	6.0" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 108.30' S= 0.0000 ' S= 0.0000 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=1.97 cfs @ 12.05 hrs HW=108.18' (Free Discharge)

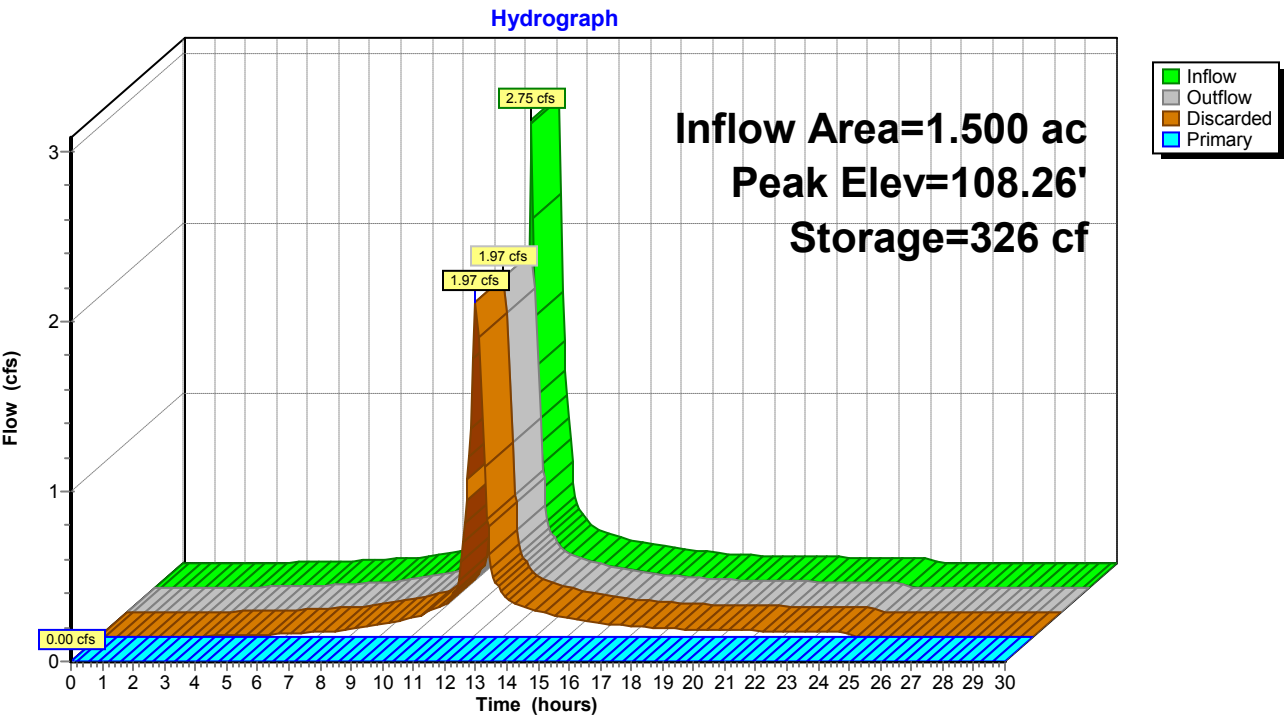
↑ **1=Exfiltration** (Exfiltration Controls 1.97 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=108.13' (Free Discharge)

↑ **2=Culvert** (Controls 0.00 cfs)

↑ **3=Culvert** (Controls 0.00 cfs)

Pond PP-2: POROUS PAVEMENT-1



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Stage-Area-Storage for Pond PP-2: POROUS PAVEMENT-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
108.13	6,064	0	110.73	6,064	6,307
108.18	6,064	121	110.78	6,064	6,428
108.23	6,064	243			
108.28	6,064	364			
108.33	6,064	485			
108.38	6,064	606			
108.43	6,064	728			
108.48	6,064	849			
108.53	6,064	970			
108.58	6,064	1,092			
108.63	6,064	1,213			
108.68	6,064	1,334			
108.73	6,064	1,455			
108.78	6,064	1,577			
108.83	6,064	1,698			
108.88	6,064	1,819			
108.93	6,064	1,940			
108.98	6,064	2,062			
109.03	6,064	2,183			
109.08	6,064	2,304			
109.13	6,064	2,426			
109.18	6,064	2,547			
109.23	6,064	2,668			
109.28	6,064	2,789			
109.33	6,064	2,911			
109.38	6,064	3,032			
109.43	6,064	3,153			
109.48	6,064	3,275			
109.53	6,064	3,396			
109.58	6,064	3,517			
109.63	6,064	3,638			
109.68	6,064	3,760			
109.73	6,064	3,881			
109.78	6,064	4,002			
109.83	6,064	4,124			
109.88	6,064	4,245			
109.93	6,064	4,366			
109.98	6,064	4,487			
110.03	6,064	4,609			
110.08	6,064	4,730			
110.13	6,064	4,851			
110.18	6,064	4,972			
110.23	6,064	5,094			
110.28	6,064	5,215			
110.33	6,064	5,336			
110.38	6,064	5,458			
110.43	6,064	5,579			
110.48	6,064	5,700			
110.53	6,064	5,821			
110.58	6,064	5,943			
110.63	6,064	6,064			
110.68	6,064	6,185			

POST-Pelton

Type III 24-hr 10 YEAR Rainfall=4.68"

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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: DRAINAGE AREA-1 Runoff Area=1,992 sf 82.78% Impervious Runoff Depth=3.88"
Tc=6.0 min CN=93 Runoff=0.19 cfs 0.015 af

Subcatchment DA-10: DRAINAGE AREA-10 Runoff Area=2,704 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.28 cfs 0.023 af

Subcatchment DA-11: DRAINAGE AREA-11 Runoff Area=1,024 sf 0.00% Impervious Runoff Depth=1.73"
Tc=6.0 min CN=69 Runoff=0.05 cfs 0.003 af

Subcatchment DA-12: DRAINAGE AREA-12 Runoff Area=3,697 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.38 cfs 0.031 af

Subcatchment DA-13: DRAINAGE AREA-13 Runoff Area=3,949 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.40 cfs 0.034 af

Subcatchment DA-14: DRAINAGE AREA-14 Runoff Area=3,949 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.40 cfs 0.034 af

Subcatchment DA-15: DRAINAGE AREA-15 Runoff Area=21,601 sf 89.31% Impervious Runoff Depth=4.10"
Tc=6.0 min CN=95 Runoff=2.15 cfs 0.170 af

Subcatchment DA-16: DRAINAGE AREA-16 Runoff Area=9,241 sf 79.92% Impervious Runoff Depth=3.78"
Tc=6.0 min CN=92 Runoff=0.88 cfs 0.067 af

Subcatchment DA-2: DRAINAGE AREA-2 Runoff Area=9,245 sf 29.41% Impervious Runoff Depth=2.27"
Tc=6.0 min CN=76 Runoff=0.55 cfs 0.040 af

Subcatchment DA-3: DRAINAGE AREA-3 Runoff Area=26,772 sf 19.47% Impervious Runoff Depth=2.03"
Tc=6.0 min CN=73 Runoff=1.42 cfs 0.104 af

Subcatchment DA-4: DRAINAGE AREA-4 Runoff Area=2,445 sf 0.00% Impervious Runoff Depth=1.73"
Tc=6.0 min CN=69 Runoff=0.11 cfs 0.008 af

Subcatchment DA-5: DRAINAGE AREA-5 Runoff Area=2,578 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.26 cfs 0.022 af

Subcatchment DA-6: DRAINAGE AREA-6 Runoff Area=2,578 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.26 cfs 0.022 af

Subcatchment DA-7: DRAINAGE AREA-7 Runoff Area=10,274 sf 84.40% Impervious Runoff Depth=3.88"
Tc=6.0 min CN=93 Runoff=0.99 cfs 0.076 af

Subcatchment DA-8: DRAINAGE AREA-8 Runoff Area=2,697 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.28 cfs 0.023 af

Subcatchment DA-9: DRAINAGE AREA-9 Runoff Area=2,335 sf 100.00% Impervious Runoff Depth=4.44"
Tc=6.0 min CN=98 Runoff=0.24 cfs 0.020 af

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Reach DP-1: DESIGN POINT-1Inflow=0.19 cfs 0.015 af
Outflow=0.19 cfs 0.015 af**Reach DP-2: DESIGN POINT-2**Inflow=0.57 cfs 0.043 af
Outflow=0.57 cfs 0.043 af**Reach DP-3: DESIGN POINT-3**Inflow=1.42 cfs 0.104 af
Outflow=1.42 cfs 0.104 af**Pond BIO-1: BIO RETENTION 1**Peak Elev=111.45' Storage=61 cf Inflow=0.37 cfs 0.030 af
Discarded=0.24 cfs 0.030 af Primary=0.00 cfs 0.000 af Outflow=0.24 cfs 0.030 af**Pond BIO-2: BIO RETENTION-2**Peak Elev=95.01' Storage=228 cf Inflow=0.32 cfs 0.026 af
Discarded=0.08 cfs 0.026 af Primary=0.00 cfs 0.000 af Outflow=0.08 cfs 0.026 af**Pond CB-1: CATCH BASIN 1**Peak Elev=110.13' Storage=62 cf Inflow=0.88 cfs 0.067 af
6.0" Round Culvert n=0.013 L=50.0' S=0.0100 '/' Outflow=0.75 cfs 0.066 af**Pond DMH-1: DRAINAGE MANHOLE-1**Peak Elev=91.78' Inflow=0.11 cfs 0.002 af
12.0" Round Culvert n=0.013 L=16.0' S=0.1000 '/' Outflow=0.11 cfs 0.002 af**Pond DMH-2: DRAINAGE MANHOLE-2**Peak Elev=105.13' Inflow=0.11 cfs 0.002 af
12.0" Round Culvert n=0.013 L=52.0' S=0.2567 '/' Outflow=0.11 cfs 0.002 af**Pond PP-1: POROUS PAVEMENT-1**Peak Elev=108.78' Storage=123 cf Inflow=1.77 cfs 0.141 af
Discarded=1.44 cfs 0.141 af Primary=0.00 cfs 0.000 af Outflow=1.44 cfs 0.141 af**Pond PP-2: POROUS PAVEMENT-1**Peak Elev=108.64' Storage=1,231 cf Inflow=4.08 cfs 0.334 af
Discarded=1.97 cfs 0.332 af Primary=0.11 cfs 0.002 af Outflow=2.08 cfs 0.334 af**Total Runoff Area = 2.458 ac Runoff Volume = 0.691 af Average Runoff Depth = 3.38"**
35.17% Pervious = 0.865 ac 64.83% Impervious = 1.594 ac

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Type III 24-hr 10 YEAR Rainfall=4.68"

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Summary for Subcatchment DA-1: DRAINAGE AREA-1

Runoff = 0.19 cfs @ 12.09 hrs, Volume= 0.015 af, Depth= 3.88"
Routed to Reach DP-1 : DESIGN POINT-1

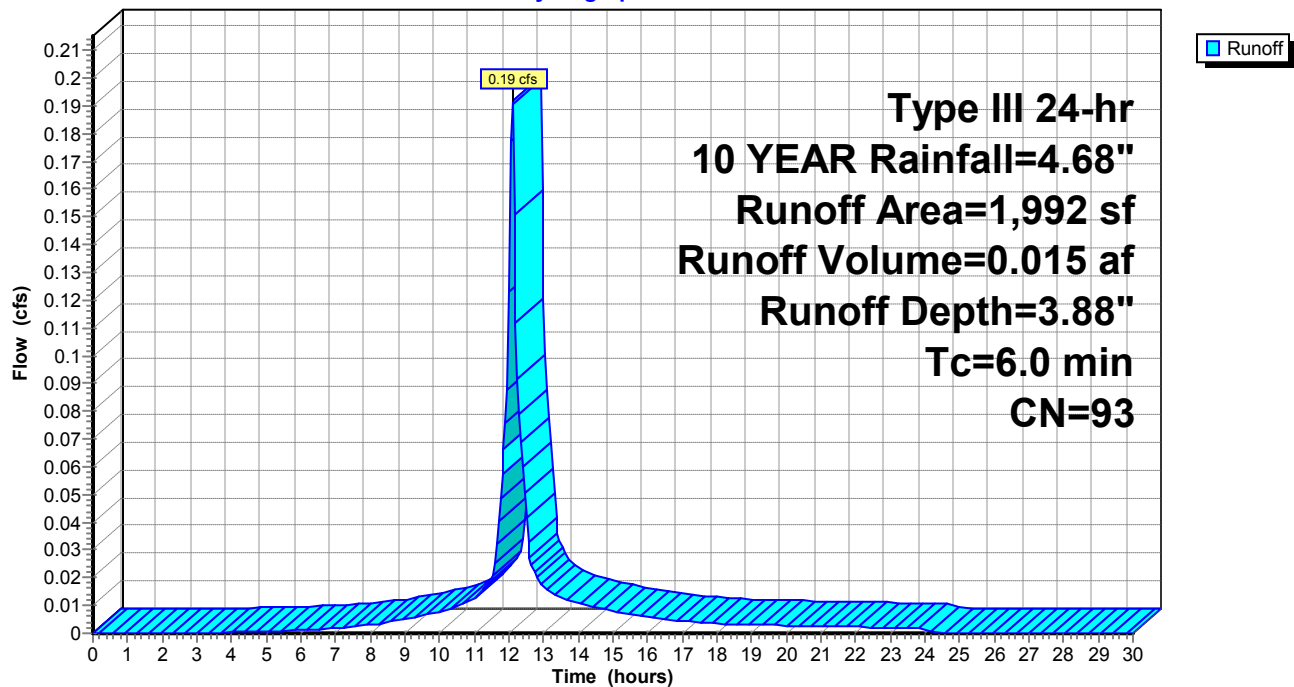
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
343	69	50-75% Grass cover, Fair, HSG B
1,649	98	Paved parking, HSG B
1,992	93	Weighted Average
343		17.22% Pervious Area
1,649		82.78% Impervious Area

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

Subcatchment DA-1: DRAINAGE AREA-1

Hydrograph



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Type III 24-hr 10 YEAR Rainfall=4.68"

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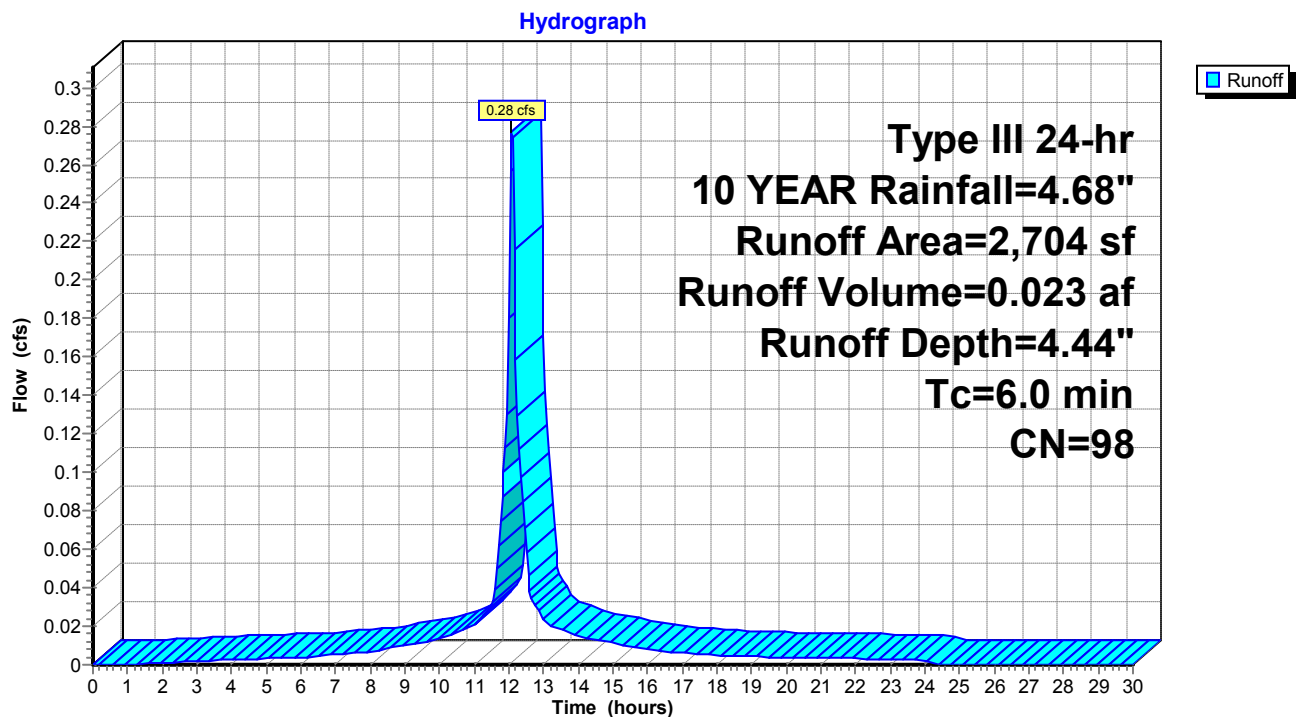
Summary for Subcatchment DA-10: DRAINAGE AREA-10

Runoff = 0.28 cfs @ 12.09 hrs, Volume= 0.023 af, Depth= 4.44"
Routed to Pond BIO-2 : BIO RETENTION-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,704	98	Paved parking, HSG B
2,704	98	Weighted Average
2,704		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: DRAINAGE AREA-10

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Type III 24-hr 10 YEAR Rainfall=4.68"

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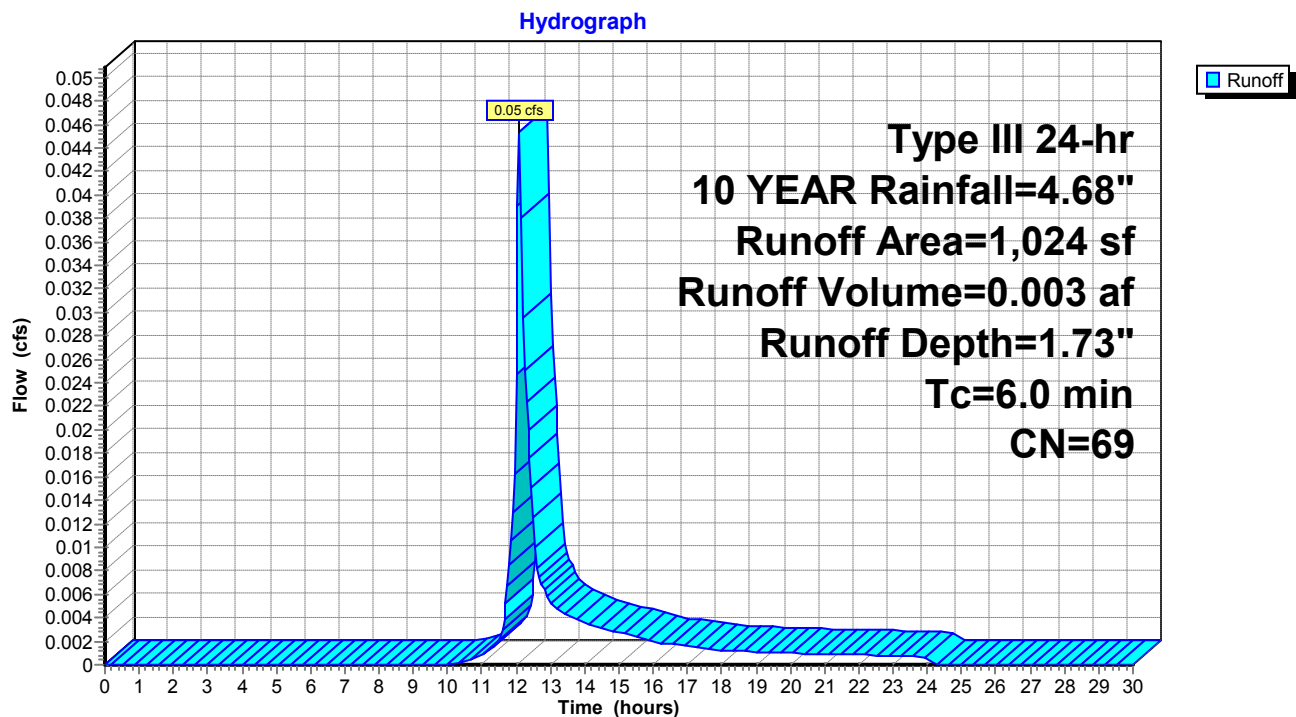
Summary for Subcatchment DA-11: DRAINAGE AREA-11

Runoff = 0.05 cfs @ 12.10 hrs, Volume= 0.003 af, Depth= 1.73"
Routed to Pond BIO-2 : BIO RETENTION-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,024	69	50-75% Grass cover, Fair, HSG B
0	98	Paved parking, HSG B
1,024	69	Weighted Average
1,024		100.00% Pervious Area

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

Subcatchment DA-11: DRAINAGE AREA-11

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Type III 24-hr 10 YEAR Rainfall=4.68"

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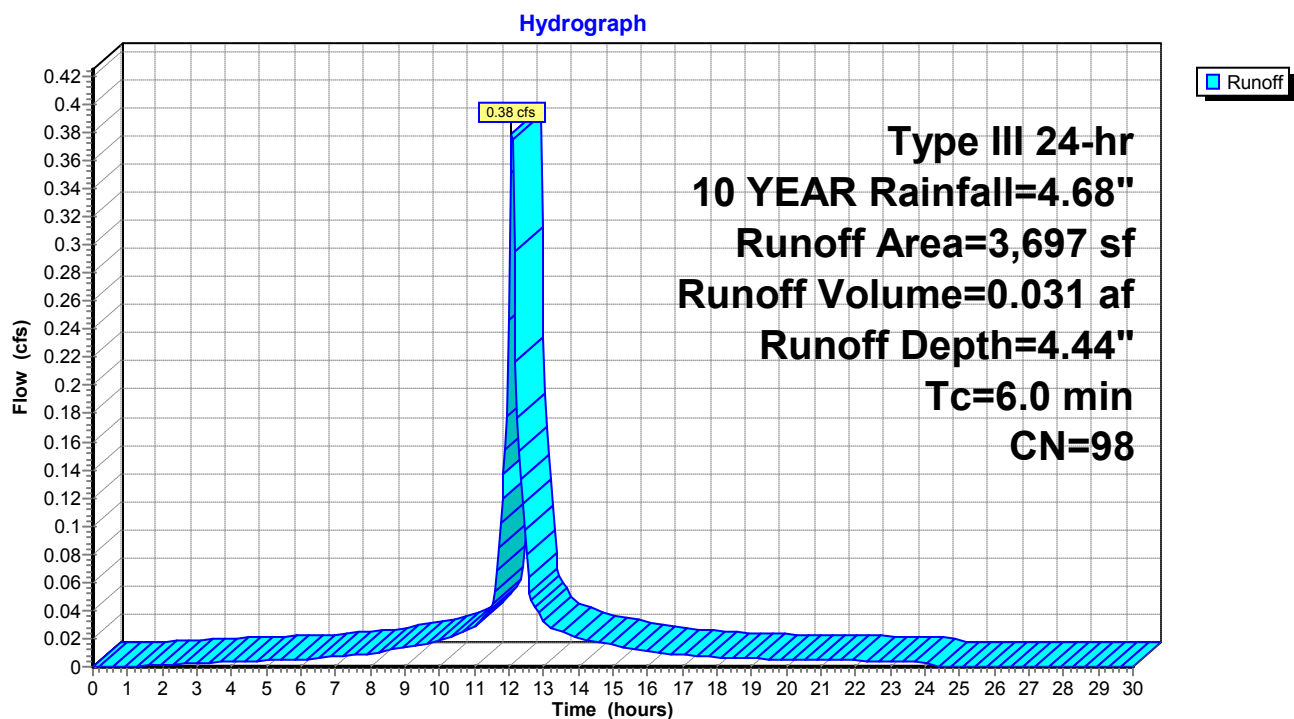
Summary for Subcatchment DA-12: DRAINAGE AREA-12

Runoff = 0.38 cfs @ 12.09 hrs, Volume= 0.031 af, Depth= 4.44"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
3,697	98	Paved parking, HSG B
3,697	98	Weighted Average
3,697		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-12: DRAINAGE AREA-12

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Type III 24-hr 10 YEAR Rainfall=4.68"

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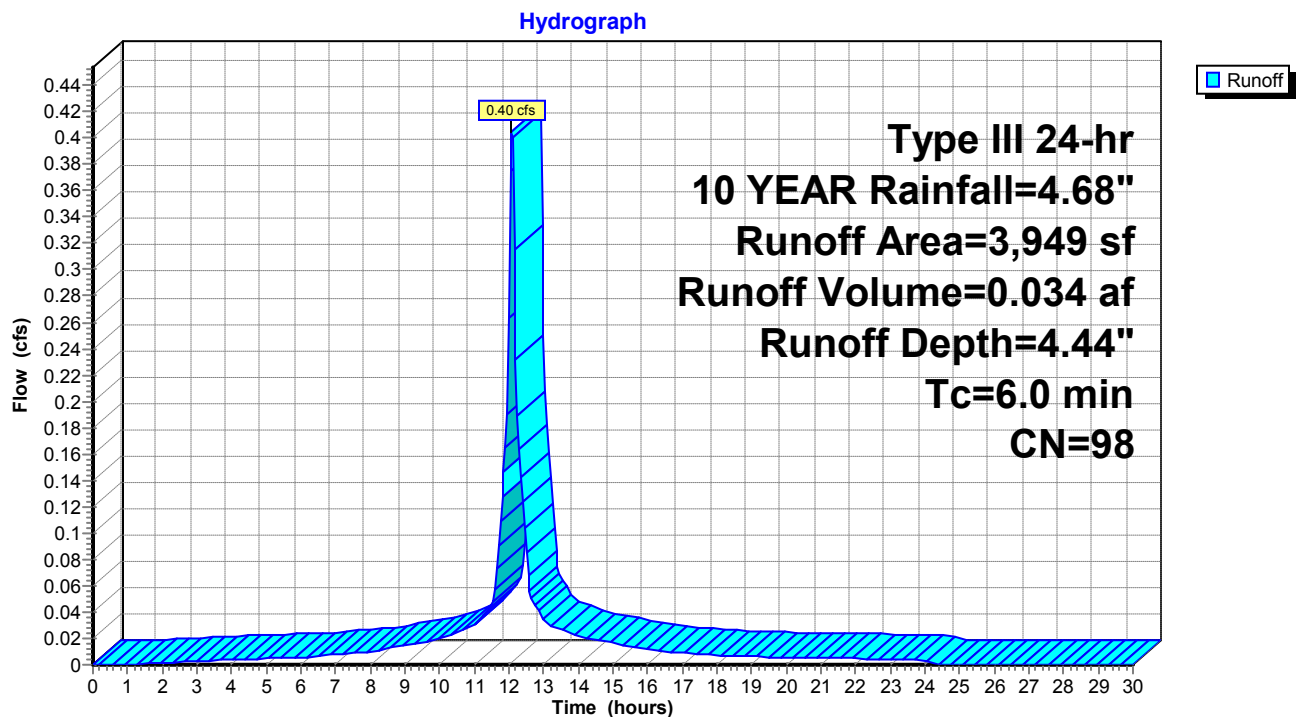
Summary for Subcatchment DA-13: DRAINAGE AREA-13

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 0.034 af, Depth= 4.44"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
3,949	98	Paved parking, HSG B
3,949	98	Weighted Average
3,949		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-13: DRAINAGE AREA-13

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Type III 24-hr 10 YEAR Rainfall=4.68"

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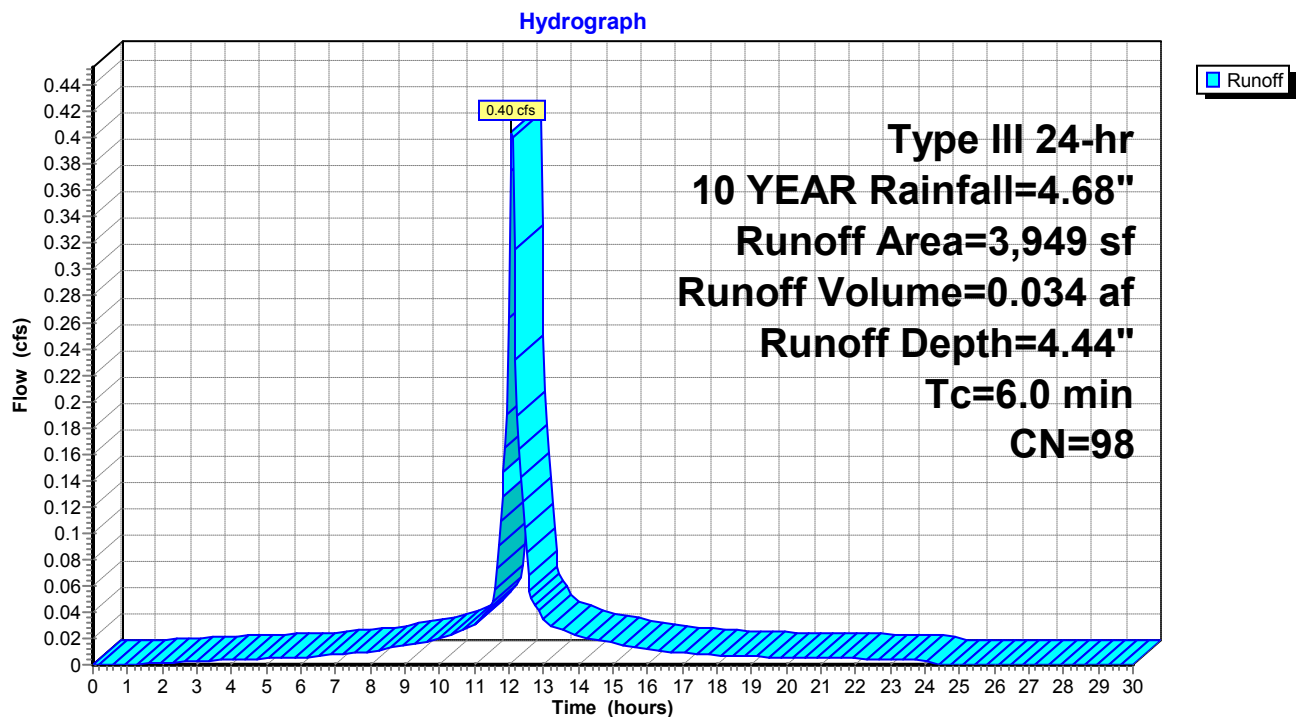
Summary for Subcatchment DA-14: DRAINAGE AREA-14

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 0.034 af, Depth= 4.44"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
3,949	98	Paved parking, HSG B
3,949	98	Weighted Average
3,949		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-14: DRAINAGE AREA-14

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Type III 24-hr 10 YEAR Rainfall=4.68"

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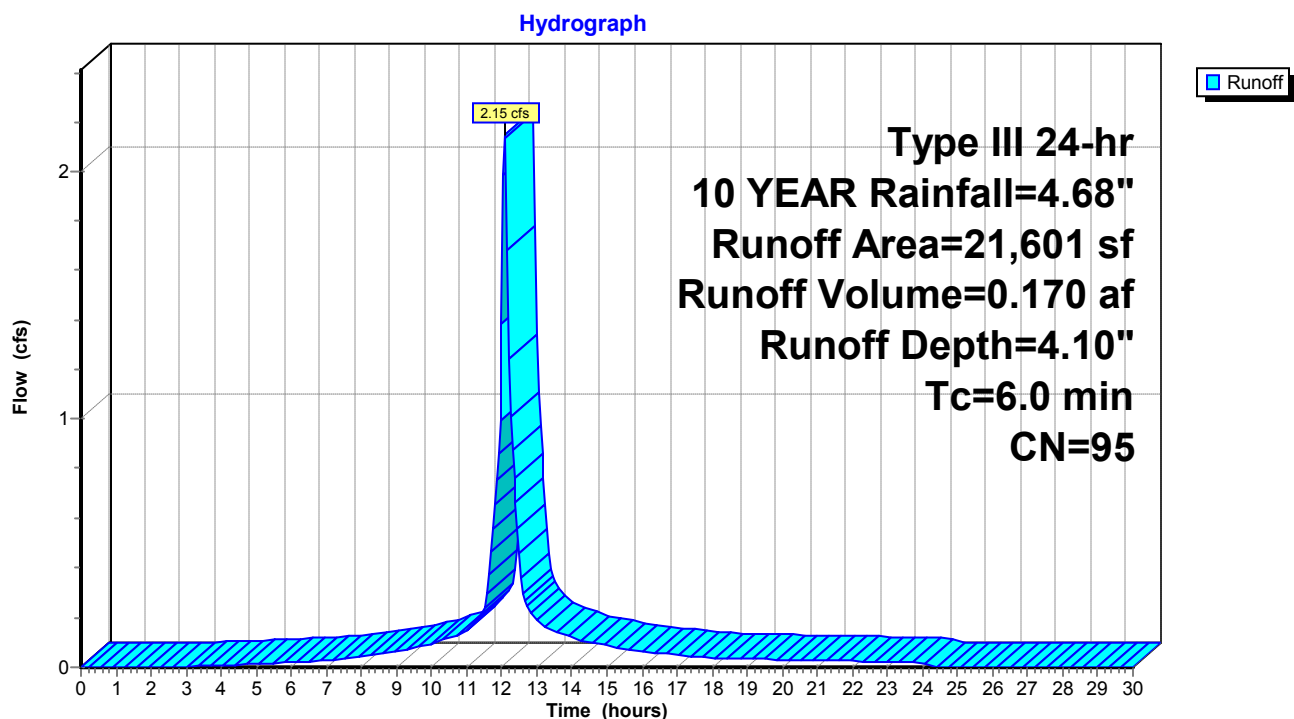
Summary for Subcatchment DA-15: DRAINAGE AREA-15

Runoff = 2.15 cfs @ 12.09 hrs, Volume= 0.170 af, Depth= 4.10"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
2,309	69	50-75% Grass cover, Fair, HSG B
19,292	98	Paved parking, HSG B
21,601	95	Weighted Average
2,309		10.69% Pervious Area
19,292		89.31% Impervious Area

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

Subcatchment DA-15: DRAINAGE AREA-15

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Type III 24-hr 10 YEAR Rainfall=4.68"

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Summary for Subcatchment DA-16: DRAINAGE AREA-16

Runoff = 0.88 cfs @ 12.09 hrs, Volume= 0.067 af, Depth= 3.78"
Routed to Pond CB-1 : CATCH BASIN 1

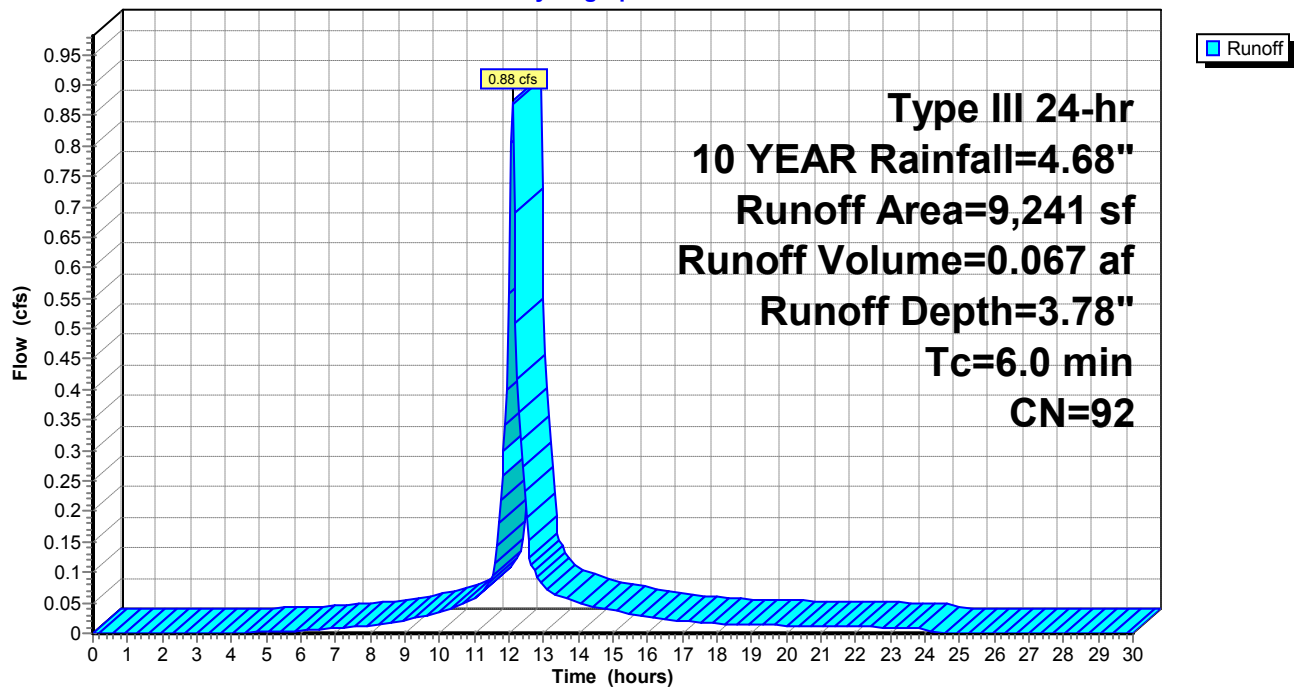
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,856	69	50-75% Grass cover, Fair, HSG B
7,385	98	Paved parking, HSG B
9,241	92	Weighted Average
1,856		20.08% Pervious Area
7,385		79.92% Impervious Area

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

Subcatchment DA-16: DRAINAGE AREA-16

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Summary for Subcatchment DA-2: DRAINAGE AREA-2

Runoff = 0.55 cfs @ 12.09 hrs, Volume= 0.040 af, Depth= 2.27"
Routed to Reach DP-2 : DESIGN POINT-2

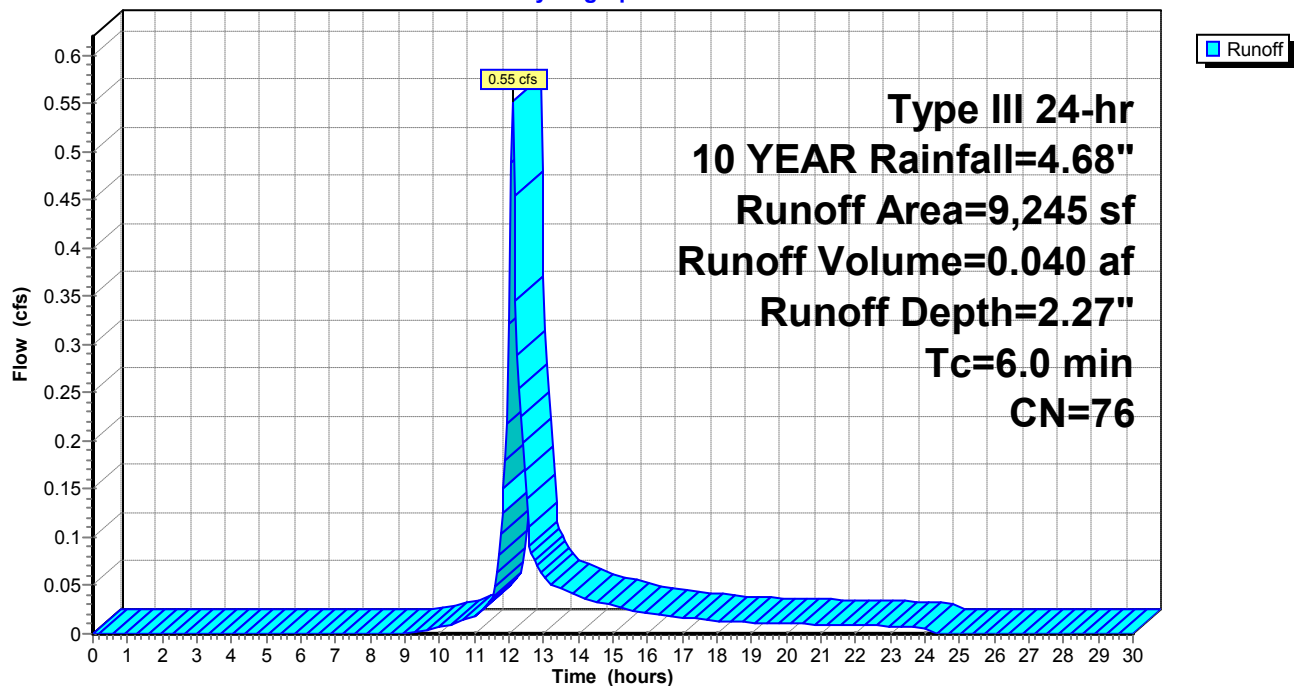
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
2,617	65	Woods/grass comb., Fair, HSG B
3,909	69	50-75% Grass cover, Fair, HSG B
2,719	98	Paved parking, HSG B
9,245	76	Weighted Average
6,526		70.59% Pervious Area
2,719		29.41% Impervious Area

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

Subcatchment DA-2: DRAINAGE AREA-2

Hydrograph



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Type III 24-hr 10 YEAR Rainfall=4.68"

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Summary for Subcatchment DA-3: DRAINAGE AREA-3

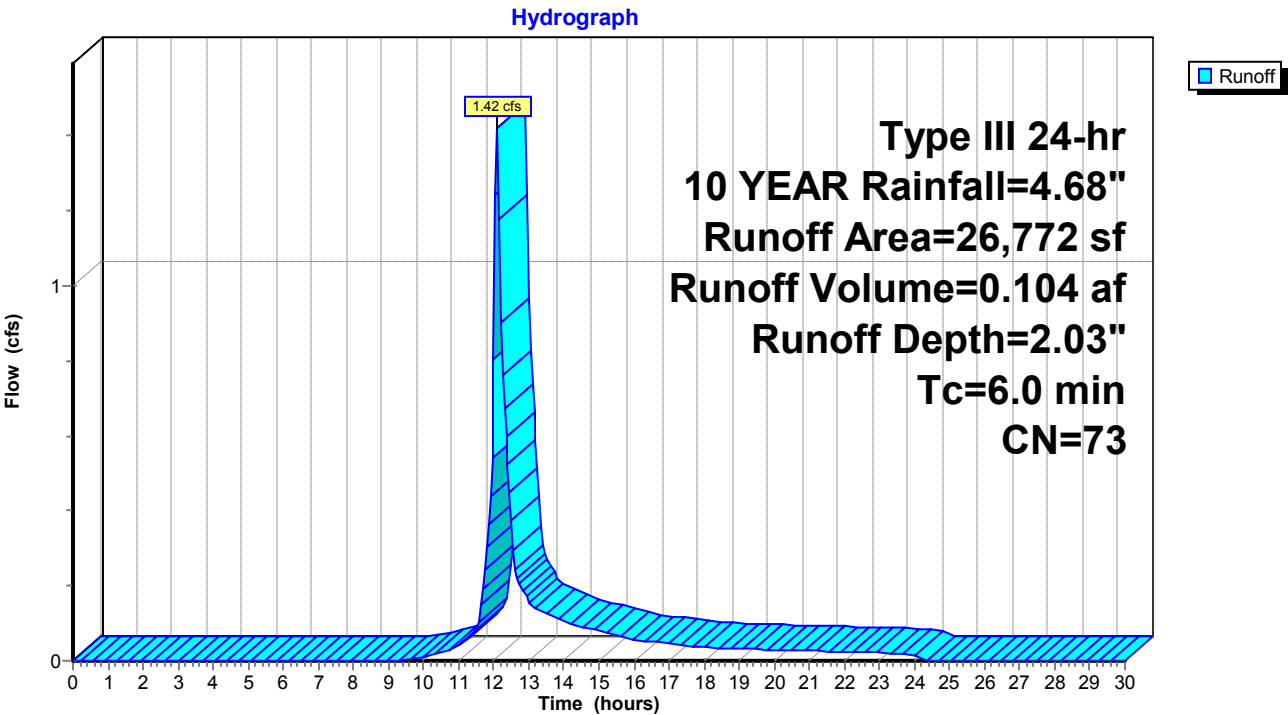
Runoff = 1.42 cfs @ 12.10 hrs, Volume= 0.104 af, Depth= 2.03"
Routed to Reach DP-3 : DESIGN POINT-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
11,839	65	Woods/grass comb., Fair, HSG B
9,720	69	50-75% Grass cover, Fair, HSG B
5,213	98	Paved parking, HSG B
26,772	73	Weighted Average
21,559		80.53% Pervious Area
5,213		19.47% Impervious Area

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

Subcatchment DA-3: DRAINAGE AREA-3



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Type III 24-hr 10 YEAR Rainfall=4.68"

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Summary for Subcatchment DA-4: DRAINAGE AREA-4

Runoff = 0.11 cfs @ 12.10 hrs, Volume= 0.008 af, Depth= 1.73"
Routed to Pond BIO-1 : BIO RETENTION 1

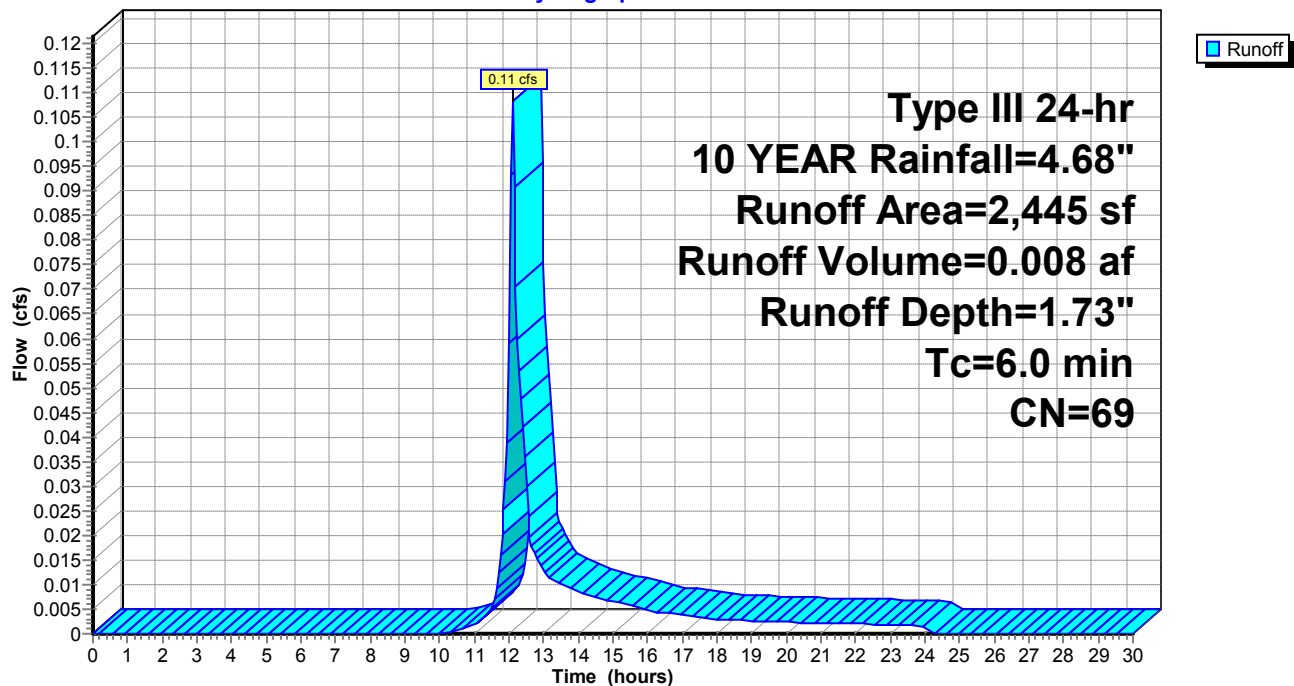
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
2,445	69	50-75% Grass cover, Fair, HSG B
0	98	Paved parking, HSG B
2,445	69	Weighted Average
2,445		100.00% Pervious Area

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

Subcatchment DA-4: DRAINAGE AREA-4

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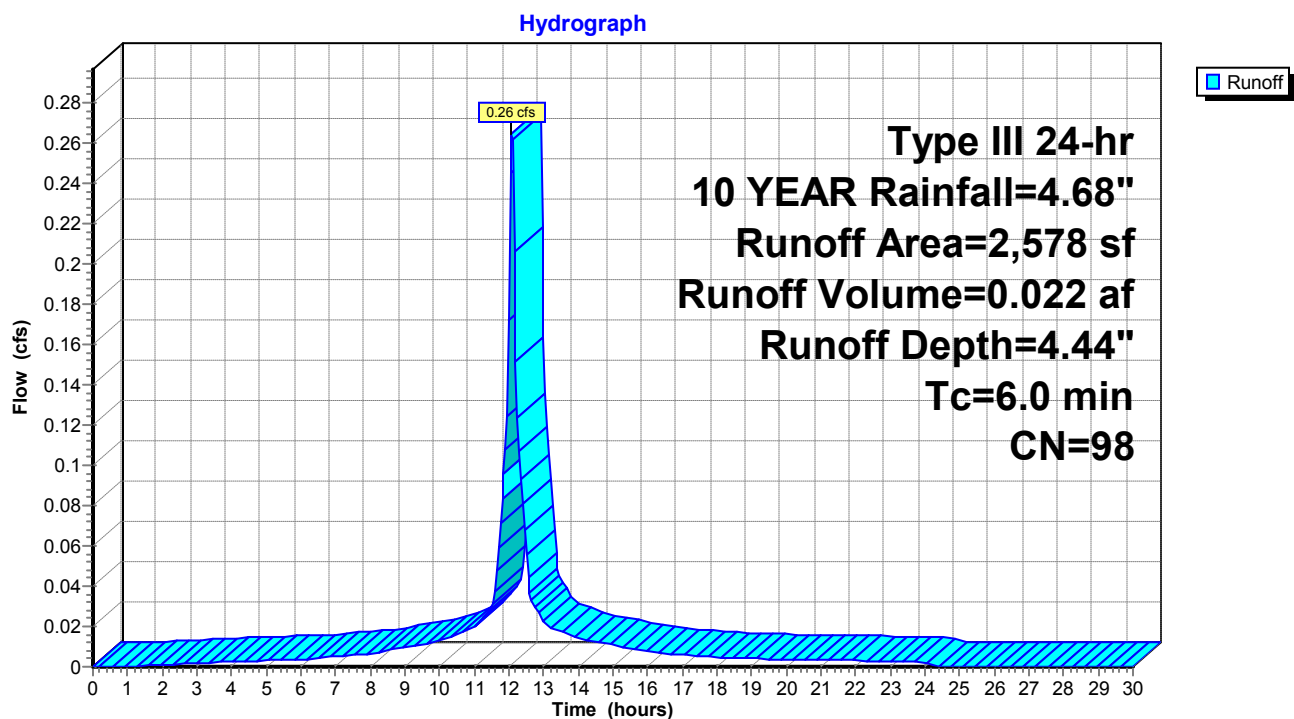
Summary for Subcatchment DA-5: DRAINAGE AREA-5

Runoff = 0.26 cfs @ 12.09 hrs, Volume= 0.022 af, Depth= 4.44"
Routed to Pond BIO-1 : BIO RETENTION 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,578	98	Paved parking, HSG B
2,578	98	Weighted Average
2,578		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-5: DRAINAGE AREA-5

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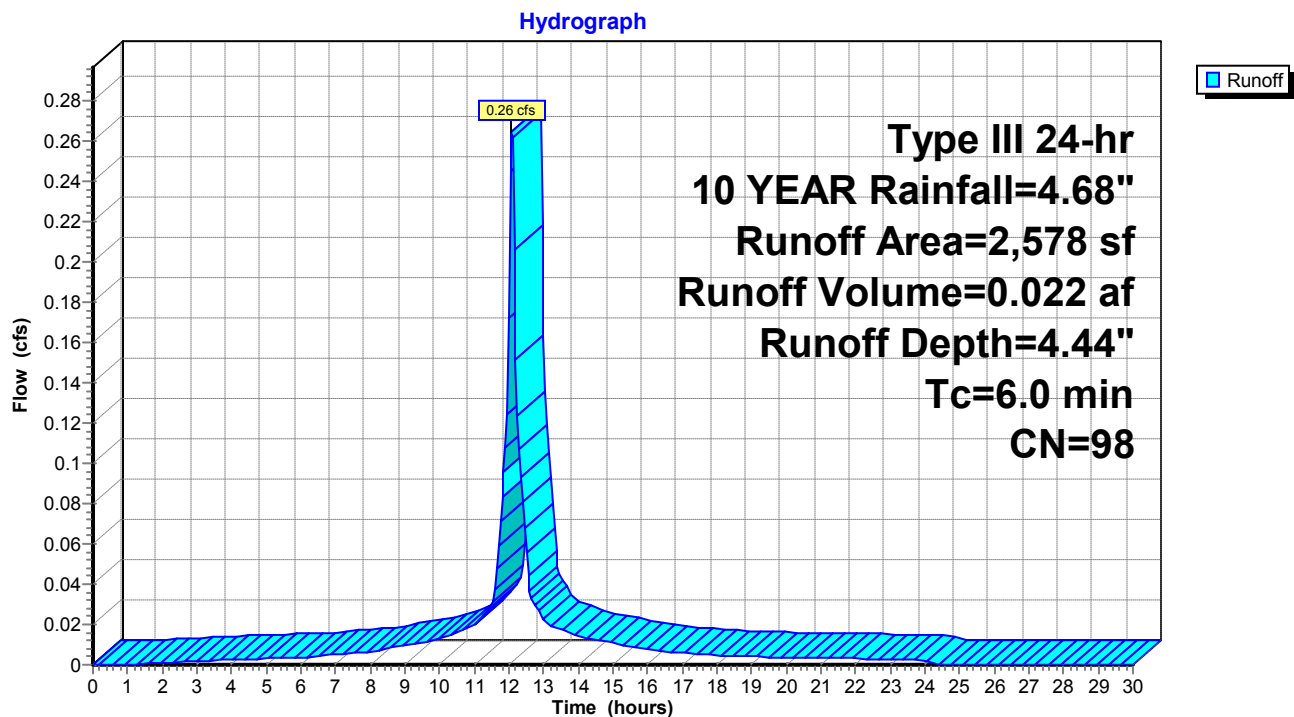
Summary for Subcatchment DA-6: DRAINAGE AREA-6

Runoff = 0.26 cfs @ 12.09 hrs, Volume= 0.022 af, Depth= 4.44"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,578	98	Paved parking, HSG B
2,578	98	Weighted Average
2,578		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-6: DRAINAGE AREA-6

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Type III 24-hr 10 YEAR Rainfall=4.68"

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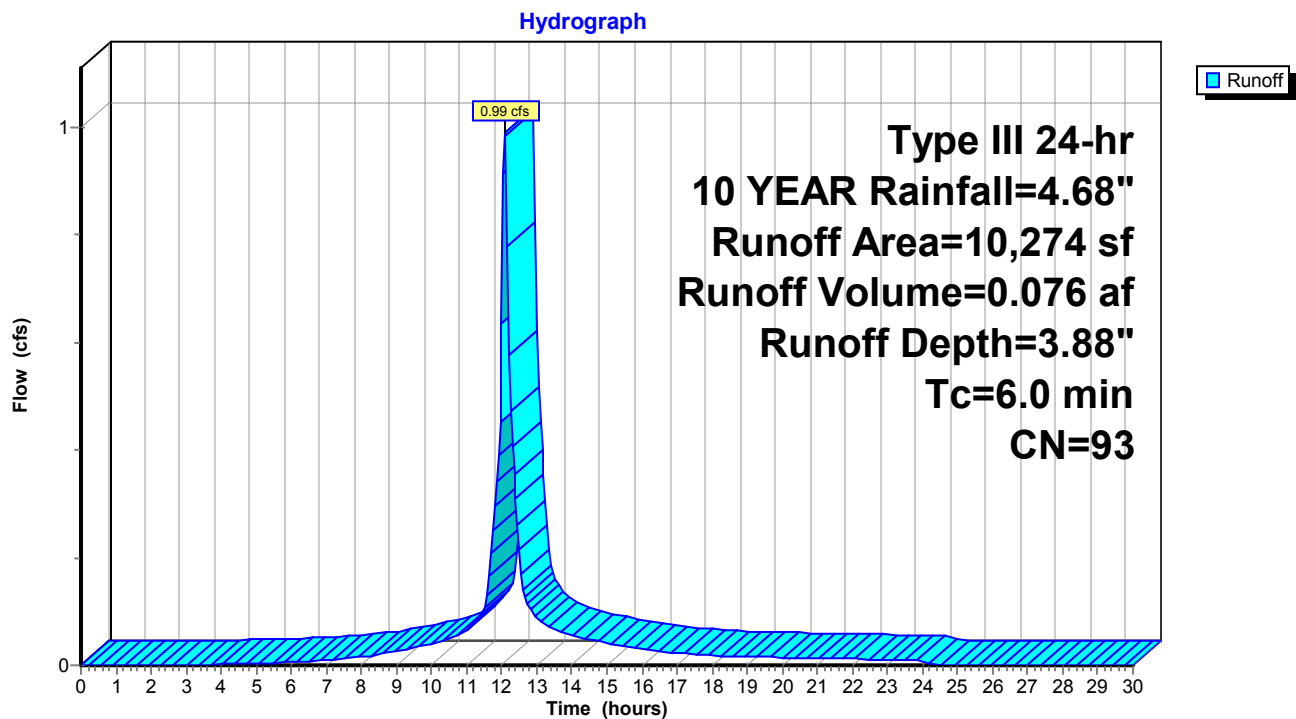
Summary for Subcatchment DA-7: DRAINAGE AREA-7

Runoff = 0.99 cfs @ 12.09 hrs, Volume= 0.076 af, Depth= 3.88"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
1,603	69	50-75% Grass cover, Fair, HSG B
8,671	98	Paved parking, HSG B
10,274	93	Weighted Average
1,603		15.60% Pervious Area
8,671		84.40% Impervious Area

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

Subcatchment DA-7: DRAINAGE AREA-7

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Type III 24-hr 10 YEAR Rainfall=4.68"

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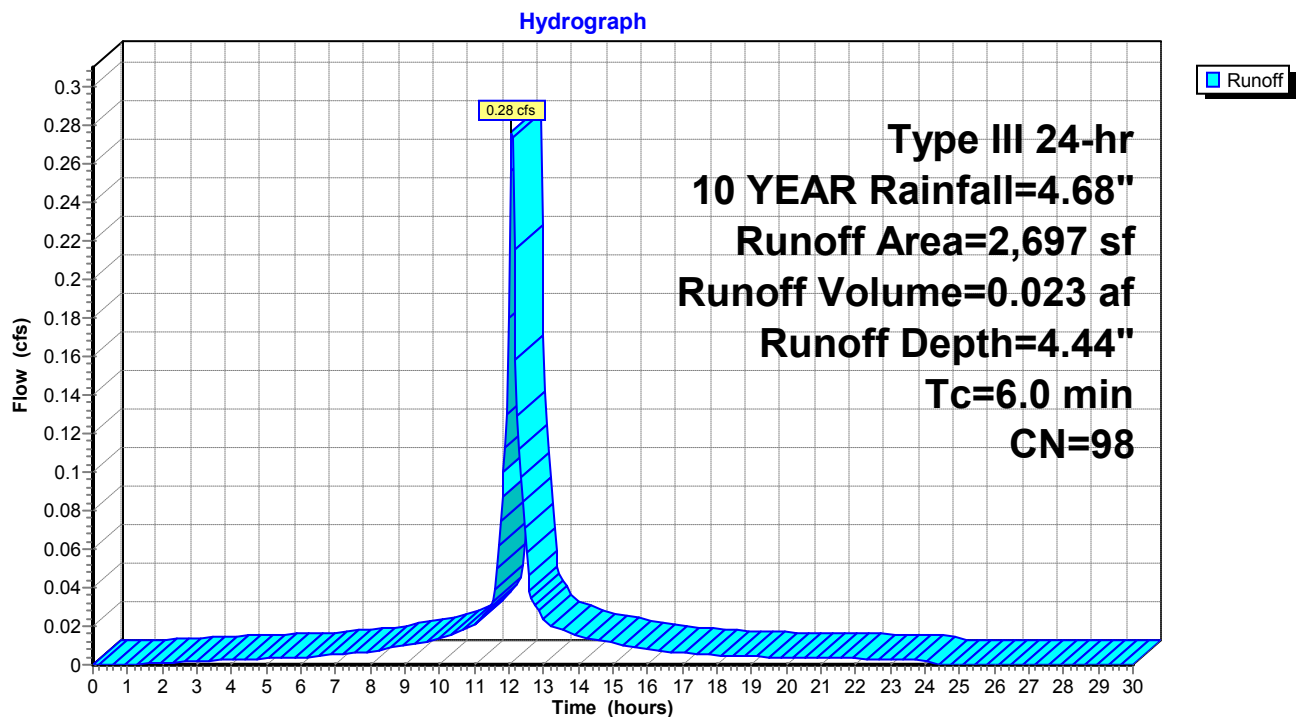
Summary for Subcatchment DA-8: DRAINAGE AREA-8

Runoff = 0.28 cfs @ 12.09 hrs, Volume= 0.023 af, Depth= 4.44"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,697	98	Paved parking, HSG B
2,697	98	Weighted Average
2,697		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-8: DRAINAGE AREA-8

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Type III 24-hr 10 YEAR Rainfall=4.68"

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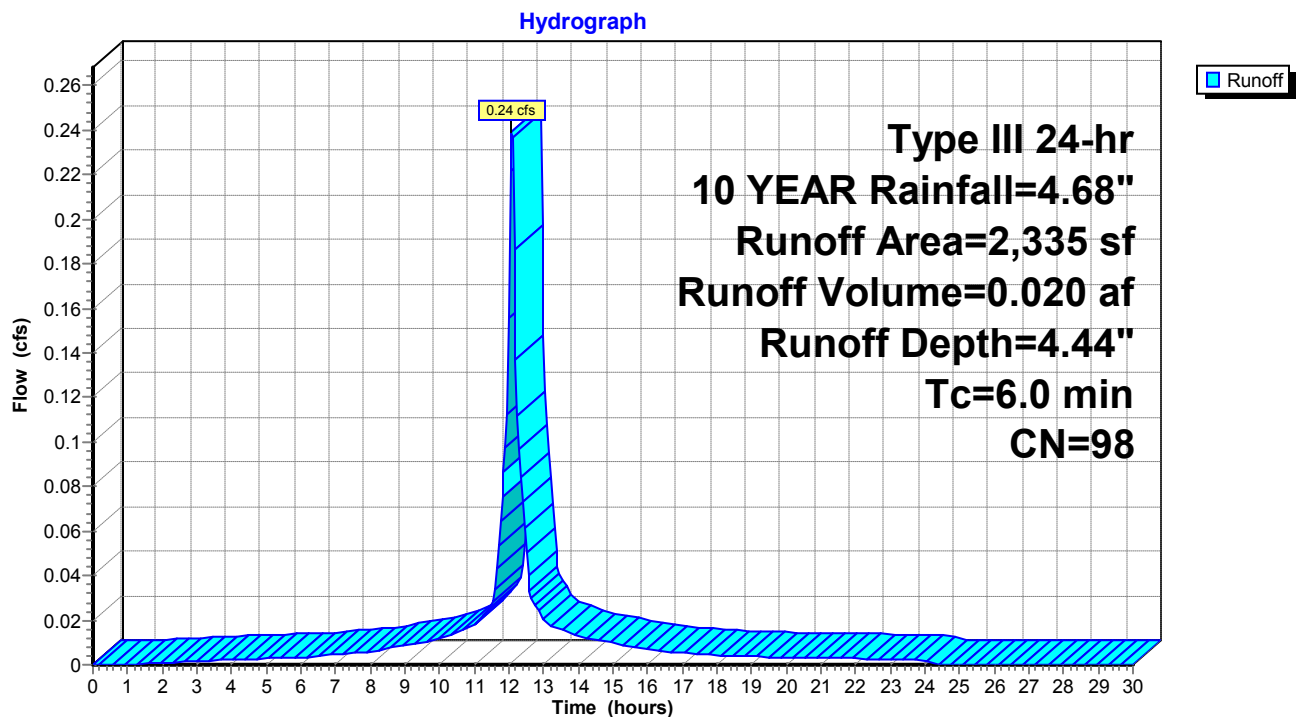
Summary for Subcatchment DA-9: DRAINAGE AREA-9

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 0.020 af, Depth= 4.44"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YEAR Rainfall=4.68"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,335	98	Paved parking, HSG B
2,335	98	Weighted Average
2,335		100.00% Impervious Area

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

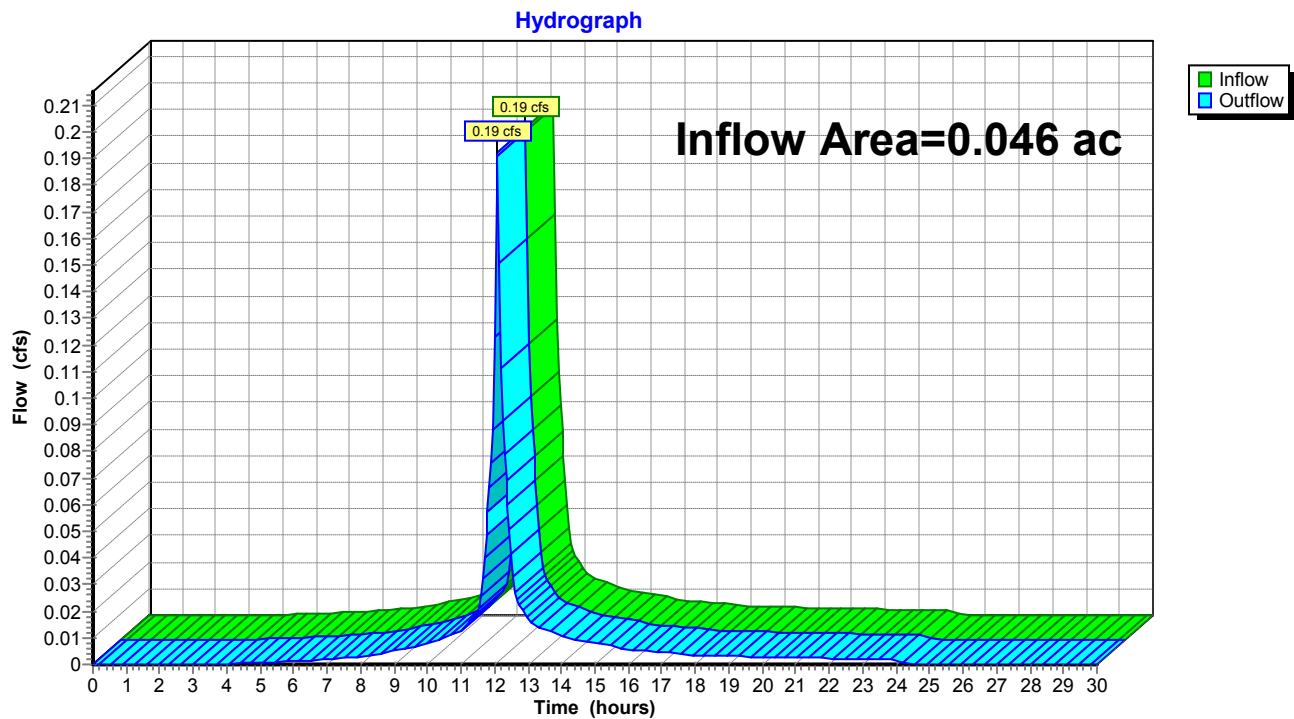
Subcatchment DA-9: DRAINAGE AREA-9

Summary for Reach DP-1: DESIGN POINT-1

Inflow Area = 0.046 ac, 82.78% Impervious, Inflow Depth = 3.88" for 10 YEAR event
 Inflow = 0.19 cfs @ 12.09 hrs, Volume= 0.015 af
 Outflow = 0.19 cfs @ 12.09 hrs, Volume= 0.015 af, 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: DESIGN POINT-1

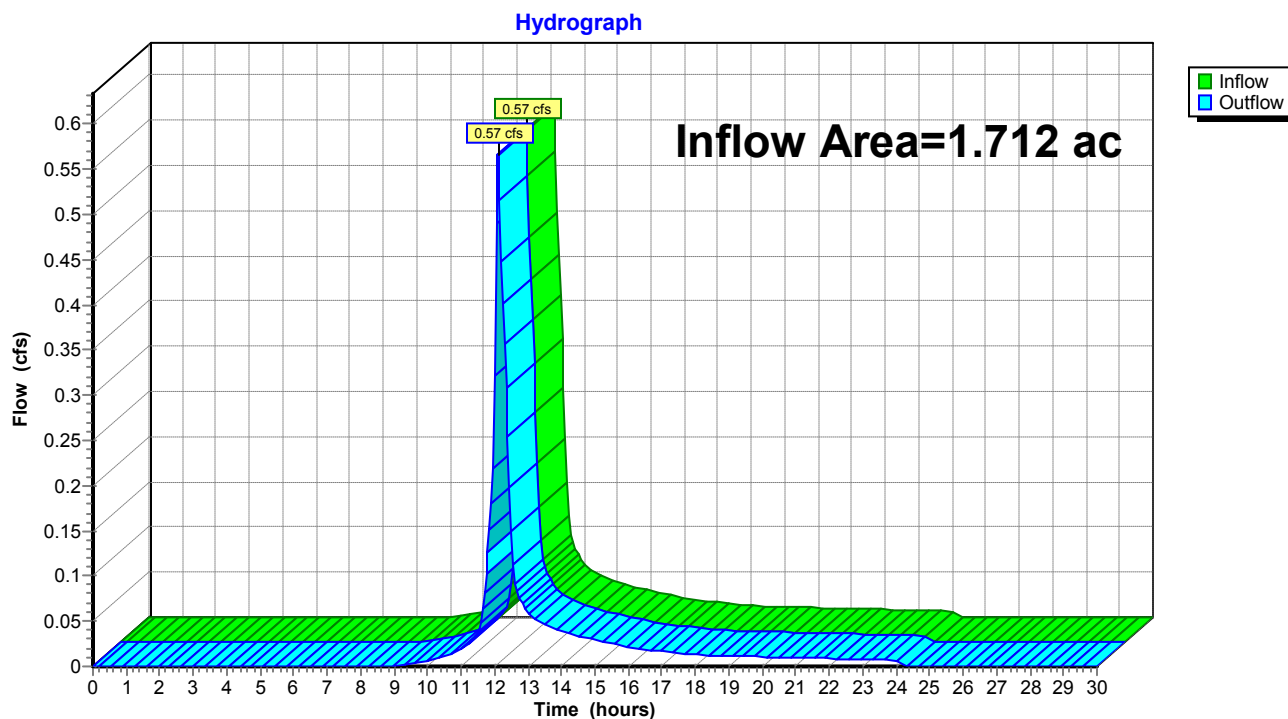


Summary for Reach DP-2: DESIGN POINT-2

Inflow Area = 1.712 ac, 80.24% Impervious, Inflow Depth = 0.30" for 10 YEAR event
 Inflow = 0.57 cfs @ 12.11 hrs, Volume= 0.043 af
 Outflow = 0.57 cfs @ 12.11 hrs, Volume= 0.043 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: DESIGN POINT-2

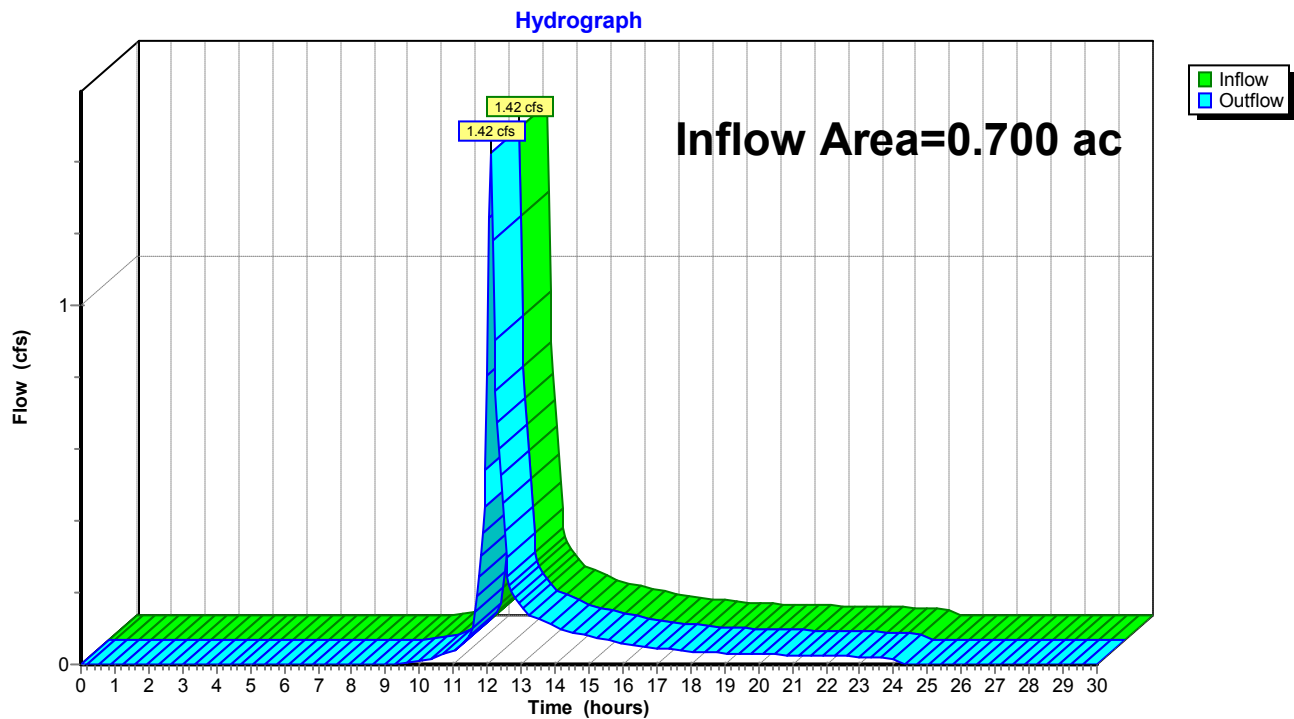


Summary for Reach DP-3: DESIGN POINT-3

Inflow Area = 0.700 ac, 25.96% Impervious, Inflow Depth = 1.78" for 10 YEAR event
 Inflow = 1.42 cfs @ 12.10 hrs, Volume= 0.104 af
 Outflow = 1.42 cfs @ 12.10 hrs, Volume= 0.104 af, 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-3: DESIGN POINT-3



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Summary for Pond BIO-1: BIO RETENTION 1

Inflow Area = 0.115 ac, 51.32% Impervious, Inflow Depth = 3.12" for 10 YEAR event
 Inflow = 0.37 cfs @ 12.09 hrs, Volume= 0.030 af
 Outflow = 0.24 cfs @ 12.19 hrs, Volume= 0.030 af, Atten= 36%, Lag= 6.2 min
 Discarded = 0.24 cfs @ 12.19 hrs, Volume= 0.030 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond CB-1 : CATCH BASIN 1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 111.45' @ 12.19 hrs Surf.Area= 573 sf Storage= 61 cf

Plug-Flow detention time= 1.1 min calculated for 0.030 af (100% of inflow)
 Center-of-Mass det. time= 1.1 min (778.4 - 777.4)

Volume	Invert	Avail.Storage	Storage Description
#1	111.34'	841 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

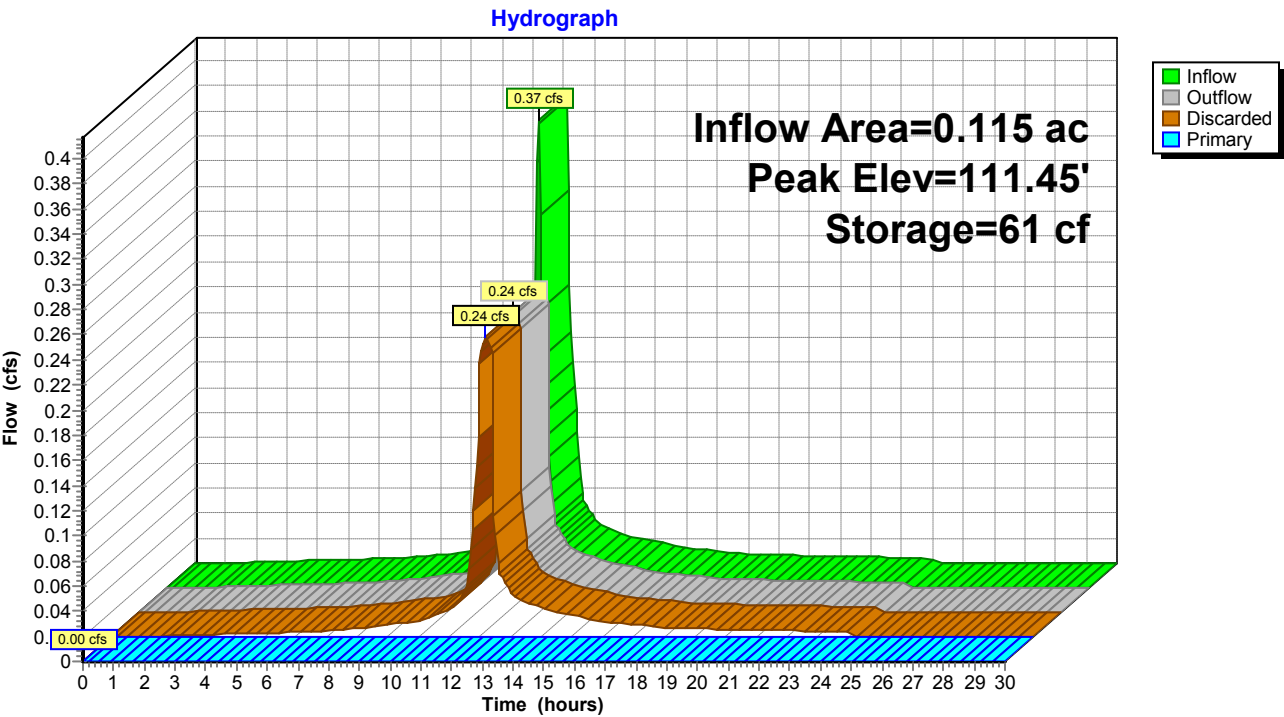
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
111.34	534	0	0
112.00	764	428	428
112.50	885	412	841

Device	Routing	Invert	Outlet Devices
#1	Discarded	111.34'	18.000 in/hr Exfiltration over Surface area
#2	Primary	112.00'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Discarded OutFlow Max=0.24 cfs @ 12.19 hrs HW=111.45' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.24 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=111.34' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond BIO-1: BIO RETENTION 1



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Type III 24-hr 10 YEAR Rainfall=4.68"

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Stage-Area-Storage for Pond BIO-1: BIO RETENTION 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
111.34	534	0	112.38	856	736
111.36	541	11	112.40	861	753
111.38	548	22	112.42	866	771
111.40	555	33	112.44	870	788
111.42	562	44	112.46	875	805
111.44	569	55	112.48	880	823
111.46	576	67	112.50	885	841
111.48	583	78			
111.50	590	90			
111.52	597	102			
111.54	604	114			
111.56	611	126			
111.58	618	138			
111.60	625	151			
111.62	632	163			
111.64	639	176			
111.66	646	189			
111.68	652	202			
111.70	659	215			
111.72	666	228			
111.74	673	241			
111.76	680	255			
111.78	687	269			
111.80	694	283			
111.82	701	296			
111.84	708	311			
111.86	715	325			
111.88	722	339			
111.90	729	354			
111.92	736	368			
111.94	743	383			
111.96	750	398			
111.98	757	413			
112.00	764	428			
112.02	769	444			
112.04	774	459			
112.06	779	475			
112.08	783	490			
112.10	788	506			
112.12	793	522			
112.14	798	538			
112.16	803	554			
112.18	808	570			
112.20	812	586			
112.22	817	602			
112.24	822	619			
112.26	827	635			
112.28	832	652			
112.30	837	668			
112.32	841	685			
112.34	846	702			
112.36	851	719			

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Type III 24-hr 10 YEAR Rainfall=4.68"

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Summary for Pond BIO-2: BIO RETENTION-2

Inflow Area = 0.086 ac, 72.53% Impervious, Inflow Depth = 3.70" for 10 YEAR event
 Inflow = 0.32 cfs @ 12.09 hrs, Volume= 0.026 af
 Outflow = 0.08 cfs @ 12.46 hrs, Volume= 0.026 af, Atten= 74%, Lag= 22.0 min
 Discarded = 0.08 cfs @ 12.46 hrs, Volume= 0.026 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Reach DP-3 : DESIGN POINT-3

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 95.01' @ 12.46 hrs Surf.Area= 367 sf Storage= 228 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 13.5 min (776.1 - 762.6)

Volume	Invert	Avail.Storage	Storage Description
#1	94.33'	429 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
94.33	305	0	0
95.00	365	224	224
95.50	452	204	429

Device	Routing	Invert	Outlet Devices
#1	Discarded	94.33'	10.000 in/hr Exfiltration over Surface area
#2	Primary	95.25'	15.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

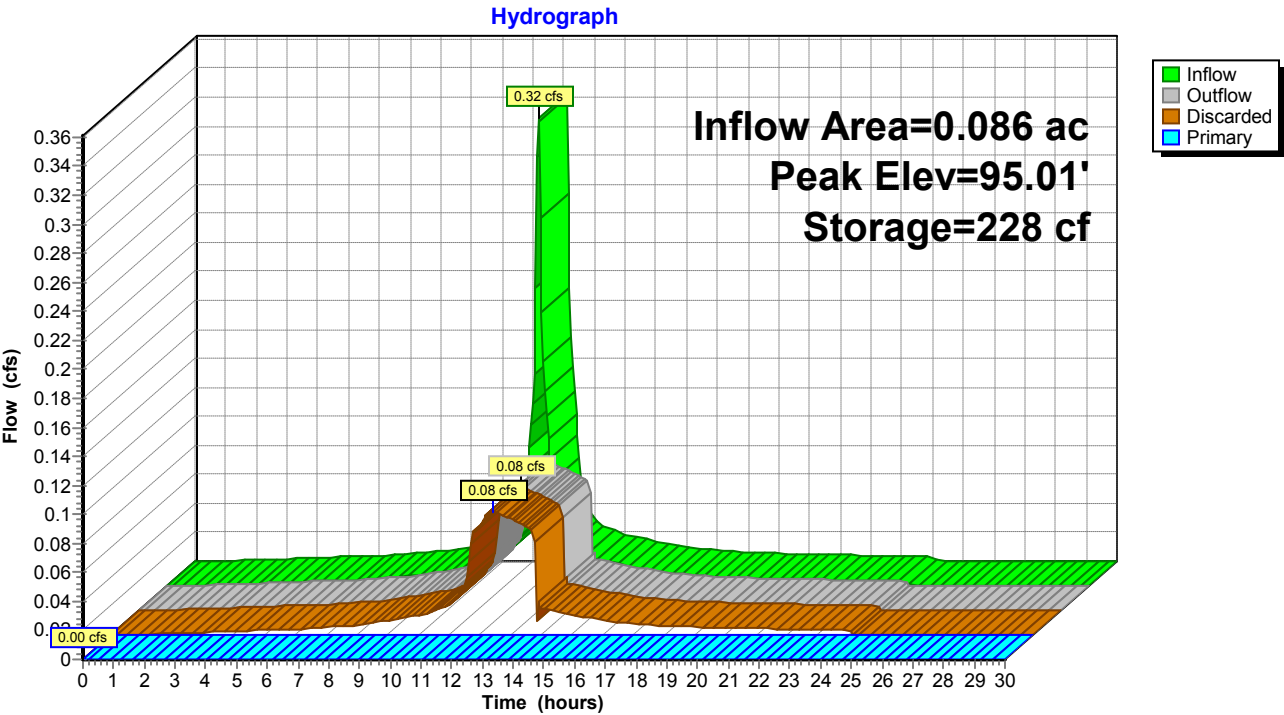
Discarded OutFlow Max=0.08 cfs @ 12.46 hrs HW=95.01' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.08 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=94.33' (Free Discharge)

↑**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond BIO-2: BIO RETENTION-2



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Type III 24-hr 10 YEAR Rainfall=4.68"

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Stage-Area-Storage for Pond BIO-2: BIO RETENTION-2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
94.33	305	0	95.37	429	371
94.35	307	6	95.39	433	380
94.37	309	12	95.41	436	389
94.39	310	18	95.43	440	397
94.41	312	25	95.45	443	406
94.43	314	31	95.47	447	415
94.45	316	37	95.49	450	424
94.47	318	44			
94.49	319	50			
94.51	321	56			
94.53	323	63			
94.55	325	69			
94.57	326	76			
94.59	328	82			
94.61	330	89			
94.63	332	96			
94.65	334	102			
94.67	335	109			
94.69	337	116			
94.71	339	122			
94.73	341	129			
94.75	343	136			
94.77	344	143			
94.79	346	150			
94.81	348	157			
94.83	350	164			
94.85	352	171			
94.87	353	178			
94.89	355	185			
94.91	357	192			
94.93	359	199			
94.95	361	206			
94.97	362	214			
94.99	364	221			
95.01	367	228			
95.03	370	235			
95.05	374	243			
95.07	377	250			
95.09	381	258			
95.11	384	266			
95.13	388	273			
95.15	391	281			
95.17	395	289			
95.19	398	297			
95.21	402	305			
95.23	405	313			
95.25	409	321			
95.27	412	329			
95.29	415	338			
95.31	419	346			
95.33	422	354			
95.35	426	363			

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Type III 24-hr 10 YEAR Rainfall=4.68"

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Summary for Pond CB-1: CATCH BASIN 1

Inflow Area = 0.327 ac, 69.85% Impervious, Inflow Depth = 2.45" for 10 YEAR event
 Inflow = 0.88 cfs @ 12.09 hrs, Volume= 0.067 af
 Outflow = 0.75 cfs @ 12.13 hrs, Volume= 0.066 af, Atten= 14%, Lag= 2.6 min
 Primary = 0.75 cfs @ 12.13 hrs, Volume= 0.066 af
 Routed to Pond PP-2 : POROUS PAVEMENT-1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 110.13' @ 12.13 hrs Surf.Area= 349 sf Storage= 62 cf
 Flood Elev= 109.90' Surf.Area= 8 sf Storage= 28 cf

Plug-Flow detention time= 7.7 min calculated for 0.066 af (99% of inflow)
 Center-of-Mass det. time= 3.6 min (788.4 - 784.8)

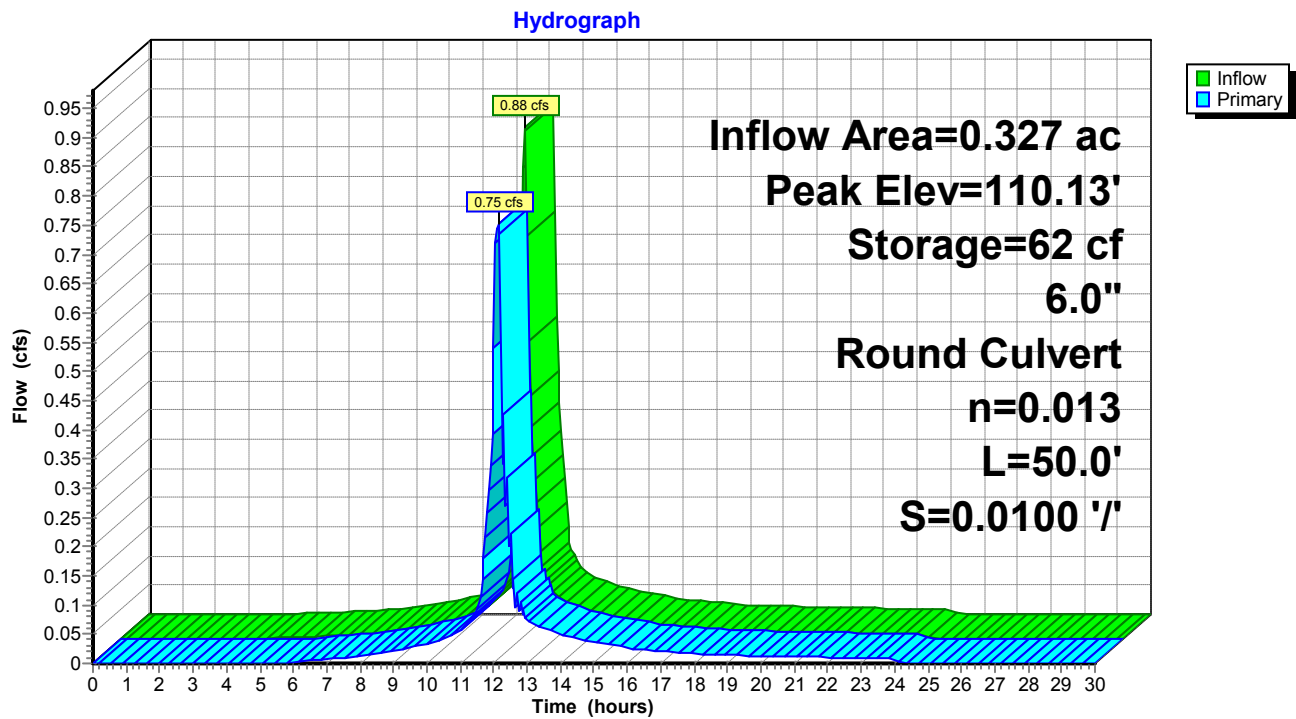
Volume	Invert	Avail.Storage	Storage Description
#1	106.40'	455 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
106.40	8	0	0
109.90	8	28	28
110.00	87	5	33
110.50	1,074	290	323
110.60	1,560	132	455

Device	Routing	Invert	Outlet Devices
#1	Primary	108.80'	6.0" Round Culvert L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.80' / 108.30' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.75 cfs @ 12.13 hrs HW=110.12' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 0.75 cfs @ 3.81 fps)

Pond CB-1: CATCH BASIN 1



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Type III 24-hr 10 YEAR Rainfall=4.68"

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Stage-Area-Storage for Pond CB-1: CATCH BASIN 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
106.40	8	0	109.00	8	21
106.45	8	0	109.05	8	21
106.50	8	1	109.10	8	22
106.55	8	1	109.15	8	22
106.60	8	2	109.20	8	22
106.65	8	2	109.25	8	23
106.70	8	2	109.30	8	23
106.75	8	3	109.35	8	24
106.80	8	3	109.40	8	24
106.85	8	4	109.45	8	24
106.90	8	4	109.50	8	25
106.95	8	4	109.55	8	25
107.00	8	5	109.60	8	26
107.05	8	5	109.65	8	26
107.10	8	6	109.70	8	26
107.15	8	6	109.75	8	27
107.20	8	6	109.80	8	27
107.25	8	7	109.85	8	28
107.30	8	7	109.90	8	28
107.35	8	8	109.95	48	29
107.40	8	8	110.00	87	33
107.45	8	8	110.05	186	40
107.50	8	9	110.10	284	51
107.55	8	9	110.15	383	68
107.60	8	10	110.20	482	90
107.65	8	10	110.25	581	116
107.70	8	10	110.30	679	148
107.75	8	11	110.35	778	184
107.80	8	11	110.40	877	225
107.85	8	12	110.45	975	272
107.90	8	12	110.50	1,074	323
107.95	8	12	110.55	1,317	383
108.00	8	13	110.60	1,560	455
108.05	8	13			
108.10	8	14			
108.15	8	14			
108.20	8	14			
108.25	8	15			
108.30	8	15			
108.35	8	16			
108.40	8	16			
108.45	8	16			
108.50	8	17			
108.55	8	17			
108.60	8	18			
108.65	8	18			
108.70	8	18			
108.75	8	19			
108.80	8	19			
108.85	8	20			
108.90	8	20			
108.95	8	20			

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Type III 24-hr 10 YEAR Rainfall=4.68"

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Summary for Pond DMH-1: DRAINAGE MANHOLE-1

Inflow Area = 1.500 ac, 87.43% Impervious, Inflow Depth = 0.02" for 10 YEAR event
Inflow = 0.11 cfs @ 12.25 hrs, Volume= 0.002 af
Outflow = 0.11 cfs @ 12.25 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min
Primary = 0.11 cfs @ 12.25 hrs, Volume= 0.002 af
Routed to Reach DP-2 : DESIGN POINT-2

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Peak Elev= 91.78' @ 12.25 hrs

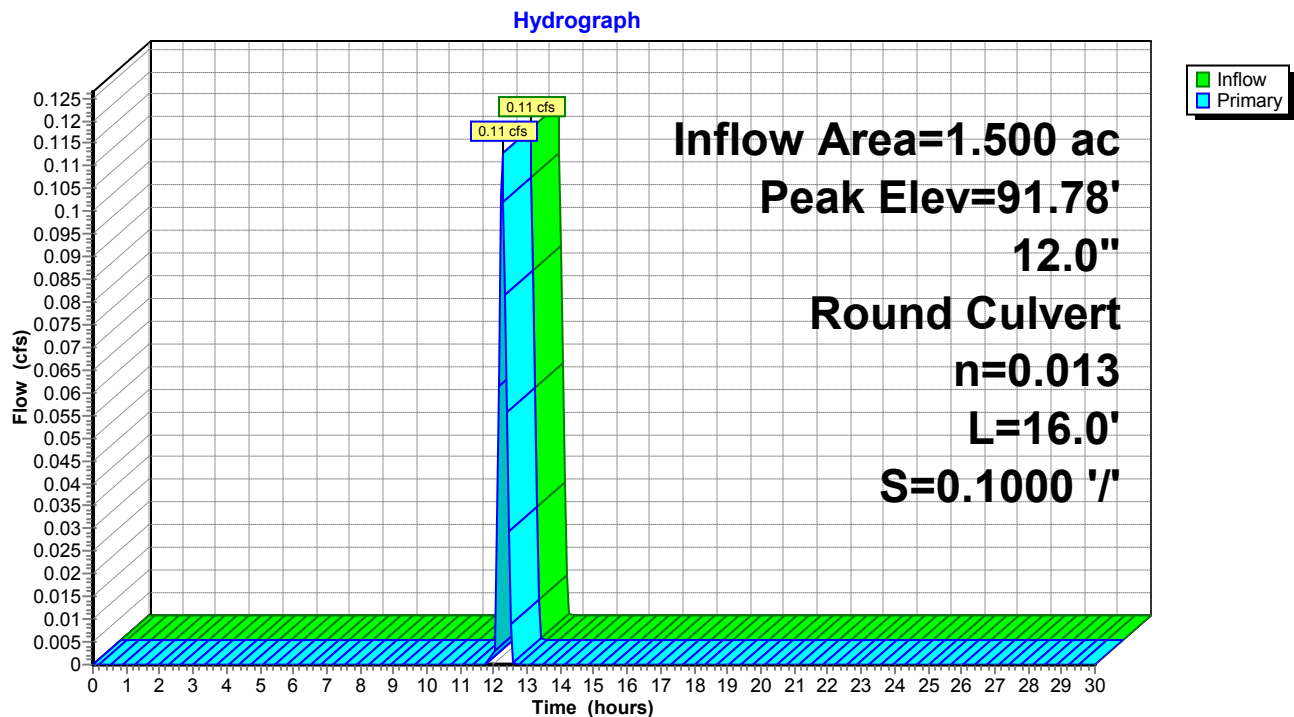
Flood Elev= 96.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	91.60'	12.0" Round Culvert L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 91.60' / 90.00' S= 0.1000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.11 cfs @ 12.25 hrs HW=91.78' (Free Discharge)

↑1=Culvert (Inlet Controls 0.11 cfs @ 1.15 fps)

Pond DMH-1: DRAINAGE MANHOLE-1



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Type III 24-hr 10 YEAR Rainfall=4.68"

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Stage-Area-Storage for Pond DMH-1: DRAINAGE MANHOLE-1

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
91.60	0.000	94.20	0.000
91.65	0.000	94.25	0.000
91.70	0.000	94.30	0.000
91.75	0.000	94.35	0.000
91.80	0.000	94.40	0.000
91.85	0.000	94.45	0.000
91.90	0.000	94.50	0.000
91.95	0.000	94.55	0.000
92.00	0.000	94.60	0.000
92.05	0.000	94.65	0.000
92.10	0.000	94.70	0.000
92.15	0.000	94.75	0.000
92.20	0.000	94.80	0.000
92.25	0.000	94.85	0.000
92.30	0.000	94.90	0.000
92.35	0.000	94.95	0.000
92.40	0.000	95.00	0.000
92.45	0.000	95.05	0.000
92.50	0.000	95.10	0.000
92.55	0.000	95.15	0.000
92.60	0.000	95.20	0.000
92.65	0.000	95.25	0.000
92.70	0.000	95.30	0.000
92.75	0.000	95.35	0.000
92.80	0.000	95.40	0.000
92.85	0.000	95.45	0.000
92.90	0.000	95.50	0.000
92.95	0.000	95.55	0.000
93.00	0.000	95.60	0.000
93.05	0.000	95.65	0.000
93.10	0.000	95.70	0.000
93.15	0.000	95.75	0.000
93.20	0.000	95.80	0.000
93.25	0.000	95.85	0.000
93.30	0.000	95.90	0.000
93.35	0.000	95.95	0.000
93.40	0.000	96.00	0.000
93.45	0.000		
93.50	0.000		
93.55	0.000		
93.60	0.000		
93.65	0.000		
93.70	0.000		
93.75	0.000		
93.80	0.000		
93.85	0.000		
93.90	0.000		
93.95	0.000		
94.00	0.000		
94.05	0.000		
94.10	0.000		
94.15	0.000		

Summary for Pond DMH-2: DRAINAGE MANHOLE-2

Inflow Area = 1.500 ac, 87.43% Impervious, Inflow Depth = 0.02" for 10 YEAR event
 Inflow = 0.11 cfs @ 12.25 hrs, Volume= 0.002 af
 Outflow = 0.11 cfs @ 12.25 hrs, Volume= 0.002 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.11 cfs @ 12.25 hrs, Volume= 0.002 af
 Routed to Pond DMH-1 : DRAINAGE MANHOLE-1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Peak Elev= 105.13' @ 12.25 hrs

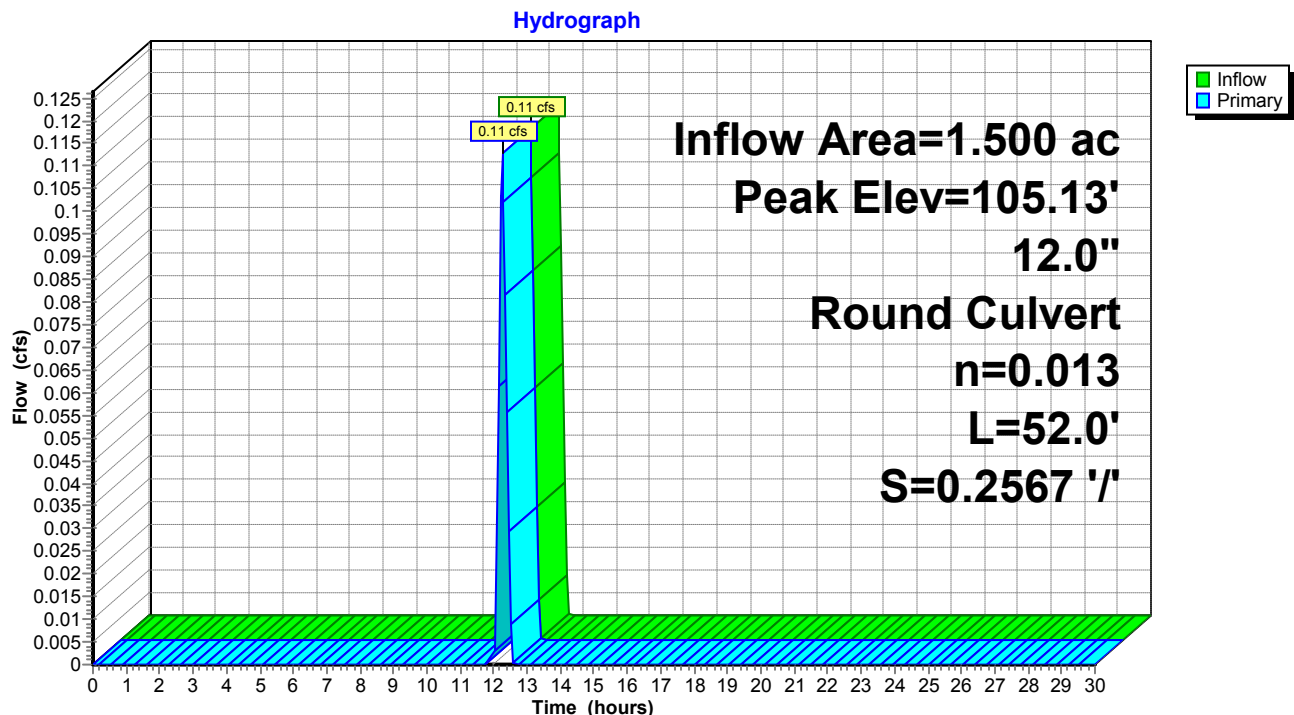
Flood Elev= 112.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	104.95'	12.0" Round Culvert L= 52.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 104.95' / 91.60' S= 0.2567 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.11 cfs @ 12.25 hrs HW=105.13' (Free Discharge)

↑1=Culvert (Inlet Controls 0.11 cfs @ 1.14 fps)

Pond DMH-2: DRAINAGE MANHOLE-2



Stage-Area-Storage for Pond DMH-2: DRAINAGE MANHOLE-2

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
104.95	0.000	107.55	0.000	110.15	0.000
105.00	0.000	107.60	0.000	110.20	0.000
105.05	0.000	107.65	0.000	110.25	0.000
105.10	0.000	107.70	0.000	110.30	0.000
105.15	0.000	107.75	0.000	110.35	0.000
105.20	0.000	107.80	0.000	110.40	0.000
105.25	0.000	107.85	0.000	110.45	0.000
105.30	0.000	107.90	0.000	110.50	0.000
105.35	0.000	107.95	0.000	110.55	0.000
105.40	0.000	108.00	0.000	110.60	0.000
105.45	0.000	108.05	0.000	110.65	0.000
105.50	0.000	108.10	0.000	110.70	0.000
105.55	0.000	108.15	0.000	110.75	0.000
105.60	0.000	108.20	0.000	110.80	0.000
105.65	0.000	108.25	0.000	110.85	0.000
105.70	0.000	108.30	0.000	110.90	0.000
105.75	0.000	108.35	0.000	110.95	0.000
105.80	0.000	108.40	0.000	111.00	0.000
105.85	0.000	108.45	0.000	111.05	0.000
105.90	0.000	108.50	0.000	111.10	0.000
105.95	0.000	108.55	0.000	111.15	0.000
106.00	0.000	108.60	0.000	111.20	0.000
106.05	0.000	108.65	0.000	111.25	0.000
106.10	0.000	108.70	0.000	111.30	0.000
106.15	0.000	108.75	0.000	111.35	0.000
106.20	0.000	108.80	0.000	111.40	0.000
106.25	0.000	108.85	0.000	111.45	0.000
106.30	0.000	108.90	0.000	111.50	0.000
106.35	0.000	108.95	0.000	111.55	0.000
106.40	0.000	109.00	0.000	111.60	0.000
106.45	0.000	109.05	0.000	111.65	0.000
106.50	0.000	109.10	0.000	111.70	0.000
106.55	0.000	109.15	0.000	111.75	0.000
106.60	0.000	109.20	0.000	111.80	0.000
106.65	0.000	109.25	0.000	111.85	0.000
106.70	0.000	109.30	0.000	111.90	0.000
106.75	0.000	109.35	0.000	111.95	0.000
106.80	0.000	109.40	0.000	112.00	0.000
106.85	0.000	109.45	0.000		
106.90	0.000	109.50	0.000		
106.95	0.000	109.55	0.000		
107.00	0.000	109.60	0.000		
107.05	0.000	109.65	0.000		
107.10	0.000	109.70	0.000		
107.15	0.000	109.75	0.000		
107.20	0.000	109.80	0.000		
107.25	0.000	109.85	0.000		
107.30	0.000	109.90	0.000		
107.35	0.000	109.95	0.000		
107.40	0.000	110.00	0.000		
107.45	0.000	110.05	0.000		
107.50	0.000	110.10	0.000		

POST-Pelton

Type III 24-hr 10 YEAR Rainfall=4.68"

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Summary for Pond PP-1: POROUS PAVEMENT-1

Inflow Area = 0.411 ac, 91.04% Impervious, Inflow Depth = 4.12" for 10 YEAR event
 Inflow = 1.77 cfs @ 12.09 hrs, Volume= 0.141 af
 Outflow = 1.44 cfs @ 12.05 hrs, Volume= 0.141 af, Atten= 19%, Lag= 0.0 min
 Discarded = 1.44 cfs @ 12.05 hrs, Volume= 0.141 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond PP-2 : POROUS PAVEMENT-1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 108.78' @ 12.14 hrs Surf.Area= 3,448 sf Storage= 123 cf
 Flood Elev= 111.36' Surf.Area= 3,448 sf Storage= 3,682 cf

Plug-Flow detention time= 0.5 min calculated for 0.141 af (100% of inflow)
 Center-of-Mass det. time= 0.5 min (766.5 - 766.0)

Volume	Invert	Avail.Storage	Storage Description
#1	108.69'	3,682 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 9,206 cf Overall x 40.0% Voids

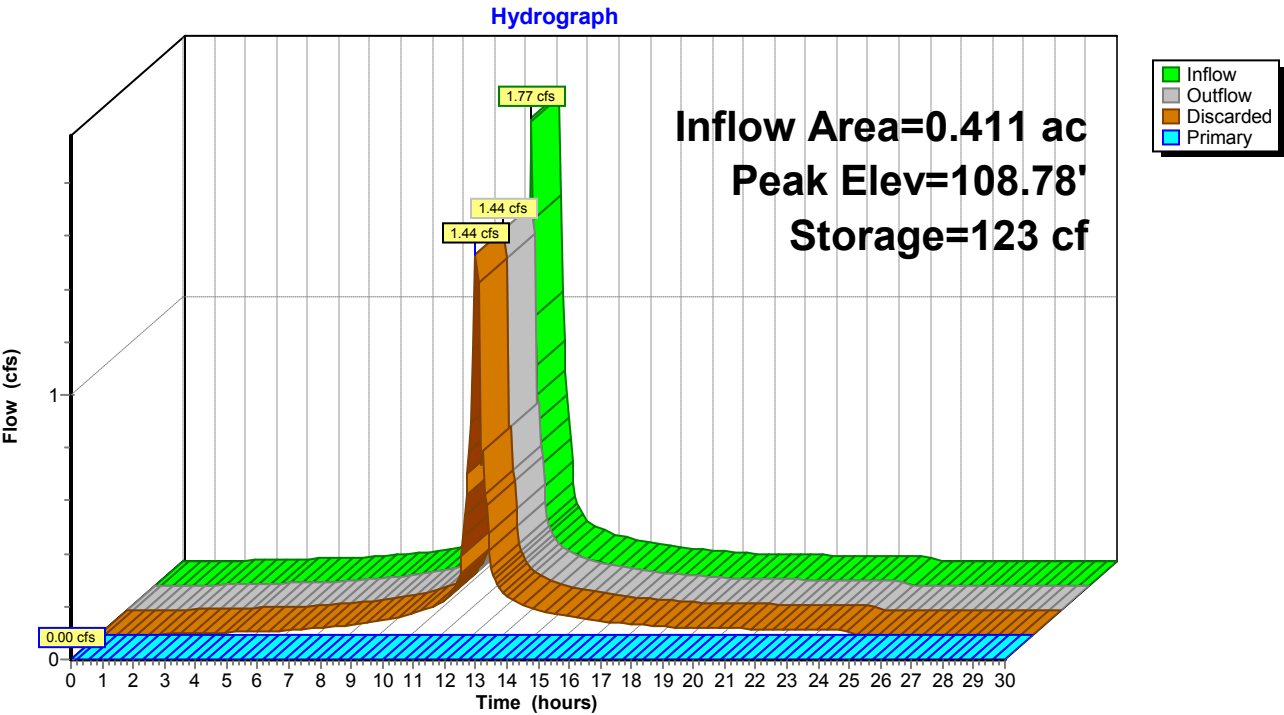
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
108.69	3,448	0	0
111.36	3,448	9,206	9,206

Device	Routing	Invert	Outlet Devices
#1	Discarded	108.69'	18.000 in/hr Exfiltration over Surface area
#2	Primary	109.30'	0.5" Round Culvert L= 67.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 109.30' / 108.30' S= 0.0149 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.00 sf

Discarded OutFlow Max=1.44 cfs @ 12.05 hrs HW=108.73' (Free Discharge)
 ↑ **1=Exfiltration** (Exfiltration Controls 1.44 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=108.69' (Free Discharge)
 ↑ **2=Culvert** (Controls 0.00 cfs)

Pond PP-1: POROUS PAVEMENT-1



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Stage-Area-Storage for Pond PP-1: POROUS PAVEMENT-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
108.69	3,448	0	111.29	3,448	3,586
108.74	3,448	69	111.34	3,448	3,655
108.79	3,448	138			
108.84	3,448	207			
108.89	3,448	276			
108.94	3,448	345			
108.99	3,448	414			
109.04	3,448	483			
109.09	3,448	552			
109.14	3,448	621			
109.19	3,448	690			
109.24	3,448	759			
109.29	3,448	828			
109.34	3,448	896			
109.39	3,448	965			
109.44	3,448	1,034			
109.49	3,448	1,103			
109.54	3,448	1,172			
109.59	3,448	1,241			
109.64	3,448	1,310			
109.69	3,448	1,379			
109.74	3,448	1,448			
109.79	3,448	1,517			
109.84	3,448	1,586			
109.89	3,448	1,655			
109.94	3,448	1,724			
109.99	3,448	1,793			
110.04	3,448	1,862			
110.09	3,448	1,931			
110.14	3,448	2,000			
110.19	3,448	2,069			
110.24	3,448	2,138			
110.29	3,448	2,207			
110.34	3,448	2,276			
110.39	3,448	2,345			
110.44	3,448	2,414			
110.49	3,448	2,483			
110.54	3,448	2,552			
110.59	3,448	2,620			
110.64	3,448	2,689			
110.69	3,448	2,758			
110.74	3,448	2,827			
110.79	3,448	2,896			
110.84	3,448	2,965			
110.89	3,448	3,034			
110.94	3,448	3,103			
110.99	3,448	3,172			
111.04	3,448	3,241			
111.09	3,448	3,310			
111.14	3,448	3,379			
111.19	3,448	3,448			
111.24	3,448	3,517			

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Summary for Pond PP-2: POROUS PAVEMENT-1

Inflow Area = 1.500 ac, 87.43% Impervious, Inflow Depth = 2.68" for 10 YEAR event
 Inflow = 4.08 cfs @ 12.09 hrs, Volume= 0.334 af
 Outflow = 2.08 cfs @ 12.25 hrs, Volume= 0.334 af, Atten= 49%, Lag= 9.6 min
 Discarded = 1.97 cfs @ 12.00 hrs, Volume= 0.332 af
 Primary = 0.11 cfs @ 12.25 hrs, Volume= 0.002 af
 Routed to Pond DMH-2 : DRAINAGE MANHOLE-2

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 108.64' @ 12.25 hrs Surf.Area= 6,064 sf Storage= 1,231 cf
 Flood Elev= 110.80' Surf.Area= 6,064 sf Storage= 6,476 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 2.5 min (770.0 - 767.5)

Volume	Invert	Avail.Storage	Storage Description
#1	108.13'	6,476 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 16,191 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
108.13	6,064	0	0
110.80	6,064	16,191	16,191

Device	Routing	Invert	Outlet Devices
#1	Discarded	108.13'	14.000 in/hr Exfiltration over Surface area
#2	Primary	108.30'	12.0" Round Culvert L= 67.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 104.95' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	108.30'	6.0" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 108.30' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=1.97 cfs @ 12.00 hrs HW=108.18' (Free Discharge)

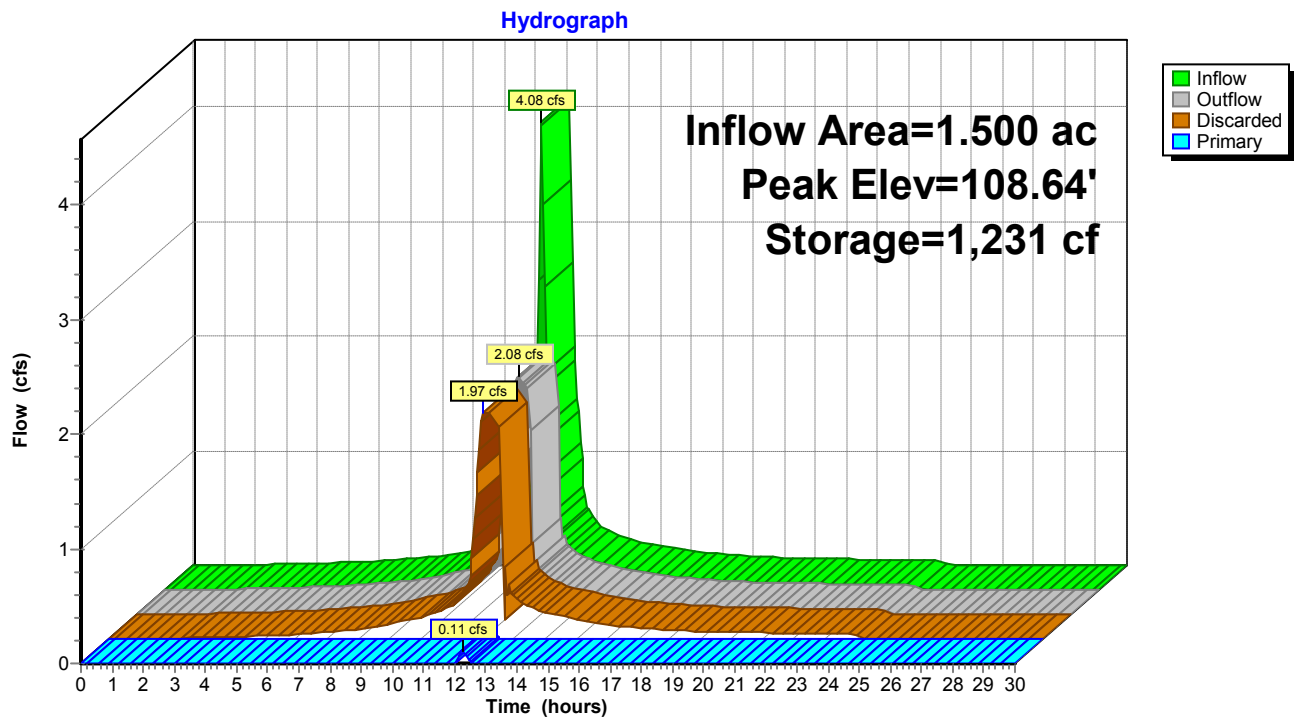
↑ **1=Exfiltration** (Exfiltration Controls 1.97 cfs)

Primary OutFlow Max=0.11 cfs @ 12.25 hrs HW=108.64' (Free Discharge)

↑ **2=Culvert** (Passes 0.11 cfs of 0.36 cfs potential flow)

↑ **3=Culvert** (Barrel Controls 0.11 cfs @ 1.13 fps)

Pond PP-2: POROUS PAVEMENT-1



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Stage-Area-Storage for Pond PP-2: POROUS PAVEMENT-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
108.13	6,064	0	110.73	6,064	6,307
108.18	6,064	121	110.78	6,064	6,428
108.23	6,064	243			
108.28	6,064	364			
108.33	6,064	485			
108.38	6,064	606			
108.43	6,064	728			
108.48	6,064	849			
108.53	6,064	970			
108.58	6,064	1,092			
108.63	6,064	1,213			
108.68	6,064	1,334			
108.73	6,064	1,455			
108.78	6,064	1,577			
108.83	6,064	1,698			
108.88	6,064	1,819			
108.93	6,064	1,940			
108.98	6,064	2,062			
109.03	6,064	2,183			
109.08	6,064	2,304			
109.13	6,064	2,426			
109.18	6,064	2,547			
109.23	6,064	2,668			
109.28	6,064	2,789			
109.33	6,064	2,911			
109.38	6,064	3,032			
109.43	6,064	3,153			
109.48	6,064	3,275			
109.53	6,064	3,396			
109.58	6,064	3,517			
109.63	6,064	3,638			
109.68	6,064	3,760			
109.73	6,064	3,881			
109.78	6,064	4,002			
109.83	6,064	4,124			
109.88	6,064	4,245			
109.93	6,064	4,366			
109.98	6,064	4,487			
110.03	6,064	4,609			
110.08	6,064	4,730			
110.13	6,064	4,851			
110.18	6,064	4,972			
110.23	6,064	5,094			
110.28	6,064	5,215			
110.33	6,064	5,336			
110.38	6,064	5,458			
110.43	6,064	5,579			
110.48	6,064	5,700			
110.53	6,064	5,821			
110.58	6,064	5,943			
110.63	6,064	6,064			
110.68	6,064	6,185			

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Type III 24-hr 100 YEAR Rainfall=8.22"

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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: DRAINAGE AREA-1	Runoff Area=1,992 sf 82.78% Impervious Runoff Depth=7.38" Tc=6.0 min CN=93 Runoff=0.35 cfs 0.028 af
Subcatchment DA-10: DRAINAGE AREA-10	Runoff Area=2,704 sf 100.00% Impervious Runoff Depth=7.98" Tc=6.0 min CN=98 Runoff=0.49 cfs 0.041 af
Subcatchment DA-11: DRAINAGE AREA-11	Runoff Area=1,024 sf 0.00% Impervious Runoff Depth=4.54" Tc=6.0 min CN=69 Runoff=0.12 cfs 0.009 af
Subcatchment DA-12: DRAINAGE AREA-12	Runoff Area=3,697 sf 100.00% Impervious Runoff Depth=7.98" Tc=6.0 min CN=98 Runoff=0.67 cfs 0.056 af
Subcatchment DA-13: DRAINAGE AREA-13	Runoff Area=3,949 sf 100.00% Impervious Runoff Depth=7.98" Tc=6.0 min CN=98 Runoff=0.71 cfs 0.060 af
Subcatchment DA-14: DRAINAGE AREA-14	Runoff Area=3,949 sf 100.00% Impervious Runoff Depth=7.98" Tc=6.0 min CN=98 Runoff=0.71 cfs 0.060 af
Subcatchment DA-15: DRAINAGE AREA-15	Runoff Area=21,601 sf 89.31% Impervious Runoff Depth=7.62" Tc=6.0 min CN=95 Runoff=3.86 cfs 0.315 af
Subcatchment DA-16: DRAINAGE AREA-16	Runoff Area=9,241 sf 79.92% Impervious Runoff Depth=7.26" Tc=6.0 min CN=92 Runoff=1.62 cfs 0.128 af
Subcatchment DA-2: DRAINAGE AREA-2	Runoff Area=9,245 sf 29.41% Impervious Runoff Depth=5.36" Tc=6.0 min CN=76 Runoff=1.30 cfs 0.095 af
Subcatchment DA-3: DRAINAGE AREA-3	Runoff Area=26,772 sf 19.47% Impervious Runoff Depth=5.01" Tc=6.0 min CN=73 Runoff=3.53 cfs 0.256 af
Subcatchment DA-4: DRAINAGE AREA-4	Runoff Area=2,445 sf 0.00% Impervious Runoff Depth=4.54" Tc=6.0 min CN=69 Runoff=0.29 cfs 0.021 af
Subcatchment DA-5: DRAINAGE AREA-5	Runoff Area=2,578 sf 100.00% Impervious Runoff Depth=7.98" Tc=6.0 min CN=98 Runoff=0.47 cfs 0.039 af
Subcatchment DA-6: DRAINAGE AREA-6	Runoff Area=2,578 sf 100.00% Impervious Runoff Depth=7.98" Tc=6.0 min CN=98 Runoff=0.47 cfs 0.039 af
Subcatchment DA-7: DRAINAGE AREA-7	Runoff Area=10,274 sf 84.40% Impervious Runoff Depth=7.38" Tc=6.0 min CN=93 Runoff=1.82 cfs 0.145 af
Subcatchment DA-8: DRAINAGE AREA-8	Runoff Area=2,697 sf 100.00% Impervious Runoff Depth=7.98" Tc=6.0 min CN=98 Runoff=0.49 cfs 0.041 af
Subcatchment DA-9: DRAINAGE AREA-9	Runoff Area=2,335 sf 100.00% Impervious Runoff Depth=7.98" Tc=6.0 min CN=98 Runoff=0.42 cfs 0.036 af

