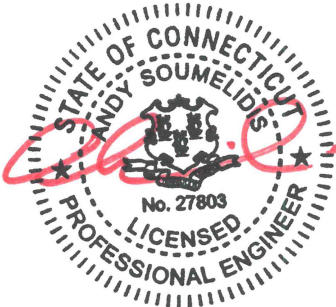


<p>STORMWATER MANAGEMENT</p> <p>REPORT</p> <p>for</p> <p>50 Post Road West</p> <p>Westport, CT</p> <p>September 24, 2025</p> <p>Revised: November 19, 2025</p>	
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Narrative:

The owners of 50 Post Road West, Westport, CT propose to construct a new multi-family residence, additions to the existing building, driveway and parking area and related improvements on the existing developed property. Improvements are limited to the areas related to the construction of the above-listed structures and lawn areas as shown on the site plans prepared by LANDTECH.

The property is 1.012± acres in size, it is located to the west of Post Road. There are no wetlands on the property and the site drains to one area of discharge off-site.

The NRCS soils map indicates the upland soils in the vicinity of the proposed improvements to be Urban Land Charlton-Chatfield land complex, a poorly-drained soil in Hydrologic Soil Group D. Deep test results confirm the hydrologic rating of this area. Based on field observation, a conservative infiltration rate of 4"/hour (observed infiltration rate of 1" in 10 min.) was utilized in the design for the proposed drainage system. It is assumed that the underlying soils will allow the detained storm water to infiltrate within 72 hours, per CT DEEP guidance (requires a 0.34"/hour infiltration rate).

For the purposes of modeling the pre and post development conditions we have analyzed one (1) drainage subarea in the pre-development conditions and four (4) subareas in the post-development conditions. In the pre-development conditions, existing drainage area 1 currently discharges via sheet flow to the east towards Post Road and contains the entire property including the existing buildings, driveways and lawn area. All existing impervious area that is to be removed has been modeled as lawn area in the existing conditions.

Proposed drainage area 1A contains the proposed building additions, the existing residence, and a portion of the proposed parking and driveway area and will discharge via a system of roof leaders, catch basins, trench drains and collection piping to a proposed underground detention system. Footing drains from the existing residence and proposed building addition will be pumped to the underground detention system. The proposed underground detention system will discharge via one of the inlet basins and then sheet flow to the east towards Post Road matching existing conditions. Proposed drainage area 1B contains the remainder of the proposed parking and driveway area and will be collected via a system of catch basins and collection piping and will discharge to a proposed underground detention system located in the proposed parking area. This underground detention system will have a concrete bottom and is not an infiltration basin, and will discharge via an outlet control structure to the underground detention system associated with drainage area 1A. Proposed drainage area 1C contains the proposed multi-family residence and will discharge via a system of roof leaders and collection piping to a proposed underground detention system located to the north of the proposed multi-family residence. Footing drains from the proposed multi-family residence will discharge to the proposed underground detention system. Proposed drainage 1D contains the

remainder of the property including walkways, and lawn area and will discharge via sheet flow to the east towards Post Road matching existing conditions.

The proposed drainage systems are only intended to capture runoff from the proposed multi-family residence, proposed building additions, the existing building, and the proposed parking and driveway area. The proposed underground detention systems are sized based on the required water quality volume as well as runoff control for the 25-year storm event.

Table 1 summarizes the required and proposed water quality volumes (WQV) and runoff control for the 25-year storm event.

TABLE 1 – WQV & 25 YEAR STORM		
	PRE-DEV/ REQUIRED	POST DEV PROVIDED
PEAK RATE STORMWATER RUNOFF FROM SITE (cfs)	4.30	1.91
WATER QUALITY (cf)	2029.53	4146.20

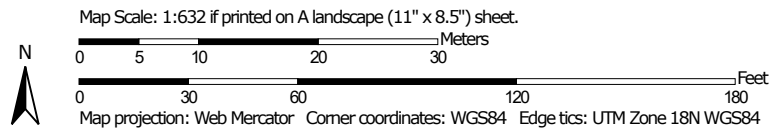
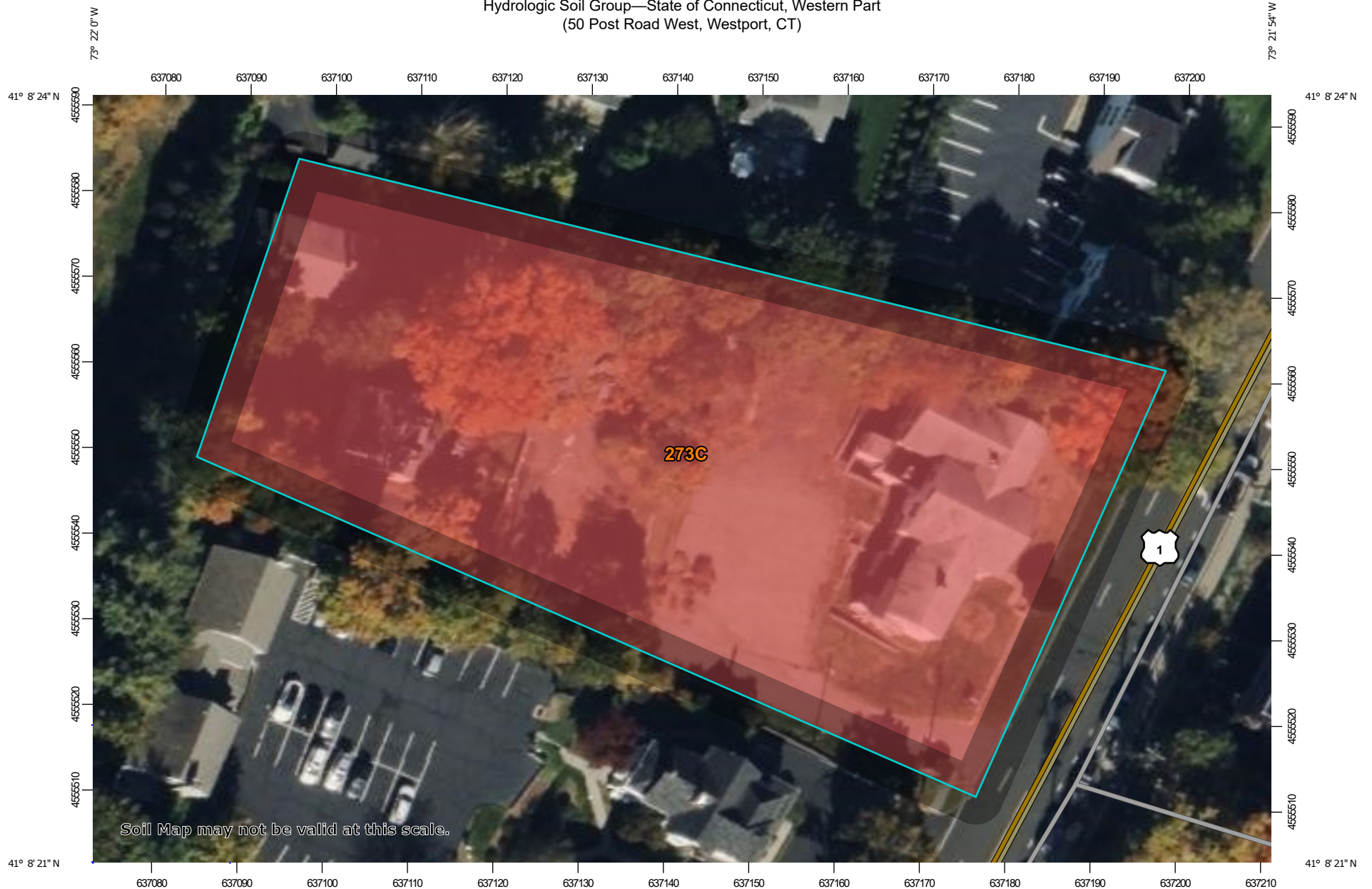
It is our professional opinion that upon construction of the proposed improvements, stormwater discharge from the site will comply with the applicable rules and regulations of the Town of Westport.

