

DRAINAGE REPORT

FOR

15 GREAT PASTURE ROAD

Prepared for

Eppoliti Industrial Realty, Inc.

**15 Great Pasture Road
Danbury, CT**

July 8, 2025



**CCA, LLC
40 Old New Milford Road
Brookfield, CT**



Steven C. Sullivan, P.E.

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GENERAL

A. SITE DESCRIPTION:

The site is located on the west side of Great Pasture Road between Shelter Rock Lane and the Danbury-Bethel town line, at Wooster Street, in the IL-40 Light Industrial zone. It consists of assessor's parcel MBLU L16-005 and is 11.854 acres on the Danbury side. The site straddles the town line with an additional 2.2 acre parcel MBLU 20-40-01, in the I Industrial zone, on the Bethel side. The majority of the site is in the City of Danbury. The site is developed and contains an existing 1-story industrial building with associated parking and loading areas. The existing building and infrastructure will remain. An existing cell tower and enclosure southwest of the existing building is to remain. An existing steel frame building to the south is to be demolished. The Bethel parcel is vacant and wooded. The site is accessed by a two-way driveway to the north on Great Pasture Road and a two-way driveway to the south at Great Pasture Road/Wooster Street. Sympaug Brook with an adjacent wetland area and 100 year flood plain borders the west side of the site. The FEMA 100 year floodplain is at elevation 358.5. Much of the proposed development is located within the existing developed areas with expansion to the west and the south. The site has municipal water available in Great Pasture Road and municipal stormwater and sanitary sewer systems available in Bethel.

B. PROJECT DESCRIPTION:

This project is for 4 additional proposed 1-story industrial buildings on Great Pasture Road, with associated parking and loading. One of these proposed buildings will be located on the Bethel side of the town line. The existing 74,442 s.f. building is to remain. An additional 50,675 s.f. is proposed in Danbury and 9,750 s.f. in Bethel. Access to property will be from both existing two-way driveway. The total amount of parking on the Danbury parcel will be 271 spaces. The total amount of proposed parking on the adjacent Bethel parcel is 15 spaces. The amount of wetlands disturbed is 0 acres. The amount of Upland Review Area disturbance is 0.88 acres. The material to be excavated is mostly disturbed upland soils, gravel, and pavement. All site improvements associated with the development are shown on the site development plan set. The proposed buildings will connect to the municipal water and sanitary sewer systems. The existing impervious surface on the Danbury parcel is 38.5% and the proposed impervious surface is 55.2%. The existing impervious surface on the Bethel parcel is 0.02% and the proposed impervious surface is 38.9%.

SOILS

Please refer to the On-Site Sil Investigation Report prepared by JMM Wetland Consulting in the Appendix. We conducted field soil permeability testing and found an average rate of 1.58 inches per hour. The exfiltration rates used in our design were 0.80 inches per hour which has a 2.0 factor of safety compared to the rates obtained in the field.

STORMWATER MANAGEMENT

DESIGN OBJECTIVES:

The project storm water management is accomplished by integrating the following functions:

1. Provide a storm water collection system consisting of catch basins and culverts.
2. Provide storm water quality measures in order to reduce pollutant loadings and minimize development impacts through the use of catch basin sumps, hydrodynamic separators, and stormwater basins for water quality volume infiltration. The Hydrodynamic separators will be designed to remove a minimum of 80% total suspended solids.
3. Provide storm water detention systems to attenuate the increase in peak flows.

DESIGN CRITERIA:

Design Storms:

Hydrodynamic Separators	Water Quality Flow
In-street piping system	25-year
Stormwater Detention Systems	25-year

Note: All piping drainage has been designed utilizing Rational Method with the NOAA Atlas 14 precipitation data. The pre and post development analysis utilizes the SCS TR-20 method with NOAA Atlas 14 precipitation data for the site.

DRAINAGE NARRATIVE:

The site's drainage patterns run in the easterly and westerly direction. Most of the site runoff flows overland to Great Pasture Road and Sympaug Brook. The topography of the site is flat to steeply sloping and the drainage area analyzed is approximately 11 acres. There are existing drainage systems on the site that convey runoff from the existing developed property to Great Pasture Road. The FEMA 100 year floodplain is at elevation 358.5.

The proposed drainage patterns are generally the same as the existing patterns. The proposed drainage systems will discharge to the existing drainage system in Great Pasture Road and to four discharge points along the west side of the property. The discharge points on the west side will be protected with modified riprap preformed scour holes. The proposed velocity from the flared ends will be less than 15 fps. The riprap preformed scour holes are adequate energy dissipaters for velocities over 15 fps.

Our pre and post analysis shows that there is an increase in peak flow for the 25 year storm event. Therefore, we are proposing several vegetated stormwater basins and one underground Cultec gallery system. Therefore, the post development peak flow rates will be less than the pre-development peak flow rates.

DRAINAGE SYSTEM DESCRIPTION:

In order to accomplish the above a series of catch basins are proposed to collect storm water along gutters and at low points in the site. The culverts are appropriately sized to convey the runoff for a 25-year storm

event using accepted hydraulic design supported by computer analysis. The catch basin sumps provide the first treatment of the runoff by capturing the coarse sediments within the runoff.

HYDRODYNAMIC SEPARATORS:

The Hydrodynamic separators are designed to remove many of the pollutants associated with parking area runoff including sand, silt, metals, and oils. Hydrodynamic separators are considered acceptable “best management practices” or BMP’s by the Connecticut DEEP and are frequently part of an engineered storm water management plan. The Hydrodynamic separators and catch basins also significantly reduce the maintenance requirements for the detention system by removing the majority of sand and silt.

SUMMARY OF PEAK FLOWS:

Design Storm-DA #1	Pre-Development (c.f.s.)	Post-Development (c.f.s.)
25 Year	31.92	22.35

Design Storm-DA #2	Pre-Development (c.f.s.)	Post-Development (c.f.s.)
25 Year	21.94	19.81

CONCLUSION:

The development meets the design criteria and provides a comprehensive stormwater management plan that incorporates best management practices to reduce impacts and protect the environment. Based upon the analysis performed, CCA believes that through implementation of the recommended engineered stormwater management system and periodic maintenance, the proposed development will not adversely impact the downstream areas.

APPENDIX



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REPORT DATE: January 24, 2025
PAGE 1 OF 3

ON-SITE SOIL INVESTIGATION REPORT

PROJECT NAME & SITE LOCATION:
Project Site
15 Great Pasture Road
Danbury, Connecticut

JMM Job No.: 24-3603-DAN-7
Field Investigation Date(s): 10/29/2024
Field Investigation Method(s):
 Spade and Auger
 Backhoe Test Pits
 Other: _____

REPORT PREPARED FOR:
Mr. Michael Eppoliti
Eppoliti Industrial Realty
37 Danbury Road
Ridgefield, CT 06877

Field Conditions:
Weather: Cloudy, 50's
Soil Moisture: Moist
Snow Depth: N/A
Frost Depth: N/A

Purpose of Investigation:
 Wetland Delineation/Flagging in Field
 Wetland Mapping on Sketch Plan or Topographic Plan
 High Intensity Soil Mapping by Soil Scientist
 Medium Intensity Soil Mapping from USDA-NRCS Web Soil Survey Maps
 Other: _____

Base Map Source: USDA-NRCS Web Soil Survey (attached)

Wetland Boundary Marker Series: JMM-1 to JMM-37

General Site Description/Comments: The site is located on the west side of Great Pasture Road, in Danbury, CT. The majority of the site is in the City of Danbury (+/1 11.8-acres) while the remainder is located within the Town of Bethel (+/- 2.2-acres). Currently the site is comprised of an existing industrial building, paved/gravel parking areas and drives, storage areas, maintained lawn, landscaped areas, weedy areas, forested upland areas, and forested and shallow marsh wetland areas, which includes a perennial watercourse (see Figure 1, attached). The soil types were found to be disturbed throughout the upland areas and a mix of undisturbed and disturbed soils within the regulated wetlands. The undisturbed soils are derived from glacial outwash (i.e., stratified sand and gravel) deposits and organic (i.e., peat and muck) deposits. The disturbed upland soils are comprised of the Udorthents-Urban Land (306) mapping complex. The undisturbed wetland soils were identified as the poorly drained Raypole (12) soil series and the very poorly drained Timakwa (17) soil series. Any disturbed wetland soils were mapped as the Aquents (308w) mapping unit. The regulated areas associated with the site consist of a perennial watercourse, namely Sympaug Brook and its associated wood swamp and large shallow marsh wetland areas located along the western portion of the overall site (JMM-#-series). It is worth noting that the wetland boundary follows an abrupt to very abrupt line throughout. Typical vegetation observed within the regulated areas included such species as red maple, American elm, weeping willow, spicebush, Japanese barberry, multiflora rose, highbush blueberry, willows, honeysuckle, skunk cabbage, sedges, common reed, goldenrods, Asiatic bittersweet, and poison ivy, to name a few.

ON-SITE SOIL INVESTIGATION REPORT (CONTINUED)

PROJECT NAME & SITE LOCATION: Project Site
15 Great Pasture Road, Danbury, CT

SOIL MAP UNITS**Wetland Soils**

Raypol silt loam (12). This series consists of deep, poorly drained soils formed in a coarse-loamy mantle underlain by sandy water deposited glacial outwash materials. They are nearly level and gently sloping soils on outwash plains and high stream terraces. The soils formed in loamy over stratified sandy and gravelly glacial outwash derived mainly from acid rocks. Typically, these soils have very dark brown, silt loam Ap horizons, grayish brown and dark yellowish brown, mottled, silt loam and very fine sandy loam B2 horizons over light olive brown, mottled gravelly sand IIC horizons at a depth of 29 inches.

Timakwa muck (17). The Timakwa series consists of very poorly drained soils formed in organic materials 16-50 inches thick overlying sand deposits. Timakwa soils are in extinct lake and pond basins, primarily within outwash plains. Basins range from nearly an acre to several hundred acres in size. Slope gradients are less than 2 percent. Adjacent upland soils are generally sandy. Typically, these soils have a black muck layer that is 33 inches thick. The substratum to a depth of 60 inches is gray, loose sand.

Aquents (308w). This soil map unit consists of poorly drained and very poorly drained disturbed land areas. They are most often found on landscapes, which have been subject to prior filling and/or excavation activities. In general, this soil map unit occurs where two or more feet of the original soil surface has been filled over, graded or excavated. The *Aquents* are characterized by a seasonal to prolonged high ground water table and either support or are capable of supporting wetland vegetation. *Aquents* are recently formed soils, which have an aquic moisture regime. An aquic moisture regime is associated with a reducing soil environment that is virtually free of dissolved oxygen because the soil is saturated by groundwater or by water of the capillary fringe. The key feature is the presence of a ground water table at or very near to the soil surface for a period of fourteen days or longer during the growing season.

Upland Soils

Udorthents-Urban Land complex (306). This soil mapping unit consists of well drained to moderately well drained soils that have been altered by cutting, filling, or grading. The areas either have had two feet or more of the upper part of the original soil removed or have more than two feet of fill material on top of the original soil. Udorthents-Urban Land or Made Land soils can be found on any soil parent material but are typically fluvial on glacial till plains and outwash plains and stream terraces.

ON-SITE SOIL INVESTIGATION REPORT (CONTINUED)

PROJECT NAME & SITE LOCATION: Project Site
15 Great Pasture Road, Danbury, CT

SOIL MAP UNITS

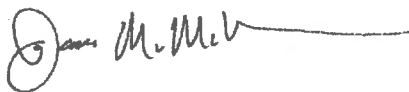
See previous page

Any accompanying soil logs and soil maps, and the on-site soil investigation narrative are in accordance with the taxonomic classification of the National Cooperative Soil Survey of the USDA Natural Resource Conservation Service, and with the Connecticut Soil Legend (DEP Bulletin No.5, 1983). Jurisdictional wetland boundaries were delineated pursuant to the Connecticut General Statutes (CGS Sections 22a-36 to 22a-45), as amended. The site investigation was conducted and/or reviewed by the undersigned Registered Soil Scientist(s) [registered with the Society of Soil Scientists of Southern New England (SSSSNE) in accordance with the standards of the Federal Office of Personnel Management].

All wetland boundary lines established by the undersigned Soil Scientist are subject to change until officially adopted by, local, state, and federal regulatory agencies.

Respectfully submitted,

JMM WETLAND CONSULTING SERVICES, LLC



James M. McManus, MS, CPSS
Certified Professional Soil Scientist
Field Investigator/Reviewer



FIGURE 1: 15 Great Pasture Road

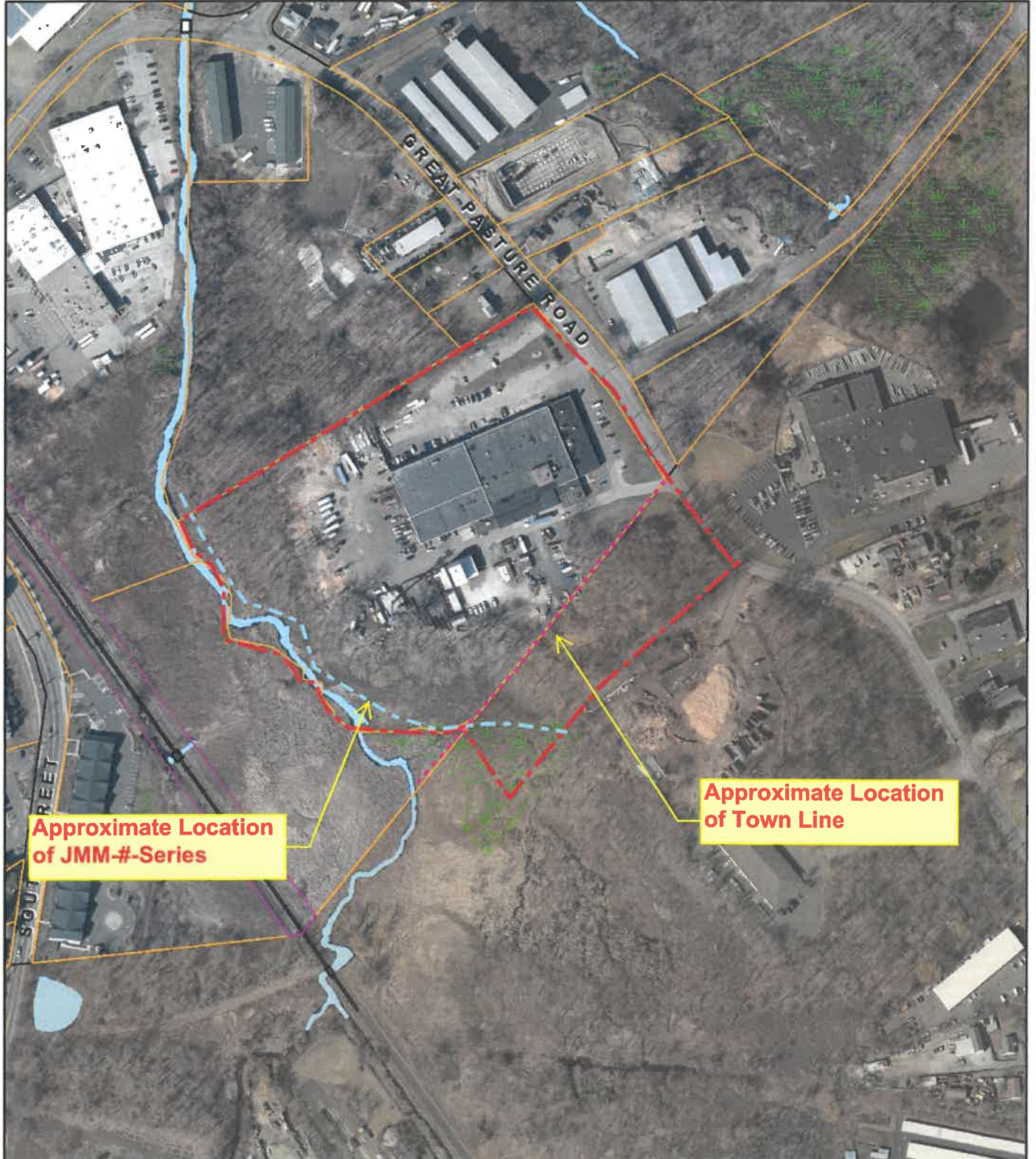
City of Danbury, CT

1 inch = 283 Feet



www.cai-tech.com

January 24, 2025

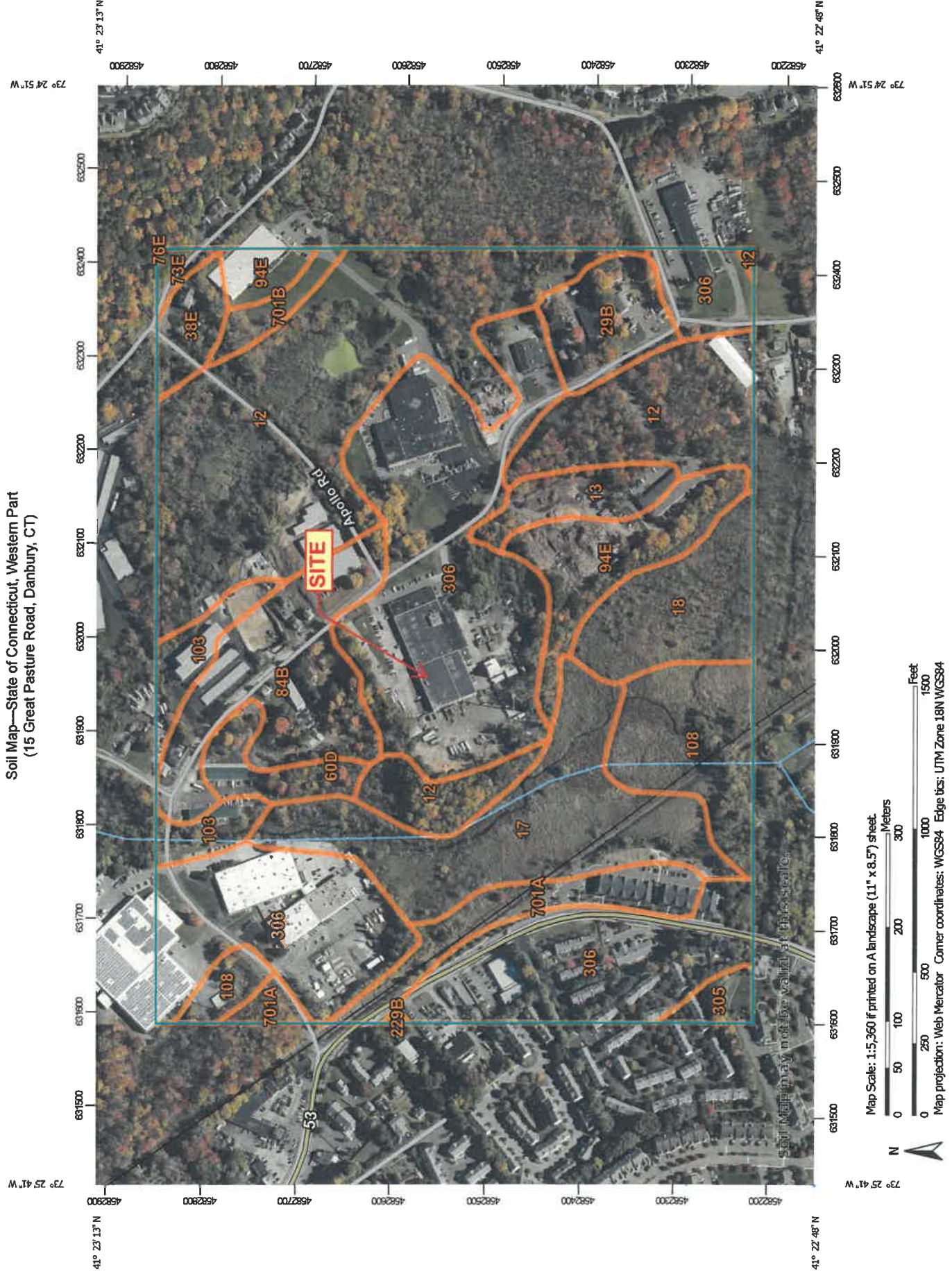


Approximate Location of JMM-#-Series

Approximate Location of Town Line

Data shown on this map is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this map.

Soil Map—State of Connecticut, Western Part
 (15 Great Pasture Road, Danbury, CT)








































Map Scale: 1:5,360 if printed on A landscape (11" x 8.5") sheet.

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Soil Maps may not be valid at this scale.

MAP LEGEND

-  Area of Interest (AOI)
-  Area of Interest (AOI)
- Soils**
-  Soil Map Unit Polygons
-  Soil Map Unit Lines
-  Soil Map Unit Points
- Special Point Features**
-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features
- Water Features**
-  Streams and Canals
- Transportation**
-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads
- Background**
-  Aerial Photography

MAP INFORMATION

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

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 1, Sep 15, 2023

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.