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Reach DP-1: DESIGN POINT-1Inflow=0.35 cfs 0.028 af
Outflow=0.35 cfs 0.028 af**Reach DP-2: DESIGN POINT-2**Inflow=1.72 cfs 0.138 af
Outflow=1.72 cfs 0.138 af**Reach DP-3: DESIGN POINT-3**Inflow=3.61 cfs 0.263 af
Outflow=3.61 cfs 0.263 af**Pond BIO-1: BIO RETENTION 1**Peak Elev=111.89' Storage=348 cf Inflow=0.76 cfs 0.061 af
Discarded=0.30 cfs 0.061 af Primary=0.00 cfs 0.000 af Outflow=0.30 cfs 0.061 af**Pond BIO-2: BIO RETENTION-2**Peak Elev=95.31' Storage=346 cf Inflow=0.61 cfs 0.050 af
Discarded=0.10 cfs 0.043 af Primary=0.61 cfs 0.007 af Outflow=0.70 cfs 0.050 af**Pond CB-1: CATCH BASIN 1**Peak Elev=110.59' Storage=434 cf Inflow=1.62 cfs 0.128 af
6.0" Round Culvert n=0.013 L=50.0' S=0.0100 '/' Outflow=0.87 cfs 0.128 af**Pond DMH-1: DRAINAGE MANHOLE-1**Peak Elev=92.10' Inflow=0.74 cfs 0.044 af
12.0" Round Culvert n=0.013 L=16.0' S=0.1000 '/' Outflow=0.74 cfs 0.044 af**Pond DMH-2: DRAINAGE MANHOLE-2**Peak Elev=105.45' Inflow=0.74 cfs 0.044 af
12.0" Round Culvert n=0.013 L=52.0' S=0.2567 '/' Outflow=0.74 cfs 0.044 af**Pond PP-1: POROUS PAVEMENT-1**Peak Elev=109.42' Storage=1,011 cf Inflow=3.19 cfs 0.261 af
Discarded=1.44 cfs 0.261 af Primary=0.00 cfs 0.000 af Outflow=1.44 cfs 0.261 af**Pond PP-2: POROUS PAVEMENT-1**Peak Elev=109.74' Storage=3,907 cf Inflow=6.79 cfs 0.620 af
Discarded=1.97 cfs 0.576 af Primary=0.74 cfs 0.044 af Outflow=2.70 cfs 0.620 af**Total Runoff Area = 2.458 ac Runoff Volume = 1.372 af Average Runoff Depth = 6.70"**
35.17% Pervious = 0.865 ac 64.83% Impervious = 1.594 ac

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Summary for Subcatchment DA-1: DRAINAGE AREA-1

Runoff = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af, Depth= 7.38"
Routed to Reach DP-1 : DESIGN POINT-1

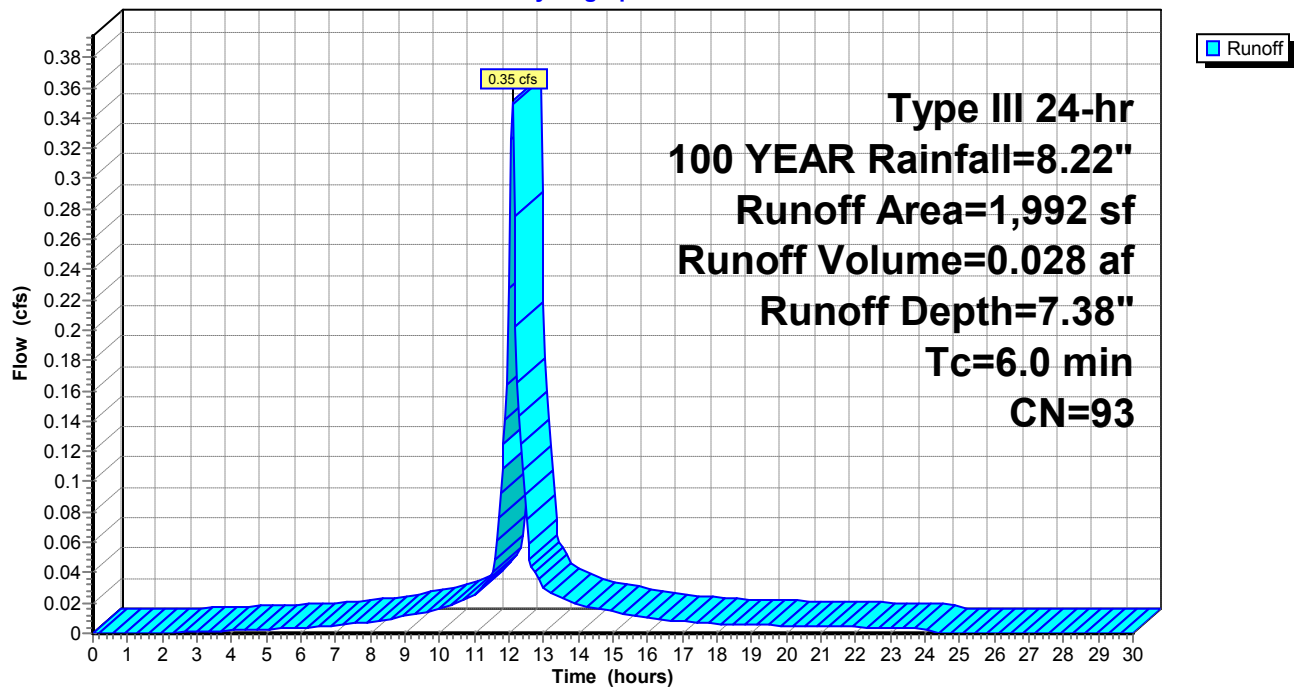
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
343	69	50-75% Grass cover, Fair, HSG B
1,649	98	Paved parking, HSG B
1,992	93	Weighted Average
343		17.22% Pervious Area
1,649		82.78% Impervious Area

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

Subcatchment DA-1: DRAINAGE AREA-1

Hydrograph



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Type III 24-hr 100 YEAR Rainfall=8.22"

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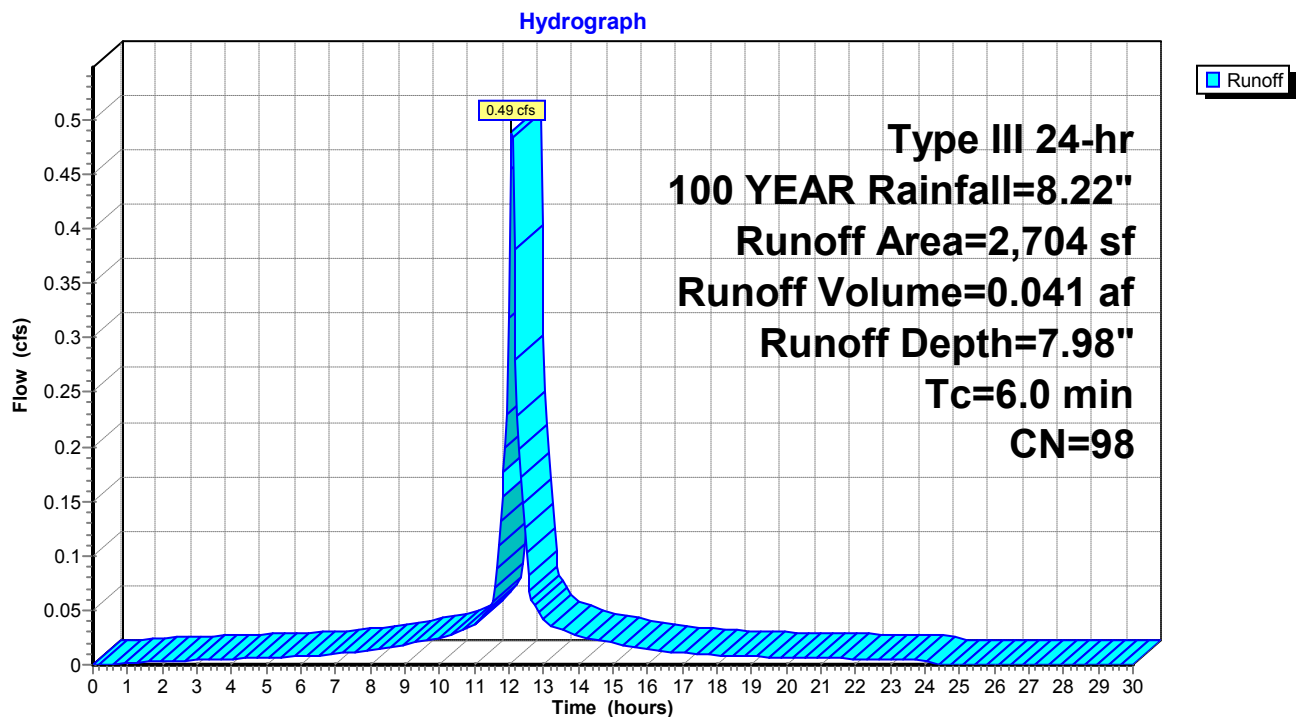
Summary for Subcatchment DA-10: DRAINAGE AREA-10

Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 7.98"
Routed to Pond BIO-2 : BIO RETENTION-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,704	98	Paved parking, HSG B
2,704	98	Weighted Average
2,704		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: DRAINAGE AREA-10

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Type III 24-hr 100 YEAR Rainfall=8.22"

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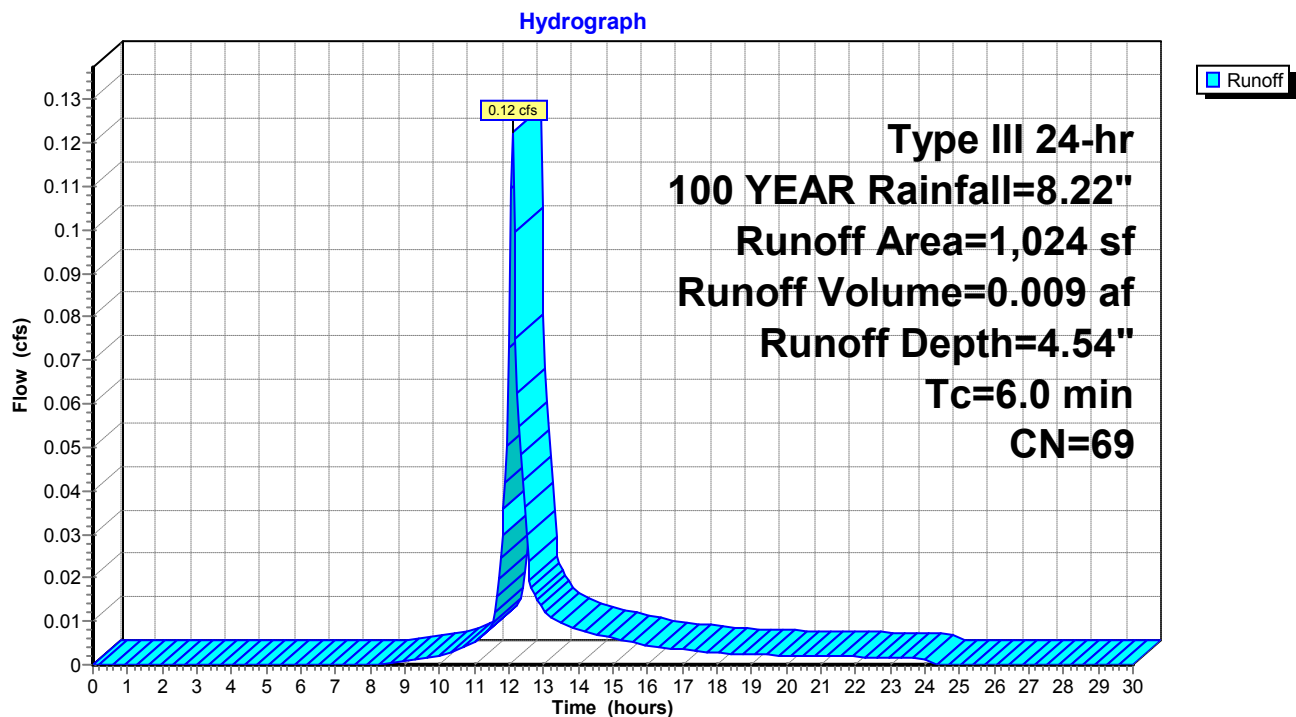
Summary for Subcatchment DA-11: DRAINAGE AREA-11

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.009 af, Depth= 4.54"
Routed to Pond BIO-2 : BIO RETENTION-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,024	69	50-75% Grass cover, Fair, HSG B
0	98	Paved parking, HSG B
1,024	69	Weighted Average
1,024		100.00% Pervious Area

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

Subcatchment DA-11: DRAINAGE AREA-11

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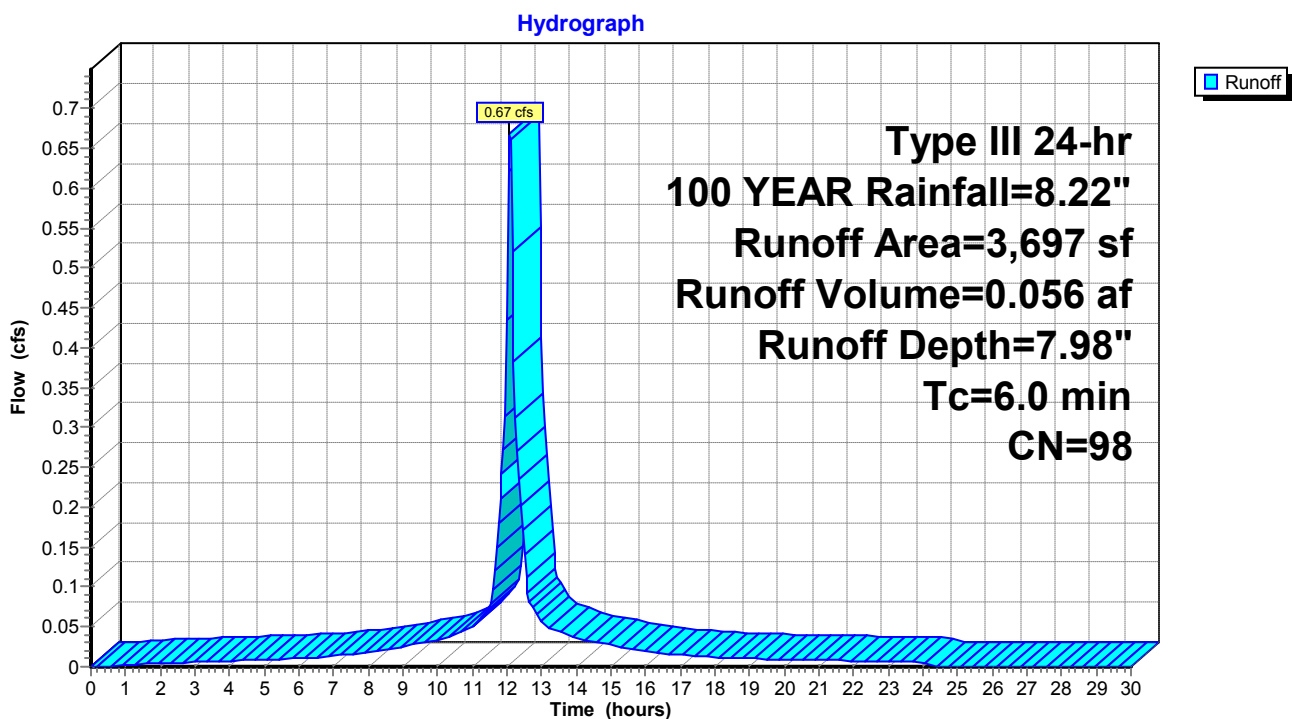
Summary for Subcatchment DA-12: DRAINAGE AREA-12

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 0.056 af, Depth= 7.98"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
3,697	98	Paved parking, HSG B
3,697	98	Weighted Average
3,697		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-12: DRAINAGE AREA-12

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Type III 24-hr 100 YEAR Rainfall=8.22"

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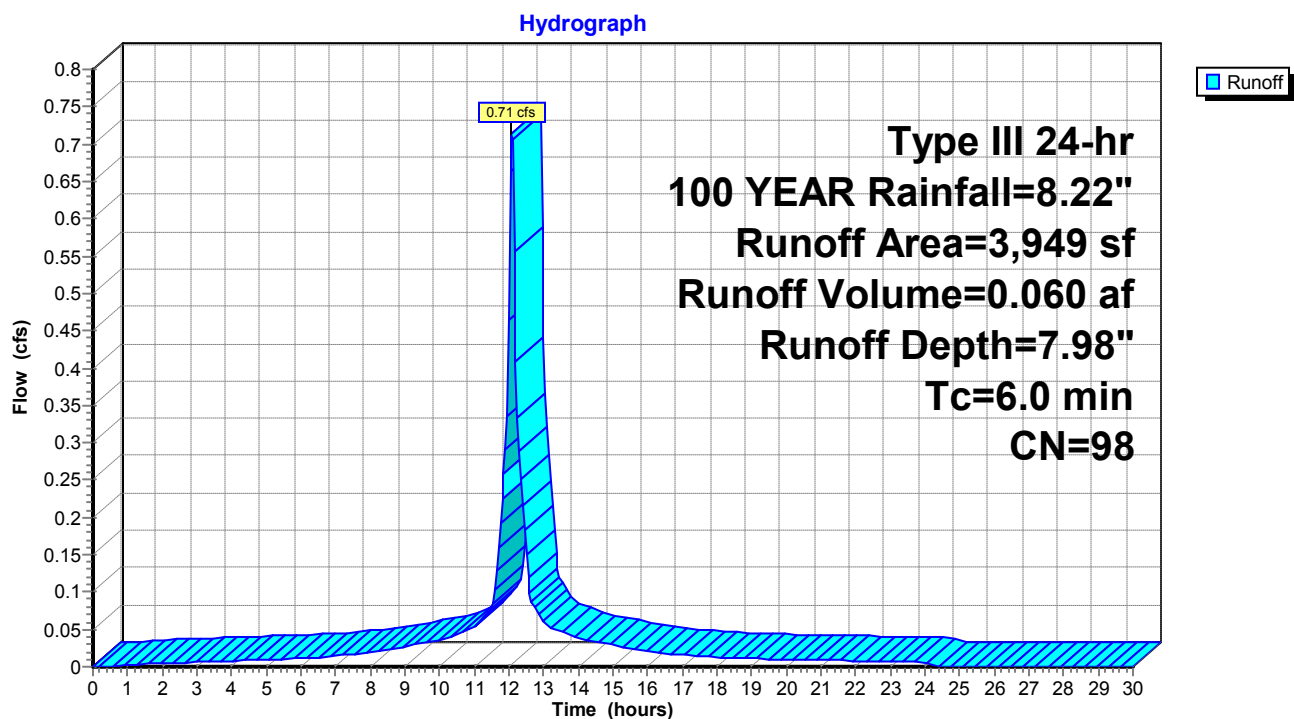
Summary for Subcatchment DA-13: DRAINAGE AREA-13

Runoff = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 7.98"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
3,949	98	Paved parking, HSG B
3,949	98	Weighted Average
3,949		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-13: DRAINAGE AREA-13

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Type III 24-hr 100 YEAR Rainfall=8.22"

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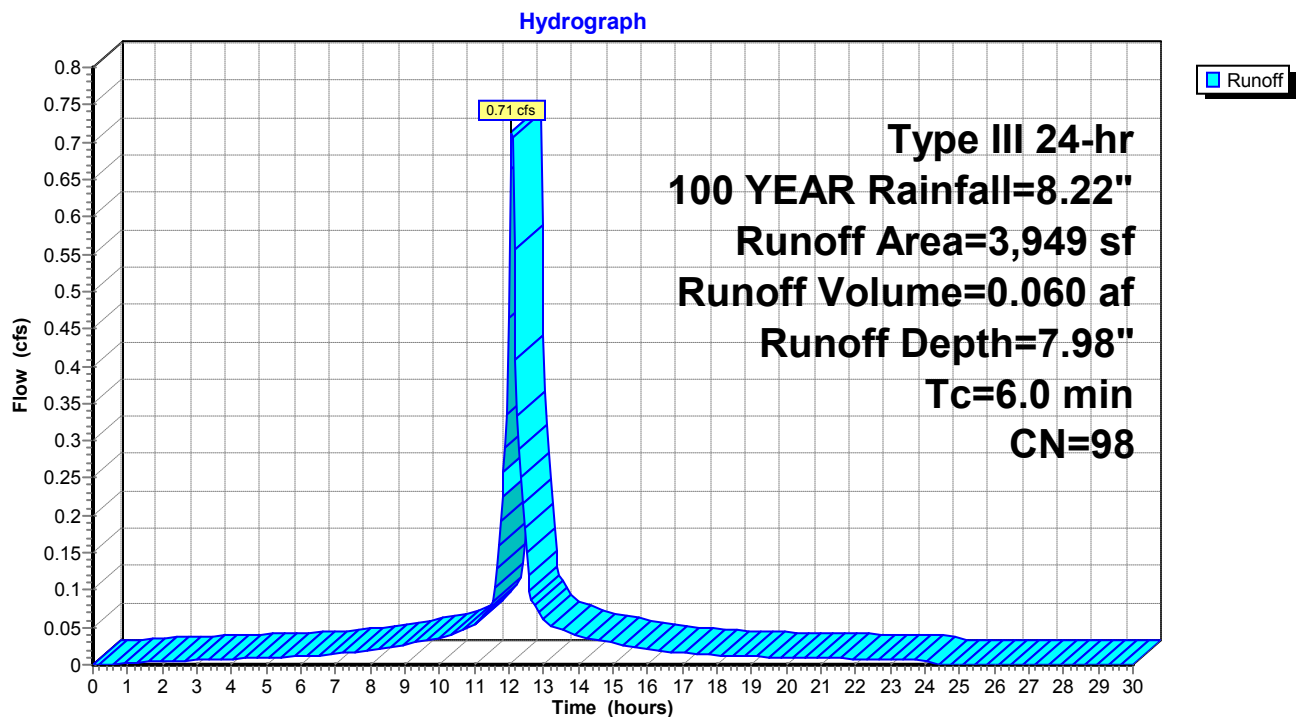
Summary for Subcatchment DA-14: DRAINAGE AREA-14

Runoff = 0.71 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 7.98"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
3,949	98	Paved parking, HSG B
3,949	98	Weighted Average
3,949		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-14: DRAINAGE AREA-14

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Type III 24-hr 100 YEAR Rainfall=8.22"

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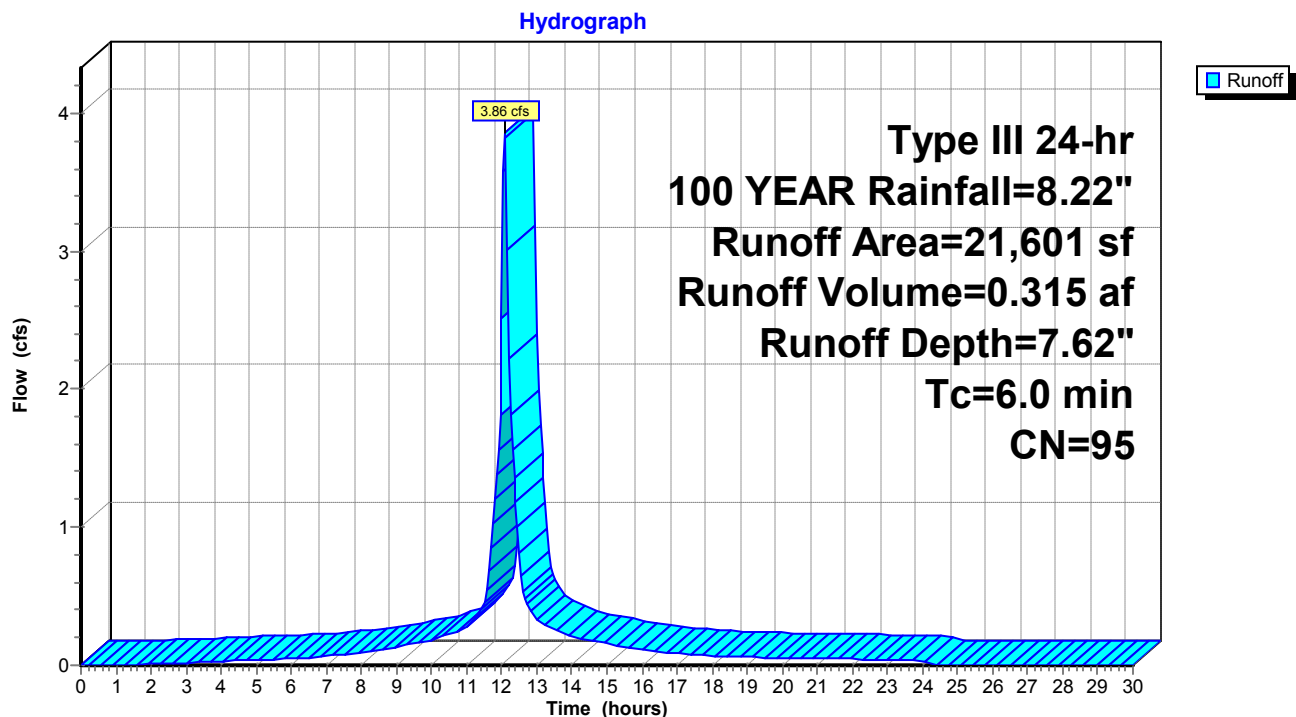
Summary for Subcatchment DA-15: DRAINAGE AREA-15

Runoff = 3.86 cfs @ 12.09 hrs, Volume= 0.315 af, Depth= 7.62"
Routed to Pond PP-2 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
2,309	69	50-75% Grass cover, Fair, HSG B
19,292	98	Paved parking, HSG B
21,601	95	Weighted Average
2,309		10.69% Pervious Area
19,292		89.31% Impervious Area

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

Subcatchment DA-15: DRAINAGE AREA-15

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Type III 24-hr 100 YEAR Rainfall=8.22"

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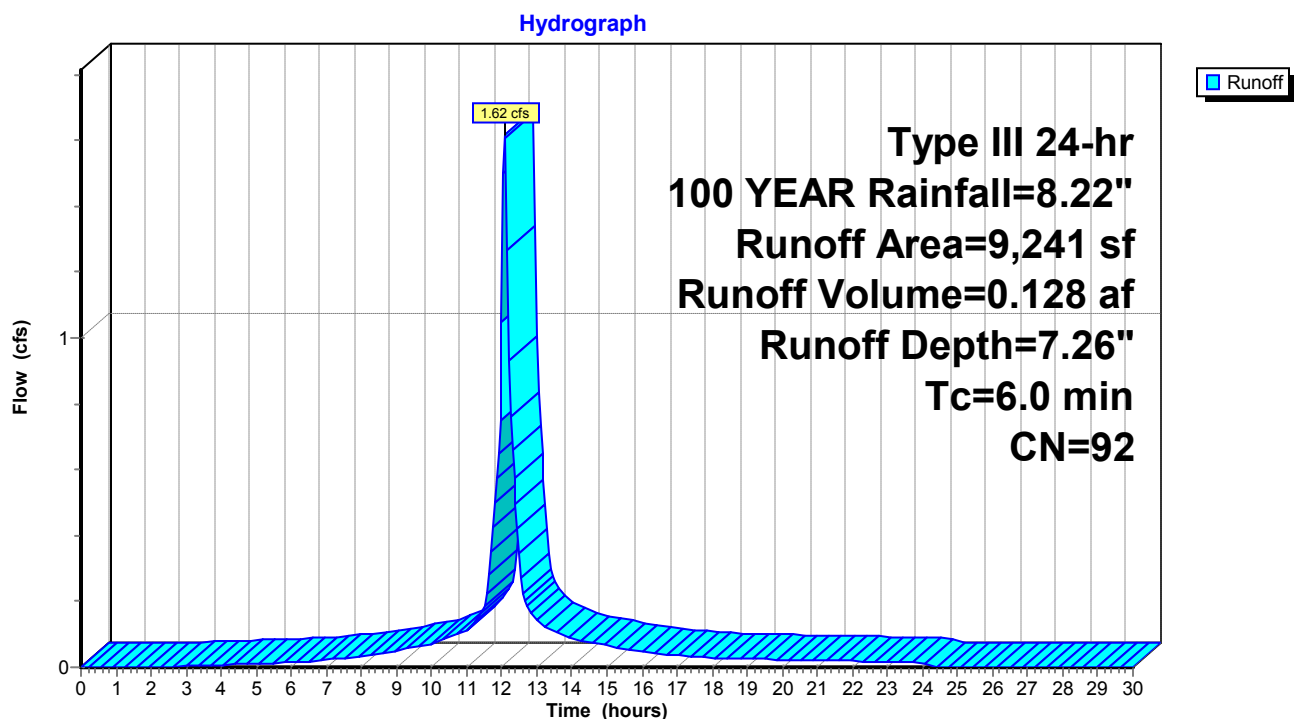
Summary for Subcatchment DA-16: DRAINAGE AREA-16

Runoff = 1.62 cfs @ 12.09 hrs, Volume= 0.128 af, Depth= 7.26"
Routed to Pond CB-1 : CATCH BASIN 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,856	69	50-75% Grass cover, Fair, HSG B
7,385	98	Paved parking, HSG B
9,241	92	Weighted Average
1,856		20.08% Pervious Area
7,385		79.92% Impervious Area

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

Subcatchment DA-16: DRAINAGE AREA-16

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Type III 24-hr 100 YEAR Rainfall=8.22"

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Summary for Subcatchment DA-2: DRAINAGE AREA-2

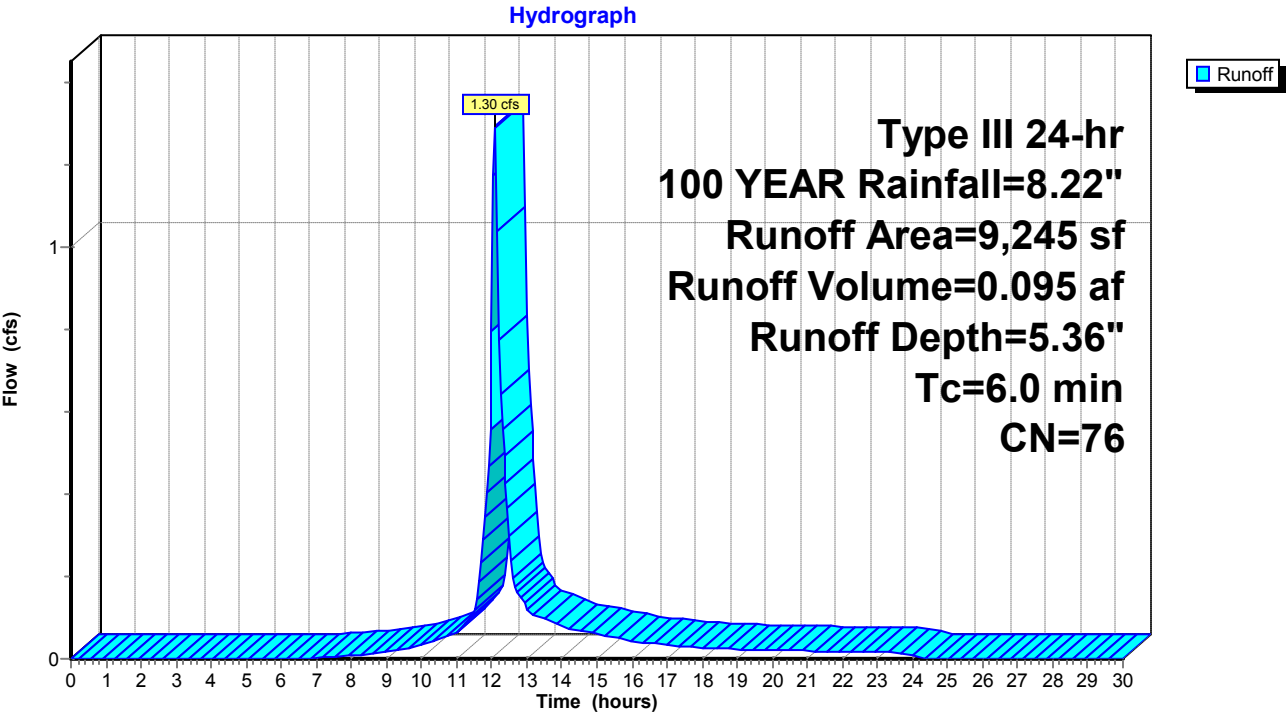
Runoff = 1.30 cfs @ 12.09 hrs, Volume= 0.095 af, Depth= 5.36"
Routed to Reach DP-2 : DESIGN POINT-2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
2,617	65	Woods/grass comb., Fair, HSG B
3,909	69	50-75% Grass cover, Fair, HSG B
2,719	98	Paved parking, HSG B
9,245	76	Weighted Average
6,526		70.59% Pervious Area
2,719		29.41% Impervious Area

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

Subcatchment DA-2: DRAINAGE AREA-2



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Type III 24-hr 100 YEAR Rainfall=8.22"

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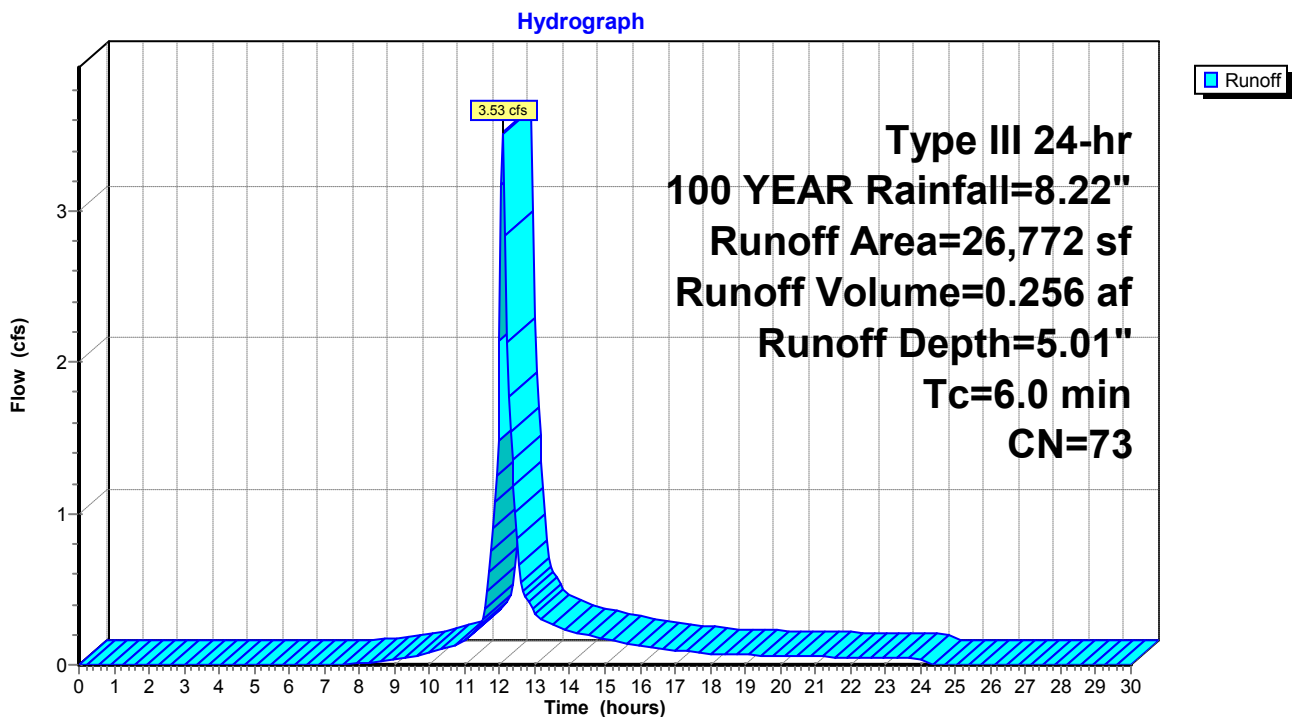
Summary for Subcatchment DA-3: DRAINAGE AREA-3

Runoff = 3.53 cfs @ 12.09 hrs, Volume= 0.256 af, Depth= 5.01"
Routed to Reach DP-3 : DESIGN POINT-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
11,839	65	Woods/grass comb., Fair, HSG B
9,720	69	50-75% Grass cover, Fair, HSG B
5,213	98	Paved parking, HSG B
26,772	73	Weighted Average
21,559		80.53% Pervious Area
5,213		19.47% Impervious Area

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

Subcatchment DA-3: DRAINAGE AREA-3

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Type III 24-hr 100 YEAR Rainfall=8.22"

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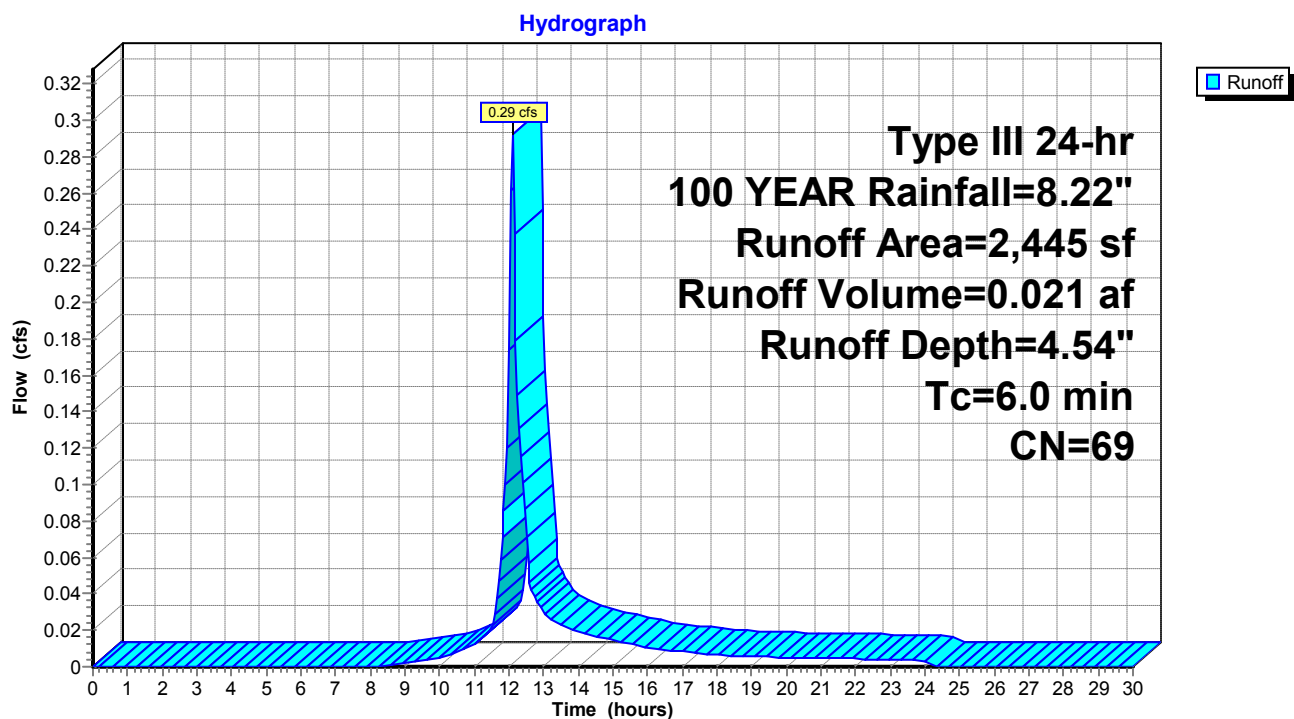
Summary for Subcatchment DA-4: DRAINAGE AREA-4

Runoff = 0.29 cfs @ 12.09 hrs, Volume= 0.021 af, Depth= 4.54"
Routed to Pond BIO-1 : BIO RETENTION 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
2,445	69	50-75% Grass cover, Fair, HSG B
0	98	Paved parking, HSG B
2,445	69	Weighted Average
2,445		100.00% Pervious Area

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

Subcatchment DA-4: DRAINAGE AREA-4

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Type III 24-hr 100 YEAR Rainfall=8.22"

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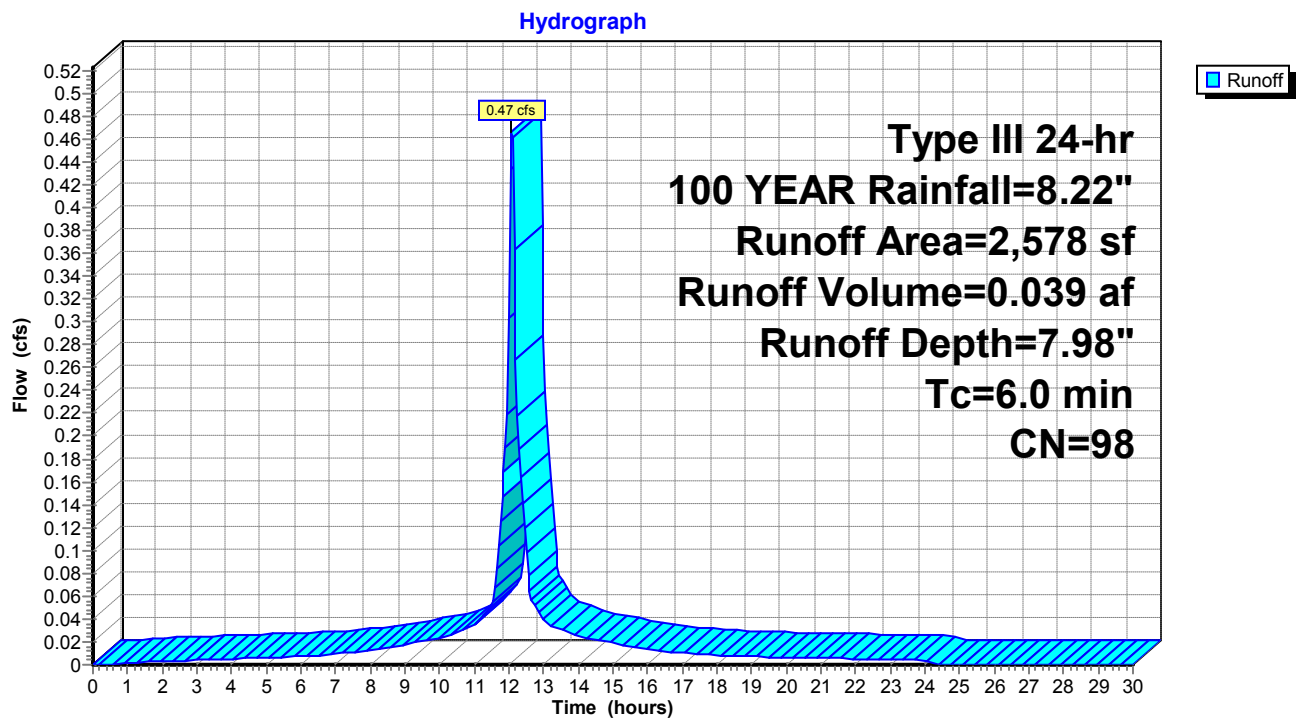
Summary for Subcatchment DA-5: DRAINAGE AREA-5

Runoff = 0.47 cfs @ 12.09 hrs, Volume= 0.039 af, Depth= 7.98"
Routed to Pond BIO-1 : BIO RETENTION 1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,578	98	Paved parking, HSG B
2,578	98	Weighted Average
2,578		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-5: DRAINAGE AREA-5

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Type III 24-hr 100 YEAR Rainfall=8.22"

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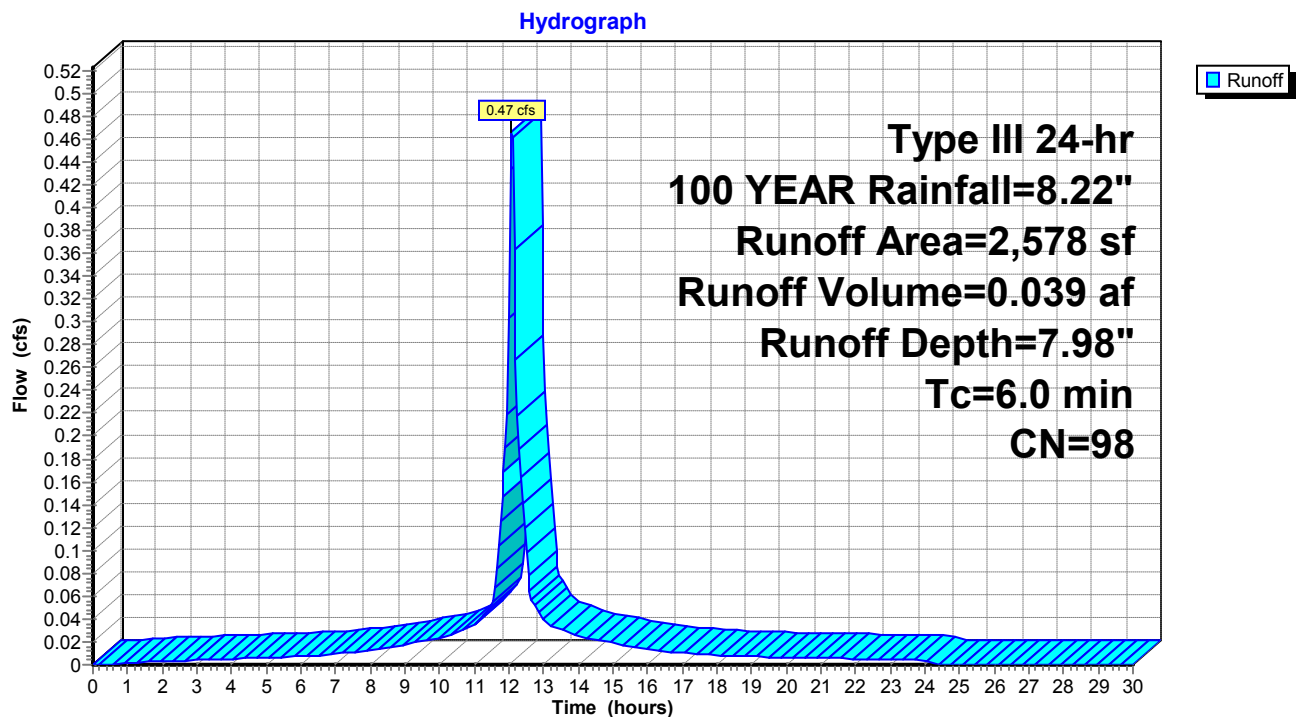
Summary for Subcatchment DA-6: DRAINAGE AREA-6

Runoff = 0.47 cfs @ 12.09 hrs, Volume= 0.039 af, Depth= 7.98"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,578	98	Paved parking, HSG B
2,578	98	Weighted Average
2,578		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-6: DRAINAGE AREA-6

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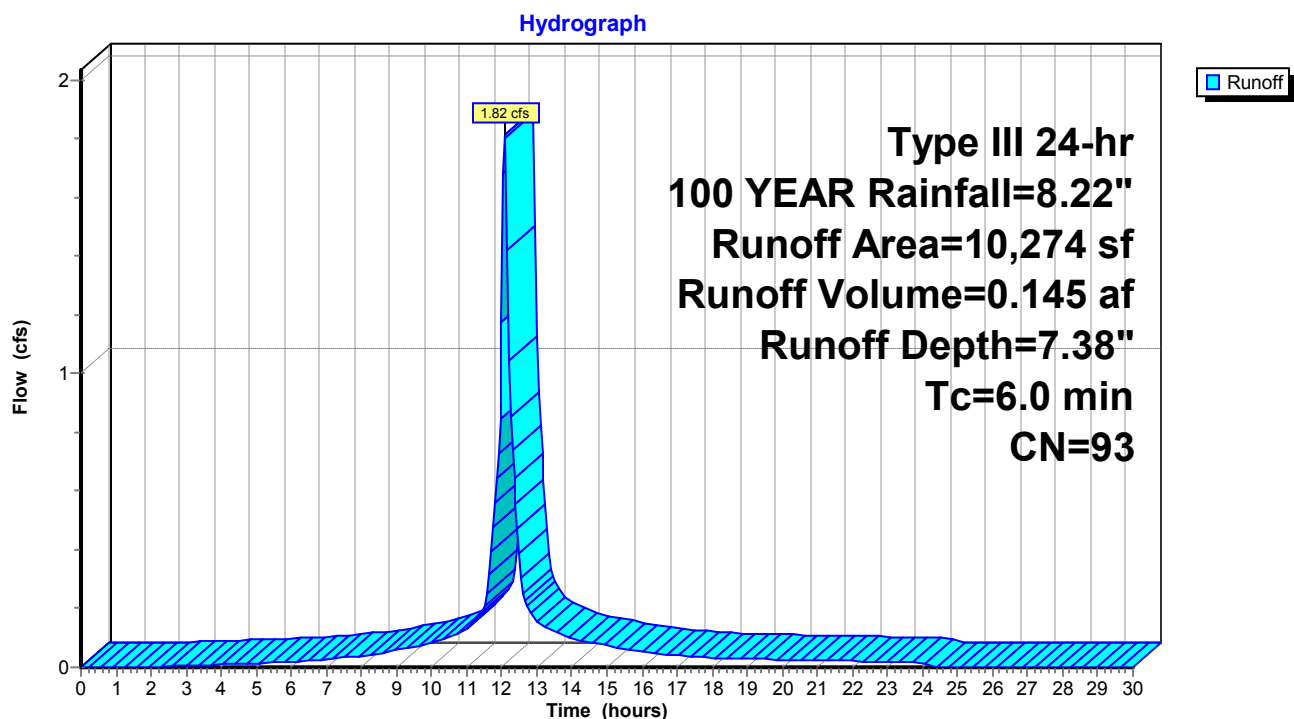
Summary for Subcatchment DA-7: DRAINAGE AREA-7

Runoff = 1.82 cfs @ 12.09 hrs, Volume= 0.145 af, Depth= 7.38"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
1,603	69	50-75% Grass cover, Fair, HSG B
8,671	98	Paved parking, HSG B
10,274	93	Weighted Average
1,603		15.60% Pervious Area
8,671		84.40% Impervious Area

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

Subcatchment DA-7: DRAINAGE AREA-7

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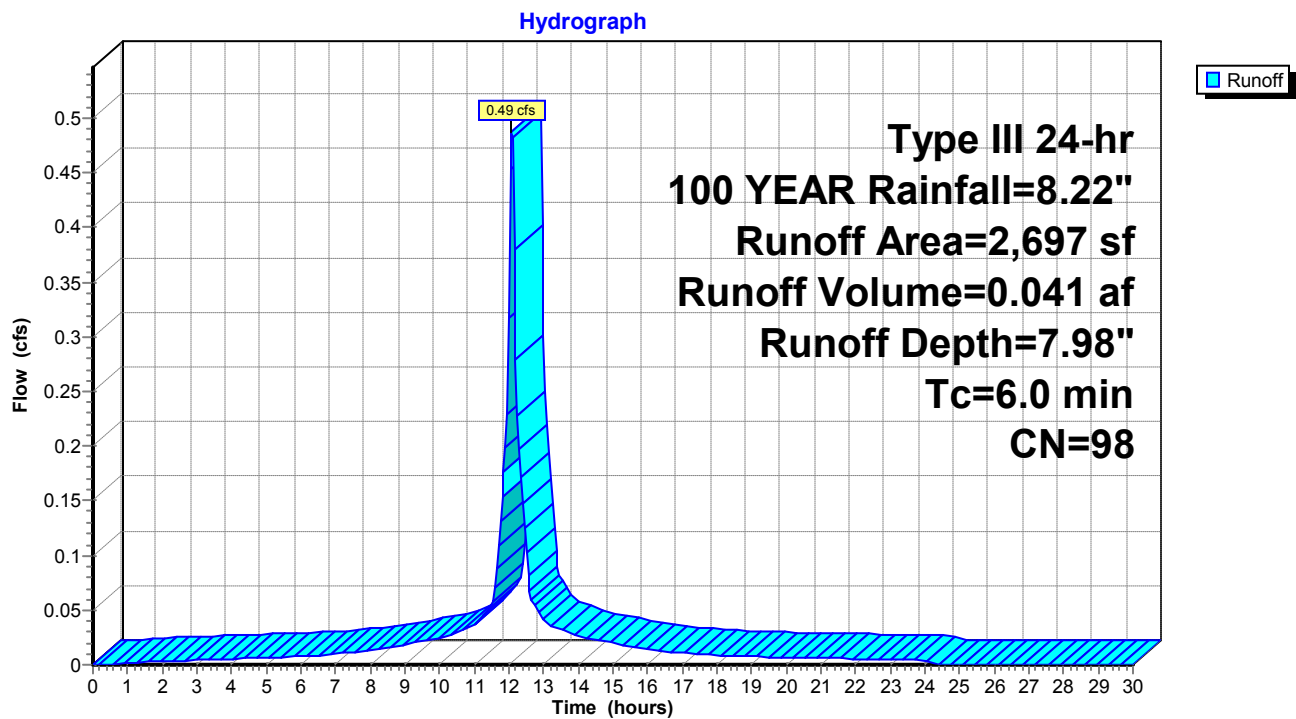
Summary for Subcatchment DA-8: DRAINAGE AREA-8

Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 7.98"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,697	98	Paved parking, HSG B
2,697	98	Weighted Average
2,697		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-8: DRAINAGE AREA-8

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Type III 24-hr 100 YEAR Rainfall=8.22"

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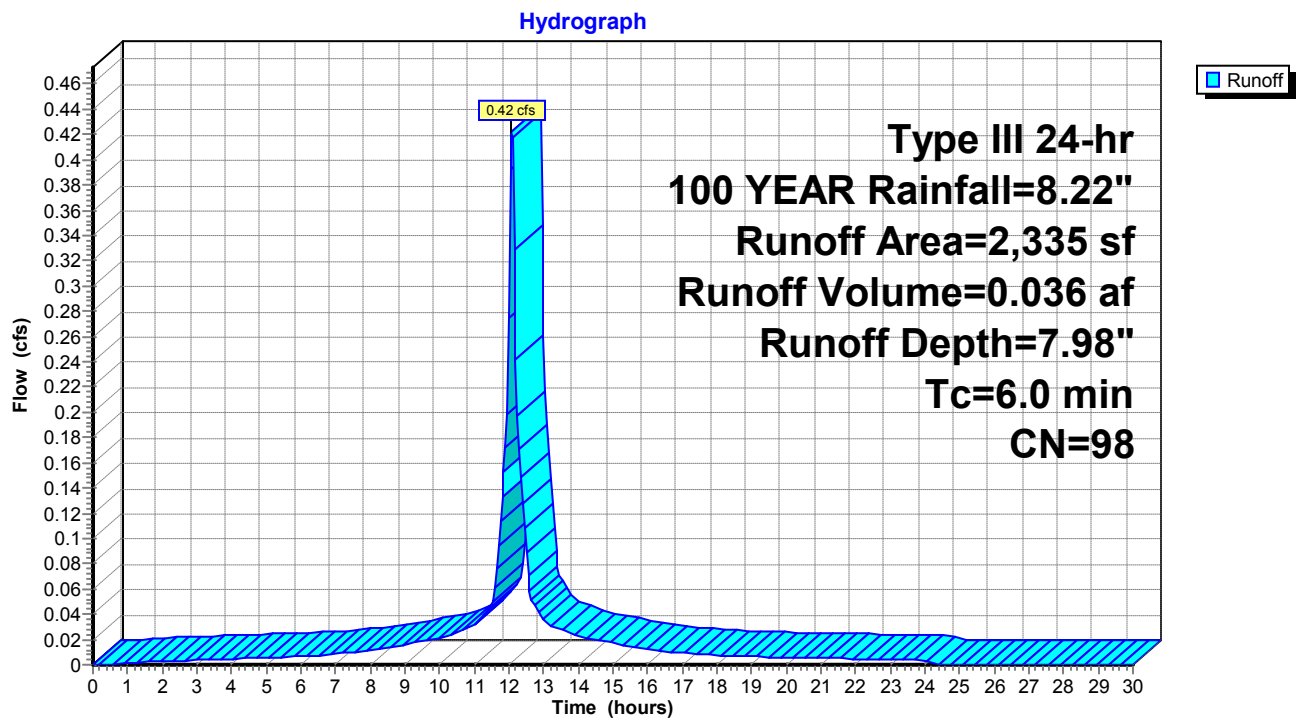
Summary for Subcatchment DA-9: DRAINAGE AREA-9

Runoff = 0.42 cfs @ 12.09 hrs, Volume= 0.036 af, Depth= 7.98"
Routed to Pond PP-1 : POROUS PAVEMENT-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YEAR Rainfall=8.22"

Area (sf)	CN	Description
0	69	50-75% Grass cover, Fair, HSG B
2,335	98	Paved parking, HSG B
2,335	98	Weighted Average
2,335		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: DRAINAGE AREA-9

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Summary for Reach DP-1: DESIGN POINT-1

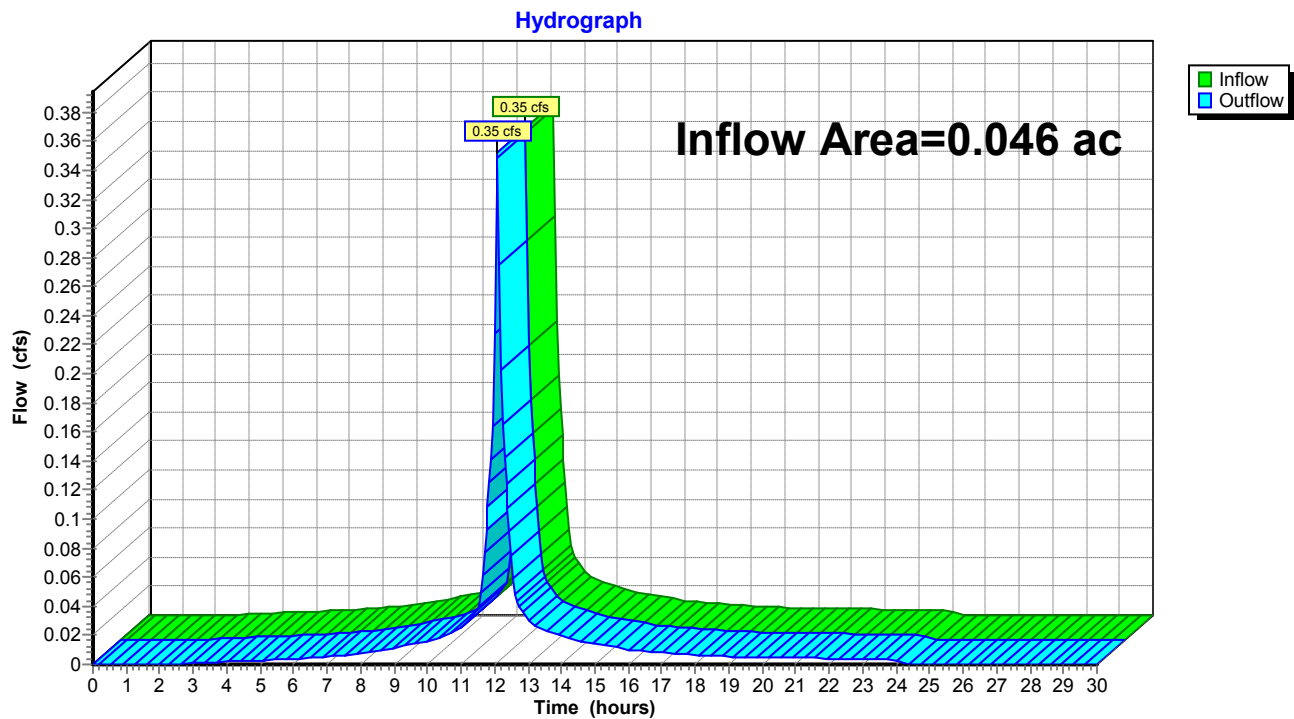
Inflow Area = 0.046 ac, 82.78% Impervious, Inflow Depth = 7.38" for 100 YEAR event

Inflow = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af

Outflow = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af, 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: DESIGN POINT-1

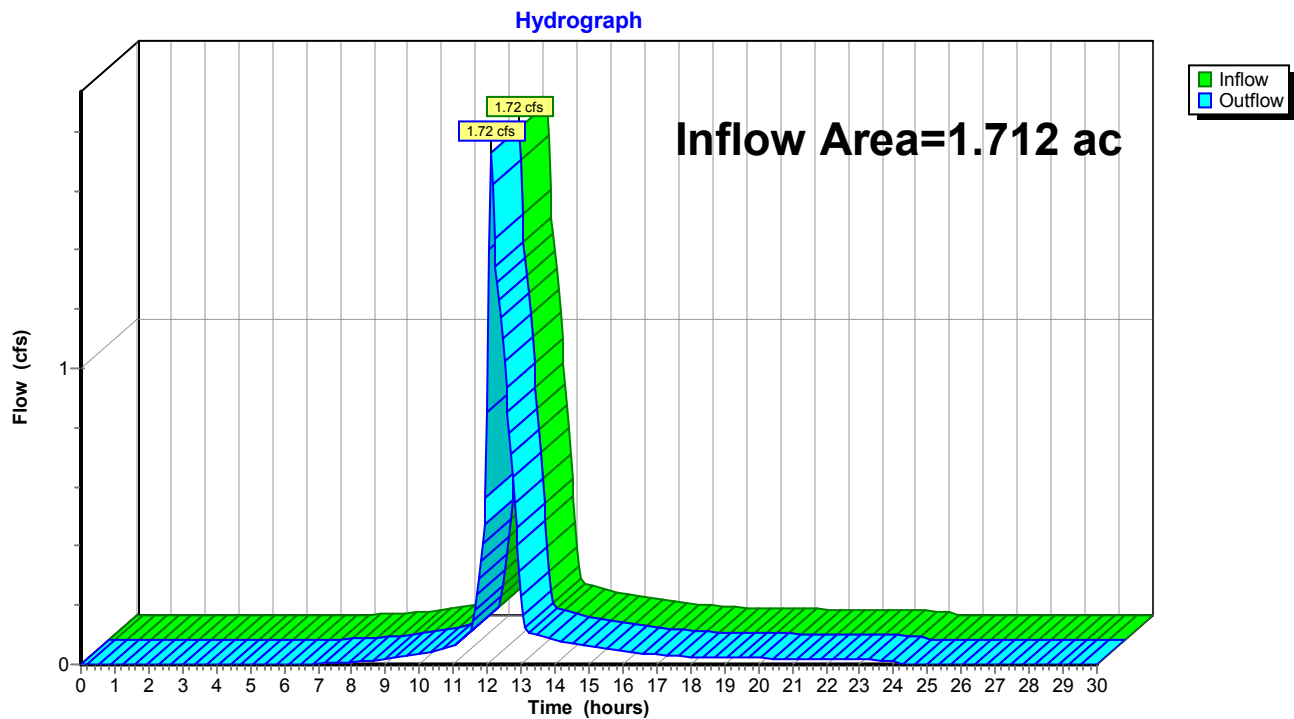


Summary for Reach DP-2: DESIGN POINT-2

Inflow Area = 1.712 ac, 80.24% Impervious, Inflow Depth = 0.97" for 100 YEAR event
 Inflow = 1.72 cfs @ 12.11 hrs, Volume= 0.138 af
 Outflow = 1.72 cfs @ 12.11 hrs, Volume= 0.138 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Reach DP-2: DESIGN POINT-2

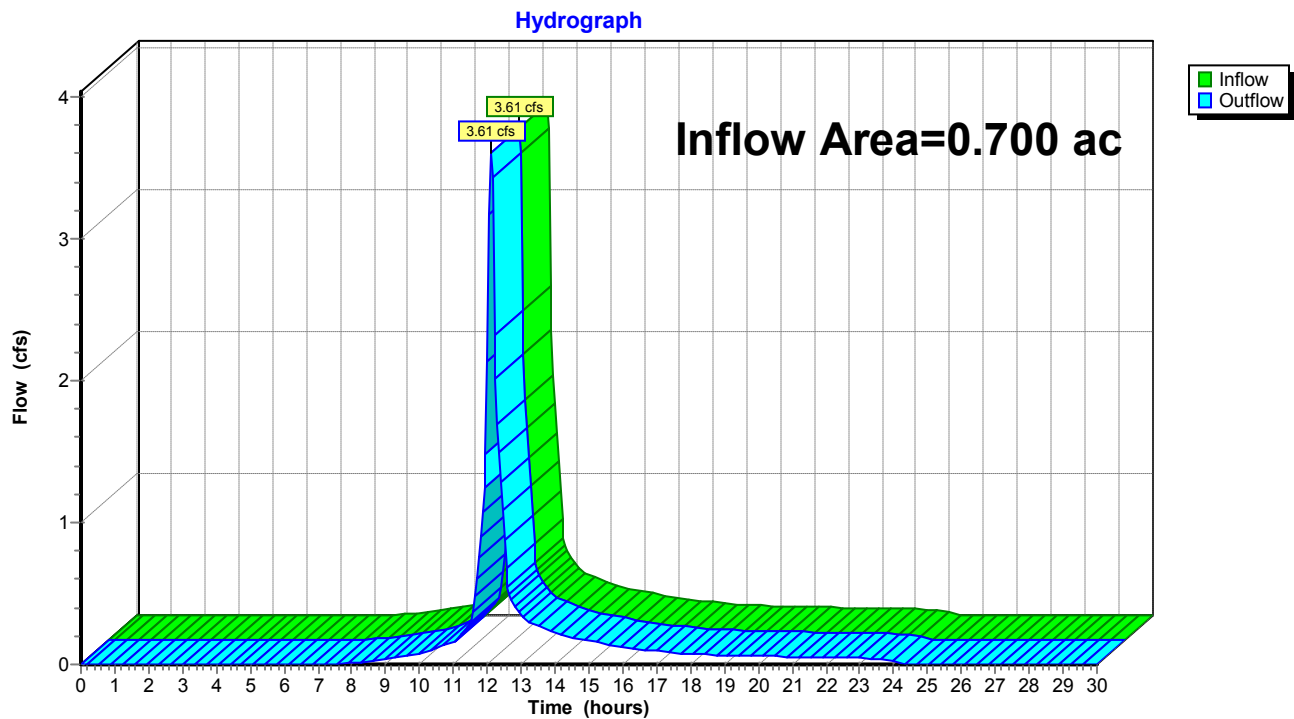


Summary for Reach DP-3: DESIGN POINT-3

Inflow Area = 0.700 ac, 25.96% Impervious, Inflow Depth = 4.51" for 100 YEAR event
 Inflow = 3.61 cfs @ 12.11 hrs, Volume= 0.263 af
 Outflow = 3.61 cfs @ 12.11 hrs, Volume= 0.263 af, 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-3: DESIGN POINT-3



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Summary for Pond BIO-1: BIO RETENTION 1

Inflow Area = 0.115 ac, 51.32% Impervious, Inflow Depth = 6.30" for 100 YEAR event
 Inflow = 0.76 cfs @ 12.09 hrs, Volume= 0.061 af
 Outflow = 0.30 cfs @ 12.32 hrs, Volume= 0.061 af, Atten= 60%, Lag= 13.9 min
 Discarded = 0.30 cfs @ 12.32 hrs, Volume= 0.061 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Pond CB-1 : CATCH BASIN 1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 111.89' @ 12.32 hrs Surf.Area= 727 sf Storage= 348 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 5.4 min (776.0 - 770.6)

Volume	Invert	Avail.Storage	Storage Description
#1	111.34'	841 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
111.34	534	0	0
112.00	764	428	428
112.50	885	412	841

Device	Routing	Invert	Outlet Devices
#1	Discarded	111.34'	18.000 in/hr Exfiltration over Surface area
#2	Primary	112.00'	10.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Discarded OutFlow Max=0.30 cfs @ 12.32 hrs HW=111.89' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.30 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=111.34' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

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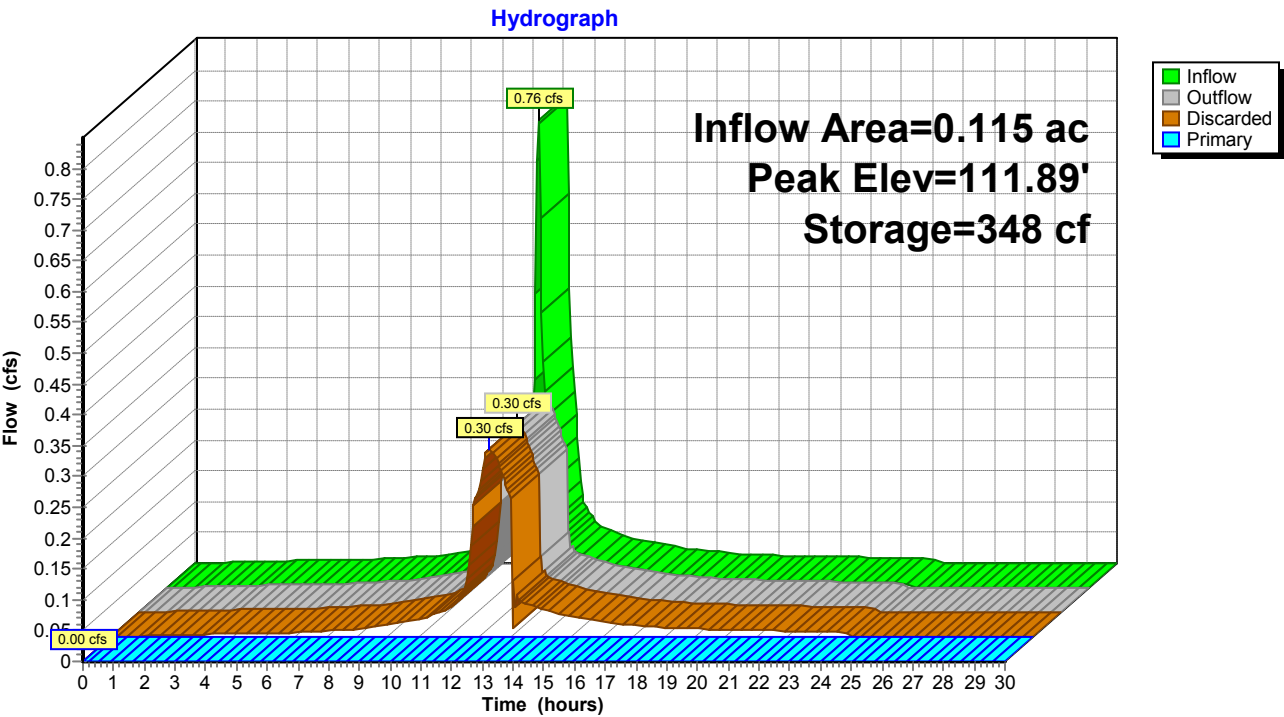
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Pond BIO-1: BIO RETENTION 1



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Stage-Area-Storage for Pond BIO-1: BIO RETENTION 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
111.34	534	0	112.38	856	736
111.36	541	11	112.40	861	753
111.38	548	22	112.42	866	771
111.40	555	33	112.44	870	788
111.42	562	44	112.46	875	805
111.44	569	55	112.48	880	823
111.46	576	67	112.50	885	841
111.48	583	78			
111.50	590	90			
111.52	597	102			
111.54	604	114			
111.56	611	126			
111.58	618	138			
111.60	625	151			
111.62	632	163			
111.64	639	176			
111.66	646	189			
111.68	652	202			
111.70	659	215			
111.72	666	228			
111.74	673	241			
111.76	680	255			
111.78	687	269			
111.80	694	283			
111.82	701	296			
111.84	708	311			
111.86	715	325			
111.88	722	339			
111.90	729	354			
111.92	736	368			
111.94	743	383			
111.96	750	398			
111.98	757	413			
112.00	764	428			
112.02	769	444			
112.04	774	459			
112.06	779	475			
112.08	783	490			
112.10	788	506			
112.12	793	522			
112.14	798	538			
112.16	803	554			
112.18	808	570			
112.20	812	586			
112.22	817	602			
112.24	822	619			
112.26	827	635			
112.28	832	652			
112.30	837	668			
112.32	841	685			
112.34	846	702			
112.36	851	719			

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Summary for Pond BIO-2: BIO RETENTION-2

Inflow Area = 0.086 ac, 72.53% Impervious, Inflow Depth = 7.03" for 100 YEAR event
 Inflow = 0.61 cfs @ 12.09 hrs, Volume= 0.050 af
 Outflow = 0.70 cfs @ 12.15 hrs, Volume= 0.050 af, Atten= 0%, Lag= 3.9 min
 Discarded = 0.10 cfs @ 12.15 hrs, Volume= 0.043 af
 Primary = 0.61 cfs @ 12.15 hrs, Volume= 0.007 af
 Routed to Reach DP-3 : DESIGN POINT-3

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 95.31' @ 12.15 hrs Surf.Area= 419 sf Storage= 346 cf

Plug-Flow detention time= 16.9 min calculated for 0.050 af (100% of inflow)
 Center-of-Mass det. time= 16.9 min (772.8 - 755.9)

Volume	Invert	Avail.Storage	Storage Description
#1	94.33'	429 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

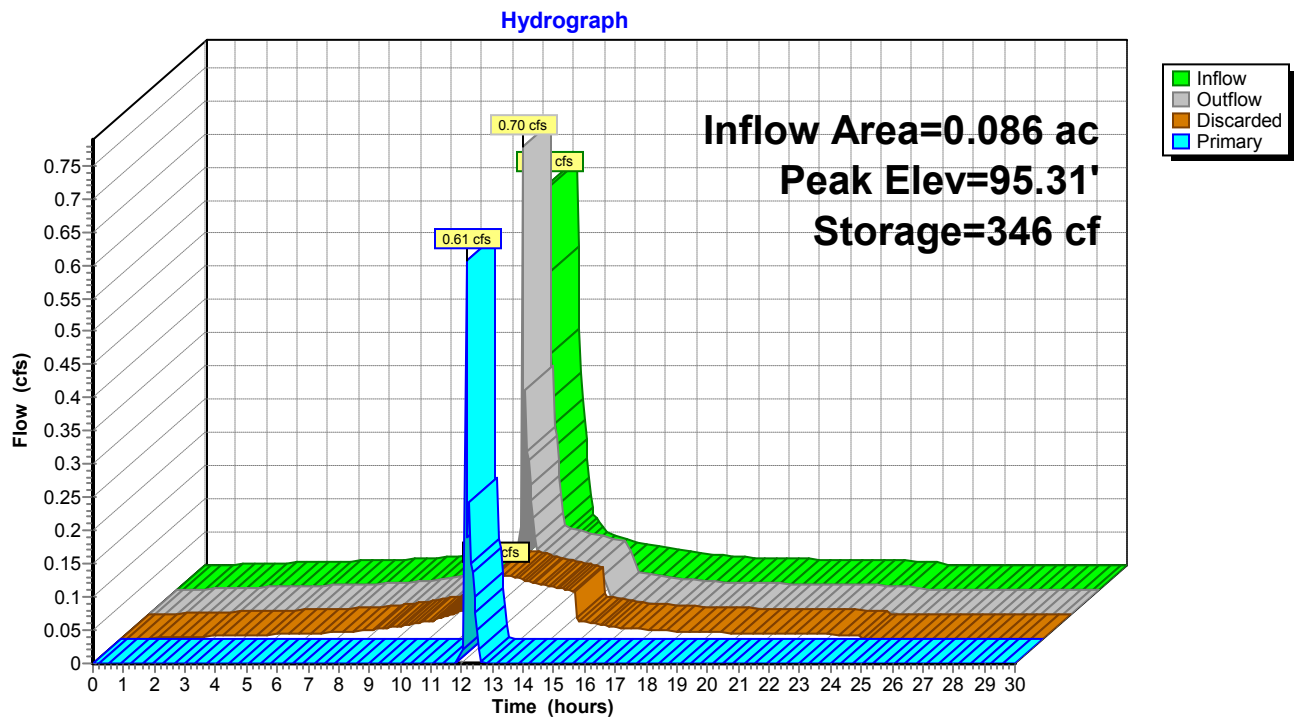
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
94.33	305	0	0
95.00	365	224	224
95.50	452	204	429

Device	Routing	Invert	Outlet Devices
#1	Discarded	94.33'	10.000 in/hr Exfiltration over Surface area
#2	Primary	95.25'	15.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Discarded OutFlow Max=0.10 cfs @ 12.15 hrs HW=95.31' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.10 cfs)

Primary OutFlow Max=0.58 cfs @ 12.15 hrs HW=95.31' (Free Discharge)
 ↑2=Broad-Crested Rectangular Weir (Weir Controls 0.58 cfs @ 0.65 fps)

Pond BIO-2: BIO RETENTION-2



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Stage-Area-Storage for Pond BIO-2: BIO RETENTION-2

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
94.33	305	0	95.37	429	371
94.35	307	6	95.39	433	380
94.37	309	12	95.41	436	389
94.39	310	18	95.43	440	397
94.41	312	25	95.45	443	406
94.43	314	31	95.47	447	415
94.45	316	37	95.49	450	424
94.47	318	44			
94.49	319	50			
94.51	321	56			
94.53	323	63			
94.55	325	69			
94.57	326	76			
94.59	328	82			
94.61	330	89			
94.63	332	96			
94.65	334	102			
94.67	335	109			
94.69	337	116			
94.71	339	122			
94.73	341	129			
94.75	343	136			
94.77	344	143			
94.79	346	150			
94.81	348	157			
94.83	350	164			
94.85	352	171			
94.87	353	178			
94.89	355	185			
94.91	357	192			
94.93	359	199			
94.95	361	206			
94.97	362	214			
94.99	364	221			
95.01	367	228			
95.03	370	235			
95.05	374	243			
95.07	377	250			
95.09	381	258			
95.11	384	266			
95.13	388	273			
95.15	391	281			
95.17	395	289			
95.19	398	297			
95.21	402	305			
95.23	405	313			
95.25	409	321			
95.27	412	329			
95.29	415	338			
95.31	419	346			
95.33	422	354			
95.35	426	363			

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Summary for Pond CB-1: CATCH BASIN 1

Inflow Area = 0.327 ac, 69.85% Impervious, Inflow Depth = 4.70" for 100 YEAR event
 Inflow = 1.62 cfs @ 12.09 hrs, Volume= 0.128 af
 Outflow = 0.87 cfs @ 12.22 hrs, Volume= 0.128 af, Atten= 46%, Lag= 8.0 min
 Primary = 0.87 cfs @ 12.22 hrs, Volume= 0.128 af
 Routed to Pond PP-2 : POROUS PAVEMENT-1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 110.59' @ 12.22 hrs Surf.Area= 1,494 sf Storage= 434 cf
 Flood Elev= 109.90' Surf.Area= 8 sf Storage= 28 cf

Plug-Flow detention time= 6.0 min calculated for 0.128 af (99% of inflow)
 Center-of-Mass det. time= 3.8 min (772.2 - 768.4)

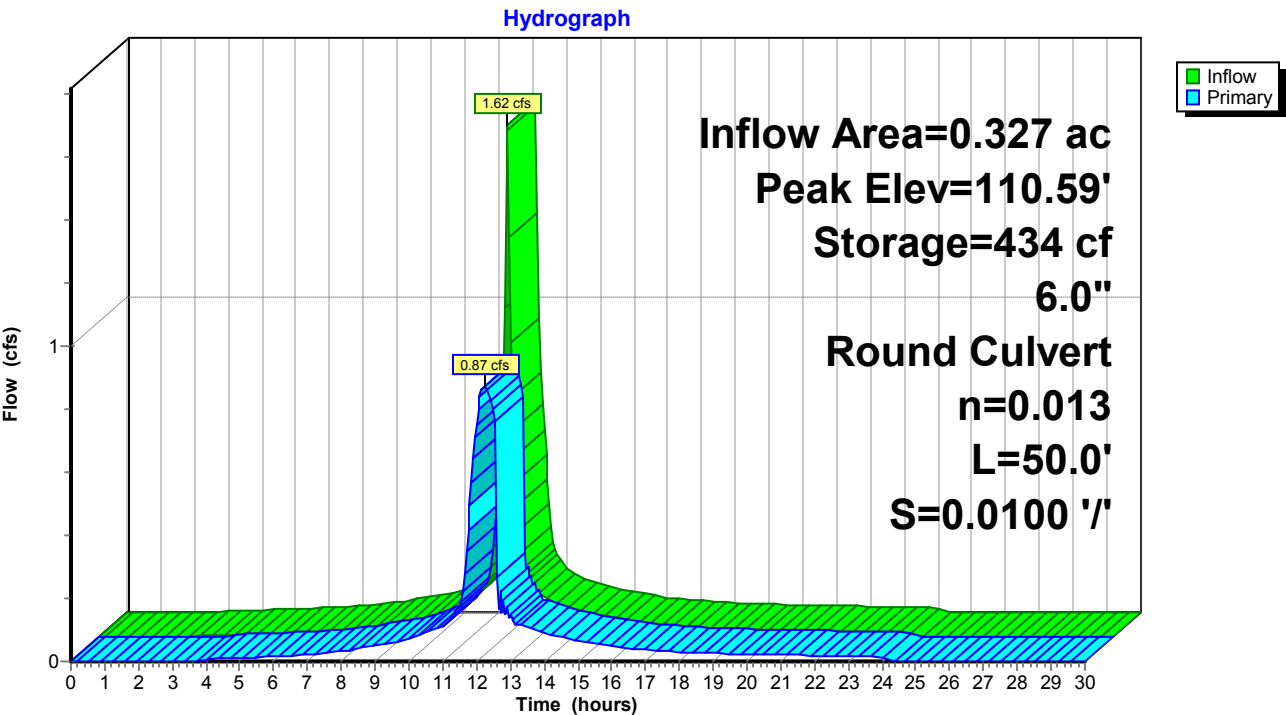
Volume	Invert	Avail.Storage	Storage Description
#1	106.40'	455 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
106.40	8	0	0
109.90	8	28	28
110.00	87	5	33
110.50	1,074	290	323
110.60	1,560	132	455

Device	Routing	Invert	Outlet Devices
#1	Primary	108.80'	6.0" Round Culvert L= 50.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.80' / 108.30' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.87 cfs @ 12.22 hrs HW=110.58' (Free Discharge)

↑ **1=Culvert** (Barrel Controls 0.87 cfs @ 4.43 fps)

Pond CB-1: CATCH BASIN 1



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Stage-Area-Storage for Pond CB-1: CATCH BASIN 1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
106.40	8	0	109.00	8	21
106.45	8	0	109.05	8	21
106.50	8	1	109.10	8	22
106.55	8	1	109.15	8	22
106.60	8	2	109.20	8	22
106.65	8	2	109.25	8	23
106.70	8	2	109.30	8	23
106.75	8	3	109.35	8	24
106.80	8	3	109.40	8	24
106.85	8	4	109.45	8	24
106.90	8	4	109.50	8	25
106.95	8	4	109.55	8	25
107.00	8	5	109.60	8	26
107.05	8	5	109.65	8	26
107.10	8	6	109.70	8	26
107.15	8	6	109.75	8	27
107.20	8	6	109.80	8	27
107.25	8	7	109.85	8	28
107.30	8	7	109.90	8	28
107.35	8	8	109.95	48	29
107.40	8	8	110.00	87	33
107.45	8	8	110.05	186	40
107.50	8	9	110.10	284	51
107.55	8	9	110.15	383	68
107.60	8	10	110.20	482	90
107.65	8	10	110.25	581	116
107.70	8	10	110.30	679	148
107.75	8	11	110.35	778	184
107.80	8	11	110.40	877	225
107.85	8	12	110.45	975	272
107.90	8	12	110.50	1,074	323
107.95	8	12	110.55	1,317	383
108.00	8	13	110.60	1,560	455
108.05	8	13			
108.10	8	14			
108.15	8	14			
108.20	8	14			
108.25	8	15			
108.30	8	15			
108.35	8	16			
108.40	8	16			
108.45	8	16			
108.50	8	17			
108.55	8	17			
108.60	8	18			
108.65	8	18			
108.70	8	18			
108.75	8	19			
108.80	8	19			
108.85	8	20			
108.90	8	20			
108.95	8	20			

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Summary for Pond DMH-1: DRAINAGE MANHOLE-1

Inflow Area = 1.500 ac, 87.43% Impervious, Inflow Depth = 0.35" for 100 YEAR event
Inflow = 0.74 cfs @ 12.39 hrs, Volume= 0.044 af
Outflow = 0.74 cfs @ 12.39 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.0 min
Primary = 0.74 cfs @ 12.39 hrs, Volume= 0.044 af
Routed to Reach DP-2 : DESIGN POINT-2

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs

Peak Elev= 92.10' @ 12.39 hrs

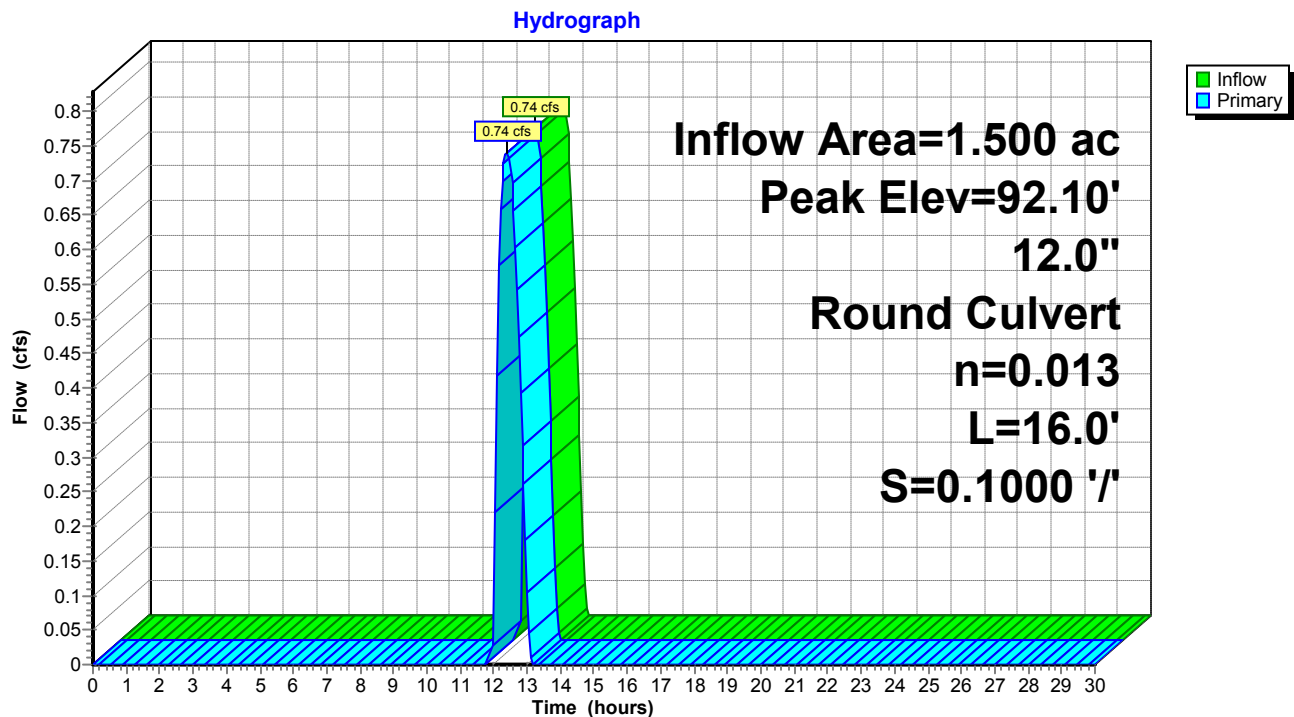
Flood Elev= 96.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	91.60'	12.0" Round Culvert L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 91.60' / 90.00' S= 0.1000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.74 cfs @ 12.39 hrs HW=92.10' (Free Discharge)

↑1=Culvert (Inlet Controls 0.74 cfs @ 1.89 fps)

Pond DMH-1: DRAINAGE MANHOLE-1



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Stage-Area-Storage for Pond DMH-1: DRAINAGE MANHOLE-1

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
91.60	0.000	94.20	0.000
91.65	0.000	94.25	0.000
91.70	0.000	94.30	0.000
91.75	0.000	94.35	0.000
91.80	0.000	94.40	0.000
91.85	0.000	94.45	0.000
91.90	0.000	94.50	0.000
91.95	0.000	94.55	0.000
92.00	0.000	94.60	0.000
92.05	0.000	94.65	0.000
92.10	0.000	94.70	0.000
92.15	0.000	94.75	0.000
92.20	0.000	94.80	0.000
92.25	0.000	94.85	0.000
92.30	0.000	94.90	0.000
92.35	0.000	94.95	0.000
92.40	0.000	95.00	0.000
92.45	0.000	95.05	0.000
92.50	0.000	95.10	0.000
92.55	0.000	95.15	0.000
92.60	0.000	95.20	0.000
92.65	0.000	95.25	0.000
92.70	0.000	95.30	0.000
92.75	0.000	95.35	0.000
92.80	0.000	95.40	0.000
92.85	0.000	95.45	0.000
92.90	0.000	95.50	0.000
92.95	0.000	95.55	0.000
93.00	0.000	95.60	0.000
93.05	0.000	95.65	0.000
93.10	0.000	95.70	0.000
93.15	0.000	95.75	0.000
93.20	0.000	95.80	0.000
93.25	0.000	95.85	0.000
93.30	0.000	95.90	0.000
93.35	0.000	95.95	0.000
93.40	0.000	96.00	0.000
93.45	0.000		
93.50	0.000		
93.55	0.000		
93.60	0.000		
93.65	0.000		
93.70	0.000		
93.75	0.000		
93.80	0.000		
93.85	0.000		
93.90	0.000		
93.95	0.000		
94.00	0.000		
94.05	0.000		
94.10	0.000		
94.15	0.000		

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Summary for Pond DMH-2: DRAINAGE MANHOLE-2

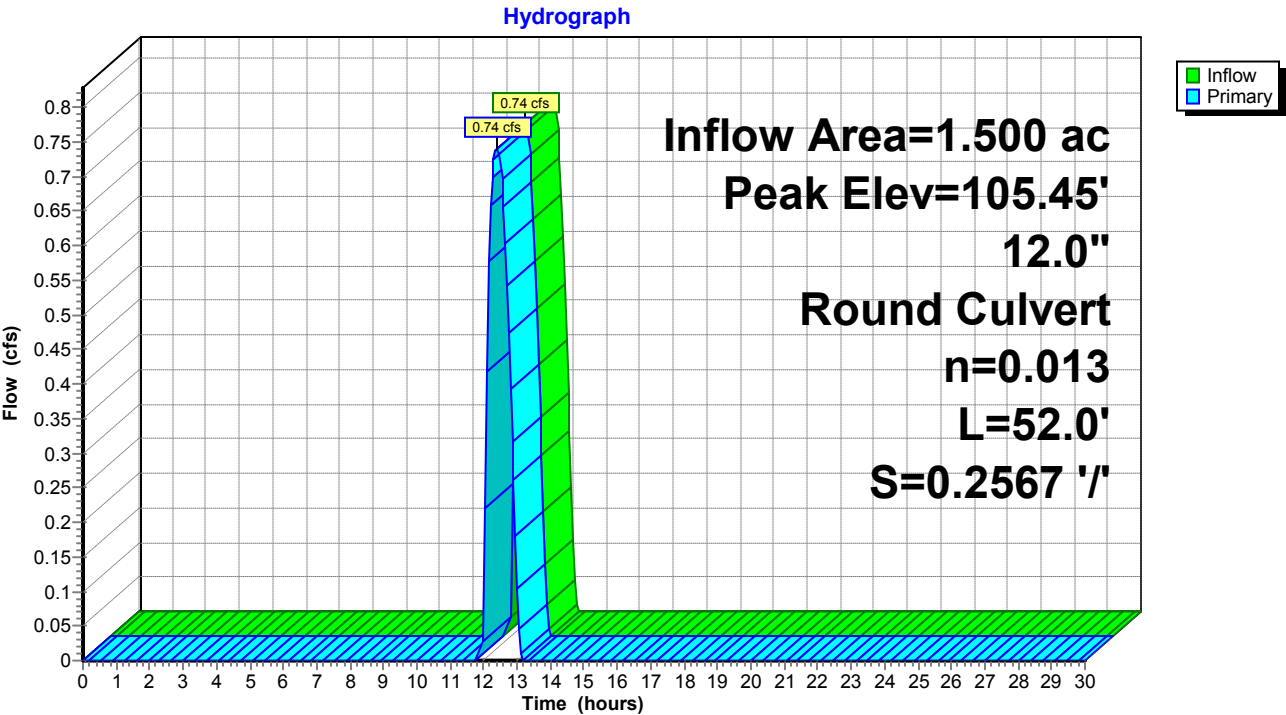
Inflow Area = 1.500 ac, 87.43% Impervious, Inflow Depth = 0.35" for 100 YEAR event
Inflow = 0.74 cfs @ 12.39 hrs, Volume= 0.044 af
Outflow = 0.74 cfs @ 12.39 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.0 min
Primary = 0.74 cfs @ 12.39 hrs, Volume= 0.044 af
Routed to Pond DMH-1 : DRAINAGE MANHOLE-1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
Peak Elev= 105.45' @ 12.39 hrs
Flood Elev= 112.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	104.95'	12.0" Round Culvert L= 52.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 104.95' / 91.60' S= 0.2567 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.74 cfs @ 12.39 hrs HW=105.45' (Free Discharge)
↑1=Culvert (Inlet Controls 0.74 cfs @ 1.89 fps)

Pond DMH-2: DRAINAGE MANHOLE-2



Stage-Area-Storage for Pond DMH-2: DRAINAGE MANHOLE-2

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
104.95	0.000	107.55	0.000	110.15	0.000
105.00	0.000	107.60	0.000	110.20	0.000
105.05	0.000	107.65	0.000	110.25	0.000
105.10	0.000	107.70	0.000	110.30	0.000
105.15	0.000	107.75	0.000	110.35	0.000
105.20	0.000	107.80	0.000	110.40	0.000
105.25	0.000	107.85	0.000	110.45	0.000
105.30	0.000	107.90	0.000	110.50	0.000
105.35	0.000	107.95	0.000	110.55	0.000
105.40	0.000	108.00	0.000	110.60	0.000
105.45	0.000	108.05	0.000	110.65	0.000
105.50	0.000	108.10	0.000	110.70	0.000
105.55	0.000	108.15	0.000	110.75	0.000
105.60	0.000	108.20	0.000	110.80	0.000
105.65	0.000	108.25	0.000	110.85	0.000
105.70	0.000	108.30	0.000	110.90	0.000
105.75	0.000	108.35	0.000	110.95	0.000
105.80	0.000	108.40	0.000	111.00	0.000
105.85	0.000	108.45	0.000	111.05	0.000
105.90	0.000	108.50	0.000	111.10	0.000
105.95	0.000	108.55	0.000	111.15	0.000
106.00	0.000	108.60	0.000	111.20	0.000
106.05	0.000	108.65	0.000	111.25	0.000
106.10	0.000	108.70	0.000	111.30	0.000
106.15	0.000	108.75	0.000	111.35	0.000
106.20	0.000	108.80	0.000	111.40	0.000
106.25	0.000	108.85	0.000	111.45	0.000
106.30	0.000	108.90	0.000	111.50	0.000
106.35	0.000	108.95	0.000	111.55	0.000
106.40	0.000	109.00	0.000	111.60	0.000
106.45	0.000	109.05	0.000	111.65	0.000
106.50	0.000	109.10	0.000	111.70	0.000
106.55	0.000	109.15	0.000	111.75	0.000
106.60	0.000	109.20	0.000	111.80	0.000
106.65	0.000	109.25	0.000	111.85	0.000
106.70	0.000	109.30	0.000	111.90	0.000
106.75	0.000	109.35	0.000	111.95	0.000
106.80	0.000	109.40	0.000	112.00	0.000
106.85	0.000	109.45	0.000		
106.90	0.000	109.50	0.000		
106.95	0.000	109.55	0.000		
107.00	0.000	109.60	0.000		
107.05	0.000	109.65	0.000		
107.10	0.000	109.70	0.000		
107.15	0.000	109.75	0.000		
107.20	0.000	109.80	0.000		
107.25	0.000	109.85	0.000		
107.30	0.000	109.90	0.000		
107.35	0.000	109.95	0.000		
107.40	0.000	110.00	0.000		
107.45	0.000	110.05	0.000		
107.50	0.000	110.10	0.000		

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Summary for Pond PP-1: POROUS PAVEMENT-1

Inflow Area = 0.411 ac, 91.04% Impervious, Inflow Depth = 7.64" for 100 YEAR event
 Inflow = 3.19 cfs @ 12.09 hrs, Volume= 0.261 af
 Outflow = 1.44 cfs @ 12.25 hrs, Volume= 0.261 af, Atten= 55%, Lag= 9.8 min
 Discarded = 1.44 cfs @ 11.95 hrs, Volume= 0.261 af
 Primary = 0.00 cfs @ 12.25 hrs, Volume= 0.000 af
 Routed to Pond PP-2 : POROUS PAVEMENT-1

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 109.42' @ 12.27 hrs Surf.Area= 3,448 sf Storage= 1,011 cf
 Flood Elev= 111.36' Surf.Area= 3,448 sf Storage= 3,682 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 2.7 min (756.8 - 754.1)

Volume	Invert	Avail.Storage	Storage Description
#1	108.69'	3,682 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 9,206 cf Overall x 40.0% Voids

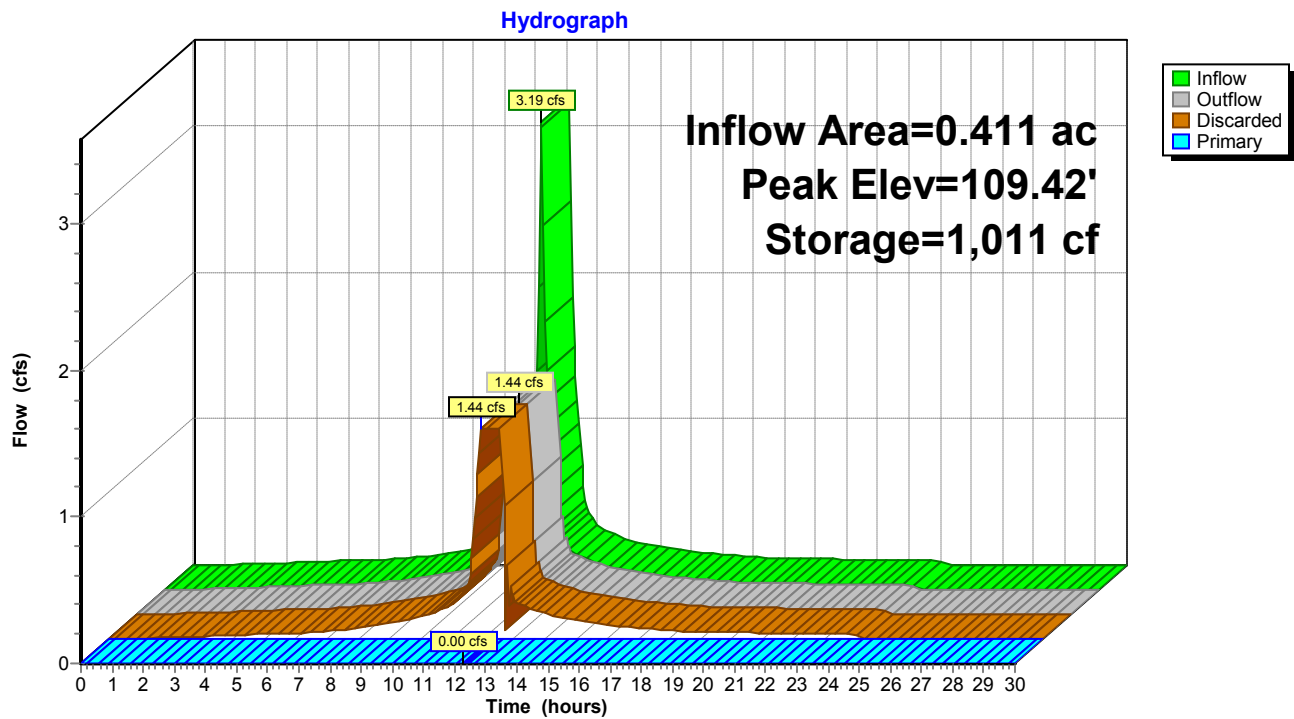
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
108.69	3,448	0	0
111.36	3,448	9,206	9,206

Device	Routing	Invert	Outlet Devices
#1	Discarded	108.69'	18.000 in/hr Exfiltration over Surface area
#2	Primary	109.30'	0.5" Round Culvert L= 67.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 109.30' / 108.30' S= 0.0149 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.00 sf

Discarded OutFlow Max=1.44 cfs @ 11.95 hrs HW=108.72' (Free Discharge)
 ↑ **1=Exfiltration** (Exfiltration Controls 1.44 cfs)

Primary OutFlow Max=0.00 cfs @ 12.25 hrs HW=109.42' (Free Discharge)
 ↑ **2=Culvert** (Barrel Controls 0.00 cfs @ 0.69 fps)

Pond PP-1: POROUS PAVEMENT-1



Stage-Area-Storage for Pond PP-1: POROUS PAVEMENT-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
108.69	3,448	0	111.29	3,448	3,586
108.74	3,448	69	111.34	3,448	3,655
108.79	3,448	138			
108.84	3,448	207			
108.89	3,448	276			
108.94	3,448	345			
108.99	3,448	414			
109.04	3,448	483			
109.09	3,448	552			
109.14	3,448	621			
109.19	3,448	690			
109.24	3,448	759			
109.29	3,448	828			
109.34	3,448	896			
109.39	3,448	965			
109.44	3,448	1,034			
109.49	3,448	1,103			
109.54	3,448	1,172			
109.59	3,448	1,241			
109.64	3,448	1,310			
109.69	3,448	1,379			
109.74	3,448	1,448			
109.79	3,448	1,517			
109.84	3,448	1,586			
109.89	3,448	1,655			
109.94	3,448	1,724			
109.99	3,448	1,793			
110.04	3,448	1,862			
110.09	3,448	1,931			
110.14	3,448	2,000			
110.19	3,448	2,069			
110.24	3,448	2,138			
110.29	3,448	2,207			
110.34	3,448	2,276			
110.39	3,448	2,345			
110.44	3,448	2,414			
110.49	3,448	2,483			
110.54	3,448	2,552			
110.59	3,448	2,620			
110.64	3,448	2,689			
110.69	3,448	2,758			
110.74	3,448	2,827			
110.79	3,448	2,896			
110.84	3,448	2,965			
110.89	3,448	3,034			
110.94	3,448	3,103			
110.99	3,448	3,172			
111.04	3,448	3,241			
111.09	3,448	3,310			
111.14	3,448	3,379			
111.19	3,448	3,448			
111.24	3,448	3,517			

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Summary for Pond PP-2: POROUS PAVEMENT-1

Inflow Area = 1.500 ac, 87.43% Impervious, Inflow Depth = 4.96" for 100 YEAR event
 Inflow = 6.79 cfs @ 12.09 hrs, Volume= 0.620 af
 Outflow = 2.70 cfs @ 12.39 hrs, Volume= 0.620 af, Atten= 60%, Lag= 18.3 min
 Discarded = 1.97 cfs @ 11.80 hrs, Volume= 0.576 af
 Primary = 0.74 cfs @ 12.39 hrs, Volume= 0.044 af
 Routed to Pond DMH-2 : DRAINAGE MANHOLE-2

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.05 hrs
 Peak Elev= 109.74' @ 12.39 hrs Surf.Area= 6,064 sf Storage= 3,907 cf
 Flood Elev= 110.80' Surf.Area= 6,064 sf Storage= 6,476 cf

Plug-Flow detention time= 7.2 min calculated for 0.619 af (100% of inflow)
 Center-of-Mass det. time= 7.2 min (762.5 - 755.3)

Volume	Invert	Avail.Storage	Storage Description
#1	108.13'	6,476 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 16,191 cf Overall x 40.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
108.13	6,064	0	0
110.80	6,064	16,191	16,191

Device	Routing	Invert	Outlet Devices
#1	Discarded	108.13'	14.000 in/hr Exfiltration over Surface area
#2	Primary	108.30'	12.0" Round Culvert L= 67.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 104.95' S= 0.0500 ' S= 0.0500 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	108.30'	6.0" Round Culvert L= 30.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 108.30' / 108.30' S= 0.0000 ' S= 0.0000 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=1.97 cfs @ 11.80 hrs HW=108.17' (Free Discharge)

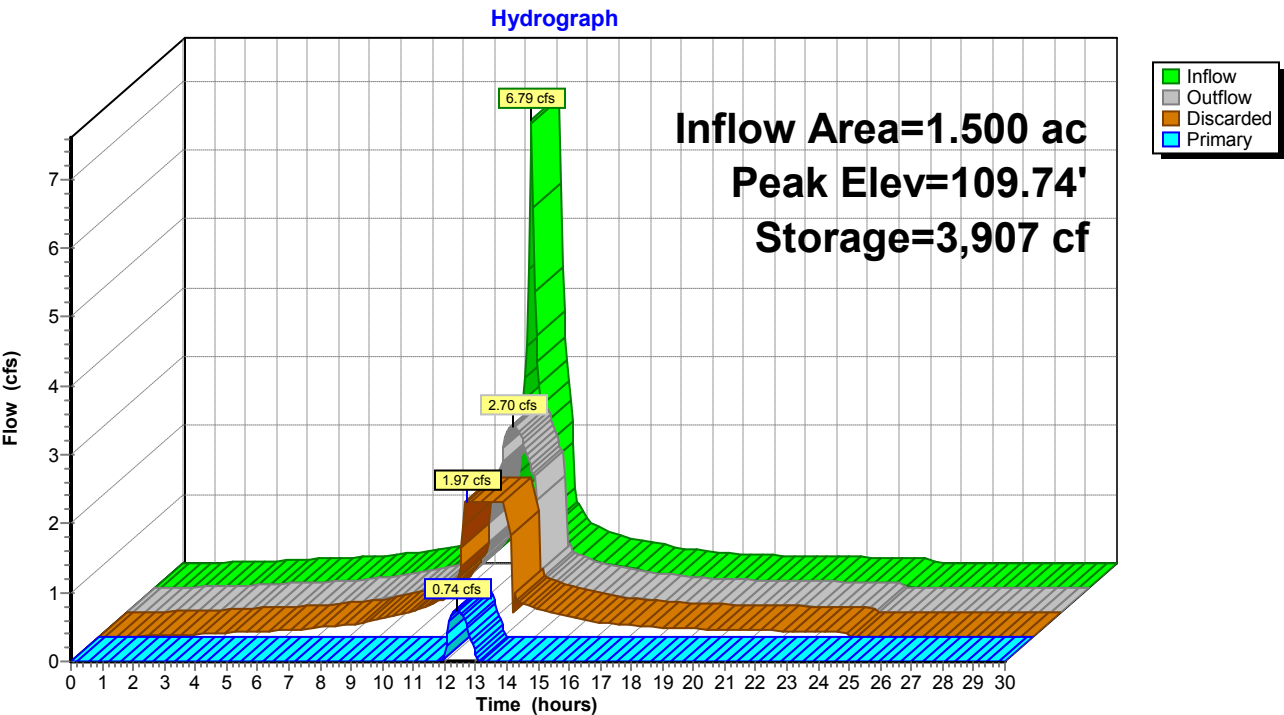
↑ **1=Exfiltration** (Exfiltration Controls 1.97 cfs)

Primary OutFlow Max=0.74 cfs @ 12.39 hrs HW=109.74' (Free Discharge)

↑ **2=Culvert** (Passes 0.74 cfs of 2.89 cfs potential flow)

↑ **3=Culvert** (Barrel Controls 0.74 cfs @ 3.76 fps)

Pond PP-2: POROUS PAVEMENT-1



POST-Pelton

Prepared by The LRC Group

HydroCAD® 10.20-3f s/n 02009 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr 100 YEAR Rainfall=8.22"

Printed 9/26/2023

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Stage-Area-Storage for Pond PP-2: POROUS PAVEMENT-1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
108.13	6,064	0	110.73	6,064	6,307
108.18	6,064	121	110.78	6,064	6,428
108.23	6,064	243			
108.28	6,064	364			
108.33	6,064	485			
108.38	6,064	606			
108.43	6,064	728			
108.48	6,064	849			
108.53	6,064	970			
108.58	6,064	1,092			
108.63	6,064	1,213			
108.68	6,064	1,334			
108.73	6,064	1,455			
108.78	6,064	1,577			
108.83	6,064	1,698			
108.88	6,064	1,819			
108.93	6,064	1,940			
108.98	6,064	2,062			
109.03	6,064	2,183			
109.08	6,064	2,304			
109.13	6,064	2,426			
109.18	6,064	2,547			
109.23	6,064	2,668			
109.28	6,064	2,789			
109.33	6,064	2,911			
109.38	6,064	3,032			
109.43	6,064	3,153			
109.48	6,064	3,275			
109.53	6,064	3,396			
109.58	6,064	3,517			
109.63	6,064	3,638			
109.68	6,064	3,760			
109.73	6,064	3,881			
109.78	6,064	4,002			
109.83	6,064	4,124			
109.88	6,064	4,245			
109.93	6,064	4,366			
109.98	6,064	4,487			
110.03	6,064	4,609			
110.08	6,064	4,730			
110.13	6,064	4,851			
110.18	6,064	4,972			
110.23	6,064	5,094			
110.28	6,064	5,215			
110.33	6,064	5,336			
110.38	6,064	5,458			
110.43	6,064	5,579			
110.48	6,064	5,700			
110.53	6,064	5,821			
110.58	6,064	5,943			
110.63	6,064	6,064			
110.68	6,064	6,185			

APPENDIX K

Rainfall Data and Soil Map

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Metadata for Point	
Smoothing State	Yes
Location	
Latitude	41.707 degrees North
Longitude	73.936 degrees West
Elevation	30 feet
Date/Time	Thu Aug 03 2023 13:15:52 GMT-0400 (Eastern Daylight Time)

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	1.41	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	6.92	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



APPENDIX L

Supporting Design Calculations



Performance Summary

Design Criteria & Performance Summary					
SUMMARY OF OVERALL WATERSHEDS					
Design Criteria criteria	min req'd amount	unit	Performance Summary:		
			Provided		notes/information
<u>WQv:</u>					
total	5,433 0.12	cft ac-ft	9,696 0.22	cft ac-ft	Bio Retention and Porous Pavement
<u>Cpv:</u>					
volume	NA	cft	NA	cft	NA if 1 yr post is less than pre
discharge	1.7	cfs	0.7	cfs	Pre to Post reduced See Hydro CAD
<u>Qp:</u>					
discharge	5.8	cfs	2.2	cfs	Pre to Post reduced See Hydro CAD
<u>Qf</u>					
discharge	13.8	cfs	6.3	cfs	Pre to Post reduced See Hydro CAD
RRv Min:	2,646 0.06	cft ac-ft	7,336 0.17	cft ac-ft	



Water Quality Volume Calculations

Water Quality Volume Calculations		REDEVELOPMENT
Trib Area	0.55	ac
Imperv Cover:	0.33	ac
Imperv. %	60.00	
Stormwater Management Practice Selection:		
Bio Retention and Porous Pavement		
Uniform Sizing Criteria:		
Water Quality (WQv)	P=	1.40
	I=	60.0
	Rv=	0.5900
	A=	0.55
	WQv=	0.04 AC-FT
		1,649.1 CF
25% WQv Redevelopment		
		0.01 AC-FT
		412.3 CF

Minimum Runoff Reduction Requirements	
RRV = 90% rain (P) x Rv ² x S x total impervious area (AI from #2) / 12	
with S = <u>.55</u> (A soils); <u>.40</u> (B soils); <u>.30</u> (C soils); <u>.20</u> (D soils) OR <u>weighted HSG average in DA</u>	
Weighted HSG=	0.4
Min RRV =	0.015 ac-ft
Min RRV =	637.3 cu ft

Water Quality Volume Calculations		STANDARD
Trib Area	1.04	ac
Imperv Cover:	1.04	ac
Imperv. %	100.00	
Stormwater Management Practice Selection:		
Bio Retention and Porous Pavement		
Uniform Sizing Criteria:		
Water Quality (WQv)	P=	1.40
	I=	100.0
	Rv=	0.9500
	A=	1.04
	WQv=	0.12 AC-FT
		5,021.0 CF

Minimum Runoff Reduction Requirements	
RRV = 90% rain (P) x Rv ² x S x total impervious area (AI from #2) / 12	
with S = <u>.55</u> (A soils); <u>.40</u> (B soils); <u>.30</u> (C soils); <u>.20</u> (D soils) OR <u>weighted HSG average in DA</u>	
Weighted HSG=	0.4
Min RRV =	0.046 ac-ft
Min RRV =	2,008.4 cu ft

Porous Pavement Worksheet

Practice #:	PP-I						
Site Data for Drainage Area to be Treated by Practice							
Catchment Number	Total Area (acres)	Impervious Area (acres)	Percent Impervious %	Rv	Precipitation (in)	WQv (ft ³)	RRv (ft ³)
6	0.06	0.06	100.00	0.95	1.40	286	114
7	0.24	0.20	84.40	0.81	1.40	970	384
8	0.06	0.06	100.00	0.95	1.40	299	120
9	0.05	0.05	100.00	0.95	1.40	259	104
TOTAL	0.41	0.37	91.04			1,814	722
Soil Information							
Soil Infiltration Rate		21	in/hour				
Required Surface Area							
Design Volume		V _w	1,814	ft ³			
Are underdrains being used?			Yes	-			
Porosity of Gravel Bed		n	0.4	-			
Gravel Bed Depth		d _t	2	ft			
Required Surface Area		A _p	2,267	sf			
Surface Area Provided			3,448	sf			
Storage Volume Provided			2,758	ft ³			
Runoff Reduction and Water Quality Volume							
RRv	1,814	ft³					
WQv	2,758	ft³					

Porous Pavement Worksheet

Practice #:	PP-2						
Site Data for Drainage Area to be Treated by Practice							
Catchment Number	Total Area (acres)	Impervious Area (acres)	Percent Impervious %	Rv	Precipitation (in)	WQv (ft ³)	RRv (ft ³)
12	0.08	0.08	100.00	0.95	1.40	410	164
13	0.09	0.09	100.00	0.95	1.40	438	175
14	0.09	0.09	100.00	0.95	1.40	438	175
15	0.50	0.44	89.31	0.85	1.40	2,152	855
16	0.22	0.18	80.85	0.78	1.40	879	347
TOTAL	0.98	0.89	90.29			4,316	1,717
Soil Information							
Soil Infiltration Rate		18.5	in/hour				
Required Surface Area							
Design Volume		Vw	4,316	ft ³			
Are underdrains being used?			Yes	-			
Porosity of Gravel Bed		n	0.4	-			
Gravel Bed Depth		dt	2	ft			
Required Surface Area		Ap	5,395	sf			
Surface Area Provided			6,788	sf			
Storage Volume Provided			5,430	ft ³			
Runoff Reduction and Water Quality Volume							
RRv	4,316	ft³					
WQv	5,430	ft³					

Bioretention Worksheet

Practice #:	BIO-1						
Site Data for Drainage Area to be Treated by Practice							
Catchment Number	Total Area (acres)	Impervious Area (acres)	Percent Impervious %	Rv	Precipitation (in)	WQv (ft ³)	RRv (ft ³)
4	0.06	0.00	0.00	0.05	1.40	14	0
5	0.06	0.06	100.00	0.95	1.40	286	114
TOTAL	0.12	0.06	51.32			300	114
Design Elements							
Soil Group			B				
Using Underdrains			No				
Minimum Filter Area							
WQv		300	ft ³				
Depth of Soil Media	df	2	ft	2.5-4 ft			
Hydraulic Conductivity	k	0.5	ft/day	0.5			
Average Ponding Height	hf	0.67	ft				
Filter Time	tf	2	days	2			
Required Filter Area	Af	225	ft ²				
Actual Bioretention Area							
Filter Area	764	ft ²					
Volume Provided	1,020	ft ³					
Runoff Reduction and Water Quality Volume							
RRv	816	ft ³	<i>This is 40% of the storage provided or WQv, whichever is less</i>				
WQv	1,020	ft ³					

Bioretention Worksheet

Practice #:	BIO-2						
Site Data for Drainage Area to be Treated by Practice							
Catchment Number	Total Area (acres)	Impervious Area (acres)	Percent Impervious %	Rv	Precipitation (in)	WQv (ft³)	RRv (ft³)
10	0.06	0.06	100.00	0.95	1.40	300	120
11	0.02	0.00	0.00	0.05	1.40	6	0
TOTAL	0.09	0.06	72.53			306	120
Design Elements							
Soil Group				B			
Using Underdrains				No			
Minimum Filter Area							
WQv		306	ft ³				
Depth of Soil Media	df	2	ft	2.5-4 ft			
Hydraulic Conductivity	k	0.5	ft/day	0.5			
Average Ponding Height	hf	0.67	ft				
Filter Time	tf	2	days	2			
Required Filter Area	Af	229	ft ²				
Actual Bioretention Area							
Filter Area	365	ft ²					
Volume Provided	487	ft ³					
Runoff Reduction and Water Quality Volume							
RRv	390	ft³	<i>This is 40% of the storage provided or WQv, whichever is less</i>				
WQv	487	ft³					



Runoff Summary Table

RUNOFF REDUCTION VOLUME AND TREATED VOLUMES						
Runoff Reduction Techniques/Standard SMPs			Total Contributing Area (acres)	Total Contributing Impervious Area (acres)	Runoff Reduction (RRv) (cf)	Water Quality (WQv) (cf)
Area/Volume Reduction	Conservation of Natural Areas	RR-1				
	Sheetflow to Riparian Buffers/Filter Strips	RR-2				
	Tree Planting/Tree Pit	RR-3				
	Disconnection of Rooftop Runoff	RR-4				
	Vegetated Swale	RR-5				
	Rain Garden	RR-6				
	Stormwater Planter	RR-7				
	Rain Barrel/Cistern	RR-8				
	Porous Pavement	RR-9	1.40	1.26	6,130	8,189
	Green Roof (Intensive & Extensive)	RR-10				
Standard SMPs w/RRv Capacity	Infiltration Trench	I-1				
	Infiltration Basin	I-2				
	Dry Well	I-3				
	Underground Infiltration System	I-4				
	Bioretention & Infiltration Bioretention	F-5	0.20	0.12	1,206	1,507
	Dry swale	O-1				
Total			1.60	1.38	7,336	9,696



Pre Post Flow Analysis

Peak Flow Discharge Rate DP-1			
Storm Event	Pre (cfs)	Post (cfs)	Net Reduction (cfs)
1	0.10	0.10	0.00
2	0.13	0.12	-0.01
10	0.21	0.19	-0.02
100	0.41	0.35	-0.06

Peak Flow Discharge Rate DP-2			
Storm Event	Pre (cfs)	Post (cfs)	Net Reduction (cfs)
1	1.13	0.17	-0.96
2	1.68	0.27	-1.41
10	3.37	0.57	-2.80
100	7.62	1.72	-5.90

Peak Flow Discharge Rate DP-3			
Storm Event	Pre (cfs)	Post (cfs)	Net Reduction (cfs)
1	0.51	0.39	-0.12
2	0.89	0.63	-0.26
10	2.19	1.42	-0.77
100	5.81	4.19	-1.62

Peak Flow Discharge Rate OVERALL			
Storm Event	Pre (cfs)	Post (cfs)	Net Reduction (cfs)
1	1.74	0.66	-1.08
2	2.70	1.02	-1.68
10	5.77	2.18	-3.59
100	13.84	6.26	-7.58

APPENDIX M

Soil Test Information

Deep Test Log

Project Name: Pelton Mount Carmel

Location: N 36 Clover Street

Tax ID: 6062-75-837228

Completed By: AGL

Dated: December 19, 2016



Test Hole	Lot No.	Total Depth	Rock Level	Water Level	Mottling Depth	Soils
1	1	4'-3"	4'-3"	NA	NA	0-10" Topsoil
						10"-4'3" Sandy Gravel w/ Silt
						4'3" Rock
2	1	6'-4"	6'-4"	NA	NA	0-8" Topsoil
						8"-6'4" Sandy Gravel w/ Silt
						6'4" Rock
3	1	6'	6'	NA	NA	0-10" Topsoil
						10"-6' Sandy Gravel w/ Silt
						6' Rock
4	1	6'	6'	NA	NA	0-10" Topsoil
						10"-6' Sandy Gravel w/ Silt
						6' Rock
5	1	4'-1"	4'-1"	NA	NA	0-10" Topsoil
						10"-4'1" Sandy Gravel w/ Silt
						4'1" Rock
6	1	2'	2'	NA	NA	0-8" Topsoil
						8"-2' Sandy Gravel w/ Silt
						2' Rock
7	1	2'	2'	NA	NA	0-8" Topsoil
						8"-2' Sandy Gravel w/ Silt
						2' Rock
8	1	4'-5"	4'-5"	NA	NA	0-10" Topsoil
						10"-4'5" Sandy Loam w/ Grit
						4'5" Rock
9	1	3'	3'	NA	NA	0-10" Topsoil
						10"-3' Silty Loam w/ Grit
						3' Rock
10	1	6'	6'	NA	NA	0-8" Topsoil
						8"-3' Silty Loam
						3'-6' Silty Loam w/ Grit
						6' Rock

Test Hole	Lot No.	Total Depth	Rock Level	Water Level	Mottling Depth	Soils
11	I	3'-7"	3'-7"	NA	NA	0-10" Topsoil
						10"-3'7" Silty Loam
						3'7" Rock
12	I	6'	6'	NA	NA	0-8" Topsoil
						8"-6' Gritty Loam w/ Silt
						6' Rock
13	I	4'-5"	4'-5"	NA	NA	0-8" Topsoil
						8"-4'5" Silty Clay
						4'5" Rock
14	I	6'	6'	NA	NA	0-10" Topsoil
						10"-6' Gritty Loam w/ Silt
						6' Rock

Infiltration Test Log

Project Name: Pelton Mount Carmel

Location: N 36 Clover Street

Tax ID: 6062-75-837228

Completed By: AGL

Dated: December 19, 2016



Test Hole	Total Depth	Run 1 (in/hr)	Run 2 (in/hr)	Run 3 (in/hr)	AVG (in/hr)
2	36"	22	23	24	23
4	36"	14	14	14	14
10	36"	17	18	19	18
12	36"	23	24	25	24

Location of Infiltration Tests shown on DA-1

APPENDIX N

NYSOPRHP Correspondence



Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

December 7, 2015

Mr. Christopher Pestas
City Council Chairman
City of Poughkeepsie City Council
City Hall, PO box 300
Poughkeepsie, NY 12601

Re: SEQR
Pelton Manor Rehabilitation and Development
36 North Clover Street, Poughkeepsie, NY 12601
15PR06519

Dear Mr. Pestas:

Thank you for requesting the comments of the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP) as part of your SEQRA process. These comments are those of the Division for Historic Preservation and relate only to Historic/ Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impact must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6NYCRR Part 617).

