

Stormwater Analysis

For the

Application for a Definitive Subdivision Plan



**Salisbury Pine Tree Estates
Holden, Massachusetts**

APPLICANT:

**Holden Pine Tree, LLC
42 Zottoli Road
Holden, Massachusetts 01520**

**PLANNER, LANDSCAPE ARCHITECT,
CIVIL ENGINEER, SURVEYOR:**

PLACES Associates, Inc.

DATE of SUBMITTAL:

October 10, 2019

PLACES Associates, Inc.

256 Great Road, Suite 4, Littleton MA 01460 · (978) 486-0334 · www.placesassociates.com

The proposed project contains approximately 25.7 acres of land bordered on the east by Salisbury Street to the east, Bailey Road to the west and the existing railroad tracks to the north. The site is predominately a large moraine with glacial till soils on the hillside transitioning to sand and gravel soils at the toe of the hillside where wetlands are present adjacent to the railroad tracks.

The existing topography creates three major drainage subcatchments: tributary to the wetlands network adjacent to the rail road tracks, tributary to the series of isolated wetlands behind the homes on Bailey Road and tributary to Salisbury Street. The point of analysis by the rail road tracks, is in the DCR Zone A and as such, there are restrictions on the amount of impervious areas, water quality and the location of BMPS.

There are two existing catchbasins located on the existing Pine Tree Road which drain behind the existing apartment building, discharging into the 200' Tributary Zone. The area of the outfall is heavy brush and the outfall could not be recovered by survey so its condition could not be assessed. These catchbasins are in poor condition and provide no BMPs currently associated with drainage structures with the minimum being deep sumps and regular cleaning. This project includes the reconstruction of this first portion of Pine Tree Road and will provide pre-treatment of the runoff collected in these structures with the use of deep sump catchbasins and a stormwater treatment unit – hydrodynamic separator. A new drainage outfall is proposed so that the system can be maintained.

The NCRS soils maps indicate that the site is a combination of Hydrologic Group A, B and C soils. Based on soil testing performed in 2009 and 2019, the majority of the hill has been classified as C soils due to dense sandy loam being encountered. Soils in the wetlands were hydric and classified as D soils.

As much of the site is Hydrologic group C soils, basins have been sited in areas where the A soils are located to maximize the natural infiltration capacity of the sand and gravel areas. The natural storage capacity has been maintained and expanded to the Bailey Road wetlands system behind the existing 124 Bailey Road.

Drainage analysis was performed for the 2, 10, 25 and 100 year events. Many of the overland flow areas to the POA (points of analysis) have been greatly reduced in area but this reduction is not necessarily reflected in the runoff rates as a reduced area has also reduced the time of concentration. This is most noticeable in the 2 year rainfall events. Small drainage features, including depressions for potential raingardens were not included in the drainage calculations as they do not provide any substantial storage capacity for any of the larger storm events. In addition, the design does not consider any of the recharge at the drip lines of the proposed houses as shown on the detail sheets.

The design criteria for design is to provide attenuation to balance the 2, 10 and 25 year events and to not create flooding in the 100 year event.

POA – 1 Railroad Tracks

Storm event	Pre Development	Post Development
2 year	0.59 cfs	0.76 cfs
10 year	2.35 cfs	2.14 cfs
25 year	5.56 cfs	3.38 cfs
100 year	13.66 cfs	12.57 cfs

POA – Bailey Rd Abutters Isolated Wetland (6P pre development, 60P post development)

Storm event	Pre Development	Post Development
2 year	0.28 cfs	0 cfs
10 year	0.75 cfs	0 cfs
25 year	1.08 cfs	0 cfs
100 year	2.73 cfs	2.72 cfs

POA – Salisbury Street (3 Predevelopment, Link 311 post development)

Storm event	Pre Development	Post Development
2 year	2.65 cfs	3.10 cfs
10 year	6.61 cfs	5.78 cfs
25 year	9.32 cfs	8.40 cfs
100 year	13.69 cfs	13.78 cfs

POA – Overland to abutters to the South (Pre-development 4, Post development 40)

Storm event	Pre Development	Post Development
2 year	0.85 cfs	0.22 cfs
10 year	2.30 cfs	0.50 cfs
25 year	3.38 cfs	0.70 cfs
100 year	4.94 cfs	1.01 cfs

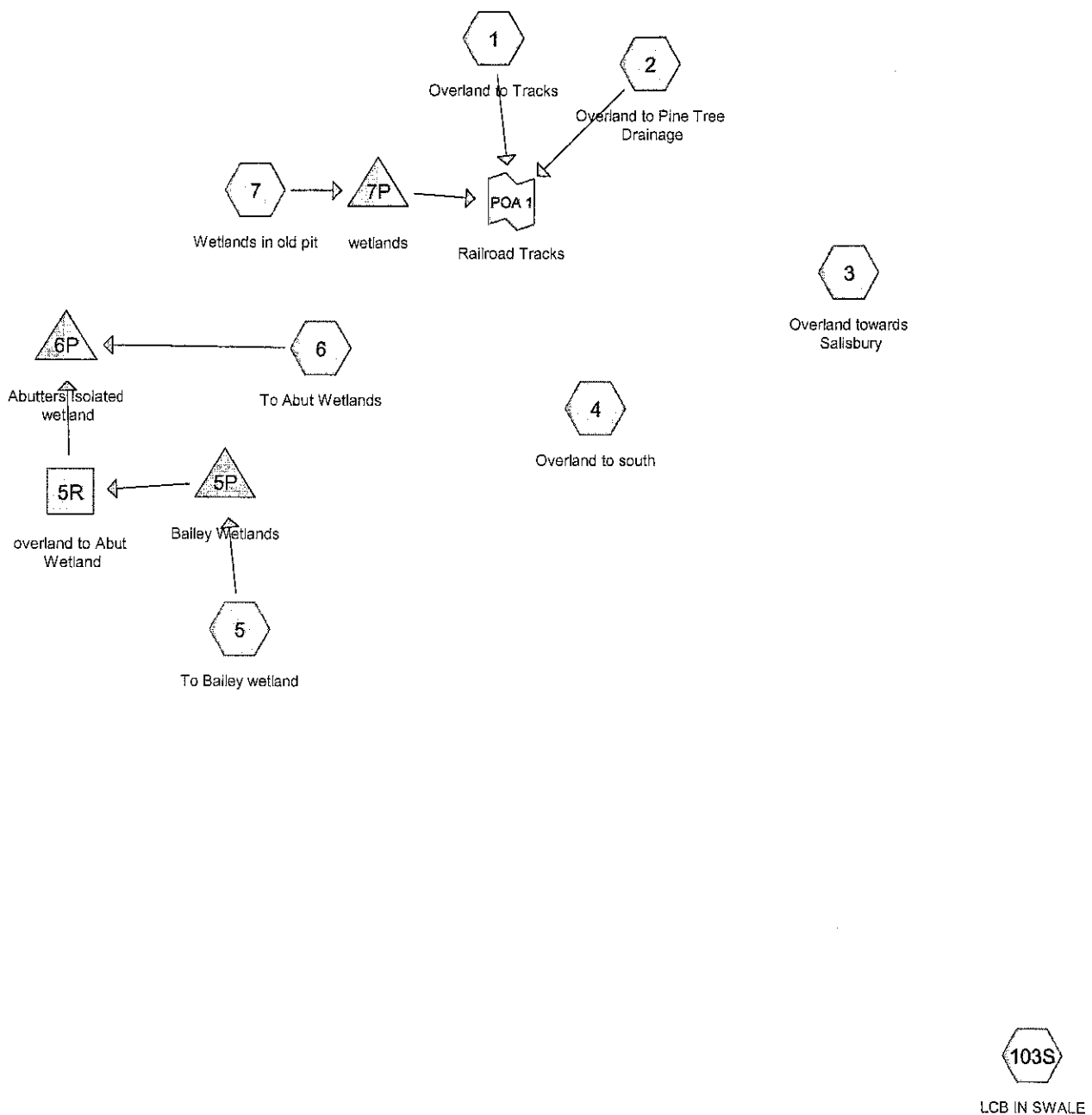
Water Quality

This site design utilizes a variety of BMPs (Best Management Practices) for water quality control on the site. All catchbasins are designed with deep sumps and no water is directly discharged from the drainage with out pre-treatment. As the drainage system will be maintained by a Homeowners Association, water quality inlets have been used where possible and hydrodynamic separators (VortSentry or similar) where there is insufficient area for a basin.

All basins, with the exception of Basin A are designed to drain in between storms. Basin A has been designed as an infiltration basin and contains the entire volume of the 100 year event, maximizing the recharge capacity.

A full analysis of compliance with the DEP Stormwater Standards will be provided when the Notice of Intent is filed with the Conservation Commission and with the local Stormwater by-law filings.

25-YEAR Pre-Development - Detailed



Pine Tree - Pre Development

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.005	39	>75% Grass cover, Good, HSG A (1, 2, 5, 103S)
0.230	61	>75% Grass cover, Good, HSG B (5)
0.151	74	>75% Grass cover, Good, HSG C (103S)
0.065	98	Paved parking, HSG C (103S)
0.348	98	Unconnected roofs, HSG A (1, 2, 5)
0.048	98	Unconnected roofs, HSG B (5)
0.404	73	Wetlands, Brush, Good, HSG D (7)
0.018	77	Wetlands, Woods, Good, HSG D (5)
10.748	30	Woods, Good, HSG A (1, 2, 4, 5, 7)
2.224	55	Woods, Good, HSG B (5, 6, 7)
13.293	70	Woods, Good, HSG C (1, 2, 3, 4, 5, 6, 7, 103S)
28.533	53	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
12.101	HSG A	1, 2, 4, 5, 7, 103S
2.502	HSG B	5, 6, 7
13.508	HSG C	1, 2, 3, 4, 5, 6, 7, 103S
0.422	HSG D	5, 7
0.000	Other	
28.533		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
1.005	0.230	0.151	0.000	0.000	1.385	>75% Grass cover, Good	1, 2, 5, 103S
0.000	0.000	0.065	0.000	0.000	0.065	Paved parking	103S
0.348	0.048	0.000	0.000	0.000	0.396	Unconnected roofs	1, 2, 5
0.000	0.000	0.000	0.404	0.000	0.404	Wetlands, Brush, Good	7
0.000	0.000	0.000	0.018	0.000	0.018	Wetlands, Woods, Good	5
10.748	2.224	13.293	0.000	0.000	26.266	Woods, Good	1, 2, 3, 4, 5, 6, 7, 103S
12.101	2.502	13.508	0.422	0.000	28.533	TOTAL AREA	

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MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Time span=1.00-30.00 hrs, dt=0.01 hrs, 2901 points

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN

Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Overland to Tracks Runoff Area=338,368 sf 0.61% Impervious Runoff Depth=0.72"
Flow Length=654' Tc=14.0 min CN=44 Runoff=2.25 cfs 0.465 af

Subcatchment 2: Overland to Pine Tree Runoff Area=77,540 sf 8.03% Impervious Runoff Depth=2.14"
Flow Length=526' Tc=12.5 min UI Adjusted CN=63 Runoff=3.33 cfs 0.318 af

Subcatchment 3: Overland towards Runoff Area=185,806 sf 0.00% Impervious Runoff Depth=2.77"
Flow Length=480' Tc=16.3 min CN=70 Runoff=9.32 cfs 0.983 af

Subcatchment 4: Overland to south Runoff Area=72,120 sf 0.00% Impervious Runoff Depth=2.58"
Flow Length=350' Tc=16.9 min CN=68 Runoff=3.30 cfs 0.356 af

Subcatchment 5: To Bailey wetland Runoff Area=378,413 sf 2.36% Impervious Runoff Depth=1.05"
Flow Length=730' Tc=28.3 min UI Adjusted CN=49 Runoff=3.83 cfs 0.759 af

Subcatchment 6: To Abut Wetlands Runoff Area=25,750 sf 0.00% Impervious Runoff Depth=2.58"
Flow Length=609' Tc=19.8 min CN=68 Runoff=1.08 cfs 0.127 af

Subcatchment 7: Wetlands in old pit Runoff Area=143,520 sf 0.00% Impervious Runoff Depth=0.60"
Flow Length=670' Tc=18.0 min CN=42 Runoff=0.55 cfs 0.164 af

Subcatchment 103S: LCB IN SWALE Runoff Area=21,365 sf 13.20% Impervious Runoff Depth=2.58"
Flow Length=250' Tc=5.6 min CN=68 Runoff=1.61 cfs 0.106 af

Reach 5R: overland to Abut Wetland Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af
n=0.400 L=215.0' S=0.0419 '/' Capacity=1.32 cfs Outflow=0.00 cfs 0.000 af

Pond 5P: Bailey Wetlands Peak Elev=777.35' Storage=4,529 cf Inflow=3.83 cfs 0.759 af
Discarded=1.96 cfs 0.759 af Primary=0.00 cfs 0.000 af Outflow=1.96 cfs 0.759 af

Pond 6P: Abutters Isolated wetland Inflow=1.08 cfs 0.127 af
Primary=1.08 cfs 0.127 af

Pond 7P: wetlands Peak Elev=751.19' Storage=0 cf Inflow=0.55 cfs 0.164 af
Outflow=0.55 cfs 0.164 af

Link POA 1: Railroad Tracks Inflow=5.56 cfs 0.947 af
Primary=5.56 cfs 0.947 af

Total Runoff Area = 28.533 ac Runoff Volume = 3.278 af Average Runoff Depth = 1.38"
98.39% Pervious = 28.072 ac 1.61% Impervious = 0.460 ac

Pine Tree - Pre Development

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Summary for Subcatchment 1: Overland to Tracks

Runoff = 2.25 cfs @ 12.21 hrs, Volume= 0.465 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
219,495	30	Woods, Good, HSG A
1,500	39	>75% Grass cover, Good, HSG A
115,303	70	Woods, Good, HSG C
2,070	98	Unconnected roofs, HSG A
338,368	44	Weighted Average
336,298		99.39% Pervious Area
2,070		0.61% Impervious Area
2,070		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	35	0.1200	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
2.0	300	0.2500	2.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.3	63	0.0660	4.14		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.4	62	0.2500	2.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.0	92	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
2.4	102	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
14.0	654	Total			

Summary for Subcatchment 2: Overland to Pine Tree Drainage

Runoff = 3.33 cfs @ 12.12 hrs, Volume= 0.318 af, Depth= 2.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Adj	Description
13,675	30		Woods, Good, HSG A
1,500	39		>75% Grass cover, Good, HSG A
56,140	70		Woods, Good, HSG C
6,225	98		Unconnected roofs, HSG A
77,540	65	63	Weighted Average, UI Adjusted
71,315			91.97% Pervious Area
6,225			8.03% Impervious Area
6,225			100.00% Unconnected

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.5	35	0.1000	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
0.7	45	0.0440	1.05		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.8	250	0.2100	2.29		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.1	20	0.6000	3.87		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.1	15	0.2600	2.55		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.6	42	0.0470	1.08		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.1	15	0.2600	3.57		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	57	0.0700	4.26		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.4	47	0.0100	2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps
12.5	526	Total			

Summary for Subcatchment 3: Overland towards Salisbury

Runoff = 9.32 cfs @ 12.18 hrs, Volume= 0.983 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
185,806	70	Woods, Good, HSG C
185,806		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
3.9	430	0.1350	1.84		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.3	480	Total			

Summary for Subcatchment 4: Overland to south

Runoff = 3.30 cfs @ 12.19 hrs, Volume= 0.356 af, Depth= 2.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Area (sf)	CN	Description
3,160	30	Woods, Good, HSG A
68,960	70	Woods, Good, HSG C
72,120	68	Weighted Average
72,120		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.9	50	0.0600	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
0.7	62	0.0880	1.48		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.5	175	0.1600	2.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.8	63	0.0630	1.25		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.9	350	Total			

Summary for Subcatchment 5: To Bailey wetland

Runoff = 3.83 cfs @ 12.39 hrs, Volume= 0.759 af, Depth= 1.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Adj	Description
136,512	30		Woods, Good, HSG A
76,662	55		Woods, Good, HSG B
109,528	70		Woods, Good, HSG C
* 777	77		Wetlands, Woods, Good, HSG D
6,859	98		Unconnected roofs, HSG A
2,075	98		Unconnected roofs, HSG B
36,000	39		>75% Grass cover, Good, HSG A
10,000	61		>75% Grass cover, Good, HSG B
378,413	50	49	Weighted Average, UI Adjusted
369,479			97.64% Pervious Area
8,934			2.36% Impervious Area
8,934			100.00% Unconnected

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MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.3	50	0.1000	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
0.2	28	0.2140	2.31		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.9	156	0.0770	1.39		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.5	46	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	112	0.0710	1.33		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.5	93	0.0430	1.04		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
11.5	245	0.0050	0.35		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
28.3	730	Total			

Summary for Subcatchment 6: To Abut Wetlands

Runoff = 1.08 cfs @ 12.23 hrs, Volume= 0.127 af, Depth= 2.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
2,905	55	Woods, Good, HSG B
22,845	70	Woods, Good, HSG C
25,750	68	Weighted Average
25,750		100.00% Pervious Area

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MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
0.7	75	0.1330	1.82		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.5	117	0.0690	1.31		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.4	50	0.2060	2.27		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.3	30	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.8	82	0.0240	0.77		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	25	0.1200	1.73		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.8	50	0.0400	1.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.7	130	0.0620	1.24		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
19.8	609	Total			

Summary for Subcatchment 7: Wetlands in old pit

Runoff = 0.55 cfs @ 12.33 hrs, Volume= 0.164 af, Depth= 0.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
95,348	30	Woods, Good, HSG A
17,332	55	Woods, Good, HSG B
13,256	70	Woods, Good, HSG C
* 17,584	73	Wetlands, Brush, Good, HSG D
143,520	42	Weighted Average
143,520		100.00% Pervious Area

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MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	50	0.1400	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
3.2	300	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.4	60	0.2300	2.40		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
3.1	150	0.0260	0.81		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	35	0.5700	3.77		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.1	15	0.1300	1.80		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.1	60	0.0330	0.91		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
18.0	670	Total			

Summary for Subcatchment 103S: LCB IN SWALE

Runoff = 1.61 cfs @ 12.04 hrs, Volume= 0.106 af, Depth= 2.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
4,775	39	>75% Grass cover, Good, HSG A
6,560	74	>75% Grass cover, Good, HSG C
2,820	98	Paved parking, HSG C
7,210	70	Woods, Good, HSG C
21,365	68	Weighted Average
18,545		86.80% Pervious Area
2,820		13.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
2.9	30	0.1000	0.17		Sheet Flow, Grass: Dense n= 0.240 P2= 3.17"
0.3	50	0.1200	2.42		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.9	110	0.1500	0.97		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.3	30	0.4000	1.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.2	30	0.2000	3.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
5.6	250	Total			

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MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Summary for Reach 5R: overland to Abut Wetland

Inflow Area = 8.687 ac, 2.36% Impervious, Inflow Depth = 0.00" for 25-yr event
Inflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 1.00 hrs
Average Depth at Peak Storage= 0.00'
Bank-Full Depth= 0.20' Flow Area= 6.7 sf, Capacity= 1.32 cfs

50.00' x 0.20' deep Parabolic Channel, n= 0.400 Sheet flow: Woods+light brush
Length= 215.0' Slope= 0.0419 '/'
Inlet Invert= 777.00', Outlet Invert= 768.00'



Summary for Pond 5P: Bailey Wetlands

Inflow Area = 8.687 ac, 2.36% Impervious, Inflow Depth = 1.05" for 25-yr event
Inflow = 3.83 cfs @ 12.39 hrs, Volume= 0.759 af
Outflow = 1.96 cfs @ 12.92 hrs, Volume= 0.759 af, Atten= 49%, Lag= 31.7 min
Discarded = 1.96 cfs @ 12.92 hrs, Volume= 0.759 af
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
Peak Elev= 777.35' @ 12.92 hrs Surf.Area= 10,743 sf Storage= 4,529 cf

Plug-Flow detention time= 28.5 min calculated for 0.759 af (100% of inflow)
Center-of-Mass det. time= 28.5 min (996.0 - 967.5)

Volume	Invert	Avail.Storage	Storage Description
#1	776.50'	14,025 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
776.50	777	0	0
777.00	5,759	1,634	1,634
777.50	12,860	4,655	6,289
778.00	18,086	7,737	14,025

Pine Tree - Pre Development

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Device	Routing	Invert	Outlet Devices
#1	Discarded	776.50'	2.410 in/hr Exfiltration over Surface area above 776.50' Conductivity to Groundwater Elevation = 776.49' Excluded Surface area = 777 sf
#2	Primary	777.50'	30.0' long x 50.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Discarded OutFlow Max=1.96 cfs @ 12.92 hrs HW=777.35' (Free Discharge)

↑1=Exfiltration (Controls 1.96 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=776.50' TW=777.00' (Dynamic Tailwater)

↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Summary for Pond 6P: Abutters Isolated wetland

Inflow Area = 9.278 ac, 2.21% Impervious, Inflow Depth = 0.16" for 25-yr event
 Inflow = 1.08 cfs @ 12.23 hrs, Volume= 0.127 af
 Primary = 1.08 cfs @ 12.23 hrs, Volume= 0.127 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Summary for Pond 7P: wetlands

Inflow Area = 3.295 ac, 0.00% Impervious, Inflow Depth = 0.60" for 25-yr event
 Inflow = 0.55 cfs @ 12.33 hrs, Volume= 0.164 af
 Outflow = 0.55 cfs @ 12.33 hrs, Volume= 0.164 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.55 cfs @ 12.33 hrs, Volume= 0.164 af

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 751.19' @ 1.00 hrs Surf.Area= 17,584 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)

Center-of-Mass det. time= 0.0 min (1,004.5 - 1,004.5)

Volume	Invert	Avail.Storage	Storage Description
#1	751.19'	26,376 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
751.19	17,584	0	0
752.69	17,584	26,376	26,376

Device	Routing	Invert	Outlet Devices
#1	Primary	722.69'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.00 cfs @ 12.33 hrs HW=751.19' TW=0.00' (Dynamic Tailwater)

↑1=Broad-Crested Rectangular Weir (Passes 0.00 cfs of 8,003.00 cfs potential flow)

Summary for Link POA 1: Railroad Tracks

Inflow Area = 12.843 ac, 1.48% Impervious, Inflow Depth = 0.88" for 25-yr event
Inflow = 5.56 cfs @ 12.17 hrs, Volume= 0.947 af
Primary = 5.56 cfs @ 12.17 hrs, Volume= 0.947 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Pine Tree - Pre Development

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.005	39	>75% Grass cover, Good, HSG A (1, 2, 5, 103S)
0.230	61	>75% Grass cover, Good, HSG B (5)
0.151	74	>75% Grass cover, Good, HSG C (103S)
0.065	98	Paved parking, HSG C (103S)
0.348	98	Unconnected roofs, HSG A (1, 2, 5)
0.048	98	Unconnected roofs, HSG B (5)
0.404	73	Wetlands, Brush, Good, HSG D (7)
0.018	77	Wetlands, Woods, Good, HSG D (5)
10.748	30	Woods, Good, HSG A (1, 2, 4, 5, 7)
2.224	55	Woods, Good, HSG B (5, 6, 7)
13.293	70	Woods, Good, HSG C (1, 2, 3, 4, 5, 6, 7, 103S)
28.533	53	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
12.101	HSG A	1, 2, 4, 5, 7, 103S
2.502	HSG B	5, 6, 7
13.508	HSG C	1, 2, 3, 4, 5, 6, 7, 103S
0.422	HSG D	5, 7
0.000	Other	
28.533		TOTAL AREA

Pine Tree - Pre Development

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
1.005	0.230	0.151	0.000	0.000	1.385	>75% Grass cover, Good	1, 2, 5, 103S
0.000	0.000	0.065	0.000	0.000	0.065	Paved parking	103S
0.348	0.048	0.000	0.000	0.000	0.396	Unconnected roofs	1, 2, 5
0.000	0.000	0.000	0.404	0.000	0.404	Wetlands, Brush, Good	7
0.000	0.000	0.000	0.018	0.000	0.018	Wetlands, Woods, Good	5
10.748	2.224	13.293	0.000	0.000	26.266	Woods, Good	1, 2, 3, 4, 5, 6, 7, 103S
12.101	2.502	13.508	0.422	0.000	28.533	TOTAL AREA	

2-YEAR Pre-Development

Pine Tree - Pre Development

MA-Holden_files 24-hr S1 2-yr Rainfall=3.18"

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Time span=1.00-30.00 hrs, dt=0.01 hrs, 2901 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Overland to Tracks Runoff Area=338,368 sf 0.61% Impervious Runoff Depth=0.03"
 Flow Length=654' Tc=14.0 min CN=44 Runoff=0.03 cfs 0.020 af

Subcatchment 2: Overland to Pine Tree Runoff Area=77,540 sf 8.03% Impervious Runoff Depth=0.51"
 Flow Length=526' Tc=12.5 min UI Adjusted CN=63 Runoff=0.59 cfs 0.076 af

Subcatchment 3: Overland towards Runoff Area=185,806 sf 0.00% Impervious Runoff Depth=0.82"
 Flow Length=480' Tc=16.3 min CN=70 Runoff=2.65 cfs 0.290 af

Subcatchment 4: Overland to south Runoff Area=72,120 sf 0.00% Impervious Runoff Depth=0.72"
 Flow Length=350' Tc=16.9 min CN=68 Runoff=0.85 cfs 0.100 af

Subcatchment 5: To Bailey wetland Runoff Area=378,413 sf 2.36% Impervious Runoff Depth=0.10"
 Flow Length=730' Tc=28.3 min UI Adjusted CN=49 Runoff=0.09 cfs 0.076 af

Subcatchment 6: To Abut Wetlands Runoff Area=25,750 sf 0.00% Impervious Runoff Depth=0.72"
 Flow Length=609' Tc=19.8 min CN=68 Runoff=0.28 cfs 0.036 af

Subcatchment 7: Wetlands in old pit Runoff Area=143,520 sf 0.00% Impervious Runoff Depth=0.01"
 Flow Length=670' Tc=18.0 min CN=42 Runoff=0.01 cfs 0.003 af

Subcatchment 103S: LCB IN SWALE Runoff Area=21,365 sf 13.20% Impervious Runoff Depth=0.72"
 Flow Length=250' Tc=5.6 min CN=68 Runoff=0.42 cfs 0.029 af

Reach 5R: overland to Abut Wetland Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af
 n=0.400 L=215.0' S=0.0419 '/' Capacity=1.32 cfs Outflow=0.00 cfs 0.000 af

Pond 5P: Bailey Wetlands Peak Elev=776.58' Storage=100 cf Inflow=0.09 cfs 0.076 af
 Discarded=0.09 cfs 0.076 af Primary=0.00 cfs 0.000 af Outflow=0.09 cfs 0.076 af

Pond 6P: Abutters Isolated wetland Inflow=0.28 cfs 0.036 af
 Primary=0.28 cfs 0.036 af

Pond 7P: wetlands Peak Elev=751.19' Storage=0 cf Inflow=0.01 cfs 0.003 af
 Outflow=0.01 cfs 0.003 af

Link POA 1: Railroad Tracks Inflow=0.59 cfs 0.099 af
 Primary=0.59 cfs 0.099 af

Total Runoff Area = 28.533 ac Runoff Volume = 0.629 af Average Runoff Depth = 0.26"
98.39% Pervious = 28.072 ac 1.61% Impervious = 0.460 ac

10-YEAR Pre-Development

Pine Tree - Pre Development

MA-Holden_files 24-hr S1 10-yr Rainfall=4.89"

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Time span=1.00-30.00 hrs, dt=0.01 hrs, 2901 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Overland to Tracks	Runoff Area=338,368 sf 0.61% Impervious Runoff Depth=0.36" Flow Length=654' Tc=14.0 min CN=44 Runoff=0.58 cfs 0.236 af
Subcatchment 2: Overland to Pine Tree	Runoff Area=77,540 sf 8.03% Impervious Runoff Depth=1.44" Flow Length=526' Tc=12.5 min UI Adjusted CN=63 Runoff=2.18 cfs 0.214 af
Subcatchment 3: Overland towards	Runoff Area=185,806 sf 0.00% Impervious Runoff Depth=1.96" Flow Length=480' Tc=16.3 min CN=70 Runoff=6.61 cfs 0.695 af
Subcatchment 4: Overland to south	Runoff Area=72,120 sf 0.00% Impervious Runoff Depth=1.80" Flow Length=350' Tc=16.9 min CN=68 Runoff=2.30 cfs 0.249 af
Subcatchment 5: To Bailey wetland	Runoff Area=378,413 sf 2.36% Impervious Runoff Depth=0.60" Flow Length=730' Tc=28.3 min UI Adjusted CN=49 Runoff=1.61 cfs 0.432 af
Subcatchment 6: To Abut Wetlands	Runoff Area=25,750 sf 0.00% Impervious Runoff Depth=1.80" Flow Length=609' Tc=19.8 min CN=68 Runoff=0.75 cfs 0.089 af
Subcatchment 7: Wetlands in old pit	Runoff Area=143,520 sf 0.00% Impervious Runoff Depth=0.28" Flow Length=670' Tc=18.0 min CN=42 Runoff=0.14 cfs 0.078 af
Subcatchment 103S: LCB IN SWALE	Runoff Area=21,365 sf 13.20% Impervious Runoff Depth=1.80" Flow Length=250' Tc=5.6 min CN=68 Runoff=1.12 cfs 0.074 af
Reach 5R: overland to Abut Wetland	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0.000 af n=0.400 L=215.0' S=0.0419 '/' Capacity=1.32 cfs Outflow=0.00 cfs 0.000 af
Pond 5P: Bailey Wetlands	Peak Elev=777.02' Storage=1,777 cf Inflow=1.61 cfs 0.432 af Discarded=1.02 cfs 0.432 af Primary=0.00 cfs 0.000 af Outflow=1.02 cfs 0.432 af
Pond 6P: Abutters Isolated wetland	Inflow=0.75 cfs 0.089 af Primary=0.75 cfs 0.089 af
Pond 7P: wetlands	Peak Elev=751.19' Storage=0 cf Inflow=0.14 cfs 0.078 af Outflow=0.14 cfs 0.078 af
Link POA 1: Railroad Tracks	Inflow=2.35 cfs 0.528 af Primary=2.35 cfs 0.528 af

Total Runoff Area = 28.533 ac Runoff Volume = 2.066 af Average Runoff Depth = 0.87"
98.39% Pervious = 28.072 ac 1.61% Impervious = 0.460 ac

100-YEAR Pre-Development

Pine Tree - Pre Development

MA-Holden_files 24-hr S1 100-yr Rainfall=7.60"

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Time span=1.00-30.00 hrs, dt=0.01 hrs, 2901 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Overland to Tracks Runoff Area=338,368 sf 0.61% Impervious Runoff Depth=1.44"
Flow Length=654' Tc=14.0 min CN=44 Runoff=6.92 cfs 0.930 af

Subcatchment 2: Overland to Pine Tree Runoff Area=77,540 sf 8.03% Impervious Runoff Depth=3.36"
Flow Length=526' Tc=12.5 min UI Adjusted CN=63 Runoff=5.26 cfs 0.498 af

Subcatchment 3: Overland towards Runoff Area=185,806 sf 0.00% Impervious Runoff Depth=4.12"
Flow Length=480' Tc=16.3 min CN=70 Runoff=13.69 cfs 1.465 af

Subcatchment 4: Overland to south Runoff Area=72,120 sf 0.00% Impervious Runoff Depth=3.90"
Flow Length=350' Tc=16.9 min CN=68 Runoff=4.94 cfs 0.538 af

Subcatchment 5: To Bailey wetland Runoff Area=378,413 sf 2.36% Impervious Runoff Depth=1.91"
Flow Length=730' Tc=28.3 min UI Adjusted CN=49 Runoff=8.27 cfs 1.384 af

Subcatchment 6: To Abut Wetlands Runoff Area=25,750 sf 0.00% Impervious Runoff Depth=3.90"
Flow Length=609' Tc=19.8 min CN=68 Runoff=1.62 cfs 0.192 af

Subcatchment 7: Wetlands in old pit Runoff Area=143,520 sf 0.00% Impervious Runoff Depth=1.26"
Flow Length=670' Tc=18.0 min CN=42 Runoff=2.04 cfs 0.345 af

Subcatchment 103S: LCB IN SWALE Runoff Area=21,365 sf 13.20% Impervious Runoff Depth=3.90"
Flow Length=250' Tc=5.6 min CN=68 Runoff=2.40 cfs 0.159 af

Reach 5R: overland to Abut Wetland Avg. Flow Depth=0.27' Max Vel=0.23 fps Inflow=3.48 cfs 0.137 af
n=0.400 L=215.0' S=0.0419 '/ Capacity=1.32 cfs Outflow=2.29 cfs 0.137 af

Pond 5P: Bailey Wetlands Peak Elev=777.62' Storage=7,954 cf Inflow=8.27 cfs 1.384 af
Discarded=2.80 cfs 1.248 af Primary=3.48 cfs 0.137 af Outflow=6.28 cfs 1.384 af

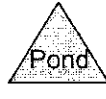
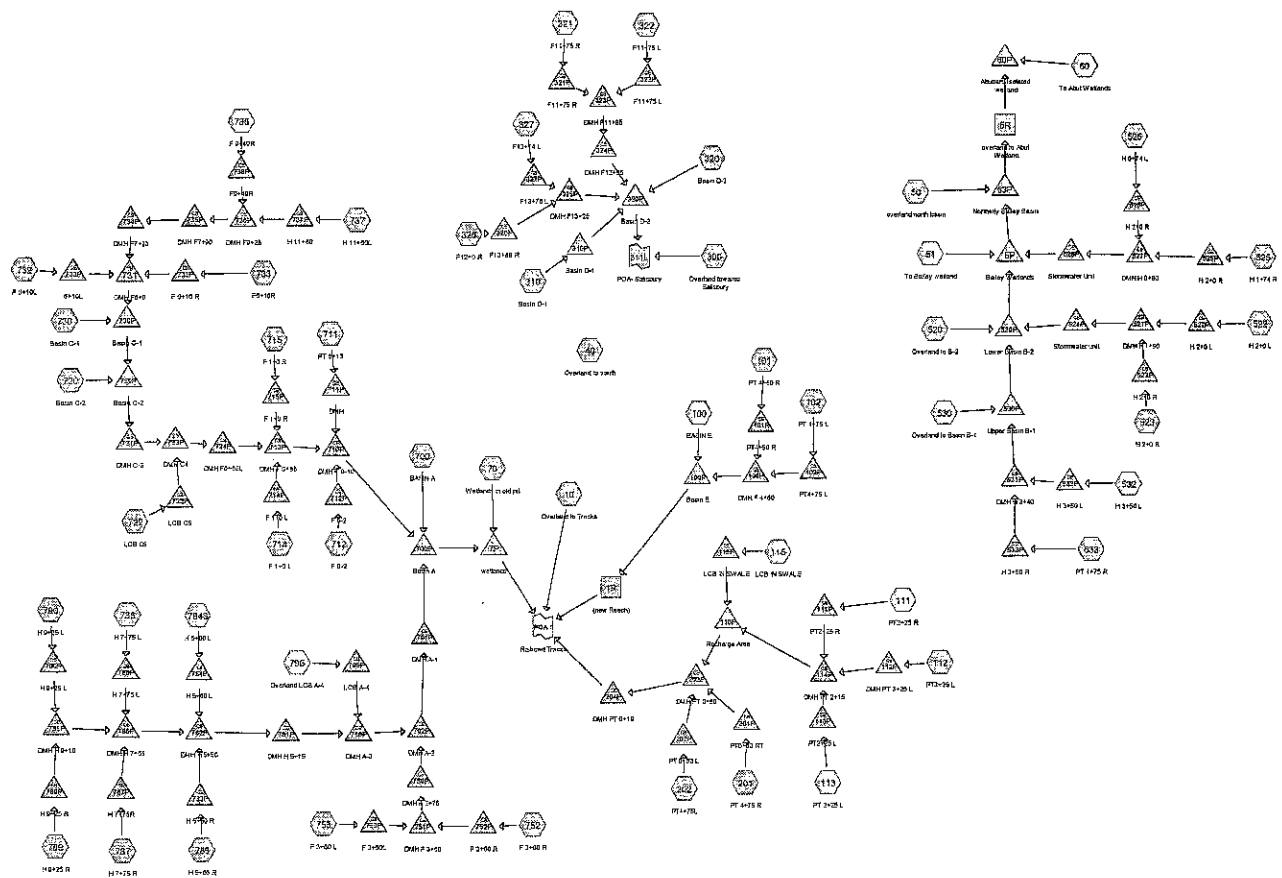
Pond 6P: Abutters Isolated wetland Inflow=2.73 cfs 0.329 af
Primary=2.73 cfs 0.329 af

Pond 7P: wetlands Peak Elev=751.19' Storage=0 cf Inflow=2.04 cfs 0.345 af
Outflow=2.04 cfs 0.345 af

Link POA 1: Railroad Tracks Inflow=13.66 cfs 1.773 af
Primary=13.66 cfs 1.773 af

Total Runoff Area = 28.533 ac Runoff Volume = 5.512 af Average Runoff Depth = 2.32"
98.39% Pervious = 28.072 ac 1.61% Impervious = 0.460 ac

25-YEAR Post-Development - Detailed



Routing Diagram for Pine Tree Post
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Pine Tree Post

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Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
53,730	49	50-75% Grass cover, Fair, HSG A (700)
136,762	39	>75% Grass cover, Good, HSG A (10, 40, 50, 51, 100, 101, 102, 111, 112, 113, 115, 201, 202, 520, 522, 525, 526, 530, 532, 533, 711, 712)
31,735	61	>75% Grass cover, Good, HSG B (51, 520, 522, 523, 530)
287,922	74	>75% Grass cover, Good, HSG C (40, 102, 112, 113, 115, 202, 300, 310, 320, 321, 322, 326, 327, 522, 523, 530, 532, 533, 700, 712, 714, 715, 720, 722, 730, 732, 733, 737, 738, 752, 753, 783, 784S, 786, 787, 789, 790, 795)
59,245	98	Paved parking, HSG A (101, 102, 111, 112, 113, 201, 202, 522, 525, 526, 532, 533, 711)
11,040	98	Paved parking, HSG B (522, 523)
161,145	98	Paved parking, HSG C (102, 112, 113, 115, 202, 523, 532, 533, 711, 712, 714, 715, 720, 722, 730, 732, 733, 737, 738, 752, 753, 783, 784S, 786, 787, 789, 790, 795)
29,198	98	Paved roads w/curbs & sewers, HSG C (321, 322, 326, 327)
32,564	98	Unconnected roofs, HSG A (10, 50, 51, 530, 700)
3,495	98	Unconnected roofs, HSG B (51, 530)
25,580	98	Unconnected roofs, HSG C (40, 300, 310, 320, 530, 700)
17,584	73	Wetlands, Brush, Good, HSG D (70)
777	77	Wetlands, Woods, Good, HSG D (51)
252,285	30	Woods, Good, HSG A (10, 51, 60, 70, 102, 112, 202)
62,717	55	Woods, Good, HSG B (51, 70)
77,215	70	Woods, Good, HSG C (60, 102, 112, 113, 115, 202, 300, 712)
1,242,994	65	TOTAL AREA

Pine Tree Post

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Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
534,586	HSG A	10, 40, 50, 51, 60, 70, 100, 101, 102, 111, 112, 113, 115, 201, 202, 520, 522, 525, 526, 530, 532, 533, 700, 711, 712
108,987	HSG B	51, 70, 520, 522, 523, 530
581,060	HSG C	40, 60, 102, 112, 113, 115, 202, 300, 310, 320, 321, 322, 326, 327, 522, 523, 530, 532, 533, 700, 711, 712, 714, 715, 720, 722, 730, 732, 733, 737, 738, 752, 753, 783, 784S, 786, 787, 789, 790, 795
18,361	HSG D	51, 70
0	Other	
1,242,994		TOTAL AREA

Pine Tree Post

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Ground Covers (all nodes)

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
53,730	0	0	0	0	53,730	50-75% Grass cover, Fair
136,762	31,735	287,922	0	0	456,419	>75% Grass cover, Good
59,245	11,040	161,145	0	0	231,430	Paved parking
0	0	29,198	0	0	29,198	Paved roads w/curbs & sewers
32,564	3,495	25,580	0	0	61,639	Unconnected roofs
0	0	0	17,584	0	17,584	Wetlands, Brush, Good
0	0	0	777	0	777	Wetlands, Woods, Good
252,285	62,717	77,215	0	0	392,217	Woods, Good
534,586	108,987	581,060	18,361	0	1,242,994	TOTAL AREA

Time span=1.00-30.00 hrs, dt=0.01 hrs, 2901 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 10: Overland to Tracks	Runoff Area=152,820 sf 5.15% Impervious Runoff Depth=0.16" Flow Length=257' Tc=15.7 min UI Adjusted CN=33 Runoff=0.05 cfs 2,049 cf
Subcatchment 40: Overland to south	Runoff Area=13,135 sf 12.83% Impervious Runoff Depth=2.95" Flow Length=350' Tc=16.9 min UI Adjusted CN=72 Runoff=0.70 cfs 3,232 cf
Subcatchment 50: overland north basin	Runoff Area=20,232 sf 8.58% Impervious Runoff Depth=0.60" Tc=6.0 min UI Adjusted CN=42 Runoff=0.11 cfs 1,008 cf
Subcatchment 51: To Bailey wetland	Runoff Area=142,759 sf 5.04% Impervious Runoff Depth=0.72" Flow Length=720' Tc=26.5 min UI Adjusted CN=44 Runoff=0.72 cfs 8,548 cf
Subcatchment 60: To Abut Wetlands	Runoff Area=8,678 sf 0.00% Impervious Runoff Depth=0.13" Flow Length=615' Tc=9.9 min CN=32 Runoff=0.00 cfs 91 cf
Subcatchment 70: Wetlands in old pit	Runoff Area=88,870 sf 0.00% Impervious Runoff Depth=0.66" Flow Length=230' Tc=12.4 min CN=43 Runoff=0.50 cfs 4,868 cf
Subcatchment 100: BASIN E	Runoff Area=6,150 sf 0.00% Impervious Runoff Depth=0.43" Flow Length=257' Tc=15.7 min CN=39 Runoff=0.01 cfs 221 cf
Subcatchment 101: PT 4+50 R	Runoff Area=4,840 sf 79.44% Impervious Runoff Depth=4.36" Tc=6.0 min CN=86 Runoff=0.60 cfs 1,759 cf
Subcatchment 102: PT 4+75 L	Runoff Area=24,505 sf 19.14% Impervious Runoff Depth=2.32" Tc=6.0 min CN=65 Runoff=1.60 cfs 4,727 cf
Subcatchment 111: PT2+25 R	Runoff Area=5,700 sf 60.18% Impervious Runoff Depth=3.24" Tc=6.0 min CN=75 Runoff=0.54 cfs 1,539 cf
Subcatchment 112: PT3+25 L	Runoff Area=25,310 sf 28.09% Impervious Runoff Depth=3.14" Flow Length=265' Tc=6.0 min CN=74 Runoff=2.31 cfs 6,629 cf
Subcatchment 113: PT 2+25 L	Runoff Area=19,505 sf 25.84% Impervious Runoff Depth=3.44" Flow Length=410' Tc=8.8 min CN=77 Runoff=1.67 cfs 5,584 cf
Subcatchment 115: LCB IN SWALE	Runoff Area=21,365 sf 13.20% Impervious Runoff Depth=2.58" Flow Length=250' Tc=6.9 min CN=68 Runoff=1.49 cfs 4,598 cf
Subcatchment 201: PT 4+75 R	Runoff Area=6,315 sf 73.40% Impervious Runoff Depth=3.94" Tc=6.0 min CN=82 Runoff=0.72 cfs 2,074 cf
Subcatchment 202: PT4+75L	Runoff Area=40,700 sf 20.33% Impervious Runoff Depth=2.23" Flow Length=250' Tc=6.9 min CN=64 Runoff=2.40 cfs 7,556 cf
Subcatchment 300: Overland towards	Runoff Area=95,530 sf 19.12% Impervious Runoff Depth=3.24" Flow Length=286' Tc=15.4 min UI Adjusted CN=75 Runoff=5.86 cfs 25,789 cf

Pine Tree Post*MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"*

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Subcatchment 310: Basin D-1	Runoff Area=14,240 sf 8.95% Impervious Runoff Depth=3.24" Flow Length=162' Tc=6.7 min UI Adjusted CN=75 Runoff=1.29 cfs 3,844 cf
Subcatchment 320: Basin D-2	Runoff Area=11,725 sf 5.42% Impervious Runoff Depth=3.24" Flow Length=162' Tc=6.7 min CN=75 Runoff=1.06 cfs 3,165 cf
Subcatchment 321: F11+75 R	Runoff Area=17,525 sf 48.48% Impervious Runoff Depth=4.36" Flow Length=235' Tc=6.5 min CN=86 Runoff=2.12 cfs 6,370 cf
Subcatchment 322: F11+75 L	Runoff Area=7,900 sf 79.08% Impervious Runoff Depth=5.13" Flow Length=295' Slope=0.0400 '/' Tc=6.0 min CN=93 Runoff=1.11 cfs 3,379 cf
Subcatchment 326: F12+0 R	Runoff Area=14,240 sf 57.64% Impervious Runoff Depth=4.58" Flow Length=255' Tc=6.0 min CN=88 Runoff=1.85 cfs 5,432 cf
Subcatchment 327: F13+74 L	Runoff Area=7,900 sf 79.08% Impervious Runoff Depth=5.13" Flow Length=295' Slope=0.0400 '/' Tc=6.0 min CN=93 Runoff=1.11 cfs 3,379 cf
Subcatchment 520: Overland to B-2	Runoff Area=5,600 sf 0.00% Impervious Runoff Depth=0.85" Tc=6.0 min CN=46 Runoff=0.08 cfs 395 cf
Subcatchment 522: H 2+0 L	Runoff Area=33,610 sf 41.24% Impervious Runoff Depth=3.05" Tc=6.0 min CN=73 Runoff=2.97 cfs 8,535 cf
Subcatchment 523: H 2+0 R	Runoff Area=6,510 sf 68.20% Impervious Runoff Depth=4.58" Tc=6.0 min CN=88 Runoff=0.84 cfs 2,483 cf
Subcatchment 525: H 1+74 R	Runoff Area=5,340 sf 76.59% Impervious Runoff Depth=4.15" Tc=6.0 min CN=84 Runoff=0.64 cfs 1,847 cf
Subcatchment 526: H 0+74 L	Runoff Area=5,305 sf 76.15% Impervious Runoff Depth=4.15" Tc=6.0 min CN=84 Runoff=0.63 cfs 1,835 cf
Subcatchment 530: Overland to Basin B-1	Runoff Area=24,055 sf 16.28% Impervious Runoff Depth=1.65" Tc=6.0 min UI Adjusted CN=57 Runoff=1.03 cfs 3,299 cf
Subcatchment 532: H 3+50 L	Runoff Area=35,890 sf 41.85% Impervious Runoff Depth=3.44" Tc=6.0 min CN=77 Runoff=3.59 cfs 10,275 cf
Subcatchment 533: PT 4+75 R	Runoff Area=17,030 sf 50.44% Impervious Runoff Depth=2.77" Tc=6.0 min CN=70 Runoff=1.36 cfs 3,925 cf
Subcatchment 700: BASIN A	Runoff Area=74,395 sf 25.61% Impervious Runoff Depth=1.57" Flow Length=230' Tc=12.4 min UI Adjusted CN=56 Runoff=2.14 cfs 9,714 cf
Subcatchment 711: PT 8+13	Runoff Area=7,170 sf 85.36% Impervious Runoff Depth=4.69" Tc=6.0 min CN=89 Runoff=0.95 cfs 2,800 cf
Subcatchment 712: F 0-2	Runoff Area=22,070 sf 36.36% Impervious Runoff Depth=3.94" Tc=6.0 min CN=82 Runoff=2.52 cfs 7,248 cf

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Subcatchment 714: F 1+0 L	Runoff Area=19,700 sf 55.28% Impervious Runoff Depth=4.47" Tc=6.0 min CN=87 Runoff=2.51 cfs 7,337 cf
Subcatchment 715: F 1+0 R	Runoff Area=16,545 sf 71.93% Impervious Runoff Depth=4.91" Tc=6.0 min CN=91 Runoff=2.25 cfs 6,767 cf
Subcatchment 720: Basin C-2	Runoff Area=8,675 sf 16.60% Impervious Runoff Depth=3.53" Tc=6.0 min CN=78 Runoff=0.89 cfs 2,555 cf
Subcatchment 722: LCB C5	Runoff Area=15,130 sf 75.35% Impervious Runoff Depth=5.02" Tc=6.0 min CN=92 Runoff=2.09 cfs 6,330 cf
Subcatchment 730: Basin C-1	Runoff Area=7,860 sf 18.89% Impervious Runoff Depth=3.64" Tc=6.0 min CN=79 Runoff=0.83 cfs 2,381 cf
Subcatchment 732: F 6+10L	Runoff Area=8,270 sf 83.92% Impervious Runoff Depth=5.25" Tc=6.0 min CN=94 Runoff=1.17 cfs 3,616 cf
Subcatchment 733: F6+10R	Runoff Area=23,650 sf 51.78% Impervious Runoff Depth=4.36" Tc=6.0 min CN=86 Runoff=2.95 cfs 8,597 cf
Subcatchment 737: H 11+60L	Runoff Area=4,200 sf 53.93% Impervious Runoff Depth=4.47" Tc=6.0 min CN=87 Runoff=0.53 cfs 1,564 cf
Subcatchment 738: F 9+49R	Runoff Area=5,290 sf 59.92% Impervious Runoff Depth=4.58" Tc=6.0 min CN=88 Runoff=0.69 cfs 2,018 cf
Subcatchment 752: F 3+60 R	Runoff Area=6,115 sf 78.66% Impervious Runoff Depth=5.13" Tc=6.0 min CN=93 Runoff=0.86 cfs 2,616 cf
Subcatchment 753: F 3+60 L	Runoff Area=14,360 sf 59.02% Impervious Runoff Depth=4.58" Tc=6.0 min CN=88 Runoff=1.86 cfs 5,478 cf
Subcatchment 783: H 5+60 R	Runoff Area=11,200 sf 77.14% Impervious Runoff Depth=5.13" Tc=6.0 min CN=93 Runoff=1.57 cfs 4,791 cf
Subcatchment 784S: H 5+60 L	Runoff Area=25,640 sf 39.94% Impervious Runoff Depth=4.15" Tc=6.0 min CN=84 Runoff=3.07 cfs 8,867 cf
Subcatchment 786: H 7+75 L	Runoff Area=10,720 sf 46.97% Impervious Runoff Depth=4.26" Tc=6.0 min CN=85 Runoff=1.31 cfs 3,801 cf
Subcatchment 787: H 7+75 R	Runoff Area=20,420 sf 62.66% Impervious Runoff Depth=4.69" Tc=6.0 min CN=89 Runoff=2.69 cfs 7,976 cf
Subcatchment 789: H 9+25 R	Runoff Area=11,750 sf 47.32% Impervious Runoff Depth=4.26" Tc=6.0 min CN=85 Runoff=1.44 cfs 4,167 cf
Subcatchment 790: H 9+25 L	Runoff Area=10,515 sf 49.74% Impervious Runoff Depth=4.36" Tc=6.0 min CN=86 Runoff=1.31 cfs 3,822 cf

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Subcatchment 795: Overland LCB A-4 Runoff Area=36,035 sf 13.54% Impervious Runoff Depth=3.44"
Tc=6.0 min CN=77 Runoff=3.61 cfs 10,316 cf

Reach 1R: (new Reach) Avg. Flow Depth=0.02' Max Vel=0.27 fps Inflow=0.07 cfs 40 cf
n=0.130 L=200.0' S=0.1950 '/ Capacity=0.18 cfs Outflow=0.03 cfs 40 cf

Reach 5R: overland to Abut Wetland Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf
n=0.400 L=215.0' S=0.0419 '/ Capacity=1.32 cfs Outflow=0.00 cfs 0 cf

Pond 5P: Bailey Wetlands Peak Elev=777.73' Storage=4,406 cf Inflow=6.54 cfs 29,807 cf
Discarded=0.41 cfs 15,461 cf Primary=3.09 cfs 14,343 cf Outflow=3.45 cfs 29,804 cf

Pond 7P: wetlands Peak Elev=751.19' Storage=0 cf Inflow=0.50 cfs 4,868 cf
Outflow=0.50 cfs 4,868 cf

Pond 53P: Northerly Bailey Basin Peak Elev=777.73' Storage=4,229 cf Inflow=3.17 cfs 15,351 cf
Discarded=0.51 cfs 15,353 cf Primary=0.00 cfs 0 cf Outflow=0.51 cfs 15,353 cf

Pond 60P: Abutters Isolated wetland Inflow=0.00 cfs 91 cf
Primary=0.00 cfs 91 cf

Pond 100P: Basin E Peak Elev=789.31' Storage=1,721 cf Inflow=2.20 cfs 6,708 cf
Discarded=0.34 cfs 6,668 cf Primary=0.07 cfs 40 cf Outflow=0.41 cfs 6,708 cf

Pond 101P: PT4+50 R Peak Elev=790.00' Inflow=0.60 cfs 1,759 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0175 '/ Outflow=0.60 cfs 1,759 cf

Pond 102P: PT4+75 L Peak Elev=790.23' Inflow=1.60 cfs 4,727 cf
12.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/ Outflow=1.60 cfs 4,727 cf

Pond 105P: DMH F 4+60 Peak Elev=789.92' Inflow=2.20 cfs 6,487 cf
15.0" Round Culvert n=0.013 L=39.0' S=0.0303 '/ Outflow=2.20 cfs 6,487 cf

Pond 110P: Recharge Area Peak Elev=770.70' Storage=4,194 cf Inflow=5.89 cfs 18,350 cf
Discarded=0.51 cfs 16,598 cf Primary=1.74 cfs 1,753 cf Outflow=2.25 cfs 18,350 cf

Pond 111P: PT2+25 R Peak Elev=772.33' Inflow=0.54 cfs 1,539 cf
12.0" Round Culvert n=0.013 L=21.0' S=0.0205 '/ Outflow=0.54 cfs 1,539 cf

Pond 112P: DMH PT 3+25 L Peak Elev=780.13' Inflow=2.31 cfs 6,629 cf
12.0" Round Culvert n=0.013 L=110.0' S=0.0740 '/ Outflow=2.31 cfs 6,629 cf

Pond 113P: PT2+25 L Peak Elev=772.50' Inflow=1.67 cfs 5,584 cf
12.0" Round Culvert n=0.013 L=13.0' S=0.0331 '/ Outflow=1.67 cfs 5,584 cf

Pond 114P: DMH PT 2+15 Peak Elev=772.29' Inflow=4.39 cfs 13,752 cf
15.0" Round Culvert n=0.013 L=59.0' S=0.0200 '/ Outflow=4.39 cfs 13,752 cf

Pond 115P: LCB IN SWALE Peak Elev=770.72' Inflow=1.49 cfs 4,598 cf
12.0" Round Culvert n=0.013 L=5.0' S=0.0000 '/ Outflow=1.49 cfs 4,598 cf

Pond 201P: PT0+63 RT	Peak Elev=776.96' Inflow=0.72 cfs 2,074 cf 12.0" Round Culvert n=0.013 L=25.0' S=0.0100 '/' Outflow=0.72 cfs 2,074 cf
Pond 202P: PT 0+63 L	Peak Elev=767.43' Inflow=2.40 cfs 7,556 cf 12.0" Round Culvert n=0.013 L=15.0' S=0.0167 '/' Outflow=2.40 cfs 7,556 cf
Pond 203P: DMH PT 0+50	Peak Elev=766.33' Inflow=3.10 cfs 11,383 cf 18.0" Round Culvert n=0.013 L=44.0' S=0.0200 '/' Outflow=3.10 cfs 11,383 cf
Pond 204P: DMH PT 0+19	Peak Elev=765.45' Inflow=3.10 cfs 11,383 cf 18.0" Round Culvert n=0.013 L=74.0' S=0.0200 '/' Outflow=3.10 cfs 11,383 cf
Pond 310P: Basin D-1	Peak Elev=836.54' Storage=3,844 cf Inflow=1.29 cfs 3,844 cf Outflow=0.00 cfs 0 cf
Pond 320P: Basin D-2	Peak Elev=819.47' Storage=5,192 cf Inflow=7.23 cfs 21,726 cf Outflow=2.63 cfs 20,836 cf
Pond 321P: F11+75 R	Peak Elev=823.45' Inflow=2.12 cfs 6,370 cf 12.0" Round Culvert n=0.013 L=12.0' S=0.0400 '/' Outflow=2.12 cfs 6,370 cf
Pond 322P: F11+75 L	Peak Elev=823.26' Inflow=1.11 cfs 3,379 cf 12.0" Round Culvert n=0.013 L=22.0' S=0.0218 '/' Outflow=1.11 cfs 3,379 cf
Pond 323P: DMH F11+85	Peak Elev=823.00' Inflow=3.22 cfs 9,750 cf 12.0" Round Culvert n=0.013 L=99.0' S=0.0200 '/' Outflow=3.22 cfs 9,750 cf
Pond 324P: DMH F12+85	Peak Elev=820.42' Inflow=3.22 cfs 9,750 cf 12.0" Round Culvert n=0.013 L=93.0' S=0.0190 '/' Outflow=3.22 cfs 9,750 cf
Pond 325P: DMH F13+25	Peak Elev=819.48' Inflow=2.95 cfs 8,812 cf 18.0" Round Culvert n=0.013 L=20.0' S=0.0070 '/' Outflow=2.95 cfs 8,812 cf
Pond 326P: F13+88 R	Peak Elev=819.50' Inflow=1.85 cfs 5,432 cf 12.0" Round Culvert n=0.013 L=12.0' S=0.0100 '/' Outflow=1.85 cfs 5,432 cf
Pond 327P: F13+76 L	Peak Elev=819.49' Inflow=1.11 cfs 3,379 cf 12.0" Round Culvert n=0.013 L=70.0' S=0.0070 '/' Outflow=1.11 cfs 3,379 cf
Pond 520P: Lower Basin B-2	Peak Elev=780.55' Storage=3,818 cf Inflow=8.08 cfs 25,484 cf Discarded=0.21 cfs 7,907 cf Primary=5.71 cfs 17,578 cf Outflow=5.92 cfs 25,485 cf
Pond 521P: DMH H 1+90	Peak Elev=780.86' Inflow=3.82 cfs 11,018 cf 15.0" Round Culvert n=0.013 L=22.0' S=0.0200 '/' Outflow=3.82 cfs 11,018 cf
Pond 522P: H 2+0 L	Peak Elev=781.26' Inflow=2.97 cfs 8,535 cf 15.0" Round Culvert n=0.013 L=22.0' S=0.0300 '/' Outflow=2.97 cfs 8,535 cf
Pond 523P: H 2+0 R	Peak Elev=780.95' Inflow=0.84 cfs 2,483 cf 12.0" Round Culvert n=0.013 L=13.0' S=0.0200 '/' Outflow=0.84 cfs 2,483 cf

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Pond 524P: Stormwater unit	Peak Elev=780.68' Inflow=3.82 cfs 11,018 cf 15.0" Round Culvert n=0.013 L=18.0' S=0.0311 '/' Outflow=3.82 cfs 11,018 cf
Pond 525P: H 2+0 R	Peak Elev=778.38' Inflow=0.64 cfs 1,847 cf 12.0" Round Culvert n=0.013 L=10.0' S=0.0200 '/' Outflow=0.64 cfs 1,847 cf
Pond 526P: H 2+0 R	Peak Elev=778.37' Inflow=0.63 cfs 1,835 cf 15.0" Round Culvert n=0.013 L=19.0' S=0.0105 '/' Outflow=0.63 cfs 1,835 cf
Pond 527P: DMH H 0+80	Peak Elev=778.31' Inflow=1.27 cfs 3,681 cf 15.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=1.27 cfs 3,681 cf
Pond 528P: Stormwater Unit	Peak Elev=778.04' Inflow=1.27 cfs 3,681 cf 15.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=1.27 cfs 3,681 cf
Pond 530P: Upper Basin B-1	Peak Elev=785.79' Storage=3,236 cf Inflow=5.97 cfs 17,499 cf Discarded=0.07 cfs 3,368 cf Primary=4.79 cfs 14,072 cf Outflow=4.86 cfs 17,440 cf
Pond 531P: DMH H 3+40	Peak Elev=787.83' Inflow=4.95 cfs 14,200 cf 15.0" Round Culvert n=0.013 L=82.0' S=0.0305 '/' Outflow=4.95 cfs 14,200 cf
Pond 532P: H 3+50 L	Peak Elev=788.46' Inflow=3.59 cfs 10,275 cf 15.0" Round Culvert n=0.013 L=22.0' S=0.0436 '/' Outflow=3.59 cfs 10,275 cf
Pond 533P: H 3+50 R	Peak Elev=788.14' Inflow=1.36 cfs 3,925 cf 12.0" Round Culvert n=0.013 L=11.0' S=0.0645 '/' Outflow=1.36 cfs 3,925 cf
Pond 700P: Basin A	Peak Elev=785.86' Storage=31,394 cf Inflow=31.83 cfs 108,929 cf Discarded=4.02 cfs 108,929 cf Primary=0.00 cfs 0 cf Outflow=4.02 cfs 108,929 cf
Pond 701P: DMH A-1	Peak Elev=792.05' Inflow=17.71 cfs 51,834 cf 36.0" Round Culvert n=0.013 L=50.0' S=0.0200 '/' Outflow=17.71 cfs 51,834 cf
Pond 702P: DMH A-2	Peak Elev=793.76' Inflow=17.71 cfs 51,834 cf 36.0" Round Culvert n=0.013 L=168.0' S=0.0100 '/' Outflow=17.71 cfs 51,834 cf
Pond 710P: DMH F 0-10	Peak Elev=793.77' Inflow=13.31 cfs 47,381 cf 24.0" Round Culvert n=0.013 L=72.0' S=0.0556 '/' Outflow=13.31 cfs 47,381 cf
Pond 711P: DMH	Peak Elev=794.44' Inflow=0.95 cfs 2,800 cf 12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.95 cfs 2,800 cf
Pond 712P: F 0-2	Peak Elev=794.92' Inflow=2.52 cfs 7,248 cf 12.0" Round Culvert n=0.013 L=30.0' S=0.0100 '/' Outflow=2.52 cfs 7,248 cf
Pond 713P: DMH F 0+85	Peak Elev=797.20' Inflow=10.24 cfs 37,332 cf 18.0" Round Culvert n=0.013 L=95.0' S=0.0198 '/' Outflow=10.24 cfs 37,332 cf
Pond 714P: F 1+0 L	Peak Elev=798.23' Inflow=2.51 cfs 7,337 cf 12.0" Round Culvert n=0.013 L=16.0' S=0.0281 '/' Outflow=2.51 cfs 7,337 cf

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Pond 715P: F 1+0 R	Peak Elev=798.16' Inflow=2.25 cfs 6,767 cf 12.0" Round Culvert n=0.013 L=16.0' S=0.0281 '/' Outflow=2.25 cfs 6,767 cf
Pond 720P: Basin C-2	Peak Elev=818.83' Storage=5,077 cf Inflow=6.22 cfs 19,112 cf Primary=5.29 cfs 16,898 cf Secondary=0.00 cfs 0 cf Outflow=5.29 cfs 16,898 cf
Pond 721P: DMH C-3	Peak Elev=815.97' Inflow=5.29 cfs 16,898 cf 15.0" Round Culvert n=0.013 L=98.0' S=0.0100 '/' Outflow=5.29 cfs 16,898 cf
Pond 722P: LCB C5	Peak Elev=815.00' Inflow=2.09 cfs 6,330 cf 12.0" Round Culvert n=0.013 L=17.0' S=0.0588 '/' Outflow=2.09 cfs 6,330 cf
Pond 723P: DMH C4	Peak Elev=814.88' Inflow=6.61 cfs 23,228 cf 15.0" Round Culvert n=0.013 L=173.0' S=0.0347 '/' Outflow=6.61 cfs 23,228 cf
Pond 724P: DMH F0+66L	Peak Elev=800.98' Inflow=6.61 cfs 23,228 cf 15.0" Round Culvert n=0.013 L=50.0' S=0.0500 '/' Outflow=6.61 cfs 23,228 cf
Pond 730P: Basin C-1	Peak Elev=821.84' Storage=2,597 cf Inflow=6.17 cfs 18,176 cf Outflow=5.42 cfs 16,557 cf
Pond 731: DMH F6+0	Peak Elev=827.49' Inflow=5.34 cfs 15,795 cf 12.0" Round Culvert n=0.013 L=63.0' S=0.0317 '/' Outflow=5.34 cfs 15,795 cf
Pond 732P: 6+10L	Peak Elev=827.59' Inflow=1.17 cfs 3,616 cf 12.0" Round Culvert n=0.013 L=13.0' S=0.0200 '/' Outflow=1.17 cfs 3,616 cf
Pond 733P: F 6+10 R	Peak Elev=828.09' Inflow=2.95 cfs 8,597 cf 12.0" Round Culvert n=0.013 L=21.0' S=0.0124 '/' Outflow=2.95 cfs 8,597 cf
Pond 734P: DMH F7+20	Peak Elev=828.61' Inflow=1.22 cfs 3,582 cf 12.0" Round Culvert n=0.013 L=121.0' S=0.0100 '/' Outflow=1.22 cfs 3,582 cf
Pond 735P: DMH F7+90	Peak Elev=829.33' Inflow=1.22 cfs 3,582 cf 12.0" Round Culvert n=0.013 L=71.0' S=0.0100 '/' Outflow=1.22 cfs 3,582 cf
Pond 736P: DMH F9+25	Peak Elev=830.66' Inflow=1.22 cfs 3,582 cf 12.0" Round Culvert n=0.013 L=136.0' S=0.0100 '/' Outflow=1.22 cfs 3,582 cf
Pond 737P: H 11+60	Peak Elev=830.92' Inflow=0.53 cfs 1,564 cf 12.0" Round Culvert n=0.013 L=30.0' S=0.0100 '/' Outflow=0.53 cfs 1,564 cf
Pond 738P: F9+49R	Peak Elev=831.05' Inflow=0.69 cfs 2,018 cf 12.0" Round Culvert n=0.013 L=34.0' S=0.0124 '/' Outflow=0.69 cfs 2,018 cf
Pond 750P: DMH F 2+75	Peak Elev=806.97' Inflow=2.72 cfs 8,094 cf 12.0" Round Culvert n=0.013 L=73.0' S=0.0200 '/' Outflow=2.72 cfs 8,094 cf
Pond 751P: DMH F 3+60	Peak Elev=811.80' Inflow=2.72 cfs 8,094 cf 12.0" Round Culvert n=0.013 L=88.0' S=0.0538 '/' Outflow=2.72 cfs 8,094 cf

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Pond 752P: F 3+60 R	Peak Elev=812.13' Inflow=0.86 cfs 2,616 cf 12.0" Round Culvert n=0.013 L=16.0' S=0.0531 '/' Outflow=0.86 cfs 2,616 cf
Pond 753P: F 3+60L	Peak Elev=812.38' Inflow=1.86 cfs 5,478 cf 12.0" Round Culvert n=0.013 L=25.0' S=0.0340 '/' Outflow=1.86 cfs 5,478 cf
Pond 780P: DMH A-3	Peak Elev=795.16' Inflow=14.99 cfs 43,740 cf 36.0" Round Culvert n=0.013 L=150.0' S=0.0100 '/' Outflow=14.99 cfs 43,740 cf
Pond 781P: DMH H 5+15	Peak Elev=796.09' Inflow=11.38 cfs 33,424 cf 36.0" Round Culvert n=0.013 L=107.0' S=0.0100 '/' Outflow=11.38 cfs 33,424 cf
Pond 782P: DMH H 5+50	Peak Elev=800.79' Inflow=11.38 cfs 33,424 cf 18.0" Round Culvert n=0.013 L=35.0' S=0.0606 '/' Outflow=11.38 cfs 33,424 cf
Pond 783P: H 5+60 R	Peak Elev=800.96' Inflow=1.57 cfs 4,791 cf 12.0" Round Culvert n=0.013 L=22.0' S=0.0282 '/' Outflow=1.57 cfs 4,791 cf
Pond 784P: H 5+60 L	Peak Elev=801.43' Inflow=3.07 cfs 8,867 cf 12.0" Round Culvert n=0.013 L=12.0' S=0.0517 '/' Outflow=3.07 cfs 8,867 cf
Pond 785P: DMH H 7+65	Peak Elev=819.37' Inflow=6.75 cfs 19,766 cf 15.0" Round Culvert n=0.013 L=215.0' S=0.0881 '/' Outflow=6.75 cfs 19,766 cf
Pond 786P: H 7+75 L	Peak Elev=820.44' Inflow=1.31 cfs 3,801 cf 12.0" Round Culvert n=0.013 L=22.0' S=0.0332 '/' Outflow=1.31 cfs 3,801 cf
Pond 787P: H 7+75R	Peak Elev=820.85' Inflow=2.69 cfs 7,976 cf 12.0" Round Culvert n=0.013 L=12.0' S=0.0608 '/' Outflow=2.69 cfs 7,976 cf
Pond 788P: DMH H 9+10	Peak Elev=829.58' Inflow=2.75 cfs 7,989 cf 12.0" Round Culvert n=0.013 L=143.0' S=0.0700 '/' Outflow=2.75 cfs 7,989 cf
Pond 789P: H 9+25 R	Peak Elev=829.94' Inflow=1.44 cfs 4,167 cf 12.0" Round Culvert n=0.013 L=14.0' S=0.0429 '/' Outflow=1.44 cfs 4,167 cf
Pond 790P: H 9+25 L	Peak Elev=829.94' Inflow=1.31 cfs 3,822 cf 12.0" Round Culvert n=0.013 L=25.0' S=0.0240 '/' Outflow=1.31 cfs 3,822 cf
Pond 795P: LCB A-4	Peak Elev=807.41' Inflow=3.61 cfs 10,316 cf 12.0" Round Culvert n=0.013 L=24.0' S=0.0200 '/' Outflow=3.61 cfs 10,316 cf
Link 311L: POA- Salisbury	Inflow=8.42 cfs 46,625 cf Primary=8.42 cfs 46,625 cf
Link POA 1: Railroad Tracks	Inflow=3.38 cfs 18,340 cf Primary=3.38 cfs 18,340 cf

Total Runoff Area = 1,242,994 sf Runoff Volume = 251,198 cf Average Runoff Depth = 2.43"
74.07% Pervious = 920,727 sf 25.93% Impervious = 322,267 sf

Summary for Subcatchment 10: Overland to Tracks

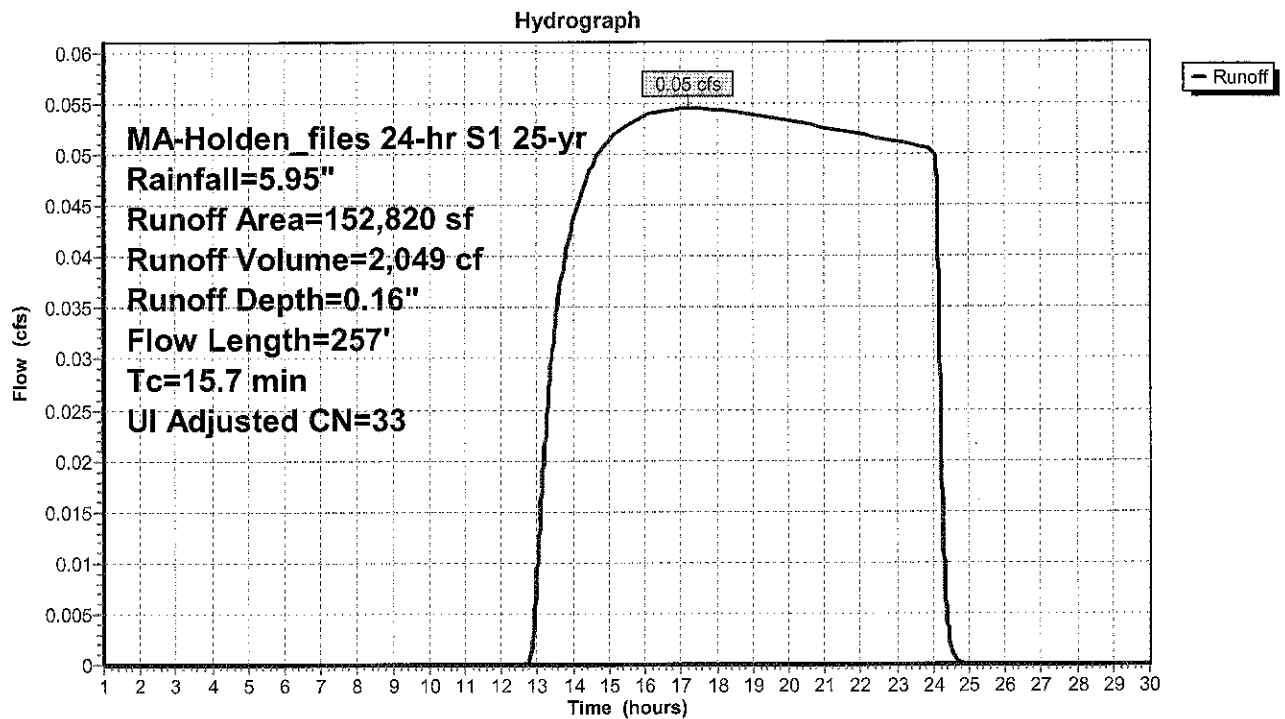
Runoff = 0.05 cfs @ 17.22 hrs, Volume= 2,049 cf, Depth= 0.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Adj	Description
125,800	30		Woods, Good, HSG A
19,145	39		>75% Grass cover, Good, HSG A
7,875	98		Unconnected roofs, HSG A
152,820	35	33	Weighted Average, UI Adjusted
144,945			94.85% Pervious Area
7,875			5.15% Impervious Area
7,875			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	40	0.0500	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
0.2	35	0.2500	2.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.1	100	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.9	82	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.7	257	Total			

Subcatchment 10: Overland to Tracks



Summary for Subcatchment 40: Overland to south

Runoff = 0.70 cfs @ 12.19 hrs, Volume= 3,232 cf, Depth= 2.95"

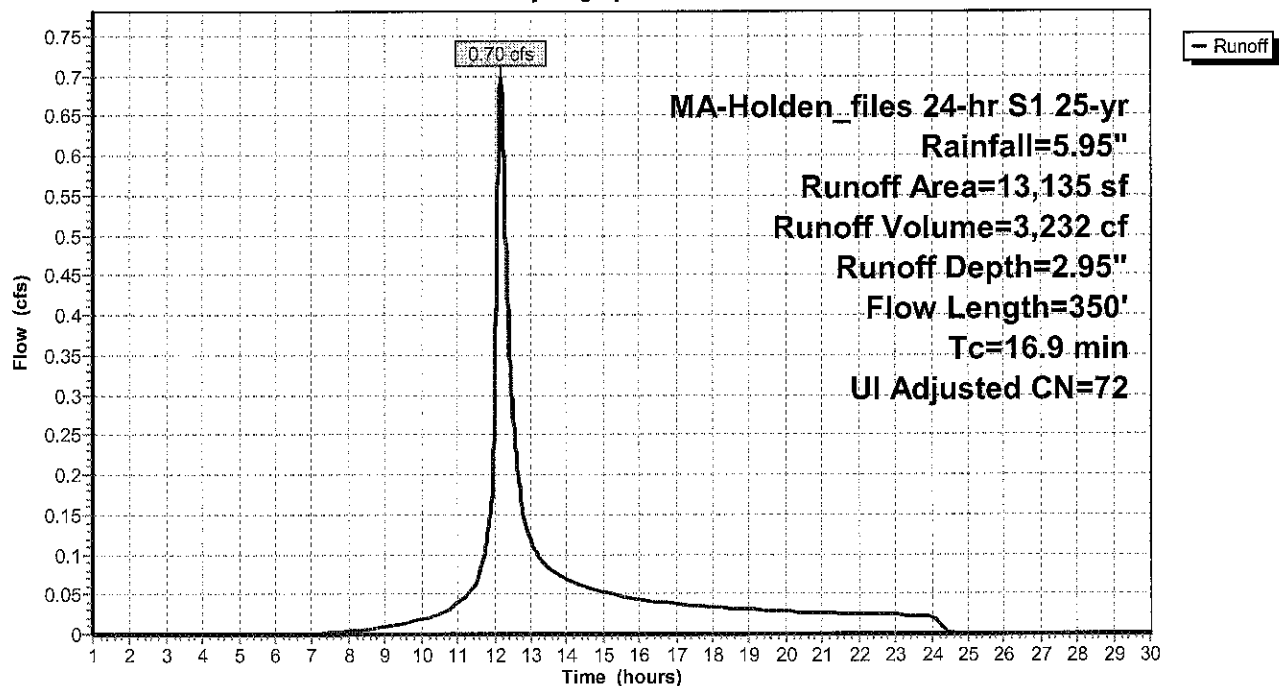
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Adj	Description
1,400	39		>75% Grass cover, Good, HSG A
10,050	74		>75% Grass cover, Good, HSG C
1,685	98		Unconnected roofs, HSG C
13,135	73	72	Weighted Average, UI Adjusted
11,450			87.17% Pervious Area
1,685			12.83% Impervious Area
1,685			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.9	50	0.0600	0.06		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
0.7	62	0.0880	1.48		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.5	175	0.1600	2.00		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.8	63	0.0630	1.25		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
16.9	350	Total			

Subcatchment 40: Overland to south

Hydrograph



Summary for Subcatchment 50: overland north basin

Runoff = 0.11 cfs @ 12.08 hrs, Volume= 1,008 cf, Depth= 0.60"