Exhibits:

- NRCS Soils Report
- Watershed Maps
- MS4 Impervious Cover Reduction Worksheet
- Water Quality Volume Calculations
- Stormwater Runoff Computations


NRCS Soils Report

Hydrologic Soil Group—State of Connecticut, Western Part
(50 Post Road West, Westport, CT)



MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Lines


 A
 A/D
 B
 B/D
 C
 C/D
 D
 Not rated or not available

Soil Rating Points






 A
 A/D
 B
 B/D

 C
 C/D
 D
 Not rated or not available

Water Features

 Streams and Canals

Transportation

 Rails
 Interstate Highways
 US Routes
 Major Roads
 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: State of Connecticut, Western Part
 Survey Area Data: Version 2, Aug 30, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 21, 2022—Oct 27, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
273C	Urban land-Charlton-Chatfield complex, rocky, 3 to 15 percent slopes	D	1.1	100.0%
Totals for Area of Interest			1.1	100.0%

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Watershed Maps

MS4 Impervious Cover Reduction Worksheet

Project: **50 Post Road West**
Westport, CT

By: **SM**
Checked: **AS**

Date: **9/24/2025**
Revised: **11/19/2025**

MS4 Impervious Cover Reduction Worksheet

GIS ID #: C09/064/000
Lot Area: 44,085 SF

Existing Conditions

Impervious Items	Area (SF)	
	Disconnected	Connected
Residence	0	4,893
Porches	0	225
Driveway	0	16,999
Walkways	0	1,255

Totals

0	23,372
---	--------

 SF

Proposed Conditions

Impervious Items	Area (SF)	
	Disconnected	Connected
Residence	7,670	0
Porches	200	0
Driveway	14,130	0
Walkways	242	2,044

Totals

22,242	2,044
--------	-------

 SF

Connected Impervious Area Reduction

Existing Connected Impervious Cover 23,372 SF
Proposed Connected Impervious Cover 2,044 SF
Decrease 21,328 SF
Percent Decrease **91.3%**

Water Quality Volume Calculations

Project: **50 Post Road West
Westport, CT**

By: **SM**
Checked: **AS**

Date: **9/24/2025**
Revised: **11/19/2025**

1. Water Quality Volume

a. Compute volumetric runoff coefficient, R

$$R = 0.05 + 0.009(I)$$

Proposed

Total Drainage Area, <i>A</i>	1.012	acres
Total Impervious Area	0.565	acres
Percentage of Impervious Area, <i>I</i>	55.8%	
Runoff Coefficient, <i>R</i>	0.552	

b. Compute water quality volume, WQV

$$WQV = [(1")(R)(A)]/12$$

Total Project Area, <i>A</i>	1.012	acres
Runoff Coefficient, <i>R</i>	0.552	
Water Quality Volume, <i>WQV</i>	0.047	acre-foot
Water Quality Volume, <i>WQV</i>	2,029.53	cf

Required

WQV in INF-1	3,517.90	cf
WQV in INF-2	628.30	cf
Total WQV:	4,146.20	cf

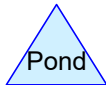
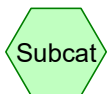
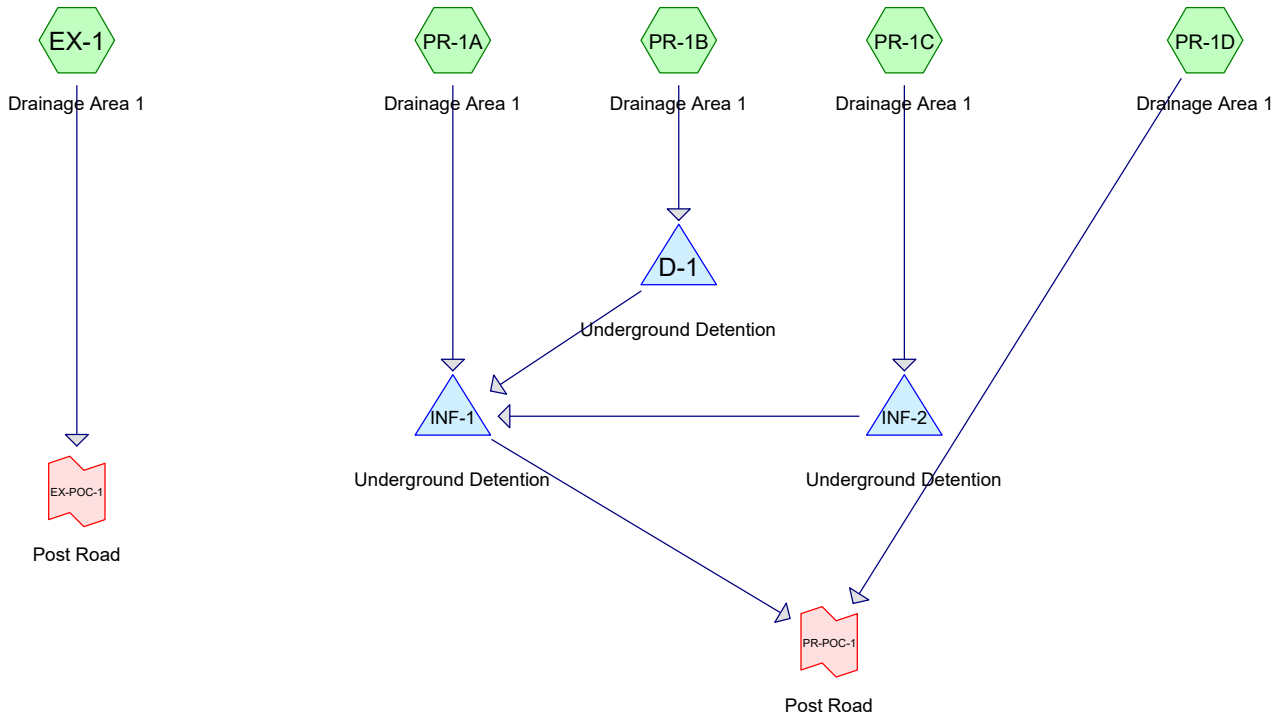
Provided

Water Quality Volume provided > required

Stormwater Runoff Computations

Existing Conditions

Proposed Conditions



Routing Diagram for 50 Post Road West - Drainage
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50 Post Road West - Drainage

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Page 2

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	25yr Storm	Type III 24-hr		Default	24.00	1	6.40	2

