TOWN OF CARMEL
PLANNING BOARD

60 McAlpin Avenue
Mahopac, New York 10541
Tel. (845) 628-1500 – Ext.190
www.ci.carmel.ny.us

PLANNING BOARD AGENDA
OCTOBER 12, 2023– 7:00 P.M.

		TAX MAP #	PUB. HEARING	MAP DATE	COMMENTS
PUBLIC HEARING					
1.	Success Realty LLC (Weiss) – 11 Sunset Blvd	54.19-1-11	10/12/23	8/8/23	Public Hearing & Resolution
2.	Diamond Point Development – 4 Baldwin Place Rd	86.10-1-2 & 3	10/12/23	8/30/23	Site Plan
RESOLUTION					
3.	Western Bluff Subdivision – 350 West Shore Dr.	66.14-1-20		8/7/23	Final Subdivision
SITE PLAN					
4.	Evans Septic Tank Service – 53 Old Route 6	55.11-1-18		9/27/23	Site Plan
5.	Chang, John – 716 Route 6	76.30-1-26		9/1/23	Amended Site Plan
MISCELLANEOUS					
6.	14 Nicole Way LLC (Zakon) – 14 Nicole Way	65.6-1-22		9/29/20	Bond Return
7.	70 Old Route 6, LLC – 70 Old Route 6, Carmel	55.11-1-15		12/8/16	Re-Approval of Final Site Plan

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

October 2, 2023

Town of Carmel Planning Board
60 McAlpin Avenue
Mahopac, New York 10541

RE: Diamond Point Development
4 Baldwin Place Road
Town of Carmel
TM#'s: 86.10-1-2&3

Dear Chairman Paeprer and Members of the Board:

Please find enclosed the following plans and documents in support of the application for site plan approval for the above referenced project:

- Sixteen (16) sheet Site Plan Set, last revised October 2, 2023.
- Figure CPP-1 Conversion Parking Plan, dated October 2, 2023.
- Stormwater Pollution Prevention Plan (SWPPP), last revised October 2, 2023.
- Revised Architectural floor plans and elevations by Stinard Architecture Inc.
- Revised Architectural Street View Renderings.
- Self Storage Signage Design Drawings, dated September 28, 2023.
- Letter of No Concern from the NYS Office of Parks Recreation and Historic Preservation, dated September 19, 2023.

In response to open comments received from Director of Code Enforcement, Michael Carnazza, dated September 11, 2023, we offer the below responses. Please note that the below only responds to comments not indicated as previously addressed:

2. There will be one sign near the Route 6 entrance and one building mounted sign. See the enclosed Signage Design Drawings.

3. See the enclosed Conversion Parking Plan.

4. The building has been sited based on a number of factors. These include cut fill analysis, driveway slopes, and the need for stormwater practices downhill of the proposed development. This being the case, the current location of the main storage building cannot be moved closer to the road. It is also believed that by moving it closer to the road would give the building a bigger presence along the property frontage.

In response to open comments received from Town Engineer Richard Franzetti, PE, dated September 6, 2023, we offer the following responses:

Detailed Comments

1. Site distances and driveway profiles are provided.

2. As discussed, work is proposed in both the New York State Department of Transportation (NYSDOT) and Putnam County Department of Highways and Facilities (PCDHF), and the applicant is coordinating with both agencies to secure the required permits. A meeting was recently had onsite with the NYSDOT to review the proposed improvements, which were initially well received.

3. Details on the well and septic system have been added to the plans. The proposed fire protection tanks are shown on drawing SP2.2. Construction details for the system will be submitted by the applicant's MEP Engineer separately.

4. Landscape & Layout Plan

   a. A note regarding the plants being verified by the Town of Carmel Wetland Inspector has been added to drawing SP-1.1.

   b. Photometric lighting plans (drawings LP-1.1 & LP-1.2) has been added to the drawing set.

5. Grading & Utilities Plan

   a. Rims and inverts for the drainage collection system have been added to the drawings.

   b. The enclosed SWPPP has been updated to include pipe sizing calculations. See Appendix G.

   c. Buildings will connect to the existing on-site electrical service. The proposed electrical lines, well and sewer / septic components are shown on the plans, and will be buried. Additional details regarding the well and sewer / septic components have been added to the detail sheets.

   d. Additional details regarding the proposed SSTS system can be found on Drawing D-3.

   e. A note has been added to drawing OP-1 indicating that all on site utilities are to be buried.

In response to open comments received from Town Planner, Patrick Cleary, AICP, dated September 14, 2023, we offer the following responses:

1. Building Architecture

   The applicant's architect looked at the option to use the gambrel style roofline. It was determined that the gambrel style could feasibly be added on the end peaks of the building. See the enclosed revised architectural elevations. Adding the gambrel style roofline to the central peak was studied, but it was determined that it would significantly increase the height of the building and would cause structural challenges. For this reason the gable style remains on the central roof line.

We respectfully request the project be placed on the October 12, 2023 Planning Board agenda for a public hearing and discussion of the project with the Board. Should you have any questions or comments regarding this information, please feel free to contact our office.

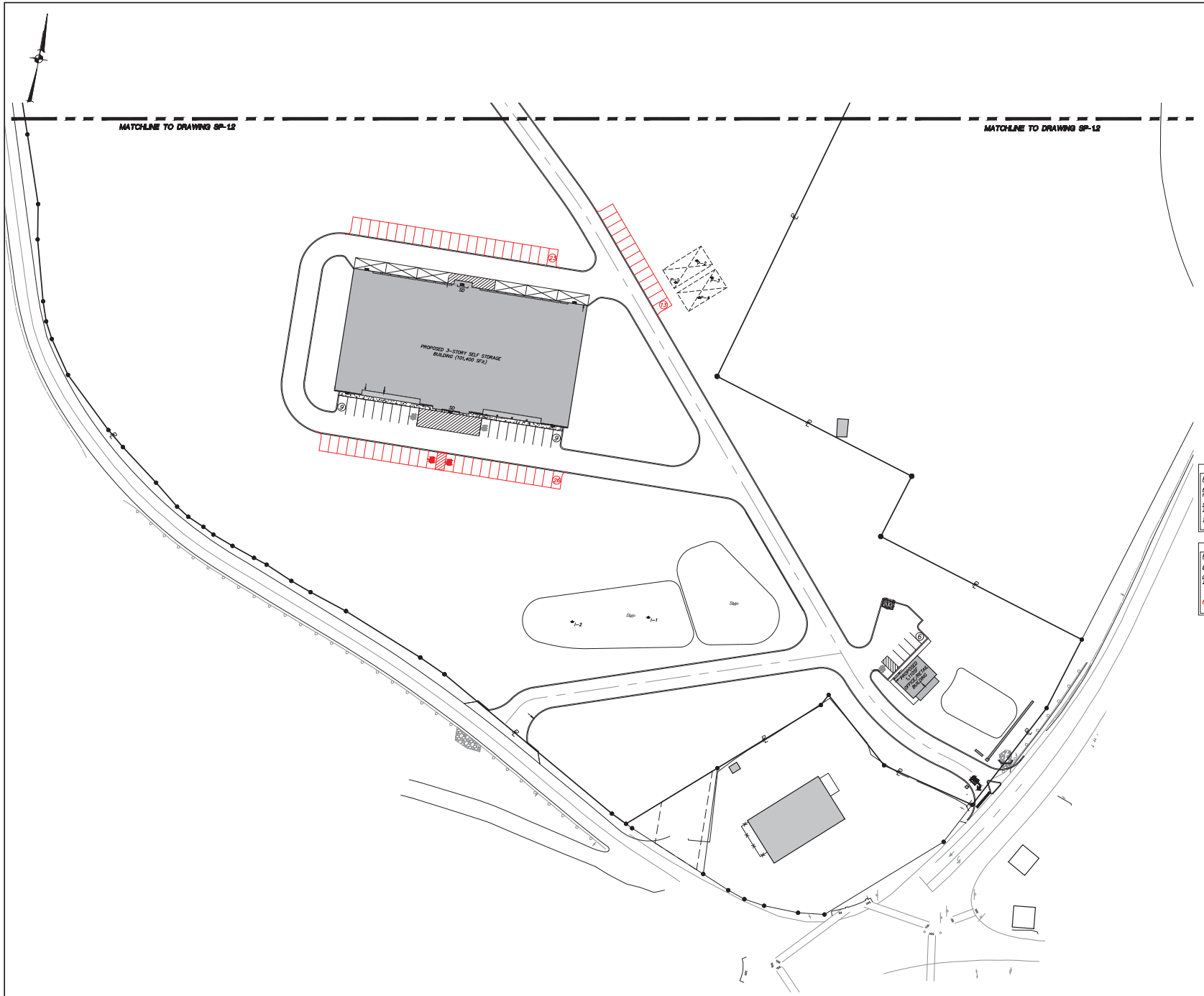
Very truly yours,

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

By: _____
Richard D. Williams, PE
Senior Principal Engineer

RDW/adt

Enclosures
cc: (All via email only) Aaron Sommer, Jason Sommer, Jennifer Grey, Esq, Scott Stinard, John Anastasiou, AIA



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING WETLAND LINE AND SYMBOL
- EXISTING WETLAND BUFFER
- EXISTING WATERCOURSE
- EXISTING BRUSH LINE
- EXISTING TREE LINE
- PROPOSED # OF STALLS TO BE STRIPED
- PROPOSED CONCRETE CURB
- PROPOSED DROP CURB & RAMP
- PROPOSED EDGE OF SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED PAINTED CROSSWALK
- PROPOSED PAINTED STOPBAR
- PROPOSED DOUBLE YELLOW LINE
- PROPOSED SINGLE BROKEN WHITE LINE
- PROPOSED PAINTED DIRECTIONAL ARROW
- PROPOSED PAINTED HANDICAP PARKING SYMBOL
- PROPOSED ADA COMPLIANT RAMP
- PROPOSED STRIPED ISLAND
- PROPOSED LOADING SPACE
- PROPOSED RECYCLE / TRASH CONTAINER / REFUSE ENCLOSURE
- PROPOSED SINGLE POLE SIGN
- PROPOSED DOUBLE POLE SIGN
- PROPOSED DOUBLE SIDED SIGN
- PROPOSED BOLLARD
- PROPOSED GUIDE RAIL
- PROPOSED POLE MOUNTED LIGHT
- PROPOSED POST MOUNTED LIGHT
- PROPOSED BUILDING MOUNTED LIGHT
- PROPOSED DOOR LOCATION
- PROPOSED OVERHEAD DOOR LOCATION
- PROPOSED LANDSCAPING
- PROPOSED TREELINE

DPD PARKING SUMMARY

PARKING:

RETAIL 1,110 SF @ 1 PARKING SPACE/200SF	= 6 REQUIRED
SELF STORAGE 221,400 SF @ 1 PARKING SPACE/10,000SF	= 23 SPACES REQUIRED
TOTAL PARKING SPACES REQUIRED	= 29 SPACES PROVIDED

CONVERSION PARKING SUMMARY

PARKING:

EXISTING SPACES TO REMAIN (AS SHOWN ON DPD SITE PLAN)	= 28 SPACES
CONVERSION PARKING 221,400 SF @ 1 PARKING SPACE/1,000	=222 SPACES REQUIRED -28 PROPOSED DPD SPACES 194 ADDITIONAL SPACES
PROVIDED CONVERSION SPACES	=194 SPACES (W/REQUIRED 7 HC SPACES)

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY

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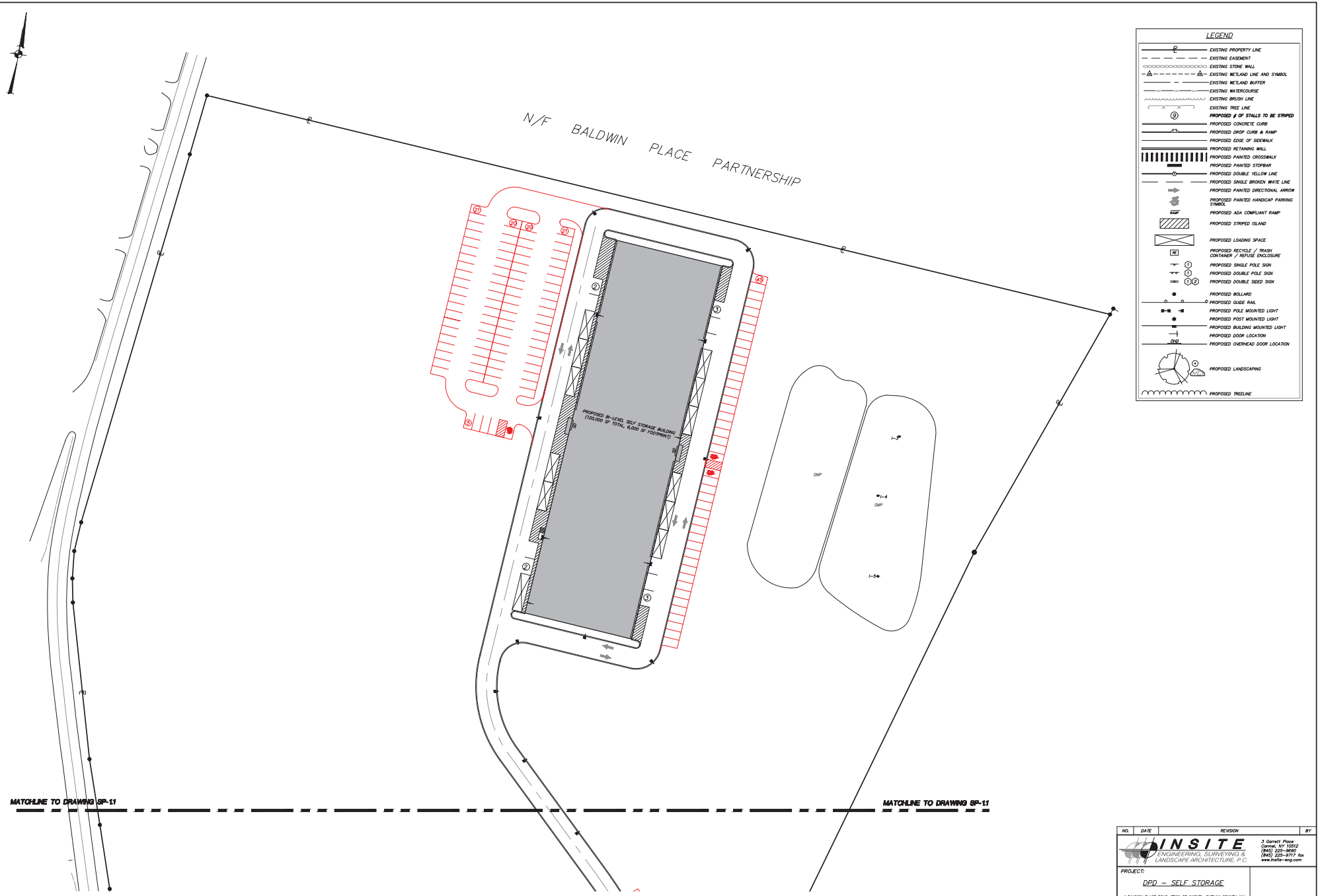
PROJECT:
DPD – SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING:
CONVERSION PARKING PLAN

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	10-2-23	DRAWN BY	I.B.	CPP-1.1	1 / 2
SCALE	1" = 40'	CHECKED BY	A.D.T.		



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING WETLAND LINE AND SYMBOL
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- PROPOSED BUILDING MOUNTED LIGHT
- PROPOSED DOOR LOCATION
- PROPOSED OVERHEAD DOOR LOCATION
- PROPOSED LANDSCAPING
- PROPOSED TREELINE

GRAPHIC SCALE

0 20 40 80

(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY

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PROJECT:
DPD – SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING:
CONVERSION PARKING PLAN

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	10-2-23	DRAWN BY	I.B.	CPP-1.2	2 of 2
SCALE	1" = 40'	CHECKED BY	A.D.T.		

INSITE
ENGINEERING, SURVEYING &
LANDSCAPE ARCHITECTURE, P.C.

PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN

For

DPD – Self Storage
4 Baldwin Place
Town of Carmel, New York

October 2, 2023

Owner Information:

Bernad Creations LTD
124 Ridge Road
Montgomery, NY 12549

Applicant Information:

Diamond Point Development
880 Marietta Highway, Suite 630-243
Roswell, GA 30075

Note: This report in conjunction with the project plans make up the complete Stormwater Pollution Prevention Plan.

Prepared by:
Insite Engineering, Surveying & Landscape Architecture, P.C.
3 Garrett Place
Carmel, New York 10512

CONTENTS

APPENDICES

FIGURES

1.0 INTRODUCTION

1.1 Project Description

The subject project is located on two adjacent parcels totaling 30.53± acres on Baldwin Place Road in the Town of Carmel. The parcel and its surroundings are delineated on the attached Location Map (Figure 1). Designated as Tax Map Numbers 86.10-1-2 and 86.10-1-3 and are in the C/BP & C zoning districts, respectively. Portions of the property are currently developed with buildings and associated paved and gravel driveways. The remaining areas of the property consist of grass and wooded areas. It is proposed to construct two (2) self-storage buildings, an office building for leasing & administration, and associated site improvements such as driveways and parking areas. The overall project proposes to develop 4.6 +/- acres of new impervious surfaces on the site. It is proposed to capture and treat the stormwater runoff associated with the proposed improvements in a series of stormwater management practices designed to meet Town of Carmel, NYSDEC and NYCDEP requirements. A proposed drilled well and septic system will service the project. The project site is located in the Amawalk Reservoir Watershed.

The following permits are required for the project:

NEW YORK CITY DEPARTMENT OF ENVIROMENTAL PROTECTION
SWPPP & Septic Approval
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SWPPP General Permit Coverage (GP-0-20-001) Freshwater Wetland Permit
PUTNAM COUNTY DEPARTMENT OF HEALTH
SSTS & Well Improvement Approval
TOWN OF CARMEL
Site Plan Approval/ Wetland Permit
NEW YORK STATE DEPARTMENT OF TRANSPORTATION
Highway Work Permit
PUTNAM COUNTY DEPARTMENT OF HIGHWAYS AND FACILITIES
Driveway Permit

There are no known enforcement actions, and no lawsuits or administrative proceedings, commenced against the applicant, or any principal affiliate of the applicant, for any alleged violations of law related to the applicant of the site, in the five years preceding this application.

With regard to NYCDEP requirements, Section 18-39(b)(4)(iii) and Section 18-39(b)(4)(iv) of the Rules and Regulations require a SWPPP Approval for this project. This project meets two (2) of the thresholds that require SWPPP approval from the NYCDEP. For further discussion on NYCDEP requirements, refer to Section 2.6 below.

1.2 Existing Site Conditions (Pre-Development)

The subject property is located in the Town of Carmel on Baldwin Place Road adjacent to Route 6. The property is currently developed with multiple buildings, roadways, fields and woods. There is a high point located along the north property line. From the high point, stormwater runoff generally slopes to the south and west towards Baldwin Place Road or east towards Route 6 and a New York State Department of Environmental Conservation (NYSDEC) Wetland on the adjacent property.

The stormwater analysis included in this SWPPP utilizes five (5) design points. The design points can be seen on Figures 2 and 3, and are identified as Design Point 1, Design Point 2, Design Point 3, Design Point 4, and Design Point 5. The Subcatchments for each Design Point are identified as PRE 1, PRE 2, PRE 3, PRE 4 and PRE 5 in the predevelopment model and are shown on Figure 2. See below for a summary of each design point:

- Design Points 1 and 2 are located at existing culverts along Baldwin Place Road. Runoff is conveyed to Design Point 1 via existing roadside swales that shall remain.
- Design Point 3 represents a point on an existing open channel conveyance system south of Kennard Road. Runoff is conveyed to Design Point 3 via the stormwater collection system located along US Route 6, and Baldwin Place Road.
- Design Point 4 is located at an existing drain inlet in Baldwin Place Road. Runoff is conveyed to Design Point 4 via the stormwater collection system located along US Route 6.
- Design Point 5 is located at an existing headwall adjacent to Baldwin Place Road. Runoff is conveyed to Design Point 5 via an existing swale that discharges from the NYSDEC Wetland and Pond that runs along US Route 6.

It is noted there are existing flooding issued along Baldwin Place Road both in front of the Mobil Station and at the culvert crossing by Kennard Road during certain rainfall events. This project will serve to alleviate those flooding problems by reducing peak flows to below pre-development areas as well as capturing runoff and more securely conveying it to the existing infrastructure.

The hydrologic soil groups for the project consists of “B”, “C” & “D” soils. The designation of the onsite soils located within the proposed limits of disturbance primarily consist of Paxton fine sandy loam (PnB, PnC & PnDs identified on the Soil Conservation Service Web Soil Survey. The soils boundaries are shown on Figure 2 and 3 of this report. The following soil group descriptions are as defined by the Soil Conservation Service Web Soil Survey.

1.3 Proposed Site Conditions (Post Development)

As mentioned above, the proposed project includes the construction of two (2) self-storage buildings, an office building for leasing & administration, and associated site improvements such as driveways and parking areas. The redevelopment project will include an increase in impervious surfaces (approximately 4.6 +/- acre increase). As such, treatment and mitigation for the newly created impervious surfaces will be provided in the form of proposed stormwater management practices (SMP) discussed further in later sections of this report. The proposed SMP's will be designed to capture and treat runoff from the impervious surfaces associated with the proposed project.

It is proposed to maintain the existing drainage patterns on the site to the maximum extent practical to minimize the impact to the existing downstream areas. Stormwater treatment for the subject development will be accomplished through the use of two (2) infiltration basins (NYSDEC I-2), a Wet Swale (NYSDEC O-2) and a Bioretention Filter (NYSDEC F-5) as SMPs.

As shown in the following sections of this report, the stormwater quality and quantity for the proposed development have been mitigated in accordance with the Town of Carmel, NYSDEC and NYCDEP design standards. Additionally, an erosion and sediment control plan has been prepared in accordance with the *New York State Standards and Specifications for Erosion and Sediment Control* to protect downstream features during construction activities.

2.0 STORMWATER MANAGEMENT

The proposed stormwater management system for the project has been designed to meet the requirements of local, regional, and state stormwater ordinances and guidelines, including but not limited to the NYCDEP and the NYSDEC. Specifically, the following codes / regulations have been used to design this SWPPP:

- *NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities, General Permit GP-0-20-001* (GP-0-20-001).
- *NYCDEP Rules and Regulations for the Protection from Contamination, Degradation, and Pollution of the New York City Water Supply and its Sources* (Rules and Regulations).
- *Town of Carmel Town Code, Chapter 156 – Stormwater Management, Soil Erosion and Sediment Control.*

Since the subject project proposes the disturbance of more than 1 acre, coverage under the New York State Department of Environmental Conservation (NYSDEC) SPDES General Permit for Stormwater Discharges from Construction Activities (GP-0-20-001) is required. It should be noted that the requirements set forth by GP-0-20-001 discussed below will also incorporate the requirements for redevelopment projects in future iterations of this SWPPP.

In order to meet the requirements, set forth by GP-0-20-001, and the latest edition of the NYSDEC *New York State Stormwater Management Design Manual* (NYSSMDM), including the requirements listed in Chapter 10: *Enhanced Phosphorus Removal Standards* (Chapter 10) was referenced for the design of the proposed stormwater collection, conveyance and treatment system. The Design Manual specifies five design criteria that are discussed in detail below. They are Runoff Reduction Volume (RR_v), Water Quality Volume (WQ_v), Stream Channel Protection Volume (CP_v), Overbank Flood Control (Q_f), and Extreme Storm Control (Q_p). Stormwater collection, conveyance and treatment systems have been designed in general accordance with both the General Permit (GP-0-20-001) and the NYSSMDM. The first two requirements relate to treating water quality, while the later pertain to stormwater quantity (peak flow) attenuation. As noted in previous sections of this report, this project is a redevelopment project with an overall increase in impervious area. Per Chapter 9, 25% of the existing impervious area within the subcatchments is required to be treated to meet the WQv requirements for redevelopment projects. The final SWPPP will incorporate the existing redeveloped impervious areas to calculate the WQv.

Where WQv/RRv treatment is required, the following post construction stormwater management practices are proposed for the project:

Table 2.0.1 – Proposed GIP/SMP Design Criteria Summary Table

SMP ID	Proposed Subcatchment	NYSSMDM Ch. 6 Design Designation	NYSDEC Uniform Stormwater Sizing Criteria Satisfied	NYCDEP Requirement Satisfied
3.1P	3.1S	I-2 Infiltration Basin	RRv, WQ_v, CP_v[1]	Only Practice Required to be Provided.
4.1AP	4.1S	O-2 Wet Swale	WQ_v	First Practice in Series
4.1BP		F-5 Bioretention Filter	RRv, WQ_v	Second Practice in Series
5.1P	5.1S	I-2 Infiltration Basin	RRv, WQ_v, CP_v[1]	Only Practice Required to be Provided.

[1] The infiltration basin achieves the CP_v requirement as they are designed to infiltration the 1-year storm as a result of Chapter 10 requirements.

To address stormwater quantity requirements of the NYSDEC, the "HydroCAD" Stormwater Modeling System," by HydroCAD Software Solutions LLC in Tamworth, New Hampshire, was used to model and assess the peak stormwater flows for the subject project. HydroCAD is a computer aided design program for modeling the hydrology and hydraulics of stormwater runoff. It is based primarily on hydrology techniques developed by the United States Department of Agriculture, Soil Conservation Service (USDA, SCS) TR-20 method combined

with standard hydraulic calculations. For details on the input data for the subcatchments and design storms, refer to Appendices A through C and for the supporting data relative to the soils breakdown within the overall contributing area shown in the HydroCAD analysis, see Appendix A of this report:

The input requirements for the HydroCAD computer program are as follows:

Subcatchments (contributing watershed/sub-watersheds)

- Design storm rainfall in inches
- CN (runoff curve number) values which are based on soil type and land use/ground cover
- Tc (time of concentration) flow path information

Flow Splitters / Subsurface Infiltration System

- Surface area at appropriate elevations
- Flood elevation
- Outlet structure information

The following is a general description of the input data used to calculate the pre- and post-development stormwater runoff values. For detailed information for each subcatchment and pond, see Appendices B & C. The precipitation values for the 1-Year, 10-Year, 100-Year 24-hour design storm events and rainfall distribution curves utilized for this report were obtained from the information provided by Northeast Regional Climate Center (NRCC) and the Natural Resources Conservation Service (NRCS) which is available online at *www.precip.eas.cornell.edu*. The values provided for all design storms analyzed are listed below.

Design Storm	**24-Hour Rainfall**
1-Year	2.71”
10-Year	4.86”
100-Year	8.63”

The CN (runoff curve number) values utilized in this report were referenced from the USDA, SCS publication *Urban Hydrology for Small Watersheds*. The following is a summary of the various land uses/ground covers and the associated CN values and soil types utilized in this report.

Table 2.0.2 – Project Ground Cover and Associated Curve Numbers (CN)

Land Use/Ground Cover	CN Value
>75% Grass Cover, Good, HSG B	61
>75% Grass Cover, Good, HSG C	74
>75% Grass Cover, Good, HSG D	80
Gravel Surface, HSG C	96
Meadow, non-grazed, HSG C	71
Paved Parking	98
Water Surface, HSG D	98
Woods, Good, HSG B	55
Woods, Good, HSG C	70
Woods, Good, HSG D	77
Woods/grass comb., Good, HSG C	72

2.1 Chapter 10: Enhanced Phosphorus Removal Standards

As noted above, the New York City East of Hudson Watershed has been identified in the SPDES General Permit GP-0-20-001 as a watershed requiring compliance with the Enhanced Phosphorus

Removal Standards when post-construction stormwater management practices are proposed. Chapter 10 establishes four goals to meet sizing performance standards:

- Goal 1: Reducing Runoff Volumes
- Goal 2: Effective Bypass Treatment
- Goal 3: Achieving Effluent Concentrations for Particulate Phosphorus
- Goal 4: Achieving Effluent Concentrations for Dissolved Phosphorus

In order to achieve the first goal, the site design shall," assess the feasibility of hydrological source controls and reduce the total water quality volume by source control, implementation of green infrastructure, or standard SMP's with RR_v capacity, according to the process defined in Chapters 3 and 4 of the Design Manual. Each plan must include a rationale for acceptance and rejection of the various controls." A discussion on RR_v can be found in section 2.2 below. Based on mapped soil classifications, the soils onsite are suitable for infiltration. Therefore, the use of infiltration practices (classified as Standard SMP's with RRv capacity) has been maximized. As such, Goal 1 has been achieved in this SWPPP.

Goal 2 cites that proposed stormwater management practices should achieve less than 15% effective treatment bypass of the long-term runoff volume. Chapter 10 further notes this goal is satisfied by capturing and treating the 1-year 24-hour design storm. The NYSDEC stormwater quality treatment practices proposed for this have been designed in accordance with Chapter 10 by utilizing the 1-yr, 24-hour design storm to generate the WQ_v / RR_v. As such, Goal 2 has been achieved in this SWPPP.

Achieving effluent concentrations for particulate phosphorus, Goal 3, is satisfied by achieving an 80% net removal of particulate phosphorus for a median influent concentration of 0.5mg/l. Chapter 10 states that through designing proposed SMP's in accordance with Section 10.4 this goal will be achieved. The proposed infiltration basins and bioretention filter have been designed in accordance with Section 10.4.4 of Chapter 10 thus satisfying the requirements Goal 3.

Goal 4, achieving effluent concentration for dissolved phosphorus, is achieved by obtaining a 60% net removal of dissolved phosphorus given a median influent concentration of 0.15mg/l. As with Goal 3, Goal 4 is achieved by designing the proposed SMP's in accordance with Section 10.4 of Chapter 10. As noted above the SMP's have been designed in accordance with section 10.4.4 of Chapter 10 thus satisfying the requirements of this goal.

2.2 NYSDEC Runoff Reduction Volume (RR_v)

The Runoff Reduction Volume (RR_v) criterion is intended to replicate pre-development hydrology by maintaining preconstruction infiltration, peak flow runoff, discharge volume, as well as minimizing concentrated stormwater flow. As stated in Chapter 4 of the NYSSMDM, RR_v may be treated with standard stormwater management practices (SMP's) sized in accordance with the Chapter 4/6 requirements, or with green infrastructure practices (GIP's) sized in accordance with the requirements set forth for each practice in Chapter 5. This requirement has been achieved on the subject project providing an infiltration practice, designed as a SMP in accordance with the latest design standards. Runoff reduction is achieved when runoff from a percentage of the impervious area on the site is captured, routed through a SMP or a GIP, infiltrated to the ground, reused, reduced by evapotranspiration, and eventually removed from the stormwater discharge from the site. Through this implementation, the design of the infiltration basin as a SMP with the runoff reduction capacity equal to 100% of the WQ_v the RRv requirements will be achieved.

Section 4.3 of the NYSSMDM states for sites that do not achieve runoff reduction to pre-construction condition must, at a minimum reduce a percentage of the runoff from impervious areas to be constructed on the site a minimum RR_v. The following equation can be used to determine the minimum runoff reduction volume:

The minimum runoff reduction volume shall be $RRv_{minimum} = \frac{(P)(R_v)(A)}{}$ 12

Where,

S = Hydrologic Soil Group (HSG) Specific Reduction Factor
A*ic* = Total Area of New Impervious Cover
A*i* = Impervious cover targeted for Runoff Reduction
= (S)(A*ic*)
Rv = 0.95

For detailed calculations of the runoff reduction for the proposed SMP's see Appendix A. Listed in Table 2.2.1 below is a summary of the NYSDEC compliant practice, and its satisfaction of the NYSDEC RRv requirements:

Table 2.2.1 Runoff Reduction Volume Summary

Design Point	Subcatchment	$RR_{v\ Required}$ = WQ_v (c.f.) From Appendix C	$RR_{v\ Minimum}$ (c.f.) Calculated in Appendix A	NYSDEC Practice Designation	Allowable % of WQv provided to be applied towards RRv	Storage Volume Provided below System Outlet (c.f.) (From Appendix C)	RRv *Provided* (c.f.)
3	3.1S	22,695	2,462	I-2 Infiltration Basin	100%	23,484	22,695
4	4.1S	3,267	290	F-5 Bioretention Filter	40%	2,544	1,307
5	5.1S	28,793	3,621	I-2 Infiltration Basin	100%	48,675	28,793

As shown in the table above the $RRv_{provided}$ in the Subcatchments 3.1S, 5.1S and 5.2S is equal to the $RRv_{required}$, therefore the RRv requirement has been met for these Subcatchments. The $RRv_{provided}$ for Subcatchment 4.1S is less than the $RRv_{required}$. 100% of the $RRv_{Required}$ could not be provided for Design Point 4 due to existing onsite soil conditions and topography which limited the area where infiltration is feasible. However, the $RRv_{provided}$ is greater than the $RRv_{minimum}$ for each design point, therefore the RRv requirement has been met for the subject project.

2.3 NYSDEC Water Quality Volume (WQ_v)

The stormwater infiltration basin has been sized in accordance with Chapter 4 of the Design Manual, as it has been sized to capture and treat the entire water quality volume (WQ_v) from the proposed improvements. The subject project is located in the New York City Watershed, which is listed as a phosphorus-limited watershed per the NYSDEC regulations. Therefore, the stormwater management practice has been designed in general accordance with the Enhanced Phosphorus Removal Supplement (Chapter 10) of the Design Manual. As outlined in Chapter 10, the treatment volume for the WQv is the runoff volume produced during the 1-year 24-hour design storm. See table 2.6.1 and Appendix C for a summary of the WQv that would be generated by the proposed project during the 1-year, 24-hour storm.

Table 2.2.1 above and the tables below summarize the WQv treatments and the proposed practices, sized in accordance with Chapters 3 and 6 of the NYSSMDM for the proposed practice.

The infiltration basins have been sized to provide 100% storage of the water quality volume between the bottom of the practice and the outlet weir of the basins. By providing 100% storage of the WQv in the infiltration basin the water quality volume storage requirements set forth in the Design Manual have been met for the proposed basin. By meeting the Water Quality Volume requirements through employment of the infiltration basin, the water quality objectives of the NYSDEC will be met.

The infiltration basins area designed as offline practices that fully infiltrate the WQv from the contributing area. A flowsplitter or pretreatment sediment forebay is proposed upstream of the basins to make the practiced offline. The flowsplitter and sediment forebays are sized to convey at a minimum the

peak WQv flow (1-year 24-hour) to the infiltration basin, while allowing portions of larger storms to bypass the infiltration units as allowed by the Design Manual. Pretreatment has been provided for the infiltration basins in the form of a sediment forebay basin or a hydrodynamic separator. The pretreatment basins will temporarily store greater than the volume required.

As noted below, the infiltration basins have been sized to meet both the RRv and WQv requirements.

Table 2.3.1 Infiltration Area Water Quality Volume Treatment Summary

Subcatchment	Treatment Practice	NYSDEC Design Practice Designation	WQ_v Required (c.f.)	Proposed WQ_v (Storage Volume below outlet)[1,2] (c.f.)
3.1S	3.1P	Infiltration Basin I-2	22,695	23,484
5.1S	5.1P	Infiltration Basin I-2	28,793	48,675

The Bioretention Filter (4.1BP) has been designed to treat the WQv in accordance with the Design Manual as noted in the table below and in Appendix F. A grass filter strip has been provided as Pretreatment for the Bioretention filter. Also, the bioretention filter has been designed as offline practices that will receive the WQv from the contributing area. The Wet Swale (1.4AP) outlet structure has been designed as the flow splitter for the bioretention filter to convey at a minimum the peak WQv flow.

Table 2.3.4 Bioretention Filter - Water Quality Volume Treatment Summary

Subcatchment	Treatment Practice	NYSDEC Design Practice Designation	Required Filter Area (s.f.)	Provided Filter Area (s.f.)	Minimum Storage Volume Required (75% WQv) (c.f.)	Storage Volume Provided Below Outlet (c.f.)
4.1S	4.1BP	F-5	2,800	4,000	2,450	2,544

* Information regarding required filter area is calculated and shown in Appendix F.

A Wet Swale (1.4AP) is proposed upstream of the Bioretention Filter (1.4BP) and has been designed to treat the WQv required from the contributing area. In accordance with the Design Manual, the swales have been designed to provide 30-minutes of detention of the 1-year 24-hour storm runoff volume, therefore treating 100% of the WQv as shown in Appendix C.

It should be noted that the above tables illustrate the water quality volume storage requirements set forth in the Design Manual have been met for the Infiltration Basins, Wet Swale and Bioretention Filter.

2.4 NYSDEC Stream Channel Protection Volume (CP_v)

The Stream Channel Protection (CP_v) criterion is intended to protect stream channels from erosion and is accomplished by the 24-hour extended detention of the center-of-mass of the one-year, 24-hour storm event. As noted in Table 2.1.1 the stormwater infiltration system has been designed with a storage volume greater than the volume of stormwater runoff from the 1-year storm. By providing a stormwater infiltration practice to fully infiltrate the volume of stormwater runoff from the 1-year, 24-hour design storm, the CP_v has been met for the project. Soil and infiltration testing was performed in the locations of the proposed stormwater management practices and witnessed by the NYCDEP. The test results verify the design requirements for infiltration practices set forth in the NYSSMDM. All infiltration rates in the areas of the proposed infiltration practice exceed the minimum 0.5 inches/hour requirement.

2.5 NYSDEC Overbank Flood Control (Q_p), and Extreme Flood Control (Q_f)

The Overbank Flood Control (Q_p) requirement is intended to prevent an increase in the frequency and magnitude of out-of-bank flooding events generated by urban development. Overbank control requires storage to attenuate the post-development 10-year, 24-hour peak discharge to pre-development rates. The Extreme Flood Control (Q_f) requirement is intended to prevent the increased risk of flood damage from large storm events, maintain the boundaries of the pre-development 100-year flood plain, and protect the physical integrity of stormwater management practice. Extreme flood control requires storage to attenuate the post-development 100-year, 24-hour peak discharge to pre-development rates. As shown in Table 2.5.1 attenuation for both the 10-year and 100-year 24-hour storms has been provided thus satisfying the Q_p and Q_f requirements.

Table 2.5.1– Existing and Proposed Conditions Peak Flows

24-HOUR DESIGN STORM PEAK FLOWS (c.f.s.)						
	1-YEAR (Channel Protection Volume)		10-YEAR (Overbank Flood Control)		100-YEAR (Extreme Flood Control)	
	Pre	Post	Pre	Post	Pre	Post
Design Point 1	3.5	2.8	15.2	14.1	39.8	38.9
Design Point 2	1.6	0.8	5.6	4.1	13.7	11.3
Design Point 3	5.5	2.5	15.7	11.8	34.7	33.4
Design Point 4	7.2	5.1	16.0	11.9	30.6	23.9
Design Point 5	17.7	17.2	53.6	52.8	123.3	120.4

Table 2.5.2– Existing and Proposed Conditions Runoff Volumes

24-HOUR DESIGN STORM RUNOFF VOLUMES (a.f.)						
	1-YEAR (Channel Protection Volume)		10-YEAR (Overbank Flood Control)		100-YEAR (Extreme Flood Control)	
	Pre	Post	Pre	Post	Pre	Post
Design Point 1	0.460	0.406	1.640	1.550	4.319	4.223
Design Point 2	0.150	0.116	0.488	0.441	1.225	1.201
Design Point 3	0.634	0.292	1.772	1.252	4.084	3.704
Design Point 4	0.614	0.429	1.446	1.026	3.009	2.158
Design Point 5	3.413	3.276	9.775	9.327	22.835	22.080

As shown in the above tables, the peak flows and runoff volumes from the contributing areas to the design lines in the post development condition have been mitigated to below the existing condition levels, thus meeting the general requirements of the NYSDEC. As shown on drainage Figures 2 & 3, the alteration of the drainage boundaries from the pre to the post development condition have been minimized to the maximum extent practical.

2.6 NYCDEP Requirements

The proposed project meets two (2) of the thresholds that require SWPPP approval from the NYCDEP per Section 18-39 of the Rules and Regulations. The project meets the following thresholds listed in Section 18-39(b)(4) that require NYCDEP SWPPP approval:

(iii) Construction of a new industrial, institutional, municipal, commercial, or multi-family residential project that will result in the creation of an impervious surface totaling over 40,000 square feet in size.

(iv) A land clearing or land grading project, involving two or more acres, located at least in part within the limiting distance of 100 feet of a watercourse or wetland, or within the limiting distance of 300 feet of a reservoir, reservoir stem or controlled lake or on a slope exceeding 15 percent.

There is no proposed stormwater discharge from industrial activities for the proposed development.

The Rules and Regulations parallel the requirements of the NYSDEC, with the exception that two different NYSDEC standard SMP's are required in series when the drainage area to a SMP is greater than 20% impervious and an infiltration practice is not provided. The project proposes an infiltration practice for Subcatchments 3.1S and 5.1S and as such, does not require two different practices in series Subcatchment 4.1S does exceed the 20% impervious, and as two SMP's in series are provided (as shown in Table 2.6.2 below).

Per the Rules and Regulations, the stormwater treatment volume used shall be the greater of the runoff volume from the 1-year, 24-hour storm event or the volume generated by the 90% storm. The initial WQ_v from the 1-year storm event was discussed above. The following equation, per Chapter 4.2 and Chapter 9, was used to determine the water quality volume for the 90% storm each of the contributing areas to the treatment practices:

The water quality volume shall be: $WQ_v = \underline{(P)(R_v)(A)}$

Where,

WQ_v = water quality volume (in acre-feet)
P = 90% Rainfall Event Number = 1.4 inches
A = Subcatchment Area
I = (Ap)/(A-Ae)
R_v = 0.05 +0.009 (I%)

Table 2.6.1 - Water Quality Volume Calculation Summary 90% Storm vs. 1-Year Storm Comparison

Subcatchments	P (in.)	R_v	A[1] (ac.)	WQ_{v90} (c.f.)	WQ_v[2] 1-year (c.f.)
3.1S	1.4	0.52	4.2	11,099	22,695
4.1S	1.4	0.59	0.5	1,499	3,267
5.1S	1.4	0.68	4.4	15,205	28,793

[1] Information regarding contributing areas for the 1-year 24-hour storm event is shown in Appendix C.
[2] Refer to Appendix C for 1-year 24-hour water quality volume calculation.

As shown in Table 2.6.1 above, the volume produced by the 1-year, 24-hour design storm for subcatchments is larger than the volume produced by the 90% storm. Therefore, the 1-year, 24-hour design storm volumes shall be used for the WQv sizing for all of the proposed stormwater management practices.

The following table summarizes the amount of proposed impervious surfaces for each subcatchment and shows the proposed stormwater management practice that will treat each sub-watershed:

Table 2.6.2 – Imperviousness of Tributary Areas & Stormwater Management Practice

Sub-Catchments	Total Area (acres)	Existing Impervious Surface Within Subcatchment (acres)	Proposed Impervious Surface Within Subcatchment (acres)	% Impervious Surface of Total Subcatchment Area	Proposed Stormwater Management Practice (SMP) Treatment Train[1]	
					RR_v/SMP 1	SMP 2 (A second practice in series is only provided when % impervious is greater than 20% and infiltration is not provided)
3.1S	4.2	0.5	2.2	52.4%	I-2, Infiltration Basin	Not Required
4.1S	0.5	0.1	0.3	60.0%	O-2 Wet Swale	F-5 Bioretention Filter
5.1S	4.4	0.6	3.1	70.5%	I-2, Infiltration Basin	Not Required

[1] This table lists the standard SMP's used to treat the balance of the WQ_v / RR_v after the application of GIP's.

As shown in the above table, the project proposes an infiltration practice for Subcatchments 2.1S, 3.1S, 5.1S and 5.2S Subcatchments, therefore two practices in series are not required. Subcatchment 4.1S is greater than 20% imperviousness and a treatment train of two practices in series is provided. By proposing two stormwater management practices in series or an infiltration practice for all subcatchments, the NYSDEP requirement is met.

3.0 STORMWATER CONVEYANCE SYSTEM

The stormwater conveyance system for the project consists of grass swales, precast concrete drainage structures, and HDPE pipe. In the locations of new swales and stormwater piping, the system has been sized utilizing the Rational Method and is a standard method used by engineers to develop flow rates for sizing collection systems. The Rational Method calculates flows based on a one-hour design storm. Pipe sizing calculations can be found in Appendix G.

4.0 EROSION AND SEDIMENT CONTROL

Erosion and sediment control should be accomplished by four basic principles: diversion of clean water, containment of sediment, treatment of dirty water, and stabilization of disturbed areas. Diversion of clean water should be accomplished with swales. This diverted water should be safely conveyed around the construction area as necessary and discharged downstream of the disturbed areas. Sediment should be contained with the use of silt fence at the toe of disturbed slopes. Disturbed areas should be permanently stabilized within 7 days of final grading to limit the required length of time that the temporary facilities must be utilized. The owner will be responsible for the maintenance of the temporary erosion control facilities. Refer to the Project Drawings for further information implementation of the Erosion Control Plan.

4.1 Temporary Erosion and Sediment Control Facilities

Temporary erosion and sediment control facilities should be installed and maintained as required to reduce the impacts to off-site properties. The owner will be required to provide maintenance for the temporary erosion and sediment control facilities. In general, the following temporary methods and materials should be used to control erosion and sedimentation from the project site:

- Stabilized Construction Entrance
- Silt Fence Barriers
- Temporary Soil Stabilization

- Temporary Sediment Trap

All temporary erosion control measures shall be maintained in accordance with the Erosion & Sediment Control Maintenance Schedule contained on the Project Drawings, and as discussed below.

A stabilized construction entrance should be installed at the site entrance as shown on the project plans. The design drawings will include details to guide the contractor in the construction of this entrance. The intent of the stabilized construction entrance is to prevent the "tracking" of soil from the site. Dust control should be accomplished with water sprinkling trucks if required. During dry periods, sprinkler trucks should wet all exposed earth surfaces as required to prevent the transport of air-borne particles to adjoining areas.

Siltation barriers constructed of geosynthetic filter cloth should be installed at the toe of all disturbed slopes. The intent of these barriers is to contain silt and sediment at the source and inhibit its transport by stormwater runoff. The siltation barriers will also help reduce the rate of runoff by creating filters through which the stormwater must pass. During construction, the siltation barriers shall be inspected weekly and after a rainfall event and shall be cleaned/replaced when needed.

When land is exposed during development, the exposure shall be kept to the shortest practical period, but in no case more than 7 days. Temporary grass seed and mulch shall be applied to any construction area idle for two weeks. The temporary seeding and mulching shall be performed in accordance with the seeding notes illustrated on the project drawings. Disturbance shall be minimized in the areas required to perform construction. Upon completion of final grading topsoil, permanent seeding and mulch shall be applied in accordance with the project drawings.

The stormwater runoff will be managed by the temporary erosion and sediment control facilities during construction. As discussed in the construction sequences provided the project plans the stabilized construction entrance shall be installed at the site entrance and silt fence shall be installed along the downhill perimeter of where soil disturbing activities will occur containing sediment laden stormwater runoff on-site.

4.2 Permanent Erosion and Sediment Control Facilities

Permanent erosion and sediment control will be accomplished by diverting stormwater runoff from steep slopes, controlling/reducing stormwater runoff velocities and volumes, and vegetative and structural surface stabilization. All of the permanent facilities are relatively maintenance free and only require inspections monthly or after a significant rainfall event. The owner will provide maintenance for all the permanent erosion and sediment control facilities.

Rock outlet protection will be provided at the discharge end of all piped drainage systems and will be sized in accordance with the Blue Book. The purpose of the rock outlet protection is to reduce the depth, velocity, and energy of water, such that the flow will not erode the receiving downstream reach. The rock outlet protection shall be inspected for evidence of scour beneath the riprap and/or for any dislodged stones. Inspections of the rock outlet protection shall be performed during the inspections of the post-construction SMP's for the project.

Other than paved or gravel surfaces, disturbed surfaces will be stabilized with vegetation within 10 days of final grading. Permanent seed mix and mulch shall be applied to idle areas to minimize the amount of exposed soil. Permanent seed mixtures are proposed for the project and illustrated on project drawings. Application rates for the seed and mulch are provided on the project drawings. The vegetation will control stormwater runoff by preventing soil erosion, reducing runoff volume and velocities, and providing a filter medium. Permanent seeding should optimally be undertaken in the spring from March 21st through May 20th and in late summer from August 15th to October 15th.

5.0 IMPLEMENTATION AND MAINTENANCE

5.1 Construction Phase

Details associated with the implementation and maintenance of the proposed stormwater facilities and erosion control measures during construction are shown on the project drawings. Soil disturbance for the subject project shall not exceed five acres at any given time unless otherwise noted on the project plans. The erosion control plan will include associated details and notes to aid the contractor in implementing the plan. Construction is anticipated to begin in the spring of 2024 and anticipated to be completed by the summer of 2025.

During construction, a Site Log Book, Appendix D, is required to be kept per NYSDEC SPDES General Permit GP-0-20-001. Erosion and sediment control inspections are required to be conducted as necessary under coverage of the permit. The erosion and sediment control inspections must be performed daily by a trained contractor and the two (2) weekly inspection performed by a qualified inspector shall be performed on days separated by two (2) full calendar days. The owner or operator must begin implementing corrective actions within one business day and complete the corrective actions in a reasonable time frame. An updated logbook and a copy of the SWPPP is required to be kept on site for the duration of the construction activities. The Construction Site Log Book is an appendix taken from the *New York Standards and Specifications for Erosion and Sediment Control* (Blue Book).

In addition to the proposed erosion and sediment control facilities, the following good housekeeping best management practices shall be implemented to mitigate potential pollution during the construction phase of the project. The general contractor overseeing the day-to-day site operation shall be responsible for the good housekeeping best management practices included in the following general categories:

- Material Handling and Waste Management
- Establishment of Staging Areas
- Proper Equipment Fueling and Maintenance Practices
- Spill Prevention and Control Plan

All construction waste materials shall be collected and removed from the site regularly by the general contractor. The general contractor shall supply waste barrels for proper disposal of waste materials. All personnel working on the site shall be instructed of the proper procedures for construction waste disposal.

Although it is not anticipated any hazardous waste materials will be utilized during construction, any hazardous waste materials shall be disposed of in accordance with federal, state, and local regulations. No hazardous waste shall be disposed of on-site. Hazardous waste materials shall be stored in appropriate and clearly marked containers and segregated from the other non-waste materials. All hazardous waste shall be stored in a structurally sound and sealed shipping containers located in the staging areas. Material safety data sheets, material inventory, and emergency contact numbers will be maintained in the office trailer. All personnel working on the site shall be instructed of the proper procedures for hazardous waste disposal.

Temporary sanitary facilities (portable toilets) shall be provided on site during the entire length of construction. The sanitary facilities shall be located in the project staging area, or in an alternate area away from the construction activities on the site. The portable toilets shall be inspected weekly for evidence of leaking holding tanks.

All recyclables, including wood pallets, cardboard boxes, and all other recyclable construction scraps shall be disposed of in a designated recycling barrel provided by the contractor and removed from the site regularly. All personnel working on the site shall be instructed of the proper procedures for construction waste recycling.

All construction equipment and maintenance materials shall be stored in a construction staging area. Silt fence shall be installed down gradient of the construction staging area. Shipping containers shall be utilized to store hand tools, small parts, and other construction materials, not taken off site daily. Construction waste barrels,

recycling barrels and if necessary hazardous waste containers shall be located within the limits of the construction staging area.

Throughout the construction of the project, several types of vehicles and equipment will be used on-site. Fueling of the equipment shall occur within the limits of the construction staging area. Fuel will be delivered to the site as needed, by the general contractor, or a party chosen by the general contractor. Only minor vehicle equipment maintenance shall occur on-site, all major maintenance shall be performed off-site. All equipment fluids generated from minor maintenance activities shall be disposed of into designated drums and stored in accordance with the hazardous waste storage as previously discussed.

Vehicles and equipment shall be inspected on each day of use. Any leak discovered shall be repaired immediately. All leaking equipment unable to be repaired shall be removed from the site. Ample supplies of absorbent, spill-cleanup materials, and spill kits shall be located in the construction staging area. All spills shall be cleaned up immediately upon discovery. Spent absorbent materials and rags shall be hauled off-site immediately after the spill is cleaned for disposal at a local landfill. All personnel working on the site shall be instructed of the proper procedures for spill prevention and control. Any spill large enough to discharge to surface water will be immediately reported to the local fire / police departments, NYCDEP, the National Response Center 1-800-424-8802, and the NYS Spill Hotline 1-800-457-7362. See the NYSDEC spill reporting requirements for additional information and criteria on spill reporting. NYCDEP must be notified of any NYSDEC reportable spills that occur during construction.

Vegetation should be inspected every 30 days and after every major storm event until established, after which inspections should take place on a quarterly basis and after every large storm event. Damaged areas should be immediately re-seeded and re-mulched.

5.2 Soil Restoration

Soil Restoration is required to be applied across areas of the development site where soils have been disturbed and will be vegetated. The purpose is to recover the original properties and porosity of the soil compacted during construction activity. Soil Restoration is applied in the cleanup, restoration, and landscaping phase of construction followed by the permanent establishment of an appropriate, deep-rooted groundcover to help maintain the restored soil structure. Soil restoration includes mechanical decompaction and compost amendment. The table below describes various soil disturbance activities related to land development, soil types and the requirements for soil restoration for each activity as identified in the Design Manual. Restoration is applied across areas of a development site where soils have been compacted and will be vegetated according to the criteria defined in the table below:

<table>
<tr><th colspan="4">**Soil Restoration Requirements[1, 2,4]**
(Onsite soils within the limit of disturbance belong to Hydrologic Soil Groups (HSG) A, B & D)</th></tr>
<tr><th>**Type of Soil Disturbance**</th><th colspan="2">**Soil Restoration Requirement**</th><th>**Comments/Examples**</th></tr>
<tr><td>No soil disturbance</td><td colspan="2">Restoration not permitted</td><td>Preservation of Natural Features</td></tr>
<tr><td>Minimal soil disturbance</td><td colspan="2">Restoration not required</td><td>Clearing and grubbing</td></tr>
<tr><td rowspan="2">Areas where topsoil is stripped only - no change in grade</td><td>HSG A & B</td><td>~~HSG C&D~~</td><td rowspan="2">Protect area from any ongoing construction activities.</td></tr>
<tr><td>Apply 6 inches of topsoil</td><td>~~Aerate[3] and apply 6 inches of topsoil~~</td></tr>
<tr><td rowspan="2">Areas of cut or fill</td><td>HSG A &B</td><td>~~HSG C&D~~</td><td rowspan="2"></td></tr>
<tr><td>Aerate[1] and apply 6 inches of topsoil</td><td>~~Apply full Soil Restoration [2]~~</td></tr>
<tr><td>Heavy traffic areas on site (especially in a zone 5-25 feet around buildings but not within a 5-foot perimeter around foundation walls)</td><td colspan="2">Apply full Soil Restoration (decompaction and compost Enhancement[6])</td><td></td></tr>
<tr><td>Areas where Runoff Reduction and/or Infiltration practices are applied</td><td colspan="2">Restoration not required, but may be applied to enhance the reduction specified for appropriate practices.</td><td>Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single phase operation fence area</td></tr>
<tr><td>Redevelopment projects</td><td colspan="2">Soil Restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.</td><td></td></tr>
</table>

1. Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.
2. Per "Deep Ripping and De-compaction, DEC 2008".
3. Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which functions like a mini-subsoiler.
4. During periods of relatively low to moderate subsoil moisture, the disturbed soils are returned to rough grade and the following Soil Restoration steps applied:
   5.1. Apply 3 inches of compost over subsoil.
   5.2. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils.
   5.3. Rock-pick until uplifted stone/rock materials of four inches and larger size area cleaned off the site.
   5.4. Apply topsoil to a depth of 6 inches.
   5.5. Vegetate as required by seeding notes located on the project drawings.
   5.6. Tilling should not be performed within the drip line of any existing trees or over any utility installations that are within 24 inches of the surface.
6. Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half inch screen and have a pH suitable to grow desired plants.

After soil restoration is completed, an inspector should be able to push a 3/8" metal bar twelve inches into the soil with just body weight. Following decompaction/soil restoration activities, the following maintenance is anticipated during the first year:

- Initial inspections for the first six months (once after each storm greater than a half-inch).
- Reseeding to repair bare or eroding areas to assure grass stabilization.
- Water once every three days for first month, and then provide a half inch of water per week during first year. Irrigation plan may be adjusted according to the rain event.
- Fertilization may be needed in the fall after the first growing season to increase plant vigor.

In order to ensure the soil remains decompacted the following ongoing maintenance is recommended:

- Planting the appropriate ground cover with deep roots to maintain the soil structure.
- Keeping the site free of vehicular and foot traffic or other weight loads. Consider pedestrian footpaths (sometimes it may be necessary to de-thatch the turf every few years).

5.3 Long Term Maintenance Plan

The stormwater facilities for the subject project have been designed to minimize the required maintenance. This section discusses the minimum maintenance requirements to insure long-term performance of the stormwater facilities. Initially the stormwater facilities will require an increased maintenance and inspection schedule until all portions of the site are stable. Generally, the stormwater facilities consist of either collection and conveyance components or treatment components.

The stormwater collection and conveyance system is composed of precast concrete drainage structures and pipes. The owner will assume the maintenance responsibilities for the drainage system. Minimal maintenance is typically required for these facilities. All structures should be checked for debris and blockages and cleaned as required. During the cleaning process, the drainage structures should be inspected for structural integrity and overall condition; repairs and/or replacement should be made as required. Additionally, the infiltration basin shall be checked for deposited sediment as well. The Infiltration basin shall be cleaned as necessary to remove deposited sediment.

Additionally, the infiltration basin shall be checked for deposited sediment as well. Visual inspection of system through the inspection ports shall take place yearly, and the system shall be cleaned / jetted as necessary to remove deposited sediment.

APPENDIX A
Runoff Reduction (RRv) Calculation Worksheets

RRv Calculation Worksheet - Design Point 3 (3.1S)

Project: DPD
Project #: 22242.100
Date: 9/29/2023

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

1. RRv Initial = Water Quality Volume (WQv) *0.573 ac-ft* = *22,695 c.f.*
(refer to HydroCAD Subcatchments 1.1S for Water Quality Volume)

2. *RRv Minimum* = [(P) (Rv) (S) (Aic)] /12 where…

P = Rainfall (in.)	=	1.40	in.
Rv = 0.05 + 0.009 (100%)	=	0.95	
S = Hydrologic Soil Group Specific Reduction Factor	=	0.30	
[HSG A = 0.55] [HSG B = 0.40] [HSG C = 0.30] [HSG D = 0.20]			
Aic = Total area of new impervious cover	=	1.7	Acres
RRv Minimum	=	*2,462*	*c.f.*

3. *RRv Required* = RRv Initial - Green Infrastructure Practice (GIP) with Area Reduction

GIP with Area Reduction Applied in Project		
5.3.1 Conservation of Natural Area	N/A	
5.3.2 Sheet Flow to Riparian Buffers or Filter Strips	N/A	
5.3.4 Tree Planting / Tree Box		c.f.
5.3.5 Disconnection of Rooftop Runoff	-	
5.3.6 Stream Daylighting	N/A	
RRv Required(=WQv-RRV by area)(Refer to HydroCAD output in this Appendix)	= 22,695	c.f.

4. *RRv Provided*

GIP with Volume Reduction Applied in Project	WQv Treated (c.f.)	% of WQv Applied to *RRv Provided*	*RRv Provided (c.f.)*
5.3.3 Vegetated Open Swales		20%	0
[HSG A / B = 20%] [HSG C / D = 10%] {Modified HSG C - D = 15% - 12%]		10%	0
5.3.7 Rain Garden		40%	0
[No underdrains / Good Soils = 100%] [With underdrains / Poor Soils = 40%]			
5.3.8 Green Roof		100%	0
[RRv provided equals volume provided in Green Roof]			
5.3.9 Stormwater Planters		45%	0
[Infiltration Planters = 100%] [Flow Through HSG C = 45%] [Flow Though HSG D = 30%]			
5.3.10 Rain Tank / Cisterns		100%	0
5.3.11 Porous Pavement		100%	0
Infiltration Practice (Standard SMP)	22695	100%	22,695
Bioretention Practice (Standard SMP)		40%	0
[Without Underdrains HSG A/B = 80%] [With Underdrain HSG C\D = 40%]			
Dry Swale (Open Channel Practice) (Standard SMP)		20%	0
[HSG A/B = 40%] [HSG C/D = 20%]			
RRv Provided =			*22,695*

5. Summary

RRv Initial	=	22,695 c.f.	
RRv Required	=	22,695 c.f.	
RRv Minimum	=	2,462 c.f.	
RRv Provided	=	22,695 c.f.	
WQv Required for Downstream SMP	=	0 c.f.	(= RRv Required - RRv Provided)

Is RRv Provided greater than or equal to RRv Minimum? Yes

RRv Calculation Worksheet - Design Point 4 (4.1S)

Project: DPD
Project #: 22242.100
Date: 9/29/2023

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

1. RRv Initial = Water Quality Volume (WQv) *0.075 ac-ft* = *3,267 c.f.*
(refer to HydroCAD Subcatchments 1.1S for Water Quality Volume)

2. *RRv Minimum* = [(P) (Rv) (S) (Aic)] /12 where…

P = Rainfall (in.)	=	1.40	in.
Rv = 0.05 + 0.009 (100%)	=	0.95	
S = Hydrologic Soil Group Specific Reduction Factor	=	0.30	
[HSG A = 0.55] [HSG B = 0.40] [HSG C = 0.30] [HSG D = 0.20]			
Aic = Total area of new impervious cover	=	0.2	Acres
RRv Minimum	=	*290*	*c.f.*

3. *RRv Required* = RRv Initial - Green Infrastructure Practice (GIP) with Area Reduction

GIP with Area Reduction Applied in Project		
5.3.1 Conservation of Natural Area	N/A	
5.3.2 Sheet Flow to Riparian Buffers or Filter Strips	N/A	
5.3.4 Tree Planting / Tree Box		c.f.
5.3.5 Disconnection of Rooftop Runoff	-	
5.3.6 Stream Daylighting	N/A	
RRv Required(=WQv-RRV by area)(Refer to HydroCAD output in this Appendix)	= 3,267	c.f.

4. *RRv Provided*

GIP with Volume Reduction Applied in Project	WQv Treated (c.f.)	% of WQv Applied to *RRv Provided*	*RRv Provided (c.f.)*
5.3.3 Vegetated Open Swales		20%	0
[HSG A / B = 20%] [HSG C / D = 10%] {Modified HSG C - D = 15% - 12%]		10%	0
5.3.7 Rain Garden		40%	0
[No underdrains / Good Soils = 100%] [With underdrains / Poor Soils = 40%]			
5.3.8 Green Roof		100%	0
[RRv provided equals volume provided in Green Roof]			
5.3.9 Stormwater Planters		45%	0
[Infiltration Planters = 100%] [Flow Through HSG C = 45%] [Flow Though HSG D = 30%]			
5.3.10 Rain Tank / Cisterns		100%	0
5.3.11 Porous Pavement		100%	0
Infiltration Practice (Standard SMP)		100%	0
Bioretention Practice (Standard SMP)	3,267	40%	1,307
[Without Underdrains HSG A/B = 80%] [With Underdrain HSG C\D = 40%]			
Dry Swale (Open Channel Practice) (Standard SMP)		20%	0
[HSG A/B = 40%] [HSG C/D = 20%]			
RRv Provided =			*1,307*

5. Summary

RRv Initial	=	3,267 c.f.	
RRv Required	=	3,267 c.f.	
RRv Minimum	=	290 c.f.	
RRv Provided	=	1,307 c.f.	
WQv Required for Downstream SMP	=	1,960 c.f.	(= RRv Required - RRv Provided)

Is RRv Provided greater than or equal to RRv Minimum? Yes

RRv Calculation Worksheet - Design Point 5 (5.1S)

Project: DPD
Project #: 22242.100
Date: 9/29/2023

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

1. RRv Initial = Water Quality Volume (WQv) *1.021 ac-ft* = *28,793 c.f.*
(refer to HydroCAD Subcatchments 1.1S for Water Quality Volume)

2. *RRv Minimum* = [(P) (Rv) (S) (Aic)] /12 where…

P = Rainfall (in.)	=	1.40	in.
Rv = 0.05 + 0.009 (100%)	=	0.95	
S = Hydrologic Soil Group Specific Reduction Factor	=	0.30	
[HSG A = 0.55] [HSG B = 0.40] [HSG C = 0.30] [HSG D = 0.20]			
Aic = Total area of new impervious cover	=	2.5	Acres
RRv Minimum	=	*3,621*	*c.f.*

3. *RRv Required* = RRv Initial - Green Infrastructure Practice (GIP) with Area Reduction

GIP with Area Reduction Applied in Project		
5.3.1 Conservation of Natural Area	N/A	
5.3.2 Sheet Flow to Riparian Buffers or Filter Strips	N/A	
5.3.4 Tree Planting / Tree Box		c.f.
5.3.5 Disconnection of Rooftop Runoff	-	
5.3.6 Stream Daylighting	N/A	
RRv Required(=WQv-RRV by area)(Refer to HydroCAD output in this Appendix)	= 28,793	c.f.

4. *RRv Provided*

GIP with Volume Reduction Applied in Project	WQv Treated (c.f.)	% of WQv Applied to *RRv Provided*	*RRv Provided (c.f.)*
5.3.3 Vegetated Open Swales		20%	0
[HSG A / B = 20%] [HSG C / D = 10%] {Modified HSG C - D = 15% - 12%]		10%	0
5.3.7 Rain Garden		40%	0
[No underdrains / Good Soils = 100%] [With underdrains / Poor Soils = 40%]			
5.3.8 Green Roof		100%	0
[RRv provided equals volume provided in Green Roof]			
5.3.9 Stormwater Planters		45%	0
[Infiltration Planters = 100%] [Flow Through HSG C = 45%] [Flow Though HSG D = 30%]			
5.3.10 Rain Tank / Cisterns		100%	0
5.3.11 Porous Pavement		100%	0
Infiltration Practice (Standard SMP)	28793	100%	28,793
Bioretention Practice (Standard SMP)		40%	0
[Without Underdrains HSG A/B = 80%] [With Underdrain HSG C\D = 40%]			
Dry Swale (Open Channel Practice) (Standard SMP)		20%	0
[HSG A/B = 40%] [HSG C/D = 20%]			
RRv Provided =			*28,793*

5. Summary

RRv Initial	=	28,793 c.f.	
RRv Required	=	28,793 c.f.	
RRv Minimum	=	3,621 c.f.	
RRv Provided	=	28,793 c.f.	
WQv Required for Downstream SMP	=	0 c.f.	(= RRv Required - RRv Provided)

Is RRv Provided greater than or equal to RRv Minimum? Yes

APPENDIX B
Pre Development Computer Data

Subcat Reach Pond Link

Routing Diagram for DPD - PreDevelopment

Prepared by Insite Engineering, Surveying and Landscape Architecture, P.C., Printed 5/11/2023

Summary for Subcatchment PRE 1:

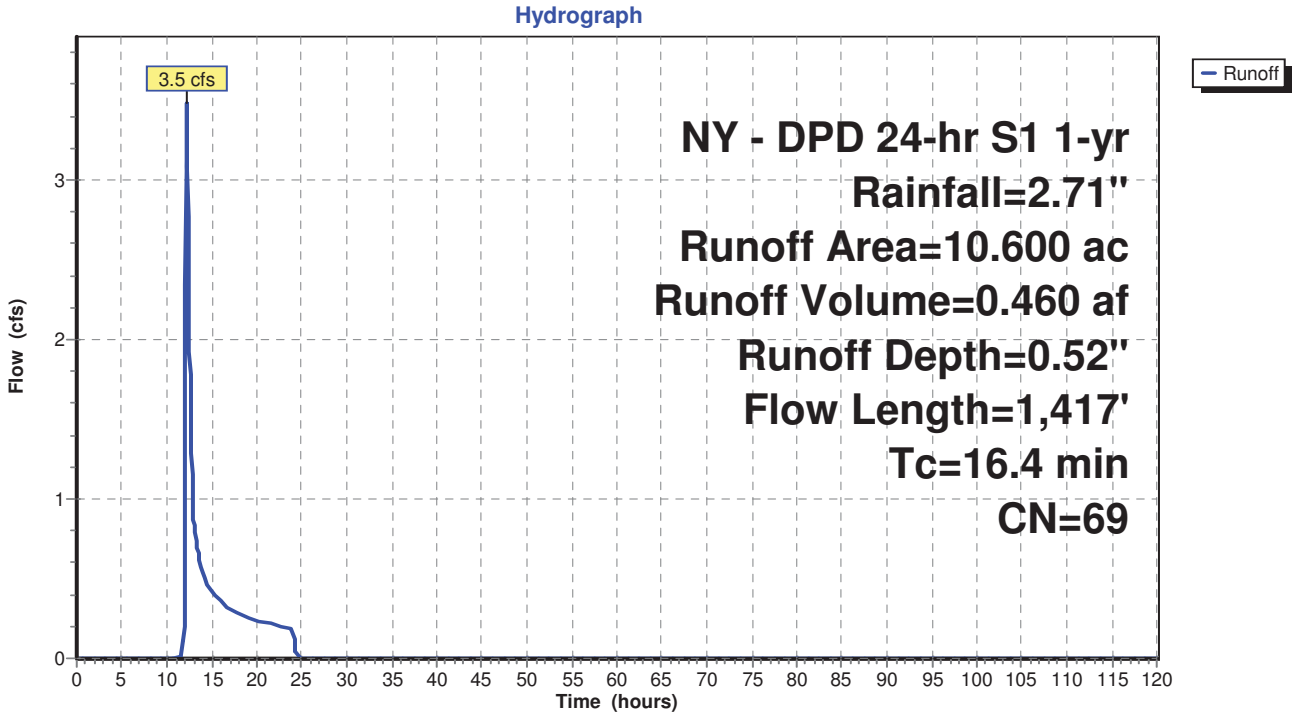
Runoff = 3.5 cfs @ 12.22 hrs, Volume= 0.460 af, Depth= 0.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 1-yr Rainfall=2.71"

Area (ac)	CN	Description
0.100	98	Paved parking, HSG C
0.500	96	Gravel surface, HSG C
0.700	74	>75% Grass cover, Good, HSG C
1.200	71	Meadow, non-grazed, HSG C
5.000	70	Woods, Good, HSG C
0.500	72	Woods/grass comb., Good, HSG C
2.200	55	Woods, Good, HSG B
0.400	61	>75% Grass cover, Good, HSG B
10.600	69	Weighted Average
10.500		99.06% Pervious Area
0.100		0.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0150	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
1.1	225	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.6	162	0.1100	1.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	90	0.3000	2.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.3	840	0.0300	6.10	36.62	**Channel Flow,** Area= 6.0 sf Perim= 10.0' r= 0.60' n= 0.030 Earth, grassed & winding
16.4	1,417	Total			

Subcatchment PRE 1:



Summary for Subcatchment PRE 2:

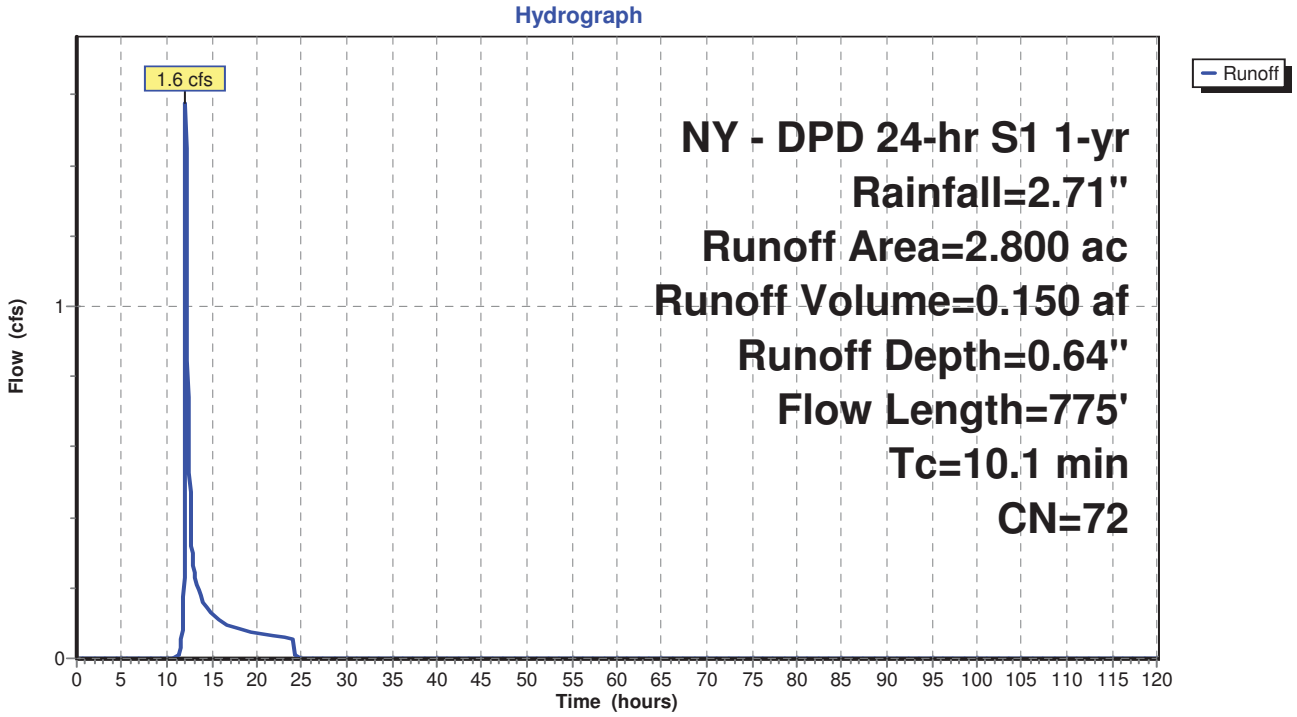
Runoff = 1.6 cfs @ 12.11 hrs, Volume= 0.150 af, Depth= 0.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 1-yr Rainfall=2.71"

Area (ac)	CN	Description
0.600	96	Gravel surface, HSG C
0.100	74	>75% Grass cover, Good, HSG C
1.300	70	Woods, Good, HSG C
0.700	55	Woods, Good, HSG B
0.100	61	>75% Grass cover, Good, HSG B
2.800	72	Weighted Average
2.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	60	0.1200	0.15		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.27"
0.4	40	0.0600	1.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.27"
0.7	215	0.0600	4.97		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.5	180	0.1500	1.94		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.6	280	0.0400	7.33	29.34	**Channel Flow,** Area= 4.0 sf Perim= 10.0' r= 0.40' n= 0.022 Earth, clean & straight
10.1	775	Total			

Subcatchment PRE 2:



Summary for Subcatchment PRE 3:

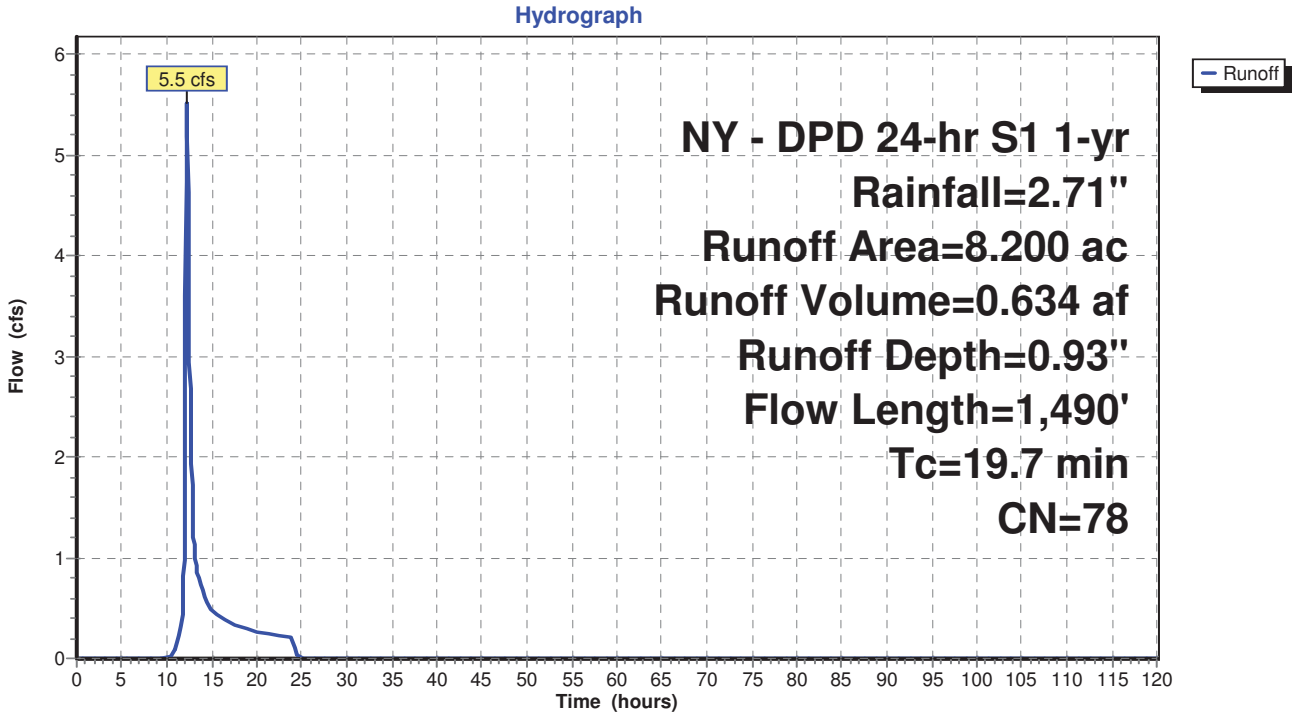
Runoff = 5.5 cfs @ 12.24 hrs, Volume= 0.634 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 1-yr Rainfall=2.71"

Area (ac)	CN	Description
1.600	98	Paved parking, HSG C
0.700	96	Gravel surface, HSG C
1.700	74	>75% Grass cover, Good, HSG C
3.700	70	Woods, Good, HSG C
0.500	55	Woods, Good, HSG B
8.200	78	Weighted Average
6.600		80.49% Pervious Area
1.600		19.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.8	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
2.0	250	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.9	70	0.0700	1.32		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.3	430	0.0750	5.56		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.3	130	0.1100	1.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	220	0.2000	6.71		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.5	110	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.1	40	0.0100	7.20	28.80	**Pipe Channel,** 24.0" x 24.0" Box Area= 4.0 sf Perim= 8.0' r= 0.50' n= 0.013 Concrete pipe, bends & connections
0.3	140	0.2000	6.71		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
19.7	1,490	Total			

Subcatchment PRE 3:



Summary for Subcatchment PRE 4:

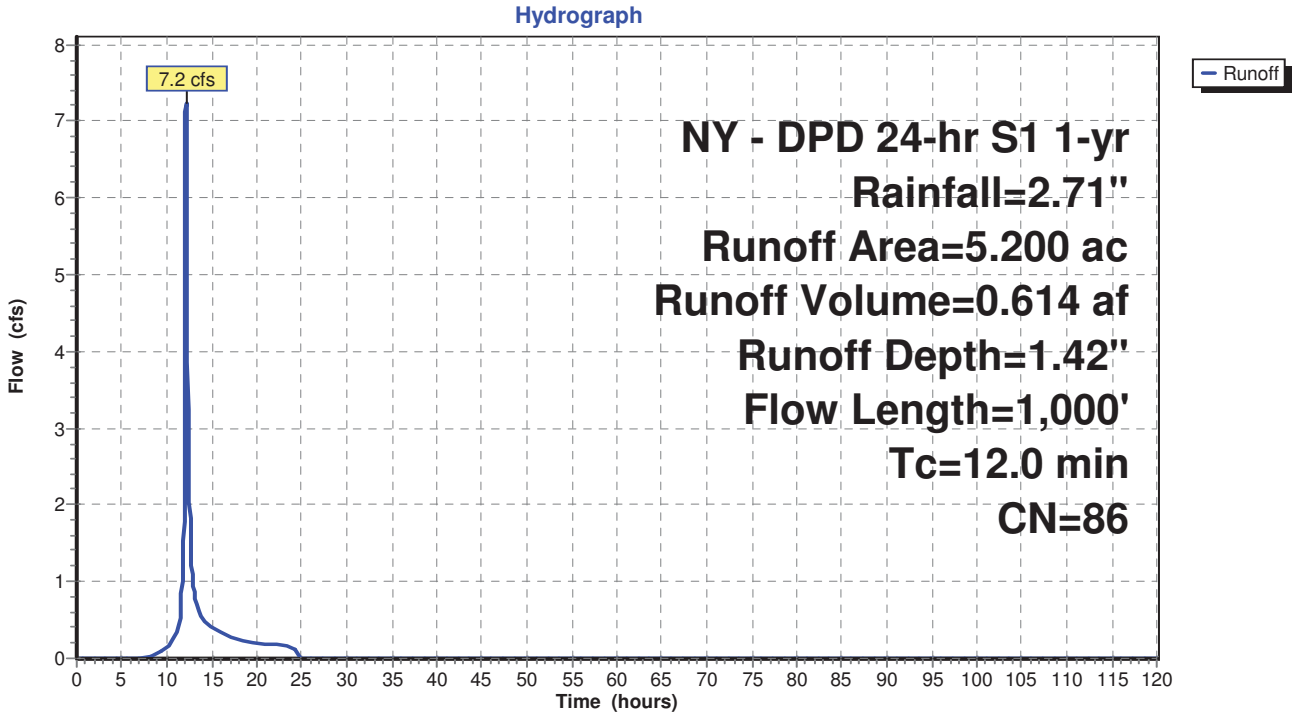
Runoff = 7.2 cfs @ 12.12 hrs, Volume= 0.614 af, Depth= 1.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 1-yr Rainfall=2.71"

Area (ac)	CN	Description
2.000	98	Paved parking, HSG C
0.700	96	Gravel surface, HSG C
0.800	74	>75% Grass cover, Good, HSG C
0.100	80	>75% Grass cover, Good, HSG D
0.400	70	Woods, Good, HSG C
1.200	72	Woods/grass comb., Good, HSG C
5.200	86	Weighted Average
3.200		61.54% Pervious Area
2.000		38.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1000	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.27"
1.8	260	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	190	0.1000	6.42		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.3	270	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.0	180	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
12.0	1,000	Total			

Subcatchment PRE 4:



Summary for Subcatchment PRE 5:

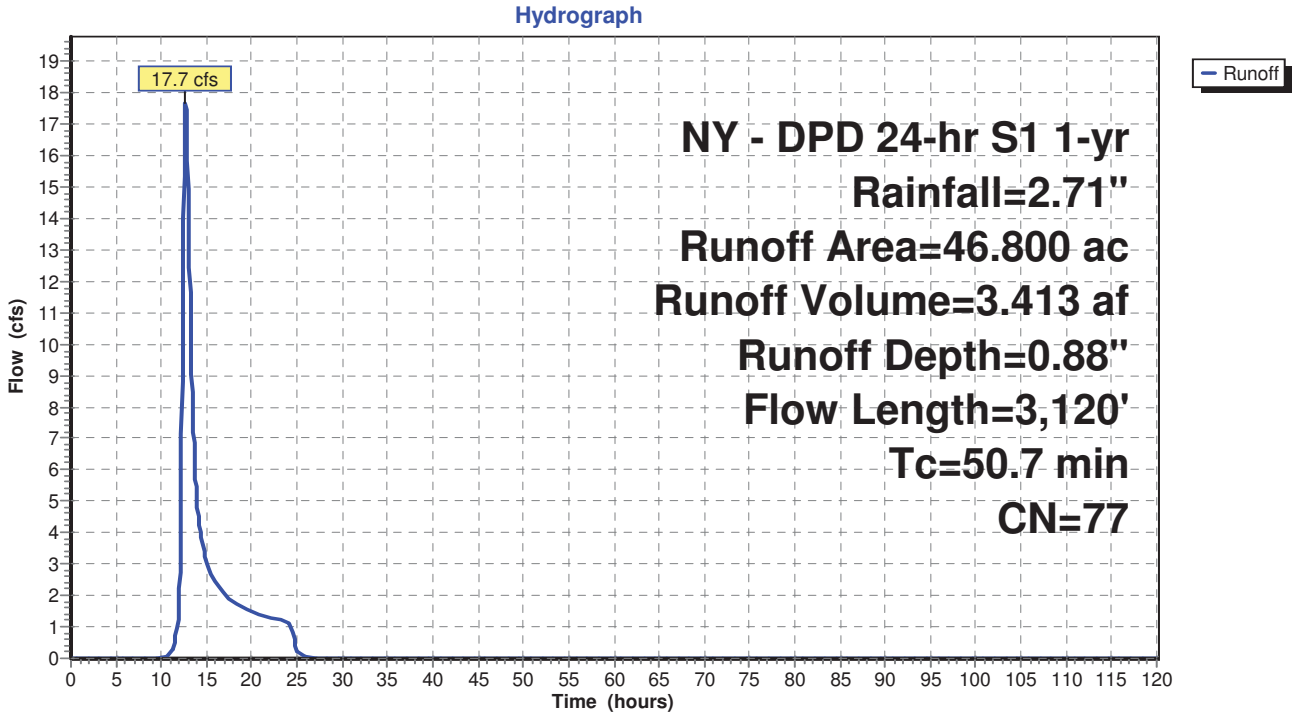
Runoff = 17.7 cfs @ 12.70 hrs, Volume= 3.413 af, Depth= 0.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 1-yr Rainfall=2.71"

Area (ac)	CN	Description
6.000	98	Paved parking, HSG C
0.400	96	Gravel surface, HSG C
1.600	98	Water Surface, HSG D
9.200	74	>75% Grass cover, Good, HSG C
10.000	71	Meadow, non-grazed, HSG C
9.100	70	Woods, Good, HSG C
1.000	72	Woods/grass comb., Good, HSG C
8.800	77	Woods, Good, HSG D
0.700	80	>75% Grass cover, Good, HSG D
46.800	77	Weighted Average
39.200		83.76% Pervious Area
7.600		16.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.6	100	0.0100	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.27"
4.3	770	0.0400	3.00		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.8	110	0.0400	1.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.1	980	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	430		13.90		**Lake or Reservoir,** Mean Depth= 6.00'
2.4	730	0.0200	4.98	29.90	**Channel Flow,** Area= 6.0 sf Perim= 10.0' r= 0.60' n= 0.030 Earth, grassed & winding
50.7	3,120	Total			

Subcatchment PRE 5:



Summary for Subcatchment PRE 1:

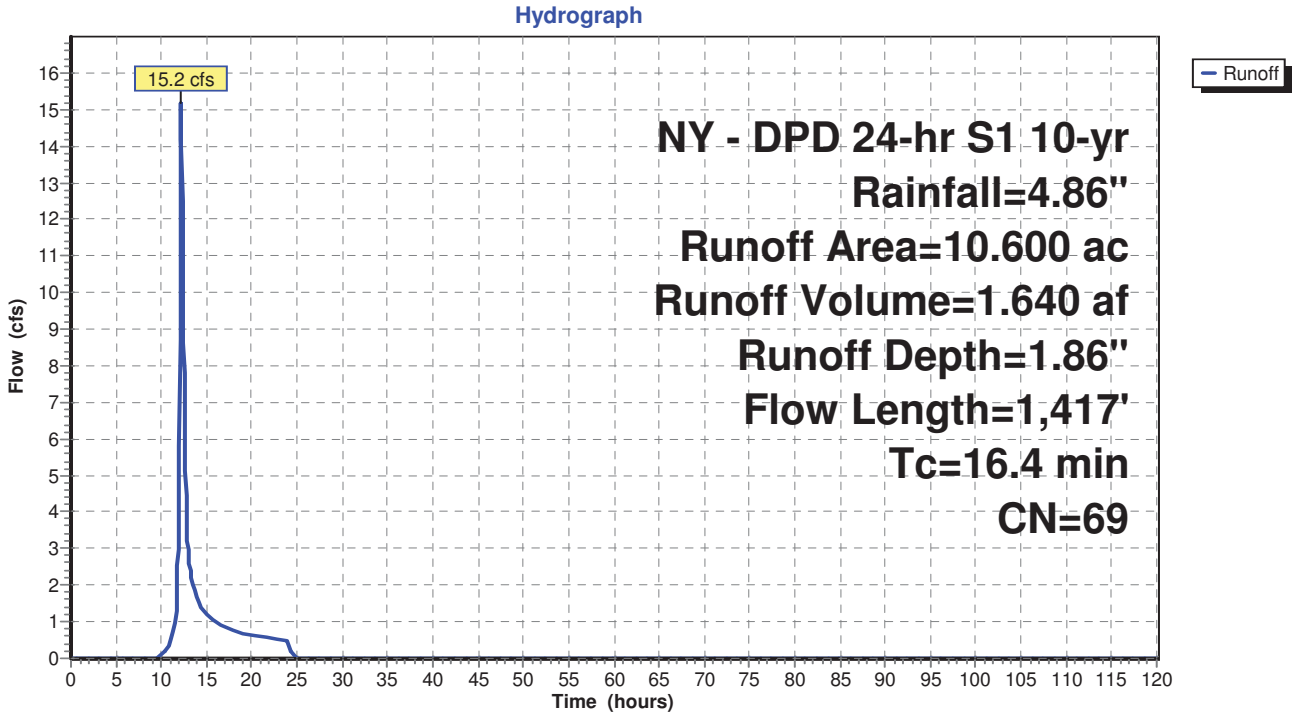
Runoff = 15.2 cfs @ 12.19 hrs, Volume= 1.640 af, Depth= 1.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 10-yr Rainfall=4.86"