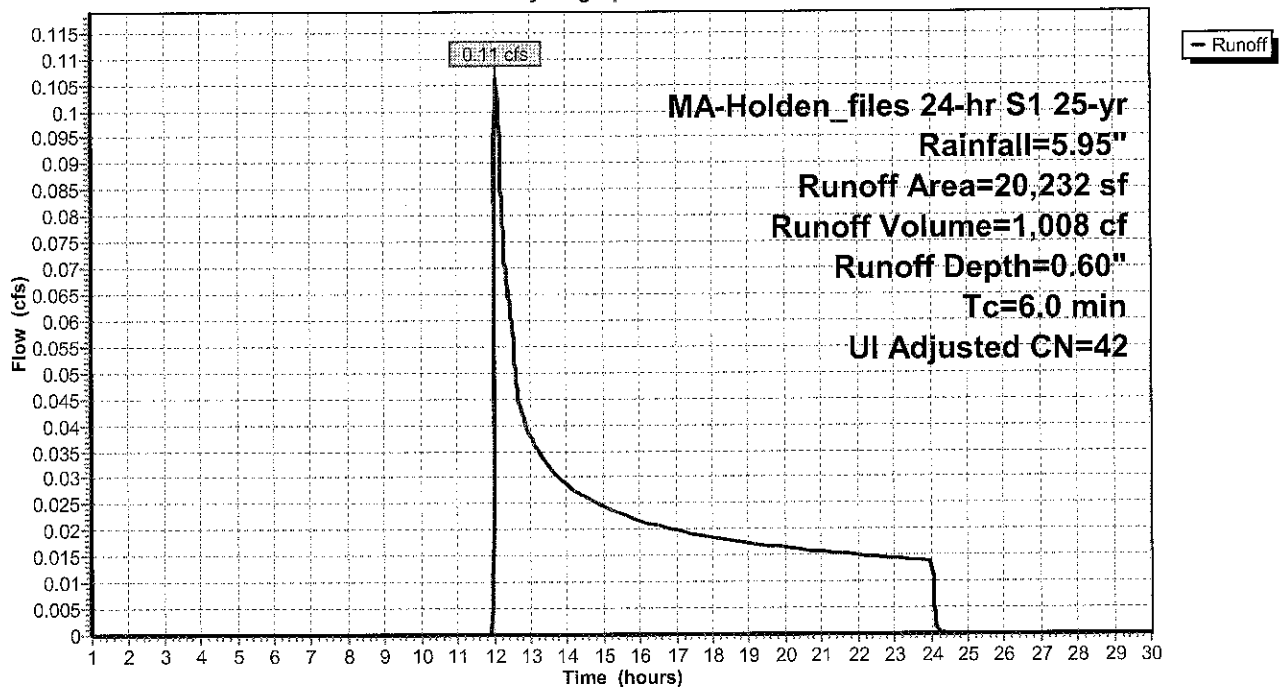
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Adj	Description
1,735	98		Unconnected roofs, HSG A
18,497	39		>75% Grass cover, Good, HSG A
20,232	44	42	Weighted Average, UI Adjusted
18,497			91.42% Pervious Area
1,735			8.58% Impervious Area
1,735			100.00% Unconnected

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

Subcatchment 50: overland north basin

Hydrograph



Summary for Subcatchment 51: To Bailey wetland

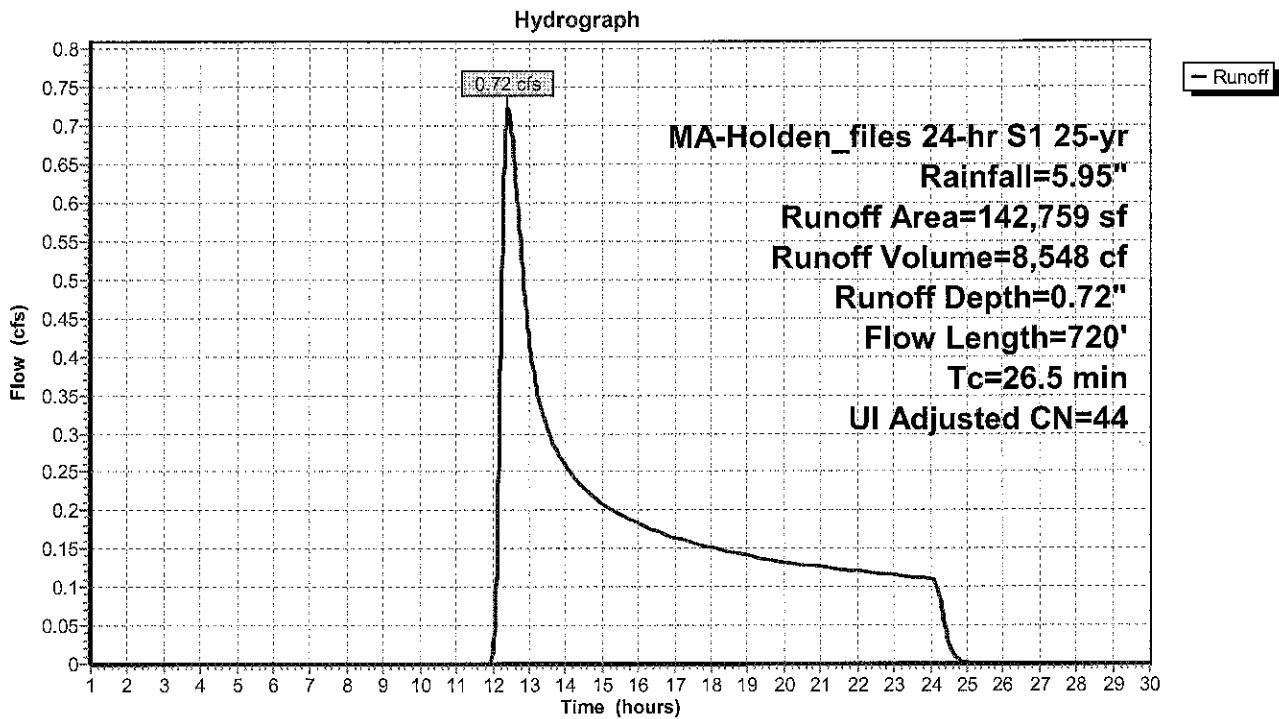
Runoff = 0.72 cfs @ 12.43 hrs, Volume= 8,548 cf, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Adj	Description
55,398	30		Woods, Good, HSG A
45,385	55		Woods, Good, HSG B
* 777	77		Wetlands, Woods, Good, HSG D
24,000	39		>75% Grass cover, Good, HSG A
10,000	61		>75% Grass cover, Good, HSG B
5,124	98		Unconnected roofs, HSG A
2,075	98		Unconnected roofs, HSG B
142,759	45	44	Weighted Average, UI Adjusted
135,560			94.96% Pervious Area
7,199			5.04% Impervious Area
7,199			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.5	40	0.1000	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
0.2	28	0.2140	2.31		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.9	156	0.0770	1.39		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.5	46	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	112	0.0710	1.33		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.5	93	0.0430	1.04		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
11.5	245	0.0050	0.35		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
26.5	720	Total			

Subcatchment 51: To Bailey wetland



Summary for Subcatchment 60: To Abut Wetlands

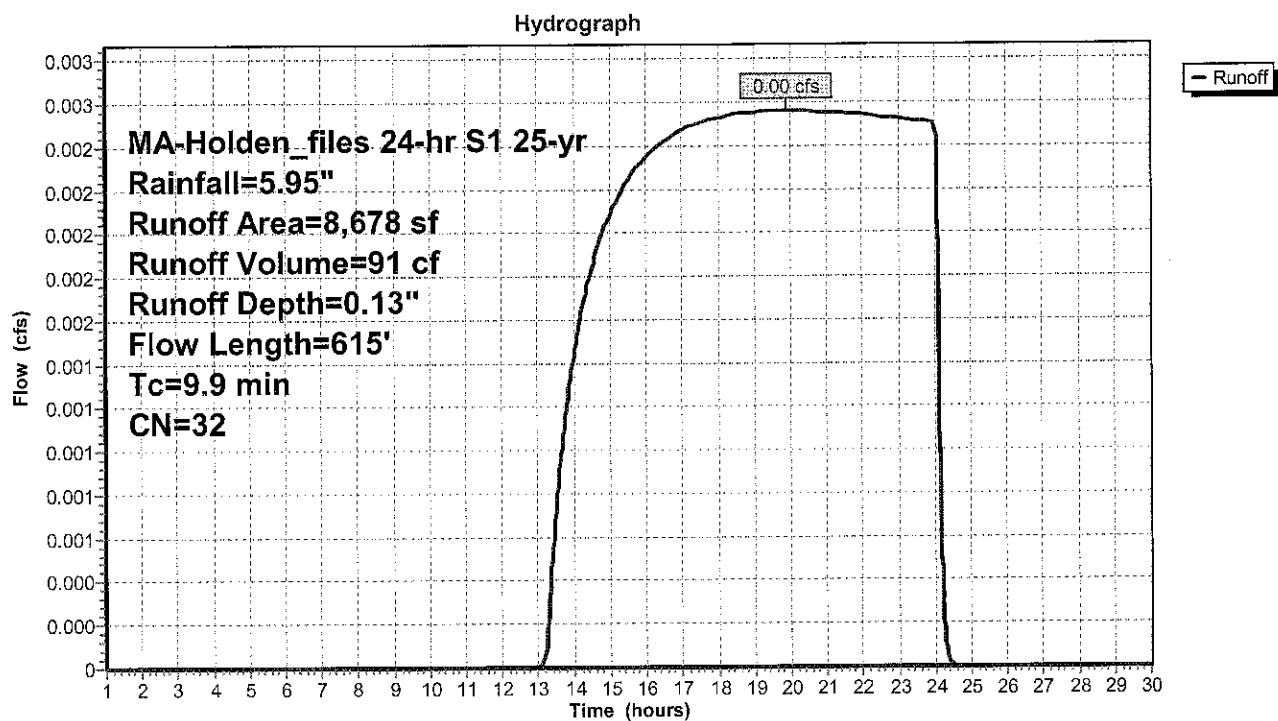
Runoff = 0.00 cfs @ 19.90 hrs, Volume= 91 cf, Depth= 0.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
435	70	Woods, Good, HSG C
8,243	30	Woods, Good, HSG A
8,678	32	Weighted Average
8,678		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	16	0.4200	0.40		Sheet Flow, Grass: Short n= 0.150 P2= 3.17"
2.7	34	0.1500	0.21		Sheet Flow, Grass: Dense n= 0.240 P2= 3.17"
0.1	9	0.1500	1.94		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.6	125	0.0720	1.34		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.4	55	0.1800	2.12		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.6	27	0.0240	0.77		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.3	82	0.0240	1.08		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	25	0.1200	1.73		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.5	62	0.1700	2.06		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.6	50	0.0400	1.40		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.2	130	0.0620	1.74		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
9.9	615	Total			

Subcatchment 60: To Abut Wetlands



Pine Tree Post

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Summary for Subcatchment 70: Wetlands in old pit

Runoff = 0.50 cfs @ 12.19 hrs, Volume= 4,868 cf, Depth= 0.66"

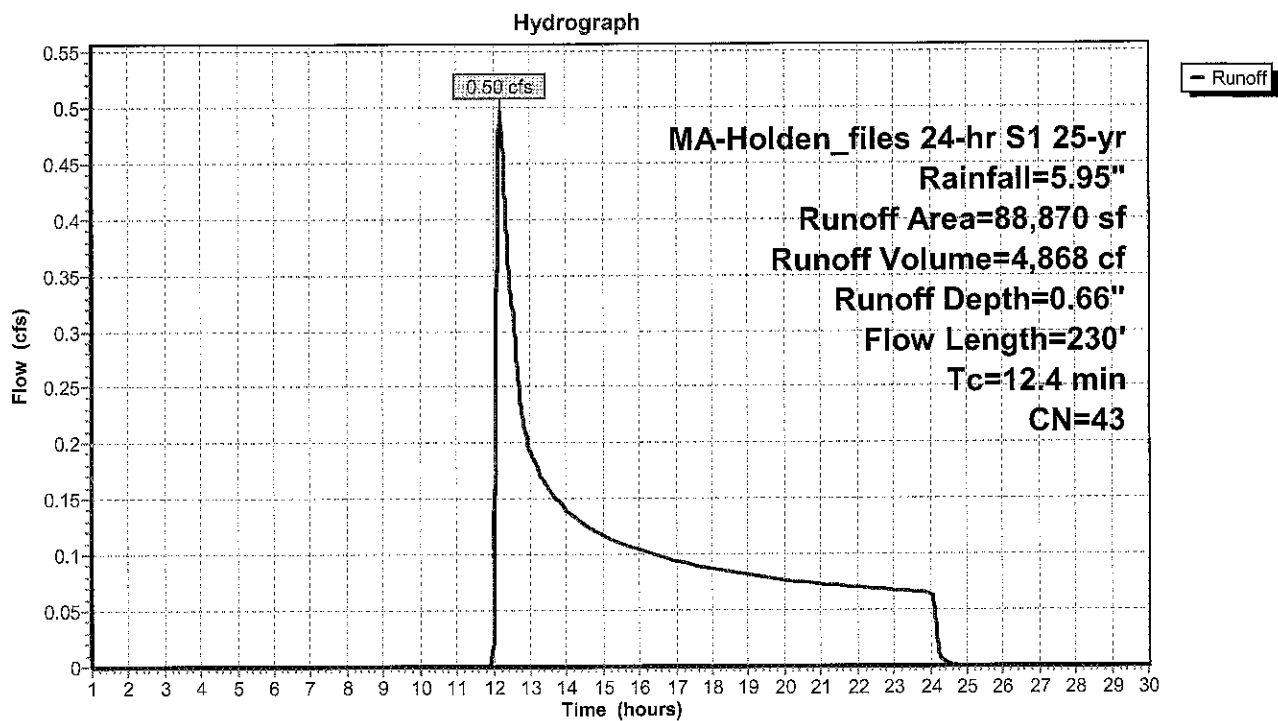
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
53,954	30	Woods, Good, HSG A
17,332	55	Woods, Good, HSG B
* 17,584	73	Wetlands, Brush, Good, HSG D
88,870	43	Weighted Average
88,870		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	50	0.1400	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
1.1	70	0.0430	1.04		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	35	0.5700	3.77		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.1	15	0.1300	1.80		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.1	60	0.0330	0.91		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	230	Total			

Subcatchment 70: Wetlands in old pit



Summary for Subcatchment 100: BASIN E

Runoff = 0.01 cfs @ 12.54 hrs, Volume= 221 cf, Depth= 0.43"

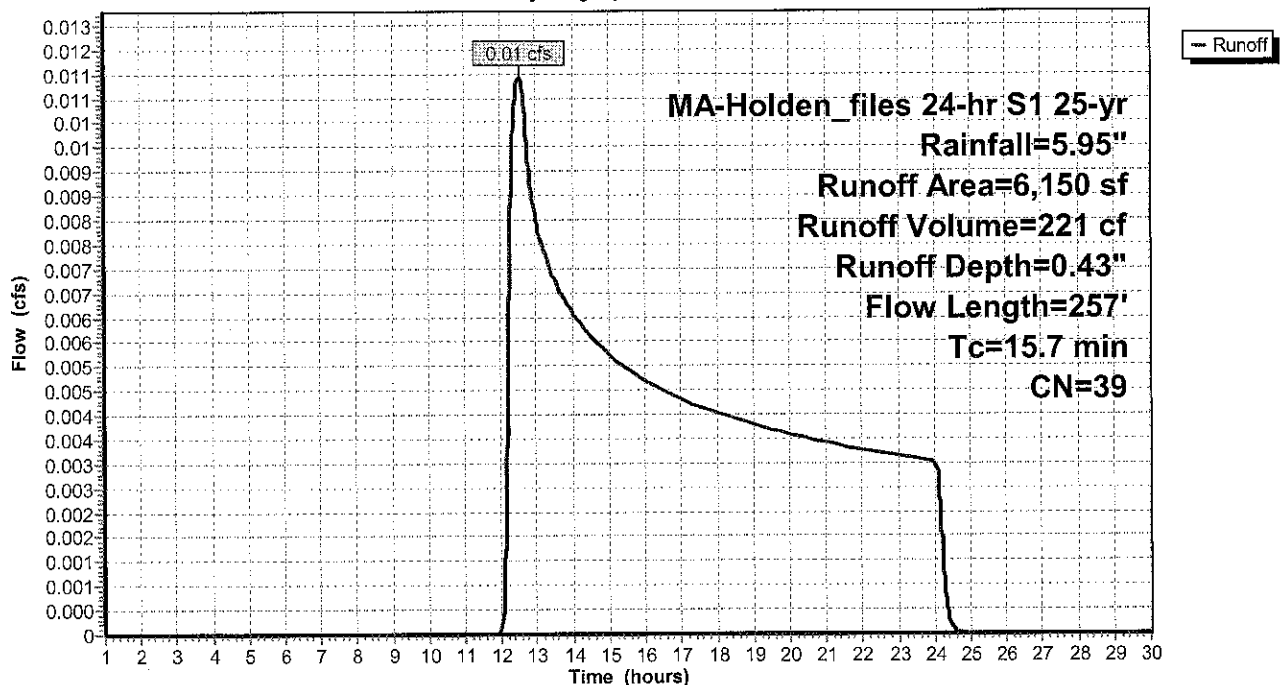
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
6,150	39	>75% Grass cover, Good, HSG A
6,150		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.5	40	0.0500	0.05		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
0.2	35	0.2500	2.50		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.1	100	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.9	82	0.0200	0.71		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.7	257	Total			

Subcatchment 100: BASIN E

Hydrograph



Summary for Subcatchment 101: PT 4+50 R

Runoff = 0.60 cfs @ 12.04 hrs, Volume= 1,759 cf, Depth= 4.36"

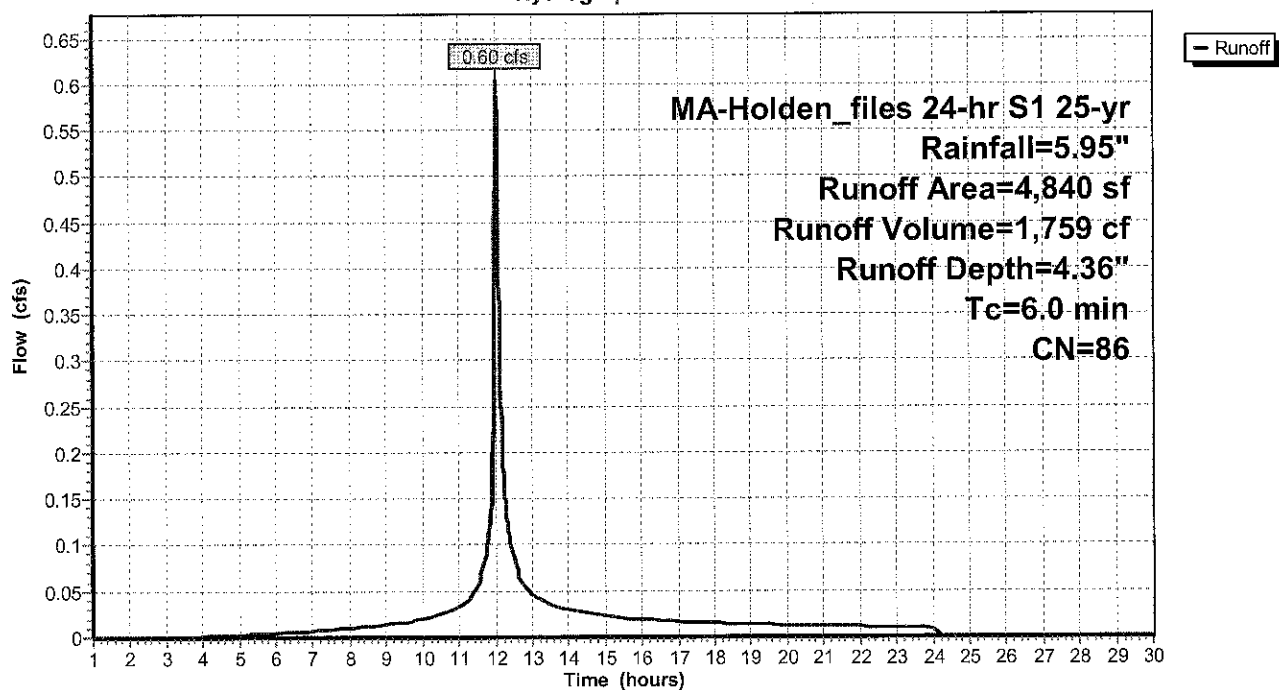
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
995	39	>75% Grass cover, Good, HSG A
3,845	98	Paved parking, HSG A
4,840	86	Weighted Average
995		20.56% Pervious Area
3,845		79.44% Impervious Area

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

Subcatchment 101: PT 4+50 R

Hydrograph



Summary for Subcatchment 102: PT 4+75 L

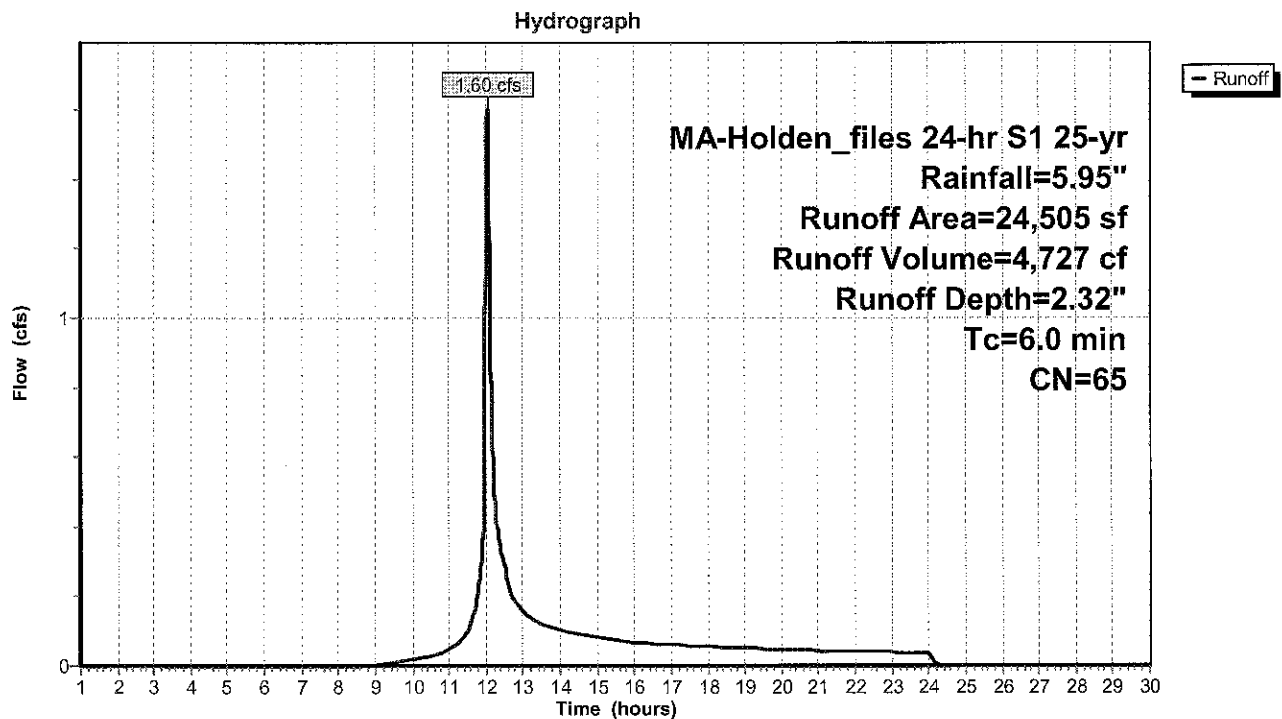
Runoff = 1.60 cfs @ 12.04 hrs, Volume= 4,727 cf, Depth= 2.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
3,060	39	>75% Grass cover, Good, HSG A
5,415	74	>75% Grass cover, Good, HSG C
3,160	98	Paved parking, HSG A
1,530	98	Paved parking, HSG C
4,470	30	Woods, Good, HSG A
6,870	70	Woods, Good, HSG C
24,505	65	Weighted Average
19,815		80.86% Pervious Area
4,690		19.14% Impervious Area

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

Subcatchment 102: PT 4+75 L



Summary for Subcatchment 111: PT2+25 R

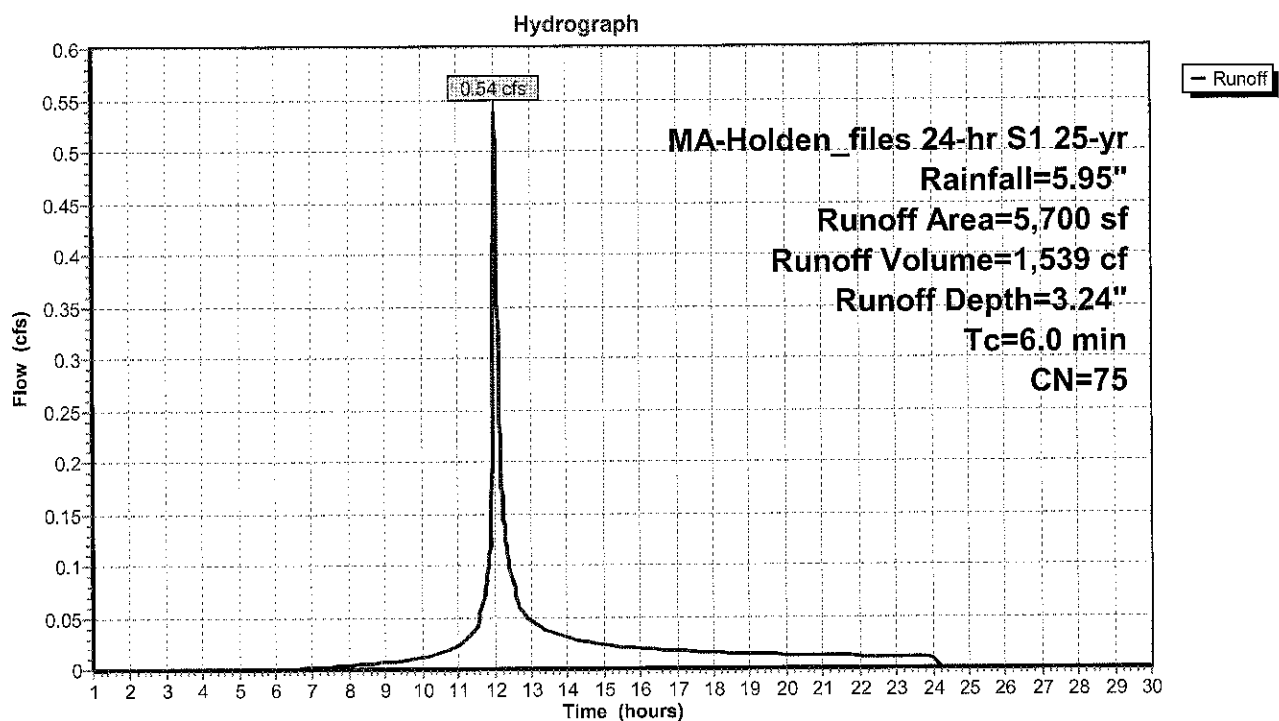
Runoff = 0.54 cfs @ 12.04 hrs, Volume= 1,539 cf, Depth= 3.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
2,270	39	>75% Grass cover, Good, HSG A
3,430	98	Paved parking, HSG A
5,700	75	Weighted Average
2,270		39.82% Pervious Area
3,430		60.18% Impervious Area

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

Subcatchment 111: PT2+25 R



Pine Tree Post

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Summary for Subcatchment 112: PT3+25 L

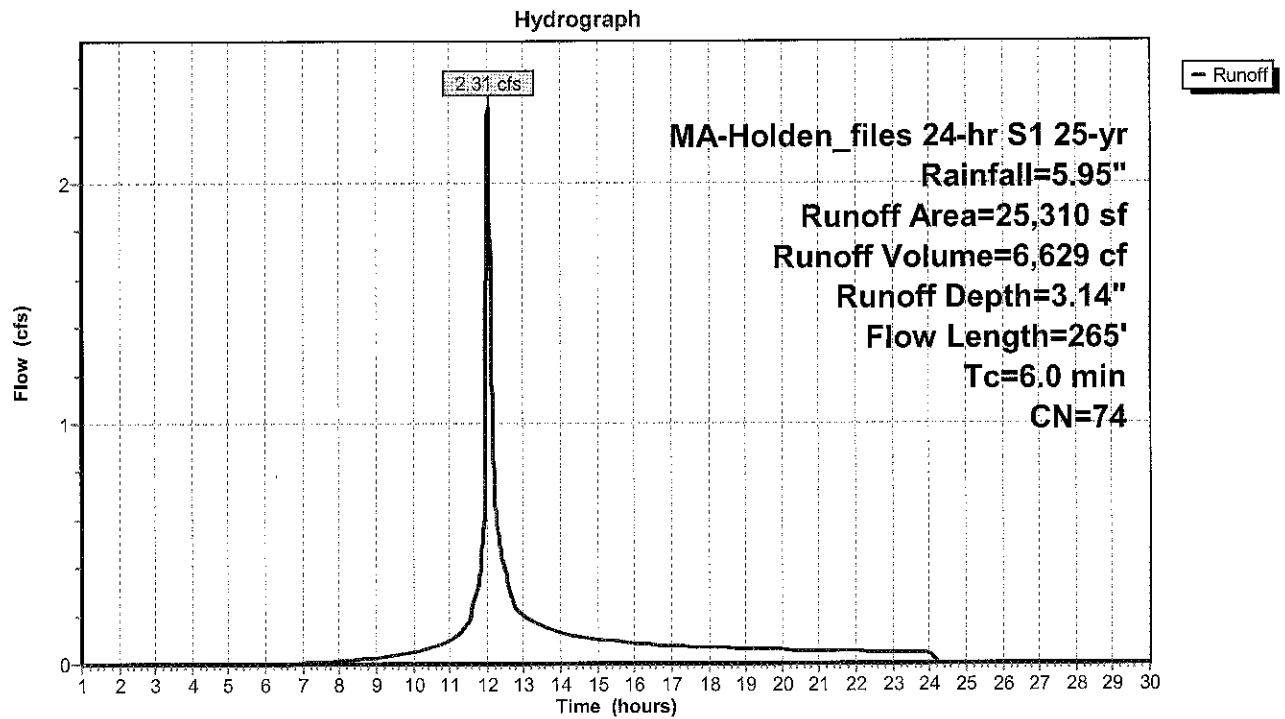
Runoff = 2.31 cfs @ 12.04 hrs, Volume= 6,629 cf, Depth= 3.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
3,130	39	>75% Grass cover, Good, HSG A
6,215	74	>75% Grass cover, Good, HSG C
2,725	98	Paved parking, HSG A
4,385	98	Paved parking, HSG C
950	30	Woods, Good, HSG A
7,905	70	Woods, Good, HSG C
25,310	74	Weighted Average
18,200		71.91% Pervious Area
7,110		28.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.7	35	0.0280	0.16		Sheet Flow, Grass: Short n= 0.150 P2= 3.17"
0.2	40	0.2500	3.50		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.0	75	0.2600	1.27		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.1	65	0.2600	8.21		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	50	0.0800	5.74		Shallow Concentrated Flow, Paved Kv= 20.3 fps
5.1	265	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 112: PT3+25 L



Summary for Subcatchment 113: PT 2+25 L

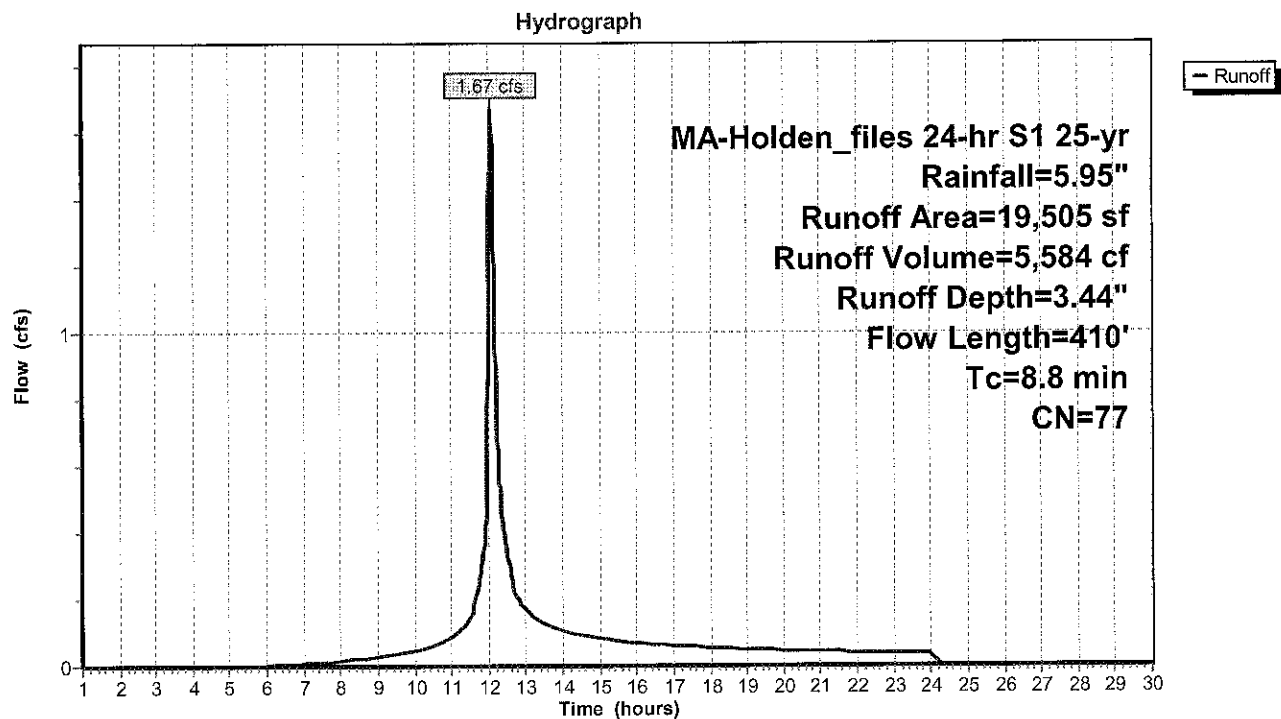
Runoff = 1.67 cfs @ 12.07 hrs, Volume= 5,584 cf, Depth= 3.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
990	39	>75% Grass cover, Good, HSG A
7,695	74	>75% Grass cover, Good, HSG C
2,410	98	Paved parking, HSG A
2,630	98	Paved parking, HSG C
5,780	70	Woods, Good, HSG C
19,505	77	Weighted Average
14,465		74.16% Pervious Area
5,040		25.84% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.7	35	0.0280	0.16		Sheet Flow, Grass: Short n= 0.150 P2= 3.17"
0.3	60	0.2200	3.28		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
4.6	240	0.1200	0.87		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.1	50	0.2600	8.21		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
0.1	25	0.0800	5.74		Shallow Concentrated Flow, Paved Kv= 20.3 fps
8.8	410	Total			

Subcatchment 113: PT 2+25 L



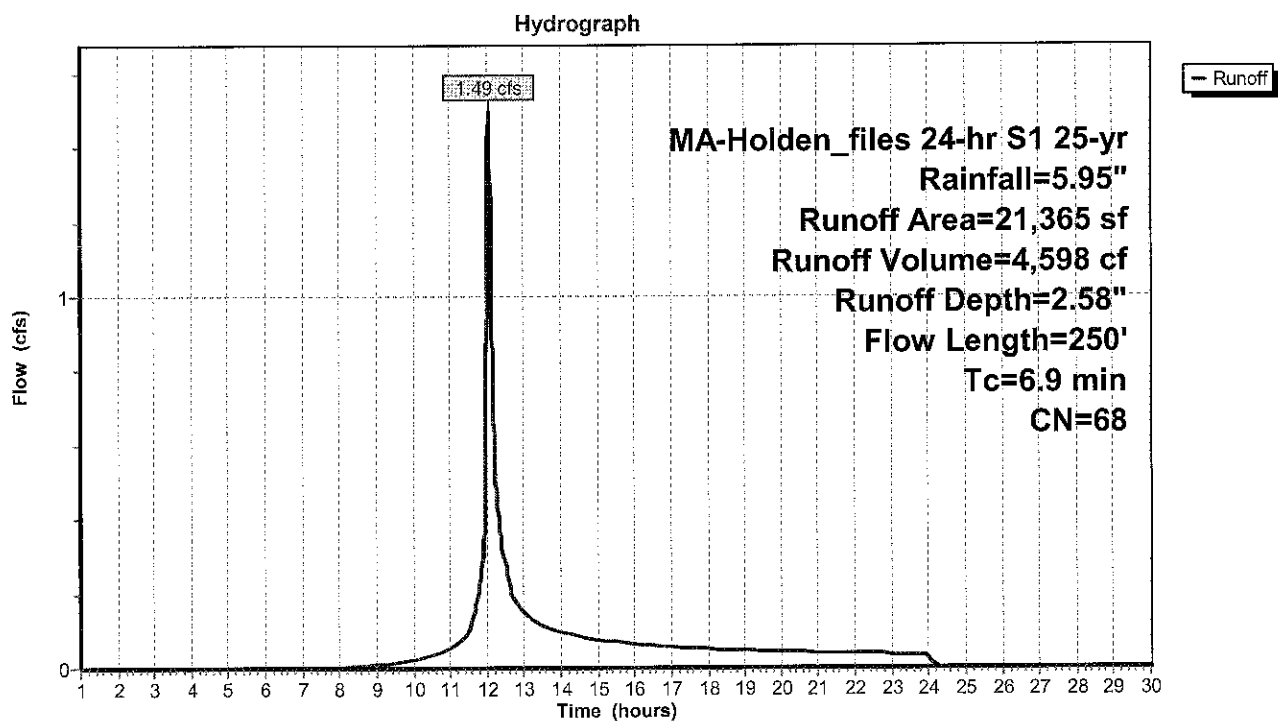
Summary for Subcatchment 115: LCB IN SWALE

Runoff = 1.49 cfs @ 12.05 hrs, Volume= 4,598 cf, Depth= 2.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
4,775	39	>75% Grass cover, Good, HSG A
6,560	74	>75% Grass cover, Good, HSG C
2,820	98	Paved parking, HSG C
7,210	70	Woods, Good, HSG C
21,365	68	Weighted Average
18,545		86.80% Pervious Area
2,820		13.20% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	50	0.1000	0.19		Sheet Flow, Grass: Dense n= 0.240 P2= 3.17"
0.2	30	0.1200	2.42		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.9	110	0.1500	0.97		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.3	30	0.4000	1.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.2	30	0.2000	3.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
6.9	250	Total			

Subcatchment 115: LCB IN SWALE

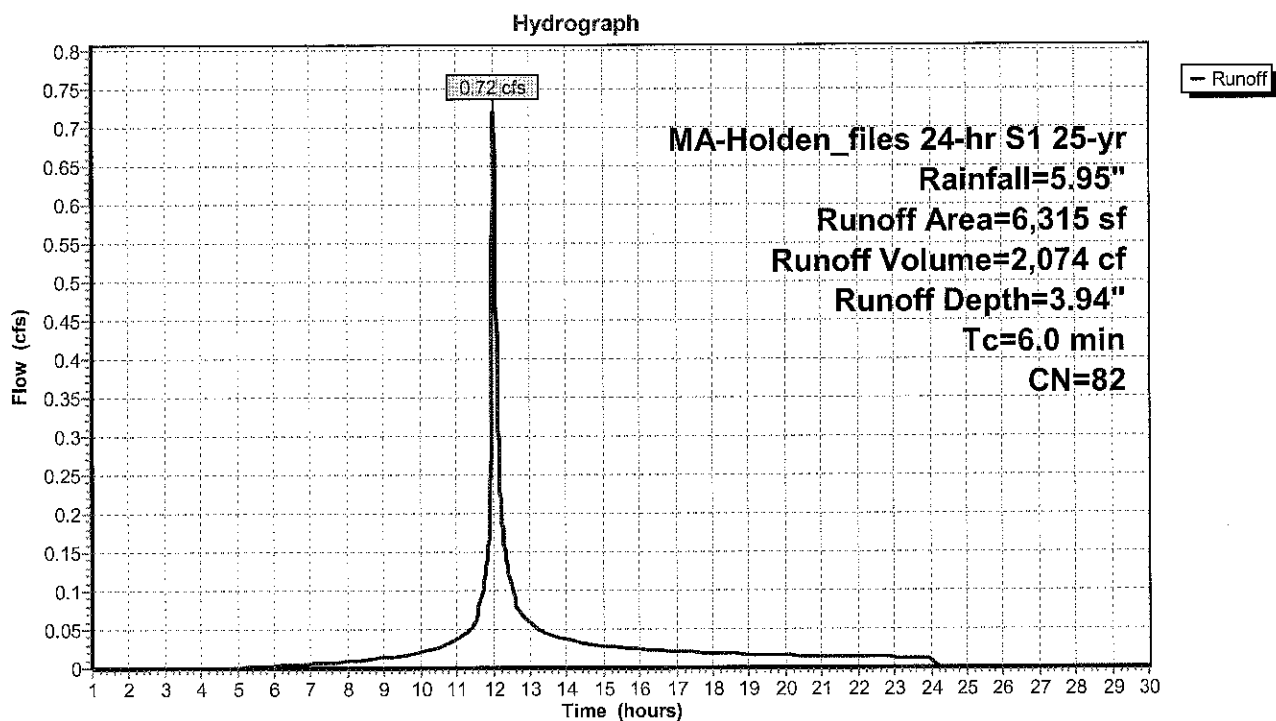
Summary for Subcatchment 201: PT 4+75 R

Runoff = 0.72 cfs @ 12.04 hrs, Volume= 2,074 cf, Depth= 3.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
1,680	39	>75% Grass cover, Good, HSG A
4,635	98	Paved parking, HSG A
6,315	82	Weighted Average
1,680		26.60% Pervious Area
4,635		73.40% Impervious Area

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

Subcatchment 201: PT 4+75 R

Pine Tree Post

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Summary for Subcatchment 202: PT4+75L

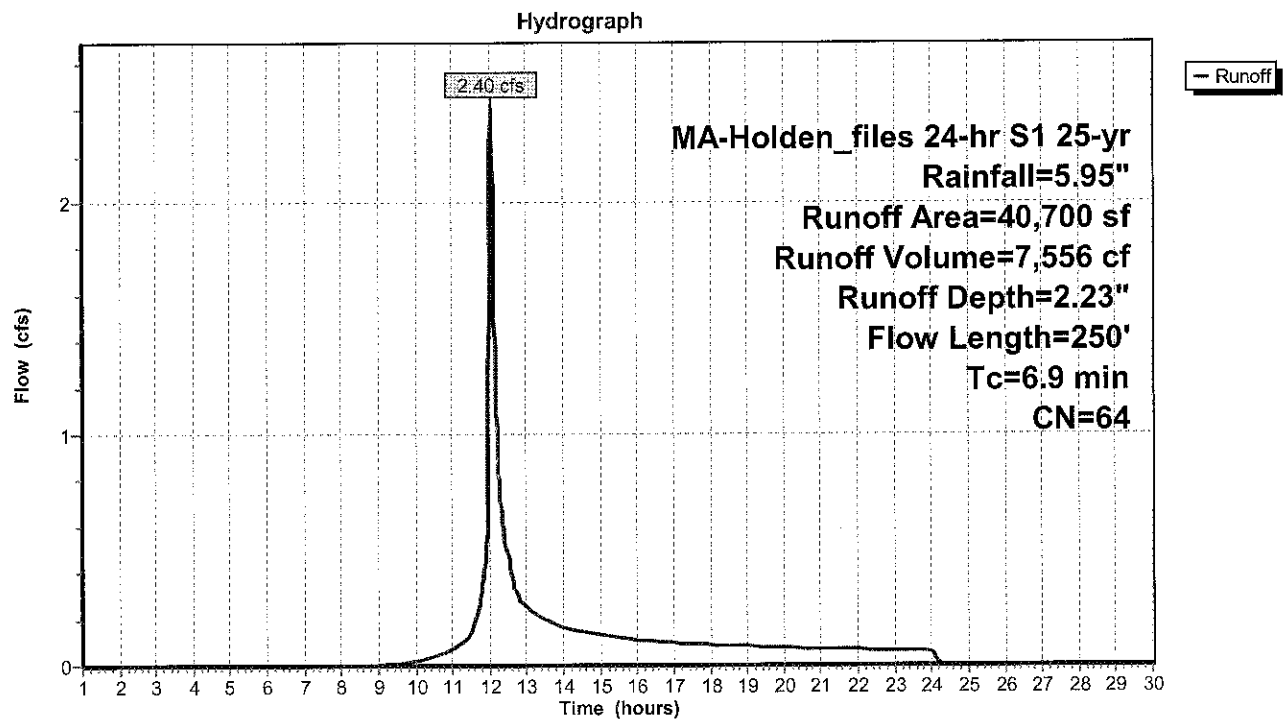
Runoff = 2.40 cfs @ 12.05 hrs, Volume= 7,556 cf, Depth= 2.23"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
12,255	39	>75% Grass cover, Good, HSG A
5,850	74	>75% Grass cover, Good, HSG C
6,675	98	Paved parking, HSG A
1,600	98	Paved parking, HSG C
3,470	30	Woods, Good, HSG A
10,850	70	Woods, Good, HSG C
40,700	64	Weighted Average
32,425		79.67% Pervious Area
8,275		20.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	50	0.1000	0.19		Sheet Flow, Grass: Dense n= 0.240 P2= 3.17"
0.2	30	0.1200	2.42		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.9	110	0.1500	0.97		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.3	30	0.4000	1.58		Shallow Concentrated Flow, Forest w/Heavy Litter Kv= 2.5 fps
0.2	30	0.2000	3.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
6.9	250	Total			

Subcatchment 202: PT4+75L



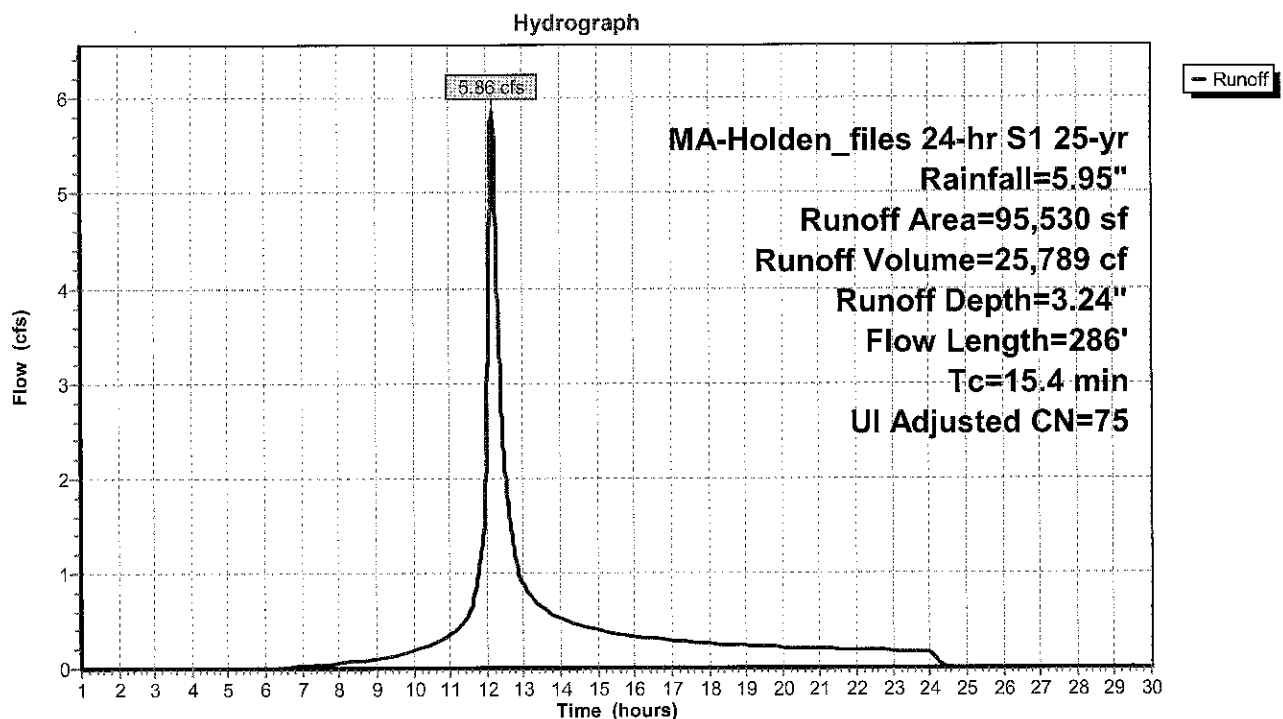
Summary for Subcatchment 300: Overland towards Salisbury

Runoff = 5.86 cfs @ 12.16 hrs, Volume= 25,789 cf, Depth= 3.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Adj	Description
18,265	98		Unconnected roofs, HSG C
44,435	74		>75% Grass cover, Good, HSG C
32,830	70		Woods, Good, HSG C
95,530	77	75	Weighted Average, UI Adjusted
77,265			80.88% Pervious Area
18,265			19.12% Impervious Area
18,265			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	50	0.0800	0.07		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
1.4	96	0.0520	1.14		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.6	140	0.0820	1.43		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
15.4	286	Total			

Subcatchment 300: Overland towards Salisbury

Summary for Subcatchment 310: Basin D-1

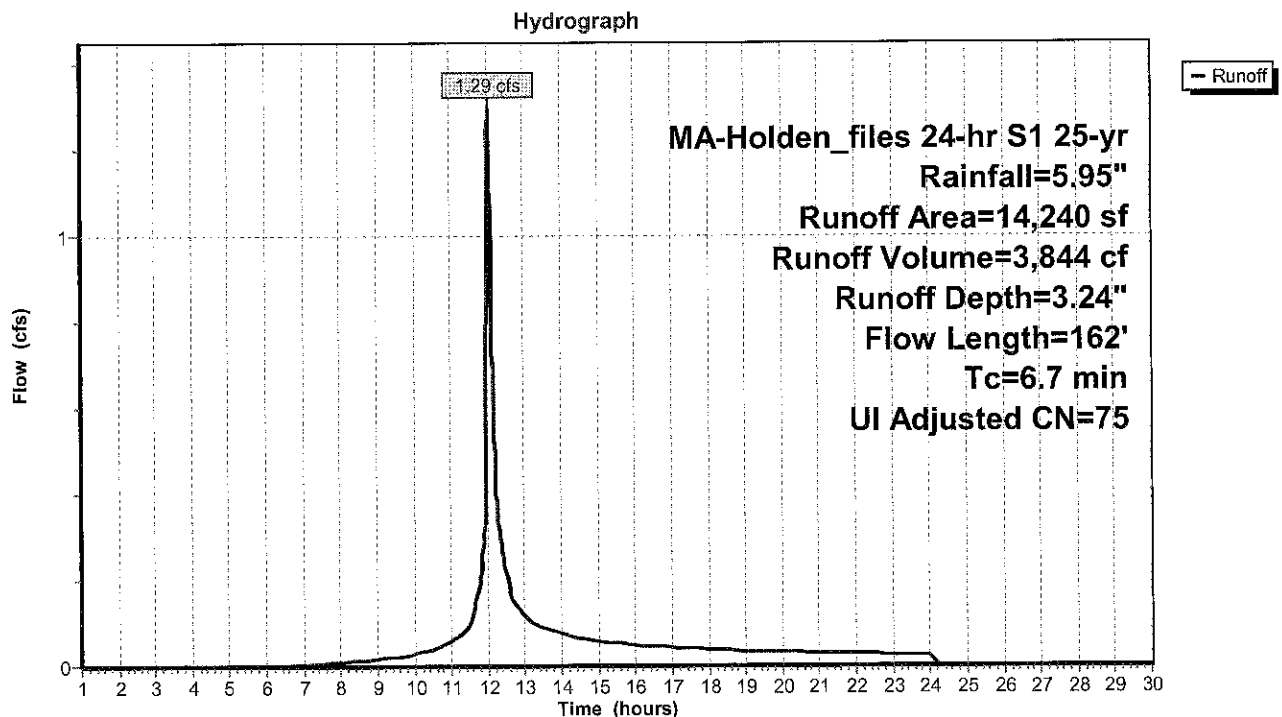
Runoff = 1.29 cfs @ 12.05 hrs, Volume= 3,844 cf, Depth= 3.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Adj	Description
12,965	74		>75% Grass cover, Good, HSG C
1,275	98		Unconnected roofs, HSG C
14,240	76	75	Weighted Average, UI Adjusted
12,965			91.05% Pervious Area
1,275			8.95% Impervious Area
1,275			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	30	0.0100	0.10		Sheet Flow, Grass: Short n= 0.150 P2= 3.17"
0.1	30	0.3000	3.83		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.4	72	0.0140	0.83		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	30	0.1000	2.21		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
6.7	162	Total			

Subcatchment 310: Basin D-1



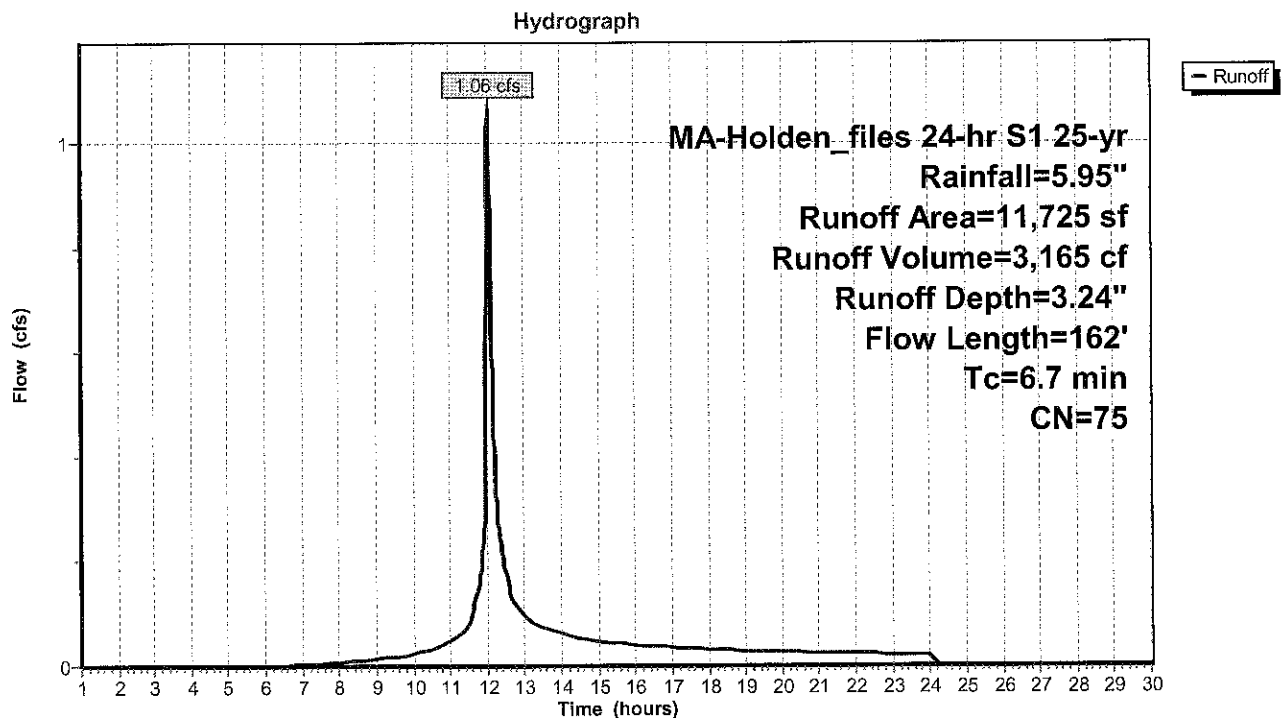
Summary for Subcatchment 320: Basin D-2

Runoff = 1.06 cfs @ 12.05 hrs, Volume= 3,165 cf, Depth= 3.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
11,090	74	>75% Grass cover, Good, HSG C
635	98	Unconnected roofs, HSG C
11,725	75	Weighted Average
11,090		94.58% Pervious Area
635		5.42% Impervious Area
635		100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	30	0.0100	0.10		Sheet Flow, Grass: Short n= 0.150 P2= 3.17"
0.1	30	0.3000	3.83		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
1.4	72	0.0140	0.83		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.2	30	0.1000	2.21		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
6.7	162	Total			

Subcatchment 320: Basin D-2

Summary for Subcatchment 321: F11+75 R

Runoff = 2.12 cfs @ 12.04 hrs, Volume= 6,370 cf, Depth= 4.36"

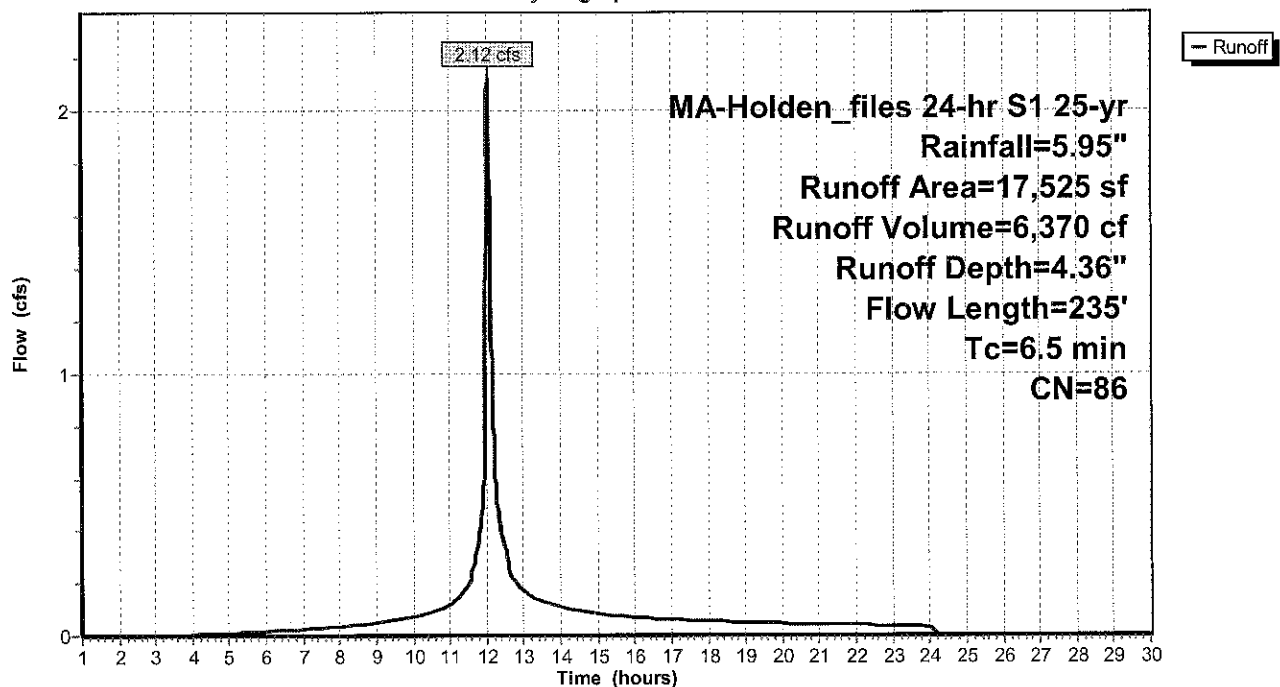
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
9,029	74	>75% Grass cover, Good, HSG C
8,496	98	Paved roads w/curbs & sewers, HSG C
17,525	86	Weighted Average
9,029		51.52% Pervious Area
8,496		48.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	30	0.0100	0.10		Sheet Flow, Grass: Short n= 0.150 P2= 3.17"
0.4	30	0.0300	1.21		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.7	75	0.0660	1.80		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.4	100	0.0400	4.06		Shallow Concentrated Flow, Paved Kv= 20.3 fps
6.5	235	Total			

Subcatchment 321: F11+75 R

Hydrograph



Summary for Subcatchment 322: F11+75 L

Runoff = 1.11 cfs @ 12.04 hrs, Volume= 3,379 cf, Depth= 5.13"

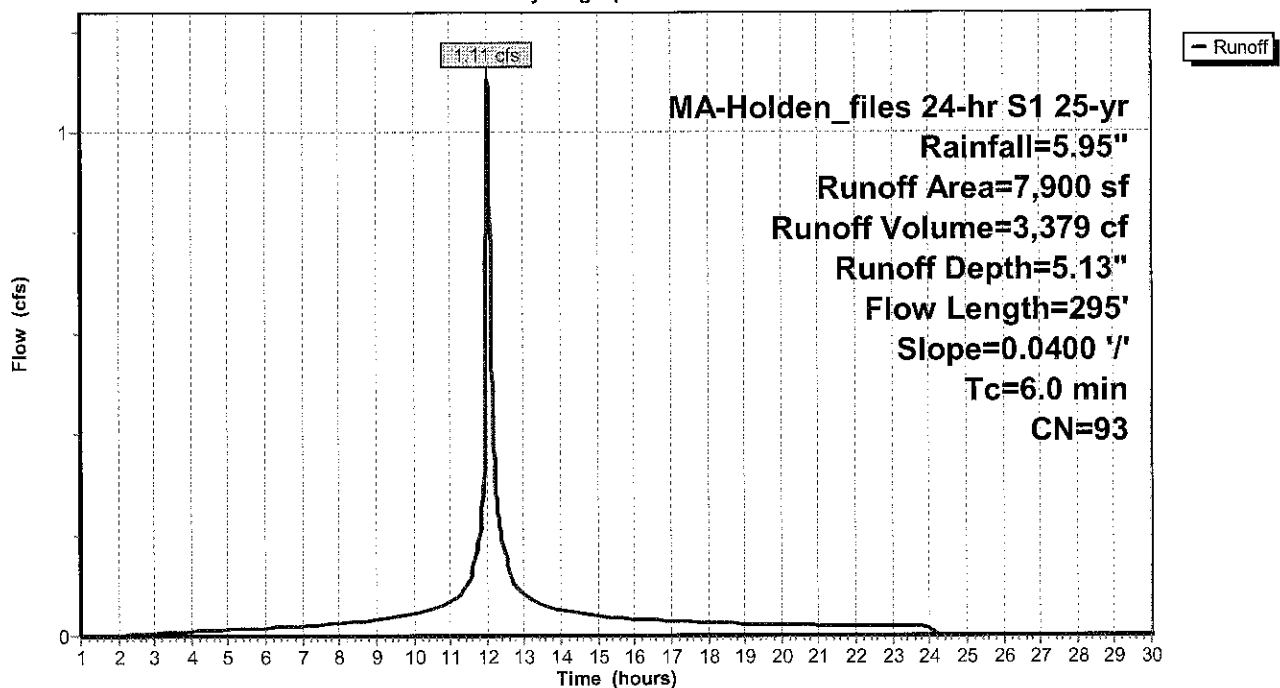
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
1,653	74	>75% Grass cover, Good, HSG C
6,247	98	Paved roads w/curbs & sewers, HSG C
7,900	93	Weighted Average
1,653		20.92% Pervious Area
6,247		79.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	295	0.0400	4.06		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.2	295	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 322: F11+75 L

Hydrograph



Summary for Subcatchment 326: F12+0 R

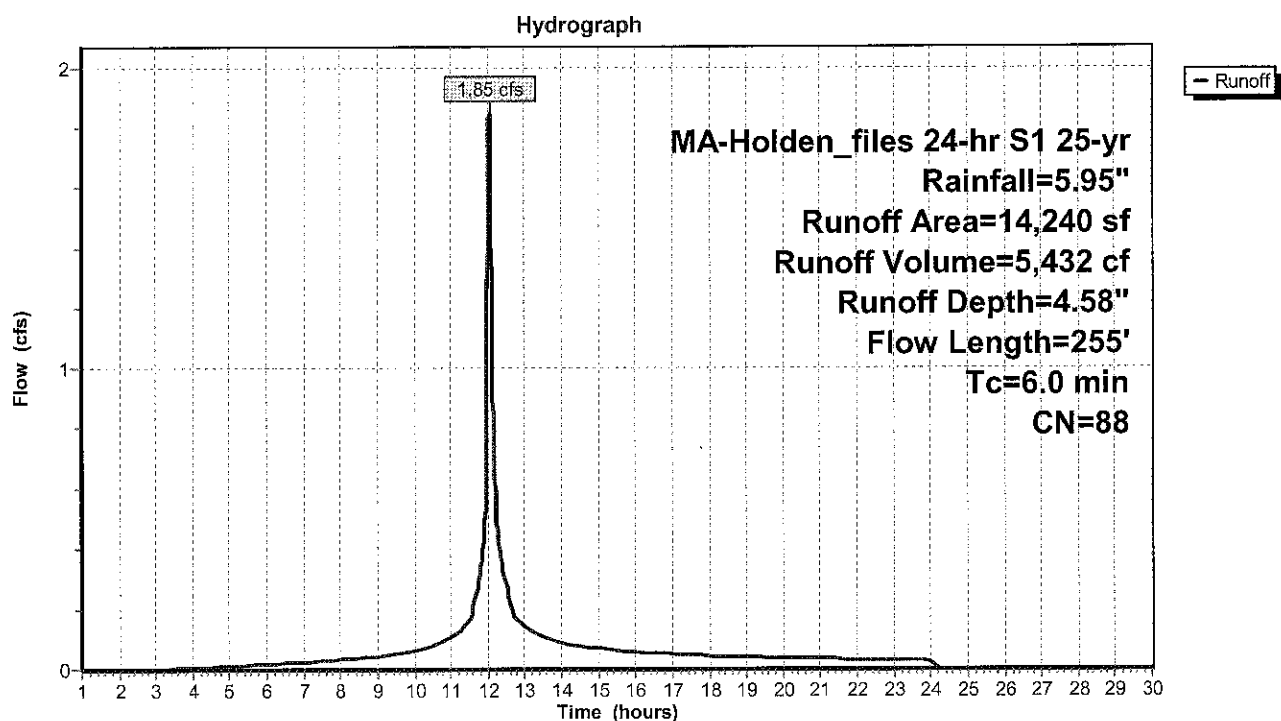
Runoff = 1.85 cfs @ 12.04 hrs, Volume= 5,432 cf, Depth= 4.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
6,032	74	>75% Grass cover, Good, HSG C
8,208	98	Paved roads w/curbs & sewers, HSG C
14,240	88	Weighted Average
6,032		42.36% Pervious Area
8,208		57.64% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	32	0.1560	0.31		Sheet Flow, Grass: Short n= 0.150 P2= 3.17"
0.4	40	0.0500	1.57		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	18	0.2200	3.28		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.4	40	0.0600	1.71		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.6	125	0.0300	3.52		Shallow Concentrated Flow, Paved Kv= 20.3 fps
3.2	255	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 326: F12+0 R



Summary for Subcatchment 327: F13+74 L

Runoff = 1.11 cfs @ 12.04 hrs, Volume= 3,379 cf, Depth= 5.13"

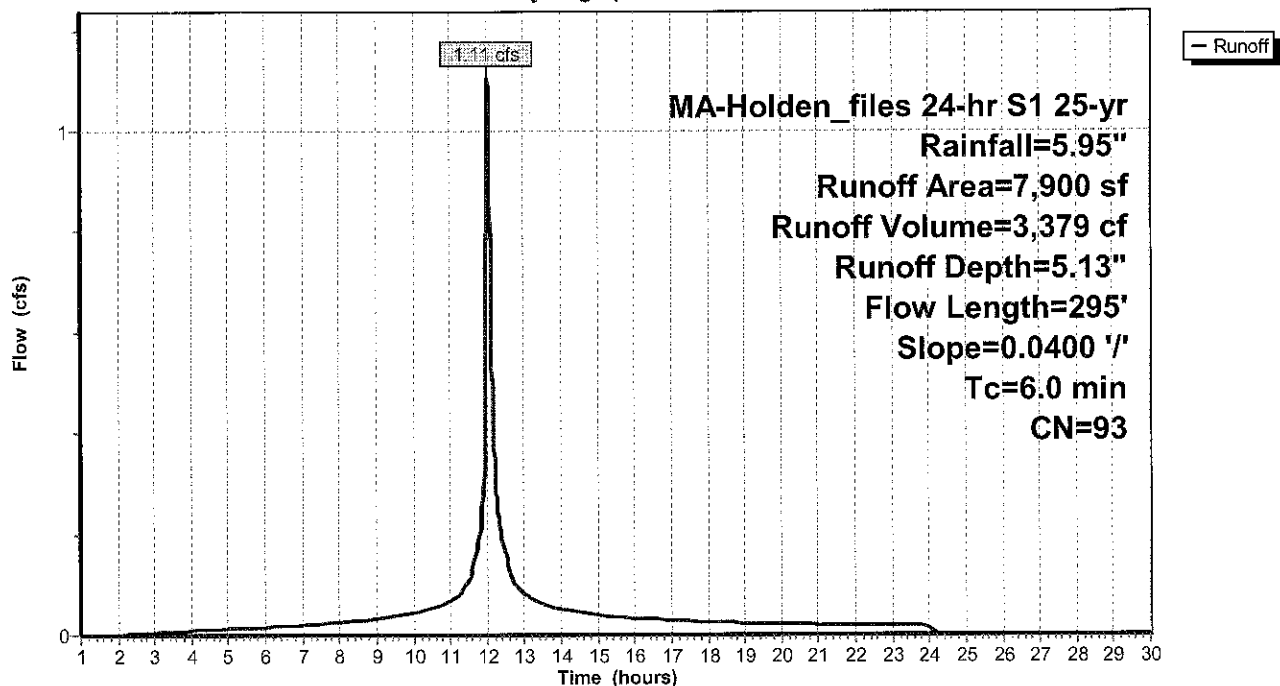
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
1,653	74	>75% Grass cover, Good, HSG C
6,247	98	Paved roads w/curbs & sewers, HSG C
7,900	93	Weighted Average
1,653		20.92% Pervious Area
6,247		79.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	295	0.0400	4.06		Shallow Concentrated Flow, Paved Kv= 20.3 fps
1.2	295	Total, Increased to minimum Tc = 6.0 min			

Subcatchment 327: F13+74 L

Hydrograph



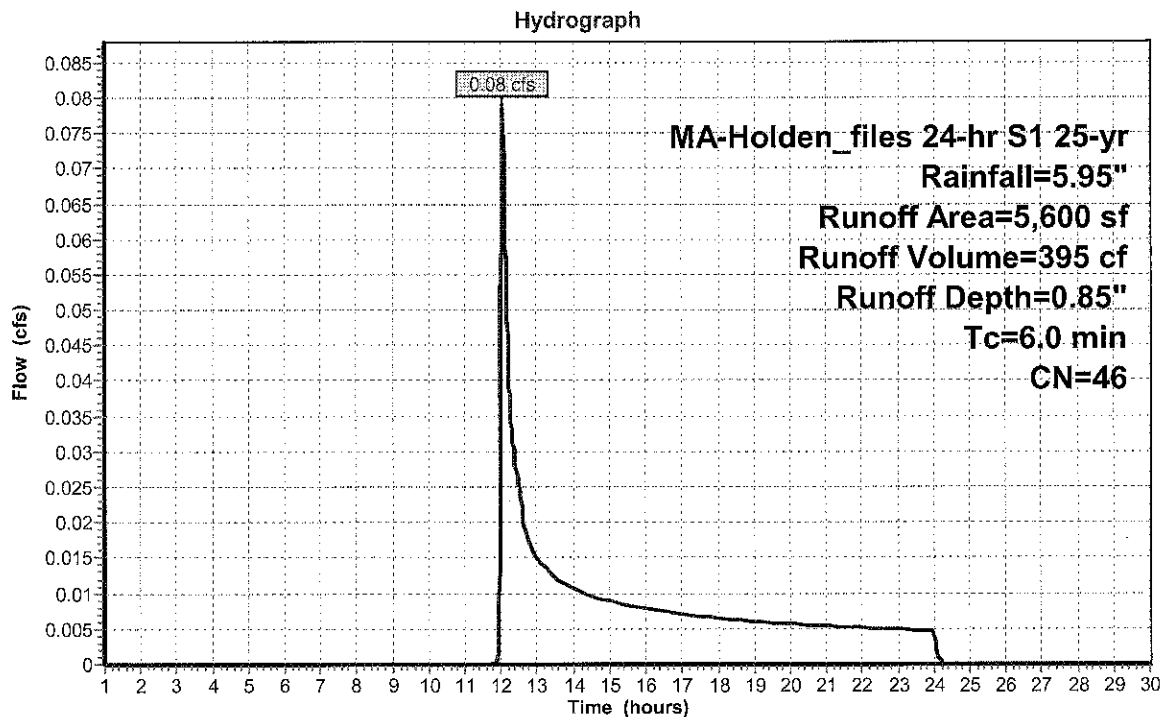
Summary for Subcatchment 520: Overland to B-2

Runoff = 0.08 cfs @ 12.05 hrs, Volume= 395 cf, Depth= 0.85"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
3,870	39	>75% Grass cover, Good, HSG A
1,730	61	>75% Grass cover, Good, HSG B
5,600	46	Weighted Average
5,600		100.00% Pervious Area

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

Subcatchment 520: Overland to B-2

Summary for Subcatchment 522: H 2+0 L

Runoff = 2.97 cfs @ 12.04 hrs, Volume= 8,535 cf, Depth= 3.05"

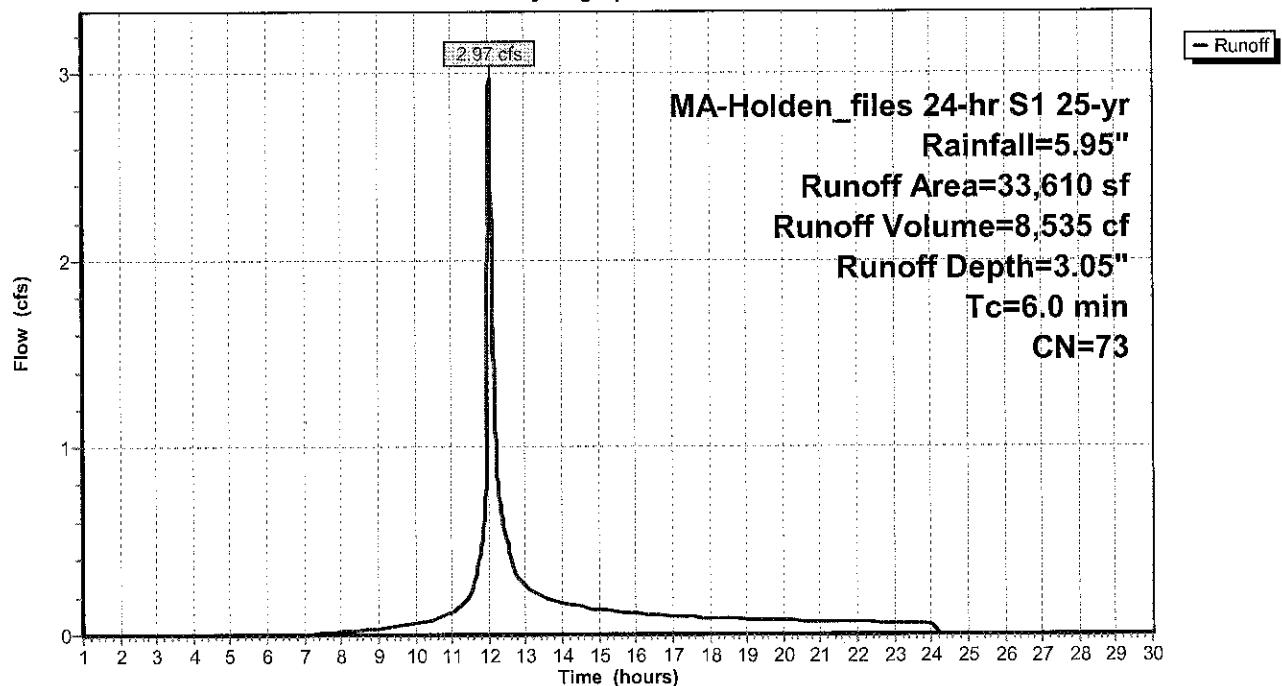
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
6,750	39	>75% Grass cover, Good, HSG A
10,575	61	>75% Grass cover, Good, HSG B
2,425	74	>75% Grass cover, Good, HSG C
3,075	98	Paved parking, HSG A
10,785	98	Paved parking, HSG B
33,610	73	Weighted Average
19,750		58.76% Pervious Area
13,860		41.24% Impervious Area

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

Subcatchment 522: H 2+0 L

Hydrograph



Summary for Subcatchment 523: H 2+0 R

Runoff = 0.84 cfs @ 12.04 hrs, Volume= 2,483 cf, Depth= 4.58"

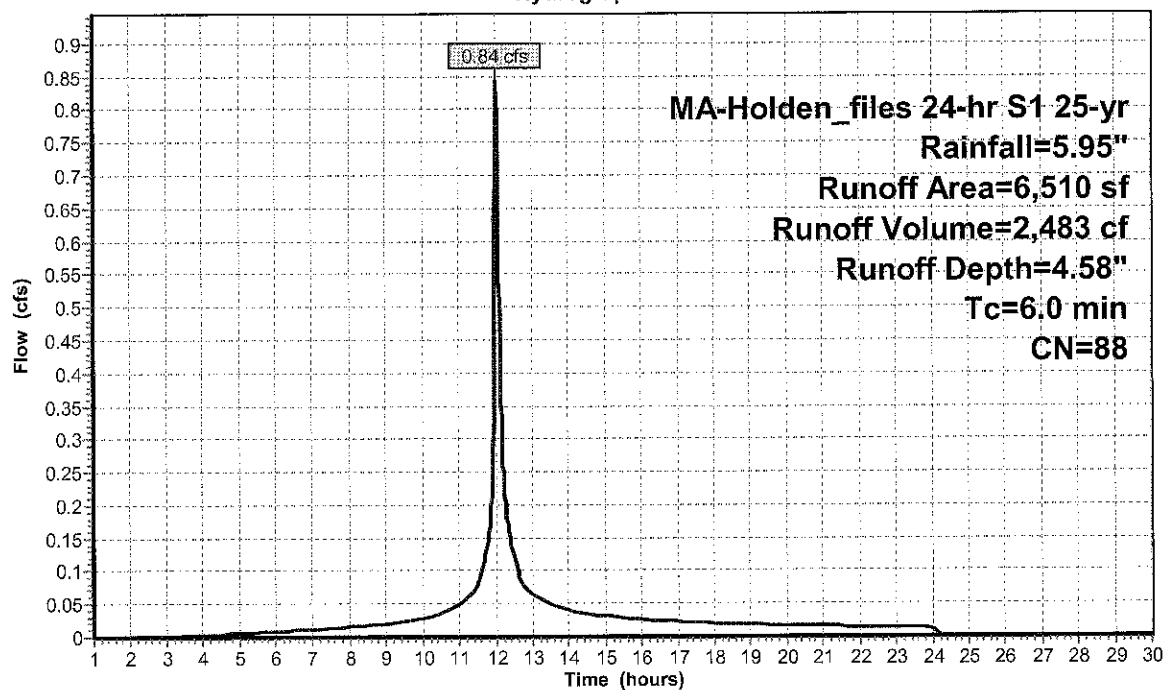
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
1,000	61	>75% Grass cover, Good, HSG B
1,070	74	>75% Grass cover, Good, HSG C
255	98	Paved parking, HSG B
4,185	98	Paved parking, HSG C
6,510	88	Weighted Average
2,070		31.80% Pervious Area
4,440		68.20% Impervious Area

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

Subcatchment 523: H 2+0 R

Hydrograph



Summary for Subcatchment 525: H 1+74 R

Runoff = 0.64 cfs @ 12.04 hrs, Volume= 1,847 cf, Depth= 4.15"

