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
APRIL 24, 2024 – 7:00 P.M.

		TAX MAP #	PUB. HEARING	MAP DATE	COMMENTS
SITE PLAN					
1.	The Hamlet at Carmel – Stoneleigh Ave, Carmel	66.-2-58		4/10/24	Amended Site Plan
2.	728 Route 6 LLC – 728 Route 6	76.22-1-54		3/2/23	Amended Site Plan
3.	Lamanna Auto Body – 255 Route 6	86.7-1-37		4/15/24	Site Plan
4.	2 Clark Place, LLC. – 2 Clark Place	75.12-1-42		2/12/24	Residential Site Plan
MISCELLANEOUS					
5.	Western Bluff Subdivision – 350 West Shore Dr	66.14-1-20			Extension of Final Subdivision Approval
6.	Minutes – 02/08/24 & 02/28/24				

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

April 10, 2024

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

RE: Amended Site Plan
The Hamlet at Carmel
TM# 66.-2-58

Dear Chairman Paeprer and Members of the Board:

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

- Eleven (11) sheet Amended Site Plan Set, dated April 10, 2024. (5 copies)
- Amended SWPPP, dated April 10, 2024. (2 copies)
- Architectural Drawings by Coppola Associates, dated November 2, 2023. (5 copies)
- Narrative in Support of Reaffirmation of 2021 SEQRA Determination, dated April 10, 2024.

The applicant is seeking an amendment to the site plan that was approved in 2022 which consisted of 150 units (75 market rate and 75 mixed income units). The southern portion of the project (75 mixed income units) has been constructed, and the applicant is in the process of seeking Certificates of Occupancy for same. It is proposed to amend the northern 75 units to mixed income units which results in minor building footprint changes. It is also proposed to modify the access to this portion of the site resulting in less clearing and reduced impervious surfaces. The original bedroom and unit count remains unchanged and as such water/sewer demands and traffic volumes will remain unchanged.

Please place the project on the April 24, 2024, Planning Board agenda for a discussion 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, Jr., PE
Senior Principal Engineer

RDW/adt

Enclosures (all via email)
cc: Ken Kearney
Sean Kearney
Mario Salpepi

Insite File No. 14211.100

TOWN OF CARMEL

SITE PLAN APPLICATION INSTRUCTIONS

The Town of Carmel Planning Board meetings are held twice a month, on the second and fourth Wednesday's, 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:

- [x] 11 copies of the Site Plan Application Form, signed and notarized.
- [x] 11 copies of the SEQR Environmental Assessment Form (use of short form or long form shall be determined at pre-submission conference).
- [x] 5 full size sets of the Site Plan (including floor plans and elevations)
- [x] 1 CD (in pdf. format) containing an electronic version of the Site Plan
- [x] 2 copies of the Disclosure Statement
- [x] 11 copies of the Site Plan Completeness Certification Form
- [ ] All supplemental studies, reports, plans and renderings.
- [x] 2 copies of the current deed.
- [ ] 2 copies of all easements, covenants and restrictions.
- [x] The appropriate fee, determined from the attached fee schedule. Make checks payable to the *Town of Carmel.*

Rose Ironsetta 4/15/24
Planning Board Secretary; Date

Richard J. Dee 4/12/24
Town Engineer; Date

TOWN OF CARMEL
SITE PLAN APPLICATION

Per Town of Carmel Code – Section 156 - Zoning

SITE IDENTIFICATION INFORMATION

Application Name:	**Application #**	**Date Submitted:**
The Hamlet at Carmel Amended Site Plan (Reservoir Place)	24-0011	4-10-24

Site Address:
No. *Street:* Stoneleigh Avenue *Hamlet:* Carmel

Property Location: *(Identify landmarks, distance from intersections, etc.)*
Stoneleigh Avenue, Carmel, NY 10512

Town of Carmel Tax Map Designation:	**Zoning Designation of Site:**
Section 66. *Block* 2 *Lot(s)* 58	R
Property Deed Recorded in County Clerk's Office	**Liens, Mortgages or other Encumbrances**
Date *Liber* 1969 *Page* 307	*Yes* (*No*)
Existing Easements Relating to the Site	**Are Easements Proposed?**
No (*Yes*) *Describe and attach copies:* Access and Utility Easement though Putnam Hospital Center	(*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:	**Phone #:** 845-306-7705 **Fax#:** 845-306-7707	**Email:** KKearney@KearneyRealtyGroup.com
The Hamlet at Carmel Associates, LLC		

Owners Address:
No. 57 *Street:* Route 6, Suite 207 *Town:* Baldwin Place *State:* NY *Zip:* 10505

Applicant (If different than owner):	**Phone #:** **Fax#:**	**Email:**

Applicant Address (If different than owner):
No. *Street:* *Town:* *State:* *Zip:*

Individual/ Firm Responsible for Preparing Site Plan: Richard D. Williams, Jr., 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 is seeking an amendment to the site plan that was approved in 2022 which consisted of 150 units (75 market rate and 75 mixed income units). The southern portion of the project (75 mixed income units) has been constructed, and the applicant is in the process of seeking Certificates of Occupancy for same. It is proposed to amend the northern 75 units to mixed income units which results in slight building footprint changes. It is also proposed to modify the access to this portion of the site resulting in less clearing and reduced impervious surfaces. The original bedroom and unit count remains unchanged and as such water/sewer demands and traffic volumes will remain unchanged.

TOWN OF CARMEL SITE PLAN APPLICATION

PROJECT INFORMATION

Lot size: 1,536,611± *Acres:* 35.28 *Square Feet:*	**Square footage of all existing structures (by floor):** 0
# of existing parking spaces: 150	**# of proposed parking spaces:** 150 (300 total)
# of existing dwelling units: 75	**# of proposed dwelling units** 75 (150 total)

Is the site served by the following public utility infrastructure:

- **Is project in sewer district or will private septic system(s) be installed?** Sewer
- **If yes to Sanitary Sewer answer the following:**

  - **Does approval exist to connect to sewer main? Yes:** ☑ **No:** ☐
  - **Is this an in-district connection?** No **Out-of district connection?** Yes
  - **What is the total sewer capacity at time of application?** On File
  - **What is your anticipated average and maximum daily flow** 26,400 GPD, Max Day 15,000 GPD, Average Day

For Town of Carmel Town Engineer

- *What is the sewer capacity* _____

- **Water Supply** **Yes:** ☑ **No:** ☐

  If Yes:
  - **Does approval exist to connect to water main? Yes:** ☑ **No:** ☐
  - **What is the total water capacity at time of application?** On File
  - **What is your anticipated average and maximum daily demand** 26,400 GPD, Max Day 15,000 GPD, Average

- **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
Sewer Flows 4/2/24

_____
Town Engineer; Date

What is the predominant soil type(s) on the site? PnB Paxton Sandy Loam	**What is the approximate depth to water table?** 2' to >6'

Site slope categories:	**15-25%** 15 %	**25-35%** 15 %	**>35%** 5 %
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** N/A **Right** N/A

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:** ☐
  CR 35 (Stoneleigh Avenue)
- **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 **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: ☑**
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: ☑**
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: ☐** NYS Homes and Community Renewal, NYS Housing Finance agency
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? 18 Months

ZONING COMPLIANCE INFORMATION

Zoning Provision	Required	Existing	Proposed
Lot Area	10 ac	35.28	35.28
Lot Coverage	30%		
Lot Width	200'	1170'	1170'
Lot Depth	200'	1161'	1161'
Front Yard	100'	N/A	668'±
Side Yard	100'	N/A	102'±
Rear Yard	100'	N/A	115'±
Minimum Required Floor Area	N/A	---	---
Floor Area Ratio	N/A	---	---
Height	35'	N/A	<35'
Off-Street Parking	2/unit @ 150 units = 300	0	300
Off-Street Loading	0	0	0

TOWN OF CARMEL SITE PLAN APPLICATION

Will variances be required? Yes: ☐ No: ■	If yes, identify variances:

PROPOSED BUILDING MATERIALS	
Foundation	Concrete
Structural System	Wood Frame
Roof	Asphalt Shingle
Exterior Walls	Fiber cement

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.

Ken Kenan

Applicants Name

Applicants Signature

Sworn before me this 9th **day of** April **20**24

Notary Public

JUSTIN A LEIGH
NOTARY PUBLIC
NO. 01LE6432524
My Comm Expires
May 2 2026
Qualified in Westchester County
STATE OF NEW YORK

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	☐ N/A	☐

TOWN OF CARMEL

SITE PLAN COMPLETENSS CERTIFICATION FORM

	Requirement Data	To Be Completed by the Applicant	Waived by the Town
16	The location of clubhouses, swimming pools, open spaces, parks or other recreational areas, and identification of who is responsible for maintenance	☑	☐
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 RICHARD D WILLIAMS PE **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
RICHARD D. WILLIAMS JR.
085866
LICENSED PROFESSIONAL ENGINEER

Signature - Applicant **Date** 4-9-24 **Professionals Seal**

Signature - Owner **Date** 4-9-24

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:

Kari Tromletta
Signature - Planning Board Secretary

4/15/24
Date

Richard [illegible]
Signature - Town Engineer

4/12/24
Date

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The Hamlet at Carmel (Reservoir Place) Amended Site Plan

Narrative in Support of Reaffirmation of 2021 SEQRA Determination

Stoneleigh Avenue, Town of Carmel, New York
Tax Map # 66-2-58

April 10, 2024

The Hamlet at Carmel project was first presented to the Town of Carmel Planning Board in 2008. At that time, the Planning Board elected to act as lead agency under the New York State Environmental Quality Review Act (SEQRA). In the course of the Board's review, a full Environmental Impact Statement (EIS) was prepared and approved by the Planning Board, and a Finding Statement, dated December 17, 2008, was adopted.

In 2021 an amendment to the approved site plan (2022 amended site plan) was presented to the Board, and a resolution, dated January 26, 2022, was adopted, reaffirming the 2008 Finding Statement. It was determined that the revisions laid out in the amended site plan did not exceed any thresholds for the development established in the Finding Statement.

The 2022 amended site plan provided for 150 total dwelling units of multifamily housing. At the time, 75 of the units were proposed as mixed-income, and the other 75 units would be provided at market rate. Since the 2022 SEQRA determination and site plan approval, the mixed-income portion of the project has been built out.

Based on the extraordinary demand for rental units at the mixed income rates, and as evidenced by the overwhelming demand for units at the Hamlet at Carmel, the applicant is now presenting an amended site plan to build out the remaining portion of the development as affordable housing.

The material revisions to the plan are minimal but improve upon the 2022 site plan with respect to a reduction in impervious surfaces, and site disturbance. The principal change to the site plan is that a driveway to the eastern side of the second phase will connect to the existing driveway from the south, rather than from the north, as shown in the 2022 plan, which will shorten the connection and create less site disturbance and impervious surface than previously proposed. In addition, the building footprints have slightly decreased in size. The total unit count and bedroom count remain unchanged. As such traffic, water and sewer remain unchanged from the previous approval.

Below is a summary of the potential impacts discussed in the 2008 Finding Statement, and how the currently proposed amended site plan does not cause the project impacts to exceed thresholds established therein. Contained thereafter is a more detailed discussion on each finding.

Finding Section:	Parameter Studied:	Change from previous finding:
3.1	Soils and Topography	No Change
	The area of disturbance and proposed impervious surfaces are reduced from the 2022 plan. By accessing the second phase from the south, rather than from the north the driveway is shortened. The buildings are also somewhat smaller than those previously proposed for this phase. This will represent a reduction in impacts to site soils and the potential for erosion.	

3.2	Terrestrial and Aquatic Resources	No Change
	The area of disturbance and proposed impervious surfaces are reduced from the 2022 plan. Less of the existing forested area will be impacted than in the 2022 plan. As with the 2022 plan, the watercourses on the west end of the site will not be impacted.	
3.3	Water Resources	No Change
	The area of disturbance and proposed impervious surfaces are reduced from the 2022 plan. The stormwater management practices have been installed as part of the first phase of work and are temporarily functioning as erosion control practices. At the conclusion construction the basins will be converted to manage stormwater runoff from the finished surfaces to provide storage and stormwater quality as previously approved. The basins where designed based on the 2022 site plan. Based on the reduction in impervious surfaces in the current site plan, the proposed stormwater management practices continue to be appropriately sized for the reduced amount of runoff.	
3.4	Zoning and Surrounding Land Use	No Change
	As noted in the 2008 finding statement the project will be "compatible with the surrounding development, which consists of a variety of residential densities similar to the proposed development, and will not result in significant adverse impacts." The project remains zoning compliant and the same with regard to use and unit count.	
3.5	Traffic and Transportation	No Change
	The unit count and bedroom count remains the same as approved in 2022. No additional traffic is anticipated as part of this amendment.	
3.6	Community Services and Socioeconomics	No Change
	The unit count and bedroom count remains the same as approved in 2002. No additional need for community services is anticipated as part of this amendment. It should be noted that the proposed amended site plan will provide tax revenue, whereas the 2008 Finding Statement anticipated "no post-development tax revenues."	
3.7	Visual Resources	No Change
	The amended site plan will site the proposed buildings in the same general location as the approved 2022 plan, but the area of disturbance is reduced. Less of the existing forested area will be impacted than in the 2022 plan. Specifically, along the northern end of the property there was a driveway leading to the eastern row of buildings in the 2022 plan. In the current plan that driveway has been shift to the south of those buildings, which will allow for a deeper forested buffer between the development and the hospital property to the north.	
3.8	Cultural Resources	No Change
	Per the 2008 Finding Statement, "There are no National Register Listed properties located on or within one mile of the project site."	

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The Hamlet at Carmel

(Formerly The Putnam Community Foundation)

Amended Stormwater Pollution Prevention Plan (ASWPPP)

Town of Carmel, New York

May 11, 2022

Revised: April 10, 2024

1.0 INTRODUCTION

The Hamlet at Carmel (HAC) project is proposed on a 35 ± acre parcel of vacant land designated as Town of Carmel Tax Map Parcel #66.-2-58. Access to the HAC project is provided through the adjoining Putnam Hospital Center property to the north. The hospital parcel is designated as Town of Carmel Tax Map Parcel #66.-2-57. The subject parcels are located in the R (residential) zoning district. The parcels and their surroundings are delineated on the Overall Site Plan.

A SWPPP approval was obtained for the subject project (formerly known as The Putnam Community Foundation) from the NYCDEP on March 23, 2010, and a previous Amended SWPPP was approved on May 16, 2022 for The Hamlet at Carmel project. The original approved SWPPP is titled "Stormwater Pollution Prevention Plan for The Putnam Community Foundation" and dated March 9, 2010. This document is a supplement to the original approved SWPPP. The Putnam Community Foundation project consisted of 120 senior housing units, access driveway, sports court, community building and parking. The current proposed project for the project site consists of the construction of a multifamily residential development of ten (10) buildings totaling 150 units and associated parking, recreation and utility areas. The current project scope is proposed to consist of less impervious cover and less disturbance on the project site than the previously approved project.

The project received coverage under the New York State Department of Environmental Conservation General Permit GP-0-10-001. The identification number is NYR11C513. As noted in Part II.E of GP-0-20-001, "owner operator of a construction activity with coverage under GP-0-15-002, as of the effective date of GP-0-20-001, shall be authorized to discharge in accordance with GP-0-20-001, unless otherwise notified by the Department". The permit also notes that "the owner or operator may continue to implement the technical/design components of the post-construction stormwater management controls provided that such design was done in conformance with the technical standards in place at the time of initial project authorization". The current stormwater design will meet the requirements for stormwater treatment in accordance with the General Permit GP-0-10-001.

The following sections of this report have been prepared to address the proposed site changes for The Hamlet at Carmel project from the approved SWPPP for the Putnam Community Foundations as well as assess the stormwater management practices within the framework of the previously approved SWPPP. This Amended SWPPP is supplemental to the approved SWPPP for The Putnam Community Foundation project. For further information refer to the approved SWPPP titled "Stormwater Pollution Prevention Plan for The Putnam Community Foundation", dated March 9, 2010.

2.0 STORMWATER ASSESSMENT

This section of the SWPPP amendment discusses the proposed modifications from the approved SWPPP to the current proposed project. As previously discussed, the proposed site development has been modified from the approved SWPPP. The overall general layout of the site has not changed but proposed development has changed from 120 senior housing units to the construction of a multifamily residential development including ten (10) buildings totaling 150 units and associated appurtenances. The type and

number of stormwater management practices as approved in the SWPPP prepared for The Putnam Community Foundation (PCF) project have not been altered.

The approved PCF project consisted of 7.7 acres of 1/8 acre lots (65% impervious) and 1.3 acres of impervious surfaces associated with the proposed driveway, parking areas and appurtenances. The Hamlet at Carmel development proposes less total impervious area from the approved SWPPP. The project also proposes to decrease the overall limit of disturbance associated with the development from the approved SWPPP. See table below for a comparison between the overall impervious area and limit of disturbance for the approved PCF project and the Hamlet at Carmel development.

Table 2.1 – Impervious Area and Limit of Disturbance Summary Table

	Approved SWPPP	**Amended SWPPP**
Overall Proposed Impervious Area (ac.)	6.3	5.8
Overall Proposed Limit of Disturbance (ac.)	23.9	18.6

As the project site is mostly wooded, by reducing the overall limit of disturbance for the subject project, the proposed tree removal for the project will decrease as well. By decreasing the tree removal for the subject project, the stormwater runoff from the site will decrease which will reduce the water quality treatment volumes required for stormwater management. With the same amount of impervious area for the subject project and decrease in tree removal, the water quality and quantity requirements for stormwater treatment will be reduced from the approved SWPPP, thereby decreasing the required size of the proposed stormwater management practices. As the proposed stormwater management practices have not been altered and the stormwater quality and quantity treatment requirements have been reduced, the approved stormwater management practices are adequate to treat the stormwater runoff from the proposed Hamlet at Carmel development in accordance with the NYCDEP and NYSDEC requirements during the time of the original approval. See Section 3.0 and 4.0 below for further information on the stormwater quantity and quality requirements.

A summary of the impervious cover and total tributary area for each subcatchment in the post-development condition is provided in Table 2.2 below for the approved SWPPP and the proposed amended SWPPP.

Table 2.2 – Impervious and Total Tributary Area Comparison

Design Line/Point	Subcatchment	Impervious Area (ac.)		Total Area (ac.)	
		Approved SWPPP	Amended SWPPP	Approved SWPPP	Amended SWPPP
Design Point 2	2.1S	3.25	2.90	7.9	6.8
	2.2S	-	-	0.9	0.9
	2.3S	-	-	2.8	2.8
	Total	**3.25**	**2.90**	**11.6**	**10.5**
Design Point 3	3.1S	3.05	2.90	8.9	8.1
	3.2S	-	-	0.6	0.6
	3.3S	-	-	2.9	2.9
	Total	**3.05**	**2.90**	**12.4**	**11.6**
Design Line 4	4.1S	-	-	8.8	8.0
	Total	**0.0**	**0.0**	**8.8**	**8.0**
Design Line 5	5.1S	-		2.1	4.3
	Total	**0.0**	**0.0**	**2.1**	**4.3**

[1] The impervious areas shown in the table represent 65% of the area input into HydroCAD, where 1/8 acre lots was used for the ground cover.

To assess the stormwater quantity and quality requirements of state and local agencies found in the original SWPPP approval by others, 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.

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

Stormwater Basins

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

The precipitation values for the 1-Year, 2-Year, 10-Year, 25-Year, and 100-Year 24-hour design storm events and rainfall distribution curves utilized for this report were consistent with the precipitation values utilized in the previously approved SWPPP. The values provided for all design storms analyzed have been listed below.

Design Storm	24-Hour Rainfall
1-Year	3.1”
2-Year	3.5”
10-Year	5.5”
25-Year	6.0”
100-Year	9.7”

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 their associated CN values utilized in this report.

Table 2.3 – Project Ground Cover and Associated Curve Numbers (CN)

Land Use/Ground Cover	CN Value
Woods, Good, B Soil	55
Woods, Good, C Soil	70
>75% Grass Cover, Good, B Soil	74
Gravel, C Soil	89
1/8 acre lots, 65% imp., C Soil	90
Paved Parking and Roofs	98

3.0 STORMWATER QUALITY

The pollutant loading coefficient method was utilized to calculate the annual export of Biological Oxygen Demand (BOD), Total Phosphorus (TP), Total Nitrogen (TN), and Total Suspended Solids (TSS). The publication *Fundamentals of Urban Runoff Management: Technical and Institutional Issues* produced by the Terrene Institute was referenced to determine the appropriate loading rates for TP, TN, and TSS. The New York State Department of Environmental Conservation (NYSDEC) publication *Reducing the Impacts of Stormwater Runoff from New Development* (*Impacts*) was referenced to determine appropriate loading rates for BOD. The appropriate loading rates were then utilized to calculate the annual pollutant runoff values. The following table summarizes the pollutant loading rates utilized for the subject project.

Table 3.1 - Summary of Pollutant Loading Rates (lbs/acre/year)

Land Use/Ground Cover	BOD	TP	TN	TSS
Woods	6.0	0.10	1.8	77
Grass	6.0	0.12	3.7	308
Pavement	111.0	0.98	2.1	446
Multifamily Residential	50.0	0.63	5.0	395

The following pollutant removal efficiencies are referenced from *Impacts*. By meeting the requirements set forth by the NYCDEP, which exceed the requirements in *Impacts* for the Design 2 extended detention basins, the pollutant removal efficiencies for a Design 2 extended detention pond can be applied for the proposed stormwater ponds. Grass Swales will also be used to treat stormwater runoff from the proposed project.

Table 3.2 - Long Term Pollutant Removal Efficiencies

Treatment Method	BOD	TP	TN	TSS
Design 2 Extended Detention Pond (Micropool Extended Detention Pond P-1)	40%-60%	40%-60%	20%-40%	80%-100%
Design 14 Grass Swale	20%-40%	20%-40%	20%-40%	20%-40%

The following tables summarize the estimated pre-development and post-development annual pollutant loads from the approved SWPPP and compares them to the calculated post-development annual pollutant loads (contained in Appendix C of this report) calculated for the subject project. The annual pollutant loading calculation in Appendix C and summarized below have been provided for all four design points/lines separately as well as the overall pollutant loads for the subject project.

Table 3.3 - Annual Pollutant Loading Summary for Overall Project

	Annual Loads (lb/yr)			
	BOD	TP	TN	TSS
Pre-Development Annual Pollutant Loads	206.4	3.44	61.9	2,649
Approved SWPPP Post-Development Annual Pollutant Loads	261.5 to 151.8	3.69 to 2.34	69.3 to 47.7	1,793 to 1,532
Amended SWPPP Post-Development Annual Pollutant Loads	274.8 to 163.4	3.85 to 2.50	69.1 to 49.7	1,910 to 1,663

Table 3.4 - Annual Pollutant Loading Summary to Design Point 2

	Annual Loads (lb/yr)			
	BOD	TP	TN	TSS
Pre-Development Annual Pollutant Loads	34.8	0.58	10.4	447
Approved SWPPP Post-Development Annual Pollutant Loads	90.7 to 40.0	1.27 to 0.59	24.2 to 12.9	345.6 to 215.6
Amended SWPPP Post-Development Annual Pollutant Loads	86.0 to 39.6	1.20 to 0.59	22.5 to 12.5	337 to 216

Table 3.5 - Annual Pollutant Loading Summary to Design Point 3

	Annual Loads (lb/yr)			
	BOD	TP	TN	TSS
Pre-Development Annual Pollutant Loads	36.0	0.60	10.8	462
Approved SWPPP Post-Development Annual Pollutant Loads	105.4 to 46.4	1.32 to 0.64	23.7 to 13.4	400 to 270
Amended SWPPP Post-Development Annual Pollutant Loads	115.1 to 50.1	1.40 to 0.67	22.5 to 13.1	395 to 270

Table 3.6 - Annual Pollutant Loading Summary to Design Line 4

	Annual Loads (lb/yr)			
	BOD	TP	TN	TSS
Pre-Development Annual Pollutant Loads	90.0	1.50	27.0	1,155
Approved SWPPP Post-Development Annual Pollutant Loads	52.8	0.88	15.8	678
Amended SWPPP Post-Development Annual Pollutant Loads	48.0	0.80	14.4	616

Table 3.7 - Annual Pollutant Loading Summary to Design Line 5

	Annual Loads (lb/yr)			
	BOD	TP	TN	TSS
Pre-Development Annual Pollutant Loads	45.6	0.76	13.7	585
Approved SWPPP Post-Development Annual Pollutant Loads	12.6	0.23	5.5	370
Amended SWPPP Post-Development Annual Pollutant Loads	25.8	0.45	9.6	562

As seen by the above summaries, the overall post-development pollutant loads are within the range of the pre-development pollutants of concern for the overall project as required by the NYCDEP regulations, which is consistent with the standards at the time of the original SWPPP Approval.

Similar to the approved SWPPP, the pollutant loads to Design Point 2 and 3 are greater in the post-development condition then the pre-development but are less for Design Lines 4 and 5. Design Points 2 and 3 and Design Line 4 discharge to the west while Design Line 5 discharges to the east. The subject property and the causeway for Stoneleigh Avenue separate the eastern and western sides of the Croton Falls Reservoir. As previously stated and shown above, there is a decrease in all the pollutant loads to the east side (Design Line 5) of the reservoir. The table below summarizes the pollutant loads reaching the western side of the reservoir (Design Points 2 and 3 and Design Line 4).

Table 3.8 - Annual Pollutant Loading Summary to West Side

	Annual Loads (lb/yr)			
	BOD	TP	TN	TSS
Pre-Development Annual Pollutant Loads	160.8	2.68	48.2	2,064
Approved SWPPP Post-Development Annual Pollutant Loads	248.9 to 139.2	3.47 to 2.11	63.7 to 42.1	1,423 to 1,164
Amended SWPPP Post-Development Annual Pollutant Loads	249.0 to 137.6	3.40 to 2.05	59.4 to 40.0	1,348 to 1,101

As shown in the table above, the post-development pollutant loads reaching the western side of the reservoir are within the pre-development range, similar to the approved SWPPP.

The water quality volume (WQ_v) is intended to improve water quality by sizing the stormwater management practices to fully capture and treat a specified quantity of water. Chapter 10 of the Design

Manual specifies that the WQ_v in a Phosphorus TMDL watershed shall be the estimated runoff from the 1-year 24-hour design storm. Stormwater ponds 2.1P and 3.1P are proposed as P-1 micropool extended detention basins to meet the NYSDEC WQ_v treatment requirements. A summary of the WQ_v requirement for each stormwater pond based on the stormwater runoff from the contributing area during the 1-year, 24-hour storm event is provided in the table below. The table compares the WQ_v requirement from the approved SWPPP to this amended SWPPP.

Table 3.9 – Required Water Quality Volume Summary (Per Design Manual Chapter 10)

Subcatchment	Stormwater Pond	Approved SWPPP WQ_v (cf)	Amended SWPPP WQ_v (cf)
2.1S	2.1P	45,869	39,465
3.1S	3.1P	47,088	44,910

*Information regarding the 1-year 24-hour Design Storm Volumes (WQv) is shown in Appendix B

As there are no proposed changes to the stormwater management ponds from the Approved SWPPP, and the Water Quality Volume requirement from the contributing subcatchment have been reduced from the approved SWPPP, the approved stormwater management practices are adequately sized to treat the stormwater runoff from the proposed Hamlet at Carmel development in accordance with the NYCDEP and NYSDEC requirements during the time of the original approval.

4.0 STORMWATER QUANTITY

To meet the Stream Channel Protection (Cp_v) requirements of the NYSDEC 24 hours of center of mass detention for the 1-Year, 24-hour design storm has been provided in each of the proposed treatment trains. The following table summarizes the center of mass detention times of each treatment train prior to discharging out of the stormwater management system.

CENTER OF MASS DETENTION TIME (MIN) FOR 1-YEAR, 24 HOUR DESIGN STORM

Treatment Train	Center of Mass Time IN to Treatment Train (Min)	Center of Mass Time OUT of Treatment Train (Min)	Total Center of Mass Detention (Min)	Total Center of Mass Detention (Hr)
2.1P – 2.2P	837.1	3,003.4	2,166.3	36.1
3.1P – 3.2P	848.7	3,772.0	2,923.3	48.7

The data for the table above was taken from Appendix B of this SWPPP. As shown in the table above a minimum of 24 hours or 1,440 minutes has been provided within each treatment train prior to discharge from the site. By providing 24 hours of detention of the center of mass for the 1-Year, 24-hour design storm the NYSDEC requirements for Stream Channel Protection (Cp_v) have been met.

Consistent with the approved SWPPP, the same two Design Lines and two Design Points were used to quantitively analyze the stormwater runoff from the proposed development. The NYSDEC and NYCDEP regulations at the time of the original SWPPP approval required the attenuation of peak flows from the 2, 10, 25, and 100-year storms to pre-development levels. The attenuation of the peak flows from the proposed development is accomplished within the proposed stormwater management practices on the site. Table 4.1 thru 4.4 below summarizes the pre and post development peak flows expected for the proposed amended project.

Table 4.1 – Design Point 2 - Pre and Post-Development Peak Flows (cfs)

24-HOUR DESIGN STORM								
DESIGN POINT 2	2-YEAR		10-YEAR (Qp)		25-YEAR		100-YEAR (Qf)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Approved SWPPP	3.93	2.49	10.12	6.26	11.82	7.31	25.27	25.10
Amended SWPPP		2.47		6.24		7.28		20.32

Table 4.2 – Design Point 3 - Pre and Post-Development Peak Flows (cfs)

24-HOUR DESIGN STORM								
DESIGN POINT 3	2-YEAR		10-YEAR (Qp)		25-YEAR		100-YEAR (Qf)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Approved SWPPP	4.02	2.58	10.35	6.58	12.09	7.68	25.84	16.46
Amended SWPPP		2.58		6.57		7.67		16.45

Table 4.3 – Design Line 4 - Pre and Post-Development Peak Flows (cfs)

24-HOUR DESIGN STORM								
DESIGN LINE 4	2-YEAR		10-YEAR (Qp)		25-YEAR		100-YEAR (Qf)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Approved SWPPP	10.27	6.03	27.27	16.00	31.99	21.03	69.66	69.20
Amended SWPPP		5.48		14.55		17.06		55.06

Table 4.4 – Design Line 5 - Pre and Post-Development Peak Flows (cfs)

24-HOUR DESIGN STORM								
DESIGN LINE 5	2-YEAR		10-YEAR (Qp)		25-YEAR		100-YEAR (Qf)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Approved SWPPP	5.24	1.91	13.49	4.70	15.79	5.45	33.77	11.33
Amended SWPPP		3.92		9.63		11.17		23.20

As seen by the above summaries, the post-development peak flows for the 2-, 10-, 25-, and 100-year design storms have been attenuated to be less than the pre-development peak flows, therefore the receiving drainage system will see a reduction in peak flows during the storm events shown above.

5.0 STORMWATER CONVEYANCE SYSTEM

The stormwater conveyance system for the project consists of grass swales, precast concrete drainage structures, HDPE and PVC SDR 35 drainage piping. The proposed conveyance 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. The collection system has been sized to convey, at a minimum, the 100-year design storm. Pipe sizing calculations will be provided in future reports.

6.0 CONCLUSION

The proposed stormwater management practices sized for the original scope of the approved SWPPP for the Putnam Community Foundation project and are adequately sized for the proposed modifications to the site improvements for The Hamlet of Carmel project. As previously stated, the proposed modifications have no impact on the approved stormwater management practices on the project site and all modifications meet the requirements of the NYCDEP and NYSDEC within the framework of the original approved SWPPP.

APPENDICIES

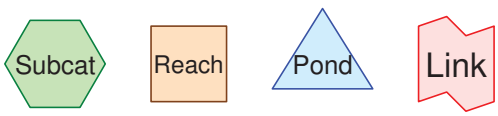
Appendix A	Pre Development Computer Data
Appendix B	Post Development Computer Data
Appendix C	Pollutant Loading Calculations

Figures

Figure 1	The Hamlet at Carmel - Post Development Drainage Map
Figure 2	The Putnam Community Foundation - Pre Development Drainage Map (Approved)
Figure 3	The Putnam Community Foundation - Post Development Drainage Map (Approved)

APPENDIX A

Pre Development Computer Data



Routing Diagram for The Hamlet at Carmel Pre Development

Prepared by Insite Engineering, Surveying & Landscape Architecture, P.C., Printed 1/4/2022

Summary for Subcatchment 2.0S:

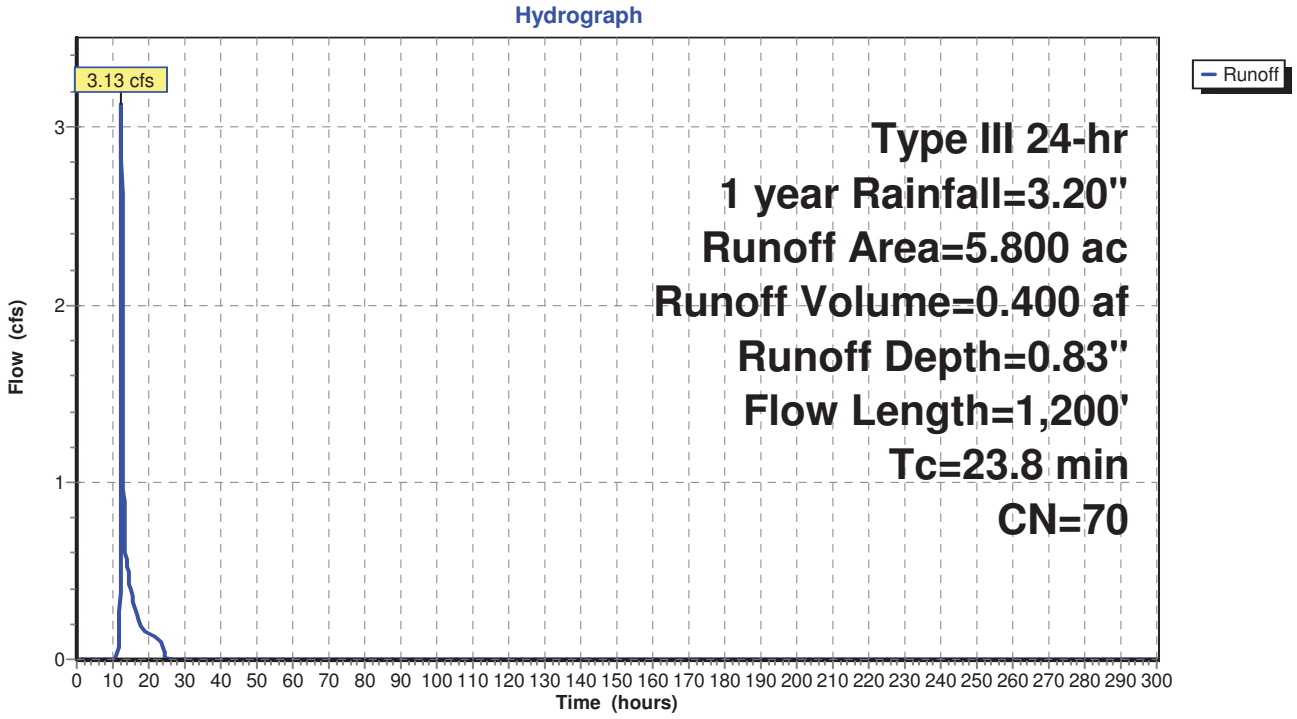
Runoff = 3.13 cfs @ 12.38 hrs, Volume= 0.400 af, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 year Rainfall=3.20"

Area (ac)	CN	Description
5.800	70	Woods, Good, HSG C
5.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.2	100	0.0600	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
10.6	1,100	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,200	Total			

Subcatchment 2.0S:



Summary for Subcatchment 3.0S:

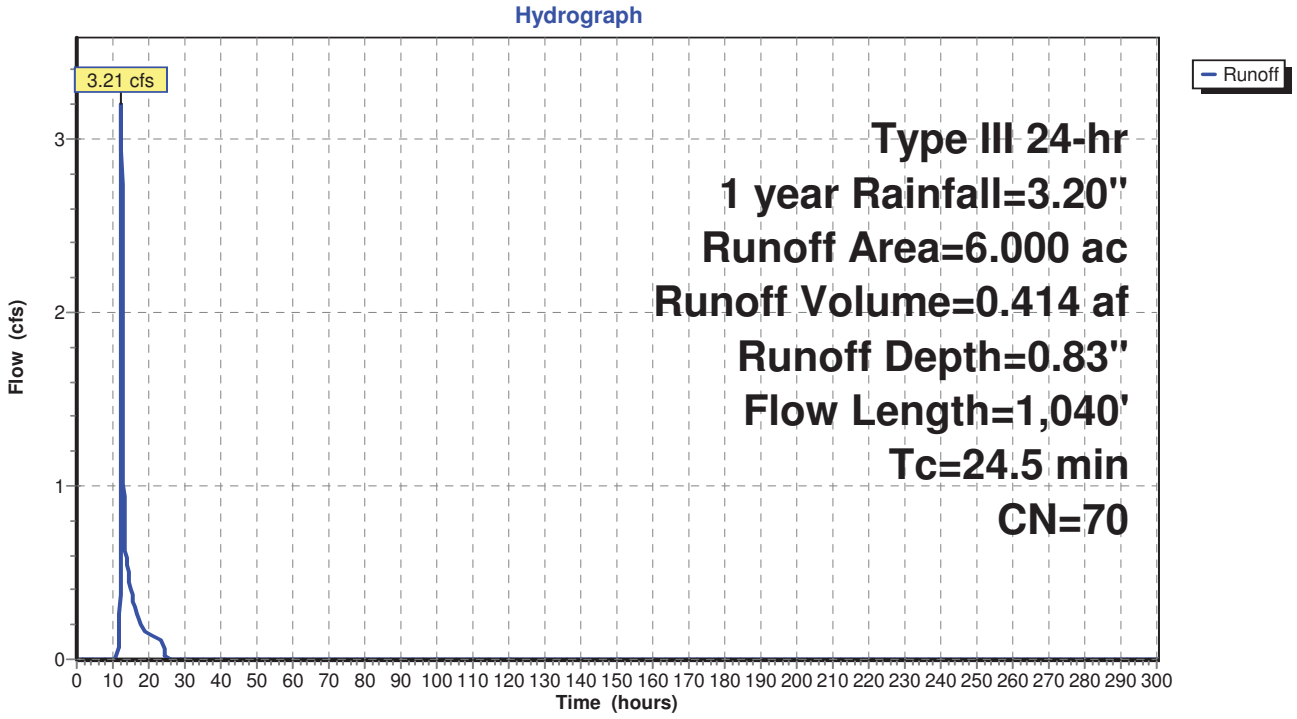
Runoff = 3.21 cfs @ 12.39 hrs, Volume= 0.414 af, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 year Rainfall=3.20"

Area (ac)	CN	Description
6.000	70	Woods, Good, HSG C
6.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	100	0.0350	0.10		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.1	940	0.1500	1.94		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
24.5	1,040	Total			

Subcatchment 3.0S:



Summary for Subcatchment 4.0S:

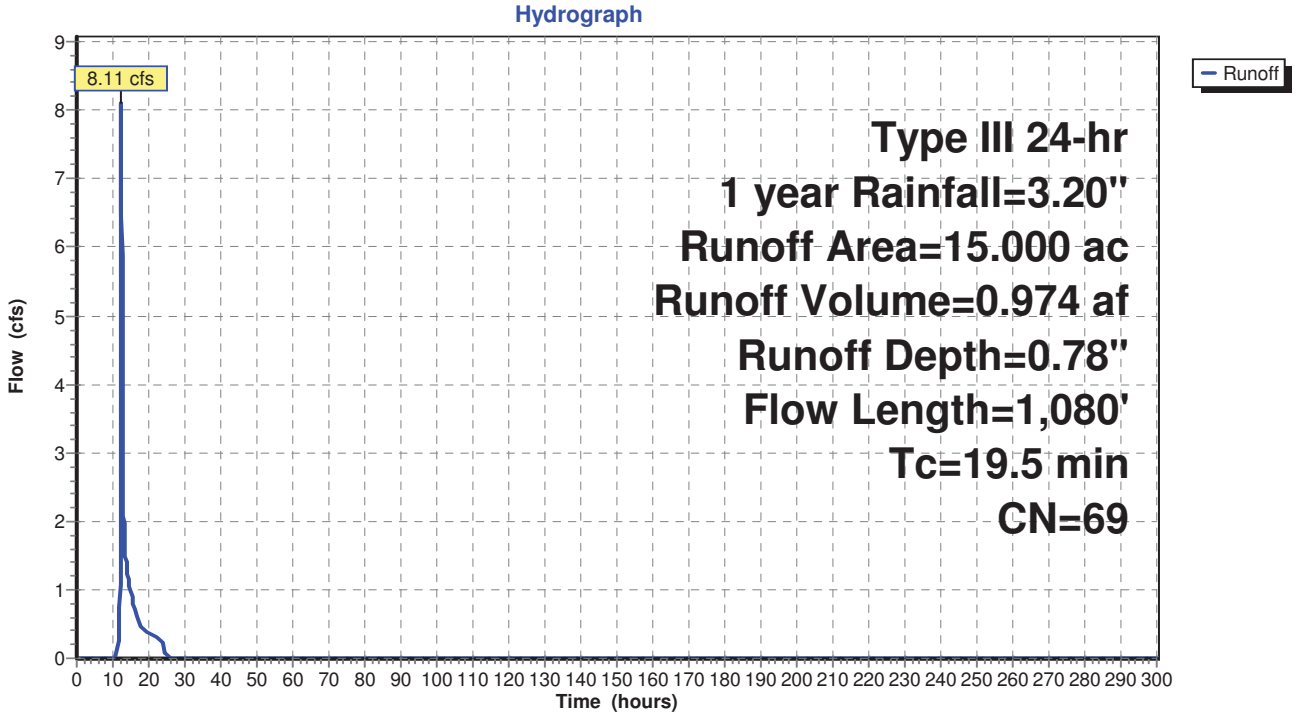
Runoff = 8.11 cfs @ 12.31 hrs, Volume= 0.974 af, Depth= 0.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 year Rainfall=3.20"

Area (ac)	CN	Description
14.300	70	Woods, Good, HSG C
0.700	55	Woods, Good, HSG B
15.000	69	Weighted Average
15.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	100	0.0900	0.15		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.2	980	0.1600	2.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
19.5	1,080	Total			

Subcatchment 4.0S:



Summary for Subcatchment 5.0S:

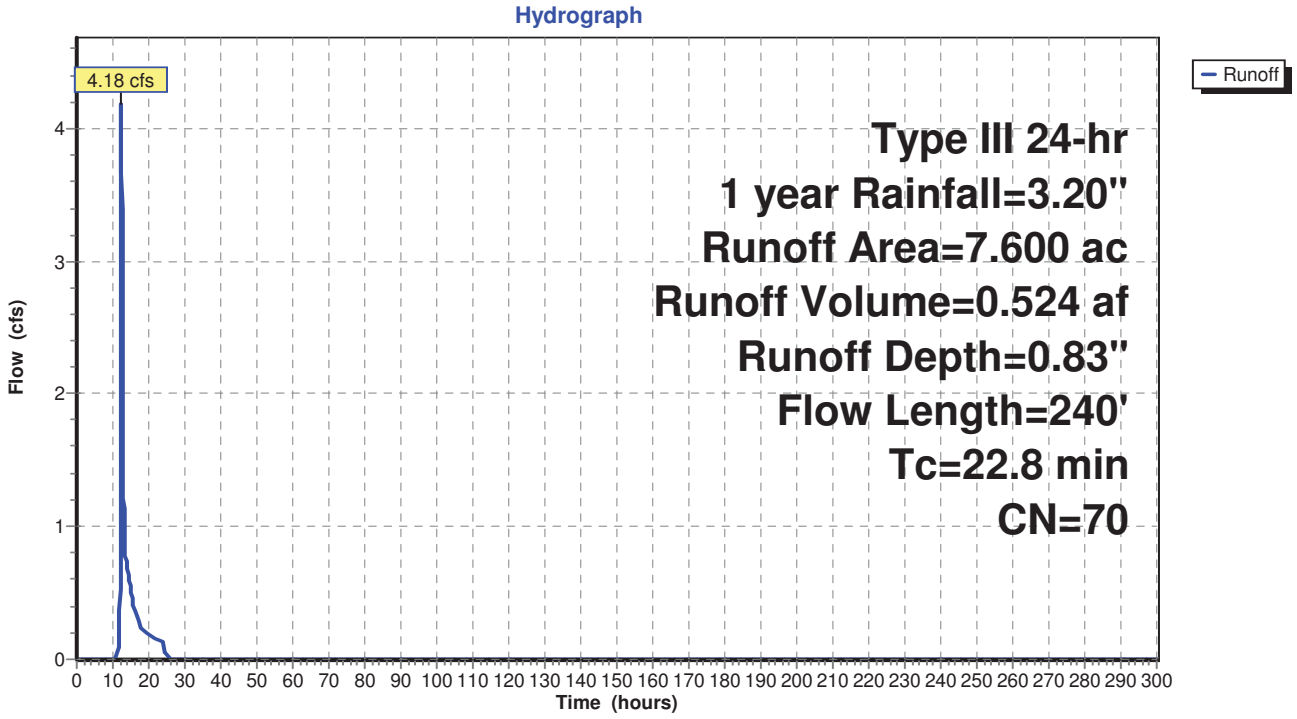
Runoff = 4.18 cfs @ 12.36 hrs, Volume= 0.524 af, Depth= 0.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 year Rainfall=3.20"

Area (ac)	CN	Description
7.600	70	Woods, Good, HSG C
7.600		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.5	100	0.0200	0.08		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
2.3	140	0.0400	1.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
22.8	240	Total			

Subcatchment 5.0S:



Summary for Subcatchment 2.0S:

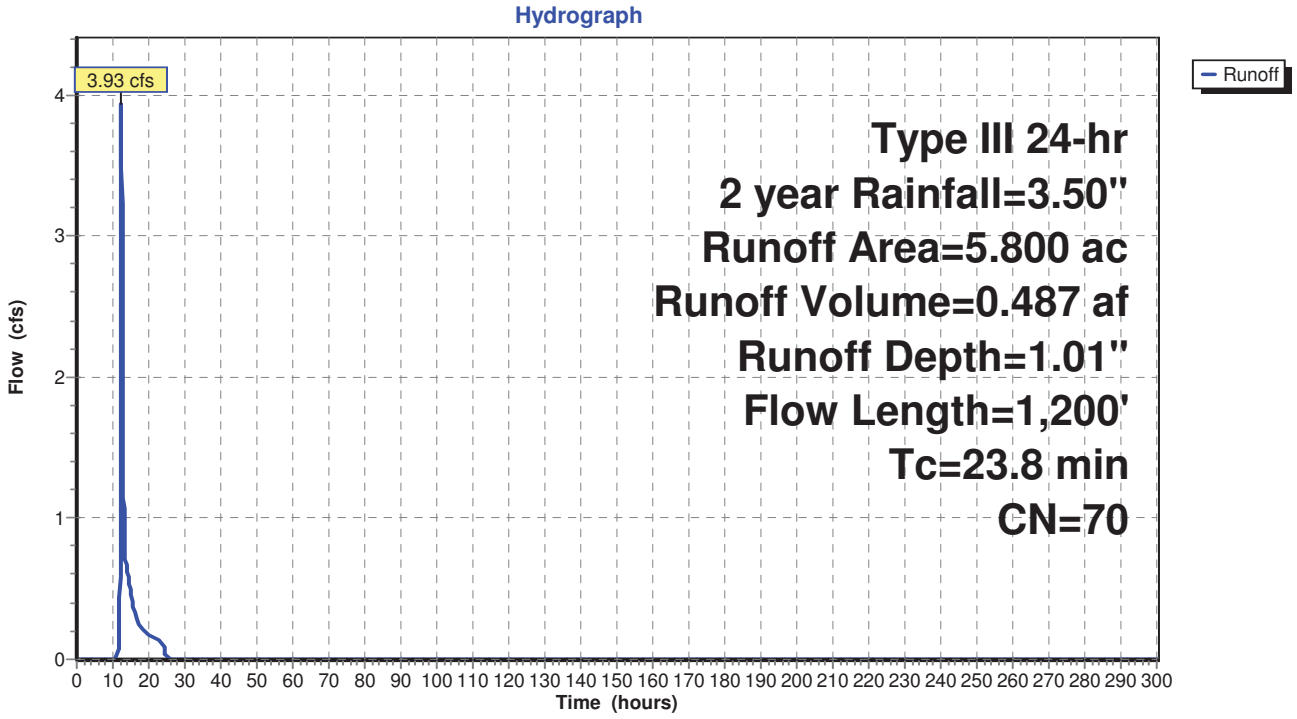
Runoff = 3.93 cfs @ 12.37 hrs, Volume= 0.487 af, Depth= 1.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.50"

Area (ac)	CN	Description
5.800	70	Woods, Good, HSG C
5.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.2	100	0.0600	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
10.6	1,100	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,200	Total			

Subcatchment 2.0S:



Summary for Subcatchment 3.0S:

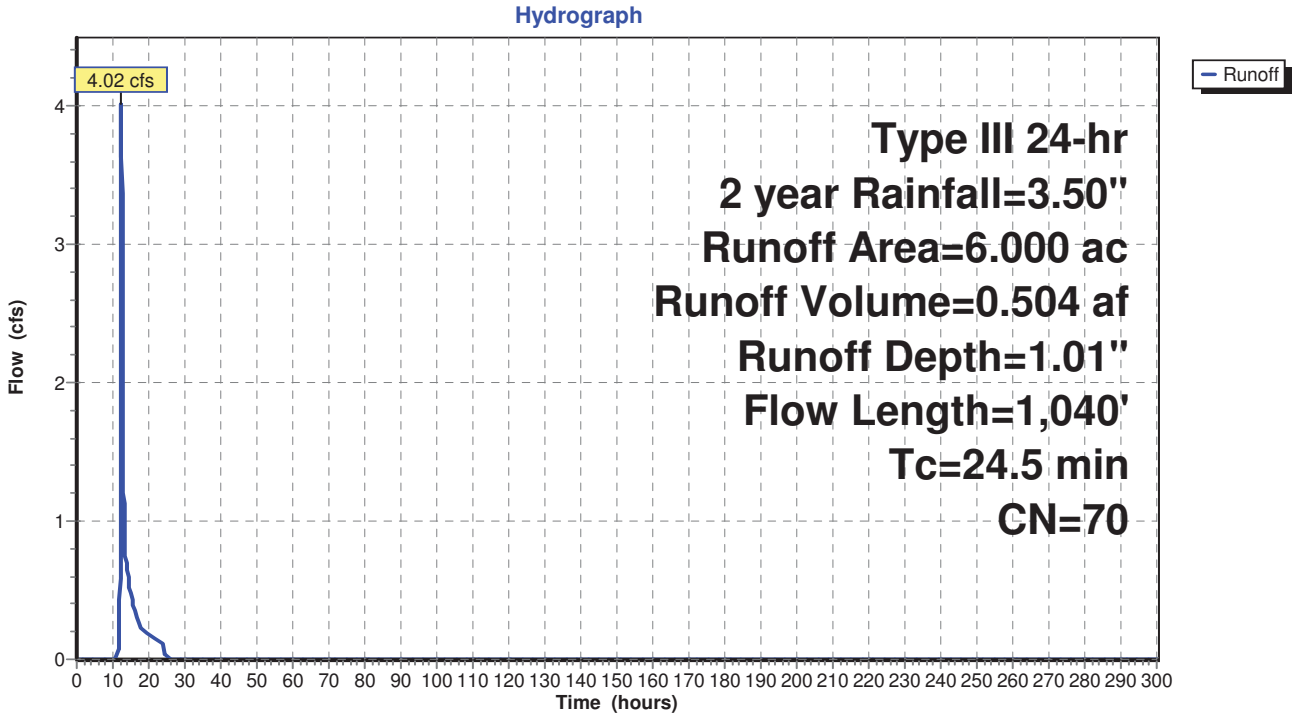
Runoff = 4.02 cfs @ 12.38 hrs, Volume= 0.504 af, Depth= 1.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.50"

Area (ac)	CN	Description
6.000	70	Woods, Good, HSG C
6.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	100	0.0350	0.10		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.1	940	0.1500	1.94		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
24.5	1,040	Total			

Subcatchment 3.0S:



Summary for Subcatchment 4.0S:

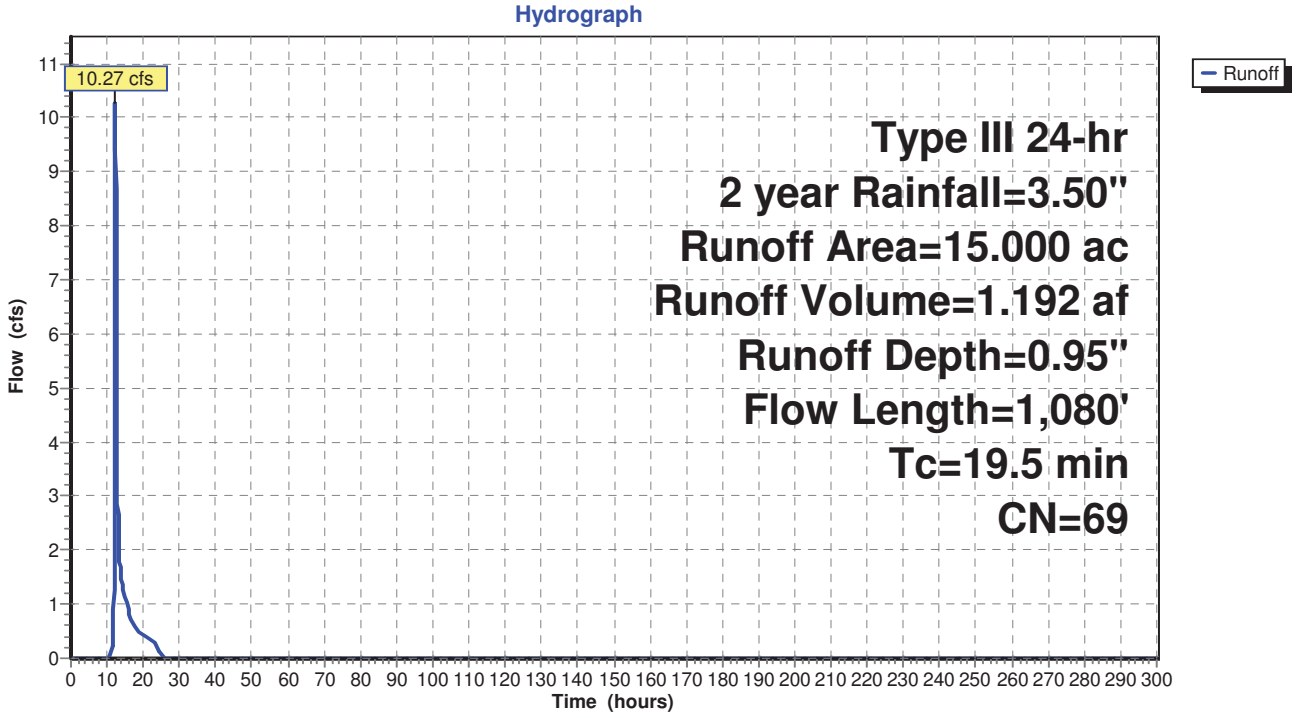
Runoff = 10.27 cfs @ 12.30 hrs, Volume= 1.192 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.50"

Area (ac)	CN	Description
14.300	70	Woods, Good, HSG C
0.700	55	Woods, Good, HSG B
15.000	69	Weighted Average
15.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	100	0.0900	0.15		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.2	980	0.1600	2.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
19.5	1,080	Total			

Subcatchment 4.0S:



Summary for Subcatchment 5.0S:

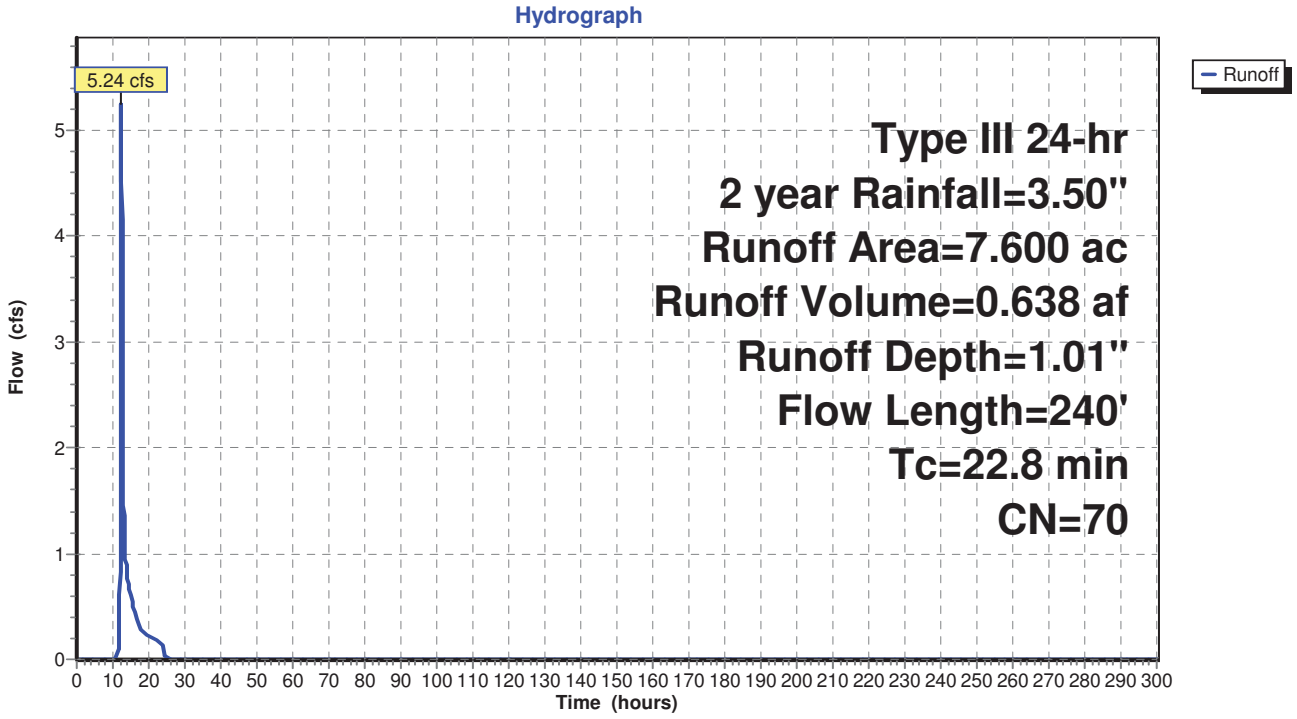
Runoff = 5.24 cfs @ 12.35 hrs, Volume= 0.638 af, Depth= 1.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.50"

Area (ac)	CN	Description
7.600	70	Woods, Good, HSG C
7.600		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.5	100	0.0200	0.08		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
2.3	140	0.0400	1.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
22.8	240	Total			

Subcatchment 5.0S:



Summary for Subcatchment 2.0S:

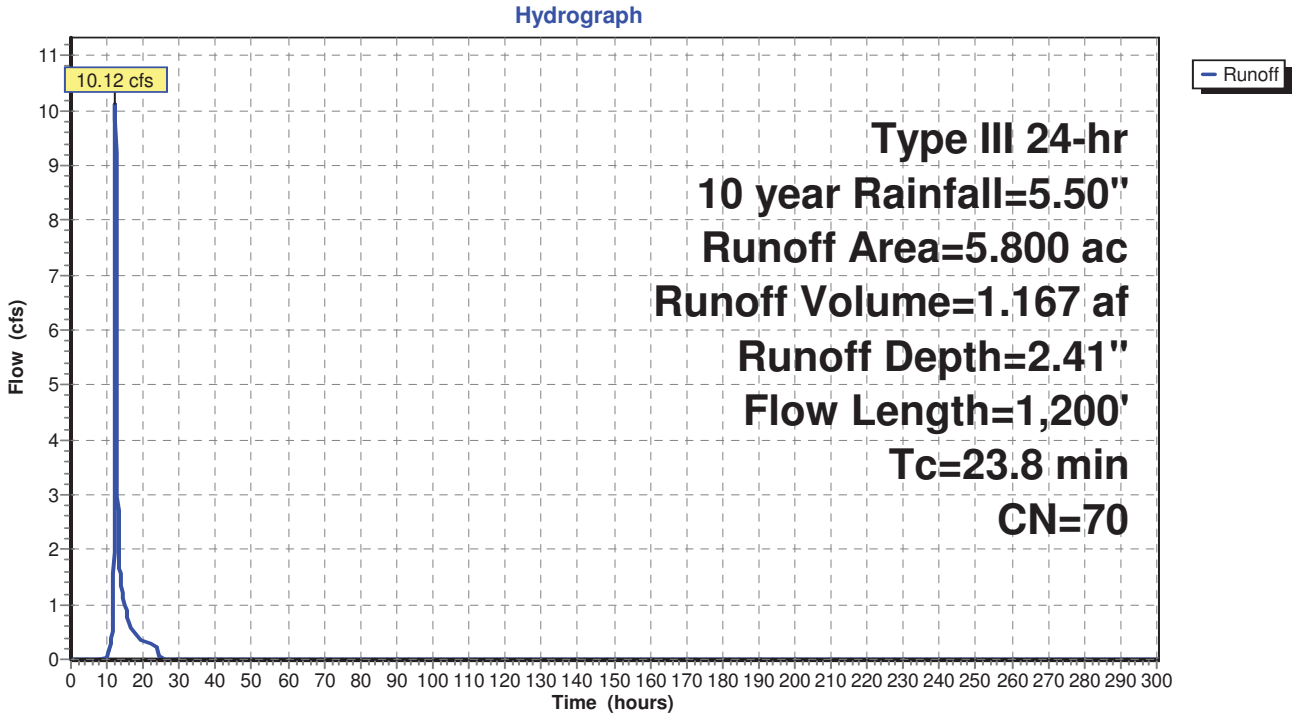
Runoff = 10.12 cfs @ 12.34 hrs, Volume= 1.167 af, Depth= 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.50"

Area (ac)	CN	Description
5.800	70	Woods, Good, HSG C
5.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.2	100	0.0600	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
10.6	1,100	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,200	Total			

Subcatchment 2.0S:



Summary for Subcatchment 3.0S:

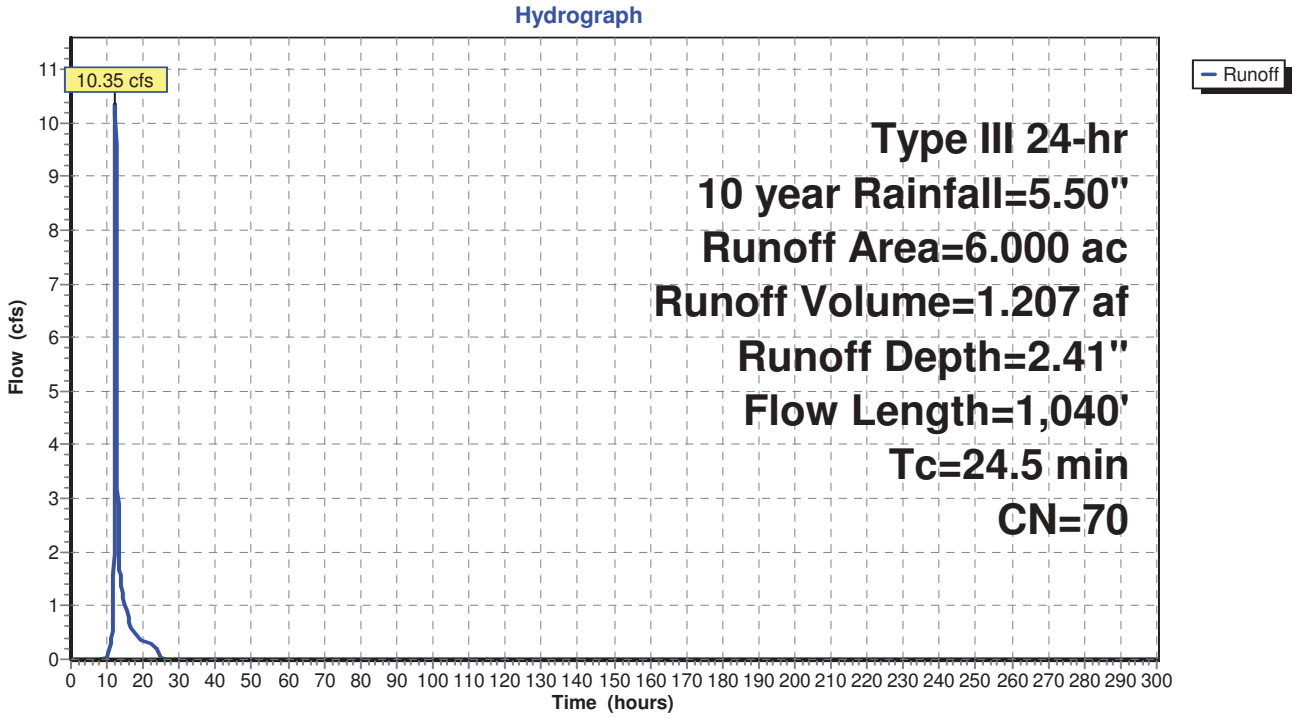
Runoff = 10.35 cfs @ 12.35 hrs, Volume= 1.207 af, Depth= 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.50"

Area (ac)	CN	Description
6.000	70	Woods, Good, HSG C
6.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	100	0.0350	0.10		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.1	940	0.1500	1.94		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
24.5	1,040	Total			

Subcatchment 3.0S:



Summary for Subcatchment 4.0S:

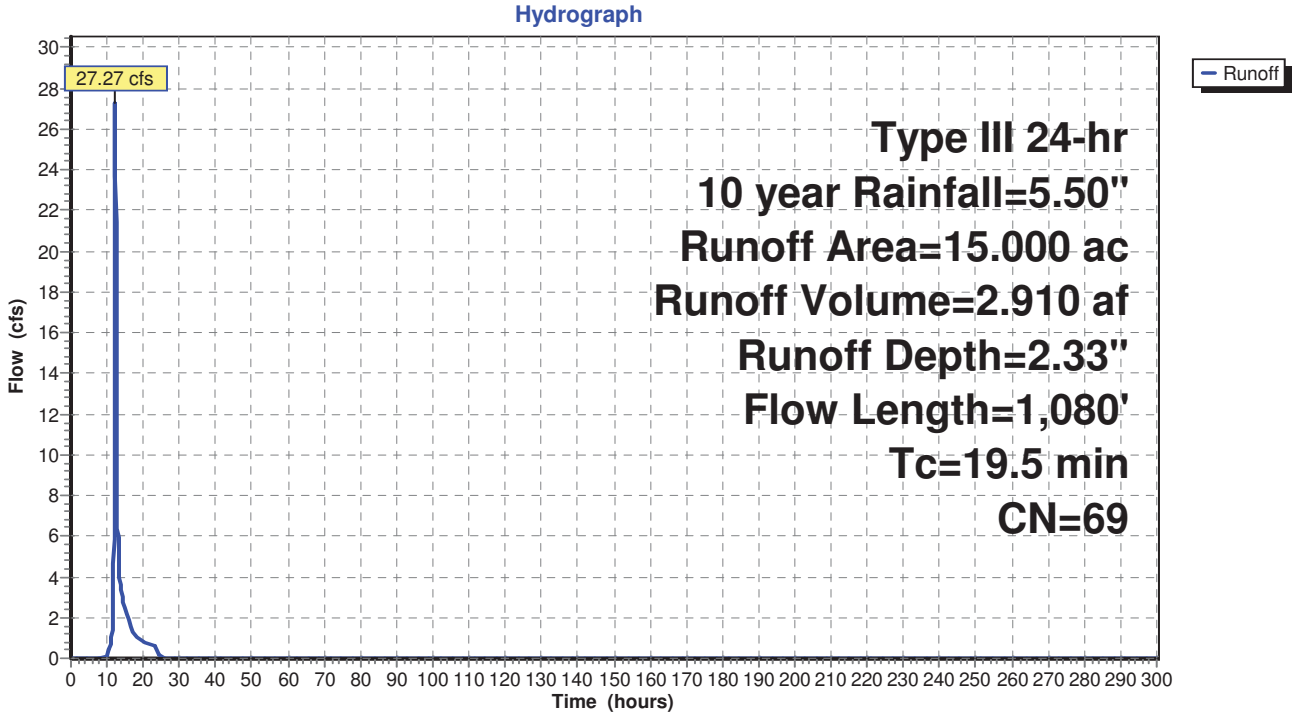
Runoff = 27.27 cfs @ 12.28 hrs, Volume= 2.910 af, Depth= 2.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.50"

Area (ac)	CN	Description
14.300	70	Woods, Good, HSG C
0.700	55	Woods, Good, HSG B
15.000	69	Weighted Average
15.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	100	0.0900	0.15		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.2	980	0.1600	2.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
19.5	1,080	Total			

Subcatchment 4.0S:



Summary for Subcatchment 5.0S:

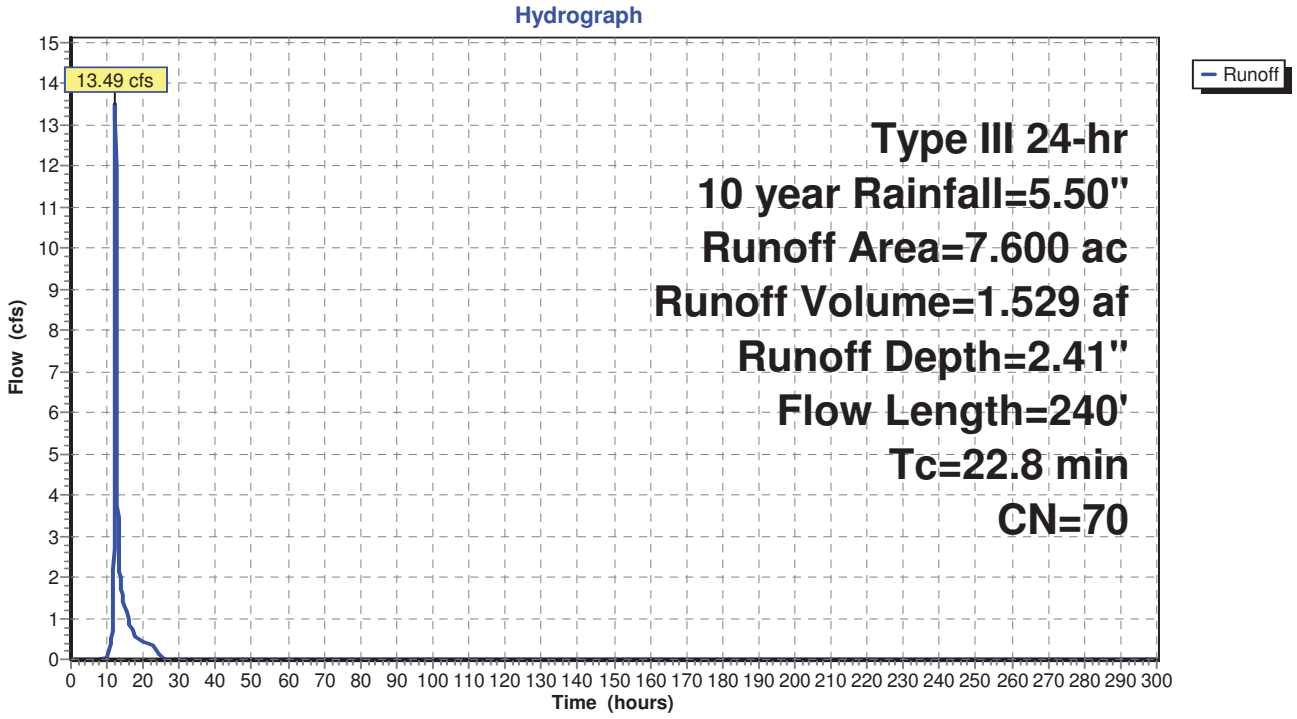
Runoff = 13.49 cfs @ 12.33 hrs, Volume= 1.529 af, Depth= 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.50"

Area (ac)	CN	Description
7.600	70	Woods, Good, HSG C
7.600		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.5	100	0.0200	0.08		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
2.3	140	0.0400	1.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
22.8	240	Total			

Subcatchment 5.0S:



Summary for Subcatchment 2.0S:

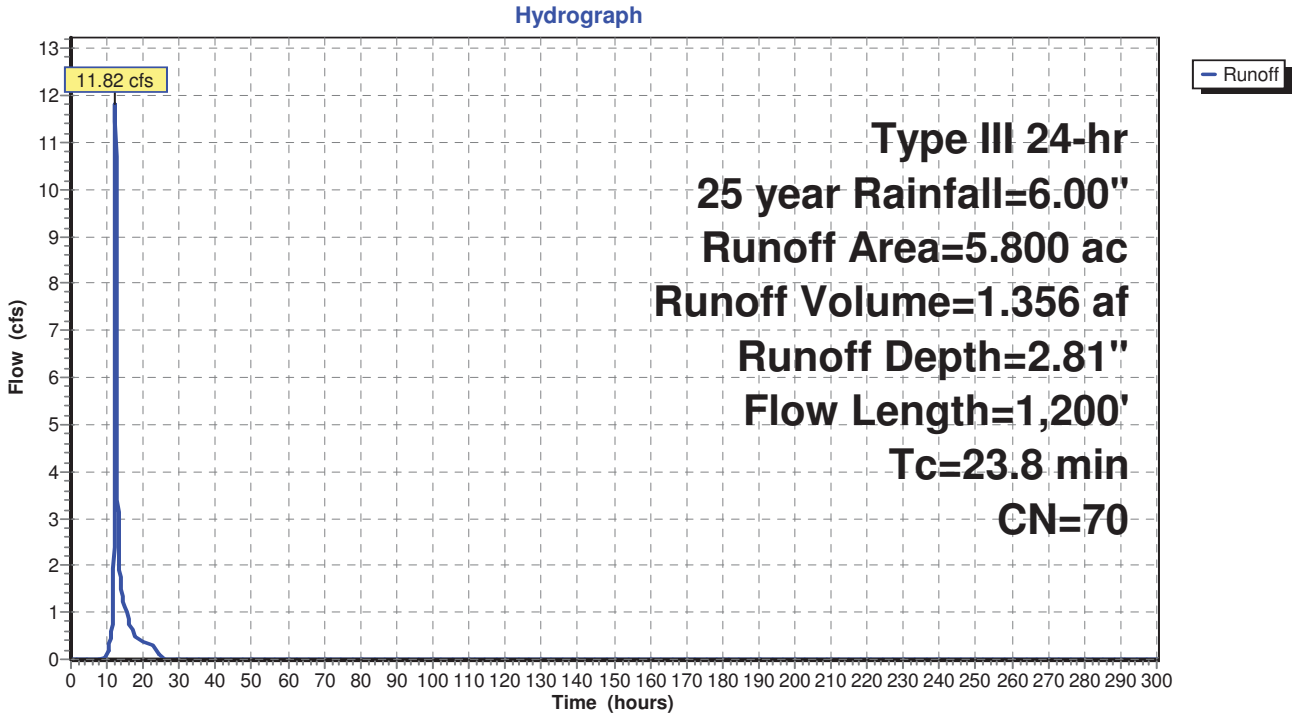
Runoff = 11.82 cfs @ 12.34 hrs, Volume= 1.356 af, Depth= 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.00"

Area (ac)	CN	Description
5.800	70	Woods, Good, HSG C
5.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.2	100	0.0600	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
10.6	1,100	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,200	Total			

Subcatchment 2.0S:



Summary for Subcatchment 3.0S:

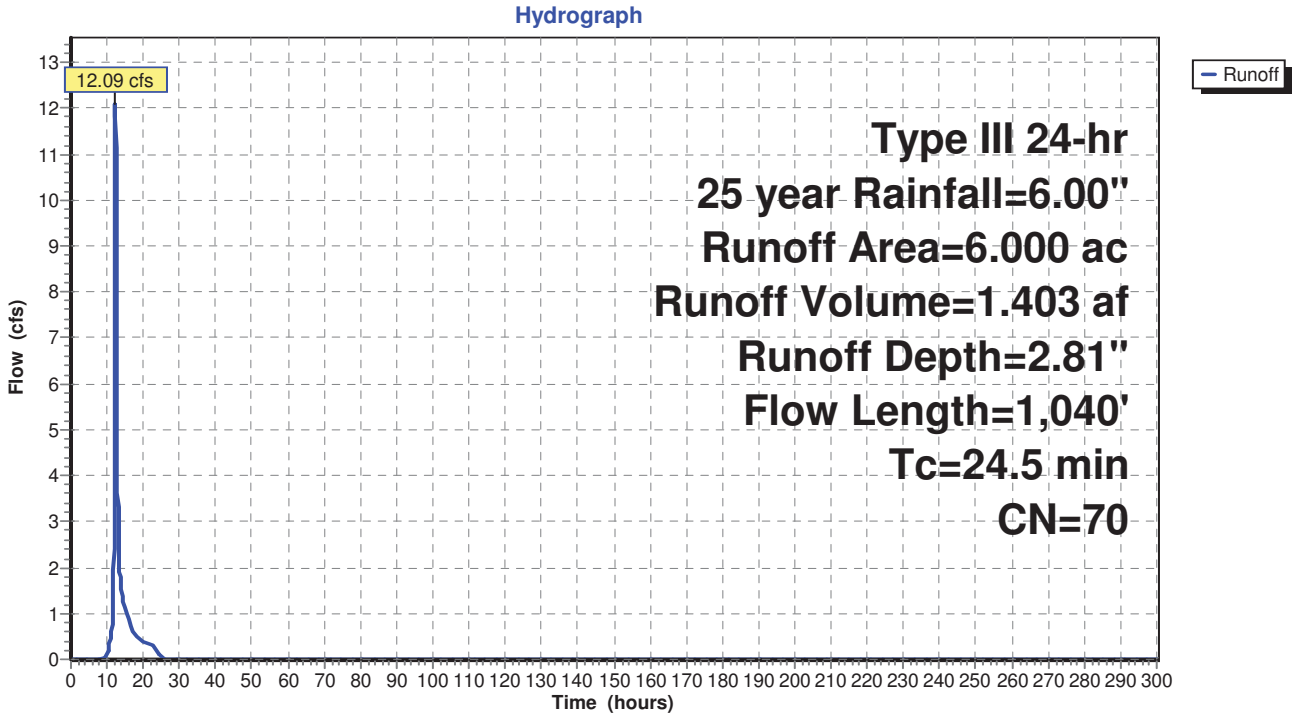
Runoff = 12.09 cfs @ 12.35 hrs, Volume= 1.403 af, Depth= 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.00"

Area (ac)	CN	Description
6.000	70	Woods, Good, HSG C
6.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	100	0.0350	0.10		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.1	940	0.1500	1.94		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
24.5	1,040	Total			

Subcatchment 3.0S:



Summary for Subcatchment 4.0S:

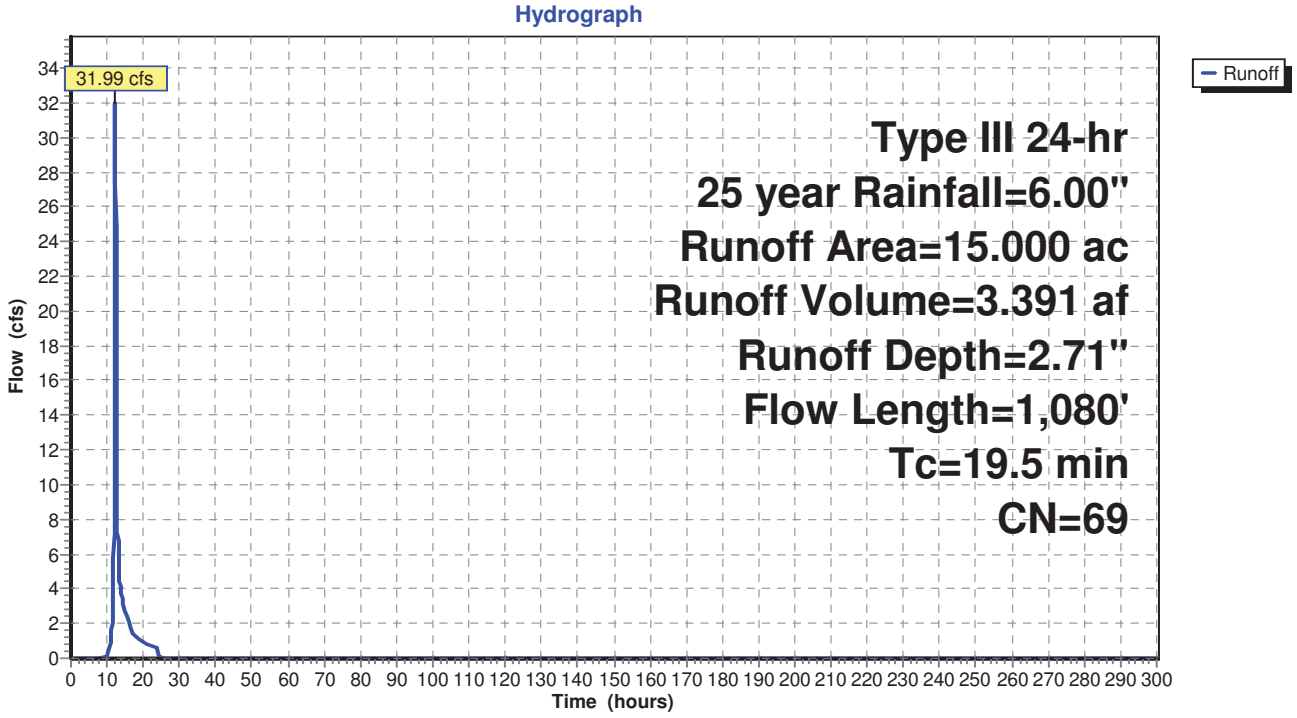
Runoff = 31.99 cfs @ 12.28 hrs, Volume= 3.391 af, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.00"

Area (ac)	CN	Description
14.300	70	Woods, Good, HSG C
0.700	55	Woods, Good, HSG B
15.000	69	Weighted Average
15.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	100	0.0900	0.15		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.2	980	0.1600	2.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
19.5	1,080	Total			

Subcatchment 4.0S:



Summary for Subcatchment 5.0S:

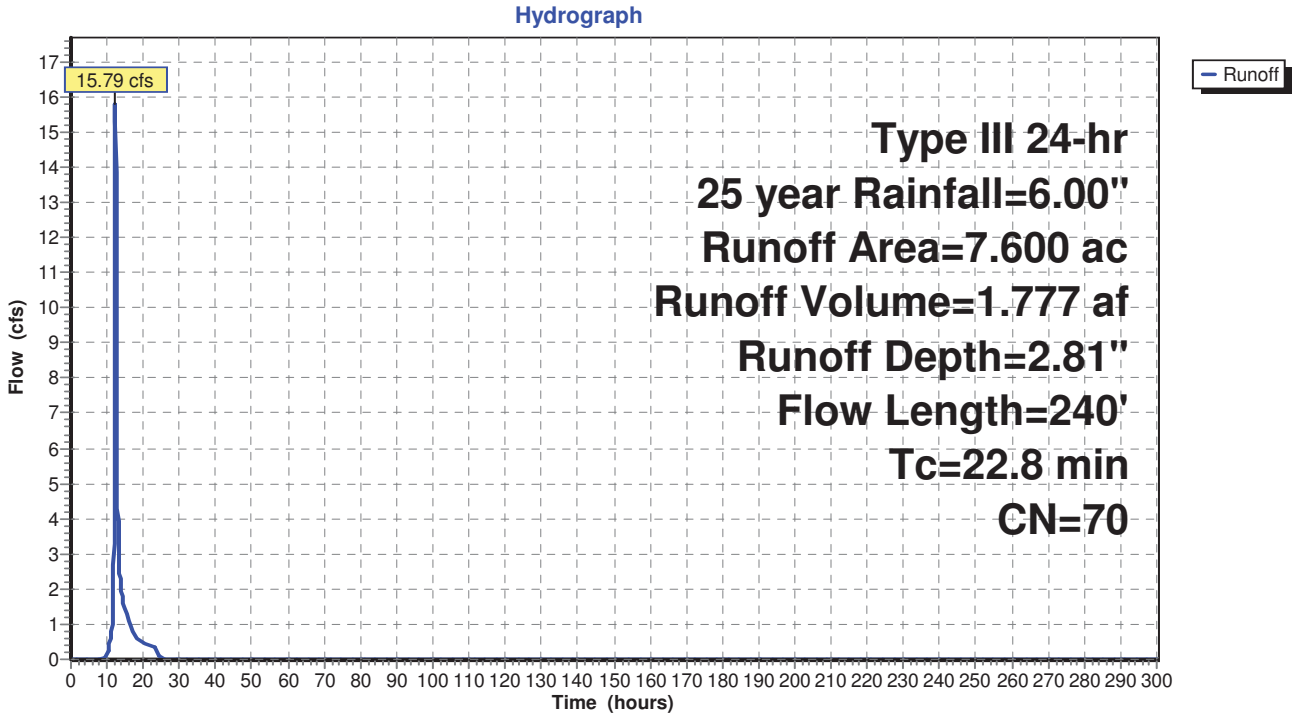
Runoff = 15.79 cfs @ 12.32 hrs, Volume= 1.777 af, Depth= 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.00"

Area (ac)	CN	Description
7.600	70	Woods, Good, HSG C
7.600		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.5	100	0.0200	0.08		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
2.3	140	0.0400	1.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
22.8	240	Total			

Subcatchment 5.0S:



Summary for Subcatchment 2.0S:

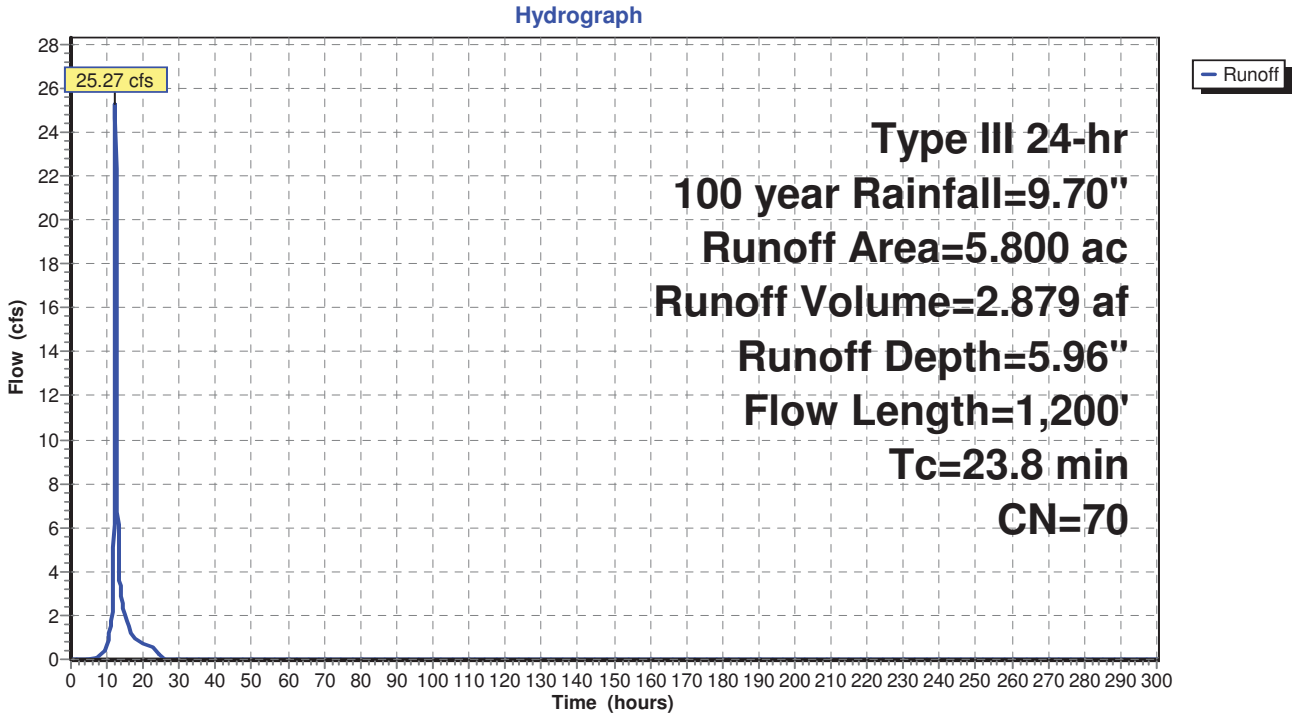
Runoff = 25.27 cfs @ 12.33 hrs, Volume= 2.879 af, Depth= 5.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=9.70"

Area (ac)	CN	Description
5.800	70	Woods, Good, HSG C
5.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.2	100	0.0600	0.13		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
10.6	1,100	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
23.8	1,200	Total			

Subcatchment 2.0S:



Summary for Subcatchment 3.0S:

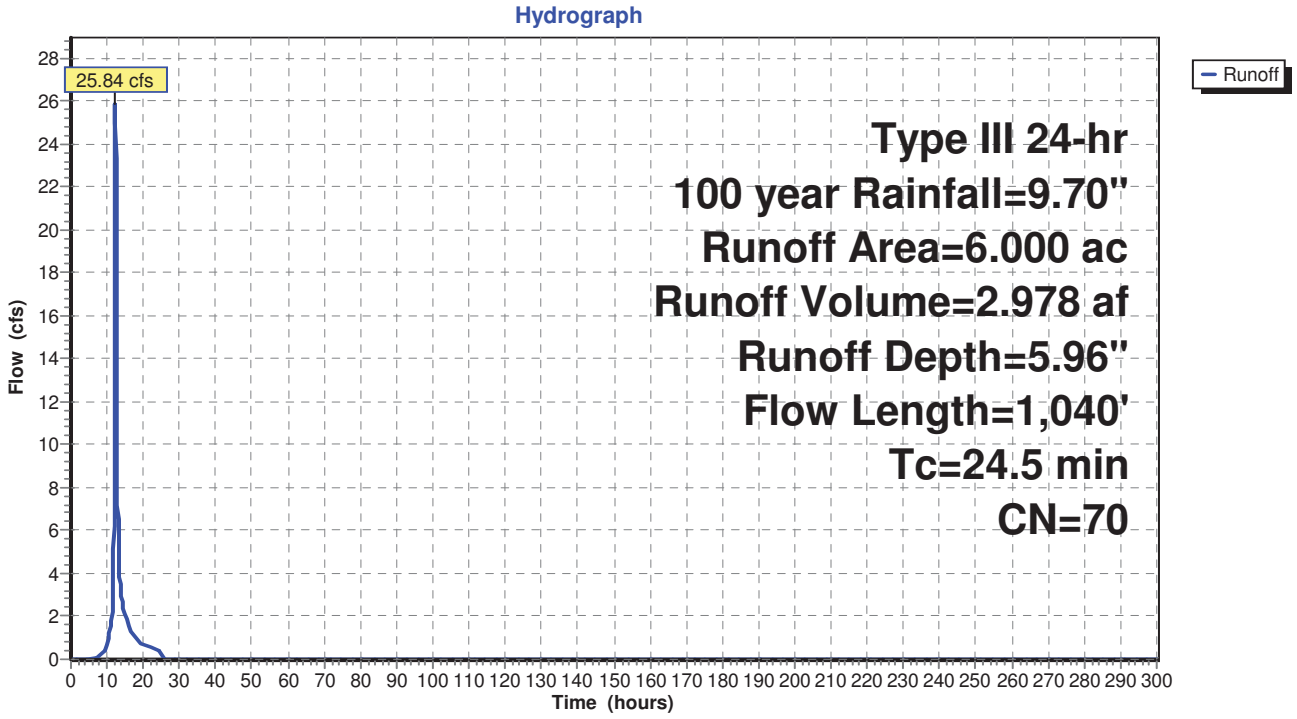
Runoff = 25.84 cfs @ 12.34 hrs, Volume= 2.978 af, Depth= 5.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=9.70"

Area (ac)	CN	Description
6.000	70	Woods, Good, HSG C
6.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.4	100	0.0350	0.10		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.1	940	0.1500	1.94		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
24.5	1,040	Total			

Subcatchment 3.0S:



Summary for Subcatchment 4.0S:

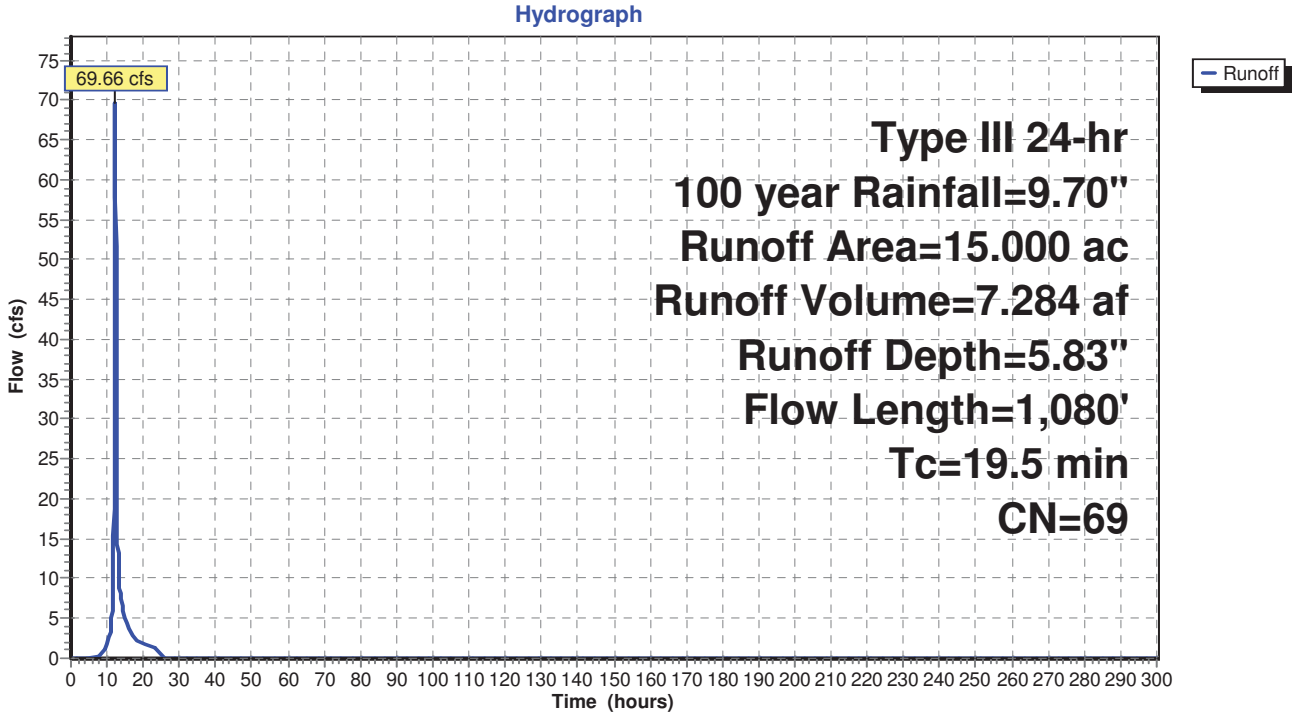
Runoff = 69.66 cfs @ 12.27 hrs, Volume= 7.284 af, Depth= 5.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=9.70"

Area (ac)	CN	Description
14.300	70	Woods, Good, HSG C
0.700	55	Woods, Good, HSG B
15.000	69	Weighted Average
15.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	100	0.0900	0.15		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.2	980	0.1600	2.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
19.5	1,080	Total			

Subcatchment 4.0S:



Summary for Subcatchment 5.0S:

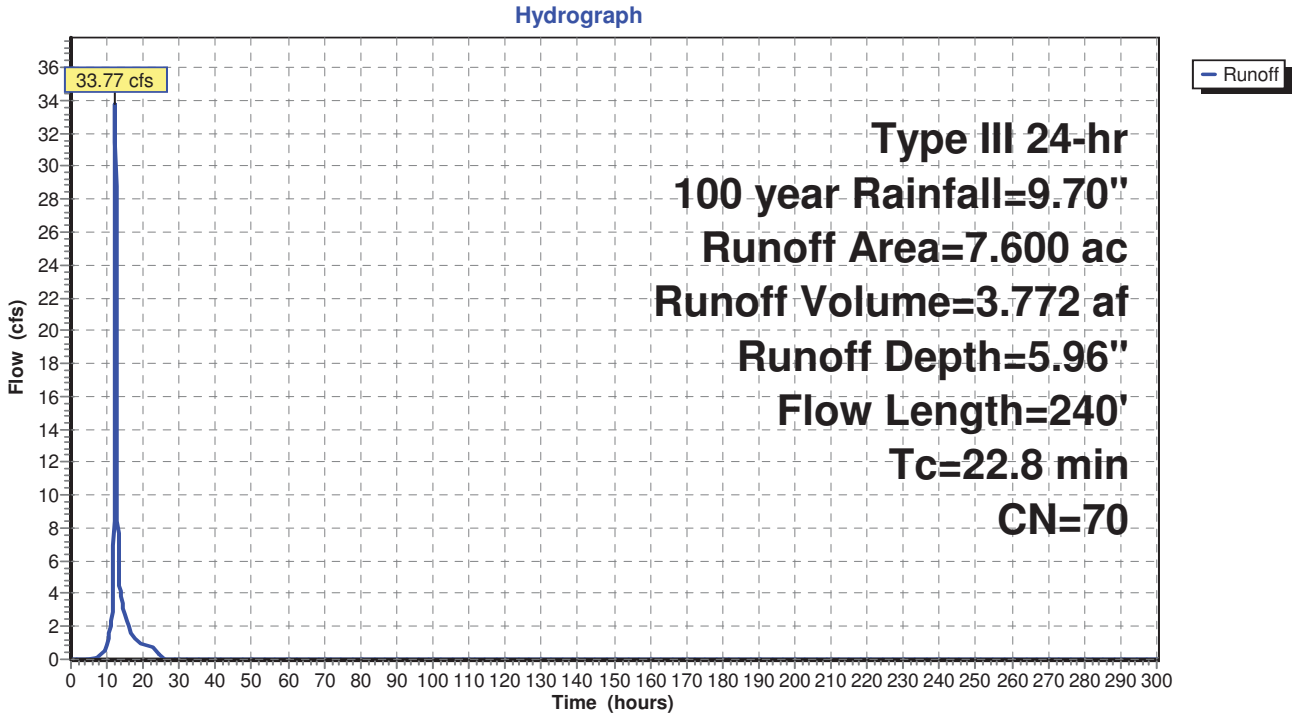
Runoff = 33.77 cfs @ 12.31 hrs, Volume= 3.772 af, Depth= 5.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=9.70"

Area (ac)	CN	Description
7.600	70	Woods, Good, HSG C
7.600		100.00% Pervious Area

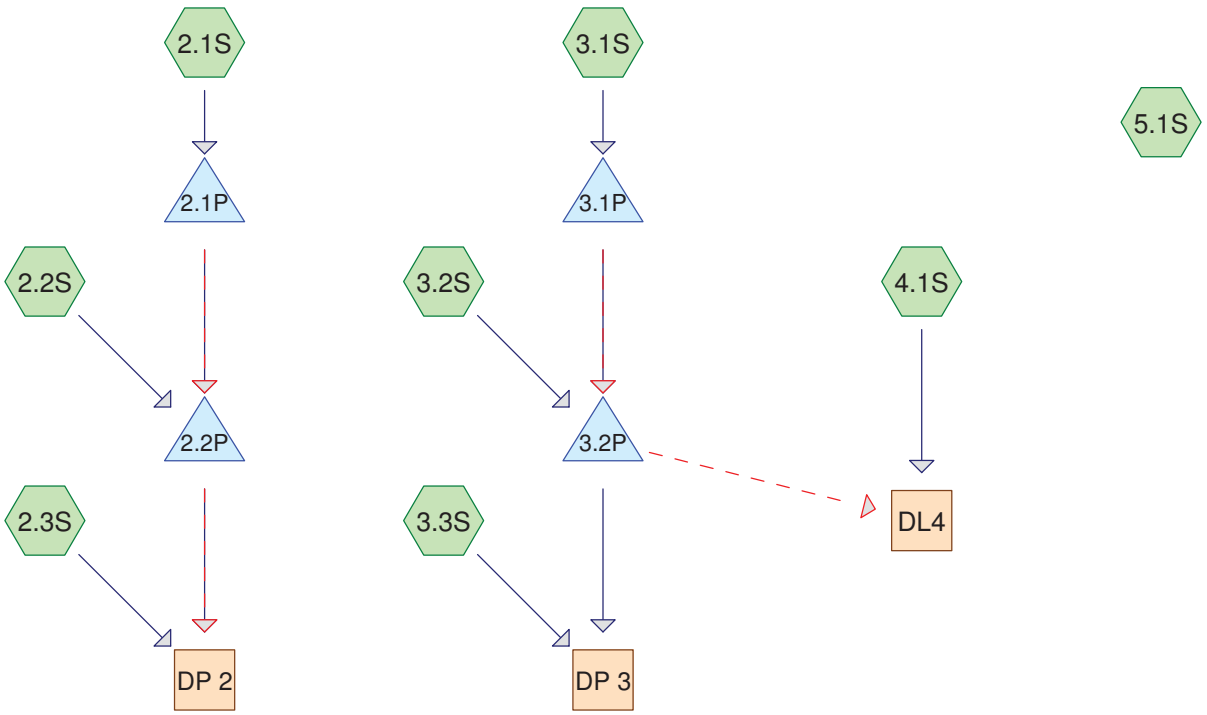
Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.5	100	0.0200	0.08		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
2.3	140	0.0400	1.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
22.8	240	Total			

Subcatchment 5.0S:



APPENDIX B

Post Development Computer Data



Subcat Reach Pond Link

Routing Diagram for The Hamlet at Carmel Post Development

Prepared by Insite Engineering, Surveying & Landscape Architecture, P.C., Printed 4/10/2024

Summary for Subcatchment 2.1S:

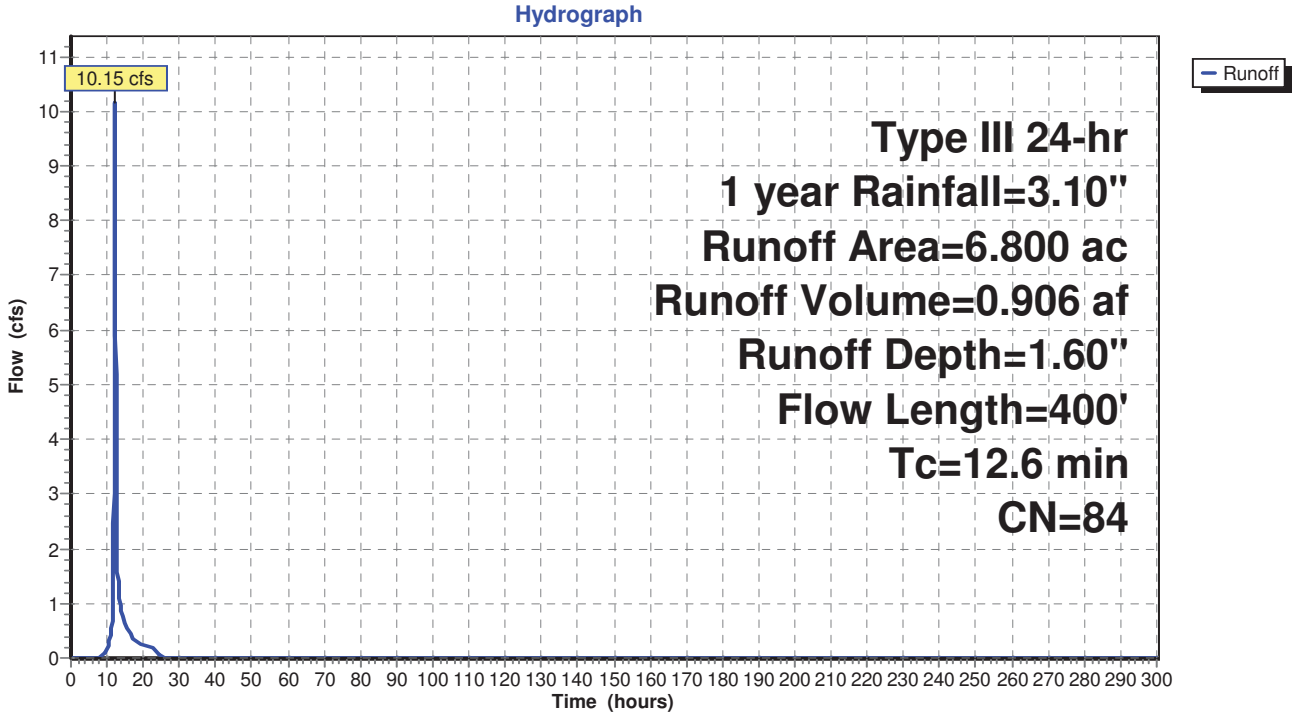
Runoff = 10.15 cfs @ 12.18 hrs, Volume= 0.906 af, Depth= 1.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 year Rainfall=3.10"

	Area (ac)	CN	Description
	2.900	98	Paved parking, HSG C
	3.850	74	>75% Grass cover, Good, HSG C
*	0.050	89	Gravel, HSG C
	6.800	84	Weighted Average
	3.900		57.35% Pervious Area
	2.900		42.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0200	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
1.9	110	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	190	0.0150	2.49		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
12.6	400	Total			

Subcatchment 2.1S:



Summary for Subcatchment 2.2S:

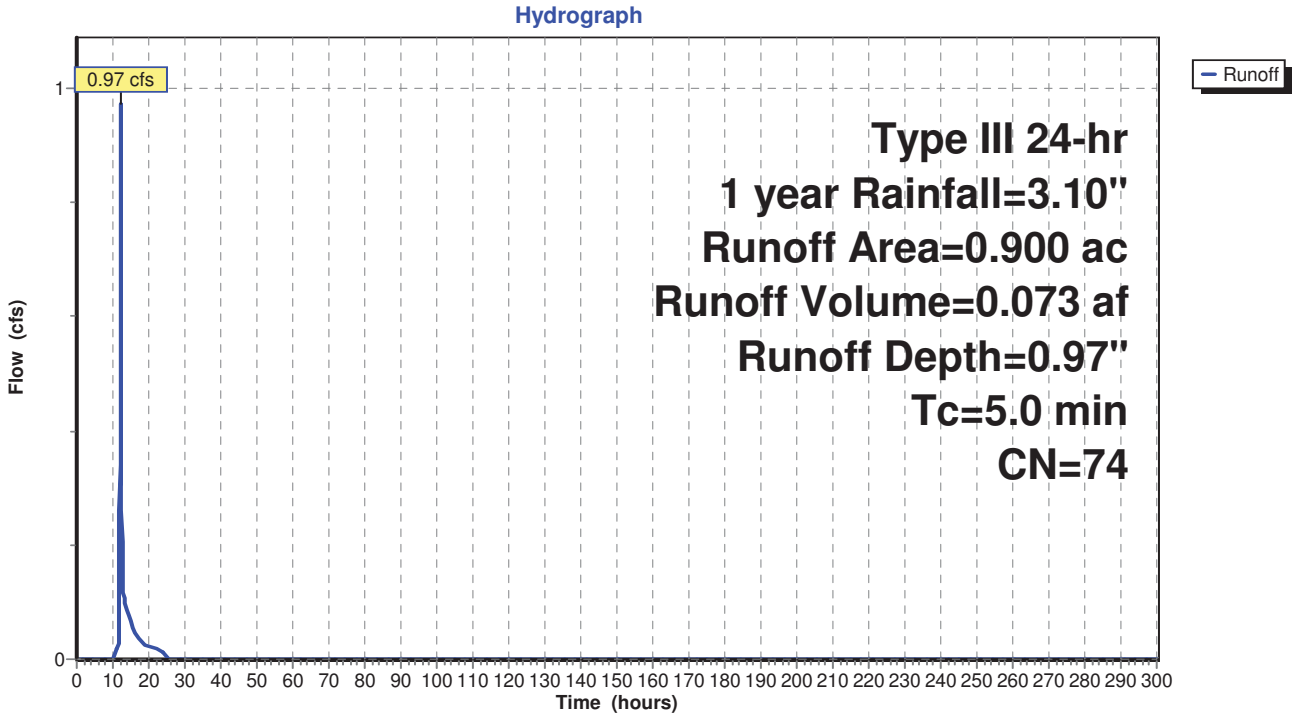
Runoff = 0.97 cfs @ 12.09 hrs, Volume= 0.073 af, Depth= 0.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 year Rainfall=3.10"

Area (ac)	CN	Description
0.900	74	>75% Grass cover, Good, HSG C
0.900		100.00% Pervious Area

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

Subcatchment 2.2S:



Summary for Subcatchment 2.3S:

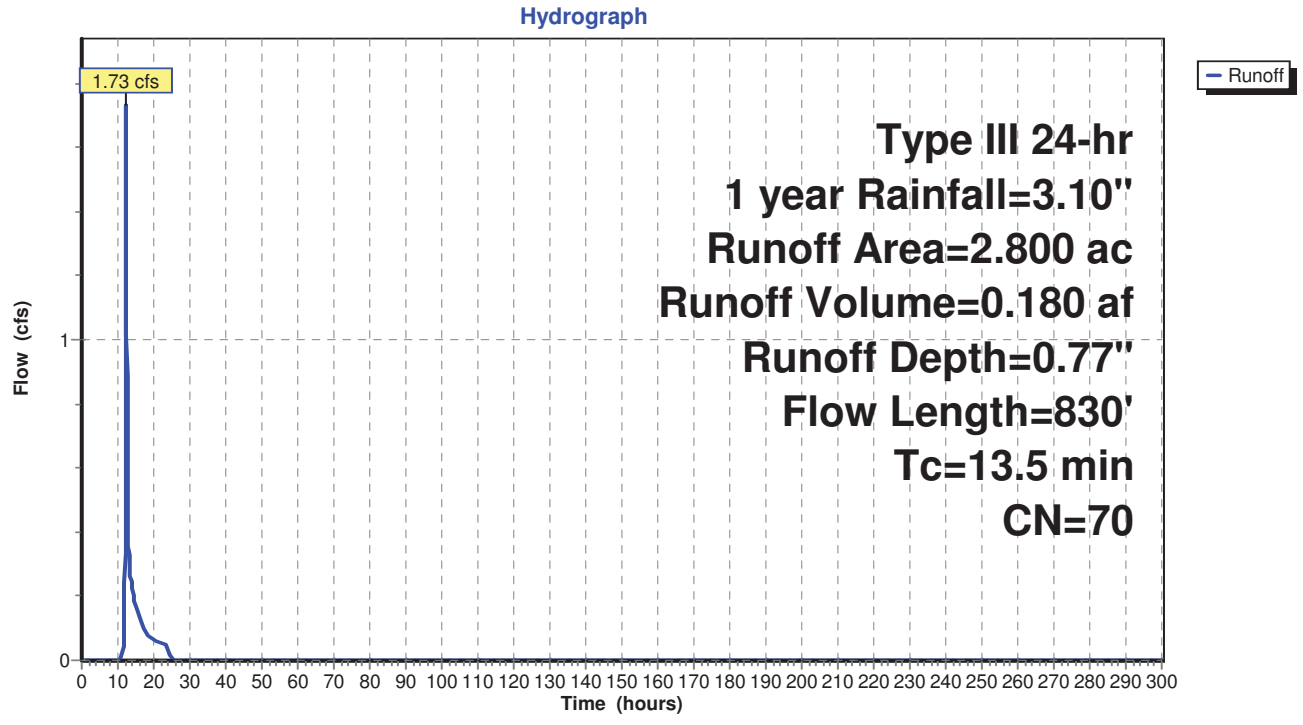
Runoff = 1.73 cfs @ 12.21 hrs, Volume= 0.180 af, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 year Rainfall=3.10"

Area (ac)	CN	Description
2.800	70	Woods, Good, HSG C
2.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	24	0.5000	0.33		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.50"
7.0	76	0.1700	0.18		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
2.2	330	0.2400	2.45		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.1	400	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
13.5	830	Total			

Subcatchment 2.3S:



Summary for Subcatchment 3.1S:

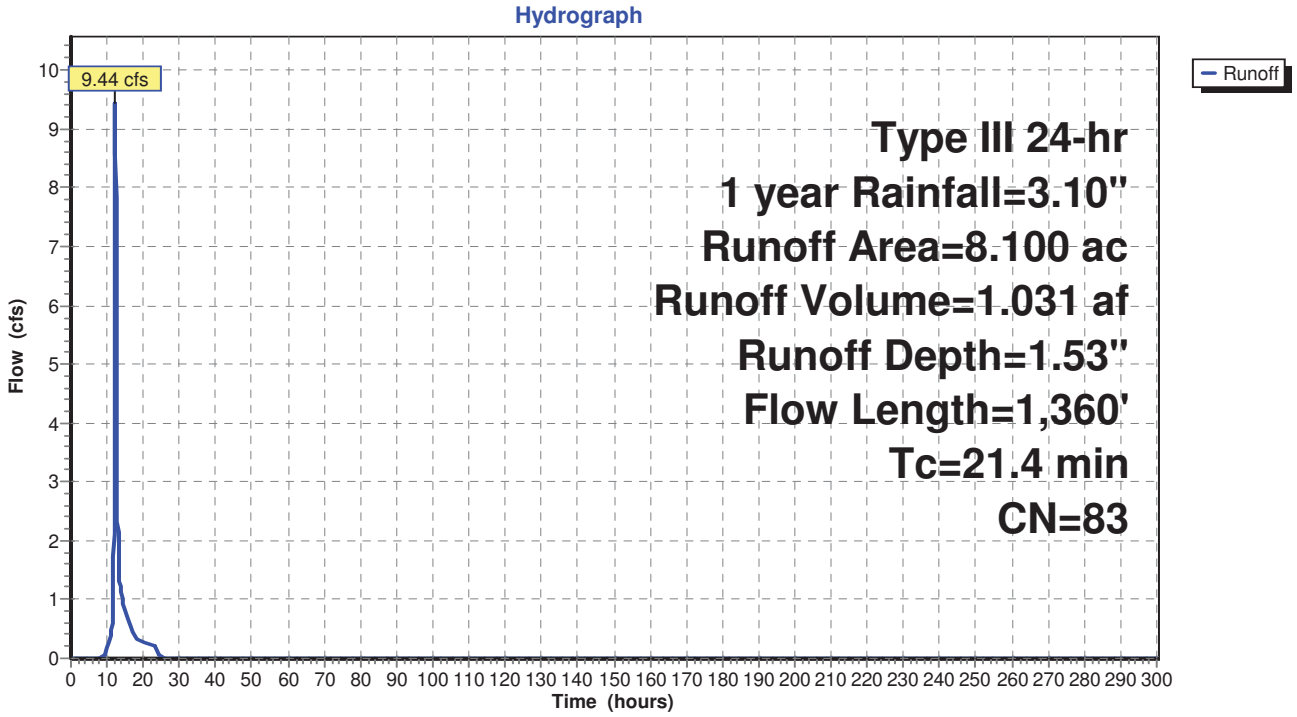
Runoff = 9.44 cfs @ 12.30 hrs, Volume= 1.031 af, Depth= 1.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 year Rainfall=3.10"

	Area (ac)	CN	Description
	2.900	98	Paved parking & roofs
	4.450	74	>75% Grass cover, Good, HSG C
	0.500	70	Woods, Good, HSG C
*	0.250	89	Gravel, HSG C
	8.100	83	Weighted Average
	5.200		64.20% Pervious Area
	2.900		35.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0500	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
1.1	80	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	30	0.0450	1.48		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.9	150	0.0150	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	270	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.2	72	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
0.1	48	0.0100	5.70	7.00	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
0.5	610	0.0700	20.64	64.84	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
21.4	1,360	Total			

Subcatchment 3.1S:



Summary for Subcatchment 3.2S:

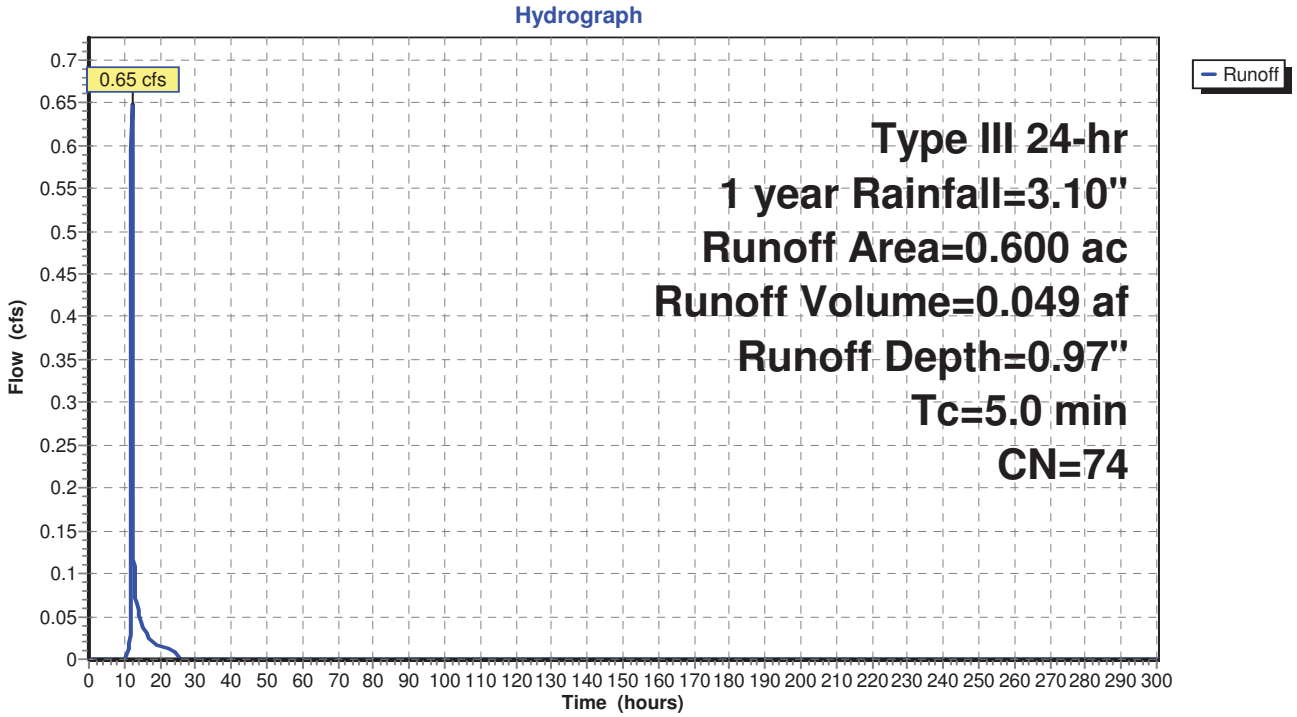
Runoff = 0.65 cfs @ 12.09 hrs, Volume= 0.049 af, Depth= 0.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 year Rainfall=3.10"

Area (ac)	CN	Description
0.600	74	>75% Grass cover, Good, HSG C
0.600		100.00% Pervious Area

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

Subcatchment 3.2S:



Summary for Subcatchment 3.3S:

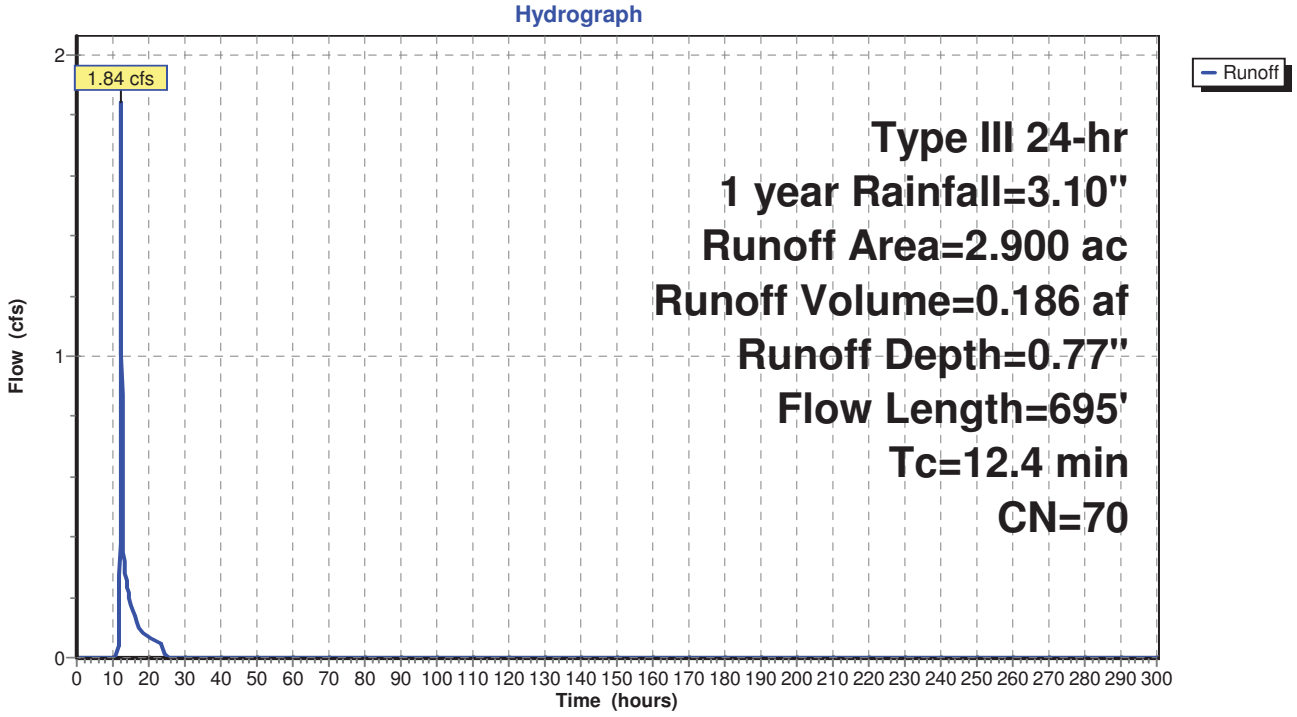
Runoff = 1.84 cfs @ 12.20 hrs, Volume= 0.186 af, Depth= 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 year Rainfall=3.10"

Area (ac)	CN	Description
2.700	70	Woods, Good, HSG C
0.200	74	>75% Grass cover, Good, HSG C
2.900	70	Weighted Average
2.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	26	0.4200	0.32		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.50"
7.6	74	0.1300	0.16		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
3.1	388	0.1700	2.06		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	207	0.0480	13.23	128.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.50' Z= 4.0 & 2.0 '/' Top.W=11.00' n= 0.022 Earth, clean & straight
12.4	695	Total			

Subcatchment 3.3S:



Summary for Subcatchment 4.1S:

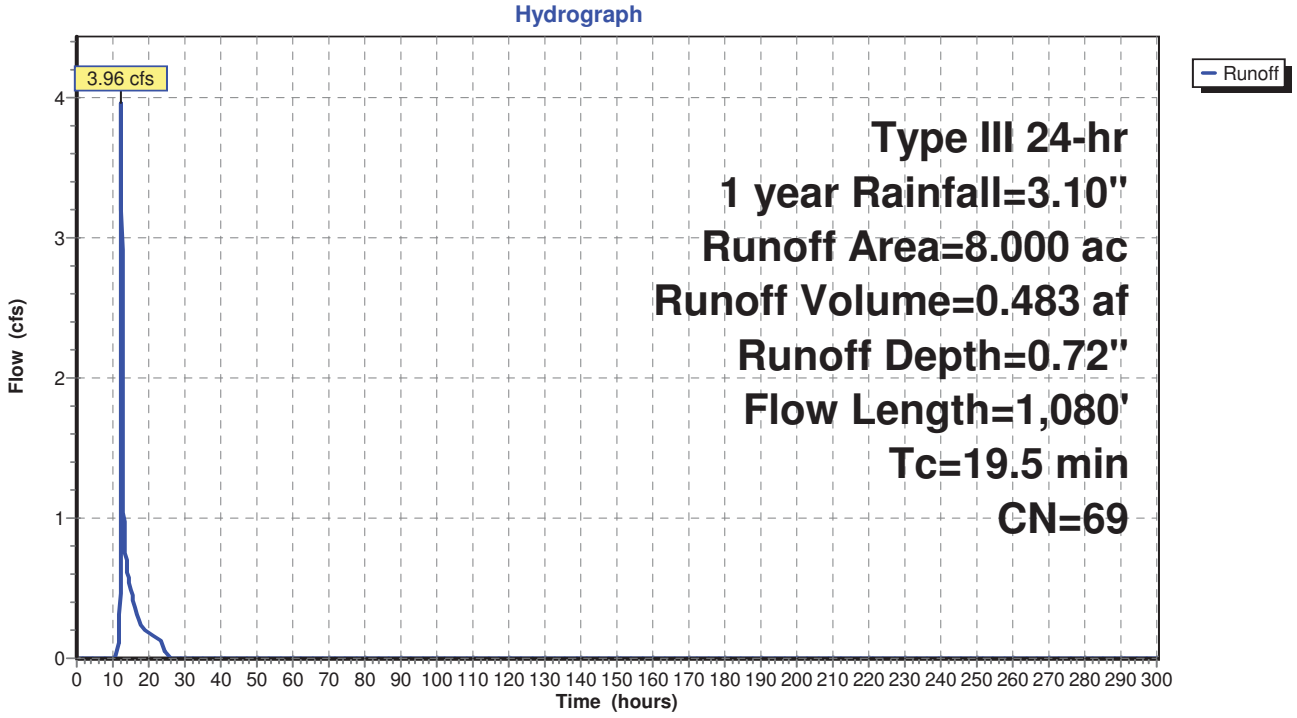
Runoff = 3.96 cfs @ 12.32 hrs, Volume= 0.483 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 year Rainfall=3.10"

Area (ac)	CN	Description
7.300	70	Woods, Good, HSG C
0.700	55	Woods, Good, HSG B
8.000	69	Weighted Average
8.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	100	0.0900	0.15		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.2	980	0.1600	2.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
19.5	1,080	Total			

Subcatchment 4.1S:



Summary for Subcatchment 5.1S:

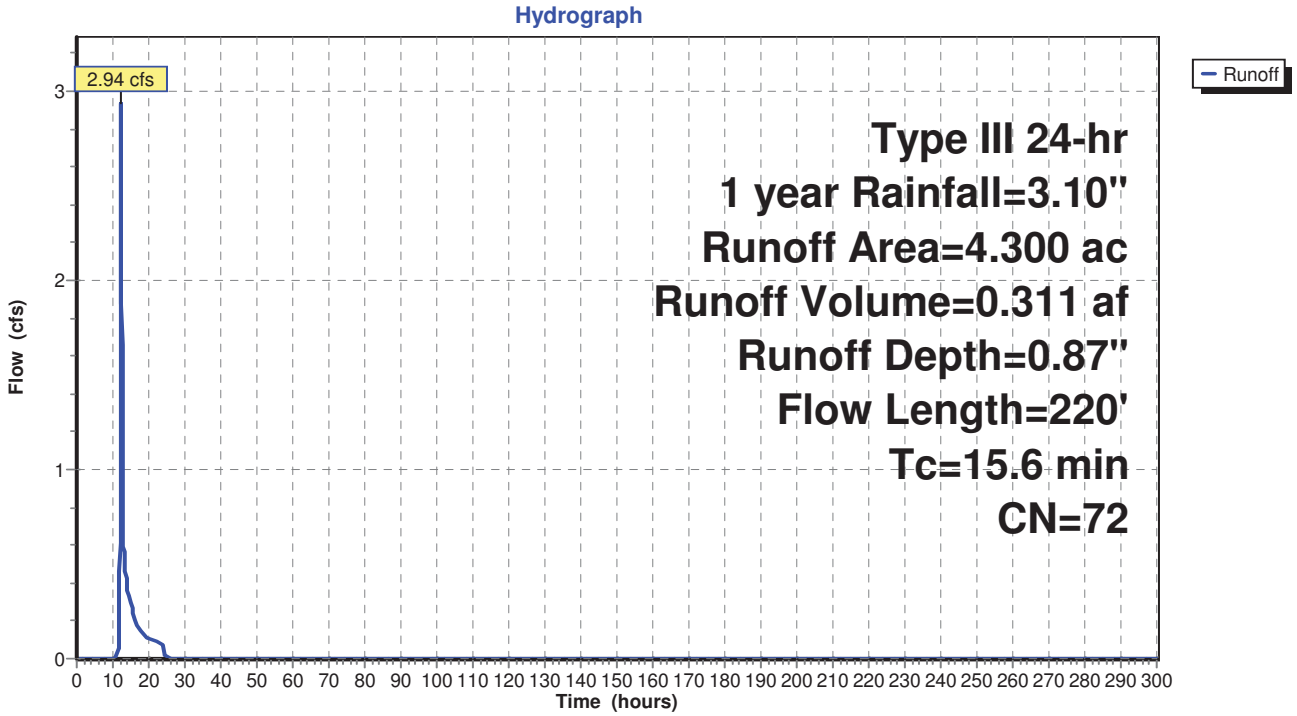
Runoff = 2.94 cfs @ 12.24 hrs, Volume= 0.311 af, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 year Rainfall=3.10"

	Area (ac)	CN	Description
	1.000	74	>75% Grass cover, Good, HSG C
	3.150	70	Woods, Good, HSG C
*	0.150	89	Gravel, HSG C
	4.300	72	Weighted Average
	4.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0500	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
1.4	120	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	220	Total			

Subcatchment 5.1S:

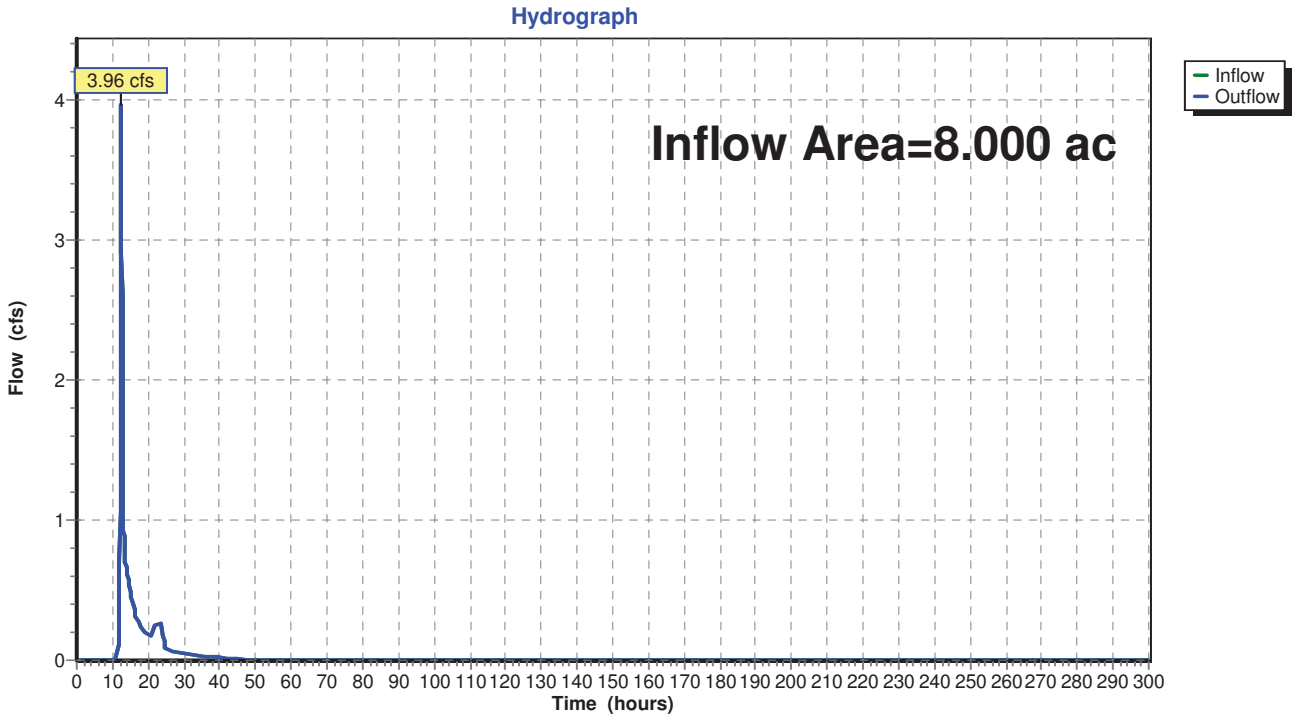


Summary for Reach DL4:

Inflow Area = 8.000 ac, 0.00% Impervious, Inflow Depth = 0.86" for 1 year event
Inflow = 3.96 cfs @ 12.32 hrs, Volume= 0.573 af
Outflow = 3.96 cfs @ 12.32 hrs, Volume= 0.573 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DL4:

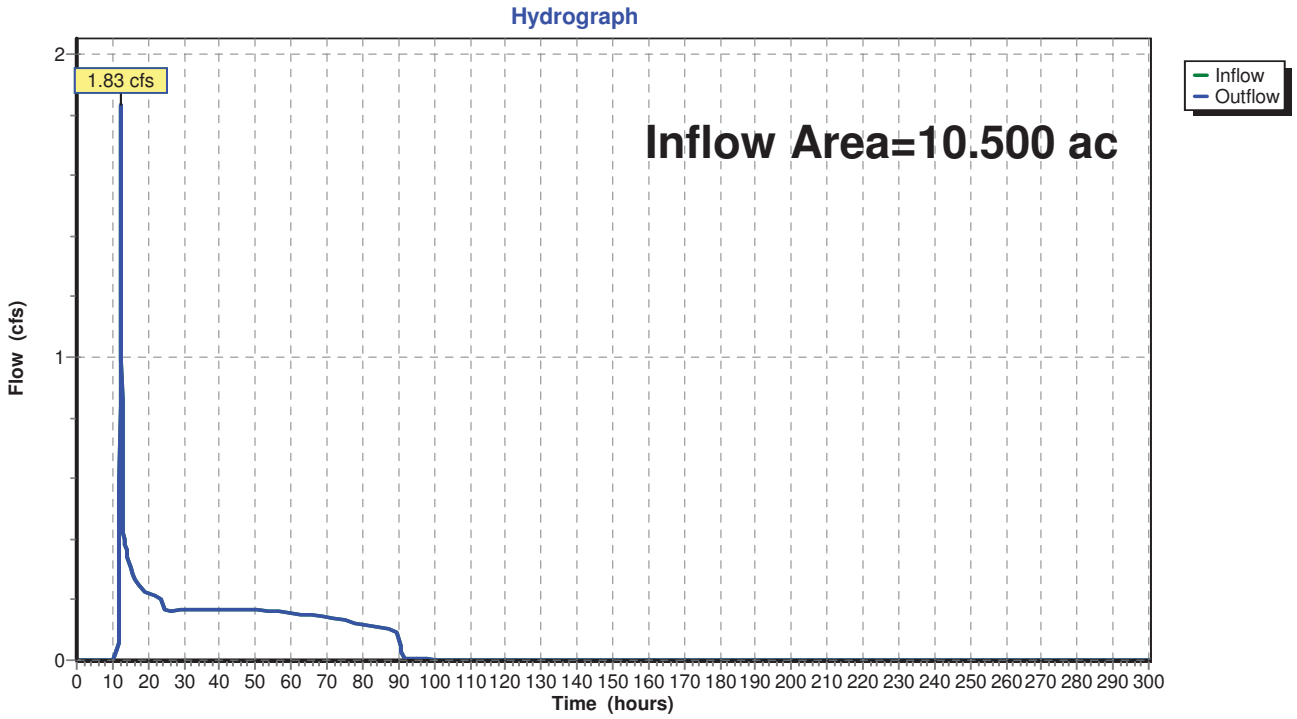


Summary for Reach DP 2:

Inflow Area = 10.500 ac, 27.62% Impervious, Inflow Depth = 1.32" for 1 year event
Inflow = 1.83 cfs @ 12.21 hrs, Volume= 1.157 af
Outflow = 1.83 cfs @ 12.21 hrs, Volume= 1.157 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DP 2:

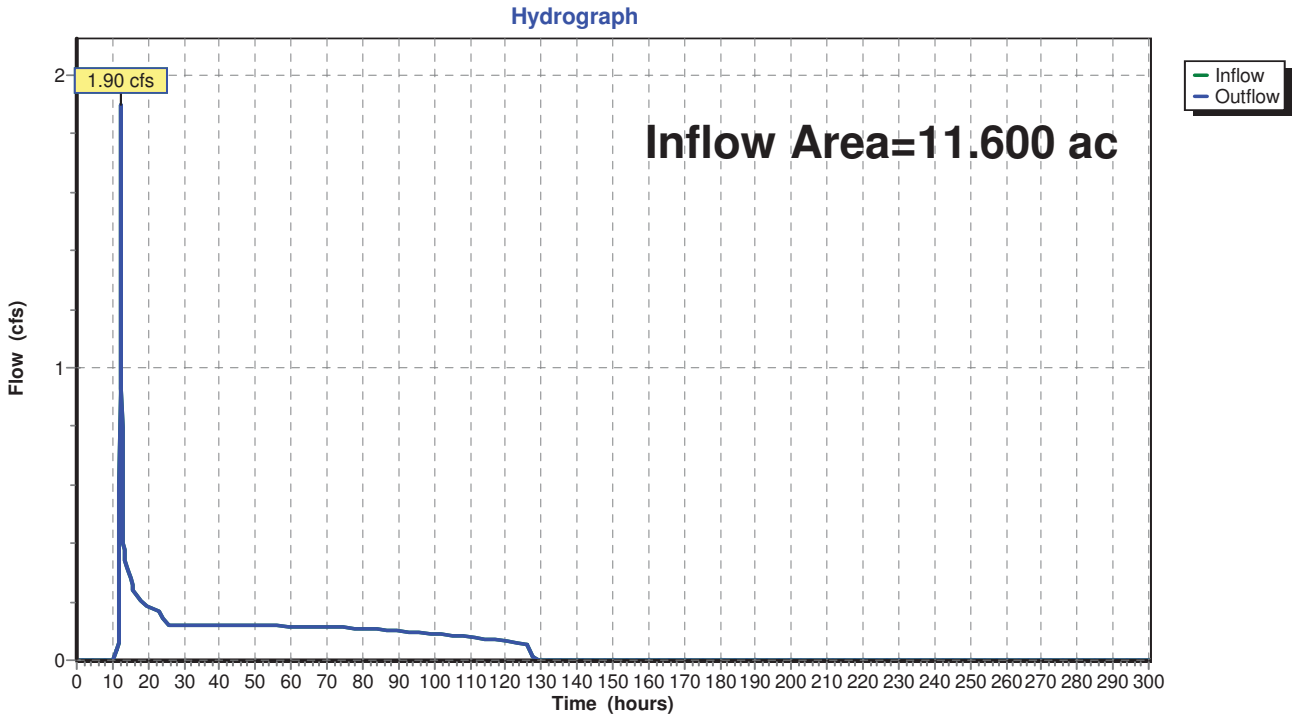


Summary for Reach DP 3:

Inflow Area = 11.600 ac, 25.00% Impervious, Inflow Depth = 1.21" for 1 year event
Inflow = 1.90 cfs @ 12.20 hrs, Volume= 1.173 af
Outflow = 1.90 cfs @ 12.20 hrs, Volume= 1.173 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DP 3:



Summary for Pond 2.1P:

Inflow Area = 6.800 ac, 42.65% Impervious, Inflow Depth = 1.60" for 1 year event
Inflow = 10.15 cfs @ 12.18 hrs, Volume= 0.906 af
Outflow = 0.85 cfs @ 14.08 hrs, Volume= 0.904 af, Atten= 92%, Lag= 114.1 min
Primary = 0.85 cfs @ 14.08 hrs, Volume= 0.904 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Starting Elev= 439.00' Surf.Area= 13,300 sf Storage= 26,000 cf
Peak Elev= 440.51' @ 14.08 hrs Surf.Area= 18,275 sf Storage= 49,803 cf (23,803 cf above start)

Plug-Flow detention time= 2,320.1 min calculated for 0.307 af (34% of inflow)
Center-of-Mass det. time= 1,002.9 min (1,840.1 - 837.1)

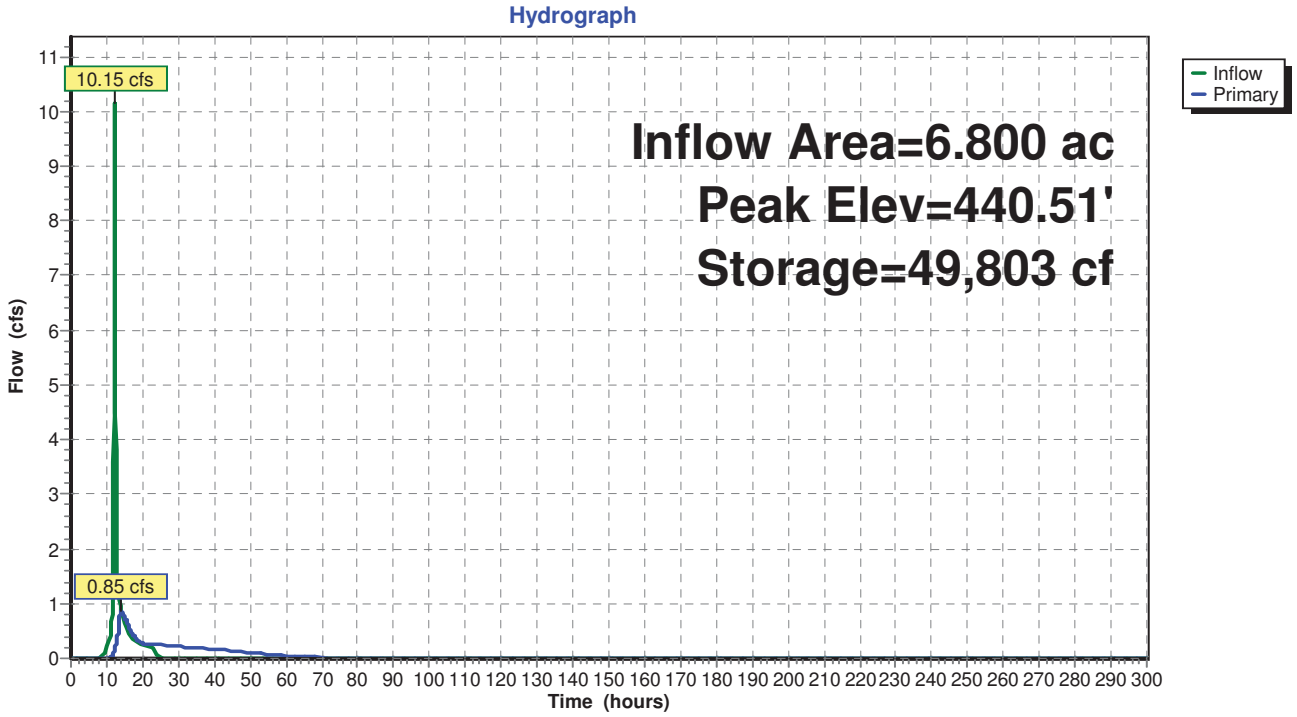
Volume	Invert	Avail.Storage	Storage Description
#1	435.00'	106,100 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
435.00	1,500	0	0
437.00	5,600	7,100	7,100
439.00	13,300	18,900	26,000
441.00	19,900	33,200	59,200
443.00	27,000	46,900	106,100

Device	Routing	Invert	Outlet Devices
#1	Primary	434.00'	**24.0" Round Culvert** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 434.00' / 423.00' S= 0.1571 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	439.00'	**2.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	440.40'	**6.0' 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=0.85 cfs @ 14.08 hrs HW=440.51' TW=420.78' (Dynamic Tailwater)
↑**1=Culvert** (Passes 0.85 cfs of 35.50 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.26 cfs @ 5.67 fps)
3=Broad-Crested Rectangular Weir (Weir Controls 0.59 cfs @ 0.92 fps)

Pond 2.1P:


Hydrograph
Inflow Area=6.800 ac
Peak Elev=440.51'
Storage=49,803 cf
10.15 cfs
0.85 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300
0 1 2 3 4 5 6 7 8 9 10 11

Summary for Pond 2.2P:

Inflow Area = 7.700 ac, 37.66% Impervious, Inflow Depth = 1.52" for 1 year event
Inflow = 1.11 cfs @ 12.09 hrs, Volume= 0.977 af
Outflow = 0.17 cfs @ 38.75 hrs, Volume= 0.977 af, Atten= 85%, Lag= 1,599.5 min
Primary = 0.17 cfs @ 38.75 hrs, Volume= 0.977 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Peak Elev= 422.26' @ 38.75 hrs Surf.Area= 10,006 sf Storage= 17,058 cf

Plug-Flow detention time= 1,237.5 min calculated for 0.977 af (100% of inflow)
Center-of-Mass det. time= 1,236.3 min (3,003.4 - 1,767.1)

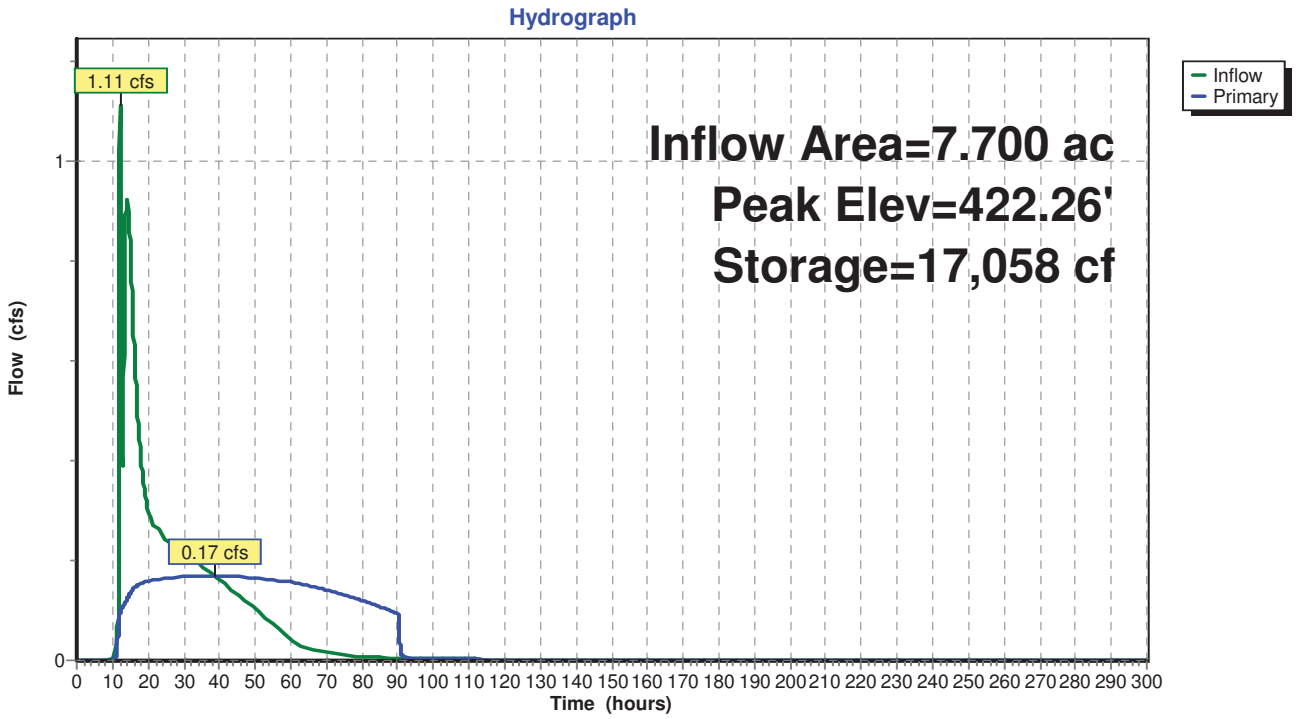
Volume	Invert	Avail.Storage	Storage Description
#1	420.00'	113,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
420.00	5,100	0	0
422.00	9,400	14,500	14,500
424.00	14,000	23,400	37,900
426.00	18,700	32,700	70,600
428.00	23,700	42,400	113,000

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	**24.0" Round Culvert** L= 85.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 419.00' / 408.00' S= 0.1294 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	419.00'	**1.9" Vert. Orifice/Grate** C= 0.600
#3	Device 2	420.00'	**0.5" Vert. Orifice/Grate X 320.00** C= 0.600
#4	Device 1	424.50'	**2.0' 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=0.17 cfs @ 38.75 hrs HW=422.26' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.17 cfs of 22.76 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.17 cfs @ 8.59 fps)
    - **3=Orifice/Grate** (Passes 0.17 cfs of 3.15 cfs potential flow)
  - **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 2.2P:


Hydrograph
Inflow Area=7.700 ac
Peak Elev=422.26'
Storage=17,058 cf
1.11 cfs
0.17 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0
1
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300

Summary for Pond 3.1P:

Inflow Area = 8.100 ac, 35.80% Impervious, Inflow Depth = 1.53" for 1 year event
Inflow = 9.44 cfs @ 12.30 hrs, Volume= 1.031 af
Outflow = 1.17 cfs @ 13.81 hrs, Volume= 1.028 af, Atten= 88%, Lag= 90.1 min
Primary = 1.17 cfs @ 13.81 hrs, Volume= 1.028 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Starting Elev= 448.00' Surf.Area= 15,300 sf Storage= 26,700 cf
Peak Elev= 449.37' @ 13.81 hrs Surf.Area= 21,807 sf Storage= 52,116 cf (25,416 cf above start)

Plug-Flow detention time= 2,615.4 min calculated for 0.415 af (40% of inflow)
Center-of-Mass det. time= 1,156.3 min (2,005.1 - 848.7)

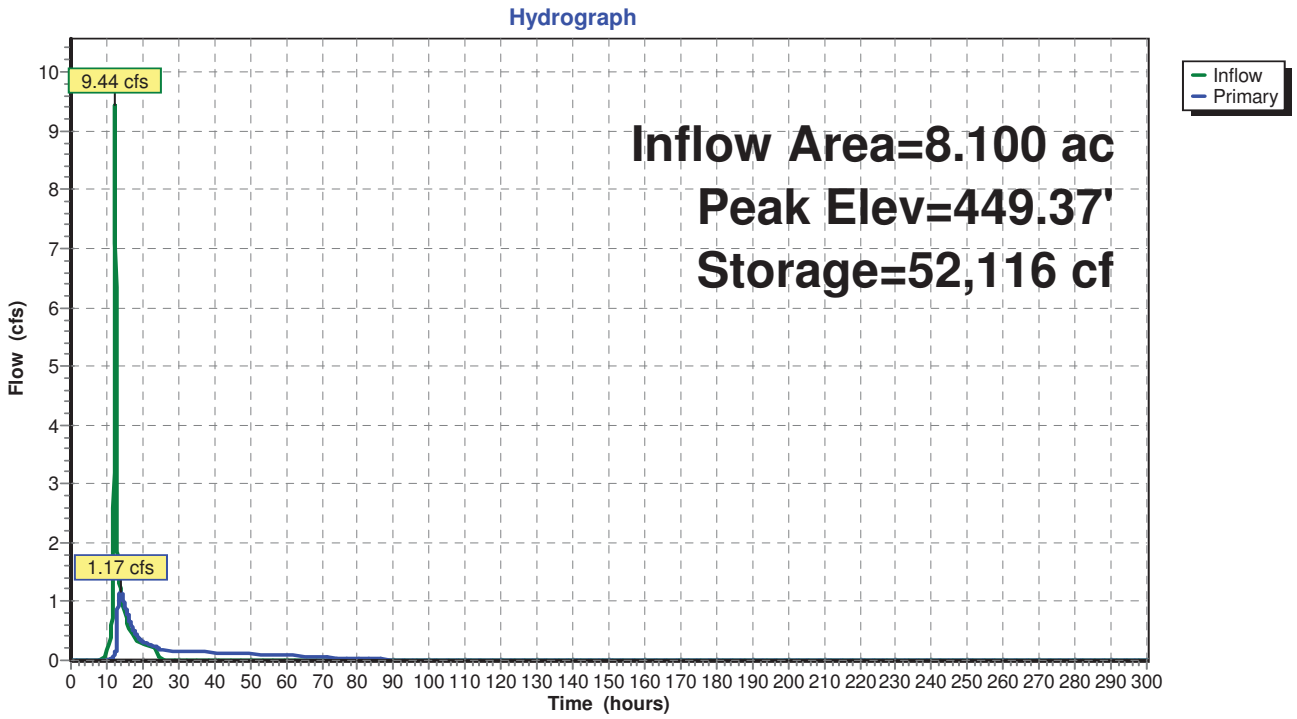
Volume	Invert	Avail.Storage	Storage Description
#1	444.00'	124,600 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
444.00	1,200	0	0
446.00	5,100	6,300	6,300
448.00	15,300	20,400	26,700
450.00	24,800	40,100	66,800
452.00	33,000	57,800	124,600

Device	Routing	Invert	Outlet Devices
#1	Primary	444.00'	**24.0" Round Culvert** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 444.00' / 436.00' S= 0.0800 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	448.00'	**2.5" Vert. Orifice/Grate** C= 0.600
#3	Device 1	449.20'	**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

Primary OutFlow Max=1.17 cfs @ 13.81 hrs HW=449.37' TW=425.65' (Dynamic Tailwater)
↑**1=Culvert** (Passes 1.17 cfs of 31.62 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.18 cfs @ 5.42 fps)
3=Broad-Crested Rectangular Weir (Weir Controls 0.98 cfs @ 1.15 fps)

Pond 3.1P:


Hydrograph
Inflow Area=8.100 ac
Peak Elev=449.37'
Storage=52,116 cf
9.44 cfs
1.17 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300
0 1 2 3 4 5 6 7 8 9 10

Summary for Pond 3.2P:

Inflow Area = 8.700 ac, 33.33% Impervious, Inflow Depth > 1.48" for 1 year event
Inflow = 1.22 cfs @ 13.77 hrs, Volume= 1.076 af
Outflow = 0.25 cfs @ 23.07 hrs, Volume= 1.076 af, Atten= 80%, Lag= 557.8 min
Primary = 0.12 cfs @ 23.07 hrs, Volume= 0.986 af
Secondary = 0.13 cfs @ 23.07 hrs, Volume= 0.090 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Peak Elev= 428.37' @ 23.07 hrs Surf.Area= 6,885 sf Storage= 18,876 cf

Plug-Flow detention time= 1,819.3 min calculated for 1.076 af (100% of inflow)
Center-of-Mass det. time= 1,818.5 min (3,772.0 - 1,953.5)

Volume	Invert	Avail.Storage	Storage Description
#1	424.00'	52,500 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

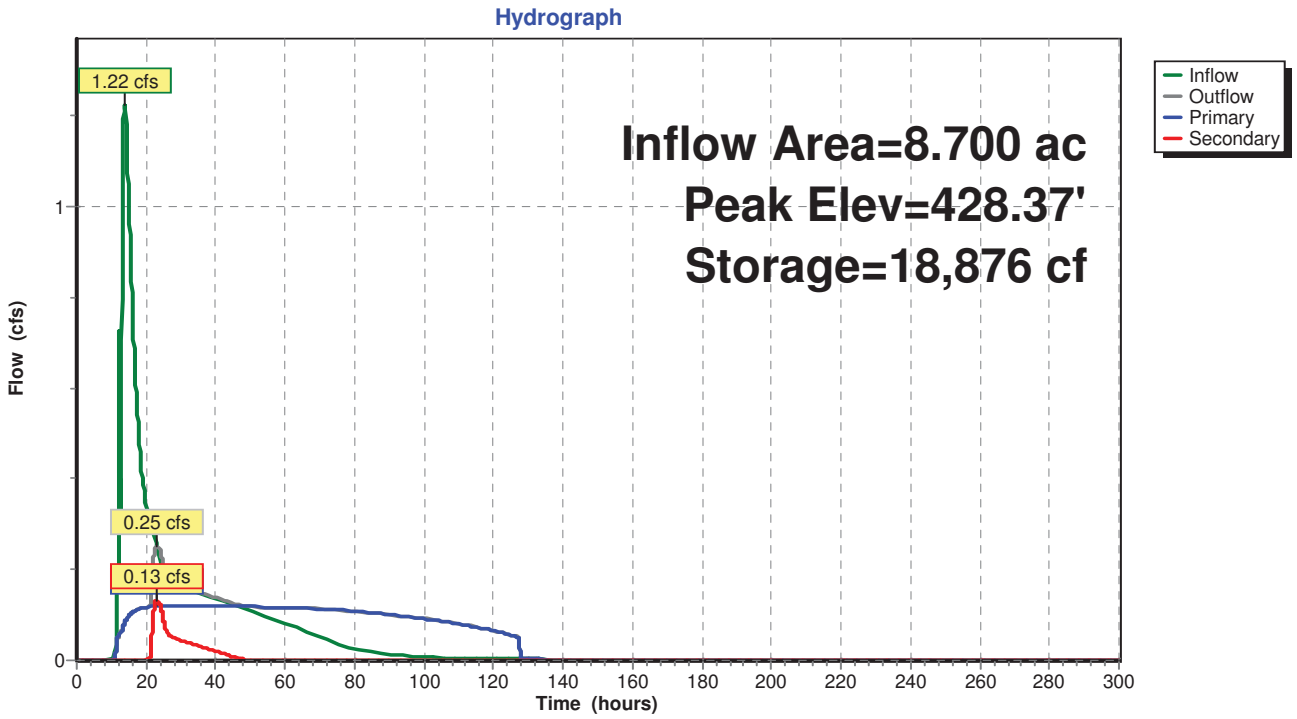
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
424.00	2,000	0	0
426.00	4,000	6,000	6,000
428.00	6,400	10,400	16,400
430.00	9,000	15,400	31,800
432.00	11,700	20,700	52,500

Device	Routing	Invert	Outlet Devices
#1	Primary	423.00'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 423.00' / 420.00' S= 0.0600 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	423.00'	**1.4" Vert. Orifice/Grate** C= 0.600
#3	Device 2	424.00'	**0.5" Vert. Orifice/Grate X 320.00** C= 0.600
#4	Secondary	428.30'	**2.5' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.12 cfs @ 23.07 hrs HW=428.37' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 0.12 cfs of 12.88 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.12 cfs @ 11.10 fps)
└**3=Orifice/Grate** (Passes 0.12 cfs of 4.38 cfs potential flow)

Secondary OutFlow Max=0.13 cfs @ 23.07 hrs HW=428.37' TW=0.00' (Dynamic Tailwater)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 0.13 cfs @ 0.73 fps)

Pond 3.2P:


Hydrograph
Inflow Area=8.700 ac
Peak Elev=428.37'
Storage=18,876 cf
1.22 cfs
0.25 cfs
0.13 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0
1
0 20 40 60 80 100 120 140 160 180 200 220 240 260 280 300

Summary for Subcatchment 2.1S:

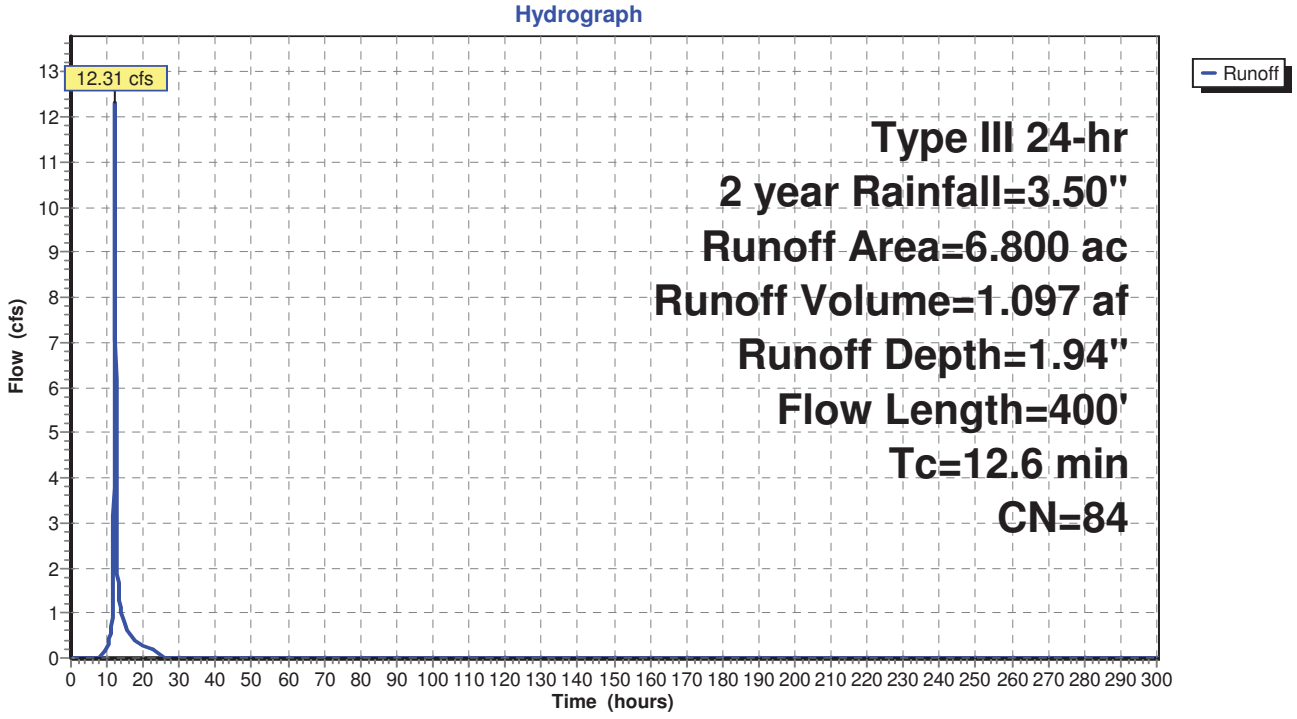
Runoff = 12.31 cfs @ 12.18 hrs, Volume= 1.097 af, Depth= 1.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.50"

	Area (ac)	CN	Description
	2.900	98	Paved parking, HSG C
	3.850	74	>75% Grass cover, Good, HSG C
*	0.050	89	Gravel, HSG C
	6.800	84	Weighted Average
	3.900		57.35% Pervious Area
	2.900		42.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0200	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
1.9	110	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	190	0.0150	2.49		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
12.6	400	Total			

Subcatchment 2.1S:



Summary for Subcatchment 2.2S:

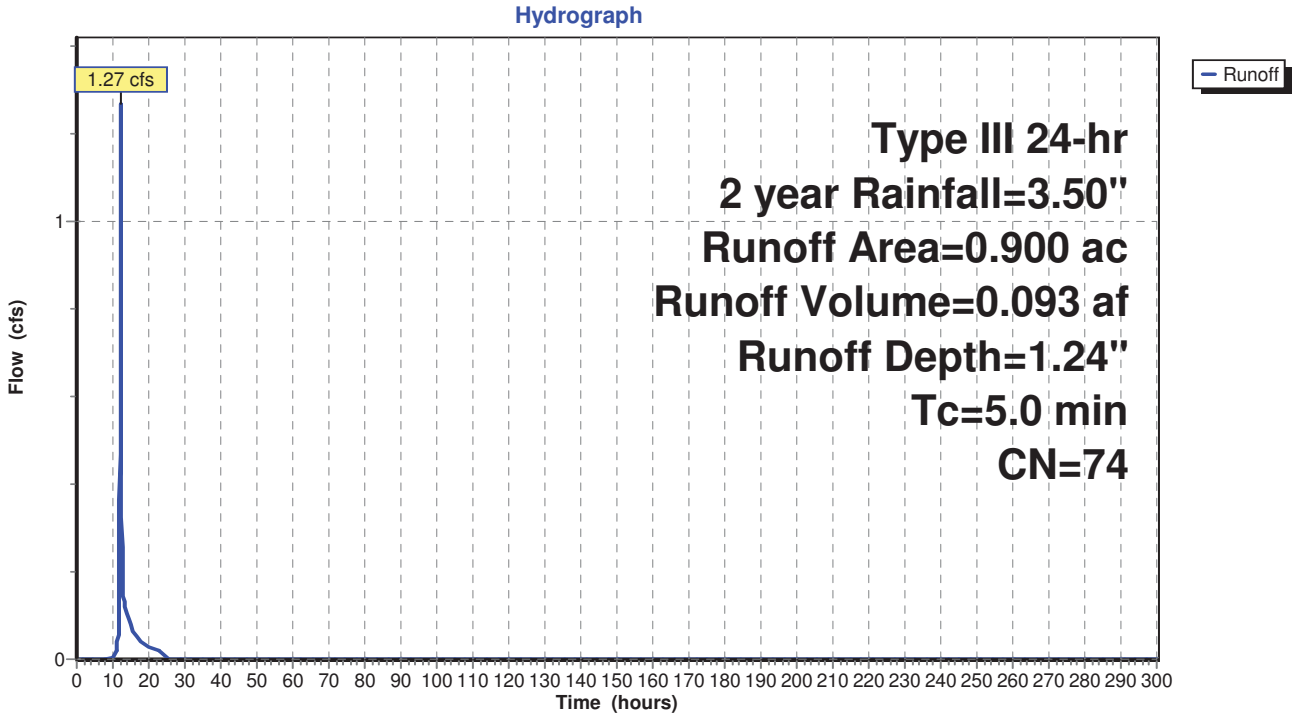
Runoff = 1.27 cfs @ 12.09 hrs, Volume= 0.093 af, Depth= 1.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.50"

Area (ac)	CN	Description
0.900	74	>75% Grass cover, Good, HSG C
0.900		100.00% Pervious Area

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

Subcatchment 2.2S:



Summary for Subcatchment 2.3S:

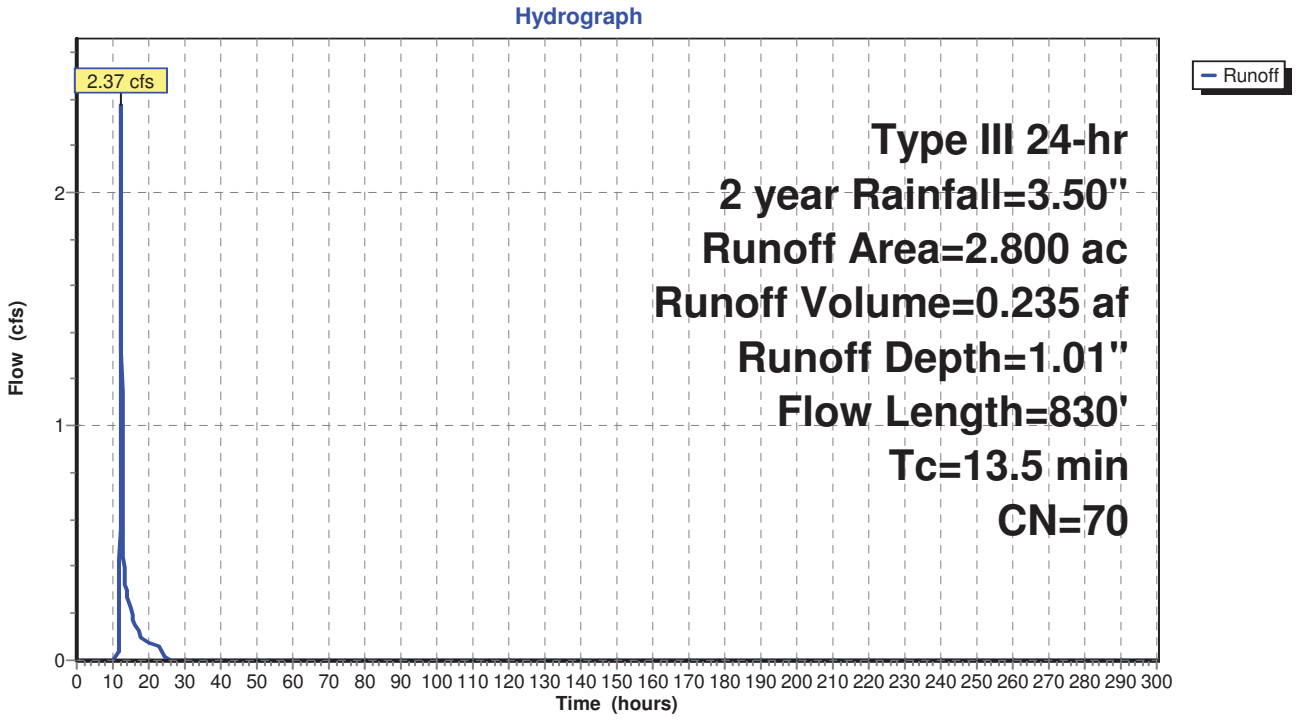
Runoff = 2.37 cfs @ 12.21 hrs, Volume= 0.235 af, Depth= 1.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.50"

Area (ac)	CN	Description
2.800	70	Woods, Good, HSG C
2.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	24	0.5000	0.33		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.50"
7.0	76	0.1700	0.18		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
2.2	330	0.2400	2.45		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.1	400	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
13.5	830	Total			

Subcatchment 2.3S:



Summary for Subcatchment 3.1S:

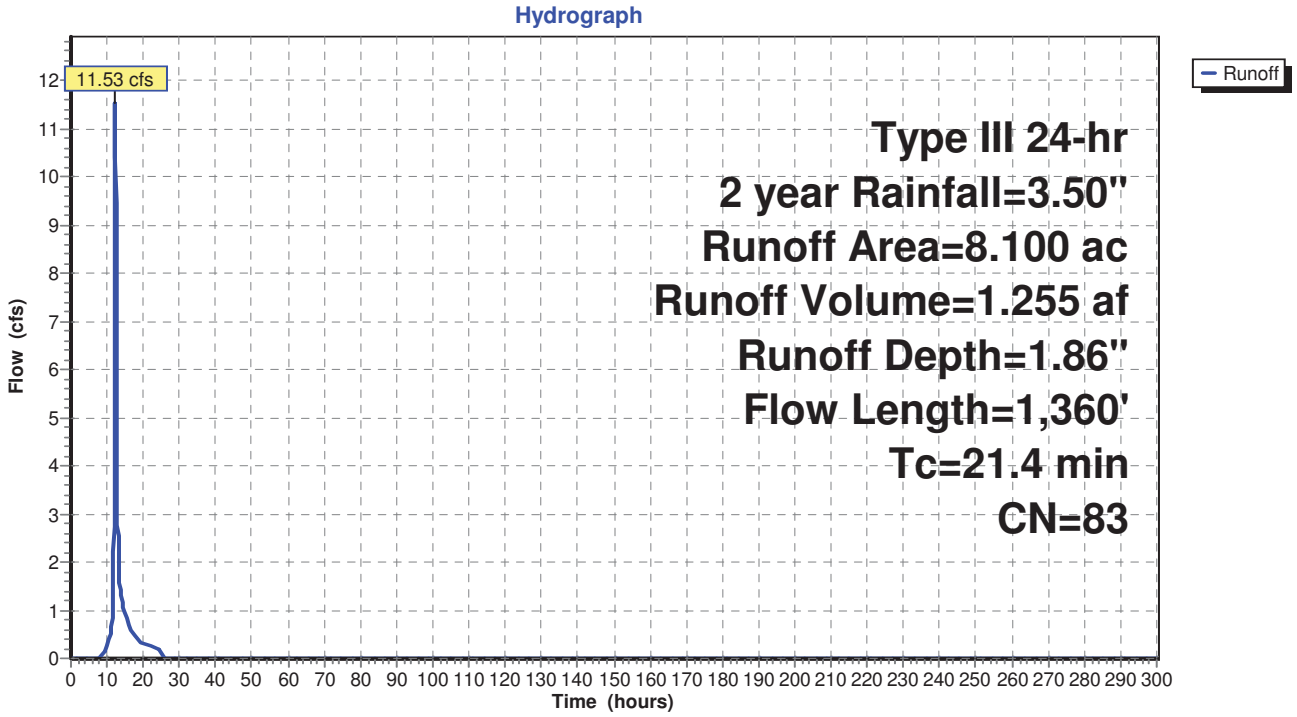
Runoff = 11.53 cfs @ 12.30 hrs, Volume= 1.255 af, Depth= 1.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.50"

	Area (ac)	CN	Description
	2.900	98	Paved parking & roofs
	4.450	74	>75% Grass cover, Good, HSG C
	0.500	70	Woods, Good, HSG C
*	0.250	89	Gravel, HSG C
	8.100	83	Weighted Average
	5.200		64.20% Pervious Area
	2.900		35.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0500	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
1.1	80	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	30	0.0450	1.48		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.9	150	0.0150	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	270	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.2	72	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
0.1	48	0.0100	5.70	7.00	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
0.5	610	0.0700	20.64	64.84	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
21.4	1,360	Total			

Subcatchment 3.1S:



Summary for Subcatchment 3.2S:

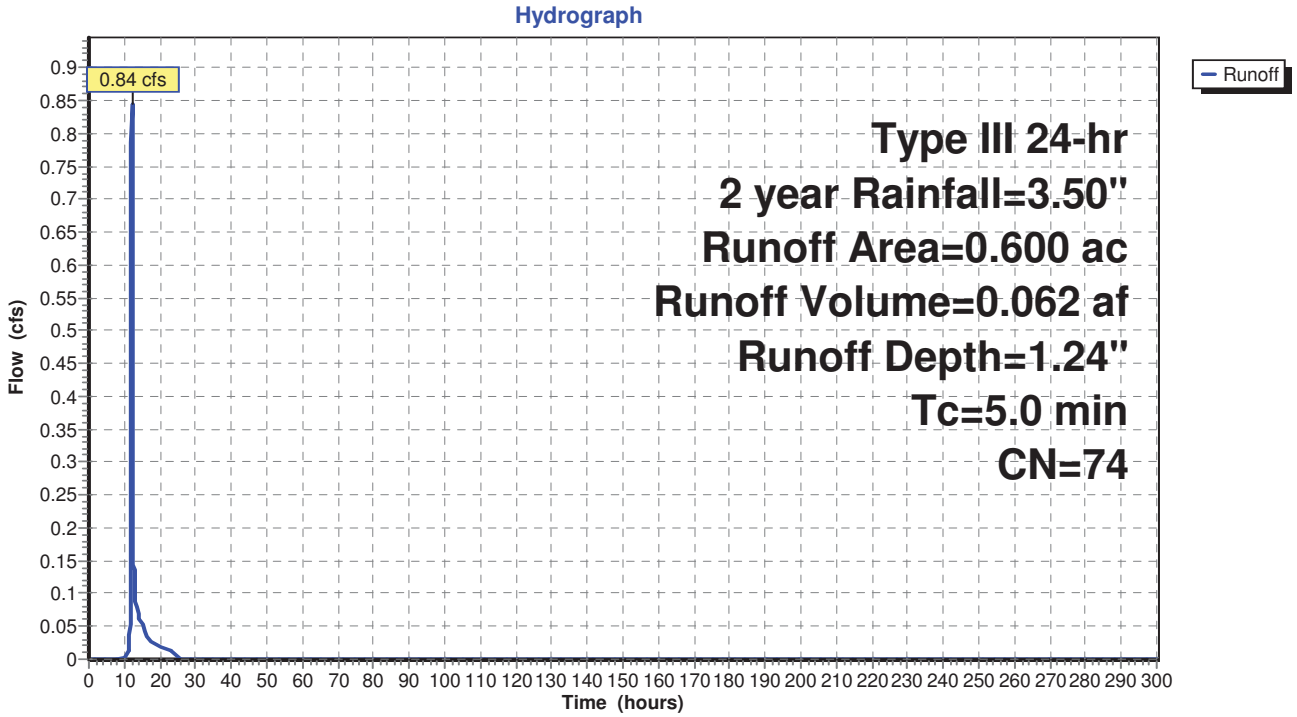
Runoff = 0.84 cfs @ 12.09 hrs, Volume= 0.062 af, Depth= 1.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.50"

Area (ac)	CN	Description
0.600	74	>75% Grass cover, Good, HSG C
0.600		100.00% Pervious Area

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

Subcatchment 3.2S:



Summary for Subcatchment 3.3S:

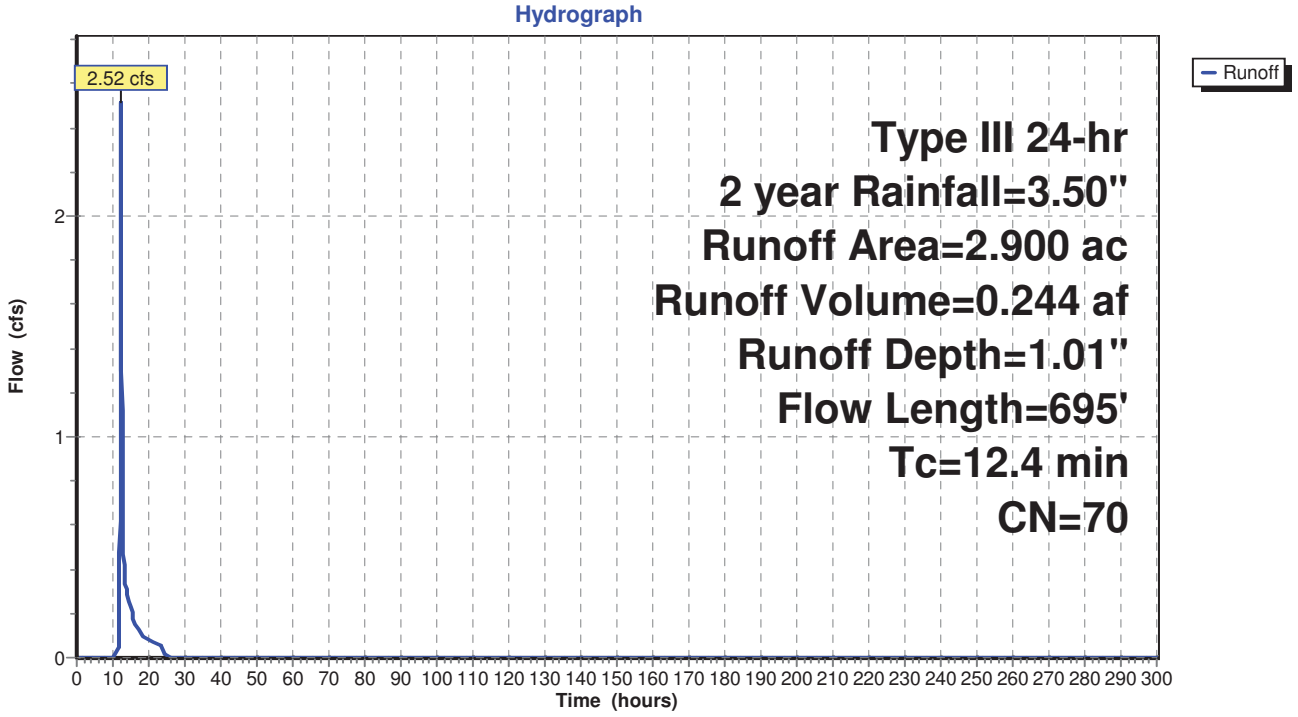
Runoff = 2.52 cfs @ 12.19 hrs, Volume= 0.244 af, Depth= 1.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.50"

Area (ac)	CN	Description
2.700	70	Woods, Good, HSG C
0.200	74	>75% Grass cover, Good, HSG C
2.900	70	Weighted Average
2.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	26	0.4200	0.32		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.50"
7.6	74	0.1300	0.16		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
3.1	388	0.1700	2.06		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	207	0.0480	13.23	128.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.50' Z= 4.0 & 2.0 '/' Top.W=11.00' n= 0.022 Earth, clean & straight
12.4	695	Total			

Subcatchment 3.3S:



Summary for Subcatchment 4.1S:

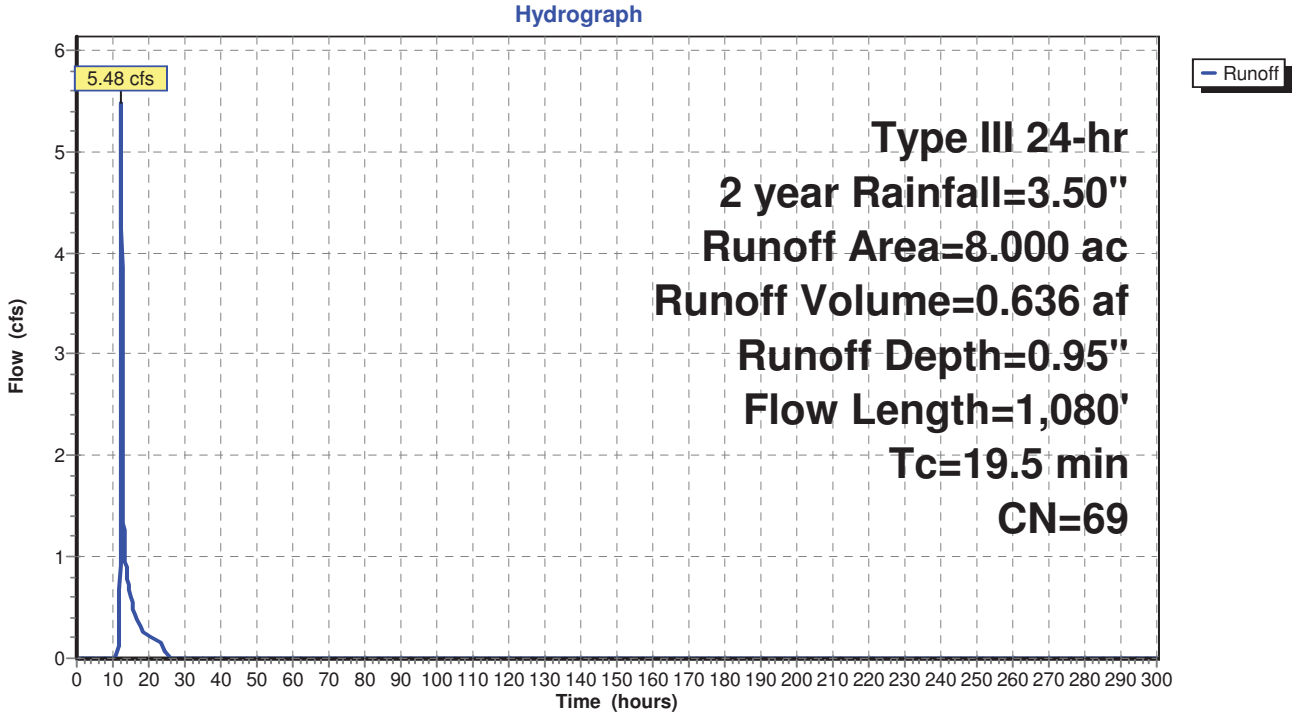
Runoff = 5.48 cfs @ 12.30 hrs, Volume= 0.636 af, Depth= 0.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.50"

Area (ac)	CN	Description
7.300	70	Woods, Good, HSG C
0.700	55	Woods, Good, HSG B
8.000	69	Weighted Average
8.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	100	0.0900	0.15		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.2	980	0.1600	2.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
19.5	1,080	Total			

Subcatchment 4.1S:



Summary for Subcatchment 5.1S:

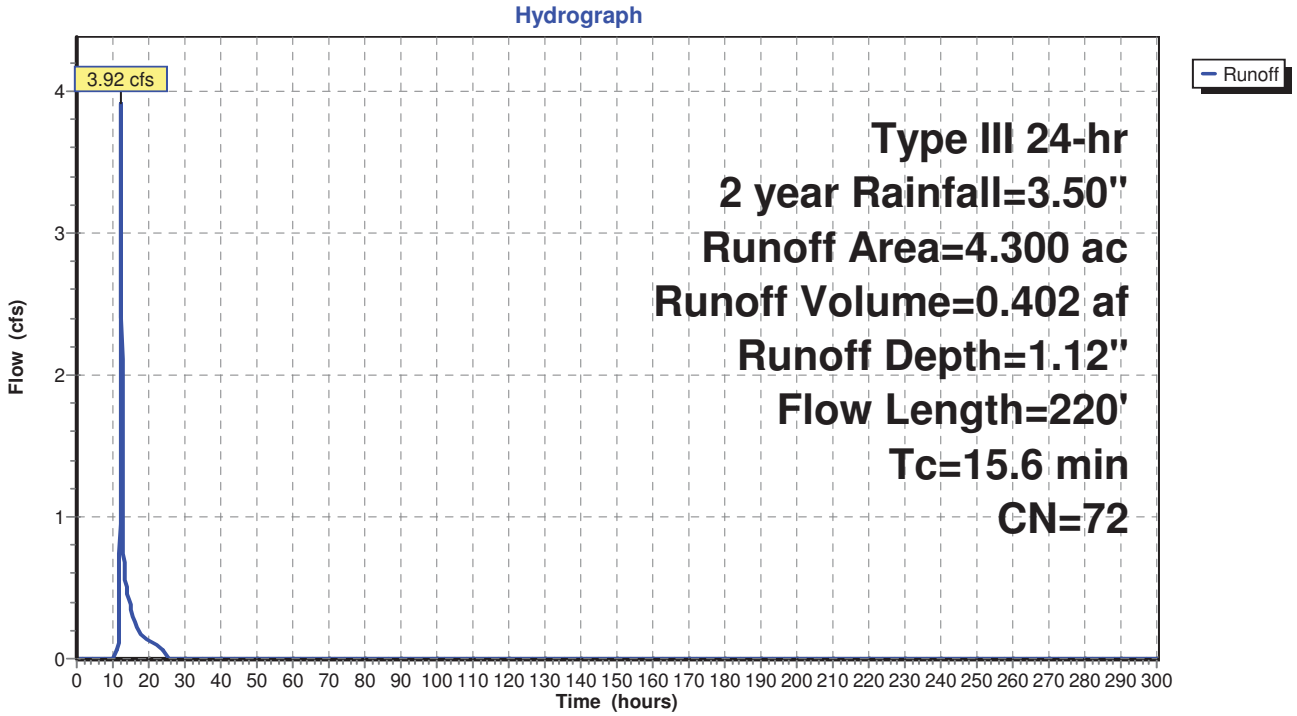
Runoff = 3.92 cfs @ 12.23 hrs, Volume= 0.402 af, Depth= 1.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 year Rainfall=3.50"