Area (ac)	CN	Description
0.100	98	Paved parking, HSG C
0.500	96	Gravel surface, HSG C
0.700	74	>75% Grass cover, Good, HSG C
1.200	71	Meadow, non-grazed, HSG C
5.000	70	Woods, Good, HSG C
0.500	72	Woods/grass comb., Good, HSG C
2.200	55	Woods, Good, HSG B
0.400	61	>75% Grass cover, Good, HSG B
10.600	69	Weighted Average
10.500		99.06% Pervious Area
0.100		0.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0150	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
1.1	225	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.6	162	0.1100	1.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	90	0.3000	2.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.3	840	0.0300	6.10	36.62	**Channel Flow,** Area= 6.0 sf Perim= 10.0' r= 0.60' n= 0.030 Earth, grassed & winding
16.4	1,417	Total			

Subcatchment PRE 1:



Summary for Subcatchment PRE 2:

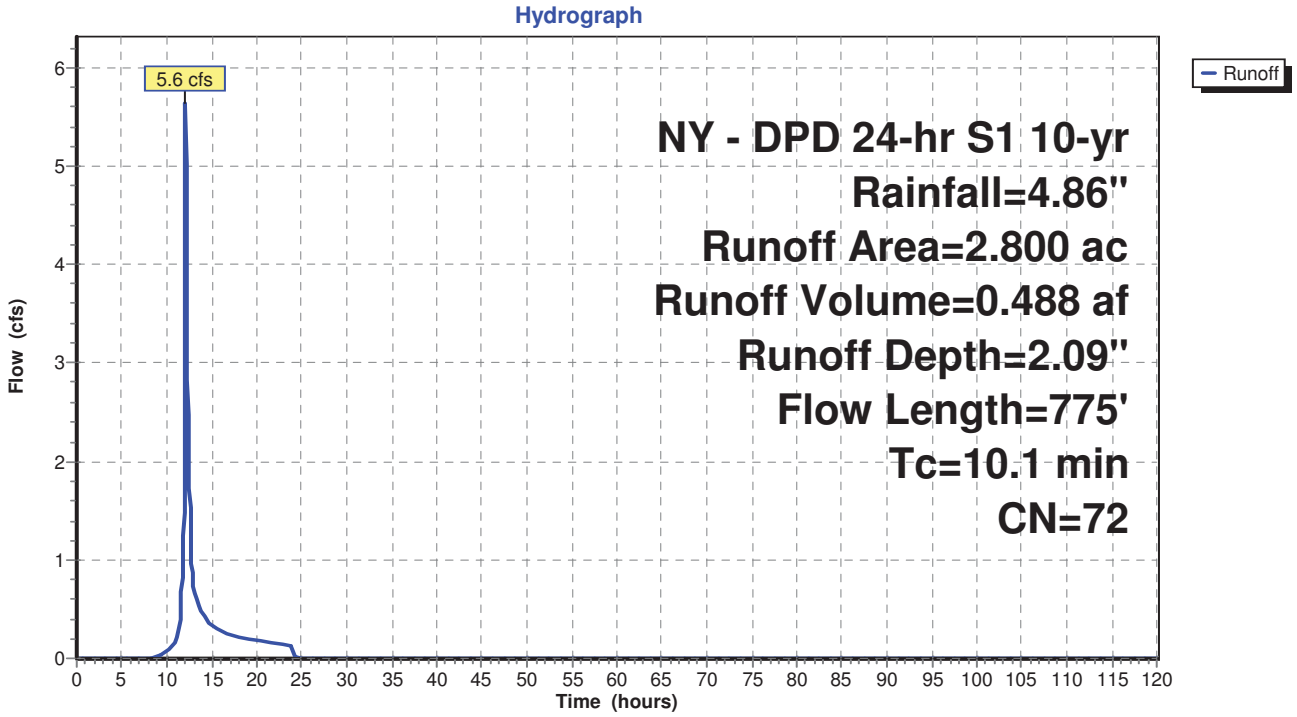
Runoff = 5.6 cfs @ 12.10 hrs, Volume= 0.488 af, Depth= 2.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 10-yr Rainfall=4.86"

Area (ac)	CN	Description
0.600	96	Gravel surface, HSG C
0.100	74	>75% Grass cover, Good, HSG C
1.300	70	Woods, Good, HSG C
0.700	55	Woods, Good, HSG B
0.100	61	>75% Grass cover, Good, HSG B
2.800	72	Weighted Average
2.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	60	0.1200	0.15		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.27"
0.4	40	0.0600	1.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.27"
0.7	215	0.0600	4.97		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.5	180	0.1500	1.94		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.6	280	0.0400	7.33	29.34	**Channel Flow,** Area= 4.0 sf Perim= 10.0' r= 0.40' n= 0.022 Earth, clean & straight
10.1	775	Total			

Subcatchment PRE 2:



Summary for Subcatchment PRE 3:

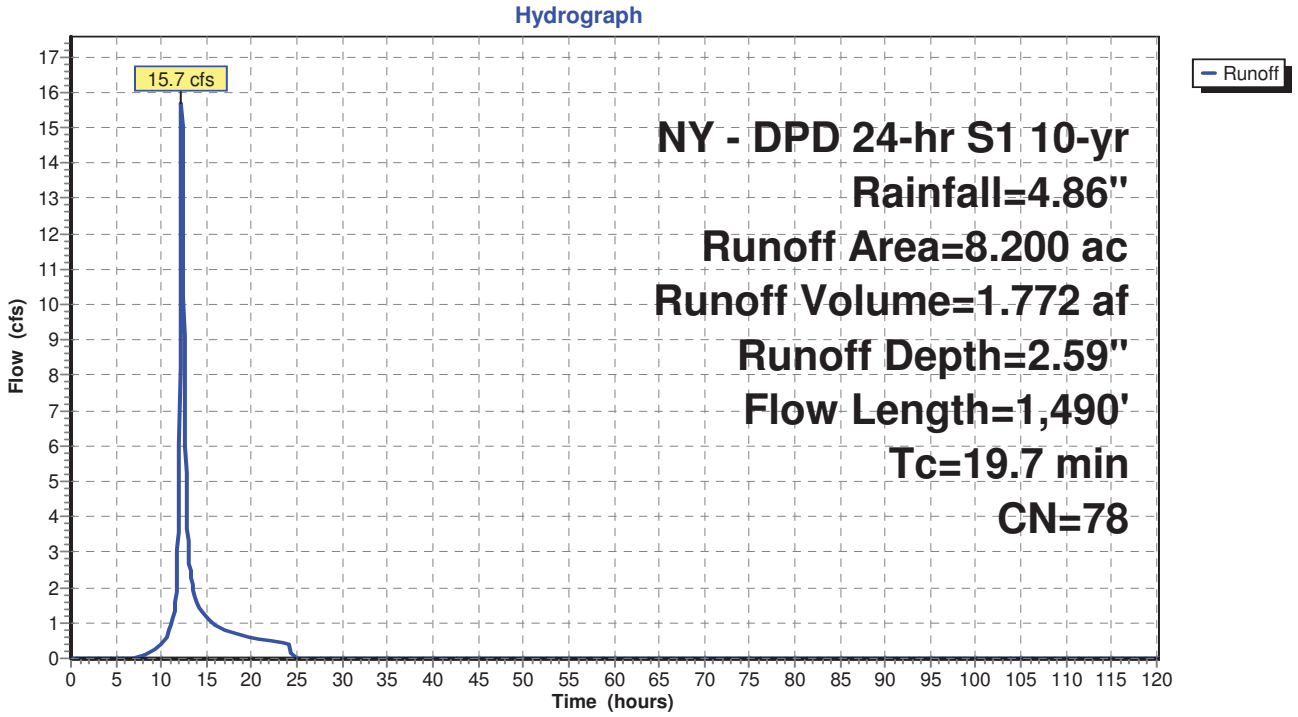
Runoff = 15.7 cfs @ 12.23 hrs, Volume= 1.772 af, Depth= 2.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 10-yr Rainfall=4.86"

Area (ac)	CN	Description
1.600	98	Paved parking, HSG C
0.700	96	Gravel surface, HSG C
1.700	74	>75% Grass cover, Good, HSG C
3.700	70	Woods, Good, HSG C
0.500	55	Woods, Good, HSG B
8.200	78	Weighted Average
6.600		80.49% Pervious Area
1.600		19.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.8	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
2.0	250	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.9	70	0.0700	1.32		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.3	430	0.0750	5.56		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.3	130	0.1100	1.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	220	0.2000	6.71		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.5	110	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.1	40	0.0100	7.20	28.80	**Pipe Channel,** 24.0" x 24.0" Box Area= 4.0 sf Perim= 8.0' r= 0.50' n= 0.013 Concrete pipe, bends & connections
0.3	140	0.2000	6.71		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
19.7	1,490	Total			

Subcatchment PRE 3:



Summary for Subcatchment PRE 4:

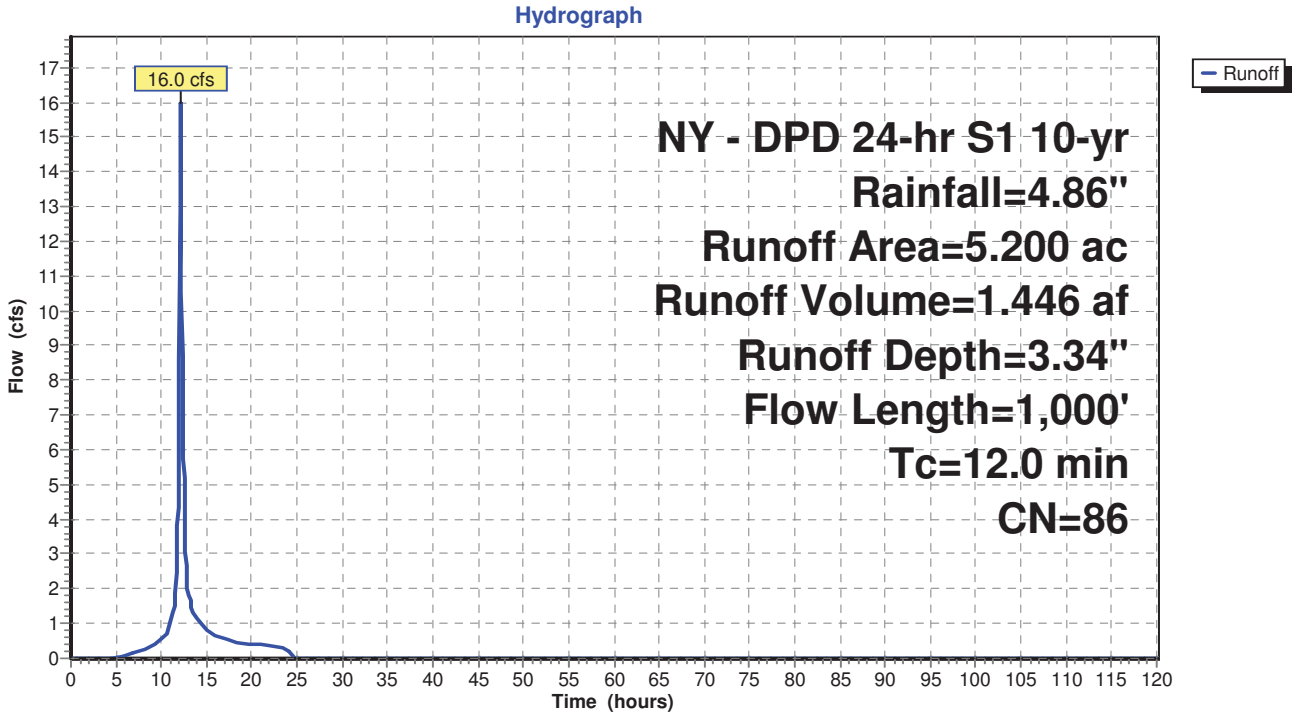
Runoff = 16.0 cfs @ 12.12 hrs, Volume= 1.446 af, Depth= 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 10-yr Rainfall=4.86"

Area (ac)	CN	Description
2.000	98	Paved parking, HSG C
0.700	96	Gravel surface, HSG C
0.800	74	>75% Grass cover, Good, HSG C
0.100	80	>75% Grass cover, Good, HSG D
0.400	70	Woods, Good, HSG C
1.200	72	Woods/grass comb., Good, HSG C
5.200	86	Weighted Average
3.200		61.54% Pervious Area
2.000		38.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1000	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.27"
1.8	260	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	190	0.1000	6.42		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.3	270	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.0	180	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
12.0	1,000	Total			

Subcatchment PRE 4:



Summary for Subcatchment PRE 5:

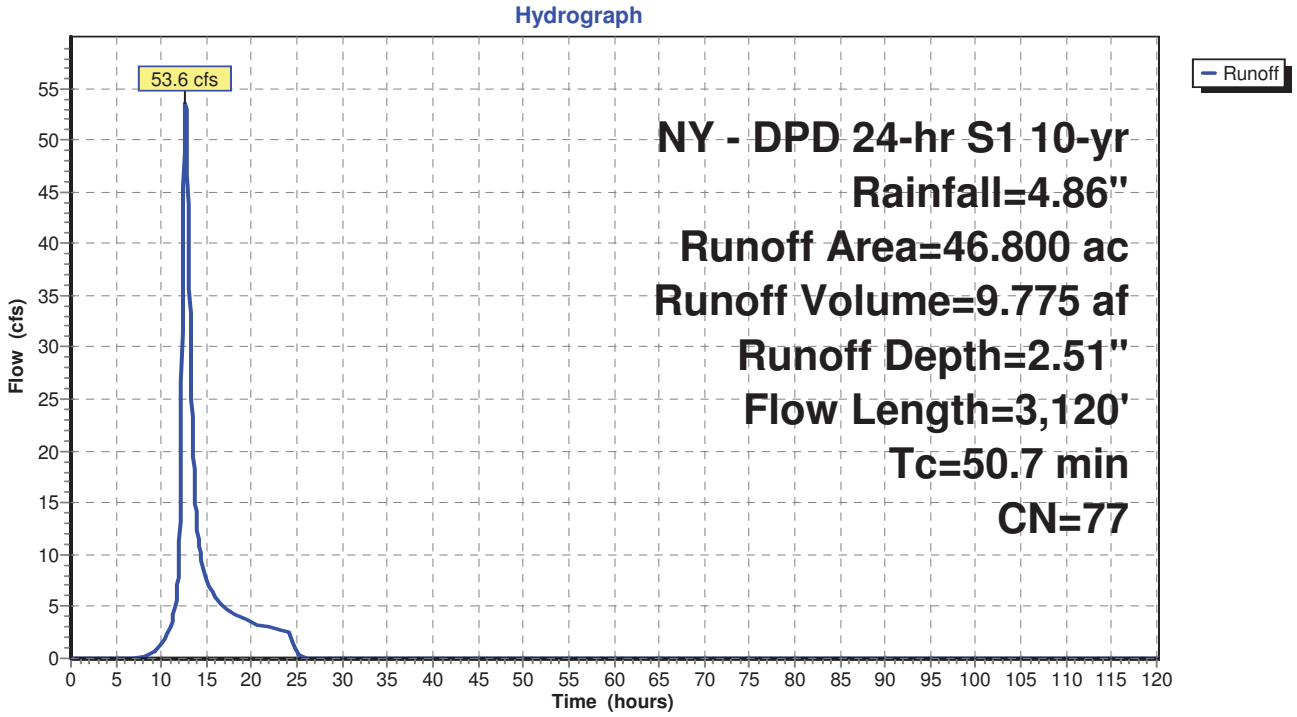
Runoff = 53.6 cfs @ 12.67 hrs, Volume= 9.775 af, Depth= 2.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 10-yr Rainfall=4.86"

Area (ac)	CN	Description
6.000	98	Paved parking, HSG C
0.400	96	Gravel surface, HSG C
1.600	98	Water Surface, HSG D
9.200	74	>75% Grass cover, Good, HSG C
10.000	71	Meadow, non-grazed, HSG C
9.100	70	Woods, Good, HSG C
1.000	72	Woods/grass comb., Good, HSG C
8.800	77	Woods, Good, HSG D
0.700	80	>75% Grass cover, Good, HSG D
46.800	77	Weighted Average
39.200		83.76% Pervious Area
7.600		16.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.6	100	0.0100	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.27"
4.3	770	0.0400	3.00		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.8	110	0.0400	1.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.1	980	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	430		13.90		**Lake or Reservoir,** Mean Depth= 6.00'
2.4	730	0.0200	4.98	29.90	**Channel Flow,** Area= 6.0 sf Perim= 10.0' r= 0.60' n= 0.030 Earth, grassed & winding
50.7	3,120	Total			

Subcatchment PRE 5:



Summary for Subcatchment PRE 1:

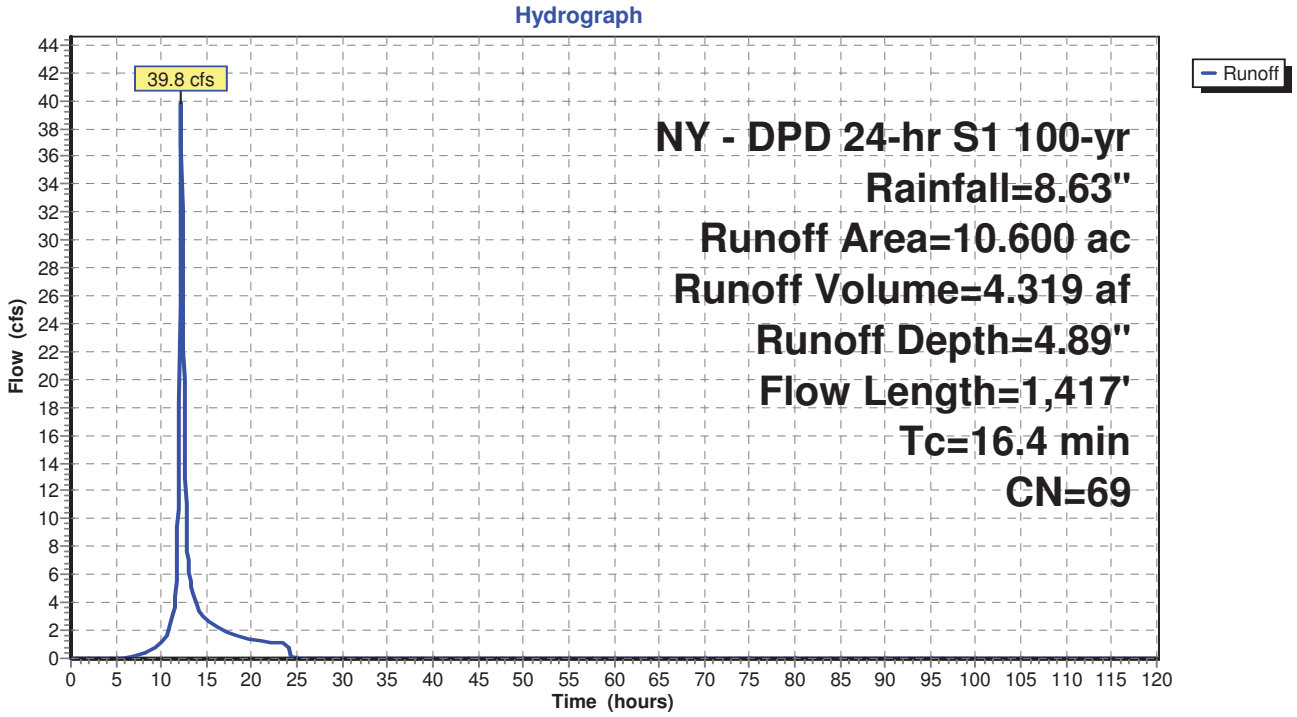
Runoff = 39.8 cfs @ 12.18 hrs, Volume= 4.319 af, Depth= 4.89"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 100-yr Rainfall=8.63"

Area (ac)	CN	Description
0.100	98	Paved parking, HSG C
0.500	96	Gravel surface, HSG C
0.700	74	>75% Grass cover, Good, HSG C
1.200	71	Meadow, non-grazed, HSG C
5.000	70	Woods, Good, HSG C
0.500	72	Woods/grass comb., Good, HSG C
2.200	55	Woods, Good, HSG B
0.400	61	>75% Grass cover, Good, HSG B
10.600	69	Weighted Average
10.500		99.06% Pervious Area
0.100		0.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0150	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
1.1	225	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.6	162	0.1100	1.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	90	0.3000	2.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.3	840	0.0300	6.10	36.62	**Channel Flow,** Area= 6.0 sf Perim= 10.0' r= 0.60' n= 0.030 Earth, grassed & winding
16.4	1,417	Total			

Subcatchment PRE 1:



Summary for Subcatchment PRE 2:

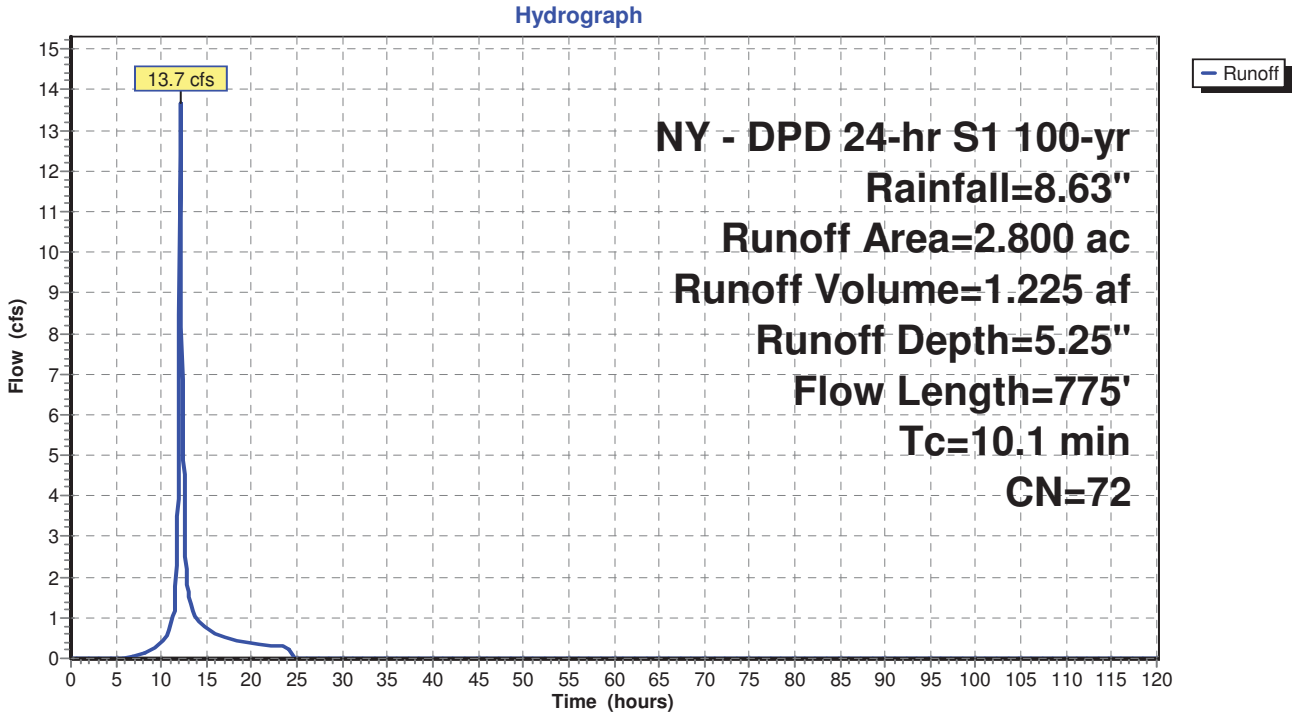
Runoff = 13.7 cfs @ 12.10 hrs, Volume= 1.225 af, Depth= 5.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 100-yr Rainfall=8.63"

Area (ac)	CN	Description
0.600	96	Gravel surface, HSG C
0.100	74	>75% Grass cover, Good, HSG C
1.300	70	Woods, Good, HSG C
0.700	55	Woods, Good, HSG B
0.100	61	>75% Grass cover, Good, HSG B
2.800	72	Weighted Average
2.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	60	0.1200	0.15		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.27"
0.4	40	0.0600	1.80		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.27"
0.7	215	0.0600	4.97		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.5	180	0.1500	1.94		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.6	280	0.0400	7.33	29.34	**Channel Flow,** Area= 4.0 sf Perim= 10.0' r= 0.40' n= 0.022 Earth, clean & straight
10.1	775	Total			

Subcatchment PRE 2:



Summary for Subcatchment PRE 3:

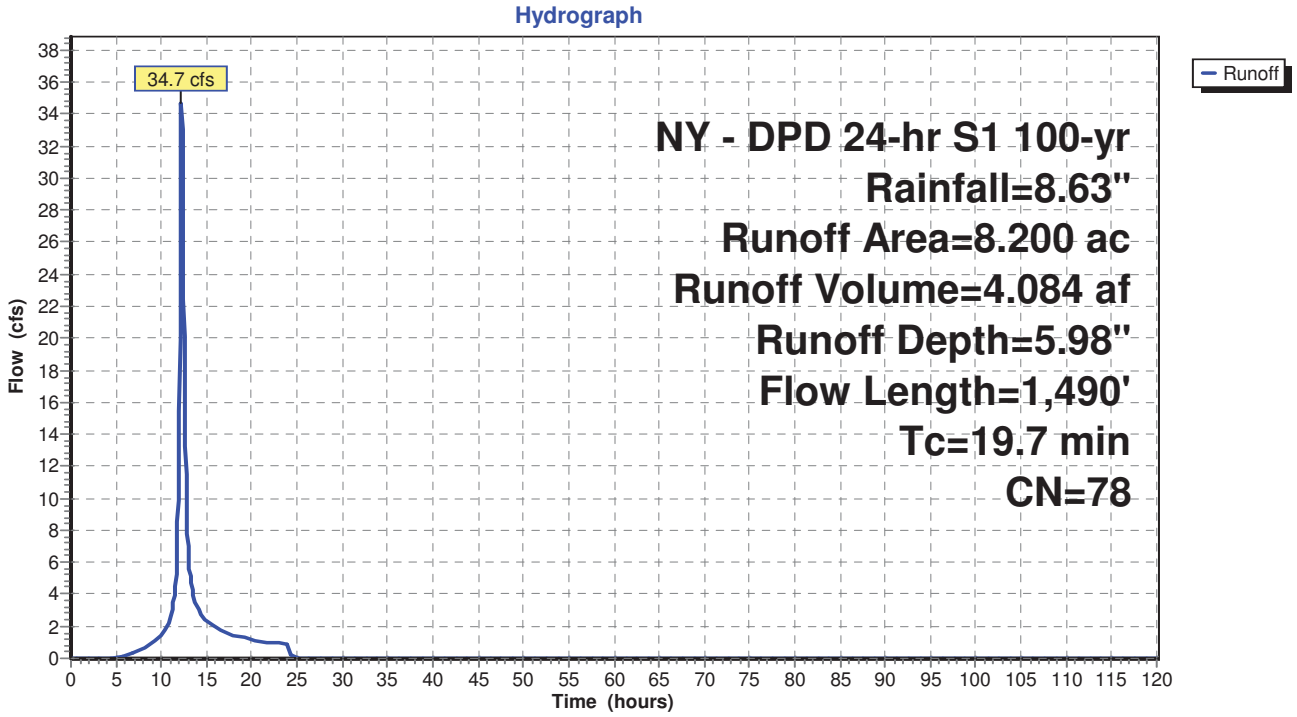
Runoff = 34.7 cfs @ 12.22 hrs, Volume= 4.084 af, Depth= 5.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 100-yr Rainfall=8.63"

Area (ac)	CN	Description
1.600	98	Paved parking, HSG C
0.700	96	Gravel surface, HSG C
1.700	74	>75% Grass cover, Good, HSG C
3.700	70	Woods, Good, HSG C
0.500	55	Woods, Good, HSG B
8.200	78	Weighted Average
6.600		80.49% Pervious Area
1.600		19.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.8	100	0.0100	0.13		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
2.0	250	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.9	70	0.0700	1.32		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.3	430	0.0750	5.56		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.3	130	0.1100	1.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	220	0.2000	6.71		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.5	110	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.1	40	0.0100	7.20	28.80	**Pipe Channel,** 24.0" x 24.0" Box Area= 4.0 sf Perim= 8.0' r= 0.50' n= 0.013 Concrete pipe, bends & connections
0.3	140	0.2000	6.71		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
19.7	1,490	Total			

Subcatchment PRE 3:



Summary for Subcatchment PRE 4:

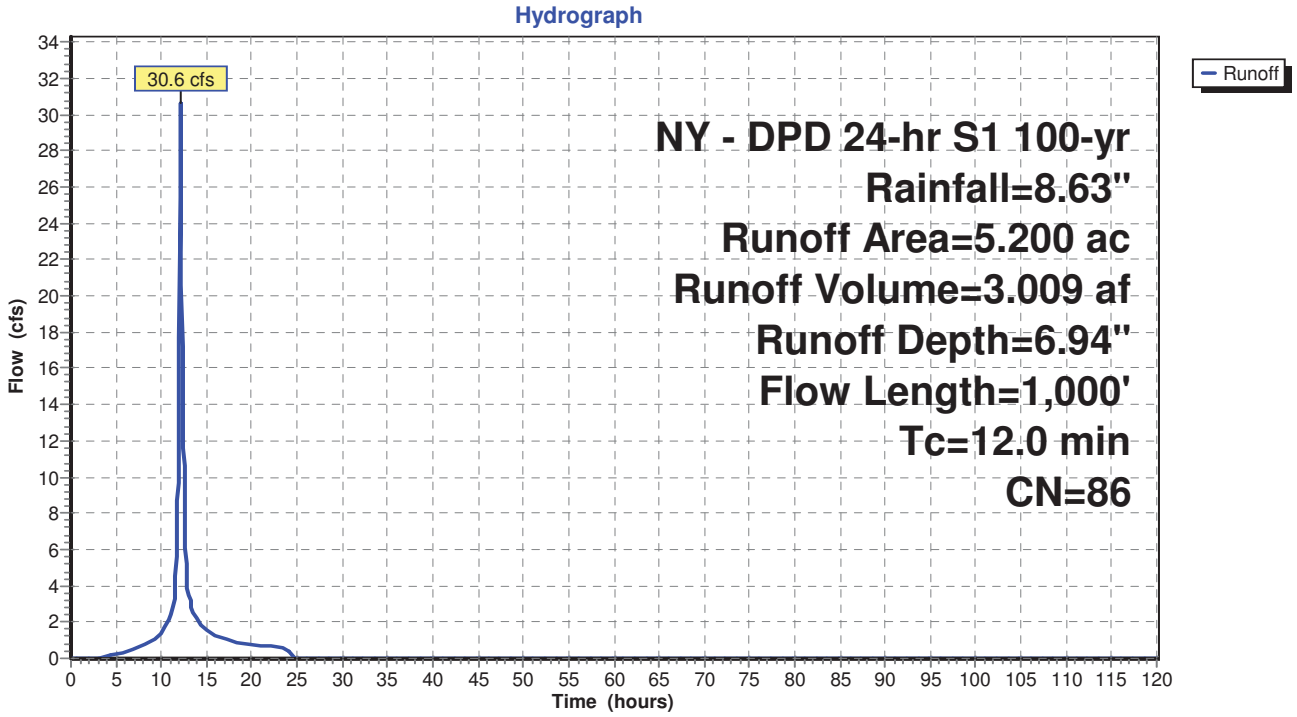
Runoff = 30.6 cfs @ 12.12 hrs, Volume= 3.009 af, Depth= 6.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 100-yr Rainfall=8.63"

Area (ac)	CN	Description
2.000	98	Paved parking, HSG C
0.700	96	Gravel surface, HSG C
0.800	74	>75% Grass cover, Good, HSG C
0.100	80	>75% Grass cover, Good, HSG D
0.400	70	Woods, Good, HSG C
1.200	72	Woods/grass comb., Good, HSG C
5.200	86	Weighted Average
3.200		61.54% Pervious Area
2.000		38.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.4	100	0.1000	0.22		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.27"
1.8	260	0.1200	2.42		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	190	0.1000	6.42		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.3	270	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.0	180	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
12.0	1,000	Total			

Subcatchment PRE 4:



Summary for Subcatchment PRE 5:

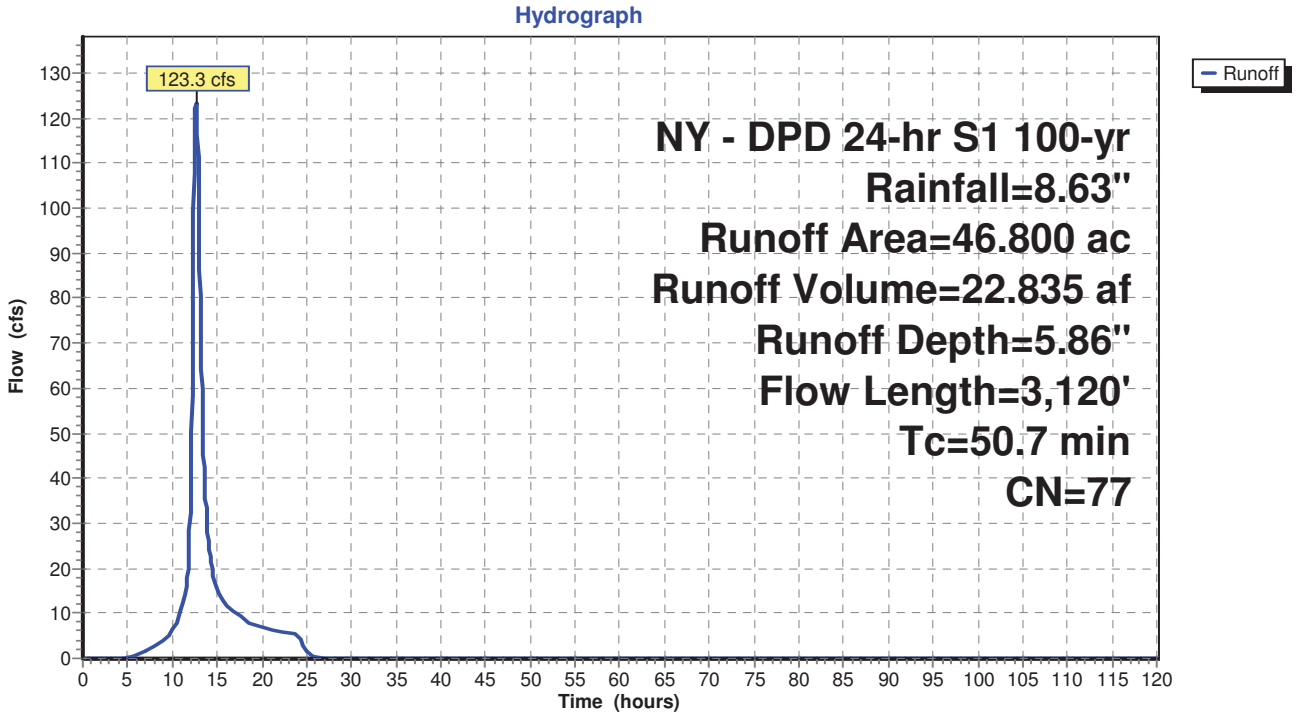
Runoff = 123.3 cfs @ 12.65 hrs, Volume= 22.835 af, Depth= 5.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 100-yr Rainfall=8.63"

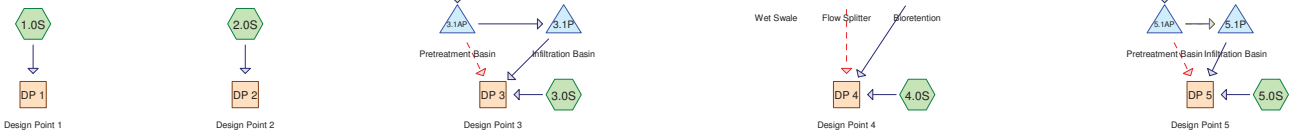
Area (ac)	CN	Description
6.000	98	Paved parking, HSG C
0.400	96	Gravel surface, HSG C
1.600	98	Water Surface, HSG D
9.200	74	>75% Grass cover, Good, HSG C
10.000	71	Meadow, non-grazed, HSG C
9.100	70	Woods, Good, HSG C
1.000	72	Woods/grass comb., Good, HSG C
8.800	77	Woods, Good, HSG D
0.700	80	>75% Grass cover, Good, HSG D
46.800	77	Weighted Average
39.200		83.76% Pervious Area
7.600		16.24% Impervious Area

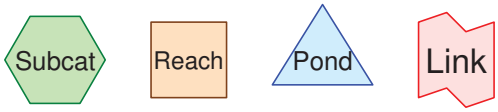
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.6	100	0.0100	0.09		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.27"
4.3	770	0.0400	3.00		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.8	110	0.0400	1.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.1	980	0.0200	0.71		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	430		13.90		**Lake or Reservoir,** Mean Depth= 6.00'
2.4	730	0.0200	4.98	29.90	**Channel Flow,** Area= 6.0 sf Perim= 10.0' r= 0.60' n= 0.030 Earth, grassed & winding
50.7	3,120	Total			

Subcatchment PRE 5:



APPENDIX C
Post Development Computer Data





Routing Diagram for DPD - Post-Development

Prepared by Insite Engineering, Surveying and Landscape Architecture, P.C., Printed 9/29/2023

Summary for Subcatchment 1.0S:

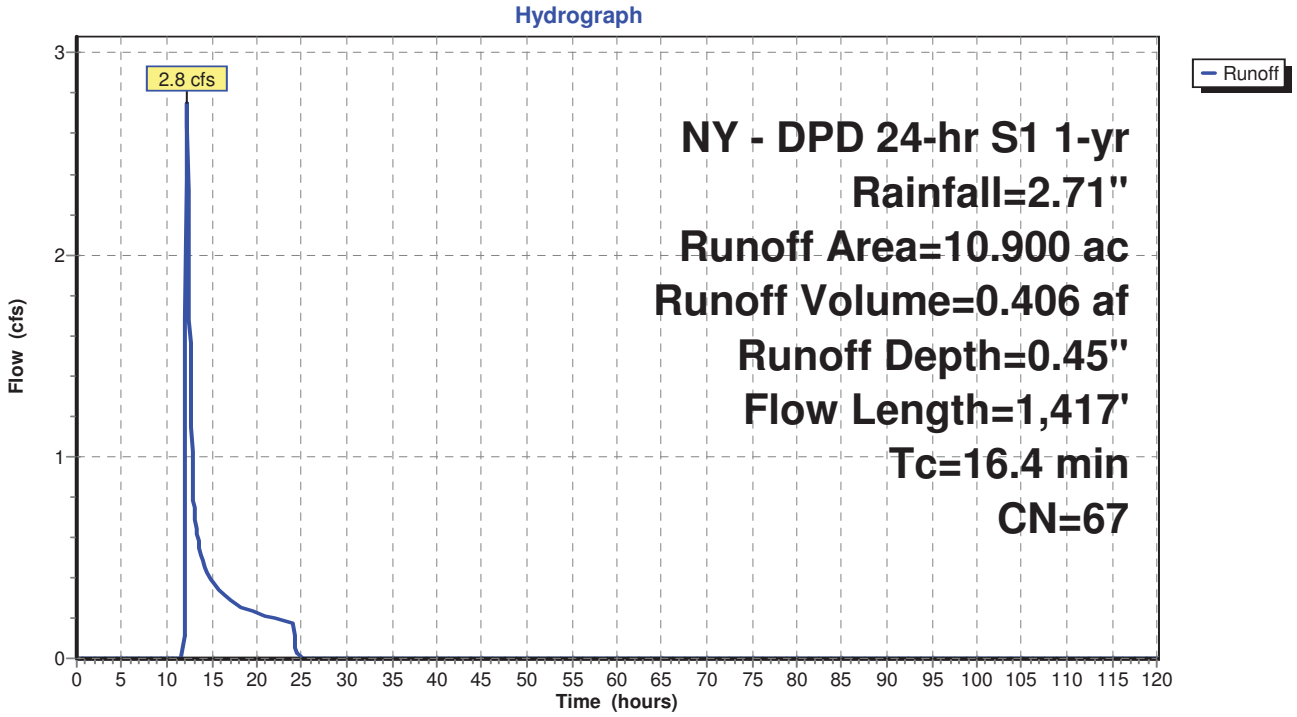
Runoff = 2.8 cfs @ 12.23 hrs, Volume= 0.406 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 1-yr Rainfall=2.71"

Area (ac)	CN	Description
1.500	74	>75% Grass cover, Good, HSG C
1.200	71	Meadow, non-grazed, HSG C
5.100	70	Woods, Good, HSG C
0.500	72	Woods/grass comb., Good, HSG C
2.200	55	Woods, Good, HSG B
0.400	61	>75% Grass cover, Good, HSG B
10.900	67	Weighted Average
10.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0150	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
1.1	225	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.6	162	0.1100	1.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	90	0.3000	2.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.3	840	0.0300	6.10	36.62	**Channel Flow,** Area= 6.0 sf Perim= 10.0' r= 0.60' n= 0.030 Earth, grassed & winding
16.4	1,417	Total			

Subcatchment 1.0S:



Summary for Subcatchment 2.0S:

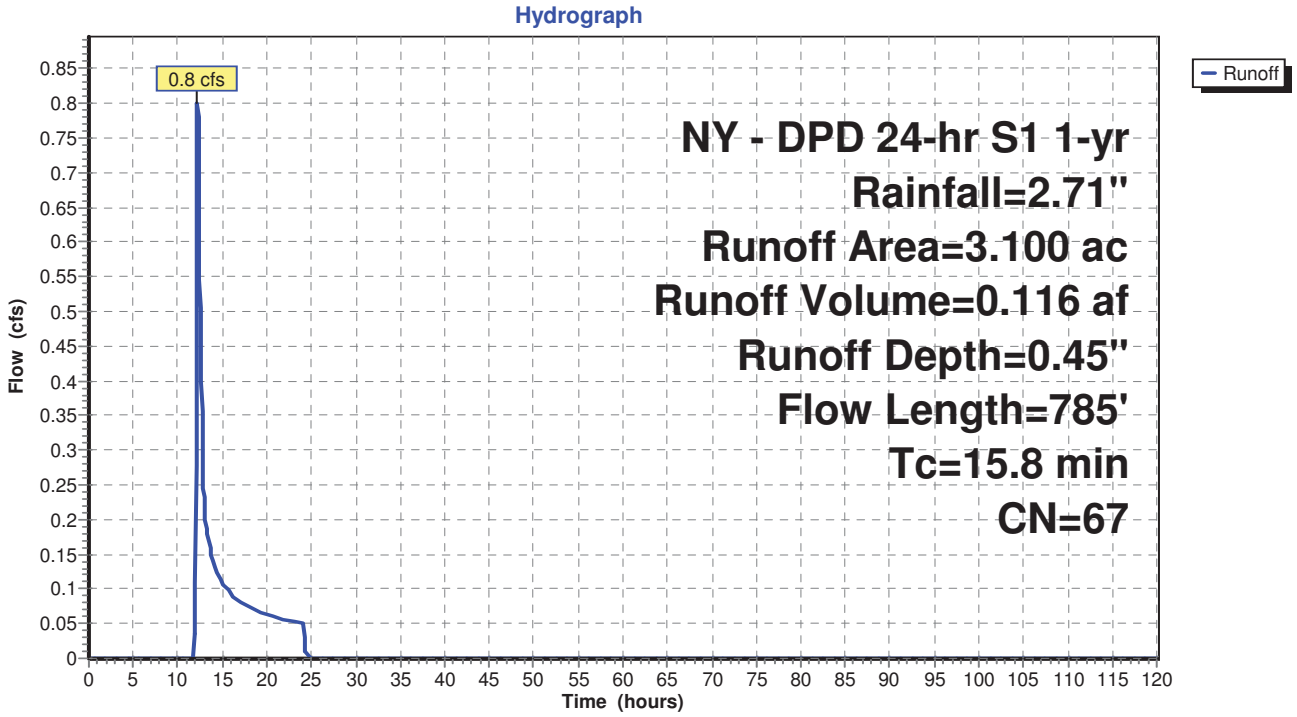
Runoff = 0.8 cfs @ 12.22 hrs, Volume= 0.116 af, Depth= 0.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 1-yr Rainfall=2.71"

Area (ac)	CN	Description
1.100	70	Woods, Good, HSG C
1.100	74	>75% Grass cover, Good, HSG C
0.700	55	Woods, Good, HSG B
0.200	61	>75% Grass cover, Good, HSG B
3.100	67	Weighted Average
3.100		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	100	0.1100	0.16		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.27"
3.4	285	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.0	150	0.2500	2.50		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.7	250	0.0250	5.80	23.19	**Channel Flow,** Area= 4.0 sf Perim= 10.0' r= 0.40' n= 0.022 Earth, clean & straight
15.8	785	Total			

Subcatchment 2.0S:



Summary for Subcatchment 3.0S:

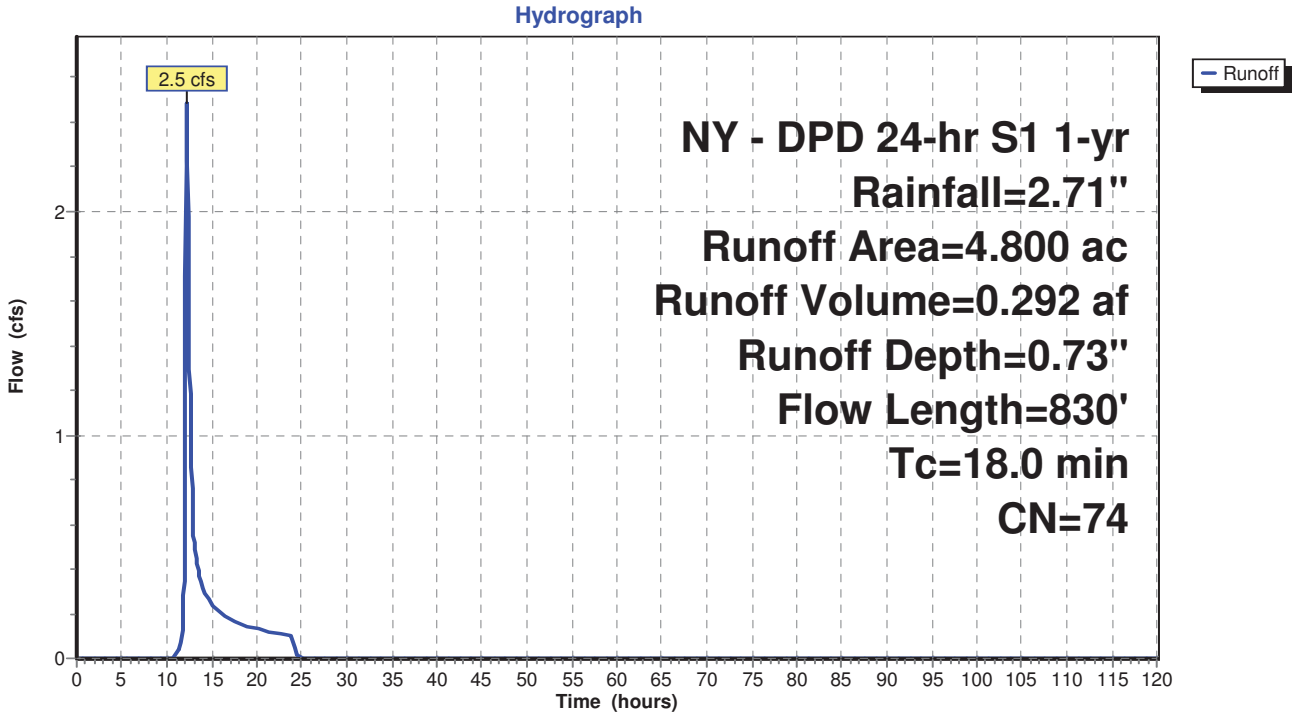
Runoff = 2.5 cfs @ 12.22 hrs, Volume= 0.292 af, Depth= 0.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 1-yr Rainfall=2.71"

Area (ac)	CN	Description
0.600	98	Paved parking, HSG C
1.400	74	>75% Grass cover, Good, HSG C
2.400	70	Woods, Good, HSG C
0.200	55	Woods, Good, HSG B
0.100	61	>75% Grass cover, Good, HSG B
0.100	80	>75% Grass cover, Good, HSG D
4.800	74	Weighted Average
4.200		87.50% Pervious Area
0.600		12.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	100	0.0500	0.11		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.27"
1.3	140	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	40	0.0250	4.25	17.01	**Channel Flow,** Area= 4.0 sf Perim= 10.0' r= 0.40' n= 0.030 Earth, grassed & winding
1.1	360	0.1400	5.61		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.7	190	0.0250	4.25	17.01	**Channel Flow,** Area= 4.0 sf Perim= 10.0' r= 0.40' n= 0.030 Earth, grassed & winding
18.0	830	Total			

Subcatchment 3.0S:



Summary for Subcatchment 3.1S:

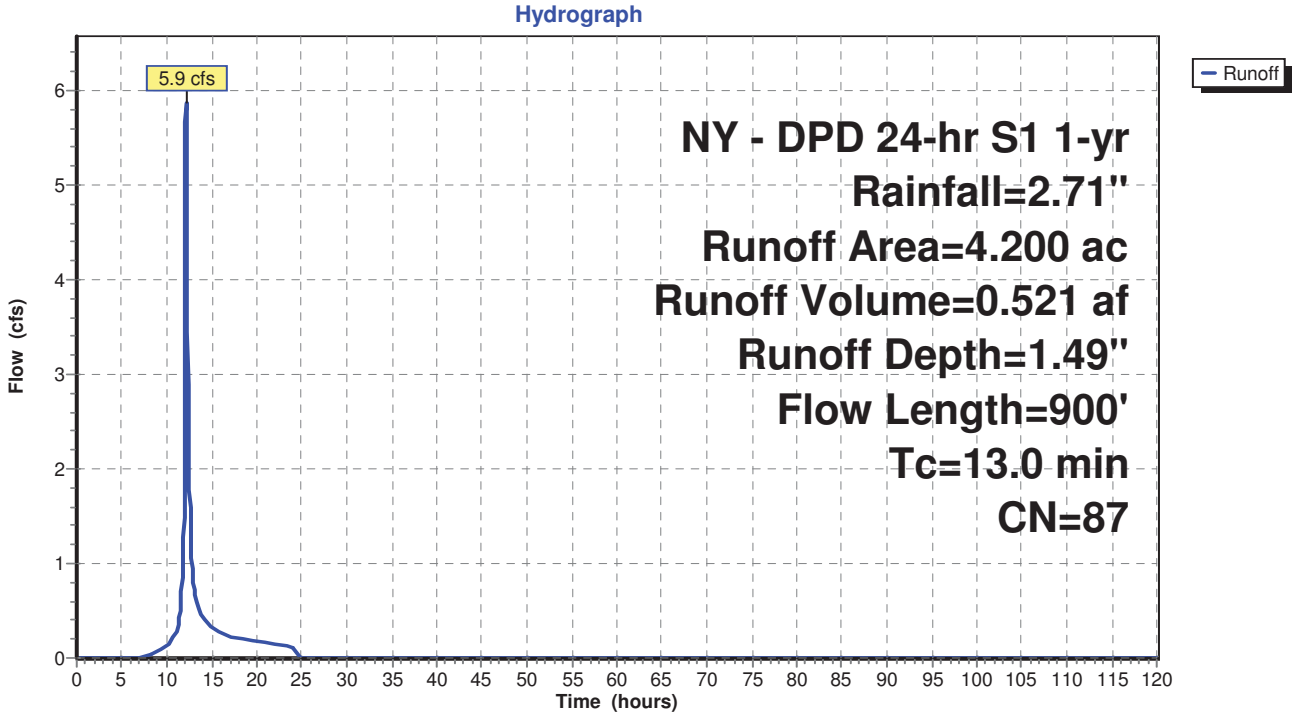
Runoff = 5.9 cfs @ 12.13 hrs, Volume= 0.521 af, Depth= 1.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 1-yr Rainfall=2.71"

Area (ac)	CN	Description
2.200	98	Paved parking, HSG C
2.000	74	>75% Grass cover, Good, HSG C
4.200	87	Weighted Average
2.000		47.62% Pervious Area
2.200		52.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.1200	0.16		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.27"
0.2	80	0.1500	5.81		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.4	720	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
13.0	900	Total			

Subcatchment 3.1S:



Summary for Subcatchment 4.0S:

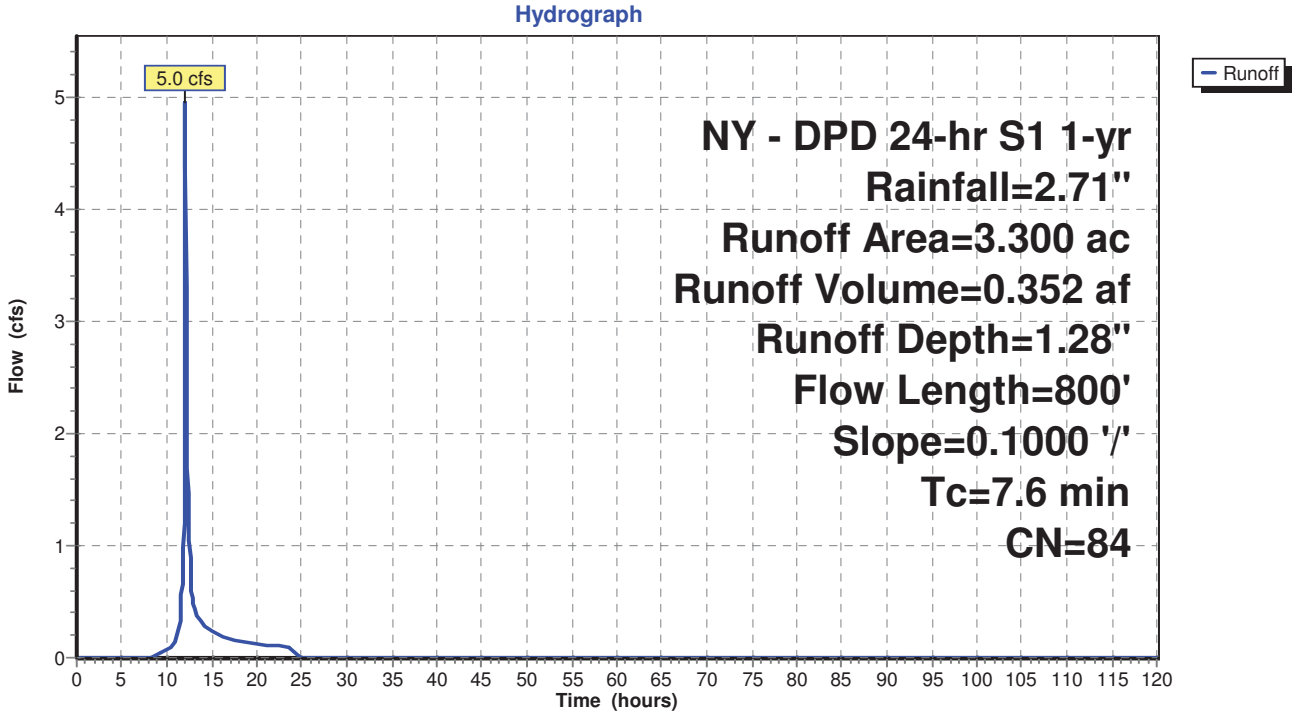
Runoff = 5.0 cfs @ 12.06 hrs, Volume= 0.352 af, Depth= 1.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 1-yr Rainfall=2.71"

Area (ac)	CN	Description
1.400	98	Paved parking, HSG C
1.100	74	>75% Grass cover, Good, HSG C
0.300	80	>75% Grass cover, Good, HSG D
0.500	72	Woods/grass comb., Good, HSG C
3.300	84	Weighted Average
1.900		57.58% Pervious Area
1.400		42.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	100	0.1000	0.33		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
2.5	700	0.1000	4.74		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
7.6	800	Total			

Subcatchment 4.0S:



Summary for Subcatchment 4.1S:

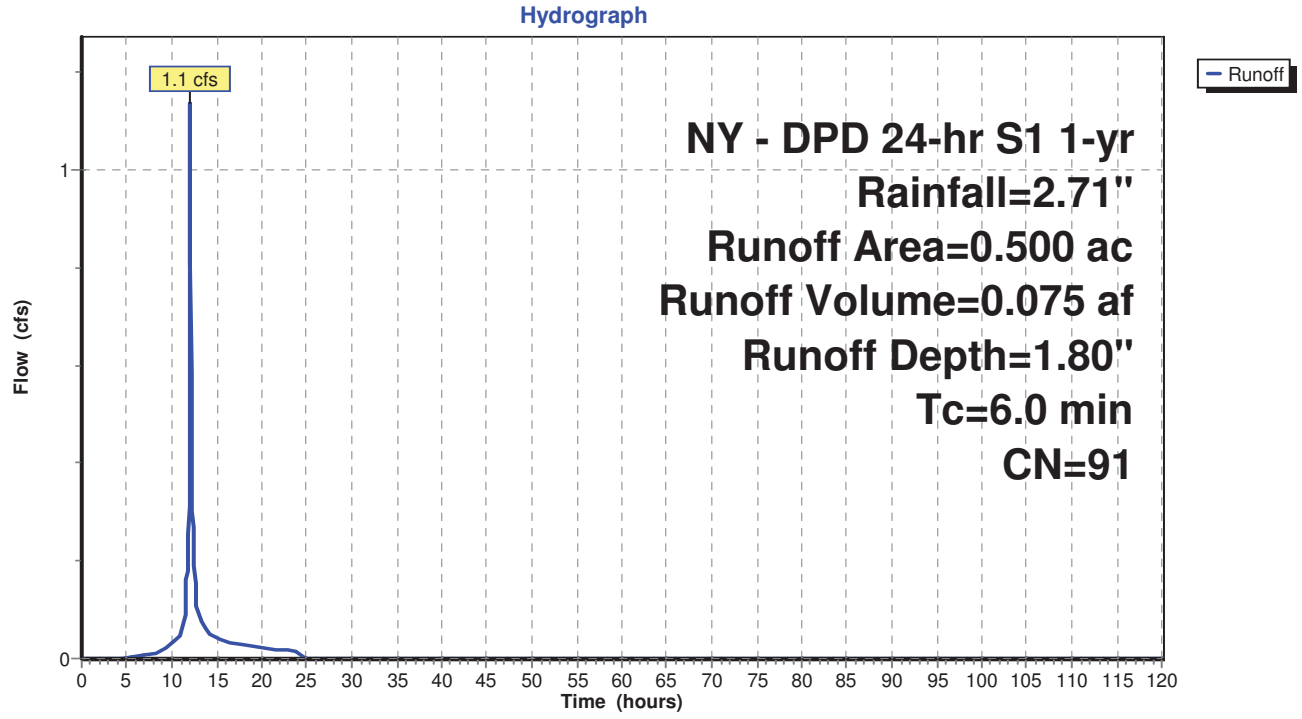
Runoff = 1.1 cfs @ 12.04 hrs, Volume= 0.075 af, Depth= 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 1-yr Rainfall=2.71"

Area (ac)	CN	Description
0.300	98	Paved parking, HSG D
0.200	80	>75% Grass cover, Good, HSG D
0.500	91	Weighted Average
0.200		40.00% Pervious Area
0.300		60.00% Impervious Area

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

Subcatchment 4.1S:



Summary for Subcatchment 5.0S:

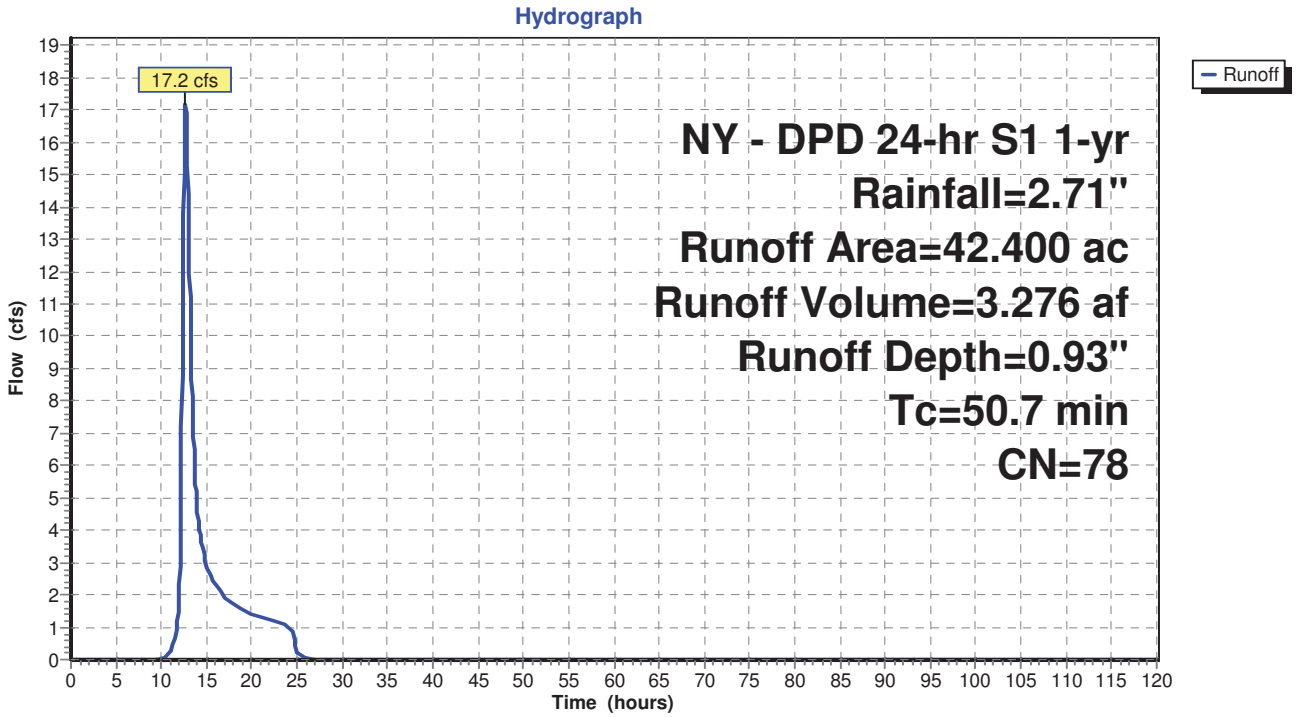
Runoff = 17.2 cfs @ 12.69 hrs, Volume= 3.276 af, Depth= 0.93"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 1-yr Rainfall=2.71"

Area (ac)	CN	Description
6.000	98	Paved parking, HSG C
1.600	98	Water Surface, HSG D
8.900	74	>75% Grass cover, Good, HSG C
7.300	71	Meadow, non-grazed, HSG C
8.700	70	Woods, Good, HSG C
1.000	72	Woods/grass comb., Good, HSG C
8.700	77	Woods, Good, HSG D
0.200	80	>75% Grass cover, Good, HSG D
42.400	78	Weighted Average
34.800		82.08% Pervious Area
7.600		17.92% Impervious Area

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

Subcatchment 5.0S:



Summary for Subcatchment 5.1S:

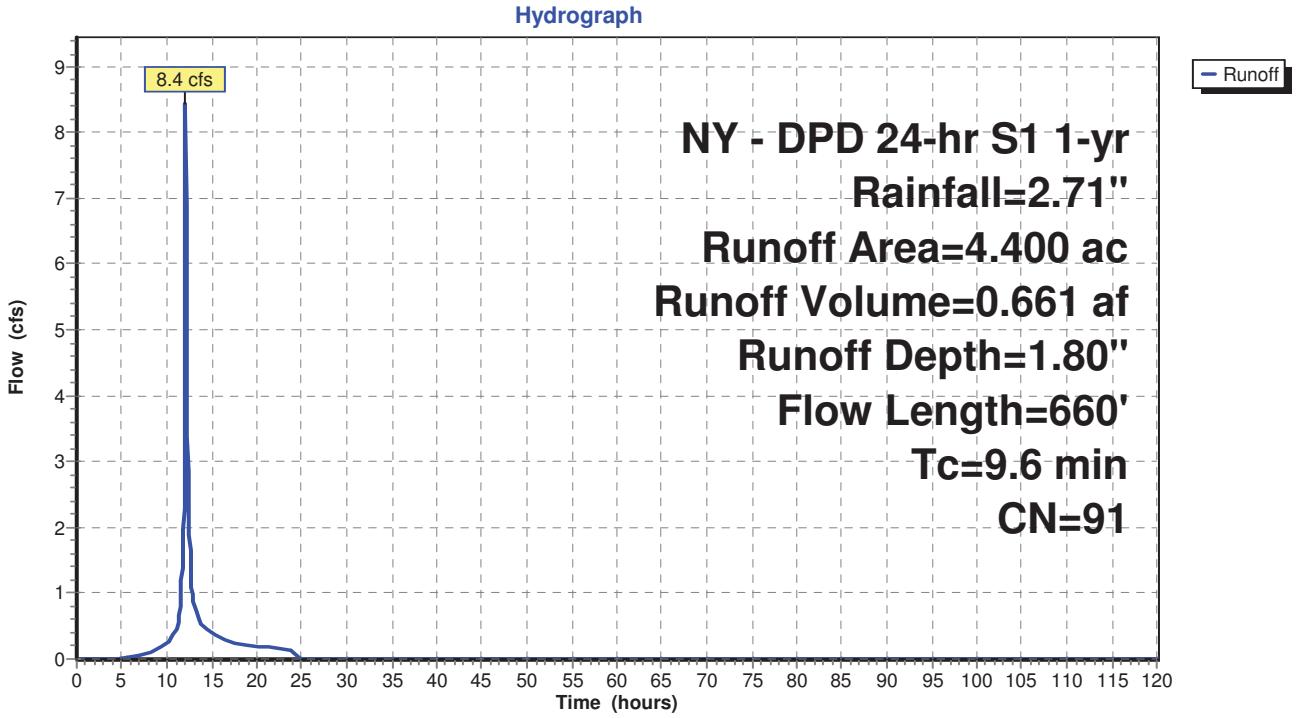
Runoff = 8.4 cfs @ 12.09 hrs, Volume= 0.661 af, Depth= 1.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 1-yr Rainfall=2.71"

Area (ac)	CN	Description
3.100	98	Paved parking, HSG D
1.300	74	>75% Grass cover, Good, HSG C
4.400	91	Weighted Average
1.300		29.55% Pervious Area
3.100		70.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0300	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
0.1	40	0.2000	6.71		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.3	120	0.1500	7.86		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.0	400	0.0100	6.44	11.38	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012
9.6	660	Total			

Subcatchment 5.1S:

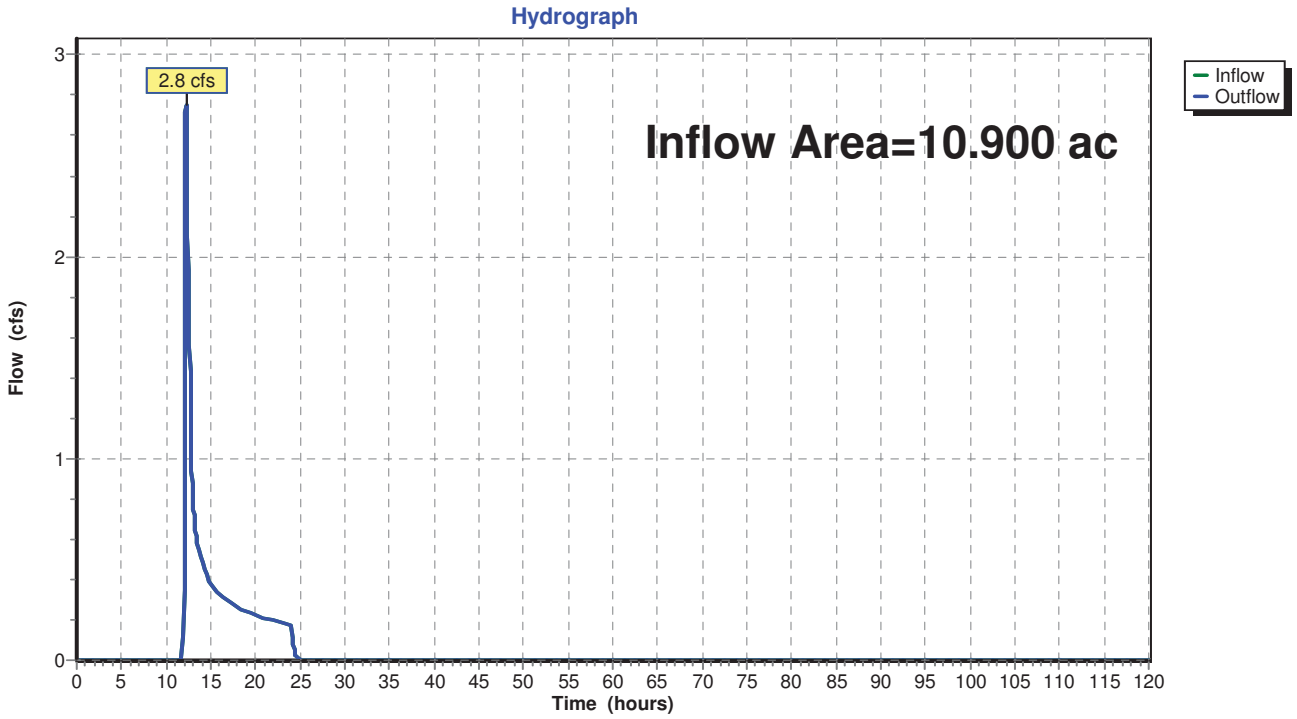


Summary for Reach DP 1: Design Point 1

Inflow Area = 10.900 ac, 0.00% Impervious, Inflow Depth = 0.45" for 1-yr event
Inflow = 2.8 cfs @ 12.23 hrs, Volume= 0.406 af
Outflow = 2.8 cfs @ 12.23 hrs, Volume= 0.406 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 1: Design Point 1

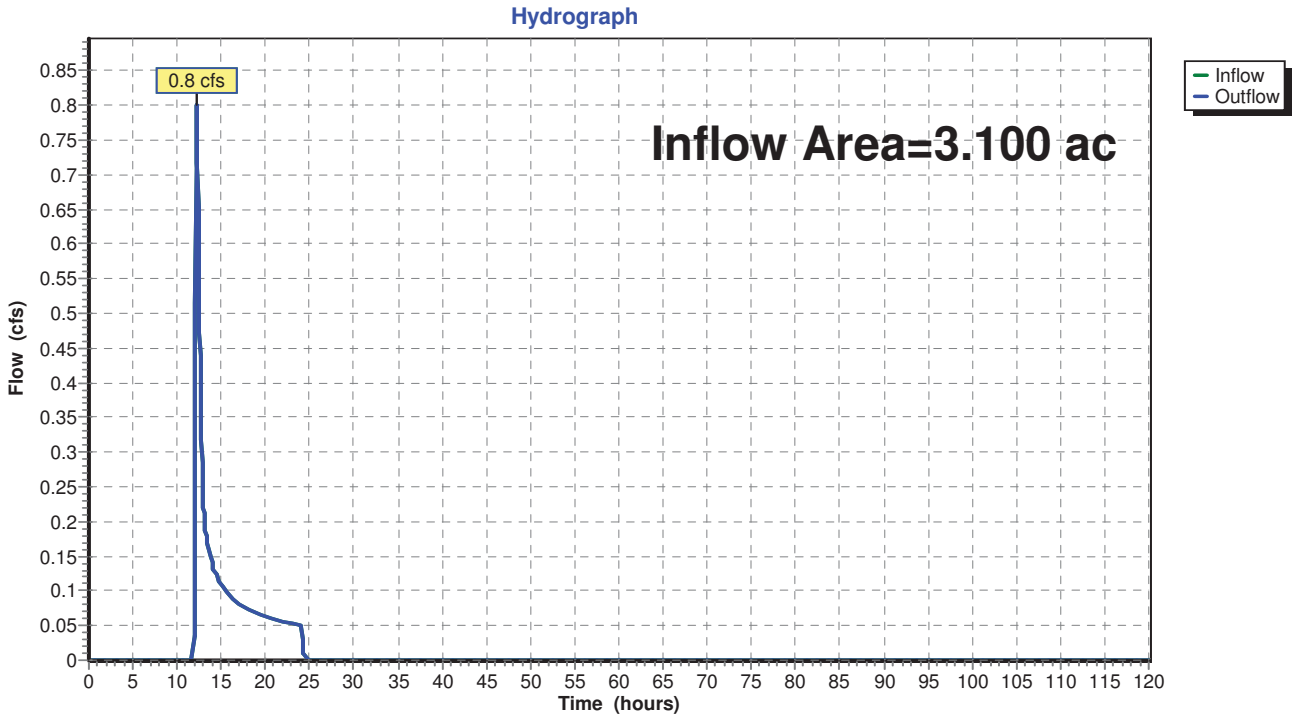


Summary for Reach DP 2: Design Point 2

Inflow Area = 3.100 ac, 0.00% Impervious, Inflow Depth = 0.45" for 1-yr event
Inflow = 0.8 cfs @ 12.22 hrs, Volume= 0.116 af
Outflow = 0.8 cfs @ 12.22 hrs, Volume= 0.116 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 2: Design Point 2

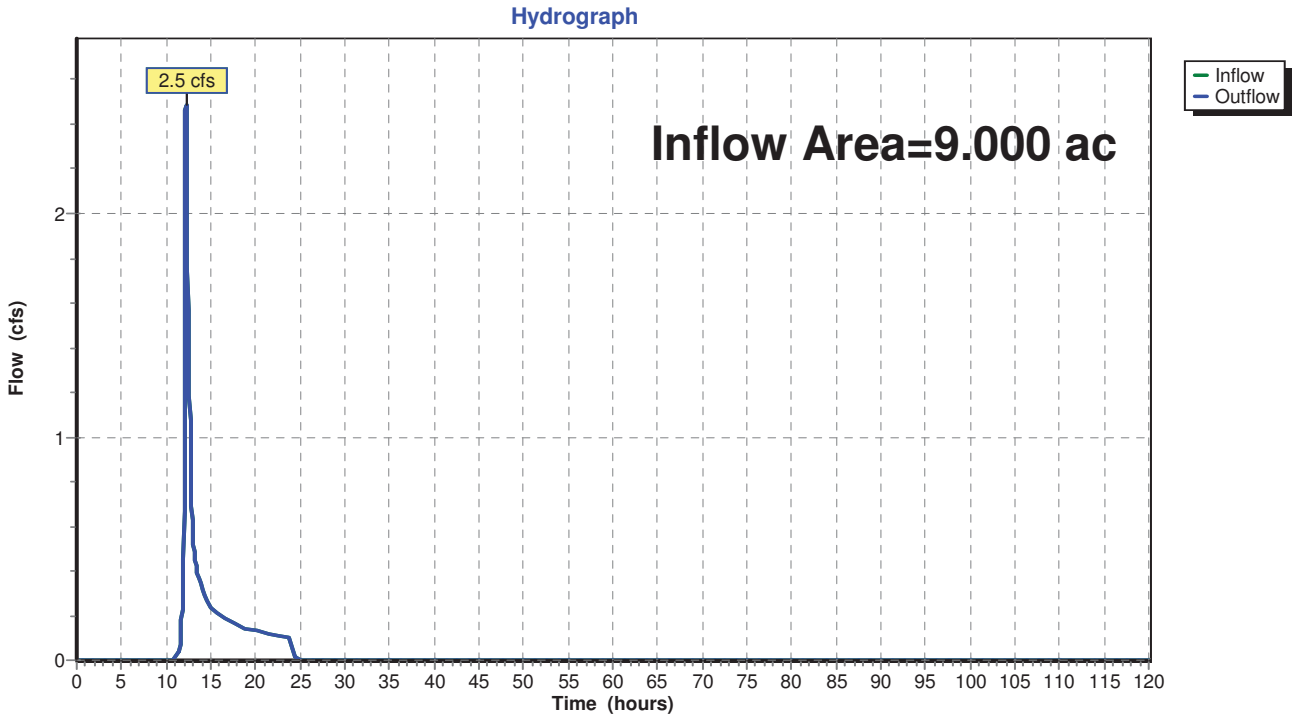


Summary for Reach DP 3: Design Point 3

Inflow Area = 9.000 ac, 31.11% Impervious, Inflow Depth = 0.39" for 1-yr event
Inflow = 2.5 cfs @ 12.22 hrs, Volume= 0.292 af
Outflow = 2.5 cfs @ 12.22 hrs, Volume= 0.292 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 3: Design Point 3

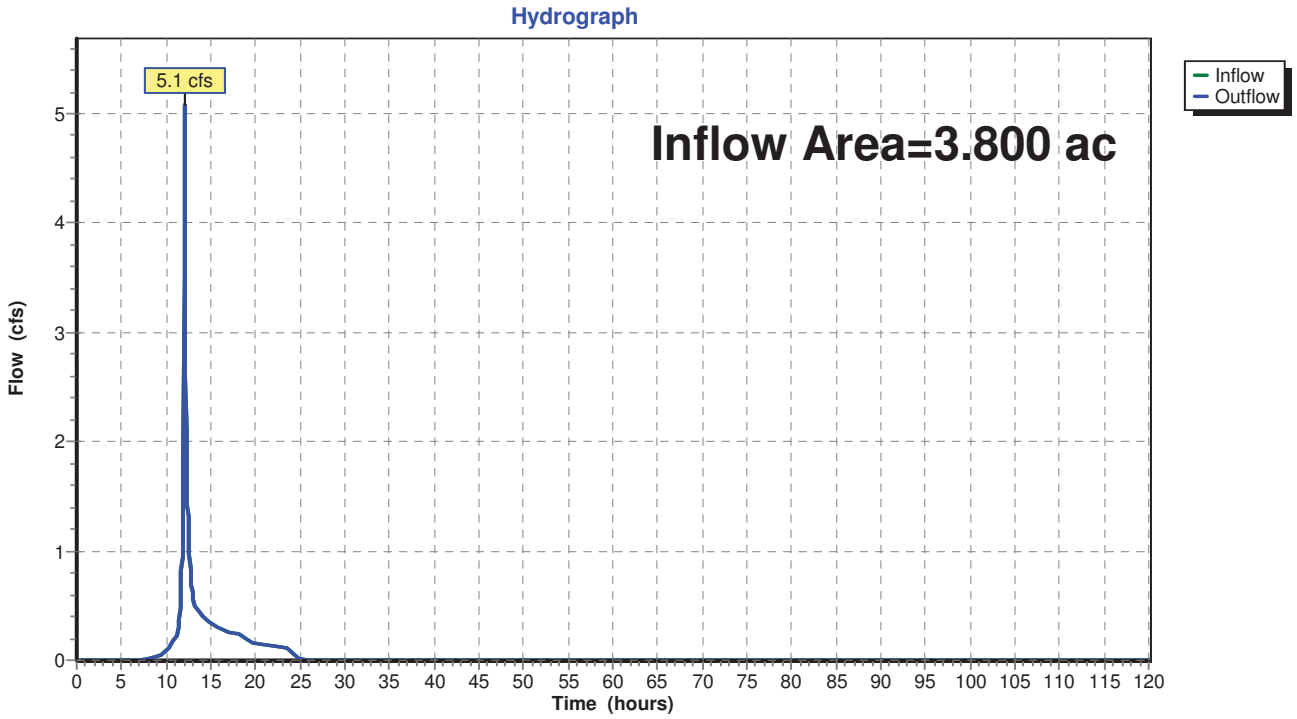


Summary for Reach DP 4: Design Point 4

Inflow Area = 3.800 ac, 44.74% Impervious, Inflow Depth = 1.35" for 1-yr event
Inflow = 5.1 cfs @ 12.07 hrs, Volume= 0.429 af
Outflow = 5.1 cfs @ 12.07 hrs, Volume= 0.429 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 4: Design Point 4

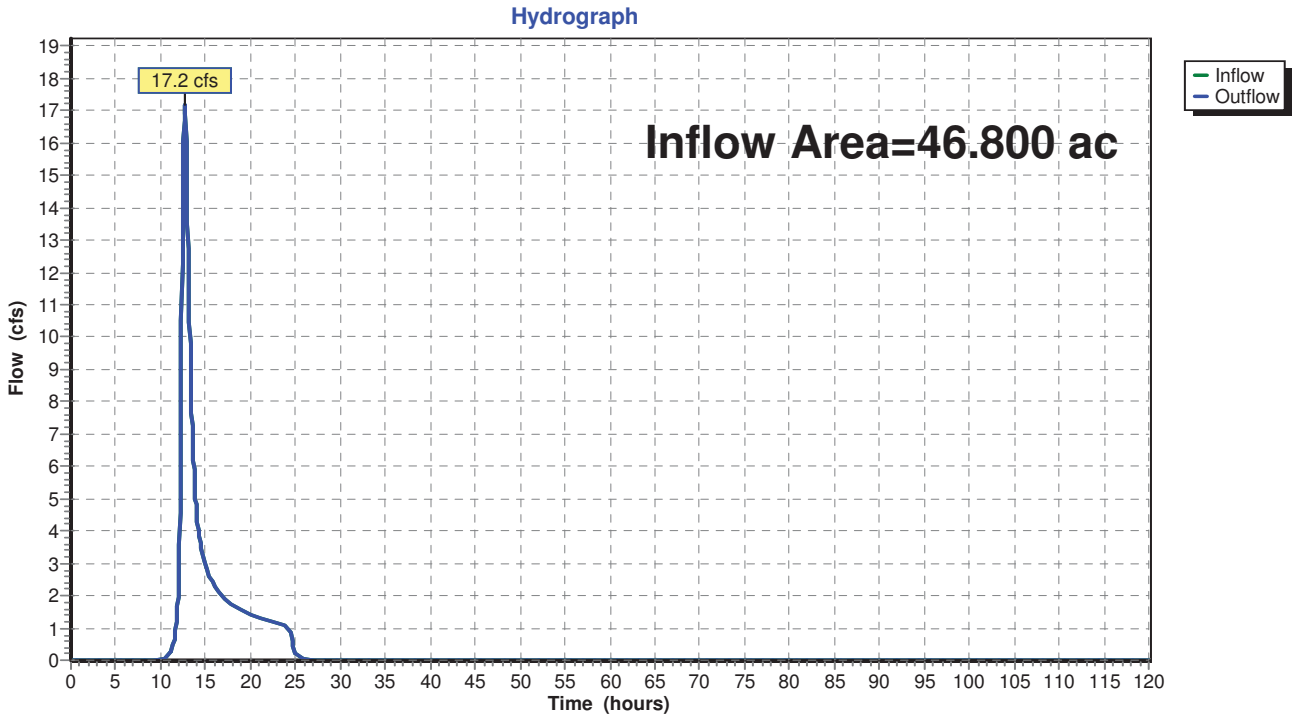


Summary for Reach DP 5: Design Point 5

Inflow Area = 46.800 ac, 22.86% Impervious, Inflow Depth = 0.84" for 1-yr event
Inflow = 17.2 cfs @ 12.69 hrs, Volume= 3.276 af
Outflow = 17.2 cfs @ 12.69 hrs, Volume= 3.276 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 5: Design Point 5



Summary for Pond 1.4 FS: Flow Splitter

Inflow Area = 0.500 ac, 60.00% Impervious, Inflow Depth = 1.80" for 1-yr event
Inflow = 0.8 cfs @ 12.17 hrs, Volume= 0.075 af
Outflow = 0.8 cfs @ 12.17 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min
Primary = 0.8 cfs @ 12.17 hrs, Volume= 0.075 af
Secondary = 0.2 cfs @ 12.11 hrs, Volume= 0.001 af

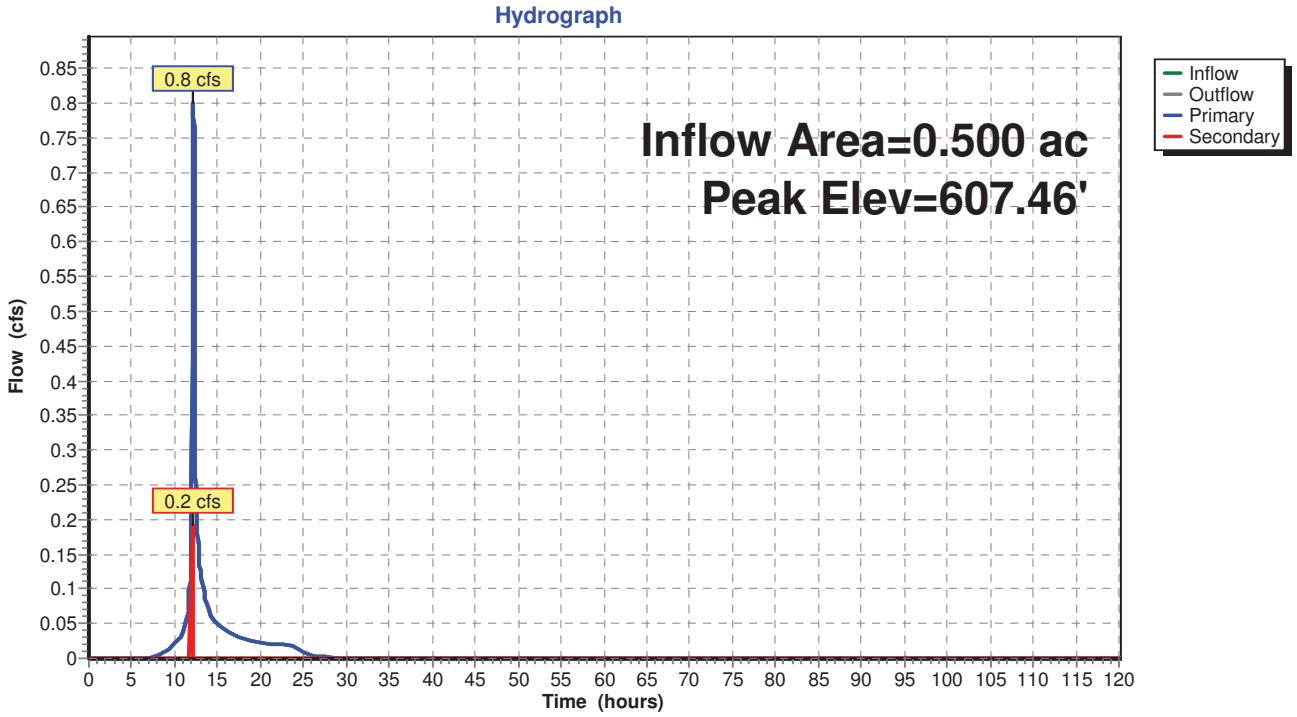
Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 607.46' @ 12.17 hrs
Flood Elev= 608.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	607.00'	**12.0" Vert. Orifice/Grate** C= 0.600
#2	Device 3	607.50'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	604.50'	**15.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 604.50' / 604.00' S= 0.0250 '/' Cc= 0.900 n= 0.120, Flow Area= 1.23 sf

Primary OutFlow Max=0.8 cfs @ 12.17 hrs HW=607.45' TW=606.61' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Orifice Controls 0.8 cfs @ 2.29 fps)

Secondary OutFlow Max=0.0 cfs @ 12.11 hrs HW=607.43' TW=0.00' (Dynamic Tailwater)
└─**3=Culvert** (Passes 0.0 cfs of 2.3 cfs potential flow)
└─**2=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Pond 1.4 FS: Flow Splitter



Summary for Pond 3.1AP: Pretreatment Basin

Inflow Area = 4.200 ac, 52.38% Impervious, Inflow Depth = 1.49" for 1-yr event
Inflow = 5.9 cfs @ 12.13 hrs, Volume= 0.521 af
Outflow = 1.1 cfs @ 12.48 hrs, Volume= 0.521 af, Atten= 82%, Lag= 21.0 min
Primary = 1.1 cfs @ 12.48 hrs, Volume= 0.521 af
Secondary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 607.82' @ 12.75 hrs Surf.Area= 4,267 sf Storage= 6,529 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 155.5 min (1,005.9 - 850.4)