50 Post Road West - Drainage

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Page 3

Area Listing (selected nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
40,206	80	>75% Grass cover, Good, HSG D (EX-1, PR-1A, PR-1B, PR-1D)
3,366	98	Existing Building To Remain (PR-1A)
1,527	80	Existing Buildings To Be Removed (EX-1)
3,366	98	Existing Buildings To Remain (EX-1)
16,999	80	Existing Driveway To Be Removed (EX-1)
25	80	Existing Porches To Be Removed (EX-1)
400	98	Existing Porches To Remain (EX-1, PR-1A)
937	80	Existing Walks & Stairs To Be Removed (EX-1)
636	98	Existing Walks & Stairs To Remain (EX-1, PR-1D)
300	98	Proposed Amenity Area (PR-1B)
1,516	98	Proposed Building Additions (PR-1A)
2,794	98	Proposed Building Roof Area (PR-1C)
14,130	98	Proposed Driveway & Parking Area (PR-1A, PR-1B)
1,968	98	Proposed Walks & Stairs (PR-1A, PR-1B, PR-1D)
88,170	86	TOTAL AREA

50 Post Road West - Drainage

Type III 24-hr 25yr Storm Rainfall=6.40"

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Page 4

Summary for Subcatchment EX-1: Drainage Area 1

Runoff = 4.30 cfs @ 12.15 hrs, Volume= 15,978 cf, Depth> 4.35"
 Routed to Link EX-POC-1 : Post Road

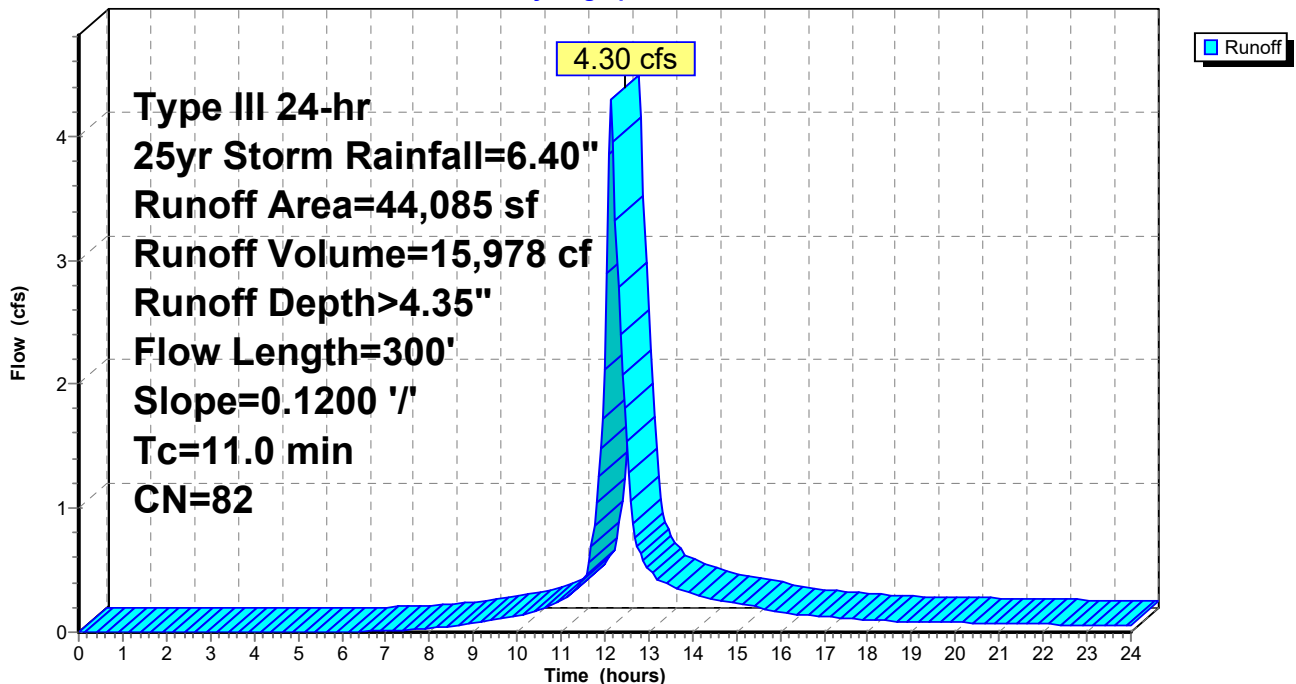
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25yr Storm Rainfall=6.40"

Area (sf)	CN	Description
* 3,366	98	Existing Buildings To Remain
* 200	98	Existing Porches To Remain
* 318	98	Existing Walks & Stairs To Remain
* 1,527	80	Existing Buildings To Be Removed
* 25	80	Existing Porches To Be Removed
* 16,999	80	Existing Driveway To Be Removed
* 937	80	Existing Walks & Stairs To Be Removed
20,713	80	>75% Grass cover, Good, HSG D
44,085	82	Weighted Average
40,201		91.19% Pervious Area
3,884		8.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	300	0.1200	0.45		Sheet Flow, Grass: Short n= 0.150 P2= 3.50"

Subcatchment EX-1: Drainage Area 1

Hydrograph



50 Post Road West - Drainage

Type III 24-hr 25yr Storm Rainfall=6.40"

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Page 5

Summary for Subcatchment PR-1A: Drainage Area 1

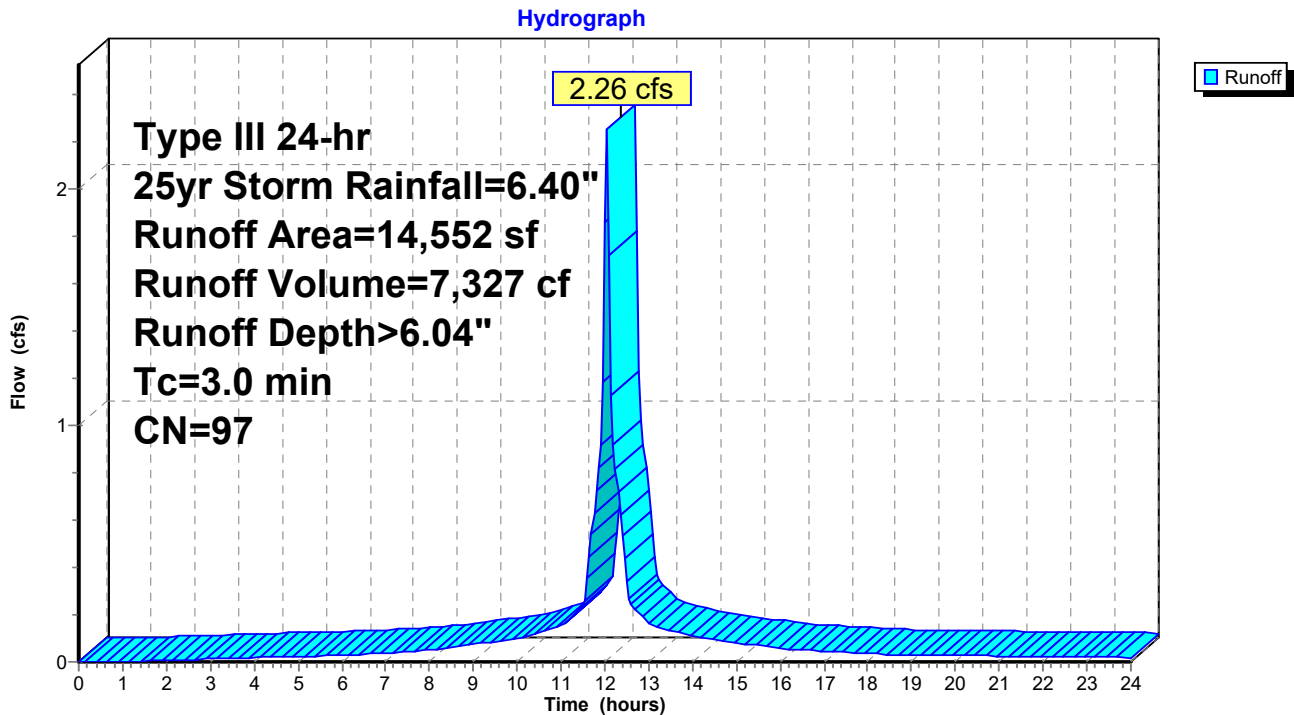
Runoff = 2.26 cfs @ 12.05 hrs, Volume= 7,327 cf, Depth> 6.04"
 Routed to Pond INF-1 : Underground Detention