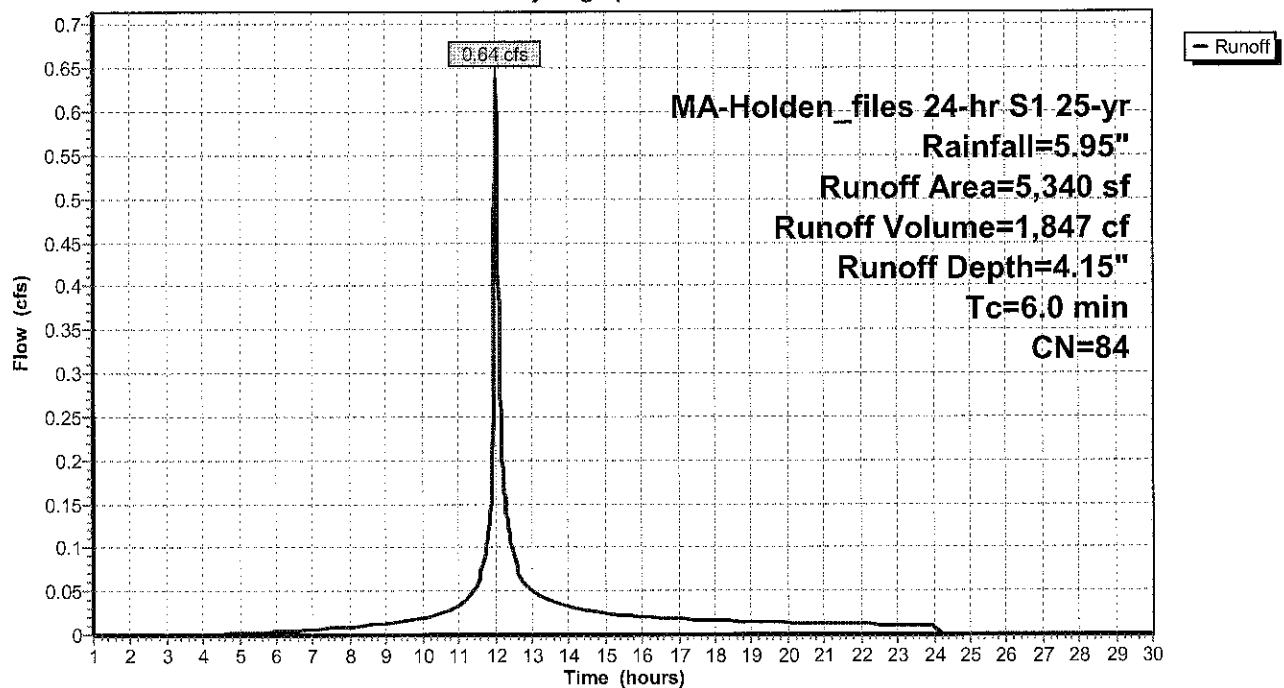
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
1,250	39	>75% Grass cover, Good, HSG A
4,090	98	Paved parking, HSG A
5,340	84	Weighted Average
1,250		23.41% Pervious Area
4,090		76.59% Impervious Area

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

Subcatchment 525: H 1+74 R

Hydrograph



Summary for Subcatchment 526: H 0+74 L

Runoff = 0.63 cfs @ 12.04 hrs, Volume= 1,835 cf, Depth= 4.15"

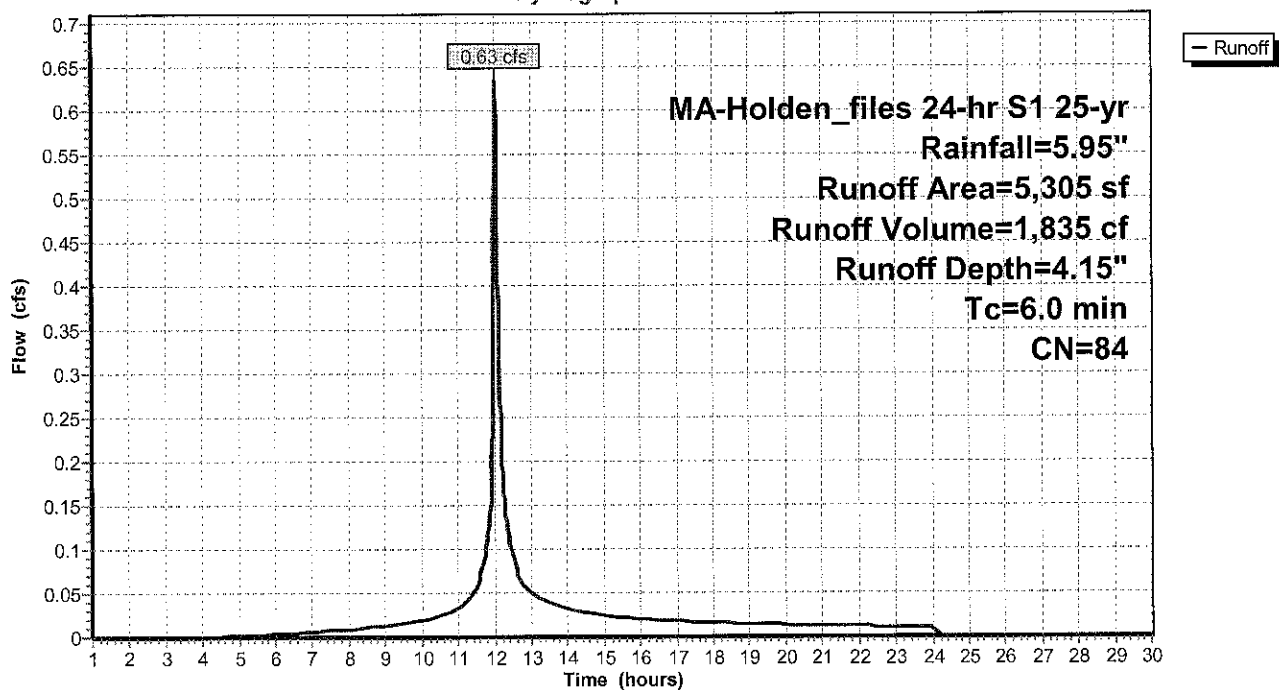
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
1,265	39	>75% Grass cover, Good, HSG A
4,040	98	Paved parking, HSG A
5,305	84	Weighted Average
1,265		23.85% Pervious Area
4,040		76.15% Impervious Area

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

Subcatchment 526: H 0+74 L

Hydrograph



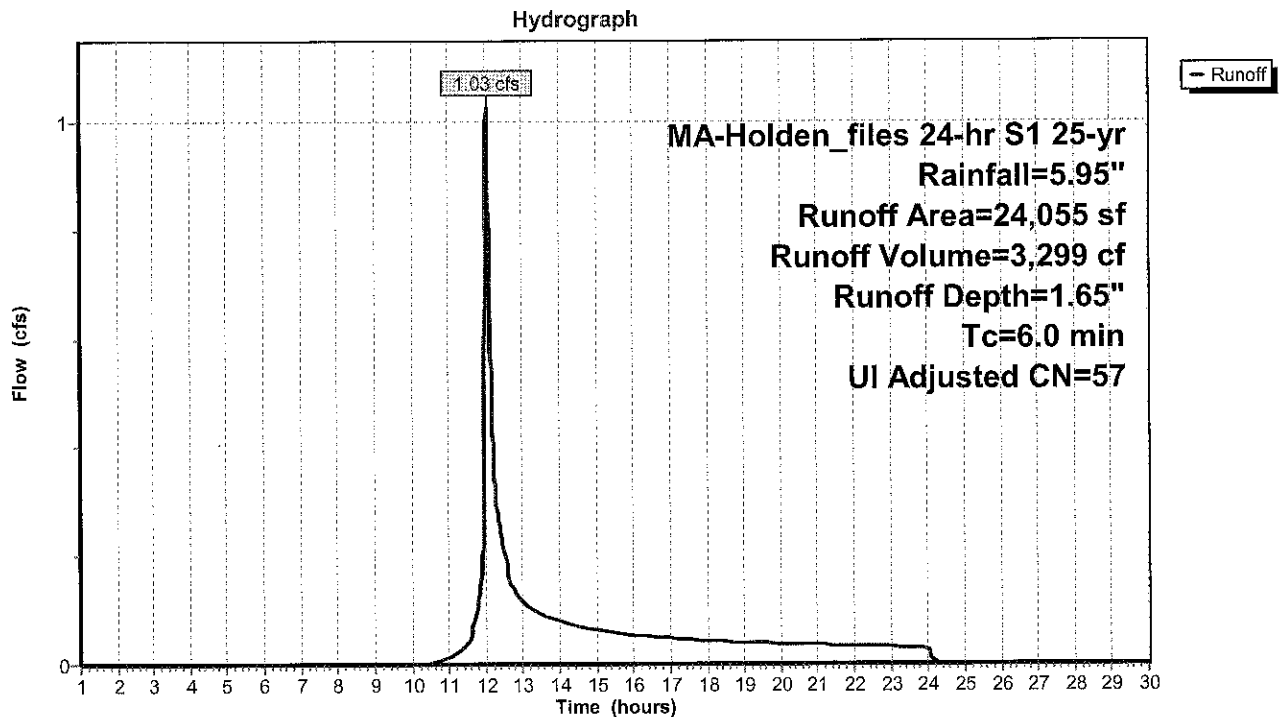
Summary for Subcatchment 530: Overland to Basin B-1

Runoff = 1.03 cfs @ 12.04 hrs, Volume= 3,299 cf, Depth= 1.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Adj	Description
8,860	39		>75% Grass cover, Good, HSG A
8,430	61		>75% Grass cover, Good, HSG B
2,850	74		>75% Grass cover, Good, HSG C
2,355	98		Unconnected roofs, HSG A
1,420	98		Unconnected roofs, HSG B
140	98		Unconnected roofs, HSG C
24,055	60	57	Weighted Average, UI Adjusted
20,140			83.72% Pervious Area
3,915			16.28% Impervious Area
3,915			100.00% Unconnected

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

Subcatchment 530: Overland to Basin B-1

Summary for Subcatchment 532: H 3+50 L

Runoff = 3.59 cfs @ 12.04 hrs, Volume= 10,275 cf, Depth= 3.44"

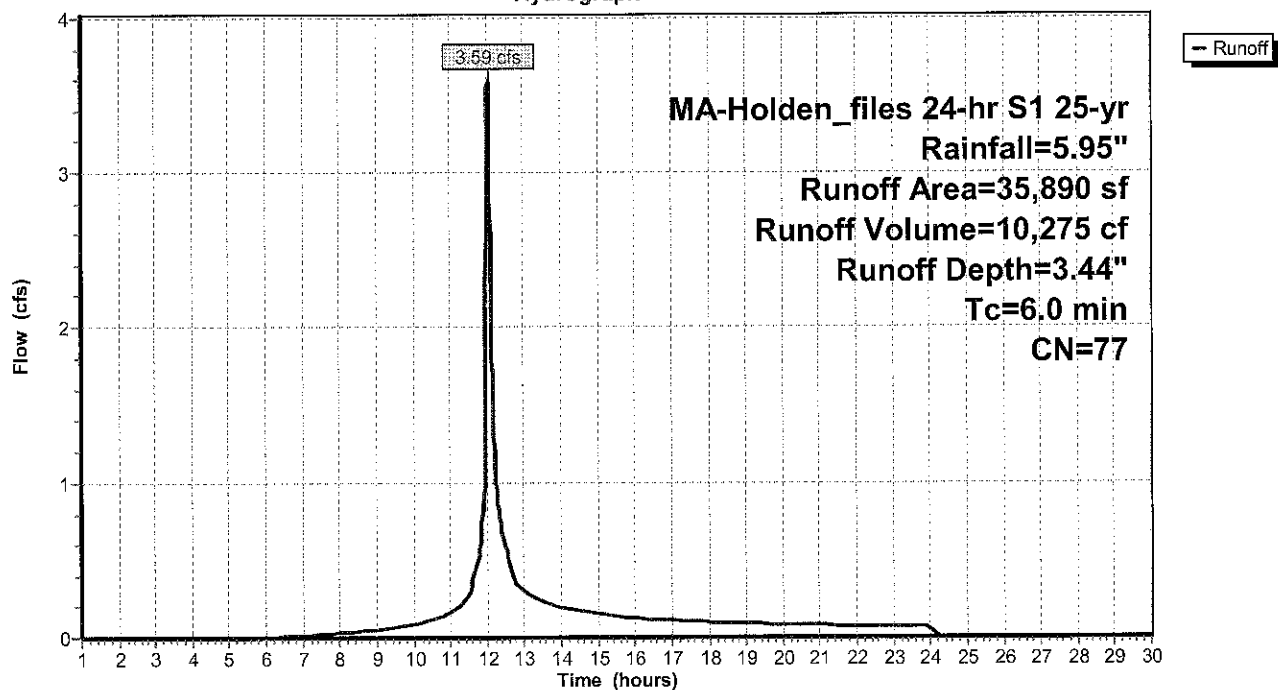
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
7,335	39	>75% Grass cover, Good, HSG A
13,535	74	>75% Grass cover, Good, HSG C
8,377	98	Paved parking, HSG A
6,643	98	Paved parking, HSG C
35,890	77	Weighted Average
20,870		58.15% Pervious Area
15,020		41.85% Impervious Area

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

Subcatchment 532: H 3+50 L

Hydrograph



Summary for Subcatchment 533: PT 4+75 R

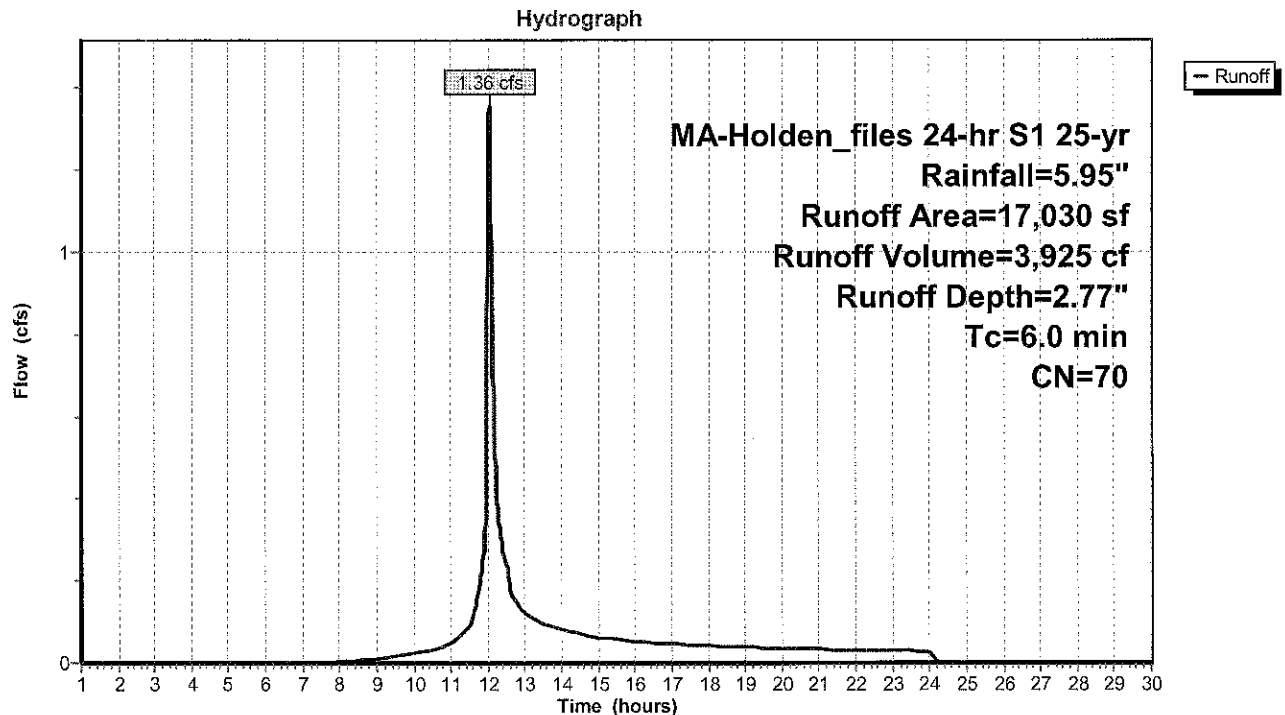
Runoff = 1.36 cfs @ 12.04 hrs, Volume= 3,925 cf, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
7,985	39	>75% Grass cover, Good, HSG A
455	74	>75% Grass cover, Good, HSG C
8,168	98	Paved parking, HSG A
422	98	Paved parking, HSG C
17,030	70	Weighted Average
8,440		49.56% Pervious Area
8,590		50.44% Impervious Area

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

Subcatchment 533: PT 4+75 R



Summary for Subcatchment 700: BASIN A

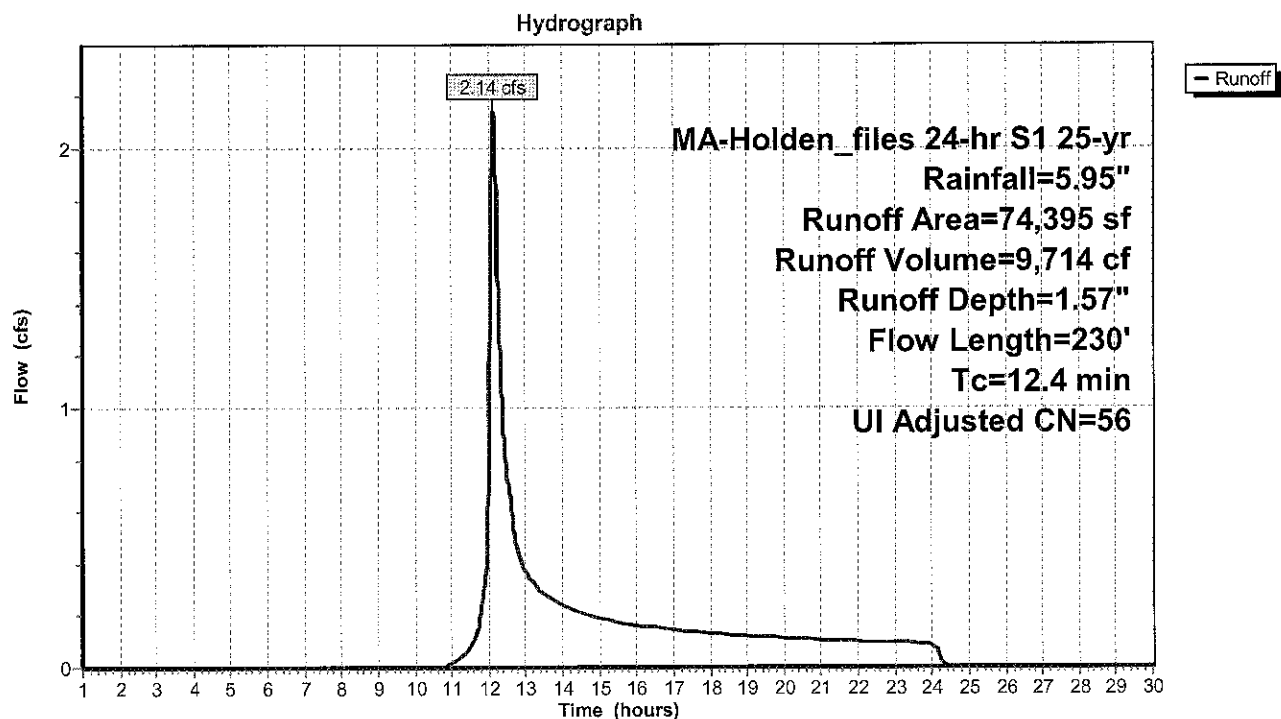
Runoff = 2.14 cfs @ 12.13 hrs, Volume= 9,714 cf, Depth= 1.57"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Adj	Description
53,730	49		50-75% Grass cover, Fair, HSG A
1,610	74		>75% Grass cover, Good, HSG C
15,475	98		Unconnected roofs, HSG A
3,580	98		Unconnected roofs, HSG C
74,395	62	56	Weighted Average, UI Adjusted
55,340			74.39% Pervious Area
19,055			25.61% Impervious Area
19,055			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	50	0.1400	0.08		Sheet Flow, Woods: Dense underbrush n= 0.800 P2= 3.17"
1.1	70	0.0430	1.04		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	35	0.5700	3.77		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.1	15	0.1300	1.80		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.1	60	0.0330	0.91		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
12.4	230	Total			

Subcatchment 700: BASIN A



Summary for Subcatchment 711: PT 8+13

Runoff = 0.95 cfs @ 12.04 hrs, Volume= 2,800 cf, Depth= 4.69"

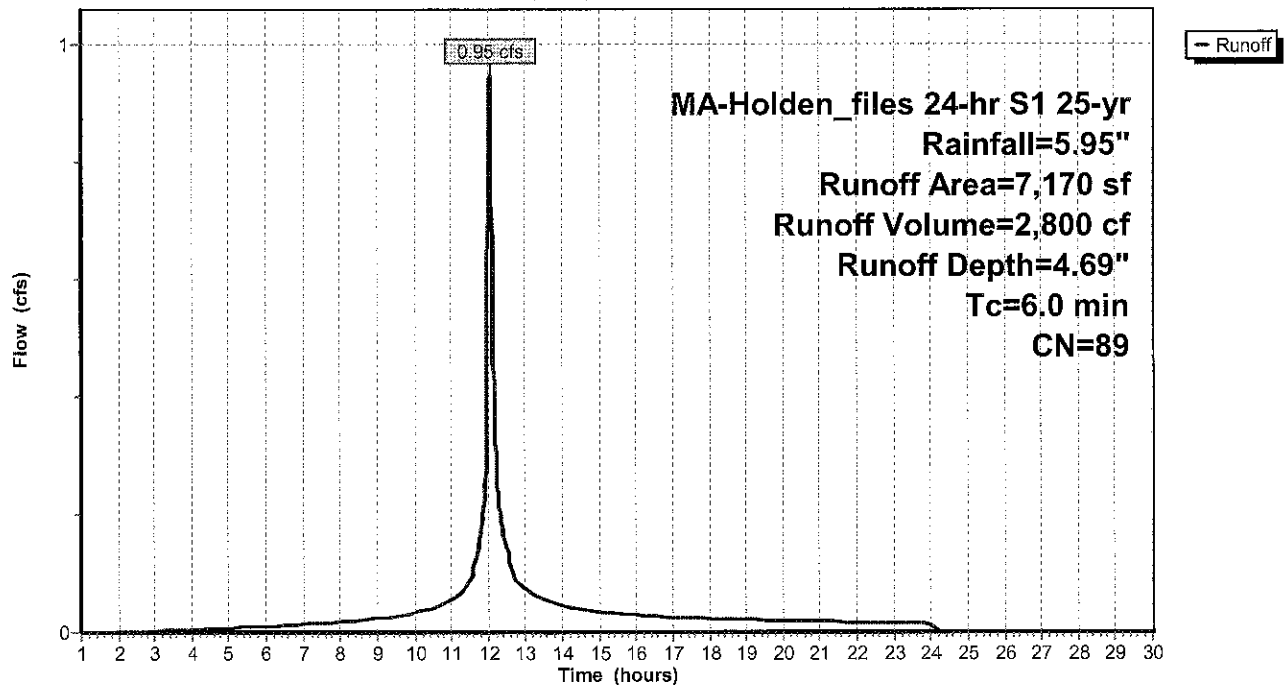
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
1,050	39	>75% Grass cover, Good, HSG A
1,505	98	Paved parking, HSG C
4,615	98	Paved parking, HSG A
7,170	89	Weighted Average
1,050		14.64% Pervious Area
6,120		85.36% Impervious Area

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

Subcatchment 711: PT 8+13

Hydrograph



Summary for Subcatchment 712: F 0-2

Runoff = 2.52 cfs @ 12.04 hrs, Volume= 7,248 cf, Depth= 3.94"

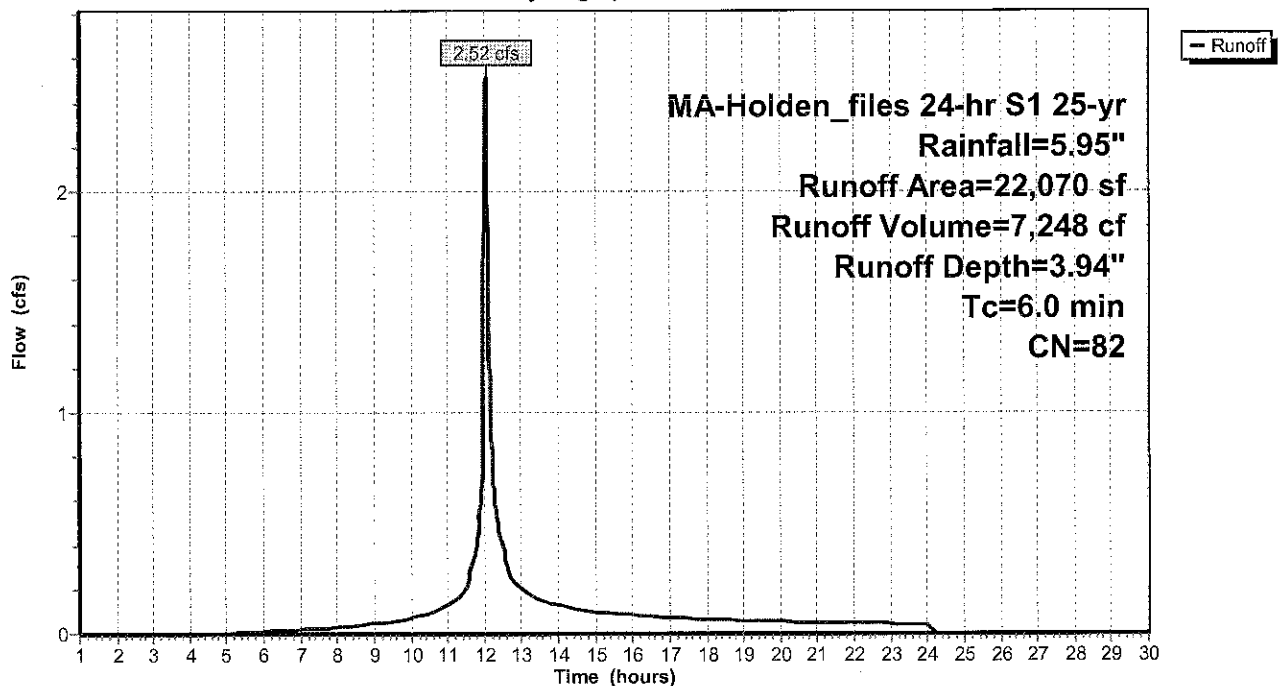
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
50	39	>75% Grass cover, Good, HSG A
8,025	98	Paved parking, HSG C
5,335	70	Woods, Good, HSG C
8,660	74	>75% Grass cover, Good, HSG C
22,070	82	Weighted Average
14,045		63.64% Pervious Area
8,025		36.36% Impervious Area

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

Subcatchment 712: F 0-2

Hydrograph



Summary for Subcatchment 714: F 1+0 L

Runoff = 2.51 cfs @ 12.04 hrs, Volume= 7,337 cf, Depth= 4.47"

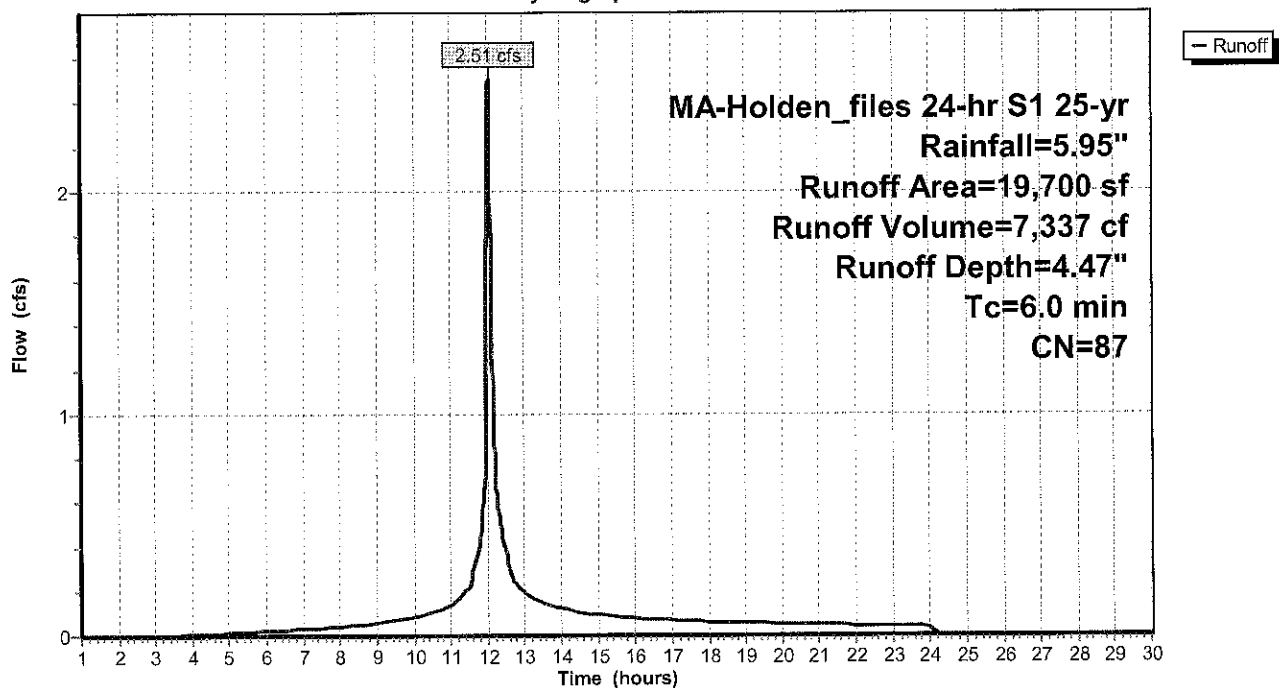
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
8,810	74	>75% Grass cover, Good, HSG C
10,890	98	Paved parking, HSG C
19,700	87	Weighted Average
8,810		44.72% Pervious Area
10,890		55.28% Impervious Area

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

Subcatchment 714: F 1+0 L

Hydrograph



Summary for Subcatchment 715: F 1+0 R

Runoff = 2.25 cfs @ 12.04 hrs, Volume= 6,767 cf, Depth= 4.91"

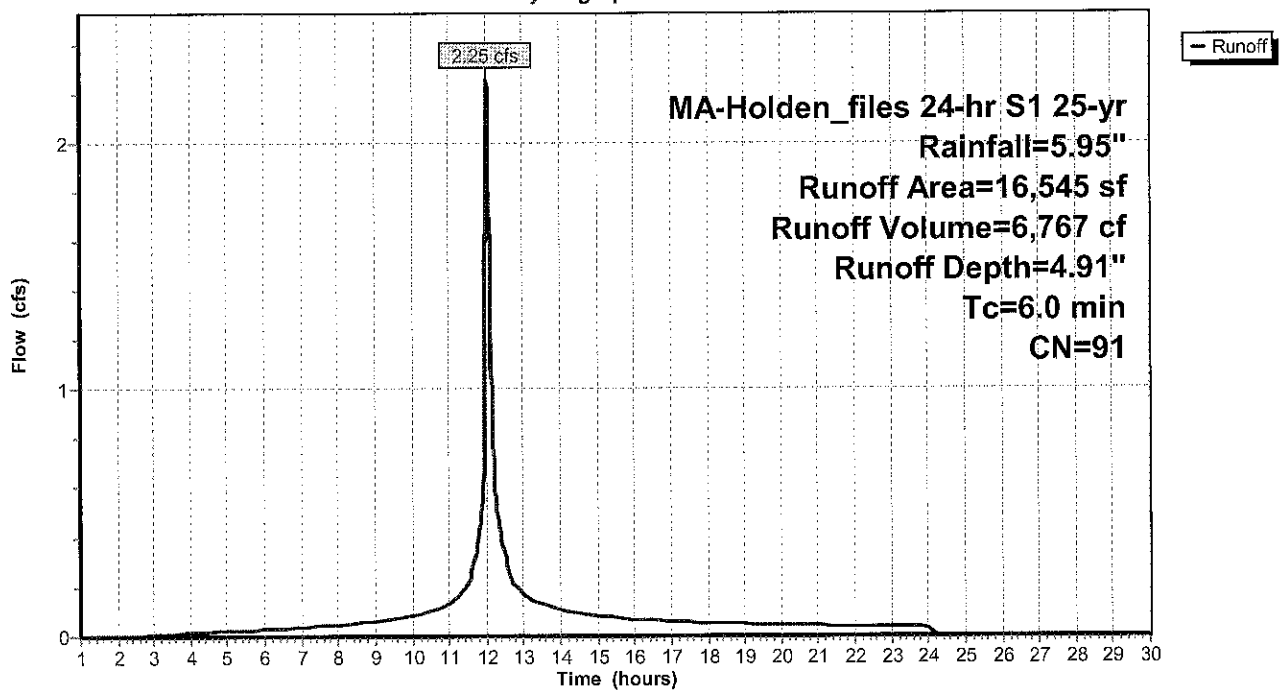
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
4,645	74	>75% Grass cover, Good, HSG C
11,900	98	Paved parking, HSG C
16,545	91	Weighted Average
4,645		28.07% Pervious Area
11,900		71.93% Impervious Area

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

Subcatchment 715: F 1+0 R

Hydrograph



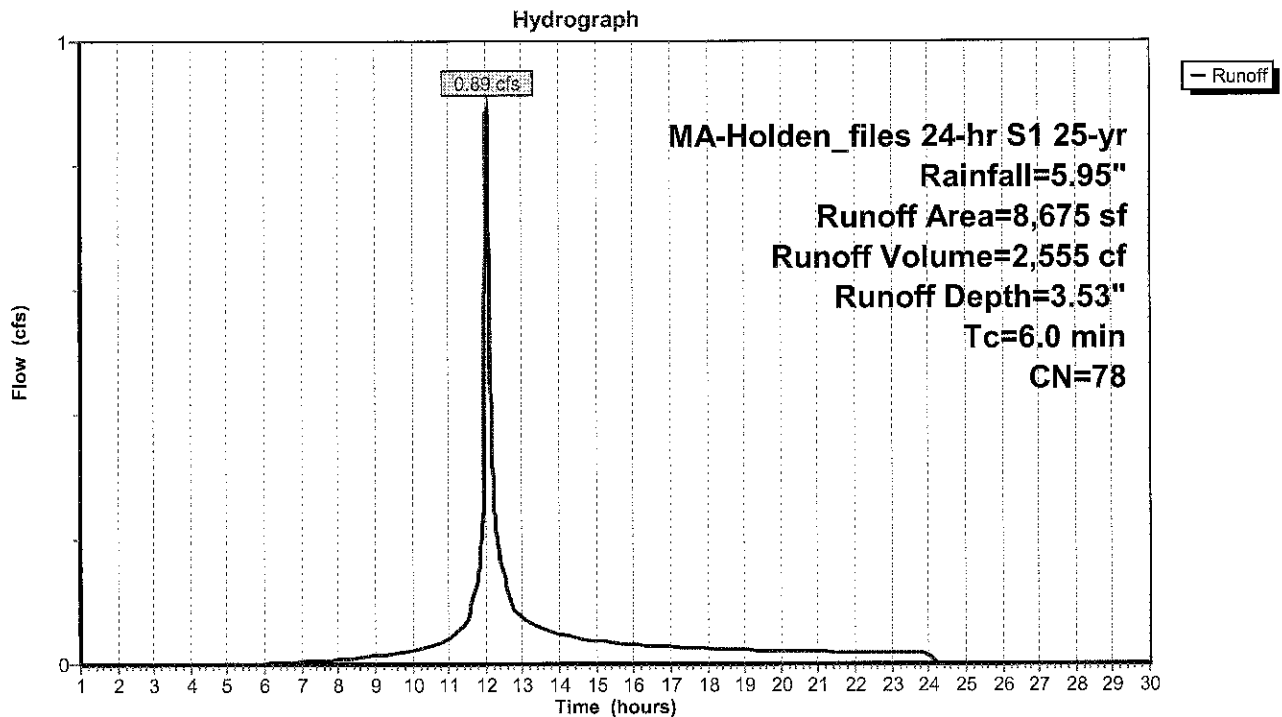
Summary for Subcatchment 720: Basin C-2

Runoff = 0.89 cfs @ 12.04 hrs, Volume= 2,555 cf, Depth= 3.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
7,235	74	>75% Grass cover, Good, HSG C
1,440	98	Paved parking, HSG C
8,675	78	Weighted Average
7,235		83.40% Pervious Area
1,440		16.60% Impervious Area

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

Subcatchment 720: Basin C-2

Summary for Subcatchment 722: LCB C5

Runoff = 2.09 cfs @ 12.04 hrs, Volume= 6,330 cf, Depth= 5.02"

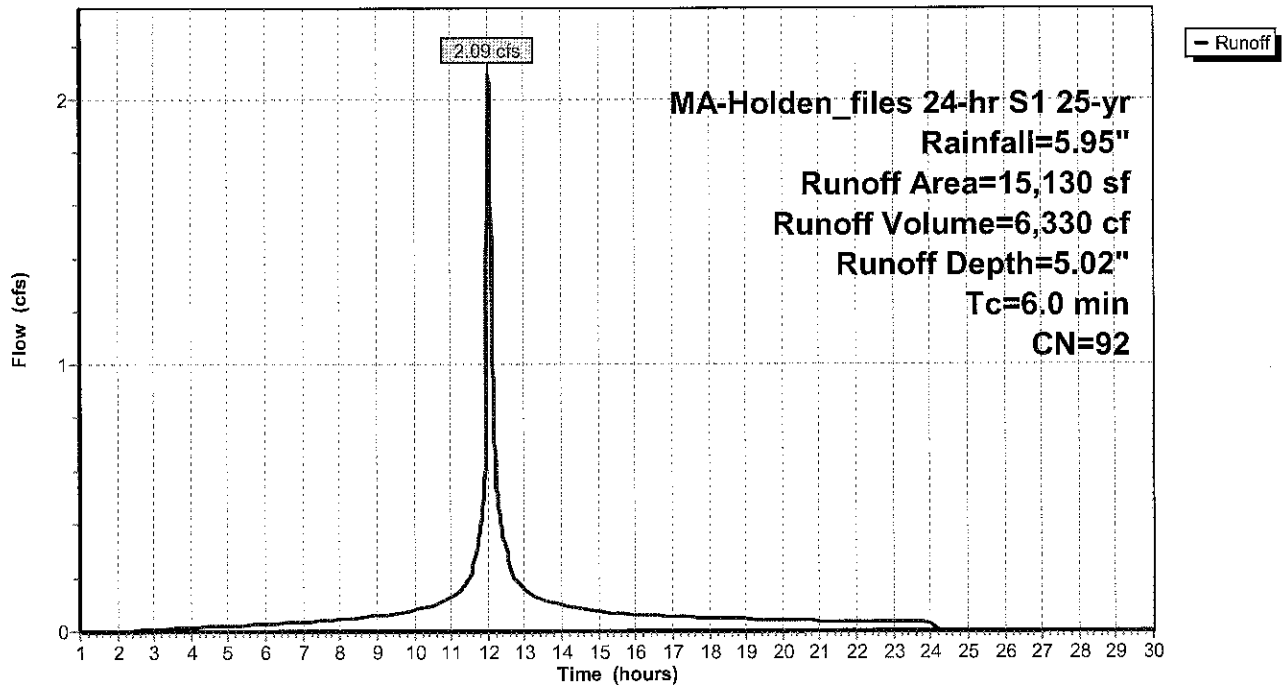
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
3,730	74	>75% Grass cover, Good, HSG C
11,400	98	Paved parking, HSG C
15,130	92	Weighted Average
3,730		24.65% Pervious Area
11,400		75.35% Impervious Area

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

Subcatchment 722: LCB C5

Hydrograph



Summary for Subcatchment 730: Basin C-1

Runoff = 0.83 cfs @ 12.04 hrs, Volume= 2,381 cf, Depth= 3.64"

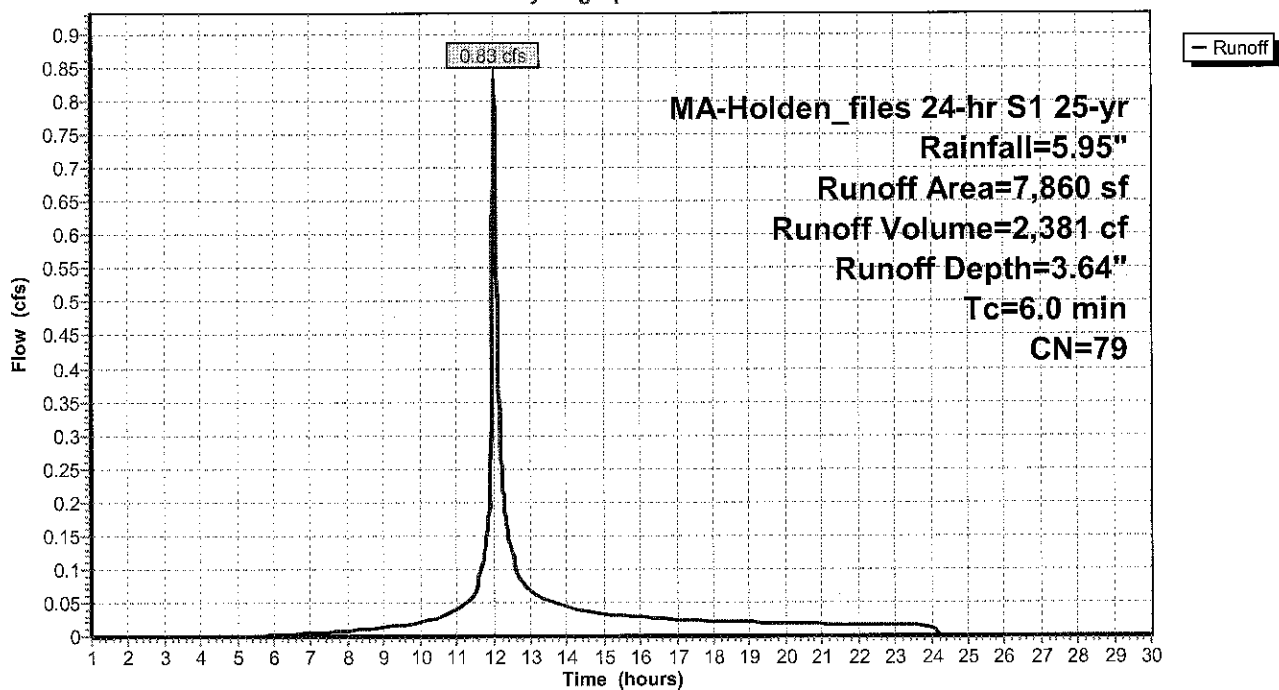
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
6,375	74	>75% Grass cover, Good, HSG C
1,485	98	Paved parking, HSG C
7,860	79	Weighted Average
6,375		81.11% Pervious Area
1,485		18.89% Impervious Area

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

Subcatchment 730: Basin C-1

Hydrograph



Summary for Subcatchment 732: F 6+10L

Runoff = 1.17 cfs @ 12.04 hrs, Volume= 3,616 cf, Depth= 5.25"

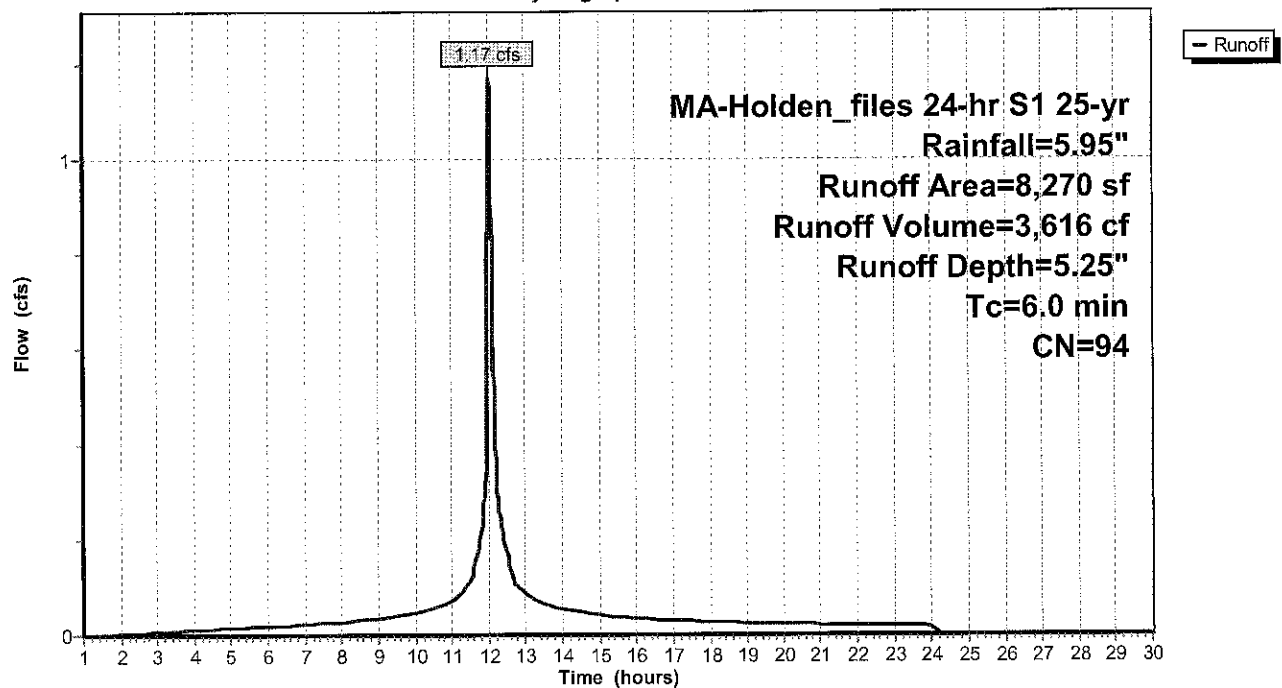
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
1,330	74	>75% Grass cover, Good, HSG C
6,940	98	Paved parking, HSG C
8,270	94	Weighted Average
1,330		16.08% Pervious Area
6,940		83.92% Impervious Area

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

Subcatchment 732: F 6+10L

Hydrograph



Summary for Subcatchment 733: F6+10R

Runoff = 2.95 cfs @ 12.04 hrs, Volume= 8,597 cf, Depth= 4.36"

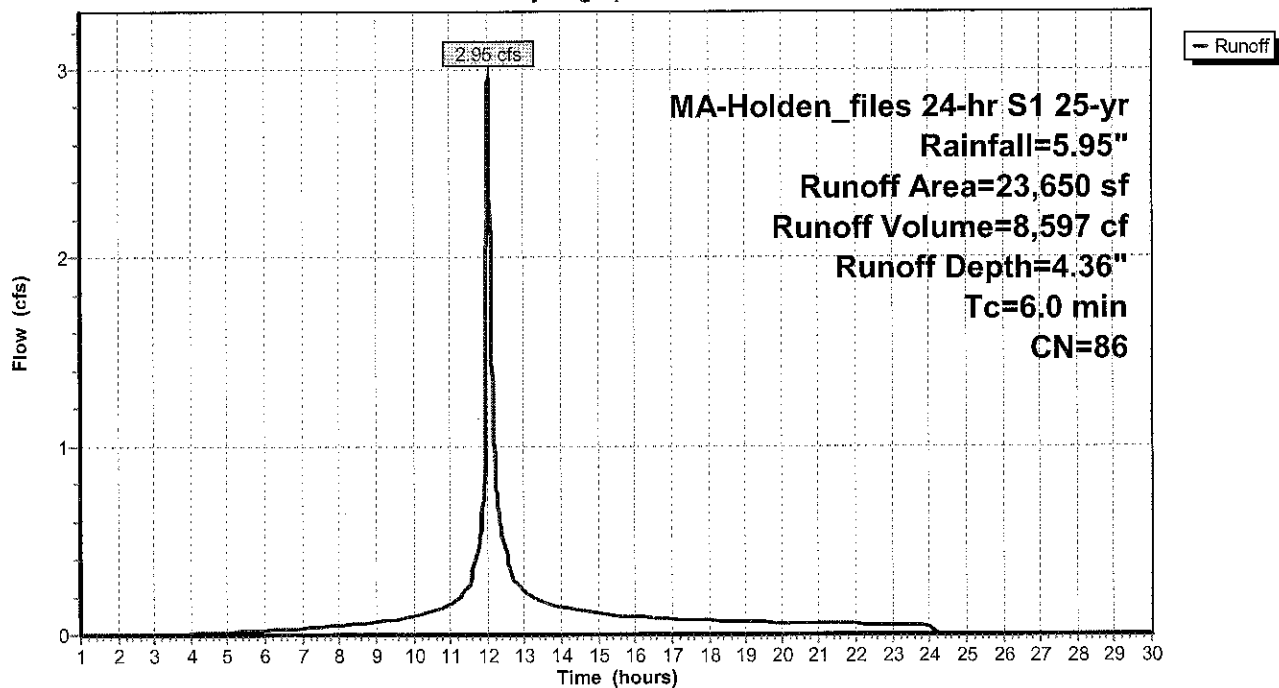
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
11,405	74	>75% Grass cover, Good, HSG C
12,245	98	Paved parking, HSG C
23,650	86	Weighted Average
11,405		48.22% Pervious Area
12,245		51.78% Impervious Area

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

Subcatchment 733: F6+10R

Hydrograph



Summary for Subcatchment 737: H 11+60L

Runoff = 0.53 cfs @ 12.04 hrs, Volume= 1,564 cf, Depth= 4.47"

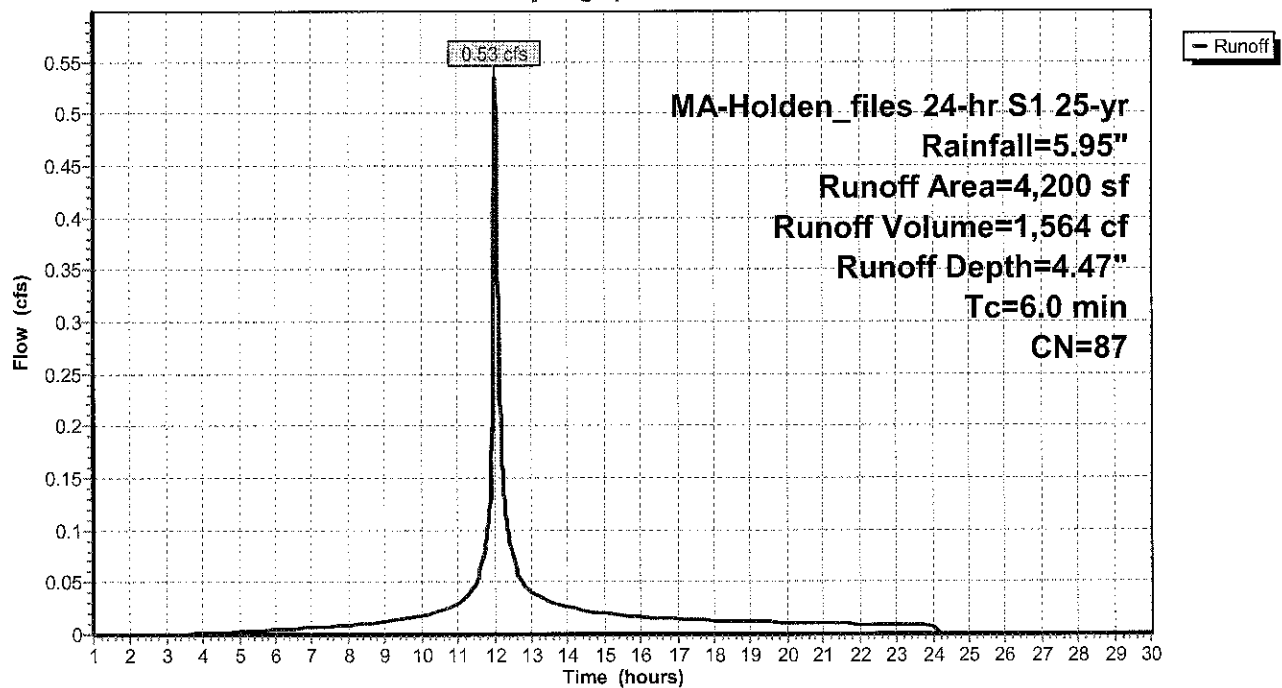
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
1,935	74	>75% Grass cover, Good, HSG C
2,265	98	Paved parking, HSG C
4,200	87	Weighted Average
1,935		46.07% Pervious Area
2,265		53.93% Impervious Area

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

Subcatchment 737: H 11+60L

Hydrograph



Summary for Subcatchment 738: F 9+49R

Runoff = 0.69 cfs @ 12.04 hrs, Volume= 2,018 cf, Depth= 4.58"

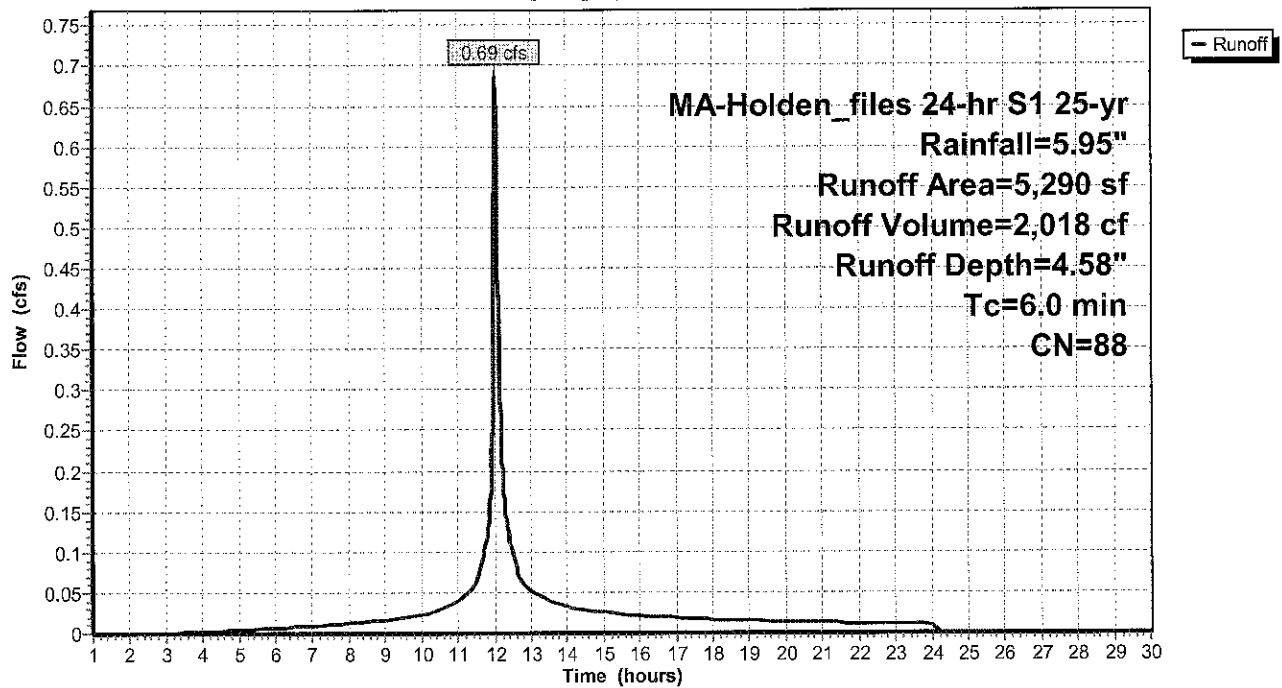
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
2,120	74	>75% Grass cover, Good, HSG C
3,170	98	Paved parking, HSG C
5,290	88	Weighted Average
2,120		40.08% Pervious Area
3,170		59.92% Impervious Area

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

Subcatchment 738: F 9+49R

Hydrograph



Summary for Subcatchment 752: F 3+60 R

Runoff = 0.86 cfs @ 12.04 hrs, Volume= 2,616 cf, Depth= 5.13"

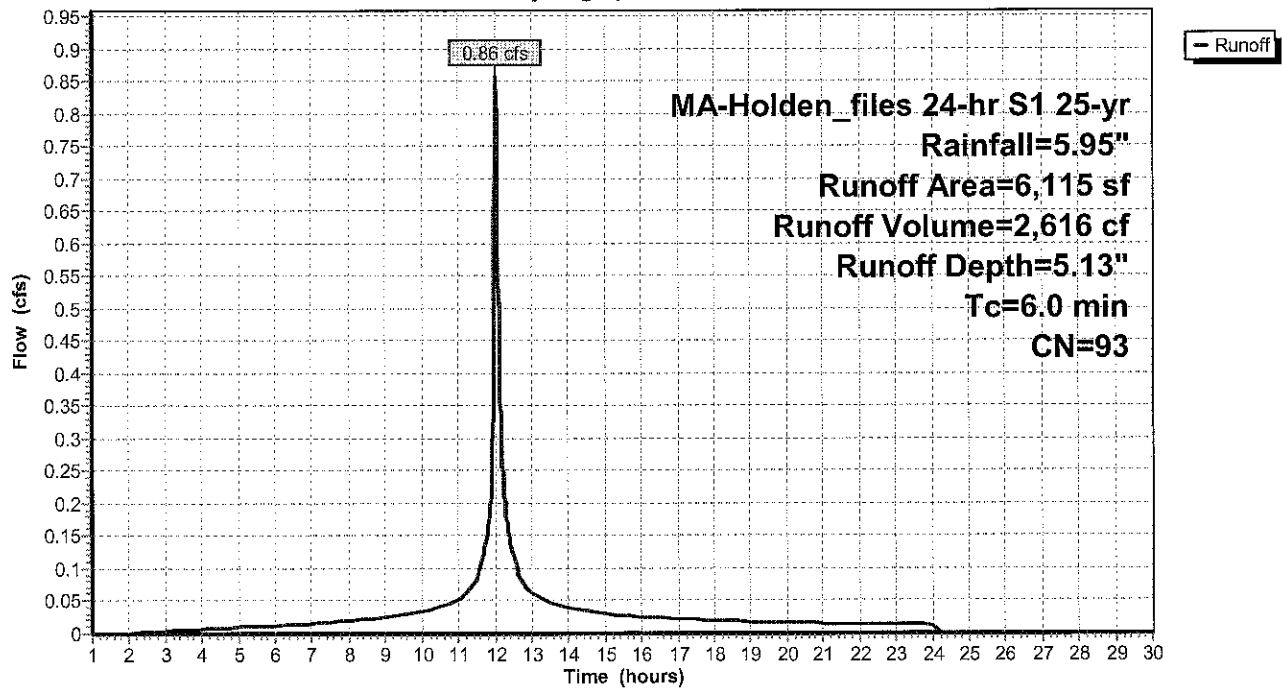
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
1,305	74	>75% Grass cover, Good, HSG C
4,810	98	Paved parking, HSG C
6,115	93	Weighted Average
1,305		21.34% Pervious Area
4,810		78.66% Impervious Area

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

Subcatchment 752: F 3+60 R

Hydrograph



Summary for Subcatchment 753: F 3+60 L

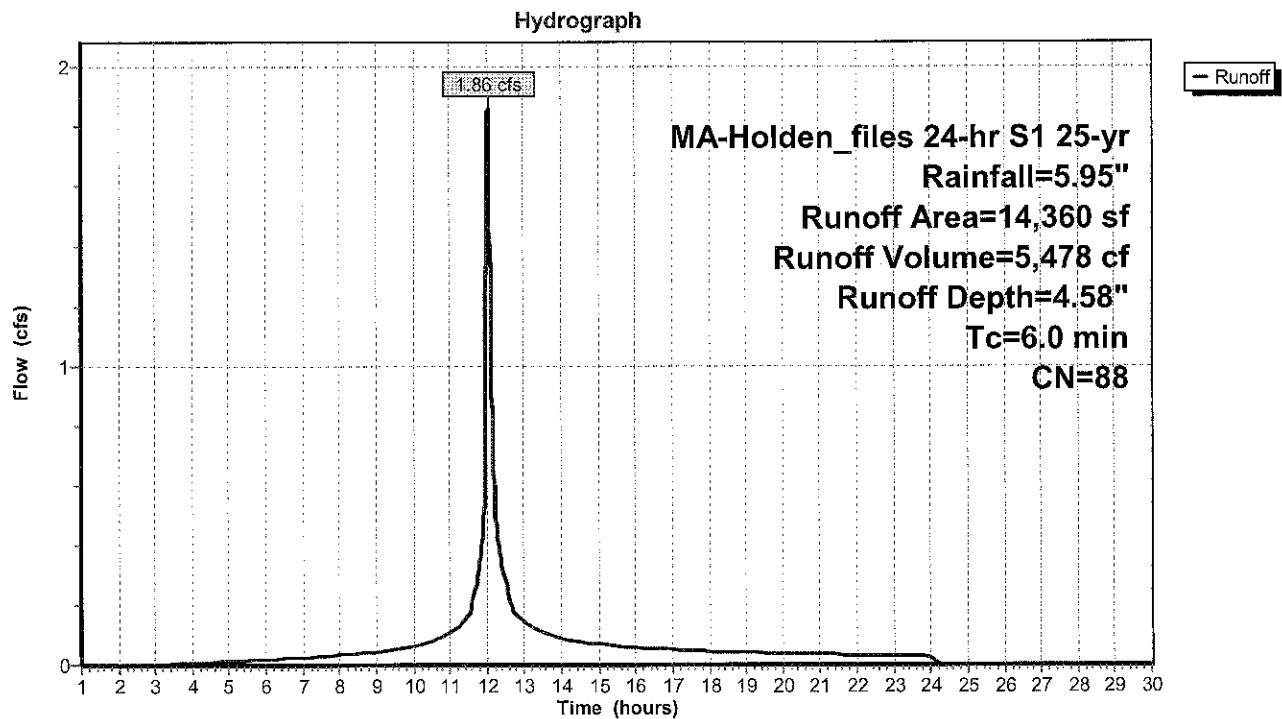
Runoff = 1.86 cfs @ 12.04 hrs, Volume= 5,478 cf, Depth= 4.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
5,885	74	>75% Grass cover, Good, HSG C
8,475	98	Paved parking, HSG C
14,360	88	Weighted Average
5,885		40.98% Pervious Area
8,475		59.02% Impervious Area

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

Subcatchment 753: F 3+60 L



Summary for Subcatchment 783: H 5+60 R

Runoff = 1.57 cfs @ 12.04 hrs, Volume= 4,791 cf, Depth= 5.13"

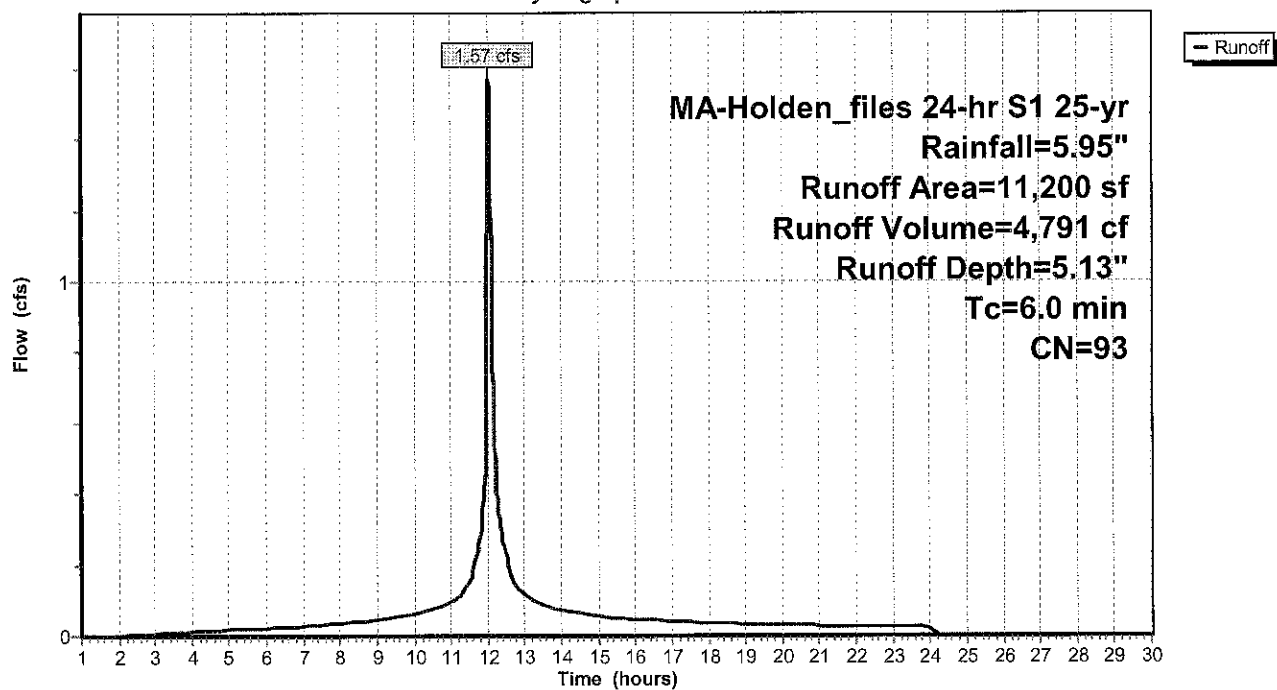
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
2,560	74	>75% Grass cover, Good, HSG C
8,640	98	Paved parking, HSG C
11,200	93	Weighted Average
2,560		22.86% Pervious Area
8,640		77.14% Impervious Area

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

Subcatchment 783: H 5+60 R

Hydrograph



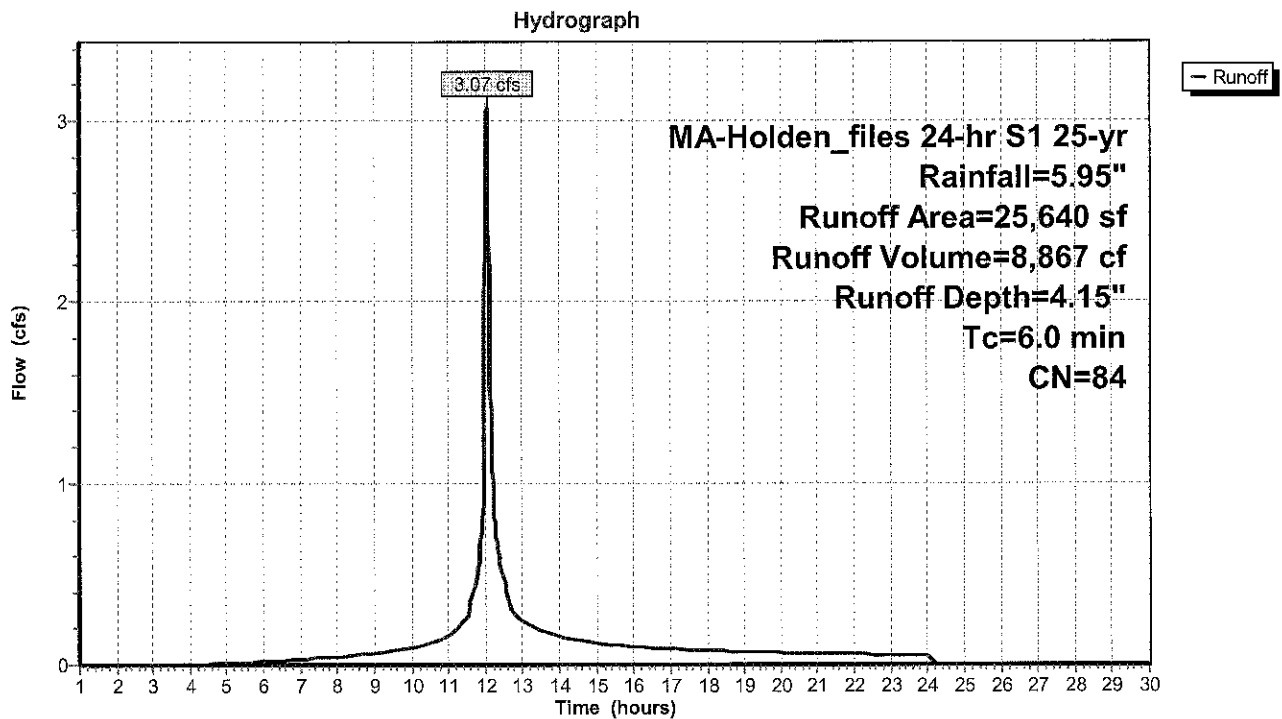
Summary for Subcatchment 784S: H 5+60 L

Runoff = 3.07 cfs @ 12.04 hrs, Volume= 8,867 cf, Depth= 4.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
15,400	74	>75% Grass cover, Good, HSG C
10,240	98	Paved parking, HSG C
25,640	84	Weighted Average
15,400		60.06% Pervious Area
10,240		39.94% Impervious Area

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

Subcatchment 784S: H 5+60 L

Summary for Subcatchment 786: H 7+75 L

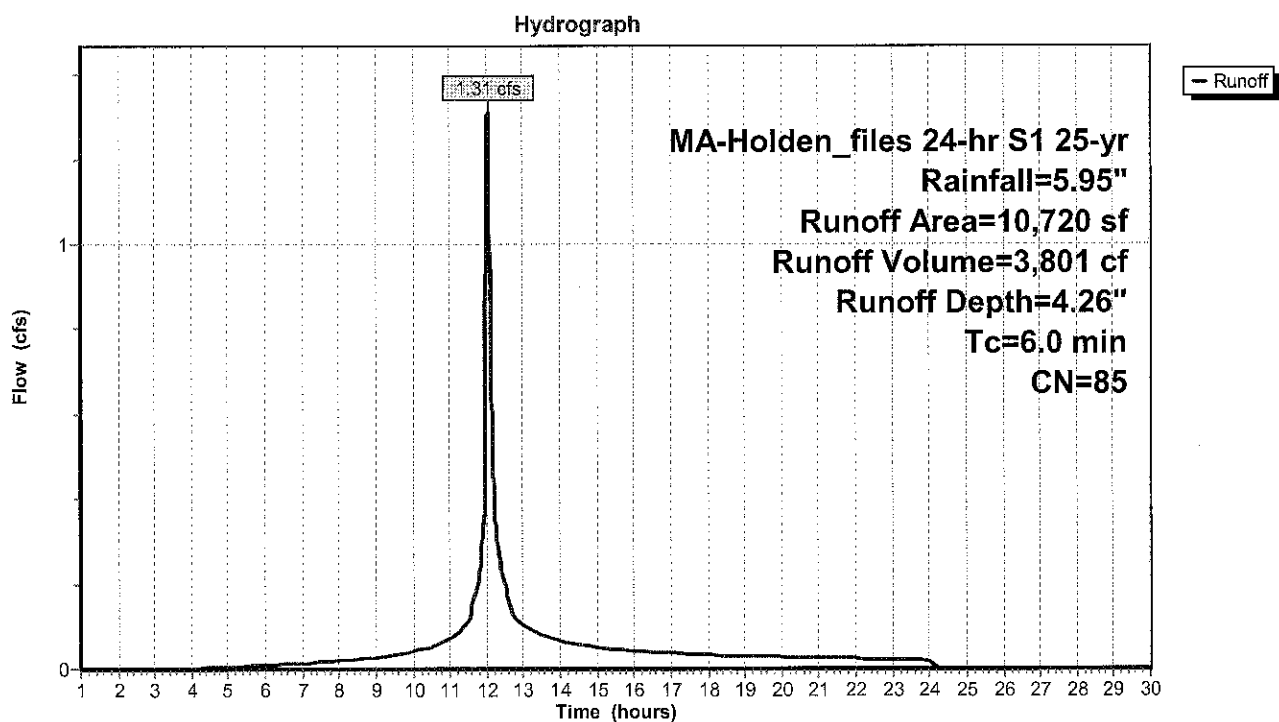
Runoff = 1.31 cfs @ 12.04 hrs, Volume= 3,801 cf, Depth= 4.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
5,685	74	>75% Grass cover, Good, HSG C
5,035	98	Paved parking, HSG C
10,720	85	Weighted Average
5,685		53.03% Pervious Area
5,035		46.97% Impervious Area

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

Subcatchment 786: H 7+75 L



Summary for Subcatchment 787: H 7+75 R

Runoff = 2.69 cfs @ 12.04 hrs, Volume= 7,976 cf, Depth= 4.69"

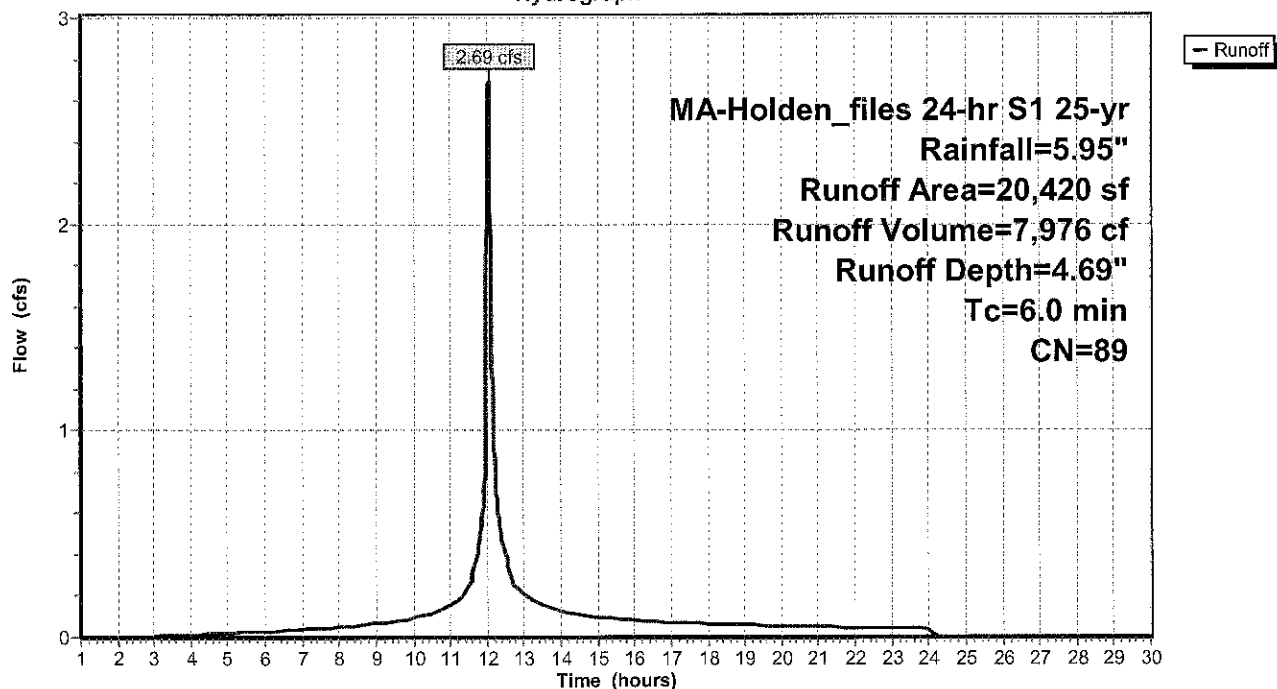
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
7,625	74	>75% Grass cover, Good, HSG C
12,795	98	Paved parking, HSG C
20,420	89	Weighted Average
7,625		37.34% Pervious Area
12,795		62.66% Impervious Area

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

Subcatchment 787: H 7+75 R

Hydrograph



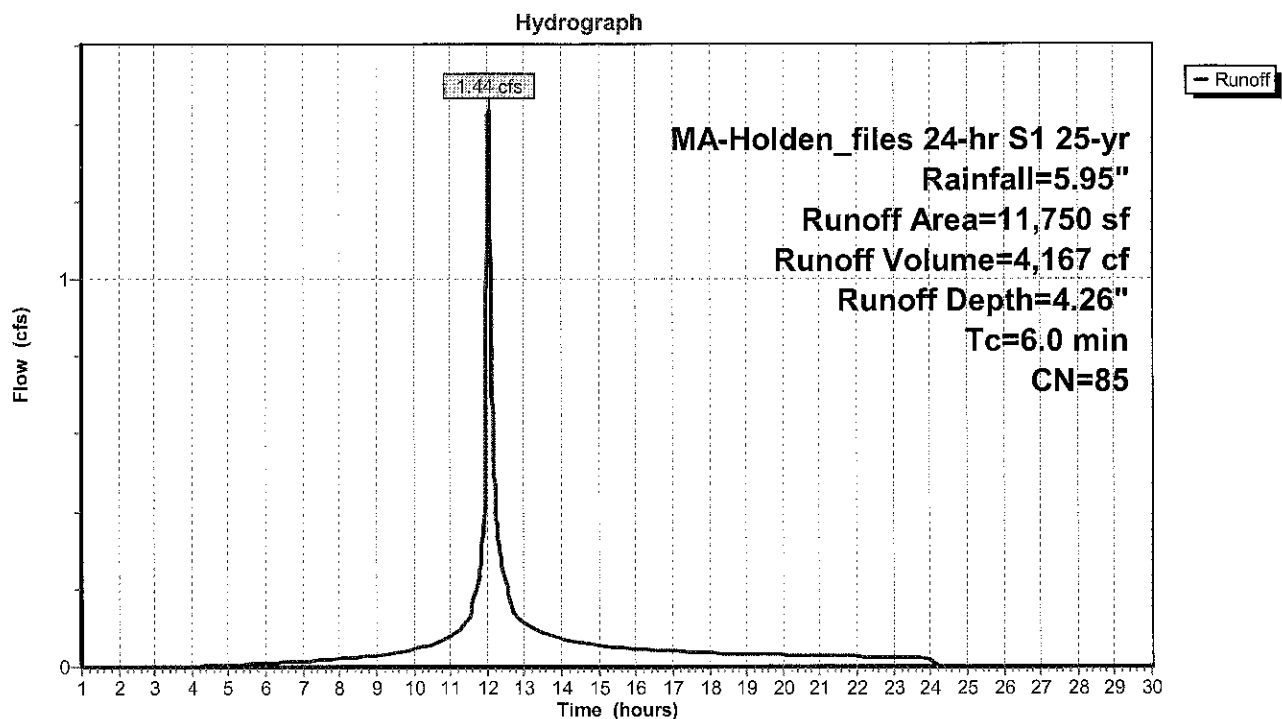
Summary for Subcatchment 789: H 9+25 R

Runoff = 1.44 cfs @ 12.04 hrs, Volume= 4,167 cf, Depth= 4.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
6,190	74	>75% Grass cover, Good, HSG C
5,560	98	Paved parking, HSG C
11,750	85	Weighted Average
6,190		52.68% Pervious Area
5,560		47.32% Impervious Area