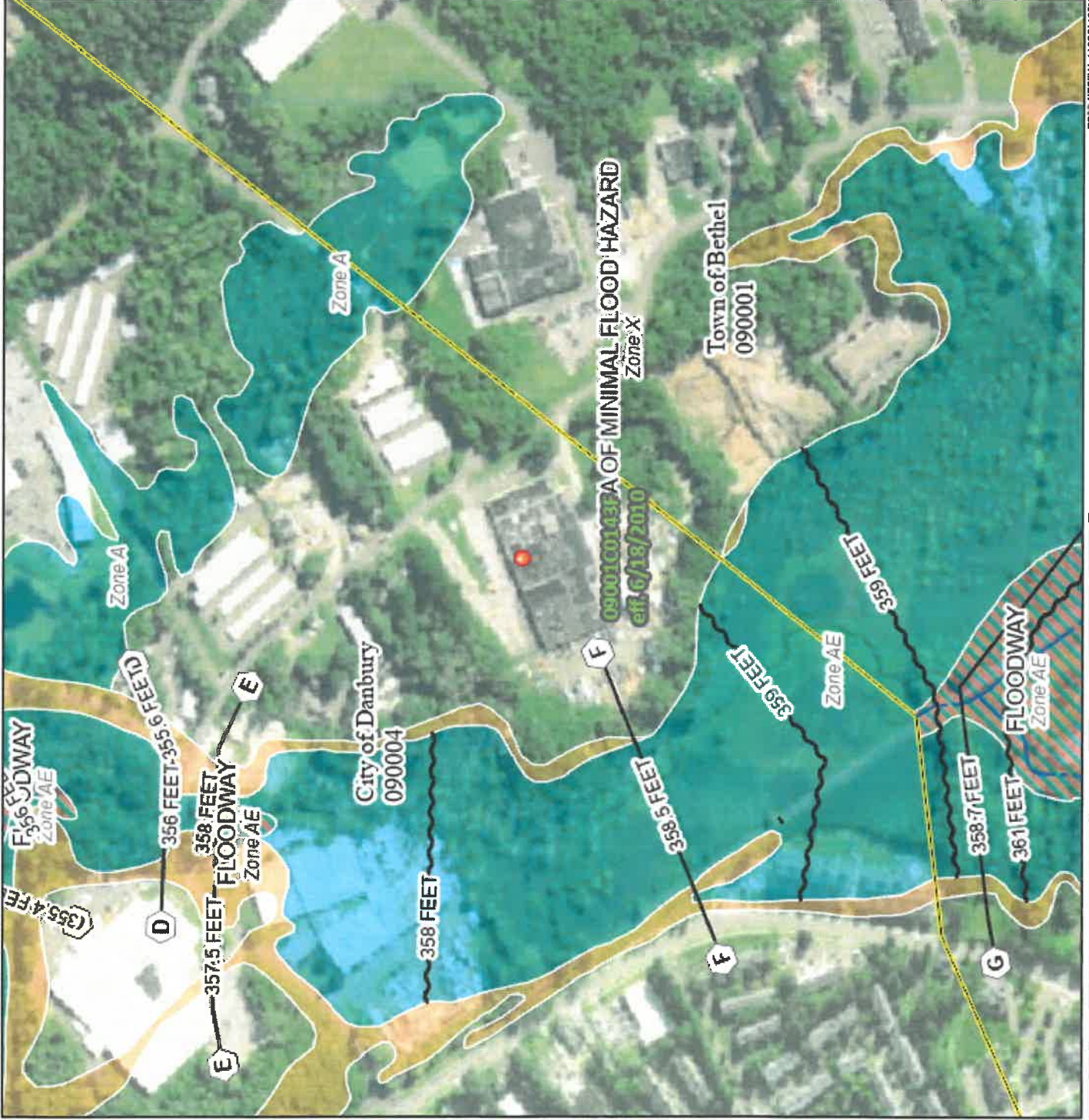
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
12	Raypol silt loam, 0 to 3 percent slopes	30.8	23.7%
13	Walpole sandy loam, 0 to 3 percent slopes	2.5	2.0%
17	Timakwa and Natchaug soils, 0 to 2 percent slopes	11.9	9.2%
18	Catden and Freetown soils, 0 to 2 percent slopes	5.5	4.3%
29B	Agawam fine sandy loam, 3 to 8 percent slopes	3.6	2.7%
38E	Hinckley loamy sand, 15 to 45 percent slopes	1.8	1.4%
60D	Canton and Charlton soils, 15 to 25 percent slopes	2.2	1.7%
73E	Charlton-Chatfield complex, 15 to 45 percent slopes, very rocky	0.5	0.4%
76E	Rock outcrop-Hollis complex, 3 to 45 percent slopes	0.0	0.0%
84B	Paxton and Montauk fine sandy loams, 3 to 8 percent slopes	8.8	6.8%
94E	Farmington-Nellis complex, 15 to 35 percent slopes, very rocky	6.2	4.8%
103	Rippowam fine sandy loam	3.1	2.4%
108	Saco silt loam, frequently ponded, 0 to 2 percent slopes, frequently flooded	7.0	5.4%
229B	Agawam-Urban land complex, 0 to 8 percent slopes	0.1	0.0%
305	Udorthents-Pits complex, gravelly	1.0	0.7%
306	Udorthents-Urban land complex	39.1	30.1%
701A	Ninigret fine sandy loam, 0 to 3 percent slopes	4.6	3.5%
701B	Ninigret fine sandy loam, 3 to 8 percent slopes	1.2	0.9%
Totals for Area of Interest		129.9	100.0%

National Flood Hazard Layer FIRMette
































73°25'36"W 41°23'15"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

	SPECIAL FLOOD HAZARD AREAS
	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth Zone AE, AO, AH, VE, AR
	Regulatory Floodway
	0.2% Annual Chance Flood Hazard, Area of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile (Zone X)
	Future Conditions 1% Annual Chance Flood Hazard (Zone X)
	Area with Reduced Flood Risk due to Levee. See Notes, Zone X
	Area with Flood Risk due to Levee (Zone D)
	OTHER AREAS OF FLOOD HAZARD
	NO SCREEN
	Area of Minimal Flood Hazard (Zone X)
	Effective LOMRs
	Area of Undetermined Flood Hazard (Zone X)
	GENERAL STRUCTURES
	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
	OTHER FEATURES
	Cross Sections with 1% Annual Chance Water Surface Elevation
	Coastal Transect
	Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	MAP PANELS
	Digital Data Available
	No Digital Data Available
	Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/2/2025 at 8:17 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



NOAA Atlas 14, Volume 10, Version 3
Location name: Danbury, Connecticut, USA*
Latitude: 41.3837°, Longitude: -73.4214°
Elevation: 388 ft**
 * source: ESRI Maps
 ** source: USGS



POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sandra Pavlovic, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Orfan Wilhite

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerals](#)

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)¹										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.357 (0.275-0.458)	0.417 (0.321-0.535)	0.515 (0.396-0.663)	0.597 (0.456-0.771)	0.709 (0.525-0.943)	0.794 (0.575-1.07)	0.881 (0.620-1.22)	0.974 (0.655-1.38)	1.10 (0.715-1.60)	1.20 (0.763-1.78)
10-min	0.506 (0.390-0.649)	0.591 (0.455-0.758)	0.730 (0.561-0.939)	0.845 (0.646-1.09)	1.00 (0.743-1.34)	1.12 (0.816-1.52)	1.25 (0.878-1.73)	1.38 (0.928-1.95)	1.56 (1.01-2.27)	1.71 (1.08-2.52)
15-min	0.595 (0.459-0.763)	0.695 (0.536-0.892)	0.859 (0.660-1.10)	0.994 (0.760-1.28)	1.18 (0.874-1.57)	1.32 (0.960-1.79)	1.47 (1.03-2.04)	1.62 (1.09-2.30)	1.84 (1.19-2.67)	2.01 (1.27-2.96)
30-min	0.842 (0.650-1.08)	0.977 (0.753-1.25)	1.20 (0.919-1.54)	1.38 (1.06-1.78)	1.63 (1.21-2.17)	1.82 (1.32-2.46)	2.02 (1.42-2.79)	2.23 (1.50-3.15)	2.51 (1.63-3.65)	2.74 (1.73-4.04)
60-min	1.09 (0.840-1.40)	1.26 (0.970-1.61)	1.54 (1.18-1.97)	1.76 (1.35-2.28)	2.08 (1.54-2.77)	2.32 (1.68-3.13)	2.57 (1.80-3.55)	2.83 (1.90-4.00)	3.18 (2.06-4.62)	3.46 (2.19-5.11)
2-hr	1.41 (1.10-1.80)	1.64 (1.27-2.09)	2.01 (1.56-2.57)	2.32 (1.78-2.98)	2.74 (2.05-3.64)	3.06 (2.24-4.13)	3.40 (2.42-4.71)	3.78 (2.55-5.31)	4.32 (2.81-6.24)	4.77 (3.03-7.00)
3-hr	1.62 (1.26-2.06)	1.90 (1.48-2.41)	2.34 (1.82-2.98)	2.71 (2.09-3.47)	3.22 (2.42-4.27)	3.61 (2.65-4.85)	4.01 (2.87-5.57)	4.49 (3.03-6.28)	5.18 (3.37-7.45)	5.77 (3.67-8.42)
6-hr	2.02 (1.58-2.55)	2.40 (1.88-3.03)	3.02 (2.36-3.82)	3.54 (2.75-4.49)	4.24 (3.20-5.59)	4.77 (3.53-6.40)	5.34 (3.85-7.39)	6.02 (4.08-8.38)	7.04 (4.59-10.1)	7.90 (5.04-11.5)
12-hr	2.46 (1.94-3.08)	2.98 (2.35-3.73)	3.83 (3.01-4.81)	4.53 (3.54-5.72)	5.50 (4.18-7.22)	6.22 (4.63-8.31)	7.00 (5.08-9.66)	7.94 (5.40-11.0)	9.36 (6.13-13.3)	10.6 (6.76-15.2)
24-hr	2.88 (2.29-3.59)	3.56 (2.82-4.43)	4.65 (3.68-5.81)	5.66 (4.37-6.97)	6.81 (5.20-8.88)	7.73 (5.79-10.3)	8.73 (6.38-12.0)	9.95 (6.80-13.7)	11.8 (7.76-16.7)	13.4 (8.61-19.2)
2-day	3.30 (2.64-4.08)	4.10 (3.27-5.07)	5.40 (4.30-6.70)	6.49 (5.14-8.08)	7.98 (6.13-10.4)	9.08 (6.85-12.0)	10.3 (7.57-14.1)	11.8 (8.07-16.1)	14.1 (9.27-19.7)	16.1 (10.3-22.9)
3-day	3.59 (2.88-4.43)	4.46 (3.58-5.50)	5.88 (4.70-7.26)	7.05 (5.60-8.75)	8.67 (6.69-11.2)	9.86 (7.46-13.0)	11.2 (8.24-15.2)	12.8 (8.78-17.4)	15.3 (10.1-21.4)	17.5 (11.3-24.7)
4-day	3.86 (3.10-4.74)	4.77 (3.84-5.86)	6.26 (5.02-7.72)	7.50 (5.98-9.28)	9.21 (7.11-11.9)	10.5 (7.93-13.7)	11.8 (8.75-16.1)	13.5 (9.31-18.4)	16.1 (10.7-22.5)	18.4 (11.9-26.0)
7-day	4.58 (3.71-5.60)	5.59 (4.52-6.83)	7.23 (5.82-8.86)	8.59 (6.88-10.6)	10.5 (8.12-13.4)	11.9 (9.01-15.4)	13.4 (9.88-18.0)	15.2 (10.5-20.5)	17.9 (11.9-24.8)	20.3 (13.1-28.5)
10-day	5.31 (4.31-6.46)	6.37 (5.17-7.76)	8.10 (6.55-9.89)	9.54 (7.66-11.7)	11.5 (8.95-14.6)	13.0 (9.88-16.8)	14.6 (10.8-19.4)	16.4 (11.4-22.1)	19.2 (12.7-26.5)	21.5 (13.9-30.1)
20-day	7.55 (6.17-9.13)	8.71 (7.12-10.5)	10.6 (8.64-12.9)	12.2 (9.87-14.9)	14.4 (11.2-18.1)	16.0 (12.2-20.4)	17.7 (13.0-23.2)	19.6 (13.7-26.1)	22.2 (14.8-30.3)	24.2 (15.7-33.7)
30-day	9.41 (7.73-11.3)	10.6 (8.74-12.8)	12.7 (10.4-15.3)	14.4 (11.7-17.4)	16.7 (13.0-20.8)	18.4 (14.1-23.3)	20.2 (14.9-26.2)	22.1 (15.4-29.3)	24.5 (16.4-33.4)	26.4 (17.2-36.5)
45-day	11.7 (9.65-14.0)	13.0 (10.7-15.7)	15.2 (12.5-18.3)	17.0 (13.9-20.6)	19.5 (15.3-24.2)	21.4 (16.4-26.9)	23.3 (17.1-29.9)	25.2 (17.7-33.3)	27.5 (18.5-37.4)	29.2 (19.1-40.4)
60-day	13.6 (11.2-16.3)	15.0 (12.4-18.0)	17.3 (14.3-20.8)	19.2 (15.7-23.2)	21.9 (17.2-27.0)	23.9 (18.3-30.0)	25.9 (19.0-33.1)	27.8 (19.6-36.7)	30.2 (20.3-40.9)	31.9 (20.8-43.9)

¹ Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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PF graphical

LONG TERM STORMWATER MAINTENANCE PROCEDURES

Proposed Light Industrial Buildings 15 Great Pasture Road and Wooster Street Danbury and Bethel, Connecticut

Inspection of the catch basins and the hydrodynamic separator shall generally be performed on an annual basis. More frequent inspections shall occur if sediment levels are deemed to be excessive after major storm events and after any type of spill.

The inspector shall keep a permanent log of inspections including any noted sediment levels, accumulation of oils, date of inspection, notation of any irregularities, name of contractor, etc.

CATCH BASINS:

- After the site has been stabilized, monthly monitoring shall occur for the first year of a new installation. After the first year, semi-annual inspections shall generally be performed.
- It is best to schedule maintenance based on the solids collected in the sump. Optimally, the structure should be cleaned when the sump is half full.
- Maintenance is best achieved with a vacuum truck.

The requirements for disposal of materials removed from the basins are similar to that of any other BMP. Disposal should be by a Connecticut licensed waste management company and discharged to a Connecticut DEEP approved location.

SWEEPING:

All parking areas, sidewalks and driveways and other impervious surfaces (except roofs) are swept clean of sand, litter and any other possible pollutants at least twice a year as described below, and at other times as may be necessary.

- Once between November 14 and December 15 (i.e., after leaf fall)
- Once during the month of April (i.e., after snow melt)

HYDRODYNAMIC SEPARATOR:

Inspection of the hydrodynamic separator unit shall generally be performed on a semi-annual basis. More frequent inspections shall occur if sediment levels are deemed to be excessive by the City or CCA, after major storm events and after any type of spill.

Maintenance of the hydrodynamic separator type unit is performed using vacuum and/or pumping trucks. This industry is a well-established sector of the service industry that cleans tanks, sewers and catch basins. The use of a vacuum or pumping truck and hose will allow maintenance personnel to pump the systems while the truck is parked on the paved parking lot, thereby not disturbing the adjacent areas.

The hydrodynamic separator unit is sized based on the appropriate guidelines provided in the technical documentation. Based on this data approximately 15% of the total sediment capacity will be utilized per year. Therefore the unit should be cleaned each year. The suggested timing for the yearly cleaning is the spring of each year. Based on the accumulated sediment levels the cleaning and monitoring schedule may

be adjusted accordingly but not less than once per year.

The requirements for disposal of materials removed from the unit are similar to that of any other BMP. Disposal should be by a Connecticut licensed waste management company and discharged to a Connecticut DEP approved location.

PROPOSED DETENTION/RETENTION BASINS:

The basins provides efficient water quality improvements to the stormwater after discharge from the catch basins and hydrodynamic separators. Maintenance of the basin will include removing by hand shoveling of any visible accumulated sediment on a semi-annual basis. Also, excessive litter should be removed and disposed of in an appropriate location. The basin is to be heavily vegetated and will not require maintenance other than replacing any plantings that have not taken and mowing/line trimming. Mowing/line trimming shall take place once a year during the dormant season. To avoid the creation of ruts and compaction and lead to poor drainage, mowing/line trimming should be performed when the ground is hard.

Outlet riprap shall be inspected for condition and repaired or replaced as needed.

Minor erosion shall be repaired, and the area replanted in accordance with the plans. Should major erosion occur within the basin the inspector shall notify the inland wetland enforcement officer. Repairs shall be performed as specified thereafter.

The requirements for disposal of materials removed from the basin are similar to that of any other BMP. Disposal should be by a Connecticut licensed waste management company and discharged to a Connecticut DEEP approved location.

DEEP HOLE TEST RESULTS
PREPARED FOR 15 GREAT PASTURE ROAD, DANBURY CONNECTICUT
APRIL 24, 2025

DEEP HOLE 1

0-78" MISCELLANEOUS FILL, SMALL, MEDIUM, LARGE COBBLES WITH SANDY LOAM
NO LEDGE
NO WATER
NO REDOX
NO ROOTS

DEEP HOLE 2

0-29" MISCELLANEOUS FILL, WOOD CHIPS
29-72" ORANGE BROWN FINE SANDY SILTY LOAM, MEDIUM AND LARGE COBBLES
NO LEDGE
NO WATER
NO REDOX
NO ROOTS

DEEP HOLE 3

0-8" MISCELLANEOUS FILL, WOOD CHIPS
8-65" ORANGE BROWN FINE SANDY SILTY LOAM , SMALL AND MEDIUM COBBLES
NO LEDGE
NO WATER
NO REDOX
NO ROOTS

DEEP HOLE 4

0-13" MISCELLANEOUS FILL, WOOD CHIPS
13-72" LIGHT BROWN FINE SAND
NO LEDGE
NO WATER
NO REDOX
NO ROOTS

DEEP HOLE 5

0-13" MISCELLANEOUS FILL
13-16" ORIGINAL TOPSOIL
16-65" BROWN SANDY SILTY LOAM
NO LEDGE
NO WATER
NO REDOX
NO ROOTS

DEEP HOLE TEST RESULTS
PREPARED FOR 15 GREAT PASTURE ROAD, DANBURY CONNECTICUT
APRIL 24, 2025

DEEP HOLE 6

0-11" MISCELLANEOUS FILL
11-14" ORIGINAL TOPSOIL
14-68" BROWN SANDY SILTY LOAM
NO LEDGE
NO WATER
NO REDOX
NO ROOTS

DEEP HOLE 7

0-26" TOPSOIL
26-74" ORANGE BROWN FINE SANDY SILTY LOAM
NO LEDGE
NO WATER
NO REDOX
ROOTS @ 41"

DEEP HOLE 8

0-10" WOOD CHIPS
10-20" TOPSOIL
20-84" ORANGE BROWN FINE SANDY SILTY LOAM
NO LEDGE
NO WATER
NO REDOX
ROOTS @ 45"

DEEP HOLE 9

0-24" TOPSOIL
24-82" ORANGE BROWN FINE SANDY SILTY LOAM
NO LEDGE
NO WATER
NO REDOX
ROOTS @ 38"

**15 Great Pasture Road, Wooster Street
Danbury, Bethel Connecticut**

Permeability Test Results, 04/24/2025

TEST HOLE	DEPTH INCHES	TUBE NUMBER	SAMPLE LENGTH FEET	TIME MINUTES	H.1-H.2 FEET	H.1 FEET	H.2 FEET	H.1+H.2 FEET	K FT/DAY	K FT/HR	K IN./HR
1	30"	18	0.1100	1	0.02	0.96	0.94	1.9	3.33	0.14	1.67
1	35"	35	0.2000	2	0.02	0.95	0.93	1.88	3.06	0.13	1.53
2	45"	51	0.1200	2	0.01	0.94	0.93	1.87	0.92	0.04	0.46
2	50"	78	0.1600	2	0.01	0.95	0.94	1.89	1.22	0.05	0.61
3	40"	43	0.1200	2	0.03	0.96	0.93	1.89	2.74	0.11	1.37
3	45"	47	0.1800	2	0.01	0.92	0.91	1.83	1.42	0.06	0.71
4	36"	19	0.1300	2	0.03	0.94	0.91	1.85	3.04	0.13	1.52
4	48"	53	0.1600	2	0.02	0.94	0.92	1.86	2.48	0.10	1.24
5	32"	17	0.1600	1	0.03	0.94	0.91	1.85	7.47	0.31	3.74
5	38"	88	0.1600	1	0.03	0.94	0.91	1.85	7.47	0.31	3.74
6	32"	32	0.1400	2	0.01	0.95	0.94	1.89	1.07	0.04	0.53
7	38"	0	0.0600	2	0.01	0.92	0.91	1.83	0.47	0.02	0.24
8	48"	28	0.1500	2	0.01	0.94	0.93	1.87	1.16	0.05	0.58
9	40"	42	0.1200	1	0.02	0.94	0.92	1.86	3.72	0.15	1.86

Average K 1.58

Design K 0.8

WATER QUALITY VOLUME / WATER QUALITY FLOW

REFER TO SECTION 7.4.1 OF THE "2004 CONNECTICUT STORMWATER QUALITY MANUAL"

PROJECT: 05-183

GIVEN: SITE AREA=0.41 Ac.

WATER QUALITY VOLUME "WQV"= (1.3")(R) (A) / 12

"R" = VOLUMETRIC RUNOFF COEFFICIENT = 0.05 + 0.009I

**TOTAL POST-
DEVELOPMENT FROM
BLDG. #1**

<u>SYMBOL</u>	<u>DESCRIPTION</u>	<u>UNITS</u>	<u>PARAMETER</u>
I	IMPERVIOUS PERCENT	%	62.7
A	SITE AREA	ACRES	0.41
R	VOLUMETRIC RUNOFF COEFF.	N/A	0.61

WATER QUALITY VOLUME COMPUTATION:

WQV	WATER QUALITY VOLUME	AC-FT	0.03
WQV	WATER QUALITY VOLUME	CF	1189

WATER QUALITY FLOW COMPUTATION:

	INPUT		
P	DESIGN PRECIPITATION	INCHES	1.3
Q	RUNOFF DEPTH-WATERSHED	INCHES	0.80
CN	WQV RUNOFF CURVE #	N/A	98
Ia/P	INT. ABSTRACTION (TABLE 4-I)	INCHES	0.041
Tc	TIME OF CONCENTRATION	HOURS	0.167
qu	UNIT PEAK DISCH. (TABLE 4-III)	CSM/INCH	700
WQF	WATER QUALITY FLOW	CF	0.36

WATER QUALITY VOLUME / WATER QUALITY FLOW

REFER TO SECTION 7.4.1 OF THE "2004 CONNECTICUT STORMWATER QUALITY MANUAL"

PROJECT: 05-183

GIVEN: SITE AREA=0.33 Ac.

WATER QUALITY VOLUME "WQV"= (1.3")(R) (A) / 12

"R" = VOLUMETRIC RUNOFF COEFFICIENT = 0.05 + 0.009I

**TOTAL POST-
DEVELOPMENT FROM
BLDG. #3**

<u>SYMBOL</u>	<u>DESCRIPTION</u>	<u>UNITS</u>	<u>PARAMETER</u>
I	IMPERVIOUS PERCENT	%	70.2
A	SITE AREA	ACRES	0.33
R	VOLUMETRIC RUNOFF COEFF.	N/A	0.68

WATER QUALITY VOLUME COMPUTATION:

WQV	WATER QUALITY VOLUME	AC-FT	0.02
WQV	WATER QUALITY VOLUME	CF	1062

WATER QUALITY FLOW COMPUTATION:

INPUT			
P	DESIGN PRECIPITATION	INCHES	1.3
Q	RUNOFF DEPTH-WATERSHED	INCHES	0.89
CN	WQV RUNOFF CURVE #	N/A	98
Ia/P	INIT. ABSTRACTION (TABLE 4-I)	INCHES	0.041
Tc	TIME OF CONCENTRATION	HOURS	0.167
qu	UNIT PEAK DISCH. (TABLE 4-III)	CSM/INCH	700
WQF	WATER QUALITY FLOW	CFS	0.32

WATER QUALITY VOLUME / WATER QUALITY FLOW

REFER TO SECTION 7.4.1 OF THE "2004 CONNECTICUT STORMWATER QUALITY MANUAL"

PROJECT: 05-183

GIVEN: SITE AREA=1.42 Ac.

WATER QUALITY VOLUME "WQV"= (1.3")(R) (A) / 12

"R" = VOLUMETRIC RUNOFF COEFFICIENT = 0.05 + 0.009I

TOTAL POST-DEVELOPMENT TO DETENTION #3

<u>SYMBOL</u>	<u>DESCRIPTION</u>	<u>UNITS</u>	<u>PARAMETER</u>
I	IMPERVIOUS PERCENT	%	76.5
A	SITE AREA	ACRES	1.42
R	VOLUMETRIC RUNOFF COEFF.	N/A	0.74

WATER QUALITY VOLUME COMPUTATION:

WQV	WATER QUALITY VOLUME	AC-FT	0.11
WQV	WATER QUALITY VOLUME	CF	4949

WATER QUALITY FLOW COMPUTATION:

INPUT			
P	DESIGN PRECIPITATION	INCHES	1.3
Q	RUNOFF DEPTH-WATERSHED	INCHES	0.96
CN	WQV RUNOFF CURVE #	N/A	98
Ia/P	INIT. ABSTRACTION (TABLE 4-I)	INCHES	0.041
Tc	TIME OF CONCENTRATION	HOURS	0.167
qu	UNIT PEAK DISCH. (TABLE 4-III)	CSM/INCH	700
WQF	WATER QUALITY FLOW	CFS	1.49

WATER QUALITY VOLUME / WATER QUALITY FLOW

REFER TO SECTION 7.4.1 OF THE "2004 CONNECTICUT STORMWATER QUALITY MANUAL"

PROJECT: 05-183

GIVEN: SITE AREA=2.91 Ac.