Volume	Invert	Avail.Storage	Storage Description
#1	606.00'	24,350 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

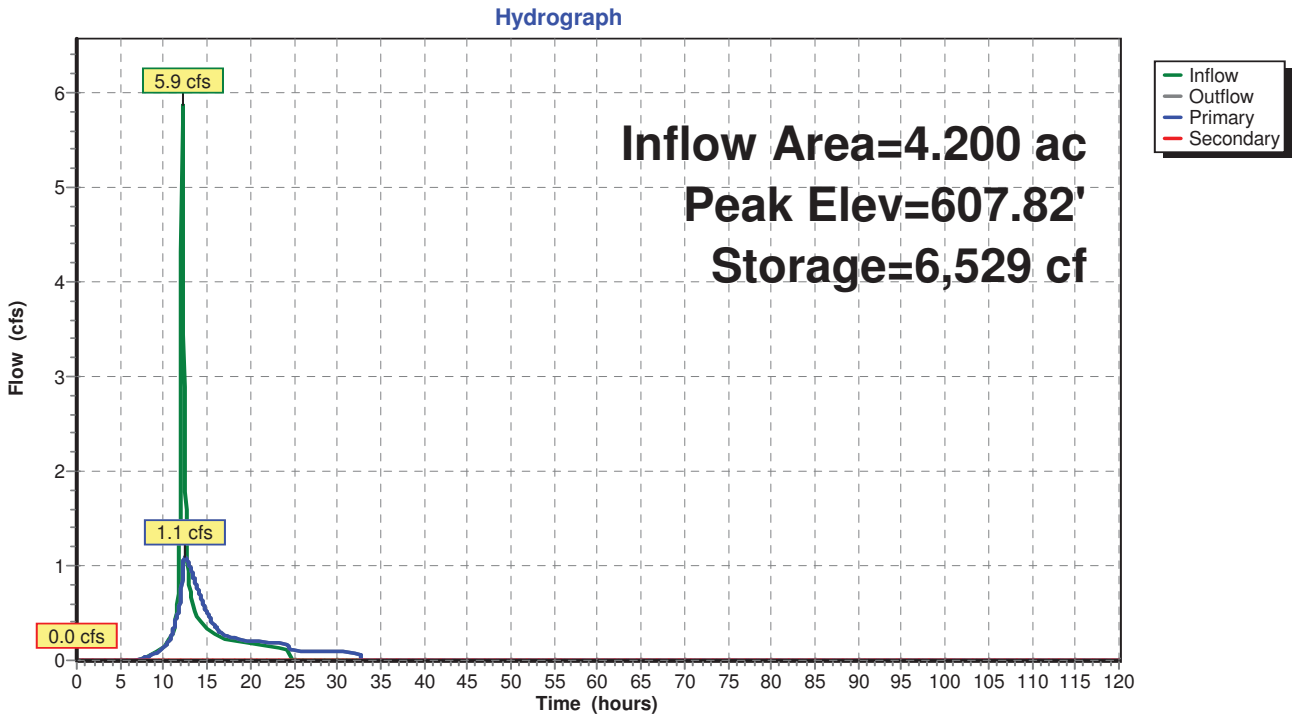
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
606.00	2,900	0	0
608.00	4,400	7,300	7,300
610.00	6,100	10,500	17,800
611.00	7,000	6,550	24,350

Device	Routing	Invert	Outlet Devices
#1	Device 3	608.00'	**1.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	605.50'	**6.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 605.50' / 605.00' S= 0.0125 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#3	Secondary	605.50'	**24.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 605.50' / 604.00' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=1.1 cfs @ 12.48 hrs HW=607.72' TW=605.72' (Dynamic Tailwater)
└**2=Culvert** (Outlet Controls 1.1 cfs @ 5.54 fps)

Secondary OutFlow Max=0.0 cfs @ 0.00 hrs HW=606.00' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 0.0 cfs of 1.5 cfs potential flow)
└**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Pond 3.1AP: Pretreatment Basin



Summary for Pond 3.1P: Infiltration Basin

Inflow Area = 4.200 ac, 52.38% Impervious, Inflow Depth = 1.49" for 1-yr event
Inflow = 1.1 cfs @ 12.48 hrs, Volume= 0.521 af
Outflow = 0.3 cfs @ 17.37 hrs, Volume= 0.521 af, Atten= 77%, Lag= 293.0 min
Discarded = 0.3 cfs @ 17.37 hrs, Volume= 0.521 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 607.01' @ 17.37 hrs Surf.Area= 5,464 sf Storage= 8,743 cf

Plug-Flow detention time= 400.1 min calculated for 0.521 af (100% of inflow)
Center-of-Mass det. time= 400.1 min (1,406.0 - 1,005.9)

Volume	Invert	Avail.Storage	Storage Description
#1	605.00'	34,800 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

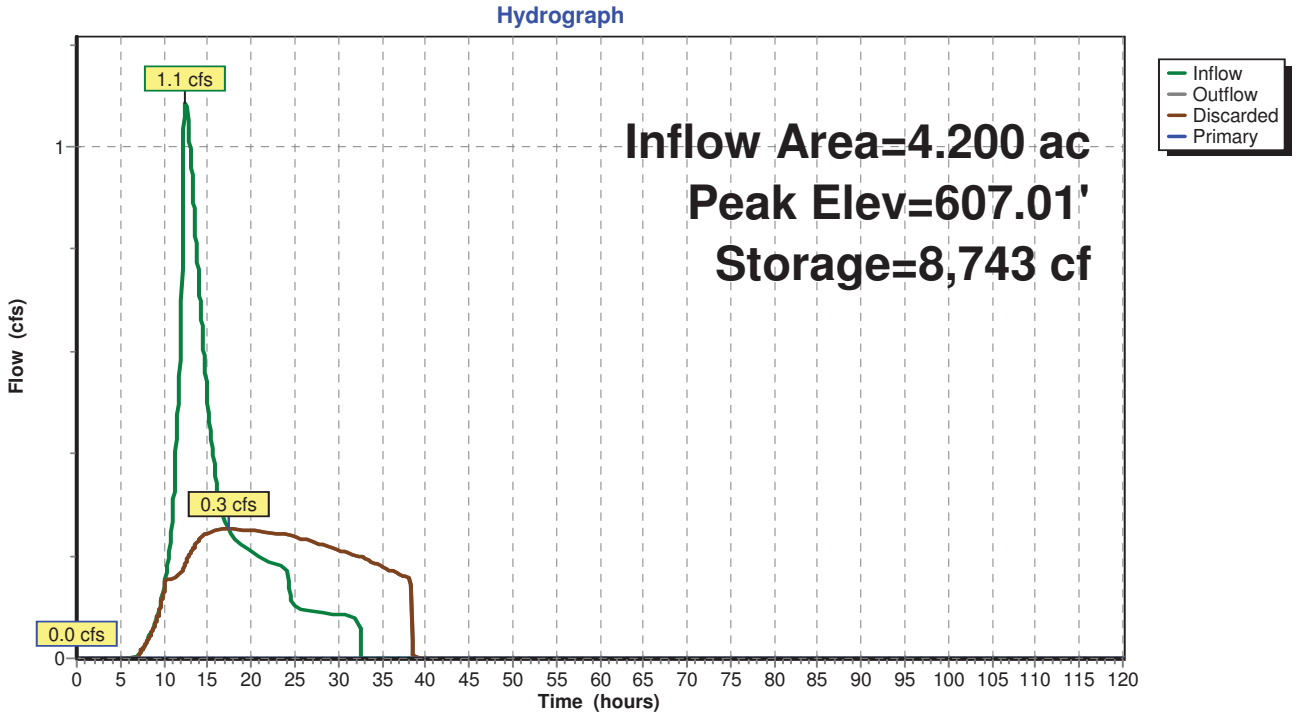
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
605.00	3,300	0	0
606.00	4,300	3,800	3,800
608.00	6,600	10,900	14,700
610.00	9,000	15,600	30,300
610.50	9,000	4,500	34,800

Device	Routing	Invert	Outlet Devices
#1	Device 2	609.20'	**2.5' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	603.00'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 603.00' / 602.00' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#3	Discarded	605.00'	**2.000 in/hr Exfiltration over Horizontal area** Phase-In= 0.01'

Discarded OutFlow Max=0.3 cfs @ 17.37 hrs HW=607.01' (Free Discharge)
↑└**3=Exfiltration** (Exfiltration Controls 0.3 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=605.00' TW=0.00' (Dynamic Tailwater)
↑└**2=Culvert** (Passes 0.0 cfs of 6.9 cfs potential flow)
↑└**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Pond 3.1P: Infiltration Basin



Summary for Pond 4.1AP1: Wet Swale

Inflow Area = 0.500 ac, 60.00% Impervious, Inflow Depth = 1.80" for 1-yr event
Inflow = 1.1 cfs @ 12.04 hrs, Volume= 0.075 af
Outflow = 0.8 cfs @ 12.17 hrs, Volume= 0.075 af, Atten= 30%, Lag= 7.8 min
Primary = 0.2 cfs @ 12.32 hrs, Volume= 0.055 af
Secondary = 0.7 cfs @ 12.16 hrs, Volume= 0.020 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Starting Elev= 607.00' Surf.Area= 950 sf Storage= 1,438 cf
Peak Elev= 607.59' @ 12.12 hrs Surf.Area= 1,126 sf Storage= 2,045 cf (608 cf above start)

Plug-Flow detention time= 312.1 min calculated for 0.042 af (56% of inflow)
Center-of-Mass det. time= 50.0 min (872.5 - 822.5)

Volume	Invert	Avail.Storage	Storage Description
#1	604.50'	2,538 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

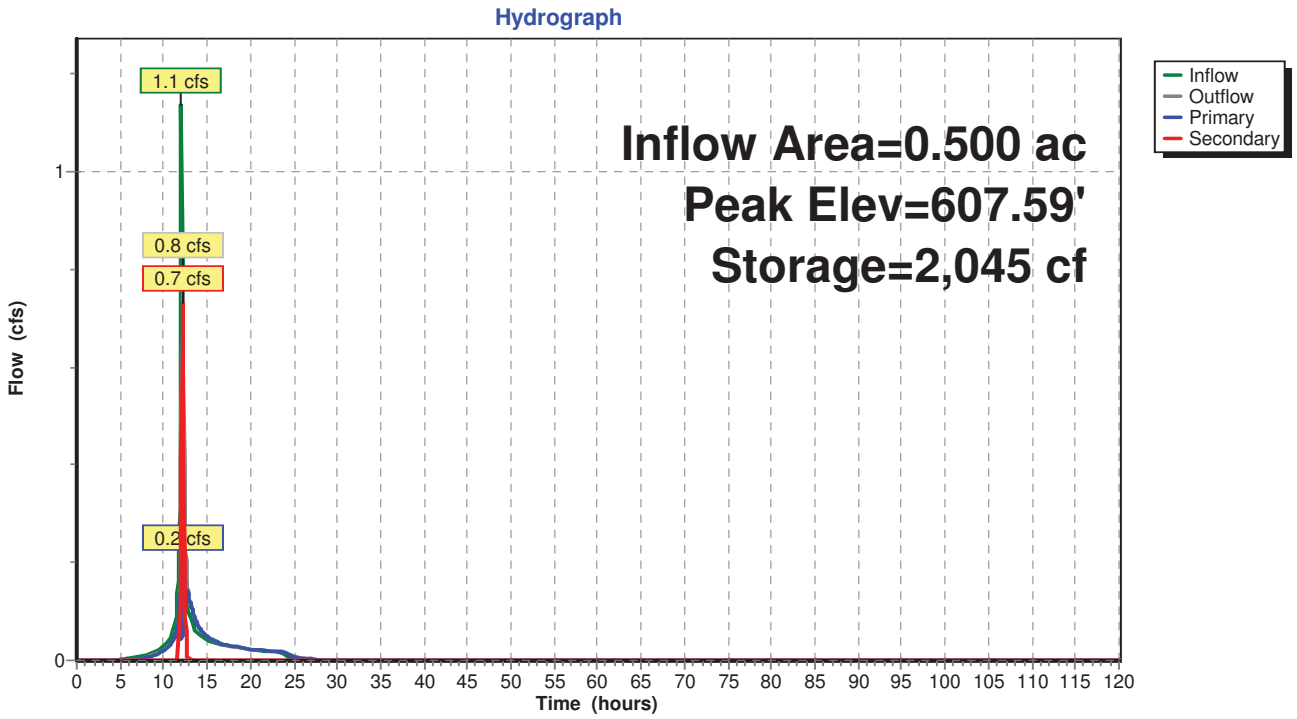
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
604.50	200	0	0
608.00	1,250	2,538	2,538

Device	Routing	Invert	Outlet Devices
#1	Primary	607.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	607.30'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.1 cfs @ 12.32 hrs HW=607.40' TW=607.36' (Dynamic Tailwater)
↑—**1=Orifice/Grate** (Orifice Controls 0.1 cfs @ 0.87 fps)

Secondary OutFlow Max=1.2 cfs @ 12.16 hrs HW=607.56' TW=607.45' (Dynamic Tailwater)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 1.2 cfs @ 1.16 fps)

Pond 4.1AP1: Wet Swale



Summary for Pond 4.1BP: Bioretention

Inflow Area = 0.500 ac, 60.00% Impervious, Inflow Depth = 1.80" for 1-yr event
Inflow = 0.8 cfs @ 12.17 hrs, Volume= 0.075 af
Outflow = 0.1 cfs @ 13.37 hrs, Volume= 0.075 af, Atten= 88%, Lag= 71.9 min
Primary = 0.1 cfs @ 13.37 hrs, Volume= 0.075 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 606.75' @ 13.37 hrs Surf.Area= 4,204 sf Storage= 1,045 cf

Plug-Flow detention time= 86.0 min calculated for 0.075 af (100% of inflow)
Center-of-Mass det. time= 86.0 min (958.5 - 872.5)

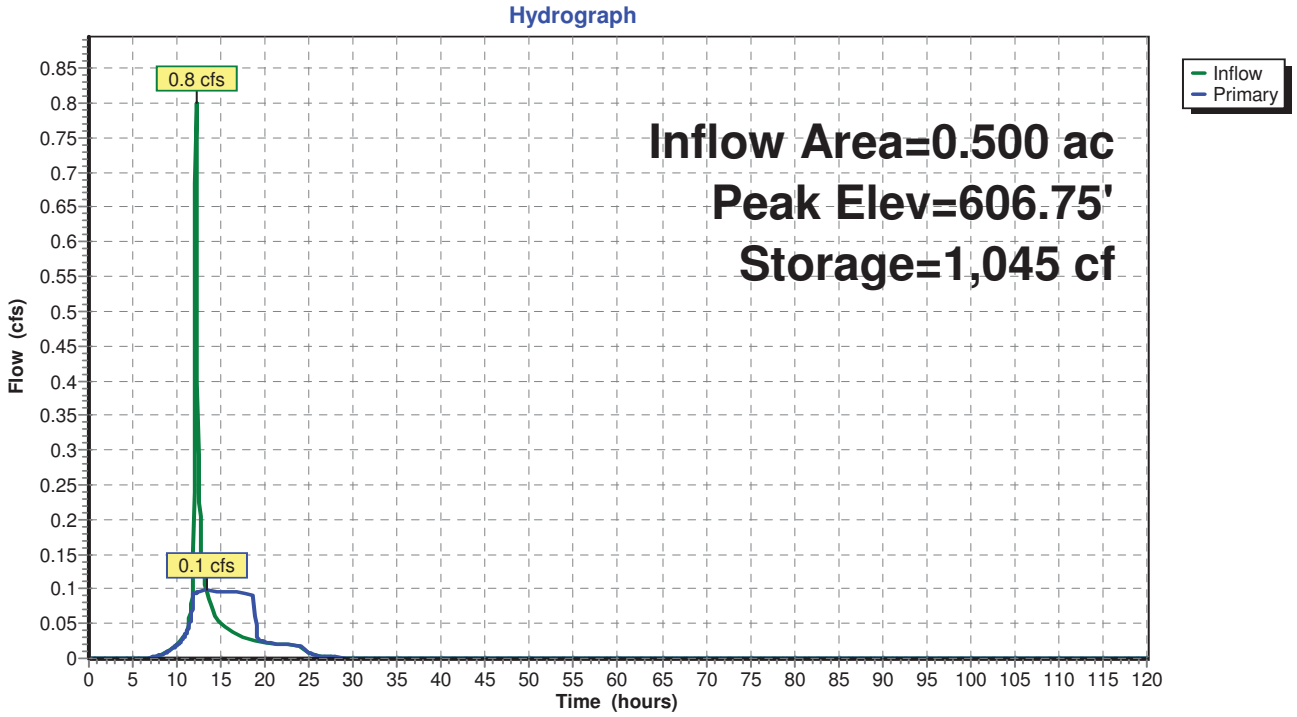
Volume	Invert	Avail.Storage	Storage Description
#1	606.50'	4,400 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
606.50	4,000	0	0
607.50	4,800	4,400	4,400

Device	Routing	Invert	Outlet Devices
#1	Device 3	606.50'	**1.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#2	Device 3	607.10'	**12.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	603.00'	**8.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 603.00' / 602.70' S= 0.0300 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.1 cfs @ 13.37 hrs HW=606.75' TW=0.00' (Dynamic Tailwater)
└─**3=Culvert** (Passes 0.1 cfs of 3.1 cfs potential flow)
  ├─**1=Exfiltration** (Exfiltration Controls 0.1 cfs)
  └─**2=Orifice/Grate** (Controls 0.0 cfs)

Pond 4.1BP: Bioretention



Summary for Pond 5.1AP: Pretreatment Basin

Inflow Area = 4.400 ac, 70.45% Impervious, Inflow Depth = 1.80" for 1-yr event
Inflow = 8.4 cfs @ 12.09 hrs, Volume= 0.661 af
Outflow = 1.4 cfs @ 12.66 hrs, Volume= 0.661 af, Atten= 84%, Lag= 34.1 min
Primary = 1.4 cfs @ 12.66 hrs, Volume= 0.661 af
Secondary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 658.21' @ 12.66 hrs Surf.Area= 5,381 sf Storage= 8,599 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 51.3 min (877.1 - 825.8)

Volume	Invert	Avail.Storage	Storage Description
#1	656.00'	40,300 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

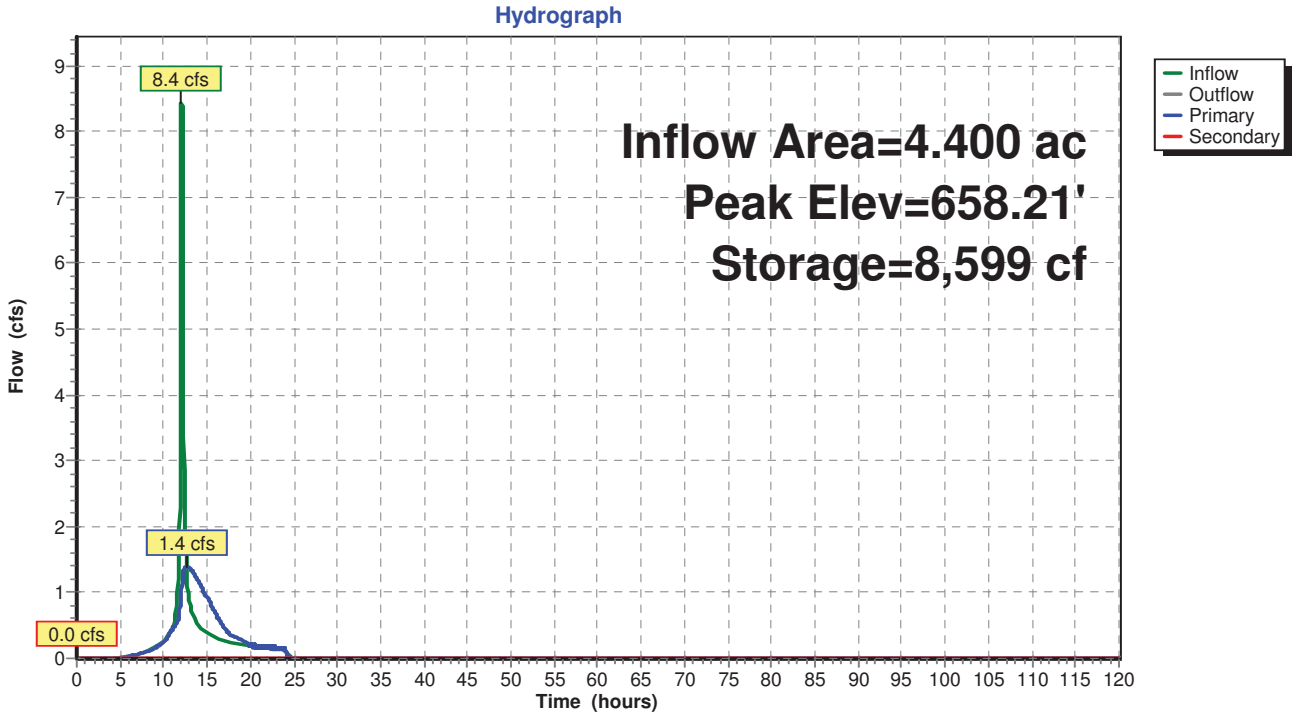
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
656.00	2,500	0	0
658.00	5,000	7,500	7,500
660.00	8,600	13,600	21,100
662.00	10,600	19,200	40,300

Device	Routing	Invert	Outlet Devices
#1	Device 3	659.30'	**2.5' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	655.50'	**6.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 655.50' / 655.00' S= 0.0167 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#3	Secondary	657.50'	**30.0" Round Culvert** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 657.50' / 656.50' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=1.4 cfs @ 12.66 hrs HW=658.21' TW=655.29' (Dynamic Tailwater)
└**2=Culvert** (Barrel Controls 1.4 cfs @ 7.04 fps)

Secondary OutFlow Max=0.0 cfs @ 0.00 hrs HW=656.00' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Controls 0.0 cfs)
└**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Pond 5.1AP: Pretreatment Basin



Summary for Pond 5.1P: Infiltration Basin

Inflow Area = 4.400 ac, 70.45% Impervious, Inflow Depth = 1.80" for 1-yr event
Inflow = 1.4 cfs @ 12.66 hrs, Volume= 0.661 af
Outflow = 0.5 cfs @ 16.85 hrs, Volume= 0.661 af, Atten= 65%, Lag= 251.4 min
Discarded = 0.5 cfs @ 16.85 hrs, Volume= 0.661 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 656.04' @ 16.85 hrs Surf.Area= 10,573 sf Storage= 10,215 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 195.9 min (1,073.0 - 877.1)

Volume	Invert	Avail.Storage	Storage Description
#1	655.00'	64,950 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

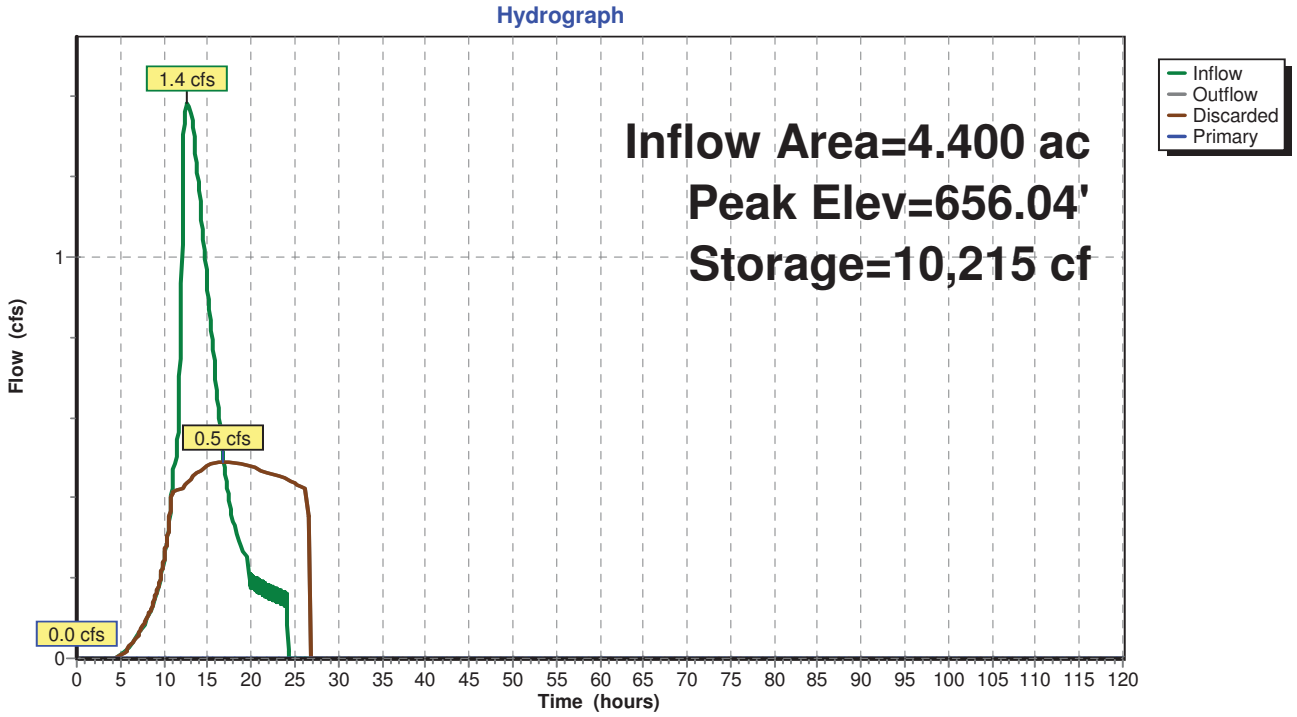
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
655.00	9,000	0	0
656.00	10,500	9,750	9,750
660.00	17,100	55,200	64,950

Device	Routing	Invert	Outlet Devices
#1	Device 2	659.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	653.00'	**15.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 653.00' / 652.50' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#3	Discarded	655.00'	**2.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=0.5 cfs @ 16.85 hrs HW=656.04' (Free Discharge)
└**3=Exfiltration** (Exfiltration Controls 0.5 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=655.00' TW=0.00' (Dynamic Tailwater)
└**2=Culvert** (Passes 0.0 cfs of 6.9 cfs potential flow)
└**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Pond 5.1P: Infiltration Basin



Summary for Subcatchment 1.0S:

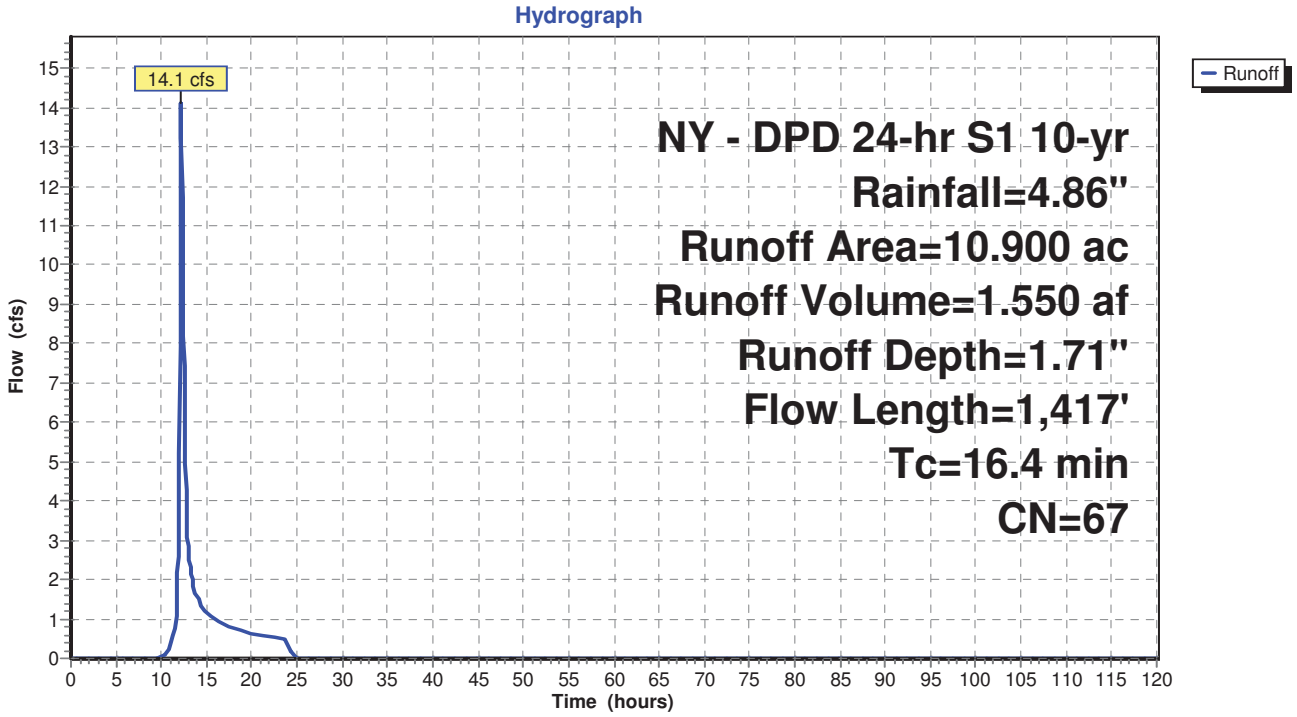
Runoff = 14.1 cfs @ 12.19 hrs, Volume= 1.550 af, Depth= 1.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 10-yr Rainfall=4.86"

Area (ac)	CN	Description
1.500	74	>75% Grass cover, Good, HSG C
1.200	71	Meadow, non-grazed, HSG C
5.100	70	Woods, Good, HSG C
0.500	72	Woods/grass comb., Good, HSG C
2.200	55	Woods, Good, HSG B
0.400	61	>75% Grass cover, Good, HSG B
10.900	67	Weighted Average
10.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0150	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
1.1	225	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.6	162	0.1100	1.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	90	0.3000	2.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.3	840	0.0300	6.10	36.62	**Channel Flow,** Area= 6.0 sf Perim= 10.0' r= 0.60' n= 0.030 Earth, grassed & winding
16.4	1,417	Total			

Subcatchment 1.0S:



Summary for Subcatchment 2.0S:

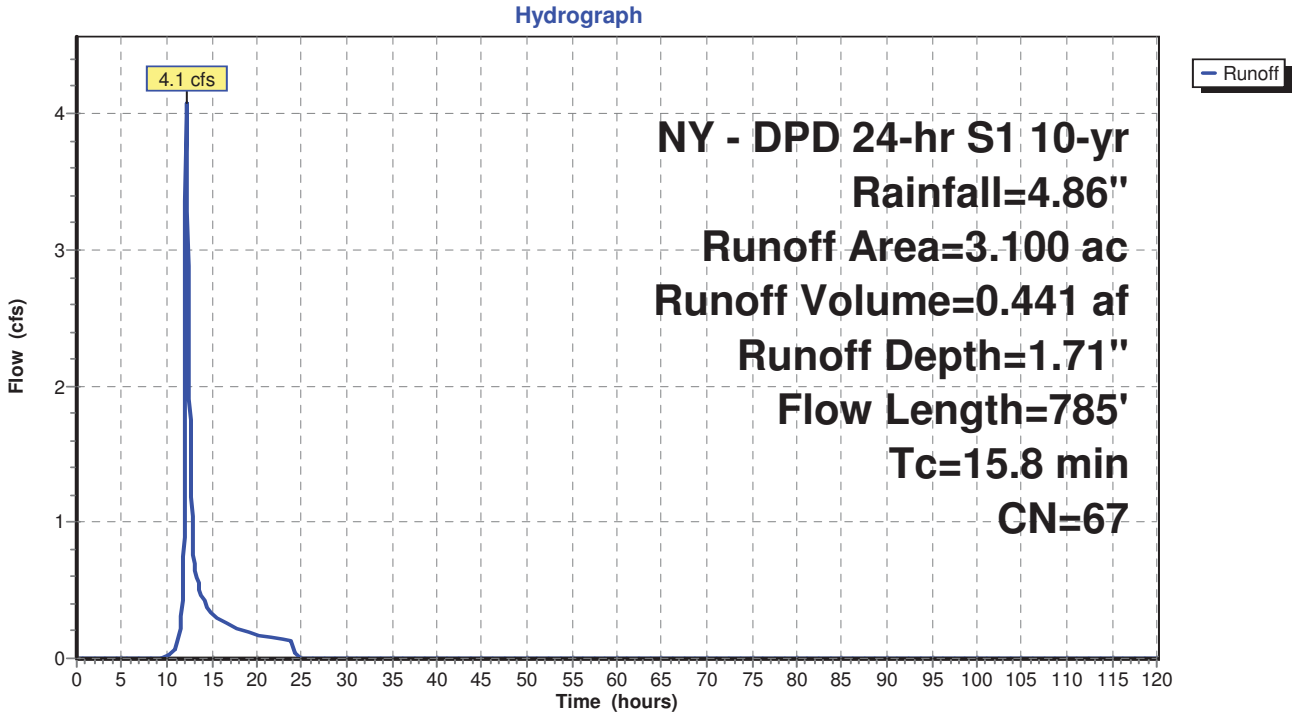
Runoff = 4.1 cfs @ 12.18 hrs, Volume= 0.441 af, Depth= 1.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 10-yr Rainfall=4.86"

Area (ac)	CN	Description
1.100	70	Woods, Good, HSG C
1.100	74	>75% Grass cover, Good, HSG C
0.700	55	Woods, Good, HSG B
0.200	61	>75% Grass cover, Good, HSG B
3.100	67	Weighted Average
3.100		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	100	0.1100	0.16		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.27"
3.4	285	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.0	150	0.2500	2.50		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.7	250	0.0250	5.80	23.19	**Channel Flow,** Area= 4.0 sf Perim= 10.0' r= 0.40' n= 0.022 Earth, clean & straight
15.8	785	Total			

Subcatchment 2.0S:



Summary for Subcatchment 3.0S:

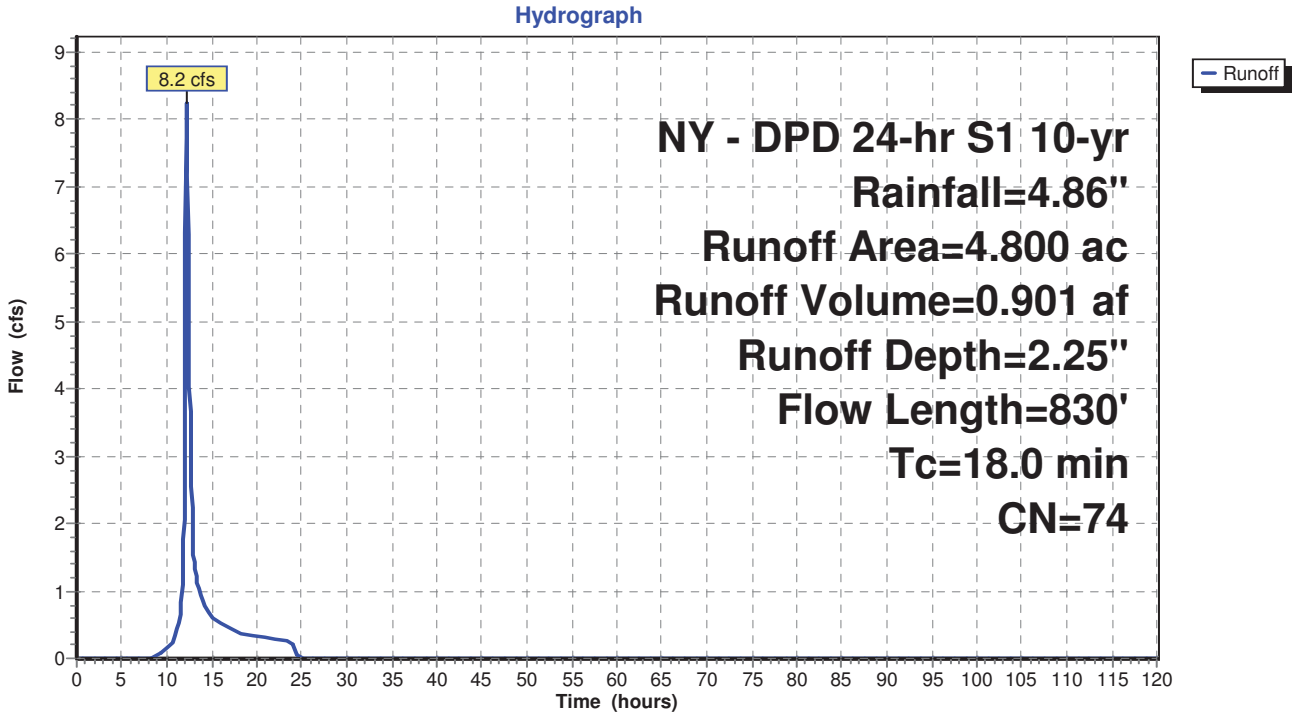
Runoff = 8.2 cfs @ 12.21 hrs, Volume= 0.901 af, Depth= 2.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 10-yr Rainfall=4.86"

Area (ac)	CN	Description
0.600	98	Paved parking, HSG C
1.400	74	>75% Grass cover, Good, HSG C
2.400	70	Woods, Good, HSG C
0.200	55	Woods, Good, HSG B
0.100	61	>75% Grass cover, Good, HSG B
0.100	80	>75% Grass cover, Good, HSG D
4.800	74	Weighted Average
4.200		87.50% Pervious Area
0.600		12.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	100	0.0500	0.11		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.27"
1.3	140	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	40	0.0250	4.25	17.01	**Channel Flow,** Area= 4.0 sf Perim= 10.0' r= 0.40' n= 0.030 Earth, grassed & winding
1.1	360	0.1400	5.61		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.7	190	0.0250	4.25	17.01	**Channel Flow,** Area= 4.0 sf Perim= 10.0' r= 0.40' n= 0.030 Earth, grassed & winding
18.0	830	Total			

Subcatchment 3.0S:



Summary for Subcatchment 3.1S:

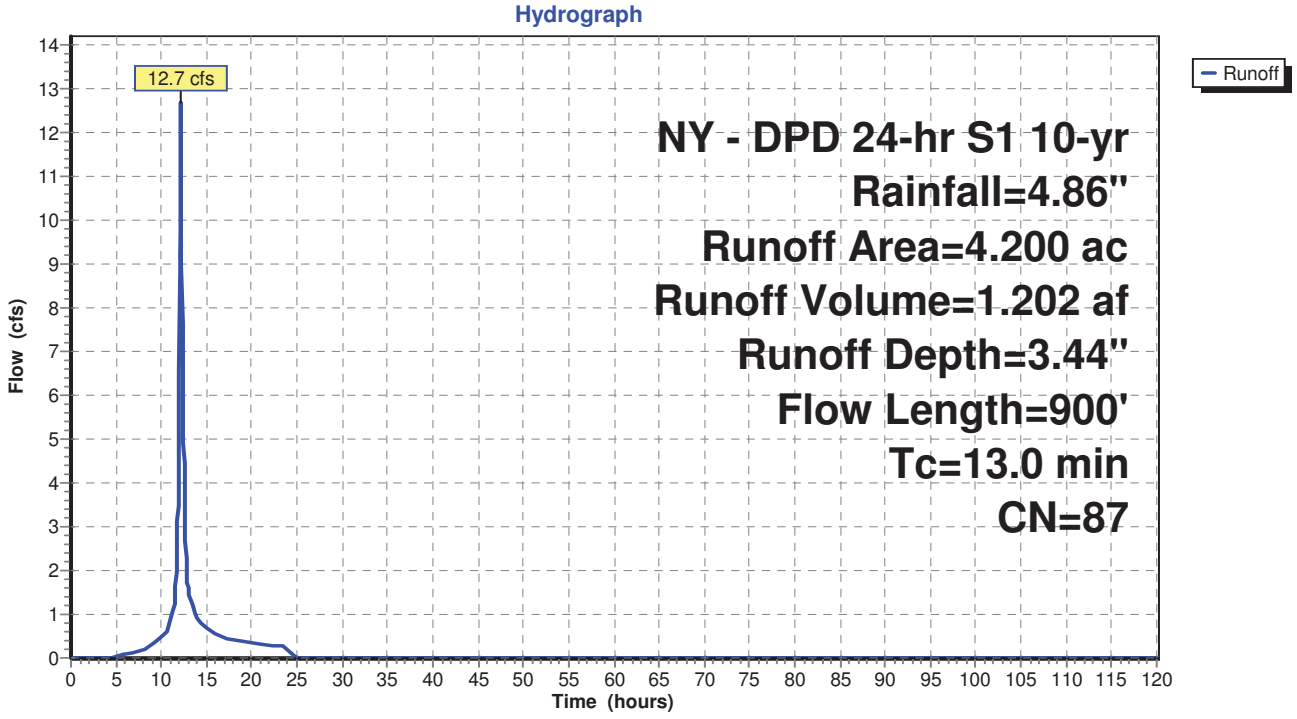
Runoff = 12.7 cfs @ 12.13 hrs, Volume= 1.202 af, Depth= 3.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 10-yr Rainfall=4.86"

Area (ac)	CN	Description
2.200	98	Paved parking, HSG C
2.000	74	>75% Grass cover, Good, HSG C
4.200	87	Weighted Average
2.000		47.62% Pervious Area
2.200		52.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.1200	0.16		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.27"
0.2	80	0.1500	5.81		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.4	720	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
13.0	900	Total			

Subcatchment 3.1S:



Summary for Subcatchment 4.0S:

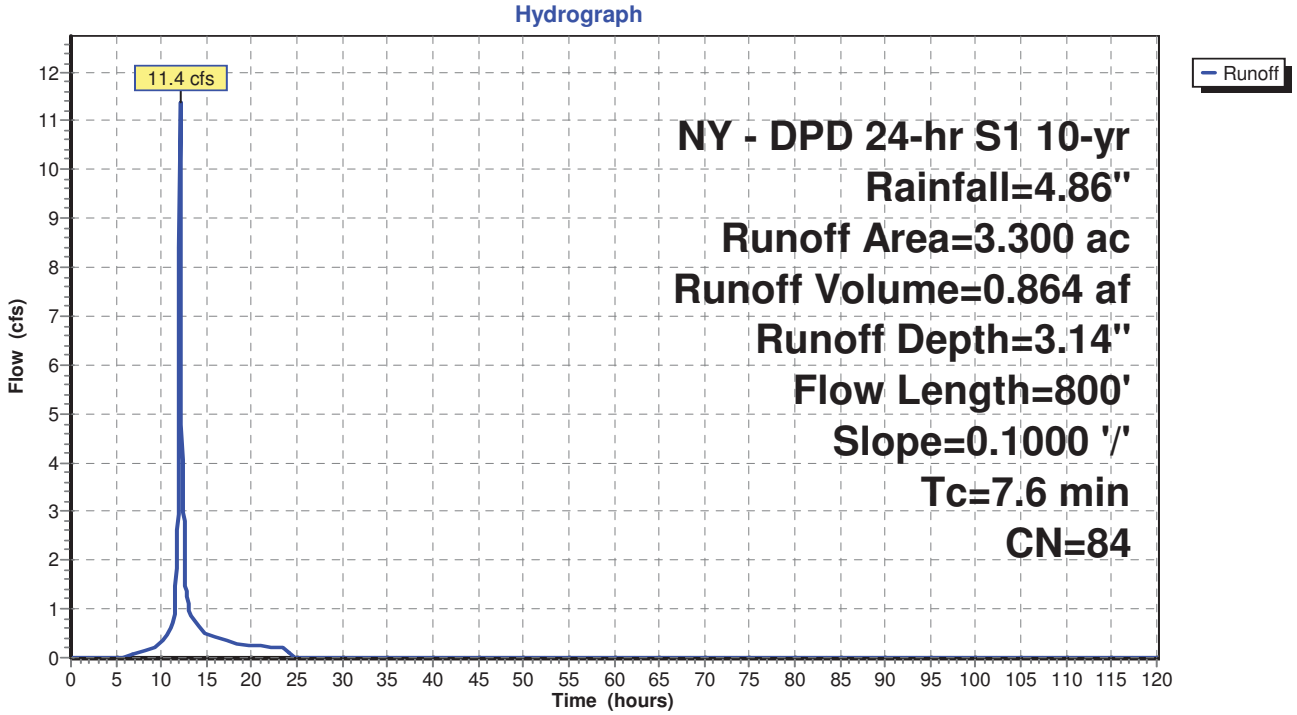
Runoff = 11.4 cfs @ 12.06 hrs, Volume= 0.864 af, Depth= 3.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 10-yr Rainfall=4.86"

Area (ac)	CN	Description
1.400	98	Paved parking, HSG C
1.100	74	>75% Grass cover, Good, HSG C
0.300	80	>75% Grass cover, Good, HSG D
0.500	72	Woods/grass comb., Good, HSG C
3.300	84	Weighted Average
1.900		57.58% Pervious Area
1.400		42.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	100	0.1000	0.33		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
2.5	700	0.1000	4.74		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
7.6	800	Total			

Subcatchment 4.0S:



Summary for Subcatchment 4.1S:

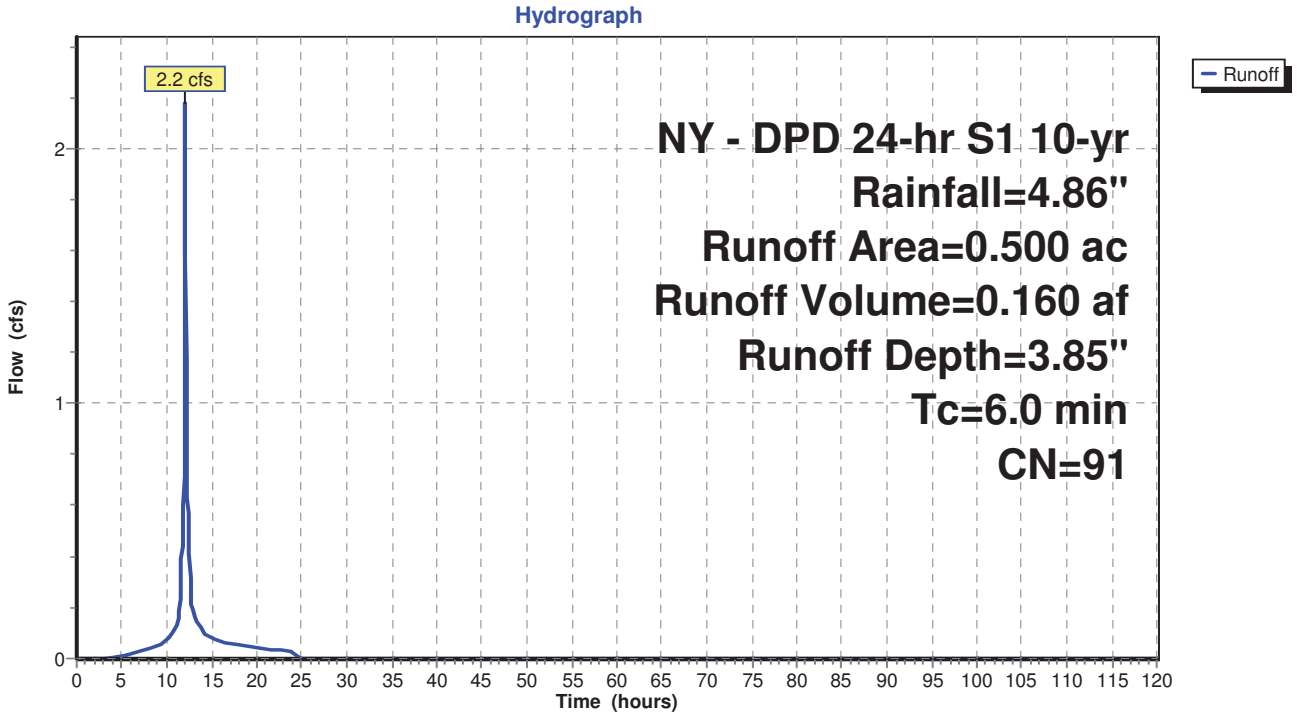
Runoff = 2.2 cfs @ 12.04 hrs, Volume= 0.160 af, Depth= 3.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 10-yr Rainfall=4.86"

Area (ac)	CN	Description
0.300	98	Paved parking, HSG D
0.200	80	>75% Grass cover, Good, HSG D
0.500	91	Weighted Average
0.200		40.00% Pervious Area
0.300		60.00% Impervious Area

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

Subcatchment 4.1S:



Summary for Subcatchment 5.0S:

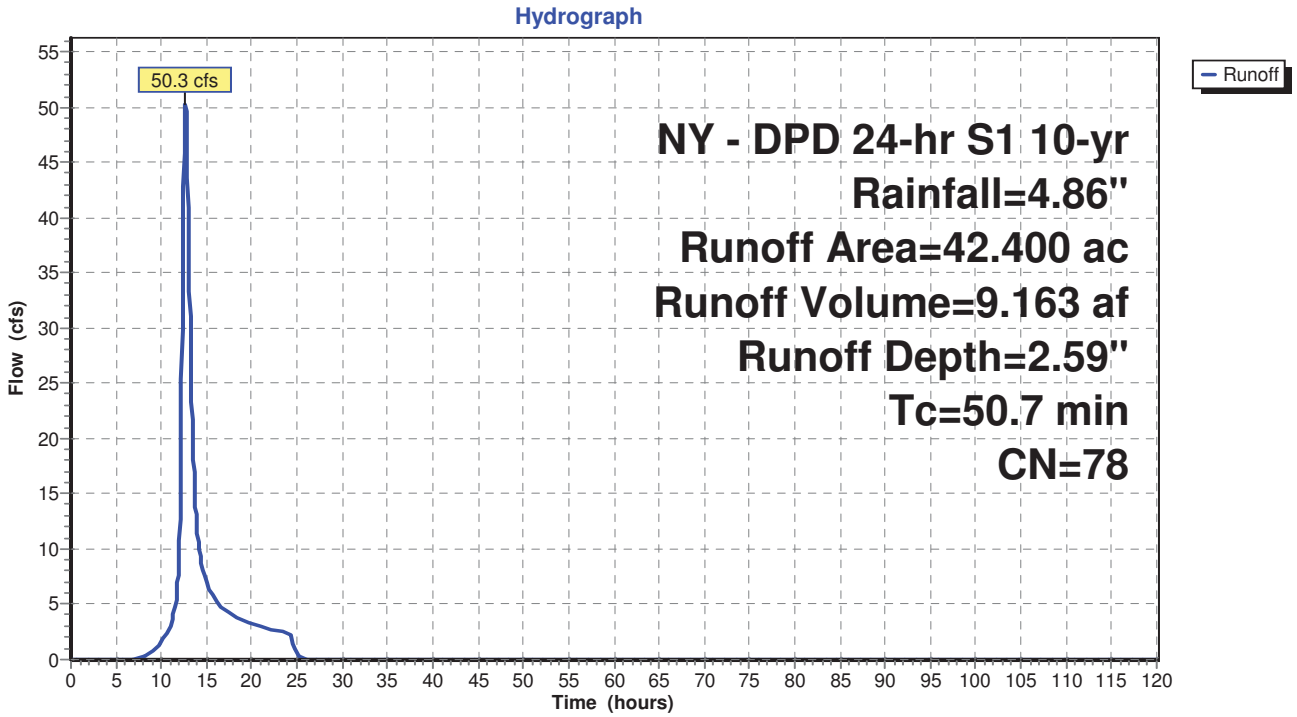
Runoff = 50.3 cfs @ 12.67 hrs, Volume= 9.163 af, Depth= 2.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 10-yr Rainfall=4.86"

Area (ac)	CN	Description
6.000	98	Paved parking, HSG C
1.600	98	Water Surface, HSG D
8.900	74	>75% Grass cover, Good, HSG C
7.300	71	Meadow, non-grazed, HSG C
8.700	70	Woods, Good, HSG C
1.000	72	Woods/grass comb., Good, HSG C
8.700	77	Woods, Good, HSG D
0.200	80	>75% Grass cover, Good, HSG D
42.400	78	Weighted Average
34.800		82.08% Pervious Area
7.600		17.92% Impervious Area

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

Subcatchment 5.0S:



Summary for Subcatchment 5.1S:

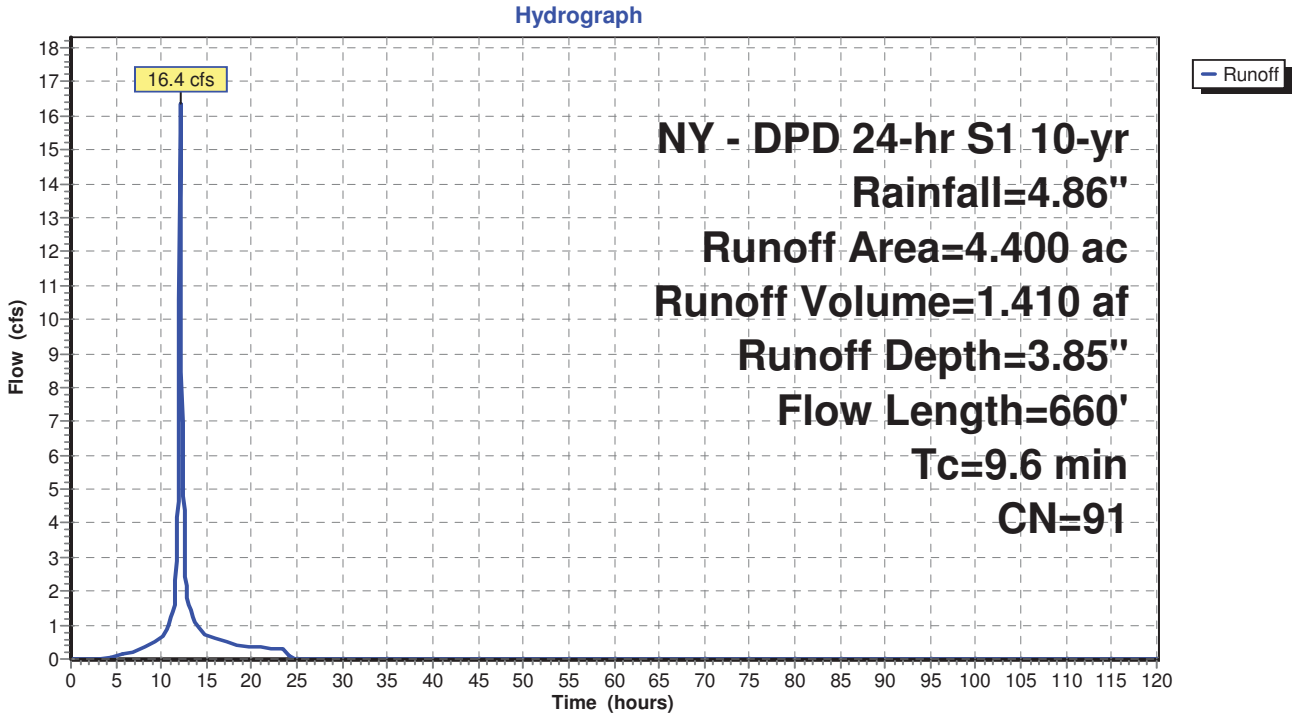
Runoff = 16.4 cfs @ 12.09 hrs, Volume= 1.410 af, Depth= 3.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 10-yr Rainfall=4.86"

Area (ac)	CN	Description
3.100	98	Paved parking, HSG D
1.300	74	>75% Grass cover, Good, HSG C
4.400	91	Weighted Average
1.300		29.55% Pervious Area
3.100		70.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0300	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
0.1	40	0.2000	6.71		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.3	120	0.1500	7.86		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.0	400	0.0100	6.44	11.38	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012
9.6	660	Total			

Subcatchment 5.1S:

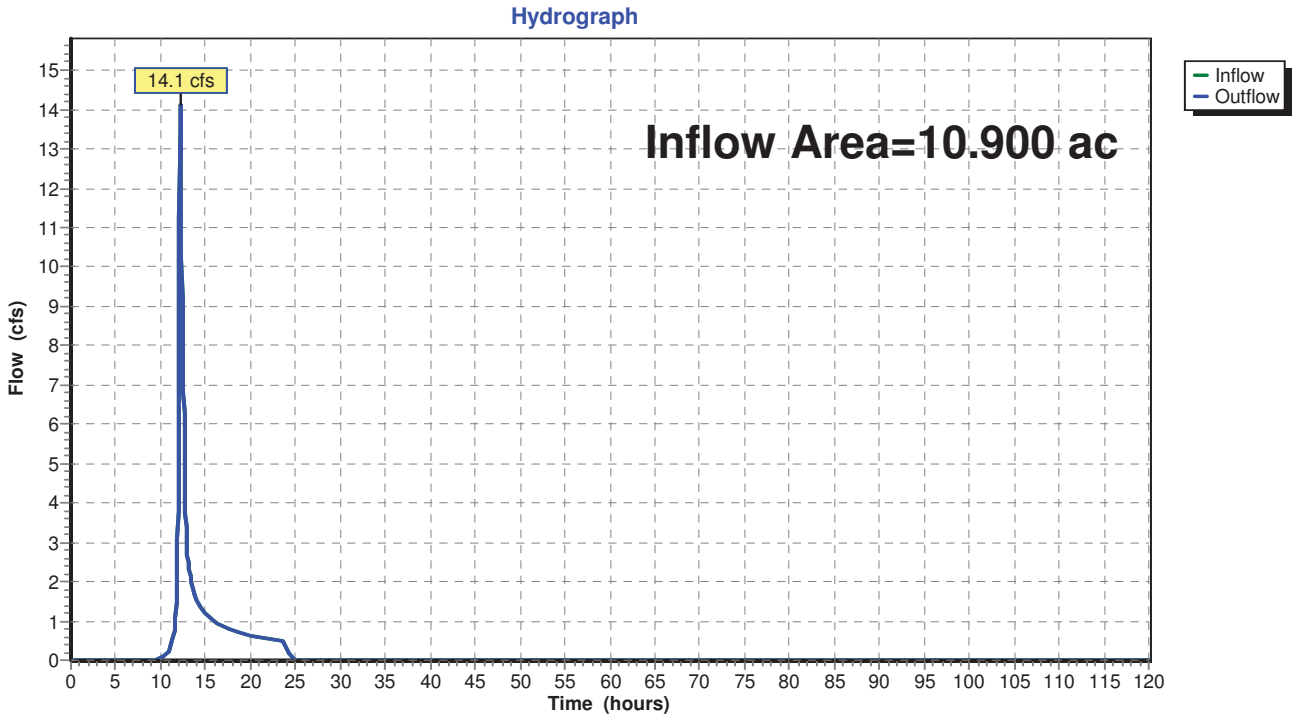


Summary for Reach DP 1: Design Point 1

Inflow Area = 10.900 ac, 0.00% Impervious, Inflow Depth = 1.71" for 10-yr event
Inflow = 14.1 cfs @ 12.19 hrs, Volume= 1.550 af
Outflow = 14.1 cfs @ 12.19 hrs, Volume= 1.550 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 1: Design Point 1

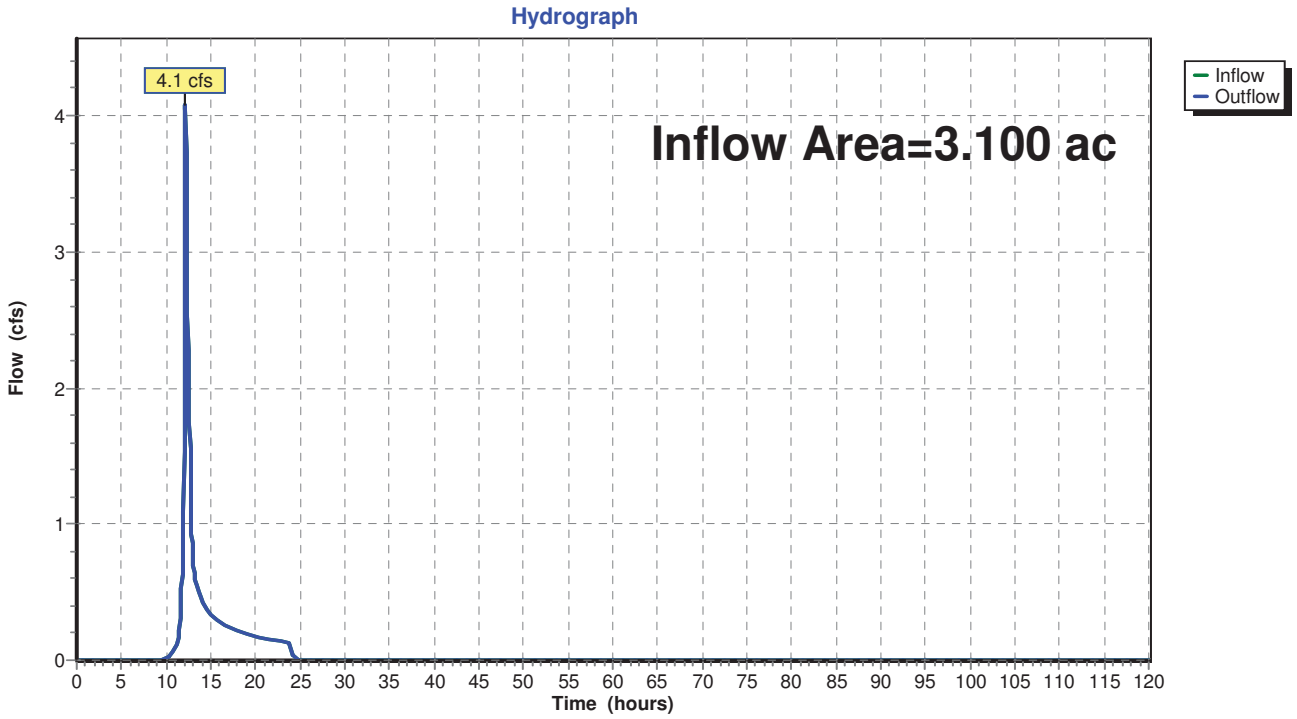


Summary for Reach DP 2: Design Point 2

Inflow Area = 3.100 ac, 0.00% Impervious, Inflow Depth = 1.71" for 10-yr event
Inflow = 4.1 cfs @ 12.18 hrs, Volume= 0.441 af
Outflow = 4.1 cfs @ 12.18 hrs, Volume= 0.441 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 2: Design Point 2

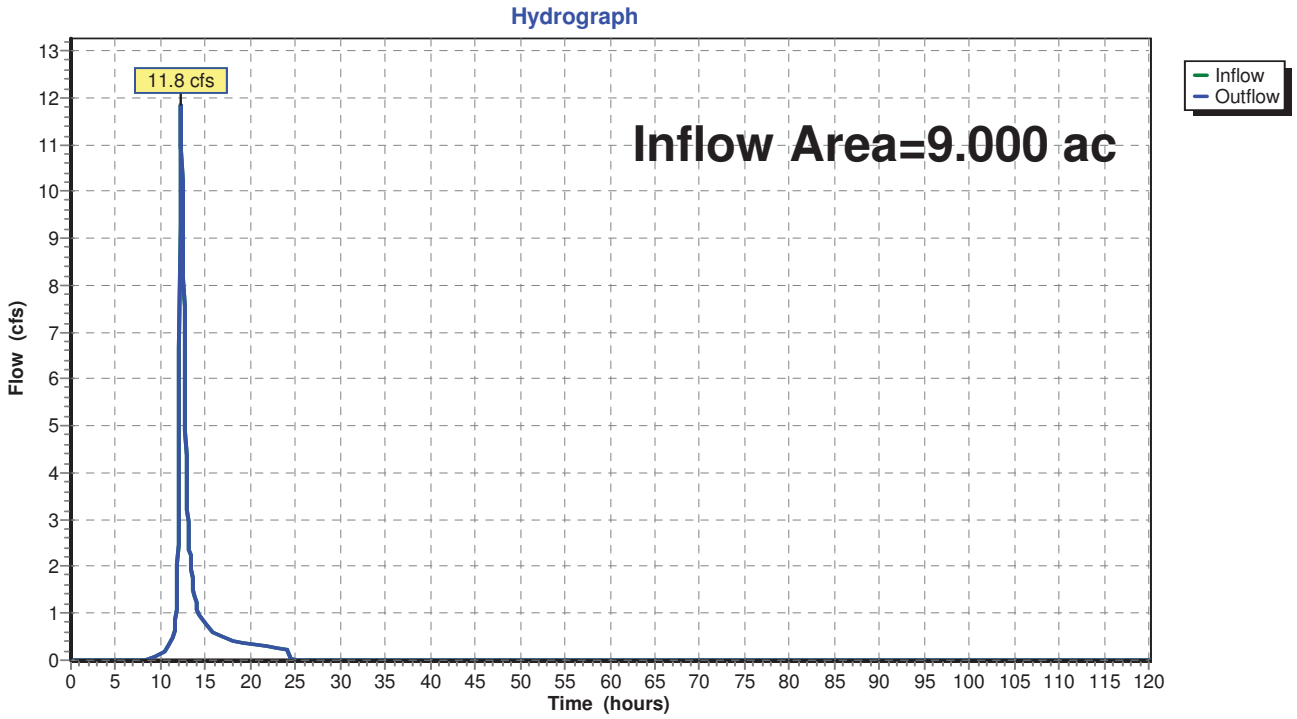


Summary for Reach DP 3: Design Point 3

Inflow Area = 9.000 ac, 31.11% Impervious, Inflow Depth = 1.67" for 10-yr event
Inflow = 11.8 cfs @ 12.26 hrs, Volume= 1.252 af
Outflow = 11.8 cfs @ 12.26 hrs, Volume= 1.252 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 3: Design Point 3

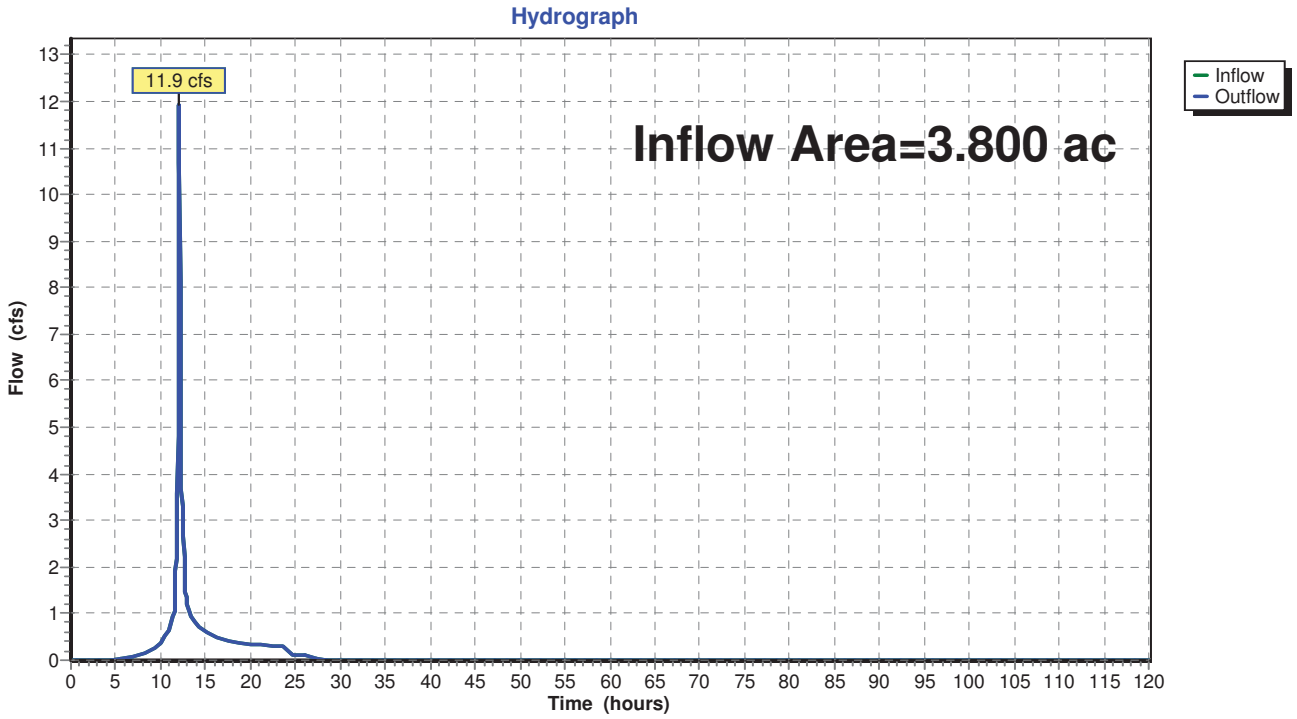


Summary for Reach DP 4: Design Point 4

Inflow Area = 3.800 ac, 44.74% Impervious, Inflow Depth = 3.24" for 10-yr event
Inflow = 11.9 cfs @ 12.06 hrs, Volume= 1.026 af
Outflow = 11.9 cfs @ 12.06 hrs, Volume= 1.026 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 4: Design Point 4

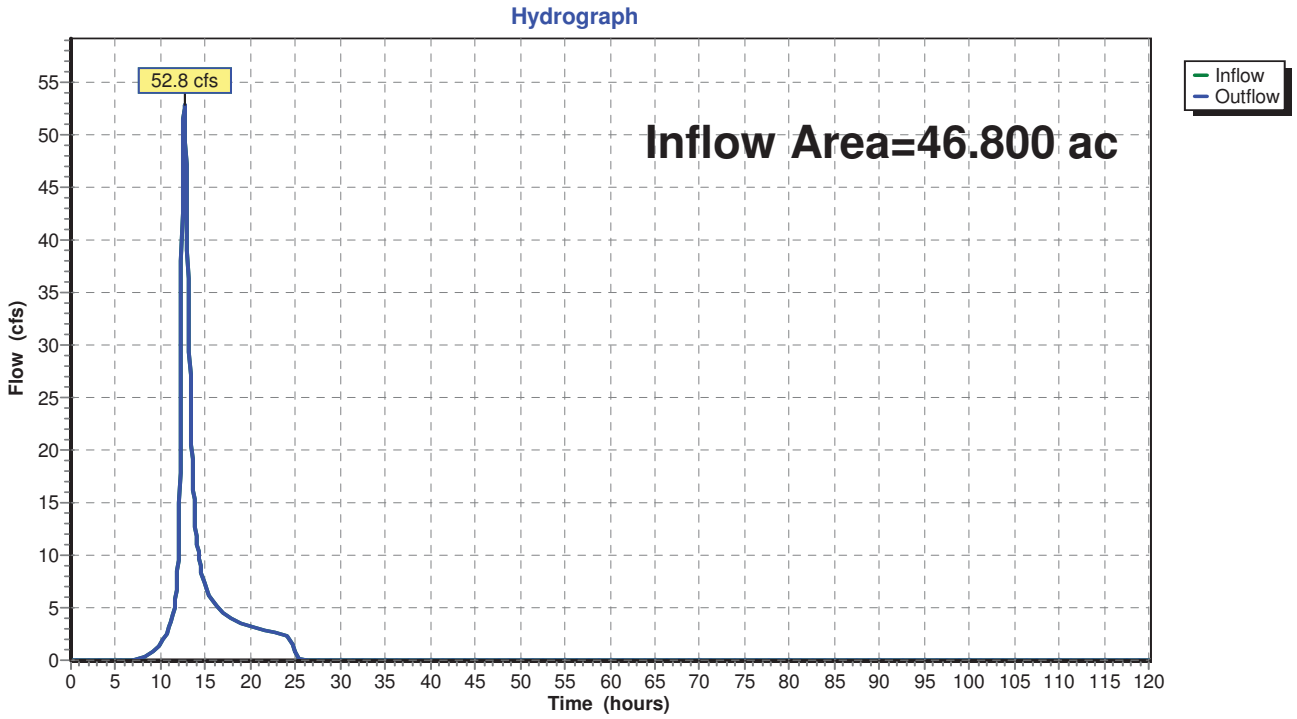


Summary for Reach DP 5: Design Point 5

Inflow Area = 46.800 ac, 22.86% Impervious, Inflow Depth = 2.39" for 10-yr event
Inflow = 52.8 cfs @ 12.64 hrs, Volume= 9.327 af
Outflow = 52.8 cfs @ 12.64 hrs, Volume= 9.327 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 5: Design Point 5



Summary for Pond 1.4 FS: Flow Splitter

Inflow Area = 0.500 ac, 60.00% Impervious, Inflow Depth = 3.85" for 10-yr event
Inflow = 2.0 cfs @ 12.10 hrs, Volume= 0.160 af
Outflow = 2.0 cfs @ 12.10 hrs, Volume= 0.160 af, Atten= 0%, Lag= 0.0 min
Primary = 1.4 cfs @ 12.10 hrs, Volume= 0.153 af
Secondary = 0.6 cfs @ 12.10 hrs, Volume= 0.008 af

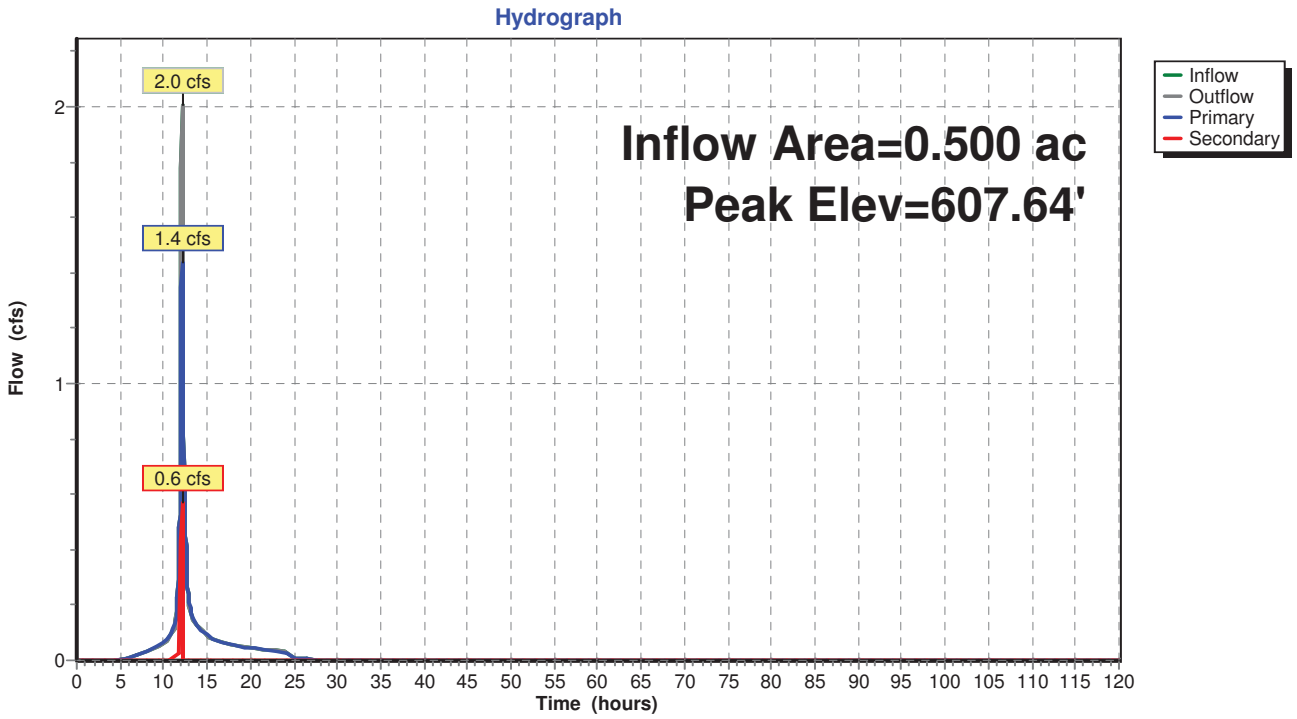
Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 607.64' @ 12.10 hrs
Flood Elev= 608.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	607.00'	**12.0" Vert. Orifice/Grate** C= 0.600
#2	Device 3	607.50'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	604.50'	**15.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 604.50' / 604.00' S= 0.0250 '/' Cc= 0.900 n= 0.120, Flow Area= 1.23 sf

Primary OutFlow Max=1.4 cfs @ 12.10 hrs HW=607.64' TW=606.76' (Dynamic Tailwater)
└**1=Orifice/Grate** (Orifice Controls 1.4 cfs @ 2.71 fps)

Secondary OutFlow Max=0.6 cfs @ 12.10 hrs HW=607.64' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 0.6 cfs of 2.4 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 0.6 cfs @ 1.03 fps)

Pond 1.4 FS: Flow Splitter



Summary for Pond 3.1AP: Pretreatment Basin

Inflow Area = 4.200 ac, 52.38% Impervious, Inflow Depth = 3.44" for 10-yr event
Inflow = 12.7 cfs @ 12.13 hrs, Volume= 1.202 af
Outflow = 6.0 cfs @ 12.38 hrs, Volume= 1.202 af, Atten= 53%, Lag= 14.7 min
Primary = 1.3 cfs @ 12.32 hrs, Volume= 0.851 af
Secondary = 4.6 cfs @ 12.38 hrs, Volume= 0.351 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 609.25' @ 12.38 hrs Surf.Area= 5,464 sf Storage= 13,473 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 186.1 min (1,006.6 - 820.5)

Volume	Invert	Avail.Storage	Storage Description
#1	606.00'	24,350 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

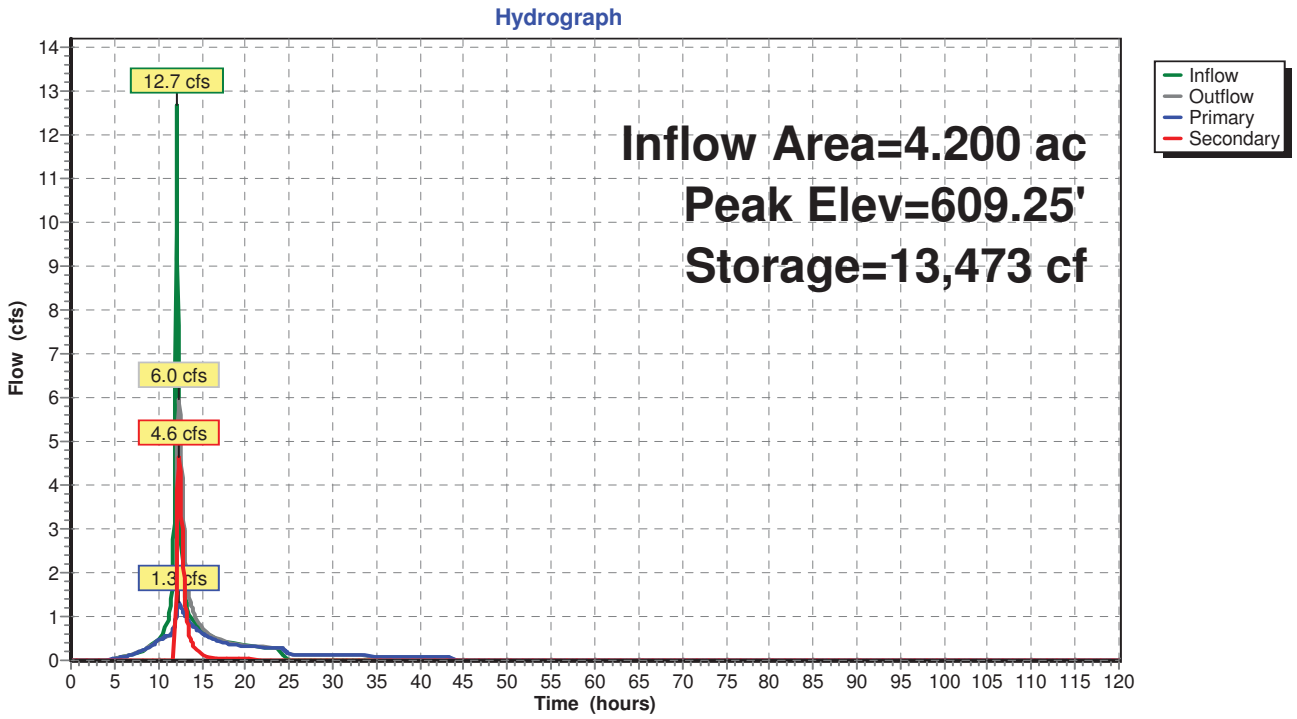
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
606.00	2,900	0	0
608.00	4,400	7,300	7,300
610.00	6,100	10,500	17,800
611.00	7,000	6,550	24,350

Device	Routing	Invert	Outlet Devices
#1	Device 3	608.00'	**1.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	605.50'	**6.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 605.50' / 605.00' S= 0.0125 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#3	Secondary	605.50'	**24.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 605.50' / 604.00' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=1.3 cfs @ 12.32 hrs HW=609.23' TW=606.30' (Dynamic Tailwater)
└**2=Culvert** (Outlet Controls 1.3 cfs @ 6.70 fps)

Secondary OutFlow Max=4.6 cfs @ 12.38 hrs HW=609.25' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 4.6 cfs of 25.1 cfs potential flow)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 4.6 cfs @ 3.71 fps)

Pond 3.1AP: Pretreatment Basin



Summary for Pond 3.1P: Infiltration Basin

Inflow Area = 4.200 ac, 52.38% Impervious, Inflow Depth = 2.43" for 10-yr event
Inflow = 1.3 cfs @ 12.32 hrs, Volume= 0.851 af
Outflow = 0.3 cfs @ 21.57 hrs, Volume= 0.851 af, Atten= 77%, Lag= 555.0 min
Discarded = 0.3 cfs @ 21.57 hrs, Volume= 0.851 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 607.88' @ 21.57 hrs Surf.Area= 6,458 sf Storage= 13,894 cf

Plug-Flow detention time= 534.1 min calculated for 0.851 af (100% of inflow)
Center-of-Mass det. time= 534.1 min (1,631.1 - 1,097.0)

Volume	Invert	Avail.Storage	Storage Description
#1	605.00'	34,800 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

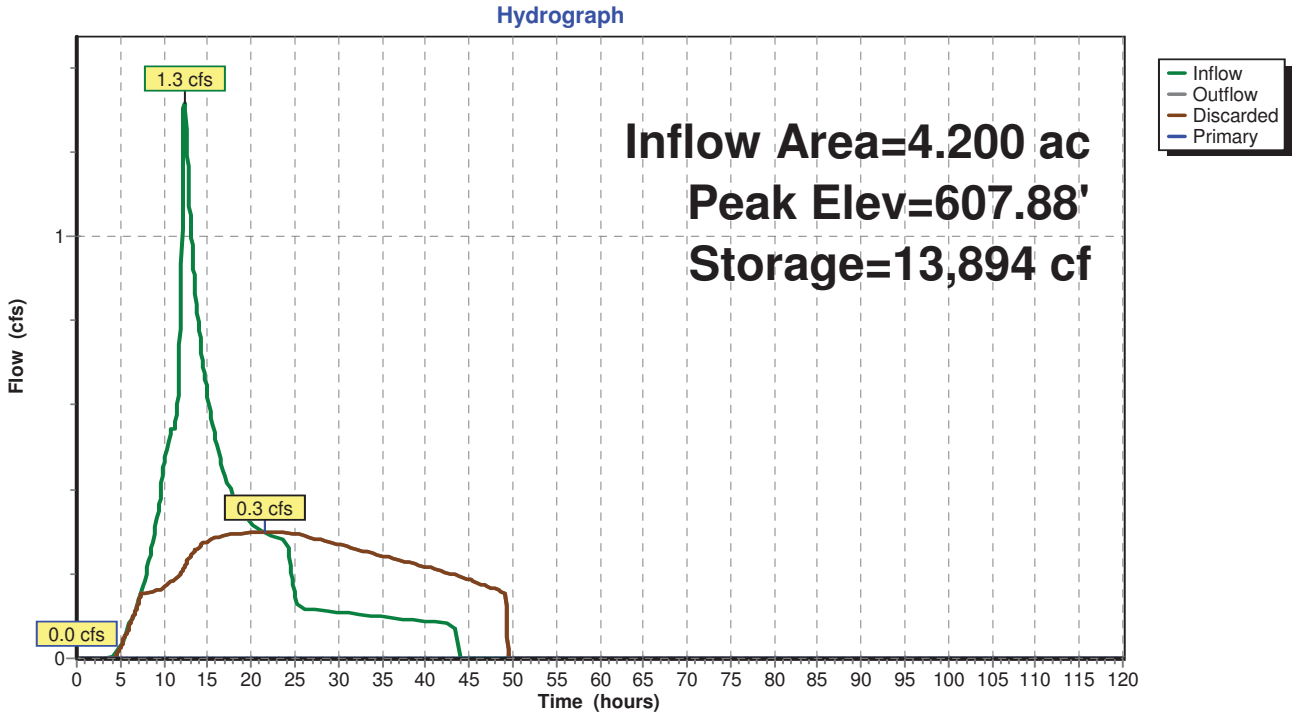
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
605.00	3,300	0	0
606.00	4,300	3,800	3,800
608.00	6,600	10,900	14,700
610.00	9,000	15,600	30,300
610.50	9,000	4,500	34,800

Device	Routing	Invert	Outlet Devices
#1	Device 2	609.20'	**2.5' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	603.00'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 603.00' / 602.00' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#3	Discarded	605.00'	**2.000 in/hr Exfiltration over Horizontal area** Phase-In= 0.01'

Discarded OutFlow Max=0.3 cfs @ 21.57 hrs HW=607.88' (Free Discharge)
↑└**3=Exfiltration** (Exfiltration Controls 0.3 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=605.00' TW=0.00' (Dynamic Tailwater)
↑└**2=Culvert** (Passes 0.0 cfs of 6.9 cfs potential flow)
↑└**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Pond 3.1P: Infiltration Basin



Summary for Pond 4.1AP1: Wet Swale

Inflow Area = 0.500 ac, 60.00% Impervious, Inflow Depth = 3.85" for 10-yr event
Inflow = 2.2 cfs @ 12.04 hrs, Volume= 0.160 af
Outflow = 2.0 cfs @ 12.10 hrs, Volume= 0.160 af, Atten= 8%, Lag= 3.4 min
Primary = 0.2 cfs @ 12.27 hrs, Volume= 0.100 af
Secondary = 1.9 cfs @ 12.10 hrs, Volume= 0.061 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Starting Elev= 607.00' Surf.Area= 950 sf Storage= 1,438 cf
Peak Elev= 607.74' @ 12.07 hrs Surf.Area= 1,172 sf Storage= 2,224 cf (786 cf above start)

Plug-Flow detention time= 182.5 min calculated for 0.127 af (79% of inflow)
Center-of-Mass det. time= 35.1 min (831.3 - 796.2)

Volume	Invert	Avail.Storage	Storage Description
#1	604.50'	2,538 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

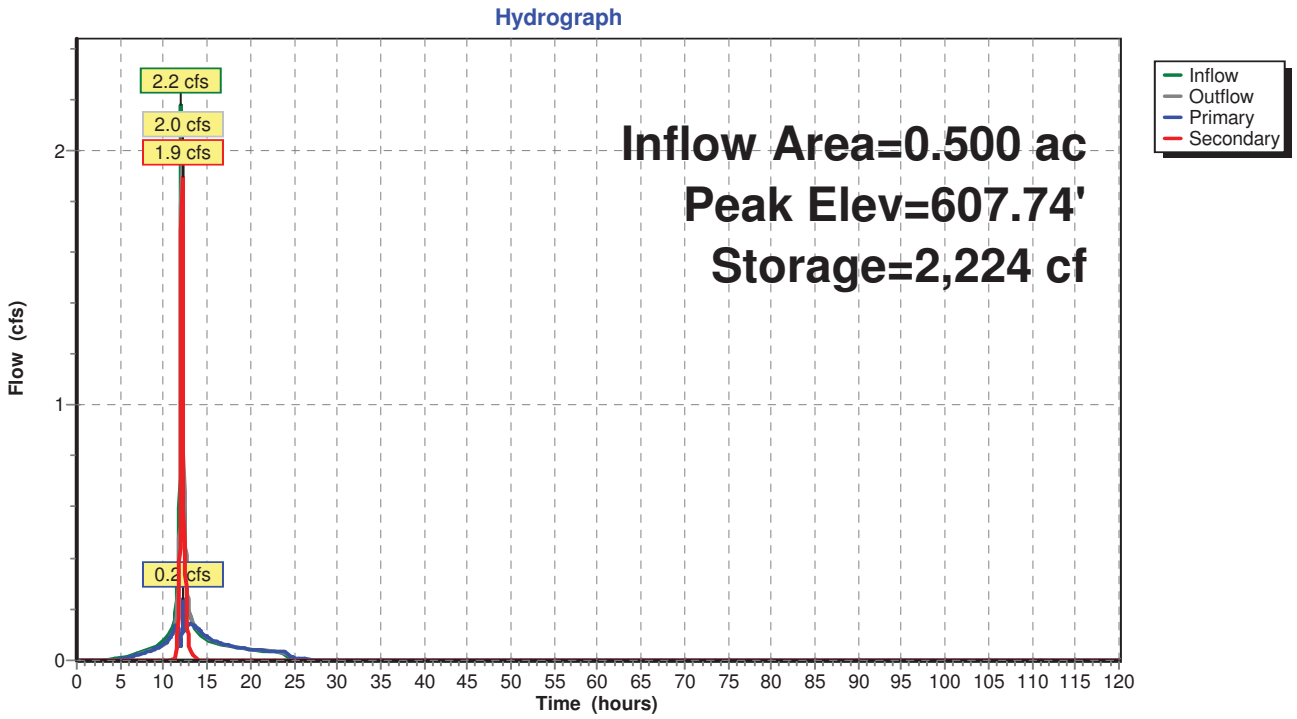
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
604.50	200	0	0
608.00	1,250	2,538	2,538