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

Subcatchment 789: H 9+25 R

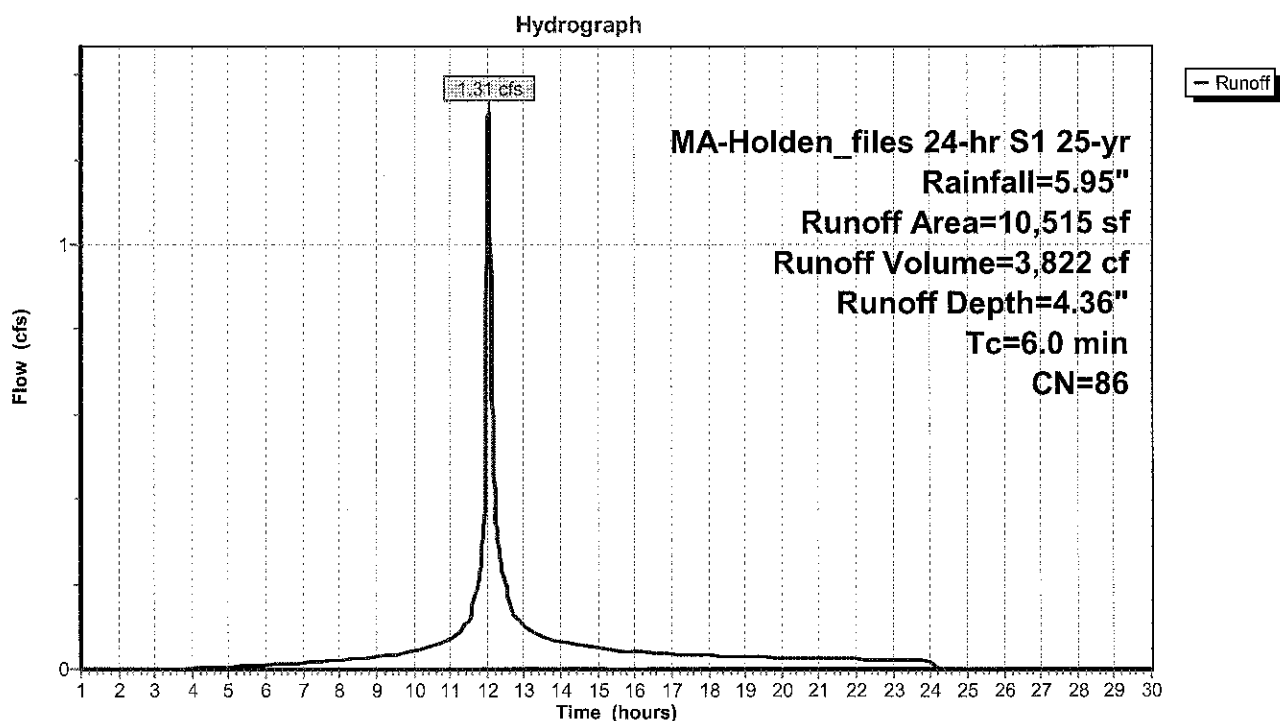
Summary for Subcatchment 790: H 9+25 L

Runoff = 1.31 cfs @ 12.04 hrs, Volume= 3,822 cf, Depth= 4.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
5,285	74	>75% Grass cover, Good, HSG C
5,230	98	Paved parking, HSG C
10,515	86	Weighted Average
5,285		50.26% Pervious Area
5,230		49.74% Impervious Area

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

Subcatchment 790: H 9+25 L

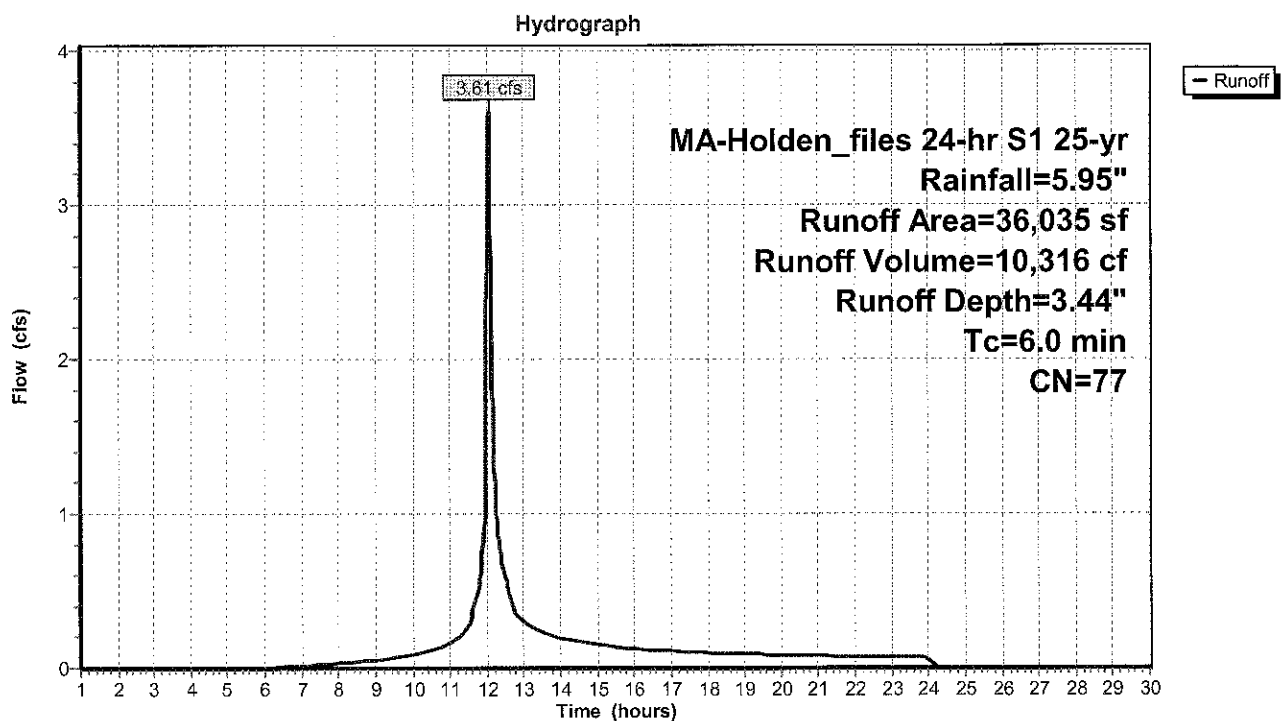
Summary for Subcatchment 795: Overland LCB A-4

Runoff = 3.61 cfs @ 12.04 hrs, Volume= 10,316 cf, Depth= 3.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Area (sf)	CN	Description
31,155	74	>75% Grass cover, Good, HSG C
4,880	98	Paved parking, HSG C
36,035	77	Weighted Average
31,155		86.46% Pervious Area
4,880		13.54% Impervious Area

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

Subcatchment 795: Overland LCB A-4

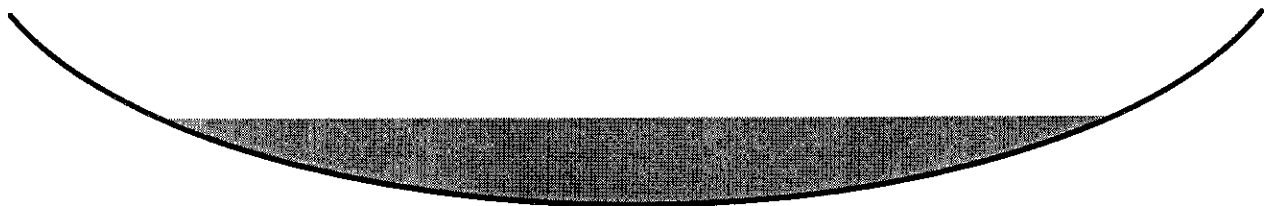
Summary for Reach 1R: (new Reach)

Inflow Area = 35,495 sf, 24.05% Impervious, Inflow Depth = 0.01" for 25-yr event
 Inflow = 0.07 cfs @ 12.47 hrs, Volume= 40 cf
 Outflow = 0.03 cfs @ 12.58 hrs, Volume= 40 cf, Atten= 50%, Lag= 6.6 min

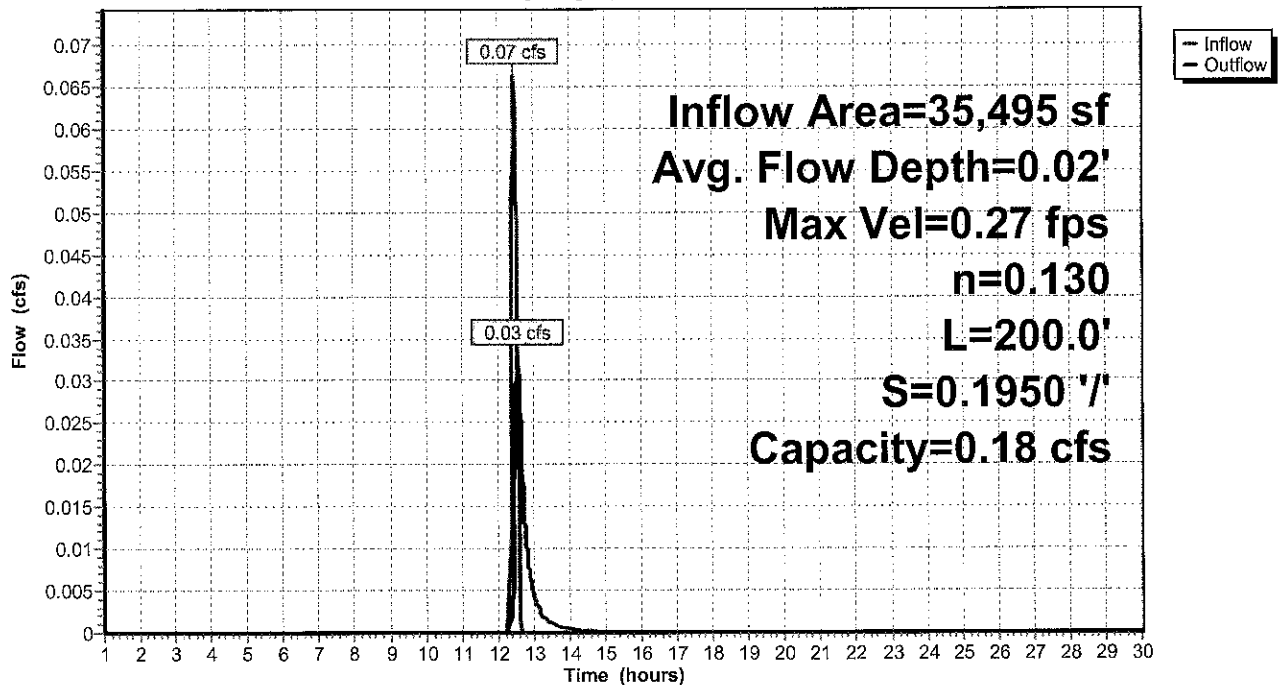
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Max. Velocity= 0.27 fps, Min. Travel Time= 12.5 min
 Avg. Velocity = 0.05 fps, Avg. Travel Time= 69.9 min

Peak Storage= 25 cf @ 12.58 hrs
 Average Depth at Peak Storage= 0.02'
 Bank-Full Depth= 0.04' Flow Area= 0.4 sf, Capacity= 0.18 cfs

15.00' x 0.04' deep Parabolic Channel, n= 0.130 Sheet flow over Range
 Length= 200.0' Slope= 0.1950 '/'
 Inlet Invert= 789.00', Outlet Invert= 750.00'

**Reach 1R: (new Reach)**

Hydrograph



Summary for Reach 5R: overland to Abut Wetland

Inflow Area = 296,331 sf, 21.22% Impervious, Inflow Depth = 0.00" for 25-yr event
 Inflow = 0.00 cfs @ 1.00 hrs, Volume= 0 cf
 Outflow = 0.00 cfs @ 1.00 hrs, Volume= 0 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Max. Velocity= 0.00 fps, Min. Travel Time= 0.0 min

Avg. Velocity = 0.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 1.00 hrs

Average Depth at Peak Storage= 0.00'

Bank-Full Depth= 0.20' Flow Area= 6.7 sf, Capacity= 1.32 cfs

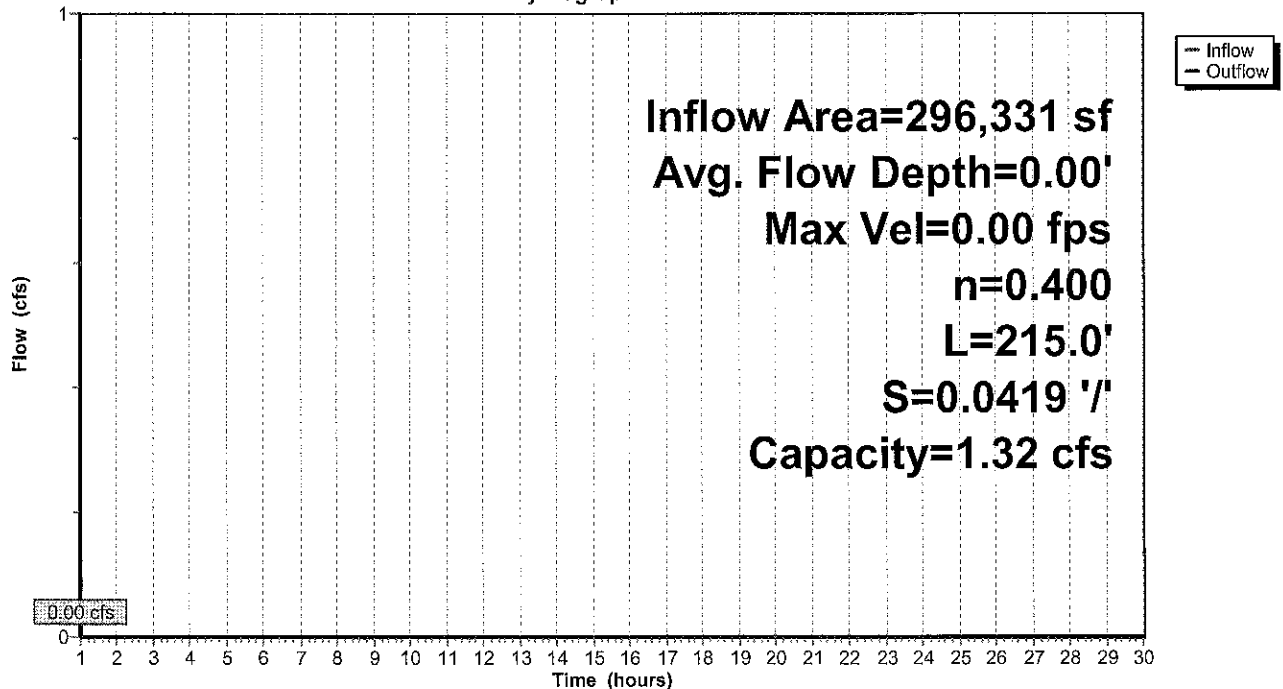
50.00' x 0.20' deep Parabolic Channel, n= 0.400 Sheet flow: Woods+light brush

Length= 215.0' Slope= 0.0419 1/100

Inlet Invert= 777.00', Outlet Invert= 768.00'

**Reach 5R: overland to Abut Wetland**

Hydrograph



Summary for Pond 5P: Bailey Wetlands

Inflow Area = 276,099 sf, 22.15% Impervious, Inflow Depth = 1.30" for 25-yr event
 Inflow = 6.54 cfs @ 12.12 hrs, Volume= 29,807 cf
 Outflow = 3.45 cfs @ 12.26 hrs, Volume= 29,804 cf, Atten= 47%, Lag= 8.4 min
 Discarded = 0.41 cfs @ 13.66 hrs, Volume= 15,461 cf
 Primary = 3.09 cfs @ 12.26 hrs, Volume= 14,343 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 777.73' @ 13.66 hrs Surf.Area= 5,506 sf Storage= 4,406 cf

Plug-Flow detention time= 74.3 min calculated for 29,804 cf (100% of inflow)
 Center-of-Mass det. time= 74.2 min (983.0 - 908.8)

Volume	Invert	Avail.Storage	Storage Description
#1	776.50'	5,972 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
776.50	777	0	0
777.00	3,545	1,081	1,081
777.50	4,918	2,116	3,196
778.00	6,184	2,776	5,972

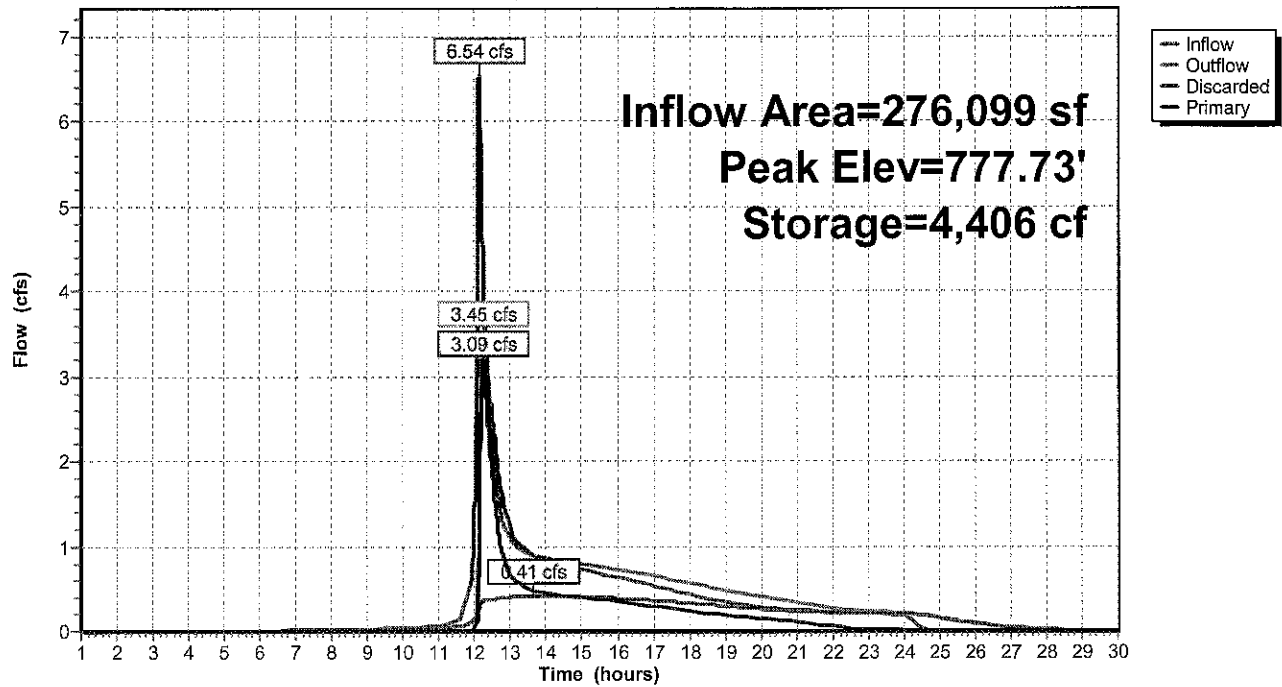
Device	Routing	Invert	Outlet Devices
#1	Discarded	776.50'	2.410 in/hr Exfiltration over Surface area above 776.50' Conductivity to Groundwater Elevation = 775.50' Excluded Surface area = 777 sf
#2	Primary	777.00'	12.0" Round Culvert X 3.00 L= 52.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 777.00' / 776.74' S= 0.0050 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf

Discarded OutFlow Max=0.41 cfs @ 13.66 hrs HW=777.73' (Free Discharge)
 ↑1=Exfiltration (Controls 0.41 cfs)

Primary OutFlow Max=3.02 cfs @ 12.26 hrs HW=777.58' TW=777.19' (Dynamic Tailwater)
 ↑2=Culvert (Outlet Controls 3.02 cfs @ 3.09 fps)

Pond 5P: Bailey Wetlands

Hydrograph



Summary for Pond 7P: wetlands

Inflow Area = 448,580 sf, 35.80% Impervious, Inflow Depth = 0.13" for 25-yr event
 Inflow = 0.50 cfs @ 12.19 hrs, Volume= 4,868 cf
 Outflow = 0.50 cfs @ 12.19 hrs, Volume= 4,868 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.50 cfs @ 12.19 hrs, Volume= 4,868 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 751.19' @ 1.00 hrs Surf.Area= 17,584 sf Storage= 0 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 0.0 min (991.1 - 991.1)

Volume	Invert	Avail.Storage	Storage Description
#1	751.19'	26,376 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

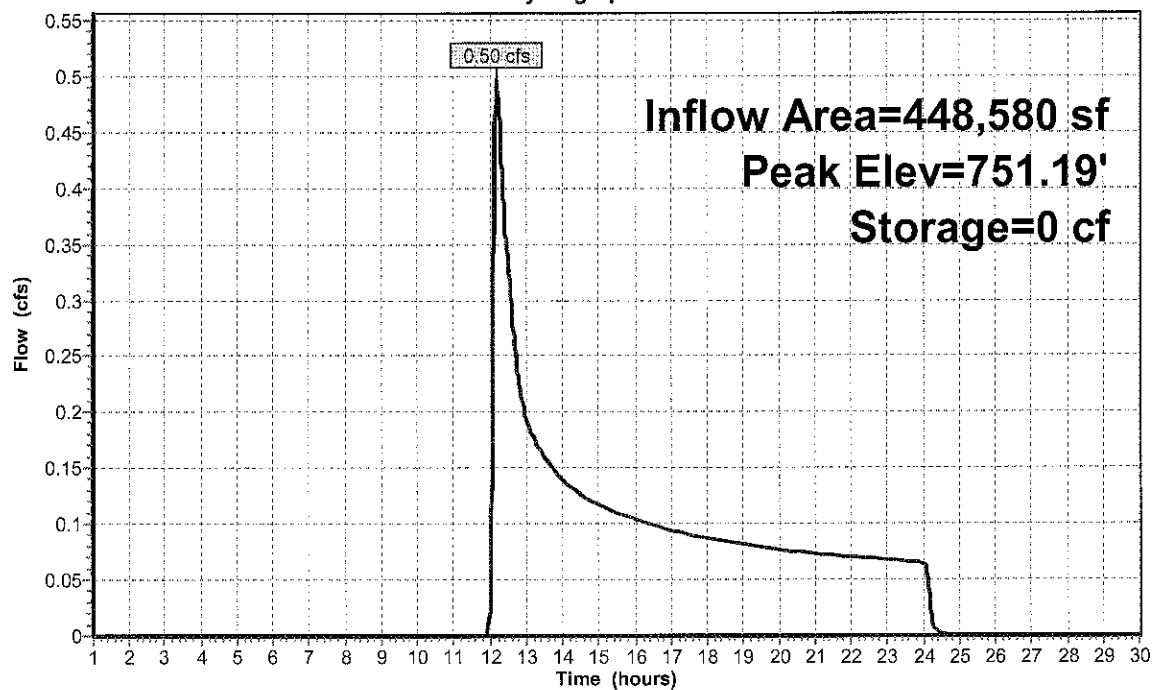
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
751.19	17,584	0	0
752.69	17,584	26,376	26,376

Device	Routing	Invert	Outlet Devices
#1	Primary	722.69'	20.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=0.00 cfs @ 12.19 hrs HW=751.19' TW=0.00' (Dynamic Tailwater)
 1=Broad-Crested Rectangular Weir (Passes 0.00 cfs of 8,003.00 cfs potential flow)

Pond 7P: wetlands

Hydrograph



Summary for Pond 53P: Northerly Bailey Basin

Inflow Area = 296,331 sf, 21.22% Impervious, Inflow Depth = 0.62" for 25-yr event
 Inflow = 3.17 cfs @ 12.26 hrs, Volume= 15,351 cf
 Outflow = 0.51 cfs @ 13.68 hrs, Volume= 15,353 cf, Atten= 84%, Lag= 85.2 min
 Discarded = 0.51 cfs @ 13.68 hrs, Volume= 15,353 cf
 Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 777.73' @ 13.68 hrs Surf.Area= 6,335 sf Storage= 4,229 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 101.3 min (1,003.0 - 901.7)

Volume	Invert	Avail.Storage	Storage Description
#1	777.00'	6,030 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

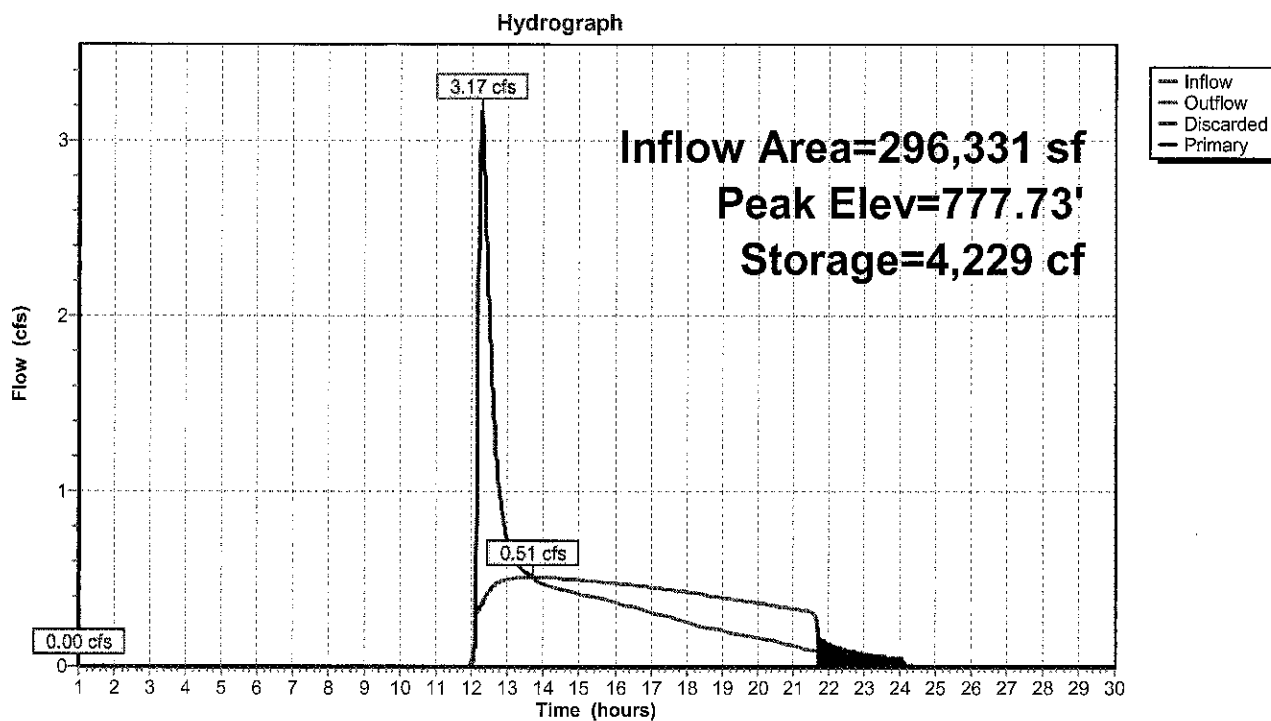
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
777.00	5,470	0	0
777.50	5,890	2,840	2,840
778.00	6,870	3,190	6,030

Device	Routing	Invert	Outlet Devices
#1	Discarded	777.00'	2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 775.50'
#2	Primary	777.80'	15.0' long x 30.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Discarded OutFlow Max=0.51 cfs @ 13.68 hrs HW=777.73' (Free Discharge)
 ↳ **1=Exfiltration** (Controls 0.51 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=777.00' TW=777.00' (Dynamic Tailwater)
 ↳ **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

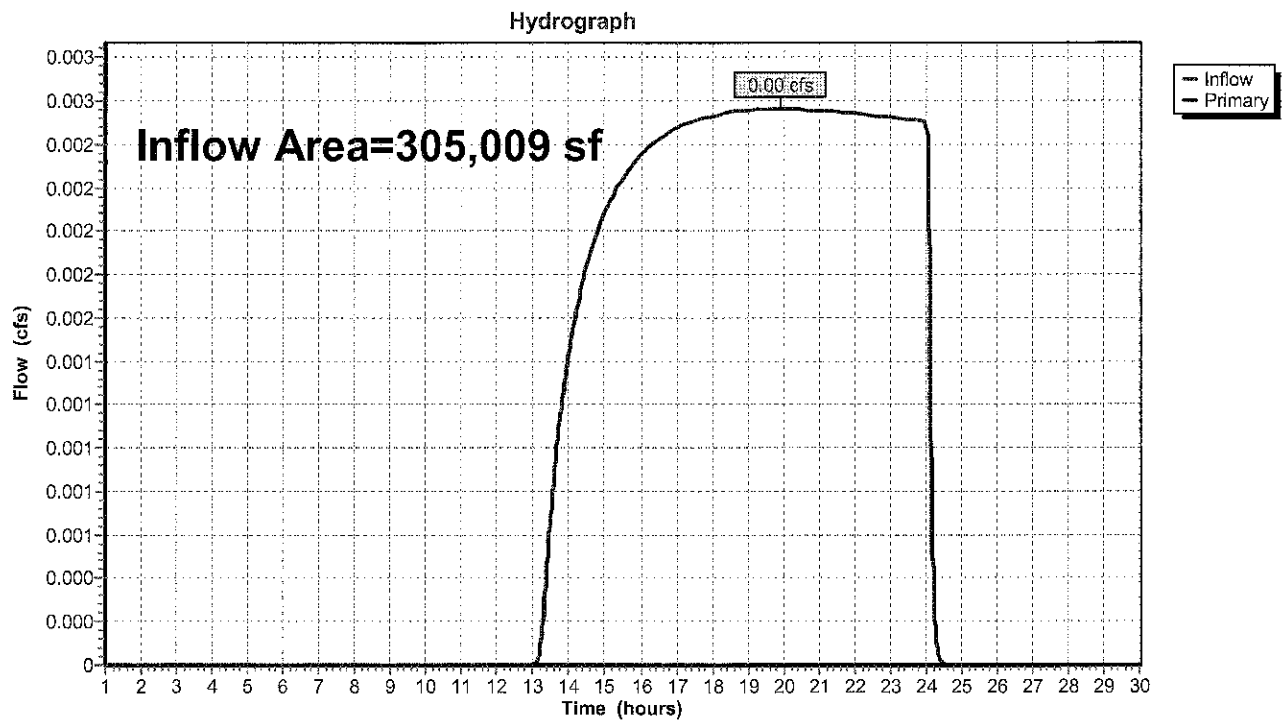
Pond 53P: Northerly Bailey Basin



Summary for Pond 60P: Abutters Isolated wetland

Inflow Area = 305,009 sf, 20.62% Impervious, Inflow Depth = 0.00" for 25-yr event
Inflow = 0.00 cfs @ 19.90 hrs, Volume= 91 cf
Primary = 0.00 cfs @ 19.90 hrs, Volume= 91 cf, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Pond 60P: Abutters Isolated wetland

Summary for Pond 100P: Basin E

Inflow Area = 35,495 sf, 24.05% Impervious, Inflow Depth = 2.27" for 25-yr event
 Inflow = 2.20 cfs @ 12.04 hrs, Volume= 6,708 cf
 Outflow = 0.41 cfs @ 12.47 hrs, Volume= 6,708 cf, Atten= 81%, Lag= 25.6 min
 Discarded = 0.34 cfs @ 12.47 hrs, Volume= 6,668 cf
 Primary = 0.07 cfs @ 12.47 hrs, Volume= 40 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 789.31' @ 12.47 hrs Surf.Area= 1,422 sf Storage= 1,721 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 51.8 min (922.6 - 870.8)

Volume	Invert	Avail.Storage	Storage Description
#1	787.00'	2,857 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
787.00	158	0	0
788.00	625	392	392
789.00	1,208	917	1,308
790.00	1,890	1,549	2,857

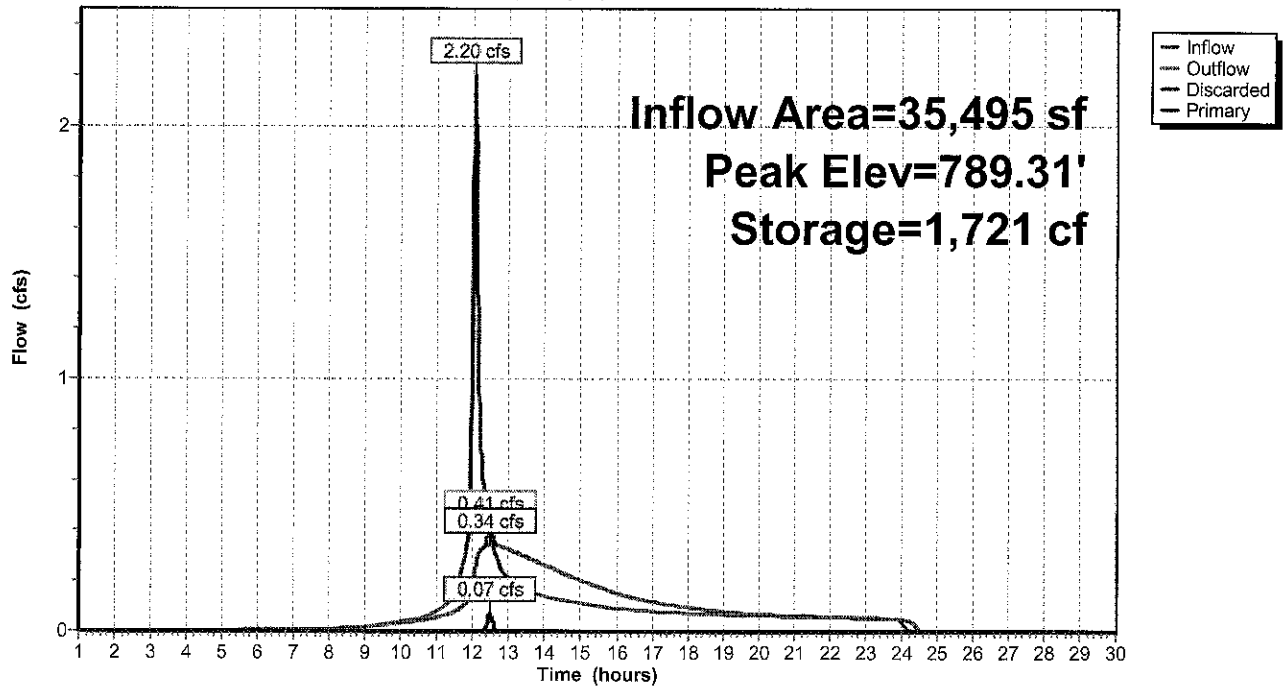
Device	Routing	Invert	Outlet Devices
#1	Primary	789.30'	15.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#2	Discarded	787.00'	8.240 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 783.00'

Discarded OutFlow Max=0.34 cfs @ 12.47 hrs HW=789.31' (Free Discharge)
 ↑ **2=Exfiltration** (Controls 0.34 cfs)

Primary OutFlow Max=0.07 cfs @ 12.47 hrs HW=789.31' TW=789.01' (Dynamic Tailwater)
 ↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 0.07 cfs @ 0.32 fps)

Pond 100P: Basin E

Hydrograph



Summary for Pond 101P: PT4+50 R

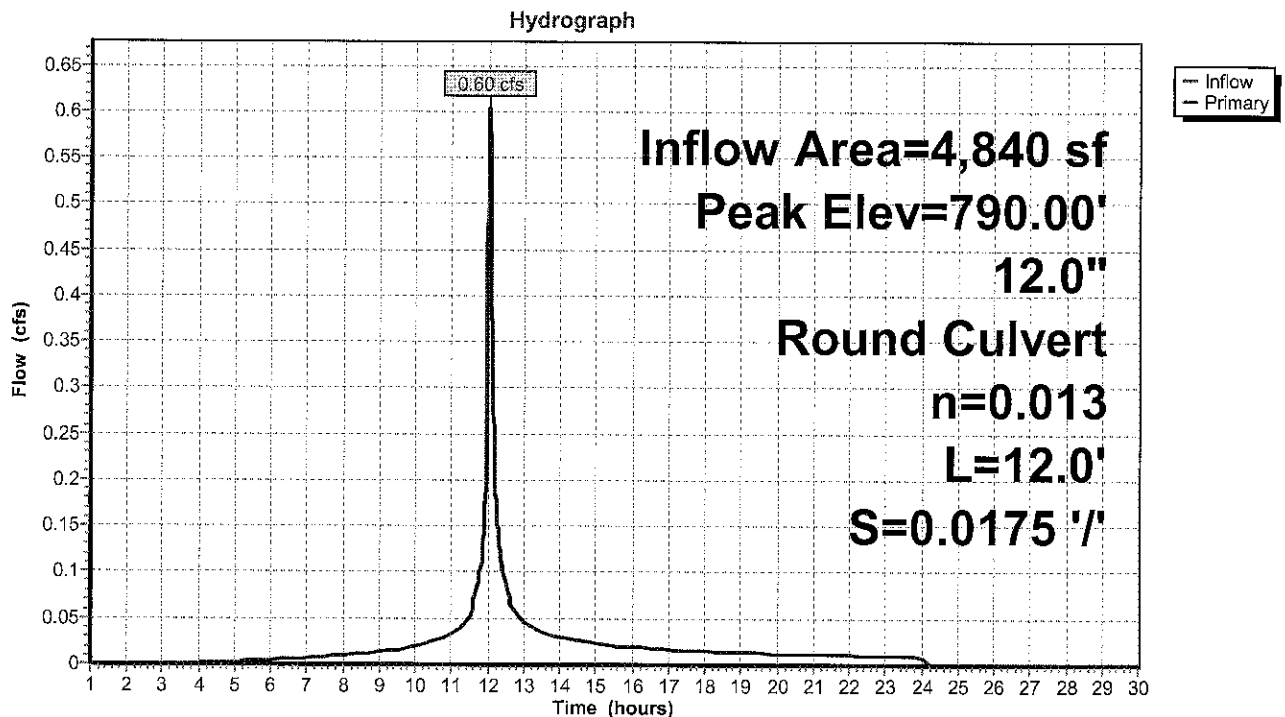
Inflow Area = 4,840 sf, 79.44% Impervious, Inflow Depth = 4.36" for 25-yr event
 Inflow = 0.60 cfs @ 12.04 hrs, Volume= 1,759 cf
 Outflow = 0.60 cfs @ 12.04 hrs, Volume= 1,759 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.60 cfs @ 12.04 hrs, Volume= 1,759 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 790.00' @ 12.05 hrs
 Flood Elev= 793.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	789.40'	12.0" Round Culvert L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 789.40' / 789.19' S= 0.0175 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.57 cfs @ 12.04 hrs HW=790.00' TW=789.92' (Dynamic Tailwater)
 1=Culvert (Outlet Controls 0.57 cfs @ 1.67 fps)

Pond 101P: PT4+50 R



Summary for Pond 102P: PT4+75 L

Inflow Area = 24,505 sf, 19.14% Impervious, Inflow Depth = 2.32" for 25-yr event
 Inflow = 1.60 cfs @ 12.04 hrs, Volume= 4,727 cf
 Outflow = 1.60 cfs @ 12.04 hrs, Volume= 4,727 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.60 cfs @ 12.04 hrs, Volume= 4,727 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 790.23' @ 12.04 hrs

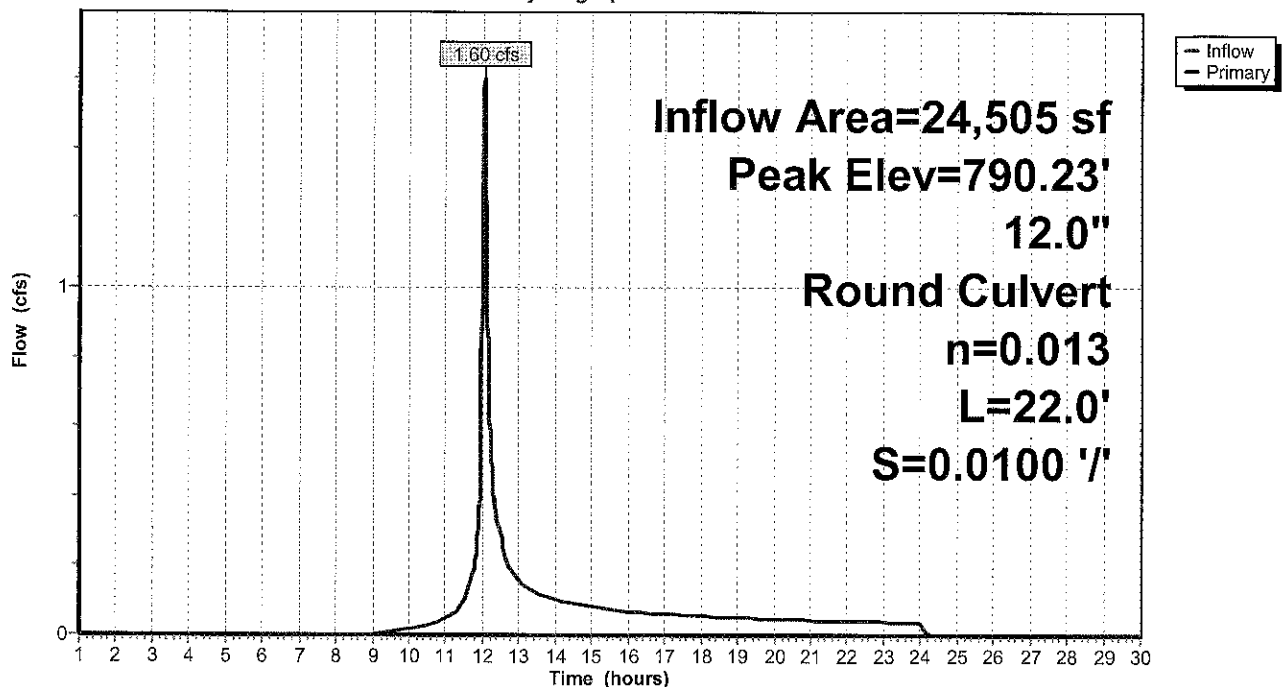
Flood Elev= 793.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	789.40'	12.0" Round Culvert L= 22.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 789.40' / 789.18' S= 0.0100 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.58 cfs @ 12.04 hrs HW=790.23' TW=789.92' (Dynamic Tailwater)
 ↳ **1=Culvert** (Outlet Controls 1.58 cfs @ 3.09 fps)

Pond 102P: PT4+75 L

Hydrograph



Summary for Pond 105P: DMH F 4+60

Inflow Area = 29,345 sf, 29.09% Impervious, Inflow Depth = 2.65" for 25-yr event
 Inflow = 2.20 cfs @ 12.04 hrs, Volume= 6,487 cf
 Outflow = 2.20 cfs @ 12.04 hrs, Volume= 6,487 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.20 cfs @ 12.04 hrs, Volume= 6,487 cf

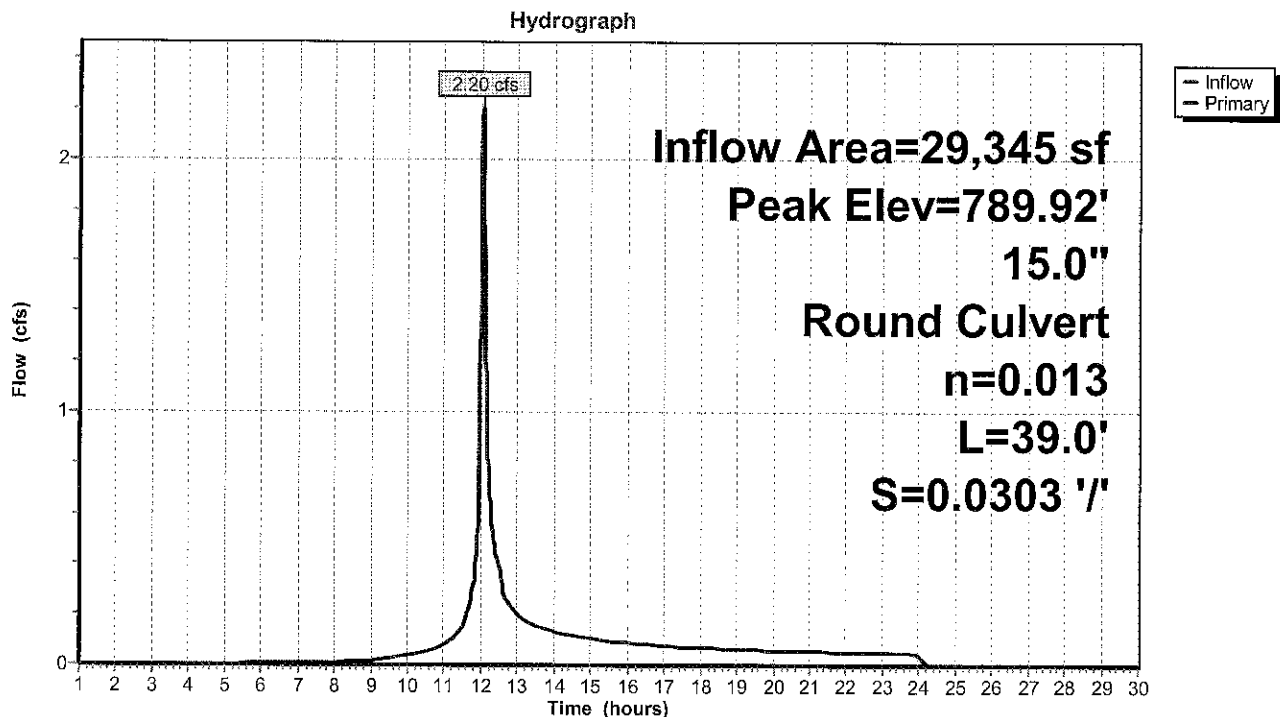
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 789.92' @ 12.04 hrs

Flood Elev= 794.40'

Device	Routing	Invert	Outlet Devices
#1	Primary	789.18'	15.0" Round Culvert L= 39.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 789.18' / 788.00' S= 0.0303 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.20 cfs @ 12.04 hrs HW=789.92' TW=788.63' (Dynamic Tailwater)
 ← **1=Culvert** (Inlet Controls 2.20 cfs @ 2.92 fps)

Pond 105P: DMH F 4+60

Summary for Pond 110P: Recharge Area

Inflow Area = 71,880 sf, 25.60% Impervious, Inflow Depth = 3.06" for 25-yr event
 Inflow = 5.89 cfs @ 12.05 hrs, Volume= 18,350 cf
 Outflow = 2.25 cfs @ 12.22 hrs, Volume= 18,350 cf, Atten= 62%, Lag= 10.4 min
 Discarded = 0.51 cfs @ 12.22 hrs, Volume= 16,598 cf
 Primary = 1.74 cfs @ 12.22 hrs, Volume= 1,753 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 770.70' @ 12.22 hrs Surf.Area= 1,734 sf Storage= 4,194 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 63.6 min (922.0 - 858.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	767.00'	1,688 cf	35.75'W x 48.50'L x 4.00'H Field A 6,936 cf Overall - 2,716 cf Embedded = 4,220 cf x 40.0% Voids
#2A	767.50'	2,716 cf	Cultec R-360HD x 72 Inside #1 Effective Size= 54.9"W x 36.0"H => 9.99 sf x 3.67'L = 36.6 cf Overall Size= 60.0"W x 36.0"H x 4.17'L with 0.50' Overlap 72 Chambers in 6 Rows Cap Storage= +6.5 cf x 2 x 6 rows = 77.5 cf
		4,404 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	767.00'	8.240 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 760.00'
#2	Primary	767.00'	12.0" Round Culvert L= 77.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 767.00' / 766.00' S= 0.0130 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	770.50'	6.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s) 2.0' Crest Height

Discarded OutFlow Max=0.51 cfs @ 12.22 hrs HW=770.70' (Free Discharge)
 ↳ **1=Exfiltration** (Controls 0.51 cfs)

Primary OutFlow Max=1.73 cfs @ 12.22 hrs HW=770.70' TW=766.29' (Dynamic Tailwater)
 ↳ **2=Culvert** (Passes 1.73 cfs of 6.12 cfs potential flow)
 ↳ **3=Sharp-Crested Rectangular Weir** (Weir Controls 1.73 cfs @ 1.47 fps)

Pond 110P: Recharge Area - Chamber Wizard Field A

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

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

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

Cap Storage= +6.5 cf x 2 x 6 rows = 77.5 cf

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

12 Chambers/Row x 3.67' Long +1.25' Cap Length x 2 = 46.50' Row Length +12.0" End Stone x 2 = 48.50' Base Length

6 Rows x 60.0" Wide + 9.0" Spacing x 5 + 12.0" Side Stone x 2 = 35.75' Base Width

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

72 Chambers x 36.6 cf + 6.5 cf Cap Volume x 2 x 6 Rows = 2,715.9 cf Chamber Storage

6,935.5 cf Field - 2,715.9 cf Chambers = 4,219.6 cf Stone x 40.0% Voids = 1,687.8 cf Stone Storage

Chamber Storage + Stone Storage = 4,403.8 cf = 0.101 af

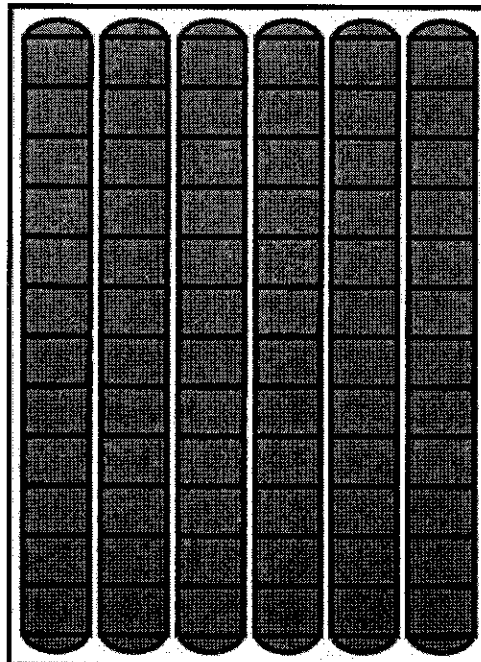
Overall Storage Efficiency = 63.5%

Overall System Size = 48.50' x 35.75' x 4.00'

72 Chambers

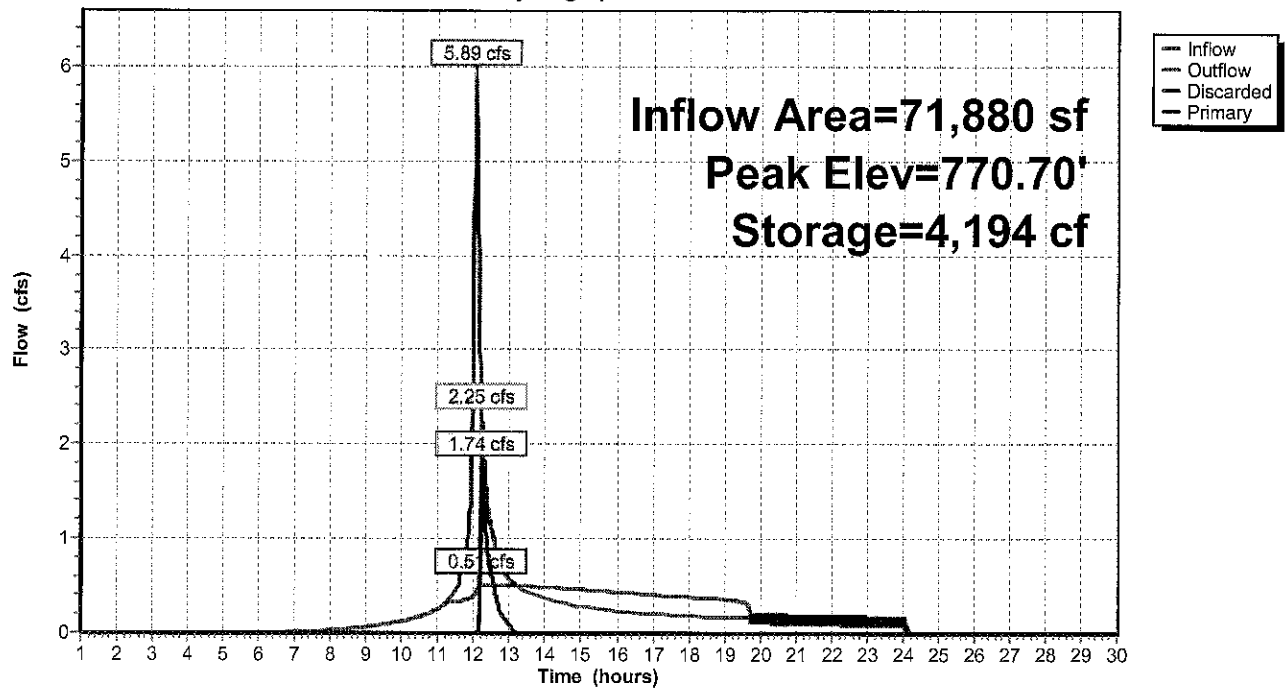
256.9 cy Field

156.3 cy Stone



Pond 110P: Recharge Area

Hydrograph



Summary for Pond 111P: PT2+25 R

Inflow Area = 5,700 sf, 60.18% Impervious, Inflow Depth = 3.24" for 25-yr event
 Inflow = 0.54 cfs @ 12.04 hrs, Volume= 1,539 cf
 Outflow = 0.54 cfs @ 12.04 hrs, Volume= 1,539 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.54 cfs @ 12.04 hrs, Volume= 1,539 cf

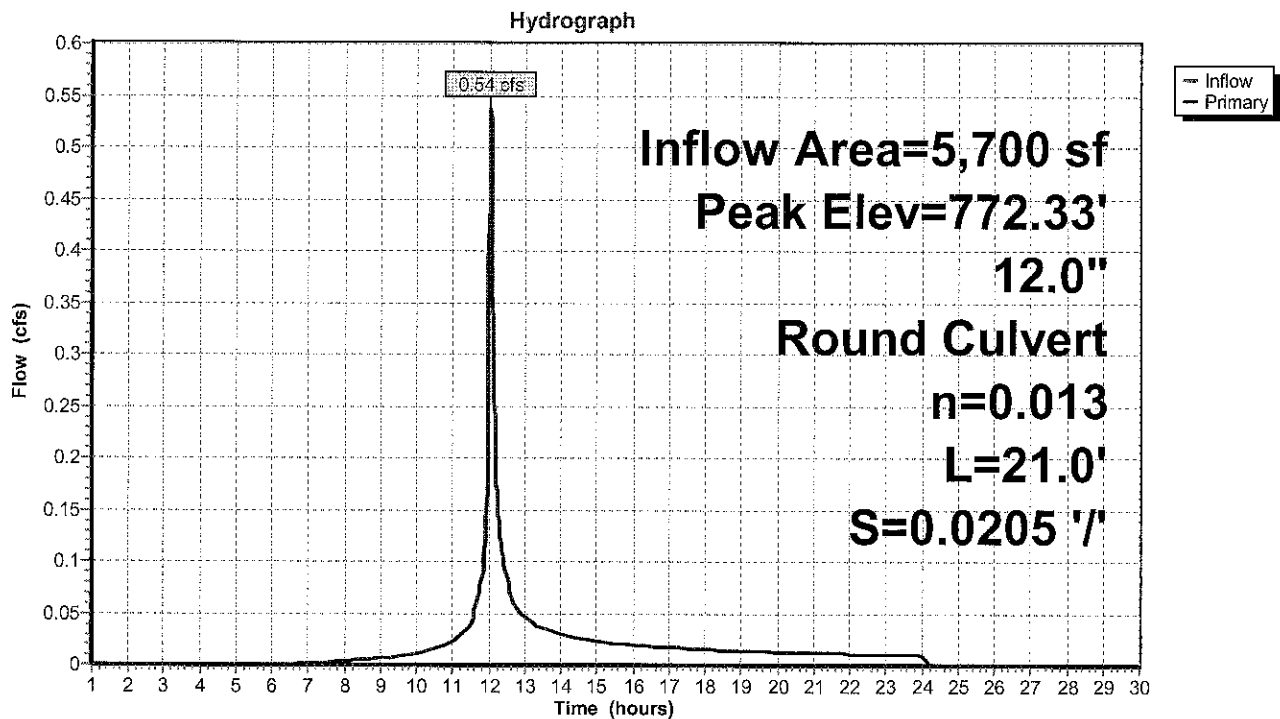
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 772.33' @ 12.06 hrs

Flood Elev= 775.55'

Device	Routing	Invert	Outlet Devices
#1	Primary	771.55'	12.0" Round Culvert L= 21.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 771.55' / 771.12' S= 0.0205 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.28 cfs @ 12.04 hrs HW=772.29' TW=772.28' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.28 cfs @ 0.63 fps)

Pond 111P: PT2+25 R

Pine Tree Post

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Summary for Pond 112P: DMH PT 3+25 L

Inflow Area = 25,310 sf, 28.09% Impervious, Inflow Depth = 3.14" for 25-yr event
Inflow = 2.31 cfs @ 12.04 hrs, Volume= 6,629 cf
Outflow = 2.31 cfs @ 12.04 hrs, Volume= 6,629 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.31 cfs @ 12.04 hrs, Volume= 6,629 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

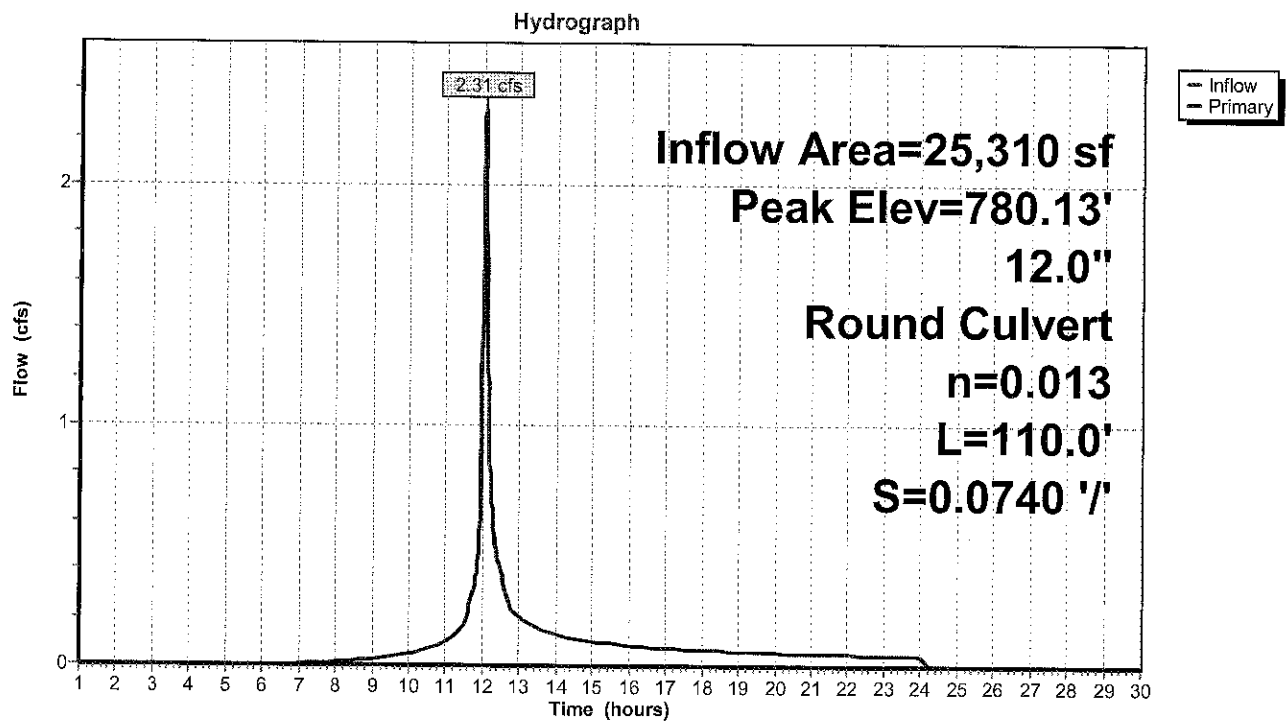
Peak Elev= 780.13' @ 12.04 hrs

Flood Elev= 783.26'

Device	Routing	Invert	Outlet Devices
#1	Primary	779.26'	12.0" Round Culvert L= 110.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 779.26' / 771.12' S= 0.0740 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.31 cfs @ 12.04 hrs HW=780.13' TW=772.28' (Dynamic Tailwater)
1=Culvert (Inlet Controls 2.31 cfs @ 3.18 fps)

Pond 112P: DMH PT 3+25 L



Summary for Pond 113P: PT2+25 L

Inflow Area = 19,505 sf, 25.84% Impervious, Inflow Depth = 3.44" for 25-yr event
 Inflow = 1.67 cfs @ 12.07 hrs, Volume= 5,584 cf
 Outflow = 1.67 cfs @ 12.07 hrs, Volume= 5,584 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.67 cfs @ 12.07 hrs, Volume= 5,584 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 772.50' @ 12.06 hrs

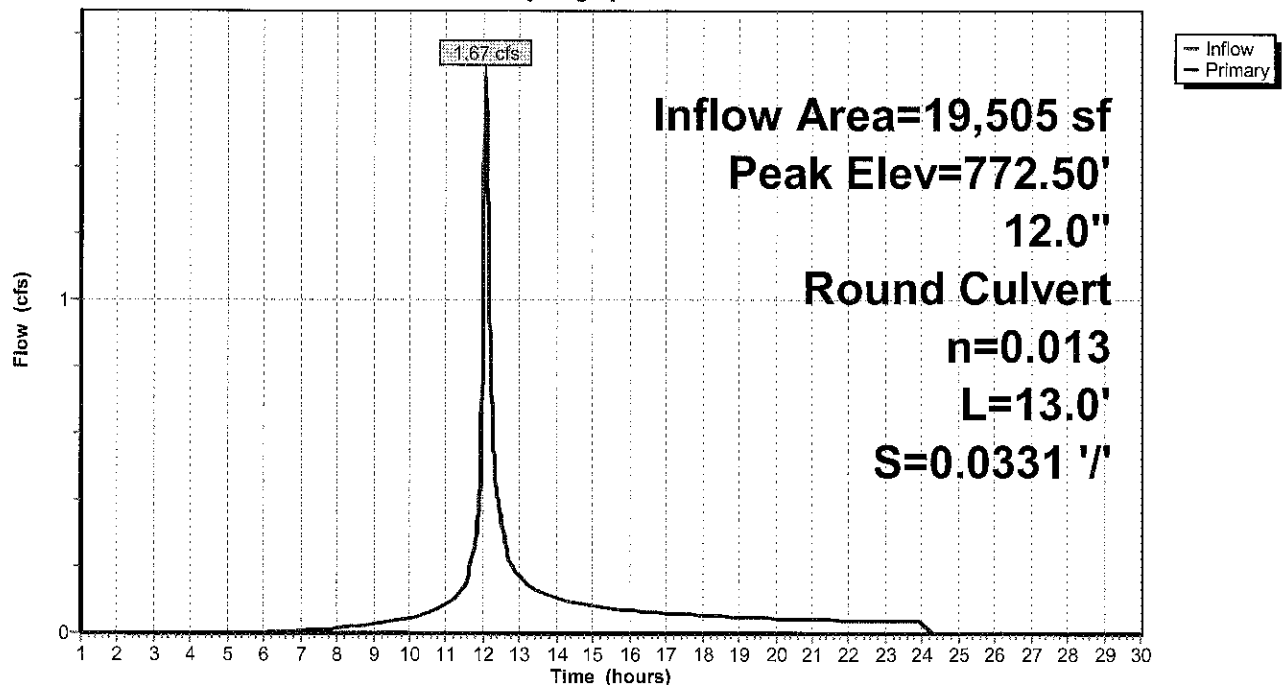
Flood Elev= 775.55'

Device	Routing	Invert	Outlet Devices
#1	Primary	771.55'	12.0" Round Culvert L= 13.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 771.55' / 771.12' S= 0.0331 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.80 cfs @ 12.07 hrs HW=772.49' TW=772.23' (Dynamic Tailwater)
 ↳ **1=Culvert** (Outlet Controls 1.80 cfs @ 3.04 fps)

Pond 113P: PT2+25 L

Hydrograph



Summary for Pond 114P: DMH PT 2+15

Inflow Area = 50,515 sf, 30.84% Impervious, Inflow Depth = 3.27" for 25-yr event
 Inflow = 4.39 cfs @ 12.05 hrs, Volume= 13,752 cf
 Outflow = 4.39 cfs @ 12.05 hrs, Volume= 13,752 cf, Atten= 0%, Lag= 0.0 min
 Primary = 4.39 cfs @ 12.05 hrs, Volume= 13,752 cf

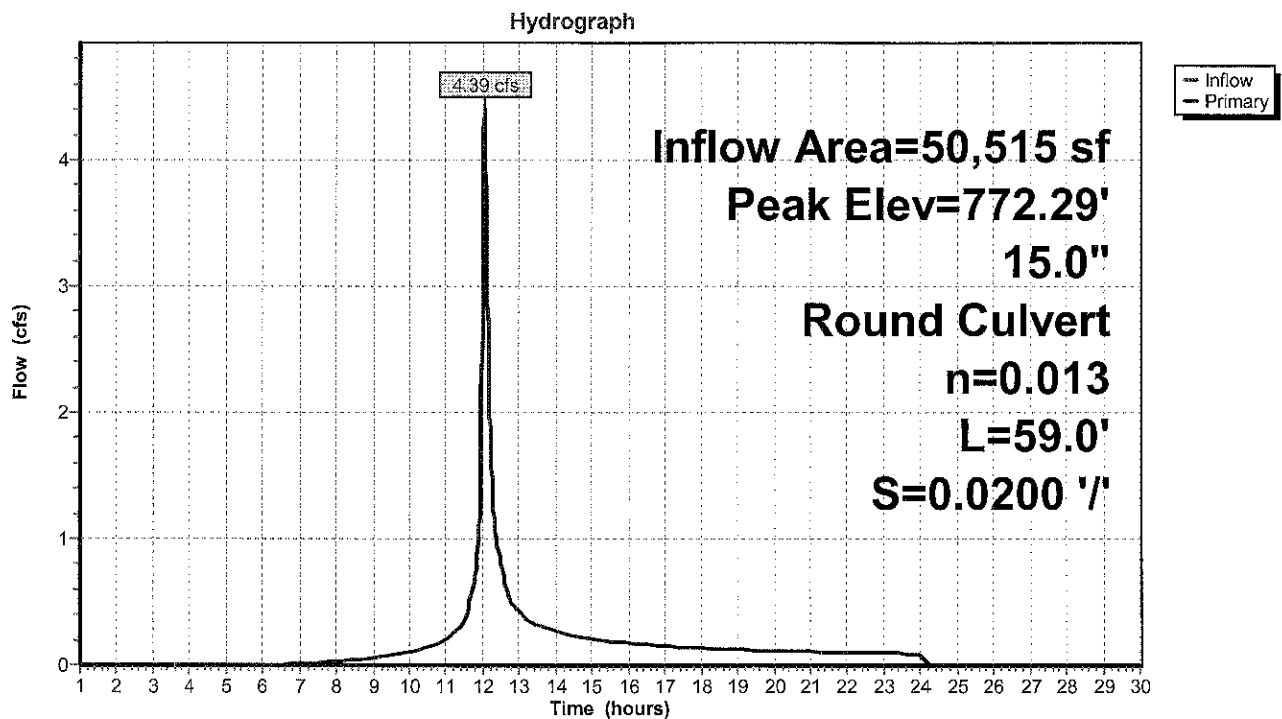
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 772.29' @ 12.05 hrs

Flood Elev= 775.12'

Device	Routing	Invert	Outlet Devices
#1	Primary	771.12'	15.0" Round Culvert L= 59.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 771.12' / 769.94' S= 0.0200 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=4.39 cfs @ 12.05 hrs HW=772.29' TW=768.86' (Dynamic Tailwater)
 ↳ **1=Culvert** (Inlet Controls 4.39 cfs @ 3.68 fps)

Pond 114P: DMH PT 2+15

Summary for Pond 115P: LCB IN SWALE

Inflow Area = 21,365 sf, 13.20% Impervious, Inflow Depth = 2.58" for 25-yr event
 Inflow = 1.49 cfs @ 12.05 hrs, Volume= 4,598 cf
 Outflow = 1.49 cfs @ 12.05 hrs, Volume= 4,598 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.49 cfs @ 12.05 hrs, Volume= 4,598 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 770.72' @ 12.23 hrs

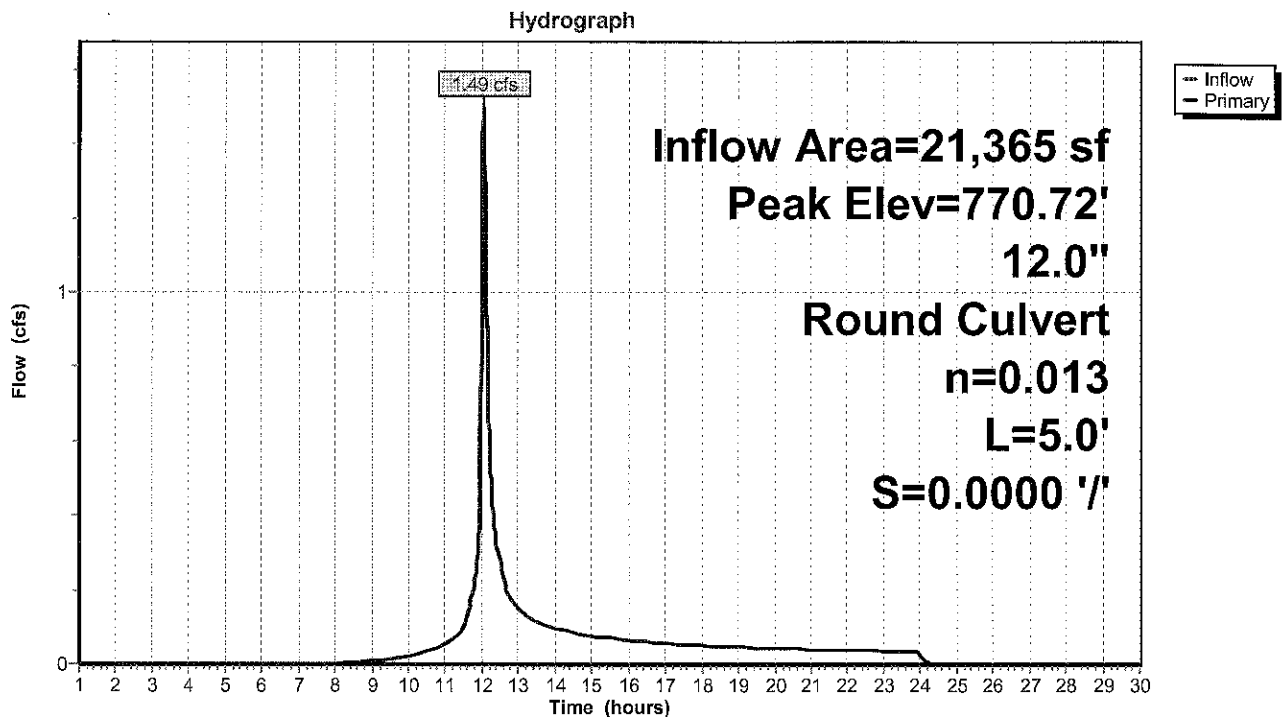
Flood Elev= 77,302.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	769.20'	12.0" Round Culvert L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 769.20' / 769.20' S= 0.0000 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.49 cfs @ 12.05 hrs HW=770.04' TW=768.90' (Dynamic Tailwater)

1=Culvert (Barrel Controls 1.49 cfs @ 2.87 fps)

Pond 115P: LCB IN SWALE



Pine Tree Post

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Summary for Pond 201P: PT0+63 RT

Inflow Area = 6,315 sf, 73.40% Impervious, Inflow Depth = 3.94" for 25-yr event
Inflow = 0.72 cfs @ 12.04 hrs, Volume= 2,074 cf
Outflow = 0.72 cfs @ 12.04 hrs, Volume= 2,074 cf, Atten= 0%, Lag= 0.0 min
Primary = 0.72 cfs @ 12.04 hrs, Volume= 2,074 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

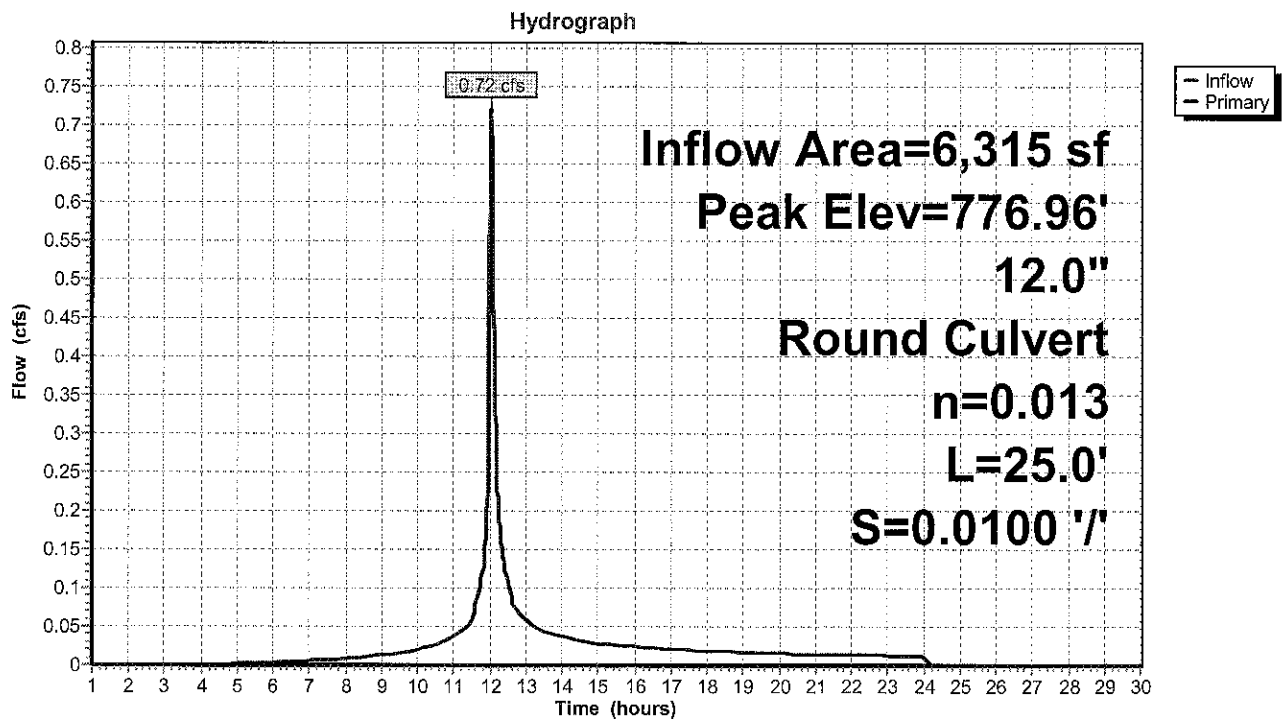
Peak Elev= 776.96' @ 12.04 hrs

Flood Elev= 801.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	776.50'	12.0" Round Culvert L= 25.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 776.50' / 776.25' S= 0.0100 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.72 cfs @ 12.04 hrs HW=776.96' TW=766.32' (Dynamic Tailwater)
1=Culvert (Barrel Controls 0.72 cfs @ 2.99 fps)

Pond 201P: PT0+63 RT



Summary for Pond 202P: PT 0+63 L

Inflow Area = 40,700 sf, 20.33% Impervious, Inflow Depth = 2.23" for 25-yr event
 Inflow = 2.40 cfs @ 12.05 hrs, Volume= 7,556 cf
 Outflow = 2.40 cfs @ 12.05 hrs, Volume= 7,556 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.40 cfs @ 12.05 hrs, Volume= 7,556 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 767.43' @ 12.05 hrs

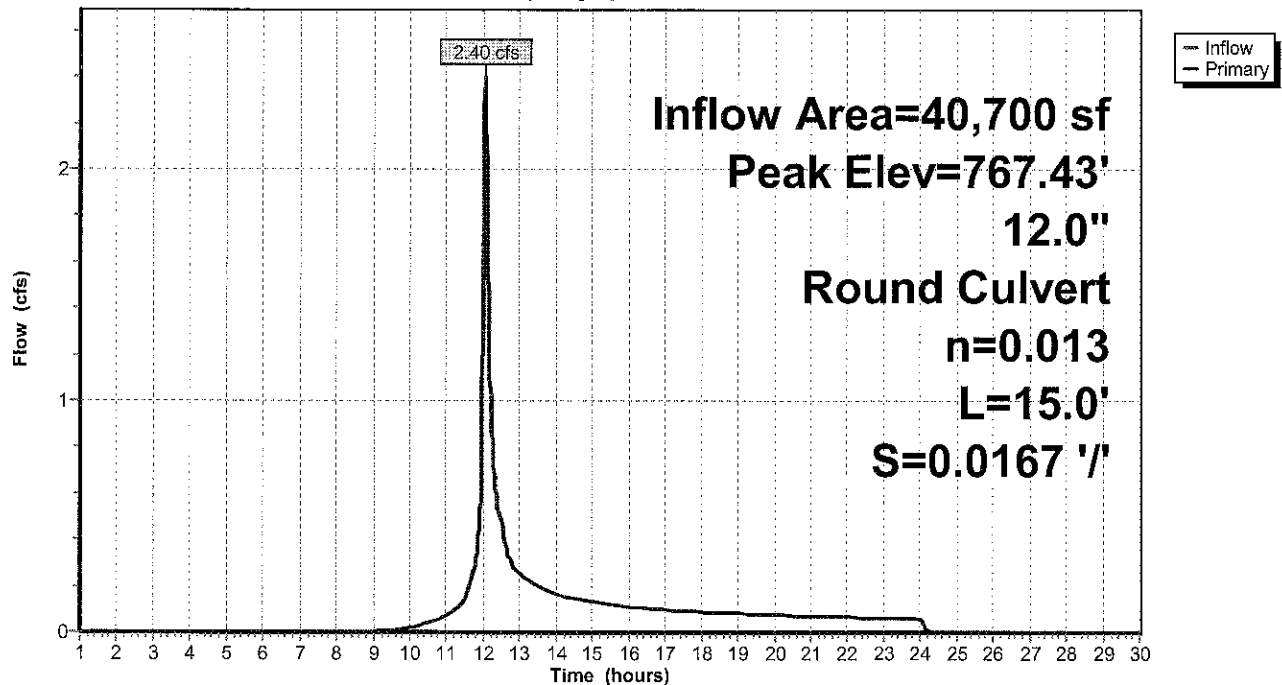
Flood Elev= 770.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	766.50'	12.0" Round Culvert L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 766.50' / 766.25' S= 0.0167 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.40 cfs @ 12.05 hrs HW=767.43' TW=766.33' (Dynamic Tailwater)
 ↳ **1=Culvert** (Barrel Controls 2.40 cfs @ 4.07 fps)

Pond 202P: PT 0+63 L

Hydrograph



Pine Tree Post

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Summary for Pond 203P: DMH PT 0+50

Inflow Area = 118,895 sf, 26.33% Impervious, Inflow Depth = 1.15" for 25-yr event
Inflow = 3.10 cfs @ 12.05 hrs, Volume= 11,383 cf
Outflow = 3.10 cfs @ 12.05 hrs, Volume= 11,383 cf, Atten= 0%, Lag= 0.0 min
Primary = 3.10 cfs @ 12.05 hrs, Volume= 11,383 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