WATER QUALITY VOLUME "WQV"= (1.3")(R) (A) / 12

"R" = VOLUMETRIC RUNOFF COEFFICIENT = 0.05 + 0.009I

TOTAL POST-DEVELOPMENT TO DETENTION #2

<u>SYMBOL</u>	<u>DESCRIPTION</u>	<u>UNITS</u>	<u>PARAMETER</u>
I	IMPERVIOUS PERCENT	%	97.9
A	SITE AREA	ACRES	2.91
R	VOLUMETRIC RUNOFF COEFF.	N/A	0.93

WATER QUALITY VOLUME COMPUTATION:

WQV	WATER QUALITY VOLUME	AC-FT	0.29
WQV	WATER QUALITY VOLUME	CF	12786

WATER QUALITY FLOW COMPUTATION:

INPUT			
P	DESIGN PRECIPITATION	INCHES	1.3
Q	RUNOFF DEPTH-WATERSHED	INCHES	1.21
CN	WQV RUNOFF CURVE #	N/A	98
Ia/P	INIT. ABSTRACTION (TABLE 4-I)	INCHES	0.041
Tc	TIME OF CONCENTRATION	HOURS	0.167
qu	UNIT PEAK DISCH. (TABLE 4-III)	CSM/INCH	700
WQF	WATER QUALITY FLOW	CFS	3.85

PRE-POST-ANALYSIS

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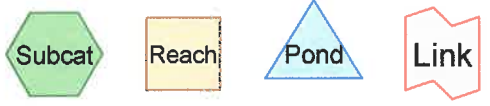
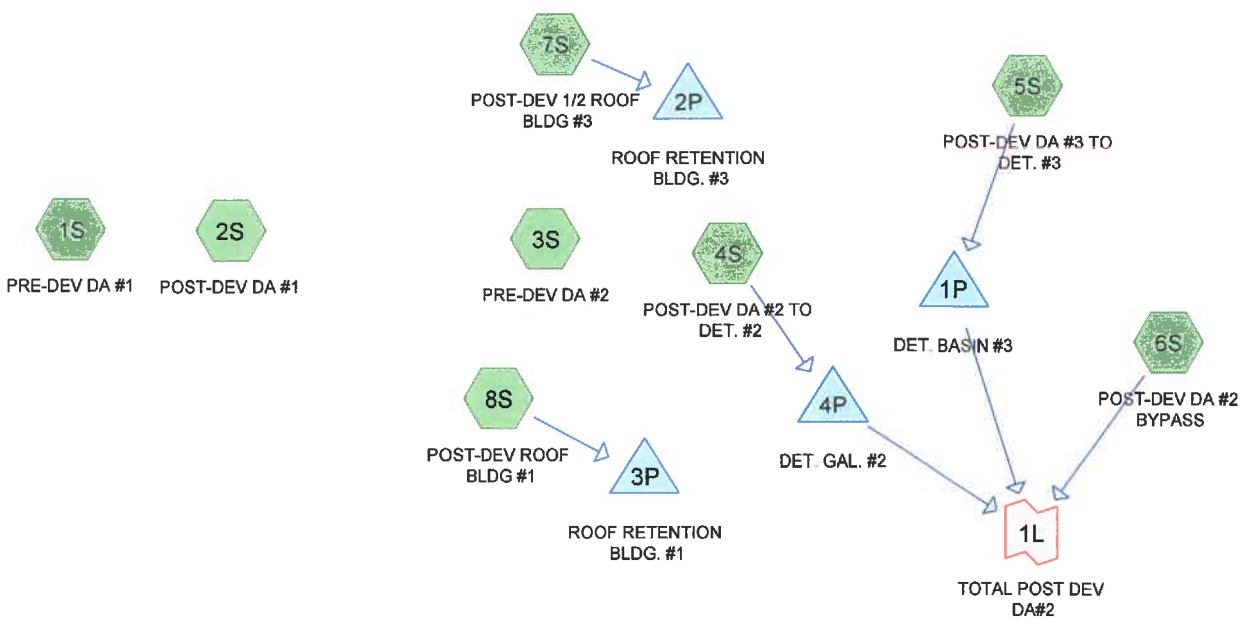
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Routing Diagram for PRE-POST-ANALYSIS
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PRE-POST-ANALYSIS

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	25 year	Type III 24-hr		Default	24.00	1	6.81	2

PRE-POST-ANALYSIS

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
4.198	74.0	>75% Grass cover, Good, HSG C (1S, 2S, 3S, 4S, 5S, 6S, 7S, 8S)
7.110	98.0	Impervious, HSG C (1S, 2S, 3S, 4S, 5S, 6S)
4.853	98.0	Roofs, HSG C (1S, 2S, 3S, 4S, 7S, 8S)
6.157	70.0	Woods, Good, HSG C (1S, 3S, 6S)
22.318	85.8	TOTAL AREA

PRE-POST-ANALYSIS

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
22.318	HSG C	1S, 2S, 3S, 4S, 5S, 6S, 7S, 8S
0.000	HSG D	
0.000	Other	
22.318		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	4.198	0.000	0.000	4.198	>75% Grass cover, Good	1S, 2S, 3S, 4S, 5S, 6S, 7S, 8S
0.000	0.000	7.110	0.000	0.000	7.110	Impervious	1S, 2S, 3S, 4S, 5S, 6S
0.000	0.000	4.853	0.000	0.000	4.853	Roofs	1S, 2S, 3S, 4S, 7S, 8S
0.000	0.000	6.157	0.000	0.000	6.157	Woods, Good	1S, 3S, 6S
0.000	0.000	22.318	0.000	0.000	22.318	TOTAL AREA	

PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Time span=0.00-30.00 hrs, dt=0.010 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment1S: PRE-DEV DA #1	Runoff Area=285,033 sf 44.34% Impervious Runoff Depth=4.84" Tc=10.0 min CN=82.9 Runoff=31.92 cfs 2.638 af
Subcatchment2S: POST-DEV DA #1	Runoff Area=176,071 sf 70.14% Impervious Runoff Depth=5.73" Tc=10.0 min CN=90.8 Runoff=22.35 cfs 1.930 af
Subcatchment3S: PRE-DEV DA #2	Runoff Area=201,044 sf 37.57% Impervious Runoff Depth=4.69" Tc=10.0 min CN=81.6 Runoff=21.94 cfs 1.806 af
Subcatchment4S: POST-DEV DA #2 TO	Runoff Area=126,908 sf 97.93% Impervious Runoff Depth=6.51" Tc=10.0 min CN=97.5 Runoff=17.05 cfs 1.581 af
Subcatchment5S: POST-DEV DA #3 TO	Runoff Area=61,864 sf 76.52% Impervious Runoff Depth=5.91" Tc=10.0 min CN=92.4 Runoff=8.00 cfs 0.700 af
Subcatchment6S: POST-DEV DA #2	Runoff Area=88,915 sf 3.05% Impervious Runoff Depth=3.61" Tc=10.0 min CN=71.4 Runoff=7.53 cfs 0.613 af
Subcatchment7S: POST-DEV 1/2 ROOF	Runoff Area=14,475 sf 70.24% Impervious Runoff Depth=5.74" Tc=5.0 min CN=90.9 Runoff=2.17 cfs 0.159 af
Subcatchment8S: POST-DEV ROOF BLDG	Runoff Area=17,862 sf 62.70% Impervious Runoff Depth=5.52" Tc=5.0 min CN=89.0 Runoff=2.62 cfs 0.189 af
Pond 1P: DET. BASIN #3	Peak Elev=381.03' Storage=11,303 cf Inflow=8.00 cfs 0.700 af Discarded=0.09 cfs 0.141 af Primary=3.13 cfs 0.493 af Outflow=3.21 cfs 0.635 af
Pond 2P: ROOF RETENTION BLDG. #3	Peak Elev=384.90' Storage=4,914 cf Inflow=2.17 cfs 0.159 af Outflow=0.04 cfs 0.072 af
Pond 3P: ROOF RETENTION BLDG. #1	Peak Elev=381.45' Storage=6,017 cf Inflow=2.62 cfs 0.189 af Outflow=0.05 cfs 0.081 af
Pond 4P: DET. GAL. #2	Peak Elev=380.30' Storage=0.375 af Inflow=17.05 cfs 1.581 af Discarded=0.16 cfs 0.309 af Primary=10.81 cfs 1.175 af Outflow=10.96 cfs 1.484 af
Link 1L: TOTAL POST DEV DA#2	Inflow=19.81 cfs 2.281 af Primary=19.81 cfs 2.281 af

Total Runoff Area = 22.318 ac Runoff Volume = 9.615 af Average Runoff Depth = 5.17"
46.40% Pervious = 10.355 ac 53.60% Impervious = 11.963 ac

PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Summary for Subcatchment 1S: PRE-DEV DA #1

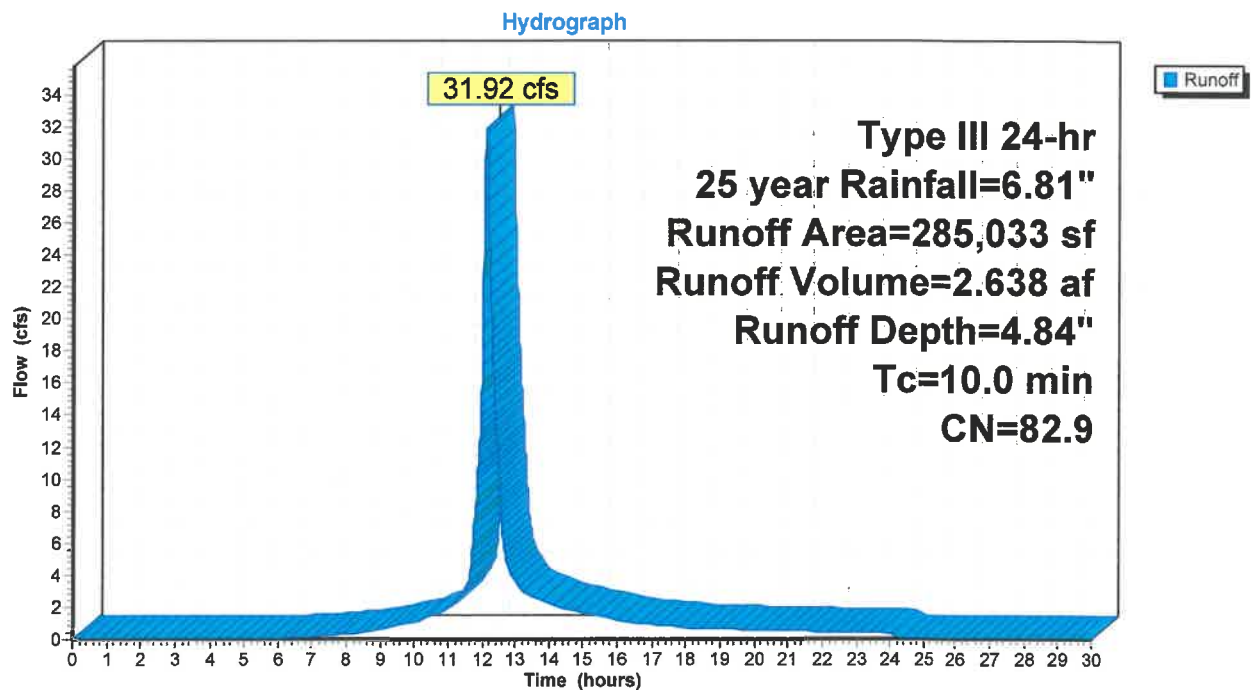
Runoff = 31.92 cfs @ 12.14 hrs, Volume= 2.638 af, Depth= 4.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.010 hrs
Type III 24-hr 25 year Rainfall=6.81"

Area (sf)	CN	Description
37,225	74.0	>75% Grass cover, Good, HSG C
* 83,926	98.0	Impervious, HSG C
42,460	98.0	Roofs, HSG C
121,422	70.0	Woods, Good, HSG C
285,033	82.9	Weighted Average
158,647		55.66% Pervious Area
126,386		44.34% Impervious Area

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

Subcatchment 1S: PRE-DEV DA #1



PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Hydrograph for Subcatchment 1S: PRE-DEV DA #1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.50	6.81	4.84	0.00
0.50	0.03	0.00	0.00	27.00	6.81	4.84	0.00
1.00	0.07	0.00	0.00	27.50	6.81	4.84	0.00
1.50	0.10	0.00	0.00	28.00	6.81	4.84	0.00
2.00	0.14	0.00	0.00	28.50	6.81	4.84	0.00
2.50	0.17	0.00	0.00	29.00	6.81	4.84	0.00
3.00	0.21	0.00	0.00	29.50	6.81	4.84	0.00
3.50	0.25	0.00	0.00	30.00	6.81	4.84	0.00
4.00	0.29	0.00	0.00				
4.50	0.34	0.00	0.00				
5.00	0.39	0.00	0.00				
5.50	0.44	0.00	0.01				
6.00	0.49	0.00	0.04				
6.50	0.55	0.01	0.08				
7.00	0.62	0.02	0.14				
7.50	0.69	0.03	0.21				
8.00	0.78	0.05	0.30				
8.50	0.87	0.08	0.42				
9.00	0.99	0.13	0.60				
9.50	1.13	0.19	0.80				
10.00	1.29	0.26	1.04				
10.50	1.47	0.36	1.41				
11.00	1.70	0.50	1.88				
11.50	2.03	0.71	3.13				
12.00	3.40	1.77	16.08				
12.50	4.78	2.97	10.29				
13.00	5.11	3.26	3.54				
13.50	5.34	3.47	2.65				
14.00	5.52	3.64	2.17				
14.50	5.68	3.79	1.86				
15.00	5.82	3.91	1.63				
15.50	5.94	4.02	1.39				
16.00	6.03	4.11	1.16				
16.50	6.12	4.19	1.01				
17.00	6.19	4.26	0.91				
17.50	6.26	4.32	0.81				
18.00	6.32	4.38	0.70				
18.50	6.37	4.43	0.65				
19.00	6.42	4.48	0.62				
19.50	6.47	4.52	0.59				
20.00	6.52	4.56	0.56				
20.50	6.56	4.60	0.53				
21.00	6.60	4.64	0.51				
21.50	6.64	4.68	0.48				
22.00	6.68	4.71	0.46				
22.50	6.71	4.75	0.44				
23.00	6.75	4.78	0.41				
23.50	6.78	4.81	0.39				
24.00	6.81	4.84	0.37				
24.50	6.81	4.84	0.00				
25.00	6.81	4.84	0.00				
25.50	6.81	4.84	0.00				
26.00	6.81	4.84	0.00				

PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Summary for Subcatchment 2S: POST-DEV DA #1

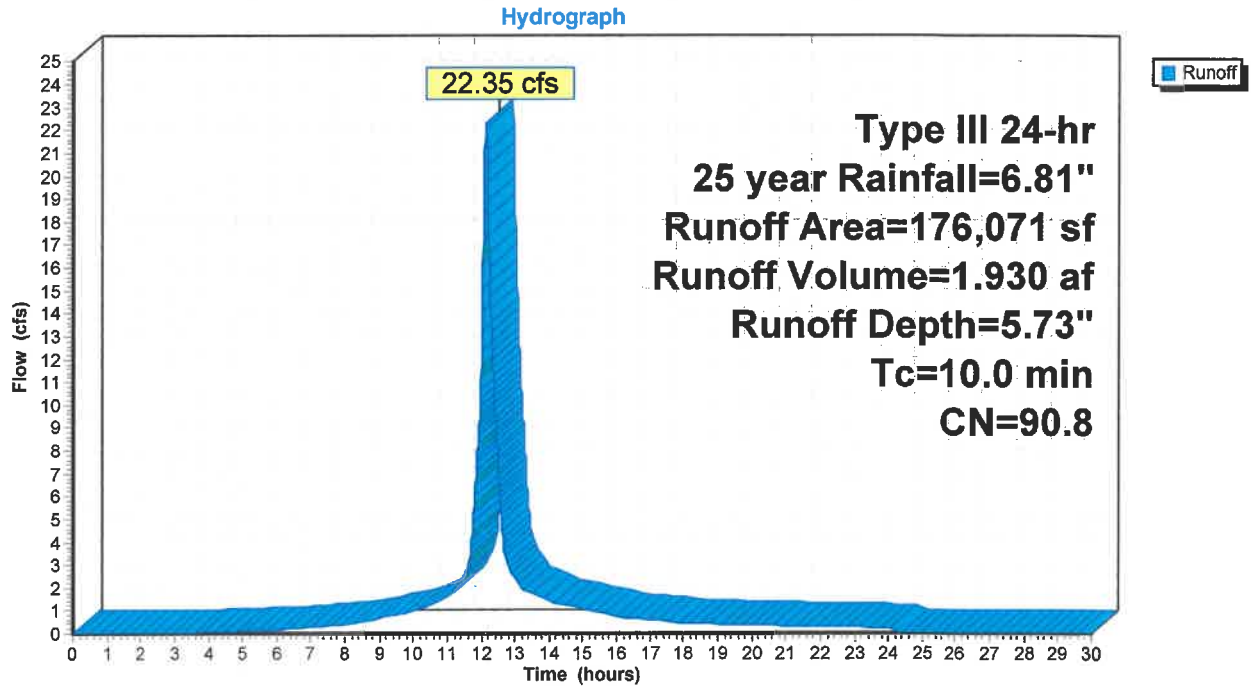
Runoff = 22.35 cfs @ 12.13 hrs, Volume= 1.930 af, Depth= 5.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.010 hrs
Type III 24-hr 25 year Rainfall=6.81"

Area (sf)	CN	Description
52,574	74.0	>75% Grass cover, Good, HSG C
* 69,489	98.0	Impervious, HSG C
54,008	98.0	Roofs, HSG C
176,071	90.8	Weighted Average
52,574		29.86% Pervious Area
123,497		70.14% Impervious Area

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

Subcatchment 2S: POST-DEV DA #1



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Type III 24-hr 25 year Rainfall=6.81"

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Hydrograph for Subcatchment 2S: POST-DEV DA #1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.50	6.81	5.73	0.00
0.50	0.03	0.00	0.00	27.00	6.81	5.73	0.00
1.00	0.07	0.00	0.00	27.50	6.81	5.73	0.00
1.50	0.10	0.00	0.00	28.00	6.81	5.73	0.00
2.00	0.14	0.00	0.00	28.50	6.81	5.73	0.00
2.50	0.17	0.00	0.00	29.00	6.81	5.73	0.00
3.00	0.21	0.00	0.00	29.50	6.81	5.73	0.00
3.50	0.25	0.00	0.02	30.00	6.81	5.73	0.00
4.00	0.29	0.01	0.05				
4.50	0.34	0.02	0.08				
5.00	0.39	0.03	0.10				
5.50	0.44	0.04	0.13				
6.00	0.49	0.06	0.17				
6.50	0.55	0.09	0.21				
7.00	0.62	0.12	0.27				
7.50	0.69	0.16	0.33				
8.00	0.78	0.21	0.40				
8.50	0.87	0.27	0.52				
9.00	0.99	0.35	0.66				
9.50	1.13	0.44	0.82				
10.00	1.29	0.56	0.99				
10.50	1.47	0.71	1.26				
11.00	1.70	0.90	1.59				
11.50	2.03	1.18	2.51				
12.00	3.40	2.43	11.72				
12.50	4.78	3.75	6.90				
13.00	5.11	4.07	2.35				
13.50	5.34	4.29	1.75				
14.00	5.52	4.47	1.42				
14.50	5.68	4.62	1.22				
15.00	5.82	4.76	1.06				
15.50	5.94	4.87	0.91				
16.00	6.03	4.97	0.75				
16.50	6.12	5.05	0.66				
17.00	6.19	5.12	0.59				
17.50	6.26	5.19	0.52				
18.00	6.32	5.25	0.46				
18.50	6.37	5.30	0.42				
19.00	6.42	5.35	0.40				
19.50	6.47	5.40	0.38				
20.00	6.52	5.44	0.36				
20.50	6.56	5.48	0.34				
21.00	6.60	5.52	0.33				
21.50	6.64	5.56	0.31				
22.00	6.68	5.60	0.30				
22.50	6.71	5.64	0.28				
23.00	6.75	5.67	0.27				
23.50	6.78	5.70	0.25				
24.00	6.81	5.73	0.24				
24.50	6.81	5.73	0.00				
25.00	6.81	5.73	0.00				
25.50	6.81	5.73	0.00				
26.00	6.81	5.73	0.00				

PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Summary for Subcatchment 3S: PRE-DEV DA #2

Runoff = 21.94 cfs @ 12.14 hrs, Volume= 1.806 af, Depth= 4.69"

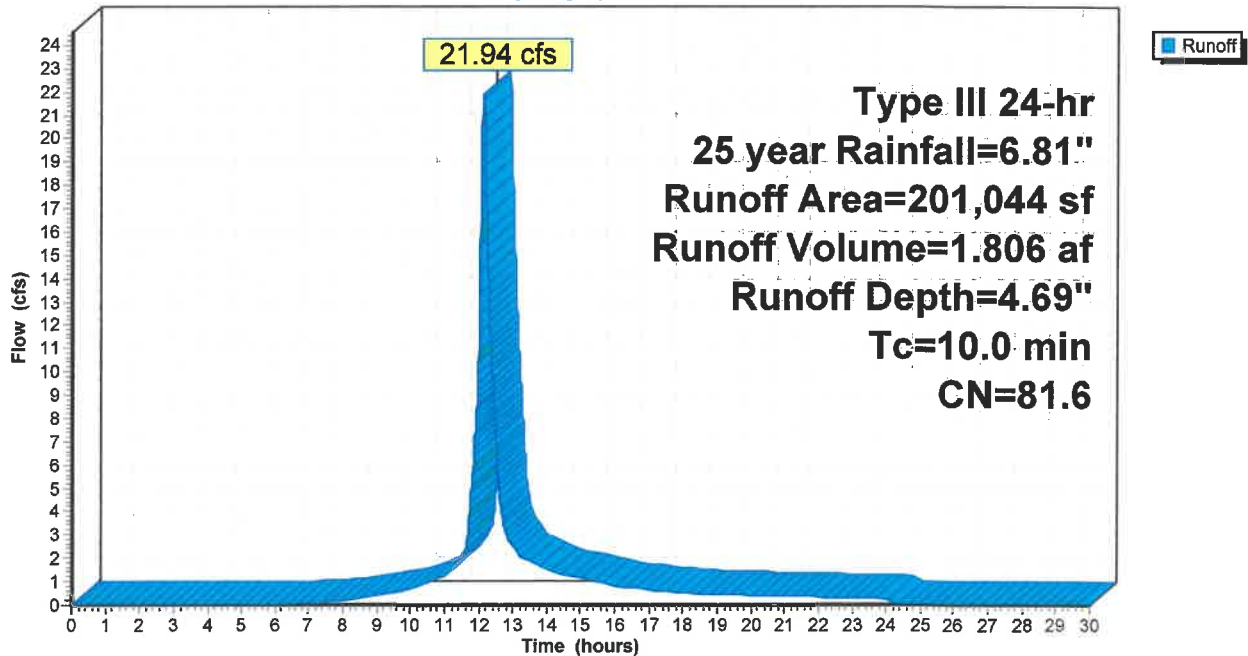
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.010 hrs
Type III 24-hr 25 year Rainfall=6.81"

Area (sf)	CN	Description
51,869	74.0	>75% Grass cover, Good, HSG C
* 41,465	98.0	Impervious, HSG C
34,076	98.0	Roofs, HSG C
73,634	70.0	Woods, Good, HSG C
201,044	81.6	Weighted Average
125,503		62.43% Pervious Area
75,541		37.57% Impervious Area