Device	Routing	Invert	Outlet Devices
#1	Primary	607.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	607.30'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.0 cfs @ 12.27 hrs HW=607.47' TW=607.51' (Dynamic Tailwater)
↑—**1=Orifice/Grate** (Controls 0.0 cfs)

Secondary OutFlow Max=2.1 cfs @ 12.10 hrs HW=607.73' TW=607.63' (Dynamic Tailwater)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 2.1 cfs @ 1.21 fps)

Pond 4.1AP1: Wet Swale



Summary for Pond 4.1BP: Bioretention

Inflow Area = 0.500 ac, 60.00% Impervious, Inflow Depth = 3.68" for 10-yr event
Inflow = 1.4 cfs @ 12.10 hrs, Volume= 0.153 af
Outflow = 0.1 cfs @ 14.30 hrs, Volume= 0.153 af, Atten= 92%, Lag= 132.2 min
Primary = 0.1 cfs @ 14.30 hrs, Volume= 0.153 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 607.13' @ 14.30 hrs Surf.Area= 4,508 sf Storage= 2,700 cf

Plug-Flow detention time= 242.8 min calculated for 0.153 af (100% of inflow)
Center-of-Mass det. time= 242.8 min (1,078.8 - 836.0)

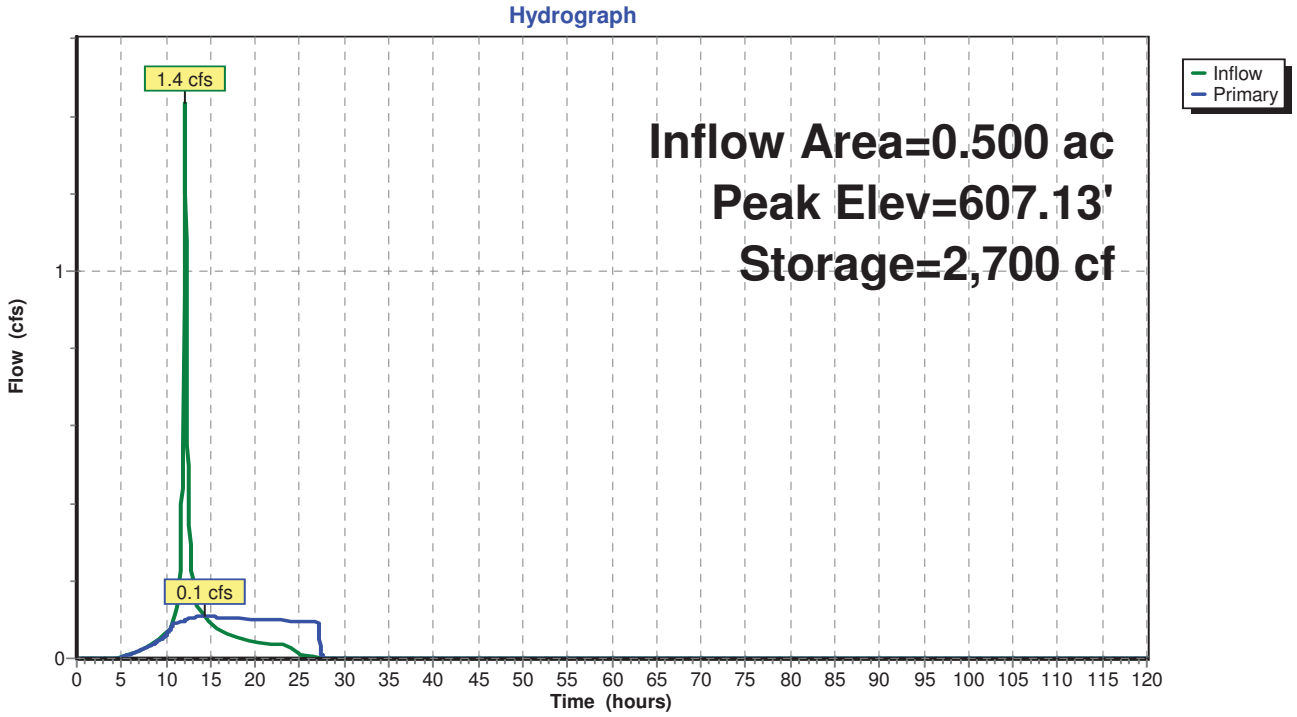
Volume	Invert	Avail.Storage	Storage Description
#1	606.50'	4,400 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
606.50	4,000	0	0
607.50	4,800	4,400	4,400

Device	Routing	Invert	Outlet Devices
#1	Device 3	606.50'	**1.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#2	Device 3	607.10'	**12.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	603.00'	**8.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 603.00' / 602.70' S= 0.0300 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.1 cfs @ 14.30 hrs HW=607.13' TW=0.00' (Dynamic Tailwater)
└─**3=Culvert** (Passes 0.1 cfs of 3.3 cfs potential flow)
  ├─**1=Exfiltration** (Exfiltration Controls 0.1 cfs)
  └─**2=Orifice/Grate** (Orifice Controls 0.0 cfs @ 0.63 fps)

Pond 4.1BP: Bioretention



Summary for Pond 5.1AP: Pretreatment Basin

Inflow Area = 4.400 ac, 70.45% Impervious, Inflow Depth = 3.85" for 10-yr event
Inflow = 16.4 cfs @ 12.09 hrs, Volume= 1.410 af
Outflow = 5.3 cfs @ 12.41 hrs, Volume= 1.410 af, Atten= 67%, Lag= 19.1 min
Primary = 1.7 cfs @ 12.39 hrs, Volume= 1.246 af
Secondary = 3.6 cfs @ 12.41 hrs, Volume= 0.164 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 659.69' @ 12.41 hrs Surf.Area= 8,048 sf Storage= 18,547 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 112.9 min (912.4 - 799.5)

Volume	Invert	Avail.Storage	Storage Description
#1	656.00'	40,300 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

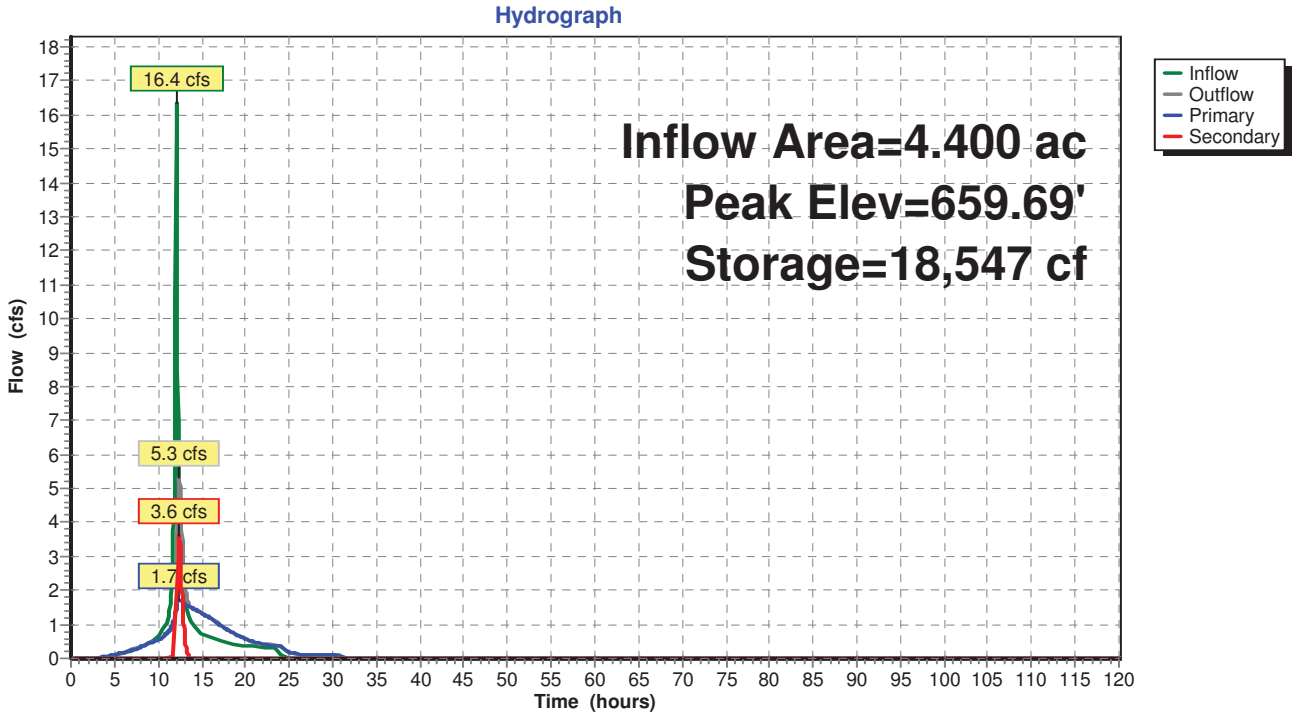
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
656.00	2,500	0	0
658.00	5,000	7,500	7,500
660.00	8,600	13,600	21,100
662.00	10,600	19,200	40,300

Device	Routing	Invert	Outlet Devices
#1	Device 3	659.30'	**2.5' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	655.50'	**6.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 655.50' / 655.00' S= 0.0167 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#3	Secondary	657.50'	**30.0" Round Culvert** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 657.50' / 656.50' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=1.7 cfs @ 12.39 hrs HW=659.69' TW=655.48' (Dynamic Tailwater)
↑└**2=Culvert** (Barrel Controls 1.7 cfs @ 8.76 fps)

Secondary OutFlow Max=3.6 cfs @ 12.41 hrs HW=659.69' TW=0.00' (Dynamic Tailwater)
↑└**3=Culvert** (Passes 3.6 cfs of 23.0 cfs potential flow)
↑└**1=Broad-Crested Rectangular Weir** (Weir Controls 3.6 cfs @ 1.83 fps)

Pond 5.1AP: Pretreatment Basin



Summary for Pond 5.1P: Infiltration Basin

Inflow Area = 4.400 ac, 70.45% Impervious, Inflow Depth = 3.40" for 10-yr event
Inflow = 1.7 cfs @ 12.39 hrs, Volume= 1.246 af
Outflow = 0.6 cfs @ 20.05 hrs, Volume= 1.246 af, Atten= 67%, Lag= 459.5 min
Discarded = 0.6 cfs @ 20.05 hrs, Volume= 1.246 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 657.00' @ 20.05 hrs Surf.Area= 12,143 sf Storage= 21,024 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 369.4 min (1,302.6 - 933.2)

Volume	Invert	Avail.Storage	Storage Description
#1	655.00'	64,950 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

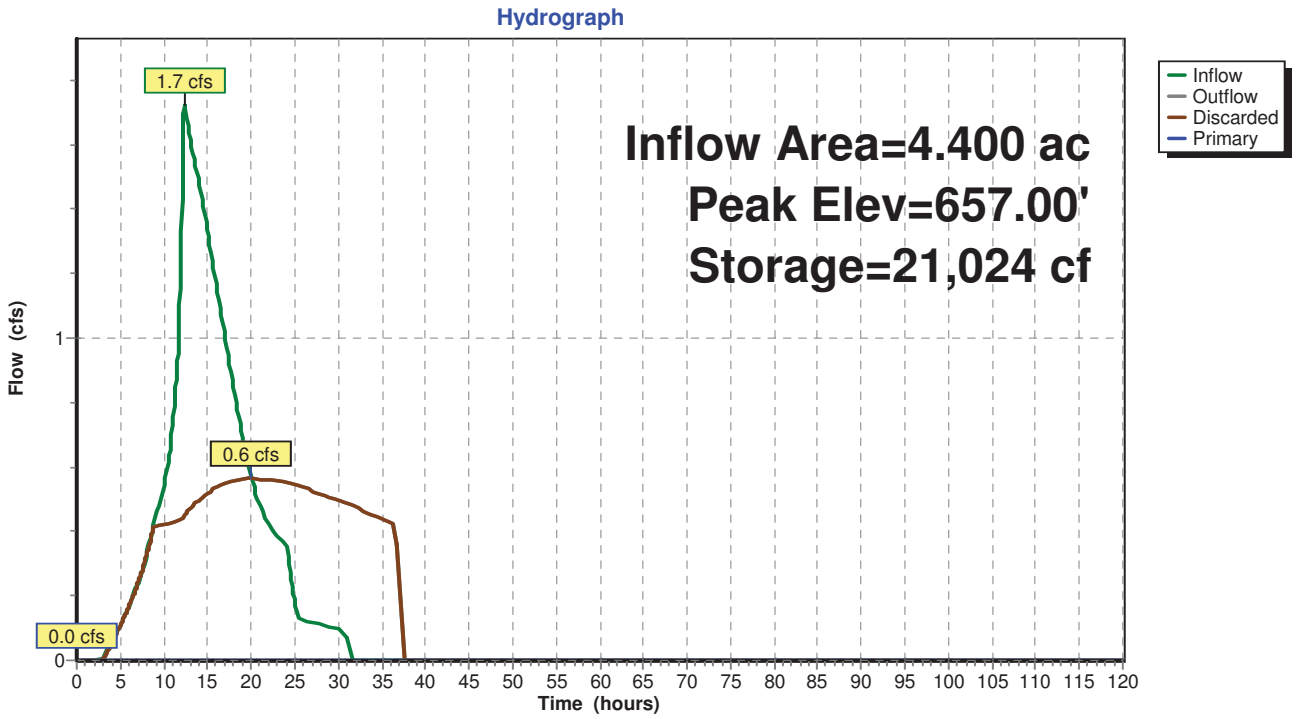
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
655.00	9,000	0	0
656.00	10,500	9,750	9,750
660.00	17,100	55,200	64,950

Device	Routing	Invert	Outlet Devices
#1	Device 2	659.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	653.00'	**15.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 653.00' / 652.50' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#3	Discarded	655.00'	**2.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=0.6 cfs @ 20.05 hrs HW=657.00' (Free Discharge)
└**3=Exfiltration** (Exfiltration Controls 0.6 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=655.00' TW=0.00' (Dynamic Tailwater)
└**2=Culvert** (Passes 0.0 cfs of 6.9 cfs potential flow)
└**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Pond 5.1P: Infiltration Basin



Summary for Subcatchment 1.0S:

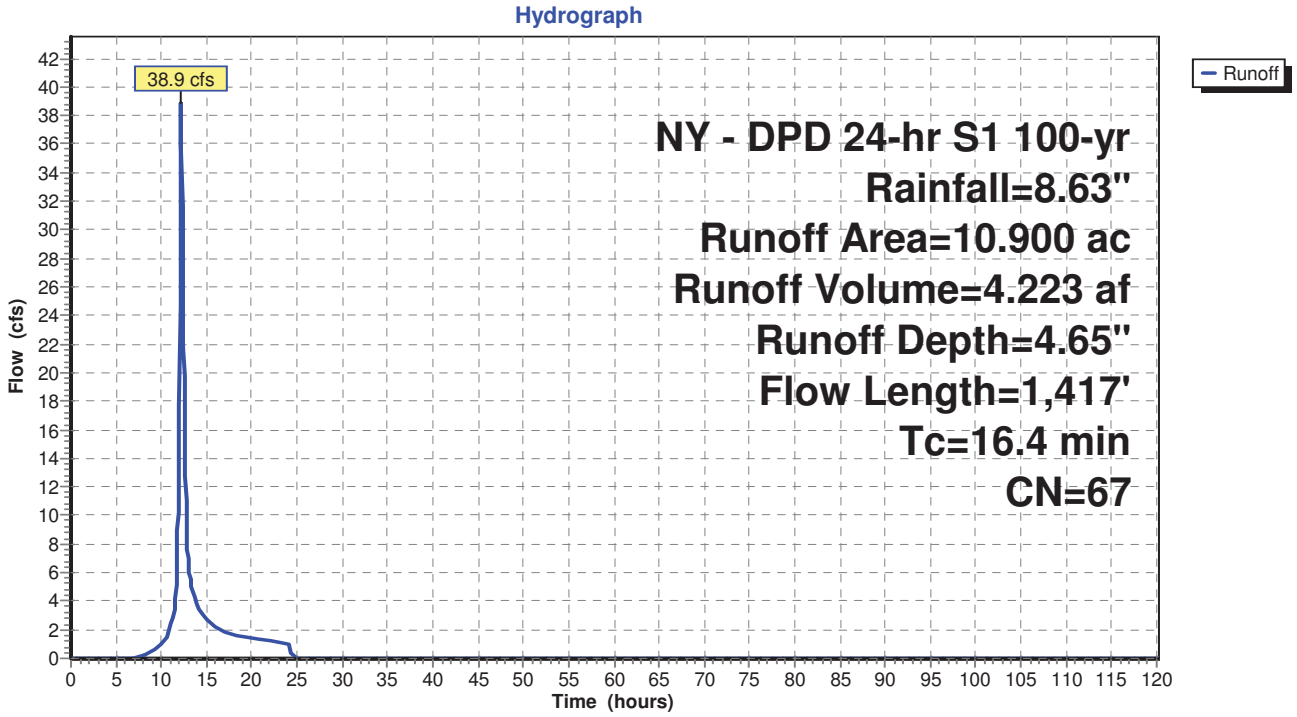
Runoff = 38.9 cfs @ 12.19 hrs, Volume= 4.223 af, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 100-yr Rainfall=8.63"

Area (ac)	CN	Description
1.500	74	>75% Grass cover, Good, HSG C
1.200	71	Meadow, non-grazed, HSG C
5.100	70	Woods, Good, HSG C
0.500	72	Woods/grass comb., Good, HSG C
2.200	55	Woods, Good, HSG B
0.400	61	>75% Grass cover, Good, HSG B
10.900	67	Weighted Average
10.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0150	0.15		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
1.1	225	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
1.6	162	0.1100	1.66		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.5	90	0.3000	2.74		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.3	840	0.0300	6.10	36.62	**Channel Flow,** Area= 6.0 sf Perim= 10.0' r= 0.60' n= 0.030 Earth, grassed & winding
16.4	1,417	Total			

Subcatchment 1.0S:



Summary for Subcatchment 2.0S:

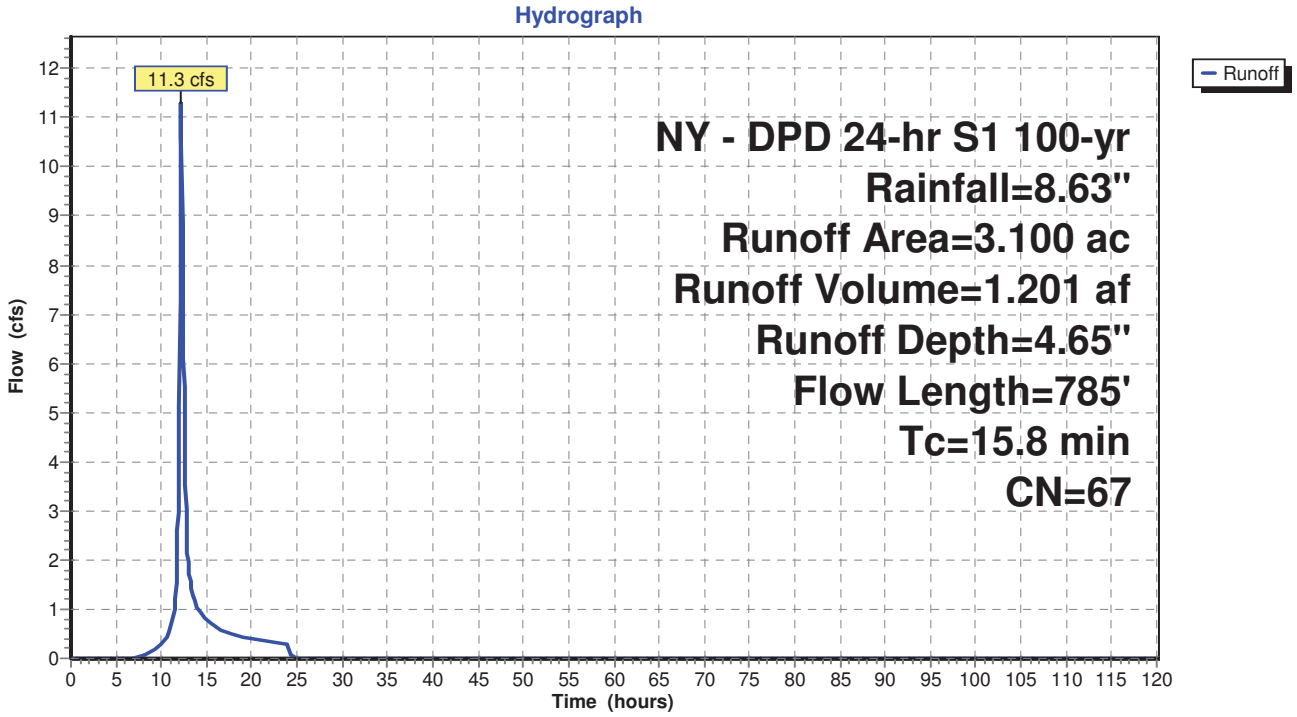
Runoff = 11.3 cfs @ 12.17 hrs, Volume= 1.201 af, Depth= 4.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 100-yr Rainfall=8.63"

Area (ac)	CN	Description
1.100	70	Woods, Good, HSG C
1.100	74	>75% Grass cover, Good, HSG C
0.700	55	Woods, Good, HSG B
0.200	61	>75% Grass cover, Good, HSG B
3.100	67	Weighted Average
3.100		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.7	100	0.1100	0.16		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.27"
3.4	285	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.0	150	0.2500	2.50		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.7	250	0.0250	5.80	23.19	**Channel Flow,** Area= 4.0 sf Perim= 10.0' r= 0.40' n= 0.022 Earth, clean & straight
15.8	785	Total			

Subcatchment 2.0S:



Summary for Subcatchment 3.0S:

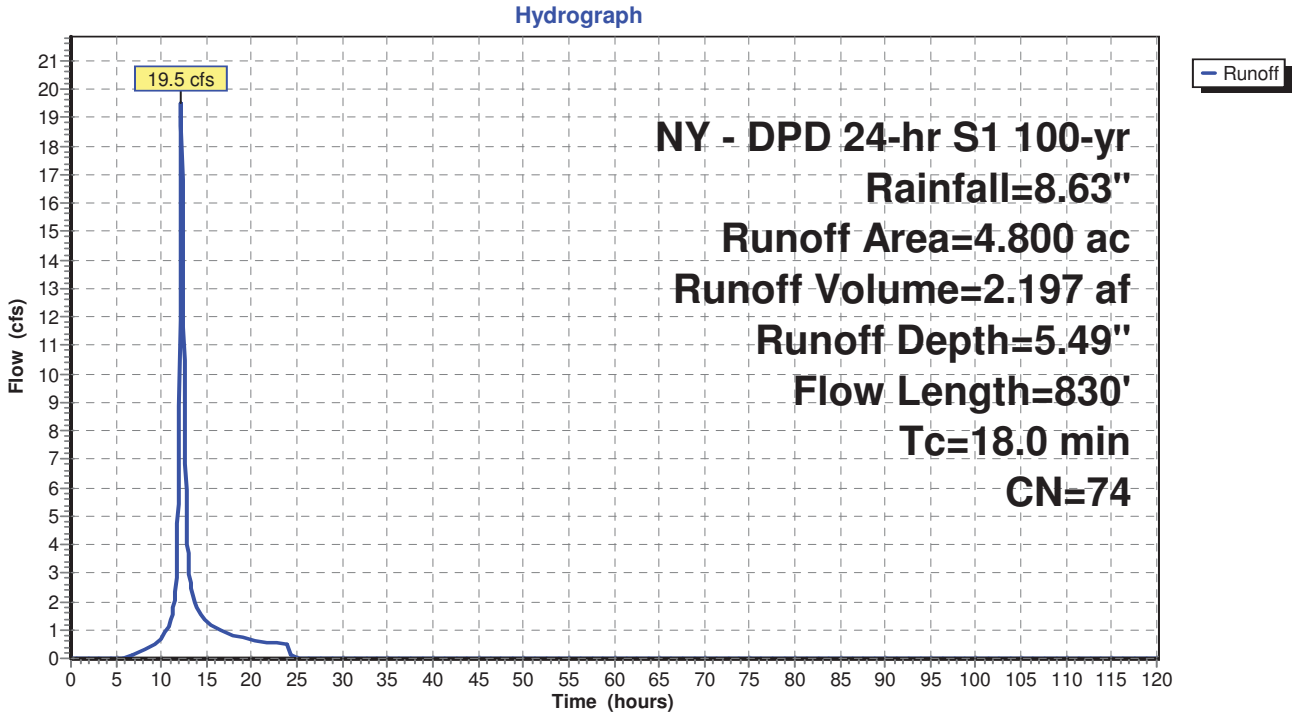
Runoff = 19.5 cfs @ 12.20 hrs, Volume= 2.197 af, Depth= 5.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 100-yr Rainfall=8.63"

Area (ac)	CN	Description
0.600	98	Paved parking, HSG C
1.400	74	>75% Grass cover, Good, HSG C
2.400	70	Woods, Good, HSG C
0.200	55	Woods, Good, HSG B
0.100	61	>75% Grass cover, Good, HSG B
0.100	80	>75% Grass cover, Good, HSG D
4.800	74	Weighted Average
4.200		87.50% Pervious Area
0.600		12.50% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	100	0.0500	0.11		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.27"
1.3	140	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.2	40	0.0250	4.25	17.01	**Channel Flow,** Area= 4.0 sf Perim= 10.0' r= 0.40' n= 0.030 Earth, grassed & winding
1.1	360	0.1400	5.61		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.7	190	0.0250	4.25	17.01	**Channel Flow,** Area= 4.0 sf Perim= 10.0' r= 0.40' n= 0.030 Earth, grassed & winding
18.0	830	Total			

Subcatchment 3.0S:



Summary for Subcatchment 3.1S:

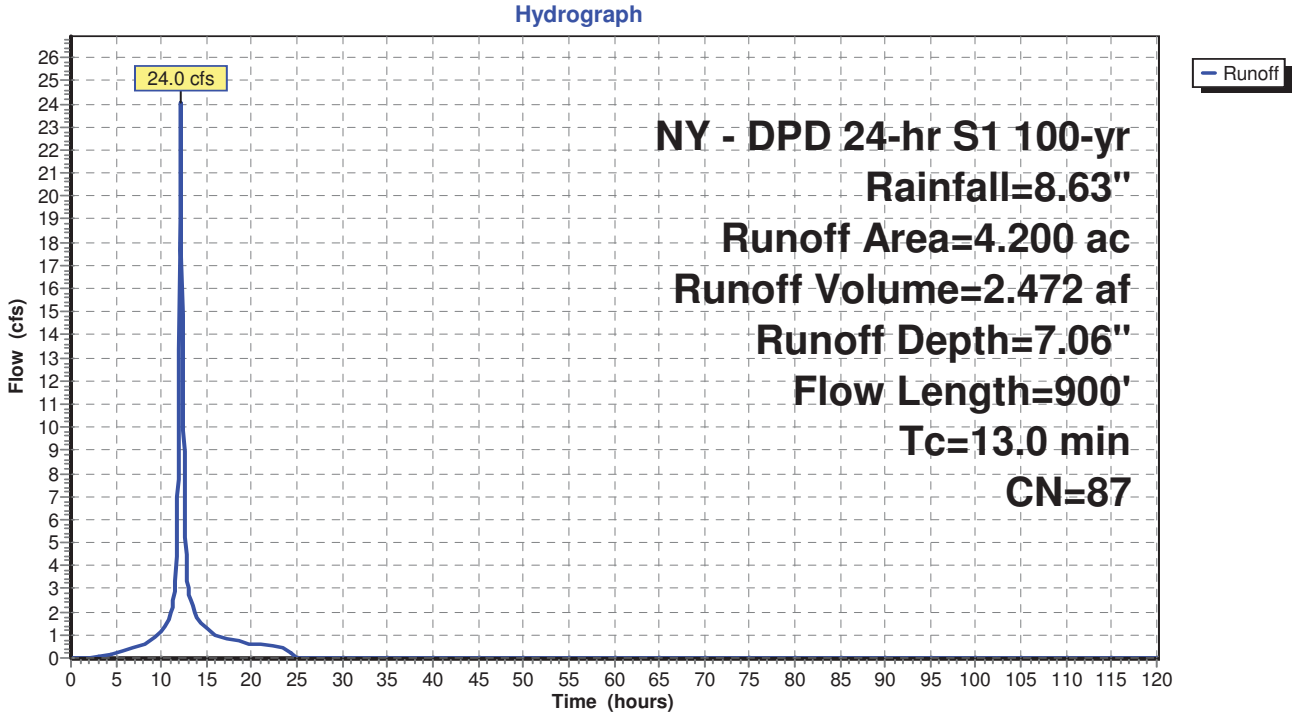
Runoff = 24.0 cfs @ 12.13 hrs, Volume= 2.472 af, Depth= 7.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 100-yr Rainfall=8.63"

Area (ac)	CN	Description
2.200	98	Paved parking, HSG C
2.000	74	>75% Grass cover, Good, HSG C
4.200	87	Weighted Average
2.000		47.62% Pervious Area
2.200		52.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.1200	0.16		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.27"
0.2	80	0.1500	5.81		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
2.4	720	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
13.0	900	Total			

Subcatchment 3.1S:



Summary for Subcatchment 4.0S:

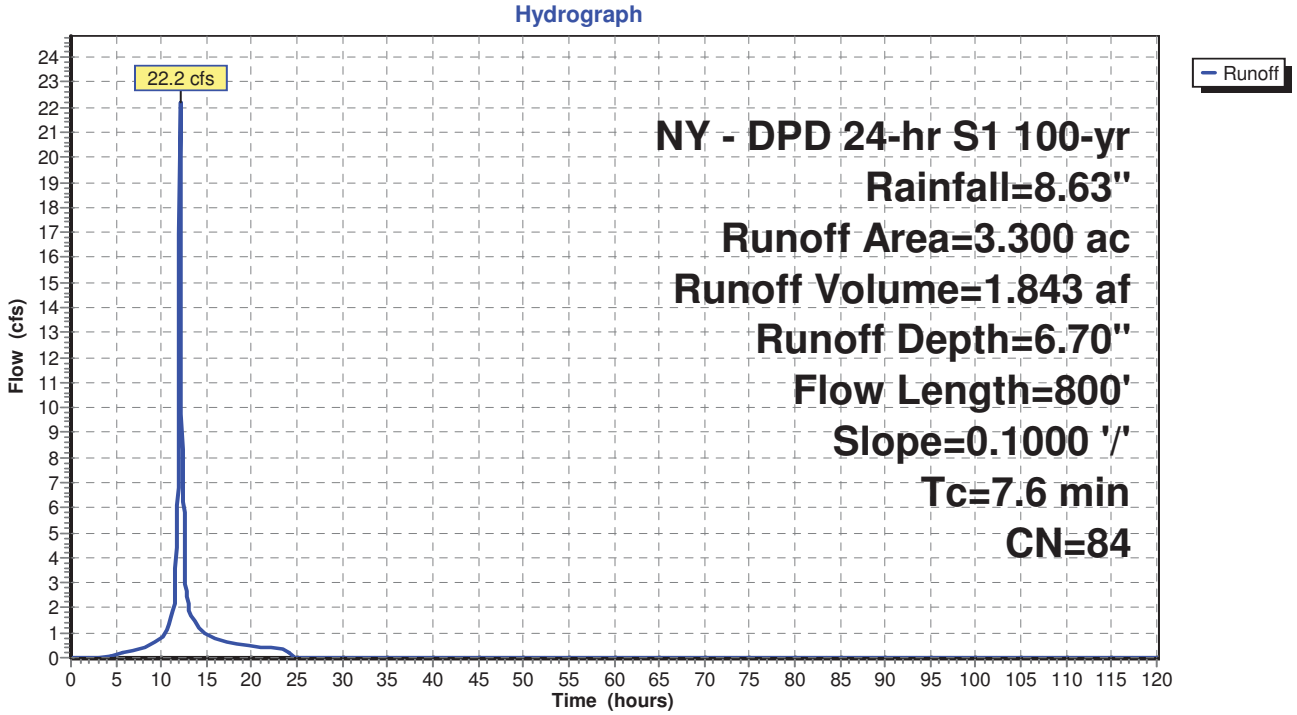
Runoff = 22.2 cfs @ 12.06 hrs, Volume= 1.843 af, Depth= 6.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 100-yr Rainfall=8.63"

Area (ac)	CN	Description
1.400	98	Paved parking, HSG C
1.100	74	>75% Grass cover, Good, HSG C
0.300	80	>75% Grass cover, Good, HSG D
0.500	72	Woods/grass comb., Good, HSG C
3.300	84	Weighted Average
1.900		57.58% Pervious Area
1.400		42.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	100	0.1000	0.33		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
2.5	700	0.1000	4.74		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
7.6	800	Total			

Subcatchment 4.0S:



Summary for Subcatchment 4.1S:

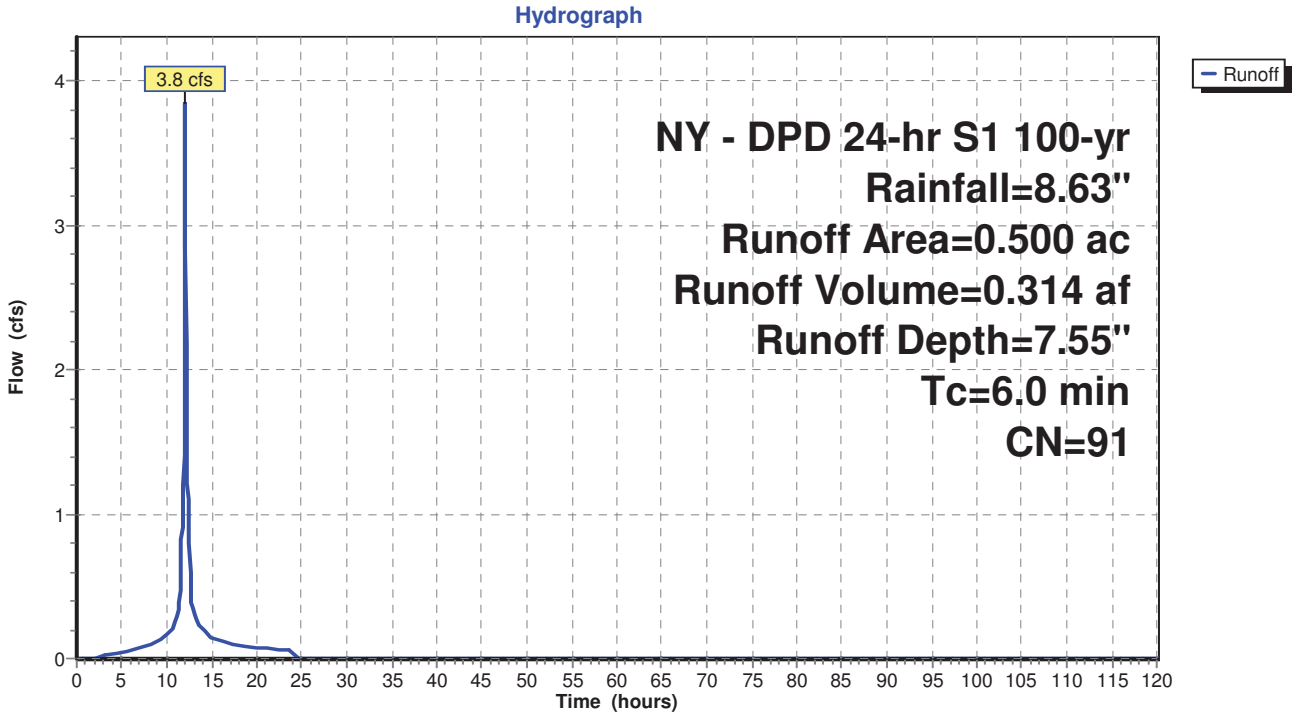
Runoff = 3.8 cfs @ 12.04 hrs, Volume= 0.314 af, Depth= 7.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 100-yr Rainfall=8.63"

Area (ac)	CN	Description
0.300	98	Paved parking, HSG D
0.200	80	>75% Grass cover, Good, HSG D
0.500	91	Weighted Average
0.200		40.00% Pervious Area
0.300		60.00% Impervious Area

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

Subcatchment 4.1S:



Summary for Subcatchment 5.0S:

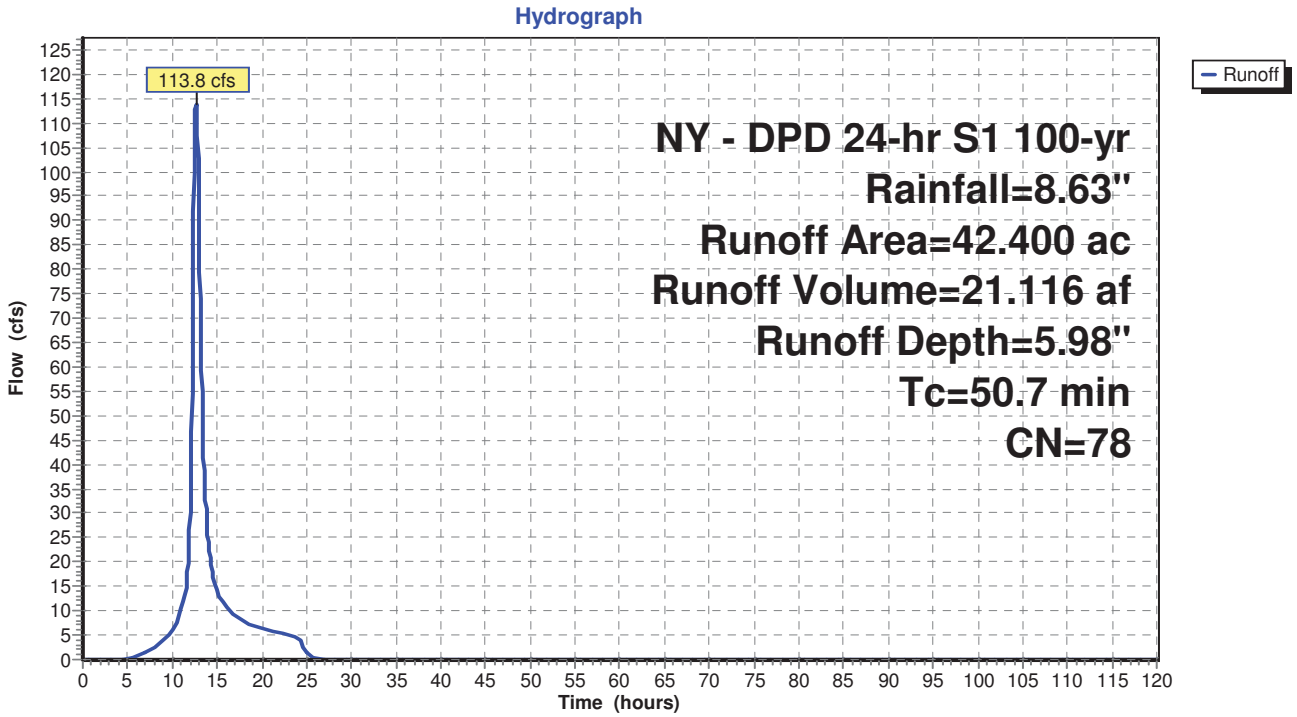
Runoff = 113.8 cfs @ 12.65 hrs, Volume= 21.116 af, Depth= 5.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 100-yr Rainfall=8.63"

Area (ac)	CN	Description
6.000	98	Paved parking, HSG C
1.600	98	Water Surface, HSG D
8.900	74	>75% Grass cover, Good, HSG C
7.300	71	Meadow, non-grazed, HSG C
8.700	70	Woods, Good, HSG C
1.000	72	Woods/grass comb., Good, HSG C
8.700	77	Woods, Good, HSG D
0.200	80	>75% Grass cover, Good, HSG D
42.400	78	Weighted Average
34.800		82.08% Pervious Area
7.600		17.92% Impervious Area

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

Subcatchment 5.0S:



Summary for Subcatchment 5.1S:

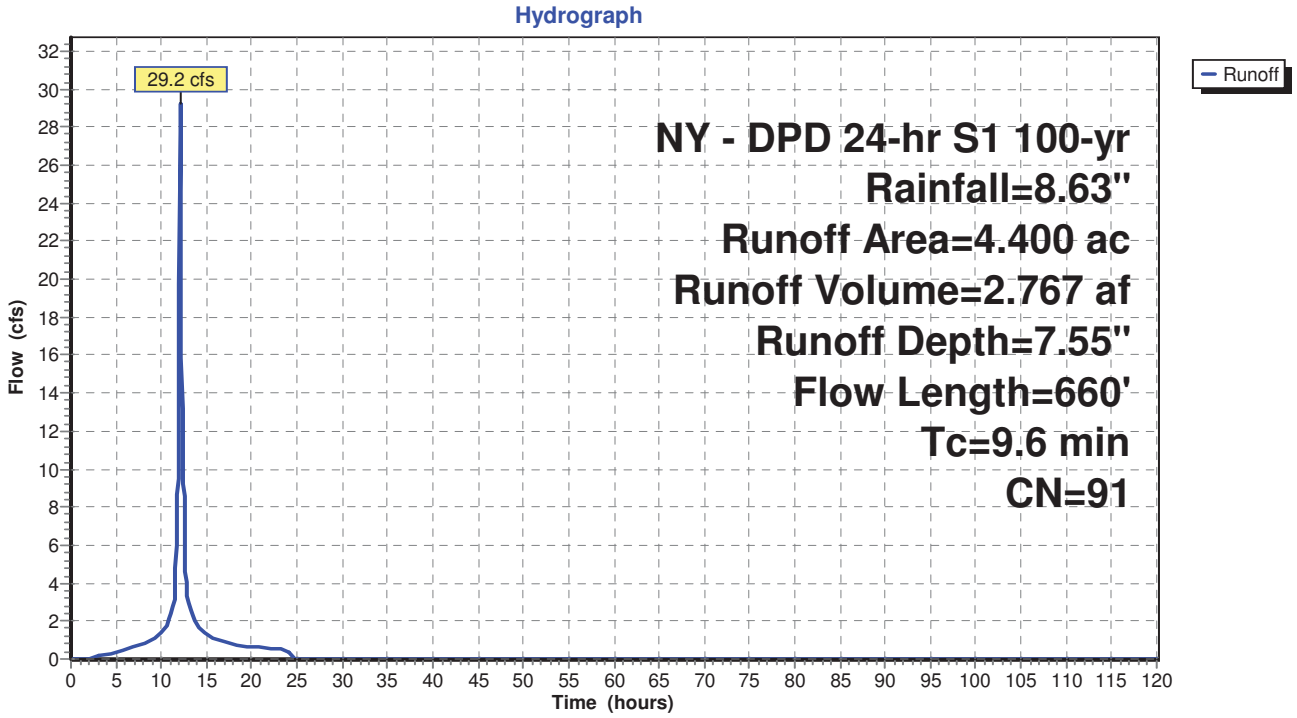
Runoff = 29.2 cfs @ 12.09 hrs, Volume= 2.767 af, Depth= 7.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs
NY - DPD 24-hr S1 100-yr Rainfall=8.63"

Area (ac)	CN	Description
3.100	98	Paved parking, HSG D
1.300	74	>75% Grass cover, Good, HSG C
4.400	91	Weighted Average
1.300		29.55% Pervious Area
3.100		70.45% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.2	100	0.0300	0.20		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.27"
0.1	40	0.2000	6.71		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.3	120	0.1500	7.86		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.0	400	0.0100	6.44	11.38	**Pipe Channel,** 18.0" Round Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012
9.6	660	Total			

Subcatchment 5.1S:

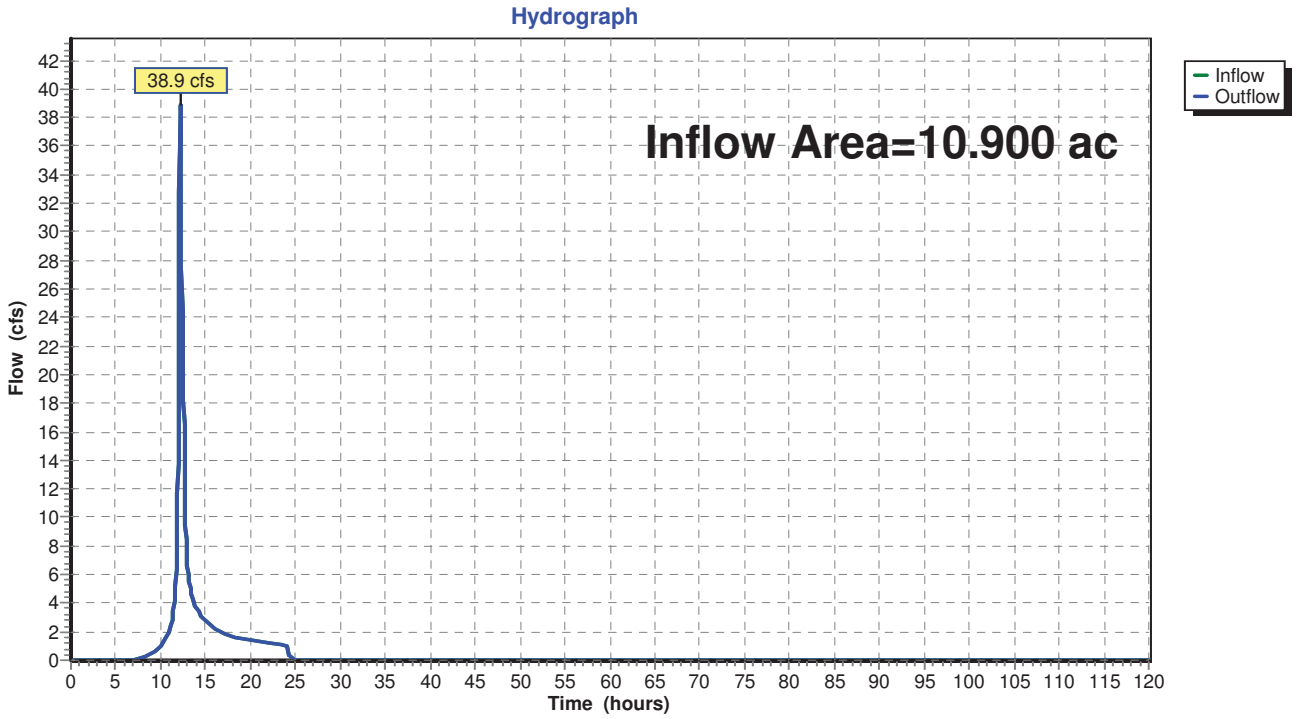


Summary for Reach DP 1: Design Point 1

Inflow Area = 10.900 ac, 0.00% Impervious, Inflow Depth = 4.65" for 100-yr event
Inflow = 38.9 cfs @ 12.19 hrs, Volume= 4.223 af
Outflow = 38.9 cfs @ 12.19 hrs, Volume= 4.223 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 1: Design Point 1

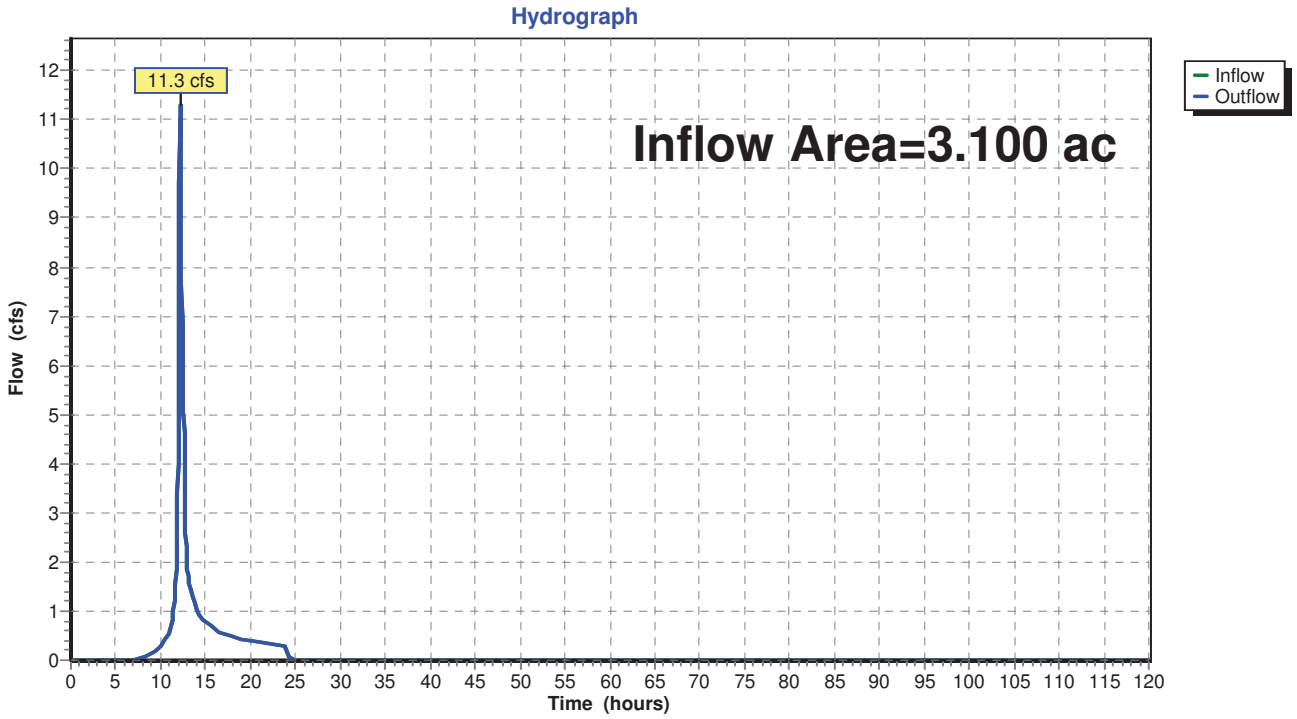


Summary for Reach DP 2: Design Point 2

Inflow Area = 3.100 ac, 0.00% Impervious, Inflow Depth = 4.65" for 100-yr event
Inflow = 11.3 cfs @ 12.17 hrs, Volume= 1.201 af
Outflow = 11.3 cfs @ 12.17 hrs, Volume= 1.201 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 2: Design Point 2

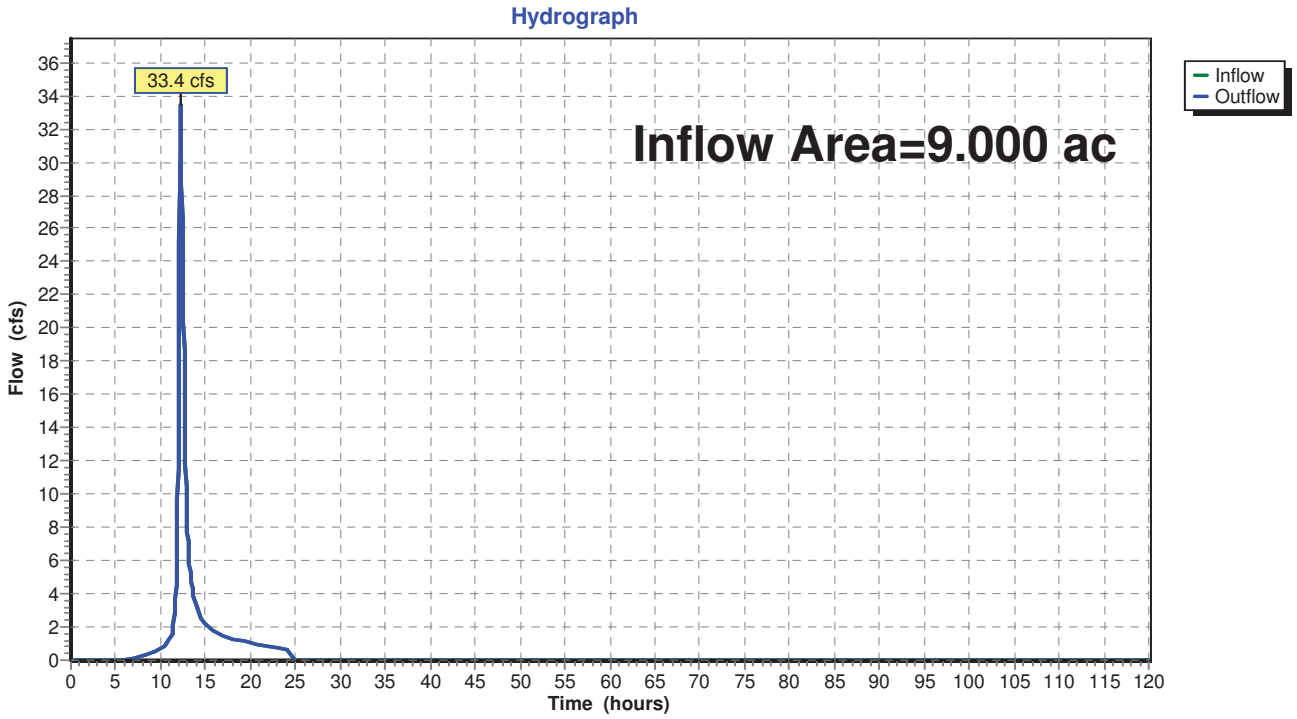


Summary for Reach DP 3: Design Point 3

Inflow Area = 9.000 ac, 31.11% Impervious, Inflow Depth = 4.94" for 100-yr event
Inflow = 33.4 cfs @ 12.23 hrs, Volume= 3.704 af
Outflow = 33.4 cfs @ 12.23 hrs, Volume= 3.704 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 3: Design Point 3

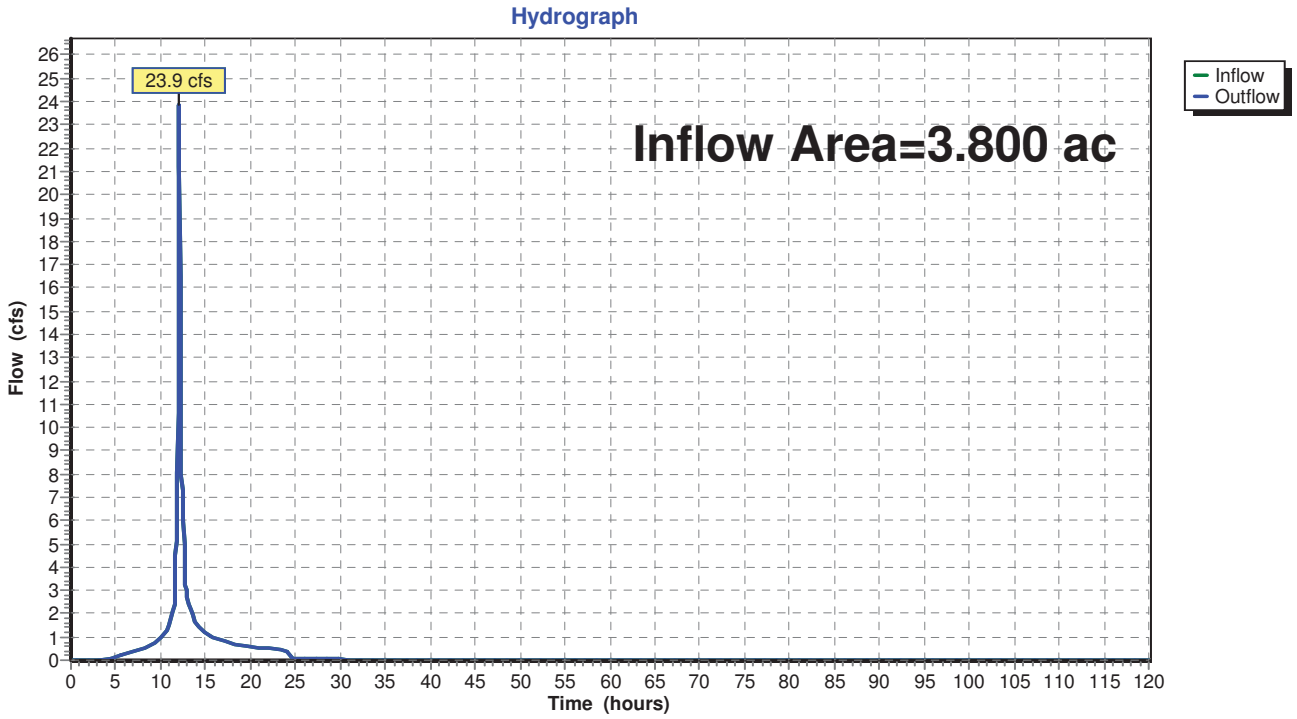


Summary for Reach DP 4: Design Point 4

Inflow Area = 3.800 ac, 44.74% Impervious, Inflow Depth = 6.81" for 100-yr event
Inflow = 23.9 cfs @ 12.06 hrs, Volume= 2.158 af
Outflow = 23.9 cfs @ 12.06 hrs, Volume= 2.158 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 4: Design Point 4

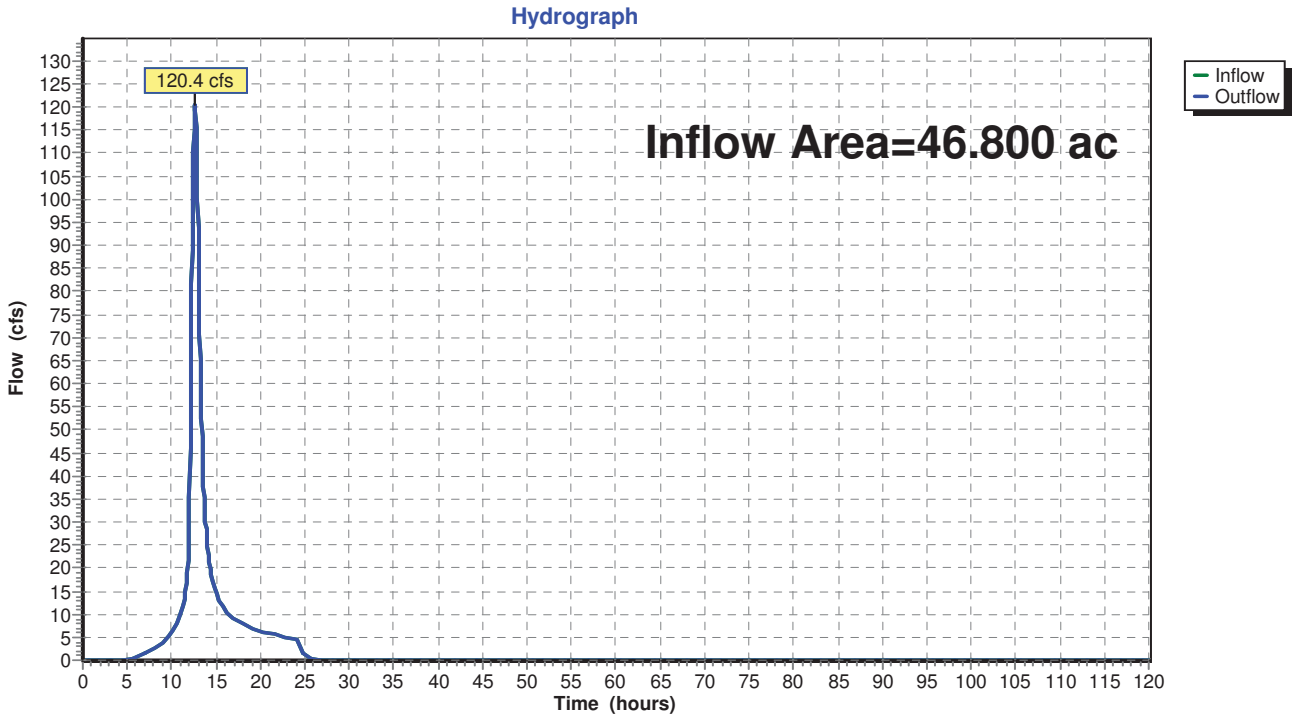


Summary for Reach DP 5: Design Point 5

Inflow Area = 46.800 ac, 22.86% Impervious, Inflow Depth = 5.66" for 100-yr event
Inflow = 120.4 cfs @ 12.62 hrs, Volume= 22.080 af
Outflow = 120.4 cfs @ 12.62 hrs, Volume= 22.080 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2

Reach DP 5: Design Point 5



Summary for Pond 1.4 FS: Flow Splitter

Inflow Area = 0.500 ac, 60.00% Impervious, Inflow Depth = 7.55" for 100-yr event
Inflow = 3.5 cfs @ 12.08 hrs, Volume= 0.314 af
Outflow = 3.5 cfs @ 12.08 hrs, Volume= 0.314 af, Atten= 0%, Lag= 0.0 min
Primary = 1.9 cfs @ 12.08 hrs, Volume= 0.282 af
Secondary = 1.6 cfs @ 12.08 hrs, Volume= 0.033 af

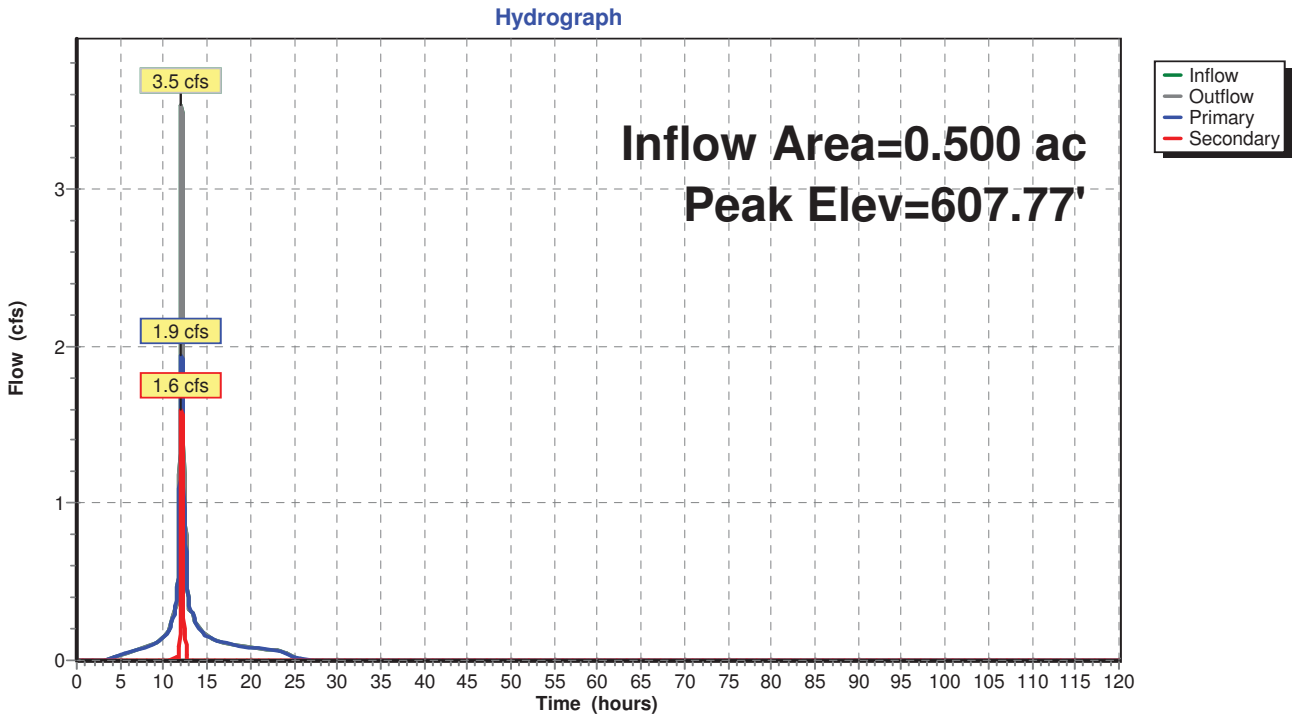
Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 607.77' @ 12.08 hrs
Flood Elev= 608.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	607.00'	**12.0" Vert. Orifice/Grate** C= 0.600
#2	Device 3	607.50'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	604.50'	**15.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 604.50' / 604.00' S= 0.0250 '/' Cc= 0.900 n= 0.120, Flow Area= 1.23 sf

Primary OutFlow Max=1.9 cfs @ 12.08 hrs HW=607.76' TW=607.13' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Orifice Controls 1.9 cfs @ 2.97 fps)

Secondary OutFlow Max=1.5 cfs @ 12.08 hrs HW=607.76' TW=0.00' (Dynamic Tailwater)
└─**3=Culvert** (Passes 1.5 cfs of 2.4 cfs potential flow)
└─**2=Broad-Crested Rectangular Weir** (Weir Controls 1.5 cfs @ 1.46 fps)

Pond 1.4 FS: Flow Splitter



Summary for Pond 3.1AP: Pretreatment Basin

Inflow Area = 4.200 ac, 52.38% Impervious, Inflow Depth = 7.06" for 100-yr event
Inflow = 24.0 cfs @ 12.13 hrs, Volume= 2.472 af
Outflow = 16.1 cfs @ 12.28 hrs, Volume= 2.472 af, Atten= 33%, Lag= 9.0 min
Primary = 1.4 cfs @ 12.26 hrs, Volume= 0.966 af
Secondary = 14.6 cfs @ 12.28 hrs, Volume= 1.507 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 610.69' @ 12.28 hrs Surf.Area= 6,718 sf Storage= 22,201 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 115.7 min (912.0 - 796.3)

Volume	Invert	Avail.Storage	Storage Description
#1	606.00'	24,350 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

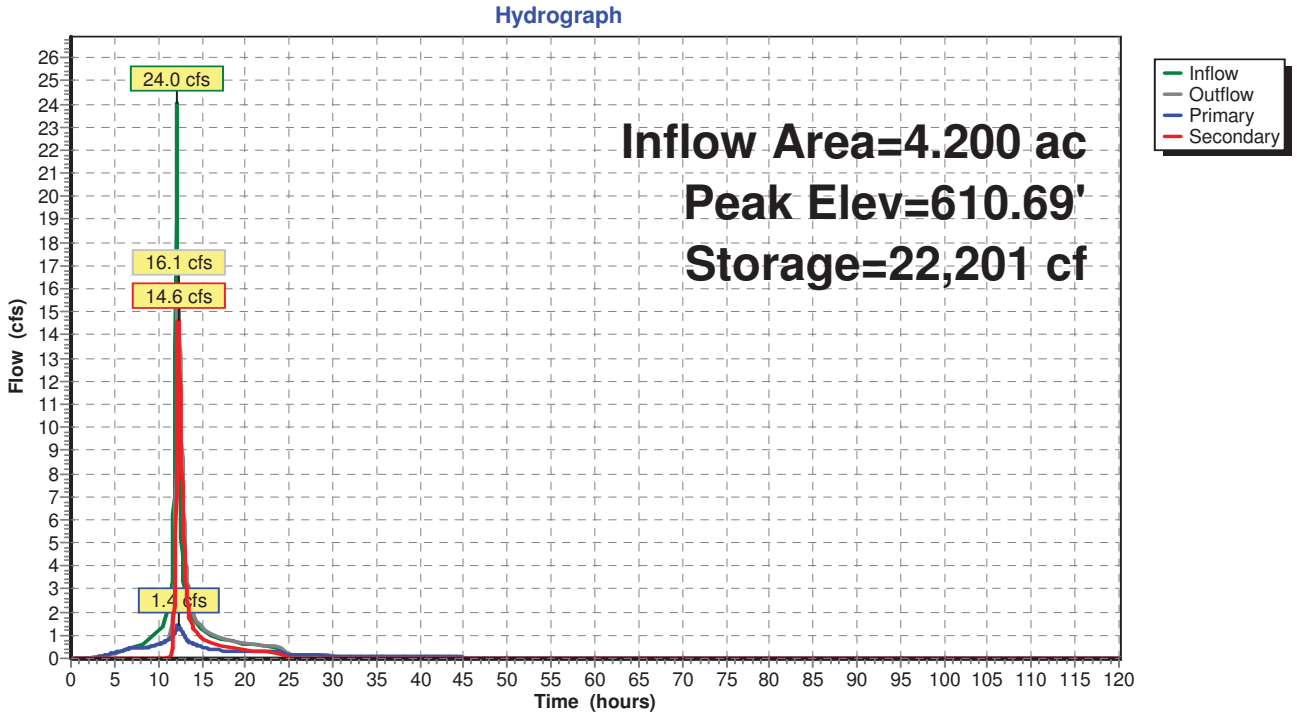
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
606.00	2,900	0	0
608.00	4,400	7,300	7,300
610.00	6,100	10,500	17,800
611.00	7,000	6,550	24,350

Device	Routing	Invert	Outlet Devices
#1	Device 3	608.00'	**1.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	605.50'	**6.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 605.50' / 605.00' S= 0.0125 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#3	Secondary	605.50'	**24.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 605.50' / 604.00' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=1.4 cfs @ 12.26 hrs HW=610.68' TW=607.21' (Dynamic Tailwater)
└**2=Culvert** (Outlet Controls 1.4 cfs @ 7.29 fps)

Secondary OutFlow Max=14.6 cfs @ 12.28 hrs HW=610.68' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 14.6 cfs of 30.9 cfs potential flow)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 14.6 cfs @ 5.43 fps)

Pond 3.1AP: Pretreatment Basin



Summary for Pond 3.1P: Infiltration Basin

Inflow Area = 4.200 ac, 52.38% Impervious, Inflow Depth = 2.76" for 100-yr event
Inflow = 1.4 cfs @ 12.26 hrs, Volume= 0.966 af
Outflow = 0.3 cfs @ 17.85 hrs, Volume= 0.966 af, Atten= 78%, Lag= 335.5 min
Discarded = 0.3 cfs @ 17.85 hrs, Volume= 0.966 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 608.15' @ 17.85 hrs Surf.Area= 6,775 sf Storage= 15,678 cf

Plug-Flow detention time= 576.3 min calculated for 0.966 af (100% of inflow)
Center-of-Mass det. time= 576.3 min (1,598.8 - 1,022.4)

Volume	Invert	Avail.Storage	Storage Description
#1	605.00'	34,800 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

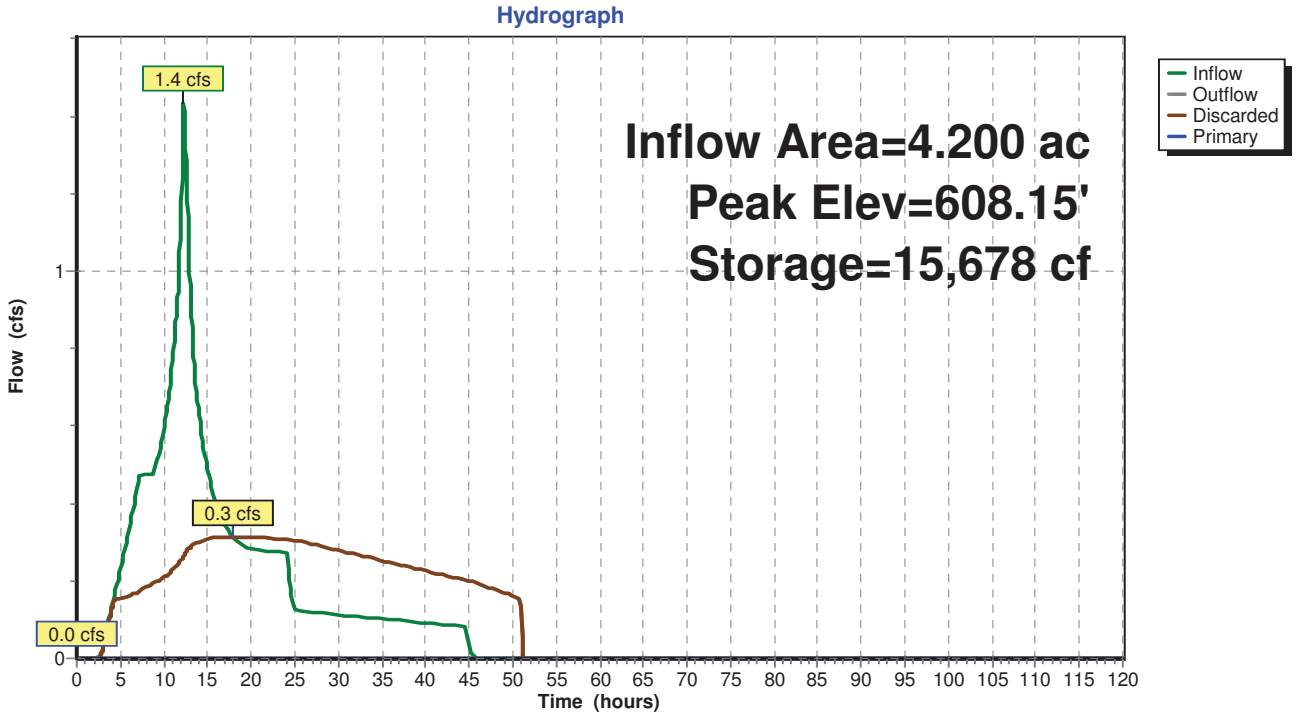
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
605.00	3,300	0	0
606.00	4,300	3,800	3,800
608.00	6,600	10,900	14,700
610.00	9,000	15,600	30,300
610.50	9,000	4,500	34,800

Device	Routing	Invert	Outlet Devices
#1	Device 2	609.20'	**2.5' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	603.00'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 603.00' / 602.00' S= 0.0200 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#3	Discarded	605.00'	**2.000 in/hr Exfiltration over Horizontal area** Phase-In= 0.01'

Discarded OutFlow Max=0.3 cfs @ 17.85 hrs HW=608.15' (Free Discharge)
↑└**3=Exfiltration** (Exfiltration Controls 0.3 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=605.00' TW=0.00' (Dynamic Tailwater)
↑└**2=Culvert** (Passes 0.0 cfs of 6.9 cfs potential flow)
↑└**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Pond 3.1P: Infiltration Basin



Summary for Pond 4.1AP1: Wet Swale

Inflow Area = 0.500 ac, 60.00% Impervious, Inflow Depth = 7.55" for 100-yr event
Inflow = 3.8 cfs @ 12.04 hrs, Volume= 0.314 af
Outflow = 3.5 cfs @ 12.08 hrs, Volume= 0.314 af, Atten= 8%, Lag= 2.5 min
Primary = 0.1 cfs @ 12.14 hrs, Volume= 0.141 af
Secondary = 3.4 cfs @ 12.08 hrs, Volume= 0.174 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Starting Elev= 607.00' Surf.Area= 950 sf Storage= 1,438 cf
Peak Elev= 607.91' @ 12.07 hrs Surf.Area= 1,222 sf Storage= 2,423 cf (986 cf above start)

Plug-Flow detention time= 123.4 min calculated for 0.281 af (89% of inflow)
Center-of-Mass det. time= 26.6 min (801.9 - 775.2)

Volume	Invert	Avail.Storage	Storage Description
#1	604.50'	2,538 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

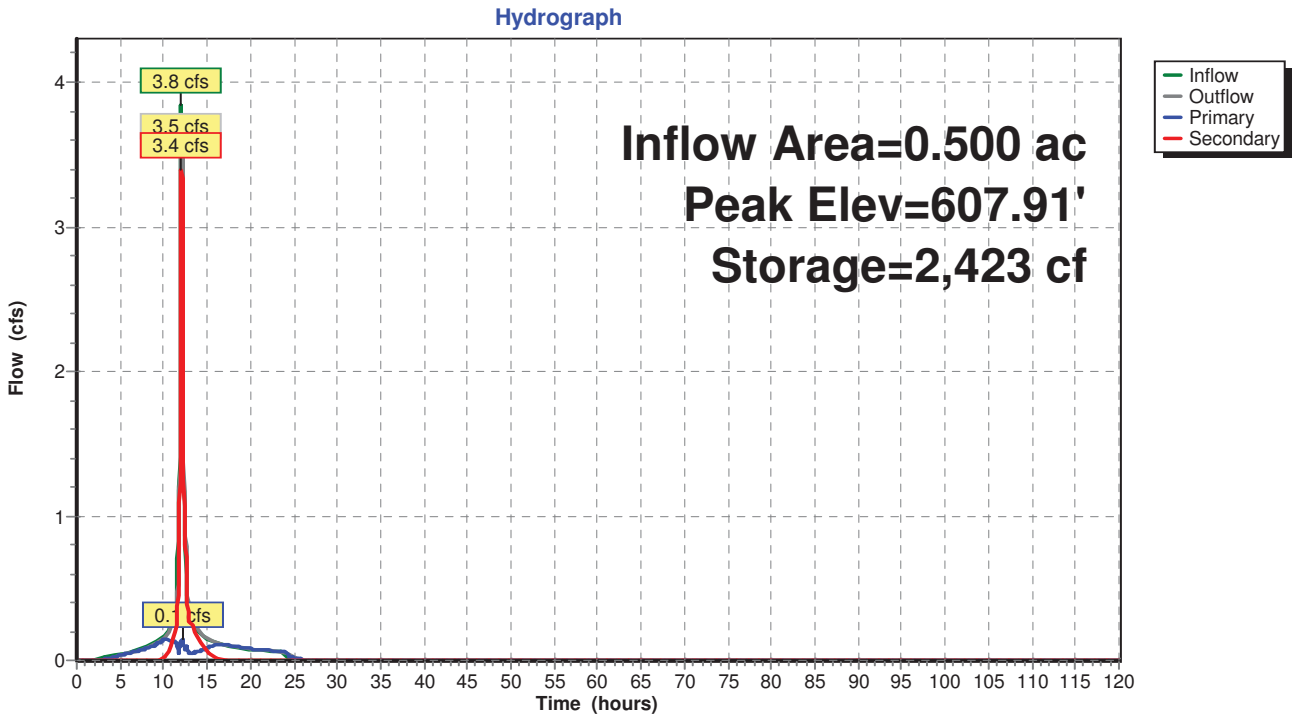
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
604.50	200	0	0
608.00	1,250	2,538	2,538

Device	Routing	Invert	Outlet Devices
#1	Primary	607.00'	**4.0" Vert. Orifice/Grate** C= 0.600
#2	Secondary	607.30'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.1 cfs @ 12.14 hrs HW=607.81' TW=607.73' (Dynamic Tailwater)
↑—**1=Orifice/Grate** (Orifice Controls 0.1 cfs @ 1.40 fps)

Secondary OutFlow Max=3.5 cfs @ 12.08 hrs HW=607.89' TW=607.76' (Dynamic Tailwater)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 3.5 cfs @ 1.49 fps)

Pond 4.1AP1: Wet Swale



Summary for Pond 4.1BP: Bioretention

Inflow Area = 0.500 ac, 60.00% Impervious, Inflow Depth = 6.77" for 100-yr event
Inflow = 1.9 cfs @ 12.08 hrs, Volume= 0.282 af
Outflow = 0.6 cfs @ 12.70 hrs, Volume= 0.282 af, Atten= 70%, Lag= 37.2 min
Primary = 0.6 cfs @ 12.70 hrs, Volume= 0.282 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 607.44' @ 12.70 hrs Surf.Area= 4,754 sf Storage= 4,124 cf

Plug-Flow detention time= 215.2 min calculated for 0.282 af (100% of inflow)
Center-of-Mass det. time= 215.1 min (1,025.4 - 810.3)

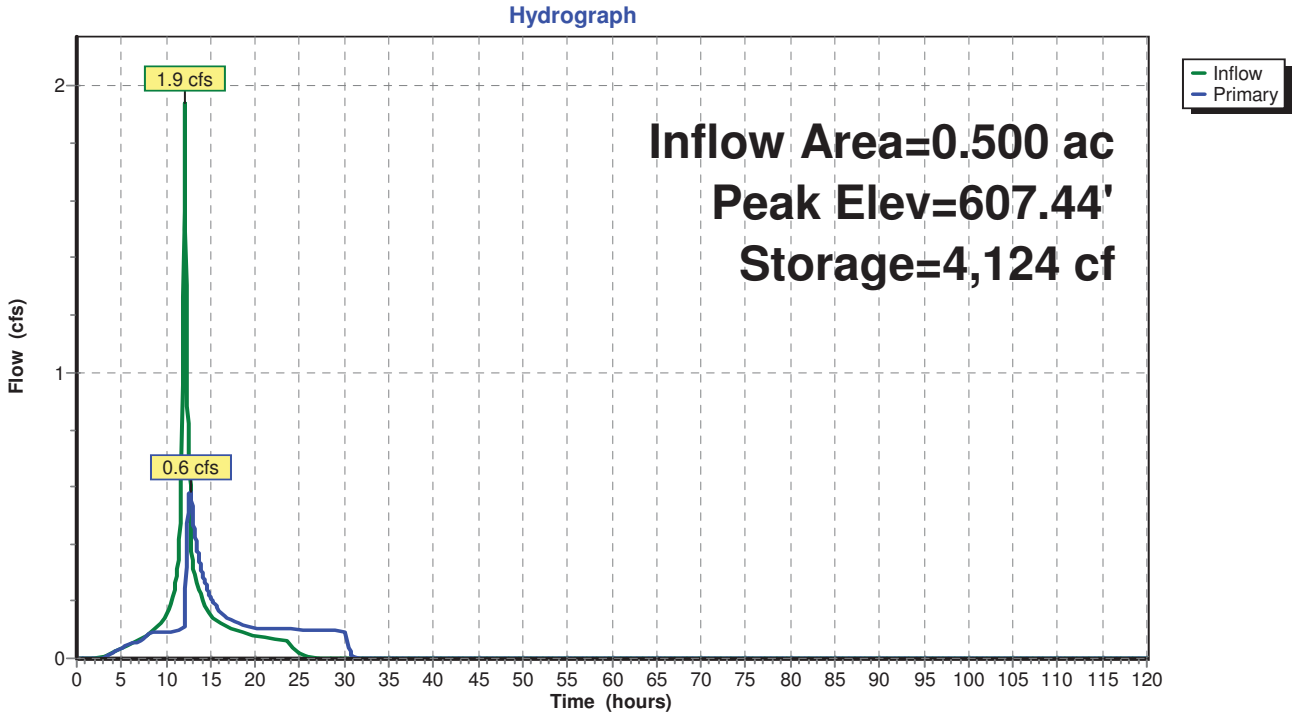
Volume	Invert	Avail.Storage	Storage Description
#1	606.50'	4,400 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
606.50	4,000	0	0
607.50	4,800	4,400	4,400

Device	Routing	Invert	Outlet Devices
#1	Device 3	606.50'	**1.000 in/hr Exfiltration over Surface area** Phase-In= 0.01'
#2	Device 3	607.10'	**12.0" Vert. Orifice/Grate** C= 0.600
#3	Primary	603.00'	**8.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 603.00' / 602.70' S= 0.0300 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.6 cfs @ 12.70 hrs HW=607.44' TW=0.00' (Dynamic Tailwater)
└─**3=Culvert** (Passes 0.6 cfs of 3.4 cfs potential flow)
  ├─**1=Exfiltration** (Exfiltration Controls 0.1 cfs)
  └─**2=Orifice/Grate** (Orifice Controls 0.5 cfs @ 1.99 fps)

Pond 4.1BP: Bioretention



Summary for Pond 5.1AP: Pretreatment Basin

Inflow Area = 4.400 ac, 70.45% Impervious, Inflow Depth = 7.55" for 100-yr event
Inflow = 29.2 cfs @ 12.09 hrs, Volume= 2.767 af
Outflow = 22.7 cfs @ 12.17 hrs, Volume= 2.767 af, Atten= 22%, Lag= 5.2 min
Primary = 1.8 cfs @ 12.16 hrs, Volume= 1.803 af
Secondary = 20.9 cfs @ 12.17 hrs, Volume= 0.965 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 660.47' @ 12.17 hrs Surf.Area= 9,067 sf Storage= 25,227 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 116.6 min (895.2 - 778.6)

Volume	Invert	Avail.Storage	Storage Description
#1	656.00'	40,300 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

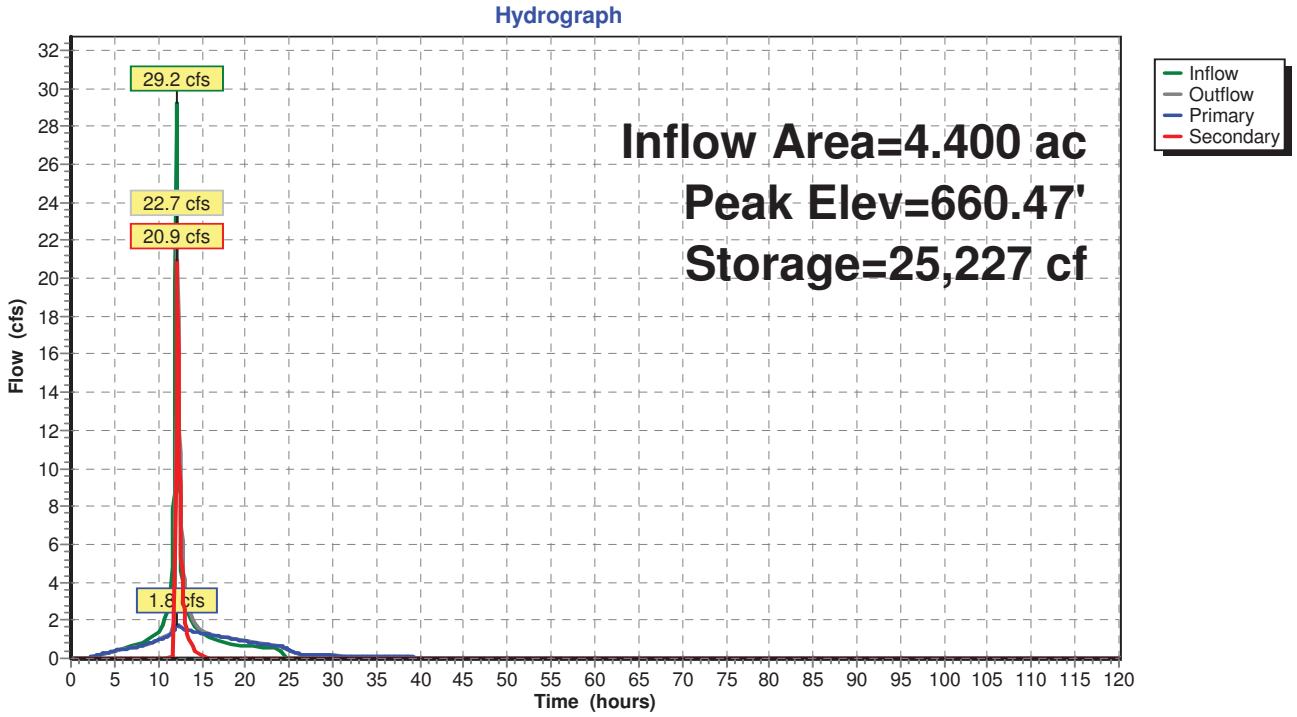
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
656.00	2,500	0	0
658.00	5,000	7,500	7,500
660.00	8,600	13,600	21,100
662.00	10,600	19,200	40,300

Device	Routing	Invert	Outlet Devices
#1	Device 3	659.30'	**2.5' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	655.50'	**6.0" Round Culvert** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 655.50' / 655.00' S= 0.0167 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#3	Secondary	657.50'	**30.0" Round Culvert** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 657.50' / 656.50' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 4.91 sf

Primary OutFlow Max=1.8 cfs @ 12.16 hrs HW=660.45' TW=655.99' (Dynamic Tailwater)
└**2=Culvert** (Outlet Controls 1.8 cfs @ 9.04 fps)

Secondary OutFlow Max=20.5 cfs @ 12.17 hrs HW=660.45' TW=0.00' (Dynamic Tailwater)
└**3=Culvert** (Passes 20.5 cfs of 30.8 cfs potential flow)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 20.5 cfs @ 3.56 fps)

Pond 5.1AP: Pretreatment Basin



Summary for Pond 5.1P: Infiltration Basin

Inflow Area = 4.400 ac, 70.45% Impervious, Inflow Depth = 4.92" for 100-yr event
Inflow = 1.8 cfs @ 12.16 hrs, Volume= 1.803 af
Outflow = 0.6 cfs @ 24.11 hrs, Volume= 1.803 af, Atten= 65%, Lag= 717.1 min
Discarded = 0.6 cfs @ 24.11 hrs, Volume= 1.803 af
Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-120.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 657.76' @ 24.11 hrs Surf.Area= 13,408 sf Storage= 30,818 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 498.1 min (1,470.6 - 972.5)

Volume	Invert	Avail.Storage	Storage Description
#1	655.00'	64,950 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

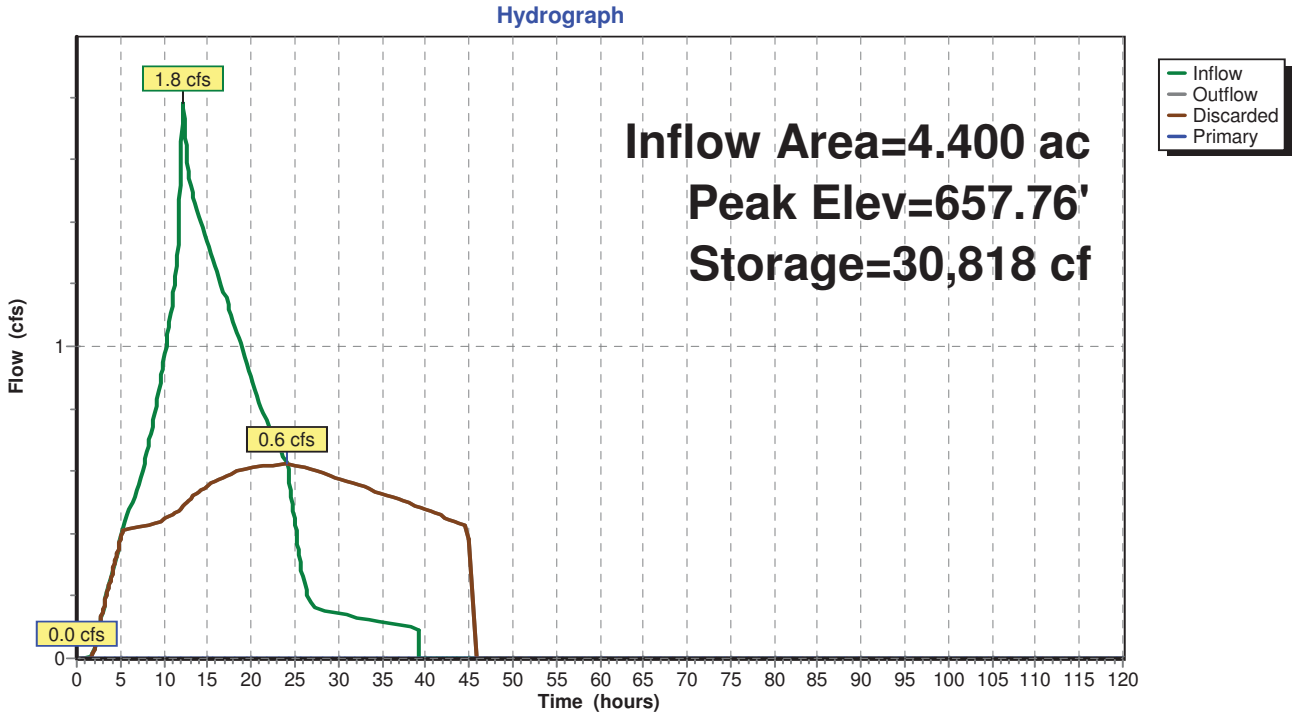
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
655.00	9,000	0	0
656.00	10,500	9,750	9,750
660.00	17,100	55,200	64,950

Device	Routing	Invert	Outlet Devices
#1	Device 2	659.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir X 2.00** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	653.00'	**15.0" Round Culvert** L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 653.00' / 652.50' S= 0.0500 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#3	Discarded	655.00'	**2.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=0.6 cfs @ 24.11 hrs HW=657.76' (Free Discharge)
└**3=Exfiltration** (Exfiltration Controls 0.6 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=655.00' TW=0.00' (Dynamic Tailwater)
└**2=Culvert** (Passes 0.0 cfs of 6.9 cfs potential flow)
└**1=Broad-Crested Rectangular Weir** (Controls 0.0 cfs)

Pond 5.1P: Infiltration Basin



APPENDIX D

NYSDEC SPDES for Construction Activities Construction Site Log Book

APPENDIX F
CONSTRUCTION SITE INSPECTION AND MAINTENANCE LOG BOOK

STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM FOR CONSTRUCTION ACTIVITIES

SAMPLE CONSTRUCTION SITE LOG BOOK

Table of Contents

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 inspector[1] conduct an assessment of the site prior to the commencement of construction[2] and certify in this inspection report that the appropriate erosion and sediment controls described in the SWPPP have been adequately installed or implemented to ensure overall preparedness of the site for the commencement of construction.