We have reviewed your submission dated December 2, 2015 for the Pelton Manor Rehabilitation and Development project. We note that Pelton Manor is listed on the National Register of Historic Places as a contributing member to the Mill Street- North Clover Street Historic District. We understand that the proposed project will include restoration and rehabilitation of the historic Hill House (Pelton Manor) and the construction of four townhouses on the approximately 2.8 acre site. We note that the project is in the preliminary phase at this time and our office is reviewing this portion of the project in accordance with the SEQRA requirements only.

Based on this review, we have no concerns with the current proposal to rehabilitate the historic building and construct additional housing on the site. We are encouraged by plans to rehabilitate Hill House in a historically appropriate manner. The most recently updated site plan appears to be compatible with the historic building, site and historic district. We look forward to our continued consultation as construction documents become available and we proceed with the State level 14.09 review.

As noted, if this project will involve state or federal permitting, funding or licensing, it may require a more rigorous review for potential impacts to architectural and archaeological

resources, in accordance with Section 106 of the National Historic Preservation Act or Section 14.09 of NYS Parks Recreation and Historic Preservation Law.

If you have any questions, I can be reached at (518)268-2164.

Plans, specifications, and other documentation requested in this letter should be provided via our Cultural Resource Information System (CRIS) at www.nysparks.com/shpo/online-tools/. Once on the CRIS site, you can log in as a guest and choose "submit" at the very top menu. Next choose "submit new information for an existing project". You will need this project number and your e-mail address.

Sincerely,



Weston Davey
Historic Site Restoration Coordinator
e-mail: weston.davey@parks.ny.gov

via e-mail only

APPENDIX O

Map Packet: Pre & Post Development Drainage Area Maps

X:\085\Jobs 2023\23-076-Tekomon-Pelton_Marcel\UWC\DA23307601.dwg 8/23/2023 9:31 AM Binkley

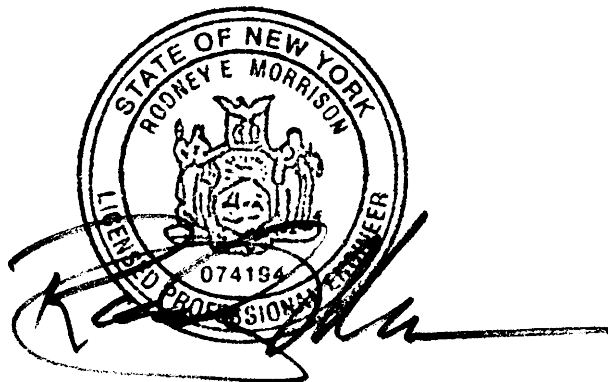
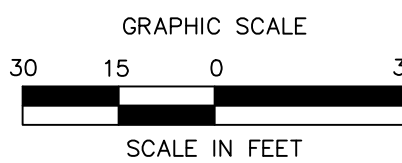
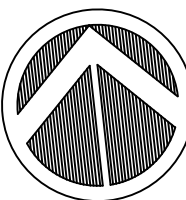


LEGEND

- 120' EXISTING MAJOR CONTOUR LINE
- 123' EXISTING MINOR CONTOUR LINE
- DRAINAGE LINE
- SOIL BOUNDARY LINE
- TIME OF CONCENTRATION LINE
- TEST PIT LOCATION
- SOIL TYPE DESIGNATION
- DRAINAGE AREA DESIGNATION

MgB

1
XX.XXX SF
X.XX AC.



1	08/29/23	SUBMIT FOR SIGNATURES
2	06/04/18	REVISED PER COMMENTS
3	03/27/18	REVISED PER COMMENTS
4	10/25/17	ISSUED TO PLANNING BOARD
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.		

DRAINAGE AREA MAP (PRE-CONDITIONS)

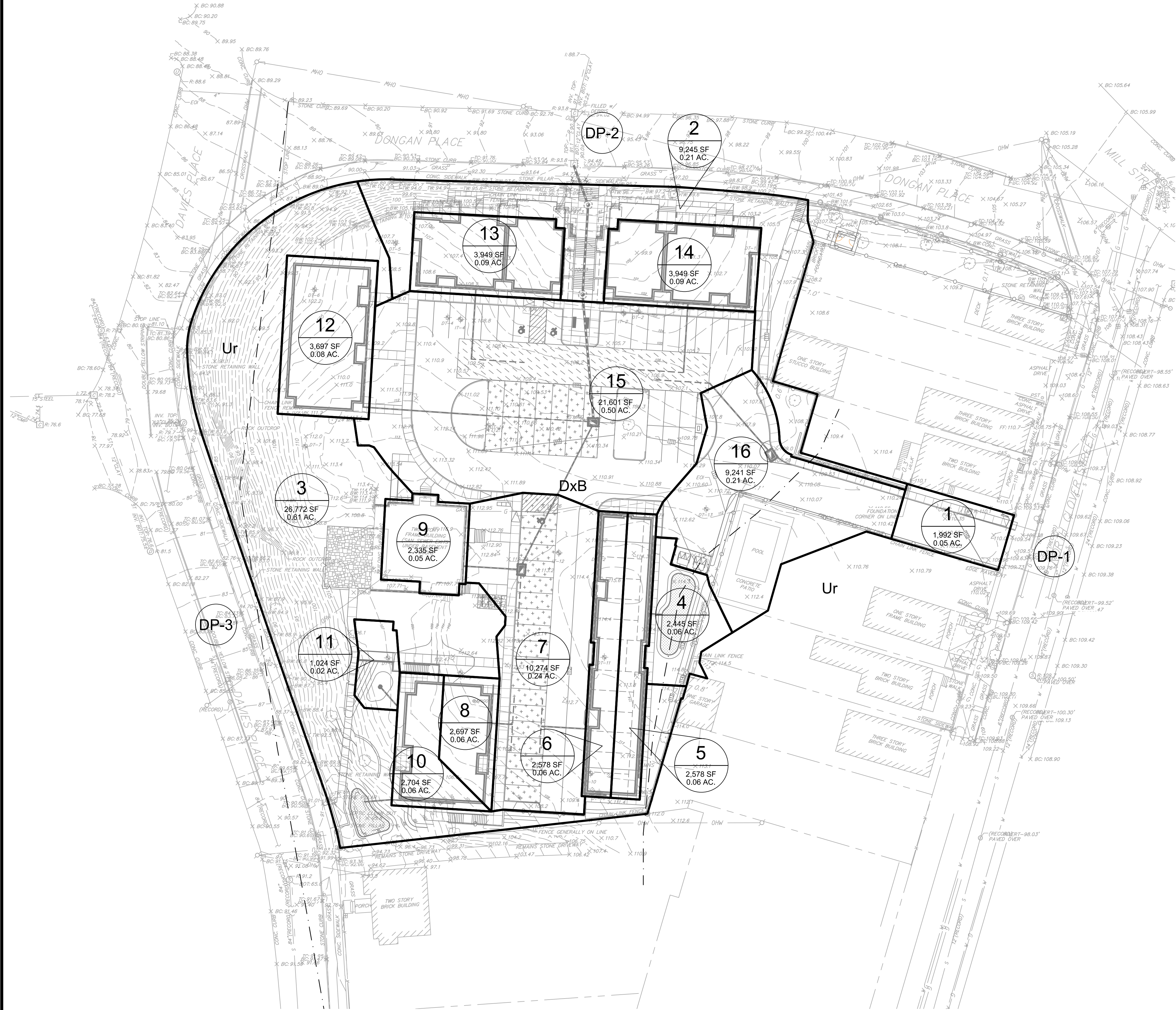
PELTON MOUNT CARMEL

36 N. CLOVER STREET
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Colors	LRC	CAD File	DA23307601.dwg	Sheet No.
Drawn	LRC	Project No.	23-3076	
Checked	KFC	Date	08-29-2017	
Approved	REM	Scale	1"=30'	

DA-I

X:\085\Jobs 2023\23-3076-Tekomon-Pelton_Marce\UMC\DA23307601.dwg 8/23/2023 9:31 AM Banokey

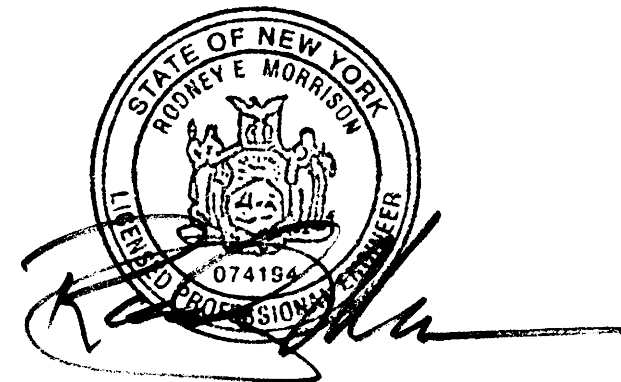
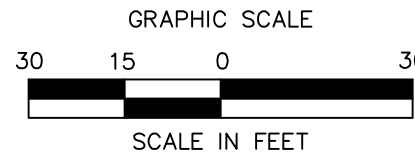
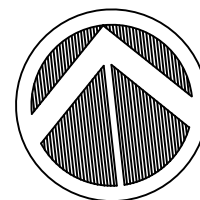


LEGEND

--- 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
--- TIME OF CONCENTRATION LINE
--- TEST PIT LOCATION
--- SOIL TYPE DESIGNATION
--- DRAINAGE AREA DESIGNATION

MgB

1
XX.XXXX SF
X.XX AC.



Revisions		1 08/29/23 SUBMIT FOR SIGNATURES		2 06/04/18 REVISED PER COMMENTS		3 03/27/18 REVISED PER COMMENTS		4 10/25/17 ISSUED TO PLANNING BOARD	
		LRC GROUP		LRC GROUP		LRC GROUP		LRC GROUP	
		Landscape Architecture		Landscape Architecture		Landscape Architecture		Landscape Architecture	
		1 International Blvd, Suite 400		1 International Blvd, Suite 400		1 International Blvd, Suite 400		1 International Blvd, Suite 400	
		Malvern, NJ 07645		Malvern, NJ 07645		Malvern, NJ 07645		Malvern, NJ 07645	
		Tel: 908.603.5730		Tel: 908.603.5730		Tel: 908.603.5730		Tel: 908.603.5730	
		www.lrcconsult.com		www.lrcconsult.com		www.lrcconsult.com		www.lrcconsult.com	
		LRC Engineering & Surveying, LLC		LRC Engineering & Surveying, LLC		LRC Engineering & Surveying, LLC		LRC Engineering & Surveying, LLC	
		LRC Environmental Services, Inc.		LRC Environmental Services, Inc.		LRC Environmental Services, Inc.		LRC Environmental Services, Inc.	

DRAINAGE AREA MAP
(POST-CONDITIONS)

PELTON MOUNT CARMEL

36 N. CLOVER STREET
CITY OF POUGHKEEPSIE,
DUTCHESS COUNTY, NEW YORK

Design/Calcs	LRC	CAD File	DA23307601.dwg	Sheet No.
Drawn	LRC	Project No.	23-3076	
Checked	KFC	Date	08-29-2017	
Approved	REM	Scale	1"=30'	

DA-2

PROJECT TITLE:

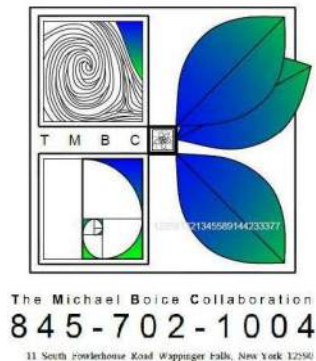
PELTON MOUNT CARMEL

PROJECT ADDRESS:

36 NORTH CLOVER STREET POUGHKEEPSIE, NY 12601

City of Poughkeepsie Planning Board

May 16, 2023



33 Arlington Avenue, 2nd Floor, Poughkeepsie, NY 12603 | 845.473.0200 | [view our work at tinkarch.com](http://view.our.work.at.tinkarch.com)



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

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

- GENERAL SITE PLAN NOTES:
1. SITE GRADING INFORMATION, REFER TO DWG. SET BY LDC GROUP.
 2. SIDEWALK DETAILS, REFER TO DWG. PZ-03.
 3. HAND CAP PAVING MARKINGS, REFER TO DWG. PZ-03.
 4. STREET/ PARKING SIGNS, REFER TO DWG. PZ-03.
 5. CURB DETAILS, REFER TO DWG. PZ-03.
 6. DUMPSTER ENCLOSURE DETAILS, REFER TO DWG. PZ-03.
 7. SITE STAIRS DETAIL, REFER TO DWG. PZ-03.
 8. PAVEMENT DETAILS, REFER TO DWG. PZ-03.

- SITE DEVELOPMENT NOTES:
1. THE LIMITS AND LOCATIONS OF THE POROUS PAVEMENT ARE INDICATED ON THE CIVIL ENGINEER'S GRADING & DRAINAGE PLAN, SHEET 001. REFER TO CIVIL ENGINEER'S DRAWING SET FOR MORE INFORMATION & DETAILS.
 2. THE PERIMETER EDGES OF THE PROPOSED PARKING LOT AREA OF PAVEMENT SHALL STOP AT CONCRETE CURBS OR SIDEWALKS WITH INTEGRAL CURBS, UNLESS INDICATED OTHERWISE OR AT THE LOCATIONS OF RAMPS.
 3. PRIOR TO THE START OF CONSTRUCTION OR EXCAVATION, TREES THAT ARE TO BE RETAINED SHALL BE PROTECTED BY SILT FENCE, SNOW FENCE, CONSTRUCTION FENCE, OR EQUAL, WHICH WILL BE PLACED AT THE DROP 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. REFER TO THE LANDSCAPE PLAN FOR THE LOCATIONS OF TREES AND THE ASSOCIATED FENCING.
 4. REFER TO LANDSCAPE DRAWINGS FOR PLANTING PLAN & DETAILS.

REVISIONS	ISSUED TO PLANNING BOARD
6/28/2018	PZ-03-001 - H&C
7/28/2018	PZ-03-002 - H&C
8/1/2018	PZ-03-003 - H&C
8/1/2018	PZ-03-004 - H&C
8/1/2018	PZ-03-005 - H&C
8/1/2018	PZ-03-006 - H&C
8/1/2018	PZ-03-007 - H&C
8/1/2018	PZ-03-008 - H&C
8/1/2018	PZ-03-009 - H&C
8/1/2018	PZ-03-010 - H&C
8/1/2018	PZ-03-011 - H&C
8/1/2018	PZ-03-012 - H&C
8/1/2018	PZ-03-013 - H&C
8/1/2018	PZ-03-014 - H&C
8/1/2018	PZ-03-015 - H&C
8/1/2018	PZ-03-016 - H&C
8/1/2018	PZ-03-017 - H&C
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8/1/2018	PZ-03-096 - H&C
8/1/2018	PZ-03-097 - H&C
8/1/2018	PZ-03-098 - H&C
8/1/2018	PZ-03-099 - H&C
8/1/2018	PZ-03-100 - H&C



CLIENT:
Bottini Properties
 18 Clinton Street
 Wappingers Falls, NY 12590

PROJECT NAME:
Pelton Mount Carmel
 300 Westage Business Center Drive
 Fishkill, NY 12524

SITE DEVELOPMENT
 PLAN
 DRAWN BY:
 J. L. JONES
 DATE:
 8/20/17
PZ-03

BUILDING GROSS AREAS	
FALL RIVER GROSS AREA	
LOWER DUPLEX - LEVEL 1	3,396 SF
LOWER DUPLEX - LEVEL 2	3,524 SF
UPPER DUPLEX - LEVEL 1	3,059 SF
TOTAL GROSS AREA	8,759 SF
DOMINION GROSS AREA	
LOWER DUPLEX & 8 IMPEX - LEVEL 1	2,056 SF
LOWER DUPLEX & 8 IMPEX - LEVEL 2	2,157 SF
UPPER DUPLEX - LEVEL 3	2,839 SF
TOTAL GROSS AREA	7,966 SF
REVER GROSS AREA	
STUCCO - LEVEL 1	1,826 SF
LOWER DUPLEX - LEVEL 2	2,157 SF
UPPER DUPLEX - LEVEL 3	2,357 SF
TOTAL GROSS AREA	6,372 SF
PELTON MAJOR GROSS AREA	
LOWER LEVEL	1,646 SF
FIRST FLOOR	2,336 SF
SECOND FLOOR	1,973 SF
THIRD FLOOR	1,899 SF
TOTAL GROSS AREA	7,966 SF
STATION GROSS AREA	
8 IMPEX - LEVEL 1	2,349 SF
8 IMPEX - LEVEL 2	2,478 SF
8 IMPEX - LEVEL 3	3,714 SF
TOTAL GROSS AREA	8,677 SF
CARRIAGE HOUSE GROSS AREA	
CARRIAGE HOUSE - LEVEL 1	4,247 SF
CARRIAGE HOUSE - LEVEL 2	4,247 SF
CARRIAGE HOUSE - LEVEL 3	4,247 SF
TOTAL GROSS AREA	12,811 SF
BUILDING GROSS AREAS	
FALL RIVER	9,759 SF
DOMINION	7,966 SF
REVER	6,372 SF
PELTON MAJOR	7,966 SF
STATION	8,677 SF
CARRIAGE HOUSE	12,811 SF
GRAND TOTAL	51,041 SF

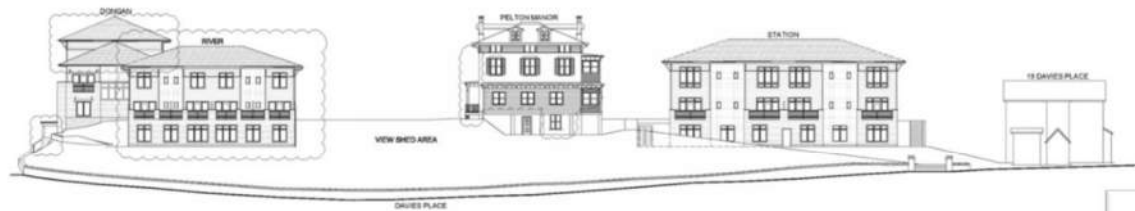
Pelton Partners LLC
33 Arlington Avenue
Poughkeepsie, NY 12603

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601

SITE DEVELOPMENT PLAN	
DRAWN BY: JL	PZ-03
JOB No. 77022	
DATE: 8/15/73	



STREET VIEW AT DONGAN PLACE



STREET VIEW AT DONGAN PLACE

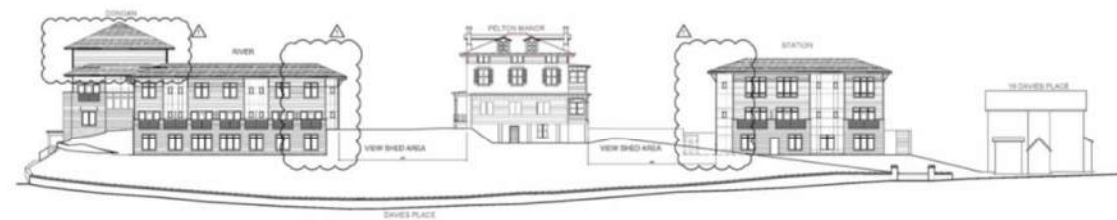


CLIENT:
Pelton Partners LLC
25 Van Wagner Road
Poughkeepsie, NY 12603

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601



STREET VIEW AT DONGAN PLACE



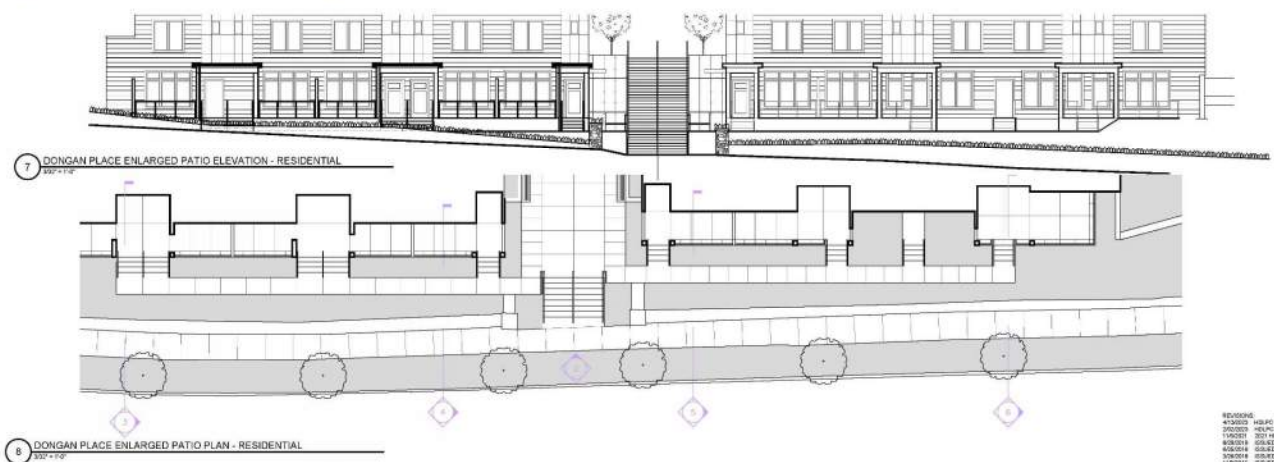
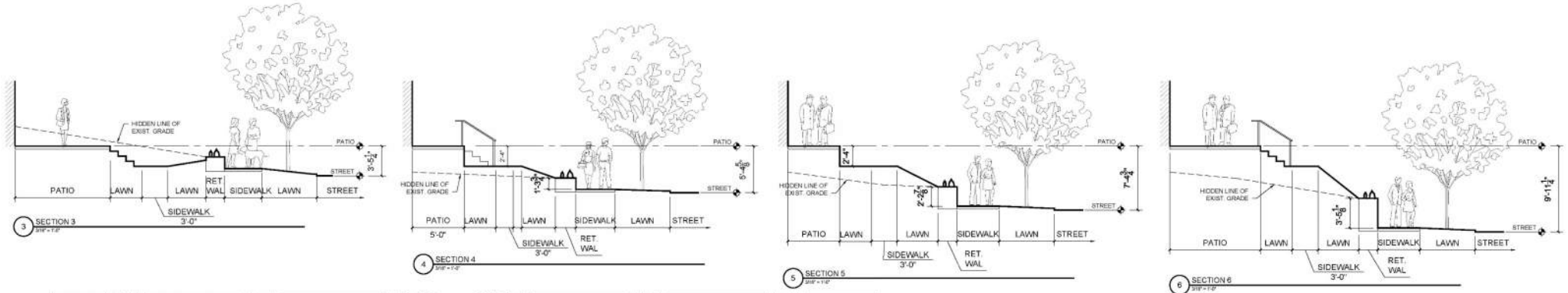
STREET VIEW AT DONGAN PLACE



CLIENT:
Pelton Partners LLC
25 Van Wagner Road
Poughkeepsie, NY 12603

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601

NO.	DESCRIPTION	DATE
1	REVISION	
2	REVISION	
3	REVISION	
4	REVISION	
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100	REVISION	



REVISIONS	
4/10/2019	REVISION SUBMISSION
2/20/2019	REVISION SUBMISSION
1/20/2019	REVISION SUBMISSION
8/20/18	GRADE TO ADJAC
8/20/18	GRADE TO PLANNING BOARD
1/20/18	GRADE TO PLANNING BOARD

DESIGNED BY	TA
DATE	4/10/19
PZ-23	

TA TINKELMAN ARCHITECTURE

33 Arlington Ave, Suite 8
Poughkeepsie, NY 12601

CLIENT:
Pelton Partners LLC
33 Arlington Ave, Suite 8
Poughkeepsie, NY 12601

PROJECT NAME:
Pelton Mount Carmel
36 N. Clover St.
Poughkeepsie, NY 12601

DONGAN PLACE PATIO
PLAN, ELEVATION AND
SECTIONS



PROPOSED SITE PLAN:

FALLKILL & DONGAN
BUILDINGS –
DONGAN PLACE:



**PORCH VIEW OF THE FALLKILL
& DONGAN BUILDINGS -
DONGAN PLACE:**



**MONUMENTAL STAIR @ THE
FALLKILL & DONGAN
BUILDINGS:**



THE FALLKILL BUILDING: INNER COURT VIEW



THE PELTON MANOR -
INNER PROPERTY VIEW:



THE PELTON MANOR -
VIEWING SHED AREA:



THE CARRIAGE HOUSE-
INNER COURT VIEW:



PEDESTRIAN SITE ENTRANCE -
DAVIS PLACE:



THE RIVER BUILDING-
INNER COURT VIEW:



THE PELTON MANOR -
VIEW FROM DAVIS PLACE:



THE PELTON MANOR -
VIEW FROM DAVIS PLACE:





BUILDING DEPARTMENT

CITY OF POUGHKEEPSIE
62 CIVIC CENTER PLAZA, 2ND FLOOR
POUGHKEEPSIE, NY 12601
Phone: (845) 451-4007 Fax: (845) 451-4006

Eric Philipp
Building Inspector

SITE PLAN REVIEW

DATE: 5-18-23

PROJECT ADDRESS: 36 N Clover St

PROJECT NAME: Pelton Manor

OWNER:

ENGINEER/ARCHITECT:



The site plan is acceptable and will be signed with no conditions.



The site plan cannot be approved as submitted. The following comments must be addressed or conditions satisfied:


Eric Philipp
Building Inspector

Dutchess County Department of Planning and Development		Fax Info Only	To	Date	#pgs
			Co./Dept.	From	
			Fax #	Phone #	

239 Planning/Zoning Referral - Exemption Communities

Municipality: **City of Poughkeepsie**

Referring Agency: **Planning Board**

Tax Parcel Number(s): **8372280000**

Project Name: **Pelton Manor Apartment Complex**

Applicant: **TINKELMAN ARCHITECTURE, PLLC**

Address of Property: **36 Clover St, Poughkeepsie, NY 12601**

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.)
- ☐ Rezoning 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: **Rt 9**
- ☐ 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: **8/11/2023**

Entered By: **Garcia, Lori**

These actions are only exempt in municipalities that signed an intermunicipal agreement 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: 6/28/2023	Notes: Updated packet/info submitted 7/19, dates adjusted accordingly.	☐ Major Project	
Date Received: 7/19/2023		Referral #: ZR23-204	
Date Requested: 8/11/2023			
Date Required: 8/17/2023	☐ Also mailed hard copy	Reviewer:	
Date Transmitted: 8/4/2023			



CITY OF POUGHKEEPSIE POLICE DEPARTMENT

SITE PLAN REVIEW

DATE: 09/18/2023

PROJECT NAME: 36 N Clover - Pelton Manor

PROJECT ADDRESS: 36 N Clover - Pelton Manor

☒ **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  #112

SGT. E. ACKEN #112

09/18/2023



**THE CITY OF POUGHKEEPSIE
FIRE DEPARTMENT**

505 MAIN STREET
POUGHKEEPSIE, NY 12601
TEL: 845-451-4079 FAX: 845-451-4191
FIRE CHIEF JOSEPH FRANCO
JFRANCO@CITYOFPOUGHKEEPSIE.COM



SITE PLAN REVIEW FORM

TO: Planning Board
FROM: Fire Chief Joseph Franco
DATE: September 15, 2023
ADDRESS: Pelton Manor

☐ The site plan is acceptable and will be signed without conditions.

☒ The site plan is acceptable and will be signed with the following conditions:

1. Drawing TT-1 Should reference the template they used for turning radius. It should state Poughkeepsie Tower Ladder 2 turning specs.
2. At the time of final drawings. A complete fire sprinkler drawing and calculations should show sufficient water supply to meet system demand.

Vincent Parise
Joseph Franco, Fire Chief

9/15/23
Date



THE CITY OF POUGHKEEPSIE

DEPARTMENT OF PUBLIC WORKS & ENGINEERING

SITE PLAN REVIEW

Form #3

1. Date: September 15, 2023
2. Name of Site Plan: Pelton Manor
3. Address or Location: 36 North Clover Street
4. Yes ☐ No ☐ The site plan as forwarded by the Planning Department is acceptable and will be signed off on with no condition(s).
5. Yes ☐ No ☐ The site plan as forwarded by the Planning Department is acceptable and has been signed off on with no condition(s).
6. Yes ☒ No ☐ The applicant should be notified that the Dept. of Public Works/Engineering requires the following comment(s) be addressed:

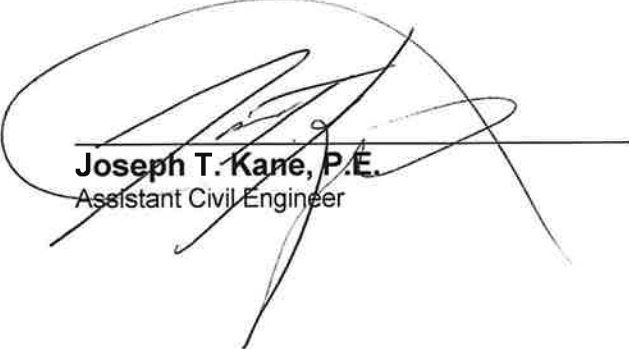
ENGINEERING SITE PLAN REVIEW COMMENTS:

1. Overflow from Bio Retention – 2 appears to occur between Type III 24-hr 10 and 100-year storm events per provided SWPPP. This concentrated flow during overflow state not to be routed toward adjoining properties. Engineer to certify routing of all flows not to travel off site to adjoining properties. Recommend increasing capacity of Bio Retention – 2 to capture Type III 24hr 100-year storm as non-overflow state.
2. Show on Site Plan Sheet DN-2 Water Service Abandonment suitable for connections greater than 2" diameter. Detail shown on Sheet DN-2 applies to water service connection that are less than 2" in diameter.
3. Site Plan Sheet PP-1, Water Profile is lacking detail. Provide additional attributes such as size of pipe, elevations of watermain and finished grade, crossings with dimensions, any location where horizontal and/ or vertical separation encroaches on standard offsets, change of direction etc.
4. Site Plan Sheet PP-2, Sewer Profile is lacking detail. Provide additional attributes such as size of pipe, elevations, type of pipe, manhole numbers, pipe slope etc. Include manhole numbers on Site Plan Sheet UT-1.
5. Show on Site Plan Sheets UT-1 and PP-2 Sanitary Sewer limits to be dedicated to City of Poughkeepsie; MH #7 to MH #8 and STA. 4+22.48 to 5+20. Include notation in Site Plan that as-built drawings of portion dedicated to City to be NYS licensed professional engineer certified. As-Built drawings to be provided to City of Poughkeepsie Engineering Department in both AutoCAD .dwg and Adobe .pdf formats prior to issuance of Building Certificate of Occupancy.
6. Recommend owner/ developer to replace concrete sidewalk panels identified on Sidewalk Plan prepared by LRC as "Cracks" and "Trip Hazard" in addition to clearing locations identified as "Overgrowth". Recommend sidewalk replaced per City Standard details.
7. On Site Plan Sheet DN-2 add note to "Hydrant and Valve Assembly Detail" indicating hydrants to adhere to both installed minimum and maximum height requirements per NFPA 24.

8. Coordinate with City of Poughkeepsie Corporation Counsel on implementing Deed restriction that property owner and/or its successors are responsible for maintenance and operation of all site utilities to include; sanitary sewer, storm sewer, implemented storm sewer management practices and water distribution (domestic and fire) including all appurtenance related to those utilities.
9. Coordinate with City FD regarding adequacy of fire flow. Owner/ developer to demonstrate what is being requested is achieved as engineering is further developed.

SWPPP REVIEW COMMENTS:

1. Provide City Engineering with MS4 SWPPP Acceptance Form for signature once development is approved by City of Poughkeepsie Planning.
2. Provide City Engineering with NOI Acknowledgement letter to when received from NYSDEC.



Joseph T. Kane, P.E.
Assistant Civil Engineer



**THE CITY OF POUGHKEEPSIE
PLANNING BOARD
62 CIVIC CENTER PLAZA, 2ND FLOOR
POUGHKEEPSIE, NY 12601
Phone: (845) 451-4263 Fax: (845) 451-4006**

RESOLUTION OF CONDITIONAL AMENDED

SITE PLAN APPROVAL

In the Matter of the Application of:

36 NORTH CLOVER STREET- PELTON MANOR CARMEL

WHEREAS, the Planning Board of the City of Poughkeepsie (the, "Planning Board") received an application dated 4/24/2023, from Pelton Partners, LLC (the, "Applicant"), owner of a ±2.45 acre parcel of real property located at 36 North Clover Street, City of Poughkeepsie, County of Dutchess, New York, which bears tax map parcel identification number 6062-75-837228 (the, "Property"); and

WHEREAS, the Property is currently improved with Pelton Manor and is located in the Mill Street /North Clover Street Historic District; and

WHEREAS, the Property is in the Medium High Density "R-4" Residence Zoning District; and

WHEREAS, on June 19, 2018, the Planning Board granted conditional Site Plan approval for the restoration and repurposing of the Pelton Manor and the development of the Property into multifamily residences, which will result in the construction of forty-four (44) multifamily units (13-studios, 10 one-bedrooms, and

21 two-bedroom units) in six (6) buildings and sixty-seven (67) parking spaces (the "Project" or "Original Site Plan"); and

WHEREAS, pursuant to Section 19-6.1(3)(a) of the Zoning Code, the Applicant requested an extension of the Condition Site Plan Approval dated June 18, 2018; and

WHEREAS, on August 20, 2019, the Planning Board granted conditional amended Site Plan approval for the restoration and repurposing of the Pelton Manor and the development of the Property into multifamily residences, which will result in the construction of forty-six (46) multi-family units (14 studios, 19 one-bedrooms and 13 two-bedroom units) in six (6) buildings and sixty-seven (67) parking spaces (the "2019 Amended Site Plan")

WHEREAS, the current application seeks reapproval of the 2019 Amended Site Plan with conditions as set forth in detail in this resolution.

THE ENVIRONMENTAL REVIEW

WHEREAS, the Common Council designated the Project a Type 1 Action pursuant to the New York State Environmental Quality Review Act (SEQRA) due to the fact that the Property was located in a historic district; and

WHEREAS, the Common Council was the Lead Agency for SEQRA purposes; and

WHEREAS, an expanded Full Environmental Assessment Form was prepared by The Chazen Companies and dated October 30, 2015 for review by the Common Council (the "2015 EAF"); and

WHEREAS, on December 22, 2015, by resolution, the Common Council accepted a Negative Declaration for the proposed Project (negative declaration dated

December 14, 2015), finding that the proposed action would not result in a significant adverse impact on the environment (the "Negative Declaration"); and

WHEREAS, the Negative Declaration was based on the Project being comprised of the following details, including but not limited to, a total of thirty-nine (39) multifamily dwelling units, seventy-two (72) parking spaces, 1.65 acres of disturbance, and 1.2 acres of impervious surface (the "Original Proposal"); and

WHEREAS, on October 26, 2015, Governor Cuomo signed Ch. 408 of the Laws of 2015 into law authorizing the City to sell the Property to a private entity for a public benefit and economic development; and

WHEREAS, the Applicant entered into a contract for sale with the City, dated January 4, 2016, for the purchase of the Property (the "Contract"); and

WHEREAS, the Contract has closed and the applicant owns the property as of the date of this Resolution; and

WHEREAS, the City received a letter dated December 7, 2015 from the New York State Office of Parks, Recreation and Historic Preservation ("OPRHP") that stated that "we have no concerns with the current proposal to rehabilitate the historic building and construct additional housing on the site. We are encouraged by plans to rehabilitate Hill House in a historically appropriate manner";

WHEREAS, the Amended Site Plan proposes forty-six (46) units, sixty-seven (67) parking spaces (where 69 are required), 2.08 acres of disturbance, and 1.58 acres of impervious service; and

WHEREAS, on August 30, 2017, the Applicant submitted its original application to the Planning Board for Site Plan which Site Plan was conditionally

approved on June 19, 2018 (attached hereto as **Exhibit A**); and

WHEREAS, on August 20, 2019, the Planning Board granted conditional amended Site Plan approval for the restoration and repurposing of the Pelton Manor and the development of the Property into multifamily residences, which will result in the construction of forty-six (46) multi-family units (14 studios, 19 one-bedrooms and 13 two-bedroom units) in six (6) buildings and sixty-seven (67) parking spaces (attached hereto as **Exhibit B**); and

WHEREAS, after receiving Planning Board approval, Pelton was required to receive a Certificate of Appropriateness from the Historic Districts and Landmarks Preservation Commission (“HDLPC”) as a condition of the issuance of a Building Permit necessary to the work to restore the mansion, and the grounds upon which it was located, as approved by the Planning Board; and

WHEREAS, the HDLPC on January 10, 2019, denied Pelton’s application for a Certificate of Appropriateness, and did so for a second time on December 12, 2019; and

WHEREAS, on October 1, 2020, the City of Poughkeepsie Common Council, sitting in its appellate capacity, affirmed the second denial made by the HDLPC; and

WHEREAS, the Applicant commenced an action challenging the December 12, 2019, decision of the HDLPC and the October 1, 2020, decision of the Common Council by action filed in the office of the Dutchess County Clerk on January 30, 2021, and

WHEREAS, after years of litigation, the HDLPC and the Administration opted to settle with the Applicant for the reasons set forth in the So-Ordered Stipulation of Settlement (referred to as the “Stipulation” attached hereto as **Exhibit C**); and

WHEREAS, the Site Plan approved by the Stipulation seeks to rehabilitate and repurpose the Pelton Mansion as a community arts center and to develop the remaining

property with commercial uses (Dongan and Fallkill Buildings) and multi-family residences, which will result in the construction of 39 multi-family units in six (6) buildings and 69 parking spaces if the site becomes an Arts Center with commercial use in Dongan and Fallkill Buildings (hereinafter the “2023 Project”); and

WHEREAS, the Site Plan shows the following revisions made in response to concerns of the HDLPC:

1. Relocated and adjusted the massing of both the River and Station buildings so that they are equidistant from the Pelton Mansion as to enhance the prominence of the mansion.
2. Created a handicap ramp system to the Pelton Mansion so that it is accessible as per law and ADA standards for accessible design.
3. Removed all HVAC condensing units from the ground plane and placed them on the various building’s roofs so they are not visible.
4. Modified the exterior first floor elevations and outdoor patios of the Dongan and Fallkill buildings along Dongan Place so as to allow appropriate commercial uses in each of these two buildings and provided elevations for the same in the event that the commercial use was not permitted; and
5. Raised the two tower forms adjacent to the monumental stair so that they can be constructed as originally conceived.
6. Modified the exterior elevations for the Dongan, the Fallkill, the River and the Station buildings to show the changes to the massing of the buildings; and
7. The plan does not reduce the size of any proposed form, but, the impact of that circumstance has been reduced by the relocation of those forms on the Pelton property;

WHEREAS, the use of the property for either an Arts Center or commercial use requires rezoning approval from the City’s Common Council; and

WHEREAS, on April 24, 2023, the Applicant submitted an application seeking reapproval of the 2019 Amended Site Plan to allow the applicant to begin work restoring the exterior of the mansion and other preliminary work; and

WHEREAS, the Applicant affirmatively acknowledges that in compliance with the Stipulation, it will need to return to this Board in the future as discussed in the conditions below; and

WHEREAS, the Amended Site Plan Application is deemed complete; and

NOW, THEREFORE, BE IT RESOLVED that the foregoing "whereas" provisions are incorporated by reference as if fully set forth herein; and

BE IT FURTHER RESOLVED the Planning Board adopts the recommendation of city staff that, after a thorough review of the changes to the project, the changes are *de minimus* and do not rise to the level of requiring an amendment to the original Negative Declaration; and

BE IT FURTHER RESOLVED that the Planning Board hereby reapproves the August 20, 2019, as amended in this application, resolution for the reasons set forth therein and attached hereto as Exhibit B, with updated drawings:

Architectural Drawings

TS-01 -Cover Sheet - Revision date - 8/29/2023
PZ-01-Charts & Tables- Revision date - 6/30/2023
PZ-02 -Adjoining Property Owners - Revision date - 6/25/2019
PZ-03 -Site Development Plan - Revision ate - 6/25/2019 (Currently approved)
PZ-03 -Site Development Plan - Revision Date - 8/29/2023 (Proposed)
PZ-04-Site Sections- Revision Date - 6/25/2019
PZ-04.1-Site Sections- Revision Date - 5/31/2023
PZ-04.2 -Site Sections- Revision Date - 5/31/2023
PZ-05 -Site Details- Revision date - 8/29/2019
PZ-06 -Site Details- Revision date - 8/29/2019
PZ-08 -Preliminary Elevations - Pelton Manor- Revision date - 8/29/2019
PZ-08.1-Material Callouts - Pelton Manor - Revision date - 11/01/2019
PZ-08.2- Rendered Views - Revision Date - 5/31/2023
PZ-10- Preliminary Elevations - Fallkill - Revision Date - 6/25/2019
PZ-12 - Preliminary Elevations - Dongan - Revision Date - 6/25/2019
PZ-14- Preliminary Elevations - River- Revision date - 6/25/2019

PZ-14.1- River Elevations - Revision Date - 5/31/2023
PZ-16- Preliminary Elevations -Station - Revision date - 6/25/2019
PZ-16.1- Station Elevations- Revision Date - 5/31/2023
PZ-18- Preliminary Elevations - Carriage House- Revision date - 6/25/2019
PZ-19- Street Elevations- Revision date - 6/25/2019
PZ-20- Enlarged Monumental Stair Plan & Elevations- Revision date - 6/25/2019
PZ-21- Enlarged Pelton Terrace& View Shed Plan and Elevations- Revision date - 6/25/2019
PZ-22 - Front Entrance Sign- Revision Date - 6/25/2019
PZ-23 - Dongan Place Patio Plan, Elevation and Sections- Revision date-6/25/2019
PZ-24 - Entrance Driveway Plan and Walkway Ramp Plan and Section - Revision Date - 8/29/2023
PZ-25 - Photometric Plan & Schedule - Revision date- 8/29/2023
PZ-26- Fallkill & Dongan Elevations- Revision Date - 5/31/2023
PZ-26.1- Fallkill & Dongan Elevations- Revision Date - 5/31/2023
PZ-27- Fallkill & Dongan Patios - Revision Date - 5/31/2023

Landscape Drawings

L1 - Landscape Planting Plan - Revision date - 6/27/2023
L2 - Planting Specifications & Notes - Revision date - 2/23/2018
L3 - Plant Table - Revision date - 6/27/2023
L4 - Plant Photographs/Images - Revision date - 6/26/2023
L5 - Existing Tree Inventory - Revision date - 3/23/2018

Civil Drawings

SG-1- Site Grading - Revision date – 10/3/2023
SD-1- Site Drainage - Revision date - 10/3/2023
UT-1- Site Utilities - Revision date - 10/3/2023
EC-1- Erosion & Sediment Control Plan - Revision date - 10/3/2023
TT-1- Truck Turning Plan - Revision date - 10/3/2023
PP-1- Water Plan & Profile - Revision date - 10/3/2023
PP-2 - Sewer Plan & Profile - Revision date - 10/3/2023
NS-1- Notes Sheet - Revision date - 10/3/2023
DN-1- Sanitary Details - Revision date - 10/3/2023
DN-2- Water Details - Revision date - 10/3/2023
DN-3- Stormwater Details - Revision date - 10/3/2023

AND, BE IT FURTHER RESOLVED that based on the findings set forth in the resolution adopted on August 20, 2019, the Planning Board finds that the granting of Site Plan approval for the Amended Project is appropriate, but that the imposition of certain conditions and safeguards is required to further the expressed intent of Chapter 19 of the City Zoning Code, as follows:

- 1. Stipulation of Settlement between the Applicant and the HDLPC and City of Poughkeepsie is incorporated herein in full.** This approval is subject to the terms of the stipulation incorporated into it at Exhibit “C”. A

condition of this approval is that the applicant shall comply with the terms and conditions of the stipulation. The Applicant acknowledges its obligations under the Stipulation to seek the approvals necessary to allow the use of the Pelton property as a home to the arts community in the City of Poughkeepsie and to allow for commercial uses within Dongan and Fallkill Buildings.

- a. The Applicant is restricted from building any residential units in the Pelton Manor or the Dongan and Fallkill buildings until the commercial re-zoning contemplated by the Settlement Agreement, annexed at Exhibit “C” is adopted by the City of Poughkeepsie. The Planning Board and the applicant acknowledge that neither party has any control of the actions of the City in this regard. In the event that the City has failed to adopt the re-zoning by May 1, 2024, then that failure shall be treated as a denial under §(1)(b) of this Resolution and the parties shall act in accordance with that provision. This shall be included as a note on the plans. Any Building Permits issued by the City shall incorporate this restriction directly into the permit.
- b. The Applicant must return to the Planning Board once:
 - i. The property is rezoned to permit the Arts Center and Commercial Uses. The applicant shall submit an application for Amended Site Plan approval so that the Board may process the plan attached to the Stipulation which has been modified from the approval granted herein as described on pages 4-5 of this resolution. If the re-zone or property has not

occurred by May 1, 2024, this provision of the approval shall be deemed without further force or effect; or

- ii. Should the rezoning be denied, then the Applicant shall return to this Board to have this condition, and the restrictions in subsection (1)(a), modified.
 - c. The applicant may make application for a building permit for any other building on the Site Plan provided, however, the applicant simultaneously makes application for any permit necessary to allow the applicant to commence work to restore the Pelton Mansion except as limited at paragraph 1(a). The purpose of this condition is to assure that restoration work on the mansion shall, as is practicable, be undertaken contemporaneously with any other work commenced on the site.
- 2. **Stone wall.** The Stone wall on Dongan Place will be preserved and repaired as part of the construction authorized herein. This shall be included as a note on the Site Plan.
 - 3. **Construction precautions:** The Applicant agrees that it will follow the reasonable recommendations of a structural engineer as to precautions necessary to safeguard the structural stability of the Pelton Mansion and the Stone Wall on Dongan Place.
 - 4. **Public Access.** As depicted on Site Plan sheet PZ-03 and labeled "Viewing Shed Area," limited public access for passive activities such as walking areas and sitting benches on a portion of the Property shall be instituted and maintained on the Property as a part of the Amended Project. Such public access shall be subject to the following rules and

regulations:

- a. Access will be permitted from dawn to dusk, seven days a week for passive recreational use.
- b. The consumption of alcoholic beverages and the use or consumption of controlled substances are prohibited, except for the consumption of alcoholic beverages at a public or private event sponsored by the owner of this project.
- c. Smoking is prohibited.
- d. Persons entering on the Property will be required to act in a lawful manner and to refrain from loud and annoying sound.
- e. The public entering on the Property will be required to remove all trash created by their presence on the Property.
- a. f Amplified music or other amplified sounds are prohibited, except at public or private events sponsored by the owner of this project.
- g. The use of skateboards and bicycles are prohibited, except where designated by the owner of the project, which said designated areas shall be available only to the guests and invitees of any tenant or the owner of the property.
- h. Guns, knives and all other weapons are prohibited except as carried by law enforcement officials or holders of lawful permits allowing possession of a gun.
- i. All activities which negatively interfere with the quiet enjoyment of the tenants are prohibited, including any commercial activity.
- j. The public access space shall be ADA compliant.

- k. The Rules and Regulations may be modified from time to time by the owner of the Property subject to the approval of the City Planning Department.
 - l. These regulations shall be enforced by the Police Department of the City of Poughkeepsie. The applicant, or any successor in interest, shall have the right to file a complaint for criminal trespass against any person not complying with the same.
5. **Sewer and Water.** The applicant will provide language satisfactory to the City of Poughkeepsie Corporation Counsel for the deed restriction for operation and maintenance of the privately-owned storm sewer mitigation system, sanitary sewer and water utility.
6. **Sanitary Sewer Ownership.** The applicant will work out an arrangement with the City of Poughkeepsie Corporation Counsel and City Engineer, satisfactory to both, for the City to take ownership of the portion of the proposed sanitary sewer located within the Davies Place Right of Way between proposed Sanitary Manhole #7 and proposed Sanitary Manhole #8, a total of 88 LF, provided that the sanitary sewer is designed by a NYS Licensed Professional Engineer and built to City standards. All other sanitary sewer as part of the development would remain the owner's responsibility.
7. **Certificate of Occupancy.** No certificate of occupancy shall be issued until any and all outstanding fees owed to the City or its consultants have been paid and all proposed improvements shall have been completed in accordance with the approved Site Plan, except that any

residential structure shall receive a certificate, or temporary certificate, of occupancy upon its completion and Site Plan infrastructure sufficient to support its occupancy, provided all payments referred to in this Section 7 have been paid.

- 8. Resolution Acknowledgement.** The Applicant shall sign a copy of this resolution and file it with the Planning Board for the purpose of indicating familiarity with the provisions of this resolution and acknowledging receipt of a copy thereof.

When the above conditions have been satisfied, three (3) sets of the above-referenced plans shall be submitted for endorsement by the Planning Board Chairman or his designee. One (1) set shall be returned to the Applicant, one (1) set will be retained by the Planning Board, and one (1) set will be provided to the City Engineer. The Applicant must return for approval from the Planning Board if any changes from the endorsed plans are subsequently desired.

The foregoing resolution was put to a vote. The following Planning Board members were present and voted as follows:

**THIS RESOLUTION OF CONDITIONAL SITE PLAN APPROVAL
WAS DULY AUTHORIZED AT A REGULAR MEETING OF THE
PLANNING BOARD HELD ON OCTOBER 17, 2023, AND THEREAFTER
DECLARED ADOPTED.**

Date:

Planning Board Member	Aye	Nay	Abstained
Anne Saylor			

Rosaura Andújar-McNeil			
Nick DeLucca			
Marjorie Smith			
Paul Ackerman			
Christopher Petsas			
Brian Veltre (alternate)			

Further information may be obtained from:

Lori Garcia, Clerk
City of Poughkeepsie Planning Board
62 Civic Center Plaza
Poughkeepsie, NY 12601



**THE CITY OF POUGHKEEPSIE
PLANNING BOARD**

62 CIVIC CENTER PLAZA, 2ND FLOOR
POUGHKEEPSIE, NY 12601
Phone: (845) 451-4055
Fax: (845) 451-4006

RESOLUTION OF CONDITIONAL SITE PLAN APPROVAL

In the Matter of the Application of:

36 NORTH CLOVER STREET – PELTON MANOR CARMEL

WHEREAS, on March 26, 2018 Pelton Partners LLC, with offices located at 25 Van Wagner Road, in Poughkeepsie, New York (the “Applicant”), submitted applications to the City of Poughkeepsie (the “City”) related to the purchase and development of property located at 36 North Clover Street, in the City of Poughkeepsie, New York (the “Property”); and

WHEREAS, the Property is currently improved with Pelton Manor and is located in the Mill Street / North Clover Street Historic District; and

WHEREAS, the Property is classified within the Medium High Density “R-4” Residence Zoning District; and

WHEREAS, the Property is owned by the City; and

WHEREAS, the Property is approximately 2.45 acres and identified as parcel number 134001-7057-13-224427 on the City’s official tax map; and

WHEREAS, the Applicant has made applications to the City Common Council (“Common Council”), the City Zoning Board of Appeals (“ZBA”), and the City Planning Board (“Planning Board”) to restore and repurpose the Pelton Manor and develop the Property into multifamily residences, which will result in the construction of forty-four (44) multifamily units (13-studios, 10 one-bedrooms, and 21 two-bedroom units) in six (6) buildings and sixty-seven (67) parking spaces (the “Project”); and

WHEREAS, the Common Council designated the Project a Type 1 Action pursuant to the New York State Environmental Quality Review Act (SEQRA) due to the fact that the Property was located in a historic district; and

WHEREAS, the Common Council was the Lead Agency for SEQRA purposes; and

WHEREAS, an expanded Full Environmental Assessment Form was prepared by The Chazen Companies and dated October 30, 2015 for review by the Common Council (the “2015 EAF”); and

WHEREAS, on December 22, 2015, by resolution, the Common Council accepted a Negative Declaration for the proposed project (negative declaration dated December 14, 2015), finding that the proposed action would not result in a significant adverse impact on the environment (the “Negative Declaration”); and

*City of Poughkeepsie Planning Board
Pelton Manor Carmel Conditional Site Plan Approval
June 19, 2018*

WHEREAS, the Negative Declaration was based on the Project being comprised of the following details, including but not limited to, a total of thirty-nine (39) multifamily dwelling units, seventy-two (72) parking spaces, 1.65 acres of disturbance, and 1.2 acres of impervious surface (the "Original Proposal"); and

WHEREAS, on October 26, 2015 Governor Cuomo signed Ch. 408 of the Laws of 2015 into law authorizing the City to sell the Property to a private entity for a public benefit and economic development; and

WHEREAS, the Applicant entered into a contract for sale with the City, dated January 4, 2016, for the purchase of the Property (the "Contract"); and

WHEREAS, the Contract is still valid as of the date of this Resolution; and

WHEREAS, the City received a letter dated December 7, 2015 from the New York State Office of Parks, Recreation and Historic Preservation ("OPRHP") that stated that "we have no concerns with the current proposal to rehabilitate the historic building and construct additional housing on the site. We are encouraged by plans to rehabilitate Hill House in a historically appropriate manner"; and

WHEREAS, on August 30, 2017 the Applicant submitted to the Planning Board for site plan approval; and

WHEREAS, this original site plan application to the Planning Board included revisions not before the Common Council, including but not limited to forty-one (41) proposed multifamily dwelling units, seventy-two (72) parking spaces, 1.95 acres of area of disturbance, and 1.63 acres of impervious surfaces (the "Site Plan Proposal"); and

WHEREAS, on October 5, 2017 Chazen Companies, Applicant's engineers, determined that the Site Plan Proposal was consistent with the 2015 EAF and the Negative Declaration and that an amended negative declaration was not required; and

WHEREAS, related to the Site Plan Proposal, pursuant to New York State General Municipal Law § 239-m, on November 16, 2017 the Dutchess County Department of Planning and Development issued a "local concern with comments" determination. On April 4, 2018, based on a review of the most recent project revisions, the Dutchess County Department of Planning and Development re-issued its determination for the Planning Board approving the project as a "matter of local concern" without further comments; and

WHEREAS, the Applicant proposed additional revisions to the Project on or around February 13, 2018, which included revised details including but not limited to forty-four (44) multifamily dwelling units, sixty-seven (67) parking spaces (where seventy (70) spaces are required), 2.08 acres of disturbance, and 1.5 acres of impervious surface (the "Project"); and

WHEREAS, The Chazen Companies, the Applicant's engineers, prepared an evaluation, dated March 22, 2018, of the consistency of the Project with the 2015 EAF and Negative Declaration concluding that the Project is "consistent with and within the thresholds of the 2015 FEAF and adopted [N]egative

*City of Poughkeepsie Planning Board
Pelton Manor Carmel Conditional Site Plan Approval
June 19, 2018*

[D]eclaration, and that an amended negative declaration is not required, in accordance with 6 NYCRR Part 617 Section 617.7(e)(1)[]"; the evaluation was submitted to the City Planning Board and the City's engineer for review; and

WHEREAS, on May 1, 2018, the Planning Board's consulting firm, Clark Patterson Lee, after a thorough review of the changes to the Project advised the Planning Board that in comparing "project modifications against the original project and SEQRA determination, we feel that the changes are *de minimus* and do not rise to the level of requiring an amendment to the original Negative Declaration. Therefore, in our professional opinion, the determination remains valid and applicable[]"; and

WHEREAS, the Planning Board held public hearings on November 28, 2017, January 18, 2018, February 21, 2018 and April 17, 2018 on the Project and its related revisions, during which time all who wished to address the Planning Board were heard; and

WHEREAS, on April 11, 2018, the ZBA held a public hearing and granted four (4) area variances for the Project including two side yard setback variances (east and south), a lot area variance, and a parking variance; and

WHEREAS, on November 21, 2017, the City's architectural consultant, MASS Design Group, provided a report to the Planning Board reviewing the Site Plan Proposal to "assist the Planning Board in an effort to serve the long-term visions for the City[]"; and

WHEREAS, on April 24, 2018, MASS Design Group, provided an updated report to the Planning Board based on the most recent projects revisions, which comprise the Project; and

WHEREAS, on April 27, 2018 the Applicant submitted to the Planning Board a report from Tinkelman Architecture defining the compatibility of the Project in the district and neighborhood of the Pelton Manor (the "Tinkelman Report"); and

WHEREAS, the Tinkelman Report provided the Planning Board with an "in-depth analysis of the defining features of architectural compatibility within the Mill Street/North Clover Street Historic District, and the immediate neighborhood of the Pelton Manor" in accordance with City Zoning Code ("Zoning Code") § 19-6.1(e)(1)(b); and

WHEREAS, on May 7, 2018 Tinkelman Architecture submitted a letter to the Planning Board in response to MASS Design Group's letter dated April 24, 2018 (the "Tinkelman Memo") addressing MASS Design Group's comments and concerns; and

WHEREAS, on February 10, 2018, in response to the Planning Board's request for feedback, the City of Poughkeepsie Historic District and Landmark Preservation Commission ("HDLPC") issued comments for the Planning Board's review and consideration; and

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WHEREAS, there has been substantial interest in the community in this Project, both positive and negative; and

WHEREAS, as outlined in Schedule A, the Planning Board received, reviewed and considered several written comments from members of the public related to the Project in addition to those comments made at the relevant public hearings; and

WHEREAS, written comments were accepted by the Planning Board up until April 17, 2018; and

WHEREAS, the Planning Board considered the applications, supporting materials, Applicant comments, consultant comments and public comments, and held its own discussion during meetings held on September 19, 2017, October 17, 2017, November 28, 2017, January 18, 2018, February 21, 2018, March 20, 2018, and April 17, 2018; and

WHEREAS, the Planning Board considered the following materials received from the Applicant:

1. Letter from Tinkelman Architecture dated March 26, 2018.
2. Revised Planning Board site plan application dated March 26, 2018.
3. Revised Project Architectural Drawings — Dated 3/26/2018 — Issued to Planning Board:

PZ-01	Charts and Tables
PZ-02	Adjoining Property Owners
EC1	Map of Existing Conditions
PZ-03	Site Development Plan
PZ-04	Site Section
PZ-05	Site Details
PZ-06	Site Details
PZ-07	Preliminary Floor Plans — Pelton Manor
PZ-08	Preliminary Elevations — Pelton Manor
PZ-09	Preliminary Floor Plans — Fall Kill
PZ-10	Preliminary Elevations — Fall Kill
PZ-11	Preliminary Floor Plans — Dongan
PZ-12	Preliminary Elevations — Dongan
PZ-13	Preliminary Floor Plans — River
PZ-14	Preliminary Elevations — River
PZ-15	Preliminary Floor Plans — Station
PZ-16	Preliminary Elevations — Station
PZ-17	Preliminary Floor Plans — Carriage House
PZ-18	Preliminary Elevations — Carriage House
PZ-19	Street Elevations
PZ-20	Enlarged Monumental Stair Plan & Elevations
PZ-21	Enlarged Pelton Terrace & View Shed Plan & Section

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PZ-22	Front Entrance Sign
PZ-23	Dongan Place Patio Plan, Elevation & Section
PZ-24	Entrance Driveway Plan & Walkway Ramp Plan & Section
PZ-25	Traffic Circulation Plan

4. Revised Project Landscape Drawings - Dated 3/23/2018:

Existing Tree Inventory
Landscape Plan
Landscaping Plant Table
Landscaping Plant Photos
Landscaping Planting Specs and Notes

5. Revised Project Civil Drawings — Dated 3/27/2018:

SG-1	Site Grading
SD-1	Site Drainage
UT-1	Site Utilities
EC-1	Erosion Control
NS-1	Notes Sheet
DN-1	Sanitary Details
DN-2	Water Details
DN-3	Stormwater Details
DN-4	Stormwater Details
DN-5	Erosion Control Details

6. April 27, 2018 report from Tinkelman Architecture “Defining Compatibility in the District and neighborhood of the Pelton Manor”; and

7. “Site Development Plan Findings for Pelton Project for Property known as 36 North Clover Street”, prepared by the Applicant and dated April 30, 2018 including the following exhibits:

- a. Exhibit A – April 10, 2018 ZBA area variance determination;
- b. Exhibit B – Negative Declaration adopted by the Common Council on December 22, 2015;
- c. Exhibit C – Chazen SEQRA consistency analysis dated October 5, 2017; and
- d. Exhibit D – Chazen SEQRA consistency analysis dated March 22, 2018. .

8. May 7, 2018 correspondence from Tinkelman Architecture responding to comments from MASS Design Group; and

9. A 3-D Virtual Reality Simulation that depicted the Project as if it had been built, allowing the viewer to move around the constructed space and to experience the massing of the buildings, the pathways and proposed public space, among other aspects of the Project.

WHEREAS, written and oral comments were received from the City’s consultants and others. Written comments included the following:

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1. Full Environmental Assessment Form prepared by The Chazen Companies ("Chazen") and dated October 30, 2015 with exhibits;
2. Negative Declaration adopted by the Common Council on December 22, 2015;
3. Chazen SEQRA consistency analysis dated October 5, 2017;
4. November 16, 2017 Dutchess County Department of Planning and Development determination;
5. November 21, 2017 "Architectural Review for the City of Poughkeepsie Planning Board" report prepared by MASS Design Group;
6. December 18, 2017 letter from Scott Volkman of Stenger Roberts Davis & Diamond LLP;
7. February 10, 2018 comments from the City of Poughkeepsie Historic District and Landmark Preservation Commission ("HDLPC");
8. Chazen SEQRA consistency analysis dated March 22, 2018;
9. April 4, 2018 Dutchess County Department of Planning and Development determination;
10. April 10, 2018 ZBA area variance determination;
11. Updated Architectural Review for the City of Poughkeepsie Planning Board dated April 24, 2018 and prepared by MASS Design Group;
12. SEQRA consistency analysis prepared by Clark Patterson Lee dated May 1, 2018; and
13. The following written public comments were submitted to the Planning Board;
 - a. November 28, 2017 letter from John Mylod;
 - b. November 28, 2017 letter from Naomi Brooks;
 - c. February 21, 2018 letter from Naomi Brooks;
 - d. April 17, 2018 letter from John Mylod;
 - e. April 17, 2018 letter from Naomi Brooks;
 - f. Letter, Constantine P. Kazolia (undated); and

WHEREAS, the Project will utilize municipal water and sewer, and no additional permits are required; and

WHEREAS, the application for the proposed Project is complete; and

WHEREAS, on this day, the Planning Board has granted Site Plan approval to the Applicant for the Project.

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NOW, THEREFORE, BE IT RESOLVED that the foregoing “whereas” provisions are incorporated by reference as if fully set forth herein; and

BE IT FURTHER RESOLVED that the Planning Board has reviewed all application materials related to the Project and its most recent revisions and finds that the Project is consistent with and within the thresholds of the 2015 EAF and adopted Negative Declaration and that an amended negative declaration is not required; this conclusion is supported by the Planning Board’s consultant Clark Patterson Lee as set forth in greater detail above.

BE IT FURTHER RESOLVED that, pursuant to §19-6.1 of the Zoning Code, the Planning Board has considered the application in conjunction with the applicable requirements and design standards for the R-4 District in which the proposed Project is to be located, and the nature, arrangement and appearance of all structures, improvements and uses which comprise the Project, including their potential effect on adjacent properties, the Mill Street / North Clover Street Historic District, the historic nature of the Pelton Manor, architectural features and land uses, and has given due consideration to the effect of the Project on the public health, safety and welfare; the comfort and convenience of the public in general, and the residents or users of the Project and of the immediate neighborhood in particular, and makes the findings set forth below.

Specifically, the site plan application and supporting materials demonstrate the following:

(a) The site plan is in conformance with the relevant portions of the City Comprehensive Plan.

The City’s Comprehensive Plan (the “Comprehensive Plan”) (November 1998) does not specifically provide recommendations for the Property. The Comprehensive Plan does recommend the creation of a downtown core surrounded by professional offices, neighborhood commercial uses and a mix of office and residential uses surrounding the linear Main Street corridor. See Comprehensive Plan § 6.2.1. The Common Council also made this same finding in the Negative Declaration.

Accordingly, the site plan pending before the Planning Board is consistent with the Comprehensive Plan recommendation by including multi-family residential apartments within walking distance to the downtown core area, train station and surrounding professional offices and commercial uses.

(b) The design of all structures is compatible with that of surrounding structures. Compatibility shall be determined by a review of proposed use of materials, scale, mass, height, color, texture and location of the structure or structures on the site.

Zoning Code § 19-6.1(e)(1)(b) recites that compatibility shall be determined by a review of proposed use of materials, scale, mass, height, color, texture and location of the structure or structures on the site. The word compatible is defined in the Merriam-Webster Dictionary New Edition 2016 as “capable of existing together in harmony.” Therefore, the Planning Board finds that compatibility does not require uniformity.

As noted above and demonstrated in the administrative record (the “Record”), on April 27, 2018 the Applicant submitted a report from Tinkelman Architecture entitled, “Defining Compatibility in the District and neighborhood of the Pelton Manor” (the “Compatibility Report”). In the Compatibility Report, the

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Applicant photographed and analyzed 125 buildings within the Mill Street/North Clover Street Historic District and forty-seven (47) additional nearby buildings within the neighborhood.

In accordance with the Compatibility Report, the application demonstrates that the height, scale and massing for the Project are consistent with the 2-4 story range in the Mill Street / North Clover Historic District (the "District"). In buildings on lots .30 acres or more, 70% of the buildings are 3.5-4 stories. New structures included in the Project flanking the existing three-story Pelton Manor building are two stories or lower in height. The Applicant has noted that this height was specifically designed to respect the existing Pelton Manor.

In addition, the average building footprint coverage for sites greater than .30 acres in the District is 22%. The proposed building footprint on the Pelton site plan is 18.1%. Importantly, the buildings are sited to maximize open space for public gathering. Therefore, the Project is compatible with other similar properties in the District.

We also find that 34% of the buildings within the district are non-brick veneer and have either vinyl or wood siding. The proposed building materials for the Project are sterling grey vinyl siding and dark grey wood composite and are therefore consistent with those in the neighborhood. Color in the District consists of majority red at 44% and gray/white at 27%. Here, the Project color scheme is primarily tones of grey with some areas on the facade with red panels. Therefore, the Project is compatible with the District and neighborhood.

On larger lots of .30 acres or more, 60% of the total structures have porches. The proposed buildings along the Project's Dongan Place have terraces raised above the street level continuing the same fabric of those buildings found along Mill Street. Therefore, the Project is compatible with the District.

The Compatibility Report revealed that there is no consistent style or period of architecture that defines the Mill Street/North Clover Street Historic District or the surrounding neighborhood. However, we find that the large cornice with brackets is a reoccurring detail on both residential and commercial buildings. We also find that another common feature is the "frieze windows" along the upper entablature area. These common details/features are incorporated into the design of the new structures for the Project. Therefore, the Project is compatible with the District and surrounding neighborhood.

Based on the Record, we find that the following building design elements are implemented into the new structures for the Project and are similar to those found on the existing Felton Manor as well as nearby neighborhood structures within the District:

1. The Project design uses different materials, colors of siding and dimension of exposure establishes a lower base, a middle second section and an upper entablature and articulates the private entrances of the individual units promoting a townhouse look and feel to the massing from the street. The Project shifts in planes and diversity of materials and colors are similar features found along Mill Street and in the neighborhood.
2. The Project incorporates exterior balcony/terrace space to encourage residents to engage with the exterior elements as well as promoting a connection to the neighborhood/community. The step back above the balcony levels reflects a two-story structure in the massing along

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the Dongan Place street level.

3. The Project's large entablature and deep overhang with decorative brackets are respectful of the Italianate style and scale of the Pelton Manor albeit while being contemporary in form and material.
4. The Project's proportions and arrangement of the windows at the top floors in the buildings are paired casements, tall and narrow, with transom windows above situated in the entablature to mimic the "frieze windows" in the entablature of the existing Pelton Manor; and
5. The Project's main roof forms on the new buildings are the same low-pitched hip-style found on the Pelton Manor. The use of shallow pitched roof canopies over the entry doors and brise soleil above the windows relates to the flat/low pitched roofs on the Pelton Manor porches and entrances.

Views of the Pelton Manor will be framed by careful placement of the Project's new structures while exposing and engaging the public to the existing Pelton Manor. The new structures are situated on the Property in order to maintain the important west/northwest views of the Hudson River, the Mid-Hudson Bridge, the Walkway over the Hudson and Fall Kill Creek. Dwelling units along Dongan Place are built into the topography to situate the lower apartments adjacent to the street level to create an interactive street scape similar to that found in the surrounding neighborhood. Therefore, the new construction is secondary to the historic Pelton Manor and does not detract from the Property's historic significance.

The Project's new architecture also relates to place in addition to style making it compatible with the District and surrounding neighborhood. There are four areas on the site which have been designed to promote active urban environments: the monumental stair between the northern most structures, the viewing shed area in the northwest corner of the site, the Pelton Manor terrace and viewing platform, and the Davies Place entrance and pathway up to the Pelton Manor. These areas are integrated into the fabric of the District and neighborhood and therefore compatible with the District.

Existing elements such as the rustic stone property retaining wall along the west and north sides and the entrances into the Property are preserved and maintained as existing elements and facilitate circulation through the site for residents and to the public.

Importantly, the Planning Board finds that the new buildings proposed by the Project appropriately contrast with the Pelton Manor structure. The new buildings highlight the Manor's historic presence and detailing while being compatible in scale, proportion, shape and detail. Prior to the current Project design as approved herein, the previous design color schemes included the M4 Meteor Panel at more locations. The Applicant refined the design and the locations of this material to specifically be applied in areas facing the public spaces and to highlight the procession through the site at entrance locations. The balance of the color palette for the new structures is both muted and neutral, thus allowing the Pelton Manor to have a more dynamic presence with its lighter coloration.

In response to the HDLPC comments dated February 10, 2018, the Planning Board specifically notes that, the above Project details demonstrate that the Project's compatibility with the historic nature of

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the Mill Street / North Clover Historic District and the Pelton Manor. As demonstrated above, the Applicant reviewed several surrounding properties and considered both the historic nature of the district and the Pelton Manor in developing the Project. Therefore, the Applicant has retained the historic relationship between the historic district and the Pelton Manor.

In addition, certain public open spaces being provided by the Project will enhance the use of the Property and allow City residents to enjoy the historic district and Pelton Manor vistas by facilitating a walkable community, which is not currently achieved. Specifically, the proposed landscaping and open spaces enhance the context and setting of the Pelton Manor consistent with the goals of a historic district.

Importantly, the Project does not propose any demolition or alteration (other than renovation) of a historic structure. The Project maintains the "gateway" vista of Pelton Manor for those traveling into the City by car or rail by framing the view of Pelton Manor. The Project proposes additional multifamily structures around the Pelton Manor in a manner that respects the historic structure and adds to its prominence in the historic district. The Planning Board finds that development of the Property with the proposed density is required for the Project to proceed. The proposed density will facilitate a walkable community in the Mill Street / North Clover Historic district and the public access to the Property will allow for residents and visitors to enjoy the historic area and vistas.

The Planning Board received and considered a detailed presentation of the architecture and materials proposed by the Applicant on April 17, 2018. The Applicant also provided actual samples of the materials proposed to be used.

In accordance with the above, the Planning Board finds that the design of all structures, including the proposed use of materials, scale, mass, height, color, texture and location of the structure or structures on the Property, is compatible with that of surrounding structures in the District.

(c) All proposed traffic access ways are adequate but not excessive in number; in width, grade, alignment and visibility; not located too near street corners or other places of public assembly; and other similar safety considerations.

The application demonstrates that the proposed traffic access ways are adequate. The proposed traffic access ways are not located too near street corners or other places of public assembly.

The traffic access ways have been designed in compliance with the City's requirements related to width, grade, alignment and visibility. The proposed access way is at a width of twenty-two (22) feet and therefore meets the City's minimum requirements. Further, the access way is relatively flat in its contour with an overall grade elevation change of less than 0.5% over 360 feet. The access way is aligned perpendicular to North Clover Street.

The Planning Board also find that there is ample visibility and sight distance, both in the northerly and southerly directions where the access way connects to North Clover Street, retaining the existing curb cut. The existing curb cut is a safe distance from the nearest street corner. It is approximately 150 feet from the North Clover Street and Mill Street intersection and is not located near places of public assembly that would impact the use of this curb cut. The structures adjacent to the entrance way along North Clover

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Street are significantly set back from the street at twenty-five (25) feet to the north and thirty-three (33) feet to the south allowing for unobstructed views.

Importantly, the access driveway has been used for over 100 years by the previous occupants of the site including the Poughkeepsie Day nursery.

As noted in the Negative Declaration, a traffic assessment was prepared as part of the SEQRA review. This traffic study found, based upon observed traffic patterns and volumes on North Clover Street and the immediate area, that the expected Project generated traffic would not have any significant impact on the local roadway system and that no mitigation due to the Project generated traffic is warranted. Traffic generated by the proposed Project is expected to be less than the traffic generated by the former day nursery facility.

Moreover, based on a review of the application, the Planning Board finds that the entrance driveway is designed with ample street lighting and a double-sided property sign located at the public way which will be illuminated during nighttime hours to assist in locating the entry to this development. The Project sign has been located so as not to impact the visibility of the North Clover Street connection.

In accordance with the above, the Planning Board finds that there will be no negative traffic impact from the Project and that the requirements of Section 19-6.1(e)(1)(c) are satisfied.

(d) That adequate off-street parking and loading spaces are provided to prevent parking in public streets of vehicles of any persons connected with or visiting the use and that the interior circulation system is adequate to provide safe accessibility to all required off-street parking lots, loading bays and building services.

The site plan provides 67 off-street parking spaces where 70 are required by the Zoning Code. The Applicant has obtained an area variance for 3 parking spaces from the ZBA. Therefore, the proposed off-street parking is adequate. The Zoning Code does not require loading spaces in a residential district and the Project appropriately provides none.

Accordingly, the Planning Board finds that an adequate number of off-street parking for vehicles and bicycle storage is proposed so that there will be no need for the use of parking on public streets adjacent to the Property.

Moreover, the property is located directly across from the Waterfront Transit-Oriented Development District (WTOD) as well as the Poughkeepsie train station. This district promotes walking in lieu of car travel. The WTOD district also allows a lower density parking requirement of 0.5 space per dwelling unit which is less than the requirements listed for the R-4 district. The property is also within walking distance of the downtown area, the County office buildings and Marist College. There is also a bus route and stop along Dongan Place to provide an alternative to car travel. Therefore, due to the Project's facilitation of a walkable environment, the need for off-street parking is reduced.

The parking lot driveways and configuration have been established so that the interior circulation system is adequate to provide safe accessibility to all off-street parking spaces and building service facilities. The lot layout and travel lane width of 22'-0" meets all City requirements for the design of such

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facilities. The parking area has been arranged for movement and circulation of life safety and fire service equipment. The project has been reviewed and approved by Ronald Knapp, former City of Poughkeepsie Police Chief, and Mark Johnson, Chief of the City of Poughkeepsie Fire Department.

In accordance with the above, the Planning Board finds that, in satisfaction of Zoning Code § 19-6.1(e)(1)(d), the Project provides an adequate number of off-street parking and loading spaces to prevent parking in public streets and that the interior circulation system is adequate to provide safe accessibility to all required off-street parking lots, loading bays and building services.

(e) That all playground, parking and service areas are reasonably screened at all seasons of the year from the view of adjacent residential lots and streets and that the general landscaping of the site is such as to enhance the character of the city and is in character with that generally prevailing in the neighborhood.

All parking and service areas of the Project are located within the center of the Property. The Property, by reason of natural topography, sits at the top of a hill significantly higher than the street level along the northwestern edges. Therefore, the Planning Board finds that the parking and service areas are not visible from the surrounding City streets regardless of the season of the year.

Moreover, the Applicant has demonstrated that the site will be screened from adjacent residential lots by opaque fencing and/or landscaping along the southern and easterly property lines.

The Applicant has provided a comprehensive landscaping plan. Based on this comprehensive landscaping plan, the Planning Board finds that landscaping will enhance the character of the City and neighborhood as well as the Property. The landscaping plan includes new trees on the site as well as along the green area adjacent to the existing sidewalk on Dongan Place, along with considerable new plantings and ground covers to provide visual effect during the Spring through Fall season. There are approximately 2,700 plants and trees proposed to be planted.

In addition, the Planning Board finds that this landscaping plan will enhance the presence of the Pelton Manor by highlighting and framing the Pelton Manor. The Pelton Manor is not visible to the public at the present time except in winter due to the site being overgrown.

There are no playgrounds or equipment in the design requiring screening.

In accordance with the above, and in satisfaction of Zoning Code § 19 6.1(l)(e)(1)(e), the Planning Board finds that all playground, parking and service areas are reasonably screened at all seasons of the year from the view of adjacent residential lots and streets and that the general landscaping of the site is such as to enhance the character of the City and is in character with that generally prevailing in the neighborhood.

(f) That all existing trees over eight inches in diameter, measured three feet above the base of the trunk, shall be retained to the maximum extent possible.

The application demonstrates that all existing trees over 8" in diameter, measured 3' feet above the base of the trunk, are retained to the maximum extent possible. A detailed inventory of existing trees on the Property was developed by the Applicant to establish tree species and conditions of the thirty-five (35)

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existing trees on the Property (12 of them will be retained). The Planning Board finds that most of the twenty-three (23) trees proposed to be removed are invasive species such as Norway Maples and a Tree of Heaven and are in poor condition or in a state of decline.

Existing mature non-invasive trees such as a Large Leaf Linden tree 26" in caliper located in the parking area and a Sugar Maple tree 28" in caliper located along Davies Place are in good condition, have reached legacy tree status and will remain.

The Planning Board further finds that a 24" caliper Kentucky Coffee tree, having some local significance within the community, will remain as part of the proposed landscaping plan. The westerly most structure was specifically located in order to allow this tree to remain intact.

In accordance with the above, and in satisfaction of Zoning Code § 19-6.1(e)(1)(f), the Planning Board finds that, to the maximum extent possible, existing trees over eight inches in diameter, measured three feet above the base of the trunk, will be retained.

(g) That all plazas and other paved areas intended for use by pedestrians use decorative pavements and plant materials so as to prevent the creation of vast expanses of pavement.

The application demonstrates that all plazas and other paved areas intended for use by pedestrians use decorative pavements and plant materials so as to prevent the creation of vast expanses of pavement.

The parking area has been designed to include two (2) distinctive and separate areas for vehicular parking. The largest Linden tree found on the Property will be retained and is located in the center of the main parking field and will be surrounded by an 18' x 40' planting bed. This will greatly soften the center of the northern parking area.

The landscape parking islands have been designed to incorporate dropped curb inlets to allow for the passage of water into them thus reducing the number of curbs constructed.

Planting beds frame the central parking field and soften the paved area. In addition, the northern most row of parking spaces in the main parking area is subdivided with the placement of a small plaza constructed of stone pavers, landscaping and benches. This pedestrian element also acts as the formal entrance to the project's monumental staircase that connects the interior of the project site to Dongan Place.

The entire northern parking area, consisting of forty-one spaces, is broken into four distinct zones to reduce the expanse of paving. In addition, the entire perimeter of this area is framed with both lawn and landscaping.

In response to the HDLPC comments dated February 10, 2018, the Planning Board specifically notes that, the above Project details demonstrate that the Project's parking areas, access ramps and related lighting are unobtrusive to the maximum extent possible while still providing a safe environment for residents and pedestrians.

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In accordance with the above, and in satisfaction of Zoning Code § 19-6.1(e)(1)(g), the Planning Board finds that decorative pavements and plant materials are utilized in all plazas and other paved areas intended for use by pedestrians use so as to prevent the creation of vast expanses of pavement.

(h) That all outdoor lighting is of such nature and so arranged as to preclude the diffusion of glare onto adjoining properties and streets.

The application demonstrates that all outdoor lighting is of such nature and so arranged as to preclude the diffusion of glare on to adjoining properties and streets.

The lighting of the parking area will be from fixtures that will not exceed sixteen (16) feet in height and have been placed to prevent light spillage on to neighboring properties. All other lighting fixtures are decorative in nature, being either waist high, low level bollards for creating illumination for safety along walkways or stairways, or are wall mounted for marking the entry of a given dwelling unit. These fixtures are also decorative in nature.

The lighting design, using best practices, has taken into account reducing the amount of light spillage on to adjacent properties by limiting foot candles to minimum requirements while maintaining levels adequate for safety, as well as using downward facing glare shields on the fixtures.

The Pelton Manor will be lit at night by up lighting the structure. With this up lighting technique, the selected fixtures provide the requisite light source that will not be cause glare.

All proposed site lighting fixtures are located within the internal portion of the Property and thus reduce potential light spillage on adjacent properties.

In accordance with the above, and in satisfaction of Zoning Code § 19-6.1(e)(1)(h), the Planning Board finds that all proposed outdoor lighting is of such nature and so arranged as to preclude the diffusion of glare onto adjoining properties and streets.

(i) That the drainage system and the internal water and sewer systems are adequate and that all connection to city systems are in accordance with city standards.

The application demonstrates that the drainage system and the internal water and sewer systems are adequate and all connections to City systems are in accordance with City standards.

All work in constructing this Project will be performed in accordance with all governing codes and City requirements. The Property is connected to municipal water and sewer service. The development will result in an increase of water usage and waste water generation over the former use of the Property as a day nursery.

Correspondence from the City Commissioner of Public Works dated October 26, 2015, and from Ed Steeprock, Project Manager of the City Water Plant Operations dated October 28, 2015, state that the City has sufficient capacity to provide water and sewer service to the proposed Project.

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The final drawings and plans will be reviewed and ultimately approved by the City Water and Sewer Departments. All civil design work by LRC Engineers will be certified to meet all governing regulations.

The Applicant has incorporated elements into the design to control and treat storm water runoff including the use of catch basins, storm-sewer piping, bioretention and porous pavement. Post development flow off the Property will not increase from pre-development conditions.

Water efficient plumbing fixtures and equipment will be incorporated into the design of the dwelling units thus reducing overall water usage and waste water generation. Water utility lines will be connected to a City water meter pit enabling the measuring and monitoring of water usage.

In accordance with the above, and in satisfaction of Zoning Code § 19-6.1(e)(1)(i), the Planning Board finds that the proposed drainage system and the internal water and sewer systems are adequate and that all connection to City systems are in accordance with City standards.

(j) That the site plan and building design accommodate the needs of the handicapped and are in conformance with the state standards for construction concerning the handicapped.

The application demonstrates that the site plan and the building design will accommodate the needs of the handicapped and are in conformance with the New York State's Standards for Construction concerning the handicapped, as follows:

1. Four (4) accessible parking spaces have been provided throughout the Property together with requisite drop curbs to allow connection to the walkway system. The required number of accessible parking spaces is three (3) per the 2015 International Building Code. Detailing of such spaces will meet all governing codes.
2. Accessible pathways with 2% slope or less have been designed to allow for connection from the North Clover Street entrance of the site to all public facilities such as the community spaces and outdoor terrace, the gym, bicycle room, storage areas and dog wash station.
3. Accessible dwelling units are also provided as per the requirements in the 2015 International Building Code. Where one "Type A" unit is required, the Project is providing two units. All apartments accessed at grade level are "Type B" units meeting the requirements and exceptions as elaborated in the Building Code.
4. Handicap access from North Clover Street will be provided with a new concrete sidewalk.
5. Mandated signage and site markings will be provided, as required by code.

In accordance with the above, and in satisfaction with Zoning Code § 19-6.1(e)(1)(j), the Planning Board finds that the Project site plan and building design accommodate the needs of the handicapped and are in conformance with the state standards for construction concerning the handicapped.

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(k) That the site plan and building design maximize the conservation of energy.

The application demonstrates that the Project buildings will either meet or exceed the requirements as mandated in the 2015 International Energy Conservation Code. The Applicant has noted that quality windows, energy efficient HVAC equipment and a substantive insulated building envelope will be included in the final building construction detailing and specifications. Further, energy star rated appliances and fixtures utilizing LED light bulbs will be incorporated into the dwelling units.

The parking area and access way configuration have been designed to minimize the required area to the extent practicable.

Two (2) electric car charging stations will be provided with the construction of the parking lot.

In accordance with the above, and in satisfaction with Zoning Code § 19-6.1(e)(1)(j), the Planning Board finds that the proposed site plan and building design maximize the conservation of energy.

AND, BE IT FURTHER RESOLVED that based on the foregoing findings, the Planning Board finds that the granting of site plan approval for the Project is appropriate, but that the imposition of certain conditions and safeguards is required to further the expressed intent of Chapter 19 of the City Zoning Code, as follows:

1. **Public Access.** As depicted on site plan sheet PZ-03 and labeled "Viewing Shed Area," limited public access for passive activities such as walking areas and sitting benches on a portion of the Property shall be instituted and maintained on the Property as a part of the Project. Such public access shall be subject to the following rules and regulations:
 - a. Access will be permitted from dawn to dusk, seven days a week for passive recreational use.
 - b. The consumption of alcoholic beverages and the use or consumption of controlled substances are prohibited.
 - c. Smoking is prohibited on the Property.
 - d. The public entering on the Property will be required to act in a lawful manner and to refrain from loud and annoying sound.
 - e. The public entering on the Property will be required to remove all trash created by their presence on the Property.
 - f. Amplified music or other amplified sounds are prohibited.
 - g. The use of skateboards and bicycles are prohibited.
 - h. Guns, knives and all other weapons are prohibited except by law enforcement officials.
 - i. All activities which negatively interfere with the quiet enjoyment of the tenants are prohibited.
 - j. The public access space shall be ADA compliant.
 - k. The Rules and Regulations may be modified from time to time by the owner of the Property subject to the approval of the City Planning Department.

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2. **Sewer and Water.** The applicant will provide language satisfactory to the City of Poughkeepsie Corporation Counsel for the deed restriction for operation and maintenance of the privately-owned storm sewer mitigation system, sanitary sewer and water utility.
3. **Sanitary Sewer Ownership.** The applicant will work out an arrangement with the City of Poughkeepsie Corporation Counsel and City Engineer, satisfactory to both, for the City to take ownership of the portion of the proposed sanitary sewer located within the Davies Place Right of Way between proposed Sanitary Manhole #7 and proposed Sanitary Manhole #8, a total of 88 LF, provided that the sanitary sewer is designed by a NYS Licensed Professional Engineer and built to City standards. All other sanitary sewer as part of the development would remain the owner's responsibility.
4. **Certificate of Occupancy.** No certificate of occupancy shall be issued until any and all outstanding fees owed to the City or its consultants have been paid and all proposed improvements shall have been completed in accordance with the approved Site Plan.
5. **Resolution Acknowledgement.** The Applicant shall sign a copy of this resolution and file it with the Planning Board for the purpose of indicating familiarity with the provisions of this resolution and acknowledging receipt of a copy thereof.

Other conditions:

*

*

When the above conditions have been satisfied, three (3) sets of the above-referenced plans shall be submitted for endorsement by the Planning Board Chairman or his designee. One (1) set shall be returned to the Applicant, one (1) set will be retained by the Planning Board, and one (1) set will be provided to the City Engineer. The Applicant must return for approval from the Planning Board if any changes from the endorsed plans are subsequently desired.

The foregoing resolution was put to a vote. The following Planning Board members were present and voted as follows:

Robert Levine, Chair	RECUSED
Daniel McCabe, Vice Chair	Aye
Sakima A.G. Brown	Absent
Robert Mallory	Excused
Patrick Moore	Aye
Anne Saylor	Aye
Marjorie Smith	Aye
Richard E. Mignault, Alternate	Absent

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THIS RESOLUTION OF CONDITIONAL SITE PLAN APPROVAL WAS DULY AUTHORIZED AT A REGULAR MEETING OF THE PLANNING BOARD HELD ON JUNE 19, 2018, AND THEREAFTER DECLARED ADOPTED.

Date

6/26/18

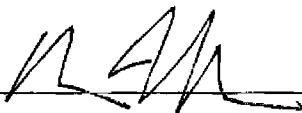

Daniel McCabe, Vice Chair

Further information may be obtained from:

THE CITY OF POUGHKEEPSIE PLANNING BOARD
62 CIVIC CENTER PLAZA, 2ND FLOOR
POUGHKEEPSIE, NY 12601
Phone: (845) 451-4055
Fax: (845) 451-4006

Received and Reviewed:

Signature of Applicant:



Name (please print):

STEVEN TILKELMAN

Title:

MANAGING MEMBER / PELTON PARTNERS LLC

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**SCHEDULE A
LIST OF WRITTEN COMMENTS RECEIVED**

Applicant Written Comments:

- 1) March 26, 2018, Letter, Tinkelman Architecture.
- 2) April 27, 2018, Report, Tinkelman Architecture, "Defining Compatibility in the District and neighborhood of the Pelton Manor".
- 3) April 30, 2018, "Site Development Plan Findings for Pelton Project for Property known as 36 North Clover Street" with exhibits.
- 4) May 7, 2018, Letter, Tinkelman Architecture.

Public Hearing Submittals:

- 1) November 28, 2017, Letter, John Mylod, P.O. Box 1169, Poughkeepsie, NY 12602.
- 2) November 28, 2017, Letter, Naomi Brooks, 56 Dutchess Avenue, Poughkeepsie, NY 12602.
- 3) February 21, 2018, Letter, Naomi Brooks, 56 Dutchess Avenue, Poughkeepsie, NY 12602.
- 4) April 17, 2018, Letter, John Mylod, P.O. Box 1169, Poughkeepsie, NY 12602.
- 5) April 17, 2018, Letter, Naomi Brooks, 56 Dutchess Avenue, Poughkeepsie, NY 12602.
- 6) NO DATE, Letter, Contintine P. Kazolia, 47 Noxon Street, Poughkeepsie, NY 12602.

Other:

- 1) December 18, 2017, Letter, Scott Volkman, Stenger Roberts Davis & Diamond LLP.
- 2) February 10, 2018, Letter, City of Poughkeepsie Historic District and Landmark Preservation Commission.
- 3) April 24, 2018, Letter, MASS Design Group.

RESOLUTION OF CONDITIONAL AMENDED SITE PLAN APPROVAL

In the Matter of the Application of:

36 NORTH CLOVER STREET – PELTON MANOR CARMEL

WHEREAS, the Planning Board of the City of Poughkeepsie (the, “Planning Board”) received an application dated June 25, 2019 for site plan approval from Pelton Partners, LLC (the, “Applicant”), contract vendee of a ±2.45 acre parcel of real property located at 36 North Clover Street, City of Poughkeepsie, County of Dutchess, New York, which bears tax map parcel identification number 6062-75-837228 (the, “Property”); and

WHEREAS, the Property is owned by the City of Poughkeepsie; and

WHEREAS, the Property is currently improved with Pelton Manor and is located in the Mill Street / North Clover Street Historic District; and

WHEREAS, the Property is in the Medium High Density “R-4” Residence Zoning District; and

WHEREAS, on July 23, 2018, the Planning Board granted conditional site plan approval for the restoration and repurposing of the Pelton Manor and the development of the Property into multifamily residences, which will result in the construction of forty-four (44) multifamily units (14-studios, 19 one-bedrooms, and 13 two-bedroom units) in six (6) buildings and sixty-seven (67) parking spaces (the “Project”); and

WHEREAS, pursuant to Section 19-6.1(3)(a) of the Zoning Code, the Applicant requested an extension of the Condition Site Plan Approval dated June 18, 2018; and

WHEREAS,; and

THE ENVIRNOMENTAL REVIEW

WHEREAS, the Common Council designated the Project a Type 1 Action pursuant to the New York State Environmental Quality Review Act (SEQRA) due to the fact that the Property was located in a historic district; and

WHEREAS, the Common Council was the Lead Agency for SEQRA purposes; and

WHEREAS, an expanded Full Environmental Assessment Form was prepared by The Chazen Companies and dated October 30, 2015 for review by the Common Council (the “2015 EAF”); and

WHEREAS, on December 22, 2015, by resolution, the Common Council accepted a Negative Declaration for the proposed project (negative declaration dated December 14, 2015), finding that the proposed action would not result in a significant adverse impact on the environment (the “Negative Declaration”); and

WHEREAS, the Negative Declaration was based on the Project being comprised of the following details, including but not limited to, a total of thirty-nine (39) multifamily dwelling units, seventy-two (72) parking spaces, 1.65 acres of disturbance, and 1.2 acres of impervious surface (the “Original Proposal”); and

WHEREAS, on October 26, 2015 Governor Cuomo signed Ch. 408 of the Laws of 2015 into law authorizing the City to sell the Property to a private entity for a public benefit and economic development; and

WHEREAS, the Applicant entered into a contract for sale with the City, dated January 4, 2016, for the purchase of the Property (the “Contract”); and

WHEREAS, the Contract is still valid as of the date of this Resolution; and

WHEREAS, the City received a letter dated December 7, 2015 from the New York State Office of Parks, Recreation and Historic Preservation (“OPRHP”) that stated that “we have no concerns with the current proposal to rehabilitate the historic building and construct additional housing on the site. We are encouraged by plans to rehabilitate Hill House in a historically appropriate manner”; and

THE ORIGINAL CONDITIONAL SITE PLAN APPROVAL

WHEREAS, on August 30, 2017 the Applicant submitted its original application to the Planning Board for site plan which site plan was conditionally approved on July 23, 2018 (the, “Original Site Plan”); and

WHEREAS, this Original Site Plan application to the Planning Board included revisions not before the Common Council, including but not limited to forty-one (41) proposed multifamily dwelling units, seventy-two (72) parking spaces, 1.95 acres of area of disturbance, and 1.63 acres of impervious surfaces; and

WHEREAS, on October 5, 2017 Chazen Companies, Applicant’s engineers, determined that the Original Site Plan was consistent with the 2015 EAF and the Negative Declaration and that an amended negative declaration was not required; and

WHEREAS, related to the Original Site Plan, pursuant to New York State General Municipal Law § 239-m, on November 16, 2017 the Dutchess County Department of Planning and Development issued a “local concern with comments” determination. On April 4, 2018, based on a review of the most recent project revisions, the Dutchess County Department of Planning and Development re-issued its determination for the Planning Board approving the project as a “matter of local concern” without further comments; and

WHEREAS, the Applicant proposed additional revisions to the Project on or around February 13, 2018, which included revised details including but not limited to forty-four (44) multifamily dwelling units, sixty-seven (67) parking spaces (where seventy (70) spaces are required), 2.08 acres of disturbance, and 1.5 acres of impervious surface (the “Project”); and

WHEREAS, The Chazen Companies, the Applicant’s engineers, prepared an evaluation, dated March 22, 2018, of the consistency of the Project with the 2015 EAF and Negative Declaration concluding that the Project is “consistent with and within the thresholds of the 2015 FEAF and adopted [N]egative [D]eclaration, and that an amended negative declaration is not required, in accordance with 6 NYCRR Part 617 Section 617.7(e)(1)[]”; the evaluation was submitted to the City Planning Board and the City’s engineer for review; and

WHEREAS, on May 1, 2018, the Planning Board’s consulting firm, Clark Patterson Lee, after a thorough review of the changes to the Project advised the Planning Board that in comparing “project modifications against the original project and SEQRA determination, we feel that the changes are *de minimus* and do not rise to the level of requiring an amendment to the original Negative Declaration. Therefore, in our professional opinion, the determination remains valid and applicable[]”; and

WHEREAS, the Planning Board held public hearings on November 28, 2017, January 18, 2018, February 21, 2018 and April 17, 2018 on the Project and its related revisions, during which time all who wished to address the Planning Board were heard; and

WHEREAS, on April 11, 2018, the ZBA held a public hearing and granted four (4) area variances for the Project including two side yard setback variances (east and south), a lot area variance, and a parking variance; and

WHEREAS, on November 21, 2017, the City’s architectural consultant, MASS Design Group, provided a report to the Planning Board reviewing the Site Plan Proposal to “assist the Planning Board in an effort to serve the long-term visions for the City[]”; and

WHEREAS, on April 24, 2018, MASS Design Group, provided an updated report to the Planning Board based on the most recent projects revisions, which comprise the Project; and

WHEREAS, on April 27, 2018 the Applicant submitted to the Planning Board a report from Tinkleman Architecture defining the compatibility of the Project in the district and neighborhood of the Pelton Manor (the “Tinkelman Report”); and

WHEREAS, the Tinkelman Report provided the Planning Board with an “in-depth analysis of the defining features of architectural compatibility within the Mill Street/North Clover Street Historic District, and the immediate neighborhood of the Pelton Manor” in accordance with City Zoning Code (“Zoning Code”) § 19-6.1(e)(1)(b); and

WHEREAS, on May 7, 2018 Tinkleman Architecture submitted a letter to the Planning Board in response to MASS Design Group’s letter dated April 24, 2018 (the “Tinkelman Memo”) addressing MASS Design Group’s comments and concerns; and

WHEREAS, on February 10, 2018, in response to the Planning Board’s request for feedback, the City of Poughkeepsie Historic District and Landmark Preservation Commission (“HDLPC”) issued comments for the Planning Board’s review and consideration; and

WHEREAS, there has been substantial interest in the community in this Project, both positive and negative; and

WHEREAS, the Planning Board received, reviewed and considered several written comments from members of the public related to the Project in addition to those comments made at the relevant public hearings; and

WHEREAS, written comments were accepted by the Planning Board up until April 17, 2018; and

WHEREAS, the Planning Board considered the applications, supporting materials, Applicant comments, consultant comments and public comments, and held its own discussion during meetings held on September 19, 2017, October 17, 2017, November 28, 2017, January 18, 2018, February 21, 2018, March 20, 2018, and April 17, 2018; and

WHEREAS, the Planning Board considered the following materials received from the Applicant:

1. Letter from Tinkelman Architecture dated March 26, 2018.
2. Revised Planning Board site plan application dated March 26, 2018.
3. Revised Project Architectural Drawings — Dated 3/26/2018 — Issued to Planning Board:
 - PZ-01 Charts and Tables
 - PZ-02 Adjoining Property Owners
 - EC1 Map of Existing Conditions
 - PZ-03 Site Development Plan
 - PZ-04 Site Section
 - PZ-05 Site Details
 - PZ-06 Site Details
 - PZ-07 Preliminary Floor Plans — Pelton Manor
 - PZ-08 Preliminary Elevations — Pelton Manor
 - PZ-09 Preliminary Floor Plans — Fall Kill
 - PZ-10 Preliminary Elevations — Fall Kill
 - PZ-11 Preliminary Floor Plans — Dongan
 - PZ-12 Preliminary Elevations — Dongan
 - PZ-13 Preliminary Floor Plans — River
 - PZ-14 Preliminary Elevations — River
 - PZ-15 Preliminary Floor Plans - Station
 - PZ-16 Preliminary Elevations — Station
 - PZ-17 Preliminary Floor Plans — Carriage House
 - PZ-18 Preliminary Elevations — Carriage House
 - PZ-19 Street Elevations
 - PZ-20 Enlarged Monumental Stair Plan & Elevations
 - PZ-21 Enlarged Pelton Terrace & View Shed Plan & Section
 - PZ-22 Front Entrance Sign
 - PZ-23 Dongan Place Patio Plan, Elevation & Section
 - PZ-24 Entrance Driveway Plan & Walkway Ramp Plan & Section
 - PZ-25 Traffic Circulation Plan

4. Revised Project Landscape Drawings - Dated 3/23/2018:

Existing Tree Inventory
Landscape Plan
Landscaping Plant Table
Landscaping Plant Photos
Landscaping Planting Specs and Notes

5. Revised Project Civil Drawings — Dated 3/27/2018:

SG-1	Site Grading
SD-1	Site Drainage
UT-1	Site Utilities
EC-1	Erosion Control
NS-1	Notes Sheet
DN-1	Sanitary Details
DN-2	Water Details
DN-3	Stormwater Details
DN-4	Stormwater Details
DN-5	Erosion Control Details

6. April 27, 2018 report from Tinkelman Architecture “Defining Compatibility in the District and neighborhood of the Pelton Manor”; and

7. “Site Development Plan Findings for Pelton Project for Property known as 36 North Clover Street”, prepared by the Applicant and dated April 30, 2018 including the following exhibits:

- a. Exhibit A – April 10, 2018 ZBA area variance determination;
- b. Exhibit B – Negative Declaration adopted by the Common Council on December 22, 2015;
- c. Exhibit C – Chazen SEQRA consistency analysis dated October 5, 2017; and
- d. Exhibit D – Chazen SEQRA consistency analysis dated March 22, 2018.

8. May 7, 2018 correspondence from Tinkelman Architecture responding to comments from MASS Design Group; and

9. A 3-D Virtual Reality Simulation that depicted the Project as if it had been built, allowing the viewer to move around the constructed space and to experience the massing of the buildings, the pathways and proposed public space, among other aspects of the Project.

WHEREAS, after its extensive review, on July 23, 2018, the Planning Board granted Site Plan approval to the Applicant for the Project; and

THE AMENDED SITE PLAN APPLICATION

WHEREAS, the application seeking amended site plan approval proposes certain changes and additional improvements to be made to the Project, including, among other things, the relocation of the River building to increase open space around the Pelton Manor; the elimination of street level retaining walls which was replaced with street side covered entries and stairs; several retaining walls surrounding the monumental stair have been revised to reduce the overall massing; the parking lot and driveway have been moved to created more open space; benches, planters, and paved terraces have been eliminated in the viewing shed area; the Pelton Manor terrace has been modified by eliminating the western cantilevered seating area; the retaining wall at the Davies Place entrance has been modified and a dog park and additional access walks have been added (the, “Amended Project”); and

WHEREAS, the Original Site Plan as approved is incorporated herein and made a part hereof as fully set forth here, except for the proposed changes contained in the Amended Site Plan and together are collectively known as the “Amended Site Plan”); and

WHEREAS, along with its application dated June 25, 2019 the Applicant has submit the following documents is support of its application for Amended Site Plan:

1. Letter from Tinkelman Architecture dated June 25, 2019.
2. Letter from Tinkelman Architecture dated July 11,2019, revised July 12, 2019.
3. Revised Amended Project Architectural Drawings — Dated 3/26/2018 — Issued to Planning Board:

PZ-01	Charts and Tables
PZ-02	Adjoining Property Owners
PZ-03	Site Development Plan
PZ-04	Site Section
PZ-05	Site Details
PZ-06	Site Details
PZ-07	Preliminary Floor Plans — Pelton Manor
PZ-08	Preliminary Elevations — Pelton Manor
PZ-08.1	Material Callouts- Pelton Manor
PZ-10	Preliminary Elevations — Fall Kill

PZ-12	Preliminary Elevations — Dongan
PZ-14	Preliminary Elevations — River
PZ-16	Preliminary Elevations — Station
PZ-18	Preliminary Elevations — Carriage House
PZ-19	Street Elevations
PZ-20	Enlarged Monumental Stair Plan & Elevations
PZ-21	Enlarged Pelton Terrace & View Shed Plan & Section
PZ-22	Front Entrance Sign
PZ-23	Dongan Place Patio Plan, Elevation & Section
PZ-24	Entrance Driveway Plan & Walkway Ramp Plan & Section
PZ-25	Traffic Circulation Plan

4. Revised Amended Project Landscape Drawings - Dated 6/24/2019:

Existing Tree Inventory
Landscape Plan
Landscaping Plant Table
Landscaping Planting Specs and Notes

5. Revised Amended Project Material Spec Booklet consisting of specs M1- M18 and dated _____ .

6. State Environmental Quality Review Comparison of Impacts- Concept Plan Reviewed for Negative Declaration Adopted 12-21-2015 vs Currently Proposed Amended Site Plan” prepared by The Chazen Companies dated June 25, 2019; and

WHEREAS, on July 16, 2019 at a regularly scheduled meeting of Planning Board, Applicant provide the Planning Board with an overview of the Amended Site Plan Application, and at that time the board determined that the application should proceed without the necessity of a public hearing and voted to refer the Amended Site Plan Application to the Planning Board’s engineering consultant Clark Patterson Lee for the purpose of determine whether or not the Amended Site Plan Application will affect the Negative Declaration issued pursuant to SEQRA; and

WHEREAS, the Amended Site Plan Application is deemed complete; and

NOW, THEREFORE, BE IT RESOLVED that the foregoing “whereas” provisions are incorporated by reference as if fully set forth herein; and

BE IT FURTHER RESOLVED that the Planning Board has reviewed all application materials related to the Amended Project and its most recent revisions and finds that the Amended Project is consistent with and within the thresholds of the 2015 EAF and adopted Negative Declaration and that an amended negative declaration is not required; this conclusion is supported by the Planning Board's consultant Clark Patterson Lee in a Memorandum dated August 18, 2019 which states:

“Based on the information contained in the above documents and our own review of the project modifications against the original project (2015), the revised project (2018), this secondary revision (2019), the original 2105 SEQRA determination and subsequent reviews in 2018 and 2019, we feel that the changes are de minis and do not rise to the level of requiring an amendment to the original Negative Declaration. We concur with the SEQRA comparison provided by the applicant and therefore, in our professional opinion, the original SEQRA determination remains valid and applicable.

BE IT FURTHER RESOLVED that, pursuant to §19-6.1 of the Zoning Code, the Planning Board has considered the application in conjunction with the applicable requirements and design standards for the R-4 District in which the proposed Amended Project is to be located, and the nature, arrangement and appearance of all structures, improvements and uses which comprise the Amended Project, including their potential effect on adjacent properties, the Mill Street / North Clover Street Historic District, the historic nature of the Pelton Manor, architectural features and land uses, and has given due consideration to the effect of the Amended Project on the public health, safety and welfare; the comfort and convenience of the public in general, and the residents or users of the Amended Project and of the immediate neighborhood in particular, and makes the findings set forth below.

Specifically, the site plan application and supporting materials demonstrate the following:

- (a) The Amended Site Plan is in conformance with the relevant portions of the City Comprehensive Plan.*

The City's Comprehensive Plan (the "Comprehensive Plan") (November 1998) does not specifically provide recommendations for the Property. The Comprehensive Plan does recommend the creation of a downtown core surrounded by professional offices, neighborhood commercial uses and a mix of office and residential uses surrounding the linear Main Street corridor. See Comprehensive Plan § 6.2.1. The Common Council also made this same finding in the Negative Declaration.

Accordingly, the Amended Site Plan pending before the Planning Board is consistent with the Comprehensive Plan recommendation by including multi-family residential apartments within walking distance to the downtown core area, train station and surrounding professional offices and commercial uses.

(b) The design of all structures is compatible with that of surrounding structures. Compatibility shall be determined by a review of proposed use of materials, scale, mass, height, color, texture and location of the structure or structures on the site.

Zoning Code § 19-6.1(e)(1)(b) recites that compatibility shall be determined by a review of proposed use of materials, scale, mass, height, color, texture and location of the structure or structures on the site. The word compatible is defined in the Merriam-Webster Dictionary New Edition 2016 as "capable of existing together in harmony." Therefore, the Planning Board finds that compatibility does not require uniformity.

As noted above and demonstrated in the administrative record (the "Record"), on April 27, 2018 the Applicant submitted a report from Tinkelman Architecture entitled, "Defining Compatibility in the District and neighborhood of the Pelton Manor" (the "Compatibility Report").

In the Compatibility Report, the Applicant photographed and analyzed 125 buildings within the Mill Street/North Clover Street Historic District and forty-seven (47) additional nearby buildings within the neighborhood.

In accordance with the Compatibility Report, the Planning Board found that the Project height, scale and massing were consistent with the 2-4 story range in the Mill Street / North Clover Historic District (the "District"). In buildings on lots .30 acres or more, 70% of the buildings are 3.5-4 stories. New structures included in the Project flanking the existing three-story Pelton Manor building are two stories or lower in height. The Applicant has noted that this height was specifically designed to respect the existing Pelton Manor. The Planning Board further finds that the Amended Project only serves to improve on the height, scale and massing by reducing the height of a portion of the buildings and the softening of the massing of the monumental stairs.

In addition, the average building footprint coverage for sites greater than .30 acres in the District is 22%. The proposed building footprint on the Pelton site plan is 18.1%. Importantly, the buildings are sited to maximize open space for public gathering. Therefore, the Amended Project is compatible with other similar properties in the District.

We also find that 34% of the buildings within the district are non-brick veneer and have either vinyl or wood siding. The proposed building materials for the Amended Project are sterling grey and dark grey wood composite and are therefore consistent with those in the neighborhood. Color in the District consists of majority red at 44% and gray/white at 27%. Here, the Amended

Project color scheme is primarily tones of grey with some areas on the facade with red panels. Therefore, the Amended Project is compatible with the District and neighborhood.

On larger lots of .30 acres or more, 60% of the total structures have porches. The proposed buildings along the Amended Project's Dongan Place have terraces raised above the street level continuing the same fabric of those buildings found along Mill Street. The Amended Project incorporates street side covered entries and stairs meant to create a front porch space at the street level to continue the fabric of the adjacent neighboring traditional front porches. Therefore, the Amended Project is compatible with the District.

The Compatibility Report revealed that there is no consistent style or period of architecture that defines the Mill Street/North Clover Street Historic District or the surrounding neighborhood. However, we find that the large cornice with brackets is a reoccurring detail on both residential and commercial buildings. We also find that another common feature is the "frieze windows" along the upper entablature area. These common details/features are incorporated into the design of the new structures for the Amended Project. Therefore, the Amended Project is compatible with the District and surrounding neighborhood.

Based on the Record, we find that the following building design elements are implemented into the new structures for the Amended Project and are similar to those found on the existing Pelton Manor as well as nearby neighborhood structures within the District:

1. The Amended Project design uses different materials, colors of siding and

dimension of exposure establishes a lower base, a middle second section and an upper entablature and articulates the private entrances of the individual units promoting a townhouse look and feel to the massing from the street. The Amended Project shifts in planes and diversity of materials and colors are similar features found along Mill Street and in the neighborhood.

2. The Amended Project incorporates front porch/terrace space to encourage residents to engage with the exterior elements as well as promoting a connection to the neighborhood/community. The step back above the balcony levels reflects a two-story structure in the massing along the Dongan Place street level.
3. The Amended Project's large entablature and deep overhang with decorative brackets are respectful of the Italianate style and scale of the Pelton Manor albeit while being contemporary in form and material.
4. The Amended Project's proportions and arrangement of the windows at the top floors in the buildings are paired casements, tall and narrow, with transom windows above situated in the entablature to mimic the "frieze windows" in the entablature of the existing Pelton Manor; and
5. The Amended Project's main roof forms on the new buildings are the same low-pitched hip-style found on the Pelton Manor. The use of shallow pitched roof canopies over the entry doors and brise soleil above the windows relates to the

flat/low pitched roofs on the Pelton Manor porches and entrances.

Views of the Pelton Manor will be framed by careful placement of the Amended Project's new structures while exposing and engaging the public to the existing Pelton Manor. The new structures are situated on the Property in order to maintain the important west/northwest views of the Hudson River, the Mid-Hudson Bridge, the Walkway over the Hudson and Fall Kill Creek. Dwelling units along Dongan Place are built into the topography to situate the lower apartments adjacent to the street level to create an interactive street scape similar to that found in the surrounding neighborhood. Therefore, the new construction is secondary to the historic Pelton Manor and does not detract from the Property's historic significance.

The Amended Project's new architecture also relates to place in addition to style making it compatible with the District and surrounding neighborhood. There are four areas on the site which have been designed to promote active urban environments: the monumental stair between the northern most structures, the viewing shed area in the northwest corner of the site, the Pelton Manor terrace and viewing platform, and the Davies Place entrance and pathway up to the Pelton Manor. These areas are integrated into the fabric of the District and neighborhood and therefore compatible with the District.

Existing elements such as the rustic stone property retaining wall along the west and north sides and the entrances into the Property are preserved and maintained as existing elements and facilitate circulation through the site for residents and to the public.

Importantly, the Planning Board finds that the new buildings proposed by the Amended Project appropriately contrast with the Pelton Manor structure. The new buildings highlight the Manor's historic presence and detailing while being compatible in scale, proportion, shape and

detail. Prior to the current Amended Project design as approved herein, the previous design color schemes included the M4 Meteor Panel at more locations. The Applicant refined the design and the locations of this material to specifically be applied in areas facing the public spaces and to highlight the procession through the site at entrance locations. The balance of the color palette for the new structures is both muted and neutral, thus allowing the Pelton Manor to have a more dynamic presence with its lighter coloration.

In response to the HDLPC comments dated February 10, 2018, the Planning Board specifically notes that, the above Amended Project details demonstrate that the Amended Project's compatibility with the historic nature of the Mill Street / North Clover Historic District and the Pelton Manor. As demonstrated above, the Applicant reviewed several surrounding properties and considered both the historic nature of the district and the Pelton Manor in developing the Amended Project. Therefore, the Applicant has retained the historic relationship between the historic district and the Pelton Manor. The Amended Project also increases the distance between the River building and the Pelton Mansion to increase the "zone of respect" as recommended by the HDLPC.

In addition, certain public open spaces being provided by the Amended Project will enhance the use of the Property and allow City residents to enjoy the historic district and Pelton Manor vistas by facilitating a walkable community, which is not currently achieved. Specifically, the proposed landscaping and open spaces enhance the context and setting of the Pelton Manor consistent with the goals of a historic district.

Importantly, the Amended Project does not propose any demolition or alteration (other than renovation) of a historic structure. The Amended Project maintains the "gateway" vista of Pelton Manor for those traveling into the City by car or rail by framing the view of Pelton Manor. The Amended Project proposes additional multifamily structures around the Pelton Manor in a manner

that respects the historic structure and adds to its prominence in the historic district. The Planning Board finds that development of the Property with the proposed density is required for the Amended Project to proceed. The proposed density will facilitate a walkable community in the Mill Street / North Clover Historic district and the public access to the Property will allow for residents and visitors to enjoy the historic area and vistas.

The Planning Board received and considered a detailed presentation of the architecture and materials proposed by the Applicant on April 17, 2018 and again on June 16, 2019 with respect to the Amended Site Plan. The Applicant also provided actual samples of the materials proposed to be used.

In accordance with the above, the Planning Board finds that the design of all structures, including the proposed use of materials, scale, mass, height, color, texture and location of the structure or structures on the Property, is compatible with that of surrounding structures in the District.

(c) All proposed traffic access ways are adequate but not excessive in number; in width, grade, alignment and visibility; not located too near street corners or other places of public assembly; and other similar safety considerations.

The application demonstrates that the proposed traffic access ways are adequate. The proposed traffic access ways are not located too near street corners or other places of public assembly.

The traffic access ways have been designed in compliance with the City's requirements related to width, grade, alignment and visibility. The proposed access way is at a width of twenty-two (22) feet and therefore meets the City's minimum requirements. Further, the access way is relatively flat in its contour with an overall grade elevation change of less than 0.5% over 360 feet. The access way is aligned perpendicular to North Clover Street.

The Planning Board also finds that there is ample visibility and sight distance, both in the northerly and southerly directions where the access way connects to North Clover Street, retaining the existing curb cut. The existing curb cut is a safe distance from the nearest street corner. It is approximately 150 feet from the North Clover Street and Mill Street intersection and is not located near places of public assembly that would impact the use of this curb cut. The structures adjacent to the entrance way along North Clover Street are significantly set back from the street at twenty-five (25) feet to the north and thirty-three (33) feet to the south allowing for unobstructed views.

Importantly, the access driveway has been used for over 100 years by the previous occupants of the site including the Poughkeepsie Day nursery.

As noted in the Negative Declaration, a traffic assessment was prepared as part of the SEQRA review. This traffic study found, based upon observed traffic patterns and volumes on North Clover Street and the immediate area, that the expected Amended Project generated traffic would not have any significant impact on the local roadway system and that no mitigation due to the Amended Project generated traffic is warranted. Traffic generated by the proposed Amended Project is expected to be less than the traffic generated by the former day nursery facility.

Moreover, based on a review of the application, the Planning Board finds that the entrance driveway is designed with ample street lighting and a double-sided property sign located at the public way which will be illuminated during nighttime hours to assist in locating the entry to this development. The Amended Project sign has been located so as not to impact the visibility of the North Clover Street connection.

In accordance with the above, the Planning Board finds that finds that there will be no negative traffic impact from the Amended Project and that the requirements of Section 19-6.1(e)(1)(c) are satisfied.

(d) That adequate off-street parking and loading spaces are provided to prevent parking in public streets of vehicles of any persons connected with or visiting the use and that the interior circulation system is adequate to provide safe accessibility to all required off-street parking lots, loading bays and building services.

The Amended Site Plan provides 67 off-street parking spaces where 70 are required by the Zoning Code. The Applicant has obtained an area variance for 3 parking spaces from the ZBA. Therefore, the proposed off-street parking is adequate. The Zoning Code does not require loading spaces in a residential district and the Amended Project appropriately provides none.

Accordingly, the Planning Board finds that an adequate number of off-street parking for vehicles and bicycle storage is proposed so that there will be no need for the use of parking on public streets adjacent to the Property.

Moreover, the property is located directly across from the Waterfront Transit-Oriented Development District (WTOD) as well as the Poughkeepsie train station. This district promotes walking in lieu of car travel. The WTOD district also allows a lower density parking requirement of 0.5 space per dwelling unit which is less than the requirements listed for the R-4 district. The property is also within walking distance of the downtown area, the County office buildings and Marist College. There is also a bus route and stop along Dongan Place to provide an alternative to car travel. Therefore, due to the Amended Project's facilitation of a walkable environment, the need for off-street parking is reduced.

The parking lot driveways and configuration have been established so that the interior circulation system is adequate to provide safe accessibility to all off-street parking spaces and building service facilities. The lot layout and travel lane width of 22'-0" meets all City requirements for the design of such facilities. The parking area has been arranged for movement and circulation of life safety and fire service equipment. The Amended Project has been reviewed and approved by Ronald Knapp, former City of Poughkeepsie Police Chief, and Mark Johnson, Chief of the City of Poughkeepsie Fire Department.

In accordance with the above, the Planning Board finds that, in satisfaction of Zoning Code § 19-6.1(e)(1)(d), the Amended Project provides an adequate number of off-street parking and loading spaces to prevent parking in public streets and that the interior circulation system is adequate to provide safe accessibility to all required off-street parking lots, loading bays and building services.

(e) That all playground, parking and service areas are reasonably screened at all seasons of the year from the view of adjacent residential lots and streets and that the general landscaping of the site is such as to enhance the character of the city and is in character with that generally prevailing in the neighborhood.

All parking and service areas of the Amended Project are located within the center of the Property. The Property, by reason of natural topography, sits at the top of a hill significantly higher than the street level along the northwestern edges. Therefore, the Planning Board finds that the parking and service areas are not visible from the surrounding City streets regardless of the season of the year.

Moreover, the Applicant has demonstrated that the site will be screened from adjacent residential lots by opaque fencing and/or landscaping along the southern and easterly property lines.

The Applicant has provided a comprehensive landscaping plan. Based on this comprehensive landscaping plan, the Planning Board finds that landscaping will enhance the character of the City and neighborhood as well as the Property. The landscaping plan includes new trees on the site as well as along the green area adjacent to the existing sidewalk on Dongan Place, along with considerable new plantings and ground covers to provide visual effect during the Spring through Fall season. There are approximately 2,700 plants and trees proposed to be planted.

In addition, the Planning Board finds that this landscaping plan will enhance the presence of the Pelton Manor by highlighting and framing the Pelton Manor. The Pelton Manor is not visible to the public at the present time except in winter due to the site being overgrown.

There are no playgrounds or equipment in the design requiring screening.

In accordance with the above, and in satisfaction of Zoning Code § 19 6.1(l)(e)(1)(e), the Planning Board finds that all playground, parking and service areas are reasonably screened at all seasons of the year from the view of adjacent residential lots and streets and that the general landscaping of the site is such as to enhance the character of the City and is in character with that generally prevailing in the neighborhood.

(f) That all existing trees over eight inches in diameter, measured three feet above the base of the trunk, shall be retained to the maximum extent possible.

The application demonstrates that all existing trees over 8" in diameter, measured 3' feet above the base of the trunk, are retained to the maximum extent possible. A detailed inventory of

existing trees on the Property was developed by the Applicant to establish tree species and conditions of the thirty-five (35) existing trees on the Property (12 of them will be retained). The Planning Board finds that most of the twenty-three (23) trees proposed to be removed are invasive species such as Norway Maples and a Tree of Heaven and are in poor condition or in a state of decline.

Existing mature non-invasive trees such as a Large Leaf Linden tree 26" in caliper located in the parking area and a Sugar Maple tree 28" in caliper located along Davies Place are in good condition, have reached legacy tree status and will remain.

The Planning Board further finds that a 24" caliper Kentucky Coffee tree, having some local significance within the community, will remain as part of the proposed landscaping plan. The westerly most structure was specifically located in order to allow this tree to remain intact.

In accordance with the above, and in satisfaction of Zoning Code § 19-6.1(e)(1)(f), the Planning Board finds that, to the maximum extent possible, existing trees over eight inches in diameter, measured three feet above the base of the trunk, will be retained.

(g) That all plazas and other paved areas intended for use by pedestrians use decorative pavements and plant materials so as to prevent the creation of vast expanses of pavement.

The application demonstrates that all plazas and other paved areas intended for use by pedestrians use decorative pavements and plant materials so as to prevent the creation of vast expenses of pavement.

The parking area has been designed to include two (2) distinctive and separate areas for vehicular parking. The largest Linden tree found on the Property will be retained and is located in the center of the main parking field and will be surrounded by an 18' x 40' planting bed. This will greatly soften the center of the northern parking area.