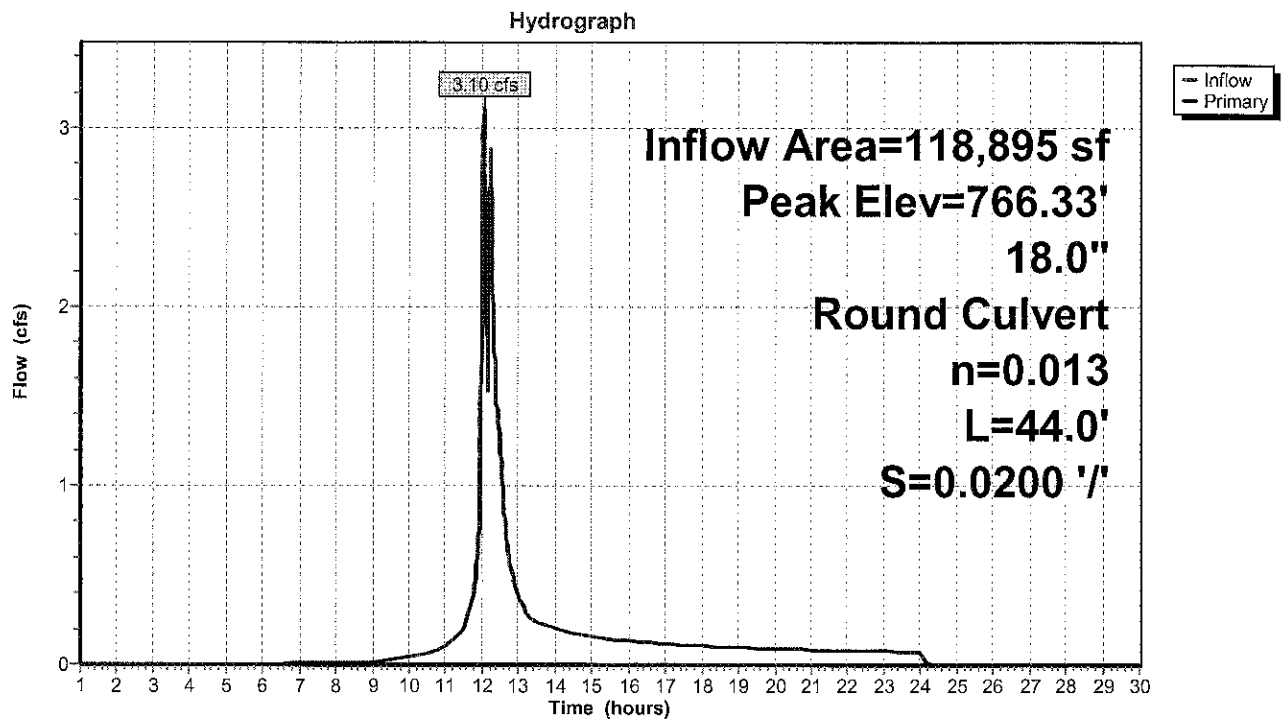
Peak Elev= 766.33' @ 12.05 hrs

Flood Elev= 770.67'

Device	Routing	Invert	Outlet Devices
#1	Primary	765.50'	18.0" Round Culvert L= 44.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 765.50' / 764.62' S= 0.0200 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=3.10 cfs @ 12.05 hrs HW=766.33' TW=765.45' (Dynamic Tailwater)
1=Culvert (Inlet Controls 3.10 cfs @ 3.10 fps)

Pond 203P: DMH PT 0+50



Summary for Pond 204P: DMH PT 0+19

Inflow Area = 118,895 sf, 26.33% Impervious, Inflow Depth = 1.15" for 25-yr event
 Inflow = 3.10 cfs @ 12.05 hrs, Volume= 11,383 cf
 Outflow = 3.10 cfs @ 12.05 hrs, Volume= 11,383 cf, Atten= 0%, Lag= 0.0 min
 Primary = 3.10 cfs @ 12.05 hrs, Volume= 11,383 cf

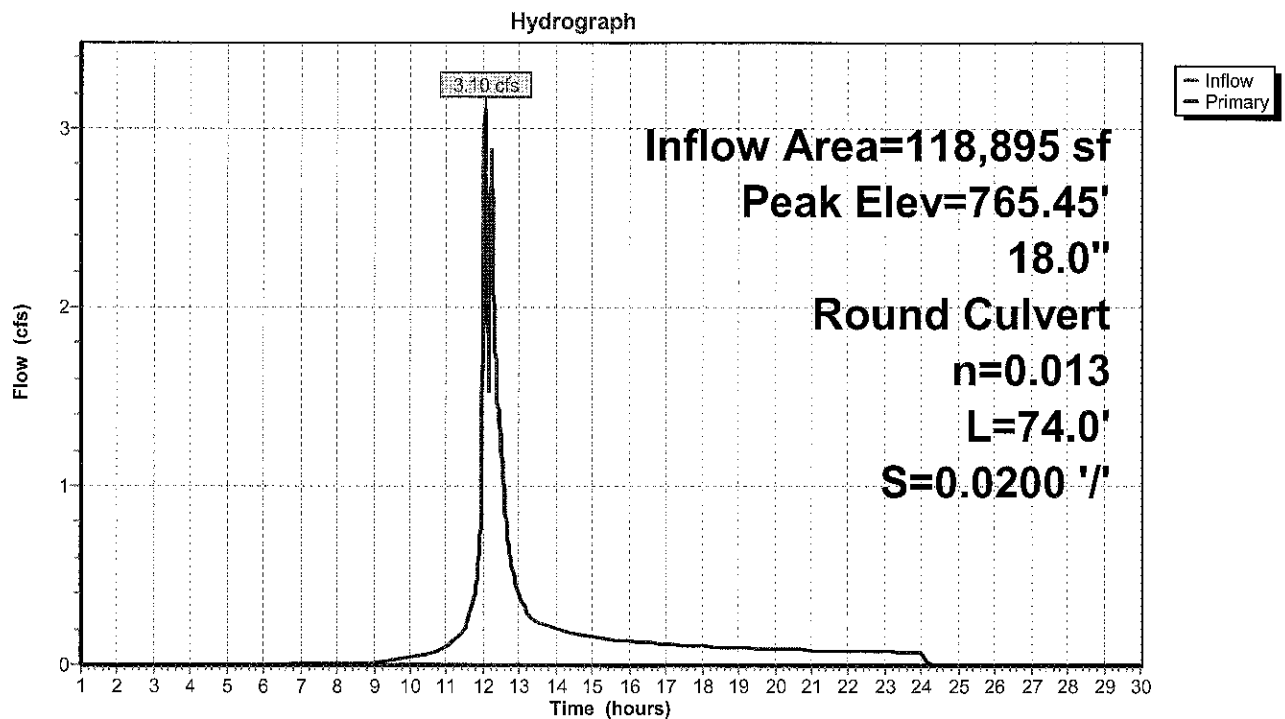
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 765.45' @ 12.05 hrs

Flood Elev= 770.67'

Device	Routing	Invert	Outlet Devices
#1	Primary	764.62'	18.0" Round Culvert L= 74.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 764.62' / 763.14' S= 0.0200 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=3.10 cfs @ 12.05 hrs HW=765.45' TW=0.00' (Dynamic Tailwater)
 ↳ **1=Culvert** (Inlet Controls 3.10 cfs @ 3.10 fps)

Pond 204P: DMH PT 0+19

Summary for Pond 310P: Basin D-1

Inflow Area = 14,240 sf, 8.95% Impervious, Inflow Depth = 3.24" for 25-yr event
 Inflow = 1.29 cfs @ 12.05 hrs, Volume= 3,844 cf
 Outflow = 0.00 cfs @ 1.00 hrs, Volume= 0 cf, Atten= 100%, Lag= 0.0 min
 Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 836.54' @ 24.38 hrs Surf.Area= 3,726 sf Storage= 3,844 cf

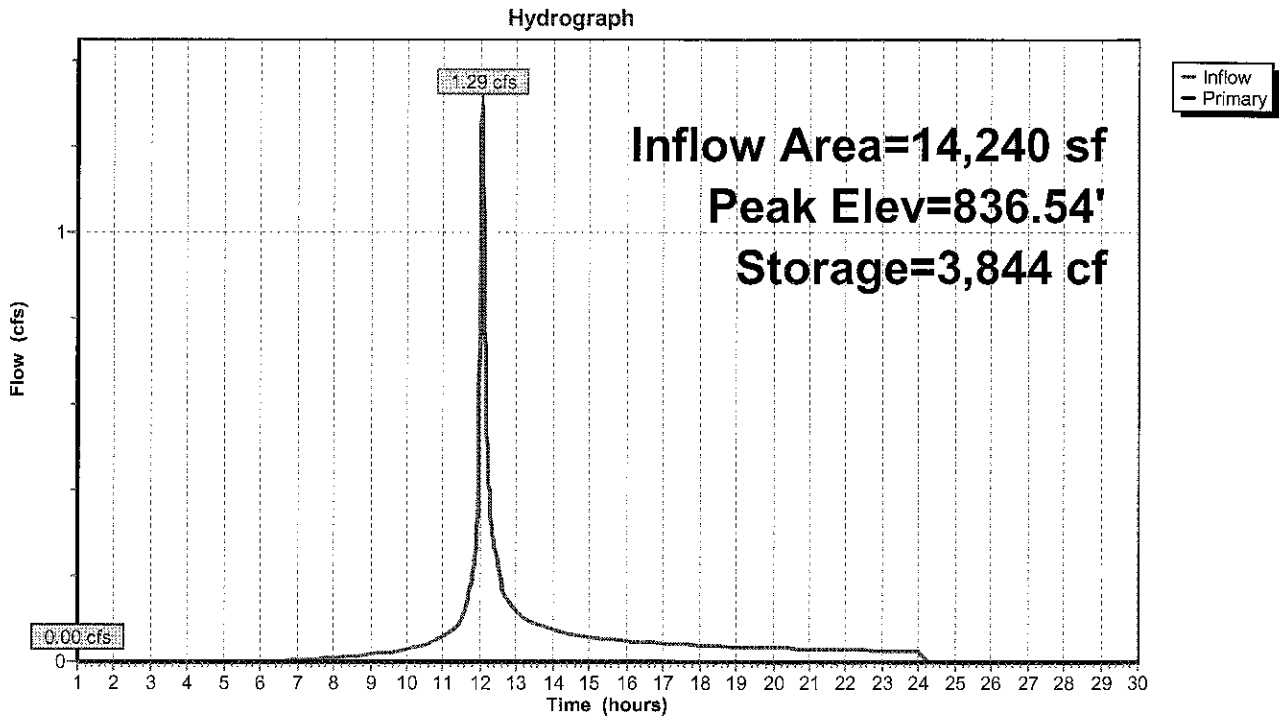
Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
 Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	.834.00'	8,730 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
834.00	170	0	0
835.00	1,350	760	760
836.00	1,825	1,588	2,348
837.00	5,350	3,588	5,935
837.50	5,830	2,795	8,730

Device	Routing	Invert	Outlet Devices
#1	Primary	837.00'	15.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=834.00' TW=817.00' (Dynamic Tailwater)
 1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 310P: Basin D-1



Summary for Pond 320P: Basin D-2

Inflow Area = 73,530 sf, 42.31% Impervious, Inflow Depth = 3.55" for 25-yr event
 Inflow = 7.23 cfs @ 12.04 hrs, Volume= 21,726 cf
 Outflow = 2.63 cfs @ 12.19 hrs, Volume= 20,836 cf, Atten= 64%, Lag= 9.1 min
 Primary = 2.63 cfs @ 12.19 hrs, Volume= 20,836 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 819.47' @ 12.19 hrs Surf.Area= 2,789 sf Storage= 5,192 cf

Plug-Flow detention time= 71.5 min calculated for 20,836 cf (96% of inflow)
 Center-of-Mass det. time= 46.9 min (854.2 - 807.3)

Volume	Invert	Avail.Storage	Storage Description
#1	817.00'	6,770 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

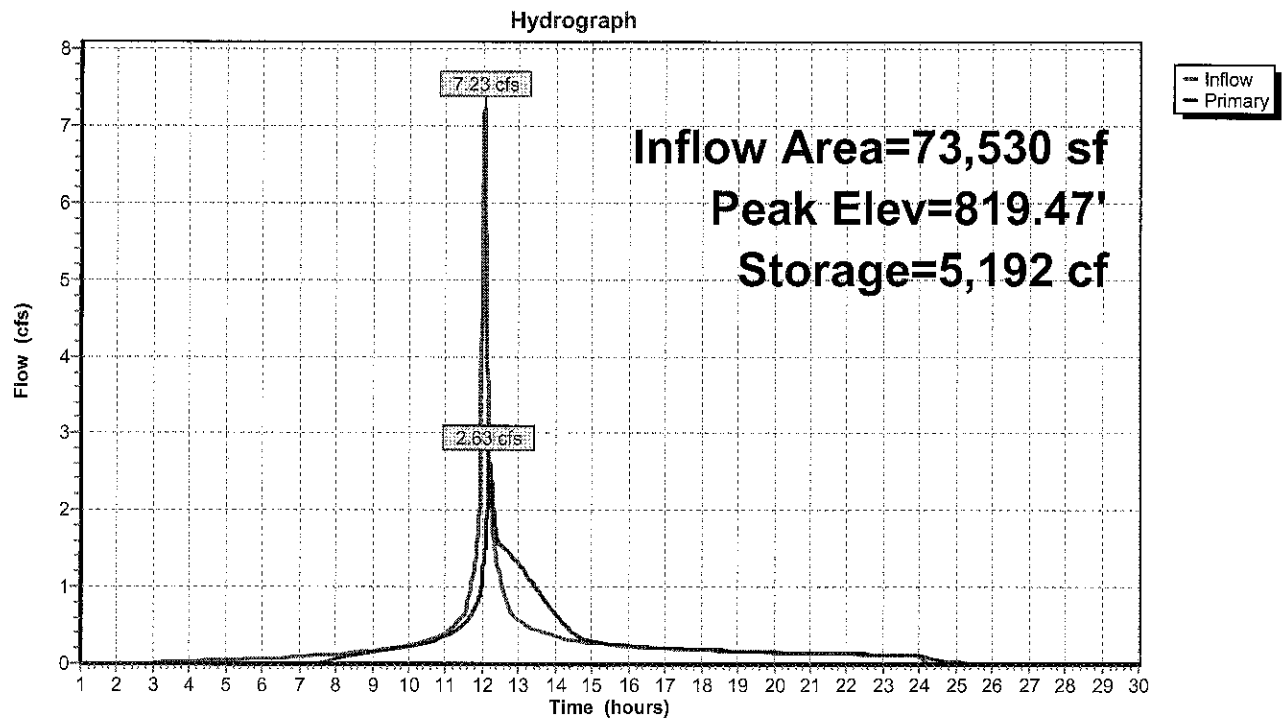
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
817.00	1,480	0	0
818.00	1,965	1,723	1,723
819.00	2,510	2,238	3,960
820.00	3,110	2,810	6,770

Device	Routing	Invert	Outlet Devices
#1	Primary	815.50'	12.0" Round Culvert L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 815.50' / 814.50' S= 0.0200 ' / Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	817.55'	6.0" W x 3.0" H Vert. Orifice/Grate X 2.00 C= 0.600
#3	Device 1	819.35'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Primary	819.50'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Primary OutFlow Max=2.63 cfs @ 12.19 hrs HW=819.47' TW=0.00' (Dynamic Tailwater)

1=Culvert (Passes 2.63 cfs of 7.04 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.61 cfs @ 6.44 fps)
 3=Orifice/Grate (Weir Controls 1.02 cfs @ 1.11 fps)
 4=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 320P: Basin D-2



Summary for Pond 321P: F11+75 R

Inflow Area = 17,525 sf, 48.48% Impervious, Inflow Depth = 4.36" for 25-yr event
 Inflow = 2.12 cfs @ 12.04 hrs, Volume= 6,370 cf
 Outflow = 2.12 cfs @ 12.04 hrs, Volume= 6,370 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.12 cfs @ 12.04 hrs, Volume= 6,370 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 823.45' @ 12.05 hrs

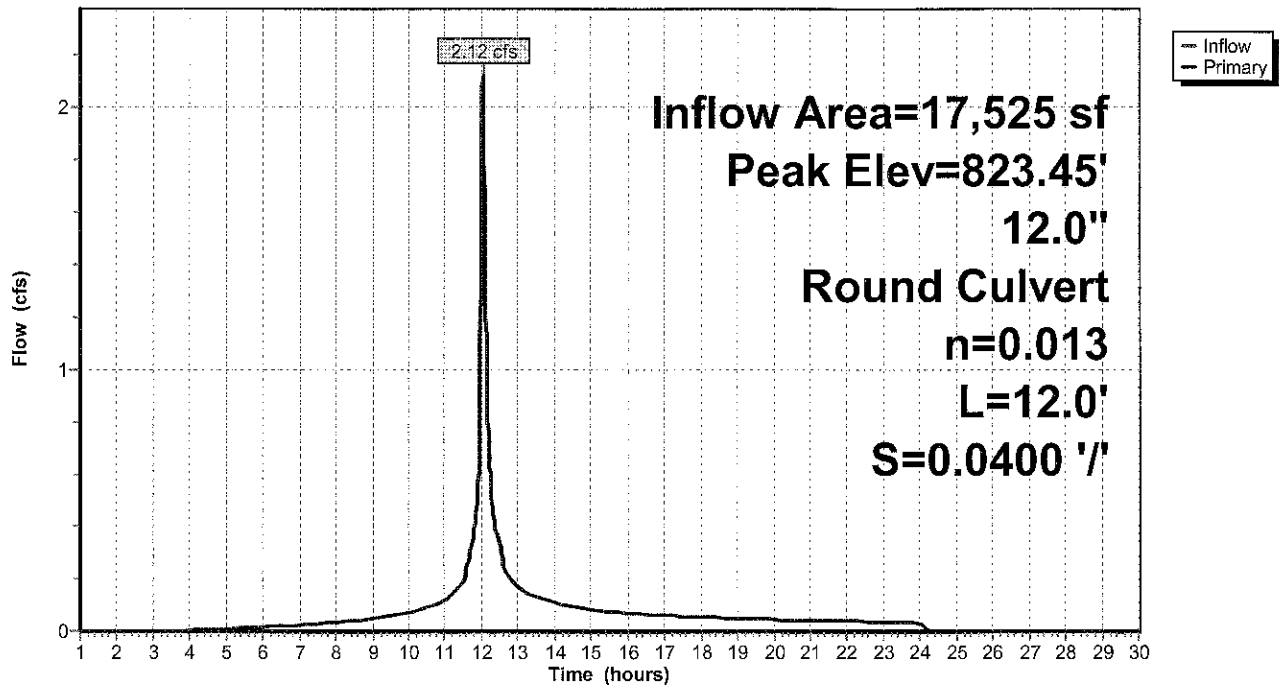
Flood Elev= 826.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	822.60'	12.0" Round Culvert L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 822.60' / 822.12' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.09 cfs @ 12.04 hrs HW=823.44' TW=822.99' (Dynamic Tailwater)
1=Culvert (Outlet Controls 2.09 cfs @ 4.00 fps)

Pond 321P: F11+75 R

Hydrograph



Summary for Pond 322P: F11+75 L

Inflow Area = 7,900 sf, 79.08% Impervious, Inflow Depth = 5.13" for 25-yr event
 Inflow = 1.11 cfs @ 12.04 hrs, Volume= 3,379 cf
 Outflow = 1.11 cfs @ 12.04 hrs, Volume= 3,379 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.11 cfs @ 12.04 hrs, Volume= 3,379 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 823.26' @ 12.05 hrs

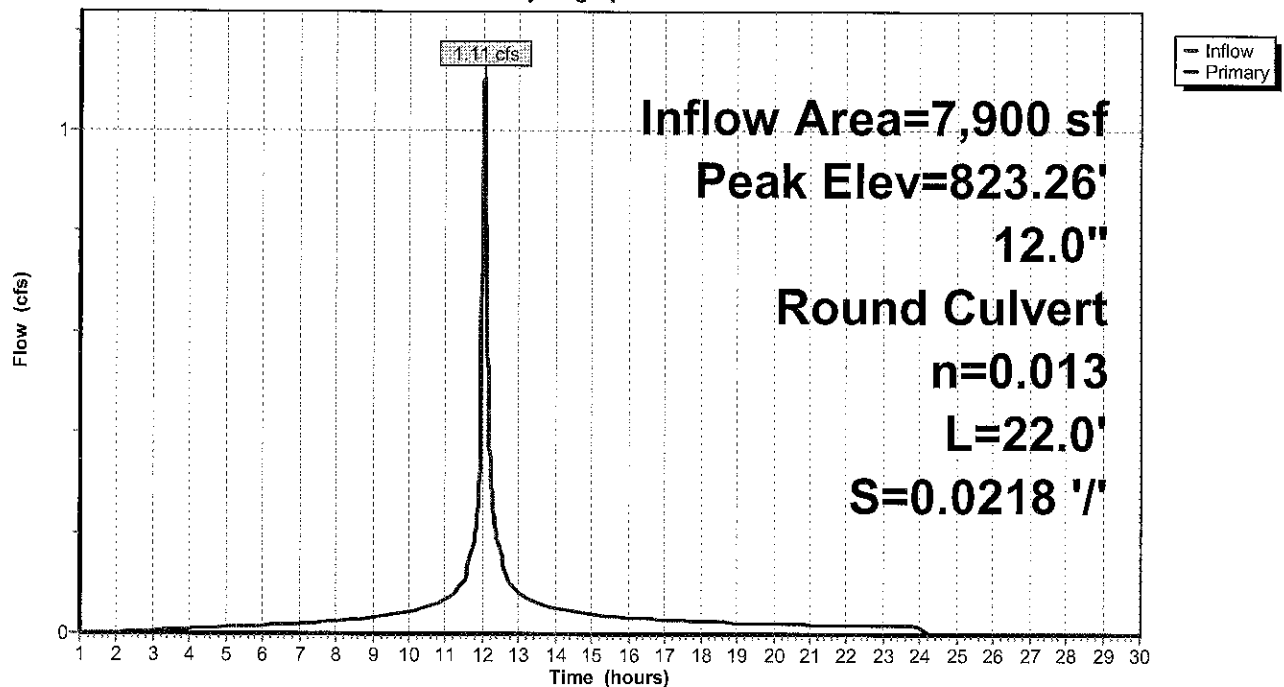
Flood Elev= 826.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	822.60'	12.0" Round Culvert L= 22.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 822.60' / 822.12' S= 0.0218 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.04 cfs @ 12.04 hrs HW=823.25' TW=822.99' (Dynamic Tailwater)
 ↳ **1=Culvert** (Outlet Controls 1.04 cfs @ 2.75 fps)

Pond 322P: F11+75 L

Hydrograph



Summary for Pond 323P: DMH F11+85

Inflow Area = 25,425 sf, 57.99% Impervious, Inflow Depth = 4.60" for 25-yr event
 Inflow = 3.22 cfs @ 12.04 hrs, Volume= 9,750 cf
 Outflow = 3.22 cfs @ 12.04 hrs, Volume= 9,750 cf, Atten= 0%, Lag= 0.0 min
 Primary = 3.22 cfs @ 12.04 hrs, Volume= 9,750 cf

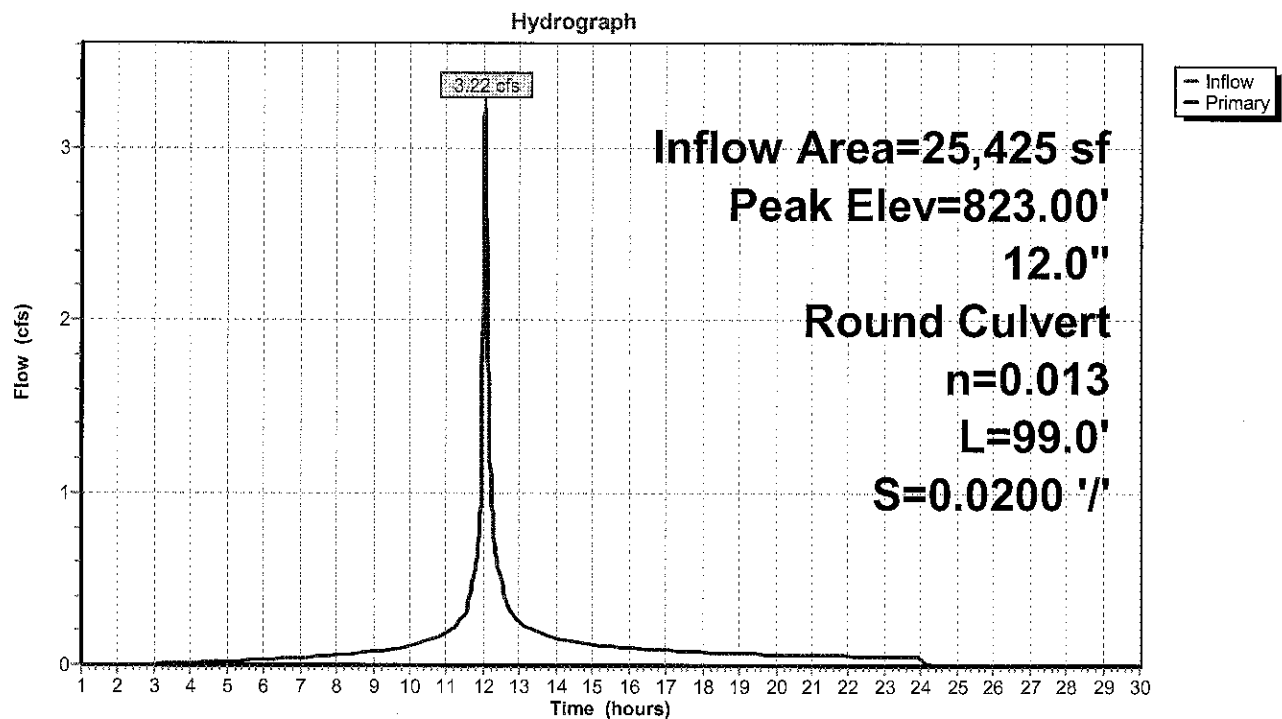
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 823.00' @ 12.04 hrs

Flood Elev= 826.38'

Device	Routing	Invert	Outlet Devices
#1	Primary	821.77'	12.0" Round Culvert L= 99.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 821.77' / 819.79' S= 0.0200 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.22 cfs @ 12.04 hrs HW=823.00' TW=820.42' (Dynamic Tailwater)
 ↳ **1=Culvert** (Inlet Controls 3.22 cfs @ 4.10 fps)

Pond 323P: DMH F11+85

Summary for Pond 324P: DMH F12+85

Inflow Area = 25,425 sf, 57.99% Impervious, Inflow Depth = 4.60" for 25-yr event
 Inflow = 3.22 cfs @ 12.04 hrs, Volume= 9,750 cf
 Outflow = 3.22 cfs @ 12.04 hrs, Volume= 9,750 cf, Atten= 0%, Lag= 0.0 min
 Primary = 3.22 cfs @ 12.04 hrs, Volume= 9,750 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 820.42' @ 12.04 hrs

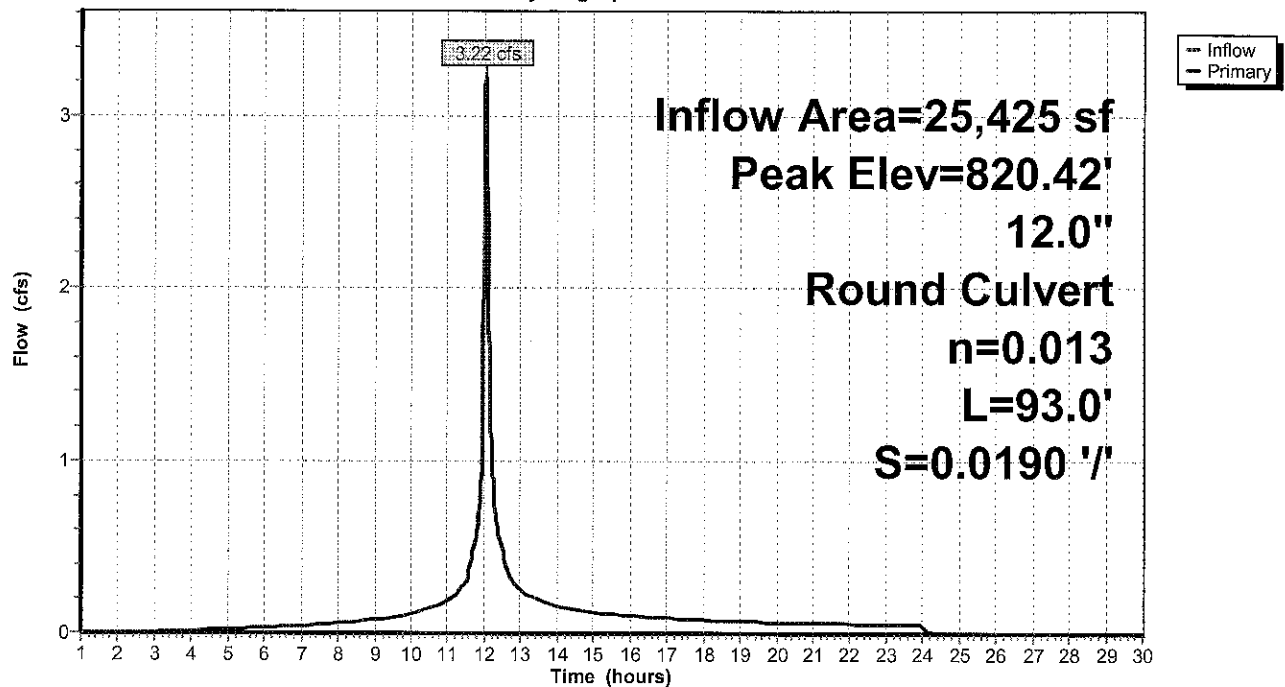
Flood Elev= 823.79'

Device	Routing	Invert	Outlet Devices
#1	Primary	819.19'	12.0" Round Culvert L= 93.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 819.19' / 817.42' S= 0.0190 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.22 cfs @ 12.04 hrs HW=820.42' TW=818.88' (Dynamic Tailwater)
1=Culvert (Inlet Controls 3.22 cfs @ 4.10 fps)

Pond 324P: DMH F12+85

Hydrograph



Summary for Pond 325P: DMH F13+25

Inflow Area = 22,140 sf, 65.29% Impervious, Inflow Depth = 4.78" for 25-yr event
 Inflow = 2.95 cfs @ 12.04 hrs, Volume= 8,812 cf
 Outflow = 2.95 cfs @ 12.04 hrs, Volume= 8,812 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.95 cfs @ 12.04 hrs, Volume= 8,812 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 819.48' @ 12.19 hrs

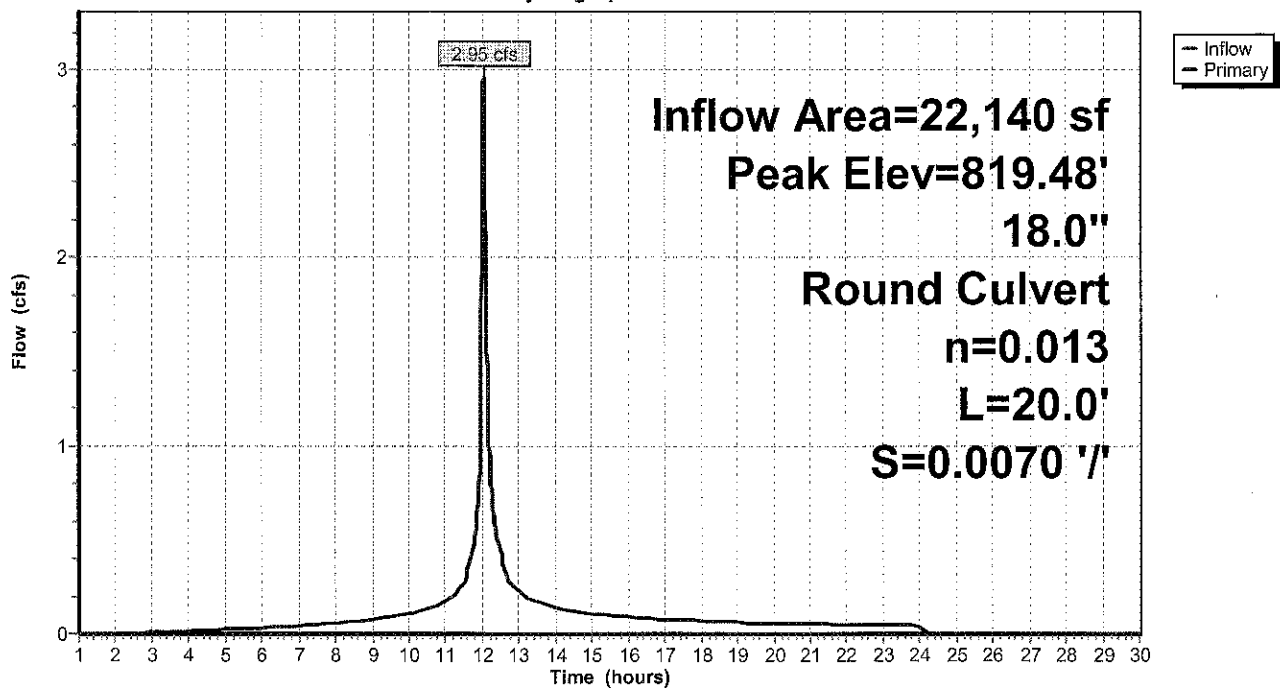
Flood Elev= 822.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	817.15'	18.0" Round Culvert L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 817.15' / 817.01' S= 0.0070 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=1.52 cfs @ 12.04 hrs HW=818.88' TW=818.85' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.52 cfs @ 0.86 fps)

Pond 325P: DMH F13+25

Hydrograph



Pine Tree Post

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Prepared by Places Associates, Inc.

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Summary for Pond 326P: F13+88 R

Inflow Area = 14,240 sf, 57.64% Impervious, Inflow Depth = 4.58" for 25-yr event
Inflow = 1.85 cfs @ 12.04 hrs, Volume= 5,432 cf
Outflow = 1.85 cfs @ 12.04 hrs, Volume= 5,432 cf, Atten= 0%, Lag= 0.0 min
Primary = 1.85 cfs @ 12.04 hrs, Volume= 5,432 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 819.50' @ 12.19 hrs

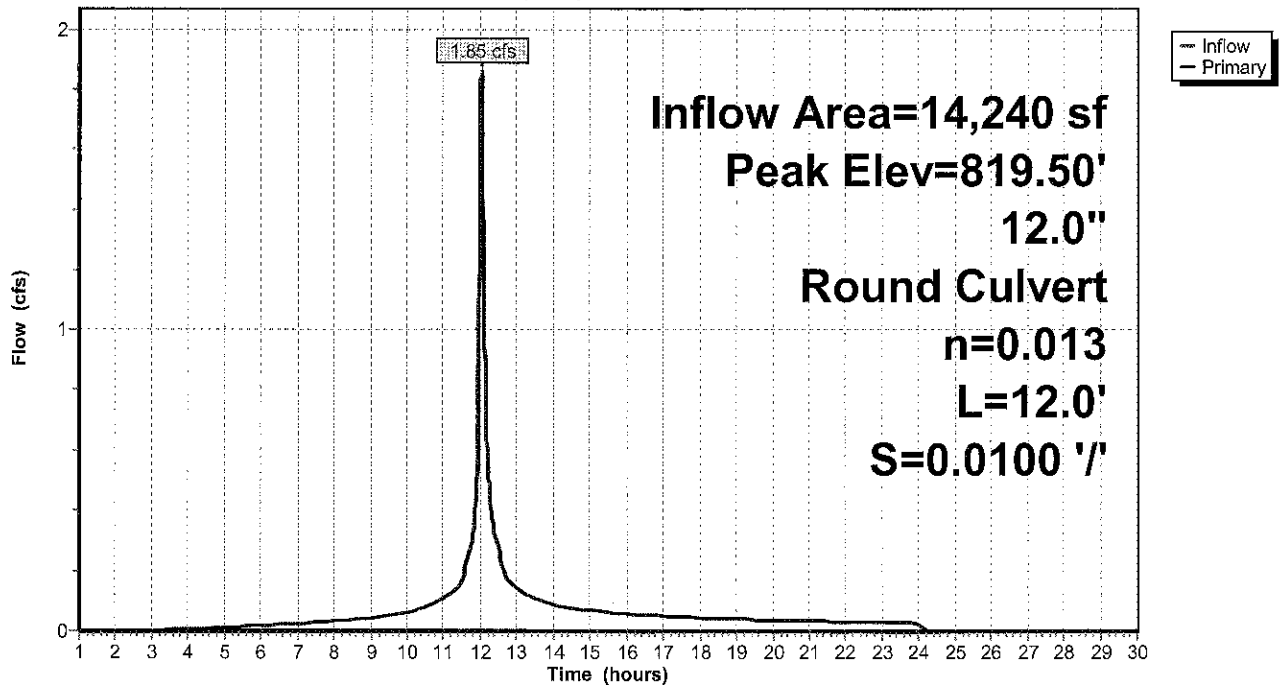
Flood Elev= 821.56'

Device	Routing	Invert	Outlet Devices
#1	Primary	817.56'	12.0" Round Culvert L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 817.56' / 817.44' S= 0.0100 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.45 cfs @ 12.04 hrs HW=819.03' TW=818.88' (Dynamic Tailwater)
1=Culvert (Inlet Controls 1.45 cfs @ 1.85 fps)

Pond 326P: F13+88 R

Hydrograph



Summary for Pond 327P: F13+76 L

Inflow Area = 7,900 sf, 79.08% Impervious, Inflow Depth = 5.13" for 25-yr event
 Inflow = 1.11 cfs @ 12.04 hrs, Volume= 3,379 cf
 Outflow = 1.11 cfs @ 12.04 hrs, Volume= 3,379 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.11 cfs @ 12.04 hrs, Volume= 3,379 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 819.49' @ 12.20 hrs

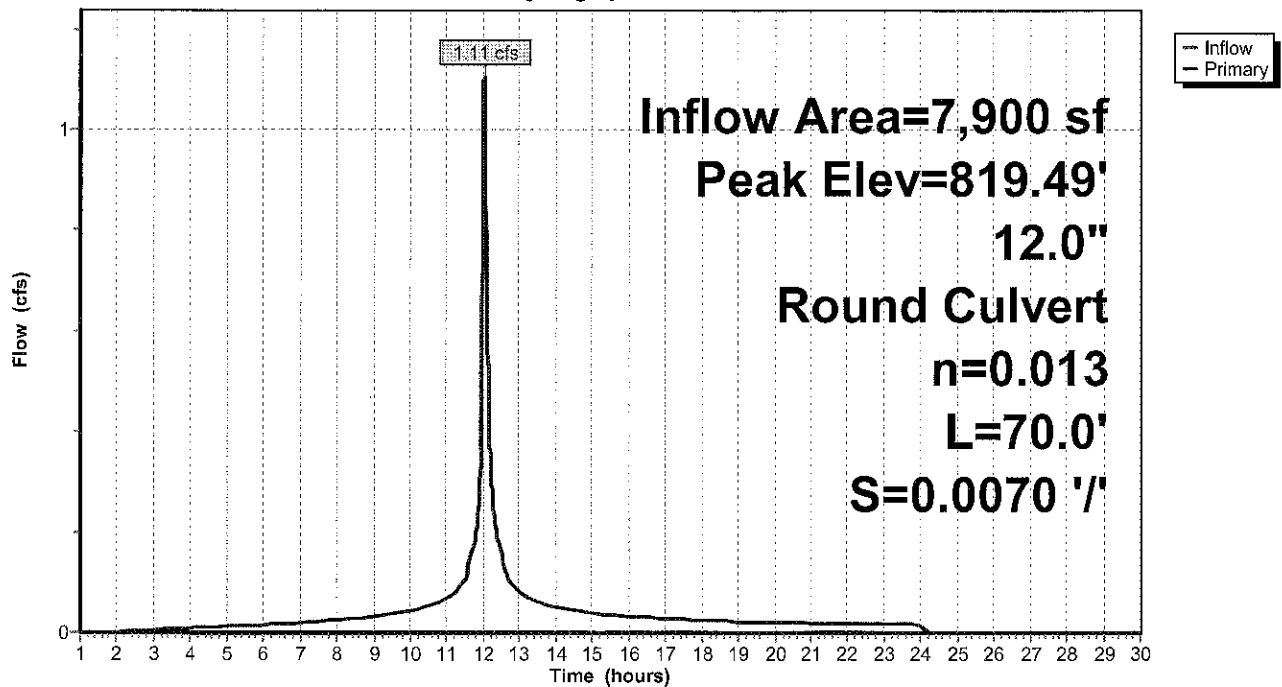
Flood Elev= 821.64'

Device	Routing	Invert	Outlet Devices
#1	Primary	817.64'	12.0" Round Culvert L= 70.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 817.64' / 817.15' S= 0.0070 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.45 cfs @ 12.04 hrs HW=818.90' TW=818.88' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.45 cfs @ 0.59 fps)

Pond 327P: F13+76 L

Hydrograph



Pine Tree Post

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Prepared by Places Associates, Inc.

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Summary for Pond 520P: Lower Basin B-2

Inflow Area = 122,695 sf, 37.35% Impervious, Inflow Depth = 2.49" for 25-yr event
 Inflow = 8.08 cfs @ 12.07 hrs, Volume= 25,484 cf
 Outflow = 5.92 cfs @ 12.13 hrs, Volume= 25,485 cf, Atten= 27%, Lag= 3.4 min
 Discarded = 0.21 cfs @ 12.13 hrs, Volume= 7,907 cf
 Primary = 5.71 cfs @ 12.13 hrs, Volume= 17,578 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 780.55' @ 12.13 hrs Surf.Area= 2,448 sf Storage= 3,818 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 62.9 min (938.9 - 876.0)

Volume	Invert	Avail.Storage	Storage Description
#1	778.00'	5,001 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
778.00	678	0	0
779.00	1,264	971	971
780.00	1,985	1,625	2,596
781.00	2,825	2,405	5,001

Device	Routing	Invert	Outlet Devices
#1	Discarded	778.00'	2.410 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 775.50'
#2	Primary	778.00'	12.0" Round Culvert L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 778.00' / 777.70' S= 0.0100 ' S= 0.0100 ' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	779.00'	3.0" Vert. Orifice/Grate X 2.00 C= 0.600
#4	Device 2	780.20'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#5	Primary	780.50'	10.0' long x 10.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.49 2.56 2.70 2.69 2.68 2.69 2.67 2.64

Discarded OutFlow Max=0.21 cfs @ 12.13 hrs HW=780.55' (Free Discharge)

↑ **1=Exfiltration** (Controls 0.21 cfs)

Primary OutFlow Max=5.70 cfs @ 12.13 hrs HW=780.55' TW=777.31' (Dynamic Tailwater)

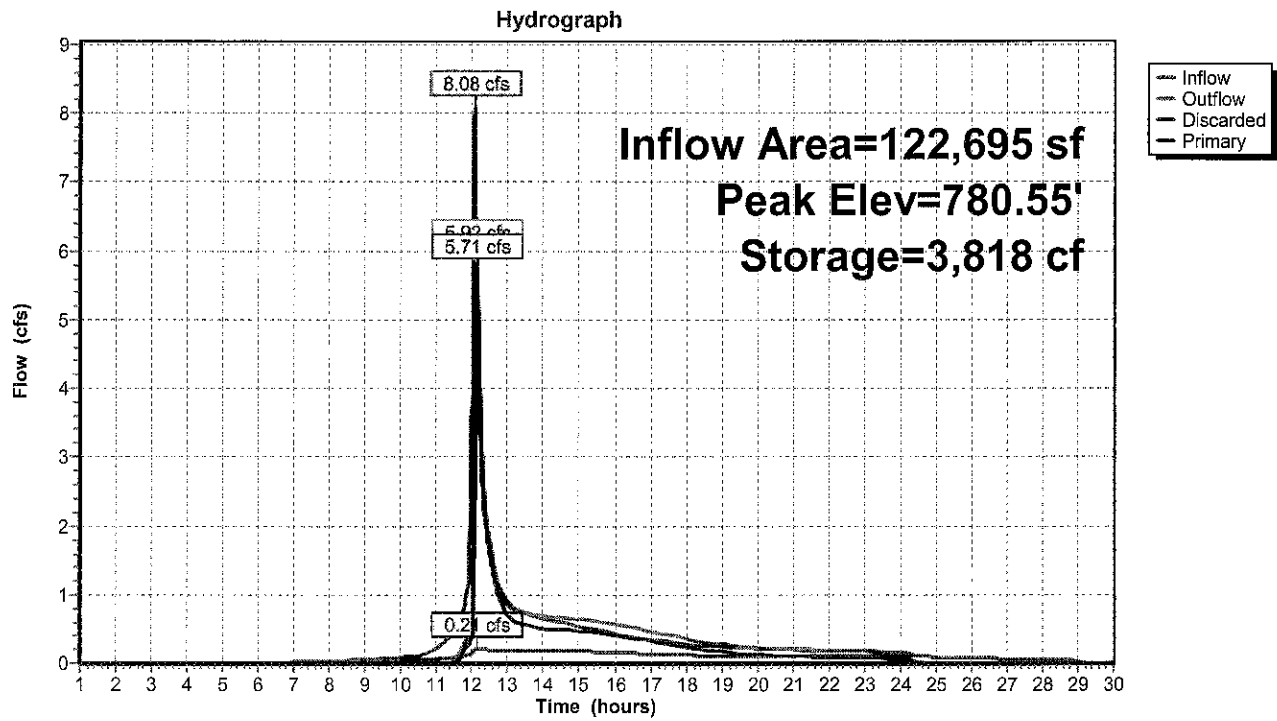
↑ **2=Culvert** (Inlet Controls 5.42 cfs @ 6.90 fps)

↑ **3=Orifice/Grate** (Passes < 0.56 cfs potential flow)

↑ **4=Orifice/Grate** (Passes < 5.44 cfs potential flow)

↑ **5=Broad-Crested Rectangular Weir** (Weir Controls 0.29 cfs @ 0.56 fps)

Pond 520P: Lower Basin B-2



Summary for Pond 521P: DMH H 1+90

Inflow Area = 40,120 sf, 45.61% Impervious, Inflow Depth = 3.30" for 25-yr event
 Inflow = 3.82 cfs @ 12.04 hrs, Volume= 11,018 cf
 Outflow = 3.82 cfs @ 12.04 hrs, Volume= 11,018 cf, Atten= 0%, Lag= 0.0 min
 Primary = 3.82 cfs @ 12.04 hrs, Volume= 11,018 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 780.86' @ 12.09 hrs

Flood Elev= 784.05'

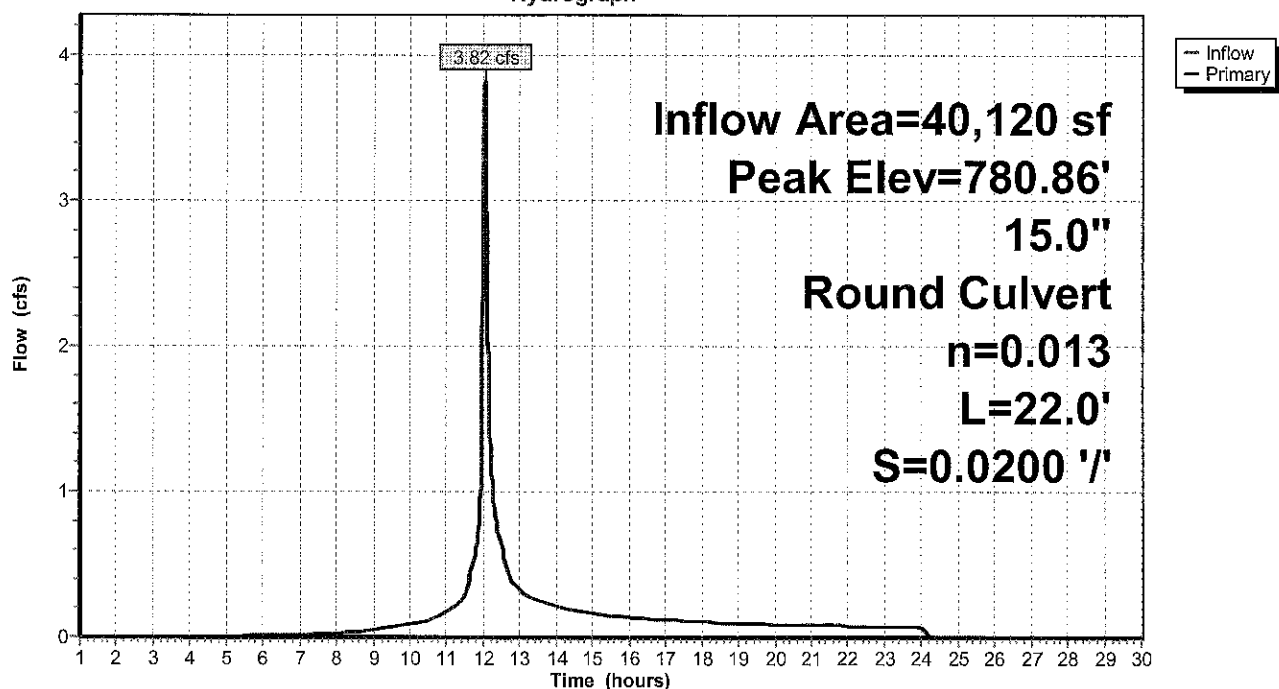
Device	Routing	Invert	Outlet Devices
#1	Primary	779.50'	15.0" Round Culvert L= 22.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 779.50' / 779.06' S= 0.0200 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.46 cfs @ 12.04 hrs HW=780.75' TW=780.39' (Dynamic Tailwater)

1=Culvert (Outlet Controls 3.46 cfs @ 3.51 fps)

Pond 521P: DMH H 1+90

Hydrograph



Summary for Pond 522P: H 2+0 L

Inflow Area = 33,610 sf, 41.24% Impervious, Inflow Depth = 3.05" for 25-yr event
 Inflow = 2.97 cfs @ 12.04 hrs, Volume= 8,535 cf
 Outflow = 2.97 cfs @ 12.04 hrs, Volume= 8,535 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.97 cfs @ 12.04 hrs, Volume= 8,535 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 781.26' @ 12.05 hrs

Flood Elev= 784.31'

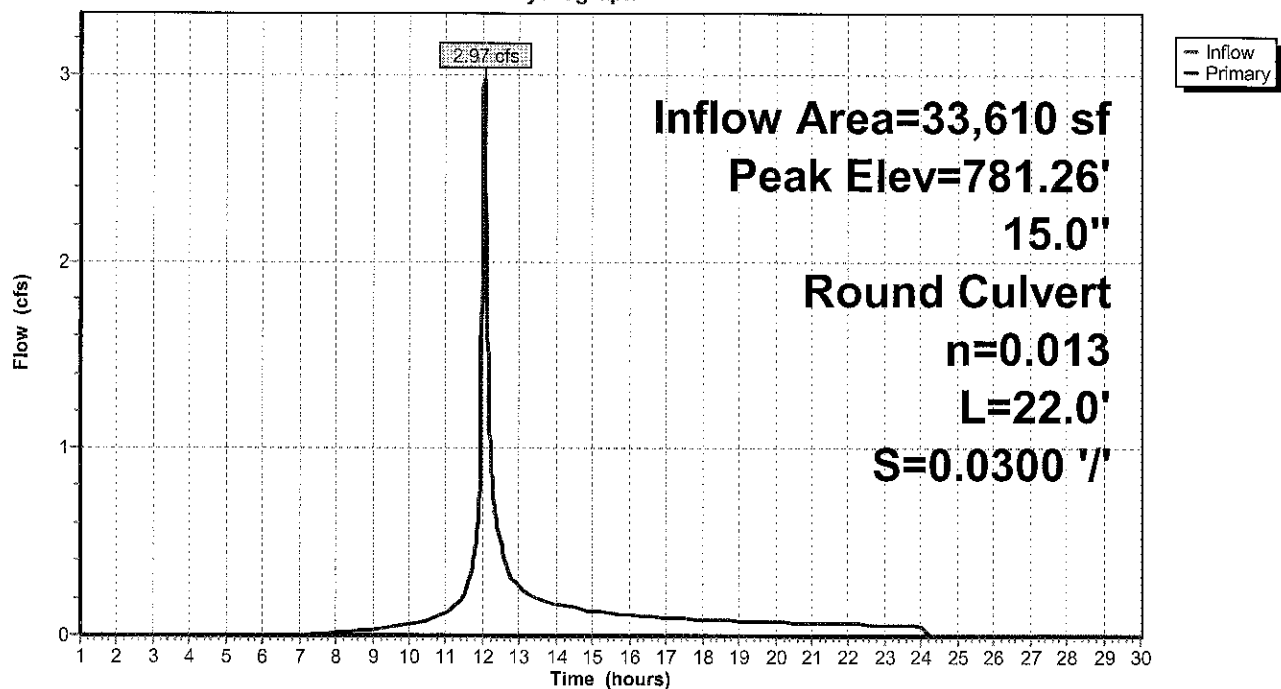
Device	Routing	Invert	Outlet Devices
#1	Primary	780.31'	15.0" Round Culvert L= 22.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 780.31' / 779.65' S= 0.0300 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=2.86 cfs @ 12.04 hrs HW=781.25' TW=780.75' (Dynamic Tailwater)

1=Culvert (Outlet Controls 2.86 cfs @ 4.02 fps)

Pond 522P: H 2+0 L

Hydrograph



Summary for Pond 523P: H 2+0 R

Inflow Area = 6,510 sf, 68.20% Impervious, Inflow Depth = 4.58" for 25-yr event
 Inflow = 0.84 cfs @ 12.04 hrs, Volume= 2,483 cf
 Outflow = 0.84 cfs @ 12.04 hrs, Volume= 2,483 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.84 cfs @ 12.04 hrs, Volume= 2,483 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 780.95' @ 12.07 hrs

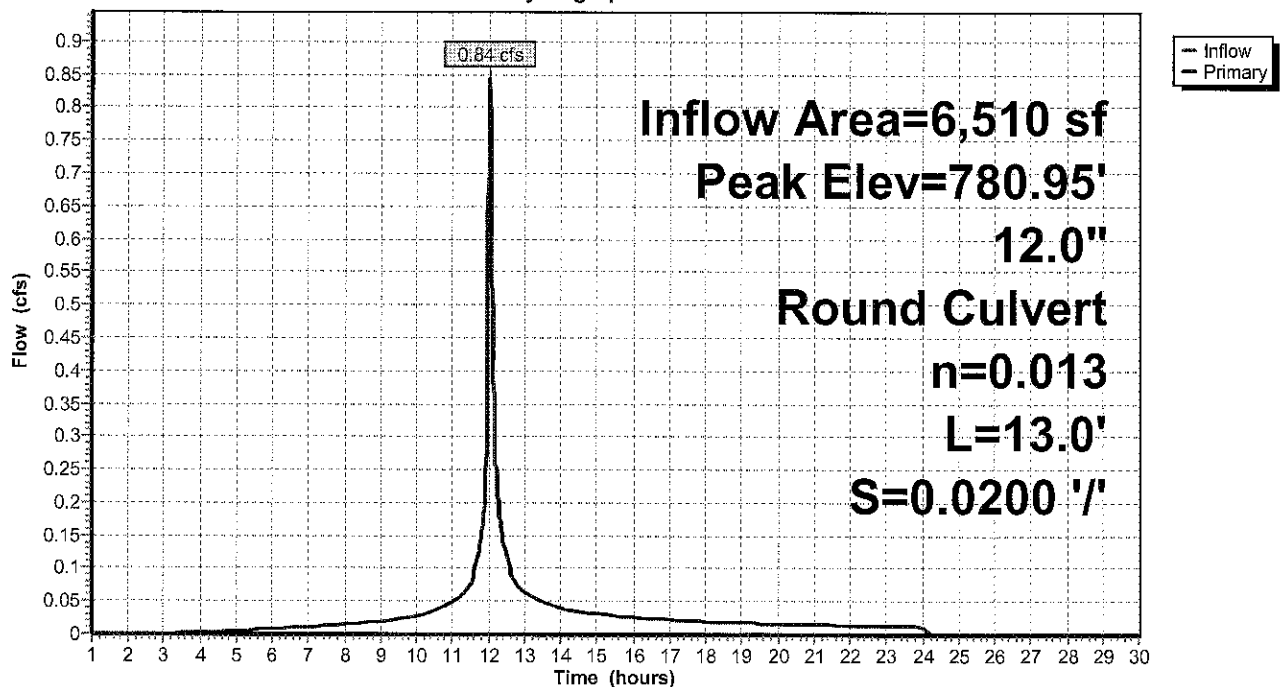
Flood Elev= 784.31'

Device	Routing	Invert	Outlet Devices
#1	Primary	780.31'	12.0" Round Culvert L= 13.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 780.31' / 780.05' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.74 cfs @ 12.04 hrs HW=780.90' TW=780.74' (Dynamic Tailwater)
 1=Culvert (Outlet Controls 0.74 cfs @ 2.24 fps)

Pond 523P: H 2+0 R

Hydrograph



Summary for Pond 524P: Stormwater unit

Inflow Area = 40,120 sf, 45.61% Impervious, Inflow Depth = 3.30" for 25-yr event
 Inflow = 3.82 cfs @ 12.04 hrs, Volume= 11,018 cf
 Outflow = 3.82 cfs @ 12.04 hrs, Volume= 11,018 cf, Atten= 0%, Lag= 0.0 min
 Primary = 3.82 cfs @ 12.04 hrs, Volume= 11,018 cf

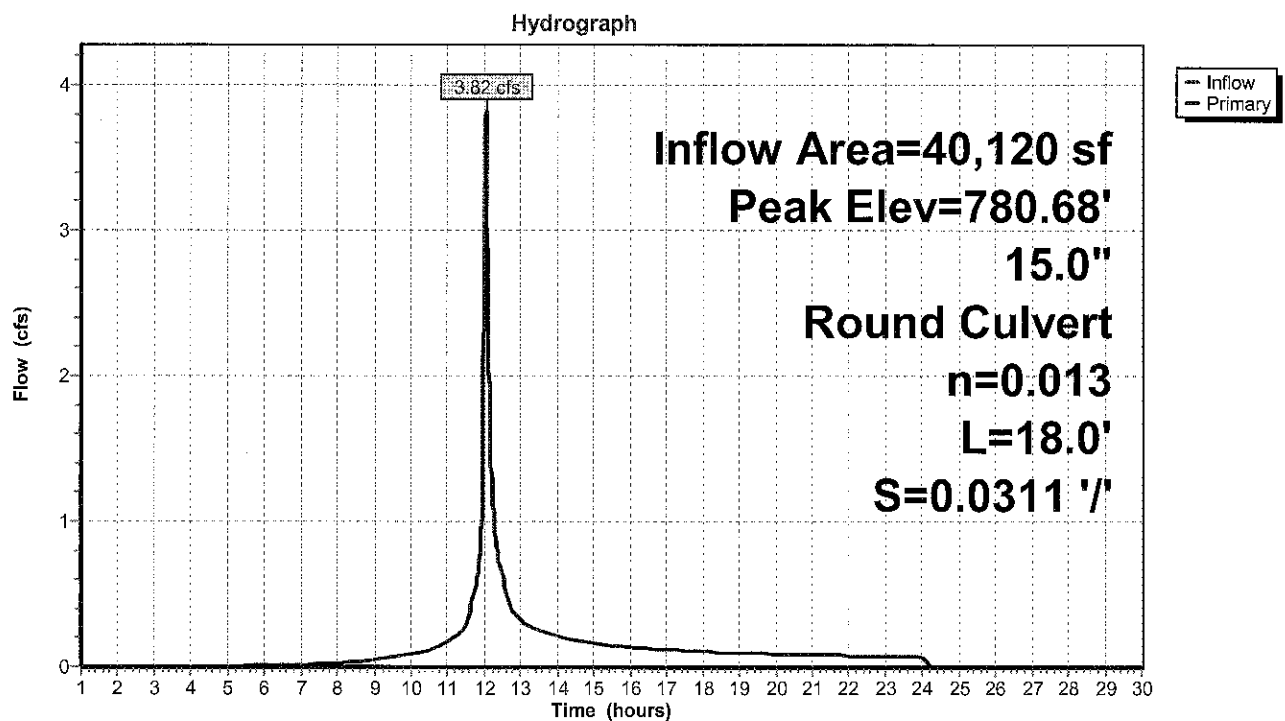
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 780.68' @ 12.10 hrs

Flood Elev= 782.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	779.06'	15.0" Round Culvert L= 18.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 779.06' / 778.50' S= 0.0311 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.40 cfs @ 12.04 hrs HW=780.39' TW=780.06' (Dynamic Tailwater)
1=Culvert (Inlet Controls 3.40 cfs @ 2.77 fps)

Pond 524P: Stormwater unit

Summary for Pond 525P: H 2+0 R

Inflow Area = 5,340 sf, 76.59% Impervious, Inflow Depth = 4.15" for 25-yr event
 Inflow = 0.64 cfs @ 12.04 hrs, Volume= 1,847 cf
 Outflow = 0.64 cfs @ 12.04 hrs, Volume= 1,847 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.64 cfs @ 12.04 hrs, Volume= 1,847 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 778.38' @ 12.05 hrs

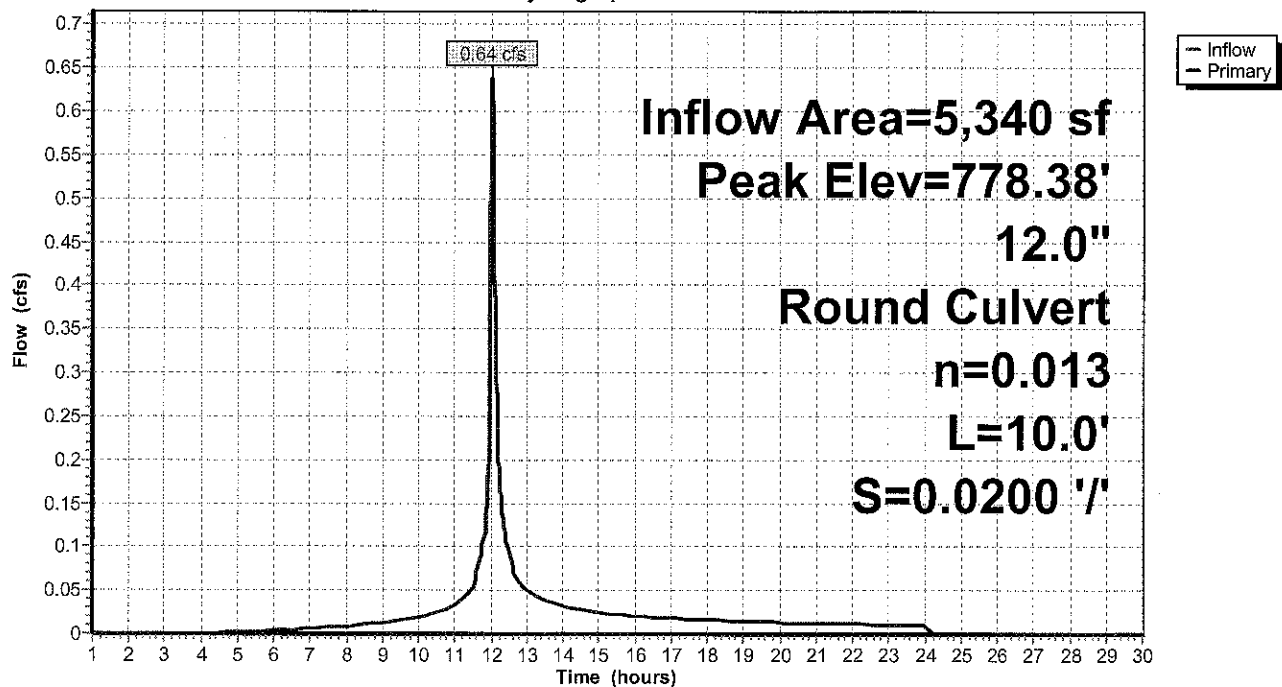
Flood Elev= 781.69'

Device	Routing	Invert	Outlet Devices
#1	Primary	777.69'	12.0" Round Culvert L= 10.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 777.69' / 777.49' S= 0.0200 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.59 cfs @ 12.04 hrs HW=778.37' TW=778.31' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.59 cfs @ 1.47 fps)

Pond 525P: H 2+0 R

Hydrograph



Summary for Pond 526P: H 2+0 R

Inflow Area = 5,305 sf, 76.15% Impervious, Inflow Depth = 4.15" for 25-yr event
 Inflow = 0.63 cfs @ 12.04 hrs, Volume= 1,835 cf
 Outflow = 0.63 cfs @ 12.04 hrs, Volume= 1,835 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.63 cfs @ 12.04 hrs, Volume= 1,835 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 778.37' @ 12.05 hrs

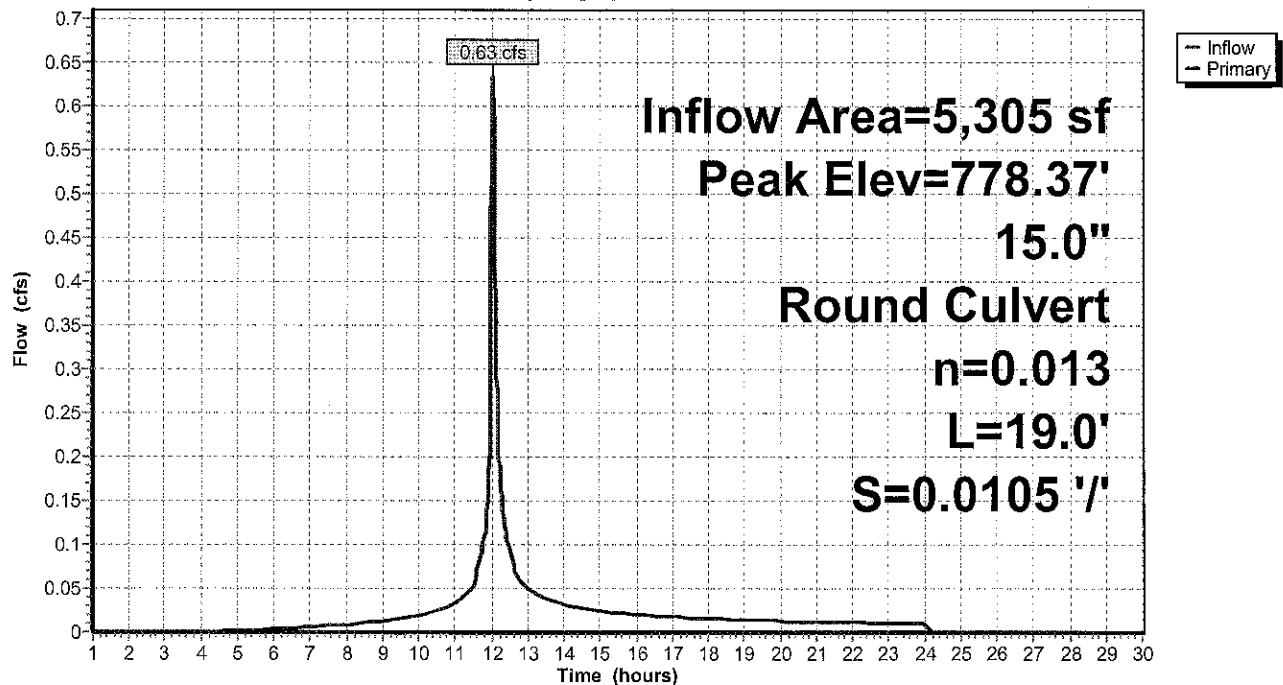
Flood Elev= 781.69'

Device	Routing	Invert	Outlet Devices
#1	Primary	777.69'	15.0" Round Culvert L= 19.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 777.69' / 777.49' S= 0.0105 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.58 cfs @ 12.04 hrs HW=778.36' TW=778.31' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.58 cfs @ 1.26 fps)

Pond 526P: H 2+0 R

Hydrograph



Summary for Pond 527P: DMH H 0+80

Inflow Area = 10,645 sf, 76.37% Impervious, Inflow Depth = 4.15" for 25-yr event
 Inflow = 1.27 cfs @ 12.04 hrs, Volume= 3,681 cf
 Outflow = 1.27 cfs @ 12.04 hrs, Volume= 3,681 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.27 cfs @ 12.04 hrs, Volume= 3,681 cf

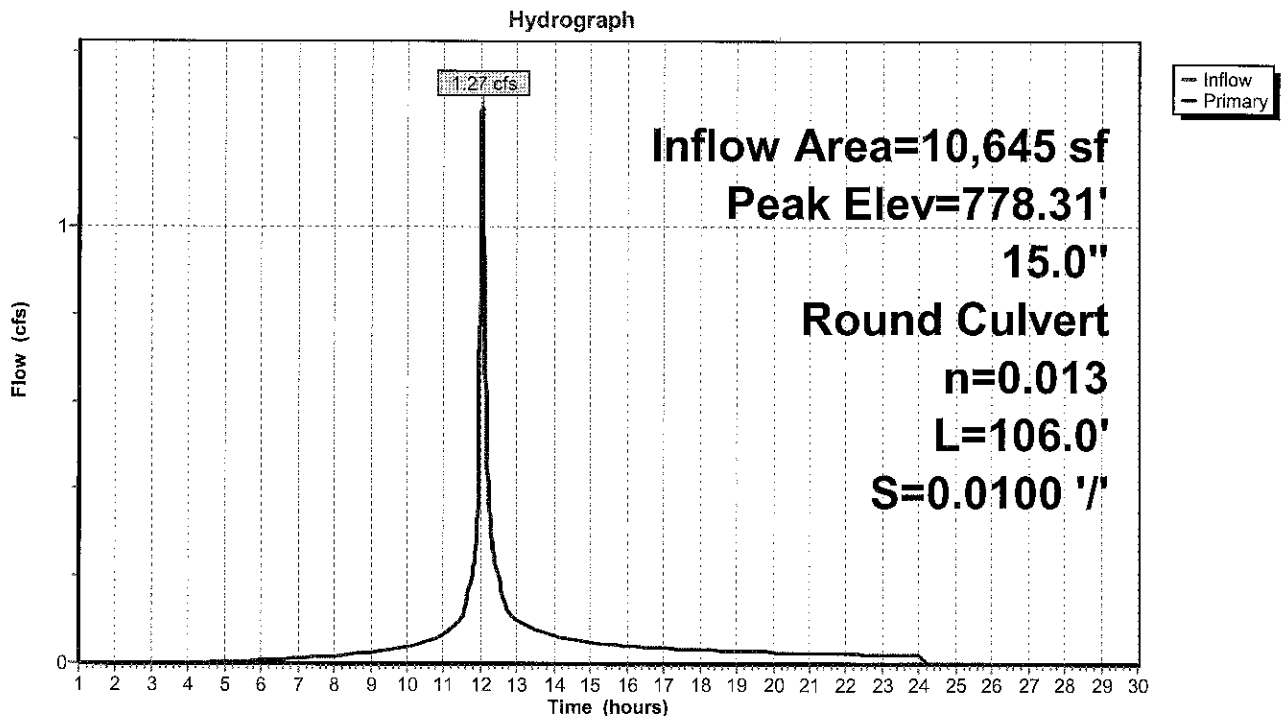
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 778.31' @ 12.04 hrs

Flood Elev= 781.88'

Device	Routing	Invert	Outlet Devices
#1	Primary	777.49'	15.0" Round Culvert L= 106.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 777.49' / 776.43' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.26 cfs @ 12.04 hrs HW=778.31' TW=778.03' (Dynamic Tailwater)
 ↳ **1=Culvert** (Outlet Controls 1.26 cfs @ 2.10 fps)

Pond 527P: DMH H 0+80

Summary for Pond 528P: Stormwater Unit

Inflow Area = 10,645 sf, 76.37% Impervious, Inflow Depth = 4.15" for 25-yr event
 Inflow = 1.27 cfs @ 12.04 hrs, Volume= 3,681 cf
 Outflow = 1.27 cfs @ 12.04 hrs, Volume= 3,681 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.27 cfs @ 12.04 hrs, Volume= 3,681 cf

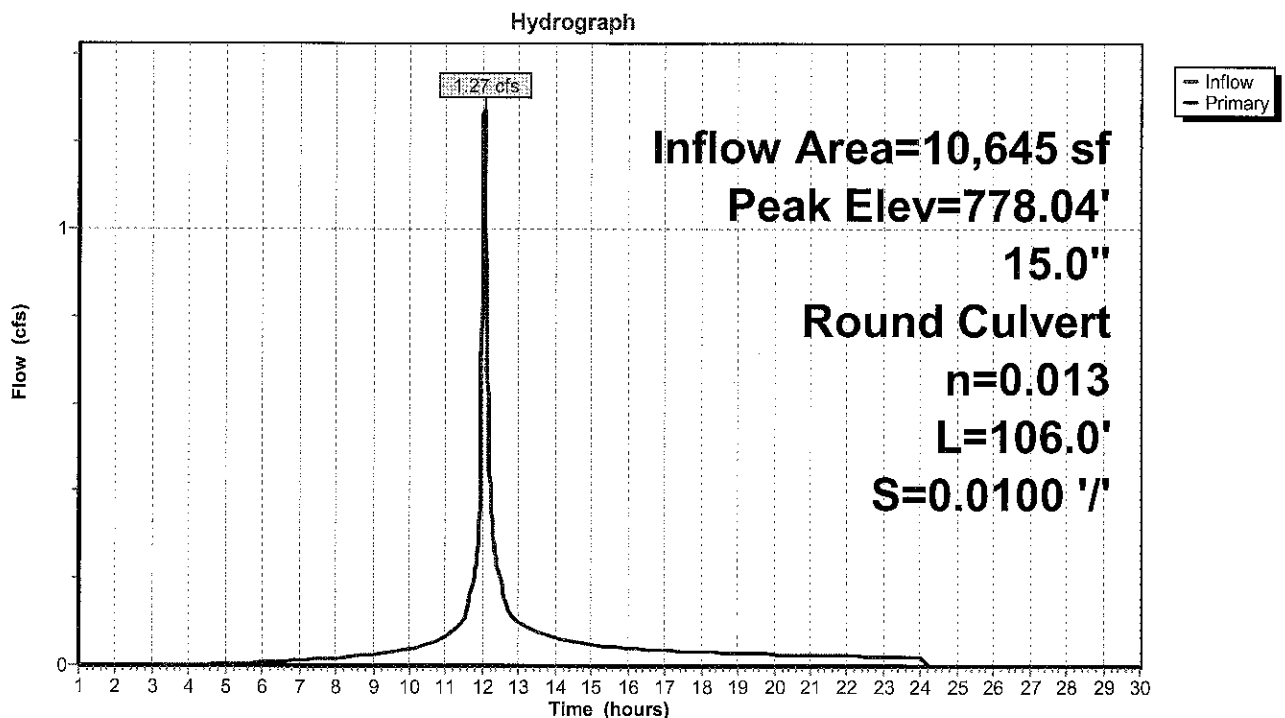
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 778.04' @ 12.04 hrs

Flood Elev= 781.88'

Device	Routing	Invert	Outlet Devices
#1	Primary	777.49'	15.0" Round Culvert L= 106.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 777.49' / 776.43' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.26 cfs @ 12.04 hrs HW=778.03' TW=776.97' (Dynamic Tailwater)
 1=Culvert (Outlet Controls 1.26 cfs @ 3.61 fps)

Pond 528P: Stormwater Unit

Pine Tree Post

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Summary for Pond 530P: Upper Basin B-1

Inflow Area = 76,975 sf, 35.76% Impervious, Inflow Depth = 2.73" for 25-yr event
 Inflow = 5.97 cfs @ 12.04 hrs, Volume= 17,499 cf
 Outflow = 4.86 cfs @ 12.08 hrs, Volume= 17,440 cf, Atten= 19%, Lag= 2.4 min
 Discarded = 0.07 cfs @ 12.08 hrs, Volume= 3,368 cf
 Primary = 4.79 cfs @ 12.08 hrs, Volume= 14,072 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 785.79' @ 12.08 hrs Surf.Area= 2,574 sf Storage= 3,236 cf

Plug-Flow detention time= 69.0 min calculated for 17,440 cf (100% of inflow)
 Center-of-Mass det. time= 67.1 min (930.7 - 863.6)

Volume	Invert	Avail.Storage	Storage Description
#1	784.00'	3,802 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

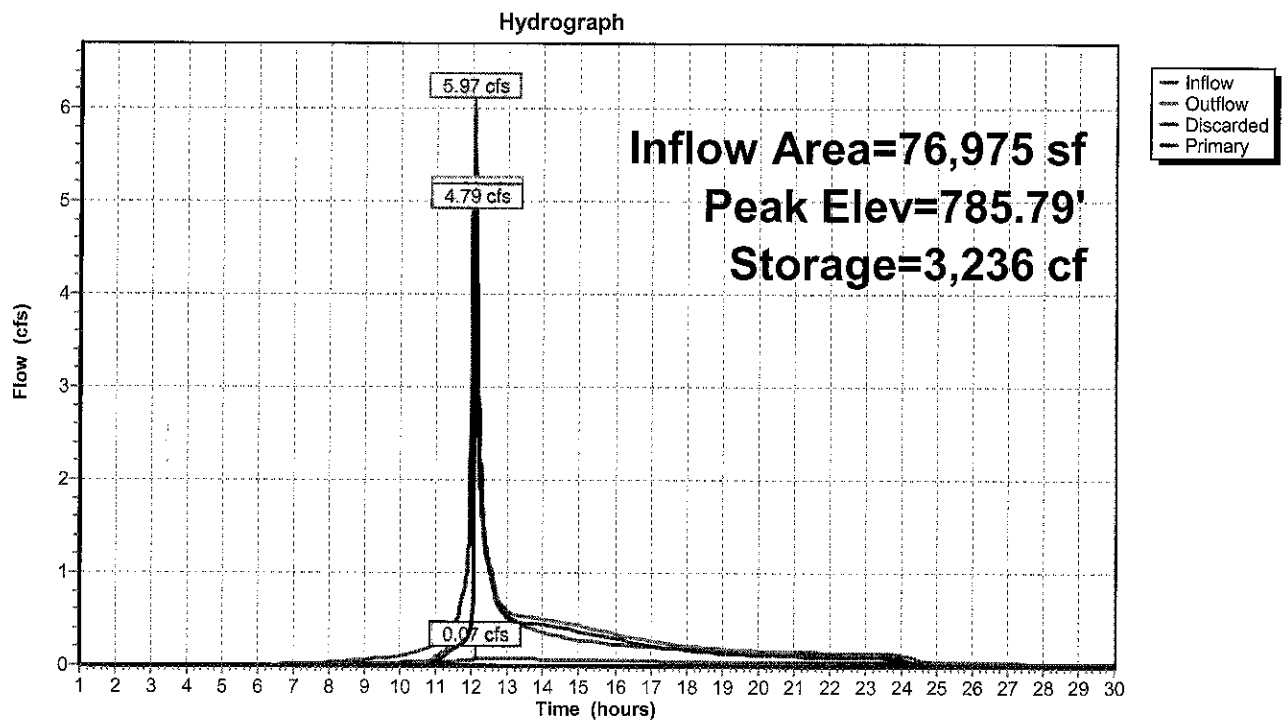
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
784.00	754	0	0
785.00	2,069	1,412	1,412
786.00	2,712	2,391	3,802

Device	Routing	Invert	Outlet Devices
#1	Discarded	784.00'	1.020 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 778.00'
#2	Primary	785.60'	16.0' long Sharp-Crested Rectangular Weir 0 End Contraction(s) 1.0' Crest Height
#3	Primary	782.00'	12.0" Round Culvert L= 34.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 782.00' / 780.00' S= 0.0588 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#4	Device 3	784.50'	3.0" Vert. Orifice/Grate X 2.00 C= 0.600

Discarded OutFlow Max=0.07 cfs @ 12.08 hrs HW=785.79' (Free Discharge)
 ↳ **1=Exfiltration** (Controls 0.07 cfs)