Prior to the commencement of construction, the Operator shall certify in this site logbook that the SWPPP has been prepared in accordance with the State's standards and meets all Federal, State and local erosion and sediment control requirements. A preconstruction meeting should be held to review all of the SWPPP requirements with construction personnel.

When construction starts, site inspections shall be conducted by the qualified inspector at least every 7 calendar days. 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.

Prior to filing the Notice of Termination or the end of permit term, the Operator shall have a qualified inspector perform a final site inspection. The qualified inspector shall certify that the site has undergone final stabilization[3] using either vegetative or structural stabilization methods and that all temporary erosion and sediment controls (such as silt fencing) not needed for long-term erosion control have been removed. In addition, the Operator must identify and certify that all permanent structures described in the SWPPP have been constructed and provide the owner(s) with an operation and maintenance plan that ensures the structure(s) continuously functions as designed.

1 Refer to "Qualified Inspector" inspection requirements in the current SPDES General Permit for Stormwater Discharges from Construction Activity for complete list of inspection requirements.
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. 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?

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 Access

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. 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;

4) 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 Inspector (print name) **Qualified Inspector 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 at the outfalls?
[ ] [ ] [ ] Is there residue from oil and floating substances, visible oil film, or globules or grease at the outfalls?
[ ] [ ] [ ] 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, debris and spoils 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.

3. Stabilized Construction Access

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?

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.

Runoff Control Practices (continued)

2. Flow 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

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 Practices

1. Silt Fence and Linear Barriers

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 Practices (continued)

2. Storm Drain Inlet Protection (Use for Stone & Block; Filter Fabric; Curb; or, Excavated; Filter Sock or Manufactured practices)

Yes No NA

[ ] [ ] [ ] Installed concrete blocks lengthwise so open ends face outward, not upward.
[ ] [ ] [ ] Placed wire screen between No. 3 crushed stone and concrete blocks.
[ ] [ ] [ ] Drainage area is 1acre or less.
[ ] [ ] [ ] Excavated area is 900 cubic feet.
[ ] [ ] [ ] Excavated side slopes should be 2:1.
[ ] [ ] [ ] 2" x 4" frame is constructed and structurally sound.
[ ] [ ] [ ] Posts 3-foot maximum spacing between posts.
[ ] [ ] [ ] Fabric is embedded 1 to 1.5 feet below ground and secured to frame/posts with staples at max 8-inch spacing.
[ ] [ ] [ ] Posts are stable, fabric is tight and without rips or frayed areas.
[ ] [ ] [ ] Manufactured insert fabric is free of tears and punctures.
[ ] [ ] [ ] Filter Sock is not torn or flattened and fill material is contained within the mesh sock.

Sediment accumulation ___% of design capacity.

3. 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 trap slopes and disturbed areas are stabilized.

Sediment accumulation is ___% of design capacity.

4. 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 basin dewatering pool is dewatering at appropriate rate.

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. All practices shall be maintained in accordance with their respective standards.

Construction inspection checklists for post-development stormwater management practices can be found in Appendix F of the New York Stormwater Management Design Manual.

CONSTRUCTION DURATION INSPECTIONS

b. Modifications to the SWPPP (To be completed as described below)

The Operator shall amend the SWPPP whenever:

1. There is a significant change in design, construction, operation, or maintenance which may have a significant effect on the potential for the discharge of pollutants to the waters of the United States and which has not otherwise been addressed in the SWPPP; or
2. The SWPPP proves to be ineffective in:
   a. Eliminating or significantly minimizing pollutants from sources identified in the SWPPP and as required by this permit; or
   b. Achieving the general objectives of controlling pollutants in stormwater discharges from permitted construction activity; and
3. Additionally, the SWPPP shall be amended to identify any new contractor or subcontractor that will implement any measure of the SWPPP.

Modification & Reason:

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. Contractors Certification Statement

"I hereby certify 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 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."

_____

Signature of Contractor Date

_____

Print Name Title

_____

Signature of Trained Contractor Date

_____

Print Name of Trained Contractor Title

Name of Contracting Firm _____

Street Address _____

City, State, Zip _____

Telephone No. _____

A copy of this statement shall be retained as part of the Stormwater Pollution Prevention Plan (SWPPP) for a period off at least five (5) years after the subject property is stabilized.

APPENDIX E

Project and Owner Information

Site Data:

4 Baldwin Place Road
Town of Carmel, New York 10541
Area: 30.53 acres ±

Owner Information:

Bernad Creations LTD
124 Ridge Road
Montgomery, NY 12549

Parties Responsible for Implementation of the Short and Long Term Maintenance Plan:

Bernad Creations LTD
124 Ridge Road
Montgomery, NY 12549

and or the current owner(s) of the subject property.

Qualified Professional Responsible for Inspection of the Stormwater Pollution Prevention Plan:

Insite Engineering, Surveying & Landscape Architecture, P.C.
3 Garrett Place
Carmel, New York 10512
845-225-96

APPENDIX F

Bioretention Filter Sizing Calculation

SMP 4.1BP - NYSDEC Bioretention Filter (Design F-4)

Project: DPD
Project #: 22242.100
Date: 9/28/2023

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

1a. WQv Required for Downstream SMP = 0.075 ac-ft 3,267 c.f.

1b. Subcatchment % Imperviousness = 60.0% %

2. Required Practice Volume

2a. Total required volume = 75% of WQv (in filter and pretreatment) = 2,450 c.f.

2b. Total volume provided in filter = = 2,544 c.f.

3. Pretreatment Requirements:

Pretreatment will be provided by a gravel diaphraghm and grass filter strip.

4. Required Filter Area:

4a. Required Filter Area = $\frac{\text{WQv (df)}}{\text{k (hf + df) + tf}}$

df=	1.50	ft.
hf=	0.25	ft.
k=	0.50	ft./day
tf=	2.00	days
Required Filter Area=	2800	s.f.

4b. Provided Filter Area = 4,000 s.f.

4c. Volume provided in filter= 2,544 c.f.

APPENDIX G

Pipe Sizing Calculations

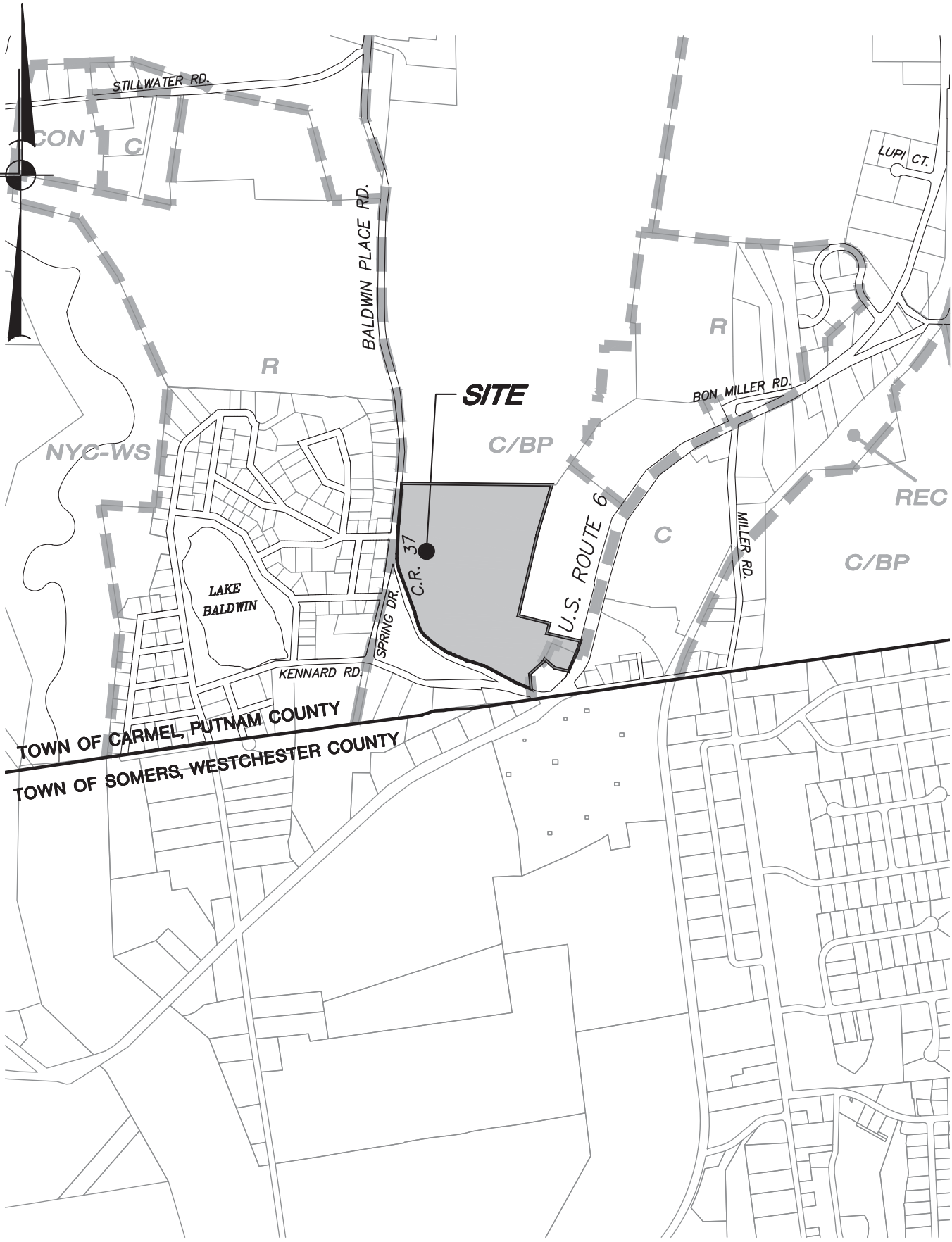
INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

DRAINAGE SYSTEM CALCULATIONS
Design Storm: 100-Year

PROJECT: DPD
JOB NUMBER: 22242.100
BY: JWM DATE: 9-29-23
CHK: RDW DATE: 9-29-23

STRUCTURE		IMPERVIOUS AREA			PERVIOUS AREA			CA	TIME OF CONC. (min.)			I	Q (cfs)		PIPE DESIGN				
FROM	TO	A (ac.)	C	CA	A (ac.)	C	CA		INLET	PIPE	TOTAL		DESIGN	CAP.	V(ft/s)	n	s (%)	L (ft)	DIA (in)
CB 17	CB 16	**0.24**	0.9	0.22	**0.05**	0.3	0.02	0.24	**6**	-	6	**9.5**	2.3	3.9	5.1	**0.012**	**1.0**	**87**	**12**
CB 16	CB 15	**0.07**	0.9	0.06	**0.09**	0.3	0.03	0.33	**6**	-	6	**9.5**	3.1	3.9	5.5	**0.012**	**1.0**	**86**	**12**
CB 15	CB 14	**0.06**	0.9	0.05	**0.23**	0.3	0.07	0.45	**6**	-	6	**9.5**	4.3	7.0	6.0	**0.012**	**1.0**	**95**	**15**
CB 14	CB 13	**0.30**	0.9	0.27	**0.15**	0.3	0.05	0.77	**6**	-	6	**9.5**	7.3	20.3	15.2	**0.012**	**8.4**	**213**	**15**
CB 13	CB 12	**0.11**	0.9	0.10	**0.09**	0.3	0.03	0.90	**6**	-	6	**9.5**	8.6	15.0	12.7	**0.012**	**4.6**	**79**	**15**
CB 12	CB 11	**0.26**	0.9	0.23	**0.14**	0.3	0.04	1.94	**6**	-	6	**9.5**	18.4	34.1	19.7	**0.012**	**9.0**	**144**	**18**
CB 11	CB 10	**0.06**	0.9	0.05	**0.00**	0.3	0.00	1.99	**6**	-	6	**9.5**	18.9	28.6	17.3	**0.012**	**6.3**	**65**	**18**
CB 10	CB 9	**0.08**	0.9	0.07	**0.05**	0.3	0.02	2.08	**6**	-	6	**9.5**	19.8	49.0	14.8	**0.012**	**4.0**	**88**	**24**
CB 9	ES 8	**0.04**	0.9	0.04	**0.00**	0.3	0.00	2.19	**6**	-	6	**9.5**	20.8	25.7	9.1	**0.012**	**1.1**	**36**	**24**
CB 12C	CB 12B	**0.38**	0.9	0.34	**0.12**	0.3	0.04	0.38	**8**	-	8	**8.4**	3.2	4.0	5.7	**0.012**	**1.1**	**134**	**12**
CB 12B	CB 12A	**0.15**	0.9	0.14	**0.00**	0.3	0.00	0.52	**<8**	-	8	**8.4**	4.4	7.7	6.5	**0.012**	**1.2**	**126**	**15**
CB 12A	CB 12	**0.28**	0.9	0.25	**0.00**	0.3	0.00	0.77	**<8**	-	8	**8.4**	6.5	15.3	12.0	**0.012**	**4.8**	**188**	**15**
CB 13A	CB 13	**0.10**	0.9	0.09	**0.00**	0.3	0.00	0.09	**6**	-	6	**9.5**	0.9	5.3	5.0	**0.012**	**1.9**	**21**	**12**
CB 9B	CB 9A	**0.02**	0.9	0.02	**0.00**	0.3	0.00	0.02	**6**	-	6	**9.5**	0.2	7.7	4.2	**0.012**	**4.0**	**72**	**12**
CB 9A	CB 9	**0.05**	0.9	0.05	**0.00**	0.3	0.00	0.07	**6**	-	6	**9.5**	0.7	6.7	5.5	**0.012**	**3.0**	**20**	**12**
OS 3.1AP	ES 7	**PIPE SIZED IN HYDROCAD**																	
OS 3.1P	ES 6	**PIPE SIZED IN HYDROCAD**																	
CB 5	CB 4	**0.10**	0.9	0.09	**0.00**	0.3	0.00	0.09	**6**	-	6	**9.5**	0.9	3.9	4.0	**0.012**	**1.0**	**20**	**12**
CB 4	ES 3	**0.10**	0.9	0.09	**0.00**	0.3	0.00	0.18	**6**	-	6	**9.5**	1.7	3.9	4.8	**0.012**	**1.0**	**21**	**12**
OS 4.1AP	DMH 1	**PIPE SIZED IN HYDROCAD**																	
DMH 1	EX DI	**PIPE SIZED IN HYDROCAD**																	
OS 4.1BP	DMH 1	**PIPE SIZED IN HYDROCAD**																	
CB 35	CB 34	**0.13**	0.9	0.12	**0.07**	0.3	0.02	0.14	**6**	-	6	**9.5**	15.9	52.6	14.7	**0.012**	**4.6**	**80**	**24**
CB 34	EX CB	**0.05**	0.9	0.05	**0.10**	0.3	0.03	0.22	**6**	-	6	**9.5**	16.7	77.5	19.7	**0.012**	**10.0**	**11**	**24**
OS 5.1AP	ES 19	**PIPE SIZED IN HYDROCAD**																	
OS 5.1AP	ES 18A	**PIPE SIZED IN HYDROCAD**																	
OS 5.1P	ES 18	**PIPE SIZED IN HYDROCAD**																	
CB 21B	CB 21A	**0.08**	0.9	0.07	**0.05**	0.3	0.02	0.09	**6**	-	6	**9.5**	0.9	5.5	5.1	**0.012**	**2.0**	**20**	**12**
CB 21A	DMH 21	**0.10**	0.9	0.09	**0.20**	0.3	0.06	0.24	**8**	-	8	**8.4**	2.0	5.9	4.3	**0.012**	**0.7**	**361**	**15**
CB 30	CB 29	**0.07**	0.9	0.06	**0.00**	0.3	0.00	0.06	**6**	-	6	**9.5**	0.6	3.9	3.5	**0.012**	**1.0**	**104**	**12**
CB 29	CB 28	**0.42**	0.9	0.38	**0.00**	0.3	0.00	0.44	**6**	-	6	**9.5**	4.2	7.0	6.0	**0.012**	**1.0**	**104**	**15**
CB 28	DMH 27	**0.20**	0.9	0.18	**0.00**	0.3	0.00	0.62	**6**	-	6	**9.5**	5.9	7.3	6.7	**0.012**	**1.1**	**37**	**15**
DMH 27	CB 26	**0.00**	0.9	0.00	**0.00**	0.3	0.00	0.62	**6**	-	6	**9.5**	5.9	18.5	13.4	**0.012**	**7.0**	**139**	**15**
CB 26	CB 25	**0.08**	0.9	0.07	**0.02**	0.3	0.01	0.77	**6**	-	6	**9.5**	7.3	10.8	6.6	**0.012**	**0.9**	**76**	**18**
CB 25	CB 24	**0.10**	0.9	0.09	**0.00**	0.3	0.00	0.86	**6**	-	6	**9.5**	8.2	9.5	6.1	**0.012**	**0.7**	**104**	**18**
CB 24	CB 23	**0.41**	0.9	0.37	**0.00**	0.3	0.00	1.23	**6**	-	6	**9.5**	11.7	13.5	8.6	**0.012**	**1.4**	**104**	**18**
CB 23	CB 22	**0.08**	0.9	0.07	**0.00**	0.3	0.00	1.30	**6**	-	6	**9.5**	12.4	24.5	7.8	**0.012**	**1.0**	**104**	**24**
CB 22	DMH 21	**0.41**	0.9	0.37	**0.00**	0.3	0.00	2.34	**6**	-	6	**9.5**	22.2	118.5	29.0	**0.012**	**23.4**	**106**	**24**
DMH 21	ES 20	**0.00**	0.9	0.00	**0.00**	0.3	0.00	2.58	**6**	-	6	**9.5**	24.5	39.7	8.5	**0.012**	**0.8**	**76**	**30**
CB 33	CB 32	**0.57**	0.9	0.51	**0.00**	0.3	0.00	0.51	**6**	-	6	**9.5**	4.8	5.3	7.7	**0.012**	**1.9**	**175**	**12**
CB 32	CB 31	**0.07**	0.9	0.06	**0.03**	0.3	0.01	0.58	**6**	-	6	**9.5**	5.5	9.4	8.0	**0.012**	**1.8**	**28**	**15**
CB 31	CB 22	**0.10**	0.9	0.09	**0.00**	0.3	0.00	0.67	**6**	-	6	**9.5**	6.4	15.7	8.4	**0.012**	**1.9**	**104**	**18**
CB 26A	CB 26	**0.05**	0.9	0.05	**0.05**	0.3	0.02	0.07	**6**	-	6	**9.5**	0.7	6.1	5.1	**0.012**	**2.5**	**20**	**12**

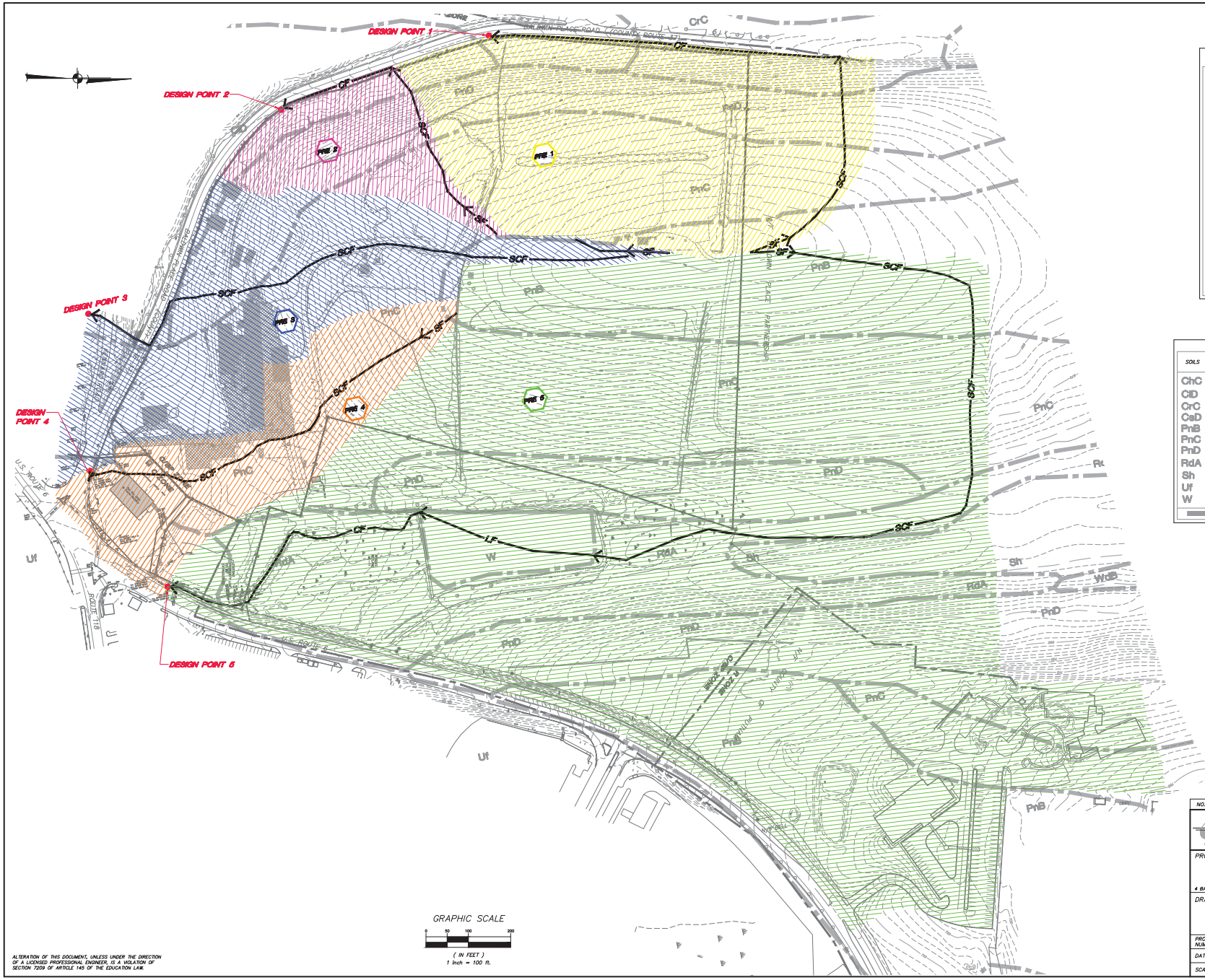
FIGURES



PROJECT:	DPD – SELF STORAGE
	4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM CO., NEW YORK
DRAWING:	LOCATION MAP

PREPARED BY:
INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place • Carmel, New York 10512
Phone (845) 225-9690 • Fax (845) 225-9717
www.insite-eng.com

DATE:	2-28-23
SCALE:	1" = 1000'
PROJECT NO.:	22242.100
FIGURE:	1



LEGEND

SUB 6	SUBCATCHMENT
SF →	TIME OF CONCENTRATION SHEET FLOW
SCF →	TIME OF CONCENTRATION SHALLOW CONCENTRATED FLOW
CF →	TIME OF CONCENTRATION CHANNEL FLOW
PF →	TIME OF CONCENTRATION PIPE FLOW
LF →	TIME OF CONCENTRATION LAKE FLOW
DESIGN POINT	DESIGN POINT
	SUBCATCHMENT CONTRIBUTING AREA

SOILS LEGEND

SOILS	DESCRIPTION	HYDROLOGICAL GROUP
ChC	Charlton loam, 8% to 15% slopes	B
CtD	Charlton loam, 15% to 25% slopes, very stony	B
CrC	Charlton–Chatfield complex, rolling, very rocky	B
CsD	Chatfield–Charlton complex, hilly, very rocky	B
PnB	Paxton fine sandy loam, 2% to 8% slopes	C
PnC	Paxton fine sandy loam, 8% to 15% slopes	C
PnD	Paxton fine sandy loam, 15% to 25% slopes	C
RdA	Ridgebury loam, 0% to 3% slopes	D
Sh	Sun loam	D
Uf	Urban Land	D
W	Water	
	NRCS Soil Boundary Line	

GRAPHIC SCALE

0 50 100 200

(IN FEET)
1 inch = 100 ft.

NO.	DATE	REVISION	BY

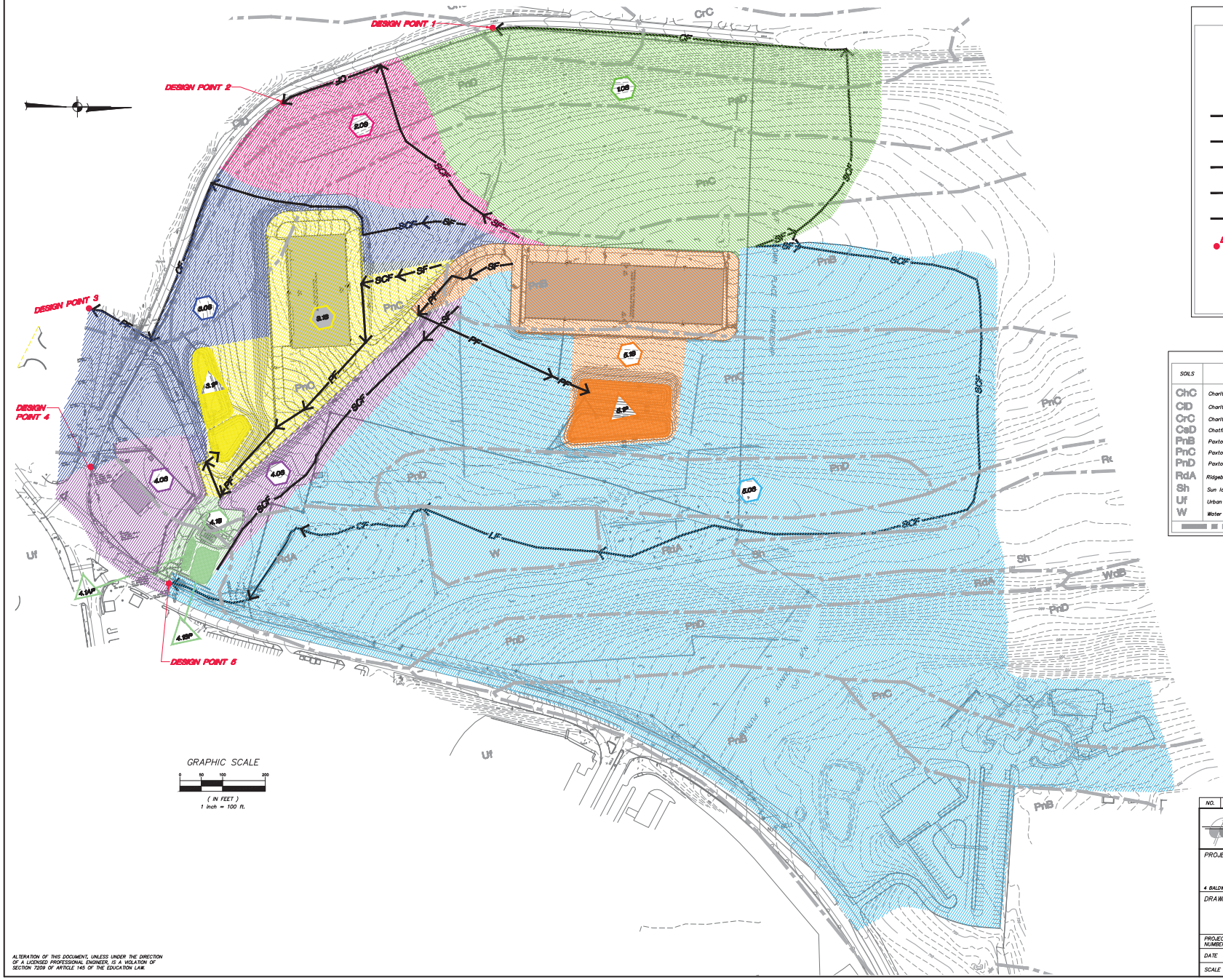
INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
DPD – SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM CO., NEW YORK

DRAWING:
PRE-DEVELOPMENT DRAINAGE MAP

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W
DATE	5-12-23	DRAWN BY	J.J.S
SCALE	1" = 100'	CHECKED BY	J.W.M

DRAWING NO.
FIG-2



GRAPHIC SCALE

0 50 100 200

(IN FEET)

1 inch = 100 ft.

LEGEND

1.1S	SUBCATCHMENT
1.1P	STORMWATER MANAGEMENT PRACTICE
SF	TIME OF CONCENTRATION SHEET FLOW
SCF	TIME OF CONCENTRATION SHALLOW CONCENTRATED FLOW
CF	TIME OF CONCENTRATION CHANNEL FLOW
PF	TIME OF CONCENTRATION PIPE FLOW
LF	TIME OF CONCENTRATION LAKE FLOW
DESIGN POINT	DESIGN POINT
	SUBCATCHMENT CONTRIBUTING AREA
	STORMWATER MANAGEMENT AREA

SOILS LEGEND

SOILS	DESCRIPTION	HYDROLOGICAL GROUP
ChC	Charlton loam, 8% to 15% slopes	B
ChD	Charlton loam, 15% to 25% slopes, very stony	B
CrC	Charlton–Chatfield complex, rolling, very rocky	B
CsD	Chatfield–Charlton complex, hilly, very rocky	B
PnB	Paxton fine sandy loam, 2% to 8% slopes	C
PnC	Paxton fine sandy loam, 8% to 15% slopes	C
PnD	Paxton fine sandy loam, 15% to 25% slopes	C
RdA	Ridgebury loam, 0% to 3% slopes	D
Sh	Sun loam	D
Uf	Urban Land	D
W	Water	
	NRCS Soil Boundary Line	

NO.	DATE	REVISION	BY

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
DPD – SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM CO., NEW YORK

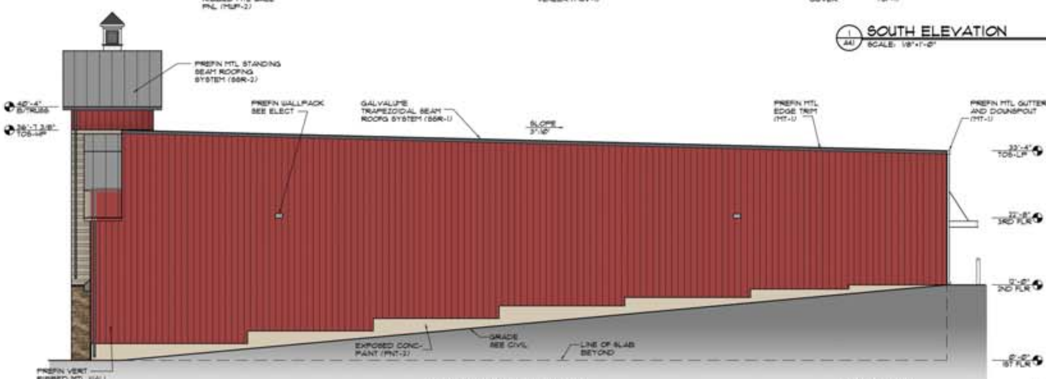
DRAWING:
POST DEVELOPMENT DRAINAGE MAP

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W
DATE	5-12-23	DRAWN BY	J.J.S
SCALE	1" = 100'	CHECKED BY	J.P.M

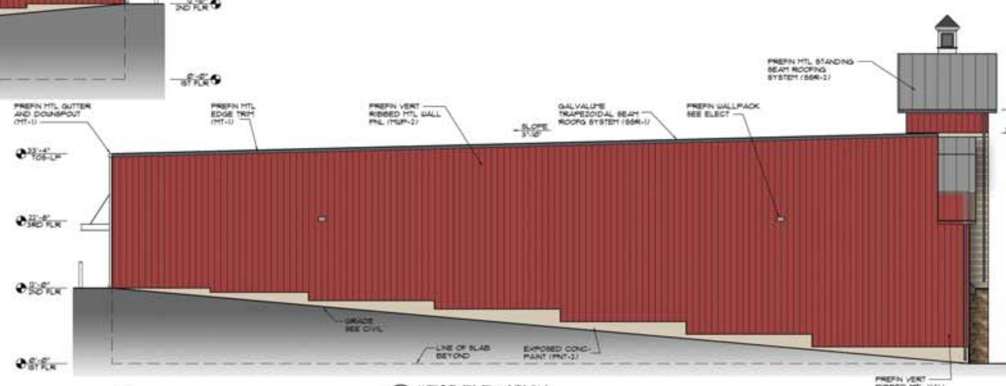
DRAWING NO.
FIG-3


PREFIN MTL CUPOLA
PREFIN MTL STANDING SEAM ROOFING SYSTEM (SSR-2)
PREFIN MTL EDGE TRIM (MT-1)
8" MTL TRIM PIECE (MUP-4)
PREFIN HOR TAPERED RIB MUP (MUP-1)
PREFIN MTL GUTTER AND DOWNSPOUT (MT-1)
PREFIN VERT RIBBED MTL WALL PNL (MUP-2)
COLUMN WRAPPED MANF STONE VENEER (MSV-1)
STEEL PIPE BOLLARD W/ COVER
PREFIN ALUM SLIDING DOOR (SF-1)
KEYPAD
HOSE BIBB
MANF STONE SILL (MSV-1)
MANF STONE VENEER (MSV-1)

SOUTH ELEVATION
SCALE: 1/8"=1'-0"


PREFIN MTL STANDING SEAM ROOFING SYSTEM (SSR-2)
PREFIN WALLPACK SEE ELECT
GALVALUME TRAPEZOIDAL SEAM ROOFG SYSTEM (SSR-1)
PREFIN MTL EDGE TRIM (MT-1)
PREFIN MTL GUTTER AND DOWNSPOUT (MT-1)
EXPOSED CONC- PAINT (PNT-2)
GRADE SEE CIVIL
LINE OF SLAB BEYOND
PREFIN VERT RIBBED MTL WALL PNL (MUP-2)

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


PREFIN MTL STANDING SEAM ROOFING SYSTEM (SSR-2)
PREFIN MTL GUTTER AND DOWNSPOUT (MT-1)
PREFIN MTL EDGE TRIM (MT-1)
PREFIN VERT RIBBED MTL WALL PNL (MUP-2)
GALVALUME TRAPEZOIDAL SEAM ROOFG SYSTEM (SSR-1)
PREFIN WALLPACK SEE ELECT
GRADE SEE CIVIL
LINE OF SLAB BEYOND
EXPOSED CONC- PAINT (PNT-2)

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


PREFIN WALLPACK SEE ELECT
GALVALUME TRAPEZOIDAL SEAM ROOFG SYSTEM (SSR-1)
HM DOOR AND FRAME (PNT-1)
PREFIN MTL COILING DOOR (DR-1)
PREFIN ALUM SLIDING DOOR (SF-1)
KEYPAD
PREFIN ALUM CANOPY (CPY-1)
PREFIN MTL GUTTER AND DOWNSPOUT (MT-1)
PREFIN VERT RIBBED MTL WALL PNL (MUP-2)
LINE OF SLAB BEYOND

NORTH ELEVATION
SCALE: 1/8"=1'-0"

PRELIMINARY
NOT FOR
CONSTRUCTION

Carmel Self Storage

US Route 6
Mahopac, NY

STINARD ARCHITECTURE INC
CARTERSVILLE GA 30120

ISSUE: NOT FOR CONSTRUCTION
REVISIONS:

PROJECT NUMBER
202302
DATE
9-27-23

SHEET NUMBER
A4.1


SOUTH
WEST
118
6


SPEED
LIMIT
40
Carmel
Storage
Carmel
Storage

SELF STORAGE

PROJECT: Carmel, NY

Self Storage
4 Baldwin Place Rd.
Carmel, NY 10512

REFERENCE NUMBER

HUD 1482-Self Storage-Carmel NY

This drawing is the property of

HUDSIGN

10500 Windfern Road
Suite 100
Houston, TX 77064
832.960.7277

REFERENCE NUMBER

HUD1482

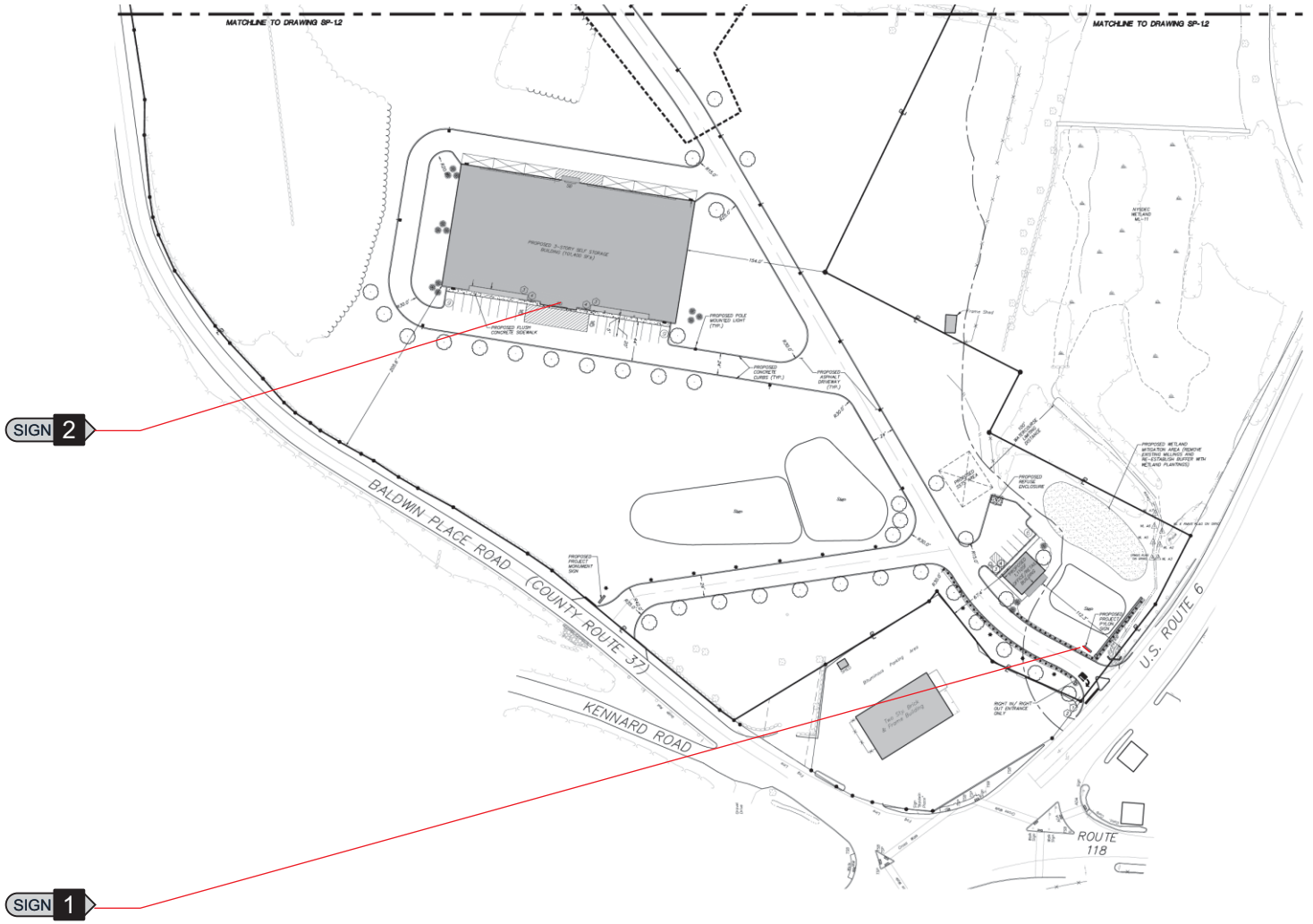
Client: Self Storage
Location: Carmel, NY
Site No.:
Acct. Rep: -
Proj. Mgr.: -
Drawn By: DOL
Date: 09/28/23
File Name: HUD 1482-Self Storage-Carmel NY
Rev.
Rev.

Notes:

SIGN CODE & AERIAL VIEW

SIGN CODE:

Jurisdiction: City of Carmel Zone: Commerce Business Park
Code: wall signs - 2 sq. ft. per linear ft of building frontage. Max 40 sq. ft., Box Cabinet/Entire letter set; including Backer Panel, 1 allowed per wall facing street; freestanding signs - Count each face when computing area. Requires min. bldg setback of 20 ft from property lines. 32 sq. ft. (16 sq. ft. per side); 12' max allowed OAH/ 8' min clearance, 1 allowed, setback out of ROW



NOTE : SETBACK OUT OF R.O.W.

This drawing is the property of

HUDSIGN

10500 Windfern Road
Suite 100
Houston, TX 77064
832.960.7277

REFERENCE NUMBER
HUD1482

Client: Self Storage
Location: Carmel, NY
Site No.:
Acct. Rep: -
Proj. Mgr.: -
Drawn By: DOL
Date: 09/28/23
File Name: HUD 1482-Self Storage-Carmel NY
Rev.
Rev.

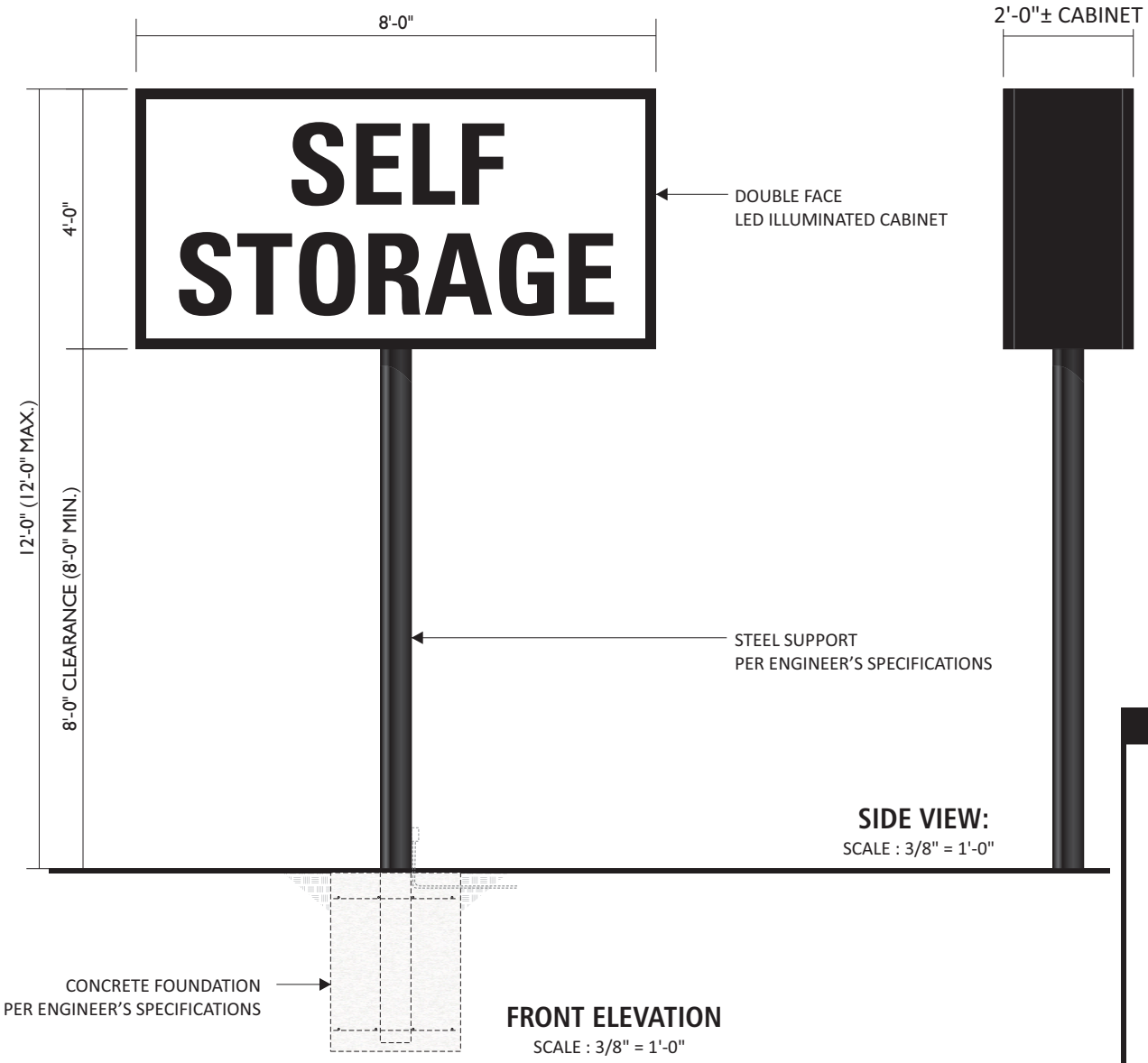
Notes:

SPECIFICATIONS

SIGN 1

SCOPE OF WORK:

INSTALL NEW MONUMENT SIGN
SETBACK OUT OF ROW



SIDE VIEW:
SCALE : 3/8" = 1'-0"

FRONT ELEVATION
SCALE : 3/8" = 1'-0"

SQUARE FT. CALCULATIONS		
EXISTING	PROPOSED	ALLOWABLE
	96.00	

COLOR & FINISH SCHEDULE

M1 **Material**
3/16" White polycarbonate

P1 **Paint**
Black

HUDSIGN

10500 Windfern Road
Suite 100
Houston, TX 77064
832.960.7277

REFERENCE NUMBER
HUD1482

Client: Self Storage
Location: Carmel, NY
Site No.:
Acct. Rep: -
Proj. Mgr.: -
Drawn By: DOL
Date: 09/28/23
File Name: HUD 1482-Self Storage-Carmel NY
Rev.
Rev.

Notes:

ELEVATIONS

SIGN 2

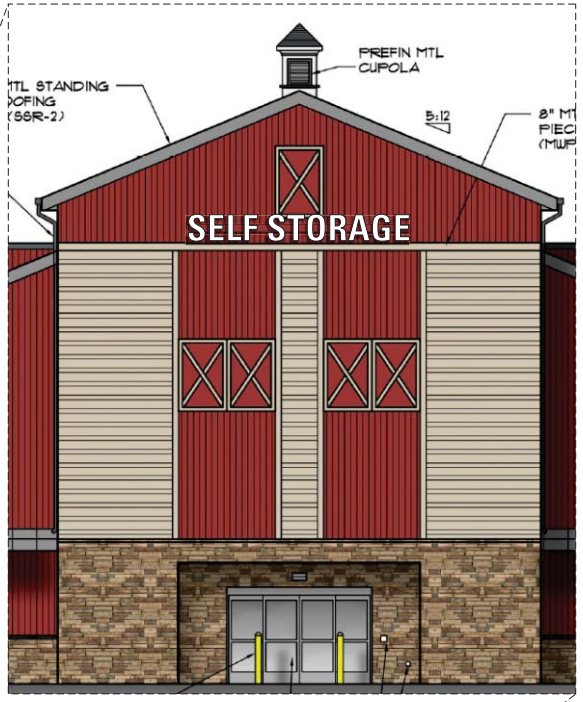
SCOPE OF WORK:

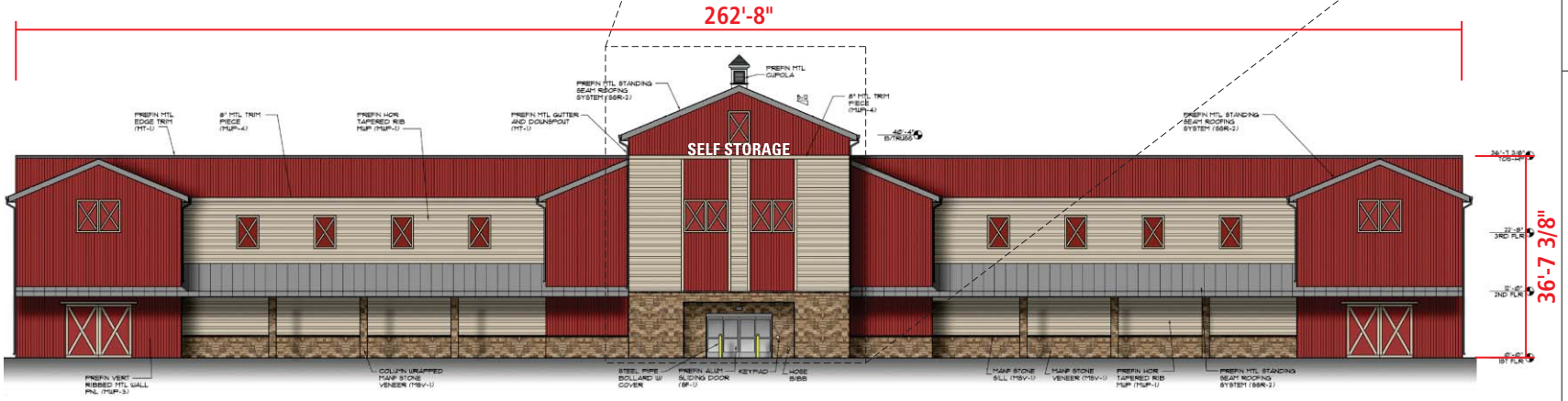
INSTALL NEW ILLUMINATED CHANNEL LETTERS SET.

SQUARE FT. CALCULATIONS		
EXISTING	PROPOSED	ALLOWABLE
	40.00	40.00

ALLOWABLE IS 2 x LINEAR BLD. FRONTAGE, 40 SQ FT MAX.
(262'-8" x 2 = 525, 40 SQ FT ALLOWED)

MAGNIFIED VIEW N.T.S.





SOUTH ELEVATION Scale 1/32" = 1'-0"

HUDSIGN

10500 Windfern Road
Suite 100
Houston, TX 77064
832.960.7277

REFERENCE NUMBER
HUD1482

Client: Self Storage
Location: Carmel, NY
Site No.:
Acct. Rep: -
Proj. Mgr.: -
Drawn By: DOL
Date: 09/28/23
File Name: HUD 1482-Self Storage-Carmel NY
Rev.
Rev.

Notes:

RACEWAY MOUNTED CHANNEL LETTERS

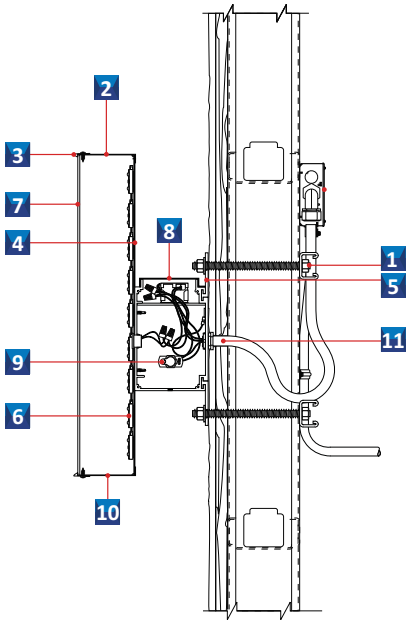
SIGN 2

SCALE 3/8" = 1'-0"
40.00 SQ/FT
40.00 SQ/FT MAX.

SPECIFICATION

1. NON-CORROSIVE INSTALLATION HARDWARE: GALVANIZED
2. 5" FABRICATED ALUMINUM LETTER RETURNS SEE MFG. NOTE FOR GUAGE. GLOSS BLACK PAINT INTERIOR WITH LIGHT ENHANCING PAINT
3. TRIM CAP RETAINER WAGNER BLACK
4. FLAT ALUMINUM BACK
5. ¼" THICK METAL FLAT BAR FOR A SECURE INSTALLATION
6. SLOAN LED LIGHTING SYSTEM
7. 3/16" #7328 ACRYLIC FACE WHITE TRANSLUCENT
8. LOW VOLTAGE ELECTRONIC POWER SUPPLY MOUNTED IN A 7 ¼" x 7 ¼" EXTRUDED .050 ALUM. RACEWAY SUPPORT/WIRING BOX P.T.M. BUILDING FASCIA
9. VISIBLE CUT-OFF SWITCH WITH FLIP-UP COVER
10. ¼" WEEP HOLES (2) TWO PER LETTER
11. GROUNDED WALL PASS-THRU SEALED WATER TIGHT. WHIP ON LEFT SIDE.

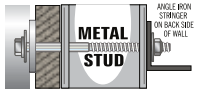
SECTION DETAIL



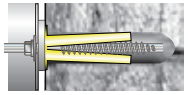
MOUNTING DETAILS

☐ Hanger Bolt

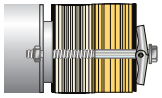
☐ Thru-Bolt



☐ Masonry Lag Bolt



☐ Reverse Toggle Bolt



*All Hardware to be Galvanized and Non Corrosive

120V CIRCUITS ARE REQUIRED FOR ALL SIGNS

COLOR SCHEDULE

M1 **White Material**
White Poly Face

P1 **Paint**
Black Returns (Verify Exact Paint Color)

NOTE : VERIFY ALL COLORS PRIOR TO FABRICATION

HUDSIGN

10500 Windfern Road
Suite 100
Houston, TX 77064
832.960.7277

REFERENCE NUMBER
HUD1482

Client: Self Storage
Location: Carmel, NY
Site No.:
Acct. Rep: -
Proj. Mgr.: -
Drawn By: DOL
Date: 09/28/23
File Name: HUD 1482-Self Storage-Carmel NY
Rev.
Rev.

Notes:

New York State
Parks, Recreation and
Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

September 19, 2023

Adam Thyberg
Project Landscape Architect
Insite Engineering, Surveying & Landscape Architecture, PC
Insite Engineering
3 Garrett Pl
Carmel, NY 10512

Re: SEQRA
Diamond Point Development Self Storage Facility
6 Baldwin Place Rd, Mahopac, NY 10541
21PR05193

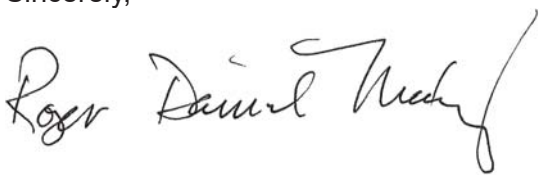
Dear Adam Thyberg:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP 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 impacts 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 (6 NYCRR Part 617).

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

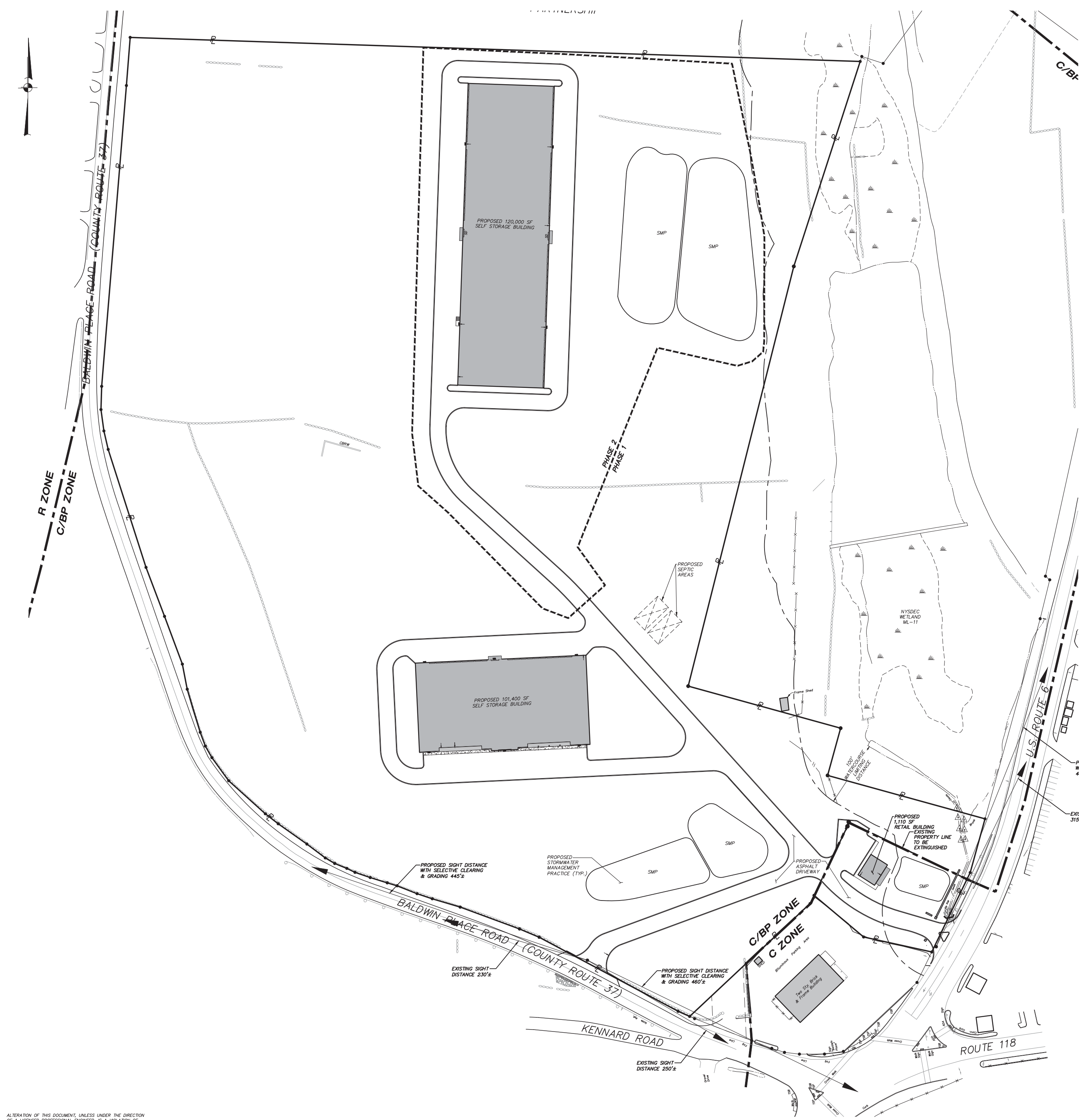
Sincerely,



R. Daniel Mackay

Deputy Commissioner for Historic Preservation
Division for Historic Preservation

rev: T. O'Connell

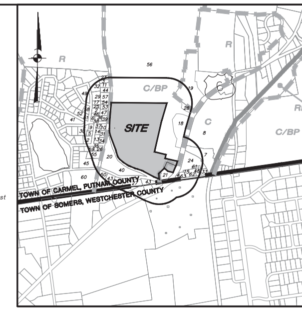


ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

500' ADJOINERS:

TOWN OF SOUTHEAST:

1. Crossroads at Baldwin Place
2. Julie Rotta
3. Barbara Horree
4. 105 Baldwin Place LLC
5. Sylvester Malangone
6. Pietro Pensabene
7. Michael Barile
8. Mahopac Improvement Owner LLC
9. Nellie Fortunato
10. Julie McKeon
11 Ermal Abazi
12 Jorge Tenenpaguay
13. Frank Del Campo
14. Saji Peechatt
15. Stokmann Co., LLC
16. Andrew Mercatante
17. Barbara Barbato Irrev Family Trust
18. Gaby Chien
19. Senior Housing at Mahopac Hill
20. Robert Rohr, III
21. 102 Rt. 6 LLC
22. Bernad Creations Ltd
23. Syle Berisha
24. Putnam Bluff LLC
25. Town Of Carmel
26. Lodovik Bunjaj
27. Michael Fennessy
28. Hudson Valley Fed Credit Union
29. Peter Halaga
30. Eoin Browne
31. Mihail Skirianos
32. Joseph Grace
33. Joseph Mirable
34. Izet Nikocevic
35. Robinanne Wallace
36. Peter Fortunato
37. Mathew Longinetti
38. Stanley Jacobs
39. Steven Delatorre
40. Anthony Santangelo, Jr.
41. Joseph Bondi
42. Michael Leon
43. Margaret Ferrara
44. Ermal Abazi
45. Damian McManus
46. John Biddle
47. Deborah DeLuca-Parchen
48. Baldwin Place Realty LLC
49. Jonny Reinoso
50. Vincent Serio
51. Gabriela Ghita
52. Pong Pong Fu
53. Frank Varricchio
54. Sharath Babu
55. Nikola Nikprelaj
56. Baldwin Hills Realty LLC
57. Joseph Cavarretta Irrev Trust
58. Rui DaCosta
59. Robert Stauffer
60. Town of Carmel
61. Putnam Bluff LLC
62. Baldwin Place Realty LLC
63. Stokmann Co., LLC



LOCATION MAP SCALE: 1" = 1,000'±

OWNER:

Bernad Creations Ltd
124 Ridge Road
Montgomery, NY 12549

APPLICANT:

Diamond Point Development
880 Marietta Highway
Suite 630-243
Roswell, GA 30075

SITE DATA:

Total Acreage 30.53 AC.±
Tax Map Nos.:
2. 86.10-1-2 29.99 AC.± (C/BP Zone)
3. 86.10-1-3 0.63 AC.± (C Zone)
Proposed Use: Self Storage & Retail

GENERAL NOTES:

1. Property line, topography, site features and wetlands shown hereon are taken from survey work conducted by Insite Engineering, Surveying & Landscape Architecture, P.C., on March 13, 2023.
2. Curbs, sidewalks, manholes, guide rails, and drainage shall conform to the requirements of § 128 of the Town of Carmel Code.
3. All driveways shall be in accordance with § 128 of the Town of Carmel Code.
4. All proposed utilities are to be installed underground.

GRAPHIC SCALE
0 30 60 120
(IN FEET)
1 inch = 60 ft.

NO.	DATE	REVISION	BY
4	9-29-23	REVISED PER PLANNING BOARD COMMENTS	TSM
3	9-1-23	REVISED PER PLANNING BOARD COMMENTS	TSM
2	7-11-23	REVISED PER DCWWA, DCBCH & TOWN COMMENTS	JWM
1	5-15-23	REVISED PER PB COMMENTS	MEU

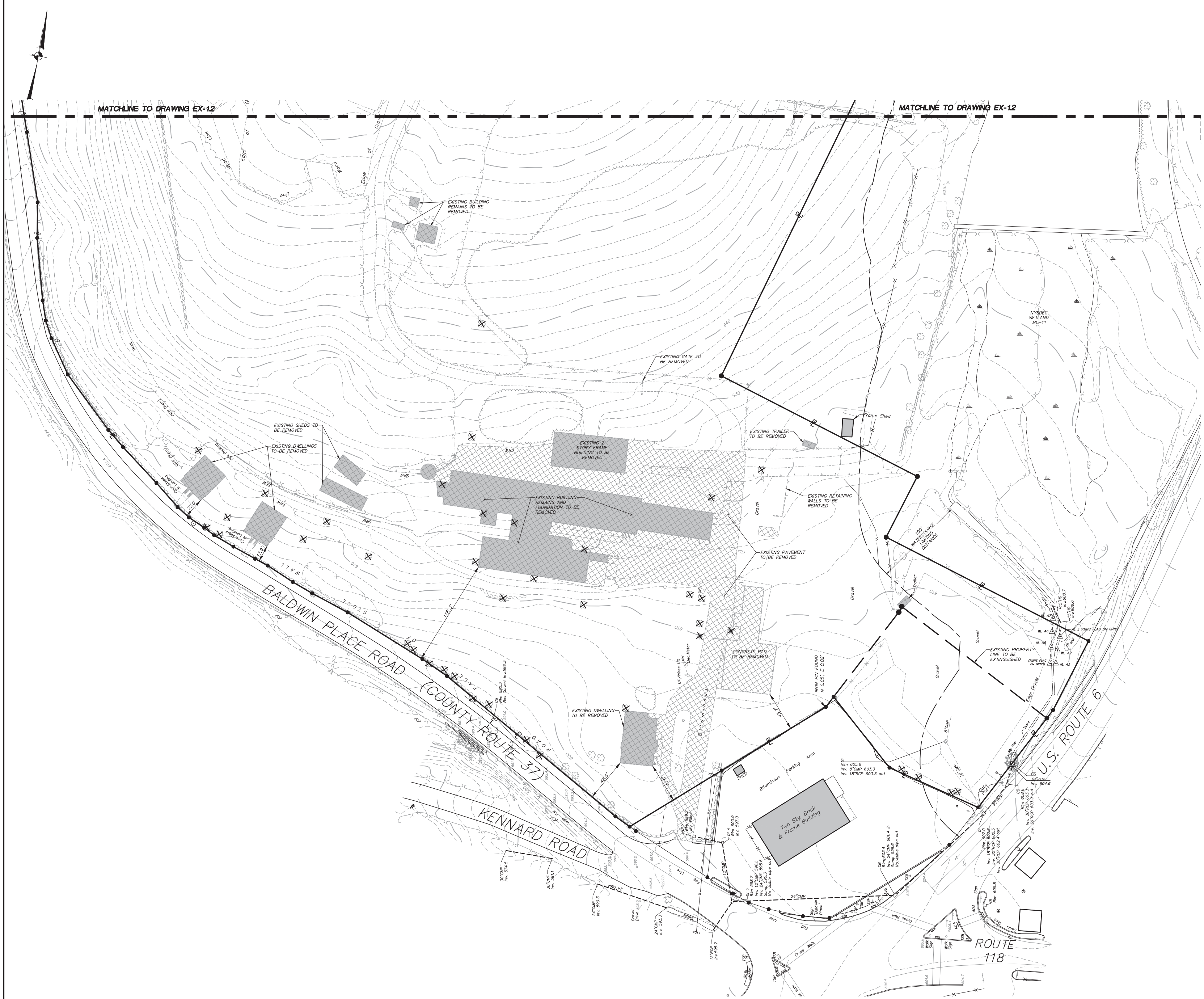
INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
DPD - SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING:
OVERALL PLAN

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.
DATE	5-15-23	DRAWN BY	M.E.U.
SCALE	1" = 60'	CHECKED BY	A.D.T.

DRAWING NO. OP-1
SHEET 1 / 16



GRAPHIC SCALE

0 20 40 80

(IN FEET)
1 inch = 40 ft.

LEGEND

(line with PL symbol)	EXISTING PROPERTY LINE
(dashed line)	EXISTING EASEMENT
(stone wall symbol)	EXISTING STONE WALL
(wetland line with triangles)	EXISTING WETLAND LINE AND SYMBOL
(long dash line)	EXISTING WETLAND BUFFER
(dash-dot line)	EXISTING WATERCOURSE
(scalloped line)	EXISTING BRUSH LINE
(tree line symbol)	EXISTING TREE LINE
—640—	EXISTING 10' CONTOUR
(dashed line)	EXISTING 2' CONTOUR
× 604.7	EXISTING SPOT GRADE
(dashed outline)	EXISTING BUILDING TO BE REMOVED

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

NO.	DATE	REVISION	BY
4	9-29-23	REVISED PER PLANNING BOARD COMMENTS	TSM
3	9-1-23	REVISED PER PLANNING BOARD COMMENTS	TSM
2	7-12-23	REVISED PER TOWN COMMENTS	BY
1	5-15-23	REVISED PER PB COMMENTS	MEU

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:

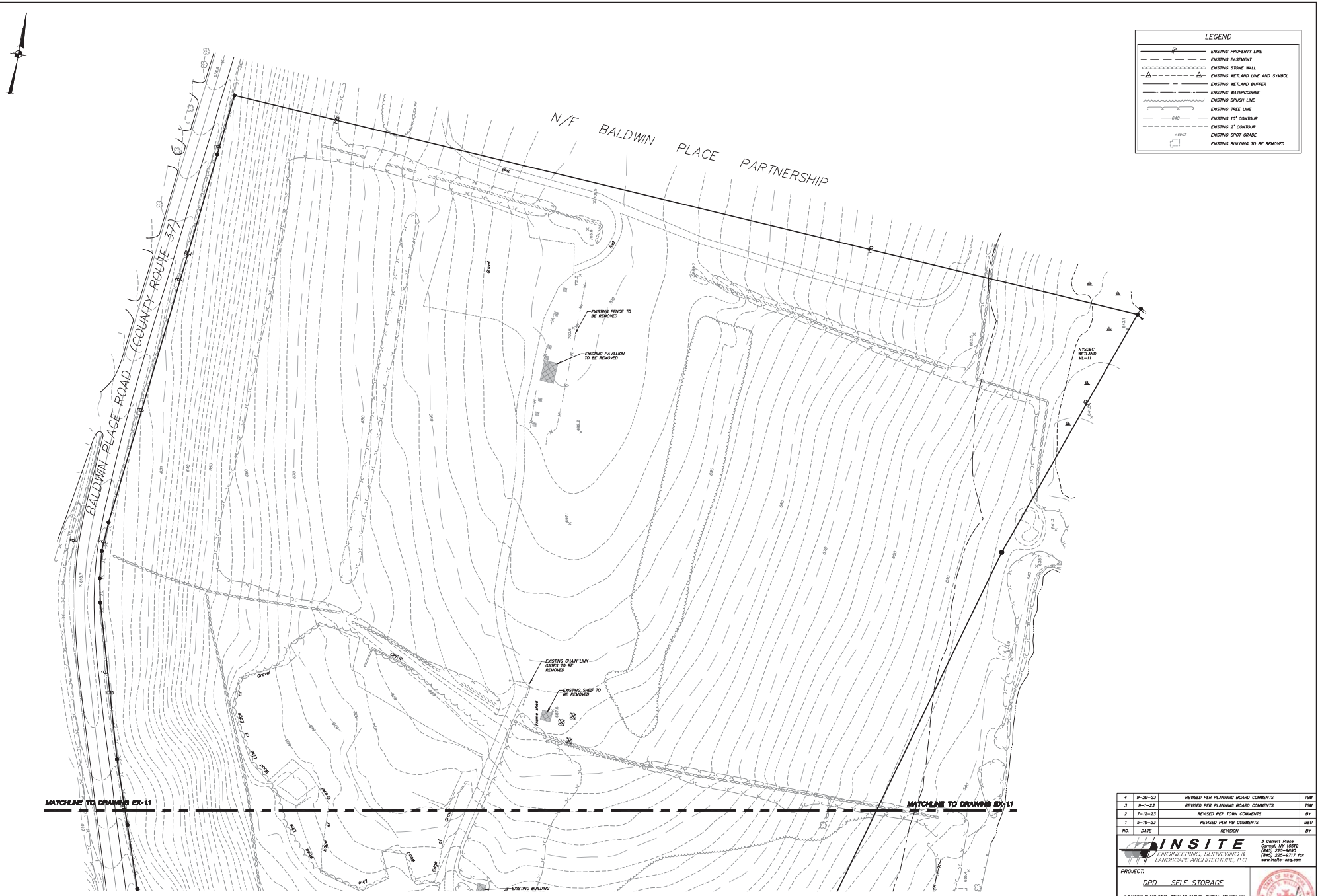
DPD – SELF STORAGE

4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING:

EXISTING CONDITIONS PLAN

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	3-8-23	DRAWN BY	M.E.U.	EX-1.1	2 / 16
SCALE	1" = 40'	CHECKED BY	A.D.T.		



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING WETLAND LINE AND SYMBOL
- EXISTING WETLAND BUFFER
- EXISTING WATERCOURSE
- EXISTING BRUSH LINE
- EXISTING TREE LINE
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- EXISTING BUILDING TO BE REMOVED

NO.	DATE	REVISION	BY
4	9-29-23	REVISED PER PLANNING BOARD COMMENTS	TSM
3	9-1-23	REVISED PER PLANNING BOARD COMMENTS	TSM
2	7-12-23	REVISED PER TOWN COMMENTS	BY
1	5-15-23	REVISED PER PB COMMENTS	MEU

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3 Garrett Place
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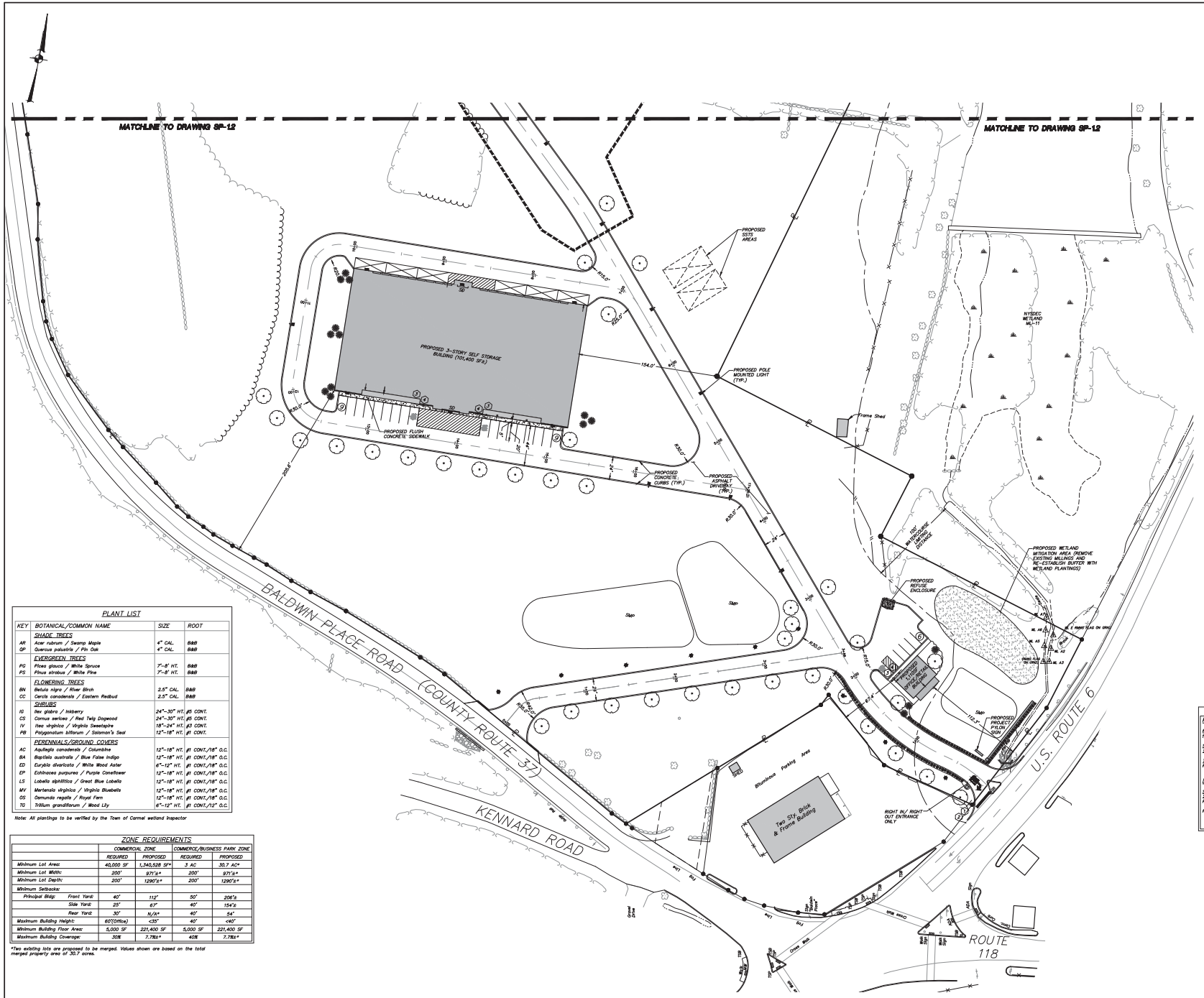
www.insite-eng.com

PROJECT:
DPD – SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING:
EXISTING CONDITIONS PLAN

GRAPHIC SCALE
0 20 40 80
(IN FEET)
1 inch = 40 ft.

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	3-8-23	DRAWN BY	M.E.U.	EX-1.2	3 / 16
SCALE	1" = 40'	CHECKED BY	A.D.T.		



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING WETLAND LINE AND SYMBOL
- EXISTING WETLAND BUFFER
- EXISTING WATERCOURSE
- EXISTING BRUSH LINE
- EXISTING TREE LINE
- PROPOSED # OF STALLS TO BE STRIPED
- PROPOSED CONCRETE CURB
- PROPOSED DROP CURB & RAMP
- PROPOSED EDGE OF SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED PAINTED CROSSWALK
- PROPOSED PAINTED STOPBAR
- PROPOSED DOUBLE YELLOW LINE
- PROPOSED SINGLE BROKEN WHITE LINE
- PROPOSED PAINTED DIRECTIONAL ARROW
- PROPOSED PAINTED HANDICAP PARKING SYMBOL
- PROPOSED ADA COMPLIANT RAMP
- PROPOSED STRIPED ISLAND
- PROPOSED LOADING SPACE
- PROPOSED RECYCLE / TRASH CONTAINER / REFUSE ENCLOSURE
- PROPOSED SINGLE POLE SIGN
- PROPOSED DOUBLE POLE SIGN
- PROPOSED DOUBLE SIDED SIGN
- PROPOSED BOLLARD
- PROPOSED GUIDE RAIL
- PROPOSED POLE MOUNTED LIGHT
- PROPOSED POST MOUNTED LIGHT
- PROPOSED BUILDING MOUNTED LIGHT
- PROPOSED DOOR LOCATION
- PROPOSED OVERHEAD DOOR LOCATION
- PROPOSED LANDSCAPING
- PROPOSED TREELINE

SIGN DATA TABLE

LOCATION NO.	TEXT	M.U.T.C.D. NUMBER	SIZE OF SIGN (s.f.)	DESCRIPTION
1	STOP	R1-1C	30" x 30"	White on Red
2		R3-2	30" x 30"	White Background Black Arrow Red Symbol Black Border
3		NY R7-8*	12" x 18"	Green on White Blue Symbol
		R7-8P	12" x 6"	Green on White
4	NO PARKING ANY TIME	R7-1	12" x 18"	Red on White

LIGHTING NOTES:

1. All lighting shall be as noted on the plan or approved equal.
2. Style and finish of all luminaires to be selected by owner.
3. Proposed lights will run on photocells during regular business hours, and will run on motion sensors after hours.
4. Type, location, and shading of all proposed lighting shall prevent the spillover of light onto all adjacent residential properties.
5. All light fixtures to be full cutoff to comply with dark sky guidelines.

PLANT LIST

KEY	BOTANICAL/COMMON NAME	SIZE	ROOT
	SHADE TREES		
AR	Acer rubrum / Swamp Maple	4" CAL.	B&B
QP	Quercus palustris / Pin Oak	4" CAL.	B&B
	EVERGREEN TREES		
PG	Picea glauca / White Spruce	7'-8' HT.	B&B
PS	Pinus strobus / White Pine	7'-8' HT.	B&B
	FLOWERING TREES		
BN	Betula nigra / River Birch	2.5" CAL.	B&B
CC	Cercis canadensis / Eastern Redbud	2.5" CAL.	B&B
	SHRUBS		
IG	Ilex glabra / Inkberry	24"-30" HT.	#5 CONT.
CS	Cornus sericea / Red Twig Dogwood	24"-30" HT.	#5 CONT.
IV	Itea virginica / Virginia Sweetspire	18"-24" HT.	#3 CONT.
PB	Polygonatum biflorum / Solomon's Seal	12"-18" HT.	#1 CONT.
	PERENNIALS/GROUND COVERS		
AC	Aquilegia canadensis / Columbine	12"-18" HT.	#1 CONT./18" O.C.
BA	Baptisia australis / Blue False Indigo	12"-18" HT.	#1 CONT./18" O.C.
ED	Eurybia divaricata / White Wood Aster	6"-12" HT.	#1 CONT./18" O.C.
EP	Echinacea purpurea / Purple Coneflower	12"-18" HT.	#1 CONT./18" O.C.
LS	Lobelia siphilitica / Great Blue Lobelia	12"-18" HT.	#1 CONT./18" O.C.
MV	Mertensia virginica / Virginia Bluebells	12"-18" HT.	#1 CONT./18" O.C.
OS	Osmunda regalis / Royal Fern	12"-18" HT.	#1 CONT./18" O.C.
TG	Trillium grandiflorum / Wood Lily	6"-12" HT.	#1 CONT./12" O.C.

Note: All plantings to be verified by the Town of Carmel wetland inspector

PARKING / LOADING SUMMARY

PARKING:

RETAIL
1,110 SF @ 1 PARKING SPACE/200SF = 6 REQUIRED

SELF STORAGE
221,400 SF @ 1 PARKING SPACE/10,000SF = 23 SPACES REQUIRED

TOTAL PARKING SPACES REQUIRED = 29 SPACES
PROVIDED = 34 SPACES

LOADING:

SELF STORAGE
221,400 SF @ 1 FOR THE FIRST 10,000 SF, PLUS 1 FOR EVERY ADDITIONAL 20,000 SF = 12 LOADING SPACES REQUIRED

PROVIDED = 18 LOADING SPACES

ZONE REQUIREMENTS

	COMMERCIAL ZONE		COMMERCE/BUSINESS PARK ZONE	
	REQUIRED	PROPOSED	REQUIRED	PROPOSED
Minimum Lot Area:	40,000 SF	1,340,528 SF*	3 AC	30.7 AC*
Minimum Lot Width:	200'	971'±*	200'	971'±*
Minimum Lot Depth:	200'	1290'±*	200'	1290'±*
Minimum Setbacks:				
Principal Bldg: Front Yard:	40'	112'	50'	206'±
Side Yard:	25'	61'	40'	154'±
Rear Yard:	30'	N/A*	40'	54'
Maximum Building Height:	60'(Office)	<35'	40'	<40'
Minimum Building Floor Area:	5,000 SF	221,400 SF	5,000 SF	221,400 SF
Maximum Building Coverage:	30%	7.7%±*	40%	7.7%±*

*Two existing lots are proposed to be merged. Values shown are based on the total merged property area of 30.7 acres.

GRAPHIC SCALE
0 20 40 80
(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY
4	9-29-23	REVISED PER PLANNING BOARD COMMENTS	TSM
3	9-1-23	REVISED PER PLANNING BOARD COMMENTS	TSM
2	7-12-23	REVISED PER TOWN COMMENTS	BY
1	5-15-23	REVISED PER PB COMMENTS	MEU

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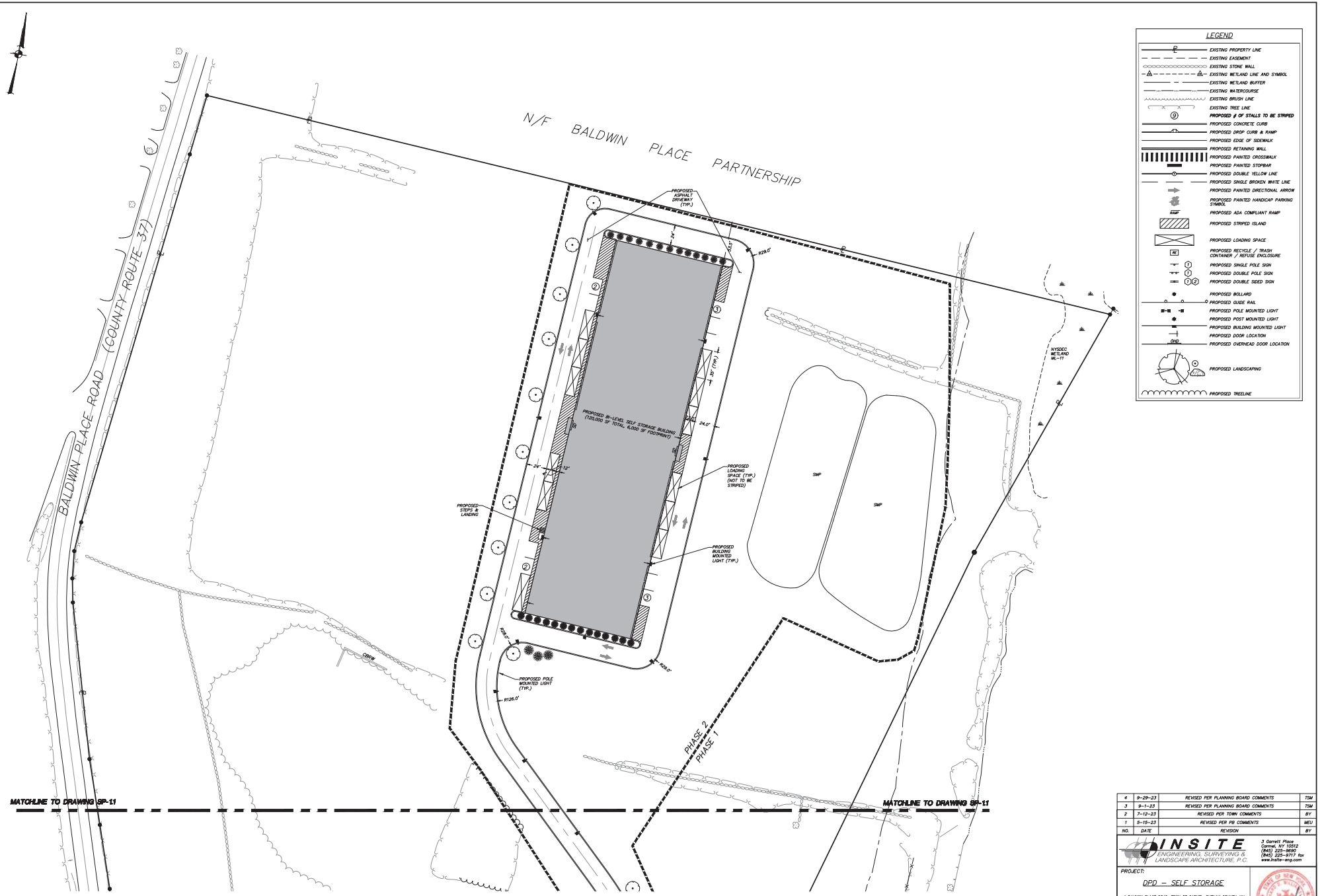
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
DPD – SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING:
LAYOUT & LANDSCAPE PLAN

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	3-8-23	DRAWN BY	M.E.U.	SP-1.1	4 / 16
SCALE	1" = 40'	CHECKED BY	A.D.T.		