The landscape parking islands have been designed to incorporate dropped curb inlets to allow for the passage of water into them thus reducing the number of curbs constructed.

Planting beds frame the central parking field and soften the paved area. In addition, the northern most row of parking spaces in the main parking area is subdivided with the placement of a small plaza constructed of stone pavers, landscaping and benches. This pedestrian element also acts as the formal entrance to the Amended Project's monumental staircase that connects the interior of the Amended Project site to Dongan Place.

The entire northern parking area, consisting of forty-one spaces, is broken into four distinct zones to reduce the expanse of paving. In addition, the entire perimeter of this area is framed with both lawn and landscaping.

In response to the HDLPC comments dated February 10, 2018, the Planning Board specifically notes that, the above Amended Project details demonstrate that the Amended Project's parking areas, access ramps and related lighting are unobtrusive to the maximum extent possible while still providing a safe environment for residents and pedestrians. Additionally the Amended Site Plan calls for shifting of the west end of the parking lot and driveway eastward 18' in order to increase the open space around the Pelton Manor and accommodate a set of porch stairs off the north side of the Pelton Manor.

In accordance with the above, and in satisfaction of Zoning Code § 19-6.1(e)(1)(g), the Planning Board finds that decorative pavements and plant materials are utilized in all plazas and other paved areas intended for use by pedestrians use so as to prevent the creation of vast expanses of pavement.

(h) That all outdoor lighting is of such nature and so arranged as to preclude the diffusion of glare onto adjoining properties and streets.

The application demonstrates that all outdoor lighting is of such nature and so arranged as to preclude the diffusion of glare on to adjoining properties and streets.

The lighting of the parking area will be from fixtures that will not exceed sixteen (16) feet in height and have been placed to prevent light spillage on to neighboring properties. All other lighting fixtures are decorative in nature, being either waist high, low level bollards for creating illumination for safety along walkways or stairways, or are wall mounted for marking the entry of a given dwelling unit. These fixtures are also decorative in nature.

The lighting design, using best practices, has taken into account reducing the amount of light spillage on to adjacent properties by limiting foot candles to minimum requirements while maintaining levels adequate for safety, as well as using downward facing glare shields on the fixtures.

The Pelton Manor will be lit at night by up lighting the structure. With this up lighting technique, the selected fixtures provide the requisite light source that will not be cause glare.

All proposed site lighting fixtures are located within the internal portion of the Property and thus reduce potential light spillage on adjacent properties.

In accordance with the above, and in satisfaction of Zoning Code § 19-6.1(e)(1)(h), the Planning Board finds that all proposed outdoor lighting is of such nature and so arranged as to preclude the diffusion of glare onto adjoining properties and streets.

(i) That the drainage system and the internal water and sewer systems are adequate and that all connection to city systems are in accordance with city standards.

The application demonstrates that the drainage system and the internal water and sewer systems are adequate and all connections to City systems are in accordance with City standards.

All work in constructing this Amended Project will be performed in accordance with all governing codes and City requirements. The Property is connected to municipal water and sewer service. The development will result in an increase of water usage and waste water generation over the former use of the Property as a day nursery.

Correspondence from the City Commissioner of Public Works dated October 26, 2015, and from Ed Steeprock, Project Manager of the City Water Plant Operations dated October 28, 2015, state that the City has sufficient capacity to provide water and sewer service to the proposed Amended Project.

The final drawings and plans will be reviewed and ultimately approved by the City Water and Sewer Departments. All civil design work by LRC Engineers will be certified to meet all governing regulations.

The Applicant has incorporated elements into the design to control and treat storm water runoff including the use of catch basins, storm-sewer piping, bioretention and porous pavement. Post development flow off the Property will not increase from pre-development conditions.

Water efficient plumbing fixtures and equipment will be incorporated into the design of the dwelling units thus reducing overall water usage and waste water generation. Water utility lines will be connected to a City water meter pit enabling the measuring and monitoring of water usage.

In accordance with the above, and in satisfaction of Zoning Code § 19-6.1(e)(1)(i), the Planning Board finds that the proposed drainage system and the internal water and sewer systems are adequate and that all connection to City systems are in accordance with City standards.

(j) That the site plan and building design accommodate the needs of the handicapped and are in conformance with the state standards for construction concerning the handicapped.

The application demonstrates that the site plan and the building design will accommodate the needs of the handicapped and are in conformance with the New York State's Standards for Construction concerning the handicapped, as follows:

1. Four (4) accessible parking spaces have been provided throughout the Property together with requisite drop curbs to allow connection to the walkway system. The required number of accessible parking spaces is three (3) per the 2015 International Building Code. Detailing of such spaces will meet all governing codes.
2. Accessible pathways with 2% slope or less have been designed to allow for connection from the North Clover Street entrance of the site to all public facilities such as the community spaces and outdoor terrace, the gym, bicycle room, storage areas and dog wash station.
3. Accessible dwelling units are also provided as per the requirements in the 2015 International Building Code. Where one "Type A" unit is required, the Amended Project is providing two units. All apartments accessed at grade level are "Type B" units meeting the requirements and exceptions as elaborated in the Building Code.
4. Handicap access from North Clover Street will be provided with a new concrete sidewalk.
5. Mandated signage and site markings will be provided, as required by code.

In accordance with the above, and in satisfaction with Zoning Code § 19-6.1(e)(1)(j), the Planning Board finds that the Amended Project site plan and building design accommodate the needs of the handicapped and are in conformance with the state standards for construction concerning the handicapped.

(k) That the site plan and building design maximize the conservation of energy.

The application demonstrates that the Amended Project buildings will either meet or exceed the requirements as mandated in the 2015 International Energy Conservation Code. The Applicant has noted that quality windows, energy efficient HVAC equipment and a substantive insulated building envelope will be included in the final building construction

detailing and specifications. Further, energy star rated appliances and fixtures utilizing LED light bulbs will be incorporated into the dwelling units.

The parking area and access way configuration have been designed to minimize the required area to the extent practicable.

Two (2) electric car charging stations will be provided with the construction of the parking lot.

In accordance with the above, and in satisfaction with Zoning Code § 19-6.1(e)(1)(j), the Planning Board finds that the proposed site plan and building design maximize the conservation of energy.

AND, BE IT FURTHER RESOLVED that based on the foregoing findings, the Planning Board finds that the granting of site plan approval for the Amended Project is appropriate, but that the imposition of certain conditions and safeguards is required to further the expressed intent of Chapter 19 of the City Zoning Code, as follows:

1. **Public Access.** As depicted on site plan sheet PZ-03 and labeled “Viewing Shed Area,” limited public access for passive activities such as walking areas and sitting benches on a portion of the Property shall be instituted and maintained on the Property as a part of the Amended Project. Such public access shall be subject to the following rules and regulations:
 - a. Access will be permitted from dawn to dusk, seven days a week for passive recreational use.
 - b. The consumption of alcoholic beverages and the use or consumption of controlled substances are prohibited.
 - c. Smoking is prohibited on the Property.
 - d. The public entering on the Property will be required to act in a lawful manner and to refrain from loud and annoying sound.
 - e. The public entering on the Property will be required to remove all trash created by their presence on the Property.
 - f. Amplified music or other amplified sounds are prohibited.
 - g. The use of skateboards and bicycles are prohibited.
 - h. Guns, knives and all other weapons are prohibited except by law enforcement officials.

- i. All activities which negatively interfere with the quiet enjoyment of the tenants are prohibited.
 - j. The public access space shall be ADA compliant.
 - k. The Rules and Regulations may be modified from time to time by the owner of the Property subject to the approval of the City Planning Department.
2. **Sewer and Water.** The applicant will provide language satisfactory to the City of Poughkeepsie Corporation Counsel for the deed restriction for operation and maintenance of the privately-owned storm sewer mitigation system, sanitary sewer and water utility.
 3. **Sanitary Sewer Ownership.** The applicant will work out an arrangement with the City of Poughkeepsie Corporation Counsel and City Engineer, satisfactory to both, for the City to take ownership of the portion of the proposed sanitary sewer located within the Davies Place Right of Way between proposed Sanitary Manhole #7 and proposed Sanitary Manhole #8, a total of 88 LF, provided that the sanitary sewer is designed by a NYS Licensed Professional Engineer and built to City standards. All other sanitary sewer as part of the development would remain the owner's responsibility.
 4. **Certificate of Occupancy.** No certificate of occupancy shall be issued until any and all outstanding fees owed to the City or its consultants have been paid and all proposed improvements shall have been completed in accordance with the approved Site Plan.
 5. **Resolution Acknowledgement.** The Applicant shall sign a copy of this resolution and file it with the Planning Board for the purpose of indicating familiarity with the provisions of this resolution and acknowledging receipt of a copy thereof.

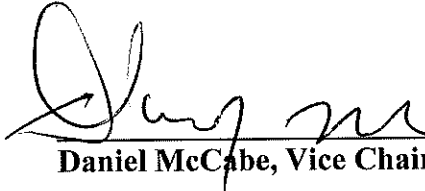
AND BE IT FURTHER RESOLVED, that Applicant's request of an extension is approved and incorporated herein to provide for an expiration date one (1) year from the date of this site plan approval.

When the above conditions have been satisfied, three (3) sets of the above-referenced plans shall be submitted for endorsement by the Planning Board Chairman or his designee. One (1) set shall be returned to the Applicant, one (1) set will be retained by the Planning Board, and one (1) set will be provided to the City Engineer. The Applicant must return for approval from the Planning Board if any changes from the endorsed plans are subsequently desired.

The foregoing resolution was put to a vote. The following Planning Board members were present and voted as follows:

Robert Levine, Chair	RECUSED
Daniel McCabe, Vice Chair	
Sakima A.G. Brown	
Robert Mallory	
Patrick Moore	
Anne Saylor	
Marjorie Smith	
Richard E. Mignault, Alternate	

THIS RESOLUTION OF CONDITIONAL SITE PLAN APPROVAL WAS DULY AUTHORIZED AT A REGULAR MEETING OF THE PLANNING BOARD HELD ON AUGUST 20, 2019, AND THEREAFTER DECLARED ADOPTED.

8/20/19	
Date	Daniel McCabe, Vice Chair

Further information may be obtained from:

THE CITY OF POUGHKEEPSIE PLANNING BOARD
62 CIVIC CENTER PLAZA, 2ND FLOOR
POUGHKEEPSIE, NY 12601
Phone: (845) 451-4055
Fax: (845) 451-4006

Received and Reviewed:

Signature of Applicant: 

Name (please print): STEVEN TINKELMAN

Title: MEMBER



The City of Poughkeepsie

New York

Robert G. Rolison
Mayor

Marc S. Nelson
City Administrator

Memorandum

Confidential

TO: Gary Privratsky, Chairman & Commission Members
City of Poughkeepsie Historic Districts & Landmark Preservation Commission

FROM: Marc Nelson, City Administrator

DATE: September 3, 2021

SUBJECT: Pelton Litigation Settlement

CC: Paul Ackerman, Corporation Counsel, Hon. Rob G. Rolison, Mayor

The developers and the City Administration have reached a conceptual agreement on the terms of a settlement of the current litigation between the developer, the HPDLC, and the City. The consent of the HPDLC and the issuance of a “Certificate of Appropriateness” is necessary in order to move the proposal forward. The purpose of this Memorandum is to outline the settlement concept so that members of the HPDLC can be prepared to discuss the matter in executive session at their upcoming regular meeting on September 9th, 2021. This Memorandum is confidential and is distributed solely in furtherance of reaching a settlement in the ongoing litigation, and without prejudice to the legal positions of any party.

Preservation of the Manor Itself & the Incorporation of Additional Public Space

Recognizing this over-arching goal of the HPDLC, the Administration has requested, and the developer has agreed to remove all the residential units from the Manor itself. Instead, the first and second floors shall be renovated to accommodate a non-profit arts entity tenant, which shall occupy the Manor under the terms of a long-term lease. The Manor, with its umbrella-arts tenant, shall be open during reasonable hours of public access for the furtherance of arts in the City of Poughkeepsie.

In addition, public space shall be established on the property “bluff” above the Poughkeepsie Train Station and in view of the Hudson River, for the occasional display of outdoor “pop-up” art. The concept was demonstrated recently by the installation of a temporary sculpture garden by organizers of the “Upstate Immersive Art Project” the weekend of August 28th, 2021 and was extremely well received by community members. It is envisioned that the arts-entity-tenant or its partners will organize similar events no less frequently than annually.

The significant reduction in density of the project not only restores the Manor to its former glory, but places a non-profit arts anchor on the property thereby assuring the entire parcel is genuinely welcoming to the public and that the incorporated public space is truly public and viewed as inviting by the public. Importantly, this proposed change in the development plan makes the former Pelton Manor a true destination in the City of Poughkeepsie, in close proximity to the Poughkeepsie train station, Little Italy, the Walkway-Over-The-Hudson, and the connecting Dutchess Rail Trail.

The exterior of the Manor shall be renovated in accordance with the previously submitted plans. The parties understand and agree that ADA accessibility modifications will be required.

Certain Changes Recognize Comments Made by the HPDLC during the Original Approvals Process

- a. The tower forms flanking the grand staircase, connecting the project site with Dongan Place, shall be lowered so that the habitable spaces previously located within the upper floor of these forms shall be removed. This further reduces the density of the project, while also lowering the height of the towers.
- b. Commercial uses shall be incorporated on either side of the staircase on the Dongan Place lower level. With the addition of such commercial spaces, appropriate storefront glazing and entry systems and outdoor terraces shall be incorporated into the design of both of two new premises (for example, a small coffee-shop with some outside seating is envisioned). The City Administration will support the necessary re-zoning of the site to permit the commercial use. (This action will require approval of the Common Council).
- c. The City will establish on-street parking on both sides of Dongan Place for public use and for use of tenants (This action will require the City Administration to terminate a current license agreement with the M.T.A., and will require Common Council approval setting the on-street parking rules).

Public Call for Arts Umbrella Organization to be Tenant at Pelton Manor

As originally conceived, the developer was to use ‘best efforts’ to secure a non-profit tenant for occupancy of the manor. Unrelated to the current litigation, the issue of what constituted ‘best efforts’ and the fact that the developer was unable to secure a non-profit tenant and ultimately proposed plans to divide the Manor into residential units, became a matter of some controversy. In order to best assure the positive outcome all parties desire, the developer has agreed to a public and transparent process designed to select the tenant.

A competitive “call for resident arts-entity” shall be drafted jointly by the city and the developer. Designed as a contest, the successful respondent shall receive build-out and renovation work which, to the fullest extent practical, satisfies their specific operational needs (including, but not necessarily limited to, office space, gallery space, academic space, a dance studio, artist-in-residence space, etc.).

The RFP shall be drafted by a selection committee comprised of five members, which shall include the Chair of the HPDLC, the Chair of the Public Arts Commission, the City Administrator, one member of the public knowledgeable in the local arts environment, and one appointed by the developer. After release of the RFP, respondents shall have thirty days in which to submit response, which shall then be reviewed by the selection committee.

In addition to the build-out of the space, the successful respondent shall receive favorable rental terms to include the first two years free and discounted rent during the term as follows:

Year 3: \$ 4.00/sf
Year 4: \$ 5.00/sf
Year 5: \$ 6.00/sf
Year 6: \$ 7.00/sf
Year 7: \$ 8.00/sf
Year 8: \$ 9.00/sf
Year 9: \$10.00/sf
Year 10:\$11.00/sf

(The first floor is approx. 2343 sf in size and the second floor is approx.)

Tenant shall be responsible for all utility and operational costs, including maintenance of the interior of the premises during the 10 year lease term. It is not believed that a zoning change to accommodate the revised use of the Manor will be necessary, but to the extent it is the City Administration will support such a change, which would require the approval of the Common Council.

Commemorative Plaque or Historical Marker to be Permanently Installed

A commemorative plaque or other mutually agreeable marker shall be permanently erected on site, in close proximity to the Manor. The text of the marker may be drafted by the HPDLC. The concept was demonstrated when the city authorized the hanging of a temporary sign at the Manor during the recent Upstate Immersive Arts Project which took place the weekend of August 28th. The temporary sign depicted the history of the Manor for the benefit of the visiting public.

City Administration to Support Project for Certain Tax Benefits and/or Inclusion in its Upcoming DRI Application for Possible State Grant Funding.

As part of this Agreement the City Administration shall support a properly completed and submitted application for a real property tax benefit from the City's Industrial Development Agency (IDA). The approval of any such PILOT agreement shall be at the sole discretion of the IDA, and neither the City nor the HPDLC may make any assurance one will be approved or what its terms might be. The parties have noted, however, the previous actions of the IDA and believe that the addition of the commercial component to the project, the attraction of a first-class arts organization to occupy the Manor and reside in Poughkeepsie, as well as the addition of public space for "pop-up" art which will attract visitors and commerce to the City, are all factors that might be viewed favorably by the IDA.

Similarly, the City agrees to incorporate the revised development plan into its upcoming application to the New York State Downtown Revitalization Initiative (DRI) Grant Program. While there is no assurance the city's application will be successful, a review of prior winning DRI proposals suggests these types of projects, which activate city-owned property into a sustainable long-term use or public-private partnership with significant community benefits, are viewed favorably by the selection committee.

Summary

While there are a number of things that necessarily remain fluid, and there are approvals that lay within the sole authority of different parties, it is the intention of this agreement to allow the Pelton Partners, LLC the right to commence with construction of the proposed development as soon as practicable. A schedule outlining the steps and proposed timeframes for this effort to go forward shall be included in the Stipulation of Settlement between the parties once the HPDLC approves the settlement proposal.

Next Steps

- Meetings with individual Commission members to review proposal.
- Attorneys to prepare Stipulation of Settlement for formal approval at the upcoming meeting of the HPDLC on September 9th.
- Upon HPDLC approval, meetings with Common Council members to review settlement. Potential council action at their meeting of September 27th.
- Settlement submitted to Judge for approval, litigation discontinued.
- Developer returns to Planning Board for revised site plan approval.

APPLICATION TO THE PLANNING BOARD
CITY OF POUGHKEEPSIE, NEW YORK

Application for Site Plan, Special Permit & Facade Approval

- I. PROPERTY ADDRESS:** 10 Rinaldi Boulevard
- II. PROPERTY OWNER:** Rip Van Winkle House LLC
ADDRESS: c/o Related Cos, 30 Hudson Yards, 72nd Floor
New York
NY 10001 (state and zip code)
PHONE NUMBER: 646-767-3207 (include area code)
- III. NAME OF APPLICANT:** RVW Preservation, L.P.
ADDRESS: c/o Related Cos, 30 Hudson Yards, 72nd Floor
New York
NY 10001 (state and zip code)
PHONE NUMBER: 646-767-3207 (include area code)
EMAIL ADDRESS: david.pearson@related.com
- (If applicant is NOT the owner, proof of owner's consent to the application MUST be provided.)
- IV. CONSULTANT:** Hershberg & Hershberg c/o Nicholas Daniels, P.E
ADDRESS: 18 Locust Street
Albany
NY 12205 (state and zip code)
PHONE NUMBER: 518-459-3096 (include area code)
- V. PROPOSED USE or FAÇADE CHANGE** (Summarize proposed use or uses): Proposed building
addition containing a community area for tenants at Rip Van Winkle House. No new units are proposed.
- VI. ZONING DISTRICT:** WTOD

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)

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

PROJECT INFORMATION

New construction: X (yes) _____ (no)

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

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

Alteration: _____ (yes) X (no)

Cost of Construction: \$ 12,393,111.00

LOT AND BULK INFORMATION:

Lot area: 4.95 (acres) 215,915 (square feet)

Building Footprint: 2,350 ± (proposed square feet for new construction)

10,000 ± (existing square feet for change of use/expansion)

2,350 ± (additional proposed square feet for expansion)

12,350 ± (total building footprint, square feet)

Lot Coverage: 5.7% (percentage, building coverage only)

Gross Floor Area: 4,700 (proposed square feet for new construction)

180,000 (existing square feet for change of use/expansion)

4,700 (additional proposed square feet for expansion)

184,700 (total gross floor area, square feet)

Building Height: 18 (stories) 180 (feet)

Floor Area Ratio: 0.85 (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: N/A

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

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

If yes, name all such municipal facilities: Parking on Rinaldi Boulevard

(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):
N/A

IX. RESIDENTIAL PROPOSALS

A) Type of Development: Apartment addition
(Townhouse, condominium, multiple residence rental, etc.)

B) Unit Breakdown:

Number of efficiency or "studio" units: N/A - No New Units

Number of one (1) bedroom units: N/A - No New Units

Number of two (2) bedroom unit's N/A - No New Units

Number with three or more bedrooms: N/A - No New Units

Total number of units: N/A - No New Units

C) Is funding public? ☒ Yes _____ No

If yes, describe funding source: Tax-Exempt Bonds & Tax Credit Equity

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):

N/A

XVII. APPLICANT CERTIFICATION

I, David Pearson, 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.

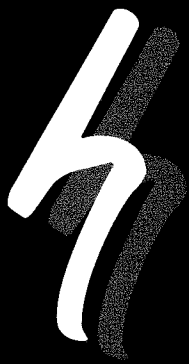
The applicant certifies that all information contained herein is accurate and complete as of the date of this application.

DocuSigned by:
DAVID PEARSON
C93D0577FF8A402...

3/20/23

Signature of Applicant

Date



**HERSHBERG
&
HERSHBERG**

*Consulting
Engineers*



Land Surveyors



Land Planners

18 Locust Street
Albany, New York 12203
(518) 459-3096
FAX (518) 459-5683
E-Mail Address:
hhershberg@aol.com

BY EMAIL

August 1, 2023

Ms. Lori Garcia
Board Administrative Assistant
City of Poughkeepsie Planning & Zoning
62 Civic Center Plaza
Poughkeepsie, New York 12610

**RE: Site Plan Application
Rip Van Winkle Apartments
No.10 Rinaldi Boulevard
H&H File #2023-0038**

Dear Ms. Garcia:

Revised copies of site plans and architectural renderings were recently delivered to you for the August Planning Board Meeting.

The following changes were made to the site plans:

- Existing trees and shrubs are shown along the sidewalk adjacent to the parking lot
- A picnic table and two benches have been added to Sheet C3.
- Light fixture information updated on Sheet C5.
- Additional landscaping provided along sidewalk adjacent to parking lot on Sheet C6.

Three architectural renderings have been provided:

- The first rendering shows the building addition looking toward the northwest. This rendering is just provided to show the color scheme of the addition, as this does not accurately account for topography.
- The second rendering shows the building addition looking toward the northwest, but accounts for topography. The elevation change from the parking lot to the building addition is significant, so a majority of the building addition is not visible.
- The third rendering shows the existing building looking toward the southeast. Due to the dense treeline and topography change, the building addition would not be visible to anyone from this sight line, or any sight line looking in an easterly direction

If you require any additional information, please contact me at your convenience.

FOUNDER
Ben B. Hershberg, P.E., L.S.
(1901-2002)

PARTNERS
Daniel R. Hershberg, P.E., L.S.
Francis G. McCloskey, L.S.
Nicholas J. Daniels, P.E.

Sincerely yours,
HERSHBERG & HERSHBERG
CONSULTING ENGINEERS & LAND SURVEYORS



Nicholas Daniels, P.E.

Enclosures

Ec: Jennifer Chan
Michael Antonik
Justin Glanda
Robert Kurzon
Sean Fernandes

ND/nick/230038 LG 8 1 23.doc

MAP REFERENCE

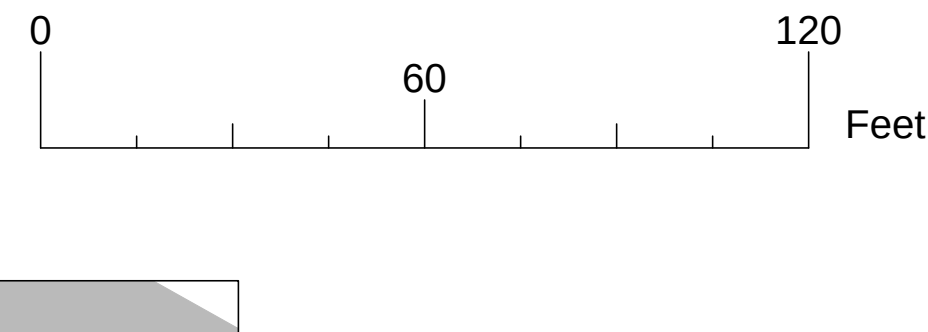
1. A MAP ENTITLED "10 RINALDI BLVD, ALTA/NSPS SURVEY PREPARED FOR RIP VAN WINKLE HOUSE, LLC" PREPARED BY BRENDAN JOHNSON, P.L.S DATED DECEMBER 16, 2022

SCHEDULE B EXCEPTIONS

5 - UTILITY EASMENTS - LIBER 1316, PAGE 657 - AS SHOWN HEREIN

FLOOD ZONE

SUBJECT PARCEL IS LOCATED IN ZONE "X" UNSHADED. AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS PER FLOOD INSURANCE RATE MAP: NO.36027C0354E EFFECTIVE DATE: MAY 2, 2012



VICINITY MAP

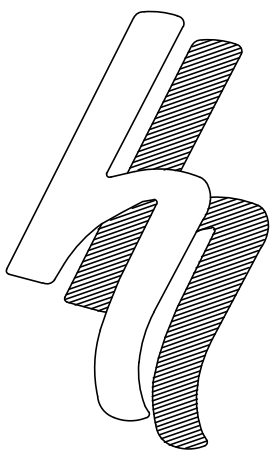
MAP NOT TO SCALE

SURVEY NOTES

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- ONLY BOUNDARY SURVEY MAPS WITH THE SURVEYOR'S EMBOSSED OR RED INKED SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE SURVEYOR'S ORIGINAL WORK AND OPINION. A COPY OF THIS DOCUMENT WITHOUT A PROPER APPLICATION OF THE SURVEYOR'S EMBOSSED OR RED INKED SEAL SHOULD BE ASSUMED TO BE AN UNAUTHORIZED COPY.
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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.
- SUBJECT TO COVENANTS, EASEMENTS, RESTRICTIONS, CONDITIONS AND AGREEMENTS OF RECORD.
- SUBJECT TO ANY RIGHT, TITLE OR INTEREST THE PUBLIC MAY HAVE FOR HIGHWAY USE.
- BEARINGS AND NORTH SHOWN HEREON ARE REFERENCED TO NAD 83-NY EAST USING NYSNET RTN GPS.
- CONTOUR INTERVAL IS TWO FOOT. ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD 88 USING NYSNET RNT GPS.

DRAWING INDEX

DRAWING INDEX	SHEET NAME
C1	EXISTING CONDITIONS PLAN
C2	DEMOLITION PLAN
C3	SITE PLAN
C4	DRAINAGE PLAN
C5	LIGHTING PLAN
C6	LANDSCAPING PLAN
C7	DETAILS



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and Land Surveyors

18 Locust Street
Albany, New York 12203

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DATE	7/14/23
REMARKS	
PLANNING REVISIONS	
REVISIONS	

EXISTING CONDITIONS PLAN
RIP VAN WINKLE APARTMENTS
10 RINALDI BOULEVARD
CITY OF Poughkeepsie, DUTCHESS COUNTY, NEW YORK STATE

230038-1.DWG

DATE: 2/2/23

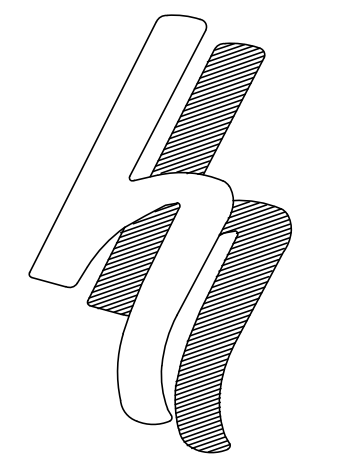
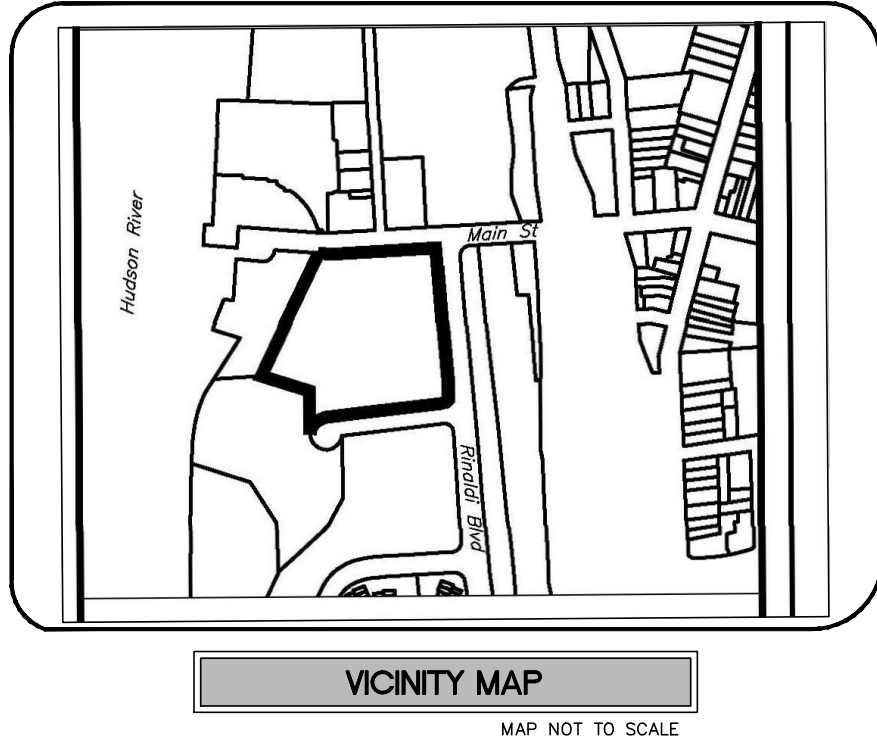
CHK: DRH

BY: ND

SCALE: 1"=20'

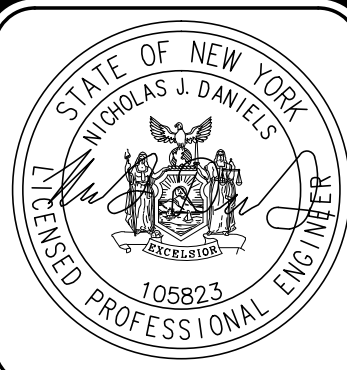
FILE: 230038

C1



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 18 Locust Street
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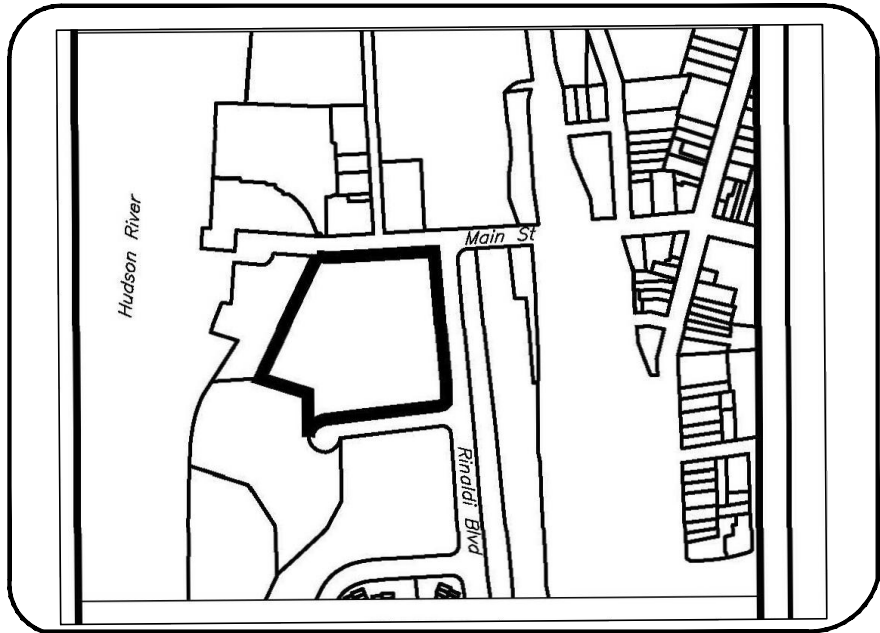
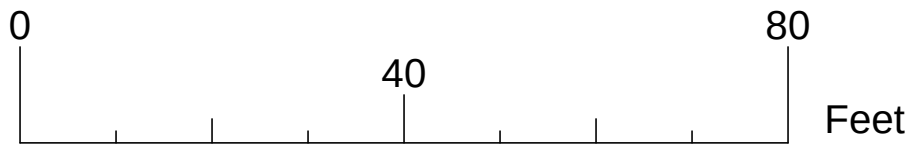
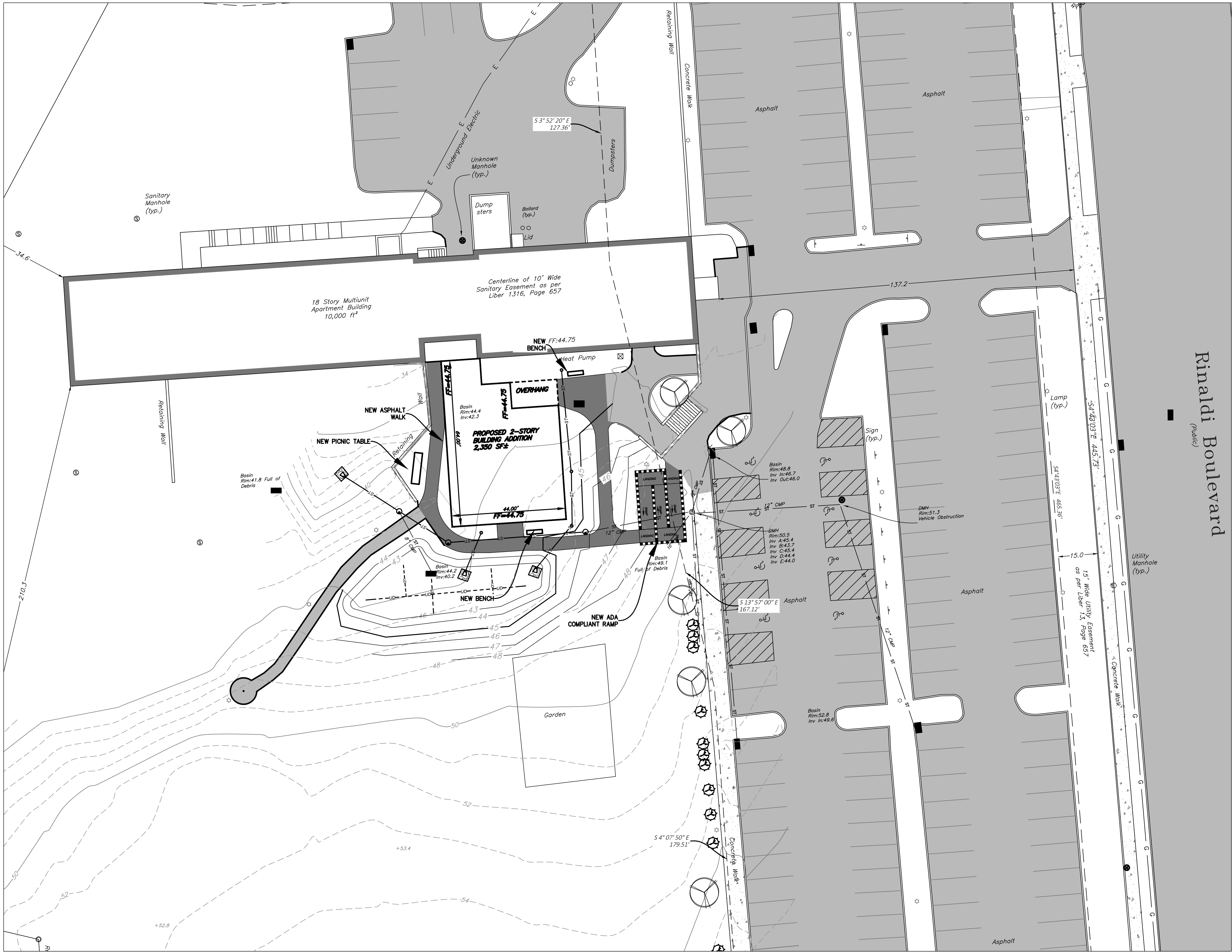
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REVISIONS	DATE	REMARKS
PLANNING REVISIONS	7/14/23	

DEMOLITION PLAN
RIP VAN WINKLE APARTMENTS
10 RINALDI BOULEVARD
CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK STATE

FILE: 230038
 SCALE: 1"=20'
 DATE: 2/21/23
 CHECK: DRH
 230038-1.DWG

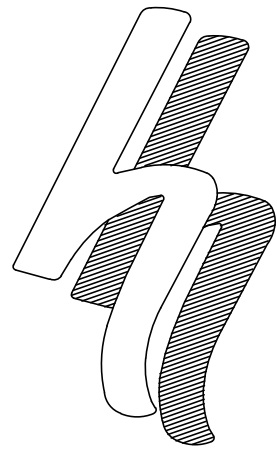


VICINITY MAP
MAP NOT TO SCALE

ZONING INFORMATION

WATERFRONT TRANSIT ORIENTED DEVELOPMENT (WTOD) DISTRICT	
MINIMUM LOT AREA	1,600 SQUARE FEET
MINIMUM FRONT YARD	20 FEET
MINIMUM SIDE YARD	15 FEET
MINIMUM REAR YARD	25 FEET
MINIMUM STREET FRONTAGE	100 FEET
MAXIMUM HEIGHT	35 FEET
MAXIMUM LOT WIDTH	100 FEET
MAXIMUM BUILDING COVERAGE	70%

SUBJECT PARCEL IS LOCATED WITHIN THE WATERFRONT TRANSIT ORIENTED DEVELOPMENT DISTRICT AS PER MAP ENTITLED "CITY OF Poughkeepsie Zoning Districts" PREPARED BY CITY OF Poughkeepsie PLANNING DEPARTMENT. ISSUED NOVEMBER 29, 2019



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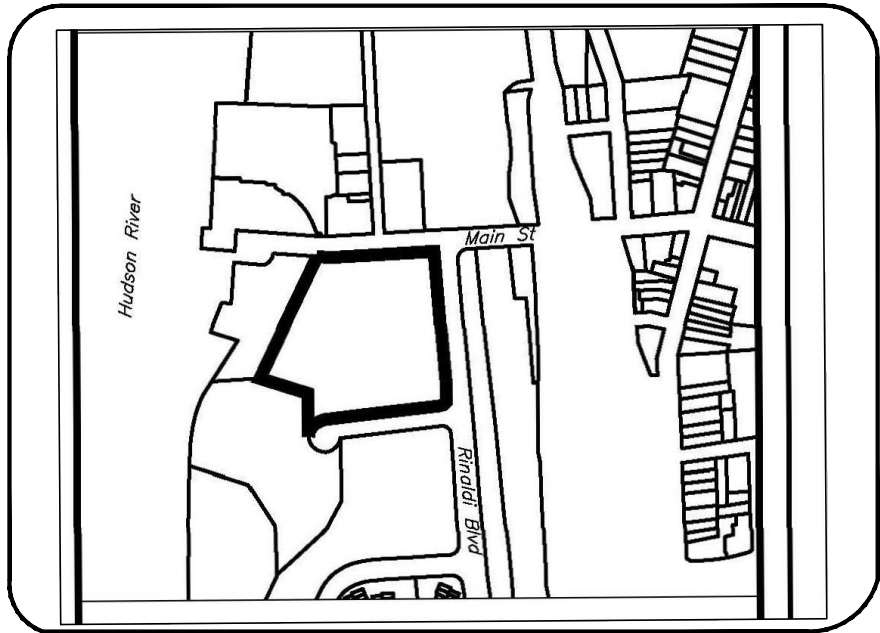
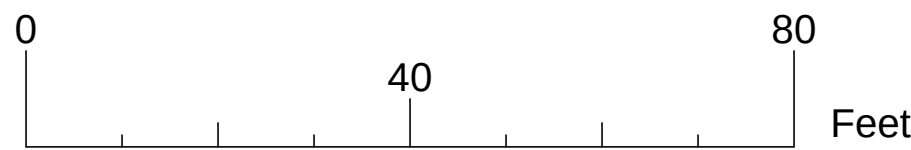
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DATE	7/14/23
REMARKS	PLANNING REVISIONS
REVISIONS	

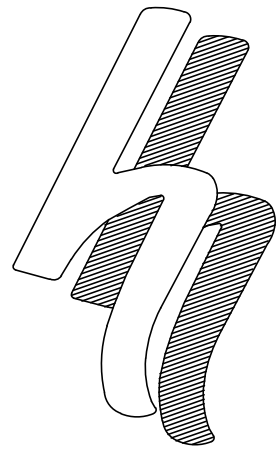
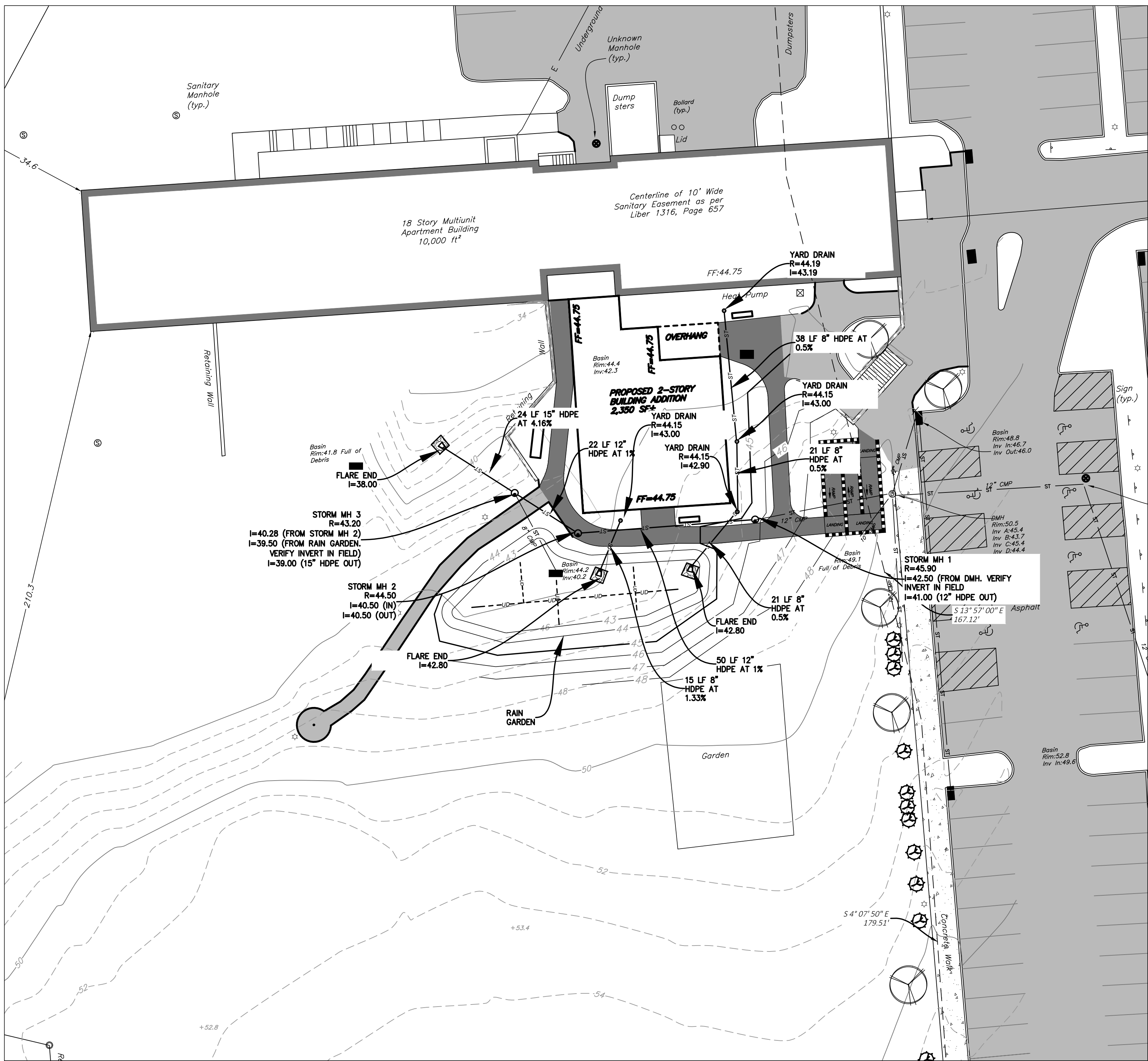
SITE PLAN
RIP VAN WINKLE APARTMENTS
10 RINALDI BOULEVARD
CITY OF Poughkeepsie, Dutchess County, New York State

FILE: 230028
SCALE: 1"=20'
SHEET NO.
CHK: DRH
DATE: 2/27/23
230028-LDWG



VICINITY MAP

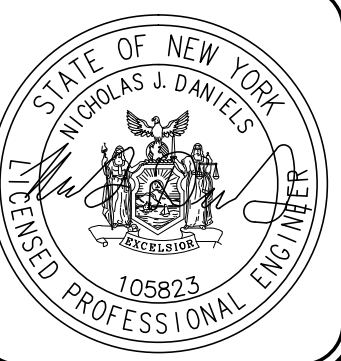
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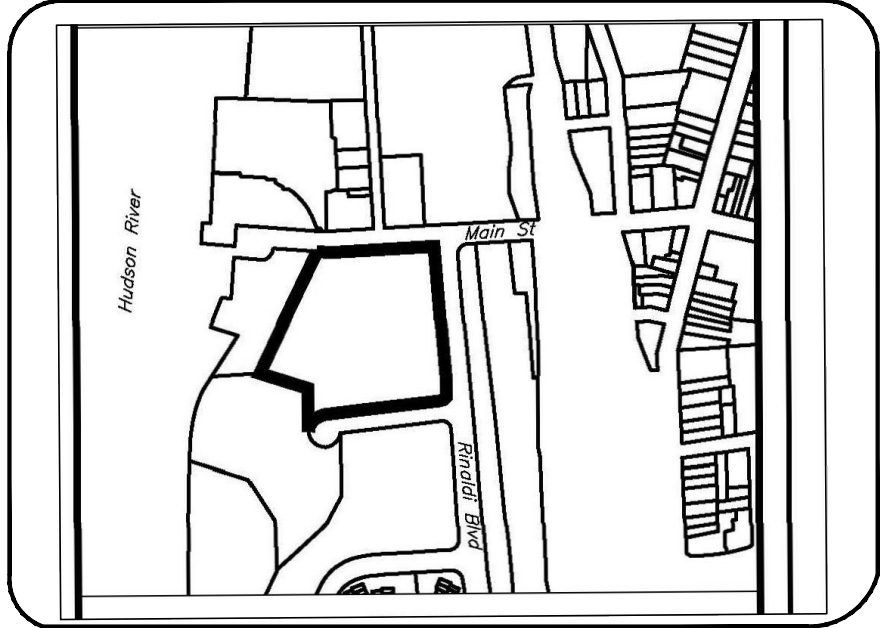
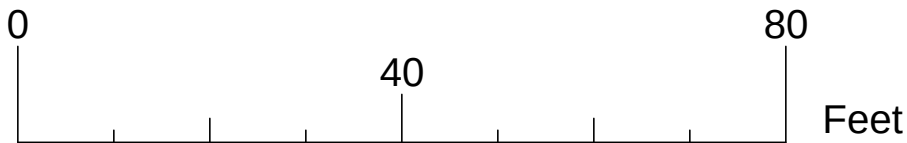
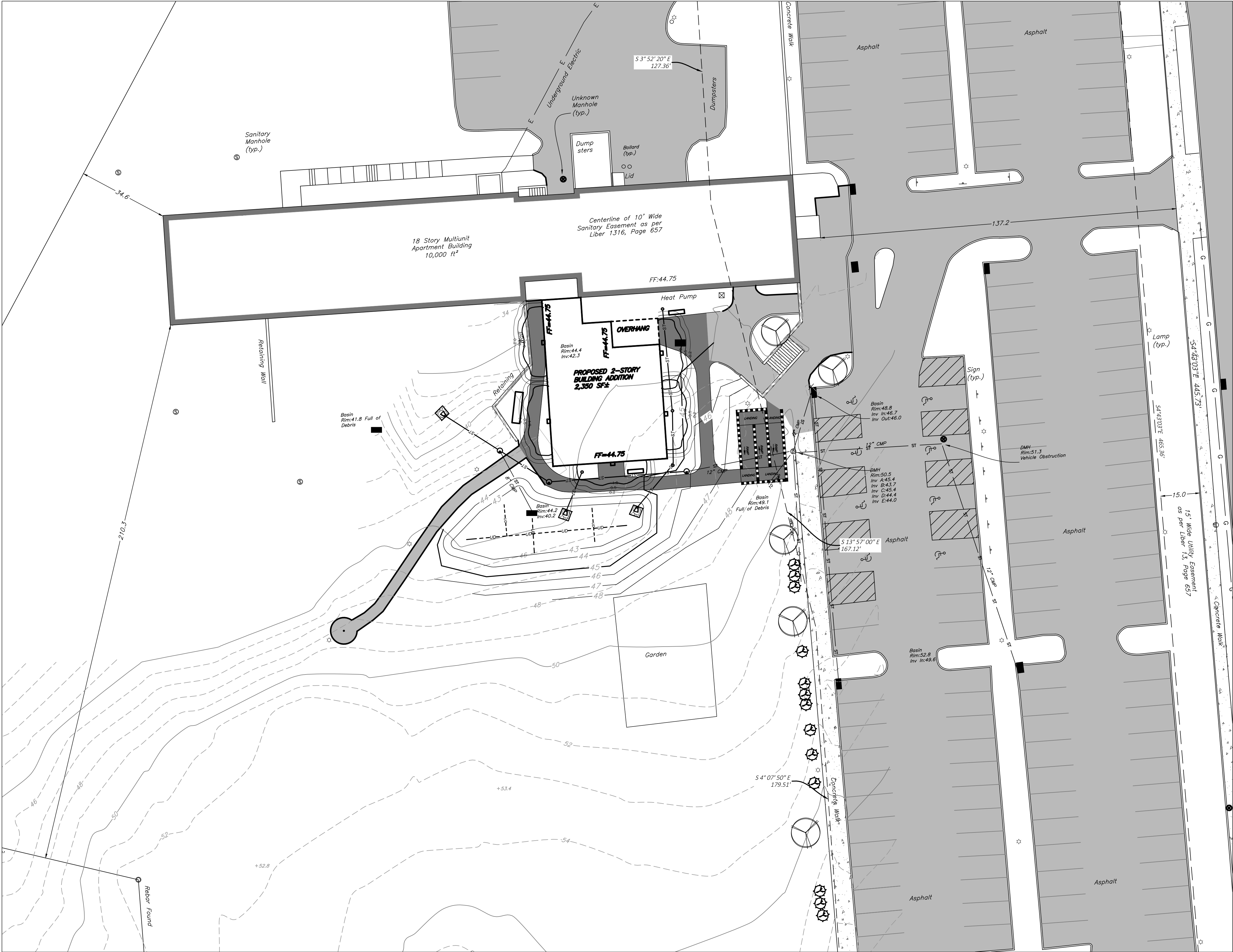
DATE	7/14/23
REMARKS	PLANNING REVISIONS

REVISIONS

DRAINAGE PLAN
RIP VAN WINKLE APARTMENTS
10 RINALDI BOULEVARD
CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK STATE

FILE: 230208
SCALE: 1"=20'
SHEET NO.
CHK: DRH
DATE: 7/27/23
230208-LDWG

LUMINAIRE SCHEDULE						
Symbol	Label	Qty	Catalog Number	Description	Lumens	LLF
	B	5	WSR LED P1 30K SR2 MVOLT DBLXD	WSR LED P1 WITH 2 LIGHT ENGINES, 3000K LED	2,111	0.95
				Watts	20	



VICINITY MAP
MAP NOT TO SCALE

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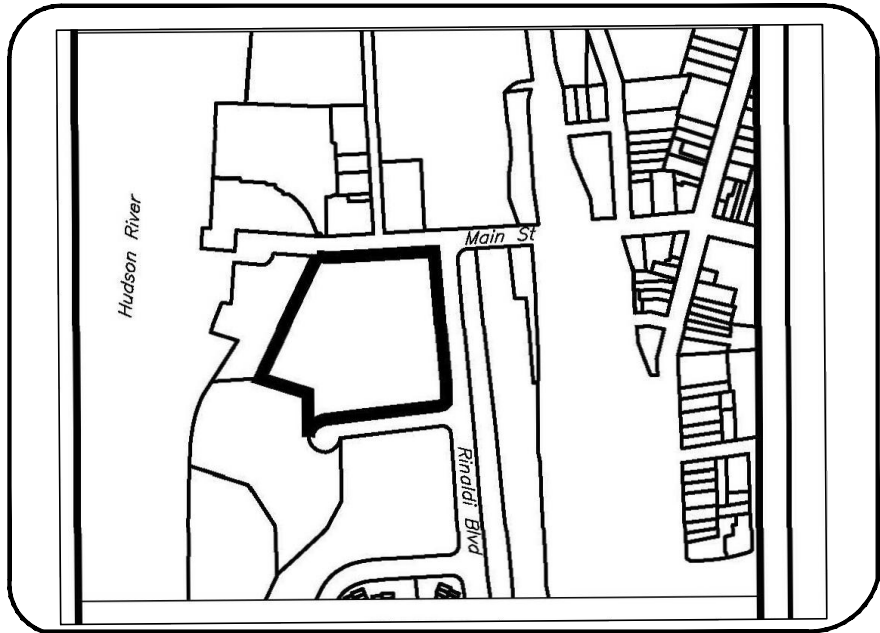
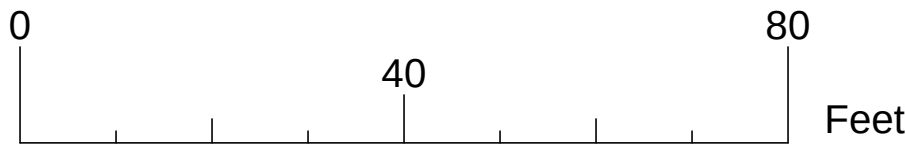


DATE	7/14/23
REMARKS	PLANNING REVISIONS
REVISIONS	

LIGHTING PLAN
RIP VAN WINKLE APARTMENTS
10 RINALDI BOULEVARD
CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK STATE

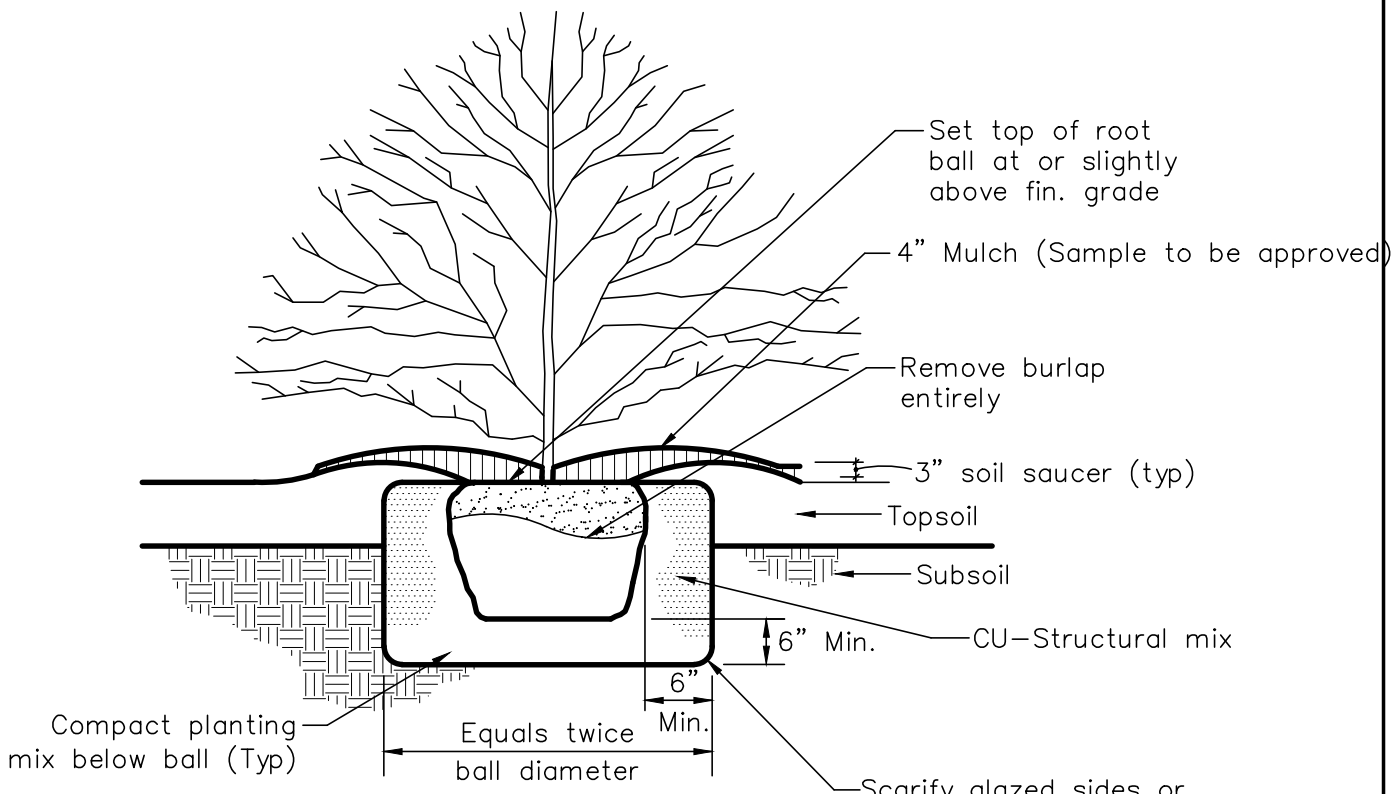
FILE: 230208
SCALE: AS NOTED
DATE: 2/21/23
CHK: DMH
230208-LDWG

PLANT MATERIAL SCHEDULE					
SYM	BOTANICAL NAME	COMMON NAME	SIZE	AMT	COMMENTS
HERBACEOUS PLANTS					
AAL	ATHYRIUM ANGUSTUM	"LADY IN RED" NORTHERN LADY FERN	1 GAL.	4	CONTAINER GROWN
ACA	ACORUS CALAMUS	SWEET FLAG	1 GAL.	5	CONTAINER GROWN
OC	OSMUNDA CINNAMOMEA	CINNAMON FERN	1 GAL.	9	CONTAINER GROWN
SHRUBS					
ARA	ARONIA ARBUTIFOLIA	RED CHOKEBERRY	1 GAL.	7	CONTAINER GROWN
HV	HAMMILIS VIRGINIANA	COMMON WITCHHAZEL	2"-3" HT.	3	B & B
IV	ILEX VERICILLATA	WINTERBERRY	2 GAL.	10	CONTAINER GROWN
JG	JUNIPERUS CHINENSIS "SEA GREEN"	SEA GREEN JUNIPER	18" HT.	19	B & B
TD	TAXUS X MEDIA "DENSIFORMIS"	DENSE SPREADING YEW	24" HT.	16	B & B



VICINITY MAP

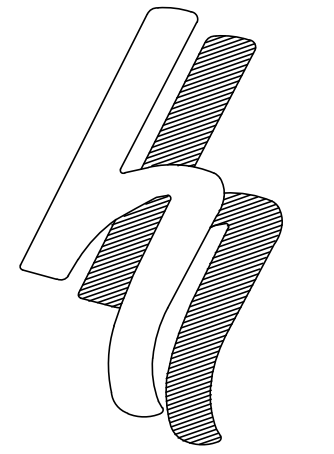
MAP NOT TO SCALE



- Notes:
1. In areas of mass planting, continuously excavate and mulch entire bed.
 2. Do not add fertilizer to planting mix for fall planting.

SHRUB PLANTING DETAIL

NOT TO SCALE



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and Land Surveyors

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Albany, New York 12203

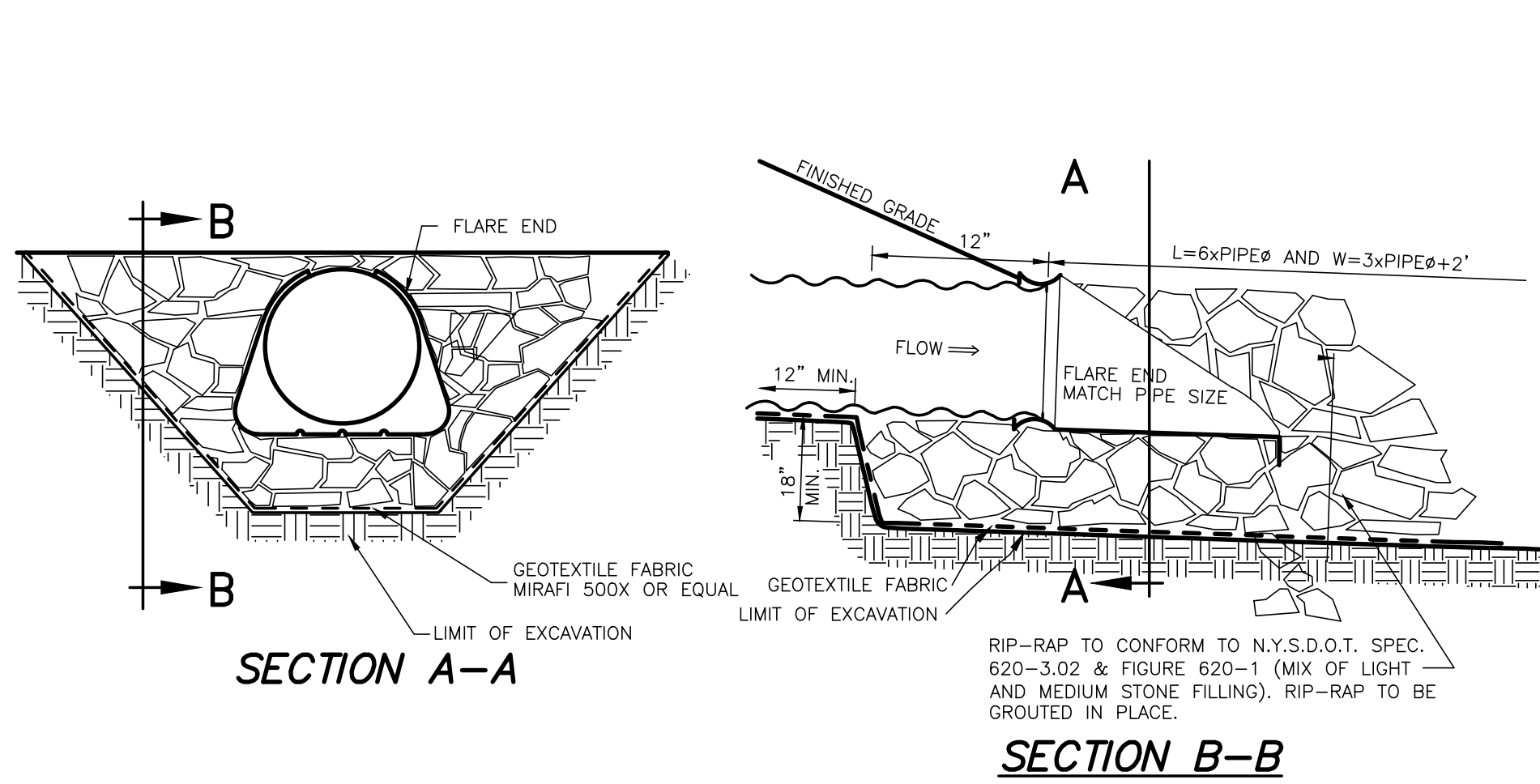
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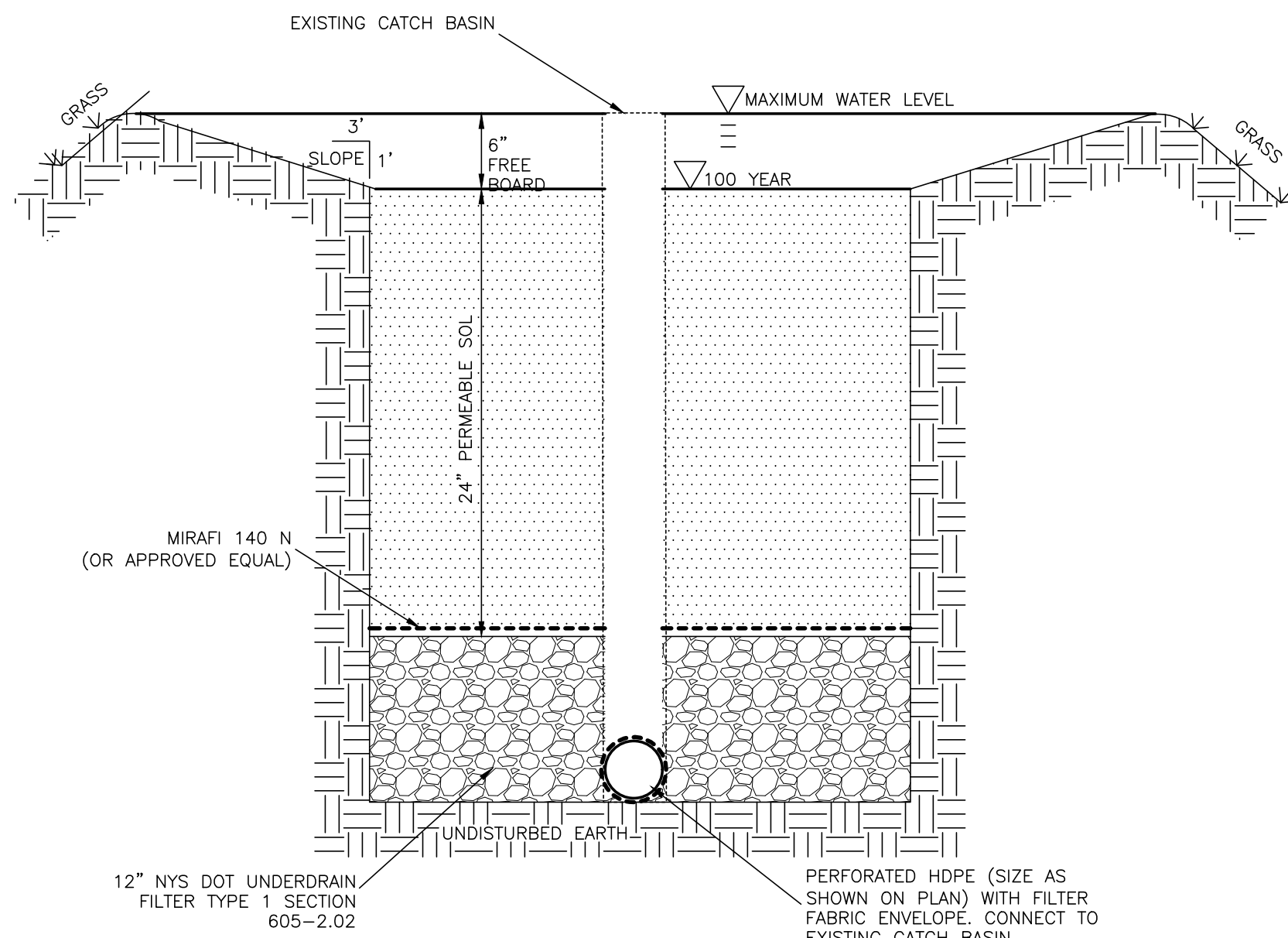
LANDSCAPING PLAN
RIP VAN WINKLE APARTMENTS
10 RINALDI BOULEVARD
CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK STATE

FILE: 230208
SCALE: AS NOTED
SHEET NO. 230208-LDWG
DATE: 7/27/23
CHK: DMH

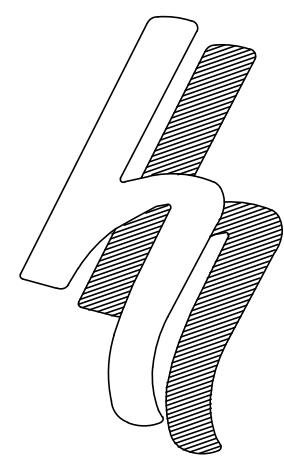
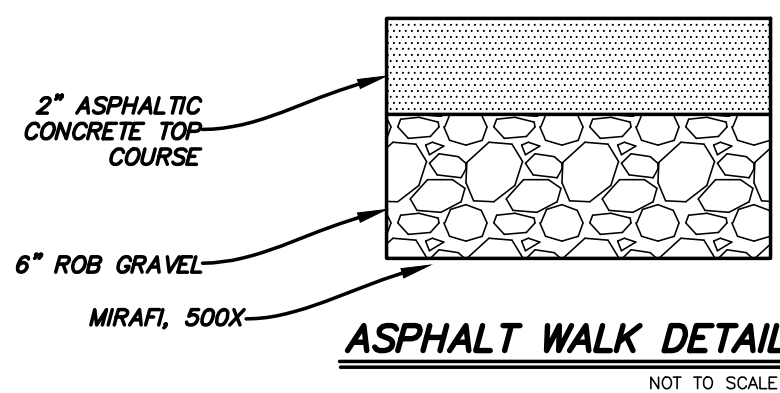
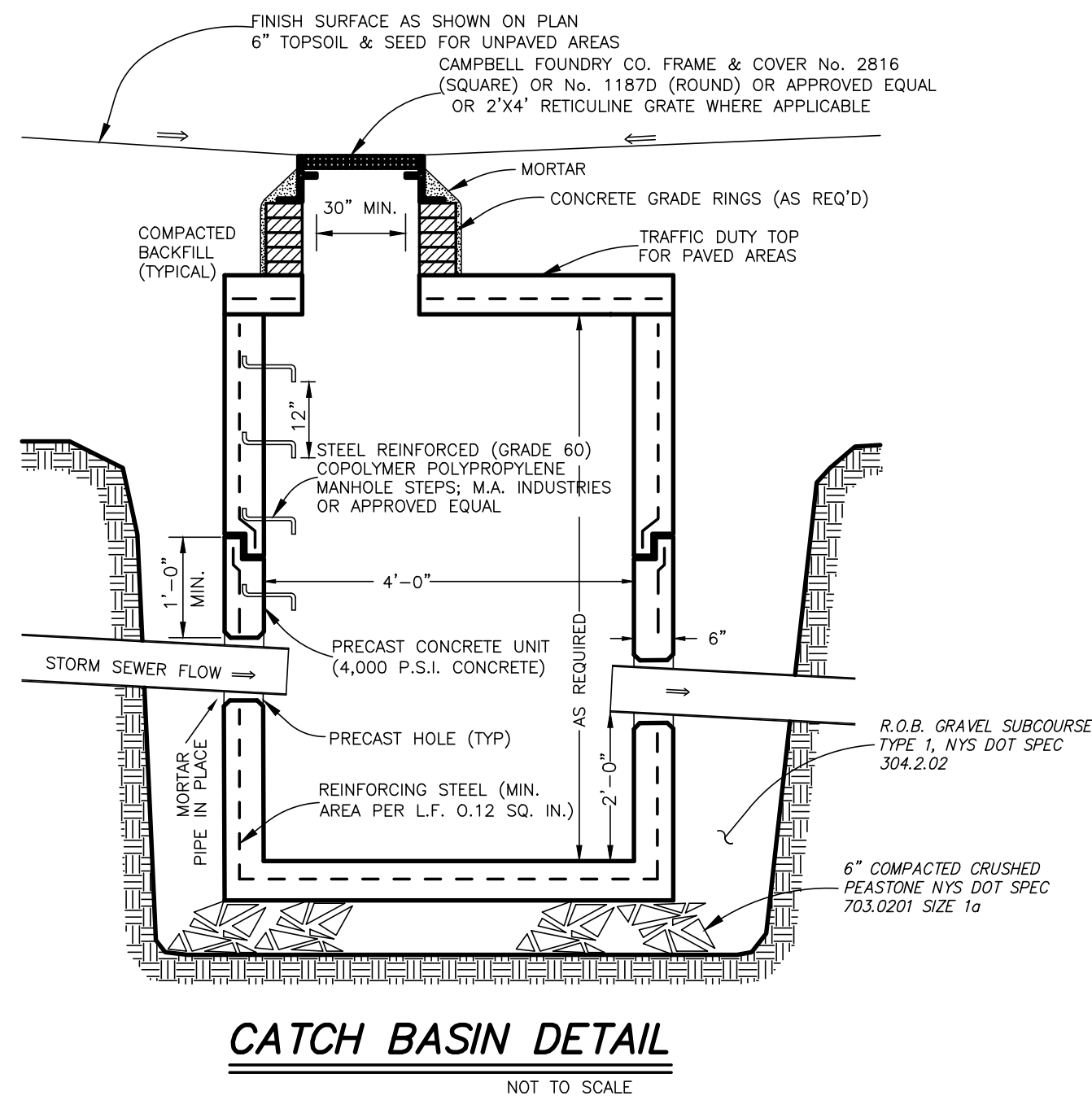
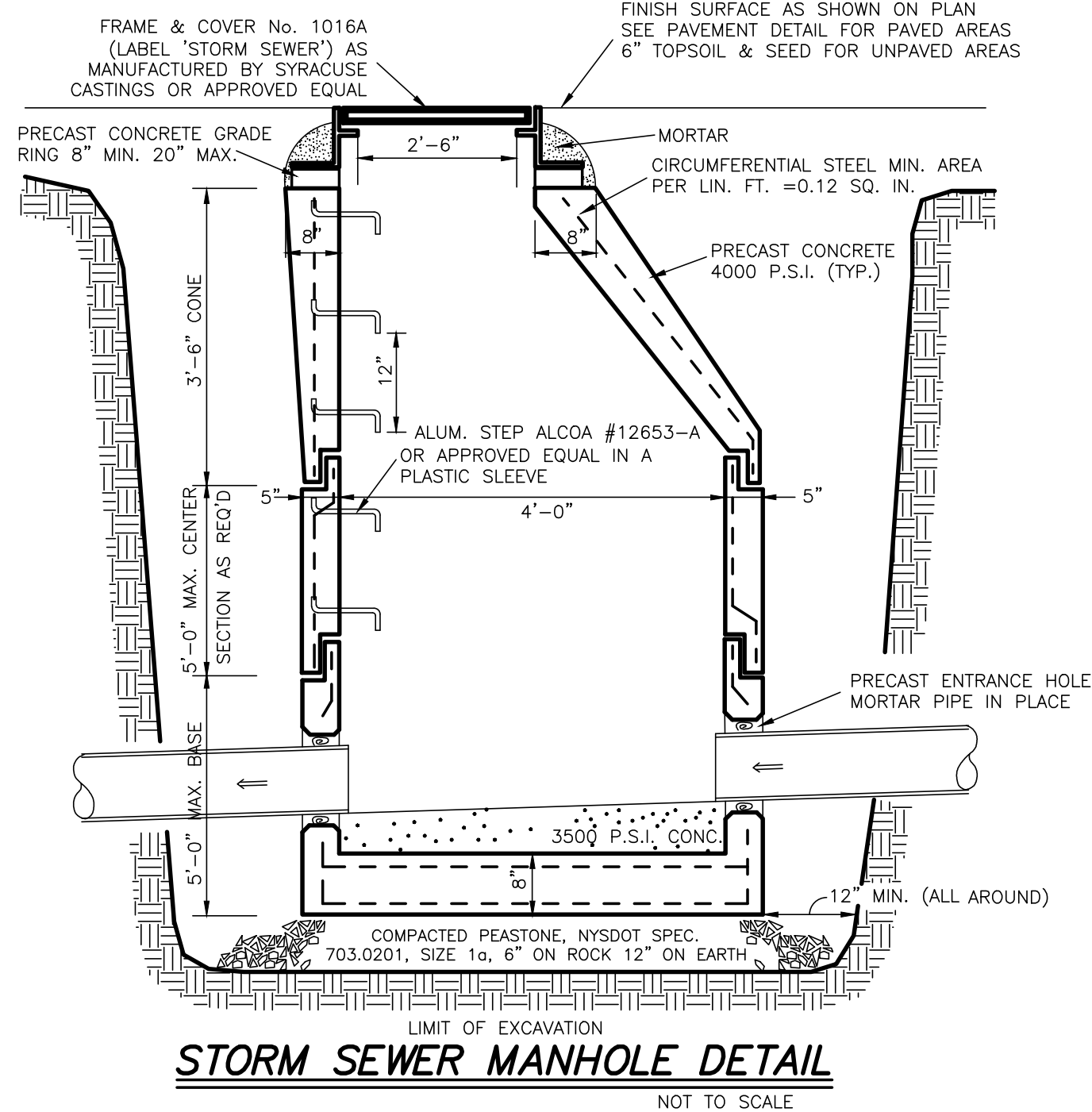
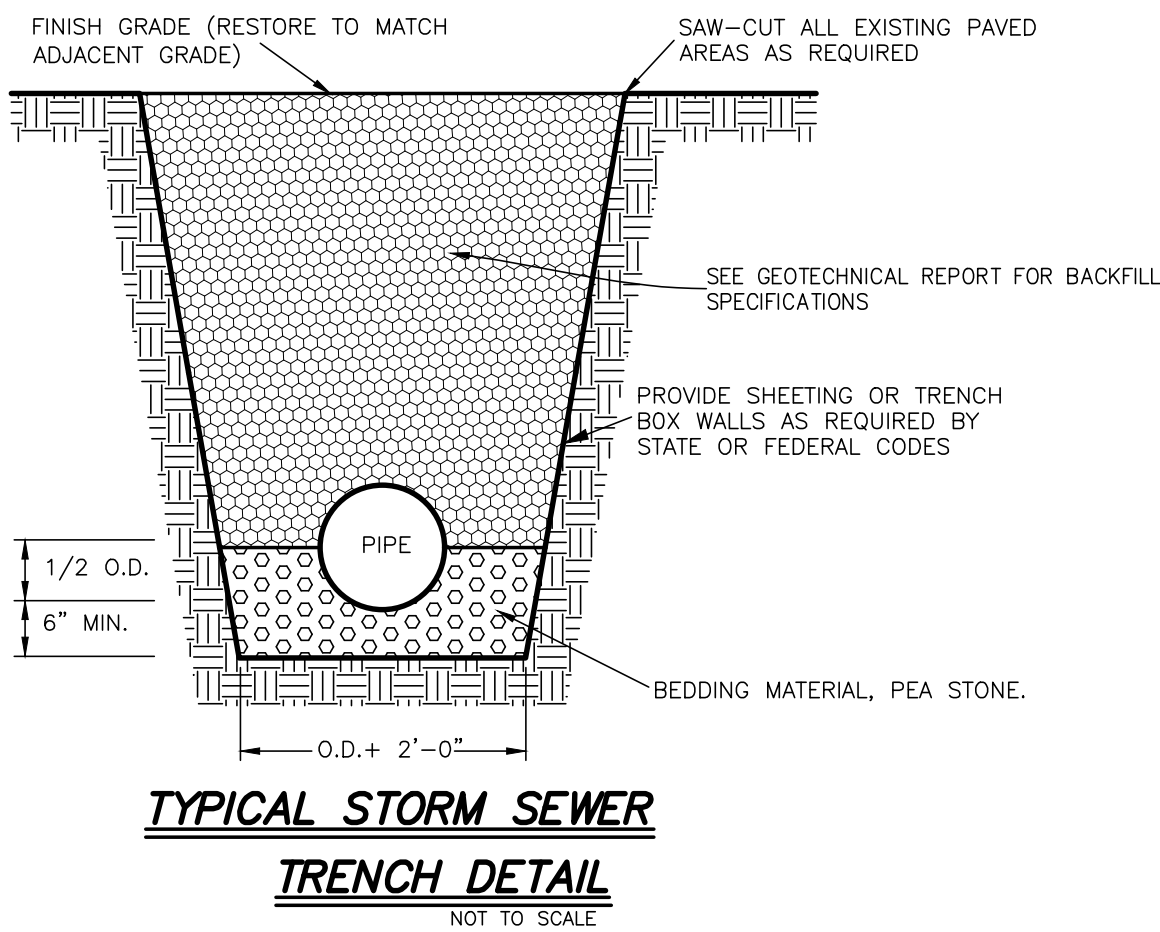
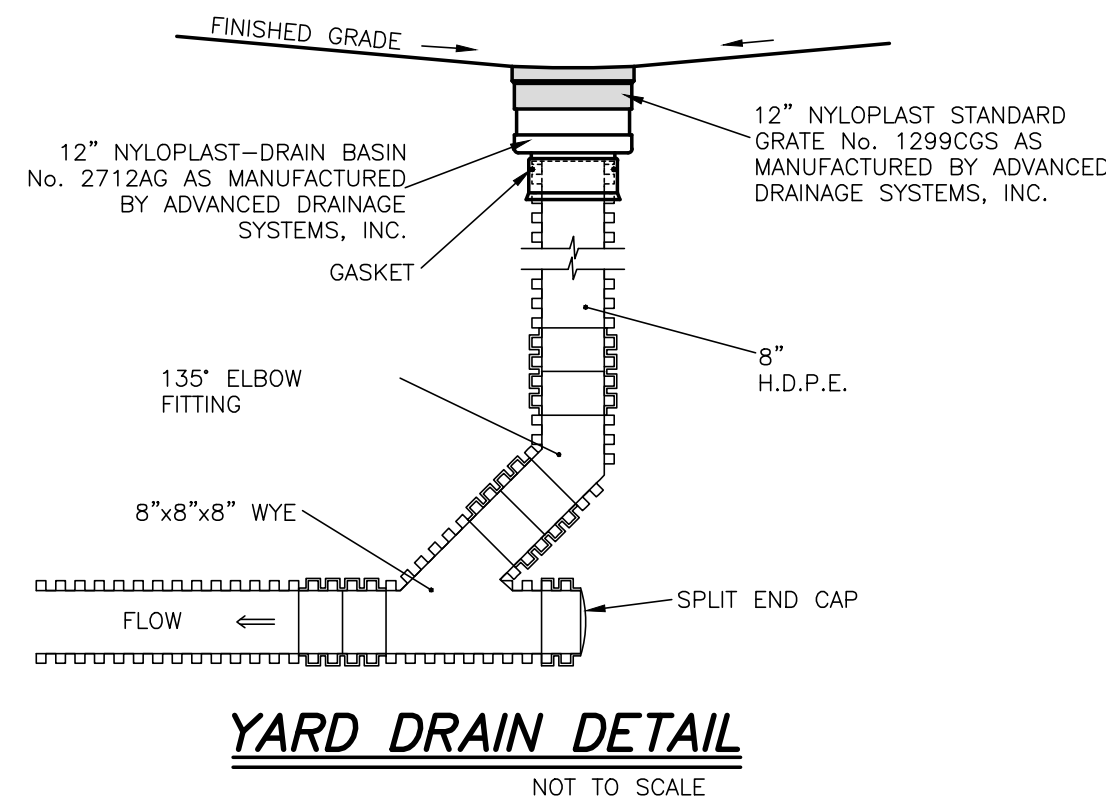


NOTE: RIP-RAP SHALL BE GROUTED IN PLACE.

FLARE END SECTION DETAIL
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RAIN GARDEN DETAIL
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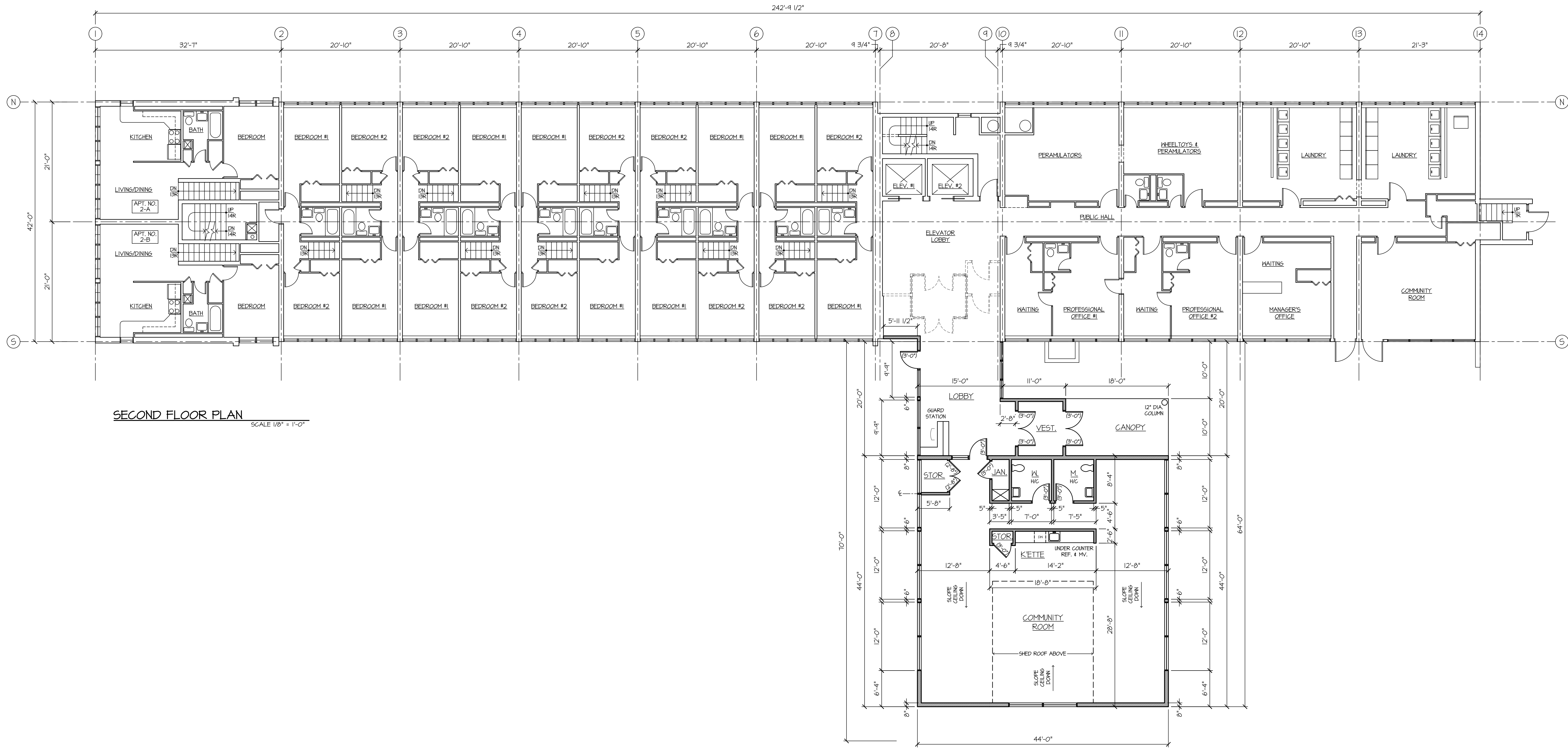
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REMARKS	PLANNING REVISIONS
REVISIONS	

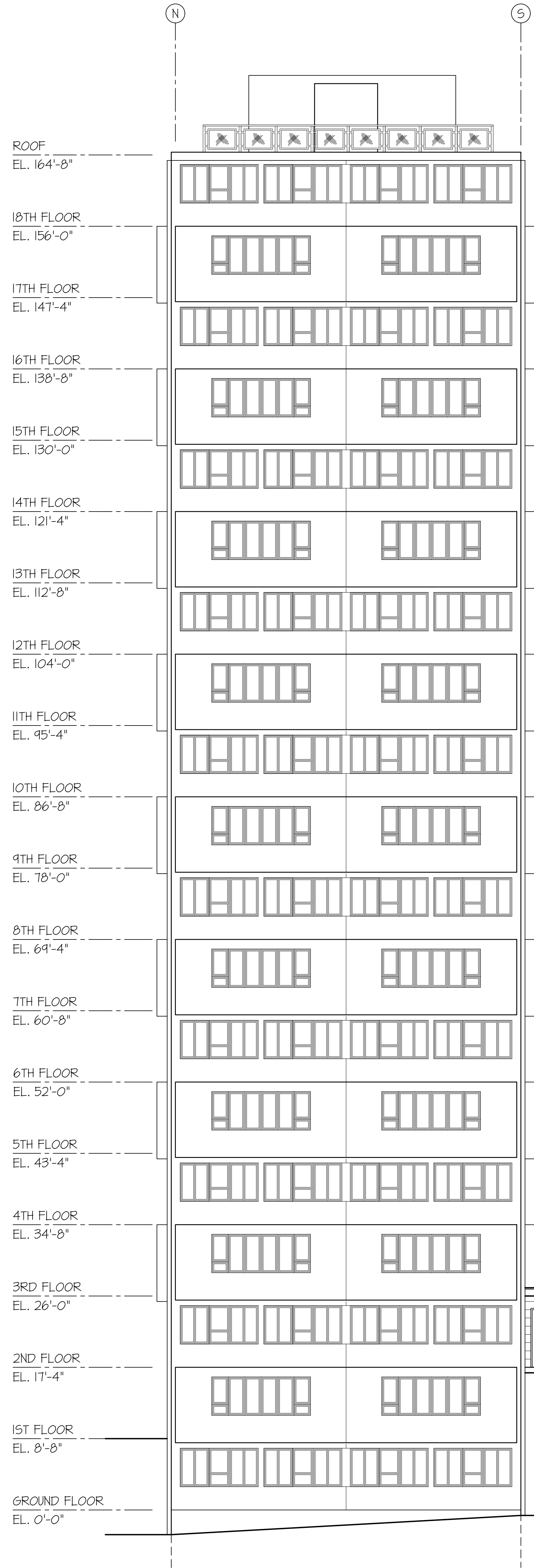
DETAILS
RIP VAN WINKLE APARTMENTS
10 RINALDI BOULEVARD
CITY OF POUGHKEEPSIE, DUTCHESS COUNTY, NEW YORK STATE

FILE: 230208
SCALE: AS NOTED
CHK: DRH
DATE: 2/27/23
230208-LDWG



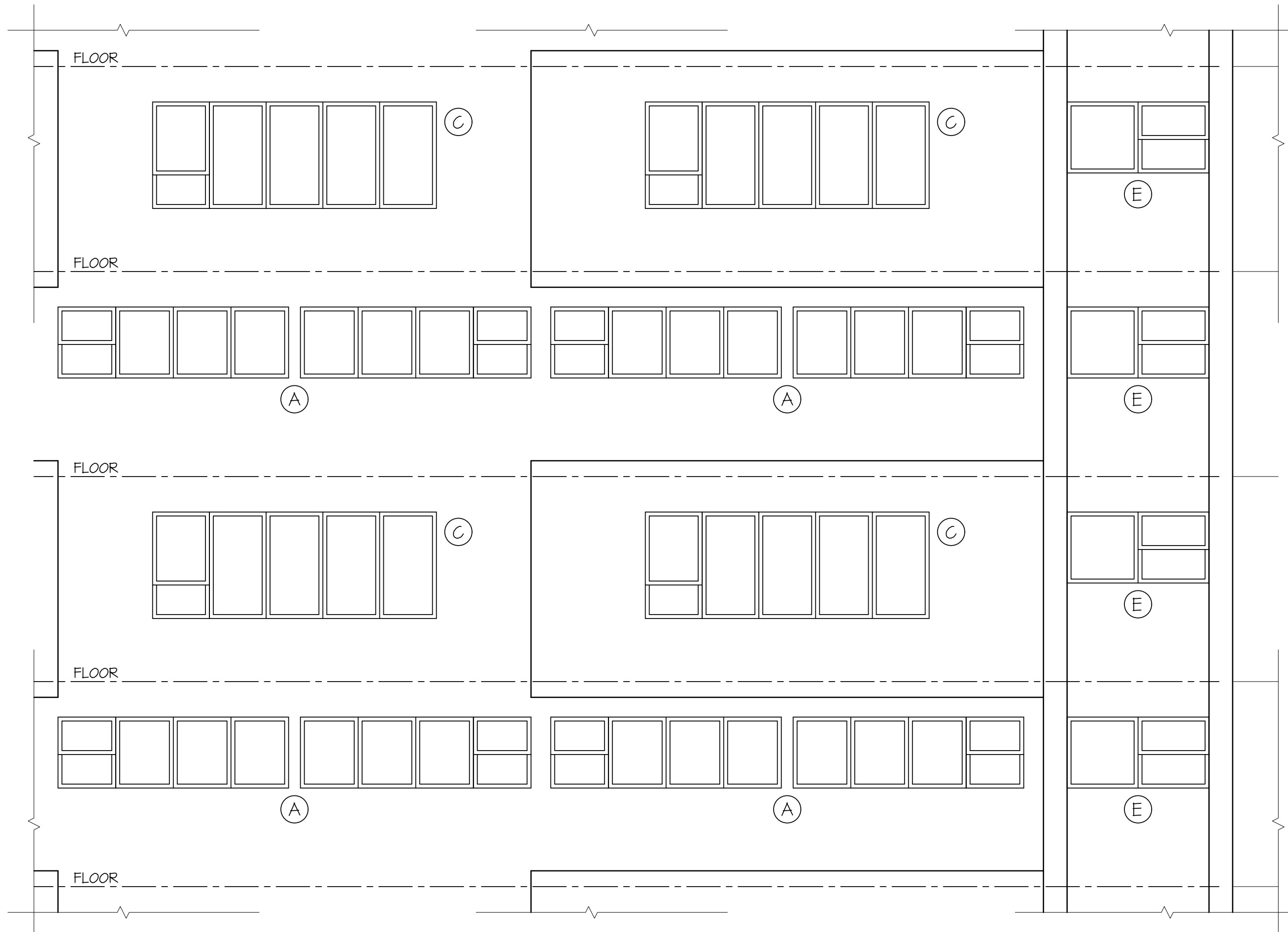
SECOND FLOOR PLAN
SCALE 1/8" = 1'-0"

KEY	
	NEW WALL
	EXISTING WALL
	ITEM TO BE REMOVED



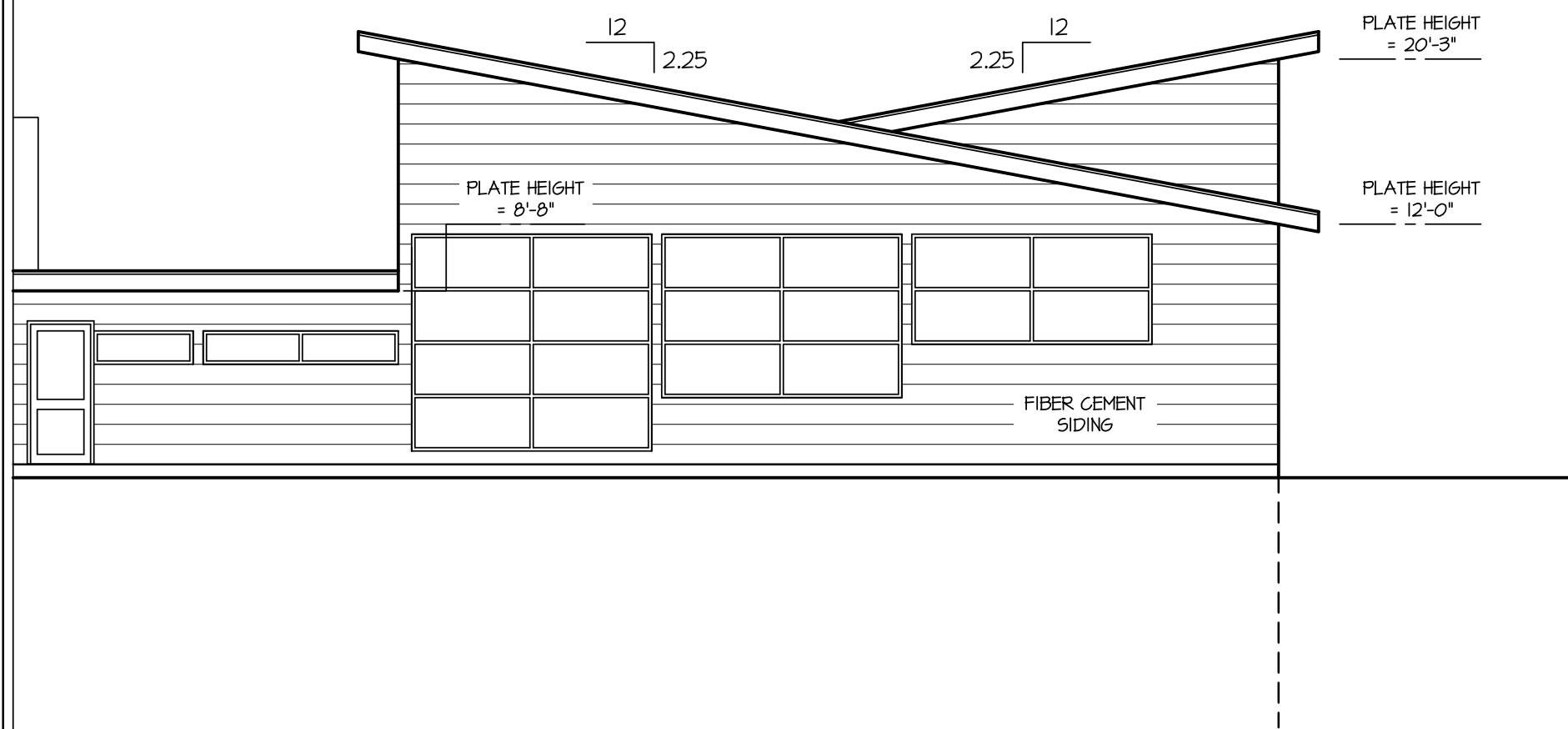
WEST ELEVATION

SCALE 1/8" = 1'-0"



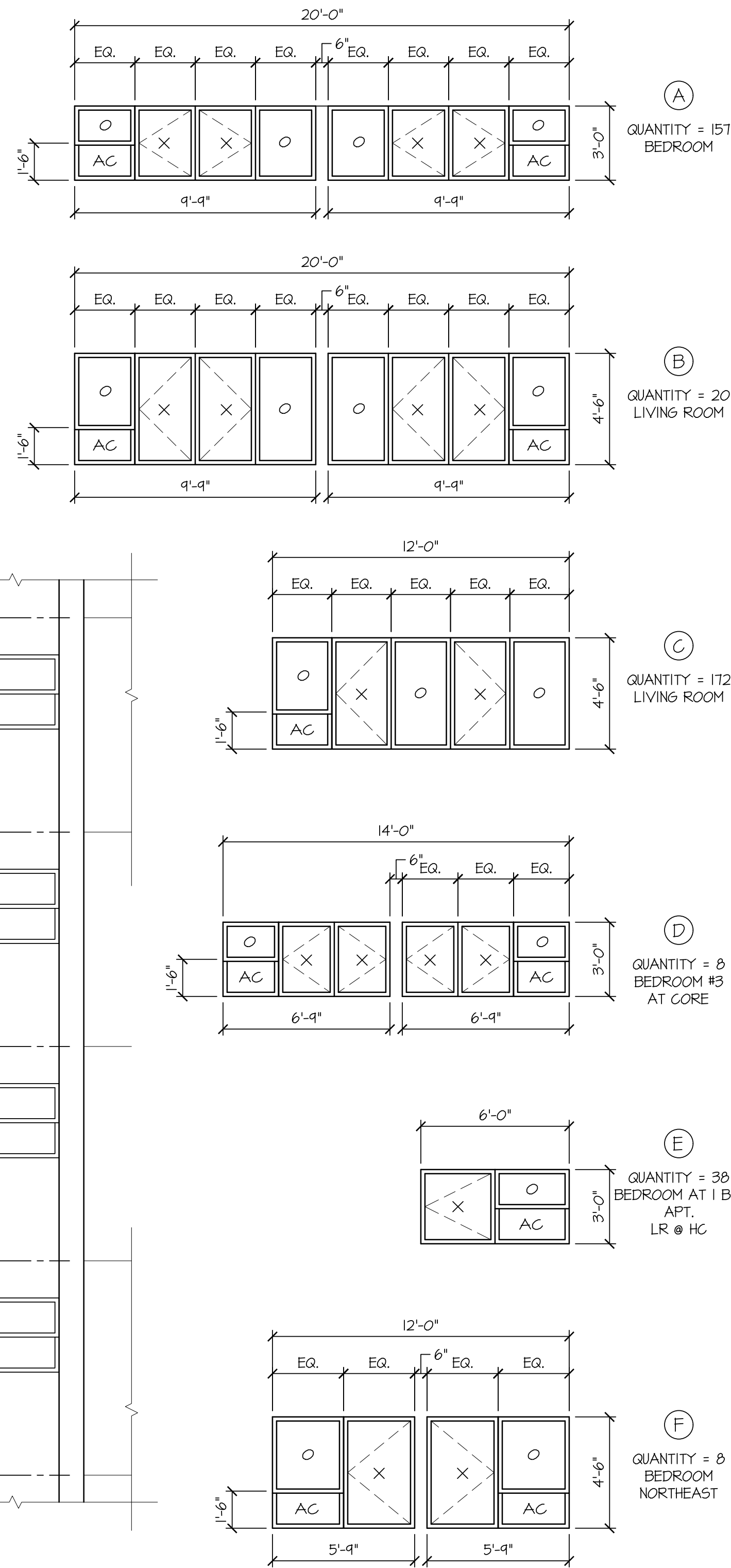
PARTIAL ELEVATION

SCALE 1/4" = 1'-0"



EAST ELEVATION

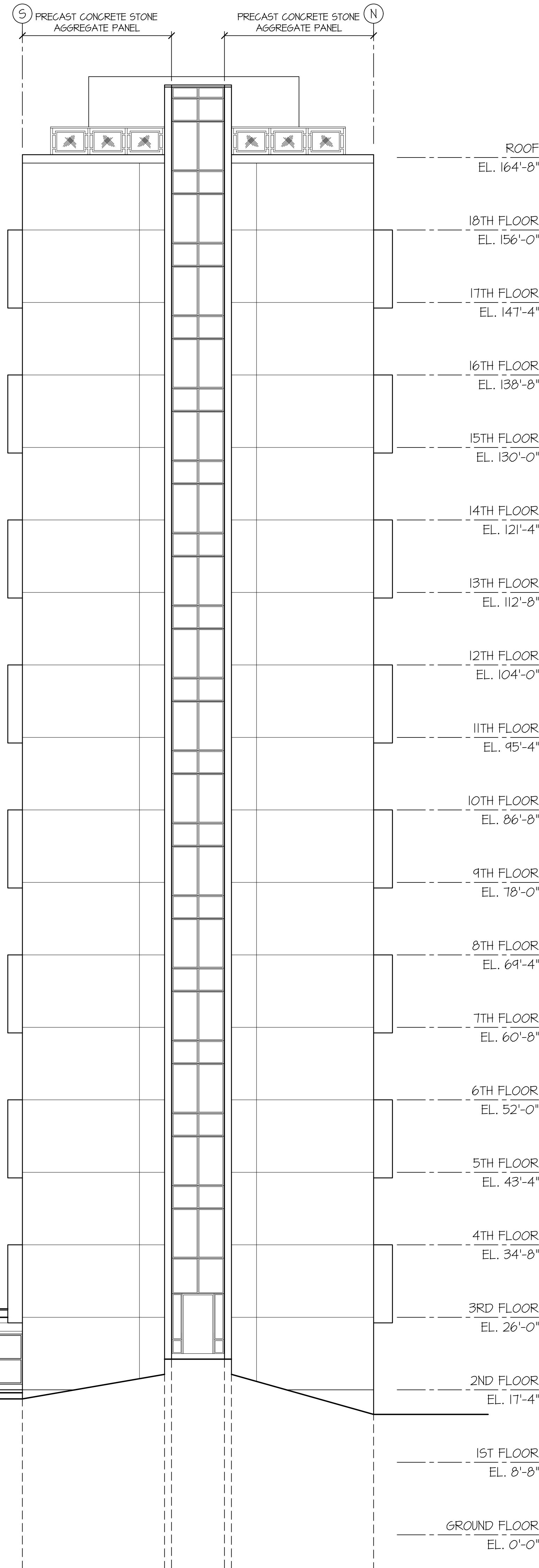
SCALE 1/8" = 1'-0"



REPLACEMENT WINDOWS

SCALE 1/4" = 1'-0"

INTUS WINDOW CO.
U = .029, DP 10
LOW E GLASS
BLACK POLYMER FRAMES



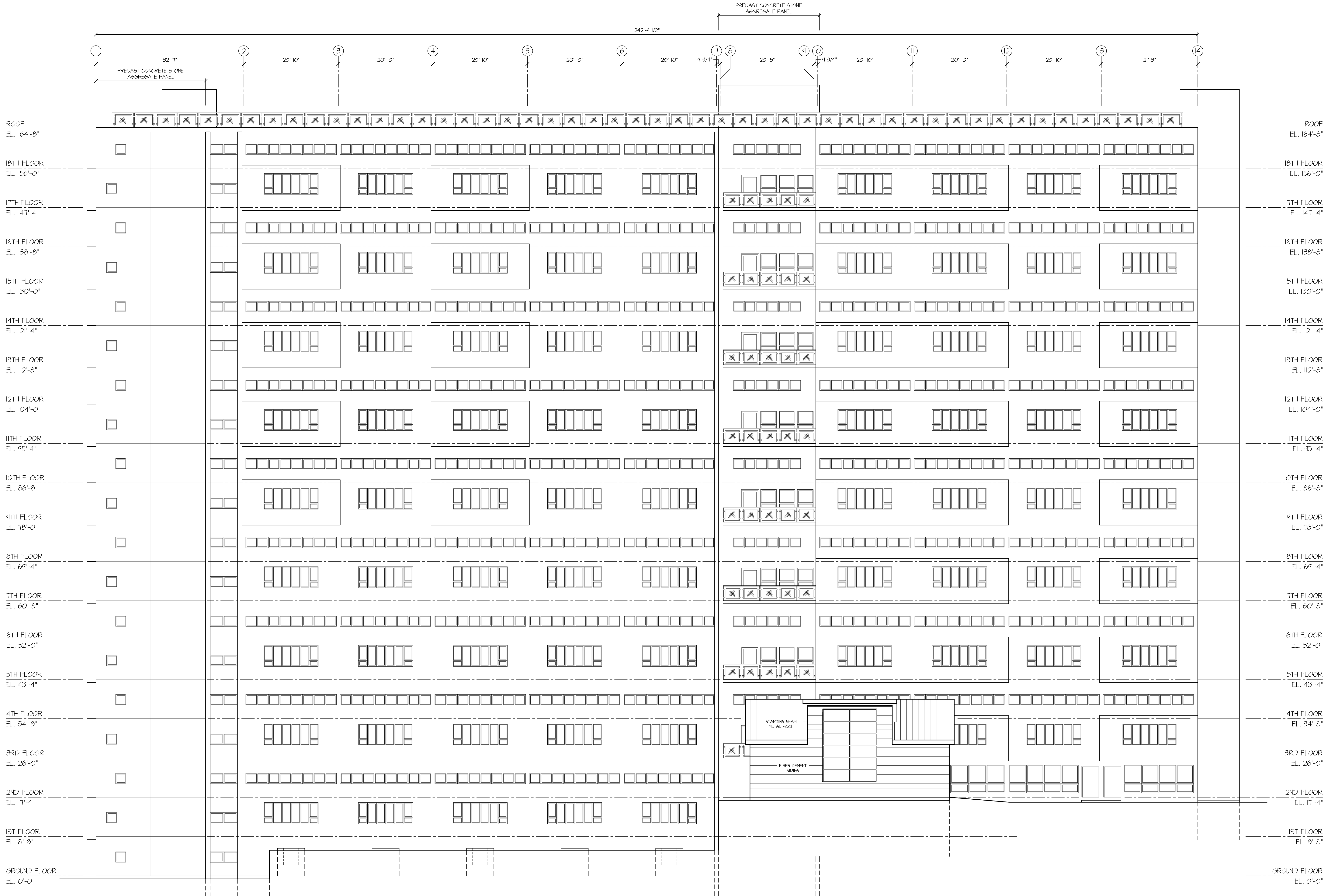
REHABILITATION & ADDITION
RIP VAN WINKLE HOMES
10 RIVARD BOULEVARD
POGHKEEPSIE, N.Y. 12601

WEST & EAST ELEVATIONS

by DRL scale A.N.
ckd. rvsd.
app. issue
no. 22-1008 date 2/1/23

SD 2

KURZON
ARCHITECTS
90 STATE STREET
ALBANY, N.Y. 12207
518-463-3492 FAX 518-465-8902











**THE CITY OF POUGHKEEPSIE
NEW YORK**

DEVELOPMENT DEPARTMENT

62 CIVIC CENTER PLAZA, 2ND FLOOR

POUGHKEEPSIE, NY 12601

Phone: (845) 451-4263 Fax: (845) 451-4006

MEMORANDUM

To: Rip Van Winkle House LLC

From: Tyler Maegerle, Junior Planner

Date: 6/12/2023

Re: 10 Rinaldi Boulevard

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 the addition of a 2,350 square foot community room to the existing building.

Based on the above description it is the determination of the planning division that the proposed action is classified as Type II Action with regards to SEQRA pursuant to 6 NYCRR Section 617.5 (c)(9) "construction or expansion of a primary or accessory/ appurtenant, non-residential structure or facility involving less than 4,000 square feet of gross floor area and not involving a change in zoning or a use variance and consistent with local land use controls, but not radio communication or microwave transmission facilities." The action is therefore not subject to further environmental review.



**THE CITY OF POUGHKEEPSIE
NEW YORK**

DEVELOPMENT DEPARTMENT

62 CIVIC CENTER PLAZA, 2ND FLOOR

POUGHKEEPSIE, NY 12601

Phone: (845) 451-4263 Fax: (845) 451-4006

MEMORANDUM

To: Rip Van Winkle house LLC

From: Tyler Maegerle, Junior Planner

Date: 8/14/2023

Re: 10 Rinaldi Boulevard

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 addition of a two-story community room to an apartment building.

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).

Short Environmental Assessment Form

Part 1 - Project Information

Instructions for Completing

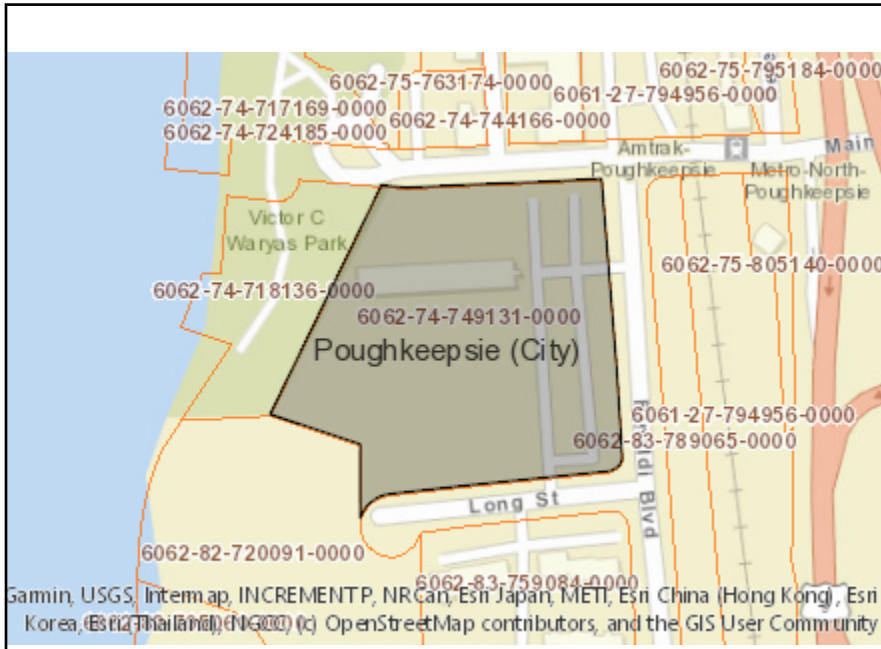
Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. 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: Rip Van Winkle Apartment Building Addition			
Project Location (describe, and attach a location map): 10 Rinaldi Boulevard, Poughkeepsie, NY 12601			
Brief Description of Proposed Action: The Applicant proposes to construct a two-story, 2,350 S.F.± building addition to the existing Rip Van Winkle Apartments. The building addition is a community room for tenants, and does not contain any additional apartment units. New asphalt walks will be provided along with new storm sewers, landscaping, and a rain garden.			
Name of Applicant or Sponsor: RVW Preservation, L.P c/o Related Cos		Telephone: 646-767-3207	
		E-Mail: david.pearson@related.com	
Address: 30 Hudson Yards			
City/PO: New York		State: NY	Zip Code: 10001
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.		NO ☒	YES ☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: City of Poughkeepsie Site Plan Approval, City of Poughkeepsie Building Permit		NO ☐	YES ☒
3. a. Total acreage of the site of the proposed action?		4.95 acres	
b. Total acreage to be physically disturbed?		0.25 acres	
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor?		4.95 acres	
4. Check all land uses that occur on, are adjoining or near the proposed action:			
5. ☒ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☐ Residential (suburban)			
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):			
☐ Parkland			

5. Is the proposed action,	NO	YES	N/A
a. A permitted use under the zoning regulations?	☐	☒	☐
b. Consistent with the adopted comprehensive plan?	☐	☒	☐
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?	NO	YES	
If Yes, identify: _____	☒	☐	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	NO	YES	
	☒	☐	
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?	NO	YES	
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?	NO	YES	
If No, describe method for providing potable water: _____ Site is already served by public water supply _____	☒	☐	
11. Will the proposed action connect to existing wastewater utilities?	NO	YES	
If No, describe method for providing wastewater treatment: _____ Site is already served by existing wastewater utilities. _____	☒	☐	
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?	NO	YES	
	☐	☒	
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?	NO	YES	
	☐	☒	
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: _____ No wetlands or waterbodies are identified on the NYSDEC Environmental Resource Mapper within the site, but the site is near the Hudson River _____			

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		
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? Atlantic Sturgeon, Peregrin...	NO	YES
	☐	☒
16. Is the project site located in the 100-year flood plan?	NO	YES
	☒	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes,	NO	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:	☐	☒
_____ New runoff is directed toward a rain garden, where it will be treated and discharged down the sloped toward the Hudson River. _____		
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:	NO	YES
_____ _____	☒	☐
49. 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:	NO	YES
_____ _____	☒	☐
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:	NO	YES
_____ No remediation sites were found in the vicinity of this site on the NYSDEC Environmental Remediation Database	☐	☒
I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE Applicant/sponsor/name: <u>Nicholas Daniels, P.E For the Applicant</u> Date: <u>3/24/23</u> Signature: _____ Title: <u>Partner</u>		



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	Yes
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	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]	Atlantic Sturgeon, Peregrine Falcon, Shortnose Sturgeon
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	Yes

July 17, 2023

Related Affordable
Care of David Pearson
30 Hudson Yards
New York, New York 10001

Subject: Poughkeepsie Natural Resource Inventory Conservation Analysis
Rip Van Winkle Apartments
10 Rinaldi Boulevard
Poughkeepsie, NY 12601
AEI Project No. 457901

The City of Poughkeepsie Natural Resources Inventory (NRI) provides baseline information on natural resources including parks, tributaries to the Hudson, the Poughkeepsie waterfront and city trees. AEI is pleased to present the following National Resources Inventory Conservation Analysis for the proposed renovation of the Rip Van Winkle Apartments.

The project is being submitted for a Section 8 HAP contract renewal with capital improvements. The 4.9-acre subject property is located southwest of the intersection of Main Street and Rinaldi Boulevard in a mixed-use area of Poughkeepsie, NY. The Dutchess County tax parcel number is 131300-6062-74-749131-0000. The site is developed with the Rip Van Winkle Apartments multifamily residential community, which includes one (1) 18-story apartment building with 179 residential units. Constructed in 1968, additional site improvements include a playground, asphalt-paved parking areas, and associated landscaping. The subject property is accessed through three (3) entrances to the north, east, and south.

Based on review of the proposed scope of work, extensive interior renovations and limited exterior renovations are planned, including but not limited to bathroom and kitchen renovations, ADA unit upgrades, new flooring and painting, window and entry door replacement, interior and exterior lighting upgrades, general signage upgrades, parking lot and concrete repairs, and landscaping. The project will not involve new ground-disturbing activities.

Geology and Soils: Based on review of the Poughkeepsie NRI Chapter 2, bedrock geology underpins the City of Poughkeepsie's landforms and topography and has shaped patterns of soil development, habitats, and water movement that define the ecological landscape. According to the NRI Map, the site's bedrock geology consists of water. This bedrock geology category is described as unknown and/or adjacent to the Hudson River.

According to the NRI, surficial geology refers to the layer of unconsolidated sediment that sits above bedrock. Surficial geology materials mapped in the City of Poughkeepsie include sand and gravel, clay and silts, and glacial tills. These materials influence soil development and can affect suitability for development projects such as the construction of new roads, and buildings, or septic systems. Based on review of the NRI Map, most of the site's surficial geology consists

of Alluvium and the remaining portion is Bedrock Outcrop. Alluvium is described as permeable oxidized fine sand to gravel formed by riverine deposits and subject to flooding and is generally 1-10 meters thick. It is generally confined to flood plains within a valley; larger valleys may be overlain by silt. Bedrock Outcrop is described as exposed bedrock, generally within 1 meter of the surface.

Soil is the foundation for ecosystems and many natural processes and strongly influences feasibility for land use and development. Soil controls the decomposition of organic matter, and biogeochemical cycles; regulates water flow; and influences the vegetation, habitat type, and agricultural potential of certain locations. Based on review of the NRI map, the subject property soils include NwD and Ur. NwD soil is described as Nassau-Cardigan Complex, rolling/rocky. The soil type is somewhat excessively drained has a strongly acidic soil reaction; the depth to bedrock is 20-40 inches. Ur soil is described as Urban Land, covered by impervious materials.

The proposed project consists of the renovation of an existing multifamily residential complex and would not involve the new development of roads, buildings, or septic systems. The project is not expected to impact Geology and Soils.

Water Resources: According to the Poughkeepsie NRI Chapter 3, the City of Poughkeepsie is on the east bank of the Hudson River, at the midpoint of a 153-mile estuary from the City of Troy to New York Harbor – nearly half the entire river's length. An estuary is a partially enclosed coastal body of brackish water with one or more rivers or streams flowing into it and with a free connection to the open sea. The Chapter states that groundwater feeds the city's rivers and streams and is the primary source of water for aquatic habitats during times of drought. Aquifers are areas with significant amounts of groundwater saturation, and the groundwater is used to supply wells and other water sources. Based on review of the NRI map, the subject property is not located on or within the vicinity of an aquifer.

The Chapter states that a watershed or drainage basin is the area of land from which all water drains into a particular stream, river, lake, or other waterbody. Surface topographic features (such as ridges, mountains, and hills) constitute watershed or basin boundaries. Watersheds are nested, with smaller subwatersheds existing within larger watersheds. For example, the Fall Kill watershed is a subwatershed of the Hudson River watershed. A healthy watershed has adequate pervious areas for water to infiltrate, which reduces direct inputs of polluted runoff to the waterway. This helps to recharge groundwater, mitigate flood and erosion impacts, and minimize the cost of water treatment and public infrastructure. The City of Poughkeepsie is part of the Hudson River basin and has four watersheds. The majority of the City is within the Fall Kill and Casperkill watersheds, with the remaining area within the Hudson River Direct Drainage E and F basins. Based on review of the NRI map, the subject property is in the Hudson River Direct Drainage E watershed.

According to Chapter 3, Poughkeepsie's major waterbodies are the Hudson River and the Fall Kill, and the Casperkill borders it at the southeast corner. Additionally, there are small lakes, ponds, and reservoirs that are important surface water resources in the city, most notably Morgan Lake, which is in the northeastern corner of the city, and the Victorian reservoir at

College Hill Park. Hudson River habitats, including the main channel, tidal shallows, intertidal shallows, and the tidal tributary mouth of the Fall Kill, make up the largest contiguous habitat type in the city. The subject property is located approximately 230 feet east of the Hudson River.

A wetland is a distinctive habitat that provides important ecosystem services. Wetlands are defined by saturation of surface water or groundwater for a period throughout the year, and the presence of plants that are adapted to saturated soil conditions. In addition to providing habitat for a diversity of plants and animals, they play an important role in stormwater management. Wetlands slow down runoff, increase infiltration into groundwater, and help to filter out sediment and other contaminants. The Chapter states that wetlands are not common in the City of Poughkeepsie. Historically, many wetlands in developing areas were filled, which is likely what occurred in the city. According to the NRI map, subtidal shallow wetlands are located along the edge of the Hudson River, approximately 230 feet west of the subject property. No wetlands occur on the subject property.

Chapter 3 states that floodplains are low-lying areas adjacent to streams or rivers that become inundated during times of high flow. Streams naturally overflow their banks to disperse floodwaters. This flooding helps slow the water, recharge groundwater, and increase water quality by letting particulates settle out instead of being carried downstream. Stream channelization is a modification to the banks of the stream that stops overbank flooding and moves water quickly downstream. Based on review of the NRI map, the subject property is not located within a floodplain. Zone AE is located approximately 60 feet from the subject property. Zone AE is classified as areas located within the 100-year floodplain with a 1% chance or greater annual chance flood hazard and Base Flood Elevations (BFEs) established. The BFE in the area is identified as 8 feet.