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

Subcatchment 3S: PRE-DEV DA #2

Hydrograph



PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Hydrograph for Subcatchment 3S: PRE-DEV DA #2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.50	6.81	4.69	0.00
0.50	0.03	0.00	0.00	27.00	6.81	4.69	0.00
1.00	0.07	0.00	0.00	27.50	6.81	4.69	0.00
1.50	0.10	0.00	0.00	28.00	6.81	4.69	0.00
2.00	0.14	0.00	0.00	28.50	6.81	4.69	0.00
2.50	0.17	0.00	0.00	29.00	6.81	4.69	0.00
3.00	0.21	0.00	0.00	29.50	6.81	4.69	0.00
3.50	0.25	0.00	0.00	30.00	6.81	4.69	0.00
4.00	0.29	0.00	0.00				
4.50	0.34	0.00	0.00				
5.00	0.39	0.00	0.00				
5.50	0.44	0.00	0.00				
6.00	0.49	0.00	0.01				
6.50	0.55	0.00	0.04				
7.00	0.62	0.01	0.07				
7.50	0.69	0.02	0.12				
8.00	0.78	0.04	0.18				
8.50	0.87	0.07	0.26				
9.00	0.99	0.10	0.38				
9.50	1.13	0.16	0.51				
10.00	1.29	0.23	0.67				
10.50	1.47	0.32	0.92				
11.00	1.70	0.45	1.25				
11.50	2.03	0.65	2.10				
12.00	3.40	1.68	10.97				
12.50	4.78	2.85	7.13				
13.00	5.11	3.14	2.46				
13.50	5.34	3.34	1.84				
14.00	5.52	3.51	1.51				
14.50	5.68	3.65	1.30				
15.00	5.82	3.78	1.13				
15.50	5.94	3.89	0.97				
16.00	6.03	3.98	0.81				
16.50	6.12	4.05	0.71				
17.00	6.19	4.12	0.63				
17.50	6.26	4.19	0.56				
18.00	6.32	4.24	0.49				
18.50	6.37	4.29	0.45				
19.00	6.42	4.34	0.43				
19.50	6.47	4.38	0.41				
20.00	6.52	4.42	0.39				
20.50	6.56	4.46	0.37				
21.00	6.60	4.50	0.35				
21.50	6.64	4.54	0.34				
22.00	6.68	4.57	0.32				
22.50	6.71	4.61	0.31				
23.00	6.75	4.64	0.29				
23.50	6.78	4.67	0.27				
24.00	6.81	4.69	0.26				
24.50	6.81	4.69	0.00				
25.00	6.81	4.69	0.00				
25.50	6.81	4.69	0.00				
26.00	6.81	4.69	0.00				

PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Summary for Subcatchment 4S: POST-DEV DA #2 TO DET. #2

Runoff = 17.05 cfs @ 12.13 hrs, Volume= 1.581 af, Depth= 6.51"
 Routed to Pond 4P : DET. GAL. #2

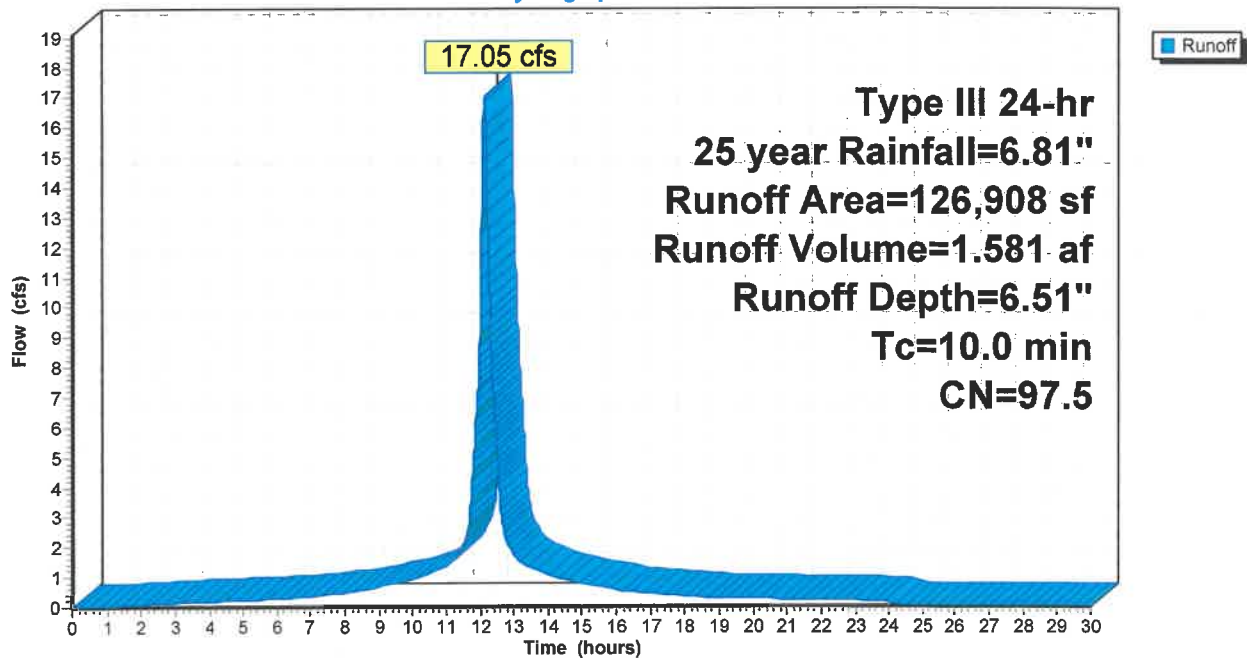
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.010 hrs
 Type III 24-hr 25 year Rainfall=6.81"

Area (sf)	CN	Description
2,632	74.0	>75% Grass cover, Good, HSG C
* 64,781	98.0	Impervious, HSG C
59,495	98.0	Roofs, HSG C
126,908	97.5	Weighted Average
2,632		2.07% Pervious Area
124,276		97.93% Impervious Area

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

Subcatchment 4S: POST-DEV DA #2 TO DET. #2

Hydrograph



PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Hydrograph for Subcatchment 4S: POST-DEV DA #2 TO DET. #2

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.50	6.81	6.51	0.00
0.50	0.03	0.00	0.00	27.00	6.81	6.51	0.00
1.00	0.07	0.00	0.01	27.50	6.81	6.51	0.00
1.50	0.10	0.01	0.05	28.00	6.81	6.51	0.00
2.00	0.14	0.02	0.08	28.50	6.81	6.51	0.00
2.50	0.17	0.04	0.11	29.00	6.81	6.51	0.00
3.00	0.21	0.06	0.13	29.50	6.81	6.51	0.00
3.50	0.25	0.09	0.16	30.00	6.81	6.51	0.00
4.00	0.29	0.12	0.18				
4.50	0.34	0.15	0.21				
5.00	0.39	0.19	0.23				
5.50	0.44	0.23	0.25				
6.00	0.49	0.28	0.27				
6.50	0.55	0.33	0.31				
7.00	0.62	0.39	0.36				
7.50	0.69	0.46	0.42				
8.00	0.78	0.54	0.47				
8.50	0.87	0.63	0.56				
9.00	0.99	0.74	0.68				
9.50	1.13	0.87	0.80				
10.00	1.29	1.02	0.91				
10.50	1.47	1.21	1.12				
11.00	1.70	1.43	1.36				
11.50	2.03	1.75	2.07				
12.00	3.40	3.12	9.13				
12.50	4.78	4.49	5.15				
13.00	5.11	4.81	1.74				
13.50	5.34	5.04	1.29				
14.00	5.52	5.23	1.05				
14.50	5.68	5.38	0.90				
15.00	5.82	5.52	0.78				
15.50	5.94	5.64	0.67				
16.00	6.03	5.74	0.55				
16.50	6.12	5.82	0.49				
17.00	6.19	5.90	0.43				
17.50	6.26	5.96	0.39				
18.00	6.32	6.02	0.33				
18.50	6.37	6.08	0.31				
19.00	6.42	6.13	0.29				
19.50	6.47	6.17	0.28				
20.00	6.52	6.22	0.26				
20.50	6.56	6.26	0.25				
21.00	6.60	6.30	0.24				
21.50	6.64	6.34	0.23				
22.00	6.68	6.38	0.22				
22.50	6.71	6.42	0.21				
23.00	6.75	6.45	0.20				
23.50	6.78	6.48	0.18				
24.00	6.81	6.51	0.17				
24.50	6.81	6.51	0.00				
25.00	6.81	6.51	0.00				
25.50	6.81	6.51	0.00				
26.00	6.81	6.51	0.00				

PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Summary for Subcatchment 5S: POST-DEV DA #3 TO DET. #3

Runoff = 8.00 cfs @ 12.13 hrs, Volume= 0.700 af, Depth= 5.91"
 Routed to Pond 1P : DET. BASIN #3

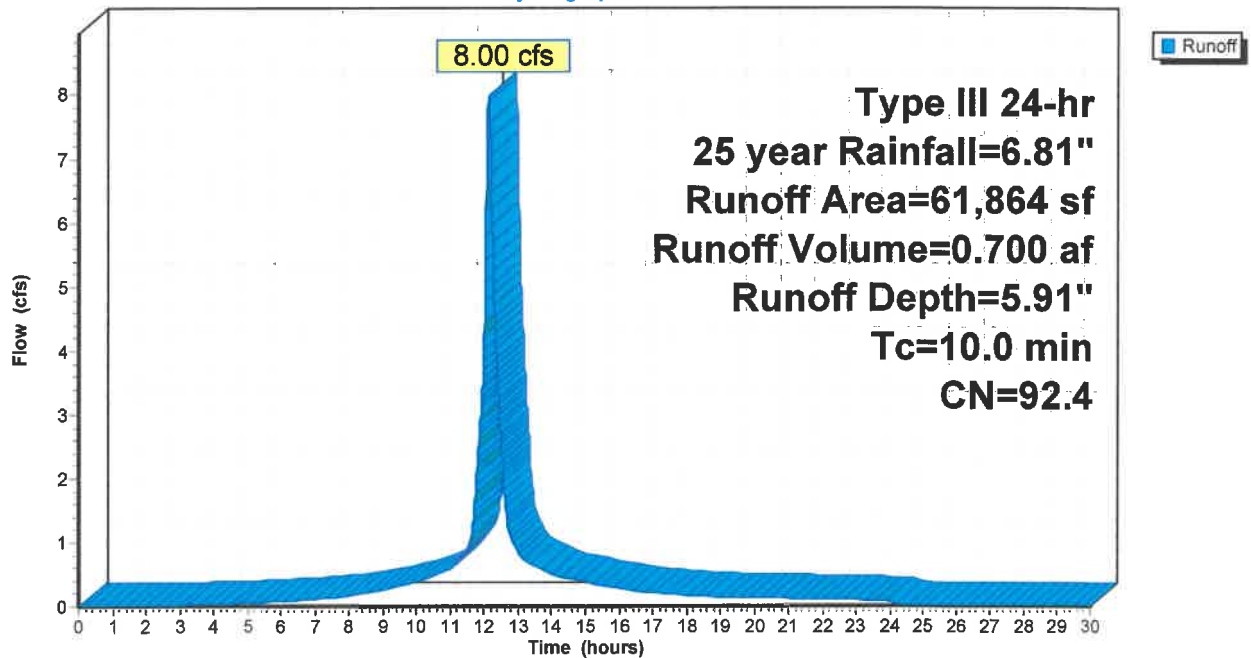
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.010 hrs
 Type III 24-hr 25 year Rainfall=6.81"

Area (sf)	CN	Description
14,528	74.0	>75% Grass cover, Good, HSG C
* 47,336	98.0	Impervious, HSG C
61,864	92.4	Weighted Average
14,528		23.48% Pervious Area
47,336		76.52% Impervious Area

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

Subcatchment 5S: POST-DEV DA #3 TO DET. #3

Hydrograph



PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Hydrograph for Subcatchment 5S: POST-DEV DA #3 TO DET. #3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.50	6.81	5.91	0.00
0.50	0.03	0.00	0.00	27.00	6.81	5.91	0.00
1.00	0.07	0.00	0.00	27.50	6.81	5.91	0.00
1.50	0.10	0.00	0.00	28.00	6.81	5.91	0.00
2.00	0.14	0.00	0.00	28.50	6.81	5.91	0.00
2.50	0.17	0.00	0.00	29.00	6.81	5.91	0.00
3.00	0.21	0.00	0.01	29.50	6.81	5.91	0.00
3.50	0.25	0.01	0.02	30.00	6.81	5.91	0.00
4.00	0.29	0.02	0.03				
4.50	0.34	0.03	0.04				
5.00	0.39	0.05	0.05				
5.50	0.44	0.07	0.06				
6.00	0.49	0.09	0.07				
6.50	0.55	0.12	0.09				
7.00	0.62	0.16	0.11				
7.50	0.69	0.21	0.14				
8.00	0.78	0.26	0.16				
8.50	0.87	0.33	0.20				
9.00	0.99	0.42	0.26				
9.50	1.13	0.52	0.31				
10.00	1.29	0.65	0.37				
10.50	1.47	0.80	0.47				
11.00	1.70	1.00	0.59				
11.50	2.03	1.29	0.92				
12.00	3.40	2.58	4.22				
12.50	4.78	3.92	2.45				
13.00	5.11	4.24	0.83				
13.50	5.34	4.46	0.62				
14.00	5.52	4.65	0.50				
14.50	5.68	4.80	0.43				
15.00	5.82	4.93	0.38				
15.50	5.94	5.05	0.32				
16.00	6.03	5.15	0.27				
16.50	6.12	5.23	0.23				
17.00	6.19	5.31	0.21				
17.50	6.26	5.37	0.19				
18.00	6.32	5.43	0.16				
18.50	6.37	5.48	0.15				
19.00	6.42	5.53	0.14				
19.50	6.47	5.58	0.13				
20.00	6.52	5.62	0.13				
20.50	6.56	5.67	0.12				
21.00	6.60	5.71	0.12				
21.50	6.64	5.75	0.11				
22.00	6.68	5.78	0.11				
22.50	6.71	5.82	0.10				
23.00	6.75	5.85	0.09				
23.50	6.78	5.88	0.09				
24.00	6.81	5.91	0.08				
24.50	6.81	5.91	0.00				
25.00	6.81	5.91	0.00				
25.50	6.81	5.91	0.00				
26.00	6.81	5.91	0.00				

PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Summary for Subcatchment 6S: POST-DEV DA #2 BYPASS

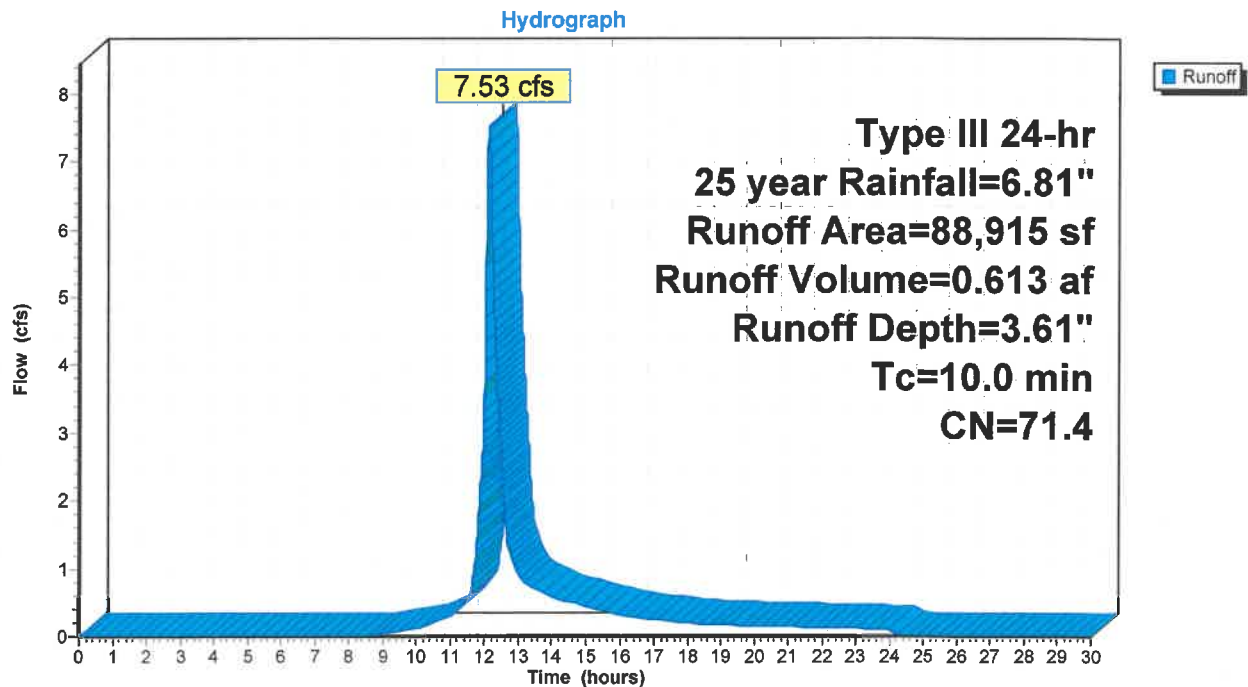
Runoff = 7.53 cfs @ 12.14 hrs, Volume= 0.613 af, Depth= 3.61"
 Routed to Link 1L : TOTAL POST DEV DA#2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.010 hrs
 Type III 24-hr 25 year Rainfall=6.81"

Area (sf)	CN	Description
13,080	74.0	>75% Grass cover, Good, HSG C
* 2,712	98.0	Impervious, HSG C
0	98.0	Roofs, HSG C
73,123	70.0	Woods, Good, HSG C
88,915	71.4	Weighted Average
86,203		96.95% Pervious Area
2,712		3.05% Impervious Area

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

Subcatchment 6S: POST-DEV DA #2 BYPASS



PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Hydrograph for Subcatchment 6S: POST-DEV DA #2 BYPASS

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.50	6.81	3.61	0.00
0.50	0.03	0.00	0.00	27.00	6.81	3.61	0.00
1.00	0.07	0.00	0.00	27.50	6.81	3.61	0.00
1.50	0.10	0.00	0.00	28.00	6.81	3.61	0.00
2.00	0.14	0.00	0.00	28.50	6.81	3.61	0.00
2.50	0.17	0.00	0.00	29.00	6.81	3.61	0.00
3.00	0.21	0.00	0.00	29.50	6.81	3.61	0.00
3.50	0.25	0.00	0.00	30.00	6.81	3.61	0.00
4.00	0.29	0.00	0.00				
4.50	0.34	0.00	0.00				
5.00	0.39	0.00	0.00				
5.50	0.44	0.00	0.00				
6.00	0.49	0.00	0.00				
6.50	0.55	0.00	0.00				
7.00	0.62	0.00	0.00				
7.50	0.69	0.00	0.00				
8.00	0.78	0.00	0.00				
8.50	0.87	0.00	0.01				
9.00	0.99	0.01	0.04				
9.50	1.13	0.02	0.07				
10.00	1.29	0.05	0.12				
10.50	1.47	0.10	0.20				
11.00	1.70	0.17	0.30				
11.50	2.03	0.29	0.57				
12.00	3.40	1.03	3.51				
12.50	4.78	1.98	2.64				
13.00	5.11	2.23	0.93				
13.50	5.34	2.41	0.70				
14.00	5.52	2.55	0.58				
14.50	5.68	2.68	0.50				
15.00	5.82	2.79	0.44				
15.50	5.94	2.88	0.38				
16.00	6.03	2.96	0.32				
16.50	6.12	3.03	0.28				
17.00	6.19	3.09	0.25				
17.50	6.26	3.15	0.22				
18.00	6.32	3.20	0.19				
18.50	6.37	3.24	0.18				
19.00	6.42	3.28	0.17				
19.50	6.47	3.32	0.16				
20.00	6.52	3.36	0.15				
20.50	6.56	3.40	0.15				
21.00	6.60	3.43	0.14				
21.50	6.64	3.46	0.13				
22.00	6.68	3.50	0.13				
22.50	6.71	3.53	0.12				
23.00	6.75	3.55	0.12				
23.50	6.78	3.58	0.11				
24.00	6.81	3.61	0.10				
24.50	6.81	3.61	0.00				
25.00	6.81	3.61	0.00				
25.50	6.81	3.61	0.00				
26.00	6.81	3.61	0.00				

PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Summary for Subcatchment 7S: POST-DEV 1/2 ROOF BLDG #3

Runoff = 2.17 cfs @ 12.07 hrs, Volume= 0.159 af, Depth= 5.74"
 Routed to Pond 2P : ROOF RETENTION BLDG. #3

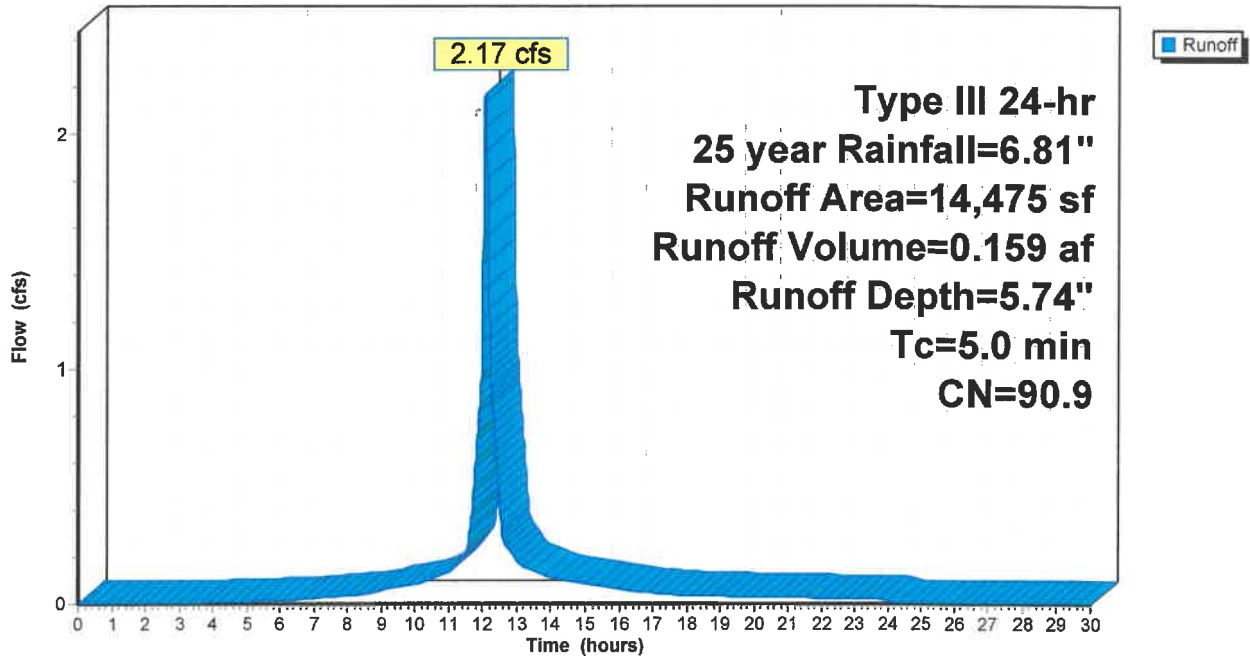
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.010 hrs
 Type III 24-hr 25 year Rainfall=6.81"

Area (sf)	CN	Description
10,167	98.0	Roofs, HSG C
4,308	74.0	>75% Grass cover, Good, HSG C
14,475	90.9	Weighted Average
4,308		29.76% Pervious Area
10,167		70.24% Impervious Area

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

Subcatchment 7S: POST-DEV 1/2 ROOF BLDG #3

Hydrograph



PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Hydrograph for Subcatchment 7S: POST-DEV 1/2 ROOF BLDG #3