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING WETLAND LINE AND SYMBOL
- EXISTING WETLAND BUFFER
- EXISTING WATERCOURSE
- EXISTING BRUSH LINE
- EXISTING TREE LINE
- PROPOSED # OF STALLS TO BE STRIPED
- PROPOSED CONCRETE CURB
- PROPOSED DROP CURB & RAMP
- PROPOSED EDGE OF SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED PAINTED CROSSWALK
- PROPOSED PAINTED STOPBAR
- PROPOSED DOUBLE YELLOW LINE
- PROPOSED SINGLE BROKEN WHITE LINE
- PROPOSED PAINTED DIRECTIONAL ARROW
- PROPOSED PAINTED HANDICAP PARKING SYMBOL
- PROPOSED ADA COMPLIANT RAMP
- PROPOSED STRIPED ISLAND
- PROPOSED LOADING SPACE
- PROPOSED RECYCLE / TRASH CONTAINER / REFUSE ENCLOSURE
- PROPOSED SINGLE POLE SIGN
- PROPOSED DOUBLE POLE SIGN
- PROPOSED DOUBLE SIDED SIGN
- PROPOSED BOLLARD
- PROPOSED GUIDE RAIL
- PROPOSED POLE MOUNTED LIGHT
- PROPOSED POST MOUNTED LIGHT
- PROPOSED BUILDING MOUNTED LIGHT
- PROPOSED DOOR LOCATION
- PROPOSED OVERHEAD DOOR LOCATION
- PROPOSED LANDSCAPING
- PROPOSED TREELINE

GRAPHIC SCALE

0 20 40 80

(IN FEET)
1 inch = 40 ft.

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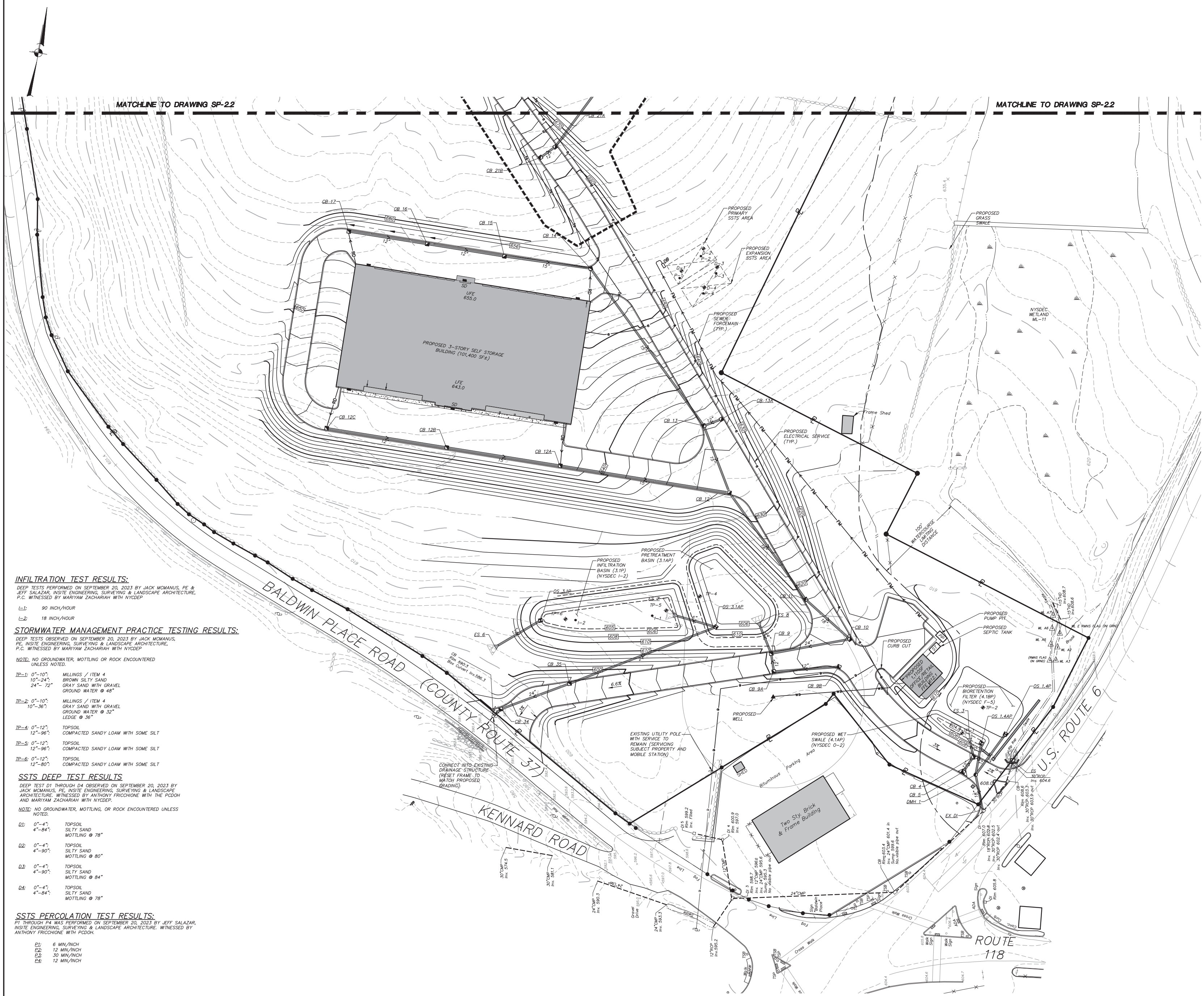
DATE	3-8-23	DRAWN BY	D.S.W.	SP-1.2	5 / 16
SCALE	1" = 40'	CHECKED BY	A.D.T.		



LEGEND

Symbol	Description
PL	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	EXISTING STONE WALL
	EXISTING WETLAND LINE AND SYMBOL
	EXISTING WETLAND BUFFER
	EXISTING WATERCOURSE
640	EXISTING 10' CONTOUR
	EXISTING 2' CONTOUR
× 604.7	EXISTING SPOT GRADE
660	PROPOSED 10' CONTOUR
	PROPOSED 2' CONTOUR
×100.5 100.5	PROPOSED SPOT ELEVATION
TC 101.0 ×BC 100.5	PROPOSED TOP OF CURB & BOTTOM OF CURB ELEVATIONS
TW 105.0 ×BW 100.0	PROPOSED TOP OF WALL & BOTTOM OF WALL ELEVATIONS
	PROPOSED DRAINAGE MANHOLE
	PROPOSED CATCH BASIN
	PROPOSED OUTLET STRUCTURE
	PROPOSED END SECTION
GV	PROPOSED WATER GATE VALVE
	PROPOSED FIRE HYDRANT
	PROPOSED WELL
WV	PROPOSED WATER VALVE
e	PROPOSED ELECTRIC SERVICE LINES
	PROPOSED HDPE DRAINAGE PIPE
FM	PROPOSED SEWER FORCE MAIN
SS	PROPOSED SEWER SERVICE LINE
fs	PROPOSED FIRE SERVICE LINE
ws	PROPOSED DOMESTIC WATER SERVICE LINE
	PROPOSED GRASS SWALE
PTD	PITCH TO DRAIN
CO	PROPOSED CLEAN OUT

DRAINAGE SYSTEM PHASE 1 TABLE

Structure	RIM	INVERT ELEVATION	PIPE	LENGTH	SLOPE
CB 4	607.9	INV. IN = 604.70 FROM CB 5 INV. OUT = 604.70 TO ES 3	12" HDPE 12" HDPE	20 L.F. 21 L.F.	1.0% 1.0%
CB 5	607.9	INV. OUT = 604.90 TO CB 4	12" HDPE	20 L.F.	1.0%
CB 9	610.3	INV. IN = 606.40 FROM CB 10 INV. IN = 606.40 FROM CB 9A INV. OUT = 606.40 TO ES 8	24" HDPE 12" HDPE 24" HDPE	88 L.F. 20 L.F. 36 L.F.	4.0% 3.5% 1.1%
CB 9A	610.2	INV. IN = 607.10 FROM CB 9B INV. OUT = 607.10 TO CB 9	12" HDPE 12" HDPE	72 L.F. 20 L.F.	3.9% 3.5%
CB 9B	613.0	INV. OUT = 609.90 TO CB 9A	12" HDPE	72 L.F.	3.9%
CB 10	613.8	INV. IN = 609.90 FROM CB 11 INV. OUT = 609.90 TO CB 9	18" HDPE 24" HDPE	65 L.F. 88 L.F.	6.3% 4.0%
CB 11	618.0	INV. IN = 614.00 FROM CB 12 INV. OUT = 614.00 TO CB 10	18" HDPE 18" HDPE	144 L.F. 65 L.F.	9.0% 6.3%
CB 12	634.0	INV. IN = 627.00 FROM CB 13 INV. IN = 627.00 FROM CB 12A INV. OUT = 627.00 TO CB 11	15" HDPE 15" HDPE 18" HDPE	79 L.F. 188 L.F. 144 L.F.	4.6% 4.8% 9.0%
CB 12A	642.5	INV. IN = 636.00 FROM CB 12B INV. OUT = 636.00 TO CB 12	15" HDPE 15" HDPE	126 L.F. 188 L.F.	1.2% 4.8%
CB 12B	642.5	INV. IN = 637.50 FROM CB 12C INV. OUT = 637.50 TO CB 12A	12" HDPE 15" HDPE	134 L.F. 126 L.F.	1.1% 1.2%
CB 12C	642.5	INV. OUT = 639.00 TO CB 12B	12" HDPE	134 L.F.	1.1%
CB 13	634.1	INV. IN = 630.60 FROM CB 14 INV. IN = 630.60 FROM CB 13A INV. OUT = 630.60 TO CB 12	15" HDPE 12" HDPE 15" HDPE	213 L.F. 21 L.F. 79 L.F.	8.4% 1.9% 4.6%
CB 13A	634.1	INV. OUT = 631.00 TO CB 13	12" HDPE	21 L.F.	1.9%
CB 14	654.5	INV. IN = 648.60 FROM CB 15 INV. OUT = 648.60 TO CB 13	15" HDPE 15" HDPE	95 L.F. 213 L.F.	1.0% 8.4%
CB 15	654.5	INV. IN = 649.60 FROM CB 16 INV. OUT = 649.60 TO CB 14	12" HDPE 15" HDPE	86 L.F. 95 L.F.	1.0% 1.0%
CB 16	654.5	INV. IN = 650.50 FROM CB 17 INV. OUT = 650.50 TO CB 15	12" HDPE 12" HDPE	87 L.F. 86 L.F.	1.0% 1.0%
CB 17	654.5	INV. OUT = 651.40 TO CB 16	12" HDPE	87 L.F.	1.0%
CB 34	591.4	INV. IN = 587.60 FROM CB 35 INV. OUT = 587.60 TO EX PIPE	24" HDPE 24" HDPE	80 L.F. 10 L.F.	4.6% 12.8%
CB 35	654.5	INV. IN = 591.30 FROM OS 3.1AP INV. OUT = 591.30 TO CB 34	24" HDPE 24" HDPE	172 L.F. 80 L.F.	8.2% 4.6%
DMH 1	608.0	INV. IN = 603.00 FROM OS 1.4AP INV. IN = 603.00 FROM OS 1.4P INV. OUT = 603.00 TO EX DI	12" HDPE 12" HDPE 18" HDPE	35 L.F. 55 L.F. 39 L.F.	4.3% 0.9% 0.5%
ES 3		INV. IN = 604.50 FROM CB 4	12" HDPE	21 L.F.	1.0%
ES 6		INV. IN = 602.00 FROM OS 3.1P	12" HDPE	58 L.F.	1.7%
ES 7		INV. IN = 605.00 FROM OS 3.1AP	6" HDPE	48 L.F.	1.0%
ES 8		INV. IN = 606.00 FROM CB 9	24" HDPE	36 L.F.	1.1%
EX DI	602.8	INV. IN = 602.80 FROM DMH 1	18" HDPE	39 L.F.	0.5%
EX PIPE	588.6	INV. IN = 586.30 FROM CB 34	24" HDPE	10 L.F.	12.8%
OS 1.4AP	608.0	INV. OUT = 604.50 TO DMH 1	12" HDPE	35 L.F.	4.3%
OS 1.4P	608.0	INV. OUT = 603.50 TO DMH 1	12" HDPE	55 L.F.	0.9%
OS 3.1AP	611.0	INV. OUT = 605.50 TO ES 7 INV. OUT = 605.50 TO CB 35	6" HDPE 24" HDPE	48 L.F. 172 L.F.	1.0% 8.2%
OS 3.1P	610.0	INV. OUT = 603.00 TO ES 6	12" HDPE	58 L.F.	1.7%

INFILTRATION TEST RESULTS:

DEEP TESTS PERFORMED ON SEPTEMBER 20, 2023 BY JACK MCMANUS, PE & JEFF SALAZAR, INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C. WITNESSED BY MARIYAM ZACHARIAH WITH NYCDEP

I-1: 90 INCH/HOUR

I-2: 18 INCH/HOUR

STORMWATER MANAGEMENT PRACTICE TESTING RESULTS:

DEEP TESTS OBSERVED ON SEPTEMBER 20, 2023 BY JACK MCMANUS, PE, INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C. WITNESSED BY MARIYAM ZACHARIAH WITH NYCDEP

NOTE: NO GROUNDWATER, MOTTLING OR ROCK ENCOUNTERED UNLESS NOTED.

TP-1: 0"-10": MILLINGS / ITEM 4
10"-24": BROWN SILTY SAND
24"- 72" GRAY SAND WITH GRAVEL
GROUND WATER @ 48"

TP-2: 0"-10": MILLINGS / ITEM 4
10"-36": GRAY SAND WITH GRAVEL
GROUND WATER @ 32"
LEDGE @ 36"

TP-4: 0"-12": TOPSOIL
12"-96": COMPACTED SANDY LOAM WITH SOME SILT

TP-5: 0"-12": TOPSOIL
12"-96": COMPACTED SANDY LOAM WITH SOME SILT

TP-6: 0"-12": TOPSOIL
12"-80": COMPACTED SANDY LOAM WITH SOME SILT

SSTS DEEP TEST RESULTS

DEEP TEST D1 THROUGH D4 OBSERVED ON SEPTEMBER 20, 2023 BY JACK MCMANUS, PE, INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE. WITNESSED BY ANTHONY FRICCHIONE WITH THE PCDOH AND MARIYAM ZACHARIAH WITH NYCDEP.

NOTE: NO GROUNDWATER, MOTTLING, OR ROCK ENCOUNTERED UNLESS NOTED.

D1: 0"-4": TOPSOIL
4"-84": SILTY SAND
MOTTLING @ 78"

D2: 0"-4": TOPSOIL
4"-90": SILTY SAND
MOTTLING @ 80"

D3: 0"-4": TOPSOIL
4"-90": SILTY SAND
MOTTLING @ 84"

D4: 0"-4": TOPSOIL
4"-84": SILTY SAND
MOTTLING @ 78"

SSTS PERCOLATION TEST RESULTS:

P1 THROUGH P4 WAS PERFORMED ON SEPTEMBER 20, 2023 BY JEFF SALAZAR, INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE. WITNESSED BY ANTHONY FRICCHIONE WITH PCDOH.

P1: 6 MIN/INCH
P2: 12 MIN/INCH
P3: 30 MIN/INCH
P4: 12 MIN/INCH

GRAPHIC SCALE
0 20 40 80
(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY
4	9-29-23	REVISED PER PLANNING BOARD COMMENTS	TSM
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1	5-15-23	REVISED PER PB COMMENTS	MEU

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PROJECT:
DPD – SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING:
GRADING & UTILITIES PLAN

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.
DATE	3-8-23	DRAWN BY	M.E.U.
SCALE	1" = 40'	CHECKED BY	A.D.T.

DRAWING NO. SP-2.1
SHEET 6 / 16

STORMWATER MANAGEMENT PRACTICE TESTING RESULTS:

DEEP TESTS OBSERVED ON SEPTEMBER 20, 2023 BY JACK MCMANUS, PE, INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C. WITNESSED BY MARIYAM ZACHARIAH WITH NYCDEP

NOTE: NO GROUNDWATER, MOTTLING OR ROCK ENCOUNTERED UNLESS NOTED.

TP–7:	0"–4":	TOPSOIL
	4"–112":	SANDY LOAM WITH SOME SILT
		GROUND WATER @ 94"
TP–8:	0"–4":	TOPSOIL
	4"–100":	SANDY LOAM WITH SOME SILT
		GROUND WATER @ 96"
TP–9:	0"–4":	TOPSOIL
	4"–84":	SANDY LOAM WITH SOME SILT
		GROUND WATER @ 76"
TP–10:	0"–4":	TOPSOIL
	4"–100":	SANDY LOAM WITH SOME SILT
		GROUND WATER @ 84"
TP–11:	0"–4":	TOPSOIL
	4"–112":	SANDY LOAM WITH SOME SILT
		GROUND WATER @ 108"
TP–12:	0"–4":	TOPSOIL
	4"–98":	SANDY LOAM WITH SOME SILT
		GROUND WATER @ 98"

INFILTRATION TEST RESULTS:

DEEP TESTS PERFORMED ON SEPTEMBER 20, 2023 BY JACK MCMANUS, PE & JEFF SALAZAR, INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C. WITNESSED BY MARIYAM ZACHARIAH WITH NYCDEP

I–6: 8 INCH/HOUR

I–5: 19 INCH/HOUR

LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING WETLAND LINE AND SYMBOL
- EXISTING WETLAND BUFFER
- EXISTING WATERCOURSE
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED TOP OF CURB & BOTTOM OF CURB ELEVATIONS
- PROPOSED TOP OF WALL & BOTTOM OF WALL ELEVATIONS
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED OUTLET STRUCTURE
- PROPOSED END SECTION
- PROPOSED WATER GATE VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED WELL
- PROPOSED WATER VALVE
- PROPOSED ELECTRIC SERVICE LINES
- PROPOSED HDPE DRAINAGE PIPE
- PROPOSED SEWER FORCE MAIN
- PROPOSED SEWER SERVICE LINE
- PROPOSED FIRE SERVICE LINE
- PROPOSED DOMESTIC WATER SERVICE LINE
- PROPOSED GRASS SWALE
- PITCH TO DRAIN
- PROPOSED CLEAN OUT

DRAINAGE SYSTEM PHASE 2 TABLE

Structure	RIM	INVERT ELEVATION	PIPE	LENGTH	SLOPE
CB 21A	662.5	INV. IN = 659.00 FROM CB 21B INV. OUT = 659.00 TO DMH 21	12" HDPE 15" HDPE	20 L.F. 361 L.F.	2.0% 0.7%
CB 21B	662.5	INV. OUT = 659.40 TO CB 21A	12" HDPE	20 L.F.	2.0%
CB 22	689.5	INV. IN = 681.00 FROM CB 31 INV. IN = 680.50 FROM CB 23 INV. OUT = 680.50 TO DMH 21	18" HDPE 24" HDPE 24" HDPE	104 L.F. 104 L.F. 108 L.F.	3.4% 1.0% 22.5%
CB 23	689.4	INV. IN = 682.00 FROM CB 24 INV. OUT = 681.50 TO CB 22	18" HDPE 24" HDPE	104 L.F. 104 L.F.	1.4% 1.0%
CB 24	689.4	INV. IN = 683.50 FROM CB 25 INV. OUT = 683.50 TO CB 23	18" HDPE 18" HDPE	104 L.F. 104 L.F.	1.0% 1.4%
CB 25	689.4	INV. IN = 684.50 FROM CB 26 INV. OUT = 684.50 TO CB 24	18" HDPE 18" HDPE	76 L.F. 104 L.F.	0.8% 1.0%
CB 26	689.8	INV. IN = 685.20 FROM DMH 27 INV. IN = 685.20 FROM CB 26A INV. OUT = 685.20 TO CB 25	15" HDPE 12" HDPE 18" HDPE	139 L.F. 20 L.F. 76 L.F.	7.0% 2.5% 0.9%
CB 26A	689.8	INV. OUT = 685.70 TO CB 26	12" HDPE	20 L.F.	2.5%
CB 28	700.1	INV. IN = 695.40 FROM CB 29 INV. OUT = 695.40 TO DMH 27	15" HDPE 15" HDPE	104 L.F. 37 L.F.	1.0% 1.1%
CB 29	700.4	INV. IN = 696.40 FROM CB 30 INV. OUT = 696.40 TO CB 28	12" HDPE 15" HDPE	104 L.F. 104 L.F.	1.0% 1.0%
CB 30	700.5	INV. OUT = 697.40 TO CB 29	12" HDPE	104 L.F.	1.0%
CB 31	688.5	INV. IN = 684.50 FROM CB 32 INV. OUT = 684.50 TO CB 22	15" HDPE 18" HDPE	28 L.F. 104 L.F.	1.8% 3.4%
CB 32	689.0	INV. IN = 685.00 FROM CB 33 INV. OUT = 685.00 TO CB 31	12" HDPE 15" HDPE	175 L.F. 28 L.F.	1.9% 1.8%
CB 33	691.5	INV. OUT = 688.30 TO CB 32	12" HDPE	175 L.F.	1.9%
DMH 21	673.5	INV. IN = 656.60 FROM CB 22 INV. IN = 656.60 FROM CB 21A INV. OUT = 656.60 TO ES 20	24" HDPE 15" HDPE 15" HDPE	104 L.F. 361 L.F. 76 L.F.	22.5% 0.7% 0.8%
DMH 27	698.5	INV. IN = 695.00 FROM CB 28 INV. OUT = 695.00 TO CB 26	15" HDPE 15" HDPE	37 L.F. 139 L.F.	1.1% 7.0%
ES 18		INV. IN = 652.00 FROM OS 5.1P	15" HDPE	58 L.F.	1.7%
ES 18A		INV. IN = 652.00 FROM OS 5.1AP	30" HDPE	147 L.F.	2.4%
ES 19		INV. IN = 655.00 FROM OS 5.1AP	6" HDPE	50 L.F.	1.0%
ES 20		INV. IN = 656.00 FROM DMH 21	30" HDPE	76 L.F.	0.8%
OS 5.1AP	660.0	INV. OUT = 655.50 TO ES 19 INV. OUT = 655.50 TO ES 18A	6" HDPE 30" HDPE	50 L.F. 147 L.F.	1.0% 2.4%
OS 5.1P	659.0	INV. OUT = 653.00 TO ES 18	15" HDPE	58 L.F.	1.7%

NO.	DATE	REVISION	BY
4	9-29-23	REVISED PER PLANNING BOARD COMMENTS	TSM
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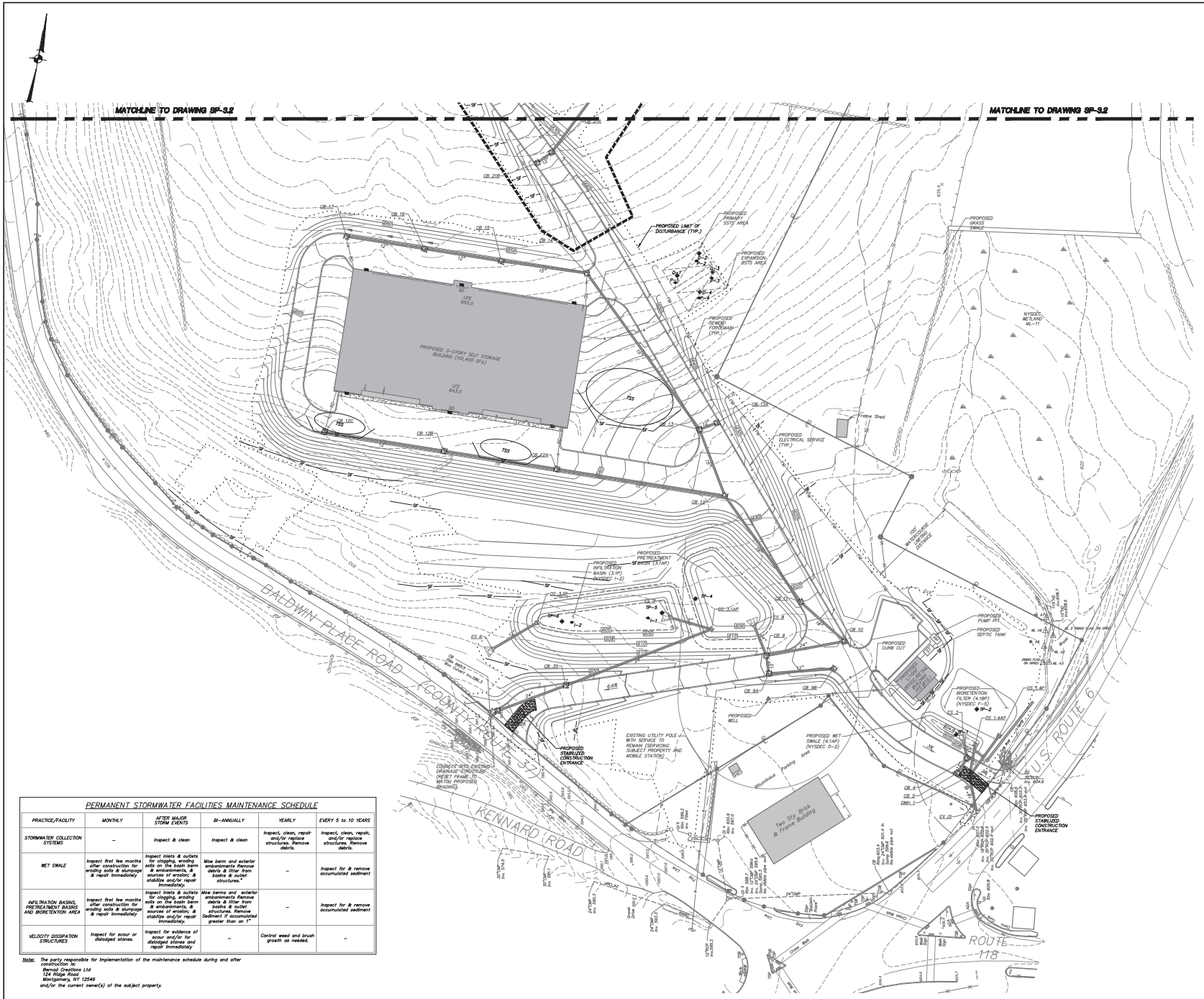
PROJECT:
DPD – SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING:
GRADING & UTILITIES PLAN

GRAPHIC SCALE
0 20 40 80
(IN FEET)
1 inch = 40 ft.

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	3-8-23	DRAWN BY	M.E.U.	SP–2.2	7 / 16
SCALE	1" = 40'	CHECKED BY	A.D.T.		



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING WETLAND LINE AND SYMBOL
- EXISTING WETLAND BUFFER
- EXISTING WATERCOURSE
- 640 — EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- × 604.7 — EXISTING SPOT GRADE
- 100 — PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- 100.5 / 100.5 — PROPOSED SPOT ELEVATION
- TC 101.0 / BC 100.5 — PROPOSED TOP OF CURB & BOTTOM OF CURB ELEVATIONS
- TW 105.0 / BW 100.0 — PROPOSED TOP OF WALL & BOTTOM OF WALL ELEVATIONS
- PROPOSED SEWER MANHOLE
- PROPOSED DRAINAGE MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED OUTLET STRUCTURE
- PROPOSED END SECTION
- GV — PROPOSED WATER GATE VALVE
- PROPOSED FIRE HYDRANT
- PROPOSED WELL
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE
- PROPOSED DRAINAGE PIPE
- PROPOSED SEWER MAIN
- FM — PROPOSED SEWER FORCE MAIN
- SS — PROPOSED SEWER SERVICE LINE
- GW — PROPOSED GREY WATER MAIN
- GW — PROPOSED GREY WATER SERVICE LINE
- fs — PROPOSED FIRE SERVICE LINE
- ws — PROPOSED DOMESTIC WATER SERVICE LINE
- W — PROPOSED WATER MAIN
- PROPOSED GRASS SWALE
- PTD — PITCH TO DRAIN
- CO — PROPOSED CLEAN OUT
- SF — PROPOSED SILT FENCE
- PROPOSED LIMITS OF DISTURBANCE
- TSS / SF — PROPOSED TEMPORARY SOIL STOCKPILE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED DRAINAGE STRUCTURE W/ INLET PROTECTION

PERMANENT STORMWATER FACILITIES MAINTENANCE SCHEDULE

PRACTICE/FACILITY	MONTHLY	AFTER MAJOR STORM EVENTS	BI-ANNUALLY	YEARLY	EVERY 5 to 10 YEARS
STORMWATER COLLECTION SYSTEMS	–	Inspect & clean	Inspect & clean	Inspect, clean, repair and/or replace structures. Remove debris.	Inspect, clean, repair, and/or replace structures. Remove debris.
WET SWALE	Inspect first few months after construction for eroding soils & slumpage & repair immediately	Inspect inlets & outlets for clogging, eroding soils on the basin berm & embankments, & sources of erosion; & stabilize and/or repair immediately.	Mow berm and exterior embankments Remove debris & litter from basins & outlet structures.*	–	Inspect for & remove accumulated sediment
INFILTRATION BASINS, PRETREATMENT BASINS AND BIORETENTION AREA	Inspect first few months after construction for eroding soils & slumpage & repair immediately	Inspect inlets & outlets for clogging, eroding soils on the basin berm & embankments, & sources of erosion; & stabilize and/or repair immediately.	Mow berms and exterior embankments Remove debris & litter from basins & outlet structures. Remove Sediment if accumulated greater than an 1"	–	Inspect for & remove accumulated sediment
VELOCITY DISSIPATION STRUCTURES	Inspect for scour or dislodged stones.	Inspect for evidence of scour and/or for dislodged stones and repair immediately	–	Control weed and brush growth as needed.	–

Note: The party responsible for implementation of the maintenance schedule during and after construction is:
Bernad Creations Ltd
124 Ridge Road
Montgomery, NY 12549
and/or the current owner(s) of the subject property.

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.

GRAPHIC SCALE
0 30 60
(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY
4	9-29-23	REVISED PER PLANNING BOARD COMMENTS	TSM
3	9-1-23	REVISED PER PLANNING BOARD COMMENTS	TSM
2	7-12-23	REVISED PER TOWN COMMENTS	BY
1	5-15-23	REVISED PER PB COMMENTS	MEU

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3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
DPD – SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING:
EROSION & SEDIMENT CONTROL PLAN

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	3-8-23	DRAWN BY	M.E.U.	SP-3.1	8 / 16
SCALE	1" = 40'	CHECKED BY	A.D.T.		

LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING WETLAND LINE AND SYMBOL
- EXISTING WETLAND BUFFER
- EXISTING WATERCOURSE
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
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GRAPHIC SCALE

0 20 40 60

(IN FEET)
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DRAWING:
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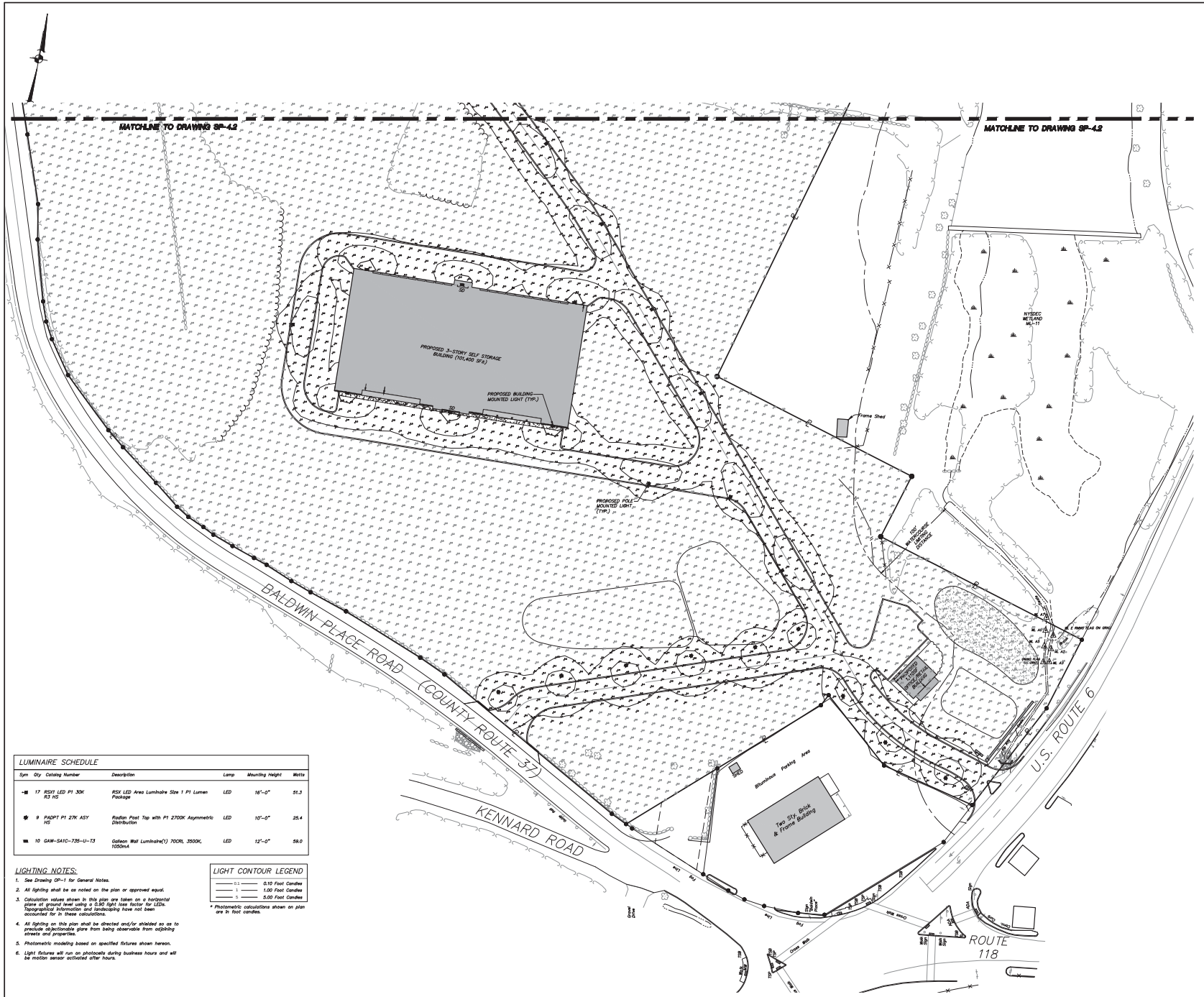
PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	3-8-23	DRAWN BY	M.E.U.	SP-3.2	9 / 16
SCALE	1" = 40'	CHECKED BY	A.D.T.		



LUMINAIRE SCHEDULE

Sym	Qty	Catalog Number	Description	Lamp	Mounting Height	Watts
▭	17	RSX1 LED P1 30K R3 HS	RSX LED Area Luminaire Size 1 P1 Lumen Package	LED	16'-0"	51.3
✱	9	PADPT P1 27K ASY HS	Radian Post Top with P1 2700K Asymmetric Distribution	LED	10'-0"	25.4
▬	10	GAW-SA1C-735-U-T3	Galleon Wall Luminaire(1) 70CRI, 3500K, 1050mA	LED	12'-0"	59.0

LIGHTING NOTES:

1. See Drawing OP-1 for General Notes.
2. All lighting shall be as noted on the plan or approved equal.
3. Calculation values shown in this plan are taken on a horizontal plane at ground level using a 0.90 light loss factor for LEDs. Topographical information and landscaping have not been accounted for in these calculations.
4. All lighting on this plan shall be directed and/or shielded so as to preclude objectionable glare from being observable from adjoining streets and properties.
5. Photometric modeling based on specified fixtures shown hereon.
6. Light fixtures will run on photocells during business hours and will be motion sensor activated after hours.

LIGHT CONTOUR LEGEND

0.1	0.10 Foot Candles
1	1.00 Foot Candles
5	5.00 Foot Candles

* Photometric calculations shown on plan are in foot candles.

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- EXISTING WETLAND BUFFER
- EXISTING WATERCOURSE
- EXISTING BRUSH LINE
- EXISTING TREE LINE
- PROPOSED # OF STALLS TO BE STRIPED
- PROPOSED CONCRETE CURB
- PROPOSED DROP CURB & RAMP
- PROPOSED EDGE OF SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED PAINTED CROSSWALK
- PROPOSED PAINTED STOPBAR
- PROPOSED DOUBLE YELLOW LINE
- PROPOSED SINGLE BROKEN WHITE LINE
- PROPOSED PAINTED DIRECTIONAL ARROW
- PROPOSED PAINTED HANDICAP PARKING SYMBOL
- PROPOSED ADA COMPLIANT RAMP
- PROPOSED STRIPED ISLAND
- PROPOSED LOADING SPACE
- PROPOSED RECYCLE / TRASH CONTAINER / REFUSE ENCLOSURE
- PROPOSED SINGLE POLE SIGN
- PROPOSED DOUBLE POLE SIGN
- PROPOSED DOUBLE SIDED SIGN
- PROPOSED BOLLARD
- PROPOSED GUIDE RAIL
- PROPOSED POLE MOUNTED LIGHT
- PROPOSED POST MOUNTED LIGHT
- PROPOSED BUILDING MOUNTED LIGHT
- PROPOSED DOOR LOCATION
- PROPOSED OVERHEAD DOOR LOCATION
- PROPOSED LANDSCAPING
- PROPOSED TREELINE

GRAPHIC SCALE
0 20 40 80
(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY

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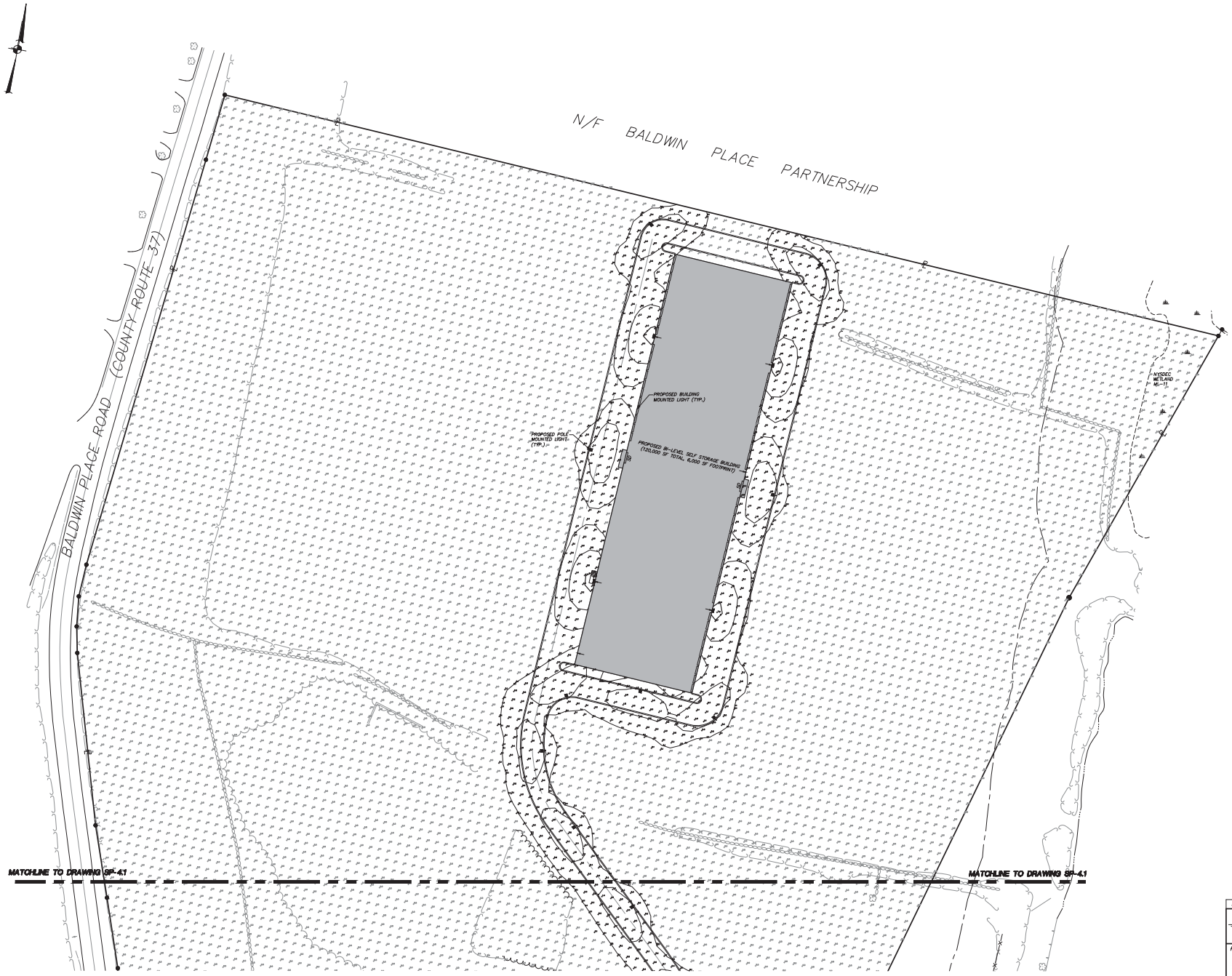
PROJECT:
DPD – SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING:
LIGHTING PLAN

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	9-29-23	DRAWN BY	M.E.U.	LP 1.1	10 / 16
SCALE	1" = 40'	CHECKED BY	A.D.T.		



LEGEND

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- PROPOSED LANDSCAPING
- PROPOSED TREELINE

GRAPHIC SCALE

0 20 40 80

(IN FEET)
1 inch = 40 ft.

NO.	DATE	REVISION	BY

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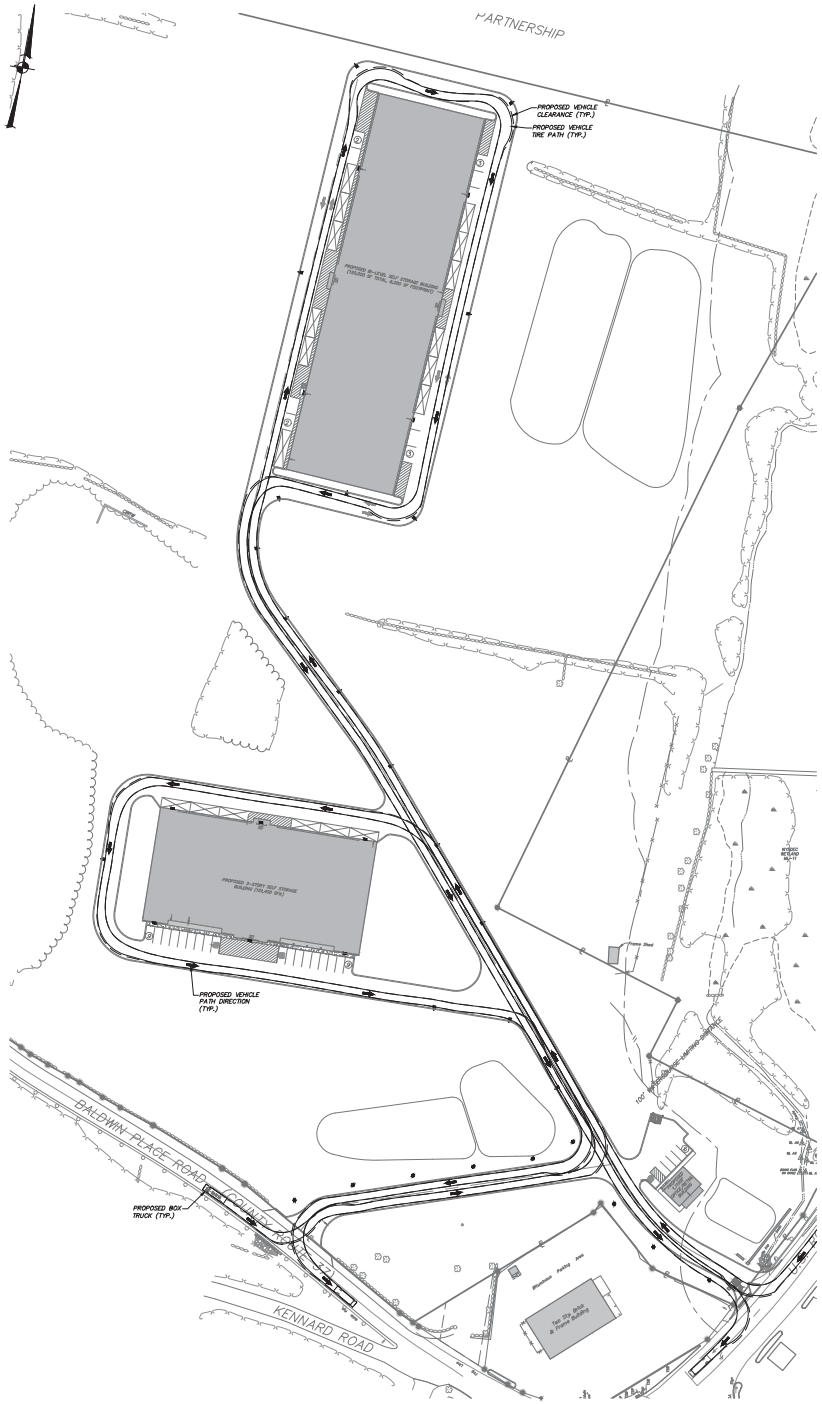
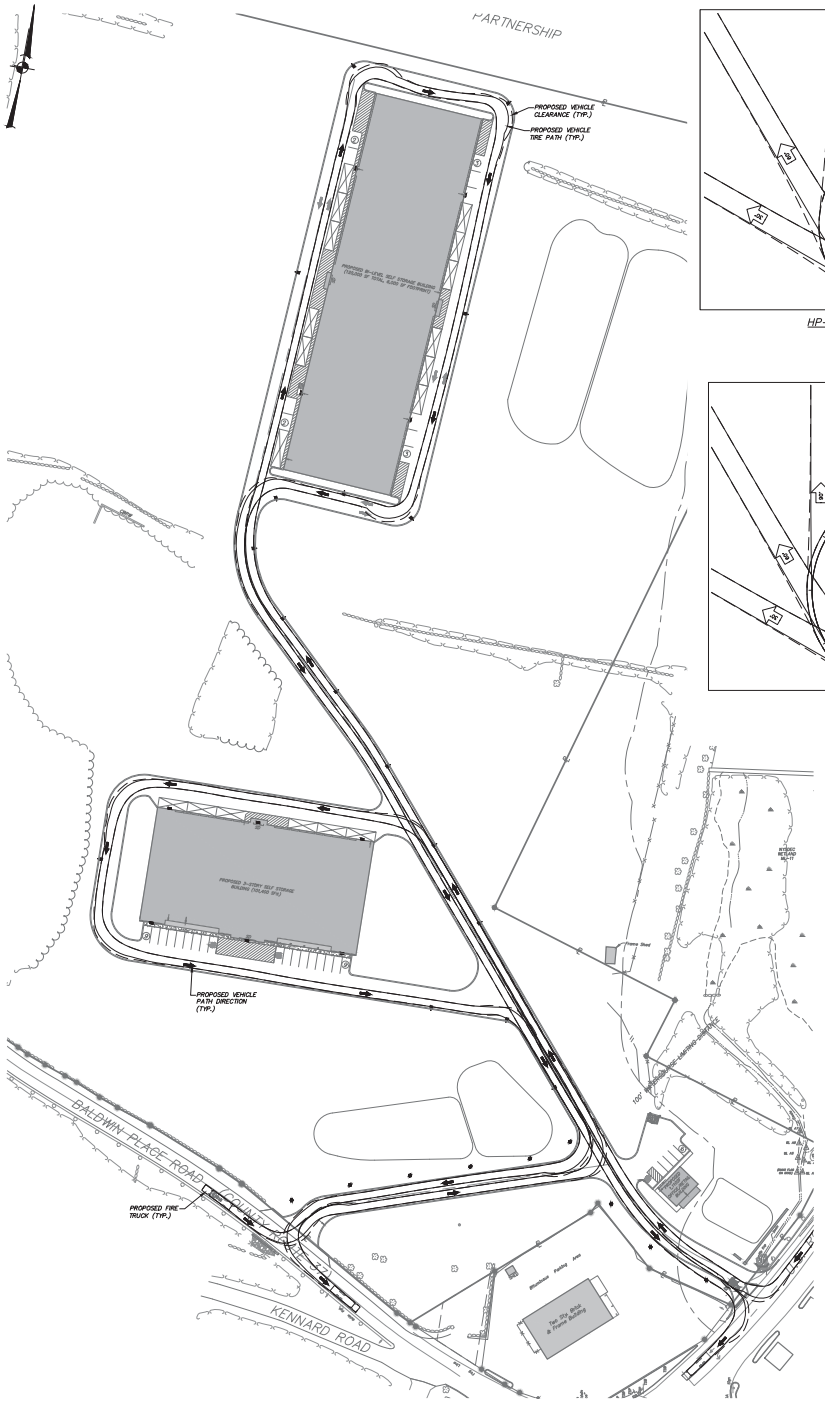
PROJECT:
DPD – SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING:
LIGHTING PLAN

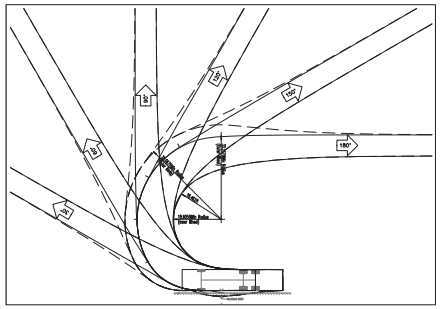
PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	9-29-23	DRAWN BY	D.S.W.	LP 1.2	11 / 16
SCALE	1" = 40'	CHECKED BY	A.D.T.		



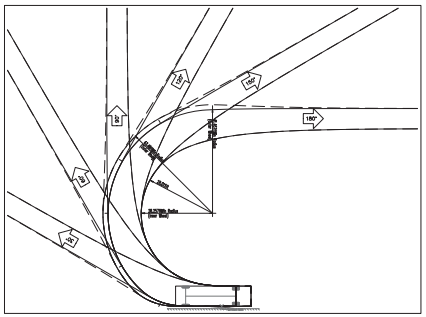
SU-30 BOX TRUCK VEHICLE MANEUVER



HP-100 AERIAL FIRE TRUCK VEHICLE MANEUVER



HP-100 AERIAL FIRE TRUCK TEMPLATE



SU-30 BOX TRUCK TEMPLATE

GRAPHIC SCALE

0 30 60 120

(IN FEET)
1 inch = 60 ft.

NO.	DATE	REVISION	BY
3	9-1-23	REVISED PER PLANNING BOARD COMMENTS	TSM
2	7-12-23	REVISED PER TOWN COMMENTS	BY
1	5-15-23	REVISED PER PB COMMENTS	MEU

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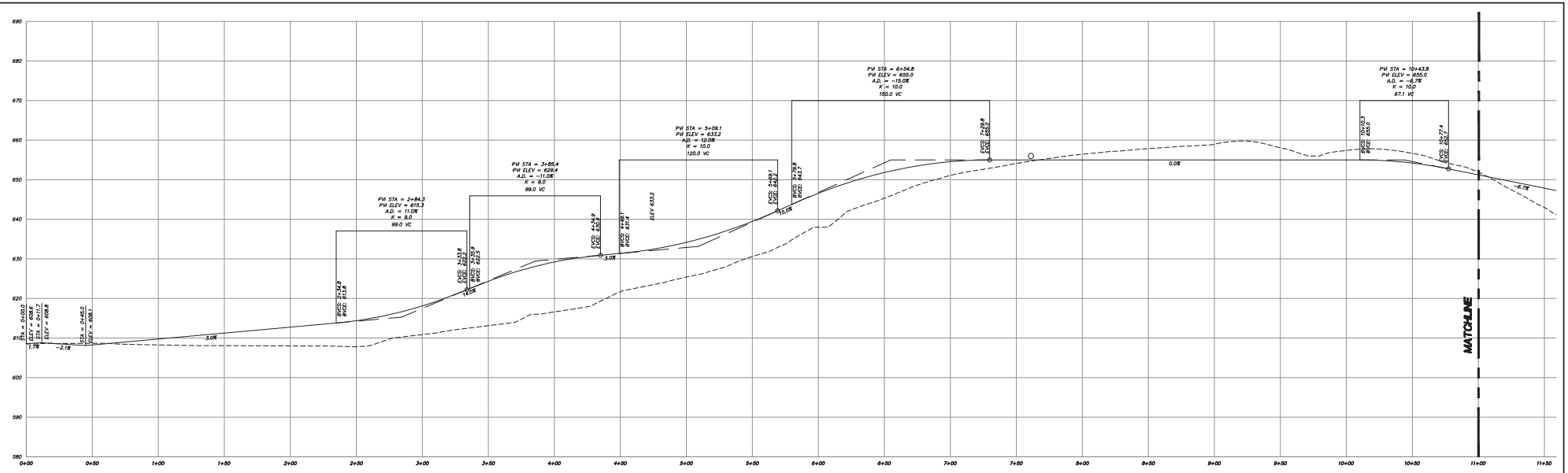
PROJECT:
DPD – SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

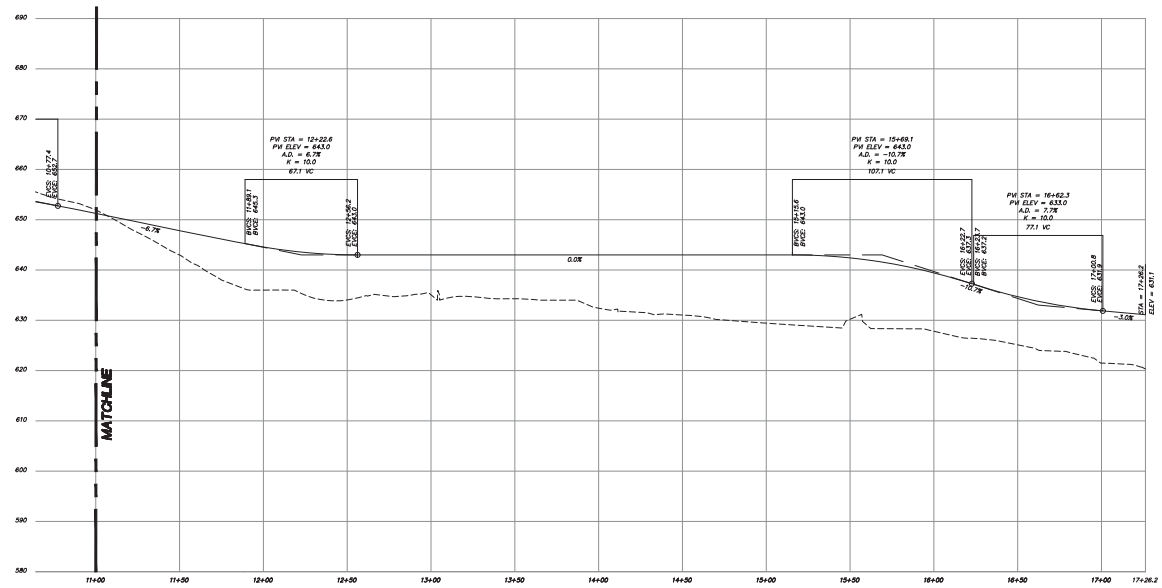
DRAWING:
VEHICLE MANEUVERING PLAN

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	5-15-23	DRAWN BY	J.F.R.	VM-1	12 / 16
SCALE	1" = 60'	CHECKED BY	A.D.T.		



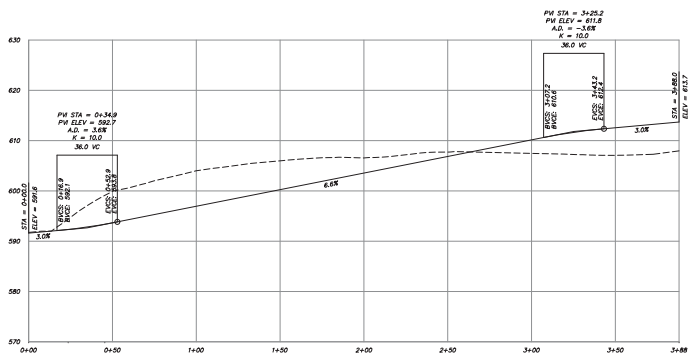
PROFILE – MAIN DRIVEWAY

SCALE: HORIZ. 1" = 30'
VER. 1" = 10'



PROFILE – MAIN DRIVEWAY

SCALE: HORIZ. 1" = 30'
VER. 1" = 10'



PROFILE – ACCESS ROAD

SCALE: HORIZ. 1" = 30'
VER. 1" = 10'

GRAPHIC SCALE

0 15 30 60

(IN FEET)
1 inch = 30 ft.

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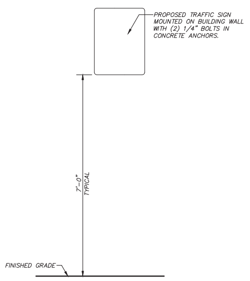
PROJECT:
DPD – SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING:
ROAD PROFILES

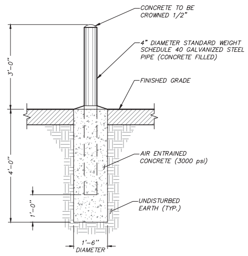
PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	3-8-23	DRAWN BY	M.E.U.	PR-1	13 / 16
SCALE	1" = 30'	CHECKED BY	A.D.T.		



NOTE: FOR HANDICAP PARKING SIGNAGE, SIGNS SHALL BE INSTALLED AT A CLEAR HEIGHT OF BETWEEN 5'-0" AND 7'-0" ABOVE GRADE OF PARKING SPACE AND SUCH THAT SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.

BUILDING MOUNTED SIGN DETAIL

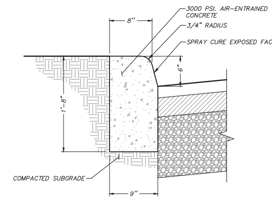
(N.T.S.)



NOTE: BOLLARD SLEEVES STYLE AND COLOR TO BE DETERMINED BY OWNER.

STEEL BOLLARD DETAIL

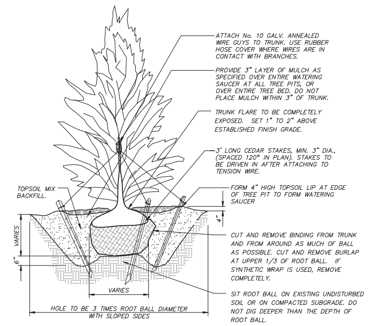
(N.T.S.)



NOTE: TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 10'-0" APART AND SHALL BE FILLED WITH CELLULAR COMPRESSION MATERIALS AS SPECIFIED, RECESSED 1/4" IN FROM FRONT FACE AND TOP OF CURB.

CONCRETE CURB DETAIL

(N.T.S.)

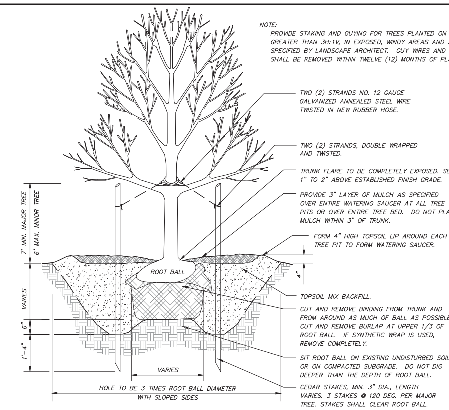

ATTACH No. 10 GALV. ANNEALED WIRE GUYS TO TRUNK. USE RUBBER HOSE COVER WHERE WIRES ARE IN CONTACT WITH BRANCHES.
PROVIDE 3" LAYER OF MULCH AS SPECIFIED OVER ENTIRE WATERING SAUCER AT ALL TREE PITS, OR OVER ENTIRE TREE BED. DO NOT PLACE MULCH WITHIN 3" OF TRUNK.
TRUNK FLARE TO BE COMPLETELY EXPOSED. SET 1" TO 2" ABOVE ESTABLISHED FINISH GRADE.
3' LONG CEDAR STAKES, MIN. 3" DIA., (SPACED 120° IN PLAN). STAKES TO BE DRIVEN IN AFTER ATTACHING TO TENSION WIRE.
FORM 4" HIGH TOPSOIL LIP AT EDGE OF TREE PIT TO FORM WATERING SAUCER
TOPSOIL MIX BACKFILL
CUT AND REMOVE BINDING FROM TRUNK AND FROM AROUND AS MUCH OF BALL AS POSSIBLE. CUT AND REMOVE BURLAP AT UPPER 1/3 OF ROOT BALL. IF SYNTHETIC WRAP IS USED, REMOVE COMPLETELY.
SIT ROOT BALL ON EXISTING UNDISTURBED SOIL OR ON COMPACTED SUBGRADE. DO NOT DIG DEEPER THAN THE DEPTH OF ROOT BALL.
VARIES
6"
4"
HOLE TO BE 3 TIMES ROOT BALL DIAMETER WITH SLOPED SIDES

NOTE: PROVIDE STAKING AND GUYING FOR TREES PLANTED ON SLOPES GREATER THAN 3H:1V, IN EXPOSED, WINDY AREAS AND AS SPECIFIED BY LANDSCAPE ARCHITECT. GUY WIRES AND STAKES SHALL BE REMOVED WITHIN TWELVE MONTHS OF PLANTING.

EVERGREEN TREE PLANTING DETAIL

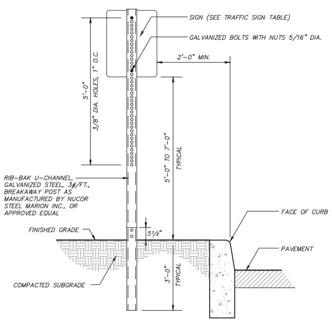
(N.T.S.)

NOTE: PROVIDE STAKING AND GUYING FOR TREES PLANTED ON SLOPES GREATER THAN 3H:1V, IN EXPOSED, WINDY AREAS AND AS SPECIFIED BY LANDSCAPE ARCHITECT. GUY WIRES AND STAKES SHALL BE REMOVED WITHIN TWELVE (12) MONTHS OF PLANTING.


TWO (2) STRANDS NO. 12 GAUGE GALVANIZED ANNEALED STEEL WIRE TWISTED IN NEW RUBBER HOSE.
TWO (2) STRANDS, DOUBLE WRAPPED AND TWISTED.
TRUNK FLARE TO BE COMPLETELY EXPOSED. SET 1" TO 2" ABOVE ESTABLISHED FINISH GRADE.
PROVIDE 3" LAYER OF MULCH AS SPECIFIED OVER ENTIRE WATERING SAUCER AT ALL TREE PITS OR OVER ENTIRE TREE BED. DO NOT PLACE MULCH WITHIN 3" OF TRUNK.
FORM 4" HIGH TOPSOIL LIP AROUND EACH TREE PIT TO FORM WATERING SAUCER.
ROOT BALL
TOPSOIL MIX BACKFILL.
CUT AND REMOVE BINDING FROM TRUNK AND FROM AROUND AS MUCH OF BALL AS POSSIBLE. CUT AND REMOVE BURLAP AT UPPER 1/3 OF ROOT BALL. IF SYNTHETIC WRAP IS USED, REMOVE COMPLETELY.
SIT ROOT BALL ON EXISTING UNDISTURBED SOIL OR ON COMPACTED SUBGRADE. DO NOT DIG DEEPER THAN THE DEPTH OF ROOT BALL.
CEDAR STAKES, MIN. 3" DIA., LENGTH VARIES. 3 STAKES @ 120 DEG. PER MAJOR TREE. STAKES SHALL CLEAR ROOT BALL.
7' MIN. MAJOR TREE
6' MAX. MINOR TREE
VARIES
6"
1'-4"
4"
HOLE TO BE 3 TIMES ROOT BALL DIAMETER WITH SLOPED SIDES

TREE PLANTING DETAIL

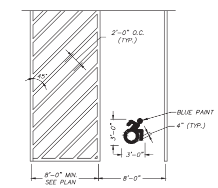
(N.T.S.)


SIGN (SEE TRAFFIC SIGN TABLE)
GALVANIZED BOLTS WITH NUTS 5/16" DIA.
2'-0" MIN.
3/8" DIA. HOLES, 1" O.C.
5'-0"
5'-0" TO 7'-0" TYPICAL
RIB-BAK U-CHANNEL, GALVANIZED STEEL, 3#/FT., BREAKAWAY POST AS MANUFACTURED BY NUCOR STEEL MARION INC., OR APPROVED EQUAL.
FACE OF CURB
FINISHED GRADE
PAVEMENT
COMPACTED SUBGRADE
3'-0" TYPICAL

NOTE: FOR HANDICAP PARKING SIGNAGE, SIGNS SHALL BE INSTALLED AT A CLEAR HEIGHT OF BETWEEN 5'-0" AND 7'-0" ABOVE GRADE OF PARKING SPACE AND SUCH THAT SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.

TRAFFIC SIGN DETAIL

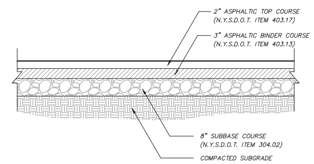
(N.T.S.)



NOTE: ALL HANDICAP STRIPING SHALL BE 4" WIDE BLUE PAINT.

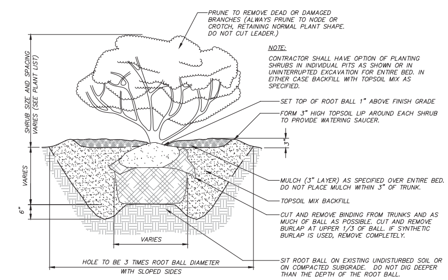
PAINTED NYS ACCESSIBLE PARKING DETAIL

(N.T.S.)



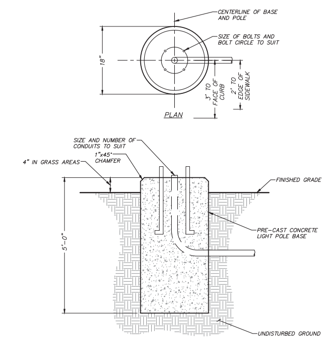
SITE PAVEMENT SECTION DETAIL

(N.T.S.)


PRUNE TO REMOVE DEAD OR DAMAGED BRANCHES (ALWAYS PRUNE TO NODE OR CROTCH, RETAINING NORMAL PLANT SHAPE. DO NOT CUT LEADER.)
NOTE: CONTRACTOR SHALL HAVE OPTION OF PLANTING SHRUBS IN INDIVIDUAL PITS AS SHOWN OR IN UNINTERRUPTED EXCAVATION FOR ENTIRE BED. IN EITHER CASE BACKFILL WITH TOPSOIL MIX AS SPECIFIED.
SET TOP OF ROOT BALL 1" ABOVE FINISH GRADE
FORM 3" HIGH TOPSOIL LIP AROUND EACH SHRUB TO PROVIDE WATERING SAUCER.
MULCH (3" LAYER) AS SPECIFIED OVER ENTIRE BED. DO NOT PLACE MULCH WITHIN 3" OF TRUNK.
TOPSOIL MIX BACKFILL
CUT AND REMOVE BINDING FROM TRUNKS AND AS MUCH OF BALL AS POSSIBLE. CUT AND REMOVE BURLAP AT UPPER 1/3 OF BALL. IF SYNTHETIC BURLAP IS USED, REMOVE COMPLETELY.
SIT ROOT BALL ON EXISTING UNDISTURBED SOIL OR ON COMPACTED SUBGRADE. DO NOT DIG DEEPER THAN THE DEPTH OF ROOT BALL.
SHRUB SIZE AND SPACING VARIES (SEE PLANT LIST)
VARIES
6"
3"
HOLE TO BE 3 TIMES ROOT BALL DIAMETER WITH SLOPED SIDES

SHRUB PLANTING DETAIL

(N.T.S.)

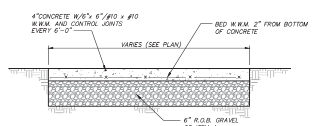

CENTERLINE OF BASE AND POLE
SIZE OF BOLTS AND BOLT CIRCLE TO SUIT
18"
3' TO FACE OF CURB
2' TO EDGE OF SIDEWALK
PLAN
SIZE AND NUMBER OF CONDUITS TO SUIT
1"x45° CHAMFER
4" IN GRASS AREAS
FINISHED GRADE
PRE-CAST CONCRETE LIGHT POLE BASE
5'-0"
UNDISTURBED GROUND
ELEVATION

NOTES:

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE BOLT PATTERN AND CONDUIT SIZES WITH LIGHTING SUPPLIER AND ELECTRICAL DESIGN.
2. IF THE LIGHT POLE IS BEHIND THE CURB IT SHALL SIT 3' ON CENTER BEHIND THE FACE OF CURB. OR IF IT IS BEHIND A SIDEWALK IT SHALL SIT 2' ON CENTER BEHIND THE EDGE OF THE SIDEWALK

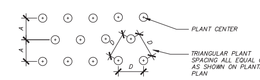
LIGHT POLE BASE DETAIL

(N.T.S.)



CONCRETE SIDEWALK DETAIL

(N.T.S.)

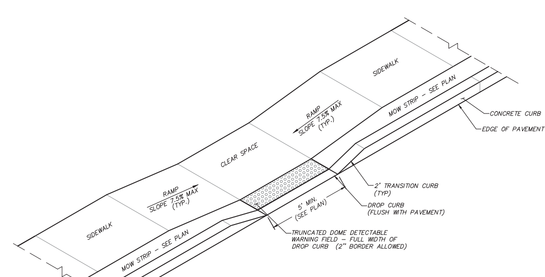


GRASS PLANT SPACING PLAN

SPACING "D"	ROW "A"	PLANTS PER SQ. FT.
24" O.C.	20.8"	0.29
18" O.C.	15.6"	0.50
12" O.C.	10.4"	1.15
10" O.C.	8.7"	1.66
8" O.C.	6.9"	2.60

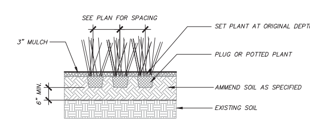
NOTES:
PLANT QUANTITIES WERE DETERMINED BY MULTIPLYING AREA (SQ. FT.) BY NUMBER OF PLANTS PER SQ. FT. FOR REQUIRED SPACING

QUANTITY OF PLANTS AND SPACING AS NOTED IN PLANTING SCHEDULE



SIDEWALK CURB RAMP (TYPE 1)

(N.T.S.)



PERENNIAL / ORNAMENTAL GRASS PLANTING DETAIL

(N.T.S.)

GENERAL SITE SEEDING NOTES:

1. All proposed seeded areas to receive 4" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
2. Upon final grading and placement of topsoil and any required soil amendments, areas to receive permanent vegetation cover in combination with suitable mulch as follows:
   - select seed mixture per drawings and seeding notes.
   - fertilizer applied at the manufacturer's recommended rate using Lesco 10-0-18 (no phosphorous) fertilizer or equivalent.
   - mulch: salt hay or small grain straw applied at a rate of 90 lbs./1000 s.f. or 2 tons/acre, to be applied and anchored according to New York State Standards and Specifications for Erosion and Sediment Control, August 2005.
   - if the season prevents the establishment of a permanent vegetation cover, the disturbed areas will be mulched with straw or equivalent.
3. The seed mixes as specified on these drawings are as follows:
   A. Seed Mix for lawn areas and mow strip along roads at a rate of 100 lbs. per acre:
      Kentucky Bluegrass 20%
      Creeping Red Fescue 40%
      Perennial Ryegrass 20%
      Annual Ryegrass 20%
   B. Seed Mix for Wildflower Meadow areas and SSTS area as shown on the drawings at a rate of 15 lbs. per acre:
      Low-Growing Wildflower & Grass Mix (ERNMX-156) from Ernst Conservation Seeds of Meadville, PA.
   C. Seed Mix for Meadow areas as shown on the drawings, including tops of berms and backslopes of embankments of stormwater basins at a rate of 25 lbs. per acre:
      New England Conservation/Wildlife Mix from New England Wetland Plants, Inc. of Amherst, MA.
   D. Seed Mix #2 for areas as shown on the drawings and slope areas 2:1 at a rate of 35 lbs. per acre:
      New England Erosion Control/Restoration Mix (for Dry Sites) from New England Wetland Plants, Inc. of Amherst, MA.
   E. Seed Mix for Wildflower areas as shown on the drawings at a rate of 23 lbs. per acre:
      New England Wildflower Mix from New England Wetland Plants, Inc. of Amherst, MA.
   F. Seed Mix for dry slopes along road sides as shown on the drawings at a rate of 35 lbs. per acre:
      New England Roadside Matrix Upland Seed Mix by New England Wetland Plants, Inc. of Amherst, MA.
   G. Seed Mix for wet meadows and low areas along road side as shown on drawings at a rate of 35 lbs. per acre:
      New England Roadside Matrix Wet Meadow Seed Mix by New England Wetland Plants, Inc. of Amherst, MA.
4. See Drawing D-X "Site Details" for Stormwater Basin seeding.

GENERAL PLANTING NOTES:

1. All proposed planting beds to receive a 12" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
2. Any new soils added will be amended as required by results of soil testing and placed using a method that will not cause compaction.
3. No fertilizer shall be added in stormwater basin plantings. Nutrient requirements to be met by incorporation of acceptable organic matter.
4. All plant material to be nursery grown.
5. Plants shall conform with ANSI Z60.1 American Standard for Nursery Stock in all ways including dimensions.
6. Plant material shall be taken from healthy nursery stock.
7. All plants shall be grown under climate conditions similar to those in the locality of the project.
8. Plants shall be planted in all locations designed on the plan or as staked in the field by the Landscape Architect.
9. The location and layout of landscape plants shown on the site plan shall take precedence in any discrepancies between the quantities of plants shown on the plans and the quantity of plants in the Plant List.
10. Provide a 3" layer of shredded pine bark mulch (or as specified) over entire watering saucer at all tree pits or over entire planting bed. Do not place mulch within 3" of tree or shrub trunks.
11. All landscape plantings shall be maintained in a healthy condition at all times. Any dead or diseased plants shall immediately be replaced "in kind" by the contractor (during warranty period) or project owner.
12. See Drawing D-X "Site Details" for Stormwater Basin plantings.

NO.	DATE	REVISION	BY
4	9-29-23	REVISED PER PLANNING BOARD COMMENTS	TSM
3	9-1-23	REVISED PER PLANNING BOARD COMMENTS	TSM
2	7-12-23	REVISED PER TOWN COMMENTS	BY
1	5-15-23	REVISED PER PB COMMENTS	MEU

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:

DPD - SELF STORAGE

4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

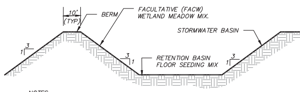
DRAWING:

DETAILS

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.
DATE	3-8-23	DRAWN BY	D.S.W.
SCALE	AS SHOWN	CHECKED BY	A.D.T.

DRAWING NO. D-1

SHEET 14 / 16

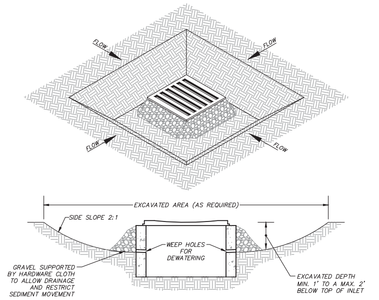


NOTES:

1. ALL SEED MIXES MANUFACTURED BY ERNST CONSERVATION SEED OF MEADVILLE, PA OR APPROVED EQUAL.
2. PROVIDE 4" TOPSOIL AND APPLY SPECIFIED SEED MIXES AT A RATE OF 25 LBS./ ACRE ALONG WITH ANNUAL RYEGRASS AT A RATE OF 50 LBS./ACRE.

DRY STORMWATER BASIN PLANTING DETAIL

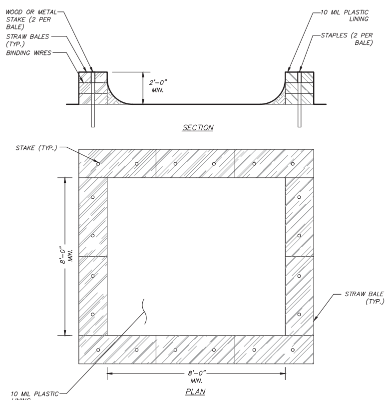
(N.T.S.)



1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL EXCAVATION WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY, AND STABILIZE WITH PERMANENT SEEDING
5. MAXIMUM DRAINAGE AREA = 1 ACRE

EXCAVATED DROP INLET PROTECTION DETAIL

(N.T.S.)

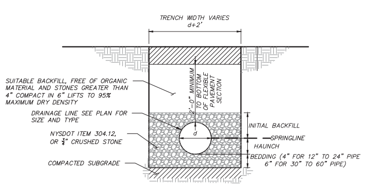


CONCRETE WASHOUT AREA DETAIL

(N.T.S.)

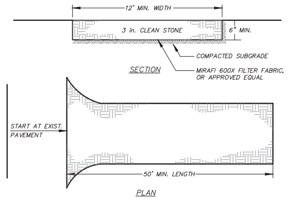
NOTES

1. TEMPORARY CONCRETE WASHOUT TYPE ABOVE GRADE WILL BE CONSTRUCTED AS SHOWN ABOVE, WITH RECOMMENDED MINIMUM LENGTH AND MINIMUM WIDTH OF 8 FT.
2. THE WASHOUT WILL BE MINIMUM OF 100 FT FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS AND OTHER SURFACE WATERS.
3. PLASTIC LINING WILL BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.



DRAINAGE LINE TRENCH DETAIL

(N.T.S.)

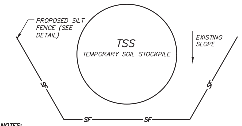


INSTALLATION NOTES

1. STONE SIZE – USE 3" STONE
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.)
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

(N.T.S.)

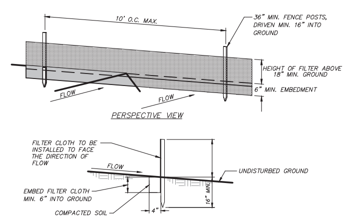


NOTES:

1. AREA CHOSEN FOR STOCKPILE LOCATION SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE IMMEDIATELY SEEDED WITH K31 PERENNIAL TALL FESCUE.
4. ALL STOCKPILES SHALL BE PROTECTED WITH SILT FENCING INSTALLED ON THE DOWNGRADIENT SIDE.

TEMPORARY SOIL STOCKPILE DETAIL

(N.T.S.)



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. FILTER CLOTH TO BE FASTENED SECURELY TO POSTS AT TOP AND MID SECTION.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

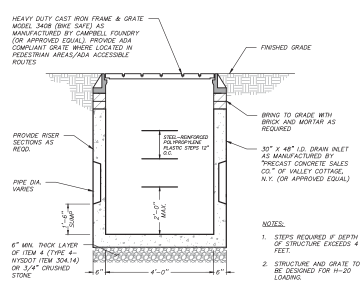
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUAL

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

SILT FENCE DETAIL

(N.T.S.)



NOTES:

1. STEPS REQUIRED IF DEPTH OF STRUCTURE EXCEEDS 4 FEET.
2. STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING.

30" X 48" DRAIN INLET DETAIL

(N.T.S.)

SOIL RESTORATION REQUIREMENTS[1,2]

(ONSITE SOILS WITHIN THE LIMIT OF DISTURBANCE BELONG TO THE HYDROLOGIC SOIL GROUP (HSG) D)

THE CONTRACTOR SHALL BE REQUIRED TO PERFORM THE FOLLOWING SOIL RESTORATION TECHNIQUES PRIOR TO INSTALLING TOPSOIL, SEED AND MULCH. ITEMS STRICKEN IN THE FOLLOWING TABLE DO NOT NEED TO BE PERFORMED.

TYPE OF SOIL DISTURBANCE	SOIL RESTORATION REQUIREMENT		COMMENTS/EXAMPLES
No soil disturbance	Restoration not permitted		Preservation of Natural Features
Minimal soil disturbance	Restoration not required		Clearing and grubbing
Areas where topsoil is stripped only – no change in grade	HSG A & B: Apply 6" of topsoil	HSG C & D: Aerate[3] and apply 6" of topsoil	Protect area from any ongoing construction activities
Areas of cut or fill	HSG A & B: Aerate[3] and apply 6" of topsoil	HSG C & D: Apply full Soil Restoration[4]	
Heavy traffic areas on site (especially in a zone 5–25 feet around buildings but not within a 5 foot perimeter around foundation walls.)	Apply full Soil Restoration[5] (de-compaction and compost enhancement)[6]		
Areas where runoff reduction and/or infiltration practices are applied	Restoration not required, but may be applied for appropriate practices.		Keep construction equipment from crossing these areas. To protect newly installed practices from any ongoing construction activities construction a single phase operation fence area.
Redevelopment projects	Soil restoration is required on redevelopment projects in areas where existing impervious area will be converted to pervious area.		

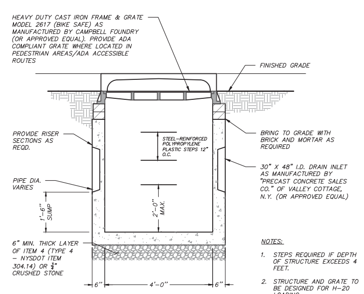
1. Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler.
2. Per Deep Ripping and De-compaction, DEC 2008 .
3. Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which functions like a mini-subsoiler.
4. During periods of relatively low to moderate subsoil moisture, the disturbed soils are returned to rough grade and the following Soil Restoration steps applied:
   a. Apply 3 inches of compost over subsoil.
   b. Till compost into subsoil to a depth of at least 12 inches using a cat-mounted ripper, tractor-mounted disc, or tiller, mixing, and circulating air and compost into subsoils.
   c. Rock-pick until uplifted stone/rock materials of four inches and larger size area cleaned off the site.
   d. Apply topsoil to a depth of 6 inches.
   e. Vegetate as required by seeding notes located on the project drawings.
   f. Tilling should not be performed within the drip line of any existing trees or over any utility installations that are within 24 inches of the surface.
5. Compost shall be aged, from plant derived materials, free of viable weed seeds, have no visible free water or dust produced when handling, pass through a half inch screen and have a pH suitable to grow desired plants.

REQUIRED POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICE COMPONENTS:

1. Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP-0-20-001), all construction projects needing post-construction stormwater management practices shall prepare a SWPPP that also includes practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual ("Design Manual"). Where post-construction stormwater management practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of SWPPP components is provided in accordance with Part III.B.2a-f and III.B.3:
   a. Identification of all post-construction stormwater management practices to be constructed as part of the project; This plan, and details/notes shown hereon serve to satisfy this SWPPP requirement.
   b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice; This plan, and details/notes shown hereon serve to satisfy this SWPPP requirement.
   c. A Stormwater Modeling and Analysis Report including pre-development conditions, post-development conditions, the results of the stormwater modeling, a summary table demonstrating that each practice has been designed in conformance with the sizing criteria, identification of and justification for any deviations from the Design Manual, and identification of any design criteria that are not required. The required analysis is provided in the report titled Stormwater Pollution Prevention Plan for DPD – Self Storage.
   d. Soil testing results and locations. This SWPPP requirement is provided in the report titled Stormwater Pollution Prevention Plan for DPD – Self Storage.
   e. Infiltration testing results. This SWPPP requirement is provided in the report titled Stormwater Pollution Prevention Plan for DPD – Self Storage.
   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. The Permanent Stormwater Facilities Maintenance Schedule provided on these plans serves to satisfy this requirement.
2. Enhanced Phosphorus Removal Standards – Beginning on September 30, 2008, 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 Enhanced Phosphorus Removal Standards included in the most current version of the technical standard, New York Stormwater Management Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a – 2.f above. The permanent stormwater practices for this project have been sized according to chapter 10 of the Design Manual Enhanced Phosphorus Removal Standards. Please see 2.a – 2.f above.

CONSTRUCTION SEQUENCE:

1. Install stabilized construction entrance/anti-tracking pad at driveway entrance.
2. Install silt fence in general locations indicated on the plan.
3. Begin clearing and grubbing operations associated with house, driveway and SSTS.
4. Strip and stockpile topsoil on site for later use in lawn and landscape areas.
5. Begin excavation for foundation, individual lot grading, and construction of individual driveway off of the common driveway.
6. Begin house construction and installation of SSTS and well.
7. Install Infiltration Trench and connect Roof Leader Drains.
8. Upon completion of grading operations, install finished driveway surfaces.
9. Topsoil, seed, and mulch all disturbed areas as soon as practical in accordance with the Erosion and Sediment Control Notes contained on this page.



NOTES:

1. STEPS REQUIRED IF DEPTH OF STRUCTURE EXCEEDS 4 FEET.
2. STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING.

30" X 48" CATCH BASIN DETAIL

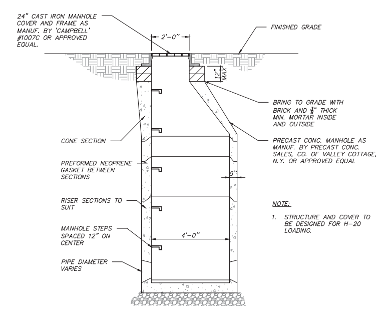
(N.T.S.)

REQUIRED SWPPP CONTENTS PER GP-0-20-001:

1. Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP-0-20-001), all Stormwater Pollution Prevention Plan's (SWPPP) shall include erosion and sediment control practices designed in conformance with the most current version of the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." Where erosion and sediment control practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of required SWPPP components is provided in accordance with Part III.B.1a-l of General Permit GP-0-20-001:

Background Information: The subject project consists of the construction of a self-storage facility.

   a. The applicant proposes to construct 9 self-storage buildings and a 1,110 sf± office building which would be constructed on the tax map lot number. Access to the site will be provided via the existing curb cuts on the US Route 6 and Baldwin Place Road with a new internal driveway network being constructed. A proposed drilled well and septic system will service the project. A Stormwater Pollution Prevention Plan has been paused.
   b. Site map / construction drawing: These plans serve to satisfy this SWPPP requirement.
   c. Description of the soils present at the site: Onsite soils located within the proposed limits of disturbance consist of Paxton fine sandy loam (PnB, PnC, PnD), as identified on the Soil Conservation Service Web Soil Survey. These soil types belong to the Hydrologic Soil Group C.
   d. Construction phasing plan / sequence of operations: The Construction Sequence and phasing found on these plans provide the required phasing. A Construction Sequence and Erosion and Sediment Control Maintenance Schedule has been provided. The Sedimentation and Erosion Control Notes contained hereon outline a general sequence of operations for the proposed project. In general all erosion and sediment control facilities shall be installed prior to commencement with land disturbing activities, and areas of disturbance shall be limited to the shortest period of time as practicable.
   e. Description of erosion and sediment control practices: This plan, and details / notes shown hereon serve to satisfy this SWPPP requirement.
   f. Temporary and permanent soil stabilization plan: The Sedimentation and Erosion Control Notes and Details provided heron identify temporary and permanent stabilization measures to be employed with respect to specific elements of the project, and at the various stages of development.
   g. Site map / construction drawing: This plan serves to satisfy this SWPPP requirement.
   h. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices: The details, Erosion and Sediment Control Notes, and Erosion and Sediment Control Maintenance Schedule serve to satisfy this SWPPP requirement.
   i. An inspection schedule: Inspections are to be performed twice weekly and by a qualified professional as required by the General Permit GP-0-20-001. In addition the NYSDEC Trained Contractor shall perform additional inspections as cited in the Sedimentation and Erosion Control Notes.
   j. A description of pollution prevention measures that will be used to control litter, construction chemicals and construction debris: In general, all construction litter / debris shall be collected and removed from the site. The general contractor shall supply either waste barrels or dumpster for proper waste disposal. Any construction chemicals utilized during construction shall either be removed from site daily by the contractor or stored in a structurally sound and weatherproof building. No hazardous waste shall be disposed of onsite, and shall ultimately be disposed of in accordance with all federal, state and local regulations. Material Safety Data Sheets (MSDS), material inventory, and emergency contact numbers shall be maintained by the general contractor for all construction chemicals utilized onsite. Finally, temporary sanitary facilities (portable toilets) shall be provided onsite during the entire length of construction, and inspected weekly for evidence of leaking holding tanks.
   k. A description and location of any stormwater discharges associated with industrial activity other than construction at the site: There are no known industrial stormwater discharges present or proposed at the site.
   l. Identification of any elements of the design that are not in conformance with the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." All proposed elements of this SWPPP have been designed in accordance with the "New York Standards and Specifications for Erosion and Sediment Control."
2. Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP-0-20-001), all construction projects needing post-construction stormwater management practices shall prepare a SWPPP that also includes practices designed in conformance with the most current version of the technical standard, New York State Stormwater Management Design Manual ("Design Manual"). Where post-construction stormwater management practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of SWPPP components is provided in accordance with Part III.B.2a-f and III.B.3:
   a. Identification of all post-construction stormwater management practices to be constructed as part of the project; This plan, and details/notes shown hereon serve to satisfy this SWPPP requirement.
   b. A site map/construction drawing(s) showing the specific location and size of each post-construction stormwater management practice; This plan, and details/notes shown hereon serve to satisfy this SWPPP requirement.
   c. A Stormwater Modeling and Analysis Report including pre-development conditions, post-development conditions, the results of the stormwater modeling, a summary table demonstrating that each practice has been designed in conformance with the sizing criteria, identification of and justification for any deviations from the Design Manual, and identification of any design criteria that are not required. The required analysis is provided in the report titled Amended Stormwater Pollution Prevention Plan for DPD Self Storage.
   d. Soil testing results and locations. This SWPPP requirement is provided in the report titled Amended Stormwater Pollution Prevention Plan for DPD Self Storage.
   e. Infiltration testing results. This SWPPP requirement is provided in the report titled Amended Stormwater Pollution Prevention Plan for DPD Self Storage.
   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. The Permanent Stormwater Facilities Maintenance Schedule provided on these plans serves to satisfy this requirement.
3. Enhanced Phosphorus Removal Standards – Beginning on September 30, 2008, 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 Enhanced Phosphorus Removal Standards included in the most current version of the technical standard, New York Stormwater Management Design Manual. At a minimum, the post-construction stormwater management practice component of the SWPPP shall include items 2.a – 2.f above. The permanent stormwater practices for this project have been sized according to chapter 10 of the Design Manual Enhanced Phosphorus Removal Standards. Please see 2.a – 2.f above.