An MS4 Outfall is located approximately 200 feet northwest of the subject property. According to Chapter 3, MS4 is a Municipal Separate Storm Sewer System. The City of Poughkeepsie has storm drains that are separate from the sewer system and are part of the Municipal Separate Storm Sewer System (MS4). MS4 is a specific type of SPDES permit and requires that the community have a stormwater collection and conveyance system that is owned by the city, is not a combined sewer and is not part of the sewage treatment plant or publicly owned treatment works. As an MS4 community, the City of Poughkeepsie must develop, implement and enforce a Stormwater Management Program (SWMP). In Poughkeepsie, storm drains that are not connected to the wastewater treatment facility (are not CSOs) move water directly from roads and rooftops into the nearest waterbody. A total of 24 storm drains, the majority on the north side of Poughkeepsie, drain directly into the Fall Kill. On the south side of Poughkeepsie, most outfalls drain into small wetlands and streams, with eight (8) outfalls located on tributaries of the Casperkill. There are six (6) outfalls that drain directly into the Hudson River.

The subject property does not contain any water resources. The proposed renovation project would not involve any new stormwater discharges and is not expected to have an impact on Water Resources.

Habitats: According to the Poughkeepsie NRI Chapter 4, Biological Communities and Habitats, in May 2018, Hudsonia Ltd. compiled a Significant Habitats Report as part of the Natural Resources Inventory project. This report assessed the types of habitats present in the city and developed conservation priorities for the protection and restoration of the City's habitats. A habitat can be defined as "the place where an organism or population lives or where a community occurs and is defined according to both its biological and non-biological components." Habitats include large, ecologically significant areas such as the Hudson River, the Fall Kill, and the Vassar Farm and Ecological Preserve. The Hudsonia report identifies 18 habitat types of potential ecological significance and notes that each of these habitats have been modified by past or present human activities. The ecologically significant habitats located within the City of Poughkeepsie are categorized into three general categories - Upland Habitats, Non-Tidal Wetland Habitats, and Hudson River Habitats - and further subdivided into specific habitat types. Based on review of the NRI map, the north and east/southeast portions of the subject property are not designated as Habitat and are considered Developed. However, the south/southwest portion of the subject property is classified as Cultural Habitat and Upland Hardwood Forest Habitat.

Chapter 4 describes Cultural Habitat as "open area (may have scattered trees) mowed frequently or otherwise managed in an intensive way (lawn, playing field, golf course, garden, park, cemetery)". The portion of the subject property that is mapped as Cultural Habitat consists of the subject property's open green space which is landscaped. Upland Hardwood Forest Habitat is described as "non-wetland forest dominated by hardwood trees (conifers make up < 25% of canopy)". A small portion of the western subject property corner that is forested is mapped as Upland Hardwood Forest Habitat.

The proposed renovation project does not involve new ground disturbance and is not expected to have an impact on Habitats.

Land Use: Based on review of the Poughkeepsie Zoning Map, the subject property is in the Waterfront Transit Oriented Development (WTOD) Zoning District. According to the NRI map, the subject property Land Use is designated as Residential. The Hudson River, located approximately 230 feet west of the subject property, is identified as a Registry Class 2 site as part of the Hudson River PCB Sediments State Superfund Program Remediation Site, which is listed on the National Priorities List (NPL) and includes the entire river from Hudson Falls in Washington County, NY to the Battery in New York City. There are no Brownfields on or in the vicinity of the subject property. A brownfield is an abandoned, idled, or underused industrial or commercial property whose redevelopment may be complicated by the presence or potential presence of contamination.

The proposed renovation project is not expected to have an impact on Land Use.

Historic Resources: According to the NRI map, the Poughkeepsie Railroad Station, Union Street Historic District, and Mill Street-North Clover Street Historic District, all listed on the National Register of Historic Places, are in the vicinity of the subject property. No historic resources were identified on the subject property. According to a letter dated March 24, 2023 from the New York State Historic Preservation Office (SHPO), the apartment tower that is

proposed for rehabilitation (“subject property”) is not historic but is substantially visible from a number of historic buildings that are eligible for or listed in the National Register. However, following review of the project, the SHPO deemed the project appropriate and determined that the project will have No Adverse Effect on historic resources.

Therefore, the proposed renovation project will not have an adverse impact on Historic Resources.

Recreational Resources: According to Chapter 7 of the Natural Resources Inventory, publicly accessible recreational resources provide the opportunity for people to engage with the outdoors and have positive place-based experiences. A variety of important recreational resources exist within and near Poughkeepsie. Located in the Mid-Hudson region, many large recreational areas, including the Catskills, Shawangunks, Taconic Mountains, and Hudson Highlands, are within an hour’s drive from the city, through farmland, forested hills, and a broad urban-rural gradient. Features such as the Hudson River, Dutchess County Rail Trail, Vassar Farm and Ecological Preserve, and Fall Kill Creek connect Poughkeepsie to the surrounding areas. Within the City, Poughkeepsie’s many public parks provide green space, gardens, playgrounds, picnicking, and athletic fields and courts (Map 6.1, Table 6.1). The 24 public parks and green spaces in the city total nearly 500 acres, with about 250 acres located on the Vassar Farm and Ecological Preserve. Based on review of the NRI map, the subject property is located adjacent to Waryas Circle Flower Garden, Kaal Rock Park, and Victor C. Waryas Park, which includes a waterfront walkway and playground. In addition, the Walkway Loop Trail is located west of the subject property.

The proposed renovation project involves minimal site work and is not expected to have an impact on Recreational Resources.

Pollinator Pathway: Based on review of the NRI map, the subject property is located within a Potential Pollinator Pathway. The map indicates the name of the pathway is CPOUGHKE but does not provide additional information. According to the Vassar College website, Poughkeepsie is working towards becoming a Pollinator Pathway. The city is aiming to establish pollinator-friendly habitats and food sources for bees, butterflies, hummingbirds, and other pollinating insects and wildlife along a series of continuous corridors. It is a project of the Conservation Advisory Commission (CAC), supported by numerous stakeholders in the community including the colleges, public and private schools, environmental organizations, local legislators, our Climate Smart Task Force, parks, nurseries, and more.

The proposed renovation project involves minimal site work and is not expected to have an impact on Potential Pollinator Pathways.

If you have questions regarding this assessment, please direct them to Staige Miller at 804-938-3935.

Sincerely,



Hannah Moran
Senior Project Manager



Staige Miller
Senior Vice President – HUD Environmental Services

Natural Resources Inventory



Exposed bedrock near the Fall Kill.
Photo credit: Camelia Manring



Pollinator garden at College Hill Park.



Upper Landing Park.

The Poughkeepsie [Natural Resources Inventory \(PDF\)](#) (NRI) provides baseline information on the city's natural resources including parks, tributaries to the Hudson, the Poughkeepsie waterfront and city trees. The NRI was developed by the Environmental Cooperative at Vassar Barns through their [Healthy Habitats Initiative](#) in partnership with Hudsonia. While NRIs traditionally have a standard set of components, care was taken to include sections specific to Poughkeepsie, such as an assessment of the health of the City's ash trees and a management plan for Emerald Ash Borer, which threatens our ash population. The final [Hudsonia report on significant habitats \(PDF\)](#) can be found online.

To memorialize the vital work done by the Environmental Cooperative and Hudsonia, the City of Poughkeepsie Common Council passed a local law adopting the Poughkeepsie NRI on September 9th, 2019. The local law added Section 19-6.4 to the Code of Ordinances that expressly integrates the use of the Inventory into all land-use decision-making, including site plan review.

Poughkeepsie Natural Resource Inventory

[Overview](#)[Geology and Soils](#)[Water Resources](#)[Habitats](#)[Land Use](#)[Historic Resource](#)

This is an aerial view of the City of Poughkeepsie. You can view additional layers on the aerial image by turning them on using the Layers widget in the lower-right.

City of Poughkeepsie Natural Resource Inventory Interactive Map



In February of 2019, the [Environmental Cooperative at Vassar Barns](#) completed an assessment of the City of Poughkeepsie. By identifying and documenting the current natural resources of the city and expand them. Contact the [City of Poughkeepsie Planning office](#) for more information on how to view the Natural Resources Inventory report.

These maps can be navigated by tabbed categories, which reflect the different chapters of the report. Click on the full address on this page and then choosing which information layers to reveal.

Click this button



to look at the legend

Click this button

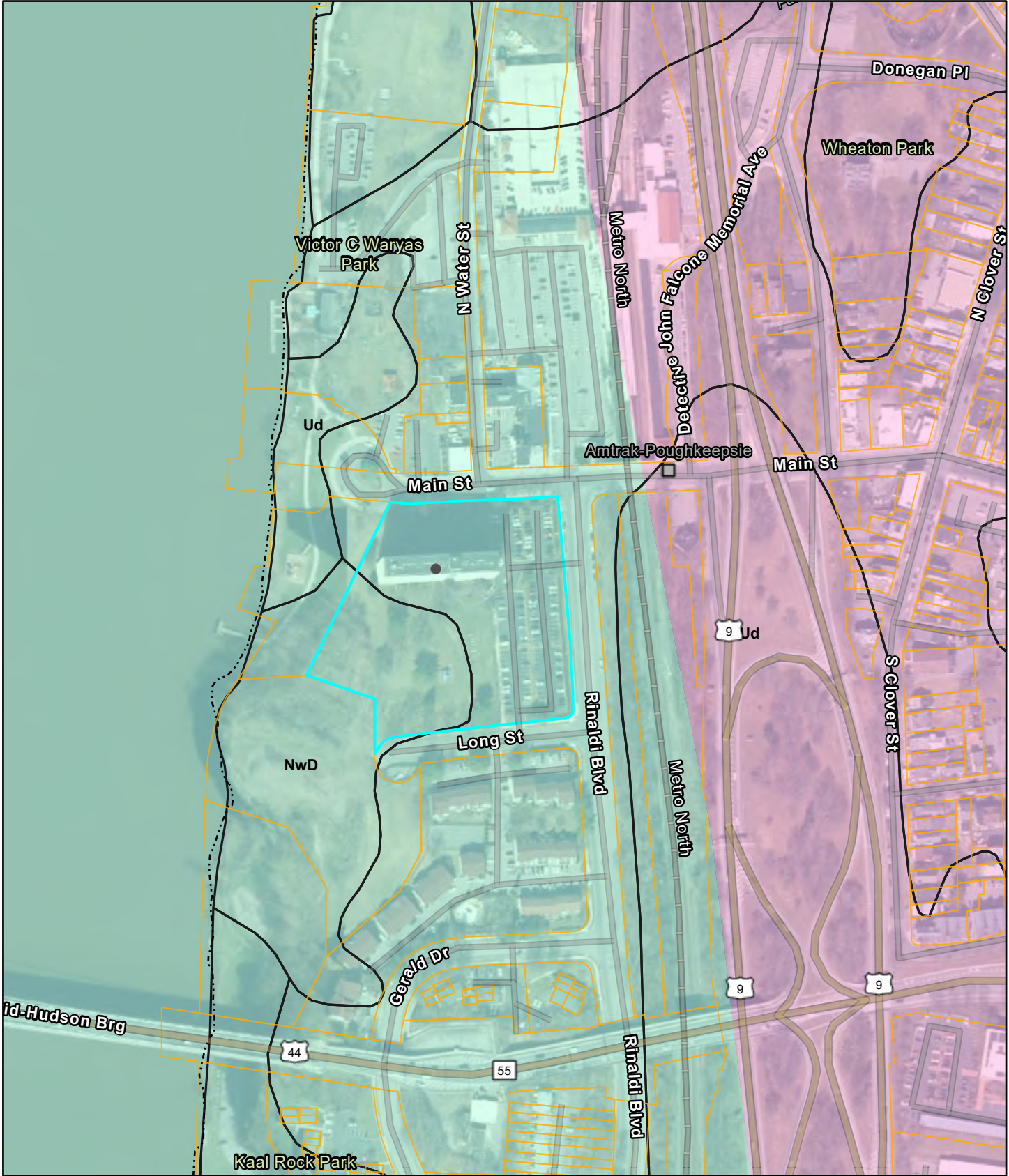


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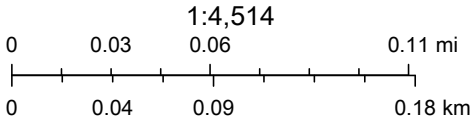


Bedrock Geology



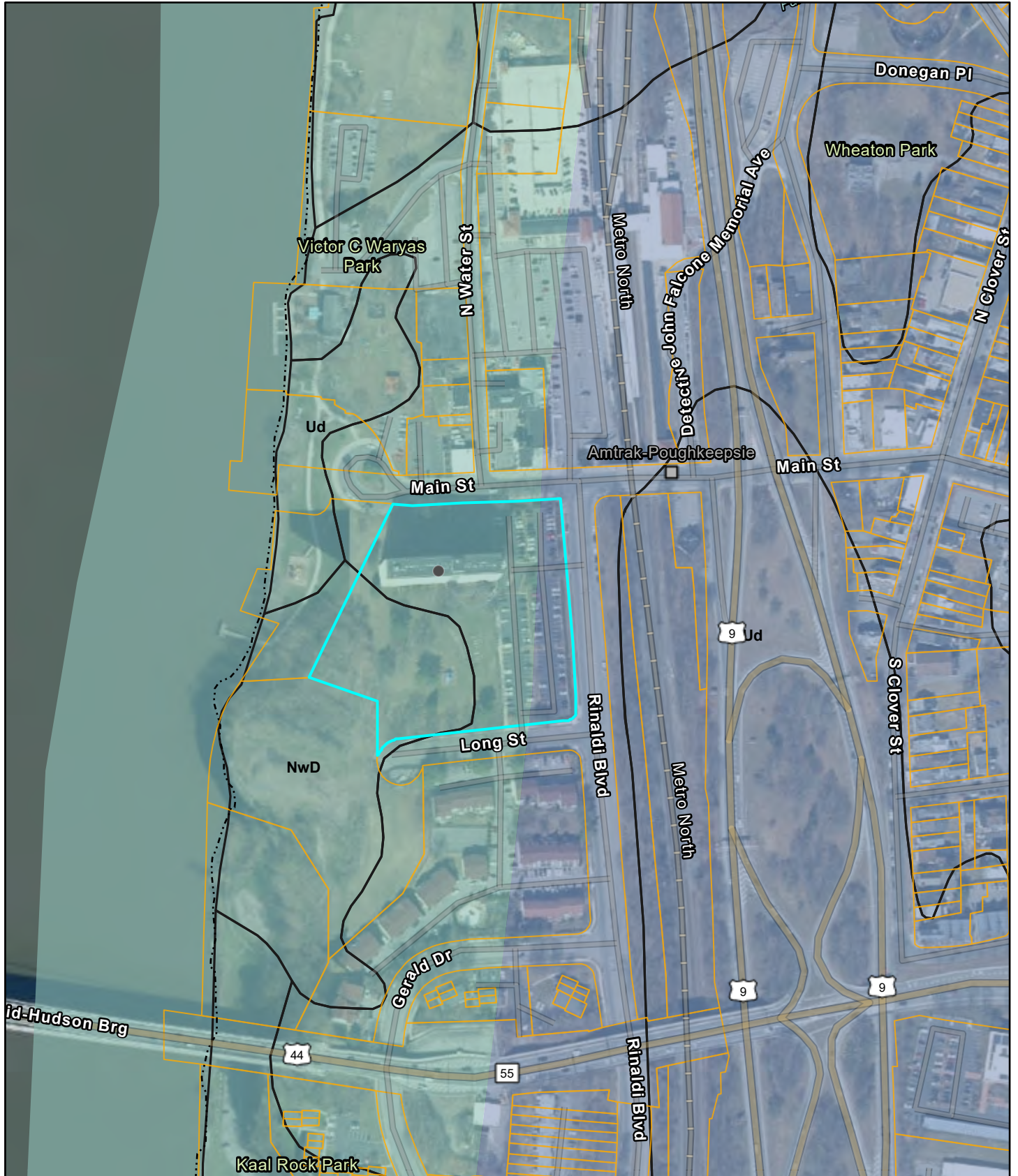
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- City of Poughkeepsie Boundary
- Parcel Boundaries
- Soils
- Bedrock Geology
- Taconic melange (Otm)
- Water



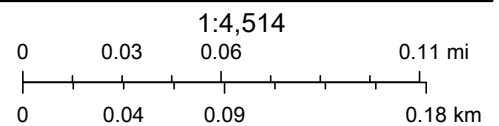
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Surficial Geology



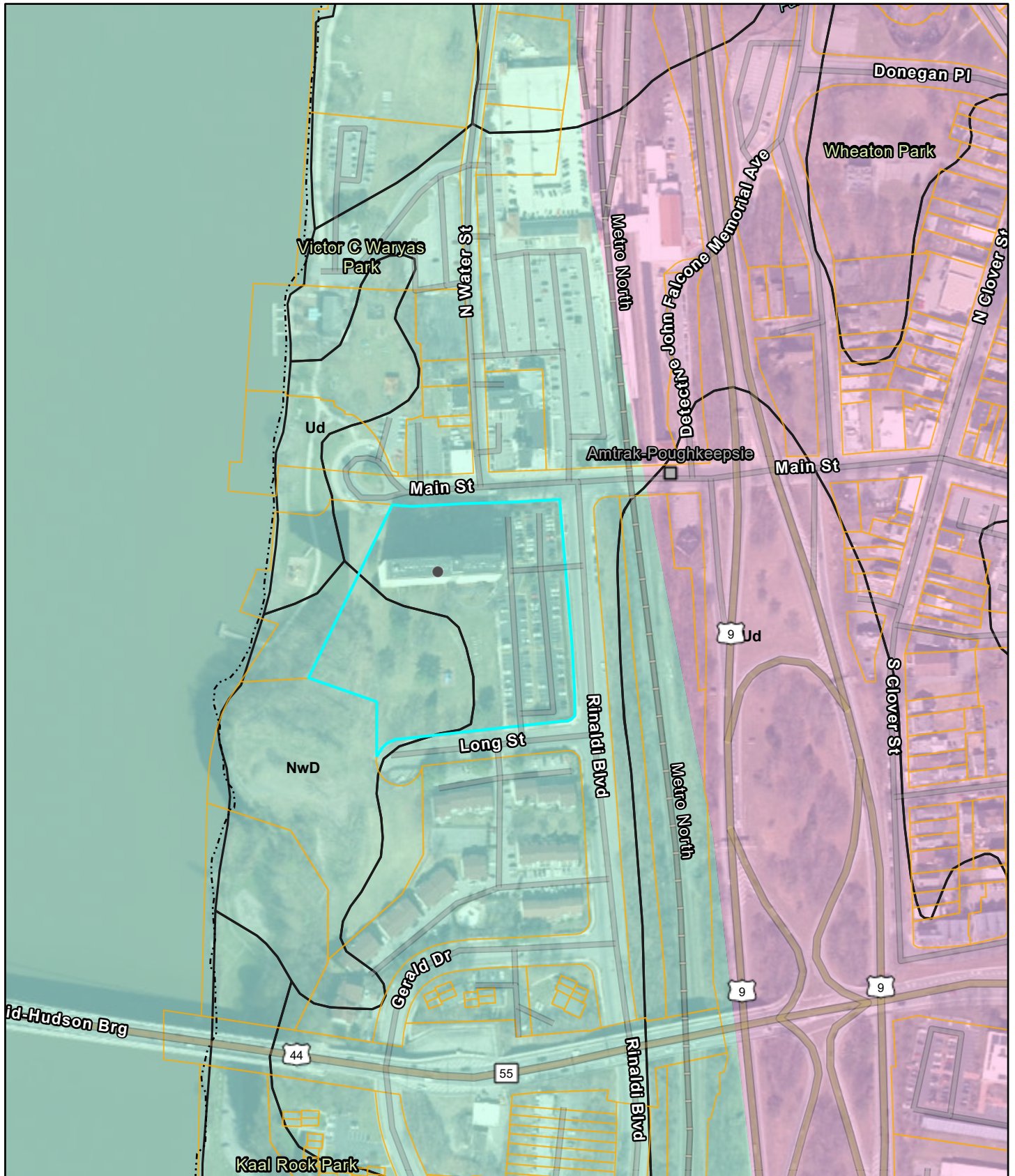
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- City of Poughkeepsie Boundary
- Parcel Boundaries
- Soils
- Alluvium
- Bedrock outcrop



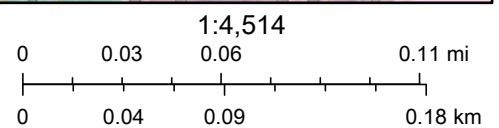
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Geology and Soils



7/14/2023, 11:26:02 AM

- City of Poughkeepsie Boundary
- Parcel Boundaries
- Soils
- Bedrock Geology
- Taconic melange (Otm)
- Water



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Chapter 2. Geology and Soils

Julia Blass and Jennifer Rubbo



Exposed bedrock near the Fall Kill.
Photo credit: Camelia Manring

Geology shapes the landscape in visible and invisible ways - influencing landforms and topography, soil depth and chemistry, resulting in plant communities, as well as the above- and below-ground movement of water and contaminants. These factors influence the establishment of ecosystems and can be important considerations for land development. Geology and soils also contribute important natural and economic resources for human populations, including groundwater recharge and storage, minerals, and construction materials, as well as agricultural resources.

The maps presented in this chapter are only intended to give a general sense of the geologic features and soils of the city, as the data presented were collected at broad scales. The information can be enhanced through local knowledge and site-specific surveys.

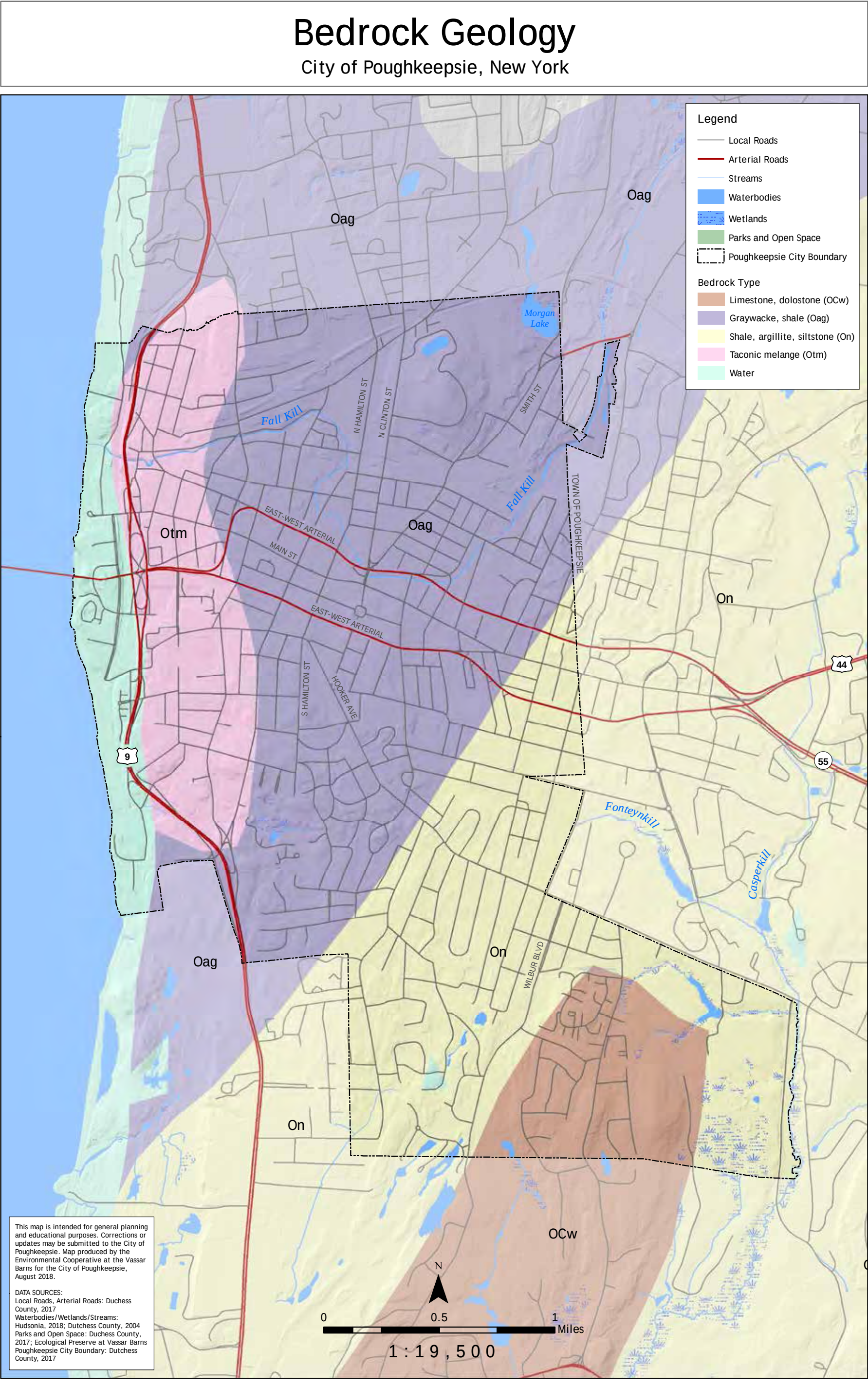
Bedrock Geology

Bedrock geology underpins the City of Poughkeepsie's landforms and topography and has shaped patterns of soil development, habitats, and water movement that define the ecological landscape. Characteristics of the bedrock geology strongly influences above and below ground water movement and can determine groundwater storage capacity and the

movement of contaminants in water supplies. According to general bedrock geology maps from the New York State Museum ([Map 2.1](#)), bedrock in the City of Poughkeepsie is composed primarily of shale and greywacke which is less permeable (Lower Hudson Bedrock Sheet). The City's southeastern corner is partially underlain by limestone and dolostone, which are typically more permeable and therefore more susceptible to groundwater contamination from surface water runoff. These calcium-rich carbonate bedrock materials are also more likely to support alkaline or calcareous habitats and plant communities. [Table 2.1](#) describes the various bedrock formations in the City of Poughkeepsie

Table 2.1: Bedrock geology descriptions of the City of Poughkeepsie

Map Symbol	Bedrock Type	Description
OCw	Limestone, dolostone	Wappinger Formation; water-soluble rocks "formed primarily from the precipitation of calcium and magnesium carbonate in seawater, commonly through the action of algae and other organisms like corals and mollusks." (Budnik, Walker, & Menking, 2010) Calcareous (Kiviak & Stevens, 2001)
Otm	Taconic Melange	"Relatively unaltered to moderately metamorphosed autochthonous clastic sedimentary rocks...a jumbled mix of sandstone blocks in a matrix of mud." (Budnik, Walker, & Menking, 2010)
Oag	Graywacke, shale	Austin Glen Formation; Coarse-grained sandstone containing >15% clay. Potentially calcareous (Haeckel & Heady, 2014)
On	Shale argillites, siltstone	Normanskill Formation; gray to black shales and argillites with silty laminations. (Fisher, Isachsen, & Rickard, 1970)
N/A	Water	Unknown; adjacent to Hudson River. (Budnik, Walker, & Menking, 2010)

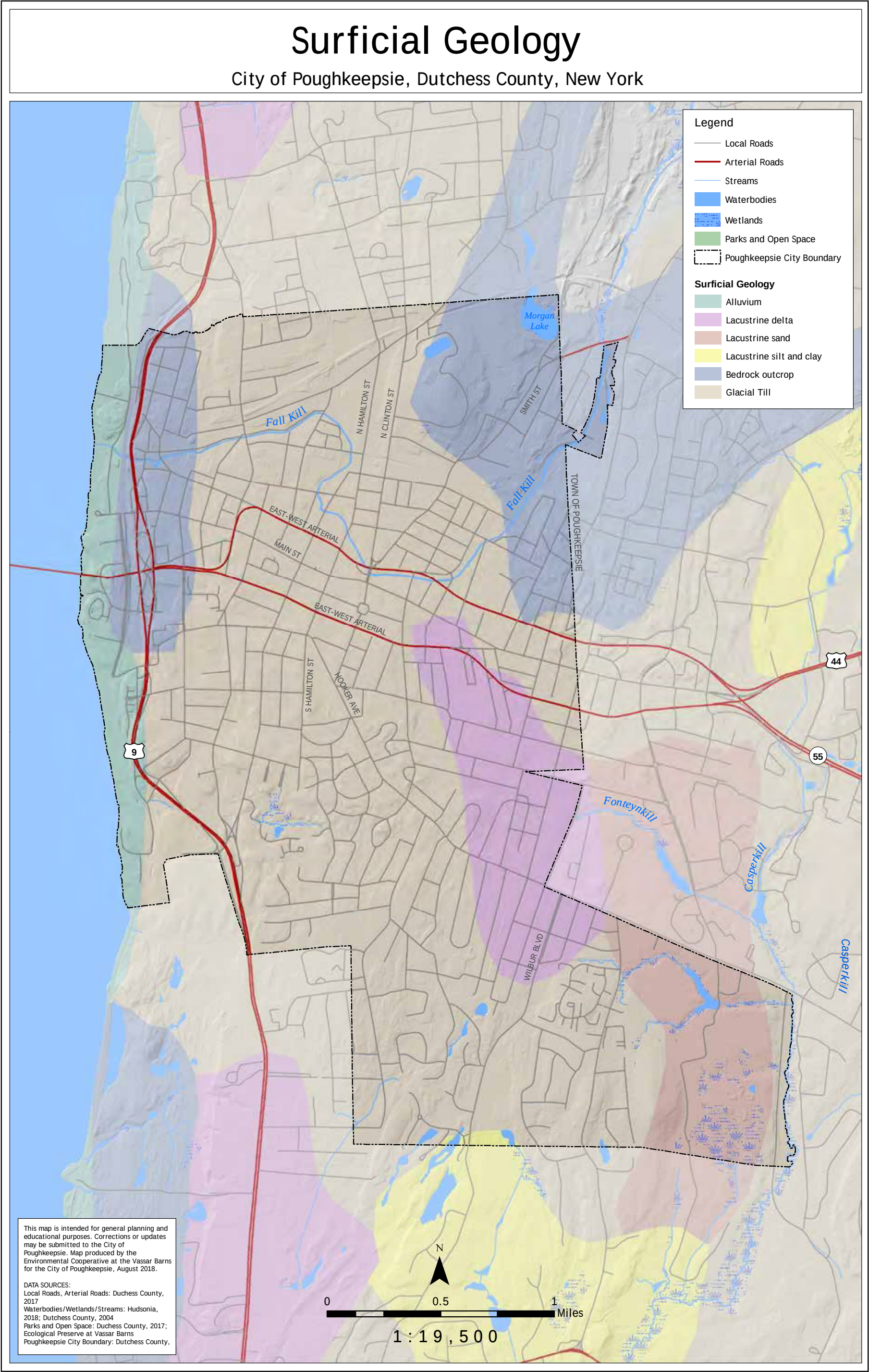


Surficial Geology

Surficial geology refers to the layer of unconsolidated sediment that sits above bedrock. Surficial geology materials mapped in the City of Poughkeepsie include sand and gravel, clay and silts, and glacial tills, presented in [Table 2.2](#). These materials influence soil development and can affect suitability for development projects such as the construction of new roads, and buildings, or septic systems. They are therefore important to consider in urban planning. Surficial materials also affect surface and groundwater flow and storage; for example, alluvium, which are formed by riverine deposits, are often associated with high-yield unconsolidated aquifers (Gilchrist, et al., 2010). Certain surficial deposits also have important economic value; for example, sand deposits may be mined for road maintenance and construction uses.

Table 2.2: Surficial geology descriptions in the City of Poughkeepsie (NYS Museum, 2018)

Surficial Material	Description (Lower Hudson Surficial Shape)
Alluvium	Formed by riverine deposits. Oxidized fine sand to gravel, permeable, generally confined to flood plains within a valley, in larger valleys may be overlain by silt, subject to flooding, thickness 1-10 meters
Lacustrine delta	Formed by ancient lakes. Coarse to fine gravel and sand, stratified, generally well sorted, deposited at a lake shoreline, thickness variable (3-15 meters).
Lacustrine sand	Formed by ancient lakes. Generally, quartz sand, well sorted, stratified, usually deposited in proglacial lakes, but may have been deposited on remnant ice, generally a near-shore deposit or near a sand source, permeable, thickness variable (2-20 meters).
Lacustrine silt and clay	Formed by ancient lakes. Generally laminated silt and clay, deposited in proglacial lakes, generally calcareous, low permeability, potential land instability, thickness variable (up to 50 meters).
Bedrock outcrop	Exposed bedrock, generally within 1 meter of surface.
Glacial Till	Variable texture (boulders to silt), usually poorly sorted sand-rich diamict, deposition beneath glacier ice, permeability varies with compaction, thickness variable (1-50 meters).



Soils

Soil is the foundation for ecosystems and many natural processes and strongly influences feasibility for land use and development. Soil controls the decomposition of organic matter and biogeochemical cycles; regulates water flow; and influences the vegetation, habitat type, and agricultural potential of particular locations (Haeckel & Heady, 2014). Some important soil characteristics include pH, soil texture, reaction (acidity), permeability, drainage, organic content, depth to bedrock, and slope. These soil characteristics determine the establishment of habitats and distinct plant communities. From a land use perspective, consideration of soil properties is important. It will impact such things as planning and design of drainage systems, the siting of structures, septic system evaluation, properly engineering foundations, basements, and roads, and determining the feasibility of excavation.

There are many soil types in the City of Poughkeepsie, and each soil type is further classified by variation of slope and topography. The reaction (pH), depth to bedrock, and drainage classifications for each soil survey unit are displayed in [Table 2.3](#). Full descriptions of each listed soil type can be found with the Dutchess County Soil Survey or using the USDA Web Soil Survey.

Table 2.3: Soil types of the City of Poughkeepsie. (Web Soil Survey, 2018, Soil Survey of Dutchess County, New York, 2001)

Name on Map	Full Name	Soil Reaction	Depth to bedrock (inches)	Drainage
BeC	Bernandon Silt Loam, 8-15% slopes	Very strongly acid to moderately acid	>60	Well-drained
BeD	Bernandon Silt Loam, 15-25% slopes	Very strongly acid to moderately acid	>60	Well-drained
BgB	Bernandon Silt Loam, 3-8% slopes	Very strongly acid to moderately acid	>60	Well-drained
Ca	Canandaigua Silt Lam	Moderately acid to neutral in the surface and upper subsoil, neutral in the lower subsoil and substratum	>60	Very poorly drained
DwB	Dutchess Cardigan Complex, undulating/rocky	Very strongly acid to moderately acid in solum, strongly acid to slightly acid in the substratum	>60	Well-drained

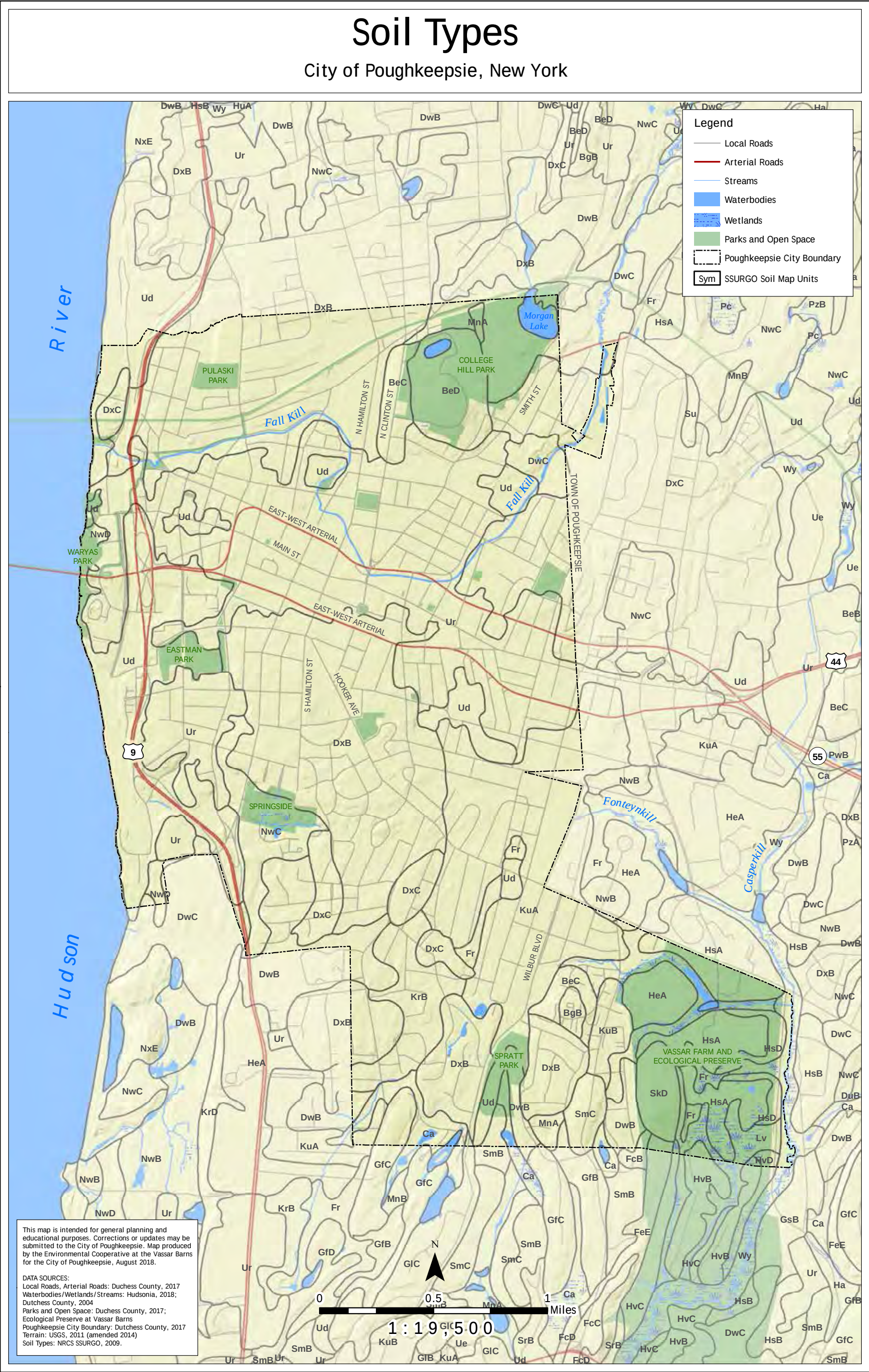
Table 2.3: Soil types of the City of Poughkeepsie. (Web Soil Survey, 2018, Soil Survey of Dutchess County, New York, 2001) (Continued)

DwC	Dutchess Cardigan Complex, rolling/rocky	Very strongly acid to moderately acid in solum, strongly acid to slightly acid in the substratum	>60	Well-drained
DxB	Dutchess Cardigan Urban Land Complex, undulating/rocky	Very strongly acid to moderately acid in the solum, and strongly acid to slightly acid in the substratum	20-40	Well-drained
DxC	Dutchess Cardigan Urban Land Complex, rolling/rocky	Very strongly acid to moderately acid in the solum, and strongly acid to slightly acid in the substratum	>60	Well-drained
Fr	Fredon Silt Loam	Moderately acid to neutral in the surface and subsoil, and slightly acid to moderately alkaline in the substratum	>60	Somewhat poorly drained
HeA	Haven Loam, nearly level	Very strongly acid to moderately acid	>60	Well-drained
HsA	Hoosic Gravelly Loam, nearly level	Very strongly acid or strongly acid above 30 inches, very strongly acid to slightly acid below 30 inches	>60	Somewhat excessively drained
HsD	Hoosic Gravelly Loam, hilly	Very strongly acid or strongly acid above 30 inches, very strongly acid to slightly acid below 30 inches	>60	Somewhat excessively drained
KrB	Knickerbocker Fine Sandy Loam, undulating	Very strongly acid to moderately acid	>60	Somewhat excessively drained

Table 2.3: Soil types of the City of Poughkeepsie. (Web Soil Survey, 2018, Soil Survey of Dutchess County, New York, 2001) (Continued)

KuA	Knickerbocker Urban Land Complex, nearly level	Very strongly acid to moderately acid	>60	Somewhat excessively drained
KuB	Knickerbocker Urban Land Complex, undulating	Very strongly acid to moderately acid	>60	Somewhat excessively drained
Lv	Livingston Silt Clay Loam	Strongly acid to neutral in the surface and upper subsoil, neutral to moderately alkaline in the lower subsoil and substratum	>60	Very poorly drained
NwC	Nassau-Cardigan Complex, rolling/very rocky	Very strongly acid to moderately acid	20-40	Somewhat excessively drained
NwD	Nassau-Cardigan Complex, rolling/rocky	Very strongly acid and strongly acid	20-Oct	Somewhat excessively drained
SkD	Stockbridge Silt Loam, 15-25% slopes	Strongly acid to neutral in the surface, moderately acid to neutral in the subsoil, moderately acid to moderately alkaline in the substratum	>60	Well-drained
SmC	Stockbridge-Farmington Complex, rolling/rocky	Strongly acid to neutral in the surface, moderately acid to neutral in the subsoil, moderately acid to moderately alkaline in the substratum	>60	Well-drained
Ud	Udorthents, smoothed	N/A	>80	Well-drained
Ur	Urban Land	N/A	Variable	Covered by impervious materials

Map 2.3 Soil types in the City of Poughkeepsie



References

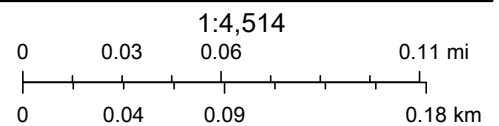
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Water Resources



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- Parcel Boundaries
- City of Poughkeepsie Boundary
- MS4 Outfalls
- Stream Barriers**
 - Insignificant barrier
 - No barrier
 - no score - missing data
- Wetlands
- Surface Water
- Streams
- Perennial Stream or Not Classified
- Riparian Buffers
- Flood Hazard Areas



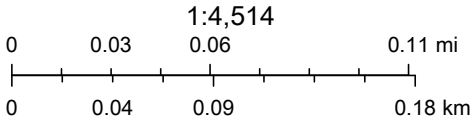
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Wetlands



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-  Parcel Boundaries
-  City of Poughkeepsie Boundary
-  Wetlands



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Watersheds

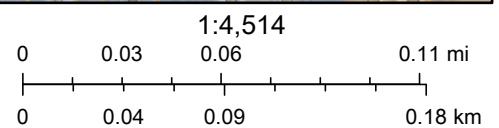


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- Parcel Boundaries
- City of Poughkeepsie Boundary

Watershed

- Fallkill Creek Watershed
- Hudson River Direct Drainage E



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Chapter 3. Water Resources

Jen Rubbo, Neil Curri, Elise Chessman, Julia Blass



The Fall Kill near Dongan Park.
Photo credit: Jennifer Rubbo

Introduction

The City of Poughkeepsie is located where the mouth of the Fall Kill drains into the Hudson River, and the City's founding was based predominantly around its access to water. Though the exact translation is debated, the name Poughkeepsie is derived from a Wappinger phrase meaning "reed-covered lodge by the little water place" (Britannica, n.d.). The Fall Kill and the Hudson River were the major factors that drew settlers to this area. Water was a source of power to early industrial activity, and the Fall Kill powered the processing of corn, lumber, and cloth through dammed millponds. (The Fall Kill Plan, 2012).

The City of Poughkeepsie is on the east bank of the Hudson River, at the midpoint of a 153-mile estuary from the City of Troy to New York Harbor – nearly half the entire river's length (Hudson River Watershed Alliance, 2013). An estuary is a partially enclosed coastal body of brackish water with one or more rivers or streams flowing into it and with a free connection to the open sea (Pritchard, 1967). Salty seawater pushes up the Hudson River during flood tide, diluted by freshwater runoff as it moves northward; during ebb tide, the salt front recedes southward. The alternating tides raise and lower the surface of the Hudson River approximately 3 feet at Poughkeepsie, and causes the river to change its direction of flow four times a day. The combination of tidal flows, saltwater, and freshwater inputs creates diverse habitats

throughout the Hudson River estuary, which support important commercial and recreational species like striped bass, bluefish, and blue crab (NYS Department of Environmental Conservation, 2019a).

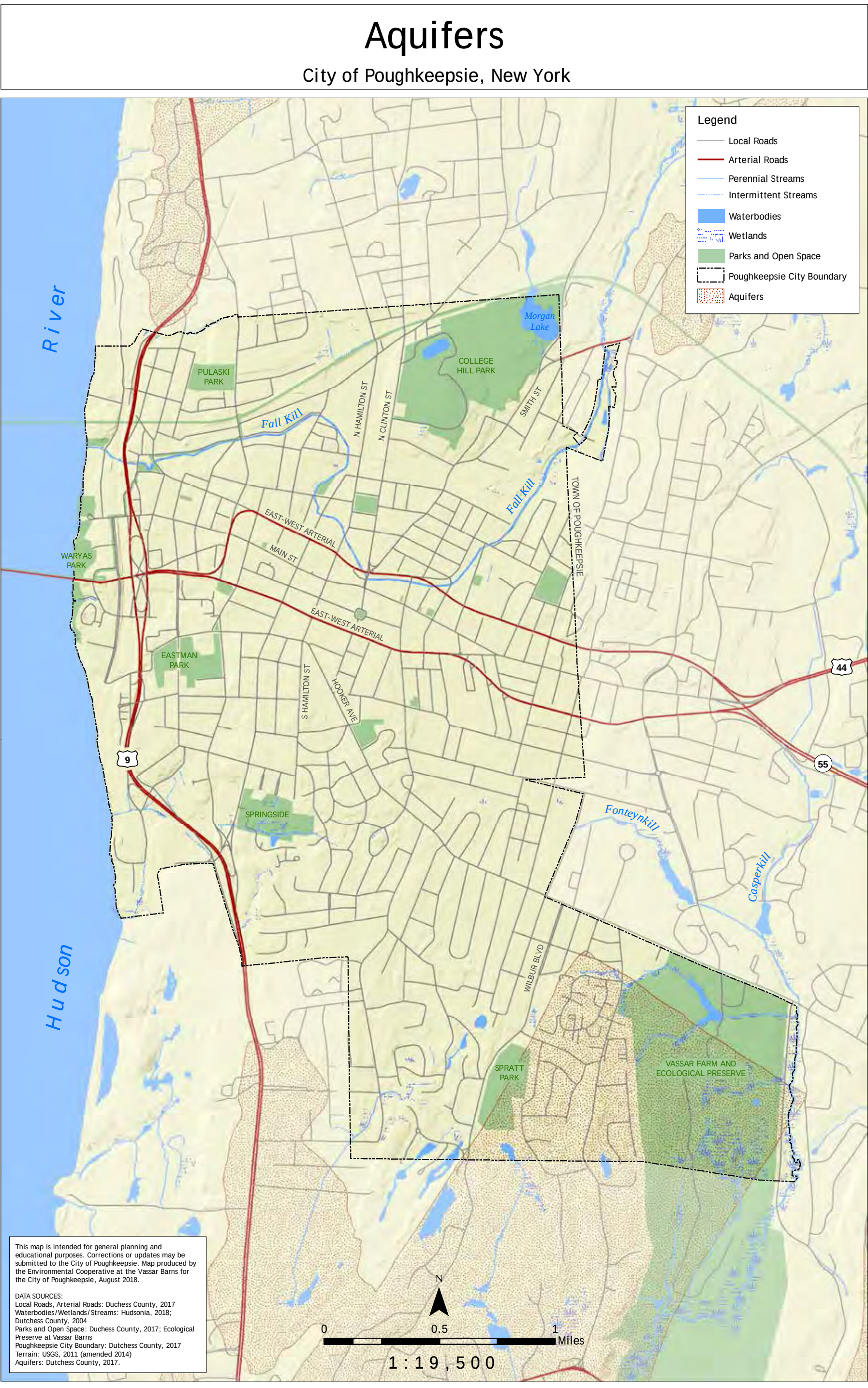
Not only does the Hudson River provide important habitat, but it also supplies the City of Poughkeepsie residents with potable drinking water. The salt front in the Hudson River estuary is typically well south of Poughkeepsie, but in times of drought it moves north, potentially impacting the City's drinking water intake and treatment plant.

Threats to water quality in the Hudson River, Fall Kill, and other small streams include point-source pollution from current and former industrial sites, stormwater runoff, and releases of untreated sewage during storms (i.e., combined sewer overflows). In addition, contaminants in the watershed, such as fertilizers and septic systems, also impact the quality of water in the Fall Kill and the Hudson River. Healthy water resources not only ensure a clean drinking water source but also provide important habitat for many organisms.

Groundwater and Aquifers

Groundwater feeds our rivers and streams and is the primary source of water for aquatic habitats during times of drought. Aquifers are areas with significant amounts of groundwater saturation. This groundwater is used to supply wells and other water sources. Groundwater recharge occurs primarily through infiltration of precipitation. The amount of impervious surface in a watershed can impact groundwater recharge, by both reducing the rate at which water infiltrates into the ground and the quality of the water infiltrating into the ground. Polluted runoff practices such as salting roads and the use of chemicals on yards can impact the groundwater quality and subsequently the water quality in the City's aquifers, streams, and rivers.

The City of Poughkeepsie does not utilize groundwater as a drinking water resource. However, aquifers within and surrounding the City should be identified, as these areas are important to the biological health of many natural areas ([Map 3.1](#)). For example, both the Fall Kill and Casperkill receive water from groundwater sources, maintaining flow during dry times of the year. While several aquifers exist just outside of the City boundary, only one major aquifer exists within the City limits in the Southeast corner. About half of this one aquifer in the City exists within the Vassar Farm and Ecological Preserve. The conservation of natural areas in the Vassar Preserve is very important to the aquifer's health, supporting both groundwater recharge and filtration.



Watersheds and Surface Water

Watersheds in Poughkeepsie

A watershed or drainage basin is the area of land from which all water drains into a particular stream, river, lake, or other waterbody. Surface topographic features (such as ridges, mountains, and hills) constitute watershed or basin boundaries. Watersheds are nested, with smaller subwatersheds existing within larger watersheds. For example, the Fall Kill watershed is a subwatershed of the Hudson River watershed. A healthy watershed has adequate pervious areas for water to infiltrate, which reduces direct inputs of polluted runoff to the waterway. This helps to recharge groundwater, mitigate flood and erosion impacts, and minimize the cost of water treatment and public infrastructure. Land use influences the quantity and quality of water supplies, and therefore understanding watersheds is critical to making informed natural resource management and land use decisions. The City of Poughkeepsie is part of the Hudson River basin and has four watersheds ([Map 3.2](#)). The majority of the City is within the Fall Kill and Casperkill watersheds, with the remaining area within the Hudson River Direct Drainage E and F basins.

The Dutchess County planning office created watershed boundaries for this map from high-resolution elevation surveys. As part of this dataset, there have been 5,272 subwatersheds delineated for every small stream and drainage within Dutchess County - 57 of which are located within or partially within the City of Poughkeepsie. The average size of these subwatersheds is approximately 100 acres. This level of watershed detail was provided to allow finely detailed analysis of water resources, a framework for organizing research, and as a potential basis for public outreach and education of stormwater issues on a neighborhood level. Watershed boundaries can encourage residents to think about how water naturally flows through their neighborhood as well as the geography of the built environment in which they live (Wills, 2010).

In an urbanized area like Poughkeepsie, the storm sewer and wastewater systems likely subvert many of the topographic subwatershed boundaries depicted in the map by collecting stormwater in catch basins and conducting it through underground pipes to other subwatersheds. Likewise, wastewater entering the combined sewer system may be entering these pipes in one subwatershed and pumped directly to the sewage treatment plant or Hudson River (during times of high precipitation), located in another subwatershed. (see Potential and Known Sources of Pollution Map for locations of CSO drainage areas; [Map 3.6](#)). In contrast to a watershed, a *sewershed* is the area of land where all the *sewers* flow to a single end point. Precipitation that falls on impervious surfaces in Poughkeepsie, for the most part, would follow these sewershed delineations rather than topographic watershed delineations. Topographic watershed delineations are still a helpful guide to understanding water flows in a specific area.

Surface Water in Poughkeepsie

The City of Poughkeepsie's major waterbodies are the Hudson River and the Fall Kill, and the Casperkill borders it at the Southeast corner. Additionally, there are small lakes, ponds, and reservoirs that are important surface water resources in the City. Most notably, Morgan Lake, which is located in the northeastern corner of the City, and the Victorian reservoir at College Hill Park.

The Hudson River is a defining natural feature in the City of Poughkeepsie. In addition to its historical, economic and cultural significance, the river provides an important connection to nature for residents and fosters local identity. The entire western border of the City of Poughkeepsie is located on the shores of the Hudson River. Hudson River habitats including the main channel, tidal shallows, intertidal shallows and the tidal tributary mouth of the Fall Kill, make up the largest contiguous habitat type in the City (Heffernan & Stevens, 2018). The Hudson River watershed drains 13,390 square miles (Hudson River Watershed Alliance, 2013) and all of the land in the City of Poughkeepsie eventually drains into the Hudson River. Land use in the City of Poughkeepsie has significant impacts on both water quality of the tributaries that feed into the Hudson River and the river itself.

The primary tributary that flows through the City of Poughkeepsie is the Fall Kill, which originates in the towns of Clinton and Pleasant Valley, flows through Hyde Park, the Town of Poughkeepsie, and finally the City of Poughkeepsie where it enters the Hudson (Bean, Lynch, & Burns, 2006). Its watershed covers an area of 19.5 square miles and is approximately 38 miles long. The northern reaches of the creek are largely undisturbed, with many woodlands, wetlands, and marshes present in these sections of the watershed. As the stream enters the City of Poughkeepsie, the buffer of natural area that borders the creek decreases and developed surfaces get closer to the stream. The Fall Kill is channelized by New Deal Era stone walls for 2.5 miles through the City of Poughkeepsie. There is little to no buffer, and the stream channel rapidly conveys water through the City to the Hudson River. Channelization and the highly developed impervious surroundings make certain areas of Poughkeepsie especially susceptible to flooding, as was witnessed during Hurricane Irene in August 2011. There is, however, a small portion of the creek within the City boundary that is not channelized in stone walls. This section is located primarily near a parcel of land owned by the City of Poughkeepsie Department of Public Works and privately owned adjacent parcels to the south. This section of the creek has been identified as a significant habitat area and should be considered an important flood retention area due to the presence of small sections of an undeveloped forested riparian buffer, (Heffernan & Stevens, 2018) (see [Appendix A](#) for complete report). The Fall Kill Management Plan, which was completed in 2006, is the most comprehensive study of the biology and water quality of the creek and provides important recommendations for the improvement of water quality that are still relevant today (Bean, Lynch, & Burns, 2006).

The Casperkill is 11 miles long, with the mainstem of the stream located mostly in the Town of Poughkeepsie there is about $\frac{3}{4}$ of a mile of the creek in the City of Poughkeepsie bordering the easternmost edge of the City. The watershed spans a total of 12 square miles. Twenty percent of the watershed lies within the City boundaries, mostly in the southern and eastern portions of the City (Menking K. , Cunningham, Foley, Freimuth, & Smith, 2009). The creek flows through an area of mixed land use dominated by suburban and urban development including shopping centers, parking lots, and residential homes. The most natural section of the creek is located within the Vassar Farm and Ecological Preserve where a 300-2000 ft. vegetated buffer exists. While not located in the City of Poughkeepsie, this section

of the creek is an important area to note. The protection of the forest and open space in this area help to mitigate the inputs of non-point source pollution entering the creek further upstream. The Casperkill finally enters the Hudson River near Tilcon Quarry, just south of the Poughkeepsie Galleria.

Inputs to the Casperkill include surface runoff, and small tributaries, including a small unnamed tributary located in the City at the entrance of the Vassar Farm and Ecological Preserve and the Fonteynkill. The Fonteynkill is located in the Town and is presumed to drain a residential portion of the City of Poughkeepsie via underground sewers and pipes contributing to the water quality of the stream (Cunningham, Livingston, & Cardillo, 2013). The Fonteynkill surfaces about 3,300ft upstream of the confluence with the Casperkill at the boundary of the City and Town of Poughkeepsie (Menking K. , Cunningham, Foley, Freimuth, & Smith, 2009).

Typical urban development practice during industrialization included burying most small streams and/or using them as sewers to transport waste out of cities. Because infrastructure and development has disconnected these small streams from the surrounding watershed, buried streams cannot provide ecosystem services such as nutrient pollution reduction in stormwater runoff (Trice, 2013). In Poughkeepsie, several small streams no longer appear in recent maps and GIS data, or, such as the Fonteynkill appear with significant sections buried underground. The paths of these streams are difficult to ascertain but can be inferred from historic maps.

Based on an 1891 map of portions of Ulster and Dutchess County, the Fonteynkill historically began further west in the City of Poughkeepsie, near the intersection of Hooker Avenue and present-day S. Cherry Street ([Figure 3.1](#)) (Beers F. , 1891). Historic maps from 1867 and 1834 depict a stream called Kidney Creek (or Kidney Kill) at the north edge of the City of Poughkeepsie ([Figure 3.2](#) (Beers F. W., 1867) ; [Figure 3.3](#) (Winfield, 1834). Recent topographic maps do not depict this stream nor does recent GIS data or aerial photographs. However, an outlet to the Hudson River is visible in recent aerial photographs emerging from the approximate location of the former mouth of Kidney Creek, suggesting that the entire creek has been buried underground. The above-referenced 1834 map also shows two streams emptying into the Hudson near Pine Street; no evidence of these creeks can be seen in recent maps, aerial images, or GIS data ([Figure 3.4](#) (Winfield, 1834).



Figure 3.1. 1891 Map of the City of Poughkeepsie showing the Fonteynkil extending into what is now the City of Poughkeepsie.

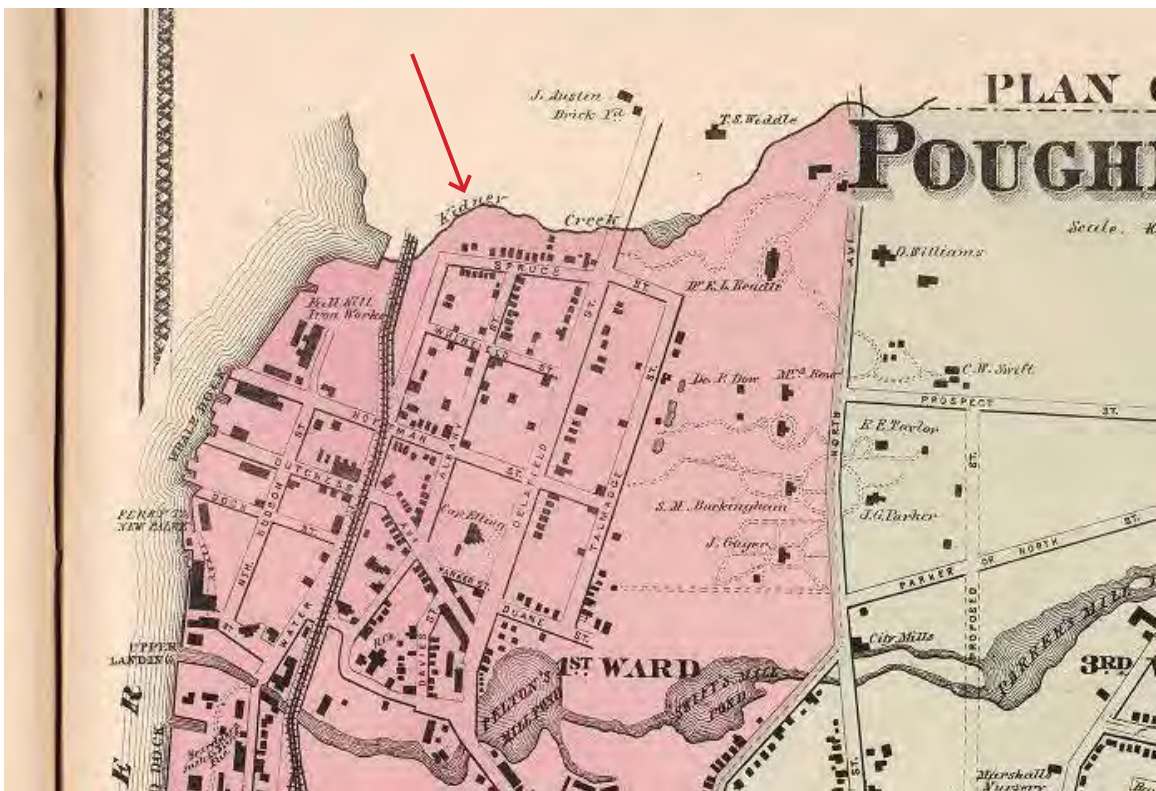


Figure 3.2. 1867 map of the City of Poughkeepsie showing the now buried Kidney Creek and its outfall into the Hudson River.



Figure 3.3. 1834 map the City of Poughkeepsie showing the now buried Kidney Kill (creek).



Figure 3.4. 1834 Map of small streams flowing into the Hudson River near Pine Street in the City of Poughkeepsie.

As part of the Significant Habitats Report ([Appendix A](#)) Hudsonia delineated the streams and stream fragments illustrated in [Map 3.2](#), as well as waterbodies and wetlands within the City of Poughkeepsie boundary. They describe a network of seemingly disconnected stream fragments located in the southern portion of the City that are presumed to be portions of streams that are now partially piped or buried so their complete paths were not detectable.

There are efforts by many organizations to maintain the health of the Hudson River, its subwatersheds and tributaries. Within Poughkeepsie, the Fall Kill Watershed Committee and the Casperkill Watershed Alliance have done important work to contribute to the health and knowledge of our watersheds. The Fall Kill Watershed Committee and the Casperkill Watershed Alliance have been inactive in recent years however these local groups have assessed the Fall Kill and Casperkill extensively in the past (see [Health of the Casperkill, Dutchess County, New York](#) (Menking K. , Cunningham, Foley, Freimuth, & Smith, 2009) and [A Watershed Management Plan for the Fall Kill, Dutchess County, New York](#) (Bean, Lynch, & Burns, 2006). Vassar College has continued to monitor water quality in the Fonteynkill until 2017. Since 2017, the local non-profit Scenic Hudson has worked to gain community support for the revitalization of the creek, based on work completed in the [2012 Fall Kill Plan](#) (The Fall Kill Plan, 2012).

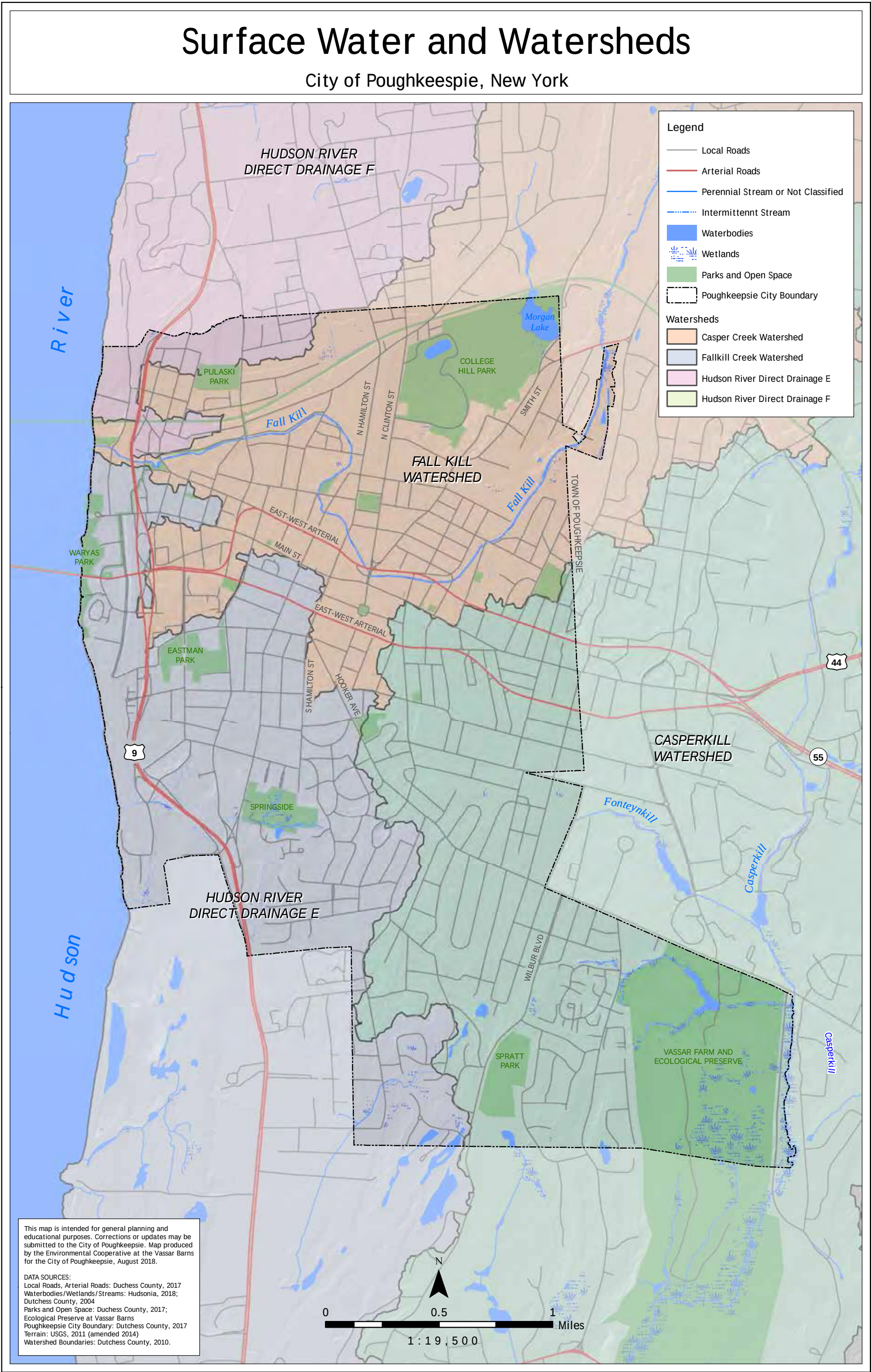
Additional resources that discuss the Fall Kill and Casperkill include:

[Fall Kill Neighborhood Source Assessment Report](#) (Palmer & Hesse, 2013)

Fall Kill Trash Assessment (Rubbo, 2008a)

[Fall Kill Stream Walk](#) (Rubbo, 2008)

The Suburban Stream Syndrome: Evaluating Land Use and Stream Impairments in the Suburbs (Cunningham, et al., 2009)



Wetlands

A wetland is a distinctive habitat that provides important ecosystem services. Wetlands are defined by saturation of surface water or groundwater for a period of time throughout the year, and the presence of plants that are adapted to saturated soil conditions. In addition to providing habitat for a diversity of plants and animals, they play an important role in stormwater management. Wetlands slow down runoff, increase infiltration into groundwater, and help to filter out sediment and other contaminants. In an urban or suburban area, they are an important part of the natural landscape that helps mitigate the impacts of flooding, and are especially important today as storms become more severe and flooding increases due to global climate change.



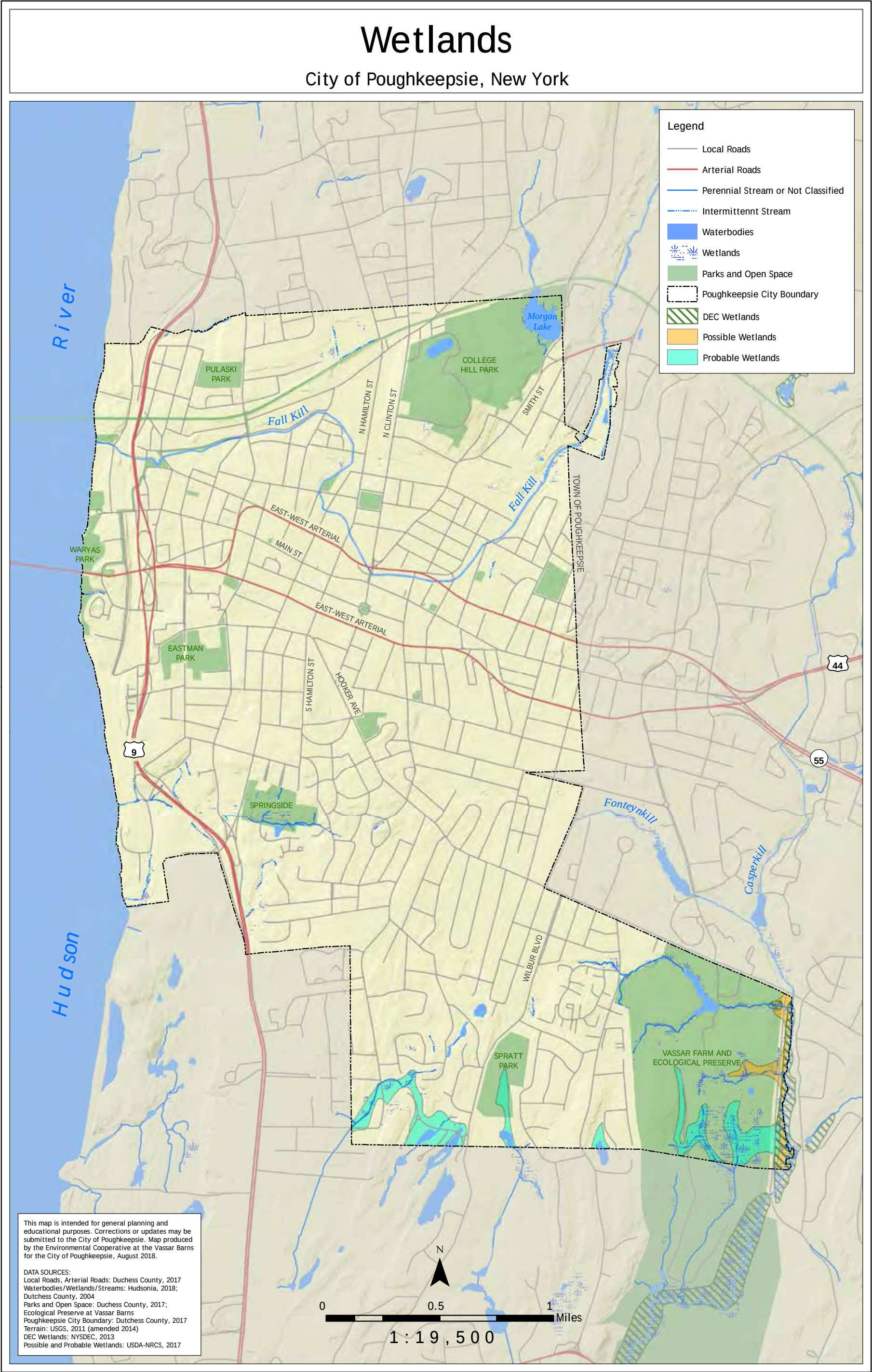
Figure 3.5. Section of the Fall Kill with small wetlands that are likely important in flood mitigation.

Wetlands are not common in the City of Poughkeepsie. Historically, many wetlands in developing areas were filled, which is likely what occurred in Poughkeepsie. The few remaining wetlands should be preserved as they function as important areas for mitigating the impact of floods by storing flood waters and slowing surface runoff, and help to improve water quality. Wetlands in [Map 3.3](#) were identified using data from Hudsonia's Significant Habitat Report (Heffernan & Stevens, 2018) and NYS DEC freshwater wetland data. Wetlands and their importance as habitat are further addressed in the Significant Habitat Report (Heffernan & Stevens, 2018).

Freshwater wetlands regulated by New York State can be viewed using the DEC [Environmental Resource Mapper](#) (NYS Department of Environmental Conservation, 2019b). These maps show approximate extent and location of wetlands subject to State regulation under the Freshwater Wetlands Act and include wetlands above 12.4 acres or of unusual local importance. NYSDEC also regulates the 100 ft adjacent area around these wetlands. NYSDEC wetland maps are incomplete and often contain inaccuracies. There is a 500 ft check zone around NYSDEC identified wetlands, in which the DEC recognizes that additional wetland area may exist. There is only one New York State DEC regulated wetland within City boundaries, and it is on the Vassar Farm and Ecological Preserve.

The wetlands that are located adjacent to the Fall Kill near the Department of Public Works parcel and just south of that on a privately owned parcel are worth noting ([Figure 3.5](#)) since the Fall Kill is not channelized by stone walls yet at this point. This means that during flood events the creek may overflow into these wetlands, located within the 100-year flood plain. The wetlands thus may play an important role in retaining floodwaters where the Fall Kill enters the City. There may be other important hydrologic and habitat connections between these wetlands and the Fall Kill given their close proximity.

Also worth considering along with confirmed wetlands are the City's possible and probable wetland areas. These can be categorized based on the drainage class of soil groups. Soils that are somewhat poorly drained can be considered possible wetland areas, while soils that are poorly drained or very poorly drained can be considered probable wetland areas (Kiviat & Stevens, 2001). Researchers often use soil drainage classes to identify potential wetlands that are missing from existing wetland maps. Not only do poorly drained soils indicate that a wetland may be present, but they may also indicate previously drained areas with the potential for wetland creation or restoration.



Flood Hazard Areas and Riparian Buffer Areas

Floodplains are low-lying areas adjacent to streams or rivers that become inundated during times of high flow. Streams naturally overflow their banks to disperse floodwaters. This flooding helps slow the water, recharge groundwater and increase water quality by letting particulates settle out instead of being carried downstream. Stream channelization is a modification to the banks of the stream that stops overbank flooding and moves water quickly downstream. While channelization might succeed in reducing flooding locally, it generally has negative impacts on the stream ecosystem as a whole. As the volume and velocity of the water increase through channelized areas, bankside erosion increases, suspended sediment increases, stream habitat is destroyed, and the risk of flooding downstream of channelized areas increases.

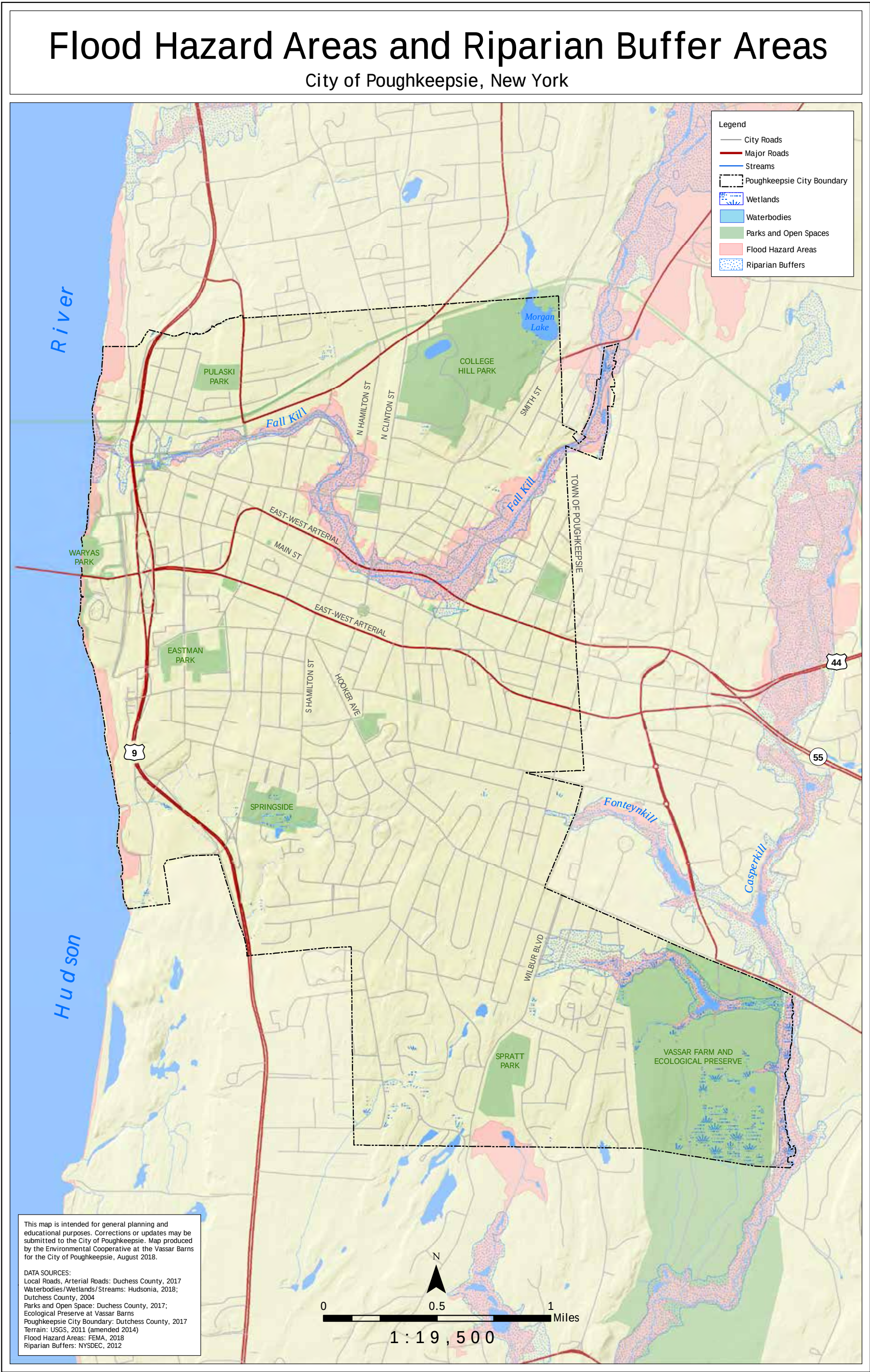
The Flood Hazard Areas and Riparian Buffer Areas map ([Map 3.4](#)) shows data from the Federal Emergency Management Agency (FEMA). FEMA maps flood zones with boundaries that represent the 1% chance annual flood (the “100-year” floodplain). The FEMA designation determines low-cost federal flood insurance rates and facilitates local land use controls that comply with FEMA’s requirements (FEMA, 2019). The City participates in FEMA’s National Flood Insurance Program (NFIP), with 164 policies in place as of 2015, insuring a total of \$40,731,800 worth of property. NFIP has paid 39 claims since 1978 (City of Poughkeepsie Hazard Mitigation Plan, 2016). The flood hazard areas map can help to understand which areas of the City are at greatest risk of flooding, and where to focus on flood mitigation like green infrastructure and grey stormwater infrastructure improvements. Some of the major flood hazard areas fall within highly developed parts of the City of Poughkeepsie along the Fall Kill. The Fall Kill is an identified vulnerability in the City in the event of a flood because the channel is in disrepair in places (City of Poughkeepsie Hazard Mitigation Plan, 2016).

Knowing the locations of key water-related infrastructure such as storm drain outfalls and combined sewer overflows (CSOs) and their relationship to flood zones is important for discussions of future development and planning in the City (See [Map 3.6](#). Potential and Known Sources of Pollution Map, and [Map 3.7](#) Stream Barriers Map). Properly sized bridge crossing and culverts, as well as the removal of large debris from the stream, will aid in reducing flooding in the City. Additionally, reducing the amount of water that enters storm drains through the increase of pervious surfaces and other Green Infrastructure practices will help to decrease flooding potential.

Flood zones are not static. Land use, climate change, impervious surfaces, obstructions in floodways, precipitation and runoff changes, technological improvements in measuring topography, and new hydrologic modeling techniques can all alter the boundary of the flood zone (Findlay, Burns, Urban-Mead, & Lynch, 2010). Any map of flood hazard areas is therefore always subject to change. Furthermore, areas outside the mapped flood hazard areas may still flood during intense storms. These boundaries simply delineate areas with a higher risk of flooding (1% annual chance) based on historic rainfall and hydraulic modeling of the stream channel and watershed characteristics.

The Flood Hazard Areas and Riparian Buffer Areas map also illustrates riparian areas subject to the 2% annual chance flood (New York Natural Heritage Program, 2018). These areas may not be included in FEMA’s flood zones. In Poughkeepsie one of these areas exists in the southeastern corner of the City near Wilbur Blvd. Riparian buffers are vegetated areas

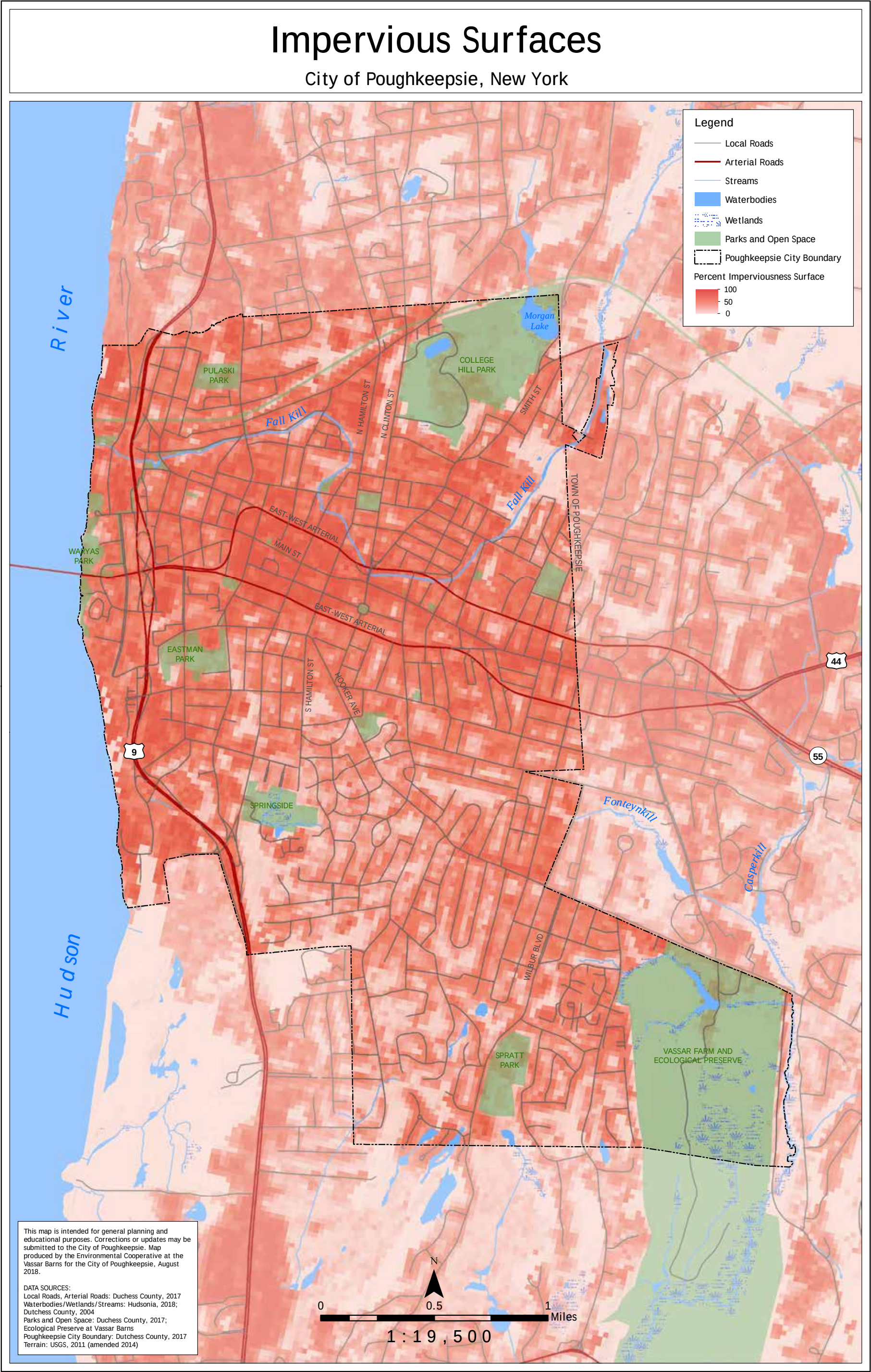
alongside the creek that help to protect the creek by slowing runoff, infiltrating water, providing shade that cools the water, and reducing the amount of sediment and pollutants entering the stream. NYS regulates, up to 50 ft. from the mean high water line, the disturbance of the bed or banks of streams with classifications of AA, A, B, C(T) or C(TS) (NYS Department of Environmental Conservation, 2019c). NYS does not protect the Fall Kill under this regulation because it is designated as a Class C stream (see [Table 3.1](#)). However, the City of Poughkeepsie Code does state specific provisions for uses abutting the Fall Kill (<https://ecode360.com/27017455>). The code requires setbacks of 30 feet from the top of the creek banks for any structure or use of land other than parking, recreation or open space. Parking areas may be located nearer than 20 feet to the top of the banks. Additionally, developers must direct surface drainage for parking and loading areas away from the creek and these areas are required to be landscaped and stabilized to reduce erosion (City of Poughkeepsie, 2017).



Impervious Surfaces

Poughkeepsie is an urban environment with 14.2% of the land cover in the City classified as “high density developed” implying a high percentage of impervious surfaces (Homer, et al.). An impervious surface is anything that prevents the infiltration of water, such as parking lots, pavement, roads, or buildings. When precipitation falls on impervious surfaces it rapidly flows into storm drains which lead directly to streams and rivers. This runoff carries with it pollutants and trash and impacts the water quality of the waterbodies it flows into. Large volumes of water runoff from impervious areas also increase the potential for flooding. The Impervious Surfaces map ([Map 3.5](#)) shows where high percentages of impervious surfaces exist in the City of Poughkeepsie. Areas with high impervious surfaces that are located near the Fall Kill or the Hudson River could be prioritized as areas that should be targeted for stormwater practices that reduce runoff and keep stormwater on site. Green infrastructure practices, specifically, should be considered and would help to reduce runoff by mimicking and preserving natural features and increasing on-site infiltration (New York State Stormwater Management Design Manual, 2015). Additionally, reducing the amount of runoff from impervious surfaces in areas that drain into Combined Sewer Overflows would help to reduce the amount of polluted runoff entering the Hudson River (See Potential and Known Sources of Pollution Map ([Map 3.6](#)) and the Combined Sewer Overflows section for more information about CSOs).

Map 3.5 Impervious Surfaces of the City of Poughkeepsie



Water Quality Assessments and Classifications

The New York State Department of Environmental Conservation assesses freshwater stream segments and open waterbodies and designates “best uses” for waterbodies across the state.

The classifications and best uses for state waterbodies are:

- Class A, AA, A-S, or AA-S - water supply, primary and secondary contact recreation, and fishing
- Class B - primary and secondary contact recreation, fishing
- Class C - fishing and wildlife propagation
- Class D - fishing

Waterbodies classified as A, B, or C may also have an associated standard of (T), indicating they are trout waters, or (TS), indicating they are trout-spawning waters. For more information about the water body classifications see DEC’s webpage [Water Quality Standards and Classification](#) and the DEC’s [Classification - Surface Waters and Groundwaters](#) website. The DEC assesses water bodies using various monitoring techniques, including biomonitoring and water quality assessments. When a water body is not meeting the standards for its designated “best use” it may be listed on the [Priority Waterbody List](#) as impaired. Impaired water bodies are considered for inclusion on the state’s Clean Water Act Section 303(d) List and reported to Congress (New York State Department of Environmental Conservation, 2018a).

The Hudson River Estuary Program’s [Hudson Valley Natural Resource Mapper](#) is a convenient way to view waterbodies and their classifications in the Hudson Valley and easily download fact sheets from the Waterbody Inventory/Priority Waterbody List. (www.dec.ny.gov/gis/hre/)

There are four major waterbodies in the City of Poughkeepsie: The Hudson River, the Fall Kill, the Casperkill and tributaries and Morgan Lake. The Fall Kill is classified as a Class C stream and designated as Impaired due to nutrient pollution from urban stormwater runoff and suspected municipal sources (Lower Hudson River Waterbody Inventory/ Priority Waterbodies List, 2008). The Fall Kill Management Plan, documents how human activity has negatively impacted the overall health of the creek (Bean, Lynch, & Burns, 2006). The creek contains high levels of nitrate and phosphate, high chloride levels, and high levels of toxic heavy metals in stream sediments. Additionally, researchers found high levels of fecal coliform and *E. coli* bacteria at all sample sites on the length of the creek. Studies of the fish in the Fall Kill showed that all the species were tolerant to moderately tolerant of pollution, and studies of the macroinvertebrates indicated that while most of the length of the creek is “slightly impacted” by pollution, the lower end is “moderately impacted” (Bean, Lynch, & Burns, 2006).

The Hudson River is a Class A tidal estuary due to its use as a water source for the City of Poughkeepsie and neighboring communities. NYS has designated the River as impaired with known pollutants including metals (cadmium) and PCBs. Sources of pollutants include toxic and contaminated sediments, combined sewer overflows and urban stormwater runoff (Lower Hudson River Waterbody Inventory/ Priority Waterbodies List, 2008). Presence of these contaminants has led to fish consumption advisories. Several NY DEC and DOH networks monitor water quality and use of the Hudson as a source of drinking water and for recreation purposes. In 2018, an intermunicipal council of the seven communities that source their drinking water from the Hudson created the Hudson River Drinking Water Intermunicipal Council, with the focus of long-term protection of the Hudson as a source of drinking water (Riverkeeper, 2018)

Table 3.1. Summary of Waterbody Classification and Impacted Uses in the City of Poughkeepsie, NY (from the [Waterbody Inventory/Priority Waterbody List](#)) (Lower Hudson River Waterbody Inventory/ Priority Waterbodies List, 2008)

Waterbody	ID	Class	Water Quality	Uses Impacted	Pollutants	Pollutant source	303(d) list	Notes
Hudson River	1301-0001	A	Impaired	Known: Impaired - Fish Consumption, Stressed - Recreation Suspected: Stressed - public bathing, habitat/hydrology	Known: Metals (cadmium), priority organics (PCBs) Suspected: pathogens, thermal changes	Known: Toxic contaminated sediment, combined sewer overflow, urban storm-water runoff Suspected: Habitat modification, power generation	Yes 2b (Multiple Segment/Categorical Water, Fish Consumption)	Fish consumption use in this portion of the Lower Hudson is impaired by elevated levels of priority organics (PCBs, dioxin), heavy metals (cadmium) and other toxics primarily the result of past industrial discharges Roseton on west shore and Low Point on east shore in general area of Chelsea, to the mouth of the Rondout River in Kingston
Fall Kill	1301-0087	C	Impaired	Known: Impaired - Aquatic Life, Recreation, Stressed - Aesthetics	Known: Aesthetics (debris/trash), Pathogens Suspected: Nutrients (phosphorus, D.O./Oxygen Demand, Silt/Sediment, Unknown Toxicity	Known: Urban/Storm Runoff Suspected: Municipal, Industrial Possible: Other Sanitary Discharge	Yes, 3a (Waterbody Requiring Verification of Impairment)	Aquatic life support and recreational uses in the Fall Kill are impaired by nutrient enrichment, pathogens and various other pollutants attributed to municipal inputs and urban nonpoint sources.
Casper Creek and Tribs	1301-0195	C	Minor impacts	Suspected: Aquatic Life - Stressed	Suspected: nutrients (Phosphorus)	Possible: Agriculture, Urban/Storm runoff	n/a	Aquatic life support thought to experience impacts due to nutrient enrichment from non-point sources.
Morgan Lake	1301-0198	Unassessed						
Unnamed trib	1301-0197	Unassessed						Small stream segment near Beechwood Ave.

Potential and Known Sources of Surface Water Pollution

In the City of Poughkeepsie, known and potential sources of surface water pollution include discharges from regulated facilities, stormwater runoff from industrial facilities, discharges from Municipal Separate Storm Sewer Systems (MS4s), and Combined Sewer Overflows (CSOs). [Map 3.6](#) has these potential sources of pollution compiled together on this one map and described in more detail below. Additional resources that provide information about wastewater and stormwater are included in Table 3.2.

Table 3.2: Summary of Resources about Wastewater and Stormwater Infrastructure

Potential Pollutant Source	Agency	Website
Combined Sewer Overflows (CSO)	NYS DEC	Sewage Discharge Notifications
Multiple Separate Storm Sewer System (MS4)	EPA	Stormwater Discharges from Municipal Sources
Multiple Separate Storm Sewer System (MS4)	NYS DEC	Stormwater
State Pollutant Discharge Elimination System (SPDES)	EPA	Enforcement and Compliance History Online (ECHO)
State Pollutant Discharge Elimination System (SPDES)	NYS DEC	State Pollutant Discharge Elimination System (SPDES) Permit Program
DECinfo Locator Tool – a mapping tool that provides information about the environmental quality of specific sites	NYSDEC	DECInfo Locator

State Pollutant Discharge Elimination System (SPDES)

In accordance with the Federal Clean Water Act, New York State regulates wastewater and stormwater discharges through the State Pollutant Discharge Elimination System (SPDES) program. The SPDES program is designed to eliminate the pollution of New York waters and to maintain reasonable standards of purity (NYS Department of Environmental Conservation, 2019d). Several sites in the City of Poughkeepsie are regulated under individual permits as well as the Multi-Sector General Permit (MSGP) for Stormwater Discharges Associated with Industrial Activity. In addition, stormwater discharges from the City of Poughkeepsie's municipal stormwater system are regulated under the SPDES Municipal Separate Storm Sewer System (MS4) general permit.

Individual Permits

A SPDES individual permit is required for constructing or using an outlet or discharge pipe ("point source") that discharges wastewater into the surface waters (or ground waters) of the state. Sewage treatment plants and other disposal systems that discharge into waters of the state also require individual permits (New York State Department of Environmental Conservation, 2019e). There are four sites with individual permits in the City of Poughkeepsie. Information about Individual Discharge Permits (Table 3.3) is available through the EPA's Enforcement and Compliance History Online (ECHO, <https://echo.epa.gov>) and NYSDEC's SPDES Permit Program page (<http://www.dec.ny.gov/permits/6054.html>).

Table 3.3 SPDES individual permits - Site locations and permit numbers

Permit ID	Facility Name	Location
NY0005673	Poughkeepsie Terminal	Sunfish Cover Road
NY0036731	Poughkeepsie Water Treatment Plant	Dutchess Avenue
NY0071897	Effron Fuel Oil Corp Terminal	Prospect Street
NY0026255	Poughkeepsie Stp	North Water Street

Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity

Industrial facilities must obtain permit coverage for stormwater discharges through either an individual industrial SPDES permit, the SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity, or provide certification using the No Exposure Exclusion that industrial activities are not exposed to stormwater (New York State Department of Environmental Conservation, 2019f). There are four industrial sites in the City of Poughkeepsie with coverage under the MSGP for Stormwater Discharges Associated with Industrial Activity. Information about MSGP facilities in the City of Poughkeepsie (Table 3.4) can be found at <https://www.dec.ny.gov/chemical/9009.html>. An index of MSGP sites is available through the NYSDEC's SPDES Permit Program page at <http://www.dec.ny.gov/permits/6054.html>.

Table 3.4 MSGP Facilities – Site locations and permit numbers

Permit ID	Facility Name	Location
NYR00C508	Eisner Brothers Inc	67 Parker Ave.
NYR00F897	Baroni Scrap Metal	20 Van Kleeck Drive
NYR00B032	Clinton Point Quarry	Sheafe Rd.
NYR00D602	Cranesville Block Co Inc	18 Sunfish Cove Rd.

Municipal Separate Storm Sewer System (MS4)

The City of Poughkeepsie has storm drains that are separate from the sewer system and are part of the Municipal Separate Storm Sewer System (MS4). MS4 is a specific type of SPDES permit and requires that the community have a stormwater collection and conveyance system that is owned by the City, is not a combined sewer and is not part of the sewage treatment plant or publicly owned treatment works (US EPA, 2018). As an MS4 community, the City of Poughkeepsie must develop, implement and enforce a Stormwater Management Program (SWMP). The SWMP must include 6 Minimum Control Measures (MCMs): Public Education and Outreach, Public Participation/Involvement, Illicit Discharge Detection and Elimination, Construction Site Runoff Control, Post Construction Run-off Control, and Pollution Prevention/Good Housekeeping (NYS Department of Environmental Conservation, 2019g). For more information about MS4s in the City of Poughkeepsie and their SWMP, contact the City of Poughkeepsie Engineering Department.

In the City of Poughkeepsie, storm drains that are not connected to the wastewater treatment facility (are not CSOs) move water directly from roads and rooftops into the nearest waterbody. Twenty-four storm drains, the majority on the north side of Poughkeepsie, drain directly into the Fall Kill. On the south side of Poughkeepsie, most outfalls drain into small wetlands and streams, with eight outfalls located on tributaries of the Casperkill. There are six outfalls that drain directly into the Hudson River.

Combined Sewer Overflows

Combined Sewer Overflows (CSOs) convey sewage from homes and businesses as well as stormwater from roads and rooftops through the same system. They are physically separate from MS4s described above which only convey stormwater. In a CSO, all of the water is transported to a sewage treatment facility (POTW, Publicly Owned Treatment Works). During times of dry weather or light rain, these facilities can handle the water entering the system, but when there are significant rainfall events the system cannot handle the volume of water and it overflows directly to the Hudson River. Therefore, during high flow events, there is a combination of stormwater runoff and sewage from homes and business being piped directly into the nearest waterbody.

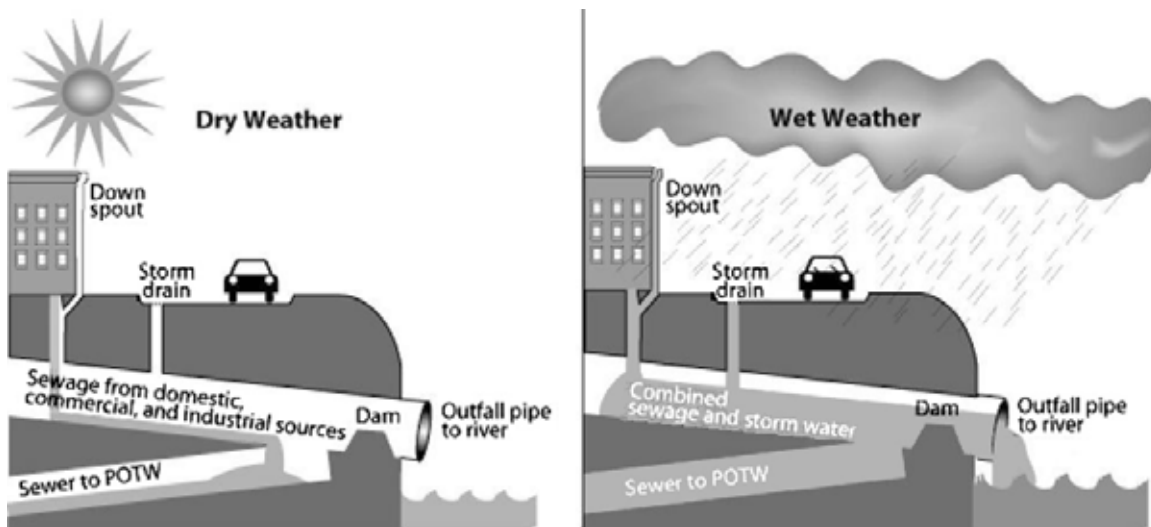
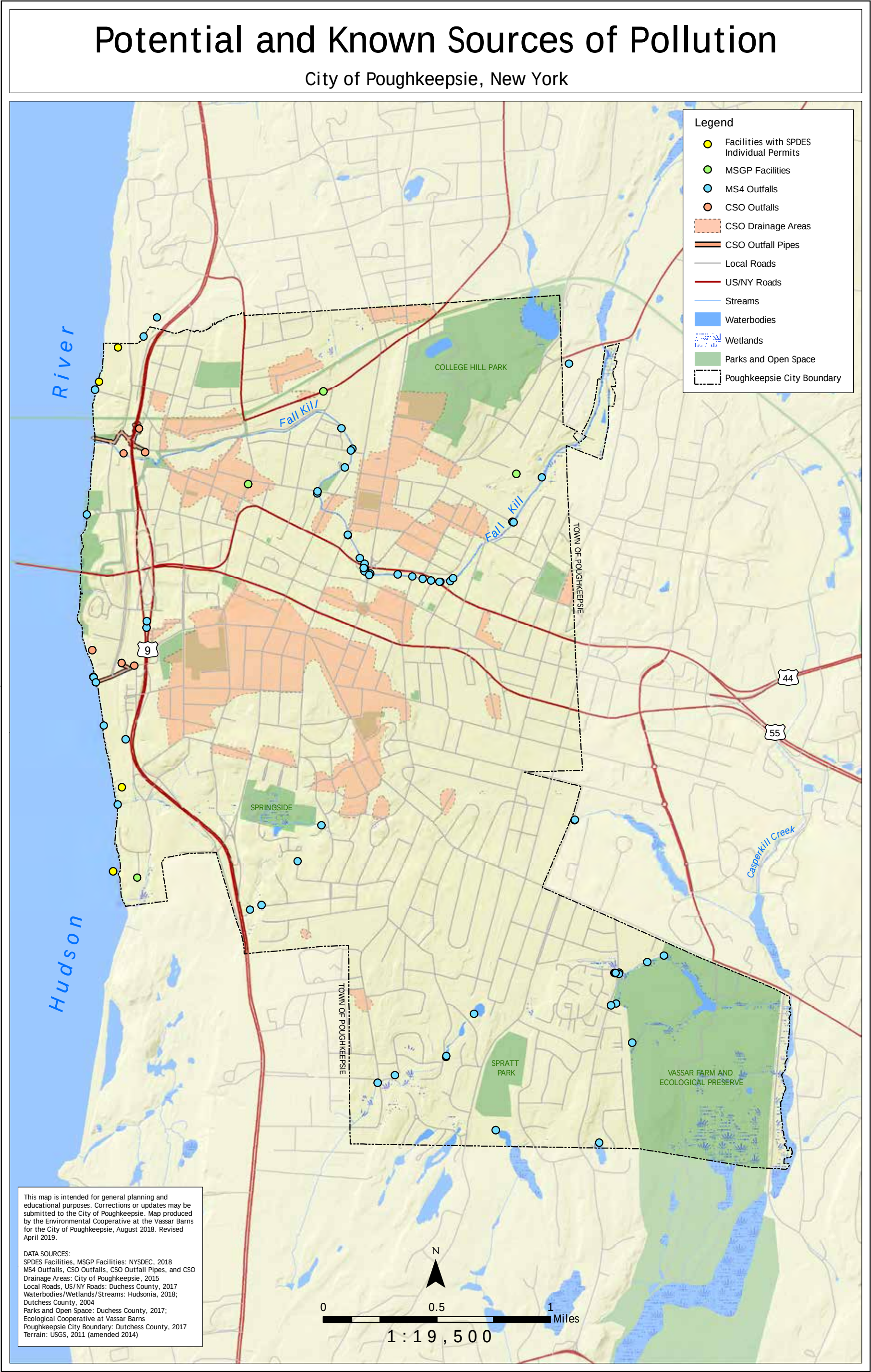


Figure 3.6 Schematic of a typical combined sewer system that discharges directly to surface waters. credit: US EPA

There are about 800 CSOs in New York State, and the City of Poughkeepsie has six CSOs that empty into the Hudson River (NYS Department of Environmental Conservation, 2019h). The Potential and Known Sources of Pollution map ([Map 3.6](#)) shows the location of CSO outfalls in the City as well as the drainage areas that contribute to these outfalls. The City is aware of the frequency of the overflows and required to report them to the NYS DEC through a new initiative, the Sewage Pollution Right To Know (SPRTK Act). Under this policy CSO discharges must be reported to the public through NY-Alert within two hours of the incident (DiNapoli, 2018). The City has a long-term plan in the works to separate the sewer system. They have allocated \$10 million for future sewer repairs over the next few years that would help reduce, but not eliminate, the CSO discharge (Rolison, 2018). However, the long-term plan for sewer repairs and CSO separation has an estimated cost of over \$50 million, and at this time the City can only allocate \$2.7 million (Rolison, 2018). Until the sewer system can be separated, sewage will continue to be discharged into the Hudson and the mouth of the Fall Kill through the combined sewer overflows during periods of heavy precipitation. Though the sewage is diluted as it enters the river, it is still a threat to the overall health of the river's ecosystems. Another, perhaps more feasible, strategy for decreasing the impact of CSOs is to prioritize stormwater mitigation in CSO drainage areas, which are identified on [Map 3.6](#). Green infrastructure practices that can be implemented into new development or retrofitted during upgrades is one way to decrease and slow down the amount of stormwater entering the sewer system (New York State Stormwater Management Design Manual, 2015; Palmer & Hesse, 2013).



Culverts and Aquatic Barriers

It is important to understand the condition of infrastructure at points where streams and roads intersect. Culverts and bridge crossing can become barriers to the movement of aquatic organisms if they are inappropriately placed or sized, resulting in the stream becoming disconnected at these points. This disconnect results in habitat fragmentation and the decline of animal populations, especially migratory fish such as the American eel, who depend on movement up and down stream for reproduction and life history. These crossings may also become sources of flooding if the culverts and bridge are blocked by woody debris or trash, slowing or blocking the flow of water through the structure. In the City of Poughkeepsie common impacts from stream crossings include an increase in flooding due to clogged culverts and bridge crossings, altered sediment and nutrient processes, increases in erosion of stream banks, and changes in water quality.

Grant funding is available through NYS to support the City in its efforts to become better stewards of its water resources. For more information visit the NYS Department of Environmental Conservation Grant Application website. (<http://www.dec.ny.gov/pubs/grants.html>)

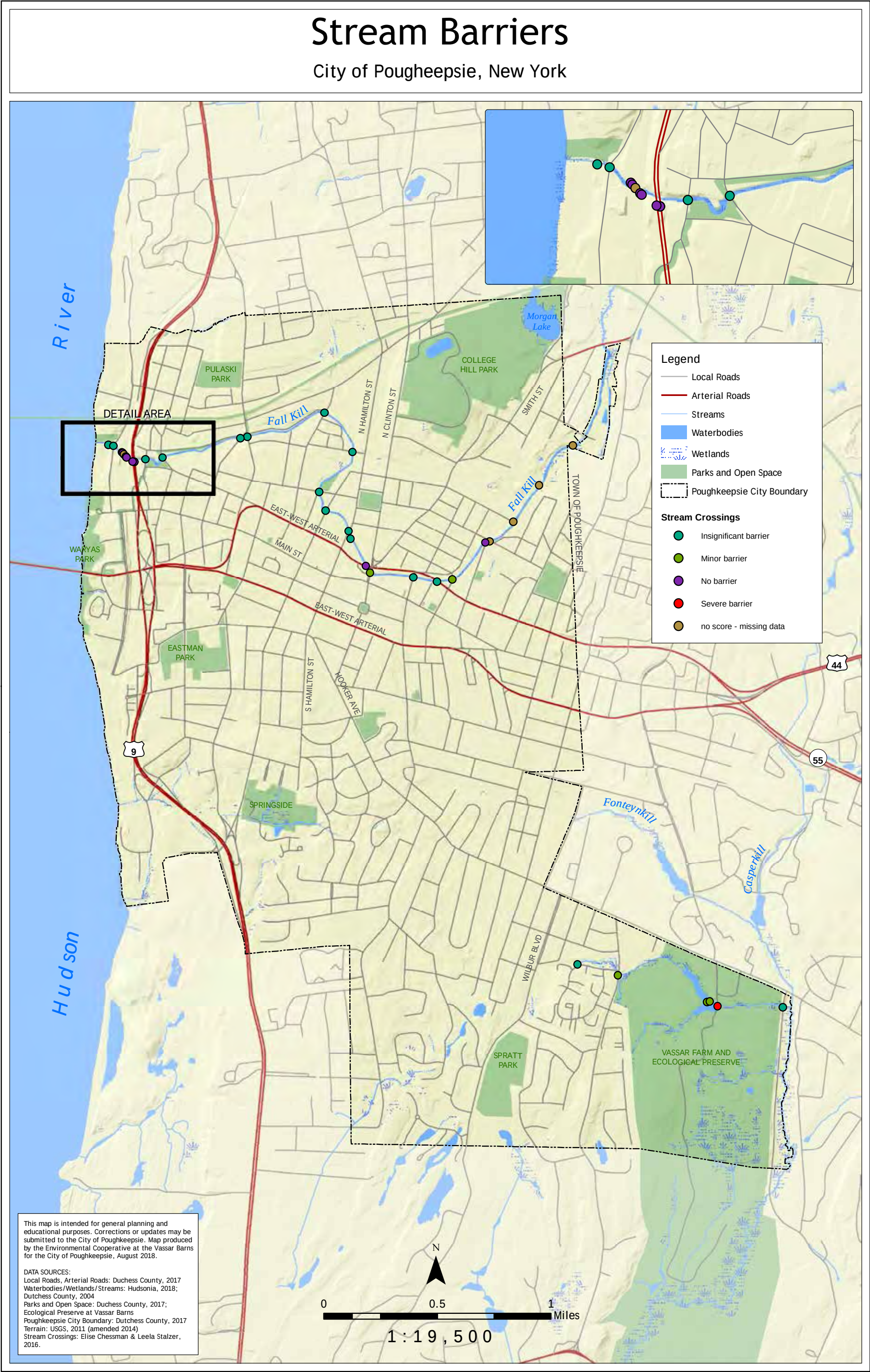
In 2016, The Environmental Cooperative at the Vassar Barns conducted a culvert assessment of the Fall Kill and Casperkill Watersheds (Stalzer, Chessman, Schmidt, & Rubbo, 2016) as part of a larger effort by the Hudson River Estuary Program to map and assess aquatic barriers in Hudson Valley streams. This effort is in conjunction with the [North Atlantic Aquatic Connectivity Collaborative](#) (NAACC). The NAACC's primary goals are to assess infrastructure to determine how well it maintains the ecological function, hydrology, and passability of the stream for organisms, organic debris, and sediment.

In the City of Poughkeepsie, there were 29 road crossings assessed along the Fall Kill. Researchers assessed each road crossing based the NAAC protocol which includes a suite of 13 variables. These variables are used to create a weighted composite Aquatic Passability score that falls between 0-1, with a score of 1 representing a crossing that meets all passability standards. For mapping purposes, these scores were translated into narrative descriptors ([Table 3.5](#)) (Scoring Road-Stream Crossings as Part of the North Atlantic Aquatic Connectivity Collaborative (NAACC), 2015), which are presented on the Stream Barriers map ([Map 3.7](#)). Of the 29 road crossings that were assessed, five could not be scored for various reasons. In-depth results from the Fall Kill and Casperkill study, including assessments of individual culverts and bridge crossing can be accessed at the [North Atlantic Aquatic Connective Collaborative Website](#). While none of the road crossings in the Fall Kill were considered more than a minor barrier, researchers did note that often the amount and composition of trash in the creek could act as a barrier to connectivity as there were several observations of debris piled up to the extent that it was diverting water flow. Blockages of debris at bridge crossing along the Fall Kill contributed, in part, to flooding of neighborhoods during Hurricane Irene in 2011. The City of Poughkeepsie does clean these areas periodically, when reported, however regular clearing of the creek is necessary to maintain connectivity.

A small portion of the Casperkill watershed falls within the City boundaries and in this area, there were six road crossings assessed along the Casperkill. Researchers designated one crossing located on the Vassar Farm and Ecological Preserve as a severe barrier.

Table 3.5. Aquatic passability scores for road crossings within the City of Poughkeepsie.

Descriptor	Aquatic Passability Score	# of Fall Kill Crossings	# of Casperkill Crossings
No Barrier	1.0	8	0
Insignificant Barrier	0.80 - 0.99	14	2
Minor Barrier	0.60 - 0.79	2	3
Moderate Barrier	0.40 - 0.59	0	0
Significant Barrier	0.20 - 0.39	0	0
Severe Barrier	0.00 - 0.19	0	1



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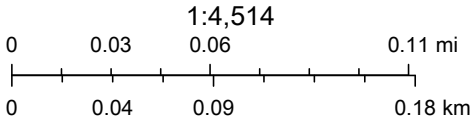
Habitats



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- Parcel Boundaries
- City of Poughkeepsie Boundary
- Wetlands
- Hudsonia Surface Water
- Hudsonia Streams
 - Perennial Stream or Not Classified

- Hudsonia Habitats
 - Developed
 - Cultural
 - Stream
 - Hudson River
 - Subtidal shallows
 - Estuarine rocky shore



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Chapter 4: Biological Communities and Habitats

Significant Habitats in the City of Poughkeepsie, Dutchess County, NY

By Elise Heffernan and Gretchen Stevens, Hudsonia Ltd. May 2018

Summarized by Julia Blass and Jennifer Rubbo



Pollinator garden at College Hill Park.
Photo credit: Camelia Manning

Introduction

In May 2018, Hudsonia Ltd. compiled a Significant Habitats Report for the City of Poughkeepsie as part of the Natural Resources Inventory project funded by the Hudson River Estuary Program (Heffernan & Stevens, 2018). This report assessed the types of habitats present in the City and developed conservation priorities for the protection and restoration of the City's habitats. The report offers important information regarding habitats and the species that live in them in the urban environment. The Hudsonia report outlines the state of the City's habitats, and provides the foundational ecological information necessary for future decisions regarding the intersection of conservation, urban planning and development. The full report is available in [Appendix A](#) and it is highly recommended that the report be read in its entirety.

Poughkeepsie is a heavily urbanized area dominated by paved surfaces and the built environment; it is still home, however, to significant areas of habitat that play an important role in the ecological health of the City and the greater Hudson Valley Region. A **habitat** can be defined as "the place where an organism or population lives or where a biological

community occurs, and is defined according to both its biological and non-biological components.”¹ Habitats include large, **ecologically significant areas** such as the Hudson River, the Fall Kill, and the Vassar Farm and Ecological Preserve. These are areas that include:

- “habitats that are rare or declining in the region, or those that support rare species and other species of other conservation concern;
- common habitats that meet a minimum size criterion for the habitat type;
- complexes of connected habitats that, by virtue of their size, composition, or configuration, appear to have significant biodiversity value.”²

Other cultivated natural landscapes, such as College Hill Park and Springside, play important roles as habitats that preserve the biodiversity and ecological health of Poughkeepsie’s communities. Preservation of the natural areas in the City of Poughkeepsie--from individual trees on the street to the larger tracts of natural land--is important for many reasons. Preserving the City’s natural areas provides dual benefits for both Poughkeepsie’s human and wildlife populations as these areas function in a variety of ways including: providing habitat, reducing stormwater runoff, mitigating the effects of climate change, providing shade and recreation areas, and beautifying the City.

Moving forward the Significant Habitats Report is a valuable resource to city planners, administration and residents and may be useful as the City:

- reviews a new comprehensive plan,
- approves proposed developments,
- improves its parks,
- and manages land use in the City of Poughkeepsie

Habitats in Poughkeepsie

Almost 20% of the 5.1 mi² (3258 ac) of terrestrial area of the City was mapped as ecologically significant habitat. If the Hudson River is included in this calculation, that percentage increases to 29.0% of the City.³ The Hudsonia report identifies 18 habitat types of potential ecological significance and notes that each of these habitats have been modified by past or present human activities. The ecologically significant habitats located within the City of Poughkeepsie are categorized into three general categories: Upland Habitats, Non-Tidal Wetland Habitats, and Hudson River Habitats and further subdivided into specific habitat types ([Map 4.1](#), [Table 4.1](#)). A complete description of the methods Hudsonia used to map habitats can be found in the full report.⁴

1 Hudsonia, 2018 p. 8.

2 Hudsonia, 2018 p. 8.

3 Hudsonia, 2018 p. 23.

4 Hudsonia, 2018 p. 17

Table 4.1 Ecologically significant habitats present in the City of Poughkeepsie, identified by Hudsonia, 2018.⁵

Habitat Category	Specific Habitat Type	Brief Description ⁶
Upland Habitats	Upland Hardwood Forest	Non-wetland forest dominated by hardwood trees (conifers make up < 25% of canopy).
	Upland Conifer Forest	Non-wetland forest dominated by conifer trees (>75% of canopy).
	Upland Mixed Forest	Non-wetland forest with a mix of hardwoods and conifers (conifers make up 25-75% of canopy).
	Crest/Ledge	Upland area with shallow soil and partially exposed bedrock.
	Upland shrubland	Open (nonforested) area with shrubs making up > 20% of ground cover
	Cultural	Open area (may have scattered trees) mowed frequently or otherwise managed in an intensive way (lawn, playing field, golf course, garden, park, cemetery).
	Waste Ground	Land that has been severely altered by human activity but lacks pavement or structures. Gravel mines, quarries, dumps, wetland fill, abandoned lots, or construction sites. Places where soil has been removed, and sometimes replaced [like fill].
Non-Tidal Wetland Habitats	Hardwood and shrub swamp	Wetland (identified by predominance of hydrophytic vegetation) dominated by trees and/or shrubs.
	Intermittent woodland pool	Small wetland partially or fully surrounded by forest with no surface water inlet or outlet.
	Marsh	Wetland dominated by hydrophytic herbaceous vegetation that stays saturated/flooded most of the time.
	Wet meadow	Area of seasonally saturated or flooded soils dominated by hydrophytic herbaceous vegetation.
	Spring/seep	Location where groundwater discharges to ground surface

⁵ Hudsonia, 2018 p. 24.

⁶ Hudsonia, 2018, unpublished brief descriptions of habitats

	Constructed pond	Man-made body of water with a mostly managed shoreline (bordered by developed or cultural areas).
	Open water	Body of water (natural or manmade) with a mostly undeveloped shoreline.
	Stream	Intermittent stream – stream that has flow at least part of the year, including man-made ditches. Perennial stream – stream that generally flows year-round.
Hudson River Habitats	Riprap and native rocky shore	Manmade or naturally occurring rocky shore, sparse plant life and unknown faunal diversity
	Tidal tributary mouth	Area where mixing of tidal and non-tidal water occurs, where tributary and river meet.

Detailed descriptions of all habitat types, including their ecological attributes, the species that they could potentially support, and their conservation values can be found beginning on p.24 of Hudsonia's report. A list of species of conservation concern that have been documented in or near the City of Poughkeepsie is provided in [Appendix F](#), (Species of Conservation Concern in the City of Poughkeepsie, NY). The largest habitat types in Poughkeepsie, which include the Hudson River, streams, upland hardwood forests, and cultural areas, are discussed below.

The Hudson River is the largest contiguous habitat in the City of Poughkeepsie and its most significant ecological resource. Poughkeepsie is located within the tidal portion of the Hudson River, known as an estuary. Though connected to the Atlantic Ocean by tides, the Hudson is entirely freshwater in Poughkeepsie, a globally-rare habitat. It is a designated NYSDEC Significant Biodiversity Area that supports many rare species as well as regionally important fisheries (Penhollow, Jensen, & Zucker, 2006). Poughkeepsie also lies within the [Kingston-Poughkeepsie Deepwater](#) Significant Coastal Fish and Wildlife Habitat as designated by the New York State Department of State (NYS Department of State). It is a well-known spawning area for the Atlantic sturgeon and overwintering grounds for the shortnose sturgeon, both of which are listed as federally endangered species (NYS Department of State, 2012). It is an important habitat for many other migratory and resident fish species including the American eel, American shad, blueback herring, striped bass, fourspine stickleback, hogchoker, and white perch (NYS Department of State, 2012). In addition to fish it provides habitat and food for many other organisms, such as blue crab, bald eagles, and a variety of waterfowl (NYS Department of State, 2012).

Seventy percent of the shoreline in Poughkeepsie is made up of rock riprap and native rock⁷ (Map 4.2). These rocky areas are harsh environments since temperature fluctuates radically, they are temporarily inundated due to tides, ice scours the banks in the winter, and there is wind and wave disturbance. The largest threat to these areas is sea-level rise and more frequent flooding. Development of the shoreline should take into account these potential and predicted changes to the water levels at the shoreline (see Ch.7 for more information about Climate Change in Poughkeepsie). The Hudson River Sustainable Shorelines project is an effort through the Hudson River National Estuarine Research Reserve to disseminate and facilitate best practices for shoreline management in light of potential climate change impacts. More information about this project can be found at <https://www.hrner.org/hudson-river-sustainable-shorelines>

Streams in Poughkeepsie include both perennial streams, which have water year-round, and intermittent streams which only flow seasonally or after heavy rain (see Chapter 3. Water Resources). Streams provide important aquatic habitat for a variety of fish, invertebrates, amphibians and bird species. Equally important is the riparian area adjacent to the stream. Intact riparian areas are typically forested, providing shade to the stream as well as habitat to a host of both aquatic and terrestrial animal species. Two perennial streams located in the City of Poughkeepsie are major tributaries to the Hudson River: the Fall Kill on the north side, and the Casperkill, which flows along the southeastern border of the City. The Fall Kill is highly impacted by channelization and pollution, nonetheless it continues to serve as an important habitat for migratory fish species such as the American eel and river herring. The area along the Fall Kill, adjacent to the City Department of Public Works, is an important site when considering ecosystem services of the creek. The stream is not channelized in this area and there are intact areas of floodplain forest that provide important habitat and floodwater retention and storage (see Ch. 3 Water Resources).

The small portion of the mainstem of the Casperkill within the City is located on the Vassar Farm and Ecological Preserve. The Casperkill is exposed to high levels of non-point source pollution for much of its length; however, as it flows through the Vassar Preserve, water quality improves due to an intact riparian buffer. Biomonitoring studies have shown a change in benthic macroinvertebrate indicators from “poor” upstream of the Preserve to “very good” at sampling points on the Preserve (Menking, Cunningham, Foley, Freimuth, & Smith, 2009). Practices that will increase the quality of habitat within streams include: 1) reducing surface runoff into the stream; 3) decreasing impervious surfaces in the watershed; and 2) maintaining and restoring a vegetated riparian buffer that includes shade providing trees where possible. Historically, there were more streams in the City of Poughkeepsie which are now mapped as small stream fragments throughout the City. It is likely that these are now buried or piped and no longer provide the ecosystem services of a natural stream. (see Ch. 3 Water Resource for more information about buried streams in the City).