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25yr Storm Rainfall=6.40"

	Area (sf)	CN	Description
*	1,516	98	Proposed Building Additions
*	8,172	98	Proposed Driveway & Parking Area
*	170	98	Proposed Walks & Stairs
*	3,366	98	Existing Building To Remain
*	200	98	Existing Porches To Remain
	1,128	80	>75% Grass cover, Good, HSG D
	14,552	97	Weighted Average
	1,128		7.75% Pervious Area
	13,424		92.25% Impervious Area

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

Subcatchment PR-1A: Drainage Area 1



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Type III 24-hr 25yr Storm Rainfall=6.40"

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Page 6

Summary for Subcatchment PR-1B: Drainage Area 1

Runoff = 1.10 cfs @ 12.05 hrs, Volume= 3,521 cf, Depth> 5.92"

Routed to Pond D-1 : Underground Detention

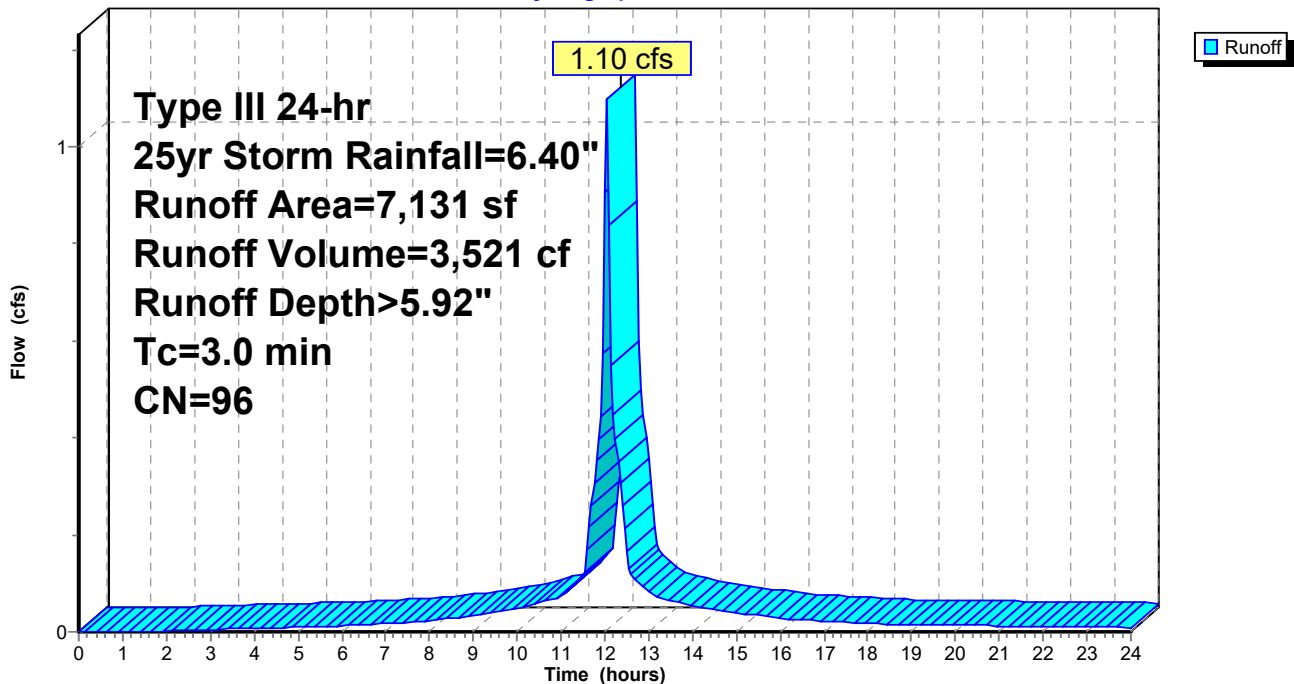
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25yr Storm Rainfall=6.40"

	Area (sf)	CN	Description
*	5,958	98	Proposed Driveway & Parking Area
*	300	98	Proposed Amenity Area
*	72	98	Proposed Walks & Stairs
	801	80	>75% Grass cover, Good, HSG D
	7,131	96	Weighted Average
	801		11.23% Pervious Area
	6,330		88.77% Impervious Area

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

Subcatchment PR-1B: Drainage Area 1

Hydrograph



50 Post Road West - Drainage

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Type III 24-hr 25yr Storm Rainfall=6.40"

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Page 7

Summary for Subcatchment PR-1C: Drainage Area 1

Runoff = 0.44 cfs @ 12.05 hrs, Volume= 1,434 cf, Depth> 6.16"

Routed to Pond INF-2 : Underground Detention

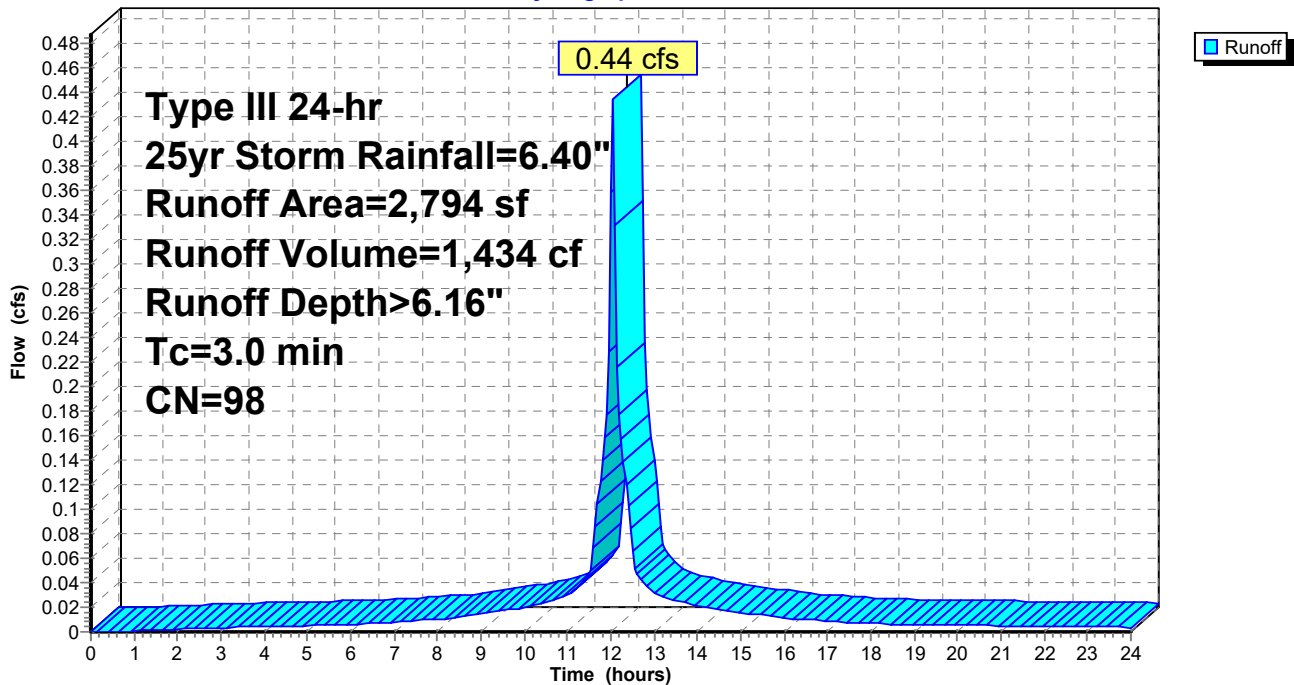
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr 25yr Storm Rainfall=6.40"