Primary OutFlow Max=4.79 cfs @ 12.08 hrs HW=785.79' TW=780.45' (Dynamic Tailwater)
 ↳ **2=Sharp-Crested Rectangular Weir** (Weir Controls 4.28 cfs @ 1.44 fps)
 ↳ **3=Culvert** (Passes 0.51 cfs of 5.41 cfs potential flow)
 ↳ **4=Orifice/Grate** (Orifice Controls 0.51 cfs @ 5.19 fps)

Pond 530P: Upper Basin B-1



Summary for Pond 531P: DMH H 3+40

Inflow Area = 52,920 sf, 44.61% Impervious, Inflow Depth = 3.22" for 25-yr event
 Inflow = 4.95 cfs @ 12.04 hrs, Volume= 14,200 cf
 Outflow = 4.95 cfs @ 12.04 hrs, Volume= 14,200 cf, Atten= 0%, Lag= 0.0 min
 Primary = 4.95 cfs @ 12.04 hrs, Volume= 14,200 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

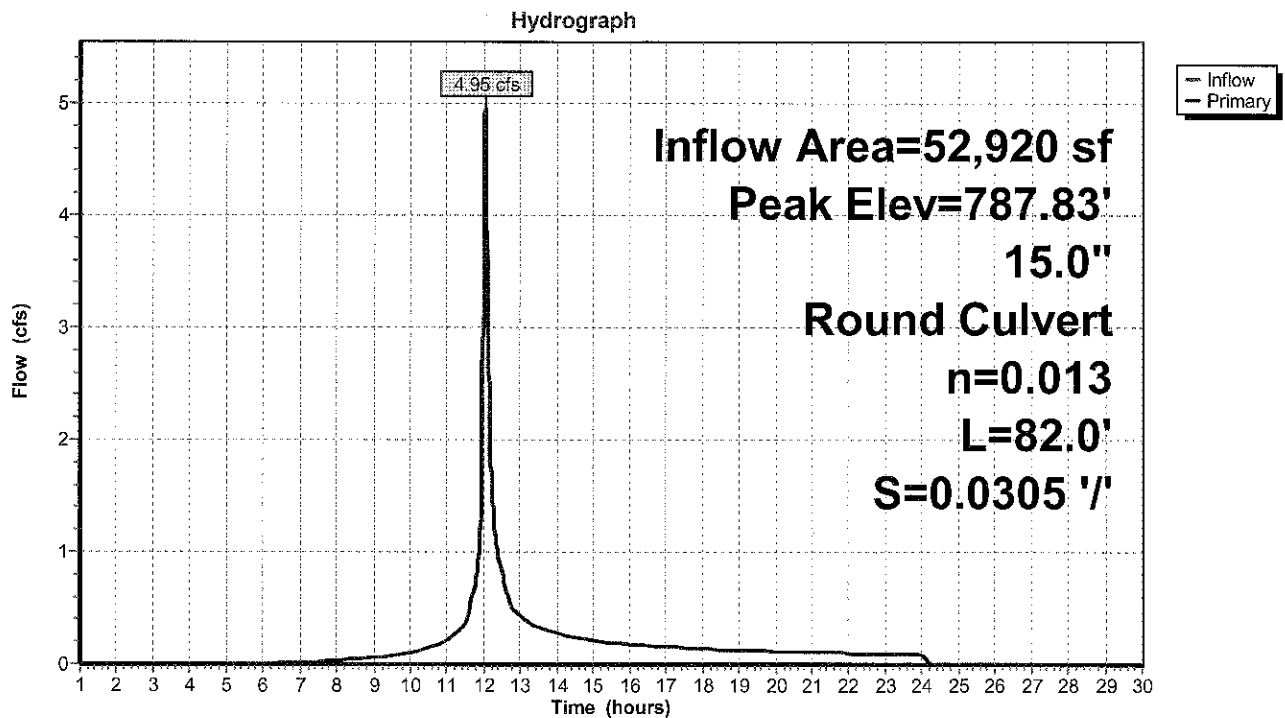
Peak Elev= 787.83' @ 12.04 hrs

Flood Elev= 791.39'

Device	Routing	Invert	Outlet Devices
#1	Primary	786.50'	15.0" Round Culvert L= 82.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 786.50' / 784.00' S= 0.0305 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=4.94 cfs @ 12.04 hrs HW=787.82' TW=785.69' (Dynamic Tailwater)

← **1=Culvert** (Inlet Controls 4.94 cfs @ 4.02 fps)

Pond 531P: DMH H 3+40

Summary for Pond 532P: H 3+50 L

Inflow Area = 35,890 sf, 41.85% Impervious, Inflow Depth = 3.44" for 25-yr event
 Inflow = 3.59 cfs @ 12.04 hrs, Volume= 10,275 cf
 Outflow = 3.59 cfs @ 12.04 hrs, Volume= 10,275 cf, Atten= 0%, Lag= 0.0 min
 Primary = 3.59 cfs @ 12.04 hrs, Volume= 10,275 cf

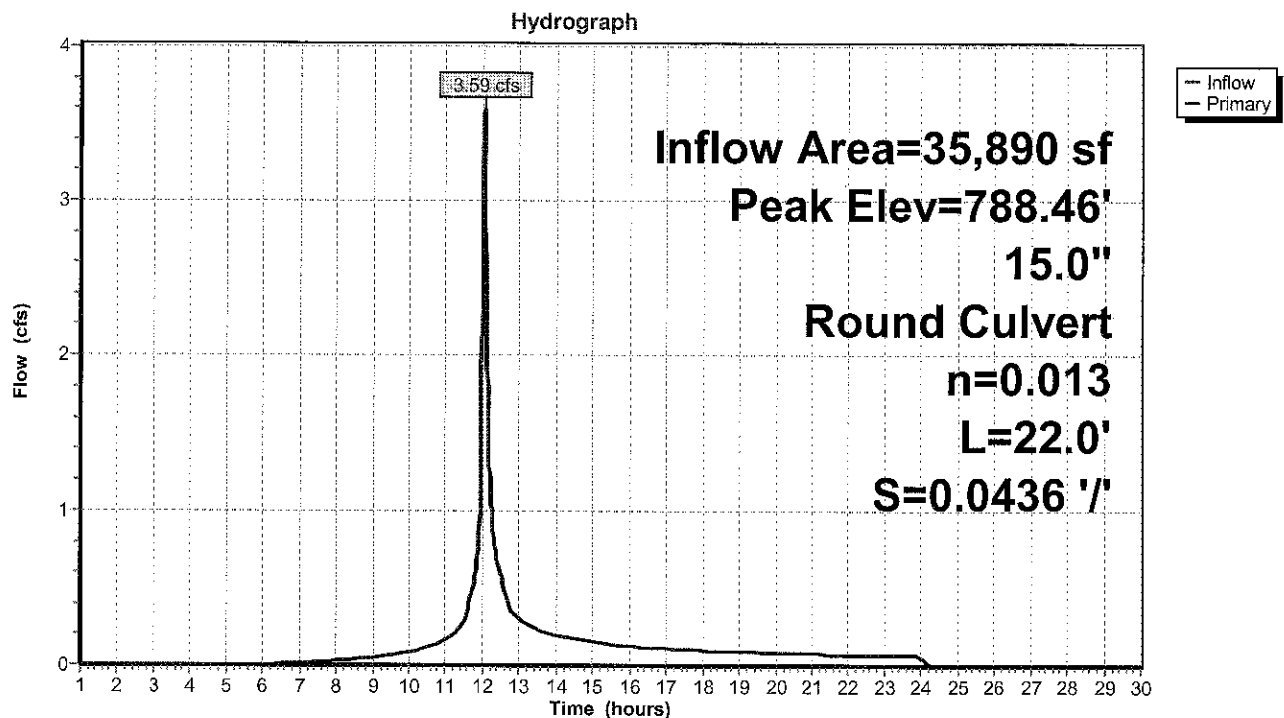
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 788.46' @ 12.04 hrs

Flood Elev= 791.71'

Device	Routing	Invert	Outlet Devices
#1	Primary	787.46'	15.0" Round Culvert L= 22.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 787.46' / 786.50' S= 0.0436 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.54 cfs @ 12.04 hrs HW=788.46' TW=787.82' (Dynamic Tailwater)
 1=Culvert (Outlet Controls 3.54 cfs @ 4.60 fps)

Pond 532P: H 3+50 L

Summary for Pond 533P: H 3+50 R

Inflow Area = 17,030 sf, 50.44% Impervious, Inflow Depth = 2.77" for 25-yr event
 Inflow = 1.36 cfs @ 12.04 hrs, Volume= 3,925 cf
 Outflow = 1.36 cfs @ 12.04 hrs, Volume= 3,925 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.36 cfs @ 12.04 hrs, Volume= 3,925 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 788.14' @ 12.05 hrs

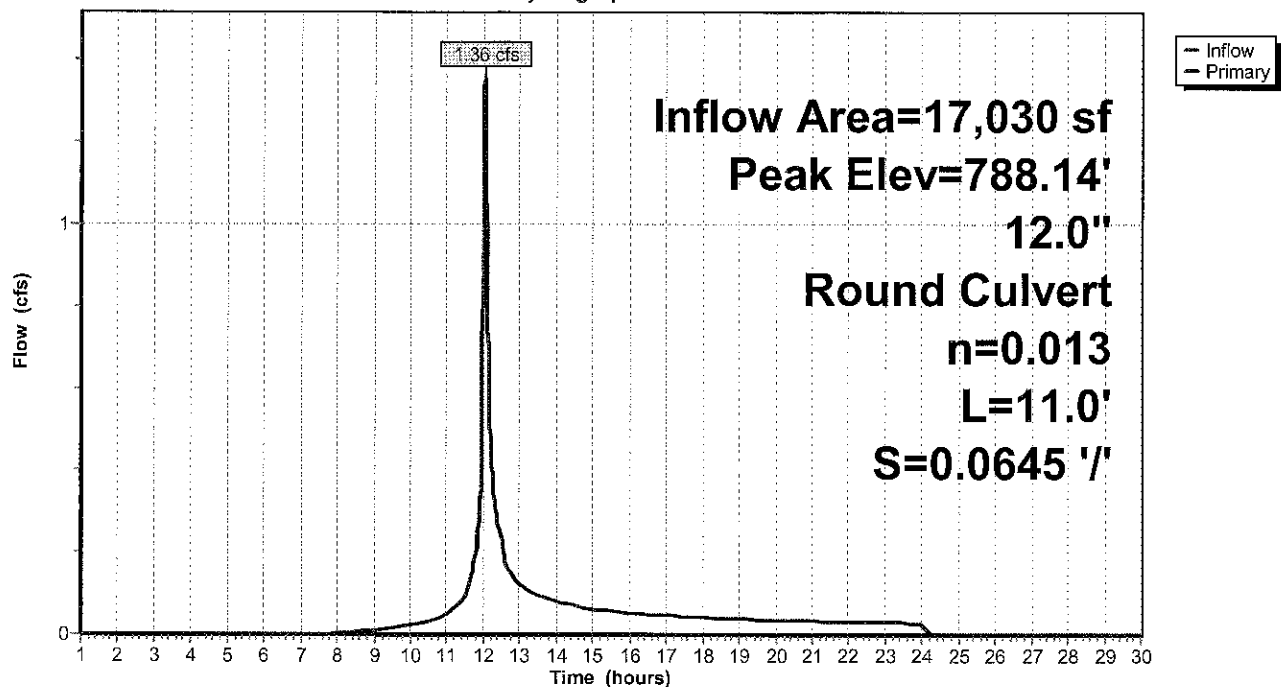
Flood Elev= 791.71'

Device	Routing	Invert	Outlet Devices
#1	Primary	787.46'	12.0" Round Culvert L= 11.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 787.46' / 786.75' S= 0.0645 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.32 cfs @ 12.04 hrs HW=788.14' TW=787.83' (Dynamic Tailwater)
 1=Culvert (Outlet Controls 1.32 cfs @ 3.30 fps)

Pond 533P: H 3+50 R

Hydrograph



Summary for Pond 700P: Basin A

Inflow Area = 359,710 sf, 44.65% Impervious, Inflow Depth > 3.63" for 25-yr event
 Inflow = 31.83 cfs @ 12.05 hrs, Volume= 108,929 cf
 Outflow = 4.02 cfs @ 12.74 hrs, Volume= 108,929 cf, Atten= 87%, Lag= 41.2 min
 Discarded = 4.02 cfs @ 12.74 hrs, Volume= 108,929 cf
 Primary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 785.86' @ 12.74 hrs Surf.Area= 14,578 sf Storage= 31,394 cf

Plug-Flow detention time= 66.7 min calculated for 108,892 cf (100% of inflow)
 Center-of-Mass det. time= 66.7 min (909.8 - 843.1)

Volume	Invert	Avail.Storage	Storage Description
#1	783.00'	104,566 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
783.00	392	0	0
784.00	12,310	6,351	6,351
786.00	14,745	27,055	33,406
788.00	17,470	32,215	65,621
790.00	21,475	38,945	104,566

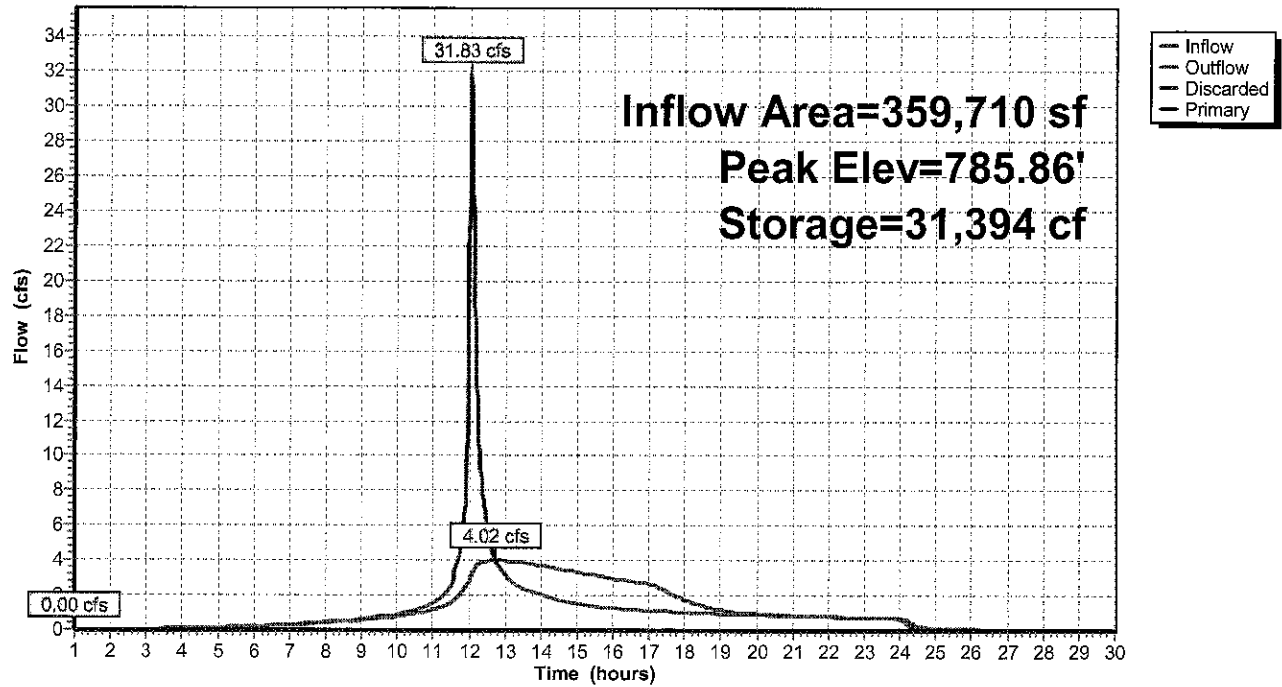
Device	Routing	Invert	Outlet Devices
#1	Discarded	783.00'	8.270 in/hr Exfiltration over Surface area Conductivity to Groundwater Elevation = 778.70'
#2	Primary	789.30'	40.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Discarded OutFlow Max=4.02 cfs @ 12.74 hrs HW=785.86' (Free Discharge)
 ↑1=Exfiltration (Controls 4.02 cfs)

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=783.00' TW=751.19' (Dynamic Tailwater)
 ↑2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond 700P: Basin A

Hydrograph



Summary for Pond 701P: DMH A-1

Inflow Area = 146,755 sf, 44.74% Impervious, Inflow Depth = 4.24" for 25-yr event
 Inflow = 17.71 cfs @ 12.04 hrs, Volume= 51,834 cf
 Outflow = 17.71 cfs @ 12.04 hrs, Volume= 51,834 cf, Atten= 0%, Lag= 0.0 min
 Primary = 17.71 cfs @ 12.04 hrs, Volume= 51,834 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 792.05' @ 12.04 hrs

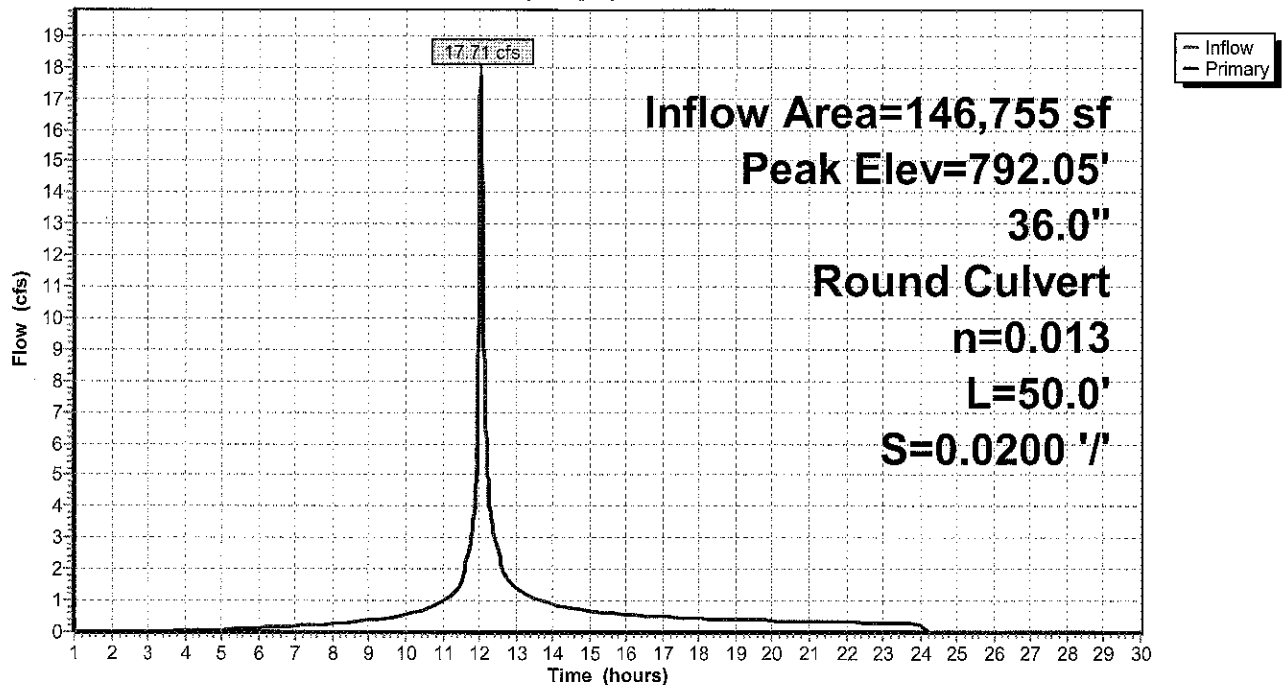
Flood Elev= 797.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	790.38'	36.0" Round Culvert L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 790.38' / 789.38' S= 0.0200 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=17.65 cfs @ 12.04 hrs HW=792.04' TW=784.54' (Dynamic Tailwater)
 ←1=Culvert (Inlet Controls 17.65 cfs @ 4.39 fps)

Pond 701P: DMH A-1

Hydrograph



Summary for Pond 702P: DMH A-2

Inflow Area = 146,755 sf, 44.74% Impervious, Inflow Depth = 4.24" for 25-yr event
 Inflow = 17.71 cfs @ 12.04 hrs, Volume= 51,834 cf
 Outflow = 17.71 cfs @ 12.04 hrs, Volume= 51,834 cf, Atten= 0%, Lag= 0.0 min
 Primary = 17.71 cfs @ 12.04 hrs, Volume= 51,834 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 793.76' @ 12.04 hrs

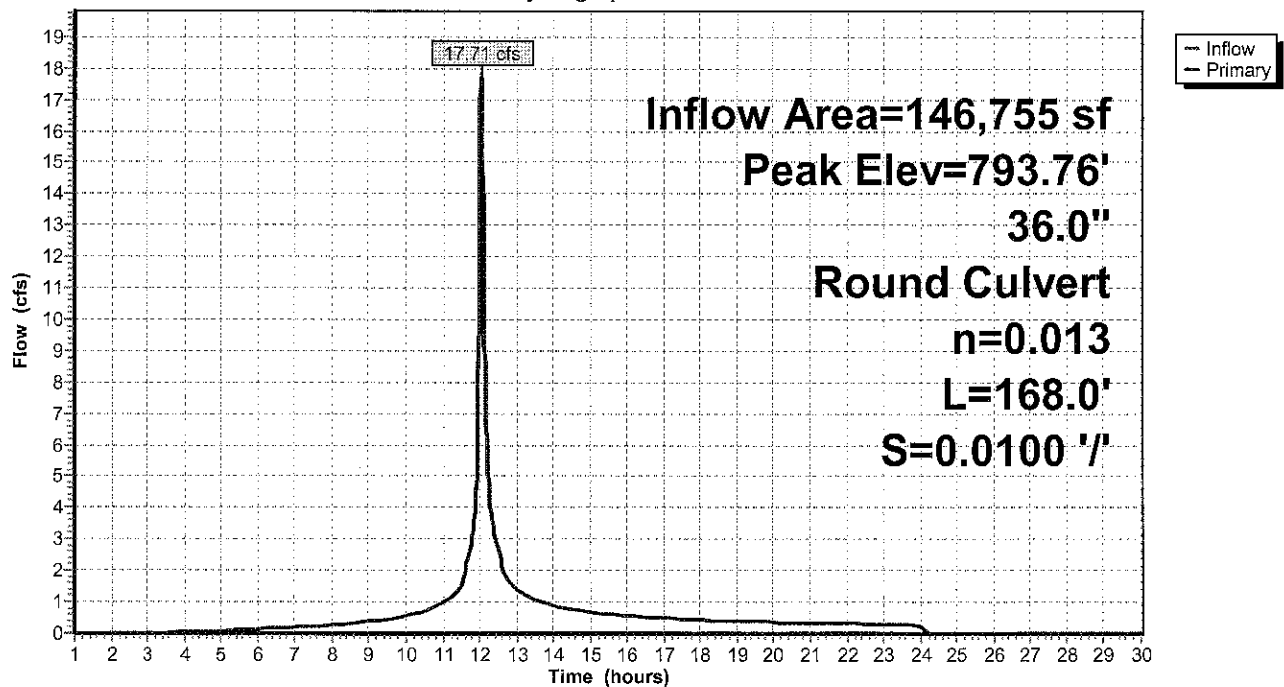
Flood Elev= 812.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	792.06'	36.0" Round Culvert L= 168.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 792.06' / 790.38' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=17.58 cfs @ 12.04 hrs HW=793.76' TW=792.04' (Dynamic Tailwater)
 ← **1=Culvert** (Outlet Controls 17.58 cfs @ 6.16 fps)

Pond 702P: DMH A-2

Hydrograph



Pine Tree Post

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Summary for Pond 710P: DMH F 0-10

Inflow Area = 138,560 sf, 54.76% Impervious, Inflow Depth > 4.10" for 25-yr event
Inflow = 13.31 cfs @ 12.06 hrs, Volume= 47,381 cf
Outflow = 13.31 cfs @ 12.06 hrs, Volume= 47,381 cf, Atten= 0%, Lag= 0.0 min
Primary = 13.31 cfs @ 12.06 hrs, Volume= 47,381 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

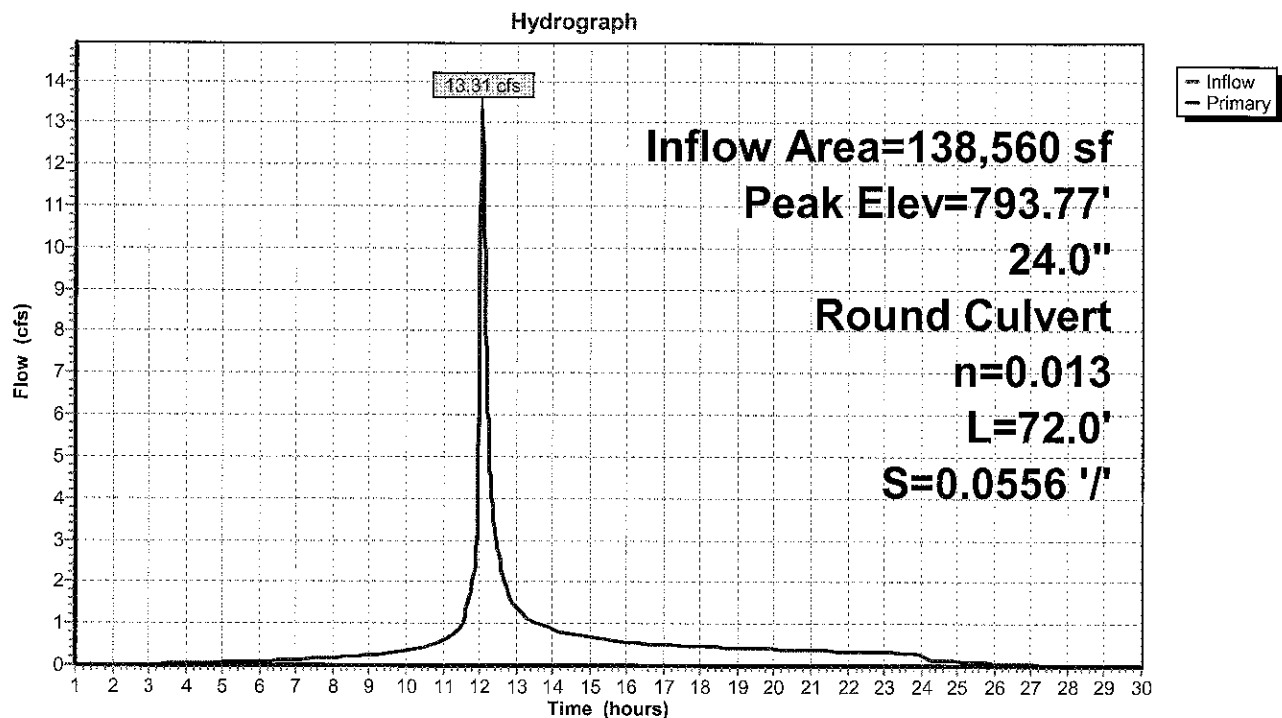
Peak Elev= 793.77' @ 12.06 hrs

Flood Elev= 798.12'

Device	Routing	Invert	Outlet Devices
#1	Primary	792.00'	24.0" Round Culvert L= 72.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 792.00' / 788.00' S= 0.0556 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=13.29 cfs @ 12.06 hrs HW=793.77' TW=784.73' (Dynamic Tailwater)
1=Culvert (Inlet Controls 13.29 cfs @ 4.52 fps)

Pond 710P: DMH F 0-10



Summary for Pond 711P: DMH

Inflow Area = 7,170 sf, 85.36% Impervious, Inflow Depth = 4.69" for 25-yr event
 Inflow = 0.95 cfs @ 12.04 hrs, Volume= 2,800 cf
 Outflow = 0.95 cfs @ 12.04 hrs, Volume= 2,800 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.95 cfs @ 12.04 hrs, Volume= 2,800 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 794.44' @ 12.04 hrs

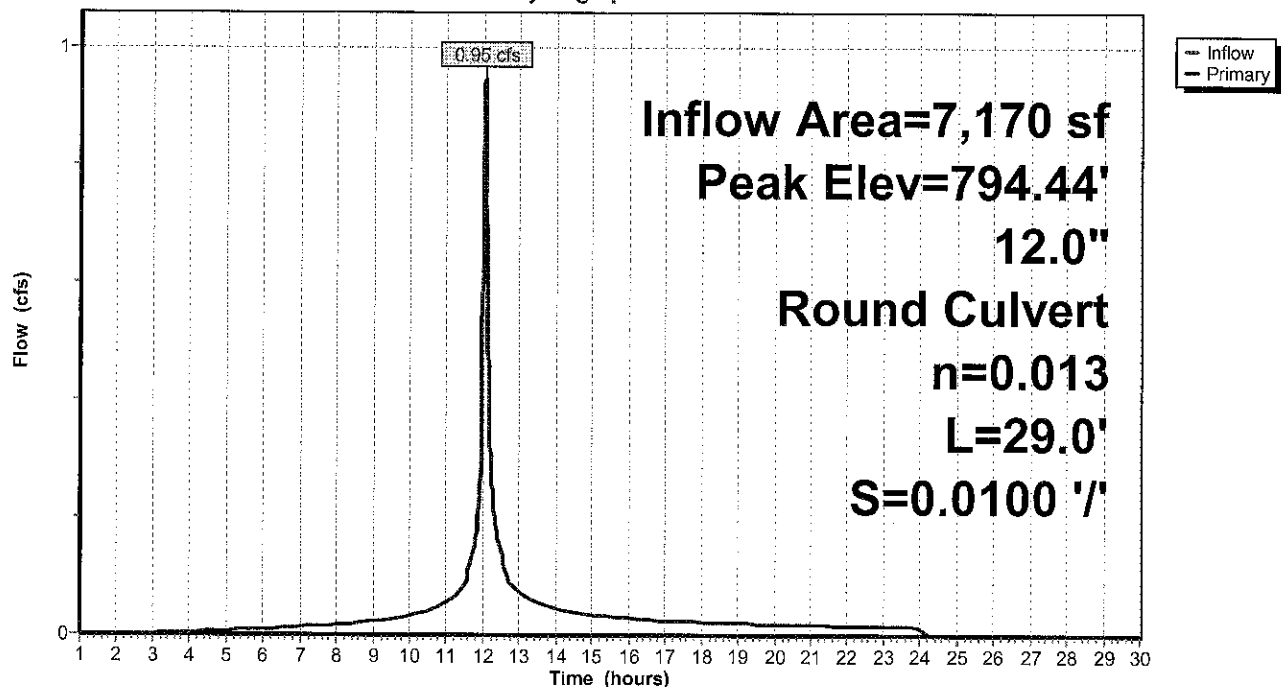
Flood Elev= 797.91'

Device	Routing	Invert	Outlet Devices
#1	Primary	793.91'	12.0" Round Culvert L= 29.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 793.91' / 793.62' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.94 cfs @ 12.04 hrs HW=794.44' TW=793.66' (Dynamic Tailwater)
 ↳ **1=Culvert** (Barrel Controls 0.94 cfs @ 3.22 fps)

Pond 711P: DMH

Hydrograph



Pine Tree Post

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

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Summary for Pond 712P: F 0-2

Inflow Area = 22,070 sf, 36.36% Impervious, Inflow Depth = 3.94" for 25-yr event
Inflow = 2.52 cfs @ 12.04 hrs, Volume= 7,248 cf
Outflow = 2.52 cfs @ 12.04 hrs, Volume= 7,248 cf, Atten= 0%, Lag= 0.0 min
Primary = 2.52 cfs @ 12.04 hrs, Volume= 7,248 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 794.92' @ 12.04 hrs

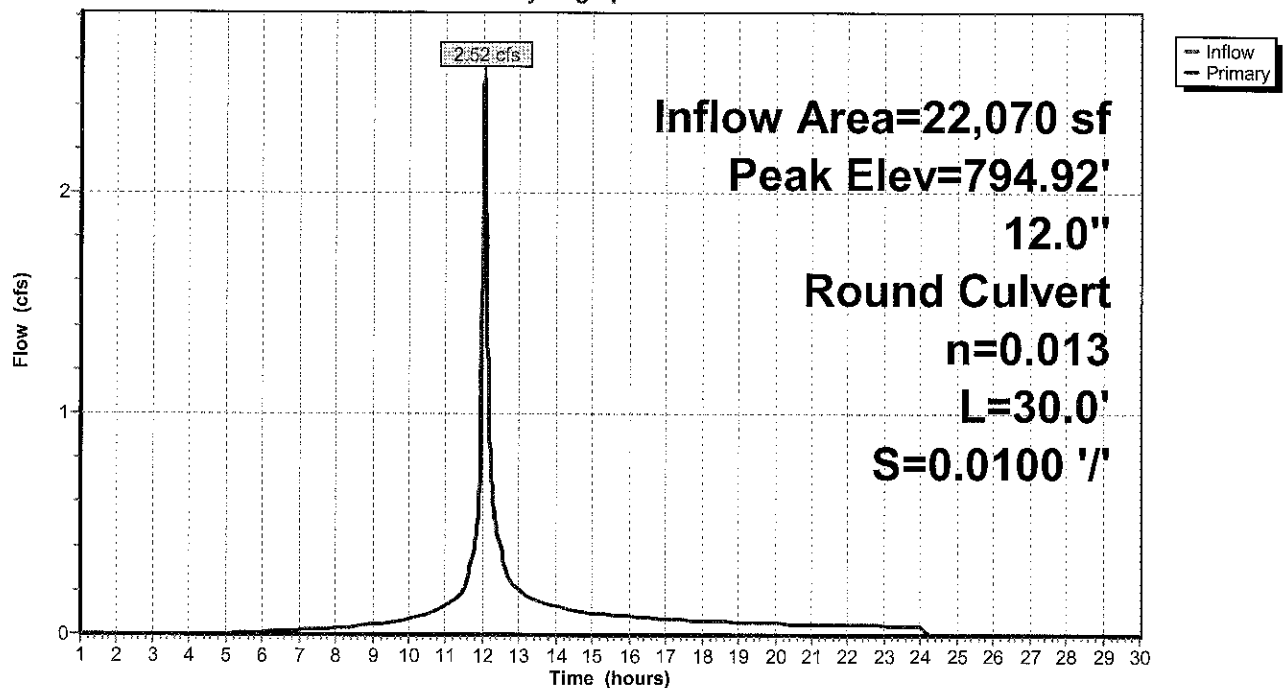
Flood Elev= 797.99'

Device	Routing	Invert	Outlet Devices
#1	Primary	793.92'	12.0" Round Culvert L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 793.92' / 793.62' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.51 cfs @ 12.04 hrs HW=794.92' TW=793.67' (Dynamic Tailwater)
←**1=Culvert** (Barrel Controls 2.51 cfs @ 3.98 fps)

Pond 712P: F 0-2

Hydrograph



Summary for Pond 713P: DMH F 0+85

Inflow Area = 109,320 sf, 56.47% Impervious, Inflow Depth > 4.10" for 25-yr event
 Inflow = 10.24 cfs @ 12.07 hrs, Volume= 37,332 cf
 Outflow = 10.24 cfs @ 12.07 hrs, Volume= 37,332 cf, Atten= 0%, Lag= 0.0 min
 Primary = 10.24 cfs @ 12.07 hrs, Volume= 37,332 cf

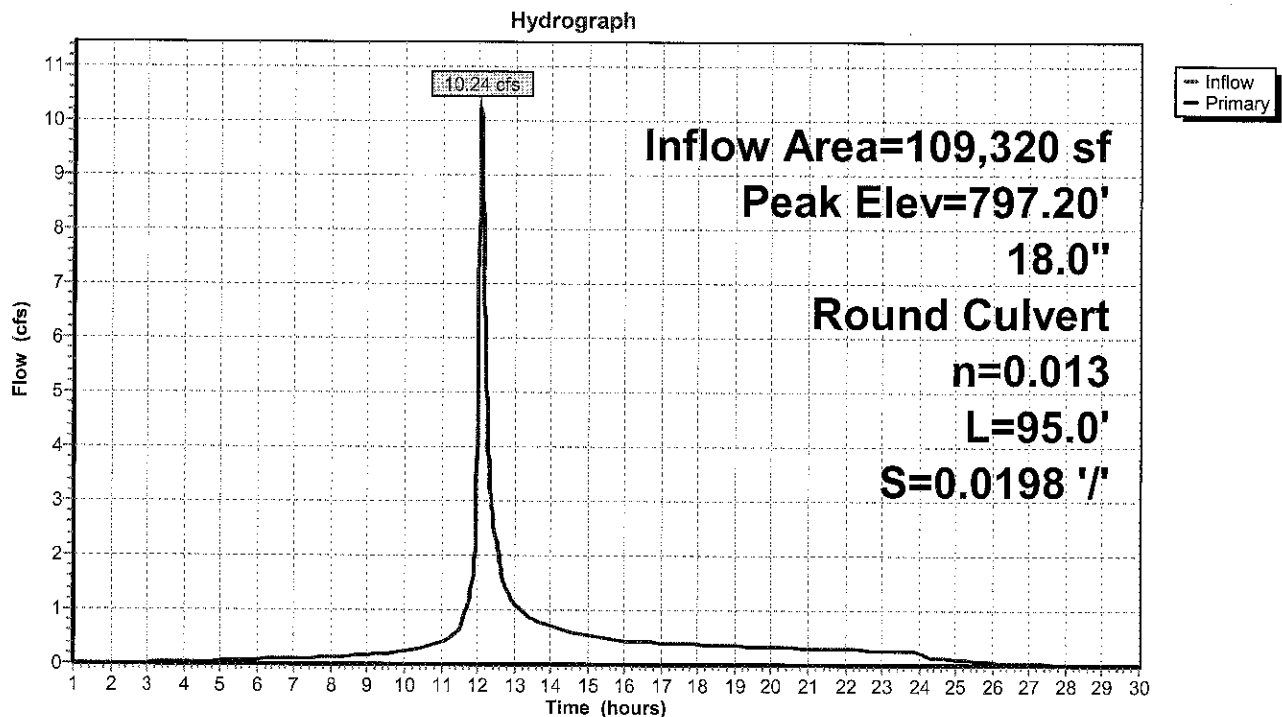
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 797.20' @ 12.07 hrs

Flood Elev= 800.85'

Device	Routing	Invert	Outlet Devices
#1	Primary	795.00'	18.0" Round Culvert L= 95.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 795.00' / 793.12' S= 0.0198 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.22 cfs @ 12.07 hrs HW=797.19' TW=793.75' (Dynamic Tailwater)
 ← **1=Culvert** (Inlet Controls 10.22 cfs @ 5.78 fps)

Pond 713P: DMH F 0+85

Summary for Pond 714P: F 1+0 L

Inflow Area = 19,700 sf, 55.28% Impervious, Inflow Depth = 4.47" for 25-yr event
 Inflow = 2.51 cfs @ 12.04 hrs, Volume= 7,337 cf
 Outflow = 2.51 cfs @ 12.04 hrs, Volume= 7,337 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.51 cfs @ 12.04 hrs, Volume= 7,337 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 798.23' @ 12.04 hrs

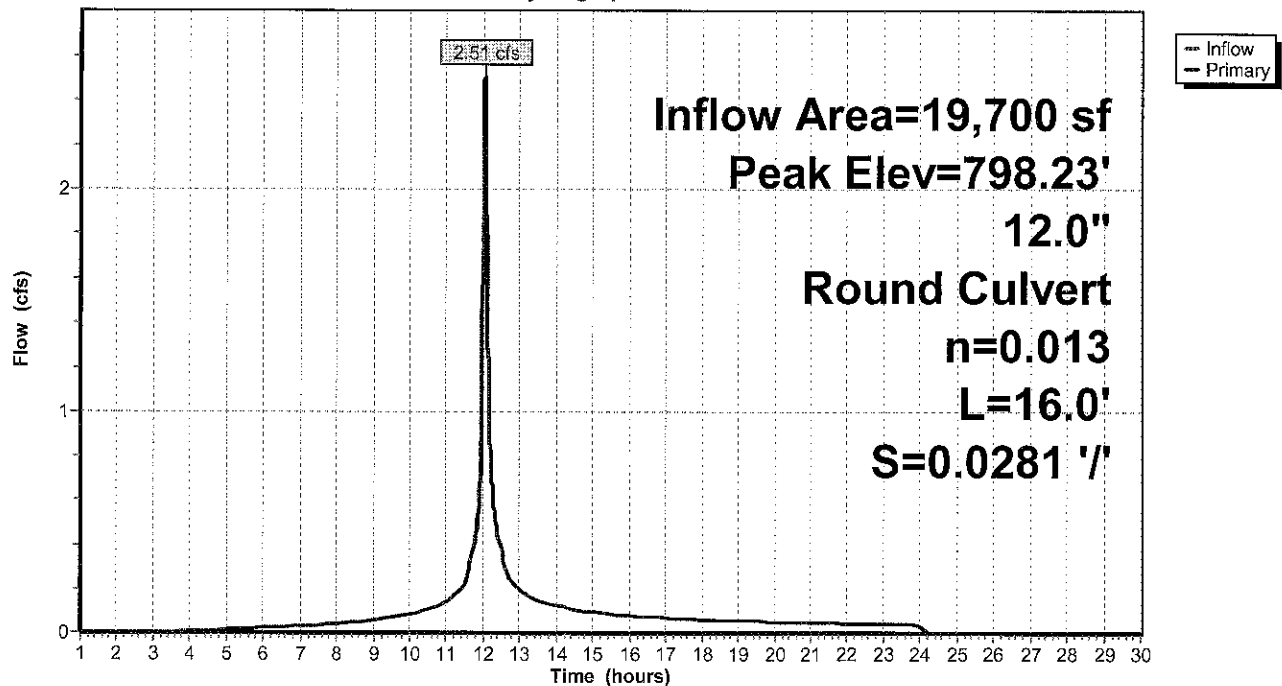
Flood Elev= 801.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	797.30'	12.0" Round Culvert L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 797.30' / 796.85' S= 0.0281 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.50 cfs @ 12.04 hrs HW=798.23' TW=796.81' (Dynamic Tailwater)
 ← **1=Culvert** (Inlet Controls 2.50 cfs @ 3.28 fps)

Pond 714P: F 1+0 L

Hydrograph



Summary for Pond 715P: F 1+0 R

Inflow Area = 16,545 sf, 71.93% Impervious, Inflow Depth = 4.91" for 25-yr event
 Inflow = 2.25 cfs @ 12.04 hrs, Volume= 6,767 cf
 Outflow = 2.25 cfs @ 12.04 hrs, Volume= 6,767 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.25 cfs @ 12.04 hrs, Volume= 6,767 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 798.16' @ 12.04 hrs

Flood Elev= 801.30'

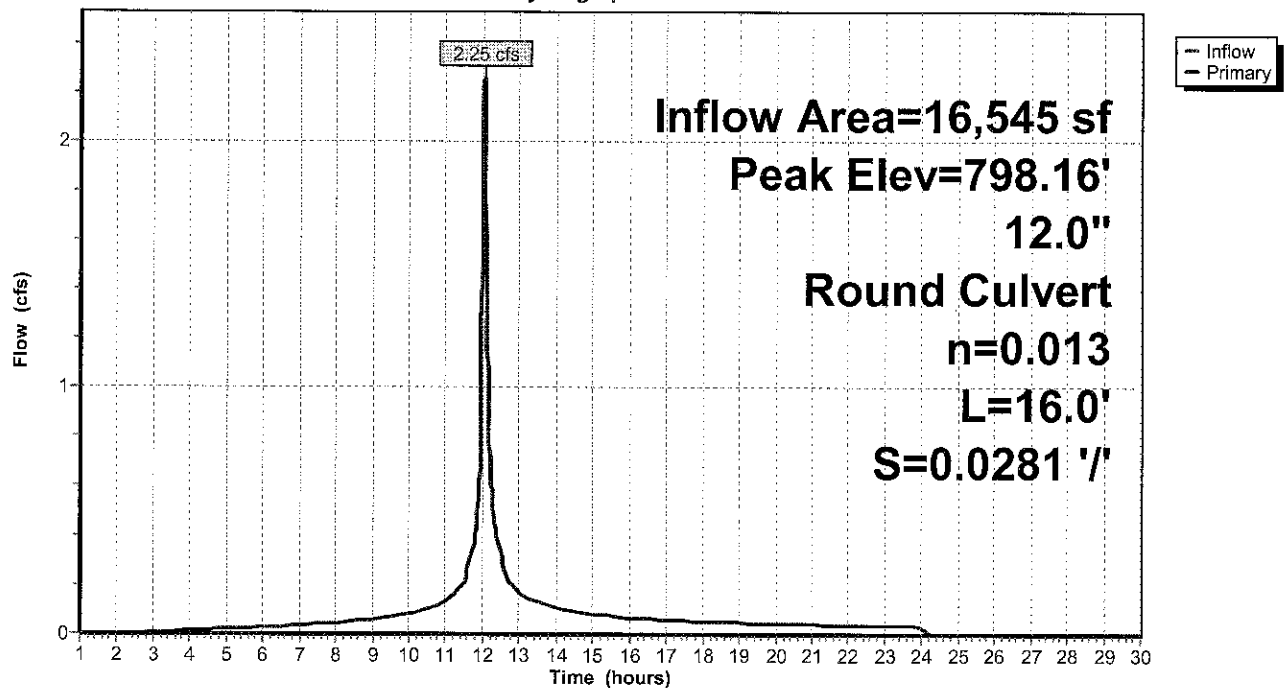
Device	Routing	Invert	Outlet Devices
#1	Primary	797.30'	12.0" Round Culvert L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 797.30' / 796.85' S= 0.0281 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.25 cfs @ 12.04 hrs HW=798.15' TW=796.80' (Dynamic Tailwater)

↑ **1=Culvert** (Inlet Controls 2.25 cfs @ 3.15 fps)

Pond 715P: F 1+0 R

Hydrograph



Summary for Pond 720P: Basin C-2

Inflow Area = 57,945 sf, 47.54% Impervious, Inflow Depth = 3.96" for 25-yr event
 Inflow = 6.22 cfs @ 12.06 hrs, Volume= 19,112 cf
 Outflow = 5.29 cfs @ 12.11 hrs, Volume= 16,898 cf, Atten= 15%, Lag= 2.7 min
 Primary = 5.29 cfs @ 12.11 hrs, Volume= 16,898 cf
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 818.83' @ 12.11 hrs Surf.Area= 2,676 sf Storage= 5,077 cf

Plug-Flow detention time= 166.0 min calculated for 16,898 cf (88% of inflow)
 Center-of-Mass det. time= 106.6 min (955.1 - 848.5)

Volume	Invert	Avail.Storage	Storage Description
#1	816.00'	8,693 cf	Custom Stage Data (Prismatic) Listed below (Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
816.00	1,027	0	0
818.00	2,072	3,099	3,099
820.00	3,522	5,594	8,693

Device	Routing	Invert	Outlet Devices
#1	Secondary	819.30'	15.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63
#2	Primary	814.50'	12.0" Round Culvert L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 814.50' / 814.00' S= 0.0167 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#3	Device 2	817.50'	3.0" Vert. Orifice/Grate C= 0.600
#4	Device 2	818.50'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=5.28 cfs @ 12.11 hrs HW=818.83' TW=815.96' (Dynamic Tailwater)

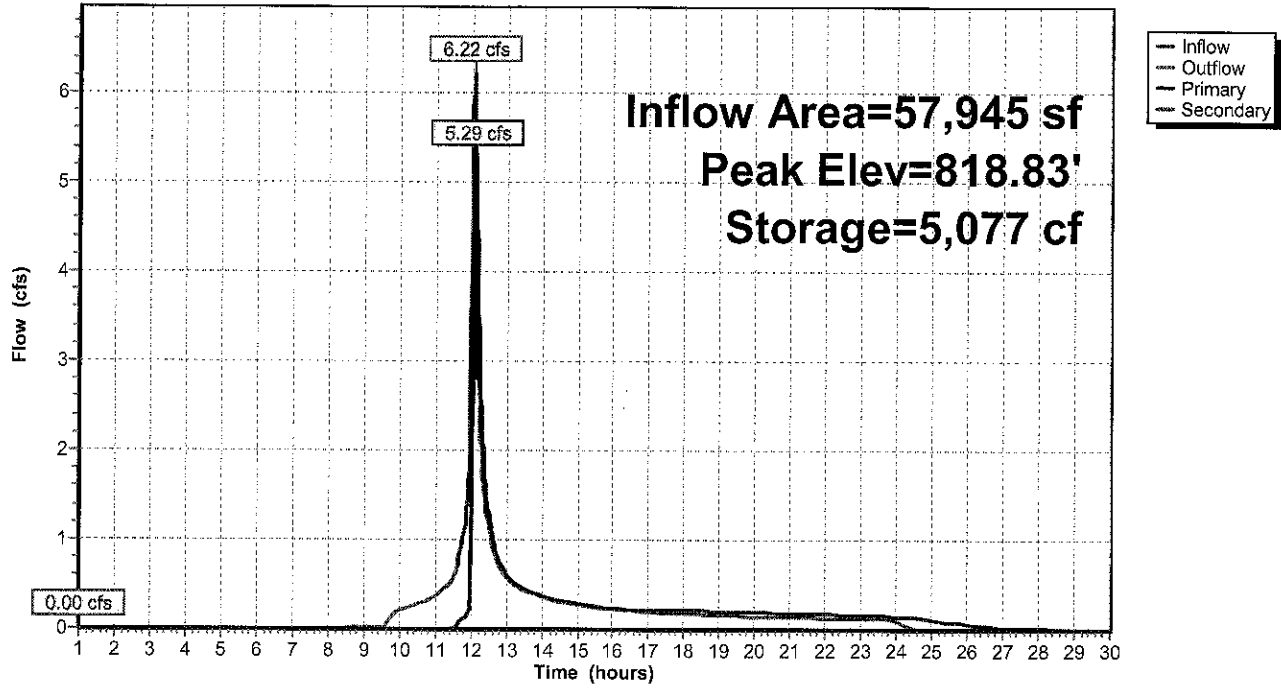
↑ **2=Culvert** (Passes 5.28 cfs of 6.41 cfs potential flow)
 ↑ **3=Orifice/Grate** (Orifice Controls 0.26 cfs @ 5.29 fps)
 ↑ **4=Orifice/Grate** (Weir Controls 5.02 cfs @ 1.89 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=816.00' (Free Discharge)

↑ **1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 720P: Basin C-2

Hydrograph



Summary for Pond 721P: DMH C-3

Inflow Area = 57,945 sf, 47.54% Impervious, Inflow Depth > 3.50" for 25-yr event
 Inflow = 5.29 cfs @ 12.11 hrs, Volume= 16,898 cf
 Outflow = 5.29 cfs @ 12.11 hrs, Volume= 16,898 cf, Atten= 0%, Lag= 0.0 min
 Primary = 5.29 cfs @ 12.11 hrs, Volume= 16,898 cf

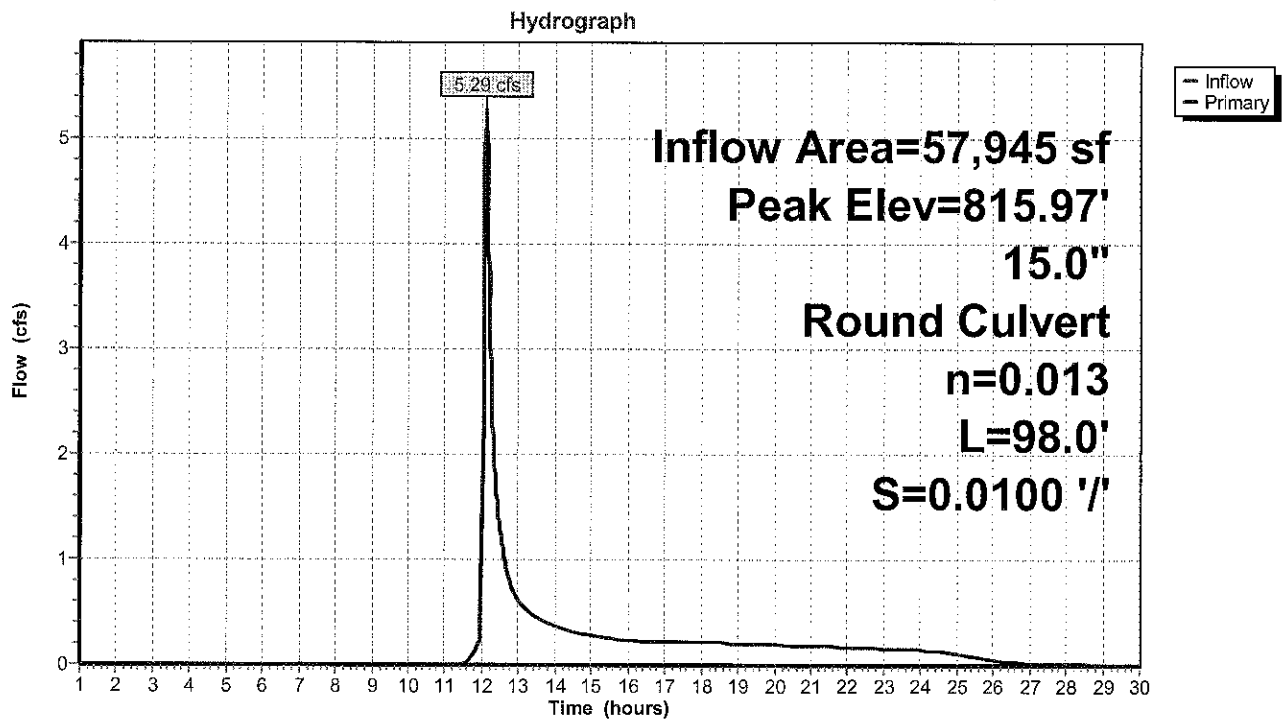
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 815.97' @ 12.11 hrs

Flood Elev= 818.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	814.00'	15.0" Round Culvert L= 98.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 814.00' / 813.02' S= 0.0100 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=5.35 cfs @ 12.11 hrs HW=815.96' TW=814.85' (Dynamic Tailwater)
 ↳ **1=Culvert** (Outlet Controls 5.35 cfs @ 4.36 fps)

Pond 721P: DMH C-3

Summary for Pond 722P: LCB C5

Inflow Area = 15,130 sf, 75.35% Impervious, Inflow Depth = 5.02" for 25-yr event
 Inflow = 2.09 cfs @ 12.04 hrs, Volume= 6,330 cf
 Outflow = 2.09 cfs @ 12.04 hrs, Volume= 6,330 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.09 cfs @ 12.04 hrs, Volume= 6,330 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 815.00' @ 12.10 hrs

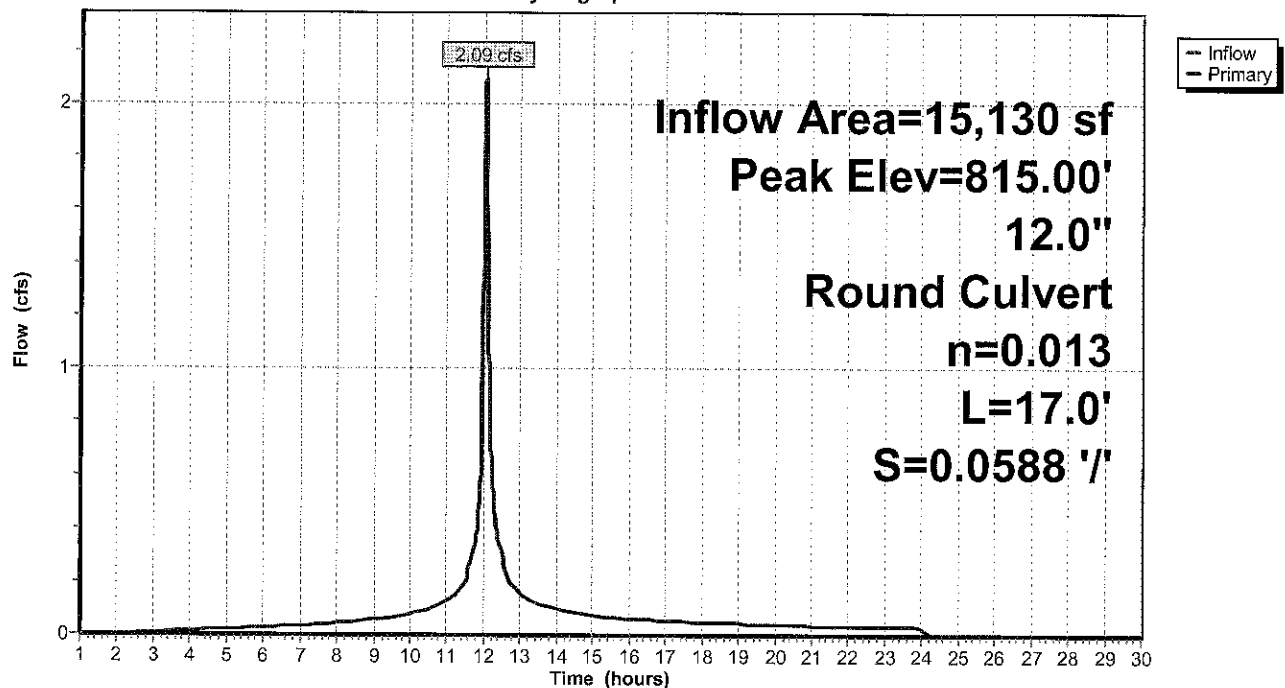
Flood Elev= 819.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	814.00'	12.0" Round Culvert L= 17.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 814.00' / 813.00' S= 0.0588 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.08 cfs @ 12.04 hrs HW=814.81' TW=814.08' (Dynamic Tailwater)
 ↳ **1=Culvert** (Inlet Controls 2.08 cfs @ 3.06 fps)

Pond 722P: LCB C5

Hydrograph



Summary for Pond 723P: DMH C4

Inflow Area = 73,075 sf, 53.29% Impervious, Inflow Depth > 3.81" for 25-yr event
 Inflow = 6.61 cfs @ 12.10 hrs, Volume= 23,228 cf
 Outflow = 6.61 cfs @ 12.10 hrs, Volume= 23,228 cf, Atten= 0%, Lag= 0.0 min
 Primary = 6.61 cfs @ 12.10 hrs, Volume= 23,228 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 814.88' @ 12.10 hrs

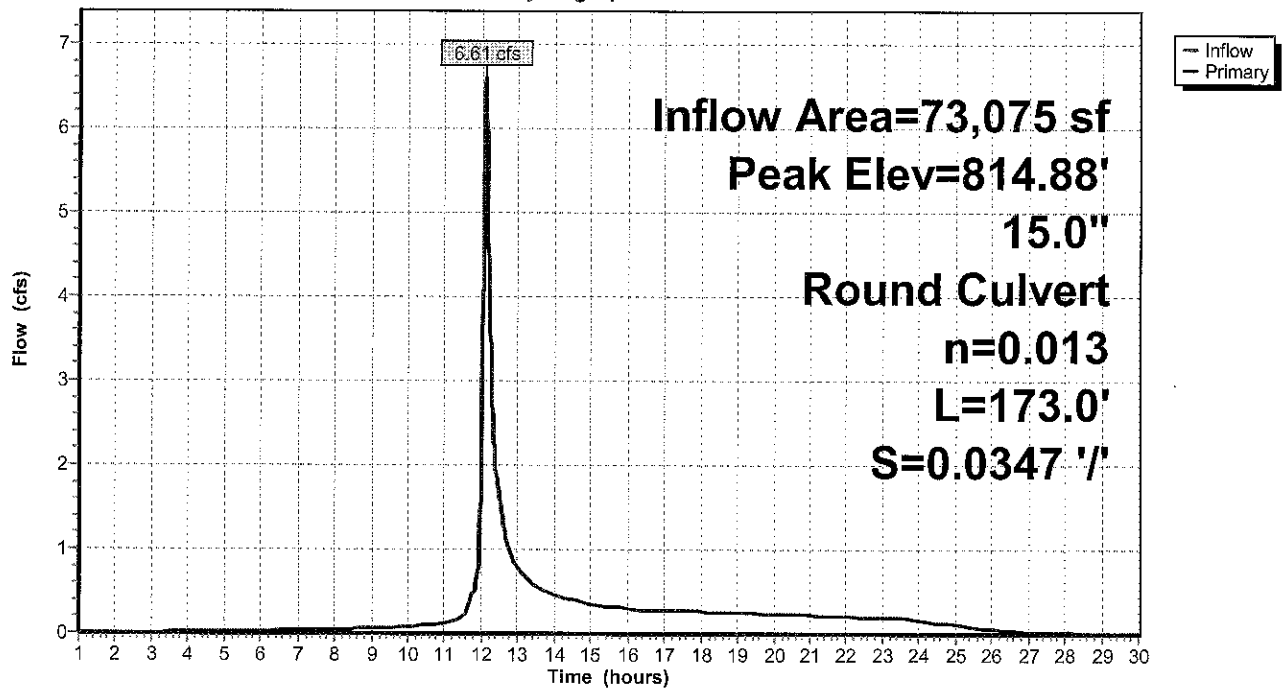
Flood Elev= 817.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	813.00'	15.0" Round Culvert L= 173.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 813.00' / 807.00' S= 0.0347 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=6.60 cfs @ 12.10 hrs HW=814.87' TW=800.97' (Dynamic Tailwater)
 ←1=Culvert (Inlet Controls 6.60 cfs @ 5.37 fps)

Pond 723P: DMH C4

Hydrograph



Summary for Pond 724P: DMH F0+66L

Inflow Area = 73,075 sf, 53.29% Impervious, Inflow Depth > 3.81" for 25-yr event
 Inflow = 6.61 cfs @ 12.10 hrs, Volume= 23,228 cf
 Outflow = 6.61 cfs @ 12.10 hrs, Volume= 23,228 cf, Atten= 0%, Lag= 0.0 min
 Primary = 6.61 cfs @ 12.10 hrs, Volume= 23,228 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 800.98' @ 12.10 hrs

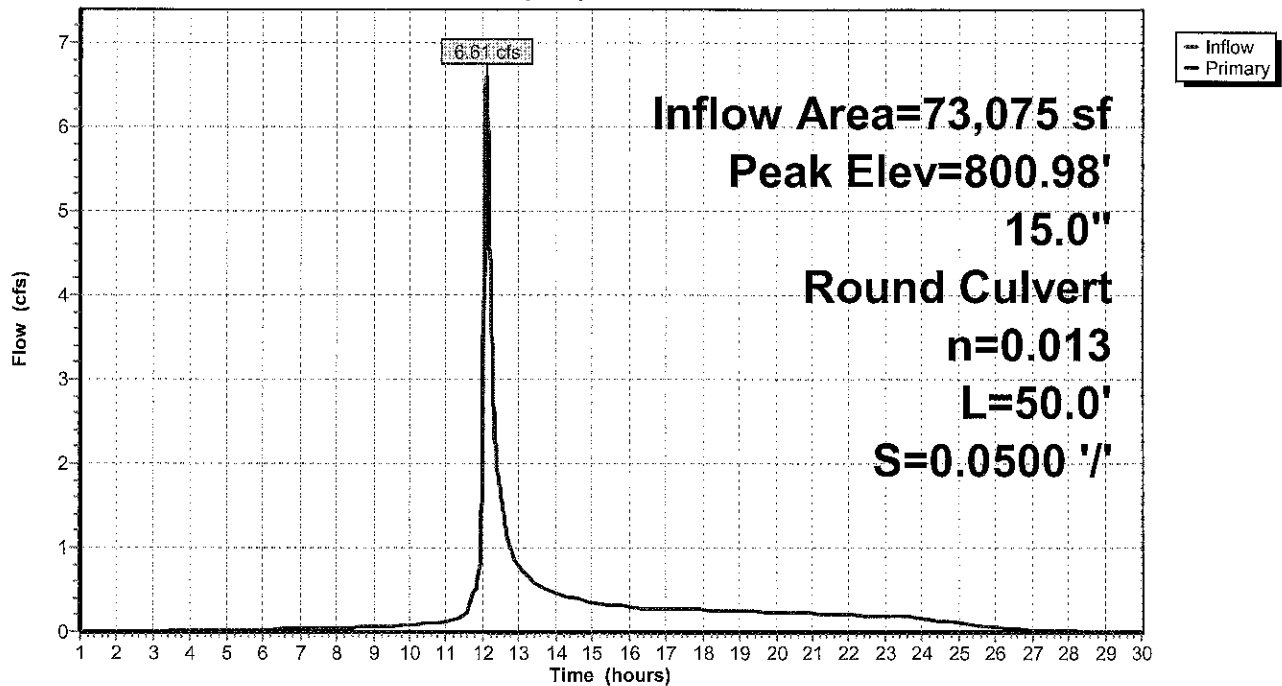
Flood Elev= 811.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	799.10'	15.0" Round Culvert L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 799.10' / 796.60' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=6.60 cfs @ 12.10 hrs HW=800.97' TW=797.07' (Dynamic Tailwater)
 1=Culvert (Inlet Controls 6.60 cfs @ 5.37 fps)

Pond 724P: DMH F0+66L

Hydrograph



Pine Tree Post

MA-Holden_files 24-hr S1 25-yr Rainfall=5.95"

Prepared by Places Associates, Inc.

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Summary for Pond 730P: Basin C-1

Inflow Area = 49,270 sf, 52.98% Impervious, Inflow Depth = 4.43" for 25-yr event
 Inflow = 6.17 cfs @ 12.04 hrs, Volume= 18,176 cf
 Outflow = 5.42 cfs @ 12.07 hrs, Volume= 16,557 cf, Atten= 12%, Lag= 1.8 min
 Primary = 5.42 cfs @ 12.07 hrs, Volume= 16,557 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 821.84' @ 12.07 hrs Surf.Area= 1,980 sf Storage= 2,597 cf

Plug-Flow detention time= 90.8 min calculated for 16,557 cf (91% of inflow)
 Center-of-Mass det. time= 41.3 min (849.4 - 808.0)

Volume	Invert	Avail.Storage	Storage Description
#1	820.00'	2,914 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

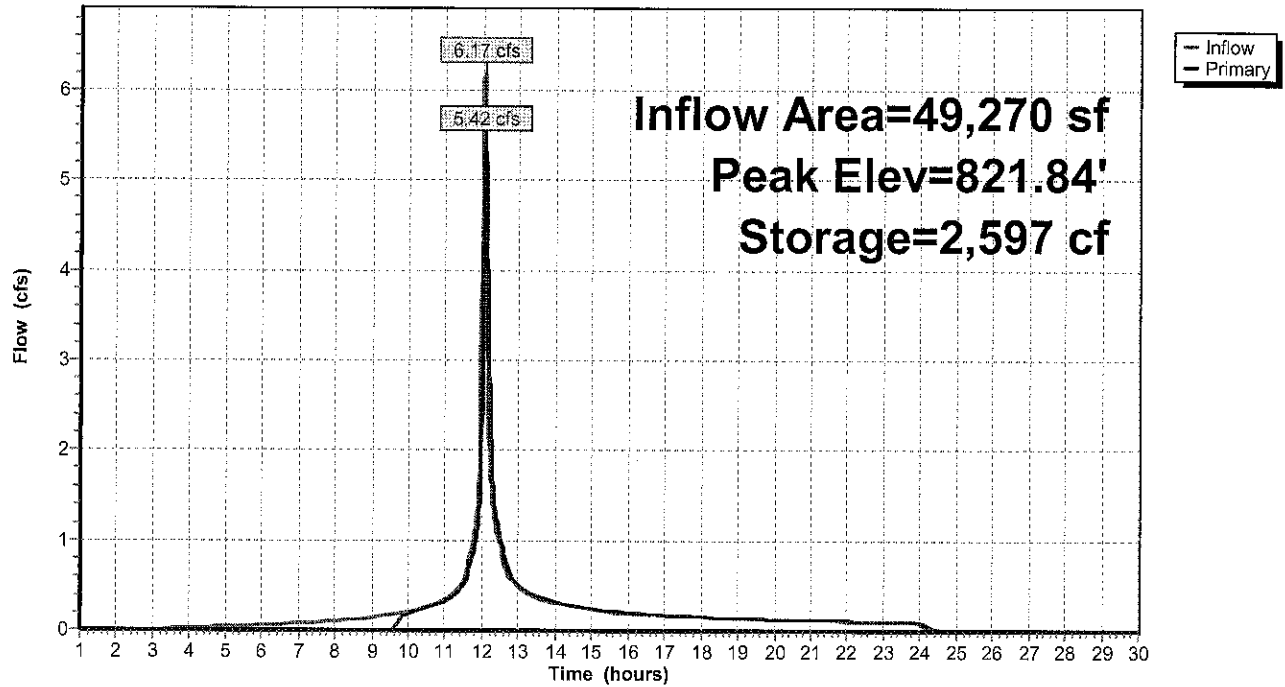
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
820.00	915	0	0
821.00	1,414	1,165	1,165
822.00	2,085	1,750	2,914

Device	Routing	Invert	Outlet Devices
#1	Primary	821.30'	5.0' long x 15.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 Coef. (English) 2.68 2.70 2.70 2.64 2.63 2.64 2.64 2.63

Primary OutFlow Max=5.40 cfs @ 12.07 hrs HW=821.84' TW=818.78' (Dynamic Tailwater)
 ↑ **1=Broad-Crested Rectangular Weir** (Weir Controls 5.40 cfs @ 1.99 fps)

Pond 730P: Basin C-1

Hydrograph



Summary for Pond 731: DMH F6+0

Inflow Area = 41,410 sf, 59.45% Impervious, Inflow Depth = 4.58" for 25-yr event
 Inflow = 5.34 cfs @ 12.04 hrs, Volume= 15,795 cf
 Outflow = 5.34 cfs @ 12.04 hrs, Volume= 15,795 cf, Atten= 0%, Lag= 0.0 min
 Primary = 5.34 cfs @ 12.04 hrs, Volume= 15,795 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 827.49' @ 12.04 hrs

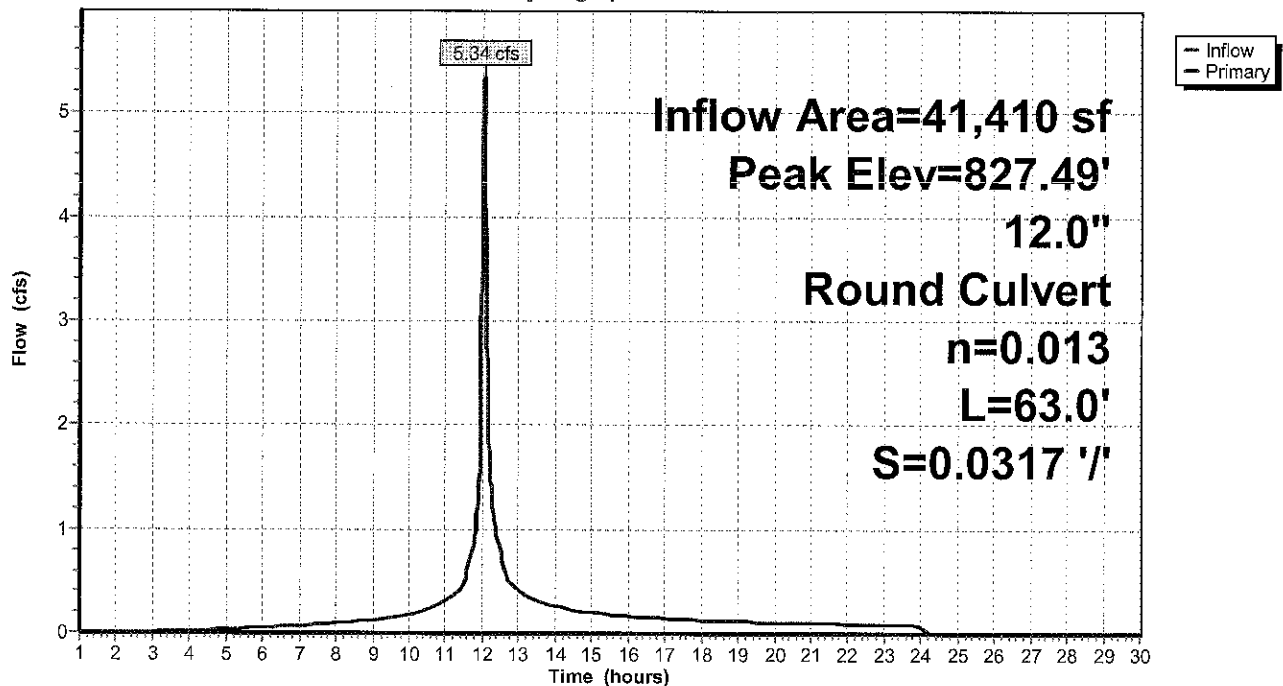
Flood Elev= 830.35'

Device	Routing	Invert	Outlet Devices
#1	Primary	825.00'	12.0" Round Culvert L= 63.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 825.00' / 823.00' S= 0.0317 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.32 cfs @ 12.04 hrs HW=827.48' TW=821.81' (Dynamic Tailwater)
 1=Culvert (Inlet Controls 5.32 cfs @ 6.78 fps)

Pond 731: DMH F6+0

Hydrograph



Summary for Pond 732P: 6+10L

Inflow Area = 8,270 sf, 83.92% Impervious, Inflow Depth = 5.25" for 25-yr event
 Inflow = 1.17 cfs @ 12.04 hrs, Volume= 3,616 cf
 Outflow = 1.17 cfs @ 12.04 hrs, Volume= 3,616 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.17 cfs @ 12.04 hrs, Volume= 3,616 cf

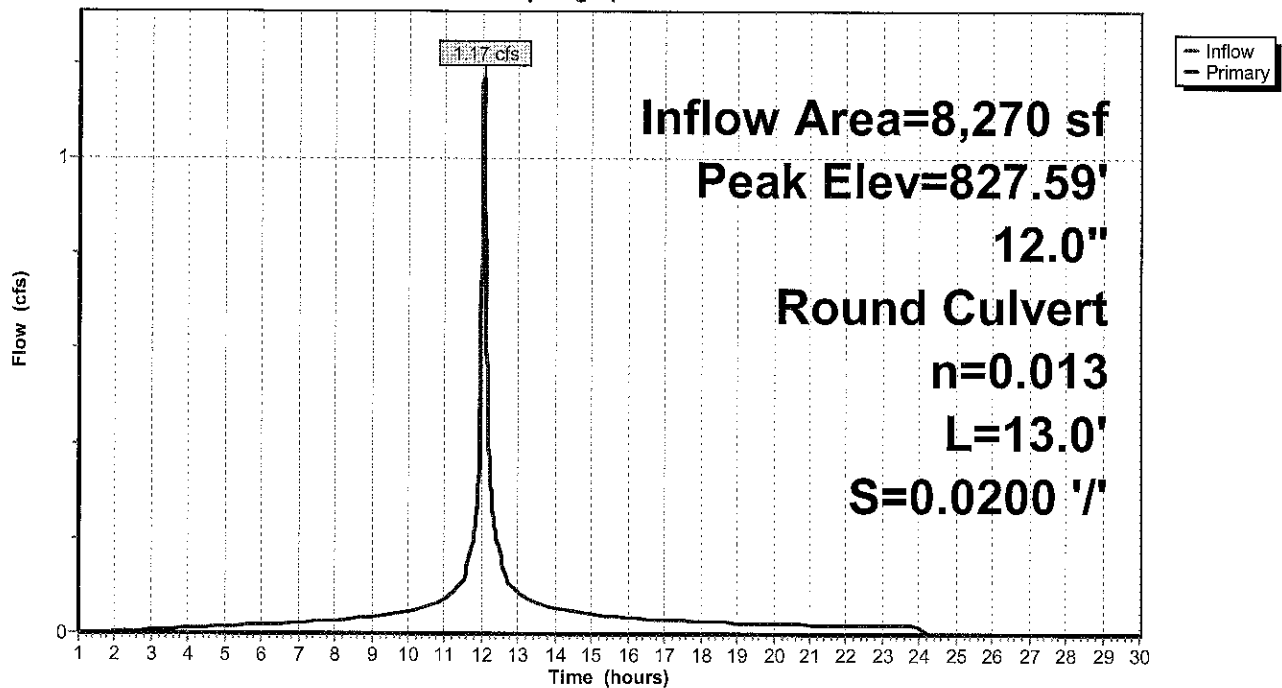
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 827.59' @ 12.05 hrs

Flood Elev= 830.22'

Device	Routing	Invert	Outlet Devices
#1	Primary	826.22'	12.0" Round Culvert L= 13.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 826.22' / 825.96' S= 0.0200 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.72 cfs @ 12.04 hrs HW=827.52' TW=827.48' (Dynamic Tailwater)
 ←1=Culvert (Inlet Controls 0.72 cfs @ 0.91 fps)

Pond 732P: 6+10L**Hydrograph**

Summary for Pond 733P: F 6+10 R

Inflow Area = 23,650 sf, 51.78% Impervious, Inflow Depth = 4.36" for 25-yr event
 Inflow = 2.95 cfs @ 12.04 hrs, Volume= 8,597 cf
 Outflow = 2.95 cfs @ 12.04 hrs, Volume= 8,597 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.95 cfs @ 12.04 hrs, Volume= 8,597 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 828.09' @ 12.04 hrs

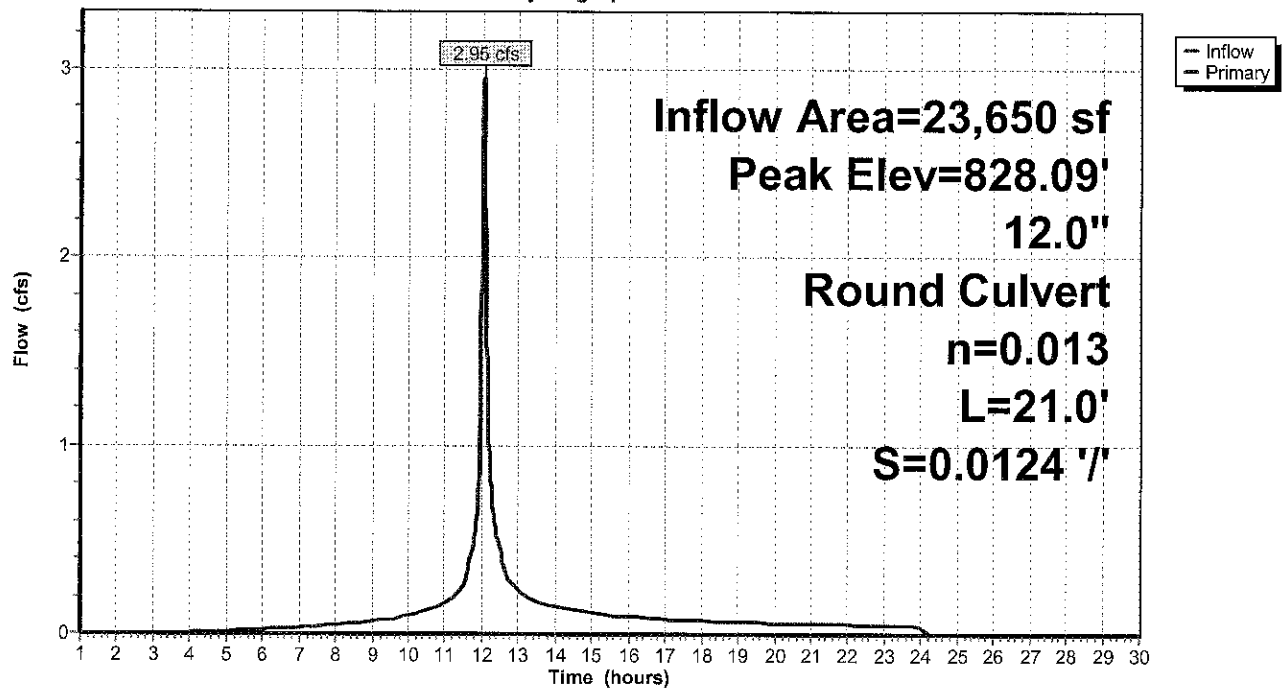
Flood Elev= 830.22'