Upland Hardwood Forests comprise the most extensive terrestrial habitat type in the City of Poughkeepsie, with the largest habitat patches of forest found on the Vassar Farm and Ecological Preserve. Large mature trees also exist throughout the City in smaller remnants of forest, such as at College Hill Park and Springside. These patches of large mature trees potentially provide habitat for important small mammals such the federally endangered Indiana Bat (Appendix F) which has been observed in Poughkeepsie and its vicinity. Several priority bird species associated with larger forest habitats have been identified in or near

7 Hudsonia 2018 p. 61

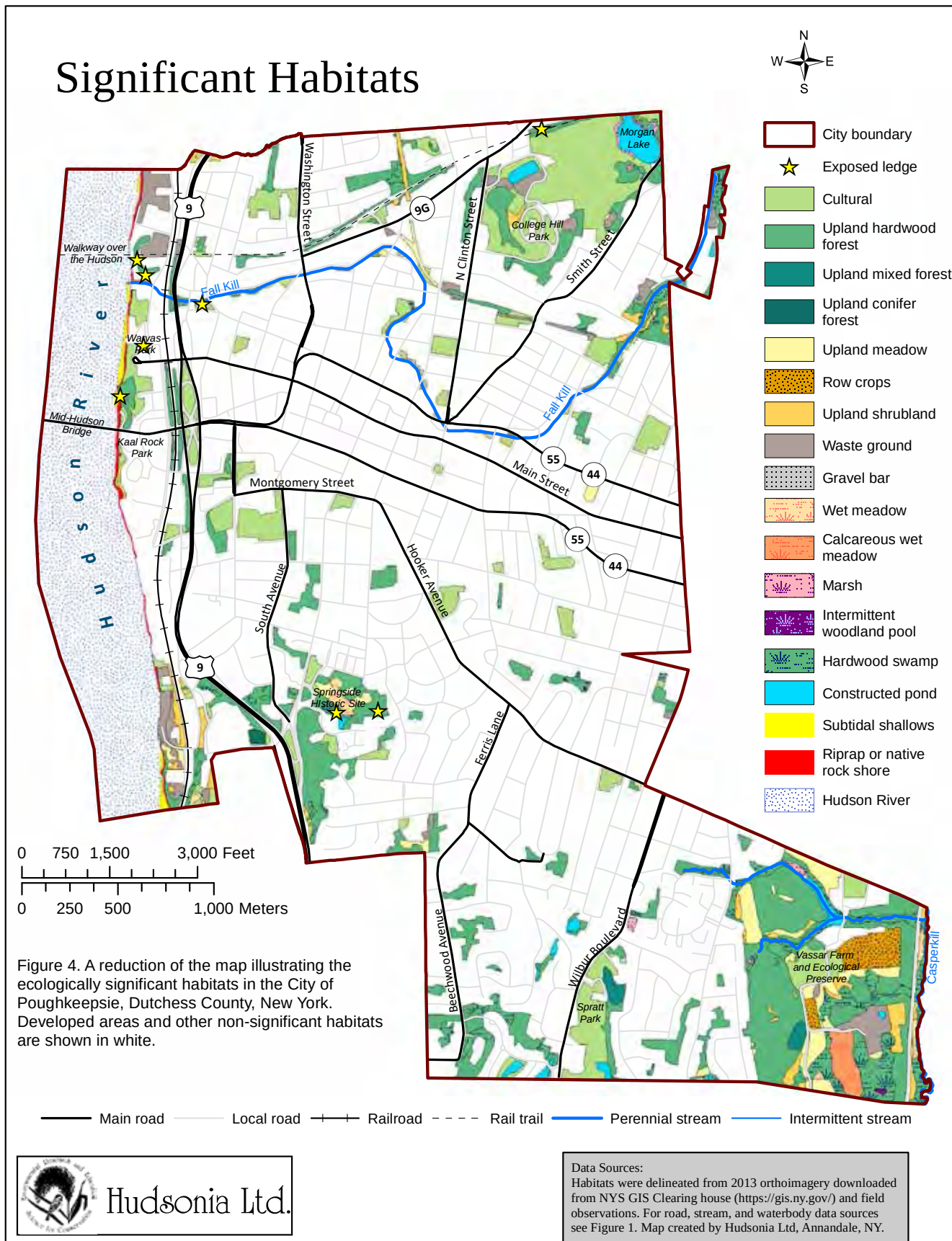
Poughkeepsie and might use forest areas in the City, including Kentucky warbler, scarlet tanager, and wood thrush, among others ([Appendix F](#)). It is important to note that, while the Hudsonia maps only depict forest areas that are 0.2 acres or greater, street trees and backyard trees also contribute to the urban forest ecosystem. In addition to acting as refuge and food source for many species of birds, butterflies, and other insects, mature trees provide a multitude of services to people as well. These include cooling from shade, carbon sequestration, reducing stormwater runoff, and improvement of air quality. (Chapter 5 of the Natural Resources Inventory discusses the benefits of urban trees in more detail.)

Cultural areas are second largest habitat type in Poughkeepsie. These consist of areas that are actively managed yet not paved, such as mowed lawns, public parks, athletic fields and golf courses. Due to high levels of management these areas may not support a large diversity of plant and animals species. However, a few rare species that have adapted to urban areas occur in or near the City, including the state endangered peregrine falcon and state special concern common nighthawk ([Appendix F](#)). Additionally, cultural areas serve an important role in connecting more natural undeveloped habitats while offering open space for people, facilitating outdoor activities and engagement with nature in this otherwise paved and built landscape (See Chapter 6 Cultural, Recreational and Historic Resources).

Access to these public greenspaces is important when considering their benefit to the health of Poughkeepsie residents. Studies have shown the positive impacts of greenspaces and parks on both the mental and physical health of residents (Liu, Li, Li, & Zhang, 2017; Richardson, Pearce, Mitchell, & Kingham, 2013; Wood, Hooper, Foster, & Bull, 2017). Living close to (within 1/3 mile) parks or open spaces, especially those that allow interactions with nature, has been significantly associated with mental health benefits such as increased self-confidence and relaxation (Liu, Li, Li, & Zhang, 2017). Residents living within a 10-15 minute walk (1 mile) of a park or greenspace, whether nature focused, recreation, or athletic, had more positive states of mental well-being, with a corresponding increase in mental well-being as the number of and access to parks increased (Wood, Hooper, Foster, & Bull, 2017). Additionally, the risk of cardiovascular disease decreased in neighborhoods with >15% greenspace (Richardson, Pearce, Mitchell, & Kingham, 2013). Hudsonia's report identifies areas that are within walking distance (500m, 10-minute walk) of habitat areas located on public land ([Map 4.3](#)).⁸ Several areas in the City have been identified as lacking in public greenspace, including the area near Main Street and Cannon Street and the south-central portion of the City.

8 Hudsonia, 2018 pg. 40

Map 4.1 Significant Habitat Areas in the City of Poughkeepsie



Map 4.2 Shoreline materials and models of the sea – level rise in the City of Poughkeepsie

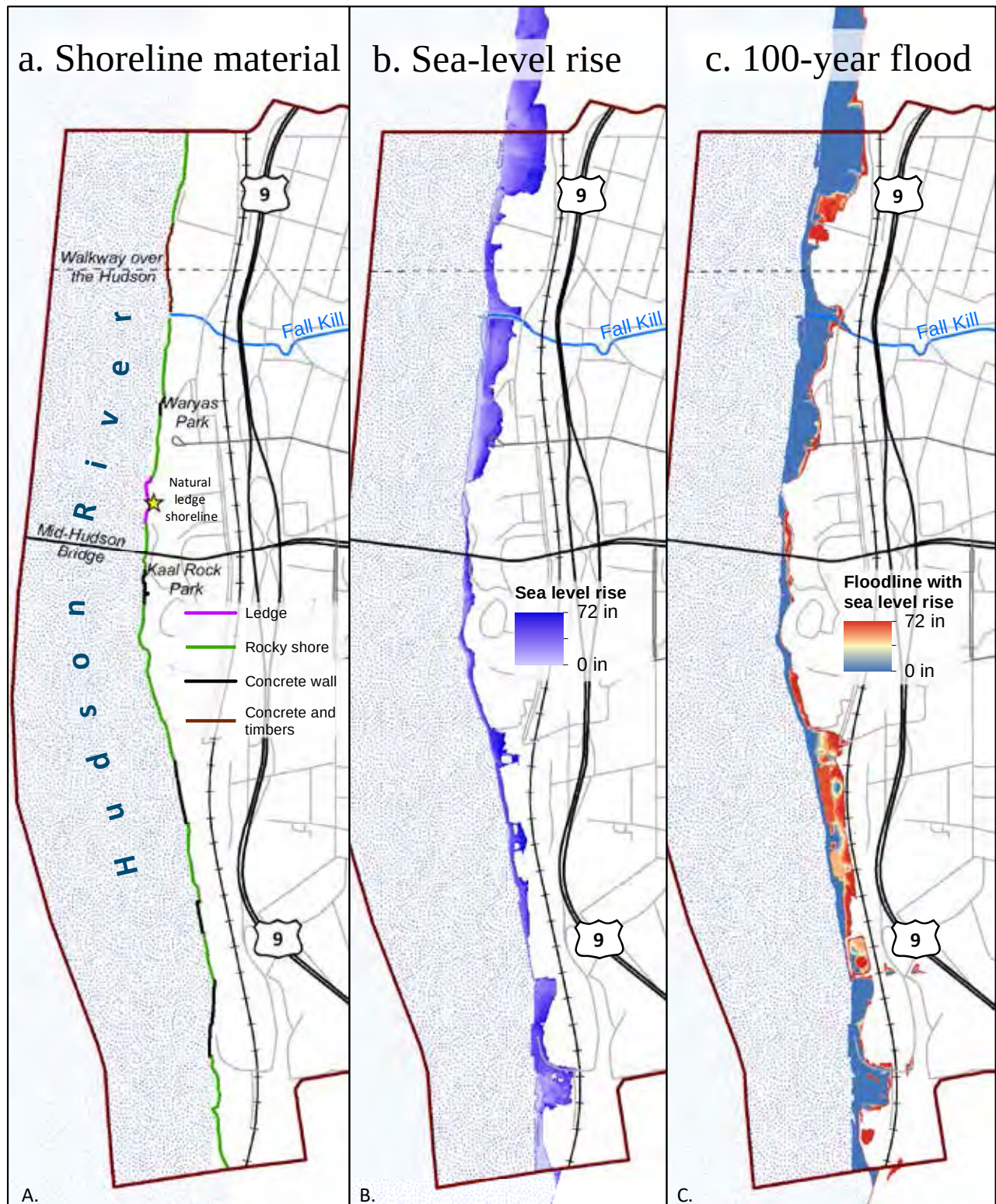
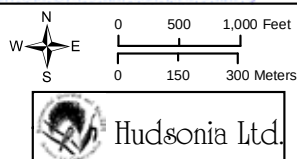
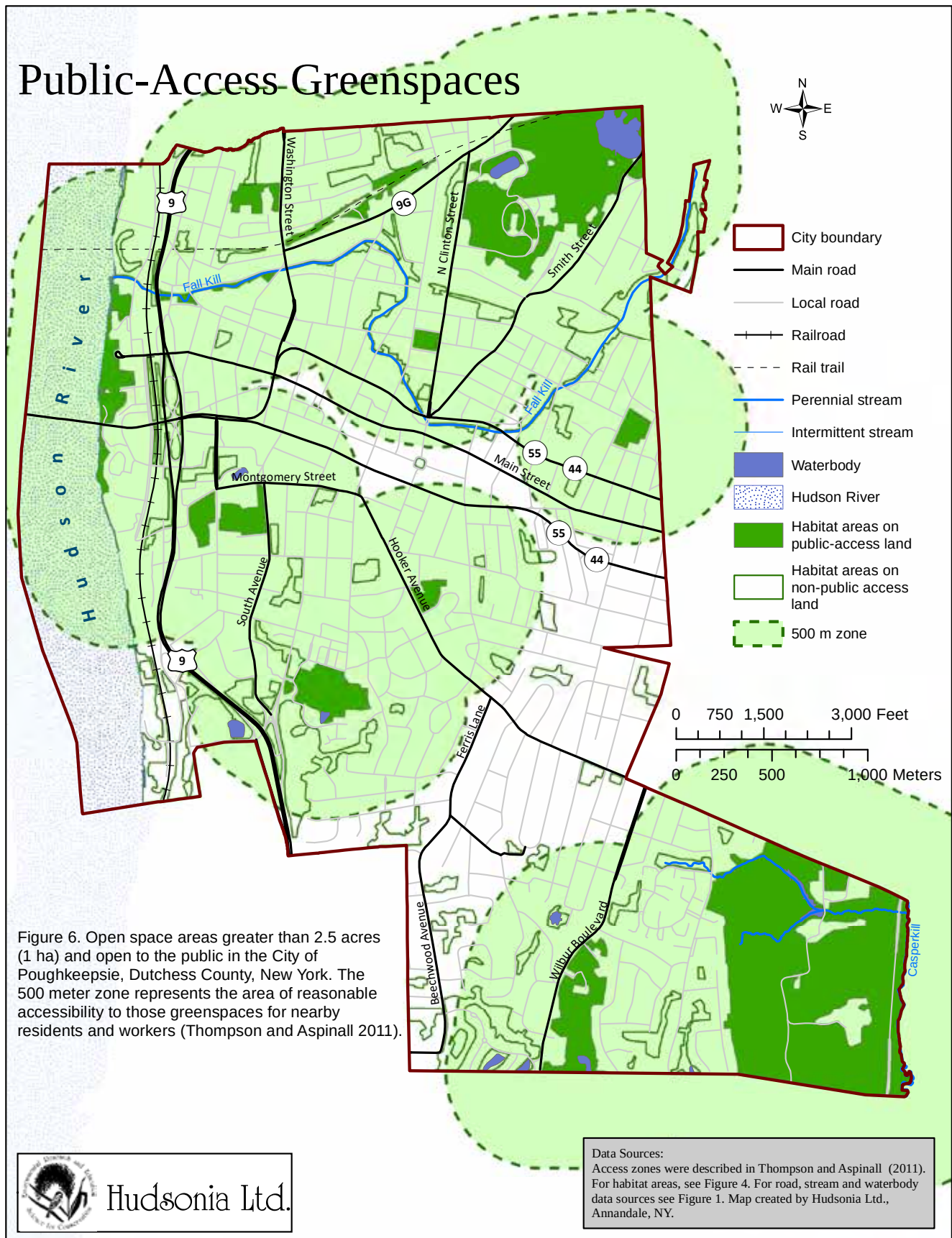


Figure 7. Shoreline material and models of sea level rise and floodlines through 2100 in the City of Poughkeepsie, Dutchess County, New York. "0 in" indicates present day sea levels and 100-year flood predictions.



Data Sources:
Sea level rise and flood model data from Scenic Hudson 2013 (<https://www.scenichudson.org/slr/mapper>). Shoreline material from Hudsonia field observations and 2013 orthoimagery. For road and stream data sources, see Figure 1. Map created by Hudsonia Ltd., Annandale, NY.

Map 4.3 Public Access Greenspaces in the City of Poughkeepsie



Conservation Priorities and Planning

The City of Poughkeepsie is a predominantly developed landscape. However, of the 3,258 terrestrial acres of the City, 658 acres (20.2%) of the landscape is undeveloped at present. This number represents the 162 acres (5%) of intensively managed parkland and recreation areas and the 496 acres (15.2%) of undeveloped areas that are considered ecologically significant habitat.⁹⁸ These habitats are explained in [Table 4.2](#) and include representative species that might occur in these habitats although have not necessarily been recorded in the City of Poughkeepsie. Hudsonia provides a detailed list of conservation strategies specific to each priority habitat, and these recommendations can be found beginning on p. 85 of the full report.

Table 4.2 Priority habitats and conservation zones in the City of Poughkeepsie identified by Hudsonia, 2018.¹⁰

Priority Habitat	Representative Species or Group of Concern	Priority Conservation Zone	Rationale
Large contiguous forest	Forest interior-breeding birds	Unfragmented areas with a high percentage of forest cover and/or wetland complexes	Maximizes the occurrence and breeding success of species.
Large meadow	Grassland-breeding birds	Unfragmented patches greater than 10 ac (4 ha)	Required for successful breeding and maintenance of viable populations.
Intermittent woodland pool	Pool-breeding amphibians	750 ft. (50 m) from stream edge	Encompasses non-breeding season foraging and refuge habitats and dispersal routes between pools.
Fall Kill and intermittent streams	Aquatic communities of streams	160 ft. (50 m) from stream edge	Provides streamside habitats, helps to reduce and filter surface runoff, provides shading vegetation, and provides organic material that supports the food web and habitat structure of the stream.
Casperkill	Aquatic communities of streams and wood turtle	650 ft. (200 m) from stream edge	Encompasses most of the critical habitat including hibernacula, nesting areas, spring basking sites, foraging habitat, and overland travel corridors.
Hudson River shoreline zone	Hudson River freshwater tidal communities	400 ft. (120 m) from mean high water	Accommodates for storm surges, and allows for inland migration of tidal habitats in response to sea level rise.

⁹ Hudsonia, p. 74.

¹⁰ Hudsonia, p. 78 (full references for table information as well).

Many historical land use decisions in the region have been made on a site-by-site basis without considering the ecological impacts on the surrounding lands. The goal of presenting detailed ecological information is that both individual landowners and City officials and planners will become more familiar with how their lands fit in with the larger ecological landscape, and that this will inspire habitat protection measures. With these measures, the City of Poughkeepsie can curb the loss of natural resources that can result from urban development. Additionally, the maintenance and conservation of greenspaces (both managed and natural) benefit the human population of the City. Aside from the aesthetic and ecological services provided by natural areas in urban settings, these spaces can be used for recreation, social gathering, community gardens, and environmental education. In these ways, greenspaces can benefit the social networks and foster place-based belonging in a community.

The means of habitat protection can be both regulatory and non-regulatory. Some examples include: volunteer conservation efforts, master planning, zoning ordinances, tax incentives, land stewardship incentives, changing permit conditions, and public education. Hudsonia suggests that the City can implement some of these general City-wide practices to foster biodiversity and habitat conservation¹¹.

- Protect large, contiguous, undeveloped tracts wherever possible;
- Protect high quality isolated habitat patches;
- Plan landscapes with interconnected networks of undeveloped habitats;
- Preserve natural disturbance processes;
- Restore and maintain broad buffer zones;
- Direct human uses toward the least sensitive areas and previously-disturbed areas and minimize the alteration of natural features;
- Encourage development of altered land instead of unaltered land;
- Encourage and provide incentives for developers to consider environmental concerns early in the planning process;
- Minimize areas of impervious surfaces;
- Establish land uses along the riverfront that are resilient to flooding;
- Expand public access to the Hudson River shoreline;
- Restore degraded habitats wherever possible;
- Modify the urban landscape to provide more habitat elements; and
- Promote the establishment of conservation agreements on parcels of greatest ecological value.

¹¹ Hudsonia, 2018 p.71.

More information on all of these practices can be found beginning on p. 71 of Hudsonia's full report.

Specific recommendations for City-wide conservation planning include¹²:

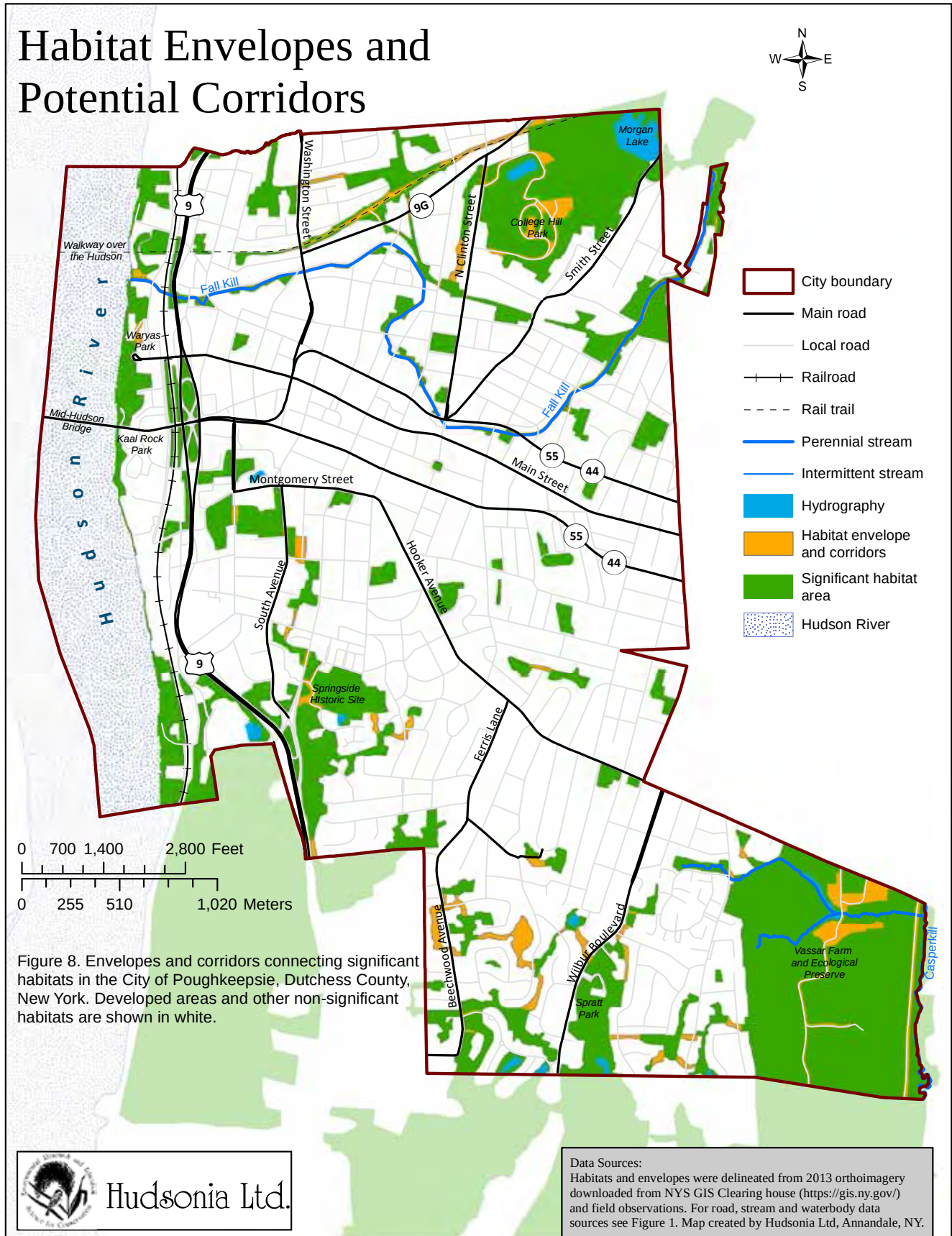
1. Protecting and Restoring Habitats – large blocks of habitat that were identified as priority areas in the City of Poughkeepsie include the area along the Fall Kill near and adjacent to the DPW transfer station, Springside, and the Vassar Farm and Ecological Preserve. Specific recommendations for the conservation and management of habitats found in the City can be found starting on page 85 of the Hudsonia report.
2. Enhancement of Developed Areas – Within developed areas of the City small habitat patches exist. These small areas are important for many species and act as buffers to intact habitats and provide travel corridors as well as food and refuge for a number of different wildlife species. Specific activities that will enhance small habitats, as well as examples of ways to minimize disturbance to resident and migratory biota, can be found starting on page 89 of the Hudsonia report.

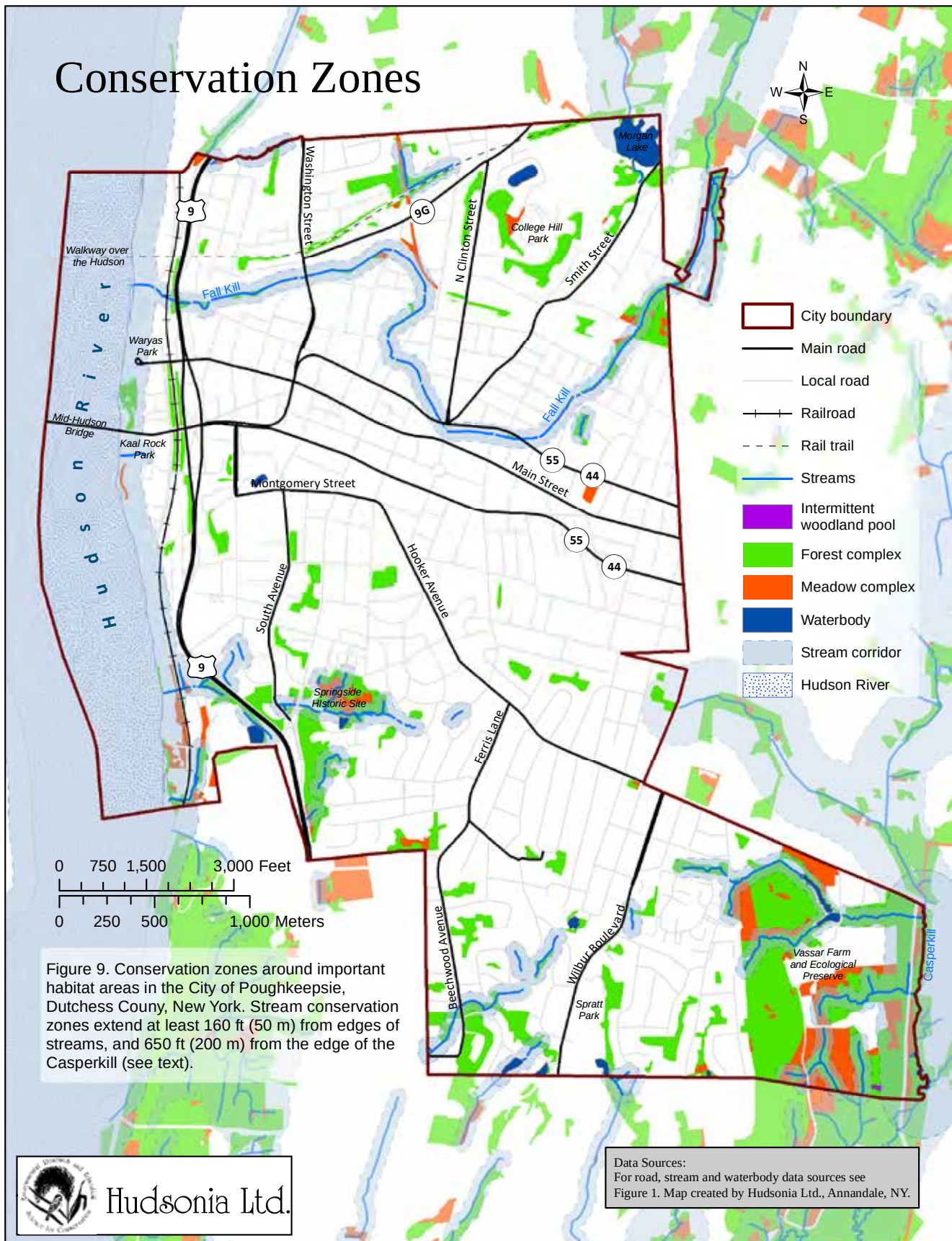
Two tools specific to the City of Poughkeepsie in the Hudsonia report are a map of Habitat Envelopes and Potential Corridors ([Map 4.4](#)) and a map of Conservation Zones ([Map 4.5](#)). Often green spaces in urban areas that provide habitat for organisms and services to the human population are quite small. However, these areas such as hedgerows, vacant lots, and even backyard trees can provide stepping stones between large habitats or refuge for many important species as well as aesthetic benefits to local neighborhoods. The Habitat Envelopes and Potential Corridors map identifies these small areas that are not large enough to be mapped as “significant habitat” but are likely acting as habitat and connecting larger habitat patches.

Conservation zones in the City of Poughkeepsie focuses on areas adjacent to the waterways located within the City: the Hudson River, Fall Kill and the Casperkill Creek. Much of the adjacent land to these waterways is already developed, but when possible actions to restore the buffer, plant trees, and create pocket parks can occur. These actions will not only increase the amount of small habitats within the City but also improve in-stream conditions.

As the City of Poughkeepsie undergoes revitalization, the natural habitats now present and possible in the City should be considered and understood as ways to reduce flooding, increase cooling, beautification, foster social cohesion and community pride, and sustain biodiversity.

¹² Hudsonia, 2018 p.85





Full Citation:

Heffernan, Elise, and Gretchen Stevens. *Significant Habitats in the City of Poughkeepsie, Dutchess County, New York*. Hudsonia Ltd., 2018, pp. 1–123.

References

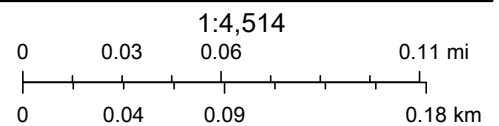
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Land Uses



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- City of Poughkeepsie Boundary
- Forest Canopy Areas
- Remediation Sites
 - Registry Sites (Class "2")
 - Parks and Open Spaces
- Land Use by Parcel
 - Commercial
 - Community Services
 - Public Services
 - Recreation and Entertainment
 - Residential
 - Vacant Land



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Chapter 5: Land Use

Camelia Manring, Elise Chessman, India Futterman, Mitchell Davis, Neil Curri and Jennifer Rubbo



Upper Landing Park.
Photo credit: Camelia Manring

Land use is a general term that refers to “human activities on land which are directly related to the land” (Clawson, 1965). Land use includes the stewardship of natural landscapes such as forested and wetland areas, as well as the regulation and management of developed areas, including residential, commercial, and industrial sites. Some examples of land use management that have implications for natural resources are zoning, surveying, real property tax regulations, and conservation efforts. This chapter explores and identifies current land use in the City of Poughkeepsie and looks closely at status and management of the urban forests.

Zoning

The City of Poughkeepsie implements zoning regulations intended to promote public health, safety, and general welfare of its inhabitants.

[Section 19.1-2](#) of the City’s zoning code elaborates on the key purposes of local land use regulations, explaining that the zoning code is in place to ensure “the continued viability and improvement of the City’s residential environment and economy and the assurance of adequate and necessary sites for a full range of residential, industrial, commercial, recreational, open space and public and quasi-public uses reflecting local and appropriate regional needs.” (1979 City of Poughkeepsie Zoning Ordinance)

From “residential” and “commercial” uses to “recreational” and “public” uses, the City of Poughkeepsie’s zoning code exists for the improvement, management, and protection of the City’s land and inhabitants, fulfilling its purpose through a series of specific regulatory standards. These standards are applied to different zones throughout the City designated for specific types of land uses.

Based on the current zoning map (City of Poughkeepsie Zoning Districts, 2017), there are 24 different zoning districts in the City of Poughkeepsie ([Table 5.1](#)). A copy of the zoning map is provided in [Appendix G](#). In general, commercial use is permitted in the C zones, industrial use is permitted in the I zones, residential use is permitted in the R zones, and other uses are permitted in various other zones designated below.

Table 5.1. Zoning Districts in the City of Poughkeepsie

Zoning District (Abbr.)	Zoning District Name
C-1	NEIGHBORHOOD COMMERCIAL
C-2	RESEARCH AND DEVELOPMENT
C-2A	MAIN STREET COMMERCIAL
C-3	GENERAL COMMERCIAL
H-M	HOSPITAL MEDICAL
I-1	LIGHT INDUSTRIAL
I-2	GENERAL INDUSTRIAL
O-R	OFFICE RESIDENTIAL
PRD	PLANNED RESIDENTIAL DEVELOPMENT
R-1	LOW-DENSITY RESIDENCE
R-2	MEDIUM LOW-DENSITY RESIDENTIAL
R-2A	CENTRAL LOW DENSITY
R-3	MEDIUM-DENSITY RESIDENCE
R-3A	CENTRAL MEDIUM DENSITY RESIDENTIAL
R-4	MEDIUM HIGH-DENSITY RESIDENTIAL
R-4A	CENTRAL URBAN DENSITY RESIDENTIAL
R-5	HIGH-DENSITY RESIDENCE DISTRICT
R-6	URBAN DENSITY RESIDENCE
R-D	RESEARCH & DEVELOPMENT
W	WATERFRONT
WTOD	WATERFRONT TRANSIT ORIENTED DEVELOPMENT
G-OM	OFFICE MANUFACTURING
G-CM	MIXED-USE COMMERCIAL
G-RM	MIXED-USE RESIDENTIAL

Residential districts comprise about one third (> 1,000 acres) of the City's approximately 3,300 acres of land area (i.e., excluding the Hudson River). This represents the largest zoned use in the City compared to commercial, industrial, and other uses.

Since permitted land uses in different districts may have different impacts to natural resources or provide different opportunities for natural resource management and conservation, the location and extent of the districts indicate where those potential impacts and opportunities are present. City managers may wish to implement zoning regulations that incorporate mitigation and conservation strategies specific to uses within each district. For example, several industrial and commercial districts are located along the Fall Kill. Permitted uses within these districts may impact water quality in the creek from point or non-point source pollution. Therefore, Poughkeepsie officials may wish to require any new developments in these districts to implement management strategies and/or specific techniques to remove or mitigate their impacts to the creek.

Land Use

[Map 5.1](#) illustrates the different land uses in the City of Poughkeepsie using real property tax assessment information for each land "parcel." The City of Poughkeepsie's assessor classifies the use of each parcel based on the New York State Department of Taxation and Finance property type classification codes (New York State Department of Taxation and Finance, 2018).

Many specific classification codes are provided in the New York State Assessor's Manual and used by the City's assessor to classify the uses of all the properties in the City as part of assessing their real property value. For the purpose of [Map 5.1](#), the land uses were condensed into broader categories. For example, properties with the assessed land use classes for one-, two-, and three-family residences, and larger multi-unit residences are all represented in the map simply as "residential". Since the assessor's purpose in classifying properties is to ensure that land can be taxed appropriately, it is not necessarily suitable for land management or other natural resource management purposes. However, it does illustrate the general distribution of land uses across the City and reveals some land uses patterns in specific areas.

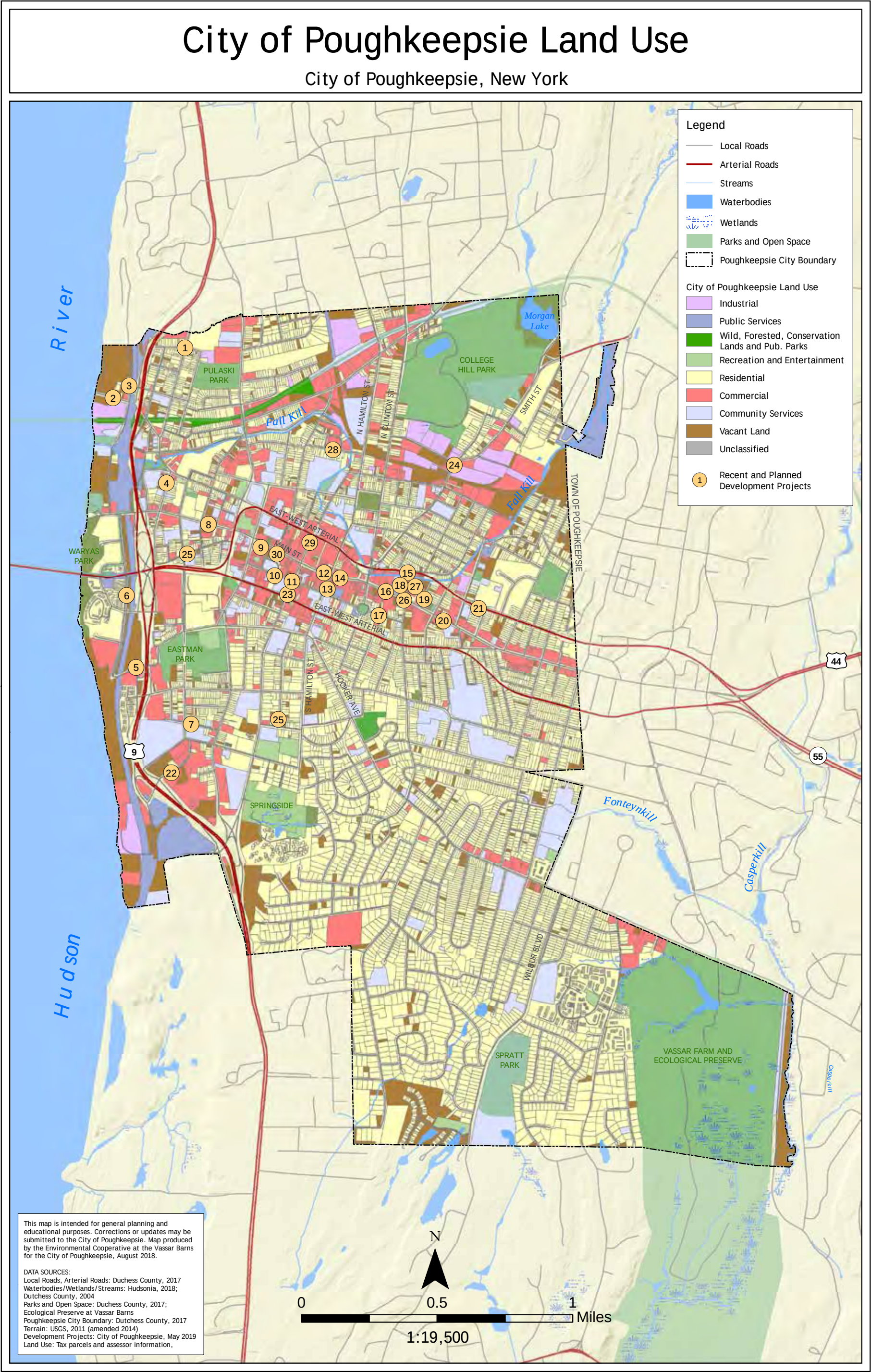
For example, land uses south of the eastbound US-44/NY-55 arterial and east of US-9 are largely residential. A commercial corridor is present along Main Street, between the east and westbound US-44/NY-55 arterial. The pattern of land use north of the westbound US-44/NY-55 arterial and west of US-9 is comprised of a heterogeneous mix of residential, commercial, industrial and other uses.

While those general patterns are not likely to change in the near future, there has been an increase in development as the City undergoes revitalization efforts, which will convert the uses of some individual properties over time as projects are completed. [Map 5.1](#) ([Table 5.3](#)) includes sites that are in the process of or have been approved for development, based on information obtained from the City of Poughkeepsie (Quinn, 2019). For the most up-to-date information, please contact the city planning office using the contact information at <http://cityofpoughkeepsie.com/building>.

Table 5.2 Current development projects in the City of Poughkeepsie (Quinn, 2019)

Map Key #	Project Name	Address	Residential Units	Commercial (sf)	Status
1	North Point Centre	Delafield and Spruce St	18	12,000	Under Construction
2	One Dutchess Avenue	One Dutchess Avenue	300	13,800	Under Construction
3	141 N Water St	141 N. Water Street	15	-	Approved site plan
4	Pelton Manor	36 N. Clover Street	44	-	Planning Board
5	Water Club	36 Pine Street	136	-	Completed
6	Poughkeepsie Landing (DeLaval)	Rinaldi Blvd	50	30,000	Pre-planning
7	Vassar Hospital Expansion	Reade Place	-	752,000	Under Construction
8	Queen City Lofts	178 Main Street	70	12,000	Under Construction
9	Up to Date	278-282 Main Street	19	11,000	Pre-planning
10	40 Cannon (Cardinal Court)	40-44 Cannon Street	49	7,000	Completed
11	23 Academy/77 Cannon	23 Academy/77 Cannon	30	6,000	Planning Board
12	387 Main Street	387 Main Street	22	4,200	Approved site plan
13	12 S. Hamilton	12 S. Hamilton Street	9	2,100	Completed
14	407 Main Street	407 Main Street	14	3,000	Under Construction
15	400 Maple Street	400 Maple Street	20	1,500	Under Construction
16	Trolley Barn Redevelopment	489 Main Street	1	28,000	Under Construction

17	148 Cannon Street	148 Cannon Street	13	-	Planning Board
18	Poughkeepsie Underwear Factory	8 N. Cherry Street	15	7,000	Completed
19	Fallkill Commons on Rose	Rose Street	78	-	Under Construction
20	560-564 Main street	560-564 Main Street	20	2,300	Approved site plan
21	Heart of the Block (Maple Street)	Maple Street	40	-	Under Construction
22	Marist Health Quest School of Medicine	Fox Street	-	100,000	Pre-planning
23	The Hive	33-35 Academy Street	28	24,000	Approved site plan
24	MPI Expansion	165 Smith Street	-	10,000	Approved site plan
25	84-86 Carroll Street	84-86 Carroll Street	16	-	Approved site plan
25	160 Union Street	160 Union Street	41		Planning Board
26	508-516 Main Street	508-516 Main Street	60		Common Council for Rezone
27	Cigar Factory	15 N. Cherry Street	40		Conceptual
28	27 High Street	27 High Street	60	-	Pre-planning
29	Crannell Square	35 Catharine Street	75		Planning Board
30	289 Main Street	289 Main Street	6	5,700	Planning Board



Brownfields

A brownfield is an abandoned, idled, or underused industrial or commercial property whose redevelopment may be complicated by the presence or potential presence of contamination (US Environmental Protection Agency, 2018). Sources of environmental contamination at brownfields are often associated with former industrial and commercial operations involving the use or disposal of hazardous materials. In some cases, former uses at brownfields predate modern environmental laws regulating the handling, storage, and disposal of hazardous substances. Contamination at brownfields may also be the result of outdated, malfunctioning, or poorly-maintained equipment, leaking petroleum or chemical bulk storage tanks, accidental spills, improper handling of equipment and materials, or intentional dumping or on-site disposal of materials. Based on the anticipated use of the property, some contamination may remain at brownfields after remediation. These sites must have engineering controls (e.g., soil capping, subsurface venting systems, mitigation barriers, fences) and institutional controls (e.g., use restrictions, environmental easements) that are designed to prevent human exposure to contaminants.

Like many other former manufacturing and commercial centers in the northeastern US, Poughkeepsie contains several properties that may be considered brownfields due to their former industrial and commercial use and the presence or potential presence of environmental contamination. Some of these sites have been remediated through various programs implemented by New York State Department of Environmental Conservation (NYSDEC).

The U.S. Environmental Protection Agency (USEPA) and NYSDEC implement several environmental cleanup and brownfields programs to remediate contaminated sites and encourage their redevelopment. Abandoned hazardous waste sites placed on the federal National Priorities List (NPL) are eligible for remediation under the Superfund Program. NYSDEC implements environmental cleanup and brownfields programs on properties where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria or guidance.

The City of Poughkeepsie contains 17 sites managed under the following NYSDEC environmental cleanup and brownfields programs (New York State Department of Environmental Conservation, 2019):

- State Superfund Program
- Brownfield Cleanup Program
- Environmental Restoration Program
- Voluntary Cleanup Program

For more information about these programs, see the NYSDEC Environmental Cleanup & Brownfields website at <http://www.dec.ny.gov/chemical/brownfields.html>.

The remediation sites are given a “Site Class” based on their inclusion in the state Registry of Inactive Hazardous Waste Disposal Sites, or “Registry.” Sites listed on the Registry are commonly said to be sites in the “State Superfund Program” and whose cleanup status is indicated by a Site Class of 1 through 5. Non-Registry sites are those that are being investigated and remediated in a brownfield program or other environmental remediation program and are not listed in the Registry. The cleanup status of Non-Registry sites is

indicated by a Site Class of A (Active), C (Completed), P (Potential), PR (Potential RCRA Corrective Action, and N (No Further Action at This Time).

There are two Registry sites in the State Superfund Program, classified as "2" ([Table 5.3](#)). The "2" Site Class is assigned to a site at which:

- the disposal of hazardous waste has been confirmed and the presence of such hazardous waste or its components or breakdown products represents a significant threat to public health or the environment; or
- hazardous waste disposal has not been confirmed, but the site has been listed on the Federal National Priorities List (NPL).

One of the two Registry sites in the City of Poughkeepsie is the Hudson River, part of the Hudson River PCB Sediments site that includes the entire river from Hudson Falls in Washington County, New York, to the Battery in New York City, and is also listed on the NPL.

Table 5.3 NYSDEC Environmental Cleanup and Brownfields Sites in the City of Poughkeepsie

Site Name (link to the description on NYSDEC website)	NYSDEC Program	Site Class	Address
19, 21, & 23 Academy Street	Brownfield Cleanup Program	A	19, 21, & 23 Academy Street
400 Block Restoration Area	Environmental Restoration Program	C	413-441 Main St
A.C. Dutton Greenway City	Brownfield Cleanup Program	C	1 Dutchess Avenue
CH - Bayeaux Street Poughkeepsie MGP	State Superfund Program	C	Main Street and North Perry Street
CH - Laurel St. - Poughkeepsie MGP	Voluntary Cleanup Program	C	Laurel Street
CH - Water St. - Poughkeepsie MGP	Brownfield Cleanup Program	A	North Water Street
Former A.C. Dutton Lumber Yard	Brownfield Cleanup Program	C	1 Dutchess Avenue
Former City of Poughkeepsie Sewage Plant	Brownfield Cleanup Program	C	176 Rinaldi Boulevard
Former Hamilton Reproduction	Environmental Restoration Program	C	166-186 North Hamilton Street
HRH Lead Abatement Site	State Superfund Program	A	55 Garden Street
Hudson River PCB Sediments	State Superfund Program	2	Hudson River, Hudson Falls-NYC Battery
Hudson River Waterfront-DeLaval Property	Environmental Restoration Program	C	202-204 Rinaldi Blvd.
PURA -14 Property	Environmental Restoration Program	C	Pine Street
PURA-14 Site	Brownfield Cleanup Program	C	36 Pine Street
Qual Krom Site	Environmental Restoration Program	C	28 Orchard Place
Queen City Lofts	Brownfield Cleanup Program	C	178-188 Main Street and 11 South Bridge Street
Schatz Plant	State Superfund Program	2	70 Fairview Avenue

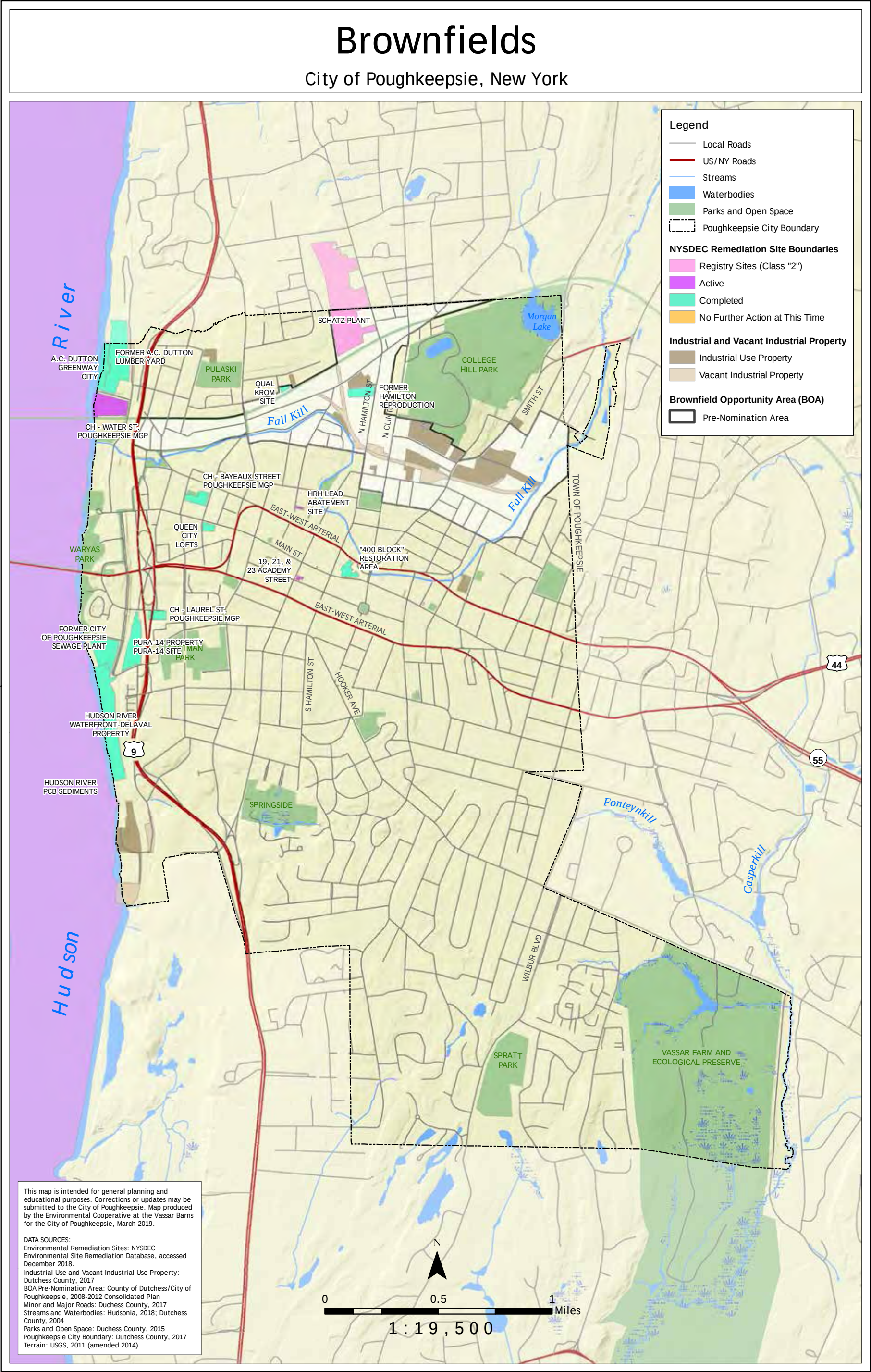
2 - Registry site / A – Active / C – Completed / N - No Further Action at This Time

Of the other 15 non-registry sites in the City of Poughkeepsie, three are designated Site Class A (active) sites and twelve are C (completed) ([Table 5.3](#)). Active sites are those in any of the state's programs where work is underway and not yet complete. Completed sites are those where remediation has been satisfactorily completed under one of the state's remedial programs. Sites classified as "No Further Action at this Time" may include sites deemed not warranted to place on the Registry; where conditions after initial waste removal did not require additional work; where the site was being addressed under another program; where remediation under a brownfield program was not completed; or where the site was withdrawn from the program. For more detailed descriptions of these classifications, see the NYSDEC Site Classification page at <http://www.dec.ny.gov/chemical/8663.html>.

In addition to programs for owners and developers to incentivize the clean-up of individual brownfield sites, New York State also implements the Brownfield Opportunity Areas (BOA) Program through the Department of State (NYSDOS). This program provides communities with guidance, expertise and financial assistance to complete BOA Nomination Plans, which are revitalization strategies for neighborhoods or areas affected by brownfields or economic distress. A pre-nomination study was conducted for the City of Poughkeepsie, which outlined a historically industrial area in the northern portion of the City along sections of the Fall Kill Creek and a former rail line (County of Dutchess, City of Poughkeepsie, 2007). This area contains several industrial and vacant industrial properties based on tax parcel and assessment data obtained from Dutchess County. No further steps in the BOA nomination process have been completed nor are any currently planned (Hesse, 2019).

[Map 5.2](#) includes the NYSDEC environmental remediation sites listed in [Table 5.3](#), the above-mentioned BOA pre-nomination area, and the assessed industrial and vacant industrial properties in the City of Poughkeepsie.

Map 5.2 Brownfields in the City of Poughkeepsie



Urban Canopy Cover

Urban canopy cover describes the area covered by trees within a city's limits, specifically street trees, trees on public parklands, and trees on private residences. This "urban forest" contributes significantly to local human and environmental health, economic prosperity, and the overall sustainability of an urban area. Among the most influential physical benefits of urban canopy cover are substantial storage and sequestration of carbon, reduction of air pollution and urban heat islands, interception of stormwater, wildlife habitat, and improvement of aesthetics and property value (Peper, et al., 2007, Mullaney, et al., 2015). There are social and psychological benefits to urban forests as well, improving the perceived safety of an area, alleviating mental stress, and providing social infrastructure for community building (Beyer, et al., 2014, Shanahan, et al. 2015, Beatly, 2017). These benefits of urban forestry quantify the environmental, economic, and social value necessary to ensure proper management, planning and policy decision-making.

Carbon Storage and Sequestration:

Carbon sequestration for urban forests can be defined as the amount of carbon annually removed from the atmosphere and stored within the biomass of trees. With the gradual increase of carbon emissions globally, urban trees will have a critical role in removing these harmful chemicals from our cities, improving the health and longevity of these environments. Urban forests in the United States are estimated to have stored 700 million metric tons of carbon at an annual rate of about 22.8 million metric tons. (Nowak & Crane, 2002)

Air Pollution and Heat Island Reduction:

As urban areas grow, so does their potential for increased pollutants. Poor air quality is known to be harmful to human and environmental health. Urban canopy cover can drastically improve air quality through the direct removal of airborne pollutants such as ozone, sulfur dioxide, nitrogen dioxide, and carbon monoxide (Nowak & Crane, 2002). This removal has implications beyond health improvements. Increased urban canopy cover reduces energy consumption in buildings, which consequently reduces air pollutant emissions from power plants and other sources (Nowak, Appleton, Ellis, & Greenfield, 2017). Urban areas are additionally experiencing severe heat island effects, whereby a built area is hotter than its peripheral rural areas, consequently increasing summertime peak energy demand, air conditioning costs, air pollution, greenhouse gas emissions, heat-related illness, and mortality, and negatively impacting water quality (US Environmental Protection Agency, 2019). Urban canopy cover can significantly reduce these negative externalities by providing shade and through evapotranspiration, effectively cooling surface and air temperatures (Nowak, Hirabayashi, Bodine, & Greenfield, 2014).

Stormwater Mitigation:

Vegetation intercepts rainfall and runoff during heavy rainfall events and can improve the resilience and safety of an urban area. The monetary value of this natural infrastructure in protecting a neighborhood from flooding or water damage far exceeds any built system. This does not only aid in protecting from storm events, but also helps to filter runoff before it enters local waterbodies, benefiting water quality, habitat values, and human water uses.

Increased Property Value:

With the percentage of the world's population expected to live in cities by 2050 nearing 70% (United Nations, 2018), conserving and prioritizing the natural environments of urban settings will be crucial. Property value is known to increase with proximity to parks and greenspace, as does the number of trees per lot, so maintaining and improving urban forests will serve to both increase property value as well as environmental integrity (Beatly, 2017).

Individual and Social Benefits:

Trees in an urban setting have profoundly positive social and health implications, ranging from reduced crime to alleviation of stress and overall happiness. There has been significant research on how more frequent contact with nature improves mental and physical health, is positively correlated with decreased crime and increased perceived safety of an area, and promotes general happiness of urban residence (Beatly, 2017).

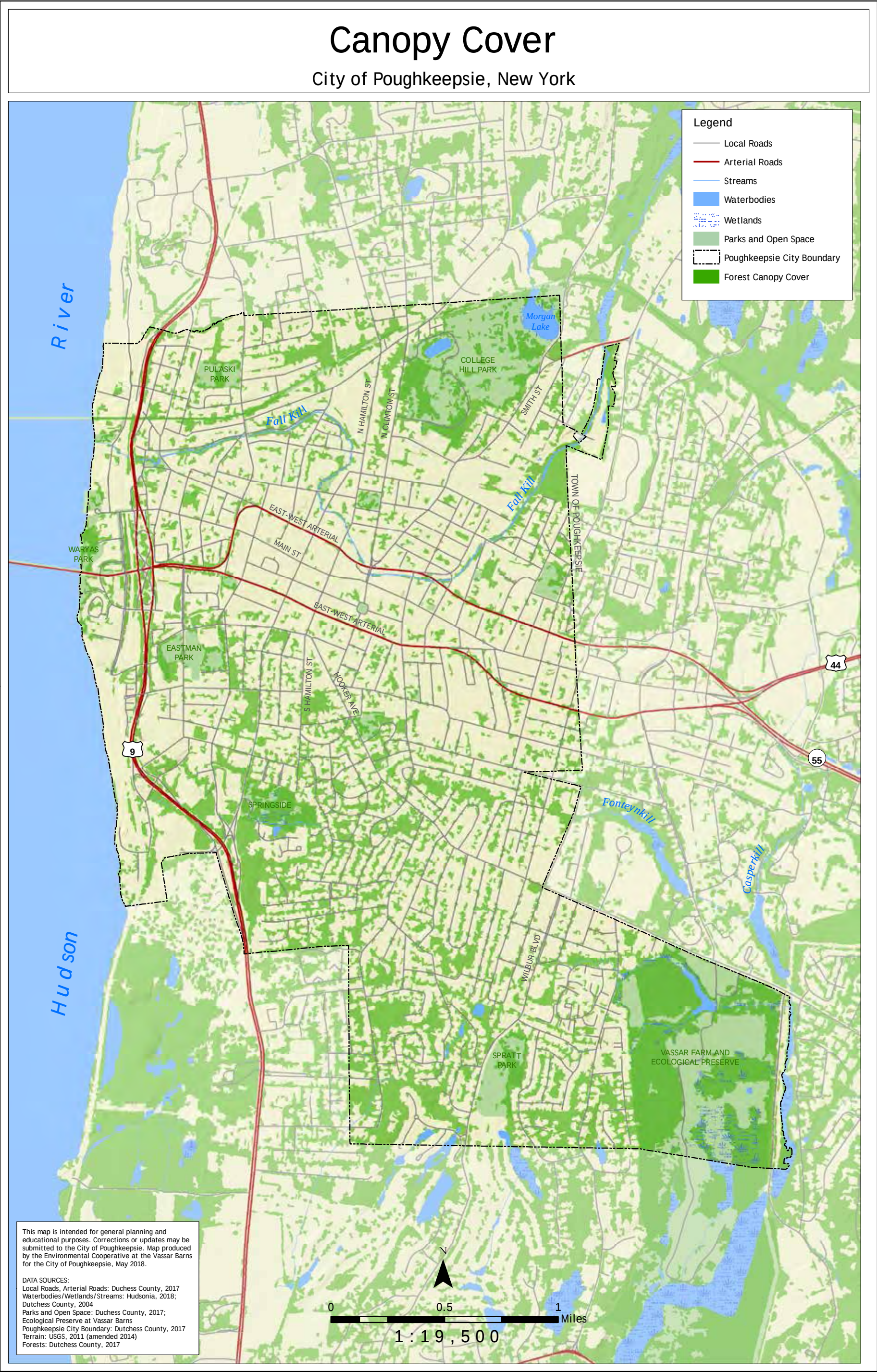
Urban Canopy Cover in Poughkeepsie:

Dutchess County planning recently conducted a survey gauging the City's canopy cover at 30% (Wills, 2017). [Map 5.3](#) illustrates that the tree canopy is highly concentrated in parks and preserve areas, and south of the Main Street corridor. Interestingly, there are parks and open spaces that currently do not have canopy cover, signifying the potential of the areas for future tree plantings. Trees provide the city with considerable benefits that can be amplified with awareness, maintenance, and improvement of the existing canopy. Urban canopy cover remains a vital but primarily unrecognized part of the urban ecosystem, especially for Poughkeepsie as it continues to develop.

Quantifying and protecting this resource and its myriad of environmental, social, individual, and economic assets will be critical to the future of Poughkeepsie's development and sustainable urban-nature balance. Tools such as i-Tree, a software that provides urban and rural forestry analysis and benefits assessment, can help the City understand the importance of urban canopy cover (USDA Forest Service, 2019).

The i-Tree software randomly selects points in a provided area in a Google Maps Aerial image to be determined either as tree canopy or not. These data are then compiled to produce a percentage of canopy cover for that specific area. Information about stormwater drainage, carbon sequestration, and heat reduction can then be calculated to help understand the benefit of the City's network of trees.

Map 5.3 Canopy Cover in the City of Poughkeepsie



Street Trees

[The City of Poughkeepsie Shade Tree Commission](#) was established in 1978 to oversee the planting and care of public street trees in the City of Poughkeepsie (City of Poughkeepsie, 2019). According to a 2006 street tree inventory commissioned by the Committee and conducted by Urban Forestry, LLC (Pleninger, 2006), there are 84 species of trees throughout the City, with a total of 6,987 individual street trees. Visualizing the locations and distributions of street trees is an important component of urban planning. The trees are displayed as points on [Map 5.4](#) with no symbolic distinction between species (see [Table 5.4](#) for individual species populations). It should also be noted that these points are based on the address of the property they are associated with, not their actual physical position. In other words, these points have not been “ground-truthed” in the field, and as such the location of these points on the map may be slightly different than the actual location of the trees. Moreover, many trees may have been removed or planted in the last decade since the 2006 inventory was created. Currently, the City of Poughkeepsie is in the process of updating the street tree inventory (City of Poughkeepsie, 2018).

i-Tree in Poughkeepsie – Future Analysis

A worthwhile future project for the City of Poughkeepsie would be to use i-Tree to analyze the current canopy cover. This would dovetail nicely with the current City tree inventory that focuses on street and park trees. To accurately analyze canopy cover of all trees in the City of Poughkeepsie we suggest plotting enough points in i-Tree to sufficiently account for the average parcel size and total number of parcels in city limits, resulting in about 11,500 points. i-Tree is simple to use and we feel this is a feasible goal if ample time can be devoted to it, perhaps through the help of local college interns. This analysis would provide a real world reference for understanding the presence and frequency of canopy cover in the urban environment to inform management of the urban forest. www.itreetools.org

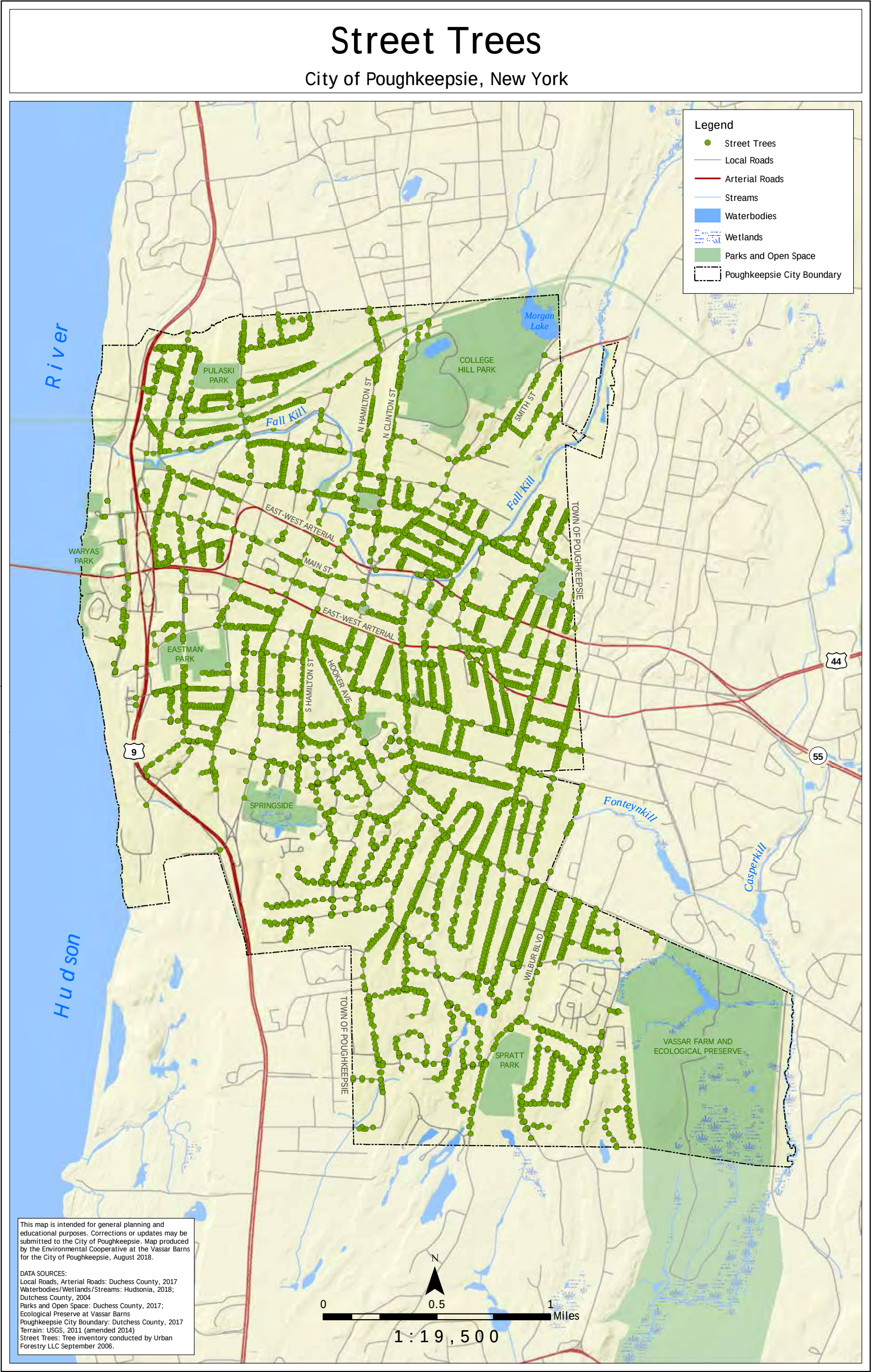
Table 5.4 Number of Street Trees Per Species (2006 Data)

Tree Species	Population
<i>Acer platanoides</i> (Norway Maple)	2,370
<i>Malus species</i> (Crabapple species)	753
<i>Cercis canadensis</i> (Eastern Redbud)	433
<i>Prunus serrulata</i> (Kwanzan Cherry)	383
<i>Fraxinus pennsylvanica</i> (Green Ash)	341
<i>Gleditsia triacanthos</i> (Honeylocust)	320
<i>Quercus palustris</i> (Pin Oak)	236
<i>Pyrus calleryana</i> (Bradford Pear Cultivars)	235
<i>Tilia cordata</i> (Littleleaf Linden)	217
<i>Acer platanoides</i> (Crimson King)	147
<i>Acer rubrum</i> (Red Maple)	125
<i>Quercus rubra</i> (Red Oak)	108
<i>Acer saccharum</i> (Sugar Maple)	106
<i>Platanus x acerifolia</i> (London Planetree)	102
<i>Syringa reticulata</i> (Japanese Tree Lilac)	72
<i>Acer saccharinum</i> (Silver Maple)	68
<i>Crataegus species</i> (Hawthorn species)	66
<i>Ginkgo biloba</i> (Ginkgo)	51
<i>Pinus strobus</i> (Eastern White Pine)	48
<i>Prunus species</i> (Cherry Plum species)	46
<i>Acer ginnala</i> (Amur Maple)	43
<i>Fraxinus americana</i> (White Ash)	42
<i>Robinia pseudoacacia</i> (Black Locust)	40
<i>Ulmus americana</i> (American Elm)	38
<i>Picea pungens</i> (Blue Spruce)	35
<i>Acer campestre</i> (Hedge Maple)	33
<i>Acer platanoides</i> <i>Schwedleri</i>	32
<i>Platanus occidentalis</i> (Sycamore)	29
<i>Pyrus species</i> (Pear species)	26
<i>Prunus cerasifera</i> (Purple Leaf Plum)	25
<i>Picea abies</i> (Norway Spruce)	24
<i>Sophora japonica</i> (Japanese Pagoda Tree)	24
<i>Koelreuteria paniculata</i> (Golden Raintree)	20

<i>Pinus nigra</i> (Austrian pine)	20
<i>Populus deltoides</i> (Cottonwood)	19
<i>Morus alba</i> (White Mulberry)	18
<i>Crataegus phaenopyrum</i> (Washington Hawthorn)	16
<i>Pseudotsuga menziesii</i> (Douglas Fir)	16
<i>Ulmus pumila</i> (Siberian Elm)	16
<i>Juniperus virginiana</i> (Eastern Red Cedar)	15
<i>Ailanthus altissima</i> (Tree of Heaven)	13
<i>Zelkova serrata</i> (Japanese Zelkova)	13
<i>Acer hippocastanum</i> (Horsechestnut)	12
<i>Liquidambar styraciflua</i> (American Sweetgum)	12
<i>Phellodendron amurense</i> (Amur Corktree)	12
<i>Acer palmatum</i> (Japanese Maple)	11
<i>Cornus florida</i> (Flowering Dogwood)	10
<i>Carpinus betulus</i> (European Hornbeam)	9
<i>Malus sylvestris</i> (Common Apple)	9
<i>Prunus serotina</i> (Black Cherry)	9
<i>Catalpa speciosa</i> (Northern Catalpa)	8
<i>Picea glauca</i> (White Spruce)	8
<i>Quercus alba</i> (White Oak)	8
<i>Tsuga canadensis</i> (Eastern Hemlock)	8
<i>Juglans nigra</i> (Black Walnut)	7
<i>Acer negundo</i> (Boxelder)	6
<i>Acer pseudoplatanus</i> (Sycamore Maple)	6
<i>Fagus sylvatica</i> (European Beech)	6
<i>Prunus x yedoensis</i> (Yoshino Cherry)	6
<i>Betula pendula</i> (European White Birch)	5
<i>Carya ovata</i> (Shagbark Hickory)	4
<i>Magnolia species</i>	4
<i>Quercus macrocarpa</i> (Bur Oak)	4
<i>Cercidiphyllum japonicum</i> (Katsura)	3
<i>Cladrastis kentukea</i> (Yellowwood)	3
<i>Cornus kousa</i> (Kousa Dogwood)	3
<i>Rhamnus cathartica</i> (Buckthorn)	3

<i>Sorbus aucuparia</i> (European Mountain Ash)	3
<i>Tilia americana</i> (Basswood)	3
<i>Carya glabra</i> (Pignut Hickory)	2
<i>Castanea mollissima</i> (Chinese Chestnut)	2
<i>Celtis occidentalis</i> (Hackberry)	2
<i>Liriodendron tulipifera</i> (Tuliptree)	2
<i>Salix species</i> (Willow species)	2
<i>Thuja occidentalis</i> (Eastern Arborvitae)	2
<i>Cornus mas</i> (Cornelian Cherry Dogwood)	1
<i>Cotinus purpurea</i> (Smoke Tree)	1
<i>Ilex opaca</i> (American Elm)	1
<i>Larix decidua</i> (Common Larch)	1
<i>Prunus persica</i> (Common Peach)	1
<i>Prunus virginiana</i> (Common Chokecherry)	1
<i>Quercus coccinea</i> (Scarlet Oak)	1
<i>Quercus velutina</i> (Black Oak)	1
<i>Taxus species</i> (Yew species)	1
TOTAL	6,987

Map 5.4 Street trees in the City of Poughkeepsie based on the 2006 tree inventory



Ash Trees and the Emerald Ash Borer

The emerald ash borer (EAB) is an invasive beetle first discovered in Michigan in 2002 after arriving in wooden packing material from Asia. It was first seen in New York State in 2009. The Emerald Ash Borer has become established in the Mid-Hudson Valley in recent years, and once a tree is infested with the insect it dies within 2-4 years (NYS Department of Environmental Conservation, 2019). The insect is well established among ash populations in Dutchess County, posing a serious threat to Poughkeepsie's ash tree population. [Map 5.5](#) is the result of a 2017 survey of the City's street ash tree population, undertaken to assess the current impact of EAB on City trees. The map is based on data from the Shade Tree Commission's 2006 street tree inventory. Ash tree locations were identified from the 2006 tree inventory and each location was ground-truthed in the field, and points removed or added as needed. A total of 387 trees were assessed in the field.

In the summer of 2017, over half of the 387 ash trees in the City were symptomatic for EAB infestation ([Figure 5.1](#)). Symptomatic trees were defined as those displaying any combination of crown dieback, epicormic branching (branching at the base of the trunk), blanding (absence of outer bark due to woodpecker activity), and/or vertical bark splitting. 35 individual ash trees could be definitively diagnosed with EAB infestation, indicated by the presence of distinct d-shaped exit holes and s-shaped galleries underneath the bark. About a third of the ash trees surveyed displayed no noticeable symptoms of EAB or stress, and were thus designated "asymptomatic". The City has since developed a website to disseminate information about EAB to residents (<http://cityofpoughkeepsie.com/shade-tree-commission/eab>). A detailed report and management proposal for ash trees was also provided to the City of Poughkeepsie ([Appendix B](#)).

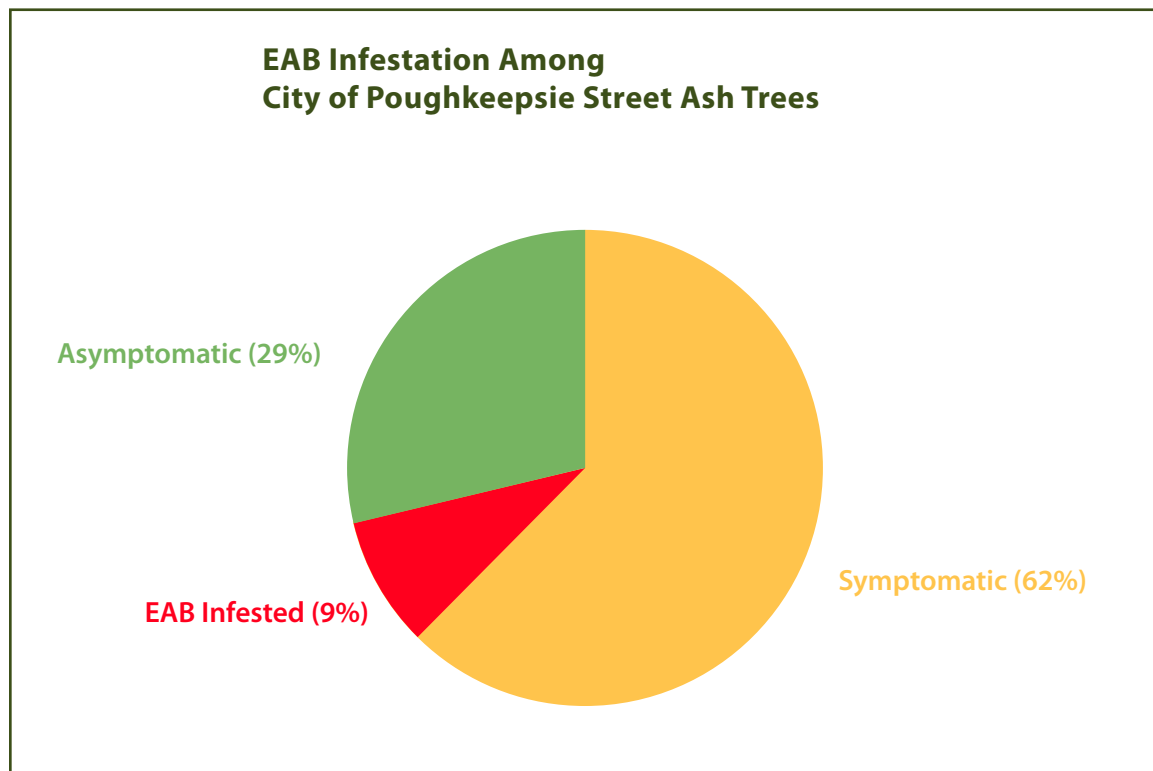


Figure 5.1 Percentage of ash trees along streets in the City of Poughkeepsie that were identified with signs of the Emerald Ash Borer, based on the 2017 survey.

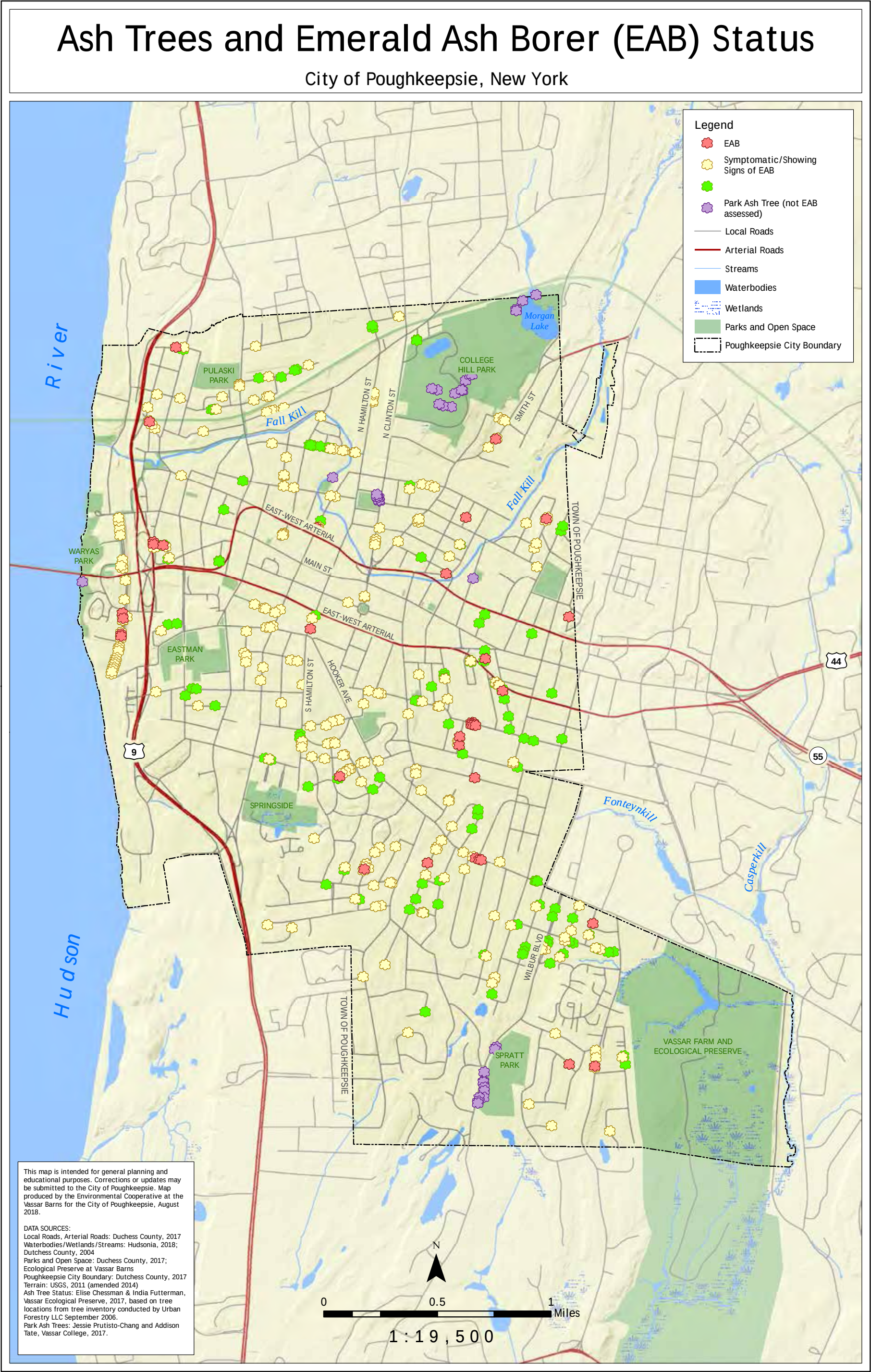
EAB will likely kill most, if not all of the City of Poughkeepsie's ash trees, both public and private, within the next few years. Because infested street trees were found at disparate locations throughout the city, rather than concentrated in one cluster or core of infestation, it will most likely be impossible to prevent EAB from spreading to non-infested ash trees across the city. The high numbers of symptomatic ash trees indicate that most of the City's ash are stressed if not already colonized by EAB, and are therefore more vulnerable to infestation. While it is generally considered too late to save most of Poughkeepsie's street ash trees, the following steps can be taken in response to EAB:

- Selected healthy, young (but mature), seed-bearing street trees may be treated with pesticides to ward off their infestation by EAB.
- EAB-infested street ash trees may be removed in a phased process: dead trees removed first, symptomatic trees closely monitored in successive years and removed accordingly, etc.
- Removed trees should be replaced as soon as possible with appropriate species, i.e., those that have comparable acid and pollutant tolerance, size, and canopy cover as ash trees.
- Private homeowners may assume responsibility for their own private ash trees, choosing to treat or remove depending on their financial and time resources.

Please see [Appendix B](#) for the full EAB Management Plan, including costs of pesticide treatments and removal, information on pesticides, and recommended replacement street trees.

The results of this survey indicate that EAB infestation is well underway in Poughkeepsie. Over half of Poughkeepsie's ash trees display clear symptoms of stress, while 9% are definitely infested. This percentage will only increase in the coming years, likely leading to the demise of the City's entire ash population. Ash trees are being carefully monitored and removed when necessary. Replacement trees should contribute to the urban forest diversity of Poughkeepsie in the event that another invasive pest should arrive and target another tree species.

Map 5.5 Ash Trees in Poughkeepsie that are impacted by the Emerald Ash Borer

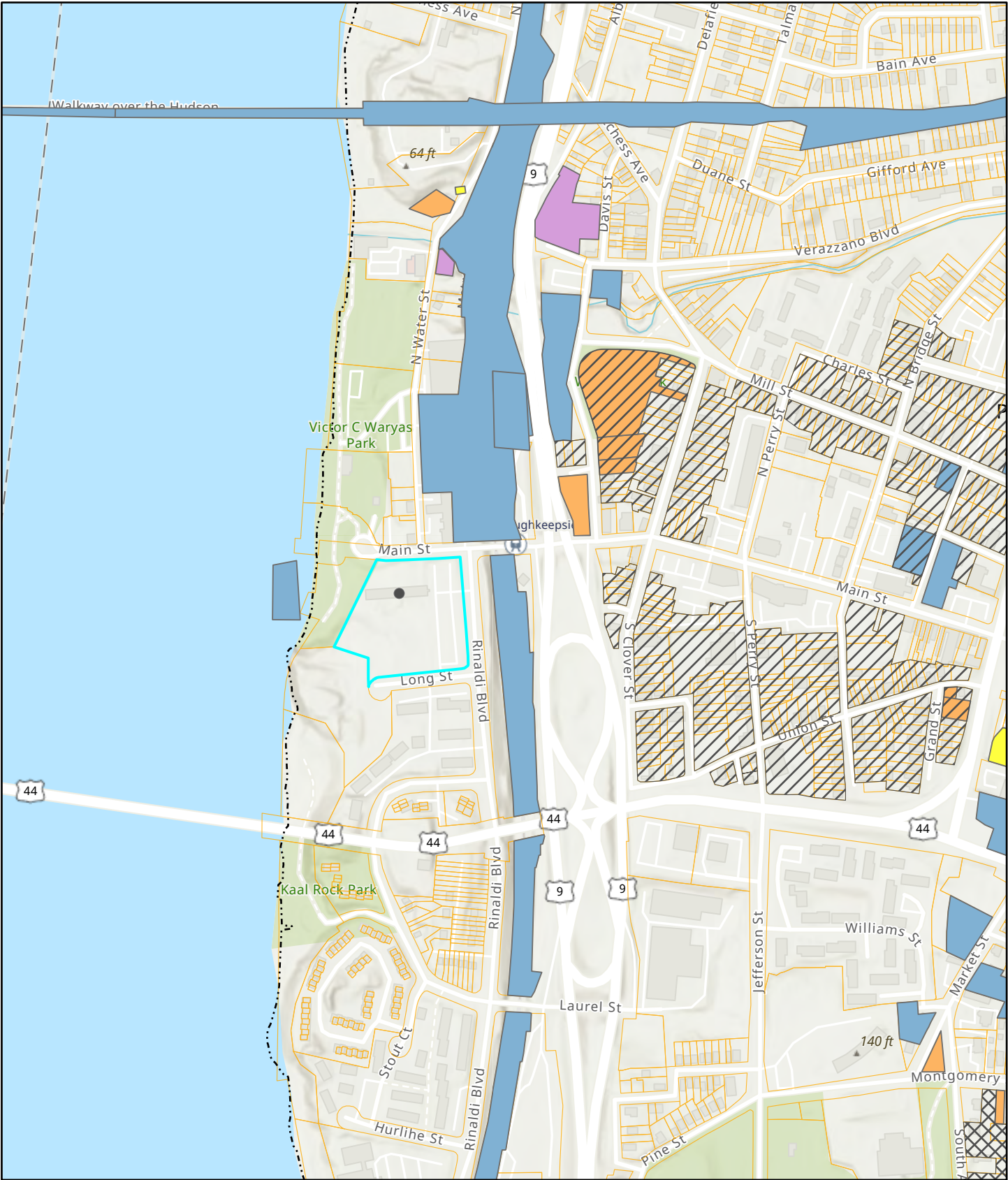


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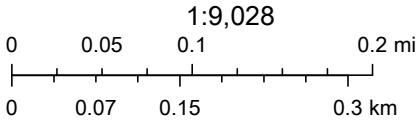
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Historic Sites and Districts



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|  Parcel Boundaries |  Local, State, and National |
| Historic Districts (2021) |  State |
|  Local, State and National |  State and National |
|  State and National |  City of Poughkeepsie Boundary |
| Historic Sites (2021) | |
|  Local | |



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**New York State
Parks, Recreation and
Historic Preservation**

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

March 24, 2023

Lindsay Garrard
NEPA Compliance Specialist
AEI Consultants
112 Water St
5th Floor
Boston, MA 02109

Re: HUD
Rip Van Winkle Apartments
10 Rinaldi Blvd, Poughkeepsie, NY 12601
22PR07951
457901

Dear Lindsay Garrard:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the submitted materials in accordance with Section 106 of the National Historic Preservation Act of 1966.

The apartment tower that is proposed for rehabilitation is not historic but is substantially visible from a number of historic buildings that are eligible or listing in the National Register. Because of this, we have reviewed the project.

The project is appropriate. Therefore, it is the opinion of SHPO that the project will have No Adverse Effect on historic resources.

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

Sincerely,

Sloane Bullough
Historic Sites Restoration Coordinator by email only

Chapter 7: Historical Resources

Harvey Flad, Addison Tate, and Jennifer Rubbo



The Dudley Memorial Shelter at historic College Hill Park.
Photo credit: Camelia Manring

Historic, cultural and recreational resources, like natural resources, are vital to the city's community and identity and are important to consider in land-use and development decision-making. Patterns of land use and development are often closely linked to the natural resources available to a community. For example the Hudson River and its tributaries have played an important role in the settlement and industrialization of the area. Open spaces in the City are also closely linked with Historic sites. Two of the largest green spaces in the city, Springside and College Hill Park are both designated historic landmarks. As the City moves forward with development and revitalization, it is important to understand why land use patterns exist, and how these patterns are impacting natural resources such as water resources and open spaces. Future development should take into account these past and potential future impacts.

The City of Poughkeepsie Historic Resources maps include a downtown map ([Map 7.1](#)), focused on the dense area of historic sites and districts in central Poughkeepsie, and a full city map that displays the widespread historic sites in the city ([Map 7.2](#)). Data for historic sites and districts was gathered from Dutchess County, New York State, and Historic District and Landmark Preservation Commissioner Holly Wahlberg. The map was presented to the Historic District and Landmark Preservation Commission for comment. Data was updated by Addison Tate at the Environmental Cooperative at the Vassar Barns with the consultation of Harvey Flad, Professor Emeritus of Geography at Vassar College. The following descriptions of historic locations identified in these maps were prepared by Harvey Flad, July 2018.

Historic Preservation and City of Poughkeepsie Natural Resource Inventory

By Harvey K. Flad, Professor Emeritus of Geography, Vassar College

The Introduction to the Dutchess County Natural Resource Inventory (2010) included a brief history of efforts over two centuries of compiling information about both natural and cultural resources for use in regional planning and local land use decision-making. Prior studies by members of the Dutchess County Historical Society and The Women's City and County Club of Dutchess County promoted concern for the preservation of the city's historic resources. In the *Dutchess County Guide*, published in the American Guide Series (1937), sites of particular historical, cultural and contemporary interest, including local industries, were mentioned. It remains a useful guide to places that remain resonant to the city's cultural identity. The volume was a product of President Franklin D. Roosevelt's Works Progress Administration.

Following the passage of the Historic Preservation Act of 1966 and the creation of the National Register of Historic Places, specific historic sites, buildings and landmarks in the county began to be listed and described. For example, in the late 1960s, the county began a cultural resources survey to update New York State's Hudson River Valley Commission report *Historic Sites and Buildings in the Hudson River Valley*. In the 1969 *Landmarks of Dutchess County, 1683-1867*, published in the Architecture Worth Saving in New York series by the New York State Council on the Arts, over 300 structures were researched and photographed as a tool to guide "growth and development" and "encourage preservation of this inheritance." Several sites in the City of Poughkeepsie were included in the *Landmarks* survey such as the pre-Revolutionary era Frear/Freer House; Springside; and a proposed historic district encompassing Victorian-era houses on Garfield, Academy, and South Hamilton streets. The Dutchess County Landmarks Association shortly thereafter surveyed structures in the area of Union Street that were impacted by the development of the E-W Arterial. In 1971, the Union Street Historic District, containing approximately eight blocks and 122 historic structures, was officially listed on the National Register, along with the Garfield Place Historic District of two-dozen properties. The Academy Street Historic District with over forty properties was listed five years later. Another four historic districts have been created that acknowledge the diversity of architecture and social history throughout the city.

Sites Included on the Historic Maps of the City of Poughkeepsie

Settlement

In 1664 the lands along the Hudson River, known as New Netherland and controlled by the Dutch, came under English rule. Subsequently, the Crown divided the land into patents. In 1686, Robert Sanders, an Englishman and Myndert Harmense of Dutch heritage, purchased the land where Poughkeepsie would be located from the Wappinger Indians. Poughkeepsie would be named after a local spring, variously spelled as U-puku-ipi-sing or Apokeepsing, meaning "the reed-covered lodge by the little water place." Early settlers included both Dutch and English families who built houses and a mill along the Fall Kill at Upper Landing in the early decades of the 18th C. Although much of the pre-Revolutionary footprint has been lost,

both the [Hoffman House](#) (1789) and [Reynolds Homestead](#) (1840) at Upper Landing remain as among the earliest existing structures in the city. In 2013 Upper Landing Park opened with extensive signage of the history of Poughkeepsie.

Early Settlers

Both the Dutch and English settlers built their own churches in the village's emerging downtown. The first English, or Anglican, church was located at the intersection of Church and Market Street, while a "glebe", or farm and rectory was purchased east on Filkintown Road (Main Street) for the rector Rev. John Beardsley. During the Revolution, Rev. Beardsley remained loyal to the King, and so was removed downriver to New York City, then under English command. [Glebe House](#) (1767) was sold by the church in 1792 and remained in private hands until 1929 when it was rescued from possible demolition by the Dutchess County Historical Society, the Junior League of Poughkeepsie, and the City of Poughkeepsie. As one of the earliest examples of efforts to preserve one of the city's historic resources, the city-owned property is currently enjoying a rebirth as a site to promote the city's 300-year history and managed by the Mid-Hudson Heritage Center. [Christ Episcopal Church](#) expanded as the village grew into a city after 1854 and eventually moved to the Old English Burying Ground on Academy Street and built an impressive "Early English" Gothic style church (1888). Two other Episcopal churches were also built during the 19th C. The Gothic Revival style [Church of the Holy Comforter](#) (1859-60) on Davies Place is a significant example of the work of the architect Richard Upjohn, while St. Paul's Church (1872) at Mansion Square repeated the Gothic Revival theme.

In the early 1700s the Van Kleeck family and other Dutch settlers built a Reformed Dutch Church in the center of downtown, but as its congregation grew, it rebuilt, and would eventually move from its property at the intersection of Market and Main Streets to the South Side. The [Reformed \(Dutch\) Church of Poughkeepsie](#) (1919-1923) now sits comfortably on Hooker Avenue next to Bartlett Park. The Art Deco architectural style [Church Building](#) (1920s) was built on its former site.

American Revolution (1775-1788)

Poughkeepsie had a significant role in the Revolution and its aftermath. During the early part of the war the British occupied New York City, so the Provincial capitol moved upriver to Kingston. However, after the British burned Kingston in 1777, Poughkeepsie became the temporary capitol. George Clinton, Governor of the State 1777-1783) lived in the [Clinton House](#) (1765, 1783) on Main Street, not far from the second courthouse at the intersection of Market and Main streets. However, as the war came to a close in 1785 the courthouse was destroyed by fire. A third courthouse was quickly constructed and in place for the New York State convention to ratify the Constitution. Clinton was an Anti-Federalist, but after debates with Federalists Alexander Hamilton and John Jay in the summer of 1788, agreed to a compromise that would become the amendments known as the Bill of Rights. Upon ratification, New York became the eleventh of the original thirteen colonies to form the United States of America. The third courthouse was burned in 1806, rebuilt in 1809, and replaced by the current [Dutchess County Courthouse](#) (1903-1904).

Churches

Religious institutions such as churches offer insight into the city's settlement and social history. The original locations of the Dutch and English churches on Market Street framed

political, economic and social power in the village core, while the Poughkeepsie Meeting House (1927) on Hooker Avenue follows the architectural features of the early Quakers. The oldest surviving church building in the city is a relatively small Greek revival style structure on the corner of Vassar and Mill Streets. Constructed in 1835 as a Presbyterian church, reorganized as a Congregational church two years later, and in 1869 as a Jewish synagogue; it became the Second Baptist Church later in the twentieth century. Organized in 1837, the Smith Metropolitan AME Zion Church (1910-11) indicates clusters of early African-American settlement on Main Street's lower slope and on the northern margins. In the mid-19th C immigration from Germany and Ireland filled out the tenements on the lower slope with Germans locating in the Second Ward and Irish in the First Ward; for example the German-American Nativity Church (1853) in the Union Street Historic District. By the late 19th C and early 20th C, Italian immigrants displace the Irish, holding Roman Catholic services in Italian in the original Our Lady of Mount Carmel Church (1910), then moving to the previously Irish church Old St. Peter's Church (Our Lady of Mount Carmel) whose first church and rectory were built in 1837. In the 20th C the Italian community would purchase the former Victorian style Reynolds mansion as the Italian Center. As the Irish households joined the professional workforce such as the police and fire departments, they moved upslope into the city center and established both St. Mary's and Holy Trinity Roman Catholic churches. Meanwhile, early 20th C immigration by German and East European Jews built synagogues in both the Second and First Wards, such as Congregation Schomre Hadath (1923-24) on South Bridge Street. They would move their synagogues along Hooker Avenue and neighboring streets as their emerging middle-class congregations moved to houses on the South Side and in the Town.

Waterfront

From the beginning of settlement the waterfront from the Fall Kill to Kaal Rock was busy. Farms in the hinterland supplied grain, beef and other agricultural products for shipment downriver by sloops in the 18th C and steamboats in the 19th C. The Clearwater Sloop dock at Waryas Park promotes the role of Poughkeepsie in the early shipping and fishing industries as well as the role of the Clearwater Sloop Restoration, Inc. as a non-profit environmental educational and advocacy organization. The organization's office occupied the Fite House (1810) during the 1970s and 80s. The ferry dock at Upper Landing and steamboat dock at the foot of Main Street offered river access while the railroad became the main transportation mode for passenger and freight traffic. In 1888 the Poughkeepsie Railroad Bridge across the Hudson River was constructed to transport freight between New England and Pennsylvania. After a fire in the 1970s it was abandoned, but has been restored as the Walkway Over the Hudson (2009), "the longest pedestrian bridge in the world." The Hudson River has also been a recreational resource, with the Apokeepsing Boat Club established in 1879 and the famous Intercollegiate Regatta begun in 1895.

Waterfront industries over the course of the 18th and 19th centuries included:

Matthew Vassar's Brewery (1891); the Poughkeepsie Glass Works (1880); a cigar factory; a tannery that used hemlock bark from the nearby Catskill Mountains; an iron foundry (1801); ship building and ships' stores such as cooperage, rope, and black-smithing; and soap and candle making, including the Poughkeepsie Whaling Co. (1832). On the southern waterfront Adriance-Platt Buckeye Mower and Reaper Works was a major manufacturer of agricultural machinery in the 1890s and early 20th C, along with the city's largest employer De Laval Separator Co., maker of pumps for the dairy industry. All of these factories were abandoned and removed from the waterfront by Urban Renewal projects in the mid-20th C to make room for Waryas Park in 1975.

Industrial Age Economic Growth

In 1854 the city received its charter. The Industrial Age gained speed with numerous industries along the waterfront and the Fall Kill and the arrival of the Railroad in 1850-51; the impressive Poughkeepsie Railroad Station was built in 1918, modeled after New York City's Grand Central Station (1903-1913). Adjacent to the station on Water Street is the former Reynolds Warehouse (1872). Mill ponds along the Fall Kill served as water power for grain and grist mills, saw mills, and the fulling and carding of wool for cloth and rugs, for example carpets at Pelton Mill (1803-1892), as well as pins and nails. The Pelton family built Pelton Mansion (ca. 1859) on a small rock outcrop overlooking the mill and the Fall Kill. Innis Dye Works (1825) manufactured dyes from dyewoods at the mouth of the Fall Kill; it ceased operation in 1913 and reopened as Schmidt Piano Hammer Factory until 1934. The main building next to the waterfall on the Fall Kill has been renovated into apartments and a smaller structure on the waterfront is now occupied by the Children's Museum (2007). Also located nearby was the Arnold Chair Factory (1870s-80s). Further east along the Fall Kill were cotton mills and clothing factories, such as the Poughkeepsie Underwear Factory (1874; renovated 2017 as apartments, artist studios and a coffee brewer), and the J.O.Whitehouse Boot & Shoe Factory (1879) on Main and Cherry.

19th C Residential Expansion

As the population increased after the Civil War, residential housing included areas of high density tenements, rooming houses and workmen's dwelling on the lower slope, such as Union Street Historic District, and on the city's northern edges along the Fall Kill of one- and two-story homes, as well as mansions up into the Mill Street-North Clover Street Historic District, Upper Mill Street Historic District, and Balding Avenue Historic District. South of Main Street's retail establishments and apartments, single-family homes on large lots for the city's elite emerged, including the Victorian-era properties of Academy Street Historic District, Garfield Place Historic District, and South Hamilton Street Row, and later development of lots in the Dwight Street-Hooker Avenue Historic District, including many individually listed historic homes such as the Brinkerhoff (1860) house designed in the shape of a steamboat. Other individually listed houses are listed outside historic districts, such as Barrett House (ca. 1835) home of the artist Tom Barrett in the 1920s and 30s and now of the Barrett Art Center. Matthew Vassar established his summer estate Springside (1850-52) south along Academy Street, east of the Poughkeepsie Rural Cemetery (1852). Horticulturist Andrew Jackson Downing and architect Calvert Vaux designed the estate's landscape and buildings, such as the Springside Porter's Lodge. Many other historic residential properties from the 17th – 19th centuries are scattered south and east throughout the formerly agricultural lands.

City Downtown: Market Street

For 300 years, the financial, political, commercial, retail and cultural life of the city centered on the area of Market Street and Main Street. The location of the first courthouse established the village center and city with the Old City Hall (1831). Hotels were established near the courthouse, such as the Nelson House (1876), famous as the campaign headquarters for President Franklin Delano Roosevelt in the 1930s was demolished in 1965 to make way for the Dutchess County Office Building during urban renewal. Banks also clustered along the Market Street corridor, such as the Farmers & Manufactures Trust (1834-1835), Poughkeepsie Trust Company (1906-1907) and Poughkeepsie Savings Bank (1911-1912) with its stained glass panel of Henry Hudson's *Half Moon* above the vault. Lawyers chose offices close-by in

Market Street Row and the Church Building and often met others of the elite at the Amrita Club (1912). Civic and cultural institutions similarly located along Market Street, including the Bardavon (Collingwood Opera House, 1869), State Armory (1891) and Adriance Memorial Library (1898), south to Soldiers Fountain and Park (1870) and the Old YMCA (1909) at Eastman Park and Eastman Terrace (1872-1873).

City Downtown: Main Street

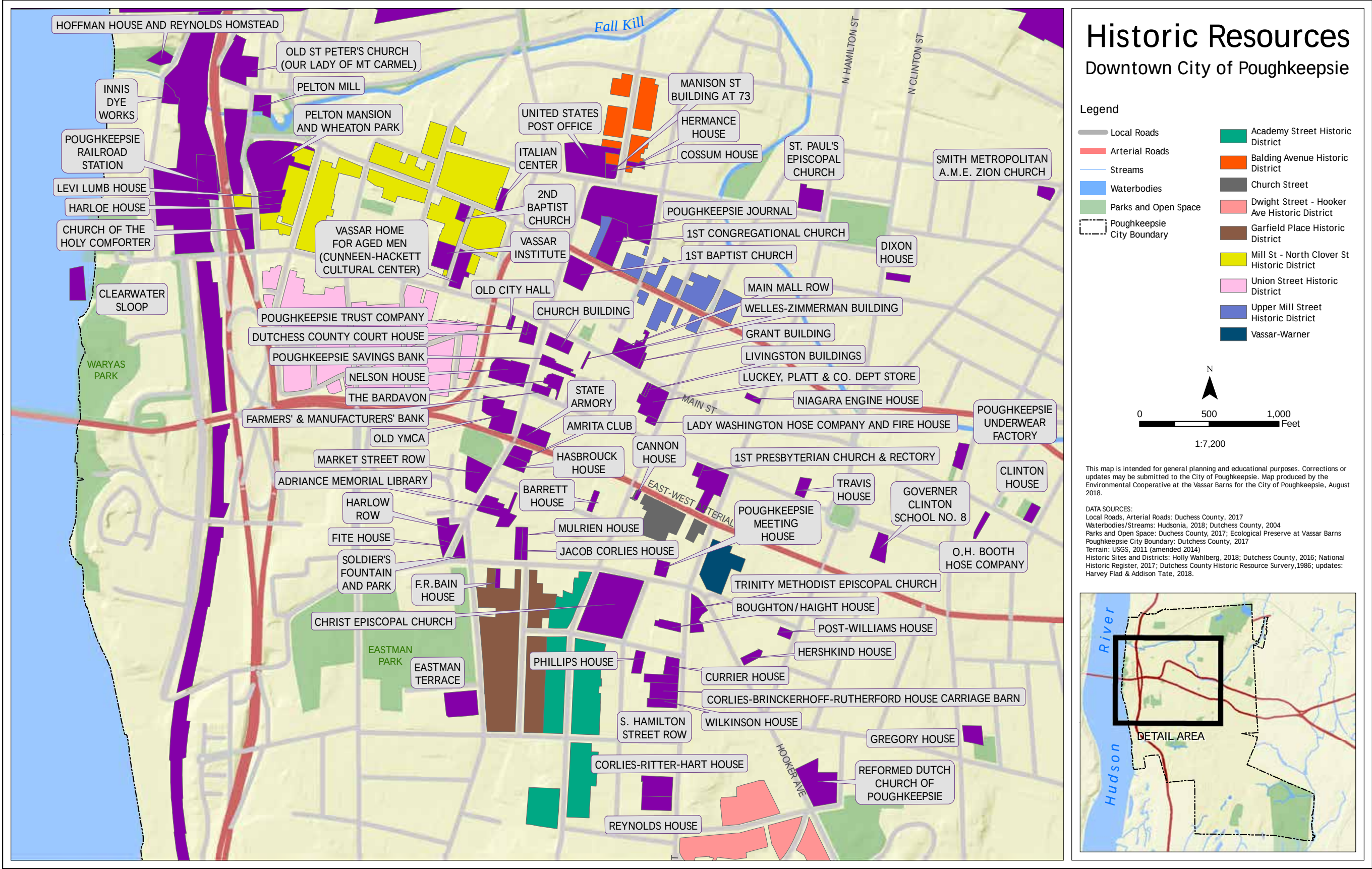
Main Street has been the commercial and retail hub for three centuries. Fires and remodeling of storefronts have altered many 19th C facades, but the streetscape retains its historic character. Main Mall Row is named after the pedestrian mall developed during urban renewal in the 1970s and 80s, and re-opened as Main Street in 2001. Individual buildings that offer a window into the city's retail history on the historic register include: the Grant Building, Welles-Zimmerman Building and Livingston Buildings. The Luckey, Platt & Co. Dept. Store (1901) advertised itself as the mid-Hudson Valley's department store with signs stretching eastward to the Connecticut border. Lady Washington Hose Company and Fire House, Niagara Fire House and O. H. Booth Hose Company are three of Poughkeepsie's early firehouses (1908-1909) located in the Main Street corridor.

Cultural and Civic History

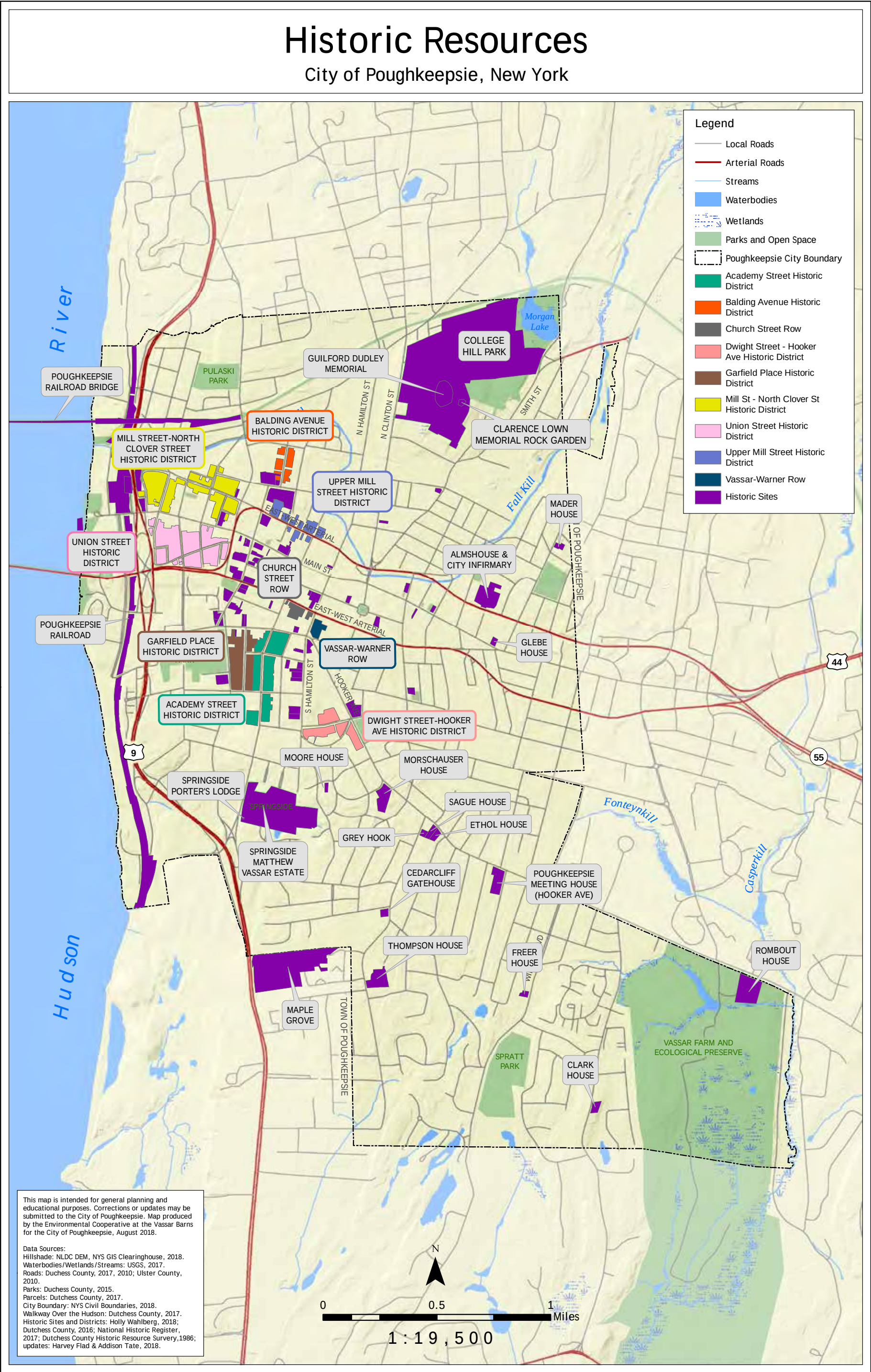
Historic sites offer insight into a city's civic duties and pride. Poughkeepsie was often called "the city of schools" after the number of collegiate schools located throughout in the 19th C. The Guilford Dudley Memorial (1931) on the crest of College Hill includes a 1937 "Parthenon" as a historical monument to the Collegiate Hill School and Riverview Military Academy that occupied the site during the late 19th C. William W. Smith purchased the site and offered it to the city as College Hill Park; the park includes a golf course and the historic Clarence Lown Memorial Rock Garden (1931). Ragged Lane was renamed Academy Street after a collegiate school; public schools included the 19th C Governor Clinton School No. 8, a number of elementary schools and the former Poughkeepsie High School (1911-14) on South Hamilton Street that became Our Lady of Lourdes parochial high school in the 1950s and subsequently the Family Partnership Center when Lourdes moved to the Town. In 1861 Vassar Female College opened its historic landmark Main Building at the east end of College Avenue. Matthew Vassar's nephews built the Vassar Home for Aged Men (Cunneen Hackett Cultural Center), including the Vassar Institute, on the site of Matthew Vassar's former city home, in 1880. Also, the Alms House & City Infirmary (1869) was located north and east of Main Street and the downtown; it now houses Maplewood senior apartments.

The Franklin Delano Roosevelt Mid-Hudson Bridge opened in 1930. As a federal project during the Depression, President Roosevelt had the United States Post Office (1937) built at the north end of Market Street. Its design resembles that of the third Dutchess County Courthouse where, in 1788, New York State legislators ratified the Constitution. Murals by local artist Olin Dows depicting the event, as well as the mythic spring of Poughkeepsie's name, adorn the second-floor balcony. The Old Dutch-inspired architecture of the Poughkeepsie Journal (1941-1943) building continues the historic theme of Poughkeepsie's origins. Other twentieth century historic, cultural and civic buildings have yet to be added to the official list of resources. Cultural venues such as The Chance, Mid-Hudson Heritage Center and the Trolley Barn inhabit 19th C buildings that reflect the city's growth into the 21st C.

Map 7.1 Historic Resources in the downtown area of the City of Poughkeepsie



Map 7.2 Historic sites and districts throughout the entire City of Poughkeepsie



Additional Resources for the Historical Map include:

National Register of Historic Places, National Park Service, U.S. Department of Interior

Bennett, James, *Poughkeepsie's Amazing Extraordinary History: A Year-by-Year Outline* (Poughkeepsie, NY: Riverflow Publications, 2017)

Flad, Harvey and Clyde Griffen, *Main Street to Mainframes: Landscape and Social Change in Poughkeepsie* (Albany, NY: The State University of New York, 2009)

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Rhoads, William, "Poughkeepsie's Architectural Styles, 1835-1940," *New Perspectives on Poughkeepsie's Past*, ed. Clyde Griffen (Poughkeepsie, NY: Dutchess County Historical Society Yearbook vol 72, 1987), pp. 18-35.

Wahlberg, Holly, Local National Historic Places List, 2018.

Public Historians: William P. Tatum III, County Historian; George Lucas, City Historian; Bill Jeffway, Dutchess County Historical Society executive director

Recreational Resources



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Parcel Boundaries

City of Poughkeepsie Boundary

Recreational Features

Boat Launch

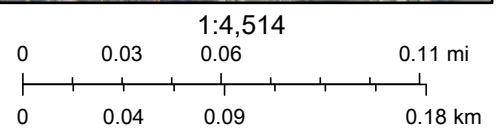
Flower Garden

Playground

Skate Park

Trails

Parks and Open Spaces



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Chapter 6. Recreational Resources

Addison Tate, Jennifer Rubbo



Spratt Park,
Photo credit: Lauren White

Publicly-accessible recreational resources provide the opportunity for people to engage with the outdoors and have positive place-based experiences. Access to natural space is especially critical in the age of nature deficit disorder, where lack of time spent in nature has been shown to lead to a range of behavioral problems in children (Louv, 2008). Recreational areas also are essential to a healthy lifestyle by providing access to open spaces for outdoor sport and recreation. Furthermore, areas such as parks and sports facilities also act as dynamic community spaces, where education and community-building occur, and neighborhood identities are cultivated.

A variety of important recreational resources exist within and nearby the City of Poughkeepsie. Located in the Mid-Hudson region, many large recreational areas, including the Catskills, Shawangunks, Taconic Mountains, and Hudson Highlands, are within an hour's drive from the City, through farmland, forested hills, and a broad urban-rural gradient. Features such as the Hudson River, Dutchess County Rail Trail, Vassar Farm and Ecological Preserve, and Fall Kill Creek connect Poughkeepsie to the surrounding areas. Within the City, Poughkeepsie's many public parks provide green space, gardens, playgrounds, picnicking, and athletic fields and courts ([Map 6.1](#), [Table 6.1](#)). The 24 public parks and green spaces in the City total nearly 500 acres, with about 250 acres located on the Vassar Farm and Ecological Preserve. The City of Poughkeepsie owns 18 of the recreational areas identified here and the recreation office, overseen by the City's Department of Public Works (DPW), oversees maintenance of these

parks. Nubian Directions II, a local workforce skills development organization, assists the City DPW by maintaining many of the park's flower gardens, pots, and raised beds through a cooperative agreement. The remaining open spaces are privately owned or are part of the New York State Park system.

The City of Poughkeepsie Recreational Resources map displays parks and green spaces in the City and the recreational features that may be found there. Park, trail, and golf course data was procured from Dutchess County. Park data was updated and recreational resources mapped by Addison Tate (Environmental Cooperative at the Vassar Barns) with consultation from Natalie Quinn (City of Poughkeepsie) and Paul Hesse (Dutchess County Planning).

Table 6.1. Parks and recreation areas in the City of Poughkeepsie.

Name	Ownership	Amenities
Bartlett Park	City Park	Playground
Clinton House State Historic Site	NYS State Park	Historic building, flower garden
College Hill Park	City Park	Basketball court, playground, flower garden, hiking trails, historic site, golf course
Dongan Place	City Park	Basketball court, Fall Kill view
Earline Patrice Park	City Park	Flower garden, memorial
Eastman Park	City Park	Stitzel Field (baseball diamond)
Forbus Park	NY Champion Tree Project	Open space, historic relevance
Fall Kill Community Garden	Family Partnership Center	Community Garden, Fall Kill view
Hulme Park	City Park	Basketball court
Jardin de las Rosas	Hudson River Housing	Garden
Kaal Rock Park	City Park	River views, picnicking
King Street Park	City Park	Basketball court, baseball diamond, tennis court
Lincoln Park	City Park	Soccer field
Malcolm X Park	Poughkeepsie City School District	Basketball court, tennis court (not functional), Fall Kill views
Morgan Lake Park	City Park	Fishing, rail trail access point
Mural Square	City-owned lot	Event space
Murphy Park	Hudson River Housing	Gardens, play equipment

North Perry Street	City Park	Picnicking
Pershing Ave Park	City Park	Basketball court
Pulaski Park	City Park	Swimming pool, playground
Reservoir Square Park	City Park	Gardens, memorial
Soldiers Memorial	City Park	Gardens, a memorial fountain
Spratt Park	City Park	Pool, baseball diamonds, tennis court, dog park, golf course
Springside National Historic Landmark	Springside Landscape Restoration	Historic site, interpretive walking trails
Skate Park	City Park	Skateboarding facility, river views
Upper Landing Park	NYS State Park	River views, Elevator to Walkway Over the Hudson, picnicking
Vassar Farm and Ecological Preserve	Vassar College	Hiking trails, community garden, flower garden
Victor C. Waryas Park	City Park	Boat Launch, fishing, playground, picnicking, river views
Walkway Loop Trail	NYS State Park	Interpretive walking trail
Walkway Over the Hudson	NYS State Park	Interpretive walking trail
William R. Steinhaus Dutchess Rail Trail	County Park	Walking trail

The Hudson River has driven centuries of development in Poughkeepsie and continues to provide important recreational opportunity, natural habitat, and economic activity. Poughkeepsie's western waterfront along the Hudson consists of a number of parks. Upper Landing Park, opened by the Dyson Foundation in 2013, sits at the outflow of the Fall Kill into the Hudson River and provides access to the Walkway Over the Hudson State Historic Park's glass elevator. A walking bridge over the Fall Kill Creek leads from Upper Landing Park to the Mid-Hudson Children's Museum and waterfront pavilion, which hosts a fishing pier and the weekly Poughkeepsie Waterfront Farmers Market. Waryas Park Promenade skirts the shoreline to the south, passing the Poughkeepsie Skate Park. Victor C. Waryas Park sits at the foot of Main Street and includes a playground, green space, picnic tables, grills, a pavilion, a boat launch, and a dock. Further south, Kaal Rock is a high ledge and wooded area that sits to the north of Kaal Rock Park, a quieter park for picnicking along the waterfront. Kaal Rock Promenade leads south to Shadows Marina and Promenade.

The average size of parks in Poughkeepsie is about 14 acres, however, most parks in the City are less than ten acres. There are several larger parks and open spaces that serve important roles for recreation and access to nature in the City, specifically College Hill Park, Springside, and the Vassar Farm and Ecological Preserve. These have also been identified as significant habitat areas in the City and support not only human health and well-being but also a

diversity of wildlife and plant communities (for more information about the habitat value of these spaces see Hudsonia's *Significant Habitats of the City of Poughkeepsie* Report, [Appendix A](#)). The Dutchess Rail Trail, Walkway Over the Hudson, and the Walkway Loop Trail are also important recreational assets that provide a connection to nature to those pursuing healthy lifestyle habits through walking, running and biking.

College Hill Park is the largest park in the City of Poughkeepsie, totaling around 100 acres including the College Hill Golf Course. Designated a local historic landmark in 2017, the park includes two local historic sites, the Guilford Dudley Memorial Shelter, and the Clarence Lown Memorial Rock Garden (Wahlberg, 2013). The Guilford Dudley Memorial is at the top the hill. Built in 1934, it sits at the highest point in the City of Poughkeepsie and marks the location of the Collegiate School, which occupied the space until 1865. This structure was added to the National Register of Historic Places in 1982 (Wahlberg, 2016). The Lown Memorial Rock Garden was added to the Local Register of Historic Places in 2014 (Wahlberg, 2013) and was partially restored in 2015. Restored areas are currently being managed as a pollinator garden and plans are underway to restore the remaining portion of the garden with native rock garden plants. College Hill Park is an important community resource as it also hosts a ballfield, basketball court, playground, and the privately-owned College Hill Golf Course. The park abuts Morgan Lake Park and the Dutchess County Rail Trail. College Hill Park is maintained by the City of Poughkeepsie and the Revive College Hill Park Coalition.

Springside is a designated National Historic Landmark and large green space that is owned and maintained by [Springside Landscape Restoration](#) (Springside Landscape Restoration, 2015). The property is the site of the country estate of Matthew Vassar, Poughkeepsie brewer, philanthropist and founder of Vassar College, and is the only landscape of Andrew Jackson Downing, famous landscape architect, to remain largely intact. The only remaining original structure on site is the Porter's Lodge/Gatehouse. The site is currently a part of the Hudson River Valley Greenway Trail and hosts a network of interpretive trails that are open to the public year round.

The [Vassar Farm and Ecological Preserve](#) (Vassar College, 2018) lies across the southern border of Poughkeepsie, with 243 of its 522 acres within city limits, and the remainder extending into the Town of Poughkeepsie. The land is privately owned by Vassar College, however, there are hiking trails open to the public from dawn to dusk daily. The area was farmed to provide food for Vassar College until 1957 and was converted into an ecological preserve in 1967. It features a network of hiking and biking trails, rugby fields, and a variety of ecological habitats. The Poughkeepsie Farm Project is located at the entrance to the Preserve and hosts a working farm with educational programs, community gardens, and community supported agriculture. Research and education opportunities occur on the Preserve through Vassar College, the Environmental Cooperative at the Vassar Barns, and the Student Conservation Association.