Area (sf)	CN	Description
* 2,794	98	Proposed Building Roof Area
2,794		100.00% Impervious Area

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

Subcatchment PR-1C: Drainage Area 1

Hydrograph



50 Post Road West - Drainage

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Type III 24-hr 25yr Storm Rainfall=6.40"

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Page 8

Summary for Subcatchment PR-1D: Drainage Area 1

Runoff = 1.91 cfs @ 12.15 hrs, Volume= 7,107 cf, Depth> 4.35"
 Routed to Link PR-POC-1 : Post Road

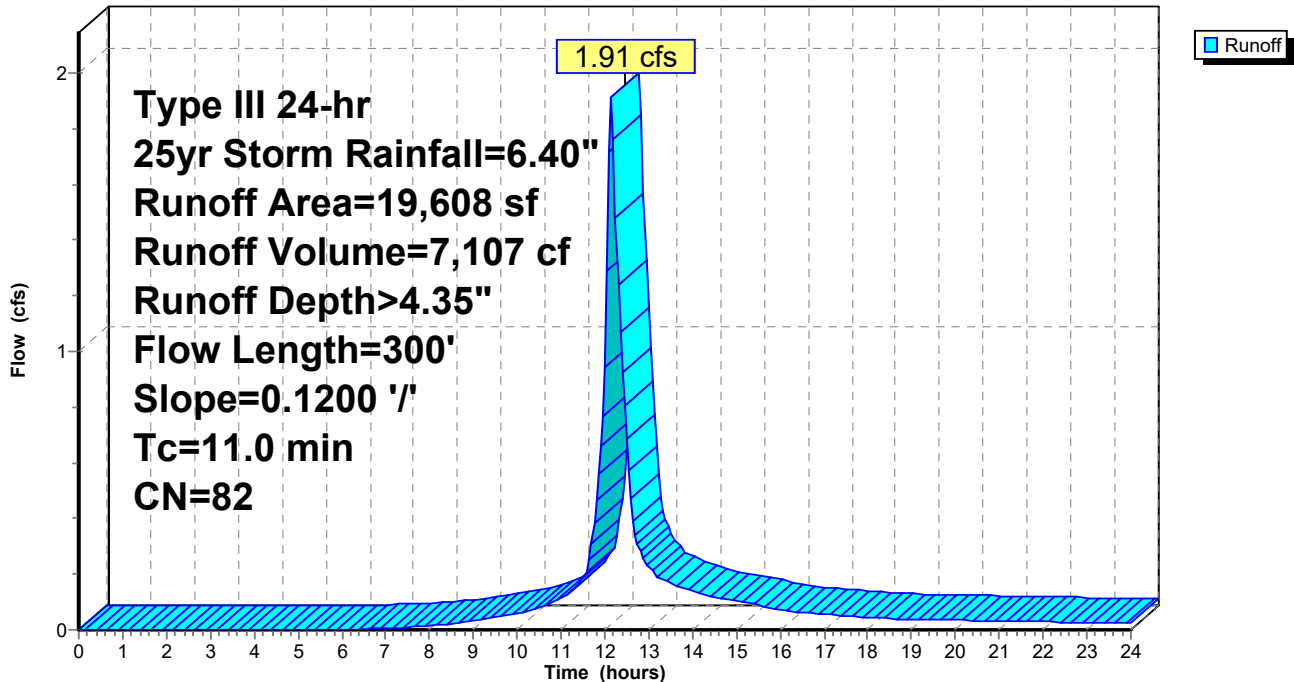
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Type III 24-hr 25yr Storm Rainfall=6.40"

	Area (sf)	CN	Description
*	1,726	98	Proposed Walks & Stairs
*	318	98	Existing Walks & Stairs To Remain
	17,564	80	>75% Grass cover, Good, HSG D
	19,608	82	Weighted Average
	17,564		89.58% Pervious Area
	2,044		10.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.0	300	0.1200	0.45		Sheet Flow, Grass: Short n= 0.150 P2= 3.50"

Subcatchment PR-1D: Drainage Area 1

Hydrograph



50 Post Road West - Drainage

Type III 24-hr 25yr Storm Rainfall=6.40"

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Page 9

Summary for Pond D-1: Underground Detention

Inflow Area = 7,131 sf, 88.77% Impervious, Inflow Depth > 5.92" for 25yr Storm event
 Inflow = 1.10 cfs @ 12.05 hrs, Volume= 3,521 cf
 Outflow = 0.12 cfs @ 12.62 hrs, Volume= 3,504 cf, Atten= 89%, Lag= 34.4 min
 Primary = 0.12 cfs @ 12.62 hrs, Volume= 3,504 cf
 Routed to Pond INF-1 : Underground Detention

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 55.56' @ 12.62 hrs Surf.Area= 1,344 sf Storage= 1,460 cf

Plug-Flow detention time= 127.7 min calculated for 3,496 cf (99% of inflow)
 Center-of-Mass det. time= 124.3 min (878.2 - 753.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.30'	0 cf	24.00'W x 56.00'L x 3.67'H Field A 4,928 cf Overall - 4,928 cf Embedded = 0 cf x 40.0% Voids
#2A	54.30'	3,488 cf	retain_it retain_it 3.0' x 21 Inside #1 Inside= 84.0"W x 36.0"H => 21.33 sf x 8.00'L = 170.6 cf Outside= 96.0"W x 44.0"H => 29.33 sf x 8.00'L = 234.7 cf 3 Rows adjusted for 94.4 cf perimeter wall
		3,488 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.20'	6.0" Round Culvert L= 8.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.20' / 53.80' S= 0.0500 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#2	Device 1	54.20'	2.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	55.60'	4.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=0.12 cfs @ 12.62 hrs HW=55.56' (Free Discharge)

- ↑ **1=Culvert** (Passes 0.12 cfs of 0.78 cfs potential flow)
- ↑ **2=Orifice/Grate** (Orifice Controls 0.12 cfs @ 5.43 fps)
- ↑ **3=Sharp-Crested Rectangular Weir** (Controls 0.00 cfs)

50 Post Road West - Drainage

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Type III 24-hr 25yr Storm Rainfall=6.40"