	Area (ac)	CN	Description
	1.000	74	>75% Grass cover, Good, HSG C
	3.150	70	Woods, Good, HSG C
*	0.150	89	Gravel, HSG C
	4.300	72	Weighted Average
	4.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0500	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
1.4	120	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	220	Total			

Subcatchment 5.1S:

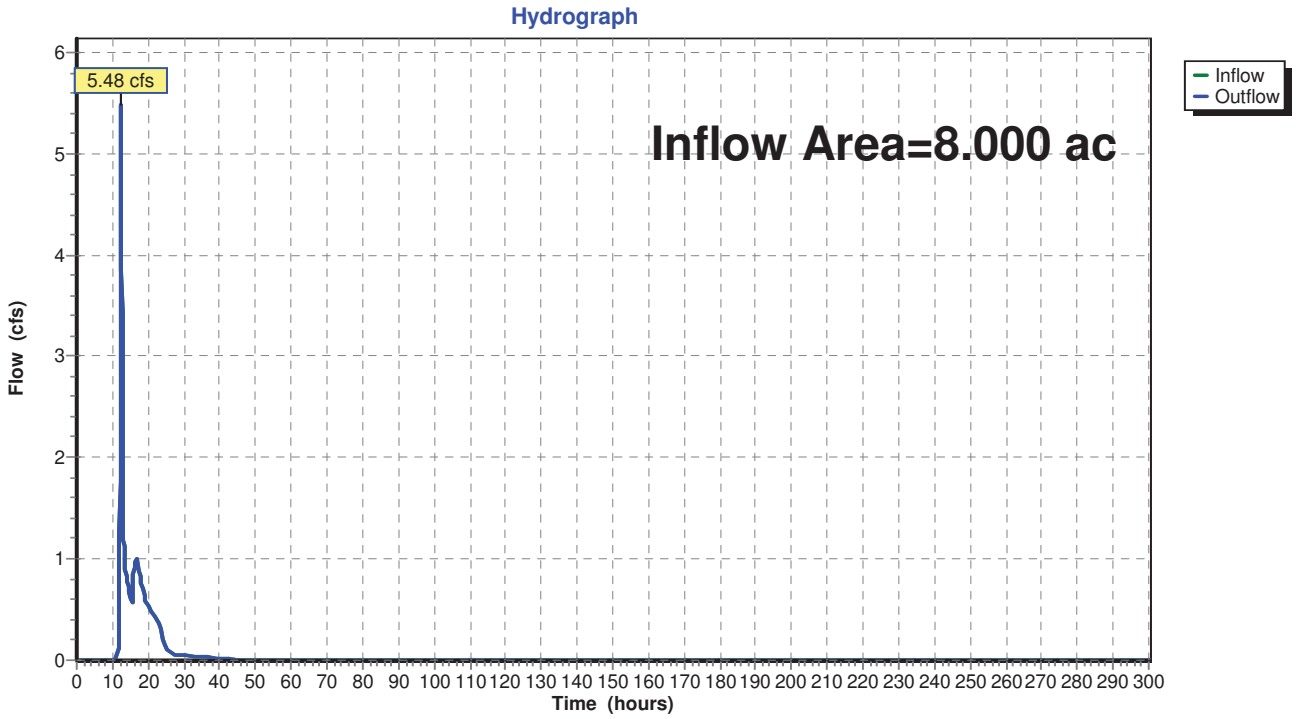


Summary for Reach DL4:

Inflow Area = 8.000 ac, 0.00% Impervious, Inflow Depth = 1.43" for 2 year event
Inflow = 5.48 cfs @ 12.30 hrs, Volume= 0.952 af
Outflow = 5.48 cfs @ 12.30 hrs, Volume= 0.952 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DL4:

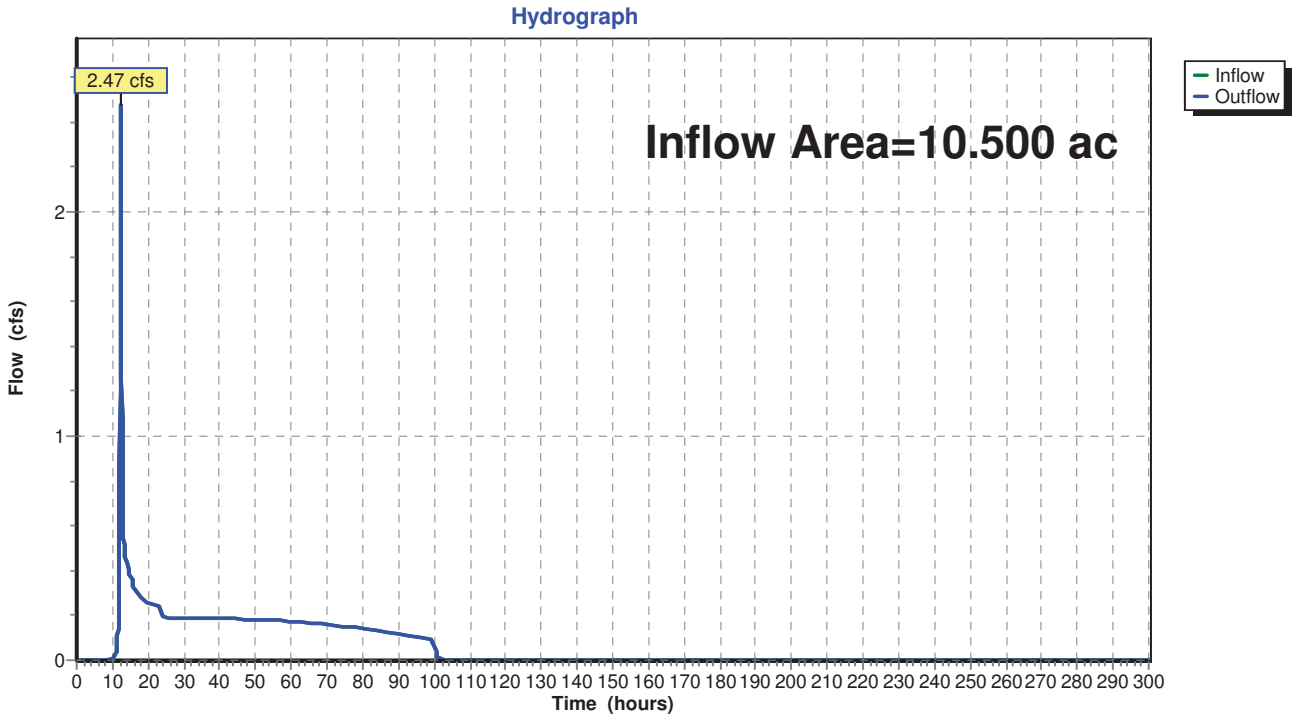


Summary for Reach DP 2:

Inflow Area = 10.500 ac, 27.62% Impervious, Inflow Depth = 1.63" for 2 year event
Inflow = 2.47 cfs @ 12.21 hrs, Volume= 1.423 af
Outflow = 2.47 cfs @ 12.21 hrs, Volume= 1.423 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DP 2:

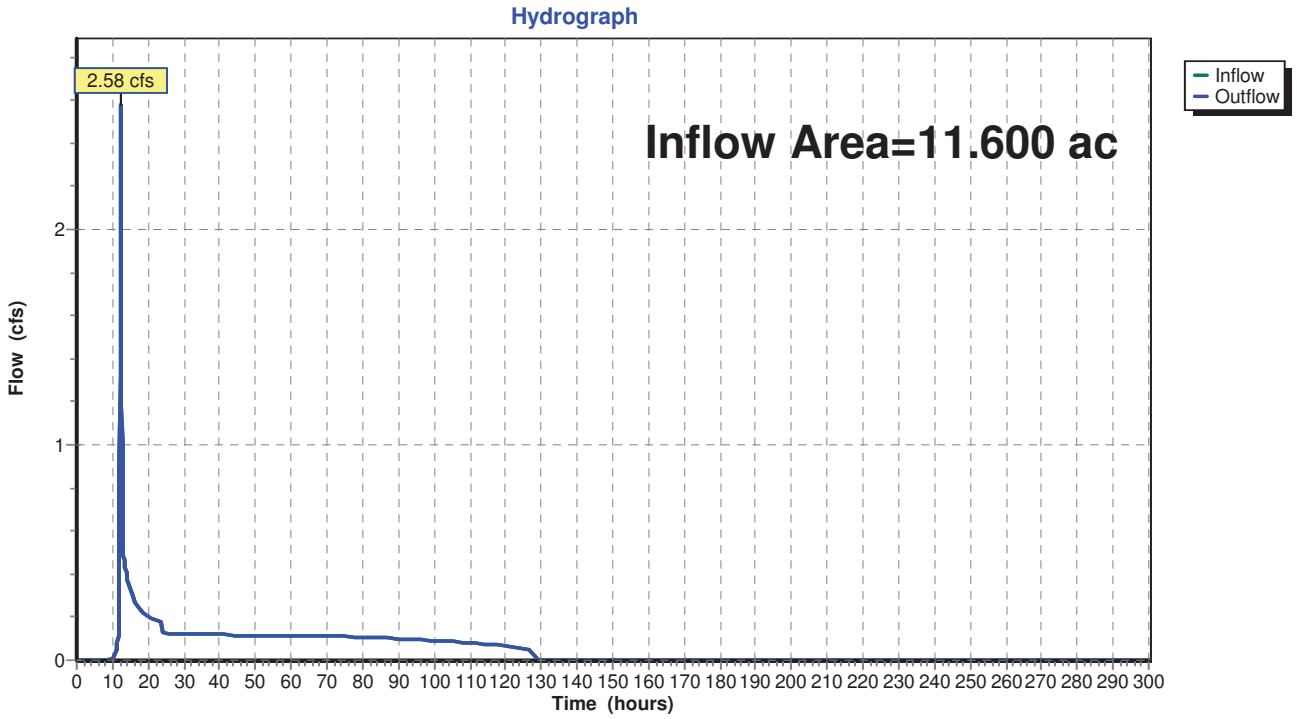


Summary for Reach DP 3:

Inflow Area = 11.600 ac, 25.00% Impervious, Inflow Depth = 1.28" for 2 year event
Inflow = 2.58 cfs @ 12.19 hrs, Volume= 1.241 af
Outflow = 2.58 cfs @ 12.19 hrs, Volume= 1.241 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DP 3:



Summary for Pond 2.1P:

Inflow Area = 6.800 ac, 42.65% Impervious, Inflow Depth = 1.94" for 2 year event
Inflow = 12.31 cfs @ 12.18 hrs, Volume= 1.097 af
Outflow = 1.76 cfs @ 12.98 hrs, Volume= 1.095 af, Atten= 86%, Lag= 48.3 min
Primary = 1.76 cfs @ 12.98 hrs, Volume= 1.095 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Starting Elev= 439.00' Surf.Area= 13,300 sf Storage= 26,000 cf
Peak Elev= 440.60' @ 12.98 hrs Surf.Area= 18,576 sf Storage= 51,479 cf (25,479 cf above start)

Plug-Flow detention time= 1,837.8 min calculated for 0.498 af (45% of inflow)
Center-of-Mass det. time= 853.2 min (1,684.8 - 831.6)

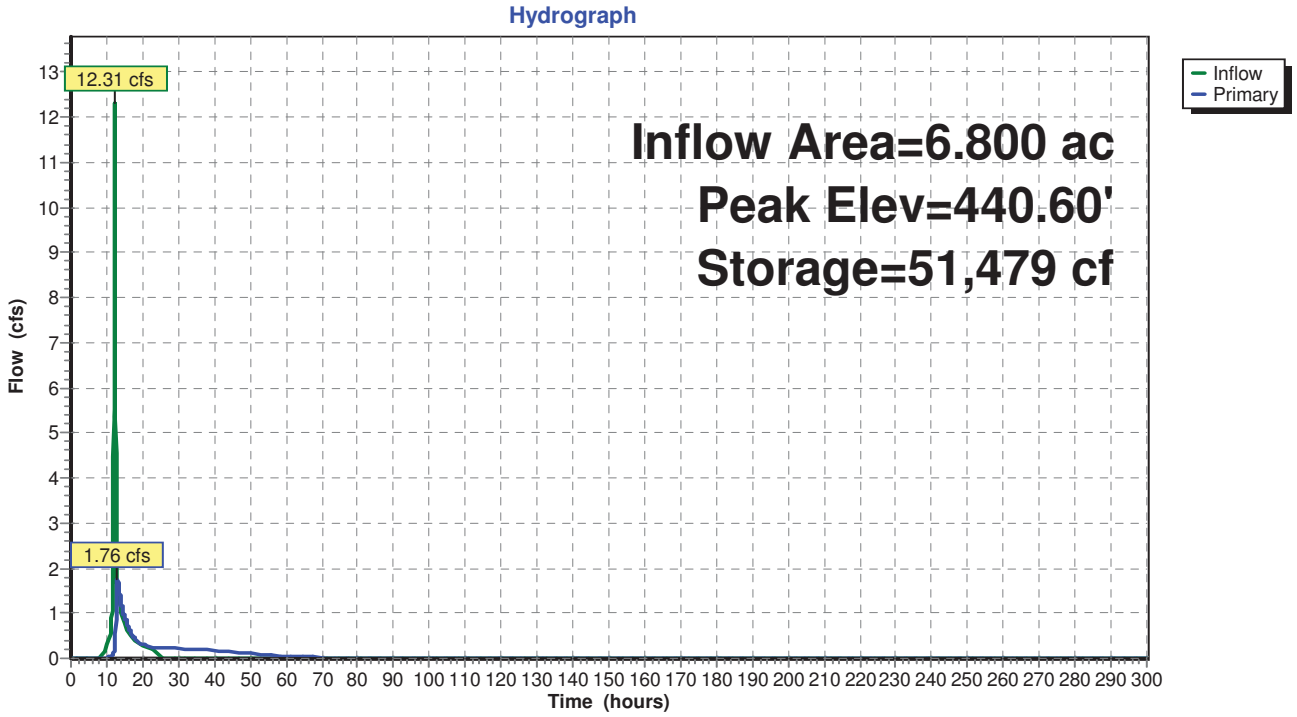
Volume	Invert	Avail.Storage	Storage Description
#1	435.00'	106,100 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
435.00	1,500	0	0
437.00	5,600	7,100	7,100
439.00	13,300	18,900	26,000
441.00	19,900	33,200	59,200
443.00	27,000	46,900	106,100

Device	Routing	Invert	Outlet Devices
#1	Primary	434.00'	**24.0" Round Culvert** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 434.00' / 423.00' S= 0.1571 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	439.00'	**2.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	440.40'	**6.0' 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=1.75 cfs @ 12.98 hrs HW=440.60' TW=420.79' (Dynamic Tailwater)
- **1=Culvert** (Passes 1.75 cfs of 35.79 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.27 cfs @ 5.85 fps)
  - **3=Broad-Crested Rectangular Weir** (Weir Controls 1.49 cfs @ 1.25 fps)

Pond 2.1P:


Hydrograph
Inflow Area=6.800 ac
Peak Elev=440.60'
Storage=51,479 cf
12.31 cfs
1.76 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 1 2 3 4 5 6 7 8 9 10 11 12 13
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300

Summary for Pond 2.2P:

Inflow Area = 7.700 ac, 37.66% Impervious, Inflow Depth = 1.85" for 2 year event
Inflow = 1.91 cfs @ 12.95 hrs, Volume= 1.188 af
Outflow = 0.19 cfs @ 36.25 hrs, Volume= 1.188 af, Atten= 90%, Lag= 1,398.3 min
Primary = 0.19 cfs @ 36.25 hrs, Volume= 1.188 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Peak Elev= 422.92' @ 36.25 hrs Surf.Area= 11,509 sf Storage= 24,085 cf

Plug-Flow detention time= 1,591.2 min calculated for 1.188 af (100% of inflow)
Center-of-Mass det. time= 1,590.2 min (3,210.2 - 1,620.0)

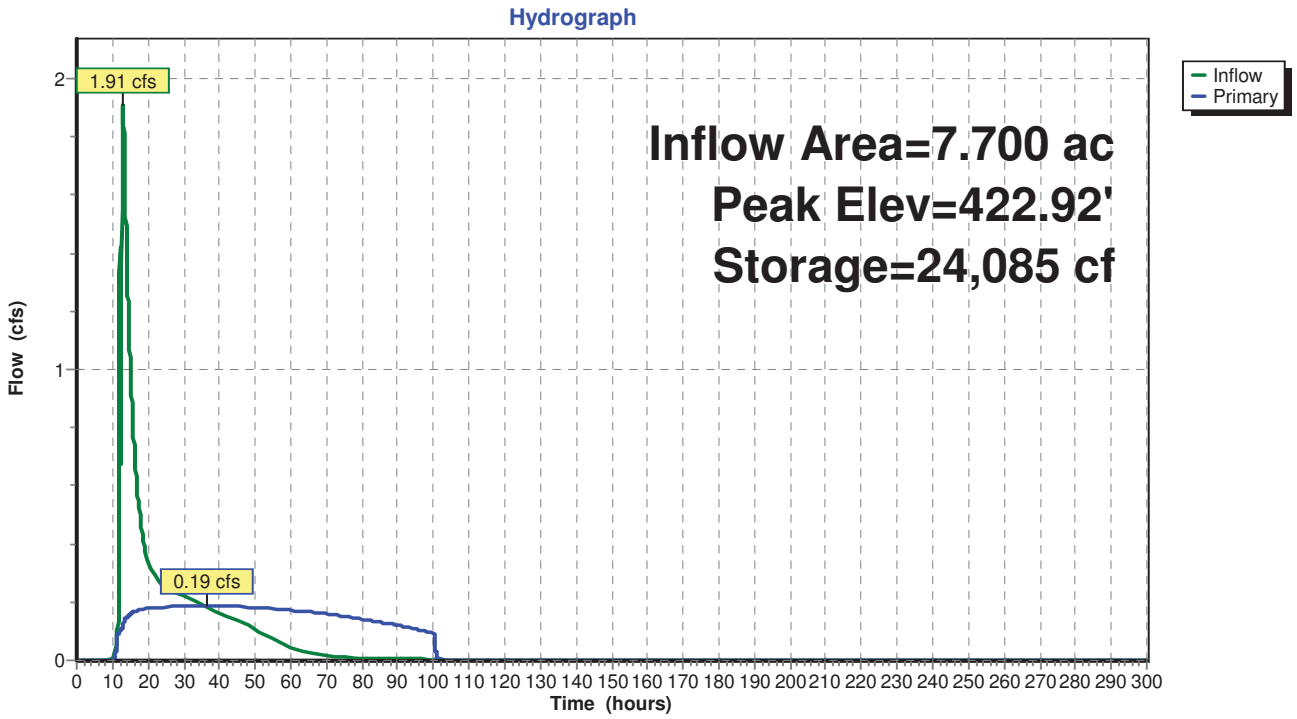
Volume	Invert	Avail.Storage	Storage Description
#1	420.00'	113,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
420.00	5,100	0	0
422.00	9,400	14,500	14,500
424.00	14,000	23,400	37,900
426.00	18,700	32,700	70,600
428.00	23,700	42,400	113,000

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	**24.0" Round Culvert** L= 85.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 419.00' / 408.00' S= 0.1294 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	419.00'	**1.9" Vert. Orifice/Grate** C= 0.600
#3	Device 2	420.00'	**0.5" Vert. Orifice/Grate X 320.00** C= 0.600
#4	Device 1	424.50'	**2.0' 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=0.19 cfs @ 36.25 hrs HW=422.92' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.19 cfs of 25.83 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.19 cfs @ 9.43 fps)
    - **3=Orifice/Grate** (Passes 0.19 cfs of 3.58 cfs potential flow)
  - **4=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 2.2P:


Hydrograph
Inflow Area=7.700 ac
Peak Elev=422.92'
Storage=24,085 cf
1.91 cfs
0.19 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0
1
2
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300

Summary for Pond 3.1P:

Inflow Area = 8.100 ac, 35.80% Impervious, Inflow Depth = 1.86" for 2 year event
Inflow = 11.53 cfs @ 12.30 hrs, Volume= 1.255 af
Outflow = 2.37 cfs @ 13.05 hrs, Volume= 1.251 af, Atten= 79%, Lag= 45.1 min
Primary = 2.37 cfs @ 13.05 hrs, Volume= 1.251 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Starting Elev= 448.00' Surf.Area= 15,300 sf Storage= 26,700 cf
Peak Elev= 449.49' @ 13.05 hrs Surf.Area= 22,356 sf Storage= 54,669 cf (27,969 cf above start)

Plug-Flow detention time= 1,963.0 min calculated for 0.638 af (51% of inflow)
Center-of-Mass det. time= 967.5 min (1,810.5 - 843.1)

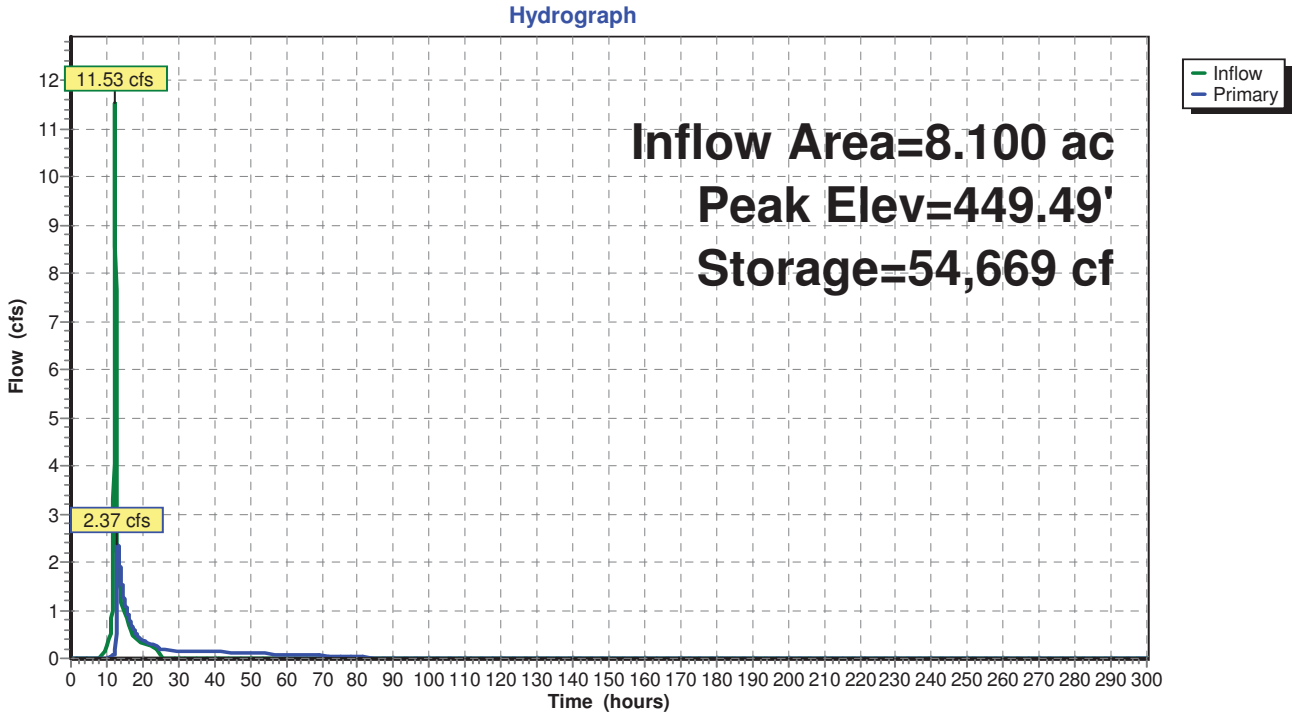
Volume	Invert	Avail.Storage	Storage Description
#1	444.00'	124,600 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
444.00	1,200	0	0
446.00	5,100	6,300	6,300
448.00	15,300	20,400	26,700
450.00	24,800	40,100	66,800
452.00	33,000	57,800	124,600

Device	Routing	Invert	Outlet Devices
#1	Primary	444.00'	**24.0" Round Culvert** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 444.00' / 436.00' S= 0.0800 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	448.00'	**2.5" Vert. Orifice/Grate** C= 0.600
#3	Device 1	449.20'	**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

Primary OutFlow Max=2.37 cfs @ 13.05 hrs HW=449.49' TW=425.70' (Dynamic Tailwater)
- **1=Culvert** (Passes 2.37 cfs of 32.04 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.19 cfs @ 5.66 fps)
  - **3=Broad-Crested Rectangular Weir** (Weir Controls 2.17 cfs @ 1.52 fps)

Pond 3.1P:


Hydrograph
Inflow Area=8.100 ac
Peak Elev=449.49'
Storage=54,669 cf
11.53 cfs
2.37 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 1 2 3 4 5 6 7 8 9 10 11 12
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300

Summary for Pond 3.2P:

Inflow Area = 8.700 ac, 33.33% Impervious, Inflow Depth = 1.81" for 2 year event
Inflow = 2.46 cfs @ 13.04 hrs, Volume= 1.313 af
Outflow = 0.77 cfs @ 16.63 hrs, Volume= 1.313 af, Atten= 69%, Lag= 215.7 min
Primary = 0.12 cfs @ 16.63 hrs, Volume= 0.998 af
Secondary = 0.65 cfs @ 16.63 hrs, Volume= 0.316 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Peak Elev= 428.51' @ 16.63 hrs Surf.Area= 7,064 sf Storage= 19,839 cf

Plug-Flow detention time= 1,536.9 min calculated for 1.313 af (100% of inflow)
Center-of-Mass det. time= 1,536.5 min (3,302.0 - 1,765.5)

Volume	Invert	Avail.Storage	Storage Description
#1	424.00'	52,500 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

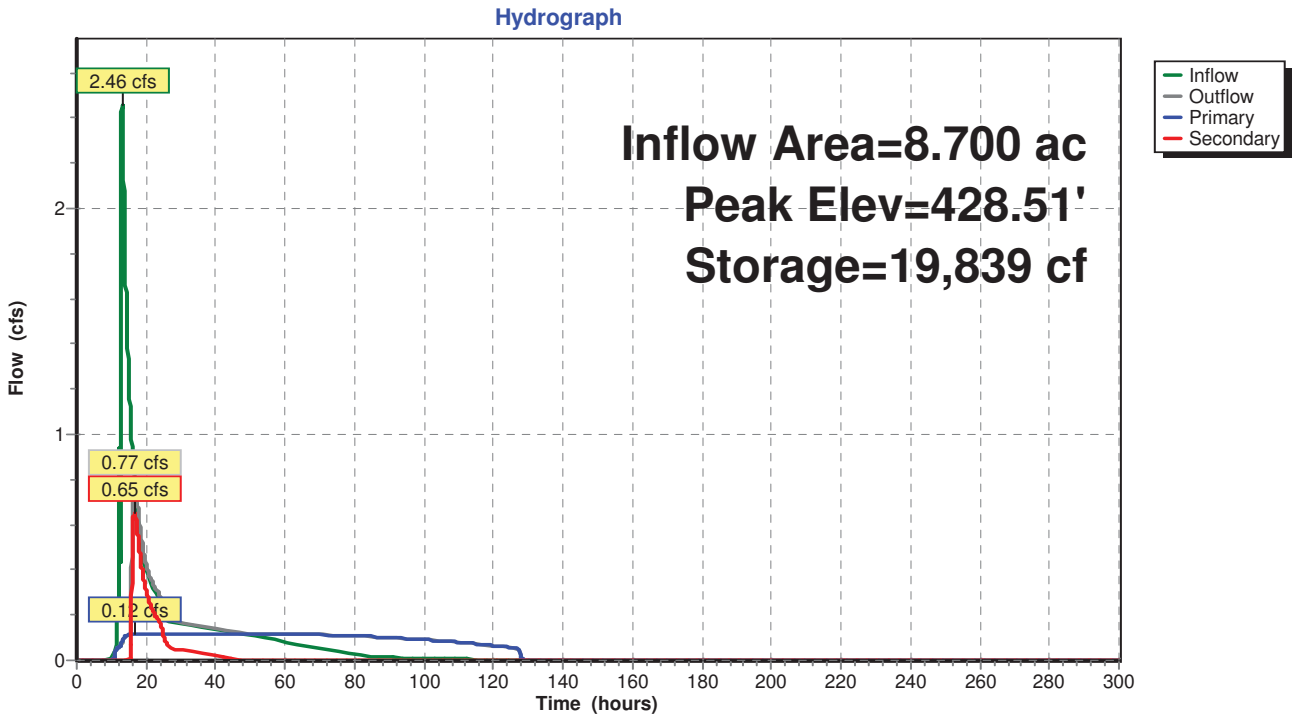
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
424.00	2,000	0	0
426.00	4,000	6,000	6,000
428.00	6,400	10,400	16,400
430.00	9,000	15,400	31,800
432.00	11,700	20,700	52,500

Device	Routing	Invert	Outlet Devices
#1	Primary	423.00'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 423.00' / 420.00' S= 0.0600 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	423.00'	**1.4" Vert. Orifice/Grate** C= 0.600
#3	Device 2	424.00'	**0.5" Vert. Orifice/Grate X 320.00** C= 0.600
#4	Secondary	428.30'	**2.5' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.12 cfs @ 16.63 hrs HW=428.51' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 0.12 cfs of 13.06 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.12 cfs @ 11.24 fps)
└**3=Orifice/Grate** (Passes 0.12 cfs of 4.45 cfs potential flow)

Secondary OutFlow Max=0.65 cfs @ 16.63 hrs HW=428.51' TW=0.00' (Dynamic Tailwater)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 0.65 cfs @ 1.24 fps)

Pond 3.2P:


Hydrograph
Inflow Area=8.700 ac
Peak Elev=428.51'
Storage=19,839 cf
2.46 cfs
0.77 cfs
0.65 cfs
0.12 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0
1
2
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300

Summary for Subcatchment 2.1S:

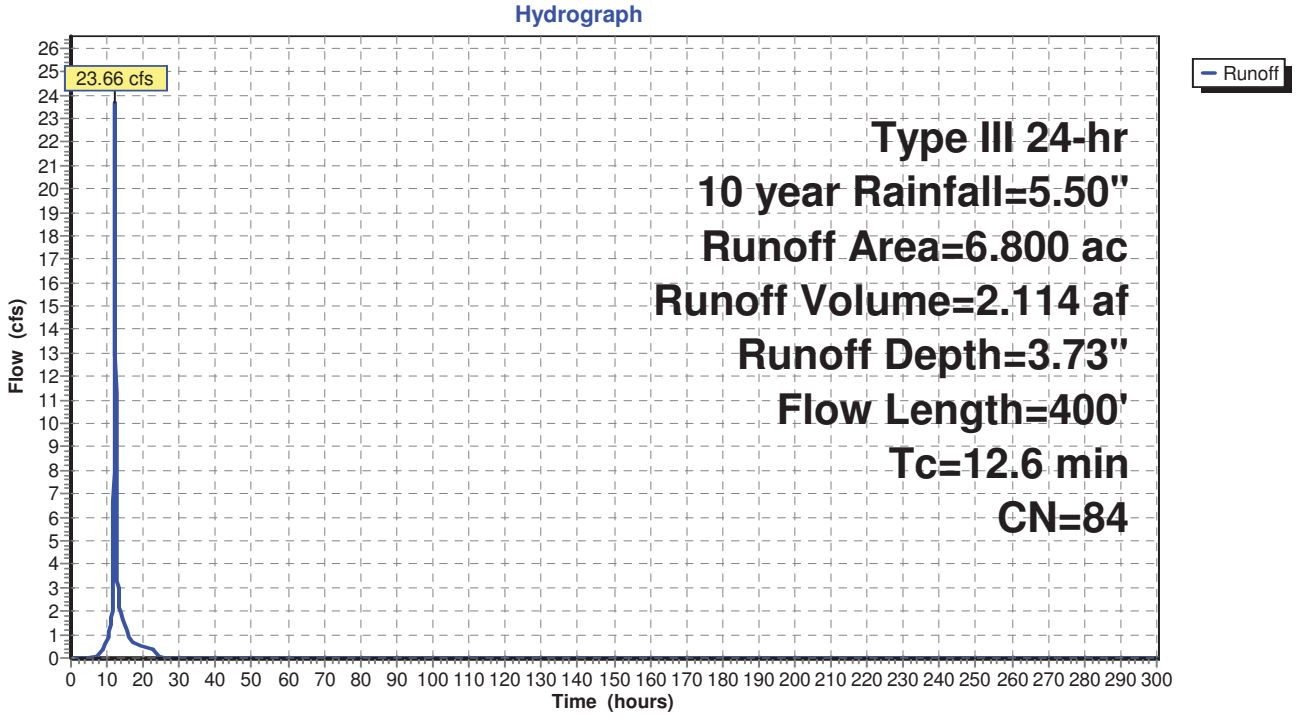
Runoff = 23.66 cfs @ 12.17 hrs, Volume= 2.114 af, Depth= 3.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.50"

	Area (ac)	CN	Description
	2.900	98	Paved parking, HSG C
	3.850	74	>75% Grass cover, Good, HSG C
*	0.050	89	Gravel, HSG C
	6.800	84	Weighted Average
	3.900		57.35% Pervious Area
	2.900		42.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0200	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
1.9	110	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	190	0.0150	2.49		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
12.6	400	Total			

Subcatchment 2.1S:



Summary for Subcatchment 2.2S:

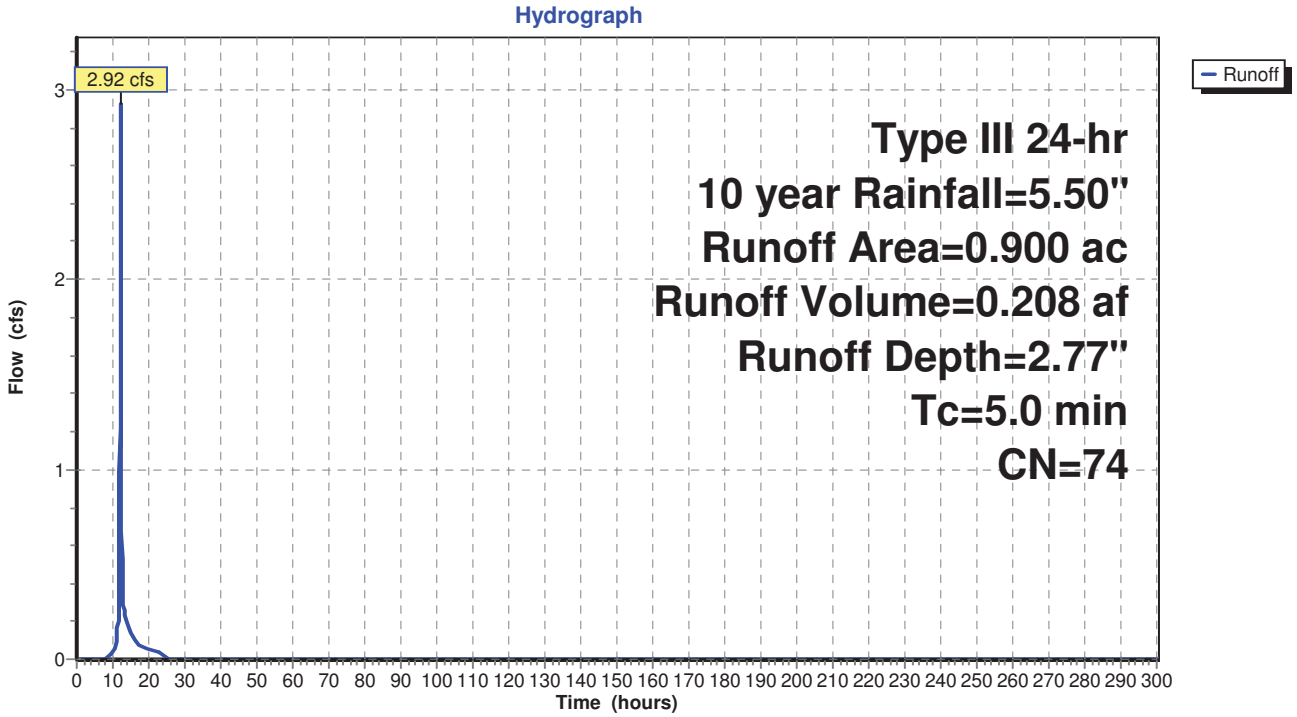
Runoff = 2.92 cfs @ 12.08 hrs, Volume= 0.208 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.50"

Area (ac)	CN	Description
0.900	74	>75% Grass cover, Good, HSG C
0.900		100.00% Pervious Area

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

Subcatchment 2.2S:



Summary for Subcatchment 2.3S:

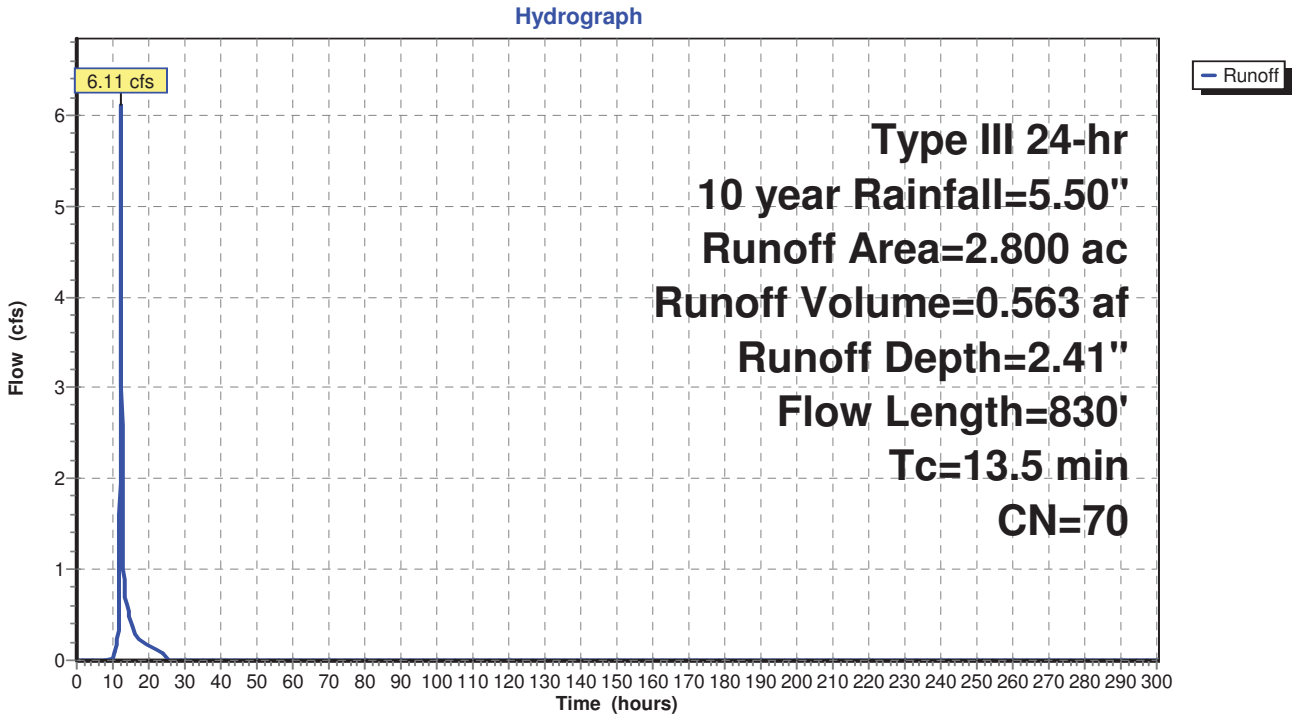
Runoff = 6.11 cfs @ 12.20 hrs, Volume= 0.563 af, Depth= 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.50"

Area (ac)	CN	Description
2.800	70	Woods, Good, HSG C
2.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	24	0.5000	0.33		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.50"
7.0	76	0.1700	0.18		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
2.2	330	0.2400	2.45		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.1	400	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
13.5	830	Total			

Subcatchment 2.3S:



Summary for Subcatchment 3.1S:

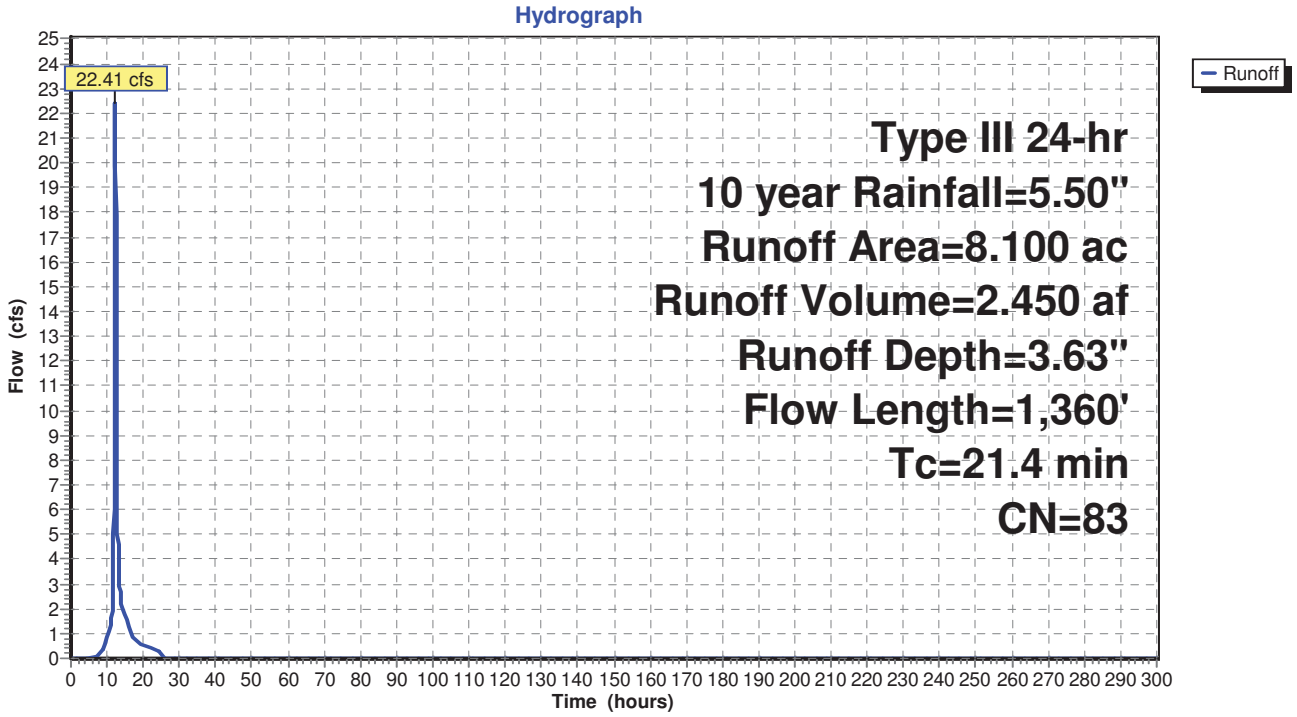
Runoff = 22.41 cfs @ 12.29 hrs, Volume= 2.450 af, Depth= 3.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.50"

	Area (ac)	CN	Description
	2.900	98	Paved parking & roofs
	4.450	74	>75% Grass cover, Good, HSG C
	0.500	70	Woods, Good, HSG C
*	0.250	89	Gravel, HSG C
	8.100	83	Weighted Average
	5.200		64.20% Pervious Area
	2.900		35.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0500	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
1.1	80	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	30	0.0450	1.48		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.9	150	0.0150	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	270	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.2	72	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
0.1	48	0.0100	5.70	7.00	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
0.5	610	0.0700	20.64	64.84	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
21.4	1,360	Total			

Subcatchment 3.1S:



Summary for Subcatchment 3.2S:

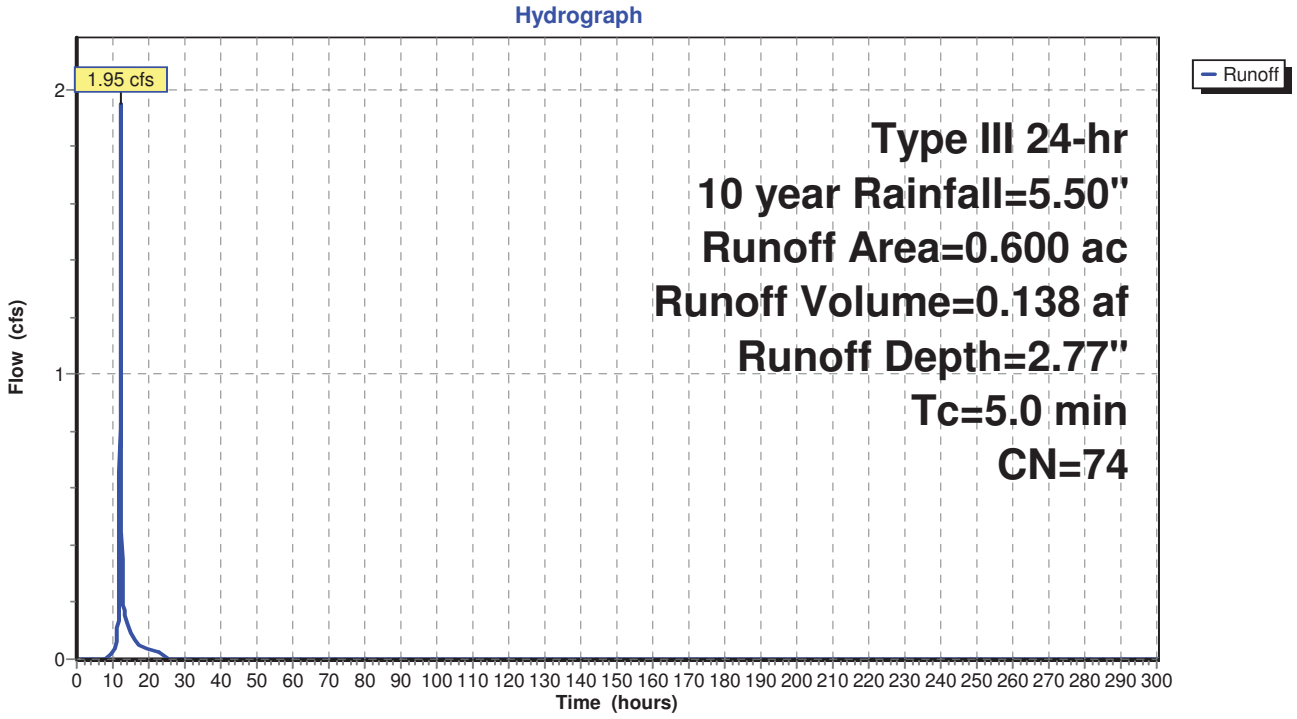
Runoff = 1.95 cfs @ 12.08 hrs, Volume= 0.138 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.50"

Area (ac)	CN	Description
0.600	74	>75% Grass cover, Good, HSG C
0.600		100.00% Pervious Area

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

Subcatchment 3.2S:



Summary for Subcatchment 3.3S:

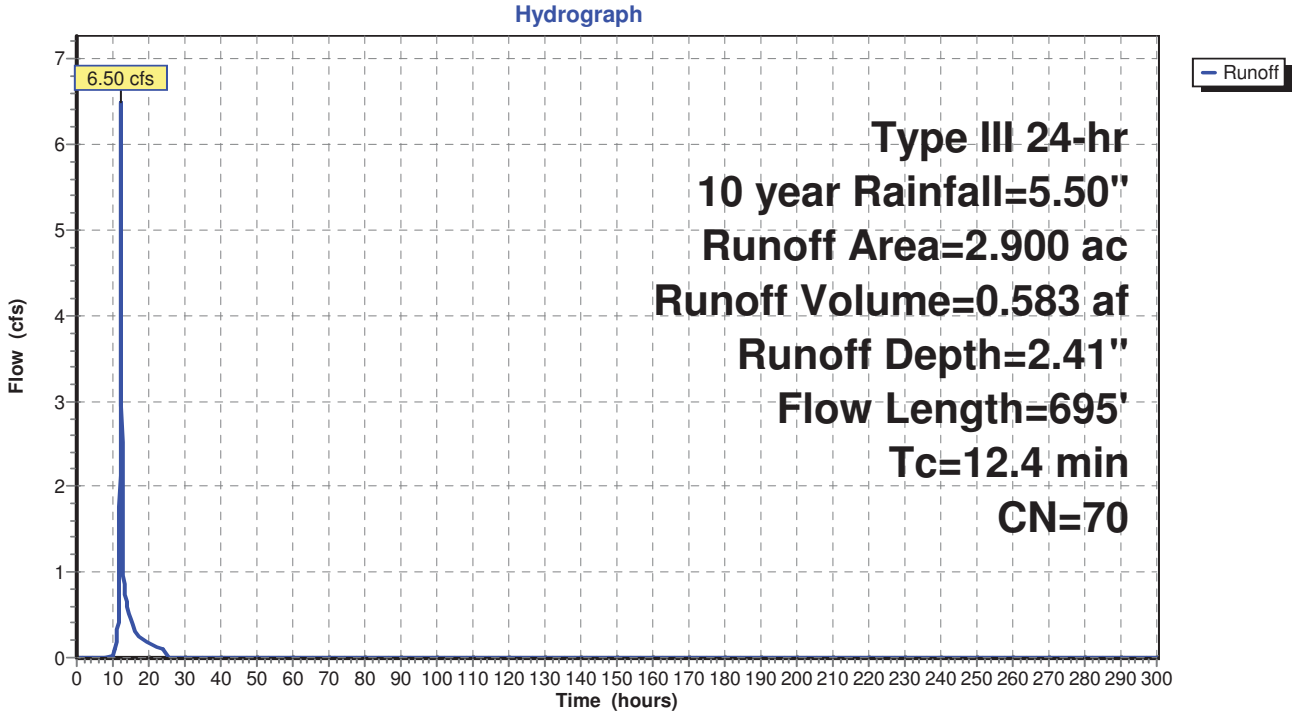
Runoff = 6.50 cfs @ 12.18 hrs, Volume= 0.583 af, Depth= 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.50"

Area (ac)	CN	Description
2.700	70	Woods, Good, HSG C
0.200	74	>75% Grass cover, Good, HSG C
2.900	70	Weighted Average
2.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	26	0.4200	0.32		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.50"
7.6	74	0.1300	0.16		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
3.1	388	0.1700	2.06		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	207	0.0480	13.23	128.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.50' Z= 4.0 & 2.0 '/' Top.W=11.00' n= 0.022 Earth, clean & straight
12.4	695	Total			

Subcatchment 3.3S:



Summary for Subcatchment 4.1S:

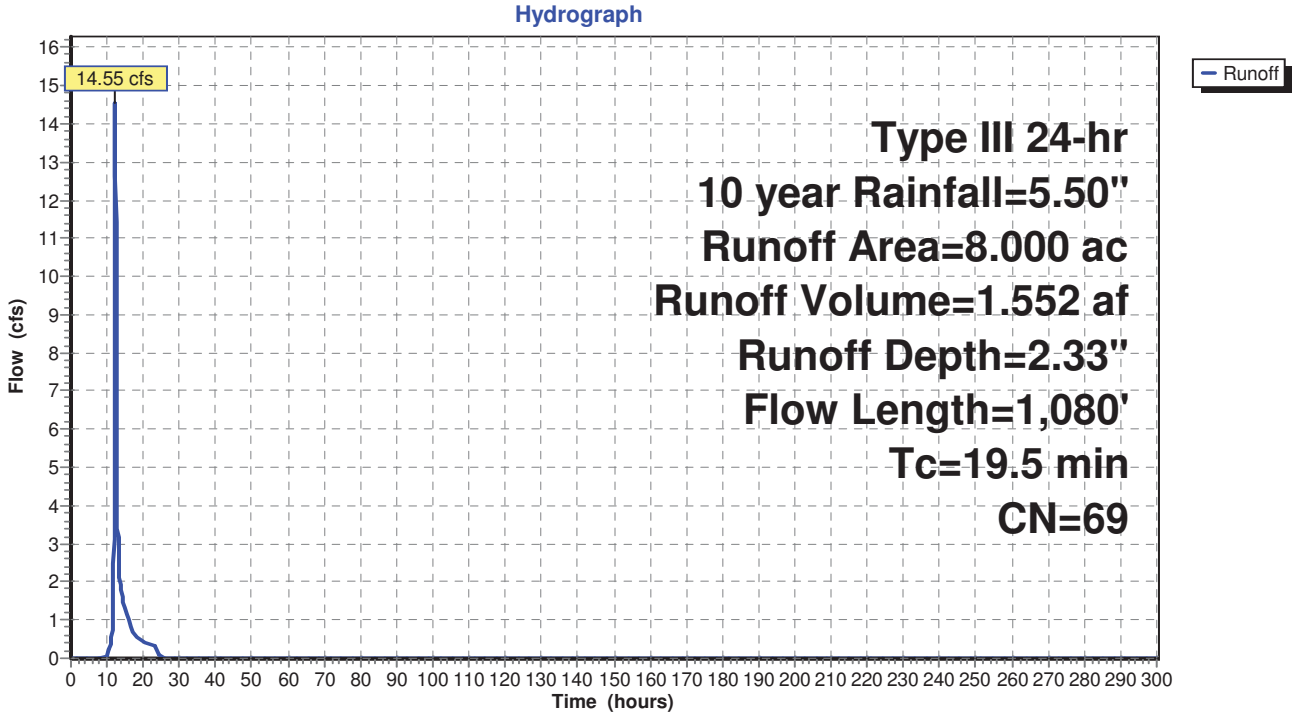
Runoff = 14.55 cfs @ 12.28 hrs, Volume= 1.552 af, Depth= 2.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.50"

Area (ac)	CN	Description
7.300	70	Woods, Good, HSG C
0.700	55	Woods, Good, HSG B
8.000	69	Weighted Average
8.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	100	0.0900	0.15		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.2	980	0.1600	2.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
19.5	1,080	Total			

Subcatchment 4.1S:



Summary for Subcatchment 5.1S:

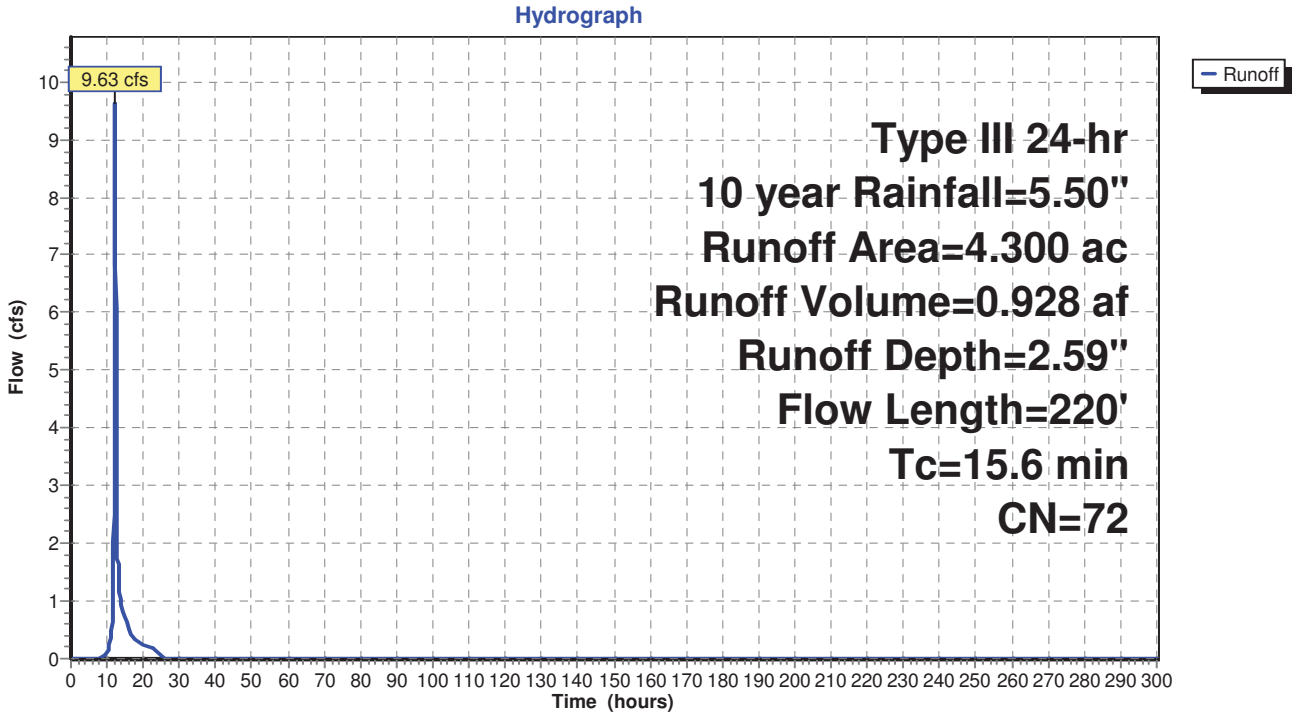
Runoff = 9.63 cfs @ 12.22 hrs, Volume= 0.928 af, Depth= 2.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 year Rainfall=5.50"

	Area (ac)	CN	Description
	1.000	74	>75% Grass cover, Good, HSG C
	3.150	70	Woods, Good, HSG C
*	0.150	89	Gravel, HSG C
	4.300	72	Weighted Average
	4.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0500	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
1.4	120	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	220	Total			

Subcatchment 5.1S:

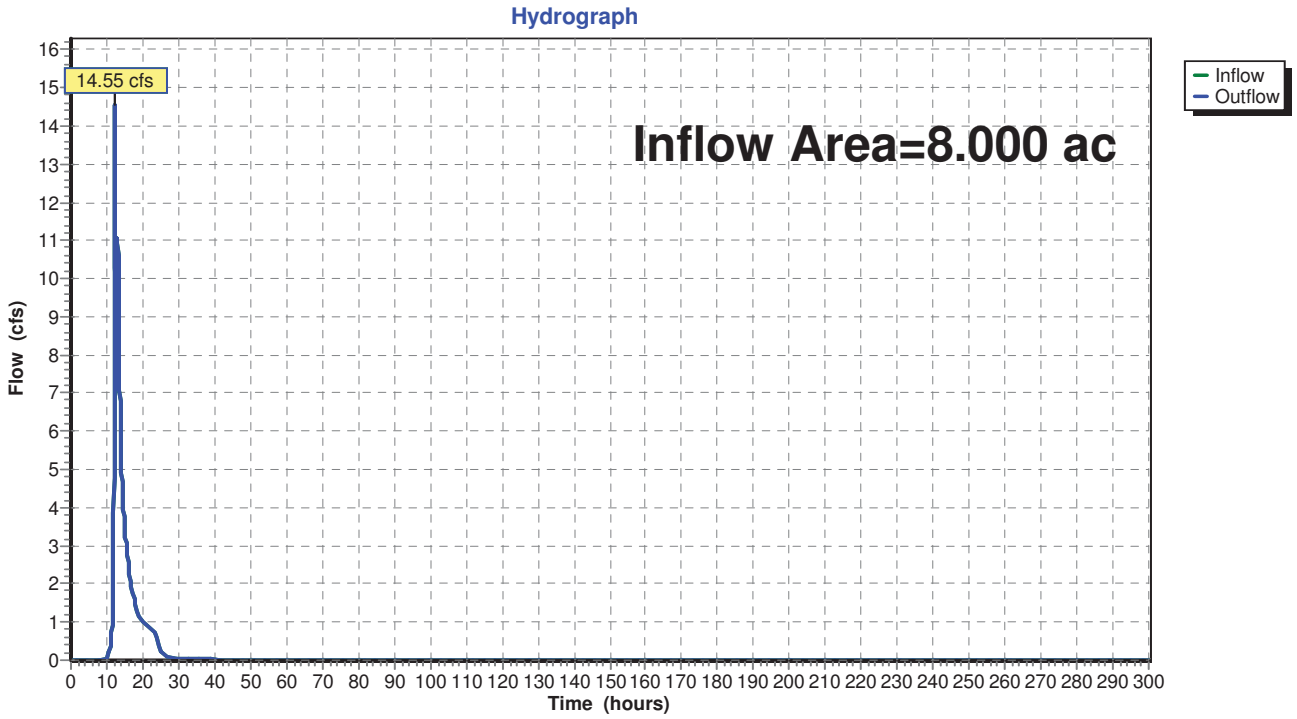


Summary for Reach DL4:

Inflow Area = 8.000 ac, 0.00% Impervious, Inflow Depth = 4.68" for 10 year event
Inflow = 14.55 cfs @ 12.28 hrs, Volume= 3.118 af
Outflow = 14.55 cfs @ 12.28 hrs, Volume= 3.118 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DL4:

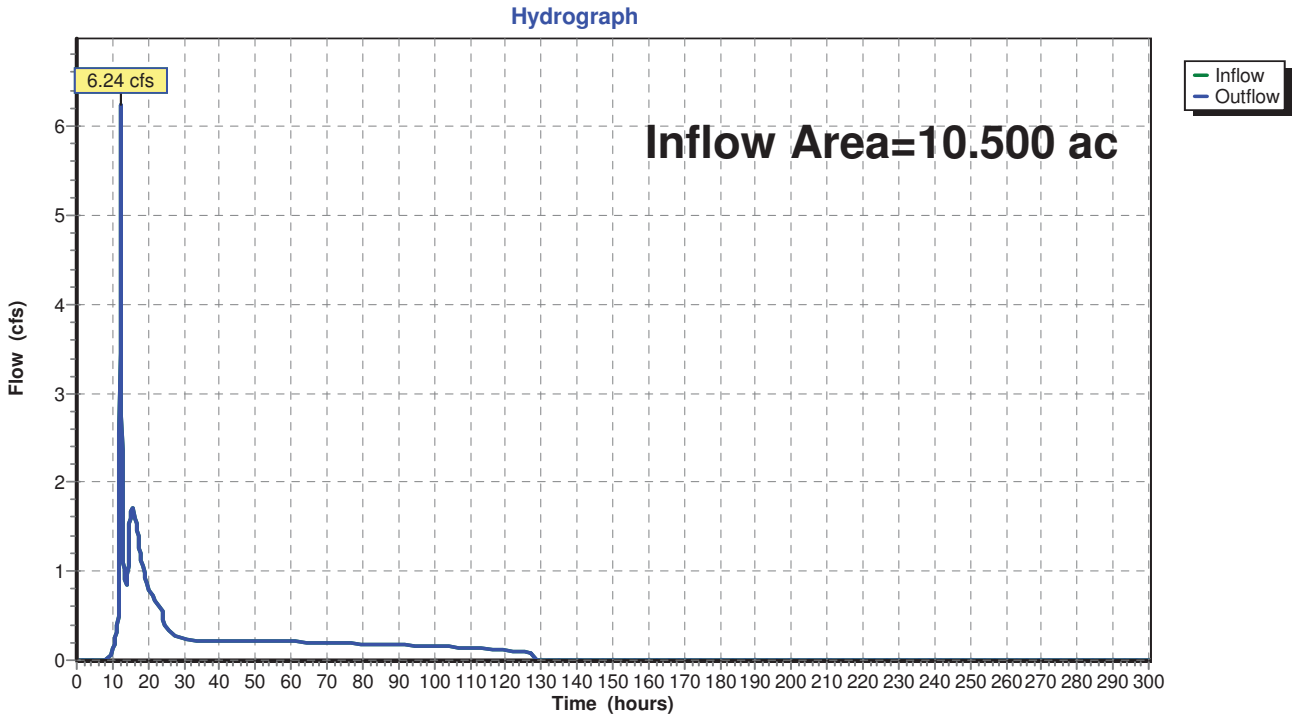


Summary for Reach DP 2:

Inflow Area = 10.500 ac, 27.62% Impervious, Inflow Depth = 3.29" for 10 year event
Inflow = 6.24 cfs @ 12.20 hrs, Volume= 2.883 af
Outflow = 6.24 cfs @ 12.20 hrs, Volume= 2.883 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DP 2:

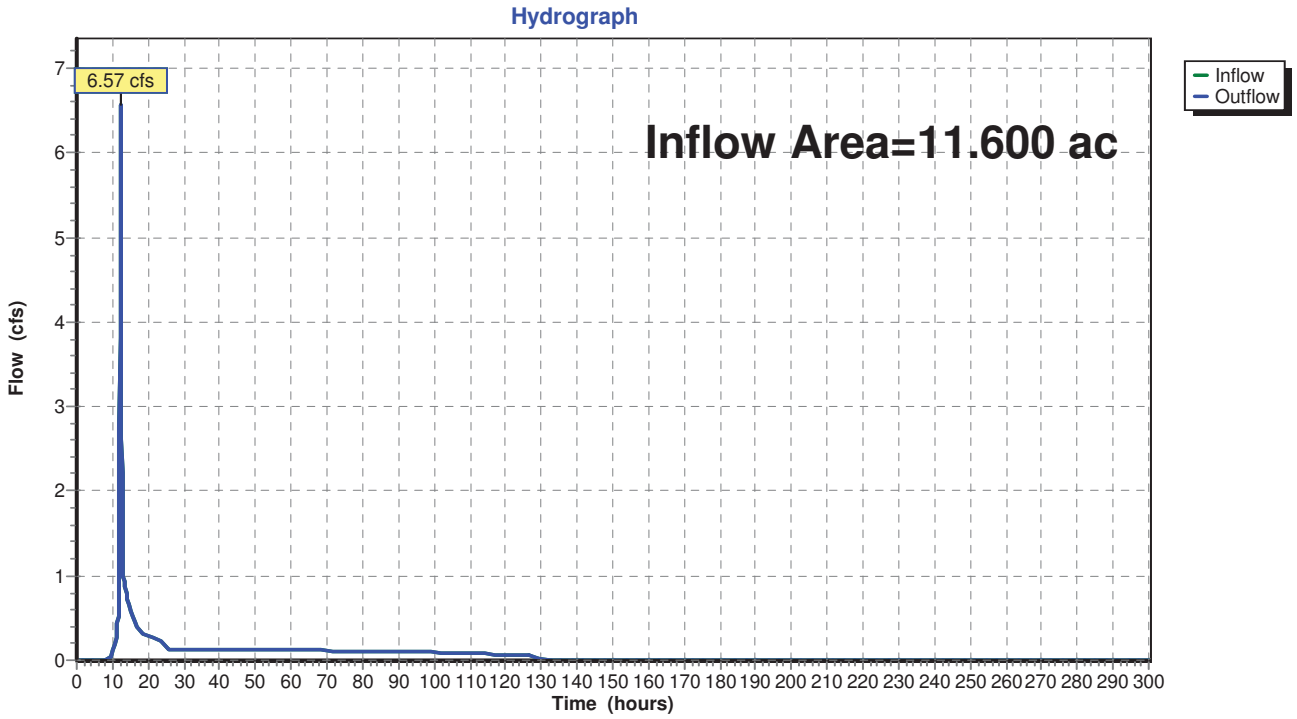


Summary for Reach DP 3:

Inflow Area = 11.600 ac, 25.00% Impervious, Inflow Depth = 1.66" for 10 year event
Inflow = 6.57 cfs @ 12.18 hrs, Volume= 1.603 af
Outflow = 6.57 cfs @ 12.18 hrs, Volume= 1.603 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DP 3:



Summary for Pond 2.1P:

Inflow Area = 6.800 ac, 42.65% Impervious, Inflow Depth = 3.73" for 10 year event
Inflow = 23.66 cfs @ 12.17 hrs, Volume= 2.114 af
Outflow = 12.66 cfs @ 12.41 hrs, Volume= 2.112 af, Atten= 46%, Lag= 14.4 min
Primary = 12.66 cfs @ 12.41 hrs, Volume= 2.112 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Starting Elev= 439.00' Surf.Area= 13,300 sf Storage= 26,000 cf
Peak Elev= 441.14' @ 12.41 hrs Surf.Area= 20,396 sf Storage= 62,018 cf (36,018 cf above start)

Plug-Flow detention time= 781.2 min calculated for 1.515 af (72% of inflow)
Center-of-Mass det. time= 477.5 min (1,290.4 - 812.9)

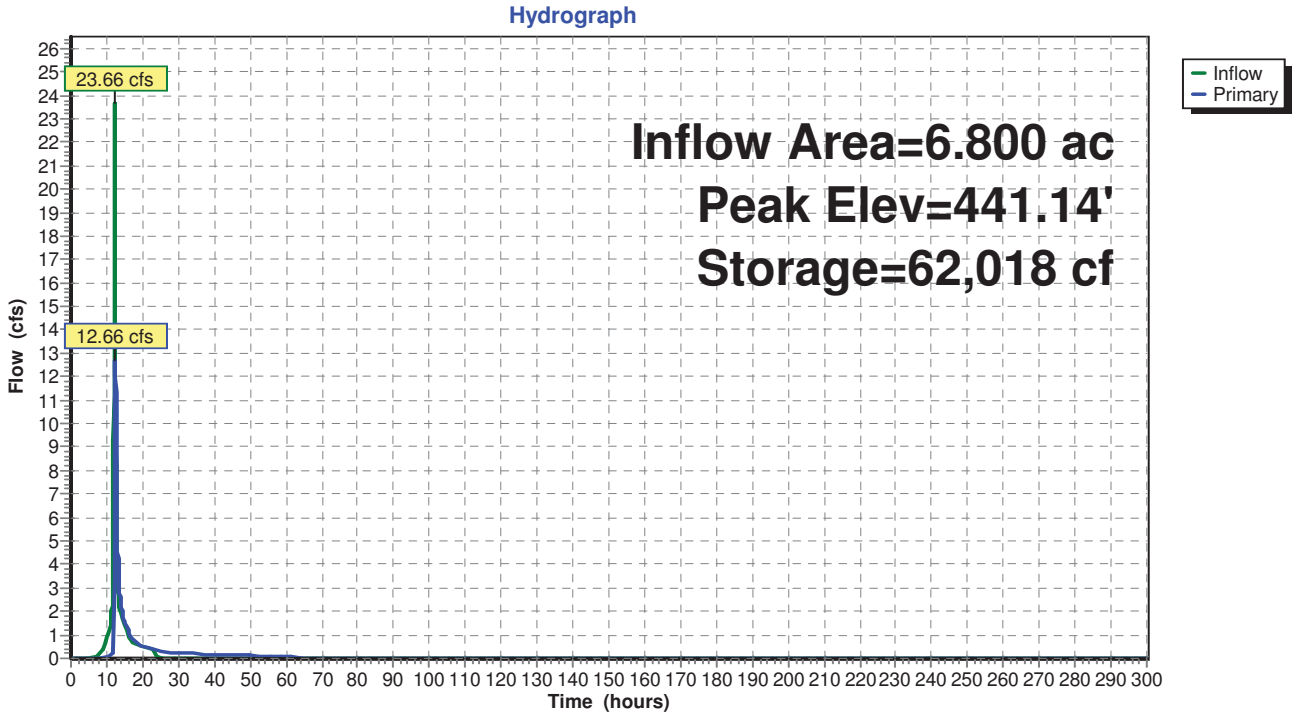
Volume	Invert	Avail.Storage	Storage Description
#1	435.00'	106,100 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
435.00	1,500	0	0
437.00	5,600	7,100	7,100
439.00	13,300	18,900	26,000
441.00	19,900	33,200	59,200
443.00	27,000	46,900	106,100

Device	Routing	Invert	Outlet Devices
#1	Primary	434.00'	**24.0" Round Culvert** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 434.00' / 423.00' S= 0.1571 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	439.00'	**2.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	440.40'	**6.0' 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=12.62 cfs @ 12.41 hrs HW=441.14' TW=421.96' (Dynamic Tailwater)
↑**1=Culvert** (Passes 12.62 cfs of 37.48 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.31 cfs @ 6.84 fps)
3=Broad-Crested Rectangular Weir (Weir Controls 12.30 cfs @ 2.78 fps)

Pond 2.1P:


Hydrograph
Inflow Area=6.800 ac
Peak Elev=441.14'
Storage=62,018 cf
23.66 cfs
12.66 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

Summary for Pond 2.2P:

Inflow Area = 7.700 ac, 37.66% Impervious, Inflow Depth = 3.62" for 10 year event
Inflow = 13.62 cfs @ 12.40 hrs, Volume= 2.320 af
Outflow = 1.38 cfs @ 15.75 hrs, Volume= 2.320 af, Atten= 90%, Lag= 201.4 min
Primary = 1.38 cfs @ 15.75 hrs, Volume= 2.320 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Peak Elev= 424.84' @ 15.75 hrs Surf.Area= 15,978 sf Storage= 50,514 cf

Plug-Flow detention time= 1,918.0 min calculated for 2.320 af (100% of inflow)
Center-of-Mass det. time= 1,917.5 min (3,166.9 - 1,249.4)

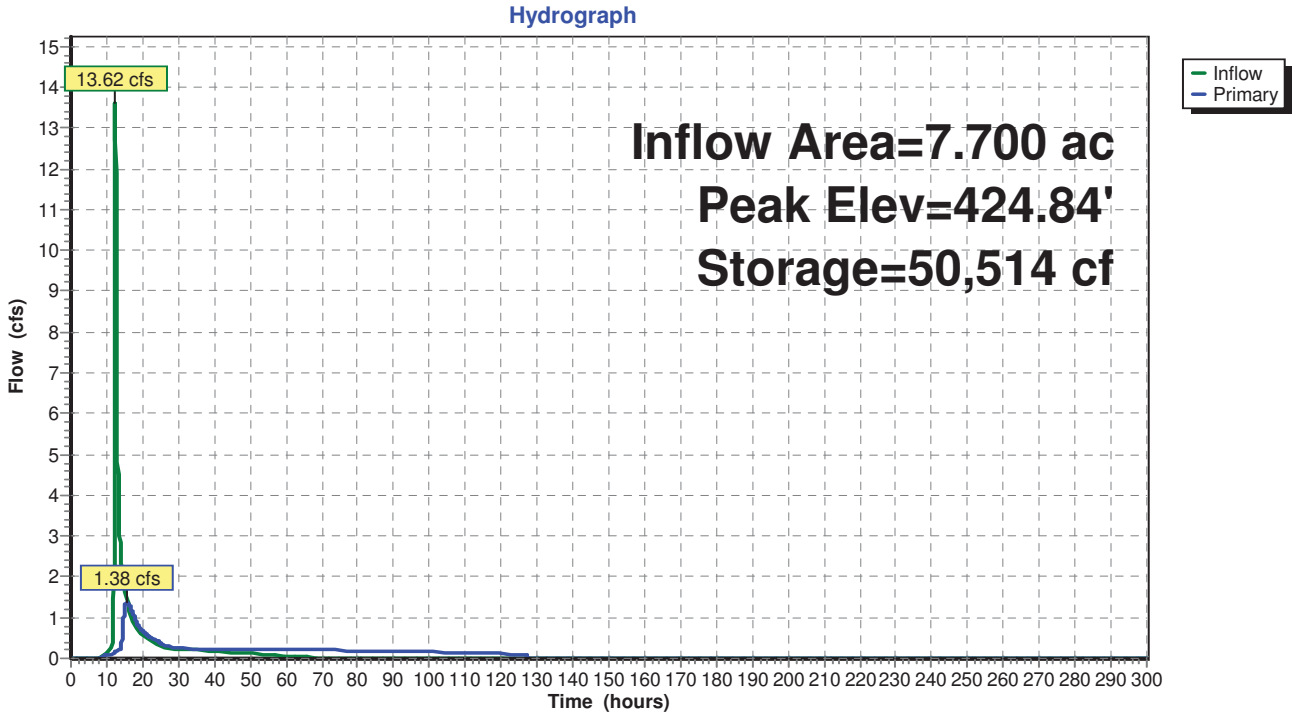
Volume	Invert	Avail.Storage	Storage Description
#1	420.00'	113,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
420.00	5,100	0	0
422.00	9,400	14,500	14,500
424.00	14,000	23,400	37,900
426.00	18,700	32,700	70,600
428.00	23,700	42,400	113,000

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	**24.0" Round Culvert** L= 85.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 419.00' / 408.00' S= 0.1294 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	419.00'	**1.9" Vert. Orifice/Grate** C= 0.600
#3	Device 2	420.00'	**0.5" Vert. Orifice/Grate X 320.00** C= 0.600
#4	Device 1	424.50'	**2.0' 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=1.38 cfs @ 15.75 hrs HW=424.84' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 1.38 cfs of 33.28 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.23 cfs @ 11.56 fps)
    - **3=Orifice/Grate** (Passes 0.23 cfs of 4.61 cfs potential flow)
  - **4=Broad-Crested Rectangular Weir** (Weir Controls 1.15 cfs @ 1.69 fps)

Pond 2.2P:


Hydrograph
Inflow Area=7.700 ac
Peak Elev=424.84'
Storage=50,514 cf
13.62 cfs
1.38 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Summary for Pond 3.1P:

Inflow Area = 8.100 ac, 35.80% Impervious, Inflow Depth = 3.63" for 10 year event
Inflow = 22.41 cfs @ 12.29 hrs, Volume= 2.450 af
Outflow = 12.87 cfs @ 12.59 hrs, Volume= 2.447 af, Atten= 43%, Lag= 18.1 min
Primary = 12.87 cfs @ 12.59 hrs, Volume= 2.447 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Starting Elev= 448.00' Surf.Area= 15,300 sf Storage= 26,700 cf
Peak Elev= 450.04' @ 12.59 hrs Surf.Area= 24,950 sf Storage= 67,712 cf (41,012 cf above start)

Plug-Flow detention time= 812.5 min calculated for 1.834 af (75% of inflow)
Center-of-Mass det. time= 528.2 min (1,352.1 - 823.9)

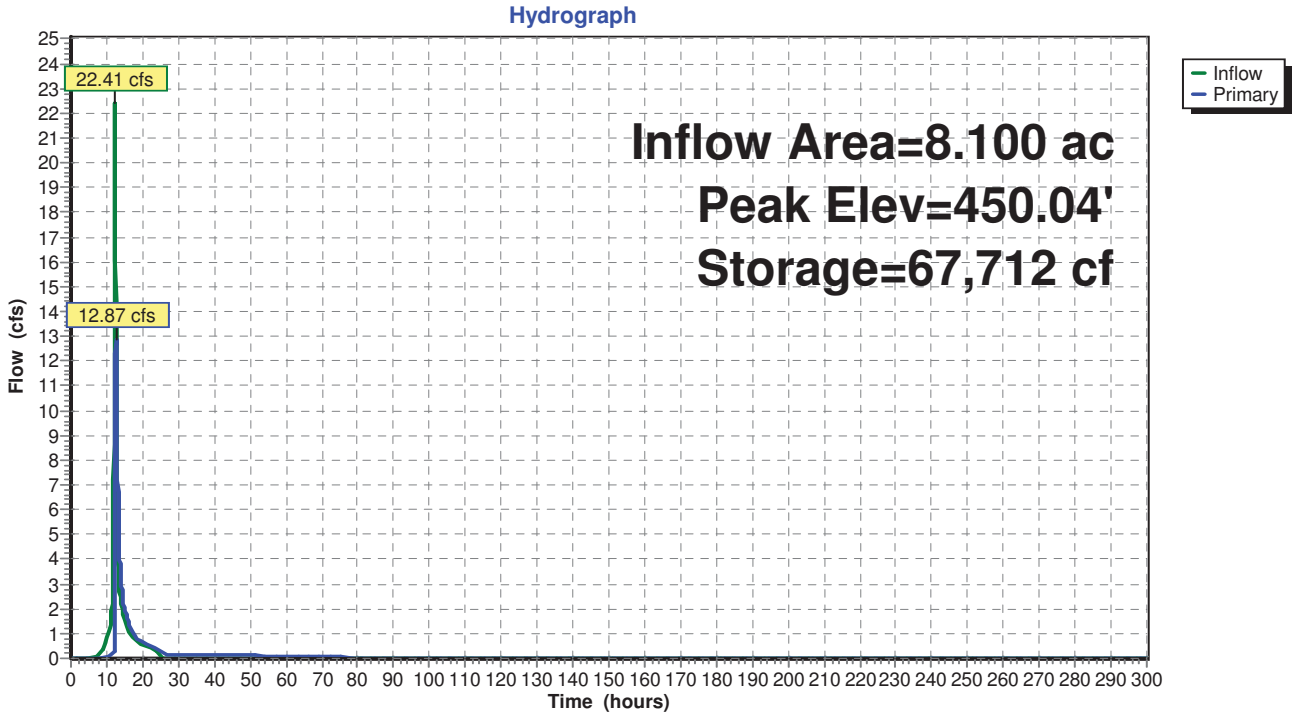
Volume	Invert	Avail.Storage	Storage Description
#1	444.00'	124,600 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
444.00	1,200	0	0
446.00	5,100	6,300	6,300
448.00	15,300	20,400	26,700
450.00	24,800	40,100	66,800
452.00	33,000	57,800	124,600

Device	Routing	Invert	Outlet Devices
#1	Primary	444.00'	**24.0" Round Culvert** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 444.00' / 436.00' S= 0.0800 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	448.00'	**2.5" Vert. Orifice/Grate** C= 0.600
#3	Device 1	449.20'	**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

Primary OutFlow Max=12.85 cfs @ 12.59 hrs HW=450.04' TW=427.96' (Dynamic Tailwater)
↑**1=Culvert** (Passes 12.85 cfs of 33.95 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.23 cfs @ 6.69 fps)
3=Broad-Crested Rectangular Weir (Weir Controls 12.62 cfs @ 3.02 fps)

Pond 3.1P:


Hydrograph
Inflow Area=8.100 ac
Peak Elev=450.04'
Storage=67,712 cf
22.41 cfs
12.87 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

Summary for Pond 3.2P:

Inflow Area = 8.700 ac, 33.33% Impervious, Inflow Depth = 3.57" for 10 year event
Inflow = 13.17 cfs @ 12.58 hrs, Volume= 2.585 af
Outflow = 8.07 cfs @ 13.04 hrs, Volume= 2.585 af, Atten= 39%, Lag= 27.2 min
Primary = 0.13 cfs @ 13.04 hrs, Volume= 1.020 af
Secondary = 7.95 cfs @ 13.04 hrs, Volume= 1.566 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Peak Elev= 429.34' @ 13.04 hrs Surf.Area= 8,141 sf Storage= 26,138 cf

Plug-Flow detention time= 810.9 min calculated for 2.585 af (100% of inflow)
Center-of-Mass det. time= 810.7 min (2,134.9 - 1,324.2)

Volume	Invert	Avail.Storage	Storage Description
#1	424.00'	52,500 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

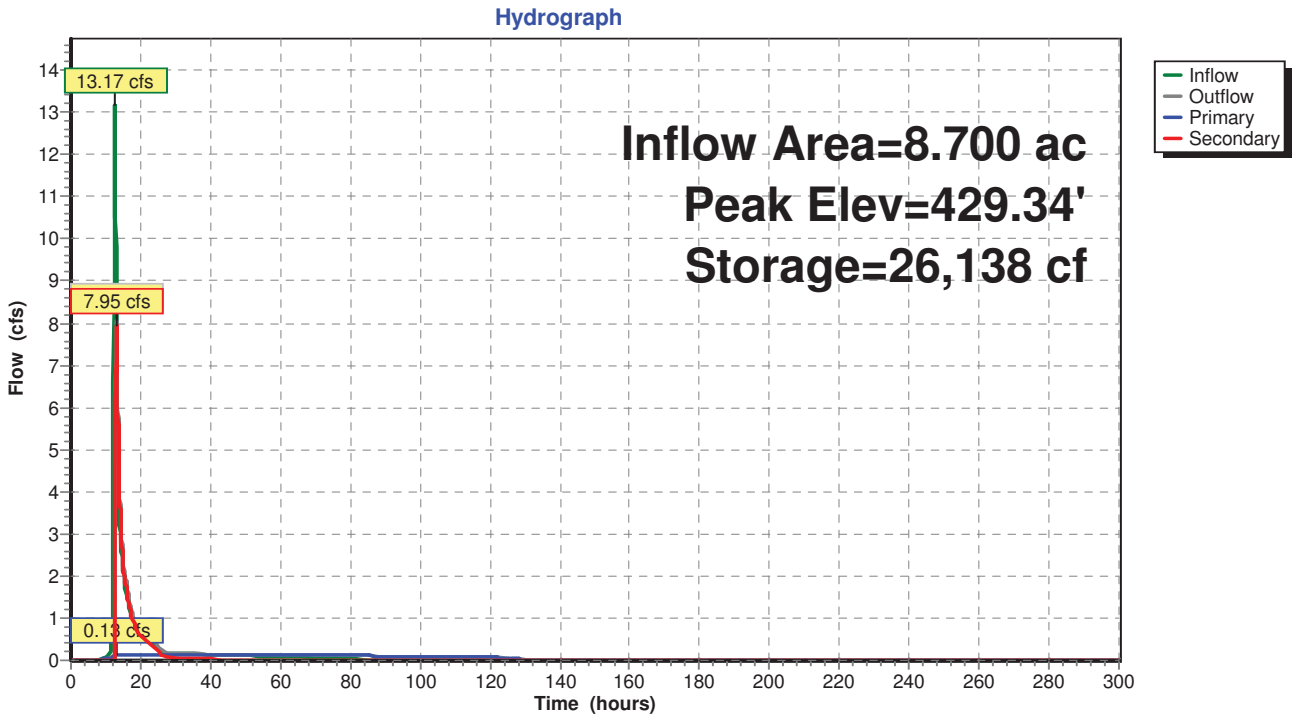
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
424.00	2,000	0	0
426.00	4,000	6,000	6,000
428.00	6,400	10,400	16,400
430.00	9,000	15,400	31,800
432.00	11,700	20,700	52,500

Device	Routing	Invert	Outlet Devices
#1	Primary	423.00'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 423.00' / 420.00' S= 0.0600 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	423.00'	**1.4" Vert. Orifice/Grate** C= 0.600
#3	Device 2	424.00'	**0.5" Vert. Orifice/Grate X 320.00** C= 0.600
#4	Secondary	428.30'	**2.5' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.13 cfs @ 13.04 hrs HW=429.34' TW=0.00' (Dynamic Tailwater)
↑**1=Culvert** (Passes 0.13 cfs of 14.12 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.13 cfs @ 12.07 fps)
↑**3=Orifice/Grate** (Passes 0.13 cfs of 4.84 cfs potential flow)

Secondary OutFlow Max=7.93 cfs @ 13.04 hrs HW=429.34' TW=0.00' (Dynamic Tailwater)
↑**4=Broad-Crested Rectangular Weir** (Weir Controls 7.93 cfs @ 3.06 fps)

Pond 3.2P:


Hydrograph
Inflow Area=8.700 ac
Peak Elev=429.34'
Storage=26,138 cf
13.17 cfs
7.95 cfs
0.13 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300

Summary for Subcatchment 2.1S:

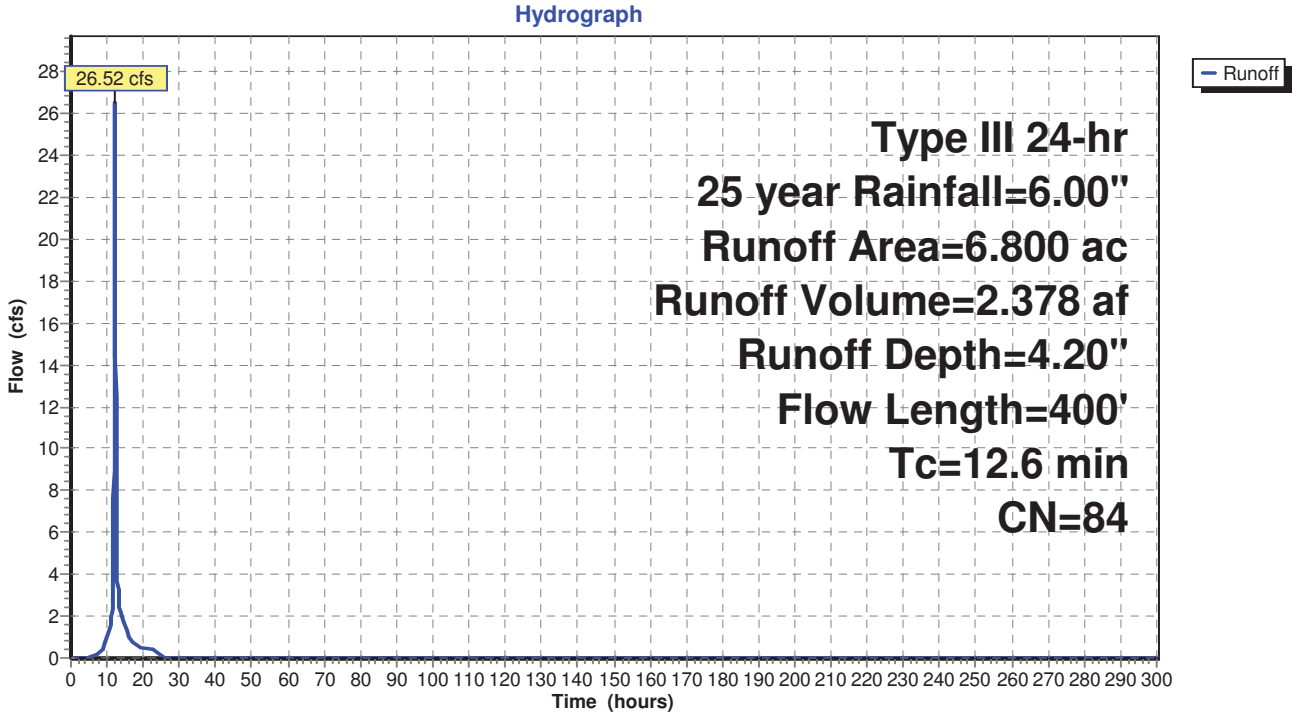
Runoff = 26.52 cfs @ 12.17 hrs, Volume= 2.378 af, Depth= 4.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.00"

	Area (ac)	CN	Description
	2.900	98	Paved parking, HSG C
	3.850	74	>75% Grass cover, Good, HSG C
*	0.050	89	Gravel, HSG C
	6.800	84	Weighted Average
	3.900		57.35% Pervious Area
	2.900		42.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0200	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
1.9	110	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	190	0.0150	2.49		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
12.6	400	Total			

Subcatchment 2.1S:



Summary for Subcatchment 2.2S:

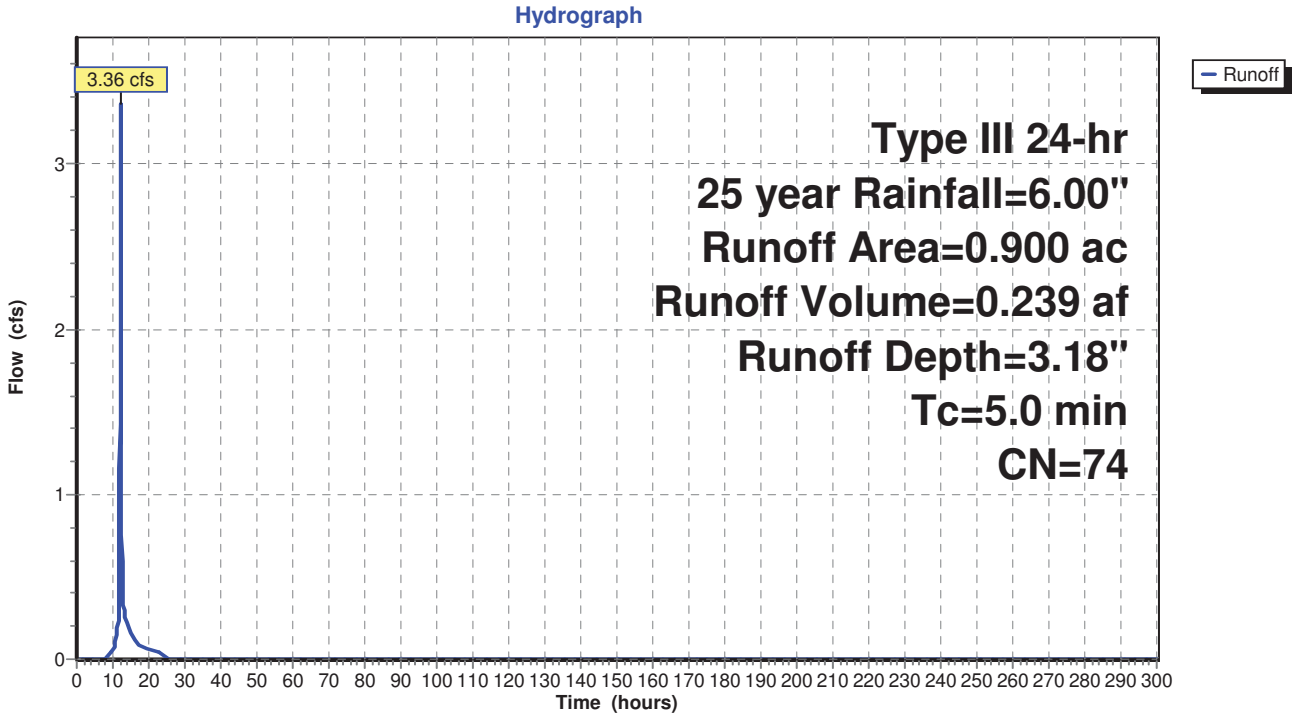
Runoff = 3.36 cfs @ 12.08 hrs, Volume= 0.239 af, Depth= 3.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.00"