Device	Routing	Invert	Outlet Devices
#1	Primary	826.22'	12.0" Round Culvert L= 21.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 826.22' / 825.96' S= 0.0124 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.82 cfs @ 12.04 hrs HW=828.04' TW=827.48' (Dynamic Tailwater)
 ← **1=Culvert** (Inlet Controls 2.82 cfs @ 3.59 fps)

Pond 733P: F 6+10 R

Hydrograph



Summary for Pond 734P: DMH F7+20

Inflow Area = 9,490 sf, 57.27% Impervious, Inflow Depth = 4.53" for 25-yr event
 Inflow = 1.22 cfs @ 12.04 hrs, Volume= 3,582 cf
 Outflow = 1.22 cfs @ 12.04 hrs, Volume= 3,582 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.22 cfs @ 12.04 hrs, Volume= 3,582 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 828.61' @ 12.04 hrs

Flood Elev= 832.42'

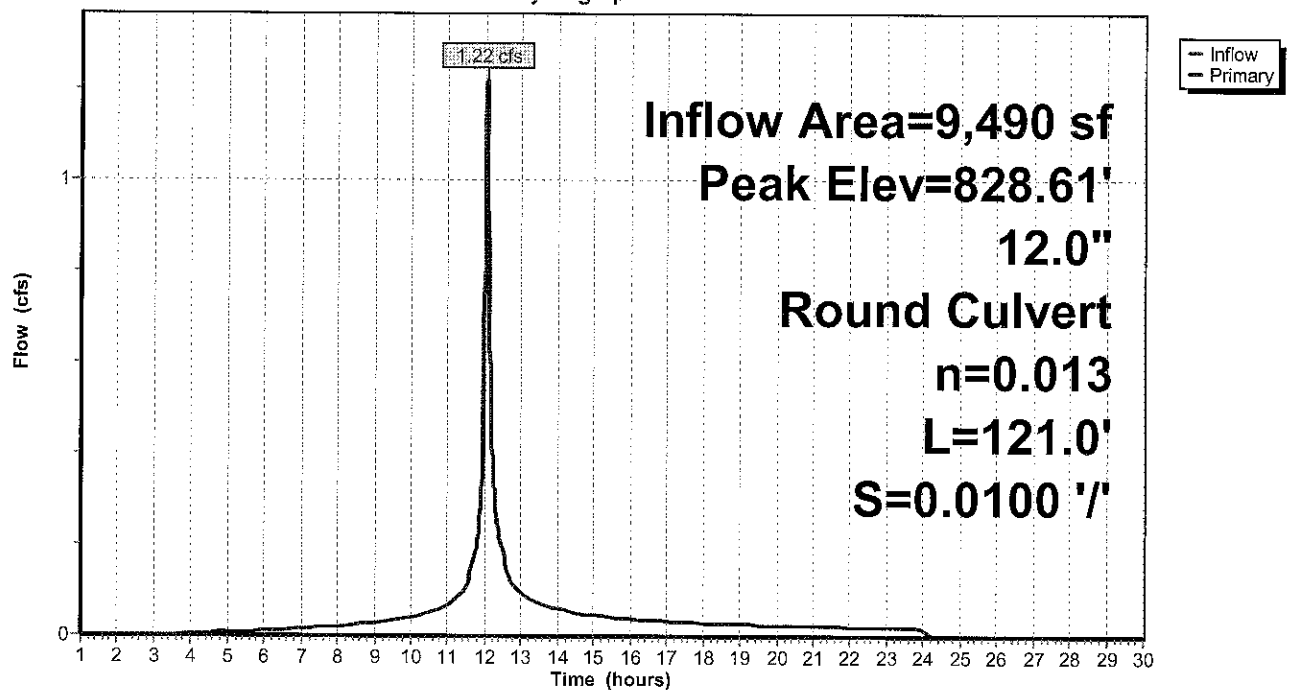
Device	Routing	Invert	Outlet Devices
#1	Primary	828.01'	12.0" Round Culvert L= 121.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 828.01' / 826.80' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.19 cfs @ 12.04 hrs HW=828.60' TW=827.48' (Dynamic Tailwater)

1=Culvert (Outlet Controls 1.19 cfs @ 3.54 fps)

Pond 734P: DMH F7+20

Hydrograph



Summary for Pond 735P: DMH F7+90

Inflow Area = 9,490 sf, 57.27% Impervious, Inflow Depth = 4.53" for 25-yr event
 Inflow = 1.22 cfs @ 12.04 hrs, Volume= 3,582 cf
 Outflow = 1.22 cfs @ 12.04 hrs, Volume= 3,582 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.22 cfs @ 12.04 hrs, Volume= 3,582 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 829.33' @ 12.04 hrs

Flood Elev= 834.12'

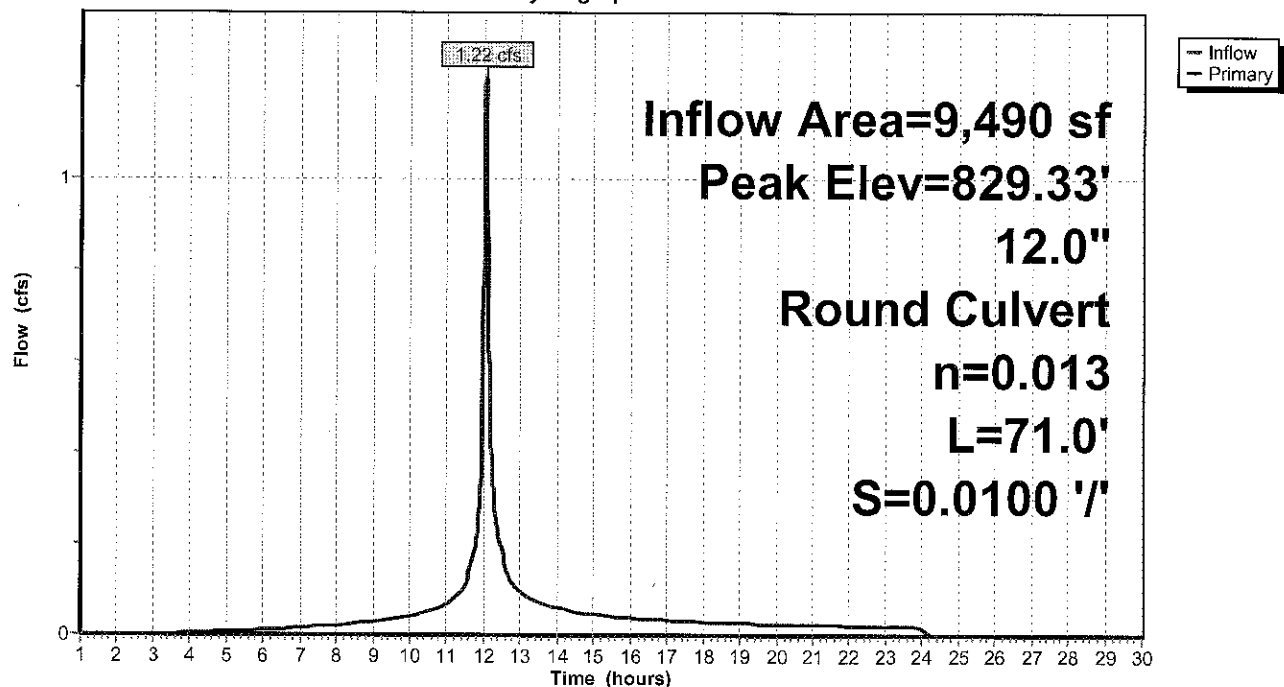
Device	Routing	Invert	Outlet Devices
#1	Primary	828.72'	12.0" Round Culvert L= 71.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 828.72' / 828.01' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.20 cfs @ 12.04 hrs HW=829.33' TW=828.60' (Dynamic Tailwater)

1=Culvert (Outlet Controls 1.20 cfs @ 3.46 fps)

Pond 735P: DMH F7+90

Hydrograph



Summary for Pond 736P: DMH F9+25

Inflow Area = 9,490 sf, 57.27% Impervious, Inflow Depth = 4.53" for 25-yr event
 Inflow = 1.22 cfs @ 12.04 hrs, Volume= 3,582 cf
 Outflow = 1.22 cfs @ 12.04 hrs, Volume= 3,582 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.22 cfs @ 12.04 hrs, Volume= 3,582 cf

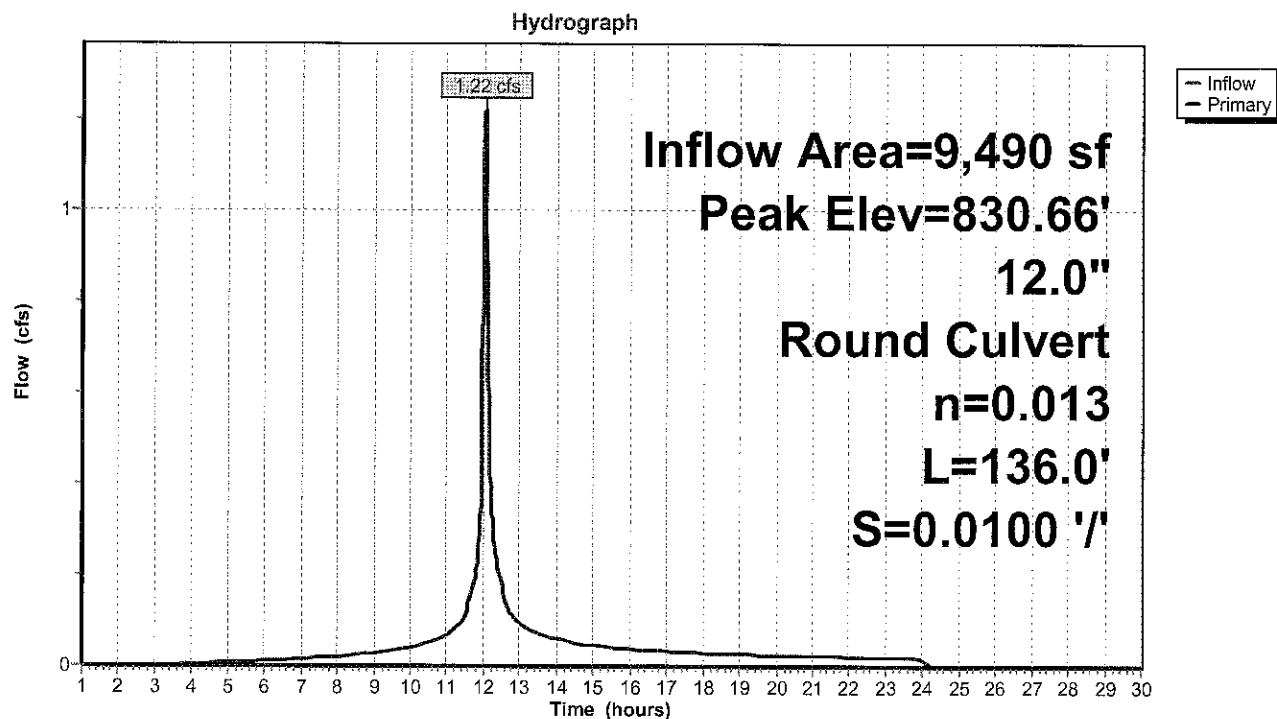
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 830.66' @ 12.04 hrs

Flood Elev= 835.06'

Device	Routing	Invert	Outlet Devices
#1	Primary	830.08'	12.0" Round Culvert L= 136.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 830.08' / 828.72' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.21 cfs @ 12.04 hrs HW=830.66' TW=829.33' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.21 cfs @ 3.69 fps)

Pond 736P: DMH F9+25

Summary for Pond 737P: H 11+60

Inflow Area = 4,200 sf, 53.93% Impervious, Inflow Depth = 4.47" for 25-yr event
 Inflow = 0.53 cfs @ 12.04 hrs, Volume= 1,564 cf
 Outflow = 0.53 cfs @ 12.04 hrs, Volume= 1,564 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.53 cfs @ 12.04 hrs, Volume= 1,564 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 830.92' @ 12.04 hrs

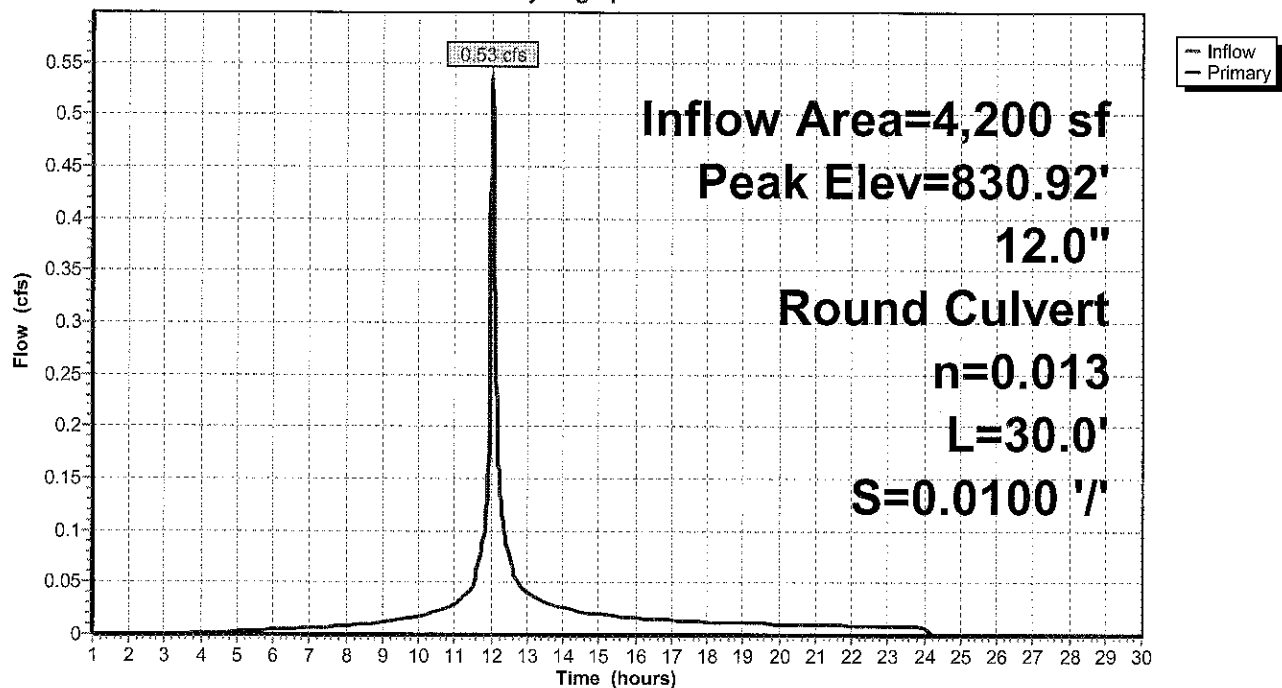
Flood Elev= 834.48'

Device	Routing	Invert	Outlet Devices
#1	Primary	830.48'	12.0" Round Culvert L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 830.48' / 830.18' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.53 cfs @ 12.04 hrs HW=830.92' TW=830.66' (Dynamic Tailwater)
 #1=Culvert (Outlet Controls 0.53 cfs @ 2.36 fps)

Pond 737P: H 11+60

Hydrograph



Summary for Pond 738P: F9+49R

Inflow Area = 5,290 sf, 59.92% Impervious, Inflow Depth = 4.58" for 25-yr event
 Inflow = 0.69 cfs @ 12.04 hrs, Volume= 2,018 cf
 Outflow = 0.69 cfs @ 12.04 hrs, Volume= 2,018 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.69 cfs @ 12.04 hrs, Volume= 2,018 cf

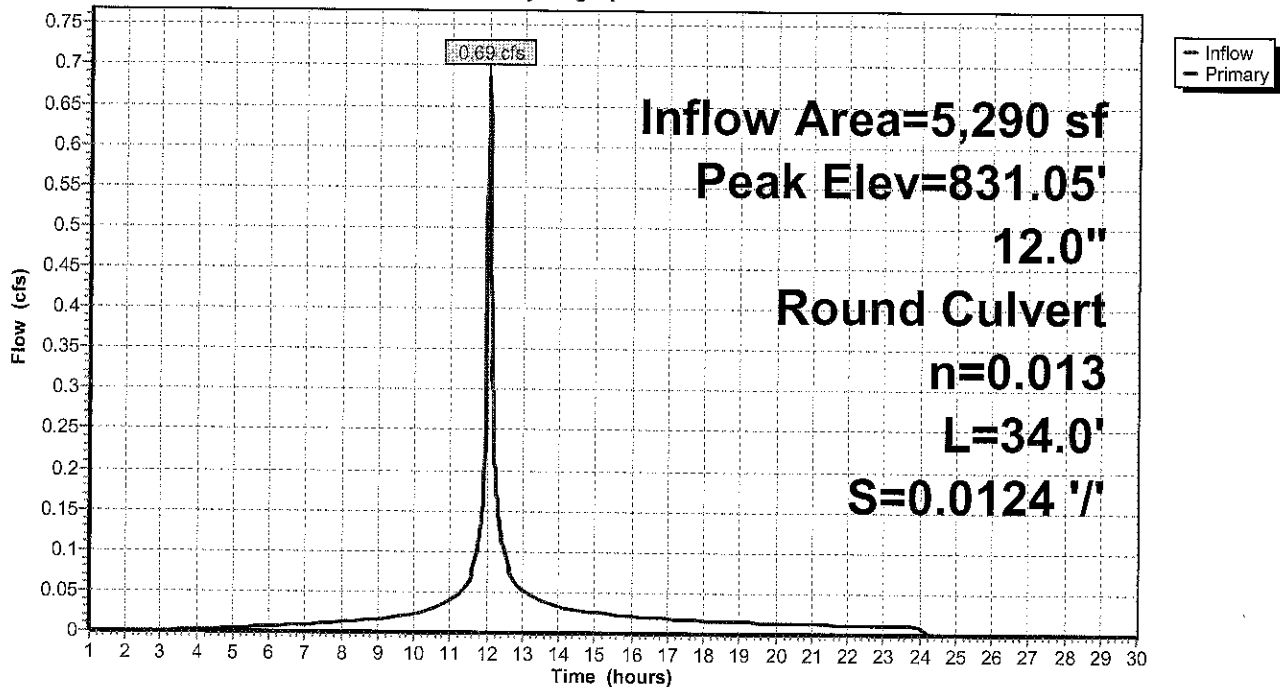
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 831.05' @ 12.04 hrs
 Flood Elev= 834.60'

Device	Routing	Invert	Outlet Devices
#1	Primary	830.60'	12.0" Round Culvert L= 34.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 830.60' / 830.18' S= 0.0124 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.68 cfs @ 12.04 hrs HW=831.05' TW=830.66' (Dynamic Tailwater)
 1=Culvert (Outlet Controls 0.68 cfs @ 2.88 fps)

Pond 738P: F9+49R

Hydrograph



Summary for Pond 750P: DMH F 2+75

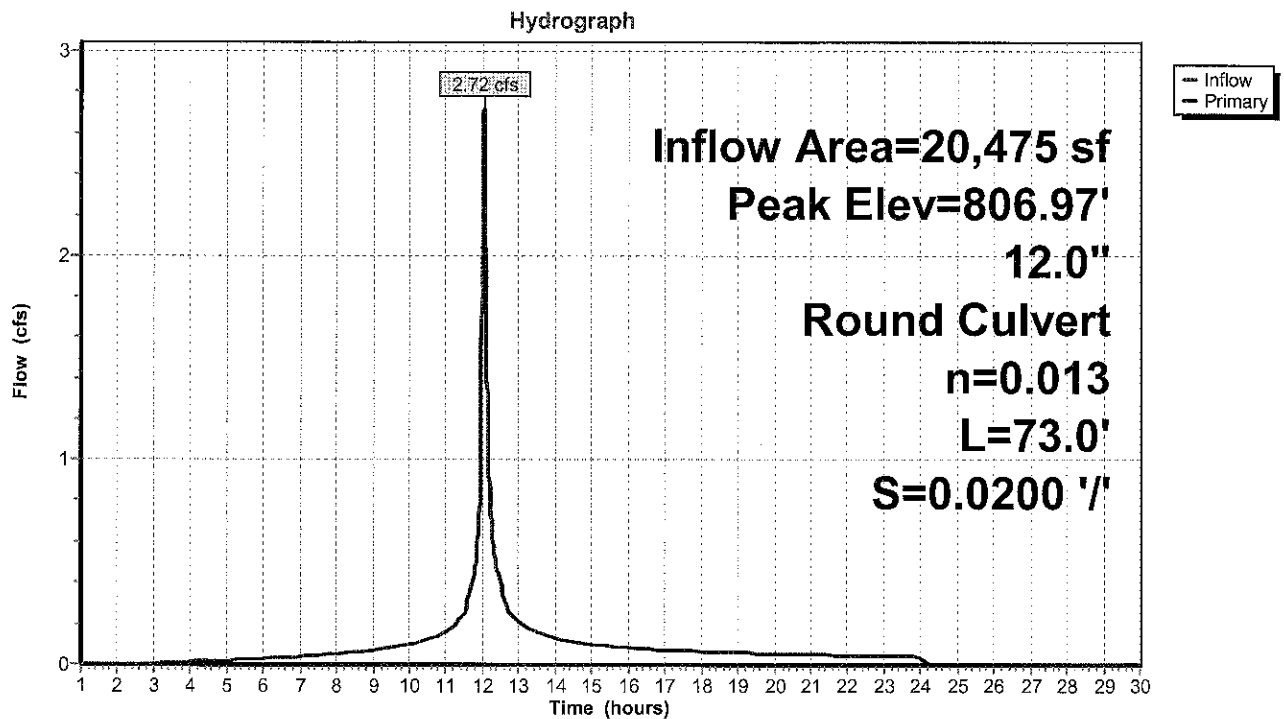
Inflow Area = 20,475 sf, 64.88% Impervious, Inflow Depth = 4.74" for 25-yr event
 Inflow = 2.72 cfs @ 12.04 hrs, Volume= 8,094 cf
 Outflow = 2.72 cfs @ 12.04 hrs, Volume= 8,094 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.72 cfs @ 12.04 hrs, Volume= 8,094 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 806.97' @ 12.04 hrs
 Flood Elev= 810.05'

Device	Routing	Invert	Outlet Devices
#1	Primary	805.95'	12.0" Round Culvert L= 73.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 805.95' / 804.49' S= 0.0200 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.71 cfs @ 12.04 hrs HW=806.96' TW=793.76' (Dynamic Tailwater)
 1=Culvert (Inlet Controls 2.71 cfs @ 3.45 fps)

Pond 750P: DMH F 2+75



Summary for Pond 751P: DMH F 3+60

Inflow Area = 20,475 sf, 64.88% Impervious, Inflow Depth = 4.74" for 25-yr event
 Inflow = 2.72 cfs @ 12.04 hrs, Volume= 8,094 cf
 Outflow = 2.72 cfs @ 12.04 hrs, Volume= 8,094 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.72 cfs @ 12.04 hrs, Volume= 8,094 cf

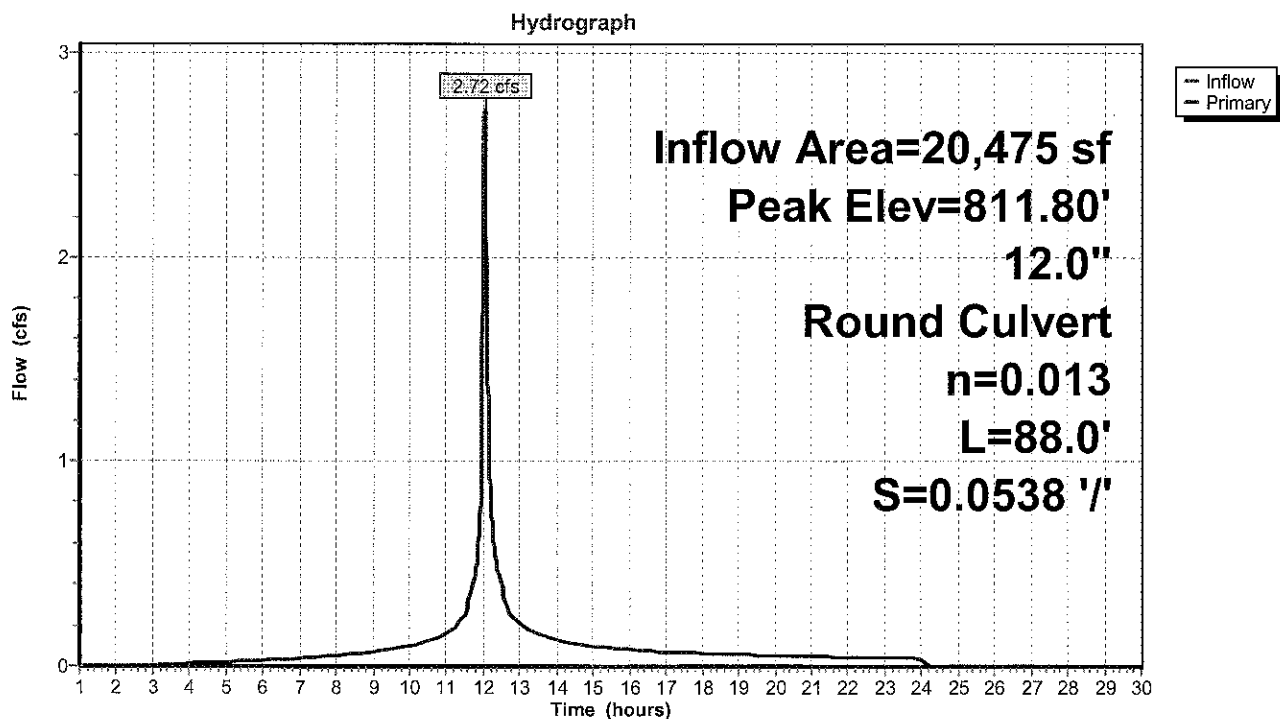
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 811.80' @ 12.04 hrs

Flood Elev= 814.78'

Device	Routing	Invert	Outlet Devices
#1	Primary	810.78'	12.0" Round Culvert L= 88.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 810.78' / 806.05' S= 0.0538 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.71 cfs @ 12.04 hrs HW=811.79' TW=806.96' (Dynamic Tailwater)
1=Culvert (Inlet Controls 2.71 cfs @ 3.45 fps)

Pond 751P: DMH F 3+60

Summary for Pond 752P: F 3+60 R

Inflow Area = 6,115 sf, 78.66% Impervious, Inflow Depth = 5.13" for 25-yr event
 Inflow = 0.86 cfs @ 12.04 hrs, Volume= 2,616 cf
 Outflow = 0.86 cfs @ 12.04 hrs, Volume= 2,616 cf, Atten= 0%, Lag= 0.0 min
 Primary = 0.86 cfs @ 12.04 hrs, Volume= 2,616 cf

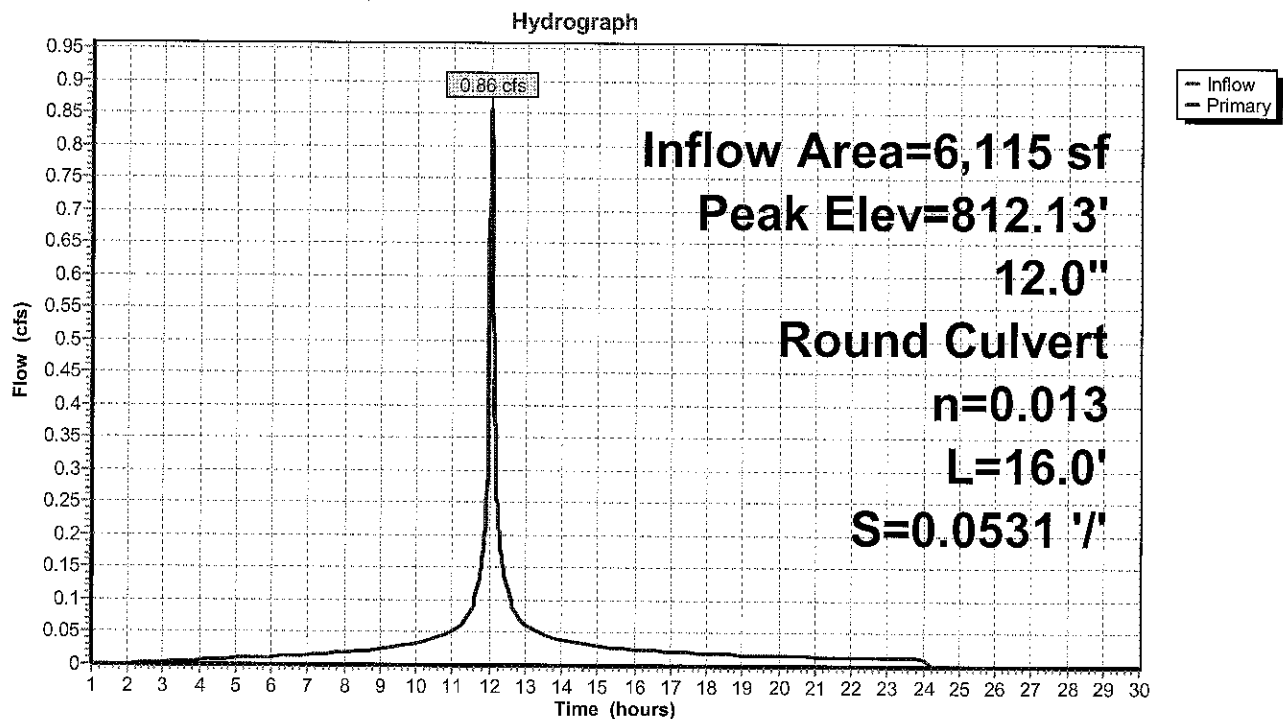
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 812.13' @ 12.04 hrs

Flood Elev= 815.63'

Device	Routing	Invert	Outlet Devices
#1	Primary	811.63'	12.0" Round Culvert L= 16.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 811.63' / 810.78' S= 0.0531 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.83 cfs @ 12.04 hrs HW=812.12' TW=811.79' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.83 cfs @ 3.14 fps)

Pond 752P: F 3+60 R

Summary for Pond 753P: F 3+60L

Inflow Area = 14,360 sf, 59.02% Impervious, Inflow Depth = 4.58" for 25-yr event
 Inflow = 1.86 cfs @ 12.04 hrs, Volume= 5,478 cf
 Outflow = 1.86 cfs @ 12.04 hrs, Volume= 5,478 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.86 cfs @ 12.04 hrs, Volume= 5,478 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 812.38' @ 12.04 hrs

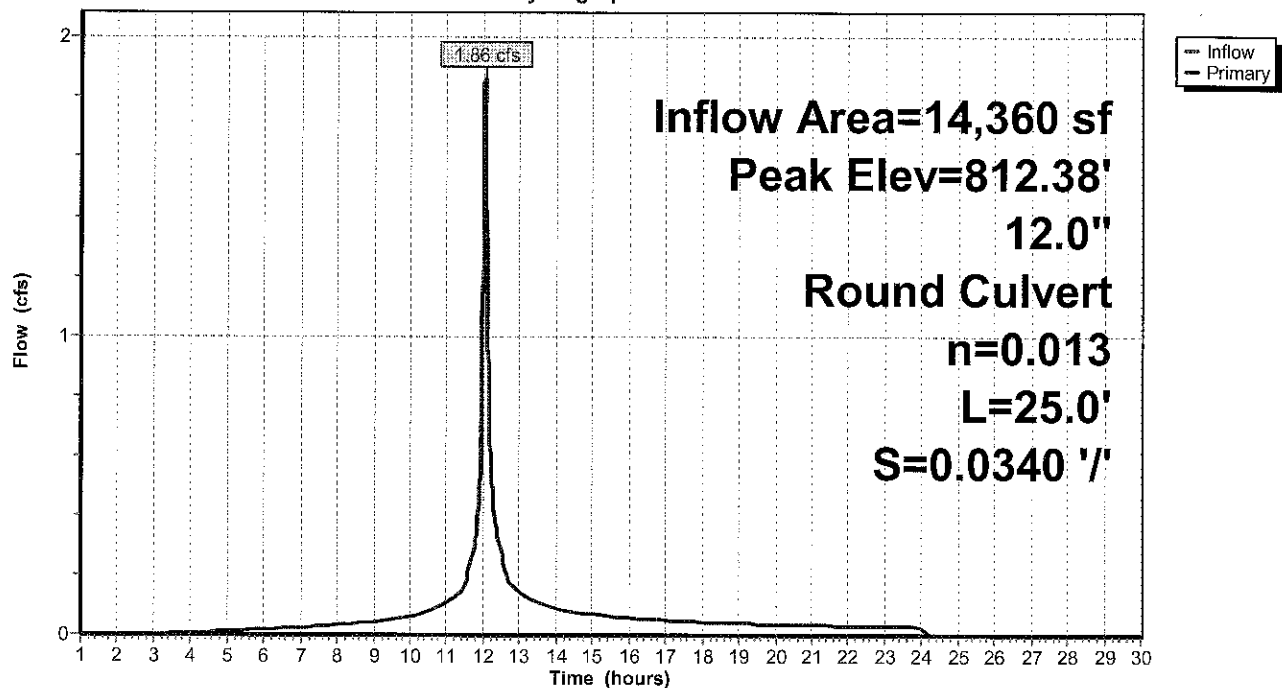
Flood Elev= 815.63'

Device	Routing	Invert	Outlet Devices
#1	Primary	811.63'	12.0" Round Culvert L= 25.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 811.63' / 810.78' S= 0.0340 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.86 cfs @ 12.04 hrs HW=812.38' TW=811.79' (Dynamic Tailwater)
 1=Culvert (Inlet Controls 1.86 cfs @ 2.94 fps)

Pond 753P: F 3+60L

Hydrograph



Summary for Pond 780P: DMH A-3

Inflow Area = 126,280 sf, 41.48% Impervious, Inflow Depth = 4.16" for 25-yr event
 Inflow = 14.99 cfs @ 12.04 hrs, Volume= 43,740 cf
 Outflow = 14.99 cfs @ 12.04 hrs, Volume= 43,740 cf, Atten= 0%, Lag= 0.0 min
 Primary = 14.99 cfs @ 12.04 hrs, Volume= 43,740 cf

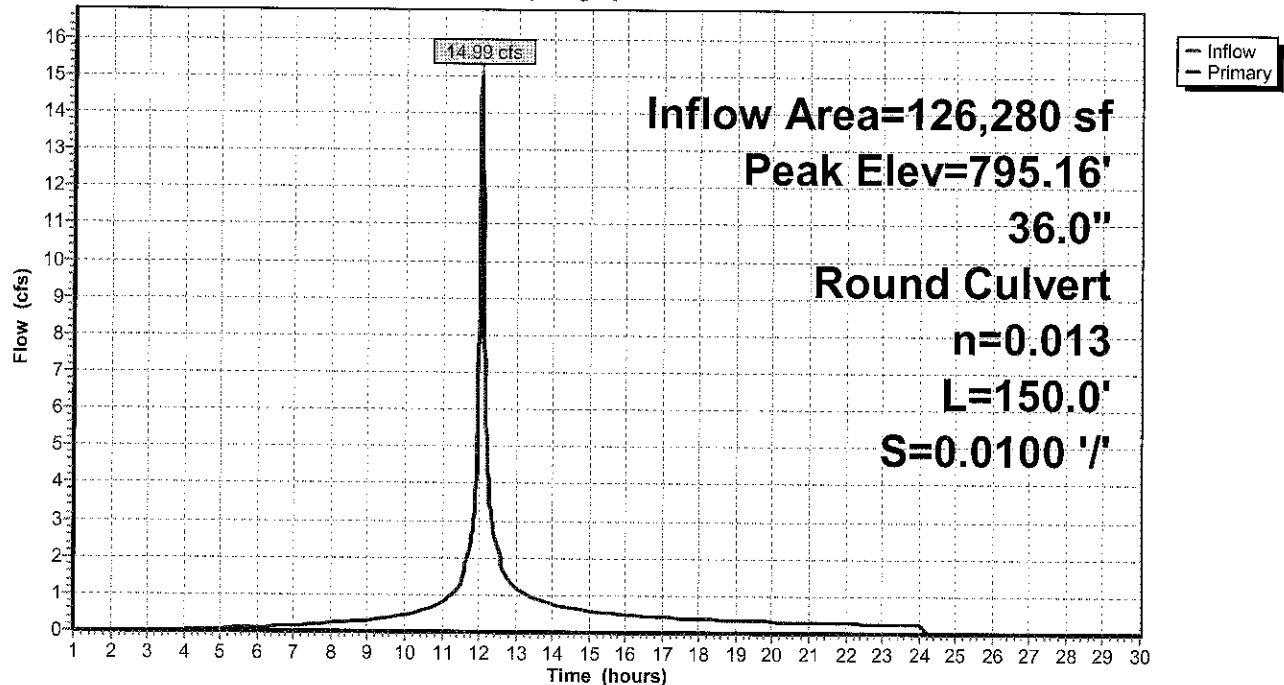
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 795.16' @ 12.04 hrs
 Flood Elev= 810.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	793.56'	36.0" Round Culvert L= 150.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 793.56' / 792.06' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=14.84 cfs @ 12.04 hrs HW=795.16' TW=793.76' (Dynamic Tailwater)
1=Culvert (Outlet Controls 14.84 cfs @ 5.63 fps)

Pond 780P: DMH A-3

Hydrograph



Summary for Pond 781P: DMH H 5+15

Inflow Area = 90,245 sf, 52.63% Impervious, Inflow Depth = 4.44" for 25-yr event
 Inflow = 11.38 cfs @ 12.04 hrs, Volume= 33,424 cf
 Outflow = 11.38 cfs @ 12.04 hrs, Volume= 33,424 cf, Atten= 0%, Lag= 0.0 min
 Primary = 11.38 cfs @ 12.04 hrs, Volume= 33,424 cf

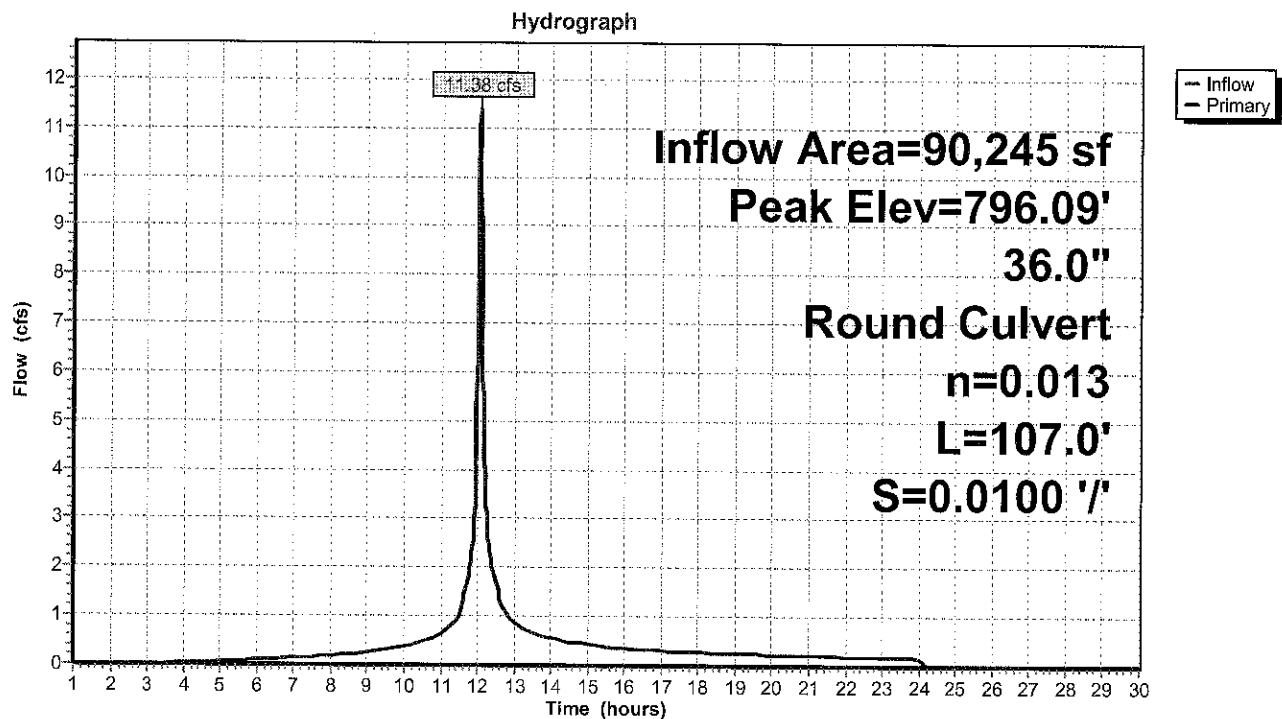
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 796.09' @ 12.04 hrs

Flood Elev= 800.63'

Device	Routing	Invert	Outlet Devices
#1	Primary	794.63'	36.0" Round Culvert L= 107.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 794.63' / 793.56' S= 0.0100 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=11.21 cfs @ 12.04 hrs HW=796.08' TW=795.16' (Dynamic Tailwater)
 1=Culvert (Outlet Controls 11.21 cfs @ 4.83 fps)

Pond 781P: DMH H 5+15

Summary for Pond 782P: DMH H 5+50

Inflow Area = 90,245 sf, 52.63% Impervious, Inflow Depth = 4.44" for 25-yr event
 Inflow = 11.38 cfs @ 12.04 hrs, Volume= 33,424 cf
 Outflow = 11.38 cfs @ 12.04 hrs, Volume= 33,424 cf, Atten= 0%, Lag= 0.0 min
 Primary = 11.38 cfs @ 12.04 hrs, Volume= 33,424 cf

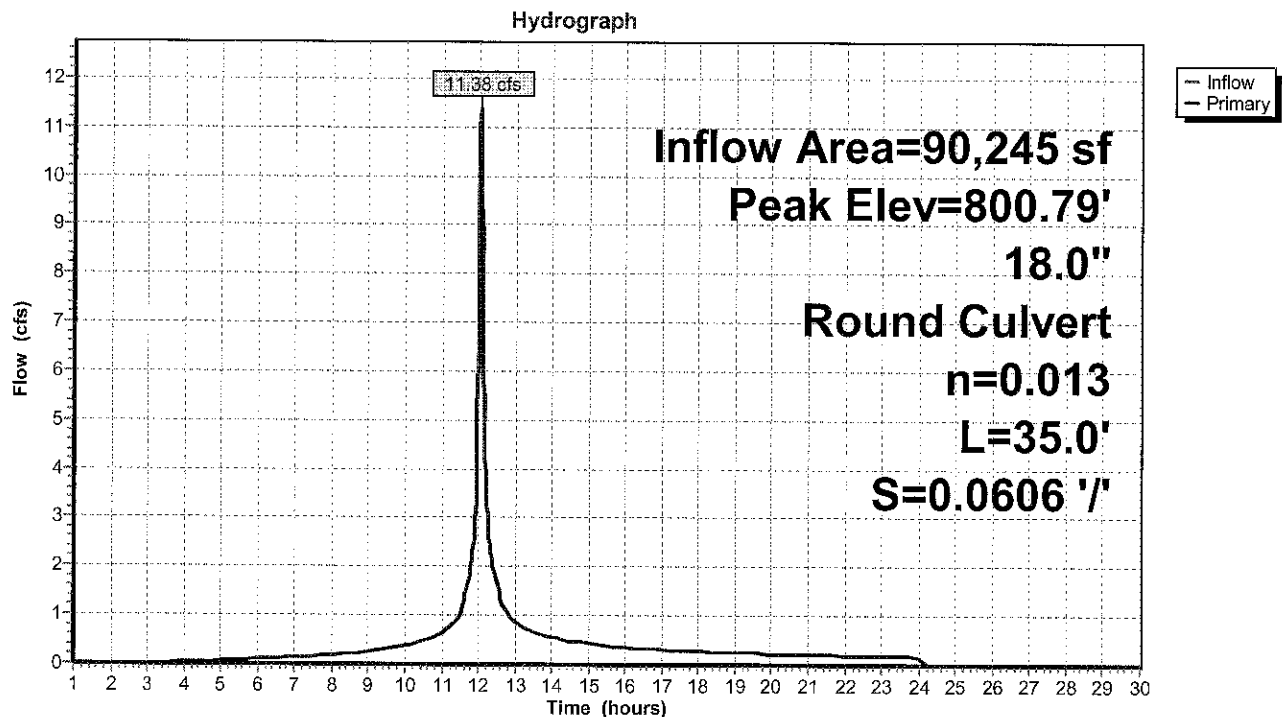
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 800.79' @ 12.04 hrs

Flood Elev= 803.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	798.25'	18.0" Round Culvert L= 35.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 798.25' / 796.13' S= 0.0606 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=11.35 cfs @ 12.04 hrs HW=800.78' TW=796.08' (Dynamic Tailwater)
 1=Culvert (Inlet Controls 11.35 cfs @ 6.42 fps)

Pond 782P: DMH H 5+50

Summary for Pond 783P: H 5+60 R

Inflow Area = 11,200 sf, 77.14% Impervious, Inflow Depth = 5.13" for 25-yr event
 Inflow = 1.57 cfs @ 12.04 hrs, Volume= 4,791 cf
 Outflow = 1.57 cfs @ 12.04 hrs, Volume= 4,791 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.57 cfs @ 12.04 hrs, Volume= 4,791 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 800.96' @ 12.05 hrs

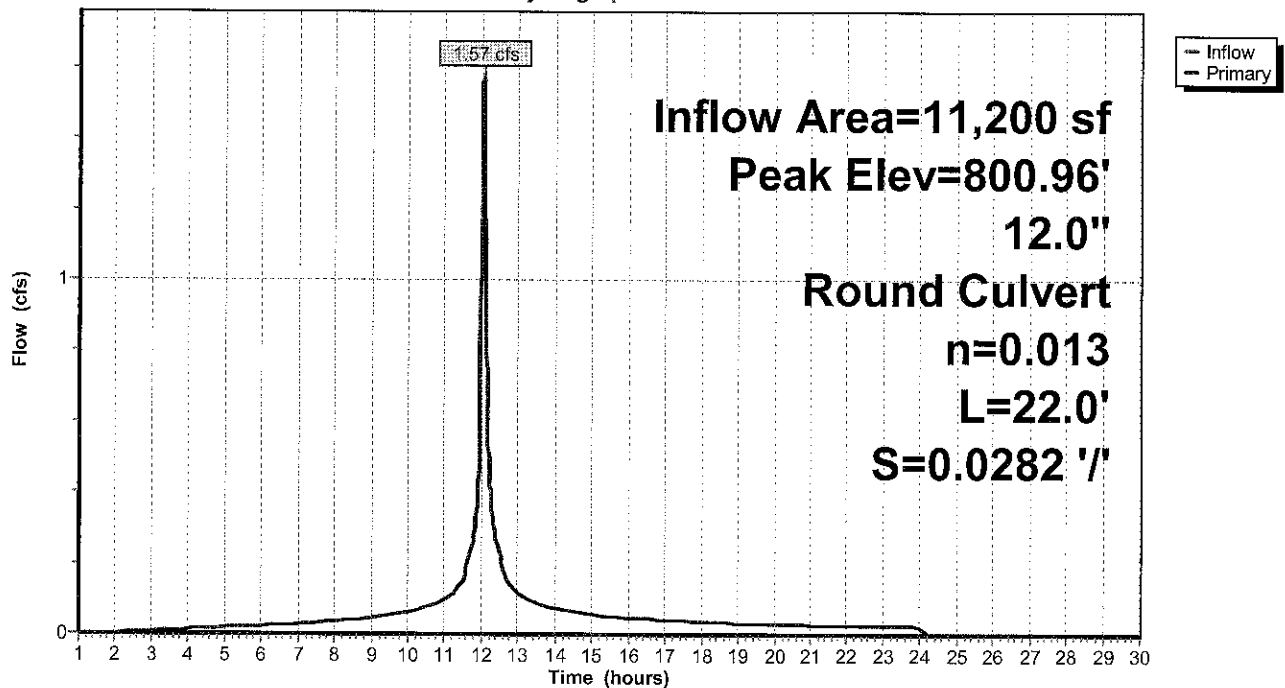
Flood Elev= 803.72'

Device	Routing	Invert	Outlet Devices
#1	Primary	799.72'	12.0" Round Culvert L= 22.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 799.72' / 799.10' S= 0.0282 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.29 cfs @ 12.04 hrs HW=800.89' TW=800.78' (Dynamic Tailwater)
 1=Culvert (Inlet Controls 1.29 cfs @ 1.64 fps)

Pond 783P: H 5+60 R

Hydrograph



Summary for Pond 784P: H 5+60 L

Inflow Area = 25,640 sf, 39.94% Impervious, Inflow Depth = 4.15" for 25-yr event
 Inflow = 3.07 cfs @ 12.04 hrs, Volume= 8,867 cf
 Outflow = 3.07 cfs @ 12.04 hrs, Volume= 8,867 cf, Atten= 0%, Lag= 0.0 min
 Primary = 3.07 cfs @ 12.04 hrs, Volume= 8,867 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 801.43' @ 12.04 hrs

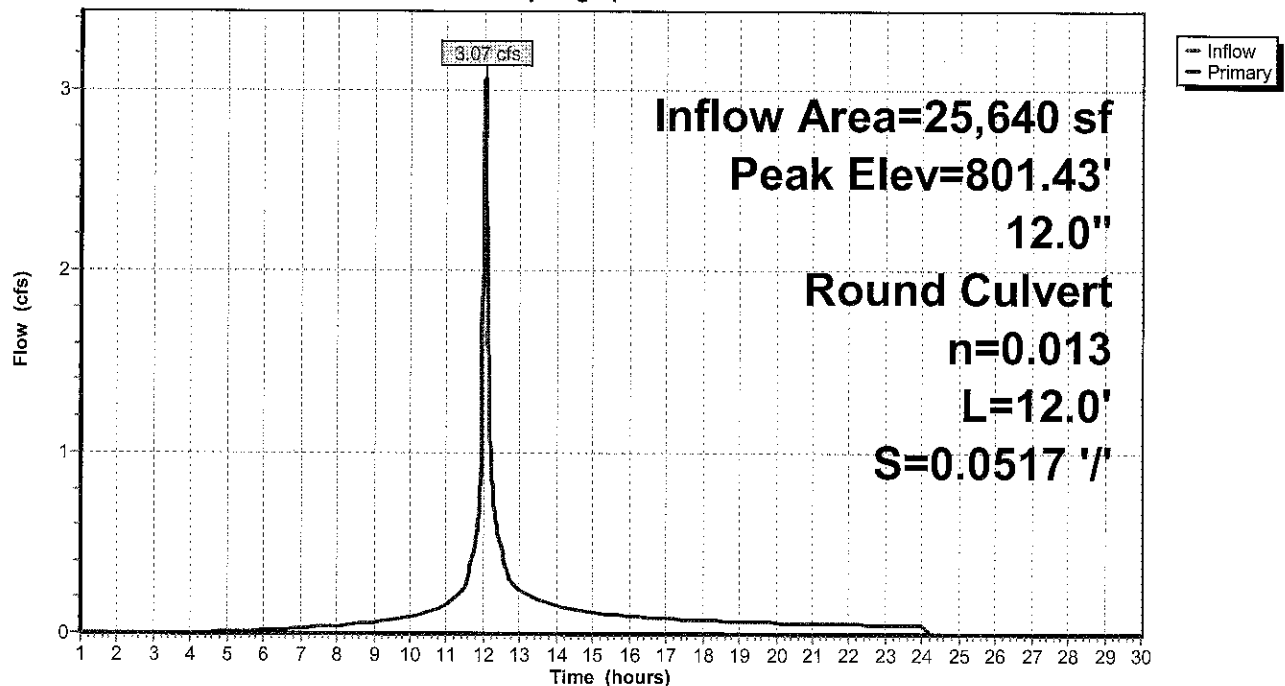
Flood Elev= 803.72'

Device	Routing	Invert	Outlet Devices
#1	Primary	799.72'	12.0" Round Culvert L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 799.72' / 799.10' S= 0.0517 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.95 cfs @ 12.04 hrs HW=801.39' TW=800.78' (Dynamic Tailwater)
1=Culvert (Inlet Controls 2.95 cfs @ 3.76 fps)

Pond 784P: H 5+60 L

Hydrograph



Summary for Pond 785P: DMH H 7+65

Inflow Area = 53,405 sf, 53.59% Impervious, Inflow Depth = 4.44" for 25-yr event
 Inflow = 6.75 cfs @ 12.04 hrs, Volume= 19,766 cf
 Outflow = 6.75 cfs @ 12.04 hrs, Volume= 19,766 cf, Atten= 0%, Lag= 0.0 min
 Primary = 6.75 cfs @ 12.04 hrs, Volume= 19,766 cf

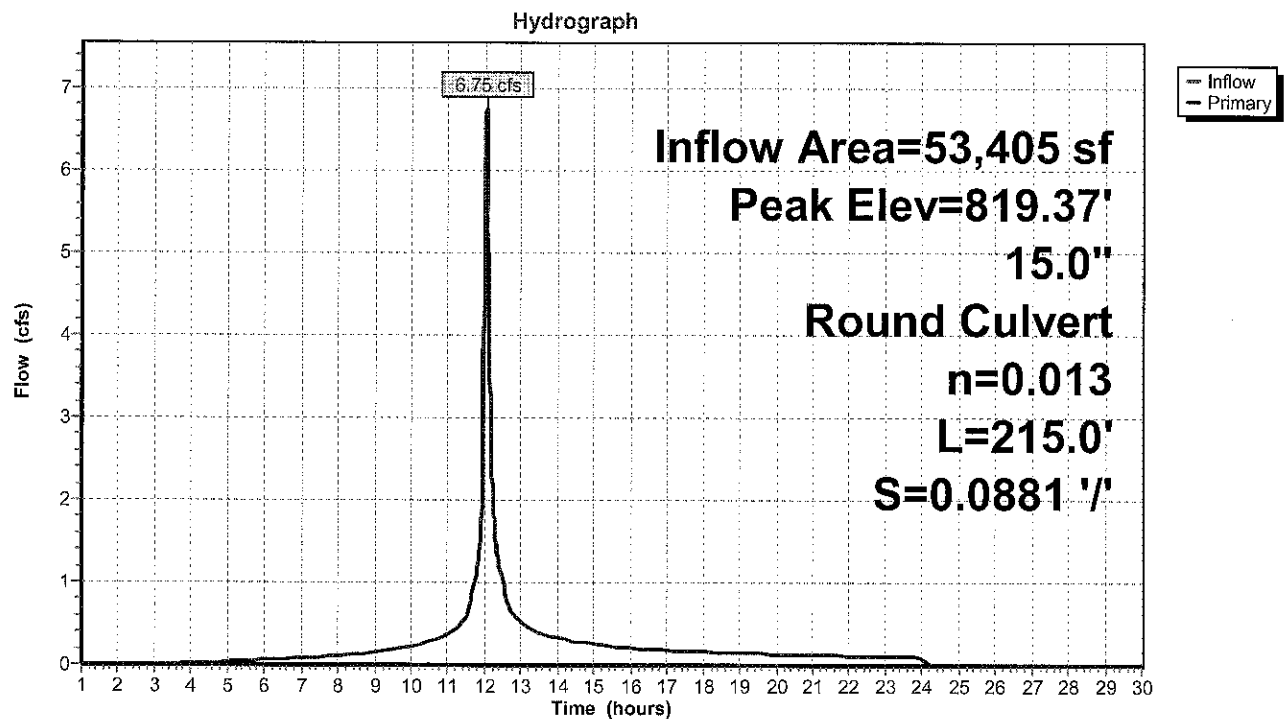
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 819.37' @ 12.04 hrs

Flood Elev= 823.11'

Device	Routing	Invert	Outlet Devices
#1	Primary	817.44'	15.0" Round Culvert L= 215.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 817.44' / 798.50' S= 0.0881 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=6.73 cfs @ 12.04 hrs HW=819.36' TW=800.78' (Dynamic Tailwater)
 ← **1=Culvert** (Inlet Controls 6.73 cfs @ 5.48 fps)

Pond 785P: DMH H 7+65

Summary for Pond 786P: H 7+75 L

Inflow Area = 10,720 sf, 46.97% Impervious, Inflow Depth = 4.26" for 25-yr event
 Inflow = 1.31 cfs @ 12.04 hrs, Volume= 3,801 cf
 Outflow = 1.31 cfs @ 12.04 hrs, Volume= 3,801 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.31 cfs @ 12.04 hrs, Volume= 3,801 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 820.44' @ 12.04 hrs

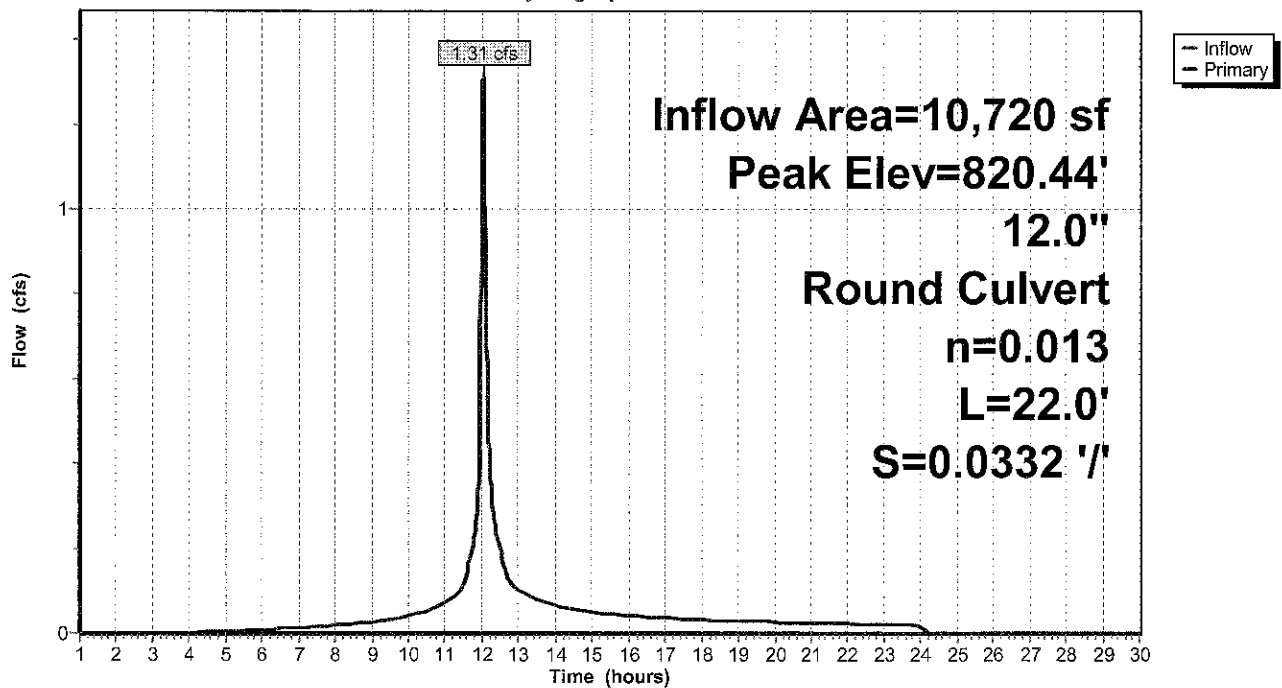
Flood Elev= 823.84'

Device	Routing	Invert	Outlet Devices
#1	Primary	819.84'	12.0" Round Culvert L= 22.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 819.84' / 819.11' S= 0.0332 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.31 cfs @ 12.04 hrs HW=820.44' TW=819.36' (Dynamic Tailwater)
 ↳ **1=Culvert** (Inlet Controls 1.31 cfs @ 2.64 fps)

Pond 786P: H 7+75 L

Hydrograph



Summary for Pond 787P: H 7+75R

Inflow Area = 20,420 sf, 62.66% Impervious, Inflow Depth = 4.69" for 25-yr event
 Inflow = 2.69 cfs @ 12.04 hrs, Volume= 7,976 cf
 Outflow = 2.69 cfs @ 12.04 hrs, Volume= 7,976 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.69 cfs @ 12.04 hrs, Volume= 7,976 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 820.85' @ 12.04 hrs

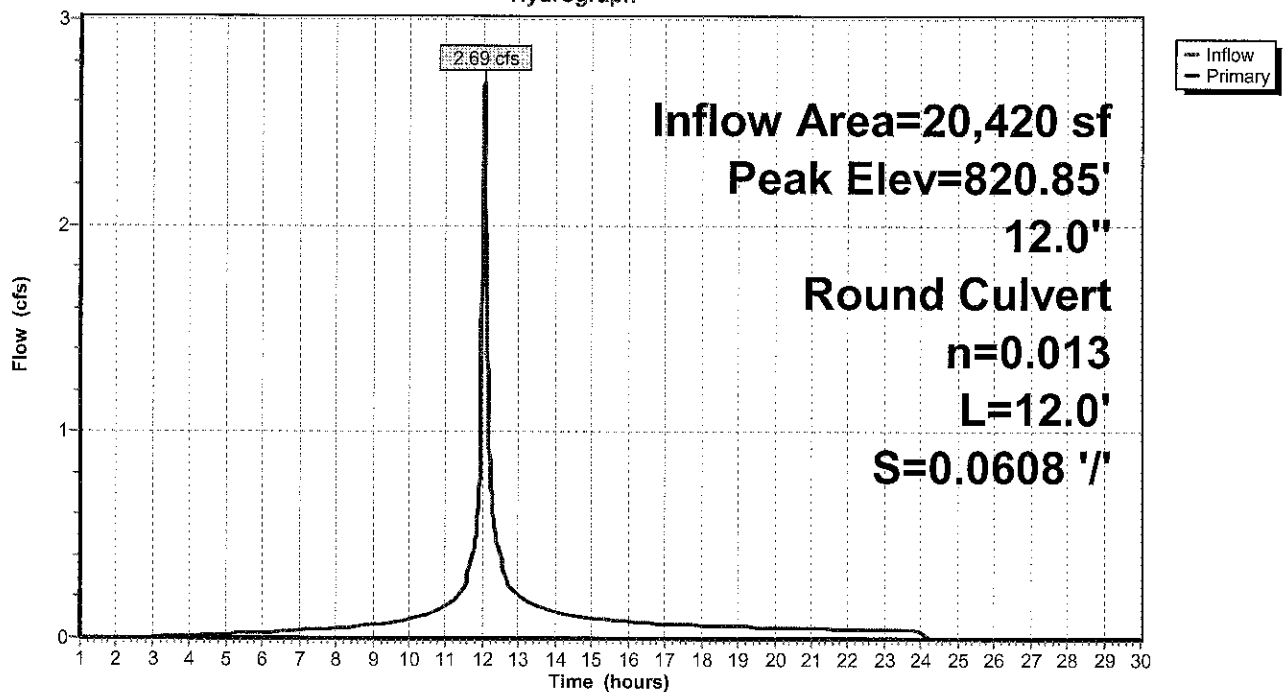
Flood Elev= 823.84'

Device	Routing	Invert	Outlet Devices
#1	Primary	819.84'	12.0" Round Culvert L= 12.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 819.84' / 819.11' S= 0.0608 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.68 cfs @ 12.04 hrs HW=820.84' TW=819.36' (Dynamic Tailwater)
 1=Culvert (Inlet Controls 2.68 cfs @ 3.42 fps)

Pond 787P: H 7+75R

Hydrograph



Summary for Pond 788P: DMH H 9+10

Inflow Area = 22,265 sf, 48.46% Impervious, Inflow Depth = 4.31" for 25-yr event
 Inflow = 2.75 cfs @ 12.04 hrs, Volume= 7,989 cf
 Outflow = 2.75 cfs @ 12.04 hrs, Volume= 7,989 cf, Atten= 0%, Lag= 0.0 min
 Primary = 2.75 cfs @ 12.04 hrs, Volume= 7,989 cf

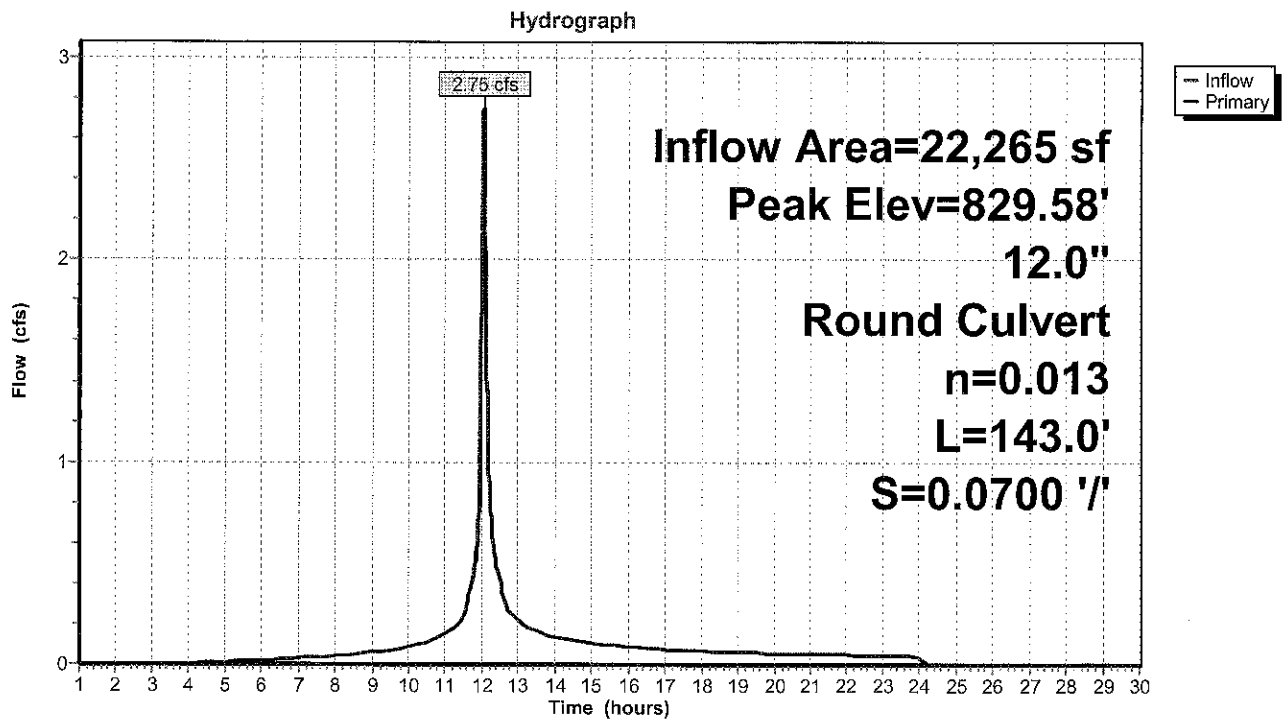
Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 829.58' @ 12.04 hrs

Flood Elev= 832.65'

Device	Routing	Invert	Outlet Devices
#1	Primary	828.55'	12.0" Round Culvert L= 143.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 828.55' / 818.54' S= 0.0700 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.74 cfs @ 12.04 hrs HW=829.57' TW=819.36' (Dynamic Tailwater)
 1=Culvert (Inlet Controls 2.74 cfs @ 3.49 fps)

Pond 788P: DMH H 9+10

Summary for Pond 789P: H 9+25 R

Inflow Area = 11,750 sf, 47.32% Impervious, Inflow Depth = 4.26" for 25-yr event
 Inflow = 1.44 cfs @ 12.04 hrs, Volume= 4,167 cf
 Outflow = 1.44 cfs @ 12.04 hrs, Volume= 4,167 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.44 cfs @ 12.04 hrs, Volume= 4,167 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 829.94' @ 12.04 hrs

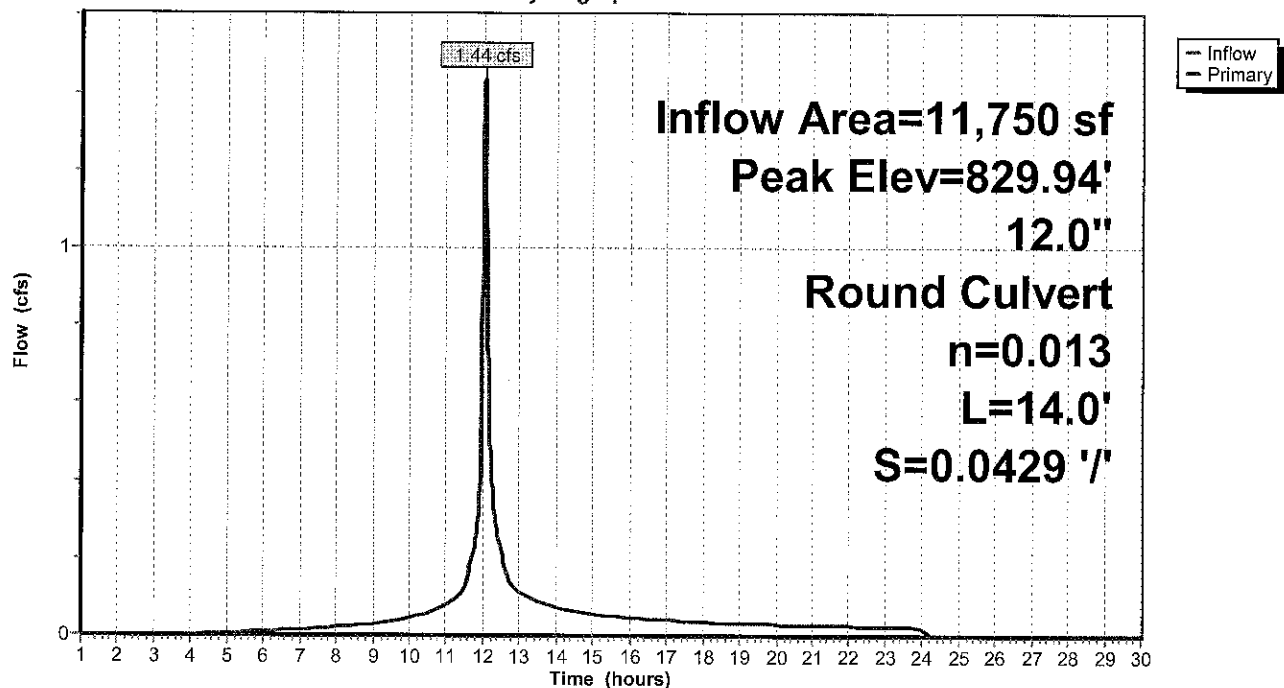
Flood Elev= 833.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	829.25'	12.0" Round Culvert L= 14.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 829.25' / 828.65' S= 0.0429 '/ Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.40 cfs @ 12.04 hrs HW=829.93' TW=829.57' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.40 cfs @ 3.46 fps)

Pond 789P: H 9+25 R

Hydrograph



Summary for Pond 790P: H 9+25 L

Inflow Area = 10,515 sf, 49.74% Impervious, Inflow Depth = 4.36" for 25-yr event
 Inflow = 1.31 cfs @ 12.04 hrs, Volume= 3,822 cf
 Outflow = 1.31 cfs @ 12.04 hrs, Volume= 3,822 cf, Atten= 0%, Lag= 0.0 min
 Primary = 1.31 cfs @ 12.04 hrs, Volume= 3,822 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Peak Elev= 829.94' @ 12.04 hrs

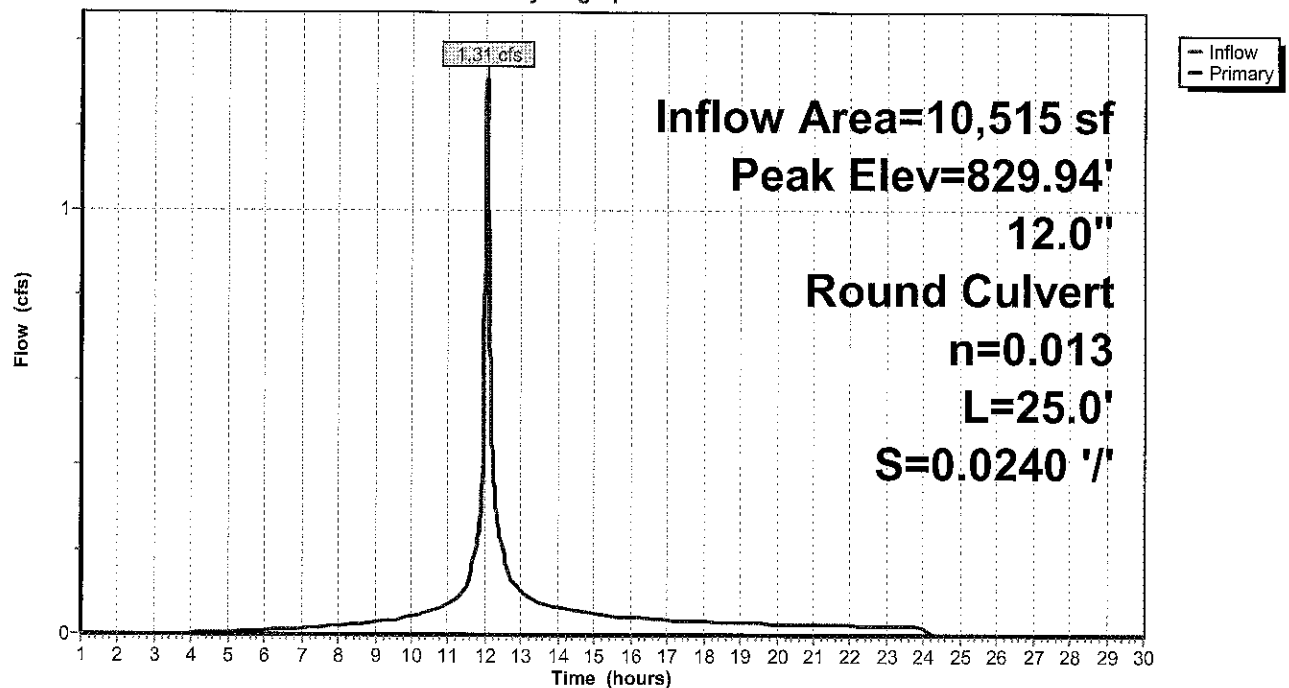
Flood Elev= 833.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	829.25'	12.0" Round Culvert L= 25.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 829.25' / 828.65' S= 0.0240 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.28 cfs @ 12.04 hrs HW=829.93' TW=829.57' (Dynamic Tailwater)
 ← **1=Culvert** (Outlet Controls 1.28 cfs @ 3.18 fps)

Pond 790P: H 9+25 L

Hydrograph



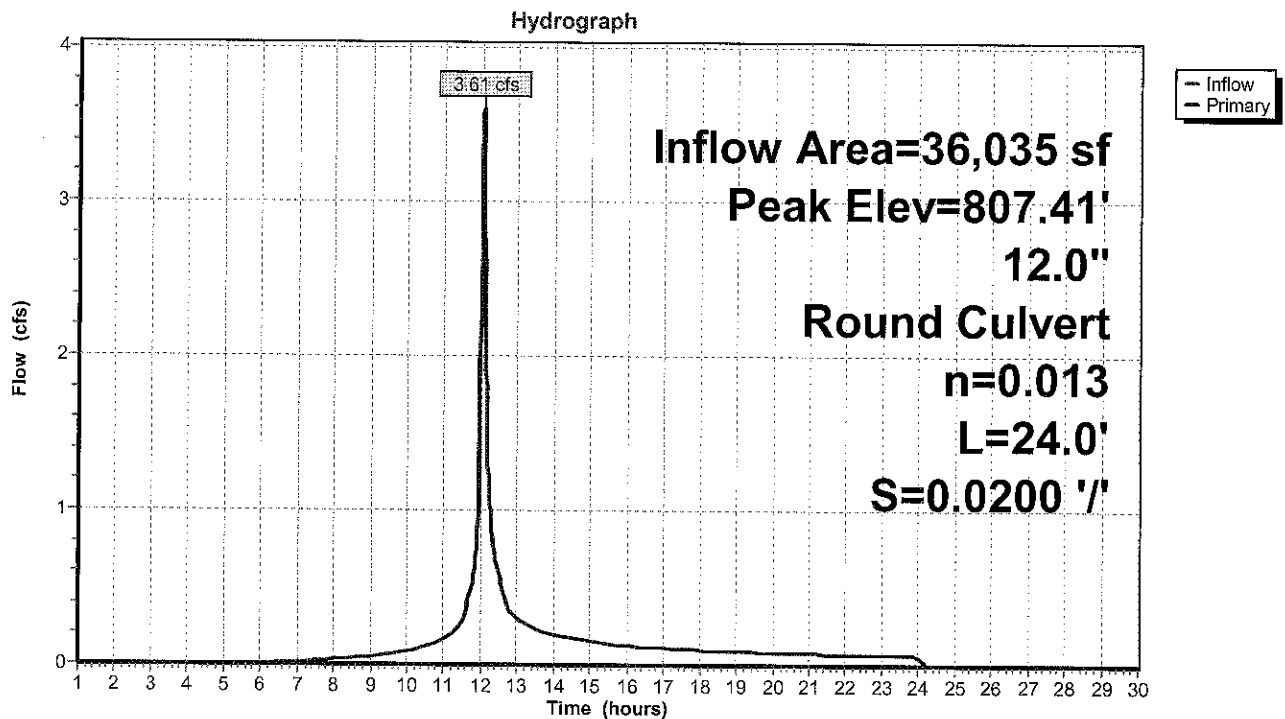
Summary for Pond 795P: LCB A-4

Inflow Area = 36,035 sf, 13.54% Impervious, Inflow Depth = 3.44" for 25-yr event
 Inflow = 3.61 cfs @ 12.04 hrs, Volume= 10,316 cf
 Outflow = 3.61 cfs @ 12.04 hrs, Volume= 10,316 cf, Atten= 0%, Lag= 0.0 min
 Primary = 3.61 cfs @ 12.04 hrs, Volume= 10,316 cf

Routing by Dyn-Stor-Ind method, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs
 Peak Elev= 807.41' @ 12.04 hrs
 Flood Elev= 812.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	806.00'	12.0" Round Culvert L= 24.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 806.00' / 805.52' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.60 cfs @ 12.04 hrs HW=807.41' TW=795.16' (Dynamic Tailwater)
 ↳ **1=Culvert** (Inlet Controls 3.60 cfs @ 4.58 fps)