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Page 10

Pond D-1: Underground Detention - Chamber Wizard Field A

Chamber Model = retain_it retain_it 3.0' (retain-it@)

Inside= 84.0"W x 36.0"H => 21.33 sf x 8.00'L = 170.6 cf

Outside= 96.0"W x 44.0"H => 29.33 sf x 8.00'L = 234.7 cf

3 Rows adjusted for 94.4 cf perimeter wall

7 Chambers/Row x 8.00' Long = 56.00' Row Length

3 Rows x 96.0" Wide = 24.00' Base Width

44.0" Chamber Height = 3.67' Field Height

4.7 cf Sidewall x 7 x 2 + 4.7 cf Endwall x 3 x 2 = 94.4 cf Perimeter Wall

21 Chambers x 170.6 cf - 94.4 cf Perimeter wall = 3,488.4 cf Chamber Storage

21 Chambers x 234.7 cf = 4,928.0 cf Displacement

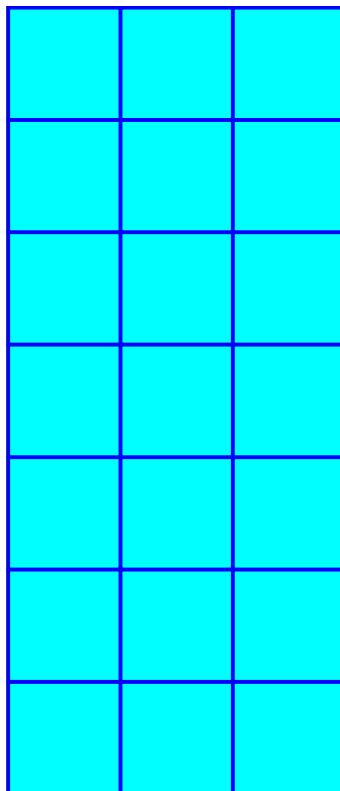
Chamber Storage = 3,488.4 cf = 0.080 af

Overall Storage Efficiency = 70.8%

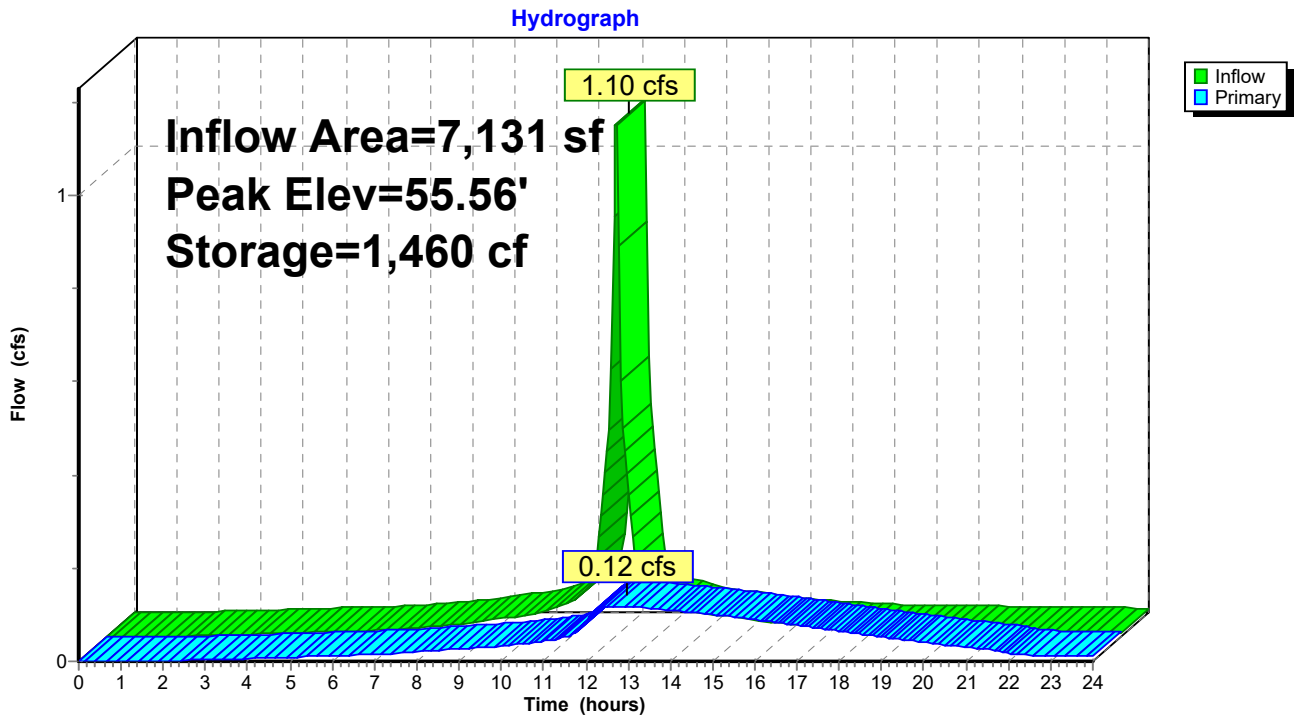
Overall System Size = 56.00' x 24.00' x 3.67'

21 Chambers

182.5 cy Field



Pond D-1: Underground Detention



50 Post Road West - Drainage

Type III 24-hr 25yr Storm Rainfall=6.40"

Prepared by Land-Tech Consultant

Printed 11/19/2025

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Page 12

Summary for Pond INF-1: Underground Detention

Inflow Area = 24,477 sf, 92.12% Impervious, Inflow Depth > 7.44" for 25yr Storm event
 Inflow = 2.40 cfs @ 12.05 hrs, Volume= 15,168 cf, Incl. 0.05 cfs Base Flow
 Outflow = 0.25 cfs @ 12.40 hrs, Volume= 10,919 cf, Atten= 90%, Lag= 21.2 min
 Discarded = 0.16 cfs @ 9.45 hrs, Volume= 10,898 cf
 Primary = 0.09 cfs @ 12.40 hrs, Volume= 21 cf
 Routed to Link PR-POC-1 : Post Road

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 44.37' @ 12.40 hrs Surf.Area= 1,676 sf Storage= 3,518 cf

Plug-Flow detention time= 205.5 min calculated for 10,916 cf (72% of inflow)
 Center-of-Mass det. time= 66.9 min (836.9 - 770.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	39.50'	1,565 cf	11.00'W x 152.35'L x 3.50'H Field A 5,865 cf Overall - 1,953 cf Embedded = 3,913 cf x 40.0% Voids
#2A	40.00'	1,953 cf	Cultec R-300HD x 42 Inside #1 Effective Size= 45.6"W x 30.0"H => 6.53 sf x 7.08'L = 46.2 cf Overall Size= 51.0"W x 30.0"H x 7.54'L with 0.46' Overlap 42 Chambers in 2 Rows Cap Storage= 2.7 cf x 2 x 2 rows = 10.6 cf
		3,518 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	39.50'	4.000 in/hr Exfiltration over Surface area
#2	Primary	44.30'	12.0" W x 240.0" H Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.16 cfs @ 9.45 hrs HW=39.75' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.16 cfs)

Primary OutFlow Max=0.06 cfs @ 12.40 hrs HW=44.37' (Free Discharge)
 ↑2=Orifice/Grate (Orifice Controls 0.06 cfs @ 0.86 fps)