Area (ac)	CN	Description
0.900	74	>75% Grass cover, Good, HSG C
0.900		100.00% Pervious Area

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

Subcatchment 2.2S:



Summary for Subcatchment 2.3S:

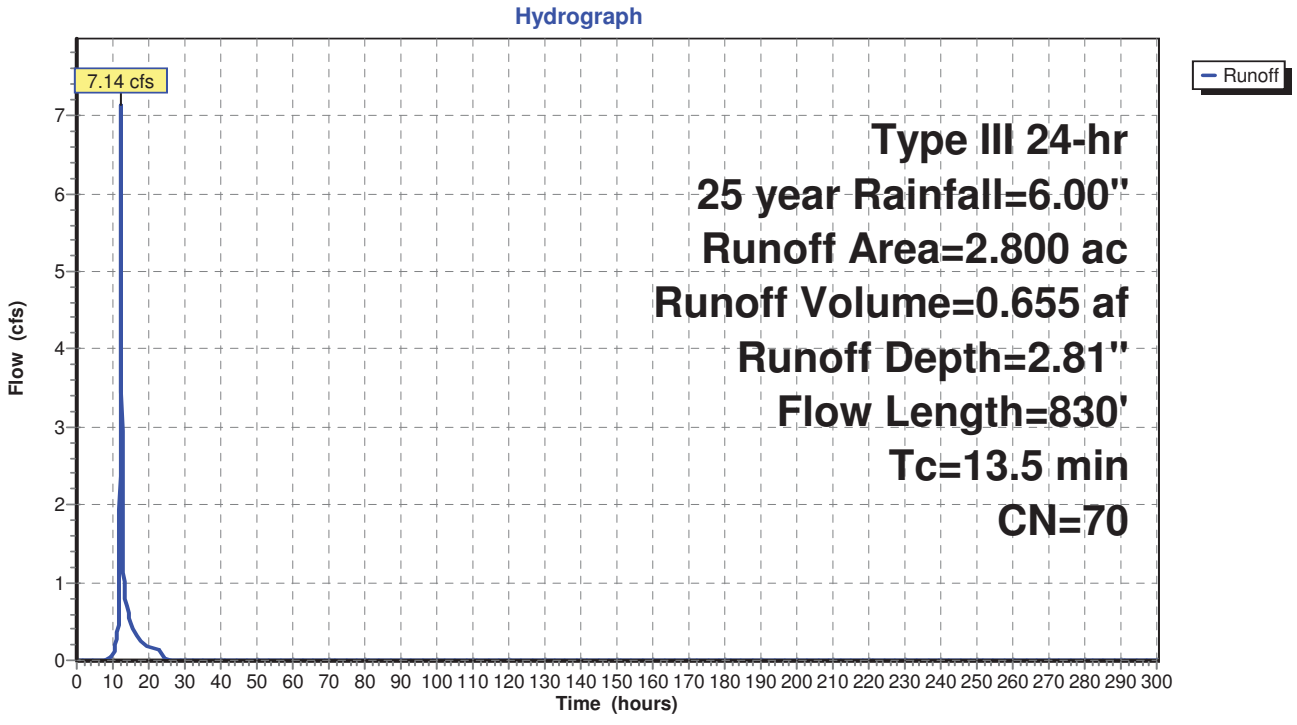
Runoff = 7.14 cfs @ 12.19 hrs, Volume= 0.655 af, Depth= 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.00"

Area (ac)	CN	Description
2.800	70	Woods, Good, HSG C
2.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	24	0.5000	0.33		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.50"
7.0	76	0.1700	0.18		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
2.2	330	0.2400	2.45		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.1	400	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
13.5	830	Total			

Subcatchment 2.3S:



Summary for Subcatchment 3.1S:

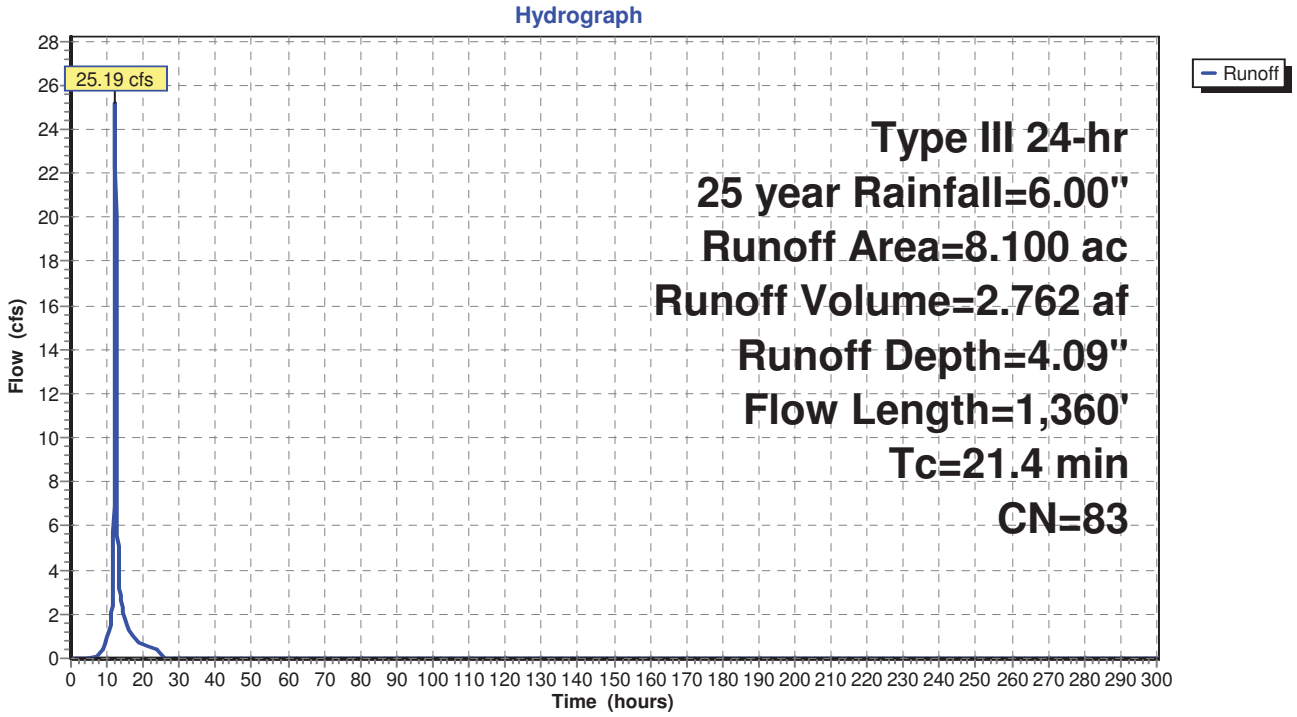
Runoff = 25.19 cfs @ 12.29 hrs, Volume= 2.762 af, Depth= 4.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.00"

	Area (ac)	CN	Description
	2.900	98	Paved parking & roofs
	4.450	74	>75% Grass cover, Good, HSG C
	0.500	70	Woods, Good, HSG C
*	0.250	89	Gravel, HSG C
	8.100	83	Weighted Average
	5.200		64.20% Pervious Area
	2.900		35.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0500	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
1.1	80	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	30	0.0450	1.48		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.9	150	0.0150	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	270	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.2	72	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
0.1	48	0.0100	5.70	7.00	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
0.5	610	0.0700	20.64	64.84	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
21.4	1,360	Total			

Subcatchment 3.1S:



Summary for Subcatchment 3.2S:

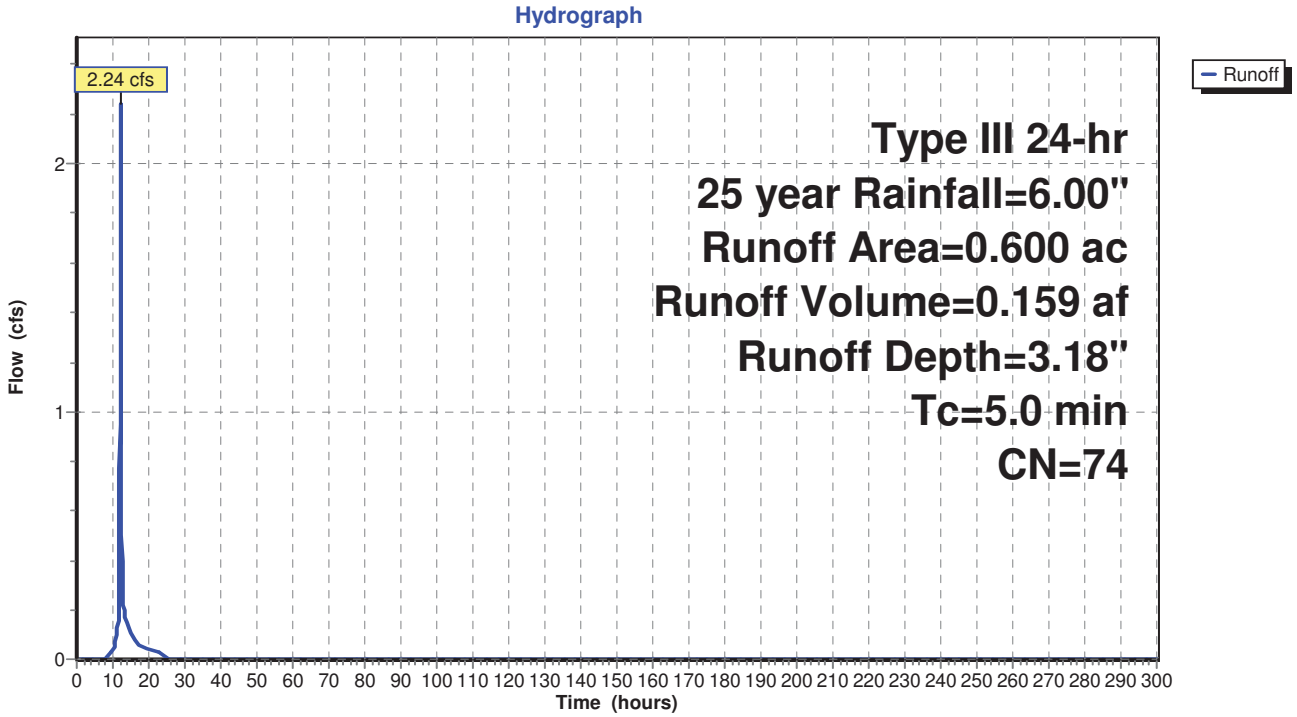
Runoff = 2.24 cfs @ 12.08 hrs, Volume= 0.159 af, Depth= 3.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.00"

Area (ac)	CN	Description
0.600	74	>75% Grass cover, Good, HSG C
0.600		100.00% Pervious Area

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

Subcatchment 3.2S:



Summary for Subcatchment 3.3S:

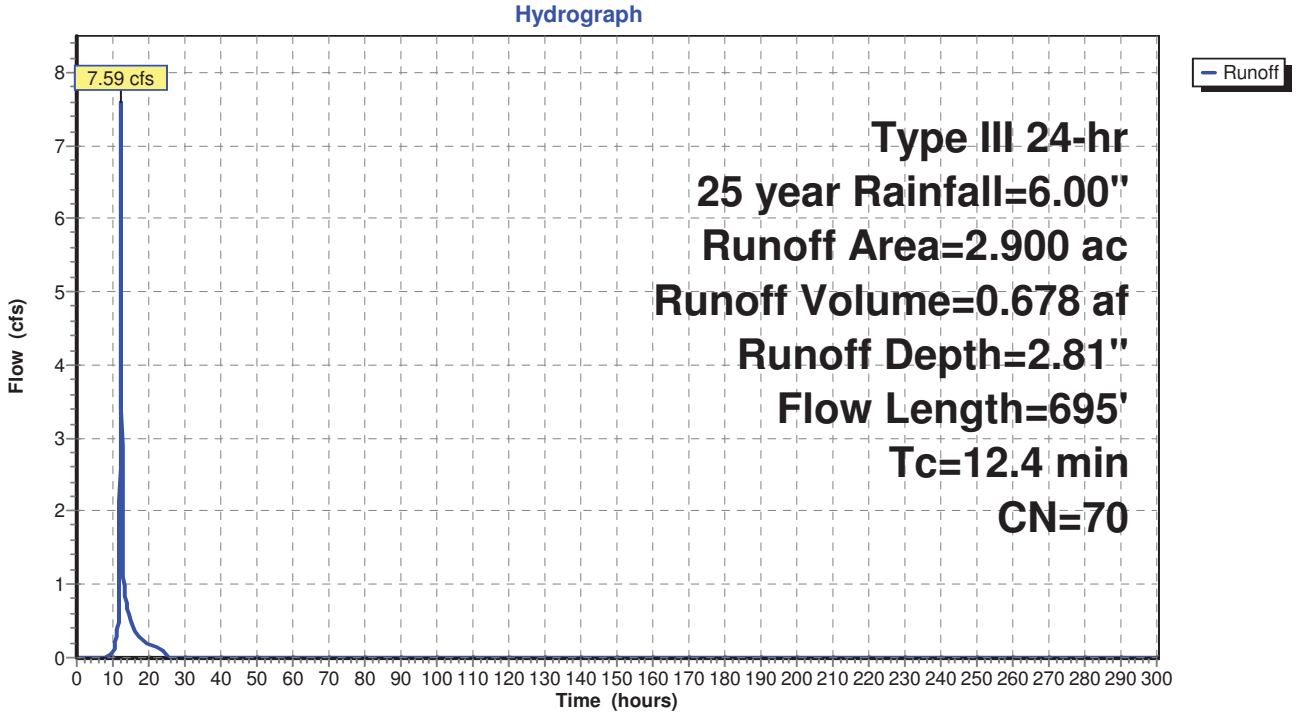
Runoff = 7.59 cfs @ 12.18 hrs, Volume= 0.678 af, Depth= 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.00"

Area (ac)	CN	Description
2.700	70	Woods, Good, HSG C
0.200	74	>75% Grass cover, Good, HSG C
2.900	70	Weighted Average
2.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	26	0.4200	0.32		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.50"
7.6	74	0.1300	0.16		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
3.1	388	0.1700	2.06		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	207	0.0480	13.23	128.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.50' Z= 4.0 & 2.0 '/' Top.W=11.00' n= 0.022 Earth, clean & straight
12.4	695	Total			

Subcatchment 3.3S:



Summary for Subcatchment 4.1S:

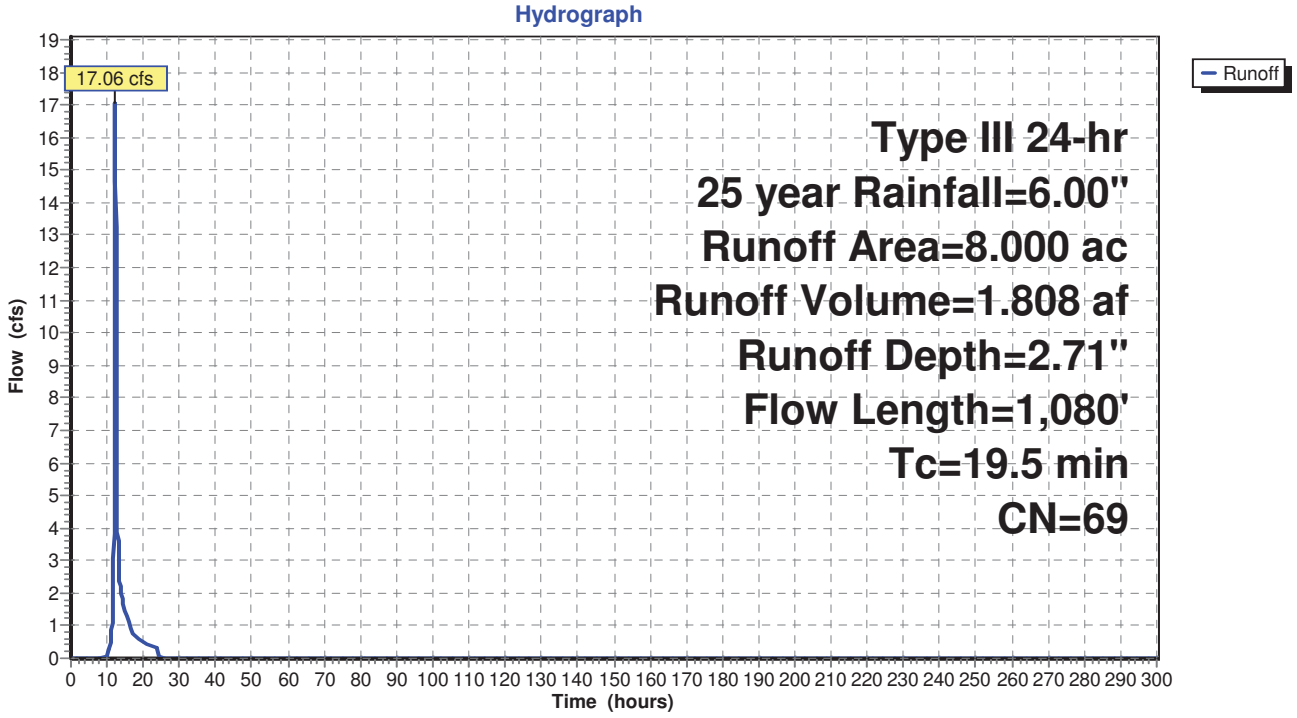
Runoff = 17.06 cfs @ 12.28 hrs, Volume= 1.808 af, Depth= 2.71"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.00"

Area (ac)	CN	Description
7.300	70	Woods, Good, HSG C
0.700	55	Woods, Good, HSG B
8.000	69	Weighted Average
8.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	100	0.0900	0.15		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.2	980	0.1600	2.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
19.5	1,080	Total			

Subcatchment 4.1S:



Summary for Subcatchment 5.1S:

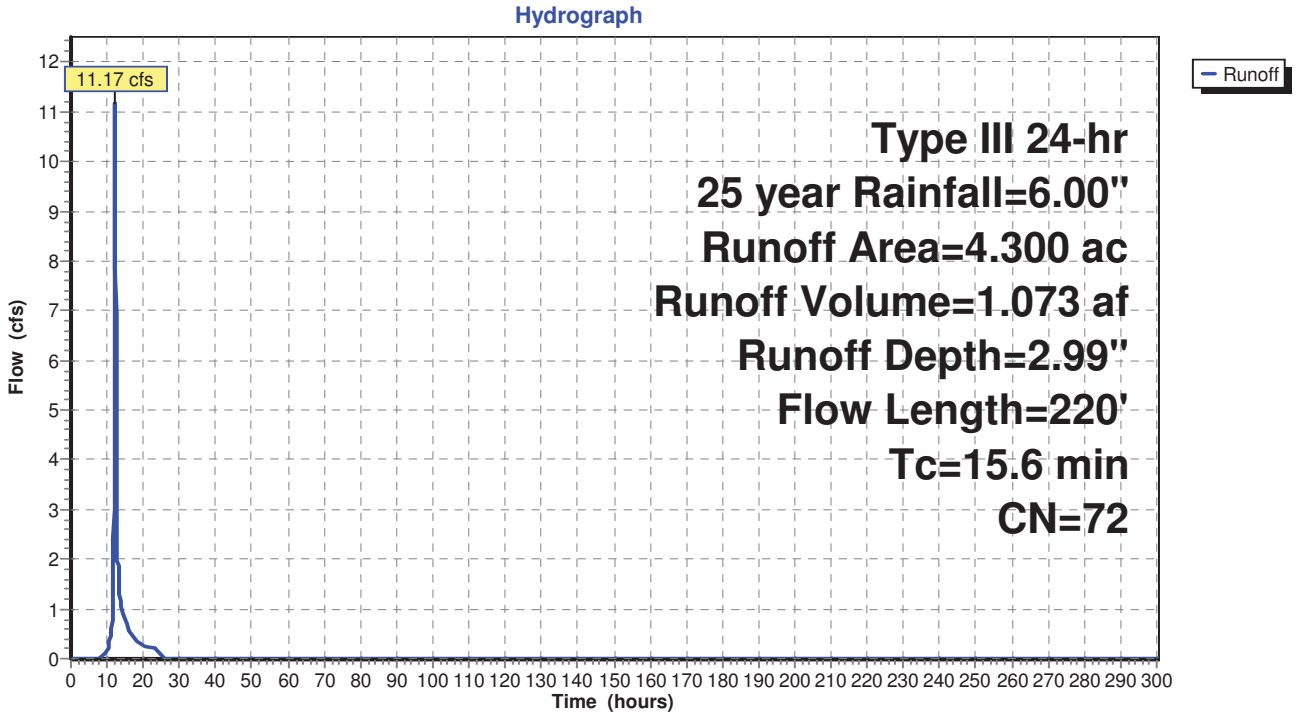
Runoff = 11.17 cfs @ 12.22 hrs, Volume= 1.073 af, Depth= 2.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 year Rainfall=6.00"

	Area (ac)	CN	Description
	1.000	74	>75% Grass cover, Good, HSG C
	3.150	70	Woods, Good, HSG C
*	0.150	89	Gravel, HSG C
	4.300	72	Weighted Average
	4.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0500	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
1.4	120	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	220	Total			

Subcatchment 5.1S:

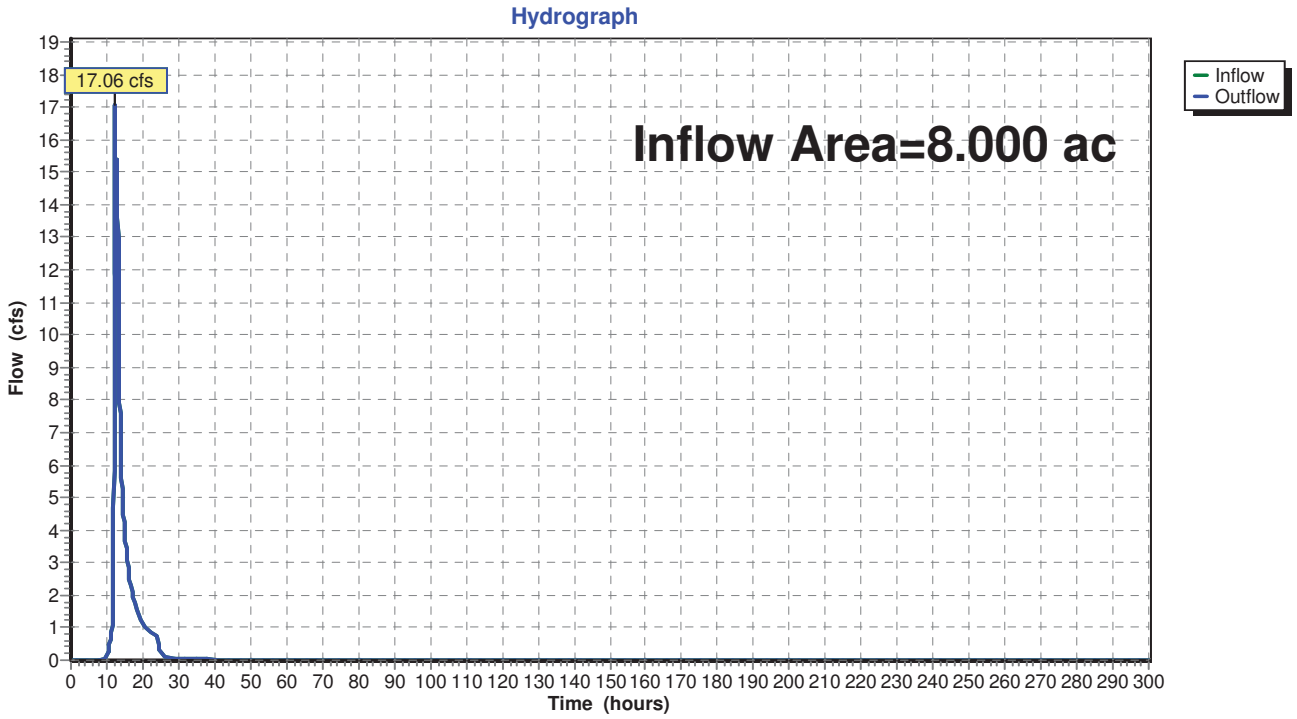


Summary for Reach DL4:

Inflow Area = 8.000 ac, 0.00% Impervious, Inflow Depth = 5.55" for 25 year event
Inflow = 17.06 cfs @ 12.28 hrs, Volume= 3.703 af
Outflow = 17.06 cfs @ 12.28 hrs, Volume= 3.703 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DL4:

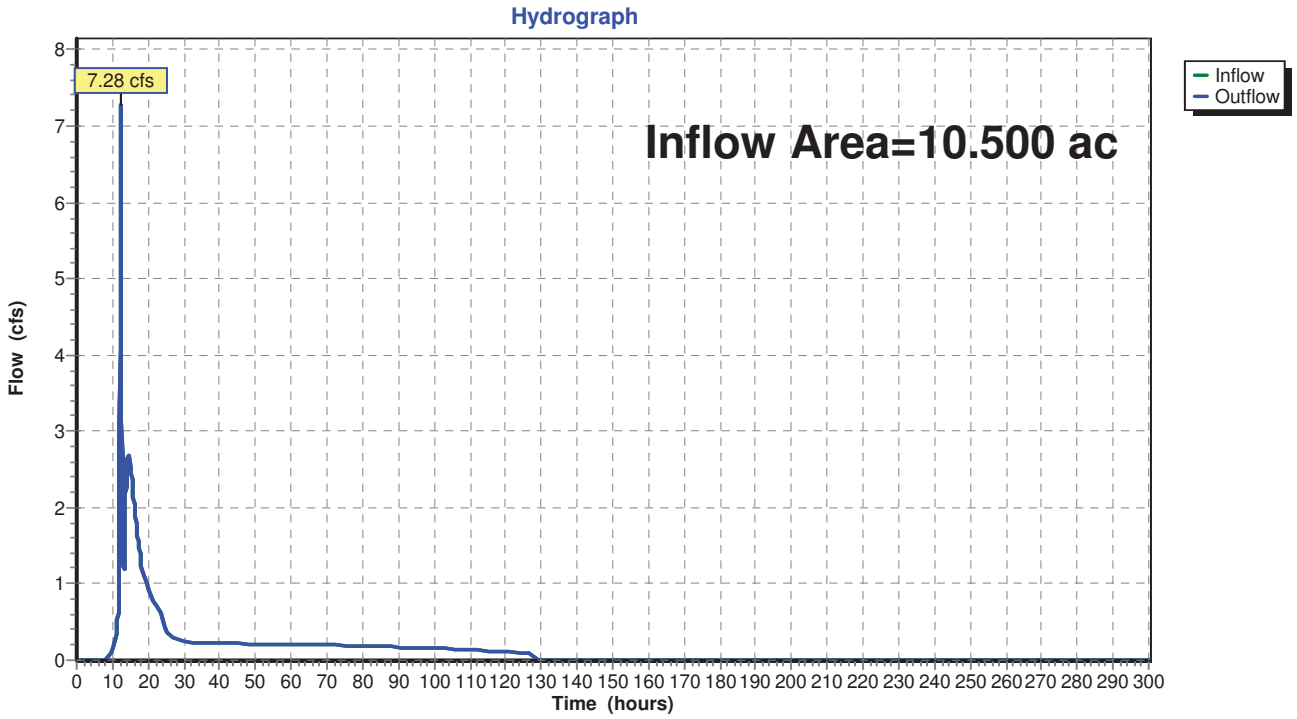


Summary for Reach DP 2:

Inflow Area = 10.500 ac, 27.62% Impervious, Inflow Depth = 3.74" for 25 year event
Inflow = 7.28 cfs @ 12.19 hrs, Volume= 3.269 af
Outflow = 7.28 cfs @ 12.19 hrs, Volume= 3.269 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DP 2:

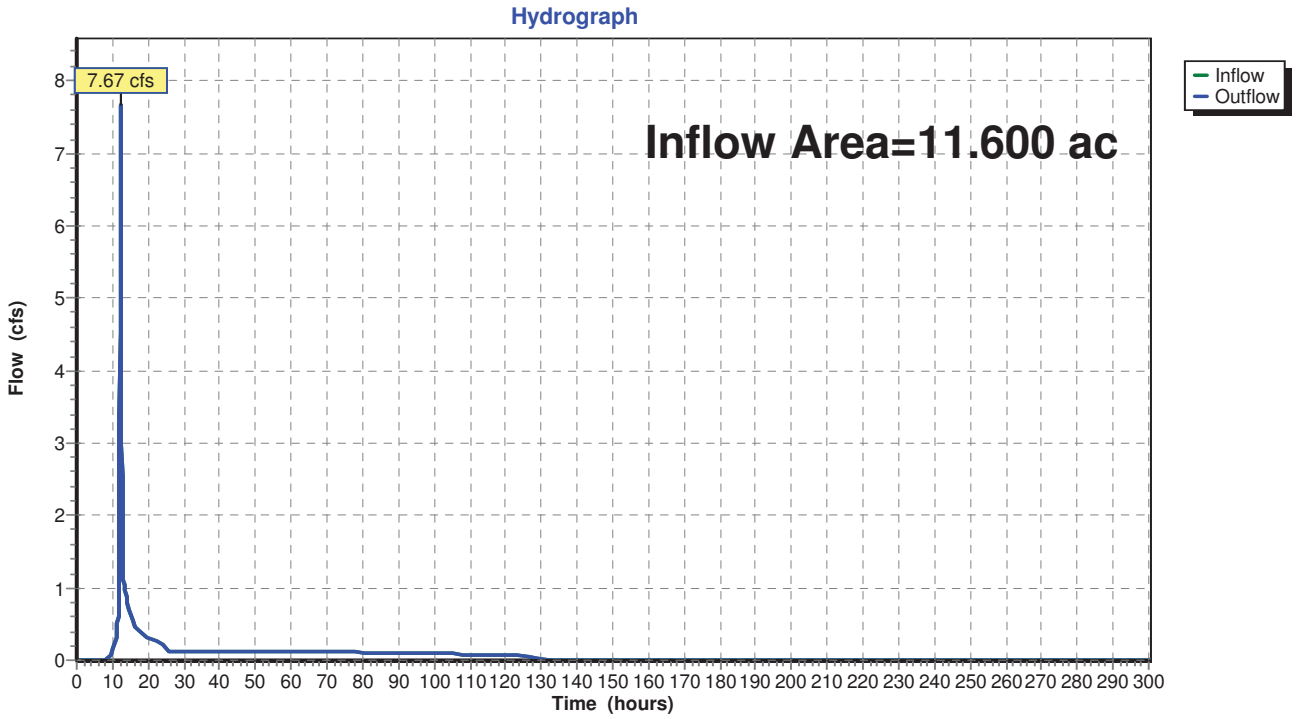


Summary for Reach DP 3:

Inflow Area = 11.600 ac, 25.00% Impervious, Inflow Depth = 1.76" for 25 year event
Inflow = 7.67 cfs @ 12.18 hrs, Volume= 1.701 af
Outflow = 7.67 cfs @ 12.18 hrs, Volume= 1.701 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DP 3:



Summary for Pond 2.1P:

Inflow Area = 6.800 ac, 42.65% Impervious, Inflow Depth = 4.20" for 25 year event
Inflow = 26.52 cfs @ 12.17 hrs, Volume= 2.378 af
Outflow = 15.77 cfs @ 12.37 hrs, Volume= 2.376 af, Atten= 41%, Lag= 12.0 min
Primary = 15.77 cfs @ 12.37 hrs, Volume= 2.376 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Starting Elev= 439.00' Surf.Area= 13,300 sf Storage= 26,000 cf
Peak Elev= 441.25' @ 12.37 hrs Surf.Area= 20,776 sf Storage= 64,220 cf (38,220 cf above start)

Plug-Flow detention time= 682.7 min calculated for 1.779 af (75% of inflow)
Center-of-Mass det. time= 430.6 min (1,240.2 - 809.6)

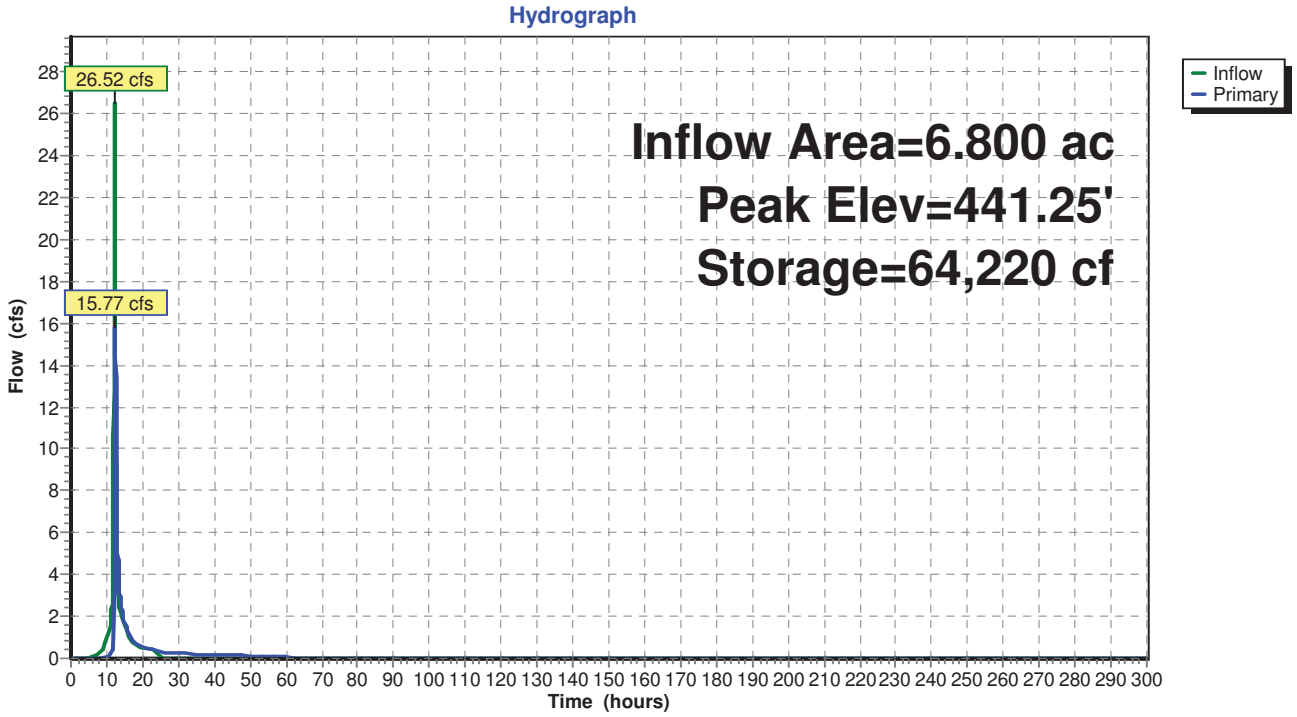
Volume	Invert	Avail.Storage	Storage Description
#1	435.00'	106,100 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
435.00	1,500	0	0
437.00	5,600	7,100	7,100
439.00	13,300	18,900	26,000
441.00	19,900	33,200	59,200
443.00	27,000	46,900	106,100

Device	Routing	Invert	Outlet Devices
#1	Primary	434.00'	**24.0" Round Culvert** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 434.00' / 423.00' S= 0.1571 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	439.00'	**2.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	440.40'	**6.0' 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=15.69 cfs @ 12.37 hrs HW=441.24' TW=422.25' (Dynamic Tailwater)
↑**1=Culvert** (Passes 15.69 cfs of 37.80 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.32 cfs @ 7.02 fps)
3=Broad-Crested Rectangular Weir (Weir Controls 15.37 cfs @ 3.04 fps)

Pond 2.1P:


Hydrograph
Inflow Area=6.800 ac
Peak Elev=441.25'
Storage=64,220 cf
26.52 cfs
15.77 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300

Summary for Pond 2.2P:

Inflow Area = 7.700 ac, 37.66% Impervious, Inflow Depth = 4.07" for 25 year event
Inflow = 16.99 cfs @ 12.36 hrs, Volume= 2.615 af
Outflow = 2.16 cfs @ 14.55 hrs, Volume= 2.615 af, Atten= 87%, Lag= 131.5 min
Primary = 2.16 cfs @ 14.55 hrs, Volume= 2.615 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Peak Elev= 424.97' @ 14.55 hrs Surf.Area= 16,283 sf Storage= 52,609 cf

Plug-Flow detention time= 1,716.3 min calculated for 2.614 af (100% of inflow)
Center-of-Mass det. time= 1,715.7 min (2,918.2 - 1,202.6)

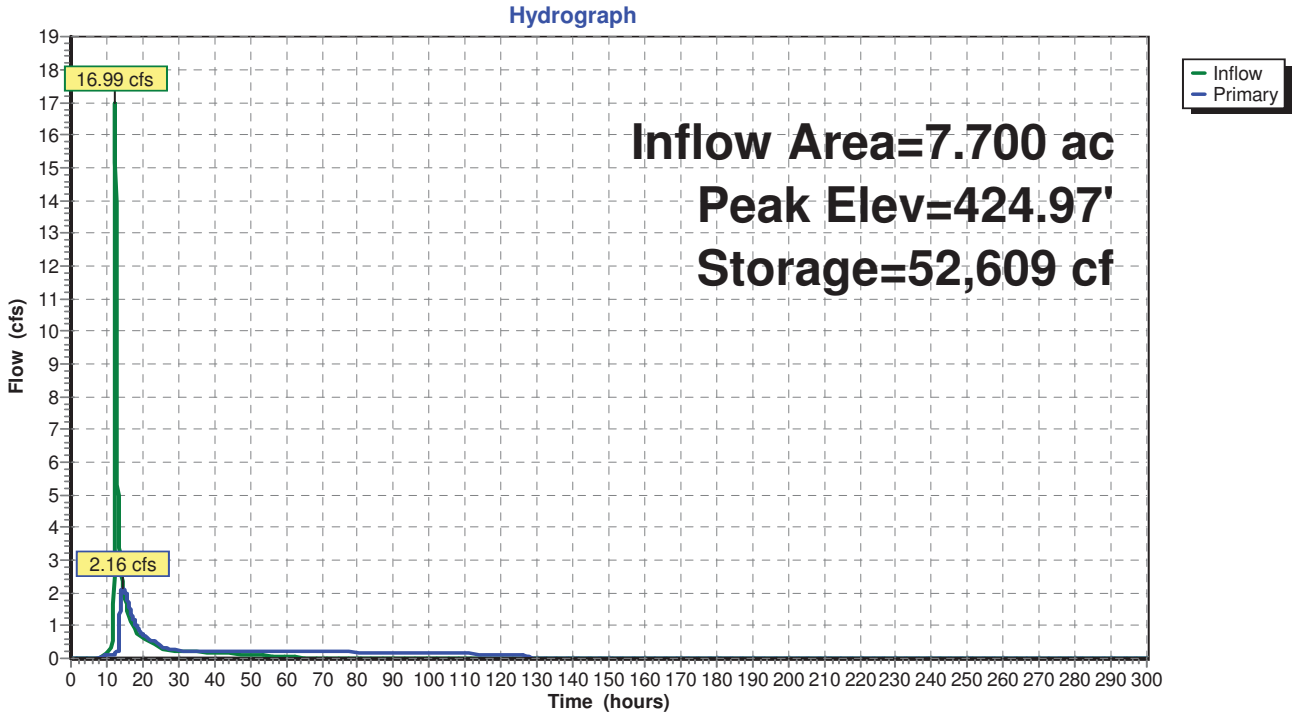
Volume	Invert	Avail.Storage	Storage Description
#1	420.00'	113,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
420.00	5,100	0	0
422.00	9,400	14,500	14,500
424.00	14,000	23,400	37,900
426.00	18,700	32,700	70,600
428.00	23,700	42,400	113,000

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	**24.0" Round Culvert** L= 85.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 419.00' / 408.00' S= 0.1294 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	419.00'	**1.9" Vert. Orifice/Grate** C= 0.600
#3	Device 2	420.00'	**0.5" Vert. Orifice/Grate X 320.00** C= 0.600
#4	Device 1	424.50'	**2.0' 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=2.16 cfs @ 14.55 hrs HW=424.97' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 2.16 cfs of 33.73 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.23 cfs @ 11.69 fps)
    - **3=Orifice/Grate** (Passes 0.23 cfs of 4.67 cfs potential flow)
  - **4=Broad-Crested Rectangular Weir** (Weir Controls 1.93 cfs @ 2.04 fps)

Pond 2.2P:


Hydrograph
Inflow Area=7.700 ac
Peak Elev=424.97'
Storage=52,609 cf
16.99 cfs
2.16 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

Summary for Pond 3.1P:

Inflow Area = 8.100 ac, 35.80% Impervious, Inflow Depth = 4.09" for 25 year event
Inflow = 25.19 cfs @ 12.29 hrs, Volume= 2.762 af
Outflow = 15.59 cfs @ 12.56 hrs, Volume= 2.758 af, Atten= 38%, Lag= 16.2 min
Primary = 15.59 cfs @ 12.56 hrs, Volume= 2.758 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Starting Elev= 448.00' Surf.Area= 15,300 sf Storage= 26,700 cf
Peak Elev= 450.15' @ 12.56 hrs Surf.Area= 25,417 sf Storage= 70,579 cf (43,879 cf above start)

Plug-Flow detention time= 710.5 min calculated for 2.145 af (78% of inflow)
Center-of-Mass det. time= 475.1 min (1,295.6 - 820.5)

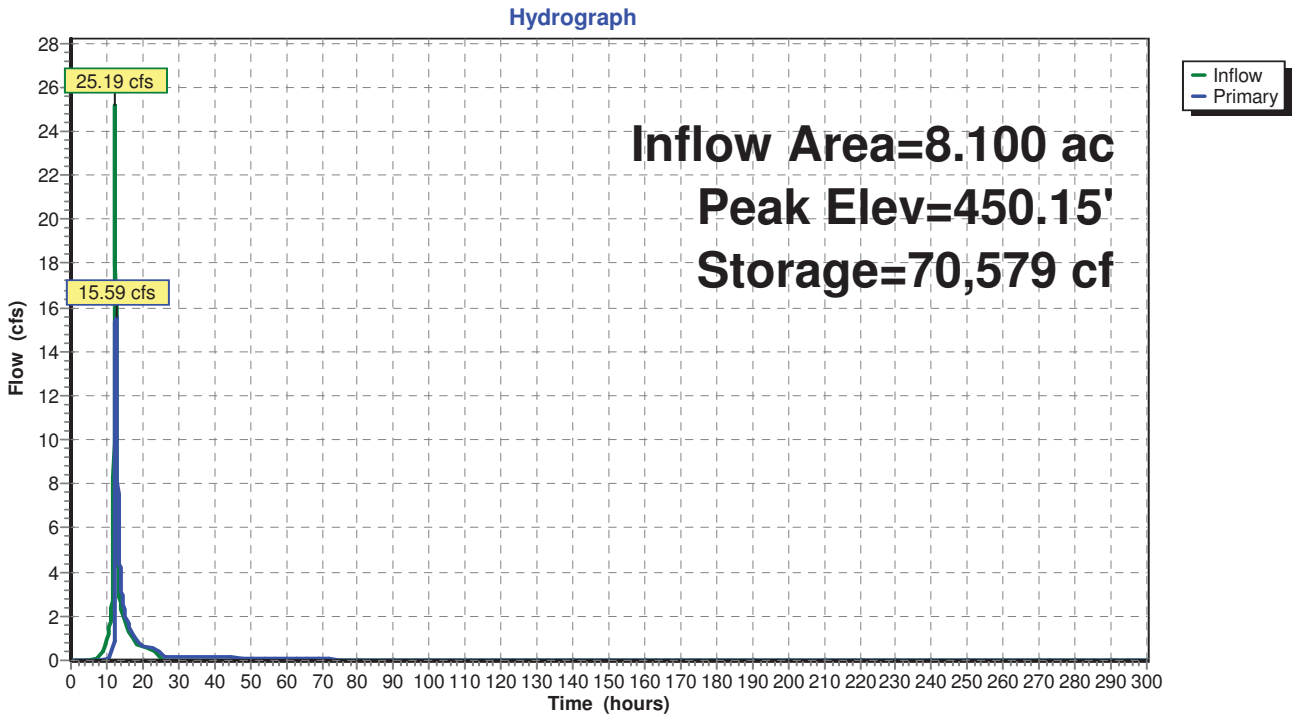
Volume	Invert	Avail.Storage	Storage Description
#1	444.00'	124,600 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
444.00	1,200	0	0
446.00	5,100	6,300	6,300
448.00	15,300	20,400	26,700
450.00	24,800	40,100	66,800
452.00	33,000	57,800	124,600

Device	Routing	Invert	Outlet Devices
#1	Primary	444.00'	**24.0" Round Culvert** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 444.00' / 436.00' S= 0.0800 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	448.00'	**2.5" Vert. Orifice/Grate** C= 0.600
#3	Device 1	449.20'	**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

Primary OutFlow Max=15.56 cfs @ 12.56 hrs HW=450.15' TW=428.52' (Dynamic Tailwater)
↑**1=Culvert** (Passes 15.56 cfs of 34.33 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.23 cfs @ 6.89 fps)
3=Broad-Crested Rectangular Weir (Weir Controls 15.33 cfs @ 3.23 fps)

Pond 3.1P:


Hydrograph
Inflow Area=8.100 ac
Peak Elev=450.15'
Storage=70,579 cf
25.19 cfs
15.59 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300

Summary for Pond 3.2P:

Inflow Area = 8.700 ac, 33.33% Impervious, Inflow Depth = 4.02" for 25 year event
Inflow = 15.98 cfs @ 12.55 hrs, Volume= 2.918 af
Outflow = 11.22 cfs @ 12.91 hrs, Volume= 2.918 af, Atten= 30%, Lag= 21.8 min
Primary = 0.13 cfs @ 12.91 hrs, Volume= 1.023 af
Secondary = 11.09 cfs @ 12.91 hrs, Volume= 1.895 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Peak Elev= 429.56' @ 12.91 hrs Surf.Area= 8,434 sf Storage= 28,008 cf

Plug-Flow detention time= 722.1 min calculated for 2.917 af (100% of inflow)
Center-of-Mass det. time= 721.8 min (1,991.8 - 1,270.1)

Volume	Invert	Avail.Storage	Storage Description
#1	424.00'	52,500 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

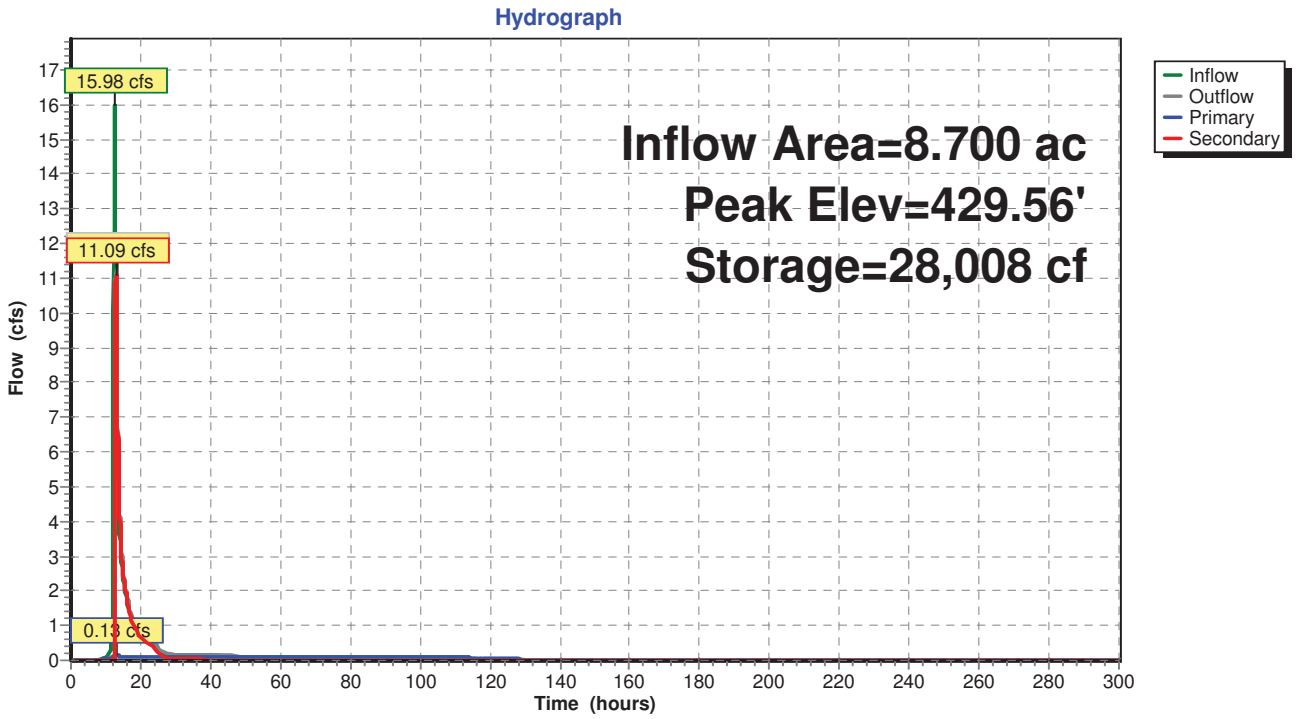
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
424.00	2,000	0	0
426.00	4,000	6,000	6,000
428.00	6,400	10,400	16,400
430.00	9,000	15,400	31,800
432.00	11,700	20,700	52,500

Device	Routing	Invert	Outlet Devices
#1	Primary	423.00'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 423.00' / 420.00' S= 0.0600 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	423.00'	**1.4" Vert. Orifice/Grate** C= 0.600
#3	Device 2	424.00'	**0.5" Vert. Orifice/Grate X 320.00** C= 0.600
#4	Secondary	428.30'	**2.5' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.13 cfs @ 12.91 hrs HW=429.56' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 0.13 cfs of 14.40 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.13 cfs @ 12.28 fps)
└**3=Orifice/Grate** (Passes 0.13 cfs of 4.95 cfs potential flow)

Secondary OutFlow Max=11.06 cfs @ 12.91 hrs HW=429.56' TW=0.00' (Dynamic Tailwater)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 11.06 cfs @ 3.50 fps)

Pond 3.2P:


Hydrograph
Inflow Area=8.700 ac
Peak Elev=429.56'
Storage=28,008 cf
15.98 cfs
11.09 cfs
0.13 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300

Summary for Subcatchment 2.1S:

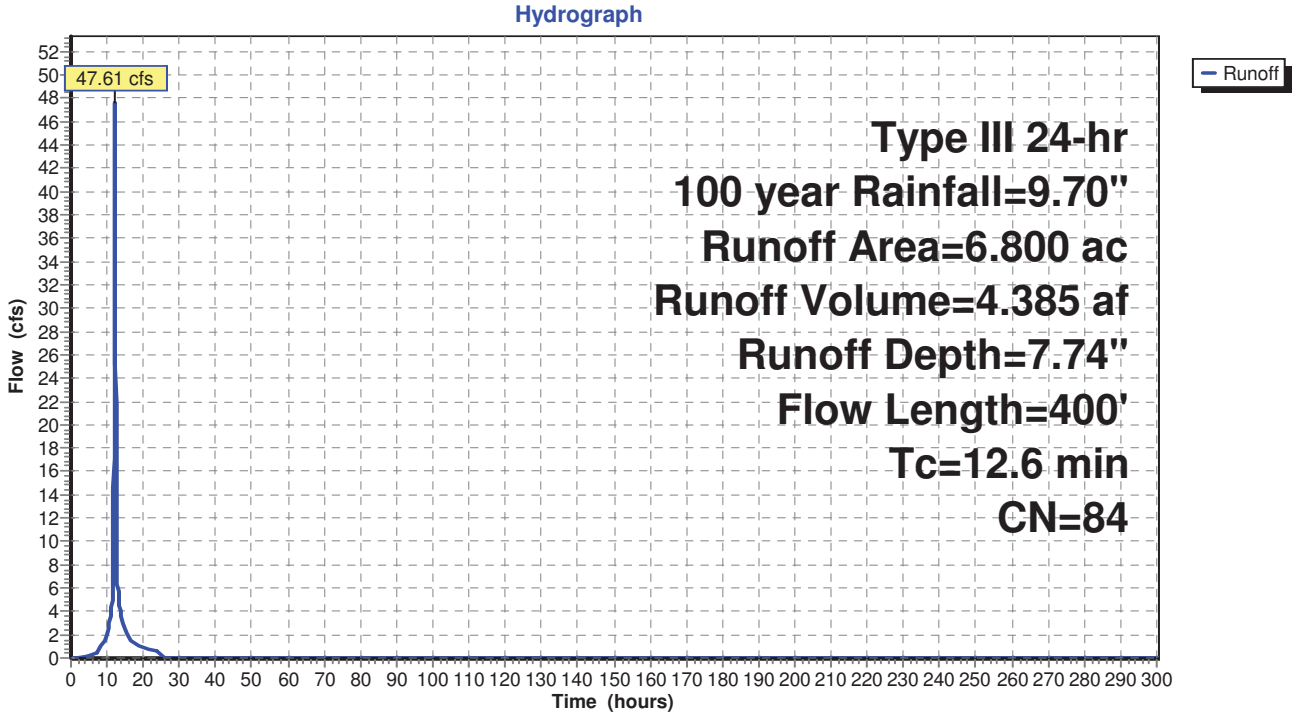
Runoff = 47.61 cfs @ 12.17 hrs, Volume= 4.385 af, Depth= 7.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=9.70"

	Area (ac)	CN	Description
	2.900	98	Paved parking, HSG C
	3.850	74	>75% Grass cover, Good, HSG C
*	0.050	89	Gravel, HSG C
	6.800	84	Weighted Average
	3.900		57.35% Pervious Area
	2.900		42.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0200	0.18		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.50"
1.9	110	0.0200	0.99		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
1.3	190	0.0150	2.49		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
12.6	400	Total			

Subcatchment 2.1S:



Summary for Subcatchment 2.2S:

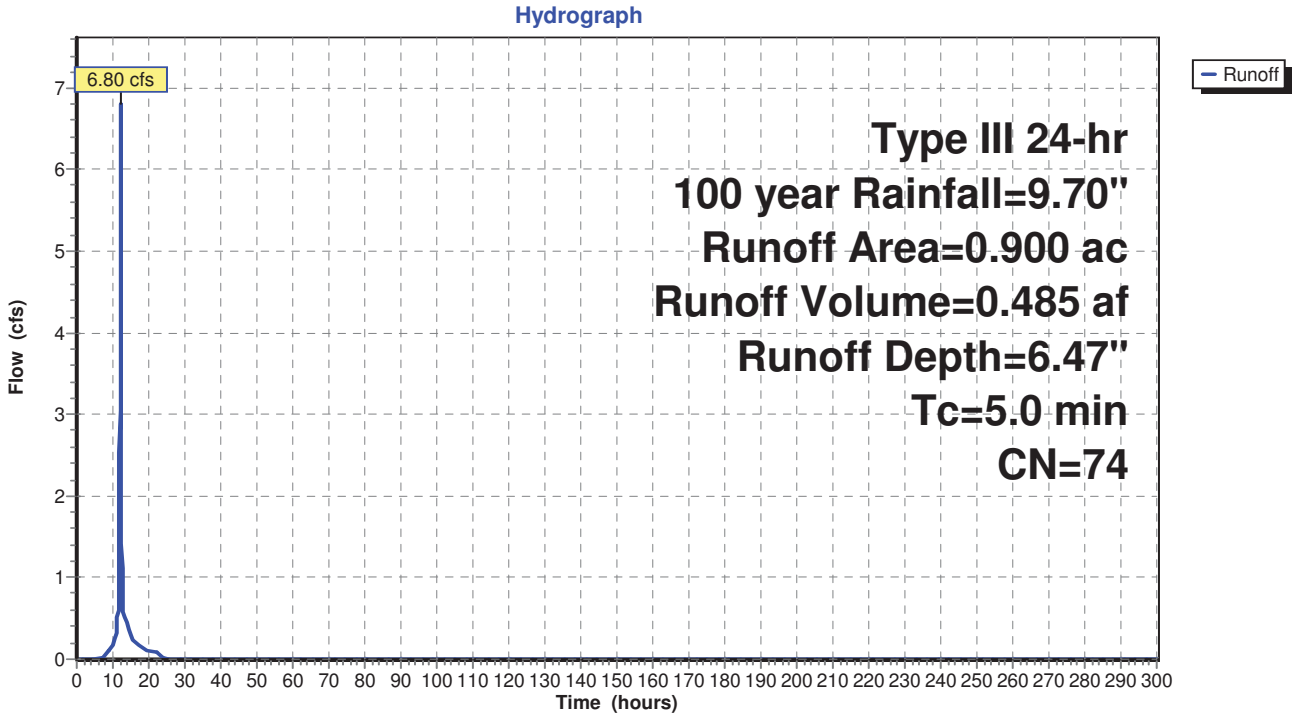
Runoff = 6.80 cfs @ 12.07 hrs, Volume= 0.485 af, Depth= 6.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=9.70"

Area (ac)	CN	Description
0.900	74	>75% Grass cover, Good, HSG C
0.900		100.00% Pervious Area

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

Subcatchment 2.2S:



Summary for Subcatchment 2.3S:

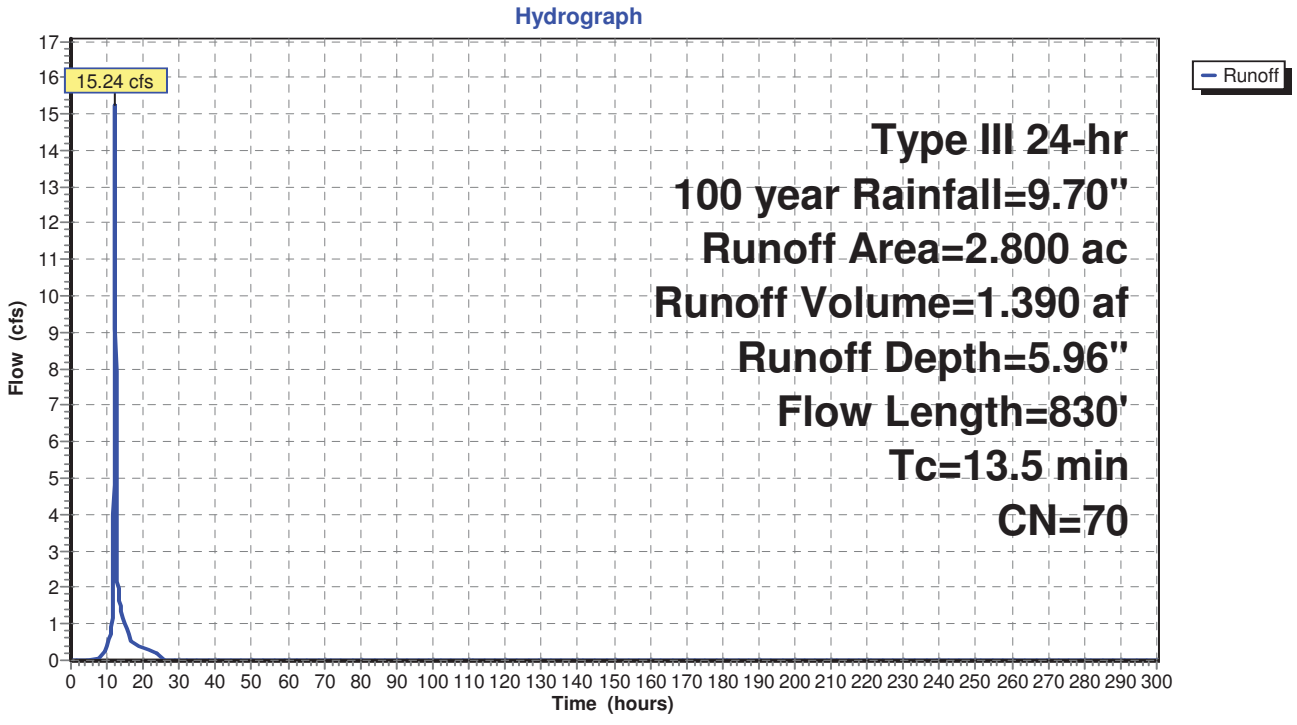
Runoff = 15.24 cfs @ 12.19 hrs, Volume= 1.390 af, Depth= 5.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=9.70"

Area (ac)	CN	Description
2.800	70	Woods, Good, HSG C
2.800		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	24	0.5000	0.33		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.50"
7.0	76	0.1700	0.18		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
2.2	330	0.2400	2.45		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
3.1	400	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
13.5	830	Total			

Subcatchment 2.3S:



Summary for Subcatchment 3.1S:

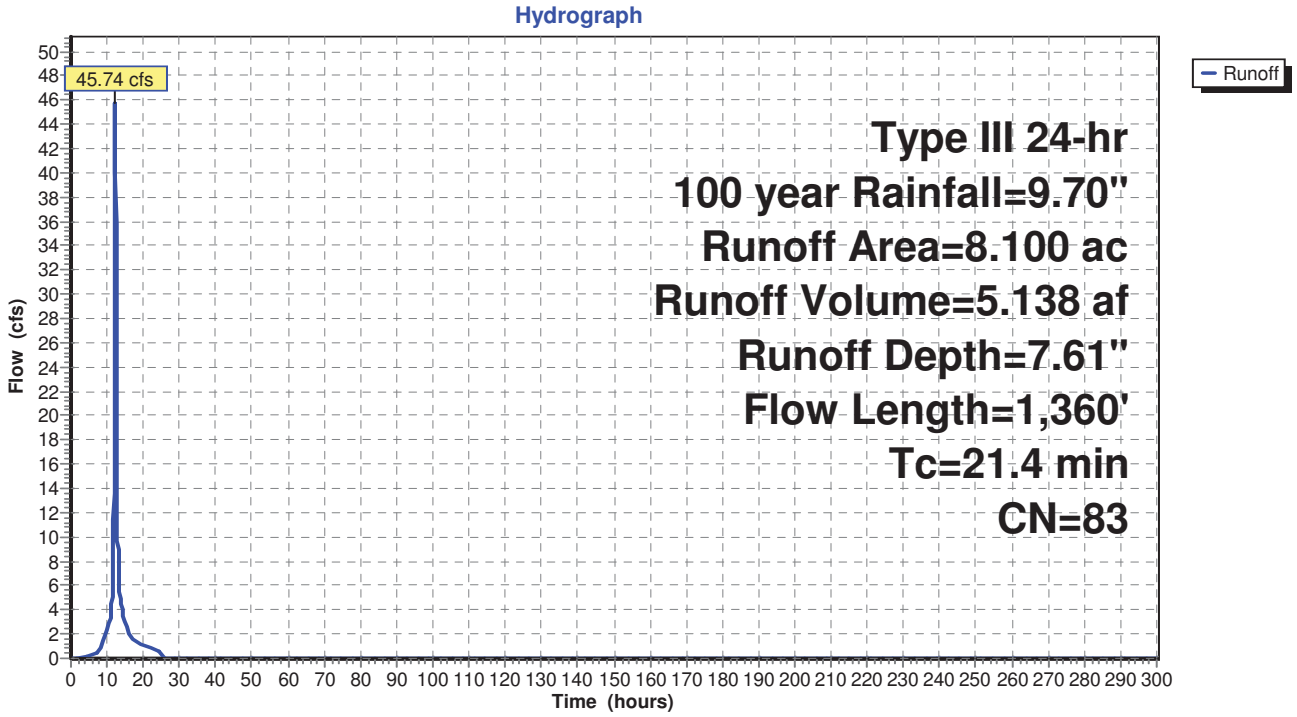
Runoff = 45.74 cfs @ 12.29 hrs, Volume= 5.138 af, Depth= 7.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=9.70"

	Area (ac)	CN	Description
	2.900	98	Paved parking & roofs
	4.450	74	>75% Grass cover, Good, HSG C
	0.500	70	Woods, Good, HSG C
*	0.250	89	Gravel, HSG C
	8.100	83	Weighted Average
	5.200		64.20% Pervious Area
	2.900		35.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0500	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
1.1	80	0.0600	1.22		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	30	0.0450	1.48		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.9	150	0.0150	0.86		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
2.1	270	0.0200	2.12		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.2	72	0.0100	4.91	3.86	**Pipe Channel,** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
0.1	48	0.0100	5.70	7.00	**Pipe Channel,** 15.0" Round Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
0.5	610	0.0700	20.64	64.84	**Pipe Channel,** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
21.4	1,360	Total			

Subcatchment 3.1S:



Summary for Subcatchment 3.2S:

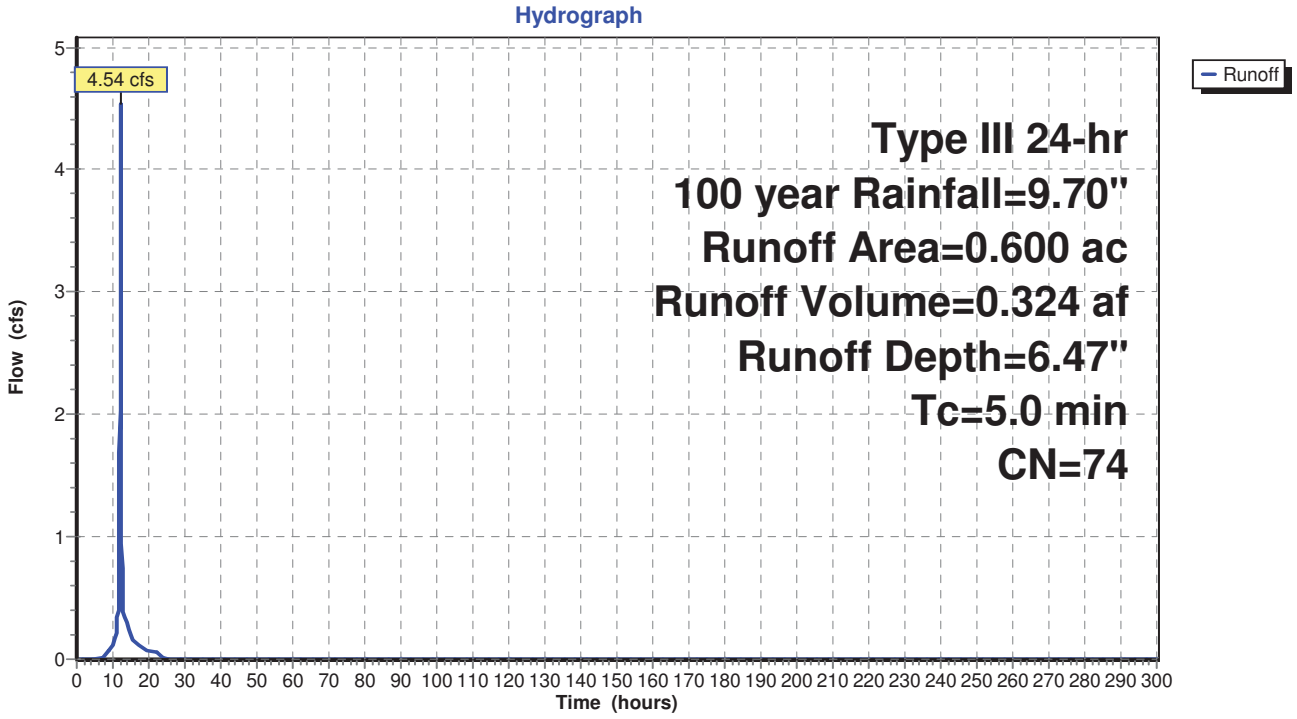
Runoff = 4.54 cfs @ 12.07 hrs, Volume= 0.324 af, Depth= 6.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=9.70"

Area (ac)	CN	Description
0.600	74	>75% Grass cover, Good, HSG C
0.600		100.00% Pervious Area

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

Subcatchment 3.2S:



Summary for Subcatchment 3.3S:

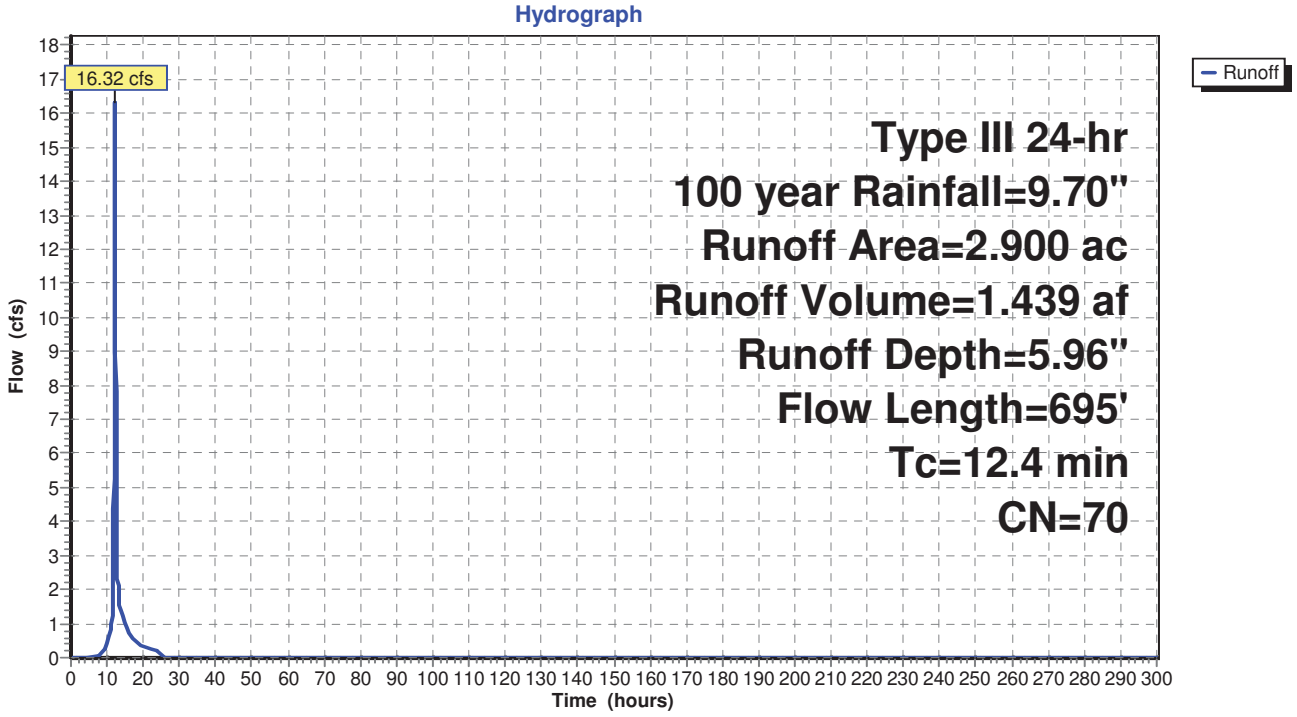
Runoff = 16.32 cfs @ 12.17 hrs, Volume= 1.439 af, Depth= 5.96"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=9.70"

Area (ac)	CN	Description
2.700	70	Woods, Good, HSG C
0.200	74	>75% Grass cover, Good, HSG C
2.900	70	Weighted Average
2.900		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	26	0.4200	0.32		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.50"
7.6	74	0.1300	0.16		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
3.1	388	0.1700	2.06		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
0.3	207	0.0480	13.23	128.96	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=1.50' Z= 4.0 & 2.0 '/' Top.W=11.00' n= 0.022 Earth, clean & straight
12.4	695	Total			

Subcatchment 3.3S:



Summary for Subcatchment 4.1S:

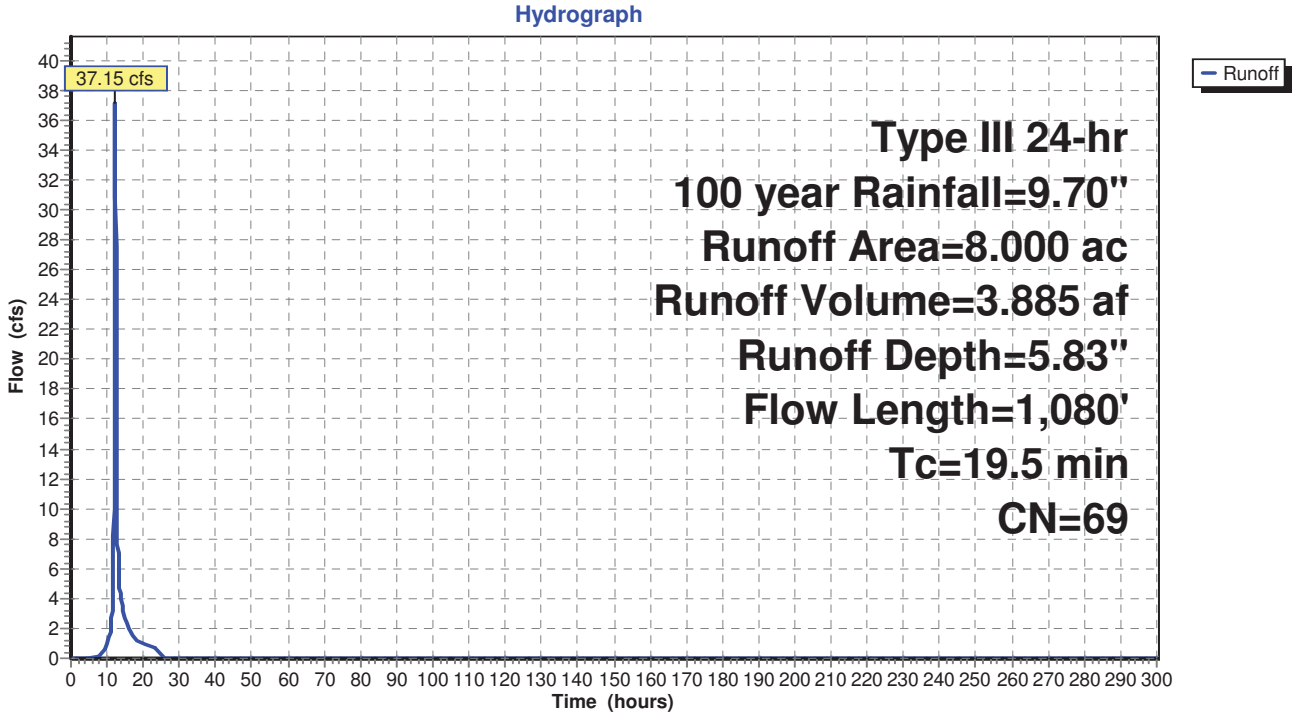
Runoff = 37.15 cfs @ 12.27 hrs, Volume= 3.885 af, Depth= 5.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=9.70"

Area (ac)	CN	Description
7.300	70	Woods, Good, HSG C
0.700	55	Woods, Good, HSG B
8.000	69	Weighted Average
8.000		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	100	0.0900	0.15		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
8.2	980	0.1600	2.00		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
19.5	1,080	Total			

Subcatchment 4.1S:



Summary for Subcatchment 5.1S:

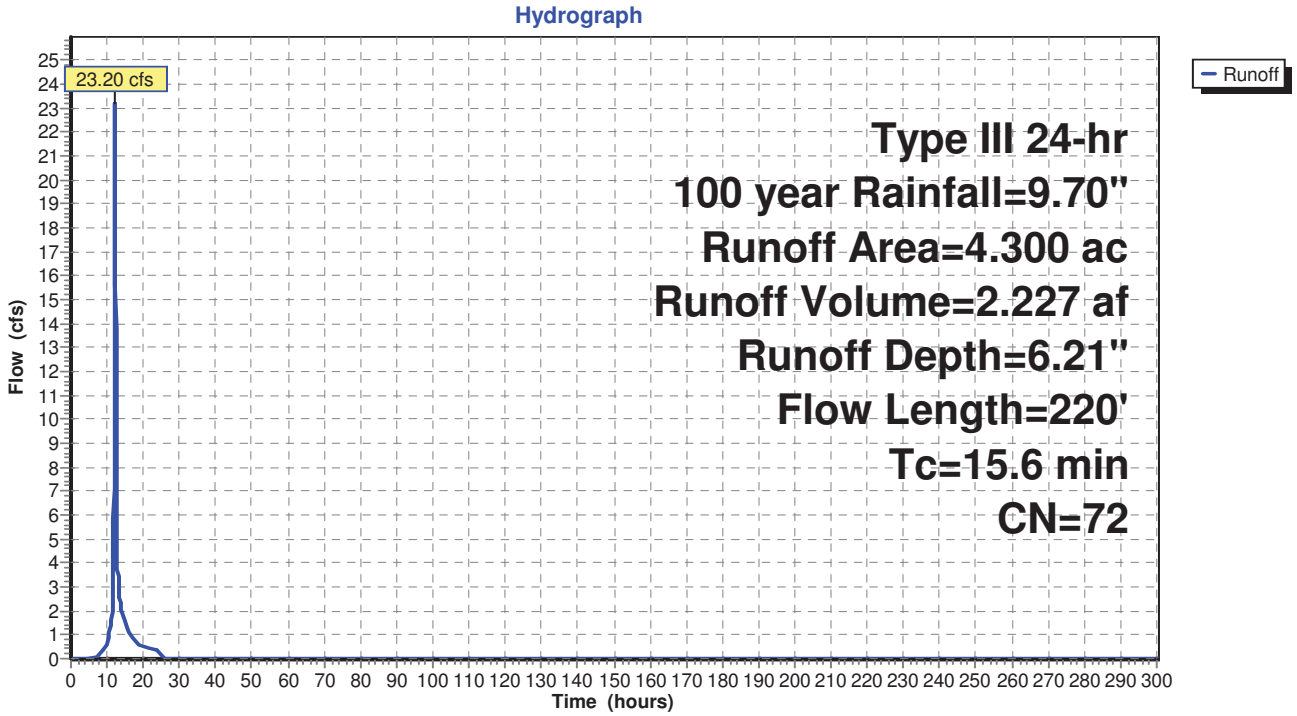
Runoff = 23.20 cfs @ 12.21 hrs, Volume= 2.227 af, Depth= 6.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 year Rainfall=9.70"

	Area (ac)	CN	Description
	1.000	74	>75% Grass cover, Good, HSG C
	3.150	70	Woods, Good, HSG C
*	0.150	89	Gravel, HSG C
	4.300	72	Weighted Average
	4.300		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	100	0.0500	0.12		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.50"
1.4	120	0.0800	1.41		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
15.6	220	Total			

Subcatchment 5.1S:

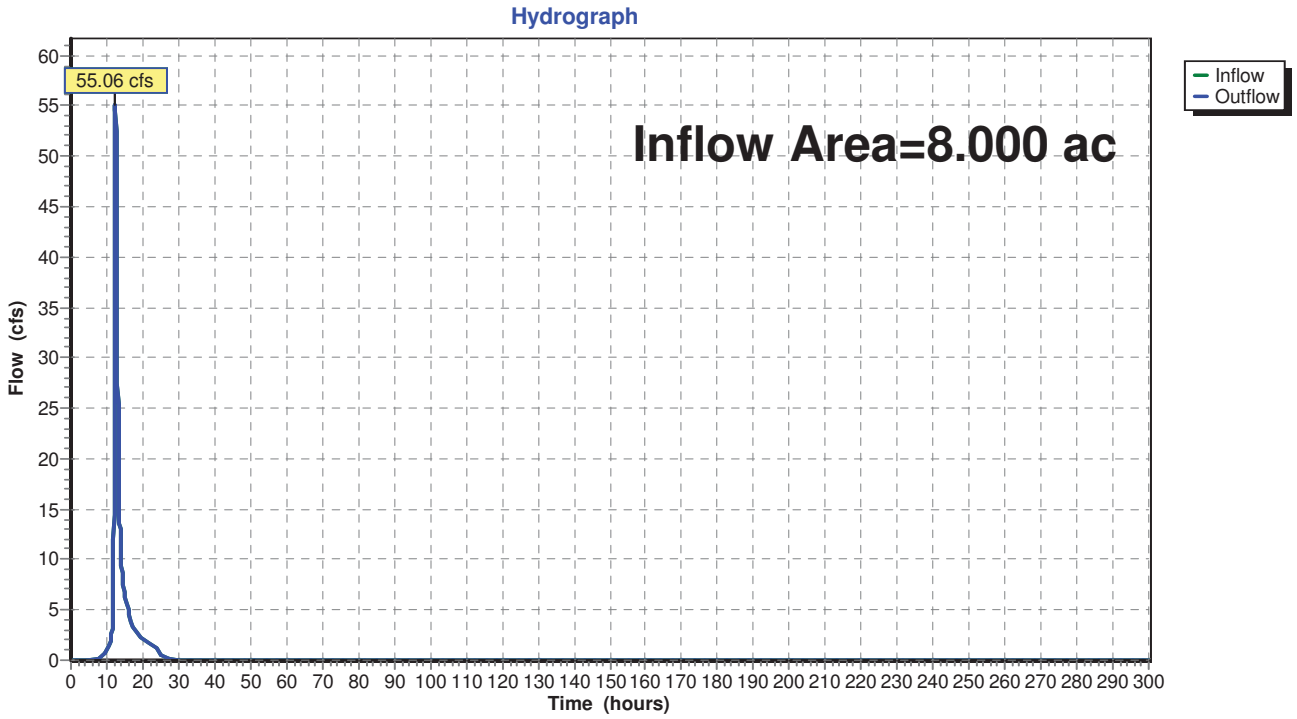


Summary for Reach DL4:

Inflow Area = 8.000 ac, 0.00% Impervious, Inflow Depth = 12.45" for 100 year event
Inflow = 55.06 cfs @ 12.39 hrs, Volume= 8.300 af
Outflow = 55.06 cfs @ 12.39 hrs, Volume= 8.300 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DL4:

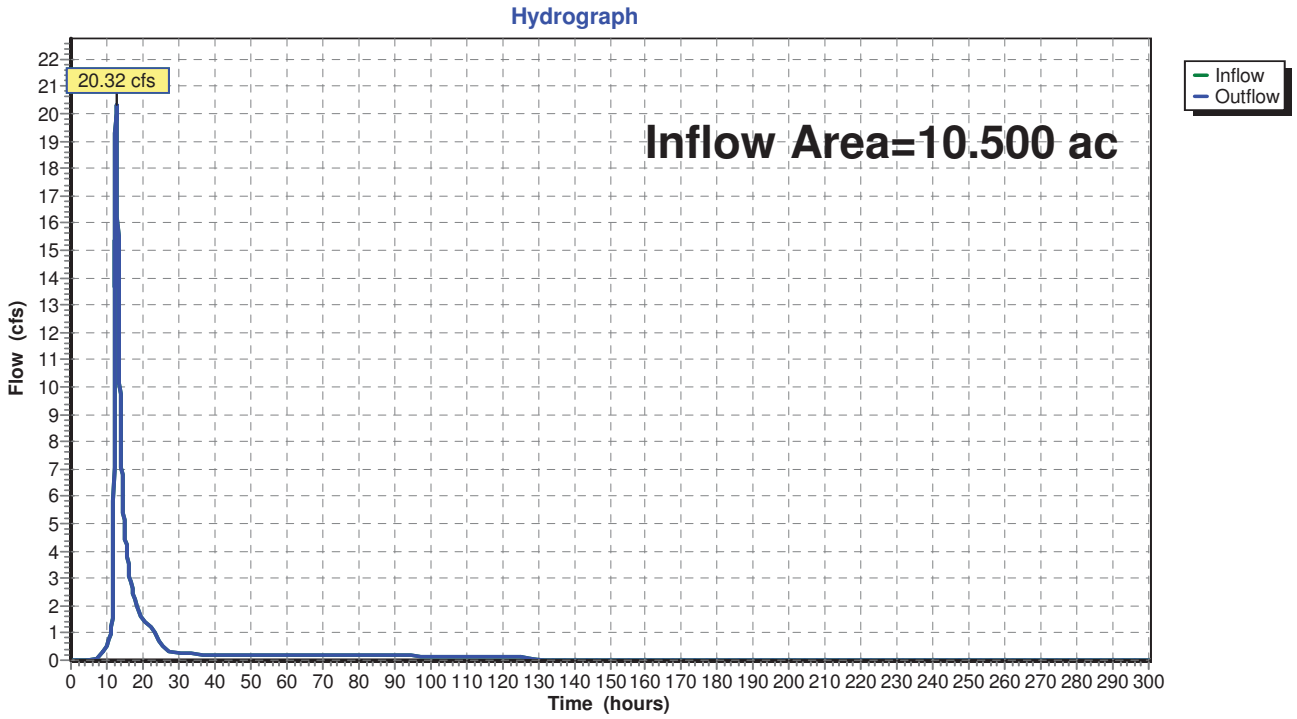


Summary for Reach DP 2:

Inflow Area = 10.500 ac, 27.62% Impervious, Inflow Depth = 7.15" for 100 year event
Inflow = 20.32 cfs @ 12.62 hrs, Volume= 6.257 af
Outflow = 20.32 cfs @ 12.62 hrs, Volume= 6.257 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DP 2:

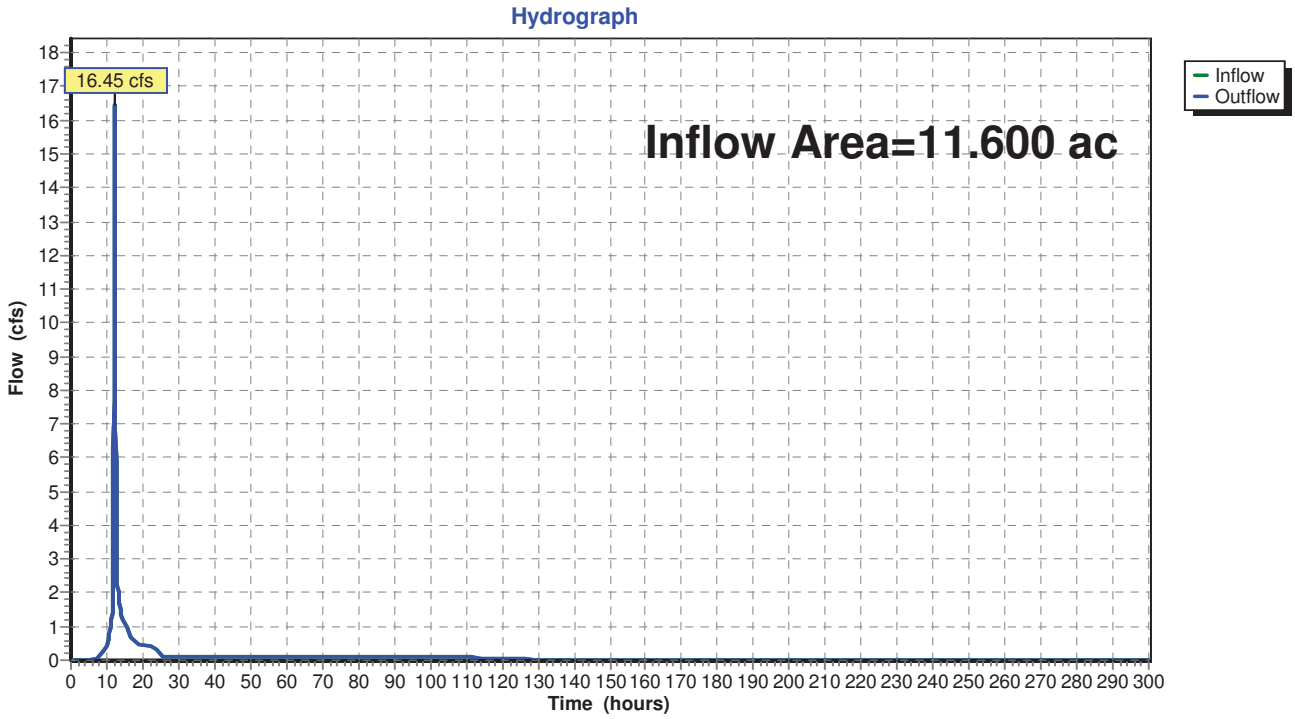


Summary for Reach DP 3:

Inflow Area = 11.600 ac, 25.00% Impervious, Inflow Depth = 2.57" for 100 year event
Inflow = 16.45 cfs @ 12.17 hrs, Volume= 2.483 af
Outflow = 16.45 cfs @ 12.17 hrs, Volume= 2.483 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs

Reach DP 3:



Summary for Pond 2.1P:

Inflow Area = 6.800 ac, 42.65% Impervious, Inflow Depth = 7.74" for 100 year event
Inflow = 47.61 cfs @ 12.17 hrs, Volume= 4.385 af
Outflow = 34.76 cfs @ 12.30 hrs, Volume= 4.383 af, Atten= 27%, Lag= 7.9 min
Primary = 34.76 cfs @ 12.30 hrs, Volume= 4.383 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Starting Elev= 439.00' Surf.Area= 13,300 sf Storage= 26,000 cf
Peak Elev= 441.84' @ 12.30 hrs Surf.Area= 22,879 sf Storage= 77,150 cf (51,150 cf above start)

Plug-Flow detention time= 371.3 min calculated for 3.786 af (86% of inflow)
Center-of-Mass det. time= 256.2 min (1,048.9 - 792.7)

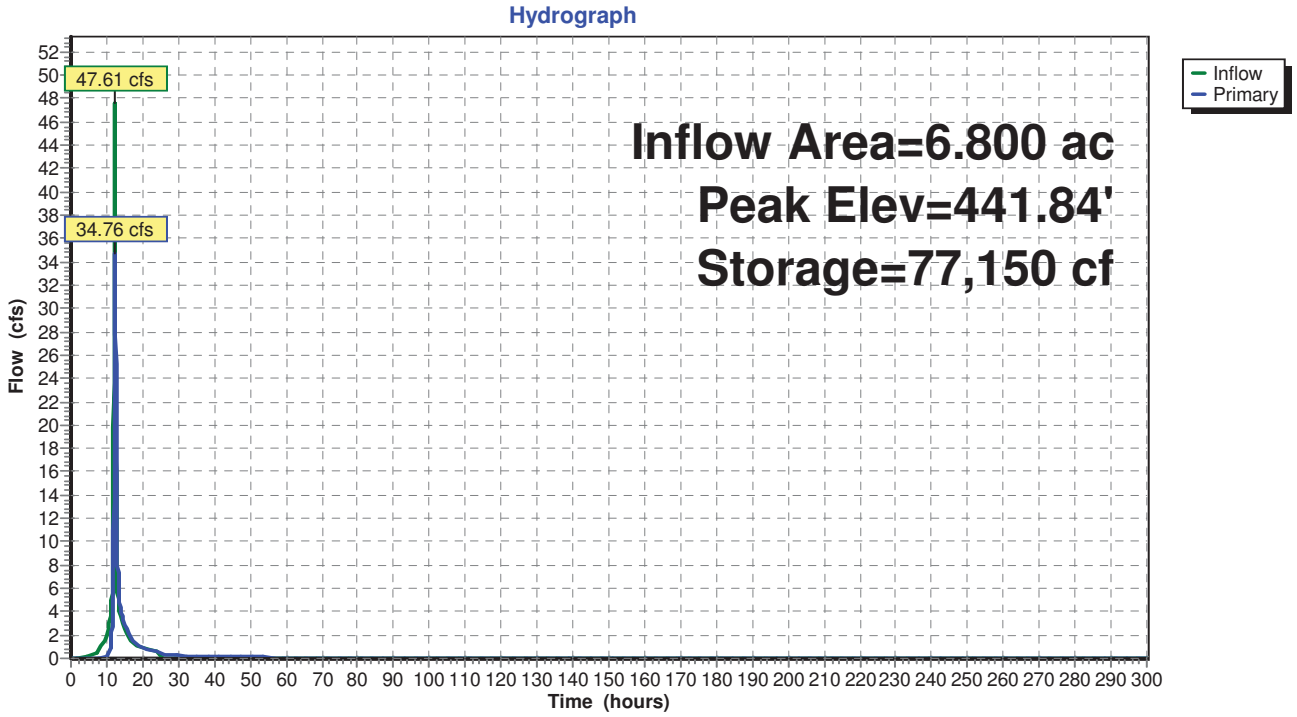
Volume	Invert	Avail.Storage	Storage Description
#1	435.00'	106,100 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
435.00	1,500	0	0
437.00	5,600	7,100	7,100
439.00	13,300	18,900	26,000
441.00	19,900	33,200	59,200
443.00	27,000	46,900	106,100