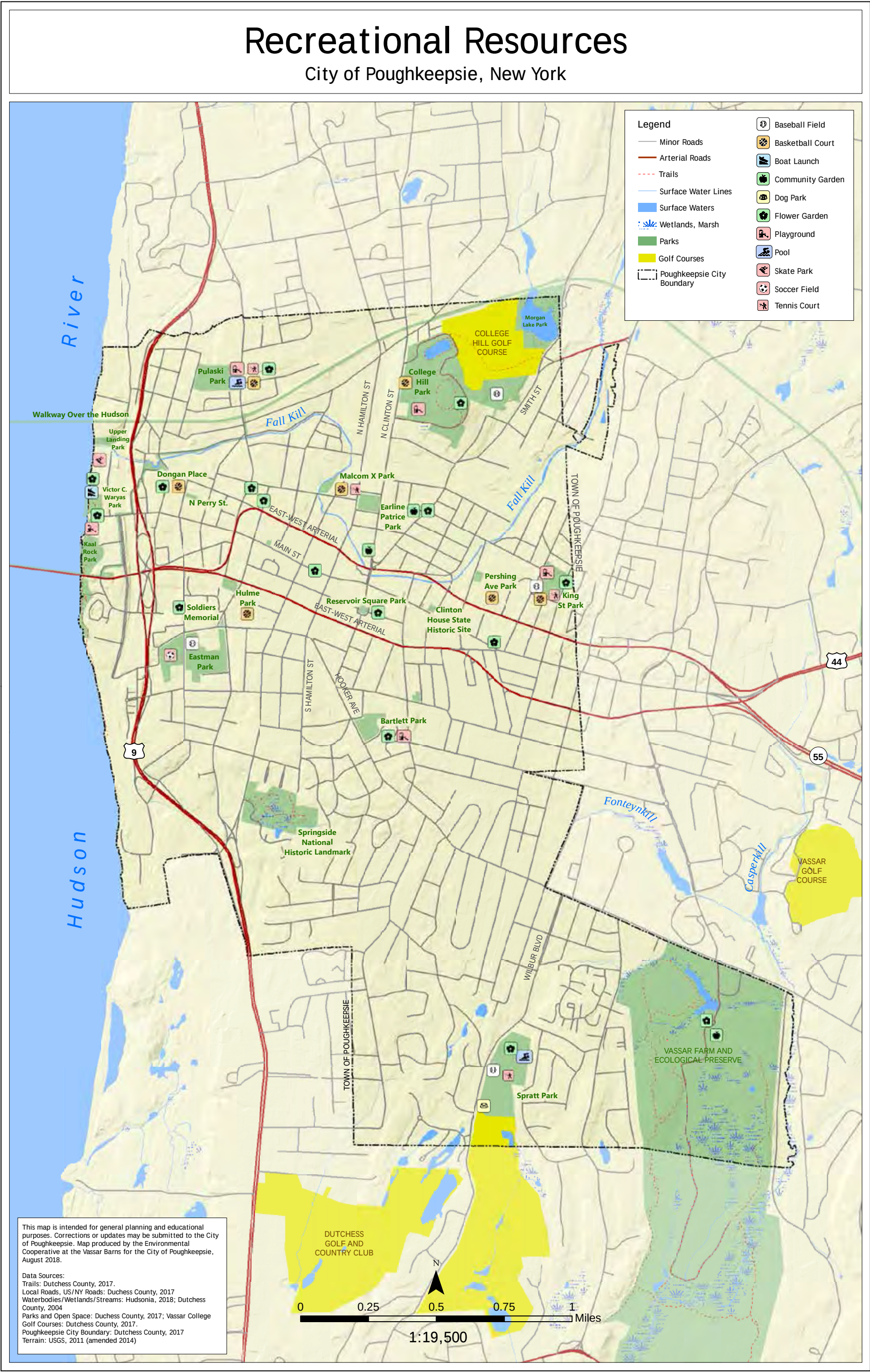
The [William R. Steinhaus Dutchess Rail Trail](#) (Dutchess County Government, 2018) and [Walkway Over the Hudson State Historic Park](#) (New York State, 2018) connect Poughkeepsie to broader Dutchess County and neighboring Ulster County. Since opening its first section in 2008, the Rail Trail has been converted from the Maybrook Rail corridor into a 13.4-mile paved trail that runs from Hopewell Junction to Poughkeepsie (Dutchess County Department of Planning and Development, 2014). It connects directly to the Walkway Over the Hudson, a paved scenic walkway that spans the Hudson River to reach Highland on the converted

Poughkeepsie-Highland Railroad Bridge. The Walkway is part of the Walkway Loop Trail, and also part of the Empire State, a 3.6-mile loop that includes the FDR Mid-Hudson Bridge and connects to trails in Dutchess and Ulster Counties.

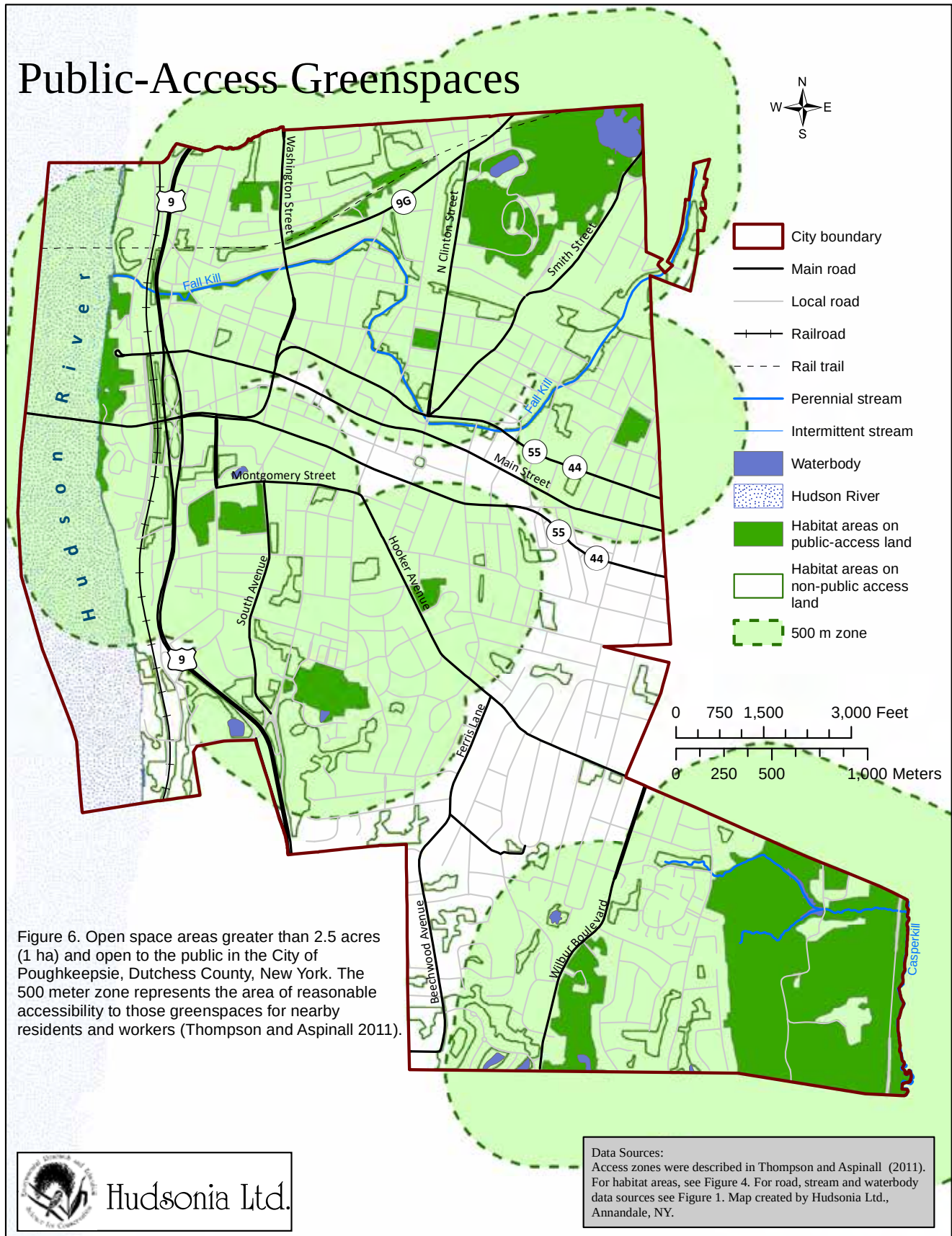
Community gardens and farmers' markets in Poughkeepsie provide residents with opportunities to grow their own food and connect with farmers in the surrounding areas. Dutchess Outreach coordinates the Fall Kill Partnership Garden at the Family Partnership Center. Garden plots are also available at the Vassar Farm and Ecological Preserve. The Waterfront Farmers Market at the Mid-Hudson Children's Museum offers farm-fresh food Monday afternoons during the summer.

While parks are abundant in the City of Poughkeepsie, access to these spaces should be taken into consideration. [Map 6.2](#) shows open space areas in the City of Poughkeepsie greater than 2.5 acres with a 500m (.31 miles) radius, representing a ten-minute walk, around each open space (Heffernan & Stevens, 2018). While much of the Northside of Poughkeepsie has access to public parks and open spaces, there are gaps near Main Street and on the Southside. Additionally, high traffic roads and park conditions need to be considered when discussing accessibility. In 2018, the City of Poughkeepsie began comprehensive parks improvement planning to address infrastructure in the City park system (City of Poughkeepsie, 2018).

Map 6.1 Recreational Resources in the City of Poughkeepsie



Map 6.2 Access to public green spaces from Hudsonia's Significant Habitats of Poughkeepsie Report.



References

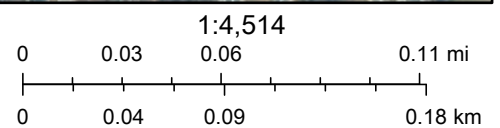
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Pollinator Pathways



7/14/2023, 1:08:39 PM

- Existing Gardens
- Poughkeepsie Greenspace
- Potential Pathway
- Poughkeepsie Boundary
- Dutchess County Parks



New York State, Maxar



The Environmental Cooperative at the Vassar Barns

Site Menu

[APPLY](#)

[VISIT](#)

[GIVE](#)

VassarTogether

Students

Families

Alums

Employees

ABOUT

ACADEMICS

ADMISSION

CAMPUS LIFE

ATHLETICS

ARTS

SUSTAINABILITY

NEWS

Our Healthy Habitats Initiative focuses on how individuals can create an environment in their backyard and neighborhood that supports nature and balances our needs with those of other living things. We work to support local efforts that increase the beauty of our surroundings and bring more people outdoors, creating healthier lifestyles, while also sustaining a habitat in which plants and animals can thrive.

Natural Resources Inventory

The City of Poughkeepsie Natural Resources Inventory (NRI) provides baseline information on natural resources including parks, tributaries to the Hudson, the Poughkeepsie waterfront and city trees.

[Natural Resources Inventory \(NRI\) for Poughkeepsie \(PDF\).](#)

PDFs of individual sections:

- [NRI 0 Executive Summary \(PDF\).](#)
- [NRI 1 Introduction \(PDF\).](#)
- [NRI 2 Geology and Soils \(PDF\).](#)
- [NRI 3 Water Resources \(PDF\).](#)
- [NRI 4 Botanical Communities and Habitats \(PDF\).](#)
- [NRI 5 Land Use \(PDF\).](#)
- [NRI 6 Recreational Resources \(PDF\).](#)
- [NRI 7 Historical Resources \(PDF\).](#)
- [NRI 8 Climate Change \(PDF\).](#)

- [NRI Apdx A Significant Habitats](#) (PDF).
- [NRI Apdx B Ash Tree Assessment](#) (PDF).
- [NRI Apdx C College Hill Park Invasive Species Survey](#) (PDF).
- [NRI Apdx D Poughkeepsie Scenic Resource Inventory](#) (PDF). [5 MB]
- [NRI Apdx E Map Metadata](#) (PDF).
- [NRI Apdx F Species of Conservation Concern](#) (PDF).
- [NRI Apdx G Poughkeepsie Zoning Map](#) (PDF).
- [NRI Apdx H Climate Smart Resilience Planning](#) (PDF).
- [NRI Apdx I Fall Kill Intermunicipal Agreement](#) (PDF).

This project was funded in part by a grant from the New York State Environmental Protection Fund through the Hudson River Estuary Program of the New York State Department of Environmental Conservation.

[Mapping Emerald Ash Borer in the City of Poughkeepsie](#)

[Emerald Ash Borer Information](#)



Assessing Urban Ash Trees, Summer 2017

Bee Campus



Vassar College Campus is a certified Bee Campus, committed to creating pollinator-friendly habitats. We have created resources about local native plants to help educate the Vassar community and Poughkeepsie residents about beneficial plants for the area.

- [Local Native Plant List](#) (PDF).

- [Local Native Plant Suppliers](#) (PDF).
- [IPM Plan](#) (PDF).

Pollinator Pathways

The Town of Poughkeepsie is working towards becoming a [Pollinator Pathway](#). Poughkeepsie is working to establish pollinator-friendly habitats and food sources for bees, butterflies, hummingbirds, and other pollinating insects and wildlife along a series of continuous corridors.

You can learn about creating pollinator habitats by checking out the Environmental Cooperative's [Pollinator Pathway padlet](#) (Password: PollinatorPathway2021) and by reading more about the Town of Poughkeepsie's [Pollinator Pathway](#) project.

Tree Campus USA

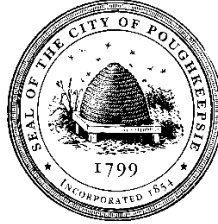
Vassar College, home to 230 tree species, has been a certified Tree Campus since 2012. As a Tree Campus, Vassar is dedicated to managing all campus trees, integrating the campus with the surrounding city to promote urban forests, and engaging students in campus and community forestry work.

More information about Tree Campus USA can be found [here](#).



What is it? Solidago, commonly called Golden Rod, flowers on the preserve in the late fall.
Photo: Ellie Opdahl

Home
Programs and Activities
Exploring Science
Healthy Habitats
Healthy Waters
Volunteers
Resources
Affiliates
The Barn



**City of Poughkeepsie
Waterfront Advisory Committee
Local Waterfront Revitalization
Program¹
Waterfront Consistency Review**

RE: 10 Rinaldi Boulevard

A Waterfront Consistency Review completed for this project at the 08/22/2023 WAC meeting, to review the consistency of the application against the Section III policies of the Local Waterfront Revitalization Plan (LWRP).

General comments discussed at the meeting are as follows:

- The applicant submitted a comprehensive package which included a Natural Resources Inventory Conservation Analysis and renderings from several viewpoints which supported WAC's consistency review
- The project is generally aligned with the policies of the LWRP, with comments relevant to specific policies included in italics below.

¹ November 22, 2022 LWRP available on the City of Poughkeepsie LWRP webpage at: <https://www.cityofpoughkeepsie.com/392/Project-Documents>

SECTION III LOCAL WATERFRONT REVITALIZATION PROGRAM POLICIES

DEVELOPMENT POLICIES
Policy 1: Restore, revitalize, and redevelop deteriorated and underutilized waterfront areas for commercial, industrial, cultural, recreational, and other compatible uses.
Policy 2: Facilitate the siting of water dependent uses and facilities on or adjacent to coastal waters.
Policy 3: Not applicable to the City of Poughkeepsie.
Policy 4: Strengthen the economic base of smaller harbor areas by encouraging the development and enhancement of those traditional uses and activities which have provided such areas with their unique maritime identity.
Policy 5: Encourage the location of development in areas where public services and facilities essential to such development are adequate. <i>Consistent</i>
Policy 6: Expedite permit procedures in order to facilitate the siting of development activities at suitable locations.
FISH AND WILDLIFE POLICIES
Policy 7: Significant coastal fish and wildlife habitats will be protected, preserved, and where practical, restored so as to maintain their viability as habitats.
Policy 8: Protect fish and wildlife resources in the coastal area from the introduction of hazardous wastes and other pollutants which bio-accumulate in the food chain or which cause significant sublethal or lethal effect on those resources.
Policy 9: Expand recreational use of fish and wildlife resources in coastal areas by increasing access to existing resources, supplementing existing stocks, and developing new resources.
Policy 10: Further develop commercial finfish, shellfish, and crustacean resources in the coastal area by encouraging the construction of new, or improvement of existing on-shore commercial fishing facilities, increasing marketing of the State's seafood products, maintaining adequate stocks, and expanding aquaculture facilities.
FLOODING AND EROSION POLICIES
Policy 11: Buildings and other structures will be sited in the coastal area so as to minimize damage to property and the endangering of human lives caused by flooding and erosion.
Policy 12: Activities or development in the coastal area will be undertaken so as to minimize damage to natural resources and property from flooding and erosion by protecting natural protective features including beaches, dunes, barrier islands and bluffs.
Policy 13: The construction or reconstruction of erosion protection structures shall be undertaken only if they have a reasonable probability of controlling erosion for at least thirty years as demonstrated in design and construction standards and/or assured maintenance or replacement programs.
Policy 14: Activities and development, including the construction or reconstruction of erosion protection structures, shall be undertaken so that there will be no measurable increase in erosion or flooding at the site of such activities or development, or at other locations.
Policy 15: Mining, excavation or dredging in coastal waters shall not significantly interfere with the natural coastal processes which supply beach materials to land adjacent to such waters and shall be undertaken in a manner which will not cause an increase in erosion of such land.
Policy 16: Public funds shall only be used for erosion protective structures where necessary to protect human life, and new development which requires a location within or adjacent to an erosion hazard area to be able to function, or existing development; and only where the public benefits outweigh the long term monetary and other costs including the potential for

increasing erosion and adverse effects on natural protective features.
Policy 17 Non-structural measures to minimize damage to natural resources and property from flooding and erosion shall be used whenever possible.
GENERAL POLICY
Policy 18: To safeguard the vital economic, social and environmental interests of the State and of its citizens, proposed major actions in the coastal area must give full consideration to those interests, and to the safeguards which the State has established to protect valuable coastal resource areas.
PUBLIC ACCESS POLICIES
Policy 19: Protect, maintain, and increase the level and types of access to public water related recreation resources and facilities.
Policy 20: Access to the publicly-owned foreshore and to lands immediately adjacent to the foreshore or the water's edge that are publicly-owned shall be provided and it shall be provided in a manner compatible with adjoining uses.
RECREATION POLICIES
Policy 21: Water dependent and water enhanced recreation will be encouraged and facilitated, and will be given priority over non-water-related uses along the coast.
Policy 22: Development when located adjacent to the shore will provide for water-related recreation whenever such use is compatible with reasonably anticipated demand for such activities, and is compatible with the primary purpose of the development. <i>Consistent. Although this project is not directly a water dependent use, it supports water enhanced uses by providing additional recreation opportunities for residents onsite. Additional details re: the programming of the community room space and operating hours, and general availability to residents, as well as the provision of additional opportunities for proximate outdoor recreation (including benches, sitting areas, barbecues, among others) could be expanded upon. Additionally, the potential opportunity to expand access and/or views of the riverfront on the west side of the new building via terracing and/or new retaining walls or similar was discussed.</i>
HISTORIC AND SCENIC RESOURCES POLICIES
Policy 23: Protect, enhance and restore structures, districts, areas or sites that are of significance in the history, architecture, archaeology or culture of the State, its communities, or the Nation.
Policy 24: Prevent impairment of scenic resources of statewide significance.
Policy 25: Protect, restore or enhance natural and man-made resources which are not identified as being of statewide significance, but which contribute to the overall scenic quality of the coastal area. <i>Consistent. The proposed building's design including the crossed/juxtaposed sloped roofs was viewed favorably and enhances its aesthetics over a flat roof such as that of the existing building onsite.</i>
AGRICULTURAL LANDS POLICY
Policy 26: Conserve and protect agricultural lands in the State's coastal area.
ENERGY AND ICE MANAGEMENT POLICIES
Policy 27: Decisions on the siting and construction of major energy facilities in the coastal area will be based on public energy needs, compatibility of such facilities with the environment, and the facility's need for a shorefront location.
Policy 28: Ice management practices shall not interfere with the production of hydroelectric power, damage significant fish and wildlife and their habitats, or increase shoreline erosion or flooding.

Policy 29: The development of offshore uses and resources, including renewable energy resources, shall accommodate New York’s long-standing ocean and Great Lakes industries, such as commercial and recreational fishing and maritime commerce, and the ecological functions of habitats important to New York.

WATER AND AIR RESOURCES POLICIES

Policy 30: Municipal, industrial, and commercial discharge of pollutants, including but not limited to, toxic and hazardous substances, into coastal waters will conform to State and National water quality standards.

Policy 31: State coastal area policies and management objectives of approved Local Waterfront Revitalization Programs will be considered while reviewing coastal water classifications and while modifying water quality standards; however, those waters already overburdened with contaminants will be recognized as being a development constraint.

Policy 32: Not applicable to the City of Poughkeepsie.

Policy 33: Best management practices will be used to ensure the control of stormwater runoff and combined sewer overflows draining into coastal waters.

Consistent – The inclusion of onsite stormwater management practices including the rain garden/green infrastructure area was viewed favorably; planting plan revisions to include plant native to NY (including the yew and juniper) were suggested.

Policy 34: Discharge of waste materials into coastal waters from vessels subject to State jurisdiction will be limited so as to protect significant fish and wildlife habitats, recreational areas and water supply areas.

Policy 35: Dredging and filling in coastal waters and disposal of dredged material will be undertaken in a manner that meets existing State dredging permit requirements, and protects significant fish and wildlife habitats, scenic resources, natural protective features, important agricultural lands, and wetlands.

Policy 36: Activities related to the shipment and storage of petroleum and other hazardous materials will be conducted in a manner that will prevent or at least minimize spills into coastal waters; all practicable efforts will be undertaken to expedite the cleanup of such discharges; and restitution for damages will be required when these spills occur.

Policy 37: Best management practices will be utilized to minimize the non-point discharge of excess nutrients, organics and eroded soils into coastal waters.

Policy 38: The quality and quantity of surface water and groundwater supplies, will be conserved and protected, particularly where such waters constitute the primary or sole source of water supply.

Policy 39: The transport, storage, treatment and disposal of solid wastes, particularly hazardous wastes, within coastal areas will be conducted in such a manner so as to protect groundwater and surface water supplies, significant fish and wildlife habitats, recreation areas, important agricultural land, and scenic resources.

Policy 40: Effluent discharged from major steam electric generating and industrial facilities into coastal waters will not be unduly injurious to fish and wildlife and shall conform to state water quality standards.

Policy 41: Land use or development in the coastal area will not cause national or State air quality standards to be violated.

Policy 42: Coastal management policies will be considered if the State reclassifies land areas pursuant to the prevention of significant deterioration regulations of the Federal Clean Air Act.

Policy 43: Land use or development in the coastal area must not cause the generation of significant amounts of acid rain precursors: nitrates and sulfates.

WETLANDS POLICY

Policy 44: Preserve and protect tidal and freshwater wetlands and preserve the benefits derived from these areas

September 18, 2023

City of Poughkeepsie Planning Board
Attn: Anne Saylor, Chairperson
63 Civic Center Plaza
Poughkeepsie, NY 12601

cc: Joe Donat, Richard Distel, Lori Garcia

RE: 2023-042: 10 Rinaldi

MASS DESIGN GROUP

1 Chandler Street Suite 101
Boston, MA 02116

289 Main Street Suite 101
Poughkeepsie, NY 12601

hello@massdesigngroup.org
+1 857 233 5788
+1 845 473 4003

massdesigngroup.org

Dear City of Poughkeepsie Planning Board,

MASS has received an updated design package for the Rip Van Winkle building on 9/15. This package reflects some updates to a preliminary submission that was reviewed as an initial architecture workshop on July 27, 2023. Attending this workshop were Bob Kurzon (Architecture), Nick Daniels (Civil Engineering), Lori Garcia and myself. The discussion was a preliminary workshop in nature, and the applicant team gave an introduction to the project, its intent and constraints to which MASS elevated some clarifying questions and ideas for further consideration. Appreciated with this package are two new renderings that should supplement the planning board's understanding of the project.

We understand that there are many goals to this project, specifically the replacement of some bathrooms, painting updates, lighting changes, modernization of public areas, establishment of accessible dwelling units, as well as to update the aesthetics of the exterior of the building such that it may feel a bit less brutalist. We applaud this project's efforts to upgrade an existing structure at our important waterfront. As Rip Van Winkle housing is a freestanding, large-scale relic of the Poughkeepsie Urban Renewal Agency era, we hope that the public will take an active interest in its proposed future.

In general, the newest renderings show an encouraging volumetric approach to where the color differentiations will be located and the vertical stripes help to ameliorate the scale of the large housing block. Beyond these cosmetic upgrades, a community room is proposed to be an addition to the housing.

Community Room

Materiality

1. Cementitious Exterior

It was clarified that the intent of the community room is to be sheathed in Medium Gray Cementitious Hardie Planks, in a ship lapped horizontally oriented fashion, with a Standing Seam Metal Roof (color and material not yet specified). While we understand that the architect

was looking for contrast with the original building, we discussed how Hardie Panels instead of planks may help the community room have a more similar, smooth texture to be in dialogue with the larger building, and not read as an extraneous component.

2. Physical Samples

It is the general advice that the applicant should prepare a photographic presentation of the materials at minimum, but preferably acquire physical samples for the planning board to review.

3. Operable Windows were discussed to be Inswing Awnings with dark frames, and similarly that the Aluminum & Glass doors would have dark frames. The applicant should clarify those notes in the application.

Orientation/Layout

1. In the August Planning Board meeting, the board asked the architect to consider rotating the plan of the community room such that the High windows would face Rinaldi.
2. In the architectural workshop, MASS asked the design team to consider the layout of the windows to be more similar in proportion and function to the Rip Van Winkle ones (ie. operables on the two ends).
3. The planning board asked if the Management has convened a meeting with the tenants, and if there was any general tenant opinion that might guide the development of the community room? The planning board might ask that the architect consider this request with respect to the preferred direction for light to cast into the space, and to calibrate the reflectivity of the glass so as not to create unintentional glare onto the streetscape.

MASS DESIGN GROUP

1 Chandler Street Suite 101
Boston, MA 02116

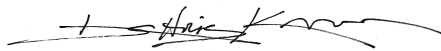
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We would love the chance to revisit the massing and materials as the design is updated. Given the scale and location, we look forward to seeing this important anchor project for the transit oriented waterfront zone of Poughkeepsie evolve through public participation.

Sincerely,
Chris Kroner



Principal
ckroner@mass-group.org



THE CITY OF POUGHKEEPSIE

DEPARTMENT OF PUBLIC WORKS & ENGINEERING

SITE PLAN REVIEW

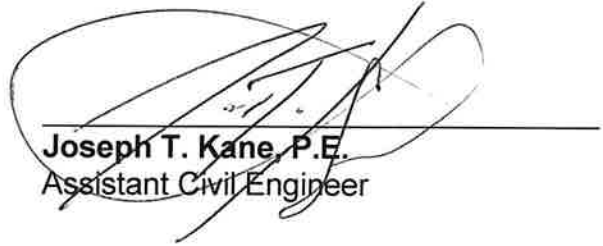
Form #1

1. Date: September 14, 2023
2. Name of Site Plan: Rip Van Winkle Apartments – Community Building
3. Address or Location: 10 Rinaldi Boulevard
4. Owner: Rip Van Winkle House LLC
5. Engineer/ Architect: Nicholas Daniels, P.E. (Hershberg &Hershberg)
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:

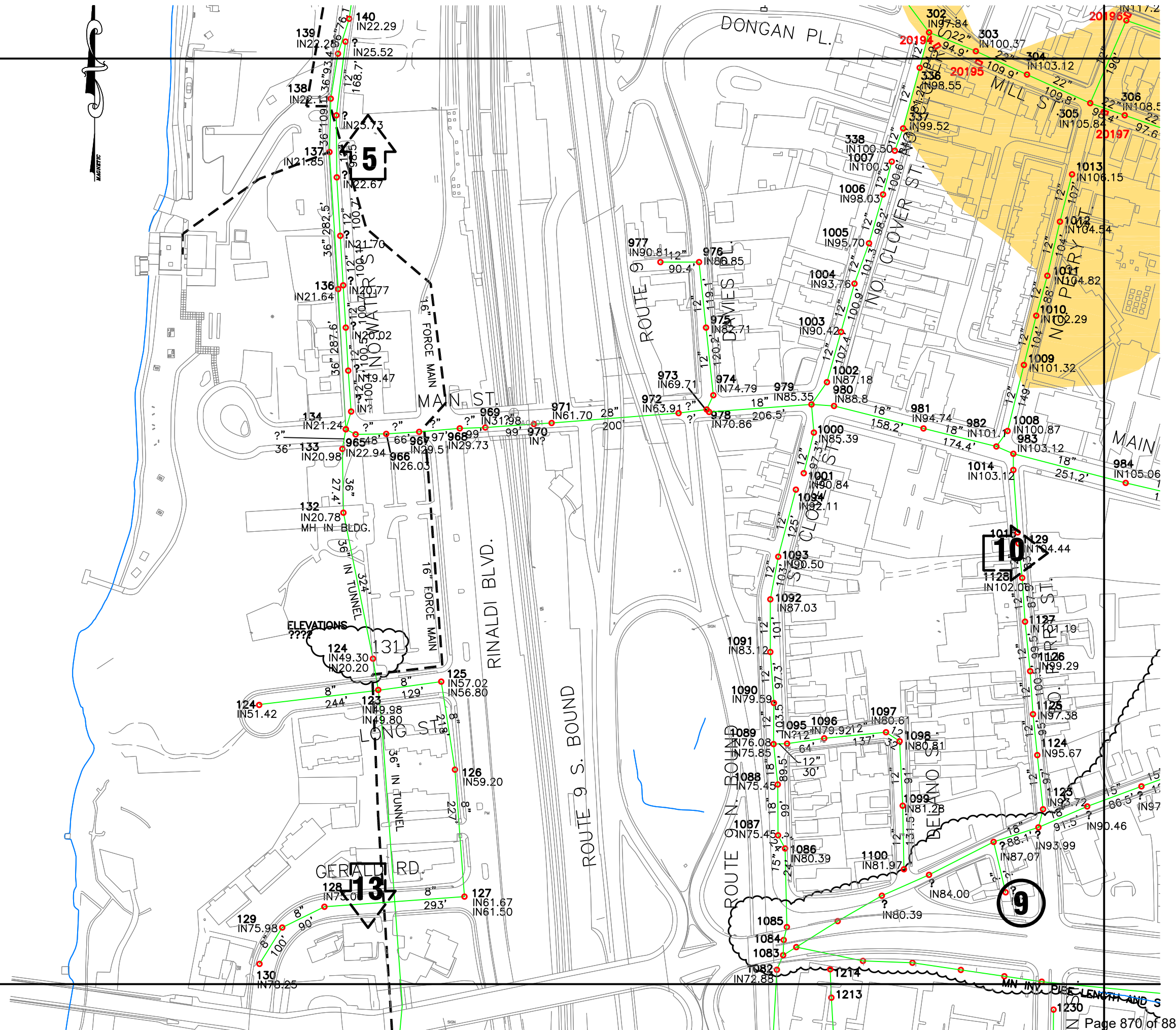
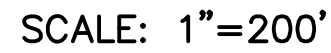
ENGINEERING SITE PLAN REVIEW COMMENTS:

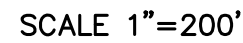
1. Show on Site Plan Sheet C1-6 all City owned utilities (sanitary sewer, storm sewer and water) in Rinaldi Boulevard and Main Street.
2. Show on Site Plan Sheet C1-6 all privately owned utilities and service connections from building to main. Some utilities that are shown appear to be incomplete. Show all discharge and termination points. Identify all "Unknown Manhole (typ.)" that are shown on the plan.
3. Show on Site Plan Sheet C1-6 all boundary and line work information for 10-foot-wide sanitary sewer easement along and under east side of existing building. Include labels and line work as 36" Sanitary Sewer. See provided record drawing for "Intercepting Sewer" for further clarification. Show all associated manholes per record drawings on property.
4. Provide utility report and certify all existing service connections; storm, sanitary, and water (domestic and fire) are sufficient for increase in use by the project.
5. Coordinate with City Fire regarding adequacy of fire flow. Owner/ applicant to demonstrate what is being requested is achieved.
6. No lead water services permissible. Owner/ applicant to replace lead service from tap to meter. No partial replacement repairs allowed.
7. Post development runoff not to exceed predevelopment runoff. Provide drainage report to support and validate proposed stormwater management practices. Include maintenance schedule and cut sheets for all proposed and implemented stormwater management practices.
8. Are any new utility connections proposed within City R.O.W.? Show new connection from building to main as delineated, hatched and edges shown as saw cut. Include City standard details for all work within City R.O.W. as necessary.
9. Show on Site Plan Sheet C3 all proposed utility connections to service proposed Community Building. Show location of water meters and backflow prevention devices. Include detail of all utility connections for clarity.

10. Site Plan Sheet C3 indicates "New ADA Compliant Ramp". Relocate this structure outside of Sanitary Sewer Easement limits.
11. Provide and show on Site Plan location of erosion and sediment control practices to be utilized during construction activities, i.e., inlet protection, silt fence, stabilized construction entrance, stockpile locations. Where will construction material stockpiles be located?
12. Will there be any food prep in proposed Community Building? Provide grease trap, size, and maintenance schedule as necessary.
13. Provide an itemized Engineer's estimate for site work.

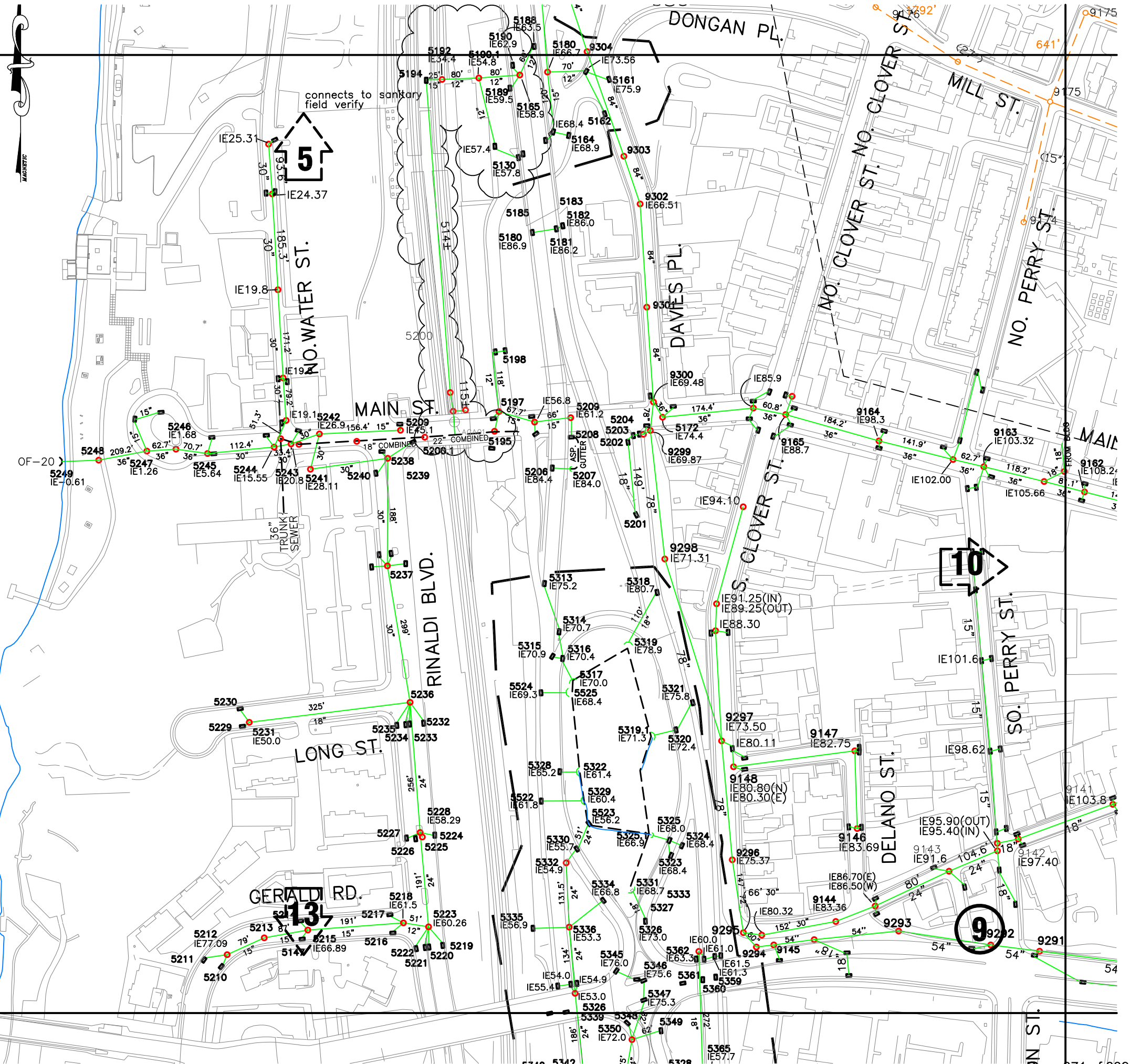


Joseph T. Kane, P.E.
Assistant Civil Engineer





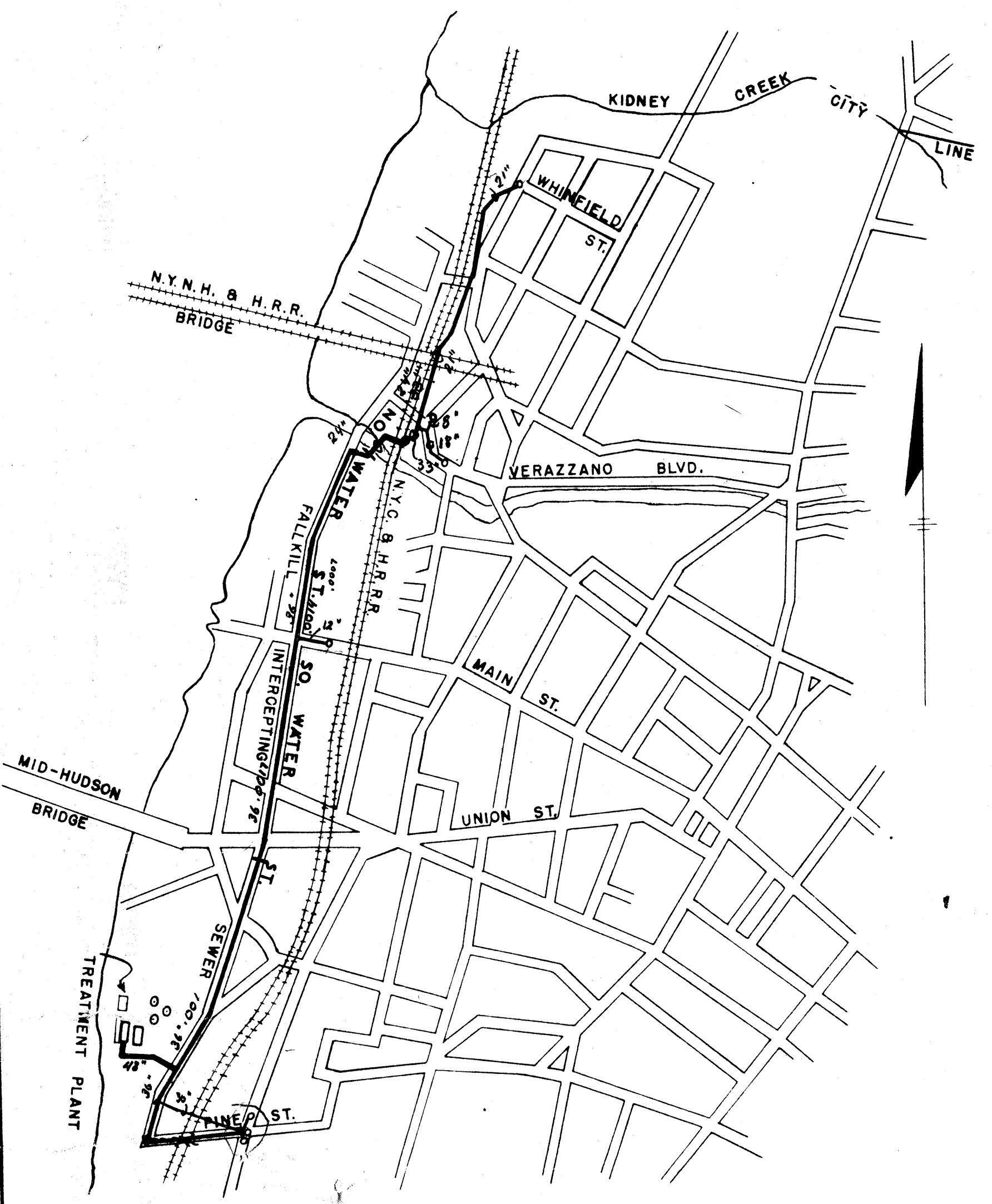
JDSON RIVER



CITY OF POUGHKEEPSIE
DUTCHESS COUNTY, NEW YORK
CONSTRUCTION DRAWINGS
INTERCEPTING SEWERS

AS BUILT

SHEETS 1 TO 13 INCLUSIVE



INDEX

Sheet no.	Title
1	PINE STREET & FALLKILL INTERCEPTING SEWER STA.0+00.5 TO STA.3+02 STA.0+00 TO STA.0+97.5
2	PINE STREET INTERCEPTING SEWER STA.0+97.5 TO STA.6+26.3
3	FALLKILL INTERCEPTING SEWER STA.4+72± TO STA.17+64±
4	FALLKILL INTERCEPTING SEWER STA.17+64 TO STA.30+74.4
5	FALLKILL INTERCEPTING SEWER STA.30+74.4 TO STA.42+21.6
6	FALLKILL INTERCEPTING SEWER STA.42+21.6 TO STA.49+91.2
6A	FALLKILL INTERCEPTING SEWER STA.42+21.6 TO STA.45+97 (DETAIL SHEET)
7	KIDNEY CREEK TRUNK SEWER STA.48+98.8 TO STA.64+56.5
8	FALLKILL INTERCEPTING SEWER STRUCTURES
9	FALLKILL INTERCEPTING SEWER STRUCTURES
10	PINE STREET & FALLKILL INTERCEPTING SEWER STRUCTURES, CRADLES & EMBEDMENTS
11	FALLKILL INTERCEPTING SEWER TUNNEL SHAFT MANHOLE DETAILS
12	PINE STREET & FALLKILL INTERCEPTING SEWER SPECIAL DETAILS
13	PINE STREET INTERCEPTING SEWER SPECIAL STRUCTURE DETAILS

APPROVED BY
CITY OF POUGHKEEPSIE

John J. Desmond
JOHN J. DESMOND, CITY MANAGER

THE DEPARTMENT OF PUBLIC WORKS

NOVEMBER 2, 1959
DATE

Harold R. Dean
HAROLD R. DEAN, SUPERINTENDENT

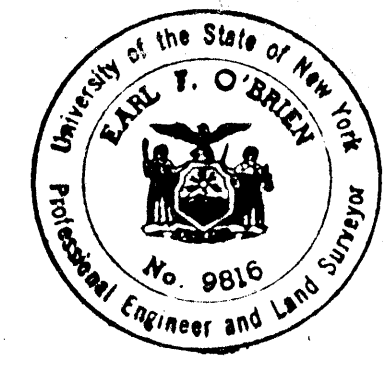
DEPARTMENT OF FINANCE

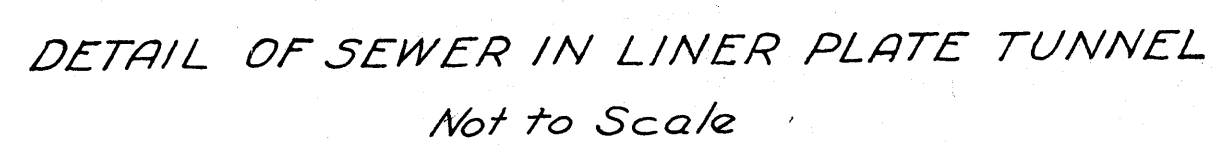
Aubrey B. Goons
AUBREY B. GOONS, COMMISSIONER

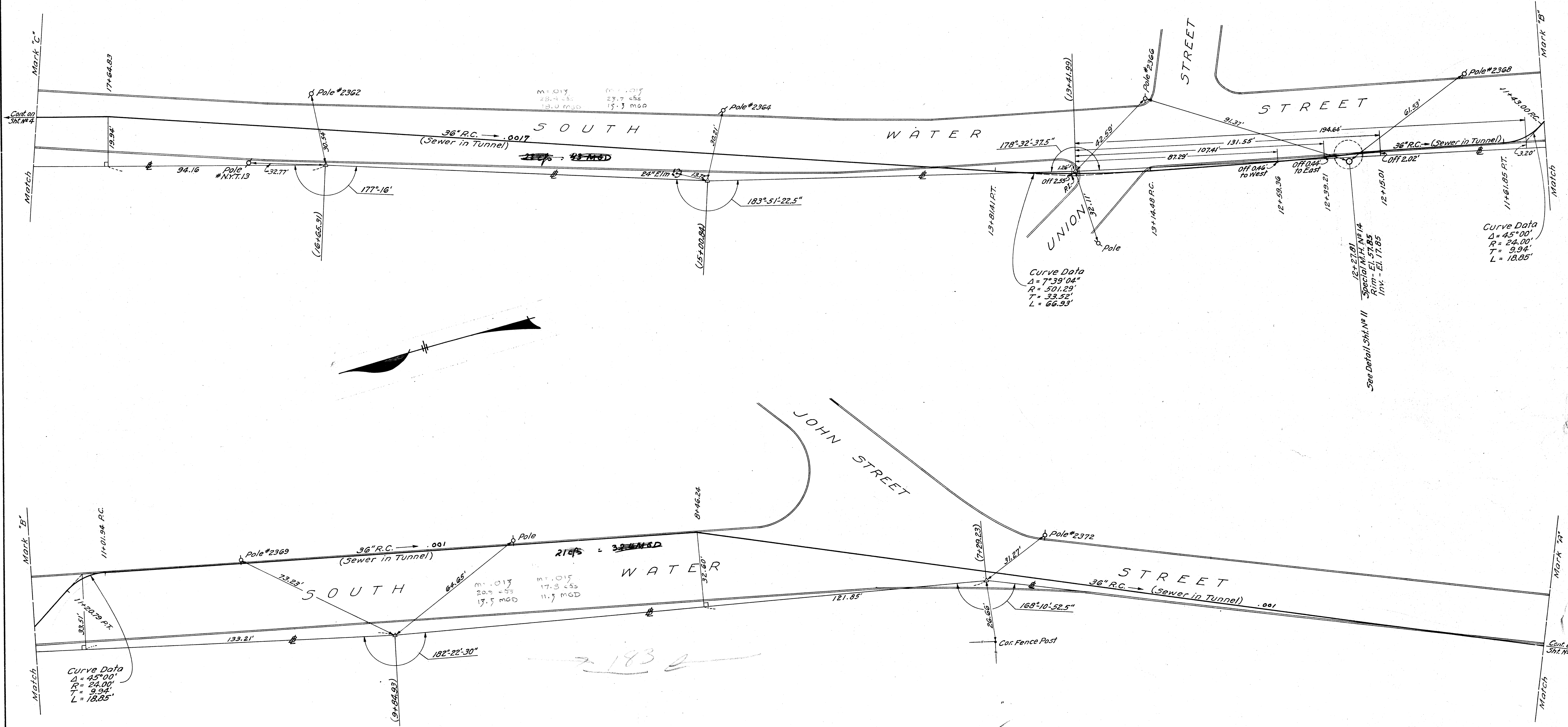
O'BRIEN & GERE

CONSULTING ENGINEERS; SYRACUSE, N.Y.

Earl F. O'Brien
N.Y.S. PROFESSIONAL ENGINEERS LICENSE NO. 9816

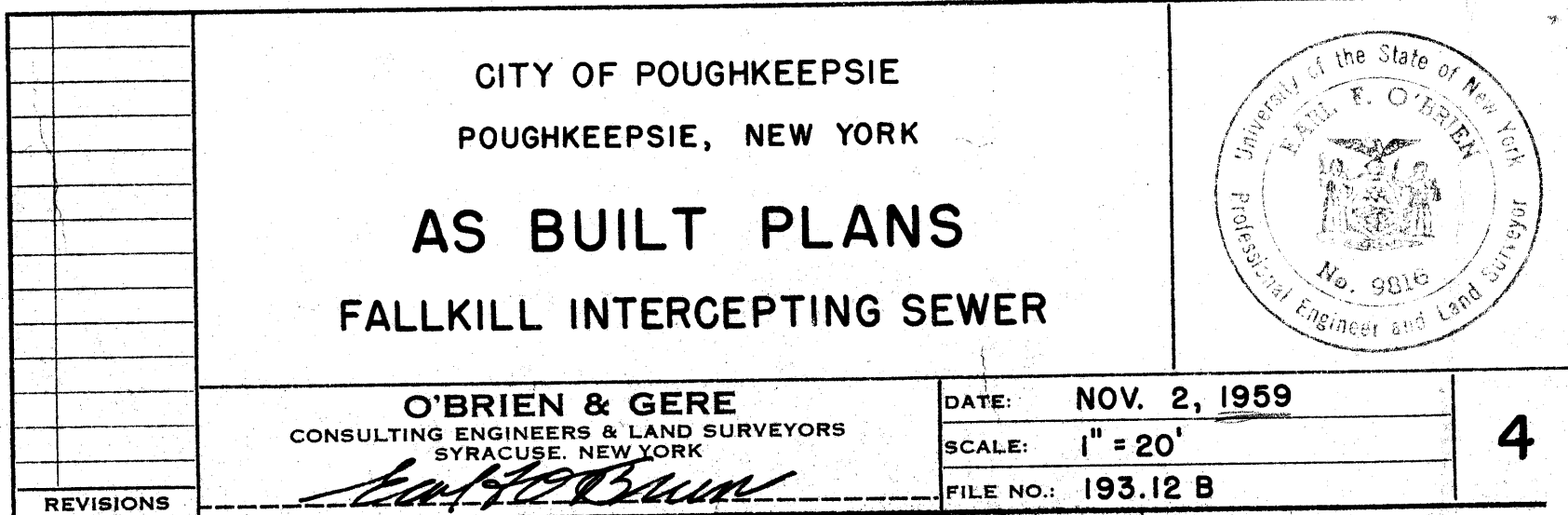


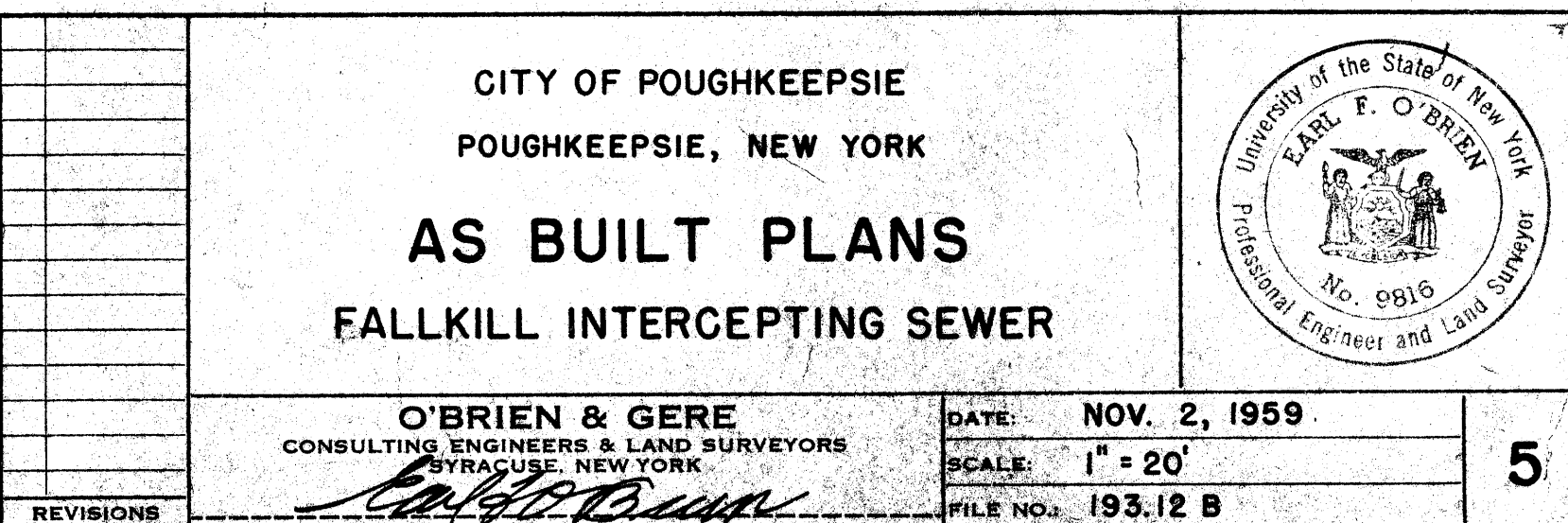
Page 874 of 889

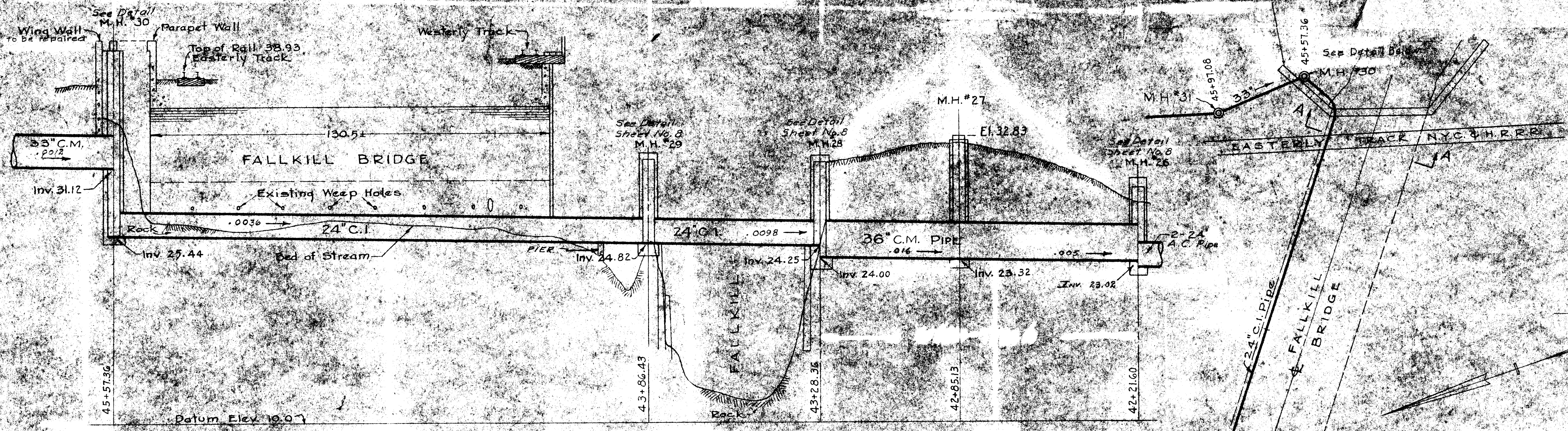


AS BUILT
IN CHARGE OF: S.W.W.
DESIGNED BY:
MADE BY: MONELL
CHECKED BY: N.A.W.

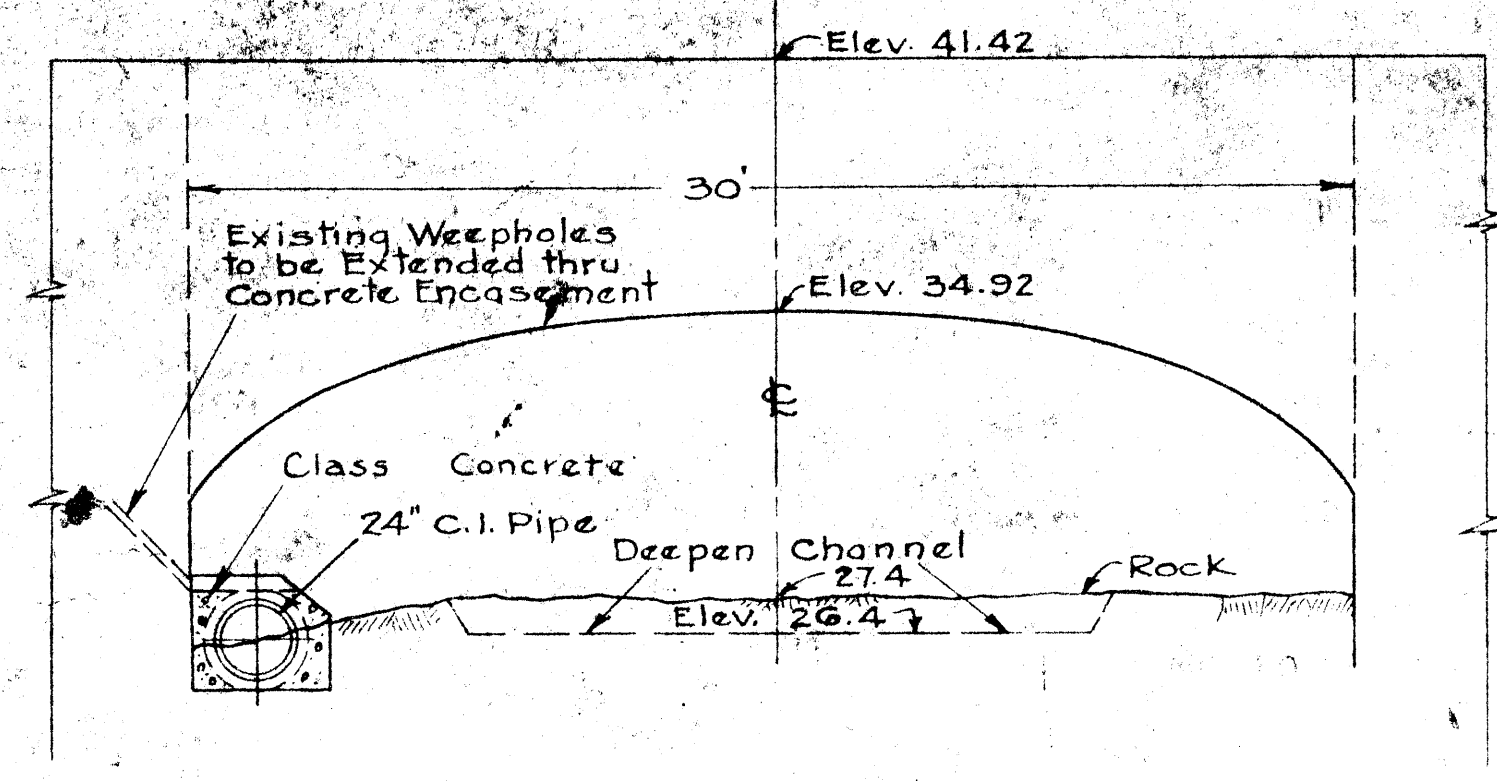
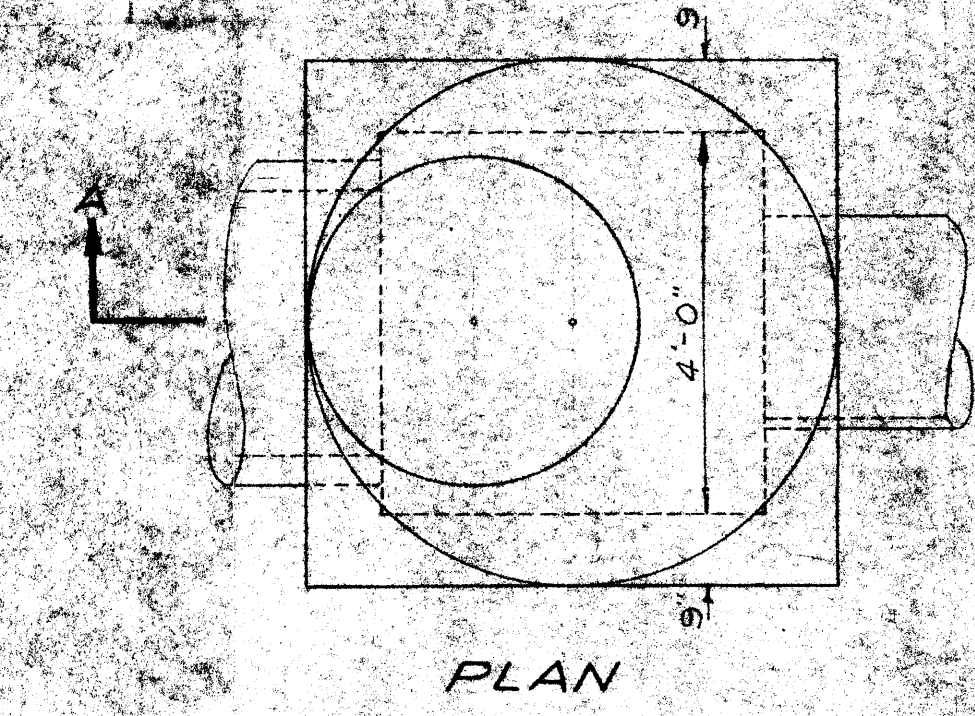
CITY OF POUGHKEEPSIE POUGHKEEPSIE, NEW YORK AS BUILT PLANS FALLKILL INTERSECTING SEWER		
O'BRIEN & GERE CONSULTING ENGINEERS & LAND SURVEYORS SYRACUSE, NEW YORK		DATE: NOV. 2, 1959 SCALE: 1" = 20' FILE NO.: 193.12 B
REVISIONS		



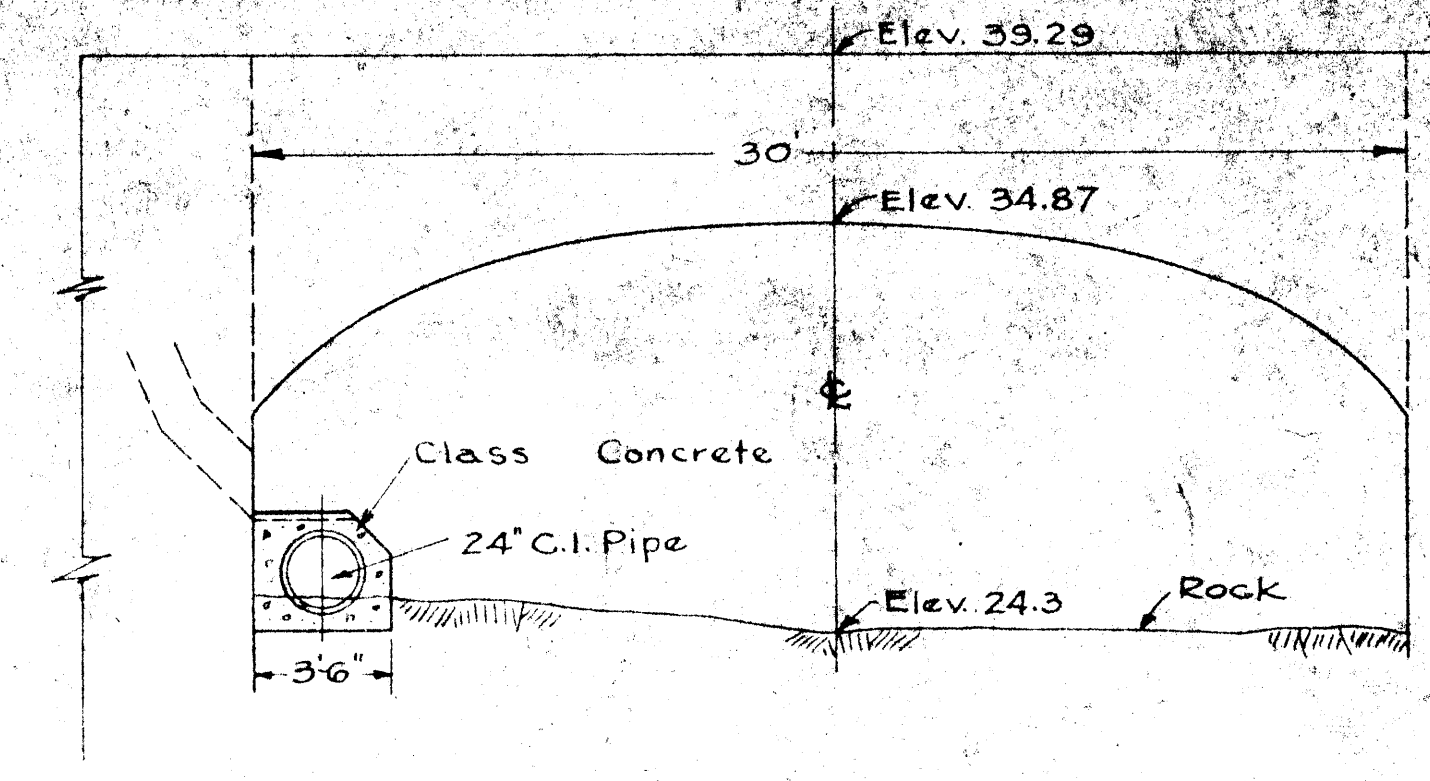




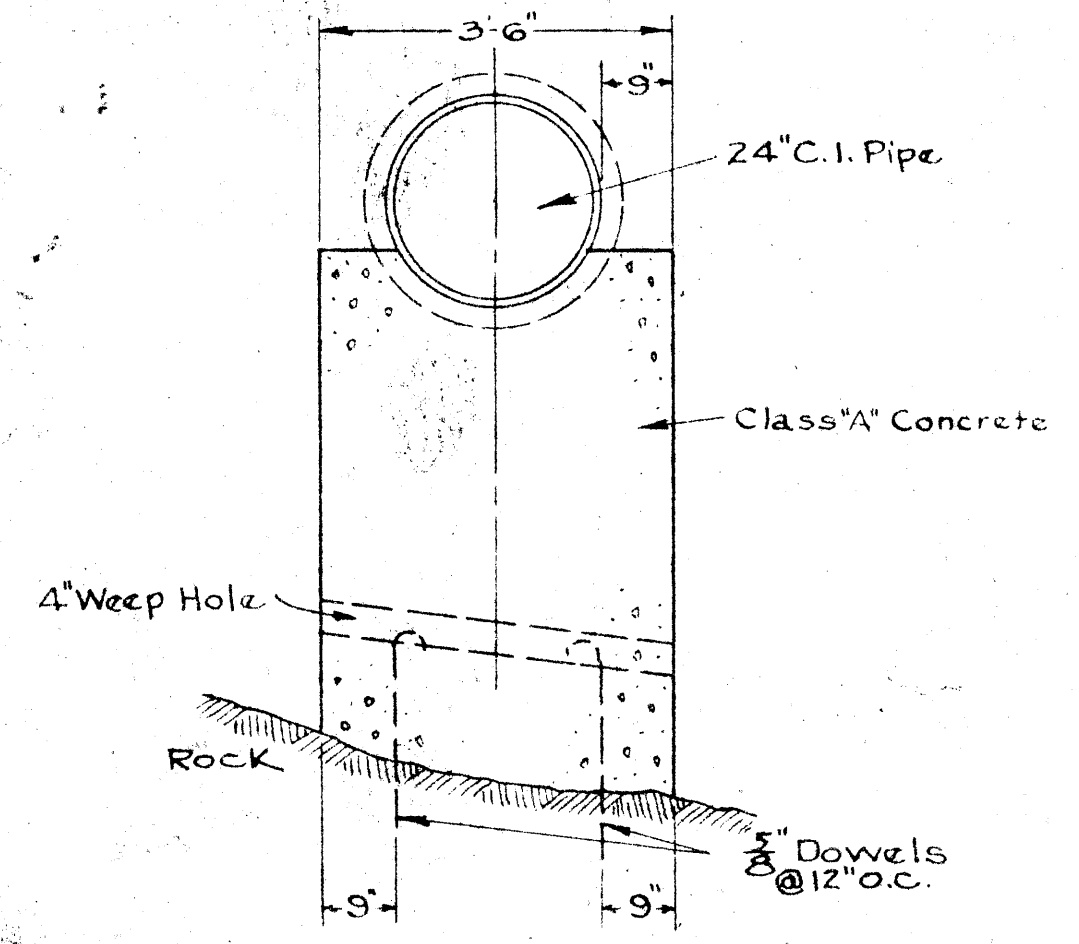
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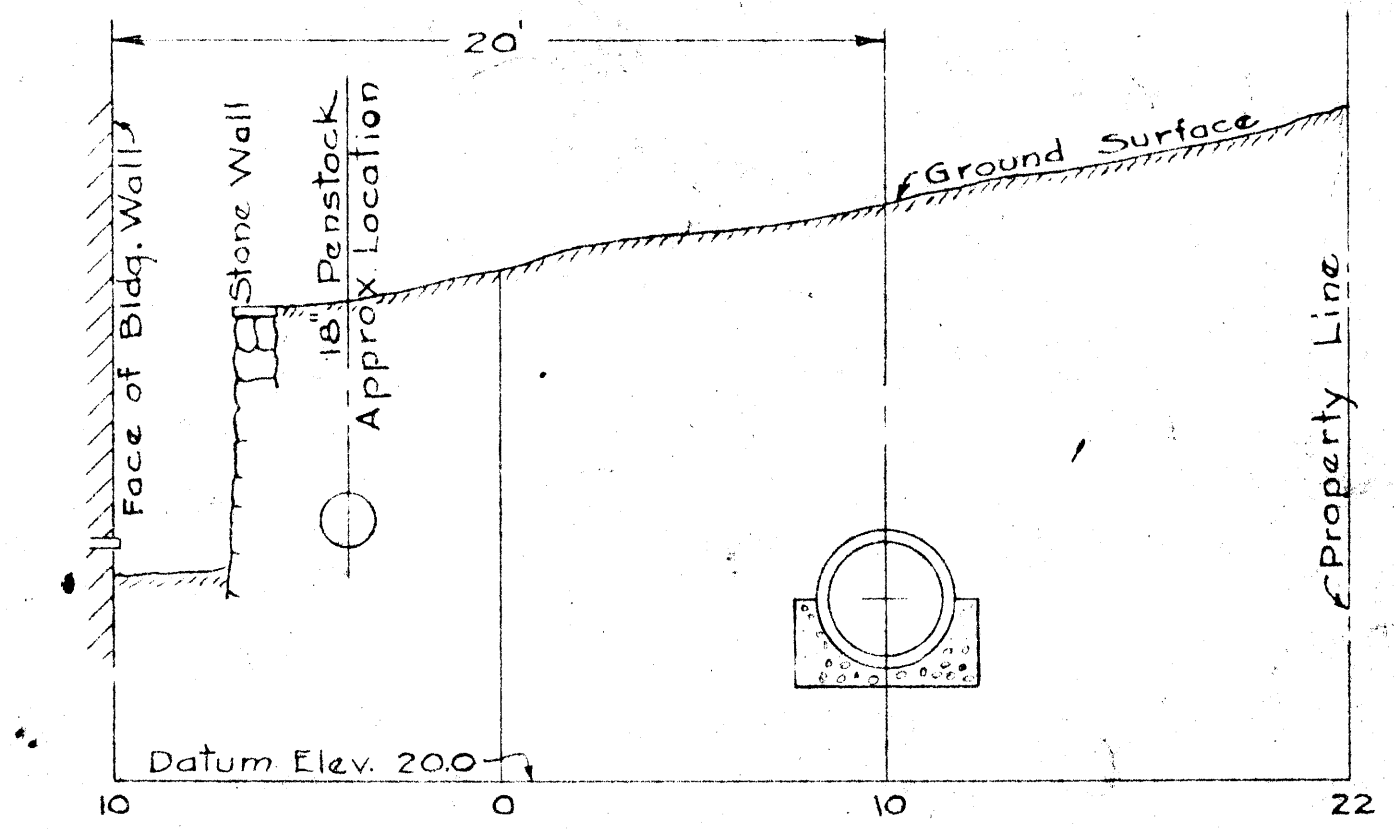
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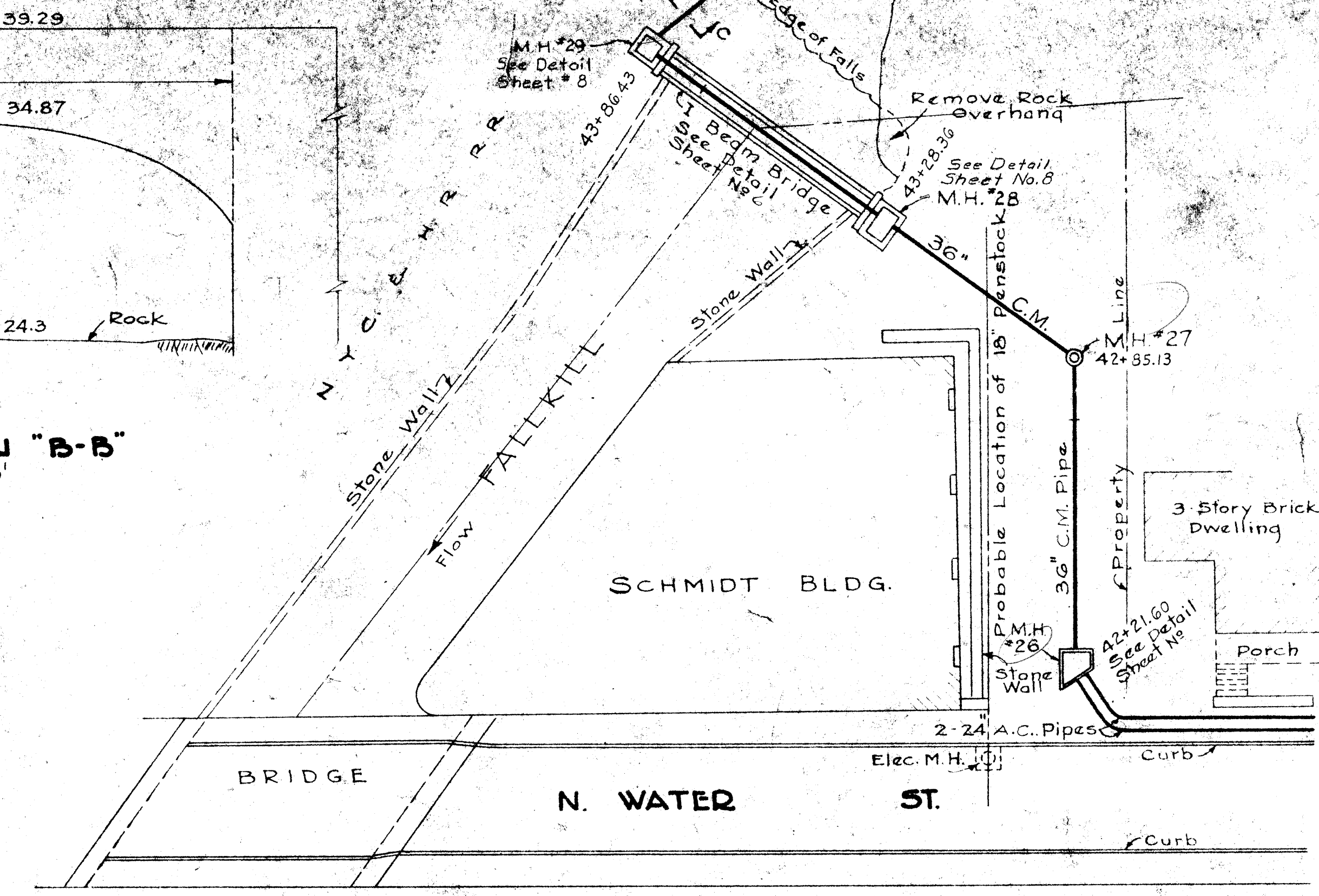
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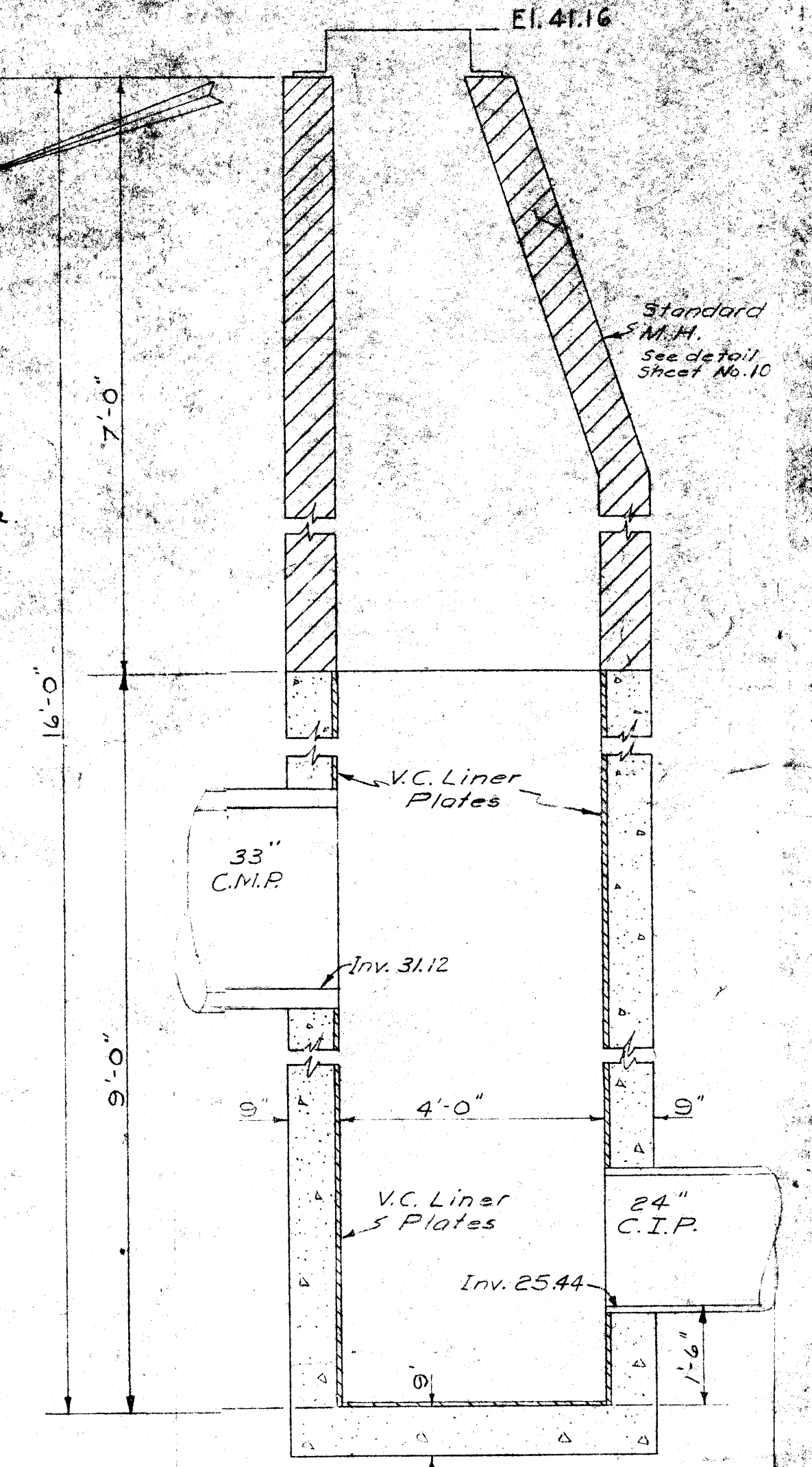
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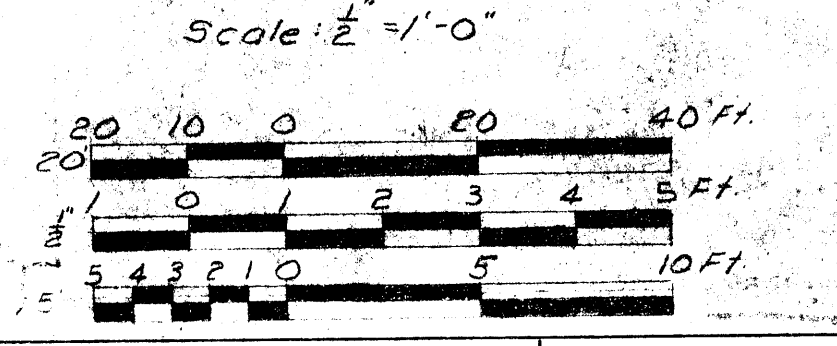
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Scale: 1" = 5'



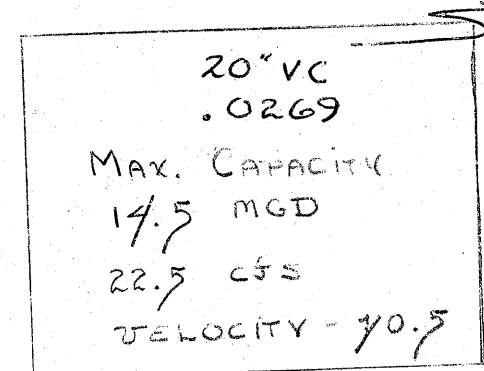
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Scale: 1" = 20'



SECTION A-A SPECIAL M.H. 30
Scale: 1" = 10'



CITY OF POUGHKEEPSIE POUGHKEEPSIE, NEW YORK			SHEET 6A
AS BUILT PLANS FALLKILL INTERCEPTING SEWER			
O'BRIEN & GERE CONSULTING ENGINEERS SYRACUSE, N.Y.			
DATE: NOV. 2, 1959 SCALE: AS SHOWN FILE NO: 193-12B			
REVISIONS 1. AS BUILT IN CHARGE OF: S.W.W. DESIGNED BY: MONELL CHECKED BY: N.A.W.			

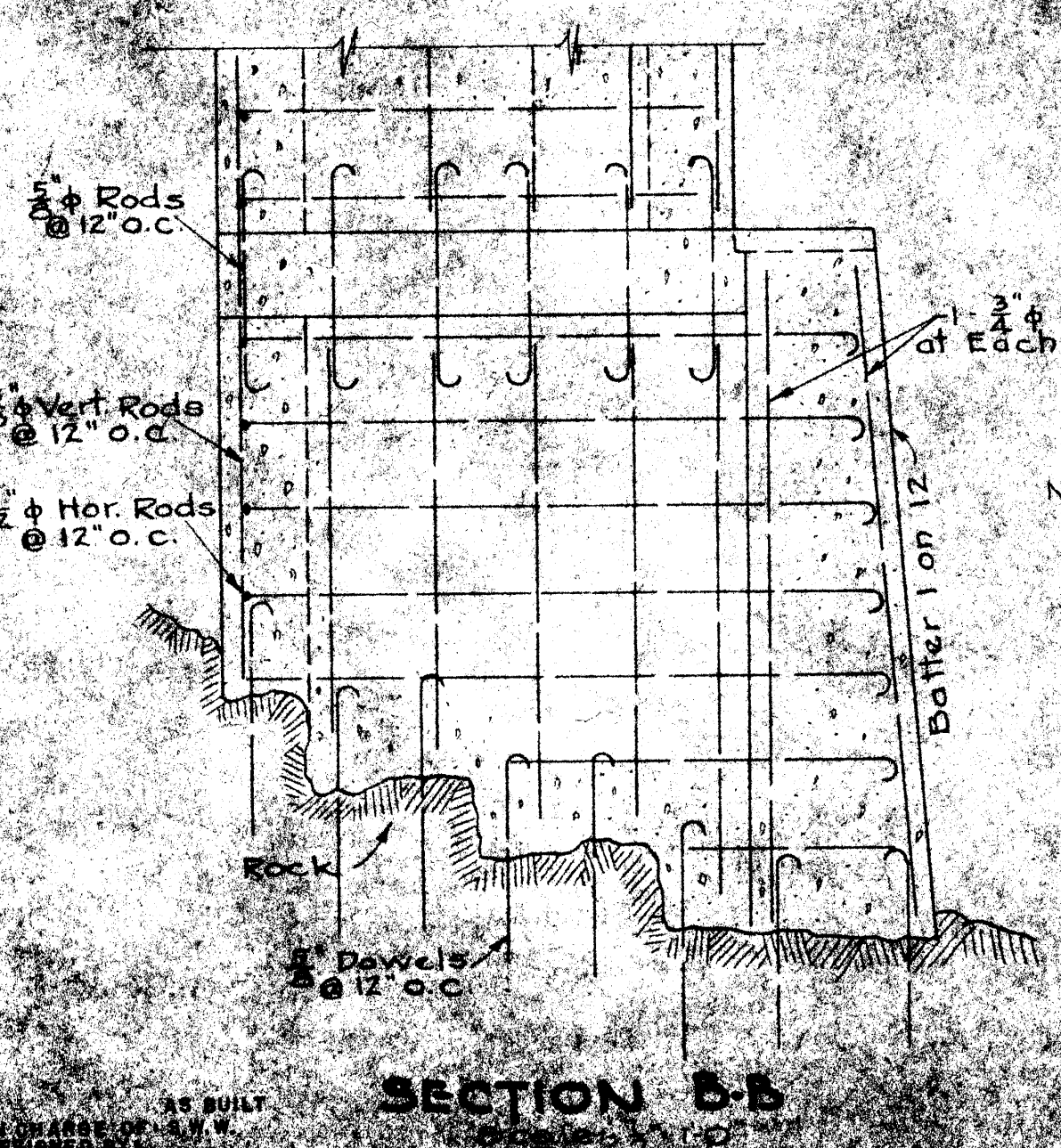
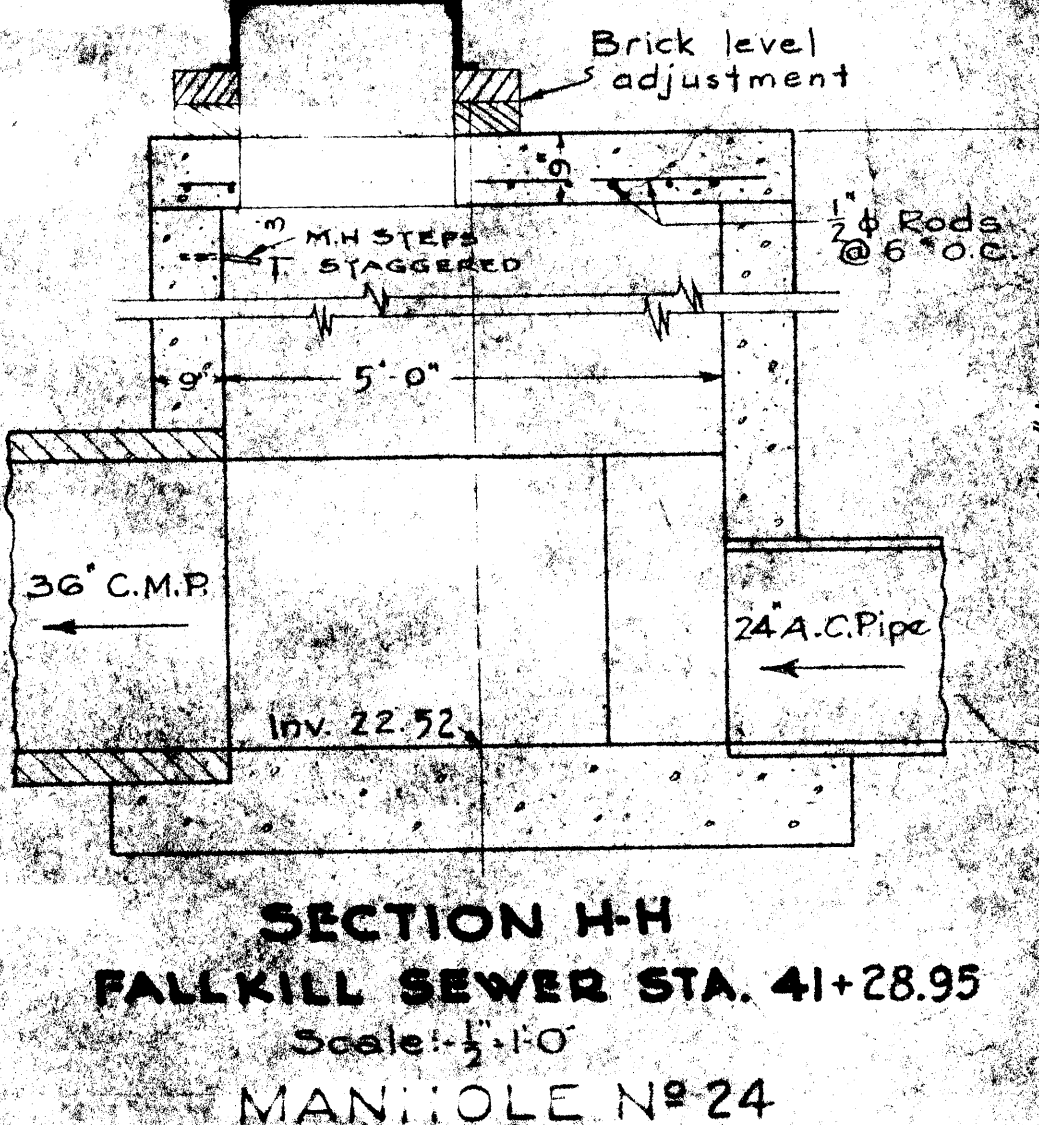
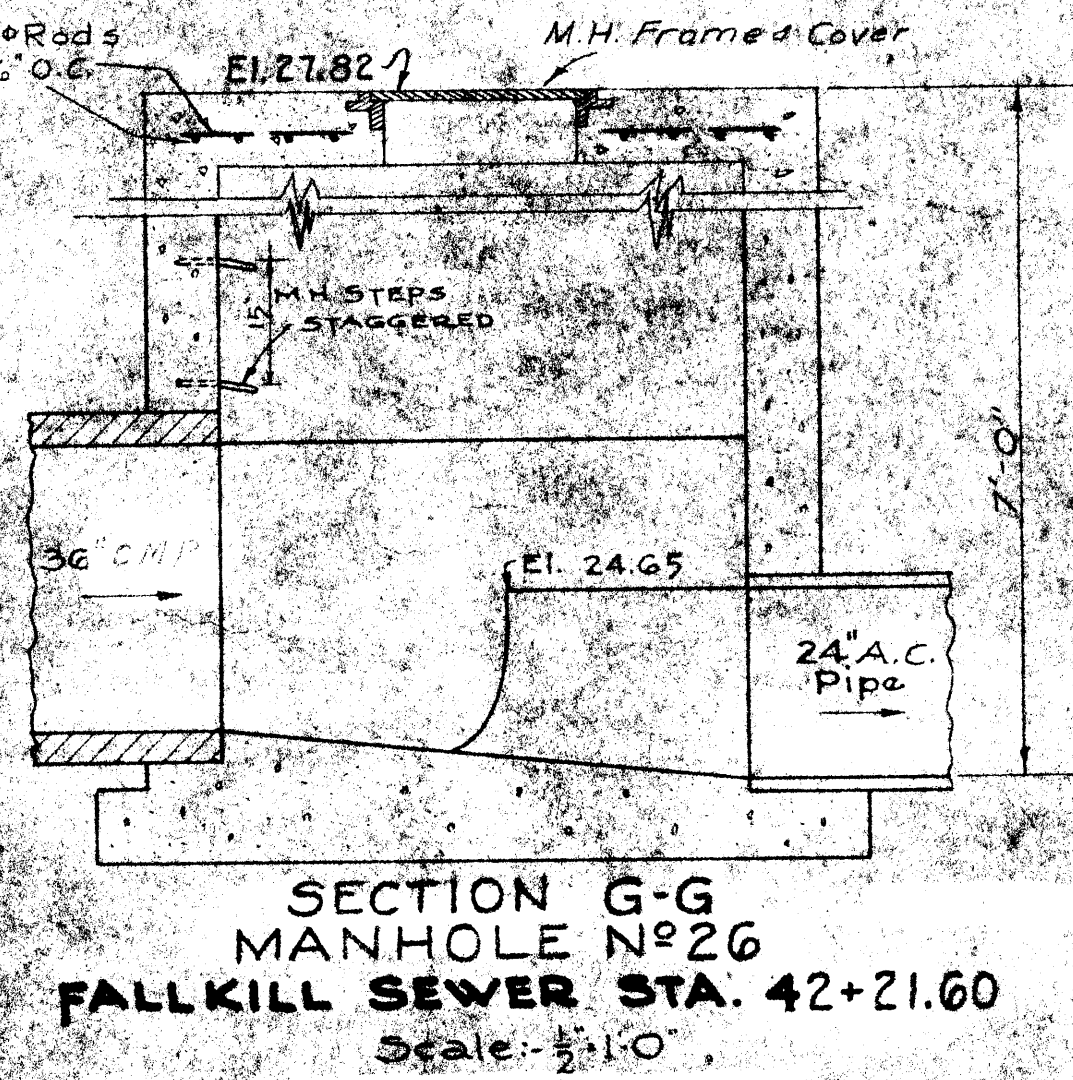
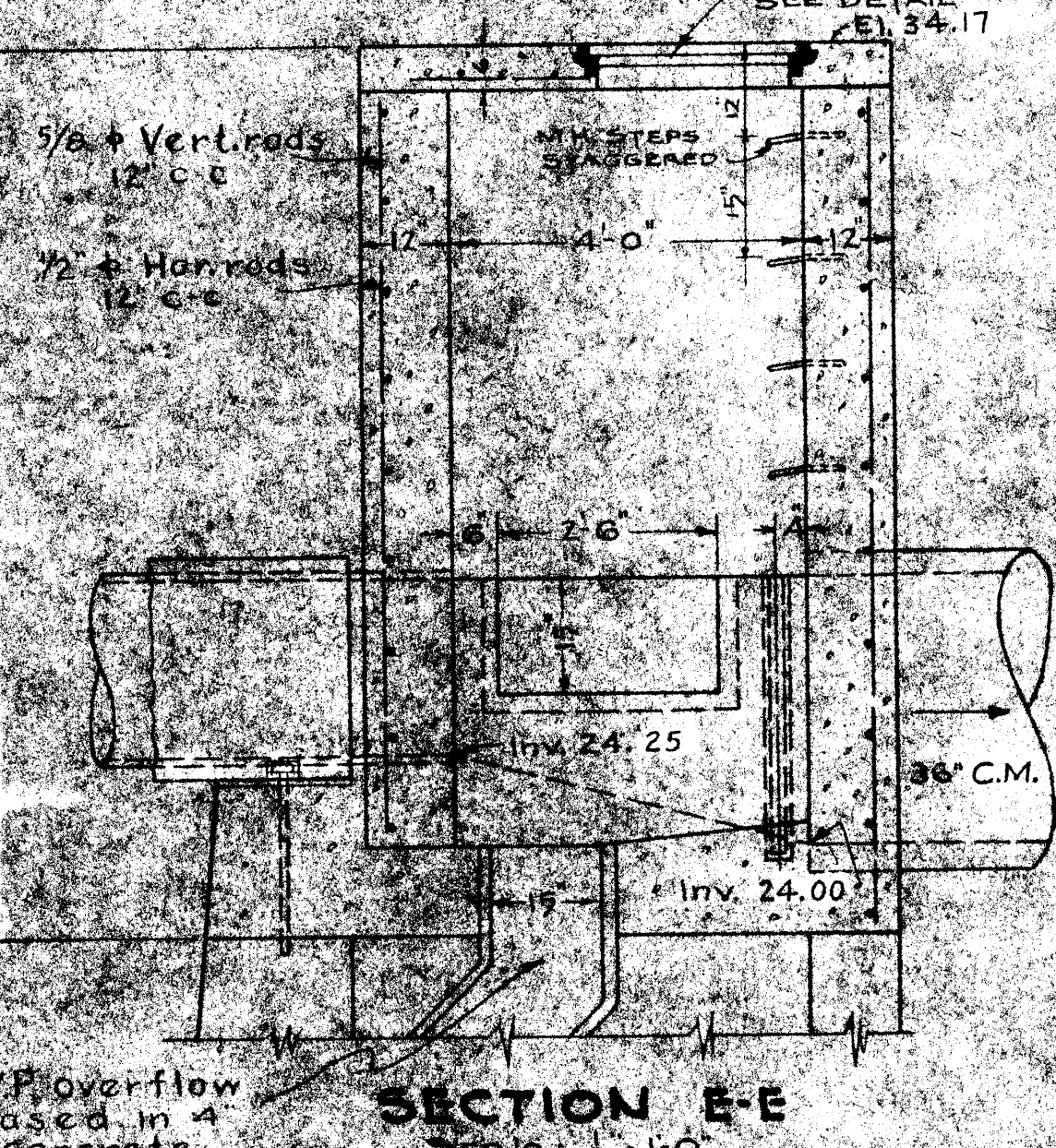
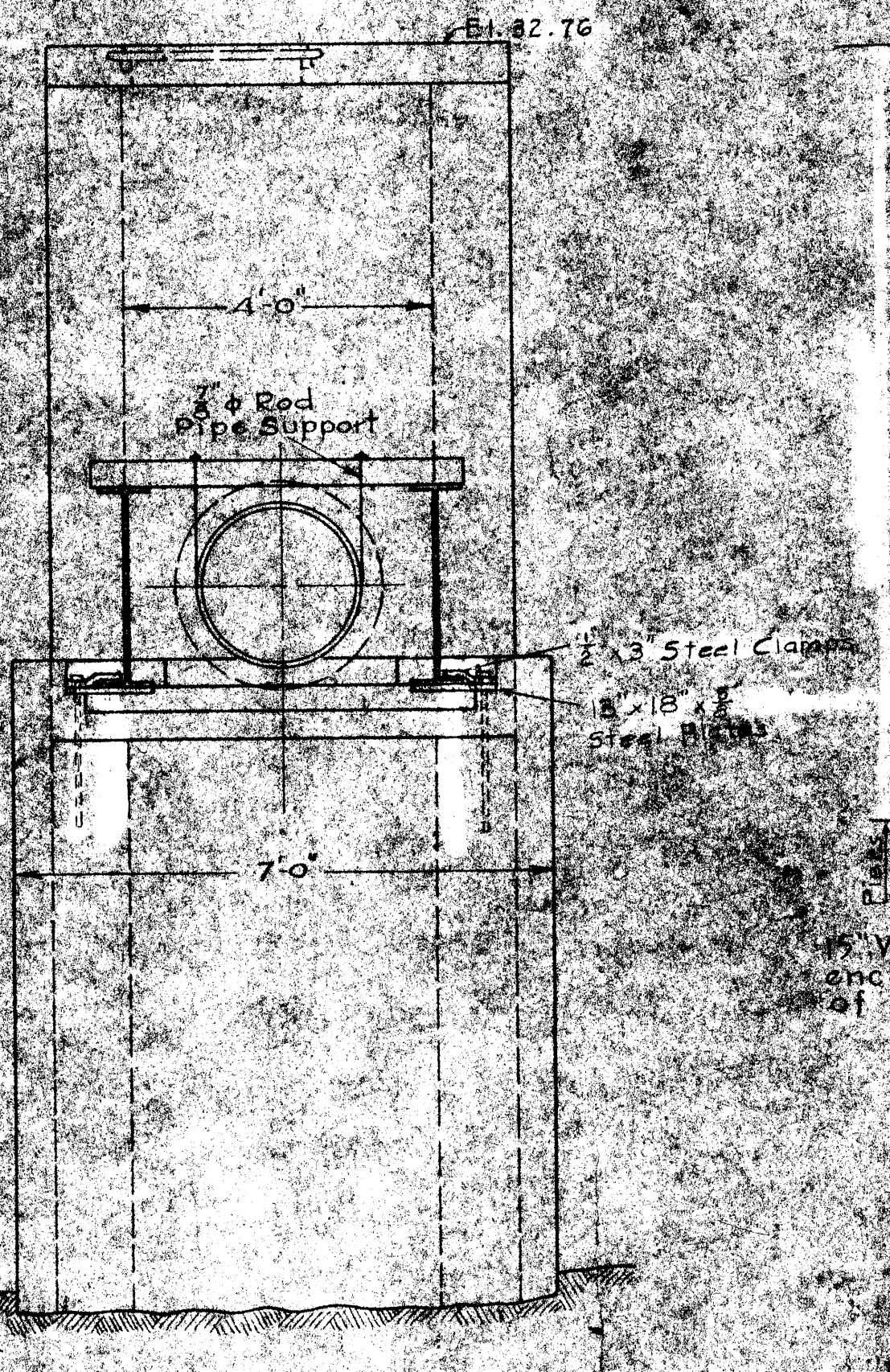
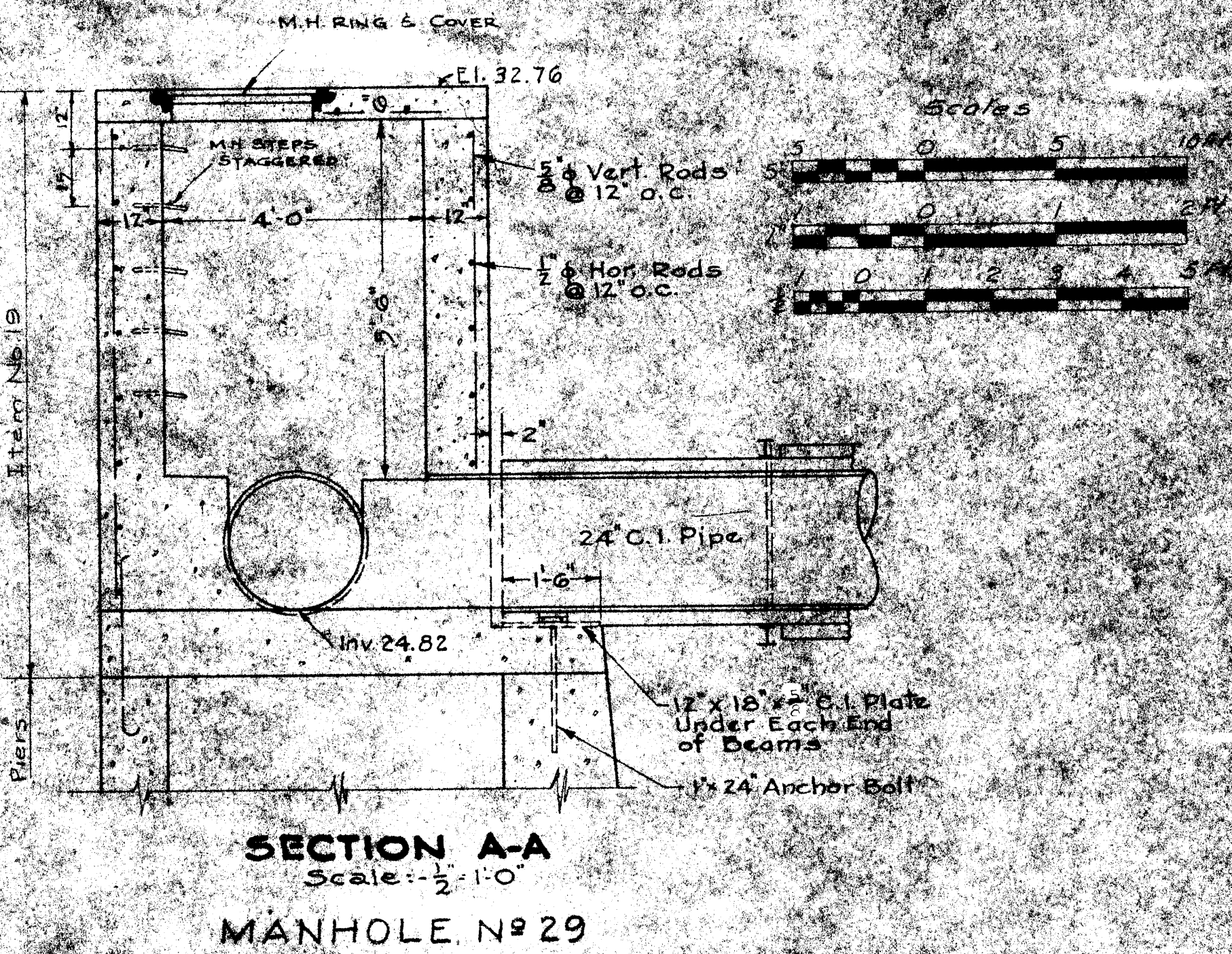
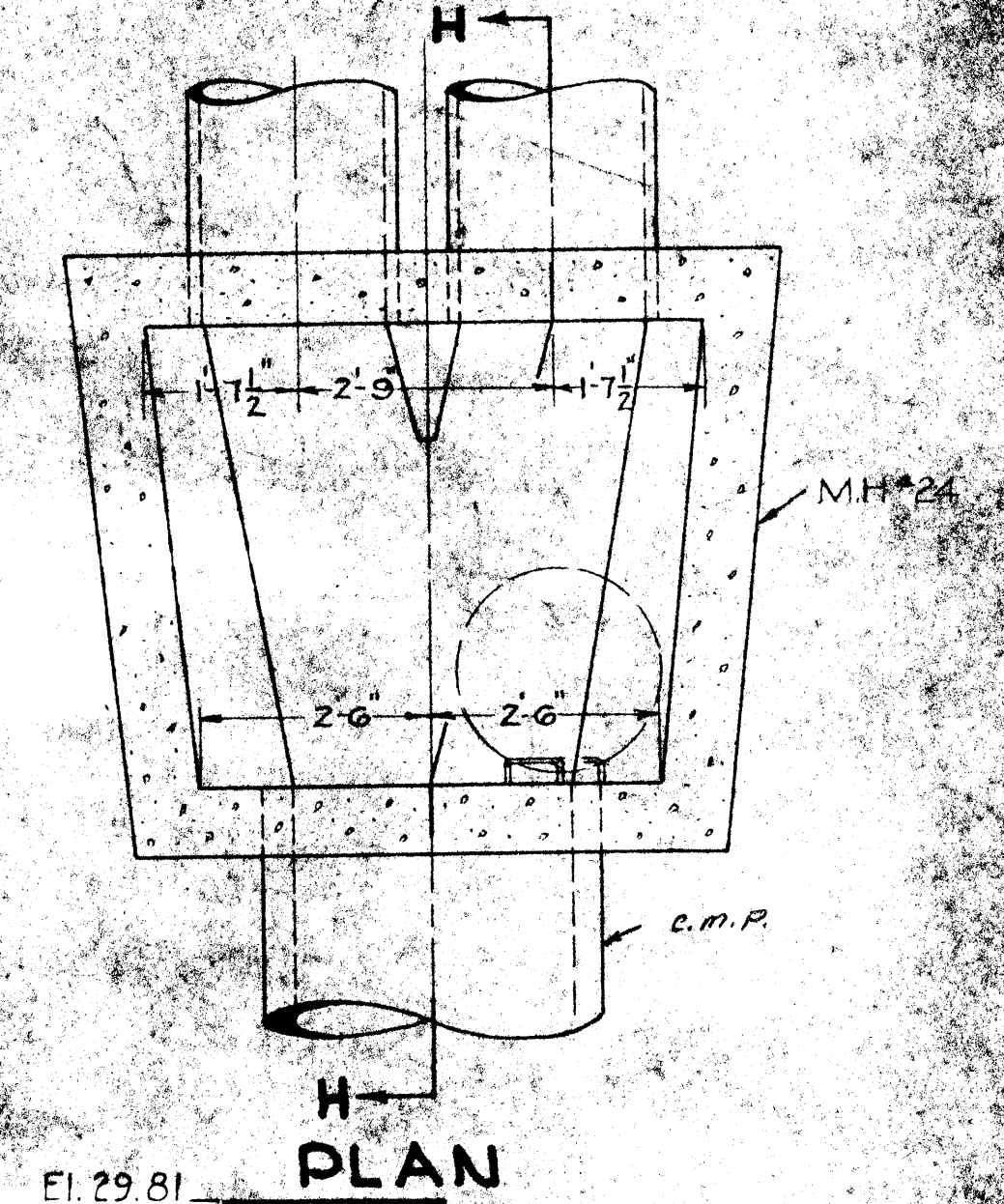
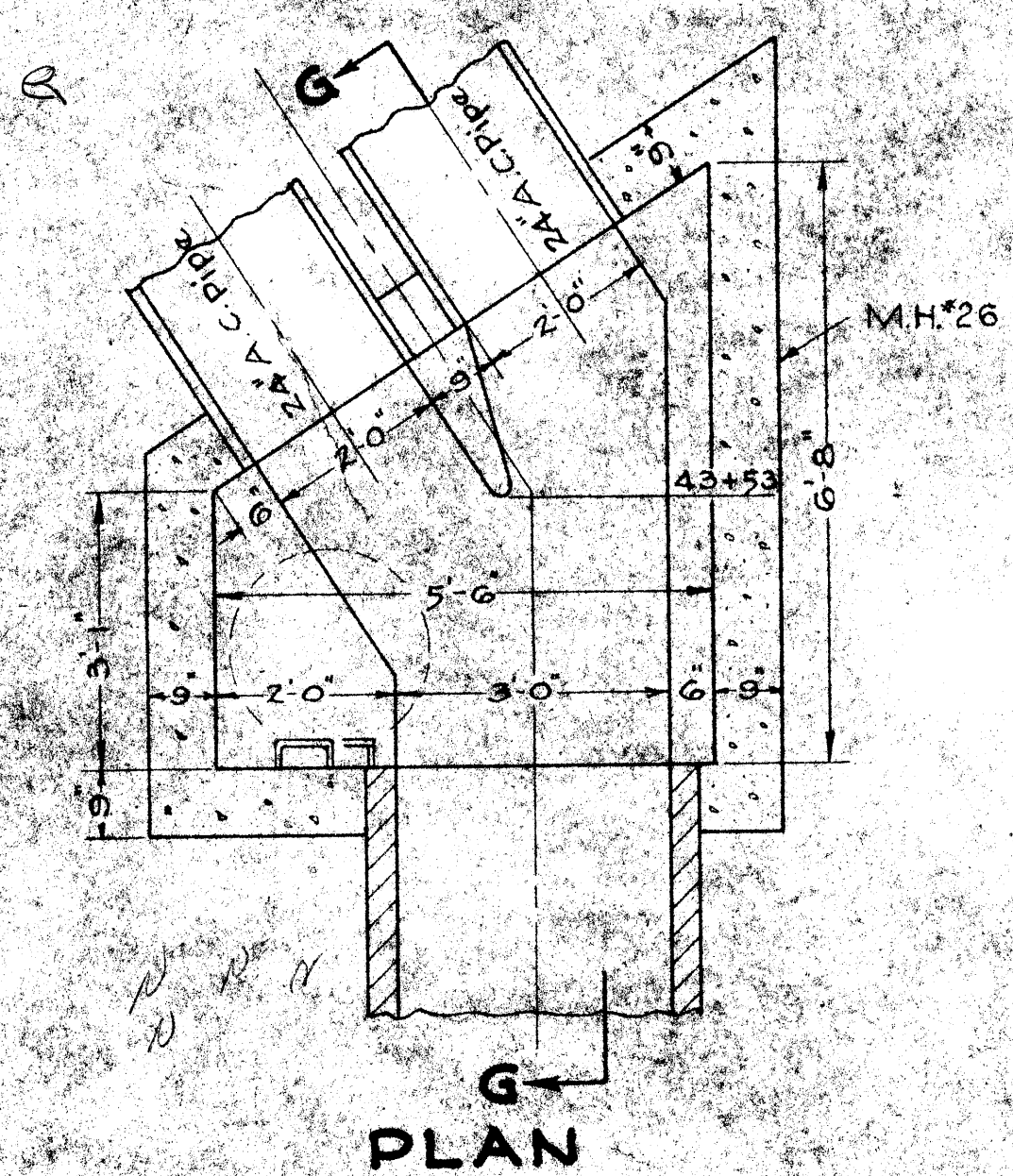
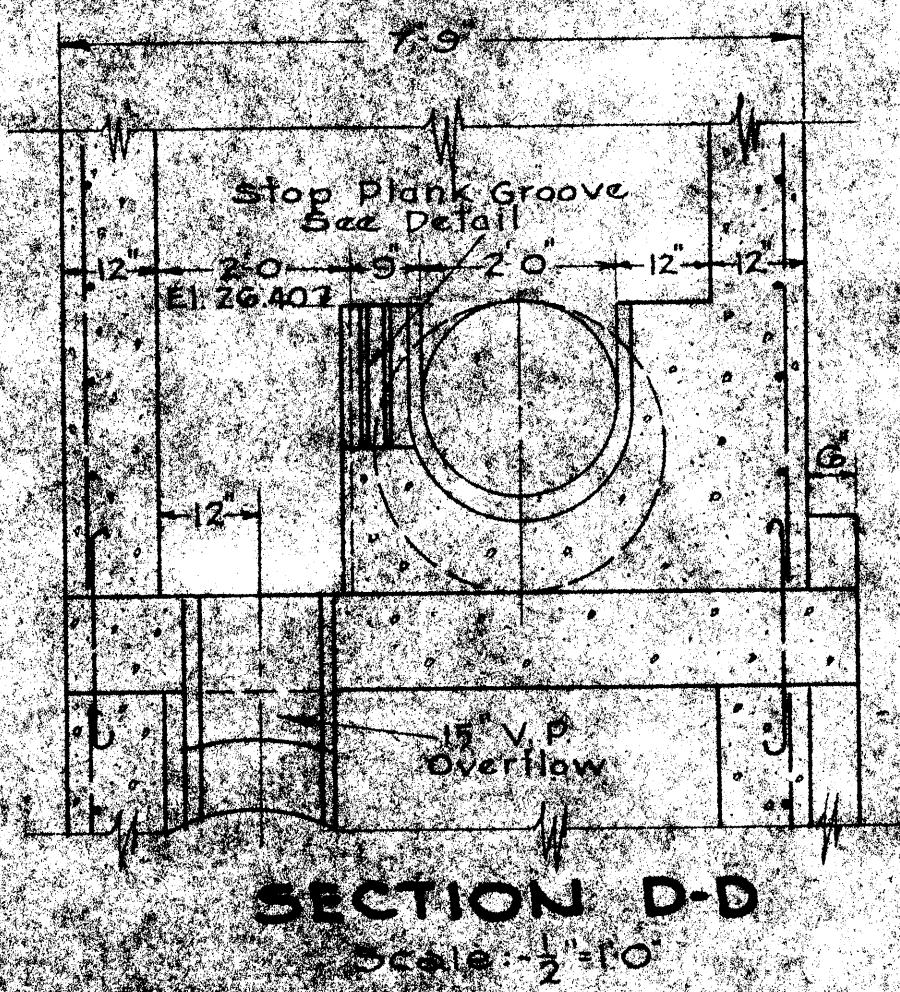
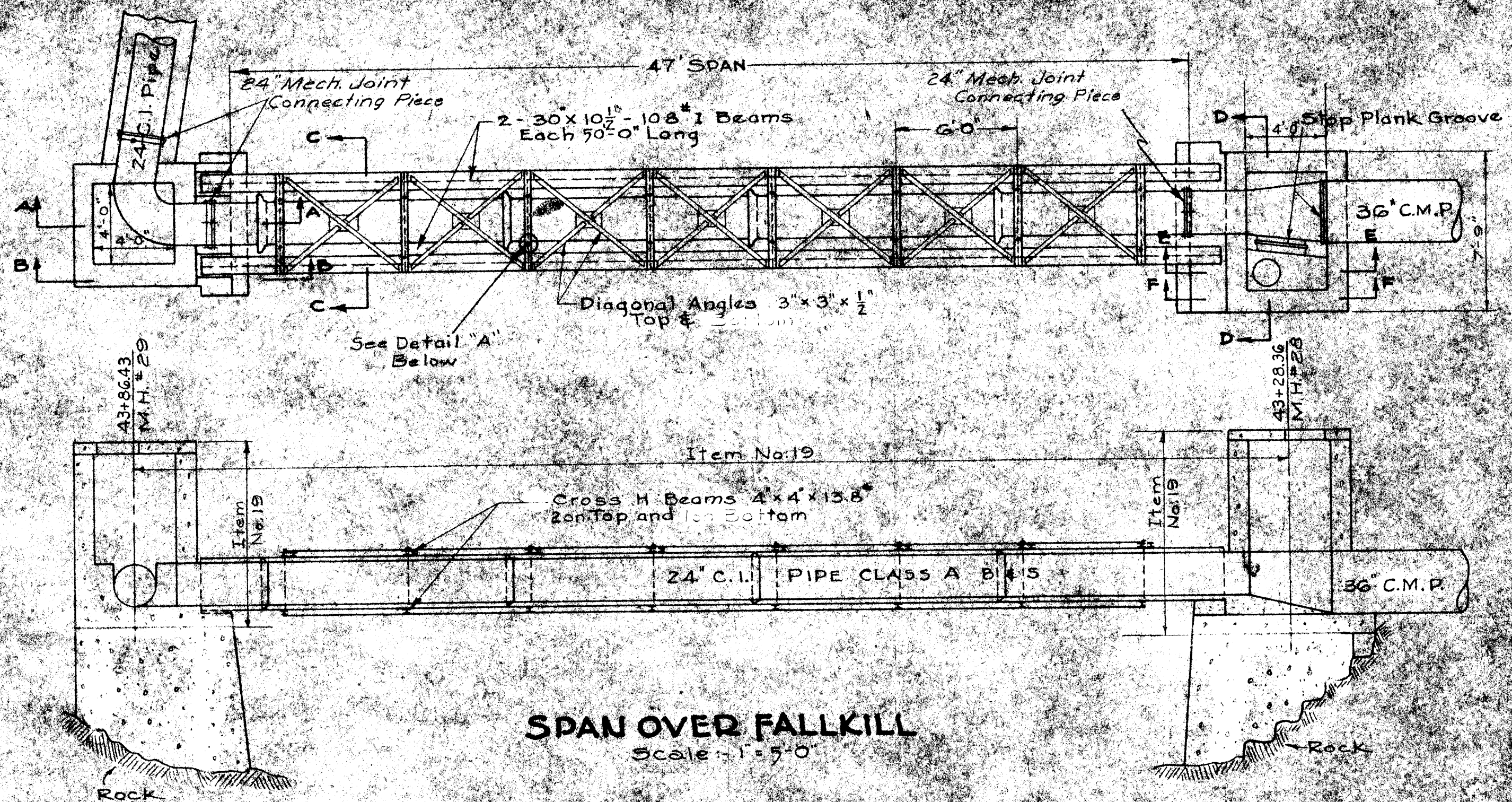


AS BUILT
IN CHARGE OF: S. W. W.
DESIGNED BY:
MADE BY: MONELL
CHECKED BY: N. A. W.

