



December 10, 2024

Stormwater Management Report

232 Tiogue Avenue &
0 Tiffany Rd. Coventry, RI
Assessors Plat 32,
Lots 149, 150, 151, 153

Applicant:

232 Realty Associates LLC
420 Scrabbletown Road, Suite G
North Kingstown, RI 02852

Updated:

September 5, 2025

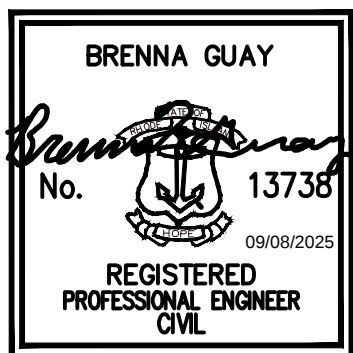




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Executive Summary

On behalf of the Client, we are submitting drainage calculations for the proposed development at Tiogue Ave and Tiffany Rd. The site is located on Assessor's Plat 32 Lots 149, 150, 151, 153. The site exists today as almost entirely wooded area with one dwelling. The client proposes to demolish the dwelling and construct three areas of housing and associated roadways and utilities. Area 1 will include multi-family units, area 2 will provide single family cottages and multi-family units and area 3 will provide single family homes.

The post development stormwater will be treated for water quality using Best Management Practices (BMPs). The Site has been designed to meet the Rhode Island Stormwater Design and Installation Standards Manual (RISDISM). Difficult site constraints that exist on site are varying groundwater table throughout and large areas of regrading.

To mitigate post development flows on site, a series of pipe networks, sediment forebays, proprietary treatment devices, infiltration ponds, underground infiltration systems, drywells and permeable pavement are utilized to convey runoff to infiltration basins. The infiltration basins are designed to treat water quality and control runoff for the 2 through 100-year storm events. The proprietary devices are designed as pretreatment BMPs and will remove 50% or more of TSS (total suspended solids) generated by the proposed roadway areas. The combination of the various BMPs will remove 85% or more of TSS generated by the proposed roadways and driveways.

This report details how the site will show no net increase in stormwater runoff from pre development to post development conditions, and how the proposed BMPs will provide water quality treatment for stormwater runoff.

Pre development Conditions versus Post Development Conditions Flow Rates for each watershed are summarized below:

All flows in cubic feet per second (cfs)

Subwatershed (design point)	1-yr Peak Flow		2-yr Peak Flow		10-yr Peak Flow		25-yr Peak Flow		100-yr Peak Flow	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
DP-1:	0.21	0.32	0.56	0.63	2.08	1.62	3.92	2.69	7.71	4.78
DP-2:	1.06	0.96	2.36	1.97	8.34	5.19	15.70	12.66	30.97	29.73
DP-3:	0.57	0.58	1.66	1.42	6.91	4.35	13.59	7.67	27.78	14.37
DP-4:	0.61	0.66	1.59	1.69	5.89	5.46	11.15	9.79	22.07	18.57
DP-5:	0.31	0.09	0.87	0.23	3.45	0.99	6.64	3.38	13.29	6.07
Totals:	2.76	2.61	7.04	5.94	26.67	17.61	51.00	36.19	101.82	73.52

All flows in cubic feet per second (cfs)



Pre development Conditions versus Post Development Volume Conditions for each watershed are summarized below:

Sub-watershed (design point)	1-yr Volume		2-yr Volume		10-yr Volume		25-yr Volume		100-yr Volume	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
DP-1:	0.044	0.036	0.086	0.060	0.227	0.135	0.393	0.217	0.739	0.382
DP-2:	0.211	0.110	0.393	0.458	1.019	1.935	1.755	3.543	3.296	6.602
DP-3:	0.143	0.090	0.289	0.161	0.807	0.392	1.431	0.655	2.758	1.194
DP-4:	0.134	0.112	0.255	0.202	0.672	0.502	1.164	0.846	2.194	1.553
DP-5:	0.070	0.014	0.139	0.025	0.378	0.227	0.663	0.587	1.263	1.339
Totals:	0.602	0.362	1.162	0.906	3.103	3.191	5.406	5.848	10.250	11.070

All volumes are in acre feet (af)

The site has significant decreases from pre to post development in flow rate and volume to critical areas. Design Point 3 represents residences along Trafford Park Drive and Minglewood Drive. Large amounts of area have been redirected west to Tiogue Lake. This results in large decreases from pre to post development. Design Point 4 represents apartments along Mulhearn drive. Large amounts of onsite and offsite area have been directed away from the apartments and Tiogue Avenue. Design Point 5 represents Tiogue Avenue, a RIDOT drainage system. Even with the redirection of area from Design Point 5, onsite BMPs have resulted in a decrease in volume from the 1-25 years storms while providing a significant decrease in flows. The majority of the drainage improvements to surrounding areas are due to redirecting stormwater to Tiogue Lake (Design Point 2). Discharges to Tiogue Lake have been mitigated pre to post development. It is important to note that Tiogue Lake is approximately 235 acres, peak mitigation is not required.

APPENDIX A: STORMWATER MANAGEMENT PLAN CHECKLIST AND LID PLANNING REPORT – STORMWATER DESIGN SUMMARY

PROJECT NAME Village at Tiogue	(RIDEM USE ONLY) STW/WQC File #: Date Received:
TOWN Coventry	
BRIEF PROJECT DESCRIPTION: Three areas of housing units ranging from multi-family units, single family cottages, and single family lots.	

Stormwater Management Plan (SMP) Elements – Minimum Standards

When submitting a SMP,¹ submit **four separately bound** documents: Appendix A Checklist; Stormwater Site Planning, Analysis and Design Report with Plan Set/Drawings; Soil Erosion and Sediment Control (SESC) Plan, and Post Construction Operations and Maintenance (O&M) Plan. Please refer to [Suggestions to Promote Brevity](#).

Note: All stormwater construction projects **must create** a Stormwater Management Plan (SMP). However, not every element listed below is required per the [RIDEM Stormwater Rules](#) and the [RIPDES Construction General Permit \(CGP\)](#). This checklist will help identify the required elements to be submitted with an Application for Stormwater Construction Permit & Water Quality Certification.

PART 1. PROJECT AND SITE INFORMATION

PROJECT TYPE (Check all that apply)

☒ Residential	☐ Commercial	☐ Federal	☐ Retrofit	☐ Restoration
☐ Road	☐ Utility	☐ Fill	☐ Dredge	☐ Mine
☐ Other (specify):				

SITE INFORMATION

☒ Vicinity Map

INITIAL DISCHARGE LOCATION(S): The WQv discharges to: (You may choose more than one answer if several discharge points are associated with the project.)

☒ Groundwater	☒ Surface Water	☐ MS4
☐ GAA	☐ Isolated Wetland	☐ RIDOT
☐ GA	☒ Named Waterbody	☐ RIDOT Alteration Permit is Approved
☐ GB	☐ Unnamed Waterbody Connected to Named Waterbody	☐ Town
		☐ Other (specify):

ULTIMATE RECEIVING WATERBODY LOCATION(S): Include pertinent information that applies to both WQv and flow from larger storm events including overflows. Choose all that apply, and repeat table for each waterbody.

☒ Groundwater or Disconnected Wetland	☐ SRWP		
☒ Waterbody Name: Tiogue Lake	☐ Coldwater	☒ Warmwater	☐ Unassessed
☒ Waterbody ID: RI0006014L-02	☐ 4 th order stream of pond 50 acres or more		
☐ TMDL for:	☐ Watershed of flood prone river (e.g., Pocasset River)		
☐ Contributes to a priority outfall listed in the TMDL	☐ Contributes stormwater to a public beach		
☐ 303(d) list – Impairment(s) for:	☐ Contributes to shellfishing grounds		

¹ Applications for a Construction General Permit that do not require any other permits from RIDEM and will disturb less than 5 acres over the entire course of the project do not need to submit a SMP. The Appendix A checklist must still be submitted.

Stormwater Management, Design, and Installation Rules (250-RICR-150-10-8)

☒ Groundwater or Disconnected Wetland	☐ SRWP		
☒ Waterbody Name: River Tributary to Pawtuxet River	☒ Coldwater	☐ Warmwater	☐ Unassessed
☒ Waterbody ID: RI0006014R-01	☐ 4 th order stream of pond 50 acres or more		
☐ TMDL for:	☐ Watershed of flood prone river (e.g., Pocasset River)		
☐ Contributes to a priority outfall listed in the TMDL	☐ Contributes stormwater to a public beach		
☐ 303(d) list – Impairment(s) for:	☐ Contributes to shellfishing grounds		

PROJECT HISTORY - N/A		
☐ RIDEM Pre- Application Meeting	Meeting Date:	☐ Minutes Attached
☐ Municipal Master Plan Approval	Approval Date:	☐ Minutes Attached
☐ Subdivision Suitability Required	Approval #:	
☐ Previous Enforcement Action has been taken on the property	Enforcement #:	
FLOODPLAIN & FLOODWAY See Guidance Pertaining to Floodplain and Floodways		
☒ Riverine 100-year floodplain: FEMA FLOODPLAIN FIRMETTE has been reviewed and the 100-year floodplain is on site		
☒ Delineated from FEMA Maps		
NOTE: Per Rule 250-RICR-150-10-8-1.1(B)(5)(d)(3), provide volumetric floodplain compensation calculations for cut and fill/displacement calculated by qualified professional		
☐ Calculated by Professional Engineer		
☐ Calculations are provided for cut vs. fill/displacement volumes proposed within the 100-year floodplain	Amount of Fill (CY):	
	Amount of Cut (CY):	
☐ Restrictions or modifications are proposed to the flow path or velocities in a floodway		
☐ Floodplain storage capacity is impacted		
☒ Project area is not within 100-year floodplain as defined by RIDEM		

CRMC JURISDICTION - N/A
☐ CRMC Assent required
☐ Property subject to a Special Area Management Plan (SAMP). If so, specify which SAMP:
☐ Sea level rise mitigation has been designed into this project

LUHPPL IDENTIFICATION - MINIMUM STANDARD 8: - N/A		
1. OFFICE OF Land Revitalization and Sustainable Materials Management (OLRSMM)		
☐ Known or suspected releases of HAZARDOUS MATERIAL are present at the site (Hazardous Material is defined in Rule 1.4(A)(33) of 250-140-30-1 of the RIDEM Rules and Regulations for Investigation and Remediation of Hazardous Materials (the Remediation Regulations))	RIDEM CONTACT:	
☐ Known or suspected releases of PETROLEUM PRODUCT are present at the site (Petroleum Product as defined in Rule 1.5(A)(84) of 250-140-25-1 of the RIDEM Rules and Regulations for Underground Storage Facilities Used for Regulated Substances and Hazardous Materials)		
☐ This site is identified on the RIDEM Environmental Resources Map as one of the following regulated facilities	SITE ID#:	
☐ CERCLIS/Superfund (NPL)		
☐ State Hazardous Waste Site (SHWS)		
☐ Environmental Land Usage Restriction (ELUR)		
☐ Leaking Underground Storage Tank (LUST)		
☐ Closed Landfill		
Note: If any boxes in 1 above are checked, the applicant must contact the RIDEM OLRSM Project Manager associated with the Site to determine if subsurface infiltration of stormwater is allowable for the project. Indicate if the infiltration corresponds to "Red," "Yellow" or "Green" as described in Section 3.2.8 of the RISDISM Guidance (Subsurface Contamination Guidance). Also, note and reference approval in PART 3, Minimum Standard 2: Groundwater Recharge/Infiltration.		
2. PER MINIMUM STANDARD 8 of RICR 8.14.C.1-6 "LUHPPLS," THE SITE IS/HAS:		
☐ Industrial Site with RIPDES MSGP, except where No Exposure Certification exists. http://www.dem.ri.gov/programs/water/permits/ripdes/stormwater/status.php		
☐ Auto Fueling Facility (e.g., gas station)		
☐ Exterior Vehicles Service, Maintenance, or Equipment Cleaning Area		

Stormwater Management, Design, and Installation Rules (250-RICR-150-10-8)

☐	Road Salt Storage and Loading Areas (exposed to rainwater)	
☐	Outdoor Storage and Loading/Unloading of Hazardous Substances	
3. STORMWATER INDUSTRIAL PERMITTING		
☐	The site is associated with existing or proposed activities that are considered Land Uses with Higher Potential Pollutant Loads (LUHPPLS) (see RICR 8.14.C)	Activities: Sector:
☐	Construction is proposed on a site that is subject to THE MULTI-SECTOR GENERAL PERMIT (MSGP) UNDER RULE 31(B)15 OF THE RIPDES REGULATIONS.	MSGP permit #
☐	Additional stormwater treatment is required by the MSGP Explain:	

REDEVELOPMENT STANDARD – MINIMUM STANDARD 6 - N/A		
☐ Pre Construction Impervious Area		
☐	Total Pre-Construction Impervious Area (TIA)	
☐	Total Site Area (TSA)	
☐	Jurisdictional Wetlands (JW)	
☐	Conservation Land (CL)	
☐ Calculate the Site Size (defined as contiguous properties under same ownership)		
☐	Site Size (SS) = (TSA) – (JW) – (CL)	
☐	(TIA) / (SS) =	☐ (TIA) / (SS) > 0.4?
☐ YES, Redevelopment		

PART 2. LOW IMPACT DEVELOPMENT ASSESSMENT – MINIMUM STANDARD 1 (NOT REQUIRED FOR REDEVELOPMENT OR RETROFITS) This section may be deleted if not required.	
Note: A written description must be provided specifying why each method is not being used or is not applicable at the Site. Appropriate answers may include: • Town requires ... (state the specific local requirement) • Meets Town's dimensional requirement of ... • Not practical for site because ... • Applying for waiver/variance to achieve this (pending/approved/denied) • Applying for wavier/variance to seek relief from this (pending/approved/denied)	
A) PRESERVATION OF UNDISTURBED AREAS, BUFFERS, AND FLOODPLAINS ☒ Sensitive resource areas and site constraints are identified (required) ☒ Local development regulations have been reviewed (required) ☒ All vegetated buffers and coastal and freshwater wetlands will be protected during and after construction ☐ Conservation Development or another site design technique has been incorporated to protect open space and pre-development hydrology. Note: If Conservation Development has been used, check box and skip to Subpart C ☒ As much natural vegetation and pre-development hydrology as possible has been maintained	IF NOT IMPLEMENTED, EXPLAIN HERE

B) LOCATE DEVELOPMENT IN LESS SENSITIVE AREAS AND WORK WITH THE NATURAL LANDSCAPE CONDITIONS, HYDROLOGY, AND SOILS ☒ Development sites and building envelopes have been appropriately distanced from wetlands and waterbodies ☒ Development and stormwater systems have been located in areas with greatest infiltration capacity (e.g., soil groups A and B) ☐ Plans show measures to prevent soil compaction in areas designated as Qualified Pervious Areas (QPA's) ☒ Development sites and building envelopes have been positioned outside of floodplains ☐ Site design positions buildings, roadways and parking areas in a manner that avoids impacts to surface water features ☐ Development sites and building envelopes have been located to minimize impacts to steep slopes ($\geq 15\%$) ☐ Other (describe):	No QPA's proposed
C) MINIMIZE CLEARING AND GRADING ☒ Site clearing has been restricted to <u>minimum area needed</u> for building footprints, development activities, construction access, and safety. ☐ Site has been designed to position buildings, roadways, and parking areas in a manner that minimizes grading (cut and fill quantities) ☐ Protection for stands of trees and individual trees and their root zones to be preserved has been specified, and such protection extends at least to the tree canopy drip line(s) ☐ Plan notes specify that public trees removed or damaged during construction shall be replaced with equivalent	
D) REDUCE IMPERVIOUS COVER ☐ Reduced roadway widths (≤ 22 feet for ADT ≤ 400; ≤ 26 feet for ADT 400 - 2,000) ☐ Reduced driveway areas (length minimized via reduced ROW width (≤ 45 ft.) and/or reduced (or absolute minimum) front yard setback; width minimized to ≤ 9 ft. wide one lane; ≤ 18 ft. wide two lanes; shared driveways; pervious surface) ☐ Reduced building footprint: Explain approach: ☒ Reduced sidewalk area (≤ 4 ft. wide; one side of the street; unpaved path; pervious surface) ☐ Reduced cul-de-sacs (radius < 45 ft; vegetated island; alternative turn-around) ☐ Reduced parking lot area: Explain approach ☒ Use of pervious surfaces for driveways, sidewalks, parking areas/overflow parking areas, etc. ☐ Minimized impervious surfaces (project meets or is less than maximum specified by Zoning Ordinance) ☐ Other (describe):	
E) DISCONNECT IMPERVIOUS AREA ☐ Impervious surfaces have been disconnected, and runoff has been diverted to QPAs to the maximum extent possible ☐ Residential street edges allow side-of-the-road drainage into vegetated open swales ☐ Parking lot landscaping breaks up impervious expanse AND accepts runoff ☒ Other (describe):	Impervious areas are directed via sheet flow, open swales, and pipe network to the proposed BMPs.
F) MITIGATE RUNOFF AT THE POINT OF GENERATION ☒ Small-scale BMPs have been designated to treat runoff as close as possible to the source	

G) PROVIDE LOW-MAINTENANCE NATIVE VEGETATION ☐ Low-maintenance landscaping has been proposed using native species and cultivars ☐ Plantings of native trees and shrubs in areas previously cleared of native vegetation are shown on site plan ☒ Lawn areas have been limited/minimized, and yards have been kept undisturbed to the maximum extent practicable on residential lots	
H) RESTORE STREAMS/WETLANDS ☐ Historic drainage patterns have been restored by removing closed drainage systems, daylighting buried streams, and/or restoring degraded stream channels and/or wetlands ☐ Removal of invasive species ☒ Other	No invasive species observed.

PART 3. SUMMARY OF REMAINING STANDARDS

GROUNDWATER RECHARGE – MINIMUM STANDARD 2		
YES	NO	
☒	☐	The project has been designed to meet the groundwater recharge standard.
☐	☐	If “No,” the justification for groundwater recharge criterion waiver has been explained in the Narrative (e.g., threat of groundwater contamination or physical limitation), if applicable (see RICR 8.8.D);
☐	☐	Your waiver request has been explained in the Narrative, if applicable.
☐	☒	Is this site identified as a Regulated Facility in Part 1, Minimum Standard 8: LUHPPL Identification?
☐	☐	If “Yes,” has approval for infiltration by the OLRSM Site Project Manager, per Part 1, Minimum Standard 8, been requested?

TABLE 2-1: Summary of Recharge (see RISDISM Section 3.3.2)

(Add or Subtract Rows as Necessary)

Design Point	Impervious Area Treated (sq ft)	Total Rev Required (cu ft)	LID Stormwater Credits (see RISDISM Section 4.6.1)	Recharge Required by Remaining BMPs (cu ft)	Recharge Provided by BMPs (cu ft)
			Portion of Rev directed to a QPA (cu ft)		
DP-1:	14,418	420	0	420	1,176
DP-2:	244110	2034	0	2034	20,473
DP-3:	4,617	134	0	134	435
DP-4:	9,408	274	0	274	784
DP-5:	96,703	2,820	0	2,820	7,971
TOTALS:	369,256	5,682	0	5,682	30,839

Notes:

- Only BMPs listed in RISDISM Table 3-5 “List of BMPs Acceptable for Recharge” may be used to meet the recharge requirement.
- Recharge requirement must be satisfied for each waterbody ID.

☒ Indicate where the pertinent calculations and/or information for the above items are provided (i.e., name of report/document, page numbers, appendices, etc.):

Stormwater Report Section 3.2

Stormwater Management, Design, and Installation Rules (250-RICR-150-10-8)

WATER QUALITY – MINIMUM STANDARD 3		
YES	NO	
☒	☐	Does this project meet or exceed the required water quality volume WQv (see RICR 8.9.E-I)?
☐	☐	Is the proposed final impervious cover greater than 20% of the disturbed area (see RICR 8.9.E-I)?
☒	☐	If “Yes,” either the Modified Curve Number Method or the Split Pervious/Impervious method in Hydro-CAD was used to calculate WQv; or,
☐	☐	If “Yes,” either TR-55 or TR-20 was used to calculate WQv; and,
☐	☐	If “No,” the project meets the minimum WQv of 0.2 watershed inches over the entire disturbed area.
☐	☐	Not Applicable
☒	☐	Does this project meet or exceed the ability to treat required water quality flow WQf (see RICR 8.9.I.1-3)?
☐	☐	Does this project propose an increase of impervious cover to a receiving water body with impairments? If “Yes,” please indicate below the method that was used to address the water quality requirements of no further degradation to a low-quality water.
☐	☐	RICR 8.36. A Pollutant Loading Analysis is needed and has been completed.
☐	☐	The Water Quality Guidance Document (Water Quality Goals and Pollutant Loading Analysis Guidance for Discharges to Impaired Waters) has been followed as applicable.
☐	☐	BMPs are proposed that are on the approved technology list . If “Yes,” please provide all required worksheets from the manufacturer.
☐	☐	Additional pollutant-specific requirements and/or pollutant removal efficiencies are applicable to the site as the result of a TMDL, SAMP, or other watershed-specific requirements. If “Yes,” please describe:

TABLE 3-1: Summary of Water Quality (see RICR 8.9)					
Design Point and WB ID	Impervious area treated (sq ft)	Total WQ _v Required (cu ft)	LID Stormwater Credits (see RICR 8.18)	Water Quality Treatment Remaining (cu ft)	Water Quality Provided by BMPs (cu ft)
			WQ _v directed to a QPA (cu ft)		
DP-1:	14,418	1201	0	1,201	1,176*
DP-2:	244110	20342	0	20,342	20,473
DP-3:	4,617	384	0	384	435
DP-4:	9,408	784	0	784	784
DP-5:	96,703	8058	0	8,058	7,971*
TOTALS:	369,256	30,769	0	30,769	30,839
Notes:					
1. Only BMPs listed in RICR 8.20 and 8.25 or the Approved Technologies List of BMPs is Acceptable for Water Quality treatment.					
2. For each Design Point, the Water Quality Volume Standard must be met for each Waterbody ID.					
* Water Quality storm is being infiltrated fully					
☒ YES ☐ NO		This project has met the setback requirements for each BMP. If “No,” please explain:			
☒ Indicate where the pertinent calculations and/or information for the above items are provided (i.e., name of report/document, page numbers, appendices, etc.):					
Stormwater Report Section 3.3					

Stormwater Management, Design, and Installation Rules (250-RICR-150-10-8)

CONVEYANCE AND NATURAL CHANNEL PROTECTION (RICR 8.10) – MINIMUM STANDARD 4		
YES	NO	
☐	☒	Is this standard waived? If “Yes,” please indicate one or more of the reasons below:
		☐ The project directs discharge to a large river (i.e., 4th-order stream or larger. See RISDISM Appendix I for State-wide list and map of stream orders), bodies of water >50.0 acres in surface area (i.e., lakes, ponds, reservoirs), or tidal waters. ☐ The project is a small facility with impervious cover of less than or equal to 1 acre. ☒ The project has a post-development peak discharge rate from the facility that is less than 2 cfs for the 1-year, 24-hour Type III design storm event (prior to any attenuation). (<u>Note</u> : LID design strategies can greatly reduce the peak discharge rate).
☒	☐	Conveyance and natural channel protection for the site have been met. If “No,” explain why:

TABLE 4-1: Summary of Channel Protection Volumes (see RICR 8.10)					
Design Point	Receiving Water Body Name	Coldwater Fishery? (Y/N)	Total CPv Required (cu ft)	Total CPv Provided (cu ft)	Average Release Rate Modeled in the 1-yr storm (cfs)
DP-1:	Tiogue Lake (RI0006014L-02)	N	1,812	1,812	0
DP-2:	Tiogue Lake (RI0006014L-02)	N	29,248	29,248	0
DP-3:	River Tributary to Pawtuxet River (RI0006014R-01)	Y	566	566	0
DP-4:	River Tributary to Pawtuxet River (RI0006014R-01)	Y	1,132	1,132	0
DP-5:	River Tributary to Pawtuxet River (RI0006014R-01)	Y	6,993	6,993	0
TOTALS:					
<u>Note:</u> The Channel Protection Volume Standard must be met in each waterbody ID.					
☒ YES ☐ NO	The CPv is released at roughly a uniform rate over a 24-hour duration (see examples of sizing calculations in Appendix D of the RISDISM).				
☐ YES ☒ NO	Do additional design restrictions apply resulting from any discharge to cold-water fisheries; If “Yes,” please indicate restrictions and solutions below.				
☒ Indicate below where the pertinent calculations and/or information for the above items are provided (i.e., name of report/document, page numbers, appendices, etc.).					
Stormwater Report Section 3.4.2					

OVERBANK FLOOD PROTECTION (RICR 8.11) AND OTHER POTENTIAL HIGH FLOWS – MINIMUM STANDARD 5			
YES	NO		
☐	☒	Is this standard waived? If yes, please indicate one or more of the reasons below:	
		☐	The project directs discharge to a large river (i.e., 4th-order stream or larger. See Appendix I for state-wide list and map of stream orders), bodies of water >50.0 acres in surface area (i.e., lakes, ponds, reservoirs), or tidal waters.
		☐	A Downstream Analysis (see RICR 8.11.D and E) indicates that peak discharge control would not be beneficial or would exacerbate peak flows in a downstream tributary of a particular site (e.g., through coincident peaks).
☐	☒	Does the project flow to an MS4 system or subject to other stormwater requirements? If “Yes,” indicate as follows:	
		☐	RIDOT
		☐	Other (specify):
Note: The project could be approved by RIDEM but not meet RIDOT or Town standards. RIDOT’s regulations indicate that post-volumes must be less than pre-volumes for the 10-yr storm at the design point entering the RIDOT system. If you have not already received approval for the discharge to an MS4, please explain below your strategy to comply with RIDEM and the MS4.			
		Indicate below which model was used for your analysis. ☐ TR-55 ☐ TR-20 ☒ HydroCAD ☐ Bentley/Haestad ☐ Intellisolve ☐ Other (Specify):	
YES	NO		
☒	☐	Does the drainage design demonstrate that flows from the 100-year storm event through a BMP will safely manage and convey the 100-year storm? If “No,” please explain briefly below and reference where in the application further documentation can be found (i.e., name of report/document, page numbers, appendices, etc.):	
☒	☐	Do off-site areas contribute to the sub-watersheds and design points? If “Yes,”	
☒	☐	Are the areas modeled as “present condition” for both pre- and post-development analysis?	
☒	☐	Are the off-site areas shown on the subwatershed maps?	
☒	☐	Does the drainage design confirm safe passage of the 100-year flow through the site for off-site runoff?	
☐	☒	Is a Downstream Analysis required (see RICR 8.11.E.1)?	
☒	☐	Calculate the following:	
		☒	Area of disturbance within the sub-watershed (areas) 23.8
		☒	Impervious cover (%) 35%
☐	☒	Is a dam breach analysis required (earthen embankments over six (6) feet in height, or a capacity of 15 acre-feet or more, and contributes to a significant or high hazard dam)?	
☒	☐	Does this project meet the overbank flood protection standard?	

Table 5-1 Hydraulic Analysis Summary

Subwatershed (Design Point)	1.2" Peak Flow (cfs) **		1-yr Peak Flow (cfs)		10-yr Peak Flow (cfs)		100-yr Peak Flow (cfs)	
	Pre (cfs)	Post (cfs)	Pre (cfs)	Post (cfs)	Pre (cfs)	Post (cfs)	Pre (cfs)	Post (cfs)
DP-1:	0.18	0.20	0.21	0.32	2.08	1.62	7.71	4.78
DP-2:	0.03	0.08	1.06	0.96	8.34	5.19	30.97	29.73
DP-3:	0.00	0.05	0.57	0.58	6.91	4.35	27.78	14.37
DP-4:	0.15	0.08	0.61	0.66	5.89	5.46	22.07	18.57
DP-5:	0.14	0.03	0.31	0.09	3.45	0.99	13.29	6.07
TOTALS:	0.50	0.44	2.76	2.61	26.67	17.61	101.82	73.52
** Utilize modified curve number method or split pervious /impervious method in HydroCAD. Note: The hydraulic analysis must demonstrate no impact to each individual subwatershed DP unless each DP discharges to the same wetland or water resource.								
Indicate as follows where the pertinent calculations and/or information for the items above are provided						Name of report/document, page numbers, appendices, etc.		
Existing conditions analysis for each subwatershed, including curve numbers, times of concentration, runoff rates, volumes, and water surface elevations showing methodologies used and supporting calculations.						Stormwater Report by DiPrete Engineering		
Proposed conditions analysis for each subwatershed, including curve numbers, times of concentration, runoff rates, volumes, water surface elevations, and routing showing the methodologies used and supporting calculations.						Stormwater Report by DiPrete Engineering		
Final sizing calculations for structural stormwater BMPs, including contributing drainage area, storage, and outlet configuration.						Stormwater Report by DiPrete Engineering		
Stage-storage, inflow and outflow hydrographs for storage facilities (e.g., detention, retention, or infiltration facilities).						Stormwater Report by DiPrete Engineering		

Table 5-2 Summary of Best Management Practices

BMP ID	DP #	BMP Type (e.g., bioretention, tree filter)	BMP Functions					Bypass Type	Horizontal Setback Criteria are met per RICR 8.21.B.10, 8.22.D.11, and 8.35.B.4		
			Pre-Treatment (Y/N/NA)	Re _v	WQ _v	CP _v (Y/N/NA)	Overbank Flood Reduction (Y/N/NA)		Yes/No	Technical Justification (Design Report page number)	Distance Provided
N/A	1	Cascade Proprietary	Y	N	N	N	N/A	N/A	Y	N/A	N/A
103	1	WQ Infiltration Pond A	N	Y	Y	Y	N/A	N/A	Y	N/A	N/A
206	2	Forebay B1	Y	N	N/A	N/A	N/A	N/A	Y	N/A	N/A
215	2	Forebay B2	Y	N	N/A	N/A	N/A	N/A	Y	N/A	N/A
209	2	WQ Infiltration Pond B	N	Y	Y	Y	N/A	N/A	Y	N/A	N/A
218	2	Infiltration Pond B	N	Y	Y	Y	N/A	N/A	Y	N/A	N/A

Table 5-2 Summary of Best Management Practices

Table 5-2 Summary of Best Management Practices											
BMP ID	DP #	BMP Type (e.g., bioretention, tree filter)	BMP Functions					Bypass Type	Horizontal Setback Criteria are met per RICR 8.21.B.10, 8.22.D.11, and 8.35.B.4		
			Pre-Treatment (Y/N/NA)	Re _v	WQ _v	CP _v (Y/N/NA)	Overbank Flood Reduction (Y/N/NA)		External (E) Internal (I) or NA	Yes/ No	Technical Justification (Design Report page number)
600	3	House Drywell	N/A	Y	Y	N/A	N/A	N/A	Y	N/A	N/A
601	3	House Drywell	N/A	Y	Y	N/A	N/A	N/A	Y	N/A	N/A
713	3	House Drywell	N/A	Y	Y	N/A	N/A	N/A	Y	N/A	N/A
714	3	House Drywell	N/A	Y	Y	N/A	N/A	N/A	Y	N/A	N/A
715	3	House Drywell	N/A	Y	Y	N/A	N/A	N/A	Y	N/A	N/A
716	3	House Drywell	N/A	Y	Y	N/A	N/A	N/A	Y	N/A	N/A
717	3	House Drywell	N/A	Y	Y	N/A	N/A	N/A	Y	N/A	N/A
718	3	House Drywell	N/A	Y	Y	N/A	N/A	N/A	Y	N/A	N/A
719	3	House Drywell	N/A	Y	Y	N/A	N/A	N/A	Y	N/A	N/A
720	3	House Drywell	N/A	Y	Y	N/A	N/A	N/A	Y	N/A	N/A
401	4	UIS-C	Y	Y	Y		N/A	N/A	Y	N/A	N/A
N/A	1	Cascade Proprietary	Y	N	N	N	N/A	N/A	Y	N/A	N/A
515	5	WQ Infiltration Pond D	N	Y	Y	Y	N/A	N/A	Y	N/A	N/A
504	5	UIS-G	N/A	Y	N/A	N/A	N/A	N/A	Y	N/A	N/A
506	5	UIS-E	N/A	Y	N/A	N/A	N/A	N/A	Y	N/A	N/A
508	5	UIS-F	N/A	Y	N/A	Y	N/A	N/A	Y	N/A	N/A
516	5	Permeable Pavement	N	Y	Y	N/A	N/A	N/A	Y	N/A	N/A
		TOTALS:									

Table 5.3 Summary of Soils to Evaluate Each BMP

DP #	BMP ID	BMP Type (e.g., bioretention, tree filter)	Soils Analysis for Each BMP						
			Test Pit ID# and Ground Elevation		SHWT Elevation (ft)	Bottom of Practice Elevation* (ft)	Separation Distance Provided (ft)	Hydrologic Soil Group (A, B, C, D)	Exfiltration Rate Applied (in/hr)
			Primary	Secondary					
1	N/A	Cascade Proprietary C-3	TH-24-1 (248.01)	TH-24-2 (251.87)	238.01	239.1	1.09	B	N/A
1	103	WQ Infiltration Pond A	TH-24-1 (248.01)	TH-24-2 (251.87)	238.01	242.0	3.99	B	1.6
2	206	Forebay B1	TH-24-9 (234.60)	TH-24-10 (241.56)	232.43	234.0	1.57	D	N/A
2	215	Forebay B2	TH-24-9 (234.60)	TH-24-10 (241.56)	232.43	234.0	1.57	D	N/A
2	209	WQ Infiltration Pond B	TH-24-9 (234.60)	TH-24-10 (241.56)	<233.43	237.50	4.07	D	1.6
2	218	Infiltration Pond B	TH-24-9 (234.60)	TH-24-11 (236.77)	<233.43	237.50	4.07	D	1.0
3	600	House Drywell	TH-24-12 (265.97)	TH-24-6 (235.03)	245.00	249.0	4.00	B	1.02
3	601	House Drywell	TH-24-12 (265.97)	TH-24-6 (235.03)	245.50	249.0	3.50	B	1.02
3	713	House Drywell	TH-24-6 (235.03)	TH-24-12 (265.97)	237.30	241.0	3.70	B	1.02
3	714	House Drywell	TH-24-6 (235.03)	TH-24-12 (265.97)	231.60	234.0	2.40	B	1.02
3	715	House Drywell	TH-24-6 (235.03)	TH-24-12 (265.97)	231.60	234.0	2.40	B	1.02
3	716	House Drywell	TH-24-5 (261.64)	TH-24-7 (259.76)	251.9	253.0	7.10	B	1.02
3	717	House Drywell	TH-24-5 (261.64)	TH-24-7 (259.76)	248.50	255.0	6.50	B	1.02
3	718	House Drywell	TH-24-5 (261.64)	TH-24-7 (259.76)	251.50	256.0	4.50	B	1.02
3	719	House Drywell	TH-24-5 (261.64)	TH-24-3 (260.94)	251.50	257.5	6.00	B	1.02
3	720	House Drywell	TH-24-5 (261.64)	TH-24-3 (260.94)	252.50	258.5	6.00	B	1.02
4	401	UIS-C	TH-24-19 (249.36)	TH-24-18 (257.27)	249.25	253.25	4.00	B	3.5
1	N/A	Cascade Proprietary CS-4	TH-24-24 (229.66)	TH-24-25 (228.65)	223.66	224.53	0.87	B	N/A
5	515	WQ Infiltration Pond D	TH-25-8 (232.80)	TH-24-25 (228.65)	221.5	226.0	4.50	B	2.4

Stormwater Management, Design, and Installation Rules (250-RICR-150-10-8)

5	505	UIS-G	TH-24-21 (254.41)	TH-24-20 (233.92)	<244.4	249.00	>4.6	B	2.40
5	507	UIS-E	TH-25-1 (235.4)	TH-24-20 (233.92)	<225.9	230.00	>4.1	B	2.41
5	509	UIS-F	TH-24-20 (233.92)	TH-24-21 (254.41)	<234.0	238.50	>4.5	B	2.41
5	517	Permeable Pavement (Adjacent building 10)	TH-25-8 (232.80)	TH-24-22 (235.67)	<237	242.6	>5.6	B	2.41
5	517	Permeable Pavement (Adjacent to all other buildings)	TH-25-7 (236.8)	TH-25-3 (256.10)	varies	varies	>5.6	B	2.41
		TOTALS:							
* For underground infiltration systems (UICs) bottom equals bottom of stone, for surface infiltration basins bottom equals bottom of basin, for filters bottom equals interface of storage and top of filter layer									

LAND USES WITH HIGHER POTENTIAL POLLUTANTS LOADS (LUHPPLs) – MINIMUM STANDARD 8			
YES	NO	N/A	
☐	☐	☒	Describe any LUHPPLs identified in Part 1, Minimum Standard 8, Section 2. If not applicable, continue to Minimum Standard 9.
☐	☐	☒	Are these activities already covered under an MSGP? If “No,” please explain if you have applied for an MSGP or intend to do so?
☐	☐	☒	List the specific BMPs that are proposed for this project that receive stormwater from LUHPPL drainage areas. These BMP types must be listed in RISDISM Table 3-3, “Acceptable BMPs for Use at LUHPPLs.” Please list BMPs:
☐	☐	☒	Additional BMPs, or additional pretreatment BMP’s if any, that meet RIPDES MSGP requirements; Please list BMPs:
			Indicate below where the pertinent calculations and/or information for the above items are provided (i.e., name of report/document, page numbers, appendices, etc.).

ILLICIT DISCHARGES – MINIMUM STANDARD 9			
Illicit discharges are defined as unpermitted discharges to Waters of the State that do not consist entirely of stormwater or uncontaminated groundwater, except for certain discharges identified in the RIPDES Phase II Stormwater General Permit.			
YES	NO	N/A	
☒	☐	☐	Have you checked for illicit discharges?
☐	☒	☐	Have any been found and/or corrected? If “Yes,” please identify.
☐	☐	☒	Does your report explain preventative measures that keep non-stormwater discharges out of the Waters of the State (during and after construction)?

Stormwater Management, Design, and Installation Rules (250-RICR-150-10-8)

SOIL EROSION AND SEDIMENT CONTROL (SESC) – MINIMUM STANDARD 10		
YES	NO	N/A
☒	☐	☐
☒	☐	☐
Have you included a Soil Erosion and Sediment Control Plan Set and/or Complete Construction Plan Set?		
Have you provided a separately-bound document based upon the SESC Template ? If yes, proceed to Minimum Standard 11 (the following items can be assumed to be addressed).		
If “No,” include a document with your submittal that addresses the following elements of an SESC Plan:		
☐	Soil Erosion and Sediment Control Plan Project Narrative, including a description of how the fifteen (15) Performance Criteria have been met:	
☐	Provide Natural Buffers and Maintain Existing Vegetation	
☐	Minimize Area of Disturbance	
☐	Minimize the Disturbance of Steep Slopes	
☐	Preserve Topsoil	
☐	Stabilize Soils	
☐	Protect Storm Drain Inlets	
☐	Protect Storm Drain Outlets	
☐	Establish Temporary Controls for the Protection of Post-Construction Stormwater Control Measures	
☐	Establish Perimeter Controls and Sediment Barriers	
☐	Divert or Manage Run-On from Up-Gradient Areas	
☐	Properly Design Constructed Stormwater Conveyance Channels	
☐	Retain Sediment On-Site	
☐	Control Temporary Increases in Stormwater Velocity, Volume, and Peak Flows	
☐	Apply Construction Activity Pollution Prevention Control Measures	
☐	Install, Inspect, and Maintain Control Measures and Take Corrective Actions	
☐	Qualified SESC Plan Preparer’s Information and Certification	
☐	Operator’s Information and Certification; if not known at the time of application, the Operator must certify the SESC Plan upon selection and prior to initiating site activities	
☐	Description of Control Measures, such as Temporary Sediment Trapping and Conveyance Practices, including design calculations and supporting documentation, as required	

STORMWATER MANAGEMENT SYSTEM OPERATION, MAINTENANCE, AND POLLUTION PREVENTION PLAN – MINIMUM STANDARDS 7 AND 9		
Operation and Maintenance Section		
YES	NO	
☒	☐	Have you minimized all sources of pollutant contact with stormwater runoff, to the maximum extent practicable?
☒	☐	Have you provided a separately-bound Operation and Maintenance Plan for the site and for all of the BMPs, and does it address each element of RICR 8.17 and RISDISM Appendix C and E?
☒	☐	Lawn, Garden, and Landscape Management meet the requirements of RISDISM Section G.7? If “No,” why not?
☒	☐	Is the property owner or homeowner’s association responsible for the stormwater maintenance of all BMP’s? If “No,” you must provide a legally binding and enforceable maintenance agreement (see RISDISM Appendix E, page 26) that identifies the entity that will be responsible for maintenance of the stormwater. Indicate where this agreement can be found in your report (i.e., name of report/document, page numbers, appendices, etc.).
☐	☒	Do you anticipate that you will need legal agreements related to the stormwater structures? (e.g. off-site easements, deed restrictions, covenants, or ELUR per the Remediation Regulations). If “Yes,” have you obtained them? Or please explain your plan to obtain them:
☐	☒	Is stormwater being directed from public areas to private property? If “Yes,” note the following: <u>Note:</u> This is not allowed unless a funding mechanism is in place to provide the finances for the long-term maintenance of the BMP and drainage, or a funding mechanism is demonstrated that can guarantee the long-term maintenance of a stormwater BMP by an individual homeowner.

Stormwater Management, Design, and Installation Rules (250-RICR-150-10-8)

Pollution Prevention Section		
☒	☐	Designated snow stockpile locations?
☒	☐	Trash racks to prevent floatables, trash, and debris from discharging to Waters of the State?
☒	☐	Asphalt-only based sealants?
☐	☒	Pet waste stations? (Note: If a receiving water has a bacterial impairment, and the project involves housing units, then this could be an important part of your pollution prevention plan).
☒	☐	Regular sweeping? Please describe: See Operation and Maintenance Plan by DiPrete Engineering
☒	☐	De-icing specifications, in accordance with RISDISM Appendix G. (NOTE: If the groundwater is GAA, or this area contributes to a drinking water supply, then this could be an important part of your pollution prevention plan).
☒	☐	A prohibition of phosphate-based fertilizers? (Note: If the site discharges to a phosphorus impaired waterbody, then this could be an important part of your pollution prevention plan).

PART 4. SUBWATERSHED MAPPING AND SITE-PLAN DETAILS

Existing and Proposed Subwatershed Mapping (REQUIRED)		
YES	NO	
☒	☐	Existing and proposed drainage area delineations
☒	☐	Locations of all streams and drainage swales
☒	☐	Drainage flow paths, mapped according to the DEM <i>Guidance for Preparation of Drainage Area Maps</i> (included in RISDISM Appendix K)
☒	☐	Complete drainage area boundaries; include off-site areas in both mapping and analyses, as applicable
☒	☐	Logs of borings and/or test pit investigations along with supporting soils/geotechnical report
☒	☐	Mapped seasonal high-water-table test pit locations
☒	☐	Mapped locations of the site-specific borings and/or test pits and soils information from the test pits at the locations of the BMPs
☒	☐	Mapped locations of the BMPs, with the BMPs consistently identified on the Site Construction Plans
☒	☐	Mapped bedrock outcrops adjacent to any infiltration BMP
☒	☐	Soils were logged by a:
		☐ DEM-licensed Class IV soil evaluator Name:
		☐ RI-registered P.E. Name:

Subwatershed and Impervious Area Summary				
Subwatershed (area to each design point)	First Receiving Water ID or MS4	Area Disturbed (acres)	Existing Impervious (acres)	Proposed Impervious (acres)
DP-1:	Tiogue Lake (RI0006014L-02)	0.305	0.181	0.129*
DP-2:	Tiogue Lake (RI0006014L-02)	15.842	0	5.910
DP-3:	River Tributary to Pawtuxet River (RI0006014R-01)	2.040	0	0.106
DP-4:	River Tributary to Pawtuxet River (RI0006014R-01)	1.244	0	0.252
DP-5:	River Tributary to Pawtuxet River (RI0006014R-01)	3.862	0	2.096
TOTALS:		23.293	0.181	8.493

*Area to replace existing impervious.

Stormwater Management, Design, and Installation Rules (250-RICR-150-10-8)

Site Construction Plans (Indicate that the following applicable specifications are provided)		
YES	NO	
☒	☐	Existing and proposed plans (scale not greater than 1" = 40') with North arrow
☒	☐	Existing and proposed site topography (with 1 or 2-foot contours); 10-foot contours accepted for off-site areas
☒	☐	Boundaries of existing predominant vegetation and proposed limits of clearing
☒	☐	Site Location clarification
☒	☐	Location and field-verified boundaries of resource protection areas such as: ▶ freshwater and coastal wetlands, including lakes and ponds ▶ coastal shoreline features Perennial and intermittent streams, in addition to Areas Subject to Storm Flowage (ASSFs)
☒	☐	All required setbacks (e.g., buffers, water-supply wells, septic systems)
☒	☐	Representative cross-section and profile drawings, and notes and details of structural stormwater management practices and conveyances (i.e., storm drains, open channels, swales, etc.), which include: ▶ Location and size of the stormwater treatment practices (type of practice, depth, area). Stormwater treatment practices (BMPs) must have labels that correspond to RISDISM Table 5-2; ▶ Design water surface elevations (applicable storms); ▶ Structural details of outlet structures, embankments, spillways, stilling basins, grade-control structures, conveyance channels, etc.; ▶ Existing and proposed structural elevations (e.g., inverts of pipes, manholes, etc.); ▶ Location of floodplain and, if applicable, floodway limits and relationship of site to upstream and downstream properties or drainage that could be affected by work in the floodplain; ▶ Planting plans for structural stormwater BMPs, including species, size, planting methods, and maintenance requirements of proposed planting
☒	☐	Logs of borings and/or test pit investigations along with supporting soils/geotechnical report and corresponding water tables
☐	☒	Mapping of any OLRSM approved remedial actions/systems (including ELURs)
☒	☐	Location of existing and proposed roads, buildings, and other structures including limits of disturbance; ▶ Existing and proposed utilities (e.g., water, sewer, gas, electric) and easements; ▶ Location of existing and proposed conveyance systems, such as grass channels, swales, and storm drains, and location(s) of final discharge point(s) (wetland, waterbody, etc.); ▶ Cross sections of roadways, with edge details such as curbs and sidewalks; ▶ Location and dimensions of channel modifications, such as bridge or culvert crossings
☒	☐	Locations, cross sections, and profiles of all stream or wetland crossings and their method of stabilization



1.0 Project Description

The purpose of this report is to specify a Stormwater Management System to be implemented in the new Project at Tiogue Ave and Tiffany Rd. The four sites total 26.99 acres and are located on Assessor's Plat 32 Lots 149, 150, 151, 153 in Coventry, Rhode Island. The site is located off Tiogue Ave (Route 3), near the intersection of East Shore Dr, from the northern end and Tiffany Rd, near the intersection of Trafford Park Drive, from the southern end. An abutting property to the west provides a buffer between the site and the Tiogue Lake.

The proposed development will include three new areas for housing. Area 1 will include multi-family units, area 2 will provide single family cottages and multi-family units and area 3 will provide single family homes. All sites include parking and utility as well. The site will be serviced by public water and sewer. Water is provided by Kent County Water Association and Sewer is provided by the Coventry Sewer Authority.

The stormwater quality will be improved by utilizing Best Management Practices (BMPs) as established by the RISDISM for the treatment of stormwater runoff from the proposed development. BMPs will consist of pipe networks, sediment forebays, proprietary treatment devices, infiltration ponds, underground infiltration systems, drywells and permeable pavement. The system has been designed to meet the RIDEM Stormwater Design and Installations Standards Manual.

2.0 Site Conditions

2.1 SOILS

There are the following soil types within the analyzed area of the Site as mapped by the NRCS USDA Soil Conservation service:

Soil Symbol	Description	Hydrologic Group
CB	Canton-Urban land complex	B
ChB	Canton and Charlton very stony fine sandy loams, 3 to 8 percent slopes	B
ChC	Canton and Charlton very stony fine sandy loams, 8 to 15 percent slopes	B
NbB	Narragansett very stony silt loam, 0 to 8 percent slopes	B
SuB	Sutton very stony fine sandy loam, 0 to 8 percent slopes	B

The onsite soils SUB - Sutton very stony fine sandy loam has been interpreted as a Hydrologic Group D soil as shown from web soil survey and because it is within wetland areas.

Site specific soil evaluations can be found in Appendix A2.1.



2.2 EXISTING SITE CONDITIONS

Currently the site is predominately woods. There is one dwelling with a driveway extending from Tiogue Ave. The stormwater on site goes in multiple directions resulting in five design point considerations, Tiffany Drive, Western Wetlands (Tiogue Lake), Eastern Abutters (Minglewood Drive), Northeastern Abutters and Tiogue Avenue. Tiogue Avenue is a RIDOT Right of Way.

None of the stormwater on either site is treated or detained before being discharged to either Tiogue Lake or River tributary to Pawtuxet River.

2.3 POST SITE CONDITIONS

The proposed drainage analysis uses stormwater management systems to control and treat runoff from the proposed development. The following BMPs are used on site and have been designed to include the following elements:

- Pipe Network
 - Provides conveyance to other BMPs on site.
- Sediment Forebays (Pond B)
 - Pretreatment of roadways and sidewalks
 - 4.0' forebay depth with proposed 2:1 reinforced slopes.
 - Equipped with secondary weir for larger stormwater events to infiltration pond.
- Proprietary device (Cascade Pretreatment)
 - Provides pretreatment for Ponds A and D
- WQ Infiltration Pond (Pond B)
 - Fully Infiltrates the Water Quality Volume (WQv)
- Infiltration Pond (Pond B)
 - All stormwater is treated before entering the stormwater basin.
 - Fully Infiltrates Channel Protection Volume (CPv)
 - Provides Overbank Flood Protection (Qp) for the 2-100 year storm events.
- WQ Infiltration Pond (Ponds A & D)
 - All stormwater is pretreated before entering the stormwater basin by proprietary units.
 - Fully Infiltrates the Water Quality Volume (WQv)
 - Fully Infiltrates Channel Protection Volume (CPv)
 - Provides Overbank Flood Protection (Qp) for the 2-100 year storm events.
- Underground Infiltration System (UIS C)
 - Includes isolator row for WQ pretreatment.
 - Fully Infiltrates the Water Quality Volume (WQv)
 - Fully Infiltrates Channel Protection Volume (CPv)
 - Fully infiltrates the 100 year storm to provide Overbank Flood Protection (Qp)
- Underground Infiltration System (UIS E, F & G)
 - Fully Infiltrates the Water Quality Volume (WQv)
 - Fully Infiltrates Channel Protection Volume (CPv)
 - Fully infiltrates the 100 year storm to provide Overbank Flood Protection (Qp)
- Drywells
 - Provides infiltration for roof area throughout the site providing WQ and QP
- Permeable Pavement
 - Fully Infiltrates the Water Quality Volume (WQv)



- Fully Infiltrates Channel Protection Volume (CPv)
- Fully infiltrates the 100 year storm to provide Overbank Flood Protection (Qp)

The above elements will be used to meet the design standards of the Rhode Island Stormwater Design and Installation Standard.

The primary goal of increasing water quality treatment is accomplished by providing water quality BMPs. Stormwater runoff mitigation is provided through the use of pipe networks, sediment forebays, proprietary treatment devices, infiltration ponds, underground infiltration systems, drywells and permeable pavement. By reducing post development stormwater flow rate to a level no greater than the pre development rate, the second goal of the proposed drainage system is achieved. Any potential impact from the proposed development on the abutting properties/wetlands etc. has been mitigated.

3.0 Minimum Standards

The site has been designed to meet the minimum standards as outlined in the Rhode Island Stormwater Design and Installation Standards Manual (RISDISM). The following sections outline how the site meets and exceeds the minimum required standards.

3.1 Minimum Standard 1: LID Site Planning and Design Strategies

See "Appendix A: Stormwater Management Checklist" from the RISDISM provided at the beginning of this report.

3.2 Minimum Standard 2: Groundwater Recharge

Groundwater is to be recharged per watershed based on impervious area coverage in accordance with section 3.2.2 of the RISDISM.

Groundwater recharge is determined from the following equation:

$$Re_v = 1'' * F * I / 12$$

Where:

Re_v = Groundwater Recharge Volume (cf)

F = Recharge Factor based on Hydrologic Soil Groups (HSG) (see table below)

I = Impervious Area (sf)

HSG	Recharge Factor (F)
A	0.60
B	0.35
C	0.25
D	0.10

Recharge volume for watersheds 1, 2, & 5 are provided through the use of infiltration ponds A, B, & D. Recharge volume for watersheds 3, 4, & 5 are provided through the use of drywells & underground infiltration systems. See Table 2-1 of the Appendix A checklist for a summary of recharge values. The required recharge volume is based on all impervious area, not just areas which are captured in the proposed BMPs.



See Appendix A3.2 for the water quality storm HydroCAD analysis. The water quality storm is calculated in HydroCAD using the 'calculate separate Pervious/Impervious runoff' option.

3.3 Minimum Standard 3: Water Quality

All stormwater is treated through an approved BMP before being discharged. This site has been designed to use infiltration ponds, underground infiltration systems, drywells, and permeable pavement are utilized to treat stormwater before being infiltrated within the infiltration basins. There are no pollutant-specific requirements and/or pollutant removal efficiencies applicable to the site as the result of SAMP, TMDL, or other watershed-specific requirements.

On-site stormwater flowing towards the pervious pavement is fully infiltrated up to the 100-year storm event. See pervious pavement design sheets for water quality requirements.

Water Quality Infiltration Pond

The infiltration ponds have been sized using HydroCAD and an infiltration rate based on a parent material within the footprint of the BMP. Soil infiltration rate was determined using an amoozemeter hydraulic conductivity test and using half of the rate from the test to be conservative. See Appendix A2.2 for the Amoozemeter Infiltration Data. The project site largely consists of loamy sand, and sandy loam and an infiltration rate was used from table 5-3 in section 5.3.4 of the RISDISM where amoozemeter test was not present. See Appendix A3.2 for the HydroCAD analysis for the water quality event. The infiltration ponds have been designed to fully infiltrate the water quality event.

Pretreatment for the infiltration ponds A and D have been provided through the use of Proprietary devices. The Proprietary devices have been sized per manufacturing requirements.

Pretreatment for infiltration pond B has been provided through the use of sediment forebays. The forebays have been sized per section 6.4 of the RISDISM.

Infiltration Pond Parameters:

BMP	Total Watershed Area (acres)	Impervious (acres)	Required Forebay Volume (cf)	Provided Forebay Volume (cf)	Required Surface Area, As (sf)	Provided Surface Area, As (sf)
Pond-WQ-A	1.195	0.331	N/A*	N/A*	N/A*	N/A*
Pond- WQ-B	2.988	1.442	1,309	2,986	87	339
	8.424	4.116	1,434	3,756	244	444
Pond- WQ-D	4.191	1.268	N/A*	N/A*	N/A*	N/A*

***Provided by proprietary systems**

Water Quality Underground Infiltration System

The Underground Infiltration Systems have been designed as a water quality system. The system has been sized using HydroCAD and an infiltration rate based on a parent material within the footprint of the BMP. Soil infiltration rate was determined using an amoozemeter hydraulic conductivity test and using half of the rate from the test to be conservative. See Appendix A2.2 for the Amoozemeter Infiltration Data. The project site largely consists of loamy sand, and sandy loam and an infiltration rate



was used from table 5-3 in section 5.3.4 of the RISDISM where amoozemeter test was not present. See Appendix A3.2 for HydroCAD analysis for the water quality event. The underground infiltration system(s) has/have been designed to fully infiltrate the water quality event.

Underground Infiltration System C

Pretreatment for the underground infiltration system C has been provided through the use of an isolator row. The isolator row has been designed in accordance with the RIDEM Alternative Stormwater Technology Certification for StormTech Isolator Row Plus. The system has been designed with an elevated bypass providing more than 9" between the Isolator Row Plus and the remainder of the system.

Underground Infiltration System:

BMP	WQ Flow (cfs)	Impervious (acres)	Required number of Isolator Row Plus Chambers*	Provided Number of Isolator Row Plus Chambers
UIS-C	0.24	0.216	1	13

*Per Table 1: StormTech Isolator Row PLUS Sizing Table provided in the certification the SC-800 provides treatment for 0.25 cfs per chamber.

Underground Infiltration Systems E, F and G:

Underground infiltration systems E, F and G only receive runoff from roof areas; thus, pretreatment is not required. All three systems fully infiltrate the water quality volume.

Drywell

Each proposed dwelling will have its own drywell system that will treat the water quality storm and mitigate the flows and volumes from the respective roof. The drywells were sized per RIDEM stormwater manual section 5.3 and will be infiltrating the 100 yr storm event. The drywells are included in the stormwater model.



3.4 Minimum Standard 4: Conveyance and Natural Channel Protection

3.4.1 Drainage Network Design Parameters:

A. PIPES

- All drainage pipes are HDPE or equivalent unless otherwise noted.
- Manning's coefficient = 0.012 for HDPE Pipe
- Diameters & lengths as specified.
- The 100-year design storm is utilized for the drainage pipe design to ensure that the drainage system contains and channels water to the BMP areas as shown on the plans.
- The rational method has been used for the closed drainage system.

B. STRUCTURES

- Catch basins – Pre-cast concrete with 3' sump unless otherwise noted and inverts as specified.
- Manholes – Pre-cast concrete with inverts as specified.

3.4.2 Channel Protection Volume:

The detention basins have been designed to release the 1 year storm volume over a 24 hour time span in accordance with Section 3.2.4 of the RISDISM and RISDISM Guidance for Natural Channel Protection dated June 14, 2017.

The Channel Protection Volume is determined from the following equation:

$$CP_V = 0.65V_r$$

CP_V = required channel protection storage volume

V_r = runoff volume from the 1-year, 24-hour storm (obtained from HydroCAD)

Average release rate, $CP_{qavg} = 0.65 * V_r / T$

Max Release Rate = $CP_{qmax} = 2 * CP_{qavg}$

T = extended detention time (24 hours)

The site has been designed to fully infiltrate the channel protection volume. The channel protection required has been met.

See table 4-1 of the Appendix A Checklist for a Summary of Channel Protection Volumes. See Appendix A3.5.4.2 for the 1-year storm event HydroCAD analysis.



3.5 Minimum Standard 5: Overbank Flood Protection & Downstream Analysis

3.5.1 Method of Analysis

USDA Soil Conservation Service Method as defined by Technical Release No. 20 (TR-20) determines Stormwater runoff rate and volume. Type III rainfall distribution is utilized. Time of concentration is determined using Technical Release No 55 (TR-55) methodology, through the computer program *HydroCAD ver. 10.0* by HydroCAD Software Solutions LLC.

Infiltration has been modeled in HydroCAD with multiple infiltration rates varying from 1.0in/hr to 3.5in/hr depending on the location of the BMP. Soil infiltration rate was determined using an amoozemeter hydraulic conductivity test and using half of the rate from the test to be conservative. See Appendix A2.2 for the Amoozemeter Infiltration Data. In areas where there was no amoozemeter tests taken, table 5-3 in section 5.3.4 of the RISDISM was used. Soil evaluations have been performed by DiPrete Engineering. The existing soil has a texture of (Loamy Sand and Sandy Loam).

For Infiltration Pond B the infiltration rate was based on an average of the amoozemeter tests performed at testholes 24-9 and 24-11, then a factor of safety of two was applied. Testing showed 3.19 in/hr and 0.8 in/hr at the respective testholes. Since the majority of the infiltration would be happening directly at testhole 24-9, a conservative average was taken of the two test then then halved. A rate of 1.0 in/hr was used in the design.

For WQ Infiltration Pond B the amoozemeter test at 24-9 was used. A rate of 1.6 in/hr was used in the design.

For Underground Infiltration System C, an amoozemeter test was performed at test hole 24-19. Testing showed a rate of 7.03 in/hr. A half rate of 3.5 in/hr was used in the design.

For Infiltration Pond D two amoozemeter tests were performed within the pond limits at testholes 24-24 and 24-25. Testing showed rates of 8.31 in/hr and 4.79 in/hr. A conservative rate of 2.4 in/hr was used for the design.

The remainder of the systems used rates per table 5-3 of the RISDISM

The drainage system has been designed to mitigate all stormwater flows up to the 100 year storm events. The emergency outlets have been sized to handle the 100 year storm event.

3.5.2 Design Storm

Analysis of 1-year, 10-year, 25-year, and 100-year frequency storms are included. The following 24-hour rainfall intensities are obtained from the Rhode Island Stormwater Design and Installation Standards Manual, Table 3-1 for Kent County.

1 year	=	2.7 inches
10 year	=	4.8 inches
25 year	=	6.2 inches
100 year	=	8.7 inches



3.5.3 Design Point Breakdown

The site is analyzed as five watershed areas. In the pre development stage there are 14 subcatchments. In the post development stage, there are 66 subcatchments. Each watershed will demonstrate close to zero increase of runoff due to the proposed development. A description of each watershed and associated subcatchments are summarized as follows, for cover types see color watershed maps located in back of this report. Numbers in parentheses () indicate the HydroCAD Node Number.

Design Point 1:

Watershed #1 flows to Design Point- 1 (DP-1). This watershed consists of the southern portion of the site. The design point is Tiffany Road.

In pre development conditions there is one subwatershed to Design Point 1.

Pre-01 (10) contains the south most portion of the site. Stormwater flows overland to DP-1 (11).

In post development conditions there are three subwatersheds to Design Point 1:

Post-01 (100) collects runoff from the south most portion of the site directly next and including improvements to Tiffany Road. Stormwater flows overland and discharges to DP-1 (110).

Post-02 (101) collects runoff from a southern portion of site and the improvements to Tiffany Road. Stormwater is captured in via catch basins and directed to Pond A (102). Pond A provides water quality for watersheds 101. Larger storm events flow through a series of pipes to the Pond B Complex (206, 209, 218) which then discharges to DP-2 (240) over a weir.

Post-03 (102) collects runoff from the land that encompasses Pond A (102).

Below is a summary of the hydrologic parameters for the pre and post development sub-areas in Design Point-1.

	Area (acres)	CN	Tc (min)
Pre-01	2.293	60	15.3
Post-01	0.973	67	9.4
Post-02	1.050	73	10.0
Post-03	0.144	64	0.0

Design Point 2:

Watershed #2 flows to Design Point- 2 (DP-2). This watershed consists of the southern middle portion of the site. The design point is the Western Wetlands, Tiogue Lake. Tiogue Lake is 235+/- acres. Per section 3.3.5 of the RIDISM, QP is not required, however to provide maximum protection for surrounding areas and to be conservative, a infiltration pond has been design that provides peak mitigation for the 2-100 year storms events.

In pre development conditions there are four subwatersheds to Design Point 2.

Pre-02 (20) contains a southwestern portion of the site. Stormwater flows overland to DP-2 (24).

Pre-03 (21) contains a southwestern portion of the site. Stormwater flows overland to DP-2 (24).

Pre-04 (22) contains the land south of the Overlook Circle neighborhood. Stormwater flows overland to DP-2 (24).



Pre-05 (23) contains a middle portion of the site. Stormwater flows overland to DP-2 (24).

In post development conditions there are 34 subwatersheds to Design Point 2:

Post-04 (200) collects runoff from the southern end of Road A and surrounding areas. Stormwater flows through a series of pipes before going through the Pond B Complex (206, 209, 218) which then discharges to DP-2 (240) over a weir.

Post-05 (201) collects runoff from the southern middle end of road A and surrounding areas. Stormwater flows through a series of pipes before going through the Pond B Complex (206, 209, 218) which then discharges to DP-2 (240) over a weir.

Post-06 (202) collects runoff from the middle end of road A and surrounding areas. Stormwater flows through a series of pipes before going through the Pond B Complex (206, 209, 218) which then discharges to DP-2 (240) over a weir.

Post-07 (203) collects runoff from the northern middle end of road A and surrounding areas. Stormwater flows through a series of pipes before going through the Pond B Complex (206, 209, 218) which then discharges to DP-2 (240) over a weir.

Post-08 (204) collects runoff from the area directly upstream of Forebay B1. Stormwater flows towards Forebay B1 (206) and is circulated through the Pond B complex (208,217) which then discharges to DP-2 (240) over a weir.

Post-09 (205) collects runoff from the land that encompasses Forebay B1 (206). Stormwater is circulated through the Pond B complex (208,217) which then discharges to DP-2 (240) over a weir.

Post-10 (207) collects runoff from the area directly upstream of WQ Infiltration Pond B. Stormwater flows towards WQ Infiltration Pond B (208) and is circulated through Pond B (217) which then discharges to DP-2 (240) over a weir.

Post-11 (208) collects runoff from the land that encompasses WQ Infiltration Pond B (206). Stormwater is circulated through Pond B (217) which then discharges to DP-2 (240) over a weir.

Post-12 (210) collects runoff from the area directly upstream of Forebay B2. Stormwater flows towards Forebay B2 (215) and is circulated through the Pond B complex (208,217) which then discharges to DP-2 (240) over a weir.

Post-13 (211) collects runoff from the land that encompasses Forebay B2. Stormwater flows towards Forebay B2 (215) and is circulated through the Pond B complex (208,217) which then discharges to DP-2 (240) over a weir.

Post-14 (212) collects runoff from Road B, the northern portion of Road A and the upstream areas of those two roads. Stormwater flows towards Forebay B2 (215) through a pipe network and is circulated through the Pond B complex (208, 217) which then discharges to DP-2 (240) over a weir.

Post-15 (213) collects runoff from the southern half of Road C and the upstream areas along the road. Stormwater flows towards Forebay B2 (215) through a pipe network and is circulated through the Pond B complex (208, 217) which then discharges to DP-2 (240) over a weir.

Post-16 (214) collects runoff from the northern half of Road C and the upstream areas along the road. Stormwater flows towards Forebay B2 (215) through a pipe network and is circulated through the Pond B complex (208, 217) which then discharges to DP-2 (240) over a weir.

Post-17 (216) collects runoff from the area directly upstream of Pond B (218). Stormwater flows towards Pond B (218) which then discharges to DP-2 (240) over a weir.

Post-18 (217) collects runoff from the land that encompasses Pond B (218). Stormwater flows further into Pond B (218) and discharges to DP-2 (240) over a weir.



Post-19 (219) collects runoff from the land behind the houses to the west of Road A. Stormwater flows overland undetained toward DP-2 (240).

Post-20 (220) collects runoff from the land behind the houses to the northwest of Road A. Stormwater flows overland undetained toward DP-2 (240).

Post-21 (221) collects runoff from the land west of Pond B. Stormwater flows overland undetained toward DP-2 (240).

Post-22 (230) collects runoff from the land behind the houses on Road C. Stormwater flows overland undetained toward DP-2 (240).

Post-23 (231) collects runoff from the land at the connection from Road C to East Shore Drive. Stormwater flows overland undetained toward DP-2 (240).

The following nodes, (699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712) contain roof area. The stormwater from those roofs flow into and through a series of pipes before going through the Pond B Complex (206, 209, 218) which then discharges to DP-2 (240) over a weir.

Below is a summary of the hydrologic parameters for the pre and post development sub-areas in Design Point-2.

	Area (acres)	CN	Tc (min)
Pre-02	1.937	55	17.6
Pre-03	3.180	68	13.1
Pre-04	1.348	57	16.5
Pre-05	3.870	56	22.4
Post-04	0.718	79	9.9
Post-05	0.280	78	13.6
Post-06	0.883	77	20.3
Post-07	0.600	76	14.6
Post-08	0.108	84	6.6
Post-09	0.086	80	0.0
Post-10	0.313	83	6.0
Post-11	0.109	80	0.0
Post-12	0.691	65	7.2
Post-13	0.087	75	0.0
Post-14	3.528	81	10.5
Post-15	1.989	81	9.1
Post-16	2.128	85	10.3
Post-17	0.792	57	9.6
Post-18	0.887	71	0.0
Post-19	0.684	61	6.8
Post-20	0.551	77	7.3
Post-21	0.211	69	6.0
Post-22	1.646	62	7.6



Post-23	0.053	89	6.0
699	0.021	98	6.0
700	0.023	98	6.0
701	0.023	98	6.0
702	0.023	98	6.0
703	0.023	98	6.0
704	0.023	98	6.0
705	0.021	98	6.0
706	0.023	98	6.0
707	0.023	98	6.0
708	0.021	98	6.0
709	0.023	98	6.0
710	0.023	98	6.0
711	0.022	98	6.0
712	0.023	98	6.0

Design Point 3:

Watershed #3 flows to Design Point- 3 (DP-3). This watershed consists of the eastern portion of the site. The design point is the Eastern Abutters. The Eastern Abutters represents existing homes along Minglewood Drive and Trafford Park Drive.

In pre development conditions there are three subwatersheds to Design Point 3.

Pre-06 (30) contains a southeastern portion of the site. Stormwater flows overland before reaching DP-3 (33).

Pre-07 (31) contains a southeastern portion of the site that abuts the stormwater pond at the end of Minglewood Drive. Stormwater flows overland before reaching DP-3 (33).

Pre-08 (32) contains a middle eastern portion of the site that is abutting the entrance of Minglewood Drive. Stormwater flows overland before reaching DP-3 (33).

In post development conditions there are 13 subwatersheds to Design Point 3:

Post-24 (300) collects runoff from the land behind the houses to the east of Road B. Stormwater flows overland undetained toward DP-3 (330).

Post-25 (310) collects runoff from the land behind the houses to the east of the end of Road B and end of Road C. Stormwater flows overland undetained toward DP-3 (330).

Post-26 (320) collects runoff from the land behind the houses to the east of the middle of Road C. Stormwater flows overland undetained toward DP-3 (330).

The following nodes, (600, 601, 713, 714, 715, 716, 717, 718, 719, 720) contain roof area. The stormwater from those roofs flow into one drywell per node which will discharge into the ground through infiltration.

Road D's drainage discharge to the existing drainage network within Minglewood Drive. A stub was provided for the future roadway connection to this development. Underground Infiltration C collects stormwater to the maximum extent practicable.



Below is a summary of the hydrologic parameters for the pre and post development sub-areas in Design Point-3.

	Area (acres)	CN	Tc (min)
Pre-06	3.567	55	16.1
Pre-07	4.363	61	16.4
Pre-08	1.231	55	16.9
Post-24	0.997	61	9.9
Post-25	1.667	64	10.7
Post-26	0.711	64	10.6
600	0.009	98	6.0
601	0.009	98	6.0
713	0.011	98	6.0
714	0.011	98	6.0
715	0.011	98	6.0
716	0.011	98	6.0
717	0.010	98	6.0
718	0.010	98	6.0
719	0.012	98	6.0
720	0.012	98	6.0

Design Point 4:

Watershed #4 flows to Design Point- 4 (DP-4). This watershed consists of the northeastern portion of the site. The design point is the Northeastern Abutters.

In pre development conditions there are five subwatersheds to Design Point 4.

Pre-09 (40) contains the land directly south of the Mulhearn Drive property. Stormwater flows overland before reaching DP-4 (45).

Pre-10 (41) contains the narrow middle portion site. Stormwater flows overland before reaching DP-4 (45).

Pre-11 (42) contains the offsite area that encompasses a stormwater pond on the abutters land that is to the west of the narrow middle portion of the site. Stormwater flows overland before reaching DP-4 (45).

Pre-12 (43) contains the offsite area that encompasses a stormwater pond on the abutters land that is to the west of the narrow middle portion of the site. Stormwater flows overland before reaching DP-4 (45).

In post development conditions there are eight subwatersheds to Design Point 4:

Post-27 (400) collects runoff from Road D at the intersection with Road C. Stormwater flows through the pipe network towards UIS-C (401) before infiltrating into the ground.

Post-28 (402) contains the land directly south of the Mulhearn Drive property. Stormwater flows overland before reaching DP-4 (450).



Post-29 (410) contains the narrow middle portion site. Stormwater flows overland before reaching DP-4 (450).

Post-30 (420) contains the offsite area that encompasses a stormwater pond on the abutters land that is to the west of the narrow middle portion of the site. Stormwater flows overland before reaching DP-4 (450).

Post-31 (430) contains the offsite area that encompasses a stormwater pond on the abutters land that is to the west of the narrow middle portion of the site. Stormwater flows overland before reaching DP-4 (45).

Post-32 (440) contains the land directly west of the Lacolle Lane property. Stormwater flows overland before reaching DP-4 (450).

The nodes (602) and (603) contain roof area. The stormwater from those roofs flow into a drywell per node which will discharge into the ground through infiltration.

Below is a summary of the hydrologic parameters for the pre and post development sub-areas in Design Point-4.

	Area (acres)	CN	Tc (min)
Pre-09	1.516	56	23.6
Pre-10	2.527	60	10.7
Pre-11	0.528	66	6.0
Pre-12	0.967	66	11.3
Post-27	0.176	83	6.0
Post-28	0.771	61	8.0
Post-29	1.960	60	10.7
Post-30	0.528	66	6.0
Post-31	0.967	66	11.3
Post-32	0.281	61	6.0
602	0.073	98	6.0
603	0.036	98	6.0

Design Point 5:

Watershed #5 flows to Design Point- 5 (DP-5). This watershed consists of the northern portion of the site. The design point is Tiogue Avenue.

In pre development conditions there is one subwatershed to Design Point 5.

Pre-14 (50) contains the northern portion site. Stormwater flows overland to DP-5 (51).

In post development conditions there are ten subwatersheds to Design Point 5:

Post-33 (501) collects runoff from Road E and upstream areas to the west. Stormwater is collected within the Road E drainage system and discharges to Pond D (515). Driveways have been excluded from this node since they will be pervious pavement. A separate node (516) contains areas from the proposed driveways.



Post-34 (502) collects runoff from the land that encompasses Pond D (515). Stormwater flows further into Pond D (515) and discharges to DP-5 (510).

Post-35 (500) collects runoff from the land next to Tiogue Avenue and discharges to DP-5 (510).

Post-36 (503) consists of Buildings 1, 2 and 3. Roof runoff is collected within the drainage system and discharged to Pond D (515).

Post-37 (504) consists of Buildings 4, 5 and 6. Roof runoff is collected within the drainage system and fully infiltrates within Underground Infiltration System G (505).

Post-38 (506) consists of Building 7. Roof runoff is collected within the drainage system and fully infiltrates within Underground Infiltration System E (507).

Post-36 (508) consists of Building 8. Roof runoff is collected within the drainage system and fully infiltrates within Underground Infiltration System F (509).

Post-40 (510) consists of Building 9. Roof runoff is collected within the drainage system and discharged to Pond D (515).

Post-41 (512) consists of Building 10. Roof runoff is collected within the drainage system and discharged to Pond D (515).

Post-42 (516) collects runoff from the pervious driveways for the northern multi-family units. The pervious driveways infiltrate into the ground with an emergency outlet going towards DP-5 (510).

Below is a summary of the hydrologic parameters for the pre and post development sub-areas in Design Point-5.

	Area (acres)	CN	Tc (min)
Pre-14	4.044	59	14.8
Post-33	3.207	68	11.4
Post-34	0.330	61	0.0
Post-35	0.528	63	8.9
Post-36 (503)	0.327	98	6.0
Post-37 (504)	0.291	98	6.0
Post-38 (506)	0.109	98	6.0
Post-39 (508)	0.109	98	6.0
Post-40 (510)	0.109	98	6.0
Post-41 (512)	0.109	98	6.0
Post-42 (516)	0.552	98	6.0



3.5.4 Q_p BMP Calculations

The section includes calculations for each Q_p BMP for the site. Calculations include Rip Rap Aprons, Anti Seep Collars, and the Emergency Outlet Calculations.

The emergency outlets have been sized to safely pass the 100 year storm and beyond without erosion or overtopping the embankment. For this analysis, the infiltration ponds were assumed to have all of the orifices clogged and only the emergency outlet functioning. For Pond B, there will be water flowing over the weir in the 100 year storm without any orifice clogged. Under normal conditions, no stormwater will flow over the emergency spillway in Pond A & C and the basin will have a minimum of one foot of freeboard.

Basin	Q(cfs)	V (ft/s)	Top of Basin	Flood Elevation
Pond A	5.37	1.04	247.5	246.67
Pond B	24.25	5.08	243.5	242.41
Pond D	9.99	1.91	234.0	233.52

The velocity over the spillways for Pond A & C are less than 3 ft/s thus no erosion will take place on the embankment or downstream. Pond B has a v notch weir that is sharp crested with a splash pad so no erosion will take place. The ponds maintain freeboard even with all orifices clogged and the 100 year storm flowing over the embankment. See attached HydroCAD.

Outlet Protection

Rip rap aprons are designed at the drainage pipe discharges and detention basin outlets. The rip rap aprons are designed to prevent scour at the storm water outlet and to minimize the potential for downstream erosion by reducing the velocity of concentrated storm water flows.

Name	Discharge (cfs)	Do (ft)	Length (ft)	TW (ft)	Width (ft)	d-50 (in)	Riprap Class
FES-A6	5.8	1.00	18	3.84	10	1	R-4
FES-B17	17.7	2.50	28	8.01	19	0	R-3
FES-B30	22.3	2.50	30	8.02	20	1	R-3
FES-B49	27.4	2.00	33	8.02	19	1	R-2
FES-D15	15.2	1.50	27	5.90	15	1	R-2
Outlet D-4	1.9	0.67	12	1.00	8	1	R-2
D/O-1	2.6	0.67	12	0.27	8	5	R-3
D/O-2	2.6	0.67	12	0.27	8	5	R-3

Anti Seep Collars

Anti seep collars have been included on the pipes out of WQ infiltration pond D. Two 3'x3' collars have been placed on each pipe coming from WQ infiltration pond D.

Outlet	Pipe Diameter (in)	s (ft/ft)	z (x:1)	y (ft)	Ls (ft)	V (ft)	Collar Size (ft x ft)	N	Smin (ft)	Smax (ft)
D/O-1	8	0.0631	3.0	3.35	31.37	2.30	3 x 3	2	12	32
D/O-2	8	0.0393	3.0	3.35	27.82	2.30	3 x 3	2	12	32



3.5.5 Downstream Analysis

A downstream analysis is required under the following conditions:

Area of Disturbance (Acres)	Impervious Cover (%)
>5 to 10	>75
>10 to 25	>50
>25 to 50	>25
>50	All Projects

The proposed project disturbs 23.8 acres and is 8.4 acres of impervious. This is approximately 35% impervious cover. A downstream analysis is not required.

3.5.6 Overbank Flood Protection Conclusion

The tables below presents a summary of the pre development flows vs. the mitigated post development flows. The table shows a decrease in the rate of runoff for all storms included in the analysis.

Pre Development Flows vs. Post Development Flows Mitigated

Watershed #1: (DL-1) Watershed #1: (DP-1)

Pre development Conditions versus Post Development Conditions Flow Rates for each watershed are summarized below:

Subwatershed (design point)	1-yr Peak Flow		2-yr Peak Flow		10-yr Peak Flow		25-yr Peak Flow		100-yr Peak Flow	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
DP-1:	0.21	0.32	0.56	0.63	2.08	1.62	3.92	2.69	7.71	4.78
DP-2:	1.06	0.96	2.36	1.97	8.34	5.19	15.70	12.66	30.97	29.73
DP-3:	0.57	0.58	1.66	1.42	6.91	4.35	13.59	7.67	27.78	14.37
DP-4:	0.61	0.66	1.59	1.69	5.89	5.46	11.15	9.79	22.07	18.57
DP-5:	0.31	0.09	0.87	0.23	3.45	0.99	6.64	3.38	13.29	6.07
Totals:	2.76	2.61	7.04	5.94	26.67	17.61	51.00	36.19	101.82	73.52

All flows in cubic feet per second (cfs)

As shown in the tables above, no increase in stormwater runoff flow will occur following the proposed construction during the majority of the storm events.

Pre development Conditions versus Post Development Volume Conditions for each watershed are summarized below:

Sub- watershed (design point)	1-yr Volume		2-yr Volume		10-yr Volume		25-yr Volume		100-yr Volume	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
DP-1:	0.044	0.036	0.086	0.060	0.227	0.135	0.393	0.217	0.739	0.382
DP-2:	0.211	0.110	0.393	0.458	1.019	1.935	1.755	3.543	3.296	6.602
DP-3:	0.143	0.090	0.289	0.161	0.807	0.392	1.431	0.655	2.758	1.194
DP-4:	0.134	0.112	0.255	0.202	0.672	0.502	1.164	0.846	2.194	1.553
DP-5:	0.070	0.014	0.139	0.025	0.378	0.227	0.663	0.587	1.263	1.339
Totals:	0.602	0.362	1.162	0.906	3.103	3.191	5.406	5.848	10.250	11.070

All volumes are in acre feet (af)



Conclusion

The site has significant decreases from pre to post development in flow rate and volume to critical areas. Design Point 3 represents residences along Trafford Park Drive and Minglewood Drive. Large amounts of area have been redirected west to Tiogue Lake. This results in large decreases from pre to post development. Design Point 4 represents apartments along Mulhearn drive. Large amounts of onsite and offsite area have been directed away from the apartments and Tiogue Avenue. Design Point 5 represents Tiogue Avenue, a RIDOT drainage system. Even with the redirection of area from Design Point 5, onsite BMPs have resulted in a decrease in volume from the 1-25 years storms while providing a significant decrease in flows. The majority of the drainage improvements to surrounding areas are due to redirecting stormwater to Tiogue Lake (Design Point 2). Discharges to Tiogue Lake have been mitigated pre to post development. It is important to note that Tiogue Lake is approximately 235 acres, peak mitigation is not required.



3.6 Minimum Standard 6: Redevelopment and Infill Projects.

The site is not classified as a redevelopment or infill project.

3.7 Minimum Standard 7: Pollution Prevention

A Soil Erosion and Sediment Control Plan (SESC) for this development can be found under a separate document. See the Soil Erosion and Sediment Control Plan for the development prepared by DiPrete Engineering. The SESC contains information for construction pollution prevention. For post construction pollution prevention see the Operations and Maintenance (O&M) document prepared for this development by DiPrete Engineering.

3.8 Minimum Standard 8: Land Uses with High Potential Pollutant Loads (LUHPPLs)

The site is not considered LUHPPL.

3.9 Minimum Standard 9: Illicit Discharges

There are no proposed Illicit Discharges on site. The site will be serviced by public water and sewer.

3.10 Minimum Standard 10: Construction Activity Soil Erosion, Runoff and Sedimentation and Pollution Prevention Control Measure Requirements

See the SESC for this development prepared by DiPrete Engineering.

3.11 Minimum Standard 11: Stormwater Management System Operation and Maintenance

See the O&M for this development prepared by DiPrete Engineering.



Appendix A

A2.1 Soil Evaluations



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tioguo Oaks

Date of Test Hole: 9/9/2024

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 70s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dth 24-1} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox			Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S.	Contr.				
Oe	0-2"											
A	2-5"	C	S	10YR 3/3	-	-	-	-	lfs	1 sbk	VFR	4
Bw	5-33"	C	S	2.5Y 6/8	-	-	-	-	lfs	1 sbk	VFR	4
C1	33-72"	C	S	2.5Y 7/4	-	-	-	-	ls	0 m	VFR	6
C2	72-120"	C	S	2.5Y 6/3	-	-	-	-	cb gr ls	0 m	VFR	6m
Cr	120-156"											
TH ^{dth 24-2} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox			Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S.	Contr.				
A	0-6"	C	S	10YR 3/3	-	-	-	-	lfs	1 sbk	VFR	4
Bw	6-40"	C	S	2.5Y 6/8	-	-	-	-	st lfs	1 sbk	VFR	4m
C1	40-60"	C	S	2.5Y 6/3	-	-	-	-	ls	0 m	VFR	6
C2	60-92"	C	S	2.5Y 5/3	-	-	-	-	fs	0 m	VFR	7
Cr	92-132"	C	W									
R	132"											

TH ^{dth 24-1} Soil Class Ab till Total Depth 156" Impervious/Limiting Layer Depth 120" (og) GW Seepage Depth - SHWT >120" (og)

TH ^{dth 24-2} Soil Class Ab till Total Depth 132" Impervious/Limiting Layer Depth 92" (og) GW Seepage Depth - SHWT >92" (og)

Comments: dth 24-1: Harder bedrock begins at 156". dth 24-2: Hard bedrock at 108", but varies in places to 132".



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tioguo Oaks

Date of Test Hole: 9/9/2024

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 70s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dth 24-3} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox			Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S.	Contr.				
A	0-4"	C	S	10YR 3/3	-	-	-	-	lfs	1 sbk	VFR	4
Bw	4-36"	C	S	2.5Y 6/8	-	-	-	-	st lfs	1 sbk	VFR	4
C	36-96"	C	S	2.5Y 5/3	-	-	-	-	cb gr ls	0 m	VFR	6m
Cr	96-125"	C	S									
R	125"											
TH ^{dth 24-4} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox			Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S.	Contr.				
A	0-3"	C	S	10YR 3/3	-	-	-	-	lfs	1 sbk	VFR	4
Bw	3-32"	C	S	2.5Y 6/8	-	-	-	-	lfs	1 sbk	VFR	4
C	32-108"	C	S	2.5Y 5/3	7.5YR 5/8	F	F	P	lfs	0 m	VFR	6
Cr	108-120"	C	S									
R	120"											

TH ^{dth 24-3} Soil Class Ab till Total Depth 125" Impervious/Limiting Layer Depth 96" (og) GW Seepage Depth - SHWT >96" (og)

TH ^{dth 24-4} Soil Class Ab till Total Depth 120" Impervious/Limiting Layer Depth 108" (og) GW Seepage Depth - SHWT 53" (og)

Comments: _____



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
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Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tioguo Oaks

Date of Test Hole: 9/9/2024

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 70s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dtb 24-5} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-5"	C	S	10YR 3/3	-	-	-	lfs	1 sbk	VFR	4
Bw	5-40"	C	S	2.5Y 6/8	-	-	-	lfs	1 sbk	VFR	4
C	40-126"	C	S	2.5Y 5/3	-	-	-	cb gr lfs	0 m	VFR	6m
Cr	126-132"	C	S								
R	132"										
TH ^{dtb 24-6} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-4"	C	S	10YR 3/3	-	-	-	lfs	1 gr	VFR	4
Bw	4-23"	C	S	2.5Y 6/8	-	-	-	lfs	1 sbk	VFR	4
BC	23-29"	C	S	2.5Y 6/6	7.5YR 5/6	C	M P	ls	1 sbk	VFR	4
C	29-96"	C	S	2.5Y 6/4	7.5YR 5/8	C	M P	s	0 m	VFR	1
Cr	96-108"	C	S								
R	108"										

TH^{dtb 24-5} Soil Class Ab till Total Depth 132" Impervious/Limiting Layer Depth 126" (og) GW Seepage Depth - SHWT >126" (og)

TH^{dtb 24-6} Soil Class Ab till Total Depth 108" Impervious/Limiting Layer Depth 96" (og) GW Seepage Depth - SHWT 28" (og)

Comments: _____



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tiogogue Oaks

Date of Test Hole: 9/9/2024

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 70s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dtb 24-7} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox			Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S.	Contr.				
A	0-4"	C	S	10YR 3/3	-	-	-	-	lfs	1 sbk	VFR	4
Bw	4-24"	C	S	2.5Y 6/8	-	-	-	-	lfs	1 sbk	VFR	4
C	24-62"	C	S	2.5Y 6/3	-	-	-	-	ls	0 m	VFR	6
Cr	62-120"+											
TH ^{dtb 24-8} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox			Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S.	Contr.				
A	0-3"	C	S	10YR 3/3	-	-	-	-	lfs	1 sbk	VFR	4
Bw	3-26"	C	S	2.5Y 6/8	-	-	-	-	lfs	1 sbk	VFR	4
C1	26-72"	C	S	2.5Y 6/3	-	-	-	-	ls	0 m	VFR	6
C2	72-120"			2.5Y 5/3	-	-	-	-	cb gr ls	0 m	FR	6m

TH^{dtb 24-7} Soil Class Ab till Total Depth 120" Impervious/Limiting Layer Depth 62" (og) GW Seepage Depth - SHWT >62" (og)

TH^{dtb 24-8} Soil Class Ab till Total Depth 120" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT >120" (og)

Comments: _____



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tioguo Oaks

Date of Test Hole: 9/9/2024

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 70s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dth 24-9} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-5"	C	S	10YR 3/3	-	-	-	lfs	1 sbk	VFR	4
Bw	5-27"	C	S	10YR 5/6	7.5YR 5/8	C	M D	lfs	1 sbk	VFR	4
BC	27-56"	C	S	10YR 6/6	7.5YR 5/8	C	M D	s	0 m	FR	1
C	56-120"			2.5Y 5/3	-	-	-	cb gr s	0 sgr	LO	1m
TH ^{dth 24-10} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-3"	C	S	10YR 3/3	-	-	-	lfs	1 sbk	VFR	4
Bw	3-29"	C	S	10YR 6/8	-	-	-	lfs	1 sbk	VFR	4
C	29-96"	C	S	2.5Y 5/3	7.5YR 5/6	C	F P	cb gr ls	0 m	VFR	6m
Cr	96-120"										

TH ^{dth 24-9} Soil Class Ab till Total Depth 120" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 26" (og)

TH ^{dth 24-10} Soil Class Ab till Total Depth 120" Impervious/Limiting Layer Depth 96" (og) GW Seepage Depth - SHWT 58" (og)

Comments: dth 24-9: BC is loosely cemented in areas with concentrations. Bottom of testhole damp. Difficult excavation last two feet.



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

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Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tioguo Oaks

Date of Test Hole: 9/9/2024

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 70s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dtb 24-11} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-4"	C	S	10YR 3/2	-	-	-	lfs	1 sbk	VFR	4
Bw	4-20"	C	S	10YR 5/6	-	-	-	lfs	1 sbk	VFR	4
C1	20-53"	C	S	2.5Y 5/3	7.5YR 5/8	C	M D	s	0 sgr	LO	1
C2	53-70"	C	S	2.5Y 4/3	-	-	-	cb gr lfs	0 m	FR	6m
C3	70-120"			2.5Y 4/3	-	-	-	cb gr lvfs	0 m	FR	6m
TH ^{dtb 24-12} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-4"	C	S	10YR 3/2	-	-	-	bd cb lfs	1 sbk	VFR	4m
Bw	4-44"	C	S	2.5Y 6/8	-	-	-	lfs	1 sbk	VFR	4
C	44-60"	C	S	2.5Y 5/3	-	-	-	lfs	0 m	VFR	6
Cr	60-90"	C	S								
R	90"										

TH^{dtb 24-11} Soil Class Ab till Total Depth 120" Impervious/Limiting Layer Depth - (og) GW Seepage Depth 120" SHWT 27" (og)

TH^{dtb 24-12} Soil Class Ab till Total Depth 90" Impervious/Limiting Layer Depth 90" (og) GW Seepage Depth - SHWT >90" (og)

Comments: _____



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tiogogue Oaks

Date of Test Hole: 9/10/2024

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 70s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dth 24-13} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox			Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S.	Contr.				
A	0-4"	C	S	10YR 3/3	-	-	-	-	lfs	1 sbk	VFR	4
Bw1	4-25"	C	S	2.5Y 6/8	-	-	-	-	bd lfs	1 sbk	VFR	4m
Bw2	25-48"	C	S	2.5Y 7/6	-	-	-	-	bd lfs	1 sbk	VFR	4m
C1	48-72"	C	S	2.5Y 5/3	-	-	-	-	cb gr lfs	0 m	VFR	6m
C2	72-108"	C	S	2.5Y 4/3	-	-	-	-	cb gr lfs	0 m	VFR	6m
R	108"											
TH ^{dth 24-14} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox			Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S.	Contr.				
A	0-4"	C	S	10YR 3/3	-	-	-	-	lfs	1 sbk	VFR	4
Bw	4-25"	C	S	2.5Y 6/8	-	-	-	-	bd lfs	1 sbk	VFR	4m
C1	25-64"	C	S	2.5Y 5/3	-	-	-	-	cb gr lfs	0 m	VFR	6m
C2	64-70"	C	W	2.5Y 5/3	-	-	-	-	bd cb gr ls	0 m	VFR	6m
R	70"											

TH ^{dth 24-13} Soil Class Ab till Total Depth 108" Impervious/Limiting Layer Depth 108" (og) GW Seepage Depth - SHWT >108" (og)

TH ^{dth 24-14} Soil Class Ab till Total Depth 70" Impervious/Limiting Layer Depth 70" (og) GW Seepage Depth - SHWT >70" (og)

Comments: dth 24-14: R starting depth ranges from 70 to 103". Bedrock rises to the north.



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

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Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tiogogue Oaks

Date of Test Hole: 9/10/2024

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 70s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dth 24-15} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-4"	C	S	10YR 3/3	-	-	-	lfs	1 sbk	VFR	4
Bw	4-18"	C	S	2.5Y 6/8	-	-	-	lfs	1 sbk	VFR	4m
C1	18-23"	C	S	2.5Y 5/3	-	-	-	cb gr lfs	0 m	VFR	6m
C2	23-93"	C	S	10YR 5/4	-	-	-	vgr s	0 sgr/m	LO	1m
C3	93-132"	C	S	2.5Y 5/3	-	-	-	cb gr ls	0 m	VFR	6m
R	132"										
TH ^{dth 24-16} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-2"	C	S	10YR 3/3	-	-	-	lfs	1 sbk	VFR	4
Bw	2-26"	C	S	10YR 6/6	-	-	-	lvfs	1 sbk	VFR	4
BC	26-57"	C	S	2.5Y 6/4	-	-	-	fs	1 sbk	VFR	7
C1	57-80"	C	S	2.5Y 6/2	-	-	-	vfs	0 m	FR	7
C2	80-144"	-	-	2.5Y 4/3	-	-	-	cb gr lfs	0 m	FR	6m

TH ^{dth 24-15} Soil Class Ab till Total Depth 132" Impervious/Limiting Layer Depth 132" (og) GW Seepage Depth - SHWT >132" (og)

TH ^{dth 24-16} Soil Class Ab till Total Depth 144" Impervious/Limiting Layer Depth 144" (og) GW Seepage Depth - SHWT 80" (og)

Comments: dth 24-15: C2 may be decomposed boulder - 60/40 percent mix of sand and rock fragments. Massive in place.

dth 24-16: C2 borderline dense till



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

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Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tiogogue Oaks

Date of Test Hole: 9/10/2024

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 70s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dth 24-17} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-2"	C	S	10YR 3/3	-	-	-	lfs	1 sbk	VFR	4
Bw	2-21"	C	S	10YR 6/6	-	-	-	gr lfs	1 sbk	VFR	4m
C1	21-49"	C	S	2.5Y 5/3	-	-	-	cb gr lfs	0 m	VFR	6m
C2	49-61"	C	S	10YR 4/4	-	-	-	vcb gr ls	0 m	FR	6m
C3	61-132"	-	-	2.5Y 4/3	-	-	-	cb gr ls	0 m	FR	6m
TH ^{dth 24-18} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-4"	C	S	10YR 3/3	-	-	-	lfs	1 sbk	VFR	4
Bw	4-13"	C	S	10YR 6/6	-	-	-	lvfs	1 sbk	VFR	4
C1	13-56"	C	S	2.5Y 5/3	-	-	-	cb gr ls	0 m	FR	6m
C2	56-120"	C	S	2.5Y 5/3	7.5YR 5/8	C	F P	cb gr ls	0 m	FR	6m
C3	120-132"	-	-	2.5Y 4/3	-	-	-	cb gr ls	0 m	FR	6m

TH ^{dth 24-17} Soil Class Ab till Total Depth 132" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT >132" (og)

TH ^{dth 24-18} Soil Class Ab till Total Depth 132" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 60" (og)

Comments: dth 24-18: C1 has large pockets of vfs.



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tiogogue Oaks

Date of Test Hole: 9/10 - 9/11/2024

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 70s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dtl 24-19} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-4"	C	S	10YR 3/3	-	-	-	lfs	1 sbk	VFR	4
Bw	4-39"	C	S	2.5Y 6/8	7.5YR 6/8	C	M D	lfs	1 sbk	VFR	4
C1	39-72"	C	S	2.5Y 6/2	7.5YR 6/8	C	M P	fs	0 sgr/m	LO	7
C2	72-168"	-	-	2.5Y 4/3	-	-	-	cb gr ls	0 m	FR	6m
TH ^{dtl 24-20} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-5"	C	S	10YR 3/3	-	-	-	fsl	1 sbk	FR	4
Bw	5-33"	C	S	10YR 5/8	-	-	-	fsl	1 sbk	FR	4
C1	33-96"	C	S	2.5Y 5/3	-	-	-	cb gr lfs	0 m	VFR	6m
C2	96-120"	-	-	2.5Y 4/3	-	-	-	cb gr lfs	0 m	FR	6m

TH^{dtl 24-19} Soil Class Ab till Total Depth 168" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 33" (og)

TH^{dtl 24-20} Soil Class Ab till Total Depth 120" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT >120" (og)

Comments: _____



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tiogogue Oaks

Date of Test Hole: 9/11/2024

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 70s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dth 24-21} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-3"	C	S	10YR 3/3	-	-	-	fsl	1 sbk	FR	4
Bw	3-31"	C	S	10YR 5/6	-	-	-	fsl	1 sbk	FR	4
C	31-120"	-	-	2.5Y 5/3	-	-	-	cb gr lfs	0 m	VFR	6m
TH ^{dth 24-22} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-4"	C	S	10YR 3/3	-	-	-	fsl	1 sbk	FR	4
Bw	4-23"	C	S	10YR 5/6	-	-	-	fsl	1 sbk	FR	4
C1	23-45"	C	S	2.5Y 5/2	7.5YR 5/8	C	M P	vfs	0 m	FR	7
C2	45-55"	C	S	2.5Y 5/3	-	-	-	cb gr lfs	0 m	FR	6m
C3	55-132"	-	-	2.5Y 5/3	-	-	-	st cb gr lfs	0 m	FR	6m

TH ^{dth 24-21} Soil Class Ab till Total Depth 120" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT >120" (og)

TH ^{dth 24-22} Soil Class Ab till Total Depth 132" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 31" (og)

Comments: dth 24-22: C2 is borderline dense till



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tiogogue Oaks

Date of Test Hole: 9/11/2024

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 70s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dtb 24-23} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-4"	C	S	10YR 3/3	-	-	-	fsl	1 sbk	FR	4
Bw	4-45"	C	S	10YR 5/6	-	-	-	fsl	1 sbk	FR	4
C	45-156"	-	-	2.5Y 5/3	7.5YR 5/6	C	M P	cb gr ls	0 m	VFR	6m
TH ^{dtb 24-24} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
HTM	0-41"	C	S								Fill
Bwb	41-47"	C	S	10YR 5/6	-	-	-	fsl	1 sbk	FR	4
BC	47-78"	C	S	2.5Y 4/4	7.5YR 5/6	C	M P	fsl	1 sbk	FR	4
C	78-144"	-	-	2.5Y 5/3	7.5YR 5/6	C	M P	cb gr ls	0 m	VFR	6m

TH^{dtb 24-23} Soil Class Ab till Total Depth 156" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 52" (og)

TH^{dtb 24-24} Soil Class Ab till Total Depth 144" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 72" (og)

Comments: dtb 24-24: C has pockets of vfs throughout



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tioguo Oaks

Date of Test Hole: 9/11/2024

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 70s

Shaded: Yes ☒ No ☐ Time: 8:30

TH dth 24-25 Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
HTM	0-24"	C	S								Fill
Ab	24-32"	C	S	10YR 3/3	-	-	-	fsl	1 sbk	FR	4
Bwb	32-50"	C	S	10YR 5/6	-	-	-	fsl	1 sbk	FR	4
C	50-132"	-	-	2.5Y 5/3	7.5YR 5/8	C	M P	lvfs	0 m	FR	6
TH _____ Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				

TH dth 24-25 Soil Class Ab till Total Depth 132" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 54" (og)

TH _____ Soil Class _____ Total Depth _____ Impervious/Limiting Layer Depth _____ (og) GW Seepage Depth _____ SHWT _____ (og)

Comments: dth 24-25: C horizon is very variable with pockets of ls throughout.



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tiogogue Oaks

Date of Test Hole: 5/19/2025

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 60s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dth 25-1} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-2"	C	S	10YR 3/2	-	-	-	fsl	1 sbk	FR	4
AB	2-10"	C	S	10YR 3/4	-	-	-	fsl	1 sbk	FR	4
Bw1	10-27"	C	S	10YR 5/6	-	-	-	fsl	1 sbk	FR	4
Bw2	27-36"	C	S	2.5Y 5/6	-	-	-	lfs	1 sbk	FR	4
C	36-120"	-	-	2.5Y 5/3	-	-	-	cb gr lfs	0 m	FR	6m
TH ^{dth 25-2} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-2"	C	S	10YR 2/2	-	-	-	fsl	1 sbk	FR	4
AB	2-7"	C	S	10YR 3/4	-	-	-	fsl	1 sbk	FR	4
Bw1	7-18"	C	S	10YR 5/6	-	-	-	fsl	1 sbk	FR	4
Bw2	18-35"	C	S	2.5Y 5/6	-	-	-	lfs	1 sbk	FR	4
C	35-96"	-	-	2.5Y 5/3	-	-	-	cb gr lfs	0 m	FR	6m

TH ^{dth 25-1} Soil Class Ab till Total Depth 120" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 120" (og)

TH ^{dth 25-2} Soil Class Ab till Total Depth 96" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 96" (og)

Comments: dth 25-2: No deeper due to large rocks.



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tioguo Oaks

Date of Test Hole: 5/19/2025

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 60s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dth 25-3} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox			Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S.	Contr.				
A	0-2"	C	S	10YR 2/2	-	-	-	-	fsl	1 sbk	FR	4
AB	2-9"	C	S	10YR 3/4	-	-	-	-	fsl	1 sbk	FR	4
Bw1	9-20"	C	S	10YR 5/6	-	-	-	-	fsl	1 sbk	FR	4
Bw2	20-39"	C	W	2.5Y 5/6	-	-	-	-	fsl	1 sbk	FR	4
C	39-120"	-	-	2.5Y 5/3	-	-	-	-	st cb gr lfs	0 m	FR	6m
TH ^{dth 25-4} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox			Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S.	Contr.				
A	0-3"	C	S	10YR 3/2	-	-	-	-	fsl	1 sbk	FR	4
Bw1	3-21"	C	S	10YR 5/6	-	-	-	-	fsl	1 sbk	FR	4
Bw2	21-47"	C	S	2.5Y 5/6	-	-	-	-	lvfs	1 sbk	FR	4
C	47-120"	-	-	2.5Y 5/3	-	-	-	-	cb gr lfs	0 m	FR	6m

TH ^{dth 25-3} Soil Class Ab till Total Depth 120" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 120" (og)

TH ^{dth 25-4} Soil Class Ab till Total Depth 120" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 120" (og)

Comments: _____



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tioguo Oaks

Date of Test Hole: 5/19/2025

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 60s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dth 25-5} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-2"	C	S	10YR 2/2	-	-	-	fsl	1 sbk	FR	4
Bw1	2-13"	C	S	10YR 5/4	-	-	-	fsl	1 sbk	FR	4
Bw2	13-33"	A	S	2.5Y 5/6	-	-	-	fsl	1 sbk	FR	4
C	33-120"	-	-	2.5Y 5/3	-	-	-	cb gr lfs	0 m	FR	6m
TH ^{dth 25-6} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
A	0-6"	C	S	10YR 3/3	-	-	-	fsl	1 sbk	FR	4
Bw	6-17"	C	S	10YR 3/4	-	-	-	fsl	1 sbk	FR	4
BC	17-34"	C	S	2.5Y 6/4	-	-	-	lfs	1 sbk	FR	4
C1	34-54"	-	-	2.5Y 5/3	10YR 5/8	C	M P	lvfs	0 m	FR	7
C2	54-138"			2.5Y 5/3	-	-	-	cb gr lfs	0 m	FR	6m

TH ^{dth 25-5} Soil Class Ab till Total Depth 120" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 120" (og)

TH ^{dth 25-6} Soil Class Ab till Total Depth 138" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 138" (og)

Comments: dth 25-6: Prominent horizontal band of 10YR 5/8 @ 53" in coarser material (variegated colors). No redox in C2.



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tioguo Oaks

Date of Test Hole: 5/19/2025

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 60s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dth 25-7} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox			Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S.	Contr.				
^B	0-24"	C	S	2.5Y 5/4	-	-	-	-	lfs	0 m	FR	HTM
^C	24-44"	C	S	2.5Y 6/2	-	-	-	-	s	0 sgr	LO	HTM
^A	44-56"	C	S	10YR 2/1	-	-	-	-	s	0 sgr	LO	HTM
M	56-60"	A	S	-	-	-	-	-	-	-	-	Concrete
C	60-120"	-	-	2.5Y 5/3	-	-	-	-	cb gr lfs	0 m	FR	6m
TH ^{dth 25-8} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox			Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S.	Contr.				
A	0-14"	C	S	10YR 3/3	-	-	-	-	fsl	1 sbk	FR	4
Bw	14-23"	C	S	10YR 4/6	-	-	-	-	fsl	1 sbk	FR	4
BC	23-41"	C	S	2.5Y 5/6	-	-	-	-	lfs	0 m	FR	4
C1	41-75"	C	S	2.5Y 5/3	10YR 5/8	C	M	P	lvfs	0 m	FR	7
C2	75-144"	-	-	2.5Y 5/3	-	-	-	-	cb gr lfs	0 m	FR	6m

TH ^{dth 25-7} Soil Class Ab till Total Depth 120" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 120" (og)

TH ^{dth 25-8} Soil Class Ab till Total Depth 144" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 144" (og)

Comments: dth 25-7: concrete is old house foundation

dth 25-8: Prominent horizontal band of 10YR 5/8 @ 41" in coarser material (variegated colors). No redox in C2.



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources
Onsite Wastewater Treatment Systems Program



Site Evaluation Form Part A – Soil Profile Description

Application Number _____

Property Owner: D2 Homes Inc

Property Location: Tioguo Oaks

Date of Test Hole: 5/19/2025

Soil Evaluator: Tim Twohig

License Number: D4073

Weather: Sunny, 60s

Shaded: Yes ☒ No ☐ Time: 8:30

TH ^{dth 25-9} Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				
^AC	0-23"	C	S	10YR 3/3	-	-	-	fsl + ls	0 m	FR	HTM
Ab	23-34"	C	S	2.5Y 3/4	-	-	-	fsl	1 sbk	FR	4
Bwb	34-42"	C	S	10YR 5/6	-	-	-	fsl	1 sbk	FR	4
BC	42-57"	C	S	2.5Y 5/6	10YR 5/8	C	M P	fsl	0 m	FR	7
C1	57-76"	C	S	2.5Y 6/3	10YR 5/8	C	F P	vfs	0 m	FR	7
C2	76-156"	-	-	2.5Y 5/3	-	-	-	cb gr lfs	0 m	FR	6m
TH _____ Horizon	Depth	Horizon Boundaries		Soil Colors		Re-Dox		Texture	Structure	Consistence	Soil Category
		Dist	Topo	Matrix	Re-Dox Features	Ab.	S. Contr.				

TH ^{dth 25-9} Soil Class Ab till Total Depth 156" Impervious/Limiting Layer Depth - (og) GW Seepage Depth - SHWT 156" (og)

TH _____ Soil Class _____ Total Depth _____ Impervious/Limiting Layer Depth _____ (og) GW Seepage Depth _____ SHWT _____ (og)

Comments: dth 25-9: ^AC is mostly topsoil 0-17", then sandy material 17-23". Prominent horizontal band of 10YR 5/8 @ 51 and 57" in coarser material (variegated colors). No redox in C2.



A2.2 Amoozemeter Infiltration Data

Oaks at East Shore Infiltration Data

Date	Site	soil type	horizon	depth to hole bottom*	# chambers	area chambers (cm2)	depth water in hole (cm)	drop (cm)	drop (in)	minutes	hour	coeff A	Q (cm^3/hr)	Ksat (cm/hr)	Ksat (in/hr)	Ksat (μm/s)
20240909	DTH 24-1	Ab till	C	60"	2	105	14	1	0.39	1	0.0167	0.0013	6300	8.1144	3.19	22.5400
20240909	DTH 24-9	Ab till	C	75"	2	105	14	1	0.39	1	0.0167	0.0013	6300	8.1144	3.19	22.5400
20240909	DTH 24-11	Ab till	C	75"	2	105	14	0.5	0.20	2	0.0333	0.0013	1575	2.0286	0.80	5.6350
20240910	DTH 24-19	Ab till	C	63"	2	105	14	2.2	0.87	1	0.0167	0.0013	13860	17.8517	7.03	49.5880
20240911	DTH 24-24	Ab till	C	96"	2	105	14	2.6	1.02	1	0.0167	0.0013	16380	21.0974	8.31	58.6040
20240911	DTH 24-25	Ab till	C	69"	2	105	14	1.5	0.59	1	0.0167	0.0013	9450	12.1716	4.79	33.8100

Date	Site	soil type	horizon	depth to hole bottom*	# chambers	area chambers (cm2)	depth water in hole (cm)	drop (cm)	drop (in)	minutes	hour	coeff A	Q (cm^3/hr)	Ksat (cm/hr)	Ksat (in/hr)	Ksat (μm/s)
20250519	DTH 25-1	Ab till	C	63"	2	105	14	1	0.39	1	0.0167	0.0013	6300	8.1144	3.19	22.5400
20250519	DTH 25-3	Ab till	C	70"	2	105	14	0.7	0.28	1	0.0167	0.0013	4410	5.6801	2.24	15.7780



A2.3 Cascade sizing Data

CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

Area	0.28 ac	Unit Site Designation	WQU A
Weighted C	0.90	Rainfall Station #	146
t_c	5 min		
CDS Model	1515-3	CDS Treatment Capacity	1.0 cfs

<u>Rainfall Intensity¹</u> <u>(in/hr)</u>	<u>Percent Rainfall Volume¹</u>	<u>Cumulative Rainfall Volume</u>	<u>Total Flowrate (cfs)</u>	<u>Treated Flowrate (cfs)</u>	<u>Incremental Removal (%)</u>
0.02	9.1%	9.1%	0.01	0.01	9.1
0.04	8.9%	18.0%	0.01	0.01	8.9
0.06	9.8%	27.7%	0.02	0.02	9.8
0.08	8.2%	35.9%	0.02	0.02	8.2
0.10	7.7%	43.6%	0.03	0.03	7.7
0.12	5.5%	49.1%	0.03	0.03	5.5
0.14	5.0%	54.2%	0.04	0.04	5.0
0.16	4.9%	59.1%	0.04	0.04	4.9
0.18	4.3%	63.4%	0.05	0.05	4.3
0.20	4.8%	68.2%	0.05	0.05	4.7
0.25	7.4%	75.6%	0.06	0.06	7.3
0.30	5.8%	81.5%	0.08	0.08	5.7
0.35	4.5%	85.9%	0.09	0.09	4.3
0.40	2.4%	88.3%	0.10	0.10	2.3
0.45	2.0%	90.3%	0.11	0.11	1.9
0.50	1.9%	92.1%	0.13	0.13	1.8
0.75	5.0%	97.1%	0.19	0.19	4.6
1.00	1.6%	98.7%	0.25	0.25	1.4
1.50	0.8%	99.5%	0.38	0.38	0.7
					98.4
Removal Efficiency Adjustment ² =					6.5%
Predicted % Annual Rainfall Treated =					93.5%
Predicted Net Annual Load Removal Efficiency =					92.0%

1 - Based on 10 years of hourly precipitation data from NCDC 6698, Providence WSO Airport, Kent County, RI

2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

Project: Village at Tioque**Location: Coventry****Prepared For: DiPrete Eng / CES 865031****Purpose:**

To calculate the first flush runoff flow rate (WQF) over a given site area. In this situation the WQV to be analyzed is the runoff produced by the first 1" of rainfall and the WQF is produced using the first 1.2" of rainfall.

Reference:

United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual

Given:

Structure Name	A (acres)	A (miles ²)	Runoff Coefficient	Percent Imp. (%)*	t _c (min)	t _c (hr)
WQS	0.28	0.00044	0.90	100.00	5.0	0.083

* Assumes runoff coefficient of 0.3 for pervious areas and 0.9 for impervious areas.

Procedure:

The Water Quality Flow (WQF) is calculated using the Water Quality Volume (WQV). This WQV, converted to watershed inches, is substituted for the runoff depth (Q) in the Natural Resources Conservation Service (formerly Soil Conservation Service), TR-55 Graphical Peak Discharge Method.

1. Compute WQV in watershed inches using the following equation:

$$WQV = P * R$$

where: WQV = water quality volume (watershed inches)

$$WQV(ac-ft) = 1" * I/12 \quad \text{PER RIDEM}$$

$$P = \text{design precipitation (inches)} = (1.2" \text{ for water quality storm})$$

$$R = \text{volumetric runoff coefficient} = 0.05 + 0.009(I)$$

I = percent impervious cover

Structure Name	Percent Imp. (%)	R	P (in)	WQV (in)	WQV (ac-ft)
WQS	100.00	0.950	1.2	1.140	0.0233

2. Compute the NRCS Runoff Curve Number (CN) using the following equation, or graphically using Figure 2-1 from TR-55 (USDA, 1986):

$$CN = 1000 / [10 + 5P + 10Q - 10(Q^2 + 1.25QP)^{1/2}]$$

where: CN = Runoff Curve Number

$$P = \text{design precipitation (inches)} = (1.2" \text{ for water quality storm})$$

Q = runoff depth (watershed inches)

Structure Name	Q (in)	CN
WQS	1.140	99.48

3. Using computed CN, read initial abstraction (I_a) from Table 4-1 in Chapter 4 of TR-55; compute I_a/P, interpolating when appropriate.

Structure Name	I _a (in)	I _a /P
WQS	0.010	0.009

4. Compute the time of concentration (t_c) in hours and the drainage area in square miles.

Structure Name	t_c (hr)	A (miles ²)
WQS	0.083	0.00044

5. Read the unit peak discharge (q_u) from Exhibit 4-III in Chapter 4 of TR-55 for appropriate t_c for type III rainfall distribution.

Structure Name	t_c (hr)	I_a/P	q_u (csm/in)
WQS	0.083	0.008633541	650

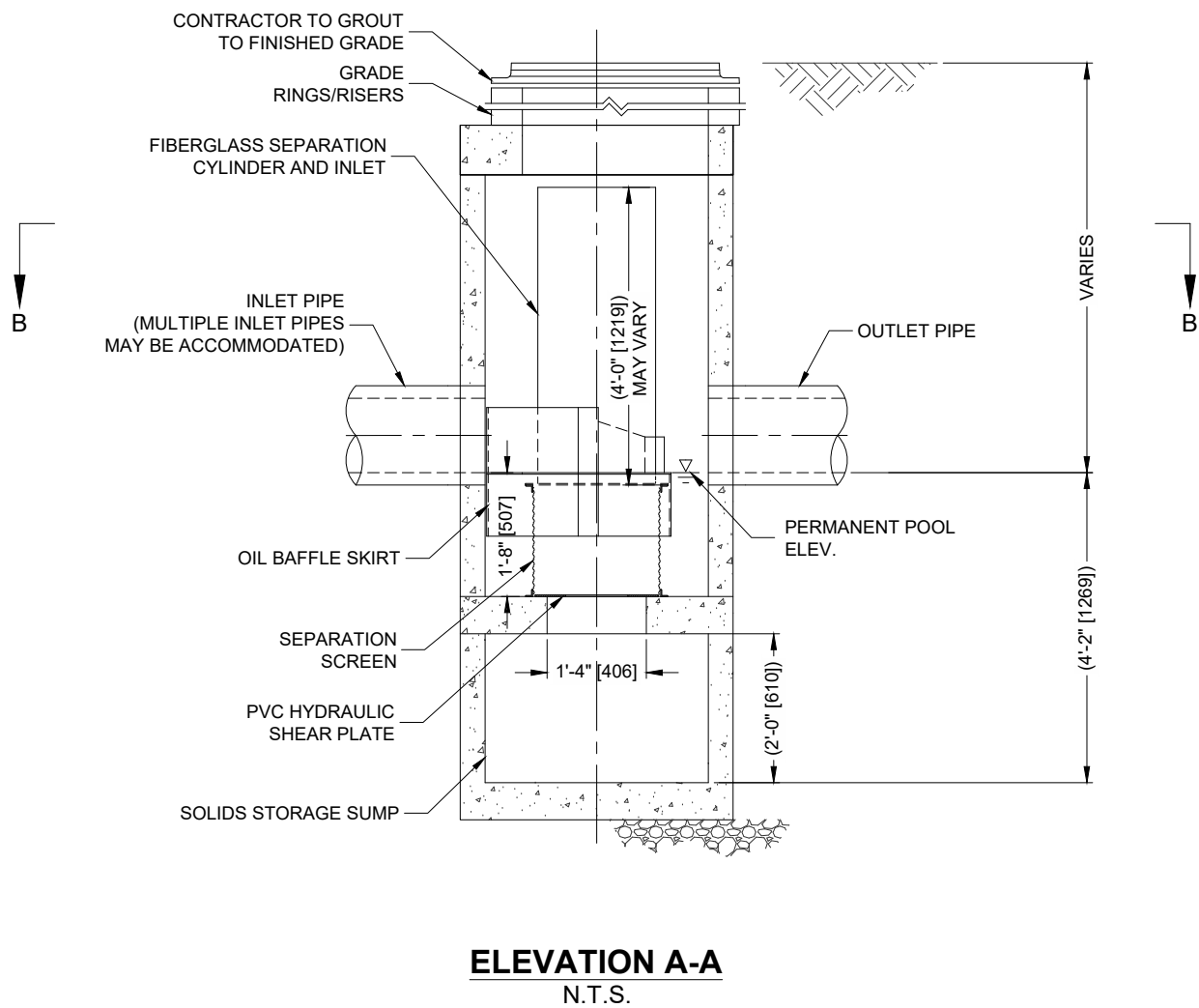
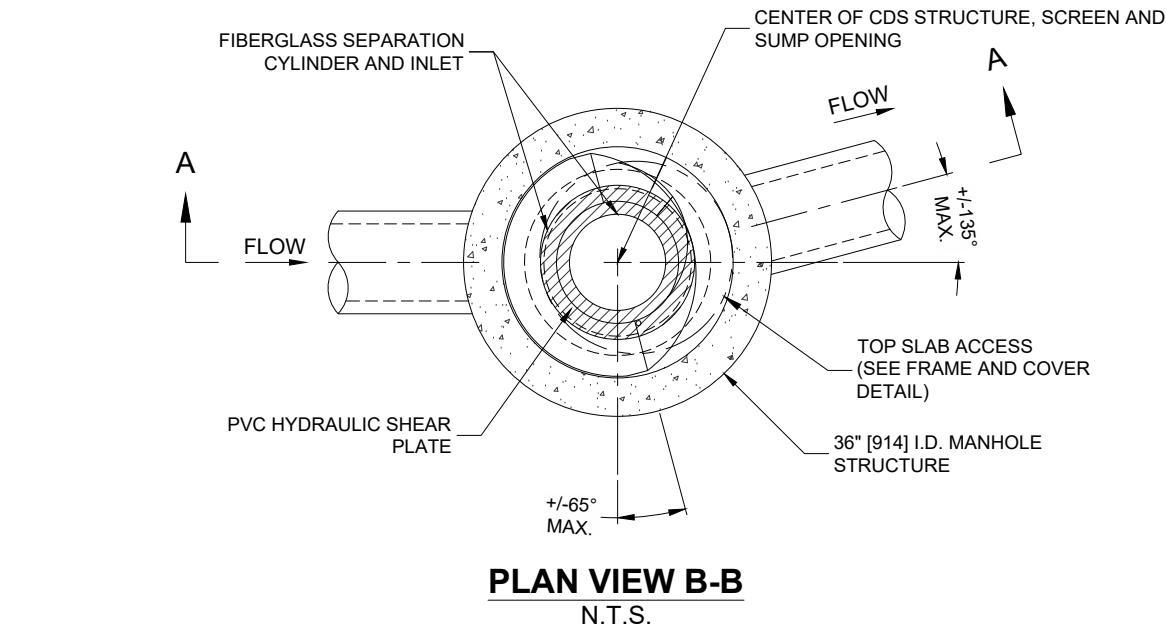
6. Substituting WQV (watershed inches) for runoff depth (Q), compute the water quality flow (WQF) from the following equation:

$$WQF = (q_u) \cdot (A) \cdot (Q)$$

where: WQF = water quality flow (cfs)
 q_u = unit peak discharge (cfs/mi²/inch)
 A = drainage area (mi²)
 Q = runoff depth (watershed inches)

Structure Name	q_u (csm/in)	A (miles ²)	Q (in)	WQF (cfs)
WQS	650	0.00044	1.140	0.32

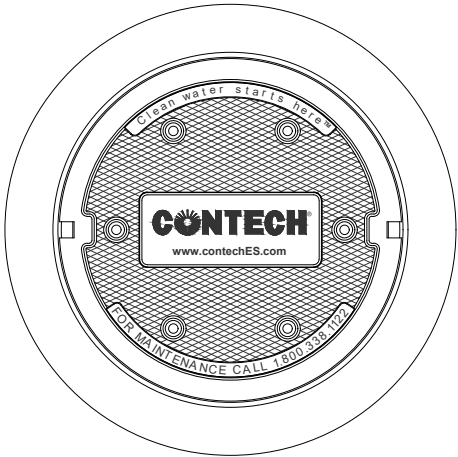
I:\AD.CONTECH\CPI.COM\ROOT\STORMWATER\URIS\DICTIONS\US\A\MAI_SDE DESIGN TOOLS\STANDARD DETAILS\CDS1515-3-C-DTL.DWG 8/6/2018 4:16 PM



THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,780,848; 6,641,720; 6,511,086; 6,581,789; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

CDS1515-3-C DESIGN NOTES

CDS1515-3-C RATED TREATMENT CAPACITY IS 1.0 CFS, OR PER LOCAL REGULATIONS.
THE STANDARD CDS1515-3-C CONFIGURATION IS SHOWN.



FRAME AND COVER
(DIAMETER VARIES)
N.T.S.

SITE SPECIFIC
DATA REQUIREMENTS

STRUCTURE ID				
WATER QUALITY FLOW RATE (CFS OR L/s)				*
PEAK FLOW RATE (CFS OR L/s)				*
RETURN PERIOD OF PEAK FLOW (YRS)				*
SCREEN APERTURE (2400 OR 4700)				*
PIPE DATA:		I.E.	MATERIAL	DIAMETER
INLET PIPE 1		*	*	*
INLET PIPE 2		*	*	*
OUTLET PIPE		*	*	*
RIM ELEVATION				*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT	
		*	*	
NOTES/SPECIAL REQUIREMENTS:				
* PER ENGINEER OF RECORD				

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
- CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO..
- IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
- CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



www.contechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CDS1515-3-C
ONLINE CDS
STANDARD DETAIL

**Estimated Net Annual Solids Load Reduction
Based on the Rational Rainfall Method**



**Village at Tiogue
Cranston, RI
Pond A / CES 865031**

AREA	0.94	acres	CASCADE MODEL	CS-4
WEIGHTED C	0.90			
TC	5.00	minutes	RAINFALL STATION	66

Rainfall Intensity ¹ (in/hr)	Percent Rainfall Volume ¹	Hydraulic Loading Rate (gpm/ft ²)	Removal Efficiency (%)	Incremental Removal (%)
0.02	9.1%	0.60	100.0	9.1
0.04	8.9%	1.21	100.0	8.9
0.06	9.8%	1.81	100.0	9.8
0.08	8.2%	2.42	100.0	8.2
0.10	7.7%	3.02	100.0	7.7
0.12	5.5%	3.63	100.0	5.5
0.14	5.0%	4.23	100.0	5.0
0.16	4.9%	4.83	100.0	4.9
0.18	4.3%	5.44	100.0	4.3
0.20	4.8%	6.04	100.0	4.8
0.25	7.4%	7.55	100.0	7.4
0.30	5.8%	9.06	100.0	5.8
0.35	4.5%	10.58	100.0	4.5
0.40	2.4%	12.09	100.0	2.4
0.45	2.0%	13.60	99.1	2.0
0.50	1.9%	15.11	97.7	1.8
0.75	5.0%	22.66	90.6	4.5
1.00	1.6%	30.22	83.5	1.3
				98.7
Removal Efficiency Adjustment ² =				6.5%
Predicted % Annual Rainfall Treated =				93.5%
Predicted Net Annual Load Removal Efficiency =				92.2%

1 - Based on 10 years of hourly precipitation data from NCDC 6698, Providence WSO Airport, Kent County, RI

2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

Project: Village at Tioque**Location: Coventry****Prepared For: DiPrete Eng / CES 865031****Purpose:**

To calculate the first flush runoff flow rate (WQF) over a given site area. In this situation the WQV to be analyzed is the runoff produced by the first 1" of rainfall and the WQF is produced using the first 1.2" of rainfall.

Reference:

United States Department of Agriculture Natural Resources Conservation Service TR-55 Manual

Given:

Structure Name	A (acres)	A (miles ²)	Runoff Coefficient	Percent Imp. (%)*	t _c (min)	t _c (hr)
WQU B	0.94	0.00147	0.90	100.00	5.0	0.083

* Assumes runoff coefficient of 0.3 for pervious areas and 0.9 for impervious areas.

Procedure:

The Water Quality Flow (WQF) is calculated using the Water Quality Volume (WQV). This WQV, converted to watershed inches, is substituted for the runoff depth (Q) in the Natural Resources Conservation Service (formerly Soil Conservation Service), TR-55 Graphical Peak Discharge Method.

1. Compute WQV in watershed inches using the following equation:

$$WQV = P * R$$

where: WQV = water quality volume (watershed inches)

$$WQV(ac-ft) = 1" * I/12 \quad \text{PER RIDEM}$$

$$P = \text{design precipitation (inches)} = (1.2" \text{ for water quality storm})$$

$$R = \text{volumetric runoff coefficient} = 0.05 + 0.009(I)$$

I = percent impervious cover

Structure Name	Percent Imp. (%)	R	P (in)	WQV (in)	WQV (ac-ft)
WQU B	100.00	0.950	1.2	1.140	0.0783

2. Compute the NRCS Runoff Curve Number (CN) using the following equation, or graphically using Figure 2-1 from TR-55 (USDA, 1986):

$$CN = 1000 / [10 + 5P + 10Q - 10(Q^2 + 1.25QP)^{1/2}]$$

where: CN = Runoff Curve Number

$$P = \text{design precipitation (inches)} = (1.2" \text{ for water quality storm})$$

Q = runoff depth (watershed inches)

Structure Name	Q (in)	CN
WQU B	1.140	99.48

3. Using computed CN, read initial abstraction (I_a) from Table 4-1 in Chapter 4 of TR-55; compute I_a/P, interpolating when appropriate.

Structure Name	I _a (in)	I _a /P
WQU B	0.010	0.009

4. Compute the time of concentration (t_c) in hours and the drainage area in square miles.

Structure Name	t_c (hr)	A (miles ²)
WQU B	0.083	0.00147

5. Read the unit peak discharge (q_u) from Exhibit 4-III in Chapter 4 of TR-55 for appropriate t_c for type III rainfall distribution.

Structure Name	t_c (hr)	I_a/P	q_u (csm/in)
WQU B	0.083	0.008633541	650

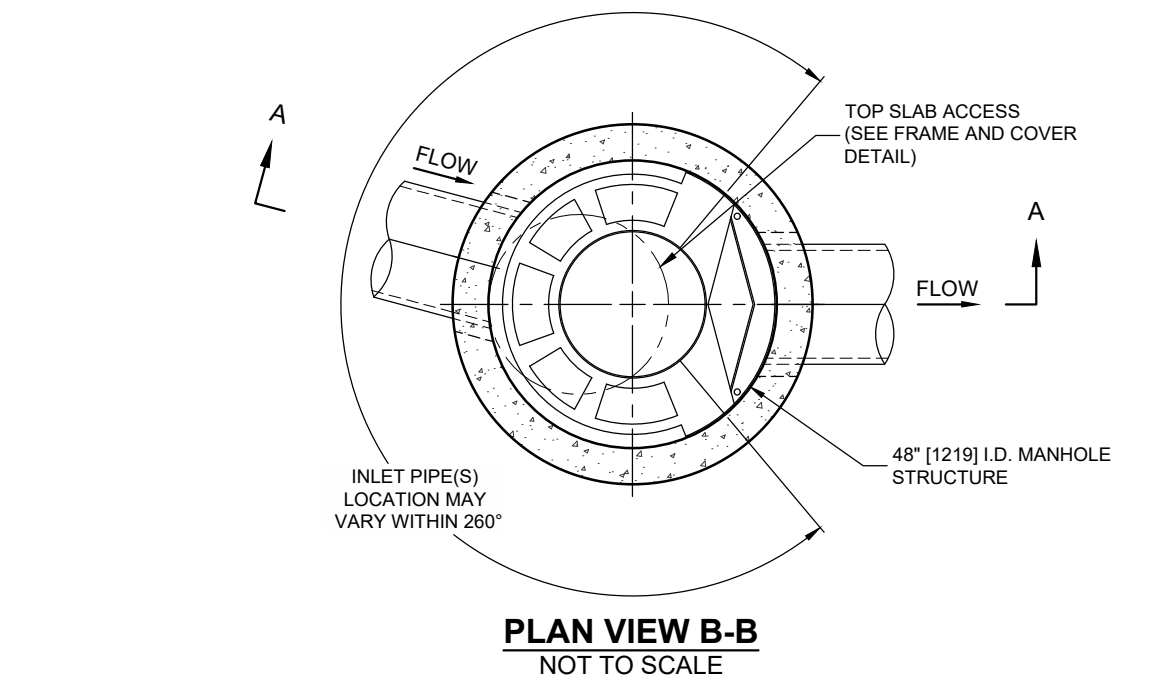
6. Substituting WQV (watershed inches) for runoff depth (Q), compute the water quality flow (WQF) from the following equation:

$$WQF = (q_u) \cdot (A) \cdot (Q)$$

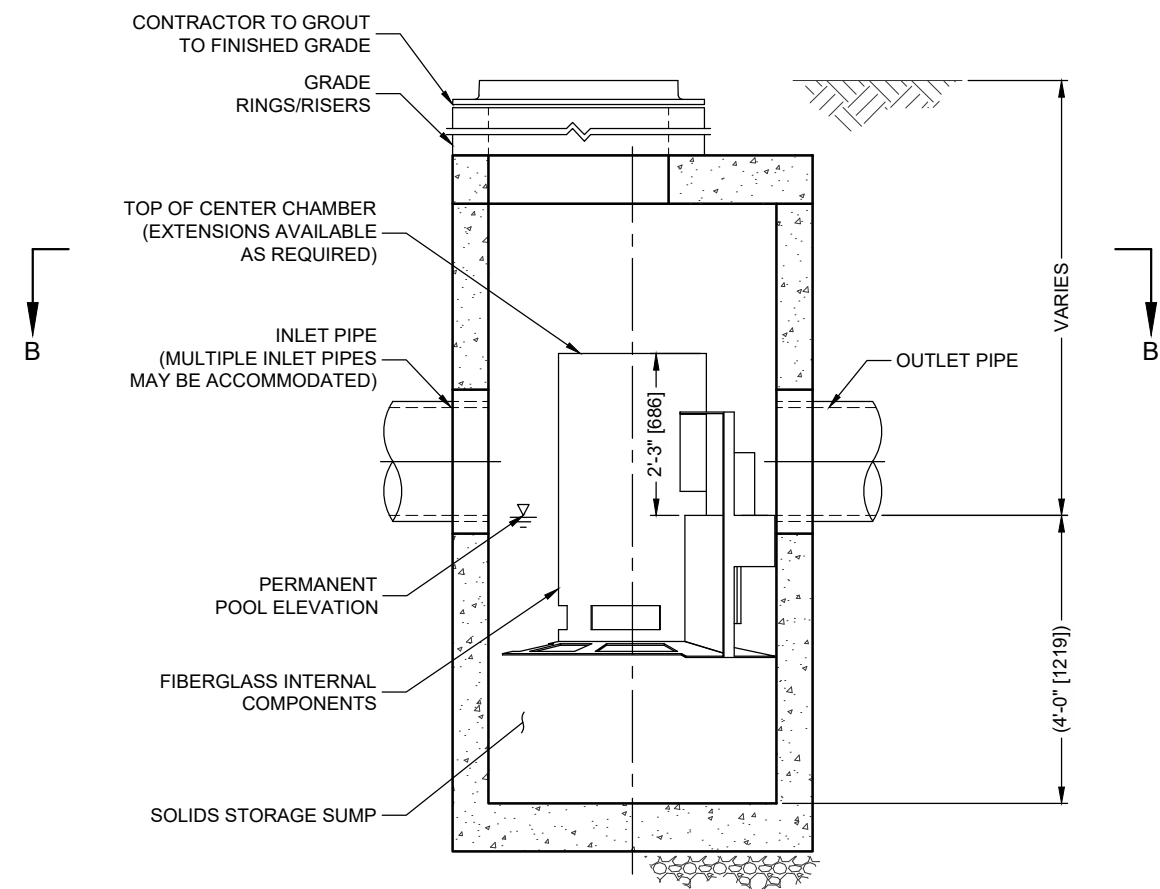
where: WQF = water quality flow (cfs)
 q_u = unit peak discharge (cfs/mi²/inch)
 A = drainage area (mi²)
 Q = runoff depth (watershed inches)

Structure Name	q_u (csm/in)	A (miles ²)	Q (in)	WQF (cfs)
WQU B	650	0.00147	1.140	1.09

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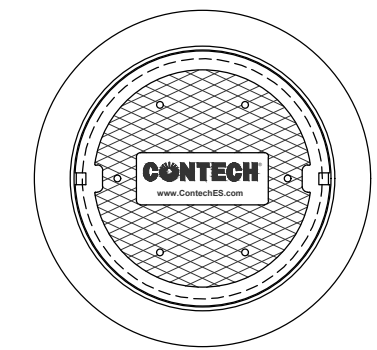


PLAN VIEW B-B
NOT TO SCALE



ELEVATION A-A
NOT TO SCALE

CASCADE
separator™



FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE

CASCADE SEPARATOR DESIGN NOTES

CS-4 RATED TREATMENT CAPACITY IS 2.0 CFS, OR PER LOCAL REGULATIONS. THE STANDARD CS-4 CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION

GRATED INLET ONLY (NO INLET PIPE)

GRATED INLET WITH INLET PIPE OR PIPES

CURB INLET ONLY (NO INLET PIPE)

CURB INLET WITH INLET PIPE OR PIPES

SITE SPECIFIC
DATA REQUIREMENTS

STRUCTURE ID			
WATER QUALITY FLOW RATE (cfs [L/s])			
PEAK FLOW RATE (cfs [L/s])			
RETURN PERIOD OF PEAK FLOW (yrs)			
RIM ELEVATION			
PIPE DATA:	INVERT	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			

NOTES / SPECIAL REQUIREMENTS:

GENERAL NOTES

- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.ContechES.com
- CASCADE SEPARATOR WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
- CASCADE SEPARATOR STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2' [610], AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
- CASCADE SEPARATOR STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C478 AND AASHTO LOAD FACTOR DESIGN METHOD.
- ALTERNATE UNITS ARE SHOWN IN MILLIMETERS [mm].

INSTALLATION NOTES

- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CASCADE SEPARATOR MANHOLE STRUCTURE.
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
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CONTECH
ENGINEERED SOLUTIONS LLC

www.contechES.com
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800-338-1122 513-645-7000 513-645-7993 FAX

CS-4
CASCADE SEPARATOR
STANDARD DETAIL



A3.2 Water Quality HydroCAD Storm Analysis

0267-132-ALLS-EHCD

Prepared by DiPrete Engineering

HydroCAD® 10.20-5c s/n 01125 © 2023 HydroCAD Software Solutions LLC

Type III 24-hr WQ Storm Rainfall=1.20"

Printed 12/10/2024

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
 Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 10: WPre-01	Runoff Area=2.294 ac 9.40% Impervious Runoff Depth=0.09" Flow Length=304' Tc=15.3 min CN=56/98 Runoff=0.18 cfs 0.018 af
Subcatchment 20: WPre-02	Runoff Area=1.937 ac 0.00% Impervious Runoff Depth=0.00" Flow Length=279' Tc=17.6 min CN=55/0 Runoff=0.00 cfs 0.000 af
Subcatchment 21: WPre-03	Runoff Area=3.181 ac 0.00% Impervious Runoff Depth=0.01" Flow Length=474' Tc=13.1 min CN=68/0 Runoff=0.01 cfs 0.004 af
Subcatchment 22: WPre-04	Runoff Area=1.347 ac 0.00% Impervious Runoff Depth=0.00" Flow Length=575' Tc=16.5 min CN=57/0 Runoff=0.00 cfs 0.000 af
Subcatchment 23: WPre-05	Runoff Area=3.870 ac 0.99% Impervious Runoff Depth=0.01" Flow Length=399' Tc=22.4 min CN=55/98 Runoff=0.03 cfs 0.003 af
Subcatchment 30: WPre-06	Runoff Area=3.567 ac 0.00% Impervious Runoff Depth=0.00" Flow Length=425' Tc=16.1 min CN=55/0 Runoff=0.00 cfs 0.000 af
Subcatchment 31: WPre-07	Runoff Area=4.363 ac 0.00% Impervious Runoff Depth=0.00" Flow Length=520' Tc=16.4 min CN=61/0 Runoff=0.00 cfs 0.000 af
Subcatchment 32: WPre-08	Runoff Area=1.230 ac 0.00% Impervious Runoff Depth=0.00" Flow Length=305' Tc=16.9 min CN=55/0 Runoff=0.00 cfs 0.000 af
Subcatchment 40: WPre-09	Runoff Area=1.515 ac 1.97% Impervious Runoff Depth=0.02" Flow Length=221' Tc=23.6 min CN=56/98 Runoff=0.02 cfs 0.002 af
Subcatchment 41: WPre-10	Runoff Area=2.528 ac 4.16% Impervious Runoff Depth=0.04" Flow Length=113' Tc=10.7 min CN=58/98 Runoff=0.10 cfs 0.009 af
Subcatchment 42: WPre-11	Runoff Area=0.528 ac 0.00% Impervious Runoff Depth=0.01" Tc=6.0 min CN=66/0 Runoff=0.00 cfs 0.000 af
Subcatchment 43: WPre-12	Runoff Area=0.966 ac 2.99% Impervious Runoff Depth=0.03" Flow Length=344' Tc=11.3 min CN=65/98 Runoff=0.03 cfs 0.003 af
Subcatchment 44: WPre-13	Runoff Area=1.345 ac 0.99% Impervious Runoff Depth=0.01" Flow Length=345' Tc=15.3 min CN=55/98 Runoff=0.01 cfs 0.001 af
Subcatchment 50: WPre-14	Runoff Area=4.043 ac 4.05% Impervious Runoff Depth=0.04" Flow Length=368' Tc=14.8 min CN=57/98 Runoff=0.14 cfs 0.013 af
Link 11: DP-1 Tiffany Road	Inflow=0.18 cfs 0.018 af Primary=0.18 cfs 0.018 af
Link 24: DP-2 Western Wetlands	Inflow=0.03 cfs 0.007 af Primary=0.03 cfs 0.007 af

0267-132-ALLS-EHCD

Prepared by DiPrete Engineering

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Type III 24-hr WQ Storm Rainfall=1.20"

Printed 12/10/2024

Link 33: DP-3 Eastern Abutters

Inflow=0.00 cfs 0.000 af

Primary=0.00 cfs 0.000 af

Link 45: DP-4 Northeastern Abutters

Inflow=0.15 cfs 0.015 af

Primary=0.15 cfs 0.015 af

Link 51: DP-5 Tiogue Ave

Inflow=0.14 cfs 0.013 af

Primary=0.14 cfs 0.013 af

0267-132-ALLS-PHCD

Prepared by DiPrete Engineering

HydroCAD® 10.20-6a s/n 01125 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr WQ Storm Rainfall=1.20"

Printed 9/5/2025

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 points
 Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv.
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 100: WPost-01	Runoff Area=0.973 ac 21.17% Impervious Runoff Depth=0.21" Flow Length=281' Tc=9.4 min CN=59/98 Runoff=0.20 cfs 0.017 af
Subcatchment 101: WPost-02	Runoff Area=1.051 ac 31.47% Impervious Runoff Depth=0.31" Flow Length=352' Tc=10.0 min CN=61/98 Runoff=0.32 cfs 0.027 af
Subcatchment 102: WPost-03	Runoff Area=0.144 ac 0.04% Impervious Runoff Depth=0.00" Tc=0.0 min CN=64/98 Runoff=0.00 cfs 0.000 af
Pond 103: WQ Infiltration Pond A	Peak Elev=242.68' Storage=477 cf Inflow=0.32 cfs 0.027 af Discarded=0.03 cfs 0.027 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.027 af
Link 110: DP-1 Tiffany Road	Inflow=0.20 cfs 0.017 af Primary=0.20 cfs 0.017 af
Subcatchment 200: WPost-04	Runoff Area=0.718 ac 49.63% Impervious Runoff Depth=0.49" Flow Length=147' Tc=9.9 min CN=61/98 Runoff=0.34 cfs 0.029 af
Subcatchment 201: WPost-05	Runoff Area=0.280 ac 45.39% Impervious Runoff Depth=0.45" Flow Length=198' Tc=13.6 min CN=61/98 Runoff=0.11 cfs 0.010 af
Subcatchment 202: WPost-06	Runoff Area=0.883 ac 42.46% Impervious Runoff Depth=0.42" Flow Length=301' Tc=20.3 min CN=61/98 Runoff=0.28 cfs 0.031 af
Subcatchment 203: WPost-07	Runoff Area=0.600 ac 41.32% Impervious Runoff Depth=0.41" Flow Length=285' Tc=14.6 min CN=61/98 Runoff=0.21 cfs 0.020 af
Subcatchment 204: WPost-08	Runoff Area=0.107 ac 21.10% Impervious Runoff Depth=0.33" Flow Length=72' Slope=0.0690 '/' Tc=6.6 min CN=80/98 Runoff=0.03 cfs 0.003 af
Subcatchment 205: WPost-09	Runoff Area=0.086 ac 0.00% Impervious Runoff Depth=0.15" Tc=0.0 min CN=80/0 Runoff=0.01 cfs 0.001 af
Pond 206: Forebay B1	Peak Elev=240.12' Storage=6,199 cf Inflow=1.17 cfs 0.121 af Primary=0.33 cfs 0.120 af Secondary=0.00 cfs 0.000 af Outflow=0.33 cfs 0.120 af
Subcatchment 207: WPost-10	Runoff Area=0.313 ac 14.59% Impervious Runoff Depth=0.27" Tc=6.0 min CN=80/98 Runoff=0.07 cfs 0.007 af
Subcatchment 208: WPost-11	Runoff Area=0.109 ac 0.00% Impervious Runoff Depth=0.15" Tc=0.0 min CN=80/0 Runoff=0.01 cfs 0.001 af
Pond 209: WQ Infiltration Pond B	Peak Elev=240.12' Storage=7,286 cf Inflow=1.79 cfs 0.468 af Discarded=0.13 cfs 0.468 af Primary=0.00 cfs 0.000 af Outflow=0.13 cfs 0.468 af
Subcatchment 210: WPost-12	Runoff Area=0.692 ac 3.47% Impervious Runoff Depth=0.04" Flow Length=240' Tc=7.2 min CN=64/98 Runoff=0.03 cfs 0.002 af

0267-132-ALLS-PHCD

Prepared by DiPrete Engineering

HydroCAD® 10.20-6a s/n 01125 © 2024 HydroCAD Software Solutions LLC

Type III 24-hr WQ Storm Rainfall=1.20"

Printed 9/5/2025

Subcatchment 211: WPost-13	Runoff Area=0.087 ac 0.00% Impervious Runoff Depth=0.07" Tc=0.0 min CN=75/0 Runoff=0.00 cfs 0.001 af
Subcatchment 212: WPost-14	Runoff Area=3.528 ac 47.31% Impervious Runoff Depth=0.47" Flow Length=289' Tc=10.5 min CN=65/98 Runoff=1.58 cfs 0.138 af
Subcatchment 213: WPost-15	Runoff Area=1.989 ac 53.22% Impervious Runoff Depth=0.52" Flow Length=197' Tc=9.1 min CN=61/98 Runoff=1.05 cfs 0.087 af
Subcatchment 214: WPost-16	Runoff Area=2.128 ac 64.12% Impervious Runoff Depth=0.63" Flow Length=299' Tc=10.3 min CN=60/98 Runoff=1.30 cfs 0.112 af
Pond 215: Forebay B2	Peak Elev=240.12' Storage=7,419 cf Inflow=3.94 cfs 0.339 af Primary=1.46 cfs 0.339 af Secondary=0.00 cfs 0.000 af Outflow=1.46 cfs 0.339 af
Subcatchment 216: WPost-17	Runoff Area=0.792 ac 0.00% Impervious Runoff Depth=0.00" Flow Length=267' Tc=9.6 min CN=57/98 Runoff=0.00 cfs 0.000 af
Subcatchment 217: WPost-18	Runoff Area=0.887 ac 0.00% Impervious Runoff Depth=0.03" Tc=0.0 min CN=71/0 Runoff=0.00 cfs 0.002 af
Pond 218: Infiltration Pond B	Peak Elev=237.50' Storage=2 cf Inflow=0.00 cfs 0.002 af Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af
Subcatchment 219: WPost-19	Runoff Area=0.685 ac 0.03% Impervious Runoff Depth=0.00" Flow Length=78' Slope=0.2050 '/' Tc=6.8 min CN=61/98 Runoff=0.00 cfs 0.000 af
Subcatchment 220: WPost-20	Runoff Area=0.551 ac 0.00% Impervious Runoff Depth=0.10" Flow Length=145' Tc=7.3 min CN=77/0 Runoff=0.02 cfs 0.005 af
Subcatchment 221: WPost-21	Runoff Area=0.212 ac 0.00% Impervious Runoff Depth=0.02" Tc=6.0 min CN=69/0 Runoff=0.00 cfs 0.000 af
Subcatchment 230: WPost-22	Runoff Area=1.646 ac 1.62% Impervious Runoff Depth=0.02" Flow Length=130' Tc=7.6 min CN=61/98 Runoff=0.03 cfs 0.002 af
Subcatchment 231: WPost-23	Runoff Area=0.053 ac 75.87% Impervious Runoff Depth=0.75" Tc=6.0 min CN=61/98 Runoff=0.04 cfs 0.003 af
Pond 232: Pipe Run B6-B9	Peak Elev=241.97' Inflow=0.43 cfs 0.037 af 24.00" Round Culvert n=0.012 L=207.0' S=0.0050 '/' Outflow=0.43 cfs 0.037 af
Pond 233: Pipe Run B9-B10	Peak Elev=241.00' Inflow=0.59 cfs 0.052 af 24.00" Round Culvert n=0.012 L=159.6' S=0.0050 '/' Outflow=0.59 cfs 0.052 af
Pond 234: Pipe Run B10-B13	Peak Elev=240.22' Inflow=0.64 cfs 0.056 af 24.00" Round Culvert n=0.012 L=144.3' S=0.0050 '/' Outflow=0.64 cfs 0.056 af
Pond 235: B13-B16	Peak Elev=240.11' Inflow=0.93 cfs 0.094 af 24.00" Round Culvert n=0.012 L=224.1' S=0.0050 '/' Outflow=0.93 cfs 0.094 af

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Pond 236: Pipe Run B16-B17FES

Peak Elev=240.11' Inflow=1.13 cfs 0.117 af
 30.00" Round Culvert n=0.012 L=86.1' S=0.0348 ' /' Outflow=1.14 cfs 0.116 af

Link 240: DP-2 Western Wetlands

Inflow=0.08 cfs 0.010 af
 Primary=0.08 cfs 0.010 af

Subcatchment 300: WPost-24

Runoff Area=0.997 ac 0.00% Impervious Runoff Depth=0.00"
 Flow Length=144' Tc=9.9 min CN=61/98 Runoff=0.00 cfs 0.000 af

Subcatchment 310: WPost-25

Runoff Area=1.667 ac 0.00% Impervious Runoff Depth=0.00"
 Flow Length=405' Tc=10.7 min CN=64/0 Runoff=0.00 cfs 0.000 af

Subcatchment 320: WPost-26

Runoff Area=0.711 ac 7.01% Impervious Runoff Depth=0.07"
 Flow Length=142' Tc=10.6 min CN=61/98 Runoff=0.05 cfs 0.004 af

Link 330: DP-3 Eastern Abutters

Inflow=0.05 cfs 0.004 af
 Primary=0.05 cfs 0.004 af

Subcatchment 400: WPost-27

Runoff Area=0.176 ac 60.75% Impervious Runoff Depth=0.60"
 Tc=6.0 min CN=61/98 Runoff=0.12 cfs 0.009 af

Pond 401: UIS-C

Peak Elev=253.28' Storage=22 cf Inflow=0.24 cfs 0.018 af
 Discarded=0.18 cfs 0.018 af Primary=0.00 cfs 0.000 af Outflow=0.18 cfs 0.018 af

Subcatchment 402: WPost-28

Runoff Area=0.771 ac 0.49% Impervious Runoff Depth=0.00"
 Flow Length=128' Tc=8.0 min CN=61/98 Runoff=0.00 cfs 0.000 af

Subcatchment 410: WPost-29

Runoff Area=1.961 ac 2.56% Impervious Runoff Depth=0.03"
 Flow Length=113' Tc=10.7 min CN=59/98 Runoff=0.05 cfs 0.004 af

Subcatchment 420: WPost-30

Runoff Area=0.528 ac 0.00% Impervious Runoff Depth=0.01"
 Tc=6.0 min CN=66/0 Runoff=0.00 cfs 0.000 af

Subcatchment 430: WPost-31

Runoff Area=0.967 ac 2.99% Impervious Runoff Depth=0.03"
 Flow Length=344' Tc=11.3 min CN=65/98 Runoff=0.03 cfs 0.003 af

Subcatchment 440: WPost-32

Runoff Area=0.281 ac 0.00% Impervious Runoff Depth=0.00"
 Tc=6.0 min CN=61/0 Runoff=0.00 cfs 0.000 af

Link 450: DP-4 Northeastern Abutters

Inflow=0.08 cfs 0.007 af
 Primary=0.08 cfs 0.007 af

Subcatchment 500: WPost-35

Runoff Area=0.528 ac 6.25% Impervious Runoff Depth=0.06"
 Flow Length=280' Tc=8.9 min CN=61/98 Runoff=0.03 cfs 0.003 af

Subcatchment 501: WPost-33

Runoff Area=3.207 ac 19.15% Impervious Runoff Depth=0.19"
 Flow Length=453' Tc=11.4 min CN=61/98 Runoff=0.57 cfs 0.050 af

Subcatchment 502: WPost-34

Runoff Area=0.330 ac 0.00% Impervious Runoff Depth=0.00"
 Tc=0.0 min CN=61/0 Runoff=0.00 cfs 0.000 af

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Subcatchment 503: WPost-36 Building 1,2,3	Runoff Area=0.327 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.36 cfs 0.027 af
Subcatchment 504: WPost-37 Building 4,5,6	Runoff Area=0.291 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.32 cfs 0.024 af
Pond 505: UIS-G	Peak Elev=249.19' Storage=0.003 af Inflow=0.32 cfs 0.024 af Outflow=0.12 cfs 0.024 af
Subcatchment 506: WPost-38 Building 7	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.12 cfs 0.009 af
Pond 507: UIS-E	Peak Elev=230.16' Storage=0.001 af Inflow=0.12 cfs 0.009 af Outflow=0.05 cfs 0.009 af
Subcatchment 508: WPost-39 Building 8	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=61/98 Runoff=0.12 cfs 0.009 af
Pond 509: UIS-F	Peak Elev=238.67' Storage=0.001 af Inflow=0.12 cfs 0.009 af Discarded=0.05 cfs 0.009 af Primary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.009 af
Subcatchment 510: WPost-40 Building 9	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.12 cfs 0.009 af
Pond 511: D4	Peak Elev=238.94' Inflow=0.12 cfs 0.009 af 8.00" Round Culvert n=0.012 L=145.0' S=0.0328 ' /' Outflow=0.12 cfs 0.009 af
Subcatchment 512: WPost-41 Building 10	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.12 cfs 0.009 af
Pond 513: D3	Peak Elev=234.27' Inflow=0.24 cfs 0.018 af 8.00" Round Culvert n=0.012 L=102.0' S=0.0311 ' /' Outflow=0.24 cfs 0.018 af
Pond 514: D3	Peak Elev=231.07' Inflow=0.24 cfs 0.018 af 8.00" Round Culvert n=0.012 L=46.0' S=0.1043 ' /' Outflow=0.24 cfs 0.018 af
Pond 515: Infiltration Pond D	Peak Elev=226.64' Storage=1,455 cf Inflow=1.09 cfs 0.095 af Discarded=0.14 cfs 0.095 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.14 cfs 0.095 af
Subcatchment 516: W-Post 42 - 69 driveways	Runoff Area=0.552 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.60 cfs 0.045 af
Pond 517: Permeable Pavement	Peak Elev=99.00' Storage=0.001 af Inflow=0.60 cfs 0.045 af Outflow=0.59 cfs 0.045 af
Link 518: DP-5 Tiogue Ave	Inflow=0.03 cfs 0.003 af Primary=0.03 cfs 0.003 af
Subcatchment 600: Subcat 600	Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.01 cfs 0.001 af

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Pond 600D: 100 Year Drywell 4' DeepPeak Elev=249.10' Storage=5 cf Inflow=0.01 cfs 0.001 af
Discarded=0.00 cfs 0.001 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.001 af**Subcatchment 601: Subcat 601**Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.01 cfs 0.001 af**Pond 601D: 100 Year Drywell 4' Deep**Peak Elev=249.10' Storage=5 cf Inflow=0.01 cfs 0.001 af
Discarded=0.00 cfs 0.001 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.001 af**Subcatchment 602: Subcat 602**Runoff Area=0.073 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.08 cfs 0.006 af**Subcatchment 603: Subcat 603**Runoff Area=0.036 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.04 cfs 0.003 af**Subcatchment 699: Subcat 699**Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.02 cfs 0.002 af**Subcatchment 700: Subcat 700**Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.02 cfs 0.002 af**Subcatchment 701: Subcat 701**Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.02 cfs 0.002 af**Subcatchment 702: Subcat 702**Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=61/98 Runoff=0.02 cfs 0.002 af**Subcatchment 703: Subcat 703**Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.02 cfs 0.002 af**Subcatchment 704: Subcat 704**Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.02 cfs 0.002 af**Subcatchment 705: Subcat 705**Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.02 cfs 0.002 af**Subcatchment 706: Subcat 706**Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.02 cfs 0.002 af**Subcatchment 707: Subcat 707**Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.02 cfs 0.002 af**Subcatchment 708: Subcat 708**Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.02 cfs 0.002 af**Subcatchment 709: Subcat 709**Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.02 cfs 0.002 af**Subcatchment 710: Subcat 710**Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=0/98 Runoff=0.02 cfs 0.002 af

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Subcatchment 711: Subcat 711	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.02 cfs 0.002 af
Subcatchment 712: Subcat 712	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.02 cfs 0.002 af
Subcatchment 713: Subcat 713	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.01 cfs 0.001 af
Pond 713D: 100 Year Drywell 4' Deep	Peak Elev=241.13' Storage=6 cf Inflow=0.01 cfs 0.001 af Discarded=0.00 cfs 0.001 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.001 af
Subcatchment 714: Subcat 714	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.01 cfs 0.001 af
Pond 714D: 100 Year Drywell 4' Deep	Peak Elev=234.13' Storage=6 cf Inflow=0.01 cfs 0.001 af Discarded=0.00 cfs 0.001 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.001 af
Subcatchment 715: Subcat 715	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.01 cfs 0.001 af
Pond 715D: 100 Year Drywell 4' Deep	Peak Elev=234.13' Storage=6 cf Inflow=0.01 cfs 0.001 af Discarded=0.00 cfs 0.001 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.001 af
Subcatchment 716: Subcat 716	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.01 cfs 0.001 af
Pond 716D: 100 Year Drywell 4' Deep	Peak Elev=253.15' Storage=7 cf Inflow=0.01 cfs 0.001 af Discarded=0.00 cfs 0.001 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.001 af
Subcatchment 717: Subcat 717	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.01 cfs 0.001 af
Pond 717D: 100 Year Drywell 4' Deep	Peak Elev=255.12' Storage=6 cf Inflow=0.01 cfs 0.001 af Discarded=0.00 cfs 0.001 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.001 af
Subcatchment 718: Subcat 718	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.01 cfs 0.001 af
Pond 718D: 100 Year Drywell 4' Deep	Peak Elev=256.12' Storage=6 cf Inflow=0.01 cfs 0.001 af Discarded=0.00 cfs 0.001 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.001 af
Subcatchment 719: Subcat 719	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.01 cfs 0.001 af
Pond 719D: 100 Year Drywell 4' Deep	Peak Elev=257.67' Storage=8 cf Inflow=0.01 cfs 0.001 af Discarded=0.00 cfs 0.001 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.001 af
Subcatchment 720: Subcat 720	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=0.99" Tc=6.0 min CN=0/98 Runoff=0.01 cfs 0.001 af

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Pond 720D: 100 Year Drywell 4' Deep

Peak Elev=258.67' Storage=8 cf Inflow=0.01 cfs 0.001 af

Discarded=0.00 cfs 0.001 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.001 af



A3.4.2 Drainage Network Hydraulic Calculations

 DiPrete Engineering Engineers • Planners • Surveyors		Project Name: Village at Tiogue Project Number: 0267-132					25-Year Storm Date: 12/06/2024	
Pipe Analysis								
Pipe ID	Pipe Length	Pipe Size	Pipe Slope	Flow Rate	Capacity Full	Velocity	Invert Down	Invert Up
	(ft)	(in)	(%)	(cfs)	(cfs)	(ft/s)	(Ft)	(ft)
A5 - A6	20.87	12	0.50%	3.1	2.73	3.9	242.00	242.10
A4 - A5	23.98	12	0.50%	3.1	2.73	4.0	242.10	242.22
A3 - A4	36.93	12	0.50%	2.8	2.73	4.0	242.22	242.41
A2 - A3	71.59	12	0.50%	0.7	2.73	2.9	242.41	242.77
A1 - A2	19.86	12	0.50%	0.2	2.73	2.0	242.77	242.87
B16 - B17	86.15	30	3.48%	5.9	83.02	9.8	234.50	237.50
B13 - B16	224.10	24	0.50%	4.6	17.35	4.7	238.00	239.12
B10 - B13	144.36	24	0.50%	3.0	17.35	4.1	239.12	239.84
B9 - B10	159.47	24	0.50%	3.1	17.35	4.2	239.84	240.64
B6 - B9	207.09	24	0.50%	3.0	17.35	4.1	240.64	241.67
B4 - B6	107.79	12	7.61%	3.0	10.66	11.7	245.60	253.78
B3 - B4	22.01	12	1.00%	2.5	3.86	5.2	253.78	254.00
B2 - B3	44.06	12	5.41%	1.6	8.99	8.6	254.00	256.38
B1 - B2	21.95	12	1.00%	0.5	3.86	3.3	256.38	256.60
B8 - B9	101.96	12	9.50%	0.8	11.91	8.5	244.00	253.64
B7 - B8	22.00	12	1.00%	0.5	3.86	3.4	257.68	257.90
B12 - B13	102.60	12	9.00%	2.1	11.59	11.1	241.20	250.40
B11 - B12	22.01	12	1.00%	1.3	3.86	4.5	253.78	254.00
B15 - B16	105.36	12	6.72%	1.6	10.01	9.3	239.10	246.16
B14 - B15	22.00	12	1.00%	1.0	3.86	4.1	246.78	247.00
B29 - B30	128.26	30	2.34%	15.2	68.03	11.2	234.50	237.50
B28 - B29	10.23	24	1.00%	1.2	24.53	4.1	238.00	238.10
B27 - B29	79.03	24	0.50%	12.6	17.35	6.0	238.00	238.40
B26 - B27	22.00	24	0.50%	12.0	17.35	6.0	238.40	238.51
B25 - B26	67.28	24	0.50%	11.3	17.35	5.9	238.51	238.84
B22 - B25	73.66	18	1.68%	7.9	14.77	8.5	239.34	240.58
B21 - B22	22.03	12	1.00%	2.2	3.86	5.1	241.53	241.75
Z-B22 - B22	14.49	6	2.85%	0.7	1.03	5.5	242.30	242.71
B20 - B22	235.42	12	6.00%	3.7	9.46	11.3	241.08	255.18
B19 - B20	22.00	12	1.00%	0.8	3.86	3.8	255.18	255.40
Z-B20 - B20	12.43	6	5.91%	1.9	1.48	9.6	255.10	255.83
B24 - B25	55.04	15	1.00%	3.5	7.01	5.7	240.73	241.28
B23 - B24	22.00	12	1.00%	1.7	3.86	4.7	241.53	241.75
B48 - B49	143.17	24	8.41%	17.4	71.15	18.7	234.50	246.50
B47 - B48	114.83	15	4.73%	5.3	15.24	11.3	247.25	252.68
B46 - B47	52.19	15	1.00%	3.4	7.01	5.7	252.68	253.20
B45 - B46	81.37	12	7.56%	1.6	10.63	9.7	253.45	259.59
Z-B46 - B46	11.00	6	0.97%	0.3	0.60	3.1	253.50	253.61
B44 - B48	88.50	24	7.88%	12.6	68.87	16.7	246.50	253.45
B43 - B44	157.42	24	0.56%	12.9	18.42	6.3	256.08	256.97
B42 - B43	105.03	12	6.76%	1.8	10.04	9.6	259.80	266.88
B41 - B42	22.00	12	1.00%	1.1	3.86	4.2	266.88	267.10
B40 - B43	189.52	24	0.50%	11.3	17.35	5.9	256.97	257.91
B39 - B40	189.52	24	0.50%	11.1	17.35	5.9	257.91	258.86

B38 - B39	127.64	12	5.87%	3.1	9.36	10.7	261.40	268.88
B37 - B38	22.00	12	1.00%	2.1	3.87	5.0	268.88	269.10
B36 - B39	102.38	18	0.50%	7.6	8.05	5.2	259.36	259.87
B35 - B36	148.42	18	0.50%	7.5	8.09	5.2	259.87	260.62
B33 - B35	22.01	15	0.50%	3.5	4.95	4.4	260.94	261.05
B32 - B33	26.19	12	0.50%	1.7	2.73	3.6	261.30	261.43
B31 - B32	33.64	12	0.50%	1.5	2.73	3.6	261.43	261.60
Z-B31 - B31	17.74	6	1.55%	0.3	0.76	3.6	261.82	262.10
B34 - B35	53.37	12	0.90%	1.9	3.66	4.7	261.12	261.60
Z-B34 - B34	6.74	6	1.95%	0.6	0.85	4.6	261.59	261.72
Z-B35 - B35	6.48	6	2.09%	0.9	0.88	5.1	262.08	262.21
Z-B36 - B36	7.23	6	1.38%	0.3	0.72	3.5	260.00	260.10
Z-B39 - B39	15.06	6	6.66%	0.8	1.57	8.0	262.00	263.00
Z-B40 - B40	12.52	6	4.00%	0.5	1.22	5.8	263.00	263.50
Z-B43 - B43	11.35	6	4.64%	0.9	1.31	7.3	263.47	264.00
C2 - C3	32.17	12	0.50%	1.0	2.73	3.2	253.94	254.10
C1 - C2	22.00	12	1.00%	0.6	3.86	3.5	254.20	254.42
D14 - D15	23.06	18	6.67%	7.7	29.42	14.0	227.00	228.54
D13 - D14	17.51	18	6.67%	7.7	29.42	14.0	228.54	229.70
D12 - D13	22.00	15	1.00%	1.6	7.01	4.6	229.98	230.20
D11 - D13	96.02	15	3.57%	6.3	13.23	10.6	230.05	233.47
D8 - D11	137.91	12	3.00%	3.3	6.69	8.5	233.75	237.88
D7 - D8	22.00	12	1.00%	0.6	3.86	3.6	237.88	238.10
D6 - D8	203.98	12	3.75%	2.4	7.48	8.4	238.14	245.78
D5 - D6	22.00	12	1.00%	1.8	3.86	4.8	245.78	246.00
D10 - D11	22.00	15	1.00%	3.4	7.01	5.7	233.47	233.69
D9 - D10	76.32	15	4.18%	3.0	14.32	9.2	233.82	237.00

Pipe Analysis

Pipe ID	Pipe Length (ft)	Pipe Size (in)	Pipe Slope (%)	Flow Rate (cfs)	Capacity Full (cfs)	Velocity (ft/s)	Invert Down (Ft)	Invert Up (ft)
A5 - A6	20.87	12	0.50%	4.0	2.73	5.1	242.00	242.10
A4 - A5	23.98	12	0.50%	4.0	2.73	5.1	242.10	242.22
A3 - A4	36.93	12	0.50%	3.6	2.73	4.6	242.22	242.41
A2 - A3	71.59	12	0.50%	0.9	2.73	3.1	242.41	242.77
A1 - A2	19.86	12	0.50%	0.3	2.73	2.2	242.77	242.87
B16 - B17	86.15	30	3.48%	7.5	83.02	10.5	234.50	237.50
B13 - B16	224.10	24	0.50%	5.9	17.35	5.0	238.00	239.12
B10 - B13	144.36	24	0.50%	3.8	17.35	4.4	239.12	239.84
B9 - B10	159.47	24	0.50%	4.0	17.35	4.5	239.84	240.64
B6 - B9	207.09	24	0.50%	3.9	17.35	4.4	240.64	241.67
B4 - B6	107.79	12	7.61%	3.9	10.66	12.5	245.60	253.78
B3 - B4	22.01	12	1.00%	3.2	3.86	5.5	253.78	254.00
B2 - B3	44.06	12	5.41%	2.0	8.99	9.2	254.00	256.38
B1 - B2	21.95	12	1.00%	0.6	3.86	3.6	256.38	256.60
B8 - B9	101.96	12	9.50%	1.0	11.91	9.1	244.00	253.64
B7 - B8	22.00	12	1.00%	0.6	3.86	3.6	257.68	257.90
B12 - B13	102.60	12	9.00%	2.6	11.59	11.9	241.20	250.40
B11 - B12	22.01	12	1.00%	1.7	3.86	4.8	253.78	254.00
B15 - B16	105.36	12	6.72%	2.0	10.01	10.0	239.10	246.16
B14 - B15	22.00	12	1.00%	1.2	3.86	4.4	246.78	247.00
B29 - B30	128.26	30	2.34%	19.5	68.03	12.0	234.50	237.50
B28 - B29	10.23	24	1.00%	1.6	24.53	4.4	238.00	238.10
B27 - B29	79.03	24	0.50%	16.2	17.35	6.3	238.00	238.40
B26 - B27	22.00	24	0.50%	15.4	17.35	6.2	238.40	238.51
B25 - B26	67.28	24	0.50%	14.5	17.35	6.2	238.51	238.84
B22 - B25	73.66	18	1.68%	10.1	14.77	9.0	239.34	240.58
B21 - B22	22.03	12	1.00%	2.9	3.86	5.4	241.53	241.75
Z-B22 - B22	14.49	6	2.85%	0.8	1.03	5.8	242.30	242.71
B20 - B22	235.42	12	6.00%	4.7	9.46	12.0	241.08	255.18
B19 - B20	22.00	12	1.00%	1.0	3.86	4.1	255.18	255.40
Z-B20 - B20	12.43	6	5.91%	2.4	1.48	12.3	255.10	255.83
B24 - B25	55.04	15	1.00%	4.5	7.01	6.1	240.73	241.28
B23 - B24	22.00	12	1.00%	2.2	3.86	5.0	241.53	241.75
B48 - B49	143.17	24	8.41%	22.3	71.15	20.0	234.50	246.50
B47 - B48	114.83	15	4.73%	6.8	15.24	12.1	247.25	252.68
B46 - B47	52.19	15	1.00%	4.3	7.01	6.0	252.68	253.20
B45 - B46	81.37	12	7.56%	2.0	10.63	10.4	253.45	259.59
Z-B46 - B46	11.00	6	0.97%	0.4	0.60	3.3	253.50	253.61
B44 - B48	88.50	24	7.88%	16.2	68.87	17.9	246.50	253.45
B43 - B44	157.42	24	0.56%	16.5	18.42	6.6	256.08	256.97
B42 - B43	105.03	12	6.76%	2.3	10.04	10.3	259.80	266.88
B41 - B42	22.00	12	1.00%	1.4	3.86	4.5	266.88	267.10
B40 - B43	189.52	24	0.50%	14.5	17.35	6.2	256.97	257.91
B39 - B40	189.52	24	0.50%	14.3	17.35	6.2	257.91	258.86

B38 - B39	127.64	12	5.87%	3.9	9.36	11.4	261.40	268.88
B37 - B38	22.00	12	1.00%	2.7	3.87	5.3	268.88	269.10
B36 - B39	102.38	18	0.50%	9.8	8.05	5.5	259.36	259.87
B35 - B36	148.42	18	0.50%	9.6	8.09	5.4	259.87	260.62
B33 - B35	22.01	15	0.50%	4.5	4.95	4.6	260.94	261.05
B32 - B33	26.19	12	0.50%	2.1	2.73	3.8	261.30	261.43
B31 - B32	33.64	12	0.50%	2.0	2.73	3.8	261.43	261.60
Z-B31 - B31	17.74	6	1.55%	0.4	0.76	3.8	261.82	262.10
B34 - B35	53.37	12	0.90%	2.5	3.66	5.0	261.12	261.60
Z-B34 - B34	6.74	6	1.95%	0.7	0.85	4.9	261.59	261.72
Z-B35 - B35	6.48	6	2.09%	1.1	0.88	5.7	262.08	262.21
Z-B36 - B36	7.23	6	1.38%	0.4	0.72	3.8	260.00	260.10
Z-B39 - B39	15.06	6	6.66%	1.0	1.57	8.5	262.00	263.00
Z-B40 - B40	12.52	6	4.00%	0.6	1.22	6.2	263.00	263.50
Z-B43 - B43	11.35	6	4.64%	1.2	1.31	7.6	263.47	264.00
C2 - C3	32.17	12	0.50%	1.3	2.73	3.4	253.94	254.10
C1 - C2	22.00	12	1.00%	0.7	3.86	3.7	254.20	254.42
D14 - D15	23.06	18	6.67%	9.9	29.42	15.0	227.00	228.54
D13 - D14	17.51	18	6.67%	9.9	29.42	15.0	228.54	229.70
D12 - D13	22.00	15	1.00%	2.0	7.01	4.9	229.98	230.20
D11 - D13	96.02	15	3.57%	8.1	13.23	11.3	230.05	233.47
D8 - D11	137.91	12	3.00%	4.2	6.69	9.0	233.75	237.88
D7 - D8	22.00	12	1.00%	0.8	3.86	3.9	237.88	238.10
D6 - D8	203.98	12	3.75%	3.0	7.48	9.0	238.14	245.78
D5 - D6	22.00	12	1.00%	2.3	3.86	5.1	245.78	246.00
D10 - D11	22.00	15	1.00%	4.4	7.01	6.0	233.47	233.69
D9 - D10	76.32	15	4.18%	3.8	14.32	9.9	233.82	237.00

**DiPrete Engineering**

Engineers • Planners • Surveyors

Project Name: Village at Tiogue

100-Year Storm

Project Number: 0267-132

Date: 12/06/2024

HGL at Structure

Structure	Rim Elevation (ft)	HGL Elevation (ft)	Rim-HGL (ft)
A6	249.01	0.00	N/A
A5	245.70	246.05	-0.35
A4	249.30	246.55	2.75
A3	248.90	247.22	1.68
A2	247.27	247.72	-0.45
A1	246.58	247.74	-1.16
B17	237.42	0.00	N/A
B16	242.30	242.53	-0.22
B13	244.43	242.67	1.76
B10	243.73	242.78	0.95
B9	247.20	242.84	4.36
B6	249.18	242.91	6.27
B4	257.28	254.20	3.08
B3	257.23	256.62	0.61
B2	260.78	257.05	3.73
B1	259.91	257.84	2.06
B8	261.12	253.84	7.29
B7	261.12	258.18	2.95
B12	257.42	250.72	6.69
B11	257.41	254.47	2.94
B15	250.46	246.47	3.99
B14	250.46	248.03	2.43
B30	238.00	0.00	N/A
B29	242.21	241.65	0.56
B28	242.24	242.01	0.23
B27	243.05	242.11	0.94
B26	243.06	242.63	0.43
B25	244.36	243.34	1.02
B22	245.90	244.07	1.83
B21	245.89	244.83	1.07
Z-B22	246.31	244.94	1.37
B20	258.70	255.68	3.02
B19	258.70	257.93	0.77
Z-B20	259.43	258.48	0.94
B24	245.12	243.89	1.23
B23	245.12	244.21	0.91
B49	236.83	0.00	N/A
B48	253.77	247.27	6.50
B47	256.30	254.31	2.00
B46	256.74	255.07	1.66

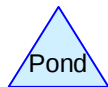
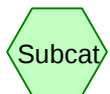
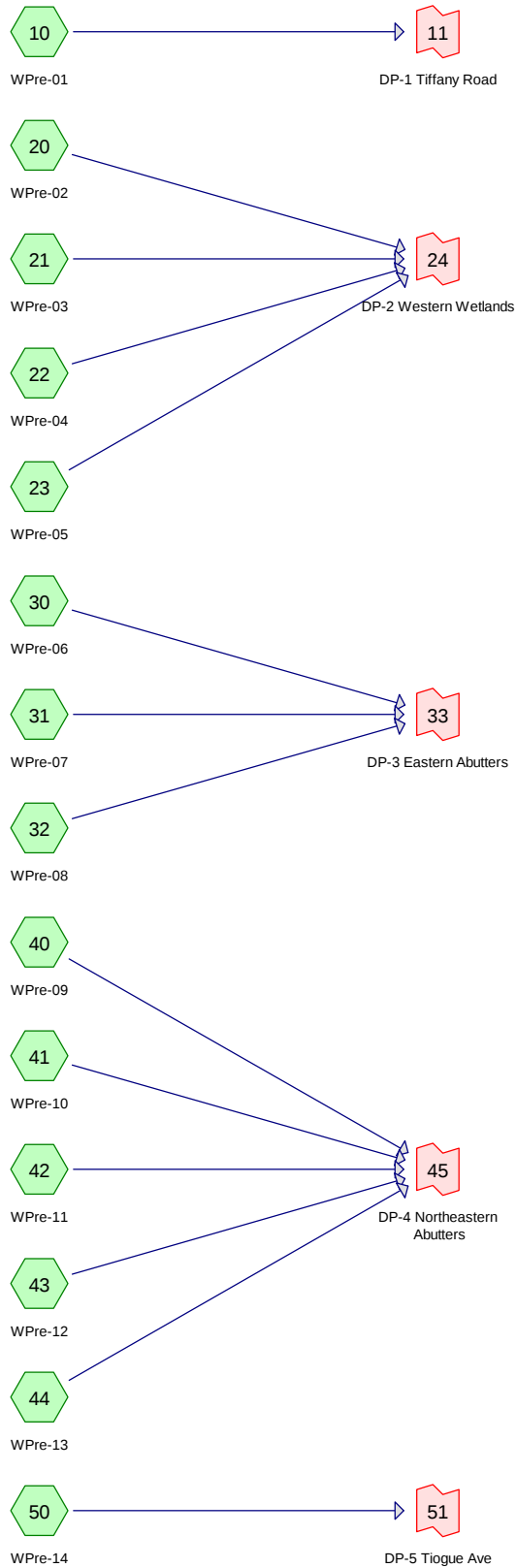
B45	263.82	259.88	3.94
Z-B46	257.22	255.40	1.82
B44	261.20	254.11	7.09
B43	263.72	259.55	4.18
B42	271.14	267.20	3.94
B41	271.15	268.86	2.28
B40	267.31	260.58	6.73
B39	264.84	261.43	3.41
B38	271.71	269.33	2.38
B37	271.71	271.35	0.37
B36	266.03	262.36	3.67
B35	265.62	263.91	1.71
B33	265.61	264.58	1.03
B32	264.67	264.91	-0.24
B31	264.82	265.11	-0.29
Z-B31	265.74	265.27	0.47
B34	265.12	264.75	0.38
Z-B34	265.26	264.93	0.33
Z-B35	265.75	264.53	1.22
Z-B36	267.00	263.12	3.88
Z-B39	265.00	263.29	1.71
Z-B40	264.54	263.75	0.79
Z-B43	265.04	264.38	0.66
C3	258.00	0.00	N/A
C2	257.52	255.22	2.31
C1	257.52	255.28	2.24
D15	228.85	0.00	N/A
D14	234.10	233.17	0.93
D13	234.23	233.60	0.63
D12	234.23	234.54	-0.31
D11	236.98	235.42	1.56
D8	241.37	238.45	2.91
D7	241.37	239.71	1.66
D6	250.97	246.22	4.74
D5	250.96	247.49	3.48
D10	236.98	236.49	0.49
D9	239.50	237.44	2.06

 DiPrete Engineering Engineers • Planners • Surveyors			Project Name: Village at Tiogue Project Number: 0267-132										10-Year Storm Date: 12/06/2024			
Structure	Area	Inlet Time	Intensity	Runoff C	Q=Cia	Q Carry over	Q Captured	Q Bypassed	Bypass Structure	Inlet Type	Curb Opening	Curb Opening	Grate Length	Grate Width	Depth	Spread
	(sf)	(min)	(in/hr)	(C)	(cfs)	(cfs)	(cfs)	(cfs)			(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
A1	1,157	6	6.94	0.9	0.17	0	0.16	0.01	---	Grate inlet	---	---	2	2	0.068	3.41
A2	6,064	8.7	6.069	0.47	0.40	0	0.33	0.08	---	Grate inlet	---	---	2	2	0.095	4.73
A3	33,205	9.9	5.682	0.41	1.79	0	1.02	0.77	A4	Grate inlet	---	---	2	2	0.166	8.296
A4	3,456	6	6.938	0.6	0.33	0.768	0.72	0.39	---	Grate inlet	---	---	2	2	0.138	6.913
B7	8,119	13.62	4.484	0.49	0.41	0	0.35	0.07	B11	Grate inlet	---	---	2	2	0.084	4.203
B8	4,055	6	6.938	0.49	0.32	0	0.28	0.04	B12	Grate inlet	---	---	2	2	0.076	3.815
B1	6,423	9.9	5.682	0.45	0.38	0	0.38	0.00	---	Grate inlet	---	---	2	2	0.096	4.82
B2	10,988	6	6.938	0.64	1.13	0	0.79	0.34	B3	Grate inlet	---	---	2	2	0.115	5.754
B3	9,901	6	6.938	0.57	0.91	0.337	1.00	0.25	---	Grate inlet	---	---	4	2	0.094	4.708
B4	5,825	6	6.938	0.61	0.57	0	0.51	0.06	---	Grate inlet	---	---	2	2	0.07	3.515
B11	26,725	20.4	3.597	0.49	1.09	0.065	0.75	0.40	B14	Grate inlet	---	---	2	2	0.135	6.75
B12	11,753	6	6.938	0.61	1.15	0.038	0.77	0.42	B15	Grate inlet	---	---	2	2	0.136	6.825
B14	17,191	14.58	4.175	0.48	0.80	0.403	0.91	0.29	---	Grate inlet	---	---	2	2	0.099	4.926
B15	8,956	6	6.938	0.6	0.86	0.421	0.96	0.32	---	Grate inlet	---	---	2	2	0.101	5.051
B28	15,113	8.22	6.223	0.46	1.00	0	1.00	0.00	---	Grate inlet	---	---	4	2	0.14	7.015
B19	6,165	6	6.938	0.62	0.61	0	0.53	0.09	B22	Grate inlet	---	---	2	2	0.079	3.938
B20	7,977	6	6.938	0.67	0.86	0	0.69	0.17	B21	Grate inlet	---	---	2	2	0.089	4.466
B26	7,015	6	6.938	0.61	0.69	0.482	1.17	0.00	---	Grate inlet	---	---	2	2	0.182	9.082
B27	6,364	6	6.938	0.56	0.57	0.863	0.90	0.53	B29	Grate inlet	---	---	2	2	0.139	6.944
B21	29,140	6	6.938	0.39	1.83	0.168	1.13	0.86	B27	Grate inlet	---	---	2	2	0.163	8.164
B22	12,207	6	6.938	0.61	1.20	0.088	0.80	0.48	B26	Grate inlet	---	---	2	2	0.146	7.323
B29	21,750	6	6.938	0.58	2.03	0.531	2.56	0.00	---	Grate inlet	---	---	4	2	0.245	12.238
B24	14,986	6	6.938	0.63	1.52	0	1.52	0.00	---	Grate inlet	---	---	4	2	0.179	8.931
B23	19,391	6	6.938	0.44	1.37	0	1.37	0.00	---	Grate inlet	---	---	4	2	0.168	8.414
B34	12,562	6	6.938	0.56	1.13	0.404	1.53	0.00	---	Grate inlet	---	---	4	2	0.18	8.992
B45	21,217	8.1	6.262	0.42	1.29	0	0.81	0.49	---	Grate inlet	---	---	2	2	0.147	7.34
B46	13,121	6	6.938	0.66	1.39	0.184	1.58	0.00	---	Grate inlet	---	---	4	2	0.183	9.136
B47	18,287	6	6.938	0.61	1.79	0.124	1.92	0.00	---	Grate inlet	---	---	4	2	0.205	10.269

B41	16,193	9.18	5.914	0.39	0.87	0	0.68	0.18	B46	Grate inlet	---	---	2	2	0.093	4.669
B37	18,151	6	6.938	0.58	1.69	0	1.09	0.60	B33	Grate inlet	---	---	2	2	0.13	6.48
B38	8,107	6	6.938	0.63	0.82	0	0.63	0.19	B35	Grate inlet	---	---	2	2	0.099	4.941
B31	14,117	6	6.938	0.45	1.02	0	1.02	0.00	---	Grate inlet	---	---	4	2	0.142	7.09
B32	909	6	6.938	0.9	0.13	0.863	0.99	0.00	---	Grate inlet	---	---	4	2	0.14	6.987
B33	12,530	6	6.938	0.75	1.51	0.6	1.25	0.86	B32	Grate inlet	---	---	2	2	0.149	7.429
B35	11,177	6	6.938	0.59	1.06	0.191	0.85	0.40	B34	Grate inlet	---	---	2	2	0.122	6.107
B42	6,664	6	6.938	0.65	0.70	0	0.57	0.12	B47	Grate inlet	---	---	2	2	0.086	4.304
C1	3,371	6	6.938	0.83	0.45	0	0.40	0.05	---	Grate inlet	---	---	4	2	0.099	4.94
C2	2,742	6	6.938	0.83	0.37	0	0.33	0.04	---	Grate inlet	---	---	4	2	0.091	4.572
D10	6,360	6	10.892	0.4	0.64	0	0.47	0.17	---	Grate inlet	---	---	2	2	0.113	5.646
D5	40,137	10.86	8.423	0.29	2.27	0	1.29	0.98	D7	Grate inlet	---	---	2	2	0.159	7.962
D6	12,445	6	10.892	0.32	1.00	0	0.70	0.30	D8	Grate inlet	---	---	2	2	0.117	5.865
D7	8,598	6	10.892	0.38	0.82	0.984	1.20	0.61	D12	Grate inlet	---	---	2	2	0.123	6.158
D8	7,829	6	10.892	0.4	0.79	0.301	0.82	0.28	D11	Grate inlet	---	---	2	2	0.102	5.095
D12	33,436	7.68	10.039	0.26	2.02	0.61	2.63	0.00	---	Grate inlet	---	---	4	2	0.249	12.451
D13	2,758	6	10.892	0.57	0.40	0.225	0.62	0.00	---	Grate inlet	---	---	4	2	0.107	5.374
D11	5,992	6	10.892	0.37	0.56	0.275	0.61	0.23	D13	Grate inlet	---	---	2	2	0.109	5.47



A3.5.4.1 HydroCAD Node Diagram



Routing Diagram for 0267-132-ALLS-EHCD
 Prepared by DiPrete Engineering, Printed 12/10/2024
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0267-132-ALLS-EHCD

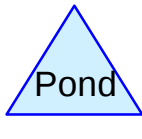
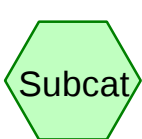
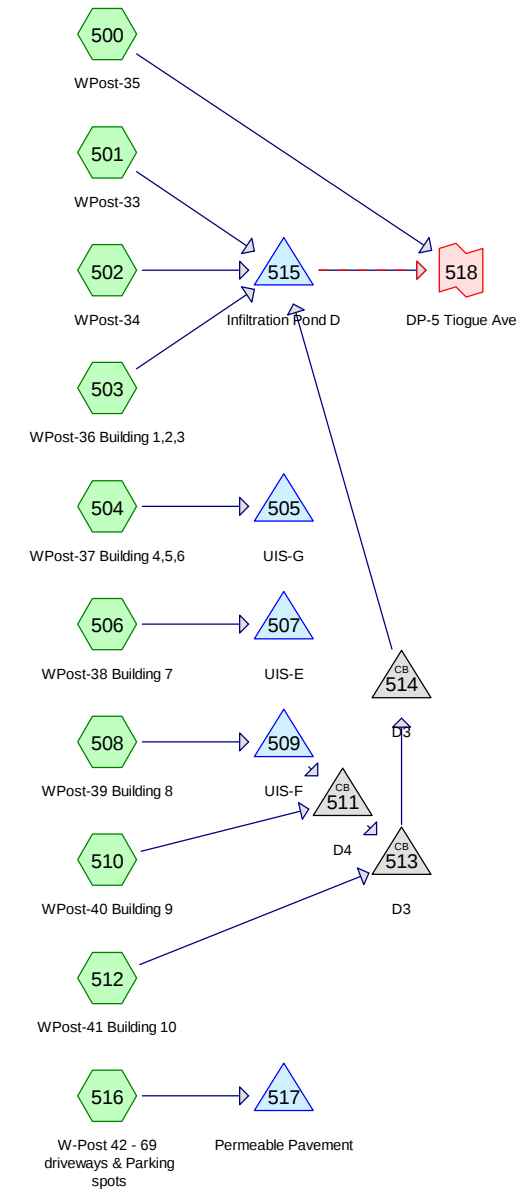
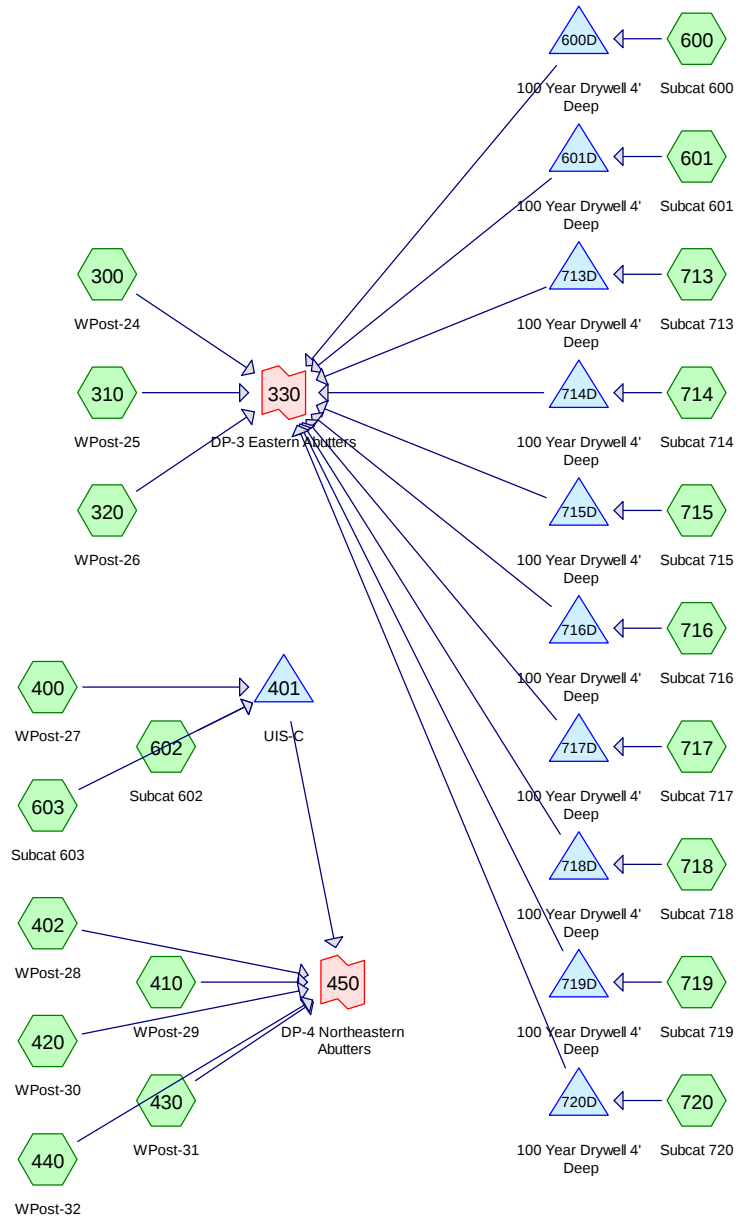
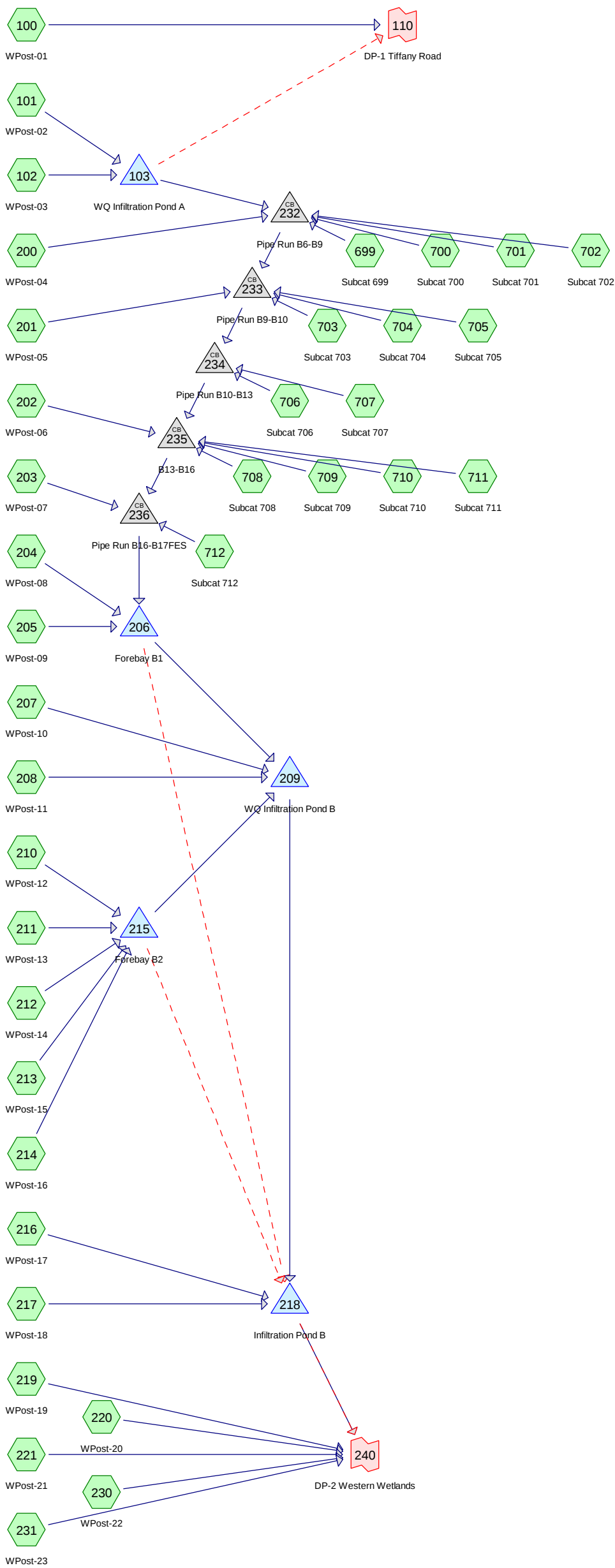
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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
4.607	61	>75% Grass cover, Good, HSG B (10, 22, 23, 31, 32, 40, 41, 42, 43, 44, 50)
0.057	80	>75% Grass cover, Good, HSG D (31)
0.228	96	Gravel surface, HSG B (41, 42, 43)
0.074	98	Impervious, HSG B (50)
0.210	98	Offsite Impervious, HSG B (10, 43, 50)
0.311	98	Offsite Roofs, HSG B (10, 23, 40, 41, 43, 44, 50)
23.843	55	Woods, Good, HSG B (10, 20, 21, 22, 23, 30, 31, 32, 40, 41, 42, 43, 44, 50)
2.927	77	Woods, Good, HSG D (21, 22, 31)
0.458	58	Woods/grass comb., Good, HSG B (10, 30)
32.715	59	TOTAL AREA



Routing Diagram for 0267-132-ALLS-PHCD
Prepared by DiPrete Engineering, Printed 12/10/24
HydroCAD® 10.20-5c s/n 01125 © 2023 HydroCAD Software Solutions LLC

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
18.985	61	>75% Grass cover, Good, HSG B (100, 101, 102, 200, 201, 202, 203, 210, 211, 212, 213, 214, 216, 217, 219, 220, 221, 230, 231, 300, 310, 320, 400, 402, 410, 420, 430, 440, 500, 501, 502, 508, 702)
2.338	80	>75% Grass cover, Good, HSG D (204, 205, 207, 208, 210, 211, 212, 217, 220, 221, 310)
0.228	96	Gravel surface, HSG B (410, 420, 430)
0.552	98	Impervious, HSG A (516)
3.973	98	Impervious, HSG B (100, 101, 102, 200, 201, 202, 203, 210, 212, 213, 214, 320, 400, 402, 500, 501, 702)
0.370	98	Impervious, HSG D (207, 210, 212)
0.175	98	Offsite Impervious, HSG B (100, 214, 231, 430, 500)
0.311	98	Offsite Roofs, HSG B (100, 214, 230, 402, 410, 501)
0.327	98	Roof (503)
2.967	98	Roofs, HSG B (101, 200, 201, 202, 203, 212, 213, 214, 216, 219, 230, 300, 504, 506, 508, 510, 512, 600, 601, 602, 603, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 713, 716, 717, 718, 719, 720)
0.240	98	Roofs, HSG D (204, 207, 210, 212, 711, 712, 714, 715)
0.012	98	Water Surface, 0% imp, HSG B (102)
0.037	98	Water Surface, 0% imp, HSG D (217)
1.902	55	Woods, Good, HSG B (100, 101, 210, 214, 216, 221, 410, 420, 430, 500, 501)
0.355	58	Woods/grass comb., Good, HSG B (100)
32.772	72	TOTAL AREA



A3.5.4.2 HydroCAD 1-Year Storm Analysis

0267-132-ALLS-EHCD

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Type III 24-hr 1-Year Rainfall=2.70"

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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

Subcatchment 10: WPre-01	Runoff Area=2.294 ac 9.40% Impervious Runoff Depth=0.23" Flow Length=304' Tc=15.3 min CN=60 Runoff=0.21 cfs 0.044 af
Subcatchment 20: WPre-02	Runoff Area=1.937 ac 0.00% Impervious Runoff Depth=0.12" Flow Length=279' Tc=17.6 min CN=55 Runoff=0.04 cfs 0.020 af
Subcatchment 21: WPre-03	Runoff Area=3.181 ac 0.00% Impervious Runoff Depth=0.48" Flow Length=474' Tc=13.1 min CN=68 Runoff=1.06 cfs 0.127 af
Subcatchment 22: WPre-04	Runoff Area=1.347 ac 0.00% Impervious Runoff Depth=0.16" Flow Length=575' Tc=16.5 min CN=57 Runoff=0.06 cfs 0.018 af
Subcatchment 23: WPre-05	Runoff Area=3.870 ac 0.99% Impervious Runoff Depth=0.14" Flow Length=399' Tc=22.4 min CN=56 Runoff=0.12 cfs 0.046 af
Subcatchment 30: WPre-06	Runoff Area=3.567 ac 0.00% Impervious Runoff Depth=0.12" Flow Length=425' Tc=16.1 min CN=55 Runoff=0.08 cfs 0.036 af
Subcatchment 31: WPre-07	Runoff Area=4.363 ac 0.00% Impervious Runoff Depth=0.26" Flow Length=520' Tc=16.4 min CN=61 Runoff=0.48 cfs 0.094 af
Subcatchment 32: WPre-08	Runoff Area=1.230 ac 0.00% Impervious Runoff Depth=0.12" Flow Length=305' Tc=16.9 min CN=55 Runoff=0.03 cfs 0.013 af
Subcatchment 40: WPre-09	Runoff Area=1.515 ac 1.97% Impervious Runoff Depth=0.14" Flow Length=221' Tc=23.6 min CN=56 Runoff=0.05 cfs 0.018 af
Subcatchment 41: WPre-10	Runoff Area=2.528 ac 4.16% Impervious Runoff Depth=0.23" Flow Length=113' Tc=10.7 min CN=60 Runoff=0.25 cfs 0.049 af
Subcatchment 42: WPre-11	Runoff Area=0.528 ac 0.00% Impervious Runoff Depth=0.41" Tc=6.0 min CN=66 Runoff=0.17 cfs 0.018 af
Subcatchment 43: WPre-12	Runoff Area=0.966 ac 2.99% Impervious Runoff Depth=0.41" Flow Length=344' Tc=11.3 min CN=66 Runoff=0.26 cfs 0.033 af
Subcatchment 44: WPre-13	Runoff Area=1.345 ac 0.99% Impervious Runoff Depth=0.14" Flow Length=345' Tc=15.3 min CN=56 Runoff=0.05 cfs 0.016 af
Subcatchment 50: WPre-14	Runoff Area=4.043 ac 4.05% Impervious Runoff Depth=0.21" Flow Length=368' Tc=14.8 min CN=59 Runoff=0.31 cfs 0.070 af
Link 11: DP-1 Tiffany Road	Inflow=0.21 cfs 0.044 af Primary=0.21 cfs 0.044 af
Link 24: DP-2 Western Wetlands	Inflow=1.06 cfs 0.211 af Primary=1.06 cfs 0.211 af

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Link 33: DP-3 Eastern Abutters

Inflow=0.57 cfs 0.143 af

Primary=0.57 cfs 0.143 af

Link 45: DP-4 Northeastern Abutters

Inflow=0.61 cfs 0.134 af

Primary=0.61 cfs 0.134 af

Link 51: DP-5 Tiogue Ave

Inflow=0.31 cfs 0.070 af

Primary=0.31 cfs 0.070 af

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Type III 24-hr 1-Year Rainfall=2.70"

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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

Subcatchment 100: WPost-01	Runoff Area=0.973 ac 21.17% Impervious Runoff Depth=0.44" Flow Length=281' Tc=9.4 min CN=67 Runoff=0.32 cfs 0.036 af
Subcatchment 101: WPost-02	Runoff Area=1.051 ac 31.47% Impervious Runoff Depth=0.68" Flow Length=352' Tc=10.0 min CN=73 Runoff=0.64 cfs 0.059 af
Subcatchment 102: WPost-03	Runoff Area=0.144 ac 0.04% Impervious Runoff Depth=0.34" Tc=0.0 min CN=64 Runoff=0.04 cfs 0.004 af
Pond 103: WQ Infiltration Pond A	Peak Elev=243.55' Storage=1,397 cf Inflow=0.67 cfs 0.064 af Discarded=0.05 cfs 0.064 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.064 af
Link 110: DP-1 Tiffany Road	Inflow=0.32 cfs 0.036 af Primary=0.32 cfs 0.036 af
Subcatchment 200: WPost-04	Runoff Area=0.718 ac 49.63% Impervious Runoff Depth=0.97" Flow Length=147' Tc=9.9 min CN=79 Runoff=0.69 cfs 0.058 af
Subcatchment 201: WPost-05	Runoff Area=0.280 ac 45.39% Impervious Runoff Depth=0.92" Flow Length=198' Tc=13.6 min CN=78 Runoff=0.23 cfs 0.021 af
Subcatchment 202: WPost-06	Runoff Area=0.883 ac 42.46% Impervious Runoff Depth=0.87" Flow Length=301' Tc=20.3 min CN=77 Runoff=0.57 cfs 0.064 af
Subcatchment 203: WPost-07	Runoff Area=0.600 ac 41.32% Impervious Runoff Depth=0.82" Flow Length=285' Tc=14.6 min CN=76 Runoff=0.41 cfs 0.041 af
Subcatchment 204: WPost-08	Runoff Area=0.107 ac 21.10% Impervious Runoff Depth=1.27" Flow Length=72' Slope=0.0690 '/' Tc=6.6 min CN=84 Runoff=0.16 cfs 0.011 af
Subcatchment 205: WPost-09	Runoff Area=0.086 ac 0.00% Impervious Runoff Depth=1.03" Tc=0.0 min CN=80 Runoff=0.12 cfs 0.007 af
Pond 206: Forebay B1	Peak Elev=240.78' Storage=7,497 cf Inflow=2.46 cfs 0.268 af Primary=0.68 cfs 0.174 af Secondary=0.33 cfs 0.094 af Outflow=0.68 cfs 0.267 af
Subcatchment 207: WPost-10	Runoff Area=0.313 ac 14.59% Impervious Runoff Depth=1.21" Tc=6.0 min CN=83 Runoff=0.44 cfs 0.032 af
Subcatchment 208: WPost-11	Runoff Area=0.109 ac 0.00% Impervious Runoff Depth=1.03" Tc=0.0 min CN=80 Runoff=0.16 cfs 0.009 af
Pond 209: WQ Infiltration Pond B	Peak Elev=240.80' Storage=9,987 cf Inflow=3.14 cfs 0.618 af Discarded=0.16 cfs 0.618 af Primary=0.00 cfs 0.000 af Outflow=0.16 cfs 0.618 af
Subcatchment 210: WPost-12	Runoff Area=0.692 ac 3.47% Impervious Runoff Depth=0.38" Flow Length=240' Tc=7.2 min CN=65 Runoff=0.18 cfs 0.022 af

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Subcatchment 211: WPost-13	Runoff Area=0.087 ac 0.00% Impervious Runoff Depth=0.77" Tc=0.0 min CN=75 Runoff=0.09 cfs 0.006 af
Subcatchment 212: WPost-14	Runoff Area=3.528 ac 47.31% Impervious Runoff Depth=1.09" Flow Length=289' Tc=10.5 min CN=81 Runoff=3.78 cfs 0.320 af
Subcatchment 213: WPost-15	Runoff Area=1.989 ac 53.22% Impervious Runoff Depth=1.09" Flow Length=197' Tc=9.1 min CN=81 Runoff=2.23 cfs 0.180 af
Subcatchment 214: WPost-16	Runoff Area=2.128 ac 64.12% Impervious Runoff Depth=1.34" Flow Length=299' Tc=10.3 min CN=85 Runoff=2.88 cfs 0.238 af
Pond 215: Forebay B2	Peak Elev=240.96' Storage=9,345 cf Inflow=9.10 cfs 0.765 af Primary=2.12 cfs 0.404 af Secondary=5.51 cfs 0.361 af Outflow=7.59 cfs 0.764 af
Subcatchment 216: WPost-17	Runoff Area=0.792 ac 0.00% Impervious Runoff Depth=0.16" Flow Length=267' Tc=9.6 min CN=57 Runoff=0.04 cfs 0.011 af
Subcatchment 217: WPost-18	Runoff Area=0.887 ac 0.00% Impervious Runoff Depth=0.59" Tc=0.0 min CN=71 Runoff=0.63 cfs 0.044 af
Pond 218: Infiltration Pond B	Peak Elev=238.90' Storage=12,482 cf Inflow=5.81 cfs 0.509 af Discarded=0.34 cfs 0.509 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.34 cfs 0.509 af
Subcatchment 219: WPost-19	Runoff Area=0.685 ac 0.03% Impervious Runoff Depth=0.26" Flow Length=78' Slope=0.2050 '/' Tc=6.8 min CN=61 Runoff=0.08 cfs 0.015 af
Subcatchment 220: WPost-20	Runoff Area=0.551 ac 0.00% Impervious Runoff Depth=0.87" Flow Length=145' Tc=7.3 min CN=77 Runoff=0.51 cfs 0.040 af
Subcatchment 221: WPost-21	Runoff Area=0.212 ac 0.00% Impervious Runoff Depth=0.52" Tc=6.0 min CN=69 Runoff=0.10 cfs 0.009 af
Subcatchment 230: WPost-22	Runoff Area=1.646 ac 1.62% Impervious Runoff Depth=0.29" Flow Length=130' Tc=7.6 min CN=62 Runoff=0.24 cfs 0.039 af
Subcatchment 231: WPost-23	Runoff Area=0.053 ac 75.87% Impervious Runoff Depth=1.63" Tc=6.0 min CN=89 Runoff=0.10 cfs 0.007 af
Pond 232: Pipe Run B6-B9	Peak Elev=242.11' Inflow=0.88 cfs 0.077 af 24.00" Round Culvert n=0.012 L=207.0' S=0.0050 '/' Outflow=0.88 cfs 0.077 af
Pond 233: Pipe Run B9-B10	Peak Elev=241.16' Inflow=1.23 cfs 0.112 af 24.00" Round Culvert n=0.012 L=159.6' S=0.0050 '/' Outflow=1.23 cfs 0.112 af
Pond 234: Pipe Run B10-B13	Peak Elev=240.78' Inflow=1.33 cfs 0.121 af 24.00" Round Culvert n=0.012 L=144.3' S=0.0050 '/' Outflow=1.33 cfs 0.121 af
Pond 235: B13-B16	Peak Elev=240.78' Inflow=1.87 cfs 0.203 af 24.00" Round Culvert n=0.012 L=224.1' S=0.0050 '/' Outflow=1.87 cfs 0.203 af

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Pond 236: Pipe Run B16-B17FES

Peak Elev=240.78' Inflow=2.26 cfs 0.249 af
 30.00" Round Culvert n=0.012 L=86.1' S=0.0348 ' /' Outflow=2.27 cfs 0.249 af

Link 240: DP-2 Western Wetlands

Inflow=0.96 cfs 0.110 af
 Primary=0.96 cfs 0.110 af

Subcatchment 300: WPost-24

Runoff Area=0.997 ac 0.00% Impervious Runoff Depth=0.26"
 Flow Length=144' Tc=9.9 min CN=61 Runoff=0.12 cfs 0.021 af

Subcatchment 310: WPost-25

Runoff Area=1.667 ac 0.00% Impervious Runoff Depth=0.34"
 Flow Length=405' Tc=10.7 min CN=64 Runoff=0.33 cfs 0.048 af

Subcatchment 320: WPost-26

Runoff Area=0.711 ac 7.01% Impervious Runoff Depth=0.34"
 Flow Length=142' Tc=10.6 min CN=64 Runoff=0.14 cfs 0.020 af

Link 330: DP-3 Eastern Abutters

Inflow=0.58 cfs 0.090 af
 Primary=0.58 cfs 0.090 af

Subcatchment 400: WPost-27

Runoff Area=0.176 ac 60.75% Impervious Runoff Depth=1.21"
 Tc=6.0 min CN=83 Runoff=0.25 cfs 0.018 af

Pond 401: UIS-C

Peak Elev=253.58' Storage=244 cf Inflow=0.53 cfs 0.040 af
 Discarded=0.18 cfs 0.040 af Primary=0.00 cfs 0.000 af Outflow=0.18 cfs 0.040 af

Subcatchment 402: WPost-28

Runoff Area=0.771 ac 0.49% Impervious Runoff Depth=0.26"
 Flow Length=128' Tc=8.0 min CN=61 Runoff=0.09 cfs 0.017 af

Subcatchment 410: WPost-29

Runoff Area=1.961 ac 2.56% Impervious Runoff Depth=0.23"
 Flow Length=113' Tc=10.7 min CN=60 Runoff=0.19 cfs 0.038 af

Subcatchment 420: WPost-30

Runoff Area=0.528 ac 0.00% Impervious Runoff Depth=0.41"
 Tc=6.0 min CN=66 Runoff=0.17 cfs 0.018 af

Subcatchment 430: WPost-31

Runoff Area=0.967 ac 2.99% Impervious Runoff Depth=0.41"
 Flow Length=344' Tc=11.3 min CN=66 Runoff=0.26 cfs 0.033 af

Subcatchment 440: WPost-32

Runoff Area=0.281 ac 0.00% Impervious Runoff Depth=0.26"
 Tc=6.0 min CN=61 Runoff=0.03 cfs 0.006 af

Link 450: DP-4 Northeastern Abutters

Inflow=0.66 cfs 0.112 af
 Primary=0.66 cfs 0.112 af

Subcatchment 500: WPost-35

Runoff Area=0.528 ac 6.25% Impervious Runoff Depth=0.31"
 Flow Length=280' Tc=8.9 min CN=63 Runoff=0.09 cfs 0.014 af

Subcatchment 501: WPost-33

Runoff Area=3.207 ac 19.15% Impervious Runoff Depth=0.48"
 Flow Length=453' Tc=11.4 min CN=68 Runoff=1.12 cfs 0.128 af

Subcatchment 502: WPost-34

Runoff Area=0.330 ac 0.00% Impervious Runoff Depth=0.26"
 Tc=0.0 min CN=61 Runoff=0.05 cfs 0.007 af

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Subcatchment 503: WPost-36 Building 1,2,3	Runoff Area=0.327 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.85 cfs 0.067 af
Subcatchment 504: WPost-37 Building 4,5,6	Runoff Area=0.291 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.76 cfs 0.060 af
Pond 505: UIS-G	Peak Elev=249.71' Storage=0.016 af Inflow=0.76 cfs 0.060 af Outflow=0.12 cfs 0.060 af
Subcatchment 506: WPost-38 Building 7	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.28 cfs 0.022 af
Pond 507: UIS-E	Peak Elev=230.69' Storage=0.006 af Inflow=0.28 cfs 0.022 af Outflow=0.05 cfs 0.022 af
Subcatchment 508: WPost-39 Building 8	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.28 cfs 0.022 af
Pond 509: UIS-F	Peak Elev=239.20' Storage=0.006 af Inflow=0.28 cfs 0.022 af Discarded=0.05 cfs 0.022 af Primary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.022 af
Subcatchment 510: WPost-40 Building 9	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.28 cfs 0.022 af
Pond 511: D4	Peak Elev=239.05' Inflow=0.28 cfs 0.022 af 8.00" Round Culvert n=0.012 L=145.0' S=0.0328 ' /' Outflow=0.28 cfs 0.022 af
Subcatchment 512: WPost-41 Building 10	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.28 cfs 0.022 af
Pond 513: D3	Peak Elev=234.45' Inflow=0.57 cfs 0.045 af 8.00" Round Culvert n=0.012 L=102.0' S=0.0311 ' /' Outflow=0.57 cfs 0.045 af
Pond 514: D3	Peak Elev=231.25' Inflow=0.57 cfs 0.045 af 8.00" Round Culvert n=0.012 L=46.0' S=0.1043 ' /' Outflow=0.57 cfs 0.045 af
Pond 515: Infiltration Pond D	Peak Elev=227.77' Storage=4,659 cf Inflow=2.22 cfs 0.247 af Discarded=0.18 cfs 0.247 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.18 cfs 0.247 af
Subcatchment 516: W-Post 42 - 69 driveways	Runoff Area=0.552 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=1.44 cfs 0.114 af
Pond 517: Permeable Pavement	Peak Elev=99.01' Storage=0.002 af Inflow=1.44 cfs 0.114 af Outflow=1.31 cfs 0.114 af
Link 518: DP-5 Tiogue Ave	Inflow=0.09 cfs 0.014 af Primary=0.09 cfs 0.014 af
Subcatchment 600: Subcat 600	Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.02 cfs 0.002 af

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Pond 600D: 100 Year Drywell 4' Deep Peak Elev=249.47' Storage=23 cf Inflow=0.02 cfs 0.002 af
Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af

Subcatchment 601: Subcat 601 Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.02 cfs 0.002 af

Pond 601D: 100 Year Drywell 4' Deep Peak Elev=249.47' Storage=23 cf Inflow=0.02 cfs 0.002 af
Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af

Subcatchment 602: Subcat 602 Runoff Area=0.073 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.015 af

Subcatchment 603: Subcat 603 Runoff Area=0.036 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af

Subcatchment 699: Subcat 699 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.05 cfs 0.004 af

Subcatchment 700: Subcat 700 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

Subcatchment 701: Subcat 701 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

Subcatchment 702: Subcat 702 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

Subcatchment 703: Subcat 703 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

Subcatchment 704: Subcat 704 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

Subcatchment 705: Subcat 705 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.05 cfs 0.004 af

Subcatchment 706: Subcat 706 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

Subcatchment 707: Subcat 707 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

Subcatchment 708: Subcat 708 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.05 cfs 0.004 af

Subcatchment 709: Subcat 709 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

Subcatchment 710: Subcat 710 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=2.47"
Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

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Subcatchment 711: Subcat 711	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af
Subcatchment 712: Subcat 712	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af
Subcatchment 713: Subcat 713	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.002 af
Pond 713D: 100 Year Drywell 4' Deep	Peak Elev=241.58' Storage=29 cf Inflow=0.03 cfs 0.002 af Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af
Subcatchment 714: Subcat 714	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.002 af
Pond 714D: 100 Year Drywell 4' Deep	Peak Elev=234.58' Storage=29 cf Inflow=0.03 cfs 0.002 af Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af
Subcatchment 715: Subcat 715	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.002 af
Pond 715D: 100 Year Drywell 4' Deep	Peak Elev=234.58' Storage=29 cf Inflow=0.03 cfs 0.002 af Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af
Subcatchment 716: Subcat 716	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.002 af
Pond 716D: 100 Year Drywell 4' Deep	Peak Elev=253.63' Storage=31 cf Inflow=0.03 cfs 0.002 af Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af
Subcatchment 717: Subcat 717	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.002 af
Pond 717D: 100 Year Drywell 4' Deep	Peak Elev=255.54' Storage=27 cf Inflow=0.03 cfs 0.002 af Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af
Subcatchment 718: Subcat 718	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.002 af
Pond 718D: 100 Year Drywell 4' Deep	Peak Elev=256.54' Storage=27 cf Inflow=0.03 cfs 0.002 af Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af
Subcatchment 719: Subcat 719	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.002 af
Pond 719D: 100 Year Drywell 4' Deep	Peak Elev=258.19' Storage=34 cf Inflow=0.03 cfs 0.002 af Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af
Subcatchment 720: Subcat 720	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=2.47" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.002 af

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Type III 24-hr 1-Year Rainfall=2.70"

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Pond 720D: 100 Year Drywell 4' Deep

Peak Elev=259.20' Storage=35 cf Inflow=0.03 cfs 0.002 af

Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af



A3.5.4.3 HydroCAD 2-Year Storm Analysis

0267-132-ALLS-EHCD

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Type III 24-hr 2-Year Rainfall=3.30"

Printed 12/10/2024

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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

Subcatchment 10: WPre-01	Runoff Area=2.294 ac 9.40% Impervious Runoff Depth=0.45" Flow Length=304' Tc=15.3 min CN=60 Runoff=0.56 cfs 0.086 af
Subcatchment 20: WPre-02	Runoff Area=1.937 ac 0.00% Impervious Runoff Depth=0.28" Flow Length=279' Tc=17.6 min CN=55 Runoff=0.21 cfs 0.045 af
Subcatchment 21: WPre-03	Runoff Area=3.181 ac 0.00% Impervious Runoff Depth=0.79" Flow Length=474' Tc=13.1 min CN=68 Runoff=2.01 cfs 0.209 af
Subcatchment 22: WPre-04	Runoff Area=1.347 ac 0.00% Impervious Runoff Depth=0.34" Flow Length=575' Tc=16.5 min CN=57 Runoff=0.21 cfs 0.039 af
Subcatchment 23: WPre-05	Runoff Area=3.870 ac 0.99% Impervious Runoff Depth=0.31" Flow Length=399' Tc=22.4 min CN=56 Runoff=0.47 cfs 0.101 af
Subcatchment 30: WPre-06	Runoff Area=3.567 ac 0.00% Impervious Runoff Depth=0.28" Flow Length=425' Tc=16.1 min CN=55 Runoff=0.39 cfs 0.084 af
Subcatchment 31: WPre-07	Runoff Area=4.363 ac 0.00% Impervious Runoff Depth=0.49" Flow Length=520' Tc=16.4 min CN=61 Runoff=1.21 cfs 0.177 af
Subcatchment 32: WPre-08	Runoff Area=1.230 ac 0.00% Impervious Runoff Depth=0.28" Flow Length=305' Tc=16.9 min CN=55 Runoff=0.13 cfs 0.029 af
Subcatchment 40: WPre-09	Runoff Area=1.515 ac 1.97% Impervious Runoff Depth=0.31" Flow Length=221' Tc=23.6 min CN=56 Runoff=0.18 cfs 0.039 af
Subcatchment 41: WPre-10	Runoff Area=2.528 ac 4.16% Impervious Runoff Depth=0.45" Flow Length=113' Tc=10.7 min CN=60 Runoff=0.69 cfs 0.094 af
Subcatchment 42: WPre-11	Runoff Area=0.528 ac 0.00% Impervious Runoff Depth=0.69" Tc=6.0 min CN=66 Runoff=0.36 cfs 0.031 af
Subcatchment 43: WPre-12	Runoff Area=0.966 ac 2.99% Impervious Runoff Depth=0.69" Flow Length=344' Tc=11.3 min CN=66 Runoff=0.54 cfs 0.056 af
Subcatchment 44: WPre-13	Runoff Area=1.345 ac 0.99% Impervious Runoff Depth=0.31" Flow Length=345' Tc=15.3 min CN=56 Runoff=0.18 cfs 0.035 af
Subcatchment 50: WPre-14	Runoff Area=4.043 ac 4.05% Impervious Runoff Depth=0.41" Flow Length=368' Tc=14.8 min CN=59 Runoff=0.87 cfs 0.139 af
Link 11: DP-1 Tiffany Road	Inflow=0.56 cfs 0.086 af Primary=0.56 cfs 0.086 af
Link 24: DP-2 Western Wetlands	Inflow=2.36 cfs 0.393 af Primary=2.36 cfs 0.393 af

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Link 33: DP-3 Eastern Abutters

Inflow=1.66 cfs 0.289 af

Primary=1.66 cfs 0.289 af

Link 45: DP-4 Northeastern Abutters

Inflow=1.59 cfs 0.255 af

Primary=1.59 cfs 0.255 af

Link 51: DP-5 Tiogue Ave

Inflow=0.87 cfs 0.139 af

Primary=0.87 cfs 0.139 af

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Type III 24-hr 2-Year Rainfall=3.30"

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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

Subcatchment 100: WPost-01	Runoff Area=0.973 ac 21.17% Impervious Runoff Depth=0.74" Flow Length=281' Tc=9.4 min CN=67 Runoff=0.63 cfs 0.060 af
Subcatchment 101: WPost-02	Runoff Area=1.051 ac 31.47% Impervious Runoff Depth=1.05" Flow Length=352' Tc=10.0 min CN=73 Runoff=1.06 cfs 0.092 af
Subcatchment 102: WPost-03	Runoff Area=0.144 ac 0.04% Impervious Runoff Depth=0.61" Tc=0.0 min CN=64 Runoff=0.09 cfs 0.007 af
Pond 103: WQ Infiltration Pond A	Peak Elev=244.04' Storage=2,067 cf Inflow=1.11 cfs 0.099 af Discarded=0.06 cfs 0.088 af Primary=0.07 cfs 0.011 af Secondary=0.00 cfs 0.000 af Outflow=0.13 cfs 0.099 af
Link 110: DP-1 Tiffany Road	Inflow=0.63 cfs 0.060 af Primary=0.63 cfs 0.060 af
Subcatchment 200: WPost-04	Runoff Area=0.718 ac 49.63% Impervious Runoff Depth=1.41" Flow Length=147' Tc=9.9 min CN=79 Runoff=1.03 cfs 0.084 af
Subcatchment 201: WPost-05	Runoff Area=0.280 ac 45.39% Impervious Runoff Depth=1.35" Flow Length=198' Tc=13.6 min CN=78 Runoff=0.34 cfs 0.031 af
Subcatchment 202: WPost-06	Runoff Area=0.883 ac 42.46% Impervious Runoff Depth=1.28" Flow Length=301' Tc=20.3 min CN=77 Runoff=0.87 cfs 0.094 af
Subcatchment 203: WPost-07	Runoff Area=0.600 ac 41.32% Impervious Runoff Depth=1.22" Flow Length=285' Tc=14.6 min CN=76 Runoff=0.63 cfs 0.061 af
Subcatchment 204: WPost-08	Runoff Area=0.107 ac 21.10% Impervious Runoff Depth=1.77" Flow Length=72' Slope=0.0690 '/' Tc=6.6 min CN=84 Runoff=0.22 cfs 0.016 af
Subcatchment 205: WPost-09	Runoff Area=0.086 ac 0.00% Impervious Runoff Depth=1.48" Tc=0.0 min CN=80 Runoff=0.18 cfs 0.011 af
Pond 206: Forebay B1	Peak Elev=240.82' Storage=7,581 cf Inflow=3.56 cfs 0.389 af Primary=1.12 cfs 0.182 af Secondary=1.11 cfs 0.206 af Outflow=2.10 cfs 0.388 af
Subcatchment 207: WPost-10	Runoff Area=0.313 ac 14.59% Impervious Runoff Depth=1.69" Tc=6.0 min CN=83 Runoff=0.62 cfs 0.044 af
Subcatchment 208: WPost-11	Runoff Area=0.109 ac 0.00% Impervious Runoff Depth=1.48" Tc=0.0 min CN=80 Runoff=0.23 cfs 0.013 af
Pond 209: WQ Infiltration Pond B	Peak Elev=240.84' Storage=10,158 cf Inflow=3.49 cfs 0.626 af Discarded=0.16 cfs 0.626 af Primary=0.00 cfs 0.000 af Outflow=0.16 cfs 0.626 af
Subcatchment 210: WPost-12	Runoff Area=0.692 ac 3.47% Impervious Runoff Depth=0.65" Flow Length=240' Tc=7.2 min CN=65 Runoff=0.40 cfs 0.037 af

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Subcatchment 211: WPost-13	Runoff Area=0.087 ac 0.00% Impervious Runoff Depth=1.16" Tc=0.0 min CN=75 Runoff=0.14 cfs 0.008 af
Subcatchment 212: WPost-14	Runoff Area=3.528 ac 47.31% Impervious Runoff Depth=1.55" Flow Length=289' Tc=10.5 min CN=81 Runoff=5.47 cfs 0.455 af
Subcatchment 213: WPost-15	Runoff Area=1.989 ac 53.22% Impervious Runoff Depth=1.55" Flow Length=197' Tc=9.1 min CN=81 Runoff=3.23 cfs 0.257 af
Subcatchment 214: WPost-16	Runoff Area=2.128 ac 64.12% Impervious Runoff Depth=1.84" Flow Length=299' Tc=10.3 min CN=85 Runoff=3.98 cfs 0.327 af
Pond 215: Forebay B2	Peak Elev=241.08' Storage=9,638 cf Inflow=13.10 cfs 1.085 af Primary=2.02 cfs 0.387 af Secondary=11.00 cfs 0.697 af Outflow=12.93 cfs 1.084 af
Subcatchment 216: WPost-17	Runoff Area=0.792 ac 0.00% Impervious Runoff Depth=0.34" Flow Length=267' Tc=9.6 min CN=57 Runoff=0.13 cfs 0.023 af
Subcatchment 217: WPost-18	Runoff Area=0.887 ac 0.00% Impervious Runoff Depth=0.94" Tc=0.0 min CN=71 Runoff=1.10 cfs 0.069 af
Pond 218: Infiltration Pond B	Peak Elev=239.49' Storage=22,729 cf Inflow=11.61 cfs 0.996 af Discarded=0.45 cfs 0.721 af Primary=0.59 cfs 0.275 af Secondary=0.00 cfs 0.000 af Outflow=1.04 cfs 0.996 af
Subcatchment 219: WPost-19	Runoff Area=0.685 ac 0.03% Impervious Runoff Depth=0.49" Flow Length=78' Slope=0.2050 '/' Tc=6.8 min CN=61 Runoff=0.25 cfs 0.028 af
Subcatchment 220: WPost-20	Runoff Area=0.551 ac 0.00% Impervious Runoff Depth=1.28" Flow Length=145' Tc=7.3 min CN=77 Runoff=0.77 cfs 0.059 af
Subcatchment 221: WPost-21	Runoff Area=0.212 ac 0.00% Impervious Runoff Depth=0.84" Tc=6.0 min CN=69 Runoff=0.18 cfs 0.015 af
Subcatchment 230: WPost-22	Runoff Area=1.646 ac 1.62% Impervious Runoff Depth=0.52" Flow Length=130' Tc=7.6 min CN=62 Runoff=0.67 cfs 0.072 af
Subcatchment 231: WPost-23	Runoff Area=0.053 ac 75.87% Impervious Runoff Depth=2.17" Tc=6.0 min CN=89 Runoff=0.13 cfs 0.010 af
Pond 232: Pipe Run B6-B9	Peak Elev=242.20' Inflow=1.27 cfs 0.118 af 24.00" Round Culvert n=0.012 L=207.0' S=0.0050 '/' Outflow=1.27 cfs 0.118 af
Pond 233: Pipe Run B9-B10	Peak Elev=241.28' Inflow=1.75 cfs 0.166 af 24.00" Round Culvert n=0.012 L=159.6' S=0.0050 '/' Outflow=1.75 cfs 0.166 af
Pond 234: Pipe Run B10-B13	Peak Elev=240.88' Inflow=1.87 cfs 0.178 af 24.00" Round Culvert n=0.012 L=144.3' S=0.0050 '/' Outflow=1.87 cfs 0.178 af
Pond 235: B13-B16	Peak Elev=240.86' Inflow=2.67 cfs 0.295 af 24.00" Round Culvert n=0.012 L=224.1' S=0.0050 '/' Outflow=2.67 cfs 0.295 af

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Pond 236: Pipe Run B16-B17FES

Peak Elev=240.83' Inflow=3.28 cfs 0.362 af
 30.00" Round Culvert n=0.012 L=86.1' S=0.0348 '/ Outflow=3.30 cfs 0.362 af

Link 240: DP-2 Western Wetlands

Inflow=1.97 cfs 0.458 af
 Primary=1.97 cfs 0.458 af

Subcatchment 300: WPost-24

Runoff Area=0.997 ac 0.00% Impervious Runoff Depth=0.49"
 Flow Length=144' Tc=9.9 min CN=61 Runoff=0.32 cfs 0.040 af

Subcatchment 310: WPost-25

Runoff Area=1.667 ac 0.00% Impervious Runoff Depth=0.61"
 Flow Length=405' Tc=10.7 min CN=64 Runoff=0.77 cfs 0.084 af

Subcatchment 320: WPost-26

Runoff Area=0.711 ac 7.01% Impervious Runoff Depth=0.61"
 Flow Length=142' Tc=10.6 min CN=64 Runoff=0.33 cfs 0.036 af

Link 330: DP-3 Eastern Abutters

Inflow=1.42 cfs 0.161 af
 Primary=1.42 cfs 0.161 af

Subcatchment 400: WPost-27

Runoff Area=0.176 ac 60.75% Impervious Runoff Depth=1.69"
 Tc=6.0 min CN=83 Runoff=0.35 cfs 0.025 af

Pond 401: UIS-C

Peak Elev=253.79' Storage=437 cf Inflow=0.70 cfs 0.053 af
 Discarded=0.18 cfs 0.053 af Primary=0.00 cfs 0.000 af Outflow=0.18 cfs 0.053 af

Subcatchment 402: WPost-28

Runoff Area=0.771 ac 0.49% Impervious Runoff Depth=0.49"
 Flow Length=128' Tc=8.0 min CN=61 Runoff=0.27 cfs 0.031 af

Subcatchment 410: WPost-29

Runoff Area=1.961 ac 2.56% Impervious Runoff Depth=0.45"
 Flow Length=113' Tc=10.7 min CN=60 Runoff=0.53 cfs 0.073 af

Subcatchment 420: WPost-30

Runoff Area=0.528 ac 0.00% Impervious Runoff Depth=0.69"
 Tc=6.0 min CN=66 Runoff=0.36 cfs 0.031 af

Subcatchment 430: WPost-31

Runoff Area=0.967 ac 2.99% Impervious Runoff Depth=0.69"
 Flow Length=344' Tc=11.3 min CN=66 Runoff=0.54 cfs 0.056 af

Subcatchment 440: WPost-32

Runoff Area=0.281 ac 0.00% Impervious Runoff Depth=0.49"
 Tc=6.0 min CN=61 Runoff=0.11 cfs 0.011 af

Link 450: DP-4 Northeastern Abutters

Inflow=1.69 cfs 0.202 af
 Primary=1.69 cfs 0.202 af

Subcatchment 500: WPost-35

Runoff Area=0.528 ac 6.25% Impervious Runoff Depth=0.56"
 Flow Length=280' Tc=8.9 min CN=63 Runoff=0.23 cfs 0.025 af

Subcatchment 501: WPost-33

Runoff Area=3.207 ac 19.15% Impervious Runoff Depth=0.79"
 Flow Length=453' Tc=11.4 min CN=68 Runoff=2.13 cfs 0.210 af

Subcatchment 502: WPost-34

Runoff Area=0.330 ac 0.00% Impervious Runoff Depth=0.49"
 Tc=0.0 min CN=61 Runoff=0.15 cfs 0.013 af

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Subcatchment 503: WPost-36 Building 1,2,3	Runoff Area=0.327 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=1.05 cfs 0.084 af
Subcatchment 504: WPost-37 Building 4,5,6	Runoff Area=0.291 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.93 cfs 0.074 af
Pond 505: UIS-G	Peak Elev=249.86' Storage=0.022 af Inflow=0.93 cfs 0.074 af Outflow=0.12 cfs 0.074 af
Subcatchment 506: WPost-38 Building 7	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.35 cfs 0.028 af
Pond 507: UIS-E	Peak Elev=230.85' Storage=0.008 af Inflow=0.35 cfs 0.028 af Outflow=0.05 cfs 0.028 af
Subcatchment 508: WPost-39 Building 8	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.35 cfs 0.028 af
Pond 509: UIS-F	Peak Elev=239.35' Storage=0.008 af Inflow=0.35 cfs 0.028 af Discarded=0.05 cfs 0.028 af Primary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.028 af
Subcatchment 510: WPost-40 Building 9	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.35 cfs 0.028 af
Pond 511: D4	Peak Elev=239.09' Inflow=0.35 cfs 0.028 af 8.00" Round Culvert n=0.012 L=145.0' S=0.0328 ' /' Outflow=0.35 cfs 0.028 af
Subcatchment 512: WPost-41 Building 10	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.35 cfs 0.028 af
Pond 513: D3	Peak Elev=234.51' Inflow=0.70 cfs 0.056 af 8.00" Round Culvert n=0.012 L=102.0' S=0.0311 ' /' Outflow=0.70 cfs 0.056 af
Pond 514: D3	Peak Elev=231.31' Inflow=0.70 cfs 0.056 af 8.00" Round Culvert n=0.012 L=46.0' S=0.1043 ' /' Outflow=0.70 cfs 0.056 af
Pond 515: Infiltration Pond D	Peak Elev=228.73' Storage=7,992 cf Inflow=3.53 cfs 0.363 af Discarded=0.21 cfs 0.363 af Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af Outflow=0.21 cfs 0.363 af
Subcatchment 516: W-Post 42 - 69 driveways	Runoff Area=0.552 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=1.77 cfs 0.141 af
Pond 517: Permeable Pavement	Peak Elev=99.03' Storage=0.005 af Inflow=1.77 cfs 0.141 af Outflow=1.31 cfs 0.141 af
Link 518: DP-5 Tiogue Ave	Inflow=0.23 cfs 0.025 af Primary=0.23 cfs 0.025 af
Subcatchment 600: Subcat 600	Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.002 af

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Pond 600D: 100 Year Drywell 4' Deep Peak Elev=249.64' Storage=31 cf Inflow=0.03 cfs 0.002 af
Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af

Subcatchment 601: Subcat 601 Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.03 cfs 0.002 af

Pond 601D: 100 Year Drywell 4' Deep Peak Elev=249.64' Storage=31 cf Inflow=0.03 cfs 0.002 af
Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af

Subcatchment 602: Subcat 602 Runoff Area=0.073 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.23 cfs 0.019 af

Subcatchment 603: Subcat 603 Runoff Area=0.036 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.12 cfs 0.009 af

Subcatchment 699: Subcat 699 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.07 cfs 0.005 af

Subcatchment 700: Subcat 700 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af

Subcatchment 701: Subcat 701 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af

Subcatchment 702: Subcat 702 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af

Subcatchment 703: Subcat 703 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af

Subcatchment 704: Subcat 704 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af

Subcatchment 705: Subcat 705 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.07 cfs 0.005 af

Subcatchment 706: Subcat 706 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af

Subcatchment 707: Subcat 707 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af

Subcatchment 708: Subcat 708 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.07 cfs 0.005 af

Subcatchment 709: Subcat 709 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af

Subcatchment 710: Subcat 710 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=3.07"
Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af

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Subcatchment 711: Subcat 711	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af
Subcatchment 712: Subcat 712	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af
Subcatchment 713: Subcat 713	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.003 af
Pond 713D: 100 Year Drywell 4' Deep	Peak Elev=241.78' Storage=39 cf Inflow=0.03 cfs 0.003 af Discarded=0.00 cfs 0.003 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.003 af
Subcatchment 714: Subcat 714	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.003 af
Pond 714D: 100 Year Drywell 4' Deep	Peak Elev=234.78' Storage=39 cf Inflow=0.03 cfs 0.003 af Discarded=0.00 cfs 0.003 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.003 af
Subcatchment 715: Subcat 715	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.003 af
Pond 715D: 100 Year Drywell 4' Deep	Peak Elev=234.78' Storage=39 cf Inflow=0.03 cfs 0.003 af Discarded=0.00 cfs 0.003 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.003 af
Subcatchment 716: Subcat 716	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.04 cfs 0.003 af
Pond 716D: 100 Year Drywell 4' Deep	Peak Elev=253.85' Storage=42 cf Inflow=0.04 cfs 0.003 af Discarded=0.00 cfs 0.003 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.003 af
Subcatchment 717: Subcat 717	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.003 af
Pond 717D: 100 Year Drywell 4' Deep	Peak Elev=255.73' Storage=36 cf Inflow=0.03 cfs 0.003 af Discarded=0.00 cfs 0.003 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.003 af
Subcatchment 718: Subcat 718	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.03 cfs 0.003 af
Pond 718D: 100 Year Drywell 4' Deep	Peak Elev=256.73' Storage=36 cf Inflow=0.03 cfs 0.003 af Discarded=0.00 cfs 0.003 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.003 af
Subcatchment 719: Subcat 719	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.04 cfs 0.003 af
Pond 719D: 100 Year Drywell 4' Deep	Peak Elev=258.42' Storage=46 cf Inflow=0.04 cfs 0.003 af Discarded=0.00 cfs 0.003 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.003 af
Subcatchment 720: Subcat 720	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=3.07" Tc=6.0 min CN=98 Runoff=0.04 cfs 0.003 af

0267-132-ALLS-PHCD

Type III 24-hr 2-Year Rainfall=3.30"

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Pond 720D: 100 Year Drywell 4' Deep

Peak Elev=259.44' Storage=47 cf Inflow=0.04 cfs 0.003 af

Discarded=0.00 cfs 0.003 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.003 af



A3.5.4.4 HydroCAD 10-Year Storm Analysis

0267-132-ALLS-EHCD

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Type III 24-hr 10-Year Rainfall=4.80"

Printed 12/10/2024

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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

Subcatchment 10: WPre-01	Runoff Area=2.294 ac 9.40% Impervious Runoff Depth=1.19" Flow Length=304' Tc=15.3 min CN=60 Runoff=2.08 cfs 0.227 af
Subcatchment 20: WPre-02	Runoff Area=1.937 ac 0.00% Impervious Runoff Depth=0.88" Flow Length=279' Tc=17.6 min CN=55 Runoff=1.09 cfs 0.142 af
Subcatchment 21: WPre-03	Runoff Area=3.181 ac 0.00% Impervious Runoff Depth=1.74" Flow Length=474' Tc=13.1 min CN=68 Runoff=4.96 cfs 0.461 af
Subcatchment 22: WPre-04	Runoff Area=1.347 ac 0.00% Impervious Runoff Depth=1.00" Flow Length=575' Tc=16.5 min CN=57 Runoff=0.94 cfs 0.112 af
Subcatchment 23: WPre-05	Runoff Area=3.870 ac 0.99% Impervious Runoff Depth=0.94" Flow Length=399' Tc=22.4 min CN=56 Runoff=2.20 cfs 0.303 af
Subcatchment 30: WPre-06	Runoff Area=3.567 ac 0.00% Impervious Runoff Depth=0.88" Flow Length=425' Tc=16.1 min CN=55 Runoff=2.07 cfs 0.262 af
Subcatchment 31: WPre-07	Runoff Area=4.363 ac 0.00% Impervious Runoff Depth=1.25" Flow Length=520' Tc=16.4 min CN=61 Runoff=4.15 cfs 0.455 af
Subcatchment 32: WPre-08	Runoff Area=1.230 ac 0.00% Impervious Runoff Depth=0.88" Flow Length=305' Tc=16.9 min CN=55 Runoff=0.70 cfs 0.090 af
Subcatchment 40: WPre-09	Runoff Area=1.515 ac 1.97% Impervious Runoff Depth=0.94" Flow Length=221' Tc=23.6 min CN=56 Runoff=0.84 cfs 0.119 af
Subcatchment 41: WPre-10	Runoff Area=2.528 ac 4.16% Impervious Runoff Depth=1.19" Flow Length=113' Tc=10.7 min CN=60 Runoff=2.62 cfs 0.250 af
Subcatchment 42: WPre-11	Runoff Area=0.528 ac 0.00% Impervious Runoff Depth=1.59" Tc=6.0 min CN=66 Runoff=0.94 cfs 0.070 af
Subcatchment 43: WPre-12	Runoff Area=0.966 ac 2.99% Impervious Runoff Depth=1.59" Flow Length=344' Tc=11.3 min CN=66 Runoff=1.43 cfs 0.128 af
Subcatchment 44: WPre-13	Runoff Area=1.345 ac 0.99% Impervious Runoff Depth=0.94" Flow Length=345' Tc=15.3 min CN=56 Runoff=0.88 cfs 0.105 af
Subcatchment 50: WPre-14	Runoff Area=4.043 ac 4.05% Impervious Runoff Depth=1.12" Flow Length=368' Tc=14.8 min CN=59 Runoff=3.45 cfs 0.378 af
Link 11: DP-1 Tiffany Road	Inflow=2.08 cfs 0.227 af Primary=2.08 cfs 0.227 af
Link 24: DP-2 Western Wetlands	Inflow=8.34 cfs 1.019 af Primary=8.34 cfs 1.019 af

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Type III 24-hr 10-Year Rainfall=4.80"

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Link 33: DP-3 Eastern Abutters

Inflow=6.91 cfs 0.807 af

Primary=6.91 cfs 0.807 af

Link 45: DP-4 Northeastern Abutters

Inflow=5.89 cfs 0.672 af

Primary=5.89 cfs 0.672 af

Link 51: DP-5 Tiogue Ave

Inflow=3.45 cfs 0.378 af

Primary=3.45 cfs 0.378 af

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Type III 24-hr 10-Year Rainfall=4.80"

Printed 9/5/2025

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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

Subcatchment 100: WPost-01	Runoff Area=0.973 ac 21.17% Impervious Runoff Depth=1.67" Flow Length=281' Tc=9.4 min CN=67 Runoff=1.62 cfs 0.135 af
Subcatchment 101: WPost-02	Runoff Area=1.051 ac 31.47% Impervious Runoff Depth=2.12" Flow Length=352' Tc=10.0 min CN=73 Runoff=2.26 cfs 0.186 af
Subcatchment 102: WPost-03	Runoff Area=0.144 ac 0.04% Impervious Runoff Depth=1.45" Tc=0.0 min CN=64 Runoff=0.28 cfs 0.017 af
Pond 103: WQ Infiltration Pond A	Peak Elev=244.32' Storage=2,509 cf Inflow=2.39 cfs 0.204 af Discarded=0.06 cfs 0.103 af Primary=1.36 cfs 0.100 af Secondary=0.00 cfs 0.000 af Outflow=1.42 cfs 0.204 af
Link 110: DP-1 Tiffany Road	Inflow=1.62 cfs 0.135 af Primary=1.62 cfs 0.135 af
Subcatchment 200: WPost-04	Runoff Area=0.718 ac 49.63% Impervious Runoff Depth=2.63" Flow Length=147' Tc=9.9 min CN=79 Runoff=1.94 cfs 0.157 af
Subcatchment 201: WPost-05	Runoff Area=0.280 ac 45.39% Impervious Runoff Depth=2.54" Flow Length=198' Tc=13.6 min CN=78 Runoff=0.65 cfs 0.059 af
Subcatchment 202: WPost-06	Runoff Area=0.883 ac 42.46% Impervious Runoff Depth=2.46" Flow Length=301' Tc=20.3 min CN=77 Runoff=1.70 cfs 0.181 af
Subcatchment 203: WPost-07	Runoff Area=0.600 ac 41.32% Impervious Runoff Depth=2.37" Flow Length=285' Tc=14.6 min CN=76 Runoff=1.27 cfs 0.119 af
Subcatchment 204: WPost-08	Runoff Area=0.107 ac 21.10% Impervious Runoff Depth=3.09" Flow Length=72' Slope=0.0690 '/' Tc=6.6 min CN=84 Runoff=0.38 cfs 0.028 af
Subcatchment 205: WPost-09	Runoff Area=0.086 ac 0.00% Impervious Runoff Depth=2.72" Tc=0.0 min CN=80 Runoff=0.34 cfs 0.020 af
Pond 206: Forebay B1	Peak Elev=240.99' Storage=7,941 cf Inflow=7.34 cfs 0.783 af Primary=1.01 cfs 0.156 af Secondary=6.83 cfs 0.627 af Outflow=7.23 cfs 0.782 af
Subcatchment 207: WPost-10	Runoff Area=0.313 ac 14.59% Impervious Runoff Depth=2.99" Tc=6.0 min CN=83 Runoff=1.09 cfs 0.078 af
Subcatchment 208: WPost-11	Runoff Area=0.109 ac 0.00% Impervious Runoff Depth=2.72" Tc=0.0 min CN=80 Runoff=0.43 cfs 0.025 af
Pond 209: WQ Infiltration Pond B	Peak Elev=241.11' Storage=11,321 cf Inflow=3.62 cfs 0.644 af Discarded=0.17 cfs 0.644 af Primary=0.00 cfs 0.000 af Outflow=0.17 cfs 0.644 af
Subcatchment 210: WPost-12	Runoff Area=0.692 ac 3.47% Impervious Runoff Depth=1.52" Flow Length=240' Tc=7.2 min CN=65 Runoff=1.11 cfs 0.088 af

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Subcatchment 211: WPost-13	Runoff Area=0.087 ac 0.00% Impervious Runoff Depth=2.29" Tc=0.0 min CN=75 Runoff=0.28 cfs 0.017 af
Subcatchment 212: WPost-14	Runoff Area=3.528 ac 47.31% Impervious Runoff Depth=2.81" Flow Length=289' Tc=10.5 min CN=81 Runoff=9.99 cfs 0.826 af
Subcatchment 213: WPost-15	Runoff Area=1.989 ac 53.22% Impervious Runoff Depth=2.81" Flow Length=197' Tc=9.1 min CN=81 Runoff=5.89 cfs 0.466 af
Subcatchment 214: WPost-16	Runoff Area=2.128 ac 64.12% Impervious Runoff Depth=3.18" Flow Length=299' Tc=10.3 min CN=85 Runoff=6.83 cfs 0.565 af
Pond 215: Forebay B2	Peak Elev=241.27' Storage=10,110 cf Inflow=23.84 cfs 1.961 af Primary=1.60 cfs 0.386 af Secondary=22.56 cfs 1.574 af Outflow=23.70 cfs 1.960 af
Subcatchment 216: WPost-17	Runoff Area=0.792 ac 0.00% Impervious Runoff Depth=1.00" Flow Length=267' Tc=9.6 min CN=57 Runoff=0.67 cfs 0.066 af
Subcatchment 217: WPost-18	Runoff Area=0.887 ac 0.00% Impervious Runoff Depth=1.97" Tc=0.0 min CN=71 Runoff=2.46 cfs 0.145 af
Pond 218: Infiltration Pond B	Peak Elev=240.51' Storage=46,082 cf Inflow=29.97 cfs 2.412 af Discarded=0.59 cfs 0.890 af Primary=4.33 cfs 1.522 af Secondary=0.00 cfs 0.000 af Outflow=4.92 cfs 2.412 af
Subcatchment 219: WPost-19	Runoff Area=0.685 ac 0.03% Impervious Runoff Depth=1.25" Flow Length=78' Slope=0.2050 '/' Tc=6.8 min CN=61 Runoff=0.87 cfs 0.071 af
Subcatchment 220: WPost-20	Runoff Area=0.551 ac 0.00% Impervious Runoff Depth=2.46" Flow Length=145' Tc=7.3 min CN=77 Runoff=1.52 cfs 0.113 af
Subcatchment 221: WPost-21	Runoff Area=0.212 ac 0.00% Impervious Runoff Depth=1.81" Tc=6.0 min CN=69 Runoff=0.44 cfs 0.032 af
Subcatchment 230: WPost-22	Runoff Area=1.646 ac 1.62% Impervious Runoff Depth=1.32" Flow Length=130' Tc=7.6 min CN=62 Runoff=2.18 cfs 0.181 af
Subcatchment 231: WPost-23	Runoff Area=0.053 ac 75.87% Impervious Runoff Depth=3.58" Tc=6.0 min CN=89 Runoff=0.21 cfs 0.016 af
Pond 232: Pipe Run B6-B9	Peak Elev=242.57' Inflow=2.98 cfs 0.292 af 24.00" Round Culvert n=0.012 L=207.0' S=0.0050 '/' Outflow=2.98 cfs 0.292 af
Pond 233: Pipe Run B9-B10	Peak Elev=241.84' Inflow=3.77 cfs 0.376 af 24.00" Round Culvert n=0.012 L=159.6' S=0.0050 '/' Outflow=3.77 cfs 0.376 af
Pond 234: Pipe Run B10-B13	Peak Elev=241.46' Inflow=3.88 cfs 0.394 af 24.00" Round Culvert n=0.012 L=144.3' S=0.0050 '/' Outflow=3.88 cfs 0.394 af
Pond 235: B13-B16	Peak Elev=241.30' Inflow=5.69 cfs 0.608 af 24.00" Round Culvert n=0.012 L=224.1' S=0.0050 '/' Outflow=5.69 cfs 0.608 af

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Pond 236: Pipe Run B16-B17FES

Peak Elev=241.08' Inflow=7.01 cfs 0.736 af
 30.00" Round Culvert n=0.012 L=86.1' S=0.0348 ' / Outflow=6.99 cfs 0.736 af

Link 240: DP-2 Western Wetlands

Inflow=5.19 cfs 1.935 af
 Primary=5.19 cfs 1.935 af

Subcatchment 300: WPost-24

Runoff Area=0.997 ac 0.00% Impervious Runoff Depth=1.25"
 Flow Length=144' Tc=9.9 min CN=61 Runoff=1.14 cfs 0.104 af

Subcatchment 310: WPost-25

Runoff Area=1.667 ac 0.00% Impervious Runoff Depth=1.45"
 Flow Length=405' Tc=10.7 min CN=64 Runoff=2.25 cfs 0.202 af

Subcatchment 320: WPost-26

Runoff Area=0.711 ac 7.01% Impervious Runoff Depth=1.45"
 Flow Length=142' Tc=10.6 min CN=64 Runoff=0.96 cfs 0.086 af

Link 330: DP-3 Eastern Abutters

Inflow=4.35 cfs 0.392 af
 Primary=4.35 cfs 0.392 af

Subcatchment 400: WPost-27

Runoff Area=0.176 ac 60.75% Impervious Runoff Depth=2.99"
 Tc=6.0 min CN=83 Runoff=0.62 cfs 0.044 af

Pond 401: UIS-C

Peak Elev=254.11' Storage=1,020 cf Inflow=1.13 cfs 0.085 af
 Discarded=0.18 cfs 0.085 af Primary=0.00 cfs 0.000 af Outflow=0.18 cfs 0.085 af

Subcatchment 402: WPost-28

Runoff Area=0.771 ac 0.49% Impervious Runoff Depth=1.25"
 Flow Length=128' Tc=8.0 min CN=61 Runoff=0.94 cfs 0.080 af

Subcatchment 410: WPost-29

Runoff Area=1.961 ac 2.56% Impervious Runoff Depth=1.19"
 Flow Length=113' Tc=10.7 min CN=60 Runoff=2.03 cfs 0.194 af

Subcatchment 420: WPost-30

Runoff Area=0.528 ac 0.00% Impervious Runoff Depth=1.59"
 Tc=6.0 min CN=66 Runoff=0.94 cfs 0.070 af

Subcatchment 430: WPost-31

Runoff Area=0.967 ac 2.99% Impervious Runoff Depth=1.59"
 Flow Length=344' Tc=11.3 min CN=66 Runoff=1.43 cfs 0.128 af

Subcatchment 440: WPost-32

Runoff Area=0.281 ac 0.00% Impervious Runoff Depth=1.25"
 Tc=6.0 min CN=61 Runoff=0.37 cfs 0.029 af

Link 450: DP-4 Northeastern Abutters

Inflow=5.46 cfs 0.502 af
 Primary=5.46 cfs 0.502 af

Subcatchment 500: WPost-35

Runoff Area=0.528 ac 6.25% Impervious Runoff Depth=1.38"
 Flow Length=280' Tc=8.9 min CN=63 Runoff=0.71 cfs 0.061 af

Subcatchment 501: WPost-33

Runoff Area=3.207 ac 19.15% Impervious Runoff Depth=1.74"
 Flow Length=453' Tc=11.4 min CN=68 Runoff=5.26 cfs 0.465 af

Subcatchment 502: WPost-34

Runoff Area=0.330 ac 0.00% Impervious Runoff Depth=1.25"
 Tc=0.0 min CN=61 Runoff=0.53 cfs 0.034 af

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Subcatchment 503: WPost-36 Building 1,2,3	Runoff Area=0.327 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=1.53 cfs 0.124 af
Subcatchment 504: WPost-37 Building 4,5,6	Runoff Area=0.291 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=1.37 cfs 0.111 af
Pond 505: UIS-G	Peak Elev=250.29' Storage=0.039 af Inflow=1.37 cfs 0.111 af Outflow=0.12 cfs 0.111 af
Subcatchment 506: WPost-38 Building 7	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.51 cfs 0.041 af
Pond 507: UIS-E	Peak Elev=231.28' Storage=0.014 af Inflow=0.51 cfs 0.041 af Outflow=0.05 cfs 0.041 af
Subcatchment 508: WPost-39 Building 8	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.51 cfs 0.041 af
Pond 509: UIS-F	Peak Elev=239.78' Storage=0.014 af Inflow=0.51 cfs 0.041 af Discarded=0.05 cfs 0.041 af Primary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.041 af
Subcatchment 510: WPost-40 Building 9	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.51 cfs 0.041 af
Pond 511: D4	Peak Elev=239.17' Inflow=0.51 cfs 0.041 af 8.00" Round Culvert n=0.012 L=145.0' S=0.0328 ' /' Outflow=0.51 cfs 0.041 af
Subcatchment 512: WPost-41 Building 10	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.51 cfs 0.041 af
Pond 513: D3	Peak Elev=234.70' Inflow=1.02 cfs 0.083 af 8.00" Round Culvert n=0.012 L=102.0' S=0.0311 ' /' Outflow=1.02 cfs 0.083 af
Pond 514: D3	Peak Elev=231.50' Inflow=1.02 cfs 0.083 af 8.00" Round Culvert n=0.012 L=46.0' S=0.1043 ' /' Outflow=1.02 cfs 0.083 af
Pond 515: Infiltration Pond D	Peak Elev=230.06' Storage=13,686 cf Inflow=7.44 cfs 0.706 af Discarded=0.26 cfs 0.541 af Primary=0.87 cfs 0.166 af Secondary=0.00 cfs 0.000 af Outflow=1.14 cfs 0.706 af
Subcatchment 516: W-Post 42 - 69 driveways	Runoff Area=0.552 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=2.59 cfs 0.210 af
Pond 517: Permeable Pavement	Peak Elev=99.09' Storage=0.016 af Inflow=2.59 cfs 0.210 af Outflow=1.31 cfs 0.210 af
Link 518: DP-5 Tiogue Ave	Inflow=0.99 cfs 0.227 af Primary=0.99 cfs 0.227 af
Subcatchment 600: Subcat 600	Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.04 cfs 0.003 af

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Type III 24-hr 10-Year Rainfall=4.80"

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Pond 600D: 100 Year Drywell 4' Deep Peak Elev=250.10' Storage=54 cf Inflow=0.04 cfs 0.003 af
Discarded=0.00 cfs 0.003 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.003 af

Subcatchment 601: Subcat 601 Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.04 cfs 0.003 af

Pond 601D: 100 Year Drywell 4' Deep Peak Elev=250.10' Storage=54 cf Inflow=0.04 cfs 0.003 af
Discarded=0.00 cfs 0.003 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.003 af

Subcatchment 602: Subcat 602 Runoff Area=0.073 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.34 cfs 0.028 af

Subcatchment 603: Subcat 603 Runoff Area=0.036 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.17 cfs 0.014 af

Subcatchment 699: Subcat 699 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.10 cfs 0.008 af

Subcatchment 700: Subcat 700 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.11 cfs 0.009 af

Subcatchment 701: Subcat 701 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.11 cfs 0.009 af

Subcatchment 702: Subcat 702 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.11 cfs 0.009 af

Subcatchment 703: Subcat 703 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.11 cfs 0.009 af

Subcatchment 704: Subcat 704 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.11 cfs 0.009 af

Subcatchment 705: Subcat 705 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.10 cfs 0.008 af

Subcatchment 706: Subcat 706 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.11 cfs 0.009 af

Subcatchment 707: Subcat 707 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.11 cfs 0.009 af

Subcatchment 708: Subcat 708 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.10 cfs 0.008 af

Subcatchment 709: Subcat 709 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.11 cfs 0.009 af

Subcatchment 710: Subcat 710 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=4.56"
Tc=6.0 min CN=98 Runoff=0.11 cfs 0.009 af

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Subcatchment 711: Subcat 711	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.11 cfs 0.009 af
Subcatchment 712: Subcat 712	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.11 cfs 0.009 af
Subcatchment 713: Subcat 713	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.05 cfs 0.004 af
Pond 713D: 100 Year Drywell 4' Deep	Peak Elev=242.34' Storage=66 cf Inflow=0.05 cfs 0.004 af Discarded=0.00 cfs 0.004 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.004 af
Subcatchment 714: Subcat 714	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.05 cfs 0.004 af
Pond 714D: 100 Year Drywell 4' Deep	Peak Elev=235.34' Storage=66 cf Inflow=0.05 cfs 0.004 af Discarded=0.00 cfs 0.004 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.004 af
Subcatchment 715: Subcat 715	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.05 cfs 0.004 af
Pond 715D: 100 Year Drywell 4' Deep	Peak Elev=235.34' Storage=66 cf Inflow=0.05 cfs 0.004 af Discarded=0.00 cfs 0.004 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.004 af
Subcatchment 716: Subcat 716	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.05 cfs 0.004 af
Pond 716D: 100 Year Drywell 4' Deep	Peak Elev=254.47' Storage=73 cf Inflow=0.05 cfs 0.004 af Discarded=0.00 cfs 0.004 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.004 af
Subcatchment 717: Subcat 717	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.05 cfs 0.004 af
Pond 717D: 100 Year Drywell 4' Deep	Peak Elev=256.26' Storage=62 cf Inflow=0.05 cfs 0.004 af Discarded=0.00 cfs 0.004 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.004 af
Subcatchment 718: Subcat 718	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.05 cfs 0.004 af
Pond 718D: 100 Year Drywell 4' Deep	Peak Elev=257.26' Storage=62 cf Inflow=0.05 cfs 0.004 af Discarded=0.00 cfs 0.004 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.004 af
Subcatchment 719: Subcat 719	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af
Pond 719D: 100 Year Drywell 4' Deep	Peak Elev=259.10' Storage=79 cf Inflow=0.06 cfs 0.005 af Discarded=0.00 cfs 0.005 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.005 af
Subcatchment 720: Subcat 720	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=4.56" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

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Type III 24-hr 10-Year Rainfall=4.80"

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Pond 720D: 100 Year Drywell 4' Deep

Peak Elev=260.13' Storage=81 cf Inflow=0.06 cfs 0.005 af

Discarded=0.00 cfs 0.005 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.005 af



A3.5.4.5 HydroCAD 25-Year Storm Analysis

0267-132-ALLS-EHCD

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Type III 24-hr 25-Year Rainfall=6.20"

Printed 12/10/2024

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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

Subcatchment 10: WPre-01	Runoff Area=2.294 ac 9.40% Impervious Runoff Depth=2.05" Flow Length=304' Tc=15.3 min CN=60 Runoff=3.92 cfs 0.393 af
Subcatchment 20: WPre-02	Runoff Area=1.937 ac 0.00% Impervious Runoff Depth=1.63" Flow Length=279' Tc=17.6 min CN=55 Runoff=2.35 cfs 0.264 af
Subcatchment 21: WPre-03	Runoff Area=3.181 ac 0.00% Impervious Runoff Depth=2.78" Flow Length=474' Tc=13.1 min CN=68 Runoff=8.15 cfs 0.736 af
Subcatchment 22: WPre-04	Runoff Area=1.347 ac 0.00% Impervious Runoff Depth=1.80" Flow Length=575' Tc=16.5 min CN=57 Runoff=1.89 cfs 0.202 af
Subcatchment 23: WPre-05	Runoff Area=3.870 ac 0.99% Impervious Runoff Depth=1.72" Flow Length=399' Tc=22.4 min CN=56 Runoff=4.54 cfs 0.553 af
Subcatchment 30: WPre-06	Runoff Area=3.567 ac 0.00% Impervious Runoff Depth=1.63" Flow Length=425' Tc=16.1 min CN=55 Runoff=4.48 cfs 0.486 af
Subcatchment 31: WPre-07	Runoff Area=4.363 ac 0.00% Impervious Runoff Depth=2.14" Flow Length=520' Tc=16.4 min CN=61 Runoff=7.61 cfs 0.778 af
Subcatchment 32: WPre-08	Runoff Area=1.230 ac 0.00% Impervious Runoff Depth=1.63" Flow Length=305' Tc=16.9 min CN=55 Runoff=1.52 cfs 0.168 af
Subcatchment 40: WPre-09	Runoff Area=1.515 ac 1.97% Impervious Runoff Depth=1.72" Flow Length=221' Tc=23.6 min CN=56 Runoff=1.74 cfs 0.217 af
Subcatchment 41: WPre-10	Runoff Area=2.528 ac 4.16% Impervious Runoff Depth=2.05" Flow Length=113' Tc=10.7 min CN=60 Runoff=4.92 cfs 0.433 af
Subcatchment 42: WPre-11	Runoff Area=0.528 ac 0.00% Impervious Runoff Depth=2.59" Tc=6.0 min CN=66 Runoff=1.58 cfs 0.114 af
Subcatchment 43: WPre-12	Runoff Area=0.966 ac 2.99% Impervious Runoff Depth=2.59" Flow Length=344' Tc=11.3 min CN=66 Runoff=2.42 cfs 0.209 af
Subcatchment 44: WPre-13	Runoff Area=1.345 ac 0.99% Impervious Runoff Depth=1.72" Flow Length=345' Tc=15.3 min CN=56 Runoff=1.83 cfs 0.192 af
Subcatchment 50: WPre-14	Runoff Area=4.043 ac 4.05% Impervious Runoff Depth=1.97" Flow Length=368' Tc=14.8 min CN=59 Runoff=6.64 cfs 0.663 af
Link 11: DP-1 Tiffany Road	Inflow=3.92 cfs 0.393 af Primary=3.92 cfs 0.393 af
Link 24: DP-2 Western Wetlands	Inflow=15.70 cfs 1.755 af Primary=15.70 cfs 1.755 af

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Type III 24-hr 25-Year Rainfall=6.20"

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Link 33: DP-3 Eastern Abutters

Inflow=13.59 cfs 1.431 af

Primary=13.59 cfs 1.431 af

Link 45: DP-4 Northeastern Abutters

Inflow=11.15 cfs 1.164 af

Primary=11.15 cfs 1.164 af

Link 51: DP-5 Tiogue Ave

Inflow=6.64 cfs 0.663 af

Primary=6.64 cfs 0.663 af

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Type III 24-hr 25-Year Rainfall=6.20"

Printed 9/5/2025

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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

Subcatchment 100: WPost-01	Runoff Area=0.973 ac 21.17% Impervious Runoff Depth=2.68" Flow Length=281' Tc=9.4 min CN=67 Runoff=2.69 cfs 0.217 af
Subcatchment 101: WPost-02	Runoff Area=1.051 ac 31.47% Impervious Runoff Depth=3.26" Flow Length=352' Tc=10.0 min CN=73 Runoff=3.50 cfs 0.285 af
Subcatchment 102: WPost-03	Runoff Area=0.144 ac 0.04% Impervious Runoff Depth=2.41" Tc=0.0 min CN=64 Runoff=0.49 cfs 0.029 af
Pond 103: WQ Infiltration Pond A	Peak Elev=244.84' Storage=3,446 cf Inflow=3.71 cfs 0.314 af Discarded=0.07 cfs 0.109 af Primary=2.21 cfs 0.205 af Secondary=0.00 cfs 0.000 af Outflow=2.28 cfs 0.314 af
Link 110: DP-1 Tiffany Road	Inflow=2.69 cfs 0.217 af Primary=2.69 cfs 0.217 af
Subcatchment 200: WPost-04	Runoff Area=0.718 ac 49.63% Impervious Runoff Depth=3.86" Flow Length=147' Tc=9.9 min CN=79 Runoff=2.84 cfs 0.231 af
Subcatchment 201: WPost-05	Runoff Area=0.280 ac 45.39% Impervious Runoff Depth=3.76" Flow Length=198' Tc=13.6 min CN=78 Runoff=0.97 cfs 0.087 af
Subcatchment 202: WPost-06	Runoff Area=0.883 ac 42.46% Impervious Runoff Depth=3.65" Flow Length=301' Tc=20.3 min CN=77 Runoff=2.53 cfs 0.269 af
Subcatchment 203: WPost-07	Runoff Area=0.600 ac 41.32% Impervious Runoff Depth=3.55" Flow Length=285' Tc=14.6 min CN=76 Runoff=1.91 cfs 0.178 af
Subcatchment 204: WPost-08	Runoff Area=0.107 ac 21.10% Impervious Runoff Depth=4.38" Flow Length=72' Slope=0.0690 '/' Tc=6.6 min CN=84 Runoff=0.53 cfs 0.039 af
Subcatchment 205: WPost-09	Runoff Area=0.086 ac 0.00% Impervious Runoff Depth=3.96" Tc=0.0 min CN=80 Runoff=0.49 cfs 0.028 af
Pond 206: Forebay B1	Peak Elev=241.34' Storage=8,702 cf Inflow=11.43 cfs 1.193 af Primary=0.57 cfs 0.144 af Secondary=11.41 cfs 1.048 af Outflow=11.41 cfs 1.193 af
Subcatchment 207: WPost-10	Runoff Area=0.313 ac 14.59% Impervious Runoff Depth=4.28" Tc=6.0 min CN=83 Runoff=1.55 cfs 0.112 af
Subcatchment 208: WPost-11	Runoff Area=0.109 ac 0.00% Impervious Runoff Depth=3.96" Tc=0.0 min CN=80 Runoff=0.62 cfs 0.036 af
Pond 209: WQ Infiltration Pond B	Peak Elev=241.51' Storage=13,197 cf Inflow=2.55 cfs 0.666 af Discarded=0.18 cfs 0.666 af Primary=0.00 cfs 0.000 af Outflow=0.18 cfs 0.666 af
Subcatchment 210: WPost-12	Runoff Area=0.692 ac 3.47% Impervious Runoff Depth=2.50" Flow Length=240' Tc=7.2 min CN=65 Runoff=1.90 cfs 0.144 af

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Subcatchment 211: WPost-13	Runoff Area=0.087 ac 0.00% Impervious Runoff Depth=3.45" Tc=0.0 min CN=75 Runoff=0.43 cfs 0.025 af
Subcatchment 212: WPost-14	Runoff Area=3.528 ac 47.31% Impervious Runoff Depth=4.07" Flow Length=289' Tc=10.5 min CN=81 Runoff=14.38 cfs 1.196 af
Subcatchment 213: WPost-15	Runoff Area=1.989 ac 53.22% Impervious Runoff Depth=4.07" Flow Length=197' Tc=9.1 min CN=81 Runoff=8.47 cfs 0.674 af
Subcatchment 214: WPost-16	Runoff Area=2.128 ac 64.12% Impervious Runoff Depth=4.49" Flow Length=299' Tc=10.3 min CN=85 Runoff=9.53 cfs 0.797 af
Pond 215: Forebay B2	Peak Elev=241.41' Storage=10,469 cf Inflow=34.28 cfs 2.835 af Primary=1.25 cfs 0.374 af Secondary=33.57 cfs 2.461 af Outflow=34.15 cfs 2.835 af
Subcatchment 216: WPost-17	Runoff Area=0.792 ac 0.00% Impervious Runoff Depth=1.80" Flow Length=267' Tc=9.6 min CN=57 Runoff=1.36 cfs 0.119 af
Subcatchment 217: WPost-18	Runoff Area=0.887 ac 0.00% Impervious Runoff Depth=3.06" Tc=0.0 min CN=71 Runoff=3.89 cfs 0.226 af
Pond 218: Infiltration Pond B	Peak Elev=241.34' Storage=68,759 cf Inflow=47.74 cfs 3.854 af Discarded=0.67 cfs 0.979 af Primary=10.67 cfs 2.875 af Secondary=0.00 cfs 0.000 af Outflow=11.34 cfs 3.854 af
Subcatchment 219: WPost-19	Runoff Area=0.685 ac 0.03% Impervious Runoff Depth=2.14" Flow Length=78' Slope=0.2050 '/' Tc=6.8 min CN=61 Runoff=1.60 cfs 0.122 af
Subcatchment 220: WPost-20	Runoff Area=0.551 ac 0.00% Impervious Runoff Depth=3.65" Flow Length=145' Tc=7.3 min CN=77 Runoff=2.26 cfs 0.168 af
Subcatchment 221: WPost-21	Runoff Area=0.212 ac 0.00% Impervious Runoff Depth=2.87" Tc=6.0 min CN=69 Runoff=0.71 cfs 0.051 af
Subcatchment 230: WPost-22	Runoff Area=1.646 ac 1.62% Impervious Runoff Depth=2.23" Flow Length=130' Tc=7.6 min CN=62 Runoff=3.92 cfs 0.306 af
Subcatchment 231: WPost-23	Runoff Area=0.053 ac 75.87% Impervious Runoff Depth=4.93" Tc=6.0 min CN=89 Runoff=0.29 cfs 0.022 af
Pond 232: Pipe Run B6-B9	Peak Elev=242.98' Inflow=5.10 cfs 0.480 af 24.00" Round Culvert n=0.012 L=207.0' S=0.0050 '/' Outflow=5.10 cfs 0.480 af
Pond 233: Pipe Run B9-B10	Peak Elev=242.36' Inflow=6.34 cfs 0.601 af 24.00" Round Culvert n=0.012 L=159.6' S=0.0050 '/' Outflow=6.34 cfs 0.601 af
Pond 234: Pipe Run B10-B13	Peak Elev=241.99' Inflow=6.55 cfs 0.623 af 24.00" Round Culvert n=0.012 L=144.3' S=0.0050 '/' Outflow=6.55 cfs 0.623 af
Pond 235: B13-B16	Peak Elev=241.76' Inflow=8.91 cfs 0.936 af 24.00" Round Culvert n=0.012 L=224.1' S=0.0050 '/' Outflow=8.91 cfs 0.936 af

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Pond 236: Pipe Run B16-B17FESPeak Elev=241.38' Inflow=10.86 cfs 1.125 af
30.00" Round Culvert n=0.012 L=86.1' S=0.0348 ' /' Outflow=10.86 cfs 1.125 af**Link 240: DP-2 Western Wetlands**Inflow=12.66 cfs 3.543 af
Primary=12.66 cfs 3.543 af**Subcatchment 300: WPost-24**Runoff Area=0.997 ac 0.00% Impervious Runoff Depth=2.14"
Flow Length=144' Tc=9.9 min CN=61 Runoff=2.09 cfs 0.178 af**Subcatchment 310: WPost-25**Runoff Area=1.667 ac 0.00% Impervious Runoff Depth=2.41"
Flow Length=405' Tc=10.7 min CN=64 Runoff=3.91 cfs 0.334 af**Subcatchment 320: WPost-26**Runoff Area=0.711 ac 7.01% Impervious Runoff Depth=2.41"
Flow Length=142' Tc=10.6 min CN=64 Runoff=1.67 cfs 0.143 af**Link 330: DP-3 Eastern Abutters**Inflow=7.67 cfs 0.655 af
Primary=7.67 cfs 0.655 af**Subcatchment 400: WPost-27**Runoff Area=0.176 ac 60.75% Impervious Runoff Depth=4.28"
Tc=6.0 min CN=83 Runoff=0.87 cfs 0.063 af**Pond 401: UIS-C**Peak Elev=254.45' Storage=1,620 cf Inflow=1.54 cfs 0.117 af
Discarded=0.18 cfs 0.117 af Primary=0.00 cfs 0.000 af Outflow=0.18 cfs 0.117 af**Subcatchment 402: WPost-28**Runoff Area=0.771 ac 0.49% Impervious Runoff Depth=2.14"
Flow Length=128' Tc=8.0 min CN=61 Runoff=1.73 cfs 0.138 af**Subcatchment 410: WPost-29**Runoff Area=1.961 ac 2.56% Impervious Runoff Depth=2.05"
Flow Length=113' Tc=10.7 min CN=60 Runoff=3.82 cfs 0.336 af**Subcatchment 420: WPost-30**Runoff Area=0.528 ac 0.00% Impervious Runoff Depth=2.59"
Tc=6.0 min CN=66 Runoff=1.58 cfs 0.114 af**Subcatchment 430: WPost-31**Runoff Area=0.967 ac 2.99% Impervious Runoff Depth=2.59"
Flow Length=344' Tc=11.3 min CN=66 Runoff=2.42 cfs 0.209 af**Subcatchment 440: WPost-32**Runoff Area=0.281 ac 0.00% Impervious Runoff Depth=2.14"
Tc=6.0 min CN=61 Runoff=0.68 cfs 0.050 af**Link 450: DP-4 Northeastern Abutters**Inflow=9.79 cfs 0.846 af
Primary=9.79 cfs 0.846 af**Subcatchment 500: WPost-35**Runoff Area=0.528 ac 6.25% Impervious Runoff Depth=2.32"
Flow Length=280' Tc=8.9 min CN=63 Runoff=1.26 cfs 0.102 af**Subcatchment 501: WPost-33**Runoff Area=3.207 ac 19.15% Impervious Runoff Depth=2.78"
Flow Length=453' Tc=11.4 min CN=68 Runoff=8.63 cfs 0.742 af**Subcatchment 502: WPost-34**Runoff Area=0.330 ac 0.00% Impervious Runoff Depth=2.14"
Tc=0.0 min CN=61 Runoff=0.97 cfs 0.059 af

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Subcatchment 503: WPost-36 Building 1,2,3	Runoff Area=0.327 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=1.99 cfs 0.162 af
Subcatchment 504: WPost-37 Building 4,5,6	Runoff Area=0.291 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=1.77 cfs 0.145 af
Pond 505: UIS-G	Peak Elev=250.77' Storage=0.056 af Inflow=1.77 cfs 0.145 af Outflow=0.12 cfs 0.145 af
Subcatchment 506: WPost-38 Building 7	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.66 cfs 0.054 af
Pond 507: UIS-E	Peak Elev=231.75' Storage=0.020 af Inflow=0.66 cfs 0.054 af Outflow=0.05 cfs 0.054 af
Subcatchment 508: WPost-39 Building 8	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.66 cfs 0.054 af
Pond 509: UIS-F	Peak Elev=240.26' Storage=0.021 af Inflow=0.66 cfs 0.054 af Discarded=0.05 cfs 0.054 af Primary=0.00 cfs 0.000 af Outflow=0.05 cfs 0.054 af
Subcatchment 510: WPost-40 Building 9	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.66 cfs 0.054 af
Pond 511: D4	Peak Elev=239.24' Inflow=0.66 cfs 0.054 af 8.00" Round Culvert n=0.012 L=145.0' S=0.0328 ' /' Outflow=0.66 cfs 0.054 af
Subcatchment 512: WPost-41 Building 10	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.66 cfs 0.054 af
Pond 513: D3	Peak Elev=234.96' Inflow=1.33 cfs 0.108 af 8.00" Round Culvert n=0.012 L=102.0' S=0.0311 ' /' Outflow=1.33 cfs 0.108 af
Pond 514: D3	Peak Elev=231.76' Inflow=1.33 cfs 0.108 af 8.00" Round Culvert n=0.012 L=46.0' S=0.1043 ' /' Outflow=1.33 cfs 0.108 af
Pond 515: Infiltration Pond D	Peak Elev=230.99' Storage=18,425 cf Inflow=11.58 cfs 1.071 af Discarded=0.30 cfs 0.586 af Primary=2.98 cfs 0.485 af Secondary=0.00 cfs 0.000 af Outflow=3.28 cfs 1.071 af
Subcatchment 516: W-Post 42 - 69 driveways	Runoff Area=0.552 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=3.35 cfs 0.274 af
Pond 517: Permeable Pavement	Peak Elev=99.17' Storage=0.030 af Inflow=3.35 cfs 0.274 af Outflow=1.31 cfs 0.274 af
Link 518: DP-5 Tiogue Ave	Inflow=3.38 cfs 0.587 af Primary=3.38 cfs 0.587 af
Subcatchment 600: Subcat 600	Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

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Type III 24-hr 25-Year Rainfall=6.20"

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Pond 600D: 100 Year Drywell 4' Deep Peak Elev=250.59' Storage=79 cf Inflow=0.06 cfs 0.005 af
Discarded=0.00 cfs 0.005 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.005 af

Subcatchment 601: Subcat 601 Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af

Pond 601D: 100 Year Drywell 4' Deep Peak Elev=250.59' Storage=79 cf Inflow=0.06 cfs 0.005 af
Discarded=0.00 cfs 0.005 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.005 af

Subcatchment 602: Subcat 602 Runoff Area=0.073 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.44 cfs 0.036 af

Subcatchment 603: Subcat 603 Runoff Area=0.036 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.22 cfs 0.018 af

Subcatchment 699: Subcat 699 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.13 cfs 0.010 af

Subcatchment 700: Subcat 700 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af

Subcatchment 701: Subcat 701 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af

Subcatchment 702: Subcat 702 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af

Subcatchment 703: Subcat 703 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af

Subcatchment 704: Subcat 704 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af

Subcatchment 705: Subcat 705 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.13 cfs 0.010 af

Subcatchment 706: Subcat 706 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af

Subcatchment 707: Subcat 707 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af

Subcatchment 708: Subcat 708 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.13 cfs 0.010 af

Subcatchment 709: Subcat 709 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af

Subcatchment 710: Subcat 710 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=5.96"
Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af

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Type III 24-hr 25-Year Rainfall=6.20"

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Subcatchment 711: Subcat 711	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af
Subcatchment 712: Subcat 712	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.14 cfs 0.011 af
Subcatchment 713: Subcat 713	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af
Pond 713D: 100 Year Drywell 4' Deep	Peak Elev=242.96' Storage=97 cf Inflow=0.06 cfs 0.005 af Discarded=0.00 cfs 0.005 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.005 af
Subcatchment 714: Subcat 714	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af
Pond 714D: 100 Year Drywell 4' Deep	Peak Elev=235.96' Storage=97 cf Inflow=0.06 cfs 0.005 af Discarded=0.00 cfs 0.005 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.005 af
Subcatchment 715: Subcat 715	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af
Pond 715D: 100 Year Drywell 4' Deep	Peak Elev=235.96' Storage=97 cf Inflow=0.06 cfs 0.005 af Discarded=0.00 cfs 0.005 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.005 af
Subcatchment 716: Subcat 716	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af
Pond 716D: 100 Year Drywell 4' Deep	Peak Elev=255.15' Storage=106 cf Inflow=0.07 cfs 0.006 af Discarded=0.00 cfs 0.006 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.006 af
Subcatchment 717: Subcat 717	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af
Pond 717D: 100 Year Drywell 4' Deep	Peak Elev=256.84' Storage=91 cf Inflow=0.06 cfs 0.005 af Discarded=0.00 cfs 0.005 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.005 af
Subcatchment 718: Subcat 718	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.06 cfs 0.005 af
Pond 718D: 100 Year Drywell 4' Deep	Peak Elev=257.84' Storage=91 cf Inflow=0.06 cfs 0.005 af Discarded=0.00 cfs 0.005 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.005 af
Subcatchment 719: Subcat 719	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af
Pond 719D: 100 Year Drywell 4' Deep	Peak Elev=259.83' Storage=115 cf Inflow=0.07 cfs 0.006 af Discarded=0.00 cfs 0.006 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.006 af
Subcatchment 720: Subcat 720	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=5.96" Tc=6.0 min CN=98 Runoff=0.07 cfs 0.006 af

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Type III 24-hr 25-Year Rainfall=6.20"

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Pond 720D: 100 Year Drywell 4' Deep

Peak Elev=260.88' Storage=118 cf Inflow=0.07 cfs 0.006 af

Discarded=0.00 cfs 0.006 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.006 af



A3.5.4.6 HydroCAD 100-Year Storm Analysis

Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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

Subcatchment 10: WPre-01	Runoff Area=2.294 ac 9.40% Impervious Runoff Depth=3.87" Flow Length=304' Tc=15.3 min CN=60 Runoff=7.71 cfs 0.739 af
Subcatchment 20: WPre-02	Runoff Area=1.937 ac 0.00% Impervious Runoff Depth=3.27" Flow Length=279' Tc=17.6 min CN=55 Runoff=5.11 cfs 0.528 af
Subcatchment 21: WPre-03	Runoff Area=3.181 ac 0.00% Impervious Runoff Depth=4.83" Flow Length=474' Tc=13.1 min CN=68 Runoff=14.35 cfs 1.280 af
Subcatchment 22: WPre-04	Runoff Area=1.347 ac 0.00% Impervious Runoff Depth=3.51" Flow Length=575' Tc=16.5 min CN=57 Runoff=3.95 cfs 0.394 af
Subcatchment 23: WPre-05	Runoff Area=3.870 ac 0.99% Impervious Runoff Depth=3.39" Flow Length=399' Tc=22.4 min CN=56 Runoff=9.63 cfs 1.094 af
Subcatchment 30: WPre-06	Runoff Area=3.567 ac 0.00% Impervious Runoff Depth=3.27" Flow Length=425' Tc=16.1 min CN=55 Runoff=9.73 cfs 0.973 af
Subcatchment 31: WPre-07	Runoff Area=4.363 ac 0.00% Impervious Runoff Depth=3.99" Flow Length=520' Tc=16.4 min CN=61 Runoff=14.77 cfs 1.450 af
Subcatchment 32: WPre-08	Runoff Area=1.230 ac 0.00% Impervious Runoff Depth=3.27" Flow Length=305' Tc=16.9 min CN=55 Runoff=3.29 cfs 0.336 af
Subcatchment 40: WPre-09	Runoff Area=1.515 ac 1.97% Impervious Runoff Depth=3.39" Flow Length=221' Tc=23.6 min CN=56 Runoff=3.69 cfs 0.428 af
Subcatchment 41: WPre-10	Runoff Area=2.528 ac 4.16% Impervious Runoff Depth=3.87" Flow Length=113' Tc=10.7 min CN=60 Runoff=9.67 cfs 0.815 af
Subcatchment 42: WPre-11	Runoff Area=0.528 ac 0.00% Impervious Runoff Depth=4.59" Tc=6.0 min CN=66 Runoff=2.84 cfs 0.202 af
Subcatchment 43: WPre-12	Runoff Area=0.966 ac 2.99% Impervious Runoff Depth=4.59" Flow Length=344' Tc=11.3 min CN=66 Runoff=4.36 cfs 0.369 af
Subcatchment 44: WPre-13	Runoff Area=1.345 ac 0.99% Impervious Runoff Depth=3.39" Flow Length=345' Tc=15.3 min CN=56 Runoff=3.90 cfs 0.380 af
Subcatchment 50: WPre-14	Runoff Area=4.043 ac 4.05% Impervious Runoff Depth=3.75" Flow Length=368' Tc=14.8 min CN=59 Runoff=13.29 cfs 1.263 af
Link 11: DP-1 Tiffany Road	Inflow=7.71 cfs 0.739 af Primary=7.71 cfs 0.739 af
Link 24: DP-2 Western Wetlands	Inflow=30.97 cfs 3.296 af Primary=30.97 cfs 3.296 af

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Link 33: DP-3 Eastern Abutters

Inflow=27.78 cfs 2.758 af

Primary=27.78 cfs 2.758 af

Link 45: DP-4 Northeastern Abutters

Inflow=22.07 cfs 2.194 af

Primary=22.07 cfs 2.194 af

Link 51: DP-5 Tiogue Ave

Inflow=13.29 cfs 1.263 af

Primary=13.29 cfs 1.263 af

0267-132-ALLS-EHCD

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Type III 24-hr 100-Year Rainfall=8.70"

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Summary for Subcatchment 10: WPre-01

Runoff = 7.71 cfs @ 12.22 hrs, Volume= 0.739 af, Depth= 3.87"

Routed to Link 11 : DP-1 Tiffany Road

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.136	61	>75% Grass cover, Good, HSG B
0.181	98	Offsite Impervious, HSG B
0.034	98	Offsite Roofs, HSG B
1.562	55	Woods, Good, HSG B
0.380	58	Woods/grass comb., Good, HSG B
2.294	60	Weighted Average
2.078	56	90.60% Pervious Area
0.216	98	9.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	100	0.0510	0.11		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
0.6	174	0.0960	4.99		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
0.2	30	0.0333	2.94		Shallow Concentrated Flow, C
					Unpaved Kv= 16.1 fps
15.3	304	Total			

Summary for Subcatchment 20: WPre-02

Runoff = 5.11 cfs @ 12.26 hrs, Volume= 0.528 af, Depth= 3.27"

Routed to Link 24 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
1.937	55	Woods, Good, HSG B
1.937	55	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.1	100	0.0340	0.10		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
0.5	179	0.1156	5.47		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
17.6	279	Total			

Summary for Subcatchment 21: WPre-03

Runoff = 14.35 cfs @ 12.18 hrs, Volume= 1.280 af, Depth= 4.83"

Routed to Link 24 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
1.326	55	Woods, Good, HSG B
1.854	77	Woods, Good, HSG D
3.181	68	Weighted Average
3.181	68	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	100	0.0910	0.14		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
1.6	374	0.0565	3.83		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
13.1	474	Total			

Summary for Subcatchment 22: WPre-04

Runoff = 3.95 cfs @ 12.23 hrs, Volume= 0.394 af, Depth= 3.51"

Routed to Link 24 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.031	61	>75% Grass cover, Good, HSG B
1.192	55	Woods, Good, HSG B
0.125	77	Woods, Good, HSG D
1.347	57	Weighted Average
1.347	57	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	100	0.0510	0.11		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
2.0	475	0.0625	4.03		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
16.5	575	Total			

Summary for Subcatchment 23: WPre-05

Runoff = 9.63 cfs @ 12.32 hrs, Volume= 1.094 af, Depth= 3.39"
 Routed to Link 24 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.259	61	>75% Grass cover, Good, HSG B
0.038	98	Offsite Roofs, HSG B
3.573	55	Woods, Good, HSG B
3.870	56	Weighted Average
3.832	55	99.01% Pervious Area
0.038	98	0.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	100	0.0200	0.08		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
1.3	299	0.0585	3.89		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
22.4	399	Total			

Summary for Subcatchment 30: WPre-06

Runoff = 9.73 cfs @ 12.23 hrs, Volume= 0.973 af, Depth= 3.27"
 Routed to Link 33 : DP-3 Eastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
3.489	55	Woods, Good, HSG B
0.078	58	Woods/grass comb., Good, HSG B
3.567	55	Weighted Average
3.567	55	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.3	100	0.0530	0.12		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
1.8	325	0.0332	2.93		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
16.1	425	Total			

Summary for Subcatchment 31: WPre-07

Runoff = 14.77 cfs @ 12.23 hrs, Volume= 1.450 af, Depth= 3.99"
 Routed to Link 33 : DP-3 Eastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.446	61	>75% Grass cover, Good, HSG B
0.057	80	>75% Grass cover, Good, HSG D
2.912	55	Woods, Good, HSG B
0.948	77	Woods, Good, HSG D
4.363	61	Weighted Average
4.363	61	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	100	0.0500	0.11		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
1.7	420	0.0626	4.03		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
16.4	520	Total			

Summary for Subcatchment 32: WPre-08

Runoff = 3.29 cfs @ 12.24 hrs, Volume= 0.336 af, Depth= 3.27"
 Routed to Link 33 : DP-3 Eastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.001	61	>75% Grass cover, Good, HSG B
1.230	55	Woods, Good, HSG B
1.230	55	Weighted Average
1.230	55	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.0	100	0.0400	0.10		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
0.9	205	0.0532	3.71		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
16.9	305	Total			

Summary for Subcatchment 40: WPre-09

Runoff = 3.69 cfs @ 12.35 hrs, Volume= 0.428 af, Depth= 3.39"
 Routed to Link 45 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.157	61	>75% Grass cover, Good, HSG B
0.030	98	Offsite Roofs, HSG B
1.329	55	Woods, Good, HSG B
1.515	56	Weighted Average
1.486	56	98.03% Pervious Area
0.030	98	1.97% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
23.1	100	0.0160	0.07		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
0.5	121	0.0628	4.03		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
23.6	221	Total			

Summary for Subcatchment 41: WPre-10

Runoff = 9.67 cfs @ 12.15 hrs, Volume= 0.815 af, Depth= 3.87"
 Routed to Link 45 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.868	61	>75% Grass cover, Good, HSG B
0.048	96	Gravel surface, HSG B
0.105	98	Offsite Roofs, HSG B
1.506	55	Woods, Good, HSG B
2.528	60	Weighted Average
2.422	58	95.84% Pervious Area
0.105	98	4.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	60	0.1480	0.24		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
6.4	40	0.0625	0.10		Sheet Flow, B
					Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	13	0.0615	3.99		Shallow Concentrated Flow, C
					Unpaved Kv= 16.1 fps
10.7	113	Total			

Summary for Subcatchment 42: WPre-11

Runoff = 2.84 cfs @ 12.09 hrs, Volume= 0.202 af, Depth= 4.59"
 Routed to Link 45 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.401	61	>75% Grass cover, Good, HSG B
0.077	96	Gravel surface, HSG B
0.050	55	Woods, Good, HSG B
0.528	66	Weighted Average
0.528	66	100.00% Pervious Area

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

Summary for Subcatchment 43: WPre-12

Runoff = 4.36 cfs @ 12.16 hrs, Volume= 0.369 af, Depth= 4.59"
 Routed to Link 45 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.820	61	>75% Grass cover, Good, HSG B
0.104	96	Gravel surface, HSG B
0.029	98	Offsite Impervious, HSG B
0.000	98	Offsite Roofs, HSG B
0.014	55	Woods, Good, HSG B
0.966	66	Weighted Average
0.938	65	97.01% Pervious Area
0.029	98	2.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0420	0.16		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.9	244	0.0852	4.70		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
11.3	344	Total			

Summary for Subcatchment 44: WPre-13

Runoff = 3.90 cfs @ 12.22 hrs, Volume= 0.380 af, Depth= 3.39"
 Routed to Link 45 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.054	61	>75% Grass cover, Good, HSG B
0.013	98	Offsite Roofs, HSG B
1.278	55	Woods, Good, HSG B
1.345	56	Weighted Average
1.332	55	99.01% Pervious Area
0.013	98	0.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.5	100	0.0510	0.11		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
0.3	79	0.0557	3.80		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
0.2	77	0.1115	8.44	34.97	Parabolic Channel, C
					W=8.88' D=0.70' Area=4.1 sf Perim=9.0'
					n= 0.035 Earth, dense weeds
0.3	89	0.1292	5.79		Shallow Concentrated Flow, D
					Unpaved Kv= 16.1 fps
15.3	345	Total			

Summary for Subcatchment 50: WPre-14

Runoff = 13.29 cfs @ 12.21 hrs, Volume= 1.263 af, Depth= 3.75"
 Routed to Link 51 : DP-5 Tiogue Ave

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
1.436	61	>75% Grass cover, Good, HSG B
0.074	98	Impervious, HSG B
0.000	98	Offsite Impervious, HSG B
0.090	98	Offsite Roofs, HSG B
2.444	55	Woods, Good, HSG B
4.043	59	Weighted Average
3.880	57	95.95% Pervious Area
0.164	98	4.05% Impervious Area

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.7	100	0.0590	0.12		Sheet Flow, A
					Woods: Light underbrush n= 0.400 P2= 3.30"
1.1	268	0.0638	4.07		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
14.8	368	Total			

Summary for Link 11: DP-1 Tiffany Road

Inflow Area = 2.294 ac, 9.40% Impervious, Inflow Depth = 3.87" for 100-Year event
 Inflow = 7.71 cfs @ 12.22 hrs, Volume= 0.739 af
 Primary = 7.71 cfs @ 12.22 hrs, Volume= 0.739 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link 24: DP-2 Western Wetlands

Inflow Area = 10.336 ac, 0.37% Impervious, Inflow Depth = 3.83" for 100-Year event
 Inflow = 30.97 cfs @ 12.23 hrs, Volume= 3.296 af
 Primary = 30.97 cfs @ 12.23 hrs, Volume= 3.296 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link 33: DP-3 Eastern Abutters

Inflow Area = 9.160 ac, 0.00% Impervious, Inflow Depth = 3.61" for 100-Year event
 Inflow = 27.78 cfs @ 12.23 hrs, Volume= 2.758 af
 Primary = 27.78 cfs @ 12.23 hrs, Volume= 2.758 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link 45: DP-4 Northeastern Abutters

Inflow Area = 6.882 ac, 2.58% Impervious, Inflow Depth = 3.83" for 100-Year event
 Inflow = 22.07 cfs @ 12.16 hrs, Volume= 2.194 af
 Primary = 22.07 cfs @ 12.16 hrs, Volume= 2.194 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link 51: DP-5 Tiogue Ave

Inflow Area = 4.043 ac, 4.05% Impervious, Inflow Depth = 3.75" for 100-Year event
 Inflow = 13.29 cfs @ 12.21 hrs, Volume= 1.263 af
 Primary = 13.29 cfs @ 12.21 hrs, Volume= 1.263 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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

Subcatchment 100: WPost-01	Runoff Area=0.973 ac 21.17% Impervious Runoff Depth=4.71" Flow Length=281' Tc=9.4 min CN=67 Runoff=4.78 cfs 0.382 af
Subcatchment 101: WPost-02	Runoff Area=1.051 ac 31.47% Impervious Runoff Depth=5.43" Flow Length=352' Tc=10.0 min CN=73 Runoff=5.84 cfs 0.476 af
Subcatchment 102: WPost-03	Runoff Area=0.144 ac 0.04% Impervious Runoff Depth=4.35" Tc=0.0 min CN=64 Runoff=0.90 cfs 0.052 af
Pond 103: WQ Infiltration Pond A	Peak Elev=245.82' Storage=5,627 cf Inflow=6.20 cfs 0.528 af Discarded=0.09 cfs 0.117 af Primary=3.24 cfs 0.411 af Secondary=0.00 cfs 0.000 af Outflow=3.33 cfs 0.528 af
Link 110: DP-1 Tiffany Road	Inflow=4.78 cfs 0.382 af Primary=4.78 cfs 0.382 af
Subcatchment 200: WPost-04	Runoff Area=0.718 ac 49.63% Impervious Runoff Depth=6.16" Flow Length=147' Tc=9.9 min CN=79 Runoff=4.48 cfs 0.369 af
Subcatchment 201: WPost-05	Runoff Area=0.280 ac 45.39% Impervious Runoff Depth=6.04" Flow Length=198' Tc=13.6 min CN=78 Runoff=1.54 cfs 0.141 af
Subcatchment 202: WPost-06	Runoff Area=0.883 ac 42.46% Impervious Runoff Depth=5.92" Flow Length=301' Tc=20.3 min CN=77 Runoff=4.08 cfs 0.436 af
Subcatchment 203: WPost-07	Runoff Area=0.600 ac 41.32% Impervious Runoff Depth=5.80" Flow Length=285' Tc=14.6 min CN=76 Runoff=3.10 cfs 0.290 af
Subcatchment 204: WPost-08	Runoff Area=0.107 ac 21.10% Impervious Runoff Depth=6.77" Flow Length=72' Slope=0.0690 '/' Tc=6.6 min CN=84 Runoff=0.80 cfs 0.061 af
Subcatchment 205: WPost-09	Runoff Area=0.086 ac 0.00% Impervious Runoff Depth=6.28" Tc=0.0 min CN=80 Runoff=0.76 cfs 0.045 af
Pond 206: Forebay B1	Peak Elev=242.45' Storage=11,409 cf Inflow=17.77 cfs 1.973 af Primary=0.86 cfs 0.165 af Secondary=14.23 cfs 1.807 af Outflow=14.23 cfs 1.971 af
Subcatchment 207: WPost-10	Runoff Area=0.313 ac 14.59% Impervious Runoff Depth=6.65" Tc=6.0 min CN=83 Runoff=2.36 cfs 0.173 af
Subcatchment 208: WPost-11	Runoff Area=0.109 ac 0.00% Impervious Runoff Depth=6.28" Tc=0.0 min CN=80 Runoff=0.96 cfs 0.057 af
Pond 209: WQ Infiltration Pond B	Peak Elev=242.40' Storage=17,758 cf Inflow=3.28 cfs 0.787 af Discarded=0.20 cfs 0.741 af Primary=0.97 cfs 0.023 af Outflow=1.17 cfs 0.764 af
Subcatchment 210: WPost-12	Runoff Area=0.692 ac 3.47% Impervious Runoff Depth=4.47" Flow Length=240' Tc=7.2 min CN=65 Runoff=3.47 cfs 0.258 af

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Subcatchment 211: WPost-13	Runoff Area=0.087 ac 0.00% Impervious Runoff Depth=5.68" Tc=0.0 min CN=75 Runoff=0.70 cfs 0.041 af
Subcatchment 212: WPost-14	Runoff Area=3.528 ac 47.31% Impervious Runoff Depth=6.41" Flow Length=289' Tc=10.5 min CN=81 Runoff=22.31 cfs 1.883 af
Subcatchment 213: WPost-15	Runoff Area=1.989 ac 53.22% Impervious Runoff Depth=6.41" Flow Length=197' Tc=9.1 min CN=81 Runoff=13.14 cfs 1.062 af
Subcatchment 214: WPost-16	Runoff Area=2.128 ac 64.12% Impervious Runoff Depth=6.89" Flow Length=299' Tc=10.3 min CN=85 Runoff=14.32 cfs 1.222 af
Pond 215: Forebay B2	Peak Elev=242.45' Storage=13,371 cf Inflow=53.18 cfs 4.466 af Primary=1.13 cfs 0.391 af Secondary=50.19 cfs 4.072 af Outflow=50.79 cfs 4.464 af
Subcatchment 216: WPost-17	Runoff Area=0.792 ac 0.00% Impervious Runoff Depth=3.51" Flow Length=267' Tc=9.6 min CN=57 Runoff=2.82 cfs 0.232 af
Subcatchment 217: WPost-18	Runoff Area=0.887 ac 0.00% Impervious Runoff Depth=5.19" Tc=0.0 min CN=71 Runoff=6.60 cfs 0.384 af
Pond 218: Infiltration Pond B	Peak Elev=242.45' Storage=103,310 cf Inflow=69.66 cfs 6.517 af Discarded=0.76 cfs 1.098 af Primary=24.78 cfs 5.420 af Secondary=0.00 cfs 0.000 af Outflow=25.54 cfs 6.517 af
Subcatchment 219: WPost-19	Runoff Area=0.685 ac 0.03% Impervious Runoff Depth=3.99" Flow Length=78' Slope=0.2050 '/' Tc=6.8 min CN=61 Runoff=3.09 cfs 0.227 af
Subcatchment 220: WPost-20	Runoff Area=0.551 ac 0.00% Impervious Runoff Depth=5.92" Flow Length=145' Tc=7.3 min CN=77 Runoff=3.62 cfs 0.272 af
Subcatchment 221: WPost-21	Runoff Area=0.212 ac 0.00% Impervious Runoff Depth=4.95" Tc=6.0 min CN=69 Runoff=1.23 cfs 0.087 af
Subcatchment 230: WPost-22	Runoff Area=1.646 ac 1.62% Impervious Runoff Depth=4.11" Flow Length=130' Tc=7.6 min CN=62 Runoff=7.45 cfs 0.563 af
Subcatchment 231: WPost-23	Runoff Area=0.053 ac 75.87% Impervious Runoff Depth=7.37" Tc=6.0 min CN=89 Runoff=0.43 cfs 0.032 af
Pond 232: Pipe Run B6-B9	Peak Elev=244.25' Inflow=7.83 cfs 0.843 af 24.00" Round Culvert n=0.012 L=207.0' S=0.0050 '/' Outflow=7.83 cfs 0.843 af
Pond 233: Pipe Run B9-B10	Peak Elev=244.00' Inflow=9.74 cfs 1.031 af 24.00" Round Culvert n=0.012 L=159.6' S=0.0050 '/' Outflow=9.74 cfs 1.031 af
Pond 234: Pipe Run B10-B13	Peak Elev=243.67' Inflow=10.06 cfs 1.063 af 24.00" Round Culvert n=0.012 L=144.3' S=0.0050 '/' Outflow=10.06 cfs 1.063 af
Pond 235: B13-B16	Peak Elev=243.38' Inflow=13.76 cfs 1.561 af 24.00" Round Culvert n=0.012 L=224.1' S=0.0050 '/' Outflow=13.76 cfs 1.561 af

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Pond 236: Pipe Run B16-B17FESPeak Elev=242.63' Inflow=16.83 cfs 1.867 af
30.00" Round Culvert n=0.012 L=86.1' S=0.0348 '/ Outflow=16.83 cfs 1.867 af**Link 240: DP-2 Western Wetlands**Inflow=29.73 cfs 6.602 af
Primary=29.73 cfs 6.602 af**Subcatchment 300: WPost-24**Runoff Area=0.997 ac 0.00% Impervious Runoff Depth=3.99"
Flow Length=144' Tc=9.9 min CN=61 Runoff=4.05 cfs 0.331 af**Subcatchment 310: WPost-25**Runoff Area=1.667 ac 0.00% Impervious Runoff Depth=4.35"
Flow Length=405' Tc=10.7 min CN=64 Runoff=7.23 cfs 0.604 af**Subcatchment 320: WPost-26**Runoff Area=0.711 ac 7.01% Impervious Runoff Depth=4.35"
Flow Length=142' Tc=10.6 min CN=64 Runoff=3.10 cfs 0.258 af**Link 330: DP-3 Eastern Abutters**Inflow=14.37 cfs 1.194 af
Primary=14.37 cfs 1.194 af**Subcatchment 400: WPost-27**Runoff Area=0.176 ac 60.75% Impervious Runoff Depth=6.65"
Tc=6.0 min CN=83 Runoff=1.33 cfs 0.098 af**Pond 401: UIS-C**Peak Elev=255.18' Storage=2,831 cf Inflow=2.26 cfs 0.175 af
Discarded=0.18 cfs 0.175 af Primary=0.00 cfs 0.000 af Outflow=0.18 cfs 0.175 af**Subcatchment 402: WPost-28**Runoff Area=0.771 ac 0.49% Impervious Runoff Depth=3.99"
Flow Length=128' Tc=8.0 min CN=61 Runoff=3.34 cfs 0.256 af**Subcatchment 410: WPost-29**Runoff Area=1.961 ac 2.56% Impervious Runoff Depth=3.87"
Flow Length=113' Tc=10.7 min CN=60 Runoff=7.51 cfs 0.632 af**Subcatchment 420: WPost-30**Runoff Area=0.528 ac 0.00% Impervious Runoff Depth=4.59"
Tc=6.0 min CN=66 Runoff=2.84 cfs 0.202 af**Subcatchment 430: WPost-31**Runoff Area=0.967 ac 2.99% Impervious Runoff Depth=4.59"
Flow Length=344' Tc=11.3 min CN=66 Runoff=4.36 cfs 0.370 af**Subcatchment 440: WPost-32**Runoff Area=0.281 ac 0.00% Impervious Runoff Depth=3.99"
Tc=6.0 min CN=61 Runoff=1.31 cfs 0.093 af**Link 450: DP-4 Northeastern Abutters**Inflow=18.57 cfs 1.553 af
Primary=18.57 cfs 1.553 af**Subcatchment 500: WPost-35**Runoff Area=0.528 ac 6.25% Impervious Runoff Depth=4.23"
Flow Length=280' Tc=8.9 min CN=63 Runoff=2.36 cfs 0.186 af**Subcatchment 501: WPost-33**Runoff Area=3.207 ac 19.15% Impervious Runoff Depth=4.83"
Flow Length=453' Tc=11.4 min CN=68 Runoff=15.18 cfs 1.291 af**Subcatchment 502: WPost-34**Runoff Area=0.330 ac 0.00% Impervious Runoff Depth=3.99"
Tc=0.0 min CN=61 Runoff=1.88 cfs 0.110 af

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Subcatchment 503: WPost-36 Building 1,2,3	Runoff Area=0.327 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=2.79 cfs 0.231 af
Subcatchment 504: WPost-37 Building 4,5,6	Runoff Area=0.291 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=2.49 cfs 0.205 af
Pond 505: UIS-G	Peak Elev=252.00' Storage=0.092 af Inflow=2.49 cfs 0.205 af Outflow=0.12 cfs 0.205 af
Subcatchment 506: WPost-38 Building 7	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.93 cfs 0.077 af
Pond 507: UIS-E	Peak Elev=232.94' Storage=0.034 af Inflow=0.93 cfs 0.077 af Outflow=0.05 cfs 0.077 af
Subcatchment 508: WPost-39 Building 8	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.93 cfs 0.077 af
Pond 509: UIS-F	Peak Elev=241.03' Storage=0.030 af Inflow=0.93 cfs 0.077 af Discarded=0.05 cfs 0.071 af Primary=0.09 cfs 0.006 af Outflow=0.14 cfs 0.077 af
Subcatchment 510: WPost-40 Building 9	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.93 cfs 0.077 af
Pond 511: D4	Peak Elev=239.39' Inflow=0.93 cfs 0.083 af 8.00" Round Culvert n=0.012 L=145.0' S=0.0328 ' /' Outflow=0.93 cfs 0.083 af
Subcatchment 512: WPost-41 Building 10	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.93 cfs 0.077 af
Pond 513: D3	Peak Elev=235.56' Inflow=1.86 cfs 0.160 af 8.00" Round Culvert n=0.012 L=102.0' S=0.0311 ' /' Outflow=1.86 cfs 0.160 af
Pond 514: D3	Peak Elev=233.06' Inflow=1.86 cfs 0.160 af 8.00" Round Culvert n=0.012 L=46.0' S=0.1043 ' /' Outflow=1.86 cfs 0.160 af
Pond 515: Infiltration Pond D	Peak Elev=232.99' Storage=31,027 cf Inflow=19.54 cfs 1.791 af Discarded=0.40 cfs 0.638 af Primary=5.15 cfs 1.153 af Secondary=0.00 cfs 0.000 af Outflow=5.54 cfs 1.791 af
Subcatchment 516: W-Post 42 - 69 driveways	Runoff Area=0.552 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=4.72 cfs 0.389 af
Pond 517: Permeable Pavement	Peak Elev=99.36' Storage=0.064 af Inflow=4.72 cfs 0.389 af Outflow=1.31 cfs 0.389 af
Link 518: DP-5 Tiogue Ave	Inflow=6.07 cfs 1.339 af Primary=6.07 cfs 1.339 af
Subcatchment 600: Subcat 600	Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.08 cfs 0.006 af

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Pond 600D: 100 Year Drywell 4' Deep Peak Elev=251.62' Storage=130 cf Inflow=0.08 cfs 0.006 af
Discarded=0.00 cfs 0.006 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.006 af

Subcatchment 601: Subcat 601 Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.08 cfs 0.006 af

Pond 601D: 100 Year Drywell 4' Deep Peak Elev=251.62' Storage=130 cf Inflow=0.08 cfs 0.006 af
Discarded=0.00 cfs 0.006 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.006 af

Subcatchment 602: Subcat 602 Runoff Area=0.073 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.62 cfs 0.051 af

Subcatchment 603: Subcat 603 Runoff Area=0.036 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.31 cfs 0.026 af

Subcatchment 699: Subcat 699 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af

Subcatchment 700: Subcat 700 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af

Subcatchment 701: Subcat 701 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af

Subcatchment 702: Subcat 702 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af

Subcatchment 703: Subcat 703 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af

Subcatchment 704: Subcat 704 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af

Subcatchment 705: Subcat 705 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af

Subcatchment 706: Subcat 706 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af

Subcatchment 707: Subcat 707 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af

Subcatchment 708: Subcat 708 Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af

Subcatchment 709: Subcat 709 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af

Subcatchment 710: Subcat 710 Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46"
Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af

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Subcatchment 711: Subcat 711	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af
Subcatchment 712: Subcat 712	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af
Subcatchment 713: Subcat 713	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af
Pond 713D: 100 Year Drywell 4' Deep	Peak Elev=244.23' Storage=160 cf Inflow=0.09 cfs 0.007 af Discarded=0.00 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.007 af
Subcatchment 714: Subcat 714	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af
Pond 714D: 100 Year Drywell 4' Deep	Peak Elev=237.23' Storage=160 cf Inflow=0.09 cfs 0.007 af Discarded=0.00 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.007 af
Subcatchment 715: Subcat 715	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af
Pond 715D: 100 Year Drywell 4' Deep	Peak Elev=237.23' Storage=160 cf Inflow=0.09 cfs 0.007 af Discarded=0.00 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.007 af
Subcatchment 716: Subcat 716	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.10 cfs 0.008 af
Pond 716D: 100 Year Drywell 4' Deep	Peak Elev=256.60' Storage=173 cf Inflow=0.10 cfs 0.008 af Discarded=0.00 cfs 0.008 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.008 af
Subcatchment 717: Subcat 717	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af
Pond 717D: 100 Year Drywell 4' Deep	Peak Elev=258.03' Storage=150 cf Inflow=0.09 cfs 0.007 af Discarded=0.00 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.007 af
Subcatchment 718: Subcat 718	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af
Pond 718D: 100 Year Drywell 4' Deep	Peak Elev=259.03' Storage=150 cf Inflow=0.09 cfs 0.007 af Discarded=0.00 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.007 af
Subcatchment 719: Subcat 719	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.10 cfs 0.008 af
Pond 719D: 100 Year Drywell 4' Deep	Peak Elev=261.11' Storage=173 cf Inflow=0.10 cfs 0.008 af Discarded=0.00 cfs 0.008 af Primary=0.01 cfs 0.000 af Outflow=0.01 cfs 0.008 af
Subcatchment 720: Subcat 720	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.10 cfs 0.009 af

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Pond 720D: 100 Year Drywell 4' Deep

Peak Elev=262.11' Storage=173 cf Inflow=0.10 cfs 0.009 af

Discarded=0.00 cfs 0.008 af Primary=0.01 cfs 0.000 af Outflow=0.01 cfs 0.009 af

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Summary for Subcatchment 100: WPost-01

Runoff = 4.78 cfs @ 12.13 hrs, Volume= 0.382 af, Depth= 4.71"
 Routed to Link 110 : DP-1 Tiffany Road

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.347	61	>75% Grass cover, Good, HSG B
0.140	98	Impervious, HSG B
0.032	98	Offsite Impervious, HSG B
0.034	98	Offsite Roofs, HSG B
0.065	55	Woods, Good, HSG B
0.355	58	Woods/grass comb., Good, HSG B
0.973	67	Weighted Average
0.767	59	78.83% Pervious Area
0.206	98	21.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.0650	0.19		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.4	156	0.1346	5.91		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
0.2	25	0.0080	1.82		Shallow Concentrated Flow, C
					Paved Kv= 20.3 fps
9.4	281	Total			

Summary for Subcatchment 101: WPost-02

Runoff = 5.84 cfs @ 12.14 hrs, Volume= 0.476 af, Depth= 5.43"
 Routed to Pond 103 : WQ Infiltration Pond A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.712	61	>75% Grass cover, Good, HSG B
0.222	98	Impervious, HSG B
0.108	98	Roofs, HSG B
0.008	55	Woods, Good, HSG B
1.051	73	Weighted Average
0.720	61	68.53% Pervious Area
0.331	98	31.47% Impervious Area

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0630	0.19		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.4	90	0.0673	4.18		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
0.1	27	0.0628	5.09		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
0.1	22	0.1020	5.14		Shallow Concentrated Flow, D Unpaved Kv= 16.1 fps
0.5	113	0.0359	3.85		Shallow Concentrated Flow, E Paved Kv= 20.3 fps
10.0	352	Total			

Summary for Subcatchment 102: WPost-03

Runoff = 0.90 cfs @ 12.00 hrs, Volume= 0.052 af, Depth= 4.35"
Routed to Pond 103 : WQ Infiltration Pond A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.132	61	>75% Grass cover, Good, HSG B
0.000	98	Impervious, HSG B
0.012	98	Water Surface, 0% imp, HSG B
0.144	64	Weighted Average
0.144	64	99.96% Pervious Area
0.000	98	0.04% Impervious Area

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

Summary for Pond 103: WQ Infiltration Pond A

Inflow Area = 1.195 ac, 27.68% Impervious, Inflow Depth = 5.30" for 100-Year event
Inflow = 6.20 cfs @ 12.14 hrs, Volume= 0.528 af
Outflow = 3.33 cfs @ 12.38 hrs, Volume= 0.528 af, Atten= 46%, Lag= 14.8 min
Discarded = 0.09 cfs @ 12.35 hrs, Volume= 0.117 af
Primary = 3.24 cfs @ 12.38 hrs, Volume= 0.411 af
Routed to Pond 232 : Pipe Run B6-B9
Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
Routed to Link 110 : DP-1 Tiffany Road

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 245.82' @ 12.35 hrs Surf.Area= 2,509 sf Storage= 5,627 cf

Plug-Flow detention time= 113.9 min calculated for 0.528 af (100% of inflow)
Center-of-Mass det. time= 114.1 min (933.6 - 819.6)

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Type III 24-hr 100-Year Rainfall=8.70"

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Volume	Invert	Avail.Storage	Storage Description
#1	242.00'	10,755 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
242.00	546	0	0
244.00	1,465	2,011	2,011
246.00	2,613	4,078	6,089
247.00	3,272	2,943	9,032
247.50	3,623	1,724	10,755

Device	Routing	Invert	Outlet Devices
#1	Discarded	242.00'	1.600 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	242.85'	12.00" Round 12" Culvert L= 37.4' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 242.85' / 242.67' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	246.00'	24.00" Horiz. Nyloplast Dome grate C= 0.600 Limited to weir flow at low heads
#4	Device 2	244.00'	12.00" x 6.00" Horiz. Horizontal Orifice C= 0.600 Limited to weir flow at low heads
#5	Secondary	246.50'	30.0' long x 10.0' breadth Grassed Emergency Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Discarded OutFlow Max=0.09 cfs @ 12.35 hrs HW=245.82' (Free Discharge)↑ **1=Exfiltration** (Exfiltration Controls 0.09 cfs)**Primary OutFlow** Max=3.24 cfs @ 12.38 hrs HW=245.81' TW=243.97' (Dynamic Tailwater)↑ **2=12" Culvert** (Passes 3.24 cfs of 5.13 cfs potential flow)↑ **3=Nyloplast Dome grate** (Controls 0.00 cfs)↑ **4=Horizontal Orifice** (Orifice Controls 3.24 cfs @ 6.48 fps)**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=242.00' TW=0.00' (Dynamic Tailwater)↑ **5=Grassed Emergency Weir** (Controls 0.00 cfs)**Summary for Link 110: DP-1 Tiffany Road**

Inflow Area = 0.973 ac, 21.17% Impervious, Inflow Depth = 4.71" for 100-Year event
 Inflow = 4.78 cfs @ 12.13 hrs, Volume= 0.382 af
 Primary = 4.78 cfs @ 12.13 hrs, Volume= 0.382 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Subcatchment 200: WPost-04

Runoff = 4.48 cfs @ 12.13 hrs, Volume= 0.369 af, Depth= 6.16"
 Routed to Pond 232 : Pipe Run B6-B9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.362	61	>75% Grass cover, Good, HSG B
0.312	98	Impervious, HSG B
0.044	98	Roofs, HSG B
0.718	79	Weighted Average
0.362	61	50.37% Pervious Area
0.356	98	49.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	93	0.0440	0.16		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.2	54	0.0624	5.07		Shallow Concentrated Flow, B Paved Kv= 20.3 fps
9.9	147	Total			

Summary for Subcatchment 201: WPost-05

Runoff = 1.54 cfs @ 12.18 hrs, Volume= 0.141 af, Depth= 6.04"
Routed to Pond 233 : Pipe Run B9-B10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.153	61	>75% Grass cover, Good, HSG B
0.106	98	Impervious, HSG B
0.021	98	Roofs, HSG B
0.280	78	Weighted Average
0.153	61	54.61% Pervious Area
0.127	98	45.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.1	100	0.0240	0.13		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.2	46	0.0408	3.25		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
0.3	52	0.0207	2.92		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
13.6	198	Total			

Summary for Subcatchment 202: WPost-06

Runoff = 4.08 cfs @ 12.27 hrs, Volume= 0.436 af, Depth= 5.92"
Routed to Pond 235 : B13-B16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.508	61	>75% Grass cover, Good, HSG B
0.264	98	Impervious, HSG B
0.111	98	Roofs, HSG B
0.883	77	Weighted Average
0.508	61	57.54% Pervious Area
0.375	98	42.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0090	0.09		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.8	165	0.0411	3.26		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
0.2	36	0.0221	3.02		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
20.3	301	Total			

Summary for Subcatchment 203: WPost-07

Runoff = 3.10 cfs @ 12.20 hrs, Volume= 0.290 af, Depth= 5.80"
Routed to Pond 236 : Pipe Run B16-B17FES

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.352	61	>75% Grass cover, Good, HSG B
0.204	98	Impervious, HSG B
0.044	98	Roofs, HSG B
0.600	76	Weighted Average
0.352	61	58.68% Pervious Area
0.248	98	41.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	100	0.0210	0.12		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.6	112	0.0410	3.26		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
0.2	73	0.0693	5.34		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
14.6	285	Total			

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Type III 24-hr 100-Year Rainfall=8.70"

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Summary for Subcatchment 204: WPost-08

Runoff = 0.80 cfs @ 12.09 hrs, Volume= 0.061 af, Depth= 6.77"

Routed to Pond 206 : Forebay B1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.085	80	>75% Grass cover, Good, HSG D
0.023	98	Roofs, HSG D
0.107	84	Weighted Average
0.085	80	78.90% Pervious Area
0.023	98	21.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	72	0.0690	0.18		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"

Summary for Subcatchment 205: WPost-09

Runoff = 0.76 cfs @ 12.00 hrs, Volume= 0.045 af, Depth= 6.28"

Routed to Pond 206 : Forebay B1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.086	80	>75% Grass cover, Good, HSG D
0.086	80	100.00% Pervious Area

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

Summary for Pond 206: Forebay B1

Inflow Area = 4.183 ac, 42.38% Impervious, Inflow Depth = 5.66" for 100-Year event

Inflow = 17.77 cfs @ 12.15 hrs, Volume= 1.973 af

Outflow = 14.23 cfs @ 12.11 hrs, Volume= 1.971 af, Atten= 20%, Lag= 0.0 min

Primary = 0.86 cfs @ 12.36 hrs, Volume= 0.165 af

Routed to Pond 209 : WQ Infiltration Pond B

Secondary = 14.23 cfs @ 12.11 hrs, Volume= 1.807 af

Routed to Pond 218 : Infiltration Pond B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Automatic Starting Elev= 238.00' Surf.Area= 1,207 sf Storage= 2,992 cf

Peak Elev= 242.45' @ 12.53 hrs Surf.Area= 2,648 sf Storage= 11,409 cf (8,417 cf above start)

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Type III 24-hr 100-Year Rainfall=8.70"

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Plug-Flow detention time= 157.2 min calculated for 1.902 af (96% of inflow)

Center-of-Mass det. time= 123.8 min (929.9 - 806.1)

Volume	Invert	Avail.Storage	Storage Description
#1	234.00'	14,403 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
234.00	339	0	0
236.00	723	1,062	1,062
238.00	1,207	1,930	2,992
240.00	1,791	2,998	5,990
242.00	2,477	4,268	10,258
243.00	2,857	2,667	12,925
243.50	3,056	1,478	14,403

Device	Routing	Invert	Outlet Devices
#1	Primary	238.00'	6.00" Round (2) 6" Culvert to WQ X 2.00 L= 26.5' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 238.00' / 237.50' S= 0.0189 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Secondary	240.75'	20.0' long x 0.5' breadth Curb Weir to QP Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.84 cfs @ 12.36 hrs HW=242.30' TW=242.04' (Dynamic Tailwater)↑**1=(2) 6" Culvert to WQ** (Outlet Controls 0.84 cfs @ 2.13 fps)**Secondary OutFlow** Max=9.12 cfs @ 12.11 hrs HW=241.28' TW=241.25' (Dynamic Tailwater)↑**2=Curb Weir to QP** (Weir Controls 9.12 cfs @ 0.86 fps)**Summary for Subcatchment 207: WPost-10**

Runoff = 2.36 cfs @ 12.09 hrs, Volume= 0.173 af, Depth= 6.65"
 Routed to Pond 209 : WQ Infiltration Pond B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.267	80	>75% Grass cover, Good, HSG D
0.000	98	Impervious, HSG D
0.046	98	Roofs, HSG D
0.313	83	Weighted Average
0.267	80	85.41% Pervious Area
0.046	98	14.59% Impervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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

Summary for Subcatchment 208: WPost-11

Runoff = 0.96 cfs @ 12.00 hrs, Volume= 0.057 af, Depth= 6.28"
 Routed to Pond 209 : WQ Infiltration Pond B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.109	80	>75% Grass cover, Good, HSG D
0.109	80	100.00% Pervious Area

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

Summary for Pond 209: WQ Infiltration Pond B

Inflow Area = 13.029 ac, 45.55% Impervious, Inflow Depth > 0.72" for 100-Year event
 Inflow = 3.28 cfs @ 12.08 hrs, Volume= 0.787 af
 Outflow = 1.17 cfs @ 12.72 hrs, Volume= 0.764 af, Atten= 64%, Lag= 38.5 min
 Discarded = 0.20 cfs @ 12.66 hrs, Volume= 0.741 af
 Primary = 0.97 cfs @ 12.72 hrs, Volume= 0.023 af
 Routed to Pond 218 : Infiltration Pond B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 242.40' @ 12.66 hrs Surf.Area= 5,357 sf Storage= 17,758 cf

Plug-Flow detention time= 862.4 min calculated for 0.764 af (97% of inflow)
 Center-of-Mass det. time= 778.0 min (2,057.5 - 1,279.5)

Volume	Invert	Avail.Storage	Storage Description
#1	237.50'	23,813 cf	Pond Storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
237.50	1,980	0	0
238.00	2,265	1,061	1,061
240.00	3,546	5,811	6,872
242.00	5,244	8,790	15,662
243.00	5,529	5,387	21,049
243.50	5,529	2,765	23,813

Device	Routing	Invert	Outlet Devices
#1	Discarded	237.50'	1.600 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	242.25'	20.0' long x 10.0' breadth Broad-Crested Grassed Weir

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Type III 24-hr 100-Year Rainfall=8.70"

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Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60
 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Discarded OutFlow Max=0.20 cfs @ 12.66 hrs HW=242.39' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.20 cfs)**Primary OutFlow** Max=1.15 cfs @ 12.72 hrs HW=242.37' TW=242.35' (Dynamic Tailwater)↑**2=Broad-Crested Grassed Weir** (Weir Controls 1.15 cfs @ 0.49 fps)**Summary for Subcatchment 210: WPost-12**

Runoff = 3.47 cfs @ 12.11 hrs, Volume= 0.258 af, Depth= 4.47"
 Routed to Pond 215 : Forebay B2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.560	61	>75% Grass cover, Good, HSG B
0.093	80	>75% Grass cover, Good, HSG D
0.000	98	Impervious, HSG B
0.001	98	Impervious, HSG D
0.023	98	Roofs, HSG D
0.014	55	Woods, Good, HSG B
0.692	65	Weighted Average
0.668	64	96.53% Pervious Area
0.024	98	3.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.1330	0.25		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.6	140	0.0655	4.12		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
7.2	240	Total			

Summary for Subcatchment 211: WPost-13

Runoff = 0.70 cfs @ 12.00 hrs, Volume= 0.041 af, Depth= 5.68"
 Routed to Pond 215 : Forebay B2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.021	61	>75% Grass cover, Good, HSG B
0.066	80	>75% Grass cover, Good, HSG D
0.087	75	Weighted Average
0.087	75	100.00% Pervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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

Summary for Subcatchment 212: WPost-14

Runoff = 22.31 cfs @ 12.14 hrs, Volume= 1.883 af, Depth= 6.41"
 Routed to Pond 215 : Forebay B2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
1.466	61	>75% Grass cover, Good, HSG B
0.393	80	>75% Grass cover, Good, HSG D
0.769	98	Impervious, HSG B
0.368	98	Impervious, HSG D
0.443	98	Roofs, HSG B
0.089	98	Roofs, HSG D
3.528	81	Weighted Average
1.859	65	52.69% Pervious Area
1.669	98	47.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.0490	0.17		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.4	102	0.0615	3.99		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
0.3	87	0.0423	4.18		Shallow Concentrated Flow, C
					Paved Kv= 20.3 fps
10.5	289	Total			

Summary for Subcatchment 213: WPost-15

Runoff = 13.14 cfs @ 12.12 hrs, Volume= 1.062 af, Depth= 6.41"
 Routed to Pond 215 : Forebay B2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.930	61	>75% Grass cover, Good, HSG B
0.627	98	Impervious, HSG B
0.431	98	Roofs, HSG B
1.989	81	Weighted Average
0.930	61	46.78% Pervious Area
1.058	98	53.22% Impervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.0660	0.19		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.4	82	0.0509	3.63		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
0.0	15	0.0690	5.33		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
9.1	197	Total			

Summary for Subcatchment 214: WPost-16

Runoff = 14.32 cfs @ 12.14 hrs, Volume= 1.222 af, Depth= 6.89"
 Routed to Pond 215 : Forebay B2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.698	61	>75% Grass cover, Good, HSG B
0.701	98	Impervious, HSG B
0.056	98	Offsite Impervious, HSG B
0.038	98	Offsite Roofs, HSG B
0.570	98	Roofs, HSG B
0.065	55	Woods, Good, HSG B
2.128	85	Weighted Average
0.764	60	35.88% Pervious Area
1.365	98	64.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0540	0.18		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.1	21	0.0428	3.33		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
0.8	178	0.0297	3.50		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
10.3	299	Total			

Summary for Pond 215: Forebay B2

Inflow Area = 8.424 ac, 48.86% Impervious, Inflow Depth = 6.36" for 100-Year event
 Inflow = 53.18 cfs @ 12.13 hrs, Volume= 4.466 af
 Outflow = 50.79 cfs @ 12.14 hrs, Volume= 4.464 af, Atten= 4%, Lag= 0.1 min
 Primary = 1.13 cfs @ 10.28 hrs, Volume= 0.391 af
 Routed to Pond 209 : WQ Infiltration Pond B
 Secondary = 50.19 cfs @ 12.14 hrs, Volume= 4.072 af
 Routed to Pond 218 : Infiltration Pond B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 100-Year Rainfall=8.70"

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Automatic Starting Elev= 238.00' Surf.Area= 1,434 sf Storage= 3,656 cf

Peak Elev= 242.45' @ 12.53 hrs Surf.Area= 2,917 sf Storage= 13,371 cf (9,715 cf above start)

Plug-Flow detention time= 83.8 min calculated for 4.379 af (98% of inflow)

Center-of-Mass det. time= 64.6 min (865.0 - 800.4)

Volume	Invert	Avail.Storage	Storage Description
#1	234.00'	16,623 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
234.00	444	0	0
236.00	889	1,333	1,333
238.00	1,434	2,323	3,656
240.00	2,080	3,514	7,170
242.00	2,826	4,906	12,076
243.00	3,028	2,927	15,003
243.50	3,451	1,620	16,623

Device	Routing	Invert	Outlet Devices
#1	Primary	238.00'	6.00" Round (2) 6" Culvert to WQ X 2.00 L= 27.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 238.00' / 237.50' S= 0.0185 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Secondary	240.75'	20.0' long x 0.5' breadth Curb Weir to QP Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.12 cfs @ 10.28 hrs HW=240.78' TW=240.30' (Dynamic Tailwater)↑**1=(2) 6" Culvert to WQ** (Outlet Controls 1.12 cfs @ 2.84 fps)**Secondary OutFlow** Max=46.56 cfs @ 12.14 hrs HW=241.75' TW=241.45' (Dynamic Tailwater)↑**2=Curb Weir to QP** (Weir Controls 46.56 cfs @ 2.34 fps)**Summary for Subcatchment 216: WPost-17**

Runoff = 2.82 cfs @ 12.14 hrs, Volume= 0.232 af, Depth= 3.51"

Routed to Pond 218 : Infiltration Pond B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.323	61	>75% Grass cover, Good, HSG B
0.000	98	Roofs, HSG B
0.469	55	Woods, Good, HSG B
0.792	57	Weighted Average
0.792	57	100.00% Pervious Area
0.000	98	0.00% Impervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0630	0.19		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.7	167	0.0700	4.26		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
9.6	267	Total			

Summary for Subcatchment 217: WPost-18

Runoff = 6.60 cfs @ 12.00 hrs, Volume= 0.384 af, Depth= 5.19"
 Routed to Pond 218 : Infiltration Pond B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.445	61	>75% Grass cover, Good, HSG B
0.405	80	>75% Grass cover, Good, HSG D
0.037	98	Water Surface, 0% imp, HSG D
0.887	71	Weighted Average
0.887	71	100.00% Pervious Area

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

Summary for Pond 218: Infiltration Pond B

Inflow Area = 14.708 ac, 40.35% Impervious, Inflow Depth = 5.32" for 100-Year event
 Inflow = 69.66 cfs @ 12.13 hrs, Volume= 6.517 af
 Outflow = 25.54 cfs @ 12.52 hrs, Volume= 6.517 af, Atten= 63%, Lag= 23.4 min
 Discarded = 0.76 cfs @ 12.52 hrs, Volume= 1.098 af
 Primary = 24.78 cfs @ 12.52 hrs, Volume= 5.420 af
 Routed to Link 240 : DP-2 Western Wetlands
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 240 : DP-2 Western Wetlands

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 242.45' @ 12.52 hrs Surf.Area= 32,761 sf Storage= 103,310 cf

Plug-Flow detention time= 157.4 min calculated for 6.517 af (100% of inflow)
 Center-of-Mass det. time= 157.4 min (985.6 - 828.2)

Volume	Invert	Avail.Storage	Storage Description
#1	237.50'	139,039 cf	Pond Area (Prismatic) Listed below (Recalc)

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Type III 24-hr 100-Year Rainfall=8.70"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
237.50	1,424	0	0
238.00	7,844	2,317	2,317
240.00	23,470	31,314	33,631
242.00	31,749	55,219	88,850
243.00	34,007	32,878	121,728
243.50	35,238	17,311	139,039

Device	Routing	Invert	Outlet Devices
#1	Discarded	237.50'	1.000 in/hr Infiltration over Surface area Phase-In= 0.01'
#2	Primary	238.90'	35.0 deg x 0.3' long x 3.60' rise Sharp-Crested Vee/Trap Weir Cv= 2.59 (C= 3.24)
#3	Secondary	242.50'	10.0' long x 0.5' breadth Emergency overflow weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Discarded OutFlow Max=0.76 cfs @ 12.52 hrs HW=242.45' (Free Discharge)↑**1=Infiltration** (Exfiltration Controls 0.76 cfs)**Primary OutFlow** Max=24.78 cfs @ 12.52 hrs HW=242.45' TW=0.00' (Dynamic Tailwater)↑**2=Sharp-Crested Vee/Trap Weir** (Weir Controls 24.78 cfs @ 5.10 fps)**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=237.50' TW=0.00' (Dynamic Tailwater)↑**3=Emergency overflow weir** (Controls 0.00 cfs)**Summary for Subcatchment 219: WPost-19**

Runoff = 3.09 cfs @ 12.10 hrs, Volume= 0.227 af, Depth= 3.99"
 Routed to Link 240 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.684	61	>75% Grass cover, Good, HSG B
0.000	98	Roofs, HSG B
0.685	61	Weighted Average
0.684	61	99.97% Pervious Area
0.000	98	0.03% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	78	0.2050	0.19		Sheet Flow, A Woods: Light underbrush n= 0.400 P2= 3.30"

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Type III 24-hr 100-Year Rainfall=8.70"

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Summary for Subcatchment 220: WPost-20

Runoff = 3.62 cfs @ 12.10 hrs, Volume= 0.272 af, Depth= 5.92"
 Routed to Link 240 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.091	61	>75% Grass cover, Good, HSG B
0.460	80	>75% Grass cover, Good, HSG D
0.551	77	Weighted Average
0.551	77	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.1100	0.23		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.2	45	0.0777	4.49		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
7.3	145	Total			

Summary for Subcatchment 221: WPost-21

Runoff = 1.23 cfs @ 12.09 hrs, Volume= 0.087 af, Depth= 4.95"
 Routed to Link 240 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.103	61	>75% Grass cover, Good, HSG B
0.090	80	>75% Grass cover, Good, HSG D
0.018	55	Woods, Good, HSG B
0.212	69	Weighted Average
0.212	69	100.00% Pervious Area

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

Summary for Subcatchment 230: WPost-22

Runoff = 7.45 cfs @ 12.11 hrs, Volume= 0.563 af, Depth= 4.11"
 Routed to Link 240 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
1.619	61	>75% Grass cover, Good, HSG B
0.027	98	Offsite Roofs, HSG B
0.000	98	Roofs, HSG B
1.646	62	Weighted Average
1.619	61	98.38% Pervious Area
0.027	98	1.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0960	0.22		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.1	30	0.0466	3.48		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
7.6	130	Total			

Summary for Subcatchment 231: WPost-23

Runoff = 0.43 cfs @ 12.08 hrs, Volume= 0.032 af, Depth= 7.37"
 Routed to Link 240 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.013	61	>75% Grass cover, Good, HSG B
0.040	98	Offsite Impervious, HSG B
0.053	89	Weighted Average
0.013	61	24.13% Pervious Area
0.040	98	75.87% Impervious Area

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

Summary for Pond 232: Pipe Run B6-B9

Inflow Area = 2.002 ac, 38.77% Impervious, Inflow Depth = 5.05" for 100-Year event
 Inflow = 7.83 cfs @ 12.14 hrs, Volume= 0.843 af
 Outflow = 7.83 cfs @ 12.14 hrs, Volume= 0.843 af, Atten= 0%, Lag= 0.0 min
 Primary = 7.83 cfs @ 12.14 hrs, Volume= 0.843 af
 Routed to Pond 233 : Pipe Run B9-B10

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 244.25' @ 12.19 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	241.67'	24.00" Round Pipe B6-B9 L= 207.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 241.67' / 240.64' S= 0.0050 ' / Cc= 0.900

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Type III 24-hr 100-Year Rainfall=8.70"

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n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=6.52 cfs @ 12.14 hrs HW=244.00' TW=243.75' (Dynamic Tailwater)↑**1=Pipe B6-B9** (Outlet Controls 6.52 cfs @ 2.24 fps)**Summary for Pond 233: Pipe Run B9-B10**

Inflow Area = 2.348 ac, 41.30% Impervious, Inflow Depth = 5.27" for 100-Year event
 Inflow = 9.74 cfs @ 12.14 hrs, Volume= 1.031 af
 Outflow = 9.74 cfs @ 12.14 hrs, Volume= 1.031 af, Atten= 0%, Lag= 0.0 min
 Primary = 9.74 cfs @ 12.14 hrs, Volume= 1.031 af
 Routed to Pond 234 : Pipe Run B10-B13

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 244.00' @ 12.23 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	240.64'	24.00" Round Pipe B9-B10 L= 159.6' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 240.64' / 239.84' S= 0.0050 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=8.76 cfs @ 12.14 hrs HW=243.77' TW=243.38' (Dynamic Tailwater)↑**1=Pipe B9-B10** (Outlet Controls 8.76 cfs @ 2.79 fps)**Summary for Pond 234: Pipe Run B10-B13**

Inflow Area = 2.394 ac, 42.41% Impervious, Inflow Depth = 5.33" for 100-Year event
 Inflow = 10.06 cfs @ 12.14 hrs, Volume= 1.063 af
 Outflow = 10.06 cfs @ 12.14 hrs, Volume= 1.063 af, Atten= 0%, Lag= 0.0 min
 Primary = 10.06 cfs @ 12.14 hrs, Volume= 1.063 af
 Routed to Pond 235 : B13-B16

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 243.67' @ 12.26 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	239.84'	24.00" Round Pipe B10-B13 L= 144.3' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 239.84' / 239.12' S= 0.0050 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=9.14 cfs @ 12.14 hrs HW=243.35' TW=242.95' (Dynamic Tailwater)↑**1=Pipe B10-B13** (Outlet Controls 9.14 cfs @ 2.91 fps)

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Summary for Pond 235: B13-B16

Inflow Area = 3.366 ac, 43.95% Impervious, Inflow Depth = 5.57" for 100-Year event
 Inflow = 13.76 cfs @ 12.15 hrs, Volume= 1.561 af
 Outflow = 13.76 cfs @ 12.15 hrs, Volume= 1.561 af, Atten= 0%, Lag= 0.0 min
 Primary = 13.76 cfs @ 12.15 hrs, Volume= 1.561 af
 Routed to Pond 236 : Pipe Run B16-B17FES

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 243.38' @ 12.29 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	239.12'	24.00" Round Pipe B13-B16 L= 224.1' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 239.12' / 238.00' S= 0.0050 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=13.36 cfs @ 12.15 hrs HW=243.04' TW=241.94' (Dynamic Tailwater)
 ↑**1=Pipe B13-B16** (Outlet Controls 13.36 cfs @ 4.25 fps)

Summary for Pond 236: Pipe Run B16-B17FES

Inflow Area = 3.989 ac, 43.87% Impervious, Inflow Depth = 5.62" for 100-Year event
 Inflow = 16.83 cfs @ 12.15 hrs, Volume= 1.867 af
 Outflow = 16.83 cfs @ 12.15 hrs, Volume= 1.867 af, Atten= 0%, Lag= 0.0 min
 Primary = 16.83 cfs @ 12.15 hrs, Volume= 1.867 af
 Routed to Pond 206 : Forebay B1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 242.63' @ 12.44 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	237.50'	30.00" Round Pipe B16-FES B17 L= 86.1' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 237.50' / 234.50' S= 0.0348 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=15.78 cfs @ 12.15 hrs HW=241.97' TW=241.53' (Dynamic Tailwater)
 ↑**1=Pipe B16-FES B17** (Inlet Controls 15.78 cfs @ 3.22 fps)

Summary for Link 240: DP-2 Western Wetlands

Inflow Area = 17.853 ac, 33.61% Impervious, Inflow Depth = 4.44" for 100-Year event
 Inflow = 29.73 cfs @ 12.41 hrs, Volume= 6.602 af
 Primary = 29.73 cfs @ 12.41 hrs, Volume= 6.602 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Summary for Subcatchment 300: WPost-24

Runoff = 4.05 cfs @ 12.14 hrs, Volume= 0.331 af, Depth= 3.99"
 Routed to Link 330 : DP-3 Eastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.997	61	>75% Grass cover, Good, HSG B
0.000	98	Roofs, HSG B
0.997	61	Weighted Average
0.997	61	100.00% Pervious Area
0.000	98	0.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0500	0.17		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.2	44	0.0681	4.20		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
9.9	144	Total			

Summary for Subcatchment 310: WPost-25

Runoff = 7.23 cfs @ 12.15 hrs, Volume= 0.604 af, Depth= 4.35"
 Routed to Link 330 : DP-3 Eastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
1.384	61	>75% Grass cover, Good, HSG B
0.283	80	>75% Grass cover, Good, HSG D
1.667	64	Weighted Average
1.667	64	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0540	0.18		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
1.3	305	0.0550	3.78		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
10.7	405	Total			

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Summary for Subcatchment 320: WPost-26

Runoff = 3.10 cfs @ 12.15 hrs, Volume= 0.258 af, Depth= 4.35"
 Routed to Link 330 : DP-3 Eastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.661	61	>75% Grass cover, Good, HSG B
0.050	98	Impervious, HSG B
0.711	64	Weighted Average
0.661	61	92.99% Pervious Area
0.050	98	7.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.0410	0.16		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.1	42	0.1309	5.82		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
10.6	142	Total			

Summary for Link 330: DP-3 Eastern Abutters

Inflow Area = 3.482 ac, 4.47% Impervious, Inflow Depth = 4.12" for 100-Year event
 Inflow = 14.37 cfs @ 12.15 hrs, Volume= 1.194 af
 Primary = 14.37 cfs @ 12.15 hrs, Volume= 1.194 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Subcatchment 400: WPost-27

Runoff = 1.33 cfs @ 12.09 hrs, Volume= 0.098 af, Depth= 6.65"
 Routed to Pond 401 : UIS-C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.069	61	>75% Grass cover, Good, HSG B
0.107	98	Impervious, HSG B
0.176	83	Weighted Average
0.069	61	39.25% Pervious Area
0.107	98	60.75% Impervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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

Summary for Pond 401: UIS-C

Inflow Area = 0.285 ac, 75.75% Impervious, Inflow Depth = 7.34" for 100-Year event
 Inflow = 2.26 cfs @ 12.08 hrs, Volume= 0.175 af
 Outflow = 0.18 cfs @ 11.58 hrs, Volume= 0.175 af, Atten= 92%, Lag= 0.0 min
 Discarded = 0.18 cfs @ 11.58 hrs, Volume= 0.175 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 450 : DP-4 Northeastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 255.18' @ 13.07 hrs Surf.Area= 2,248 sf Storage= 2,831 cf

Plug-Flow detention time= 116.4 min calculated for 0.175 af (100% of inflow)
 Center-of-Mass det. time= 116.4 min (886.0 - 769.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	253.25'	1,767 cf	30.00'W x 74.93'L x 3.75'H Field A 8,430 cf Overall - 3,077 cf Embedded = 5,353 cf x 33.0% Voids
#2A	253.75'	3,077 cf	ADS StormTech SC-800 +Cap x 60 Inside #1 Effective Size= 45.0"W x 33.0"H => 7.11 sf x 7.12'L = 50.6 cf Overall Size= 51.0"W x 33.0"H x 7.55'L with 0.43' Overlap 60 Chambers in 6 Rows Cap Storage= 3.4 cf x 2 x 6 rows = 41.0 cf
		4,843 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	253.25'	3.500 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	257.52'	24.00" W x 24.00" H Vert. E-Overflow X 2.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.18 cfs @ 11.58 hrs HW=253.32' (Free Discharge)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.18 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=253.25' TW=0.00' (Dynamic Tailwater)
 ↑ **2=E-Overflow** (Controls 0.00 cfs)

Summary for Subcatchment 402: WPost-28

Runoff = 3.34 cfs @ 12.12 hrs, Volume= 0.256 af, Depth= 3.99"
 Routed to Link 450 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.767	61	>75% Grass cover, Good, HSG B
0.000	98	Impervious, HSG B
0.004	98	Offsite Roofs, HSG B
0.771	61	Weighted Average
0.767	61	99.51% Pervious Area
0.004	98	0.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	100	0.0850	0.21		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.1	28	0.1392	6.01		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
8.0	128	Total			

Summary for Subcatchment 410: WPost-29

Runoff = 7.51 cfs @ 12.15 hrs, Volume= 0.632 af, Depth= 3.87"
 Routed to Link 450 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.813	61	>75% Grass cover, Good, HSG B
0.048	96	Gravel surface, HSG B
0.050	98	Offsite Roofs, HSG B
1.049	55	Woods, Good, HSG B
1.961	60	Weighted Average
1.911	59	97.44% Pervious Area
0.050	98	2.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	60	0.1483	0.24		Sheet Flow, A1 Grass: Dense n= 0.240 P2= 3.30"
6.4	40	0.0625	0.10		Sheet Flow, A2 Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	13	0.0615	3.99		Shallow Concentrated Flow, C Unpaved Kv= 16.1 fps
10.7	113	Total			

Summary for Subcatchment 420: WPost-30

Runoff = 2.84 cfs @ 12.09 hrs, Volume= 0.202 af, Depth= 4.59"
 Routed to Link 450 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.401	61	>75% Grass cover, Good, HSG B
0.077	96	Gravel surface, HSG B
0.050	55	Woods, Good, HSG B
0.528	66	Weighted Average
0.528	66	100.00% Pervious Area

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

Summary for Subcatchment 430: WPost-31

Runoff = 4.36 cfs @ 12.16 hrs, Volume= 0.370 af, Depth= 4.59"
 Routed to Link 450 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.820	61	>75% Grass cover, Good, HSG B
0.104	96	Gravel surface, HSG B
0.029	98	Offsite Impervious, HSG B
0.014	55	Woods, Good, HSG B
0.967	66	Weighted Average
0.938	65	97.01% Pervious Area
0.029	98	2.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0420	0.16		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.9	244	0.0852	4.70		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
11.3	344	Total			

Summary for Subcatchment 440: WPost-32

Runoff = 1.31 cfs @ 12.09 hrs, Volume= 0.093 af, Depth= 3.99"
 Routed to Link 450 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.281	61	>75% Grass cover, Good, HSG B
0.281	61	100.00% Pervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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

Summary for Link 450: DP-4 Northeastern Abutters

Inflow Area = 4.793 ac, 6.24% Impervious, Inflow Depth = 3.89" for 100-Year event
 Inflow = 18.57 cfs @ 12.13 hrs, Volume= 1.553 af
 Primary = 18.57 cfs @ 12.13 hrs, Volume= 1.553 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Subcatchment 500: WPost-35

Runoff = 2.36 cfs @ 12.13 hrs, Volume= 0.186 af, Depth= 4.23"
 Routed to Link 518 : DP-5 Tiogue Ave

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.474	61	>75% Grass cover, Good, HSG B
0.014	98	Impervious, HSG B
0.019	98	Offsite Impervious, HSG B
0.021	55	Woods, Good, HSG B
0.528	63	Weighted Average
0.495	61	93.75% Pervious Area
0.033	98	6.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.0800	0.21		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.8	180	0.0561	3.81		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
8.9	280	Total			

Summary for Subcatchment 501: WPost-33

Runoff = 15.18 cfs @ 12.16 hrs, Volume= 1.291 af, Depth= 4.83"
 Routed to Pond 515 : Infiltration Pond D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
2.467	61	>75% Grass cover, Good, HSG B
0.456	98	Impervious, HSG B
0.000	98	Offsite Impervious, HSG B
0.158	98	Offsite Roofs, HSG B
0.000	98	Roofs, HSG B
0.126	55	Woods, Good, HSG B
3.207	68	Weighted Average
2.593	61	80.85% Pervious Area
0.614	98	19.15% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0500	0.17		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.5	114	0.0482	3.53		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
1.2	239	0.0259	3.27		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
11.4	453	Total			

Summary for Subcatchment 502: WPost-34

Runoff = 1.88 cfs @ 12.00 hrs, Volume= 0.110 af, Depth= 3.99"
 Routed to Pond 515 : Infiltration Pond D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.330	61	>75% Grass cover, Good, HSG B
0.000	98	Impervious, HSG B
0.330	61	Weighted Average
0.330	61	100.00% Pervious Area

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

Summary for Subcatchment 503: WPost-36 Building 1,2,3

Runoff = 2.79 cfs @ 12.08 hrs, Volume= 0.231 af, Depth= 8.46"
 Routed to Pond 515 : Infiltration Pond D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
* 0.327	98	Roof
0.327	98	100.00% Impervious Area

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

Summary for Subcatchment 504: WPost-37 Building 4,5,6

Runoff = 2.49 cfs @ 12.08 hrs, Volume= 0.205 af, Depth= 8.46"
Routed to Pond 505 : UIS-G

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.291	98	Roofs, HSG B
0.291	98	100.00% Impervious Area

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

Summary for Pond 505: UIS-G

Inflow Area = 0.291 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
Inflow = 2.49 cfs @ 12.08 hrs, Volume= 0.205 af
Outflow = 0.12 cfs @ 10.42 hrs, Volume= 0.205 af, Atten= 95%, Lag= 0.0 min
Discarded = 0.12 cfs @ 10.42 hrs, Volume= 0.205 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 252.00' @ 14.33 hrs Surf.Area= 0.049 ac Storage= 0.092 af

Plug-Flow detention time= 273.0 min calculated for 0.205 af (100% of inflow)
Center-of-Mass det. time= 273.0 min (1,013.2 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	249.00'	0.038 af	39.50'W x 53.58'L x 3.75'H Field A 0.182 af Overall - 0.066 af Embedded = 0.116 af x 33.0% Voids
#2A	249.50'	0.066 af	ADS StormTech SC-800 +Cap x 56 Inside #1 Effective Size= 45.0"W x 33.0"H => 7.11 sf x 7.12'L = 50.6 cf Overall Size= 51.0"W x 33.0"H x 7.55'L with 0.43' Overlap 56 Chambers in 8 Rows Cap Storage= 3.4 cf x 2 x 8 rows = 54.7 cf
		0.105 af	Total Available Storage

Storage Group A created with Chamber Wizard

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Type III 24-hr 100-Year Rainfall=8.70"

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Device	Routing	Invert	Outlet Devices
#1	Discarded	249.00'	2.410 in/hr Exfiltration over Surface area Phase-In= 0.01'

Discarded OutFlow Max=0.12 cfs @ 10.42 hrs HW=249.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.12 cfs)**Summary for Subcatchment 506: WPost-38 Building 7**

Runoff = 0.93 cfs @ 12.08 hrs, Volume= 0.077 af, Depth= 8.46"
 Routed to Pond 507 : UIS-E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.109	98	Roofs, HSG B
0.109	98	100.00% Impervious Area

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

Summary for Pond 507: UIS-E

Inflow Area = 0.109 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.93 cfs @ 12.08 hrs, Volume= 0.077 af
 Outflow = 0.05 cfs @ 10.58 hrs, Volume= 0.077 af, Atten= 95%, Lag= 0.0 min
 Discarded = 0.05 cfs @ 10.58 hrs, Volume= 0.077 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 232.94' @ 14.17 hrs Surf.Area= 0.019 ac Storage= 0.034 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 255.6 min (995.8 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	230.00'	0.016 af	11.00'W x 74.93'L x 3.75'H Field A 0.071 af Overall - 0.024 af Embedded = 0.047 af x 33.0% Voids
#2A	230.50'	0.024 af	ADS_StormTech SC-800 +Cap x 20 Inside #1 Effective Size= 45.0"W x 33.0"H => 7.11 sf x 7.12'L = 50.6 cf Overall Size= 51.0"W x 33.0"H x 7.55'L with 0.43' Overlap 20 Chambers in 2 Rows Cap Storage= 3.4 cf x 2 x 2 rows = 13.7 cf
		0.039 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	230.00'	2.410 in/hr Exfiltration over Surface area

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Type III 24-hr 100-Year Rainfall=8.70"

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Discarded OutFlow Max=0.05 cfs @ 10.58 hrs HW=230.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.05 cfs)**Summary for Subcatchment 508: WPost-39 Building 8**

Runoff = 0.93 cfs @ 12.08 hrs, Volume= 0.077 af, Depth= 8.46"
 Routed to Pond 509 : UIS-F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.000	61	>75% Grass cover, Good, HSG B
0.109	98	Roofs, HSG B
0.109	98	Weighted Average
0.000	61	0.00% Pervious Area
0.109	98	100.00% Impervious Area

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

Summary for Pond 509: UIS-F

Inflow Area = 0.109 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.93 cfs @ 12.08 hrs, Volume= 0.077 af
 Outflow = 0.14 cfs @ 12.57 hrs, Volume= 0.077 af, Atten= 85%, Lag= 29.3 min
 Discarded = 0.05 cfs @ 10.51 hrs, Volume= 0.071 af
 Primary = 0.09 cfs @ 12.57 hrs, Volume= 0.006 af
 Routed to Pond 511 : D4

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 241.03' @ 12.57 hrs Surf.Area= 0.019 ac Storage= 0.030 af

Plug-Flow detention time= 193.1 min calculated for 0.077 af (100% of inflow)
 Center-of-Mass det. time= 193.1 min (933.3 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	238.50'	0.016 af	11.00'W x 74.93'L x 3.75'H Field A 0.071 af Overall - 0.024 af Embedded = 0.047 af x 33.0% Voids
#2A	239.00'	0.024 af	ADS StormTech SC-800 +Cap x 20 Inside #1 Effective Size= 45.0"W x 33.0"H => 7.11 sf x 7.12'L = 50.6 cf Overall Size= 51.0"W x 33.0"H x 7.55'L with 0.43' Overlap 20 Chambers in 2 Rows Cap Storage= 3.4 cf x 2 x 2 rows = 13.7 cf
		0.039 af	Total Available Storage

Storage Group A created with Chamber Wizard

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Type III 24-hr 100-Year Rainfall=8.70"

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Device	Routing	Invert	Outlet Devices
#1	Discarded	238.50'	2.410 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	240.78'	6.00" Round Culvert L= 6.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 240.78' / 240.78' S= 0.0000 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=0.05 cfs @ 10.51 hrs HW=238.54' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.05 cfs)**Primary OutFlow** Max=0.09 cfs @ 12.57 hrs HW=241.03' TW=239.02' (Dynamic Tailwater)↑**2=Culvert** (Barrel Controls 0.09 cfs @ 1.39 fps)**Summary for Subcatchment 510: WPost-40 Building 9**

Runoff = 0.93 cfs @ 12.08 hrs, Volume= 0.077 af, Depth= 8.46"
Routed to Pond 511 : D4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.109	98	Roofs, HSG B
0.109	98	100.00% Impervious Area

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

Summary for Pond 511: D4

Inflow Area = 0.218 ac, 100.00% Impervious, Inflow Depth = 4.57" for 100-Year event
Inflow = 0.93 cfs @ 12.08 hrs, Volume= 0.083 af
Outflow = 0.93 cfs @ 12.08 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.0 min
Primary = 0.93 cfs @ 12.08 hrs, Volume= 0.083 af
Routed to Pond 513 : D3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Peak Elev= 239.39' @ 12.08 hrs
Flood Elev= 241.95'

Device	Routing	Invert	Outlet Devices
#1	Primary	238.75'	8.00" Round Culvert L= 145.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 238.75' / 234.00' S= 0.0328 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.93 cfs @ 12.08 hrs HW=239.39' TW=235.56' (Dynamic Tailwater)↑**1=Culvert** (Inlet Controls 0.93 cfs @ 2.71 fps)

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Type III 24-hr 100-Year Rainfall=8.70"

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Summary for Subcatchment 512: WPost-41 Building 10

Runoff = 0.93 cfs @ 12.08 hrs, Volume= 0.077 af, Depth= 8.46"
 Routed to Pond 513 : D3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.109	98	Roofs, HSG B
0.109	98	100.00% Impervious Area

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

Summary for Pond 513: D3

Inflow Area = 0.327 ac, 100.00% Impervious, Inflow Depth = 5.87" for 100-Year event
 Inflow = 1.86 cfs @ 12.08 hrs, Volume= 0.160 af
 Outflow = 1.86 cfs @ 12.08 hrs, Volume= 0.160 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.86 cfs @ 12.08 hrs, Volume= 0.160 af
 Routed to Pond 514 : D3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 235.56' @ 12.08 hrs
 Flood Elev= 235.94'

Device	Routing	Invert	Outlet Devices
#1	Primary	234.00'	8.00" Round Culvert L= 102.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 234.00' / 230.83' S= 0.0311 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.86 cfs @ 12.08 hrs HW=235.56' TW=232.38' (Dynamic Tailwater)
 ↑ **1=Culvert** (Inlet Controls 1.86 cfs @ 5.33 fps)

Summary for Pond 514: D3

Inflow Area = 0.327 ac, 100.00% Impervious, Inflow Depth = 5.87" for 100-Year event
 Inflow = 1.86 cfs @ 12.08 hrs, Volume= 0.160 af
 Outflow = 1.86 cfs @ 12.08 hrs, Volume= 0.160 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.86 cfs @ 12.08 hrs, Volume= 0.160 af
 Routed to Pond 515 : Infiltration Pond D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 233.06' @ 12.53 hrs
 Flood Elev= 234.00'

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Type III 24-hr 100-Year Rainfall=8.70"

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Device	Routing	Invert	Outlet Devices
#1	Primary	230.80'	8.00" Round Culvert L= 46.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 230.80' / 226.00' S= 0.1043 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.82 cfs @ 12.08 hrs HW=232.38' TW=230.85' (Dynamic Tailwater)↑**1=Culvert** (Outlet Controls 1.82 cfs @ 5.22 fps)**Summary for Pond 515: Infiltration Pond D**

Inflow Area = 4.191 ac, 30.26% Impervious, Inflow Depth = 5.13" for 100-Year event
 Inflow = 19.54 cfs @ 12.14 hrs, Volume= 1.791 af
 Outflow = 5.54 cfs @ 12.57 hrs, Volume= 1.791 af, Atten= 72%, Lag= 26.1 min
 Discarded = 0.40 cfs @ 12.57 hrs, Volume= 0.638 af
 Primary = 5.15 cfs @ 12.57 hrs, Volume= 1.153 af
 Routed to Link 518 : DP-5 Tiogue Ave
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 518 : DP-5 Tiogue Ave

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 232.99' @ 12.57 hrs Surf.Area= 7,155 sf Storage= 31,027 cf

Plug-Flow detention time= 225.8 min calculated for 1.791 af (100% of inflow)
 Center-of-Mass det. time= 225.8 min (1,036.8 - 811.0)

Volume	Invert	Avail.Storage	Storage Description
#1	226.00'	38,679 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
226.00	2,082	0	0
227.00	2,696	2,389	2,389
228.00	3,311	3,004	5,393
230.00	4,691	8,002	13,395
232.00	6,271	10,962	24,357
234.00	8,051	14,322	38,679

Device	Routing	Invert	Outlet Devices
#1	Discarded	226.00'	2.400 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	229.65'	8.00" Round 8" Culvert west L= 42.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 229.65' / 227.00' S= 0.0631 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#3	Primary	229.65'	8.00" Round 8" Culvert east L= 42.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 229.65' / 228.00' S= 0.0393 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#4	Secondary	233.00'	10.0' long x 8.0' breadth Emergency Overflow Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64

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Type III 24-hr 100-Year Rainfall=8.70"

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2.65 2.65 2.66 2.66 2.68 2.70 2.74

Discarded OutFlow Max=0.40 cfs @ 12.57 hrs HW=232.99' (Free Discharge)↑ **1=Exfiltration** (Exfiltration Controls 0.40 cfs)**Primary OutFlow** Max=5.15 cfs @ 12.57 hrs HW=232.99' TW=0.00' (Dynamic Tailwater)↑ **2=8" Culvert west** (Inlet Controls 2.57 cfs @ 7.37 fps)↑ **3=8" Culvert east** (Inlet Controls 2.57 cfs @ 7.37 fps)**Secondary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=226.00' TW=0.00' (Dynamic Tailwater)↑ **4=Emergency Overflow** (Controls 0.00 cfs)**Summary for Subcatchment 516: W-Post 42 - 69 driveways & Parking spots**

Runoff = 4.72 cfs @ 12.08 hrs, Volume= 0.389 af, Depth= 8.46"

Routed to Pond 517 : Permeable Pavement

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.552	98	Impervious, HSG A
0.552	98	100.00% Impervious Area

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

Summary for Pond 517: Permeable Pavement

Inflow Area = 0.552 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event

Inflow = 4.72 cfs @ 12.08 hrs, Volume= 0.389 af

Outflow = 1.31 cfs @ 11.84 hrs, Volume= 0.389 af, Atten= 72%, Lag= 0.0 min

Discarded = 1.31 cfs @ 11.84 hrs, Volume= 0.389 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 99.36' @ 12.42 hrs Surf.Area= 0.540 ac Storage= 0.064 af

Plug-Flow detention time= 9.4 min calculated for 0.389 af (100% of inflow)

Center-of-Mass det. time= 9.4 min (749.6 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	99.67'	0.059 af	4" Permeable Pavement (Prismatic) Listed below (Recalc) -Impervious 0.178 af Overall x 33.0% Voids
#2	99.00'	0.119 af	8" Reservoir (Prismatic) Listed below (Recalc) 0.362 af Overall x 33.0% Voids
#3	100.00'	0.270 af	Flooding Storage (Prismatic) Listed below (Recalc) -Impervious
		0.448 af	Total Available Storage

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Type III 24-hr 100-Year Rainfall=8.70"

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Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
99.67	0.540	0.000	0.000
100.00	0.540	0.178	0.178

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
99.00	0.540	0.000	0.000
99.67	0.540	0.362	0.362

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
100.00	0.540	0.000	0.000
100.50	0.540	0.270	0.270

Device	Routing	Invert	Outlet Devices
#1	Discarded	99.00'	2.410 in/hr Exfiltration over Surface area Phase-In= 0.01'

Discarded OutFlow Max=1.31 cfs @ 11.84 hrs HW=99.02' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 1.31 cfs)**Summary for Link 518: DP-5 Tiogue Ave**

Inflow Area = 4.719 ac, 27.57% Impervious, Inflow Depth = 3.40" for 100-Year event
 Inflow = 6.07 cfs @ 12.19 hrs, Volume= 1.339 af
 Primary = 6.07 cfs @ 12.19 hrs, Volume= 1.339 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Subcatchment 600: Subcat 600

Runoff = 0.08 cfs @ 12.08 hrs, Volume= 0.006 af, Depth= 8.46"
 Routed to Pond 600D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.009	98	Roofs, HSG B
0.009	98	100.00% Impervious Area

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

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Type III 24-hr 100-Year Rainfall=8.70"

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Summary for Pond 600D: 100 Year Drywell 4' Deep

Inflow Area = 0.009 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.08 cfs @ 12.08 hrs, Volume= 0.006 af
 Outflow = 0.00 cfs @ 10.49 hrs, Volume= 0.006 af, Atten= 95%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 10.49 hrs, Volume= 0.006 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 251.62' @ 14.53 hrs Surf.Area= 150 sf Storage= 130 cf

Plug-Flow detention time= 297.8 min calculated for 0.006 af (100% of inflow)
 Center-of-Mass det. time= 297.8 min (1,038.0 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	249.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
249.00	150	0	0
252.50	150	525	525

Device	Routing	Invert	Outlet Devices
#1	Discarded	249.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	252.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 10.49 hrs HW=249.04' (Free Discharge)

↑ **1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=249.00' TW=0.00' (Dynamic Tailwater)

↑ **2=Orifice/Grate** (Controls 0.00 cfs)

Summary for Subcatchment 601: Subcat 601

Runoff = 0.08 cfs @ 12.08 hrs, Volume= 0.006 af, Depth= 8.46"
 Routed to Pond 601D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.009	98	Roofs, HSG B
0.009	98	100.00% Impervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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

Summary for Pond 601D: 100 Year Drywell 4' Deep

Inflow Area = 0.009 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.08 cfs @ 12.08 hrs, Volume = 0.006 af
 Outflow = 0.00 cfs @ 10.49 hrs, Volume = 0.006 af, Atten = 95%, Lag = 0.0 min
 Discarded = 0.00 cfs @ 10.49 hrs, Volume = 0.006 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume = 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span = 0.00-72.00 hrs, dt = 0.01 hrs
 Peak Elev = 251.62' @ 14.53 hrs Surf.Area = 150 sf Storage = 130 cf

Plug-Flow detention time = 297.8 min calculated for 0.006 af (100% of inflow)
 Center-of-Mass det. time = 297.8 min (1,038.0 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	249.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
249.00	150	0	0
252.50	150	525	525

Device	Routing	Invert	Outlet Devices
#1	Discarded	249.00'	1.020 in/hr Exfiltration over Surface area Phase-In = 0.01'
#2	Primary	252.60'	6.00" Horiz. Orifice/Grate C = 0.600 Limited to weir flow at low heads

Discarded OutFlow Max = 0.00 cfs @ 10.49 hrs HW = 249.04' (Free Discharge)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max = 0.00 cfs @ 0.00 hrs HW = 249.00' TW = 0.00' (Dynamic Tailwater)
 ↑ **2=Orifice/Grate** (Controls 0.00 cfs)

Summary for Subcatchment 602: Subcat 602

Runoff = 0.62 cfs @ 12.08 hrs, Volume = 0.051 af, Depth = 8.46"
 Routed to Pond 401 : UIS-C

Runoff by SCS TR-20 method, UH = SCS, Weighted-CN, Time Span = 0.00-72.00 hrs, dt = 0.01 hrs
 Type III 24-hr 100-Year Rainfall = 8.70"

Area (ac)	CN	Description
0.073	98	Roofs, HSG B
0.073	98	100.00% Impervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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

Summary for Subcatchment 603: Subcat 603

Runoff = 0.31 cfs @ 12.08 hrs, Volume= 0.026 af, Depth= 8.46"
 Routed to Pond 401 : UIS-C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.036	98	Roofs, HSG B
0.036	98	100.00% Impervious Area

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

Summary for Subcatchment 699: Subcat 699

Runoff = 0.18 cfs @ 12.08 hrs, Volume= 0.015 af, Depth= 8.46"
 Routed to Pond 232 : Pipe Run B6-B9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.021	98	Roofs, HSG B
0.021	98	100.00% Impervious Area

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

Summary for Subcatchment 700: Subcat 700

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 232 : Pipe Run B6-B9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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

Summary for Subcatchment 701: Subcat 701

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 232 : Pipe Run B6-B9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 702: Subcat 702

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 232 : Pipe Run B6-B9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.000	61	>75% Grass cover, Good, HSG B
0.000	98	Impervious, HSG B
0.023	98	Roofs, HSG B
0.023	98	Weighted Average
0.000	61	0.00% Pervious Area
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 703: Subcat 703

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 233 : Pipe Run B9-B10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 704: Subcat 704

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 233 : Pipe Run B9-B10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 705: Subcat 705

Runoff = 0.18 cfs @ 12.08 hrs, Volume= 0.015 af, Depth= 8.46"
 Routed to Pond 233 : Pipe Run B9-B10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.021	98	Roofs, HSG B
0.021	98	100.00% Impervious Area

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

Summary for Subcatchment 706: Subcat 706

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 234 : Pipe Run B10-B13

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 707: Subcat 707

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 234 : Pipe Run B10-B13

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 708: Subcat 708

Runoff = 0.18 cfs @ 12.08 hrs, Volume= 0.015 af, Depth= 8.46"
 Routed to Pond 235 : B13-B16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.021	98	Roofs, HSG B
0.021	98	100.00% Impervious Area

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

Summary for Subcatchment 709: Subcat 709

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 235 : B13-B16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 710: Subcat 710

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 235 : B13-B16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 711: Subcat 711

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 235 : B13-B16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.006	98	Roofs, HSG B
0.016	98	Roofs, HSG D
0.023	98	Weighted Average
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 712: Subcat 712

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 236 : Pipe Run B16-B17FES

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.023	98	Roofs, HSG D
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 713: Subcat 713

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 8.46"
 Routed to Pond 713D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.011	98	Roofs, HSG B
0.011	98	100.00% Impervious Area

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

Summary for Pond 713D: 100 Year Drywell 4' Deep

Inflow Area = 0.011 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.00 cfs @ 10.04 hrs, Volume= 0.007 af, Atten= 96%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 10.04 hrs, Volume= 0.007 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 244.23' @ 15.03 hrs Surf.Area= 150 sf Storage= 160 cf

Plug-Flow detention time= 372.4 min calculated for 0.007 af (100% of inflow)
 Center-of-Mass det. time= 372.4 min (1,112.6 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	241.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
241.00	150	0	0
244.50	150	525	525

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Type III 24-hr 100-Year Rainfall=8.70"

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Device	Routing	Invert	Outlet Devices
#1	Discarded	241.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	244.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 10.04 hrs HW=241.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=241.00' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Controls 0.00 cfs)**Summary for Subcatchment 714: Subcat 714**

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 8.46"
 Routed to Pond 714D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.011	98	Roofs, HSG D
0.011	98	100.00% Impervious Area

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

Summary for Pond 714D: 100 Year Drywell 4' Deep

Inflow Area = 0.011 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.00 cfs @ 10.04 hrs, Volume= 0.007 af, Atten= 96%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 10.04 hrs, Volume= 0.007 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 237.23' @ 15.03 hrs Surf.Area= 150 sf Storage= 160 cf

Plug-Flow detention time= 372.4 min calculated for 0.007 af (100% of inflow)
 Center-of-Mass det. time= 372.4 min (1,112.6 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	234.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
234.00	150	0	0
237.50	150	525	525

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Type III 24-hr 100-Year Rainfall=8.70"

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Device	Routing	Invert	Outlet Devices
#1	Discarded	234.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	237.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 10.04 hrs HW=234.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=234.00' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Controls 0.00 cfs)**Summary for Subcatchment 715: Subcat 715**

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 8.46"
 Routed to Pond 715D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.011	98	Roofs, HSG D
0.011	98	100.00% Impervious Area

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

Summary for Pond 715D: 100 Year Drywell 4' Deep

Inflow Area = 0.011 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.00 cfs @ 10.04 hrs, Volume= 0.007 af, Atten= 96%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 10.04 hrs, Volume= 0.007 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 237.23' @ 15.03 hrs Surf.Area= 150 sf Storage= 160 cf

Plug-Flow detention time= 372.4 min calculated for 0.007 af (100% of inflow)
 Center-of-Mass det. time= 372.4 min (1,112.6 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	234.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
234.00	150	0	0
237.50	150	525	525

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Type III 24-hr 100-Year Rainfall=8.70"

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Device	Routing	Invert	Outlet Devices
#1	Discarded	234.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	237.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 10.04 hrs HW=234.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=234.00' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Controls 0.00 cfs)**Summary for Subcatchment 716: Subcat 716**

Runoff = 0.10 cfs @ 12.08 hrs, Volume= 0.008 af, Depth= 8.46"
 Routed to Pond 716D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.011	98	Roofs, HSG B
0.011	98	100.00% Impervious Area

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

Summary for Pond 716D: 100 Year Drywell 4' Deep

Inflow Area = 0.011 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.10 cfs @ 12.08 hrs, Volume= 0.008 af
 Outflow = 0.00 cfs @ 14.29 hrs, Volume= 0.008 af, Atten= 95%, Lag= 132.4 min
 Discarded = 0.00 cfs @ 9.81 hrs, Volume= 0.008 af
 Primary = 0.00 cfs @ 14.29 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 256.60' @ 14.29 hrs Surf.Area= 150 sf Storage= 173 cf

Plug-Flow detention time= 404.5 min calculated for 0.008 af (100% of inflow)
 Center-of-Mass det. time= 404.6 min (1,144.8 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	253.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
253.00	150	0	0
256.50	150	525	525

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Type III 24-hr 100-Year Rainfall=8.70"

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Device	Routing	Invert	Outlet Devices
#1	Discarded	253.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	256.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 9.81 hrs HW=253.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 14.29 hrs HW=256.60' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Weir Controls 0.00 cfs @ 0.20 fps)**Summary for Subcatchment 717: Subcat 717**

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 8.46"
 Routed to Pond 717D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.010	98	Roofs, HSG B
0.010	98	100.00% Impervious Area

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

Summary for Pond 717D: 100 Year Drywell 4' Deep

Inflow Area = 0.010 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.00 cfs @ 10.19 hrs, Volume= 0.007 af, Atten= 96%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 10.19 hrs, Volume= 0.007 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 258.03' @ 14.88 hrs Surf.Area= 150 sf Storage= 150 cf

Plug-Flow detention time= 347.7 min calculated for 0.007 af (100% of inflow)
 Center-of-Mass det. time= 347.7 min (1,087.9 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	255.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
255.00	150	0	0
258.50	150	525	525

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Type III 24-hr 100-Year Rainfall=8.70"

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Device	Routing	Invert	Outlet Devices
#1	Discarded	255.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	258.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 10.19 hrs HW=255.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=255.00' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Controls 0.00 cfs)**Summary for Subcatchment 718: Subcat 718**

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 8.46"
 Routed to Pond 718D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.010	98	Roofs, HSG B
0.010	98	100.00% Impervious Area

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

Summary for Pond 718D: 100 Year Drywell 4' Deep

Inflow Area = 0.010 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.00 cfs @ 10.19 hrs, Volume= 0.007 af, Atten= 96%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 10.19 hrs, Volume= 0.007 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 259.03' @ 14.88 hrs Surf.Area= 150 sf Storage= 150 cf

Plug-Flow detention time= 347.7 min calculated for 0.007 af (100% of inflow)
 Center-of-Mass det. time= 347.7 min (1,087.9 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	256.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
256.00	150	0	0
259.50	150	525	525

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Type III 24-hr 100-Year Rainfall=8.70"

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Device	Routing	Invert	Outlet Devices
#1	Discarded	256.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	259.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 10.19 hrs HW=256.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=256.00' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Controls 0.00 cfs)**Summary for Subcatchment 719: Subcat 719**

Runoff = 0.10 cfs @ 12.08 hrs, Volume= 0.008 af, Depth= 8.46"
 Routed to Pond 719D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.012	98	Roofs, HSG B
0.012	98	100.00% Impervious Area

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

Summary for Pond 719D: 100 Year Drywell 4' Deep

Inflow Area = 0.012 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.10 cfs @ 12.08 hrs, Volume= 0.008 af
 Outflow = 0.01 cfs @ 12.94 hrs, Volume= 0.008 af, Atten= 88%, Lag= 51.4 min
 Discarded = 0.00 cfs @ 9.62 hrs, Volume= 0.008 af
 Primary = 0.01 cfs @ 12.94 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 261.11' @ 12.94 hrs Surf.Area= 150 sf Storage= 173 cf

Plug-Flow detention time= 392.4 min calculated for 0.008 af (100% of inflow)
 Center-of-Mass det. time= 392.4 min (1,132.6 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	257.50'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
257.50	150	0	0
261.00	150	525	525

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Type III 24-hr 100-Year Rainfall=8.70"

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Device	Routing	Invert	Outlet Devices
#1	Discarded	257.50'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	261.10'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 9.62 hrs HW=257.54' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.01 cfs @ 12.94 hrs HW=261.11' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Weir Controls 0.01 cfs @ 0.38 fps)**Summary for Subcatchment 720: Subcat 720**

Runoff = 0.10 cfs @ 12.08 hrs, Volume= 0.009 af, Depth= 8.46"
 Routed to Pond 720D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.012	98	Roofs, HSG B
0.012	98	100.00% Impervious Area

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

Summary for Pond 720D: 100 Year Drywell 4' Deep

Inflow Area = 0.012 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.10 cfs @ 12.08 hrs, Volume= 0.009 af
 Outflow = 0.01 cfs @ 12.80 hrs, Volume= 0.009 af, Atten= 88%, Lag= 43.0 min
 Discarded = 0.00 cfs @ 9.57 hrs, Volume= 0.008 af
 Primary = 0.01 cfs @ 12.80 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 262.11' @ 12.80 hrs Surf.Area= 150 sf Storage= 173 cf

Plug-Flow detention time= 388.9 min calculated for 0.009 af (100% of inflow)
 Center-of-Mass det. time= 389.0 min (1,129.2 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	258.50'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
258.50	150	0	0
262.00	150	525	525

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Device	Routing	Invert	Outlet Devices
#1	Discarded	258.50'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	262.10'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 9.57 hrs HW=258.54' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.01 cfs @ 12.80 hrs HW=262.11' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Weir Controls 0.01 cfs @ 0.39 fps)



A3.5.4.7 HydroCAD 100-Year Emergency Outlet Calculations

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Time span=0.00-72.00 hrs, dt=0.01 hrs, 7201 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

Subcatchment 100: WPost-01	Runoff Area=0.973 ac 21.17% Impervious Runoff Depth=4.71" Flow Length=281' Tc=9.4 min CN=67 Runoff=4.78 cfs 0.382 af
Subcatchment 101: WPost-02	Runoff Area=1.051 ac 31.47% Impervious Runoff Depth=5.43" Flow Length=352' Tc=10.0 min CN=73 Runoff=5.84 cfs 0.476 af
Subcatchment 102: WPost-03	Runoff Area=0.144 ac 0.04% Impervious Runoff Depth=4.35" Tc=0.0 min CN=64 Runoff=0.90 cfs 0.052 af
Subcatchment 200: WPost-04	Runoff Area=0.718 ac 49.63% Impervious Runoff Depth=6.16" Flow Length=147' Tc=9.9 min CN=79 Runoff=4.48 cfs 0.369 af
Subcatchment 201: WPost-05	Runoff Area=0.280 ac 45.39% Impervious Runoff Depth=6.04" Flow Length=198' Tc=13.6 min CN=78 Runoff=1.54 cfs 0.141 af
Subcatchment 202: WPost-06	Runoff Area=0.883 ac 42.46% Impervious Runoff Depth=5.92" Flow Length=301' Tc=20.3 min CN=77 Runoff=4.08 cfs 0.436 af
Subcatchment 203: WPost-07	Runoff Area=0.600 ac 41.32% Impervious Runoff Depth=5.80" Flow Length=285' Tc=14.6 min CN=76 Runoff=3.10 cfs 0.290 af
Subcatchment 204: WPost-08	Runoff Area=0.107 ac 21.10% Impervious Runoff Depth=6.77" Flow Length=72' Slope=0.0690 '/' Tc=6.6 min CN=84 Runoff=0.80 cfs 0.061 af
Subcatchment 205: WPost-09	Runoff Area=0.086 ac 0.00% Impervious Runoff Depth=6.28" Tc=0.0 min CN=80 Runoff=0.76 cfs 0.045 af
Subcatchment 207: WPost-10	Runoff Area=0.313 ac 14.59% Impervious Runoff Depth=6.65" Tc=6.0 min CN=83 Runoff=2.36 cfs 0.173 af
Subcatchment 208: WPost-11	Runoff Area=0.109 ac 0.00% Impervious Runoff Depth=6.28" Tc=0.0 min CN=80 Runoff=0.96 cfs 0.057 af
Subcatchment 210: WPost-12	Runoff Area=0.692 ac 3.47% Impervious Runoff Depth=4.47" Flow Length=240' Tc=7.2 min CN=65 Runoff=3.47 cfs 0.258 af
Subcatchment 211: WPost-13	Runoff Area=0.087 ac 0.00% Impervious Runoff Depth=5.68" Tc=0.0 min CN=75 Runoff=0.70 cfs 0.041 af
Subcatchment 212: WPost-14	Runoff Area=3.528 ac 47.31% Impervious Runoff Depth=6.41" Flow Length=289' Tc=10.5 min CN=81 Runoff=22.31 cfs 1.883 af
Subcatchment 213: WPost-15	Runoff Area=1.989 ac 53.22% Impervious Runoff Depth=6.41" Flow Length=197' Tc=9.1 min CN=81 Runoff=13.14 cfs 1.062 af
Subcatchment 214: WPost-16	Runoff Area=2.128 ac 64.12% Impervious Runoff Depth=6.89" Flow Length=299' Tc=10.3 min CN=85 Runoff=14.32 cfs 1.222 af

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Subcatchment 216: WPost-17	Runoff Area=0.792 ac 0.00% Impervious Runoff Depth=3.51" Flow Length=267' Tc=9.6 min CN=57 Runoff=2.82 cfs 0.232 af
Subcatchment 217: WPost-18	Runoff Area=0.887 ac 0.00% Impervious Runoff Depth=5.19" Tc=0.0 min CN=71 Runoff=6.60 cfs 0.384 af
Subcatchment 219: WPost-19	Runoff Area=0.685 ac 0.03% Impervious Runoff Depth=3.99" Flow Length=78' Slope=0.2050 '/' Tc=6.8 min CN=61 Runoff=3.09 cfs 0.227 af
Subcatchment 220: WPost-20	Runoff Area=0.551 ac 0.00% Impervious Runoff Depth=5.92" Flow Length=145' Tc=7.3 min CN=77 Runoff=3.62 cfs 0.272 af
Subcatchment 221: WPost-21	Runoff Area=0.212 ac 0.00% Impervious Runoff Depth=4.95" Tc=6.0 min CN=69 Runoff=1.23 cfs 0.087 af
Subcatchment 230: WPost-22	Runoff Area=1.646 ac 1.62% Impervious Runoff Depth=4.11" Flow Length=130' Tc=7.6 min CN=62 Runoff=7.45 cfs 0.563 af
Subcatchment 231: WPost-23	Runoff Area=0.053 ac 75.87% Impervious Runoff Depth=7.37" Tc=6.0 min CN=89 Runoff=0.43 cfs 0.032 af
Subcatchment 300: WPost-24	Runoff Area=0.997 ac 0.00% Impervious Runoff Depth=3.99" Flow Length=144' Tc=9.9 min CN=61 Runoff=4.05 cfs 0.331 af
Subcatchment 310: WPost-25	Runoff Area=1.667 ac 0.00% Impervious Runoff Depth=4.35" Flow Length=405' Tc=10.7 min CN=64 Runoff=7.23 cfs 0.604 af
Subcatchment 320: WPost-26	Runoff Area=0.711 ac 7.01% Impervious Runoff Depth=4.35" Flow Length=142' Tc=10.6 min CN=64 Runoff=3.10 cfs 0.258 af
Subcatchment 400: WPost-27	Runoff Area=0.176 ac 60.75% Impervious Runoff Depth=6.65" Tc=6.0 min CN=83 Runoff=1.33 cfs 0.098 af
Subcatchment 402: WPost-28	Runoff Area=0.771 ac 0.49% Impervious Runoff Depth=3.99" Flow Length=128' Tc=8.0 min CN=61 Runoff=3.34 cfs 0.256 af
Subcatchment 410: WPost-29	Runoff Area=1.961 ac 2.56% Impervious Runoff Depth=3.87" Flow Length=113' Tc=10.7 min CN=60 Runoff=7.51 cfs 0.632 af
Subcatchment 420: WPost-30	Runoff Area=0.528 ac 0.00% Impervious Runoff Depth=4.59" Tc=6.0 min CN=66 Runoff=2.84 cfs 0.202 af
Subcatchment 430: WPost-31	Runoff Area=0.967 ac 2.99% Impervious Runoff Depth=4.59" Flow Length=344' Tc=11.3 min CN=66 Runoff=4.36 cfs 0.370 af
Subcatchment 440: WPost-32	Runoff Area=0.281 ac 0.00% Impervious Runoff Depth=3.99" Tc=6.0 min CN=61 Runoff=1.31 cfs 0.093 af
Subcatchment 500: WPost-35	Runoff Area=0.528 ac 6.25% Impervious Runoff Depth=4.23" Flow Length=280' Tc=8.9 min CN=63 Runoff=2.36 cfs 0.186 af

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Subcatchment 501: WPost-33	Runoff Area=3.207 ac 19.15% Impervious Runoff Depth=4.83" Flow Length=453' Tc=11.4 min CN=68 Runoff=15.18 cfs 1.291 af
Subcatchment 502: WPost-34	Runoff Area=0.330 ac 0.00% Impervious Runoff Depth=3.99" Tc=0.0 min CN=61 Runoff=1.88 cfs 0.110 af
Subcatchment 503: WPost-36 Building	Runoff Area=0.327 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=2.79 cfs 0.231 af
Subcatchment 504: WPost-37 Building	Runoff Area=0.291 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=2.49 cfs 0.205 af
Subcatchment 506: WPost-38 Building 7	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.93 cfs 0.077 af
Subcatchment 508: WPost-39 Building 8	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.93 cfs 0.077 af
Subcatchment 510: WPost-40 Building 9	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.93 cfs 0.077 af
Subcatchment 512: WPost-41 Building 10	Runoff Area=0.109 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.93 cfs 0.077 af
Subcatchment 516: W-Post 42 - 69	Runoff Area=0.552 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=4.72 cfs 0.389 af
Subcatchment 600: Subcat 600	Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.08 cfs 0.006 af
Subcatchment 601: Subcat 601	Runoff Area=0.009 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.08 cfs 0.006 af
Subcatchment 602: Subcat 602	Runoff Area=0.073 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.62 cfs 0.051 af
Subcatchment 603: Subcat 603	Runoff Area=0.036 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.31 cfs 0.026 af
Subcatchment 699: Subcat 699	Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af
Subcatchment 700: Subcat 700	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af
Subcatchment 701: Subcat 701	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af
Subcatchment 702: Subcat 702	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af

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Subcatchment 703: Subcat 703	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af
Subcatchment 704: Subcat 704	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af
Subcatchment 705: Subcat 705	Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af
Subcatchment 706: Subcat 706	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af
Subcatchment 707: Subcat 707	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af
Subcatchment 708: Subcat 708	Runoff Area=0.021 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.18 cfs 0.015 af
Subcatchment 709: Subcat 709	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af
Subcatchment 710: Subcat 710	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af
Subcatchment 711: Subcat 711	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af
Subcatchment 712: Subcat 712	Runoff Area=0.023 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.19 cfs 0.016 af
Subcatchment 713: Subcat 713	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af
Subcatchment 714: Subcat 714	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af
Subcatchment 715: Subcat 715	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af
Subcatchment 716: Subcat 716	Runoff Area=0.011 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.10 cfs 0.008 af
Subcatchment 717: Subcat 717	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af
Subcatchment 718: Subcat 718	Runoff Area=0.010 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.09 cfs 0.007 af
Subcatchment 719: Subcat 719	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.10 cfs 0.008 af

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Subcatchment 720: Subcat 720	Runoff Area=0.012 ac 100.00% Impervious Runoff Depth=8.46" Tc=6.0 min CN=98 Runoff=0.10 cfs 0.009 af
Pond 103: WQ Infiltration Pond A	Peak Elev=246.67' Storage=7,997 cf Inflow=6.20 cfs 0.528 af Outflow=5.38 cfs 0.357 af
Pond 206: Forebay B1	Peak Elev=242.42' Storage=11,319 cf Inflow=14.98 cfs 1.562 af Primary=0.78 cfs 0.042 af Secondary=11.19 cfs 1.417 af Outflow=11.19 cfs 1.460 af
Pond 209: WQ Infiltration Pond B	Peak Elev=242.39' Storage=17,735 cf Inflow=3.21 cfs 0.492 af Outflow=1.08 cfs 0.103 af
Pond 215: Forebay B2	Peak Elev=242.42' Storage=13,276 cf Inflow=53.18 cfs 4.466 af Primary=1.03 cfs 0.219 af Secondary=50.17 cfs 4.127 af Outflow=50.73 cfs 4.347 af
Pond 218: Infiltration Pond B	Peak Elev=242.41' Storage=102,213 cf Inflow=66.66 cfs 6.263 af Primary=24.25 cfs 5.965 af Secondary=0.00 cfs 0.000 af Outflow=24.25 cfs 5.965 af
Pond 232: Pipe Run B6-B9	Peak Elev=243.27' Inflow=5.13 cfs 0.432 af 24.00" Round Culvert n=0.012 L=207.0' S=0.0050 ' /' Outflow=5.13 cfs 0.432 af
Pond 233: Pipe Run B9-B10	Peak Elev=243.07' Inflow=7.03 cfs 0.619 af 24.00" Round Culvert n=0.012 L=159.6' S=0.0050 ' /' Outflow=7.03 cfs 0.619 af
Pond 234: Pipe Run B10-B13	Peak Elev=242.96' Inflow=7.36 cfs 0.651 af 24.00" Round Culvert n=0.012 L=144.3' S=0.0050 ' /' Outflow=7.36 cfs 0.651 af
Pond 235: B13-B16	Peak Elev=242.85' Inflow=10.98 cfs 1.150 af 24.00" Round Culvert n=0.012 L=224.1' S=0.0050 ' /' Outflow=10.98 cfs 1.150 af
Pond 236: Pipe Run B16-B17FES	Peak Elev=242.50' Inflow=14.05 cfs 1.456 af 30.00" Round Culvert n=0.012 L=86.1' S=0.0348 ' /' Outflow=14.05 cfs 1.456 af
Pond 401: UIS-C	Peak Elev=255.18' Storage=2,831 cf Inflow=2.26 cfs 0.175 af Discarded=0.18 cfs 0.175 af Primary=0.00 cfs 0.000 af Outflow=0.18 cfs 0.175 af
Pond 505: UIS-G	Peak Elev=252.00' Storage=0.092 af Inflow=2.49 cfs 0.205 af Outflow=0.12 cfs 0.205 af
Pond 507: UIS-E	Peak Elev=232.94' Storage=0.034 af Inflow=0.93 cfs 0.077 af Outflow=0.05 cfs 0.077 af
Pond 509: UIS-F	Peak Elev=241.03' Storage=0.030 af Inflow=0.93 cfs 0.077 af Discarded=0.05 cfs 0.071 af Primary=0.09 cfs 0.006 af Outflow=0.14 cfs 0.077 af
Pond 511: D4	Peak Elev=239.39' Inflow=0.93 cfs 0.083 af 8.00" Round Culvert n=0.012 L=145.0' S=0.0328 ' /' Outflow=0.93 cfs 0.083 af
Pond 513: D3	Peak Elev=235.81' Inflow=1.86 cfs 0.160 af 8.00" Round Culvert n=0.012 L=102.0' S=0.0311 ' /' Outflow=1.86 cfs 0.160 af

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Pond 514: D3 Peak Elev=233.69' Inflow=1.86 cfs 0.160 af
8.00" Round Culvert n=0.012 L=46.0' S=0.1043 ' Outflow=1.86 cfs 0.160 af

Pond 515: Infiltration Pond D Peak Elev=233.52' Storage=34,943 cf Inflow=19.54 cfs 1.791 af
Outflow=10.00 cfs 1.078 af

Pond 517: Permeable Pavement Peak Elev=99.36' Storage=0.064 af Inflow=4.72 cfs 0.389 af
Outflow=1.31 cfs 0.389 af

Pond 600D: 100 Year Drywell 4' Deep Peak Elev=251.62' Storage=130 cf Inflow=0.08 cfs 0.006 af
Discarded=0.00 cfs 0.006 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.006 af

Pond 601D: 100 Year Drywell 4' Deep Peak Elev=251.62' Storage=130 cf Inflow=0.08 cfs 0.006 af
Discarded=0.00 cfs 0.006 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.006 af

Pond 713D: 100 Year Drywell 4' Deep Peak Elev=244.23' Storage=160 cf Inflow=0.09 cfs 0.007 af
Discarded=0.00 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.007 af

Pond 714D: 100 Year Drywell 4' Deep Peak Elev=237.23' Storage=160 cf Inflow=0.09 cfs 0.007 af
Discarded=0.00 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.007 af

Pond 715D: 100 Year Drywell 4' Deep Peak Elev=237.23' Storage=160 cf Inflow=0.09 cfs 0.007 af
Discarded=0.00 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.007 af

Pond 716D: 100 Year Drywell 4' Deep Peak Elev=256.60' Storage=173 cf Inflow=0.10 cfs 0.008 af
Discarded=0.00 cfs 0.008 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.008 af

Pond 717D: 100 Year Drywell 4' Deep Peak Elev=258.03' Storage=150 cf Inflow=0.09 cfs 0.007 af
Discarded=0.00 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.007 af

Pond 718D: 100 Year Drywell 4' Deep Peak Elev=259.03' Storage=150 cf Inflow=0.09 cfs 0.007 af
Discarded=0.00 cfs 0.007 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.007 af

Pond 719D: 100 Year Drywell 4' Deep Peak Elev=261.11' Storage=173 cf Inflow=0.10 cfs 0.008 af
Discarded=0.00 cfs 0.008 af Primary=0.01 cfs 0.000 af Outflow=0.01 cfs 0.008 af

Pond 720D: 100 Year Drywell 4' Deep Peak Elev=262.11' Storage=173 cf Inflow=0.10 cfs 0.009 af
Discarded=0.00 cfs 0.008 af Primary=0.01 cfs 0.000 af Outflow=0.01 cfs 0.009 af

Link 110: DP-1 Tiffany Road Inflow=9.48 cfs 0.738 af
Primary=9.48 cfs 0.738 af

Link 240: DP-2 Western Wetlands Inflow=29.51 cfs 7.148 af
Primary=29.51 cfs 7.148 af

Link 330: DP-3 Eastern Abutters Inflow=14.37 cfs 1.194 af
Primary=14.37 cfs 1.194 af

Link 450: DP-4 Northeastern Abutters Inflow=18.57 cfs 1.553 af
Primary=18.57 cfs 1.553 af

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Link 518: DP-5 Tiogue Ave

Inflow=11.08 cfs 1.264 af

Primary=11.08 cfs 1.264 af

Total Runoff Area = 32.772 ac Runoff Volume = 14.679 af Average Runoff Depth = 5.37"
72.80% Pervious = 23.857 ac 27.20% Impervious = 8.915 ac

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Summary for Subcatchment 100: WPost-01

Runoff = 4.78 cfs @ 12.13 hrs, Volume= 0.382 af, Depth= 4.71"
 Routed to Link 110 : DP-1 Tiffany Road

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.347	61	>75% Grass cover, Good, HSG B
0.140	98	Impervious, HSG B
0.032	98	Offsite Impervious, HSG B
0.034	98	Offsite Roofs, HSG B
0.065	55	Woods, Good, HSG B
0.355	58	Woods/grass comb., Good, HSG B
0.973	67	Weighted Average
0.767	59	78.83% Pervious Area
0.206	98	21.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.8	100	0.0650	0.19		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.4	156	0.1346	5.91		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
0.2	25	0.0080	1.82		Shallow Concentrated Flow, C
					Paved Kv= 20.3 fps
9.4	281	Total			

Summary for Subcatchment 101: WPost-02

Runoff = 5.84 cfs @ 12.14 hrs, Volume= 0.476 af, Depth= 5.43"
 Routed to Pond 103 : WQ Infiltration Pond A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.712	61	>75% Grass cover, Good, HSG B
0.222	98	Impervious, HSG B
0.108	98	Roofs, HSG B
0.008	55	Woods, Good, HSG B
1.051	73	Weighted Average
0.720	61	68.53% Pervious Area
0.331	98	31.47% Impervious Area

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0630	0.19		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.4	90	0.0673	4.18		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
0.1	27	0.0628	5.09		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
0.1	22	0.1020	5.14		Shallow Concentrated Flow, D Unpaved Kv= 16.1 fps
0.5	113	0.0359	3.85		Shallow Concentrated Flow, E Paved Kv= 20.3 fps
10.0	352	Total			

Summary for Subcatchment 102: WPost-03

Runoff = 0.90 cfs @ 12.00 hrs, Volume= 0.052 af, Depth= 4.35"
 Routed to Pond 103 : WQ Infiltration Pond A

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.132	61	>75% Grass cover, Good, HSG B
0.000	98	Impervious, HSG B
0.012	98	Water Surface, 0% imp, HSG B
0.144	64	Weighted Average
0.144	64	99.96% Pervious Area
0.000	98	0.04% Impervious Area

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

Summary for Subcatchment 200: WPost-04

Runoff = 4.48 cfs @ 12.13 hrs, Volume= 0.369 af, Depth= 6.16"
 Routed to Pond 232 : Pipe Run B6-B9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.362	61	>75% Grass cover, Good, HSG B
0.312	98	Impervious, HSG B
0.044	98	Roofs, HSG B
0.718	79	Weighted Average
0.362	61	50.37% Pervious Area
0.356	98	49.63% Impervious Area

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	93	0.0440	0.16		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.2	54	0.0624	5.07		Shallow Concentrated Flow, B Paved Kv= 20.3 fps
9.9	147	Total			

Summary for Subcatchment 201: WPost-05

Runoff = 1.54 cfs @ 12.18 hrs, Volume= 0.141 af, Depth= 6.04"
Routed to Pond 233 : Pipe Run B9-B10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.153	61	>75% Grass cover, Good, HSG B
0.106	98	Impervious, HSG B
0.021	98	Roofs, HSG B
0.280	78	Weighted Average
0.153	61	54.61% Pervious Area
0.127	98	45.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.1	100	0.0240	0.13		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.2	46	0.0408	3.25		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
0.3	52	0.0207	2.92		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
13.6	198	Total			

Summary for Subcatchment 202: WPost-06

Runoff = 4.08 cfs @ 12.27 hrs, Volume= 0.436 af, Depth= 5.92"
Routed to Pond 235 : B13-B16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.508	61	>75% Grass cover, Good, HSG B
0.264	98	Impervious, HSG B
0.111	98	Roofs, HSG B
0.883	77	Weighted Average
0.508	61	57.54% Pervious Area
0.375	98	42.46% Impervious Area

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.3	100	0.0090	0.09		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.8	165	0.0411	3.26		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
0.2	36	0.0221	3.02		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
20.3	301	Total			

Summary for Subcatchment 203: WPost-07

Runoff = 3.10 cfs @ 12.20 hrs, Volume= 0.290 af, Depth= 5.80"
 Routed to Pond 236 : Pipe Run B16-B17FES

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.352	61	>75% Grass cover, Good, HSG B
0.204	98	Impervious, HSG B
0.044	98	Roofs, HSG B
0.600	76	Weighted Average
0.352	61	58.68% Pervious Area
0.248	98	41.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	100	0.0210	0.12		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.6	112	0.0410	3.26		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
0.2	73	0.0693	5.34		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
14.6	285	Total			

Summary for Subcatchment 204: WPost-08

Runoff = 0.80 cfs @ 12.09 hrs, Volume= 0.061 af, Depth= 6.77"
 Routed to Pond 206 : Forebay B1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.085	80	>75% Grass cover, Good, HSG D
0.023	98	Roofs, HSG D
0.107	84	Weighted Average
0.085	80	78.90% Pervious Area
0.023	98	21.10% Impervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	72	0.0690	0.18		Sheet Flow, A
Grass: Dense n= 0.240 P2= 3.30"					

Summary for Subcatchment 205: WPost-09

Runoff = 0.76 cfs @ 12.00 hrs, Volume= 0.045 af, Depth= 6.28"
 Routed to Pond 206 : Forebay B1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.086	80	>75% Grass cover, Good, HSG D
0.086	80	100.00% Pervious Area

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

Summary for Subcatchment 207: WPost-10

Runoff = 2.36 cfs @ 12.09 hrs, Volume= 0.173 af, Depth= 6.65"
 Routed to Pond 209 : WQ Infiltration Pond B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.267	80	>75% Grass cover, Good, HSG D
0.000	98	Impervious, HSG D
0.046	98	Roofs, HSG D
0.313	83	Weighted Average
0.267	80	85.41% Pervious Area
0.046	98	14.59% Impervious Area

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

Summary for Subcatchment 208: WPost-11

Runoff = 0.96 cfs @ 12.00 hrs, Volume= 0.057 af, Depth= 6.28"
 Routed to Pond 209 : WQ Infiltration Pond B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.109	80	>75% Grass cover, Good, HSG D
0.109	80	100.00% Pervious Area

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

Summary for Subcatchment 210: WPost-12

Runoff = 3.47 cfs @ 12.11 hrs, Volume= 0.258 af, Depth= 4.47"
 Routed to Pond 215 : Forebay B2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.560	61	>75% Grass cover, Good, HSG B
0.093	80	>75% Grass cover, Good, HSG D
0.000	98	Impervious, HSG B
0.001	98	Impervious, HSG D
0.023	98	Roofs, HSG D
0.014	55	Woods, Good, HSG B
0.692	65	Weighted Average
0.668	64	96.53% Pervious Area
0.024	98	3.47% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	100	0.1330	0.25		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.6	140	0.0655	4.12		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
7.2	240	Total			

Summary for Subcatchment 211: WPost-13

Runoff = 0.70 cfs @ 12.00 hrs, Volume= 0.041 af, Depth= 5.68"
 Routed to Pond 215 : Forebay B2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.021	61	>75% Grass cover, Good, HSG B
0.066	80	>75% Grass cover, Good, HSG D
0.087	75	Weighted Average
0.087	75	100.00% Pervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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

Summary for Subcatchment 212: WPost-14

Runoff = 22.31 cfs @ 12.14 hrs, Volume= 1.883 af, Depth= 6.41"
 Routed to Pond 215 : Forebay B2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
1.466	61	>75% Grass cover, Good, HSG B
0.393	80	>75% Grass cover, Good, HSG D
0.769	98	Impervious, HSG B
0.368	98	Impervious, HSG D
0.443	98	Roofs, HSG B
0.089	98	Roofs, HSG D
3.528	81	Weighted Average
1.859	65	52.69% Pervious Area
1.669	98	47.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.8	100	0.0490	0.17		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.4	102	0.0615	3.99		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
0.3	87	0.0423	4.18		Shallow Concentrated Flow, C
					Paved Kv= 20.3 fps
10.5	289	Total			

Summary for Subcatchment 213: WPost-15

Runoff = 13.14 cfs @ 12.12 hrs, Volume= 1.062 af, Depth= 6.41"
 Routed to Pond 215 : Forebay B2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.930	61	>75% Grass cover, Good, HSG B
0.627	98	Impervious, HSG B
0.431	98	Roofs, HSG B
1.989	81	Weighted Average
0.930	61	46.78% Pervious Area
1.058	98	53.22% Impervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	100	0.0660	0.19		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.4	82	0.0509	3.63		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
0.0	15	0.0690	5.33		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
9.1	197	Total			

Summary for Subcatchment 214: WPost-16

Runoff = 14.32 cfs @ 12.14 hrs, Volume= 1.222 af, Depth= 6.89"
Routed to Pond 215 : Forebay B2

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.698	61	>75% Grass cover, Good, HSG B
0.701	98	Impervious, HSG B
0.056	98	Offsite Impervious, HSG B
0.038	98	Offsite Roofs, HSG B
0.570	98	Roofs, HSG B
0.065	55	Woods, Good, HSG B
2.128	85	Weighted Average
0.764	60	35.88% Pervious Area
1.365	98	64.12% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0540	0.18		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.1	21	0.0428	3.33		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
0.8	178	0.0297	3.50		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
10.3	299	Total			

Summary for Subcatchment 216: WPost-17

Runoff = 2.82 cfs @ 12.14 hrs, Volume= 0.232 af, Depth= 3.51"
Routed to Pond 218 : Infiltration Pond B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.323	61	>75% Grass cover, Good, HSG B
0.000	98	Roofs, HSG B
0.469	55	Woods, Good, HSG B
0.792	57	Weighted Average
0.792	57	100.00% Pervious Area
0.000	98	0.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.9	100	0.0630	0.19		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.7	167	0.0700	4.26		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
9.6	267	Total			

Summary for Subcatchment 217: WPost-18

Runoff = 6.60 cfs @ 12.00 hrs, Volume= 0.384 af, Depth= 5.19"
 Routed to Pond 218 : Infiltration Pond B

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.445	61	>75% Grass cover, Good, HSG B
0.405	80	>75% Grass cover, Good, HSG D
0.037	98	Water Surface, 0% imp, HSG D
0.887	71	Weighted Average
0.887	71	100.00% Pervious Area

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

Summary for Subcatchment 219: WPost-19

Runoff = 3.09 cfs @ 12.10 hrs, Volume= 0.227 af, Depth= 3.99"
 Routed to Link 240 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.684	61	>75% Grass cover, Good, HSG B
0.000	98	Roofs, HSG B
0.685	61	Weighted Average
0.684	61	99.97% Pervious Area
0.000	98	0.03% Impervious Area

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	78	0.2050	0.19		Sheet Flow, A Woods: Light underbrush n= 0.400 P2= 3.30"

Summary for Subcatchment 220: WPost-20

Runoff = 3.62 cfs @ 12.10 hrs, Volume= 0.272 af, Depth= 5.92"
 Routed to Link 240 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.091	61	>75% Grass cover, Good, HSG B
0.460	80	>75% Grass cover, Good, HSG D
0.551	77	Weighted Average
0.551	77	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.1	100	0.1100	0.23		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.2	45	0.0777	4.49		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
7.3	145	Total			

Summary for Subcatchment 221: WPost-21

Runoff = 1.23 cfs @ 12.09 hrs, Volume= 0.087 af, Depth= 4.95"
 Routed to Link 240 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.103	61	>75% Grass cover, Good, HSG B
0.090	80	>75% Grass cover, Good, HSG D
0.018	55	Woods, Good, HSG B
0.212	69	Weighted Average
0.212	69	100.00% Pervious Area

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

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Type III 24-hr 100-Year Rainfall=8.70"

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Summary for Subcatchment 230: WPost-22

Runoff = 7.45 cfs @ 12.11 hrs, Volume= 0.563 af, Depth= 4.11"
 Routed to Link 240 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
1.619	61	>75% Grass cover, Good, HSG B
0.027	98	Offsite Roofs, HSG B
0.000	98	Roofs, HSG B
1.646	62	Weighted Average
1.619	61	98.38% Pervious Area
0.027	98	1.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	100	0.0960	0.22		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.1	30	0.0466	3.48		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
7.6	130	Total			

Summary for Subcatchment 231: WPost-23

Runoff = 0.43 cfs @ 12.08 hrs, Volume= 0.032 af, Depth= 7.37"
 Routed to Link 240 : DP-2 Western Wetlands

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.013	61	>75% Grass cover, Good, HSG B
0.040	98	Offsite Impervious, HSG B
0.053	89	Weighted Average
0.013	61	24.13% Pervious Area
0.040	98	75.87% Impervious Area

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

Summary for Subcatchment 300: WPost-24

Runoff = 4.05 cfs @ 12.14 hrs, Volume= 0.331 af, Depth= 3.99"
 Routed to Link 330 : DP-3 Eastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.997	61	>75% Grass cover, Good, HSG B
0.000	98	Roofs, HSG B
0.997	61	Weighted Average
0.997	61	100.00% Pervious Area
0.000	98	0.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0500	0.17		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.2	44	0.0681	4.20		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
9.9	144	Total			

Summary for Subcatchment 310: WPost-25

Runoff = 7.23 cfs @ 12.15 hrs, Volume= 0.604 af, Depth= 4.35"
 Routed to Link 330 : DP-3 Eastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
1.384	61	>75% Grass cover, Good, HSG B
0.283	80	>75% Grass cover, Good, HSG D
1.667	64	Weighted Average
1.667	64	100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.4	100	0.0540	0.18		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
1.3	305	0.0550	3.78		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
10.7	405	Total			

Summary for Subcatchment 320: WPost-26

Runoff = 3.10 cfs @ 12.15 hrs, Volume= 0.258 af, Depth= 4.35"
 Routed to Link 330 : DP-3 Eastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.661	61	>75% Grass cover, Good, HSG B
0.050	98	Impervious, HSG B
0.711	64	Weighted Average
0.661	61	92.99% Pervious Area
0.050	98	7.01% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.5	100	0.0410	0.16		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.1	42	0.1309	5.82		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
10.6	142	Total			

Summary for Subcatchment 400: WPost-27

Runoff = 1.33 cfs @ 12.09 hrs, Volume= 0.098 af, Depth= 6.65"
 Routed to Pond 401 : UIS-C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.069	61	>75% Grass cover, Good, HSG B
0.107	98	Impervious, HSG B
0.176	83	Weighted Average
0.069	61	39.25% Pervious Area
0.107	98	60.75% Impervious Area

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

Summary for Subcatchment 402: WPost-28

Runoff = 3.34 cfs @ 12.12 hrs, Volume= 0.256 af, Depth= 3.99"
 Routed to Link 450 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.767	61	>75% Grass cover, Good, HSG B
0.000	98	Impervious, HSG B
0.004	98	Offsite Roofs, HSG B
0.771	61	Weighted Average
0.767	61	99.51% Pervious Area
0.004	98	0.49% Impervious Area

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	100	0.0850	0.21		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.1	28	0.1392	6.01		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
8.0	128	Total			

Summary for Subcatchment 410: WPost-29

Runoff = 7.51 cfs @ 12.15 hrs, Volume= 0.632 af, Depth= 3.87"
 Routed to Link 450 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.813	61	>75% Grass cover, Good, HSG B
0.048	96	Gravel surface, HSG B
0.050	98	Offsite Roofs, HSG B
1.049	55	Woods, Good, HSG B
1.961	60	Weighted Average
1.911	59	97.44% Pervious Area
0.050	98	2.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.2	60	0.1483	0.24		Sheet Flow, A1 Grass: Dense n= 0.240 P2= 3.30"
6.4	40	0.0625	0.10		Sheet Flow, A2 Woods: Light underbrush n= 0.400 P2= 3.30"
0.1	13	0.0615	3.99		Shallow Concentrated Flow, C Unpaved Kv= 16.1 fps
10.7	113	Total			

Summary for Subcatchment 420: WPost-30

Runoff = 2.84 cfs @ 12.09 hrs, Volume= 0.202 af, Depth= 4.59"
 Routed to Link 450 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.401	61	>75% Grass cover, Good, HSG B
0.077	96	Gravel surface, HSG B
0.050	55	Woods, Good, HSG B
0.528	66	Weighted Average
0.528	66	100.00% Pervious Area

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

Summary for Subcatchment 430: WPost-31

Runoff = 4.36 cfs @ 12.16 hrs, Volume= 0.370 af, Depth= 4.59"
 Routed to Link 450 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.820	61	>75% Grass cover, Good, HSG B
0.104	96	Gravel surface, HSG B
0.029	98	Offsite Impervious, HSG B
0.014	55	Woods, Good, HSG B
0.967	66	Weighted Average
0.938	65	97.01% Pervious Area
0.029	98	2.99% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0420	0.16		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.9	244	0.0852	4.70		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
11.3	344	Total			

Summary for Subcatchment 440: WPost-32

Runoff = 1.31 cfs @ 12.09 hrs, Volume= 0.093 af, Depth= 3.99"
 Routed to Link 450 : DP-4 Northeastern Abutters

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.281	61	>75% Grass cover, Good, HSG B
0.281	61	100.00% Pervious Area

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

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Type III 24-hr 100-Year Rainfall=8.70"

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Summary for Subcatchment 500: WPost-35

Runoff = 2.36 cfs @ 12.13 hrs, Volume= 0.186 af, Depth= 4.23"

Routed to Link 518 : DP-5 Tiogue Ave

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.474	61	>75% Grass cover, Good, HSG B
0.014	98	Impervious, HSG B
0.019	98	Offsite Impervious, HSG B
0.021	55	Woods, Good, HSG B
0.528	63	Weighted Average
0.495	61	93.75% Pervious Area
0.033	98	6.25% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	100	0.0800	0.21		Sheet Flow, A
					Grass: Dense n= 0.240 P2= 3.30"
0.8	180	0.0561	3.81		Shallow Concentrated Flow, B
					Unpaved Kv= 16.1 fps
8.9	280	Total			

Summary for Subcatchment 501: WPost-33

Runoff = 15.18 cfs @ 12.16 hrs, Volume= 1.291 af, Depth= 4.83"

Routed to Pond 515 : Infiltration Pond D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
2.467	61	>75% Grass cover, Good, HSG B
0.456	98	Impervious, HSG B
0.000	98	Offsite Impervious, HSG B
0.158	98	Offsite Roofs, HSG B
0.000	98	Roofs, HSG B
0.126	55	Woods, Good, HSG B
3.207	68	Weighted Average
2.593	61	80.85% Pervious Area
0.614	98	19.15% Impervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.7	100	0.0500	0.17		Sheet Flow, A Grass: Dense n= 0.240 P2= 3.30"
0.5	114	0.0482	3.53		Shallow Concentrated Flow, B Unpaved Kv= 16.1 fps
1.2	239	0.0259	3.27		Shallow Concentrated Flow, C Paved Kv= 20.3 fps
11.4	453	Total			

Summary for Subcatchment 502: WPost-34

Runoff = 1.88 cfs @ 12.00 hrs, Volume= 0.110 af, Depth= 3.99"
 Routed to Pond 515 : Infiltration Pond D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.330	61	>75% Grass cover, Good, HSG B
0.000	98	Impervious, HSG B
0.330	61	Weighted Average
0.330	61	100.00% Pervious Area

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

Summary for Subcatchment 503: WPost-36 Building 1,2,3

Runoff = 2.79 cfs @ 12.08 hrs, Volume= 0.231 af, Depth= 8.46"
 Routed to Pond 515 : Infiltration Pond D

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
* 0.327	98	Roof
0.327	98	100.00% Impervious Area

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

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Type III 24-hr 100-Year Rainfall=8.70"

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Summary for Subcatchment 504: WPost-37 Building 4,5,6

Runoff = 2.49 cfs @ 12.08 hrs, Volume= 0.205 af, Depth= 8.46"
 Routed to Pond 505 : UIS-G

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.291	98	Roofs, HSG B
0.291	98	100.00% Impervious Area

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

Summary for Subcatchment 506: WPost-38 Building 7

Runoff = 0.93 cfs @ 12.08 hrs, Volume= 0.077 af, Depth= 8.46"
 Routed to Pond 507 : UIS-E

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.109	98	Roofs, HSG B
0.109	98	100.00% Impervious Area

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

Summary for Subcatchment 508: WPost-39 Building 8

Runoff = 0.93 cfs @ 12.08 hrs, Volume= 0.077 af, Depth= 8.46"
 Routed to Pond 509 : UIS-F

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.000	61	>75% Grass cover, Good, HSG B
0.109	98	Roofs, HSG B
0.109	98	Weighted Average
0.000	61	0.00% Pervious Area
0.109	98	100.00% Impervious Area

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

Summary for Subcatchment 510: WPost-40 Building 9

Runoff = 0.93 cfs @ 12.08 hrs, Volume= 0.077 af, Depth= 8.46"
 Routed to Pond 511 : D4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.109	98	Roofs, HSG B
0.109	98	100.00% Impervious Area

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

Summary for Subcatchment 512: WPost-41 Building 10

Runoff = 0.93 cfs @ 12.08 hrs, Volume= 0.077 af, Depth= 8.46"
 Routed to Pond 513 : D3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.109	98	Roofs, HSG B
0.109	98	100.00% Impervious Area

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

Summary for Subcatchment 516: W-Post 42 - 69 driveways & Parking spots

Runoff = 4.72 cfs @ 12.08 hrs, Volume= 0.389 af, Depth= 8.46"
 Routed to Pond 517 : Permeable Pavement

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.552	98	Impervious, HSG A
0.552	98	100.00% Impervious Area

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

Summary for Subcatchment 600: Subcat 600

Runoff = 0.08 cfs @ 12.08 hrs, Volume= 0.006 af, Depth= 8.46"
 Routed to Pond 600D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.009	98	Roofs, HSG B
0.009	98	100.00% Impervious Area

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

Summary for Subcatchment 601: Subcat 601

Runoff = 0.08 cfs @ 12.08 hrs, Volume= 0.006 af, Depth= 8.46"
 Routed to Pond 601D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.009	98	Roofs, HSG B
0.009	98	100.00% Impervious Area

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

Summary for Subcatchment 602: Subcat 602

Runoff = 0.62 cfs @ 12.08 hrs, Volume= 0.051 af, Depth= 8.46"
 Routed to Pond 401 : UIS-C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.073	98	Roofs, HSG B
0.073	98	100.00% Impervious Area

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

Summary for Subcatchment 603: Subcat 603

Runoff = 0.31 cfs @ 12.08 hrs, Volume= 0.026 af, Depth= 8.46"
 Routed to Pond 401 : UIS-C

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.036	98	Roofs, HSG B
0.036	98	100.00% Impervious Area

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

Summary for Subcatchment 699: Subcat 699

Runoff = 0.18 cfs @ 12.08 hrs, Volume= 0.015 af, Depth= 8.46"
 Routed to Pond 232 : Pipe Run B6-B9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.021	98	Roofs, HSG B
0.021	98	100.00% Impervious Area

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

Summary for Subcatchment 700: Subcat 700

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 232 : Pipe Run B6-B9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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Type III 24-hr 100-Year Rainfall=8.70"

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

Summary for Subcatchment 701: Subcat 701

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 232 : Pipe Run B6-B9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 702: Subcat 702

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 232 : Pipe Run B6-B9

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.000	61	>75% Grass cover, Good, HSG B
0.000	98	Impervious, HSG B
0.023	98	Roofs, HSG B
0.023	98	Weighted Average
0.000	61	0.00% Pervious Area
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 703: Subcat 703

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 233 : Pipe Run B9-B10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 704: Subcat 704

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 233 : Pipe Run B9-B10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 705: Subcat 705

Runoff = 0.18 cfs @ 12.08 hrs, Volume= 0.015 af, Depth= 8.46"
 Routed to Pond 233 : Pipe Run B9-B10

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.021	98	Roofs, HSG B
0.021	98	100.00% Impervious Area

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

Summary for Subcatchment 706: Subcat 706

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 234 : Pipe Run B10-B13

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 707: Subcat 707

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 234 : Pipe Run B10-B13

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 708: Subcat 708

Runoff = 0.18 cfs @ 12.08 hrs, Volume= 0.015 af, Depth= 8.46"
 Routed to Pond 235 : B13-B16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.021	98	Roofs, HSG B
0.021	98	100.00% Impervious Area

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

Summary for Subcatchment 709: Subcat 709

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 235 : B13-B16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 710: Subcat 710

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 235 : B13-B16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.023	98	Roofs, HSG B
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 711: Subcat 711

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 235 : B13-B16

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.006	98	Roofs, HSG B
0.016	98	Roofs, HSG D
0.023	98	Weighted Average
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 712: Subcat 712

Runoff = 0.19 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 8.46"
 Routed to Pond 236 : Pipe Run B16-B17FES

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.023	98	Roofs, HSG D
0.023	98	100.00% Impervious Area

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

Summary for Subcatchment 713: Subcat 713

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 8.46"
 Routed to Pond 713D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.011	98	Roofs, HSG B
0.011	98	100.00% Impervious Area

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

Summary for Subcatchment 714: Subcat 714

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 8.46"
 Routed to Pond 714D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.011	98	Roofs, HSG D
0.011	98	100.00% Impervious Area

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

Summary for Subcatchment 715: Subcat 715

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 8.46"
 Routed to Pond 715D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.011	98	Roofs, HSG D
0.011	98	100.00% Impervious Area

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

Summary for Subcatchment 716: Subcat 716

Runoff = 0.10 cfs @ 12.08 hrs, Volume= 0.008 af, Depth= 8.46"
 Routed to Pond 716D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.011	98	Roofs, HSG B
0.011	98	100.00% Impervious Area

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

Summary for Subcatchment 717: Subcat 717

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 8.46"
 Routed to Pond 717D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.010	98	Roofs, HSG B
0.010	98	100.00% Impervious Area

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

Summary for Subcatchment 718: Subcat 718

Runoff = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af, Depth= 8.46"
 Routed to Pond 718D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

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Type III 24-hr 100-Year Rainfall=8.70"

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Area (ac)	CN	Description
0.010	98	Roofs, HSG B
0.010	98	100.00% Impervious Area

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

Summary for Subcatchment 719: Subcat 719

Runoff = 0.10 cfs @ 12.08 hrs, Volume= 0.008 af, Depth= 8.46"
 Routed to Pond 719D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.012	98	Roofs, HSG B
0.012	98	100.00% Impervious Area

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

Summary for Subcatchment 720: Subcat 720

Runoff = 0.10 cfs @ 12.08 hrs, Volume= 0.009 af, Depth= 8.46"
 Routed to Pond 720D : 100 Year Drywell 4' Deep

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Type III 24-hr 100-Year Rainfall=8.70"

Area (ac)	CN	Description
0.012	98	Roofs, HSG B
0.012	98	100.00% Impervious Area

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

Summary for Pond 103: WQ Infiltration Pond A

Inflow Area = 1.195 ac, 27.68% Impervious, Inflow Depth = 5.30" for 100-Year event
 Inflow = 6.20 cfs @ 12.14 hrs, Volume= 0.528 af
 Outflow = 5.38 cfs @ 12.20 hrs, Volume= 0.357 af, Atten= 13%, Lag= 3.8 min
 Secondary = 5.38 cfs @ 12.20 hrs, Volume= 0.357 af
 Routed to Link 110 : DP-1 Tiffany Road

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Type III 24-hr 100-Year Rainfall=8.70"

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Peak Elev= 246.67' @ 12.20 hrs Surf.Area= 3,057 sf Storage= 7,997 cf

Plug-Flow detention time= 164.3 min calculated for 0.357 af (67% of inflow)

Center-of-Mass det. time= 66.0 min (885.6 - 819.6)

Volume	Invert	Avail.Storage	Storage Description
#1	242.00'	10,755 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
242.00	546	0	0
244.00	1,465	2,011	2,011
246.00	2,613	4,078	6,089
247.00	3,272	2,943	9,032
247.50	3,623	1,724	10,755

Device	Routing	Invert	Outlet Devices
#1	Secondary	246.50'	30.0' long x 10.0' breadth Grassed Emergency Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Secondary OutFlow Max=5.37 cfs @ 12.20 hrs HW=246.67' TW=0.00' (Dynamic Tailwater)↑**1=Grassed Emergency Weir** (Weir Controls 5.37 cfs @ 1.04 fps)**Summary for Pond 206: Forebay B1**

Inflow Area = 4.183 ac, 42.38% Impervious, Inflow Depth = 4.48" for 100-Year event
 Inflow = 14.98 cfs @ 12.15 hrs, Volume= 1.562 af
 Outflow = 11.19 cfs @ 12.10 hrs, Volume= 1.460 af, Atten= 25%, Lag= 0.0 min
 Primary = 0.78 cfs @ 12.34 hrs, Volume= 0.042 af
 Routed to Pond 209 : WQ Infiltration Pond B
 Secondary = 11.19 cfs @ 12.10 hrs, Volume= 1.417 af
 Routed to Pond 218 : Infiltration Pond B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Automatic Starting Elev= 238.00' Surf.Area= 1,207 sf Storage= 2,992 cf

Peak Elev= 242.42' @ 12.51 hrs Surf.Area= 2,635 sf Storage= 11,319 cf (8,327 cf above start)

Plug-Flow detention time= 89.1 min calculated for 1.391 af (89% of inflow)

Center-of-Mass det. time= 24.7 min (826.7 - 802.0)

Volume	Invert	Avail.Storage	Storage Description
#1	234.00'	14,403 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

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Type III 24-hr 100-Year Rainfall=8.70"

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
234.00	339	0	0
236.00	723	1,062	1,062
238.00	1,207	1,930	2,992
240.00	1,791	2,998	5,990
242.00	2,477	4,268	10,258
243.00	2,857	2,667	12,925
243.50	3,056	1,478	14,403

Device	Routing	Invert	Outlet Devices
#1	Primary	238.00'	6.00" Round (2) 6" Culvert to WQ X 2.00 L= 26.5' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 238.00' / 237.50' S= 0.0189 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Secondary	240.75'	20.0' long x 0.5' breadth Curb Weir to QP Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.74 cfs @ 12.34 hrs HW=242.27' TW=242.06' (Dynamic Tailwater)↑**1=(2) 6" Culvert to WQ** (Outlet Controls 0.74 cfs @ 1.89 fps)**Secondary OutFlow** Max=2.53 cfs @ 12.10 hrs HW=241.25' TW=241.24' (Dynamic Tailwater)↑**2=Curb Weir to QP** (Weir Controls 2.53 cfs @ 0.25 fps)**Summary for Pond 209: WQ Infiltration Pond B**

Inflow Area = 13.029 ac, 45.55% Impervious, Inflow Depth = 0.45" for 100-Year event
 Inflow = 3.21 cfs @ 12.08 hrs, Volume= 0.492 af
 Outflow = 1.08 cfs @ 12.68 hrs, Volume= 0.103 af, Atten= 66%, Lag= 35.7 min
 Primary = 1.08 cfs @ 12.68 hrs, Volume= 0.103 af
 Routed to Pond 218 : Infiltration Pond B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 242.39' @ 12.60 hrs Surf.Area= 5,355 sf Storage= 17,735 cf

Plug-Flow detention time= 497.1 min calculated for 0.103 af (21% of inflow)
 Center-of-Mass det. time= 269.9 min (942.1 - 672.2)

Volume	Invert	Avail.Storage	Storage Description
#1	237.50'	23,813 cf	Pond Storage (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
237.50	1,980	0	0
238.00	2,265	1,061	1,061
240.00	3,546	5,811	6,872
242.00	5,244	8,790	15,662
243.00	5,529	5,387	21,049
243.50	5,529	2,765	23,813

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Device	Routing	Invert	Outlet Devices
#1	Primary	242.25'	20.0' long x 10.0' breadth Broad-Crested Grassed Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=1.21 cfs @ 12.68 hrs HW=242.36' TW=242.33' (Dynamic Tailwater)↑1=**Broad-Crested Grassed Weir** (Weir Controls 1.21 cfs @ 0.55 fps)**Summary for Pond 215: Forebay B2**

Inflow Area = 8.424 ac, 48.86% Impervious, Inflow Depth = 6.36" for 100-Year event
 Inflow = 53.18 cfs @ 12.13 hrs, Volume= 4.466 af
 Outflow = 50.73 cfs @ 12.14 hrs, Volume= 4.347 af, Atten= 5%, Lag= 0.1 min
 Primary = 1.03 cfs @ 10.13 hrs, Volume= 0.219 af
 Routed to Pond 209 : WQ Infiltration Pond B
 Secondary = 50.17 cfs @ 12.14 hrs, Volume= 4.127 af
 Routed to Pond 218 : Infiltration Pond B

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Automatic Starting Elev= 238.00' Surf.Area= 1,434 sf Storage= 3,656 cf
 Peak Elev= 242.42' @ 12.51 hrs Surf.Area= 2,911 sf Storage= 13,276 cf (9,620 cf above start)

Plug-Flow detention time= 42.9 min calculated for 4.263 af (95% of inflow)

Center-of-Mass det. time= 10.4 min (810.8 - 800.4)

Volume	Invert	Avail.Storage	Storage Description
#1	234.00'	16,623 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
234.00	444	0	0
236.00	889	1,333	1,333
238.00	1,434	2,323	3,656
240.00	2,080	3,514	7,170
242.00	2,826	4,906	12,076
243.00	3,028	2,927	15,003
243.50	3,451	1,620	16,623

Device	Routing	Invert	Outlet Devices
#1	Primary	238.00'	6.00" Round (2) 6" Culvert to WQ X 2.00 L= 27.0' CPP, mitered to conform to fill, Ke= 0.700 Inlet / Outlet Invert= 238.00' / 237.50' S= 0.0185 ' / S= 0.0185 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf
#2	Secondary	240.75'	20.0' long x 0.5' breadth Curb Weir to QP Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

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Primary OutFlow Max=1.02 cfs @ 10.13 hrs HW=240.77' TW=240.38' (Dynamic Tailwater)

↑1=(2) 6" Culvert to WQ (Outlet Controls 1.02 cfs @ 2.59 fps)

Secondary OutFlow Max=46.39 cfs @ 12.14 hrs HW=241.77' TW=241.50' (Dynamic Tailwater)

↑2=Curb Weir to QP (Weir Controls 46.39 cfs @ 2.28 fps)

Summary for Pond 218: Infiltration Pond B

Inflow Area = 14.708 ac, 40.35% Impervious, Inflow Depth = 5.11" for 100-Year event
 Inflow = 66.66 cfs @ 12.13 hrs, Volume= 6.263 af
 Outflow = 24.25 cfs @ 12.50 hrs, Volume= 5.965 af, Atten= 64%, Lag= 22.2 min
 Primary = 24.25 cfs @ 12.50 hrs, Volume= 5.965 af
 Routed to Link 240 : DP-2 Western Wetlands
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 240 : DP-2 Western Wetlands

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 242.41' @ 12.50 hrs Surf.Area= 32,686 sf Storage= 102,213 cf

Plug-Flow detention time= 154.4 min calculated for 5.965 af (95% of inflow)
 Center-of-Mass det. time= 128.3 min (956.9 - 828.6)

Volume	Invert	Avail.Storage	Storage Description
#1	237.50'	139,039 cf	Pond Area (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
237.50	1,424	0	0
238.00	7,844	2,317	2,317
240.00	23,470	31,314	33,631
242.00	31,749	55,219	88,850
243.00	34,007	32,878	121,728
243.50	35,238	17,311	139,039

Device	Routing	Invert	Outlet Devices
#1	Primary	238.90'	35.0 deg x 0.3' long x 3.60' rise Sharp-Crested Vee/Trap Weir Cv= 2.59 (C= 3.24)
#2	Secondary	242.50'	10.0' long x 0.5' breadth Emergency overflow weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=24.25 cfs @ 12.50 hrs HW=242.41' TW=0.00' (Dynamic Tailwater)

↑1=Sharp-Crested Vee/Trap Weir (Weir Controls 24.25 cfs @ 5.08 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=237.50' TW=0.00' (Dynamic Tailwater)

↑2=Emergency overflow weir (Controls 0.00 cfs)

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Summary for Pond 232: Pipe Run B6-B9

Inflow Area = 2.002 ac, 38.77% Impervious, Inflow Depth = 2.59" for 100-Year event
 Inflow = 5.13 cfs @ 12.13 hrs, Volume= 0.432 af
 Outflow = 5.13 cfs @ 12.13 hrs, Volume= 0.432 af, Atten= 0%, Lag= 0.0 min
 Primary = 5.13 cfs @ 12.13 hrs, Volume= 0.432 af
 Routed to Pond 233 : Pipe Run B9-B10

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 243.27' @ 12.20 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	241.67'	24.00" Round Pipe B6-B9 L= 207.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 241.67' / 240.64' S= 0.0050 ' / Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=4.71 cfs @ 12.13 hrs HW=243.13' TW=242.73' (Dynamic Tailwater)
 ↑1=Pipe B6-B9 (Outlet Controls 4.71 cfs @ 2.68 fps)

Summary for Pond 233: Pipe Run B9-B10

Inflow Area = 2.348 ac, 41.30% Impervious, Inflow Depth = 3.16" for 100-Year event
 Inflow = 7.03 cfs @ 12.13 hrs, Volume= 0.619 af
 Outflow = 7.03 cfs @ 12.13 hrs, Volume= 0.619 af, Atten= 0%, Lag= 0.0 min
 Primary = 7.03 cfs @ 12.13 hrs, Volume= 0.619 af
 Routed to Pond 234 : Pipe Run B10-B13

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 243.07' @ 12.24 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	240.64'	24.00" Round Pipe B9-B10 L= 159.6' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 240.64' / 239.84' S= 0.0050 ' / Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=5.81 cfs @ 12.13 hrs HW=242.76' TW=242.55' (Dynamic Tailwater)
 ↑1=Pipe B9-B10 (Outlet Controls 5.81 cfs @ 2.17 fps)

Summary for Pond 234: Pipe Run B10-B13

Inflow Area = 2.394 ac, 42.41% Impervious, Inflow Depth = 3.27" for 100-Year event
 Inflow = 7.36 cfs @ 12.13 hrs, Volume= 0.651 af
 Outflow = 7.36 cfs @ 12.13 hrs, Volume= 0.651 af, Atten= 0%, Lag= 0.0 min
 Primary = 7.36 cfs @ 12.13 hrs, Volume= 0.651 af
 Routed to Pond 235 : B13-B16

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Peak Elev= 242.96' @ 12.27 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	239.84'	24.00" Round Pipe B10-B13 L= 144.3' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 239.84' / 239.12' S= 0.0050 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=6.08 cfs @ 12.13 hrs HW=242.53' TW=242.35' (Dynamic Tailwater)↑**1=Pipe B10-B13** (Outlet Controls 6.08 cfs @ 1.94 fps)**Summary for Pond 235: B13-B16**

Inflow Area = 3.366 ac, 43.95% Impervious, Inflow Depth = 4.10" for 100-Year event
Inflow = 10.98 cfs @ 12.15 hrs, Volume= 1.150 af
Outflow = 10.98 cfs @ 12.15 hrs, Volume= 1.150 af, Atten= 0%, Lag= 0.0 min
Primary = 10.98 cfs @ 12.15 hrs, Volume= 1.150 af
Routed to Pond 236 : Pipe Run B16-B17FES

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 242.85' @ 12.29 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	239.12'	24.00" Round Pipe B13-B16 L= 224.1' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 239.12' / 238.00' S= 0.0050 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=10.47 cfs @ 12.15 hrs HW=242.47' TW=241.80' (Dynamic Tailwater)↑**1=Pipe B13-B16** (Outlet Controls 10.47 cfs @ 3.33 fps)**Summary for Pond 236: Pipe Run B16-B17FES**

Inflow Area = 3.989 ac, 43.87% Impervious, Inflow Depth = 4.38" for 100-Year event
Inflow = 14.05 cfs @ 12.16 hrs, Volume= 1.456 af
Outflow = 14.05 cfs @ 12.16 hrs, Volume= 1.456 af, Atten= 0%, Lag= 0.0 min
Primary = 14.05 cfs @ 12.16 hrs, Volume= 1.456 af
Routed to Pond 206 : Forebay B1

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 242.50' @ 12.46 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	237.50'	30.00" Round Pipe B16-FES B17 L= 86.1' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 237.50' / 234.50' S= 0.0348 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=12.76 cfs @ 12.16 hrs HW=241.88' TW=241.59' (Dynamic Tailwater)↑**1=Pipe B16-FES B17** (Inlet Controls 12.76 cfs @ 2.60 fps)

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Summary for Pond 401: UIS-C

Inflow Area = 0.285 ac, 75.75% Impervious, Inflow Depth = 7.34" for 100-Year event
 Inflow = 2.26 cfs @ 12.08 hrs, Volume= 0.175 af
 Outflow = 0.18 cfs @ 11.58 hrs, Volume= 0.175 af, Atten= 92%, Lag= 0.0 min
 Discarded = 0.18 cfs @ 11.58 hrs, Volume= 0.175 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 450 : DP-4 Northeastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 255.18' @ 13.07 hrs Surf.Area= 2,248 sf Storage= 2,831 cf

Plug-Flow detention time= 116.4 min calculated for 0.175 af (100% of inflow)
 Center-of-Mass det. time= 116.4 min (886.0 - 769.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	253.25'	1,767 cf	30.00'W x 74.93'L x 3.75'H Field A 8,430 cf Overall - 3,077 cf Embedded = 5,353 cf x 33.0% Voids
#2A	253.75'	3,077 cf	ADS_StormTech SC-800 +Cap x 60 Inside #1 Effective Size= 45.0"W x 33.0"H => 7.11 sf x 7.12'L = 50.6 cf Overall Size= 51.0"W x 33.0"H x 7.55'L with 0.43' Overlap 60 Chambers in 6 Rows Cap Storage= 3.4 cf x 2 x 6 rows = 41.0 cf
		4,843 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	253.25'	3.500 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	257.52'	24.00" W x 24.00" H Vert. E-Overflow X 2.00 C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.18 cfs @ 11.58 hrs HW=253.32' (Free Discharge)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.18 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=253.25' TW=0.00' (Dynamic Tailwater)
 ↑ **2=E-Overflow** (Controls 0.00 cfs)

Summary for Pond 505: UIS-G

Inflow Area = 0.291 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 2.49 cfs @ 12.08 hrs, Volume= 0.205 af
 Outflow = 0.12 cfs @ 10.42 hrs, Volume= 0.205 af, Atten= 95%, Lag= 0.0 min
 Discarded = 0.12 cfs @ 10.42 hrs, Volume= 0.205 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 252.00' @ 14.33 hrs Surf.Area= 0.049 ac Storage= 0.092 af

Plug-Flow detention time= 273.0 min calculated for 0.205 af (100% of inflow)
 Center-of-Mass det. time= 273.0 min (1,013.2 - 740.2)

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Volume	Invert	Avail.Storage	Storage Description
#1A	249.00'	0.038 af	39.50'W x 53.58'L x 3.75'H Field A 0.182 af Overall - 0.066 af Embedded = 0.116 af x 33.0% Voids
#2A	249.50'	0.066 af	ADS_StormTech SC-800 +Cap x 56 Inside #1 Effective Size= 45.0"W x 33.0"H => 7.11 sf x 7.12'L = 50.6 cf Overall Size= 51.0"W x 33.0"H x 7.55'L with 0.43' Overlap 56 Chambers in 8 Rows Cap Storage= 3.4 cf x 2 x 8 rows = 54.7 cf
		0.105 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	249.00'	2.410 in/hr Exfiltration over Surface area Phase-In= 0.01'

Discarded OutFlow Max=0.12 cfs @ 10.42 hrs HW=249.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.12 cfs)**Summary for Pond 507: UIS-E**

Inflow Area = 0.109 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.93 cfs @ 12.08 hrs, Volume= 0.077 af
 Outflow = 0.05 cfs @ 10.58 hrs, Volume= 0.077 af, Atten= 95%, Lag= 0.0 min
 Discarded = 0.05 cfs @ 10.58 hrs, Volume= 0.077 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 232.94' @ 14.17 hrs Surf.Area= 0.019 ac Storage= 0.034 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 255.6 min (995.8 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	230.00'	0.016 af	11.00'W x 74.93'L x 3.75'H Field A 0.071 af Overall - 0.024 af Embedded = 0.047 af x 33.0% Voids
#2A	230.50'	0.024 af	ADS_StormTech SC-800 +Cap x 20 Inside #1 Effective Size= 45.0"W x 33.0"H => 7.11 sf x 7.12'L = 50.6 cf Overall Size= 51.0"W x 33.0"H x 7.55'L with 0.43' Overlap 20 Chambers in 2 Rows Cap Storage= 3.4 cf x 2 x 2 rows = 13.7 cf
		0.039 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	230.00'	2.410 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.05 cfs @ 10.58 hrs HW=230.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.05 cfs)

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Type III 24-hr 100-Year Rainfall=8.70"

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Summary for Pond 509: UIS-F

Inflow Area = 0.109 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.93 cfs @ 12.08 hrs, Volume= 0.077 af
 Outflow = 0.14 cfs @ 12.57 hrs, Volume= 0.077 af, Atten= 85%, Lag= 29.3 min
 Discarded = 0.05 cfs @ 10.51 hrs, Volume= 0.071 af
 Primary = 0.09 cfs @ 12.57 hrs, Volume= 0.006 af
 Routed to Pond 511 : D4

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 241.03' @ 12.57 hrs Surf.Area= 0.019 ac Storage= 0.030 af

Plug-Flow detention time= 193.1 min calculated for 0.077 af (100% of inflow)
 Center-of-Mass det. time= 193.1 min (933.3 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	238.50'	0.016 af	11.00'W x 74.93'L x 3.75'H Field A 0.071 af Overall - 0.024 af Embedded = 0.047 af x 33.0% Voids
#2A	239.00'	0.024 af	ADS_StormTech SC-800 +Cap x 20 Inside #1 Effective Size= 45.0"W x 33.0"H => 7.11 sf x 7.12'L = 50.6 cf Overall Size= 51.0"W x 33.0"H x 7.55'L with 0.43' Overlap 20 Chambers in 2 Rows Cap Storage= 3.4 cf x 2 x 2 rows = 13.7 cf
		0.039 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	238.50'	2.410 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	240.78'	6.00" Round Culvert L= 6.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 240.78' / 240.78' S= 0.0000 ' S= 0.0000 ' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.20 sf

Discarded OutFlow Max=0.05 cfs @ 10.51 hrs HW=238.54' (Free Discharge)↑ **1=Exfiltration** (Exfiltration Controls 0.05 cfs)**Primary OutFlow** Max=0.09 cfs @ 12.57 hrs HW=241.03' TW=239.02' (Dynamic Tailwater)↑ **2=Culvert** (Barrel Controls 0.09 cfs @ 1.39 fps)**Summary for Pond 511: D4**

Inflow Area = 0.218 ac, 100.00% Impervious, Inflow Depth = 4.57" for 100-Year event
 Inflow = 0.93 cfs @ 12.08 hrs, Volume= 0.083 af
 Outflow = 0.93 cfs @ 12.08 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.93 cfs @ 12.08 hrs, Volume= 0.083 af
 Routed to Pond 513 : D3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

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Peak Elev= 239.39' @ 12.08 hrs

Flood Elev= 241.95'

Device	Routing	Invert	Outlet Devices
#1	Primary	238.75'	8.00" Round Culvert L= 145.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 238.75' / 234.00' S= 0.0328 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.93 cfs @ 12.08 hrs HW=239.39' TW=235.71' (Dynamic Tailwater)↑**1=Culvert** (Inlet Controls 0.93 cfs @ 2.71 fps)**Summary for Pond 513: D3**

Inflow Area = 0.327 ac, 100.00% Impervious, Inflow Depth = 5.87" for 100-Year event
 Inflow = 1.86 cfs @ 12.08 hrs, Volume= 0.160 af
 Outflow = 1.86 cfs @ 12.08 hrs, Volume= 0.160 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.86 cfs @ 12.08 hrs, Volume= 0.160 af
 Routed to Pond 514 : D3

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 235.81' @ 12.10 hrs

Flood Elev= 235.94'

Device	Routing	Invert	Outlet Devices
#1	Primary	234.00'	8.00" Round Culvert L= 102.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 234.00' / 230.83' S= 0.0311 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.82 cfs @ 12.08 hrs HW=235.71' TW=233.11' (Dynamic Tailwater)↑**1=Culvert** (Outlet Controls 1.82 cfs @ 5.21 fps)**Summary for Pond 514: D3**

Inflow Area = 0.327 ac, 100.00% Impervious, Inflow Depth = 5.87" for 100-Year event
 Inflow = 1.86 cfs @ 12.08 hrs, Volume= 0.160 af
 Outflow = 1.86 cfs @ 12.08 hrs, Volume= 0.160 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.86 cfs @ 12.08 hrs, Volume= 0.160 af
 Routed to Pond 515 : Infiltration Pond D

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 233.69' @ 12.35 hrs

Flood Elev= 234.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	230.80'	8.00" Round Culvert L= 46.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 230.80' / 226.00' S= 0.1043 '/' Cc= 0.900 n= 0.012 Corrugated PP, smooth interior, Flow Area= 0.35 sf

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Primary OutFlow Max=1.80 cfs @ 12.08 hrs HW=233.11' TW=231.62' (Dynamic Tailwater)

↑1=Culvert (Outlet Controls 1.80 cfs @ 5.15 fps)

Summary for Pond 515: Infiltration Pond D

Inflow Area = 4.191 ac, 30.26% Impervious, Inflow Depth = 5.13" for 100-Year event
 Inflow = 19.54 cfs @ 12.14 hrs, Volume= 1.791 af
 Outflow = 10.00 cfs @ 12.39 hrs, Volume= 1.078 af, Atten= 49%, Lag= 15.0 min
 Secondary = 10.00 cfs @ 12.39 hrs, Volume= 1.078 af
 Routed to Link 518 : DP-5 Tiogue Ave

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 233.52' @ 12.39 hrs Surf.Area= 7,627 sf Storage= 34,943 cf

Plug-Flow detention time= 210.9 min calculated for 1.078 af (60% of inflow)
 Center-of-Mass det. time= 100.6 min (911.6 - 811.0)

Volume	Invert	Avail.Storage	Storage Description
#1	226.00'	38,679 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
226.00	2,082	0	0
227.00	2,696	2,389	2,389
228.00	3,311	3,004	5,393
230.00	4,691	8,002	13,395
232.00	6,271	10,962	24,357
234.00	8,051	14,322	38,679

Device	Routing	Invert	Outlet Devices
#1	Secondary	233.00'	10.0' long x 8.0' breadth Emergency Overflow Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.43 2.54 2.70 2.69 2.68 2.68 2.66 2.64 2.64 2.64 2.65 2.65 2.66 2.66 2.68 2.70 2.74

Secondary OutFlow Max=9.99 cfs @ 12.39 hrs HW=233.52' TW=0.00' (Dynamic Tailwater)

↑1=Emergency Overflow (Weir Controls 9.99 cfs @ 1.91 fps)

Summary for Pond 517: Permeable Pavement

Inflow Area = 0.552 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 4.72 cfs @ 12.08 hrs, Volume= 0.389 af
 Outflow = 1.31 cfs @ 11.84 hrs, Volume= 0.389 af, Atten= 72%, Lag= 0.0 min
 Discarded = 1.31 cfs @ 11.84 hrs, Volume= 0.389 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 99.36' @ 12.42 hrs Surf.Area= 0.540 ac Storage= 0.064 af

Plug-Flow detention time= 9.4 min calculated for 0.389 af (100% of inflow)

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Center-of-Mass det. time= 9.4 min (749.6 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	99.67'	0.059 af	4" Permeable Pavement (Prismatic) Listed below (Recalc) -Impervious 0.178 af Overall x 33.0% Voids
#2	99.00'	0.119 af	8" Reservoir (Prismatic) Listed below (Recalc) 0.362 af Overall x 33.0% Voids
#3	100.00'	0.270 af	Flooding Storage (Prismatic) Listed below (Recalc) -Impervious
		0.448 af	Total Available Storage

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
99.67	0.540	0.000	0.000
100.00	0.540	0.178	0.178

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
99.00	0.540	0.000	0.000
99.67	0.540	0.362	0.362

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
100.00	0.540	0.000	0.000
100.50	0.540	0.270	0.270

Device	Routing	Invert	Outlet Devices
#1	Discarded	99.00'	2.410 in/hr Exfiltration over Surface area Phase-In= 0.01'

Discarded OutFlow Max=1.31 cfs @ 11.84 hrs HW=99.02' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 1.31 cfs)**Summary for Pond 600D: 100 Year Drywell 4' Deep**

Inflow Area = 0.009 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.08 cfs @ 12.08 hrs, Volume= 0.006 af
 Outflow = 0.00 cfs @ 10.49 hrs, Volume= 0.006 af, Atten= 95%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 10.49 hrs, Volume= 0.006 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 251.62' @ 14.53 hrs Surf.Area= 150 sf Storage= 130 cf

Plug-Flow detention time= 297.8 min calculated for 0.006 af (100% of inflow)

Center-of-Mass det. time= 297.8 min (1,038.0 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	249.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

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Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
249.00	150	0	0
252.50	150	525	525

Device	Routing	Invert	Outlet Devices
#1	Discarded	249.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	252.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 10.49 hrs HW=249.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=249.00' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Controls 0.00 cfs)**Summary for Pond 601D: 100 Year Drywell 4' Deep**

Inflow Area = 0.009 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.08 cfs @ 12.08 hrs, Volume= 0.006 af
 Outflow = 0.00 cfs @ 10.49 hrs, Volume= 0.006 af, Atten= 95%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 10.49 hrs, Volume= 0.006 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 251.62' @ 14.53 hrs Surf.Area= 150 sf Storage= 130 cf

Plug-Flow detention time= 297.8 min calculated for 0.006 af (100% of inflow)

Center-of-Mass det. time= 297.8 min (1,038.0 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	249.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
249.00	150	0	0
252.50	150	525	525

Device	Routing	Invert	Outlet Devices
#1	Discarded	249.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	252.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 10.49 hrs HW=249.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=249.00' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Controls 0.00 cfs)

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Summary for Pond 713D: 100 Year Drywell 4' Deep

Inflow Area = 0.011 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.00 cfs @ 10.04 hrs, Volume= 0.007 af, Atten= 96%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 10.04 hrs, Volume= 0.007 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 244.23' @ 15.03 hrs Surf.Area= 150 sf Storage= 160 cf

Plug-Flow detention time= 372.4 min calculated for 0.007 af (100% of inflow)
 Center-of-Mass det. time= 372.4 min (1,112.6 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	241.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
241.00	150	0	0
244.50	150	525	525

Device	Routing	Invert	Outlet Devices
#1	Discarded	241.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	244.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 10.04 hrs HW=241.04' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=241.00' TW=0.00' (Dynamic Tailwater)
 ↑2=Orifice/Grate (Controls 0.00 cfs)

Summary for Pond 714D: 100 Year Drywell 4' Deep

Inflow Area = 0.011 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.00 cfs @ 10.04 hrs, Volume= 0.007 af, Atten= 96%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 10.04 hrs, Volume= 0.007 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 237.23' @ 15.03 hrs Surf.Area= 150 sf Storage= 160 cf

Plug-Flow detention time= 372.4 min calculated for 0.007 af (100% of inflow)
 Center-of-Mass det. time= 372.4 min (1,112.6 - 740.2)

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Volume	Invert	Avail.Storage	Storage Description
#1	234.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
234.00	150	0	0
237.50	150	525	525

Device	Routing	Invert	Outlet Devices
#1	Discarded	234.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	237.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 10.04 hrs HW=234.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=234.00' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Controls 0.00 cfs)**Summary for Pond 715D: 100 Year Drywell 4' Deep**

Inflow Area = 0.011 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.00 cfs @ 10.04 hrs, Volume= 0.007 af, Atten= 96%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 10.04 hrs, Volume= 0.007 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 237.23' @ 15.03 hrs Surf.Area= 150 sf Storage= 160 cf

Plug-Flow detention time= 372.4 min calculated for 0.007 af (100% of inflow)

Center-of-Mass det. time= 372.4 min (1,112.6 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	234.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
234.00	150	0	0
237.50	150	525	525

Device	Routing	Invert	Outlet Devices
#1	Discarded	234.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	237.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

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Type III 24-hr 100-Year Rainfall=8.70"

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Discarded OutFlow Max=0.00 cfs @ 10.04 hrs HW=234.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=234.00' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Controls 0.00 cfs)**Summary for Pond 716D: 100 Year Drywell 4' Deep**

Inflow Area = 0.011 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.10 cfs @ 12.08 hrs, Volume= 0.008 af
 Outflow = 0.00 cfs @ 14.29 hrs, Volume= 0.008 af, Atten= 95%, Lag= 132.4 min
 Discarded = 0.00 cfs @ 9.81 hrs, Volume= 0.008 af
 Primary = 0.00 cfs @ 14.29 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 256.60' @ 14.29 hrs Surf.Area= 150 sf Storage= 173 cf

Plug-Flow detention time= 404.5 min calculated for 0.008 af (100% of inflow)

Center-of-Mass det. time= 404.6 min (1,144.8 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	253.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
253.00	150	0	0
256.50	150	525	525

Device	Routing	Invert	Outlet Devices
#1	Discarded	253.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	256.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 9.81 hrs HW=253.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 14.29 hrs HW=256.60' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Weir Controls 0.00 cfs @ 0.20 fps)**Summary for Pond 717D: 100 Year Drywell 4' Deep**

Inflow Area = 0.010 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.00 cfs @ 10.19 hrs, Volume= 0.007 af, Atten= 96%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 10.19 hrs, Volume= 0.007 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

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Type III 24-hr 100-Year Rainfall=8.70"

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Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 258.03' @ 14.88 hrs Surf.Area= 150 sf Storage= 150 cf

Plug-Flow detention time= 347.7 min calculated for 0.007 af (100% of inflow)

Center-of-Mass det. time= 347.7 min (1,087.9 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	255.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
255.00	150	0	0
258.50	150	525	525

Device	Routing	Invert	Outlet Devices
#1	Discarded	255.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	258.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 10.19 hrs HW=255.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=255.00' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Controls 0.00 cfs)**Summary for Pond 718D: 100 Year Drywell 4' Deep**

Inflow Area = 0.010 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.09 cfs @ 12.08 hrs, Volume= 0.007 af
 Outflow = 0.00 cfs @ 10.19 hrs, Volume= 0.007 af, Atten= 96%, Lag= 0.0 min
 Discarded = 0.00 cfs @ 10.19 hrs, Volume= 0.007 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 259.03' @ 14.88 hrs Surf.Area= 150 sf Storage= 150 cf

Plug-Flow detention time= 347.7 min calculated for 0.007 af (100% of inflow)

Center-of-Mass det. time= 347.7 min (1,087.9 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	256.00'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
256.00	150	0	0
259.50	150	525	525

0267-132-ALLS-PHCD emergency

Type III 24-hr 100-Year Rainfall=8.70"

Prepared by DiPrete Engineering

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Device	Routing	Invert	Outlet Devices
#1	Discarded	256.00'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	259.60'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 10.19 hrs HW=256.04' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=256.00' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Controls 0.00 cfs)**Summary for Pond 719D: 100 Year Drywell 4' Deep**

Inflow Area = 0.012 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.10 cfs @ 12.08 hrs, Volume= 0.008 af
 Outflow = 0.01 cfs @ 12.94 hrs, Volume= 0.008 af, Atten= 88%, Lag= 51.4 min
 Discarded = 0.00 cfs @ 9.62 hrs, Volume= 0.008 af
 Primary = 0.01 cfs @ 12.94 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Peak Elev= 261.11' @ 12.94 hrs Surf.Area= 150 sf Storage= 173 cf

Plug-Flow detention time= 392.4 min calculated for 0.008 af (100% of inflow)

Center-of-Mass det. time= 392.4 min (1,132.6 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	257.50'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
257.50	150	0	0
261.00	150	525	525

Device	Routing	Invert	Outlet Devices
#1	Discarded	257.50'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	261.10'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 9.62 hrs HW=257.54' (Free Discharge)↑**1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.01 cfs @ 12.94 hrs HW=261.11' TW=0.00' (Dynamic Tailwater)↑**2=Orifice/Grate** (Weir Controls 0.01 cfs @ 0.38 fps)

0267-132-ALLS-PHCD emergency

Type III 24-hr 100-Year Rainfall=8.70"

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Summary for Pond 720D: 100 Year Drywell 4' Deep

Inflow Area = 0.012 ac, 100.00% Impervious, Inflow Depth = 8.46" for 100-Year event
 Inflow = 0.10 cfs @ 12.08 hrs, Volume= 0.009 af
 Outflow = 0.01 cfs @ 12.80 hrs, Volume= 0.009 af, Atten= 88%, Lag= 43.0 min
 Discarded = 0.00 cfs @ 9.57 hrs, Volume= 0.008 af
 Primary = 0.01 cfs @ 12.80 hrs, Volume= 0.000 af
 Routed to Link 330 : DP-3 Eastern Abutters

Routing by Dyn-Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs
 Peak Elev= 262.11' @ 12.80 hrs Surf.Area= 150 sf Storage= 173 cf

Plug-Flow detention time= 388.9 min calculated for 0.009 af (100% of inflow)
 Center-of-Mass det. time= 389.0 min (1,129.2 - 740.2)

Volume	Invert	Avail.Storage	Storage Description
#1	258.50'	173 cf	150SF x 3.5' deep (Prismatic) Listed below (Recalc) 525 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
258.50	150	0	0
262.00	150	525	525

Device	Routing	Invert	Outlet Devices
#1	Discarded	258.50'	1.020 in/hr Exfiltration over Surface area Phase-In= 0.01'
#2	Primary	262.10'	6.00" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.00 cfs @ 9.57 hrs HW=258.54' (Free Discharge)
 ↑1=Exfiltration (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.01 cfs @ 12.80 hrs HW=262.11' TW=0.00' (Dynamic Tailwater)
 ↑2=Orifice/Grate (Weir Controls 0.01 cfs @ 0.39 fps)

Summary for Link 110: DP-1 Tiffany Road

Inflow Area = 0.973 ac, 21.17% Impervious, Inflow Depth = 9.11" for 100-Year event
 Inflow = 9.48 cfs @ 12.19 hrs, Volume= 0.738 af
 Primary = 9.48 cfs @ 12.19 hrs, Volume= 0.738 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link 240: DP-2 Western Wetlands

Inflow Area = 17.853 ac, 33.61% Impervious, Inflow Depth > 4.80" for 100-Year event
 Inflow = 29.51 cfs @ 12.39 hrs, Volume= 7.148 af
 Primary = 29.51 cfs @ 12.39 hrs, Volume= 7.148 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link 330: DP-3 Eastern Abutters

Inflow Area = 3.482 ac, 4.47% Impervious, Inflow Depth = 4.12" for 100-Year event
Inflow = 14.37 cfs @ 12.15 hrs, Volume= 1.194 af
Primary = 14.37 cfs @ 12.15 hrs, Volume= 1.194 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

Summary for Link 450: DP-4 Northeastern Abutters

Inflow Area = 4.793 ac, 6.24% Impervious, Inflow Depth = 3.89" for 100-Year event
Inflow = 18.57 cfs @ 12.13 hrs, Volume= 1.553 af
Primary = 18.57 cfs @ 12.13 hrs, Volume= 1.553 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs

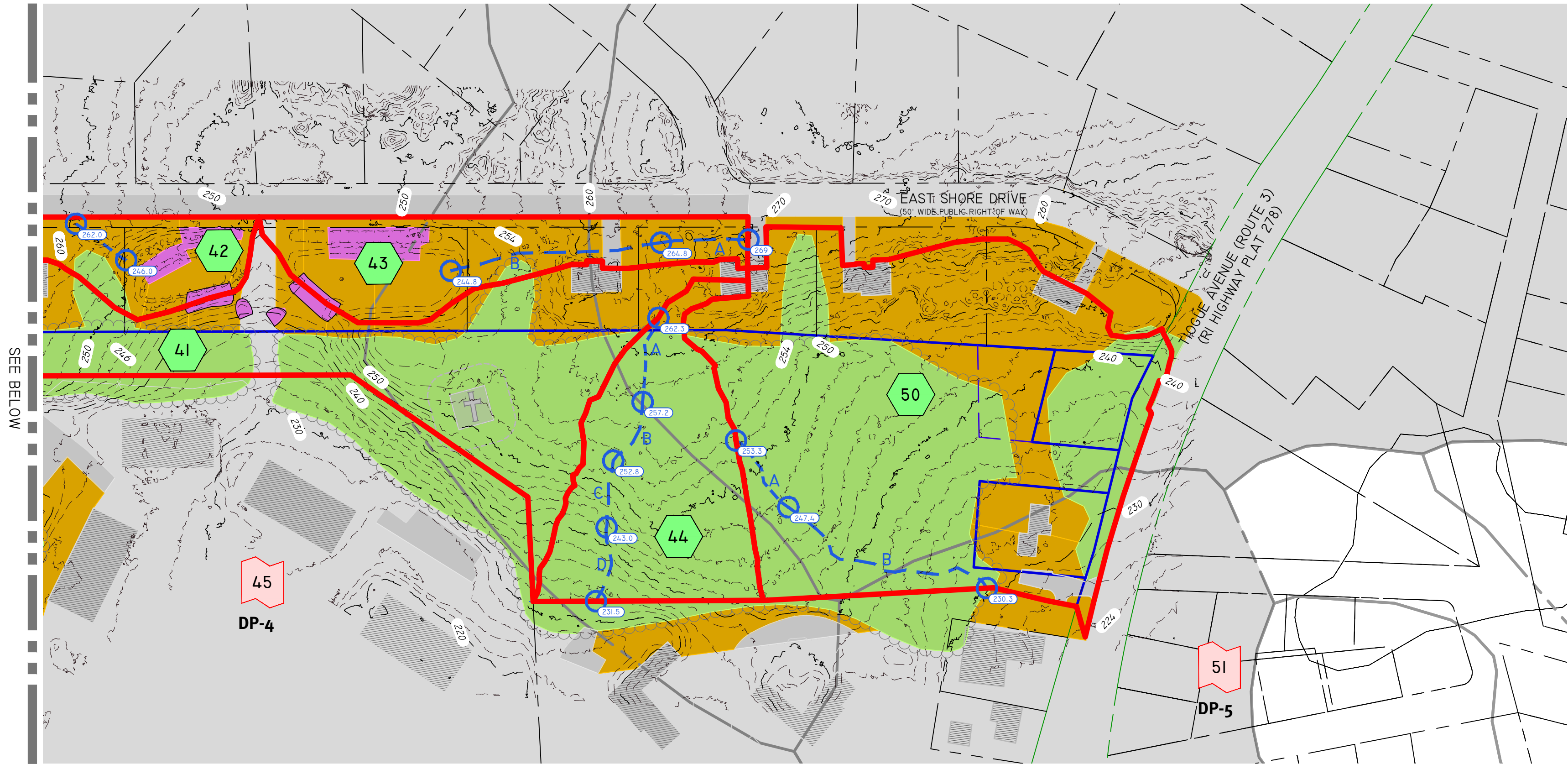
Summary for Link 518: DP-5 Tiogue Ave

Inflow Area = 4.719 ac, 27.57% Impervious, Inflow Depth = 3.21" for 100-Year event
Inflow = 11.08 cfs @ 12.38 hrs, Volume= 1.264 af
Primary = 11.08 cfs @ 12.38 hrs, Volume= 1.264 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-72.00 hrs, dt= 0.01 hrs



Watershed Maps



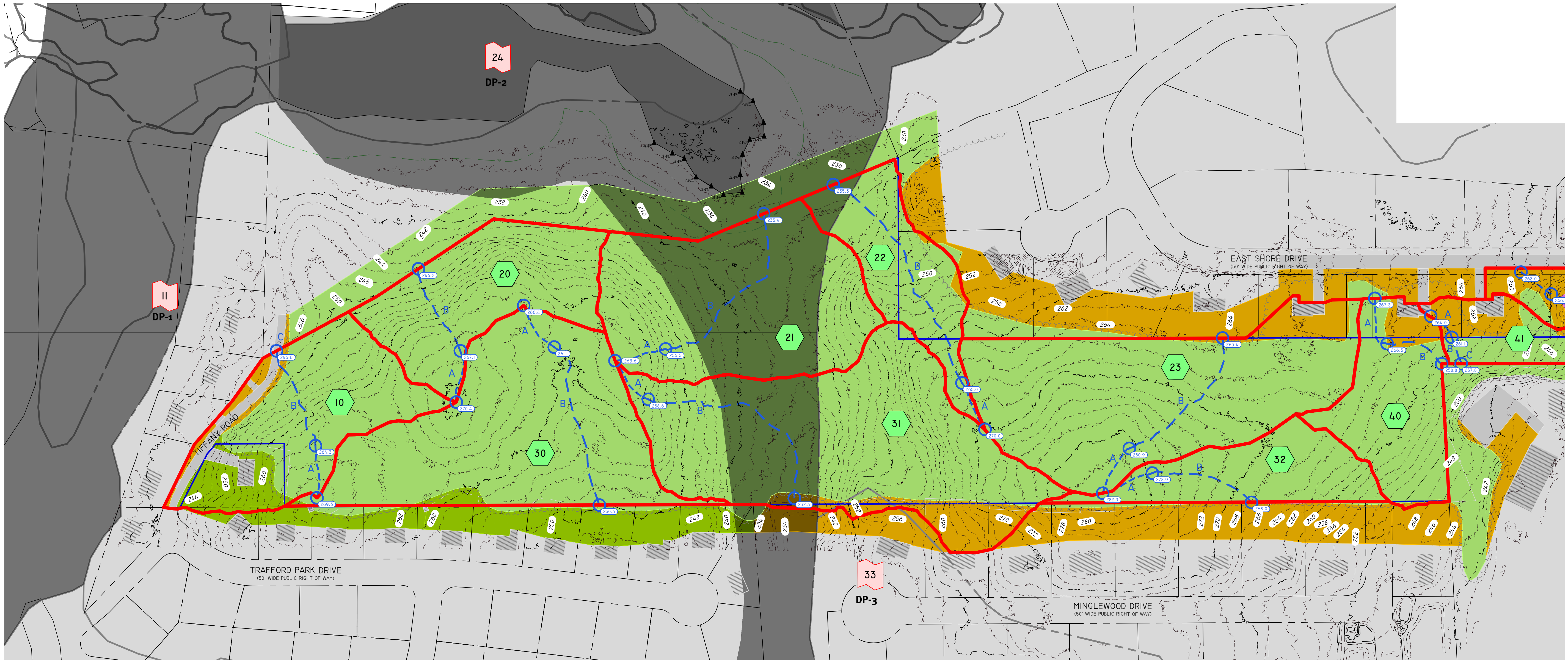
LEGEND

- WOODS - A SOILS
- WOODS - D SOILS
- GRASS - A SOILS
- GRASS - D SOILS
- GRAVEL - A SOILS
- IMPERVIOUS
- COMBINATION - A SOILS
- COMBINATION - D SOILS

LEGEND

- TC LINE WITH ELEVATIONS
- SUBCATCHMENT AREA
- SOIL BOUNDARY
- REACH
- SUBCATCHMENT
- DRAINAGE POND/BIO RETENTION/SAND FILTER/INFILTRATING SWALE
- DRAINAGE STRUCTURE/POND WITH INSIGNIFICANT STORAGE
- REACH/SWALE
- DESIGN POINT

NOTE
OFFSITE CONTOURS REFLECT CURRENT FIELD CONDITIONS BASED ON SITE OBSERVATIONS AND THE OAKS AT EAST SHORE COVENTRY, RHODE ISLAND AP 23, LOTS 47 & 47.001; AP 32, LOT 152 APPROVED FINAL PLAN.



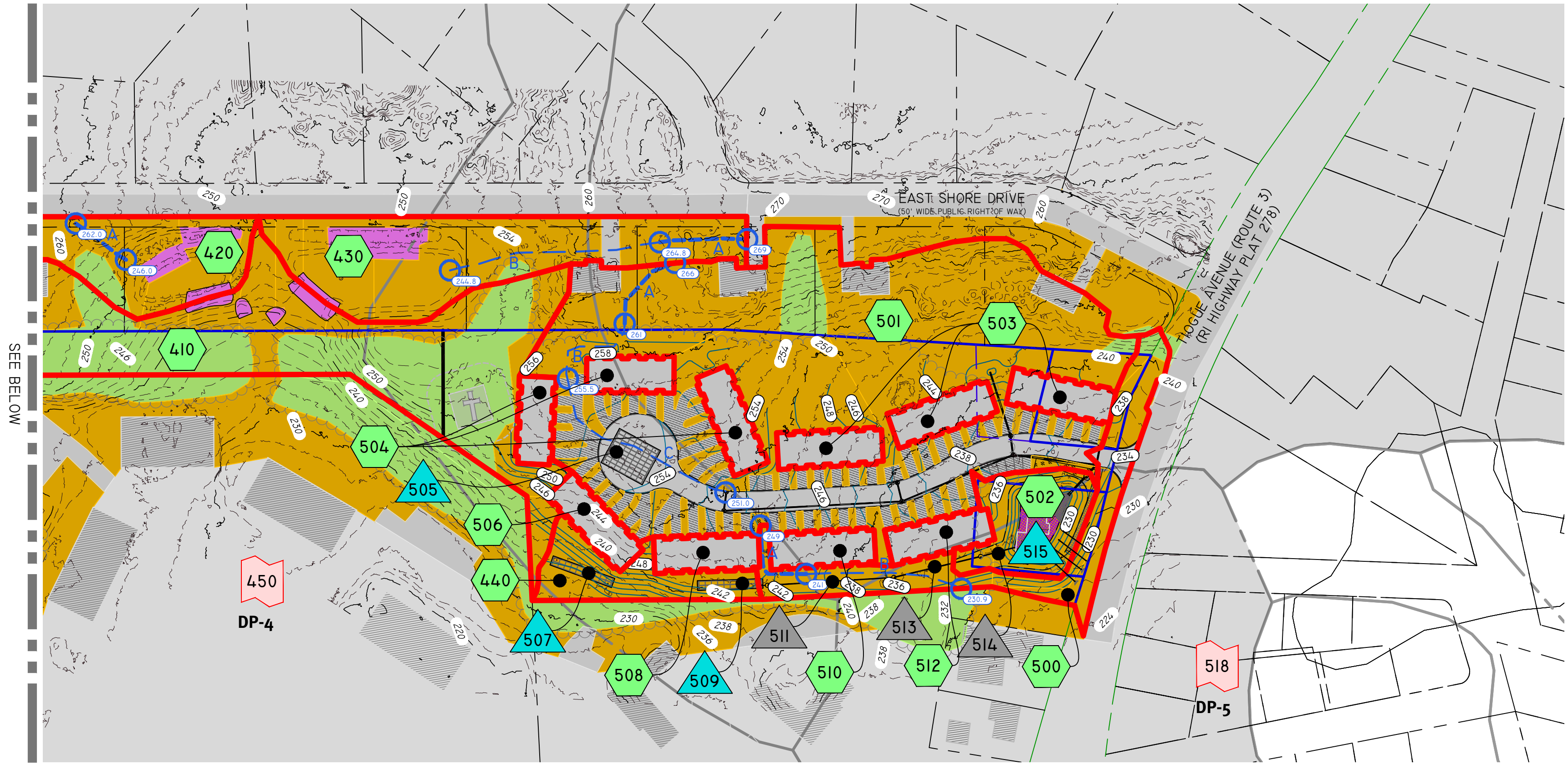
SCALE: 1"=100'

PRE-DEVELOPMENT WATERSHED MAP
VILLAGE AT TIOGUE

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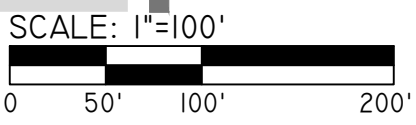
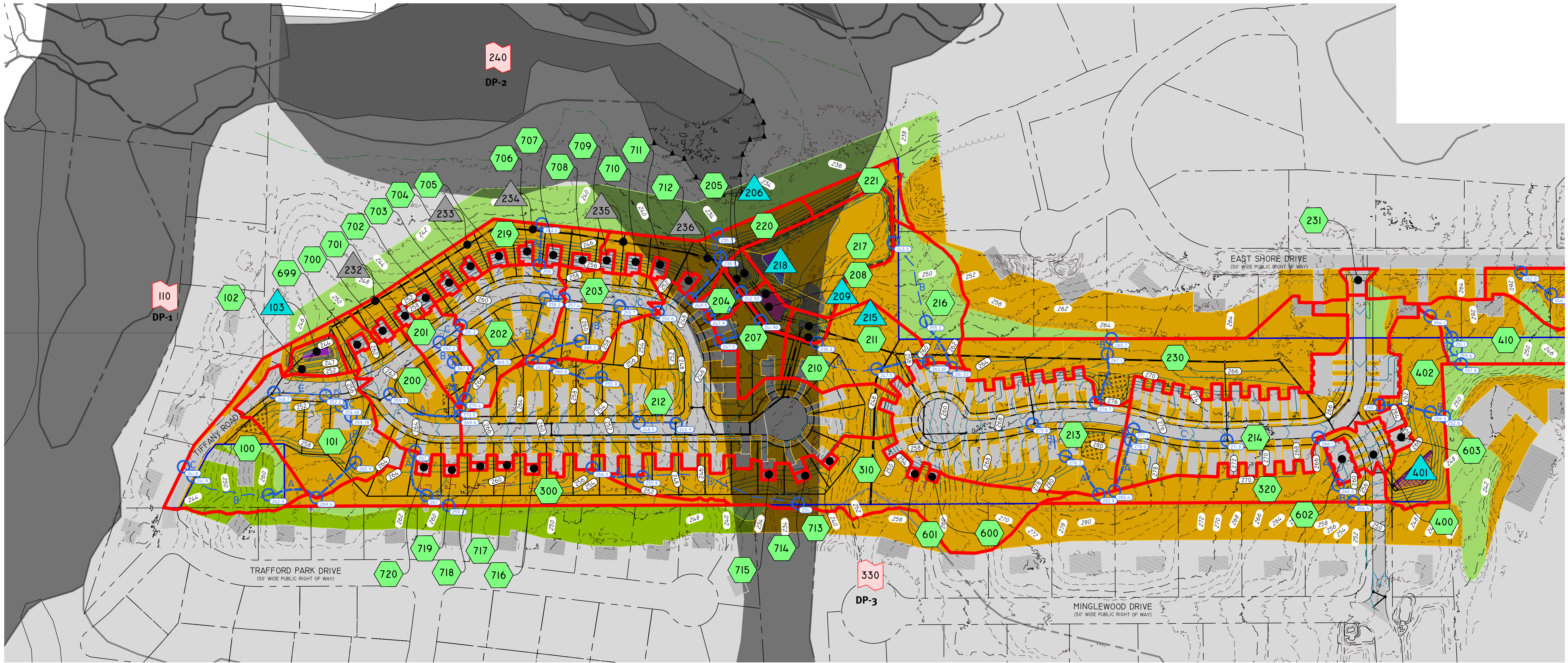
LEGEND

- WOODS - A SOILS
- WOODS - D SOILS
- GRASS - A SOILS
- GRASS - D SOILS
- GRAVEL - A SOILS
- IMPERVIOUS
- WATER
- COMBINATION - A SOILS
- COMBINATION - D SOILS

LEGEND

- TC LINE WITH ELEVATIONS
- SUBCATCHMENT AREA
- SOIL BOUNDARY
- REACH
- SUBCATCHMENT
- DRAINAGE POND/BIO RETENTION/SAND FILTER/INFILTRATING SWALE
- DRAINAGE STRUCTURE/POND WITH INSIGNIFICANT STORAGE
- REACH/SWALE
- DESIGN POINT

NOTE
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POST-DEVELOPMENT WATERSHED MAP
VILLAGE AT TIOGUE

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