50 Post Road West - Drainage

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Type III 24-hr 25yr Storm Rainfall=6.40"

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Page 13

Pond INF-1: Underground Detention - Chamber Wizard Field A

Chamber Model = Cultec R-300HD (Cultec Recharger® 300HD)

Effective Size= 45.6"W x 30.0"H => 6.53 sf x 7.08'L = 46.2 cf

Overall Size= 51.0"W x 30.0"H x 7.54'L with 0.46' Overlap

Cap Storage= 2.7 cf x 2 x 2 rows = 10.6 cf

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

21 Chambers/Row x 7.08' Long +0.80' Cap Length x 2 = 150.35' Row Length +12.0" End Stone x 2 = 152.35' Base Length

2 Rows x 51.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 11.00' Base Width

6.0" Stone Base + 30.0" Chamber Height + 6.0" Stone Cover = 3.50' Field Height

42 Chambers x 46.2 cf + 2.7 cf Cap Volume x 2 x 2 Rows = 1,952.8 cf Chamber Storage

5,865.5 cf Field - 1,952.8 cf Chambers = 3,912.7 cf Stone x 40.0% Voids = 1,565.1 cf Stone Storage

Chamber Storage + Stone Storage = 3,517.9 cf = 0.081 af

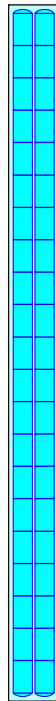
Overall Storage Efficiency = 60.0%

Overall System Size = 152.35' x 11.00' x 3.50'

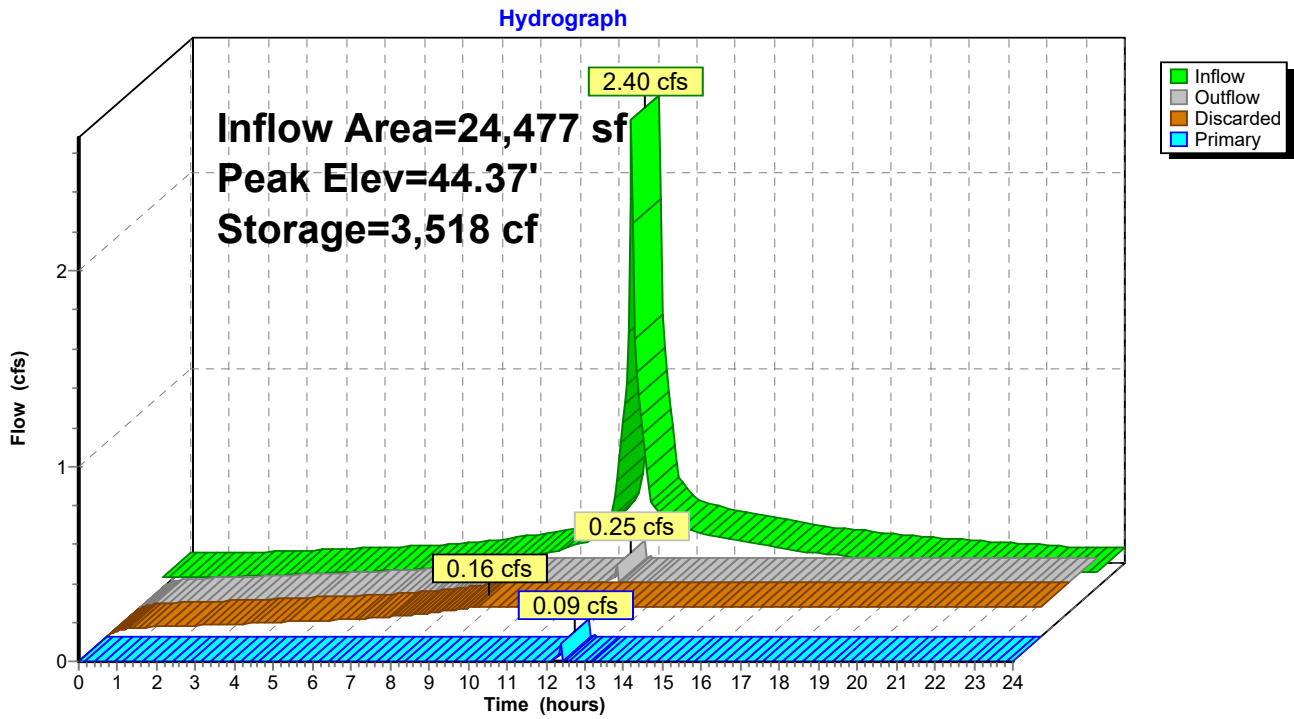
42 Chambers

217.2 cy Field

144.9 cy Stone



Pond INF-1: Underground Detention



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Page 15

Summary for Pond INF-2: Underground Detention

Inflow Area = 2,794 sf, 100.00% Impervious, Inflow Depth > 24.75" for 25yr Storm event
 Inflow = 0.49 cfs @ 12.05 hrs, Volume= 5,763 cf, Incl. 0.05 cfs Base Flow
 Outflow = 0.09 cfs @ 12.21 hrs, Volume= 4,647 cf, Atten= 82%, Lag= 9.6 min
 Discarded = 0.05 cfs @ 3.90 hrs, Volume= 4,638 cf
 Primary = 0.03 cfs @ 12.21 hrs, Volume= 8 cf

Routed to Pond INF-1 : Underground Detention

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 2
 Peak Elev= 78.89' @ 12.22 hrs Surf.Area= 583 sf Storage= 628 cf

Plug-Flow detention time= 131.6 min calculated for 4,645 cf (81% of inflow)
 Center-of-Mass det. time= 0.1 min (725.4 - 725.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	76.25'	375 cf	8.33'W x 70.00'L x 2.04'H Field A 1,191 cf Overall - 253 cf Embedded = 938 cf x 40.0% Voids
#2A	76.75'	253 cf	Cultec C-100HD x 18 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 2 rows
		628 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	76.25'	4.000 in/hr Exfiltration over Surface area
#2	Primary	78.80'	6.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.05 cfs @ 3.90 hrs HW=76.28' (Free Discharge)

↑**1=Exfiltration** (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.03 cfs @ 12.21 hrs HW=78.83' (Free Discharge)

↑**2=Orifice/Grate** (Weir Controls 0.03 cfs @ 0.57 fps)

50 Post Road West - Drainage

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Type III 24-hr 25yr Storm Rainfall=6.40"

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Page 16

Pond INF-2: Underground Detention - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)

Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf

Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap

Row Length Adjustment= +0.50' x 1.86 sf x 2 rows

36.0" Wide + 4.0" Spacing = 40.0" C-C Row Spacing

9 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 68.00' Row Length +12.0" End Stone x 2 = 70.00' Base Length

2 Rows x 36.0" Wide + 4.0" Spacing x 1 + 12.0" Side Stone x 2 = 8.33' Base Width

6.0" Stone Base + 12.5" Chamber Height + 6.0" Stone Cover = 2.04' Field Height

18 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 2 Rows = 253.2 cf Chamber Storage

1,191.0 cf Field - 253.2 cf Chambers = 937.8 cf Stone x 40.0% Voids = 375.1 cf Stone Storage