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.50	6.81	5.74	0.00
0.50	0.03	0.00	0.00	27.00	6.81	5.74	0.00
1.00	0.07	0.00	0.00	27.50	6.81	5.74	0.00
1.50	0.10	0.00	0.00	28.00	6.81	5.74	0.00
2.00	0.14	0.00	0.00	28.50	6.81	5.74	0.00
2.50	0.17	0.00	0.00	29.00	6.81	5.74	0.00
3.00	0.21	0.00	0.00	29.50	6.81	5.74	0.00
3.50	0.25	0.00	0.00	30.00	6.81	5.74	0.00
4.00	0.29	0.01	0.00				
4.50	0.34	0.02	0.01				
5.00	0.39	0.03	0.01				
5.50	0.44	0.05	0.01				
6.00	0.49	0.07	0.01				
6.50	0.55	0.09	0.02				
7.00	0.62	0.12	0.02				
7.50	0.69	0.16	0.03				
8.00	0.78	0.21	0.03				
8.50	0.87	0.27	0.04				
9.00	0.99	0.35	0.06				
9.50	1.13	0.45	0.07				
10.00	1.29	0.57	0.08				
10.50	1.47	0.71	0.11				
11.00	1.70	0.90	0.14				
11.50	2.03	1.18	0.22				
12.00	3.40	2.44	1.45				
12.50	4.78	3.76	0.41				
13.00	5.11	4.08	0.18				
13.50	5.34	4.30	0.14				
14.00	5.52	4.48	0.11				
14.50	5.68	4.63	0.10				
15.00	5.82	4.77	0.09				
15.50	5.94	4.88	0.07				
16.00	6.03	4.98	0.06				
16.50	6.12	5.06	0.05				
17.00	6.19	5.14	0.05				
17.50	6.26	5.20	0.04				
18.00	6.32	5.26	0.04				
18.50	6.37	5.31	0.03				
19.00	6.42	5.36	0.03				
19.50	6.47	5.41	0.03				
20.00	6.52	5.45	0.03				
20.50	6.56	5.50	0.03				
21.00	6.60	5.54	0.03				
21.50	6.64	5.57	0.03				
22.00	6.68	5.61	0.02				
22.50	6.71	5.65	0.02				
23.00	6.75	5.68	0.02				
23.50	6.78	5.71	0.02				
24.00	6.81	5.74	0.02				
24.50	6.81	5.74	0.00				
25.00	6.81	5.74	0.00				
25.50	6.81	5.74	0.00				
26.00	6.81	5.74	0.00				

PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Summary for Subcatchment 8S: POST-DEV ROOF BLDG #1

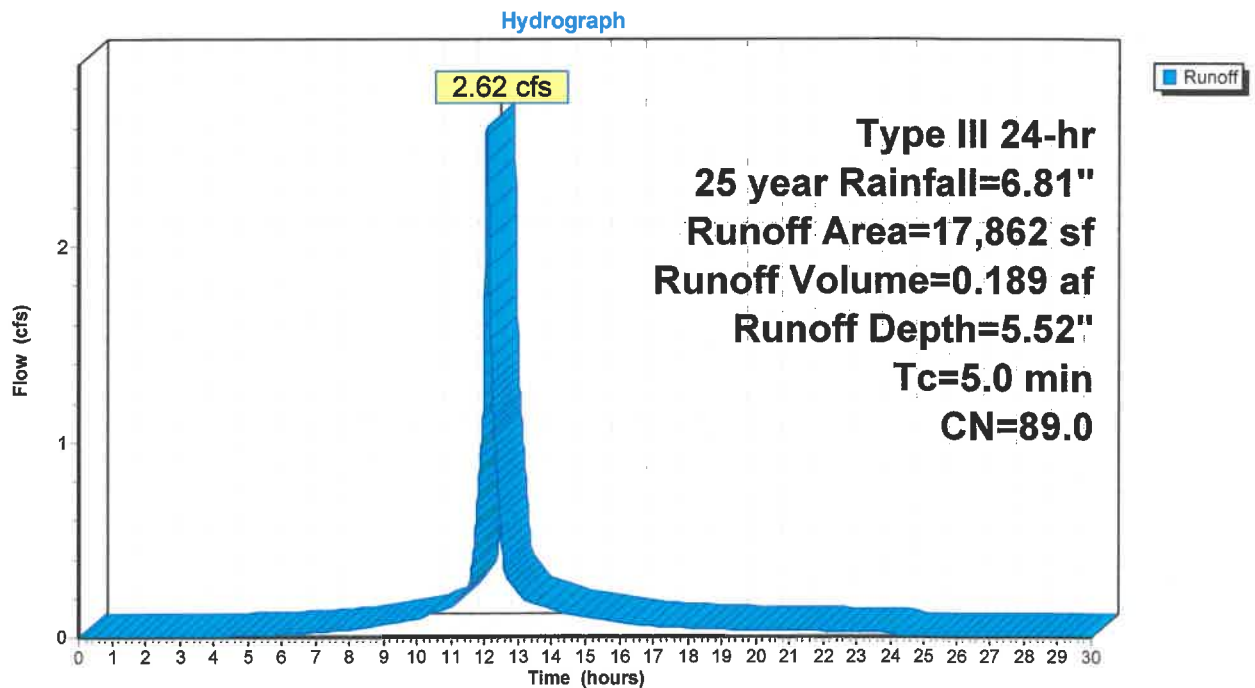
Runoff = 2.62 cfs @ 12.07 hrs, Volume= 0.189 af, Depth= 5.52"
 Routed to Pond 3P : ROOF RETENTION BLDG. #1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.010 hrs
 Type III 24-hr 25 year Rainfall=6.81"

Area (sf)	CN	Description
11,200	98.0	Roofs, HSG C
6,662	74.0	>75% Grass cover, Good, HSG C
17,862	89.0	Weighted Average
6,662		37.30% Pervious Area
11,200		62.70% Impervious Area

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

Subcatchment 8S: POST-DEV ROOF BLDG #1



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Type III 24-hr 25 year Rainfall=6.81"

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Hydrograph for Subcatchment 8S: POST-DEV ROOF BLDG #1

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.50	6.81	5.52	0.00
0.50	0.03	0.00	0.00	27.00	6.81	5.52	0.00
1.00	0.07	0.00	0.00	27.50	6.81	5.52	0.00
1.50	0.10	0.00	0.00	28.00	6.81	5.52	0.00
2.00	0.14	0.00	0.00	28.50	6.81	5.52	0.00
2.50	0.17	0.00	0.00	29.00	6.81	5.52	0.00
3.00	0.21	0.00	0.00	29.50	6.81	5.52	0.00
3.50	0.25	0.00	0.00	30.00	6.81	5.52	0.00
4.00	0.29	0.00	0.00				
4.50	0.34	0.01	0.00				
5.00	0.39	0.01	0.01				
5.50	0.44	0.03	0.01				
6.00	0.49	0.04	0.01				
6.50	0.55	0.06	0.02				
7.00	0.62	0.08	0.02				
7.50	0.69	0.12	0.03				
8.00	0.78	0.16	0.04				
8.50	0.87	0.21	0.05				
9.00	0.99	0.28	0.06				
9.50	1.13	0.37	0.08				
10.00	1.29	0.48	0.09				
10.50	1.47	0.61	0.12				
11.00	1.70	0.79	0.16				
11.50	2.03	1.05	0.26				
12.00	3.40	2.27	1.74				
12.50	4.78	3.56	0.50				
13.00	5.11	3.87	0.22				
13.50	5.34	4.09	0.17				
14.00	5.52	4.27	0.14				
14.50	5.68	4.43	0.12				
15.00	5.82	4.56	0.10				
15.50	5.94	4.67	0.09				
16.00	6.03	4.77	0.07				
16.50	6.12	4.85	0.07				
17.00	6.19	4.92	0.06				
17.50	6.26	4.99	0.05				
18.00	6.32	5.05	0.04				
18.50	6.37	5.10	0.04				
19.00	6.42	5.15	0.04				
19.50	6.47	5.19	0.04				
20.00	6.52	5.24	0.04				
20.50	6.56	5.28	0.03				
21.00	6.60	5.32	0.03				
21.50	6.64	5.36	0.03				
22.00	6.68	5.39	0.03				
22.50	6.71	5.43	0.03				
23.00	6.75	5.46	0.03				
23.50	6.78	5.49	0.03				
24.00	6.81	5.52	0.02				
24.50	6.81	5.52	0.00				
25.00	6.81	5.52	0.00				
25.50	6.81	5.52	0.00				
26.00	6.81	5.52	0.00				

PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Summary for Pond 1P: DET. BASIN #3

Inflow Area = 1.420 ac, 76.52% Impervious, Inflow Depth = 5.91" for 25 year event
 Inflow = 8.00 cfs @ 12.13 hrs, Volume= 0.700 af
 Outflow = 3.21 cfs @ 12.42 hrs, Volume= 0.635 af, Atten= 60%, Lag= 16.9 min
 Discarded = 0.09 cfs @ 12.42 hrs, Volume= 0.141 af
 Primary = 3.13 cfs @ 12.42 hrs, Volume= 0.493 af
 Routed to Link 1L : TOTAL POST DEV DA#2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.010 hrs
 Peak Elev= 381.03' @ 12.42 hrs Surf.Area= 4,461 sf Storage= 11,303 cf

Plug-Flow detention time= 145.2 min calculated for 0.635 af (91% of inflow)
 Center-of-Mass det. time= 98.8 min (874.5 - 775.6)

Volume	Invert	Avail.Storage	Storage Description		
#1	378.00'	15,861 cf	Custom Stage Data (Conic) Listed below (Recalc)		
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)	
378.00	3,035	0	0	3,035	
380.00	3,948	6,963	6,963	4,039	
382.00	4,970	8,898	15,861	5,165	

Device	Routing	Invert	Outlet Devices	
#1	Discarded	378.00'	0.800 in/hr Exfiltration over Wetted area Phase-In= 0.01'	
#2	Primary	379.20'	10.0" Vert. Orifice/Gate C= 0.600 Limited to weir flow at low heads	

Discarded OutFlow Max=0.09 cfs @ 12.42 hrs HW=381.03' (Free Discharge)
 ↳1=Exfiltration (Exfiltration Controls 0.09 cfs)

Primary OutFlow Max=3.13 cfs @ 12.42 hrs HW=381.03' TW=0.00' (Dynamic Tailwater)
 ↳2=Orifice/Gate (Orifice Controls 3.13 cfs @ 5.73 fps)

PRE-POST-ANALYSIS

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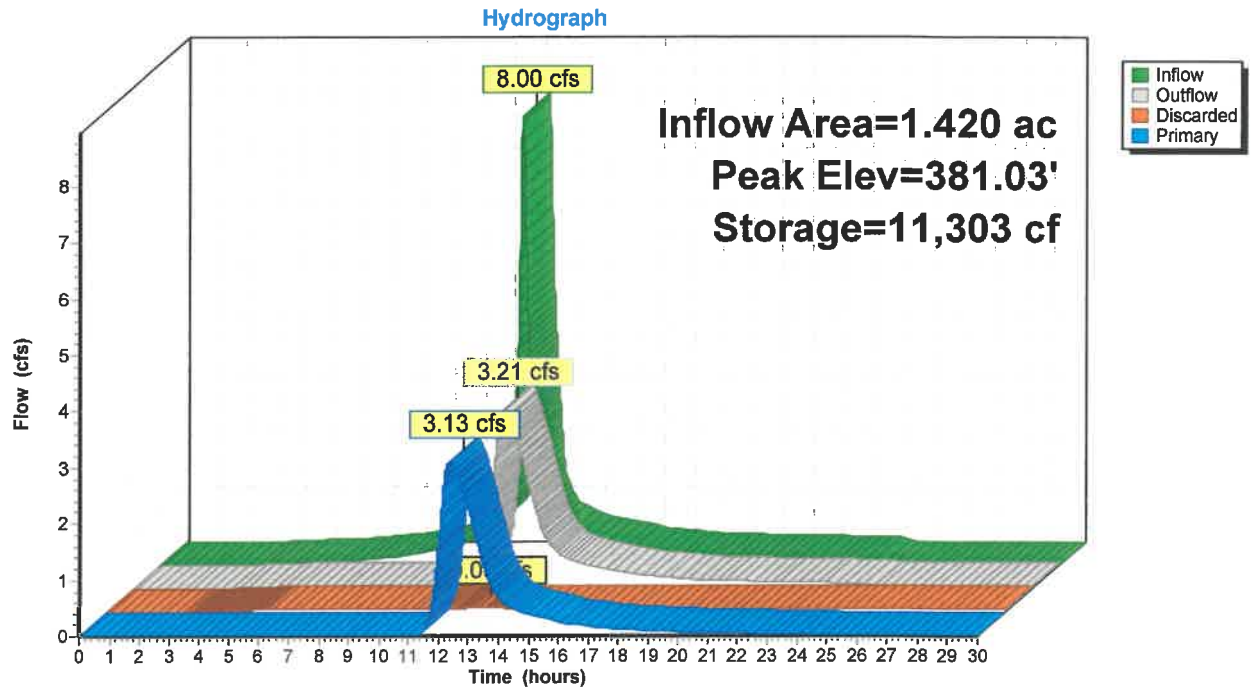
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Type III 24-hr 25 year Rainfall=6.81"

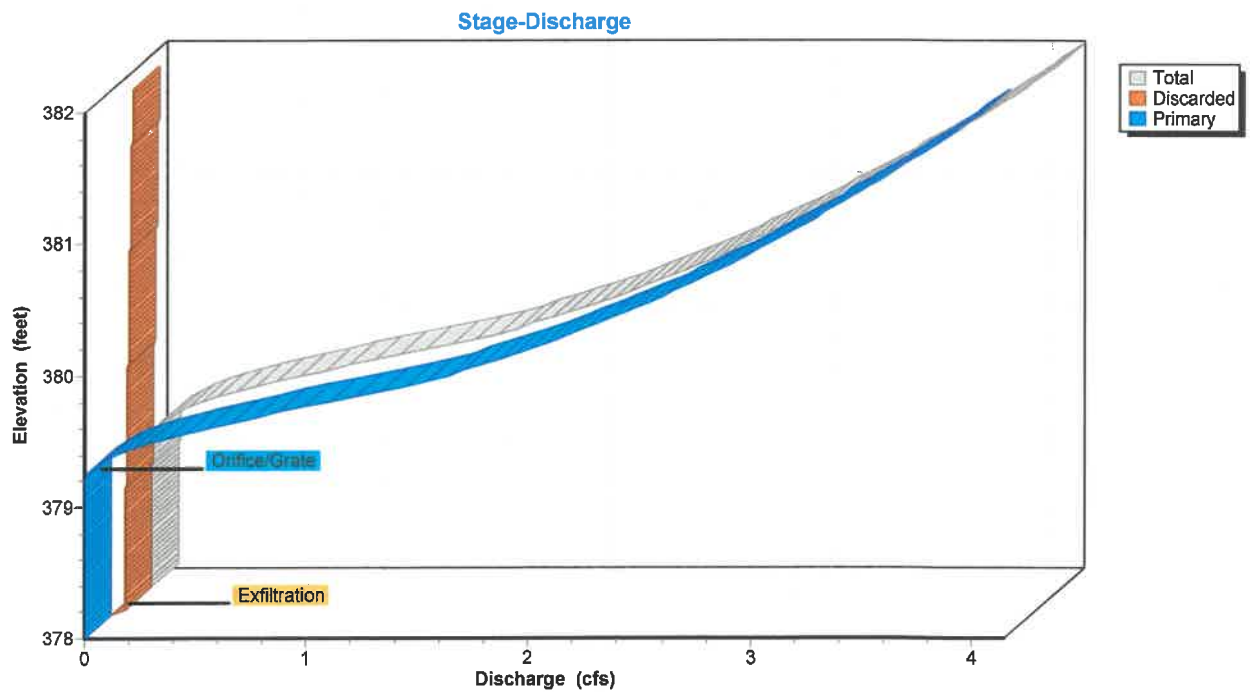
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Pond 1P: DET. BASIN #3



Pond 1P: DET. BASIN #3



PRE-POST-ANALYSIS

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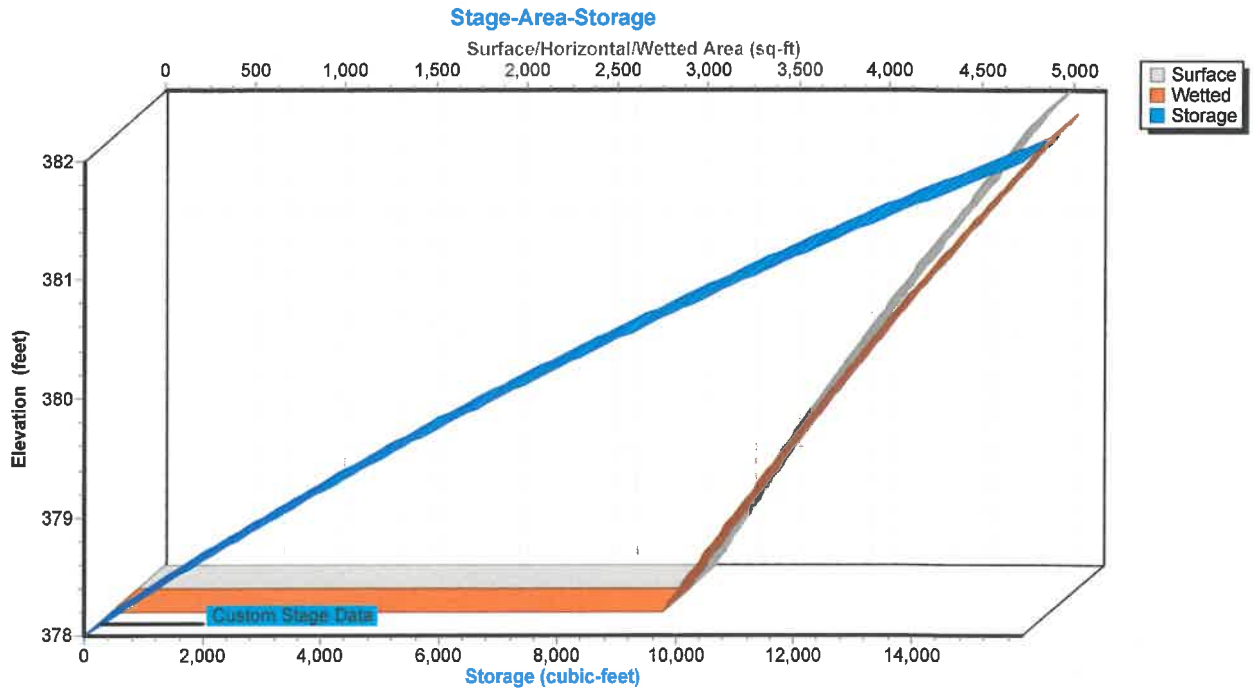
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Type III 24-hr 25 year Rainfall=6.81"

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Pond 1P: DET. BASIN #3



PRE-POST-ANALYSIS

Type III 24-hr 25 year Rainfall=6.81"

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Hydrograph for Pond 1P: DET. BASIN #3

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0	378.00	0.00	0.00	0.00
1.00	0.00	0	378.00	0.00	0.00	0.00
2.00	0.00	0	378.00	0.00	0.00	0.00
3.00	0.01	3	378.00	0.01	0.01	0.00
4.00	0.03	14	378.00	0.03	0.03	0.00
5.00	0.05	25	378.01	0.05	0.05	0.00
6.00	0.07	51	378.02	0.06	0.06	0.00
7.00	0.11	174	378.06	0.06	0.06	0.00
8.00	0.16	460	378.15	0.06	0.06	0.00
9.00	0.26	992	378.32	0.06	0.06	0.00
10.00	0.37	1,908	378.60	0.06	0.06	0.00
11.00	0.59	3,383	379.04	0.07	0.07	0.00
12.00	4.22	6,942	379.99	1.70	0.07	1.63
13.00	0.83	8,422	380.36	2.34	0.08	2.27
14.00	0.50	5,607	379.65	0.75	0.07	0.68
15.00	0.38	5,136	379.52	0.45	0.07	0.38
16.00	0.27	4,911	379.46	0.33	0.07	0.26
17.00	0.21	4,739	379.42	0.25	0.07	0.18
18.00	0.16	4,613	379.38	0.20	0.07	0.13
19.00	0.14	4,515	379.35	0.16	0.07	0.09
20.00	0.13	4,453	379.34	0.14	0.07	0.07
21.00	0.12	4,403	379.32	0.13	0.07	0.06
22.00	0.11	4,358	379.31	0.12	0.07	0.05
23.00	0.09	4,313	379.30	0.11	0.07	0.04
24.00	0.08	4,266	379.29	0.10	0.07	0.03
25.00	0.00	4,019	379.22	0.07	0.07	0.00
26.00	0.00	3,778	379.15	0.07	0.07	0.00
27.00	0.00	3,539	379.08	0.07	0.07	0.00
28.00	0.00	3,303	379.01	0.07	0.07	0.00
29.00	0.00	3,069	378.95	0.06	0.06	0.00
30.00	0.00	2,837	378.88	0.06	0.06	0.00

PRE-POST-ANALYSIS

Type III 24-hr 25 year Rainfall=6.81"

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Stage-Discharge for Pond 1P: DET. BASIN #3

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
378.00	0.00	0.00	0.00	380.65	2.75	0.08	2.67
378.05	0.06	0.06	0.00	380.70	2.82	0.08	2.73
378.10	0.06	0.06	0.00	380.75	2.88	0.08	2.80
378.15	0.06	0.06	0.00	380.80	2.94	0.08	2.86
378.20	0.06	0.06	0.00	380.85	3.00	0.08	2.92
378.25	0.06	0.06	0.00	380.90	3.06	0.08	2.98
378.30	0.06	0.06	0.00	380.95	3.12	0.08	3.03
378.35	0.06	0.06	0.00	381.00	3.17	0.08	3.09
378.40	0.06	0.06	0.00	381.05	3.23	0.09	3.14
378.45	0.06	0.06	0.00	381.10	3.28	0.09	3.20
378.50	0.06	0.06	0.00	381.15	3.34	0.09	3.25
378.55	0.06	0.06	0.00	381.20	3.39	0.09	3.30
378.60	0.06	0.06	0.00	381.25	3.44	0.09	3.36
378.65	0.06	0.06	0.00	381.30	3.50	0.09	3.41
378.70	0.06	0.06	0.00	381.35	3.55	0.09	3.46
378.75	0.06	0.06	0.00	381.40	3.60	0.09	3.51
378.80	0.06	0.06	0.00	381.45	3.65	0.09	3.56
378.85	0.06	0.06	0.00	381.50	3.69	0.09	3.60
378.90	0.06	0.06	0.00	381.55	3.74	0.09	3.65
378.95	0.06	0.06	0.00	381.60	3.79	0.09	3.70
379.00	0.07	0.07	0.00	381.65	3.84	0.09	3.74
379.05	0.07	0.07	0.00	381.70	3.88	0.09	3.79
379.10	0.07	0.07	0.00	381.75	3.93	0.09	3.84
379.15	0.07	0.07	0.00	381.80	3.97	0.09	3.88
379.20	0.07	0.07	0.00	381.85	4.02	0.09	3.92
379.25	0.08	0.07	0.01	381.90	4.06	0.09	3.97
379.30	0.11	0.07	0.04	381.95	4.11	0.10	4.01
379.35	0.16	0.07	0.09	382.00	4.15	0.10	4.05
379.40	0.22	0.07	0.15				
379.45	0.30	0.07	0.23				
379.50	0.40	0.07	0.33				
379.55	0.51	0.07	0.44				
379.60	0.63	0.07	0.56				
379.65	0.76	0.07	0.69				
379.70	0.89	0.07	0.82				
379.75	1.04	0.07	0.96				
379.80	1.18	0.07	1.11				
379.85	1.33	0.07	1.25				
379.90	1.47	0.07	1.39				
379.95	1.60	0.07	1.52				
380.00	1.71	0.07	1.64				
380.05	1.80	0.08	1.73				
380.10	1.90	0.08	1.83				
380.15	1.99	0.08	1.92				
380.20	2.08	0.08	2.01				
380.25	2.17	0.08	2.09				
380.30	2.25	0.08	2.17				
380.35	2.33	0.08	2.25				
380.40	2.40	0.08	2.32				
380.45	2.48	0.08	2.40				
380.50	2.55	0.08	2.47				
380.55	2.62	0.08	2.54				
380.60	2.68	0.08	2.60				

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Stage-Area-Storage for Pond 1P: DET. BASIN #3

Elevation (feet)	Surface (sq-ft)	Wetted (sq-ft)	Storage (cubic-feet)
378.00	3,035	3,035	0
378.10	3,078	3,082	306
378.20	3,121	3,129	616
378.30	3,164	3,177	930
378.40	3,208	3,225	1,248
378.50	3,252	3,274	1,571
378.60	3,296	3,322	1,899
378.70	3,341	3,371	2,231
378.80	3,386	3,421	2,567
378.90	3,431	3,471	2,908
379.00	3,477	3,521	3,253
379.10	3,522	3,571	3,603
379.20	3,568	3,622	3,958
379.30	3,615	3,673	4,317
379.40	3,662	3,724	4,681
379.50	3,709	3,776	5,049
379.60	3,756	3,828	5,422
379.70	3,803	3,880	5,800
379.80	3,851	3,933	6,183
379.90	3,900	3,986	6,571
380.00	3,948	4,039	6,963
380.10	3,996	4,092	7,360
380.20	4,045	4,146	7,762
380.30	4,094	4,200	8,169
380.40	4,143	4,254	8,581
380.50	4,192	4,309	8,998
380.60	4,242	4,363	9,420
380.70	4,292	4,419	9,846
380.80	4,343	4,474	10,278
380.90	4,393	4,530	10,715
381.00	4,444	4,586	11,157
381.10	4,496	4,642	11,604
381.20	4,547	4,699	12,056
381.30	4,599	4,756	12,513
381.40	4,651	4,814	12,976
381.50	4,703	4,872	13,443
381.60	4,756	4,930	13,916
381.70	4,809	4,988	14,395
381.80	4,863	5,047	14,878
381.90	4,916	5,106	15,367
382.00	4,970	5,165	15,861

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Summary for Pond 2P: ROOF RETENTION BLDG. #3

Inflow Area = 0.332 ac, 70.24% Impervious, Inflow Depth = 5.74" for 25 year event
 Inflow = 2.17 cfs @ 12.07 hrs, Volume= 0.159 af
 Outflow = 0.04 cfs @ 17.59 hrs, Volume= 0.072 af, Atten= 98%, Lag= 330.9 min
 Discarded = 0.04 cfs @ 17.59 hrs, Volume= 0.072 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.010 hrs
 Peak Elev= 384.90' @ 17.59 hrs Surf.Area= 2,229 sf Storage= 4,914 cf

Plug-Flow detention time= 472.6 min calculated for 0.072 af (45% of inflow)
 Center-of-Mass det. time= 349.6 min (1,126.2 - 776.6)

Volume	Invert	Avail.Storage	Storage Description
#1	382.00'	7,627 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
382.00	1,214	0	0	1,214
384.00	1,884	3,074	3,074	1,939
386.00	2,694	4,554	7,627	2,817

Device	Routing	Invert	Outlet Devices
#1	Discarded	382.00'	0.800 in/hr Exfiltration over Surface area Phase-In= 0.01'

Discarded OutFlow Max=0.04 cfs @ 17.59 hrs HW=384.90' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.04 cfs)

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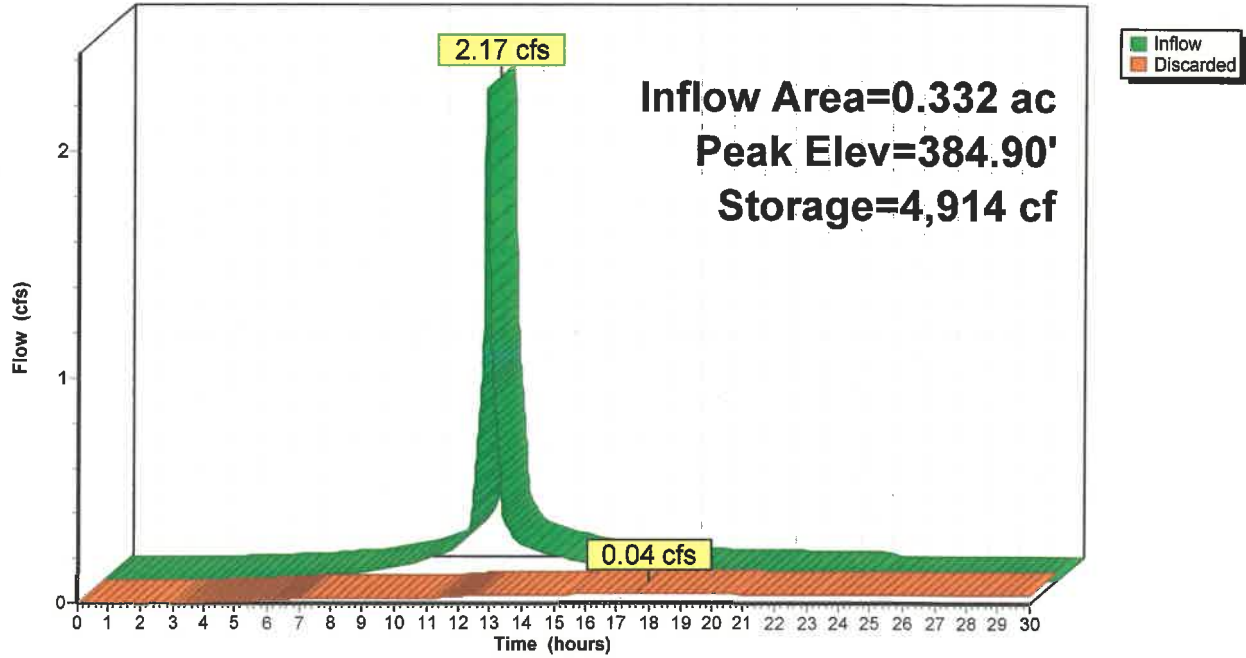
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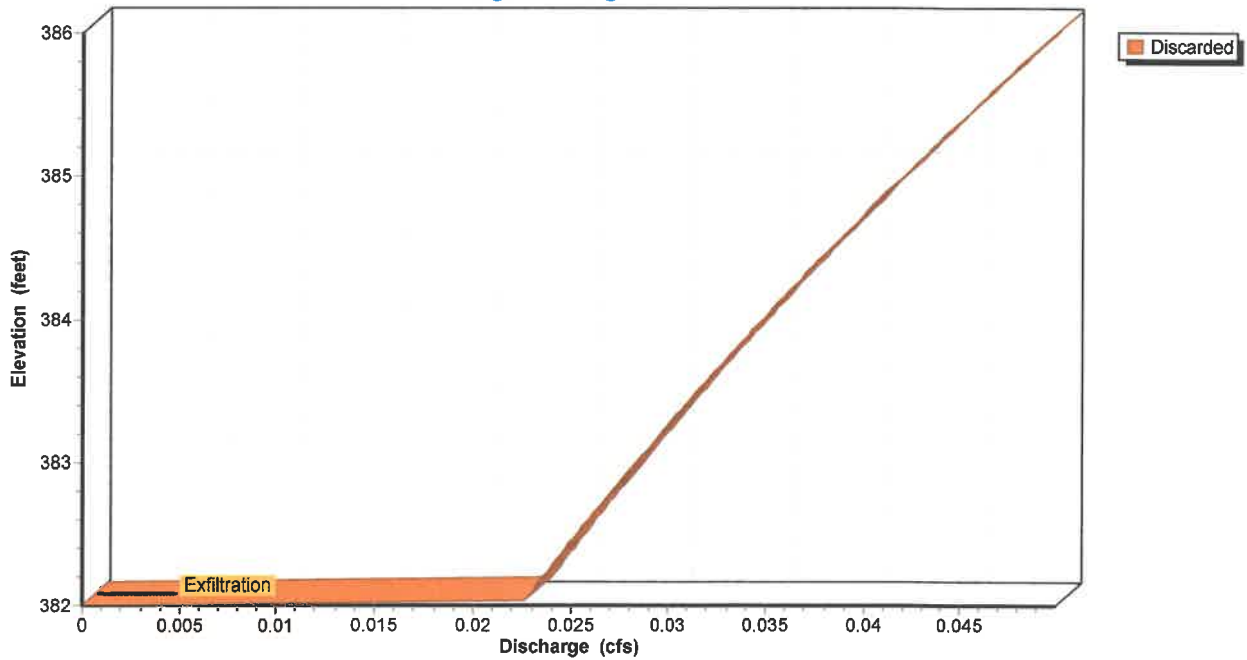
Pond 2P: ROOF RETENTION BLDG. #3

Hydrograph



Pond 2P: ROOF RETENTION BLDG. #3

Stage-Discharge



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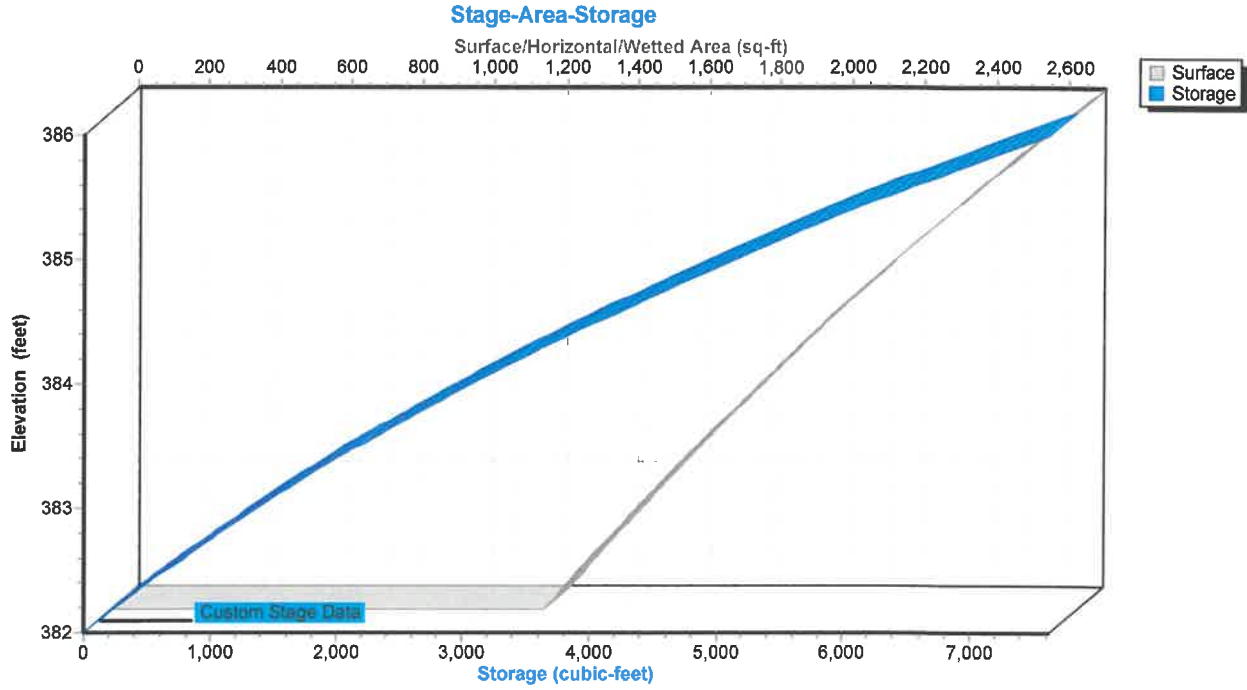
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Pond 2P: ROOF RETENTION BLDG. #3



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Hydrograph for Pond 2P: ROOF RETENTION BLDG. #3

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Discarded (cfs)
0.00	0.00	0	382.00	0.00
1.00	0.00	0	382.00	0.00
2.00	0.00	0	382.00	0.00
3.00	0.00	0	382.00	0.00
4.00	0.00	2	382.00	0.00
5.00	0.01	5	382.00	0.01
6.00	0.01	7	382.01	0.01
7.00	0.02	12	382.01	0.02
8.00	0.03	34	382.03	0.02
9.00	0.06	114	382.09	0.02
10.00	0.08	283	382.23	0.02
11.00	0.14	585	382.46	0.03
12.00	1.45	1,866	383.31	0.03
13.00	0.18	4,177	384.56	0.04
14.00	0.11	4,539	384.73	0.04
15.00	0.09	4,748	384.82	0.04
16.00	0.06	4,863	384.87	0.04
17.00	0.05	4,907	384.89	0.04
18.00	0.04	4,910	384.89	0.04
19.00	0.03	4,886	384.88	0.04
20.00	0.03	4,849	384.87	0.04
21.00	0.03	4,803	384.85	0.04
22.00	0.02	4,748	384.82	0.04
23.00	0.02	4,685	384.79	0.04
24.00	0.02	4,613	384.76	0.04
25.00	0.00	4,474	384.70	0.04
26.00	0.00	4,332	384.63	0.04
27.00	0.00	4,191	384.56	0.04
28.00	0.00	4,052	384.50	0.04
29.00	0.00	3,915	384.43	0.04
30.00	0.00	3,779	384.36	0.04

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Stage-Discharge for Pond 2P: ROOF RETENTION BLDG. #3

Elevation (feet)	Discarded (cfs)	Elevation (feet)	Discarded (cfs)	Elevation (feet)	Discarded (cfs)	Elevation (feet)	Discarded (cfs)
382.00	0.00	383.06	0.03	384.12	0.04	385.18	0.04
382.02	0.02	383.08	0.03	384.14	0.04	385.20	0.04
382.04	0.02	383.10	0.03	384.16	0.04	385.22	0.04
382.06	0.02	383.12	0.03	384.18	0.04	385.24	0.04
382.08	0.02	383.14	0.03	384.20	0.04	385.26	0.04
382.10	0.02	383.16	0.03	384.22	0.04	385.28	0.04
382.12	0.02	383.18	0.03	384.24	0.04	385.30	0.04
382.14	0.02	383.20	0.03	384.26	0.04	385.32	0.04
382.16	0.02	383.22	0.03	384.28	0.04	385.34	0.04
382.18	0.02	383.24	0.03	384.30	0.04	385.36	0.04
382.20	0.02	383.26	0.03	384.32	0.04	385.38	0.04
382.22	0.02	383.28	0.03	384.34	0.04	385.40	0.05
382.24	0.02	383.30	0.03	384.36	0.04	385.42	0.05
382.26	0.02	383.32	0.03	384.38	0.04	385.44	0.05
382.28	0.02	383.34	0.03	384.40	0.04	385.46	0.05
382.30	0.02	383.36	0.03	384.42	0.04	385.48	0.05
382.32	0.02	383.38	0.03	384.44	0.04	385.50	0.05
382.34	0.02	383.40	0.03	384.46	0.04	385.52	0.05
382.36	0.02	383.42	0.03	384.48	0.04	385.54	0.05
382.38	0.02	383.44	0.03	384.50	0.04	385.56	0.05
382.40	0.02	383.46	0.03	384.52	0.04	385.58	0.05
382.42	0.02	383.48	0.03	384.54	0.04	385.60	0.05
382.44	0.02	383.50	0.03	384.56	0.04	385.62	0.05
382.46	0.03	383.52	0.03	384.58	0.04	385.64	0.05
382.48	0.03	383.54	0.03	384.60	0.04	385.66	0.05
382.50	0.03	383.56	0.03	384.62	0.04	385.68	0.05
382.52	0.03	383.58	0.03	384.64	0.04	385.70	0.05
382.54	0.03	383.60	0.03	384.66	0.04	385.72	0.05
382.56	0.03	383.62	0.03	384.68	0.04	385.74	0.05
382.58	0.03	383.64	0.03	384.70	0.04	385.76	0.05
382.60	0.03	383.66	0.03	384.72	0.04	385.78	0.05
382.62	0.03	383.68	0.03	384.74	0.04	385.80	0.05
382.64	0.03	383.70	0.03	384.76	0.04	385.82	0.05
382.66	0.03	383.72	0.03	384.78	0.04	385.84	0.05
382.68	0.03	383.74	0.03	384.80	0.04	385.86	0.05
382.70	0.03	383.76	0.03	384.82	0.04	385.88	0.05
382.72	0.03	383.78	0.03	384.84	0.04	385.90	0.05
382.74	0.03	383.80	0.03	384.86	0.04	385.92	0.05
382.76	0.03	383.82	0.03	384.88	0.04	385.94	0.05
382.78	0.03	383.84	0.03	384.90	0.04	385.96	0.05
382.80	0.03	383.86	0.03	384.92	0.04	385.98	0.05
382.82	0.03	383.88	0.03	384.94	0.04	386.00	0.05
382.84	0.03	383.90	0.03	384.96	0.04		
382.86	0.03	383.92	0.03	384.98	0.04		
382.88	0.03	383.94	0.03	385.00	0.04		
382.90	0.03	383.96	0.03	385.02	0.04		
382.92	0.03	383.98	0.03	385.04	0.04		
382.94	0.03	384.00	0.03	385.06	0.04		
382.96	0.03	384.02	0.04	385.08	0.04		
382.98	0.03	384.04	0.04	385.10	0.04		
383.00	0.03	384.06	0.04	385.12	0.04		
383.02	0.03	384.08	0.04	385.14	0.04		
383.04	0.03	384.10	0.04	385.16	0.04		

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Stage-Area-Storage for Pond 2P: ROOF RETENTION BLDG. #3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
382.00	1,214	0	384.65	2,131	4,378
382.05	1,229	61	384.70	2,151	4,485
382.10	1,244	123	384.75	2,171	4,593
382.15	1,259	185	384.80	2,191	4,702
382.20	1,274	249	384.85	2,211	4,812
382.25	1,290	313	384.90	2,231	4,923
382.30	1,305	378	384.95	2,251	5,035
382.35	1,321	443	385.00	2,271	5,148
382.40	1,336	510	385.05	2,291	5,262
382.45	1,352	577	385.10	2,312	5,377
382.50	1,368	645	385.15	2,332	5,493
382.55	1,384	714	385.20	2,353	5,610
382.60	1,400	783	385.25	2,373	5,729
382.65	1,416	854	385.30	2,394	5,848
382.70	1,432	925	385.35	2,415	5,968
382.75	1,448	997	385.40	2,436	6,089
382.80	1,464	1,070	385.45	2,457	6,212
382.85	1,481	1,143	385.50	2,478	6,335
382.90	1,497	1,218	385.55	2,499	6,459
382.95	1,514	1,293	385.60	2,520	6,585
383.00	1,531	1,369	385.65	2,542	6,711
383.05	1,547	1,446	385.70	2,563	6,839
383.10	1,564	1,524	385.75	2,585	6,968
383.15	1,581	1,603	385.80	2,606	7,097
383.20	1,598	1,682	385.85	2,628	7,228
383.25	1,616	1,763	385.90	2,650	7,360
383.30	1,633	1,844	385.95	2,672	7,493
383.35	1,650	1,926	386.00	2,694	7,627
383.40	1,668	2,009			
383.45	1,685	2,093			
383.50	1,703	2,177			
383.55	1,720	2,263			
383.60	1,738	2,349			
383.65	1,756	2,437			
383.70	1,774	2,525			
383.75	1,792	2,614			
383.80	1,810	2,704			
383.85	1,829	2,795			
383.90	1,847	2,887			
383.95	1,865	2,980			
384.00	1,884	3,074			
384.05	1,902	3,168			
384.10	1,921	3,264			
384.15	1,940	3,360			
384.20	1,958	3,458			
384.25	1,977	3,556			
384.30	1,996	3,656			
384.35	2,015	3,756			
384.40	2,034	3,857			
384.45	2,054	3,959			
384.50	2,073	4,062			
384.55	2,092	4,167			
384.60	2,112	4,272			

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Summary for Pond 3P: ROOF RETENTION BLDG. #1

Inflow Area = 0.410 ac, 62.70% Impervious, Inflow Depth = 5.52" for 25 year event
 Inflow = 2.62 cfs @ 12.07 hrs, Volume= 0.189 af
 Outflow = 0.05 cfs @ 17.70 hrs, Volume= 0.081 af, Atten= 98%, Lag= 337.6 min
 Discarded = 0.05 cfs @ 17.70 hrs, Volume= 0.081 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.010 hrs
 Peak Elev= 381.45' @ 17.70 hrs Surf.Area= 2,643 sf Storage= 6,017 cf

Plug-Flow detention time= 502.2 min calculated for 0.081 af (43% of inflow)
 Center-of-Mass det. time= 377.6 min (1,160.8 - 783.1)

Volume	Invert	Avail.Storage	Storage Description
#1	378.00'	7,551 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
378.00	900	0	0
380.00	1,855	2,755	2,755
382.00	2,941	4,796	7,551

Device	Routing	Invert	Outlet Devices
#1	Discarded	378.00'	0.800 in/hr Exfiltration over Surface area Phase-In= 0.01'

Discarded OutFlow Max=0.05 cfs @ 17.70 hrs HW=381.45' (Free Discharge)
 ↳1=Exfiltration (Exfiltration Controls 0.05 cfs)

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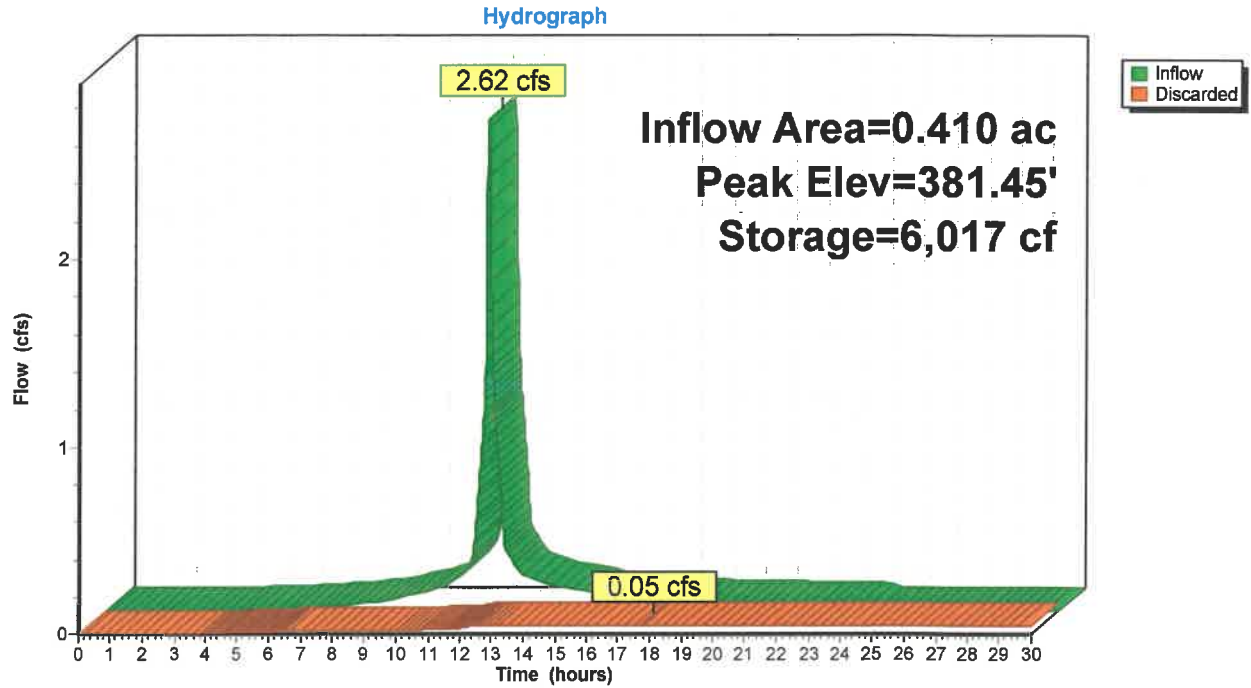
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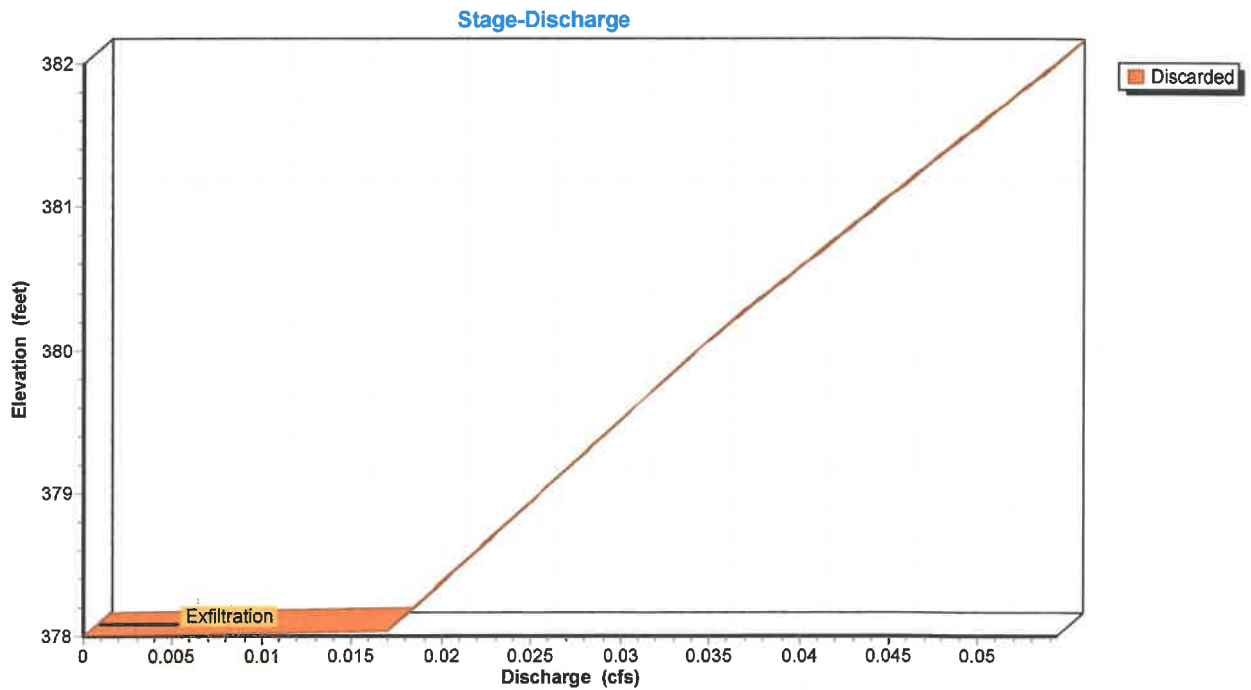
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Pond 3P: ROOF RETENTION BLDG. #1



Pond 3P: ROOF RETENTION BLDG. #1



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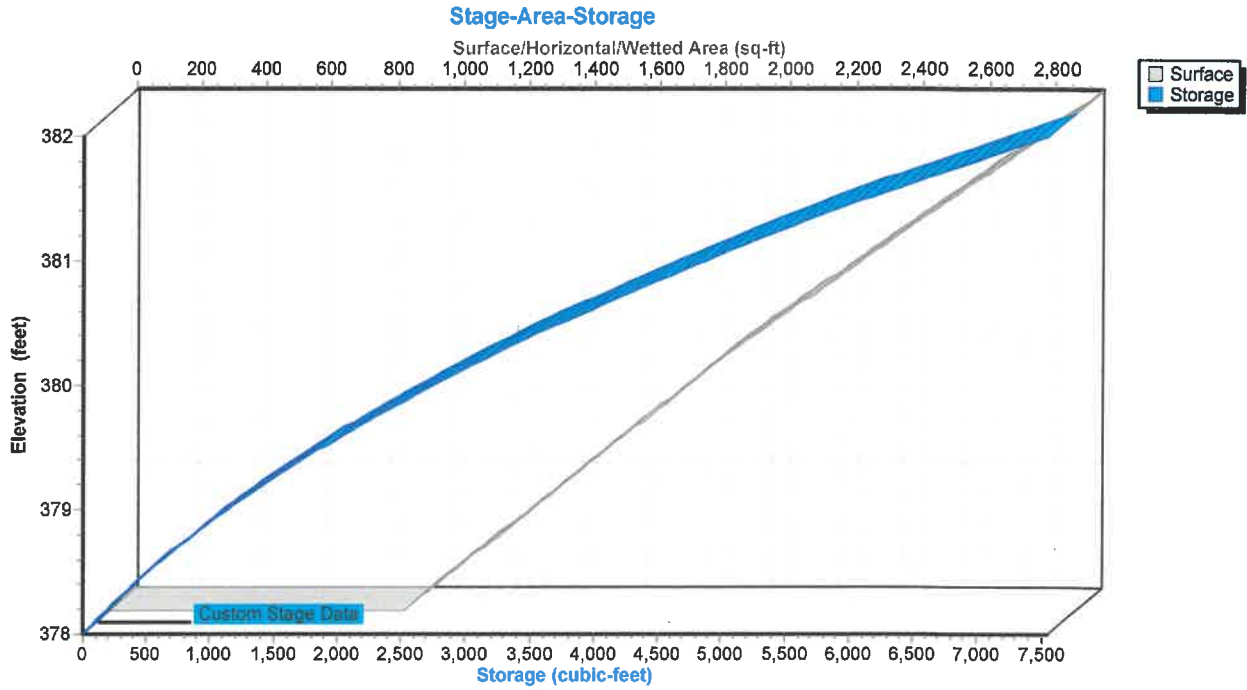
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Pond 3P: ROOF RETENTION BLDG. #1



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Hydrograph for Pond 3P: ROOF RETENTION BLDG. #1

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Discarded (cfs)
0.00	0.00	0	378.00	0.00
1.00	0.00	0	378.00	0.00
2.00	0.00	0	378.00	0.00
3.00	0.00	0	378.00	0.00
4.00	0.00	1	378.00	0.00
5.00	0.01	4	378.00	0.01
6.00	0.01	7	378.01	0.01
7.00	0.02	15	378.02	0.02
8.00	0.04	60	378.07	0.02
9.00	0.06	170	378.18	0.02
10.00	0.09	382	378.39	0.02
11.00	0.16	752	378.70	0.02
12.00	1.74	2,285	379.74	0.03
13.00	0.22	5,091	381.09	0.05
14.00	0.14	5,539	381.27	0.05
15.00	0.10	5,800	381.37	0.05
16.00	0.07	5,946	381.42	0.05
17.00	0.06	6,005	381.45	0.05
18.00	0.04	6,015	381.45	0.05
19.00	0.04	5,990	381.44	0.05
20.00	0.04	5,951	381.43	0.05
21.00	0.03	5,900	381.41	0.05
22.00	0.03	5,838	381.38	0.05
23.00	0.03	5,767	381.35	0.05
24.00	0.02	5,685	381.32	0.05
25.00	0.00	5,521	381.26	0.05
26.00	0.00	5,353	381.19	0.05
27.00	0.00	5,187	381.13	0.05
28.00	0.00	5,024	381.06	0.05
29.00	0.00	4,863	380.99	0.04
30.00	0.00	4,705	380.93	0.04

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Stage-Discharge for Pond 3P: ROOF RETENTION BLDG. #1

Elevation (feet)	Discarded (cfs)	Elevation (feet)	Discarded (cfs)	Elevation (feet)	Discarded (cfs)	Elevation (feet)	Discarded (cfs)
378.00	0.00	379.06	0.03	380.12	0.04	381.18	0.05
378.02	0.02	379.08	0.03	380.14	0.04	381.20	0.05
378.04	0.02	379.10	0.03	380.16	0.04	381.22	0.05
378.06	0.02	379.12	0.03	380.18	0.04	381.24	0.05
378.08	0.02	379.14	0.03	380.20	0.04	381.26	0.05
378.10	0.02	379.16	0.03	380.22	0.04	381.28	0.05
378.12	0.02	379.18	0.03	380.24	0.04	381.30	0.05
378.14	0.02	379.20	0.03	380.26	0.04	381.32	0.05
378.16	0.02	379.22	0.03	380.28	0.04	381.34	0.05
378.18	0.02	379.24	0.03	380.30	0.04	381.36	0.05
378.20	0.02	379.26	0.03	380.32	0.04	381.38	0.05
378.22	0.02	379.28	0.03	380.34	0.04	381.40	0.05
378.24	0.02	379.30	0.03	380.36	0.04	381.42	0.05
378.26	0.02	379.32	0.03	380.38	0.04	381.44	0.05
378.28	0.02	379.34	0.03	380.40	0.04	381.46	0.05
378.30	0.02	379.36	0.03	380.42	0.04	381.48	0.05
378.32	0.02	379.38	0.03	380.44	0.04	381.50	0.05
378.34	0.02	379.40	0.03	380.46	0.04	381.52	0.05
378.36	0.02	379.42	0.03	380.48	0.04	381.54	0.05
378.38	0.02	379.44	0.03	380.50	0.04	381.56	0.05
378.40	0.02	379.46	0.03	380.52	0.04	381.58	0.05
378.42	0.02	379.48	0.03	380.54	0.04	381.60	0.05
378.44	0.02	379.50	0.03	380.56	0.04	381.62	0.05
378.46	0.02	379.52	0.03	380.58	0.04	381.64	0.05
378.48	0.02	379.54	0.03	380.60	0.04	381.66	0.05
378.50	0.02	379.56	0.03	380.62	0.04	381.68	0.05
378.52	0.02	379.58	0.03	380.64	0.04	381.70	0.05
378.54	0.02	379.60	0.03	380.66	0.04	381.72	0.05
378.56	0.02	379.62	0.03	380.68	0.04	381.74	0.05
378.58	0.02	379.64	0.03	380.70	0.04	381.76	0.05
378.60	0.02	379.66	0.03	380.72	0.04	381.78	0.05
378.62	0.02	379.68	0.03	380.74	0.04	381.80	0.05
378.64	0.02	379.70	0.03	380.76	0.04	381.82	0.05
378.66	0.02	379.72	0.03	380.78	0.04	381.84	0.05
378.68	0.02	379.74	0.03	380.80	0.04	381.86	0.05
378.70	0.02	379.76	0.03	380.82	0.04	381.88	0.05
378.72	0.02	379.78	0.03	380.84	0.04	381.90	0.05
378.74	0.02	379.80	0.03	380.86	0.04	381.92	0.05
378.76	0.02	379.82	0.03	380.88	0.04	381.94	0.05
378.78	0.02	379.84	0.03	380.90	0.04	381.96	0.05
378.80	0.02	379.86	0.03	380.92	0.04	381.98	0.05
378.82	0.02	379.88	0.03	380.94	0.04	382.00	0.05
378.84	0.02	379.90	0.03	380.96	0.04		
378.86	0.02	379.92	0.03	380.98	0.04		
378.88	0.02	379.94	0.03	381.00	0.04		
378.90	0.02	379.96	0.03	381.02	0.04		
378.92	0.02	379.98	0.03	381.04	0.04		
378.94	0.02	380.00	0.03	381.06	0.05		
378.96	0.03	380.02	0.03	381.08	0.05		
378.98	0.03	380.04	0.03	381.10	0.05		
379.00	0.03	380.06	0.03	381.12	0.05		
379.02	0.03	380.08	0.04	381.14	0.05		
379.04	0.03	380.10	0.04	381.16	0.05		

PRE-POST-ANALYSIS

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Type III 24-hr 25 year Rainfall=6.81"

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Stage-Area-Storage for Pond 3P: ROOF RETENTION BLDG. #1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
378.00	900	0	380.65	2,208	4,075
378.05	924	46	380.70	2,235	4,187
378.10	948	92	380.75	2,262	4,299
378.15	972	140	380.80	2,289	4,413
378.20	995	190	380.85	2,317	4,528
378.25	1,019	240	380.90	2,344	4,644
378.30	1,043	291	380.95	2,371	4,762
378.35	1,067	344	381.00	2,398	4,882
378.40	1,091	398	381.05	2,425	5,002
378.45	1,115	453	381.10	2,452	5,124
378.50	1,139	510	381.15	2,479	5,247
378.55	1,163	567	381.20	2,507	5,372
378.60	1,187	626	381.25	2,534	5,498
378.65	1,210	686	381.30	2,561	5,625
378.70	1,234	747	381.35	2,588	5,754
378.75	1,258	809	381.40	2,615	5,884
378.80	1,282	873	381.45	2,642	6,016
378.85	1,306	937	381.50	2,670	6,148
378.90	1,330	1,003	381.55	2,697	6,283
378.95	1,354	1,070	381.60	2,724	6,418
379.00	1,378	1,139	381.65	2,751	6,555
379.05	1,401	1,208	381.70	2,778	6,693
379.10	1,425	1,279	381.75	2,805	6,833
379.15	1,449	1,351	381.80	2,832	6,974
379.20	1,473	1,424	381.85	2,860	7,116
379.25	1,497	1,498	381.90	2,887	7,260
379.30	1,521	1,573	381.95	2,914	7,405
379.35	1,545	1,650	382.00	2,941	7,551
379.40	1,568	1,728			
379.45	1,592	1,807			
379.50	1,616	1,887			
379.55	1,640	1,969			
379.60	1,664	2,051			
379.65	1,688	2,135			
379.70	1,712	2,220			
379.75	1,736	2,306			
379.80	1,760	2,394			
379.85	1,783	2,482			
379.90	1,807	2,572			
379.95	1,831	2,663			
380.00	1,855	2,755			
380.05	1,882	2,848			
380.10	1,909	2,943			
380.15	1,936	3,039			
380.20	1,964	3,137			
380.25	1,991	3,236			
380.30	2,018	3,336			
380.35	2,045	3,438			
380.40	2,072	3,540			
380.45	2,099	3,645			
380.50	2,127	3,750			
380.55	2,154	3,857			
380.60	2,181	3,966			

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Summary for Pond 4P: DET. GAL. #2

Inflow Area = 2.913 ac, 97.93% Impervious, Inflow Depth = 6.51" for 25 year event
Inflow = 17.05 cfs @ 12.13 hrs, Volume= 1.581 af
Outflow = 10.96 cfs @ 12.26 hrs, Volume= 1.484 af, Atten= 36%, Lag= 7.8 min
Discarded = 0.16 cfs @ 12.26 hrs, Volume= 0.309 af
Primary = 10.81 cfs @ 12.26 hrs, Volume= 1.175 af
Routed to Link 1L : TOTAL POST DEV DA#2

Routing by Dyn-Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.010 hrs
Peak Elev= 380.30' @ 12.26 hrs Surf.Area= 0.150 ac Storage= 0.375 af

Plug-Flow detention time= 114.8 min calculated for 1.484 af (94% of inflow)
Center-of-Mass det. time= 80.0 min (830.5 - 750.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	376.50'	0.141 af	30.00'W x 217.17'L x 4.00'H Field A 0.598 af Overall - 0.245 af Embedded = 0.353 af x 40.0% Voids
#2A	377.00'	0.245 af	Cultec R-360HD x 290 Inside #1 Effective Size= 54.9"W x 36.0"H => 9.99 sf x 3.67'L = 36.6 cf Overall Size= 60.0"W x 36.0"H x 4.17'L with 0.50' Overlap 290 Chambers in 5 Rows Cap Storage= 6.5 cf x 2 x 5 rows = 64.6 cf
		0.387 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	376.50'	0.800 in/hr Exfiltration over Wetted area Phase-In= 0.01'
#2	Primary	378.00'	10.0" Vert. Orifice/Grate X 3.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.16 cfs @ 12.26 hrs HW=380.30' (Free Discharge)
↑1=Exfiltration (Exfiltration Controls 0.16 cfs)

Primary OutFlow Max=10.81 cfs @ 12.26 hrs HW=380.30' TW=0.00' (Dynamic Tailwater)
↑2=Orifice/Grate (Orifice Controls 10.81 cfs @ 6.60 fps)

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Pond 4P: DET. GAL. #2 - Chamber Wizard Field A

Chamber Model = Cultec R-360HD (Cultec Recharger®360HD)

Effective Size= 54.9"W x 36.0"H => 9.99 sf x 3.67'L = 36.6 cf

Overall Size= 60.0"W x 36.0"H x 4.17'L with 0.50' Overlap

Cap Storage= 6.5 cf x 2 x 5 rows = 64.6 cf

60.0" Wide + 9.0" Spacing = 69.0" C-C Row Spacing

58 Chambers/Row x 3.67' Long +1.25' Cap Length x 2 = 215.17' Row Length +12.0" End Stone x 2 = 217.17' Base Length

5 Rows x 60.0" Wide + 9.0" Spacing x 4 + 12.0" Side Stone x 2 = 30.00' Base Width

6.0" Stone Base + 36.0" Chamber Height + 6.0" Stone Cover = 4.00' Field Height

290 Chambers x 36.6 cf + 6.5 cf Cap Volume x 2 x 5 Rows = 10,691.6 cf Chamber Storage

26,060.0 cf Field - 10,691.6 cf Chambers = 15,368.4 cf Stone x 40.0% Voids = 6,147.4 cf Stone Storage

Chamber Storage + Stone Storage = 16,838.9 cf = 0.387 af

Overall Storage Efficiency = 64.6%

Overall System Size = 217.17' x 30.00' x 4.00'

290 Chambers

965.2 cy Field

569.2 cy Stone



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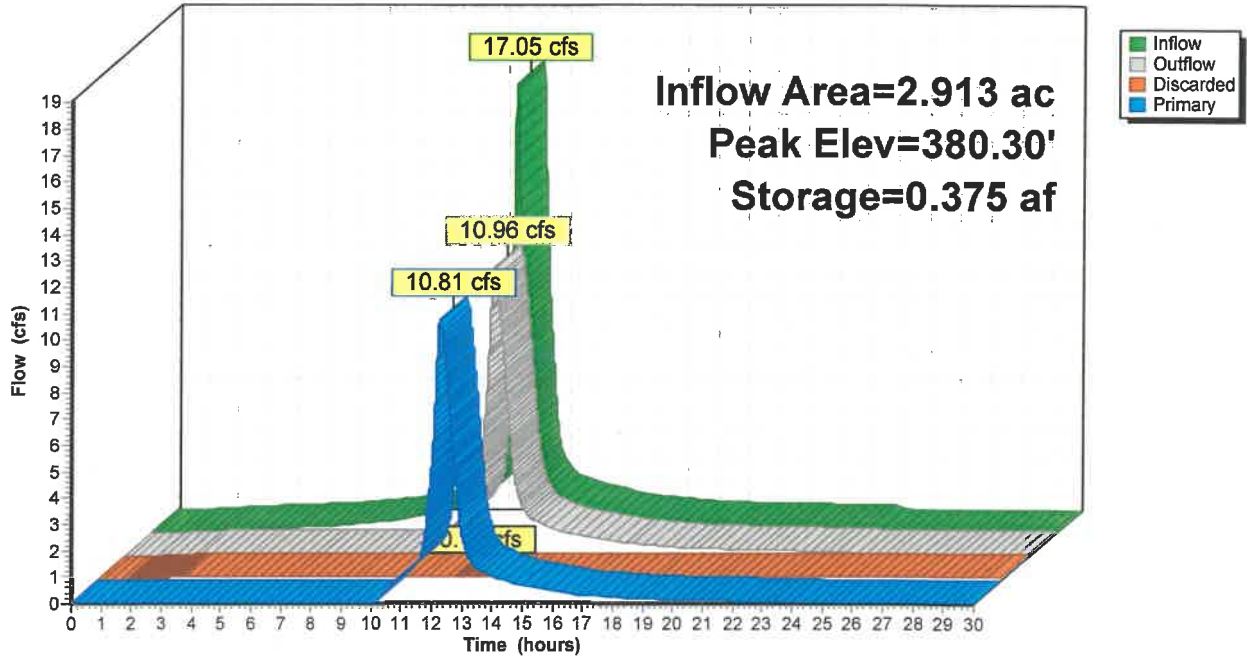
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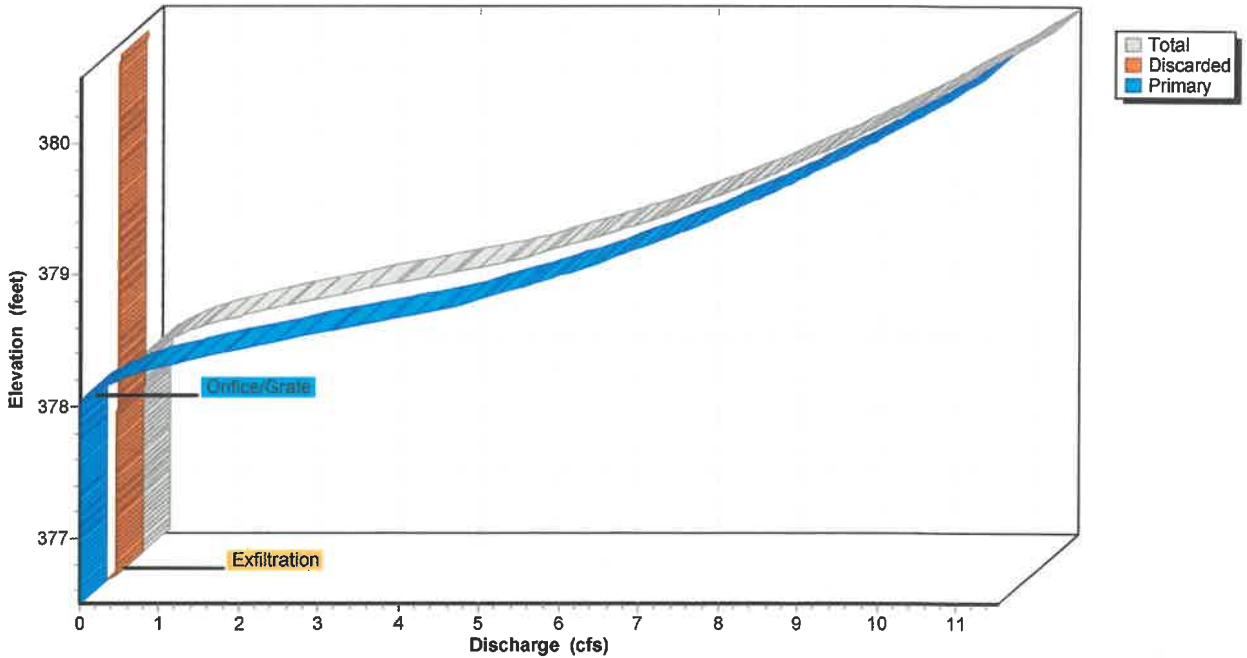
Pond 4P: DET. GAL. #2