Device	Routing	Invert	Outlet Devices
#1	Primary	434.00'	**24.0" Round Culvert** L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 434.00' / 423.00' S= 0.1571 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	439.00'	**2.9" Vert. Orifice/Grate** C= 0.600
#3	Device 1	440.40'	**6.0' 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=34.76 cfs @ 12.30 hrs HW=441.84' TW=424.89' (Dynamic Tailwater)
↑**1=Culvert** (Passes 34.76 cfs of 39.56 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.36 cfs @ 7.94 fps)
3=Broad-Crested Rectangular Weir (Weir Controls 34.39 cfs @ 3.98 fps)

Pond 2.1P:


Hydrograph
Inflow Area=6.800 ac
Peak Elev=441.84'
Storage=77,150 cf
47.61 cfs
34.76 cfs
Inflow
Primary
Flow (cfs)
Time (hours)

Summary for Pond 2.2P:

Inflow Area = 7.700 ac, 37.66% Impervious, Inflow Depth = 7.59" for 100 year event
Inflow = 37.51 cfs @ 12.29 hrs, Volume= 4.868 af
Outflow = 16.77 cfs @ 12.75 hrs, Volume= 4.868 af, Atten= 55%, Lag= 27.8 min
Primary = 16.77 cfs @ 12.75 hrs, Volume= 4.868 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Peak Elev= 426.34' @ 12.75 hrs Surf.Area= 19,540 sf Storage= 77,021 cf

Plug-Flow detention time= 952.5 min calculated for 4.868 af (100% of inflow)
Center-of-Mass det. time= 952.3 min (1,977.2 - 1,024.9)

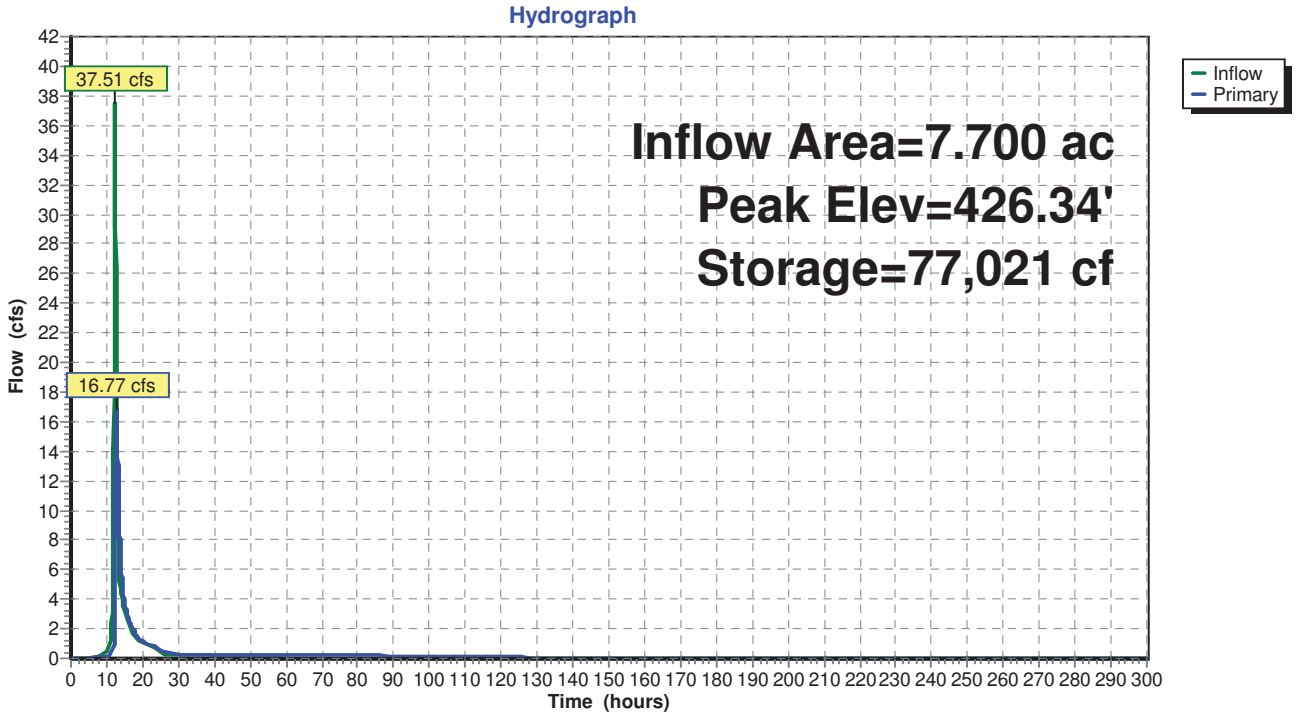
Volume	Invert	Avail.Storage	Storage Description
#1	420.00'	113,000 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
420.00	5,100	0	0
422.00	9,400	14,500	14,500
424.00	14,000	23,400	37,900
426.00	18,700	32,700	70,600
428.00	23,700	42,400	113,000

Device	Routing	Invert	Outlet Devices
#1	Primary	419.00'	**24.0" Round Culvert** L= 85.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 419.00' / 408.00' S= 0.1294 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	419.00'	**1.9" Vert. Orifice/Grate** C= 0.600
#3	Device 2	420.00'	**0.5" Vert. Orifice/Grate X 320.00** C= 0.600
#4	Device 1	424.50'	**2.0' 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=16.77 cfs @ 12.75 hrs HW=426.34' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Passes 16.77 cfs of 38.07 cfs potential flow)
  - **2=Orifice/Grate** (Orifice Controls 0.26 cfs @ 12.97 fps)
    - **3=Orifice/Grate** (Passes 0.26 cfs of 5.28 cfs potential flow)
  - **4=Broad-Crested Rectangular Weir** (Weir Controls 16.51 cfs @ 4.50 fps)

Pond 2.2P:


Hydrograph
Inflow Area=7.700 ac
Peak Elev=426.34'
Storage=77,021 cf
37.51 cfs
16.77 cfs
Inflow
Primary
Flow (cfs)
Time (hours)
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300

Summary for Pond 3.1P:

Inflow Area = 8.100 ac, 35.80% Impervious, Inflow Depth = 7.61" for 100 year event
Inflow = 45.74 cfs @ 12.29 hrs, Volume= 5.138 af
Outflow = 33.72 cfs @ 12.48 hrs, Volume= 5.135 af, Atten= 26%, Lag= 11.6 min
Primary = 33.72 cfs @ 12.48 hrs, Volume= 5.135 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Starting Elev= 448.00' Surf.Area= 15,300 sf Storage= 26,700 cf
Peak Elev= 450.80' @ 12.48 hrs Surf.Area= 28,061 sf Storage= 87,821 cf (61,121 cf above start)

Plug-Flow detention time= 382.9 min calculated for 4.521 af (88% of inflow)
Center-of-Mass det. time= 279.4 min (1,082.7 - 803.3)

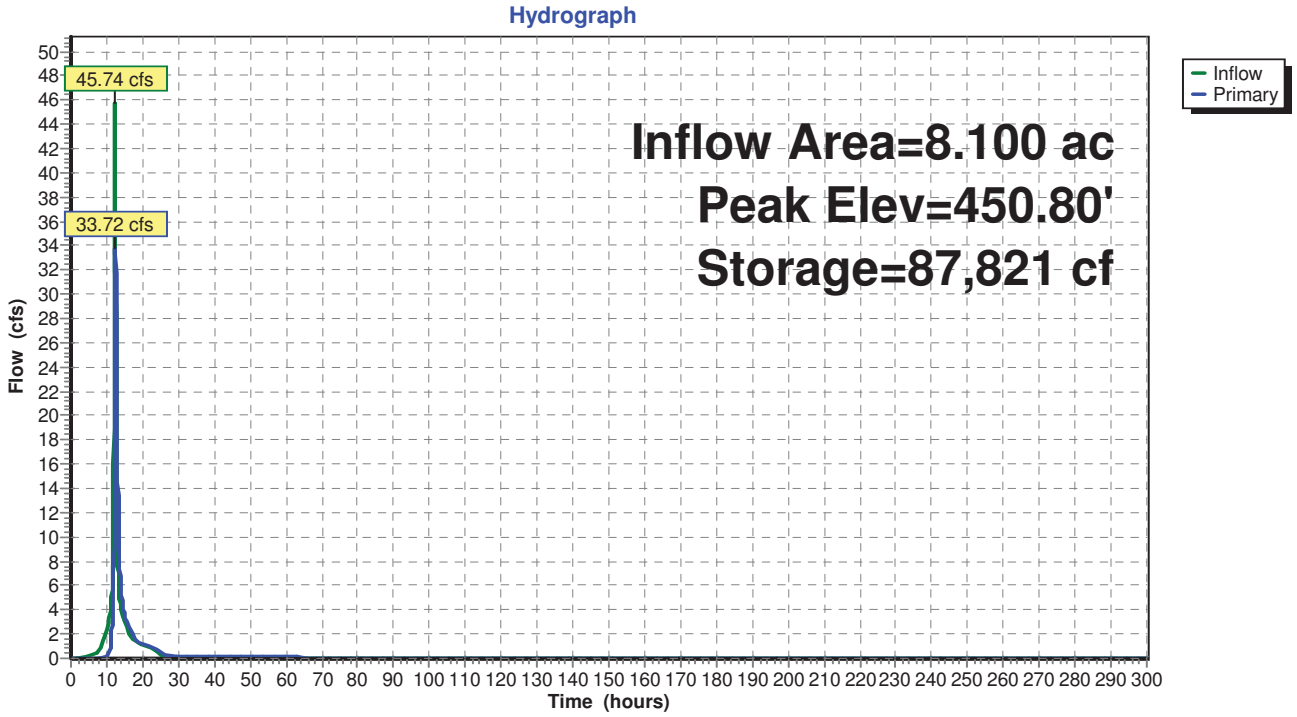
Volume	Invert	Avail.Storage	Storage Description
#1	444.00'	124,600 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
444.00	1,200	0	0
446.00	5,100	6,300	6,300
448.00	15,300	20,400	26,700
450.00	24,800	40,100	66,800
452.00	33,000	57,800	124,600

Device	Routing	Invert	Outlet Devices
#1	Primary	444.00'	**24.0" Round Culvert** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 444.00' / 436.00' S= 0.0800 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf
#2	Device 1	448.00'	**2.5" Vert. Orifice/Grate** C= 0.600
#3	Device 1	449.20'	**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

Primary OutFlow Max=33.63 cfs @ 12.48 hrs HW=450.79' TW=430.58' (Dynamic Tailwater)
↑**1=Culvert** (Passes 33.63 cfs of 36.41 cfs potential flow)
↑**2=Orifice/Grate** (Orifice Controls 0.27 cfs @ 7.89 fps)
3=Broad-Crested Rectangular Weir (Weir Controls 33.36 cfs @ 4.19 fps)

Pond 3.1P:


Hydrograph
Inflow Area=8.100 ac
Peak Elev=450.80'
Storage=87,821 cf
45.74 cfs
33.72 cfs
Inflow
Primary
Flow (cfs)
Time (hours)

Summary for Pond 3.2P:

Inflow Area = 8.700 ac, 33.33% Impervious, Inflow Depth = 7.53" for 100 year event
Inflow = 34.82 cfs @ 12.47 hrs, Volume= 5.459 af
Outflow = 31.62 cfs @ 12.63 hrs, Volume= 5.458 af, Atten= 9%, Lag= 9.7 min
Primary = 0.14 cfs @ 12.63 hrs, Volume= 1.044 af
Secondary = 31.47 cfs @ 12.63 hrs, Volume= 4.415 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-300.00 hrs, dt= 0.05 hrs
Peak Elev= 430.74' @ 12.63 hrs Surf.Area= 9,995 sf Storage= 38,803 cf

Plug-Flow detention time= 397.3 min calculated for 5.458 af (100% of inflow)
Center-of-Mass det. time= 397.2 min (1,463.5 - 1,066.4)

Volume	Invert	Avail.Storage	Storage Description
#1	424.00'	52,500 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

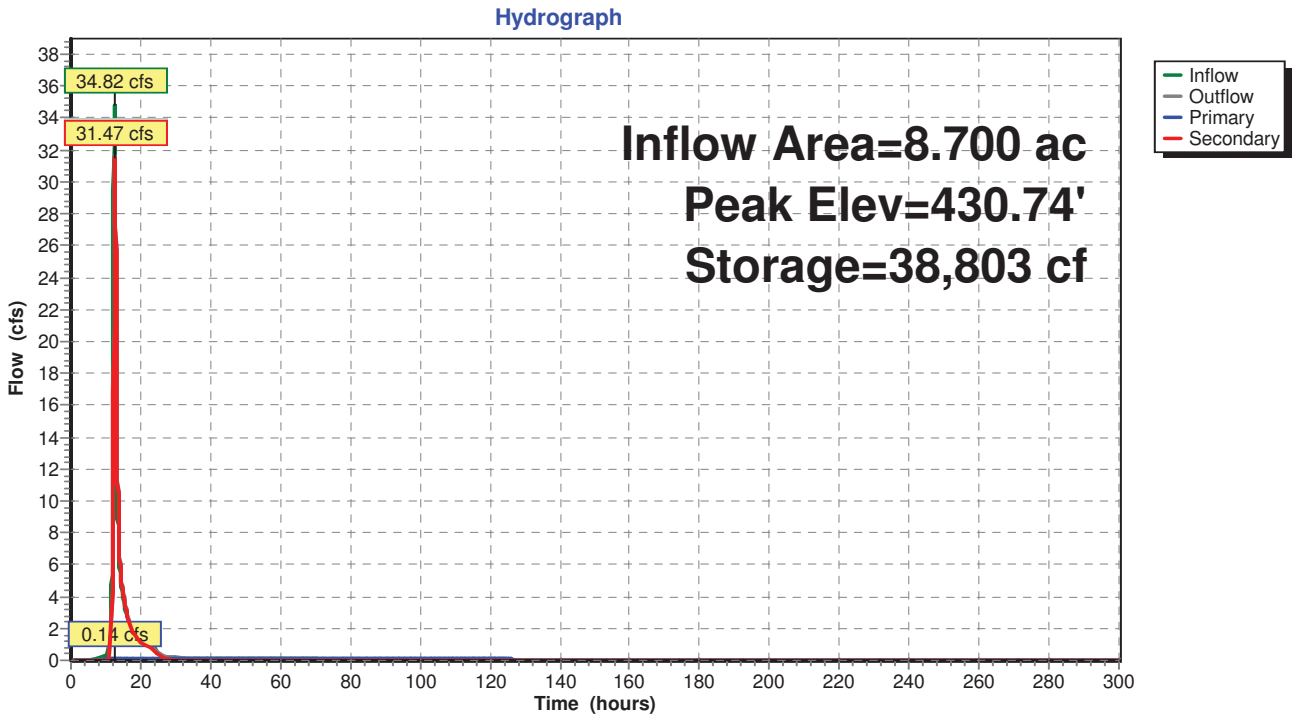
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
424.00	2,000	0	0
426.00	4,000	6,000	6,000
428.00	6,400	10,400	16,400
430.00	9,000	15,400	31,800
432.00	11,700	20,700	52,500

Device	Routing	Invert	Outlet Devices
#1	Primary	423.00'	**15.0" Round Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 423.00' / 420.00' S= 0.0600 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf
#2	Device 1	423.00'	**1.4" Vert. Orifice/Grate** C= 0.600
#3	Device 2	424.00'	**0.5" Vert. Orifice/Grate X 320.00** C= 0.600
#4	Secondary	428.30'	**2.5' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32

Primary OutFlow Max=0.14 cfs @ 12.63 hrs HW=430.73' TW=0.00' (Dynamic Tailwater)
└**1=Culvert** (Passes 0.14 cfs of 15.75 cfs potential flow)
└**2=Orifice/Grate** (Orifice Controls 0.14 cfs @ 13.34 fps)
└**3=Orifice/Grate** (Passes 0.14 cfs of 5.44 cfs potential flow)

Secondary OutFlow Max=31.41 cfs @ 12.63 hrs HW=430.73' TW=0.00' (Dynamic Tailwater)
└**4=Broad-Crested Rectangular Weir** (Weir Controls 31.41 cfs @ 5.16 fps)

Pond 3.2P:


Hydrograph
Inflow Area=8.700 ac
Peak Elev=430.74'
Storage=38,803 cf
34.82 cfs
31.47 cfs
0.14 cfs
Inflow
Outflow
Primary
Secondary
Flow (cfs)
Time (hours)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300

APPENDIX C

Pollutant Loading Calculations

THE HAMLET AT CARMEL, MULTI-FAMILY HOUSING DEVELOPMENT
PRE-DEVELOPMENT ANNUAL POLLUTANT LOADS

SUBCATCHMENT 2.0S

		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Woods	5.80	6.0	0.10	1.8	77	34.8	0.58	10.4	447
					SUBCATCHMENT 2.0S SUBTOTAL	**34.8**	**0.58**	**10.4**	**447**

SUBCATCHMENT 3.0S

		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Woods	6.00	6.0	0.10	1.8	77	36.0	0.60	10.8	462
					SUBCATCHMENT 3.0S SUBTOTAL	**36.0**	**0.60**	**10.8**	**462**

SUBCATCHMENT 4.0S

		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Woods	15.00	6.0	0.10	1.8	77	90.0	1.50	27.0	1155
					SUBCATCHMENT 4.0S SUBTOTAL	**90.0**	**1.50**	**27.0**	**1155**

SUBCATCHMENT 5.0S

		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Woods	7.60	6.0	0.10	1.8	77	45.6	0.76	13.7	585
					SUBCATCHMENT 5.0S SUBTOTAL	**45.6**	**0.76**	**13.7**	**585**

					PRE-DEVELOPMENT TOTALS	**206.4**	**3.44**	**61.9**	**2649**

THE HAMLET AT CARMEL, MULTI-FAMILY HOUSING DEVELOPMENT
POST-DEVELOPMENT ANNUAL POLLUTANT LOADS

SUBCATCHMENT 2.1SA

		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Multifamily Residential	0.70	50.0	0.63	5.0	395.0	35.0	0.44	3.5	277
Grass	0.50	6.0	0.12	3.7	308	3.0	0.06	1.9	154
					TOTAL	38.0	0.50	5.4	431
						20%	20%	20%	20%
					DEP DESIGN 14 GRASS SWALE	to	to	to	to
						40%	40%	40%	40%
						30.4	0.40	4.3	344
					SUBTOTAL	to	to	to	to
						22.8	0.30	3.2	258
						40%	40%	20%	80%
					DEP DESIGN 2 DETENTION POND REMOVAL EFFICIENCIES	to	to	to	to
						60%	60%	40%	100%
						18.2	0.24	3.4	69
					SUBTOTAL	to	to	to	to
						9.1	0.12	1.9	0
						40%	40%	20%	80%
					DEP DESIGN 2 DETENTION POND REMOVAL EFFICIENCIES	to	to	to	to
						60%	60%	40%	100%
						10.9	0.14	2.7	14
					SUBTOTAL	to	to	to	to
						3.6	0.05	1.2	0
						20%	20%	20%	20%
					DEP DESIGN 14 GRASS SWALE	to	to	to	to
						40%	40%	40%	40%
						8.8	**0.12**	**2.2**	**11**
					SUBCATCHMENT 2.1SA SUBTOTAL	to	to	to	to
						2.2	**0.03**	**0.7**	**0**

SUBCATCHMENT 2.1SB

		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Multifamily Residential	3.80	50.0	0.63	5.0	395.0	190.0	2.39	19.0	1501
Grass	1.80	6.0	0.12	3.7	308	10.8	0.22	6.7	554
					TOTAL	200.8	2.61	25.7	2055
						40%	40%	20%	80%
					DEP DESIGN 2 DETENTION POND REMOVAL EFFICIENCIES	to	to	to	to
						60%	60%	40%	100%
						120.5	1.57	20.5	411
					SUBTOTAL	to	to	to	to
						80.3	1.04	15.4	0
						40%	40%	20%	80%
					DEP DESIGN 2 DETENTION POND REMOVAL EFFICIENCIES	to	to	to	to
						60%	60%	40%	100%
						72.3	0.94	16.4	82
					SUBTOTAL	to	to	to	to
						32.1	0.42	9.2	0
						20%	20%	20%	20%
					DEP DESIGN 14 GRASS SWALE	to	to	to	to
						40%	40%	40%	40%
						57.8	**0.75**	**13.1**	**66**
					SUBCATCHMENT 2.1SB SUBTOTAL	to	to	to	to
						19.3	**0.25**	**5.5**	**0**

SUBCATCHMENT 2.2S

		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Grass	0.90	6.0	0.12	3.7	308	5.4	0.11	3.3	277
					TOTAL	5.4	0.11	3.3	277
						40%	40%	20%	80%
					DEP DESIGN 2 DETENTION POND REMOVAL EFFICIENCIES	to	to	to	to
						60%	60%	40%	100%
						3.2	0.06	2.7	55
					SUBTOTAL	to	to	to	to
						2.2	0.04	2.0	0
						20%	20%	20%	20%
					DEP DESIGN 14 GRASS SWALE	to	to	to	to
						40%	40%	40%	40%
						2.6	**0.05**	**2.1**	**44**
					SUBCATCHMENT 2.2S SUBTOTAL	to	to	to	to
						1.3	**0.03**	**1.2**	**0**

SUBCATCHMENT 2.3S

		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Woods	2.80	6.0	0.10	1.8	77	16.8	0.28	5.0	216
					SUBCATCHMENT 2.3 S SUBTOTAL	**16.8**	**0.28**	**5.0**	**216**

86.0	**1.20**	**22.5**	**337**	
	to	to	to	
39.6	**0.59**	**12.5**	**216**	**DESIGN POINT 2 POST-DEVELOPMENT TOTALS**

SUBCATCHMENT 3.1SA

		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Multifamily Residential	0.60	50.0	0.63	5.0	395.0	30.0	0.38	3.0	237
Grass	0.40	6.0	0.12	3.7	308	2.4	0.05	1.5	123
					TOTAL	32.4	0.43	4.5	360
						20%	20%	20%	20%
					DEP DESIGN 14 GRASS SWALE	to	to	to	to
						40%	40%	40%	40%
						25.9	0.34	3.6	288
					SUBTOTAL	to	to	to	to
						19.4	0.26	2.7	216
						40%	40%	20%	80%
					DEP DESIGN 2 DETENTION POND REMOVAL EFFICIENCIES	to	to	to	to
						60%	60%	40%	100%
						15.6	0.20	2.9	58
					SUBTOTAL	to	to	to	to
						7.8	0.10	1.6	0
						40%	40%	20%	80%
					DEP DESIGN 2 DETENTION POND REMOVAL EFFICIENCIES	to	to	to	to
						60%	60%	40%	100%
						9.3	0.12	2.3	12
					SUBTOTAL	to	to	to	to
						3.1	0.04	1.0	0
						20%	20%	20%	20%
					DEP DESIGN 14 GRASS SWALE	to	to	to	to
						40%	40%	40%	40%
						7.5	**0.10**	**1.8**	**9**
					SUBCATCHMENT 3.1SA SUBTOTAL	to	to	to	to
						1.9	**0.02**	**0.6**	**0**

SUBCATCHMENT 3.1SB

		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Pavement	1.5	111.0	0.98	2.1	446	166.5	1.4685	3.15	669
Multifamily Residential	2.40	50.0	0.63	5.0	395.0	120.0	1.51	12.0	948
Grass	2.70	6.0	0.12	3.7	308	16.2	0.32	10.0	832
Woods	0.50	6.0	0.10	1.8	77	3.0	0.05	0.9	39
					TOTAL	305.7	3.35	26.0	2487
						40%	40%	20%	80%
					DEP DESIGN 2 DETENTION POND REMOVAL EFFICIENCIES	to	to	to	to
						60%	60%	40%	100%
						183.4	2.0	20.8	497
					SUBTOTAL	to	to	to	to
						122.3	1.3	15.6	0
						40%	40%	20%	80%
					DEP DESIGN 2 DETENTION POND REMOVAL EFFICIENCIES	to	to	to	to
						60%	60%	40%	100%
						110.1	1.21	16.7	99
					SUBTOTAL	to	to	to	to
						48.9	0.54	9.4	0
						20%	20%	20%	20%
					DEP DESIGN 14 GRASS SWALE	to	to	to	to
						40%	40%	40%	40%
						88.0	**0.97**	**13.3**	**80**
					SUBCATCHMENT 3.1SB SUBTOTAL	to	to	to	to
						29.3	**0.32**	**5.6**	**0**

SUBCATCHMENT 3.2S

		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Grass	0.60	6.0	0.12	3.7	308	3.6	0.07	2.2	185
					TOTAL	3.6	0.07	2.2	185
						40%	40%	20%	80%
					DEP DESIGN 2 DETENTION POND REMOVAL EFFICIENCIES	to	to	to	to
						60%	60%	40%	100%
						2.2	**0.04**	**1.8**	**37**
					SUBCATCHMENT 3.2S SUBTOTAL	to	to	to	to
						1.4	**0.03**	**1.3**	**0**

SUBCATCHMENT 3.3S

		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Woods	2.70	6.0	0.10	1.8	77	16.2	0.27	4.9	208
Grass	0.20	6.0	0.12	3.7	308	1.2	0.02	0.7	62
					SUBCATCHMENT 3.3S SUBTOTAL	**17.4**	**0.29**	**5.6**	**270**

115.1	**1.40**	**22.5**	**395**
	to	to	to
50.1	**0.67**	**13.1**	**270**

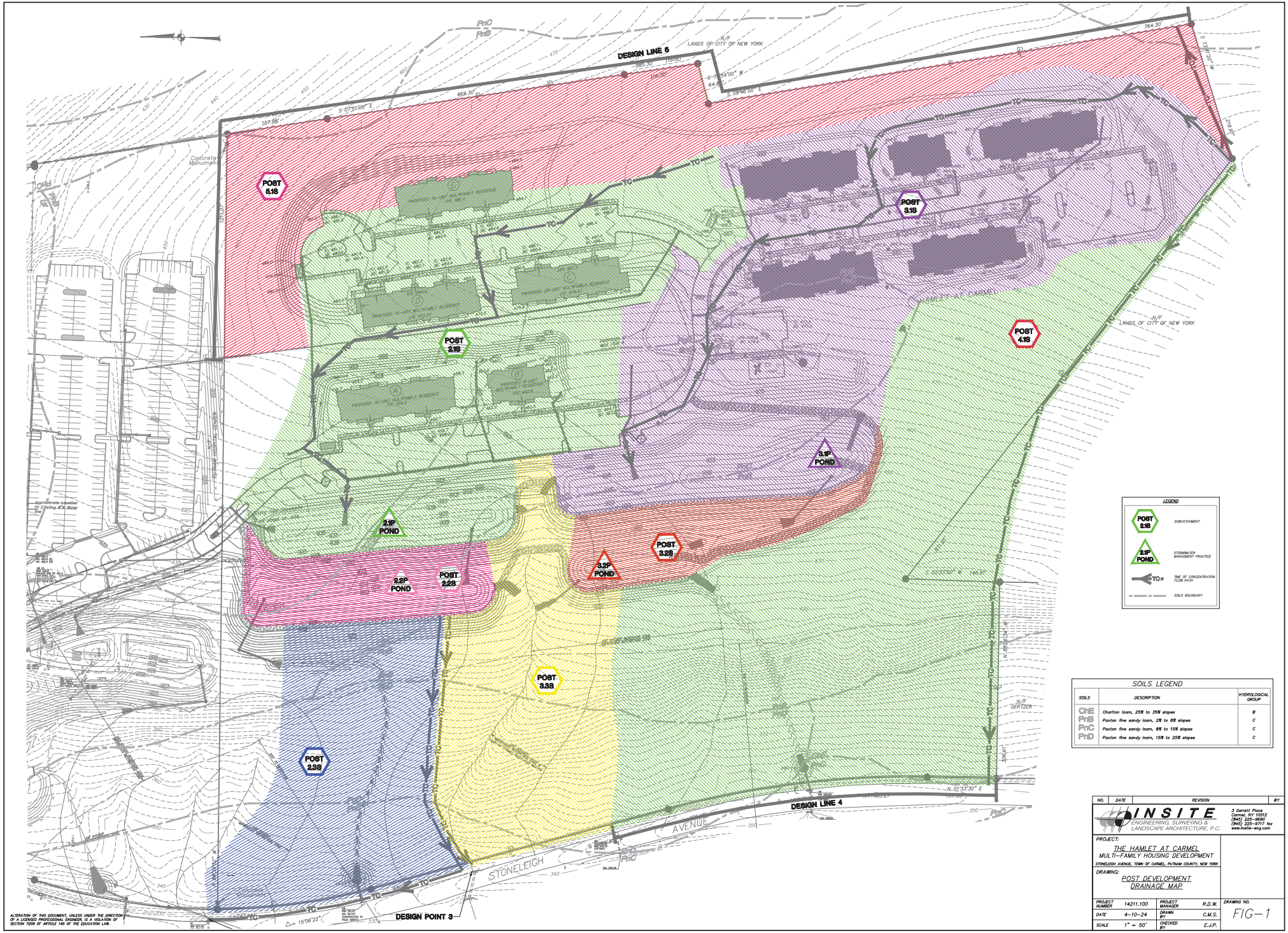
DESIGN POINT 3 POST-DEVELOPMENT TOTALS

SUBCATCHMENT 4.1S									
		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Woods	8.00	6.0	0.10	1.8	77	48.0	0.80	14.4	616
DESIGN POINT 4 POST-DEVELOPMENT TOTALS						**48.0**	**0.80**	**14.4**	**616**

SUBCATCHMENT 5.1S									
		Rates (lb/ac/yr)				Annual Loads (lb/yr)			
Land use/Ground Cover	**Area (Acres)**	**BOD**	**TP**	**TN**	**TSS**	**BOD**	**TP**	**TN**	**TSS**
Grass	1.00	6.0	0.12	3.7	308	6.0	0.12	3.7	308
Woods	3.30	6.0	0.10	1.8	77	19.8	0.33	5.9	254
DESIGN POINT 5 POST-DEVELOPMENT TOTALS						**25.8**	**0.45**	**9.6**	**562**

274.8	**3.85**	**69.1**	**1910**
	to	to	to
OVERALL POST-DEVELOPMENT TOTALS	**163.4**	**2.50**	**49.7**	**1663**

FIGURES



SOILS LEGEND

SOILS	DESCRIPTION	HYDROLOGICAL GROUP
ChE	Charlton loam, 25% to 35% slopes	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

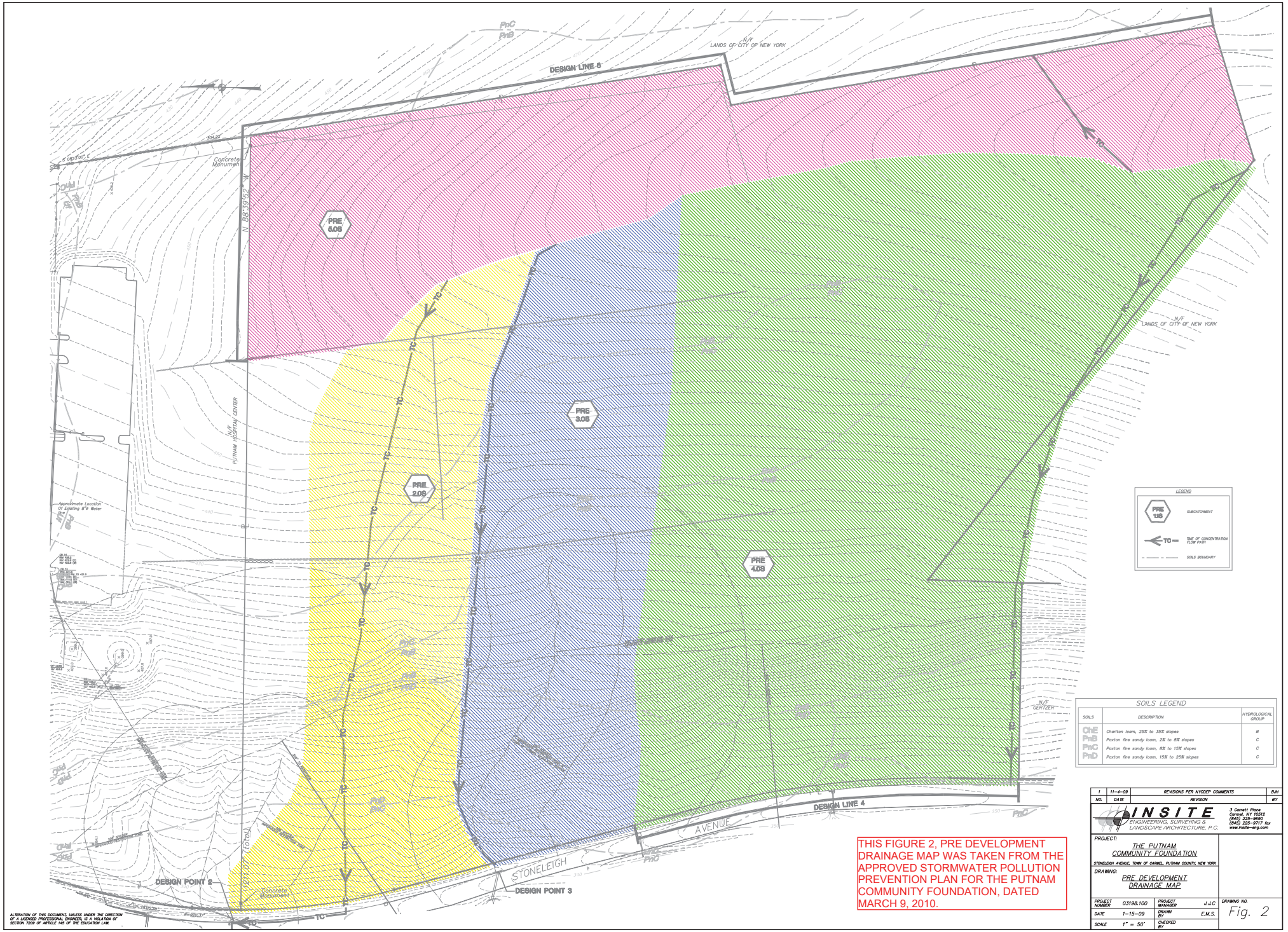
NO.	DATE	REVISION	BY

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

PROJECT:
THE HAMLET AT CARMEL
MULTI-FAMILY HOUSING DEVELOPMENT
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
POST DEVELOPMENT DRAINAGE MAP

PROJECT NUMBER	14211.100	PROJECT MANAGER	R.D.W.	DRAWING NO. FIG-1
DATE	4-10-24	DRAWN BY	C.M.S.	
SCALE	1" = 50'	CHECKED BY	E.J.P.	



SOILS LEGEND

SOILS	DESCRIPTION	HYDROLOGICAL GROUP
CHE	Charlton loam, 25% to 35% slopes	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

THIS FIGURE 2, PRE DEVELOPMENT DRAINAGE MAP WAS TAKEN FROM THE APPROVED STORMWATER POLLUTION PREVENTION PLAN FOR THE PUTNAM COMMUNITY FOUNDATION, DATED MARCH 9, 2010.

NO.	DATE	REVISION	BY
1	11-4-09	REVISIONS PER NYCDEP COMMENTS	DJH

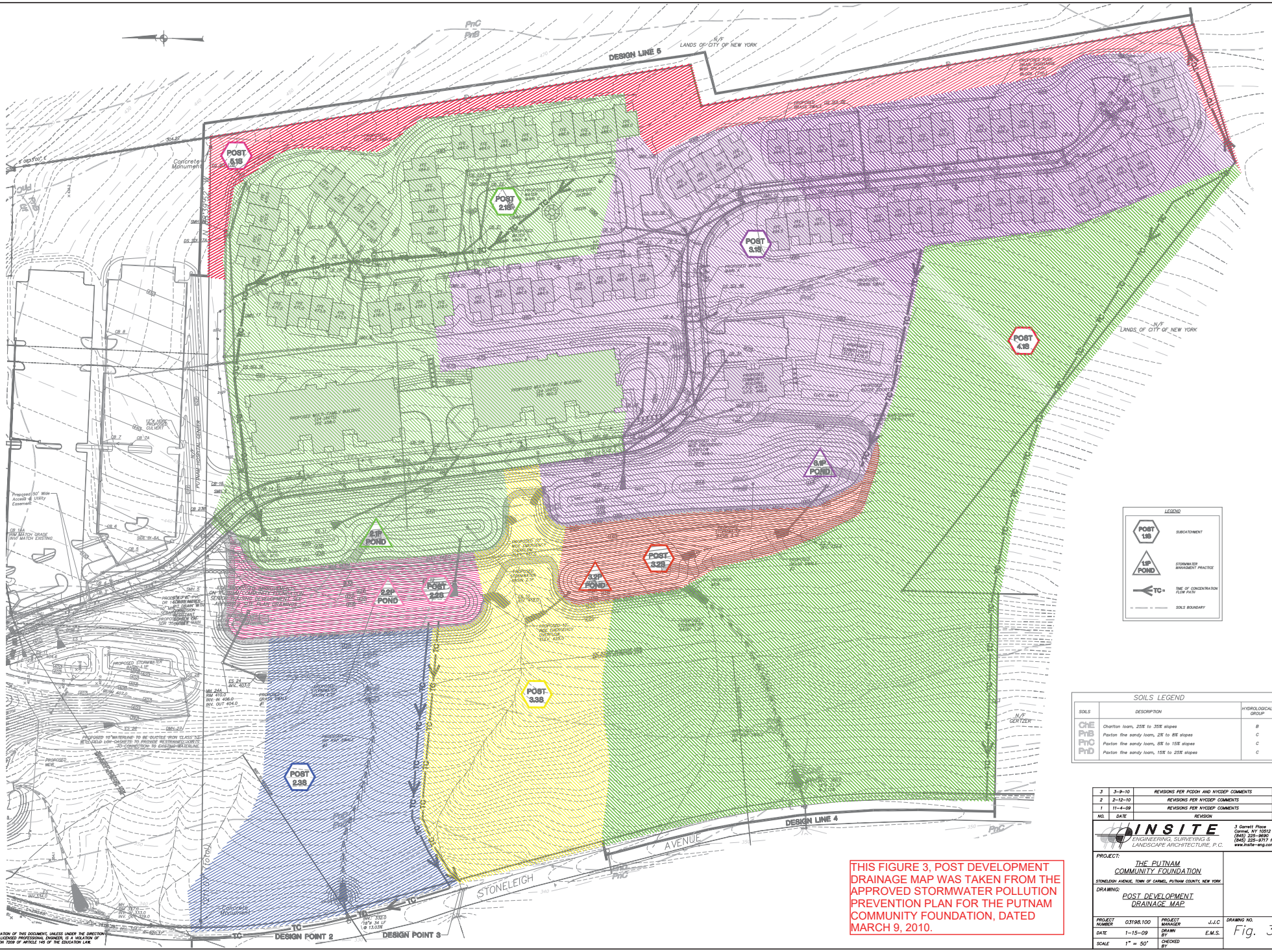
INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9090
(845) 225-9717 fax
www.insite-eng.com

PROJECT: THE PUTNAM COMMUNITY FOUNDATION
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING: PRE DEVELOPMENT DRAINAGE MAP

PROJECT NUMBER	03198.100	PROJECT MANAGER	J.J.C
DATE	1-15-09	DRAWN BY	E.M.S.
SCALE	1" = 50'	CHECKED BY	

DRAWING NO. Fig. 2



SOILS LEGEND

SOILS	DESCRIPTION	HYDROLOGICAL GROUP
ChE	Charlton loam, 25% to 35% slopes	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

NO.	DATE	REVISION	BY
3	3-9-10	REVISIONS PER PCDOH AND NYCDEP COMMENTS	BJH
2	2-12-10	REVISIONS PER NYCDEP COMMENTS	EMS
1	11-4-09	REVISIONS PER NYCDEP COMMENTS	BJH

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9090
(845) 225-9717 fax
www.insite-eng.com

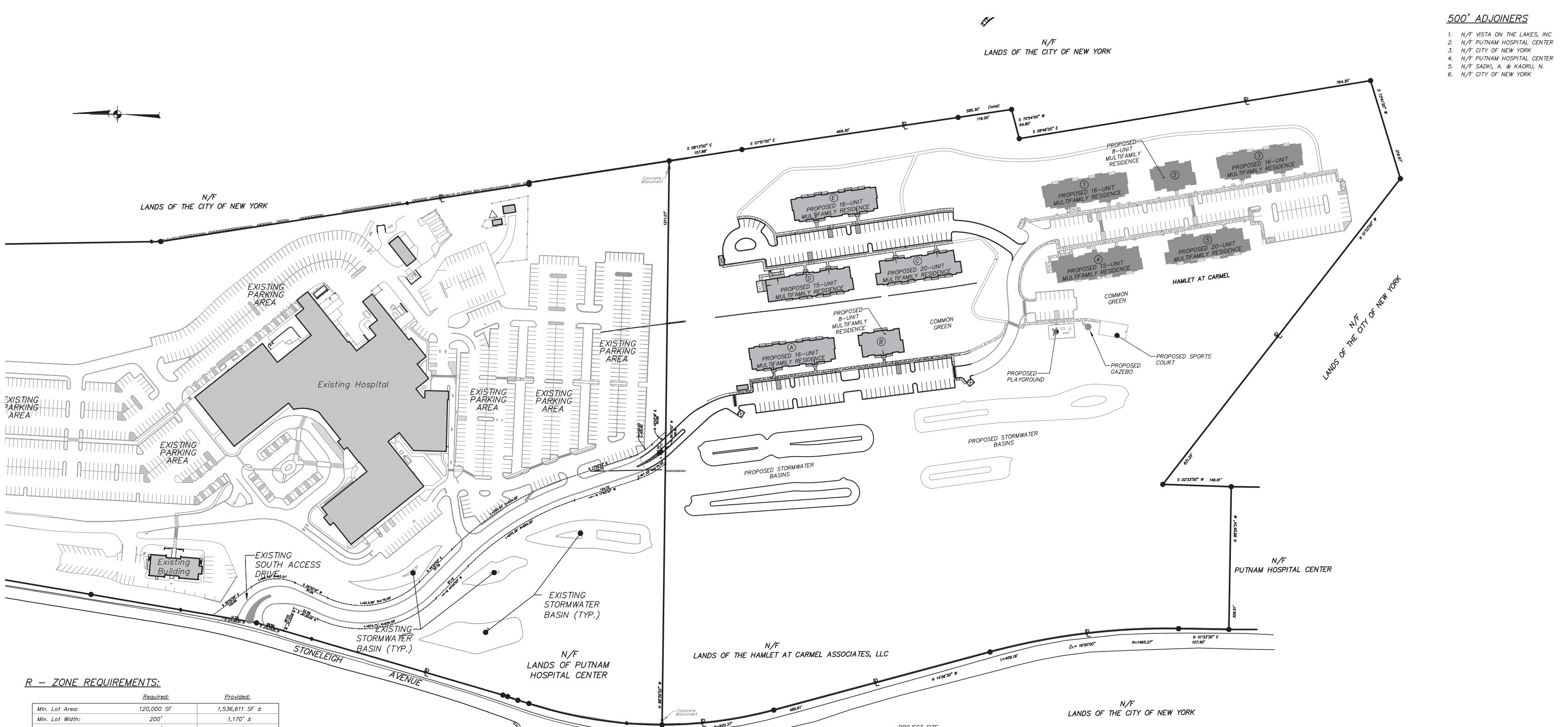
PROJECT: THE PUTNAM COMMUNITY FOUNDATION
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING: POST DEVELOPMENT DRAINAGE MAP

PROJECT NUMBER	03198.100	PROJECT MANAGER	J.J.C.
DATE	1-15-09	DRAWN BY	E.M.S.
SCALE	1" = 50'	CHECKED BY	

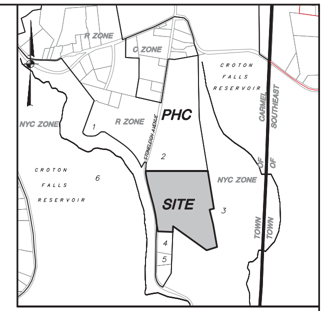
DRAWING NO. Fig. 3

THIS FIGURE 3, POST DEVELOPMENT DRAINAGE MAP WAS TAKEN FROM THE APPROVED STORMWATER POLLUTION PREVENTION PLAN FOR THE PUTNAM COMMUNITY FOUNDATION, DATED MARCH 9, 2010.

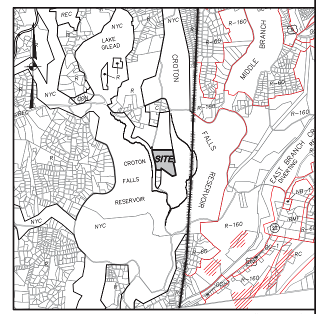


500' ADJOINERS

1. N/F VISTA ON THE LAKES, INC
2. N/F PUTNAM HOSPITAL CENTER
3. N/F CITY OF NEW YORK
4. N/F PUTNAM HOSPITAL CENTER
5. N/F SADKI, A. & KAORU, N.
6. N/F CITY OF NEW YORK



AREA MAP SCALE: 1" = 1000'



LOCATION MAP SCALE: 1" = 3000'

RECORD OWNER/APPLICANT:

The Hamlet at Carmel Associates, LLC
1777 Route 6
Carmel, NY 10152

SITE DATA:

Total Area:	35.28 AC. ±
Tax Map No.:	66-2-58
Zoning District:	R (Residential)
Proposed Use:	Multifamily Residential

GENERAL NOTES:

1. Property boundary shown hereon taken from subdivision plat entitled 'Boundary Line Adjustment Map prepared for Putnam Community Foundation and Putnam Hospital Center..." filed January 4, 2006 as map no. 3008."
2. Existing conditions and topography shown hereon taken from survey entitled "Topographic Survey prepared for The Putnam Community Foundation", prepared by Terry Bergendorff Collins, L.S., last revised April 25, 2007.
3. The NYCDEP reservoir stems indicated on these plans were originally delineated by the NYCDEP on October 4, 2006 & August 26, 2008 and were reconfirmed in the field by NYCDEP on December 13, 2021.
4. The proposed roads shown hereon will be privately owned, and are not intended to be dedicated to the Town of Carmel.
5. An access & utility easement is to be granted to the southerly lease parcel, giving its tenants rights and access to the site across the portion of the private road that is part of the northerly parcel.

R – ZONE REQUIREMENTS:

	Required:	Provided:
Min. Lot Area:	120,000 SF	1,536,611 SF ±
Min. Lot Width:	200'	1,170' ±
Min. Lot Depth:	200'	1,161' ±
Min. Yard Setbacks:		
Front:	40'	668'
Side:	25'	102'
Rear:	40'	115'
Max. Building Height:	35'	<35'
Max. Building Coverage:	15 %	5.7%

* See §156-28 Multi-Family Dwellings Zoning Requirements below.

§156-28 MULTI-FAMILY DWELLINGS ZONING REQUIREMENTS: *

	Required/Permitted:	Provided:
Min. Lot Area	217,800 SF (10.0 AC)	1,536,611 SF ± (35.28 AC)
Max. Density (Units/Acre)	5.0	4.25
Max. Dwelling Units	150	150
Max. Building Coverage	30%	5.7%
Min. Property Line Setback	100'	102'
Max. Building Height/ Stories	35' / 2	less than 35' / 2
Distance Between Buildings	50'	50'
Max. Building Length	200'	200'
Min. Recreation Space	300 SF / unit	301 SF / unit

PARKING REQUIREMENTS: *

2.0 spaces per unit x 150 units – Required	= 300 spaces
Total spaces Provided	= 300 spaces

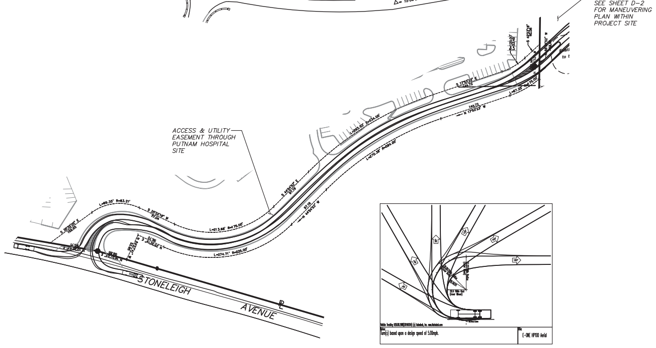
* Per §156-28 of the Town of Carmel Zoning Code.

RECREATION REQUIREMENTS:

1. Indoor Common Space: 2,746 SF±
2. Patio Areas: 940 SF±
3. Active Recreation Area: (Playground, Sports Court) 10,500 SF±
4. Walking Path Area: 11,000 SF±
5. Common Greens: 20,000 SF±

TOTAL RECREATION PROVIDED: 45,186 SF

TOTAL RECREATION REQUIRED: (300 SF/Unit x 150 Units) 45,000 SF



MANEUVERING PLAN
E-ONE AERIAL FIRE TRUCK
1" = 50'

CONSTRUCTION NOTES:

1. The contractor is advised that additional notes will be found on subsequent drawings and such notes, while pertaining to the specific drawings they are placed in, also supplement the construction notes listed hereon.
2. All work and materials shall be in accordance with these plans and project specifications.
3. The contractor shall notify the Engineer 72 hours prior to start of work.
4. The subject project has coverage under the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Construction Activity, permit No. GP-0-20-001. As required by the permit all contractors and subcontractors will be required to sign a certification statement that they understand and agree to comply with the requirements of GP-0-20-001.
5. The contractor shall have a representative onsite that is a NYSDEC Trained Contractor at all times site work is being performed under this contract. The contractor shall provide a contractor's certification as contained in the NYSDEC Construction Site Logbook to the project engineer upon start of construction.
6. The contractor shall coordinate the layout of the work with the owner, and the project engineer, and eliminate all conflicts including but not limited to utility location conflicts, prior to commencement of any proposed work.
7. The contractor shall coordinate their construction operations with the project engineer and any other contractors/subcontractors and construction activities occurring simultaneously on the property.
8. It shall be the contractor's/subcontractor's responsibility to provide sanitary facilities (i.e. porta-john (and other necessary temporary facilities) throughout the duration of construction.
9. The contractor shall be responsible for providing all power, water, and other resources necessary to complete the project work.
10. Minimum OSHA site standards must be maintained including personal protective equipment and vests. The contractor shall be responsible for guarding and protecting all open excavations in accordance with the latest edition and current OSHA requirements.
11. The contractor shall field verify all dimensions relative to the scope of work.
12. The contractor shall stake out the limits of clearing and it shall be reviewed with the project engineer prior to the start of clearing operations. Existing trees to remain outside the limits of clearing shall be protected per the detail.
13. It shall be the contractor's responsibility to identify and protect all underground utilities. The contractor shall contact Dig Safely New York at 811 or 1-800-962-7962 and any other required utility locators prior to the start of construction.
14. The exact location, size, and type of the existing utilities may differ from what is shown hereon. The contractor shall field verify the location, size and type of the existing utilities by performing a test pit ahead of construction as necessary to permit revisions to meet existing utilities or relocate proposed utilities as required. Horizontal location and elevation of the existing utility as determined by test pit shall be provided to the project engineer.
15. The contractor shall field verify the existing grades / utility locations prior to commencement of any work. Any discrepancy shall be reported to the project engineer when identified.
16. The contractor shall perform all work with care so that any materials which are to remain in place, or which are to remain on the property, shall not be damaged. The contractor will be held responsible for all damage caused to existing utilities / features / facilities / vegetation during execution of the work not proposed to be modified or removed by these plans. All damage to any existing utilities / features / facilities / vegetation not proposed to be modified by the contract shall be repaired or replaced by the contractor to the satisfaction of the owner at no additional cost.
17. Original condition shall mean the condition in which the feature was found (or better) at the start of construction.
18. The contractor shall be responsible for the implementation and maintenance of erosion and sediment controls (shown or not) as necessary to prevent erosion and migration of sediment outside of the contract limit line or into the stormwater collection system. Erosion and sediment controls may include but are not limited to silt fence, stabilized construction entrance, berms and inlet protection. All erosion and sediment controls shall be installed in accordance with the New York State Standards and Specifications for Erosion and Sediment Control. Additional erosion and sediment controls may be required during construction by the project engineer. All disturbed areas shall be stabilized in accordance with the Erosion & Sediment Control Notes and details.
19. Silt fence shall be installed parallel to the contours.
20. Contractor is responsible for protecting soil stockpiles, trenches, and building excavations against weather. No additional fee will be paid to the contractor for removal and replacement of suitable soils due to degradation from weather related events.
21. During execution of the work, the contractor shall be responsible for dewatering and control of surface water in accordance with the New York State Standards and Specifications for Erosion and Sediment Control. The New York State Standards and Specifications for Erosion and Sediment Control can be found at http://www.dec.ny.gov/chemical/29066.html.
22. All existing pavement shall be cleaned and swept prior to the completion of construction.
23. The contractor shall provide temporary construction fence for all work areas including the material storage/staging areas.
24. All personal vehicles, materials, and construction equipment must be kept within the construction staging area. Use of additional onsite storage areas must be pre-authorized by the owner of the property.
25. Trees shown on the plans for reference only. All trees and vegetation within the contract limit line shall be removed unless otherwise labeled to be protected and saved. Not all trees to be removed may be shown.
26. Tree clearing can only be performed between October 1st and March 31st.
27. Topsoil and subsoil shall be stripped, screened, and stockpiled in locations shown for future use. The contractor must keep enough topsoil onsite for final restoration. Four inches of screened topsoil shall be placed and raked to finish grade over all disturbed areas not covered by pavement, concrete and/or gravel surfaces, unless otherwise noted.
28. The contractor shall maintain existing grades unless otherwise noted.
29. Contractor shall be responsible for removal of all excess rock, topsoil, subsoil, and construction debris from the site.
30. There shall be no burying of construction and demolition (C&D) debris or stumps on site. All C&D debris and stumps must be removed by the contractor, and disposed of in accordance with all pertinent regulations.
34. All pre-cast concrete drainage structures, frames, and grates are to meet H-20 loading requirements.
35. Design Engineer to approve locations and elevations of all structures prior to placement.
36. Where side drain inlets are proposed the Contractor shall extend the upstream swale to the side inlet of the drainage structure.
37. Unless otherwise shown on the drawings the contractor shall match the material, thickness and quality of all existing pavements that are to be replaced.
38. Temporary asphalt wedges shall be placed in all areas open to vehicular access. The wedges shall be installed between any sudden abrupt grade changes in excess of 1" as a result of construction. All temporary wedges shall be removed prior to placement of asphalt course.
39. The contractor will be responsible for the implementation of all maintenance and protection of traffic (MP&T) measures if necessary. MP&T shall include but not be limited to placement of traffic cones and warning signs around work zone. Safe and adequate pedestrian vehicular traffic flow shall be maintained at all times to the existing buildings, while the work is in progress. The contractor shall submit for approval of the Architect, a construction sequence schedule and plan for pedestrian and vehicular traffic flow.
40. A retaining wall design signed and sealed by a NYS licensed Engineer shall be submitted to the Consulting Town Engineer prior to the construction of any wall greater than 4 feet in height.

LIST OF DRAWINGS

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

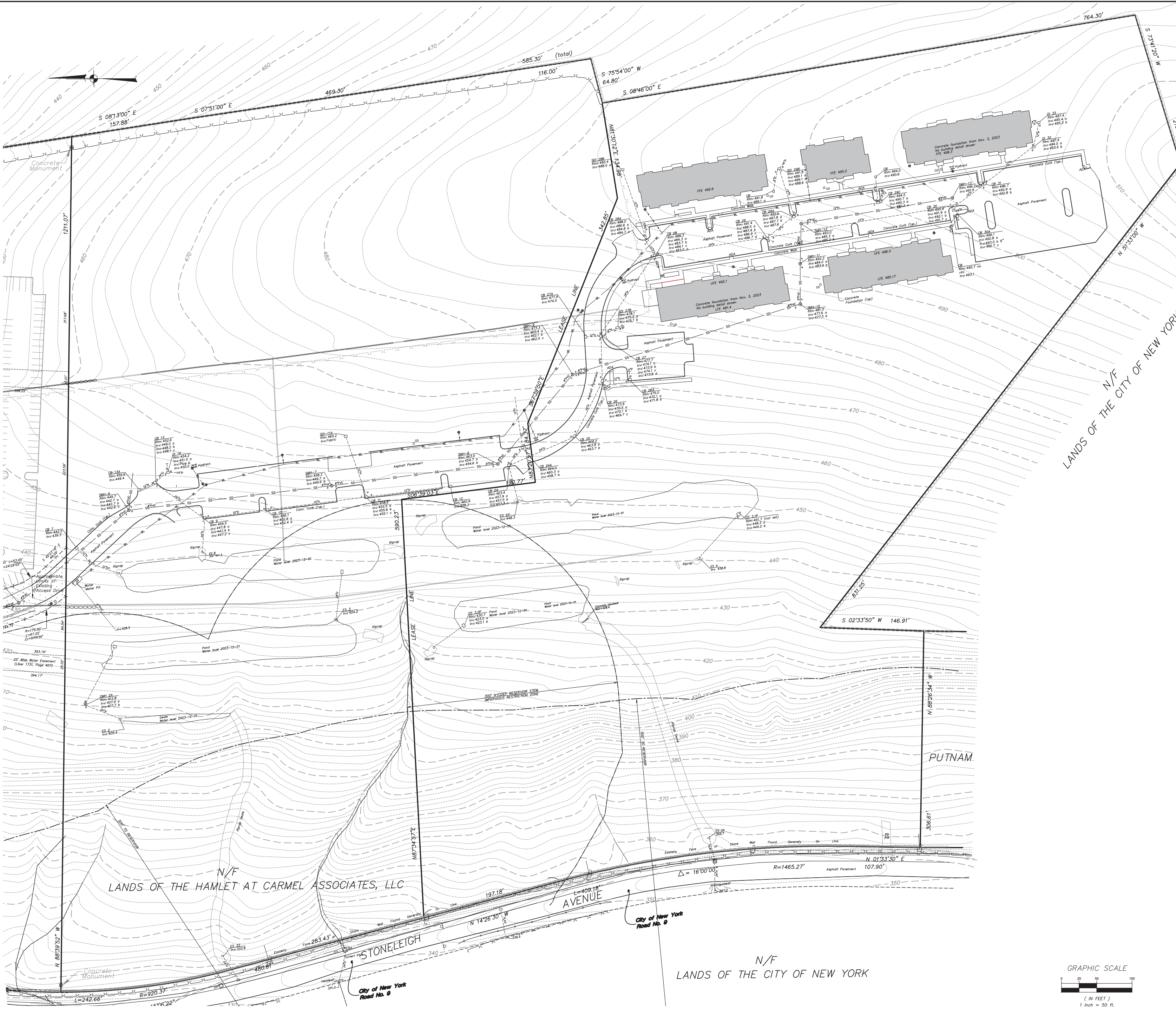
PROJECT:
THE HAMLET AT CARMEL
AMENDED SITE PLAN
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
OVERALL SITE PLAN

PROJECT NO.	14211.100	PROJECT MANAGER	R.D.W.
DATE	4-10-24	DRAWN BY	M.E.U.
SCALE	1" = 100'	CHECKED BY	A.D.T.

DRAWING NO. SP-1

SHEET 1 / 15



AS-BUILT NOTES

1. The as-built conditions shown hereon are taken from a progress as-built survey prepared by Insite Engineering, Surveying & Landscape Architecture, P.C., dated December 7, 2023.

REMOVAL NOTES

1. Prior to submitting the bid, the contractor shall visit the site andfamiliarize themselves with the site conditions and existing improvements to be removed.
2. The contractor shall provide all removals incidental and necessary to execute the work prescribed in the contract documents. All existing features specified to be removed shall be removed in their entirety unless otherwise authorized in writing by the owner or the project engineer.
3. These drawings are intended to show an overall Limit of Disturbance and general features to be removed. Not all features incidental to the general scope of the site work have been shown to be removed. The contractor shall be responsible for all removals within the limits of both above and below grade features, necessary for the construction of the site improvements shown hereon.
4. All underground utility piping (water, sewer, drainage conduits) shall be capped and abandoned in place. All abandoned pipes left in place shall be filled with controlled low strength material (CLSM) sealing both ends. Any exposed utility piping shall be cut and removed such that a minimum of 1' of soil cover is maintained on all pipes that are to be capped and abandoned in place.
5. All building materials shall be demolished and removed from the site.
6. For any below grade slab or bottom of tank that is to be demolished and abandoned in place, the concrete shall be pulverized so that there are no pieces of concrete remaining that are larger than 3 ft by 3 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:

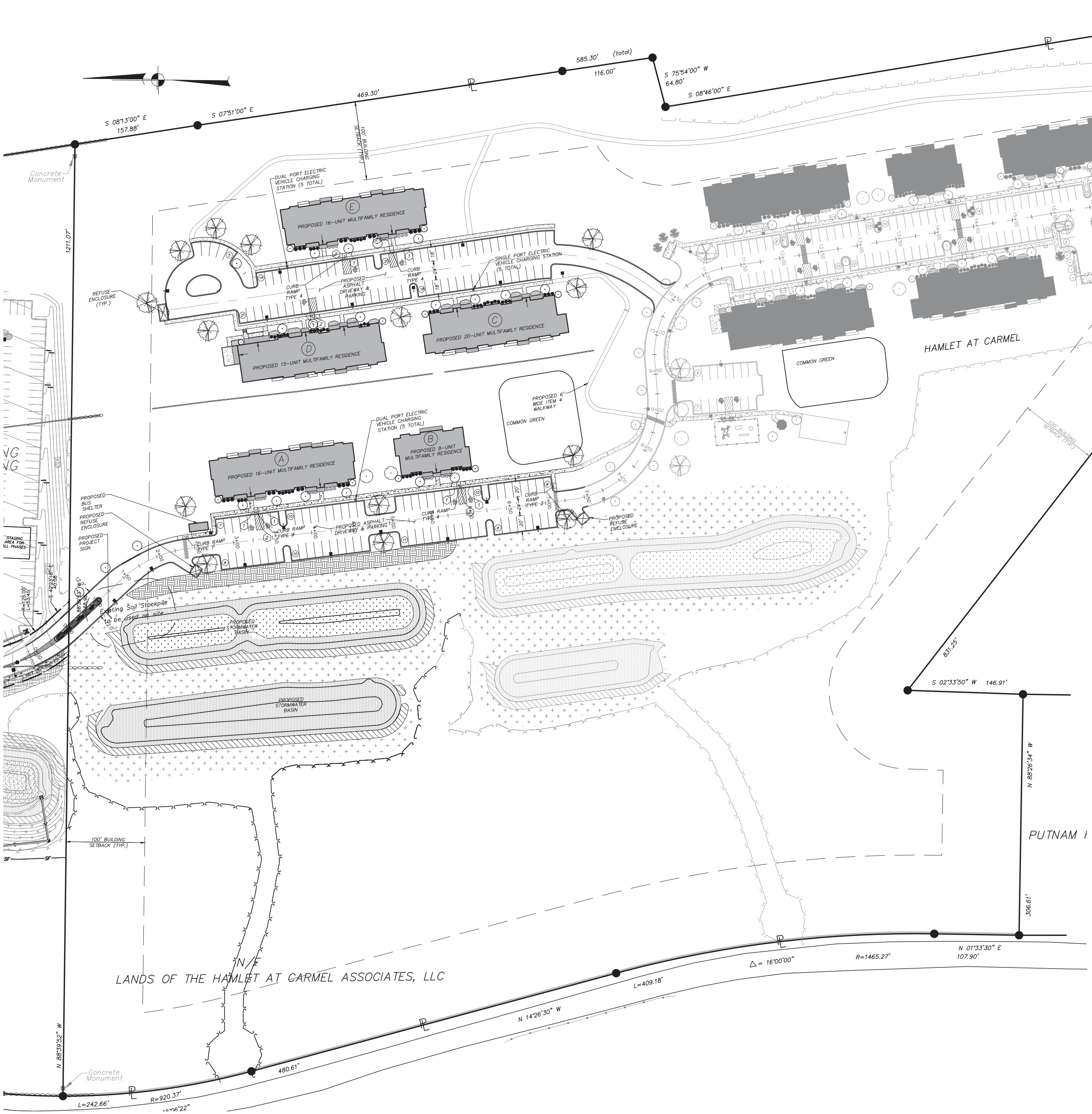
THE HAMLET AT CARMEL
AMENDED SITE PLAN

STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:

EXISTING CONDITIONS PLAN

PROJECT NO.	14211.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	4-10-24	DRAWN BY	A.D.T.	EX-1	2 / 15
SCALE	1" = 50'	CHECKED BY	A.D.T.		



SIGN DATA TABLE

LOCATION NO.	TEXT	M.U.T.C.D. NUMBER	SIZE OF SIGN (s.f.)	DESCRIPTION
1	RESERVED PARKING	NY R7-8*	12" x 18"	Green on White Blue Symbol
	VAN ACCESSIBLE	R7-8P	12" x 6"	Green on White
2	NO PARKING ANY TIME	R7-1	12" x 18"	Red on White

PLANT LIST

BOTANICAL/COMMON NAME	SIZE	ROOT	REMARKS
SHADE TREES			
Acer rubrum 'October Glory' / October Glory Red Maple	2 1/2" – 3" CAL.	B & B	
Liquidamber styracifolia / Sweetgum	2 1/2" – 3" CAL.	B & B	
Quercus palustris / Pin Oak	2 1/2" – 3" CAL.	B & B	
Betula papyrifera / Paper Birch	8' – 10' HT.	B & B	Multi-stem
Gleditsia Tricanthos / Honey Locust	8' – 10' HT.	B & B	
Tilia cordata / Little Leaf Linden	8' – 10' HT.	B & B	
FLOWERING TREES			
Pyrus callaryana 'Bradford' / Bradford Pear	2" – 2 1/2" CAL	B & B	
Cornus Kousa / Kousa Dogwood	7' – 8' HT.	B & B	
Cercis canadensis / Eastern Redbud	8' – 10' HT.	B & B	
Amelanchier canadensis / Shadblow Serviceberry	8' – 10' HT.	B & B	Multi-stem
Crataegus phaenopyrum / Washington Hawthorn	2" – 2 1/2" CAL.	B & B	
Prunus cerasifera / Purple Leaf Plum	2" – 2 1/2" CAL.	B & B	
Malus floribunda / Japanese Flowering Crabapple	2" – 2 1/2" CAL.	B & B	
SHRUBS & GROUNDCOVERS			
Aronia melanocarpa / Black Chokeberry	3 GAL.	CONT.	
Potentilla fruiticosa 'Sunset' / Sunset Potentilla	2 GAL.	CONT.	
Hemerocallis 'Stella D'Oro' / Miniature Daylilies	2 GAL.	CONT.	
Juniperus horizontalis 'Plumosa Nana' / Dwarf Andorra Juniper	3 GAL.	CONT.	
Juniperus sargentii / Sargent's Juniper	3 GAL.	CONT.	
Juniperus horizontalis 'Blue Rug' / Blue Rug Juniper	2 GAL.	CONT.	
Rhododendron 'PJM' / PJM Rhododendron	2' – 2 1/2' HT.	B & B	
Rhododendron 'Purple Gem' / Purple Gem Rhododendron	3 GAL.	CONT.	
Cotoneaster apiculata / Cranberry Cotoneaster	3 GAL.	CONT.	
Ilex Meservae / Holly	4' – 5' HT.	B & B	
Cornus Sericea / Red Twig Dogwood	4' – 5' HT.	B & B	
Spirea japonica 'Anthony Waterer' / Anthony Waterer Spirea	3' – 4' HT.	CONT.	
Pieris japonica 'Mt. Fire' / Mt. Fire Andromeda	2' – 2 1/2' HT.	CONT.	
Rhododendron catawbiense / Catawba Rhododendron	2 1/2' – 3' HT.	CONT.	
Ilex glabra compacta / Dwarf Inkberry	18" – 24" HT.	CONT.	
Taxus baccata 'repandens'/ English Yew	18" – 24" HT.	CONT.	
Forsythia x intermedia / Border Forsythia	4' – 5' HT.	CONT.	
Vaccinium angustifolium / Lowbush Blueberry	3 GAL.	CONT.	
Viburnum prunifolium / Blackhaw Viburnum	2 1/2' – 3' HT.	B & B	
Hydrangea arborescens "Annabelle" / Hydrangea	5 GAL.	CONT.	

* All plantings to be verified by the Town of Carmel Wetland Inspector.

LEGEND

- Property Line
- Existing Stone Wall
- Existing Utility Pole with Overhead Wires
- Existing Tree Line
- Existing Tree Line to be Removed
- Building Setback Line
- Proposed Tree Line
- Proposed Stone Retaining Wall
- Proposed Guiderail
- Proposed Post Mounted Light
- Proposed Pole Mounted Light
- Proposed Single Pole Sign
- Proposed Curb and Parking
- Proposed Landscaping

Planting Notes:

1. All plant material to be nursery grown.
2. Plants shall conform with the American Association of Nurseryman Standards in all ways including dimensions.
3. Plants shall be planted in all locations designed on the plan or as staked in the field by the project Landscape Architect.
4. All plants shall be hardy under climate conditions similar to those in the locality of the project.
5. 4" pine bark mulch shall be spread over all landscaped areas.
6. All proposed seeded areas to receive 4" min. depth of topsoil and all proposed planting beds to receive a 12" min. depth of topsoil.
7. For all additional notes see detail sheets.
8. In addition to these standards, all plantings will be installed per §142 of the Town of Carmel Code.

LIGHTING NOTES:

1. All site lighting shall be solar powered.
2. Model, style and finish of all luminaires to be selected by owner and approved by the Planning Board.
3. Proposed lights will run on photocells.
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.

LUMINAIRE SCHEDULE

Qty.	Symbol	Catalog Number	Description	Lamp	Mounting Height	Watts
19		DSX0 LED	LITHONIA LIGHTING – DSX0 LED WITH P5 PERFORMANCE, 3000K, TYPE 3 DISTRIBUTION WITH HOUSE SIDE SHIELD.	LED	18'	89

* Light fixtures to be fitted with Evergen Solar Lighting System or approval equal.

NO.	DATE	REVISION	BY

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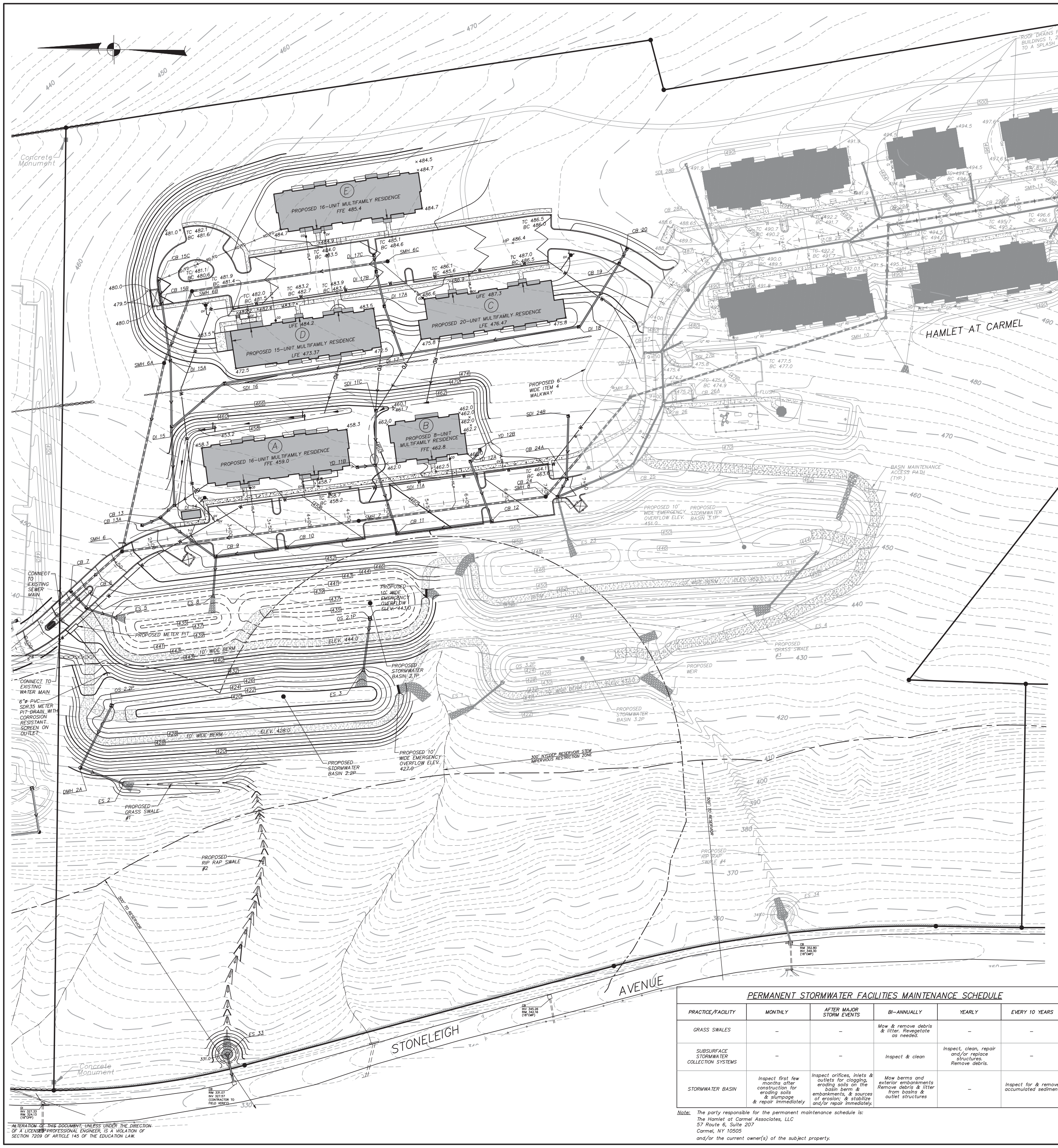
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
www.insite-eng.com

PROJECT:
THE HAMLET AT CARMEL AMENDED SITE PLAN
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
LAYOUT, LANDSCAPING, & LIGHTING PLAN

PROJECT NO.	14211.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	4-10-24	DRAWN BY	M.E.U.	SP-2	3 / 15
SCALE	1" = 50'	CHECKED BY	A.D.T.		



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.

LEGEND

- Property Line
- Existing 2' Contour
- Existing 10' Contour
- Existing Spot Grade
- Existing Drain Inlet and Drainage Pipe
- Proposed 2' Contour
- Proposed 10' Contour
- Existing Stone Wall
- Existing Stone Wall to be Removed
- Proposed Retaining Wall
- Proposed 8"ø PVC SDR 35 Sewer Main With Sewer Manhole
- Proposed HDPE Drainage Pipe
- Proposed Roof Drain (Size As Noted)
- Proposed Footing Drain
- Proposed Sewer Manhole
- Proposed Catch Basin/ Drain Inlet
- Proposed Drainage Manhole
- Proposed Outlet Structure
- Proposed End Section With Rip Rap Apron
- Proposed Grass Swale
- Proposed Riprap Swale
- Proposed 8"ø PVC DR14 Water Main
- Proposed Fire Hydrant and Gate Valve
- Proposed 4"ø PVC SDR 35 Sewer Service Line W/Clean Out
- Proposed 6"ø PVC SDR 35 Sewer Service Line W/Clean Out
- Proposed 6"ø PVC DR 14 (Main to Service Valve) or Ductile Iron Water (Service Valve to Building) Service Line (Final Size Per Fire Protection System Requirements)
- Proposed Gate Valve
- Proposed Down Spout

WINTER SITE STABILIZATION NOTES:

1. All bare / exposed soils must be stabilized by an established vegetation, straw or mulch, matting, or other approved product such as rolled erosion control product.
2. Sediment barriers must be properly installed at all necessary perimeter and sensitive locations.
3. All slopes and grades must be properly stabilized with approved methods. Rolled erosion control products must be used on all slopes greater than 3:1, or where conditions for erosion dictate such measures.
4. Stockpiled soils must be protected by the use of established vegetation, an anchored-down straw or mulch, rolled erosion control product or other durable covering. A barrier must be installed around the pile to prevent erosion away from that location.
5. All entrance / exit locations to the site must be properly stabilized and must be maintained to accommodate snow management as set forth in the NYS Standard and Specifications for Erosion and Sediment Control.
6. Snow management must not destroy or degrade erosion and sediment control devices.

EXCAVATION NOTES:

1. All pavement to be saw cut to its full depth by the contractor prior to excavation.
2. The Contractor shall provide sheeting, shoring, a benched excavation, or a sloped excavation for all excavations 5.0 feet or greater in depth.
3. All sheeting and shoring protective systems used for excavation shall be designed and stamped by a NYS licensed Professional Engineer.
4. Where construction crosses or is adjacent to existing utility lines (fuel, water gas, telephone, electric or communication), the contractor shall carefully hand excavate so as to locate, mark and protect the utility lines against disturbance or damage by providing adequate support and protection as approved by the Engineer. The contractor shall repair any power or communication interruption immediately, at no additional cost to the owner.
5. Trench excavation outside of temporary construction fence is to be backfilled on the same day as excavation. Temporary orange construction fence is required around these work areas for on going work.
6. All utility trenching in and adjacent to roadways shall be backfilled prior to the end of the work day, unless otherwise authorized by the Engineer. Item 4 shall be temporarily brought to the surface of the utility trench flush with the adjacent pavement and maintained until the final pavement is installed. Road plates, if used, shall be designed to meet H25 loading requirements.

REQUIRED EROSION CONTROL SWPPP CONTENTS:

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:

a. Background Information: The subject project consists of the construction of a multifamily residential development with 10 buildings totaling 150 units, and associated appurtenances.

b. Site map / construction drawing: This plan serves to satisfy this SWPPP requirement for planimetric design and details.

c. Description of the soils present at the site: Onsite soils located within the proposed limits of disturbance consist of Paxton fine sandy loams (PnB, PnC, PnD) and Charlton loam (ChE), as identified on the Soil Conservation Service Web Soil Survey. The Paxton type belongs to the Hydrologic Soil Group "C" and the Charlton soil belongs to Hydrologic Soil Group "B".

d. Construction phasing plan / sequence of operations: 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. As greater than five acres of disturbance is proposed, the project will be completed in phases with disturbance of less than five acres. 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 for erosion control notes and details.

g. The dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices: The Details, Sedimentation and Erosion Control Notes and Erosion and Sediment Control Maintenance Schedule serve to satisfy this SWPPP requirement.

h. An inspection schedule: Inspections are to be performed 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.

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."

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-g 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. The dimensions, material specifications and installation details for each post-construction stormwater management practice; This plan, and details/notes shown hereon serve to satisfy this SWPPP requirement.

   d. Identification of any elements of the design that are not in conformance with the Design Manual. Include the reason for the deviation or alternative design and provide information which demonstrates that the deviation or alternative design is equivalent to the technical standards; All post-construction stormwater management practices are in conformance with the Design Manual.

   e. A hydrologic and hydraulic analysis for all structural components of the stormwater management control system; The required analysis is provided in the report titled Stormwater Pollution Prevention Plan for The Hamlet at Carmel.

   f. A detailed summary (including calculations) of the sizing criteria that was used to design all post-construction stormwater management practices. At a minimum, the summary shall address the required design criteria from the applicable chapter of the Design Manual; including the identification of and justification for any deviations from the Design Manual, and identification of any design criteria that are not required based on the redevelopment criteria or waiver criteria included in the Design Manual; The stormwater practices are sized in accordance with the Design Manual, specifically chapters 4, 6, and 10. The stormwater facilities have been designed to provide water quality volume treatment (treatment of the 1 year 24-hour design storm per the Enhanced Phosphorus Removal Standards). Channel Protection Volume is provided through 24-hour center of mass detention of the 1 year 24-hour design storm. Overbank Flood Control and Extreme Flood Control are provided by attenuating post-development peak stormwater discharges to below pre-development levels for the 10-year and 100-year 24-hour design storm. Calculations are provided in report entitled Stormwater Pollution Prevention Plan for The Hamlet at Carmel. All practices are designed in accordance with the Design Manual.

   g. 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.g 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.g above.

General Notes:

1. Property boundary shown hereon taken from subdivision plat entitled 'Boundary Line Ajustment Map prepared for Putnam Community Foundation and Putnam Hospital Center..." filed January 4, 2006 as map no. 3008 ."
2. Existing conditions and topography shown hereon taken from survey entitled "Topographic Survey prepared for The Putnam Community Foundation", prepared by Terry Begendorf Collins, L.S., last revised April 25, 2007.
3. Cleaning of existing drainage structures along Stoneleigh Avenue shall be accomplished as part of the required Highway Work Permit for the connection to the existing drainage structure.
4. Due to high pressures in the water main, pressure reducing valves shall be installed to protect domestic plumbing fixtures.
5. All electrical service utilities are to be installed underground.

PERMANENT STORMWATER FACILITIES MAINTENANCE SCHEDULE

PRACTICE/FACILITY	MONTHLY	AFTER MAJOR STORM EVENTS	BI-ANNUALLY	YEARLY	EVERY 10 YEARS
GRASS SWALES	–	–	Mow & remove debris & litter. Revegetate as needed.	–	–
SUBSURFACE STORMWATER COLLECTION SYSTEMS	–	–	Inspect & clean	Inspect, clean, repair and/or replace structures. Remove debris.	–
STORMWATER BASIN	Inspect first few months after construction for eroding soils & slumpage & repair immediately	Inspect orifices, 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	–	Inspect for & remove accumulated sediment

Note: The party responsible for the permanent maintenance schedule is:
The Hamlet at Carmel Associates, LLC
57 Route 6, Suite 207
Carmel, NY 10505
and/or the current owner(s) of the subject property.

GRAPHIC SCALE

0 25 50 100

(IN FEET)
1 inch = 50 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

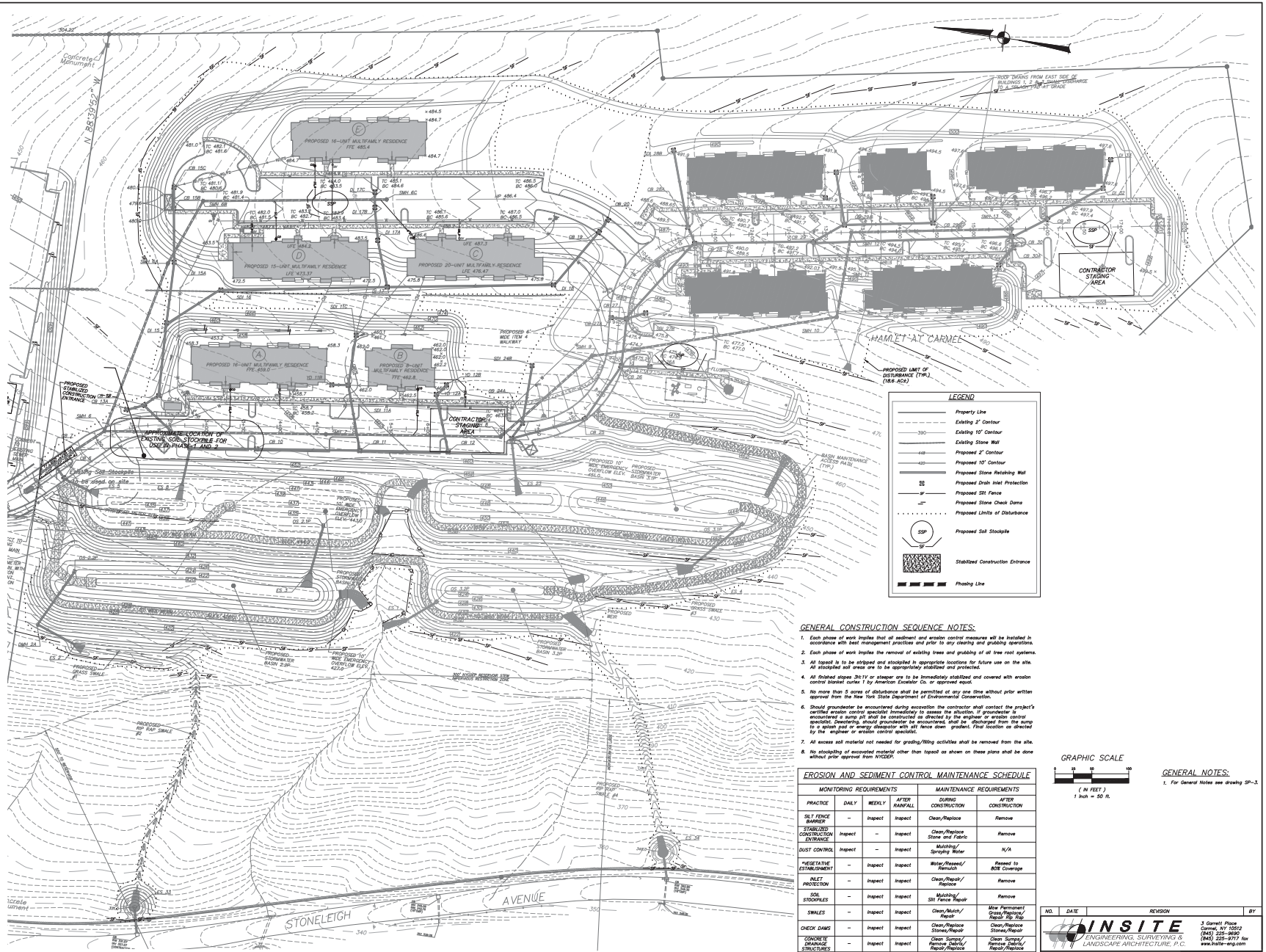
PROJECT:
THE HAMLET AT CARMEL
AMENDED SITE PLAN
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
GRADING & UTILITIES PLAN

PROJECT NO.	14211.100	PROJECT MANAGER	R.D.W.
DATE	4-10-24	DRAWN BY	M.E.U.
SCALE	1" = 50'	CHECKED BY	A.D.T.

DRAWING NO. SP-3

SHEET 4 / 15



GENERAL CONSTRUCTION SEQUENCE NOTES:

1. Each phase of work implies that all sediment and erosion control measures will be installed in accordance with best management practices and prior to any clearing and grubbing operations.
2. Each phase of work implies the removal of existing trees and grubbing of all tree root systems.
3. All topsoil is to be stripped and stockpiled in appropriate locations for future use on the site. All stockpiled soil areas are to be appropriately stabilized and protected.
4. All finished slopes 3H:1V or steeper are to be immediately stabilized and covered with erosion control blanket curlex 1 by American Excelsior Co. or approved equal.
5. No more than 5 acres of disturbance shall be permitted at any one time without prior written approval from the New York State Department of Environmental Conservation.
6. Should groundwater be encountered during excavation the contractor shall contact the project's certified erosion control specialist immediately to assess the situation. If groundwater is encountered a sump pit shall be constructed as directed by the engineer or erosion control specialist. Dewatering, should groundwater be encountered, shall be discharged from the sump to a splash pad or energy dissipator with silt fence down gradient. Final location as directed by the engineer or erosion control specialist.
7. All excess soil material not needed for grading/filling activities shall be removed from the site.
8. No stockpiling of excavated material other than topsoil as shown on these plans shall be done without prior approval from NYSDEC.

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

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

Note: The party responsible for implementation of the maintenance schedule during and after construction is:
The Hamlet at Carmel Associates, LLC
57 Route 6, Suite 207
Carmel, NY 10505
and/or the current owner(s) of the subject property.

GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 Inch = 50 ft.

GENERAL NOTES:

1. For General Notes see drawing SP–3.

SEDIMENTATION & EROSION CONTROL NOTES:

1. The Erosion Control Plan is only to be referred to for the installation of sedimentation and erosion control measures. For all other construction related activities, including, but not limited to, grading and utilities, refer to the appropriate drawings.
2. All soil erosion and sediment control practices shall be installed in accordance with New York–Standards and Specifications for Erosion & Sediment Control, latest edition.
3. Wherever feasible, natural vegetation should be retained and protected.
4. When land is exposed during development, the exposure shall be kept to the shortest practical period of time.
5. Silt fence and hay bales shall be installed as shown on drawing prior to beginning any clearing and grubbing or earthwork.
6. All topsoil to be stripped from the area being developed shall be stockpiled and immediately seeded with K–31 Perennial Tall Fescue.
7. Any graded areas not subject to further disturbance or construction traffic shall, within 10 days of final grading, receive permanent vegetation cover in combination with a suitable mulch. All seeded areas to receive a minimum 4" topsoil (from stockpile area) and be seeded and mulched as follows:
   15 and October 15 or as directed by project representative at a rate of 50 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–Guidelines for Urban Erosion & Sediment Control, latest edition.
8. Grass seed mix may be applied by either mechanical or hydroseeding methods. Hydroseeding shall be performed in accordance with the current edition of the NYSDOT Standard Specification, Construction and Materials, Section 610–3.02, Method No. 1.
9. Cut or fill slopes steeper than 3:1 shall be stabilized immediately after grading.
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 device before discharge beyond disturbed areas or discharged into other drainage systems.
14. Sedimentation and erosion control measures shall be inspected and maintained on a daily basis by NYSDEC Trained Contractor 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 sediment and erosion control measures shall be immediately repaired by the contractor and inspected for approval by the NYSDEC Trained Contractor and/or site engineer.
15. Dust shall be controlled by sprinkling or other approved methods as necessary, or as directed by the NYSDEC Trained Contractor.
16. Cut and fills shall not endanger adjoining property, nor divert water onto the property of others.
17. All fills shall be compacted to provide stability of material and to prevent settlement.
18. The NYSDEC Trained Contractor shall inspect downstream conditions for evidence of sedimentation on a weekly basis and after rainstorms.
19. As warranted by field conditions, special additional sedimentation and erosion control measures, as specified by the site engineer and/or Town Engineer shall be installed by the contractor.
20. Erosion control measures shall remain in place until all disturbed areas are suitably stabilized.

NO.	DATE	REVISION	BY

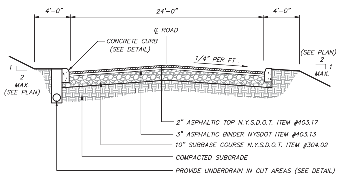
INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225–9690
(845) 225–9717 fax
www.insite-eng.com

PROJECT:
THE HAMLET AT CARMEL
AMENDED SITE PLAN
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

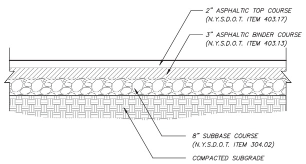
DRAWING:
EROSION CONTROL & PHASING PLAN

PROJECT NO.	14211.100	PROJECT MANAGER	R.D.W.
DATE	4–10–24	DRAWN BY	M.E.U.
SCALE	1" = 50'	CHECKED BY	A.D.T.

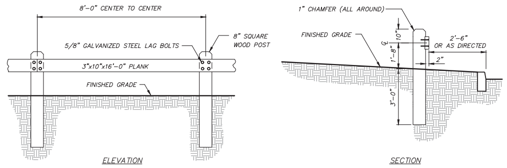
DRAWING NO. SP–4
SHEET 5 / 15



ACCESS ROAD DETAIL
(N.T.S.)



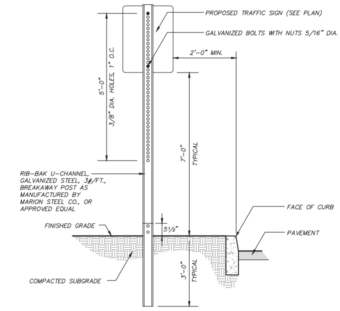
MULTI–FAMILY DRIVEWAY / PARKING SPACE DETAILS
(N.T.S.)



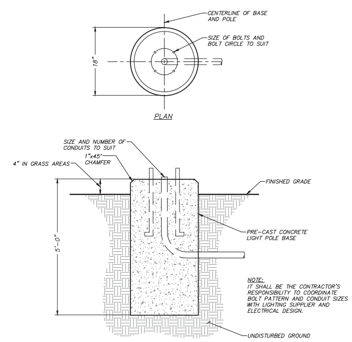
NOTES:

1. ALL WOOD TO BE SEASONED NO.1 DOUGLAS FIR, SOUTHERN PINE OR OTHER APPROVED STRUCTURAL LUMBER.
2. ALL WOOD TO BE TREATED WITH AN APPROVED WOOD PRESERVATIVE SUITABLE FOR INSTALLATION IN AND ADJACENT TO GROUND SURFACES.

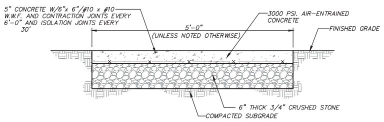
WOOD GUIDE RAIL DETAIL
(N.T.S.)



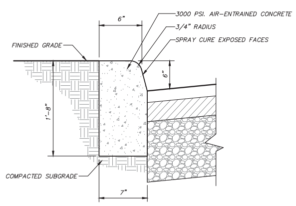
TRAFFIC SIGN DETAIL
(N.T.S.)



SK–9 LIGHT POLE BASE FOR MIP SERIES FIXTURES DETAIL
(N.T.S.)

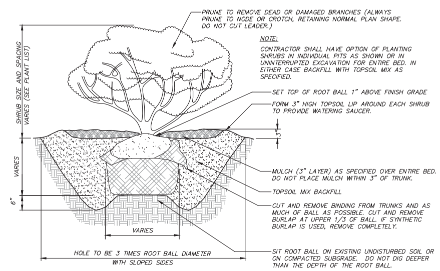


CONCRETE SIDEWALK DETAIL
(N.T.S.)



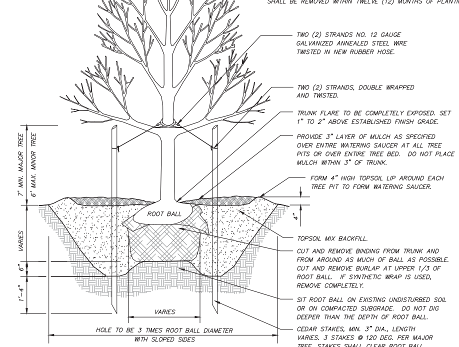
NOTE: ISOLATION JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'–0" APART AND SHALL BE FILLED WITH CELLULAR COMPRESSION MATERIALS AS SPECIFIED, RECESSED 1/4" IN FROM FRONT FACE AND TOP OF CURB.

CONCRETE CURB DETAIL
(N.T.S.)

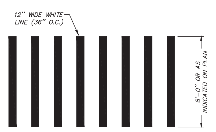


SHRUB PLANTING DETAIL
(N.T.S.)

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.

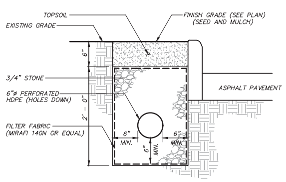


TREE PLANTING DETAIL
(N.T.S.)

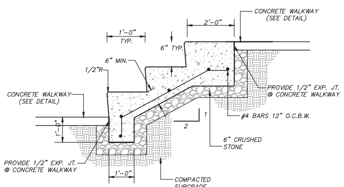


NOTE:
INSTALLATION TO CONFORM WITH CURRENT NYSDOT STANDARDS AND SPECIFICATIONS.

CROSSWALK MARKING DETAIL
(N.T.S.)

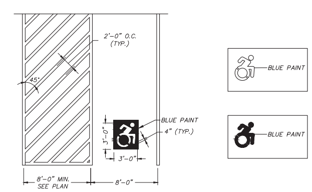


UNDERDRAIN DETAIL
(N.T.S.)



NOTES:
1. REFER TO PLAN FOR NUMBER OF RISERS AND TREADS.

CONCRETE STEPS DETAIL
(N.T.S.)



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

PAINTED NYS ACCESSIBLE PARKING DETAIL
(N.T.S.)

Z:\E\14211100\10 D-1-5.dwg, 4/9/2024 5:16:25 PM, nblau, 1:1

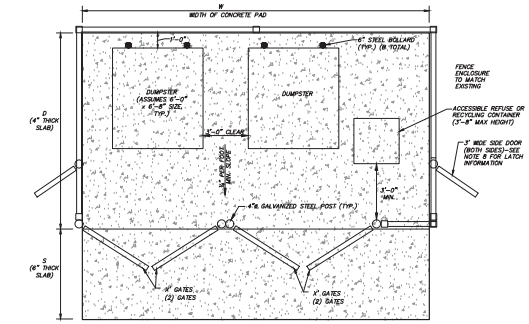
NO.	DATE	REVISION	BY

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:
THE HAMLET AT CARMEL
MULTI–FAMILY HOUSING DEVELOPMENT
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
SITE DETAILS

PROJECT NO.	14211.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	4–10–24	DRAWN BY	M.E.U.	D–1	10 / 15
SCALE	AS SHOWN	CHECKED BY	A.D.T.		



ELEVATION

REFUSE ENCLOSURE	D DEPTH OF ENCLOSURE PAD	W WIDTH OF ENCLOSURE PAD	S SLAB IN FRONT	X GATE WIDTH	NUMBER OF GATES	P POST SIZE	B QUANTITY OF BOLLARDS
13' X 23' ENCLOSURE	13'	23'	6'	5'	4	4"	4 EACH
13' X 41' ENCLOSURE	13'	41'	6'	5'	8	6"	8 EACH
BUILDING BY ENCLOSURE	SEE INSET DETAIL- NOTE-FENCE 8' HT.					6"	8 EACH

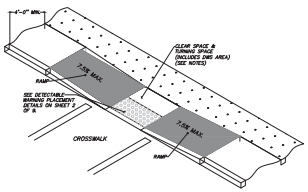
GENERAL NOTES:

1. CHECK WITH REFUSE HAULER PRIOR TO INSTALLATION OF REFUSE ENCLOSURE FOR FINAL DIMENSIONS.

ACCESSIBILITY NOTES:

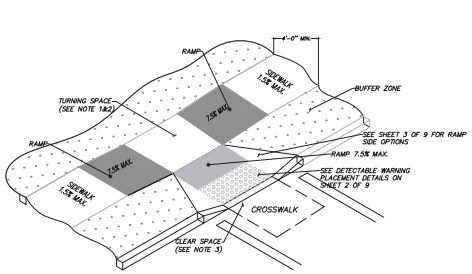
1. VERTICAL CHANGE IN LEVEL BETWEEN FINISHED GRADE OF CONCRETE PAD FOR DUMPSTER ENCLOSURE AND ADJACENT PAVEMENT AT GATE OPENINGS SHALL NOT EXCEED 1/4"; 1/4" TO 1/2" VERTICAL CHANGE SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 2H:1V.
4. GATE(S) DESIGNATED FOR ACCESSIBLE ENTRY INTO DUMPSTER ENCLOSURE SHALL BE MAINTAINED TO BE RELATIVELY FREE SWINGING AND EASY TO OPEN AND CLOSE.
5. SHOULD INDIVIDUAL GATE BE DESIGNATED FOR ACCESSIBLE ENTRY, IT SHALL BE LABELLED AS SUCH.
6. A 36" MINIMUM CLEAR DISTANCE SHALL BE MAINTAINED BETWEEN DUMPSTERS AND IN FRONT OF DUMPSTER AS NECESSARY TO PROVIDE ACCESSIBLE ROUTE WITHIN DUMPSTER ENCLOSURE TO SIDE ACCESS DOORS TO DUMPSTERS AND / OR REFUSE CARTS.
7. ACCESSIBLE REFUSE CONTAINERS SHALL BE PROVIDED – TRASH CAN(S), REFUSE CARTS, AND/OR DUMPSTERS WITH ACCESSIBLE SIDE OPENINGS.
8. GATE LATCH HARDWARE FOR ACCESSIBLE ENTRY GATES SHALL BE EASY TO OPERATE, U-SHAPED HANDLE OR LEVER-OPERATED MECHANISM AND COMPLY IN ALL WAYS WITH ADA REQUIREMENTS. MOUNTED HEIGHT OF OPERABLE PARTS SHALL BE 34" MINIMUM AND 48" MAXIMUM ABOVE GROUND.

REFUSE ENCLOSURE DETAIL
(N.T.S.)



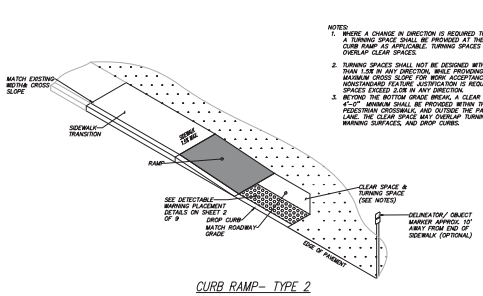
CURB RAMP– TYPE 1
(N.T.S)

NOTES:
1. WHERE A CHANGE IN DIRECTION IS REQUIRED TO UTILIZE A CURB RAMP, A TURNING SPACE SHALL BE PROVIDED AT THE BASE OR THE TOP OF CURB RAMP AS APPLICABLE. TURNING SPACES SHALL BE PERMITTED TO OVERLAP CLEAR SPACES.
2. TURNING SPACES SHALL NOT BE DESIGNED WITH CROSS SLOPE GREATER THAN 1.5% IN ANY DIRECTION, WHILE PROVIDING POSITIVE DRAINAGE. THE MAXIMUM CROSS SLOPE FOR WORK ACCEPTANCE IS 2.0%. A NONSTANDARD FEATURE JUSTIFICATION IS REQUIRED WHERE TURNING SPACES EXCEED 2.0% IN ANY DIRECTION.
3. BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4'-0" x 4'-0" MINIMUM SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN CROSSWALK, AND OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. THE CLEAR SPACE MAY OVERLAP TURNING SPACES, DETECTABLE WARNING SURFACES, AND DROP CURBS.



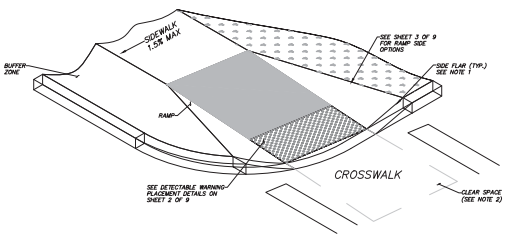
CURB RAMP CONFIGURATION: TYPE 4
MID BLOCK CROSSING OR T INTERSECTION
(N.T.S)

NOTES:
1. WHERE A CHANGE IN DIRECTION IS REQUIRED TO UTILIZE A CURB RAMP, A TURNING SPACE SHALL BE PROVIDED AT THE BASE OR THE TOP OF CURB RAMP AS APPLICABLE. TURNING SPACES SHALL BE PERMITTED TO OVERLAP CLEAR SPACES.
2. TURNING SPACES SHALL NOT BE DESIGNED WITH CROSS SLOPE GREATER THAN 1.5% IN ANY DIRECTION, WHILE PROVIDING POSITIVE DRAINAGE. THE MAXIMUM CROSS SLOPE FOR WORK ACCEPTANCE IS 2.0%. A NONSTANDARD FEATURE JUSTIFICATION IS REQUIRED WHERE TURNING SPACES EXCEED 2.0% IN ANY DIRECTION.
3. BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4'-0" x 4'-0" MINIMUM SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN CROSSWALK, AND OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. THE CLEAR SPACE MAY OVERLAP TURNING SPACES, DETECTABLE WARNING SURFACES, AND DROP CURBS.



NOTES:
1. WHERE A CHANGE IN DIRECTION IS REQUIRED TO UTILIZE A CURB RAMP, A TURNING SPACE SHALL BE PROVIDED AT THE BASE OR THE TOP OF CURB RAMP AS APPLICABLE. TURNING SPACES SHALL BE PERMITTED TO OVERLAP CLEAR SPACES.
2. TURNING SPACES SHALL NOT BE DESIGNED WITH CROSS SLOPE GREATER THAN 1.5% IN ANY DIRECTION, WHILE PROVIDING POSITIVE DRAINAGE. THE MAXIMUM CROSS SLOPE FOR WORK ACCEPTANCE IS 2.0%. A NONSTANDARD FEATURE JUSTIFICATION IS REQUIRED WHERE TURNING SPACES EXCEED 2.0% IN ANY DIRECTION.
3. BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4'-0" x 4'-0" MINIMUM SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN CROSSWALK, AND OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. THE CLEAR SPACE MAY OVERLAP TURNING SPACES, DETECTABLE WARNING SURFACES, AND DROP CURBS.

CURB RAMP– TYPE 2
(N.T.S)



CURB RAMP– TYPE 3
(N.T.S)

NOTES:
1. RAMP SIDE OPTIONS ARE DETAILED ON SHEET 3 OF 9 FOR USE WITH THE BUFFER ZONE. WHERE A PEDESTRIAN CIRCULATION PATH CROSSES THE CURB RAMP, FLARED SIDES, SHALL BE INSTALLED WITH A MAX. SLOPE OR 8.3% FOR DESIGN AND LAYOUT, AND 10% MAX. FOR WORK ACCEPTANCE. THE SLOPE OF FLARED SIDES IS MEASURED PARALLEL TO THE CURB LINE.
2. BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE OF 4'-0" X 4'0" MIN. SHALL BE PROVIDED WITH THE WIDTH OF PEDESTRIAN CROSSWALK, AND OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. THE CLEAR SPACE MAY OVERLAP TURNING SPACES, DETECTABLE WARNING SURFACES, AND DROP CURBS.

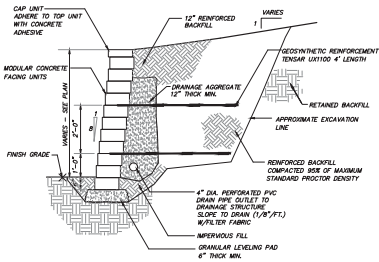
GENERAL NOTES FOR ACCESSIBLE ROUTES ON THE SITE:

1. Accessible routes on the site include marked accessible parking spaces and access aisles, sidewalk curb ramps, walkways and ramps.
2. Marked accessible parking spaces and access aisles shall have surface slopes not steeper than 1:50. (2%)
3. Sidewalk curb ramps shall comply with the following items as applicable:
   a. Walking surfaces of sidewalk curb ramps shall be stable, firm and slip resistant.
   b. The running slope shall not exceed 8.3%.
   c. The cross slope shall not exceed 1:50 (2%).
   d. Landings and blended transitions shall be constructed to prevent the accumulation of water.
   e. Where provided, side flares for curb ramps shall not be steeper than 1:10 (10%).
   f. Curb ramps at marked crosswalks shall be wholly contained within the markings, excluding any flared sides.
   g. Landings shall be provided at the top of curb ramps. the clear length of the landing shall be 36 inches minimum. the clear width of the landing shall be at least as wide as the curb ramp, excluding flared sides, leading to the landing.
   h. Where detectable warnings are provided on curb ramps, they shall be 24 inches minimum in depth in the direction of travel, shall extend the full width of the curb ramp or flush surface, and be located so that the edge nearest the curb line is 6 inches minimum and 8 inches maximum from the curb line.
   i. Refer to sidewalk curb ramp details for additional information.
4. Walkways along an accessible route shall comply with the following items as applicable:
   a. Walking surfaces shall be stable, firm and slip resistant.
   b. Vertical changes in level along walking surface shall not exceed 1/4". Changes in level greater than 1/4" in height and not more than 1/2" shall be beveled with a slope not steeper than 1:2.
   c. The running slope of the walking surfaces shall not be steeper than 1:20 (5%).
   d. The cross slope of a walking surface shall not be steeper than 1:50 (2%).
   e. The clear width of an accessible route shall be 36" minimum.
   f. An accessible route with a clear width less than 60 inches shall provide passing spaces at intervals of 200 feet maximum. passing spaces shall be 60 inch minimum by 60 inch minimum.
5. Ramps along an accessible route shall comply with the following items:
   a. Ramp runs shall have a running slope greater than 1:20 (5%) and not steeper than 8.3%.
   b. The cross slope of ramp runs shall not exceed 1:50 (2%).
   c. Walking surfaces of ramp runs and associated landings shall be stable, firm and slip resistant.
   d. The clear width of a ramp run shall be 36 inches minimum or as shown. handrails and handrail supports that are provided on the ramp run shall not project into the required clear width of the ramp run or associated landing.
   e. The maximum rise for any ramp is 2'-6".
   f. The maximum run for any ramp is 30'-0".
   g. Ramps shall have landings at the bottom and top of each ramp run. landings shall have a slope not to exceed 1:50 (2%) and shall have a clear length and width of 60" minimum.
   h. Adjacent finished grades along sides of ramp shall not have a vertical dropoff of 1/2" within 10" of the edge of the concrete.
   i. Refer to concrete handicap ramp detail for additional information.

DESIGN ELEMENT TOLERANCES

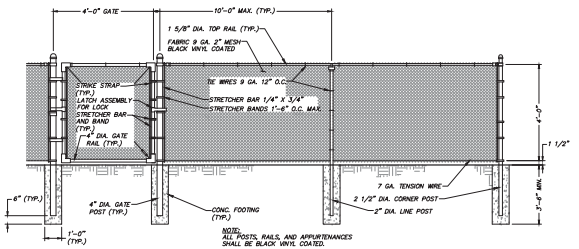
ELEMENT	DESIGN AND FIELD LAYOUT LIMIT	LIMIT FOR WORK ACCEPTANCE
SIDEWALK/RAMP CROSS SLOPE – SEE NOTES 11, 13, & 16	1.5% MAX. *	2.0% MAX.
SIDEWALK GRADE (RUNNING SLOPE) – SEE NOTES 10 & 13	4.5% MAX.	5.0% MAX.
CURB RAMP GRADE (RUNNING SLOPE) – SEE NOTE 13	7.5% MAX.	8.3% MAX.
BLENDED TRANSITION GRADE (RUNNING SLOPE) – SEE NOTE 7	4.5% MAX.	5.0% MAX.
ACCESSIBLE PARKING SPACES & ACCESS AISLES (SURFACE SLOPES – ALL DIRECTIONS) – SEE NOTE 12	1.5% MAX. *	2.0% MAX.
RAMPS (RUNNING SLOPE) – SEE NOTE 16	7.5% MAX.	8.3% MAX.

* While providing positive drainage.



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 AND SURFACE IS EXPOSED.
15. ALL 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.)



NOTE:
ALL POSTS, RAILS, AND APPURTENANCES SHALL BE BLACK VINYL COATED.

CHAIN LINK FENCE DETAIL
(N.T.S.)

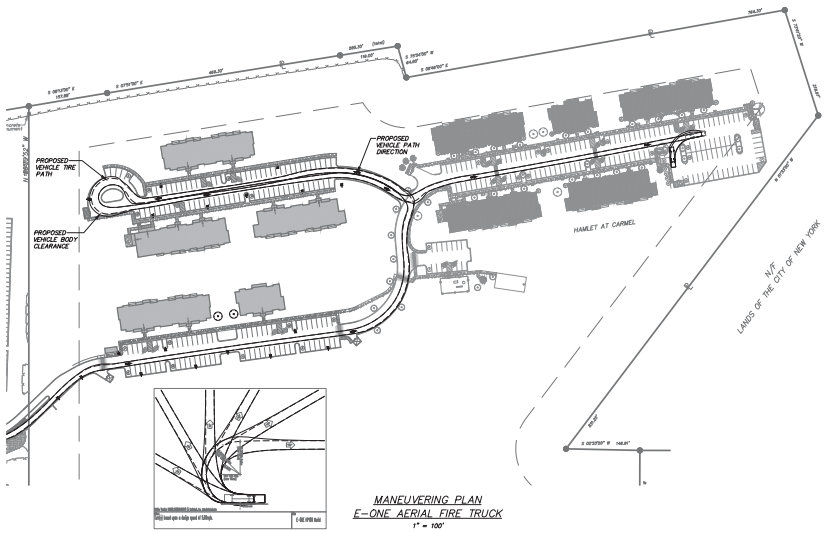
NO.	DATE	REVISION	BY

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:
THE HAMLET AT CARMEL
AMENDED SITE PLAN
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

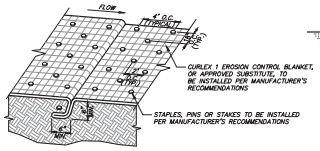
DRAWING:
SITE DETAILS

PROJECT NO.	14211.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	4-10-24	DRAWN BY	M.E.U.	D-2	11
SCALE	AS SHOWN	CHECKED BY	A.D.T.		15

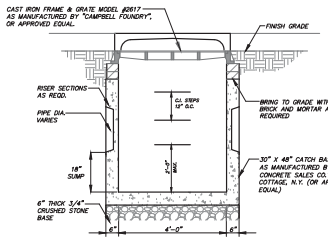


MANEUVERING PLAN
E-ONE AERIAL FIRE TRUCK
1" = 100'

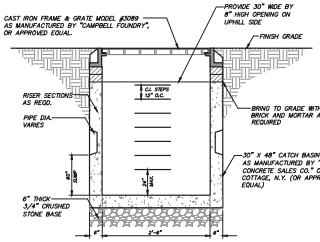
Note: See drawing SP-1 for maneuvers through Putnam Hospital site to Stoneleigh Avenue.



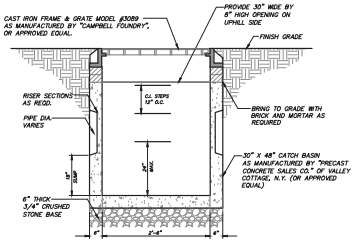
TYPICAL GEOTEXTILE ANCHORING DETAIL
(N.T.S)



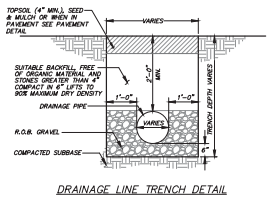
CATCH BASIN DETAIL
(N.T.S.)
(STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING)



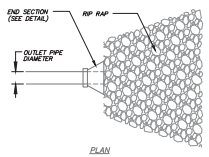
DEEP SUMP SIDE DRAIN INLET DETAIL
(N.T.S.)
(STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING)



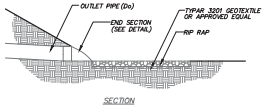
SIDE DRAIN INLET DETAIL
(N.T.S.)
(STRUCTURE AND GRATE TO BE DESIGNED FOR H-20 LOADING)



DRAINAGE LINE TRENCH DETAIL
(N.T.S.)

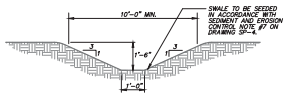


PLAN



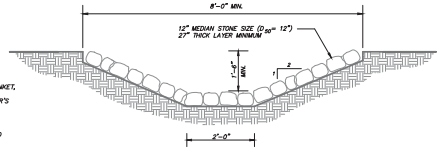
SECTION

RIP RAP APRON DETAIL
(N.T.S.)

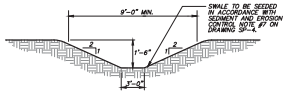


GRASS SWALE TO BE LINED WITH CHANNEL LINER C-125 AS MANUFACTURED BY "NORTH AMERICAN GREEN" OR APPROVED EQUAL

GRASS SWALE #1 DETAIL
(N.T.S.)

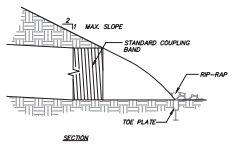


RIP RAP SWALE #2 DETAIL
(N.T.S.)

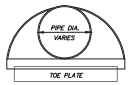


GRASS SWALE TO BE LINED WITH CHANNEL LINER C-125 AS MANUFACTURED BY "NORTH AMERICAN GREEN" OR APPROVED EQUAL

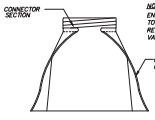
GRASS SWALE #3 DETAIL
(N.T.S.)



SECTION



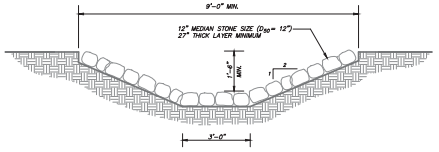
ELEVATION



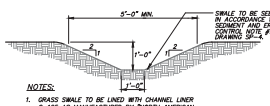
NOTE:
END SECTION CONNECTIONS TO CONFORM TO MANUFACTURERS RECOMMENDATIONS FOR VARIOUS PIPE MATERIAL & SIZES

PLAN

END SECTION DETAIL
(N.T.S.)



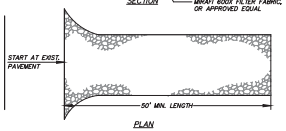
RIP RAP SWALE #4 DETAIL
(N.T.S.)



NOTES:
1. GRASS SWALE TO BE LINED WITH CHANNEL LINER C-125 AS MANUFACTURED BY "NORTH AMERICAN GREEN" OR APPROVED EQUAL.
2. ALL GRASS SWALES NOT LABELED #1, #2, #3, OR #4 IN THE DRAWING SET SHALL CONFORM TO THIS DETAIL.

GRASS SWALE DETAIL
(N.T.S.)

SECTION

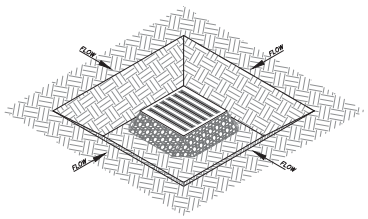


PLAN

INSTALLATION NOTES

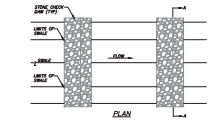
1. STONE SIZE – USE 3" STONE
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY.)
3. THICKNESS – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – 10 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCUR.
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.)



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

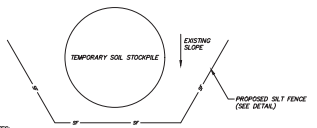
EXCAVATED DROP INLET PROTECTION DETAIL
(N.T.S.)



SECTION A-A

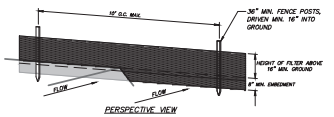
NOTES:
1. STONE SHALL BE PLACED ON A FILTER FABRIC FOUNDATION. STONE TO BE WELL-GRADED 2" TO 12" DIAMETER.
2. SET SPACING OF CHECK DAMS SO THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

STONE CHECK DAM DETAIL
(N.T.S.)

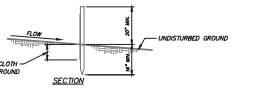


NOTES:
1. AREA CHOSEN FOR STOCKPILE LOCATION SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE IMMEDIATELY SEEDED WITH K31 PERENNIAL TALL FESCUE.
4. ALL STOCKPILES SHALL BE PROTECTED WITH SILT FENCING INSTALLED ON THE DOWNGRADIENT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

TEMPORARY SOIL STOCKPILE DETAIL
(N.T.S.)



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.)

NO.	DATE	REVISION	BY

INSITE
ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.
3 Garrett Place
Carmel, NY 10512
(845) 225-9690
(845) 225-9717 fax
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PROJECT:
THE HAMLET AT CARMEL
AMENDED SITE PLAN
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
SITE DETAILS

PROJECT NO.	14211.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	4-10-24	DRAWN BY	M.E.U.	D-3	12
SCALE	AS SHOWN	CHECKED BY	A.D.T.		15

WATER MAIN NOTES:

1. All water mains shall be either Class 52 cement lined tyton joint ductile iron pipe or PVC Class 200 DR 14 pipe with factory installed push–on gaskets unless otherwise noted. All pipe shall be in conformance with the latest edition AWWA C600 or C900.
2. All water main fittings shall be Class 350 ductile iron mechanical joints in accordance with the latest edition of AWWA/ANSI Standards C111/A21.11. "GRIP RING" restrained joint connections shall be provided at every fitting (as manufactured by ROMAC Industries, Inc. or approved equal).
3. Thrust blocks shall be installed at all changes in horizontal or vertical alignment.
4. All water mains and appurtenances shall be installed in accordance with the latest edition of AWWA C600 or C605.
5. Gate valves shall be "Mueller" or approved equal, iron body, non–rising stem conventional packing, resilient seated, mechanical joint with restrained joint gaskets, pressure class 350, opening shall be left (CCW) and operation shall be by 2" square wrench nut.
6. All water mains and appurtenances (including water service lines up to the curb stop) shall be pressure tested and leakage tested to the satisfaction of the Design Engineer, and the Putnam County Department of Health. This shall be done in accordance with the latest edition of AWWA Standard C600 & C605.
7. All water mains and appurtenances shall be flushed, disinfected, and tested to the satisfaction of the Design Engineer, and the Putnam County Department of Health. This shall be done in accordance with the latest edition of AWWA Standard C651, section 4.4.3, the "Continuous Feed Method". The "tablet method" will not be allowed.
8. Water mains shall be laid at least 10 feet horizontally from any existing or proposed sanitary or storm sewer main. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10 foot separation, the Design Engineer and Putnam County Department of Health may allow deviation with prior approval on a case–by–case basis, if supported by data from the Design Engineer prior to the installation of the water lines. The horizontal separation shall also apply to service connections.
9. Water mains crossing sanitary or storm sewer mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. In cases where it is not practical to maintain the 18 inch vertical separation, the Design Engineer and Putnam County Department of Health may allow deviation with prior approval on a case–by–case basis, if supported by data from the Design Engineer prior to the installation of the water lines. The vertical separation also applies to water service connections.
9. The Design Engineer, Putnam County Department of Health, and Town's Authorized Representative shall be notified forty eight (48) hours before construction is started.
10. The water mains shall not be placed into service until a certificate of construction compliance has been submitted to and accepted by the Putnam County Department of Health.
11. The Putnam County Department of Health and the New York City Department of Environmental Protection must be notified forty eight (48) hours prior to pressure testing the water main improvements.

WATER MAIN TESTING PROCEDURES

TESTS ON PRESSURE PIPING FOR TRANSPORT OF WATER

A. Hydrostatic Pressure Test
Hydrostatic testing shall be performed in accordance with the revision of AWWA C600, Section 5.2,"Hydrosatic Testing" or AWWA C605, Section 7.3, "Hydrostatic Testing".

1. Test pressure shall be as scheduled or, where no pressure is scheduled, shall be 150 psi, or 1.25 times the static operating pressure, whichever is higher.
2. Test pressure shall be held on the piping for a period of at least 2 hours, unless a longer period is requested by the Engineer.
3. The test medium shall be water.

B. Hydrostatic Leakage Test

1. The leakage test shall be conducted concurrently with the pressure test.
2. The rate of leakage shall be determined at 15–minute intervals by means of volumetric measurement of the makeup water added to maintain the test pressure. The test shall proceed until the rate of leakage has stabilized or is decreasing below an allowable value, for three consecutive 15–minute intervals. After this, the test pressure shall be maintained for at least another 15 minutes.
   a. At the completion of the test, the pressure shall be released at the furthermost point from the point of application.
3. All exposed piping shall be examined during the test and all leaks, defective material or joints shall be repaired or replaced before repeating the tests.
4. The allowable leakage will be determined by the following formula.

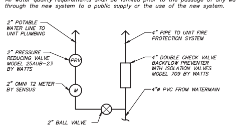
$$Q = \frac{LD\sqrt{P}}{148,000}$$

Where:
Q = quantity of makeup water, in gallons per hour
L = length of pipe tested, in feet
D = nominal diameter of the pipe, in inches
P = average test pressure during the hydrostatic test, in pounds per square inch (gauge)

5. Regardless of the above allowables, any visible leaks shall be permanently stopped.
6. The test medium shall be water.

C. Disinfection
Prior to placing the water main into service, the new pipe shall be cleaned and disinfected in accordance with the latest revision of AWWA C651, Section 4.4.3, "The Continuous Feed Method". The "Tablet Method" will not be accepted.

1. All work under this section shall be performed in the presence of the Design Engineer, and a representative of the public health authority having jurisdiction, as required.
2. Chlorination shall be scheduled such that sampling and flushing will be performed during normal daylight working hours. The contractor shall provide acceptable backflow prevention on all supply water to prevent any potential backflow contamination or cross connection.
3. Chlorination shall be by the use of a solution of water and liquid chlorine, calcium hypochlorite or sodium hypochlorite and the solution shall be contained in the pipe or structure as specified.
4. Prior to chlorination, all dirt and foreign matter shall be removed by a thorough cleaning and flushing of the pipeline or structure.
5. The chlorine solution shall be introduced to pipelines through corporation stops placed in the horizontal axis of the pipe, to structures by means of tubing extending directly into the structure, or other approved methods.
6. The application of the chlorine solution shall be by means of a controlled solution feed device. The rate of chlorine solution flow shall be in such proportion to the rate of water entering the pipe or structure that the resulting free chlorine residual shall be between 25 and 50 parts per million (PPM) or milligrams per liter (mg/l).
7. The chlorine treated water shall be retained in the pipe or structure at least 24 hours, unless otherwise directed. During the retention period, all valves and hydrants within the treated sections shall be operated.
8. The chlorine residual shall be not less than 10 PPM (or mg/l) at any point in the pipe or structure at the end of the 24–hour retention period.
9. When making repairs to, or when specified, structures and portions of pipelines shall be chlorinated by a concentrated chlorine solution containing not less than 200 PPM (mg/l) of free chlorine. The solution shall be applied with a brush or sprayed on the entire inner surface of the empty pipes or structures. The structures disinfected shall remain in contact with the strong chlorine solution for at least 30 minutes.
10. After the required retention of chlorinated water in the pipe or structures, they shall be thoroughly flushed until the replacement water shall, upon test, both chemically and bacteriological, be proven equal to water quality served by the public from the existing water supply system.
11. The disposal of chlorinated water from any pipe or structure shall be such that it will not cause damage to any vegetation, fish, or animal life.
12. The Contractor shall make all arrangements for the testing of water quality by an approved independent laboratory. Two acceptable bacteriological test, taken at least 24 hours apart, shall be collected from the new water main. At least 1 set of samples must be collected from every 1,000 LF of the new water main, plus one set from the end of the line and at least one set from each branch. The results for all tests shall be forwarded to the Design Engineer and the public health authority having jurisdiction.
13. All water quality requirements shall be fulfilled prior to the passage of any water through the new system to a public supply or the use of the new system.



MULTIPLE FAMILY WATER SERVICE SCHEMATIC DETAIL
(N.T.S.)

NOTES:
1. THIS DETAIL SHOWS SCHEMATIC WATER SERVICE, FINAL DESIGN AND LOCATION BY MECHANICAL ENGINEER.
2. THE DOUBLE CHECK VALVE (DCV) BACKFLOW PREVENTER SHALL HAVE THE FOLLOWING CLEARANCES:
   8" MINIMUM BEHIND
   30" MINIMUM IN FRONT
   30" MINIMUM OFF FLOOR
   60" MAXIMUM ABOVE FLOOR
   24" MINIMUM CLEAR DISTANCE ABOVE

SEWER TESTING PROCEDURES

TESTS FOR NON–PRESSURE PIPELINES FOR TRANSPORT OF SEWAGE

The leakage shall be determined by exfiltration, infiltration or low pressure air.

A. Exfiltration Testing

1. Exfiltration tests shall be made by filling a section of pipeline with water and measuring the quantity of leakage.
2. The head of water at the beginning of the test shall be at least 2 feet above the highest pipe within the section being tested.
   a. Should groundwater be present within the section being tested, the head of water for the test shall be 2 feet above the hydraulic gradient of the groundwater.
   b. Should the requirement of 2 feet of water above the highest pipe subject any joint at the lower end of the test section to a differential head of greater than 11.5 feet, another method of testing shall be employed.

B. Prior to any testing, the Town Engineer and Department of Health must be notified at least 48 hours in advance.

C. Infiltration Testing

1. Infiltration tests will be allowed only when the water table gauges determine the groundwater level to be 2 feet or more above the highest pipe of the section being tested.
2. Infiltration test shall be made by measuring the quantity of water leaking into a section of pipeline.
3. Measurement of the infiltration shall be by means of a calibrated weir constructed at the outlet of the section being tested.

C. Allowable Leakage for Non–Pressure Pipelines

1. The allowable leakage (exfiltration or infiltration) for non–pressure pipelines shall not exceed the following in gallons per 24 hours per inch of diameter per 1000 feet of pipe:

Type of Pipe	Leakage
Ductile iron – mechanical or push–on joints	100
Polyvinyl chloride, thermal plastic or fiberglass with rubber joints	100
Cast iron soil pipe	0

2. Regardless of the above allowable leakage, any spurting leaks detected shall be permanently stopped.

D. Low Pressure Air Testing

1. Air testing for acceptance shall not be performed until the backfilling has been completed.
2. Low pressure air tests shall conform to ASTM C 828 or ASTM F1417–92, Section 8.2.2, Time–Pressure Drop Method for a 0.5 psi drop, except as specified herein and shall not be limited to type or size of pipe.
3. All sections of pipelines shall be cleaned and flushed prior to testing.
4. The air test shall be based on the starting pressure of 3.5 to 4.0 psi gauge. The time allowed for the 0.5 psi drop in pressure, measured in seconds, will be computed based on the size and length of the test section by the Engineer.
   a. When groundwater is present, the average test pressure of 3 psig shall be above any back pressure due to the groundwater level.
   b. The maximum pressure allowed under any condition in air testing shall be 10 psig. The maximum groundwater level for air testing is 13 feet above the top of the pipe.
5. The equipment required for air testing shall be furnished by the Contractor and shall include the necessary compressor, valves, gauges and plugs to allow for the monitoring of the pressure, release of pressure and a separable test gauge.
   a. The test gauge shall be sized to allow for the measuring of the 0.5 psig loss allowed during the test period and shall be on a separate line to the test section.

E. Deflection Testing

1. Deflection testing shall be performed 30 days after backfilling. The test shall be made by passing a ball or cylinder no less then 95% of the pipe diameter through the pipe. The test shall be performed without mechanical pulling devices.

F. Manhole Testing

1. General
   a. Each manhole shall be tested by either exfiltration, infiltration or vacuum testing.
   b. A manhole will be acceptable if the leakage does not exceed an allowance of one gallon per vertical foot of depth for 24 hours. Regardless of the allowable leakage, any leaks detected shall be permanently stopped.
2. Exfiltration tests shall be performed after backfilling. The test shall be made by filling the manhole with water and observing the level for a minimum of eight hours.
3. Infiltration tests shall be performed after backfilling when the groundwater level is above the joint of the top section of a precast manhole.
4. Vacuum testing shall be performed after backfilling in accordance with the latest revision of ASTM C1244–02 as follows:
   a. The test head shall be placed at the top of the manhole in accordance with the manufacturer's recommendations.
   b. A vacuum of 10 in. of mercury shall be drawn on the manhole, the valve on the vacuum line of the test head closed, and the vacuum pump shut off. The time shall be measured for the vacuum to drop to 9 in. of mercury.
   c. The manhole shall pass if the time for the vacuum reading to drop from 10 in. of mercury to 9 in. of mercury meets or exceeds the values indicated below:

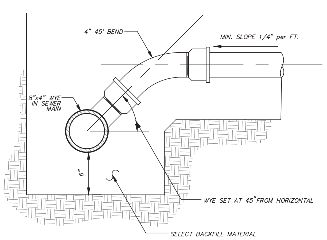
Minimum Test Times for Various Manhole Diameters in Seconds:

Depth (ft)	Diameter (inches) 48	60
	Time (seconds)	
8 or less	20	26
10	25	33
12	30	39
14	35	46
16	40	52
18	45	59
20	50	65

   d. If the manhole fails the initial test, necessary repairs shall be made by an approved method. The manhole shall then be retested until a satisfactory test is obtained.

TOWN OF CARMEL WATER NOTES:

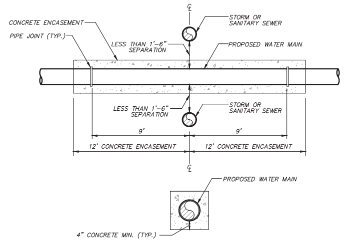
1. All water service connections shall be of a size and type as shown on the plans.
2. Gate valves shall be AWWA non–rising stem type, as manufactured by Mueller Company, Model A–2360–23, or approved equal, conforming to the latest AWWA Standard for Gate Valves – 3" through 48" – for Water and Other Liquids, AWWA Designation C–509.
3. Sizes up to and including 12" shall be 250 psi working pressure. The valve body and bonnet shall be ductile iron. All interior and exterior metal surfaces shall be coated with a two–part thermosetting epoxy complying with AWWA C550.
4. Valves shall have dual "O" ring seals, inside screw, resilient wedge seats in accordance with AWWA Designation C–550 and shall be constructed so as to provide unobstructed full port clearance when fully open and immediate complete closure when closed. The ends of the valves shall be mechanical joint.
5. All valves shall be arranged to open in counter clockwise direction unless otherwise specifically indicated and operating nuts shall be 2" square.
6. Valves shall be tested to a pressure of not less than two times the working pressure.
7. Where water Service Saddles are used , they shall be equal to those manufactured by Mueller, Model 7.5" x 1"SS Series Stainless Steel Saddle, Double Stud.
8. Where corporation stops are used, they shall be equal to those as manufactured by Mueller Company, Model B–25000Series, NRS and of the size required. Such corporation stops shall meet the requirements of AWWA Specification No. C800.
9. Curb valves (stops) shall be equal to those as manufactured by Mueller Company, Model H–15214 and shall conform to AWWA Specification No. C800.
10. Curb boxes shall be equal to those as manufactured by Mueller Company and similar to Mueller extension type with arch pattern base model H–10314 all extension rods shall be stainless steel.
11. All fire hydrants shall be the approved AWWA type fire hydrants in conformance with the American Water Works Association Standard for Fire Hydrants for Ordinary Water Works Service, AWWA Designation C502, and shall have a 5–1/4" valve opening, a 6" mechanical joint inlet complete with an auxiliary gate valve (close coupled), a 6"mechanical joint shoe, and all appurtenances.



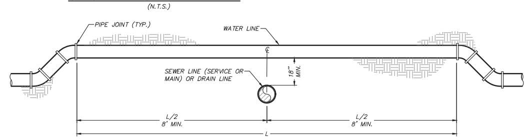
SANITARY SEWER SERVICE CONNECTION
(N.T.S.)

SEWER MAIN NOTES

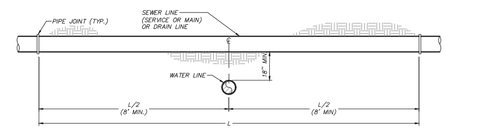
1. All sewer mains & sewer services shown on these plans shall be polyvinyl chloride (PVC) SDR 35. SDR 35 meets the Town of Carmel Town Code 129–29.
2. Sewers shall be laid at least 10 feet horizontally from any existing or proposed water main. The distance shall be measured edge to edge. In cases where it is not practical to maintain a 10 foot horizontal separation, the Design Engineer and Putnam County Department of Health may allow deviation with prior approval on a case–by–case basis, if supported by data from the Design Engineer prior to sewer line installation. The horizontal separation also applies to service connections.
3. Sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. In cases where it is not practical to maintain a 10 foot horizontal separation, the Design Engineer and Putnam County Department of Health may allow deviation with prior approval on a case–by–case basis, if supported by data from the Design Engineer prior to the sewer line installation. The vertical separation also applies to service connections.
4. Sanitary sewer service lines shall be tested in conjunction with the sewer mains to the property line or easement line, and in accordance with the latest Putnam County Department of Health Rules & Regulations.
5. Testing of the manholes with the pipeline shall not be permitted. Manholes & sanitary sewer lines shall be tested independently of each other.
6. The owner/applicant shall be responsible for acquiring supervision of the construction of the sanitary sewer main system by a person or firm qualified to practice professional engineering in the state of New York.
7. The owner/applicant shall be responsible for providing Three (3) copies of as–built drawings signed and sealed by a licensed and registered New York State Professional Engineer to the Putnam County Department of Health at the completion of the construction.
8. The Design Engineer, Putnam County Department of Health, and Town Engineering Department shall be notified forty eight (48) hours before construction is started.
9. The sanitary sewer mains shall not be placed into service until a certificate of construction compliance has been submitted to and accepted by the Putnam County Department of Health.
10. The Putnam County Department of Health and the New York City Department of Environmental Protection must be notified forty eight (48) hours prior to pressure testing the sewer main improvements.
11. Manhole frames & covers to be campbell pattern #1007D for 24" opening or approved equal. M.H. covers to be marked "SEWER" and to have six 3/4"ø hole vents. (use solid covers where necessary.)
12. The exterior of all manholes shall be covered with an approved asphalt waterproofing.
13. Concrete base slabs shall be air entrained concrete with a minimum design strength of 3,000 psi.
15. The contractor shall submit shop drawings of the precast manholes to the Design Engineer for review and acceptance.
16. Precast manholes shall have minimum reinforcement of 0.12 sq.. in. per lin. ft. for 48" barrel & be designed in accordance with A.S.T.M. C–478, and withstand an H–20 design loading.
17. Precast base sections to have the required number of gaskets and openings as shown and specified.
18. Precast manhole sections shall employ a watertight gasket arrangement between each section approved by the Design Engineer.
19. Openings for pipes shall be precast or machine cored. Gaskets or collars for pipe connections to manholes shall be resilient and watertight and compatible with the type of pipe being used.
20. The length of pipes entering or leaving any manhole shall be greater than 2'–0".
21. Precast manholes under 6'–0" deep shall have a "Flat Top" slab roof.
22. Gaskets or collars for pipe connections to manhole shall provide a minimum of 0.1' drop across the manhole.
23. The contractor shall notify the Design Engineer every day that sewer main installation shall occur.



CONCRETE ENCASEMENT DETAIL
(N.T.S.)



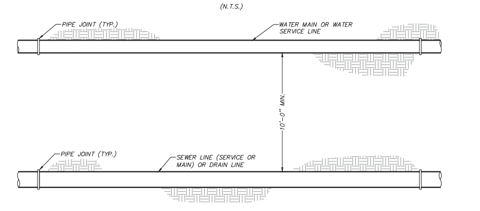
WATER LINE CROSSING OVER SANITARY SEWER LINE OR STORM DRAIN LINE



WATER LINE CROSSING UNDER SANITARY SEWER LINE OR STORM DRAIN LINE

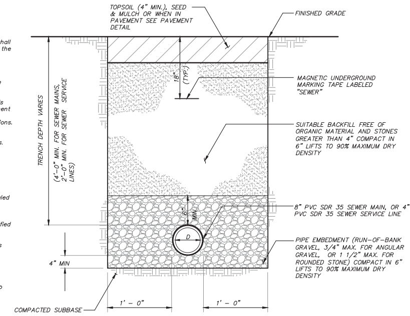
NOTES:
1. WHEN 18" SEPARATION CANNOT BE MAINTAINED, THE WATER LINE SHALL BE ENCASED IN CONCRETE (SEE DETAIL) ONLY WITH PRIOR APPROVAL OF THE DESIGN ENGINEER AND DEPARTMENT OF HEALTH.
2. PROVIDE PIPE AND FITTING RESTRAINT AS REQUIRED.
3. THE 18" SEPARATION APPLIES TO WATER MAINS AND WATER SERVICE CONNECTIONS.

WATER LINE CROSSING DETAIL
(N.T.S.)

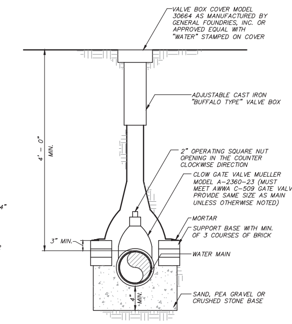


NOTES:
1. WHEN THE 10' SEPARATION CANNOT BE MAINTAINED, THE WATER LINE SHALL BE ENCASED IN CONCRETE (SEE DETAIL) ONLY WITH PRIOR APPROVAL OF THE DESIGN ENGINEER AND DEPARTMENT OF HEALTH.
2. THE 10' SEPARATION APPLIES TO WATER MAINS AND WATER SERVICE CONNECTIONS.

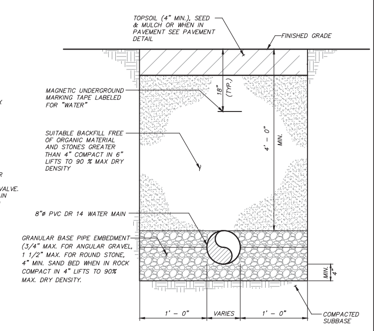
WATER LINE HORIZONTAL SEPARATION DETAIL
(N.T.S.)



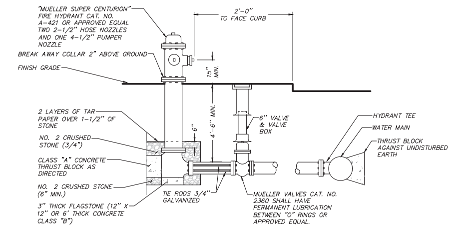
SEWER LINE TRENCH DETAIL
(N.T.S.)



WATER MAIN GATE VALVE DETAIL
(N.T.S.)

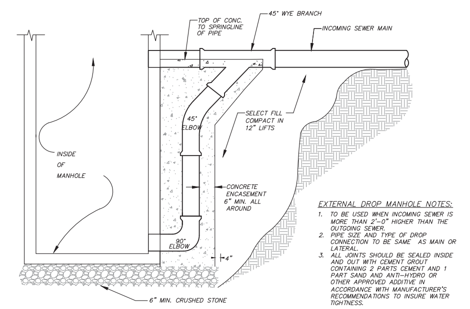


WATER MAIN TRENCH DETAIL
(N.T.S.)



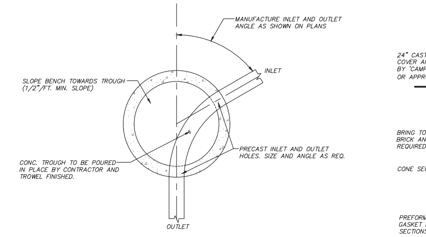
HYDRANT NOTES:
1. PUMPER OUTLET SHALL FACE STREET.
2. HOSE OUTLETS SHALL BE PARALLEL TO STREET.
3. 1–1/12" STONE SHALL BE PLACED AROUND THE HYDRANT FROM THE BOTTOM OF THE TRENCH, BUT AT LEAST 6" BELOW THE BASE OF THE HYDRANT TO 6" ABOVE THE WASTE OPENING AND TO A DISTANCE OF 12" AROUND THE ELBOW.
4. IF GROUND WATER IS ENCOUNTERED WITHIN 7' OF SURFACE, THEN HYDRANT DRAINS SHOULD BE PLUGGED, THE BARRELS MUST BE PUMPED DRY AFTER USE DURING FREEZING WEATHER. WHERE HYDRANT DRAINS ARE NOT PLUGGED, A GRAVEL POCKET OR DRY WELL SHALL BE PROVIDED UNLESS THE NATURAL SOILS WILL PROVIDE ADEQUATE DRAINAGE. HYDRANT DRAINS SHALL NOT BE CONNECTED TO OR LOCATED WITHIN 10 FEET OF SANITARY SEWERS OR STORM DRAINS.
5. ALL FIRE HYDRANTS SHALL BE RATED FOR A WORKING PRESSURE OF 250 PSI AND SHALL BE THE APPROVED AWWA TYPE FIRE HYDRANTS IN CONFORMANCE WITH THE AMERICAN WATER WORKS ASSOCIATION STANDARD FOR FIRE HYDRANTS FOR ORDINARY WATER WORKS SERVICE, AWWA DESIGNATION C502, AND SHALL HAVE A 5–1/4" VALVE OPENING, A 6" MECHANICAL JOINT INLET COMPLETE WITH AN AUXILIARY GATE VALVE (CLOSE COUPLED), A 6" MECHANICAL JOINT SHOE, AND ALL APPURTENANCES
6. FIRE HYDRANT SHALL BE RATED FOR A WORKING PRESSURE OF 250 PSI.

HYDRANT DETAIL
(N.T.S.)

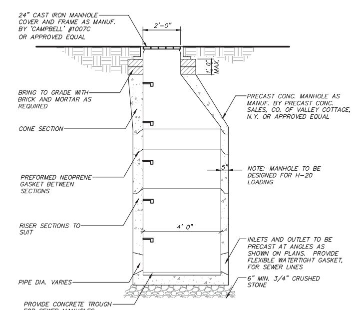


EXTERNAL DROP MANHOLE NOTES:
1. TO BE USED WHEN INCOMING SEWER IS MORE THAN 2'–0" HIGHER THAN THE OUTGOING SEWER.
2. PIPE SIZE AND TYPE OF DROP CONNECTION TO BE SAME AS MAIN OR LATERAL.
3. ALL JOINTS SHOULD BE SEALED INSIDE AND OUT WITH CEMENT GROUT CONTAINING 2 PARTS CEMENT AND 1 PART SAND AND ANTI–HYDRO OR OTHER APPROVED ADDITIVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO INSURE WATER TIGHTNESS.

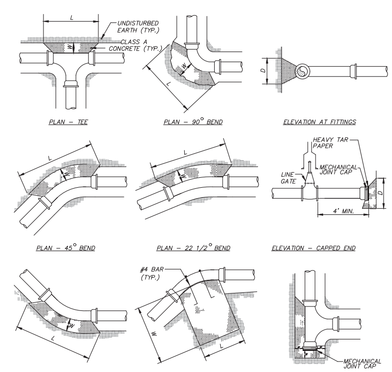
EXTERNAL DROP MANHOLE DETAIL
(N.T.S.)



SEWER MANHOLE TROUGH DETAIL
(N.T.S.)



MANHOLE DETAIL
(N.T.S.)



THRUST BLOCK SCHEDULE

PIPE SIZE	CAP/TEE L	CAP/TEE D	22 1/2° L	22 1/2° D	45° L	45° D	90° L	90° D	W
8"	2'	1.5'	2'	1.5'	2'	1.5'	2'	1.5'	1.5'

THRUST BLOCK DETAILS
(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:
THE HAMLET AT CARMEL
AMENDED SITE PLAN
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
SITE DETAILS

PROJECT NO.	14211.100	PROJECT MANAGER	R.D.W.
DATE	4–10–24	DRAWN BY	M.E.U.
SCALE	AS SHOWN	CHECKED BY	A.D.T.

DRAWING NO. D–4
SHEET 13 / 15

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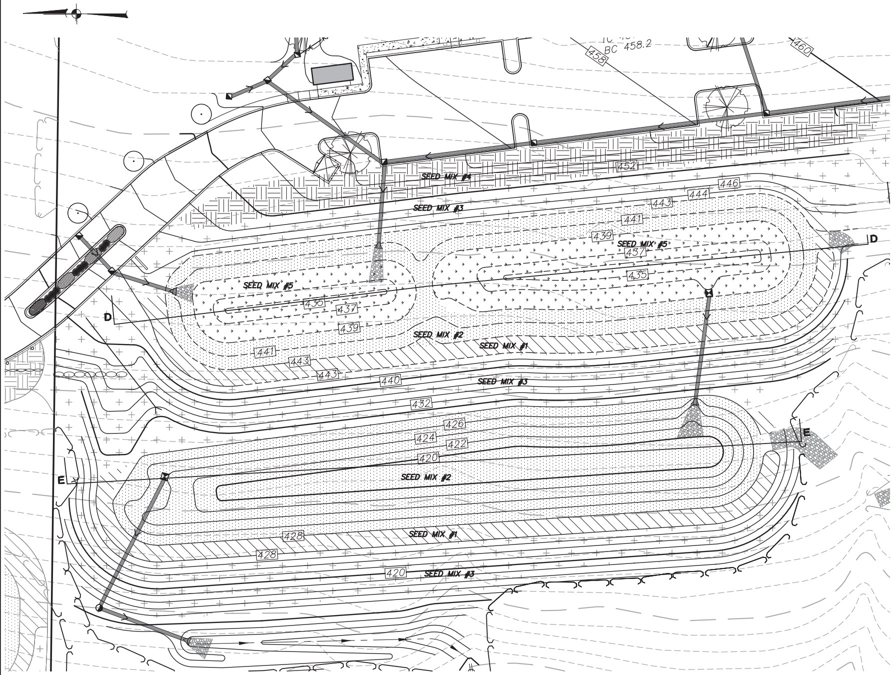


STORMWATER BASINS 2.1P AND 2.2P ENLARGED PLAN VIEW

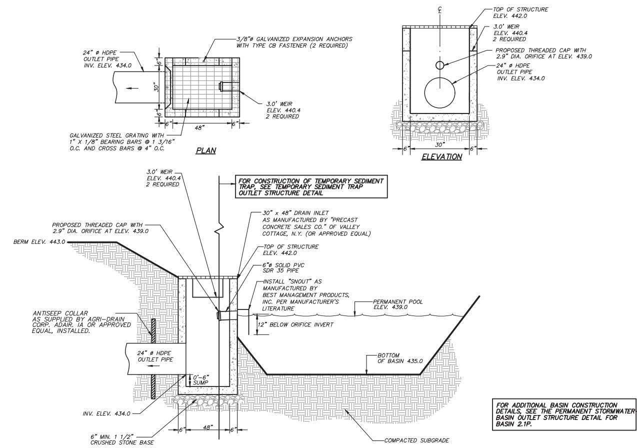
Scale: 1"=30'

STORMWATER BASIN OUTLET NOTES

1. THE BASINS ARE PROPOSED TO BE UTILIZED AS TEMPORARY SEDIMENT TRAPS (TST's) DURING CONSTRUCTION.
2. AFTER THE CONTRIBUTING AREAS TO THE BASINS HAVE BEEN PERMANENTLY STABILIZED, THE FOLLOWING SHALL BE ACCOMPLISHED:
   - A. CLEAN BASINS AND OUTLET STRUCTURES AND REMOVE 6"ø PERFORATED VERTICAL RISER PIPE, CRUSHED STONE AND FILTER FABRIC.
   - B. ADD THREADED CAP WITH ORIFICE AT DISCHARGE END OF 6"ø SOLID PVC SDR 35 PIPES PER DETAIL.
   - C. REPLACE THE PERFORATED PIPE AND CRUSHED STONE. DO NOT REPLACE FILTER FABRIC.
   - D. ESTABLISH THE FINAL VEGETATION IN THE BASINS IN ACCORDANCE WITH THE STORMWATER BASIN PLANTING DETAILS.
   - E. FOR BASINS 2.1P AND 3.1P EXCAVATE BOTTOM OF TST TO PERMANENT STORMWATER BASIN BOTTOM. ANY EXCESS SOIL SHALL BE TRUCKED OFF SITE AND BE PLACED IN A MANOR SO IT WILL NOT ERODE OR CAUSE EROSION.
   - F. CONVERSION OF TST's SHALL BE ACCOMPLISHED ONE AT A TIME. THIS WILL ALLOW FOR THE TRAP UNDERGOING CONVERSION TO BE DEWATERED TO A STABILIZED TRAP OR BASIN. THE SECOND BASIN SHALL NOT START CONVERSION UNTIL THE FIRST BASIN IS STABILIZED AND THE THIRD AND FOURTH BASINS SHALL NOT START CONVERSION UNTIL THE PREVIOUS BASIN IS STABILIZED.
3. THE 6"ø PERFORATED VERTICAL RISER SHALL BE CONSTRUCTED AS FOLLOWS:
   - * WHEN INITIALLY USED AS THE TEMPORARY SEDIMENT TRAP DEWATERING DEVICE THE RISER SHALL BE WRAPPED WITH TYPAR 3201 GEOTEXTILE OR APPROVED EQUAL AND SURROUNDED WITH 2"ø STONE. THE TOP OF THE RISER SHALL BE SET AT THE SAME ELEVATION AS THE WEIRS AS SHOWN IN THE STORMWATER BASIN OUTLET STRUCTURE DETAILS.
   - * WHEN THE PERMANENT RISER FOR BASIN IS CONSTRUCTED THE RISER SHALL BE UNWRAPPED WITH THE TOP ELEVATION SET AT SPECIFIED ELEVATIONS.

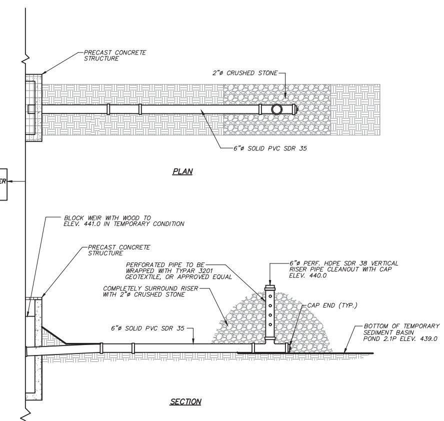
PLANTING NOTES:

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. For all areas to be planted with emergent vegetation, soil shall be decompacted using tilling or other method approved by Landscape Architect and amended as required by results of soil testing to a depth of at least 12".
13. 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.
14. All proposed seeded areas to stormwater basins to receive 4" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
15. The Stormwater Basin seed mixes as specified on these drawings from New England Wetland Plants, Inc. of Amherst, MA. are as follows:
    - A. Seed Mix #1 at a rate of 35 lbs. per acre: New England Erosion Control/Restoration Mix (for Detention basins and Moist Sites).
    - B. Seed Mix #2 at a rate of 23 lbs. per acre: New England Wildflower Mix.
    - C. Seed Mix #3 at a rate of 25 lbs. per acre: New England Conservation/Wildlife Mix.
    - D. Seed Mix #4 at a rate of 35 lbs. per acre New England Roadside Matrix Upland Seed Mix.
    - E. Seed Mix #5 at a rate of 18 lbs. per acre: New England Wetmix.
16. Interiors of ponds including aquatic bench to be seeded. Permanent water to be drawn down below seeded areas until vegetation establishes.



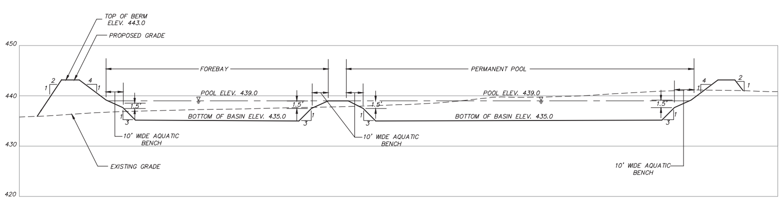
PERMANENT STORMWATER BASIN 2.1P OUTLET STRUCTURE DETAIL

(N.T.S.)



TEMPORARY SEDIMENT BASIN TRAP 2.1P OUTLET DETAIL

(N.T.S.)



STORMWATER BASIN 2.1P SCHEMATIC SECTION D–D

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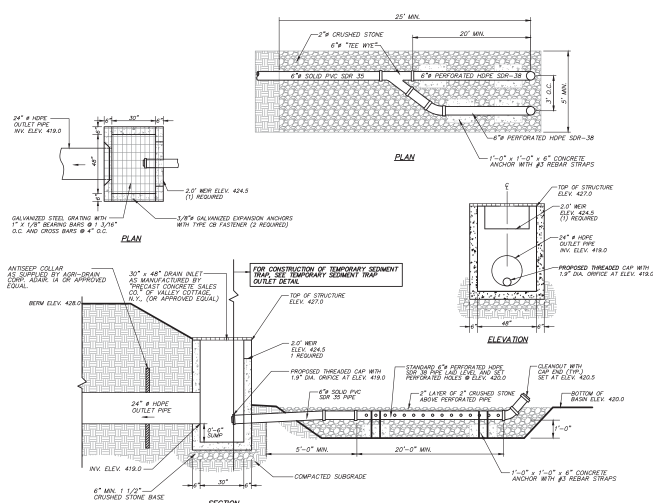
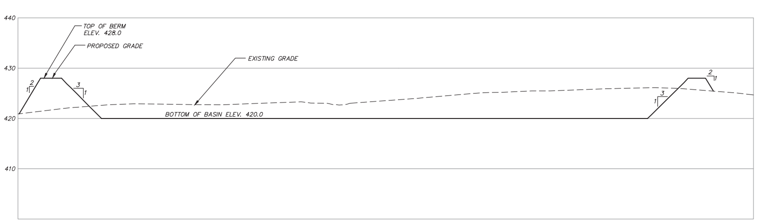


PERMANENT STORMWATER BASIN 2.2P OUTLET STRUCTURE DETAIL

(N.T.S.)



STORMWATER BASIN 2.2P SCHEMATIC SECTION E–E

N.T.S.

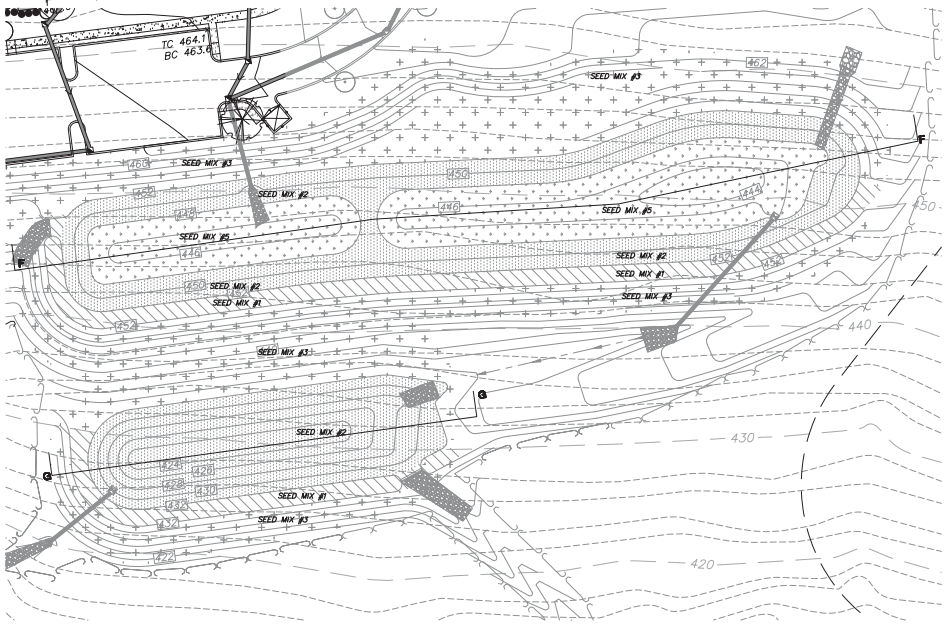
NO.	DATE	REVISION	BY

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:
THE HAMLET AT CARMEL
AMENDED SITE PLAN
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

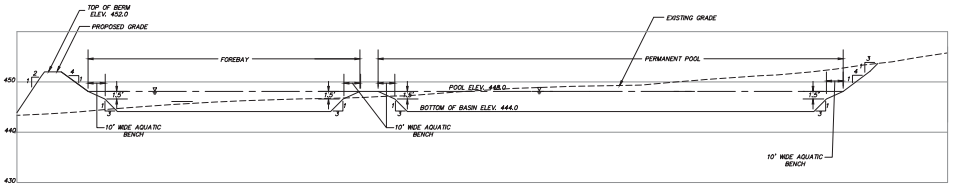
DRAWING:
STORMWATER POND DETAILS

PROJECT NO.	14211.100	PROJECT MANAGER	R.D.W.	DRAWING NO. D–5	SHEET 14/15
DATE	4-10-24	DRAWN BY	M.E.U.		
SCALE	AS SHOWN	CHECKED BY	A.D.T.		



STORMWATER BASINS 3.1P AND 3.2P ENLARGED PLAN VIEW

Scale: 1"=30'



STORMWATER BASIN 3.1P SCHEMATIC SECTION F–F

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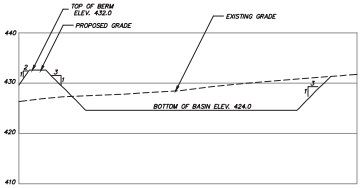
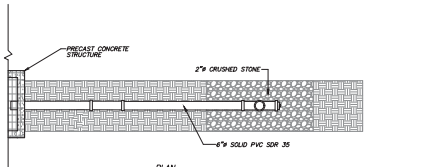


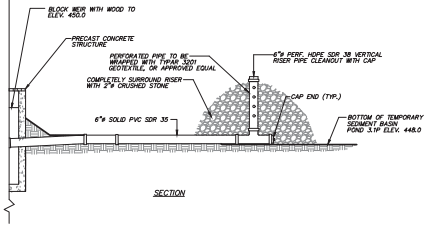
STORMWATER BASIN 3.2P SCHEMATIC SECTION G–G

N.T.S.

FOR ADDITIONAL BASIN CONSTRUCTION DETAILS, SEE THE PERMANENT STORMWATER BASIN OUTLET STRUCTURE DETAIL FOR BASIN 3.1P.



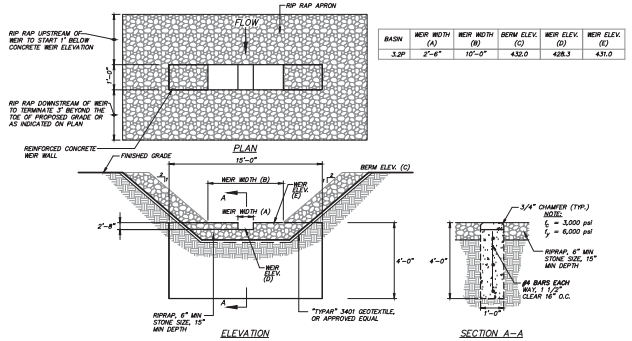
PLAN



SECTION

TEMPORARY SEDIMENT TRAP 3.1P OUTLET DETAIL

(N.T.S.)



BASIN	WEIR WIDTH (A)	WEIR WIDTH (B)	BERM ELEV. (C)	WEIR ELEV. (D)	WEIR ELEV. (E)
3.2P	2'–6"	10'–0"	432.0	428.3	431.0

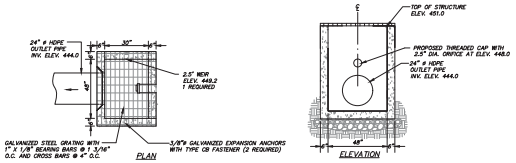
PLAN

ELEVATION

SECTION A–A

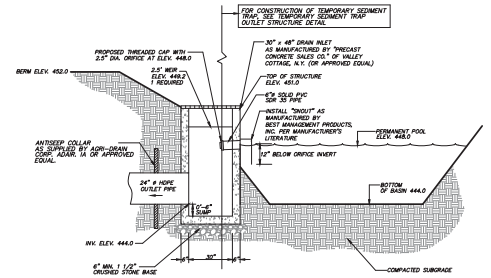
STORMWATER BASIN 3.2P OUTLET WEIR DETAIL

(N.T.S.)



PLAN

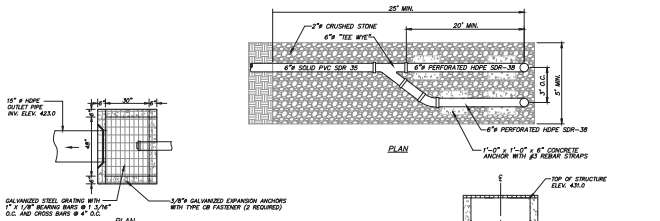
ELEVATION



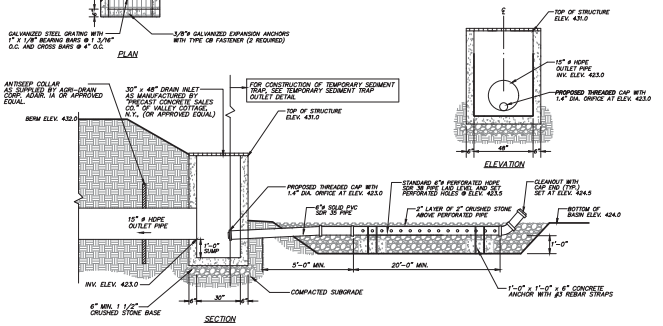
SECTION

PERMANENT STORMWATER BASIN 3.1P OUTLET STRUCTURE DETAIL

(N.T.S.)



PLAN



SECTION

ELEVATION

PERMANENT STORMWATER BASIN 3.2P OUTLET STRUCTURE DETAIL

(N.T.S.)

STORMWATER BASIN OUTLET NOTES

1. THE BASINS ARE PROPOSED TO BE UTILIZED AS TEMPORARY SEDIMENT TRAPS (TSTs) DURING CONSTRUCTION.
2. AFTER THE CONTRIBUTING AREAS TO THE BASINS HAVE BEEN PERMANENTLY STABILIZED, THE FOLLOWING SHALL BE ACCOMPLISHED:
   A. CLEAN BASINS AND OUTLET STRUCTURES AND REMOVE 6"ø PERFORATED VERTICAL RISER PIPE, CRUSHED STONE AND FILTER FABRIC.
   B. ADD THREADED CAP WITH ORIFICE AT DISCHARGE END OF 6"ø SOLID PVC SDR 35 PIPES PER DETAIL.
   C. REPLACE THE PERFORATED PIPE AND CRUSHED STONE. DO NOT REPLACE FILTER FABRIC.
   D. ESTABLISH THE FINAL VEGETATION IN THE BASINS IN ACCORDANCE WITH THE STORMWATER BASIN PLANTING DETAILS.
   E. FOR BASINS 2.1P AND 3.1P, EXCAVATE BOTTOM OF TST TO PERMANENT STORMWATER BASIN BOTTOM. ANY EXCESS SOIL SHALL BE TRUCKED OFF SITE AND BE PLACED IN A MANOR SO IT WILL NOT ERODE OR CAUSE EROSION.
   F. CONVERSION OF TST's SHALL BE ACCOMPLISHED ONE AT A TIME. THIS WILL ALLOW FOR THE TRAP UNDERGOING CONVERSION TO BE DEWATERED TO A STABILIZED TRAP OR BASIN. THE SECOND BASIN SHALL NOT START CONVERSION UNTIL THE FIRST BASIN IS STABILIZED AND THE THIRD AND FOURTH BASINS SHALL NOT START CONVERSION UNTIL THE PREVIOUS BASIN IS STABILIZED.
3. THE 6"ø PERFORATED VERTICAL RISER SHALL BE CONSTRUCTED AS FOLLOWS:
   * WHEN INITIALLY USED AS THE TEMPORARY SEDIMENT TRAP DEWATERING DEVICE THE RISER SHALL BE WRAPPED WITH TYPAR 3201 GEOTEXTILE OR APPROVED EQUAL AND SURROUNDED WITH 2"ø STONE. THE TOP OF THE RISER SHALL BE SET AT THE SAME ELEVATION AS THE WEIRS AS SHOWN IN THE STORMWATER BASIN OUTLET STRUCTURE DETAILS.
   * WHEN THE PERMANENT RISER FOR BASIN IS CONSTRUCTED THE RISER SHALL BE UNWRAPPED WITH THE TOP ELEVATION SET AT SPECIFIED ELEVATIONS.

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. For all areas to be planted with emergent vegetation, soil shall be decompacted using tilling or other method approved by Landscape Architect and amended as required by results of soil testing to a depth of at least 12".
13. 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.
14. All proposed seeded areas to stormwater basins to receive 4" min. depth of topsoil. Soil amendments and fertilizer application rates shall be determined based on specific testing of topsoil material.
15. The Stormwater Basin seed mixes as specified on these drawings from New England Wetland Plants, Inc. of Amherst, MA. are as follows:
   A. Seed Mix #1 at a rate of 35 lbs. per acre: New England Erosion Control/Restoration Mix (for Detention basins and Moist Sites).
   B. Seed Mix #2 at a rate of 23 lbs. per acre: New England Wildflower Mix.
   C. Seed Mix #3 at a rate of 25 lbs. per acre: New England Conservation/Wildlife Mix.
   D. Seed Mix #4 at a rate of 35 lbs. per acre New England Roadside Matrix Upland Seed Mix.
   E. Seed Mix #5 at a rate of 18 lbs. per acre: New England Wetmix.
16. Interiors of ponds including aquatic bench to be seeded. Permanent water to be drawn down below seeded areas until vegetation establishes.

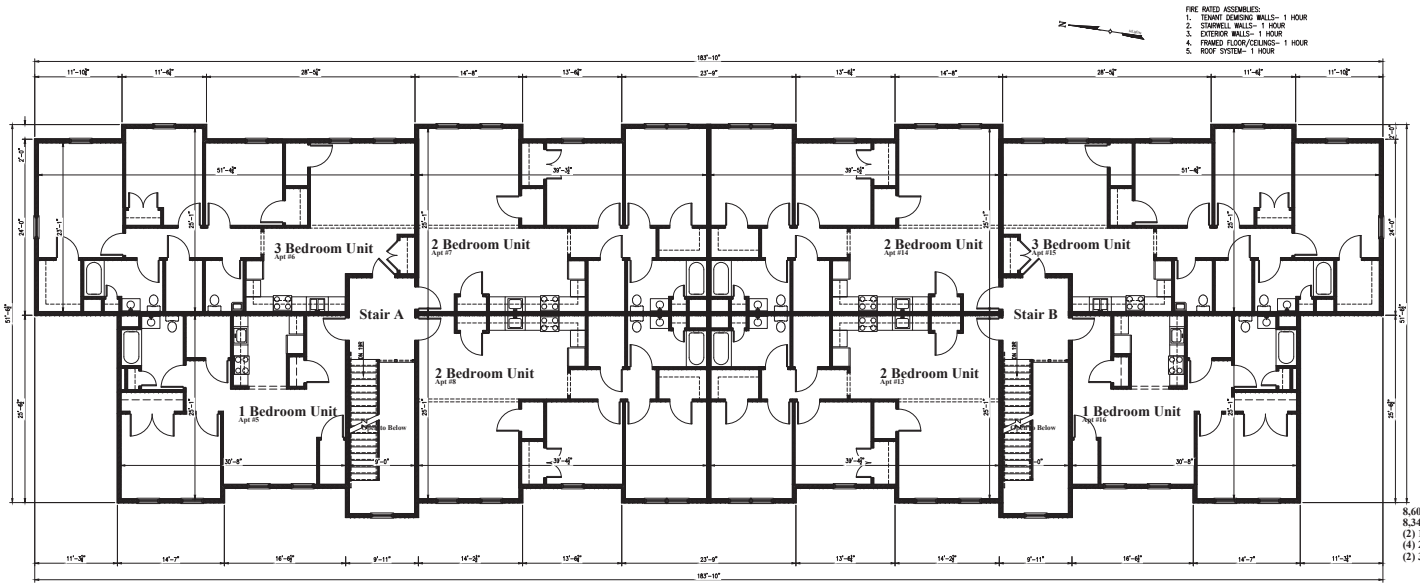
NO.	DATE	REVISION	BY

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:
THE HAMLET AT CARMEL
AMENDED SITE PLAN
STONELEIGH AVENUE, TOWN OF CARMEL, PUTNAM COUNTY, NEW YORK

DRAWING:
STORMWATER POND DETAILS

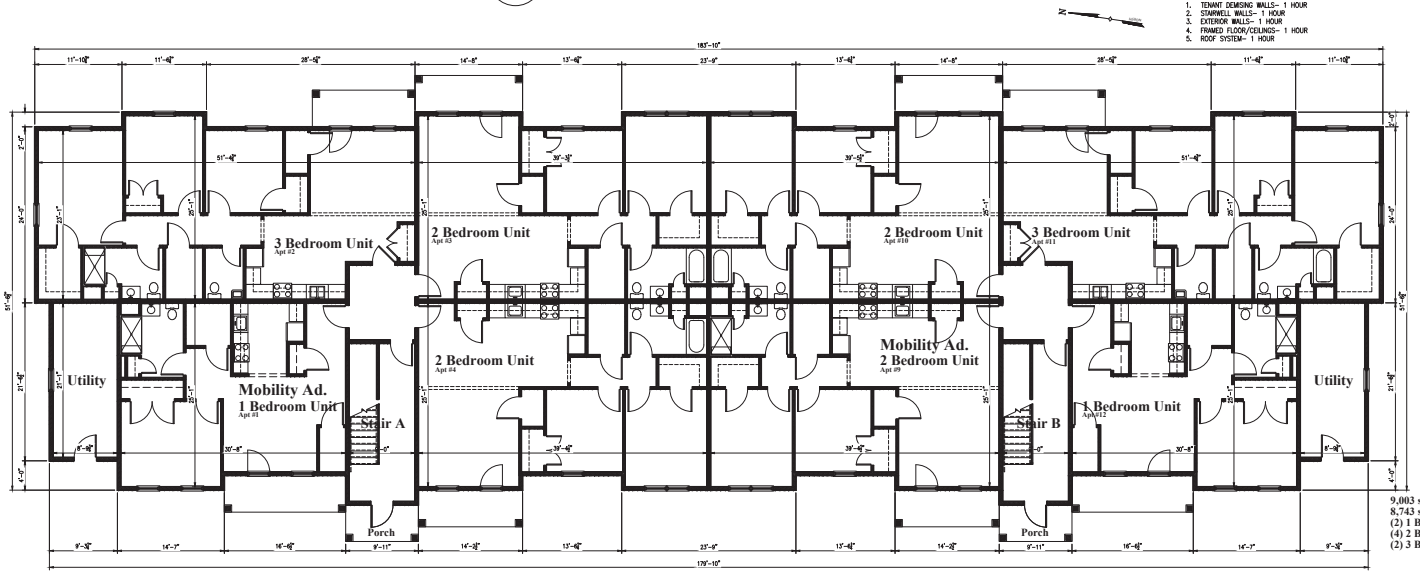
PROJECT NO.	14211.100	PROJECT MANAGER	R.D.W.	DRAWING NO.	SHEET
DATE	4–10–24	DRAWN BY	M.E.U.	D–6	15
SCALE	AS SHOWN	CHECKED BY	A.D.T.		15



8,603 s.f.
8,344 s.f. int.
(2) 1 BR Units
(4) 2 BR Units
(2) 3 BR Units

1 A1 Building A Second Floor Plan

Scale: 1/8"=1'-0"



9,003 s.f.
8,743 s.f. int.
(2) 1 BR Units
(4) 2 BR Units
(2) 3 BR Units

2 A1 Building A First Floor Plan

Scale: 1/8"=1'-0"

Reservoir Place - Unit and Area Breakdown

	Building #	1 Br Apartment	2 Br Apartment	3 Br Apartment	Totals
		745 s.f. int	970 s.f. int	1172 s.f. int	
	A	4	8	4	16
	B	0	8	0	8
	C	4	10	6	20
	D	5	7	3	15
	E	4	8	4	16
TOTALS					
		17	41	17	75
Total Int Area		12665	39770	19924	72,359

(34) first floor units are visitable and adaptable.
(9) units will be Mobility Adapted
(3) units will be A/V Adapted

COPPOLA ASSOCIATES
Design, Architecture & Planning
6 Old North Plank Road
Suite 101
Newburgh, NY 12550
TEL: 845-561-3559
FAX: 845-561-2051
ajcoppola@coppola-associates.com

LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLINGS FOR °

Reservoir Place

Stoneleigh Ave,
Town of Carmel, NY

**Building A
First & Second Floor Plans**

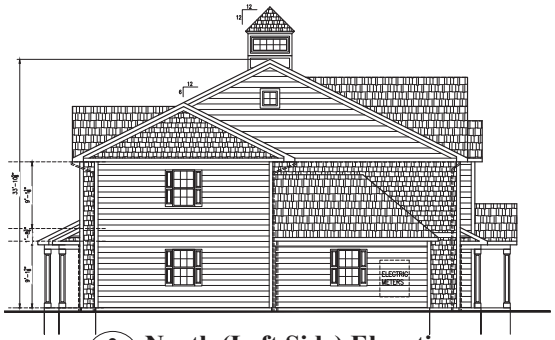
REVISIONS

DATE
11/2/23

PROJECT NUMBER
23-09

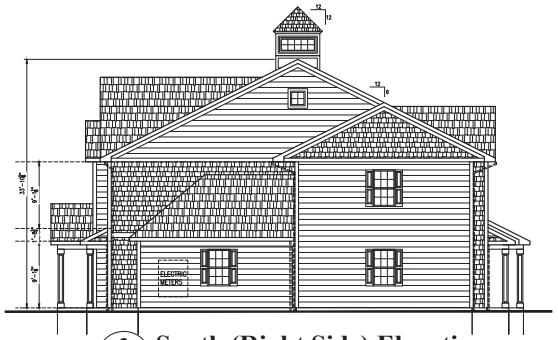
SHEET NUMBER
A1

1 / A2 **East (Rear) Elevation**
Scale: 1/8"=1'-0"



2 / A2 **North (Left Side) Elevation**
Scale: 1/8"=1'-0"

Typical Exterior Finishes:
Hardie fibercement siding & shakes-
Siding (Countrylane Red & Navajo Beige)
Shakes (Navajo Beige)
Fiberglass Shingles- GAF Pewter Gray
Composite Trim Boards- White
Energy Star Windows- White
Vinyl Shutters- Mid America Clay
Composite Columns- White



3 / A2 **South (Right Side) Elevation**
Scale: 1/8"=1'-0"

4 / A2 **West (Front) Elevation**
Scale: 1/8"=1'-0"

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Design, Architecture & Planning
6 Old North Plank Road
Suite 101
Newburgh, NY 12550
TEL: 845-561-3559
FAX: 845-561-2051
ajcoppola@coppola-associates.com

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° PROPOSED MULTIFAMILY DWELLINGS FOR °

Reservoir Place

Stoneleigh Ave,
Town of Carmel, NY

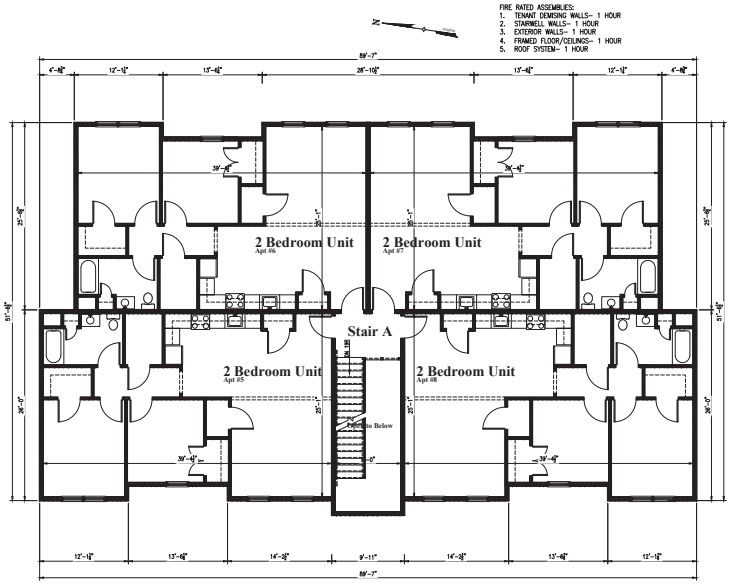
Building A Elevations

REVISIONS

DATE
11/2/23

PROJECT NUMBER
23-09

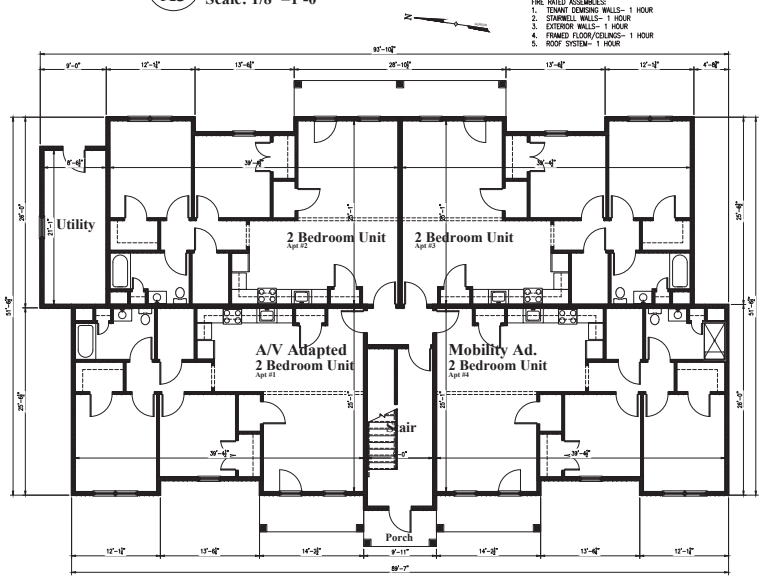
SHEET NUMBER
A2



4,287 s.f.
4,134 s.f. int.
(4) 2 BR Units

1 / A3 Building B Second Floor Plan

Scale: 1/8"=1'-0"



4,483 s.f.
4,326 s.f. int.
(4) 2 BR Units

2 / A3 Building B First Floor Plan

Scale: 1/8"=1'-0"

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Suite 101
Newburgh, NY 12550
TEL: 845-561-3559
FAX: 845-561-2051
ajcoppola@coppola-associates.com

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° PROPOSED MULTIFAMILY DWELLINGS FOR °

Reservoir Place

Stoneleigh Ave,
Town of Carmel, NY

Building B
First & Second Floor Plans

REVISIONS

DATE
11/2/23

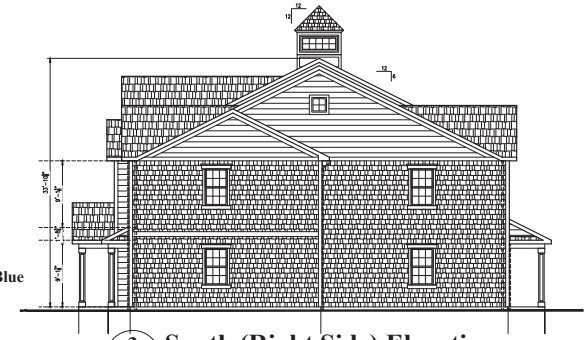
PROJECT NUMBER
23-09

SHEET NUMBER
A3

1 / A4 **East (Rear) Elevation**
Scale: 1/8"=1'-0"

2 / A4 **North (Left Side) Elevation**
Scale: 1/8"=1'-0"

Typical Exterior Finishes:
Hardie fibercement siding & shakes-
Siding (Light Mist & Deep Ocean)
Shakes (Light Mist)
Fiberglass Shingles- GAF Slate
Composite Trim Boards- White
Energy Star Windows- White
Vinyl Shutters- Mid America Midnight Blue
Composite Columns- White



3 / A4 **South (Right Side) Elevation**
Scale: 1/8"=1'-0"

4 / A4 **West (Front) Elevation**
Scale: 1/8"=1'-0"

COPPOLA ASSOCIATES
Design, Architecture & Planning
6 Old North Plank Road
Suite 101
Newburgh, NY 12550
TEL: 845-561-3559
FAX: 845-561-2051
ajcoppola@coppola-associates.com

LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLINGS FOR °

Reservoir Place

Stoneleigh Ave,
Town of Carmel, NY

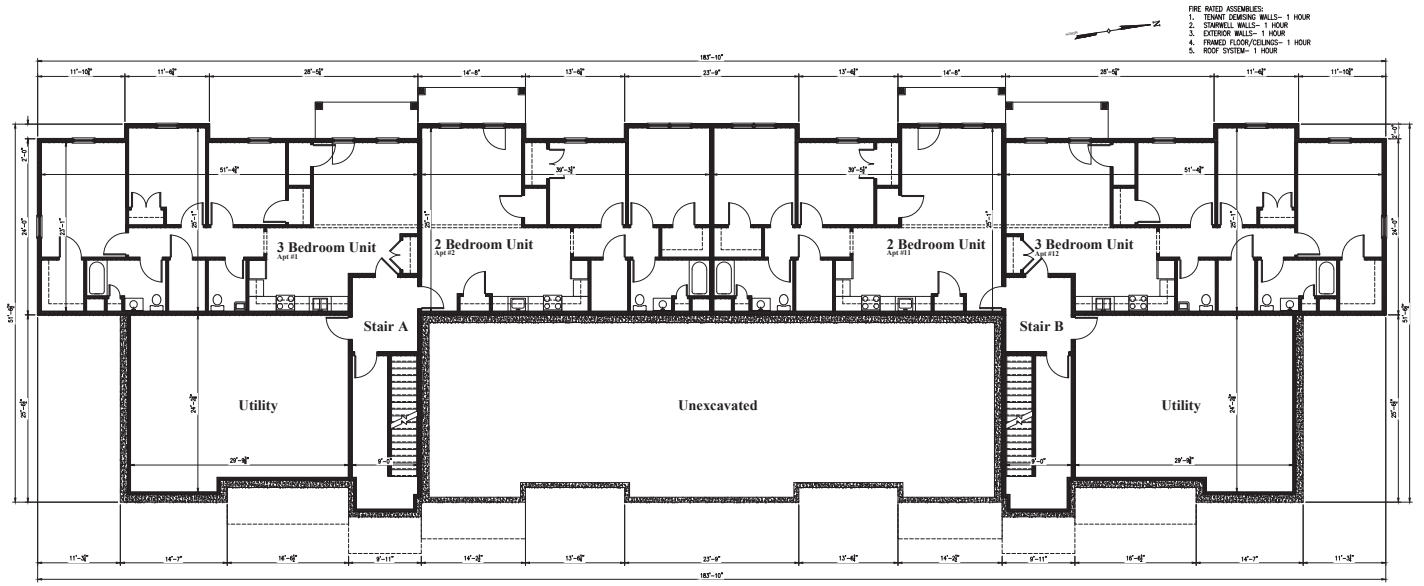
Building B Elevations

REVISIONS

DATE
11/2/23

PROJECT NUMBER
23-09

SHEET NUMBER
A4



6,769 s.f.
6,235 s.f. int.
(0) 1 BR Units
(2) 2 BR Units
(2) 3 BR Units

1 / A5 Building C First Floor Plan

Scale: 1/8"=1'-0"

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Suite 101
Newburgh, NY 12550
TEL: 845-561-3559
FAX: 845-561-2051
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° PROPOSED MULTIFAMILY DWELLINGS FOR °