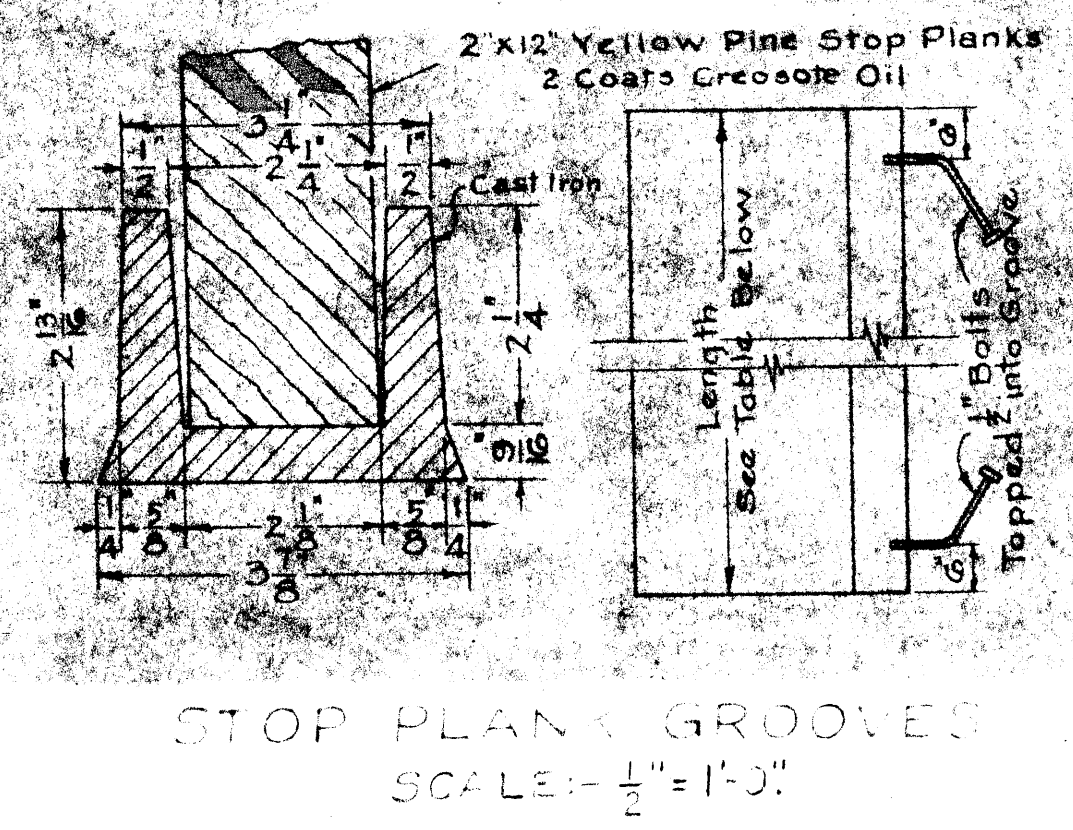
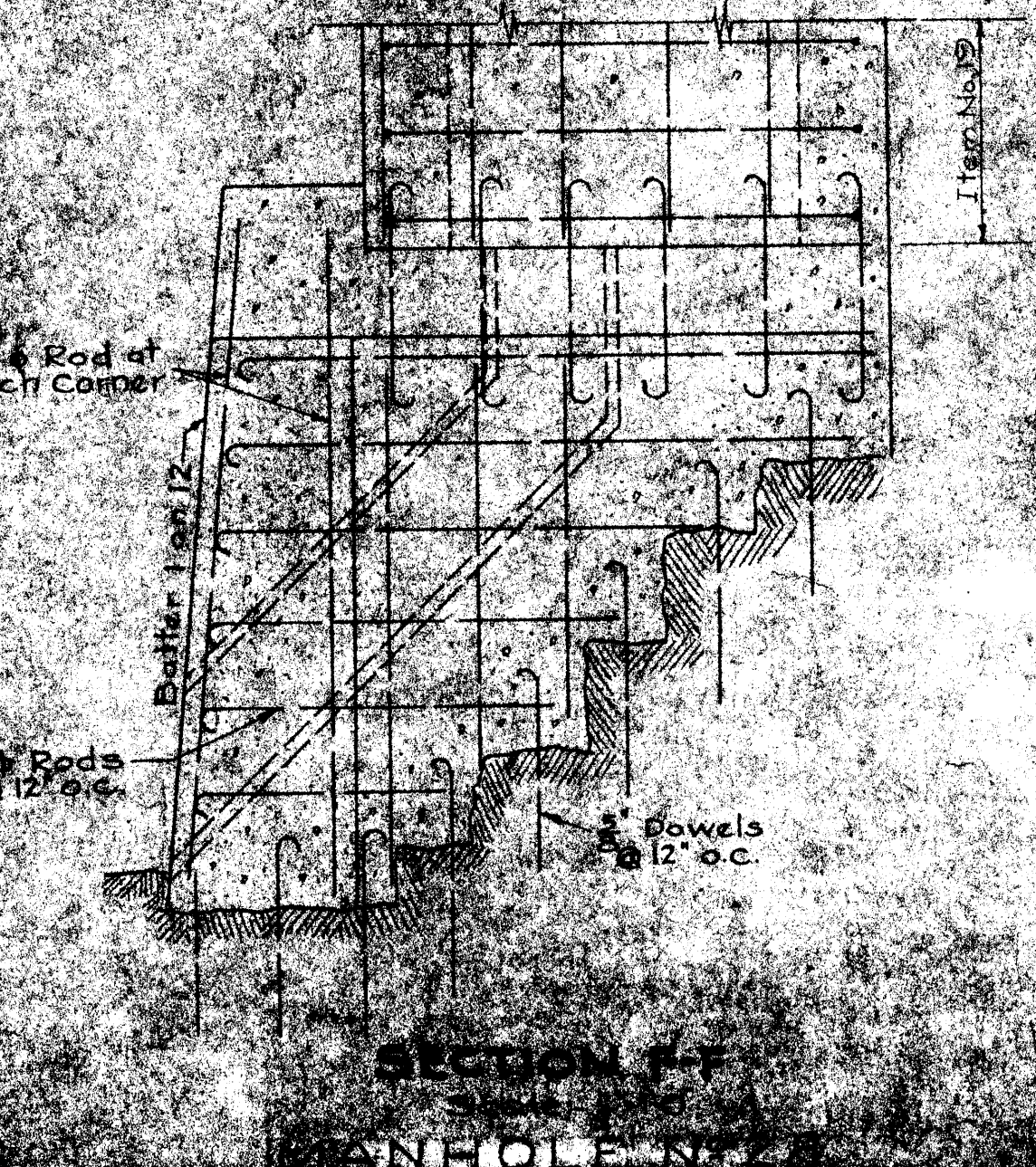
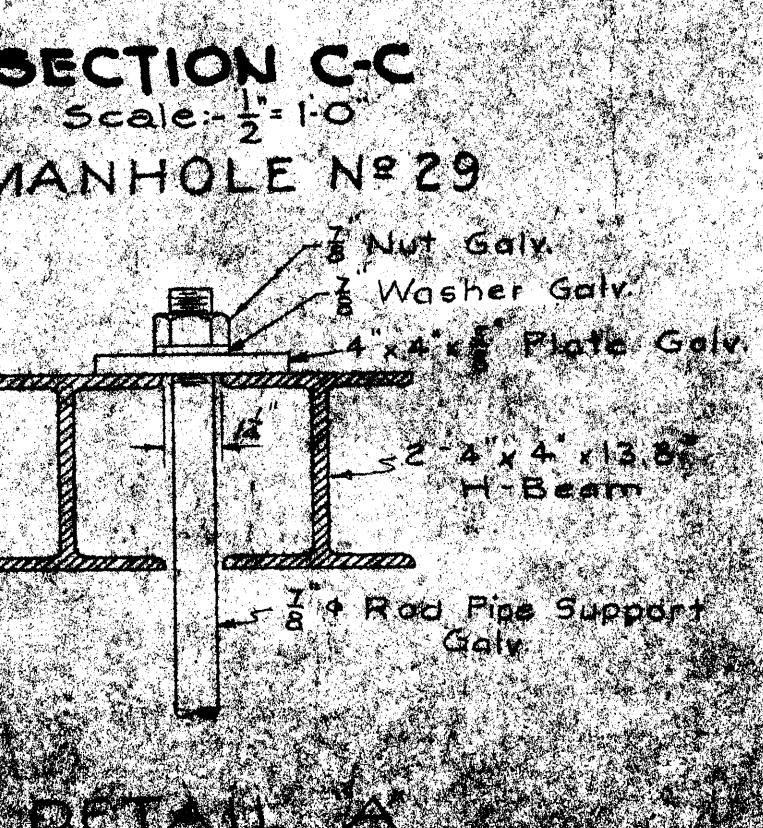
O'BRIEN & GERE
CONSULTING ENGINEERS & LAND SURVEYORS
SYRACUSE, NEW YORK

DATE:	NOV. 2, 1959
SCALE:	AS SHOWN

6

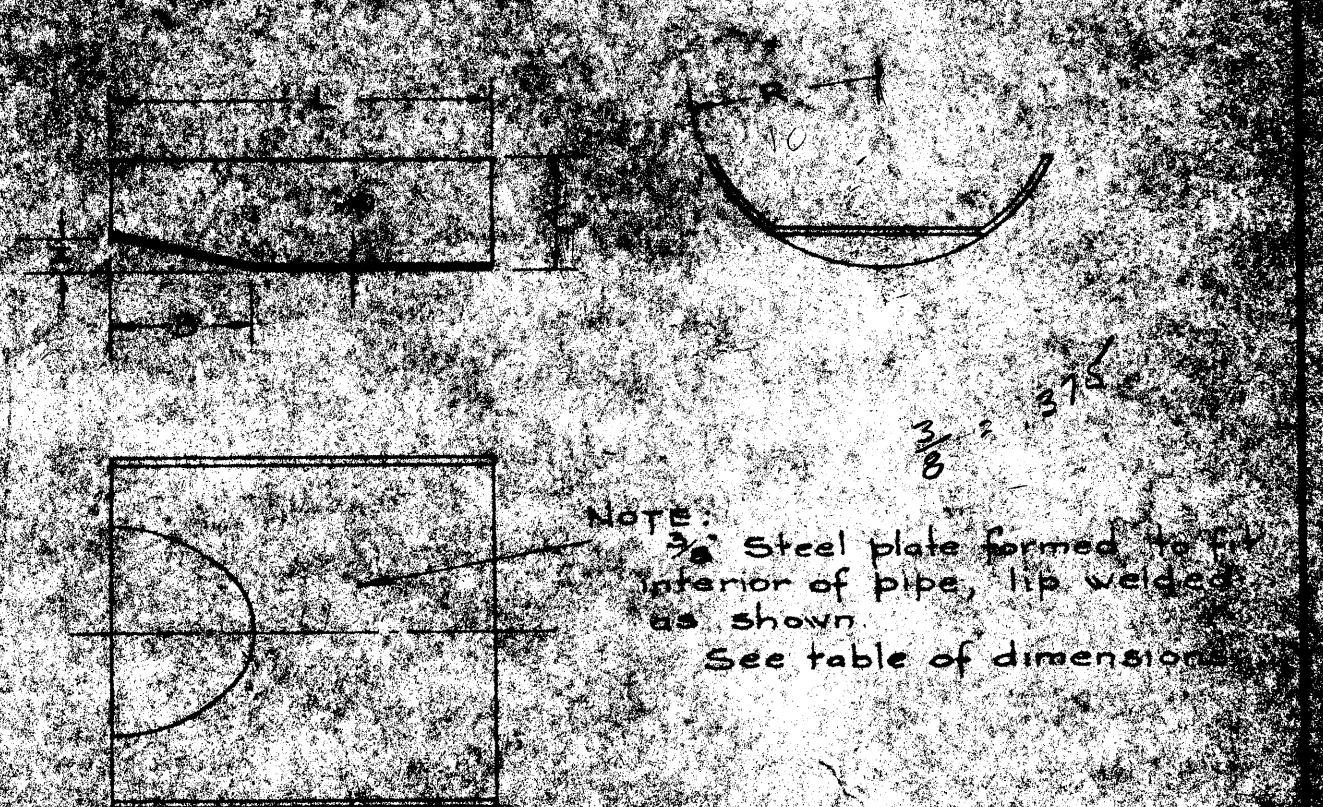


Note: All concrete to be Class 15
M.H. steps to be Neenah
Foundry Co. R-1980-E or equal

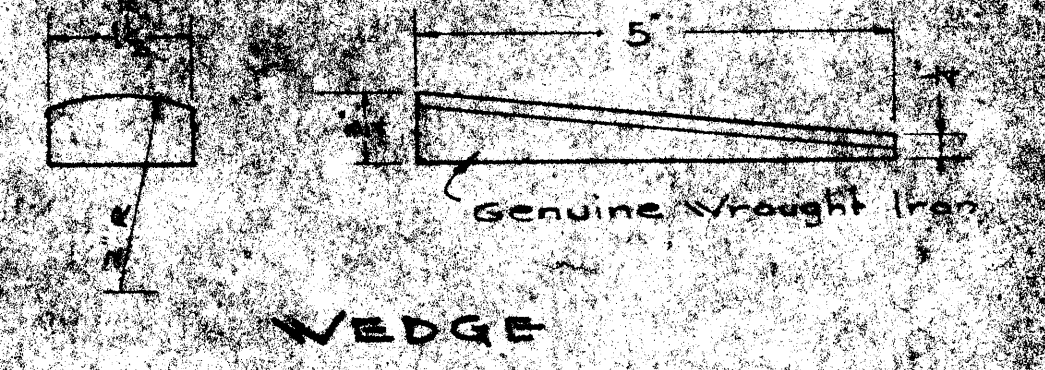


CITY OF POUGHKEEPSIE POUGHKEEPSIE, NEW YORK AS BUILT PLANS FALLKILL INTERCEPTING SEWER STRUCTURES		
O'BRIEN & GERE CONSULTING ENGINEERS 200 WEST 11TH ST. NEW YORK, N.Y.	DATE: NOV. 2, 1959 SCALE: AS SHOWN FILE NO: 193.126	
REVISIONS		SHEET 8

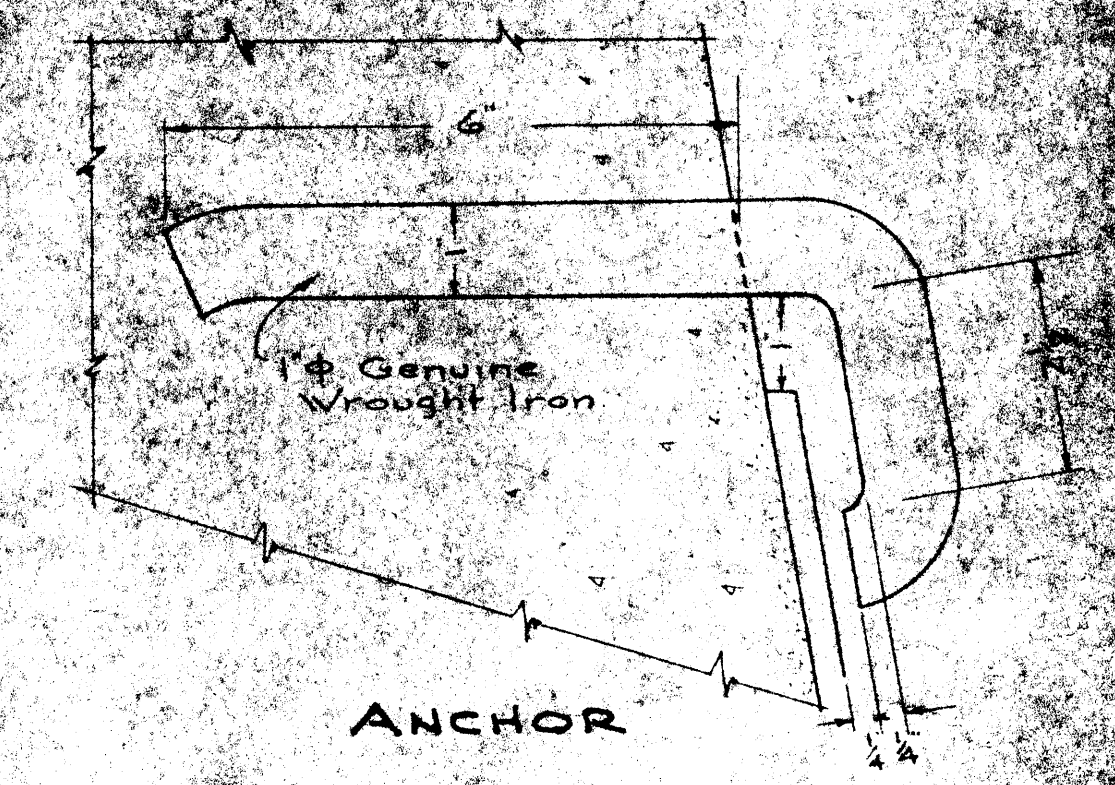
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VEIR PLATE

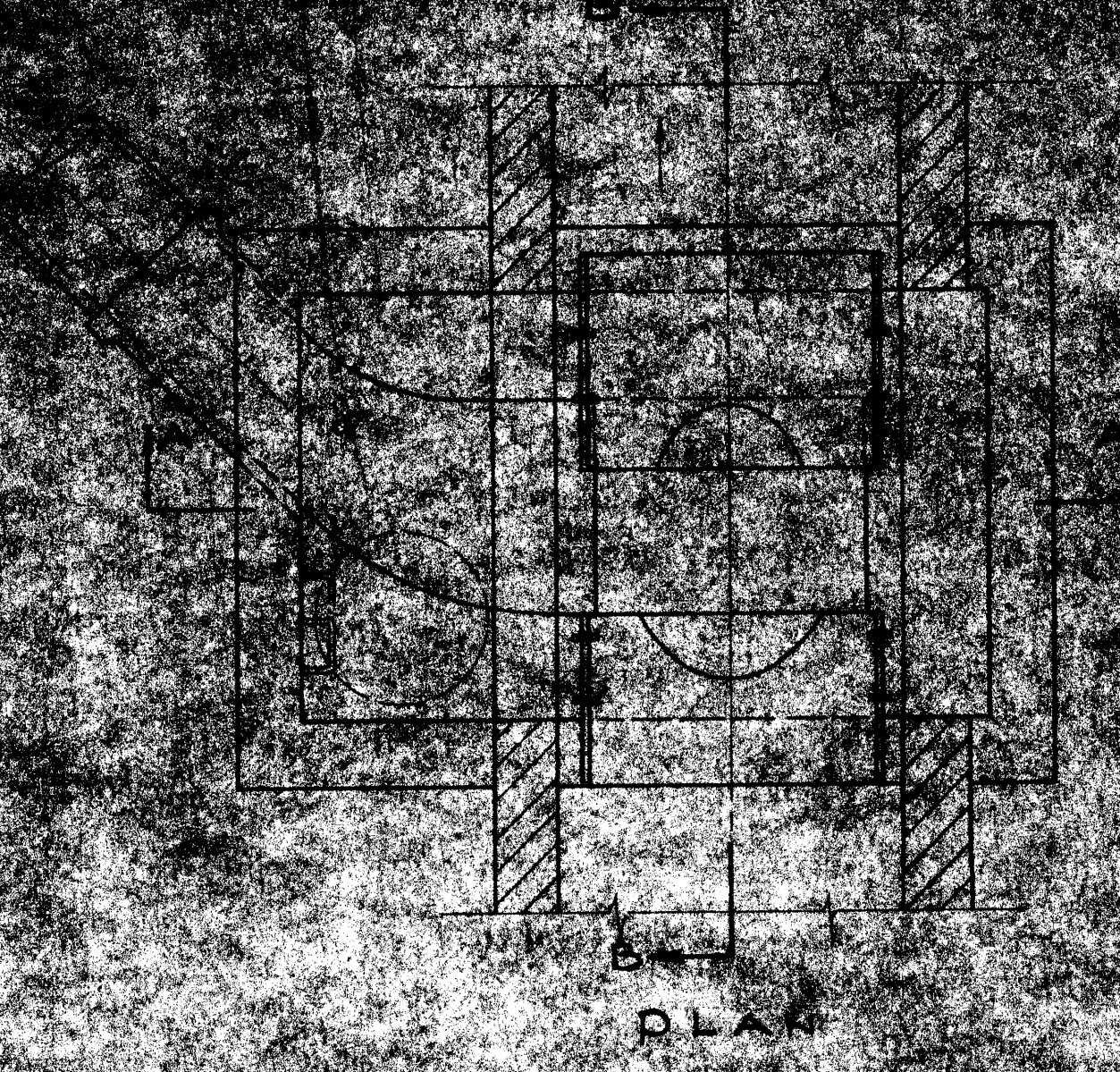
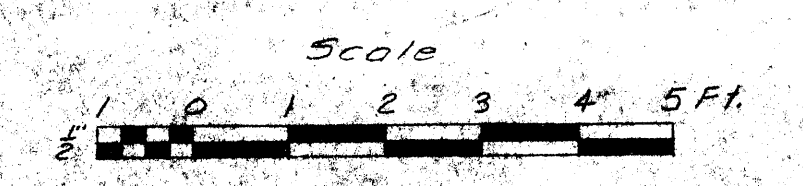


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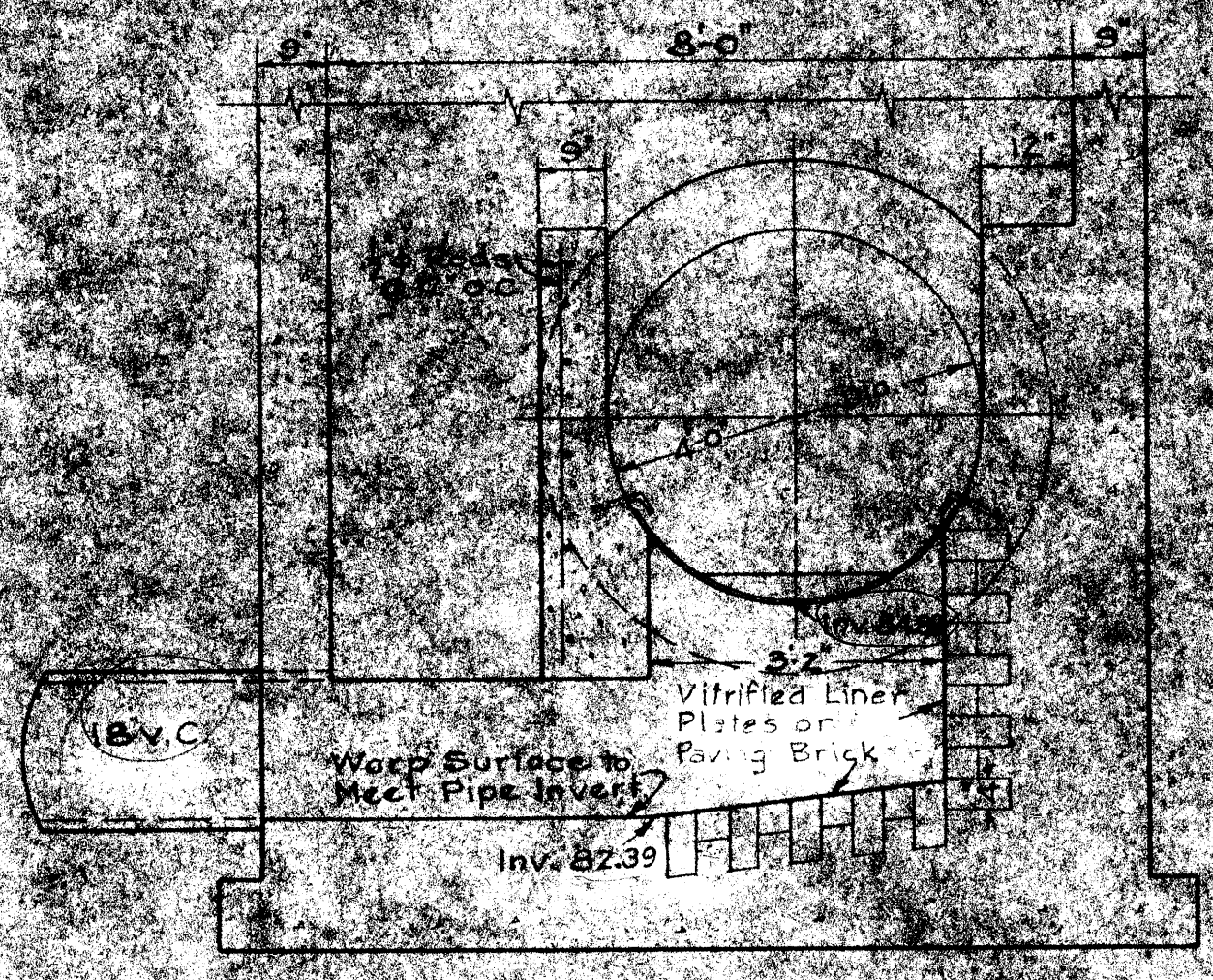


ANCHOR

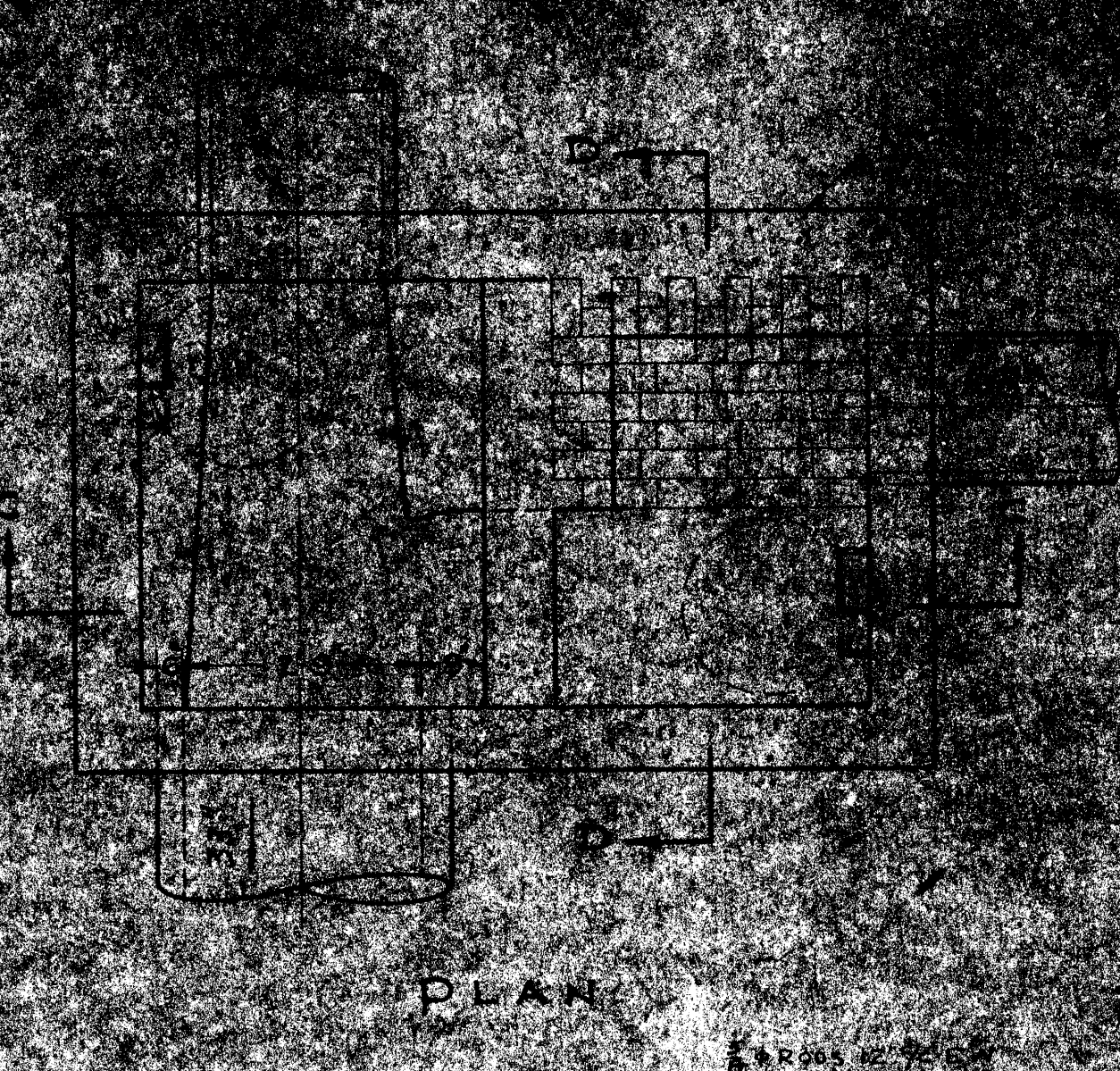
DETAILS OF VEIR PLATES



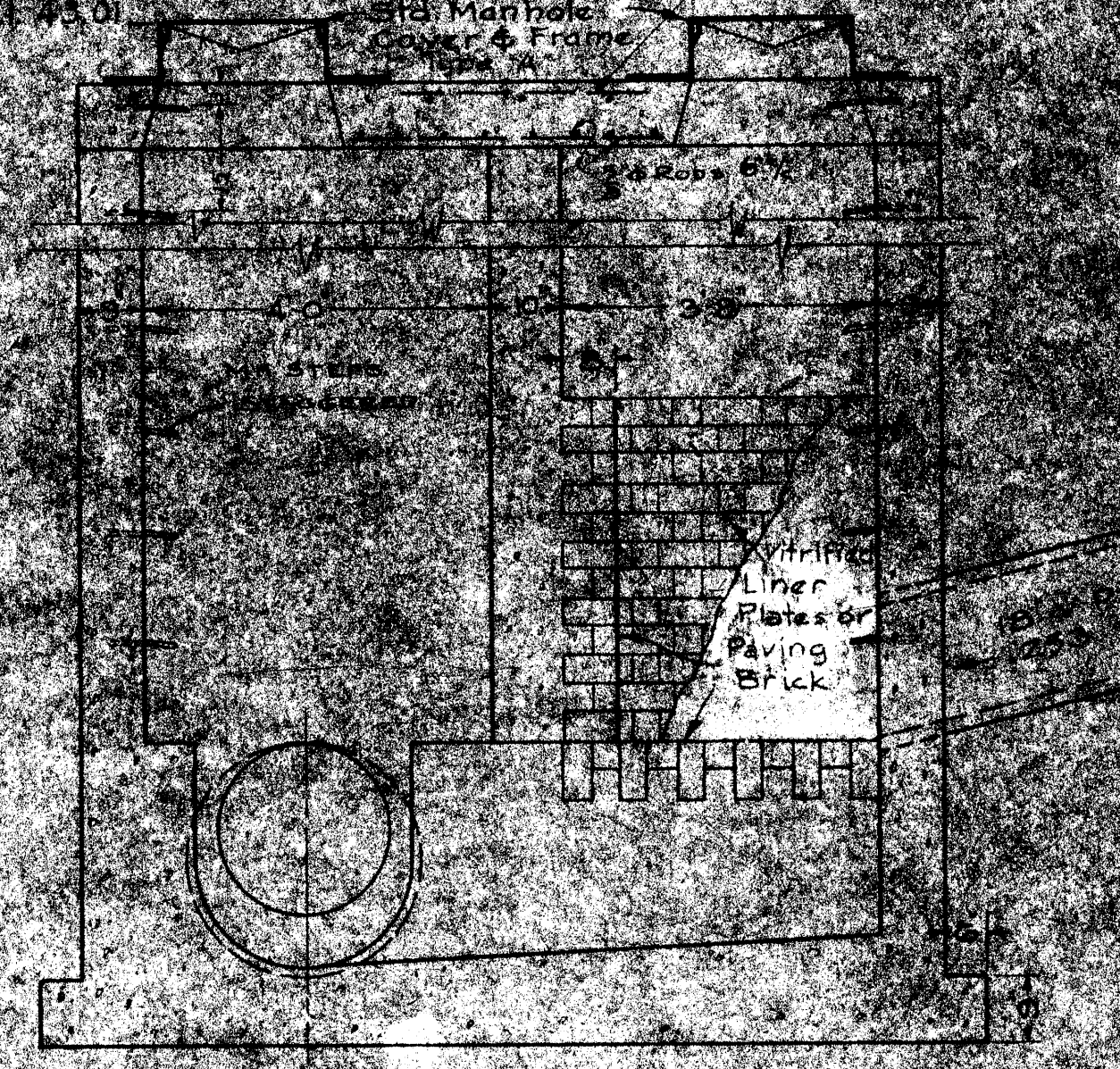
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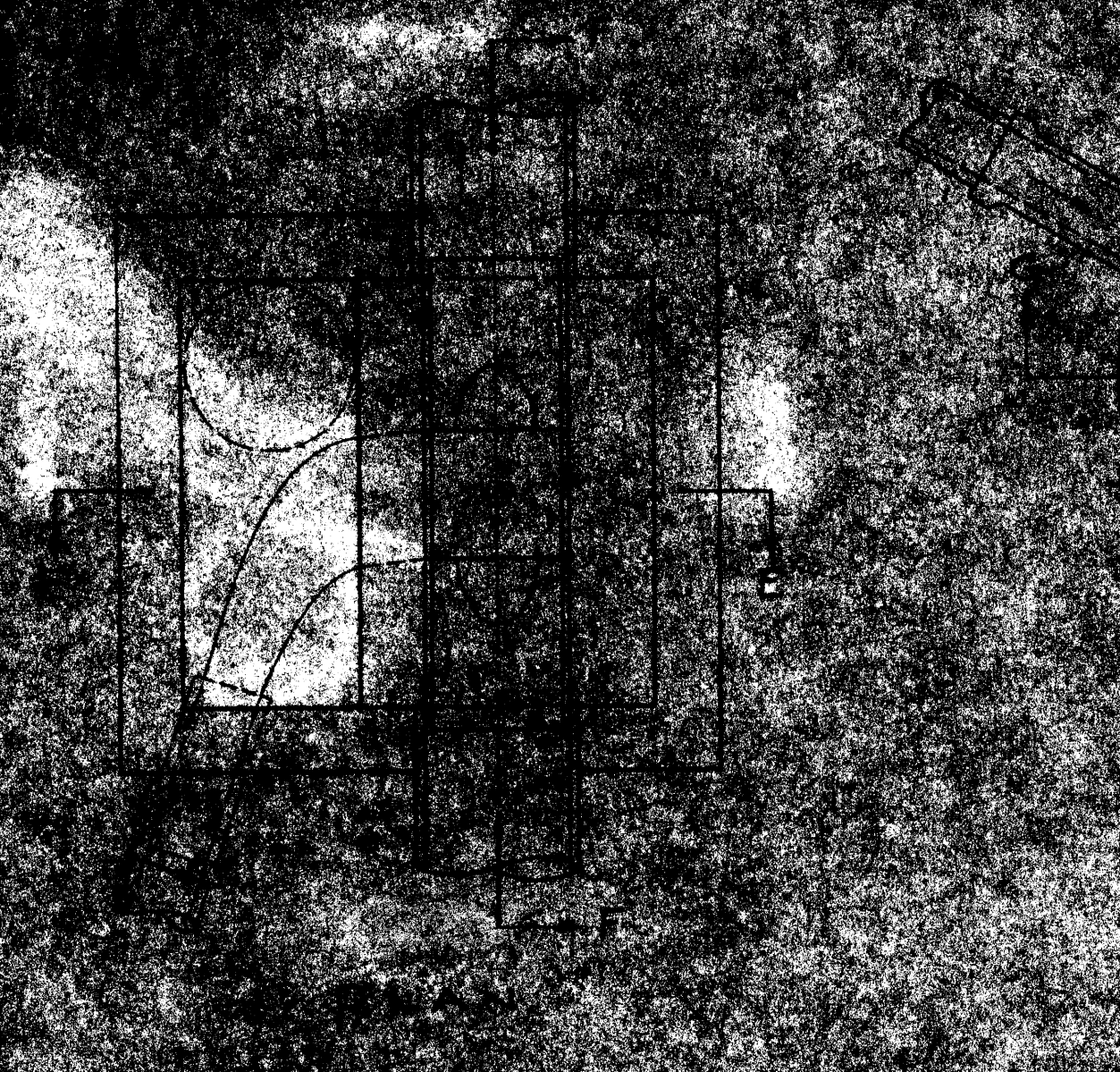
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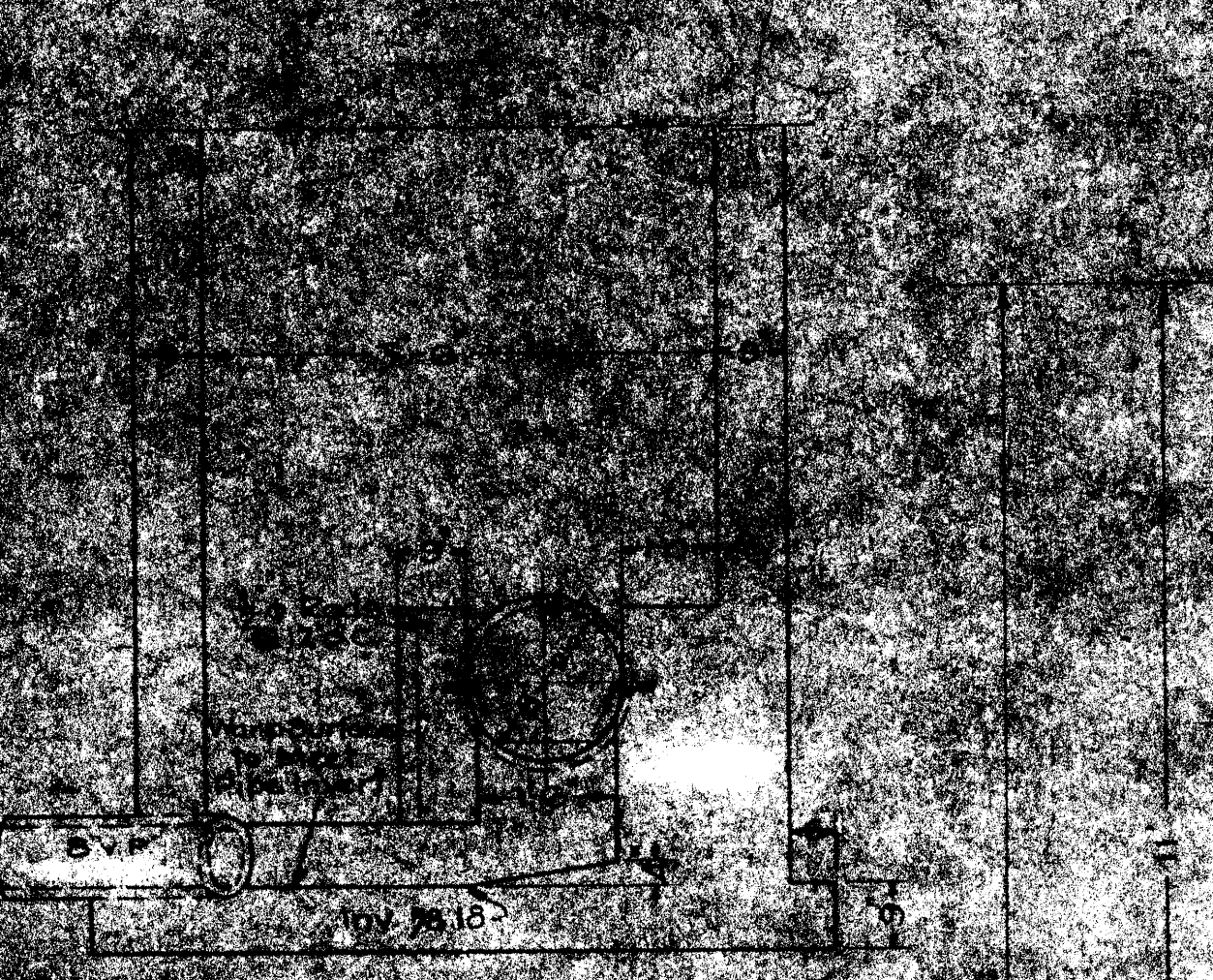
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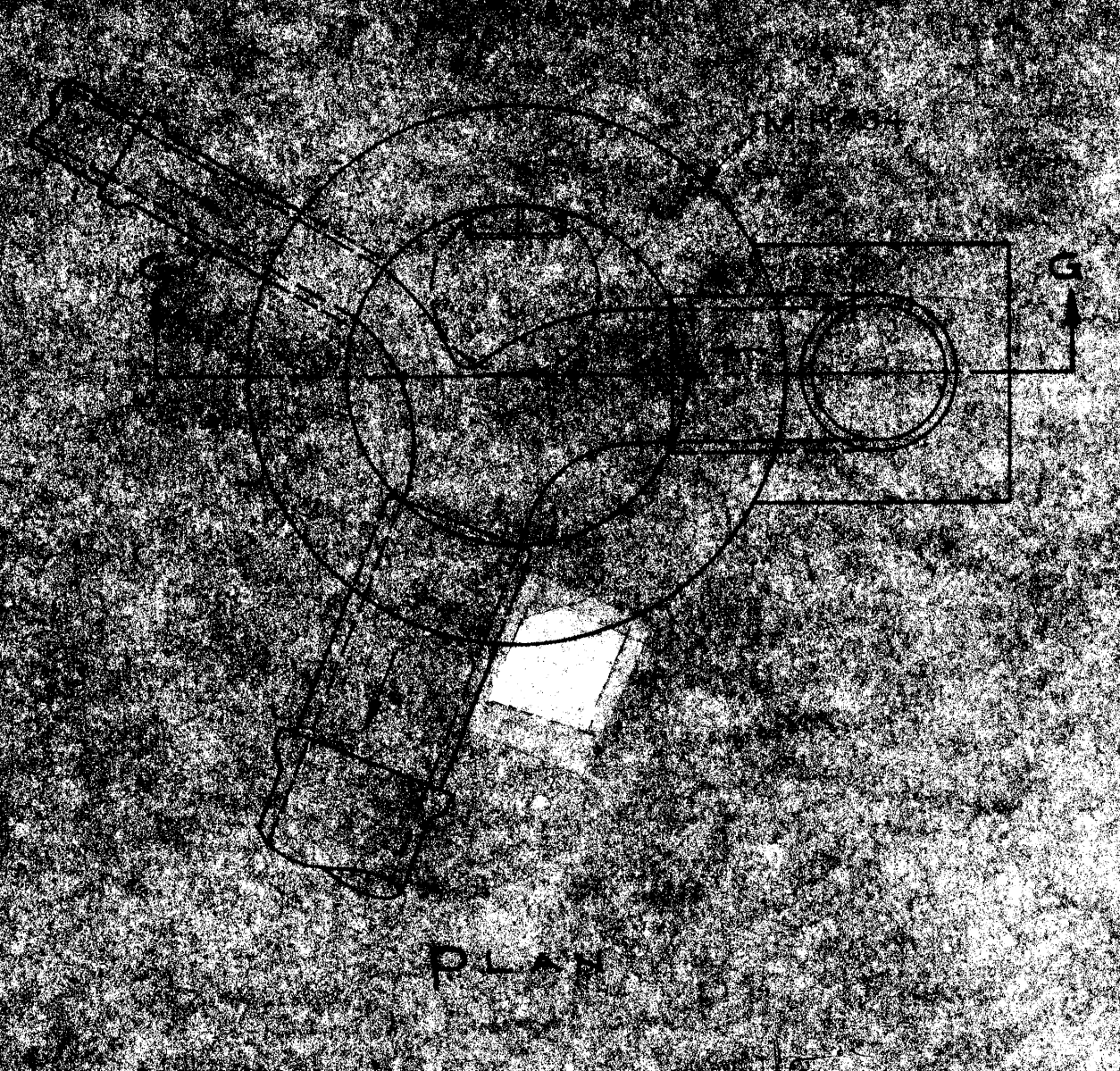
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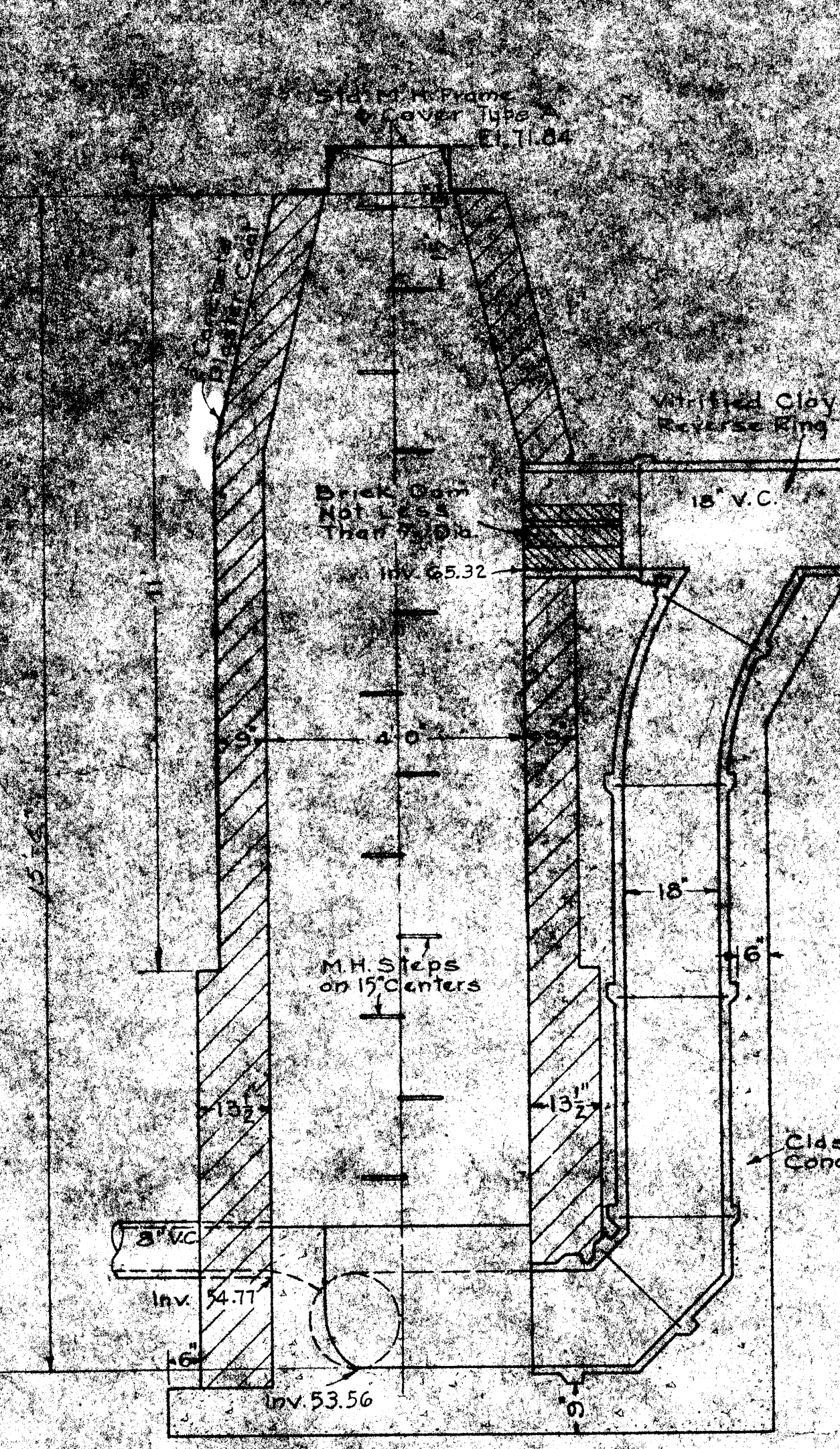
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SECTION E-E

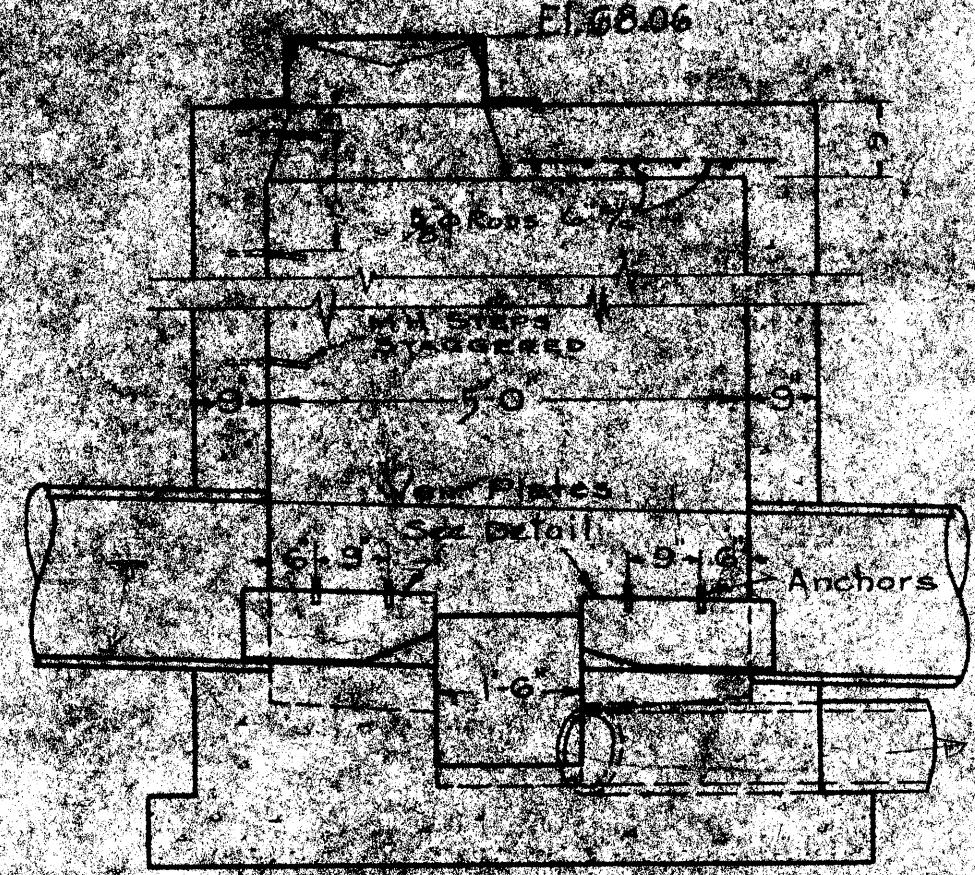


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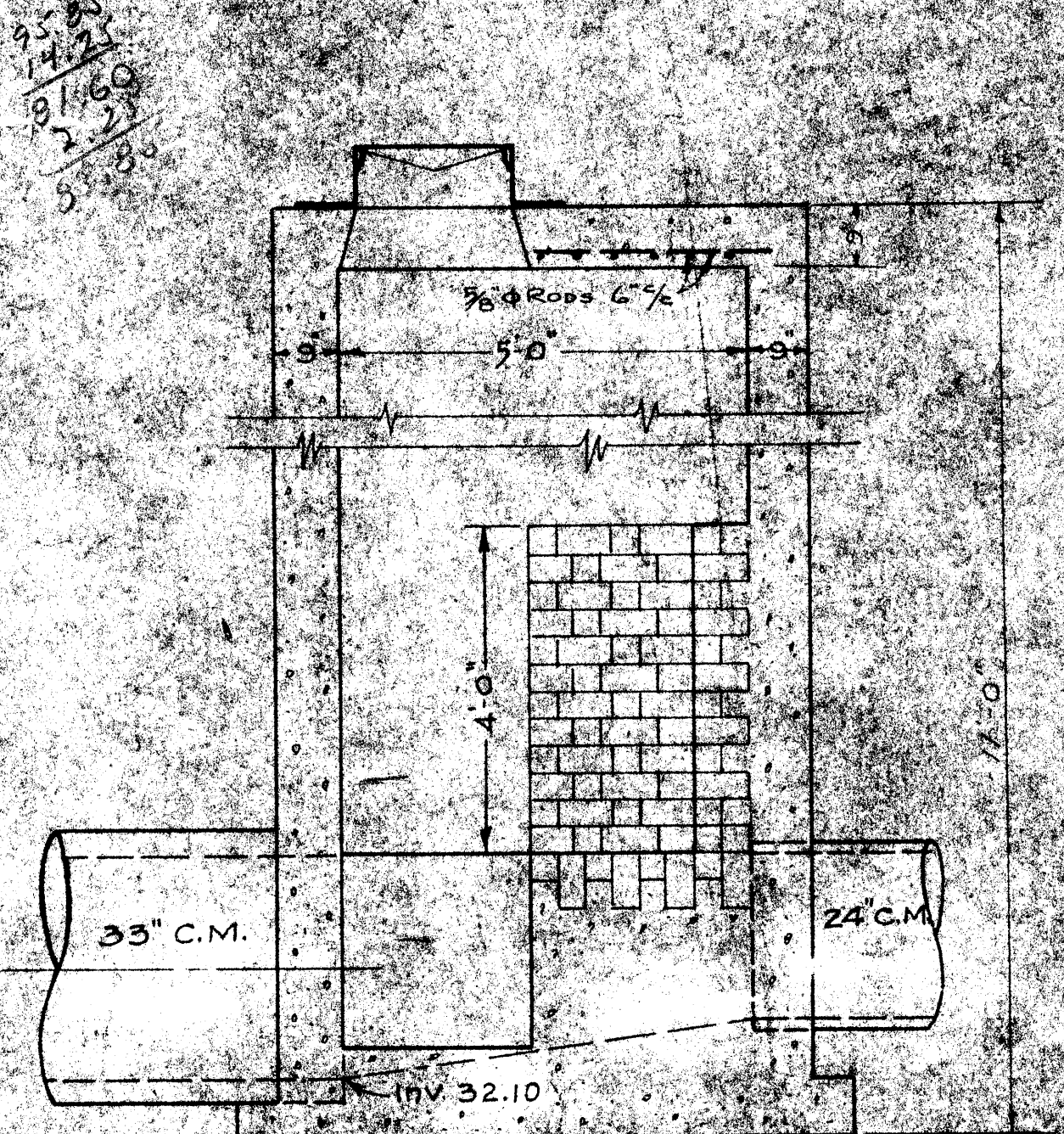


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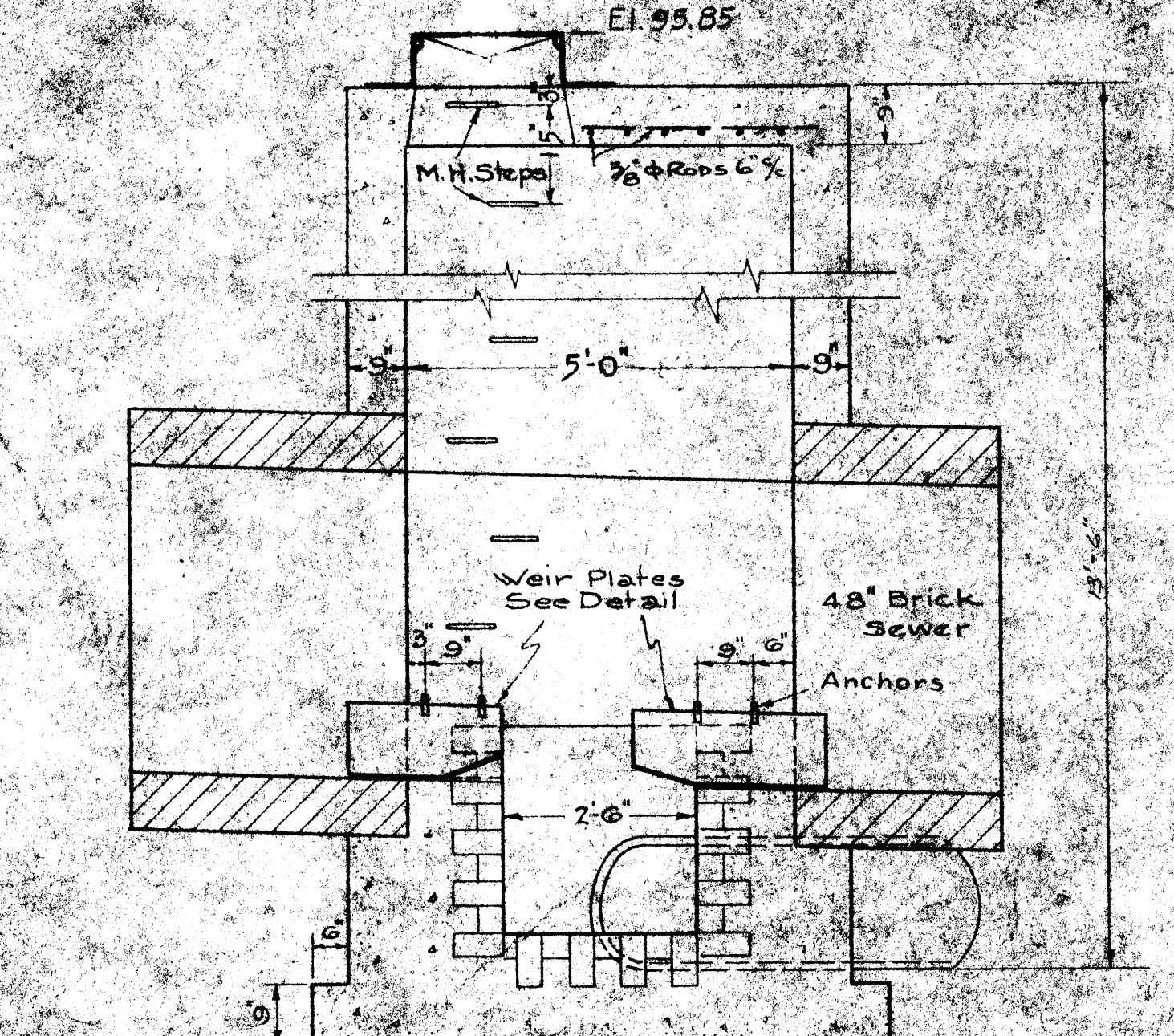
MILL ST SEWER STA. 0+82.24
MANHOLE NO. 34



SECTION F-F
INTERCEPTING CHAMBER NO. 7
(ALBANY ST.)
SCALE: 1"=1'-0"



SECTION D-D
FALLKILL SEWER STA. 49+20.05 EQUALS
MILL ST SEWER STA. 0+00
MANHOLE NO. 33

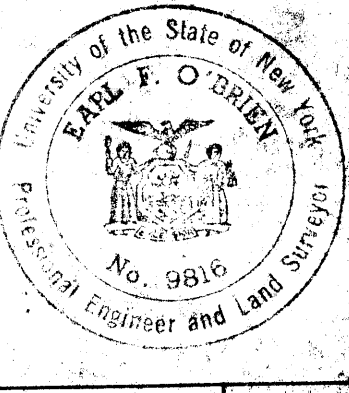


SECTION B-B
INTERCEPTING CHAMBER NO. 6
(MILL ST.)
SCALE: 1"=1'-0"

Note:
All concrete to be Class B
M.H. steps to be Neomoh
Roundness to be 1/8" or equal

CITY OF POUGHKEEPSIE
POUGHKEEPSIE, NEW YORK

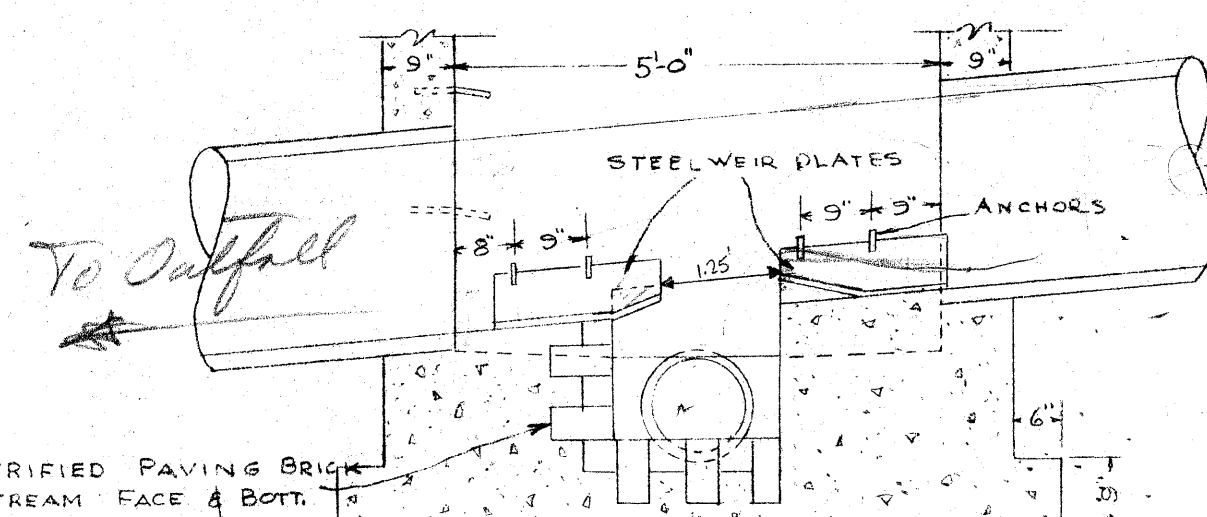
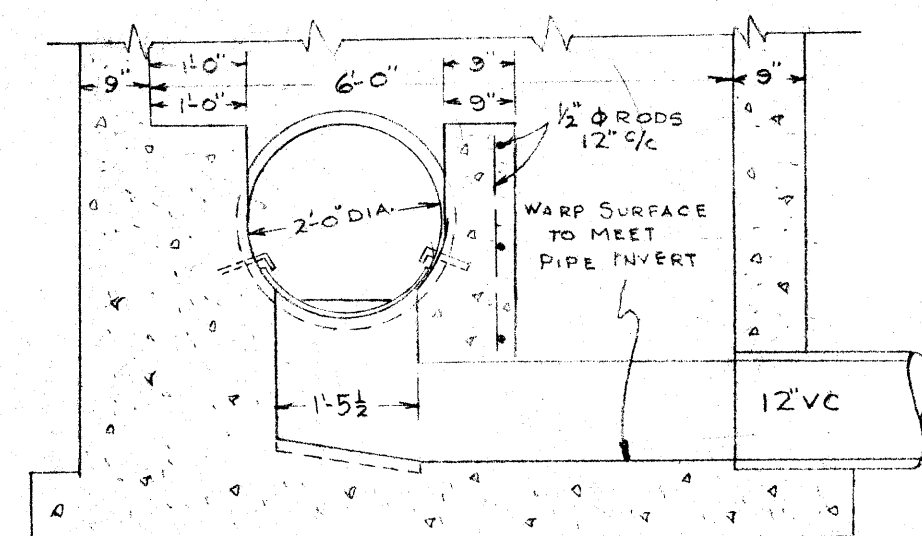
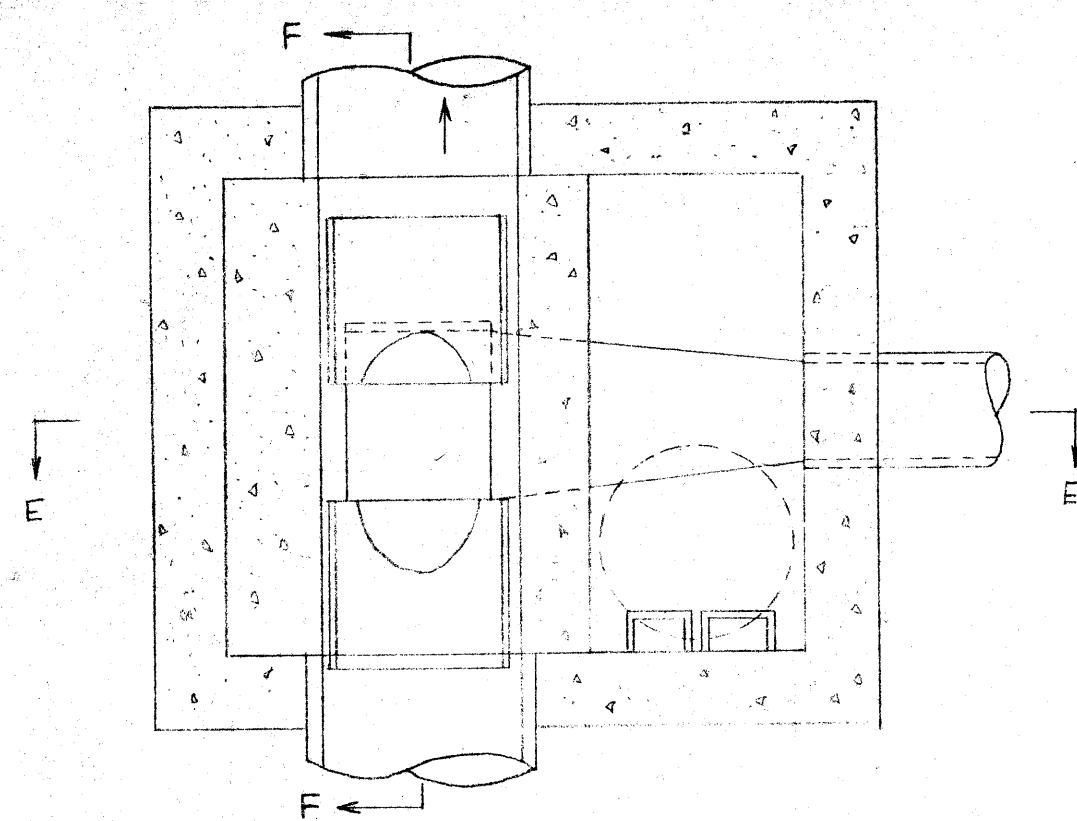
AS BUILT PLANS
FALLKILL INTERCEPTING SEWER
STRUCTURES



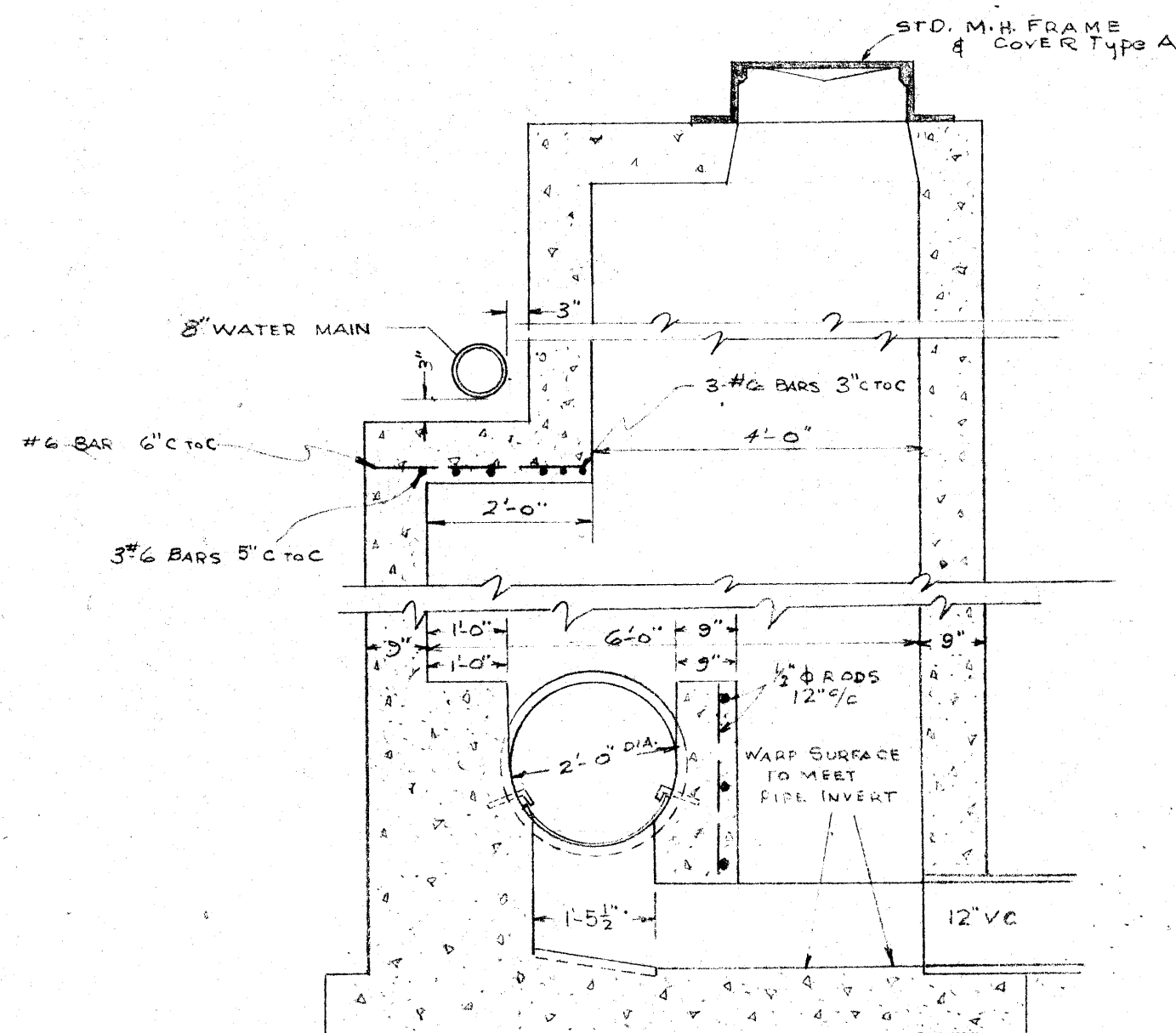
O'BRIEN & GERE
CONSULTING ENGINEERS
SYRACUSE, N.Y.

DATE: NOV. 2, 1959
SCALE: AS SHOWN
FILE NO: 193.12 B

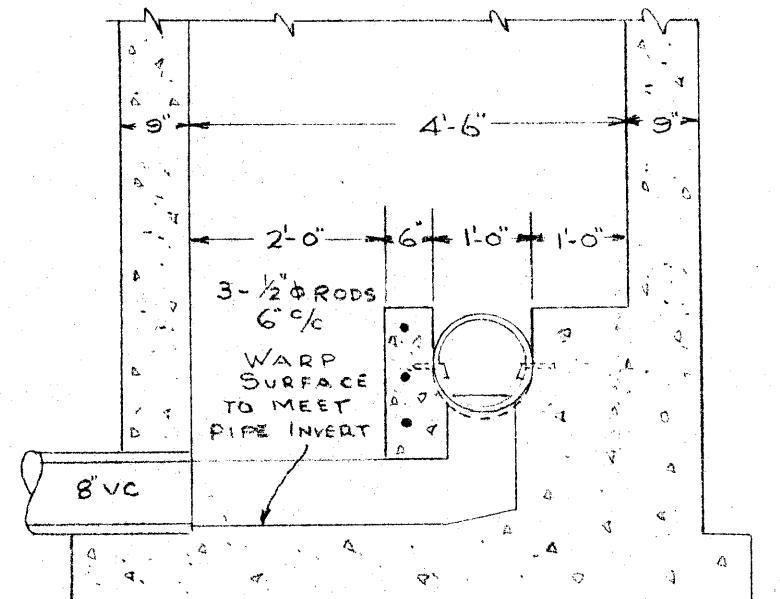
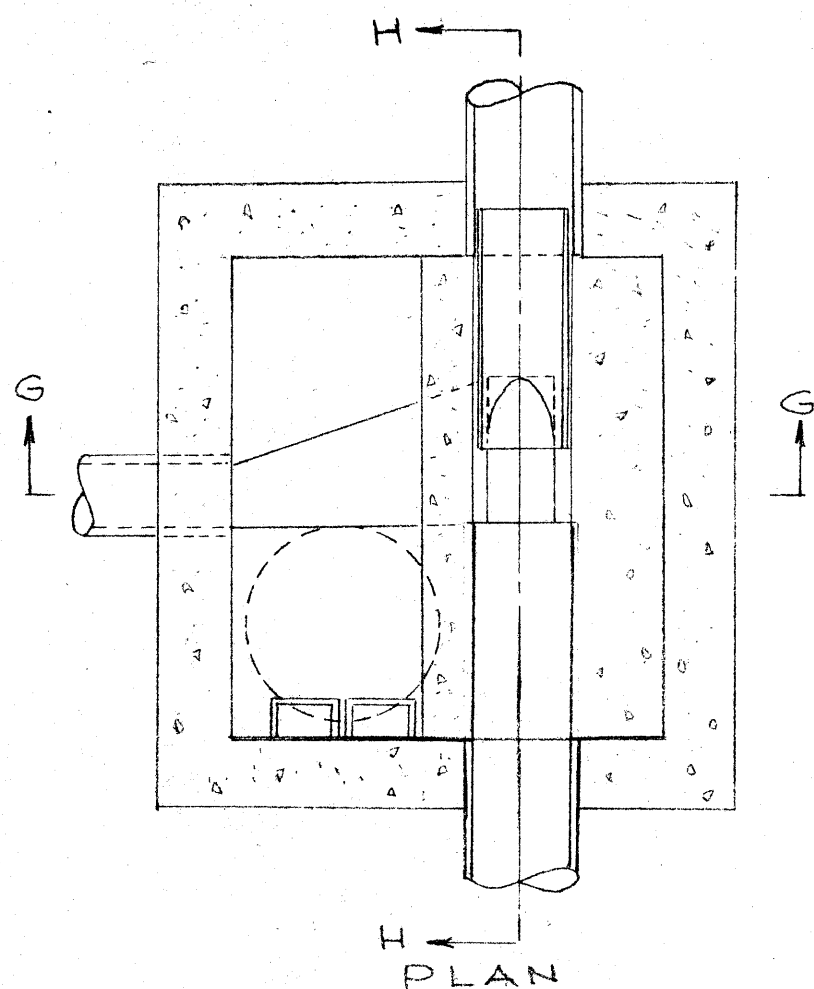
SHEET
9



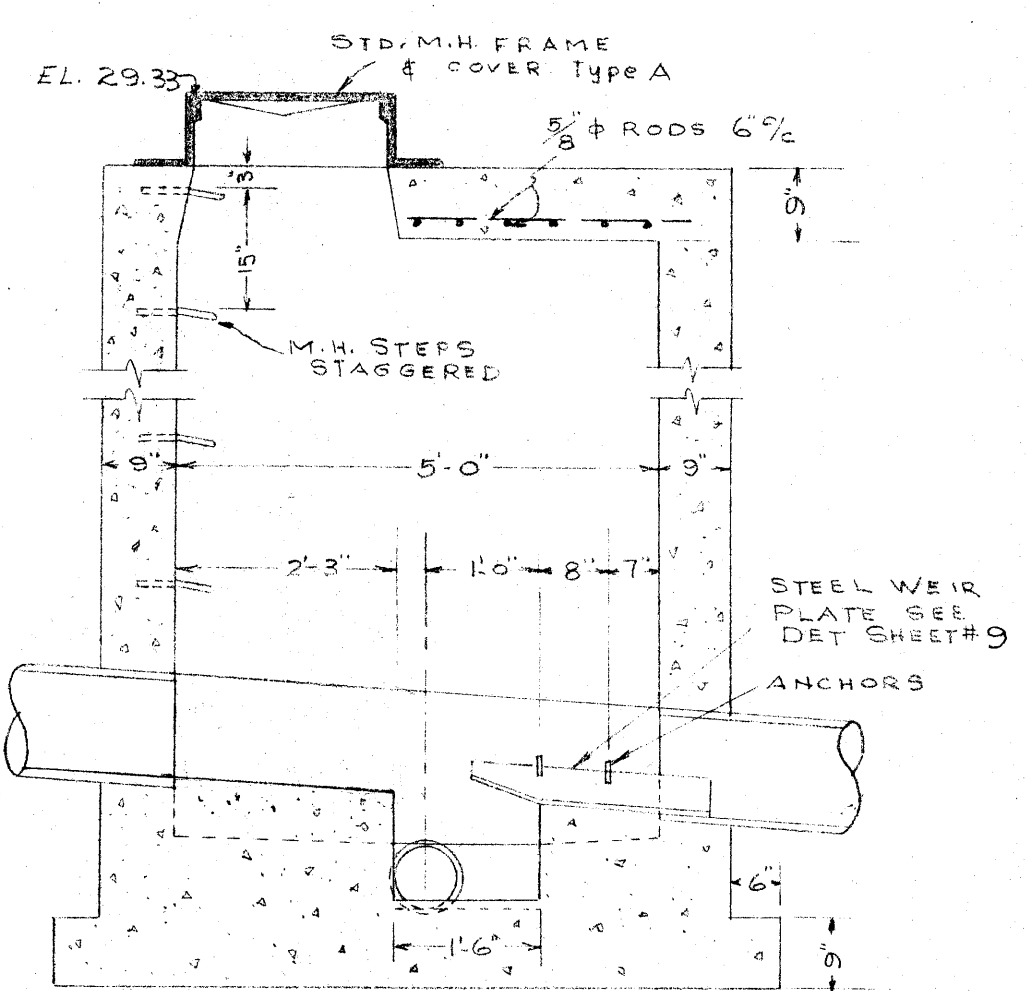
SECTION F-F



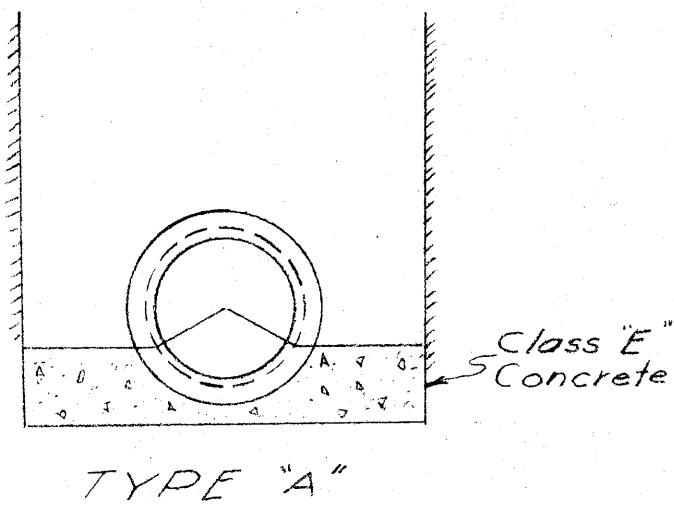
SECTION E-E
INTERCEPTING CHAMBER NO. 5
MAIN STREET
STA. 1+07.03



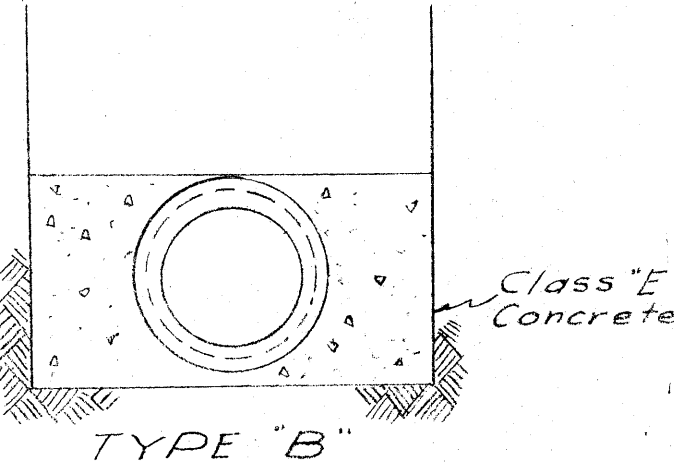
SECTION G-G



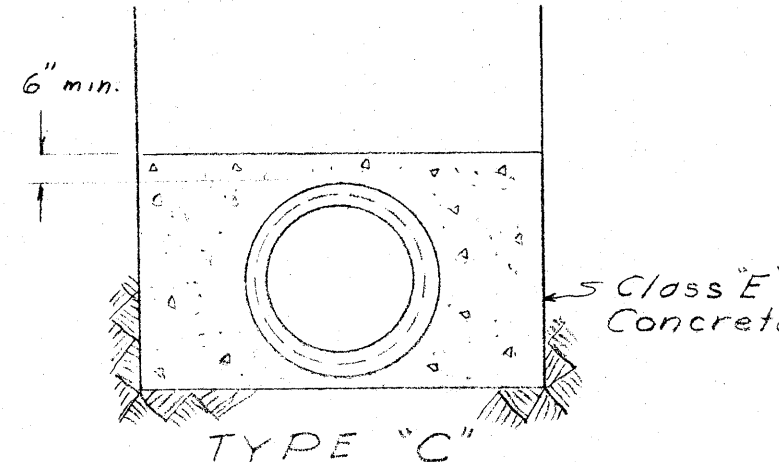
SECTION H-H
INTERCEPTING CHAMBER NO. 4
S. WATER ST.



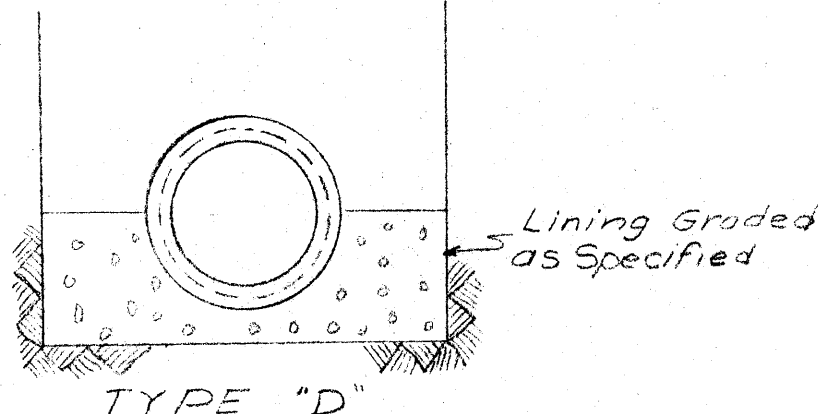
TYPE "A"



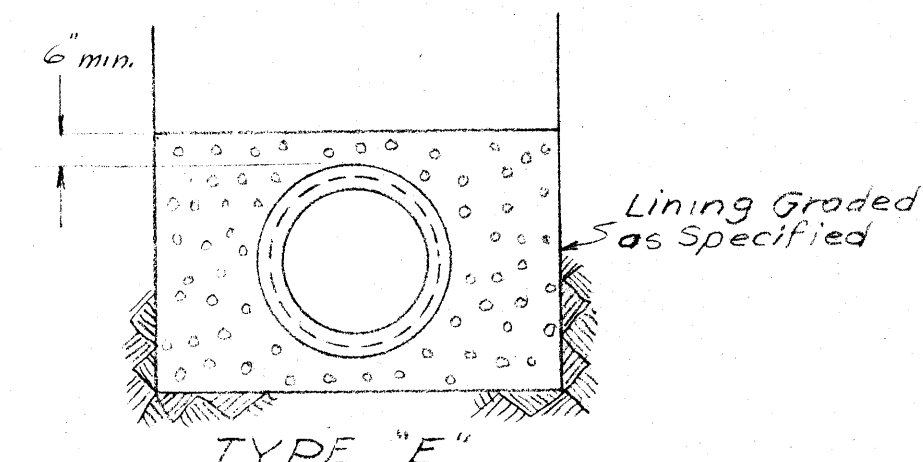
TYPE "B"



TYPE "C"



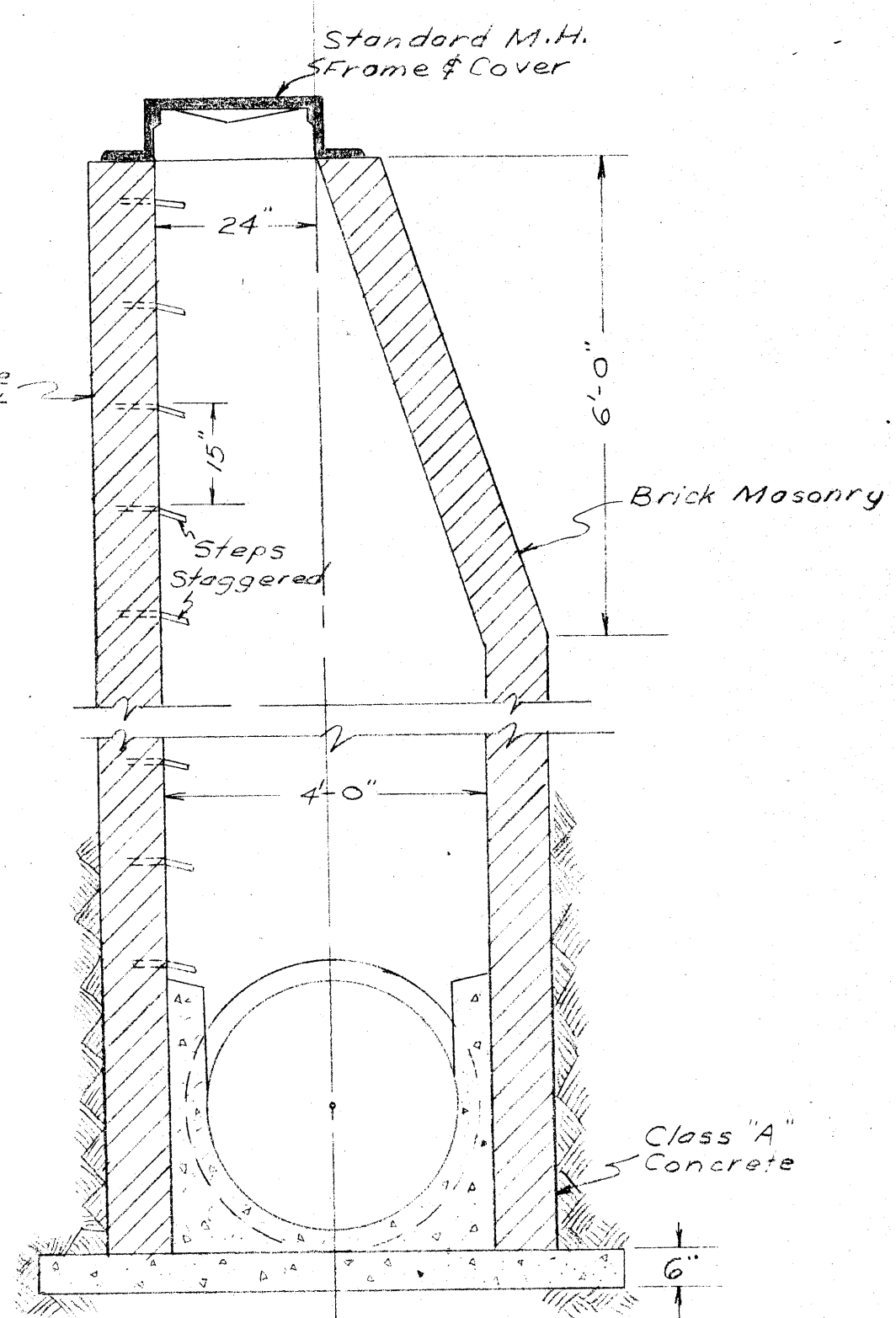
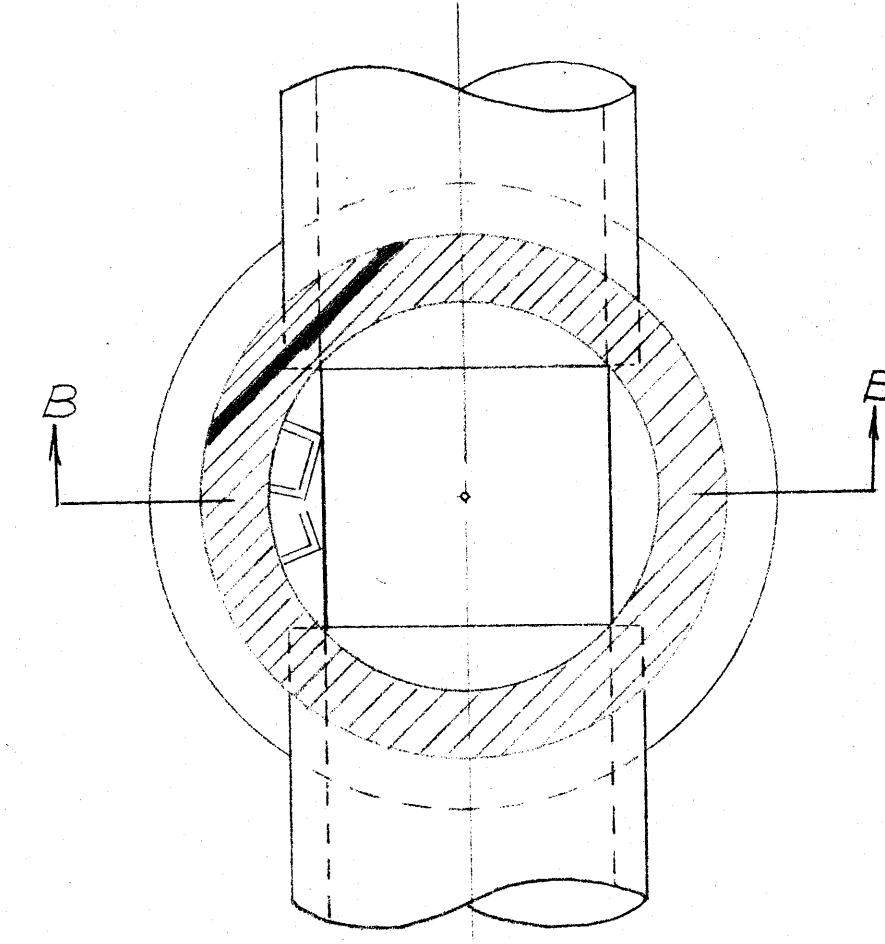
TYPE "D"



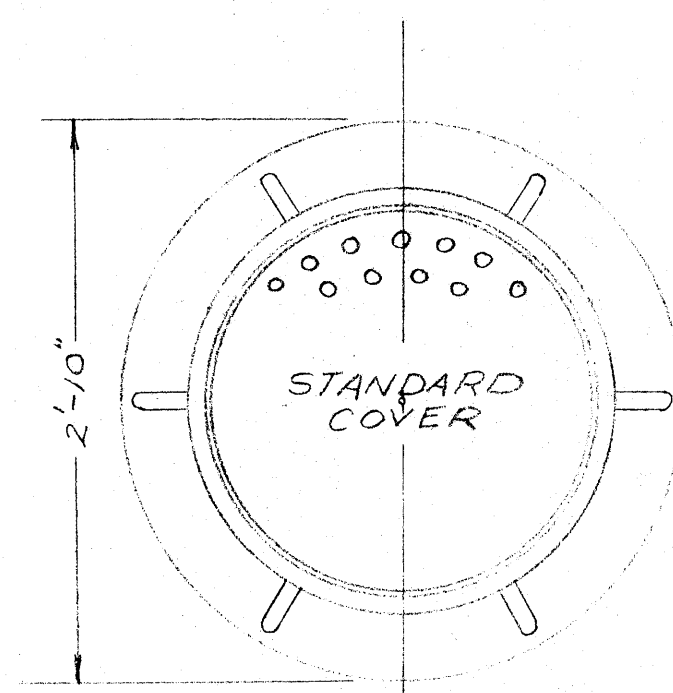
TYPE "E"

TYPE OF CRADLES AND EMBEDMENT

NOT TO SCALE
Note: For Minimum and Maximum dimensions see Specification, Materials and Performance Section 4, Excavation, Trenching and Backfill

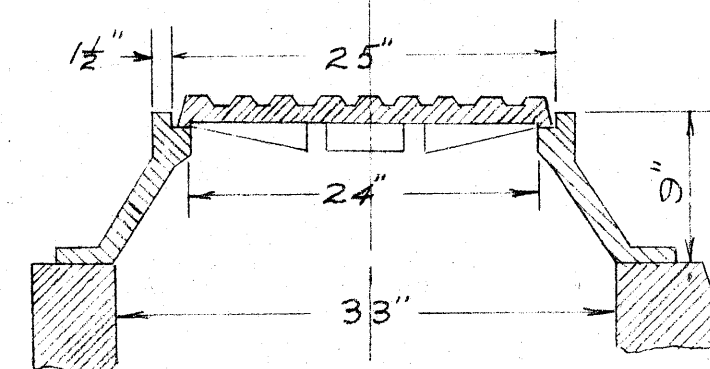


SECTION B-B
STANDARD MANHOLE
Scale: 1/2" = 1'-0"



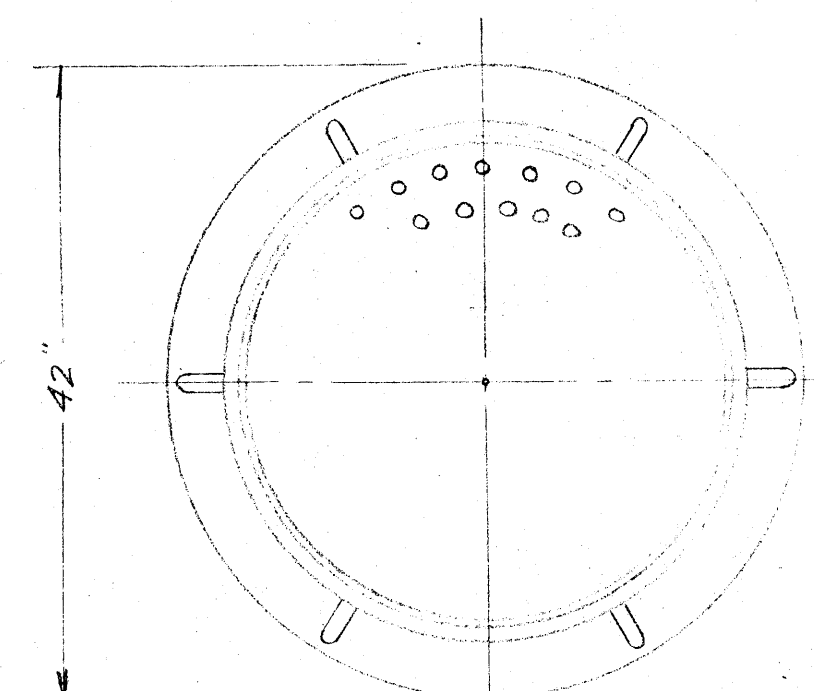
PLAN

Use Campbell Foundry Co. No. 1203 or equal



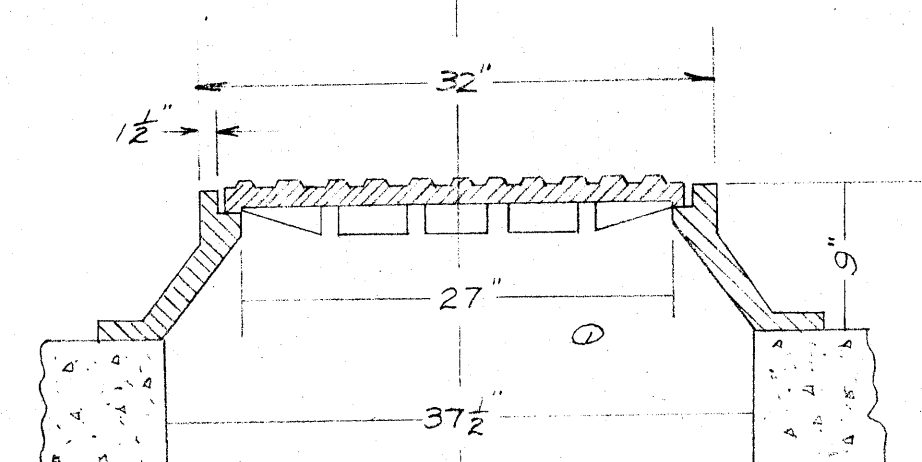
SECTION

STANDARD MANHOLE FRAME & COVER
TYPE "A"
NOT TO SCALE



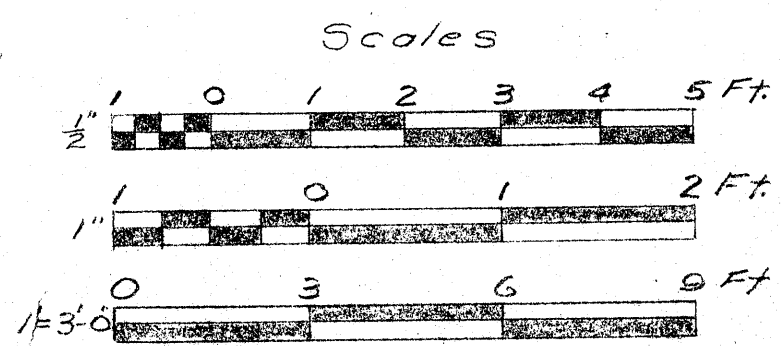
PLAN

Use Campbell Foundry Co. No. 1205 or equal



SECTION

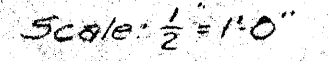
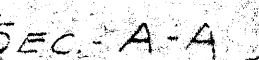
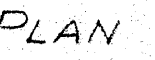
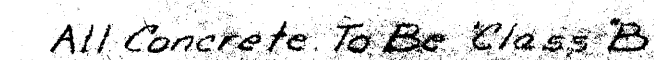
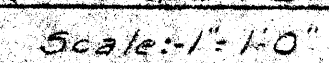
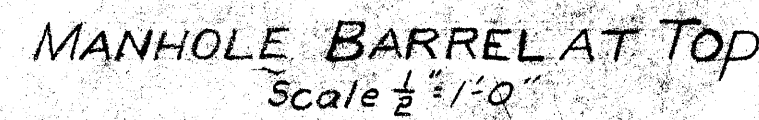
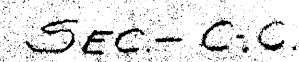
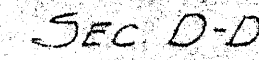
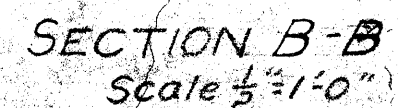
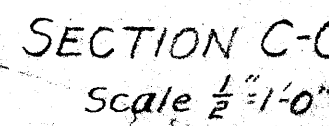
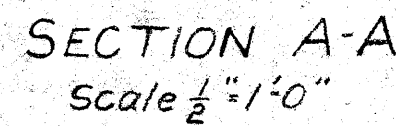
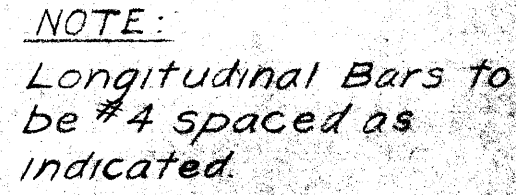
M.H. FRAME & COVER - TYPE C
Scale: 1" = 1'-0"



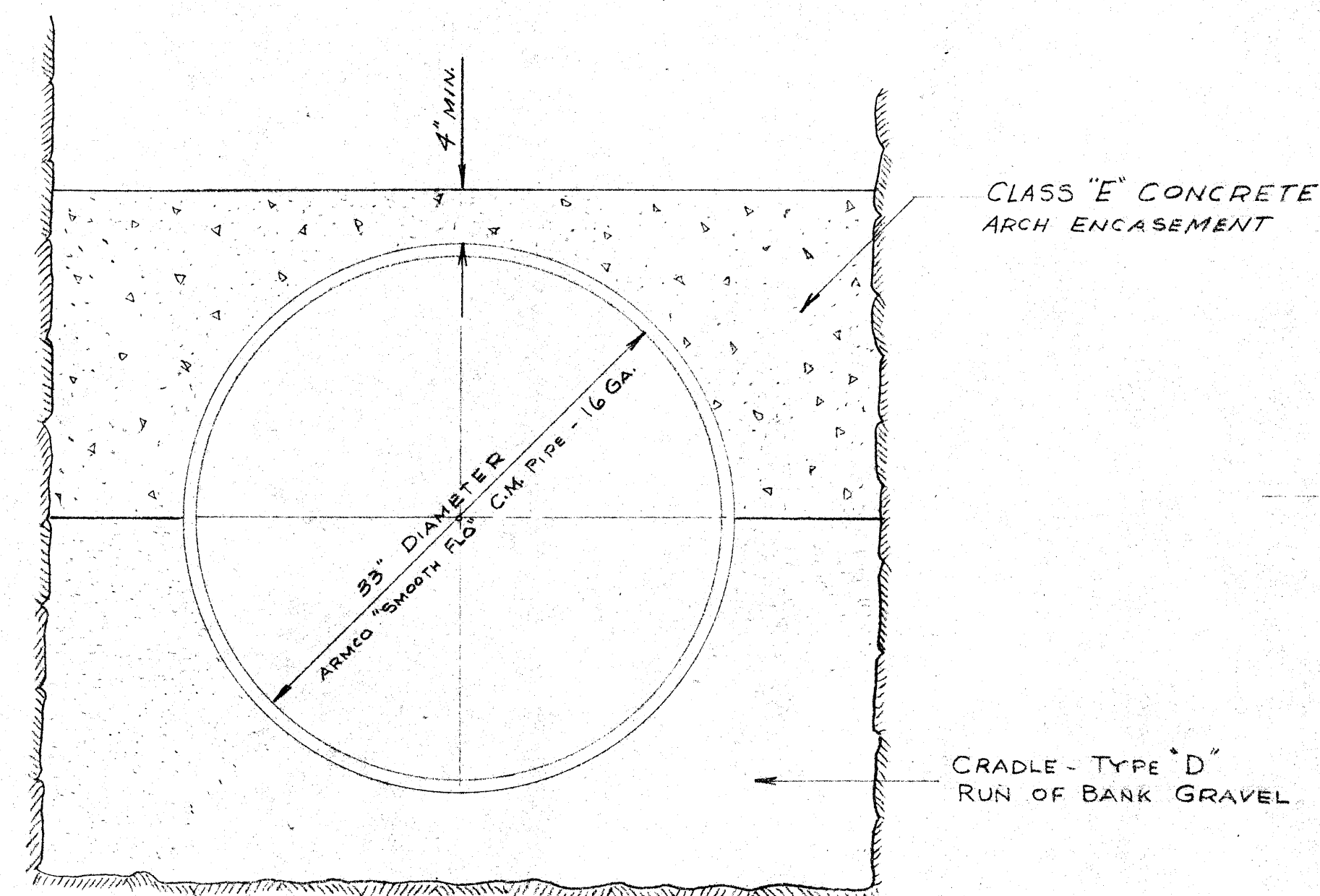
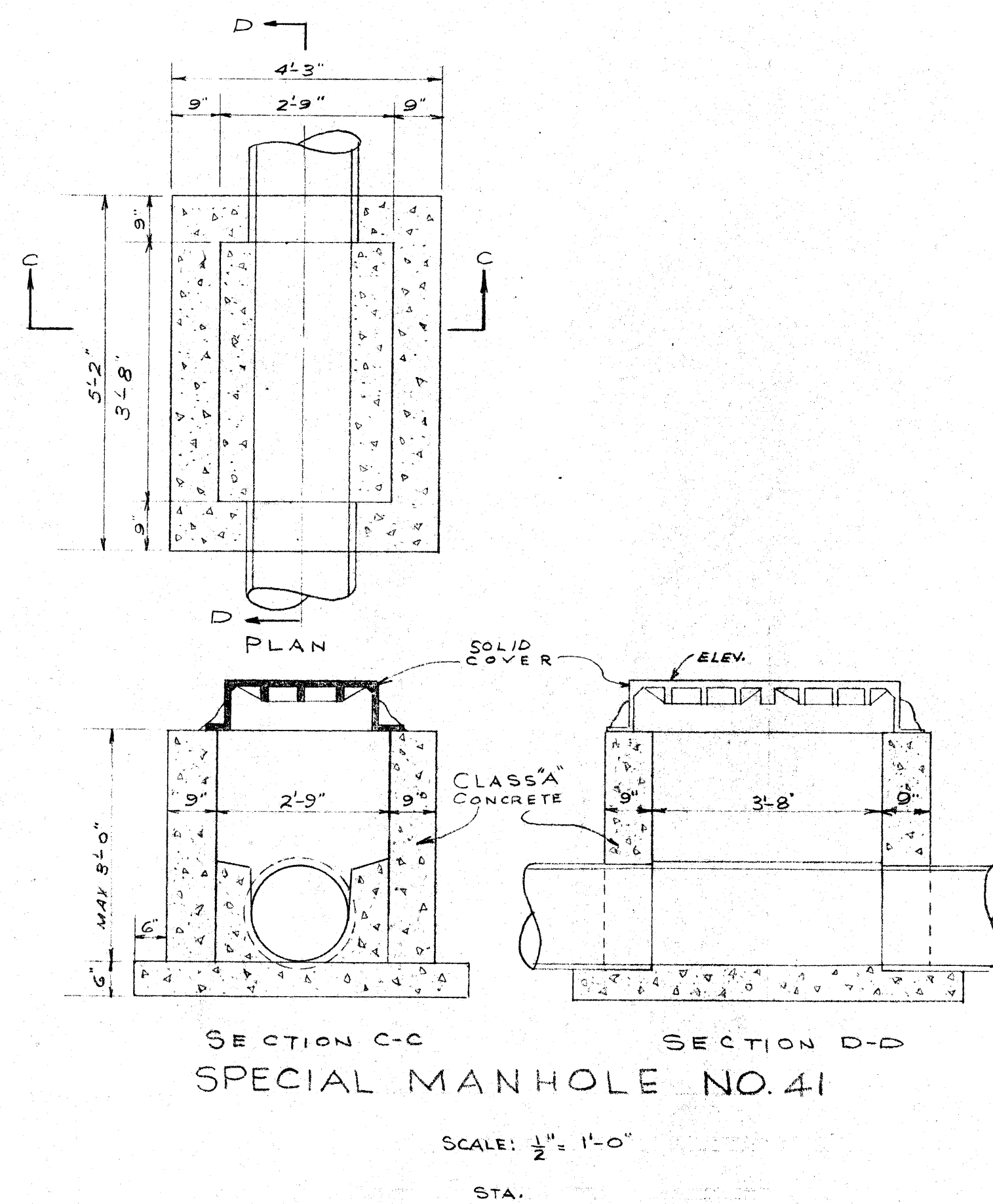
Changed Pipe, Deleted M.H. 25-Add. No. 1

IN CHARGE OF: AS BUILT
DESIGNED BY: SWW
MADE BY: EG
CHECKED BY: NAW

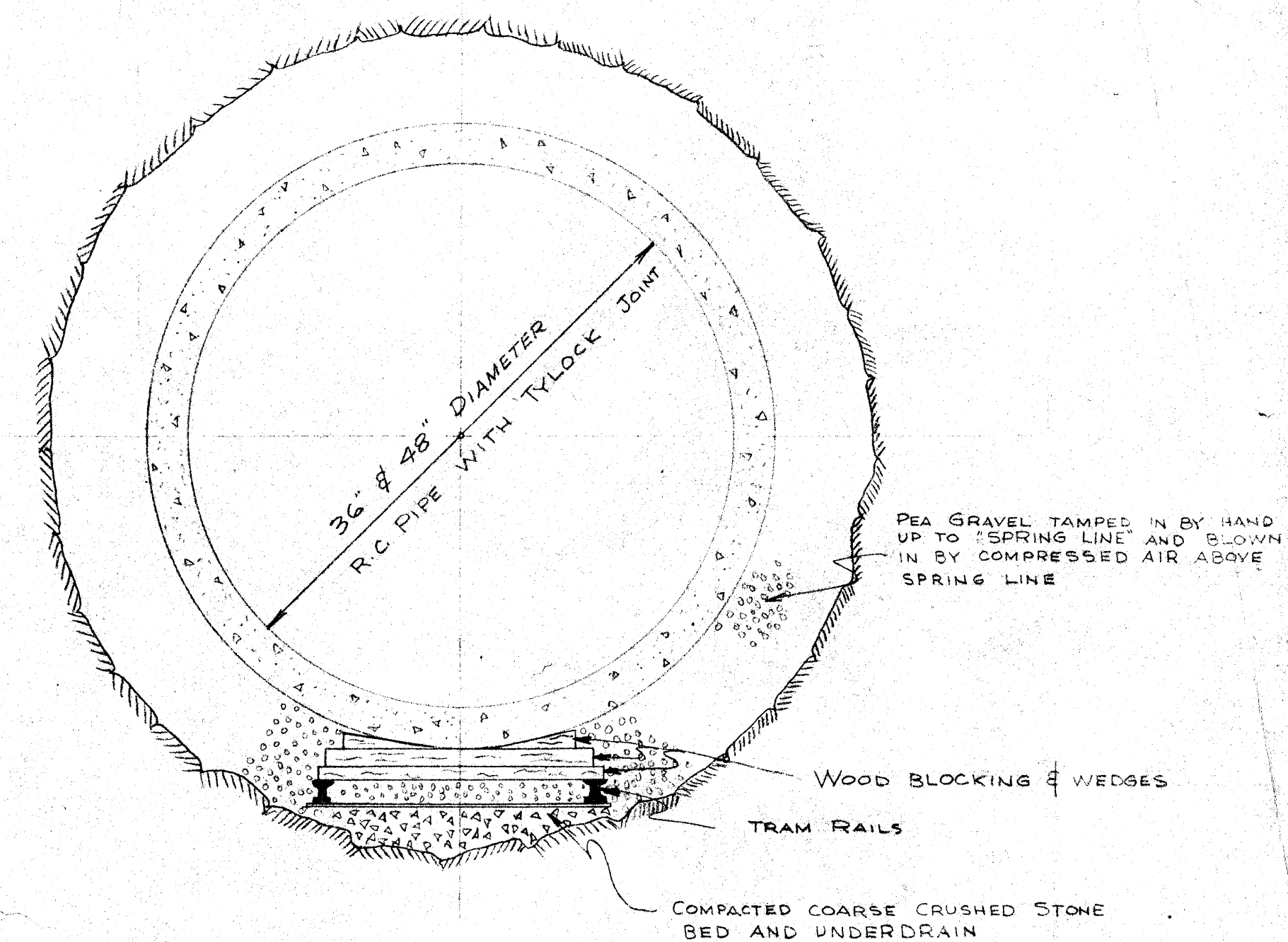
CITY OF POUGHKEEPSIE POUGHKEEPSIE, NEW YORK AS BUILT PLANS PINE STREET AND FALLKILL INTERCEPTING SEWERS STRUCTURES, CRADLES & EMBEDMENTS		
O'BRIEN & GERE CONSULTING ENGINEERS & LAND SURVEYORS PRINCIPLES, NEW YORK	DATE: NOV. 2, 1959 SCALE: AS SHOWN FILE NO.: 193.12B	
REVISIONS		10



Page 884 of 889



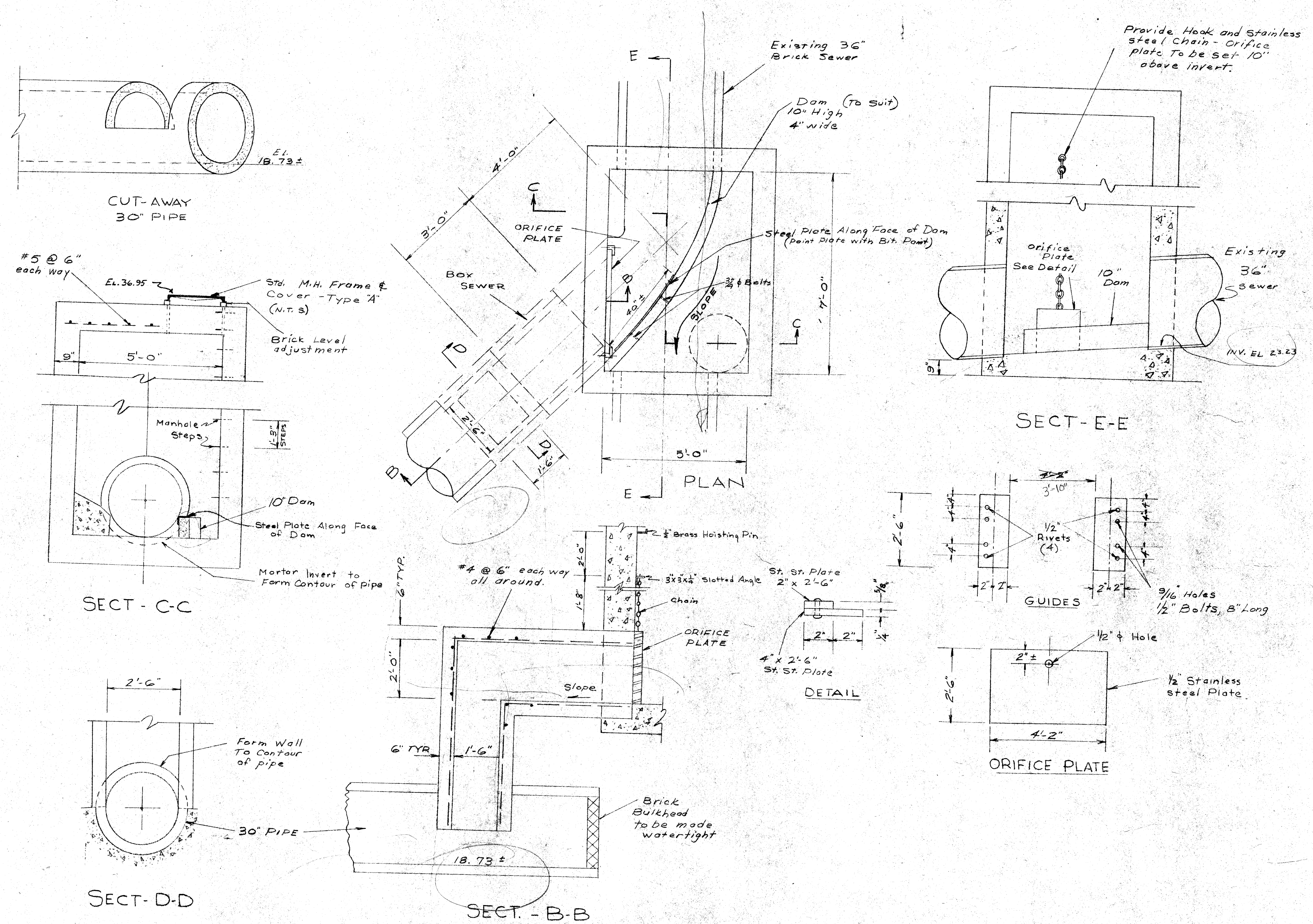
DETAILS OF CONCRETE ARCH OVER
SEWER ALONG N.Y.C. RAILROAD
FALLKILL INTERCEPTING SEWER
STA. 49+57.36 TO STA. 49+20.05
SCALE: 1" = 1'-0"



DETAILS OF SEWER IN TUNNEL
FALLKILL INTERCEPTING SEWER
STA. 0+21.5 TO STA. 29+08.54
AND
PINE ST. INTERCEPTING SEWER
STA. 0+00 TO STA. 0+97.53
SCALE: 1" = 1'-0"

IN CHARGE OF: AS BUILT
DESIGNED BY: SWW
MADE BY: EG
CHECKED BY: N.A.W.

CITY OF POUGHKEEPSIE POUGHKEEPSIE, NEW YORK AS BUILT PLANS PINE STREET AND FALLKILL INTERCEPTING SEWERS SPECIAL DETAILS		NOV. 2, 1959 SCALE: AS SHOWN FILE NO: 193.12B	12
O'BRIEN & GERE CONSULTING ENGINEERS & LAND SURVEYORS SYRACUSE, NEW YORK			



DETAILS OF INTERCEPTING CHAMBER NO. 1
 STA. 6+26.28 ON PINE STREET
 SCALE: 1/2" = 1'-0"

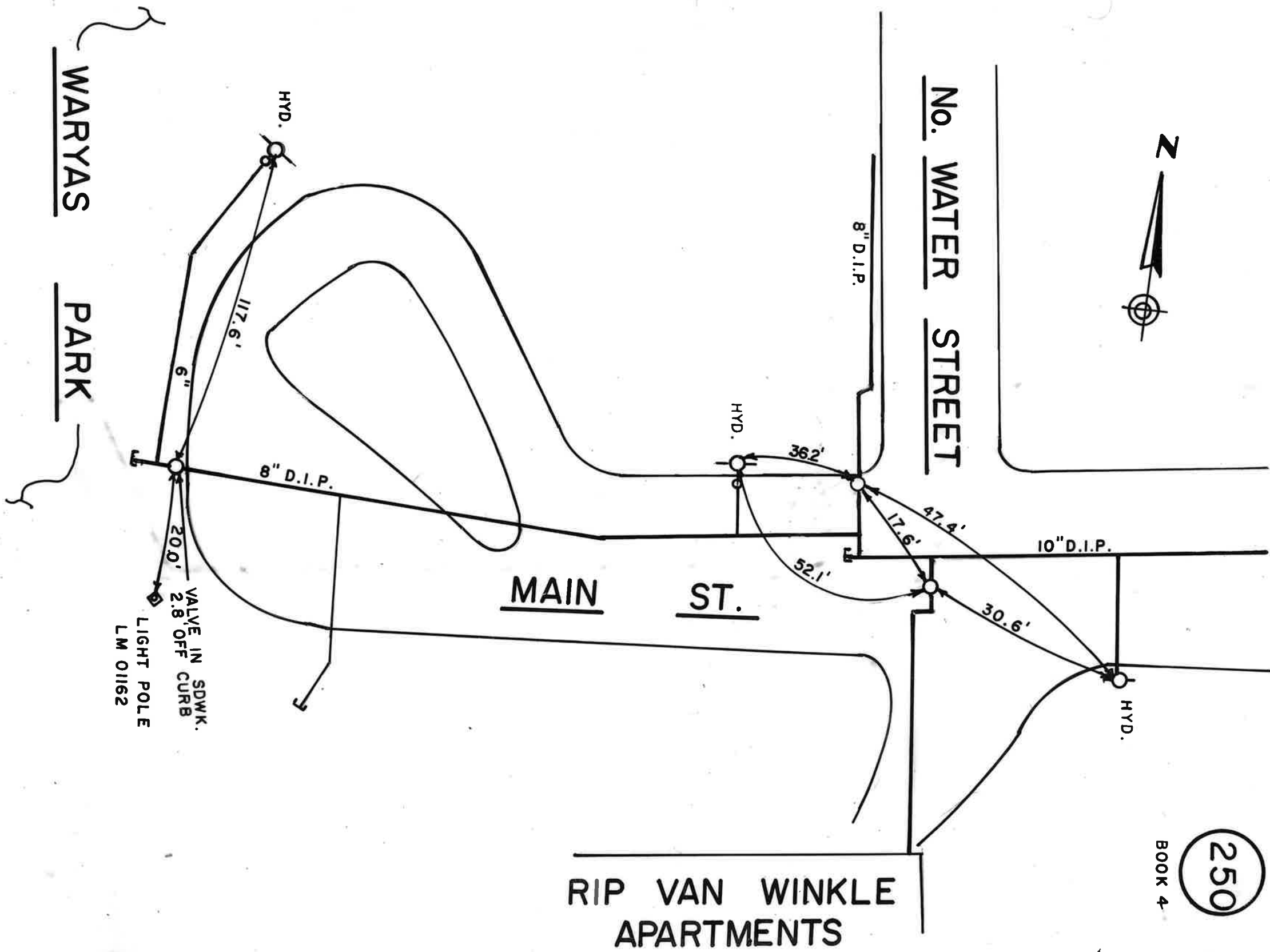
AS BUILT
 IN CHARGE OF: S.W.W.
 DESIGNED BY: E.G.
 MADE BY: E.G.
 CHECKED BY: N.A.W.

CITY OF PO
 POUGHKEEPS
 AS BU
 PINE STREET INTE
 SPECIAL STRU

O'BRIEN & G
 CONSULTING ENGINEERS & L
 SYRACUSE, NEW



250
BOOK 4

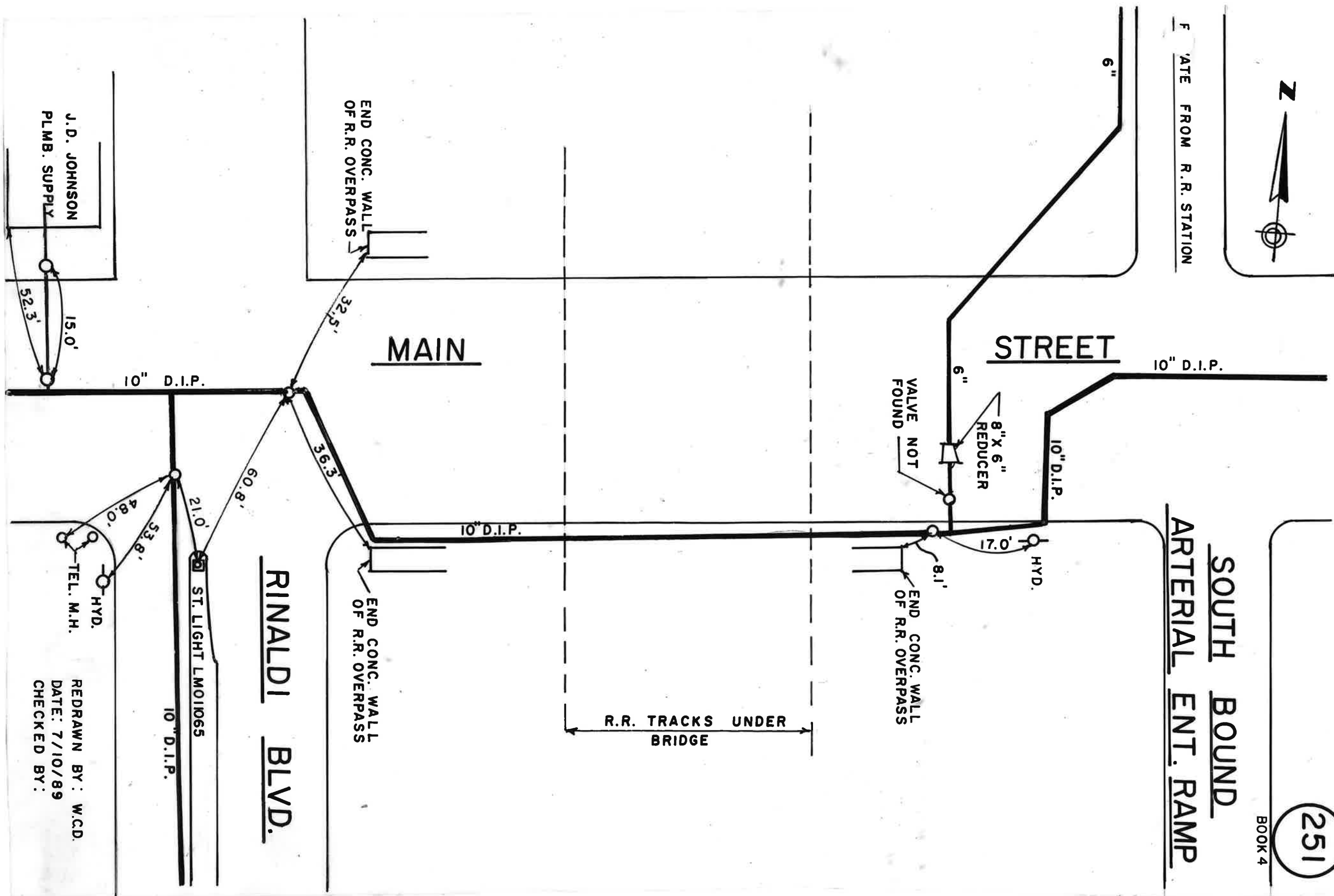




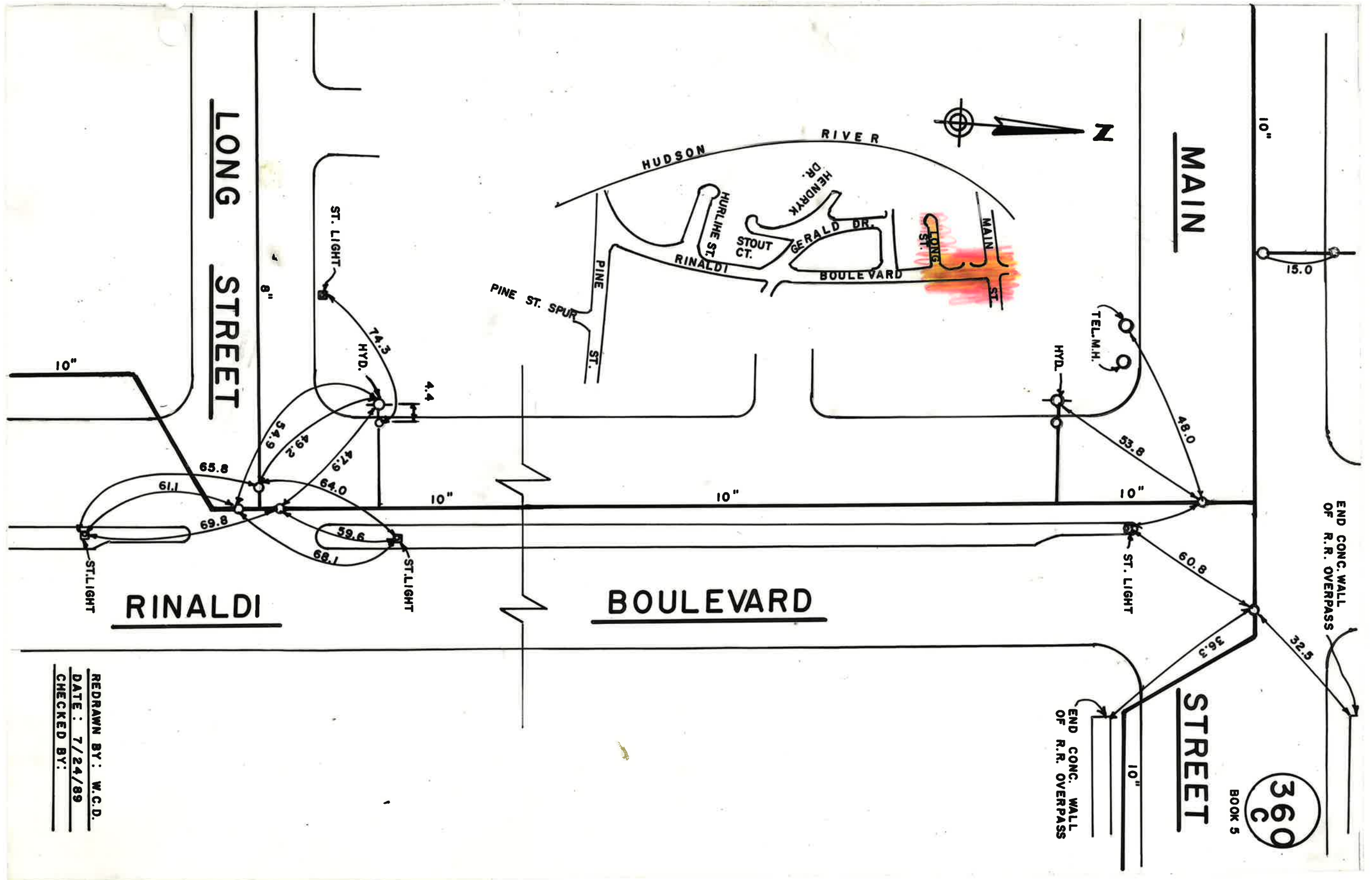
F 'ATE FROM R.R. STATION

251
BOOK 4

SOUTH BOUND
ARTERIAL ENT. RAMP



REDRAWN BY: W.C.D.
DATE: 7/10/89
CHECKED BY:



REDRAWN BY: W.C.D.
 DATE: 7/24/89
 CHECKED BY: