

STORMWATER REPORT

for

501-511 LAKE TERRACE

Located at

**BLOCK 7, LOT 2.03
501-511 LAKE TERRACE**

In

**BOROUGH OF BRADLEY BEACH
MONMOUTH COUNTY, NJ**

Has been prepared for

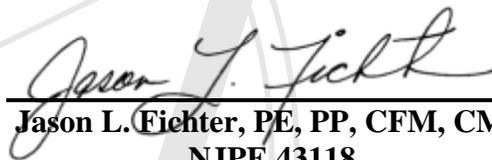
**501 LAKE TERRACE, LLC
1412 MAIN STREET
ASBURY PARK, NJ 07712**

on

April 16, 2021

Updated June 1, 2021

Updated September 15, 2021


**Jason L. Fichter, PE, PP, CFM, CME
NJPE 43118**

Insite Job #: 20-1472-01

InSite Engineering, LLC

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INTRODUCTION

The proposed project is located at 501 – 511 Lake Terrace in the Borough of Bradley Beach, and is bounded existing residential buildings on all sides. The property is currently fully developed with two existing buildings, walkways and associated parking. The proposed project consists of the reconstruction of concrete walkways, expansion of an existing asphalt parking lot, and associated landscape and lighting improvements.

STORMWATER ANALYSIS SUMMARY

The property currently consists of approximately 60.0% impervious coverage due to the existing buildings. The proposed project is proposing a slight increase of around 5,000 S.F. of impervious coverage to approximately 68.2%. The proposed project will disturb less than one acre in total and does not propose an increase in regulated motor vehicle surface of more than 0.25 acres and therefore is not considered a major development.

As such, the project is not considered a major development by the Stormwater Control section of the Borough of Bradley Beach Ordinance (Section 396-5) or the NJDEP Stormwater Management requirements (NJAC 7:8) and therefore water quality, water quantity and groundwater recharge measures are not required for the proposed improvements pursuant thereto. Furthermore, since there are no appreciable changes proposed to the land use, land cover, or topography of the site, no changes will occur to the hydrology of the site. Therefore, no additional stormwater management facilities are required.

The impervious coverage, site runoff, and grading design closely matches the existing conditions and will have no negative impact on the project. However, to further improve the proposed improved conditions, we have proposed four (4) drywells to collect the roof runoff from the existing buildings to reduce the stormwater runoff from the site.

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The following 24-hour storm events were studied using the NOAA Type D Storm distribution:

Storm Frequency (Years)	Rainfall (Inches)
NJ DEP WQ	1.25
2-Year	3.50
10-Year	5.43
25-Year	6.77

II. PRE-DEVELOPMENT CONDITIONS

A summary of the previously discussed drainage areas for the pre-development condition follows below. Refer to the Appendix B for Pre-Development Hydrograph calculations and Appendix C for Pre-Development Drainage Area Map.

PRE-DEVELOPMENT

Watershed A

Watershed A: Total Area 1.18 acres

Subarea Ai: Impervious area tributary to Lake Terrace
Area: 0.75 acres
Runoff Curve Number: CN = 98
Time of concentration: Tc = 10 minutes

Subarea Ap: Pervious area tributary to Lake Terrace
Area: 0.43 acres
Runoff Curve Number: CN = 39
Time of concentration: Tc = 10 minutes

Watershed B: Total Area 0.28 acres

Subarea Bi: Impervious area tributary to Newark Avenue
Area: 0.12 acres
Runoff Curve Number: CN = 98
Time of concentration: Tc = 10 minutes

Subarea Bp: Pervious area tributary to Newark Avenue
Area: 0.16 acres
Runoff Curve Number: CN = 39
Time of concentration: Tc = 10 minutes

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III. POST-DEVELOPMENT CONDITIONS

A summary of the previously discussed drainage areas for the post-development condition follows below. Refer to the Appendix C for Post-Development Hydrograph calculations and Appendix G for a Post-Drainage Area Map.

POST-DEVELOPMENT

Watershed A: Total Area 1.29 acres

Subarea Ai Ground: Impervious Pavement/Concrete area tributary to Lake Terrace
Area: 0.30 acres
Runoff Curve Number: CN = 98
Time of concentration: Tc = 10 minutes

Subarea Ai Roof: Roof area tributary to Lake Terrace
Area: 0.60 acres
Runoff Curve Number: CN = 98
Time of concentration: Tc = 10 minutes

Subarea Ap: Pervious area tributary to Lake Terrace
Area: 0.39 acres
Runoff Curve Number: CN = 39
Time of concentration: Tc = 10 minutes

Watershed B: Total Area 0.17 acres

Subarea Bi: Impervious area tributary to Newark Avenue
Area: 0.10 acres
Runoff Curve Number: CN = 98
Time of concentration: Tc = 10 minutes

Subarea Bp: Pervious area tributary to Newark Avenue
Area: 0.07 acres
Runoff Curve Number: CN = 39
Time of concentration: Tc = 10 minutes

STORMWATER MANAGEMENT SUMMARY:

Pre- and Post-development computations for the resultant hydrographs, routing computations, and runoff volumes are appended, respectively, to this report. For each drainage area, the following summaries were generated:

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Watershed A

Pre-Development: Subareas Ai, Ap (1.18 ac)

Post-Development: Subareas Ai Ground Ai Roof, Ap (1.29 ac)

Storm (Year)	Pre-Development Peak Flow (cfs)	Post-Development Flow (cfs)	Difference (cfs)
WQ	1.4	0.7	-0.7
2	1.6	0.9	-0.7
10	2.5	2.3	-0.2
25	3.3	2.9	-0.4

Watershed B

Pre-Development: Subareas Bi, Bp (0.28 ac)

Post-Development: Subareas Bi, Bp (0.17 ac)

Storm (Year)	Pre-Development Peak Flow (cfs)	Post-Development Flow (cfs)	Difference (cfs)
WQ	0.2	0.2	0.0
2	0.3	0.2	-0.1
10	0.4	0.3	-0.1
25	0.5	0.4	-0.1

CONCLUSION

The proposed development will reduce stormwater runoff from the site. The grading efforts do not significantly change any of the existing drainage patterns and the design was prepared in accordance with the Borough's requirements to maintain site stability throughout.

A. Geotechnical Report

September 13, 2021

via email

501 LAKE TERRACE, LLC
1412 Main Street
Asbury Park, New Jersey 07712

Attention: Mr. Peter Siegel

**Regarding: STORMWATER MANAGEMENT AREA EVALUATION
EXISTING RESIDENTIAL BUILDING
501 LAKE TERRACE
BRADLEY BEACH, MONMOUTH COUNTY, NEW JERSEY
WHITESTONE PROJECT NO.: GS2118298.000**

Dear Mr. Siegel:

Whitestone Associates, Inc. (Whitestone) is pleased to submit this *Stormwater Management (SWM) Area Evaluation* report in support of the proposed above-referenced site. This preliminary SWM evaluation is based on the November 20, 2020 *Grading & Drainage Plan* prepared by InSite Engineering, LLC (InSite) and Whitestone's correspondence with InSite.

1.0 PROJECT DESCRIPTION

The subject property located at 501 Lake Terrace in Bradley Beach, Monmouth County, New Jersey houses a multi-family residential building with associated pavements, landscaped areas and utilities. The proposed site improvements will include installation of new below-grade SWM facilities. Based on site grading, the proposed SWM facilities are anticipated to be situated approximately three feet to four feet below existing site grades.

2.0 SUMMARY OF FINDINGS

General: The preliminary SWM area evaluation was completed by means of one soil boring (identified as B-1) and three hand augers (identified as HA-1 through HA-3) conducted within the proposed SWM facilities. The subsurface tests were completed in the presence of a Whitestone field engineer who conducted field rests, recorded visual classifications, and collected samples of the various strata encountered. The test locations were located in the field using normal taping procedures and estimated right angles. These locations are presumed to be accurate within a few feet. The test locations are shown on the *Test Location Plan* included as Figure 1. Details of the subsurface materials encountered are presented on the *Records of Subsurface Exploration* presented in Appendix A.

Other Office Locations:

WARREN, NJ
908.668.7777

CHALFONT, PA
215.712.2700

SOUTHBOROUGH, MA
508.485.0755

ROCKY HILL, CT
860.726.7889

PHILADELPHIA, PA
215.848.2323

Estimated Seasonal High Groundwater Levels & Infiltration Test Results: The methods used in determining the estimated seasonal high groundwater (ESHGW) level include evaluating the soil morphology within a test excavation and identifying irregular spots or blotches of different colors or minerals unlike that of the surrounding soil (mottles). A summary of the estimated seasonal high groundwater observations as well as infiltration test results are included in the following table.

ESHGW/INFILTRATION TEST SUMMARY				
Profile Pit No.	ESHGW (fbgs/NAVD 88)	USDA Classification @ Test Depth	Field Infiltration Test Results	
			Depth (fbgs)	Infiltration Rate (in/hour)
B-1	10.0/9.0	Sand	4.0	> 20.0
HA-1	Not Encountered	Sand	4.0	> 20.0
HA-2	Not Encountered	Sand	4.0	15.0
HA-3	Not Encountered	Sand	4.0	9.0

Tested Infiltration Rates: In-situ infiltration tests were conducted within the proposed SWM areas. In-situ infiltration testing was conducted using the single ring infiltration test as detailed in the *New Jersey Stormwater Best Practices Manual*. Field measured tests results indicated infiltration rates ranging from nine inches per hour (iph) to greater than 20 iph. In-situ infiltration test results are provided in Appendix B, *Soil Profile Pit Logs* are included in Appendix A.

3.0 CLOSING

Whitestone appreciates the opportunity to be of service 501 Lake Terrace, LLC. Please contact us with any questions or comments regarding the information herein.

Sincerely,

WHITESTONE ASSOCIATES, INC.



Kyle J. Kopacz, P.E.
Associate

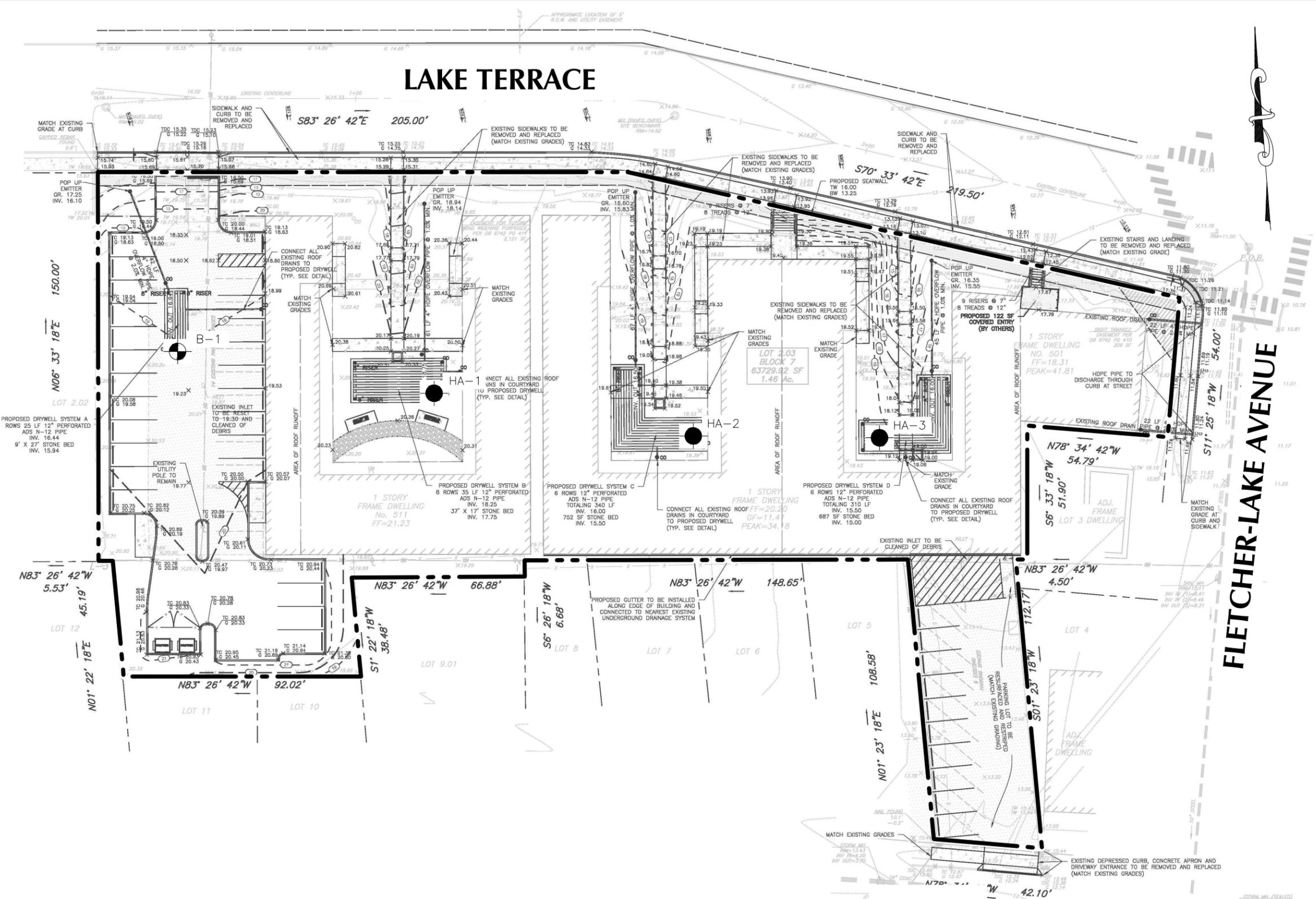


Laurence W. Keller, P.E.
Vice President

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 Enclosures
 Copy: Christopher Bednarski, P.E., InSite Engineering, LLC

FIGURE 1
Test Location Plan

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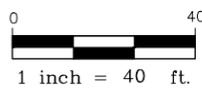
LAKE TERRACE

FLETCHER-LAKE AVENUE

LEGEND/NOTES

- B-1 BORING
- HA-1 HAND AUGER
- SUBJECT PROPERTY BOUNDARY REFERENCE

THIS PLAN IS BASED ON A NOVEMBER 20, 2020 GRADING & DRAINAGE PLAN PREPARED BY IN-SITE ENGINEERING, LLC & ALL SITE LOCATIONS ARE APPROXIMATE.





WHITESTONE

An Employee-Owned Company

2430 HIGHWAY 34 BUILDING B, SUITE 101 MANASQUAN, NJ 08736
908.668.7777 WHITESTONEASSOC.COM

DRAWING TITLE:	
TEST LOCATION PLAN	
CLIENT:	
501 LAKE TERRACE, LLC	
PROJECT:	
EXISTING RESIDENTIAL BUILDING 501 LAKE TERRACE BRADLEY BEACH, MONMOUTH COUNTY, NJ	
PROJECT #:	
GS2118298.000	
DESIGNED BY:	PROJ. MGR.:
GR	KK
DATE:	FIGURE:
9/1/21	1
SCALE:	
1" = 40'	

APPENDIX A
Records of Subsurface Exploration

RECORD OF SUBSURFACE EXPLORATION

Project: Existing Residential Building		WAI Project No.: GS2118298.000	
Location: 501 Lake Terrace; Bradley Beach, Monmouth County, NJ		Client: 501 Lake Terrace, LLC	
Surface Elevation: ± 19.0 feet	Date Started: 8/31/2021	Water Depth Elevation (feet bgs) (feet)	Cave-In Depth Elevation (feet bgs) (feet)
Termination Depth: 12.0 feet bgs	Date Completed: 8/31/2021	During: 10.0 --- ▾	At Completion: 10.0 --- ▾
Proposed Location: SWM Basin	Logged By: RL	At Completion: 10.0 --- ▾	At Completion: 10.0 --- ▾
Drill / Test Method: HSA / SPT	Contractor: ETD	24 Hours: --- --- ▾	24 Hours: --- --- ▾
	Equipment: Geoprobe		

SAMPLE INFORMATION						DEPTH (feet)	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (feet)	No	Type	Blows Per 6"	Rec. (in.)	N				
						0.0	PAVEMENT	1" Asphalt, No Apparent Subbase	
0 - 2	S-1	X	7 - 4 - 3 - 4	12	7	0.1	FILL	Dark Yellowish-Brown (10YR 4/4) SAND; 20% Gravel; Medium, Moderate Granular Structure; Dry; Friable; No Roots; No Mottling (FILL)	
2 - 4	S-2	X	3 - 3 - 6 - 6	16	9	2.0	COASTAL PLAIN DEPOSITS	Brownish-Yellow (10YR 6/8) SAND; 5% Gravel; Coarse, Weak Granular Structure; Moist; Loose; No Roots; No Mottling (SP)	
4 - 6	S-3	X	5 - 5 - 12 - 16	16	17	5.0		As Above, 20% Gravel (SP)	
6 - 8	S-4	X	25 - 16 - 20 - 17	18	36			As Above, No Coarse Fragments (SP)	
8 - 10	S-5	X	15 - 15 - 14 - 15	18	29			As Above (SP)	
10 - 12	S-6	X	11 - 18 - 14 - 17	16	32	12.0		As Above, Wet (SP)	
						15.0			
						20.0			
						25.0			
								Boring Log B-1 Terminated at a Depth of 12.0 Feet Below Ground Surface	

RECORD OF SUBSURFACE EXPLORATION

Project: Existing Residential Building		WAI Project No.: GS2118298.000	
Location: 501 Lake Terrace; Bradley Beach, Monmouth County, NJ		Client: 501 Lake Terrace, LLC	
Surface Elevation: ± 20.0 feet	Date Started: 8/31/2021	Water Depth Elevation (feet bgs) (feet)	Cave-In Depth Elevation (feet bgs) (feet)
Termination Depth: 6.0 feet bgs	Date Completed: 8/31/2021	During: NE --- ▼	At Completion: NE --- ▼
Proposed Location: SWM Basin	Logged By: RL	24 Hours: --- --- ▼	At Completion: NE --- ▼
Excavating Method: Hand Auger	Contractor: Whitestone		
Test Method: Visual Observation	Equipment: Hand Auger		

SAMPLE INFORMATION			DEPTH	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)			
0 - 0.2	S-1	BAG	0.0	TOPSOIL	2" Topsoil	
0.2 - 4	S-2	BAG	4.0	FILL	Dark Yellowish-Brown (10YR 4/4) SAND; 20% Gravel; Medium, Moderate Granular Structure; Dry; Friable; No Roots; No Mottling (FILL)	Glass, Asphalt and Cinder Debris
4 - 6.0	S-3	BAG	6.0	COASTAL PLAIN DEPOSITS	Brownish-Yellow (10YR 6/8) SAND; 5% Gravel; Coarse, Weak Granular Structure; Moist; Loose; No Roots; No Mottling (SP)	Field Infiltration Test @ 4.0 fbs
			15.0		Hand Auger HA-1 Terminated at a Depth of 6.0 Feet Below Ground Surface	

RECORD OF SUBSURFACE EXPLORATION

Project: Existing Residential Building		WAI Project No.: GS2118298.000	
Location: 501 Lake Terrace; Bradley Beach, Monmouth County, NJ		Client: 501 Lake Terrace, LLC	
Surface Elevation: ± 19.5 feet	Date Started: 8/31/2021	Water Depth Elevation (feet bgs) (feet)	Cave-In Depth Elevation (feet bgs) (feet)
Termination Depth: 6.0 feet bgs	Date Completed: 8/31/2021	During: NE --- ▼	At Completion: NE --- ▼
Proposed Location: SWM Basin	Logged By: RL	24 Hours: --- --- ▼	At Completion: NE --- ▼
Excavating Method: Hand Auger	Contractor: Whitestone		
Test Method: Visual Observation	Equipment: Hand Auger		

SAMPLE INFORMATION			DEPTH	STRATA	DESCRIPTION OF MATERIALS (Classification)	REMARKS
Depth (ft.)	Number	Type	(feet)			
			0.0			
0 - 0.25	S-1	BAG		TOPSOIL	3" Topsoil	
				FILL	Dark Yellowish-Brown (10YR 4/4) SAND; 20% Gravel; Medium, Moderate Granular Structure; Dry; Friable; No Roots; No Mottling (FILL)	Trace Brick and Cinder Debris
0.25 - 6	S-2	BAG				
			5.0			Field Infiltration Test @ 4.0 fbgs
			6.0			
					Hand Auger HA-2 Terminated at a Depth of 6.0 Feet Below Ground Surface	
			10.0			
			15.0			



APPENDIX B

Infiltration Test Results

APPENDIX C
Supplemental Information
(USCS, Terms & Symbols)

UNIFIED SOIL CLASSIFICATION SYSTEM

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTIONS	
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)	GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES	
	SAND AND SANDY SOILS	CLEAN SAND (LITTLE OR NO FINES)	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES	
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)	GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES	
	MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	MORE THAN 50% OF COARSE FRACTION <u>RETAINED</u> ON NO. 4 SIEVE		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SM	SILTY SANDS, SAND-SILT MIXTURES	
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES	
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMITS <u>LESS</u> THAN 50	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
	SILTS AND CLAYS	LIQUID LIMITS <u>GREATER</u> THAN 50	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS	
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS FOR SAMPLES WITH 5% TO 12% FINES

GRADATION*

% FINER BY WEIGHT

TRACE..... 1% TO 10%
 LITTLE..... 10% TO 20%
 SOME..... 20% TO 35%
 AND..... 35% TO 50%

COMPACTNESS*

Sand and/or Gravel

RELATIVE DENSITY

LOOSE..... 0% TO 40%
 MEDIUM DENSE.... 40% TO 70%
 DENSE..... 70% TO 90%
 VERY DENSE..... 90% TO 100%

CONSISTENCY*

Clay and/or Silt

RANGE OF SHEARING STRENGTH IN POUNDS PER SQUARE FOOT

VERY SOFT..... LESS THAN 250
 SOFT..... 250 TO 500
 MEDIUM..... 500 TO 1000
 STIFF..... 1000 TO 2000
 VERY STIFF..... 2000 TO 4000
 HARD..... GREATER THAN 4000

* VALUES ARE FROM LABORATORY OR FIELD TEST DATA, WHERE APPLICABLE. WHEN NO TESTING WAS PERFORMED, VALUES ARE ESTIMATED.

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Other Office Locations:

WARREN, NJ
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GEOTECHNICAL TERMS AND SYMBOLS

SAMPLE IDENTIFICATION

The Unified Soil Classification System is used to identify the soil unless otherwise noted.

SOIL PROPERTY SYMBOLS

- N: Standard Penetration Value: Blows per ft. of a 140 lb. hammer falling 30" on a 2" O.D. split-spoon.
 Qu: Unconfined compressive strength, TSF.
 Qp: Penetrometer value, unconfined compressive strength, TSF.
 Mc: Moisture content, %.
 LL: Liquid limit, %.
 PI: Plasticity index, %.
 δd: Natural dry density, PCF.
 ▽: Apparent groundwater level at time noted after completion of boring.

DRILLING AND SAMPLING SYMBOLS

- NE: Not Encountered (Groundwater was not encountered).
 SS: Split-Spoon - 1 3/8" I.D., 2" O.D., except where noted.
 ST: Shelby Tube - 3" O.D., except where noted.
 AU: Auger Sample.
 OB: Diamond Bit.
 CB: Carbide Bit
 WS: Washed Sample.

RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

<u>Term (Non-Cohesive Soils)</u>	<u>Standard Penetration Resistance</u>
Very Loose	0-4
Loose	4-10
Medium Dense	10-30
Dense	30-50
Very Dense	Over 50

<u>Term (Cohesive Soils)</u>	<u>Qu (TSF)</u>
Very Soft	0 - 0.25
Soft	0.25 - 0.50
Firm (Medium)	0.50 - 1.00
Stiff	1.00 - 2.00
Very Stiff	2.00 - 4.00
Hard	4.00+

PARTICLE SIZE

Boulders	8 in.+	Coarse Sand	5mm-0.6mm	Silt	0.074mm-0.005mm
Cobbles	8 in.-3 in.	Medium Sand	0.6mm-0.2mm	Clay	-0.005mm
Gravel	3 in.-5mm	Fine Sand	0.2mm-0.074mm		

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Other Office Locations:

WARREN, NJ
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ROCKY HILL, CT
860.726.7889

PHILADELPHIA, PA
215.848.2323

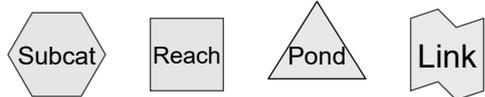
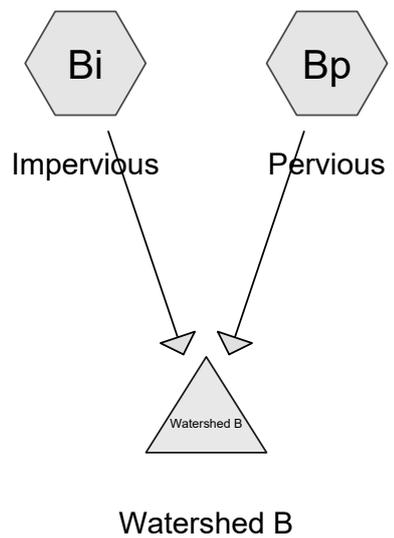
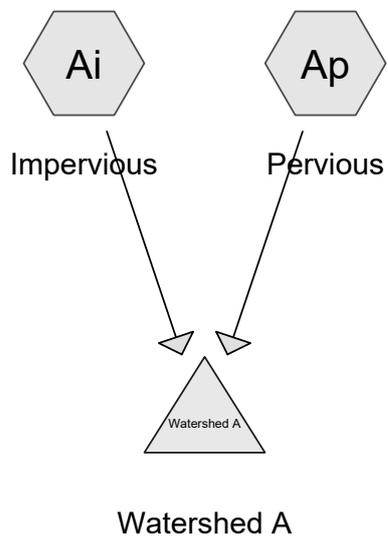
B. Pre-Development Flow Calculations

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Predevelopment HydroCAD

Prepared by Insite Engineering LLC

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Printed 9/16/2021

Page 2

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	NOAA 24-hr	D	Default	24.00	1	3.50	2
2	10-Year	NOAA 24-hr	D	Default	24.00	1	5.43	2
3	25-Year	NOAA 24-hr	D	Default	24.00	1	6.77	2
4	NJDEP 2-Hr WQ	NJ DEP 2-hr		Default	2.00	1	1.25	2

Predevelopment HydroCAD

Prepared by Insite Engineering LLC

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Page 3

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.59	39	>75% Grass cover, Good, HSG A (Ap, Bp)
0.87	98	Paved parking, HSG A (Ai, Bi)
1.46	74	TOTAL AREA

Predevelopment HydroCAD

NOAA 24-hr D 2-Year Rainfall=3.50"

Prepared by Insite Engineering LLC

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HydroCAD® 10.10-6a s/n 03018 © 2020 HydroCAD Software Solutions LLC

Page 4

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Ai: Impervious Runoff Area=0.75 ac 100.00% Impervious Runoff Depth=3.27"
Tc=10.0 min CN=98 Runoff=1.6 cfs 0.20 af

Subcatchment Ap: Pervious Runoff Area=0.43 ac 0.00% Impervious Runoff Depth=0.01"
Tc=10.0 min CN=39 Runoff=0.0 cfs 0.00 af

Subcatchment Bi: Impervious Runoff Area=0.12 ac 100.00% Impervious Runoff Depth=3.27"
Tc=10.0 min CN=98 Runoff=0.3 cfs 0.03 af

Subcatchment Bp: Pervious Runoff Area=0.16 ac 0.00% Impervious Runoff Depth=0.01"
Tc=10.0 min CN=39 Runoff=0.0 cfs 0.00 af

Pond Watershed A: Watershed A Inflow=1.6 cfs 0.20 af
Primary=1.6 cfs 0.20 af

Pond Watershed B: Watershed B Inflow=0.3 cfs 0.03 af
Primary=0.3 cfs 0.03 af

Total Runoff Area = 1.46 ac Runoff Volume = 0.24 af Average Runoff Depth = 1.95"
40.41% Pervious = 0.59 ac 59.59% Impervious = 0.87 ac

Summary for Subcatchment Ai: Impervious

Runoff = 1.6 cfs @ 12.19 hrs, Volume= 0.20 af, Depth= 3.27"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 2-Year Rainfall=3.50"

Area (ac)	CN	Description
0.75	98	Paved parking, HSG A
0.75		100.00% Impervious Area

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

Summary for Subcatchment Ap: Pervious

Runoff = 0.0 cfs @ 24.00 hrs, Volume= 0.00 af, Depth= 0.01"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 2-Year Rainfall=3.50"

Area (ac)	CN	Description
0.43	39	>75% Grass cover, Good, HSG A
0.43		100.00% Pervious Area

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

Summary for Subcatchment Bi: Impervious

Runoff = 0.3 cfs @ 12.19 hrs, Volume= 0.03 af, Depth= 3.27"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 2-Year Rainfall=3.50"

Area (ac)	CN	Description
0.12	98	Paved parking, HSG A
0.12		100.00% Impervious Area

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

Summary for Subcatchment Bp: Pervious

Runoff = 0.0 cfs @ 24.00 hrs, Volume= 0.00 af, Depth= 0.01"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 2-Year Rainfall=3.50"

Area (ac)	CN	Description
0.16	39	>75% Grass cover, Good, HSG A
0.16		100.00% Pervious Area

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

Summary for Pond Watershed A: Watershed A

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.18 ac, 63.56% Impervious, Inflow Depth = 2.08" for 2-Year event
 Inflow = 1.6 cfs @ 12.19 hrs, Volume= 0.20 af
 Primary = 1.6 cfs @ 12.19 hrs, Volume= 0.20 af, Atten= 0%, Lag= 0.0 min
 Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Pond Watershed B: Watershed B

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.28 ac, 42.86% Impervious, Inflow Depth = 1.40" for 2-Year event
 Inflow = 0.3 cfs @ 12.19 hrs, Volume= 0.03 af
 Primary = 0.3 cfs @ 12.19 hrs, Volume= 0.03 af, Atten= 0%, Lag= 0.0 min
 Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Predevelopment HydroCAD

NOAA 24-hr D 10-Year Rainfall=5.43"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Ai: Impervious

Runoff Area=0.75 ac 100.00% Impervious Runoff Depth=5.19"
Tc=10.0 min CN=98 Runoff=2.5 cfs 0.32 af

Subcatchment Ap: Pervious

Runoff Area=0.43 ac 0.00% Impervious Runoff Depth=0.30"
Tc=10.0 min CN=39 Runoff=0.0 cfs 0.01 af

Subcatchment Bi: Impervious

Runoff Area=0.12 ac 100.00% Impervious Runoff Depth=5.19"
Tc=10.0 min CN=98 Runoff=0.4 cfs 0.05 af

Subcatchment Bp: Pervious

Runoff Area=0.16 ac 0.00% Impervious Runoff Depth=0.30"
Tc=10.0 min CN=39 Runoff=0.0 cfs 0.00 af

Pond Watershed A: Watershed A

Inflow=2.5 cfs 0.34 af
Primary=2.5 cfs 0.34 af

Pond Watershed B: Watershed B

Inflow=0.4 cfs 0.06 af
Primary=0.4 cfs 0.06 af

Total Runoff Area = 1.46 ac Runoff Volume = 0.39 af Average Runoff Depth = 3.21"
40.41% Pervious = 0.59 ac 59.59% Impervious = 0.87 ac

Summary for Subcatchment Ai: Impervious

Runoff = 2.5 cfs @ 12.19 hrs, Volume= 0.32 af, Depth= 5.19"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.43"

Area (ac)	CN	Description
0.75	98	Paved parking, HSG A
0.75		100.00% Impervious Area

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

Summary for Subcatchment Ap: Pervious

Runoff = 0.0 cfs @ 12.90 hrs, Volume= 0.01 af, Depth= 0.30"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.43"

Area (ac)	CN	Description
0.43	39	>75% Grass cover, Good, HSG A
0.43		100.00% Pervious Area

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

Summary for Subcatchment Bi: Impervious

Runoff = 0.4 cfs @ 12.19 hrs, Volume= 0.05 af, Depth= 5.19"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.43"

Area (ac)	CN	Description
0.12	98	Paved parking, HSG A
0.12		100.00% Impervious Area

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

Summary for Subcatchment Bp: Pervious

Runoff = 0.0 cfs @ 12.90 hrs, Volume= 0.00 af, Depth= 0.30"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.43"

Area (ac)	CN	Description
0.16	39	>75% Grass cover, Good, HSG A
0.16		100.00% Pervious Area

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

Summary for Pond Watershed A: Watershed A

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.18 ac, 63.56% Impervious, Inflow Depth = 3.41" for 10-Year event
 Inflow = 2.5 cfs @ 12.19 hrs, Volume= 0.34 af
 Primary = 2.5 cfs @ 12.19 hrs, Volume= 0.34 af, Atten= 0%, Lag= 0.0 min
 Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Pond Watershed B: Watershed B

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.28 ac, 42.86% Impervious, Inflow Depth = 2.39" for 10-Year event
 Inflow = 0.4 cfs @ 12.19 hrs, Volume= 0.06 af
 Primary = 0.4 cfs @ 12.19 hrs, Volume= 0.06 af, Atten= 0%, Lag= 0.0 min
 Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Subcatchment Ai: Impervious

Runoff = 3.2 cfs @ 12.19 hrs, Volume= 0.41 af, Depth= 6.53"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 25-Year Rainfall=6.77"

Area (ac)	CN	Description
0.75	98	Paved parking, HSG A
0.75		100.00% Impervious Area

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

Summary for Subcatchment Ap: Pervious

Runoff = 0.1 cfs @ 12.36 hrs, Volume= 0.02 af, Depth= 0.69"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 25-Year Rainfall=6.77"

Area (ac)	CN	Description
0.43	39	>75% Grass cover, Good, HSG A
0.43		100.00% Pervious Area

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

Summary for Subcatchment Bi: Impervious

Runoff = 0.5 cfs @ 12.19 hrs, Volume= 0.07 af, Depth= 6.53"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 25-Year Rainfall=6.77"

Area (ac)	CN	Description
0.12	98	Paved parking, HSG A
0.12		100.00% Impervious Area

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

Summary for Subcatchment Bp: Pervious

Runoff = 0.0 cfs @ 12.36 hrs, Volume= 0.01 af, Depth= 0.69"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 25-Year Rainfall=6.77"

Area (ac)	CN	Description
0.16	39	>75% Grass cover, Good, HSG A
0.16		100.00% Pervious Area

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

Summary for Pond Watershed A: Watershed A

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.18 ac, 63.56% Impervious, Inflow Depth = 4.40" for 25-Year event
 Inflow = 3.3 cfs @ 12.19 hrs, Volume= 0.43 af
 Primary = 3.3 cfs @ 12.19 hrs, Volume= 0.43 af, Atten= 0%, Lag= 0.0 min
 Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Summary for Pond Watershed B: Watershed B

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.28 ac, 42.86% Impervious, Inflow Depth = 3.19" for 25-Year event
 Inflow = 0.5 cfs @ 12.20 hrs, Volume= 0.07 af
 Primary = 0.5 cfs @ 12.20 hrs, Volume= 0.07 af, Atten= 0%, Lag= 0.0 min
 Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Predevelopment HydroCAD

NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Ai: Impervious Runoff Area=0.75 ac 100.00% Impervious Runoff Depth=1.03"
Tc=10.0 min CN=98 Runoff=1.4 cfs 0.06 af

Subcatchment Ap: Pervious Runoff Area=0.43 ac 0.00% Impervious Runoff Depth=0.00"
Tc=10.0 min CN=39 Runoff=0.0 cfs 0.00 af

Subcatchment Bi: Impervious Runoff Area=0.12 ac 100.00% Impervious Runoff Depth=1.03"
Tc=10.0 min CN=98 Runoff=0.2 cfs 0.01 af

Subcatchment Bp: Pervious Runoff Area=0.16 ac 0.00% Impervious Runoff Depth=0.00"
Tc=10.0 min CN=39 Runoff=0.0 cfs 0.00 af

Pond Watershed A: Watershed A Inflow=1.4 cfs 0.06 af
Primary=1.4 cfs 0.06 af

Pond Watershed B: Watershed B Inflow=0.2 cfs 0.01 af
Primary=0.2 cfs 0.01 af

Total Runoff Area = 1.46 ac Runoff Volume = 0.08 af Average Runoff Depth = 0.62"
40.41% Pervious = 0.59 ac 59.59% Impervious = 0.87 ac

Summary for Subcatchment Ai: Impervious

Runoff = 1.4 cfs @ 1.17 hrs, Volume= 0.06 af, Depth= 1.03"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.75	98	Paved parking, HSG A
0.75		100.00% Impervious Area

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

Summary for Subcatchment Ap: Pervious

[45] Hint: Runoff=Zero

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0.00 af, Depth= 0.00"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.43	39	>75% Grass cover, Good, HSG A
0.43		100.00% Pervious Area

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

Summary for Subcatchment Bi: Impervious

Runoff = 0.2 cfs @ 1.17 hrs, Volume= 0.01 af, Depth= 1.03"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.12	98	Paved parking, HSG A
0.12		100.00% Impervious Area

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

Summary for Subcatchment Bp: Pervious

[45] Hint: Runoff=Zero

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0.00 af, Depth= 0.00"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.16	39	>75% Grass cover, Good, HSG A
0.16		100.00% Pervious Area

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

Summary for Pond Watershed A: Watershed A

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.18 ac, 63.56% Impervious, Inflow Depth = 0.66" for NJDEP 2-Hr WQ event
 Inflow = 1.4 cfs @ 1.17 hrs, Volume= 0.06 af
 Primary = 1.4 cfs @ 1.17 hrs, Volume= 0.06 af, Atten= 0%, Lag= 0.0 min
 Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

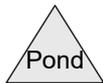
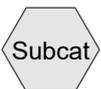
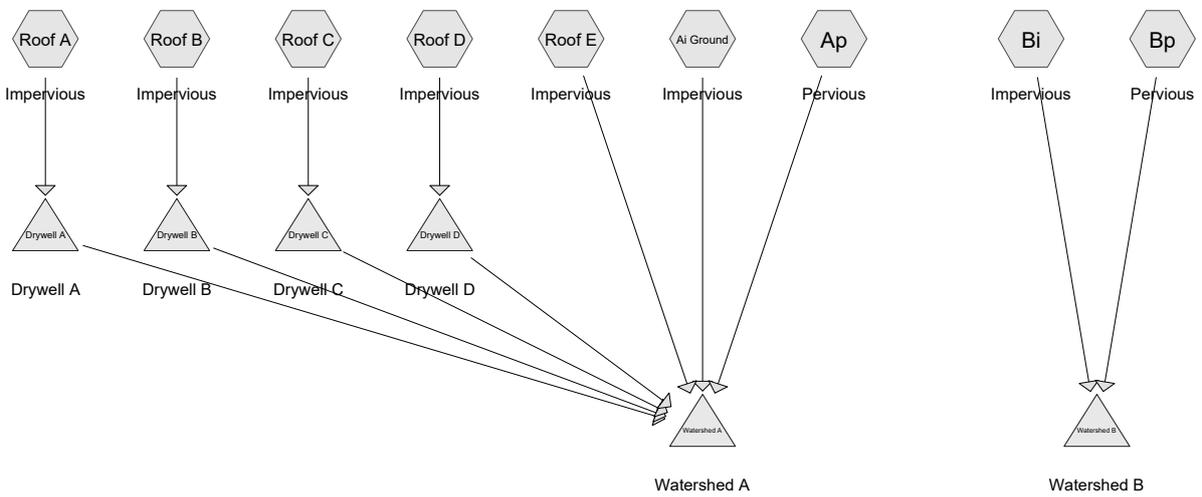
Summary for Pond Watershed B: Watershed B

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.28 ac, 42.86% Impervious, Inflow Depth = 0.44" for NJDEP 2-Hr WQ event
 Inflow = 0.2 cfs @ 1.17 hrs, Volume= 0.01 af
 Primary = 0.2 cfs @ 1.17 hrs, Volume= 0.01 af, Atten= 0%, Lag= 0.0 min
 Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

C. Post-Development Flow Calculations



Postdevelopment HydroCAD

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	NOAA 24-hr	D	Default	24.00	1	3.50	2
2	10-Year	NOAA 24-hr	D	Default	24.00	1	5.43	2
3	25-Year	NOAA 24-hr	D	Default	24.00	1	6.77	2
4	NJDEP 2-Hr WQ	NJ DEP 2-hr		Default	2.00	1	1.25	2

Postdevelopment HydroCAD

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.46	39	>75% Grass cover, Good, HSG A (Ap, Bp)
0.40	98	Paved parking, HSG A (Ai Ground, Bi)
0.60	98	Roofs, HSG A (Roof A, Roof B, Roof C, Roof D, Roof E)
1.46	79	TOTAL AREA

Postdevelopment HydroCAD

NOAA 24-hr D 2-Year Rainfall=3.50"

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
 Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Ai Ground: Impervious	Runoff Area=0.30 ac 100.00% Impervious Runoff Depth=3.27" Tc=10.0 min CN=98 Runoff=0.7 cfs 0.08 af
Subcatchment Ap: Pervious	Runoff Area=0.39 ac 0.00% Impervious Runoff Depth=0.01" Tc=10.0 min CN=39 Runoff=0.0 cfs 0.00 af
Subcatchment Bi: Impervious	Runoff Area=0.10 ac 100.00% Impervious Runoff Depth=3.27" Tc=10.0 min CN=98 Runoff=0.2 cfs 0.03 af
Subcatchment Bp: Pervious	Runoff Area=0.07 ac 0.00% Impervious Runoff Depth=0.01" Tc=10.0 min CN=39 Runoff=0.0 cfs 0.00 af
Subcatchment Roof A: Impervious	Runoff Area=0.05 ac 100.00% Impervious Runoff Depth=3.27" Tc=10.0 min CN=98 Runoff=0.1 cfs 0.01 af
Subcatchment Roof B: Impervious	Runoff Area=0.15 ac 100.00% Impervious Runoff Depth=3.27" Tc=10.0 min CN=98 Runoff=0.3 cfs 0.04 af
Subcatchment Roof C: Impervious	Runoff Area=0.18 ac 100.00% Impervious Runoff Depth=3.27" Tc=10.0 min CN=98 Runoff=0.4 cfs 0.05 af
Subcatchment Roof D: Impervious	Runoff Area=0.17 ac 100.00% Impervious Runoff Depth=3.27" Tc=10.0 min CN=98 Runoff=0.4 cfs 0.05 af
Subcatchment Roof E: Impervious	Runoff Area=0.05 ac 100.00% Impervious Runoff Depth=3.27" Tc=10.0 min CN=98 Runoff=0.1 cfs 0.01 af
Pond Drywell A: Drywell A	Peak Elev=16.59' Storage=0.00 af Inflow=0.1 cfs 0.01 af Discarded=0.0 cfs 0.01 af Primary=0.0 cfs 0.00 af Outflow=0.0 cfs 0.01 af
Pond Drywell B: Drywell B	Peak Elev=18.21' Storage=0.01 af Inflow=0.3 cfs 0.04 af Discarded=0.1 cfs 0.04 af Primary=0.0 cfs 0.00 af Outflow=0.1 cfs 0.04 af
Pond Drywell C: Drywell C	Peak Elev=17.69' Storage=0.01 af Inflow=0.4 cfs 0.05 af Discarded=0.1 cfs 0.04 af Primary=0.3 cfs 0.01 af Outflow=0.3 cfs 0.05 af
Pond Drywell D: Drywell D	Peak Elev=16.58' Storage=0.01 af Inflow=0.4 cfs 0.05 af Discarded=0.0 cfs 0.04 af Primary=0.2 cfs 0.01 af Outflow=0.3 cfs 0.05 af
Pond Watershed A: Watershed A	Inflow=0.9 cfs 0.11 af Primary=0.9 cfs 0.11 af
Pond Watershed B: Watershed B	Inflow=0.2 cfs 0.03 af Primary=0.2 cfs 0.03 af
Total Runoff Area = 1.46 ac Runoff Volume = 0.27 af Average Runoff Depth = 2.24"	
31.51% Pervious = 0.46 ac 68.49% Impervious = 1.00 ac	

Summary for Subcatchment Ai Ground: Impervious

Runoff = 0.7 cfs @ 12.19 hrs, Volume= 0.08 af, Depth= 3.27"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 2-Year Rainfall=3.50"

Area (ac)	CN	Description
0.30	98	Paved parking, HSG A
0.30		100.00% Impervious Area

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

Hydrograph for Subcatchment Ai Ground: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	3.50	3.27	0.0
1.00	0.04	0.00	0.0	59.00	3.50	3.27	0.0
2.00	0.08	0.01	0.0	60.00	3.50	3.27	0.0
3.00	0.13	0.03	0.0	61.00	3.50	3.27	0.0
4.00	0.18	0.06	0.0	62.00	3.50	3.27	0.0
5.00	0.24	0.10	0.0	63.00	3.50	3.27	0.0
6.00	0.30	0.14	0.0	64.00	3.50	3.27	0.0
7.00	0.37	0.20	0.0	65.00	3.50	3.27	0.0
8.00	0.45	0.28	0.0	66.00	3.50	3.27	0.0
9.00	0.56	0.37	0.0	67.00	3.50	3.27	0.0
10.00	0.69	0.50	0.0	68.00	3.50	3.27	0.0
11.00	0.91	0.70	0.1	69.00	3.50	3.27	0.0
12.00	1.68	1.45	0.3	70.00	3.50	3.27	0.0
13.00	2.59	2.36	0.1	71.00	3.50	3.27	0.0
14.00	2.81	2.58	0.1	72.00	3.50	3.27	0.0
15.00	2.94	2.71	0.0				
16.00	3.05	2.81	0.0				
17.00	3.13	2.90	0.0				
18.00	3.20	2.97	0.0				
19.00	3.26	3.03	0.0				
20.00	3.32	3.08	0.0				
21.00	3.37	3.14	0.0				
22.00	3.42	3.18	0.0				
23.00	3.46	3.23	0.0				
24.00	3.50	3.27	0.0				
25.00	3.50	3.27	0.0				
26.00	3.50	3.27	0.0				
27.00	3.50	3.27	0.0				
28.00	3.50	3.27	0.0				
29.00	3.50	3.27	0.0				
30.00	3.50	3.27	0.0				
31.00	3.50	3.27	0.0				
32.00	3.50	3.27	0.0				
33.00	3.50	3.27	0.0				
34.00	3.50	3.27	0.0				
35.00	3.50	3.27	0.0				
36.00	3.50	3.27	0.0				
37.00	3.50	3.27	0.0				
38.00	3.50	3.27	0.0				
39.00	3.50	3.27	0.0				
40.00	3.50	3.27	0.0				
41.00	3.50	3.27	0.0				
42.00	3.50	3.27	0.0				
43.00	3.50	3.27	0.0				
44.00	3.50	3.27	0.0				
45.00	3.50	3.27	0.0				
46.00	3.50	3.27	0.0				
47.00	3.50	3.27	0.0				
48.00	3.50	3.27	0.0				
49.00	3.50	3.27	0.0				
50.00	3.50	3.27	0.0				
51.00	3.50	3.27	0.0				
52.00	3.50	3.27	0.0				
53.00	3.50	3.27	0.0				
54.00	3.50	3.27	0.0				
55.00	3.50	3.27	0.0				
56.00	3.50	3.27	0.0				
57.00	3.50	3.27	0.0				

Summary for Subcatchment Ap: Pervious

Runoff = 0.0 cfs @ 24.00 hrs, Volume= 0.00 af, Depth= 0.01"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 2-Year Rainfall=3.50"

Area (ac)	CN	Description
0.39	39	>75% Grass cover, Good, HSG A
0.39		100.00% Pervious Area

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

Hydrograph for Subcatchment Ap: Pervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	3.50	0.01	0.0
1.00	0.04	0.00	0.0	59.00	3.50	0.01	0.0
2.00	0.08	0.00	0.0	60.00	3.50	0.01	0.0
3.00	0.13	0.00	0.0	61.00	3.50	0.01	0.0
4.00	0.18	0.00	0.0	62.00	3.50	0.01	0.0
5.00	0.24	0.00	0.0	63.00	3.50	0.01	0.0
6.00	0.30	0.00	0.0	64.00	3.50	0.01	0.0
7.00	0.37	0.00	0.0	65.00	3.50	0.01	0.0
8.00	0.45	0.00	0.0	66.00	3.50	0.01	0.0
9.00	0.56	0.00	0.0	67.00	3.50	0.01	0.0
10.00	0.69	0.00	0.0	68.00	3.50	0.01	0.0
11.00	0.91	0.00	0.0	69.00	3.50	0.01	0.0
12.00	1.68	0.00	0.0	70.00	3.50	0.01	0.0
13.00	2.59	0.00	0.0	71.00	3.50	0.01	0.0
14.00	2.81	0.00	0.0	72.00	3.50	0.01	0.0
15.00	2.94	0.00	0.0				
16.00	3.05	0.00	0.0				
17.00	3.13	0.00	0.0				
18.00	3.20	0.00	0.0				
19.00	3.26	0.00	0.0				
20.00	3.32	0.00	0.0				
21.00	3.37	0.00	0.0				
22.00	3.42	0.01	0.0				
23.00	3.46	0.01	0.0				
24.00	3.50	0.01	0.0				
25.00	3.50	0.01	0.0				
26.00	3.50	0.01	0.0				
27.00	3.50	0.01	0.0				
28.00	3.50	0.01	0.0				
29.00	3.50	0.01	0.0				
30.00	3.50	0.01	0.0				
31.00	3.50	0.01	0.0				
32.00	3.50	0.01	0.0				
33.00	3.50	0.01	0.0				
34.00	3.50	0.01	0.0				
35.00	3.50	0.01	0.0				
36.00	3.50	0.01	0.0				
37.00	3.50	0.01	0.0				
38.00	3.50	0.01	0.0				
39.00	3.50	0.01	0.0				
40.00	3.50	0.01	0.0				
41.00	3.50	0.01	0.0				
42.00	3.50	0.01	0.0				
43.00	3.50	0.01	0.0				
44.00	3.50	0.01	0.0				
45.00	3.50	0.01	0.0				
46.00	3.50	0.01	0.0				
47.00	3.50	0.01	0.0				
48.00	3.50	0.01	0.0				
49.00	3.50	0.01	0.0				
50.00	3.50	0.01	0.0				
51.00	3.50	0.01	0.0				
52.00	3.50	0.01	0.0				
53.00	3.50	0.01	0.0				
54.00	3.50	0.01	0.0				
55.00	3.50	0.01	0.0				
56.00	3.50	0.01	0.0				
57.00	3.50	0.01	0.0				

Summary for Subcatchment Bi: Impervious

Runoff = 0.2 cfs @ 12.19 hrs, Volume= 0.03 af, Depth= 3.27"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 2-Year Rainfall=3.50"

Area (ac)	CN	Description
0.10	98	Paved parking, HSG A
0.10		100.00% Impervious Area

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

Hydrograph for Subcatchment Bi: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	3.50	3.27	0.0
1.00	0.04	0.00	0.0	59.00	3.50	3.27	0.0
2.00	0.08	0.01	0.0	60.00	3.50	3.27	0.0
3.00	0.13	0.03	0.0	61.00	3.50	3.27	0.0
4.00	0.18	0.06	0.0	62.00	3.50	3.27	0.0
5.00	0.24	0.10	0.0	63.00	3.50	3.27	0.0
6.00	0.30	0.14	0.0	64.00	3.50	3.27	0.0
7.00	0.37	0.20	0.0	65.00	3.50	3.27	0.0
8.00	0.45	0.28	0.0	66.00	3.50	3.27	0.0
9.00	0.56	0.37	0.0	67.00	3.50	3.27	0.0
10.00	0.69	0.50	0.0	68.00	3.50	3.27	0.0
11.00	0.91	0.70	0.0	69.00	3.50	3.27	0.0
12.00	1.68	1.45	0.1	70.00	3.50	3.27	0.0
13.00	2.59	2.36	0.0	71.00	3.50	3.27	0.0
14.00	2.81	2.58	0.0	72.00	3.50	3.27	0.0
15.00	2.94	2.71	0.0				
16.00	3.05	2.81	0.0				
17.00	3.13	2.90	0.0				
18.00	3.20	2.97	0.0				
19.00	3.26	3.03	0.0				
20.00	3.32	3.08	0.0				
21.00	3.37	3.14	0.0				
22.00	3.42	3.18	0.0				
23.00	3.46	3.23	0.0				
24.00	3.50	3.27	0.0				
25.00	3.50	3.27	0.0				
26.00	3.50	3.27	0.0				
27.00	3.50	3.27	0.0				
28.00	3.50	3.27	0.0				
29.00	3.50	3.27	0.0				
30.00	3.50	3.27	0.0				
31.00	3.50	3.27	0.0				
32.00	3.50	3.27	0.0				
33.00	3.50	3.27	0.0				
34.00	3.50	3.27	0.0				
35.00	3.50	3.27	0.0				
36.00	3.50	3.27	0.0				
37.00	3.50	3.27	0.0				
38.00	3.50	3.27	0.0				
39.00	3.50	3.27	0.0				
40.00	3.50	3.27	0.0				
41.00	3.50	3.27	0.0				
42.00	3.50	3.27	0.0				
43.00	3.50	3.27	0.0				
44.00	3.50	3.27	0.0				
45.00	3.50	3.27	0.0				
46.00	3.50	3.27	0.0				
47.00	3.50	3.27	0.0				
48.00	3.50	3.27	0.0				
49.00	3.50	3.27	0.0				
50.00	3.50	3.27	0.0				
51.00	3.50	3.27	0.0				
52.00	3.50	3.27	0.0				
53.00	3.50	3.27	0.0				
54.00	3.50	3.27	0.0				
55.00	3.50	3.27	0.0				
56.00	3.50	3.27	0.0				
57.00	3.50	3.27	0.0				

Summary for Subcatchment Bp: Pervious

Runoff = 0.0 cfs @ 24.00 hrs, Volume= 0.00 af, Depth= 0.01"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 2-Year Rainfall=3.50"

Area (ac)	CN	Description
0.07	39	>75% Grass cover, Good, HSG A
0.07		100.00% Pervious Area

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

Hydrograph for Subcatchment Bp: Pervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	3.50	0.01	0.0
1.00	0.04	0.00	0.0	59.00	3.50	0.01	0.0
2.00	0.08	0.00	0.0	60.00	3.50	0.01	0.0
3.00	0.13	0.00	0.0	61.00	3.50	0.01	0.0
4.00	0.18	0.00	0.0	62.00	3.50	0.01	0.0
5.00	0.24	0.00	0.0	63.00	3.50	0.01	0.0
6.00	0.30	0.00	0.0	64.00	3.50	0.01	0.0
7.00	0.37	0.00	0.0	65.00	3.50	0.01	0.0
8.00	0.45	0.00	0.0	66.00	3.50	0.01	0.0
9.00	0.56	0.00	0.0	67.00	3.50	0.01	0.0
10.00	0.69	0.00	0.0	68.00	3.50	0.01	0.0
11.00	0.91	0.00	0.0	69.00	3.50	0.01	0.0
12.00	1.68	0.00	0.0	70.00	3.50	0.01	0.0
13.00	2.59	0.00	0.0	71.00	3.50	0.01	0.0
14.00	2.81	0.00	0.0	72.00	3.50	0.01	0.0
15.00	2.94	0.00	0.0				
16.00	3.05	0.00	0.0				
17.00	3.13	0.00	0.0				
18.00	3.20	0.00	0.0				
19.00	3.26	0.00	0.0				
20.00	3.32	0.00	0.0				
21.00	3.37	0.00	0.0				
22.00	3.42	0.01	0.0				
23.00	3.46	0.01	0.0				
24.00	3.50	0.01	0.0				
25.00	3.50	0.01	0.0				
26.00	3.50	0.01	0.0				
27.00	3.50	0.01	0.0				
28.00	3.50	0.01	0.0				
29.00	3.50	0.01	0.0				
30.00	3.50	0.01	0.0				
31.00	3.50	0.01	0.0				
32.00	3.50	0.01	0.0				
33.00	3.50	0.01	0.0				
34.00	3.50	0.01	0.0				
35.00	3.50	0.01	0.0				
36.00	3.50	0.01	0.0				
37.00	3.50	0.01	0.0				
38.00	3.50	0.01	0.0				
39.00	3.50	0.01	0.0				
40.00	3.50	0.01	0.0				
41.00	3.50	0.01	0.0				
42.00	3.50	0.01	0.0				
43.00	3.50	0.01	0.0				
44.00	3.50	0.01	0.0				
45.00	3.50	0.01	0.0				
46.00	3.50	0.01	0.0				
47.00	3.50	0.01	0.0				
48.00	3.50	0.01	0.0				
49.00	3.50	0.01	0.0				
50.00	3.50	0.01	0.0				
51.00	3.50	0.01	0.0				
52.00	3.50	0.01	0.0				
53.00	3.50	0.01	0.0				
54.00	3.50	0.01	0.0				
55.00	3.50	0.01	0.0				
56.00	3.50	0.01	0.0				
57.00	3.50	0.01	0.0				

Postdevelopment HydroCAD

NOAA 24-hr D 2-Year Rainfall=3.50"

Prepared by Insite Engineering LLC

Printed 9/16/2021

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Summary for Subcatchment Roof A: Impervious

Runoff = 0.1 cfs @ 12.19 hrs, Volume= 0.01 af, Depth= 3.27"
Routed to Pond Drywell A : Drywell A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 2-Year Rainfall=3.50"

Area (ac)	CN	Description
0.05	98	Roofs, HSG A
0.05		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof A: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	3.50	3.27	0.0
1.00	0.04	0.00	0.0	59.00	3.50	3.27	0.0
2.00	0.08	0.01	0.0	60.00	3.50	3.27	0.0
3.00	0.13	0.03	0.0	61.00	3.50	3.27	0.0
4.00	0.18	0.06	0.0	62.00	3.50	3.27	0.0
5.00	0.24	0.10	0.0	63.00	3.50	3.27	0.0
6.00	0.30	0.14	0.0	64.00	3.50	3.27	0.0
7.00	0.37	0.20	0.0	65.00	3.50	3.27	0.0
8.00	0.45	0.28	0.0	66.00	3.50	3.27	0.0
9.00	0.56	0.37	0.0	67.00	3.50	3.27	0.0
10.00	0.69	0.50	0.0	68.00	3.50	3.27	0.0
11.00	0.91	0.70	0.0	69.00	3.50	3.27	0.0
12.00	1.68	1.45	0.1	70.00	3.50	3.27	0.0
13.00	2.59	2.36	0.0	71.00	3.50	3.27	0.0
14.00	2.81	2.58	0.0	72.00	3.50	3.27	0.0
15.00	2.94	2.71	0.0				
16.00	3.05	2.81	0.0				
17.00	3.13	2.90	0.0				
18.00	3.20	2.97	0.0				
19.00	3.26	3.03	0.0				
20.00	3.32	3.08	0.0				
21.00	3.37	3.14	0.0				
22.00	3.42	3.18	0.0				
23.00	3.46	3.23	0.0				
24.00	3.50	3.27	0.0				
25.00	3.50	3.27	0.0				
26.00	3.50	3.27	0.0				
27.00	3.50	3.27	0.0				
28.00	3.50	3.27	0.0				
29.00	3.50	3.27	0.0				
30.00	3.50	3.27	0.0				
31.00	3.50	3.27	0.0				
32.00	3.50	3.27	0.0				
33.00	3.50	3.27	0.0				
34.00	3.50	3.27	0.0				
35.00	3.50	3.27	0.0				
36.00	3.50	3.27	0.0				
37.00	3.50	3.27	0.0				
38.00	3.50	3.27	0.0				
39.00	3.50	3.27	0.0				
40.00	3.50	3.27	0.0				
41.00	3.50	3.27	0.0				
42.00	3.50	3.27	0.0				
43.00	3.50	3.27	0.0				
44.00	3.50	3.27	0.0				
45.00	3.50	3.27	0.0				
46.00	3.50	3.27	0.0				
47.00	3.50	3.27	0.0				
48.00	3.50	3.27	0.0				
49.00	3.50	3.27	0.0				
50.00	3.50	3.27	0.0				
51.00	3.50	3.27	0.0				
52.00	3.50	3.27	0.0				
53.00	3.50	3.27	0.0				
54.00	3.50	3.27	0.0				
55.00	3.50	3.27	0.0				
56.00	3.50	3.27	0.0				
57.00	3.50	3.27	0.0				

Postdevelopment HydroCAD

NOAA 24-hr D 2-Year Rainfall=3.50"

Prepared by Insite Engineering LLC

Printed 9/16/2021

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Summary for Subcatchment Roof B: Impervious

Runoff = 0.3 cfs @ 12.19 hrs, Volume= 0.04 af, Depth= 3.27"
Routed to Pond Drywell B : Drywell B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 2-Year Rainfall=3.50"

Area (ac)	CN	Description
0.15	98	Roofs, HSG A
0.15		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof B: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	3.50	3.27	0.0
1.00	0.04	0.00	0.0	59.00	3.50	3.27	0.0
2.00	0.08	0.01	0.0	60.00	3.50	3.27	0.0
3.00	0.13	0.03	0.0	61.00	3.50	3.27	0.0
4.00	0.18	0.06	0.0	62.00	3.50	3.27	0.0
5.00	0.24	0.10	0.0	63.00	3.50	3.27	0.0
6.00	0.30	0.14	0.0	64.00	3.50	3.27	0.0
7.00	0.37	0.20	0.0	65.00	3.50	3.27	0.0
8.00	0.45	0.28	0.0	66.00	3.50	3.27	0.0
9.00	0.56	0.37	0.0	67.00	3.50	3.27	0.0
10.00	0.69	0.50	0.0	68.00	3.50	3.27	0.0
11.00	0.91	0.70	0.0	69.00	3.50	3.27	0.0
12.00	1.68	1.45	0.2	70.00	3.50	3.27	0.0
13.00	2.59	2.36	0.1	71.00	3.50	3.27	0.0
14.00	2.81	2.58	0.0	72.00	3.50	3.27	0.0
15.00	2.94	2.71	0.0				
16.00	3.05	2.81	0.0				
17.00	3.13	2.90	0.0				
18.00	3.20	2.97	0.0				
19.00	3.26	3.03	0.0				
20.00	3.32	3.08	0.0				
21.00	3.37	3.14	0.0				
22.00	3.42	3.18	0.0				
23.00	3.46	3.23	0.0				
24.00	3.50	3.27	0.0				
25.00	3.50	3.27	0.0				
26.00	3.50	3.27	0.0				
27.00	3.50	3.27	0.0				
28.00	3.50	3.27	0.0				
29.00	3.50	3.27	0.0				
30.00	3.50	3.27	0.0				
31.00	3.50	3.27	0.0				
32.00	3.50	3.27	0.0				
33.00	3.50	3.27	0.0				
34.00	3.50	3.27	0.0				
35.00	3.50	3.27	0.0				
36.00	3.50	3.27	0.0				
37.00	3.50	3.27	0.0				
38.00	3.50	3.27	0.0				
39.00	3.50	3.27	0.0				
40.00	3.50	3.27	0.0				
41.00	3.50	3.27	0.0				
42.00	3.50	3.27	0.0				
43.00	3.50	3.27	0.0				
44.00	3.50	3.27	0.0				
45.00	3.50	3.27	0.0				
46.00	3.50	3.27	0.0				
47.00	3.50	3.27	0.0				
48.00	3.50	3.27	0.0				
49.00	3.50	3.27	0.0				
50.00	3.50	3.27	0.0				
51.00	3.50	3.27	0.0				
52.00	3.50	3.27	0.0				
53.00	3.50	3.27	0.0				
54.00	3.50	3.27	0.0				
55.00	3.50	3.27	0.0				
56.00	3.50	3.27	0.0				
57.00	3.50	3.27	0.0				

Summary for Subcatchment Roof C: Impervious

Runoff = 0.4 cfs @ 12.19 hrs, Volume= 0.05 af, Depth= 3.27"
 Routed to Pond Drywell C : Drywell C

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 2-Year Rainfall=3.50"

Area (ac)	CN	Description
0.18	98	Roofs, HSG A
0.18		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof C: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	3.50	3.27	0.0
1.00	0.04	0.00	0.0	59.00	3.50	3.27	0.0
2.00	0.08	0.01	0.0	60.00	3.50	3.27	0.0
3.00	0.13	0.03	0.0	61.00	3.50	3.27	0.0
4.00	0.18	0.06	0.0	62.00	3.50	3.27	0.0
5.00	0.24	0.10	0.0	63.00	3.50	3.27	0.0
6.00	0.30	0.14	0.0	64.00	3.50	3.27	0.0
7.00	0.37	0.20	0.0	65.00	3.50	3.27	0.0
8.00	0.45	0.28	0.0	66.00	3.50	3.27	0.0
9.00	0.56	0.37	0.0	67.00	3.50	3.27	0.0
10.00	0.69	0.50	0.0	68.00	3.50	3.27	0.0
11.00	0.91	0.70	0.0	69.00	3.50	3.27	0.0
12.00	1.68	1.45	0.2	70.00	3.50	3.27	0.0
13.00	2.59	2.36	0.1	71.00	3.50	3.27	0.0
14.00	2.81	2.58	0.0	72.00	3.50	3.27	0.0
15.00	2.94	2.71	0.0				
16.00	3.05	2.81	0.0				
17.00	3.13	2.90	0.0				
18.00	3.20	2.97	0.0				
19.00	3.26	3.03	0.0				
20.00	3.32	3.08	0.0				
21.00	3.37	3.14	0.0				
22.00	3.42	3.18	0.0				
23.00	3.46	3.23	0.0				
24.00	3.50	3.27	0.0				
25.00	3.50	3.27	0.0				
26.00	3.50	3.27	0.0				
27.00	3.50	3.27	0.0				
28.00	3.50	3.27	0.0				
29.00	3.50	3.27	0.0				
30.00	3.50	3.27	0.0				
31.00	3.50	3.27	0.0				
32.00	3.50	3.27	0.0				
33.00	3.50	3.27	0.0				
34.00	3.50	3.27	0.0				
35.00	3.50	3.27	0.0				
36.00	3.50	3.27	0.0				
37.00	3.50	3.27	0.0				
38.00	3.50	3.27	0.0				
39.00	3.50	3.27	0.0				
40.00	3.50	3.27	0.0				
41.00	3.50	3.27	0.0				
42.00	3.50	3.27	0.0				
43.00	3.50	3.27	0.0				
44.00	3.50	3.27	0.0				
45.00	3.50	3.27	0.0				
46.00	3.50	3.27	0.0				
47.00	3.50	3.27	0.0				
48.00	3.50	3.27	0.0				
49.00	3.50	3.27	0.0				
50.00	3.50	3.27	0.0				
51.00	3.50	3.27	0.0				
52.00	3.50	3.27	0.0				
53.00	3.50	3.27	0.0				
54.00	3.50	3.27	0.0				
55.00	3.50	3.27	0.0				
56.00	3.50	3.27	0.0				
57.00	3.50	3.27	0.0				

Summary for Subcatchment Roof D: Impervious

Runoff = 0.4 cfs @ 12.19 hrs, Volume= 0.05 af, Depth= 3.27"
 Routed to Pond Drywell D : Drywell D

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 2-Year Rainfall=3.50"

Area (ac)	CN	Description
0.17	98	Roofs, HSG A
0.17		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof D: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	3.50	3.27	0.0
1.00	0.04	0.00	0.0	59.00	3.50	3.27	0.0
2.00	0.08	0.01	0.0	60.00	3.50	3.27	0.0
3.00	0.13	0.03	0.0	61.00	3.50	3.27	0.0
4.00	0.18	0.06	0.0	62.00	3.50	3.27	0.0
5.00	0.24	0.10	0.0	63.00	3.50	3.27	0.0
6.00	0.30	0.14	0.0	64.00	3.50	3.27	0.0
7.00	0.37	0.20	0.0	65.00	3.50	3.27	0.0
8.00	0.45	0.28	0.0	66.00	3.50	3.27	0.0
9.00	0.56	0.37	0.0	67.00	3.50	3.27	0.0
10.00	0.69	0.50	0.0	68.00	3.50	3.27	0.0
11.00	0.91	0.70	0.0	69.00	3.50	3.27	0.0
12.00	1.68	1.45	0.2	70.00	3.50	3.27	0.0
13.00	2.59	2.36	0.1	71.00	3.50	3.27	0.0
14.00	2.81	2.58	0.0	72.00	3.50	3.27	0.0
15.00	2.94	2.71	0.0				
16.00	3.05	2.81	0.0				
17.00	3.13	2.90	0.0				
18.00	3.20	2.97	0.0				
19.00	3.26	3.03	0.0				
20.00	3.32	3.08	0.0				
21.00	3.37	3.14	0.0				
22.00	3.42	3.18	0.0				
23.00	3.46	3.23	0.0				
24.00	3.50	3.27	0.0				
25.00	3.50	3.27	0.0				
26.00	3.50	3.27	0.0				
27.00	3.50	3.27	0.0				
28.00	3.50	3.27	0.0				
29.00	3.50	3.27	0.0				
30.00	3.50	3.27	0.0				
31.00	3.50	3.27	0.0				
32.00	3.50	3.27	0.0				
33.00	3.50	3.27	0.0				
34.00	3.50	3.27	0.0				
35.00	3.50	3.27	0.0				
36.00	3.50	3.27	0.0				
37.00	3.50	3.27	0.0				
38.00	3.50	3.27	0.0				
39.00	3.50	3.27	0.0				
40.00	3.50	3.27	0.0				
41.00	3.50	3.27	0.0				
42.00	3.50	3.27	0.0				
43.00	3.50	3.27	0.0				
44.00	3.50	3.27	0.0				
45.00	3.50	3.27	0.0				
46.00	3.50	3.27	0.0				
47.00	3.50	3.27	0.0				
48.00	3.50	3.27	0.0				
49.00	3.50	3.27	0.0				
50.00	3.50	3.27	0.0				
51.00	3.50	3.27	0.0				
52.00	3.50	3.27	0.0				
53.00	3.50	3.27	0.0				
54.00	3.50	3.27	0.0				
55.00	3.50	3.27	0.0				
56.00	3.50	3.27	0.0				
57.00	3.50	3.27	0.0				

Summary for Subcatchment Roof E: Impervious

Runoff = 0.1 cfs @ 12.19 hrs, Volume= 0.01 af, Depth= 3.27"
Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 2-Year Rainfall=3.50"

Table with 3 columns: Area (ac), CN, Description. Row 1: 0.05, 98, Roofs, HSG A. Row 2: 0.05, 100.00% Impervious Area.

Table with 6 columns: Tc (min), Length (feet), Slope (ft/ft), Velocity (ft/sec), Capacity (cfs), Description. Row 1: 10.0, Direct Entry,

Hydrograph for Subcatchment Roof E: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	3.50	3.27	0.0
1.00	0.04	0.00	0.0	59.00	3.50	3.27	0.0
2.00	0.08	0.01	0.0	60.00	3.50	3.27	0.0
3.00	0.13	0.03	0.0	61.00	3.50	3.27	0.0
4.00	0.18	0.06	0.0	62.00	3.50	3.27	0.0
5.00	0.24	0.10	0.0	63.00	3.50	3.27	0.0
6.00	0.30	0.14	0.0	64.00	3.50	3.27	0.0
7.00	0.37	0.20	0.0	65.00	3.50	3.27	0.0
8.00	0.45	0.28	0.0	66.00	3.50	3.27	0.0
9.00	0.56	0.37	0.0	67.00	3.50	3.27	0.0
10.00	0.69	0.50	0.0	68.00	3.50	3.27	0.0
11.00	0.91	0.70	0.0	69.00	3.50	3.27	0.0
12.00	1.68	1.45	0.1	70.00	3.50	3.27	0.0
13.00	2.59	2.36	0.0	71.00	3.50	3.27	0.0
14.00	2.81	2.58	0.0	72.00	3.50	3.27	0.0
15.00	2.94	2.71	0.0				
16.00	3.05	2.81	0.0				
17.00	3.13	2.90	0.0				
18.00	3.20	2.97	0.0				
19.00	3.26	3.03	0.0				
20.00	3.32	3.08	0.0				
21.00	3.37	3.14	0.0				
22.00	3.42	3.18	0.0				
23.00	3.46	3.23	0.0				
24.00	3.50	3.27	0.0				
25.00	3.50	3.27	0.0				
26.00	3.50	3.27	0.0				
27.00	3.50	3.27	0.0				
28.00	3.50	3.27	0.0				
29.00	3.50	3.27	0.0				
30.00	3.50	3.27	0.0				
31.00	3.50	3.27	0.0				
32.00	3.50	3.27	0.0				
33.00	3.50	3.27	0.0				
34.00	3.50	3.27	0.0				
35.00	3.50	3.27	0.0				
36.00	3.50	3.27	0.0				
37.00	3.50	3.27	0.0				
38.00	3.50	3.27	0.0				
39.00	3.50	3.27	0.0				
40.00	3.50	3.27	0.0				
41.00	3.50	3.27	0.0				
42.00	3.50	3.27	0.0				
43.00	3.50	3.27	0.0				
44.00	3.50	3.27	0.0				
45.00	3.50	3.27	0.0				
46.00	3.50	3.27	0.0				
47.00	3.50	3.27	0.0				
48.00	3.50	3.27	0.0				
49.00	3.50	3.27	0.0				
50.00	3.50	3.27	0.0				
51.00	3.50	3.27	0.0				
52.00	3.50	3.27	0.0				
53.00	3.50	3.27	0.0				
54.00	3.50	3.27	0.0				
55.00	3.50	3.27	0.0				
56.00	3.50	3.27	0.0				
57.00	3.50	3.27	0.0				

Summary for Pond Drywell A: Drywell A

Inflow Area = 0.05 ac, 100.00% Impervious, Inflow Depth = 3.27" for 2-Year event
 Inflow = 0.1 cfs @ 12.19 hrs, Volume= 0.01 af
 Outflow = 0.0 cfs @ 11.95 hrs, Volume= 0.01 af, Atten= 60%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 11.95 hrs, Volume= 0.01 af
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.00 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 16.59' @ 12.62 hrs Surf.Area= 0.00 ac Storage= 0.00 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 8.1 min (774.2 - 766.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	15.56'	0.00 af	8.89'W x 21.00'L x 2.71'H Field A 0.01 af Overall - 0.00 af Embedded = 0.01 af x 40.0% Voids
#2A	16.56'	0.00 af	ADS N-12 12" x 4 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 4 Chambers in 4 Rows
		0.01 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.60'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	15.56'	10.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.0 cfs @ 11.95 hrs HW=15.59' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=15.56' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Controls 0.0 cfs)

Hydrograph for Pond Drywell A: Drywell A

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	15.56	0.0	0.0	0.0
2.50	0.0	0.00	15.56	0.0	0.0	0.0
5.00	0.0	0.00	15.56	0.0	0.0	0.0
7.50	0.0	0.00	15.56	0.0	0.0	0.0
10.00	0.0	0.00	15.56	0.0	0.0	0.0
12.50	0.1	0.00	16.56	0.0	0.0	0.0
15.00	0.0	0.00	15.56	0.0	0.0	0.0
17.50	0.0	0.00	15.56	0.0	0.0	0.0
20.00	0.0	0.00	15.56	0.0	0.0	0.0
22.50	0.0	0.00	15.56	0.0	0.0	0.0
25.00	0.0	0.00	15.56	0.0	0.0	0.0
27.50	0.0	0.00	15.56	0.0	0.0	0.0
30.00	0.0	0.00	15.56	0.0	0.0	0.0
32.50	0.0	0.00	15.56	0.0	0.0	0.0
35.00	0.0	0.00	15.56	0.0	0.0	0.0
37.50	0.0	0.00	15.56	0.0	0.0	0.0
40.00	0.0	0.00	15.56	0.0	0.0	0.0
42.50	0.0	0.00	15.56	0.0	0.0	0.0
45.00	0.0	0.00	15.56	0.0	0.0	0.0
47.50	0.0	0.00	15.56	0.0	0.0	0.0
50.00	0.0	0.00	15.56	0.0	0.0	0.0
52.50	0.0	0.00	15.56	0.0	0.0	0.0
55.00	0.0	0.00	15.56	0.0	0.0	0.0
57.50	0.0	0.00	15.56	0.0	0.0	0.0
60.00	0.0	0.00	15.56	0.0	0.0	0.0
62.50	0.0	0.00	15.56	0.0	0.0	0.0
65.00	0.0	0.00	15.56	0.0	0.0	0.0
67.50	0.0	0.00	15.56	0.0	0.0	0.0
70.00	0.0	0.00	15.56	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell A: Drywell A

Elevation (feet)	Surface (acres)	Storage (acre-feet)
15.56	0.00	0.00
15.61	0.00	0.00
15.66	0.00	0.00
15.71	0.00	0.00
15.76	0.00	0.00
15.81	0.00	0.00
15.86	0.00	0.00
15.91	0.00	0.00
15.96	0.00	0.00
16.01	0.00	0.00
16.06	0.00	0.00
16.11	0.00	0.00
16.16	0.00	0.00
16.21	0.00	0.00
16.26	0.00	0.00
16.31	0.00	0.00
16.36	0.00	0.00
16.41	0.00	0.00
16.46	0.00	0.00
16.51	0.00	0.00
16.56	0.00	0.00
16.61	0.00	0.00
16.66	0.00	0.00
16.71	0.00	0.00
16.76	0.00	0.00
16.81	0.00	0.00
16.86	0.00	0.00
16.91	0.00	0.00
16.96	0.00	0.00
17.01	0.00	0.00
17.06	0.00	0.00
17.11	0.00	0.00
17.16	0.00	0.00
17.21	0.00	0.00
17.26	0.00	0.00
17.31	0.00	0.00
17.36	0.00	0.00
17.41	0.00	0.00
17.46	0.00	0.00
17.51	0.00	0.00
17.56	0.00	0.00
17.61	0.00	0.00
17.66	0.00	0.00
17.71	0.00	0.00
17.76	0.00	0.00
17.81	0.00	0.00
17.86	0.00	0.00
17.91	0.00	0.00
17.96	0.00	0.00
18.01	0.00	0.00
18.06	0.00	0.01
18.11	0.00	0.01
18.16	0.00	0.01
18.21	0.00	0.01
18.26	0.00	0.01

Summary for Pond Drywell B: Drywell B

Inflow Area = 0.15 ac, 100.00% Impervious, Inflow Depth = 3.27" for 2-Year event
 Inflow = 0.3 cfs @ 12.19 hrs, Volume= 0.04 af
 Outflow = 0.1 cfs @ 11.95 hrs, Volume= 0.04 af, Atten= 62%, Lag= 0.0 min
 Discarded = 0.1 cfs @ 11.95 hrs, Volume= 0.04 af
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.00 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 18.21' @ 12.64 hrs Surf.Area= 0.01 ac Storage= 0.01 af

Plug-Flow detention time= 9.0 min calculated for 0.04 af (100% of inflow)
 Center-of-Mass det. time= 9.0 min (775.1 - 766.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	17.06'	0.01 af	13.13'W x 41.00'L x 2.71'H Field A 0.03 af Overall - 0.01 af Embedded = 0.03 af x 40.0% Voids
#2A	18.06'	0.00 af	ADS N-12 12" x 12 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 12 Chambers in 6 Rows
		0.02 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	17.06'	10.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.1 cfs @ 11.95 hrs HW=17.09' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=17.06' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Controls 0.0 cfs)

Hydrograph for Pond Drywell B: Drywell B

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	17.06	0.0	0.0	0.0
2.50	0.0	0.00	17.06	0.0	0.0	0.0
5.00	0.0	0.00	17.06	0.0	0.0	0.0
7.50	0.0	0.00	17.06	0.0	0.0	0.0
10.00	0.0	0.00	17.06	0.0	0.0	0.0
12.50	0.2	0.01	18.16	0.1	0.1	0.0
15.00	0.0	0.00	17.06	0.0	0.0	0.0
17.50	0.0	0.00	17.06	0.0	0.0	0.0
20.00	0.0	0.00	17.06	0.0	0.0	0.0
22.50	0.0	0.00	17.06	0.0	0.0	0.0
25.00	0.0	0.00	17.06	0.0	0.0	0.0
27.50	0.0	0.00	17.06	0.0	0.0	0.0
30.00	0.0	0.00	17.06	0.0	0.0	0.0
32.50	0.0	0.00	17.06	0.0	0.0	0.0
35.00	0.0	0.00	17.06	0.0	0.0	0.0
37.50	0.0	0.00	17.06	0.0	0.0	0.0
40.00	0.0	0.00	17.06	0.0	0.0	0.0
42.50	0.0	0.00	17.06	0.0	0.0	0.0
45.00	0.0	0.00	17.06	0.0	0.0	0.0
47.50	0.0	0.00	17.06	0.0	0.0	0.0
50.00	0.0	0.00	17.06	0.0	0.0	0.0
52.50	0.0	0.00	17.06	0.0	0.0	0.0
55.00	0.0	0.00	17.06	0.0	0.0	0.0
57.50	0.0	0.00	17.06	0.0	0.0	0.0
60.00	0.0	0.00	17.06	0.0	0.0	0.0
62.50	0.0	0.00	17.06	0.0	0.0	0.0
65.00	0.0	0.00	17.06	0.0	0.0	0.0
67.50	0.0	0.00	17.06	0.0	0.0	0.0
70.00	0.0	0.00	17.06	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell B: Drywell B

Elevation (feet)	Surface (acres)	Storage (acre-feet)
17.06	0.01	0.00
17.11	0.01	0.00
17.16	0.01	0.00
17.21	0.01	0.00
17.26	0.01	0.00
17.31	0.01	0.00
17.36	0.01	0.00
17.41	0.01	0.00
17.46	0.01	0.00
17.51	0.01	0.00
17.56	0.01	0.00
17.61	0.01	0.00
17.66	0.01	0.00
17.71	0.01	0.00
17.76	0.01	0.00
17.81	0.01	0.00
17.86	0.01	0.00
17.91	0.01	0.00
17.96	0.01	0.00
18.01	0.01	0.00
18.06	0.01	0.00
18.11	0.01	0.01
18.16	0.01	0.01
18.21	0.01	0.01
18.26	0.01	0.01
18.31	0.01	0.01
18.36	0.01	0.01
18.41	0.01	0.01
18.46	0.01	0.01
18.51	0.01	0.01
18.56	0.01	0.01
18.61	0.01	0.01
18.66	0.01	0.01
18.71	0.01	0.01
18.76	0.01	0.01
18.81	0.01	0.01
18.86	0.01	0.01
18.91	0.01	0.01
18.96	0.01	0.01
19.01	0.01	0.01
19.06	0.01	0.01
19.11	0.01	0.01
19.16	0.01	0.01
19.21	0.01	0.01
19.26	0.01	0.01
19.31	0.01	0.01
19.36	0.01	0.01
19.41	0.01	0.01
19.46	0.01	0.01
19.51	0.01	0.01
19.56	0.01	0.01
19.61	0.01	0.01
19.66	0.01	0.02
19.71	0.01	0.02
19.76	0.01	0.02

Summary for Pond Drywell C: Drywell C

Inflow Area = 0.18 ac, 100.00% Impervious, Inflow Depth = 3.27" for 2-Year event
 Inflow = 0.4 cfs @ 12.19 hrs, Volume= 0.05 af
 Outflow = 0.3 cfs @ 12.35 hrs, Volume= 0.05 af, Atten= 16%, Lag= 9.8 min
 Discarded = 0.1 cfs @ 11.45 hrs, Volume= 0.04 af
 Primary = 0.3 cfs @ 12.35 hrs, Volume= 0.01 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 17.69' @ 12.35 hrs Surf.Area= 0.01 ac Storage= 0.01 af

Plug-Flow detention time= 27.6 min calculated for 0.05 af (100% of inflow)
 Center-of-Mass det. time= 27.6 min (793.7 - 766.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	15.65'	0.01 af	8.89'W x 41.00'L x 2.71'H Field A 0.02 af Overall - 0.00 af Embedded = 0.02 af x 40.0% Voids
#2A	16.65'	0.00 af	ADS N-12 12" x 8 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 8 Chambers in 4 Rows
		0.01 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.60'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	15.65'	7.500 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.1 cfs @ 11.45 hrs HW=15.68' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.3 cfs @ 12.35 hrs HW=17.69' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Weir Controls 0.3 cfs @ 0.96 fps)

Hydrograph for Pond Drywell C: Drywell C

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	15.65	0.0	0.0	0.0
2.50	0.0	0.00	15.65	0.0	0.0	0.0
5.00	0.0	0.00	15.65	0.0	0.0	0.0
7.50	0.0	0.00	15.66	0.0	0.0	0.0
10.00	0.0	0.00	15.66	0.0	0.0	0.0
12.50	0.2	0.01	17.66	0.2	0.1	0.1
15.00	0.0	0.00	16.77	0.1	0.1	0.0
17.50	0.0	0.00	15.66	0.0	0.0	0.0
20.00	0.0	0.00	15.65	0.0	0.0	0.0
22.50	0.0	0.00	15.65	0.0	0.0	0.0
25.00	0.0	0.00	15.65	0.0	0.0	0.0
27.50	0.0	0.00	15.65	0.0	0.0	0.0
30.00	0.0	0.00	15.65	0.0	0.0	0.0
32.50	0.0	0.00	15.65	0.0	0.0	0.0
35.00	0.0	0.00	15.65	0.0	0.0	0.0
37.50	0.0	0.00	15.65	0.0	0.0	0.0
40.00	0.0	0.00	15.65	0.0	0.0	0.0
42.50	0.0	0.00	15.65	0.0	0.0	0.0
45.00	0.0	0.00	15.65	0.0	0.0	0.0
47.50	0.0	0.00	15.65	0.0	0.0	0.0
50.00	0.0	0.00	15.65	0.0	0.0	0.0
52.50	0.0	0.00	15.65	0.0	0.0	0.0
55.00	0.0	0.00	15.65	0.0	0.0	0.0
57.50	0.0	0.00	15.65	0.0	0.0	0.0
60.00	0.0	0.00	15.65	0.0	0.0	0.0
62.50	0.0	0.00	15.65	0.0	0.0	0.0
65.00	0.0	0.00	15.65	0.0	0.0	0.0
67.50	0.0	0.00	15.65	0.0	0.0	0.0
70.00	0.0	0.00	15.65	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell C: Drywell C

Elevation (feet)	Surface (acres)	Storage (acre-feet)
15.65	0.01	0.00
15.70	0.01	0.00
15.75	0.01	0.00
15.80	0.01	0.00
15.85	0.01	0.00
15.90	0.01	0.00
15.95	0.01	0.00
16.00	0.01	0.00
16.05	0.01	0.00
16.10	0.01	0.00
16.15	0.01	0.00
16.20	0.01	0.00
16.25	0.01	0.00
16.30	0.01	0.00
16.35	0.01	0.00
16.40	0.01	0.00
16.45	0.01	0.00
16.50	0.01	0.00
16.55	0.01	0.00
16.60	0.01	0.00
16.65	0.01	0.00
16.70	0.01	0.00
16.75	0.01	0.00
16.80	0.01	0.00
16.85	0.01	0.00
16.90	0.01	0.00
16.95	0.01	0.00
17.00	0.01	0.00
17.05	0.01	0.00
17.10	0.01	0.01
17.15	0.01	0.01
17.20	0.01	0.01
17.25	0.01	0.01
17.30	0.01	0.01
17.35	0.01	0.01
17.40	0.01	0.01
17.45	0.01	0.01
17.50	0.01	0.01
17.55	0.01	0.01
17.60	0.01	0.01
17.65	0.01	0.01
17.70	0.01	0.01
17.75	0.01	0.01
17.80	0.01	0.01
17.85	0.01	0.01
17.90	0.01	0.01
17.95	0.01	0.01
18.00	0.01	0.01
18.05	0.01	0.01
18.10	0.01	0.01
18.15	0.01	0.01
18.20	0.01	0.01
18.25	0.01	0.01
18.30	0.01	0.01
18.35	0.01	0.01

Summary for Pond Drywell D: Drywell D

Inflow Area = 0.17 ac, 100.00% Impervious, Inflow Depth = 3.27" for 2-Year event
 Inflow = 0.4 cfs @ 12.19 hrs, Volume= 0.05 af
 Outflow = 0.3 cfs @ 12.41 hrs, Volume= 0.05 af, Atten= 22%, Lag= 13.4 min
 Discarded = 0.0 cfs @ 11.20 hrs, Volume= 0.04 af
 Primary = 0.2 cfs @ 12.41 hrs, Volume= 0.01 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 16.58' @ 12.42 hrs Surf.Area= 0.01 ac Storage= 0.01 af

Plug-Flow detention time= 53.7 min calculated for 0.05 af (100% of inflow)
 Center-of-Mass det. time= 53.6 min (819.8 - 766.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	14.50'	0.01 af	21.60'W x 21.00'L x 2.71'H Field A 0.03 af Overall - 0.00 af Embedded = 0.02 af x 40.0% Voids
#2A	15.50'	0.00 af	ADS N-12 12" x 10 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 10 Chambers in 10 Rows
		0.01 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	16.50'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	14.50'	4.500 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.0 cfs @ 11.20 hrs HW=14.53' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.2 cfs @ 12.41 hrs HW=16.58' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Weir Controls 0.2 cfs @ 0.90 fps)

Hydrograph for Pond Drywell D: Drywell D

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	14.50	0.0	0.0	0.0
2.50	0.0	0.00	14.50	0.0	0.0	0.0
5.00	0.0	0.00	14.50	0.0	0.0	0.0
7.50	0.0	0.00	14.51	0.0	0.0	0.0
10.00	0.0	0.00	14.51	0.0	0.0	0.0
12.50	0.2	0.01	16.56	0.2	0.0	0.2
15.00	0.0	0.01	16.15	0.0	0.0	0.0
17.50	0.0	0.00	14.86	0.0	0.0	0.0
20.00	0.0	0.00	14.51	0.0	0.0	0.0
22.50	0.0	0.00	14.50	0.0	0.0	0.0
25.00	0.0	0.00	14.50	0.0	0.0	0.0
27.50	0.0	0.00	14.50	0.0	0.0	0.0
30.00	0.0	0.00	14.50	0.0	0.0	0.0
32.50	0.0	0.00	14.50	0.0	0.0	0.0
35.00	0.0	0.00	14.50	0.0	0.0	0.0
37.50	0.0	0.00	14.50	0.0	0.0	0.0
40.00	0.0	0.00	14.50	0.0	0.0	0.0
42.50	0.0	0.00	14.50	0.0	0.0	0.0
45.00	0.0	0.00	14.50	0.0	0.0	0.0
47.50	0.0	0.00	14.50	0.0	0.0	0.0
50.00	0.0	0.00	14.50	0.0	0.0	0.0
52.50	0.0	0.00	14.50	0.0	0.0	0.0
55.00	0.0	0.00	14.50	0.0	0.0	0.0
57.50	0.0	0.00	14.50	0.0	0.0	0.0
60.00	0.0	0.00	14.50	0.0	0.0	0.0
62.50	0.0	0.00	14.50	0.0	0.0	0.0
65.00	0.0	0.00	14.50	0.0	0.0	0.0
67.50	0.0	0.00	14.50	0.0	0.0	0.0
70.00	0.0	0.00	14.50	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell D: Drywell D

Elevation (feet)	Surface (acres)	Storage (acre-feet)
14.50	0.01	0.00
14.55	0.01	0.00
14.60	0.01	0.00
14.65	0.01	0.00
14.70	0.01	0.00
14.75	0.01	0.00
14.80	0.01	0.00
14.85	0.01	0.00
14.90	0.01	0.00
14.95	0.01	0.00
15.00	0.01	0.00
15.05	0.01	0.00
15.10	0.01	0.00
15.15	0.01	0.00
15.20	0.01	0.00
15.25	0.01	0.00
15.30	0.01	0.00
15.35	0.01	0.00
15.40	0.01	0.00
15.45	0.01	0.00
15.50	0.01	0.00
15.55	0.01	0.00
15.60	0.01	0.00
15.65	0.01	0.00
15.70	0.01	0.00
15.75	0.01	0.01
15.80	0.01	0.01
15.85	0.01	0.01
15.90	0.01	0.01
15.95	0.01	0.01
16.00	0.01	0.01
16.05	0.01	0.01
16.10	0.01	0.01
16.15	0.01	0.01
16.20	0.01	0.01
16.25	0.01	0.01
16.30	0.01	0.01
16.35	0.01	0.01
16.40	0.01	0.01
16.45	0.01	0.01
16.50	0.01	0.01
16.55	0.01	0.01
16.60	0.01	0.01
16.65	0.01	0.01
16.70	0.01	0.01
16.75	0.01	0.01
16.80	0.01	0.01
16.85	0.01	0.01
16.90	0.01	0.01
16.95	0.01	0.01
17.00	0.01	0.01
17.05	0.01	0.01
17.10	0.01	0.01
17.15	0.01	0.01
17.20	0.01	0.01

Summary for Pond Watershed A: Watershed A

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.29 ac, 69.77% Impervious, Inflow Depth = 1.00" for 2-Year event
Inflow = 0.9 cfs @ 12.39 hrs, Volume= 0.11 af
Primary = 0.9 cfs @ 12.39 hrs, Volume= 0.11 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Hydrograph for Pond Watershed A: Watershed A

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0		0.0	58.00	0.0		0.0
1.00	0.0		0.0	59.00	0.0		0.0
2.00	0.0		0.0	60.00	0.0		0.0
3.00	0.0		0.0	61.00	0.0		0.0
4.00	0.0		0.0	62.00	0.0		0.0
5.00	0.0		0.0	63.00	0.0		0.0
6.00	0.0		0.0	64.00	0.0		0.0
7.00	0.0		0.0	65.00	0.0		0.0
8.00	0.0		0.0	66.00	0.0		0.0
9.00	0.0		0.0	67.00	0.0		0.0
10.00	0.1		0.1	68.00	0.0		0.0
11.00	0.1		0.1	69.00	0.0		0.0
12.00	0.4		0.4	70.00	0.0		0.0
13.00	0.2		0.2	71.00	0.0		0.0
14.00	0.1		0.1	72.00	0.0		0.0
15.00	0.0		0.0				
16.00	0.0		0.0				
17.00	0.0		0.0				
18.00	0.0		0.0				
19.00	0.0		0.0				
20.00	0.0		0.0				
21.00	0.0		0.0				
22.00	0.0		0.0				
23.00	0.0		0.0				
24.00	0.0		0.0				
25.00	0.0		0.0				
26.00	0.0		0.0				
27.00	0.0		0.0				
28.00	0.0		0.0				
29.00	0.0		0.0				
30.00	0.0		0.0				
31.00	0.0		0.0				
32.00	0.0		0.0				
33.00	0.0		0.0				
34.00	0.0		0.0				
35.00	0.0		0.0				
36.00	0.0		0.0				
37.00	0.0		0.0				
38.00	0.0		0.0				
39.00	0.0		0.0				
40.00	0.0		0.0				
41.00	0.0		0.0				
42.00	0.0		0.0				
43.00	0.0		0.0				
44.00	0.0		0.0				
45.00	0.0		0.0				
46.00	0.0		0.0				
47.00	0.0		0.0				
48.00	0.0		0.0				
49.00	0.0		0.0				
50.00	0.0		0.0				
51.00	0.0		0.0				
52.00	0.0		0.0				
53.00	0.0		0.0				
54.00	0.0		0.0				
55.00	0.0		0.0				
56.00	0.0		0.0				
57.00	0.0		0.0				

Summary for Pond Watershed B: Watershed B

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.17 ac, 58.82% Impervious, Inflow Depth = 1.93" for 2-Year event
Inflow = 0.2 cfs @ 12.19 hrs, Volume= 0.03 af
Primary = 0.2 cfs @ 12.19 hrs, Volume= 0.03 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Hydrograph for Pond Watershed B: Watershed B

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0		0.0	58.00	0.0		0.0
1.00	0.0		0.0	59.00	0.0		0.0
2.00	0.0		0.0	60.00	0.0		0.0
3.00	0.0		0.0	61.00	0.0		0.0
4.00	0.0		0.0	62.00	0.0		0.0
5.00	0.0		0.0	63.00	0.0		0.0
6.00	0.0		0.0	64.00	0.0		0.0
7.00	0.0		0.0	65.00	0.0		0.0
8.00	0.0		0.0	66.00	0.0		0.0
9.00	0.0		0.0	67.00	0.0		0.0
10.00	0.0		0.0	68.00	0.0		0.0
11.00	0.0		0.0	69.00	0.0		0.0
12.00	0.1		0.1	70.00	0.0		0.0
13.00	0.0		0.0	71.00	0.0		0.0
14.00	0.0		0.0	72.00	0.0		0.0
15.00	0.0		0.0				
16.00	0.0		0.0				
17.00	0.0		0.0				
18.00	0.0		0.0				
19.00	0.0		0.0				
20.00	0.0		0.0				
21.00	0.0		0.0				
22.00	0.0		0.0				
23.00	0.0		0.0				
24.00	0.0		0.0				
25.00	0.0		0.0				
26.00	0.0		0.0				
27.00	0.0		0.0				
28.00	0.0		0.0				
29.00	0.0		0.0				
30.00	0.0		0.0				
31.00	0.0		0.0				
32.00	0.0		0.0				
33.00	0.0		0.0				
34.00	0.0		0.0				
35.00	0.0		0.0				
36.00	0.0		0.0				
37.00	0.0		0.0				
38.00	0.0		0.0				
39.00	0.0		0.0				
40.00	0.0		0.0				
41.00	0.0		0.0				
42.00	0.0		0.0				
43.00	0.0		0.0				
44.00	0.0		0.0				
45.00	0.0		0.0				
46.00	0.0		0.0				
47.00	0.0		0.0				
48.00	0.0		0.0				
49.00	0.0		0.0				
50.00	0.0		0.0				
51.00	0.0		0.0				
52.00	0.0		0.0				
53.00	0.0		0.0				
54.00	0.0		0.0				
55.00	0.0		0.0				
56.00	0.0		0.0				
57.00	0.0		0.0				

Postdevelopment HydroCAD

NOAA 24-hr D 10-Year Rainfall=5.43"

Prepared by Insite Engineering LLC

Printed 9/16/2021

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
 Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Ai Ground: Impervious Runoff Area=0.30 ac 100.00% Impervious Runoff Depth=5.19"
 Tc=10.0 min CN=98 Runoff=1.0 cfs 0.13 af

Subcatchment Ap: Pervious Runoff Area=0.39 ac 0.00% Impervious Runoff Depth=0.30"
 Tc=10.0 min CN=39 Runoff=0.0 cfs 0.01 af

Subcatchment Bi: Impervious Runoff Area=0.10 ac 100.00% Impervious Runoff Depth=5.19"
 Tc=10.0 min CN=98 Runoff=0.3 cfs 0.04 af

Subcatchment Bp: Pervious Runoff Area=0.07 ac 0.00% Impervious Runoff Depth=0.30"
 Tc=10.0 min CN=39 Runoff=0.0 cfs 0.00 af

Subcatchment Roof A: Impervious Runoff Area=0.05 ac 100.00% Impervious Runoff Depth=5.19"
 Tc=10.0 min CN=98 Runoff=0.2 cfs 0.02 af

Subcatchment Roof B: Impervious Runoff Area=0.15 ac 100.00% Impervious Runoff Depth=5.19"
 Tc=10.0 min CN=98 Runoff=0.5 cfs 0.06 af

Subcatchment Roof C: Impervious Runoff Area=0.18 ac 100.00% Impervious Runoff Depth=5.19"
 Tc=10.0 min CN=98 Runoff=0.6 cfs 0.08 af

Subcatchment Roof D: Impervious Runoff Area=0.17 ac 100.00% Impervious Runoff Depth=5.19"
 Tc=10.0 min CN=98 Runoff=0.6 cfs 0.07 af

Subcatchment Roof E: Impervious Runoff Area=0.05 ac 100.00% Impervious Runoff Depth=5.19"
 Tc=10.0 min CN=98 Runoff=0.2 cfs 0.02 af

Pond Drywell A: Drywell A Peak Elev=17.62' Storage=0.00 af Inflow=0.2 cfs 0.02 af
 Discarded=0.0 cfs 0.02 af Primary=0.0 cfs 0.00 af Outflow=0.1 cfs 0.02 af

Pond Drywell B: Drywell B Peak Elev=19.05' Storage=0.01 af Inflow=0.5 cfs 0.06 af
 Discarded=0.1 cfs 0.06 af Primary=0.1 cfs 0.00 af Outflow=0.2 cfs 0.06 af

Pond Drywell C: Drywell C Peak Elev=17.76' Storage=0.01 af Inflow=0.6 cfs 0.08 af
 Discarded=0.1 cfs 0.06 af Primary=0.7 cfs 0.02 af Outflow=0.7 cfs 0.08 af

Pond Drywell D: Drywell D Peak Elev=16.65' Storage=0.01 af Inflow=0.6 cfs 0.07 af
 Discarded=0.0 cfs 0.05 af Primary=0.6 cfs 0.02 af Outflow=0.7 cfs 0.07 af

Pond Watershed A: Watershed A Inflow=2.3 cfs 0.20 af
 Primary=2.3 cfs 0.20 af

Pond Watershed B: Watershed B Inflow=0.3 cfs 0.04 af
 Primary=0.3 cfs 0.04 af

Total Runoff Area = 1.46 ac Runoff Volume = 0.44 af Average Runoff Depth = 3.65"
31.51% Pervious = 0.46 ac 68.49% Impervious = 1.00 ac

Summary for Subcatchment Ai Ground: Impervious

Runoff = 1.0 cfs @ 12.19 hrs, Volume= 0.13 af, Depth= 5.19"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.43"

Area (ac)	CN	Description
0.30	98	Paved parking, HSG A
0.30		100.00% Impervious Area

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

Hydrograph for Subcatchment Ai Ground: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	5.43	5.19	0.0
1.00	0.06	0.00	0.0	59.00	5.43	5.19	0.0
2.00	0.13	0.03	0.0	60.00	5.43	5.19	0.0
3.00	0.20	0.07	0.0	61.00	5.43	5.19	0.0
4.00	0.28	0.13	0.0	62.00	5.43	5.19	0.0
5.00	0.37	0.20	0.0	63.00	5.43	5.19	0.0
6.00	0.46	0.29	0.0	64.00	5.43	5.19	0.0
7.00	0.57	0.38	0.0	65.00	5.43	5.19	0.0
8.00	0.70	0.51	0.0	66.00	5.43	5.19	0.0
9.00	0.86	0.66	0.0	67.00	5.43	5.19	0.0
10.00	1.08	0.87	0.1	68.00	5.43	5.19	0.0
11.00	1.41	1.19	0.1	69.00	5.43	5.19	0.0
12.00	2.60	2.37	0.5	70.00	5.43	5.19	0.0
13.00	4.02	3.78	0.2	71.00	5.43	5.19	0.0
14.00	4.35	4.12	0.1	72.00	5.43	5.19	0.0
15.00	4.57	4.33	0.1				
16.00	4.73	4.49	0.0				
17.00	4.86	4.62	0.0				
18.00	4.97	4.73	0.0				
19.00	5.06	4.82	0.0				
20.00	5.15	4.91	0.0				
21.00	5.23	4.99	0.0				
22.00	5.30	5.06	0.0				
23.00	5.37	5.13	0.0				
24.00	5.43	5.19	0.0				
25.00	5.43	5.19	0.0				
26.00	5.43	5.19	0.0				
27.00	5.43	5.19	0.0				
28.00	5.43	5.19	0.0				
29.00	5.43	5.19	0.0				
30.00	5.43	5.19	0.0				
31.00	5.43	5.19	0.0				
32.00	5.43	5.19	0.0				
33.00	5.43	5.19	0.0				
34.00	5.43	5.19	0.0				
35.00	5.43	5.19	0.0				
36.00	5.43	5.19	0.0				
37.00	5.43	5.19	0.0				
38.00	5.43	5.19	0.0				
39.00	5.43	5.19	0.0				
40.00	5.43	5.19	0.0				
41.00	5.43	5.19	0.0				
42.00	5.43	5.19	0.0				
43.00	5.43	5.19	0.0				
44.00	5.43	5.19	0.0				
45.00	5.43	5.19	0.0				
46.00	5.43	5.19	0.0				
47.00	5.43	5.19	0.0				
48.00	5.43	5.19	0.0				
49.00	5.43	5.19	0.0				
50.00	5.43	5.19	0.0				
51.00	5.43	5.19	0.0				
52.00	5.43	5.19	0.0				
53.00	5.43	5.19	0.0				
54.00	5.43	5.19	0.0				
55.00	5.43	5.19	0.0				
56.00	5.43	5.19	0.0				
57.00	5.43	5.19	0.0				

Summary for Subcatchment Ap: Pervious

Runoff = 0.0 cfs @ 12.90 hrs, Volume= 0.01 af, Depth= 0.30"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.43"

Area (ac)	CN	Description
0.39	39	>75% Grass cover, Good, HSG A
0.39		100.00% Pervious Area

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

Hydrograph for Subcatchment Ap: Pervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	5.43	0.30	0.0
1.00	0.06	0.00	0.0	59.00	5.43	0.30	0.0
2.00	0.13	0.00	0.0	60.00	5.43	0.30	0.0
3.00	0.20	0.00	0.0	61.00	5.43	0.30	0.0
4.00	0.28	0.00	0.0	62.00	5.43	0.30	0.0
5.00	0.37	0.00	0.0	63.00	5.43	0.30	0.0
6.00	0.46	0.00	0.0	64.00	5.43	0.30	0.0
7.00	0.57	0.00	0.0	65.00	5.43	0.30	0.0
8.00	0.70	0.00	0.0	66.00	5.43	0.30	0.0
9.00	0.86	0.00	0.0	67.00	5.43	0.30	0.0
10.00	1.08	0.00	0.0	68.00	5.43	0.30	0.0
11.00	1.41	0.00	0.0	69.00	5.43	0.30	0.0
12.00	2.60	0.00	0.0	70.00	5.43	0.30	0.0
13.00	4.02	0.05	0.0	71.00	5.43	0.30	0.0
14.00	4.35	0.09	0.0	72.00	5.43	0.30	0.0
15.00	4.57	0.12	0.0				
16.00	4.73	0.15	0.0				
17.00	4.86	0.17	0.0				
18.00	4.97	0.19	0.0				
19.00	5.06	0.21	0.0				
20.00	5.15	0.23	0.0				
21.00	5.23	0.25	0.0				
22.00	5.30	0.26	0.0				
23.00	5.37	0.28	0.0				
24.00	5.43	0.30	0.0				
25.00	5.43	0.30	0.0				
26.00	5.43	0.30	0.0				
27.00	5.43	0.30	0.0				
28.00	5.43	0.30	0.0				
29.00	5.43	0.30	0.0				
30.00	5.43	0.30	0.0				
31.00	5.43	0.30	0.0				
32.00	5.43	0.30	0.0				
33.00	5.43	0.30	0.0				
34.00	5.43	0.30	0.0				
35.00	5.43	0.30	0.0				
36.00	5.43	0.30	0.0				
37.00	5.43	0.30	0.0				
38.00	5.43	0.30	0.0				
39.00	5.43	0.30	0.0				
40.00	5.43	0.30	0.0				
41.00	5.43	0.30	0.0				
42.00	5.43	0.30	0.0				
43.00	5.43	0.30	0.0				
44.00	5.43	0.30	0.0				
45.00	5.43	0.30	0.0				
46.00	5.43	0.30	0.0				
47.00	5.43	0.30	0.0				
48.00	5.43	0.30	0.0				
49.00	5.43	0.30	0.0				
50.00	5.43	0.30	0.0				
51.00	5.43	0.30	0.0				
52.00	5.43	0.30	0.0				
53.00	5.43	0.30	0.0				
54.00	5.43	0.30	0.0				
55.00	5.43	0.30	0.0				
56.00	5.43	0.30	0.0				
57.00	5.43	0.30	0.0				

Summary for Subcatchment Bi: Impervious

Runoff = 0.3 cfs @ 12.19 hrs, Volume= 0.04 af, Depth= 5.19"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.43"

Area (ac)	CN	Description
0.10	98	Paved parking, HSG A
0.10		100.00% Impervious Area

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

Hydrograph for Subcatchment Bi: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	5.43	5.19	0.0
1.00	0.06	0.00	0.0	59.00	5.43	5.19	0.0
2.00	0.13	0.03	0.0	60.00	5.43	5.19	0.0
3.00	0.20	0.07	0.0	61.00	5.43	5.19	0.0
4.00	0.28	0.13	0.0	62.00	5.43	5.19	0.0
5.00	0.37	0.20	0.0	63.00	5.43	5.19	0.0
6.00	0.46	0.29	0.0	64.00	5.43	5.19	0.0
7.00	0.57	0.38	0.0	65.00	5.43	5.19	0.0
8.00	0.70	0.51	0.0	66.00	5.43	5.19	0.0
9.00	0.86	0.66	0.0	67.00	5.43	5.19	0.0
10.00	1.08	0.87	0.0	68.00	5.43	5.19	0.0
11.00	1.41	1.19	0.0	69.00	5.43	5.19	0.0
12.00	2.60	2.37	0.2	70.00	5.43	5.19	0.0
13.00	4.02	3.78	0.1	71.00	5.43	5.19	0.0
14.00	4.35	4.12	0.0	72.00	5.43	5.19	0.0
15.00	4.57	4.33	0.0				
16.00	4.73	4.49	0.0				
17.00	4.86	4.62	0.0				
18.00	4.97	4.73	0.0				
19.00	5.06	4.82	0.0				
20.00	5.15	4.91	0.0				
21.00	5.23	4.99	0.0				
22.00	5.30	5.06	0.0				
23.00	5.37	5.13	0.0				
24.00	5.43	5.19	0.0				
25.00	5.43	5.19	0.0				
26.00	5.43	5.19	0.0				
27.00	5.43	5.19	0.0				
28.00	5.43	5.19	0.0				
29.00	5.43	5.19	0.0				
30.00	5.43	5.19	0.0				
31.00	5.43	5.19	0.0				
32.00	5.43	5.19	0.0				
33.00	5.43	5.19	0.0				
34.00	5.43	5.19	0.0				
35.00	5.43	5.19	0.0				
36.00	5.43	5.19	0.0				
37.00	5.43	5.19	0.0				
38.00	5.43	5.19	0.0				
39.00	5.43	5.19	0.0				
40.00	5.43	5.19	0.0				
41.00	5.43	5.19	0.0				
42.00	5.43	5.19	0.0				
43.00	5.43	5.19	0.0				
44.00	5.43	5.19	0.0				
45.00	5.43	5.19	0.0				
46.00	5.43	5.19	0.0				
47.00	5.43	5.19	0.0				
48.00	5.43	5.19	0.0				
49.00	5.43	5.19	0.0				
50.00	5.43	5.19	0.0				
51.00	5.43	5.19	0.0				
52.00	5.43	5.19	0.0				
53.00	5.43	5.19	0.0				
54.00	5.43	5.19	0.0				
55.00	5.43	5.19	0.0				
56.00	5.43	5.19	0.0				
57.00	5.43	5.19	0.0				

Summary for Subcatchment Bp: Pervious

Runoff = 0.0 cfs @ 12.90 hrs, Volume= 0.00 af, Depth= 0.30"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.43"

Area (ac)	CN	Description
0.07	39	>75% Grass cover, Good, HSG A
0.07		100.00% Pervious Area

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

Hydrograph for Subcatchment Bp: Pervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	5.43	0.30	0.0
1.00	0.06	0.00	0.0	59.00	5.43	0.30	0.0
2.00	0.13	0.00	0.0	60.00	5.43	0.30	0.0
3.00	0.20	0.00	0.0	61.00	5.43	0.30	0.0
4.00	0.28	0.00	0.0	62.00	5.43	0.30	0.0
5.00	0.37	0.00	0.0	63.00	5.43	0.30	0.0
6.00	0.46	0.00	0.0	64.00	5.43	0.30	0.0
7.00	0.57	0.00	0.0	65.00	5.43	0.30	0.0
8.00	0.70	0.00	0.0	66.00	5.43	0.30	0.0
9.00	0.86	0.00	0.0	67.00	5.43	0.30	0.0
10.00	1.08	0.00	0.0	68.00	5.43	0.30	0.0
11.00	1.41	0.00	0.0	69.00	5.43	0.30	0.0
12.00	2.60	0.00	0.0	70.00	5.43	0.30	0.0
13.00	4.02	0.05	0.0	71.00	5.43	0.30	0.0
14.00	4.35	0.09	0.0	72.00	5.43	0.30	0.0
15.00	4.57	0.12	0.0				
16.00	4.73	0.15	0.0				
17.00	4.86	0.17	0.0				
18.00	4.97	0.19	0.0				
19.00	5.06	0.21	0.0				
20.00	5.15	0.23	0.0				
21.00	5.23	0.25	0.0				
22.00	5.30	0.26	0.0				
23.00	5.37	0.28	0.0				
24.00	5.43	0.30	0.0				
25.00	5.43	0.30	0.0				
26.00	5.43	0.30	0.0				
27.00	5.43	0.30	0.0				
28.00	5.43	0.30	0.0				
29.00	5.43	0.30	0.0				
30.00	5.43	0.30	0.0				
31.00	5.43	0.30	0.0				
32.00	5.43	0.30	0.0				
33.00	5.43	0.30	0.0				
34.00	5.43	0.30	0.0				
35.00	5.43	0.30	0.0				
36.00	5.43	0.30	0.0				
37.00	5.43	0.30	0.0				
38.00	5.43	0.30	0.0				
39.00	5.43	0.30	0.0				
40.00	5.43	0.30	0.0				
41.00	5.43	0.30	0.0				
42.00	5.43	0.30	0.0				
43.00	5.43	0.30	0.0				
44.00	5.43	0.30	0.0				
45.00	5.43	0.30	0.0				
46.00	5.43	0.30	0.0				
47.00	5.43	0.30	0.0				
48.00	5.43	0.30	0.0				
49.00	5.43	0.30	0.0				
50.00	5.43	0.30	0.0				
51.00	5.43	0.30	0.0				
52.00	5.43	0.30	0.0				
53.00	5.43	0.30	0.0				
54.00	5.43	0.30	0.0				
55.00	5.43	0.30	0.0				
56.00	5.43	0.30	0.0				
57.00	5.43	0.30	0.0				

Summary for Subcatchment Roof A: Impervious

Runoff = 0.2 cfs @ 12.19 hrs, Volume= 0.02 af, Depth= 5.19"
 Routed to Pond Drywell A : Drywell A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.43"

Area (ac)	CN	Description
0.05	98	Roofs, HSG A
0.05		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof A: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	5.43	5.19	0.0
1.00	0.06	0.00	0.0	59.00	5.43	5.19	0.0
2.00	0.13	0.03	0.0	60.00	5.43	5.19	0.0
3.00	0.20	0.07	0.0	61.00	5.43	5.19	0.0
4.00	0.28	0.13	0.0	62.00	5.43	5.19	0.0
5.00	0.37	0.20	0.0	63.00	5.43	5.19	0.0
6.00	0.46	0.29	0.0	64.00	5.43	5.19	0.0
7.00	0.57	0.38	0.0	65.00	5.43	5.19	0.0
8.00	0.70	0.51	0.0	66.00	5.43	5.19	0.0
9.00	0.86	0.66	0.0	67.00	5.43	5.19	0.0
10.00	1.08	0.87	0.0	68.00	5.43	5.19	0.0
11.00	1.41	1.19	0.0	69.00	5.43	5.19	0.0
12.00	2.60	2.37	0.1	70.00	5.43	5.19	0.0
13.00	4.02	3.78	0.0	71.00	5.43	5.19	0.0
14.00	4.35	4.12	0.0	72.00	5.43	5.19	0.0
15.00	4.57	4.33	0.0				
16.00	4.73	4.49	0.0				
17.00	4.86	4.62	0.0				
18.00	4.97	4.73	0.0				
19.00	5.06	4.82	0.0				
20.00	5.15	4.91	0.0				
21.00	5.23	4.99	0.0				
22.00	5.30	5.06	0.0				
23.00	5.37	5.13	0.0				
24.00	5.43	5.19	0.0				
25.00	5.43	5.19	0.0				
26.00	5.43	5.19	0.0				
27.00	5.43	5.19	0.0				
28.00	5.43	5.19	0.0				
29.00	5.43	5.19	0.0				
30.00	5.43	5.19	0.0				
31.00	5.43	5.19	0.0				
32.00	5.43	5.19	0.0				
33.00	5.43	5.19	0.0				
34.00	5.43	5.19	0.0				
35.00	5.43	5.19	0.0				
36.00	5.43	5.19	0.0				
37.00	5.43	5.19	0.0				
38.00	5.43	5.19	0.0				
39.00	5.43	5.19	0.0				
40.00	5.43	5.19	0.0				
41.00	5.43	5.19	0.0				
42.00	5.43	5.19	0.0				
43.00	5.43	5.19	0.0				
44.00	5.43	5.19	0.0				
45.00	5.43	5.19	0.0				
46.00	5.43	5.19	0.0				
47.00	5.43	5.19	0.0				
48.00	5.43	5.19	0.0				
49.00	5.43	5.19	0.0				
50.00	5.43	5.19	0.0				
51.00	5.43	5.19	0.0				
52.00	5.43	5.19	0.0				
53.00	5.43	5.19	0.0				
54.00	5.43	5.19	0.0				
55.00	5.43	5.19	0.0				
56.00	5.43	5.19	0.0				
57.00	5.43	5.19	0.0				

Postdevelopment HydroCAD

NOAA 24-hr D 10-Year Rainfall=5.43"

Prepared by Insite Engineering LLC

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Summary for Subcatchment Roof B: Impervious

Runoff = 0.5 cfs @ 12.19 hrs, Volume= 0.06 af, Depth= 5.19"
Routed to Pond Drywell B : Drywell B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 10-Year Rainfall=5.43"

Area (ac)	CN	Description
0.15	98	Roofs, HSG A
0.15		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof B: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	5.43	5.19	0.0
1.00	0.06	0.00	0.0	59.00	5.43	5.19	0.0
2.00	0.13	0.03	0.0	60.00	5.43	5.19	0.0
3.00	0.20	0.07	0.0	61.00	5.43	5.19	0.0
4.00	0.28	0.13	0.0	62.00	5.43	5.19	0.0
5.00	0.37	0.20	0.0	63.00	5.43	5.19	0.0
6.00	0.46	0.29	0.0	64.00	5.43	5.19	0.0
7.00	0.57	0.38	0.0	65.00	5.43	5.19	0.0
8.00	0.70	0.51	0.0	66.00	5.43	5.19	0.0
9.00	0.86	0.66	0.0	67.00	5.43	5.19	0.0
10.00	1.08	0.87	0.0	68.00	5.43	5.19	0.0
11.00	1.41	1.19	0.1	69.00	5.43	5.19	0.0
12.00	2.60	2.37	0.3	70.00	5.43	5.19	0.0
13.00	4.02	3.78	0.1	71.00	5.43	5.19	0.0
14.00	4.35	4.12	0.0	72.00	5.43	5.19	0.0
15.00	4.57	4.33	0.0				
16.00	4.73	4.49	0.0				
17.00	4.86	4.62	0.0				
18.00	4.97	4.73	0.0				
19.00	5.06	4.82	0.0				
20.00	5.15	4.91	0.0				
21.00	5.23	4.99	0.0				
22.00	5.30	5.06	0.0				
23.00	5.37	5.13	0.0				
24.00	5.43	5.19	0.0				
25.00	5.43	5.19	0.0				
26.00	5.43	5.19	0.0				
27.00	5.43	5.19	0.0				
28.00	5.43	5.19	0.0				
29.00	5.43	5.19	0.0				
30.00	5.43	5.19	0.0				
31.00	5.43	5.19	0.0				
32.00	5.43	5.19	0.0				
33.00	5.43	5.19	0.0				
34.00	5.43	5.19	0.0				
35.00	5.43	5.19	0.0				
36.00	5.43	5.19	0.0				
37.00	5.43	5.19	0.0				
38.00	5.43	5.19	0.0				
39.00	5.43	5.19	0.0				
40.00	5.43	5.19	0.0				
41.00	5.43	5.19	0.0				
42.00	5.43	5.19	0.0				
43.00	5.43	5.19	0.0				
44.00	5.43	5.19	0.0				
45.00	5.43	5.19	0.0				
46.00	5.43	5.19	0.0				
47.00	5.43	5.19	0.0				
48.00	5.43	5.19	0.0				
49.00	5.43	5.19	0.0				
50.00	5.43	5.19	0.0				
51.00	5.43	5.19	0.0				
52.00	5.43	5.19	0.0				
53.00	5.43	5.19	0.0				
54.00	5.43	5.19	0.0				
55.00	5.43	5.19	0.0				
56.00	5.43	5.19	0.0				
57.00	5.43	5.19	0.0				

Postdevelopment HydroCAD

NOAA 24-hr D 10-Year Rainfall=5.43"

Prepared by Insite Engineering LLC

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Summary for Subcatchment Roof C: Impervious

Runoff = 0.6 cfs @ 12.19 hrs, Volume= 0.08 af, Depth= 5.19"
Routed to Pond Drywell C : Drywell C

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 10-Year Rainfall=5.43"

Area (ac)	CN	Description
0.18	98	Roofs, HSG A
0.18		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof C: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	5.43	5.19	0.0
1.00	0.06	0.00	0.0	59.00	5.43	5.19	0.0
2.00	0.13	0.03	0.0	60.00	5.43	5.19	0.0
3.00	0.20	0.07	0.0	61.00	5.43	5.19	0.0
4.00	0.28	0.13	0.0	62.00	5.43	5.19	0.0
5.00	0.37	0.20	0.0	63.00	5.43	5.19	0.0
6.00	0.46	0.29	0.0	64.00	5.43	5.19	0.0
7.00	0.57	0.38	0.0	65.00	5.43	5.19	0.0
8.00	0.70	0.51	0.0	66.00	5.43	5.19	0.0
9.00	0.86	0.66	0.0	67.00	5.43	5.19	0.0
10.00	1.08	0.87	0.0	68.00	5.43	5.19	0.0
11.00	1.41	1.19	0.1	69.00	5.43	5.19	0.0
12.00	2.60	2.37	0.3	70.00	5.43	5.19	0.0
13.00	4.02	3.78	0.1	71.00	5.43	5.19	0.0
14.00	4.35	4.12	0.1	72.00	5.43	5.19	0.0
15.00	4.57	4.33	0.0				
16.00	4.73	4.49	0.0				
17.00	4.86	4.62	0.0				
18.00	4.97	4.73	0.0				
19.00	5.06	4.82	0.0				
20.00	5.15	4.91	0.0				
21.00	5.23	4.99	0.0				
22.00	5.30	5.06	0.0				
23.00	5.37	5.13	0.0				
24.00	5.43	5.19	0.0				
25.00	5.43	5.19	0.0				
26.00	5.43	5.19	0.0				
27.00	5.43	5.19	0.0				
28.00	5.43	5.19	0.0				
29.00	5.43	5.19	0.0				
30.00	5.43	5.19	0.0				
31.00	5.43	5.19	0.0				
32.00	5.43	5.19	0.0				
33.00	5.43	5.19	0.0				
34.00	5.43	5.19	0.0				
35.00	5.43	5.19	0.0				
36.00	5.43	5.19	0.0				
37.00	5.43	5.19	0.0				
38.00	5.43	5.19	0.0				
39.00	5.43	5.19	0.0				
40.00	5.43	5.19	0.0				
41.00	5.43	5.19	0.0				
42.00	5.43	5.19	0.0				
43.00	5.43	5.19	0.0				
44.00	5.43	5.19	0.0				
45.00	5.43	5.19	0.0				
46.00	5.43	5.19	0.0				
47.00	5.43	5.19	0.0				
48.00	5.43	5.19	0.0				
49.00	5.43	5.19	0.0				
50.00	5.43	5.19	0.0				
51.00	5.43	5.19	0.0				
52.00	5.43	5.19	0.0				
53.00	5.43	5.19	0.0				
54.00	5.43	5.19	0.0				
55.00	5.43	5.19	0.0				
56.00	5.43	5.19	0.0				
57.00	5.43	5.19	0.0				

Summary for Subcatchment Roof D: Impervious

Runoff = 0.6 cfs @ 12.19 hrs, Volume= 0.07 af, Depth= 5.19"
 Routed to Pond Drywell D : Drywell D

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.43"

Area (ac)	CN	Description
0.17	98	Roofs, HSG A
0.17		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof D: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	5.43	5.19	0.0
1.00	0.06	0.00	0.0	59.00	5.43	5.19	0.0
2.00	0.13	0.03	0.0	60.00	5.43	5.19	0.0
3.00	0.20	0.07	0.0	61.00	5.43	5.19	0.0
4.00	0.28	0.13	0.0	62.00	5.43	5.19	0.0
5.00	0.37	0.20	0.0	63.00	5.43	5.19	0.0
6.00	0.46	0.29	0.0	64.00	5.43	5.19	0.0
7.00	0.57	0.38	0.0	65.00	5.43	5.19	0.0
8.00	0.70	0.51	0.0	66.00	5.43	5.19	0.0
9.00	0.86	0.66	0.0	67.00	5.43	5.19	0.0
10.00	1.08	0.87	0.0	68.00	5.43	5.19	0.0
11.00	1.41	1.19	0.1	69.00	5.43	5.19	0.0
12.00	2.60	2.37	0.3	70.00	5.43	5.19	0.0
13.00	4.02	3.78	0.1	71.00	5.43	5.19	0.0
14.00	4.35	4.12	0.0	72.00	5.43	5.19	0.0
15.00	4.57	4.33	0.0				
16.00	4.73	4.49	0.0				
17.00	4.86	4.62	0.0				
18.00	4.97	4.73	0.0				
19.00	5.06	4.82	0.0				
20.00	5.15	4.91	0.0				
21.00	5.23	4.99	0.0				
22.00	5.30	5.06	0.0				
23.00	5.37	5.13	0.0				
24.00	5.43	5.19	0.0				
25.00	5.43	5.19	0.0				
26.00	5.43	5.19	0.0				
27.00	5.43	5.19	0.0				
28.00	5.43	5.19	0.0				
29.00	5.43	5.19	0.0				
30.00	5.43	5.19	0.0				
31.00	5.43	5.19	0.0				
32.00	5.43	5.19	0.0				
33.00	5.43	5.19	0.0				
34.00	5.43	5.19	0.0				
35.00	5.43	5.19	0.0				
36.00	5.43	5.19	0.0				
37.00	5.43	5.19	0.0				
38.00	5.43	5.19	0.0				
39.00	5.43	5.19	0.0				
40.00	5.43	5.19	0.0				
41.00	5.43	5.19	0.0				
42.00	5.43	5.19	0.0				
43.00	5.43	5.19	0.0				
44.00	5.43	5.19	0.0				
45.00	5.43	5.19	0.0				
46.00	5.43	5.19	0.0				
47.00	5.43	5.19	0.0				
48.00	5.43	5.19	0.0				
49.00	5.43	5.19	0.0				
50.00	5.43	5.19	0.0				
51.00	5.43	5.19	0.0				
52.00	5.43	5.19	0.0				
53.00	5.43	5.19	0.0				
54.00	5.43	5.19	0.0				
55.00	5.43	5.19	0.0				
56.00	5.43	5.19	0.0				
57.00	5.43	5.19	0.0				

Summary for Subcatchment Roof E: Impervious

Runoff = 0.2 cfs @ 12.19 hrs, Volume= 0.02 af, Depth= 5.19"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 10-Year Rainfall=5.43"

Area (ac)	CN	Description
0.05	98	Roofs, HSG A
0.05		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof E: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	5.43	5.19	0.0
1.00	0.06	0.00	0.0	59.00	5.43	5.19	0.0
2.00	0.13	0.03	0.0	60.00	5.43	5.19	0.0
3.00	0.20	0.07	0.0	61.00	5.43	5.19	0.0
4.00	0.28	0.13	0.0	62.00	5.43	5.19	0.0
5.00	0.37	0.20	0.0	63.00	5.43	5.19	0.0
6.00	0.46	0.29	0.0	64.00	5.43	5.19	0.0
7.00	0.57	0.38	0.0	65.00	5.43	5.19	0.0
8.00	0.70	0.51	0.0	66.00	5.43	5.19	0.0
9.00	0.86	0.66	0.0	67.00	5.43	5.19	0.0
10.00	1.08	0.87	0.0	68.00	5.43	5.19	0.0
11.00	1.41	1.19	0.0	69.00	5.43	5.19	0.0
12.00	2.60	2.37	0.1	70.00	5.43	5.19	0.0
13.00	4.02	3.78	0.0	71.00	5.43	5.19	0.0
14.00	4.35	4.12	0.0	72.00	5.43	5.19	0.0
15.00	4.57	4.33	0.0				
16.00	4.73	4.49	0.0				
17.00	4.86	4.62	0.0				
18.00	4.97	4.73	0.0				
19.00	5.06	4.82	0.0				
20.00	5.15	4.91	0.0				
21.00	5.23	4.99	0.0				
22.00	5.30	5.06	0.0				
23.00	5.37	5.13	0.0				
24.00	5.43	5.19	0.0				
25.00	5.43	5.19	0.0				
26.00	5.43	5.19	0.0				
27.00	5.43	5.19	0.0				
28.00	5.43	5.19	0.0				
29.00	5.43	5.19	0.0				
30.00	5.43	5.19	0.0				
31.00	5.43	5.19	0.0				
32.00	5.43	5.19	0.0				
33.00	5.43	5.19	0.0				
34.00	5.43	5.19	0.0				
35.00	5.43	5.19	0.0				
36.00	5.43	5.19	0.0				
37.00	5.43	5.19	0.0				
38.00	5.43	5.19	0.0				
39.00	5.43	5.19	0.0				
40.00	5.43	5.19	0.0				
41.00	5.43	5.19	0.0				
42.00	5.43	5.19	0.0				
43.00	5.43	5.19	0.0				
44.00	5.43	5.19	0.0				
45.00	5.43	5.19	0.0				
46.00	5.43	5.19	0.0				
47.00	5.43	5.19	0.0				
48.00	5.43	5.19	0.0				
49.00	5.43	5.19	0.0				
50.00	5.43	5.19	0.0				
51.00	5.43	5.19	0.0				
52.00	5.43	5.19	0.0				
53.00	5.43	5.19	0.0				
54.00	5.43	5.19	0.0				
55.00	5.43	5.19	0.0				
56.00	5.43	5.19	0.0				
57.00	5.43	5.19	0.0				

Summary for Pond Drywell A: Drywell A

Inflow Area = 0.05 ac, 100.00% Impervious, Inflow Depth = 5.19" for 10-Year event
 Inflow = 0.2 cfs @ 12.19 hrs, Volume= 0.02 af
 Outflow = 0.1 cfs @ 12.66 hrs, Volume= 0.02 af, Atten= 59%, Lag= 28.1 min
 Discarded = 0.0 cfs @ 11.80 hrs, Volume= 0.02 af
 Primary = 0.0 cfs @ 12.66 hrs, Volume= 0.00 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 17.62' @ 12.66 hrs Surf.Area= 0.00 ac Storage= 0.00 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 21.8 min (779.5 - 757.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	15.56'	0.00 af	8.89'W x 21.00'L x 2.71'H Field A 0.01 af Overall - 0.00 af Embedded = 0.01 af x 40.0% Voids
#2A	16.56'	0.00 af	ADS N-12 12" x 4 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 4 Chambers in 4 Rows
		0.01 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.60'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	15.56'	10.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.0 cfs @ 11.80 hrs HW=15.59' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.0 cfs @ 12.66 hrs HW=17.62' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Weir Controls 0.0 cfs @ 0.43 fps)

Hydrograph for Pond Drywell A: Drywell A

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	15.56	0.0	0.0	0.0
2.50	0.0	0.00	15.56	0.0	0.0	0.0
5.00	0.0	0.00	15.56	0.0	0.0	0.0
7.50	0.0	0.00	15.56	0.0	0.0	0.0
10.00	0.0	0.00	15.57	0.0	0.0	0.0
12.50	0.1	0.00	17.47	0.0	0.0	0.0
15.00	0.0	0.00	15.57	0.0	0.0	0.0
17.50	0.0	0.00	15.56	0.0	0.0	0.0
20.00	0.0	0.00	15.56	0.0	0.0	0.0
22.50	0.0	0.00	15.56	0.0	0.0	0.0
25.00	0.0	0.00	15.56	0.0	0.0	0.0
27.50	0.0	0.00	15.56	0.0	0.0	0.0
30.00	0.0	0.00	15.56	0.0	0.0	0.0
32.50	0.0	0.00	15.56	0.0	0.0	0.0
35.00	0.0	0.00	15.56	0.0	0.0	0.0
37.50	0.0	0.00	15.56	0.0	0.0	0.0
40.00	0.0	0.00	15.56	0.0	0.0	0.0
42.50	0.0	0.00	15.56	0.0	0.0	0.0
45.00	0.0	0.00	15.56	0.0	0.0	0.0
47.50	0.0	0.00	15.56	0.0	0.0	0.0
50.00	0.0	0.00	15.56	0.0	0.0	0.0
52.50	0.0	0.00	15.56	0.0	0.0	0.0
55.00	0.0	0.00	15.56	0.0	0.0	0.0
57.50	0.0	0.00	15.56	0.0	0.0	0.0
60.00	0.0	0.00	15.56	0.0	0.0	0.0
62.50	0.0	0.00	15.56	0.0	0.0	0.0
65.00	0.0	0.00	15.56	0.0	0.0	0.0
67.50	0.0	0.00	15.56	0.0	0.0	0.0
70.00	0.0	0.00	15.56	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell A: Drywell A

Elevation (feet)	Surface (acres)	Storage (acre-feet)
15.56	0.00	0.00
15.61	0.00	0.00
15.66	0.00	0.00
15.71	0.00	0.00
15.76	0.00	0.00
15.81	0.00	0.00
15.86	0.00	0.00
15.91	0.00	0.00
15.96	0.00	0.00
16.01	0.00	0.00
16.06	0.00	0.00
16.11	0.00	0.00
16.16	0.00	0.00
16.21	0.00	0.00
16.26	0.00	0.00
16.31	0.00	0.00
16.36	0.00	0.00
16.41	0.00	0.00
16.46	0.00	0.00
16.51	0.00	0.00
16.56	0.00	0.00
16.61	0.00	0.00
16.66	0.00	0.00
16.71	0.00	0.00
16.76	0.00	0.00
16.81	0.00	0.00
16.86	0.00	0.00
16.91	0.00	0.00
16.96	0.00	0.00
17.01	0.00	0.00
17.06	0.00	0.00
17.11	0.00	0.00
17.16	0.00	0.00
17.21	0.00	0.00
17.26	0.00	0.00
17.31	0.00	0.00
17.36	0.00	0.00
17.41	0.00	0.00
17.46	0.00	0.00
17.51	0.00	0.00
17.56	0.00	0.00
17.61	0.00	0.00
17.66	0.00	0.00
17.71	0.00	0.00
17.76	0.00	0.00
17.81	0.00	0.00
17.86	0.00	0.00
17.91	0.00	0.00
17.96	0.00	0.00
18.01	0.00	0.00
18.06	0.00	0.01
18.11	0.00	0.01
18.16	0.00	0.01
18.21	0.00	0.01
18.26	0.00	0.01

Summary for Pond Drywell B: Drywell B

Inflow Area = 0.15 ac, 100.00% Impervious, Inflow Depth = 5.19" for 10-Year event
 Inflow = 0.5 cfs @ 12.19 hrs, Volume= 0.06 af
 Outflow = 0.2 cfs @ 12.55 hrs, Volume= 0.06 af, Atten= 51%, Lag= 21.6 min
 Discarded = 0.1 cfs @ 11.75 hrs, Volume= 0.06 af
 Primary = 0.1 cfs @ 12.55 hrs, Volume= 0.00 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 19.05' @ 12.55 hrs Surf.Area= 0.01 ac Storage= 0.01 af

Plug-Flow detention time= 20.6 min calculated for 0.06 af (100% of inflow)
 Center-of-Mass det. time= 20.5 min (778.2 - 757.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	17.06'	0.01 af	13.13'W x 41.00'L x 2.71'H Field A 0.03 af Overall - 0.01 af Embedded = 0.03 af x 40.0% Voids
#2A	18.06'	0.00 af	ADS N-12 12" x 12 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 12 Chambers in 6 Rows
		0.02 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	17.06'	10.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.1 cfs @ 11.75 hrs HW=17.09' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.1 cfs @ 12.55 hrs HW=19.05' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Weir Controls 0.1 cfs @ 0.75 fps)

Hydrograph for Pond Drywell B: Drywell B

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	17.06	0.0	0.0	0.0
2.50	0.0	0.00	17.06	0.0	0.0	0.0
5.00	0.0	0.00	17.06	0.0	0.0	0.0
7.50	0.0	0.00	17.06	0.0	0.0	0.0
10.00	0.0	0.00	17.07	0.0	0.0	0.0
12.50	0.3	0.01	19.05	0.2	0.1	0.1
15.00	0.0	0.00	17.07	0.0	0.0	0.0
17.50	0.0	0.00	17.06	0.0	0.0	0.0
20.00	0.0	0.00	17.06	0.0	0.0	0.0
22.50	0.0	0.00	17.06	0.0	0.0	0.0
25.00	0.0	0.00	17.06	0.0	0.0	0.0
27.50	0.0	0.00	17.06	0.0	0.0	0.0
30.00	0.0	0.00	17.06	0.0	0.0	0.0
32.50	0.0	0.00	17.06	0.0	0.0	0.0
35.00	0.0	0.00	17.06	0.0	0.0	0.0
37.50	0.0	0.00	17.06	0.0	0.0	0.0
40.00	0.0	0.00	17.06	0.0	0.0	0.0
42.50	0.0	0.00	17.06	0.0	0.0	0.0
45.00	0.0	0.00	17.06	0.0	0.0	0.0
47.50	0.0	0.00	17.06	0.0	0.0	0.0
50.00	0.0	0.00	17.06	0.0	0.0	0.0
52.50	0.0	0.00	17.06	0.0	0.0	0.0
55.00	0.0	0.00	17.06	0.0	0.0	0.0
57.50	0.0	0.00	17.06	0.0	0.0	0.0
60.00	0.0	0.00	17.06	0.0	0.0	0.0
62.50	0.0	0.00	17.06	0.0	0.0	0.0
65.00	0.0	0.00	17.06	0.0	0.0	0.0
67.50	0.0	0.00	17.06	0.0	0.0	0.0
70.00	0.0	0.00	17.06	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell B: Drywell B

Elevation (feet)	Surface (acres)	Storage (acre-feet)
17.06	0.01	0.00
17.11	0.01	0.00
17.16	0.01	0.00
17.21	0.01	0.00
17.26	0.01	0.00
17.31	0.01	0.00
17.36	0.01	0.00
17.41	0.01	0.00
17.46	0.01	0.00
17.51	0.01	0.00
17.56	0.01	0.00
17.61	0.01	0.00
17.66	0.01	0.00
17.71	0.01	0.00
17.76	0.01	0.00
17.81	0.01	0.00
17.86	0.01	0.00
17.91	0.01	0.00
17.96	0.01	0.00
18.01	0.01	0.00
18.06	0.01	0.00
18.11	0.01	0.01
18.16	0.01	0.01
18.21	0.01	0.01
18.26	0.01	0.01
18.31	0.01	0.01
18.36	0.01	0.01
18.41	0.01	0.01
18.46	0.01	0.01
18.51	0.01	0.01
18.56	0.01	0.01
18.61	0.01	0.01
18.66	0.01	0.01
18.71	0.01	0.01
18.76	0.01	0.01
18.81	0.01	0.01
18.86	0.01	0.01
18.91	0.01	0.01
18.96	0.01	0.01
19.01	0.01	0.01
19.06	0.01	0.01
19.11	0.01	0.01
19.16	0.01	0.01
19.21	0.01	0.01
19.26	0.01	0.01
19.31	0.01	0.01
19.36	0.01	0.01
19.41	0.01	0.01
19.46	0.01	0.01
19.51	0.01	0.01
19.56	0.01	0.01
19.61	0.01	0.01
19.66	0.01	0.02
19.71	0.01	0.02
19.76	0.01	0.02

Summary for Pond Drywell C: Drywell C

[88] Warning: Qout>Qin may require smaller dt or Finer Routing

Inflow Area = 0.18 ac, 100.00% Impervious, Inflow Depth = 5.19" for 10-Year event
 Inflow = 0.6 cfs @ 12.19 hrs, Volume= 0.08 af
 Outflow = 0.7 cfs @ 12.16 hrs, Volume= 0.08 af, Atten= 0%, Lag= 0.0 min
 Discarded = 0.1 cfs @ 10.90 hrs, Volume= 0.06 af
 Primary = 0.7 cfs @ 12.16 hrs, Volume= 0.02 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 17.76' @ 12.15 hrs Surf.Area= 0.01 ac Storage= 0.01 af

Plug-Flow detention time= 24.4 min calculated for 0.08 af (100% of inflow)
 Center-of-Mass det. time= 24.4 min (782.0 - 757.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	15.65'	0.01 af	8.89'W x 41.00'L x 2.71'H Field A 0.02 af Overall - 0.00 af Embedded = 0.02 af x 40.0% Voids
#2A	16.65'	0.00 af	ADS N-12 12" x 8 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 8 Chambers in 4 Rows
		0.01 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.60'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	15.65'	7.500 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.1 cfs @ 10.90 hrs HW=15.68' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.6 cfs @ 12.16 hrs HW=17.75' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Weir Controls 0.6 cfs @ 1.26 fps)

Hydrograph for Pond Drywell C: Drywell C

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	15.65	0.0	0.0	0.0
2.50	0.0	0.00	15.65	0.0	0.0	0.0
5.00	0.0	0.00	15.66	0.0	0.0	0.0
7.50	0.0	0.00	15.66	0.0	0.0	0.0
10.00	0.0	0.00	15.67	0.0	0.0	0.0
12.50	0.3	0.01	17.69	0.3	0.1	0.3
15.00	0.0	0.01	17.24	0.1	0.1	0.0
17.50	0.0	0.00	15.66	0.0	0.0	0.0
20.00	0.0	0.00	15.66	0.0	0.0	0.0
22.50	0.0	0.00	15.66	0.0	0.0	0.0
25.00	0.0	0.00	15.65	0.0	0.0	0.0
27.50	0.0	0.00	15.65	0.0	0.0	0.0
30.00	0.0	0.00	15.65	0.0	0.0	0.0
32.50	0.0	0.00	15.65	0.0	0.0	0.0
35.00	0.0	0.00	15.65	0.0	0.0	0.0
37.50	0.0	0.00	15.65	0.0	0.0	0.0
40.00	0.0	0.00	15.65	0.0	0.0	0.0
42.50	0.0	0.00	15.65	0.0	0.0	0.0
45.00	0.0	0.00	15.65	0.0	0.0	0.0
47.50	0.0	0.00	15.65	0.0	0.0	0.0
50.00	0.0	0.00	15.65	0.0	0.0	0.0
52.50	0.0	0.00	15.65	0.0	0.0	0.0
55.00	0.0	0.00	15.65	0.0	0.0	0.0
57.50	0.0	0.00	15.65	0.0	0.0	0.0
60.00	0.0	0.00	15.65	0.0	0.0	0.0
62.50	0.0	0.00	15.65	0.0	0.0	0.0
65.00	0.0	0.00	15.65	0.0	0.0	0.0
67.50	0.0	0.00	15.65	0.0	0.0	0.0
70.00	0.0	0.00	15.65	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell C: Drywell C

Elevation (feet)	Surface (acres)	Storage (acre-feet)
15.65	0.01	0.00
15.70	0.01	0.00
15.75	0.01	0.00
15.80	0.01	0.00
15.85	0.01	0.00
15.90	0.01	0.00
15.95	0.01	0.00
16.00	0.01	0.00
16.05	0.01	0.00
16.10	0.01	0.00
16.15	0.01	0.00
16.20	0.01	0.00
16.25	0.01	0.00
16.30	0.01	0.00
16.35	0.01	0.00
16.40	0.01	0.00
16.45	0.01	0.00
16.50	0.01	0.00
16.55	0.01	0.00
16.60	0.01	0.00
16.65	0.01	0.00
16.70	0.01	0.00
16.75	0.01	0.00
16.80	0.01	0.00
16.85	0.01	0.00
16.90	0.01	0.00
16.95	0.01	0.00
17.00	0.01	0.00
17.05	0.01	0.00
17.10	0.01	0.01
17.15	0.01	0.01
17.20	0.01	0.01
17.25	0.01	0.01
17.30	0.01	0.01
17.35	0.01	0.01
17.40	0.01	0.01
17.45	0.01	0.01
17.50	0.01	0.01
17.55	0.01	0.01
17.60	0.01	0.01
17.65	0.01	0.01
17.70	0.01	0.01
17.75	0.01	0.01
17.80	0.01	0.01
17.85	0.01	0.01
17.90	0.01	0.01
17.95	0.01	0.01
18.00	0.01	0.01
18.05	0.01	0.01
18.10	0.01	0.01
18.15	0.01	0.01
18.20	0.01	0.01
18.25	0.01	0.01
18.30	0.01	0.01
18.35	0.01	0.01

Summary for Pond Drywell D: Drywell D

[88] Warning: Qout>Qin may require smaller dt or Finer Routing

Inflow Area = 0.17 ac, 100.00% Impervious, Inflow Depth = 5.19" for 10-Year event
 Inflow = 0.6 cfs @ 12.19 hrs, Volume= 0.07 af
 Outflow = 0.7 cfs @ 12.21 hrs, Volume= 0.07 af, Atten= 0%, Lag= 1.0 min
 Discarded = 0.0 cfs @ 10.60 hrs, Volume= 0.05 af
 Primary = 0.6 cfs @ 12.21 hrs, Volume= 0.02 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 16.65' @ 12.21 hrs Surf.Area= 0.01 ac Storage= 0.01 af

Plug-Flow detention time= 46.7 min calculated for 0.07 af (100% of inflow)
 Center-of-Mass det. time= 46.7 min (804.3 - 757.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	14.50'	0.01 af	21.60'W x 21.00'L x 2.71'H Field A 0.03 af Overall - 0.00 af Embedded = 0.02 af x 40.0% Voids
#2A	15.50'	0.00 af	ADS N-12 12" x 10 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 10 Chambers in 10 Rows
		0.01 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	16.50'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	14.50'	4.500 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.0 cfs @ 10.60 hrs HW=14.53' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.6 cfs @ 12.21 hrs HW=16.65' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Weir Controls 0.6 cfs @ 1.27 fps)

Hydrograph for Pond Drywell D: Drywell D

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	14.50	0.0	0.0	0.0
2.50	0.0	0.00	14.50	0.0	0.0	0.0
5.00	0.0	0.00	14.51	0.0	0.0	0.0
7.50	0.0	0.00	14.51	0.0	0.0	0.0
10.00	0.0	0.00	14.52	0.0	0.0	0.0
12.50	0.3	0.01	16.59	0.3	0.0	0.3
15.00	0.0	0.01	16.41	0.0	0.0	0.0
17.50	0.0	0.00	15.70	0.0	0.0	0.0
20.00	0.0	0.00	14.51	0.0	0.0	0.0
22.50	0.0	0.00	14.51	0.0	0.0	0.0
25.00	0.0	0.00	14.50	0.0	0.0	0.0
27.50	0.0	0.00	14.50	0.0	0.0	0.0
30.00	0.0	0.00	14.50	0.0	0.0	0.0
32.50	0.0	0.00	14.50	0.0	0.0	0.0
35.00	0.0	0.00	14.50	0.0	0.0	0.0
37.50	0.0	0.00	14.50	0.0	0.0	0.0
40.00	0.0	0.00	14.50	0.0	0.0	0.0
42.50	0.0	0.00	14.50	0.0	0.0	0.0
45.00	0.0	0.00	14.50	0.0	0.0	0.0
47.50	0.0	0.00	14.50	0.0	0.0	0.0
50.00	0.0	0.00	14.50	0.0	0.0	0.0
52.50	0.0	0.00	14.50	0.0	0.0	0.0
55.00	0.0	0.00	14.50	0.0	0.0	0.0
57.50	0.0	0.00	14.50	0.0	0.0	0.0
60.00	0.0	0.00	14.50	0.0	0.0	0.0
62.50	0.0	0.00	14.50	0.0	0.0	0.0
65.00	0.0	0.00	14.50	0.0	0.0	0.0
67.50	0.0	0.00	14.50	0.0	0.0	0.0
70.00	0.0	0.00	14.50	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell D: Drywell D

Elevation (feet)	Surface (acres)	Storage (acre-feet)
14.50	0.01	0.00
14.55	0.01	0.00
14.60	0.01	0.00
14.65	0.01	0.00
14.70	0.01	0.00
14.75	0.01	0.00
14.80	0.01	0.00
14.85	0.01	0.00
14.90	0.01	0.00
14.95	0.01	0.00
15.00	0.01	0.00
15.05	0.01	0.00
15.10	0.01	0.00
15.15	0.01	0.00
15.20	0.01	0.00
15.25	0.01	0.00
15.30	0.01	0.00
15.35	0.01	0.00
15.40	0.01	0.00
15.45	0.01	0.00
15.50	0.01	0.00
15.55	0.01	0.00
15.60	0.01	0.00
15.65	0.01	0.00
15.70	0.01	0.00
15.75	0.01	0.01
15.80	0.01	0.01
15.85	0.01	0.01
15.90	0.01	0.01
15.95	0.01	0.01
16.00	0.01	0.01
16.05	0.01	0.01
16.10	0.01	0.01
16.15	0.01	0.01
16.20	0.01	0.01
16.25	0.01	0.01
16.30	0.01	0.01
16.35	0.01	0.01
16.40	0.01	0.01
16.45	0.01	0.01
16.50	0.01	0.01
16.55	0.01	0.01
16.60	0.01	0.01
16.65	0.01	0.01
16.70	0.01	0.01
16.75	0.01	0.01
16.80	0.01	0.01
16.85	0.01	0.01
16.90	0.01	0.01
16.95	0.01	0.01
17.00	0.01	0.01
17.05	0.01	0.01
17.10	0.01	0.01
17.15	0.01	0.01
17.20	0.01	0.01

Summary for Pond Watershed A: Watershed A

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.29 ac, 69.77% Impervious, Inflow Depth = 1.91" for 10-Year event
Inflow = 2.3 cfs @ 12.20 hrs, Volume= 0.20 af
Primary = 2.3 cfs @ 12.20 hrs, Volume= 0.20 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Hydrograph for Pond Watershed A: Watershed A

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0		0.0	58.00	0.0		0.0
1.00	0.0		0.0	59.00	0.0		0.0
2.00	0.0		0.0	60.00	0.0		0.0
3.00	0.0		0.0	61.00	0.0		0.0
4.00	0.0		0.0	62.00	0.0		0.0
5.00	0.0		0.0	63.00	0.0		0.0
6.00	0.0		0.0	64.00	0.0		0.0
7.00	0.0		0.0	65.00	0.0		0.0
8.00	0.0		0.0	66.00	0.0		0.0
9.00	0.1		0.1	67.00	0.0		0.0
10.00	0.1		0.1	68.00	0.0		0.0
11.00	0.1		0.1	69.00	0.0		0.0
12.00	0.6		0.6	70.00	0.0		0.0
13.00	0.4		0.4	71.00	0.0		0.0
14.00	0.1		0.1	72.00	0.0		0.0
15.00	0.1		0.1				
16.00	0.1		0.1				
17.00	0.1		0.1				
18.00	0.0		0.0				
19.00	0.0		0.0				
20.00	0.0		0.0				
21.00	0.0		0.0				
22.00	0.0		0.0				
23.00	0.0		0.0				
24.00	0.0		0.0				
25.00	0.0		0.0				
26.00	0.0		0.0				
27.00	0.0		0.0				
28.00	0.0		0.0				
29.00	0.0		0.0				
30.00	0.0		0.0				
31.00	0.0		0.0				
32.00	0.0		0.0				
33.00	0.0		0.0				
34.00	0.0		0.0				
35.00	0.0		0.0				
36.00	0.0		0.0				
37.00	0.0		0.0				
38.00	0.0		0.0				
39.00	0.0		0.0				
40.00	0.0		0.0				
41.00	0.0		0.0				
42.00	0.0		0.0				
43.00	0.0		0.0				
44.00	0.0		0.0				
45.00	0.0		0.0				
46.00	0.0		0.0				
47.00	0.0		0.0				
48.00	0.0		0.0				
49.00	0.0		0.0				
50.00	0.0		0.0				
51.00	0.0		0.0				
52.00	0.0		0.0				
53.00	0.0		0.0				
54.00	0.0		0.0				
55.00	0.0		0.0				
56.00	0.0		0.0				
57.00	0.0		0.0				

Summary for Pond Watershed B: Watershed B

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.17 ac, 58.82% Impervious, Inflow Depth = 3.18" for 10-Year event
Inflow = 0.3 cfs @ 12.19 hrs, Volume= 0.04 af
Primary = 0.3 cfs @ 12.19 hrs, Volume= 0.04 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Hydrograph for Pond Watershed B: Watershed B

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0		0.0	58.00	0.0		0.0
1.00	0.0		0.0	59.00	0.0		0.0
2.00	0.0		0.0	60.00	0.0		0.0
3.00	0.0		0.0	61.00	0.0		0.0
4.00	0.0		0.0	62.00	0.0		0.0
5.00	0.0		0.0	63.00	0.0		0.0
6.00	0.0		0.0	64.00	0.0		0.0
7.00	0.0		0.0	65.00	0.0		0.0
8.00	0.0		0.0	66.00	0.0		0.0
9.00	0.0		0.0	67.00	0.0		0.0
10.00	0.0		0.0	68.00	0.0		0.0
11.00	0.0		0.0	69.00	0.0		0.0
12.00	0.2		0.2	70.00	0.0		0.0
13.00	0.1		0.1	71.00	0.0		0.0
14.00	0.0		0.0	72.00	0.0		0.0
15.00	0.0		0.0				
16.00	0.0		0.0				
17.00	0.0		0.0				
18.00	0.0		0.0				
19.00	0.0		0.0				
20.00	0.0		0.0				
21.00	0.0		0.0				
22.00	0.0		0.0				
23.00	0.0		0.0				
24.00	0.0		0.0				
25.00	0.0		0.0				
26.00	0.0		0.0				
27.00	0.0		0.0				
28.00	0.0		0.0				
29.00	0.0		0.0				
30.00	0.0		0.0				
31.00	0.0		0.0				
32.00	0.0		0.0				
33.00	0.0		0.0				
34.00	0.0		0.0				
35.00	0.0		0.0				
36.00	0.0		0.0				
37.00	0.0		0.0				
38.00	0.0		0.0				
39.00	0.0		0.0				
40.00	0.0		0.0				
41.00	0.0		0.0				
42.00	0.0		0.0				
43.00	0.0		0.0				
44.00	0.0		0.0				
45.00	0.0		0.0				
46.00	0.0		0.0				
47.00	0.0		0.0				
48.00	0.0		0.0				
49.00	0.0		0.0				
50.00	0.0		0.0				
51.00	0.0		0.0				
52.00	0.0		0.0				
53.00	0.0		0.0				
54.00	0.0		0.0				
55.00	0.0		0.0				
56.00	0.0		0.0				
57.00	0.0		0.0				

Postdevelopment HydroCAD

NOAA 24-hr D 25-Year Rainfall=6.77"

Prepared by Insite Engineering LLC

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Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
 Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Ai Ground: Impervious Runoff Area=0.30 ac 100.00% Impervious Runoff Depth=6.53"
 Tc=10.0 min CN=98 Runoff=1.3 cfs 0.16 af

Subcatchment Ap: Pervious Runoff Area=0.39 ac 0.00% Impervious Runoff Depth=0.69"
 Tc=10.0 min CN=39 Runoff=0.1 cfs 0.02 af

Subcatchment Bi: Impervious Runoff Area=0.10 ac 100.00% Impervious Runoff Depth=6.53"
 Tc=10.0 min CN=98 Runoff=0.4 cfs 0.05 af

Subcatchment Bp: Pervious Runoff Area=0.07 ac 0.00% Impervious Runoff Depth=0.69"
 Tc=10.0 min CN=39 Runoff=0.0 cfs 0.00 af

Subcatchment Roof A: Impervious Runoff Area=0.05 ac 100.00% Impervious Runoff Depth=6.53"
 Tc=10.0 min CN=98 Runoff=0.2 cfs 0.03 af

Subcatchment Roof B: Impervious Runoff Area=0.15 ac 100.00% Impervious Runoff Depth=6.53"
 Tc=10.0 min CN=98 Runoff=0.6 cfs 0.08 af

Subcatchment Roof C: Impervious Runoff Area=0.18 ac 100.00% Impervious Runoff Depth=6.53"
 Tc=10.0 min CN=98 Runoff=0.8 cfs 0.10 af

Subcatchment Roof D: Impervious Runoff Area=0.17 ac 100.00% Impervious Runoff Depth=6.53"
 Tc=10.0 min CN=98 Runoff=0.7 cfs 0.09 af

Subcatchment Roof E: Impervious Runoff Area=0.05 ac 100.00% Impervious Runoff Depth=6.53"
 Tc=10.0 min CN=98 Runoff=0.2 cfs 0.03 af

Pond Drywell A: Drywell A Peak Elev=17.65' Storage=0.00 af Inflow=0.2 cfs 0.03 af
 Discarded=0.0 cfs 0.02 af Primary=0.1 cfs 0.00 af Outflow=0.2 cfs 0.03 af

Pond Drywell B: Drywell B Peak Elev=19.12' Storage=0.01 af Inflow=0.6 cfs 0.08 af
 Discarded=0.1 cfs 0.07 af Primary=0.4 cfs 0.01 af Outflow=0.5 cfs 0.08 af

Pond Drywell C: Drywell C Peak Elev=17.77' Storage=0.01 af Inflow=0.8 cfs 0.10 af
 Discarded=0.1 cfs 0.07 af Primary=0.7 cfs 0.03 af Outflow=0.8 cfs 0.10 af

Pond Drywell D: Drywell D Peak Elev=16.66' Storage=0.01 af Inflow=0.7 cfs 0.09 af
 Discarded=0.0 cfs 0.06 af Primary=0.7 cfs 0.03 af Outflow=0.7 cfs 0.09 af

Pond Watershed A: Watershed A Inflow=2.9 cfs 0.29 af
 Primary=2.9 cfs 0.29 af

Pond Watershed B: Watershed B Inflow=0.4 cfs 0.06 af
 Primary=0.4 cfs 0.06 af

Total Runoff Area = 1.46 ac Runoff Volume = 0.57 af Average Runoff Depth = 4.69"
31.51% Pervious = 0.46 ac 68.49% Impervious = 1.00 ac

Summary for Subcatchment Ai Ground: Impervious

Runoff = 1.3 cfs @ 12.19 hrs, Volume= 0.16 af, Depth= 6.53"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 25-Year Rainfall=6.77"

Area (ac)	CN	Description
0.30	98	Paved parking, HSG A
0.30		100.00% Impervious Area

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

Hydrograph for Subcatchment Ai Ground: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	6.77	6.53	0.0
1.00	0.08	0.01	0.0	59.00	6.77	6.53	0.0
2.00	0.16	0.05	0.0	60.00	6.77	6.53	0.0
3.00	0.26	0.11	0.0	61.00	6.77	6.53	0.0
4.00	0.36	0.19	0.0	62.00	6.77	6.53	0.0
5.00	0.46	0.28	0.0	63.00	6.77	6.53	0.0
6.00	0.58	0.39	0.0	64.00	6.77	6.53	0.0
7.00	0.71	0.52	0.0	65.00	6.77	6.53	0.0
8.00	0.88	0.67	0.1	66.00	6.77	6.53	0.0
9.00	1.07	0.86	0.1	67.00	6.77	6.53	0.0
10.00	1.34	1.12	0.1	68.00	6.77	6.53	0.0
11.00	1.76	1.54	0.1	69.00	6.77	6.53	0.0
12.00	3.24	3.01	0.6	70.00	6.77	6.53	0.0
13.00	5.01	4.77	0.3	71.00	6.77	6.53	0.0
14.00	5.43	5.19	0.1	72.00	6.77	6.53	0.0
15.00	5.70	5.46	0.1				
16.00	5.89	5.65	0.1				
17.00	6.06	5.82	0.0				
18.00	6.19	5.95	0.0				
19.00	6.31	6.07	0.0				
20.00	6.41	6.18	0.0				
21.00	6.51	6.28	0.0				
22.00	6.61	6.37	0.0				
23.00	6.69	6.45	0.0				
24.00	6.77	6.53	0.0				
25.00	6.77	6.53	0.0				
26.00	6.77	6.53	0.0				
27.00	6.77	6.53	0.0				
28.00	6.77	6.53	0.0				
29.00	6.77	6.53	0.0				
30.00	6.77	6.53	0.0				
31.00	6.77	6.53	0.0				
32.00	6.77	6.53	0.0				
33.00	6.77	6.53	0.0				
34.00	6.77	6.53	0.0				
35.00	6.77	6.53	0.0				
36.00	6.77	6.53	0.0				
37.00	6.77	6.53	0.0				
38.00	6.77	6.53	0.0				
39.00	6.77	6.53	0.0				
40.00	6.77	6.53	0.0				
41.00	6.77	6.53	0.0				
42.00	6.77	6.53	0.0				
43.00	6.77	6.53	0.0				
44.00	6.77	6.53	0.0				
45.00	6.77	6.53	0.0				
46.00	6.77	6.53	0.0				
47.00	6.77	6.53	0.0				
48.00	6.77	6.53	0.0				
49.00	6.77	6.53	0.0				
50.00	6.77	6.53	0.0				
51.00	6.77	6.53	0.0				
52.00	6.77	6.53	0.0				
53.00	6.77	6.53	0.0				
54.00	6.77	6.53	0.0				
55.00	6.77	6.53	0.0				
56.00	6.77	6.53	0.0				
57.00	6.77	6.53	0.0				

Summary for Subcatchment Ap: Pervious

Runoff = 0.1 cfs @ 12.36 hrs, Volume= 0.02 af, Depth= 0.69"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 25-Year Rainfall=6.77"

Area (ac)	CN	Description
0.39	39	>75% Grass cover, Good, HSG A
0.39		100.00% Pervious Area

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

Hydrograph for Subcatchment Ap: Pervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	6.77	0.69	0.0
1.00	0.08	0.00	0.0	59.00	6.77	0.69	0.0
2.00	0.16	0.00	0.0	60.00	6.77	0.69	0.0
3.00	0.26	0.00	0.0	61.00	6.77	0.69	0.0
4.00	0.36	0.00	0.0	62.00	6.77	0.69	0.0
5.00	0.46	0.00	0.0	63.00	6.77	0.69	0.0
6.00	0.58	0.00	0.0	64.00	6.77	0.69	0.0
7.00	0.71	0.00	0.0	65.00	6.77	0.69	0.0
8.00	0.88	0.00	0.0	66.00	6.77	0.69	0.0
9.00	1.07	0.00	0.0	67.00	6.77	0.69	0.0
10.00	1.34	0.00	0.0	68.00	6.77	0.69	0.0
11.00	1.76	0.00	0.0	69.00	6.77	0.69	0.0
12.00	3.24	0.00	0.0	70.00	6.77	0.69	0.0
13.00	5.01	0.20	0.1	71.00	6.77	0.69	0.0
14.00	5.43	0.29	0.0	72.00	6.77	0.69	0.0
15.00	5.70	0.36	0.0				
16.00	5.89	0.41	0.0				
17.00	6.06	0.46	0.0				
18.00	6.19	0.50	0.0				
19.00	6.31	0.54	0.0				
20.00	6.41	0.57	0.0				
21.00	6.51	0.60	0.0				
22.00	6.61	0.63	0.0				
23.00	6.69	0.66	0.0				
24.00	6.77	0.69	0.0				
25.00	6.77	0.69	0.0				
26.00	6.77	0.69	0.0				
27.00	6.77	0.69	0.0				
28.00	6.77	0.69	0.0				
29.00	6.77	0.69	0.0				
30.00	6.77	0.69	0.0				
31.00	6.77	0.69	0.0				
32.00	6.77	0.69	0.0				
33.00	6.77	0.69	0.0				
34.00	6.77	0.69	0.0				
35.00	6.77	0.69	0.0				
36.00	6.77	0.69	0.0				
37.00	6.77	0.69	0.0				
38.00	6.77	0.69	0.0				
39.00	6.77	0.69	0.0				
40.00	6.77	0.69	0.0				
41.00	6.77	0.69	0.0				
42.00	6.77	0.69	0.0				
43.00	6.77	0.69	0.0				
44.00	6.77	0.69	0.0				
45.00	6.77	0.69	0.0				
46.00	6.77	0.69	0.0				
47.00	6.77	0.69	0.0				
48.00	6.77	0.69	0.0				
49.00	6.77	0.69	0.0				
50.00	6.77	0.69	0.0				
51.00	6.77	0.69	0.0				
52.00	6.77	0.69	0.0				
53.00	6.77	0.69	0.0				
54.00	6.77	0.69	0.0				
55.00	6.77	0.69	0.0				
56.00	6.77	0.69	0.0				
57.00	6.77	0.69	0.0				

Postdevelopment HydroCAD

NOAA 24-hr D 25-Year Rainfall=6.77"

Prepared by Insite Engineering LLC

Printed 9/16/2021

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Summary for Subcatchment Bi: Impervious

Runoff = 0.4 cfs @ 12.19 hrs, Volume= 0.05 af, Depth= 6.53"
Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 25-Year Rainfall=6.77"

Area (ac)	CN	Description
0.10	98	Paved parking, HSG A
0.10		100.00% Impervious Area

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

Hydrograph for Subcatchment Bi: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	6.77	6.53	0.0
1.00	0.08	0.01	0.0	59.00	6.77	6.53	0.0
2.00	0.16	0.05	0.0	60.00	6.77	6.53	0.0
3.00	0.26	0.11	0.0	61.00	6.77	6.53	0.0
4.00	0.36	0.19	0.0	62.00	6.77	6.53	0.0
5.00	0.46	0.28	0.0	63.00	6.77	6.53	0.0
6.00	0.58	0.39	0.0	64.00	6.77	6.53	0.0
7.00	0.71	0.52	0.0	65.00	6.77	6.53	0.0
8.00	0.88	0.67	0.0	66.00	6.77	6.53	0.0
9.00	1.07	0.86	0.0	67.00	6.77	6.53	0.0
10.00	1.34	1.12	0.0	68.00	6.77	6.53	0.0
11.00	1.76	1.54	0.0	69.00	6.77	6.53	0.0
12.00	3.24	3.01	0.2	70.00	6.77	6.53	0.0
13.00	5.01	4.77	0.1	71.00	6.77	6.53	0.0
14.00	5.43	5.19	0.0	72.00	6.77	6.53	0.0
15.00	5.70	5.46	0.0				
16.00	5.89	5.65	0.0				
17.00	6.06	5.82	0.0				
18.00	6.19	5.95	0.0				
19.00	6.31	6.07	0.0				
20.00	6.41	6.18	0.0				
21.00	6.51	6.28	0.0				
22.00	6.61	6.37	0.0				
23.00	6.69	6.45	0.0				
24.00	6.77	6.53	0.0				
25.00	6.77	6.53	0.0				
26.00	6.77	6.53	0.0				
27.00	6.77	6.53	0.0				
28.00	6.77	6.53	0.0				
29.00	6.77	6.53	0.0				
30.00	6.77	6.53	0.0				
31.00	6.77	6.53	0.0				
32.00	6.77	6.53	0.0				
33.00	6.77	6.53	0.0				
34.00	6.77	6.53	0.0				
35.00	6.77	6.53	0.0				
36.00	6.77	6.53	0.0				
37.00	6.77	6.53	0.0				
38.00	6.77	6.53	0.0				
39.00	6.77	6.53	0.0				
40.00	6.77	6.53	0.0				
41.00	6.77	6.53	0.0				
42.00	6.77	6.53	0.0				
43.00	6.77	6.53	0.0				
44.00	6.77	6.53	0.0				
45.00	6.77	6.53	0.0				
46.00	6.77	6.53	0.0				
47.00	6.77	6.53	0.0				
48.00	6.77	6.53	0.0				
49.00	6.77	6.53	0.0				
50.00	6.77	6.53	0.0				
51.00	6.77	6.53	0.0				
52.00	6.77	6.53	0.0				
53.00	6.77	6.53	0.0				
54.00	6.77	6.53	0.0				
55.00	6.77	6.53	0.0				
56.00	6.77	6.53	0.0				
57.00	6.77	6.53	0.0				

Summary for Subcatchment Bp: Pervious

Runoff = 0.0 cfs @ 12.36 hrs, Volume= 0.00 af, Depth= 0.69"
Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 25-Year Rainfall=6.77"

Table with 3 columns: Area (ac), CN, Description. Row 1: 0.07, 39, >75% Grass cover, Good, HSG A. Row 2: 0.07, 100.00% Pervious Area.

Table with 6 columns: Tc (min), Length (feet), Slope (ft/ft), Velocity (ft/sec), Capacity (cfs), Description. Row 1: 10.0, Direct Entry,

Hydrograph for Subcatchment Bp: Pervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	6.77	0.69	0.0
1.00	0.08	0.00	0.0	59.00	6.77	0.69	0.0
2.00	0.16	0.00	0.0	60.00	6.77	0.69	0.0
3.00	0.26	0.00	0.0	61.00	6.77	0.69	0.0
4.00	0.36	0.00	0.0	62.00	6.77	0.69	0.0
5.00	0.46	0.00	0.0	63.00	6.77	0.69	0.0
6.00	0.58	0.00	0.0	64.00	6.77	0.69	0.0
7.00	0.71	0.00	0.0	65.00	6.77	0.69	0.0
8.00	0.88	0.00	0.0	66.00	6.77	0.69	0.0
9.00	1.07	0.00	0.0	67.00	6.77	0.69	0.0
10.00	1.34	0.00	0.0	68.00	6.77	0.69	0.0
11.00	1.76	0.00	0.0	69.00	6.77	0.69	0.0
12.00	3.24	0.00	0.0	70.00	6.77	0.69	0.0
13.00	5.01	0.20	0.0	71.00	6.77	0.69	0.0
14.00	5.43	0.29	0.0	72.00	6.77	0.69	0.0
15.00	5.70	0.36	0.0				
16.00	5.89	0.41	0.0				
17.00	6.06	0.46	0.0				
18.00	6.19	0.50	0.0				
19.00	6.31	0.54	0.0				
20.00	6.41	0.57	0.0				
21.00	6.51	0.60	0.0				
22.00	6.61	0.63	0.0				
23.00	6.69	0.66	0.0				
24.00	6.77	0.69	0.0				
25.00	6.77	0.69	0.0				
26.00	6.77	0.69	0.0				
27.00	6.77	0.69	0.0				
28.00	6.77	0.69	0.0				
29.00	6.77	0.69	0.0				
30.00	6.77	0.69	0.0				
31.00	6.77	0.69	0.0				
32.00	6.77	0.69	0.0				
33.00	6.77	0.69	0.0				
34.00	6.77	0.69	0.0				
35.00	6.77	0.69	0.0				
36.00	6.77	0.69	0.0				
37.00	6.77	0.69	0.0				
38.00	6.77	0.69	0.0				
39.00	6.77	0.69	0.0				
40.00	6.77	0.69	0.0				
41.00	6.77	0.69	0.0				
42.00	6.77	0.69	0.0				
43.00	6.77	0.69	0.0				
44.00	6.77	0.69	0.0				
45.00	6.77	0.69	0.0				
46.00	6.77	0.69	0.0				
47.00	6.77	0.69	0.0				
48.00	6.77	0.69	0.0				
49.00	6.77	0.69	0.0				
50.00	6.77	0.69	0.0				
51.00	6.77	0.69	0.0				
52.00	6.77	0.69	0.0				
53.00	6.77	0.69	0.0				
54.00	6.77	0.69	0.0				
55.00	6.77	0.69	0.0				
56.00	6.77	0.69	0.0				
57.00	6.77	0.69	0.0				

Summary for Subcatchment Roof A: Impervious

Runoff = 0.2 cfs @ 12.19 hrs, Volume= 0.03 af, Depth= 6.53"
Routed to Pond Drywell A : Drywell A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 25-Year Rainfall=6.77"

Table with 3 columns: Area (ac), CN, Description. Row 1: 0.05, 98, Roofs, HSG A. Row 2: 0.05, 100.00% Impervious Area.

Table with 6 columns: Tc (min), Length (feet), Slope (ft/ft), Velocity (ft/sec), Capacity (cfs), Description. Row 1: 10.0, Direct Entry,

Hydrograph for Subcatchment Roof A: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	6.77	6.53	0.0
1.00	0.08	0.01	0.0	59.00	6.77	6.53	0.0
2.00	0.16	0.05	0.0	60.00	6.77	6.53	0.0
3.00	0.26	0.11	0.0	61.00	6.77	6.53	0.0
4.00	0.36	0.19	0.0	62.00	6.77	6.53	0.0
5.00	0.46	0.28	0.0	63.00	6.77	6.53	0.0
6.00	0.58	0.39	0.0	64.00	6.77	6.53	0.0
7.00	0.71	0.52	0.0	65.00	6.77	6.53	0.0
8.00	0.88	0.67	0.0	66.00	6.77	6.53	0.0
9.00	1.07	0.86	0.0	67.00	6.77	6.53	0.0
10.00	1.34	1.12	0.0	68.00	6.77	6.53	0.0
11.00	1.76	1.54	0.0	69.00	6.77	6.53	0.0
12.00	3.24	3.01	0.1	70.00	6.77	6.53	0.0
13.00	5.01	4.77	0.0	71.00	6.77	6.53	0.0
14.00	5.43	5.19	0.0	72.00	6.77	6.53	0.0
15.00	5.70	5.46	0.0				
16.00	5.89	5.65	0.0				
17.00	6.06	5.82	0.0				
18.00	6.19	5.95	0.0				
19.00	6.31	6.07	0.0				
20.00	6.41	6.18	0.0				
21.00	6.51	6.28	0.0				
22.00	6.61	6.37	0.0				
23.00	6.69	6.45	0.0				
24.00	6.77	6.53	0.0				
25.00	6.77	6.53	0.0				
26.00	6.77	6.53	0.0				
27.00	6.77	6.53	0.0				
28.00	6.77	6.53	0.0				
29.00	6.77	6.53	0.0				
30.00	6.77	6.53	0.0				
31.00	6.77	6.53	0.0				
32.00	6.77	6.53	0.0				
33.00	6.77	6.53	0.0				
34.00	6.77	6.53	0.0				
35.00	6.77	6.53	0.0				
36.00	6.77	6.53	0.0				
37.00	6.77	6.53	0.0				
38.00	6.77	6.53	0.0				
39.00	6.77	6.53	0.0				
40.00	6.77	6.53	0.0				
41.00	6.77	6.53	0.0				
42.00	6.77	6.53	0.0				
43.00	6.77	6.53	0.0				
44.00	6.77	6.53	0.0				
45.00	6.77	6.53	0.0				
46.00	6.77	6.53	0.0				
47.00	6.77	6.53	0.0				
48.00	6.77	6.53	0.0				
49.00	6.77	6.53	0.0				
50.00	6.77	6.53	0.0				
51.00	6.77	6.53	0.0				
52.00	6.77	6.53	0.0				
53.00	6.77	6.53	0.0				
54.00	6.77	6.53	0.0				
55.00	6.77	6.53	0.0				
56.00	6.77	6.53	0.0				
57.00	6.77	6.53	0.0				

Summary for Subcatchment Roof B: Impervious

Runoff = 0.6 cfs @ 12.19 hrs, Volume= 0.08 af, Depth= 6.53"
 Routed to Pond Drywell B : Drywell B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 25-Year Rainfall=6.77"

Area (ac)	CN	Description
0.15	98	Roofs, HSG A
0.15		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof B: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	6.77	6.53	0.0
1.00	0.08	0.01	0.0	59.00	6.77	6.53	0.0
2.00	0.16	0.05	0.0	60.00	6.77	6.53	0.0
3.00	0.26	0.11	0.0	61.00	6.77	6.53	0.0
4.00	0.36	0.19	0.0	62.00	6.77	6.53	0.0
5.00	0.46	0.28	0.0	63.00	6.77	6.53	0.0
6.00	0.58	0.39	0.0	64.00	6.77	6.53	0.0
7.00	0.71	0.52	0.0	65.00	6.77	6.53	0.0
8.00	0.88	0.67	0.0	66.00	6.77	6.53	0.0
9.00	1.07	0.86	0.0	67.00	6.77	6.53	0.0
10.00	1.34	1.12	0.0	68.00	6.77	6.53	0.0
11.00	1.76	1.54	0.1	69.00	6.77	6.53	0.0
12.00	3.24	3.01	0.3	70.00	6.77	6.53	0.0
13.00	5.01	4.77	0.1	71.00	6.77	6.53	0.0
14.00	5.43	5.19	0.1	72.00	6.77	6.53	0.0
15.00	5.70	5.46	0.0				
16.00	5.89	5.65	0.0				
17.00	6.06	5.82	0.0				
18.00	6.19	5.95	0.0				
19.00	6.31	6.07	0.0				
20.00	6.41	6.18	0.0				
21.00	6.51	6.28	0.0				
22.00	6.61	6.37	0.0				
23.00	6.69	6.45	0.0				
24.00	6.77	6.53	0.0				
25.00	6.77	6.53	0.0				
26.00	6.77	6.53	0.0				
27.00	6.77	6.53	0.0				
28.00	6.77	6.53	0.0				
29.00	6.77	6.53	0.0				
30.00	6.77	6.53	0.0				
31.00	6.77	6.53	0.0				
32.00	6.77	6.53	0.0				
33.00	6.77	6.53	0.0				
34.00	6.77	6.53	0.0				
35.00	6.77	6.53	0.0				
36.00	6.77	6.53	0.0				
37.00	6.77	6.53	0.0				
38.00	6.77	6.53	0.0				
39.00	6.77	6.53	0.0				
40.00	6.77	6.53	0.0				
41.00	6.77	6.53	0.0				
42.00	6.77	6.53	0.0				
43.00	6.77	6.53	0.0				
44.00	6.77	6.53	0.0				
45.00	6.77	6.53	0.0				
46.00	6.77	6.53	0.0				
47.00	6.77	6.53	0.0				
48.00	6.77	6.53	0.0				
49.00	6.77	6.53	0.0				
50.00	6.77	6.53	0.0				
51.00	6.77	6.53	0.0				
52.00	6.77	6.53	0.0				
53.00	6.77	6.53	0.0				
54.00	6.77	6.53	0.0				
55.00	6.77	6.53	0.0				
56.00	6.77	6.53	0.0				
57.00	6.77	6.53	0.0				

Summary for Subcatchment Roof C: Impervious

Runoff = 0.8 cfs @ 12.19 hrs, Volume= 0.10 af, Depth= 6.53"
Routed to Pond Drywell C : Drywell C

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NOAA 24-hr D 25-Year Rainfall=6.77"

Area (ac)	CN	Description
0.18	98	Roofs, HSG A
0.18		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof C: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	6.77	6.53	0.0
1.00	0.08	0.01	0.0	59.00	6.77	6.53	0.0
2.00	0.16	0.05	0.0	60.00	6.77	6.53	0.0
3.00	0.26	0.11	0.0	61.00	6.77	6.53	0.0
4.00	0.36	0.19	0.0	62.00	6.77	6.53	0.0
5.00	0.46	0.28	0.0	63.00	6.77	6.53	0.0
6.00	0.58	0.39	0.0	64.00	6.77	6.53	0.0
7.00	0.71	0.52	0.0	65.00	6.77	6.53	0.0
8.00	0.88	0.67	0.0	66.00	6.77	6.53	0.0
9.00	1.07	0.86	0.0	67.00	6.77	6.53	0.0
10.00	1.34	1.12	0.1	68.00	6.77	6.53	0.0
11.00	1.76	1.54	0.1	69.00	6.77	6.53	0.0
12.00	3.24	3.01	0.4	70.00	6.77	6.53	0.0
13.00	5.01	4.77	0.2	71.00	6.77	6.53	0.0
14.00	5.43	5.19	0.1	72.00	6.77	6.53	0.0
15.00	5.70	5.46	0.0				
16.00	5.89	5.65	0.0				
17.00	6.06	5.82	0.0				
18.00	6.19	5.95	0.0				
19.00	6.31	6.07	0.0				
20.00	6.41	6.18	0.0				
21.00	6.51	6.28	0.0				
22.00	6.61	6.37	0.0				
23.00	6.69	6.45	0.0				
24.00	6.77	6.53	0.0				
25.00	6.77	6.53	0.0				
26.00	6.77	6.53	0.0				
27.00	6.77	6.53	0.0				
28.00	6.77	6.53	0.0				
29.00	6.77	6.53	0.0				
30.00	6.77	6.53	0.0				
31.00	6.77	6.53	0.0				
32.00	6.77	6.53	0.0				
33.00	6.77	6.53	0.0				
34.00	6.77	6.53	0.0				
35.00	6.77	6.53	0.0				
36.00	6.77	6.53	0.0				
37.00	6.77	6.53	0.0				
38.00	6.77	6.53	0.0				
39.00	6.77	6.53	0.0				
40.00	6.77	6.53	0.0				
41.00	6.77	6.53	0.0				
42.00	6.77	6.53	0.0				
43.00	6.77	6.53	0.0				
44.00	6.77	6.53	0.0				
45.00	6.77	6.53	0.0				
46.00	6.77	6.53	0.0				
47.00	6.77	6.53	0.0				
48.00	6.77	6.53	0.0				
49.00	6.77	6.53	0.0				
50.00	6.77	6.53	0.0				
51.00	6.77	6.53	0.0				
52.00	6.77	6.53	0.0				
53.00	6.77	6.53	0.0				
54.00	6.77	6.53	0.0				
55.00	6.77	6.53	0.0				
56.00	6.77	6.53	0.0				
57.00	6.77	6.53	0.0				

Summary for Subcatchment Roof D: Impervious

Runoff = 0.7 cfs @ 12.19 hrs, Volume= 0.09 af, Depth= 6.53"
 Routed to Pond Drywell D : Drywell D

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 25-Year Rainfall=6.77"

Area (ac)	CN	Description
0.17	98	Roofs, HSG A
0.17		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof D: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	6.77	6.53	0.0
1.00	0.08	0.01	0.0	59.00	6.77	6.53	0.0
2.00	0.16	0.05	0.0	60.00	6.77	6.53	0.0
3.00	0.26	0.11	0.0	61.00	6.77	6.53	0.0
4.00	0.36	0.19	0.0	62.00	6.77	6.53	0.0
5.00	0.46	0.28	0.0	63.00	6.77	6.53	0.0
6.00	0.58	0.39	0.0	64.00	6.77	6.53	0.0
7.00	0.71	0.52	0.0	65.00	6.77	6.53	0.0
8.00	0.88	0.67	0.0	66.00	6.77	6.53	0.0
9.00	1.07	0.86	0.0	67.00	6.77	6.53	0.0
10.00	1.34	1.12	0.0	68.00	6.77	6.53	0.0
11.00	1.76	1.54	0.1	69.00	6.77	6.53	0.0
12.00	3.24	3.01	0.4	70.00	6.77	6.53	0.0
13.00	5.01	4.77	0.1	71.00	6.77	6.53	0.0
14.00	5.43	5.19	0.1	72.00	6.77	6.53	0.0
15.00	5.70	5.46	0.0				
16.00	5.89	5.65	0.0				
17.00	6.06	5.82	0.0				
18.00	6.19	5.95	0.0				
19.00	6.31	6.07	0.0				
20.00	6.41	6.18	0.0				
21.00	6.51	6.28	0.0				
22.00	6.61	6.37	0.0				
23.00	6.69	6.45	0.0				
24.00	6.77	6.53	0.0				
25.00	6.77	6.53	0.0				
26.00	6.77	6.53	0.0				
27.00	6.77	6.53	0.0				
28.00	6.77	6.53	0.0				
29.00	6.77	6.53	0.0				
30.00	6.77	6.53	0.0				
31.00	6.77	6.53	0.0				
32.00	6.77	6.53	0.0				
33.00	6.77	6.53	0.0				
34.00	6.77	6.53	0.0				
35.00	6.77	6.53	0.0				
36.00	6.77	6.53	0.0				
37.00	6.77	6.53	0.0				
38.00	6.77	6.53	0.0				
39.00	6.77	6.53	0.0				
40.00	6.77	6.53	0.0				
41.00	6.77	6.53	0.0				
42.00	6.77	6.53	0.0				
43.00	6.77	6.53	0.0				
44.00	6.77	6.53	0.0				
45.00	6.77	6.53	0.0				
46.00	6.77	6.53	0.0				
47.00	6.77	6.53	0.0				
48.00	6.77	6.53	0.0				
49.00	6.77	6.53	0.0				
50.00	6.77	6.53	0.0				
51.00	6.77	6.53	0.0				
52.00	6.77	6.53	0.0				
53.00	6.77	6.53	0.0				
54.00	6.77	6.53	0.0				
55.00	6.77	6.53	0.0				
56.00	6.77	6.53	0.0				
57.00	6.77	6.53	0.0				

Summary for Subcatchment Roof E: Impervious

Runoff = 0.2 cfs @ 12.19 hrs, Volume= 0.03 af, Depth= 6.53"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NOAA 24-hr D 25-Year Rainfall=6.77"

Area (ac)	CN	Description
0.05	98	Roofs, HSG A
0.05		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof E: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	6.77	6.53	0.0
1.00	0.08	0.01	0.0	59.00	6.77	6.53	0.0
2.00	0.16	0.05	0.0	60.00	6.77	6.53	0.0
3.00	0.26	0.11	0.0	61.00	6.77	6.53	0.0
4.00	0.36	0.19	0.0	62.00	6.77	6.53	0.0
5.00	0.46	0.28	0.0	63.00	6.77	6.53	0.0
6.00	0.58	0.39	0.0	64.00	6.77	6.53	0.0
7.00	0.71	0.52	0.0	65.00	6.77	6.53	0.0
8.00	0.88	0.67	0.0	66.00	6.77	6.53	0.0
9.00	1.07	0.86	0.0	67.00	6.77	6.53	0.0
10.00	1.34	1.12	0.0	68.00	6.77	6.53	0.0
11.00	1.76	1.54	0.0	69.00	6.77	6.53	0.0
12.00	3.24	3.01	0.1	70.00	6.77	6.53	0.0
13.00	5.01	4.77	0.0	71.00	6.77	6.53	0.0
14.00	5.43	5.19	0.0	72.00	6.77	6.53	0.0
15.00	5.70	5.46	0.0				
16.00	5.89	5.65	0.0				
17.00	6.06	5.82	0.0				
18.00	6.19	5.95	0.0				
19.00	6.31	6.07	0.0				
20.00	6.41	6.18	0.0				
21.00	6.51	6.28	0.0				
22.00	6.61	6.37	0.0				
23.00	6.69	6.45	0.0				
24.00	6.77	6.53	0.0				
25.00	6.77	6.53	0.0				
26.00	6.77	6.53	0.0				
27.00	6.77	6.53	0.0				
28.00	6.77	6.53	0.0				
29.00	6.77	6.53	0.0				
30.00	6.77	6.53	0.0				
31.00	6.77	6.53	0.0				
32.00	6.77	6.53	0.0				
33.00	6.77	6.53	0.0				
34.00	6.77	6.53	0.0				
35.00	6.77	6.53	0.0				
36.00	6.77	6.53	0.0				
37.00	6.77	6.53	0.0				
38.00	6.77	6.53	0.0				
39.00	6.77	6.53	0.0				
40.00	6.77	6.53	0.0				
41.00	6.77	6.53	0.0				
42.00	6.77	6.53	0.0				
43.00	6.77	6.53	0.0				
44.00	6.77	6.53	0.0				
45.00	6.77	6.53	0.0				
46.00	6.77	6.53	0.0				
47.00	6.77	6.53	0.0				
48.00	6.77	6.53	0.0				
49.00	6.77	6.53	0.0				
50.00	6.77	6.53	0.0				
51.00	6.77	6.53	0.0				
52.00	6.77	6.53	0.0				
53.00	6.77	6.53	0.0				
54.00	6.77	6.53	0.0				
55.00	6.77	6.53	0.0				
56.00	6.77	6.53	0.0				
57.00	6.77	6.53	0.0				

Summary for Pond Drywell A: Drywell A

Inflow Area = 0.05 ac, 100.00% Impervious, Inflow Depth = 6.53" for 25-Year event
 Inflow = 0.2 cfs @ 12.19 hrs, Volume= 0.03 af
 Outflow = 0.2 cfs @ 12.37 hrs, Volume= 0.03 af, Atten= 21%, Lag= 10.7 min
 Discarded = 0.0 cfs @ 11.65 hrs, Volume= 0.02 af
 Primary = 0.1 cfs @ 12.37 hrs, Volume= 0.00 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 17.65' @ 12.35 hrs Surf.Area= 0.00 ac Storage= 0.00 af

Plug-Flow detention time= 20.7 min calculated for 0.03 af (100% of inflow)
 Center-of-Mass det. time= 20.7 min (774.9 - 754.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	15.56'	0.00 af	8.89'W x 21.00'L x 2.71'H Field A 0.01 af Overall - 0.00 af Embedded = 0.01 af x 40.0% Voids
#2A	16.56'	0.00 af	ADS N-12 12" x 4 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 4 Chambers in 4 Rows
		0.01 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.60'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	15.56'	10.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.0 cfs @ 11.65 hrs HW=15.59' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.1 cfs @ 12.37 hrs HW=17.65' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Weir Controls 0.1 cfs @ 0.72 fps)

Hydrograph for Pond Drywell A: Drywell A

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	15.56	0.0	0.0	0.0
2.50	0.0	0.00	15.56	0.0	0.0	0.0
5.00	0.0	0.00	15.56	0.0	0.0	0.0
7.50	0.0	0.00	15.56	0.0	0.0	0.0
10.00	0.0	0.00	15.57	0.0	0.0	0.0
12.50	0.1	0.00	17.63	0.1	0.0	0.1
15.00	0.0	0.00	15.85	0.0	0.0	0.0
17.50	0.0	0.00	15.56	0.0	0.0	0.0
20.00	0.0	0.00	15.56	0.0	0.0	0.0
22.50	0.0	0.00	15.56	0.0	0.0	0.0
25.00	0.0	0.00	15.56	0.0	0.0	0.0
27.50	0.0	0.00	15.56	0.0	0.0	0.0
30.00	0.0	0.00	15.56	0.0	0.0	0.0
32.50	0.0	0.00	15.56	0.0	0.0	0.0
35.00	0.0	0.00	15.56	0.0	0.0	0.0
37.50	0.0	0.00	15.56	0.0	0.0	0.0
40.00	0.0	0.00	15.56	0.0	0.0	0.0
42.50	0.0	0.00	15.56	0.0	0.0	0.0
45.00	0.0	0.00	15.56	0.0	0.0	0.0
47.50	0.0	0.00	15.56	0.0	0.0	0.0
50.00	0.0	0.00	15.56	0.0	0.0	0.0
52.50	0.0	0.00	15.56	0.0	0.0	0.0
55.00	0.0	0.00	15.56	0.0	0.0	0.0
57.50	0.0	0.00	15.56	0.0	0.0	0.0
60.00	0.0	0.00	15.56	0.0	0.0	0.0
62.50	0.0	0.00	15.56	0.0	0.0	0.0
65.00	0.0	0.00	15.56	0.0	0.0	0.0
67.50	0.0	0.00	15.56	0.0	0.0	0.0
70.00	0.0	0.00	15.56	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell A: Drywell A

Elevation (feet)	Surface (acres)	Storage (acre-feet)
15.56	0.00	0.00
15.61	0.00	0.00
15.66	0.00	0.00
15.71	0.00	0.00
15.76	0.00	0.00
15.81	0.00	0.00
15.86	0.00	0.00
15.91	0.00	0.00
15.96	0.00	0.00
16.01	0.00	0.00
16.06	0.00	0.00
16.11	0.00	0.00
16.16	0.00	0.00
16.21	0.00	0.00
16.26	0.00	0.00
16.31	0.00	0.00
16.36	0.00	0.00
16.41	0.00	0.00
16.46	0.00	0.00
16.51	0.00	0.00
16.56	0.00	0.00
16.61	0.00	0.00
16.66	0.00	0.00
16.71	0.00	0.00
16.76	0.00	0.00
16.81	0.00	0.00
16.86	0.00	0.00
16.91	0.00	0.00
16.96	0.00	0.00
17.01	0.00	0.00
17.06	0.00	0.00
17.11	0.00	0.00
17.16	0.00	0.00
17.21	0.00	0.00
17.26	0.00	0.00
17.31	0.00	0.00
17.36	0.00	0.00
17.41	0.00	0.00
17.46	0.00	0.00
17.51	0.00	0.00
17.56	0.00	0.00
17.61	0.00	0.00
17.66	0.00	0.00
17.71	0.00	0.00
17.76	0.00	0.00
17.81	0.00	0.00
17.86	0.00	0.00
17.91	0.00	0.00
17.96	0.00	0.00
18.01	0.00	0.00
18.06	0.00	0.01
18.11	0.00	0.01
18.16	0.00	0.01
18.21	0.00	0.01
18.26	0.00	0.01

Summary for Pond Drywell B: Drywell B

Inflow Area = 0.15 ac, 100.00% Impervious, Inflow Depth = 6.53" for 25-Year event
 Inflow = 0.6 cfs @ 12.19 hrs, Volume= 0.08 af
 Outflow = 0.5 cfs @ 12.36 hrs, Volume= 0.08 af, Atten= 15%, Lag= 10.1 min
 Discarded = 0.1 cfs @ 11.60 hrs, Volume= 0.07 af
 Primary = 0.4 cfs @ 12.36 hrs, Volume= 0.01 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 19.12' @ 12.36 hrs Surf.Area= 0.01 ac Storage= 0.01 af

Plug-Flow detention time= 19.4 min calculated for 0.08 af (100% of inflow)
 Center-of-Mass det. time= 19.4 min (773.6 - 754.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	17.06'	0.01 af	13.13'W x 41.00'L x 2.71'H Field A 0.03 af Overall - 0.01 af Embedded = 0.03 af x 40.0% Voids
#2A	18.06'	0.00 af	ADS N-12 12" x 12 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 12 Chambers in 6 Rows
		0.02 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	17.06'	10.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.1 cfs @ 11.60 hrs HW=17.09' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.4 cfs @ 12.36 hrs HW=19.11' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Weir Controls 0.4 cfs @ 1.10 fps)

Hydrograph for Pond Drywell B: Drywell B

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	17.06	0.0	0.0	0.0
2.50	0.0	0.00	17.06	0.0	0.0	0.0
5.00	0.0	0.00	17.06	0.0	0.0	0.0
7.50	0.0	0.00	17.06	0.0	0.0	0.0
10.00	0.0	0.00	17.07	0.0	0.0	0.0
12.50	0.3	0.01	19.08	0.3	0.1	0.2
15.00	0.0	0.00	17.32	0.1	0.1	0.0
17.50	0.0	0.00	17.06	0.0	0.0	0.0
20.00	0.0	0.00	17.06	0.0	0.0	0.0
22.50	0.0	0.00	17.06	0.0	0.0	0.0
25.00	0.0	0.00	17.06	0.0	0.0	0.0
27.50	0.0	0.00	17.06	0.0	0.0	0.0
30.00	0.0	0.00	17.06	0.0	0.0	0.0
32.50	0.0	0.00	17.06	0.0	0.0	0.0
35.00	0.0	0.00	17.06	0.0	0.0	0.0
37.50	0.0	0.00	17.06	0.0	0.0	0.0
40.00	0.0	0.00	17.06	0.0	0.0	0.0
42.50	0.0	0.00	17.06	0.0	0.0	0.0
45.00	0.0	0.00	17.06	0.0	0.0	0.0
47.50	0.0	0.00	17.06	0.0	0.0	0.0
50.00	0.0	0.00	17.06	0.0	0.0	0.0
52.50	0.0	0.00	17.06	0.0	0.0	0.0
55.00	0.0	0.00	17.06	0.0	0.0	0.0
57.50	0.0	0.00	17.06	0.0	0.0	0.0
60.00	0.0	0.00	17.06	0.0	0.0	0.0
62.50	0.0	0.00	17.06	0.0	0.0	0.0
65.00	0.0	0.00	17.06	0.0	0.0	0.0
67.50	0.0	0.00	17.06	0.0	0.0	0.0
70.00	0.0	0.00	17.06	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell B: Drywell B

Elevation (feet)	Surface (acres)	Storage (acre-feet)
17.06	0.01	0.00
17.11	0.01	0.00
17.16	0.01	0.00
17.21	0.01	0.00
17.26	0.01	0.00
17.31	0.01	0.00
17.36	0.01	0.00
17.41	0.01	0.00
17.46	0.01	0.00
17.51	0.01	0.00
17.56	0.01	0.00
17.61	0.01	0.00
17.66	0.01	0.00
17.71	0.01	0.00
17.76	0.01	0.00
17.81	0.01	0.00
17.86	0.01	0.00
17.91	0.01	0.00
17.96	0.01	0.00
18.01	0.01	0.00
18.06	0.01	0.00
18.11	0.01	0.01
18.16	0.01	0.01
18.21	0.01	0.01
18.26	0.01	0.01
18.31	0.01	0.01
18.36	0.01	0.01
18.41	0.01	0.01
18.46	0.01	0.01
18.51	0.01	0.01
18.56	0.01	0.01
18.61	0.01	0.01
18.66	0.01	0.01
18.71	0.01	0.01
18.76	0.01	0.01
18.81	0.01	0.01
18.86	0.01	0.01
18.91	0.01	0.01
18.96	0.01	0.01
19.01	0.01	0.01
19.06	0.01	0.01
19.11	0.01	0.01
19.16	0.01	0.01
19.21	0.01	0.01
19.26	0.01	0.01
19.31	0.01	0.01
19.36	0.01	0.01
19.41	0.01	0.01
19.46	0.01	0.01
19.51	0.01	0.01
19.56	0.01	0.01
19.61	0.01	0.01
19.66	0.01	0.02
19.71	0.01	0.02
19.76	0.01	0.02

Summary for Pond Drywell C: Drywell C

Inflow Area = 0.18 ac, 100.00% Impervious, Inflow Depth = 6.53" for 25-Year event
 Inflow = 0.8 cfs @ 12.19 hrs, Volume= 0.10 af
 Outflow = 0.8 cfs @ 12.19 hrs, Volume= 0.10 af, Atten= 0%, Lag= 0.3 min
 Discarded = 0.1 cfs @ 10.60 hrs, Volume= 0.07 af
 Primary = 0.7 cfs @ 12.19 hrs, Volume= 0.03 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 17.77' @ 12.19 hrs Surf.Area= 0.01 ac Storage= 0.01 af

Plug-Flow detention time= 23.5 min calculated for 0.10 af (100% of inflow)
 Center-of-Mass det. time= 23.5 min (777.7 - 754.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	15.65'	0.01 af	8.89'W x 41.00'L x 2.71'H Field A 0.02 af Overall - 0.00 af Embedded = 0.02 af x 40.0% Voids
#2A	16.65'	0.00 af	ADS N-12 12" x 8 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 8 Chambers in 4 Rows
		0.01 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.60'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	15.65'	7.500 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.1 cfs @ 10.60 hrs HW=15.68' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.7 cfs @ 12.19 hrs HW=17.77' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Weir Controls 0.7 cfs @ 1.33 fps)

Hydrograph for Pond Drywell C: Drywell C

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	15.65	0.0	0.0	0.0
2.50	0.0	0.00	15.65	0.0	0.0	0.0
5.00	0.0	0.00	15.66	0.0	0.0	0.0
7.50	0.0	0.00	15.66	0.0	0.0	0.0
10.00	0.1	0.00	15.67	0.1	0.1	0.0
12.50	0.4	0.01	17.70	0.4	0.1	0.3
15.00	0.0	0.01	17.44	0.1	0.1	0.0
17.50	0.0	0.00	15.91	0.1	0.1	0.0
20.00	0.0	0.00	15.66	0.0	0.0	0.0
22.50	0.0	0.00	15.66	0.0	0.0	0.0
25.00	0.0	0.00	15.65	0.0	0.0	0.0
27.50	0.0	0.00	15.65	0.0	0.0	0.0
30.00	0.0	0.00	15.65	0.0	0.0	0.0
32.50	0.0	0.00	15.65	0.0	0.0	0.0
35.00	0.0	0.00	15.65	0.0	0.0	0.0
37.50	0.0	0.00	15.65	0.0	0.0	0.0
40.00	0.0	0.00	15.65	0.0	0.0	0.0
42.50	0.0	0.00	15.65	0.0	0.0	0.0
45.00	0.0	0.00	15.65	0.0	0.0	0.0
47.50	0.0	0.00	15.65	0.0	0.0	0.0
50.00	0.0	0.00	15.65	0.0	0.0	0.0
52.50	0.0	0.00	15.65	0.0	0.0	0.0
55.00	0.0	0.00	15.65	0.0	0.0	0.0
57.50	0.0	0.00	15.65	0.0	0.0	0.0
60.00	0.0	0.00	15.65	0.0	0.0	0.0
62.50	0.0	0.00	15.65	0.0	0.0	0.0
65.00	0.0	0.00	15.65	0.0	0.0	0.0
67.50	0.0	0.00	15.65	0.0	0.0	0.0
70.00	0.0	0.00	15.65	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell C: Drywell C

Elevation (feet)	Surface (acres)	Storage (acre-feet)
15.65	0.01	0.00
15.70	0.01	0.00
15.75	0.01	0.00
15.80	0.01	0.00
15.85	0.01	0.00
15.90	0.01	0.00
15.95	0.01	0.00
16.00	0.01	0.00
16.05	0.01	0.00
16.10	0.01	0.00
16.15	0.01	0.00
16.20	0.01	0.00
16.25	0.01	0.00
16.30	0.01	0.00
16.35	0.01	0.00
16.40	0.01	0.00
16.45	0.01	0.00
16.50	0.01	0.00
16.55	0.01	0.00
16.60	0.01	0.00
16.65	0.01	0.00
16.70	0.01	0.00
16.75	0.01	0.00
16.80	0.01	0.00
16.85	0.01	0.00
16.90	0.01	0.00
16.95	0.01	0.00
17.00	0.01	0.00
17.05	0.01	0.00
17.10	0.01	0.01
17.15	0.01	0.01
17.20	0.01	0.01
17.25	0.01	0.01
17.30	0.01	0.01
17.35	0.01	0.01
17.40	0.01	0.01
17.45	0.01	0.01
17.50	0.01	0.01
17.55	0.01	0.01
17.60	0.01	0.01
17.65	0.01	0.01
17.70	0.01	0.01
17.75	0.01	0.01
17.80	0.01	0.01
17.85	0.01	0.01
17.90	0.01	0.01
17.95	0.01	0.01
18.00	0.01	0.01
18.05	0.01	0.01
18.10	0.01	0.01
18.15	0.01	0.01
18.20	0.01	0.01
18.25	0.01	0.01
18.30	0.01	0.01
18.35	0.01	0.01

Summary for Pond Drywell D: Drywell D

Inflow Area = 0.17 ac, 100.00% Impervious, Inflow Depth = 6.53" for 25-Year event
 Inflow = 0.7 cfs @ 12.19 hrs, Volume= 0.09 af
 Outflow = 0.7 cfs @ 12.19 hrs, Volume= 0.09 af, Atten= 1%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 9.95 hrs, Volume= 0.06 af
 Primary = 0.7 cfs @ 12.19 hrs, Volume= 0.03 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 16.66' @ 12.19 hrs Surf.Area= 0.01 ac Storage= 0.01 af

Plug-Flow detention time= 44.4 min calculated for 0.09 af (100% of inflow)
 Center-of-Mass det. time= 44.4 min (798.5 - 754.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	14.50'	0.01 af	21.60'W x 21.00'L x 2.71'H Field A 0.03 af Overall - 0.00 af Embedded = 0.02 af x 40.0% Voids
#2A	15.50'	0.00 af	ADS N-12 12" x 10 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 10 Chambers in 10 Rows
		0.01 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	16.50'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	14.50'	4.500 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.0 cfs @ 9.95 hrs HW=14.53' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.7 cfs @ 12.19 hrs HW=16.66' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Weir Controls 0.7 cfs @ 1.31 fps)

Hydrograph for Pond Drywell D: Drywell D

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	14.50	0.0	0.0	0.0
2.50	0.0	0.00	14.51	0.0	0.0	0.0
5.00	0.0	0.00	14.51	0.0	0.0	0.0
7.50	0.0	0.00	14.51	0.0	0.0	0.0
10.00	0.0	0.00	14.53	0.0	0.0	0.0
12.50	0.4	0.01	16.60	0.4	0.0	0.3
15.00	0.0	0.01	16.49	0.0	0.0	0.0
17.50	0.0	0.01	15.98	0.0	0.0	0.0
20.00	0.0	0.00	14.78	0.0	0.0	0.0
22.50	0.0	0.00	14.51	0.0	0.0	0.0
25.00	0.0	0.00	14.50	0.0	0.0	0.0
27.50	0.0	0.00	14.50	0.0	0.0	0.0
30.00	0.0	0.00	14.50	0.0	0.0	0.0
32.50	0.0	0.00	14.50	0.0	0.0	0.0
35.00	0.0	0.00	14.50	0.0	0.0	0.0
37.50	0.0	0.00	14.50	0.0	0.0	0.0
40.00	0.0	0.00	14.50	0.0	0.0	0.0
42.50	0.0	0.00	14.50	0.0	0.0	0.0
45.00	0.0	0.00	14.50	0.0	0.0	0.0
47.50	0.0	0.00	14.50	0.0	0.0	0.0
50.00	0.0	0.00	14.50	0.0	0.0	0.0
52.50	0.0	0.00	14.50	0.0	0.0	0.0
55.00	0.0	0.00	14.50	0.0	0.0	0.0
57.50	0.0	0.00	14.50	0.0	0.0	0.0
60.00	0.0	0.00	14.50	0.0	0.0	0.0
62.50	0.0	0.00	14.50	0.0	0.0	0.0
65.00	0.0	0.00	14.50	0.0	0.0	0.0
67.50	0.0	0.00	14.50	0.0	0.0	0.0
70.00	0.0	0.00	14.50	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell D: Drywell D

Elevation (feet)	Surface (acres)	Storage (acre-feet)
14.50	0.01	0.00
14.55	0.01	0.00
14.60	0.01	0.00
14.65	0.01	0.00
14.70	0.01	0.00
14.75	0.01	0.00
14.80	0.01	0.00
14.85	0.01	0.00
14.90	0.01	0.00
14.95	0.01	0.00
15.00	0.01	0.00
15.05	0.01	0.00
15.10	0.01	0.00
15.15	0.01	0.00
15.20	0.01	0.00
15.25	0.01	0.00
15.30	0.01	0.00
15.35	0.01	0.00
15.40	0.01	0.00
15.45	0.01	0.00
15.50	0.01	0.00
15.55	0.01	0.00
15.60	0.01	0.00
15.65	0.01	0.00
15.70	0.01	0.00
15.75	0.01	0.01
15.80	0.01	0.01
15.85	0.01	0.01
15.90	0.01	0.01
15.95	0.01	0.01
16.00	0.01	0.01
16.05	0.01	0.01
16.10	0.01	0.01
16.15	0.01	0.01
16.20	0.01	0.01
16.25	0.01	0.01
16.30	0.01	0.01
16.35	0.01	0.01
16.40	0.01	0.01
16.45	0.01	0.01
16.50	0.01	0.01
16.55	0.01	0.01
16.60	0.01	0.01
16.65	0.01	0.01
16.70	0.01	0.01
16.75	0.01	0.01
16.80	0.01	0.01
16.85	0.01	0.01
16.90	0.01	0.01
16.95	0.01	0.01
17.00	0.01	0.01
17.05	0.01	0.01
17.10	0.01	0.01
17.15	0.01	0.01
17.20	0.01	0.01

Summary for Pond Watershed A: Watershed A

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.29 ac, 69.77% Impervious, Inflow Depth = 2.68" for 25-Year event
Inflow = 2.9 cfs @ 12.19 hrs, Volume= 0.29 af
Primary = 2.9 cfs @ 12.19 hrs, Volume= 0.29 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Hydrograph for Pond Watershed A: Watershed A

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0		0.0	58.00	0.0		0.0
1.00	0.0		0.0	59.00	0.0		0.0
2.00	0.0		0.0	60.00	0.0		0.0
3.00	0.0		0.0	61.00	0.0		0.0
4.00	0.0		0.0	62.00	0.0		0.0
5.00	0.0		0.0	63.00	0.0		0.0
6.00	0.0		0.0	64.00	0.0		0.0
7.00	0.0		0.0	65.00	0.0		0.0
8.00	0.1		0.1	66.00	0.0		0.0
9.00	0.1		0.1	67.00	0.0		0.0
10.00	0.1		0.1	68.00	0.0		0.0
11.00	0.2		0.2	69.00	0.0		0.0
12.00	1.0		1.0	70.00	0.0		0.0
13.00	0.6		0.6	71.00	0.0		0.0
14.00	0.2		0.2	72.00	0.0		0.0
15.00	0.1		0.1				
16.00	0.1		0.1				
17.00	0.1		0.1				
18.00	0.1		0.1				
19.00	0.1		0.1				
20.00	0.1		0.1				
21.00	0.0		0.0				
22.00	0.0		0.0				
23.00	0.0		0.0				
24.00	0.0		0.0				
25.00	0.0		0.0				
26.00	0.0		0.0				
27.00	0.0		0.0				
28.00	0.0		0.0				
29.00	0.0		0.0				
30.00	0.0		0.0				
31.00	0.0		0.0				
32.00	0.0		0.0				
33.00	0.0		0.0				
34.00	0.0		0.0				
35.00	0.0		0.0				
36.00	0.0		0.0				
37.00	0.0		0.0				
38.00	0.0		0.0				
39.00	0.0		0.0				
40.00	0.0		0.0				
41.00	0.0		0.0				
42.00	0.0		0.0				
43.00	0.0		0.0				
44.00	0.0		0.0				
45.00	0.0		0.0				
46.00	0.0		0.0				
47.00	0.0		0.0				
48.00	0.0		0.0				
49.00	0.0		0.0				
50.00	0.0		0.0				
51.00	0.0		0.0				
52.00	0.0		0.0				
53.00	0.0		0.0				
54.00	0.0		0.0				
55.00	0.0		0.0				
56.00	0.0		0.0				
57.00	0.0		0.0				

Summary for Pond Watershed B: Watershed B

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.17 ac, 58.82% Impervious, Inflow Depth = 4.13" for 25-Year event
Inflow = 0.4 cfs @ 12.19 hrs, Volume= 0.06 af
Primary = 0.4 cfs @ 12.19 hrs, Volume= 0.06 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Hydrograph for Pond Watershed B: Watershed B

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0		0.0	58.00	0.0		0.0
1.00	0.0		0.0	59.00	0.0		0.0
2.00	0.0		0.0	60.00	0.0		0.0
3.00	0.0		0.0	61.00	0.0		0.0
4.00	0.0		0.0	62.00	0.0		0.0
5.00	0.0		0.0	63.00	0.0		0.0
6.00	0.0		0.0	64.00	0.0		0.0
7.00	0.0		0.0	65.00	0.0		0.0
8.00	0.0		0.0	66.00	0.0		0.0
9.00	0.0		0.0	67.00	0.0		0.0
10.00	0.0		0.0	68.00	0.0		0.0
11.00	0.0		0.0	69.00	0.0		0.0
12.00	0.2		0.2	70.00	0.0		0.0
13.00	0.1		0.1	71.00	0.0		0.0
14.00	0.0		0.0	72.00	0.0		0.0
15.00	0.0		0.0				
16.00	0.0		0.0				
17.00	0.0		0.0				
18.00	0.0		0.0				
19.00	0.0		0.0				
20.00	0.0		0.0				
21.00	0.0		0.0				
22.00	0.0		0.0				
23.00	0.0		0.0				
24.00	0.0		0.0				
25.00	0.0		0.0				
26.00	0.0		0.0				
27.00	0.0		0.0				
28.00	0.0		0.0				
29.00	0.0		0.0				
30.00	0.0		0.0				
31.00	0.0		0.0				
32.00	0.0		0.0				
33.00	0.0		0.0				
34.00	0.0		0.0				
35.00	0.0		0.0				
36.00	0.0		0.0				
37.00	0.0		0.0				
38.00	0.0		0.0				
39.00	0.0		0.0				
40.00	0.0		0.0				
41.00	0.0		0.0				
42.00	0.0		0.0				
43.00	0.0		0.0				
44.00	0.0		0.0				
45.00	0.0		0.0				
46.00	0.0		0.0				
47.00	0.0		0.0				
48.00	0.0		0.0				
49.00	0.0		0.0				
50.00	0.0		0.0				
51.00	0.0		0.0				
52.00	0.0		0.0				
53.00	0.0		0.0				
54.00	0.0		0.0				
55.00	0.0		0.0				
56.00	0.0		0.0				
57.00	0.0		0.0				

Time span=0.00-72.00 hrs, dt=0.05 hrs, 1441 points
 Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment Ai Ground: Impervious	Runoff Area=0.30 ac 100.00% Impervious Runoff Depth=1.03" Tc=10.0 min CN=98 Runoff=0.6 cfs 0.03 af
Subcatchment Ap: Pervious	Runoff Area=0.39 ac 0.00% Impervious Runoff Depth=0.00" Tc=10.0 min CN=39 Runoff=0.0 cfs 0.00 af
Subcatchment Bi: Impervious	Runoff Area=0.10 ac 100.00% Impervious Runoff Depth=1.03" Tc=10.0 min CN=98 Runoff=0.2 cfs 0.01 af
Subcatchment Bp: Pervious	Runoff Area=0.07 ac 0.00% Impervious Runoff Depth=0.00" Tc=10.0 min CN=39 Runoff=0.0 cfs 0.00 af
Subcatchment Roof A: Impervious	Runoff Area=0.05 ac 100.00% Impervious Runoff Depth=1.03" Tc=10.0 min CN=98 Runoff=0.1 cfs 0.00 af
Subcatchment Roof B: Impervious	Runoff Area=0.15 ac 100.00% Impervious Runoff Depth=1.03" Tc=10.0 min CN=98 Runoff=0.3 cfs 0.01 af
Subcatchment Roof C: Impervious	Runoff Area=0.18 ac 100.00% Impervious Runoff Depth=1.03" Tc=10.0 min CN=98 Runoff=0.3 cfs 0.02 af
Subcatchment Roof D: Impervious	Runoff Area=0.17 ac 100.00% Impervious Runoff Depth=1.03" Tc=10.0 min CN=98 Runoff=0.3 cfs 0.01 af
Subcatchment Roof E: Impervious	Runoff Area=0.05 ac 100.00% Impervious Runoff Depth=1.03" Tc=10.0 min CN=98 Runoff=0.1 cfs 0.00 af
Pond Drywell A: Drywell A	Peak Elev=16.17' Storage=0.00 af Inflow=0.1 cfs 0.00 af Discarded=0.0 cfs 0.00 af Primary=0.0 cfs 0.00 af Outflow=0.0 cfs 0.00 af
Pond Drywell B: Drywell B	Peak Elev=17.74' Storage=0.00 af Inflow=0.3 cfs 0.01 af Discarded=0.1 cfs 0.01 af Primary=0.0 cfs 0.00 af Outflow=0.1 cfs 0.01 af
Pond Drywell C: Drywell C	Peak Elev=17.63' Storage=0.01 af Inflow=0.3 cfs 0.02 af Discarded=0.1 cfs 0.01 af Primary=0.1 cfs 0.00 af Outflow=0.1 cfs 0.02 af
Pond Drywell D: Drywell D	Peak Elev=16.34' Storage=0.01 af Inflow=0.3 cfs 0.01 af Discarded=0.0 cfs 0.01 af Primary=0.0 cfs 0.00 af Outflow=0.0 cfs 0.01 af
Pond Watershed A: Watershed A	Inflow=0.7 cfs 0.03 af Primary=0.7 cfs 0.03 af
Pond Watershed B: Watershed B	Inflow=0.2 cfs 0.01 af Primary=0.2 cfs 0.01 af
Total Runoff Area = 1.46 ac Runoff Volume = 0.09 af Average Runoff Depth = 0.71"	
31.51% Pervious = 0.46 ac 68.49% Impervious = 1.00 ac	

Summary for Subcatchment Ai Ground: Impervious

Runoff = 0.6 cfs @ 1.17 hrs, Volume= 0.03 af, Depth= 1.03"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.30	98	Paved parking, HSG A
0.30		100.00% Impervious Area

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

Hydrograph for Subcatchment Ai Ground: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	1.25	1.03	0.0
1.00	0.63	0.43	0.2	59.00	1.25	1.03	0.0
2.00	1.25	1.03	0.1	60.00	1.25	1.03	0.0
3.00	1.25	1.03	0.0	61.00	1.25	1.03	0.0
4.00	1.25	1.03	0.0	62.00	1.25	1.03	0.0
5.00	1.25	1.03	0.0	63.00	1.25	1.03	0.0
6.00	1.25	1.03	0.0	64.00	1.25	1.03	0.0
7.00	1.25	1.03	0.0	65.00	1.25	1.03	0.0
8.00	1.25	1.03	0.0	66.00	1.25	1.03	0.0
9.00	1.25	1.03	0.0	67.00	1.25	1.03	0.0
10.00	1.25	1.03	0.0	68.00	1.25	1.03	0.0
11.00	1.25	1.03	0.0	69.00	1.25	1.03	0.0
12.00	1.25	1.03	0.0	70.00	1.25	1.03	0.0
13.00	1.25	1.03	0.0	71.00	1.25	1.03	0.0
14.00	1.25	1.03	0.0	72.00	1.25	1.03	0.0
15.00	1.25	1.03	0.0				
16.00	1.25	1.03	0.0				
17.00	1.25	1.03	0.0				
18.00	1.25	1.03	0.0				
19.00	1.25	1.03	0.0				
20.00	1.25	1.03	0.0				
21.00	1.25	1.03	0.0				
22.00	1.25	1.03	0.0				
23.00	1.25	1.03	0.0				
24.00	1.25	1.03	0.0				
25.00	1.25	1.03	0.0				
26.00	1.25	1.03	0.0				
27.00	1.25	1.03	0.0				
28.00	1.25	1.03	0.0				
29.00	1.25	1.03	0.0				
30.00	1.25	1.03	0.0				
31.00	1.25	1.03	0.0				
32.00	1.25	1.03	0.0				
33.00	1.25	1.03	0.0				
34.00	1.25	1.03	0.0				
35.00	1.25	1.03	0.0				
36.00	1.25	1.03	0.0				
37.00	1.25	1.03	0.0				
38.00	1.25	1.03	0.0				
39.00	1.25	1.03	0.0				
40.00	1.25	1.03	0.0				
41.00	1.25	1.03	0.0				
42.00	1.25	1.03	0.0				
43.00	1.25	1.03	0.0				
44.00	1.25	1.03	0.0				
45.00	1.25	1.03	0.0				
46.00	1.25	1.03	0.0				
47.00	1.25	1.03	0.0				
48.00	1.25	1.03	0.0				
49.00	1.25	1.03	0.0				
50.00	1.25	1.03	0.0				
51.00	1.25	1.03	0.0				
52.00	1.25	1.03	0.0				
53.00	1.25	1.03	0.0				
54.00	1.25	1.03	0.0				
55.00	1.25	1.03	0.0				
56.00	1.25	1.03	0.0				
57.00	1.25	1.03	0.0				

Summary for Subcatchment Ap: Pervious

[45] Hint: Runoff=Zero

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0.00 af, Depth= 0.00"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.39	39	>75% Grass cover, Good, HSG A
0.39		100.00% Pervious Area

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

Hydrograph for Subcatchment Ap: Pervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	1.25	0.00	0.0
1.00	0.63	0.00	0.0	59.00	1.25	0.00	0.0
2.00	1.25	0.00	0.0	60.00	1.25	0.00	0.0
3.00	1.25	0.00	0.0	61.00	1.25	0.00	0.0
4.00	1.25	0.00	0.0	62.00	1.25	0.00	0.0
5.00	1.25	0.00	0.0	63.00	1.25	0.00	0.0
6.00	1.25	0.00	0.0	64.00	1.25	0.00	0.0
7.00	1.25	0.00	0.0	65.00	1.25	0.00	0.0
8.00	1.25	0.00	0.0	66.00	1.25	0.00	0.0
9.00	1.25	0.00	0.0	67.00	1.25	0.00	0.0
10.00	1.25	0.00	0.0	68.00	1.25	0.00	0.0
11.00	1.25	0.00	0.0	69.00	1.25	0.00	0.0
12.00	1.25	0.00	0.0	70.00	1.25	0.00	0.0
13.00	1.25	0.00	0.0	71.00	1.25	0.00	0.0
14.00	1.25	0.00	0.0	72.00	1.25	0.00	0.0
15.00	1.25	0.00	0.0				
16.00	1.25	0.00	0.0				
17.00	1.25	0.00	0.0				
18.00	1.25	0.00	0.0				
19.00	1.25	0.00	0.0				
20.00	1.25	0.00	0.0				
21.00	1.25	0.00	0.0				
22.00	1.25	0.00	0.0				
23.00	1.25	0.00	0.0				
24.00	1.25	0.00	0.0				
25.00	1.25	0.00	0.0				
26.00	1.25	0.00	0.0				
27.00	1.25	0.00	0.0				
28.00	1.25	0.00	0.0				
29.00	1.25	0.00	0.0				
30.00	1.25	0.00	0.0				
31.00	1.25	0.00	0.0				
32.00	1.25	0.00	0.0				
33.00	1.25	0.00	0.0				
34.00	1.25	0.00	0.0				
35.00	1.25	0.00	0.0				
36.00	1.25	0.00	0.0				
37.00	1.25	0.00	0.0				
38.00	1.25	0.00	0.0				
39.00	1.25	0.00	0.0				
40.00	1.25	0.00	0.0				
41.00	1.25	0.00	0.0				
42.00	1.25	0.00	0.0				
43.00	1.25	0.00	0.0				
44.00	1.25	0.00	0.0				
45.00	1.25	0.00	0.0				
46.00	1.25	0.00	0.0				
47.00	1.25	0.00	0.0				
48.00	1.25	0.00	0.0				
49.00	1.25	0.00	0.0				
50.00	1.25	0.00	0.0				
51.00	1.25	0.00	0.0				
52.00	1.25	0.00	0.0				
53.00	1.25	0.00	0.0				
54.00	1.25	0.00	0.0				
55.00	1.25	0.00	0.0				
56.00	1.25	0.00	0.0				
57.00	1.25	0.00	0.0				

Summary for Subcatchment Bi: Impervious

Runoff = 0.2 cfs @ 1.17 hrs, Volume= 0.01 af, Depth= 1.03"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.10	98	Paved parking, HSG A
0.10		100.00% Impervious Area

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

Hydrograph for Subcatchment Bi: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	1.25	1.03	0.0
1.00	0.63	0.43	0.1	59.00	1.25	1.03	0.0
2.00	1.25	1.03	0.0	60.00	1.25	1.03	0.0
3.00	1.25	1.03	0.0	61.00	1.25	1.03	0.0
4.00	1.25	1.03	0.0	62.00	1.25	1.03	0.0
5.00	1.25	1.03	0.0	63.00	1.25	1.03	0.0
6.00	1.25	1.03	0.0	64.00	1.25	1.03	0.0
7.00	1.25	1.03	0.0	65.00	1.25	1.03	0.0
8.00	1.25	1.03	0.0	66.00	1.25	1.03	0.0
9.00	1.25	1.03	0.0	67.00	1.25	1.03	0.0
10.00	1.25	1.03	0.0	68.00	1.25	1.03	0.0
11.00	1.25	1.03	0.0	69.00	1.25	1.03	0.0
12.00	1.25	1.03	0.0	70.00	1.25	1.03	0.0
13.00	1.25	1.03	0.0	71.00	1.25	1.03	0.0
14.00	1.25	1.03	0.0	72.00	1.25	1.03	0.0
15.00	1.25	1.03	0.0				
16.00	1.25	1.03	0.0				
17.00	1.25	1.03	0.0				
18.00	1.25	1.03	0.0				
19.00	1.25	1.03	0.0				
20.00	1.25	1.03	0.0				
21.00	1.25	1.03	0.0				
22.00	1.25	1.03	0.0				
23.00	1.25	1.03	0.0				
24.00	1.25	1.03	0.0				
25.00	1.25	1.03	0.0				
26.00	1.25	1.03	0.0				
27.00	1.25	1.03	0.0				
28.00	1.25	1.03	0.0				
29.00	1.25	1.03	0.0				
30.00	1.25	1.03	0.0				
31.00	1.25	1.03	0.0				
32.00	1.25	1.03	0.0				
33.00	1.25	1.03	0.0				
34.00	1.25	1.03	0.0				
35.00	1.25	1.03	0.0				
36.00	1.25	1.03	0.0				
37.00	1.25	1.03	0.0				
38.00	1.25	1.03	0.0				
39.00	1.25	1.03	0.0				
40.00	1.25	1.03	0.0				
41.00	1.25	1.03	0.0				
42.00	1.25	1.03	0.0				
43.00	1.25	1.03	0.0				
44.00	1.25	1.03	0.0				
45.00	1.25	1.03	0.0				
46.00	1.25	1.03	0.0				
47.00	1.25	1.03	0.0				
48.00	1.25	1.03	0.0				
49.00	1.25	1.03	0.0				
50.00	1.25	1.03	0.0				
51.00	1.25	1.03	0.0				
52.00	1.25	1.03	0.0				
53.00	1.25	1.03	0.0				
54.00	1.25	1.03	0.0				
55.00	1.25	1.03	0.0				
56.00	1.25	1.03	0.0				
57.00	1.25	1.03	0.0				

Summary for Subcatchment Bp: Pervious

[45] Hint: Runoff=Zero

Runoff = 0.0 cfs @ 0.00 hrs, Volume= 0.00 af, Depth= 0.00"
 Routed to Pond Watershed B : Watershed B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.07	39	>75% Grass cover, Good, HSG A
0.07		100.00% Pervious Area

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

Hydrograph for Subcatchment Bp: Pervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	1.25	0.00	0.0
1.00	0.63	0.00	0.0	59.00	1.25	0.00	0.0
2.00	1.25	0.00	0.0	60.00	1.25	0.00	0.0
3.00	1.25	0.00	0.0	61.00	1.25	0.00	0.0
4.00	1.25	0.00	0.0	62.00	1.25	0.00	0.0
5.00	1.25	0.00	0.0	63.00	1.25	0.00	0.0
6.00	1.25	0.00	0.0	64.00	1.25	0.00	0.0
7.00	1.25	0.00	0.0	65.00	1.25	0.00	0.0
8.00	1.25	0.00	0.0	66.00	1.25	0.00	0.0
9.00	1.25	0.00	0.0	67.00	1.25	0.00	0.0
10.00	1.25	0.00	0.0	68.00	1.25	0.00	0.0
11.00	1.25	0.00	0.0	69.00	1.25	0.00	0.0
12.00	1.25	0.00	0.0	70.00	1.25	0.00	0.0
13.00	1.25	0.00	0.0	71.00	1.25	0.00	0.0
14.00	1.25	0.00	0.0	72.00	1.25	0.00	0.0
15.00	1.25	0.00	0.0				
16.00	1.25	0.00	0.0				
17.00	1.25	0.00	0.0				
18.00	1.25	0.00	0.0				
19.00	1.25	0.00	0.0				
20.00	1.25	0.00	0.0				
21.00	1.25	0.00	0.0				
22.00	1.25	0.00	0.0				
23.00	1.25	0.00	0.0				
24.00	1.25	0.00	0.0				
25.00	1.25	0.00	0.0				
26.00	1.25	0.00	0.0				
27.00	1.25	0.00	0.0				
28.00	1.25	0.00	0.0				
29.00	1.25	0.00	0.0				
30.00	1.25	0.00	0.0				
31.00	1.25	0.00	0.0				
32.00	1.25	0.00	0.0				
33.00	1.25	0.00	0.0				
34.00	1.25	0.00	0.0				
35.00	1.25	0.00	0.0				
36.00	1.25	0.00	0.0				
37.00	1.25	0.00	0.0				
38.00	1.25	0.00	0.0				
39.00	1.25	0.00	0.0				
40.00	1.25	0.00	0.0				
41.00	1.25	0.00	0.0				
42.00	1.25	0.00	0.0				
43.00	1.25	0.00	0.0				
44.00	1.25	0.00	0.0				
45.00	1.25	0.00	0.0				
46.00	1.25	0.00	0.0				
47.00	1.25	0.00	0.0				
48.00	1.25	0.00	0.0				
49.00	1.25	0.00	0.0				
50.00	1.25	0.00	0.0				
51.00	1.25	0.00	0.0				
52.00	1.25	0.00	0.0				
53.00	1.25	0.00	0.0				
54.00	1.25	0.00	0.0				
55.00	1.25	0.00	0.0				
56.00	1.25	0.00	0.0				
57.00	1.25	0.00	0.0				

Summary for Subcatchment Roof A: Impervious

Runoff = 0.1 cfs @ 1.17 hrs, Volume= 0.00 af, Depth= 1.03"
 Routed to Pond Drywell A : Drywell A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.05	98	Roofs, HSG A
0.05		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof A: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	1.25	1.03	0.0
1.00	0.63	0.43	0.0	59.00	1.25	1.03	0.0
2.00	1.25	1.03	0.0	60.00	1.25	1.03	0.0
3.00	1.25	1.03	0.0	61.00	1.25	1.03	0.0
4.00	1.25	1.03	0.0	62.00	1.25	1.03	0.0
5.00	1.25	1.03	0.0	63.00	1.25	1.03	0.0
6.00	1.25	1.03	0.0	64.00	1.25	1.03	0.0
7.00	1.25	1.03	0.0	65.00	1.25	1.03	0.0
8.00	1.25	1.03	0.0	66.00	1.25	1.03	0.0
9.00	1.25	1.03	0.0	67.00	1.25	1.03	0.0
10.00	1.25	1.03	0.0	68.00	1.25	1.03	0.0
11.00	1.25	1.03	0.0	69.00	1.25	1.03	0.0
12.00	1.25	1.03	0.0	70.00	1.25	1.03	0.0
13.00	1.25	1.03	0.0	71.00	1.25	1.03	0.0
14.00	1.25	1.03	0.0	72.00	1.25	1.03	0.0
15.00	1.25	1.03	0.0				
16.00	1.25	1.03	0.0				
17.00	1.25	1.03	0.0				
18.00	1.25	1.03	0.0				
19.00	1.25	1.03	0.0				
20.00	1.25	1.03	0.0				
21.00	1.25	1.03	0.0				
22.00	1.25	1.03	0.0				
23.00	1.25	1.03	0.0				
24.00	1.25	1.03	0.0				
25.00	1.25	1.03	0.0				
26.00	1.25	1.03	0.0				
27.00	1.25	1.03	0.0				
28.00	1.25	1.03	0.0				
29.00	1.25	1.03	0.0				
30.00	1.25	1.03	0.0				
31.00	1.25	1.03	0.0				
32.00	1.25	1.03	0.0				
33.00	1.25	1.03	0.0				
34.00	1.25	1.03	0.0				
35.00	1.25	1.03	0.0				
36.00	1.25	1.03	0.0				
37.00	1.25	1.03	0.0				
38.00	1.25	1.03	0.0				
39.00	1.25	1.03	0.0				
40.00	1.25	1.03	0.0				
41.00	1.25	1.03	0.0				
42.00	1.25	1.03	0.0				
43.00	1.25	1.03	0.0				
44.00	1.25	1.03	0.0				
45.00	1.25	1.03	0.0				
46.00	1.25	1.03	0.0				
47.00	1.25	1.03	0.0				
48.00	1.25	1.03	0.0				
49.00	1.25	1.03	0.0				
50.00	1.25	1.03	0.0				
51.00	1.25	1.03	0.0				
52.00	1.25	1.03	0.0				
53.00	1.25	1.03	0.0				
54.00	1.25	1.03	0.0				
55.00	1.25	1.03	0.0				
56.00	1.25	1.03	0.0				
57.00	1.25	1.03	0.0				

Summary for Subcatchment Roof B: Impervious

Runoff = 0.3 cfs @ 1.17 hrs, Volume= 0.01 af, Depth= 1.03"
Routed to Pond Drywell B : Drywell B

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Table with 3 columns: Area (ac), CN, Description. Row 1: 0.15, 98, Roofs, HSG A. Row 2: 0.15, 100.00% Impervious Area.

Table with 6 columns: Tc (min), Length (feet), Slope (ft/ft), Velocity (ft/sec), Capacity (cfs), Description. Row 1: 10.0, Direct Entry,

Hydrograph for Subcatchment Roof B: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	1.25	1.03	0.0
1.00	0.63	0.43	0.1	59.00	1.25	1.03	0.0
2.00	1.25	1.03	0.0	60.00	1.25	1.03	0.0
3.00	1.25	1.03	0.0	61.00	1.25	1.03	0.0
4.00	1.25	1.03	0.0	62.00	1.25	1.03	0.0
5.00	1.25	1.03	0.0	63.00	1.25	1.03	0.0
6.00	1.25	1.03	0.0	64.00	1.25	1.03	0.0
7.00	1.25	1.03	0.0	65.00	1.25	1.03	0.0
8.00	1.25	1.03	0.0	66.00	1.25	1.03	0.0
9.00	1.25	1.03	0.0	67.00	1.25	1.03	0.0
10.00	1.25	1.03	0.0	68.00	1.25	1.03	0.0
11.00	1.25	1.03	0.0	69.00	1.25	1.03	0.0
12.00	1.25	1.03	0.0	70.00	1.25	1.03	0.0
13.00	1.25	1.03	0.0	71.00	1.25	1.03	0.0
14.00	1.25	1.03	0.0	72.00	1.25	1.03	0.0
15.00	1.25	1.03	0.0				
16.00	1.25	1.03	0.0				
17.00	1.25	1.03	0.0				
18.00	1.25	1.03	0.0				
19.00	1.25	1.03	0.0				
20.00	1.25	1.03	0.0				
21.00	1.25	1.03	0.0				
22.00	1.25	1.03	0.0				
23.00	1.25	1.03	0.0				
24.00	1.25	1.03	0.0				
25.00	1.25	1.03	0.0				
26.00	1.25	1.03	0.0				
27.00	1.25	1.03	0.0				
28.00	1.25	1.03	0.0				
29.00	1.25	1.03	0.0				
30.00	1.25	1.03	0.0				
31.00	1.25	1.03	0.0				
32.00	1.25	1.03	0.0				
33.00	1.25	1.03	0.0				
34.00	1.25	1.03	0.0				
35.00	1.25	1.03	0.0				
36.00	1.25	1.03	0.0				
37.00	1.25	1.03	0.0				
38.00	1.25	1.03	0.0				
39.00	1.25	1.03	0.0				
40.00	1.25	1.03	0.0				
41.00	1.25	1.03	0.0				
42.00	1.25	1.03	0.0				
43.00	1.25	1.03	0.0				
44.00	1.25	1.03	0.0				
45.00	1.25	1.03	0.0				
46.00	1.25	1.03	0.0				
47.00	1.25	1.03	0.0				
48.00	1.25	1.03	0.0				
49.00	1.25	1.03	0.0				
50.00	1.25	1.03	0.0				
51.00	1.25	1.03	0.0				
52.00	1.25	1.03	0.0				
53.00	1.25	1.03	0.0				
54.00	1.25	1.03	0.0				
55.00	1.25	1.03	0.0				
56.00	1.25	1.03	0.0				
57.00	1.25	1.03	0.0				

Postdevelopment HydroCAD

NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Prepared by Insite Engineering LLC

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Summary for Subcatchment Roof C: Impervious

Runoff = 0.3 cfs @ 1.17 hrs, Volume= 0.02 af, Depth= 1.03"
Routed to Pond Drywell C : Drywell C

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.18	98	Roofs, HSG A
0.18		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof C: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	1.25	1.03	0.0
1.00	0.63	0.43	0.1	59.00	1.25	1.03	0.0
2.00	1.25	1.03	0.0	60.00	1.25	1.03	0.0
3.00	1.25	1.03	0.0	61.00	1.25	1.03	0.0
4.00	1.25	1.03	0.0	62.00	1.25	1.03	0.0
5.00	1.25	1.03	0.0	63.00	1.25	1.03	0.0
6.00	1.25	1.03	0.0	64.00	1.25	1.03	0.0
7.00	1.25	1.03	0.0	65.00	1.25	1.03	0.0
8.00	1.25	1.03	0.0	66.00	1.25	1.03	0.0
9.00	1.25	1.03	0.0	67.00	1.25	1.03	0.0
10.00	1.25	1.03	0.0	68.00	1.25	1.03	0.0
11.00	1.25	1.03	0.0	69.00	1.25	1.03	0.0
12.00	1.25	1.03	0.0	70.00	1.25	1.03	0.0
13.00	1.25	1.03	0.0	71.00	1.25	1.03	0.0
14.00	1.25	1.03	0.0	72.00	1.25	1.03	0.0
15.00	1.25	1.03	0.0				
16.00	1.25	1.03	0.0				
17.00	1.25	1.03	0.0				
18.00	1.25	1.03	0.0				
19.00	1.25	1.03	0.0				
20.00	1.25	1.03	0.0				
21.00	1.25	1.03	0.0				
22.00	1.25	1.03	0.0				
23.00	1.25	1.03	0.0				
24.00	1.25	1.03	0.0				
25.00	1.25	1.03	0.0				
26.00	1.25	1.03	0.0				
27.00	1.25	1.03	0.0				
28.00	1.25	1.03	0.0				
29.00	1.25	1.03	0.0				
30.00	1.25	1.03	0.0				
31.00	1.25	1.03	0.0				
32.00	1.25	1.03	0.0				
33.00	1.25	1.03	0.0				
34.00	1.25	1.03	0.0				
35.00	1.25	1.03	0.0				
36.00	1.25	1.03	0.0				
37.00	1.25	1.03	0.0				
38.00	1.25	1.03	0.0				
39.00	1.25	1.03	0.0				
40.00	1.25	1.03	0.0				
41.00	1.25	1.03	0.0				
42.00	1.25	1.03	0.0				
43.00	1.25	1.03	0.0				
44.00	1.25	1.03	0.0				
45.00	1.25	1.03	0.0				
46.00	1.25	1.03	0.0				
47.00	1.25	1.03	0.0				
48.00	1.25	1.03	0.0				
49.00	1.25	1.03	0.0				
50.00	1.25	1.03	0.0				
51.00	1.25	1.03	0.0				
52.00	1.25	1.03	0.0				
53.00	1.25	1.03	0.0				
54.00	1.25	1.03	0.0				
55.00	1.25	1.03	0.0				
56.00	1.25	1.03	0.0				
57.00	1.25	1.03	0.0				

Postdevelopment HydroCAD

NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Prepared by Insite Engineering LLC

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Summary for Subcatchment Roof D: Impervious

Runoff = 0.3 cfs @ 1.17 hrs, Volume= 0.01 af, Depth= 1.03"
Routed to Pond Drywell D : Drywell D

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.17	98	Roofs, HSG A
0.17		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof D: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	1.25	1.03	0.0
1.00	0.63	0.43	0.1	59.00	1.25	1.03	0.0
2.00	1.25	1.03	0.0	60.00	1.25	1.03	0.0
3.00	1.25	1.03	0.0	61.00	1.25	1.03	0.0
4.00	1.25	1.03	0.0	62.00	1.25	1.03	0.0
5.00	1.25	1.03	0.0	63.00	1.25	1.03	0.0
6.00	1.25	1.03	0.0	64.00	1.25	1.03	0.0
7.00	1.25	1.03	0.0	65.00	1.25	1.03	0.0
8.00	1.25	1.03	0.0	66.00	1.25	1.03	0.0
9.00	1.25	1.03	0.0	67.00	1.25	1.03	0.0
10.00	1.25	1.03	0.0	68.00	1.25	1.03	0.0
11.00	1.25	1.03	0.0	69.00	1.25	1.03	0.0
12.00	1.25	1.03	0.0	70.00	1.25	1.03	0.0
13.00	1.25	1.03	0.0	71.00	1.25	1.03	0.0
14.00	1.25	1.03	0.0	72.00	1.25	1.03	0.0
15.00	1.25	1.03	0.0				
16.00	1.25	1.03	0.0				
17.00	1.25	1.03	0.0				
18.00	1.25	1.03	0.0				
19.00	1.25	1.03	0.0				
20.00	1.25	1.03	0.0				
21.00	1.25	1.03	0.0				
22.00	1.25	1.03	0.0				
23.00	1.25	1.03	0.0				
24.00	1.25	1.03	0.0				
25.00	1.25	1.03	0.0				
26.00	1.25	1.03	0.0				
27.00	1.25	1.03	0.0				
28.00	1.25	1.03	0.0				
29.00	1.25	1.03	0.0				
30.00	1.25	1.03	0.0				
31.00	1.25	1.03	0.0				
32.00	1.25	1.03	0.0				
33.00	1.25	1.03	0.0				
34.00	1.25	1.03	0.0				
35.00	1.25	1.03	0.0				
36.00	1.25	1.03	0.0				
37.00	1.25	1.03	0.0				
38.00	1.25	1.03	0.0				
39.00	1.25	1.03	0.0				
40.00	1.25	1.03	0.0				
41.00	1.25	1.03	0.0				
42.00	1.25	1.03	0.0				
43.00	1.25	1.03	0.0				
44.00	1.25	1.03	0.0				
45.00	1.25	1.03	0.0				
46.00	1.25	1.03	0.0				
47.00	1.25	1.03	0.0				
48.00	1.25	1.03	0.0				
49.00	1.25	1.03	0.0				
50.00	1.25	1.03	0.0				
51.00	1.25	1.03	0.0				
52.00	1.25	1.03	0.0				
53.00	1.25	1.03	0.0				
54.00	1.25	1.03	0.0				
55.00	1.25	1.03	0.0				
56.00	1.25	1.03	0.0				
57.00	1.25	1.03	0.0				

Summary for Subcatchment Roof E: Impervious

Runoff = 0.1 cfs @ 1.17 hrs, Volume= 0.00 af, Depth= 1.03"
 Routed to Pond Watershed A : Watershed A

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 NJ DEP 2-hr NJDEP 2-Hr WQ Rainfall=1.25"

Area (ac)	CN	Description
0.05	98	Roofs, HSG A
0.05		100.00% Impervious Area

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

Hydrograph for Subcatchment Roof E: Impervious

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.0	58.00	1.25	1.03	0.0
1.00	0.63	0.43	0.0	59.00	1.25	1.03	0.0
2.00	1.25	1.03	0.0	60.00	1.25	1.03	0.0
3.00	1.25	1.03	0.0	61.00	1.25	1.03	0.0
4.00	1.25	1.03	0.0	62.00	1.25	1.03	0.0
5.00	1.25	1.03	0.0	63.00	1.25	1.03	0.0
6.00	1.25	1.03	0.0	64.00	1.25	1.03	0.0
7.00	1.25	1.03	0.0	65.00	1.25	1.03	0.0
8.00	1.25	1.03	0.0	66.00	1.25	1.03	0.0
9.00	1.25	1.03	0.0	67.00	1.25	1.03	0.0
10.00	1.25	1.03	0.0	68.00	1.25	1.03	0.0
11.00	1.25	1.03	0.0	69.00	1.25	1.03	0.0
12.00	1.25	1.03	0.0	70.00	1.25	1.03	0.0
13.00	1.25	1.03	0.0	71.00	1.25	1.03	0.0
14.00	1.25	1.03	0.0	72.00	1.25	1.03	0.0
15.00	1.25	1.03	0.0				
16.00	1.25	1.03	0.0				
17.00	1.25	1.03	0.0				
18.00	1.25	1.03	0.0				
19.00	1.25	1.03	0.0				
20.00	1.25	1.03	0.0				
21.00	1.25	1.03	0.0				
22.00	1.25	1.03	0.0				
23.00	1.25	1.03	0.0				
24.00	1.25	1.03	0.0				
25.00	1.25	1.03	0.0				
26.00	1.25	1.03	0.0				
27.00	1.25	1.03	0.0				
28.00	1.25	1.03	0.0				
29.00	1.25	1.03	0.0				
30.00	1.25	1.03	0.0				
31.00	1.25	1.03	0.0				
32.00	1.25	1.03	0.0				
33.00	1.25	1.03	0.0				
34.00	1.25	1.03	0.0				
35.00	1.25	1.03	0.0				
36.00	1.25	1.03	0.0				
37.00	1.25	1.03	0.0				
38.00	1.25	1.03	0.0				
39.00	1.25	1.03	0.0				
40.00	1.25	1.03	0.0				
41.00	1.25	1.03	0.0				
42.00	1.25	1.03	0.0				
43.00	1.25	1.03	0.0				
44.00	1.25	1.03	0.0				
45.00	1.25	1.03	0.0				
46.00	1.25	1.03	0.0				
47.00	1.25	1.03	0.0				
48.00	1.25	1.03	0.0				
49.00	1.25	1.03	0.0				
50.00	1.25	1.03	0.0				
51.00	1.25	1.03	0.0				
52.00	1.25	1.03	0.0				
53.00	1.25	1.03	0.0				
54.00	1.25	1.03	0.0				
55.00	1.25	1.03	0.0				
56.00	1.25	1.03	0.0				
57.00	1.25	1.03	0.0				

Summary for Pond Drywell A: Drywell A

Inflow Area = 0.05 ac, 100.00% Impervious, Inflow Depth = 1.03" for NJDEP 2-Hr WQ event
 Inflow = 0.1 cfs @ 1.17 hrs, Volume= 0.00 af
 Outflow = 0.0 cfs @ 1.05 hrs, Volume= 0.00 af, Atten= 53%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 1.05 hrs, Volume= 0.00 af
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.00 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 16.17' @ 1.47 hrs Surf.Area= 0.00 ac Storage= 0.00 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 9.6 min (89.7 - 80.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	15.56'	0.00 af	8.89'W x 21.00'L x 2.71'H Field A 0.01 af Overall - 0.00 af Embedded = 0.01 af x 40.0% Voids
#2A	16.56'	0.00 af	ADS N-12 12" x 4 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 4 Chambers in 4 Rows
		0.01 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.60'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	15.56'	10.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.0 cfs @ 1.05 hrs HW=15.60' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=15.56' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Controls 0.0 cfs)

Hydrograph for Pond Drywell A: Drywell A

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	15.56	0.0	0.0	0.0
2.50	0.0	0.00	15.56	0.0	0.0	0.0
5.00	0.0	0.00	15.56	0.0	0.0	0.0
7.50	0.0	0.00	15.56	0.0	0.0	0.0
10.00	0.0	0.00	15.56	0.0	0.0	0.0
12.50	0.0	0.00	15.56	0.0	0.0	0.0
15.00	0.0	0.00	15.56	0.0	0.0	0.0
17.50	0.0	0.00	15.56	0.0	0.0	0.0
20.00	0.0	0.00	15.56	0.0	0.0	0.0
22.50	0.0	0.00	15.56	0.0	0.0	0.0
25.00	0.0	0.00	15.56	0.0	0.0	0.0
27.50	0.0	0.00	15.56	0.0	0.0	0.0
30.00	0.0	0.00	15.56	0.0	0.0	0.0
32.50	0.0	0.00	15.56	0.0	0.0	0.0
35.00	0.0	0.00	15.56	0.0	0.0	0.0
37.50	0.0	0.00	15.56	0.0	0.0	0.0
40.00	0.0	0.00	15.56	0.0	0.0	0.0
42.50	0.0	0.00	15.56	0.0	0.0	0.0
45.00	0.0	0.00	15.56	0.0	0.0	0.0
47.50	0.0	0.00	15.56	0.0	0.0	0.0
50.00	0.0	0.00	15.56	0.0	0.0	0.0
52.50	0.0	0.00	15.56	0.0	0.0	0.0
55.00	0.0	0.00	15.56	0.0	0.0	0.0
57.50	0.0	0.00	15.56	0.0	0.0	0.0
60.00	0.0	0.00	15.56	0.0	0.0	0.0
62.50	0.0	0.00	15.56	0.0	0.0	0.0
65.00	0.0	0.00	15.56	0.0	0.0	0.0
67.50	0.0	0.00	15.56	0.0	0.0	0.0
70.00	0.0	0.00	15.56	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell A: Drywell A

Elevation (feet)	Surface (acres)	Storage (acre-feet)
15.56	0.00	0.00
15.61	0.00	0.00
15.66	0.00	0.00
15.71	0.00	0.00
15.76	0.00	0.00
15.81	0.00	0.00
15.86	0.00	0.00
15.91	0.00	0.00
15.96	0.00	0.00
16.01	0.00	0.00
16.06	0.00	0.00
16.11	0.00	0.00
16.16	0.00	0.00
16.21	0.00	0.00
16.26	0.00	0.00
16.31	0.00	0.00
16.36	0.00	0.00
16.41	0.00	0.00
16.46	0.00	0.00
16.51	0.00	0.00
16.56	0.00	0.00
16.61	0.00	0.00
16.66	0.00	0.00
16.71	0.00	0.00
16.76	0.00	0.00
16.81	0.00	0.00
16.86	0.00	0.00
16.91	0.00	0.00
16.96	0.00	0.00
17.01	0.00	0.00
17.06	0.00	0.00
17.11	0.00	0.00
17.16	0.00	0.00
17.21	0.00	0.00
17.26	0.00	0.00
17.31	0.00	0.00
17.36	0.00	0.00
17.41	0.00	0.00
17.46	0.00	0.00
17.51	0.00	0.00
17.56	0.00	0.00
17.61	0.00	0.00
17.66	0.00	0.00
17.71	0.00	0.00
17.76	0.00	0.00
17.81	0.00	0.00
17.86	0.00	0.00
17.91	0.00	0.00
17.96	0.00	0.00
18.01	0.00	0.00
18.06	0.00	0.01
18.11	0.00	0.01
18.16	0.00	0.01
18.21	0.00	0.01
18.26	0.00	0.01

Summary for Pond Drywell B: Drywell B

Inflow Area = 0.15 ac, 100.00% Impervious, Inflow Depth = 1.03" for NJDEP 2-Hr WQ event
 Inflow = 0.3 cfs @ 1.17 hrs, Volume= 0.01 af
 Outflow = 0.1 cfs @ 1.05 hrs, Volume= 0.01 af, Atten= 55%, Lag= 0.0 min
 Discarded = 0.1 cfs @ 1.05 hrs, Volume= 0.01 af
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.00 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 17.74' @ 1.48 hrs Surf.Area= 0.01 ac Storage= 0.00 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 10.7 min (90.8 - 80.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	17.06'	0.01 af	13.13'W x 41.00'L x 2.71'H Field A 0.03 af Overall - 0.01 af Embedded = 0.03 af x 40.0% Voids
#2A	18.06'	0.00 af	ADS N-12 12" x 12 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 12 Chambers in 6 Rows
		0.02 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	17.06'	10.000 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.1 cfs @ 1.05 hrs HW=17.11' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=17.06' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Controls 0.0 cfs)

Hydrograph for Pond Drywell B: Drywell B

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	17.06	0.0	0.0	0.0
2.50	0.0	0.00	17.06	0.0	0.0	0.0
5.00	0.0	0.00	17.06	0.0	0.0	0.0
7.50	0.0	0.00	17.06	0.0	0.0	0.0
10.00	0.0	0.00	17.06	0.0	0.0	0.0
12.50	0.0	0.00	17.06	0.0	0.0	0.0
15.00	0.0	0.00	17.06	0.0	0.0	0.0
17.50	0.0	0.00	17.06	0.0	0.0	0.0
20.00	0.0	0.00	17.06	0.0	0.0	0.0
22.50	0.0	0.00	17.06	0.0	0.0	0.0
25.00	0.0	0.00	17.06	0.0	0.0	0.0
27.50	0.0	0.00	17.06	0.0	0.0	0.0
30.00	0.0	0.00	17.06	0.0	0.0	0.0
32.50	0.0	0.00	17.06	0.0	0.0	0.0
35.00	0.0	0.00	17.06	0.0	0.0	0.0
37.50	0.0	0.00	17.06	0.0	0.0	0.0
40.00	0.0	0.00	17.06	0.0	0.0	0.0
42.50	0.0	0.00	17.06	0.0	0.0	0.0
45.00	0.0	0.00	17.06	0.0	0.0	0.0
47.50	0.0	0.00	17.06	0.0	0.0	0.0
50.00	0.0	0.00	17.06	0.0	0.0	0.0
52.50	0.0	0.00	17.06	0.0	0.0	0.0
55.00	0.0	0.00	17.06	0.0	0.0	0.0
57.50	0.0	0.00	17.06	0.0	0.0	0.0
60.00	0.0	0.00	17.06	0.0	0.0	0.0
62.50	0.0	0.00	17.06	0.0	0.0	0.0
65.00	0.0	0.00	17.06	0.0	0.0	0.0
67.50	0.0	0.00	17.06	0.0	0.0	0.0
70.00	0.0	0.00	17.06	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell B: Drywell B

Elevation (feet)	Surface (acres)	Storage (acre-feet)
17.06	0.01	0.00
17.11	0.01	0.00
17.16	0.01	0.00
17.21	0.01	0.00
17.26	0.01	0.00
17.31	0.01	0.00
17.36	0.01	0.00
17.41	0.01	0.00
17.46	0.01	0.00
17.51	0.01	0.00
17.56	0.01	0.00
17.61	0.01	0.00
17.66	0.01	0.00
17.71	0.01	0.00
17.76	0.01	0.00
17.81	0.01	0.00
17.86	0.01	0.00
17.91	0.01	0.00
17.96	0.01	0.00
18.01	0.01	0.00
18.06	0.01	0.00
18.11	0.01	0.01
18.16	0.01	0.01
18.21	0.01	0.01
18.26	0.01	0.01
18.31	0.01	0.01
18.36	0.01	0.01
18.41	0.01	0.01
18.46	0.01	0.01
18.51	0.01	0.01
18.56	0.01	0.01
18.61	0.01	0.01
18.66	0.01	0.01
18.71	0.01	0.01
18.76	0.01	0.01
18.81	0.01	0.01
18.86	0.01	0.01
18.91	0.01	0.01
18.96	0.01	0.01
19.01	0.01	0.01
19.06	0.01	0.01
19.11	0.01	0.01
19.16	0.01	0.01
19.21	0.01	0.01
19.26	0.01	0.01
19.31	0.01	0.01
19.36	0.01	0.01
19.41	0.01	0.01
19.46	0.01	0.01
19.51	0.01	0.01
19.56	0.01	0.01
19.61	0.01	0.01
19.66	0.01	0.02
19.71	0.01	0.02
19.76	0.01	0.02

Summary for Pond Drywell C: Drywell C

Inflow Area = 0.18 ac, 100.00% Impervious, Inflow Depth = 1.03" for NJDEP 2-Hr WQ event
 Inflow = 0.3 cfs @ 1.17 hrs, Volume= 0.02 af
 Outflow = 0.1 cfs @ 1.61 hrs, Volume= 0.02 af, Atten= 65%, Lag= 26.5 min
 Discarded = 0.1 cfs @ 0.95 hrs, Volume= 0.01 af
 Primary = 0.1 cfs @ 1.61 hrs, Volume= 0.00 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 17.63' @ 1.61 hrs Surf.Area= 0.01 ac Storage= 0.01 af

Plug-Flow detention time= 49.1 min calculated for 0.02 af (100% of inflow)
 Center-of-Mass det. time= 49.2 min (129.3 - 80.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	15.65'	0.01 af	8.89'W x 41.00'L x 2.71'H Field A 0.02 af Overall - 0.00 af Embedded = 0.02 af x 40.0% Voids
#2A	16.65'	0.00 af	ADS N-12 12" x 8 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 8 Chambers in 4 Rows
		0.01 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	17.60'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	15.65'	7.500 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.1 cfs @ 0.95 hrs HW=15.69' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.1 cfs)

Primary OutFlow Max=0.0 cfs @ 1.61 hrs HW=17.63' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Weir Controls 0.0 cfs @ 0.55 fps)

Hydrograph for Pond Drywell C: Drywell C

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	15.65	0.0	0.0	0.0
2.50	0.0	0.01	17.18	0.1	0.1	0.0
5.00	0.0	0.00	15.65	0.0	0.0	0.0
7.50	0.0	0.00	15.65	0.0	0.0	0.0
10.00	0.0	0.00	15.65	0.0	0.0	0.0
12.50	0.0	0.00	15.65	0.0	0.0	0.0
15.00	0.0	0.00	15.65	0.0	0.0	0.0
17.50	0.0	0.00	15.65	0.0	0.0	0.0
20.00	0.0	0.00	15.65	0.0	0.0	0.0
22.50	0.0	0.00	15.65	0.0	0.0	0.0
25.00	0.0	0.00	15.65	0.0	0.0	0.0
27.50	0.0	0.00	15.65	0.0	0.0	0.0
30.00	0.0	0.00	15.65	0.0	0.0	0.0
32.50	0.0	0.00	15.65	0.0	0.0	0.0
35.00	0.0	0.00	15.65	0.0	0.0	0.0
37.50	0.0	0.00	15.65	0.0	0.0	0.0
40.00	0.0	0.00	15.65	0.0	0.0	0.0
42.50	0.0	0.00	15.65	0.0	0.0	0.0
45.00	0.0	0.00	15.65	0.0	0.0	0.0
47.50	0.0	0.00	15.65	0.0	0.0	0.0
50.00	0.0	0.00	15.65	0.0	0.0	0.0
52.50	0.0	0.00	15.65	0.0	0.0	0.0
55.00	0.0	0.00	15.65	0.0	0.0	0.0
57.50	0.0	0.00	15.65	0.0	0.0	0.0
60.00	0.0	0.00	15.65	0.0	0.0	0.0
62.50	0.0	0.00	15.65	0.0	0.0	0.0
65.00	0.0	0.00	15.65	0.0	0.0	0.0
67.50	0.0	0.00	15.65	0.0	0.0	0.0
70.00	0.0	0.00	15.65	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell C: Drywell C

Elevation (feet)	Surface (acres)	Storage (acre-feet)
15.65	0.01	0.00
15.70	0.01	0.00
15.75	0.01	0.00
15.80	0.01	0.00
15.85	0.01	0.00
15.90	0.01	0.00
15.95	0.01	0.00
16.00	0.01	0.00
16.05	0.01	0.00
16.10	0.01	0.00
16.15	0.01	0.00
16.20	0.01	0.00
16.25	0.01	0.00
16.30	0.01	0.00
16.35	0.01	0.00
16.40	0.01	0.00
16.45	0.01	0.00
16.50	0.01	0.00
16.55	0.01	0.00
16.60	0.01	0.00
16.65	0.01	0.00
16.70	0.01	0.00
16.75	0.01	0.00
16.80	0.01	0.00
16.85	0.01	0.00
16.90	0.01	0.00
16.95	0.01	0.00
17.00	0.01	0.00
17.05	0.01	0.00
17.10	0.01	0.01
17.15	0.01	0.01
17.20	0.01	0.01
17.25	0.01	0.01
17.30	0.01	0.01
17.35	0.01	0.01
17.40	0.01	0.01
17.45	0.01	0.01
17.50	0.01	0.01
17.55	0.01	0.01
17.60	0.01	0.01
17.65	0.01	0.01
17.70	0.01	0.01
17.75	0.01	0.01
17.80	0.01	0.01
17.85	0.01	0.01
17.90	0.01	0.01
17.95	0.01	0.01
18.00	0.01	0.01
18.05	0.01	0.01
18.10	0.01	0.01
18.15	0.01	0.01
18.20	0.01	0.01
18.25	0.01	0.01
18.30	0.01	0.01
18.35	0.01	0.01

Summary for Pond Drywell D: Drywell D

Inflow Area = 0.17 ac, 100.00% Impervious, Inflow Depth = 1.03" for NJDEP 2-Hr WQ event
 Inflow = 0.3 cfs @ 1.17 hrs, Volume= 0.01 af
 Outflow = 0.0 cfs @ 0.95 hrs, Volume= 0.01 af, Atten= 85%, Lag= 0.0 min
 Discarded = 0.0 cfs @ 0.95 hrs, Volume= 0.01 af
 Primary = 0.0 cfs @ 0.00 hrs, Volume= 0.00 af
 Routed to Pond Watershed A : Watershed A

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs
 Peak Elev= 16.34' @ 1.91 hrs Surf.Area= 0.01 ac Storage= 0.01 af

Plug-Flow detention time= 76.3 min calculated for 0.01 af (100% of inflow)
 Center-of-Mass det. time= 76.3 min (156.4 - 80.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	14.50'	0.01 af	21.60'W x 21.00'L x 2.71'H Field A 0.03 af Overall - 0.00 af Embedded = 0.02 af x 40.0% Voids
#2A	15.50'	0.00 af	ADS N-12 12" x 10 Inside #1 Inside= 12.2"W x 12.2"H => 0.81 sf x 20.00'L = 16.2 cf Outside= 14.5"W x 14.5"H => 1.05 sf x 20.00'L = 20.9 cf 10 Chambers in 10 Rows
		0.01 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	16.50'	12.0" Horiz. Pop-Up Emitter C= 0.600 Limited to weir flow at low heads
#2	Discarded	14.50'	4.500 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.0 cfs @ 0.95 hrs HW=14.55' (Free Discharge)
 ↑**2=Exfiltration** (Exfiltration Controls 0.0 cfs)

Primary OutFlow Max=0.0 cfs @ 0.00 hrs HW=14.50' (Free Discharge)
 ↑**1=Pop-Up Emitter** (Controls 0.0 cfs)

Hydrograph for Pond Drywell D: Drywell D

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Outflow (cfs)	Discarded (cfs)	Primary (cfs)
0.00	0.0	0.00	14.50	0.0	0.0	0.0
2.50	0.0	0.01	16.13	0.0	0.0	0.0
5.00	0.0	0.00	14.50	0.0	0.0	0.0
7.50	0.0	0.00	14.50	0.0	0.0	0.0
10.00	0.0	0.00	14.50	0.0	0.0	0.0
12.50	0.0	0.00	14.50	0.0	0.0	0.0
15.00	0.0	0.00	14.50	0.0	0.0	0.0
17.50	0.0	0.00	14.50	0.0	0.0	0.0
20.00	0.0	0.00	14.50	0.0	0.0	0.0
22.50	0.0	0.00	14.50	0.0	0.0	0.0
25.00	0.0	0.00	14.50	0.0	0.0	0.0
27.50	0.0	0.00	14.50	0.0	0.0	0.0
30.00	0.0	0.00	14.50	0.0	0.0	0.0
32.50	0.0	0.00	14.50	0.0	0.0	0.0
35.00	0.0	0.00	14.50	0.0	0.0	0.0
37.50	0.0	0.00	14.50	0.0	0.0	0.0
40.00	0.0	0.00	14.50	0.0	0.0	0.0
42.50	0.0	0.00	14.50	0.0	0.0	0.0
45.00	0.0	0.00	14.50	0.0	0.0	0.0
47.50	0.0	0.00	14.50	0.0	0.0	0.0
50.00	0.0	0.00	14.50	0.0	0.0	0.0
52.50	0.0	0.00	14.50	0.0	0.0	0.0
55.00	0.0	0.00	14.50	0.0	0.0	0.0
57.50	0.0	0.00	14.50	0.0	0.0	0.0
60.00	0.0	0.00	14.50	0.0	0.0	0.0
62.50	0.0	0.00	14.50	0.0	0.0	0.0
65.00	0.0	0.00	14.50	0.0	0.0	0.0
67.50	0.0	0.00	14.50	0.0	0.0	0.0
70.00	0.0	0.00	14.50	0.0	0.0	0.0

Stage-Area-Storage for Pond Drywell D: Drywell D

Elevation (feet)	Surface (acres)	Storage (acre-feet)
14.50	0.01	0.00
14.55	0.01	0.00
14.60	0.01	0.00
14.65	0.01	0.00
14.70	0.01	0.00
14.75	0.01	0.00
14.80	0.01	0.00
14.85	0.01	0.00
14.90	0.01	0.00
14.95	0.01	0.00
15.00	0.01	0.00
15.05	0.01	0.00
15.10	0.01	0.00
15.15	0.01	0.00
15.20	0.01	0.00
15.25	0.01	0.00
15.30	0.01	0.00
15.35	0.01	0.00
15.40	0.01	0.00
15.45	0.01	0.00
15.50	0.01	0.00
15.55	0.01	0.00
15.60	0.01	0.00
15.65	0.01	0.00
15.70	0.01	0.00
15.75	0.01	0.01
15.80	0.01	0.01
15.85	0.01	0.01
15.90	0.01	0.01
15.95	0.01	0.01
16.00	0.01	0.01
16.05	0.01	0.01
16.10	0.01	0.01
16.15	0.01	0.01
16.20	0.01	0.01
16.25	0.01	0.01
16.30	0.01	0.01
16.35	0.01	0.01
16.40	0.01	0.01
16.45	0.01	0.01
16.50	0.01	0.01
16.55	0.01	0.01
16.60	0.01	0.01
16.65	0.01	0.01
16.70	0.01	0.01
16.75	0.01	0.01
16.80	0.01	0.01
16.85	0.01	0.01
16.90	0.01	0.01
16.95	0.01	0.01
17.00	0.01	0.01
17.05	0.01	0.01
17.10	0.01	0.01
17.15	0.01	0.01
17.20	0.01	0.01

Summary for Pond Watershed A: Watershed A

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 1.29 ac, 69.77% Impervious, Inflow Depth = 0.29" for NJDEP 2-Hr WQ event
Inflow = 0.7 cfs @ 1.17 hrs, Volume= 0.03 af
Primary = 0.7 cfs @ 1.17 hrs, Volume= 0.03 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Hydrograph for Pond Watershed A: Watershed A

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0		0.0	58.00	0.0		0.0
1.00	0.3		0.3	59.00	0.0		0.0
2.00	0.1		0.1	60.00	0.0		0.0
3.00	0.0		0.0	61.00	0.0		0.0
4.00	0.0		0.0	62.00	0.0		0.0
5.00	0.0		0.0	63.00	0.0		0.0
6.00	0.0		0.0	64.00	0.0		0.0
7.00	0.0		0.0	65.00	0.0		0.0
8.00	0.0		0.0	66.00	0.0		0.0
9.00	0.0		0.0	67.00	0.0		0.0
10.00	0.0		0.0	68.00	0.0		0.0
11.00	0.0		0.0	69.00	0.0		0.0
12.00	0.0		0.0	70.00	0.0		0.0
13.00	0.0		0.0	71.00	0.0		0.0
14.00	0.0		0.0	72.00	0.0		0.0
15.00	0.0		0.0				
16.00	0.0		0.0				
17.00	0.0		0.0				
18.00	0.0		0.0				
19.00	0.0		0.0				
20.00	0.0		0.0				
21.00	0.0		0.0				
22.00	0.0		0.0				
23.00	0.0		0.0				
24.00	0.0		0.0				
25.00	0.0		0.0				
26.00	0.0		0.0				
27.00	0.0		0.0				
28.00	0.0		0.0				
29.00	0.0		0.0				
30.00	0.0		0.0				
31.00	0.0		0.0				
32.00	0.0		0.0				
33.00	0.0		0.0				
34.00	0.0		0.0				
35.00	0.0		0.0				
36.00	0.0		0.0				
37.00	0.0		0.0				
38.00	0.0		0.0				
39.00	0.0		0.0				
40.00	0.0		0.0				
41.00	0.0		0.0				
42.00	0.0		0.0				
43.00	0.0		0.0				
44.00	0.0		0.0				
45.00	0.0		0.0				
46.00	0.0		0.0				
47.00	0.0		0.0				
48.00	0.0		0.0				
49.00	0.0		0.0				
50.00	0.0		0.0				
51.00	0.0		0.0				
52.00	0.0		0.0				
53.00	0.0		0.0				
54.00	0.0		0.0				
55.00	0.0		0.0				
56.00	0.0		0.0				
57.00	0.0		0.0				

Summary for Pond Watershed B: Watershed B

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area = 0.17 ac, 58.82% Impervious, Inflow Depth = 0.61" for NJDEP 2-Hr WQ event
Inflow = 0.2 cfs @ 1.17 hrs, Volume= 0.01 af
Primary = 0.2 cfs @ 1.17 hrs, Volume= 0.01 af, Atten= 0%, Lag= 0.0 min
Routed to nonexistent node Total Flow

Routing by Stor-Ind method, Time Span= 0.00-72.00 hrs, dt= 0.05 hrs

Hydrograph for Pond Watershed B: Watershed B

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.0		0.0	58.00	0.0		0.0
1.00	0.1		0.1	59.00	0.0		0.0
2.00	0.0		0.0	60.00	0.0		0.0
3.00	0.0		0.0	61.00	0.0		0.0
4.00	0.0		0.0	62.00	0.0		0.0
5.00	0.0		0.0	63.00	0.0		0.0
6.00	0.0		0.0	64.00	0.0		0.0
7.00	0.0		0.0	65.00	0.0		0.0
8.00	0.0		0.0	66.00	0.0		0.0
9.00	0.0		0.0	67.00	0.0		0.0
10.00	0.0		0.0	68.00	0.0		0.0
11.00	0.0		0.0	69.00	0.0		0.0
12.00	0.0		0.0	70.00	0.0		0.0
13.00	0.0		0.0	71.00	0.0		0.0
14.00	0.0		0.0	72.00	0.0		0.0
15.00	0.0		0.0				
16.00	0.0		0.0				
17.00	0.0		0.0				
18.00	0.0		0.0				
19.00	0.0		0.0				
20.00	0.0		0.0				
21.00	0.0		0.0				
22.00	0.0		0.0				
23.00	0.0		0.0				
24.00	0.0		0.0				
25.00	0.0		0.0				
26.00	0.0		0.0				
27.00	0.0		0.0				
28.00	0.0		0.0				
29.00	0.0		0.0				
30.00	0.0		0.0				
31.00	0.0		0.0				
32.00	0.0		0.0				
33.00	0.0		0.0				
34.00	0.0		0.0				
35.00	0.0		0.0				
36.00	0.0		0.0				
37.00	0.0		0.0				
38.00	0.0		0.0				
39.00	0.0		0.0				
40.00	0.0		0.0				
41.00	0.0		0.0				
42.00	0.0		0.0				
43.00	0.0		0.0				
44.00	0.0		0.0				
45.00	0.0		0.0				
46.00	0.0		0.0				
47.00	0.0		0.0				
48.00	0.0		0.0				
49.00	0.0		0.0				
50.00	0.0		0.0				
51.00	0.0		0.0				
52.00	0.0		0.0				
53.00	0.0		0.0				
54.00	0.0		0.0				
55.00	0.0		0.0				
56.00	0.0		0.0				
57.00	0.0		0.0				

D. Pop-Up Emitter Spread & Depth Calculation
Table

POP-UP EMITTER SPREAD & DEPTH CALCULATION TABLE 2 year

Drainage Area	Road/Station	Area (Acres)	C	i^3	Q=CIA	Q Bypass ¹	Q Total	N	Cross Slope (ft/ft)	Long Slope (ft/ft)	Spread (ft)	Adjusted Slope	Depth (ft)
A-1	Emitter 1	0.002	0.81	3.75	0.01	0.00	0.01	0.016	0.005	0.01	2.53	0.003	0.008
A-2	Emitter 2	0.002	0.82	3.75	0.01	0.00	0.01	0.016	0.003	0.005	3.99	0.002	0.007
A-3	Emitter 3	0.002	0.72	3.75	0.01	0.30	0.31	0.016	0.01	0.005	8.11	0.003	0.027
A-4	Emitter 4	0.002	0.81	3.75	0.01	0.20	0.21	0.016	0.005	0.01	9.48	0.003	0.032

1 - Q Bypass taken from inlet capacity reports from the HydroCAD software used to analyze and design the pipe conveyance system. cross slope was used.

2- Intensity based on minimum 10 minute time of concentration and based on Figure 10-B, Rainfall Intensity-Duration Frequency Curve - Northern Region, as per NJDOT Roadway Design Manual

POP-UP EMITTER SPREAD & DEPTH CALCULATION TABLE 10 year

Drainage Area	Road/Station	Area (Acres)	C	I ³	Q=CIA	Q Bypass ¹	Q Total	N	Cross Slope (ft/ft)	Long Slope (ft/ft)	Spread (ft)	Adjusted Slope	Depth (ft)
A-1	Emitter 1	0.002	0.81	4.86	0.01	0.00	0.01	0.016	0.005	0.01	2.78	0.003	0.009
A-2	Emitter 2	0.002	0.82	4.86	0.01	0.10	0.11	0.016	0.003	0.005	11.66	0.002	0.022
A-3	Emitter 3	0.002	0.72	4.86	0.01	0.70	0.71	0.016	0.01	0.005	11.12	0.003	0.037
A-4	Emitter 4	0.002	0.81	4.86	0.01	0.60	0.61	0.016	0.005	0.01	14.22	0.003	0.047

1 - Q Bypass taken from inlet capacity reports from the HydroCAD software used to analyze and design the pipe conveyance system. cross slope was used.

2 - Intensity based on minimum 10 minute time of concentration and based on Figure 10-B, Rainfall Intensity-Duration Frequency Curve - Northern Region, as per NJDOT Roadway Design Manu.

POP-UP EMITTER SPREAD & DEPTH CALCULATION TABLE 25 year													
Drainage Area	Road/Station	Area (Acres)	C	I^3	Q=CIA	Q Bypass ¹	Q Total	N	Cross Slope (ft/ft)	Long Slope (ft/ft)	Spread (ft)	Adjusted Slope	Depth (ft)
A-1	Emitter 1	0.002	0.81	5.75	0.01	0.10	0.11	0.016	0.005	0.01	7.47	0.003	0.025
A-2	Emitter 2	0.002	0.82	5.75	0.01	0.40	0.41	0.016	0.003	0.005	19.22	0.002	0.036
A-3	Emitter 3	0.002	0.72	5.75	0.01	0.70	0.71	0.016	0.01	0.005	11.12	0.003	0.037
A-4	Emitter 4	0.002	0.81	5.75	0.01	0.70	0.71	0.016	0.005	0.01	15.07	0.003	0.050

1 - Q Bypass taken from inlet capacity reports from the HydroCAD software used to analyze and design the pipe conveyance system. cross slope was used.

2 - Intensity based on minimum 10 minute time of concentration and based on Figure 10-B, Rainfall Intensity-Duration Frequency Curve - Northern Region, as per NJDOT Roadway Design Manu.

E. Gutter Spread Calculation Table

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GUTTER SPREAD CALCULATION TABLE 2 year																			
Drainage Area	Road/Station	Area (Acres)	C	i ³	Q=CIA	Existing Road Q	Q Bypass ¹	Q Total	N	Sx1 (ft/ft)	Sx2 (ft/ft)	SI	Sx ²	Depth (ft)	T (ft)	T _{ALLOWABLE} (ft)	Acceptable	Shoulder (ft)	Lane (ft)
Existing Road Flow	Lake Terrace	0.92	0.84	3.75	2.90	2.90													
A-1	Lake Terrace	0.30	0.88	3.75	0.99	2.90	0.00	3.89	0.013	0.0391	0.0391	0.0032	0.0391	0.38	9.07	12.70	Yes	8.70	12
A-2	Lake Terrace	0.17	0.59	3.75	0.38	3.89	0.00	4.26	0.013	0.039	0.039	0.0116	0.039	0.46	7.39	12.70	Yes	8.70	12
A-3	Lake Terrace	0.11	0.64	3.75	0.26	4.26	0.30	4.83	0.013	0.0352	0.0352	0.0028	0.0352	0.39	10.78	12.70	Yes	8.70	12
A-4	Lake Terrace	0.10	0.89	3.75	0.34	4.83	0.20	5.36	0.013	0.0402	0.0402	0.015	0.0402	0.53	7.53	12.70	Yes	8.70	12

1 - Q Bypass taken from inlet capacity reports from the HydroCAD software used to analyze and design the pipe conveyance system.

2 - Sx conservatively represents the milder cross-slope between the roadway and gutter/shoulder unless the calculated spread width doesn't exceed gutter/shoulder width. In this case, the gutter/shoulder width cross slope was used.

3 - Intensity based on minimum 10 minute time of concentration and based on Figure 10-B, Rainfall Intensity-Duration Frequency Curve - Northern Region, as per NJDOT Roadway Design Manual

GUTTER SPREAD CALCULATION TABLE 10 year																			
Drainage Area	Road/Station	Area (Acres)	C	i ³	Q=CIA	Existing Road Q	Q Bypass ¹	Q Total	N	Sx1 (ft/ft)	Sx2 (ft/ft)	SI	Sx ²	Depth (ft)	T (ft)	T _{ALLOWABLE} (ft)	Acceptable	Shoulder (ft)	Lane (ft)
Existing Road Flow	Lake Terrace	0.92	0.84	4.86	3.76	3.76													
A-1	Lake Terrace	0.30	0.88	4.86	1.28	3.76	0.00	5.04	0.013	0.0391	0.0391	0.0032	0.0391	0.42	10.00	12.70	Yes	8.70	12
A-2	Lake Terrace	0.17	0.59	4.86	0.49	5.04	0.10	5.63	0.013	0.039	0.039	0.0116	0.039	0.51	8.20	12.70	Yes	8.70	12
A-3	Lake Terrace	0.11	0.64	4.86	0.34	5.63	0.70	6.67	0.013	0.0352	0.0352	0.0028	0.0352	0.44	12.16	12.70	Yes	8.70	12
A-4	Lake Terrace	0.10	0.89	4.86	0.43	6.67	0.60	7.70	0.013	0.0402	0.0402	0.015	0.0402	0.61	8.63	12.70	Yes	8.70	12

1 - Q Bypass taken from inlet capacity reports from the HydroCAD software used to analyze and design the pipe conveyance system.

2 - Sx conservatively represents the milder cross-slope between the roadway and gutter/shoulder unless the calculated spread width doesn't exceed gutter/shoulder width. In this case, the gutter/shoulder width cross slope was used.

3 - Intensity based on minimum 10 minute time of concentration and based on Figure 10-B, Rainfall Intensity-Duration Frequency Curve - Northern Region, as per NJDOT Roadway Design Manual

GUTTER SPREAD CALCULATION TABLE 25 year																			
Drainage Area	Road/Station	Area (Acres)	C	i ³	Q=CIA	Existing Road Q	Q Bypass ¹	Q Total	N	Sx1 (ft/ft)	Sx2 (ft/ft)	SI	Sx ²	Depth (ft)	T (ft)	T _{ALLOWABLE} (ft)	Acceptable	Shoulder (ft)	Lane (ft)
Existing Road Flow	Lake Terrace	0.92	0.84	5.75	4.44	4.44													
A-1	Lake Terrace	0.30	0.88	5.75	1.51	4.44	0.10	6.06	0.013	0.0391	0.0391	0.0032	0.0391	0.45	10.71	12.70	Yes	8.70	12
A-2	Lake Terrace	0.17	0.59	5.75	0.58	6.06	0.40	7.04	0.013	0.039	0.039	0.0116	0.039	0.56	8.92	12.70	Yes	8.70	12
A-3	Lake Terrace	0.11	0.64	5.75	0.41	7.04	0.70	8.14	0.013	0.0352	0.0352	0.0028	0.0352	0.48	13.11	12.70	No	8.70	12
A-4	Lake Terrace	0.10	0.89	5.75	0.51	8.14	0.70	9.36	0.013	0.0402	0.0402	0.015	0.0402	0.67	9.28	12.70	Yes	8.70	12

1 - Q Bypass taken from inlet capacity reports from the HydroCAD software used to analyze and design the pipe conveyance system.

2 - Sx conservatively represents the milder cross-slope between the roadway and gutter/shoulder unless the calculated spread width doesn't exceed gutter/shoulder width. In this case, the gutter/shoulder width cross slope was used.

3 - Intensity based on minimum 10 minute time of concentration and based on Figure 10-B, Rainfall Intensity-Duration Frequency Curve - Northern Region, as per NJDOT Roadway Design Manual

F. Pre-development Drainage Area Map

PROJECT INFORMATION

501-511 LAKE TERRACE

PROJECT LOCATION: BLOCK 7, LOT 2.03
501-511 LAKE TERRACE
BOROUGH OF BRADLEY BEACH
MONMOUTH COUNTY, NJ
TAX MAP SHEET #1

OWNER:
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1412 MAIN STREET
ASBURY PARK, NJ 07712
(732) 772-5656

APPLICANT:
501 LAKE TERRACE, LLC
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(732) 772-5656

APPLICANT'S PROFESSIONALS

ATTORNEY:
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49 MARKET STREET
MORRISTOWN, NJ 07960

ARCHITECT:
MICHAEL SAVARESE ASSOCIATES
34 SYCAMORE AVENUE, UNIT #1E
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LANDSCAPE ARCHITECT:
BML STUDIO, LLC
11 PERMINCKLE DRIVE
BARNEGAT, NJ 08005

SURVEYOR:
INSITE SURVEYING, LLC
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PROPOSED EXCAVATION	WHITE

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InSite Engineering, LLC
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DEPE 3013 NYPE 802285 CIPPE 23391
NCPPE 33336 DCPE 900682 COPE 38605

REVISIONS

Rev. #	Date	Comment
3	08/19/21	REV. PER COUNTY COMMENTS
2	08/19/21	REV. PER CLIENT COMMENTS
1	05/06/21	REV. PER COUNTY COMMENTS
0	11/20/20	INITIAL RELEASE

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JOB #: 20-1472-01
CAD ID: 20-1472-01r2

DESIGNED BY: CMB
DRAWN BY: JLS
CHECKED BY: JLF

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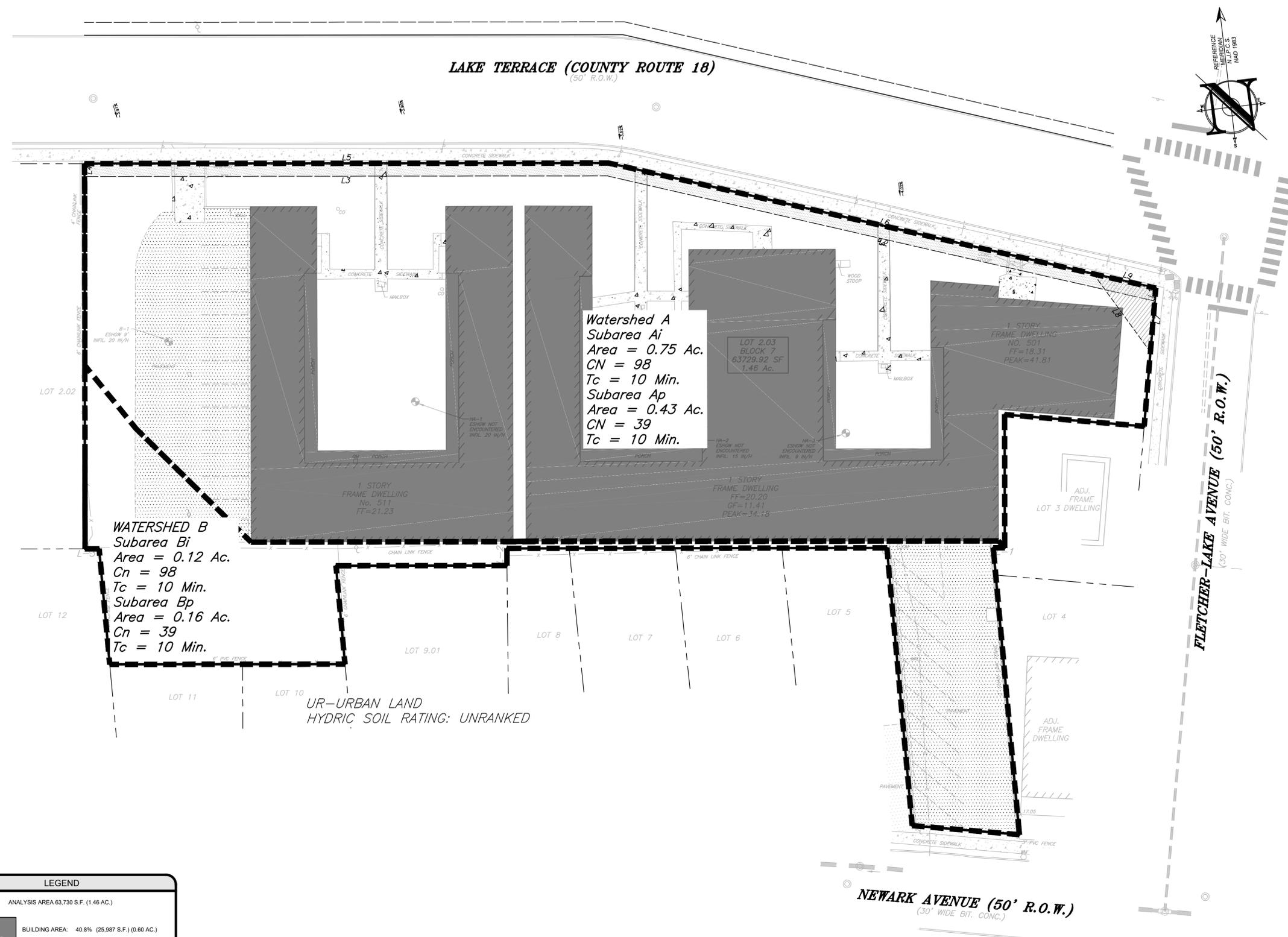
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PLAN INFORMATION

DRAWING TITLE:
PRELIMINARY & FINAL MAJOR SITE PLAN

SHEET TITLE:
PRE-DEVELOPMENT DRAINAGE AREA MAP

SHEET NO.:
1 OF 3



G. Post-development Drainage Area Map

PROJECT INFORMATION

PROJECT NAME:

501-511
LAKE
TERRACE

PROJECT LOCATION:
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PROPOSED EXCAVATION	WHITE



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DATE: 11/20/20
JOB #: 20-1472-01
CAD ID: 20-1472-01r2

DESIGNED BY: CMB
DRAWN BY: JLS
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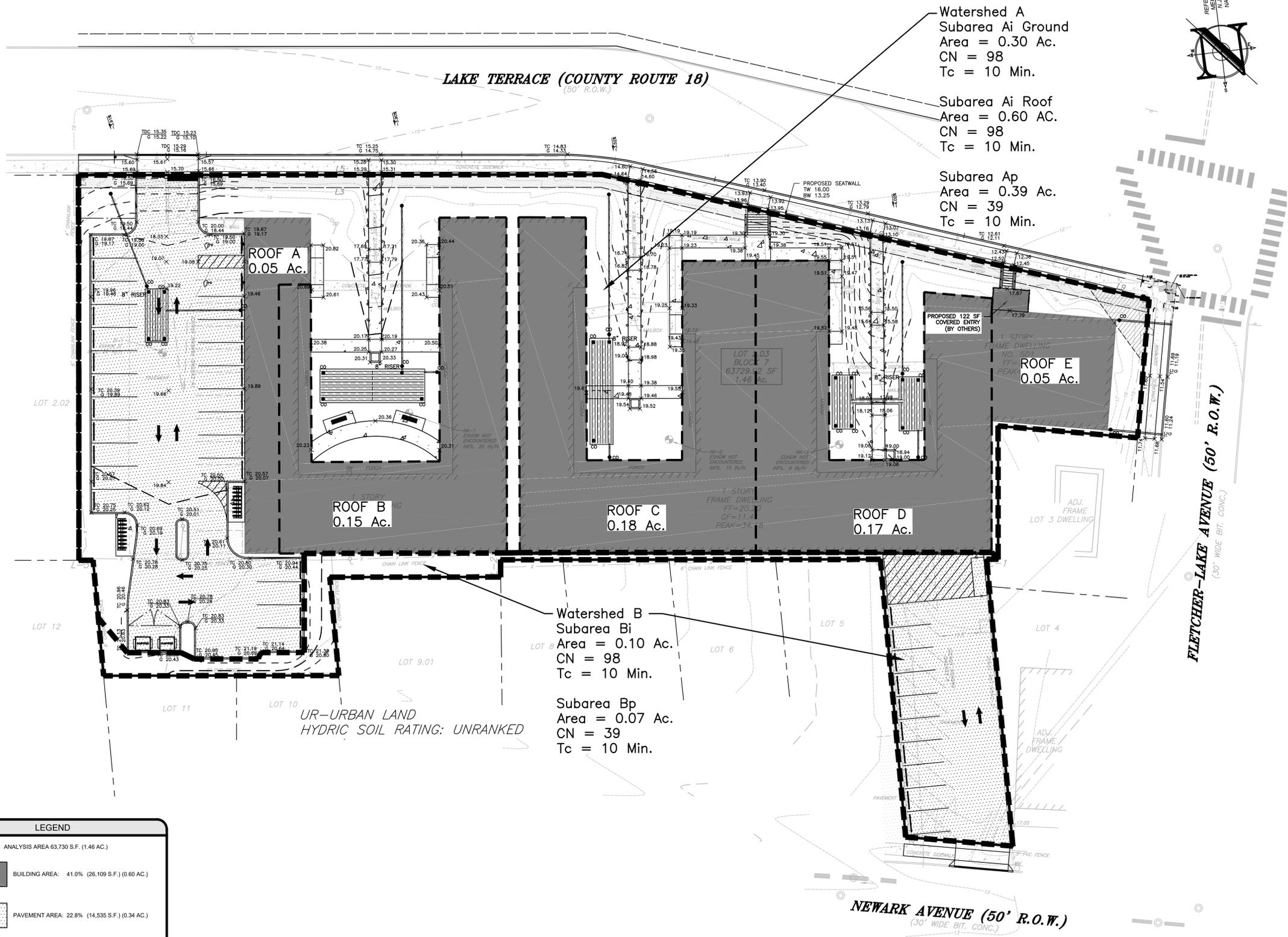
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PLAN INFORMATION

PRELIMINARY & FINAL
MAJOR SITE PLAN

POST-DEVELOPMENT
DRAINAGE AREA MAP

SHEET NO.: 2 OF 3



LEGEND		LEGEND	
EXISTING	PROPOSED	ANALYSIS AREA 63,730 S.F. (1.46 AC.)	
BOUNDARY LINE	BOUNDARY LINE	BUILDING AREA: 41.0% (26,109 S.F.) (0.60 AC.)	
CONTOUR LINE	CONTOUR LINE	PAVEMENT AREA: 22.8% (14,535 S.F.) (0.34 AC.)	
SPOT ELEVATION	SPOT ELEVATION	CONCRETE AREA: 4.4% (2,821 S.F.) (0.06 AC.)	
BUILDING	BUILDING	NO HATCH	OPEN SPACE: 31.8% (20,265 S.F.) (0.46 AC.)
WALL	WALL	ANALYSIS AREA BOUNDARY:	
GAS	GAS	TOTAL IMPERVIOUS AREA: 68.2% (43,465 S.F.) (1.00 AC.)	
WATER	WATER	TOTAL PERVIOUS AREA: 31.8% (20,265 S.F.) (0.46 AC.)	
INLET	INLET		
STORM	STORM		
SANITARY MAIN	SANITARY MAIN		
SANITARY LATERAL	SANITARY LATERAL		
OVERHEAD WIRE	OVERHEAD WIRE		
ELECTRIC	ELECTRIC		
TELEPHONE	TELEPHONE		
UTILITY POLE	UTILITY POLE		
HYDRANT	HYDRANT		
SIGN POST	SIGN POST		
FENCE	FENCE		
LIGHT FIXTURE	LIGHT FIXTURE		
TEST PIT LOCATION	TEST PIT LOCATION		
GRADE FLOW ARROW	GRADE FLOW ARROW		
SWALE CENTER LINE	SWALE CENTER LINE		

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H. County Drainage Map

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LAKE
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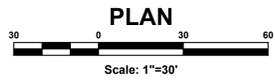
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PLAN INFORMATION

DRAWING TITLE:
**PRELIMINARY & FINAL
MAJOR SITE PLAN**

SHEET TITLE:
**COUNTY DRAINAGE
MAP**

SHEET NO.:
3 OF 3



LEGEND

EXISTING	PROPOSED
BOUNDARY LINE	BOUNDARY LINE
CONTOUR LINE	CONTOUR LINE
SPOT ELEVATION	SPOT ELEVATION
BUILDING	BUILDING
WALL	WALL
GAS	GAS
WATER	WATER
INLET	INLET
STORM	STORM
SANITARY MAIN	SANITARY MAIN
SANITARY LATERAL	SANITARY LATERAL
OVERHEAD WIRE	OVERHEAD WIRE
ELECTRIC	ELECTRIC
TELEPHONE	TELEPHONE
UTILITY POLE	UTILITY POLE
HYDRANT	HYDRANT
SIGN POST	SIGN POST
FENCE	FENCE
LIGHT FIXTURE	LIGHT FIXTURE
TEST PIT LOCATION	TEST PIT LOCATION
GRADE FLOW ARROW	GRADE FLOW ARROW
SWALE CENTER LINE	SWALE CENTER LINE

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