NOTE:

1. STRUCTURE AND COVER TO BE DESIGNED FOR H-20 LOADING.

DRAINAGE MANHOLE DETAIL

(N.T.S.)

EROSION & SEDIMENT CONTROL NOTES:

1. The owner's field representative (O.F.R.) will be responsible for the implementation and maintenance of erosion and sediment control measures on this site prior to and during construction.
2. All construction activities involving the removal or disposition of soil are to be provided with appropriate protective measures to minimize erosion and contain sediment disposition within. Minimum soil erosion and sediment control measures shall be implemented as shown on the plans and shall be installed in accordance with "New York Standards and Specifications For Erosion and Sediment Control," latest edition.
3. Wherever feasible, natural vegetation should be retained and protected. Disturbance shall be minimized in the areas required to perform construction. No more than 5 acres of unprotected soil shall be exposed at any one time.
4. When land is exposed during development, the exposure shall be kept to the shortest practical period of time. In the 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. Disturbance shall be minimized to the areas required to perform construction.
5. Silt fence shall be installed as shown on the plans prior to beginning any clearing, grubbing or earthwork.
6. All topsoil to be stripped from the area being developed shall be stockpiled and immediately seeded for temporary stabilization. Ryegrass (annual or perennial) at a rate of 30 lbs. per acre shall be used for temporary seeding in spring, summer or early fall. 'Aristook' Winter Rye (cereal rye) shall be used for temporary seeding in late fall and winter.
7. Any disturbed areas not subject to further disturbance or construction traffic, permanent or temporary, shall have soil stabilization measures initiated for permanent vegetation cover in combination with a suitable mulch within 1 business day of final grading. All seeded areas to receive a minimum 4" topsoil (from stockpile area) and be seeded and mulched as follows:
   - Seed mixture to be planted between March 21 and May 20, or between August 15 and October 15 or as directed by project representative at a rate of 100 pounds per acre in the following proportions:
     - Kentucky Bluegrass 20%
     - Creeping Red Fescue 40%
     - Perennial Ryegrass 20%
     - Annual Ryegrass 20%
   - Mulch: Salt hay or small grain straw applied at a rate of 90 lbs./1000 S.F. or 2 tons/acre, to be applied and anchored according to "New York Standards and Specification For Erosion and Sediment Control," latest edition.
8. Grass seed mix may be applied by either mechanical or hydroseeding methods.Seeding shall be performed in accordance with the current edition of the "NYSDOT Standard Specification, Construction and Materials, Section 610-3.02, Method No. 1". Hydroseeding shall be performed using materials and methods as approved by the site engineer.
9. Cut or fill slopes steeper than 3:1 shall be stabilized immediately after grading with Curlex I Single Net Erosion Control Blanket, or approved equal.
10. Paved roadways shall be kept clean at all times.
11. The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities.
12. All storm drainage outlets shall be stabilized, as required, before the discharge points become operational.
13. Stormwater from disturbed areas must be passed through erosion control barriers before discharge beyond disturbed areas or discharged into other drainage systems.
14. Erosion and sediment control measures shall be inspected and maintained on a daily basis by the O.F.R. to insure that channels, temporary and permanent ditches and pipes are clear of debris, that embankments and berms have not been breached and that all straw bales and silt fences are intact. Any failure of erosion and sediment control measures shall be immediately repaired by the contractor and inspected for approval by the O.F.R. and/or site engineer.
15. Dust shall be controlled by sprinkling or other approved methods as necessary, or as directed by the O.F.R.
16. Cut and fills shall not endanger adjoining property, nor divert water onto the property of others.
17. All fills shall be placed and compacted in 6" lifts to provide stability of material and to prevent settlement.
18. The O.F.R. shall inspect downstream conditions for evidence of sedimentation on a weekly basis and after rainstorms.
19. As warranted by field conditions, special additional erosion and sediment control measures, as specified by the site engineer and/or the Town Engineer shall be installed by the contractor.
20. Erosion and sediment control measures shall remain in place until all disturbed areas are suitably stabilized.

EROSION AND SEDIMENT CONTROL MAINTENANCE SCHEDULE

MONITORING REQUIREMENTS				MAINTENANCE REQUIREMENTS	
PRACTICE	DAILY	WEEKLY	AFTER RAINFALL	DURING CONSTRUCTION	AFTER CONSTRUCTION
SILT FENCE BARRIER	–	Inspect	Inspect	Clean/Replace	Remove
STABILIZED CONSTRUCTION ENTRANCE	Inspect	–	Inspect	Clean/Replace Stone and Fabric	Remove
DUST CONTROL	Inspect	–	Inspect	Mulching/ Spraying Water	N/A
*VEGETATIVE ESTABLISHMENT	–	Inspect	Inspect	Water/Reseed/ Remulch	Reseed to 80% Coverage
INLET PROTECTION	–	Inspect	Inspect	Clean/Repair/ Replace	Remove
SOIL STOCKPILES	–	Inspect	Inspect	Mulching/ Silt Fence Repair	Remove
SWALES	–	Inspect	Inspect	Clean/Mulch/ Repair	Mow Permanent Grass/Replace/ Repair Rip Rap
CHECK DAMS	–	Inspect	Inspect	Clean/Replace Stones/Repair	Clean/Replace Stones/Repair
CONCRETE DRAINAGE STRUCTURES	–	Inspect	Inspect	Clean Sumps/ Remove Debris/ Repair/Replace	Clean Sumps/ Remove Debris/ Repair/Replace
DRAINAGE PIPES	–	Inspect	Inspect	Clean/Repair	Clean/Repair
ROAD & PAVEMENT	–	Inspect	Inspect	Clean	Clean
*STORMWATER TRAP/BASIN	–	Inspect	Inspect	Clean/Mulch/ Repair/Reseed	See Permanent Stormwater Facilities Maintenance Schedule on Drawing SP-3.1

* Permanent vegetation is considered stabilized when 80% of the plant density is established. Erosion control measures shall remain in place until all disturbed areas are permanently stabilized.

Note: The party responsible for implementation of the maintenance schedule during and after construction is:

Bernad Creations Ltd
124 Ridge Road
Montgomery, NY 12549
and/or the current owner(s) of the subject property.

NO.	DATE	REVISION	BY
4	9-29-23	REVISED PER PLANNING BOARD COMMENTS	TSM
3	9-1-23	REVISED PER PLANNING BOARD COMMENTS	TSM
2	7-12-23	REVISED PER TOWN COMMENTS	BY
1	5-15-23	REVISED PER PB COMMENTS	MEU

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT: DPD – SELF STORAGE

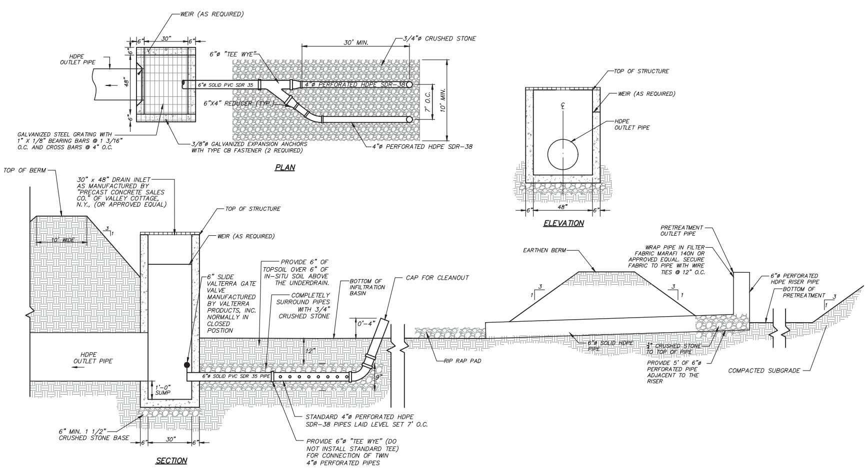
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING: DETAILS

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.
DATE	3-8-23	DRAWN BY	D.S.W.
SCALE	AS SHOWN	CHECKED BY	A.D.T.

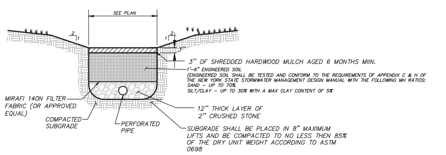
DRAWING NO. D-2

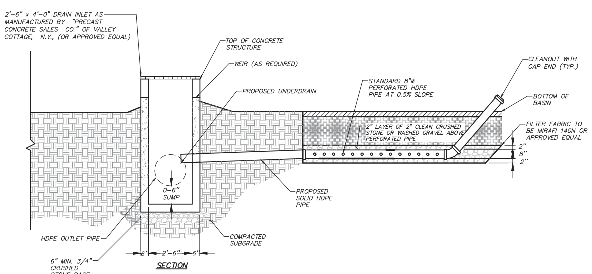
SHEET 15 / 16


WEIR (AS REQUIRED)
HDPE OUTLET PIPE
6"ø "TEE WYE"
30" MIN.
3/4"ø CRUSHED STONE
6"ø SOLID PVC SDR 35
4"ø PERFORATED HDPE SDR-38
6"x4" REDUCER (TYP.)
7' O.C.
10' MIN.
GALVANIZED STEEL GRATING WITH 1" X 1/8" BEARING BARS @ 1 3/16" O.C. AND CROSS BARS @ 4" O.C.
3/8"ø GALVANIZED EXPANSION ANCHORS WITH TYPE CB FASTENER (2 REQUIRED)
4"ø PERFORATED HDPE SDR-38
PLAN
TOP OF BERM
30" x 48" DRAIN INLET AS MANUFACTURED BY "PRECAST CONCRETE SALES CO." OF VALLEY COTTAGE, N.Y., (OR APPROVED EQUAL)
TOP OF STRUCTURE
WEIR (AS REQUIRED)
10' WIDE
6" SLIDE VALTERRA GATE VALVE MANUFACTURED BY VALTERRA PRODUCTS, INC. NORMALLY IN CLOSED POSITION
PROVIDE 6" OF TOPSOIL OVER 6" OF IN-SITU SOIL ABOVE THE UNDERDRAIN.
COMPLETELY SURROUND PIPES WITH 3/4" CRUSHED STONE
BOTTOM OF INFILTRATION BASIN
CAP FOR CLEANOUT
HDPE OUTLET PIPE
1'-0" SUMP
6" MIN. 1 1/2" CRUSHED STONE BASE
STANDARD 4"ø PERFORATED HDPE SDR-38 PIPES LAID LEVEL SET 7' O.C.
PROVIDE 6"ø "TEE WYE" (DO NOT INSTALL STANDARD TEE) FOR CONNECTION OF TWIN 4"ø PERFORATED PIPES
SECTION
RIP RAP PAD
EARTHEN BERM
PRETREATMENT OUTLET PIPE
WRAP PIPE IN FILTER FABRIC MARAFI 140N OR APPROVED EQUAL. SECURE FABRIC TO PIPE WITH WIRE TIES @ 12" O.C.
6"ø PERFORATED HDPE RISER PIPE
BOTTOM OF PRETREATMENT
6"ø SOLID HDPE PIPE
3/4" CRUSHED STONE TO TOP OF PIPE
PROVIDE 5' OF 6"ø PERFORATED PIPE ADJACENT TO THE RISER
COMPACTED SUBGRADE
TOP OF STRUCTURE
WEIR (AS REQUIRED)
HDPE OUTLET PIPE
48"
ELEVATION

PERMANENT INFILTRATION BASIN PRACTICE 3.1P & 5.1P (NYSDEC DESIGN I-2) OUTLET STRUCTURE DETAIL

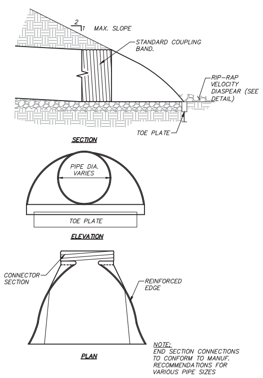
(N.T.S.)


SEE PLAN
3" OF SHREDDED HARDWOOD MULCH AGED 6 MONTHS MIN.
1'-6" ENGINEERED SOIL
MIRAFI 140N FILTER FABRIC (OR APPROVED EQUAL)
COMPACTED SUBGRADE
PERFORATED PIPE
12" THICK LAYER OF 2" CRUSHED STONE
SUBGRADE SHALL BE PLACED IN 8" MAXIMUM LIFTS AND BE COMPACTED TO NO LESS THEN 85% OF THE DRY UNIT WEIGHT ACCORDING TO ASTM D698
SECTION


2'-6" x 4'-0" DRAIN INLET AS MANUFACTURED BY "PRECAST CONCRETE SALES CO." OF VALLEY COTTAGE, N.Y., (OR APPROVED EQUAL)
TOP OF CONCRETE STRUCTURE
WEIR (AS REQUIRED)
PROPOSED UNDERDRAIN
STANDARD 8"ø PERFORATED HDPE PIPE AT 0.5% SLOPE
CLEANOUT WITH CAP END (TYP.)
BOTTOM OF BASIN
2" LAYER OF 2" CLEAN CRUSHED STONE OR WASHED GRAVEL ABOVE PERFORATED PIPE
FILTER FABRIC TO BE MIRAFI 140N OR APPROVED EQUAL
0-6" SUMP
PROPOSED SOLID HDPE PIPE
HDPE OUTLET PIPE
COMPACTED SUBGRADE
6" MIN. 3/4" CRUSHED STONE BASE
2'-6"
SECTION

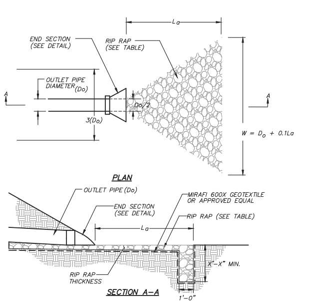
BIORETENTION FILTER 4.1BP OUTLET STRUCTURE DETAIL (NYSDEC DESIGN F-5)

(N.T.S.)


MAX. SLOPE
STANDARD COUPLING BAND.
RIP-RAP VELOCITY DIASPEAR (SEE DETAIL)
TOE PLATE
SECTION
PIPE DIA. VARIES
TOE PLATE
ELEVATION
CONNECTOR SECTION
REINFORCED EDGE
PLAN
NOTE:
END SECTION CONNECTIONS TO CONFORM TO MANUF. RECOMMENDATIONS FOR VARIOUS PIPE SIZES

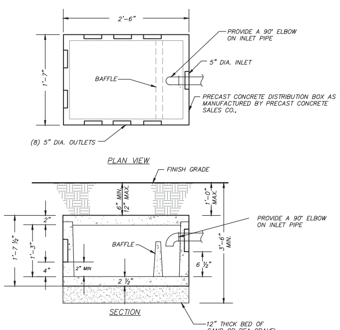
HDPE END SECTION DETAIL

(N.T.S.)



ROCK OUTLET PROTECTION DETAIL

(N.T.S.)

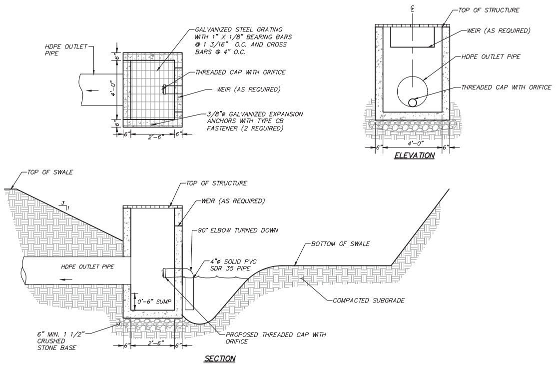

2'-6"
PROVIDE A 90° ELBOW ON INLET PIPE
BAFFLE
5" DIA. INLET
PRECAST CONCRETE DISTRIBUTION BOX AS MANUFACTURED BY PRECAST CONCRETE SALES CO.
(8) 5" DIA. OUTLETS
PLAN VIEW
FINISH GRADE
PROVIDE A 90° ELBOW ON INLET PIPE
BAFFLE
2" MIN
2 1/2"
6 1/2"
3'-6" MIN.
SECTION
12" THICK BED OF SAND OR PEA GRAVEL

NOTES:
1. PROVIDE 2' OF SOLID PIPE BEFORE START OF ABSORPTION TRENCH PERFORATED PIPES
2. THE BOTTOM OF THE BOX MUST BE LEVEL AND SUPPORTED SOLIDLY TO BELOW THE FROST LINE. THE FOOTING IS TO EXTEND TO 36" BELOW THE GROUND LEVEL.
3. PROVIDE 2" MIN SEPARATION BETWEEN INLET & OUTLET INVERTS.
4. DISTRIBUTION BOX TO BE LAID LEVEL AND EQUIPPED WITH SPEED LEVELERS

8 WAY DISTRIBUTION BOX DETAIL

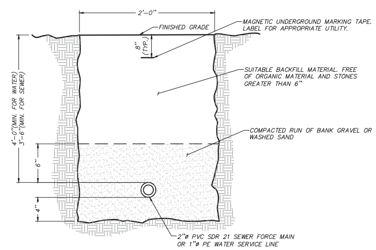
(N.T.S.)

ALTERATION OF THIS DOCUMENT, UNLESS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, IS A VIOLATION OF SECTION 7209 OF ARTICLE 145 OF THE EDUCATION LAW.


HDPE OUTLET PIPE
GALVANIZED STEEL GRATING WITH 1" X 1/8" BEARING BARS @ 1 3/16" O.C. AND CROSS BARS @ 4" O.C.
THREADED CAP WITH ORIFICE
WEIR (AS REQUIRED)
3/8"ø GALVANIZED EXPANSION ANCHORS WITH TYPE CB FASTENER (2 REQUIRED)
TOP OF STRUCTURE
WEIR (AS REQUIRED)
HDPE OUTLET PIPE
THREADED CAP WITH ORIFICE
ELEVATION
TOP OF SWALE
TOP OF STRUCTURE
WEIR (AS REQUIRED)
90° ELBOW TURNED DOWN
BOTTOM OF SWALE
HDPE OUTLET PIPE
4"ø SOLID PVC SDR 35 PIPE
0'-6" SUMP
COMPACTED SUBGRADE
6" MIN. 1 1/2" CRUSHED STONE BASE
PROPOSED THREADED CAP WITH ORIFICE
SECTION

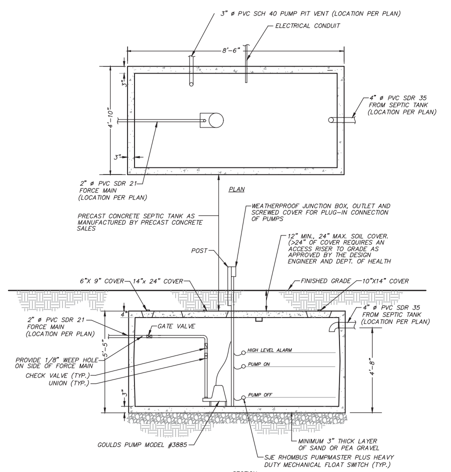
WET SWALE 4.1AP (NYSDEC DESIGN O-2) PERMANENT OUTLET STRUCTURE DETAIL

(N.T.S.)


2'-0"
FINISHED GRADE
MAGNETIC UNDERGROUND MARKING TAPE. LABEL FOR APPROPRIATE UTILITY.
4'-0"(MIN. FOR WATER) 3'-6"(MIN. FOR SEWER)
SUITABLE BACKFILL MATERIAL. FREE OF ORGANIC MATERIAL AND STONES GREATER THAN 6"
COMPACTED RUN OF BANK GRAVEL OR WASHED SAND
2"ø PVC SDR 21 SEWER FORCE MAIN OR 1"ø PE WATER SERVICE LINE

SEWER FORCE MAIN TRENCH OR WATER SERVICE LINE TRENCH DETAIL

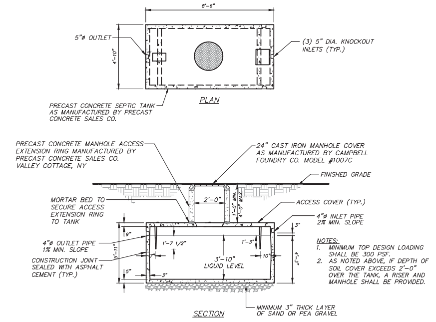
(N.T.S.)


3" ø PVC SCH 40 PUMP PIT VENT (LOCATION PER PLAN)
ELECTRICAL CONDUIT
8'-6"
4'-10"
4" ø PVC SDR 35 FROM SEPTIC TANK (LOCATION PER PLAN)
2" ø PVC SDR 21 FORCE MAIN (LOCATION PER PLAN)
PLAN
PRECAST CONCRETE SEPTIC TANK AS MANUFACTURED BY PRECAST CONCRETE SALES
WEATHERPROOF JUNCTION BOX, OUTLET AND SCREWED COVER FOR PLUG-IN CONNECTION OF PUMPS
12" MIN., 24" MAX. SOIL COVER. (>24" OF COVER REQUIRES AN ACCESS RISER TO GRADE AS APPROVED BY THE DESIGN ENGINEER AND DEPT. OF HEALTH
POST
6"X 9" COVER
14"x 24" COVER
FINISHED GRADE
10"X14" COVER
2" ø PVC SDR 21 FORCE MAIN (LOCATION PER PLAN)
GATE VALVE
4" ø PVC SDR 35 FROM SEPTIC TANK (LOCATION PER PLAN)
PROVIDE 1/8" WEEP HOLE ON SIDE OF FORCE MAIN
CHECK VALVE (TYP.)
UNION (TYP.)
HIGH LEVEL ALARM
PUMP ON
PUMP OFF
4'-8"
GOULDS PUMP MODEL #3885
MINIMUM 3" THICK LAYER OF SAND OR PEA GRAVEL
SJE RHOMBUS PUMPMASTER PLUS HEAVY DUTY MECHANICAL FLOAT SWITCH (TYP.)
SECTION

PUMP PIT DETAIL

(N.T.S.)

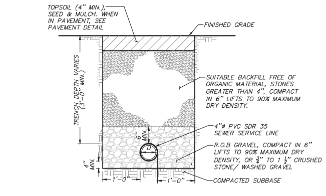
PUMP PIT NOTES:
1. PUMP CONTROL PANEL AND AUDIO/VISUAL ALARM SHALL BE LOCATED INSIDE THE BUILDING.
2. ALL ELECTRICAL WORK AND MATERIAL TO COMPLY WITH THE NATIONAL ELECTRICAL CODE REQUIREMENTS FOR CLASS I GROUP D, DIVISION 1 LOCATIONS.
3. ALL MODEL NUMBERS SPECIFIED ARE FROM GOULDS PUMPS, INC., SENECA FALLS, NEW YORK. CAN ONLY BE SUBSTITUTED WITH APPROVAL FROM DESIGN ENGINEER.
4. AN ELECTRICAL UNDERWRITER'S CERTIFICATE FOR THE PUMP CHAMBER COMPONENTS MUST BE PROVIDED TO THE COUNTY DEPARTMENT OF HEALTH AS A PART OF THE CONSTRUCTION COMPLIANCE SUBMISSION PACKAGE.
5. EACH PUMP AND ALARM TO BE CONNECTED TO SEPARATE CIRCUITS.
6. PUMPS, GATE VALVES AND UNIONS MUST BE LOCATED UNDER MANHOLE OPENING AND BE ACCESSIBLE WITHOUT HAVING TO ENTER THE PUMP PIT.
7. REMOVE ALL BAFFLES FROM THE TANK.
8. THE FLOAT SETTINGS NOTED ARE FOR A PUMP PIT WITH THE SPECIFIC DIMENSIONS SHOWN HEREON. CONTACT THE DESIGN ENGINEER FOR THE PROPER FLOAT SETTINGS IF A PUMP PIT WITH DIFFERENT DIMENSIONS IS USED.


5"ø OUTLET
(3) 5" DIA. KNOCKOUT INLETS (TYP.)
PRECAST CONCRETE SEPTIC TANK AS MANUFACTURED BY PRECAST CONCRETE SALES CO.
PLAN
PRECAST CONCRETE MANHOLE ACCESS EXTENSION RING MANUFACTURED BY PRECAST CONCRETE SALES CO. VALLEY COTTAGE, NY
24" CAST IRON MANHOLE COVER AS MANUFACTURED BY CAMPBELL FOUNDRY CO. MODEL #1007C
FINISHED GRADE
MORTAR BED TO SECURE ACCESS EXTENSION RING TO TANK
ACCESS COVER (TYP.)
4"ø INLET PIPE 2% MIN. SLOPE
4"ø OUTLET PIPE 1% MIN. SLOPE
CONSTRUCTION JOINT SEALED WITH ASPHALT CEMENT (TYP.)
3'-10" LIQUID LEVEL
NOTES:
1. MINIMUM TOP DESIGN LOADING SHALL BE 300 PSF.
2. AS NOTED ABOVE, IF DEPTH OF SOIL COVER EXCEEDS 2'-0" OVER THE TANK, A RISER AND MANHOLE SHALL BE PROVIDED.
SECTION
MINIMUM 3" THICK LAYER OF SAND OR PEA GRAVEL

1,000 GALLON SEPTIC TANK DETAIL

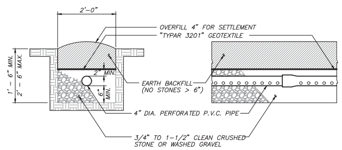
(TO BE H-20 LOADING)

(N.T.S.)


TOPSOIL (4" MIN.) SEED & MULCH. WHEN IN PAVEMENT, SEE PAVEMENT DETAIL
FINISHED GRADE
TRENCH DEPTH VARIES (3'-6" MIN.)
SUITABLE BACKFILL FREE OF ORGANIC MATERIAL, STONES GREATER THAN 4", COMPACT IN 6" LIFTS TO 90% MAXIMUM DRY DENSITY.
4"ø PVC SDR 35 SEWER SERVICE LINE
R.O.B GRAVEL, COMPACT IN 6" LIFTS TO 90% MAXIMUM DRY DENSITY, OR 3/4" TO 1 1/2" CRUSHED STONE/ WASHED GRAVEL
COMPACTED SUBBASE

SEWER SERVICE LINE TRENCH DETAIL

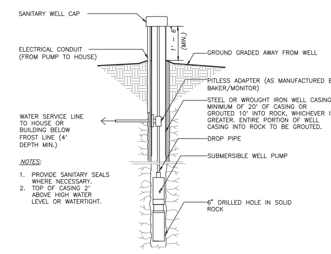
(N.T.S.)



NOTES:
1. PROVIDE 2' OF SOLID PIPE AT THE BEGINNING OF EVERY TRENCH.
2. PROVIDE END CAPS AT THE END OF EACH ABSORPTION TRENCH.
3. THE SLOPE OF THE PERFORATED PIPES SHALL BE BETWEEN A MINIMUM OF 1/32"/FT AND A MAXIMUM OF 1/16"/FT, UNLESS THE TRENCHES ARE DOSED BY PUMPING OR BY A DOSING TANK. DOSED TRENCHES SHALL BE LEVEL.
4. A MINIMUM FIVE (5) FOOT SEPARATION DISTANCE MUST BE PROVIDED BETWEEN BETWEEN THE BOTTOM OF THE ABSORPTION TRENCH AND THE PRESENCE OF SEASONAL HIGH GROUND WATER AND/OR LEDGE ROCK.

ABSORPTION TRENCH DETAIL

(N.T.S.)


SANITARY WELL CAP
ELECTRICAL CONDUIT (FROM PUMP TO HOUSE)
GROUND GRADED AWAY FROM WELL
PITLESS ADAPTER (AS MANUFACTURED BY BAKER/MONITOR)
STEEL OR WROUGHT IRON WELL CASING. MINIMUM OF 20' OF CASING OR GROUTED 10' INTO ROCK, WHICHEVER IS GREATER. ENTIRE PORTION OF WELL CASING INTO ROCK TO BE GROUTED.
WATER SERVICE LINE TO HOUSE OR BUILDING BELOW FROST LINE (4' DEPTH MIN.)
DROP PIPE
SUBMERSIBLE WELL PUMP
NOTES:
1. PROVIDE SANITARY SEALS WHERE NECESSARY.
2. TOP OF CASING 2' ABOVE HIGH WATER LEVEL OR WATERTIGHT.
6" DRILLED HOLE IN SOLID ROCK

PUTNAM COUNTY WELL DETAIL

(N.T.S.)

NO.	DATE	REVISION	BY
3	9-1-23	REVISED PER PLANNING BOARD COMMENTS	TSM
2	7-12-23	REVISED PER TOWN COMMENTS	BY
1	5-15-23	REVISED PER PB COMMENTS	MEU

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
DPD - SELF STORAGE
4 BALDWIN PLACE ROAD, TOWN OF CARMEL, PUTNAM COUNTY, NY

DRAWING:
DETAILS

PROJECT NUMBER	22242.100	PROJECT MANAGER	R.D.W.
DATE	5-15-23	DRAWN BY	J.F.R.
SCALE	AS SHOWN	CHECKED BY	A.D.T.

DRAWING NO. D-3

SHEET 16/16

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

September 27, 2023

Town of Carmel Planning Board
60 McAlpin Avenue
Mahopac, New York 10541

RE: Evan's Septic
Town of Carmel
TM# 55.11-1-18

Dear Chairman Paeprer and Members of the Board:

Please find enclosed the following plans and documents in support of an application for site plan approval for the above referenced project:

- Site Plan Application, dated September 27, 2023. (11 copies)
- Site Plan Completeness Certification Form, dated September 14, 2023. (11 copies).
- Disclosure Addendum Statement, dated September 11, 2023. (2 copies)
- Site Plan set, dated September 27, 2023. (5 copies)
- Schematic Building Plans and Brochure from Capital Steel (5 Copies)
- SEQR Short EAF, dated September 27, 2023. (11 copies)
- Property Deed & Filed Map #1264. (2 copies)
- List of Property Owners within 500' of the Site Boundary. (2 copies)
- Check number 11173, in the amount of $3,300, for the application fee.

The applicant seeks site plan approval for the construction of a 6,300 square foot steel building. The building would house the applicant's septic service business. Also proposed are the appurtenant parking, driveways, drainage system and water and wastewater services.

Please place the project on the October 12, 2023 Planning Board agenda for a discussion of the project with the Board. Should you have any questions or comments regarding this information, please feel free to contact our office.

Very truly yours,

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.

By: _____
Jeffrey J. Contelmo, PE
Senior Associate Engineer

JJC/adt

Enclosures

cc: (All via email only) Charlie Evans, Frank Smith, Esq

TOWN OF CARMEL
SITE PLAN APPLICATION INSTRUCTIONS

The Town of Carmel Planning Board meetings are held twice a month, on the second **Thursday** and fourth **Wednesday**, at 7:00 PM at Carmel Town Hall, 60 McAlpin Avenue, Carmel

The submission deadline is 10 days prior to the Planning Board meeting. New site plan applications that have been deemed complete will be placed on the agenda in the order they are received.

No application will be placed on the agenda that is incomplete

Pre-Submission:

Prior to the formal submission of the site plan, a pre-submission conference may be requested by the applicant to be conducted with representatives from the Town, which may include the Town Planner, Town Engineer, Director of Code Enforcement and/or the Planning Board Attorney. This conference will serve to educate the applicant on the process he/she must follow, clarify the information required to submit a complete site plan application, and to highlight any specific areas of concern. You may arrange a pre-submission conference through the Planning Board Secretary at (845) 628-1500 extension 190.

Submission Requirements:

At least 10 days prior to the Planning Board meeting, the site plan application shall be submitted to the Planning Board Secretary as follows:

All site plans shall be signed, sealed and folded with the title box legible. The application package shall include:

- ☑ 5 copies of the Site Plan Application Form, signed and notarized.
- ☑ 5 copies of the SEQR Environmental Assessment Form (use of short form or long form shall be determined at pre-submission conference).
- ☑ 5 full size sets of the Site Plan (including floor plans and elevations)
- ☑ 1 CD (in pdf. format) containing an electronic version of the Site Plan
- ☑ 2 copies of the Disclosure Statement
- ☑ 5 copies of the Site Plan Completeness Certification Form
- ☐ All supplemental studies, reports, plans and renderings.
- ☑ 2 copies of the current deed.
- ☐ 2 copies of all easements, covenants and restrictions.
- ☑ The appropriate fee, determined from the attached fee schedule. Make checks payable to the *Town of Carmel.*

Rae Tomlette 9/28/23
Planning Board Secretary; Date

Richard J. Bates 9/28/23
Town Engineer; Date

TOWN OF CARMEL
SITE PLAN APPLICATION

Per Town of Carmel Code – Section 156 - Zoning

SITE IDENTIFICATION INFORMATION

Application Name: Evans Septic	**Application #** 23-0007	**Date Submitted:** 9/27/23

Site Address:
No. 53 *Street:* Old Route 6 *Hamlet:* Carmel

Property Location: *(Identify landmarks, distance from intersections, etc.)*
600'± south of Putnam County Board of Elections

Town of Carmel Tax Map Designation: *Section* 55.11 *Block* 1 *Lot(s)* 18	**Zoning Designation of Site:** C
Property Deed Recorded in County Clerk's Office *Date* *Liber* 1621 *Page* 62	**Liens, Mortgages or other Encumbrances** *Yes* *No*
Existing Easements Relating to the Site *No* (Yes) *Describe and attach copies:*	**Are Easements Proposed?** (No) *Yes* *Describe and attach copies:*

Have Property Owners within a 500' Radius of the Site Been Identified?
(Yes) *No* *Attached List to this Application Form*

APPLICANT/OWNER INFORMATION

Property Owner: Liberty Bell Trucking Co., Inc., Lee Schultz	**Phone #:** 845-878-9294 **Fax#:**	**Email:** liberty1341@aol.com

Owners Address:
No. 200 *Street:* South White Rock Road *Town:* Holmes *State:* NY *Zip:* 12531

Applicant (If different than owner): Evans Septic Tank Service	**Phone #:** 845-628-0166 **Fax#:**	**Email:**

Applicant Address (If different than owner):
No. 162 *Street:* Barrett Hill Road *Town:* Mahopac *State:* NY *Zip:* 10541

Individual/ Firm Responsible for Preparing Site Plan: Jeffrey J. Contelmo, P.E. Insite Engineering, Surveying & Landscape Architecture, P.C	**Phone #:** 845-225-9690 **Fax#:** 845-225-9717	**Email:** jcontelmo@insite-eng.com

Address:
No. 3 *Street:* Garrett Place *Town:* Carmel *State:* NY *Zip:* 10512

Other Representatives:	**Phone #:** **Fax#:**	**Email:**

Owners Address:
No. *Street:* *Town:* *State:* *Zip:*

PROJECT DESCRIPTION

Describe the project, proposed use and operation thereof:
The applicant seeks to construct 6,300 sf office and storage space with associated stormwater management practice, landscaping and parking.

TOWN OF CARMEL SITE PLAN APPLICATION

PROJECT INFORMATION

Lot size: *Acres:* 1.02 *Square Feet:*	**Square footage of all existing structures (by floor):** 0
# of existing parking spaces: 0	**# of proposed parking spaces:** 13
# of existing dwelling units: 0	**# of proposed dwelling units** 0

Is the site served by the following public utility infrastructure:

- **Is project in sewer district or will private septic system(s) be installed?** CSD #2
- **If yes to Sanitary Sewer answer the following:**

  - **Does approval exist to connect to sewer main? Yes:** ☐ **No:** ☑
  - **Is this an in-district connection?** Yes **Out-of district connection?** ____
  - **What is the total sewer capacity at time of application?** TBD
  - **What is your anticipated average and maximum daily flow** 200 gpd max

For Town of Carmel Town Engineer

- *What is the sewer capacity* RRP 9/18/23 TBD.

- **Water Supply** **Yes:** ☑ **No:** ☐ CWD #2

  If Yes:
  - **Does approval exist to connect to water main? Yes:** ☐ **No:** ☑
  - **What is the total water capacity at time of application?** TBD
  - **What is your anticipated average and maximum daily demand** 200 gpd max
- **Storm Sewer** **Yes:** ☑ **No:** ☐
- **Electric Service** **Yes:** ☑ **No:** ☐
- **Gas Service** **Yes:** ☑ **No:** ☐
- **Telephone/Cable Lines** **Yes:** ☑ **No:** ☐

For Town of Carmel Town Engineer

Water Flows will be assessed
Sewer Flows

RRP 9/18/23
Town Engineer; Date

What is the predominant soil type(s) on the site? Uc & CsD	**What is the approximate depth to water table?** 2' - >6'

Site slope categories:	**15-25%** 2 %	**25-35%** 3 %	**>35%** 15 %
Estimated quantity of excavation:	**Cut (C.Y.)** TBD	**Fill (C.Y.)** TBD	
Is Blasting Proposed	**Yes:** ☐	**No:** ☐	**Unknown:** ☑
Is the site located in a designated Critical Environmental Area?		**Yes:** ☐	**No:** ☑

Does a curb cut exist on the site? Yes: ☑ **No:** ☐	**Are new curb cuts proposed? Yes:** ☑ **No:** ☐	**What is the sight distance? Left** 435'± **Right** 420'±

Is the site located within 500' of:

- **The boundary of an adjoining city, town or village** **Yes:** ☐ **No:** ☑
- **The boundary of a state or county park, recreation area or road right-of-way** **Yes:** ☑ **No:** ☐
- **A county drainage channel line.** **Yes:** ☐ **No:** ☑
- **The boundary of state or county owned land on which a building is located** **Yes:** ☑ **No:** ☐

TOWN OF CARMEL SITE PLAN APPLICATION

Is the site listed on the State or Federal Register of Historic Place (or substantially contiguous)
Yes: ☐ No: ☑

Is the site located in a designated floodplain?
Yes: ☑ No: ☐

Will the project require coverage under the Current NYSDEC Stormwater Regulations
Erosion Control Only
Yes: ☑ No: ☐

Will the project require coverage under the Current NYCDEP Stormwater Regulations
Yes: ☐ No: ☑

Does the site disturb more than 5,000 sq ft Yes: ☑ No: ☐

Does the site disturb more than 1 acre Yes: ☐ No: ☑

Does the site contain freshwater wetlands?
Yes: ☐ No: ☑
Jurisdiction:
NYSDEC: ☐ Town of Carmel: ☐
If present, the wetlands must be delineated in the field by a Wetland Professional, and survey located on the Site Plan.
Are encroachments in regulated wetlands or wetland buffers proposed? Yes: ☐ No: ☐ N/A

Does this application require a referral to the Environmental Conservation Board? Yes: ☐ No: ☒

Does the site contain waterbodies, streams or watercourses? Yes: ☐ No: ☑

Are any encroachments, crossings or alterations proposed? Yes: ☐ No: ☐ N/A

Is the site located adjacent to New York City watershed lands? Yes: ☑ No: ☐

Is the project funded, partially or in total, by grants or loans from a public source?
Yes: ☐ No: ☑

Will municipal or private solid waste disposal be utilized?
Public: ☐ Private: ☑

Has this application been referred to the Fire Department? Yes: ☑ No: ☐

What is the estimated time of construction for the project?
1 year

ZONING COMPLIANCE INFORMATION

Zoning Provision	Required	Existing	Proposed
Lot Area	40,000	43,647 sf	43,647 sf
Lot Coverage	30%(40% for offices)	N/A	N/A
Lot Width	200	125'*	125'*
Lot Depth	200	255'	255'
Front Yard	40	N/A	83.8'
Side Yard	25	N/A	27'
Rear Yard	30	N/A	78.3'
Minimum Required Floor Area	5,000	N/A	6,300 sf
Floor Area Ratio	---	N/A	N/A
Height	35(60 for office)	N/A	<35'
Off-Street Parking	13	N/A	13
Off-Street Loading	1	N/A	1

* Pre-existing nonconforming condition.

TOWN OF CARMEL SITE PLAN APPLICATION

Will variances be required? Yes: ☐ No: ☑	If yes, identify variances:

PROPOSED BUILDING MATERIALS	
Foundation	Reinforced Concrete
Structural System	Steel
Roof	Steel
Exterior Walls	Steel

APPLICANTS ACKNOWLEDGEMENT

I hereby depose and certify that all the above statements and information, and all statements and information contained in the supporting documents and drawings attached hereto are true and correct.

Charles Evans
Applicants Name

Applicants Signature

Sworn before me this 11th **day of** September **20** 23

Notary Public

FRANK J. SMITH III
NOTARY PUBLIC-STATE OF NEW YORK
No. 02SM6399348
Qualified in Putnam County
My Commission Expires 10-21-2023

TOWN OF CARMEL
SITE PLAN COMPLETENSS CERTIFICATION FORM

All Site Plans submitted to the Planning Board for review shall include the following information and details, as set forth in Section 156-61 B of the Town of Carmel Zoning Ordinance.

This form shall be included with the site plan submission

	Requirement Data	To Be Completed by the Applicant	Waived by the Town
1	Name and title of person preparing the site plan	☑	☐
2	Name of the applicant and owner (if different from applicant)	☑	☐
3	Original drawing date, revision dates, scale and north arrow	☑	☐
4	Tax map, block and lot number(s), zoning district	☑	☐
5	All existing property lines, name of owner of each property within a 500' radius of the site	☑	☐
6	Contour lines at two-foot intervals, grades of all roads, driveways, sanitary and storm sewers	☑	☐
7	The location of all water bodies, streams, watercourses, wetland areas, wooded areas, rights-of-way, streets, roads, highways, railroads, buildings, structures	☑	☐
8	The location of all existing and proposed easements	☑	☐
9	The location of all existing and proposed structures, their use, setback dimensions, floor plans, front, side and rear elevations, buildable area.	☑	☐
10	On site circulation systems, access, egress ways and service roads, emergency service access and traffic mitigation measures	☑	☐
11	Sidewalks, paths and other means of pedestrian circulation	☑	☐
12	On-site parking and loading spaces and travel aisles with dimensions	☑	☐
13	The location, height and type of exterior lighting fixtures	☑	☐
14	Proposed signage	☑	☐
15	For non-residential uses, an estimate of the number of employees who will be using the site, description of the operation, types of products sold, types of machinery and equipment used	☑	☐

TOWN OF CARMEL

SITE PLAN COMPLETENSS CERTIFICATION FORM

16	The location of clubhouses, swimming pools, open spaces, parks or other recreational areas, and identification of who is responsible for maintenance	N/A		
17	The location and design of buffer areas, screening or other landscaping, including grading and water management. A comprehensive landscaping plan in accordance with the Tree Conservation Law	☒		
18	The location of public and private utilities, maintenance responsibilities, trash and garbage areas	☒		
19	A list, certified by the Town Assessor, of all property owners within 500 feet of the site boundary	☒		
20	Any other information required by the Planning Board which is reasonably necessary to ascertain compliance with this chapter	☒		

Applicants Certification (to be completed by the licensed professional preparing the site plan:

I Jeffrey J. Contelmo, P.E. **hereby certify that the site plan to which I have attached my seal and signature, meets all of the requirements of §156-61B of the Town of Carmel Zoning Ordinance:**

STATE OF NEW YORK JEFFREY J CONTELMO LICENSED PROFESSIONAL ENGINEER

Professionals Seal

Signature - Applicant — Date 9/11/23

Signature - Owner — Date 9/14/2023

TOWN OF CARMEL
SITE PLAN COMPLETENSS CERTIFICATION FORM

Town Certification (to be completed by the Town)

I _____ **hereby confirm that the site plan meets all of the requirements of §156-61B of the Town of Carmel Zoning Ordinance:**

Rose Grimaldi — 9/28/23

Signature - Planning Board Secretary — **Date**

[signature] — 9/28/23

Signature - Town Engineer — **Date**

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:
Evans Septic Tank Service

Project Location (describe, and attach a location map):
53 Old Route 6, Carmel, NY 10512

Brief Description of Proposed Action:
The applicant seeks to construct 6,300 sf office and storage space with associated stormwater management practice, landscaping and parking.

Name of Applicant or Sponsor:	Telephone: 845-225-9690
Jeffrey J. Contelmo, P.E.	E-Mail: jcontelmo@insite-eng.com

Address:
3 Garrett Place

City/PO:	State:	Zip Code:
Carmel	NY	10512

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: NYSDEC GP-0-20-001 - ESC Only; Town of Carmel - Building Permit	☐	☑

3. a. Total acreage of the site of the proposed action? 1.0 acres
   b. Total acreage to be physically disturbed? 0.8± acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 1.0 acres

4. Check all land uses that occur on, are adjoining or near the proposed action:

5. ☐ Urban ☐ Rural (non-agriculture) ☑ Industrial ☑ Commercial ☐ Residential (suburban)
   ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify):
   ☑ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑

	NO	YES
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		
If Yes, identify: _____	☑	☐

	NO	YES
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation services available at or near the site of the proposed action?	☐	☐
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?	☐	☐

	NO	YES
9. Does the proposed action meet or exceed the state energy code requirements?		
If the proposed action will exceed requirements, describe design features and technologies: _____ _____	☐	☑

	NO	YES
10. Will the proposed action connect to an existing public/private water supply?		
If No, describe method for providing potable water: _____ _____	☐	☑

	NO	YES
11. Will the proposed action connect to existing wastewater utilities?		
If No, describe method for providing wastewater treatment: _____ _____	☐	☑

	NO	YES
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?	☑	☐
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?	☐	☑

	NO	YES
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?	☑	☐
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ _____ _____		

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional

☐ Wetland ☑ Urban ☑ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered? Northern Long-eared Bat	☐	☑
16. Is the project site located in the 100-year flood plan?	☐	☑
17. Will the proposed action create storm water discharge, either from point or non-point sources?	☐	☑
If Yes,		
a. Will storm water discharges flow to adjacent properties?	☐	☑
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?	☐	☑
If Yes, briefly describe: Catch basins and piping will convey stormwater to an existing drainage ditch and the property frontage.		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☑	☐
20.Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: Putnam County Landfill	☐	☑

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Jeffrey J. Contelmo, P.E. Date: 9/27/23

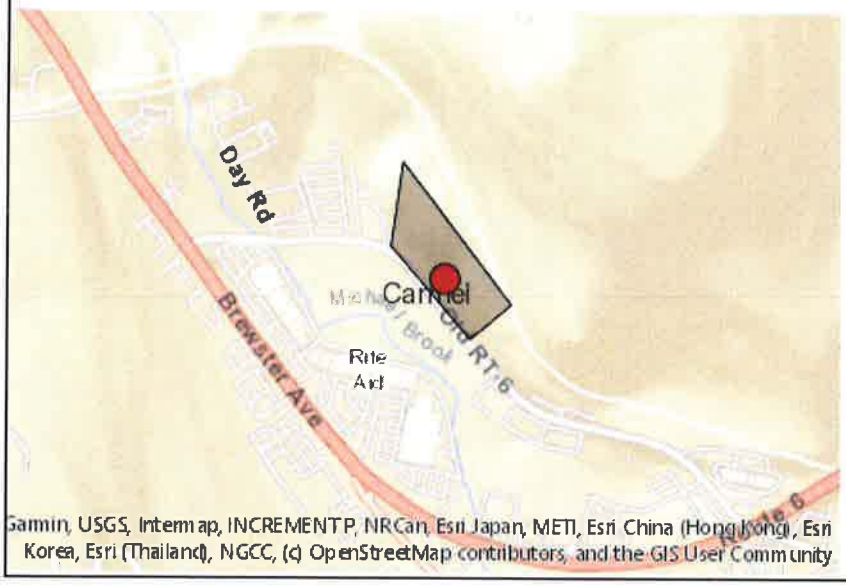
Insite Engineering, Surveying & Landscape Architecture, P.C.

Signature: Title: Senior Principal Engineer

PRINT FORM

EAF Mapper Summary Report

Monday, July 12, 2021 3:31 PM



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.

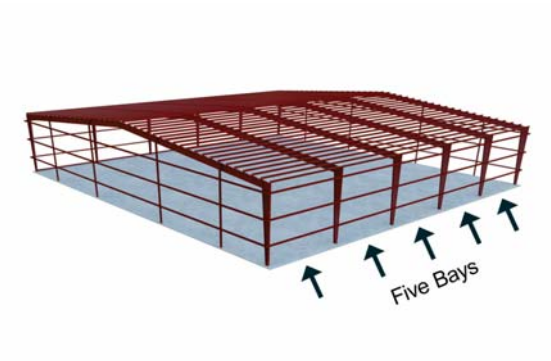
Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local 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]	Northern Long-eared Bat
Part 1 / Question 16 [100 Year Flood Plain]	Yes
Part 1 / Question 20 [Remediation Site]	Yes

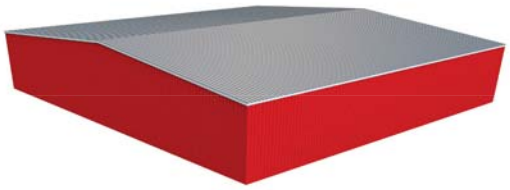
BASE BUILDING PACKAGE

5 BAYS
1:12

CAPITAL STEEL BUILDINGS

THE STRONGEST AND HIGHEST QUALITY BUILDING AVAILABLE



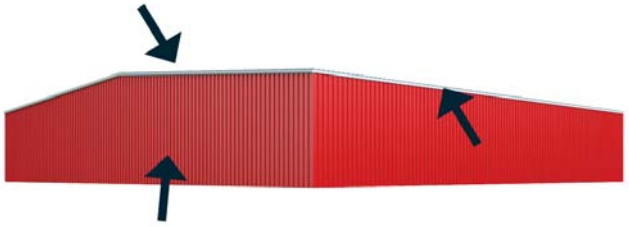


Your local Capital Steel dealer will deliver the highest quality building system in accordance with our strict CSI brand quality guidelines.

WHAT'S INCLUDED:

- Primary and Secondary Framing
- 1:12 Roof Pitch
- 26 Gauge Roof and Wall Sheeting
  - Baked on Kynar Finish
- Fasteners
- Sealants and Flashing
- Deluxe Trim Package
- Ridge Cap
- Engineered Stamped Drawings
- Your Choice of Wall and Trim Colors
  - Galvalume Roof Included
  - Adding Color to the Roof May Carry an Additional Charge
- 50 Year Structural Warranty
- 40 Year Paint Warranty
- 25 Year Galvalume Roof Warranty
- 20 Year Standing Seam Roof Warranty
- Engineered for Your Location

POPULAR COLORS



CHOOSE YOUR OWN ROOF, WALL AND TRIM COLOR COMBINATION

MORE COLORS AVAILABLE

Walls: Crimson Red

Roof: Galvalume

Trim: Snow White

- Polar White
- Light Stone
- Ash Gray
- Saddle Tan
- Hawaiian Blue
- Charcoal Gray
- Burnished Slate
- Koko Brown
- Fern Green
- Classic Green
- Crimson Red
- Rustic Red
- Gallery Blue
- Royal Blue
- Snow White
- Medium Bronze

BASE BUILDING

BUSINESSES, CHURCHES AND ORGANIZATIONS:

In addition to churches and organizations of all sizes, America's largest companies like General Motors, Boeing and Dow Chemical start their business expansions with our base building package. Capital Steel building packages are economical, efficient, durable and completely customizable. Each building our local dealers deliver is designed individually according to intended use and to expand easily in the future; making our building system the right choice for growing operations and entrepreneurs alike

PRIVATE INDIVIDUALS:

Capital Steel buildings are engineered for reliability and guaranteed by the most extensive warranties in the industry. Simply put, our buildings are designed to last for generations, to withstand historic blizzards, seismic activity and to endure the strongest hurricanes on record. Whether you are building a modest workshop, aircraft hangar or garage for a car collection you expect to be in your family for decades, you can rest assured that our team delivered a building you can count on.

ALL I-BEAM CONSTRUCTION, 26 GAUGE SHEETING

- Building bolts together, no welding necessary
- Framed openings are cut at the factory, holes in primary and secondary framing are pre punched
- Your local CSI dealer can erect most buildings in weeks or less saving you time and money

+ CUSTOMIZATIONS

- Insulation
- Colored or Standing Seam Roof
- Man Doors
- Roll Up and Sectional Doors
- Windows
- Roof Pitch
- Gutters and Downspouts

POPULAR COMPONENTS

CUSTOMIZE THE LOOK AND FUNCTIONALITY

You can personalize and easily transform your base building package into a fully customized metal building system with our extensive collection of high quality building components. Your local Capital Steel dealer will keep you on budget while guiding you through the selection of carefully thought out access points and bring attention to details like natural light, drainage, insulation and ventilation.

ENGINEERED FOR YOUR LOCAL CODES & LOADS

- Wind speeds
- Snow loads
- Seismic activity

100% AMERICAN MADE

WARRANTIES

50

YEAR WARRANTY

40

YEAR PAINT

25

YEAR GALVALUME ROOF

20

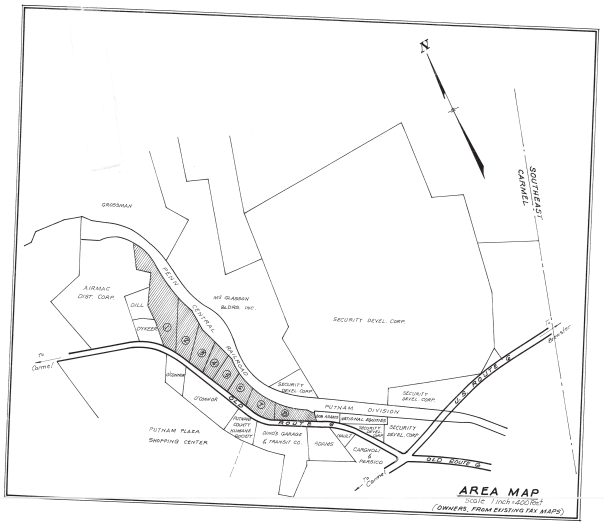
YEAR STANDING SEAM ROOF

50

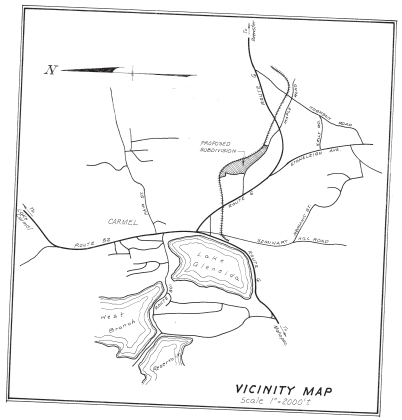
YEAR STRUCTURAL

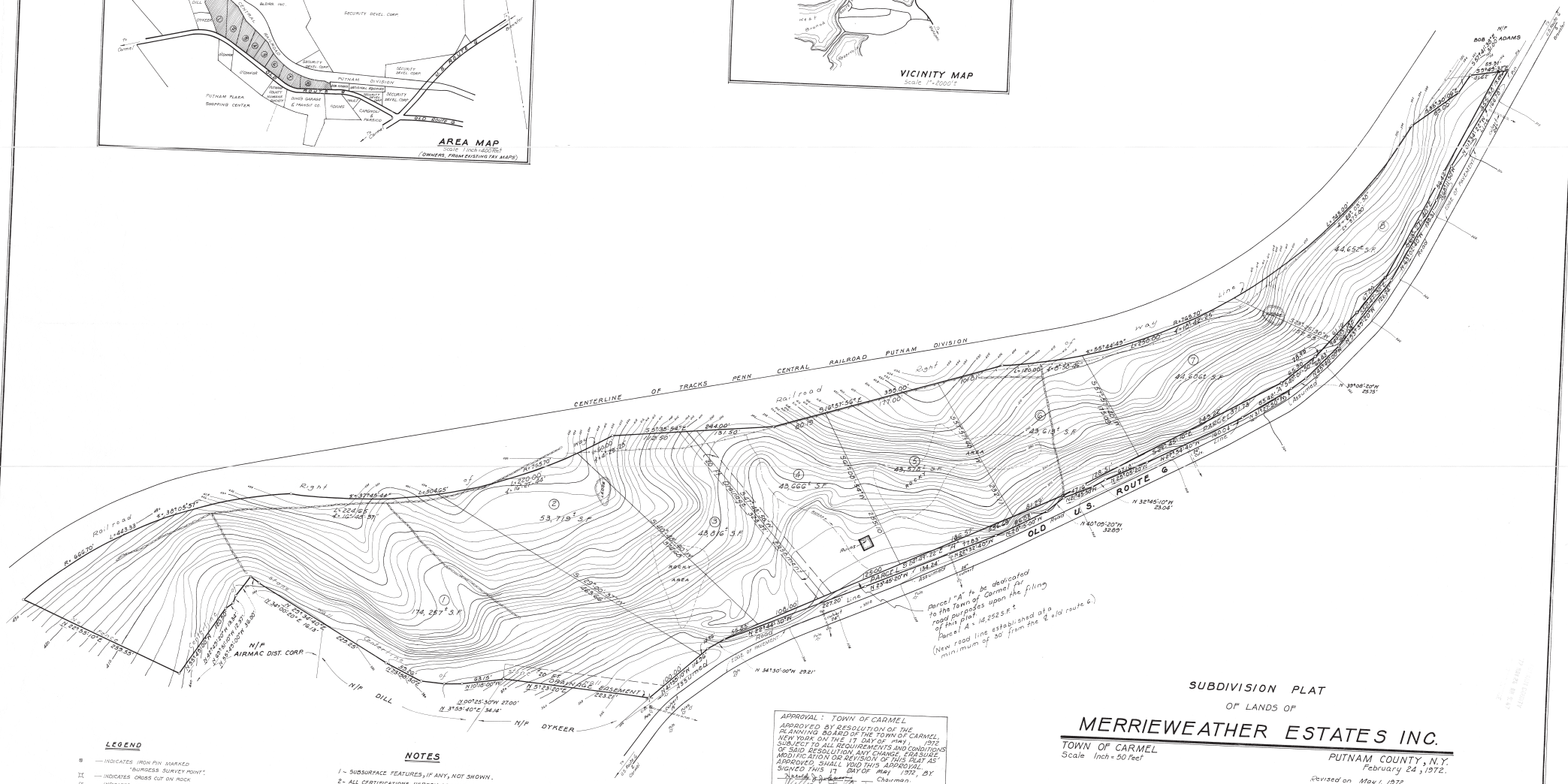
There are no regions in North America free from natural disasters, significant storms or acts of God. The Southeastern United States is home to more billion dollar weather disasters than any other region and the remainder of the USA finds itself commonly dealing with high winds, snow or seismic activity.

We understand that your Capital Steel building is a meaningful investment and for many, the largest purchase in a lifetime. We will never cut corners, compromise our brand image or most importantly deliver a building that we cannot stand behind and endorse. Our warranties didn't set the bar, they are the bar.



PUTNAM COUNTY CLERK'S OFF.
CARMEL, NEW YORK
MAP NO. 7304
FILED 5-24-72
AFFIDAVIT FILED
AS PER LOCAL LAW NO. 1 of 1957





LEGEND

- ⊙ — INDICATES IRON PIN MARKED "BURGESS SURVEY POINT".
- ⊠ — INDICATES CROSS CUT ON ROCK
- ☆ — INDICATES UTILITY POLE.
- STONE WALL — INDICATES STONE WALL.
- HIRE FENCE — INDICATES HIRE FENCE.

NOTES

1. – SUBSURFACE FEATURES, IF ANY, NOT SHOWN.
2. – ALL CERTIFICATIONS HEREON ARE VALID FOR THIS MAP AND COPIES THEREOF ONLY IF SAID MAP AND COPIES BEAR THE IMPRESSED SEAL OF THE SURVEYOR WHOSE SIGNATURE APPEARS HEREON.
3. – IT IS HEREBY CERTIFIED THAT THIS MAP WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS.
4. – TOTAL AREA = 11.621 ACRES.
5. – ELEVATION DATUM: CARMEL SEWER DISTRICT NO. 2.
6. – EACH LOT REQUIRES SEPARATE SITE PLAN APPROVAL BY THE TOWN OF CARMEL PLANNING BOARD PRIOR TO CONSTRUCTION.
7. – EACH LOT REQUIRES A SANITARY PLAN TO BE SUBMITTED TO, AND APPROVED BY THE PUTNAM COUNTY HEALTH DEPT. PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
8. – PARCEL "A" IS HEREBY DEDICATED TO THE TOWN OF CARMEL FOR ROAD PURPOSES, UPON THE FILING OF THIS MAP.

APPROVAL : TOWN OF CARMEL

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF CARMEL, NEW YORK ON THE 17 DAY OF May, 1972 SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT AS APPROVED, SHALL VOID THIS APPROVAL.
SIGNED THIS 17 DAY OF May 1972 BY

Chairman.
Secretary.

AREAS

TOTAL AREA = 506,239 S.F.
AREA LOTS = 483,769 S.F.
AREA TO BE DEDICATED FOR ROAD PURPOSES = 14,252 S.F.±

OWNED BY:- MERRIEWEATHER ESTATES, INC.
SEMINARY HILL ROAD
CARMEL, NEW YORK

SUBDIVISION PLAT
OF LANDS OF
MERRIEWEATHER ESTATES INC.

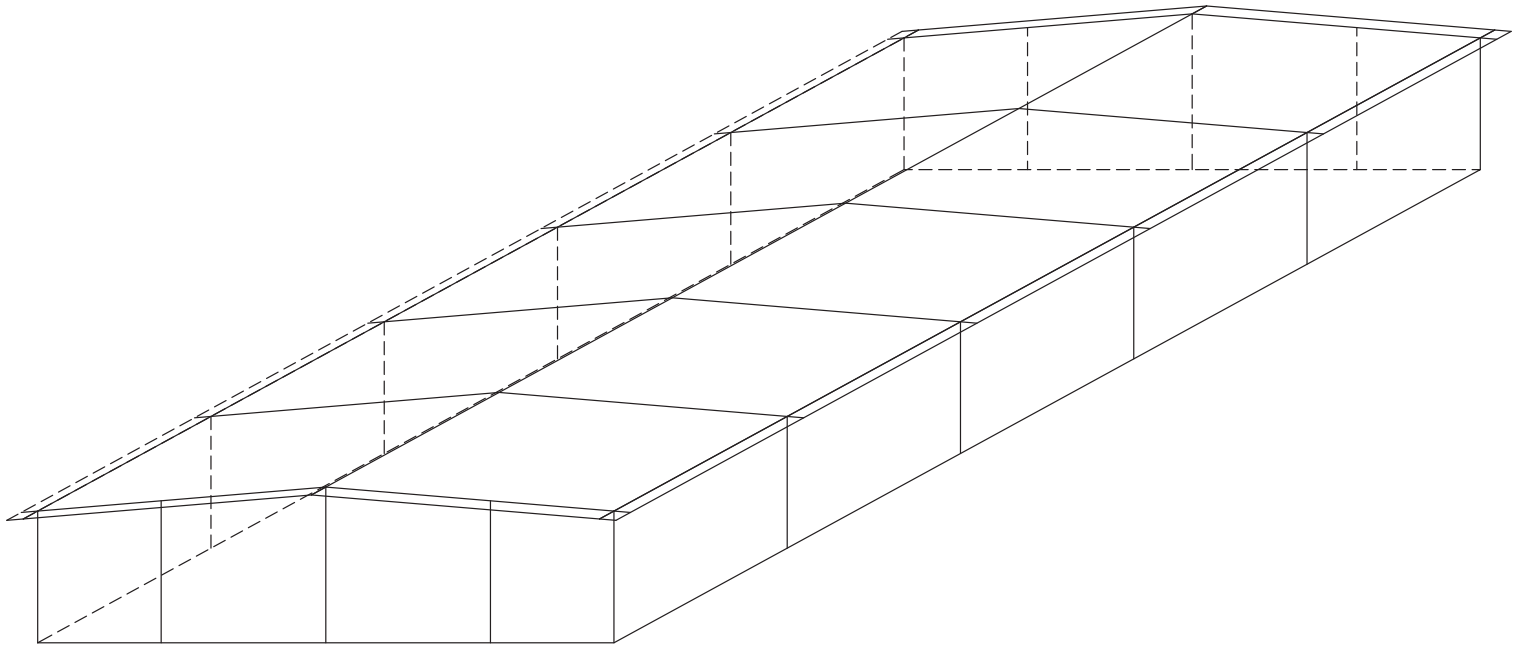
TOWN OF CARMEL
Scale 1inch = 50 feet

PUTNAM COUNTY, N.Y.
February 24, 1972.
Revised on May 1, 1972.

I CERTIFY THAT THIS MAP WAS MADE FROM AN ACTUAL SURVEY OF THE PROPERTY.
SURVEY COMPLETED ON FEBRUARY 1, 1972.
MAP COMPLETED ON FEBRUARY 24, 1972.

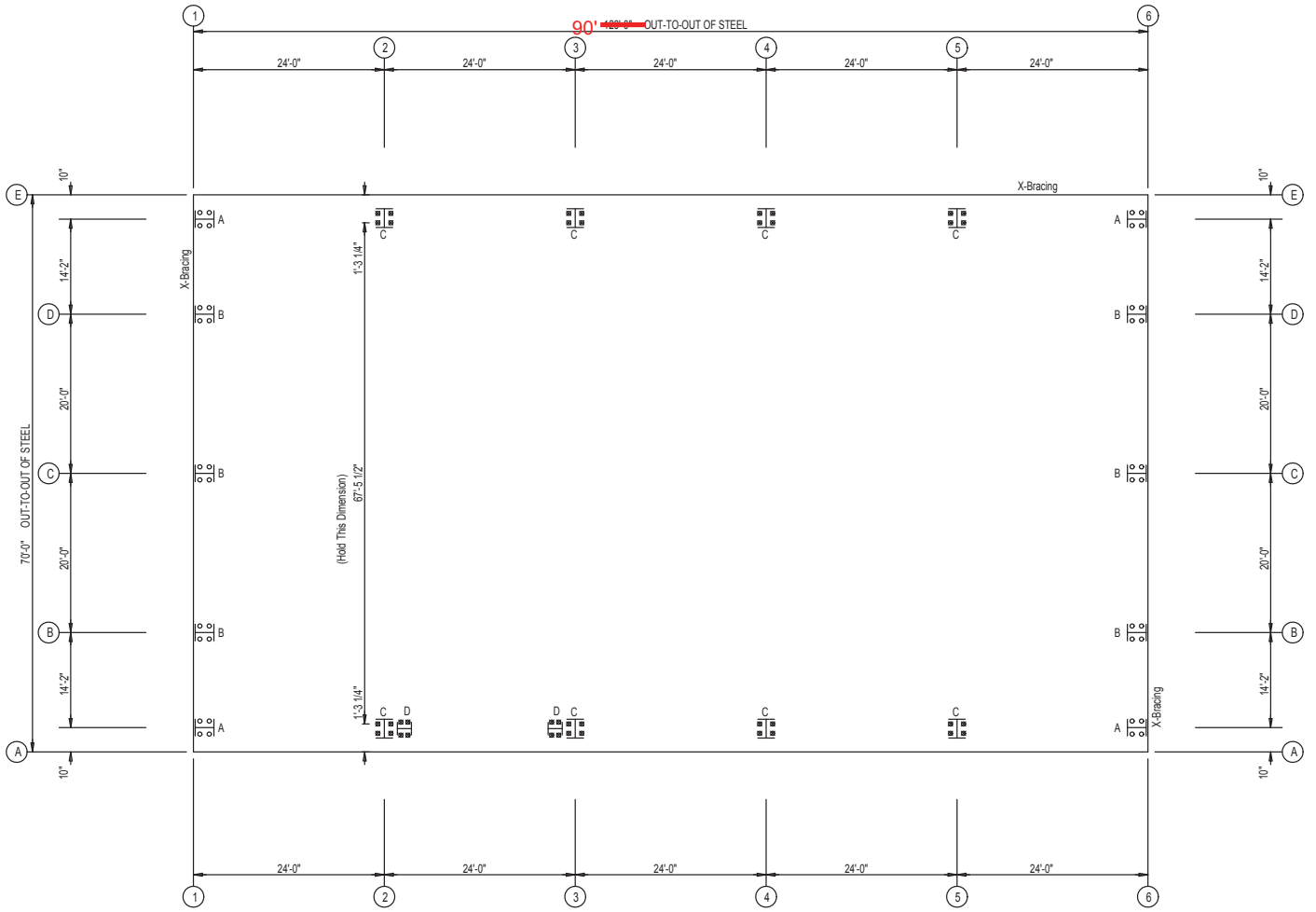
Carmine N. Burgess # 37707
BURGESS & BEHR, P.C.
PROFESSIONAL ENGINEERING & LAND SURVEYING
128 Gleneida Avenue
Carmel, N.Y.

023 Bks. 430 & 430A
C-170



323644697	Building Layout	7/12/23

NOT FOR CONSTRUCTION



ANCHOR BOLT PLAN

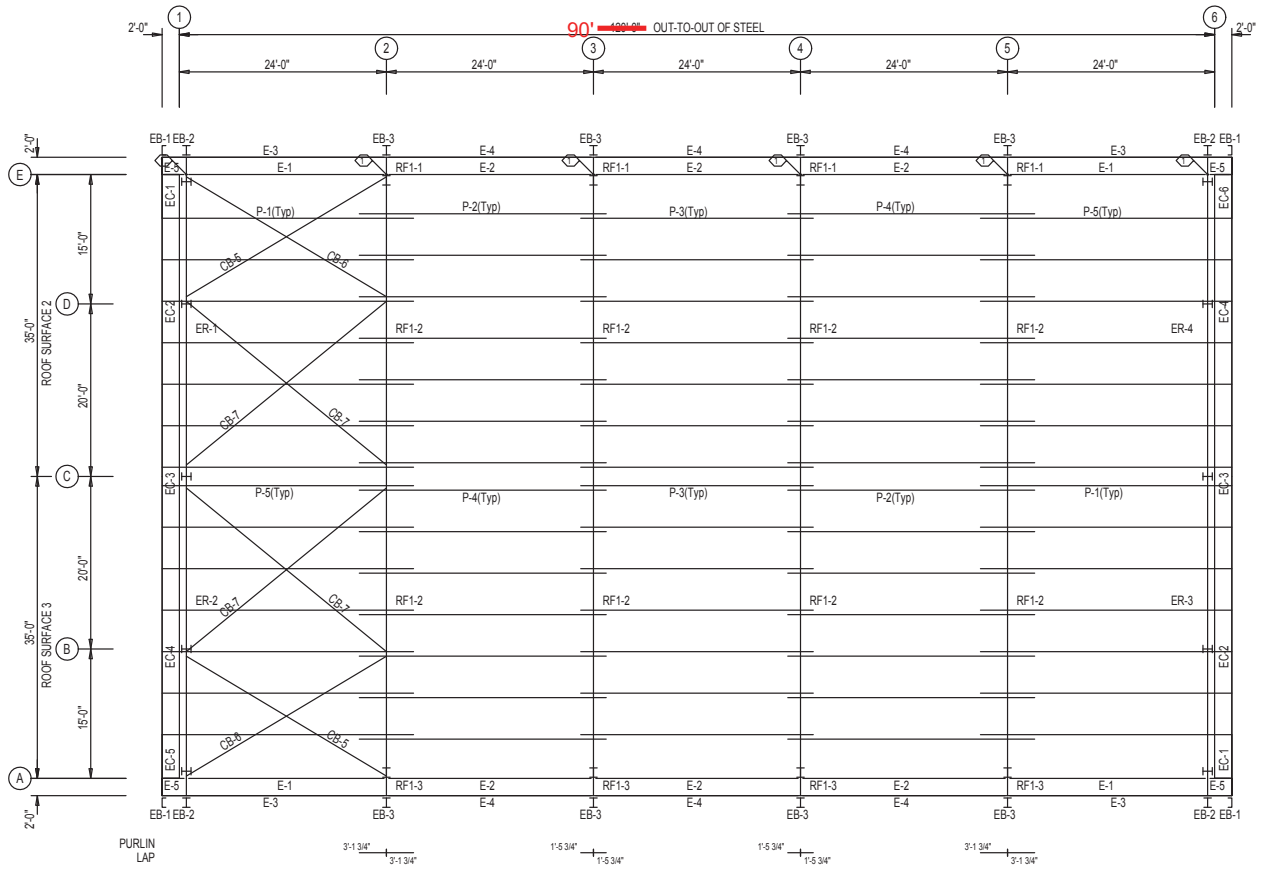
NOT FOR CONSTRUCTION

EXTENSION/CANOPY BOLTS
ROOF PLAN

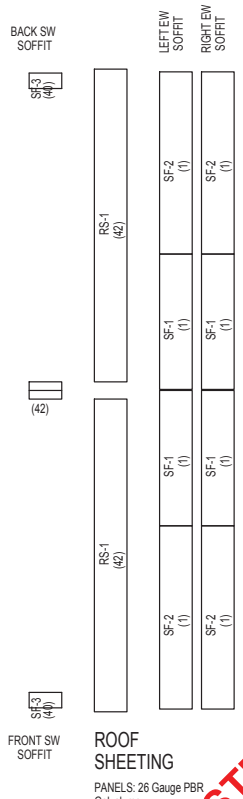
MARK	QUAN	TYPE	DIA	LENGTH
EB-2	4	A325	1/2"	1 1/4"
EB-3	4	A325	1/2"	1 1/4"

SPECIAL BOLTS
ROOF PLAN

◇ ID	QUAN	TYPE	DIA	LENGTH	WASH
1	2	A325	1/2"	1 1/4"	2



ROOF FRAMING PLAN



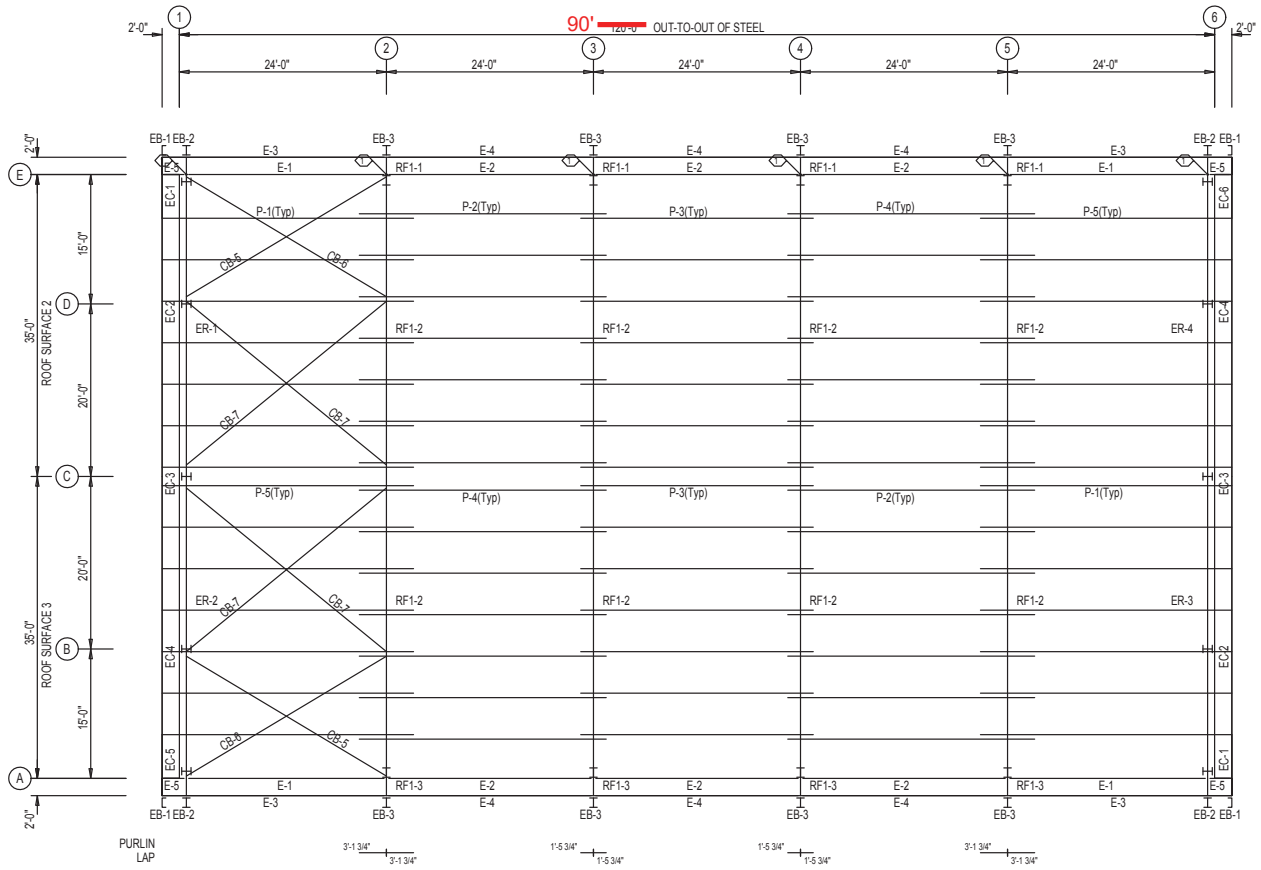
ROOF SHEETING

PANELS: 26 Gauge PBR
Galvalume

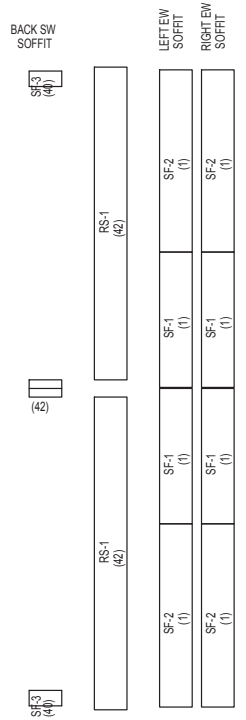
NOT FOR CONSTRUCTION

EXTENSION/CANOPY BOLTS ROOF PLAN				
MARK	QUAN	TYPE	DIA	LENGTH
EB-2	4	A325	1/2"	1 1/4"
EB-3	4	A325	1/2"	1 1/4"

SPECIAL BOLTS ROOF PLAN					
◇ ID	QUAN	TYPE	DIA	LENGTH	WASH
1	2	A325	1/2"	1 1/4"	2



ROOF FRAMING PLAN



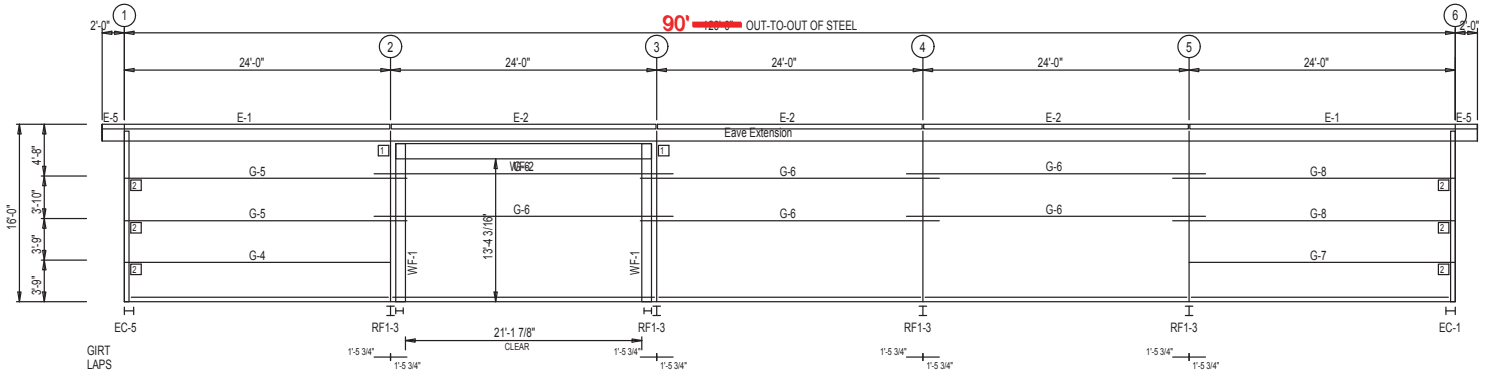
ROOF SHEETING

PANELS: 26 Gauge PBR Galvalume

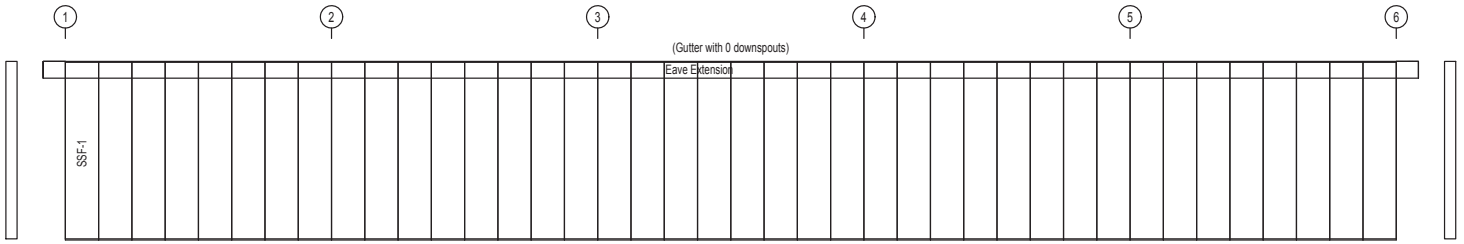
NOT FOR CONSTRUCTION

BOLT TABLE FRAME LINE A				
LOCATION	QUAN	TYPE	DIA	LENGTH
WF-1 - WF-2	8	A325	3/4"	1 3/4"
WF-1 - RF1-3	8	A325	3/4"	1 1/2"

CONNECTION PLATES FRAME LINE A	
ID	MARK/PART
1	SC479
2	PC78



SIDEWALL FRAMING: FRAME LINE A



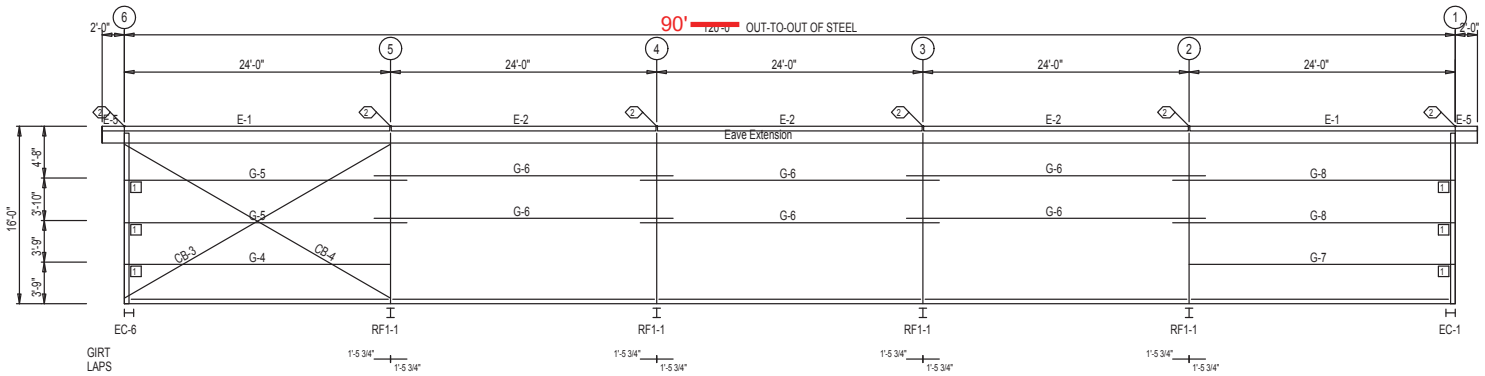
SIDEWALL SHEETING & TRIM: FRAME LINE A

PANELS: 26 Gauge PBR - Polar White

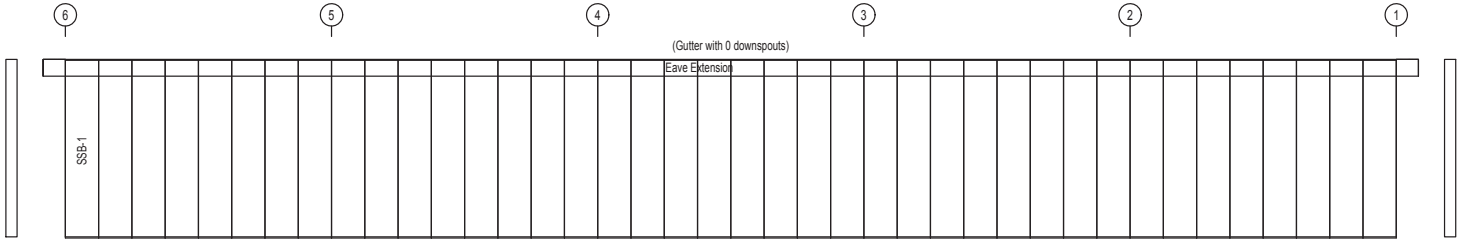
NOT FOR CONSTRUCTION

SPECIAL BOLTS					
ID	QUAN	TYPE	DIA	LENGTH	WASH
2	2	A325	1/2"	1 1/4"	2

CONNECTION PLATES FRAME LINE E	
ID	MARK/PART
1	PC78



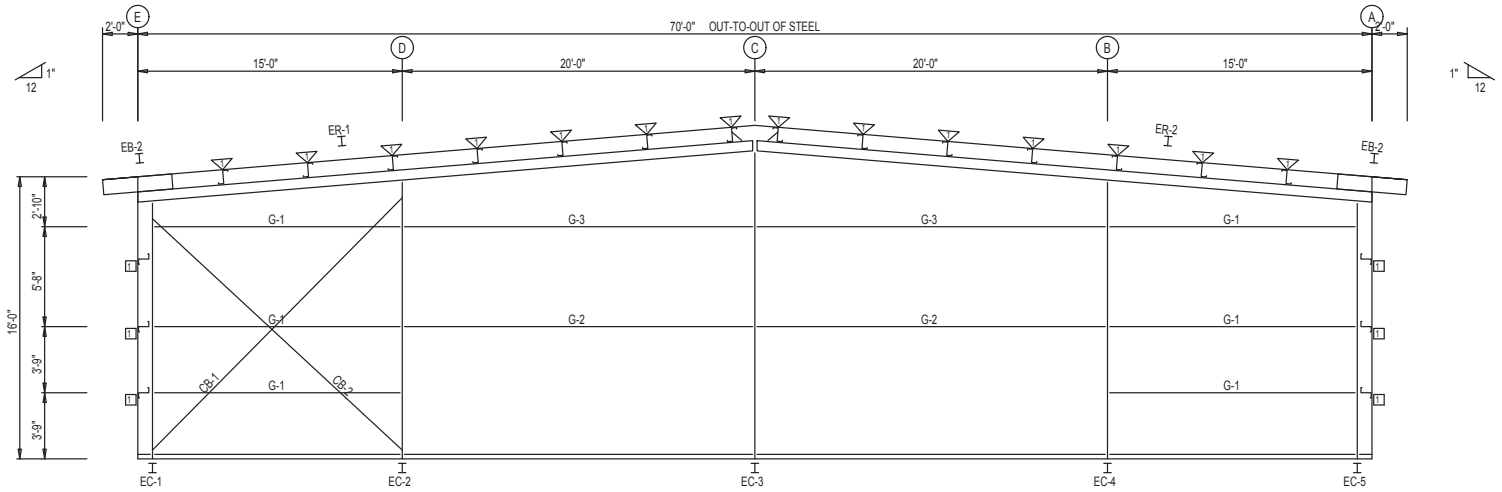
SIDEWALL FRAMING: FRAME LINE E



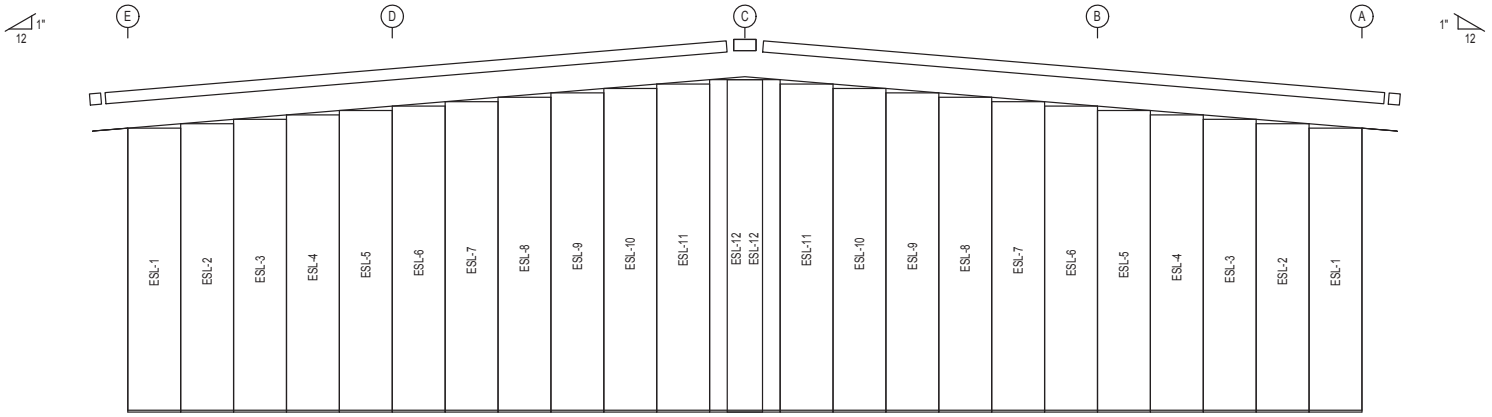
SIDEWALL SHEETING & TRIM: FRAME LINE E

PANELS: 26 Gauge PBR - Polar White

NOT FOR CONSTRUCTION



ENDWALL FRAMING: FRAME LINE 1



ENDWALL SHEETING & TRIM: FRAME LINE 1

PANELS: 26 Gauge PBR - Polar White

BOLT TABLE
FRAME LINE 1

LOCATION	QUAN	TYPE	DIA	LENGTH
ER-1/ER-2	8	A325	5/8"	1 3/4"
Cor_Column/Raf	4	A325	1/2"	1 1/4"
EC-2/ER-1	4	A325	1/2"	1 1/4"
EC-3/ER-2	4	A325	5/8"	1 1/4"
EC-4/ER-2	4	A325	1/2"	1 1/4"