Hydrograph



Pond 4P: DET. GAL. #2

Stage-Discharge



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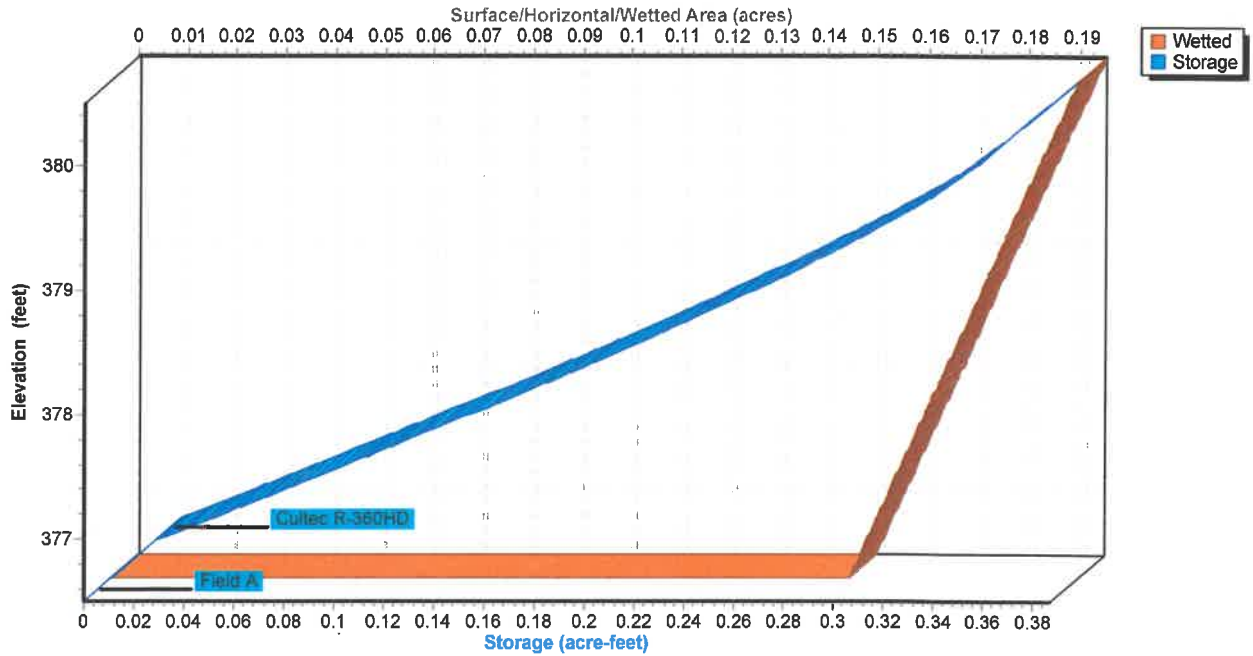
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Pond 4P: DET. GAL. #2

Stage-Area-Storage



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Hydrograph for Pond 4P: DET. GAL. #2

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.00	0.000	376.50	0.00	0.00	0.00
1.00	0.01	0.000	376.50	0.01	0.01	0.00
2.00	0.08	0.000	376.51	0.08	0.08	0.00
3.00	0.13	0.001	376.51	0.12	0.12	0.00
4.00	0.18	0.004	376.57	0.12	0.12	0.00
5.00	0.23	0.011	376.68	0.12	0.12	0.00
6.00	0.27	0.021	376.86	0.12	0.12	0.00
7.00	0.36	0.037	377.06	0.13	0.13	0.00
8.00	0.47	0.061	377.24	0.13	0.13	0.00
9.00	0.68	0.097	377.53	0.13	0.13	0.00
10.00	0.91	0.152	377.98	0.13	0.13	0.00
11.00	1.36	0.191	378.31	1.20	0.14	1.06
12.00	9.13	0.259	378.91	5.68	0.14	5.54
13.00	1.74	0.214	378.51	2.68	0.14	2.54
14.00	1.05	0.191	378.31	1.16	0.14	1.03
15.00	0.78	0.184	378.25	0.85	0.14	0.71
16.00	0.55	0.179	378.21	0.62	0.14	0.49
17.00	0.43	0.175	378.17	0.47	0.14	0.34
18.00	0.33	0.171	378.14	0.38	0.14	0.24
19.00	0.29	0.169	378.12	0.31	0.14	0.18
20.00	0.26	0.168	378.11	0.28	0.14	0.15
21.00	0.24	0.166	378.10	0.25	0.14	0.12
22.00	0.22	0.165	378.09	0.23	0.14	0.10
23.00	0.20	0.164	378.08	0.21	0.14	0.08
24.00	0.17	0.162	378.07	0.19	0.13	0.06
25.00	0.00	0.152	377.98	0.13	0.13	0.00
26.00	0.00	0.141	377.89	0.13	0.13	0.00
27.00	0.00	0.130	377.80	0.13	0.13	0.00
28.00	0.00	0.119	377.71	0.13	0.13	0.00
29.00	0.00	0.108	377.62	0.13	0.13	0.00
30.00	0.00	0.097	377.54	0.13	0.13	0.00

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Stage-Discharge for Pond 4P: DET. GAL. #2

Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)	Elevation (feet)	Discharge (cfs)	Discarded (cfs)	Primary (cfs)
376.50	0.00	0.00	0.00	379.15	6.89	0.14	6.75
376.55	0.12	0.12	0.00	379.20	7.12	0.15	6.97
376.60	0.12	0.12	0.00	379.25	7.34	0.15	7.19
376.65	0.12	0.12	0.00	379.30	7.55	0.15	7.40
376.70	0.12	0.12	0.00	379.35	7.76	0.15	7.61
376.75	0.12	0.12	0.00	379.40	7.96	0.15	7.81
376.80	0.12	0.12	0.00	379.45	8.16	0.15	8.01
376.85	0.12	0.12	0.00	379.50	8.35	0.15	8.20
376.90	0.12	0.12	0.00	379.55	8.54	0.15	8.39
376.95	0.12	0.12	0.00	379.60	8.72	0.15	8.57
377.00	0.13	0.13	0.00	379.65	8.90	0.15	8.75
377.05	0.13	0.13	0.00	379.70	9.08	0.15	8.93
377.10	0.13	0.13	0.00	379.75	9.25	0.15	9.10
377.15	0.13	0.13	0.00	379.80	9.42	0.15	9.27
377.20	0.13	0.13	0.00	379.85	9.58	0.15	9.43
377.25	0.13	0.13	0.00	379.90	9.75	0.15	9.60
377.30	0.13	0.13	0.00	379.95	9.91	0.15	9.76
377.35	0.13	0.13	0.00	380.00	10.07	0.15	9.91
377.40	0.13	0.13	0.00	380.05	10.22	0.15	10.07
377.45	0.13	0.13	0.00	380.10	10.38	0.15	10.22
377.50	0.13	0.13	0.00	380.15	10.53	0.15	10.37
377.55	0.13	0.13	0.00	380.20	10.68	0.15	10.52
377.60	0.13	0.13	0.00	380.25	10.82	0.15	10.67
377.65	0.13	0.13	0.00	380.30	10.97	0.16	10.81
377.70	0.13	0.13	0.00	380.35	11.11	0.16	10.95
377.75	0.13	0.13	0.00	380.40	11.25	0.16	11.10
377.80	0.13	0.13	0.00	380.45	11.39	0.16	11.23
377.85	0.13	0.13	0.00	380.50	11.53	0.16	11.37
377.90	0.13	0.13	0.00				
377.95	0.13	0.13	0.00				
378.00	0.13	0.13	0.00				
378.05	0.17	0.13	0.03				
378.10	0.26	0.14	0.12				
378.15	0.40	0.14	0.26				
378.20	0.60	0.14	0.46				
378.25	0.84	0.14	0.70				
378.30	1.13	0.14	0.99				
378.35	1.45	0.14	1.31				
378.40	1.81	0.14	1.67				
378.45	2.20	0.14	2.06				
378.50	2.61	0.14	2.47				
378.55	3.03	0.14	2.89				
378.60	3.47	0.14	3.33				
378.65	3.90	0.14	3.76				
378.70	4.32	0.14	4.18				
378.75	4.71	0.14	4.57				
378.80	5.06	0.14	4.92				
378.85	5.33	0.14	5.19				
378.90	5.62	0.14	5.48				
378.95	5.90	0.14	5.75				
379.00	6.16	0.14	6.02				
379.05	6.41	0.14	6.27				
379.10	6.66	0.14	6.51				

PRE-POST-ANALYSIS

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Stage-Area-Storage for Pond 4P: DET. GAL. #2

Elevation (feet)	Wetted (acres)	Storage (acre-feet)	Elevation (feet)	Wetted (acres)	Storage (acre-feet)
376.50	0.150	0.000	379.15	0.180	0.284
376.55	0.150	0.003	379.20	0.180	0.289
376.60	0.151	0.006	379.25	0.181	0.294
376.65	0.151	0.009	379.30	0.181	0.299
376.70	0.152	0.012	379.35	0.182	0.304
376.75	0.152	0.015	379.40	0.182	0.309
376.80	0.153	0.018	379.45	0.183	0.314
376.85	0.154	0.021	379.50	0.184	0.318
376.90	0.154	0.024	379.55	0.184	0.323
376.95	0.155	0.027	379.60	0.185	0.327
377.00	0.155	0.030	379.65	0.185	0.332
377.05	0.156	0.036	379.70	0.186	0.336
377.10	0.156	0.043	379.75	0.186	0.340
377.15	0.157	0.049	379.80	0.187	0.343
377.20	0.158	0.055	379.85	0.188	0.347
377.25	0.158	0.062	379.90	0.188	0.350
377.30	0.159	0.068	379.95	0.189	0.354
377.35	0.159	0.074	380.00	0.189	0.357
377.40	0.160	0.080	380.05	0.190	0.360
377.45	0.160	0.087	380.10	0.190	0.363
377.50	0.161	0.093	380.15	0.191	0.366
377.55	0.161	0.099	380.20	0.192	0.369
377.60	0.162	0.105	380.25	0.192	0.372
377.65	0.163	0.112	380.30	0.193	0.375
377.70	0.163	0.118	380.35	0.193	0.378
377.75	0.164	0.124	380.40	0.194	0.381
377.80	0.164	0.130	380.45	0.194	0.384
377.85	0.165	0.136	380.50	0.195	0.387
377.90	0.165	0.142			
377.95	0.166	0.148			
378.00	0.167	0.154			
378.05	0.167	0.160			
378.10	0.168	0.166			
378.15	0.168	0.172			
378.20	0.169	0.178			
378.25	0.169	0.184			
378.30	0.170	0.190			
378.35	0.171	0.196			
378.40	0.171	0.202			
378.45	0.172	0.207			
378.50	0.172	0.213			
378.55	0.173	0.219			
378.60	0.173	0.225			
378.65	0.174	0.230			
378.70	0.175	0.236			
378.75	0.175	0.241			
378.80	0.176	0.247			
378.85	0.176	0.252			
378.90	0.177	0.258			
378.95	0.177	0.263			
379.00	0.178	0.268			
379.05	0.179	0.274			
379.10	0.179	0.279			

PRE-POST-ANALYSIS

Prepared by CCA, LLC
HydroCAD® 10.20-7a s/n 01461 © 2025 HydroCAD Software Solutions LLC

Type III 24-hr 25 year Rainfall=6.81"

Printed 7/14/2025

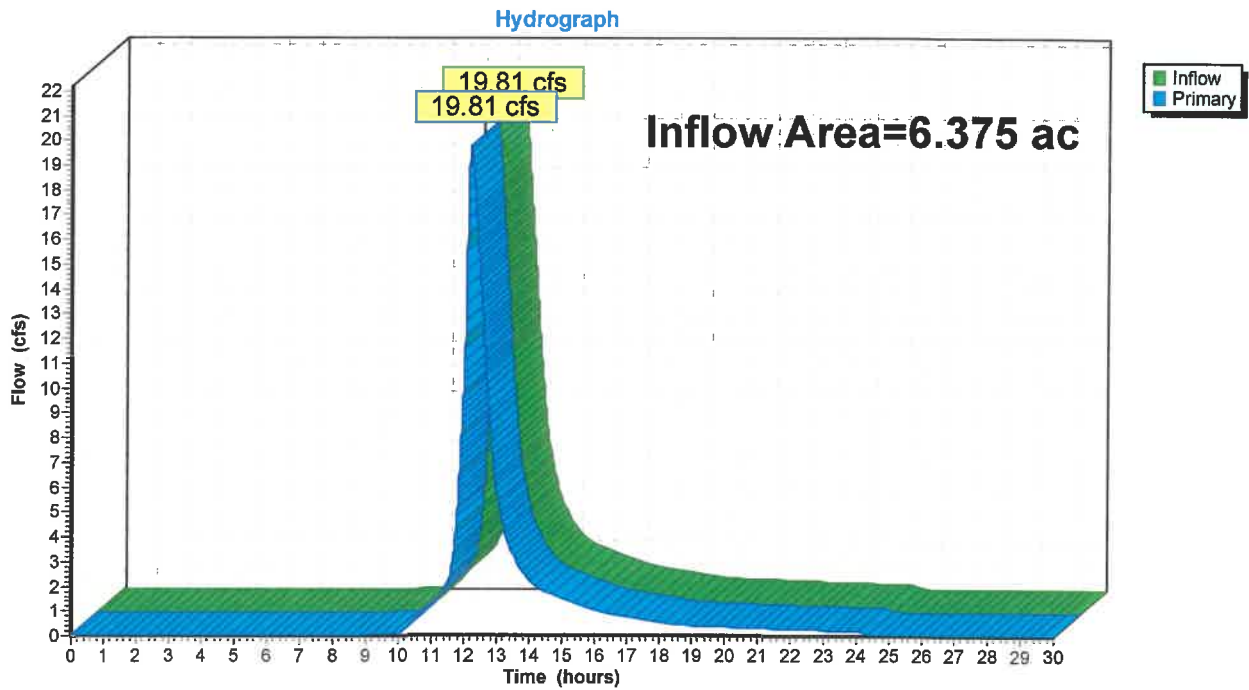
Page 48

Summary for Link 1L: TOTAL POST DEV DA#2

Inflow Area = 6.375 ac, 62.78% Impervious, Inflow Depth = 4.29" for 25 year event
Inflow = 19.81 cfs @ 12.19 hrs, Volume= 2.281 af
Primary = 19.81 cfs @ 12.19 hrs, Volume= 2.281 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.010 hrs

Link 1L: TOTAL POST DEV DA#2



PRE-POST-ANALYSIS

Type III 24-hr 25 year Rainfall=6.81"

Prepared by CCA, LLC

Printed 7/14/2025

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Hydrograph for Link 1L: TOTAL POST DEV DA#2

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.50	0.00	0.00	0.00
0.50	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.50	0.00	0.00	0.00
1.50	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.50	0.00	0.00	0.00
2.50	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.50	0.00	0.00	0.00
3.50	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.00	0.00	0.00	0.00				
4.50	0.00	0.00	0.00				
5.00	0.00	0.00	0.00				
5.50	0.00	0.00	0.00				
6.00	0.00	0.00	0.00				
6.50	0.00	0.00	0.00				
7.00	0.00	0.00	0.00				
7.50	0.00	0.00	0.00				
8.00	0.00	0.00	0.00				
8.50	0.01	0.00	0.01				
9.00	0.04	0.00	0.04				
9.50	0.07	0.00	0.07				
10.00	0.12	0.00	0.12				
10.50	0.73	0.00	0.73				
11.00	1.36	0.00	1.36				
11.50	2.28	0.00	2.28				
12.00	10.68	0.00	10.68				
12.50	14.31	0.00	14.31				
13.00	5.74	0.00	5.74				
13.50	3.29	0.00	3.29				
14.00	2.29	0.00	2.29				
14.50	1.81	0.00	1.81				
15.00	1.53	0.00	1.53				
15.50	1.29	0.00	1.29				
16.00	1.06	0.00	1.06				
16.50	0.88	0.00	0.88				
17.00	0.76	0.00	0.76				
17.50	0.66	0.00	0.66				
18.00	0.56	0.00	0.56				
18.50	0.49	0.00	0.49				
19.00	0.44	0.00	0.44				
19.50	0.41	0.00	0.41				
20.00	0.37	0.00	0.37				
20.50	0.35	0.00	0.35				
21.00	0.32	0.00	0.32				
21.50	0.30	0.00	0.30				
22.00	0.27	0.00	0.27				
22.50	0.25	0.00	0.25				
23.00	0.23	0.00	0.23				
23.50	0.21	0.00	0.21				
24.00	0.19	0.00	0.19				
24.50	0.02	0.00	0.02				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				
26.00	0.00	0.00	0.00				

MBLU K16-156
N/F
FUELCELL ENERGY, INC.
VOLUME 1363 PAGE 1146

MBLU L16-005
516,381 S.F.
11.854 AC.

MBLU L16-001
N/F
PUTNAM THREE SELF STORAGE COMPANY, LLC
VOLUME 2688 PAGE 59

MBLU L16-004
N/F
MARY ALICE PUTNAM,
JOSEPH PUTNAM &
ROBERT PUTNAM
VOLUME 2678 PAGE 131

PRE-DEVELOPMENT DA #2
TOTAL AREA: 201,044 S.F.
BUILDINGS: 34,076 S.F.
IMPERVIOUS: 41,465 S.F.
GRASS: 51,869 S.F.
WOODS: 73,634 S.F.
TC=10 MINUTES

1 STORY
CONCRETE BLOCK
BUILDING #15
FF=387.9

PRE-DEVELOPMENT DA #1
TOTAL AREA: 285,033 S.F.
BUILDINGS: 42,460 S.F.
IMPERVIOUS: 83,926 S.F.
GRASS: 37,225 S.F.
WOODS: 121,422 S.F.
TC=10 MINUTES

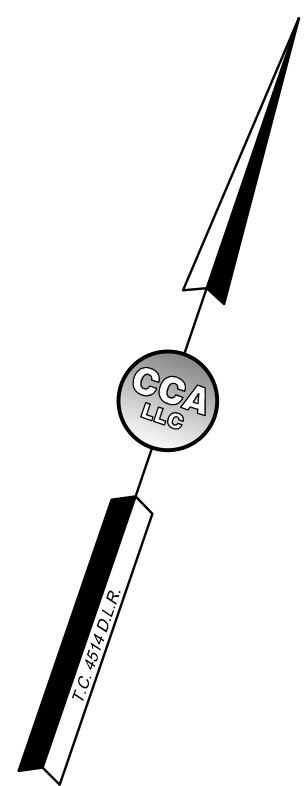
STEEL FRAME
BUILDING
FF=387.8

MBLU 20-40-01
95,853 S.F.
2.200 AC.

MBLU 20-40-02
N/F
TOWN OF BETHEL
VOLUME 111 PAGE 726

MBLU 21-40-03.11
N/F
BETHEL LAND TRUST,
INCORPORATED
VOLUME 398 PAGE 465

MBLU 21-40-03.02
N/F
STAMFORD COVE PARTNERS, LLC
VOLUME 851 PAGE 439



MBLU K16-160
N/F
CITY OF DANBURY
VOLUME 540 PAGE 569

DATE	DESCRIPTION
	PRE-DEVELOPMENT DRAINAGE AREA PREPARED FOR EPPOLITI INDUSTRIAL REALTY, INC. MBLU L16-005 DANBURY MBLU 20-40-01 BETHEL 15 GREAT PASTURE ROAD WOOSTER STREET BETHEL & DANBURY, CONNECTICUT
Date:	06/23/2025
Scale:	1" = 40'
Project:	05-183
File:	2959
Acad:	05183SP
Sheet:	DRA1
Drawn by:	SJO/NY
Checked by:	SCS
<small>40 Old New Milford Road Brookfield, Ct. 06804 (203)775-6207 www.ccaengineering.com</small>	
<small>ENVIRONMENTAL - CIVIL - ENGINEERING - SURVEYING</small> <small>CCA LLC</small> <small>COPYRIGHT ALL RIGHTS RESERVED</small>	

MBLU K16-156
N/F
FUELCELL ENERGY, INC.
VOLUME 1363 PAGE 1146

MBLU L16-005
516,381 S.F.
11.854 AC.

MBLU L16-001
N/F
PUTNAM THREE SELF STORAGE COMPANY, LLC
VOLUME 2688 PAGE 59

BLDG. 1 TO ROOF RETENTION
TOTAL AREA: 17,870 S.F.
BUILDING: 11,200 S.F.
GRASS: 6,662 S.F.
TC=5 MINUTES

MBLU L16-004
N/F
MARY ALICE PUTNAM,
JOSEPH PUTNAM &
ROBERT PUTNAM
VOLUME 2678 PAGE 131

DA #2 BYPASS
TOTAL AREA: 88,915 S.F.
BUILDINGS: 0.0 S.F.
IMPERVIOUS: 2,712 S.F.
GRASS: 13,080 S.F.
WOODS: 73,123 S.F.
TC=10 MINUTES

PROPOSED BUILDING #2
19,125 SF GFA
18,796 SF UFA
15,977 SF UFA
14,379 SF WAREHOUSE/400=36 CARS
1,588 SF OFFICE/300=5 CARS
TOTAL REQUIRED 41 CARS INCL 2 ADA
TOTAL PROPOSED 41 CARS
FF = 385.1

FF = 386.1

DA #2 TO DET 2
TOTAL AREA: 126,908 S.F.
BUILDINGS: 59,495 S.F.
IMPERVIOUS: 64,781 S.F.
GRASS: 2,632 S.F.
TC=10 MINUTES

EXISTING BUILDING
74,442 SF
73,817 SF GFA
62,745 SF UFA
56,470 SF WAREHOUSE/400=141 CARS
6,275 SF OFFICE/300=21 CARS
TOTAL REQUIRED 162 CARS
TOTAL PROPOSED 162 CARS INCL 6 ADA
FF=387.9

BLDG. 3 TO ROOF RETENTION
TOTAL AREA: 14,475 S.F.
BUILDING: 10,167 S.F.
GRASS: 4,308 S.F.
TC=5 MINUTES

1 STORY CONCRETE BLOCK BUILDING #15
FF=37.9

DA #1
TOTAL AREA: 176,071 S.F.
BUILDINGS: 54,008 S.F.
IMPERVIOUS: 69,489 S.F.
GRASS: 52,574 S.F.
TC=10 MINUTES

PROPOSED BUILDING #3
20,350 SF
20,002 SF GFA
17,002 SF UFA
15,302 SF UFA
1,700 SF WAREHOUSE/400=38 CARS REQ'D.
TOTAL REQUIRED 6 CARS
TOTAL PROPOSED 44 CARS INCL 2 ADA
6 LOADING SPACES
FF=388.0

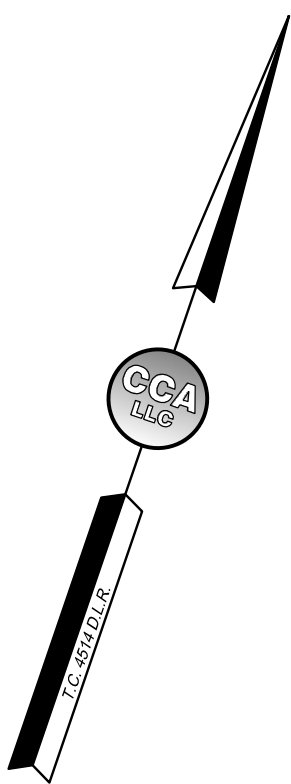
DA #3 TO DET 3
TOTAL AREA: 61,864 S.F.
BUILDINGS: 0 S.F.
IMPERVIOUS: 47,336 S.F.
GRASS: 14,528 S.F.
TC=10 MINUTES

MBLU 20-40-01
95,853 S.F.
2.200 AC.

MBLU 20-40-02
N/F
TOWN OF BETHEL
VOLUME 111 PAGE 726

MBLU 21-40-03.11
N/F
BETHEL LAND TRUST,
INCORPORATED
VOLUME 398 PAGE 465

MBLU 21-40-03.02
N/F
STAMFORD COVE PARTNERS, LLC
VOLUME 851 PAGE 439



MBLU K16-160
N/F
CITY OF DANBURY
VOLUME 540 PAGE 569

DATE	DESCRIPTION
POST DEVELOPMENT DRAINAGE AREA PREPARED FOR EPPOLITI INDUSTRIAL REALTY, INC. MBLU L16-005 DANBURY MBLU 20-40-01 BETHEL 15 GREAT PASTURE ROAD WOOSTER STREET BETHEL & DANBURY, CONNECTICUT	
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