Reservoir Place

Stoneleigh Ave,
Town of Carmel, NY

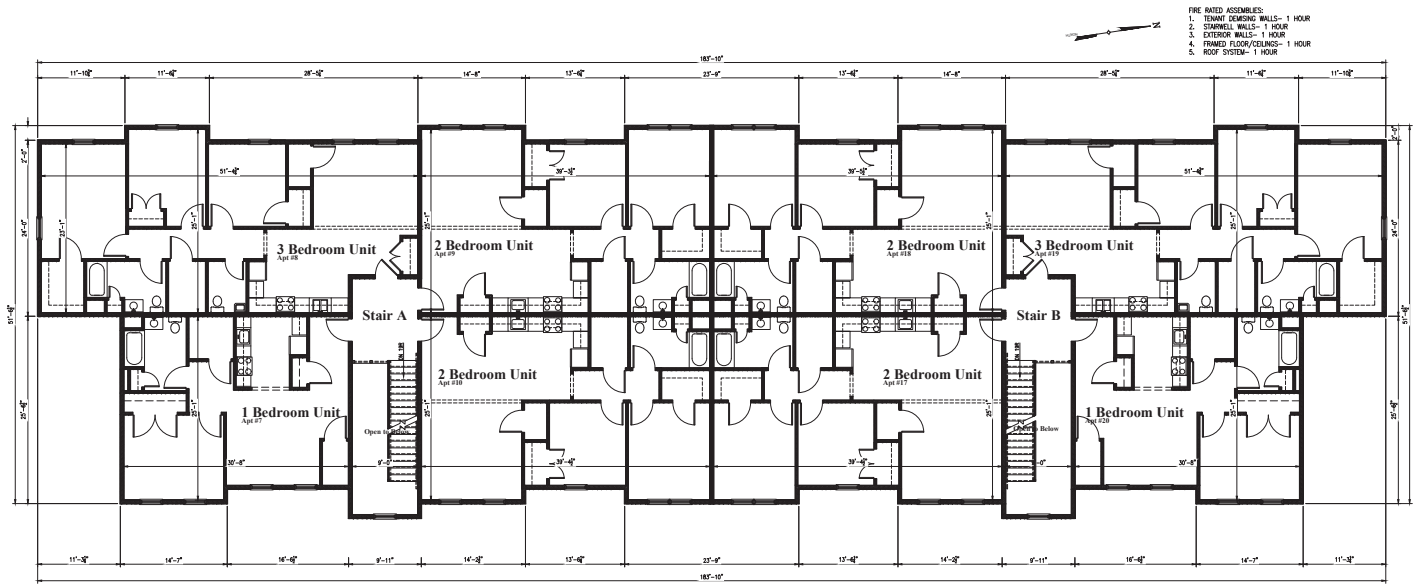
Building C
First Floor Plan

REVISIONS

DATE
11/2/23

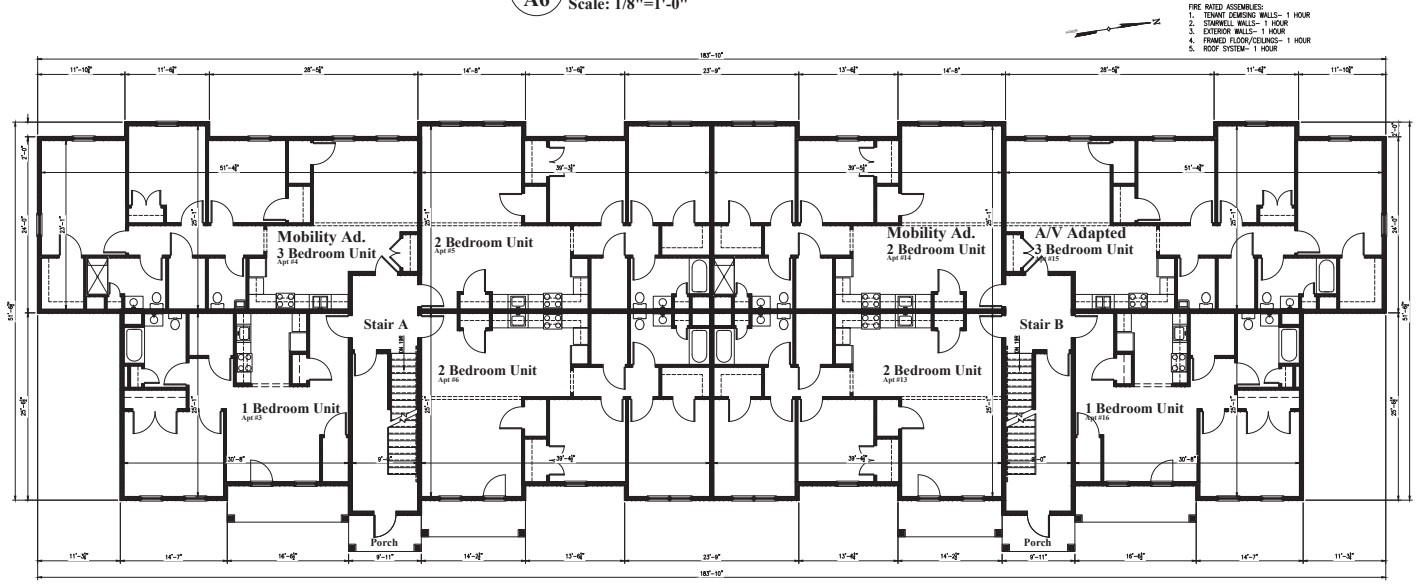
PROJECT NUMBER
23-09

SHEET NUMBER
A5



1 A6 Building C Third Floor Plan

Scale: 1/8"=1'-0"



2 A6 Building C Second Floor Plan

Scale: 1/8"=1'-0"

COPPOLA ASSOCIATES
Design, Architecture & Planning
6 Old North Plank Road
Suite 101
Newburgh, NY 12550
TEL: 845-561-3559
FAX: 845-561-2051
ajcoppola@coppola-associates.com

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° PROPOSED MULTIFAMILY DWELLINGS FOR °

Reservoir Place

Stoneleigh Ave,
Town of Carmel, NY

Building C Second & Third Floor Plans

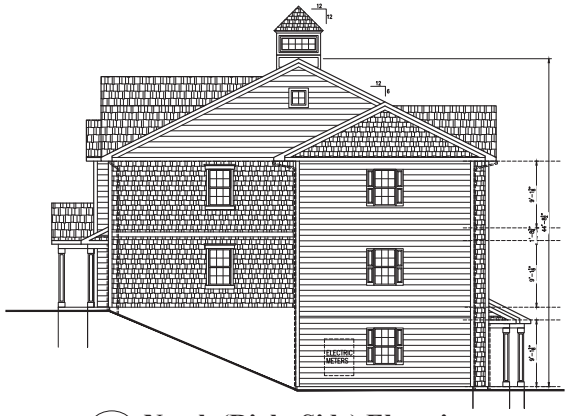
REVISIONS

DATE
11/2/23

PROJECT NUMBER
23-09

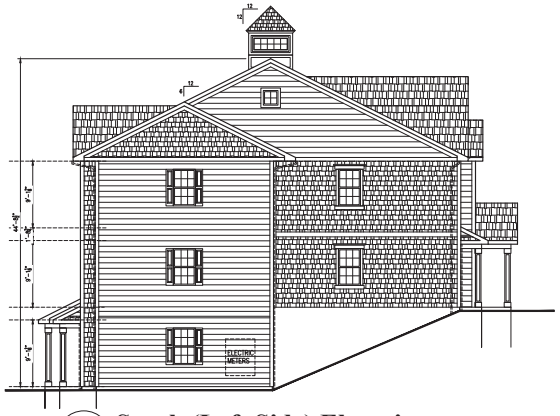
SHEET NUMBER
A6

1 A7 **West (Rear) Elevation**
Scale: 1/8"=1'-0"



2 A7 **North (Right Side) Elevation**
Scale: 1/8"=1'-0"

Typical Exterior Finishes:
Hardie fibercement siding & shakes-
Siding (Countrylane Red & Navajo Beige)
Shakes (Navajo Beige)
Fiberglass Shingles- GAF Pewter Gray
Composite Trim Boards- White
Energy Star Windows- White
Vinyl Shutters- Mid America Clay
Composite Columns- White



3 A7 **South (Left Side) Elevation**
Scale: 1/8"=1'-0"

4 A7 **East (Front) Elevation**
Scale: 1/8"=1'-0"

COPPOLA ASSOCIATES
Design, Architecture & Planning
6 Old North Plank Road
Suite 101
Newburgh, NY 12550
TEL: 845-561-3559
FAX: 845-561-2051
ajcoppola@coppola-associates.com

LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLINGS FOR °

Reservoir Place

Stoneleigh Ave,
Town of Carmel, NY

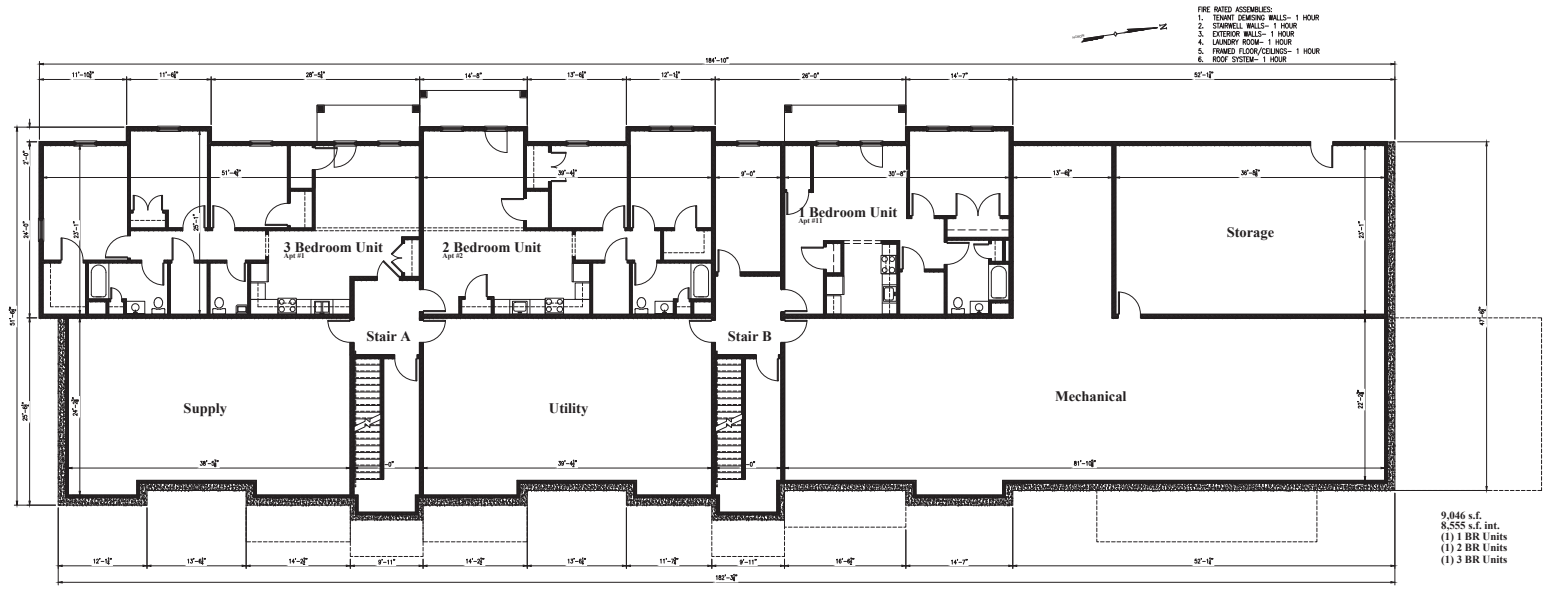
Building C Elevations

REVISIONS

DATE
11/2/23

PROJECT NUMBER
23-09

SHEET NUMBER
A7



1 / A8 Building D First Floor Plan

Scale: 1/8"=1'-0"

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Design, Architecture & Planning

6 Old North Plank Road
Suite 101
Newburgh, NY 12550
TEL: 845-561-3559
FAX: 845-561-2051
ajcoppola@coppola-associates.com

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° PROPOSED MULTIFAMILY DWELLINGS FOR °

Reservoir Place

Stoneleigh Ave,
Town of Carmel, NY

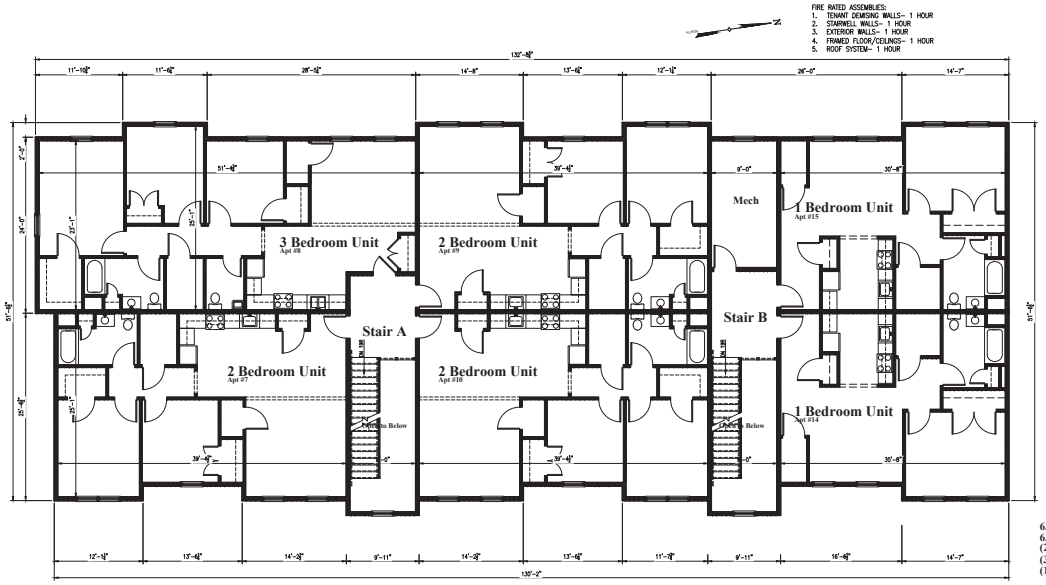
Building D
First Floor Plan

REVISIONS

DATE
11/2/23

PROJECT NUMBER
23-09

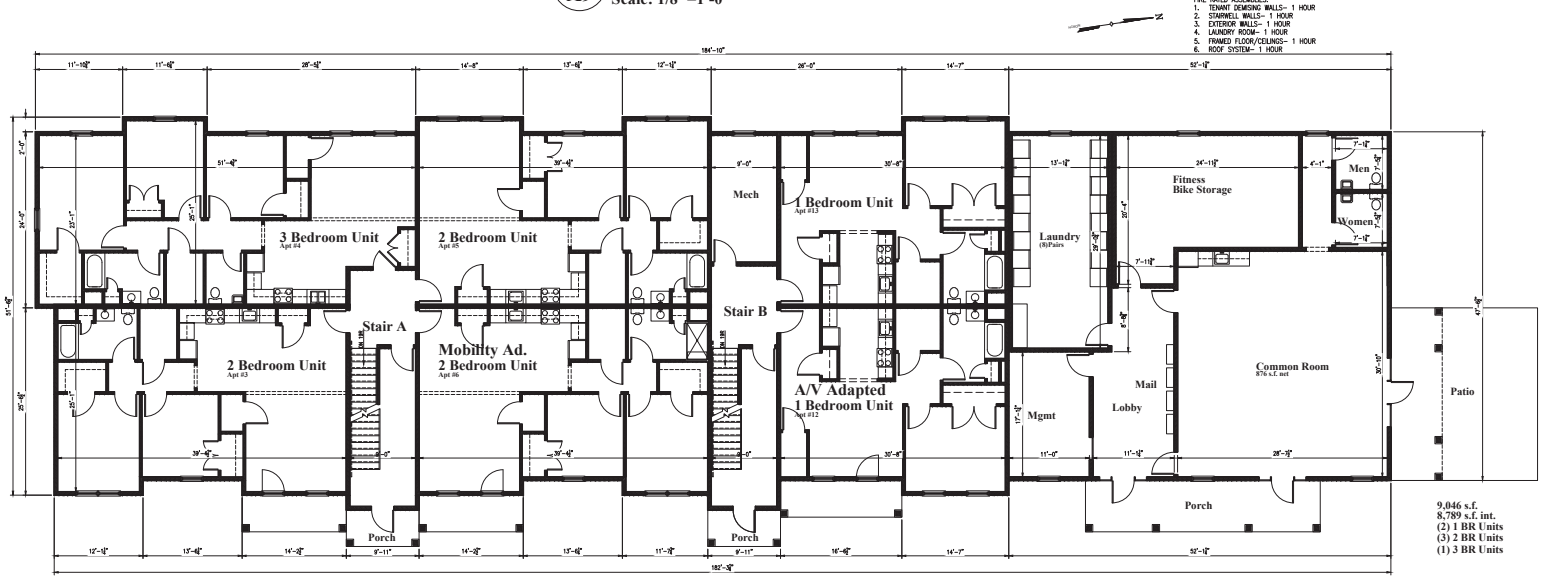
SHEET NUMBER
A8



6,568 s.f.
6,365 s.f. int.
(2) 1 BR Units
(3) 2 BR Units
(1) 3 BR Units

1/A9 Building D Third Floor Plan

Scale: 1/8"=1'-0"



9,046 s.f.
8,789 s.f. int.
(2) 1 BR Units
(3) 2 BR Units
(1) 3 BR Units

2/A9 Building D Second Floor Plan

Scale: 1/8"=1'-0"

COPPOLA ASSOCIATES

Design, Architecture & Planning

6 Old North Plank Road
Suite 101
Newburgh, NY 12550
TEL: 845-561-3559
FAX: 845-561-2051
ajcoppola@coppola-associates.com

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° PROPOSED MULTIFAMILY DWELLINGS FOR °

Reservoir Place

Stoneleigh Ave,
Town of Carmel, NY

Building D
Second & Third
Floor Plans

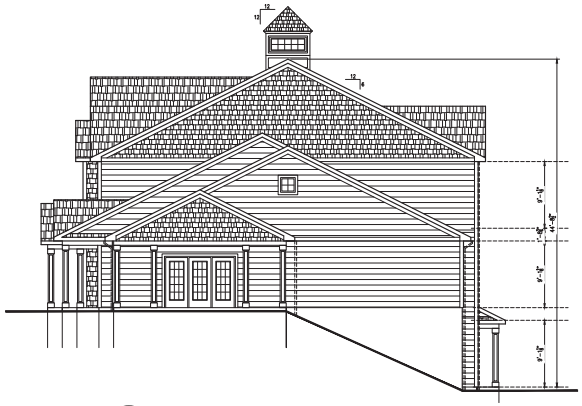
REVISIONS

DATE
11/2/23

PROJECT NUMBER
23-09

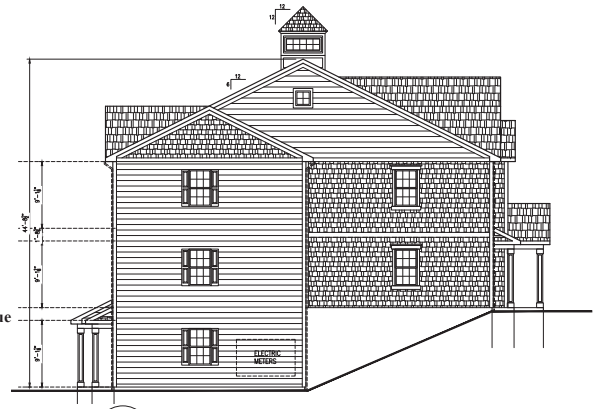
SHEET NUMBER
A9

1 A10 **West (Rear) Elevation**
Scale: 1/8"=1'-0"



Typical Exterior Finishes:
Hardie fibercement siding & shakes-
Siding (Light Mist & Deep Ocean)
Shakes (Light Mist)
Fiberglass Shingles- GAF Slate
Composite Trim Boards- White
Energy Star Windows- White
Vinyl Shutters- Mid America Midnight Blue
Composite Columns- White

2 A10 **North (Right Side) Elevation**
Scale: 1/8"=1'-0"



3 A10 **South (Left Side) Elevation**
Scale: 1/8"=1'-0"

4 A10 **East (Front) Elevation**
Scale: 1/8"=1'-0"

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Suite 101
Newburgh, NY 12550
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LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLINGS FOR °

Reservoir Place

Stoneleigh Ave,
Town of Carmel, NY

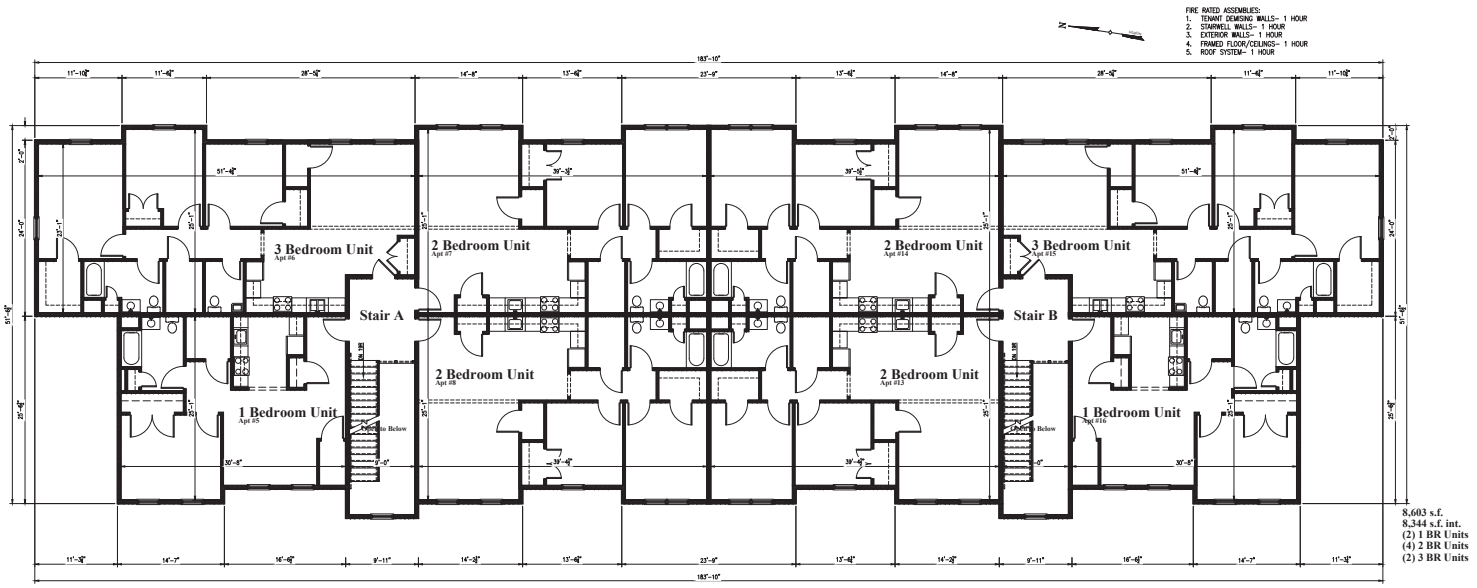
Building D Elevations

REVISIONS

DATE
11/2/23

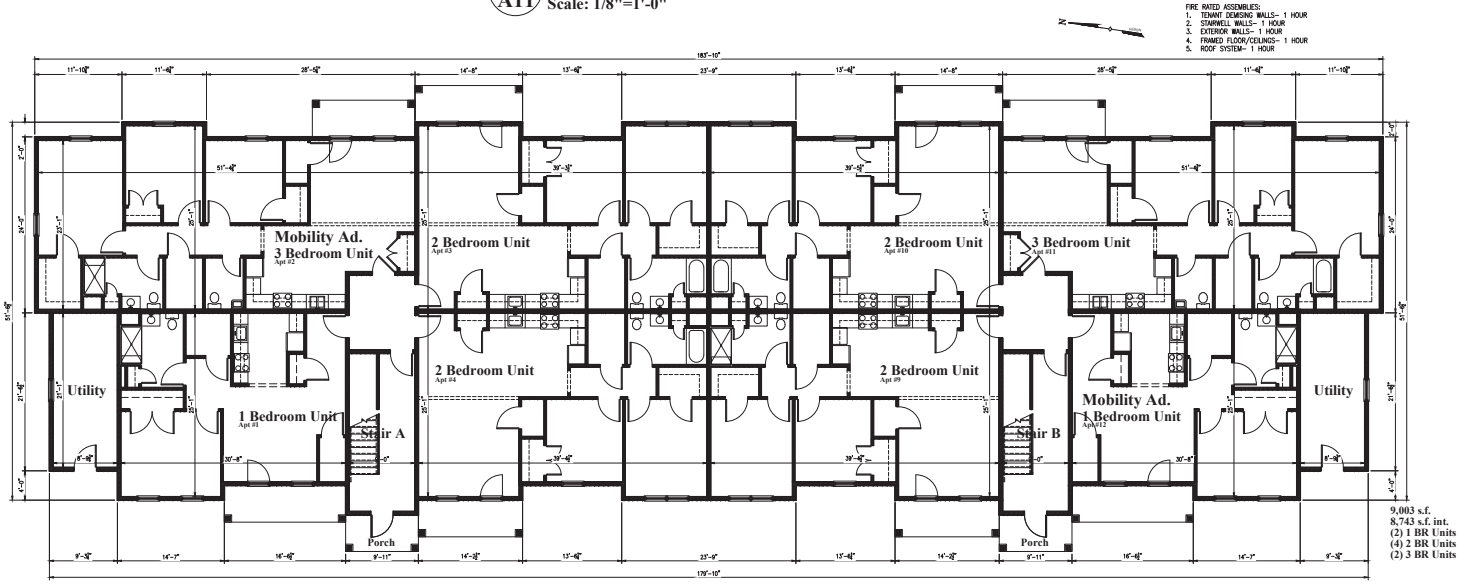
PROJECT NUMBER
23-09

SHEET NUMBER
A10



1 A11 Building E Second Floor Plan

Scale: 1/8"=1'-0"



2 A11 Building E First Floor Plan

Scale: 1/8"=1'-0"

COPPOLA ASSOCIATES
Design, Architecture & Planning
6 Old North Plank Road
Suite 101
Newburgh, NY 12550
TEL: 845-561-3559
FAX: 845-561-2051
ajcoppola@coppola-associates.com

LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLINGS FOR °

Reservoir Place

Stoneleigh Ave,
Town of Carmel, NY

Building E
First & Second Floor Plans

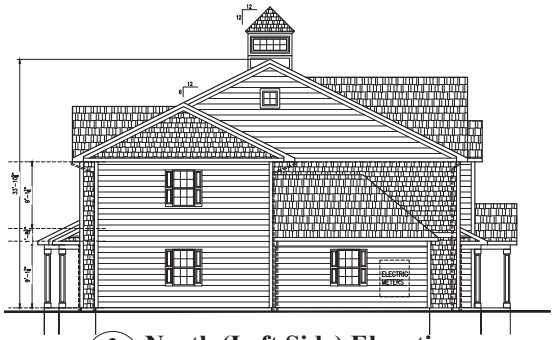
REVISIONS

DATE
11/2/23

PROJECT NUMBER
23-09

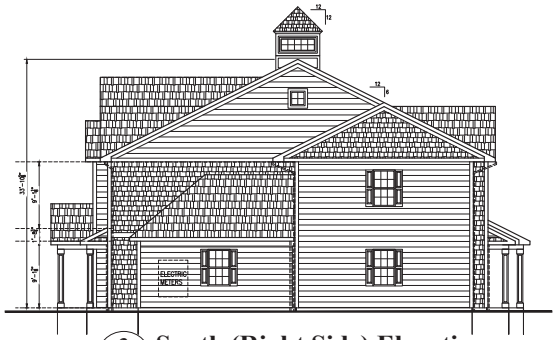
SHEET NUMBER
A11

1 / A12 **East (Rear) Elevation**
Scale: 1/8"=1'-0"



2 / A12 **North (Left Side) Elevation**
Scale: 1/8"=1'-0"

Typical Exterior Finishes:
Hardie fibercement siding & shakes-
Siding (Countrylane Red & Navajo Beige)
Shakes (Navajo Beige)
Fiberglass Shingles- GAF Pewter Gray
Composite Trim Boards- White
Energy Star Windows- White
Vinyl Shutters- Mid America Clay
Composite Columns- White



3 / A12 **South (Right Side) Elevation**
Scale: 1/8"=1'-0"

4 / A12 **West (Front) Elevation**
Scale: 1/8"=1'-0"

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LICENSE NUMBER: 018849

° PROPOSED MULTIFAMILY DWELLINGS FOR °

Reservoir Place

Stoneleigh Ave,
Town of Carmel, NY

Building E Elevations

REVISIONS

DATE
11/2/23

PROJECT NUMBER
23-09

SHEET NUMBER
A12

JOHN KARELL, JR., P.E.
121 CUSHMAN ROAD
PATTERSON, NEW YORK, 12563
845-878-7894 FAX 845 878 4939
jack4911@yahoo.com

April 10, 2024

To: Town of Carmel Planning Board

Re: **Site Plan Lantern Pub Reconstruction**
728 Route 6, LLC
728 Route 6, Mahopac; TM # 76.22-1-54

The below is a response to comments from the Town Consultants and Staff as follows:

Richard Franzetti, P.E., Town Engineer dated April 8, 2024

- **Page 2 of 3 Completeness Form**
  Item 18 and 20 have been completed yes
  The well was shown on the plan but was not clearly evident. Added new Label.
  The sewer line has been shown from the former site plan consisting of an existing 1000 gallon concrete grease .trap. and connection to the Town Sanitary Sewer
- **Page 2 of 4 Site Plan Application**
  Water supply has been indicated NO, existing well and the boxes for storm sewer, electric service, gas service and telephone cable lines have been checked yes.

John Karell, Jr., P.E.

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
- N ☒ A All supplemental studies, reports, plans and renderings.
- N ☒ A 2 copies of the current deed. submitted previously
- N ☒ A 2 copies of all easements, covenants and restrictions. none
- ☒ The appropriate fee, determined from the attached fee schedule. Make checks payable to the *Town of Carmel.*

Rose Gromelletta 4/11/24 — **Planning Board Secretary; Date**

4/11/24 — **Town Engineer; Date**

TOWN OF CARMEL
SITE PLAN APPLICATION

Per Town of Carmel Code – Section 156 - Zoning

SITE IDENTIFICATION INFORMATION

Application Name: 728 ROUTE 6, LLC	**Application #** 24-0010	**Date Submitted:** 4/1/24
Site Address: No. 168 Street: EAST LAKE BLVD Hamlet: MAHOPAC		
Property Location: *(Identify landmarks, distance from intersections, etc.)* 728 ROUTE 6		
Town of Carmel Tax Map Designation: Section 76.22 Block 1 Lot(s) 54	**Zoning Designation of Site:** C	
Property Deed Recorded in County Clerk's Office Date Liber Page	**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: MICHAEL GUO	**Phone #:** **Fax#:**	**Email:**
Owners Address: No. 168 Street: EAST LAKE BLVD Town: MAHOPAC State: NY Zip: 10541		
Applicant (If different than owner): same as owner	**Phone #:** 9145239450 **Fax#:**	**Email:** GUO16838@YAHOO.COM
Applicant Address (If different than owner): No. Street: Town: State: Zip:		
Individual/ Firm Responsible for Preparing Site Plan: John Karell, Jr. P.E.	**Phone #:** 8457210455 **Fax#:** —	**Email:** JACK4911@YAHOO.COM
Address: No. 121 Street: CUSHMAN ROAD Town: PATTERSON State: NY Zip: 12563		
Other Representatives:	**Phone #:** **Fax#:**	**Email:**
Owners Address: No. Street: Town: State: Zip:		

PROJECT DESCRIPTION

Describe the project, proposed use and operation thereof:

RENOVATION OF AN EXISTING SECOND FLOOR OFFICE AND STORAGE SPACE TO THREE 2 BEDROOM APARTMENTS

TOWN OF CARMEL SITE PLAN APPLICATION

PROJECT INFORMATION

Lot size: Acres: 0.53 Square Feet: 23,087	**Square footage of all existing structures (by floor):**
# of existing parking spaces: 37	**# of proposed parking spaces;** 0
# of existing dwelling units: 0	**# of proposed dwelling units** 3

Is the site served by the following public utility infrastructure:

- **Is project in sewer district or will private septic system(s) be installed?** SEWER DISTRICT
- **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?** _____
  - **What is your anticipated average and maximum daily flow** 660GPD AVG 2MAX
  - ***For Town of Carmel Town Engineer***
  - ***What is the sewer capacity*** _____
- **Water Supply** **Yes:** ☐ **No:** ☒ EX. WELL

  If Yes:
  - **Does approval exist to connect to water main? Yes:** ☐ **No:** ☐
  - **What is the total water capacity at time of application?** _____
  - **What is your anticipated average and maximum daily demand** _____
- **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 _____ 4/10/25
Sewer Flows _____

_____
Town Engineer; Date

What is the predominant soil type(s) on the site? N/A	**What is the approximate depth to water table?** N/A

Site slope categories:	**15-25%** ___ %	**25-35%** ___ %	**>35%** ___ %
Estimated quantity of excavation:	**Cut (C.Y.)** 0	**Fill (C.Y.)** 0	
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 >200 Right >200

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
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: ☒

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: ☒

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?
TO BEGIN JULY 1, 2024; TAKING 6 MONTHS

ZONING COMPLIANCE INFORMATION

Zoning Provision	Required	Existing	Proposed
Lot Area SF	40 000	23262	SAME
Lot Coverage %	30	27.4	
Lot Width FT	200	150	
Lot Depth FT	200	153	
Front Yard FT	40	15	
Side Yard FT	25	17.3	
Rear Yard FT	30	47.3	
Minimum Required Floor Area SF	5000	6180	
Floor Area Ratio			
Height FT	35	30	
Off-Street Parking *	40	37	✓
Off-Street Loading			

* VARIANCE FOR ADDITIONAL 60 SPACES GRANTED

TOWN OF CARMEL SITE PLAN APPLICATION

Will variances be required? Yes: ☐ No: ☒	If yes, identify variances:

PROPOSED BUILDING MATERIALS	
Foundation	N/A
Structural System	N/A
Roof	N/A
Exterior Walls	N/A

APPLICANT'S 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.

Michael Guo
Applicants Name

Applicants Signature

Sworn before me this 1st **day of** April **20**24

Denise Nizolek
Notary Public, State of New York
Registration no. 01NI6218997
Qualified in Putnam County
Commission Expires March 15, 20 26

Notary Public

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)	N ☒ A	☐
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	☐ EX. NO GRADING	☐
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	N ☒ A none	☐
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	EX. ☒	☐
14	Proposed signage	EX. ☒	☐
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	☒ EX	☐

TOWN OF CARMEL

SITE PLAN COMPLETENSS CERTIFICATION FORM

		To be Completed by the applicant	Waiver by the Town
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	N ☒ A	☐
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 John Karell, Jr. **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
JOHN KARELL, JR.
No. 53277
LICENSED PROFESSIONAL ENGINEER

Professionals Seal

Signature - Applicant — Date: March 5, 2024

Signature - Owner — Date

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 Tomaselli — 4/11/24

Signature - Planning Board Secretary **Date**

[signature] — 4/11/24

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:
728 ROUTE 6, BUILDING RENOVATION

Project Location (describe, and attach a location map):
728 ROUTE 6, MAHOPAC, NY

Brief Description of Proposed Action:
RENOVATION OF AN EXISTING SECOND FLOOR OFFICE AND STORAGE SPACE TO THREE 2 BEDROOM APARTMENTS

Name of Applicant or Sponsor:	Telephone:
MICHAEL GUO	E-Mail:

Address:
168 EAST LAKE BOULEVARD

City/PO:	State:	Zip Code:
MAHOPAC	NY	10541

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval:	☑	☐

3. a. Total acreage of the site of the proposed action? 0.53 acres
   b. Total acreage to be physically disturbed? 0 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 0.53 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:		
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment:	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	☑	☐
20.Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	☑	☐

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

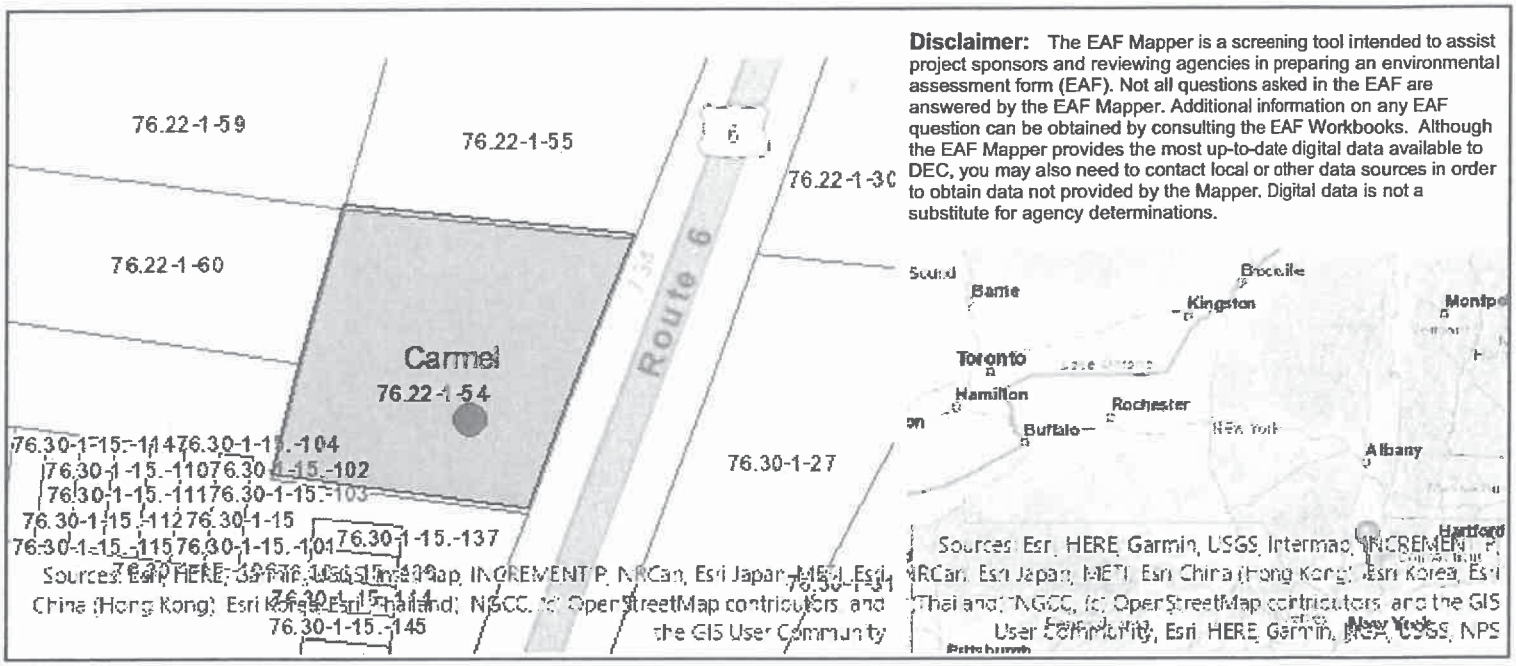
Applicant/sponsor/name: MICHAEL GUO Date: MARCH 31, 2024

Signature: Title: OWNER

PRINT FORM

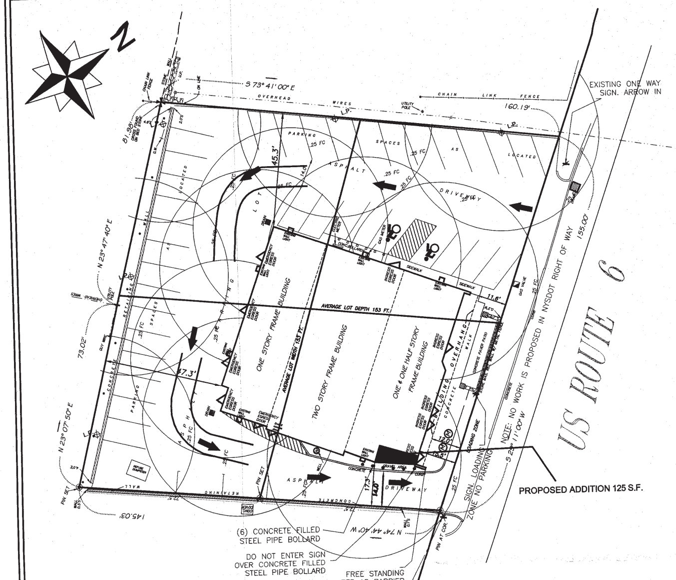
EAF Mapper Summary Report

Friday, March 29, 2024 1:41 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.

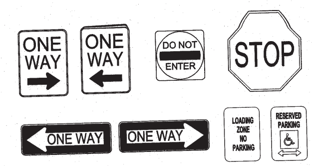
Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local 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]	No
Part 1 / Question 20 [Remediation Site]	No



NOTE: NO PICK-UP OR DRIVE-THRU WINDOWS ARE PROPOSED AT THIS LOCATION. PROPOSED ADDITION WILL ACCOMMODATE CUSTOMER QUEUING FROM FORMING OUTSIDE

SITE PLAN

SCALE 1"=20'



TRAFFIC SIGNS USED ON SIGHT

SCALE 1"=20'

ABBREVIATIONS & SYMBOLS LEGEND

- C.R.W. .... CONC. RETAINING WALL
- L.D. .... LEADER DRAIN
- .... 2'x 4" STORM DRAIN
- .... CATCH BASIN (TYP.)
- .... MANHOLE (TYPE UNKNOWN)
- .... CROSSCUT
- .... STAKE
- .... REBAR , PIPE, ANY SORT OF IRON MARKER
- .... SURVEY CONTROL MONUMENT
- .... UTILTIY POLE
- .... SERVICE WIRES OVERHEAD
- .... LIGHT FIXTURE
- .... GAS VALVE
- .... GAS BOX (1'x1' COVER)
- .... METAL GUARD RAIL
- .... FENCE (CHAIN LINK)
- .... FENCE (STOCKADE)

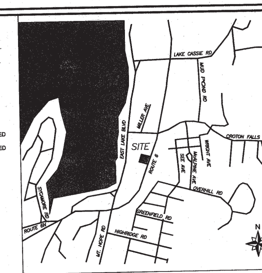
NOTES:

1. THIS SITE PLAN HAS BEEN CREATED TO GAIN APPROVAL OF THE CHANGE IN USE AND RENOVATION OF THE EXISTING COMMERCIAL BUILDING. THE FOOTPRINT OF THE BUILDING WILL NOT CHANGE.
2. THE ORIGINAL USE OF THE BUILDING WAS A RESTAURANT AND CATERING HALL WITH SEATING CAPACITY OF 240 SEATS. THE 2023 APPROVAL FOR THIS PROPERTY PROVIDED FOR FIVE (5) INDIVIDUAL SPACES TO BE USED AS RETAIL AND SMALL RESTAURANT.
3. THE ORIGINAL RESTAURANT/BAR/BANQUET BUSINESS HAS A SEATING CAPACITY OF 140 SEATS CATERING, 80 SEATS RESTAURANT AND 20 SEATS BAR.
4. SEWAGE FLOW FOR THE ORIGINAL USE WAS 4,600 GALLONS PER DAY AND THE 2023 APPROVAL PROVIDED FOR 3,070 GALLONS PER DAY.
5. THE SITE IS SERVED BY EXISTING MUNICIPAL SEWER IN ROUTE 6 AND A PRIVATE WELL.
6. NO ADDITIONAL IMPERVIOUS SURFACES ARE PROPOSED.
7. THE PROPOSED USE IS THREE (3) TWO BEDROOM APARTMENTS ON THE SECOND FLOOR WHICH SPACE WAS FORMERLY AN OFFICE AND STORAGE.
8. THE PROPOSED APARTMENTS WILL RESULT IN AN ADDITIONAL 150 GALLONS PER DAY PER BEDROOM TOTAL INCREASE IN SEWAGE DISCHARGE TO THE EXISTING SEWER IN ROUTE 6 IS 900 GALLONS PER DAY. THE ORIGINAL USE WAS 4,600 GALLONS PER DAY, THE PROPOSED USE IS 3,970 GALLONS PER DAY. THIS IS LESS THAN THE ORIGINAL USE.
9. PARKING REQUIREMENTS FOR THE ORIGINAL USE WAS 80 PARKING SPACES, THE 2023 APPROVAL REQUIRED 34 PARKING SPACES. PROPOSED USE WILL REQUIRE 2 PARKING SPACES PER UNIT, TOTAL ADDED, 6 SPACES, BRING THE TOTAL REQUIRED PARKING SPACES OF 40 SPACES.

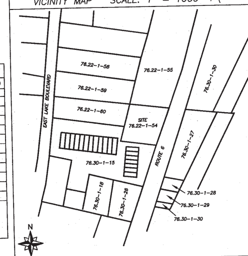
PARKING CALCULATIONS
PARKING REQUIREMENTS FOR ALL SPACES FOR THIS PROPERTY IS SUMMARIZED BELOW:
PHO Vietnamese Restaurant 52 seats
3=17.3 required 18 parking spaces
The Patron Restaurant 36
seats/3=12 required 12 parking spaces
Dim Sum Dumpling takeout (patron use area) 200= 0.9 required
1 parking space
Bella Cucina Italian retail (patron use area) 531sf/200=2.6
required 3 parking spaces
Total Parking spaces required by the 2023 approval 34 parking spaces
Total Parking spaces required by this proposal 40 parking spaces
Total parking spaces for the three(3) two (2) bedroom apartments tow per unit six (6) spaces
A Variance was granted previously by the Planning Board to allow 80 parking spaces.

ZONING TABLE

COMMERCIAL				
C	REQUIRED	PROVIDED	ADDITION	VARIANCE REQUIRED
MIN. LOT AREA	40,000 SQ. FT.	23,262 SQ. FT.		GRANTED
MIN. YARDS:				
FRONT	40 FT	15 FT	15 FT	GRANTED
SIDE	25 FT	17.3 FT	17.3 FT	GRANTED
REAR	30 FT	47.3 FT		
MIN. FRONTAGE	200 FT	155 FT		
MAX. BLDG. HEIGHT	35 FT	30 FT		
MIN. LOT WIDTH	200 FT	150 FT		GRANTED
MIN. LOT DEPTH	200 FT	153 FT		GRANTED
MIN. REQ. FLOOR AREA	5000 SQ FT	6,180 FT		
MAX. BLDG. COVERAGE	30%	27.4%	27.6%	
MIN. DRIVEWAY WIDTH	12 FT (ONE WAY)	12 FT (ONE WAY)		GRANTED
PARKING REQ. FOR	40 PARKING SPACES	35 SPACES (9'X18') PLUS 2 H.C. SPACE TOTAL 37 SPACES		VARIANCE FOR ADDITIONAL 80 PARKING SPACES GRANTED



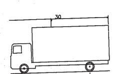
VICINITY MAP SCALE: 1" = 1000' +\-



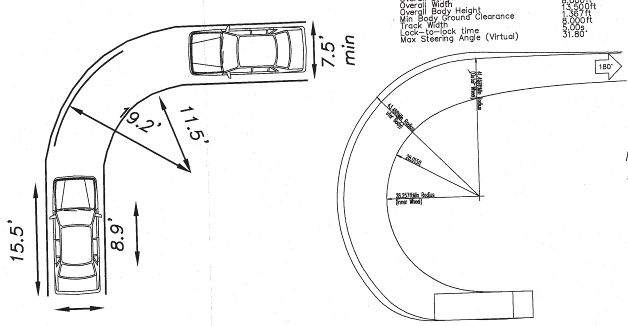
AREA MAP SCALE: 1" = 200' +\-

TAX LOT	ADDRESS
76.22-1-55	MAHOPAC CENTRAL SCHOOL DISTRICT 178 EAST LAKE BLVD. MAHOPAC, NY 10541
76.22-1-27	IAN W. REALTY, LLC 725 ROUTE 6 MAHOPAC, NY 10541
76.30-1-15	THE LAKE MAHOPAC CONDOMINIUMS 60 McALPINE AVE. MAHOPAC, NY 10541
76.22.1-60	JOHN P. MOONEY KOC FND., INC. 161 EAST LAKE BLVD MAHOPAC, NY 10541
76.22.1-59	MATTHEW SPALLINA 165 EAST LAKE BLVD MAHOPAC, NY 10541

ADJOINING OWNERS

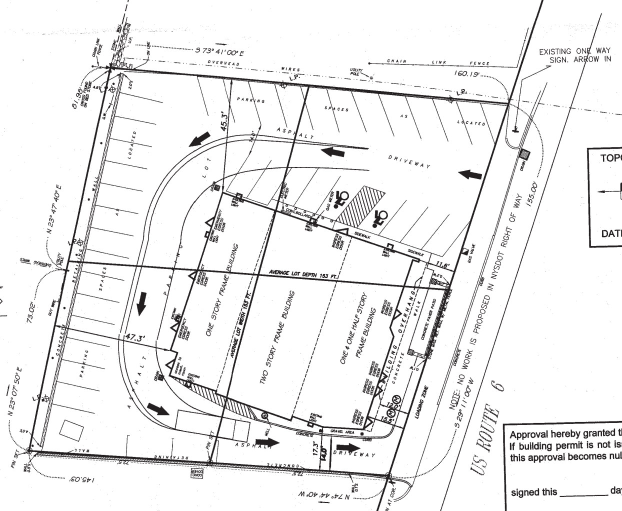


SU-30 - Single Unit Truck 30.000ft
Overall Length 8.000ft
Overall Width 13.500ft
Overall Body Height 1.367ft
Min Body Ground Clearance 8.000ft
Track Width 5.00s
Lock-to-lock time 31.80°
Max Steering Angle (Virtual)



CAR AND TRUCK TURNING RADII

NOT TO SCALE



CAR AND TRUCK TURNING RADII MAP

SCALE 1"=20'

TOPOGRAPHIC SURVEY PREPARED BY:
Link Land Surveyors P.C.
21 Clark Place, Suite 1-B, Mahopac N.Y. 10541
Phone 845-628-5857, Fax 845-621-0013
DATED NOVEMBER 19, 2020

Approval hereby granted this __________ day of _______ 2023.
If building permit is not issued within 12 months from the above date, this approval becomes null and void.

Town of Carmel Planning Board
signed this _________ day of __________, 2023 by

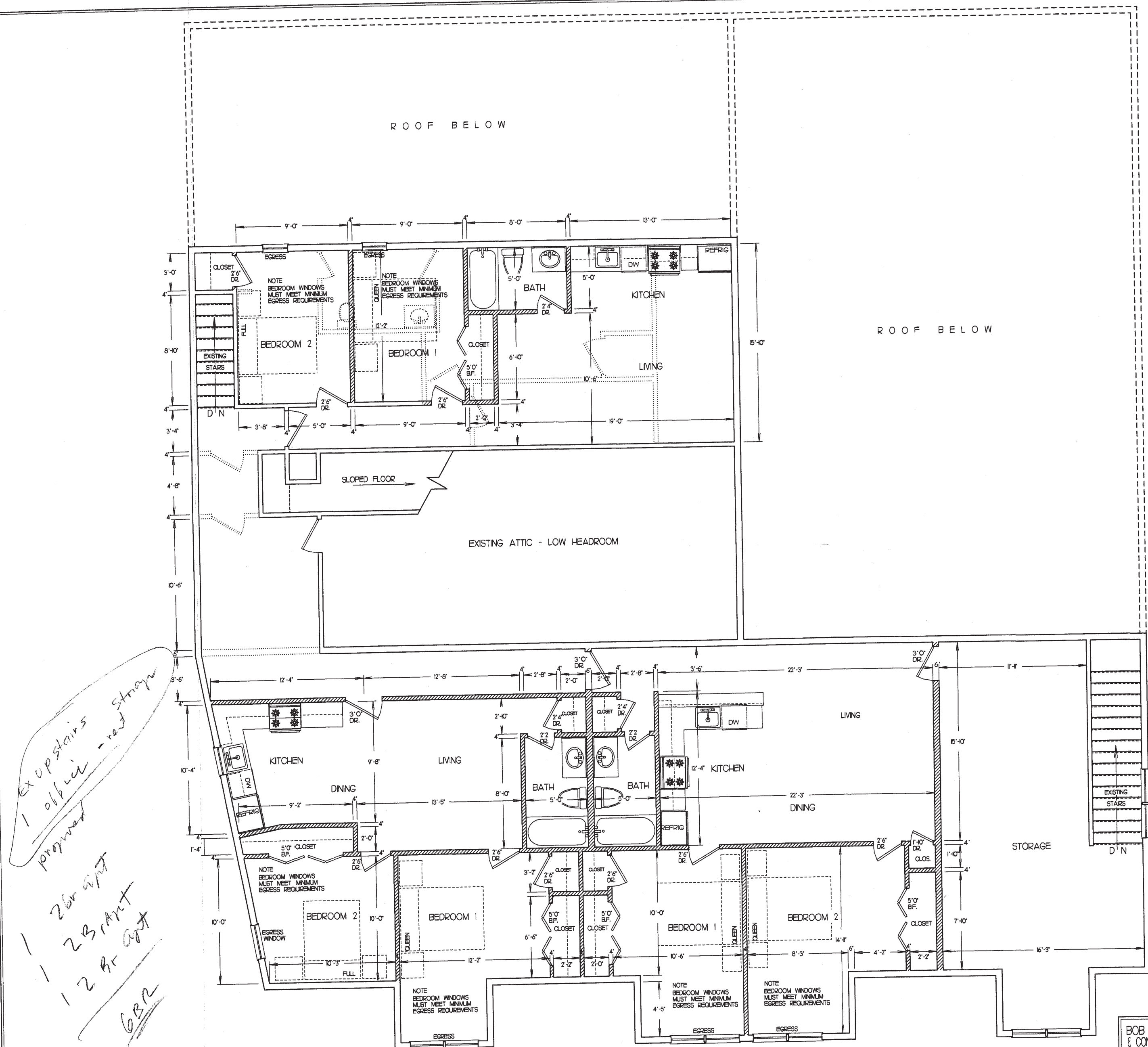
____
Chairman

____
Secretary

JOHN KARELL, JR. P.E.
121 CUSHMAN ROAD
PATTERSON, NEW YORK 12563
845-878-7894 phone 845-878-4939 fax jack4911@yahoo.com

OWNER: 728 ROUTE SIX, LLC 168 EAST LAKE BLVD MAHOPAC, NY 10541	JOB #
	DRN BY:
	CHKD BY:
PROJECT: REVISION TO SITE PLAN FOR EXISTING BUILDING UNDER RENOVATION. LOCATED AT 728 RT 6 IN MAHOPAC.	TAX MAP #: 76.22-1-54
SHEET TITLE: SITE PLAN, NOTES AND DETAILS	
REVISIONS:	DATE: MARCH 2, 2023

STATE OF NEW YORK ★ JOHN KARELL, JR. ★ No.53277 LICENSED PROFESSIONAL ENGINEER



NEW WALLS

EXISTING WALLS

REMOVED WALLS

SECOND FLOOR PLAN

RENOVATION OF EXISTING SECOND FLOOR

728 ROUTE SIX
MAHOPAC, NEW YORK

CONCEPT PLAN
PRELIMINARY
SUBJECT TO CHANGE

STATE OF NEW YORK
JOHN KARELL JR.
No.53277
LICENSED PROFESSIONAL ENGINEER

NOTE
THESE PLANS ARE NOT VALID FOR BUILDING PERMITS OR CONSTRUCTION UNLESS STAMPED AND SIGNED BY A STATE LICENSED ARCHITECT OR ENGINEER.

BOB STROHM DESIGN & CONSTRUCTION, INC. NORTH LAKE BOULEVARD MAHOPAC, NEW YORK 845-628-1423	APARTMENT SCHEMATIC 728 ROUTE SIX LLC 168 EAST LAKE BLVD MAHOPAC, NEW YORK	ENGINEER OF RECORD JOHN KARELL JR. P.E. CUSHMAN ROAD PATTERSON, NEW YORK (845) 878-7894	FLOOR PLAN A1 SCALE 1/4" = 1'0"
	MAR. 22, 2024 JOB NO. 2552		

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
Tel: (914) 271-4762 Fax: (914) 271-2820

Civil / Site / Environmental

www.rgmpepc.com

Rose Trombetta
Planning Office
Carmel Town Hall
60 McAlpin Avenue
Mahopac, NY 10541

April 15, 2024

Hand Deliver

rtrombetta@ci.carmel.ny.us

Re: Site Plan for Greg Lamanna
Mahopac, NY

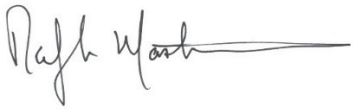
Dear Rose:

Enclosed are five (5) sets of the following information:

1. Stormwater Report – Lamanna Auto Body Town of Carmel dated April 15, 2024,
2. Sets of plans as follows:
    a. Site Plan, Proposed Addition prepared for Gabriel Lamanna dated January 30, 2024 revised April 15, 2024, Sheet 1 of 3,
    b. SU-30 Trick Access Plan, Proposed Addition prepared for Gabriel Lamanna dated April 15, 2024, Sheet 2 of 3,
    c. Details / Notes, Proposed Addition prepared for Gabriel Lamanna dated January 30, revised April 15, 2024 Sheet 3 of 3,

Please call if you have any questions or require additional information.

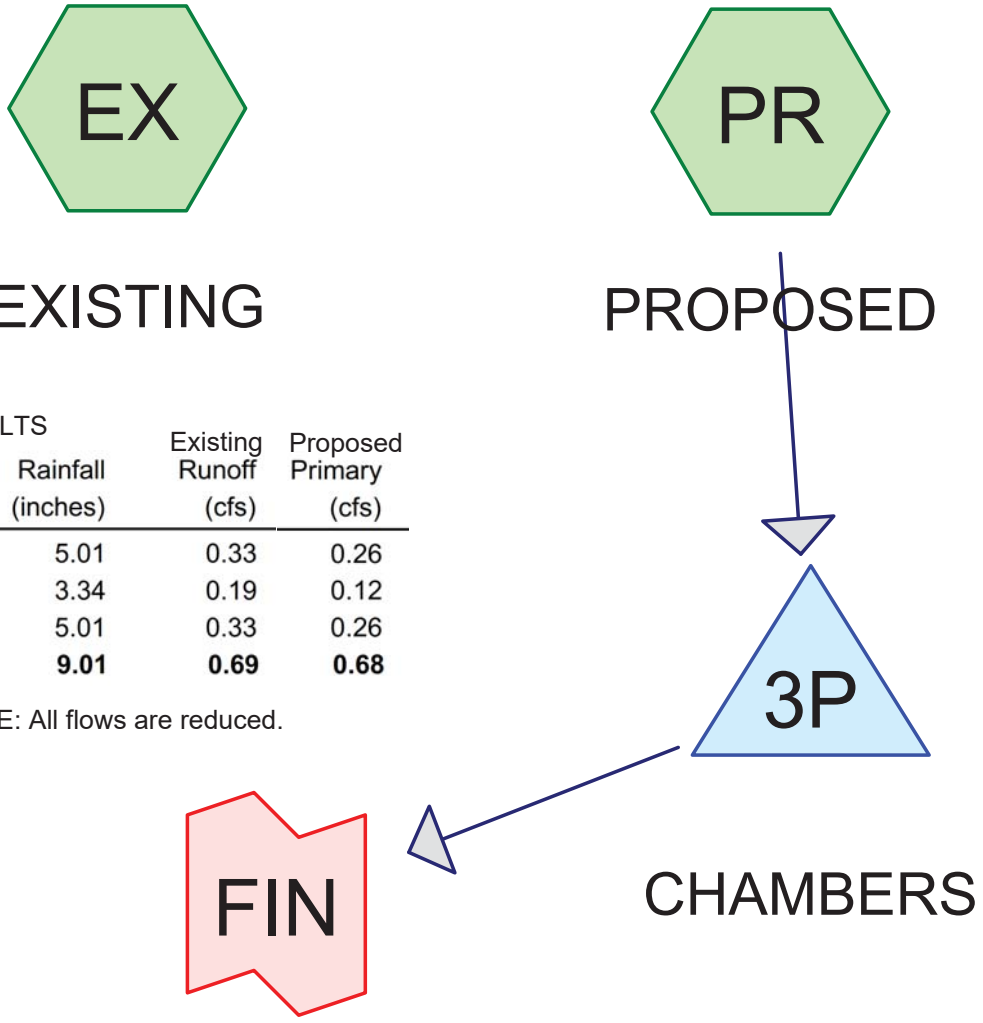
Sincerely,



Ralph G. Mastromonaco, PE

Cc: Greg Lamanna

STORMWATER REPORT - LAMANNA AUTO BODY
TOWN OF CARMEL, NY
APRIL 12, 2024



RESULTS

Event	Rainfall (inches)	Existing Runoff (cfs)	Proposed Primary (cfs)
1 YR	5.01	0.33	0.26
2 YR	3.34	0.19	0.12
10 YR	5.01	0.33	0.26
100 YR	**9.01**	**0.69**	**0.68**

NOTE: All flows are reduced.

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762

Subcat Reach Pond Link

Routing Diagram for lam_1
Prepared by RGM PEPC Consulting Engineers, Printed 4/12/2024

Summary for Subcatchment EX: EXISTING

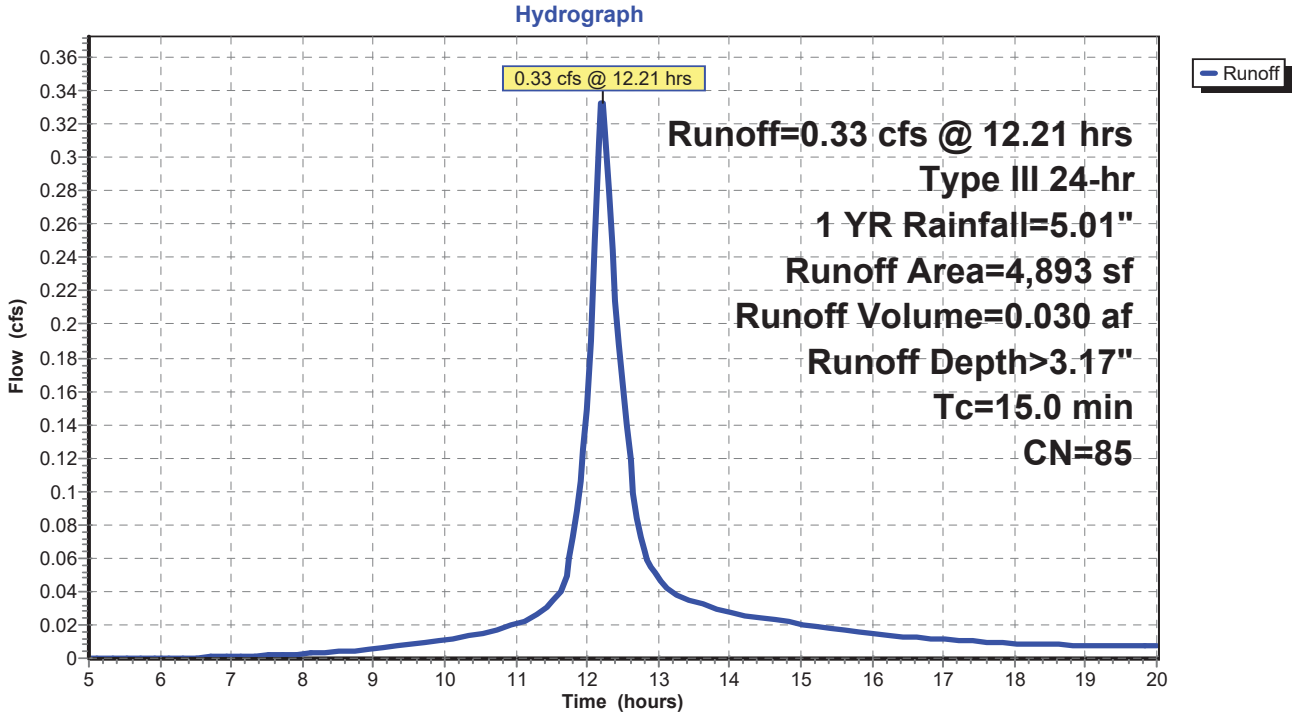
Runoff = 0.33 cfs @ 12.21 hrs, Volume= 0.030 af, Depth> 3.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YR Rainfall=5.01"

Area (sf)	CN	Description
2,208	98	Roofs, HSG C
2,685	74	>75% Grass cover, Good, HSG C
4,893	85	Weighted Average
2,685		54.87% Pervious Area
2,208		45.13% Impervious Area

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

Subcatchment EX: EXISTING



Summary for Subcatchment PR: PROPOSED

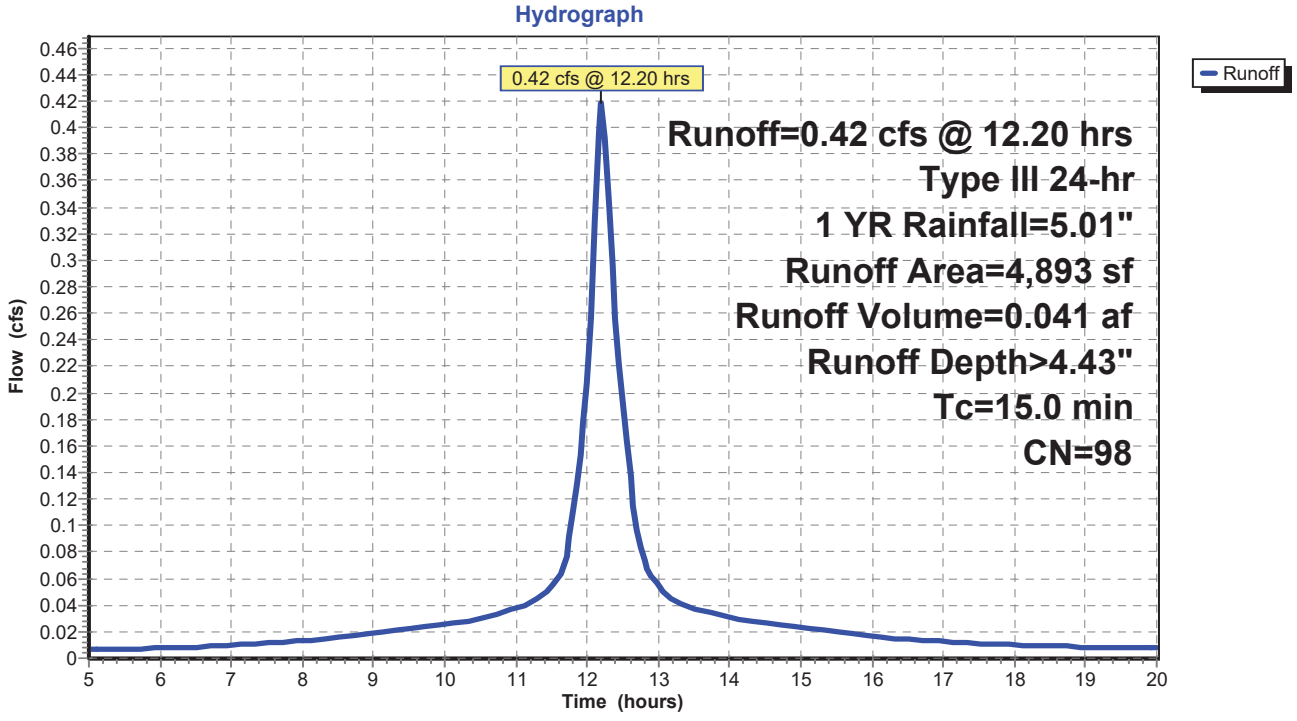
Runoff = 0.42 cfs @ 12.20 hrs, Volume= 0.041 af, Depth> 4.43"
Routed to Pond 3P : CHAMBERS

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 1 YR Rainfall=5.01"

	Area (sf)	CN	Description
*	2,208	98	
	2,685	98	Roofs, HSG C
	4,893	98	Weighted Average
	4,893		100.00% Impervious Area

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

Subcatchment PR: PROPOSED



Summary for Pond 3P: CHAMBERS

Inflow Area = 0.112 ac,100.00% Impervious, Inflow Depth > 4.43" for 1 YR event
Inflow = 0.42 cfs @ 12.20 hrs, Volume= 0.041 af
Outflow = 0.26 cfs @ 12.41 hrs, Volume= 0.041 af, Atten= 38%, Lag= 12.6 min
Primary = 0.26 cfs @ 12.41 hrs, Volume= 0.041 af
Routed to Link FIN : FINAL

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 2.21' @ 12.41 hrs Surf.Area= 0.006 ac Storage= 0.009 af

Plug-Flow detention time= 21.7 min calculated for 0.041 af (100% of inflow)
Center-of-Mass det. time= 19.5 min (761.2 - 741.7)

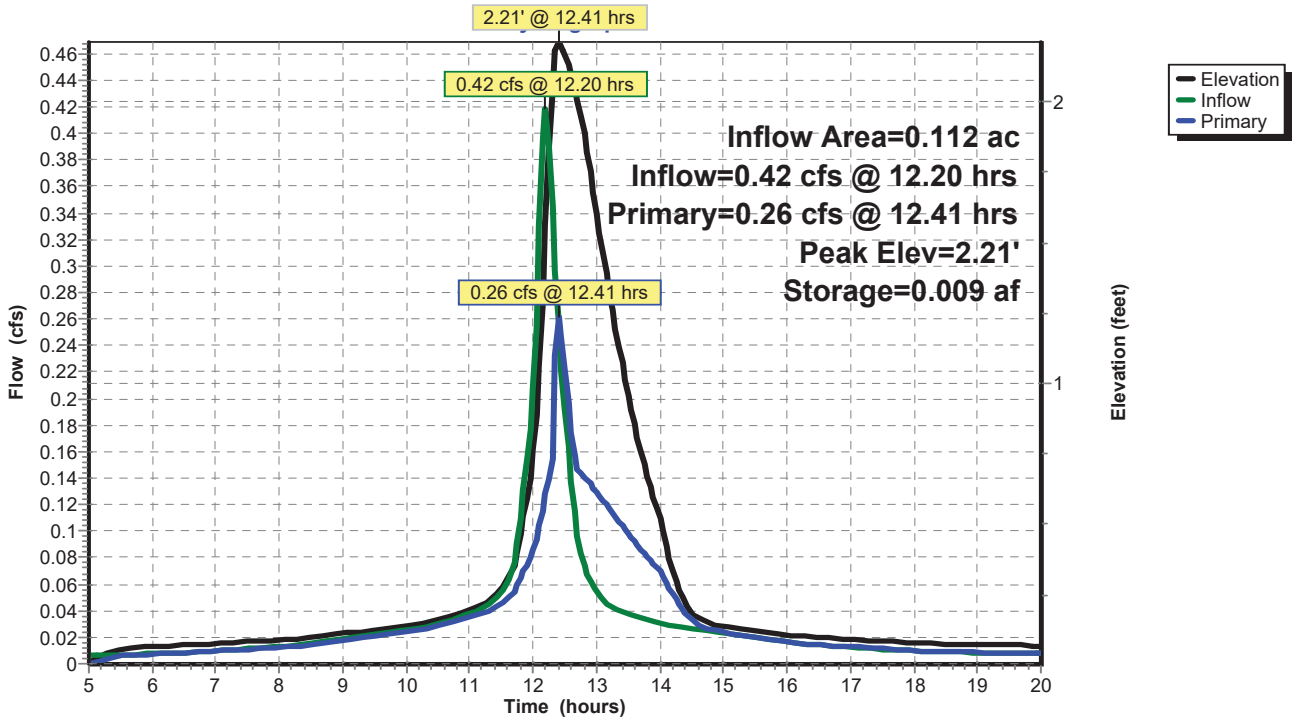
Volume	Invert	Avail.Storage	Storage Description
#1A	0.00'	0.006 af	**11.00'W x 24.98'L x 3.50'H Field A** 0.022 af Overall - 0.006 af Embedded = 0.016 af x 40.0% Voids
#2A	0.50'	0.006 af	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 6 Chambers in 2 Rows
		0.013 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices		
#1	Primary	0.00'	**2.0" Vert. Orifice/Grate**	C= 0.600	Limited to weir flow at low heads
#2	Primary	2.00'	**5.0" Vert. Orifice/Grate**	C= 0.600	Limited to weir flow at low heads

Primary OutFlow Max=0.26 cfs @ 12.41 hrs HW=2.21' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.15 cfs @ 7.02 fps)
└**2=Orifice/Grate** (Orifice Controls 0.10 cfs @ 1.55 fps)

Pond 3P: CHAMBERS

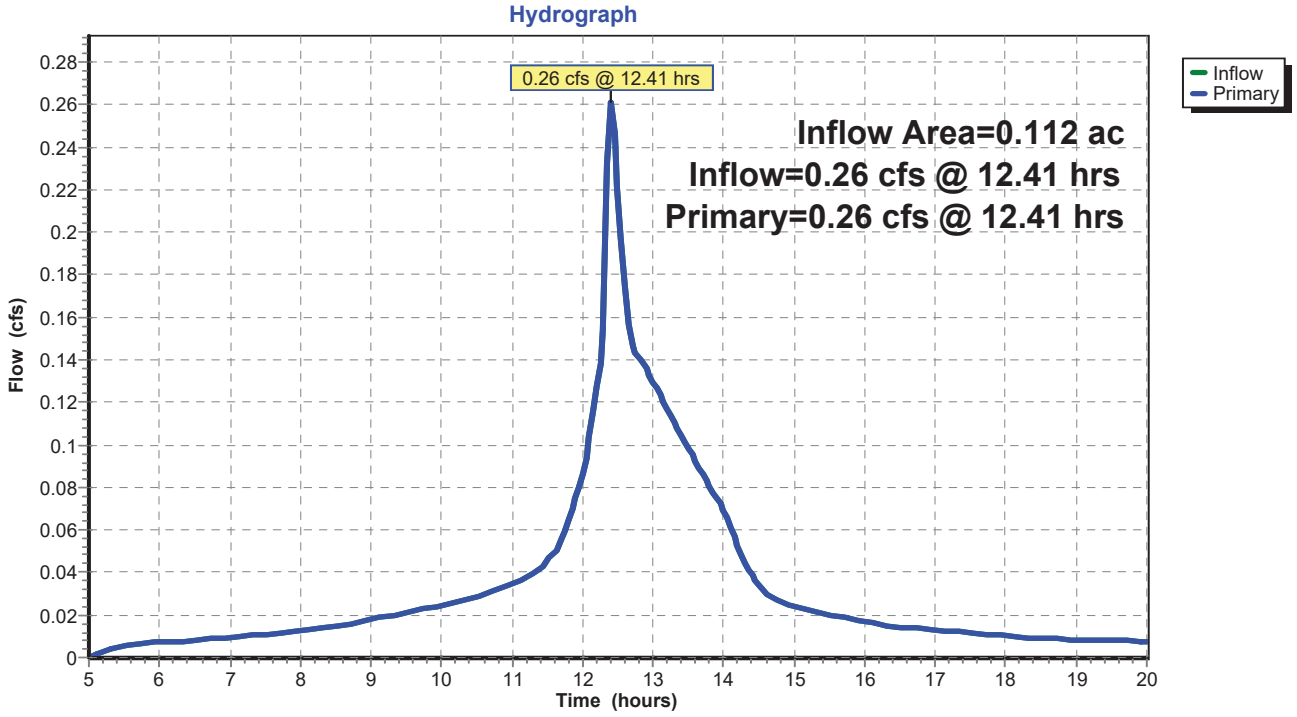


Summary for Link FIN: FINAL

Inflow Area = 0.112 ac,100.00% Impervious, Inflow Depth > 4.41" for 1 YR event
Inflow = 0.26 cfs @ 12.41 hrs, Volume= 0.041 af
Primary = 0.26 cfs @ 12.41 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link FIN: FINAL



Summary for Subcatchment EX: EXISTING

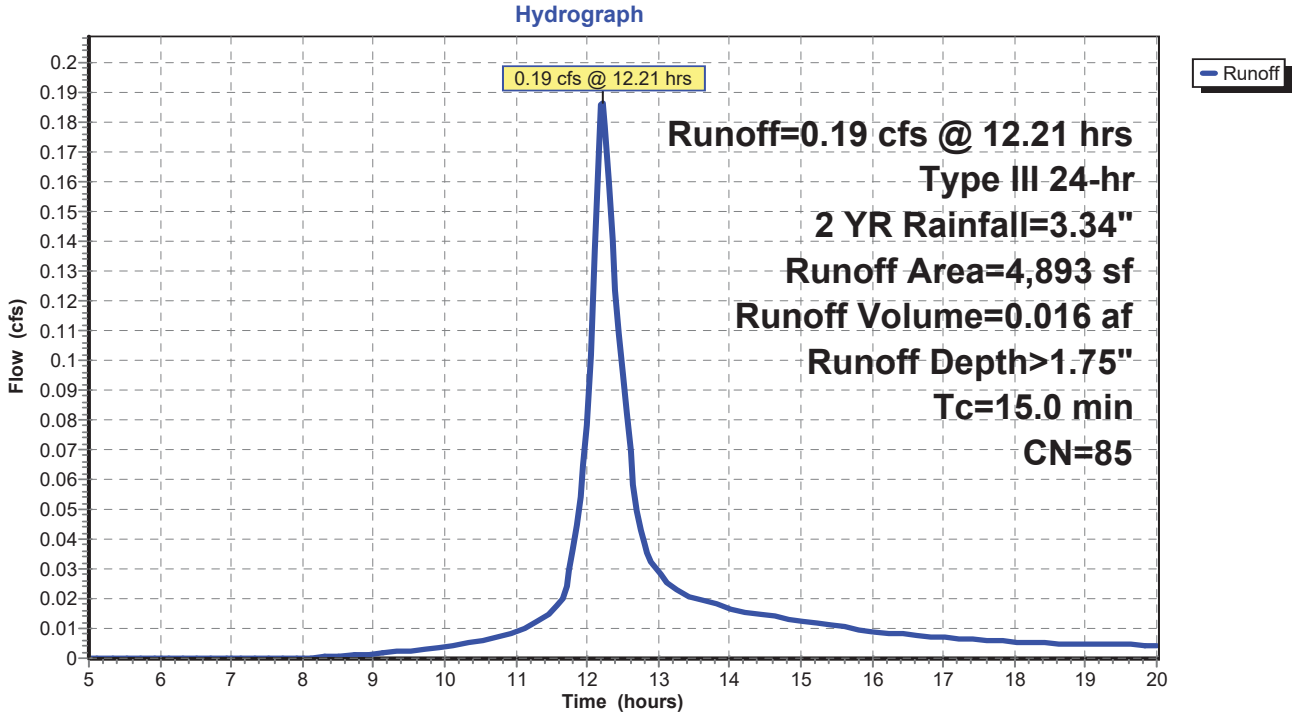
Runoff = 0.19 cfs @ 12.21 hrs, Volume= 0.016 af, Depth> 1.75"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YR Rainfall=3.34"

Area (sf)	CN	Description
2,208	98	Roofs, HSG C
2,685	74	>75% Grass cover, Good, HSG C
4,893	85	Weighted Average
2,685		54.87% Pervious Area
2,208		45.13% Impervious Area

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

Subcatchment EX: EXISTING



Summary for Subcatchment PR: PROPOSED

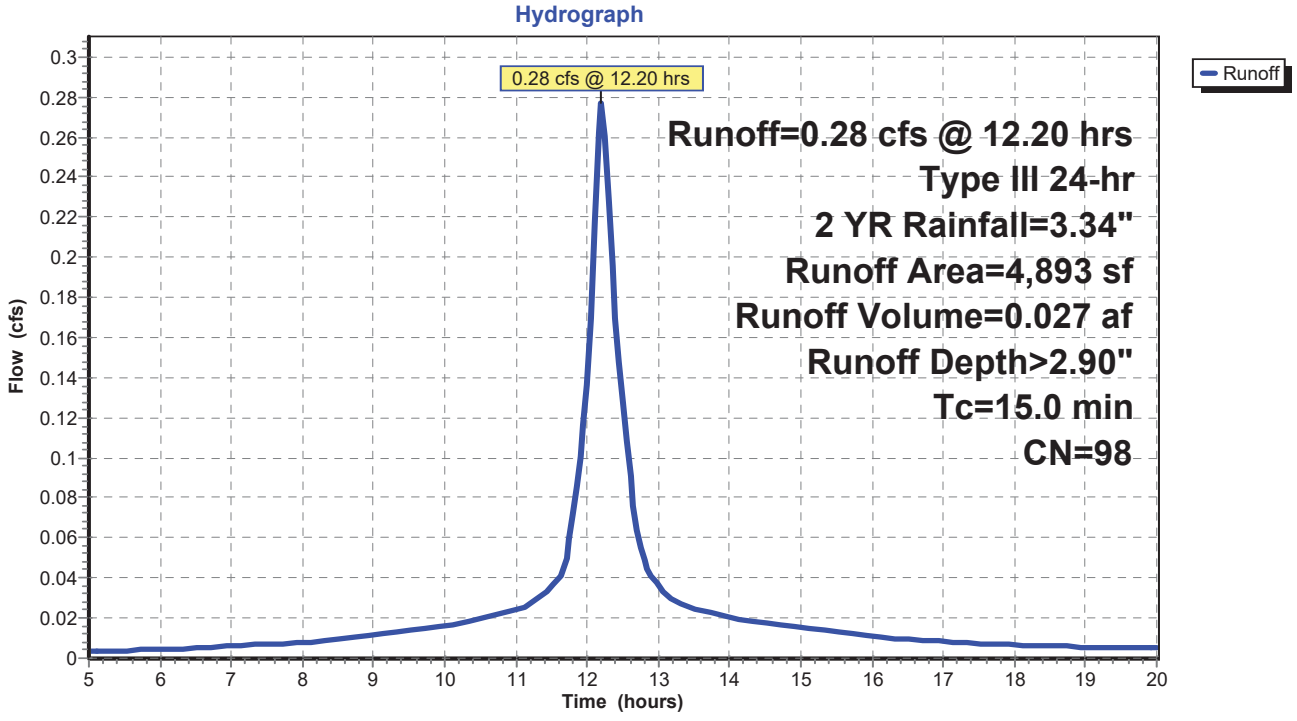
Runoff = 0.28 cfs @ 12.20 hrs, Volume= 0.027 af, Depth> 2.90"
Routed to Pond 3P : CHAMBERS

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 YR Rainfall=3.34"

	Area (sf)	CN	Description
*	2,208	98	
	2,685	98	Roofs, HSG C
	4,893	98	Weighted Average
	4,893		100.00% Impervious Area

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

Subcatchment PR: PROPOSED



Summary for Pond 3P: CHAMBERS

Inflow Area = 0.112 ac,100.00% Impervious, Inflow Depth > 2.90" for 2 YR event
Inflow = 0.28 cfs @ 12.20 hrs, Volume= 0.027 af
Outflow = 0.12 cfs @ 12.51 hrs, Volume= 0.027 af, Atten= 56%, Lag= 18.8 min
Primary = 0.12 cfs @ 12.51 hrs, Volume= 0.027 af
Routed to Link FIN : FINAL

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 1.46' @ 12.51 hrs Surf.Area= 0.006 ac Storage= 0.006 af

Plug-Flow detention time= 19.7 min calculated for 0.027 af (99% of inflow)
Center-of-Mass det. time= 17.2 min (762.1 - 744.9)

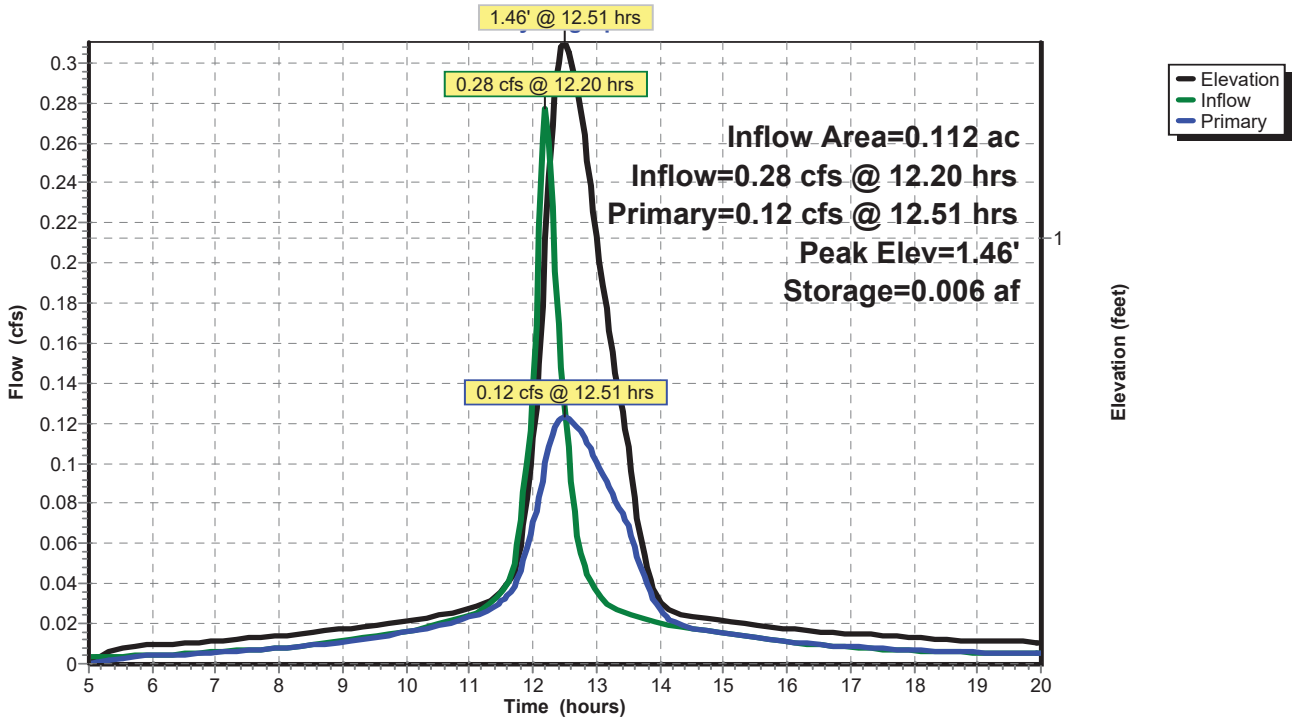
Volume	Invert	Avail.Storage	Storage Description
#1A	0.00'	0.006 af	**11.00'W x 24.98'L x 3.50'H Field A** 0.022 af Overall - 0.006 af Embedded = 0.016 af x 40.0% Voids
#2A	0.50'	0.006 af	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 6 Chambers in 2 Rows
		0.013 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices		
#1	Primary	0.00'	**2.0" Vert. Orifice/Grate**	C= 0.600	Limited to weir flow at low heads
#2	Primary	2.00'	**5.0" Vert. Orifice/Grate**	C= 0.600	Limited to weir flow at low heads

Primary OutFlow Max=0.12 cfs @ 12.51 hrs HW=1.46' (Free Discharge)
└**1=Orifice/Grate** (Orifice Controls 0.12 cfs @ 5.65 fps)
└**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 3P: CHAMBERS

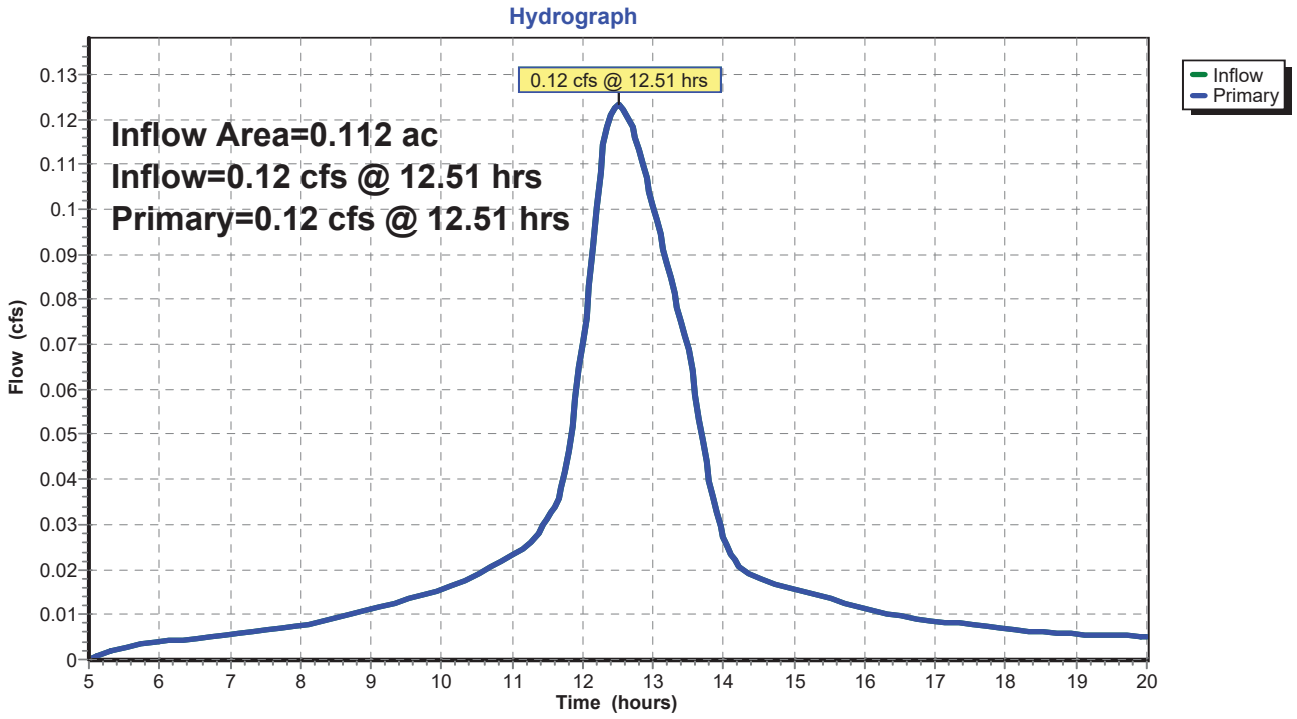


Summary for Link FIN: FINAL

Inflow Area = 0.112 ac,100.00% Impervious, Inflow Depth > 2.89" for 2 YR event
Inflow = 0.12 cfs @ 12.51 hrs, Volume= 0.027 af
Primary = 0.12 cfs @ 12.51 hrs, Volume= 0.027 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link FIN: FINAL



Summary for Subcatchment EX: EXISTING

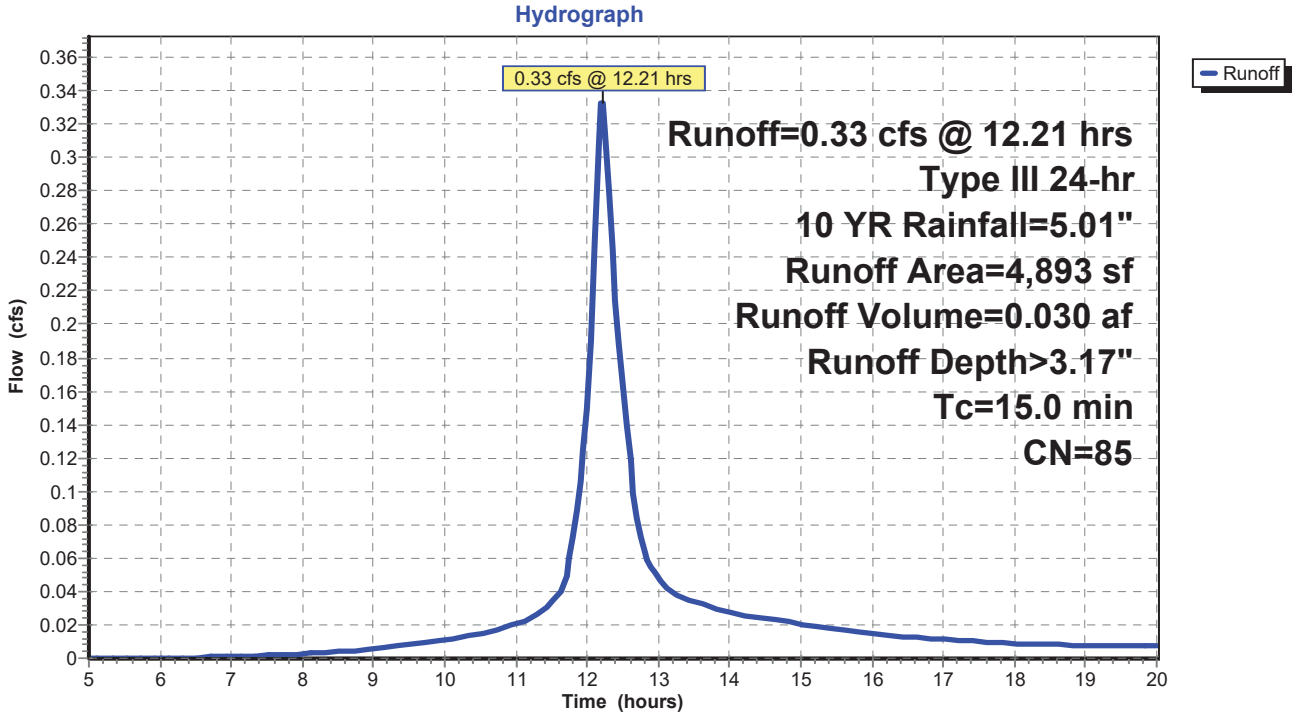
Runoff = 0.33 cfs @ 12.21 hrs, Volume= 0.030 af, Depth> 3.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YR Rainfall=5.01"