Chamber Storage + Stone Storage = 628.3 cf = 0.014 af

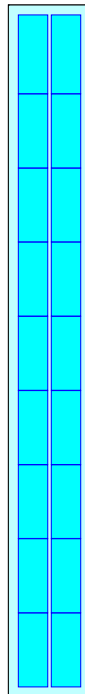
Overall Storage Efficiency = 52.8%

Overall System Size = 70.00' x 8.33' x 2.04'

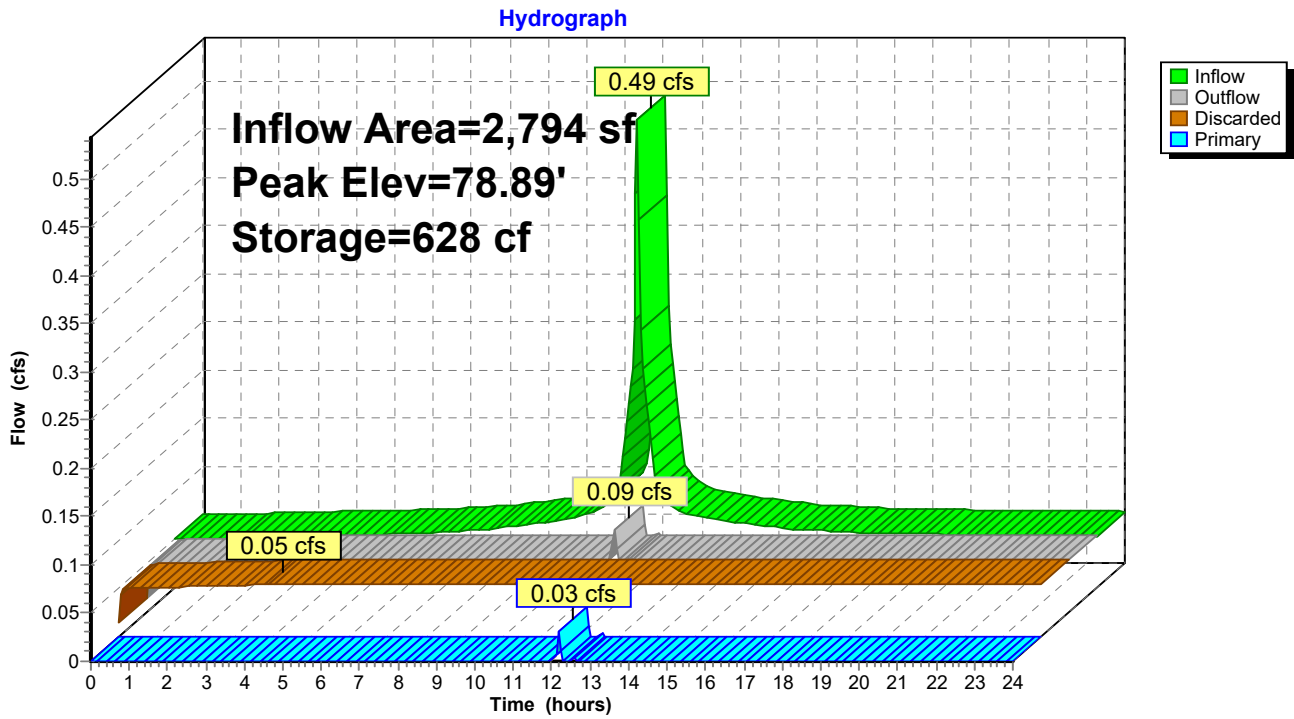
18 Chambers

44.1 cy Field

34.7 cy Stone



Pond INF-2: Underground Detention



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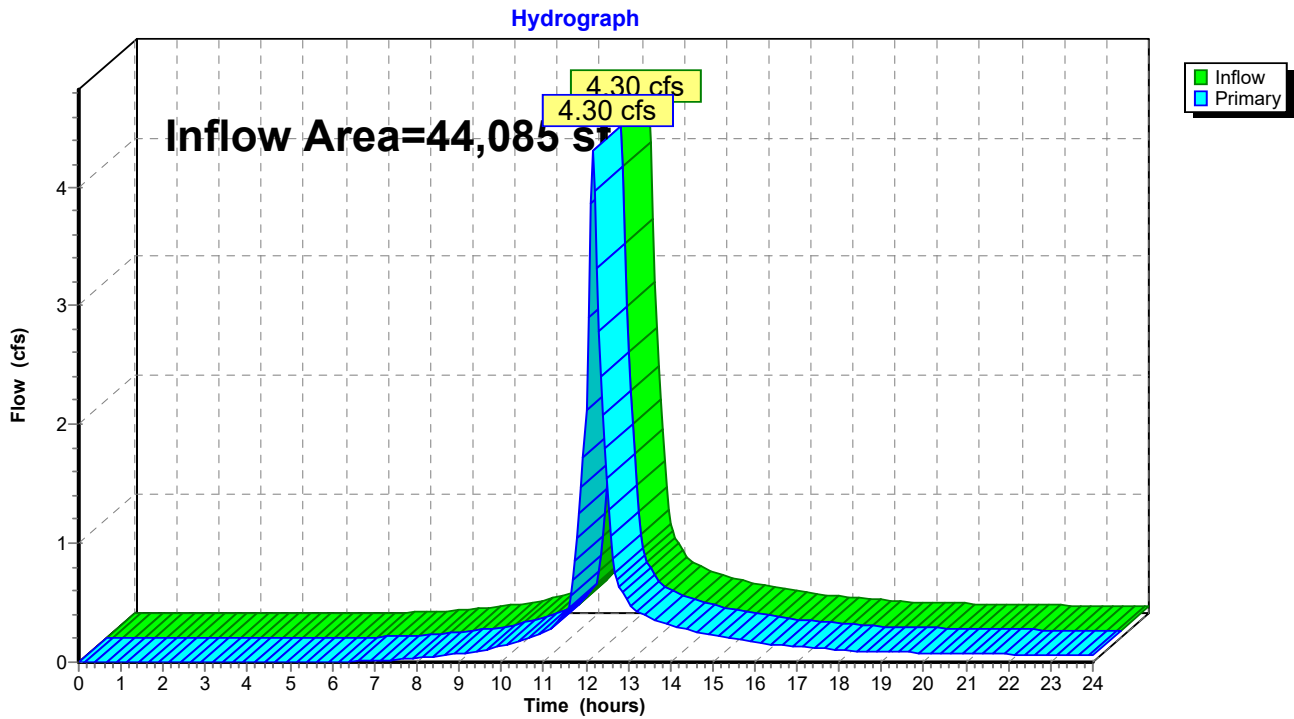
Page 18

Summary for Link EX-POC-1: Post Road

Inflow Area = 44,085 sf, 8.81% Impervious, Inflow Depth > 4.35" for 25yr Storm event
Inflow = 4.30 cfs @ 12.15 hrs, Volume= 15,978 cf
Primary = 4.30 cfs @ 12.15 hrs, Volume= 15,978 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link EX-POC-1: Post Road



50 Post Road West - Drainage

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Type III 24-hr 25yr Storm Rainfall=6.40"

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Page 19

Summary for Link PR-POC-1: Post Road

Inflow Area = 44,085 sf, 55.78% Impervious, Inflow Depth > 1.94" for 25yr Storm event
Inflow = 1.91 cfs @ 12.15 hrs, Volume= 7,127 cf
Primary = 1.91 cfs @ 12.15 hrs, Volume= 7,127 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs

Link PR-POC-1: Post Road