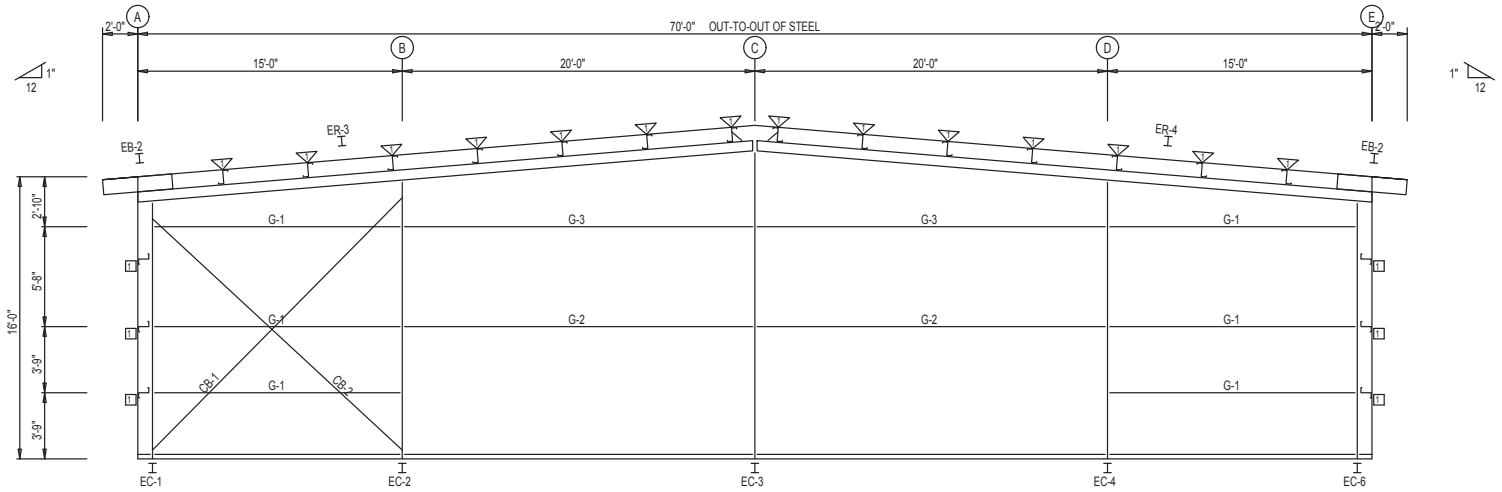
FLANGE BRACE TABLE
FRAME LINE 1

▽ ID	PART	LENGTH
FB29.5	L2X2X14G	2'-5 1/2"

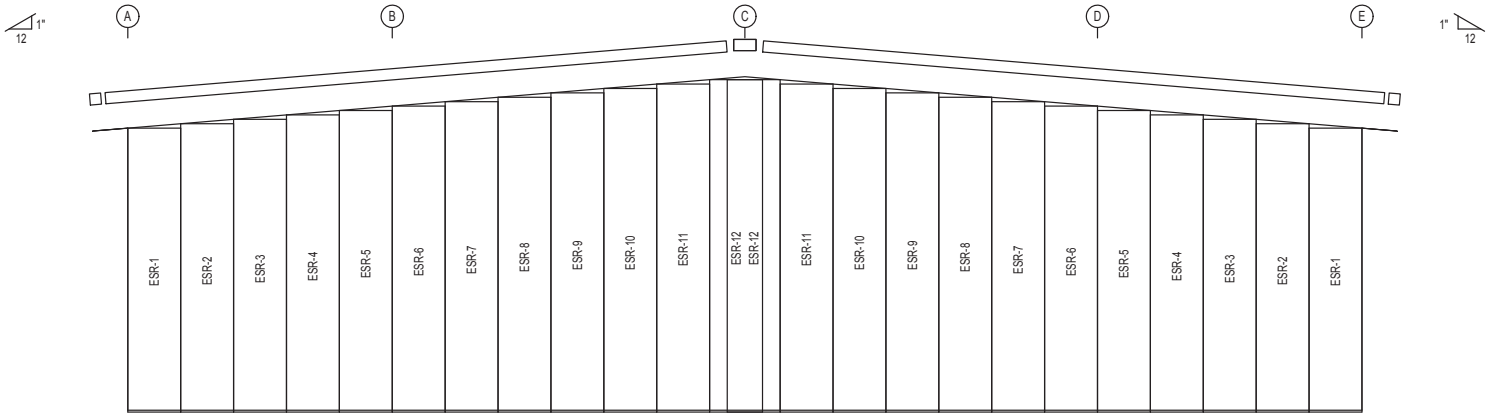
CONNECTION PLATES
FRAME LINE 1

☐ ID	MARK/PART
1	PC78

NOT FOR CONSTRUCTION



ENDWALL FRAMING: FRAME LINE 6



ENDWALL SHEETING & TRIM: FRAME LINE 6

PANELS: 26 Gauge PBR - Polar White

BOLT TABLE
FRAME LINE 6

LOCATION	QUAN	TYPE	DIA	LENGTH
ER-3/ER-4	8	A325	5/8"	1 3/4"
Cor_Column/Raf	4	A325	1/2"	1 1/4"
EC-2/ER-3	4	A325	1/2"	1 1/4"
EC-3/ER-4	4	A325	5/8"	1 1/4"
EC-4/ER-4	4	A325	1/2"	1 1/4"

FLANGE BRACE TABLE
FRAME LINE 6

▽ ID	PART	LENGTH
FB29.5	L2X2X14G	2'-5 1/2"

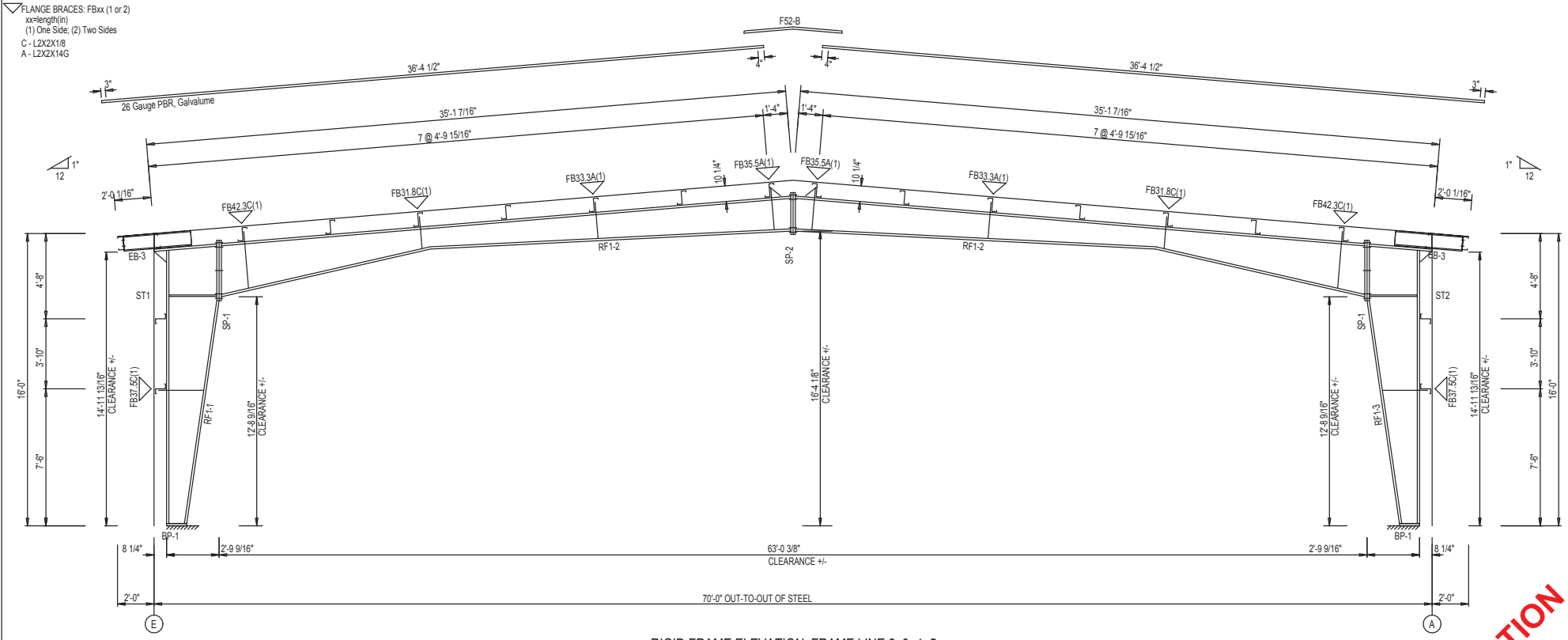
CONNECTION PLATES
FRAME LINE 6

☐ ID	MARK/PART
1	PC78

NOT FOR CONSTRUCTION

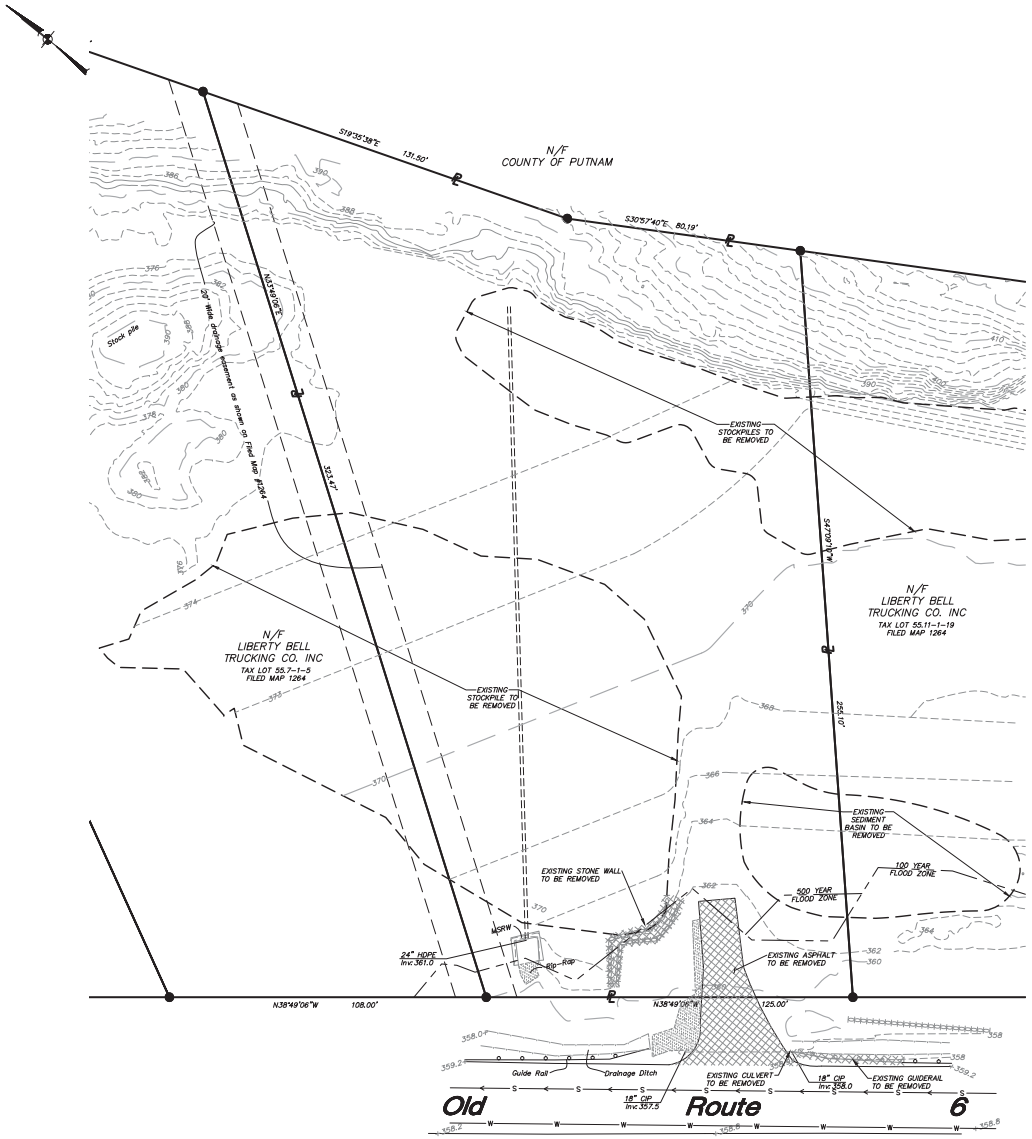
STIFFENER TABLE				
Mark	Stiff Mark	Plate Size Width	Thick	Length
RF1-1	ST1	2 1/2	1/4"	33"
RF1-3	ST2	2 1/2	1/4"	33"

FLANGE BRACES: FBxx (1 or 2)
xx=length(in)
(1) One Side; (2) Two Sides
C - L2X2X1/8
A - L2X2X14G



RIGID FRAME ELEVATION: FRAME LINE 2 3 4 5

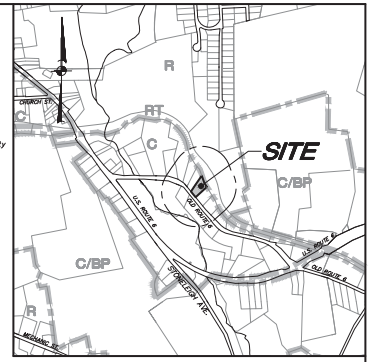
NOT FOR CONSTRUCTION



LEGEND

- EXISTING PROPERTY LINE
- EXISTING UNDERGROUND DRAINAGE PIPE
- EXISTING WATERCOURSE
- EXISTING STREAM BUFFER
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- 100 YR./500 YR. FLOOD ZONES

1. County Of Putnam
2. Putnam Plaza LLC
3. Putnam Plaza LLC
4. DP 53 LLC
5. County Of Putnam
6. Liberty Bell Trucking Co, Inc
7. Liberty Bell Trucking Co, Inc
8. Liberty Bell Trucking Co, Inc
9. 162 Ballyhack Rd
10. Liberty Bell Trucking Co, Inc
11. Town of Carmel
12. Liberty Bell Trucking Co, Inc
13. Liberty Bell Trucking Co, Inc
14. Putnam Co Humane Soc
15. Town of Carmel
16. 70 Old Route 6, LLC
17. Putnam County Humane Society



LOCATION MAP SCALE: 1" = 1000'±

OWNER:

Liberty Bell Trucking Co, Inc
200 South White Rock Road
Holmes NY 12531

SITE DATA:

Zone: C
Total Acreage 1.02 AC
Tax Map No.: 55.11-1-18

APPLICANT:

Evans Septic Tank Service
162 Barrett Hill Road
Mahopac NY 10541

GENERAL NOTES:

1. Boundary and topographic information shown hereon is taken from survey field work by Insite Engineering, Surveying, and Landscape Architecture, P.C. conducted August 31, 2021.
2. Existing grades shown within existing stockpile and sediment basin to be removed are shown as anticipated at the completion of the mining operation in this area.
3. The site is proposed to be occupied by the applicant's septic service business. It will house approximately 3-6 employees Monday – Saturday.
4. Water and sewer mains taken from Carmel mapping and should be field verified.
5. Flood zones shown hereon are approximated from FEMA FIRM Panel 36079C0141E.
6. Note it is anticipated that 0-4 employees will be regularly working on site during business hours and an additional 1-4 will visit the site intermittently through the week.

GRAPHIC SCALE
0 10 20 40
(IN FEET)
1 inch = 20 ft.

NO.	DATE	REVISION	BY

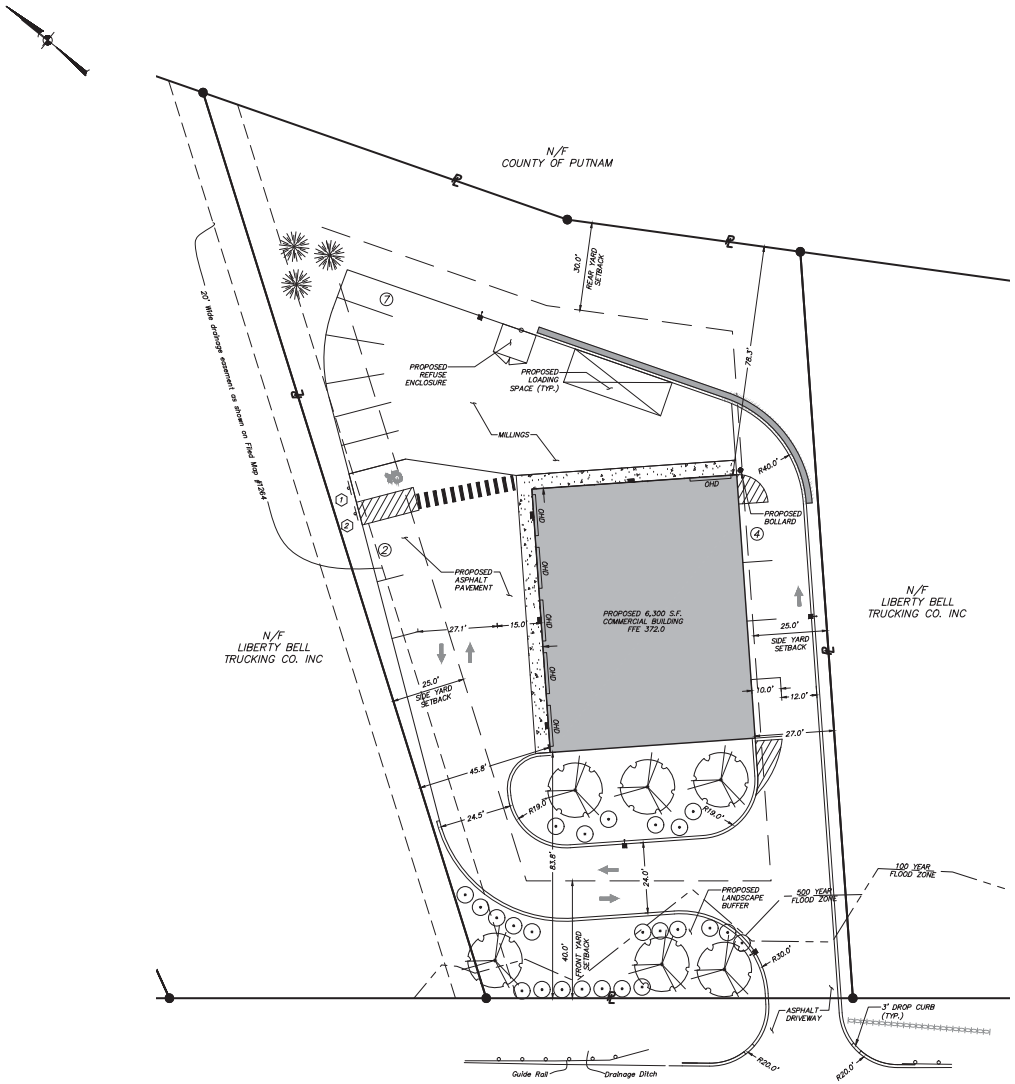
INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
EVANS SEPTIC TANK SERVICE
53 OLD ROUTE 6, HAMLET OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
EXISTING CONDITIONS AND REMOVALS PLAN

PROJECT NUMBER	21174.100	PROJECT MANAGER	J.J.C.
DATE	9-27-23	DRAWN BY	D.S.W.
SCALE	1" = 20'	CHECKED BY	A.D.T.

DRAWING NO. EX-1 SHEET 1/6



SIGN DATA TABLE

LOCATION NO.	TEXT	M.U.T.C.D. NUMBER	SIZE OF SIGN (s.f.)	DESCRIPTION
1	RESERVED PARKING 6	R7-8	12" x 18"	Blue on White
2	NO PARKING ANY TIME	R7-1	12" x 18"	Red on White

LUMINAIRE SCHEDULE

Sym	Qty	Catalog Number	Description	Lamp	Mounting Height	Watts
	4	RSX1 LED P2 30k R3 HS	LITHONIA LIGHTING LED POLE MOUNTED LIGHT TYPE 3 DISTRIBUTION WITH HOUSE-SIDE SHIELD	LED	16'-0"	72
	4	LDWP-FC-3B ED-7040	LUMARK FULL CUTOFF WAL-PAK	LED	10'-0"	27

LIGHTING NOTES:

1. All lighting shall be as noted on the plan or approved equal.
2. Style and finish of all luminaires to be selected by owner.
3. Proposed lights will run on photocells during regular business hours, and will run on motion sensors after hours.
4. Type, location, and shading of all proposed lighting shall prevent the spillover of light onto all adjacent residential properties.
5. All light fixtures to be full cutoff to comply with dark sky guidelines.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING GUIDE RAIL
- EXISTING EDGE OF PAVEMENT
- PROPOSED BUILDING
- (9) PROPOSED # OF STALLS TO BE STRIPED
- PROPOSED CONCRETE CURB
- PROPOSED RETAINING WALL
- PROPOSED PAINTED DIRECTIONAL ARROW
- PROPOSED PAINTED HANDICAP PARKING SYMBOL
- PROPOSED STRIPED ISLAND
- PROPOSED LOADING SPACE
- (1) PROPOSED SINGLE POLE SIGN
- PROPOSED DOOR LOCATION
- OHD PROPOSED OVERHEAD DOOR LOCATION
- PROPOSED POLE MOUNTED LIGHT
- PROPOSED BUILDING MOUNTED LIGHT
- PROPOSED LANDSCAPING

ZONE REQUIREMENTS TOWN OF CARMEL COMMERCIAL DISTRICT

	REQUIRED / PERMITTED	PROPOSED
Minimum Lot Area:	40,000 s.f.	1.00 AC ± (43,676 s.f. ±)
Minimum Lot Width:	200'	*125' ±
Minimum Lot Depth:	200'	255' ±
Minimum Front Yard:	40'	83.8' ±
Minimum Side Yard:	25'	27' ±
Minimum Rear Yard:	30'	78.3' ±
Maximum Permitted Height of Buildings:	35'	< 35'
Minimum Required Floor Area of Buildings:	5,000 s.f.	6,300 s.f.
Maximum Permitted Coverage of Lot by Buildings:	30%	14.4%

* Pre-existing non conforming condition

PARKING SUMMARY

Light Industrial Use

6,300 SF @ 1 space per 500 SF = 13 Spaces Required

Spaces Provided = 13 Parking Spaces

PLANT LIST

KEY	QTY.	BOTANICAL/COMMON NAME	SIZE	ROOT/SPACING
		SHADE TREE		
AR	3	Acer rubrum/ Red Maple	1 1/2" CAL	B&B
NS	1	Nyssa sylvatica/ Black Tupelo	1 1/2" CAL	B&B
QP	2	Quercus palustris/ Pin Oak	1 1/2" CAL	B&B
		FLOWERING TREES		
AC	5	Amelanchier arborea/ Serviceberry	1 1/4" CAL	B&B
CC	5	Cercis canadensis/ Eastern Redbud	1 1/4" CAL	B&B
		EVERGREEN TREES		
JV	5	Juniperus virginiana/ Eastern Red Cedar	6'-8'	B&B
		SHRUBS		
IG	9	Ilex glabra compacta / Compact Inkberry		#3 CONT.
JC	35	Juniperus chinensus/ Seagreen Juniper		#5 CONT.
KL	9	Kalmia latifolia / Mountain Laurel		#3 CONT.
VR	12	Viburnum rhytidophyllum/ Leatherleaf Viburnum		#3 CONT.

NOTES:
1. The Town of Carmel Wetland Inspector to verify all plantings.
2. All planting shall be installed in accordance with Chapter 142 of the Town of Carmel Code.

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1 inch = 20 ft.

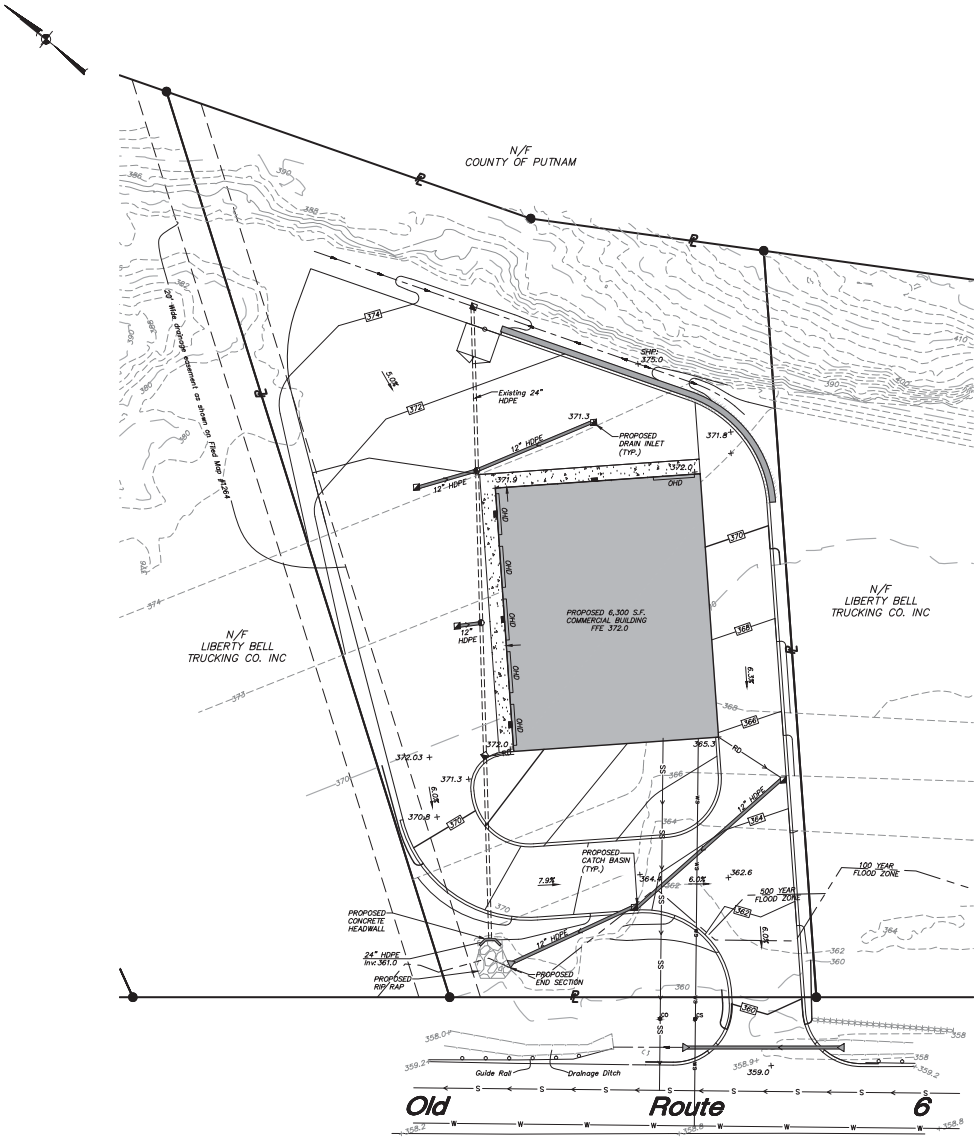
NO.	DATE	REVISION	BY

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
EVANS SEPTIC TANK SERVICE
53 OLD ROUTE 6, HAMLET OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
LAYOUT AND LANDSCAPE PLAN

PROJECT NUMBER	21174.100	PROJECT MANAGER	J.J.C.	DRAWING NO.	SHEET
DATE	9-27-23	DRAWN BY	D.S.W	SP-1	2 / 6
SCALE	1" = 20'	CHECKED BY	A.D.T.		



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING EDGE OF PAVEMENT
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED DRAINAGE STRUCTURE
- PROPOSED DRAINAGE PIPE
- PROPOSED ROOF DRAIN
- PROPOSED GRASS SWALE
- PROPOSED SEWER SERVICE LINE
- PROPOSED WATER SERVICE LINE
- PROPOSED SEWER CLEAN OUT
- PROPOSED CURB STOP

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1 inch = 20 ft.

NO.	DATE	REVISION	BY

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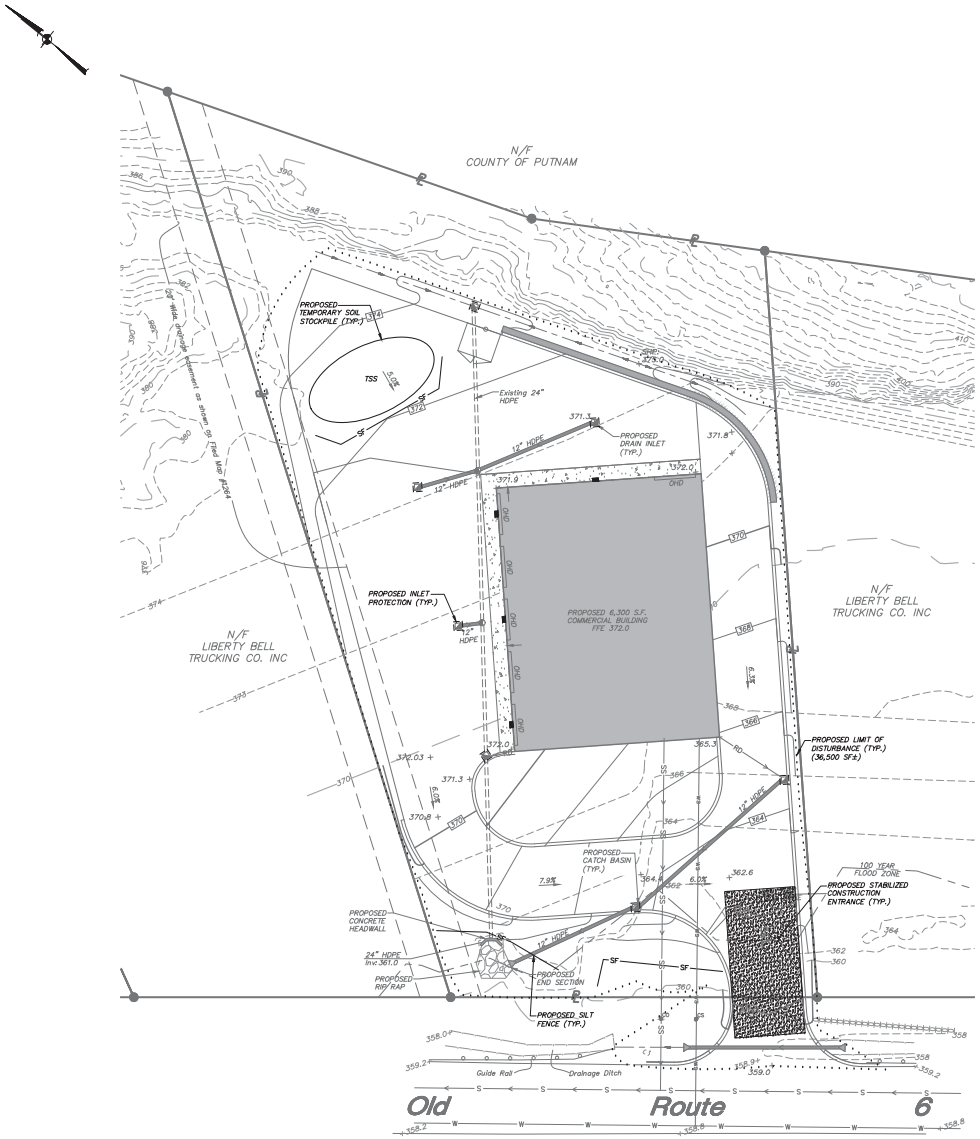
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
EVANS SEPTIC TANK SERVICE
53 OLD ROUTE 6, HAMLET OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
GRADING AND UTILITIES PLAN

PROJECT NUMBER	21174.100	PROJECT MANAGER	J.J.C.
DATE	9-27-23	DRAWN BY	P.J.M.
SCALE	1" = 20'	CHECKED BY	A.D.T.

DRAWING NO. SP-2
SHEET 3 / 6



LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STONE WALL
- EXISTING EDGE OF PAVEMENT
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING SPOT GRADE
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED GRASS SWALE
- PROPOSED CATCH BASIN W/ INLET PROTECTION
- PROPOSED SILT FENCE
- PROPOSED TEMPORARY SOIL STOCKPILE
- PROPOSED STABILIZED CONSTRUCTION ENTRANCE

GRAPHIC SCALE

0 10 20 40

(IN FEET)
1 inch = 20 ft.

NO.	DATE	REVISION	BY

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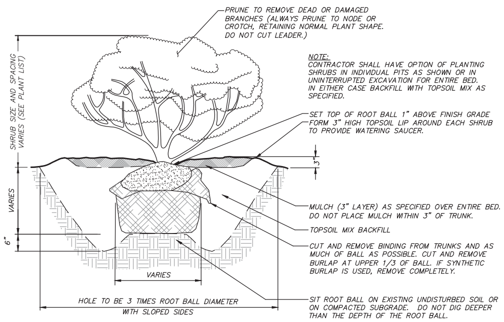
PROJECT:
EVANS SEPTIC TANK SERVICE
53 OLD ROUTE 6, HAMLET OF CARMEL, PUTNAM COUNTY, NEW YORK

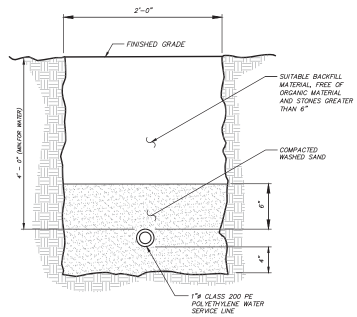
DRAWING:
EROSION AND SEDIMENT CONTROL PLAN

PROJECT NUMBER	21174.100	PROJECT MANAGER	J.J.C.
DATE	9-27-23	DRAWN BY	P.J.M.
SCALE	1" = 20'	CHECKED BY	A.D.T.

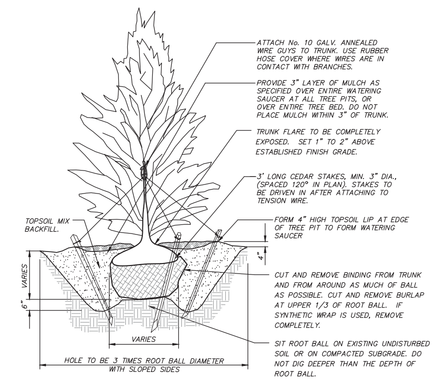
DRAWING NO. SP-3
SHEET 4 / 6


PRUNE TO REMOVE DEAD OR DAMAGED BRANCHES (ALWAYS PRUNE TO NODE OR CROTCH, RETAINING NORMAL PLANT SHAPE. DO NOT CUT LEADER.)
NOTE:
CONTRACTOR SHALL HAVE OPTION OF PLANTING SHRUBS IN INDIVIDUAL PITS AS SHOWN OR IN UNINTERRUPTED EXCAVATION FOR ENTIRE BED. IN EITHER CASE BACKFILL WITH TOPSOIL MIX AS SPECIFIED.
SET TOP OF ROOT BALL 1" ABOVE FINISH GRADE FORM 3" HIGH TOPSOIL LIP AROUND EACH SHRUB TO PROVIDE WATERING SAUCER.
SHRUB SIZE AND SPACING VARIES (SEE PLANT LIST)
VARIES
6"
3"
MULCH (3" LAYER) AS SPECIFIED OVER ENTIRE BED. DO NOT PLACE MULCH WITHIN 3" OF TRUNK.
TOPSOIL MIX BACKFILL
CUT AND REMOVE BINDING FROM TRUNKS AND AS MUCH OF BALL AS POSSIBLE. CUT AND REMOVE BURLAP AT UPPER 1/3 OF BALL. IF SYNTHETIC BURLAP IS USED, REMOVE COMPLETELY.
VARIES
HOLE TO BE 3 TIMES ROOT BALL DIAMETER WITH SLOPED SIDES
SIT ROOT BALL ON EXISTING UNDISTURBED SOIL OR ON COMPACTED SUBGRADE. DO NOT DIG DEEPER THAN THE DEPTH OF THE ROOT BALL.

SHRUB PLANTING DETAIL
(N.T.S.)

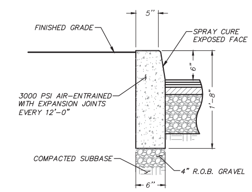


WATER SERVICE LINE TRENCH DETAIL
(N.T.S.)

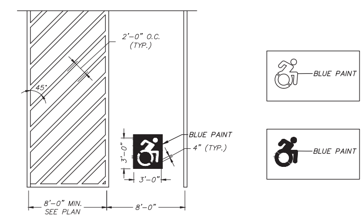

ATTACH No. 10 GALV. ANNEALED WIRE GUYS TO TRUNK. USE RUBBER HOSE COVER WHERE WIRES ARE IN CONTACT WITH BRANCHES.
PROVIDE 3" LAYER OF MULCH AS SPECIFIED OVER ENTIRE WATERING SAUCER AT ALL TREE PITS, OR OVER ENTIRE TREE BED. DO NOT PLACE MULCH WITHIN 3" OF TRUNK.
TRUNK FLARE TO BE COMPLETELY EXPOSED. SET 1" TO 2" ABOVE ESTABLISHED FINISH GRADE.
3' LONG CEDAR STAKES, MIN. 3" DIA., (SPACED 120° IN PLAN). STAKES TO BE DRIVEN IN AFTER ATTACHING TO TENSION WIRE.
TOPSOIL MIX BACKFILL
FORM 4" HIGH TOPSOIL LIP AT EDGE OF TREE PIT TO FORM WATERING SAUCER
4"
VARIES
6"
CUT AND REMOVE BINDING FROM TRUNK AND FROM AROUND AS MUCH OF BALL AS POSSIBLE. CUT AND REMOVE BURLAP AT UPPER 1/3 OF ROOT BALL. IF SYNTHETIC WRAP IS USED, REMOVE COMPLETELY.
VARIES
HOLE TO BE 3 TIMES ROOT BALL DIAMETER WITH SLOPED SIDES
SIT ROOT BALL ON EXISTING UNDISTURBED SOIL OR ON COMPACTED SUBGRADE. DO NOT DIG DEEPER THAN THE DEPTH OF ROOT BALL.

NOTE:
PROVIDE STAKING AND GUYING FOR TREES PLANTED ON SLOPES GREATER THAN 3H:1V, IN EXPOSED, WINDY AREAS AND AS SPECIFIED BY LANDSCAPE ARCHITECT. GUY WIRES AND STAKES SHALL BE REMOVED WITHIN TWELVE MONTHS OF PLANTING.

EVERGREEN TREE PLANTING DETAIL
(N.T.S.)

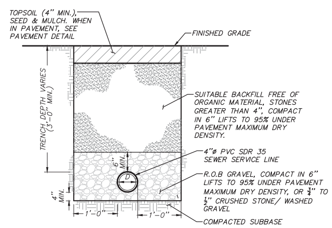


CONCRETE CURB DETAIL
(N.T.S.)

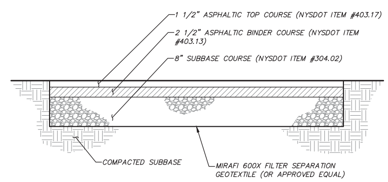


NOTE:
ALL HANDICAP STRIPING SHALL BE 4" WIDE BLUE PAINT.

PAINTED NYS ACCESSIBLE PARKING DETAIL
(N.T.S.)


TOPSOIL (4" MIN.), SEED & MULCH. WHEN IN PAVEMENT, SEE PAVEMENT DETAIL
FINISHED GRADE
TRENCH DEPTH VARIES (3'-0" MIN.)
SUITABLE BACKFILL FREE OF ORGANIC MATERIAL, STONES GREATER THAN 4", COMPACT IN 6" LIFTS TO 95% UNDER PAVEMENT MAXIMUM DRY DENSITY.
4"# PVC SDR 35 SEWER SERVICE LINE
6" MIN.
R.O.B GRAVEL, COMPACT IN 6" LIFTS TO 95% UNDER PAVEMENT MAXIMUM DRY DENSITY, OR ¾" TO 1 ¼" CRUSHED STONE/ WASHED GRAVEL
4" MIN.
1'-0"
1'-0"
COMPACTED SUBBASE

SEWER SERVICE LINE TRENCH DETAIL
(N.T.S.)



ASPHALT PAVEMENT DETAIL
(N.T.S.)

GENERAL SITE SEEDING NOTES:

1. All proposed seeded areas to receive 4" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.

2. Upon final grading and placement of topsoil and any required soil amendments, areas to receive permanent vegetation cover in combination with suitable mulch as follows:
   - select seed mixture per drawings and seeding notes.
   - fertilizer applied at the manufacturer's recommended rate using Lesco 10-0-18 (no phosphorous) fertilizer or equivalent.
   - mulch: salt hay or small grain straw applied at a rate of 90 lbs./1000s.f. or 2 tons/acre, to be applied and anchored according to New York State Standards and Specifications for Erosion and Sediment Control, August 2005.
   - if the season prevents the establishment of a permanent vegetation cover, the disturbed areas will be mulched with straw or equivalent.

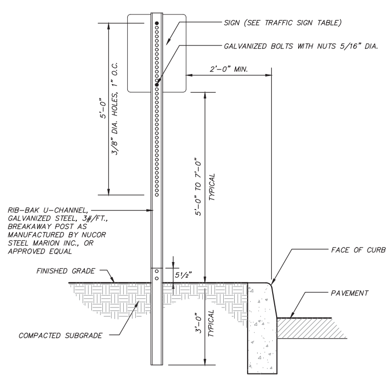
3. Seed Mix for all disturbed areas at a rate of 100 lbs. per acre:

Kentucky Bluegrass	20%
Creeping Red Fescue	40%
Perennial Ryegrass	20%
Annual Ryegrass	20%

4. Seeding to be planted between March 21 and May 20, or between August 15 and October 15 or as directed by project representative.

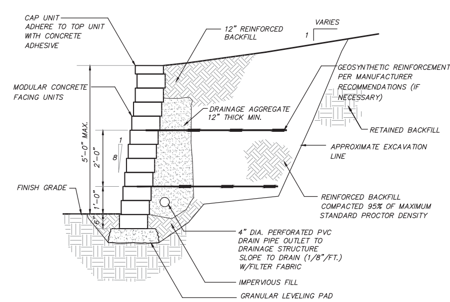
5. Mulch: Salt hay or small grain straw applied at a rate of 90 lbs./1000 S.F. or 2 tons/acre, to be applied and anchored according to "New York Standards and Specification For Erosion and Sediment Control," latest edition.

6. Grass seed mix may be applied by either mechanical or hydroseeding methods. Seeding shall be performed in accordance with the current edition of the "NYSDOT Standard Specification, Construction and Materials, Section 610-3.02, Method No. 1". Hydroseeding shall be performed using materials and methods as approved by the site engineer.


SIGN (SEE TRAFFIC SIGN TABLE)
GALVANIZED BOLTS WITH NUTS 5/16" DIA.
2'-0" MIN.
5'-0"
3/8" DIA. HOLES, 1" O.C.
5'-0" TO 7'-0" TYPICAL
RIB-BAK U-CHANNEL, GALVANIZED STEEL, 3#/FT., BREAKAWAY POST AS MANUFACTURED BY NUCOR STEEL MARION INC., OR APPROVED EQUAL
FINISHED GRADE
5½"
FACE OF CURB
PAVEMENT
COMPACTED SUBGRADE
3'-0" TYPICAL

NOTE: FOR HANDICAP PARKING SIGNAGE, SIGNS SHALL BE INSTALLED AT A CLEAR HEIGHT OF BETWEEN 5'-0" AND 7'-0" ABOVE GRADE OF PARKING SPACE AND SUCH THAT SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.

TRAFFIC SIGN DETAIL
(N.T.S.)


CAP UNIT ADHERE TO TOP UNIT WITH CONCRETE ADHESIVE
12" REINFORCED BACKFILL
VARIES
1
MODULAR CONCRETE FACING UNITS
GEOSYNTHETIC REINFORCEMENT PER MANUFACTURER RECOMMENDATIONS (IF NECESSARY)
DRAINAGE AGGREGATE 12" THICK MIN.
RETAINED BACKFILL
5'-0" MAX.
2'-0"
APPROXIMATE EXCAVATION LINE
FINISH GRADE
1'-0"
6"
REINFORCED BACKFILL COMPACTED 95% OF MAXIMUM STANDARD PROCTOR DENSITY
4" DIA. PERFORATED PVC DRAIN PIPE OUTLET TO DRAINAGE STRUCTURE SLOPE TO DRAIN (1/8"/FT.) W/FILTER FABRIC
IMPERVIOUS FILL
GRANULAR LEVELING PAD 6" THICK MIN.

NOTES:
1. STRIP VEGETATION AND ORGANIC SOIL FROM WALL AND GEOSYNTHETIC ALIGNMENT.
2. BENCH CUT ALL EXCAVATED SLOPES.
3. DO NOT OVER EXCAVATE UNLESS DIRECTED BY SITE ENGINEER TO REMOVE UNSUITABLE SOIL.
4. SITE ENGINEER SHALL VERIFY FOUNDATION SOILS AS BEING COMPETENT PER THE DESIGN STANDARDS AND PARAMETERS.
5. LEVELING PAD SHALL CONSIST OF COMPACTED COARSE SAND OR CRUSHED GRAVEL, 6" THICK MIN.
6. CONTRACTOR MAY OPT FOR A LEAN CONCRETE PAD. CONCRETE PAD SHALL BE UNREINFORCED, 3" THICK MAXIMUM.
7. MINIMUM EMBEDMENT OF WALL BELOW FINISH GRADE SHALL BE 6".
8. FOR UNITS TO BE EMBEDDED, COMPACT FILL IN FRONT OF UNITS AT THE SAME TIME FILL BEHIND UNITS IS COMPACTED.
9. DRAINAGE AGGREGATE SHALL BE INSTALLED DIRECTLY BEHIND THE WALL WITHIN 12" OF THE TOP OF THE WALL. DRAINAGE AGGREGATE SHALL NOT EXTEND BELOW FINAL GRADE IN FRONT OF WALL.
10. COMPACTION SHALL BE TO 95% OF MAXIMUM STANDARD PROCTOR DENSITY.(ASTM D-698)
11. COMPACTION TESTS SHALL BE TAKEN AS THE WALL IS INSTALLED. THE MINIMUM NUMBER OF TESTS SHALL BE DETERMINED BY THE SITE SOILS ENGINEER.
12. COMPACTION WITHIN 3 FT. OF WALL SHALL BE LIMITED TO HAND OPERATED EQUIPMENT.
13. GEOSYNTHETIC SHALL BE PLACED WITH STRONGEST DIRECTION PERPENDICULAR TO WALL. FOLLOW GEOSYNTHETIC MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS.
14. CONTRACTOR SHALL DIRECT SURFACE RUNOFF TO AVOID DAMAGING WALL WHILE UNDER CONSTRUCTION.
15. ANY SURFACE DRAINAGE FEATURES, FINISH GRADING, PAVEMENT, OR TURF SHALL BE INSTALLED IMMEDIATELY AFTER WALL IS COMPLETED.
16. FOLLOW APPLICABLE PROVISIONS OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS.
17. MODULAR BLOCK RETAINING WALL AT STEPS TO BE INSTALLED VERTICALLY (NO BATTER)
18. MODULAR BLOCK RETAINING WALL MANUFACTURER TO SUPPLY CONSTRUCTION DETAILS OF WALL SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF NEW YORK.

MODULAR BLOCK RETAINING WALL DETAIL
(N.T.S.)

NO.	DATE	REVISION	BY

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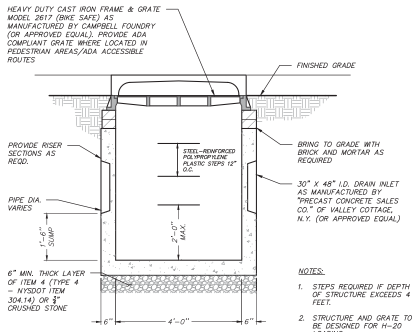
PROJECT:
EVANS SEPTIC TANK SERVICE
53 OLD ROUTE 6, HAMLET OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
DETAILS

PROJECT NUMBER	21174.100	PROJECT MANAGER	J.J.C.	DRAWING NO.	SHEET
DATE	9-27-23	DRAWN BY	P.J.M.	D-1	5 / 6
SCALE	AS SHOWN	CHECKED BY	A.D.T.		

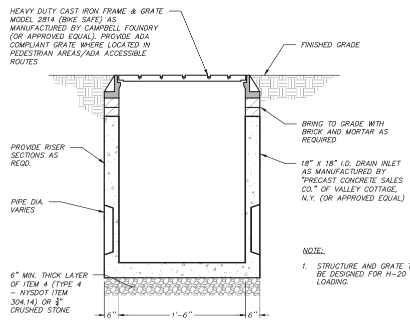


NOTES:

1. STEPS REQUIRED IF DEPTH OF STRUCTURE EXCEEDS 4 FEET.
2. STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING.

30" X 48" CATCH BASIN DETAIL

(N.T.S.)

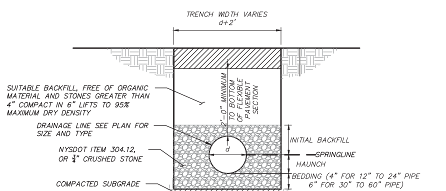


NOTE:

1. STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING.

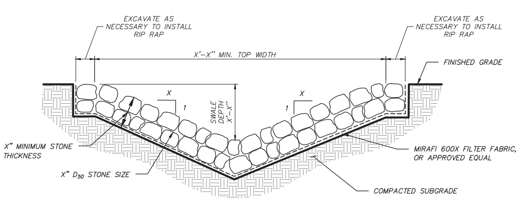
18" X 18" DRAIN INLET DETAIL

(N.T.S.)



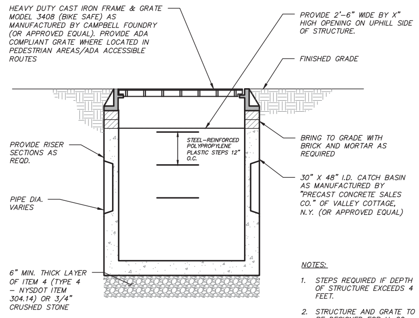
DRAINAGE LINE TRENCH DETAIL

(N.T.S.)



RIP RAP SWALE DETAIL

(N.T.S.)

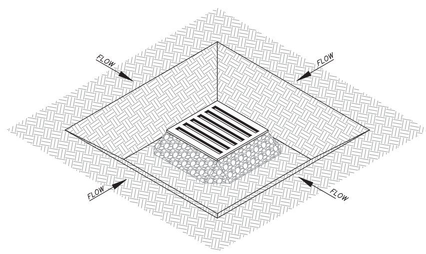


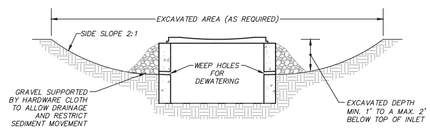
NOTES:

1. STEPS REQUIRED IF DEPTH OF STRUCTURE EXCEEDS 4 FEET.
2. STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING.

SIDE DRAIN INLET DETAIL

(N.T.S.)

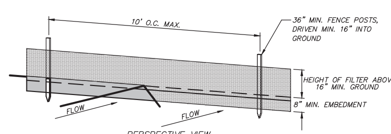




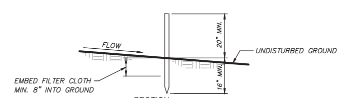
1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL EXCAVATION WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY, AND STABILIZE WITH PERMANENT SEEDING
5. MAXIMUM DRAINAGE AREA = 1 ACRE

EXCAVATED DROP INLET PROTECTION DETAIL

(N.T.S.)



PERSPECTIVE VIEW



SECTION

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. FILTER CLOTH TO BE FASTENED SECURELY TO POSTS AT TOP AND MID SECTION.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
3. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUAL

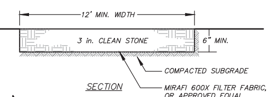
PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

SILT FENCE DETAIL

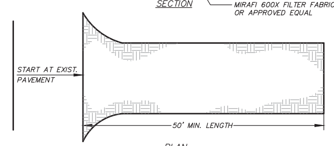
(N.T.S.)

EROSION & SEDIMENT CONTROL NOTES:

1. The contractor will be responsible for the implementation and maintenance of erosion and sediment control measures on this site prior to and during construction.
2. All construction activities involving the removal or disposition of soil are to be provided with appropriate protective measures to minimize erosion and contain sediment disposition within. Minimum soil erosion and sediment control measures shall be implemented as shown on the plans and shall be installed in accordance with "New York Standards and Specifications For Erosion and Sediment Control," latest edition.
3. Wherever feasible, natural vegetation should be retained and protected. Disturbance shall be minimized in the areas required to perform construction. No more than 5 acres of unprotected soil shall be exposed at any one time.
4. When land is exposed during excavation, the exposure shall be kept to the shortest practical period of time. In the 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. Disturbance shall be minimized to the areas required to perform construction.
5. Silt fence shall be installed as shown on the plans prior to beginning any clearing, grubbing or earthwork.
6. All topsoil to be stripped from the area being developed shall be stockpiled and immediately seeded for temporary stabilization. Ryegrass (annual or perennial) at a rate of 30 lbs. per acre shall be used for temporary seeding in spring, summer or early fall. 'Aristook' Winter Rye (cereal rye) shall be used for temporary seeding in late fall and winter.
7. Any disturbed areas not subject to further disturbance or construction traffic, permanent or temporary, shall have soil stabilization measures initiated for permanent vegetation cover in combination with a suitable mulch within 1 business day of final grading. All seeded areas to receive a minimum 4" screened topsoil from stockpile area. Seed mixes as noted in General Site Seeding Notes on drawing SP-1 are to be planted between March 21 and May 20, or between August 15 and October 15 or as directed by project representative.
8. Cut or fill slopes 3:1 and steeper shall be stabilized immediately after grading with Curlex I Single Net Erosion Control Blanket, or approved equal.
9. Paved roadways shall be kept clean at all times.
10. The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities.
11. All storm drainage outlets shall be stabilized, as required, before the discharge points become operational.
12. Stormwater from disturbed areas must be passed through erosion control barriers before discharge beyond disturbed areas or discharged into other drainage systems.
13. Erosion and sediment control measures shall be inspected and maintained on a daily basis by the O.F.R. to insure that channels, temporary and permanent ditches and pipes are clear of debris, that embankments and berms have not been breached and that all straw bales and silt fences are intact. Any failure of erosion and sediment control measures shall be immediately repaired by the contractor and inspected for approval by the O.F.R. and/or site engineer.
14. Dust shall be controlled by sprinkling or other approved methods as necessary, or as directed by the O.F.R.
15. Cut and fills shall not endanger adjoining property, nor divert water onto the property of others.
16. All fills shall be placed and compacted in 6" lifts to provide stability of material and to prevent settlement.
17. The contractor shall inspect downstream conditions for evidence of sedimentation on a weekly basis and after rainstorms.
18. As warranted by field conditions, special additional erosion and sediment control measures, as specified by the site engineer and/or the Town Engineer shall be installed by the contractor.
19. Erosion and sediment control measures shall remain in place until all disturbed areas are suitably stabilized.



SECTION



PLAN

INSTALLATION NOTES

1. STONE SIZE – USE 3" STONE
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.)
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT OF WAY THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT OF WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

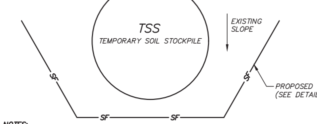
(N.T.S.)

REQUIRED SWPPP CONTENTS PER GP-0-20-001:

1. Pursuant to the NYSDEC "SPDES General Permit for Stormwater Discharges from Construction Activity" (GP-0-20-001), all Stormwater Pollution Prevention Plan's (SWPPP) shall include erosion and sediment control practices designed in conformance with the most current version of the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." Where erosion and sediment control practices are not designed in conformance with this technical standard, the owner or operator must demonstrate equivalence to the technical standard. The following list of required SWPPP components is provided in accordance with Part III.B.1a-l of General Permit GP-0-20-001:

Background Information: The subject project consists of the development of an existing quarry with the construction of a 6,300 s.f. commercial building and associated driveway/parking.

a. Site map / construction drawing: These plans serve to satisfy this SWPPP requirement.
b. Description of the soils present at the site: Onsite soils located within the proposed limits of disturbance consist of Chatfield-Charlton complex (CsD) and Udorthents (Uc) as identified on the Soil Conservation Service Web Soil Survey. These soil types belong to Hydrologic Soil Groups "B" & "D".
c. Construction sequence of operations: The Construction Sequence and phasing found on these plans provide the required phasing. A Construction Sequence and Erosion and Sediment Control Maintenance Schedule has been provided. The Sedimentation and Erosion Control Notes contained hereon outline a general sequence of operations for the proposed project. In general all erosion and sediment control facilities shall be installed prior to commencement with land disturbing activities, and areas of disturbance shall be limited to the shortest period of time as practicable.
d. Description of erosion and sediment control practices: This plan, and details / notes shown hereon serve to satisfy this SWPPP requirement.
e. Temporary and permanent soil stabilization plan: The Sedimentation and Erosion Control Notes and Details provided heron identify temporary and permanent stabilization measures to be employed with respect to specific elements of the project, and at the various stages of development.
f. Site map / construction drawing: This plan serves to satisfy this SWPPP requirement.
g. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices: The details, Erosion and Sediment Control Notes, and Erosion and Sediment Control Maintenance Schedule serve to satisfy this SWPPP requirement.
h. An inspection schedule: Inspections are not required per the General Permit GP-0-020-001.
i. A description of pollution prevention measures that will be used to control litter, construction chemicals and construction debris: In general, all construction litter / debris shall be collected and removed from the site. The general contractor shall supply either waste barrels or dumpster for proper waste disposal. Any construction chemicals utilized during construction shall either be removed from site daily by the contractor or stored in a structurally sound and weatherproof building. No hazardous waste shall be disposed of onsite, and shall ultimately be disposed of in accordance with all federal, state and local regulations. Material Safety Data Sheets (MSDS), material inventory, and emergency contact numbers shall be maintained by the general contractor for all construction chemicals utilized onsite. Finally, temporary sanitary facilities (portable toilets) shall be provided onsite during the entire length of construction, and inspected weekly for evidence of leaking holding tanks.
j. A description and location of any stormwater discharges associated with industrial activity other than construction at the site: There are no known industrial stormwater discharges present or proposed at the site.
k. Identification of any elements of the design that are not in conformance with the technical standard, "New York Standards and Specifications for Erosion and Sediment Control." All proposed elements of this SWPPP have been designed in accordance with the "New York Standards and Specifications for Erosion and Sediment Control."



NOTES:

1. AREA CHOSEN FOR STOCKPILE LOCATION SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE IMMEDIATELY SEEDED WITH K31 PERENNIAL TALL FESCUE.
4. ALL STOCKPILES SHALL BE PROTECTED WITH SILT FENCING INSTALLED ON THE DOWNGRADIENT SIDE.

TEMPORARY SOIL STOCKPILE DETAIL

(N.T.S.)

NO.	DATE	REVISION	BY

INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:

EVANS SEPTIC TANK SERVICE

53 OLD ROUTE 6, HAMLET OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:

DETAILS

PROJECT NUMBER	21174.100	PROJECT MANAGER	J.J.C.
DATE	9-27-23	DRAWN BY	P.J.M.
SCALE	AS SHOWN	CHECKED BY	A.D.T.

DRAWING NO. D-2

SHEET 6 / 6

ARCHITECTURAL VISIONS PLLC

October 2, 2023

Craing Paeprer Chariman & Members of The Carmel Planning Board
Town of Carmel
60 McAlpin Ave.
Mahopac, NY 10541

RE: John Chang
716 Route 6
Mahopac, NY 10541
TaxMap #76.30-1-26

Dear Mr. Paeprer and Members Of the Planning Board

At the Zoning Board Meeting of September 28th 2023, the variances required where approved. I would appreciate being placed on the agenda for your next meeting on Thursday October 12,2023 so that you can schedule a public hearing for Wednesday October 25, 2023.

Thanking you in advance for your cooperation in this matter.

Very Truly Yours

Joel Greenberg

Two Muscoot Road North
Mahopac, New York 10541
P: (845) 628-6613 F: (845) 628-2807
Email: joel.greenberg@arch-visions.com
www.arch-visions.com

U.S. GREEN BUILDING COUNCIL MEMBER

PROPERTIES WITHIN 500':

76.30-1-47
Brandon Lenihan
1 Baldwin St
Mahopac, NY 10541

76.30-1-62
Anthony Pugliese
12 Harbor Ln
Mahopac, NY 10541

76.30-1-21.-101
Artur Blaszczyk
141 East Lake Blvd Unit A-1
Mahopac, NY 10541

76.30-1-21.-123
Francis Reynolds
141 East Lake Blvd Unit H-2
Mahopac, NY 10541

76.30-1-21.-113
Thomas Carroll
141 East Lake Blvd E-1
Mahopac, NY 10541

76.30-1-21.-131
Michael Cirocco
141 East Lake Blvd L1
Mahopac, NY 10541

76.30-1-21.-135
Stephen Toscano
141 East Lake Blvd M2
Mahopac, NY 10541

76.30-1-21.-104
Robert Mazzei
162 Geymer Dr
Mahopac, NY 10541

76.30-1-21.-107
Diana Cirocco
12 Rebecca Ln
Carmel, NY 10512

76.30-1-21.-110
Stan Poljak
13366 Willliam Myer Ct
Palm Beach Gardens, FL 33410

76.30-1-21.-115
Arthur Boffardi
141 East Lake Blvd Unit E3
Mahopac, NY 10541

76.30-1-21.-119
Daniel Cooke
141 East Lake Blvd Unit G1
Mahopac, NY 10541

76.30-1-21.-126
Dawn Ann Schaefer
141 East Lake Blvd Unit J2
Mahopac, NY 10541

76.30-1-21.-129
26 Huntington Corp
48 Lake View Ter
Mahopac, NY 10541

76.30-1-21.-136
Kristina Antosik
141 East Lake Blvd Unit M3
Mahopac, NY 10541

76.30-1-4
Nicole Stern
888 Rt 6
Mahopac, NY 10541

76.30-1-5
Bore Cotaj
34 Kayla Ln
Mahopac, NY 10541

76.30-1-15.-102
George Daly
149 East Lake Blvd Unit A2
Mahopac, NY 10541

76.30-1-15.-105
Brahim Rexhepi
PO BOX 620
Amawalk, NY 10501

76.30-1-15.-108
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-143
Vincenzo Moschetto
722 Rt 6 - Unit G
Mahopac, NY 10541

76.30-1-15.-146
Elizabeth Frace
R.R. #2 PO BOX 38
PO BOX 38
Katonah, NY 10536

76.22-1-55
Mahopac Central School Dist
178 East Lake Blvd
Mahopac, NY 10541

76.22-1-28
Mahopac Volunteer Fire Dept
PO BOX 267
Mahopac, NY 10541

76.30-1-20
Bore Cotaj
34 Kayla Ln
Mahopac, NY 10541

76.30-1-8
Lake Mahopac Units Realty Corp
PO BOX 2058
Newport Beach, CA 92659

76.30-1-61
Manuel Martins
1 Overhill Rd
Mahopac, NY 10541

76.30-1-59
David Larsen
127 Lakeview Dr
Mahopac, NY 10541

76.30-1-21.-114
Michelle Seymour
141 East Lake Blvd Apt E2
Mahopac, NY 10541

76.30-1-21.-125
Nikki Grochowski
120 Upland Rd
Yorktown Heights, NY 10598

76.30-1-21.-116
Helen Mueller
1 Ichabod Ln
Ossining, NY 10562

76.30-1-21.-132
DMAM Enterprises, LLC
26 Averill Dr
Mahopac, NY 10541

76.30-1-21.-103
Maida R Saraceno Supplemental
141 East Lake Blvd Unit A-3
Mahopac, NY 10541

76.30-1-21.-105
Anthony Savastano
2797 Hyatt St
Yorktown Heights, NY 10598

76.30-1-21.-108
Elizabeth Honigsberg
141 East Lake Blvd C2
Mahopac, NY 10541

76.30-1-21.-111
Robert Saczawa
141 East Lake Blvd Unit 2-D
Mahopac, NY 10541

76.30-1-21.-117
Jana Rodina, Trustee
857 Berkshire Rd
Wingdale, NY 12594

76.30-1-21.-120
David Ranani
380 Rt. 202
Somers, NY 10589

76.30-1-21.-127
Rose Restucci Revoc Living Trust
4 Somerset Dr
Somers, NY 10589

76.30-1-21.-130
David Ranani
380 Rt. 202
Somers, NY 10589

76.30-1-19
Bore Cotaj
34 Kayla Ln
Mahopac, NY 10541

76.30-1-18
Pocket Aces, LLC
950 South Lake Blvd
Mahopac, NY 10541

76.30-1-15
Main The Lake Mahopac Condominiums
60 McAlpine Ave
Mahopac, NY 10541

76.30-1-15.-103
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-106
Jean DeCesare
PO BOX 819
Mahopac, NY 10541

76.30-1-15.-109
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-144
Kevin McGeever
86 Lois Dr
Pearl River, NY 10965

76.30-1-27
Ian W. Realty, LLC
725 Rt 6
725 Rt 6
Mahopac, NY 10541

76.22-1-30
Mahopac Volunteer Fire Dept
PO BOX 267
Mahopac, NY 10541

76.22-1-2
Knights of Columbus 5743
PO BOX 66
PO BOX 66
Mahopac, NY 10541

76.30-1-6
Board of Managers of the Lake
PO BOX 2058
Newport Beach, CA 92659

64.20-1-9
State Of New York
40 Gleneida Ave
Carmel, NY 10512

76.30-1-41
Joseph Russo
10 Overhill Rd
Mahopac, NY 10541

76.30-1-1
Victor Amicucci
851 Haymarket Pl
Fort Mill, SC 29708

76.30-1-21.-121
Louis Puleri
141 East Lake Blvd Unit G-3
Mahopac, NY 10541

76.30-1-21
Main The Water Club at Lake Mahopac
60 Mcalpin Ave
Mahopac, NY 10541

76.30-1-21.-124
Bryan Mack
141 East Lake Blvd H-3
Mahopac, NY 10541

76.30-1-21.-134
The Water Club at Lake Mahopac
141 East Lake Blvd M1
Mahopac, NY 10541

76.30-1-21.-102
William Free
141 East Lake Blvd Unit A2
Mahopac, NY 10541

76.30-1-21.-106
William Garcia
141 East Lake Blvd Unit B-3
Mahopac, NY 10541

76.30-1-21.-109
Martin Klajban
141 East Lake Blvd Unit C-3
Mahopac, NY 10541

76.30-1-21.-112
Rita Ballato
141 East Lake Blvd Unit D-3
Mahopac, NY 10541

76.30-1-21.-118
Daniel Libertino
141 East Lake Blvd Unit F-3
Mahopac, NY 10541

76.30-1-21.-122
Ryan Murtagh
141 East Lake Blvd Unit H-1
Mahopac, NY 10541

76.30-1-21.-128
Daniel Cooke
141 East Lake Blvd Unit K1
Mahopac, NY 10541

76.30-1-21.-133
Stan Poljak
13366 William Myer Ct
Palm Beach Gardens, FL 33410

76.30-1-39
Eddie Holmes
143 Sec Ave
Mahopac, NY 10541

76.30-1-16
Lake Mahopac Units Realty Corp
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-101
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-104
Samer Abu-Mallouh
149 East Lake Blvd Unit B-1
Mahopac, NY 10541

76.30-1-15.-107
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-110
Mohamed Mustafa Abu-Mallouh
149 East Lake Blvd Unit D-1
Mahopac, NY 10541

76.30-1-15.-145
Melissa Weigert
23 Sunnyridge Rd
Katonah, NY 10536

76.22-1-54
728 Route 6 LLC
168 East Lake Blvd
Mahopac, NY 10541

76.30-1-37
Christopher Rush
79 Heather Dr
Mahopac, NY 10541

76.30-1-3
Main WaterClubCondoMilacron DevCorp
60 Mc Alpin Ave
Mahopac, NY 10541

76.30-1-7
Bore Cotaj
34 Kayla Ln
Mahopac, NY 10541

76.30-1-15.-111
Elizabeth Baker
149 East Lake Blvd Unit D-2
Mahopac, NY 10541

76.30-1-15.-114
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-117
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-120
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-123
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-126
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-129
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-132
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-135
Jesseca Delmonico
149 East Lake Blvd Unit M-2
Mahopac, NY 10541

76.30-1-13
Greater Mahopac Post 5491 VFW
PO BOX 132
Mahopac, NY 10541

76.22-1-1
Main 155 EastLakeAssocLkMahopacCond
60 Mc Alpin Ave
Mahopac, NY 10541

76.22-1-4
Lakeview Realty 168 LLC
PO BOX 636
Mahopac, NY 10541

76.22-1-58
Joseph Spallina
169 East Lake Blvd
Mahopac, NY 10541

76.30-1-40
Jose Villalobos
2 Overhill Rd
Mahopac, NY 10541

76.30-1-65
James Romer
66 Heather Dr
Mahopac, NY 10541

76.30-1-64
Vincent Massaro
70 Heather Dr
Mahopac, NY 10541

76.30-1-25
Timothy Beyrer
710 Route 6
Mahopac, NY 10541

76.30-1-26
Luna One Management Corp
2675 Cecile Dr
Yorktown Heights, NY 10598

76.30-1-15.-137
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-140
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-112
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-115
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-118
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-121
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-124
Lisa McCormack
149 East Lake Blvd Unit H-3
149 East Lake Blvd Unit H-3
Mahopac, NY 10541

76.30-1-15.-127
Rip Adiletta
149 East Lake Blvd Unit J-3
Mahopac, NY 10541

76.30-1-15.-130
George Ryder
2723 Quaker Church Rd
Yorktown Heights, NY 10598

76.30-1-15.-133
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-136
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-2
Mahopac Ridge Bch Inc
PO BOX 952
Mahopac, NY 10541

76.22-1-3
Three Star Realty, Inc.
205 East Lake Blvd Apt A
Mahopac, NY 10541

76.22-1-5
Hilltop Manor Realty Corp
PO BOX 636
Mahopac, NY 10541

76.30-1-38
Dennis Reyes
2 Baldwin St
Mahopac, NY 10541

76.30-1-66
Damion Patrignelli
30 Maidstone Dr
Mahopac, NY 10541

76.30-1-23
OBC Mahopac LLC
135 Madison Ave Fl 7
New York, NY 10016

76.30-1-24
Monaco Realty Management
276 Buckshollow Rd
276 Buckshollow Rd
Mahopac, NY 10541

76.30-1-31
Frank Fante Inc
PO BOX 102
PO BOX 102
Mahopac, NY 10541

76.30-1-29
Town Of Carmel
60 Mcalpin Ave
Mahopac, NY 10541

76.30-1-15.-138
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-141
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-113
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-116
Board of Managers of the La
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-119
Melissa Frace
23 Sunnyridge Rd
Katonah, NY 10536

76.30-1-15.-122
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-125
Hilda Culcay
149 East Lake Blvd Unit J1
Mahopac, NY 10541

76.30-1-15.-128
Equity Trust Company
6 Brentwood Ct
Mt. Kisco, NY 10549

76.30-1-15.-131
Anita Stone
149 East Lake Blvd Unit L-1
Mahopac, NY 10541

76.30-1-15.-134
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-63
John Posimato
15 Harbor Ln
Mahopac, NY 10541

76.30-1-14
D&J East Lake Realty Corp.
69 Bloomer Rd
Brewster, NY 10509

76.22-1-60
161 East Lake LLC
168 East Lake Blvd
Mahopac, NY 10541

76.22-1-59
Matthew Spallina
165 East Lake Blvd
Mahopac, NY 10541

76.5-1-53
Power Repairs Inc
1 Marina Dr
1 Marina Dr
Mahopac, NY 10541

76.30-1-34
Apple 65 Corp
708 Lydig Ave Ste 208
Bronx, NY 10462

76.30-1-22
Brimat Realty LLC
692 Rt 6
Mahopac, NY 10541

76.30-1-35
Town Of Carmel
60 Mcalpin Ave
Mahopac, NY 10541

76.30-1-30
Mahopac Central School Dist
178 East Lake Blvd
Mahopac, NY 10541

76.30-1-28
Joseph Scollan
PO BOX 78
Mahopac, NY 10541

76.30-1-15.-139
Lake Mahopac Units Realty
PO BOX 2058
Newport Beach, CA 92659

76.30-1-15.-142
Mark Lakness
722 Rt 6 Unit F
Mahopac, NY 10541

Zoning Schedule

Owner - John Chang – 716 Route 6, Mahopac, NY 10541
Mailing Address – 2675 Cecile Drive, Yorktown Heights, NY 10598

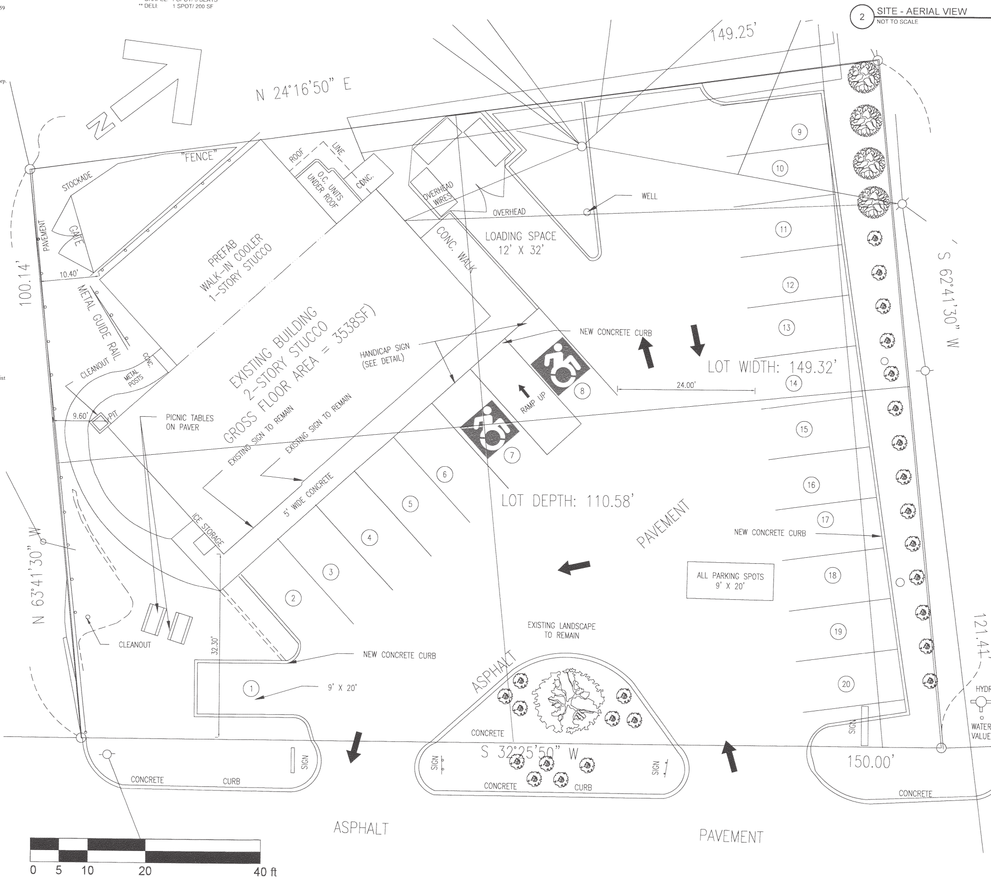
ZONE – C TM# 76.30-1-26 C – COMMERCIAL	REQUIRED	EXISTING	VARIANCE
MIN LOT AREA (SF)	40,000SF	16,522SF	VARIANCE PREVIOUSLY GRANTED
MIN LOT WIDTH (FT) MIN LOT DEPTH (FT) MIN YARD DIMENSIONS (FT)	200FT 200FT	149.32FT 110.58FT	VARIANCE PREVIOUSLY GRANTED VARIANCE PREVIOUSLY GRANTED
FRONT	40FT	32.3FT	VARIANCE PREVIOUSLY GRANTED
SIDE	20FT	9.6FT	VARIANCE PREVIOUSLY GRANTED
REAR	20FT	0FT	VARIANCE PREVIOUSLY GRANTED
MINIMUM FLOOR AREA MAX BUILDING HEIGHT (FT) MAX LOT COVERAGE (%)	5,000SF 35FT 15%	4,400SF <35FT 15.7%	VARIANCE PREVIOUSLY GRANTED NONE NONE
TOTAL REQUIRED PARKING: 23 PS*	DELI: 2307 SF/ 200 SF = 12 PS	20 PS EXISTING	3 PS VARIANCE
(12 PS + 11 PS = 23 PS)	CHAPEL: 32 SEATS/ 3 = 11 PS		
PARKING SPACES	10FT WIDE 20FT LONG	9FT WIDE 20FT LONG	1 FT VARIANCE FOR WIDTH

APR. 9/28/23
APR. 9/28/23

* MASS IS 7PM-10PM ON WEDNESDAY AND SATURDAY.
DELI CLOSES AT 6 PM WEEKDAYS AND 3PM ON SATURDAY.

** CHAPEL: 1 SPOT/ 3 SEATS
** DELI: 1 SPOT/ 200 SF

2 SITE - AERIAL VIEW
NOT TO SCALE



1 SITE
1" = 10'-0"

ARCHITECTURAL VISIONS PLLC
2 MUSCOOT ROAD NORTH
MAHOPAC NY, 10541
JOEL.GREENBERG@ARCH-VISIONS.COM
P: 845-628-6613
F: 845-628-2807

PROJECT:
JOHN CHANG

PROJECT ADDRESS
716 ROUTE 6, MAHOPAC, NY 10541

MAILING ADDRESS
2675 CECILE DR, YORKTOWN HEIGHTS, NY 10598

TAX MAP NO. 76.30-1-26

SITE PLAN

ISSUANCE

ISSUANCE	DATE
FOR REVIEW	12/28/2022
FOR REVIEW	01/13/2023
FOR REVIEW	05/01/2023
GRAPHIC SCALE ADDED	05/09/2023
FOR REVIEW	06/05/2023
FOR REVIEW	08/10/2023
FOR REVIEW	09/01/2023

SCALE
AS NOTED

DRAWN BY/CHKD BY
JT /MLS/JG

PROJECT NO.
12-22-159

S-100

ALFRED A. CAPPELLI, JR.
ARCHITECT
23 DIDDELL ROAD
WAPPINGERS FALLS, NY 12590

Telephone: 845-632-6500
Fax: 845-632-6499
Email: acappe2102@aol.com

Sept. 26, 2023

Town of Carmel Planning Board
60 McAlpin Ave.
Mahopac NY

Attn: Chairman Paeprer & Planning Board Members

Re: Zakon Project Completion
Rt. 6 & Nicole Way
Full Bond Return

Dear Chairman Paeprer & Planning Board Members,

The applicant, Joe Zakon, would like to discuss at your next available planning board agenda the arrangement of a final site inspection to have the balance of the bond reduced to zero as the work is now 100% complete.

If you need additional information, please do not hesitate to reach out to our office. Thank you in advance for your time and consideration.

Very truly yours,

Alfred A. Cappelli, Jr.
Architect

AAC/dc

ZAKON, NICOLE WAY
PERFORMANCE BOND
FULL BOND RETURN

SEPTEMBER 27, 2023

ITEM	TOTAL ORIGNAL AMOUNT	PERCENTAGE COMPLETED	VALUE COMPLETED	BALANCE TO COMPLETE
EROSION CONTROLS				
Silt fence	$ 660.00	100%	$ 660.00	0
Orange const. fence	$ 1,167.00	100%	$ 1,167.00	0
Erosion blankets	$ 7,150.00	100%	$ 7,150.00	0
Soil stockpile stabilization	$ 1,500.00	100%	$ 1,500.00	0
Stabilized const. entrance	$ 1,500.00	100%	$ 1,500.00	0
EARTHWORK				
Clear & grub	$ 4,800.00	100%	$ 4,800.00	0
Retaining walls (exposed face)	$41,250.00	100%	$41,250.00	0
Cut/export	$69,875.00	100%	$69,875.00	0
DRAINAGE				
8" perforated PVC	$ 2,720.00	100%	$ 2,720.00	0
15"HDPE	$ 2,090.00	100%	$ 2,090.00	0
Catch basins	$ 2,500.00	100%	$ 2,500.00	0
CURBING				
Curbing	$ 9,900.00	100%	$ 9,900.00	0
TRAFFIC AREA				
15" item #4 base	$15,155.00	100%	$15,155.00	0
2 ½" asphalt binder course	$16,060.00	100%	$16,060.00	0
2" asphalt top course	$12,430.00	100%	$12,430.00	0
Gravel storage area	$ 2,478.00	100%	$ 2,478.00	0
Porous pavement gravel base	$ 9,345.00	100%	$ 9,345.00	0
Porous pavement	$ 7,144.00	100%	$ 7,144.00	0
Pole lighting	$12,500.00	100%	$12,250.00	0
PAVEMENT MARKINGS				
4" epoxy striping	$ 1,740.00	100%	$ 1,740.00	0
FENCING				
Privacy fence	$ 2,250.00	100%	$ 2,250.00	0

ITEM	TOTAL ORIGINAL AMOUNT	PERCENTAGE COMPLETED	VALUE	BALANCE
SIGNAGE				
Traffic control signs	$ 225.00	100%	$ 225.00	0
LANDSCAPING				
Trees	$ 2,208.00	100%	$ 2,208.00	0
Shrubs	$ 500.00	100%	$ 500.00	0
Seed & mulch	$ 3,125.00	100%	$ 3,125.00	0
SUB-TOTAL	$230,022.00	100%	$230,022.00	0
CONTINGENCIES (5%)	$11,501.10			
TOTAL	$241,523.10	(TOTAL COMPLETED TO DATE)		
PREVIOUS BOND REDUCTION BALANCE FROM FEBRUARY 2023			$97,667.10	

KEMPEY ENGINEERING
Consultants in Environmental Engineering
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(607) 223-4653
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September 21, 2023

Mr. Craig Paeper
Chairman
Planning Board
Town of Carmel
Carmel Town Hall
60 McAlpin Avenue
Mahopac, New York 10541

Re: 70 Old Route 6, LLC
Town of Carmel Planning Board Site Plan Approval
Tompkins Recycling Center
70 Old Route 6
Town of Carmel
Tax Map #55.11-1-15
Request for Site Plan Re-Approval (Regrant)

Dear Chairman Paeper and Members of the Board:

The Planning Board granted a one-year extension of the Site Plan Approval for the Tompkins Recycling Center Project to 70 Old Route 6, LLC on October 13, 2022. We request that the Board consider a Re-Approval (Regrant) of the expiring Site Plan Approval at this time. In addition, we would like advise the Board that Kempey Engineering has completed the revised construction documents for the project, which are currently being reviewed and anticipates filing the building permit application within the next 15 to 30-days. Also, we would like the advise the Board that our anticipated filing date for the building permit application delineated in our September 14, 2022 letter to the Board was delayed due to substantial subsurface soil issues consisting of the potential for significant adverse building settlement resulting from the consolidation of the underlying peat and clay layers of the site which required almost a year of additional geotechnical investigations of the site to develop a construction method to sufficiently reduce or eliminate the adverse building settlement in order to allow the final building foundation design to be completed.

The project has the following permits:

1.	Town of Carmel - Site Plan Approval	Expires 10/21/2023
2.	Town of Carmel Wetland Permit Number 933	Expires 12/30/2023
3.	NYSDEC Solid Waste Management Facility Permit Number 3-3720-00371/00001	Expires 02/07/2024 (See Below)

4. NYSDEC Freshwater Wetland Permit Number 3-3720-00371/00004 — Expires 12/31/2027

5. NYSDEP SWPPP Approval — Expires 01/29/2027

6. NYSDEC SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Construction Activities GP-10-001 - Permit NYR 10Q049. This permit is valid (open) until a Notice of Termination is filed to close out the project after the completion of construction.

In addition, Kempey Engineering submitted the Application to Renew New York State Department of Environmental Conservation Permit to Construct and Operate a Solid Waste Management Facility Number 3-3720-00371/00001 on August 10, 2023. Therefore, since we have submitted the above-mentioned permit renewal application for the Department's review within the 180-day submission deadline cited in 6 NYCRR Part 360.16(g), 70 Old Route 6, LLC is authorized by the State Administrative Procedure Act (SAPA) and the provisions of 6 NYCRR Part 360.16(g) to continue the construction and operations of the Construction and Demolition Debris Handling and Recovery Facility (Tompkins Recycling Facility) under the current permit should it expire prior to the New York State Department of Environmental Conservation completing its review and issuing the permit renewal.

Also, FEMA has issued a conditional letter of map revision (July 24, 2014) based on the fill which will remove the property from the flood plain once the "as-built" topographic survey is submitted verifying compliance with the design drawings.

Further, transmitted herewith is Project Environmental Services, Inc.'s Check Number 1885 dated September 21, 2023 in the amount of Two Thousand Five Hundred Dollars and Zero Cent ($ 2,500.00) for the Site Plan Re-Approval (Regrant) Application Fee required to Re-Approve (Regrant) the expiring Town of Carmel Planning Board Site Plan Approval for construction of 70 Old Route 6, LLC's proposed 70 Old Route 6, Carmel, New York Construction and Demolition Debris Handling and Recovery Facility (Tompkins Recycling Center).

If you have any questions or require any additional information, please advise.

Very truly yours,

KEMPEY ENGINEERING

Eugene G. Kempey, P. E.
President

XC: Gandolfo Schiavone, 70 Old Route 6, LLC