Area (sf)	CN	Description
2,208	98	Roofs, HSG C
2,685	74	>75% Grass cover, Good, HSG C
4,893	85	Weighted Average
2,685		54.87% Pervious Area
2,208		45.13% Impervious Area

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

Subcatchment EX: EXISTING



Summary for Subcatchment PR: PROPOSED

Runoff = 0.42 cfs @ 12.20 hrs, Volume= 0.041 af, Depth> 4.43"
Routed to Pond 3P : CHAMBERS

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 YR Rainfall=5.01"

	Area (sf)	CN	Description
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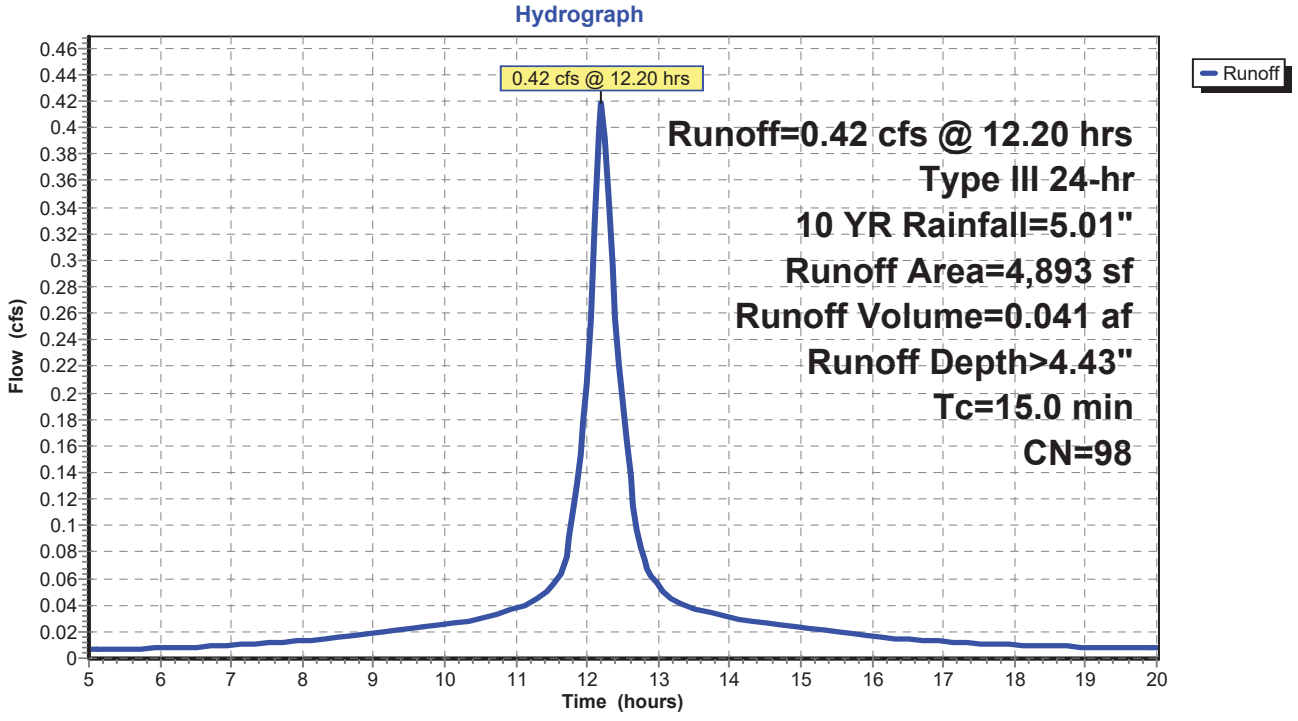
	2,685	98	Roofs, HSG C
	4,893	98	Weighted Average
	4,893		100.00% Impervious Area

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

Subcatchment PR: PROPOSED



Summary for Pond 3P: CHAMBERS

Inflow Area = 0.112 ac,100.00% Impervious, Inflow Depth > 4.43" for 10 YR event
Inflow = 0.42 cfs @ 12.20 hrs, Volume= 0.041 af
Outflow = 0.26 cfs @ 12.41 hrs, Volume= 0.041 af, Atten= 38%, Lag= 12.6 min
Primary = 0.26 cfs @ 12.41 hrs, Volume= 0.041 af
Routed to Link FIN : FINAL

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 2.21' @ 12.41 hrs Surf.Area= 0.006 ac Storage= 0.009 af

Plug-Flow detention time= 21.7 min calculated for 0.041 af (100% of inflow)
Center-of-Mass det. time= 19.5 min (761.2 - 741.7)

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#2A	0.50'	0.006 af	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 6 Chambers in 2 Rows
		0.013 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices		
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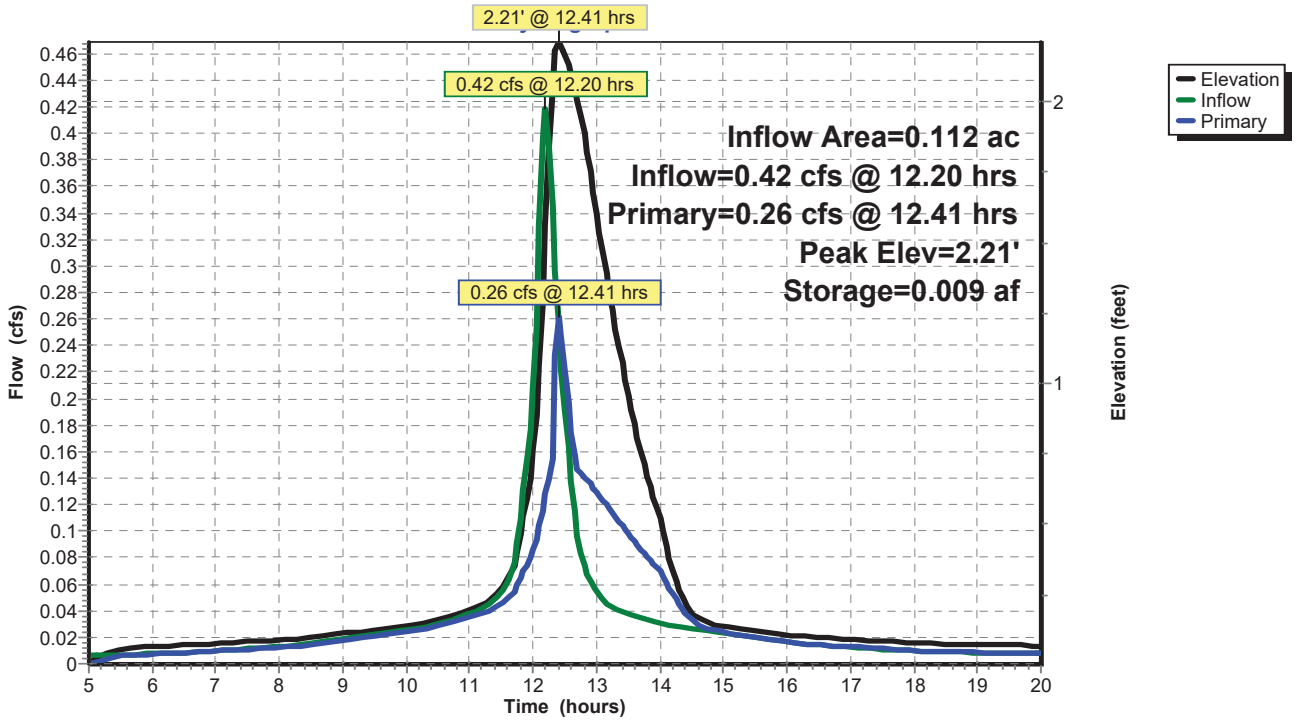
#2	Primary	2.00'	**5.0" Vert. Orifice/Grate**	C= 0.600	Limited to weir flow at low heads

Primary OutFlow Max=0.26 cfs @ 12.41 hrs HW=2.21' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.15 cfs @ 7.02 fps)
└─**2=Orifice/Grate** (Orifice Controls 0.10 cfs @ 1.55 fps)

Pond 3P: CHAMBERS

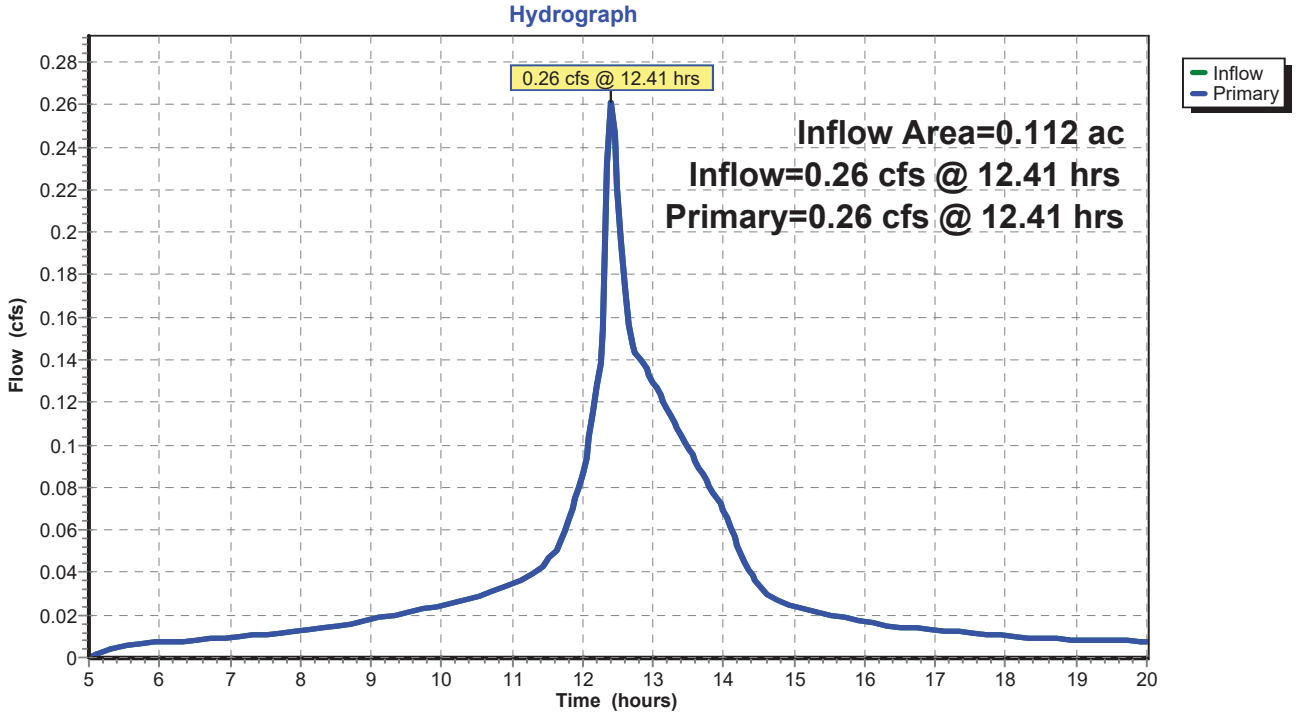


Summary for Link FIN: FINAL

Inflow Area = 0.112 ac,100.00% Impervious, Inflow Depth > 4.41" for 10 YR event
Inflow = 0.26 cfs @ 12.41 hrs, Volume= 0.041 af
Primary = 0.26 cfs @ 12.41 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link FIN: FINAL



Summary for Subcatchment EX: EXISTING

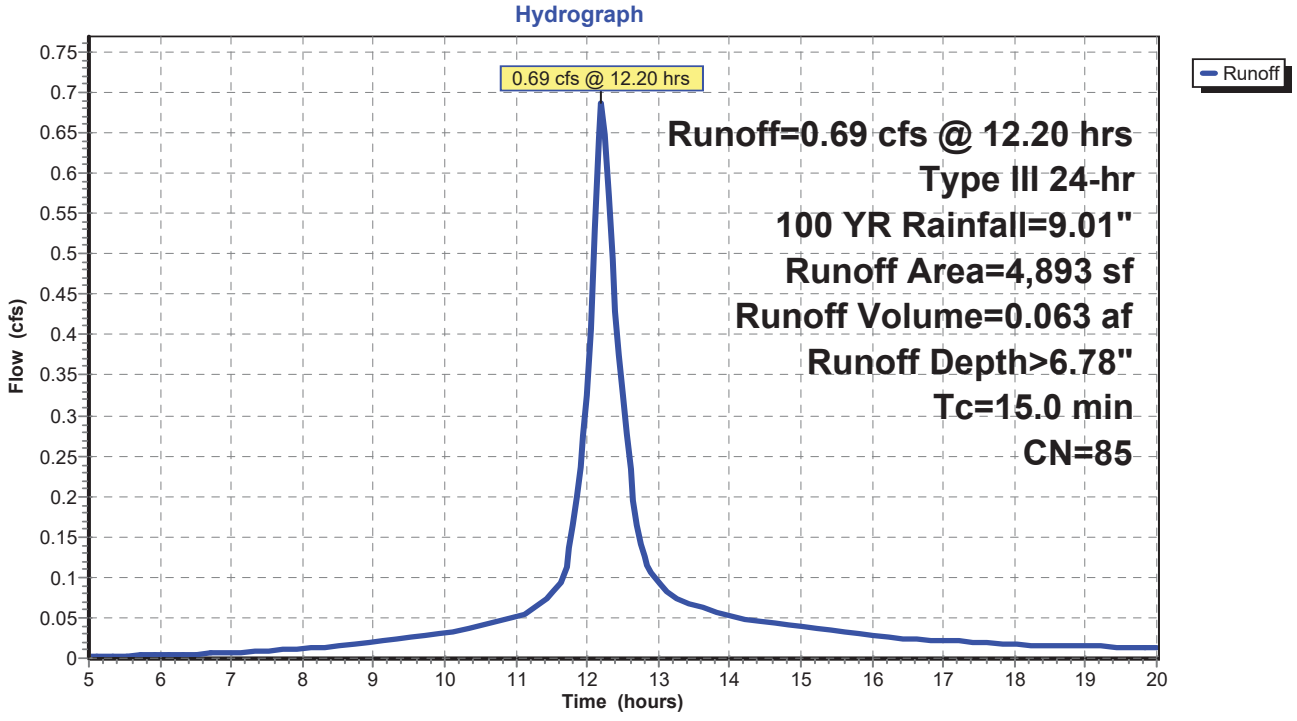
Runoff = 0.69 cfs @ 12.20 hrs, Volume= 0.063 af, Depth> 6.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=9.01"

Area (sf)	CN	Description
2,208	98	Roofs, HSG C
2,685	74	>75% Grass cover, Good, HSG C
4,893	85	Weighted Average
2,685		54.87% Pervious Area
2,208		45.13% Impervious Area

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

Subcatchment EX: EXISTING



Summary for Subcatchment PR: PROPOSED

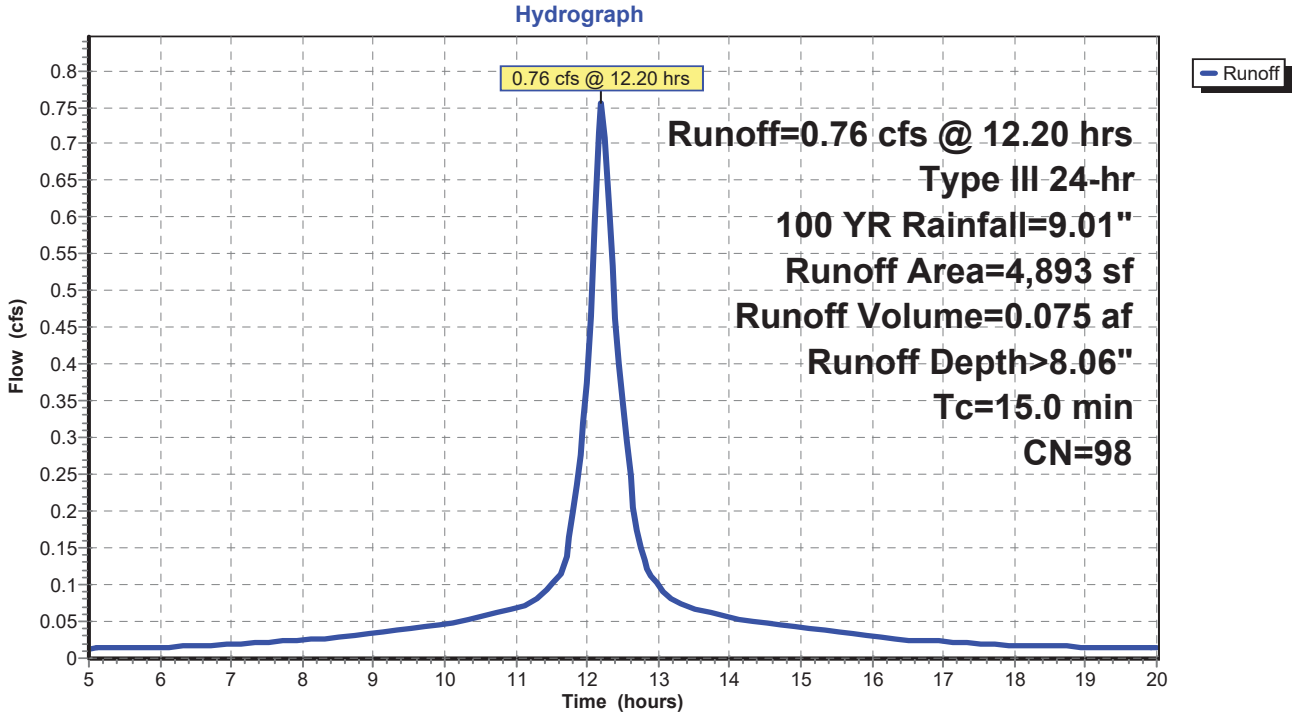
Runoff = 0.76 cfs @ 12.20 hrs, Volume= 0.075 af, Depth> 8.06"
Routed to Pond 3P : CHAMBERS

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=9.01"

	Area (sf)	CN	Description
*	2,208	98	
	2,685	98	Roofs, HSG C
	4,893	98	Weighted Average
	4,893		100.00% Impervious Area

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

Subcatchment PR: PROPOSED



Summary for Pond 3P: CHAMBERS

Inflow Area = 0.112 ac,100.00% Impervious, Inflow Depth > 8.06" for 100 YR event
Inflow = 0.76 cfs @ 12.20 hrs, Volume= 0.075 af
Outflow = 0.68 cfs @ 12.27 hrs, Volume= 0.075 af, Atten= 10%, Lag= 4.3 min
Primary = 0.68 cfs @ 12.27 hrs, Volume= 0.075 af
Routed to Link FIN : FINAL

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 2.81' @ 12.27 hrs Surf.Area= 0.006 ac Storage= 0.011 af

Plug-Flow detention time= 18.6 min calculated for 0.075 af (99% of inflow)
Center-of-Mass det. time= 16.8 min (756.1 - 739.2)

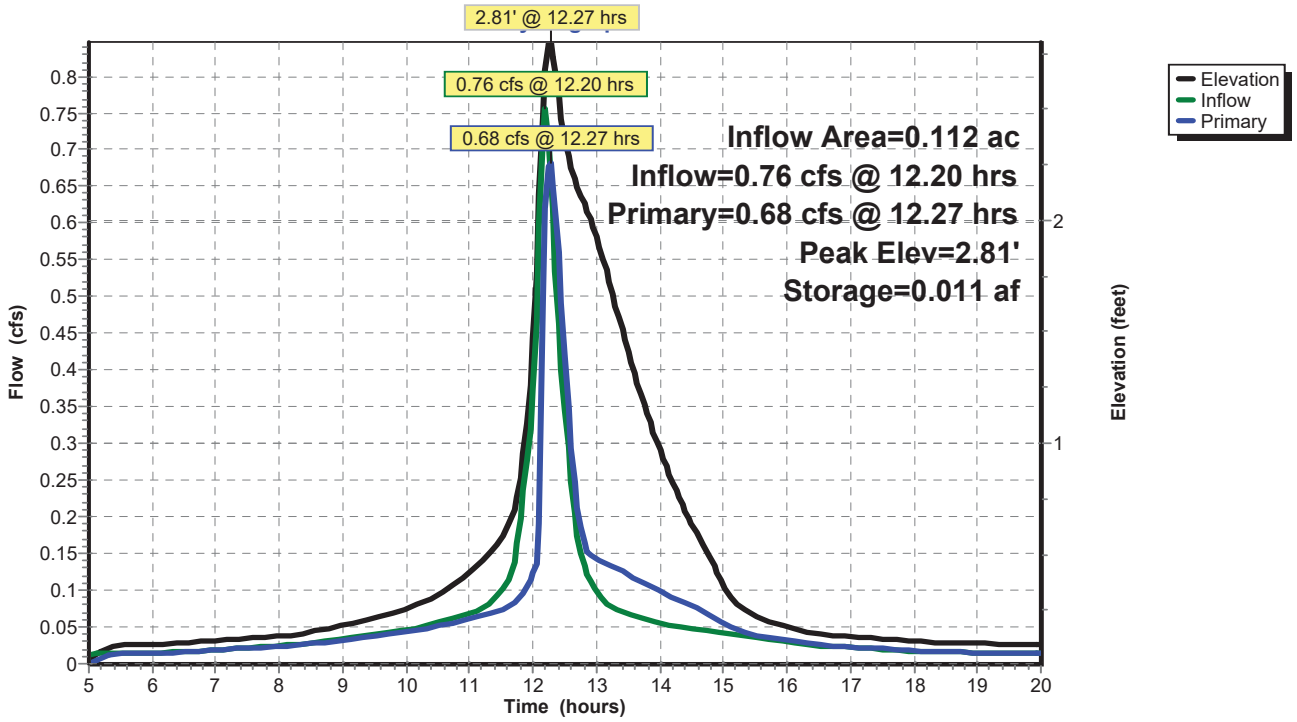
Volume	Invert	Avail.Storage	Storage Description
#1A	0.00'	0.006 af	**11.00'W x 24.98'L x 3.50'H Field A** 0.022 af Overall - 0.006 af Embedded = 0.016 af x 40.0% Voids
#2A	0.50'	0.006 af	**ADS_StormTech SC-740 +Cap** x 6 Inside #1 Effective Size= 44.6"W x 30.0"H => 6.45 sf x 7.12'L = 45.9 cf Overall Size= 51.0"W x 30.0"H x 7.56'L with 0.44' Overlap 6 Chambers in 2 Rows
		0.013 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices		
#1	Primary	0.00'	**2.0" Vert. Orifice/Grate**	C= 0.600	Limited to weir flow at low heads
#2	Primary	2.00'	**5.0" Vert. Orifice/Grate**	C= 0.600	Limited to weir flow at low heads

Primary OutFlow Max=0.67 cfs @ 12.27 hrs HW=2.79' (Free Discharge)
└─**1=Orifice/Grate** (Orifice Controls 0.17 cfs @ 7.92 fps)
└─**2=Orifice/Grate** (Orifice Controls 0.50 cfs @ 3.68 fps)

Pond 3P: CHAMBERS

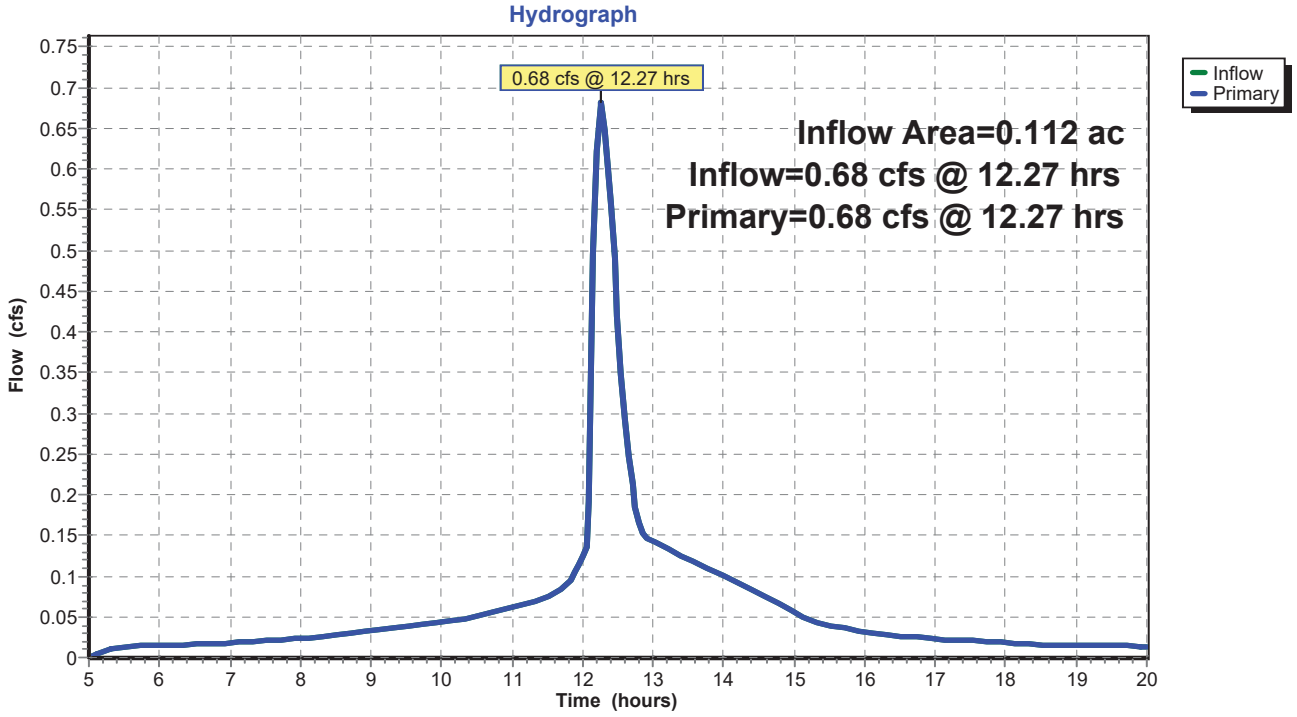


Summary for Link FIN: FINAL

Inflow Area = 0.112 ac,100.00% Impervious, Inflow Depth > 8.03" for 100 YR event
Inflow = 0.68 cfs @ 12.27 hrs, Volume= 0.075 af
Primary = 0.68 cfs @ 12.27 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link FIN: FINAL



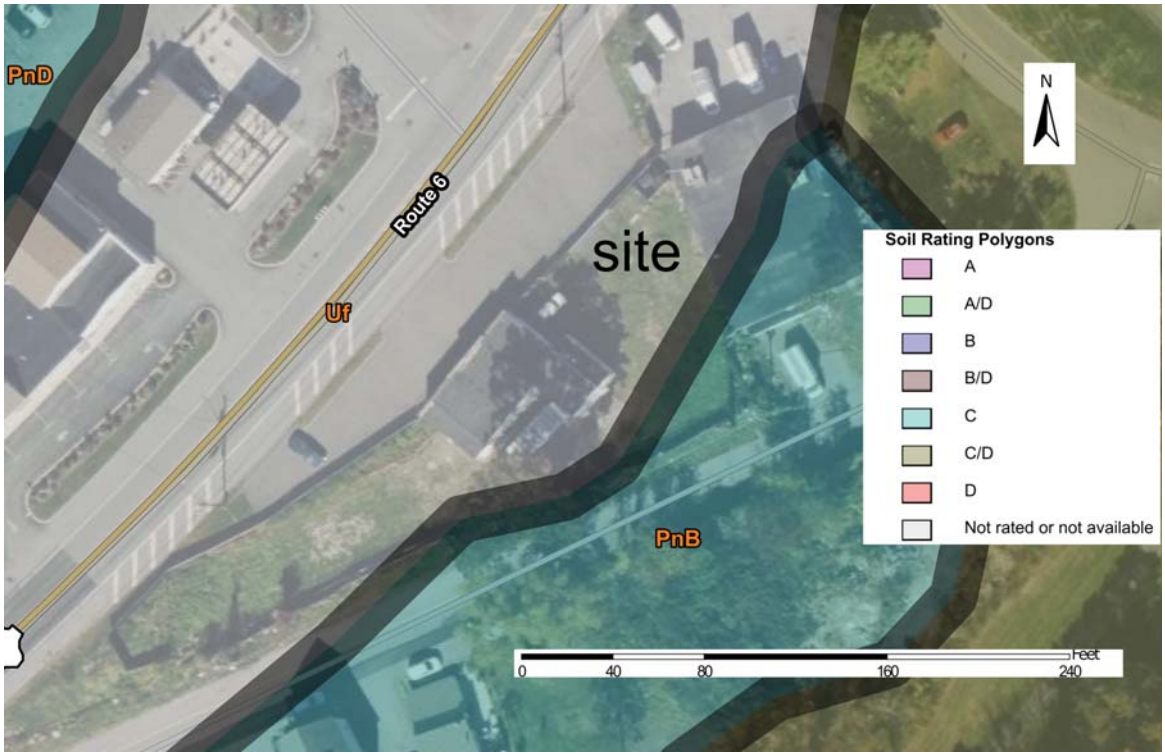
Events for Subcatchment EX: EXISTING

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 YR	5.01	0.33	0.030	3.17
2 YR	3.34	0.19	0.016	1.75
10 YR	5.01	0.33	0.030	3.17
100 YR	**9.01**	**0.69**	**0.063**	**6.78**

Events for Subcatchment PR: PROPOSED

Event	Rainfall (inches)	Runoff (cfs)	Volume (acre-feet)	Depth (inches)
1 YR	5.01	0.42	0.041	4.43
2 YR	3.34	0.28	0.027	2.90
10 YR	5.01	0.42	0.041	4.43
100 YR	**9.01**	**0.76**	**0.075**	**8.06**

Soil Mapping



Events for Pond 3P: CHAMBERS

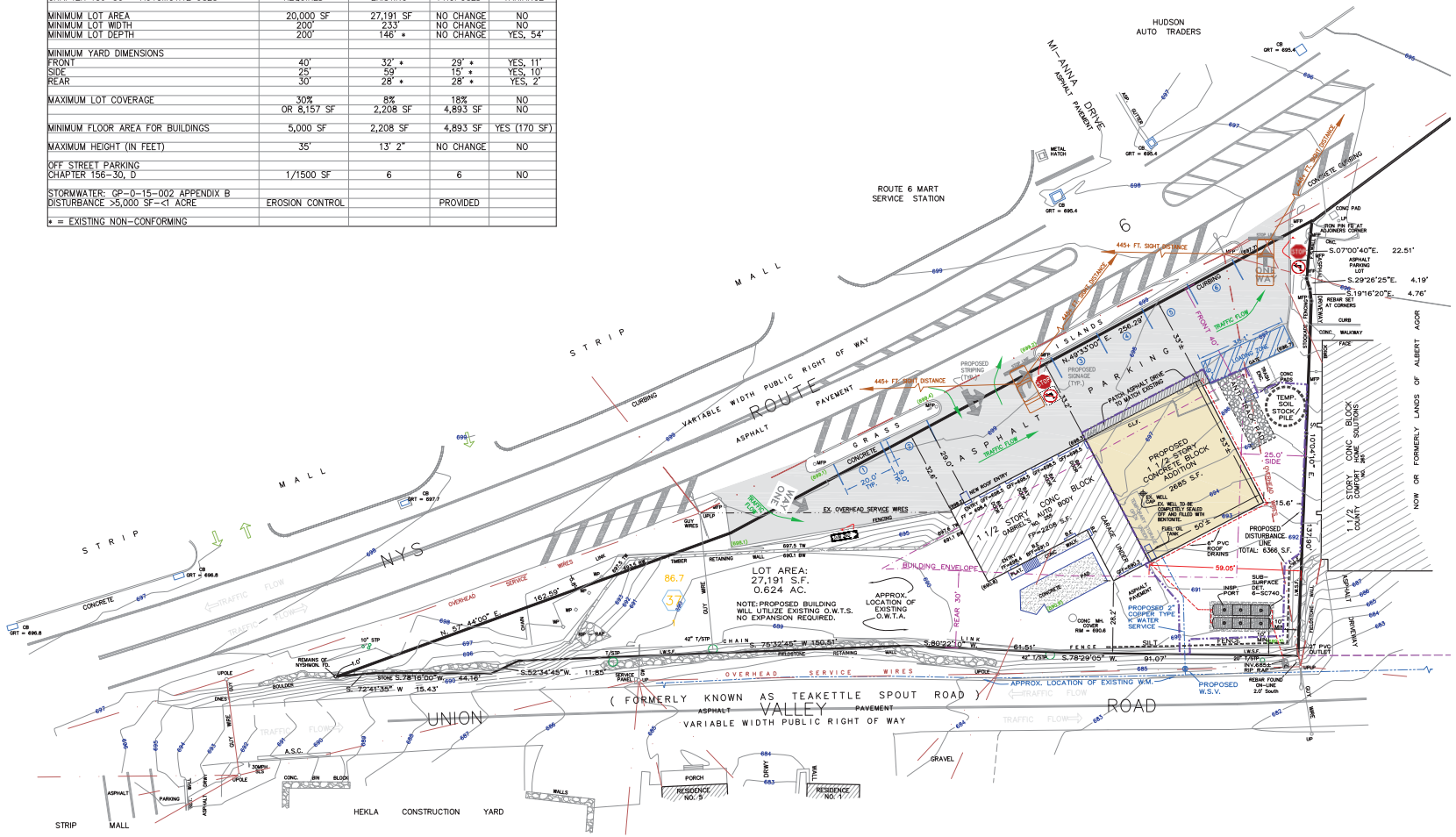
Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)	Storage (acre-feet)
1 YR	0.42	0.26	2.21	0.009
2 YR	0.28	0.12	1.46	0.006
10 YR	0.42	0.26	2.21	0.009
100 YR	**0.76**	**0.68**	**2.81**	**0.011**

Events for Link FIN: FINAL

Event	Inflow (cfs)	Primary (cfs)	Elevation (feet)
1 YR	0.26	0.26	**0.00**
2 YR	0.12	0.12	0.00
10 YR	0.26	0.26	0.00
100 YR	**0.68**	**0.68**	0.00

ZONING SCHEDULE

LAMANNA AUTO BODY DISTRICT: C-COMMERCIAL SECTION86.7 BLOCK 1 LOT 37 TOTAL LOT AREA: 0.624 ACRES OR 27,191 SF CHAPTER 156-30 - AUTOMOTIVE USES	REQUIRED	EXISTING	PROPOSED	VARIANCE
MINIMUM LOT AREA	20,000 SF	27,191 SF	NO CHANGE	NO
MINIMUM LOT WIDTH	200'	233'	NO CHANGE	NO
MINIMUM LOT DEPTH	200'	146' *	NO CHANGE	YES, 54'
MINIMUM YARD DIMENSIONS				
FRONT	40'	32' *	29' *	YES, 11'
SIDE	25'	59'	15' *	YES, 10'
REAR	30'	28' *	28' *	YES, 2'
MAXIMUM LOT COVERAGE	30% OR 8,157 SF	8% 2,208 SF	18% 4,893 SF	NO NO
MINIMUM FLOOR AREA FOR BUILDINGS	5,000 SF	2,208 SF	4,893 SF	YES (170 SF)
MAXIMUM HEIGHT (IN FEET)	35'	13' 2"	NO CHANGE	NO
OFF STREET PARKING CHAPTER 156-30, D	1/1500 SF	6	6	NO
STORMWATER: GP-0-15-002 APPENDIX B DISTURBANCE >5,000 SF-<1 ACRE	EROSION CONTROL		PROVIDED	
* = EXISTING NON-CONFORMING				



LOCATION MAP
N.T.S.

0 10 20 40
SCALE IN FEET

LEGEND

EXISTING	PROPOSED	
CB		CATCH BASIN
		DRAIN MANHOLE
		SAN. SEWER MANHOLE
		HYDRANT
		DRAIN INLET
		WATER VALVE
		HEADWALL
		WELL
		SIGN
		STREET LIGHT
		MONUMENT
294	294	CONTOUR LINE

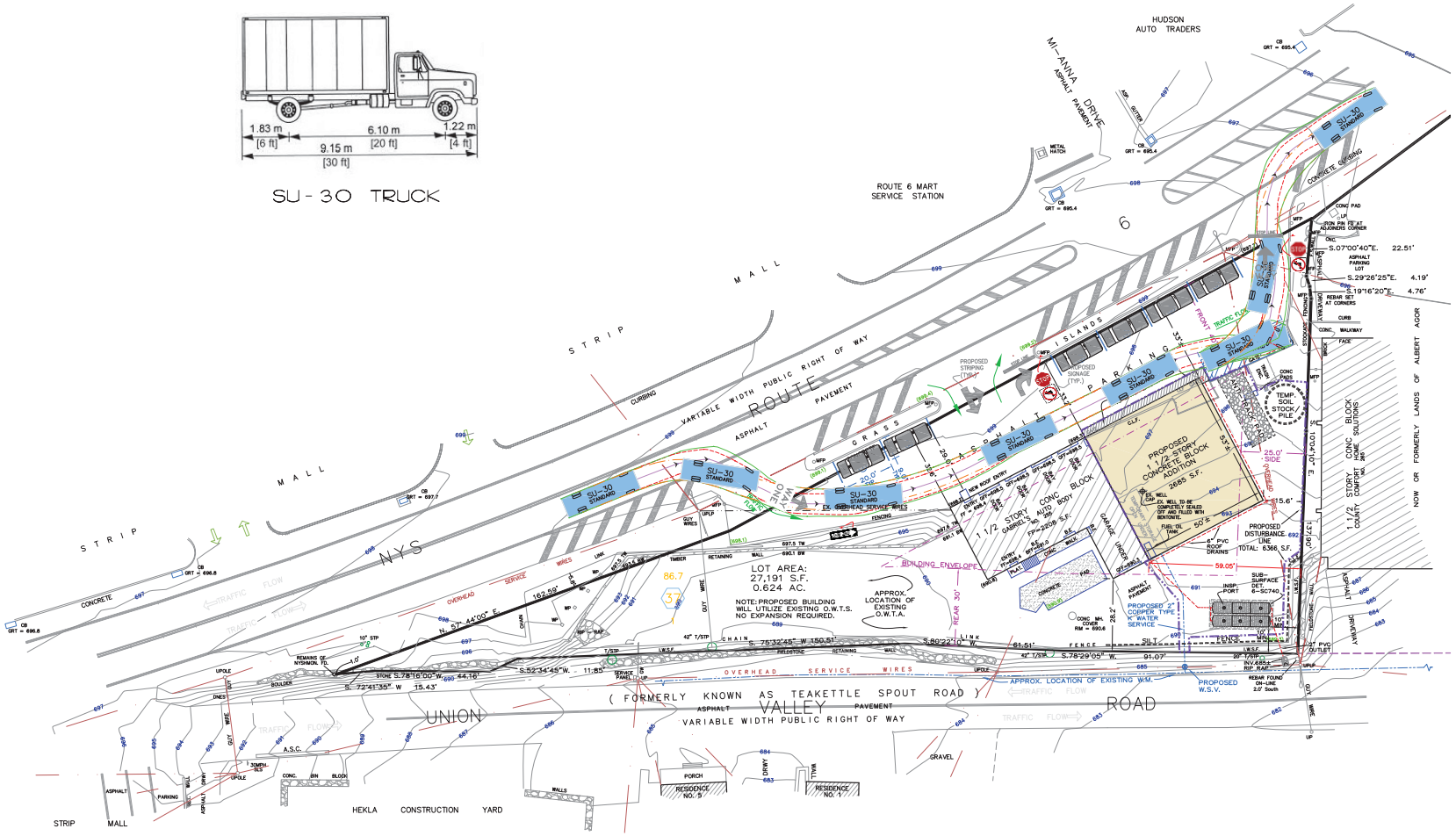
RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762 (914) 271-2820 Fax

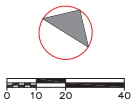
BASE MAPPING BY: LINK LAND SURVEYORS P.C.

REVISED: 4/15/2024
REVISED: 3/19/2024

SITE PLAN
PROPOSED ADDITION
PREPARED FOR
GABRIEL LAMANNA
TOWN OF CARMEL
PUTNAM COUNTY, NY
JANUARY 30, 2024

SU - 30 TRUCK





LEGEND

EXISTING	PROPOSED	
CB		CATCH BASIN
		DRAIN MANHOLE
		SAN. SEWER MANHOLE
		HYDRANT
DI		DRAIN INLET
		WATER VALVE
		HEADWALL
		WELL
		SIGN
		STREET LIGHT
		MONUMENT
294	294	CONTOUR LINE

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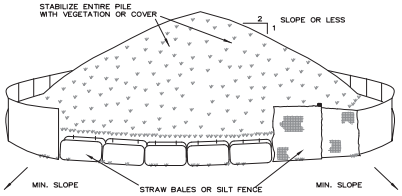
BASE MAPPING BY: LINK LAND SURVEYORS P.C.

SU - 30 TRUCK ACCESS PLAN
PROPOSED ADDITION
PREPARED FOR
GABRIEL LAMANNA
TOWN OF CARMEL
PUTNAM COUNTY, NY
APRIL 15, 2024



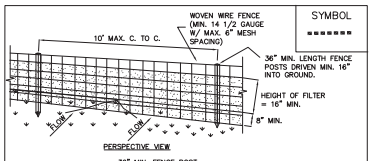
TO BE USED WHERE TOPSOIL PRESERVATION IS NECESSARY FOR REGRADING AND VEGETATING DISTURBED AREAS. TOPSOIL IS APPLIED TO SUBSOILS THAT ARE DROUGHTY (HAVING LOW AVAILABLE MOISTURE FOR PLANTS), STONY, SALTY, HAVE LOW PERMEABILITY, OR ARE EXTREMELY ACID. IT IS ALSO USED TO BACKFILL AROUND SHRUB AND TREE TRANSPLANTS. PRESERVATION OF EXISTING TOPSOIL IS BENEFICIAL FOR ALL TYPES OF LAWN OR ORNAMENTAL PLANTINGS.

TEMPORARY STOCKPILE STABILIZATION MEASURES INCLUDE VEGETATIVE COVER, MULCH, NON-VEGETATIVE COVER, AND PERIPHERAL SEDIMENT TRAPPING BARRIERS. THE STABILIZATION MEASURE(S) SELECTED SHOULD BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND REQUIRED DURATION OF USE.

INSTALLATION NOTES

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAW BALES, THEN STABILIZED WITH VEGETATION OR COVERED.

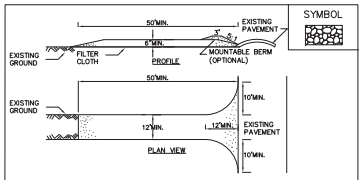
SOIL STOCKPILING
N.T.S.



CONSTRUCTION SPECIFICATIONS

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

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

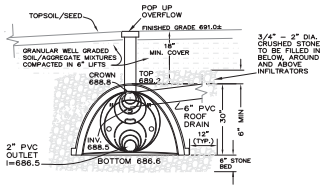


CONSTRUCTION SPECIFICATIONS

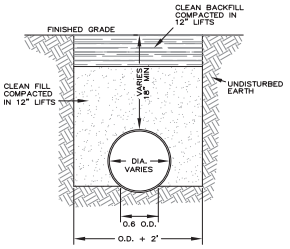
1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH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

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

MAINTENANCE NOTES:
1. INSPECT INFILTRATION CHAMBER PORT EVERY SIX MONTHS.
2. REMOVE SILT INSIDE CHAMBER IF ACCUMULATION REACHES SIX INCHES.



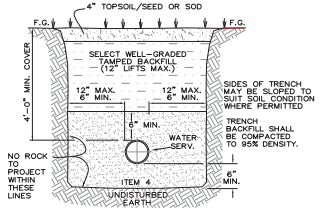
SUBSURFACE DETENTION SYSTEM
6 - SC740 CHAMBERS
N.T.S.



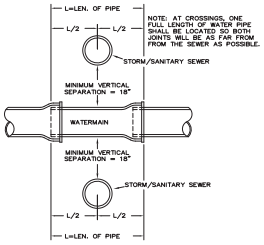
DRAIN PIPE BEDDING
N.T.S.

Schedule For Construction:

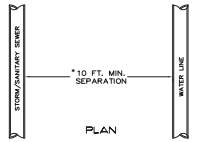
1. Install erosion controls as shown on the Site Plan,
2. Remove trees, brush, grub stumps, strip topsoil,
3. Excavate for footings,
4. Install footings, foundation, slabs,
5. Install water service, seal off well,
6. Building construction,
7. Install storm drainage structures and piping
8. Spread topsoil, seed and mulch,
9. Install landscaping,
10. Remove erosion controls from areas which are stabilized



WATER SERVICE BEDDING
N.T.S.



STORM DRAIN WATER MAIN CROSSING
N.T.S.



PLAN

Sewers shall be laid at least 10 feet (3.0 m) horizontally from any existing or proposed water main. The distance shall be measured edge to edge. In cases where it is not practical to maintain a ten foot separation, the appropriate reviewing agency may allow deviation on a case-by-case basis, if supported by data from the design engineer. Such deviation may allow installation of the sewer closer to or over the water main, provided that the water main is in a separate trench or on an undisturbed earth shelf located on one side of the sewer and at an elevation so the bottom of the water main is at least 18 inches (46 cm) above the top of the sewer.

STORM SEWER/WATER SEPARATION
N.T.S.

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL LOCATE AND VERIFY IN THE FIELD ALL UTILITIES - GAS, WATER, ELECTRICAL BEFORE THE START OF CONSTRUCTION. CONTRACTOR SHALL CALL CODE 753 (FORMERLY CODE 53)
2. EROSION CONTROL MEASURES, INCLUDING SILT FENCE, SHALL BE REQUIRED AS DIRECTED BY THE TOWN.
3. ALL PROPERTY DISTURBED IN THE R.O.W. OR ON PRIVATE LANDS, SHALL BE RESTORED TO NEW CONDITIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL APPLICATIONS AND PERMITS REQUIRED FOR CONSTRUCTION.
5. UNDERGROUND GAS AND ELECTRIC SHALL BE AS REQUIRED BY THE TOWN AND LOCAL POWER COMPANY.

EROSION AND SEDIMENT CONTROL NOTES:

1. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD.
2. ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND PROCEDURES SHALL COMPLY WITH THE STANDARDS AND SPECIFICATIONS OF THE TOWN OF CARMEL.
3. PRIOR TO ANY EXCAVATION, SILT FENCE SHALL BE INSTALLED AT THE APPROPRIATE LOCATIONS NOTED ON EROSION CONTROL PLAN. SILT FENCING SHALL BE INSTALLED AS DIRECTED BY THE OWNER'S REPRESENTATIVE IN THE FIELD AND INSTALLED AS PER THE INSTRUCTIONS OF THE MANUFACTURER. ADDITIONAL SILT FENCE MAY BE PLACED BY THE OWNER'S REPRESENTATIVE IN THE FIELD. SILT FENCING SHALL BE MAINTAINED IN OPERABLE CONDITION AND SHALL NOT BE REMOVED UNTIL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
4. ALL FINISHED SLOPES AND ALL ROUGH CUT SLOPES TO REMAIN OPEN FOR EXTENDED PERIODS IMMEDIATELY TOPSOIL, SEED WITH A MIXTURE OF PERENNIAL RYE GRASS, ANNUAL RYE GRASS AND WINTER RYE AND MULCH WITH 6" OF HAY.
5. ALL SLOPES CONSTRUCTED WITH FILL MATERIAL AND ALL SLOPES WITH GRADE 3:1 OR STEEPER SHALL BE TOPSOILED, SEEDED, MULCHED AND STABILIZED WITH STAKED JUTE NETTING, UNLESS OTHERWISE NOTED.
6. ALL AREAS OF DISTURBED SOIL SHALL BE STABILIZED. IN ADDITION TO ALL SPECIFIED AND LOCATED EROSION CONTROL DEVICES, THE CONTRACTOR SHALL TAKE ALL STEPS PRUDENT AND NECESSARY TO STABILIZE THE SITE AT ALL TIMES.
7. DO NOT STOCKPILE MATERIALS ON STEEP SLOPES, IN DRAINAGE SWALES OR IN WETLAND AREAS. SURROUND ALL STOCKPILE AREAS WITH SILT SCREEN AND SEED THEM WITH THE ANNUAL RYE GRASS.
8. ALL CATCH BASINS ARE TO BE PROTECTED WITH HAYBALE FILTERS THROUGHOUT THE CONSTRUCTION PERIOD AND UNTIL ALL DISTURBED AREAS ARE THOROUGHLY STABILIZED.
9. HAYBALES SHALL BE USED AT THE TOPS AND TOES OF SLOPES, AS NECESSARY, TO COLLECT SILT AND DIVERT FLOWS. SILT SCREENS WILL BE USED IN AREAS OF UNCONCENTRATED FLOWS TO COLLECT SILT. HAYBALES AND SILT SCREEN ON PLANS MAY BE AUGMENTED IN THE FIELD AS NECESSARY.
10. UTILITY LINE EXCAVATED MATERIAL SHALL BE TEMPORARILY STOCKPILED ON HIGH SIDE OF EXCAVATION SO RUNOFF IS DIRECTED AWAY FROM TRENCH, AFTER BACK-FILLING, AREA IS TO BE TOPSOILED, SEEDED, AND MULCHED.
11. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
12. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. SEDIMENT SHALL BE DISPOSED OF IN A MANNER THAT DOES NOT RESULT IN ADDITIONAL EROSION OR POLLUTION.
13. INSTALL GRAVEL BED AT CONSTRUCTION ENTRANCE TO SERVE AS ANTI-TRACKING PAD. GRAVEL BED TO BE 2" DIAMETER CRUSHED STONE 6" DEEP, OVER GEOTEXTILE SUPPORT FABRIC. ANTI-TRACKING PADS TO MEASURE 30' (MIN.) LENGTH BY THE ROADWAY WIDTH.
14. BLASTING AREAS - ROCK, RIPPING WILL BE USED WHEREVER POSSIBLE. BLASTING WILL OCCUR IN ACCORDANCE WITH REGULATIONS AND STANDARDS PRESCRIBED BY THE TOWN OF CARMEL.

RALPH G. MASTROMONACO, P.E., P.C.
Consulting Engineers
13 Dove Court, Croton-on-Hudson, New York 10520
(914) 271-4762 (914) 271-2820 Fax

BASE MAPPING BY: LINK LAND SURVEYORS P.C.

REVISED: 4/15/2024

DETAILS/NOTES
PROPOSED ADDITION
PREPARED FOR
GABRIEL LAMANNA
TOWN OF CARMEL
PUTNAM COUNTY, NY
JANUARY 30, 2024

SHEET 3 OF 3 SHEETS

1 FRONT (NORTH) ELEVATION
1/4" = 1'-0"

3 WEST ELEVATION
1/4" = 1'-0"

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

4 SOUTH (REAR) ELEVATION
1/4" = 1'-0"

MAP
Michael Piccirillo Architecture

NOTE:
DO NOT SCALE DRAWINGS. REFER TO WRITTEN MEASUREMENTS FOR ACCURANCY, OR CONTACT ARCHITECT. CONTACT ARCHITECT IF THERE ARE ANY DISCEPENCIES
UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING
IS A VIOLATION OF NEW YORK STATE EDUCATION LAW

No.	DATE:	ISSUE:
1	4/5/24	DESIGN REVIEW
2	4/11/24	ISSUED FOR PB

PROJECT NAME:
GABRIEL'S AUTO BODY

PROJECT ADDRESS:
255 NYS ROUTE 6
MAHOPAC, NY

REGISTERED ARCHITECT
MICHAEL ANTHONY PICCIRILLO
028090
STATE OF NEW YORK

MICHAEL A PICCIRILLO, AIA
345 KEAR STREET, SUITE 203
YORKTOWN HEIGHTS, NY 10598
TELEPHONE: 914-368-9838
FACSIMILE: 914-368-9839
michael@mpiccirilloarchitect.com
www.mpiccirilloarchitect.com

ELEVATIONS

A200

1 PERSPECTIVE 1

2 PERSPECTIVE 2

Michael Piccirillo Architecture

No.	DATE:	ISSUE:
1	4/5/24	DESIGN REVIEW
2	4/11/24	ISSUED FOR PB

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FACSIMILE: 914-368-9839
michael@mpiccirilloarchitect.com
www.mpiccirilloarchitect.com

PERSPECTIVES

A201

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.
- ☐ N/A 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.*

Rose Trombetta 4/16/24
Planning Board Secretary; Date

[signature] 4/16/24
Town Engineer; Date

TOWN OF CARMEL
SITE PLAN APPLICATION

Per Town of Carmel Code – Section 156 - Zoning

SITE IDENTIFICATION INFORMATION

Application Name:	Application #	Date Submitted:
2 CLARK PL, LLC	24-0012	3/12/2024

Site Address: *No.* 2 *Street:* CLARK PL *Hamlet:* MAHOPAC

Property Location: *(Identify landmarks, distance from intersections, etc.)*
CORNER OF CLARK PLACE AND ROUTE 6

Town of Carmel Tax Map Designation:	Zoning Designation of Site:
Section 75.12 *Block* 1 *Lot(s)* 42	C
Property Deed Recorded in County Clerk's Office *Date* *Liber* *Page*	**Liens, Mortgages or other Encumbrances** *Yes* *No*
Existing Easements Relating to the Site *No* *Yes* *Describe and attach copies:* NA	**Are Easements Proposed?** *No* *Yes* *Describe and attach copies:* X

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:	Phone #: / Fax#:	Email:
2 CLARK PL, LLC	914 497 932	

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

Applicant (If different than owner):	Phone #: / Fax#:	Email:
WILLIAM BESHARAT	914 330 49	

Applicant Address (If different than owner): *No.* *Street:* *Town:* *State:* *Zip:*

Individual/ Firm Responsible for Preparing Site Plan:	Phone #: / Fax#:	Email:
RAYEX DESIGN	914 330 4999	RAYEXDESIGN@GMAIL.COM

Address: *No.* 266 *Street:* Shear Hill Rd *Town:* Mahopac *State* NY *Zip* 10541

Other Representatives:	Phone #: / Fax#:	Email:

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

PROJECT DESCRIPTION

Describe the project, proposed use and operation thereof:
LEGALIZE EXISTING 2 APARTMENTS ON THE SECOND FLOOR. NO CONSTRUCTION IS PROPOSED. NO CHANGE IS PROPOSED TO EXISTING PARKING LOT.

TOWN OF CARMEL SITE PLAN APPLICATION

PROJECT INFORMATION

Lot size: *Acres:* *Square Feet:*	**Square footage of all existing structures (by floor):** 4238 SF
# of existing parking spaces:	**# of proposed parking spaces:**
# of existing dwelling units:	**# of proposed dwelling units**

Is the site served by the following public utility infrastructure:

- **Is project in sewer district or will private septic system(s) be installed?** _____
- **If yes to Sanitary Sewer answer the following:**

  - **Does approval exist to connect to sewer main? Yes:** ■ **No:** ☐
  - **Is this an in-district connection?** _____ **Out-of district connection?** _____
  - **What is the total sewer capacity at time of application?** _____
  - **What is your anticipated average and maximum daily flow** 850

For Town of Carmel Town Engineer

- *What is the sewer capacity* ALREADY CONNECTED BJP 4/1/24

- **Water Supply** **Yes:** ☒ **No:** ☐

  If Yes:
  - **Does approval exist to connect to water main? Yes:** ☐ **No:** ☒
  - **What is the total water capacity at time of application?** _____
  - **What is your anticipated average and maximum daily demand** _____
- **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 BJP 4/1/24 already connected
Sewer Flows

_____
Town Engineer; Date

What is the predominant soil type(s) on the site?	**What is the approximate depth to water table?**

Site slope categories:	**15-25%** 0 %	**25-35%** 0 %	**>35%** 0 %
Estimated quantity of excavation:	**Cut (C.Y.)** _____	**Fill (C.Y.)** _____	
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** _____ **Right** _____

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 **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: ☐**
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: ■**
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? NO **Public: ☐ Private: ☐**
Has this application been referred to the Fire Department? Yes: ☐ No: ☐
What is the estimated time of construction for the project? NO CONSTRUCTION

ZONING COMPLIANCE INFORMATION

Zoning Provision	Required	Existing	Proposed
Lot Area	40,000	12,875	
Lot Coverage	30%	19.5%	
Lot Width	200	209.1	
Lot Depth	200	65.2	
Front Yard	40	6.2' & 4.7'	
Side Yard	N/A		
Rear Yard	30	100.6	
Minimum Required Floor Area	5000	4238	
Floor Area Ratio			
Height	35	34	
Off-Street Parking	15	15	
Off-Street Loading	1	1	

TOWN OF CARMEL SITE PLAN APPLICATION

Will variances be required? Yes: ☐ No: ☐	If yes, identify variances:
PROPOSED BUILDING MATERIALS	
Foundation	
Structural System	
Roof	
Exterior Walls	

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.

WILLIAM BESHARAT
Applicants Name

William Besharat
Applicants Signature

Sworn before me this 14th **day of** March **20**24

Alice Daly
Notary Public

ALICE DALY
Notary Public, State of New York
No. 01DA6345218
Qualified in Putnam County
Commission Expires July 25, 2024

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

	Requirement Data	To Be Completed by the Applicant	Waived by the Town
16	The location of clubhouses, swimming pools, open spaces, parks or other recreational areas, and identification of who is responsible for maintenance	☑	☐
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 Roy A Fredriksen **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 · ROY A. FREDRIKSEN · 50505 · LICENSED PROFESSIONAL ENGINEER

Professionals Seal

William Beckmann — **Signature - Applicant** — 3/12/24 **Date**

Signature - Owner — 3/12/24 **Date**

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 Tomeletta — 4/16/24
Signature - Planning Board Secretary — **Date**

[signature] — 4/16/24
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:
2 CLARK PLACE LEGALIZATION

Project Location (describe, and attach a location map):
2 CLARK PLACE MAHOPAC, NY. 10541

Brief Description of Proposed Action:
LEGALIZZATION OF 2 EXISTING RESIDENTIAL APARTMENTS.

Name of Applicant or Sponsor:	Telephone: 914 330-4999
WILLIAM BESHARAT	E-Mail: RAYEXDESIGN@GMAIL.COM

Address:
266 SHEAR HILL ROAD

City/PO:	State:	Zip Code:
MAHOPAC	NEW YORK	10541

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval:	☑	☐

3. a. Total acreage of the site of the proposed action? .35 acres
   b. Total acreage to be physically disturbed? 0 acres
   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? .35 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: _____ _____	☐	☐
18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)? If Yes, explain the purpose and size of the impoundment: _____ _____	☑	☐
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe: _____ _____	☑	☐
20.Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe: _____ _____	☐	☑

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

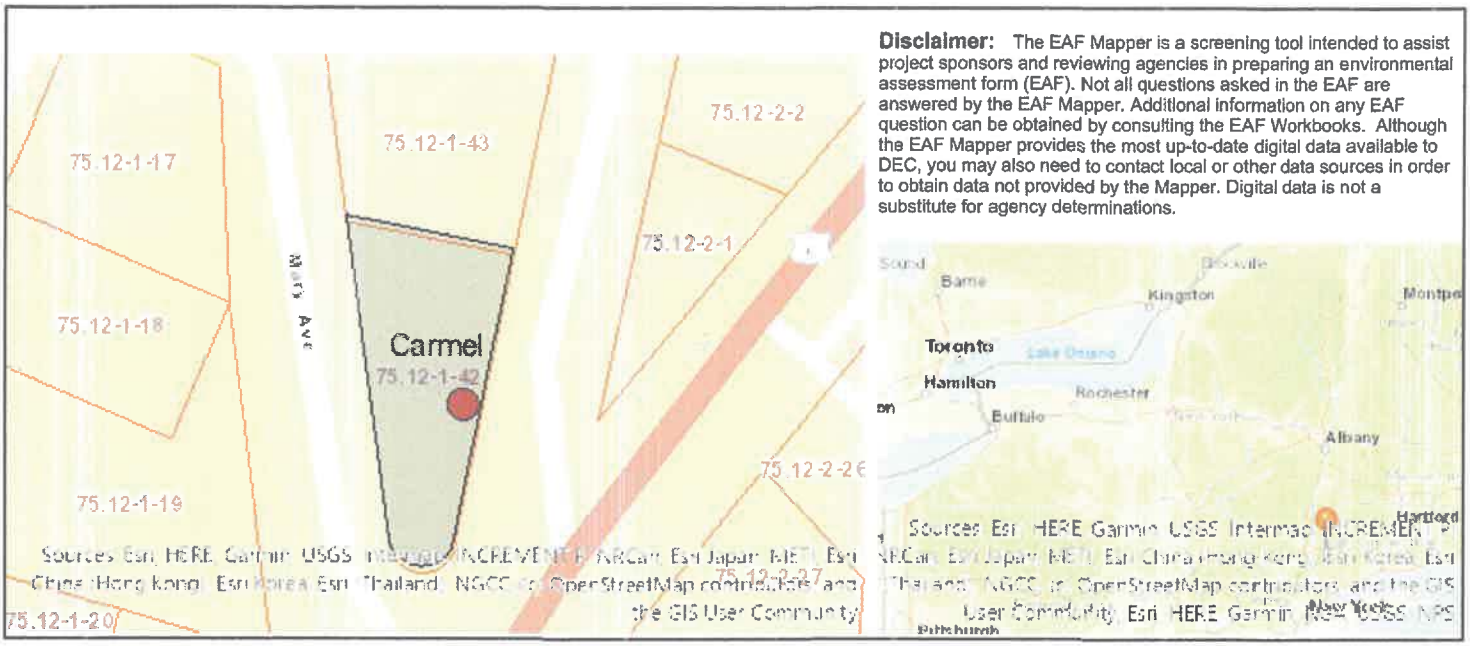
Applicant/sponsor/name: WILLIAM BESHARAT Date: 3/14/2024

Signature: William Besharat Title: AGENT

PRINT FORM

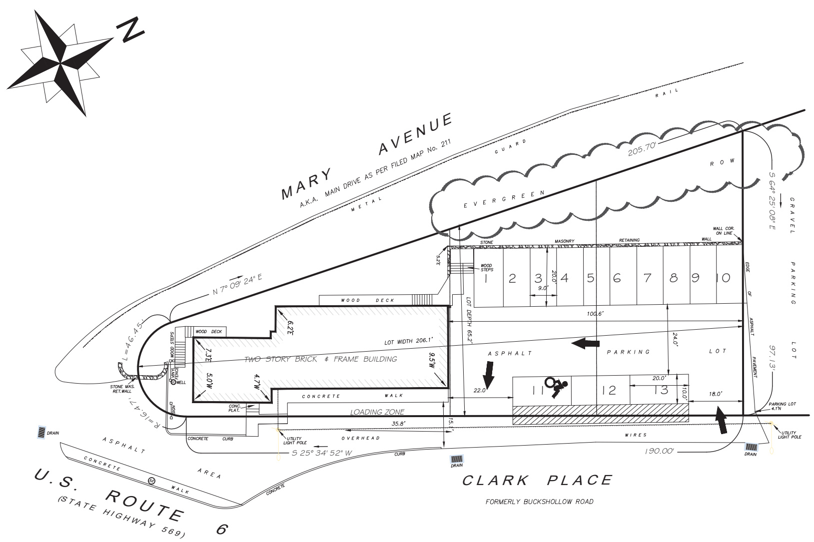
EAF Mapper Summary Report

Thursday, March 14, 2024 1:31 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]	No
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]	No
Part 1 / Question 20 [Remediation Site]	Yes



SITE PLAN

SCALE 1" = 20'

ZONING TABLE

COMMERCIAL			
C	REQUIRED	PROVIDED	VARIANCE REQUIRED
MIN. LOT AREA	40,000 SQ. FT.	12,875 SQ. FT.	
MIN. YARDS:			
FRONT	40 FT	6.2 FT AND 4.7 FT	
SIDE	25 FT	N/A	
REAR	30 FT	100.6 FT	
MIN. FRONTAGE	200 FT	442.15 FT	
MAX. BLDG. HEIGHT	35 FT	34 FT	
MIN. LOT WIDTH	200 FT	209.1 FT	
MIN. LOT DEPTH	200 FT	65.2 FT	
MIN. REQ. FLOOR AREA	5000 SQ FT	4238 SQ FT	
MAX. BLDG. COVERAGE	30%	19.5	
PARKING REQ. FOR	2 SPACES PER APARTMENT 2X2 = 4 1 SPACE/200SF RETAIL 2119/ 200= 11 4 SPACES PER DOCTOR AND 1 PER EMPLOYEE 4+1= 5 TOTAL SPACES REQUIRED 20	TOTAL PROVIDED 13	

DISTRICT	USES ALLOWED BY RIGHT: PRINCIPLE	USES ALLOWED BY RIGHT: ACCESSORY	CONDITIONAL USES	Minimum Required Lot Dimensions: Area (square feet)	Minimum Required Lot Dimensions: Width	Minimum Required Lot Dimensions: Depth (feet)	Minimum Required Yard Dimensions (See Col. 21.) (feet) Applying to Principal Buildings: Front	Applying to Principal Buildings: Side	Applying to Principal Buildings: Rear	Applying to Accessory Buildings: Front	Applying to Accessory Buildings: Side	Applying to Accessory Buildings: Rear	Maximum Permitted Height of Buildings (See Col. 21.): Stories	Maximum Permitted Height of Buildings: Feet	Minimum Required Floor Area of Buildings (square feet)	Maximum Permitted Coverage of Lot by Buildings (percent)	Maximum Permitted Floor Area Ratio	Off-Street Parking: In Connection with Dwelling Unt	Off-Street Parking: Spaces	OffStreet Loading: Berths	Exceptions
C Commercial	1. Retail sales and service establishments excluding self-storage warehouse 2. General business and professional offices 3. Banks and other financial institutions 4. Fully enclosed eating and drinking establishments 5. Commercial entertainment establishments 6. Municipal and other government buildings 7. Existing apartments in mixed-use structures at the time of passage of this chapter 8. Multifamily dwellings on waterfront (See § 156-36.) 9. Wholesale storage and distributive establishments, including lumberyards 10. Auto sales and showroom establishments, but not including auto body repair shops exclusively as principal uses (See § 156-29.) 11. Fully enclosed establishments for the sale and repair of machinery and equipment 12. Theaters and other fully enclosed commercial entertainment establishments 13. Funeral homes 14. Retail sales and service establishments in buildings which existed prior to July 7, 1982, and which contained a retail sales or service establishment as a principal use 15. Single-family dwellings 16. Day-care center (See § 156-39.2.)	1. Parking and loading facilities for the principal uses (See § 156-42.) 2. Signs (See § 156-41.) 3. (Reserved) 4. Any accessory use allowed by right in an R District 5. Tents (See § 156-39.1.) 6. Outdoor dining, provided such outdoor dining is accessory to a fully enclosed eating or drinking establishment (See § 156-39.4.) 7. Sidewalk cafes, provided such outdoor cafe is accessory to a fully enclosed eating or drinking establishment (See § 156-39.4.)	1. Elevator office buildings for professional and general office use 2. Motels 3. Multifamily dwellings for the elderly (See § 135-39.) 4. Existing service stations and repair garages (See § 156-30.) 5. Fast-food restaurants (See § 156-31.) 6. Designed shopping centers (See § 156-32.) 7. Hotels 8. Fraternal, social, civic or other semipublic club buildings 9. Houses of worship 10. Public transportation terminal facilities 11. Public utility installations (See § 156-37.) 12. Bed-and-breakfast establishment 13. Multifamily dwelling for the elderly 14. Recreation center (See § 156-45.3)	40,000	200	200	40	25	30					35	5,000	30% 40% for office building		(See schedules in § 156-42.)			

75.12-1-44
William Villanova
PO BOX 489
Mahopac, NY 10541

75.44-1-68
Filippo Canonaco
50 Longdale Rd
Mahopac, NY 10541

75.44-1-69
Joseph Duffy
16 Clark Pl
Mahopac, NY 10541

75.12-1-28
Toub Family Irrev Trust
17 Mary Ave
Mahopac, NY 10541

75.12-1-41
Mario Carneiro
19 Mary Ave
Mahopac, NY 10541

75.44-1-75
Nexhmedin Bicaj
2 Mary Ave
Mahopac, NY 10541

75.12-1-19
Paul Shields
20 Mary Ave
Mahopac, NY 10541

75.44-1-55.-2
Link Family Irrev Trust
16 Spring Brook Dr
Mahopac, NY 10541

75.44-1-55.-5
William Brightman
21 Clark Pl Ste 2B
Mahopac, NY 10541

75.51-1-17
William Ahrens
23 Ellen Ave
Mahopac, NY 10541

75.12-1-26
Rosemarie Sarli
25 Mary Ave
Mahopac, NY 10541

75.12-2-34
Centesimo North LLC
2 Sheryl Ln
Mahopac, NY 10541

75.12-2-37
279 Buckshollow Rd., Inc.
23 Memory Ln
Mahopac, NY 10541

75.51-1-16
Stefan Tovis
29 Ellen Ave
Mahopac, NY 10541

75.12-1-37
Luke Markaj
32 Ellen Ave
Mahopac, NY 10541

75.12-1-39
Malek Zeq
44 Ellen Ave
Mahopac, NY 10541

75.12-2-30
Dunwest Associates
30 Virginia Rd
North White Plains, NY 10603

75.12-1-16
North Lakes Estates Prop Mgmt
483 North Lake Blvd
Mahopac, NY 10541

75.12-2-1
Lupinacci Mazzola Holding Cor
PO BOX 24
Mahopac, NY 10541

75.12-2-2
Lupinacci Mazzola Holding Cor
PO BOX 24
Mahopac, NY 10541

75.12-2-24
Nicole Stern
888 Rt 6
Mahopac, NY 10541

75.12-1-43
Anna Gilmore
25 Sunset Shore Dr
Narragansett, RI 02882

75.12-1-32
Anthony Nanetti
PO BOX 555
Mahopac, NY 10541

75.44-1-73
Richard Miller
8 Indian Ave
Mahopac, NY 10541

75.44-1-72
Diane Henry
PO BOX 306
Baldwin Place, NY 10505

75.12-1-17
Anthony Azadian
14 Mary Ave
Mahopac, NY 10541

75.12-1-33
Andre Rytel
16 Ellen Ave
Mahopac, NY 10541

75.44-1-70
18 Clark, LLC
18 Clark Pl
Mahopac, NY 10541

75.12-1-34
Michael Tozzi
20 Ellen Ave
Mahopac, NY 10541

75.44-1-55
Main Old Stone Building Condominium
21 Clark Pl
Mahopac, NY 10541

75.44-1-55.-3
Link Family Irrev Trust
16 Spring Brook Dr
Mahopac, NY 10541

75.44-1-55.-6
David O'Mara
21 Clark Pl
Mahopac, NY 10541

75.12-1-35
Keith Hoffman
24 Ellen Ave
Mahopac, NY 10541

75.12-2-32
Jay Weissberg Berns
255 Buckshollow Rd
Mahopac, NY 10541

75.12-2-35
Oska Sigurjonsson
269 Buckshollow Rd
Mahopac, NY 10541

75.12-1-36
Zucca Irrevocable Living Trust
28 Ellen Ave
Mahopac, NY 10541

75.12-1-25
Anthony Morano
29 Mary Ave
Mahopac, NY 10541

75.12-1-24
Natalie Wilson-Ancillotti
33 Mary Ave
Mahopac, NY 10541

75.12-1-13
Greco Family Realty, LLC
530 Route 6
Mahopac , NY 10541

75.12-1-15

540 Rt 6
Mahopac, NY 10541

75.12-2-28
Sky 545 Corp.
14-11 136th St
College Point, NY 11356

75.12-2-31
Dunwest Associates
30 Virginia Rd
North White Plains, NY 10603

75.12-2-25
565 Route 6 Partners LLC
565 Rt 6
Mahopac, NY 10541

75.44-1-54
Five Seventy Two, LLC
590 Commerce St
Thornwood, NY 10594

75.12-1-40
Stronghold Acquisitions LLC
324 Eastern Close
Yorktown Heights, NY 10598

75.12-1-30
Jeremiah Sheehan
7 Mary Ave
Mahopac, NY 10541

75.12-1-23
Mark Hatch
40 Mary Ave
Mahopac, NY 10541

75.12-2-18
Rowley Development Corp Inc
c/o Thomson Reuters
PO BOX 460069
Houston, TX 77056

75.12-1-29
Richard Bereck
13 Mary Ave
Mahopac, NY 10541

75.43-2-10
Melissa Mustafa
15 Indian Ave
Mahopac, NY 10541

75.12-1-18
Philip Canonaco
50 Longdale Rd
Mahopac, NY 10541

75.43-2-9
Declan Conroy
19 Ellen Ave
Mahopac, NY 10541

75.44-1-74
Christopher Paleo
2 Indian Ave
Mahopac, NY 10541

75.12-1-19
Emmy Oliverio
20 Mary Ave
Mahopac, NY 10541

75.44-1-55.-1
The Giucci Group, LLC
PO BOX 201
Mahopac Falls, NY 10542

75.44-1-55.-4
RSL Realty Holdings, LLC
21 Clark Place - Unit 4
Mahopac, NY 10541

75.12-1-27
Ronald Solis
21 Mary Ave
Mahopac, NY 10541

75.12-1-20
Anthony Frusciante
24 Mary Ave
Mahopac, NY 10541

75.12-2-33
Richard Sigurjonsson
259 Buckshollow Rd
Mahopac, NY 10541

75.12-2-36
Shahinur Rahman
1 California St
Hicksville, NY 11801

75.12-1-21
Sarli Irrevocable Living Trust
28 Mary Ave
Mahopac, NY 10541

75.12-1-31
Cassandra Gonzalez
3 Indian Ave
Mahopac, NY 10541

75.12-1-38
Shane O'Brien
38 Ellen Ave
Mahopac, NY 10541

75.12-1-14
Milestones Family Realty
21 Griffin Ln
Hopewell Junction, NY 12533

75.12-2-29
Dunwest Associates
30 Virginia Rd
North White Plains, NY 10603

75.12-2-27
Pietro & Ana LLC
96 Greenway Terrace South
Mahopac, NY 10541

75.12-2-26
Downtown Mahopac Properties
23 Ridge Rd
Mahopac, NY 10541

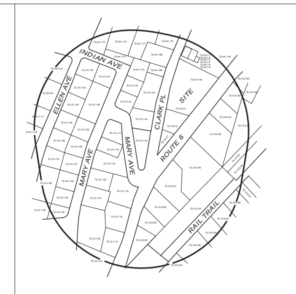
75.12-2-3
Albano Buildings, LLC
566 Rt 6 & 11 Clarke Pl
Mahopac, NY 10541

75.12-2-23
Tydrew Real Estate LLC
575 Route 6
Mahopac, NY 10541

75.12-2-42
Rowley Development Corp Inc
c/o Thomson Reuters
PO BOX 460069
Houston, TX 77056

75.44-1-71
Arianna Ortiz Corsino
7 Senior Ave
Mahopac, NY 10541

75.12-2-9
Rowley Development Corp Inc
c/o Thomson Reuters
PO BOX 460069
Houston, TX 77056



AREA MAP SCALE: 1" = 300' +\-

VICINITY MAP SCALE: 1" = 500' +\-

Approval hereby granted this __________ day of _______ 2024.
If building permit is not issued within 12 months from the above date, this approval becomes null and void.

Town of Carmel Planning Board

Signed this _________ day of __________, 2024 by

____
Chairman

____
Secretary

RAYEX
DESIGN PLANNING CONSTRUCTION

ROY A. FREDRIKSEN, PE
DESIGN • PLANNING • CONSULTING ENGINEER
266 SHEAR HILL RD • MAHOPAC, NY 10541 • 845-621-4000

OWNER:
2 CLARK PLACE, LLC

JOB #
DRN BY:
CHKD BY:

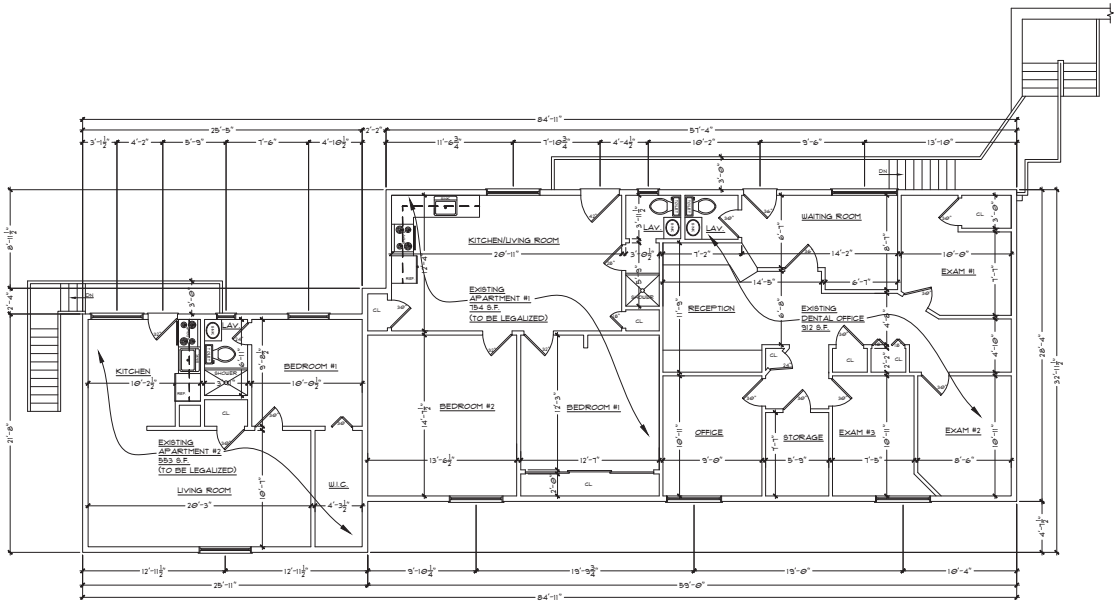
PROJECT: SITE PLAN FOR THE PURPOSE OF LEGALIZING EXISTING 2 APARTMENTS LOCATED AT 2 CLARK PL, MAHOPAC, NY

TAX MAP #:
SECTION: 75.12
BLOCK: 1
LOT: 42

SHEET TITLE: SITE PLAN AND DETAILS

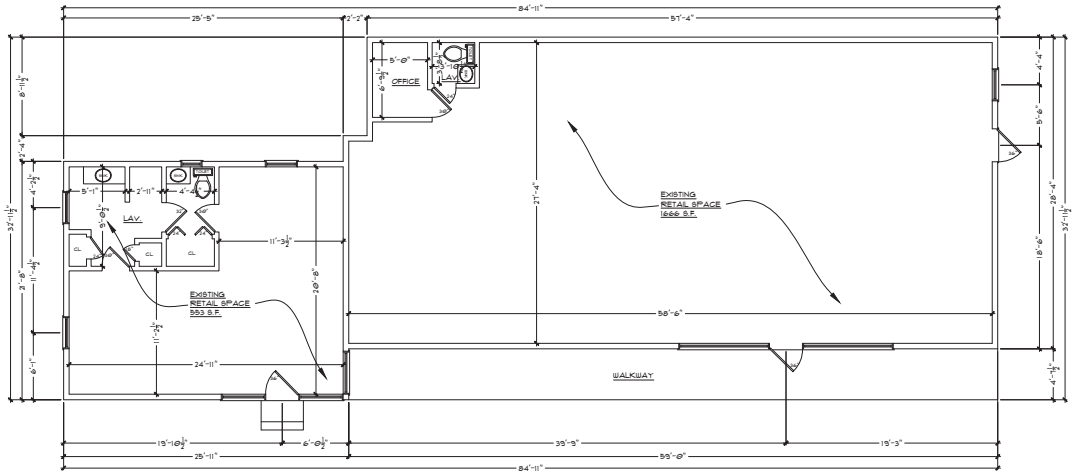
REVISIONS:
FEBRUARY 12, 2024

STATE OF NEW YORK · ROY A. FREDRIKSEN · LICENSED PROFESSIONAL ENGINEER · 70505



SECOND FLOOR PLAN 2,119 S.F.

SCALE 3/16" = 1'-0"



FIRST FLOOR PLAN 2,119 S.F.

SCALE 3/16" = 1'-0"

RAYEX
DESIGN PLANNING CONSTRUCTION

ROY A. FREDRIKSEN, PE
DESIGN•PLANNING•CONSULTING ENGINEERING
266 SHEAR HILL RD.•MAHOPAC, NY 10541•845-621-4000
RAYEXDESIGN@GMAIL.COM

OWNER: 2 CLARK PLACE LLC.

JOB #

DRN BY:

CHKD BY:

PROJECT: LEGALIZATION OF TWO EXISTING APARTMENTS LOCATED AT 2 CLARK PL. IN MAHOPAC, NY.

TAX MAP #: 75.12-1-2

SHEET TITLE: FLOOR PLANS
1 OF 1

REVISIONS:

DATE: 3/14/2024

STATE OF NEW YORK ROY A. FREDRIKSEN 20505 LICENSED PROFESSIONAL ENGINEER

KSCJ CONSULTING

John Kellard, P.E.
David Sessions, RLA, AICP
Joseph M. Cermele, P.E., CFM
Jan K. Johannessen, AICP

VIA FEDERAL EXPRESS

April 8, 2024

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

Attn: Craig Paeprer, Chairman

RE: Western Bluff Subdivision
350 West Shore Drive
Section 66.14, Block 1, Lot 20

Dear Chairman Paeprer:

Enclosed please find the following materials relating to the request for an extension of the Final Subdivision Approval Resolution of the Planning Board of the Town of Carmel (#23-22) for the Western Bluff Subdivision:

- Check #588 in the Amount of $2,500.00 – Extension Fee
- Final Subdivision Approval Resolution (#23-22), dated October 12, 2023

The Planning Board granted Final Subdivision Approval for the above-referenced subdivision, which is scheduled to expire on April 12, 2024. We are writing to request a 180-day extension of the Final Subdivision Approval.

At this time, our client is working to satisfy Conditions #2 through #4 regarding the Recreation Fee, Performance Bond and Engineering Inspection Fee. Our client anticipates satisfying all conditions of the Final Subdivision Approval.

We would appreciate the Planning Board's consideration of our request at their next meeting.

Sincerely,

John Kellard, P.E.
KSCJ Consulting

JK/dc

Enclosures

cc: Tom Kling
Dominick Santucci

FINAL SUBDIVISION APPROVAL
RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF CARMEL
#23-22 October 12, 2023

Tax Map #66.14-1-20
WESTERN BLUFF SUBDIVISION

WHEREAS, the Planning Board of the Town of Carmel, located in Putnam County, New York, has received an application for Final Subdivision Approval, submitted by Dominick Santucci (herein after referred to as the "Applicant"); and

WHEREAS, the action involves the subdivision of the property to create 3 single-family lots of 4.74 acres, 5.44 acres and 4.61 acres respectively. Lot 1 will continue to be served by an existing driveway, and Lots 2 and 3 would be served by a new single curb-cut on West Shore Drive located across from Farview Road, which then branches off into two separate driveways serving each lot. The three new residences will be served by individual wells and subsurface septic disposal systems (hereinafter referred to as the "Project"); and

WHEREAS, the subject site is more specifically known and identified as Tax Map #66.14-1-20 (herein after referred to as the "Site"); and

WHEREAS, the Site is located within the R- Residential Zoning District; and

WHEREAS, the Final Subdivision Plat consists of the following plans, Kellard Sessions, dated January 13, 2017, last revised August 7, 2023:

---	Cover Sheet
1/10	Existing Conditions Plan
2/10	Subdivision Layout Plan
3/10	Sediment & Erosion Control Plan
4/10	Tree Removal & Landscaping Plan
5/10	Construction Details
6/10	Construction Details
7/10	Sediment & Erosion Control Details & Notes
8/10	Driveway Profiles
9/10	Drainage Profiles
10/10	Construction Management Plan

WHEREAS, the Town of Carmel has an ongoing need for parks, playgrounds and recreational facilities and the population generated by the Proposed Action will result in an incremental increase in the demand for these facilities; and

WHEREAS, the Land Subdivision Regulations recommend that such reservations shall be of suitable size, location, topography and general character for parks, playgrounds or other recreational purposes, and the Planning Board has found that a location for such a set-aside is not available on the site; and

WHEREAS, a duly noticed public hearing on the Proposed Action was held, at which time all interested parties were provided an opportunity to be heard on this matter; and

WHEREAS, the proposed action has been determined to be an Unlisted Action pursuant to SEQR 6 NYCRR Part 617; and

WHEREAS, on September 26, 2018, the Planning Board, serving as Lead Agency for the SEQR review of this application, adopted a Negative Declaration; and

WHEREAS, the requirements for final subdivision plat approval contained in the "Subdivision of Land Regulations of the Town of Carmel" have been met by said subdivision application.

NOW THEREFORE BE IT RESOLVED, that the Planning Board of the Town of Carmel hereby classifies the Proposed Action as a "Minor Subdivision" pursuant to §131-3 of the Land Subdivision Regulations

BE IT FURTHER RESOLVED, that upon full consideration of the above, the Planning Board of the Town of Carmel hereby grants Final Subdivision Plat Approval for the application submitted by Dominick Santucci, as depicted on the plans identified above, subject to the following conditions:

CONDITIONS PRIOR TO ENDORSEMENT OF FINALPLAT

The following conditions shall be completed by the Applicant prior to the endorsement of the Final Subdivision Plat by the Planning Board Chairman:

1. Within one hundred eighty (180) days of the date of this resolution, the Applicant shall submit the Final Subdivision Plat, prepared in accordance with the standards and requirements set forth in §131-14 of the Subdivision of Land Regulations, in its final form, for endorsement by the Planning Board Chairman. This approval authorizes only the subdivision activities approved in the resolution and as delineated on the signed and filed Final Subdivision Plat. Any alteration or modification to the Final Subdivision Plat, or to the existing or approved facilities and site shall require the review and approval by the Planning Board of the Town of Carmel.

2. In accordance with §131-25A (3) of the Subdivision of Land Regulations, a payment in lieu of reservation of land ("recreation fee") in the amount established by the fee schedule adopted by the Town Board in effect at the date of this approval, which shall be paid by certified check to the Town of Carmel.

3. A performance bond, prepared in form to the satisfaction of the Town Attorney, and in the amount of Three Hundred Fifty Five Dollars ($355,000.00), in accordance with the requirements set forth in §131-15E(1) of the Subdivision of Land Regulations, shall be provided to assure the completion of all improvements, if determined to be required.

   Said improvements shall be completed within a maximum period of two (2) years and the performance bond shall so state the same. The developer may apply to the Planning Board for an extension of the completion period as set forth in §131-15F of the Subdivision of Land Regulations, provided said request is in writing, submitted a minimum of 45 days prior to the expiration, and describes in detail the reason for the requested extension.

4. An engineering inspection fee in the amount of Seventeen Thousand five Hundred Dollars (17,750.00), in accordance with the requirements set forth in §131-17C of the Subdivision of Land Regulations shall be paid to the Town of Carmel, if determined to be required.

5. The Final Subdivision Plat shall be endorsed by the Putnam County Health Department.

6. The Applicant shall furnish the Planning Board with one (1) mylar set and one (1) print set of the Final Subdivision Plat and Plans as described herein, for endorsement by the Planning Board Chairman upon payment of all required fees and compliance with all conditions of this resolution.

7. Upon payment of all required fees and the satisfaction of all conditions of this resolution and following the endorsement of the Final Subdivision Plat by the Planning Board Chairman, the mylar set will then be returned to the applicant for filing of the Final Subdivision Plat in the Office of the Putnam County Clerk, Division of Land Records as well as for copying; the print set will be retained by the Planning Board as a record copy.

8. No changes, additions, erasures, modifications or revisions shall be made to the Final Subdivision Plat following endorsement by the Planning Board Chairman. Any changes detected after endorsement of the Final Subdivision Plat as final, shall result in the immediate termination and revocation of this Resolution of Approval, thereby making it null and void.

9. Within ten (10) days after the Final Subdivision Plat has been filed in the in the Office of the Putnam County Clerk, Division of Land Records, the Applicant shall deliver to the Planning Board Secretary five (5) printed sets, collated and folded, of the Final Subdivision Plat and Plans, and five copies of all filed easements. No Building Permit shall be issued by the Building

Inspector until the required Final Subdivision Plat and Plans print sets are provided to the Planning Board Secretary.

CONDITIONS PRIOR TO ISSUANCE OF A BUILDING PERMIT

The following conditions shall be completed by the Applicant prior to the issuance of a Building Permit by the Building Inspector:

10. The Building Inspector shall not issue a Building Permit pertaining to the activities approved herein until the Applicant has complied with Conditions 1 – 9

11. Authorized issuance of a Building Permit by the Building Inspector shall be fully based on, and in accordance with this Resolution of Approval and the signed and filed Final Subdivision Plat and Plans. The Building Inspector shall include reference to the Final Subdivision Plat and Plans and this Resolution of Approval on any Building Permit.

12. The access, utility and drainage easements shall be reviewed and approved by the Planning Board attorney.

13. Prior to initiation of construction the Applicant or his representative will meet with the design engineer, Town Engineer, Highway Superintendent, Building Inspector, Site Contractor and/or any additional outside agencies that may have jurisdiction over aspects of the Project for a preconstruction conference to review all facets of construction and required inspections.

GENERAL CONDITIONS OF IMPLEMEMNTATION AND CONSTRUCTION

The following conditions shall apply during the implementation of the site improvements and construction of the Project:

14. The hours of construction activity shall take place in conformance with the applicable Town Regulations.

15. Prior to the commencement of any site work or construction activity, erosion and sedimentation controls shall be installed in accordance with the Final Subdivision Plan and the requirements of the Town Engineer, and any additional controls as may be required by the Building Inspector, Town Engineer, Highway Superintendent or their agents. Stormwater runoff shall be controlled at all times during construction to prevent erosion of the site area under construction and to prevent sedimentation and dust dispersal upon areas not under construction, particularly off-site locations. Silt fencing, hay bales, anti-tracking aprons and all other required erosion and sedimentation control measures shall be regularly inspected and maintained in an orderly and functioning manner in accordance with all Town of Carmel Ordinances and Laws, the New York Guidelines for Urban Erosion and Sediment Control, and

Best Management Practices. Additional supplies of silt fencing and hay bales shall be kept on the site during construction for immediate use if needed.

16. All conditions of the Putnam County Highway Work Permit shall be addressed.

17. All conditions of the New York City Department of Environmental Protection SWPPP approval shall be addressed.

18. The Applicant shall submit a stormwater maintenance agreement and maintenance guarantee per Town Code §156-85 and §156-87 B. to assure long-term maintenance of all stormwater management practices (SWMP).

19. Any and all new site utilities shall be installed underground.

20. The project shall maintain a zero% increase in the rate of runoff.

21. A clean and legible copy of this Resolution (as signed by the Planning Board Chairman) and a copy of the signed Final Subdivision Plat and Plans shall be maintained at the subject property at all times.

PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY

The following conditions shall be complied with prior to the issuance of a Certificate of Occupancy by the Building Inspector:

22. Prior to the issuance of an individual Certificate of Occupancy by the Building Inspector, and as a condition thereto, all site improvements (e.g. buildings, driveways, grading etc) associated with the lot requesting the Certificate of Occupancy, including all required utilities (e.g. water supply, sewage disposal, stormwater controls, electric, telephone, etc.) to serve said lot, shall be completed and operational. All disturbed areas shall be stabilized, regarded and revegetated.

23. Prior to the issuance of a Certificate of Occupancy by the Building Inspector, an "As-Built" Plan showing the installed and completed improvements, certified by a New York State licensed Land Surveyor shall be prepared at the sole expense of the Applicant.

24. All improvements shall be maintained in strict accordance with all applicable rules, regulations, ordinances and laws as a condition of maintenance of a Certificate of Occupancy

25. Failure to comply with any of the conditions set forth herein shall be deemed a violation of this approval, which may lead to the revocation of the Approval and/or Certificate of Occupancy, in accordance with the applicable provisions of the Town of Carmel.

BE IT FURTHER RESOLVED, that this Final Subdivision Approval shall expire within one hundred eighty (180) days of the date of this resolution unless the Applicant submits for signature by the Planning Board Chairman, the Final Subdivision Plat, as endorsed by the Putnam County Department of Health and in conformance with the Land Subdivision Regulations.

BE IT FINALLY RESOLVED, that this Final Subdivision Plat Approval resolution shall have an effective date of October 12, 2023.

PLANNING BOARD
TOWN OF CARMEL

Chairman

10-12-2023
Dated:

This resolution was thereupon duly adopted