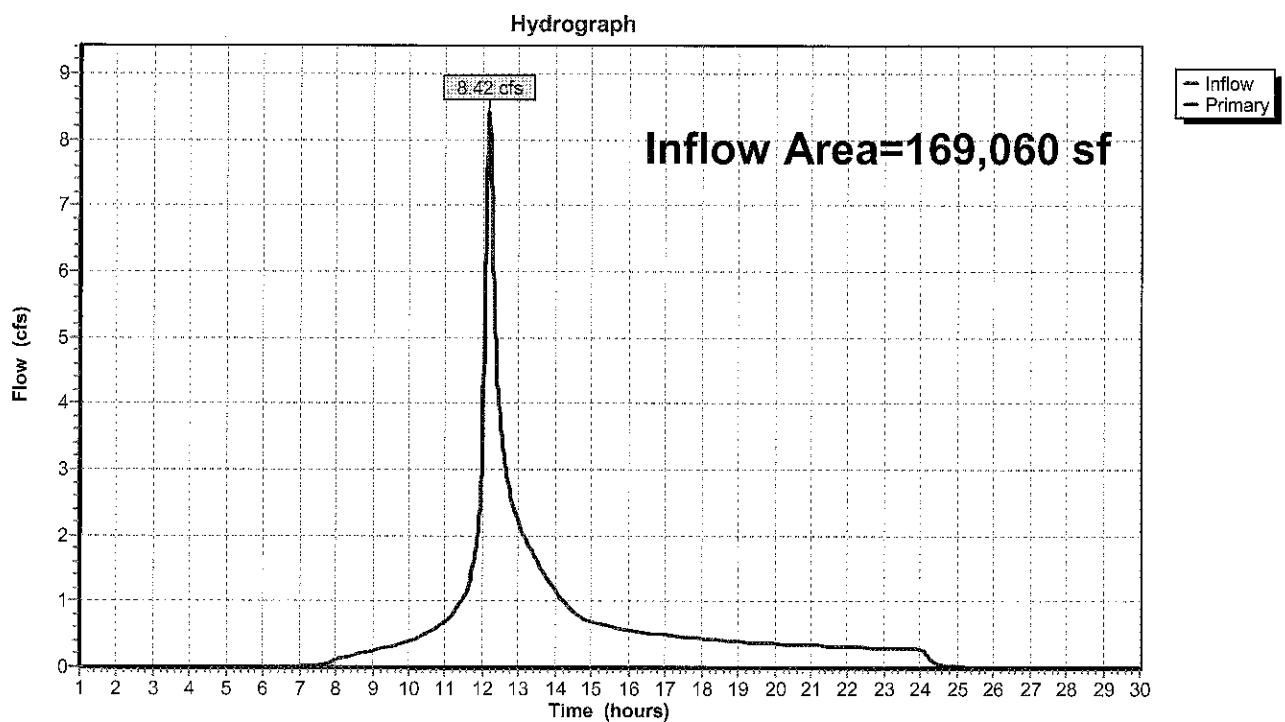
Pond 795P: LCB A-4

Summary for Link 311L: POA- Salisbury

Inflow Area = 169,060 sf, 29.20% Impervious, Inflow Depth = 3.31" for 25-yr event
 Inflow = 8.42 cfs @ 12.17 hrs, Volume= 46,625 cf
 Primary = 8.42 cfs @ 12.17 hrs, Volume= 46,625 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

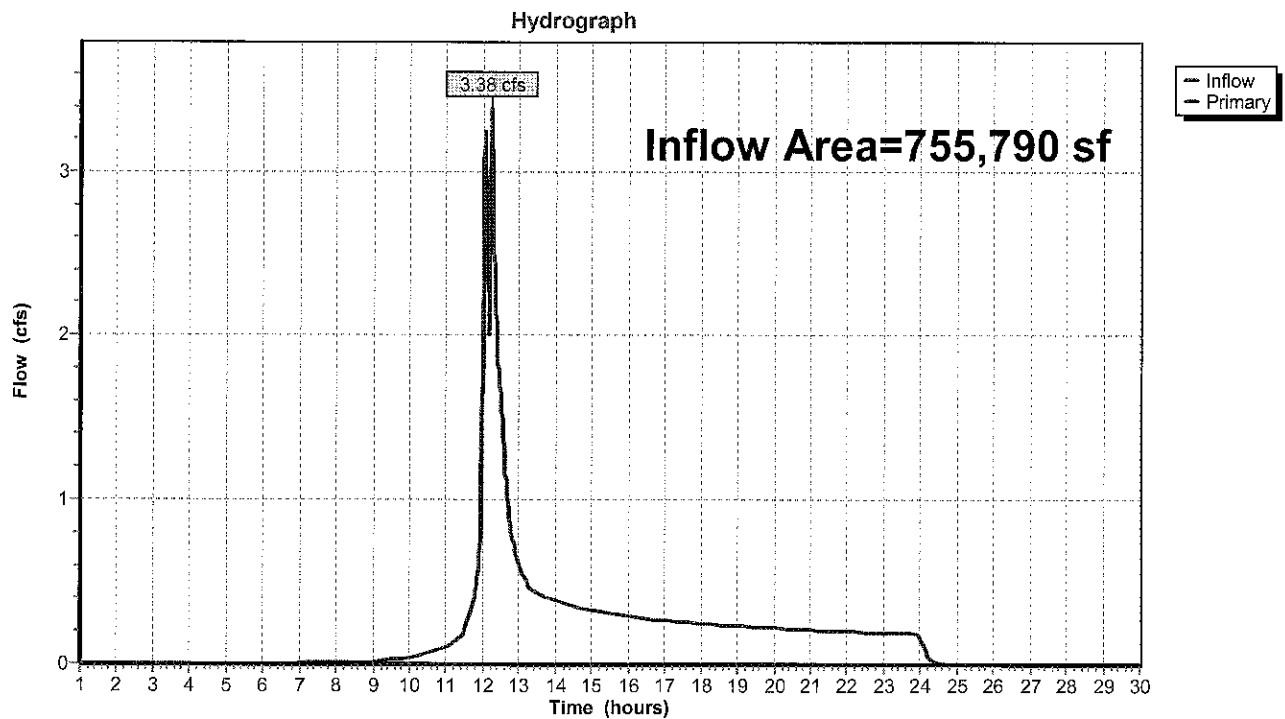
Link 311L: POA- Salisbury



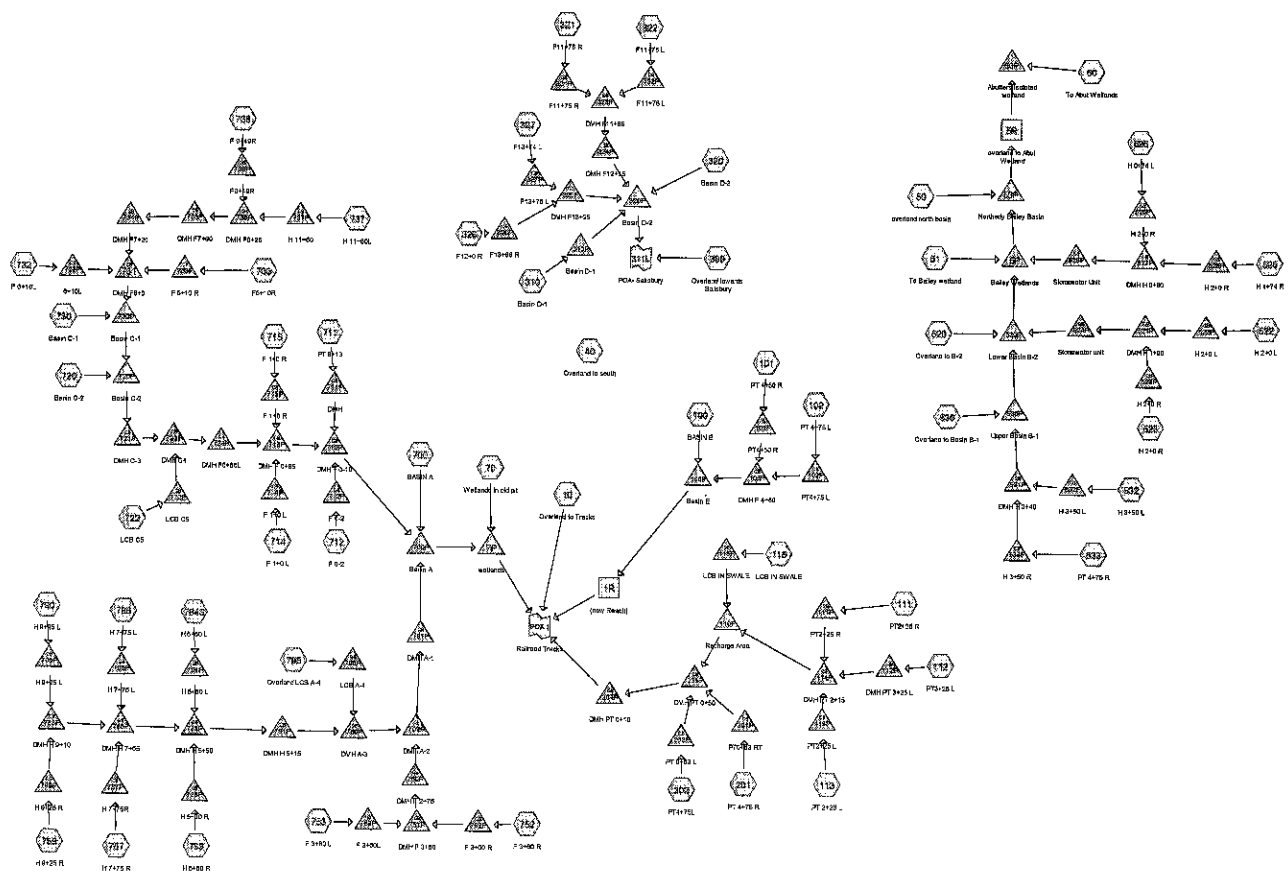
Summary for Link POA 1: Railroad Tracks

Inflow Area = 755,790 sf, 27.56% Impervious, Inflow Depth = 0.29" for 25-yr event
Inflow = 3.38 cfs @ 12.22 hrs, Volume= 18,340 cf
Primary = 3.38 cfs @ 12.22 hrs, Volume= 18,340 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 1.00-30.00 hrs, dt= 0.01 hrs

Link POA 1: Railroad Tracks

2-YEAR Post-Development



Routing Diagram for Pine Tree Post
 Prepared by Places Associates, Inc.
 HydroCAD® 10.00-25 s/n 02908 © 2019 HydroCAD Software Solutions LLC

Time span=1.00-30.00 hrs, dt=0.01 hrs, 2901 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 10: Overland to Tracks	Runoff Area=152,820 sf 5.15% Impervious Runoff Depth=0.00" Flow Length=257' Tc=15.7 min UI Adjusted CN=33 Runoff=0.00 cfs 0 cf
Subcatchment 40: Overland to south	Runoff Area=13,135 sf 12.83% Impervious Runoff Depth=0.92" Flow Length=350' Tc=16.9 min UI Adjusted CN=72 Runoff=0.22 cfs 1,004 cf
Subcatchment 50: overland north basin	Runoff Area=20,232 sf 8.58% Impervious Runoff Depth=0.01" Tc=6.0 min UI Adjusted CN=42 Runoff=0.00 cfs 21 cf
Subcatchment 51: To Bailey wetland	Runoff Area=142,759 sf 5.04% Impervious Runoff Depth=0.03" Flow Length=720' Tc=26.5 min UI Adjusted CN=44 Runoff=0.01 cfs 358 cf
Subcatchment 60: To Abut Wetlands	Runoff Area=8,678 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=615' Tc=9.9 min CN=32 Runoff=0.00 cfs 0 cf
Subcatchment 70: Wetlands in old pit	Runoff Area=88,870 sf 0.00% Impervious Runoff Depth=0.02" Flow Length=230' Tc=12.4 min CN=43 Runoff=0.01 cfs 150 cf
Subcatchment 100: BASIN E	Runoff Area=6,150 sf 0.00% Impervious Runoff Depth=0.00" Flow Length=257' Tc=15.7 min CN=39 Runoff=0.00 cfs 0 cf
Subcatchment 101: PT 4+50 R	Runoff Area=4,840 sf 79.44% Impervious Runoff Depth=1.82" Tc=6.0 min CN=86 Runoff=0.28 cfs 733 cf
Subcatchment 102: PT 4+75 L	Runoff Area=24,505 sf 19.14% Impervious Runoff Depth=0.59" Tc=6.0 min CN=65 Runoff=0.34 cfs 1,206 cf
Subcatchment 111: PT2+25 R	Runoff Area=5,700 sf 60.18% Impervious Runoff Depth=1.08" Tc=6.0 min CN=75 Runoff=0.19 cfs 513 cf
Subcatchment 112: PT3+25 L	Runoff Area=25,310 sf 28.09% Impervious Runoff Depth=1.02" Flow Length=265' Tc=6.0 min CN=74 Runoff=0.78 cfs 2,161 cf
Subcatchment 113: PT 2+25 L	Runoff Area=19,505 sf 25.84% Impervious Runoff Depth=1.20" Flow Length=410' Tc=8.8 min CN=77 Runoff=0.61 cfs 1,946 cf
Subcatchment 115: LCB IN SWALE	Runoff Area=21,365 sf 13.20% Impervious Runoff Depth=0.72" Flow Length=250' Tc=6.9 min CN=68 Runoff=0.38 cfs 1,285 cf
Subcatchment 201: PT 4+75 R	Runoff Area=6,315 sf 73.40% Impervious Runoff Depth=1.52" Tc=6.0 min CN=82 Runoff=0.31 cfs 801 cf
Subcatchment 202: PT4+75L	Runoff Area=40,700 sf 20.33% Impervious Runoff Depth=0.55" Flow Length=250' Tc=6.9 min CN=64 Runoff=0.47 cfs 1,865 cf
Subcatchment 300: Overland towards	Runoff Area=95,530 sf 19.12% Impervious Runoff Depth=1.08" Flow Length=286' Tc=15.4 min UI Adjusted CN=75 Runoff=2.02 cfs 8,601 cf

Pine Tree Post*MA-Holden_files 24-hr S1 2-yr Rainfall=3.18"*

Prepared by Places Associates, Inc.

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Page 3

Subcatchment 310: Basin D-1	Runoff Area=14,240 sf 8.95% Impervious Runoff Depth=1.08" Flow Length=162' Tc=6.7 min UI Adjusted CN=75 Runoff=0.45 cfs 1,282 cf
Subcatchment 320: Basin D-2	Runoff Area=11,725 sf 5.42% Impervious Runoff Depth=1.08" Flow Length=162' Tc=6.7 min CN=75 Runoff=0.37 cfs 1,056 cf
Subcatchment 321: F11+75 R	Runoff Area=17,525 sf 48.48% Impervious Runoff Depth=1.82" Flow Length=235' Tc=6.5 min CN=86 Runoff=0.99 cfs 2,655 cf
Subcatchment 322: F11+75 L	Runoff Area=7,900 sf 79.08% Impervious Runoff Depth=2.43" Flow Length=295' Slope=0.0400 '/' Tc=6.0 min CN=93 Runoff=0.60 cfs 1,597 cf
Subcatchment 326: F12+0 R	Runoff Area=14,240 sf 57.64% Impervious Runoff Depth=1.98" Flow Length=255' Tc=6.0 min CN=88 Runoff=0.91 cfs 2,348 cf
Subcatchment 327: F13+74 L	Runoff Area=7,900 sf 79.08% Impervious Runoff Depth=2.43" Flow Length=295' Slope=0.0400 '/' Tc=6.0 min CN=93 Runoff=0.60 cfs 1,597 cf
Subcatchment 520: Overland to B-2	Runoff Area=5,600 sf 0.00% Impervious Runoff Depth=0.06" Tc=6.0 min CN=46 Runoff=0.00 cfs 26 cf
Subcatchment 522: H 2+0 L	Runoff Area=33,610 sf 41.24% Impervious Runoff Depth=0.97" Tc=6.0 min CN=73 Runoff=0.96 cfs 2,717 cf
Subcatchment 523: H 2+0 R	Runoff Area=6,510 sf 68.20% Impervious Runoff Depth=1.98" Tc=6.0 min CN=88 Runoff=0.41 cfs 1,074 cf
Subcatchment 525: H 1+74 R	Runoff Area=5,340 sf 76.59% Impervious Runoff Depth=1.67" Tc=6.0 min CN=84 Runoff=0.29 cfs 741 cf
Subcatchment 526: H 0+74 L	Runoff Area=5,305 sf 76.15% Impervious Runoff Depth=1.67" Tc=6.0 min CN=84 Runoff=0.28 cfs 736 cf
Subcatchment 530: Overland to Basin B-1	Runoff Area=24,055 sf 16.28% Impervious Runoff Depth=0.30" Tc=6.0 min UI Adjusted CN=57 Runoff=0.07 cfs 608 cf
Subcatchment 532: H 3+50 L	Runoff Area=35,890 sf 41.85% Impervious Runoff Depth=1.20" Tc=6.0 min CN=77 Runoff=1.33 cfs 3,582 cf
Subcatchment 533: PT 4+75 R	Runoff Area=17,030 sf 50.44% Impervious Runoff Depth=0.82" Tc=6.0 min CN=70 Runoff=0.39 cfs 1,159 cf
Subcatchment 700: BASIN A	Runoff Area=74,395 sf 25.61% Impervious Runoff Depth=0.27" Flow Length=230' Tc=12.4 min UI Adjusted CN=56 Runoff=0.14 cfs 1,695 cf
Subcatchment 711: PT 8+13	Runoff Area=7,170 sf 85.36% Impervious Runoff Depth=2.06" Tc=6.0 min CN=89 Runoff=0.47 cfs 1,233 cf
Subcatchment 712: F 0-2	Runoff Area=22,070 sf 36.36% Impervious Runoff Depth=1.52" Tc=6.0 min CN=82 Runoff=1.07 cfs 2,799 cf

Pine Tree Post*MA-Holden_files 24-hr S1 2-yr Rainfall=3.18"*

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Subcatchment 714: F 1+0 L	Runoff Area=19,700 sf 55.28% Impervious Runoff Depth=1.90" Tc=6.0 min CN=87 Runoff=1.20 cfs 3,115 cf
Subcatchment 715: F 1+0 R	Runoff Area=16,545 sf 71.93% Impervious Runoff Depth=2.24" Tc=6.0 min CN=91 Runoff=1.18 cfs 3,088 cf
Subcatchment 720: Basin C-2	Runoff Area=8,675 sf 16.60% Impervious Runoff Depth=1.26" Tc=6.0 min CN=78 Runoff=0.34 cfs 910 cf
Subcatchment 722: LCB C5	Runoff Area=15,130 sf 75.35% Impervious Runoff Depth=2.33" Tc=6.0 min CN=92 Runoff=1.12 cfs 2,940 cf
Subcatchment 730: Basin C-1	Runoff Area=7,860 sf 18.89% Impervious Runoff Depth=1.32" Tc=6.0 min CN=79 Runoff=0.33 cfs 866 cf
Subcatchment 732: F 6+10L	Runoff Area=8,270 sf 83.92% Impervious Runoff Depth=2.52" Tc=6.0 min CN=94 Runoff=0.65 cfs 1,740 cf
Subcatchment 733: F6+10R	Runoff Area=23,650 sf 51.78% Impervious Runoff Depth=1.82" Tc=6.0 min CN=86 Runoff=1.38 cfs 3,582 cf
Subcatchment 737: H 11+60L	Runoff Area=4,200 sf 53.93% Impervious Runoff Depth=1.90" Tc=6.0 min CN=87 Runoff=0.26 cfs 664 cf
Subcatchment 738: F 9+49R	Runoff Area=5,290 sf 59.92% Impervious Runoff Depth=1.98" Tc=6.0 min CN=88 Runoff=0.34 cfs 872 cf
Subcatchment 752: F 3+60 R	Runoff Area=6,115 sf 78.66% Impervious Runoff Depth=2.43" Tc=6.0 min CN=93 Runoff=0.47 cfs 1,237 cf
Subcatchment 753: F 3+60 L	Runoff Area=14,360 sf 59.02% Impervious Runoff Depth=1.98" Tc=6.0 min CN=88 Runoff=0.91 cfs 2,368 cf
Subcatchment 783: H 5+60 R	Runoff Area=11,200 sf 77.14% Impervious Runoff Depth=2.43" Tc=6.0 min CN=93 Runoff=0.85 cfs 2,265 cf
Subcatchment 784S: H 5+60 L	Runoff Area=25,640 sf 39.94% Impervious Runoff Depth=1.67" Tc=6.0 min CN=84 Runoff=1.37 cfs 3,559 cf
Subcatchment 786: H 7+75 L	Runoff Area=10,720 sf 46.97% Impervious Runoff Depth=1.74" Tc=6.0 min CN=85 Runoff=0.60 cfs 1,555 cf
Subcatchment 787: H 7+75 R	Runoff Area=20,420 sf 62.66% Impervious Runoff Depth=2.06" Tc=6.0 min CN=89 Runoff=1.35 cfs 3,511 cf
Subcatchment 789: H 9+25 R	Runoff Area=11,750 sf 47.32% Impervious Runoff Depth=1.74" Tc=6.0 min CN=85 Runoff=0.66 cfs 1,704 cf
Subcatchment 790: H 9+25 L	Runoff Area=10,515 sf 49.74% Impervious Runoff Depth=1.82" Tc=6.0 min CN=86 Runoff=0.62 cfs 1,593 cf

Subcatchment 795: Overland LCB A-4	Runoff Area=36,035 sf 13.54% Impervious Runoff Depth=1.20" Tc=6.0 min CN=77 Runoff=1.33 cfs 3,596 cf
Reach 1R: (new Reach)	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf n=0.130 L=200.0' S=0.1950 '/' Capacity=0.18 cfs Outflow=0.00 cfs 0 cf
Reach 5R: overland to Abut Wetland	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf n=0.400 L=215.0' S=0.0419 '/' Capacity=1.32 cfs Outflow=0.00 cfs 0 cf
Pond 5P: Bailey Wetlands	Peak Elev=777.04' Storage=1,217 cf Inflow=0.57 cfs 3,984 cf Discarded=0.20 cfs 3,970 cf Primary=0.01 cfs 14 cf Outflow=0.20 cfs 3,984 cf
Pond 7P: wetlands	Peak Elev=751.19' Storage=0 cf Inflow=0.01 cfs 150 cf Outflow=0.01 cfs 150 cf
Pond 53P: Northerly Bailey Basin	Peak Elev=777.00' Storage=0 cf Inflow=0.01 cfs 34 cf Discarded=0.01 cfs 34 cf Primary=0.00 cfs 0 cf Outflow=0.01 cfs 34 cf
Pond 60P: Abutters Isolated wetland	Inflow=0.00 cfs 0 cf Primary=0.00 cfs 0 cf
Pond 100P: Basin E	Peak Elev=787.97' Storage=373 cf Inflow=0.62 cfs 1,939 cf Discarded=0.13 cfs 1,939 cf Primary=0.00 cfs 0 cf Outflow=0.13 cfs 1,939 cf
Pond 101P: PT4+50 R	Peak Elev=789.70' Inflow=0.28 cfs 733 cf 12.0" Round Culvert n=0.013 L=12.0' S=0.0175 '/' Outflow=0.28 cfs 733 cf
Pond 102P: PT4+75 L	Peak Elev=789.75' Inflow=0.34 cfs 1,206 cf 12.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=0.34 cfs 1,206 cf
Pond 105P: DMH F 4+60	Peak Elev=789.55' Inflow=0.62 cfs 1,939 cf 15.0" Round Culvert n=0.013 L=39.0' S=0.0303 '/' Outflow=0.62 cfs 1,939 cf
Pond 110P: Recharge Area	Peak Elev=768.06' Storage=1,145 cf Inflow=1.91 cfs 5,905 cf Discarded=0.38 cfs 5,906 cf Primary=0.00 cfs 0 cf Outflow=0.38 cfs 5,906 cf
Pond 111P: PT2+25 R	Peak Elev=771.83' Inflow=0.19 cfs 513 cf 12.0" Round Culvert n=0.013 L=21.0' S=0.0205 '/' Outflow=0.19 cfs 513 cf
Pond 112P: DMH PT 3+25 L	Peak Elev=779.71' Inflow=0.78 cfs 2,161 cf 12.0" Round Culvert n=0.013 L=110.0' S=0.0740 '/' Outflow=0.78 cfs 2,161 cf
Pond 113P: PT2+25 L	Peak Elev=771.98' Inflow=0.61 cfs 1,946 cf 12.0" Round Culvert n=0.013 L=13.0' S=0.0331 '/' Outflow=0.61 cfs 1,946 cf
Pond 114P: DMH PT 2+15	Peak Elev=771.72' Inflow=1.53 cfs 4,620 cf 15.0" Round Culvert n=0.013 L=59.0' S=0.0200 '/' Outflow=1.53 cfs 4,620 cf
Pond 115P: LCB IN SWALE	Peak Elev=769.60' Inflow=0.38 cfs 1,285 cf 12.0" Round Culvert n=0.013 L=5.0' S=0.0000 '/' Outflow=0.38 cfs 1,285 cf

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Pond 201P: PT0+63 RT	Peak Elev=776.79' Inflow=0.31 cfs 801 cf 12.0" Round Culvert n=0.013 L=25.0' S=0.0100 '/ Outflow=0.31 cfs 801 cf
Pond 202P: PT 0+63 L	Peak Elev=766.84' Inflow=0.47 cfs 1,865 cf 12.0" Round Culvert n=0.013 L=15.0' S=0.0167 '/ Outflow=0.47 cfs 1,865 cf
Pond 203P: DMH PT 0+50	Peak Elev=765.89' Inflow=0.76 cfs 2,666 cf 18.0" Round Culvert n=0.013 L=44.0' S=0.0200 '/ Outflow=0.76 cfs 2,666 cf
Pond 204P: DMH PT 0+19	Peak Elev=765.01' Inflow=0.76 cfs 2,666 cf 18.0" Round Culvert n=0.013 L=74.0' S=0.0200 '/ Outflow=0.76 cfs 2,666 cf
Pond 310P: Basin D-1	Peak Elev=835.36' Storage=1,282 cf Inflow=0.45 cfs 1,282 cf Outflow=0.00 cfs 0 cf
Pond 320P: Basin D-2	Peak Elev=818.49' Storage=2,757 cf Inflow=3.46 cfs 9,254 cf Outflow=1.09 cfs 8,363 cf
Pond 321P: F11+75 R	Peak Elev=823.11' Inflow=0.99 cfs 2,655 cf 12.0" Round Culvert n=0.013 L=12.0' S=0.0400 '/ Outflow=0.99 cfs 2,655 cf
Pond 322P: F11+75 L	Peak Elev=822.99' Inflow=0.60 cfs 1,597 cf 12.0" Round Culvert n=0.013 L=22.0' S=0.0218 '/ Outflow=0.60 cfs 1,597 cf
Pond 323P: DMH F11+85	Peak Elev=822.45' Inflow=1.59 cfs 4,252 cf 12.0" Round Culvert n=0.013 L=99.0' S=0.0200 '/ Outflow=1.59 cfs 4,252 cf
Pond 324P: DMH F12+85	Peak Elev=819.87' Inflow=1.59 cfs 4,252 cf 12.0" Round Culvert n=0.013 L=93.0' S=0.0190 '/ Outflow=1.59 cfs 4,252 cf
Pond 325P: DMH F13+25	Peak Elev=818.50' Inflow=1.51 cfs 3,946 cf 18.0" Round Culvert n=0.013 L=20.0' S=0.0070 '/ Outflow=1.51 cfs 3,946 cf
Pond 326P: F13+88 R	Peak Elev=818.50' Inflow=0.91 cfs 2,348 cf 12.0" Round Culvert n=0.013 L=12.0' S=0.0100 '/ Outflow=0.91 cfs 2,348 cf
Pond 327P: F13+76 L	Peak Elev=818.50' Inflow=0.60 cfs 1,597 cf 12.0" Round Culvert n=0.013 L=70.0' S=0.0070 '/ Outflow=0.60 cfs 1,597 cf
Pond 520P: Lower Basin B-2	Peak Elev=779.43' Storage=1,582 cf Inflow=1.43 cfs 6,673 cf Discarded=0.12 cfs 4,526 cf Primary=0.26 cfs 2,148 cf Outflow=0.38 cfs 6,674 cf
Pond 521P: DMH H 1+90	Peak Elev=780.08' Inflow=1.38 cfs 3,791 cf 15.0" Round Culvert n=0.013 L=22.0' S=0.0200 '/ Outflow=1.38 cfs 3,791 cf
Pond 522P: H 2+0 L	Peak Elev=780.77' Inflow=0.96 cfs 2,717 cf 15.0" Round Culvert n=0.013 L=22.0' S=0.0300 '/ Outflow=0.96 cfs 2,717 cf
Pond 523P: H 2+0 R	Peak Elev=780.63' Inflow=0.41 cfs 1,074 cf 12.0" Round Culvert n=0.013 L=13.0' S=0.0200 '/ Outflow=0.41 cfs 1,074 cf

Pond 524P: Stormwater unit	Peak Elev=779.62' Inflow=1.38 cfs 3,791 cf 15.0" Round Culvert n=0.013 L=18.0' S=0.0311 '/' Outflow=1.38 cfs 3,791 cf
Pond 525P: H 2+0 R	Peak Elev=778.10' Inflow=0.29 cfs 741 cf 12.0" Round Culvert n=0.013 L=10.0' S=0.0200 '/' Outflow=0.29 cfs 741 cf
Pond 526P: H 2+0 R	Peak Elev=778.10' Inflow=0.28 cfs 736 cf 15.0" Round Culvert n=0.013 L=19.0' S=0.0105 '/' Outflow=0.28 cfs 736 cf
Pond 527P: DMH H 0+80	Peak Elev=778.04' Inflow=0.57 cfs 1,478 cf 15.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=0.57 cfs 1,478 cf
Pond 528P: Stormwater Unit	Peak Elev=777.84' Inflow=0.57 cfs 1,478 cf 15.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=0.57 cfs 1,478 cf
Pond 530P: Upper Basin B-1	Peak Elev=785.00' Storage=1,407 cf Inflow=1.77 cfs 5,348 cf Discarded=0.05 cfs 2,476 cf Primary=0.29 cfs 2,857 cf Outflow=0.34 cfs 5,333 cf
Pond 531P: DMH H 3+40	Peak Elev=787.14' Inflow=1.72 cfs 4,740 cf 15.0" Round Culvert n=0.013 L=82.0' S=0.0305 '/' Outflow=1.72 cfs 4,740 cf
Pond 532P: H 3+50 L	Peak Elev=788.01' Inflow=1.33 cfs 3,582 cf 15.0" Round Culvert n=0.013 L=22.0' S=0.0436 '/' Outflow=1.33 cfs 3,582 cf
Pond 533P: H 3+50 R	Peak Elev=787.77' Inflow=0.39 cfs 1,159 cf 12.0" Round Culvert n=0.013 L=11.0' S=0.0645 '/' Outflow=0.39 cfs 1,159 cf
Pond 700P: Basin A	Peak Elev=784.16' Storage=8,320 cf Inflow=13.21 cfs 41,079 cf Discarded=2.72 cfs 41,079 cf Primary=0.00 cfs 0 cf Outflow=2.72 cfs 41,079 cf
Pond 701P: DMH A-1	Peak Elev=791.46' Inflow=8.16 cfs 21,388 cf 36.0" Round Culvert n=0.013 L=50.0' S=0.0200 '/' Outflow=8.16 cfs 21,388 cf
Pond 702P: DMH A-2	Peak Elev=793.14' Inflow=8.16 cfs 21,388 cf 36.0" Round Culvert n=0.013 L=168.0' S=0.0100 '/' Outflow=8.16 cfs 21,388 cf
Pond 710P: DMH F 0-10	Peak Elev=792.97' Inflow=5.04 cfs 17,997 cf 24.0" Round Culvert n=0.013 L=72.0' S=0.0556 '/' Outflow=5.04 cfs 17,997 cf
Pond 711P: DMH	Peak Elev=794.27' Inflow=0.47 cfs 1,233 cf 12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.47 cfs 1,233 cf
Pond 712P: F 0-2	Peak Elev=794.49' Inflow=1.07 cfs 2,799 cf 12.0" Round Culvert n=0.013 L=30.0' S=0.0100 '/' Outflow=1.07 cfs 2,799 cf
Pond 713P: DMH F 0+85	Peak Elev=795.89' Inflow=3.50 cfs 13,965 cf 18.0" Round Culvert n=0.013 L=95.0' S=0.0198 '/' Outflow=3.50 cfs 13,965 cf
Pond 714P: F 1+0 L	Peak Elev=797.87' Inflow=1.20 cfs 3,115 cf 12.0" Round Culvert n=0.013 L=16.0' S=0.0281 '/' Outflow=1.20 cfs 3,115 cf

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Pond 715P: F 1+0 R	Peak Elev=797.87' Inflow=1.18 cfs 3,088 cf 12.0" Round Culvert n=0.013 L=16.0' S=0.0281 '/' Outflow=1.18 cfs 3,088 cf
Pond 720P: Basin C-2	Peak Elev=818.09' Storage=3,284 cf Inflow=2.65 cfs 7,015 cf Primary=0.16 cfs 4,823 cf Secondary=0.00 cfs 0 cf Outflow=0.16 cfs 4,823 cf
Pond 721P: DMH C-3	Peak Elev=814.19' Inflow=0.16 cfs 4,823 cf 15.0" Round Culvert n=0.013 L=98.0' S=0.0100 '/' Outflow=0.16 cfs 4,823 cf
Pond 722P: LCB C5	Peak Elev=814.55' Inflow=1.12 cfs 2,940 cf 12.0" Round Culvert n=0.013 L=17.0' S=0.0588 '/' Outflow=1.12 cfs 2,940 cf
Pond 723P: DMH C4	Peak Elev=813.50' Inflow=1.12 cfs 7,762 cf 15.0" Round Culvert n=0.013 L=173.0' S=0.0347 '/' Outflow=1.12 cfs 7,762 cf
Pond 724P: DMH F0+66L	Peak Elev=799.60' Inflow=1.12 cfs 7,762 cf 15.0" Round Culvert n=0.013 L=50.0' S=0.0500 '/' Outflow=1.12 cfs 7,762 cf
Pond 730P: Basin C-1	Peak Elev=821.61' Storage=2,159 cf Inflow=2.95 cfs 7,724 cf Outflow=2.37 cfs 6,105 cf
Pond 731: DMH F6+0	Peak Elev=825.98' Inflow=2.63 cfs 6,859 cf 12.0" Round Culvert n=0.013 L=63.0' S=0.0317 '/' Outflow=2.63 cfs 6,859 cf
Pond 732P: 6+10L	Peak Elev=826.63' Inflow=0.65 cfs 1,740 cf 12.0" Round Culvert n=0.013 L=13.0' S=0.0200 '/' Outflow=0.65 cfs 1,740 cf
Pond 733P: F 6+10 R	Peak Elev=826.88' Inflow=1.38 cfs 3,582 cf 12.0" Round Culvert n=0.013 L=21.0' S=0.0124 '/' Outflow=1.38 cfs 3,582 cf
Pond 734P: DMH F7+20	Peak Elev=828.40' Inflow=0.59 cfs 1,536 cf 12.0" Round Culvert n=0.013 L=121.0' S=0.0100 '/' Outflow=0.59 cfs 1,536 cf
Pond 735P: DMH F7+90	Peak Elev=829.12' Inflow=0.59 cfs 1,536 cf 12.0" Round Culvert n=0.013 L=71.0' S=0.0100 '/' Outflow=0.59 cfs 1,536 cf
Pond 736P: DMH F9+25	Peak Elev=830.47' Inflow=0.59 cfs 1,536 cf 12.0" Round Culvert n=0.013 L=136.0' S=0.0100 '/' Outflow=0.59 cfs 1,536 cf
Pond 737P: H 11+60	Peak Elev=830.76' Inflow=0.26 cfs 664 cf 12.0" Round Culvert n=0.013 L=30.0' S=0.0100 '/' Outflow=0.26 cfs 664 cf
Pond 738P: F9+49R	Peak Elev=830.89' Inflow=0.34 cfs 872 cf 12.0" Round Culvert n=0.013 L=34.0' S=0.0124 '/' Outflow=0.34 cfs 872 cf
Pond 750P: DMH F 2+75	Peak Elev=806.57' Inflow=1.38 cfs 3,605 cf 12.0" Round Culvert n=0.013 L=73.0' S=0.0200 '/' Outflow=1.38 cfs 3,605 cf
Pond 751P: DMH F 3+60	Peak Elev=811.40' Inflow=1.38 cfs 3,605 cf 12.0" Round Culvert n=0.013 L=88.0' S=0.0538 '/' Outflow=1.38 cfs 3,605 cf

Pine Tree Post*MA-Holden_files 24-hr S1 2-yr Rainfall=3.18"*

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Pond 752P: F 3+60 RPeak Elev=811.97' Inflow=0.47 cfs 1,237 cf
12.0" Round Culvert n=0.013 L=16.0' S=0.0531 '/' Outflow=0.47 cfs 1,237 cf**Pond 753P: F 3+60L**Peak Elev=812.12' Inflow=0.91 cfs 2,368 cf
12.0" Round Culvert n=0.013 L=25.0' S=0.0340 '/' Outflow=0.91 cfs 2,368 cf**Pond 780P: DMH A-3**Peak Elev=794.55' Inflow=6.78 cfs 17,783 cf
36.0" Round Culvert n=0.013 L=150.0' S=0.0100 '/' Outflow=6.78 cfs 17,783 cf**Pond 781P: DMH H 5+15**Peak Elev=795.55' Inflow=5.45 cfs 14,187 cf
36.0" Round Culvert n=0.013 L=107.0' S=0.0100 '/' Outflow=5.45 cfs 14,187 cf**Pond 782P: DMH H 5+50**Peak Elev=799.42' Inflow=5.45 cfs 14,187 cf
18.0" Round Culvert n=0.013 L=35.0' S=0.0606 '/' Outflow=5.45 cfs 14,187 cf**Pond 783P: H 5+60 R**Peak Elev=800.19' Inflow=0.85 cfs 2,265 cf
12.0" Round Culvert n=0.013 L=22.0' S=0.0282 '/' Outflow=0.85 cfs 2,265 cf**Pond 784P: H 5+60 L**Peak Elev=800.34' Inflow=1.37 cfs 3,559 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0517 '/' Outflow=1.37 cfs 3,559 cf**Pond 785P: DMH H 7+65**Peak Elev=818.37' Inflow=3.23 cfs 8,363 cf
15.0" Round Culvert n=0.013 L=215.0' S=0.0881 '/' Outflow=3.23 cfs 8,363 cf**Pond 786P: H 7+75 L**Peak Elev=820.23' Inflow=0.60 cfs 1,555 cf
12.0" Round Culvert n=0.013 L=22.0' S=0.0332 '/' Outflow=0.60 cfs 1,555 cf**Pond 787P: H 7+75R**Peak Elev=820.45' Inflow=1.35 cfs 3,511 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0608 '/' Outflow=1.35 cfs 3,511 cf**Pond 788P: DMH H 9+10**Peak Elev=829.14' Inflow=1.27 cfs 3,297 cf
12.0" Round Culvert n=0.013 L=143.0' S=0.0700 '/' Outflow=1.27 cfs 3,297 cf**Pond 789P: H 9+25 R**Peak Elev=829.66' Inflow=0.66 cfs 1,704 cf
12.0" Round Culvert n=0.013 L=14.0' S=0.0429 '/' Outflow=0.66 cfs 1,704 cf**Pond 790P: H 9+25 L**Peak Elev=829.64' Inflow=0.62 cfs 1,593 cf
12.0" Round Culvert n=0.013 L=25.0' S=0.0240 '/' Outflow=0.62 cfs 1,593 cf**Pond 795P: LCB A-4**Peak Elev=806.61' Inflow=1.33 cfs 3,596 cf
12.0" Round Culvert n=0.013 L=24.0' S=0.0200 '/' Outflow=1.33 cfs 3,596 cf**Link 311L: POA- Salisbury**Inflow=3.10 cfs 16,964 cf
Primary=3.10 cfs 16,964 cf**Link POA 1: Railroad Tracks**Inflow=0.76 cfs 2,816 cf
Primary=0.76 cfs 2,816 cf**Total Runoff Area = 1,242,994 sf Runoff Volume = 86,714 cf Average Runoff Depth = 0.84"**
74.07% Pervious = 920,727 sf 25.93% Impervious = 322,267 sf

10-YEAR Post-Development

Time span=1.00-30.00 hrs, dt=0.01 hrs, 2901 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 10: Overland to Tracks	Runoff Area=152,820 sf 5.15% Impervious Runoff Depth=0.03" Flow Length=257' Tc=15.7 min UI Adjusted CN=33 Runoff=0.02 cfs 415 cf
Subcatchment 40: Overland to south	Runoff Area=13,135 sf 12.83% Impervious Runoff Depth=2.11" Flow Length=350' Tc=16.9 min UI Adjusted CN=72 Runoff=0.50 cfs 2,313 cf
Subcatchment 50: overland north basin	Runoff Area=20,232 sf 8.58% Impervious Runoff Depth=0.28" Tc=6.0 min UI Adjusted CN=42 Runoff=0.02 cfs 479 cf
Subcatchment 51: To Bailey wetland	Runoff Area=142,759 sf 5.04% Impervious Runoff Depth=0.36" Flow Length=720' Tc=26.5 min UI Adjusted CN=44 Runoff=0.22 cfs 4,339 cf
Subcatchment 60: To Abut Wetlands	Runoff Area=8,678 sf 0.00% Impervious Runoff Depth=0.02" Flow Length=615' Tc=9.9 min CN=32 Runoff=0.00 cfs 14 cf
Subcatchment 70: Wetlands in old pit	Runoff Area=88,870 sf 0.00% Impervious Runoff Depth=0.32" Flow Length=230' Tc=12.4 min CN=43 Runoff=0.12 cfs 2,396 cf
Subcatchment 100: BASIN E	Runoff Area=6,150 sf 0.00% Impervious Runoff Depth=0.18" Flow Length=257' Tc=15.7 min CN=39 Runoff=0.00 cfs 91 cf
Subcatchment 101: PT 4+50 R	Runoff Area=4,840 sf 79.44% Impervious Runoff Depth=3.36" Tc=6.0 min CN=86 Runoff=0.48 cfs 1,357 cf
Subcatchment 102: PT 4+75 L	Runoff Area=24,505 sf 19.14% Impervious Runoff Depth=1.58" Tc=6.0 min CN=65 Runoff=1.08 cfs 3,228 cf
Subcatchment 111: PT2+25 R	Runoff Area=5,700 sf 60.18% Impervious Runoff Depth=2.36" Tc=6.0 min CN=75 Runoff=0.40 cfs 1,121 cf
Subcatchment 112: PT3+25 L	Runoff Area=25,310 sf 28.09% Impervious Runoff Depth=2.28" Flow Length=265' Tc=6.0 min CN=74 Runoff=1.70 cfs 4,802 cf
Subcatchment 113: PT 2+25 L	Runoff Area=19,505 sf 25.84% Impervious Runoff Depth=2.53" Flow Length=410' Tc=8.8 min CN=77 Runoff=1.26 cfs 4,114 cf
Subcatchment 115: LCB IN SWALE	Runoff Area=21,365 sf 13.20% Impervious Runoff Depth=1.80" Flow Length=250' Tc=6.9 min CN=68 Runoff=1.04 cfs 3,208 cf
Subcatchment 201: PT 4+75 R	Runoff Area=6,315 sf 73.40% Impervious Runoff Depth=2.98" Tc=6.0 min CN=82 Runoff=0.56 cfs 1,569 cf
Subcatchment 202: PT4+75L	Runoff Area=40,700 sf 20.33% Impervious Runoff Depth=1.51" Flow Length=250' Tc=6.9 min CN=64 Runoff=1.59 cfs 5,120 cf
Subcatchment 300: Overland towards	Runoff Area=95,530 sf 19.12% Impervious Runoff Depth=2.36" Flow Length=286' Tc=15.4 min UI Adjusted CN=75 Runoff=4.34 cfs 18,791 cf

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Subcatchment 310: Basin D-1	Runoff Area=14,240 sf 8.95% Impervious Runoff Depth=2.36" Flow Length=162' Tc=6.7 min UI Adjusted CN=75 Runoff=0.96 cfs 2,801 cf
Subcatchment 320: Basin D-2	Runoff Area=11,725 sf 5.42% Impervious Runoff Depth=2.36" Flow Length=162' Tc=6.7 min CN=75 Runoff=0.79 cfs 2,306 cf
Subcatchment 321: F11+75 R	Runoff Area=17,525 sf 48.48% Impervious Runoff Depth=3.36" Flow Length=235' Tc=6.5 min CN=86 Runoff=1.69 cfs 4,914 cf
Subcatchment 322: F11+75 L	Runoff Area=7,900 sf 79.08% Impervious Runoff Depth=4.09" Flow Length=295' Slope=0.0400 1' Tc=6.0 min CN=93 Runoff=0.91 cfs 2,693 cf
Subcatchment 326: F12+0 R	Runoff Area=14,240 sf 57.64% Impervious Runoff Depth=3.56" Flow Length=255' Tc=6.0 min CN=88 Runoff=1.49 cfs 4,230 cf
Subcatchment 327: F13+74 L	Runoff Area=7,900 sf 79.08% Impervious Runoff Depth=4.09" Flow Length=295' Slope=0.0400 1' Tc=6.0 min CN=93 Runoff=0.91 cfs 2,693 cf
Subcatchment 520: Overland to B-2	Runoff Area=5,600 sf 0.00% Impervious Runoff Depth=0.45" Tc=6.0 min CN=46 Runoff=0.02 cfs 211 cf
Subcatchment 522: H 2+0 L	Runoff Area=33,610 sf 41.24% Impervious Runoff Depth=2.19" Tc=6.0 min CN=73 Runoff=2.17 cfs 6,147 cf
Subcatchment 523: H 2+0 R	Runoff Area=6,510 sf 68.20% Impervious Runoff Depth=3.56" Tc=6.0 min CN=88 Runoff=0.68 cfs 1,934 cf
Subcatchment 525: H 1+74 R	Runoff Area=5,340 sf 76.59% Impervious Runoff Depth=3.17" Tc=6.0 min CN=84 Runoff=0.50 cfs 1,411 cf
Subcatchment 526: H 0+74 L	Runoff Area=5,305 sf 76.15% Impervious Runoff Depth=3.17" Tc=6.0 min CN=84 Runoff=0.50 cfs 1,401 cf
Subcatchment 530: Overland to Basin B-1	Runoff Area=24,055 sf 16.28% Impervious Runoff Depth=1.05" Tc=6.0 min UI Adjusted CN=57 Runoff=0.60 cfs 2,098 cf
Subcatchment 532: H 3+50 L	Runoff Area=35,890 sf 41.85% Impervious Runoff Depth=2.53" Tc=6.0 min CN=77 Runoff=2.70 cfs 7,570 cf
Subcatchment 533: PT 4+75 R	Runoff Area=17,030 sf 50.44% Impervious Runoff Depth=1.96" Tc=6.0 min CN=70 Runoff=0.97 cfs 2,775 cf
Subcatchment 700: BASIN A	Runoff Area=74,395 sf 25.61% Impervious Runoff Depth=0.99" Flow Length=230' Tc=12.4 min UI Adjusted CN=56 Runoff=1.21 cfs 6,109 cf
Subcatchment 711: PT 8+13	Runoff Area=7,170 sf 85.36% Impervious Runoff Depth=3.67" Tc=6.0 min CN=89 Runoff=0.77 cfs 2,191 cf
Subcatchment 712: F 0-2	Runoff Area=22,070 sf 36.36% Impervious Runoff Depth=2.98" Tc=6.0 min CN=82 Runoff=1.96 cfs 5,482 cf

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Subcatchment 714: F 1+0 L	Runoff Area=19,700 sf 55.28% Impervious Runoff Depth=3.46" Tc=6.0 min CN=87 Runoff=2.01 cfs 5,686 cf
Subcatchment 715: F 1+0 R	Runoff Area=16,545 sf 71.93% Impervious Runoff Depth=3.88" Tc=6.0 min CN=91 Runoff=1.85 cfs 5,343 cf
Subcatchment 720: Basin C-2	Runoff Area=8,675 sf 16.60% Impervious Runoff Depth=2.62" Tc=6.0 min CN=78 Runoff=0.68 cfs 1,893 cf
Subcatchment 722: LCB C5	Runoff Area=15,130 sf 75.35% Impervious Runoff Depth=3.98" Tc=6.0 min CN=92 Runoff=1.72 cfs 5,021 cf
Subcatchment 730: Basin C-1	Runoff Area=7,860 sf 18.89% Impervious Runoff Depth=2.71" Tc=6.0 min CN=79 Runoff=0.64 cfs 1,773 cf
Subcatchment 732: F 6+10L	Runoff Area=8,270 sf 83.92% Impervious Runoff Depth=4.20" Tc=6.0 min CN=94 Runoff=0.97 cfs 2,894 cf
Subcatchment 733: F6+10R	Runoff Area=23,650 sf 51.78% Impervious Runoff Depth=3.36" Tc=6.0 min CN=86 Runoff=2.35 cfs 6,631 cf
Subcatchment 737: H 11+60L	Runoff Area=4,200 sf 53.93% Impervious Runoff Depth=3.46" Tc=6.0 min CN=87 Runoff=0.43 cfs 1,212 cf
Subcatchment 738: F 9+49R	Runoff Area=5,290 sf 59.92% Impervious Runoff Depth=3.56" Tc=6.0 min CN=88 Runoff=0.55 cfs 1,571 cf
Subcatchment 752: F 3+60 R	Runoff Area=6,115 sf 78.66% Impervious Runoff Depth=4.09" Tc=6.0 min CN=93 Runoff=0.71 cfs 2,084 cf
Subcatchment 753: F 3+60 L	Runoff Area=14,360 sf 59.02% Impervious Runoff Depth=3.56" Tc=6.0 min CN=88 Runoff=1.50 cfs 4,266 cf
Subcatchment 783: H 5+60 R	Runoff Area=11,200 sf 77.14% Impervious Runoff Depth=4.09" Tc=6.0 min CN=93 Runoff=1.30 cfs 3,817 cf
Subcatchment 784S: H 5+60 L	Runoff Area=25,640 sf 39.94% Impervious Runoff Depth=3.17" Tc=6.0 min CN=84 Runoff=2.42 cfs 6,773 cf
Subcatchment 786: H 7+75 L	Runoff Area=10,720 sf 46.97% Impervious Runoff Depth=3.27" Tc=6.0 min CN=85 Runoff=1.04 cfs 2,918 cf
Subcatchment 787: H 7+75 R	Runoff Area=20,420 sf 62.66% Impervious Runoff Depth=3.67" Tc=6.0 min CN=89 Runoff=2.19 cfs 6,240 cf
Subcatchment 789: H 9+25 R	Runoff Area=11,750 sf 47.32% Impervious Runoff Depth=3.27" Tc=6.0 min CN=85 Runoff=1.14 cfs 3,198 cf
Subcatchment 790: H 9+25 L	Runoff Area=10,515 sf 49.74% Impervious Runoff Depth=3.36" Tc=6.0 min CN=86 Runoff=1.05 cfs 2,948 cf

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Subcatchment 795: Overland LCB A-4	Runoff Area=36,035 sf 13.54% Impervious Runoff Depth=2.53" Tc=6.0 min CN=77 Runoff=2.72 cfs 7,601 cf
Reach 1R: (new Reach)	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf n=0.130 L=200.0' S=0.1950 '/' Capacity=0.18 cfs Outflow=0.00 cfs 0 cf
Reach 5R: overland to Abut Wetland	Avg. Flow Depth=0.00' Max Vel=0.00 fps Inflow=0.00 cfs 0 cf n=0.400 L=215.0' S=0.0419 '/' Capacity=1.32 cfs Outflow=0.00 cfs 0 cf
Pond 5P: Bailey Wetlands	Peak Elev=777.32' Storage=2,371 cf Inflow=2.05 cfs 17,660 cf Discarded=0.28 cfs 10,455 cf Primary=0.93 cfs 7,204 cf Outflow=1.21 cfs 17,659 cf
Pond 7P: wetlands	Peak Elev=751.19' Storage=0 cf Inflow=0.12 cfs 2,396 cf Outflow=0.12 cfs 2,396 cf
Pond 53P: Northerly Bailey Basin	Peak Elev=777.26' Storage=1,428 cf Inflow=0.95 cfs 7,683 cf Discarded=0.37 cfs 7,686 cf Primary=0.00 cfs 0 cf Outflow=0.37 cfs 7,686 cf
Pond 60P: Abutters Isolated wetland	Inflow=0.00 cfs 14 cf Primary=0.00 cfs 14 cf
Pond 100P: Basin E	Peak Elev=788.86' Storage=1,140 cf Inflow=1.56 cfs 4,677 cf Discarded=0.26 cfs 4,677 cf Primary=0.00 cfs 0 cf Outflow=0.26 cfs 4,677 cf
Pond 101P: PT4+50 R	Peak Elev=789.89' Inflow=0.48 cfs 1,357 cf 12.0" Round Culvert n=0.013 L=12.0' S=0.0175 '/' Outflow=0.48 cfs 1,357 cf
Pond 102P: PT4+75 L	Peak Elev=790.05' Inflow=1.08 cfs 3,228 cf 12.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=1.08 cfs 3,228 cf
Pond 105P: DMH F 4+60	Peak Elev=789.78' Inflow=1.56 cfs 4,585 cf 15.0" Round Culvert n=0.013 L=39.0' S=0.0303 '/' Outflow=1.56 cfs 4,585 cf
Pond 110P: Recharge Area	Peak Elev=770.10' Storage=3,715 cf Inflow=4.30 cfs 13,245 cf Discarded=0.48 cfs 13,248 cf Primary=0.00 cfs 0 cf Outflow=0.48 cfs 13,248 cf
Pond 111P: PT2+25 R	Peak Elev=772.11' Inflow=0.40 cfs 1,121 cf 12.0" Round Culvert n=0.013 L=21.0' S=0.0205 '/' Outflow=0.40 cfs 1,121 cf
Pond 112P: DMH PT 3+25 L	Peak Elev=779.97' Inflow=1.70 cfs 4,802 cf 12.0" Round Culvert n=0.013 L=110.0' S=0.0740 '/' Outflow=1.70 cfs 4,802 cf
Pond 113P: PT2+25 L	Peak Elev=772.29' Inflow=1.26 cfs 4,114 cf 12.0" Round Culvert n=0.013 L=13.0' S=0.0331 '/' Outflow=1.26 cfs 4,114 cf
Pond 114P: DMH PT 2+15	Peak Elev=772.06' Inflow=3.26 cfs 10,038 cf 15.0" Round Culvert n=0.013 L=59.0' S=0.0200 '/' Outflow=3.26 cfs 10,038 cf
Pond 115P: LCB IN SWALE	Peak Elev=770.10' Inflow=1.04 cfs 3,208 cf 12.0" Round Culvert n=0.013 L=5.0' S=0.0000 '/' Outflow=1.04 cfs 3,208 cf

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Pond 201P: PT0+63 RT	Peak Elev=776.90' Inflow=0.56 cfs 1,569 cf 12.0" Round Culvert n=0.013 L=25.0' S=0.0100 '/' Outflow=0.56 cfs 1,569 cf
Pond 202P: PT 0+63 L	Peak Elev=767.21' Inflow=1.59 cfs 5,120 cf 12.0" Round Culvert n=0.013 L=15.0' S=0.0167 '/' Outflow=1.59 cfs 5,120 cf
Pond 203P: DMH PT 0+50	Peak Elev=766.17' Inflow=2.14 cfs 6,689 cf 18.0" Round Culvert n=0.013 L=44.0' S=0.0200 '/' Outflow=2.14 cfs 6,689 cf
Pond 204P: DMH PT 0+19	Peak Elev=765.29' Inflow=2.14 cfs 6,689 cf 18.0" Round Culvert n=0.013 L=74.0' S=0.0200 '/' Outflow=2.14 cfs 6,689 cf
Pond 310P: Basin D-1	Peak Elev=836.21' Storage=2,801 cf Inflow=0.96 cfs 2,801 cf Outflow=0.00 cfs 0 cf
Pond 320P: Basin D-2	Peak Elev=819.17' Storage=4,388 cf Inflow=5.79 cfs 16,835 cf Outflow=1.47 cfs 15,944 cf
Pond 321P: F11+75 R	Peak Elev=823.31' Inflow=1.69 cfs 4,914 cf 12.0" Round Culvert n=0.013 L=12.0' S=0.0400 '/' Outflow=1.69 cfs 4,914 cf
Pond 322P: F11+75 L	Peak Elev=823.12' Inflow=0.91 cfs 2,693 cf 12.0" Round Culvert n=0.013 L=22.0' S=0.0218 '/' Outflow=0.91 cfs 2,693 cf
Pond 323P: DMH F11+85	Peak Elev=822.74' Inflow=2.60 cfs 7,606 cf 12.0" Round Culvert n=0.013 L=99.0' S=0.0200 '/' Outflow=2.60 cfs 7,606 cf
Pond 324P: DMH F12+85	Peak Elev=820.16' Inflow=2.60 cfs 7,606 cf 12.0" Round Culvert n=0.013 L=93.0' S=0.0190 '/' Outflow=2.60 cfs 7,606 cf
Pond 325P: DMH F13+25	Peak Elev=819.17' Inflow=2.40 cfs 6,922 cf 18.0" Round Culvert n=0.013 L=20.0' S=0.0070 '/' Outflow=2.40 cfs 6,922 cf
Pond 326P: F13+88 R	Peak Elev=819.18' Inflow=1.49 cfs 4,230 cf 12.0" Round Culvert n=0.013 L=12.0' S=0.0100 '/' Outflow=1.49 cfs 4,230 cf
Pond 327P: F13+76 L	Peak Elev=819.18' Inflow=0.91 cfs 2,693 cf 12.0" Round Culvert n=0.013 L=70.0' S=0.0070 '/' Outflow=0.91 cfs 2,693 cf
Pond 520P: Lower Basin B-2	Peak Elev=780.33' Storage=3,295 cf Inflow=3.26 cfs 17,615 cf Discarded=0.19 cfs 7,106 cf Primary=1.74 cfs 10,509 cf Outflow=1.93 cfs 17,615 cf
Pond 521P: DMH H 1+90	Peak Elev=780.44' Inflow=2.85 cfs 8,080 cf 15.0" Round Culvert n=0.013 L=22.0' S=0.0200 '/' Outflow=2.85 cfs 8,080 cf
Pond 522P: H 2+0 L	Peak Elev=781.04' Inflow=2.17 cfs 6,147 cf 15.0" Round Culvert n=0.013 L=22.0' S=0.0300 '/' Outflow=2.17 cfs 6,147 cf
Pond 523P: H 2+0 R	Peak Elev=780.74' Inflow=0.68 cfs 1,934 cf 12.0" Round Culvert n=0.013 L=13.0' S=0.0200 '/' Outflow=0.68 cfs 1,934 cf

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Pond 524P: Stormwater unit	Peak Elev=780.34' Inflow=2.85 cfs 8,080 cf 15.0" Round Culvert n=0.013 L=18.0' S=0.0311 '/' Outflow=2.85 cfs 8,080 cf
Pond 525P: H 2+0 R	Peak Elev=778.28' Inflow=0.50 cfs 1,411 cf 12.0" Round Culvert n=0.013 L=10.0' S=0.0200 '/' Outflow=0.50 cfs 1,411 cf
Pond 526P: H 2+0 R	Peak Elev=778.27' Inflow=0.50 cfs 1,401 cf 15.0" Round Culvert n=0.013 L=19.0' S=0.0105 '/' Outflow=0.50 cfs 1,401 cf
Pond 527P: DMH H 0+80	Peak Elev=778.22' Inflow=1.00 cfs 2,812 cf 15.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=1.00 cfs 2,812 cf
Pond 528P: Stormwater Unit	Peak Elev=777.96' Inflow=1.00 cfs 2,812 cf 15.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=1.00 cfs 2,812 cf
Pond 530P: Upper Basin B-1	Peak Elev=785.69' Storage=2,989 cf Inflow=4.27 cfs 12,443 cf Discarded=0.07 cfs 3,070 cf Primary=1.88 cfs 9,324 cf Outflow=1.95 cfs 12,394 cf
Pond 531P: DMH H 3+40	Peak Elev=787.52' Inflow=3.67 cfs 10,345 cf 15.0" Round Culvert n=0.013 L=82.0' S=0.0305 '/' Outflow=3.67 cfs 10,345 cf
Pond 532P: H 3+50 L	Peak Elev=788.29' Inflow=2.70 cfs 7,570 cf 15.0" Round Culvert n=0.013 L=22.0' S=0.0436 '/' Outflow=2.70 cfs 7,570 cf
Pond 533P: H 3+50 R	Peak Elev=787.97' Inflow=0.97 cfs 2,775 cf 12.0" Round Culvert n=0.013 L=11.0' S=0.0645 '/' Outflow=0.97 cfs 2,775 cf
Pond 700P: Basin A	Peak Elev=785.14' Storage=21,224 cf Inflow=23.15 cfs 81,829 cf Discarded=3.46 cfs 81,829 cf Primary=0.00 cfs 0 cf Outflow=3.46 cfs 81,829 cf
Pond 701P: DMH A-1	Peak Elev=791.84' Inflow=14.05 cfs 39,845 cf 36.0" Round Culvert n=0.013 L=50.0' S=0.0200 '/' Outflow=14.05 cfs 39,845 cf
Pond 702P: DMH A-2	Peak Elev=793.54' Inflow=14.05 cfs 39,845 cf 36.0" Round Culvert n=0.013 L=168.0' S=0.0100 '/' Outflow=14.05 cfs 39,845 cf
Pond 710P: DMH F 0-10	Peak Elev=793.31' Inflow=8.45 cfs 35,875 cf 24.0" Round Culvert n=0.013 L=72.0' S=0.0556 '/' Outflow=8.45 cfs 35,875 cf
Pond 711P: DMH	Peak Elev=794.38' Inflow=0.77 cfs 2,191 cf 12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=0.77 cfs 2,191 cf
Pond 712P: F 0-2	Peak Elev=794.76' Inflow=1.96 cfs 5,482 cf 12.0" Round Culvert n=0.013 L=30.0' S=0.0100 '/' Outflow=1.96 cfs 5,482 cf
Pond 713P: DMH F 0+85	Peak Elev=796.21' Inflow=5.72 cfs 28,201 cf 18.0" Round Culvert n=0.013 L=95.0' S=0.0198 '/' Outflow=5.72 cfs 28,201 cf
Pond 714P: F 1+0 L	Peak Elev=798.09' Inflow=2.01 cfs 5,686 cf 12.0" Round Culvert n=0.013 L=16.0' S=0.0281 '/' Outflow=2.01 cfs 5,686 cf

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Pond 715P: F 1+0 R

Peak Elev=798.05' Inflow=1.85 cfs 5,343 cf
12.0" Round Culvert n=0.013 L=16.0' S=0.0281 ' Outflow=1.85 cfs 5,343 cf

Pond 720P: Basin C-2

Peak Elev=818.69' Storage=4,711 cf Inflow=4.90 cfs 14,356 cf
Primary=2.48 cfs 12,151 cf Secondary=0.00 cfs 0 cf Outflow=2.48 cfs 12,151 cf

Pond 721P: DMH C-3

Peak Elev=814.84' Inflow=2.48 cfs 12,151 cf
15.0" Round Culvert n=0.013 L=98.0' S=0.0100 ' Outflow=2.48 cfs 12,151 cf

Pond 722P: LCB C5

Peak Elev=814.71' Inflow=1.72 cfs 5,021 cf
12.0" Round Culvert n=0.013 L=17.0' S=0.0588 ' Outflow=1.72 cfs 5,021 cf

Pond 723P: DMH C4

Peak Elev=813.90' Inflow=3.05 cfs 17,172 cf
15.0" Round Culvert n=0.013 L=173.0' S=0.0347 ' Outflow=3.05 cfs 17,172 cf

Pond 724P: DMH F0+66L

Peak Elev=800.00' Inflow=3.05 cfs 17,172 cf
15.0" Round Culvert n=0.013 L=50.0' S=0.0500 ' Outflow=3.05 cfs 17,172 cf

Pond 730P: Basin C-1

Peak Elev=821.77' Storage=2,444 cf Inflow=4.94 cfs 14,082 cf
Outflow=4.29 cfs 12,463 cf

Pond 731: DMH F6+0

Peak Elev=826.80' Inflow=4.31 cfs 12,309 cf
12.0" Round Culvert n=0.013 L=63.0' S=0.0317 ' Outflow=4.31 cfs 12,309 cf

Pond 732P: 6+10L

Peak Elev=826.94' Inflow=0.97 cfs 2,894 cf
12.0" Round Culvert n=0.013 L=13.0' S=0.0200 ' Outflow=0.97 cfs 2,894 cf

Pond 733P: F 6+10 R

Peak Elev=827.22' Inflow=2.35 cfs 6,631 cf
12.0" Round Culvert n=0.013 L=21.0' S=0.0124 ' Outflow=2.35 cfs 6,631 cf

Pond 734P: DMH F7+20

Peak Elev=828.52' Inflow=0.98 cfs 2,784 cf
12.0" Round Culvert n=0.013 L=121.0' S=0.0100 ' Outflow=0.98 cfs 2,784 cf

Pond 735P: DMH F7+90

Peak Elev=829.25' Inflow=0.98 cfs 2,784 cf
12.0" Round Culvert n=0.013 L=71.0' S=0.0100 ' Outflow=0.98 cfs 2,784 cf

Pond 736P: DMH F9+25

Peak Elev=830.59' Inflow=0.98 cfs 2,784 cf
12.0" Round Culvert n=0.013 L=136.0' S=0.0100 ' Outflow=0.98 cfs 2,784 cf

Pond 737P: H 11+60

Peak Elev=830.86' Inflow=0.43 cfs 1,212 cf
12.0" Round Culvert n=0.013 L=30.0' S=0.0100 ' Outflow=0.43 cfs 1,212 cf

Pond 738P: F9+49R

Peak Elev=831.00' Inflow=0.55 cfs 1,571 cf
12.0" Round Culvert n=0.013 L=34.0' S=0.0124 ' Outflow=0.55 cfs 1,571 cf

Pond 750P: DMH F 2+75

Peak Elev=806.79' Inflow=2.21 cfs 6,350 cf
12.0" Round Culvert n=0.013 L=73.0' S=0.0200 ' Outflow=2.21 cfs 6,350 cf

Pond 751P: DMH F 3+60

Peak Elev=811.62' Inflow=2.21 cfs 6,350 cf
12.0" Round Culvert n=0.013 L=88.0' S=0.0538 ' Outflow=2.21 cfs 6,350 cf

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Pond 752P: F 3+60 R

Peak Elev=812.06' Inflow=0.71 cfs 2,084 cf
12.0" Round Culvert n=0.013 L=16.0' S=0.0531 '/ Outflow=0.71 cfs 2,084 cf

Pond 753P: F 3+60L

Peak Elev=812.28' Inflow=1.50 cfs 4,266 cf
12.0" Round Culvert n=0.013 L=25.0' S=0.0340 '/ Outflow=1.50 cfs 4,266 cf

Pond 780P: DMH A-3

Peak Elev=794.94' Inflow=11.84 cfs 33,496 cf
36.0" Round Culvert n=0.013 L=150.0' S=0.0100 '/ Outflow=11.84 cfs 33,496 cf

Pond 781P: DMH H 5+15

Peak Elev=795.89' Inflow=9.12 cfs 25,895 cf
36.0" Round Culvert n=0.013 L=107.0' S=0.0100 '/ Outflow=9.12 cfs 25,895 cf

Pond 782P: DMH H 5+50

Peak Elev=800.15' Inflow=9.12 cfs 25,895 cf
18.0" Round Culvert n=0.013 L=35.0' S=0.0606 '/ Outflow=9.12 cfs 25,895 cf

Pond 783P: H 5+60 R

Peak Elev=800.44' Inflow=1.30 cfs 3,817 cf
12.0" Round Culvert n=0.013 L=22.0' S=0.0282 '/ Outflow=1.30 cfs 3,817 cf

Pond 784P: H 5+60 L

Peak Elev=800.63' Inflow=2.42 cfs 6,773 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0517 '/ Outflow=2.42 cfs 6,773 cf

Pond 785P: DMH H 7+65

Peak Elev=818.90' Inflow=5.41 cfs 15,304 cf
15.0" Round Culvert n=0.013 L=215.0' S=0.0881 '/ Outflow=5.41 cfs 15,304 cf

Pond 786P: H 7+75 L

Peak Elev=820.37' Inflow=1.04 cfs 2,918 cf
12.0" Round Culvert n=0.013 L=22.0' S=0.0332 '/ Outflow=1.04 cfs 2,918 cf

Pond 787P: H 7+75R

Peak Elev=820.68' Inflow=2.19 cfs 6,240 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0608 '/ Outflow=2.19 cfs 6,240 cf

Pond 788P: DMH H 9+10

Peak Elev=829.39' Inflow=2.19 cfs 6,147 cf
12.0" Round Culvert n=0.013 L=143.0' S=0.0700 '/ Outflow=2.19 cfs 6,147 cf

Pond 789P: H 9+25 R

Peak Elev=829.81' Inflow=1.14 cfs 3,198 cf
12.0" Round Culvert n=0.013 L=14.0' S=0.0429 '/ Outflow=1.14 cfs 3,198 cf

Pond 790P: H 9+25 L

Peak Elev=829.81' Inflow=1.05 cfs 2,948 cf
12.0" Round Culvert n=0.013 L=25.0' S=0.0240 '/ Outflow=1.05 cfs 2,948 cf

Pond 795P: LCB A-4

Peak Elev=807.02' Inflow=2.72 cfs 7,601 cf
12.0" Round Culvert n=0.013 L=24.0' S=0.0200 '/ Outflow=2.72 cfs 7,601 cf

Link 311L: POA- Salisbury

Inflow=5.78 cfs 34,735 cf
Primary=5.78 cfs 34,735 cf

Link POA 1: Railroad Tracks

Inflow=2.14 cfs 9,499 cf
Primary=2.14 cfs 9,499 cf

Total Runoff Area = 1,242,994 sf Runoff Volume = 182,191 cf Average Runoff Depth = 1.76"
74.07% Pervious = 920,727 sf 25.93% Impervious = 322,267 sf

100-YEAR Post-Development

Pine Tree Post

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Time span=1.00-30.00 hrs, dt=0.01 hrs, 2901 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 10: Overland to Tracks	Runoff Area=152,820 sf 5.15% Impervious Runoff Depth=0.53" Flow Length=257' Tc=15.7 min UI Adjusted CN=33 Runoff=0.31 cfs 6,691 cf
Subcatchment 40: Overland to south	Runoff Area=13,135 sf 12.83% Impervious Runoff Depth=4.35" Flow Length=350' Tc=16.9 min UI Adjusted CN=72 Runoff=1.01 cfs 4,756 cf
Subcatchment 50: overland north basin	Runoff Area=20,232 sf 8.58% Impervious Runoff Depth=1.26" Tc=6.0 min UI Adjusted CN=42 Runoff=0.48 cfs 2,116 cf
Subcatchment 51: To Bailey wetland	Runoff Area=142,759 sf 5.04% Impervious Runoff Depth=1.44" Flow Length=720' Tc=26.5 min UI Adjusted CN=44 Runoff=2.10 cfs 17,093 cf
Subcatchment 60: To Abut Wetlands	Runoff Area=8,678 sf 0.00% Impervious Runoff Depth=0.46" Flow Length=615' Tc=9.9 min CN=32 Runoff=0.01 cfs 330 cf
Subcatchment 70: Wetlands in old pit	Runoff Area=88,870 sf 0.00% Impervious Runoff Depth=1.35" Flow Length=230' Tc=12.4 min CN=43 Runoff=1.72 cfs 9,963 cf
Subcatchment 100: BASIN E	Runoff Area=6,150 sf 0.00% Impervious Runoff Depth=0.99" Flow Length=257' Tc=15.7 min CN=39 Runoff=0.06 cfs 510 cf
Subcatchment 101: PT 4+50 R	Runoff Area=4,840 sf 79.44% Impervious Runoff Depth=5.94" Tc=6.0 min CN=86 Runoff=0.79 cfs 2,397 cf
Subcatchment 102: PT 4+75 L	Runoff Area=24,505 sf 19.14% Impervious Runoff Depth=3.57" Tc=6.0 min CN=65 Runoff=2.46 cfs 7,297 cf
Subcatchment 111: PT2+25 R	Runoff Area=5,700 sf 60.18% Impervious Runoff Depth=4.68" Tc=6.0 min CN=75 Runoff=0.76 cfs 2,224 cf
Subcatchment 112: PT3+25 L	Runoff Area=25,310 sf 28.09% Impervious Runoff Depth=4.57" Flow Length=265' Tc=6.0 min CN=74 Runoff=3.28 cfs 9,638 cf
Subcatchment 113: PT 2+25 L	Runoff Area=19,505 sf 25.84% Impervious Runoff Depth=4.91" Flow Length=410' Tc=8.8 min CN=77 Runoff=2.32 cfs 7,979 cf
Subcatchment 115: LCB IN SWALE	Runoff Area=21,365 sf 13.20% Impervious Runoff Depth=3.90" Flow Length=250' Tc=6.9 min CN=68 Runoff=2.23 cfs 6,946 cf
Subcatchment 201: PT 4+75 R	Runoff Area=6,315 sf 73.40% Impervious Runoff Depth=5.48" Tc=6.0 min CN=82 Runoff=0.97 cfs 2,884 cf
Subcatchment 202: PT4+75L	Runoff Area=40,700 sf 20.33% Impervious Runoff Depth=3.46" Flow Length=250' Tc=6.9 min CN=64 Runoff=3.74 cfs 11,752 cf
Subcatchment 300: Overland towards	Runoff Area=95,530 sf 19.12% Impervious Runoff Depth=4.68" Flow Length=286' Tc=15.4 min UI Adjusted CN=75 Runoff=8.26 cfs 37,275 cf

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Subcatchment 310: Basin D-1	Runoff Area=14,240 sf 8.95% Impervious Runoff Depth=4.68" Flow Length=162' Tc=6.7 min UI Adjusted CN=75 Runoff=1.82 cfs 5,556 cf
Subcatchment 320: Basin D-2	Runoff Area=11,725 sf 5.42% Impervious Runoff Depth=4.68" Flow Length=162' Tc=6.7 min CN=75 Runoff=1.50 cfs 4,575 cf
Subcatchment 321: F11+75 R	Runoff Area=17,525 sf 48.48% Impervious Runoff Depth=5.94" Flow Length=235' Tc=6.5 min CN=86 Runoff=2.78 cfs 8,681 cf
Subcatchment 322: F11+75 L	Runoff Area=7,900 sf 79.08% Impervious Runoff Depth=6.77" Flow Length=295' Slope=0.0400 '/' Tc=6.0 min CN=93 Runoff=1.40 cfs 4,454 cf
Subcatchment 326: F12+0 R	Runoff Area=14,240 sf 57.64% Impervious Runoff Depth=6.18" Flow Length=255' Tc=6.0 min CN=88 Runoff=2.39 cfs 7,331 cf
Subcatchment 327: F13+74 L	Runoff Area=7,900 sf 79.08% Impervious Runoff Depth=6.77" Flow Length=295' Slope=0.0400 '/' Tc=6.0 min CN=93 Runoff=1.40 cfs 4,454 cf
Subcatchment 520: Overland to B-2	Runoff Area=5,600 sf 0.00% Impervious Runoff Depth=1.62" Tc=6.0 min CN=46 Runoff=0.21 cfs 758 cf
Subcatchment 522: H 2+0 L	Runoff Area=33,610 sf 41.24% Impervious Runoff Depth=4.46" Tc=6.0 min CN=73 Runoff=4.25 cfs 12,484 cf
Subcatchment 523: H 2+0 R	Runoff Area=6,510 sf 68.20% Impervious Runoff Depth=6.18" Tc=6.0 min CN=88 Runoff=1.09 cfs 3,351 cf
Subcatchment 525: H 1+74 R	Runoff Area=5,340 sf 76.59% Impervious Runoff Depth=5.71" Tc=6.0 min CN=84 Runoff=0.84 cfs 2,542 cf
Subcatchment 526: H 0+74 L	Runoff Area=5,305 sf 76.15% Impervious Runoff Depth=5.71" Tc=6.0 min CN=84 Runoff=0.84 cfs 2,525 cf
Subcatchment 530: Overland to Basin B-1	Runoff Area=24,055 sf 16.28% Impervious Runoff Depth=2.72" Tc=6.0 min UI Adjusted CN=57 Runoff=1.77 cfs 5,455 cf
Subcatchment 532: H 3+50 L	Runoff Area=35,890 sf 41.85% Impervious Runoff Depth=4.91" Tc=6.0 min CN=77 Runoff=4.98 cfs 14,681 cf
Subcatchment 533: PT 4+75 R	Runoff Area=17,030 sf 50.44% Impervious Runoff Depth=4.12" Tc=6.0 min CN=70 Runoff=1.99 cfs 5,851 cf
Subcatchment 700: BASIN A	Runoff Area=74,395 sf 25.61% Impervious Runoff Depth=2.62" Flow Length=230' Tc=12.4 min UI Adjusted CN=56 Runoff=3.78 cfs 16,226 cf
Subcatchment 711: PT 8+13	Runoff Area=7,170 sf 85.36% Impervious Runoff Depth=6.29" Tc=6.0 min CN=89 Runoff=1.22 cfs 3,761 cf
Subcatchment 712: F 0-2	Runoff Area=22,070 sf 36.36% Impervious Runoff Depth=5.48" Tc=6.0 min CN=82 Runoff=3.38 cfs 10,080 cf

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Subcatchment 714: F 1+0 L	Runoff Area=19,700 sf 55.28% Impervious Runoff Depth=6.06" Tc=6.0 min CN=87 Runoff=3.26 cfs 9,950 cf
Subcatchment 715: F 1+0 R	Runoff Area=16,545 sf 71.93% Impervious Runoff Depth=6.53" Tc=6.0 min CN=91 Runoff=2.87 cfs 9,003 cf
Subcatchment 720: Basin C-2	Runoff Area=8,675 sf 16.60% Impervious Runoff Depth=5.02" Tc=6.0 min CN=78 Runoff=1.23 cfs 3,631 cf
Subcatchment 722: LCB C5	Runoff Area=15,130 sf 75.35% Impervious Runoff Depth=6.65" Tc=6.0 min CN=92 Runoff=2.65 cfs 8,382 cf
Subcatchment 730: Basin C-1	Runoff Area=7,860 sf 18.89% Impervious Runoff Depth=5.14" Tc=6.0 min CN=79 Runoff=1.14 cfs 3,364 cf
Subcatchment 732: F 6+10L	Runoff Area=8,270 sf 83.92% Impervious Runoff Depth=6.88" Tc=6.0 min CN=94 Runoff=1.47 cfs 4,744 cf
Subcatchment 733: F6+10R	Runoff Area=23,650 sf 51.78% Impervious Runoff Depth=5.94" Tc=6.0 min CN=86 Runoff=3.86 cfs 11,715 cf
Subcatchment 737: H 11+60L	Runoff Area=4,200 sf 53.93% Impervious Runoff Depth=6.06" Tc=6.0 min CN=87 Runoff=0.69 cfs 2,121 cf
Subcatchment 738: F 9+49R	Runoff Area=5,290 sf 59.92% Impervious Runoff Depth=6.18" Tc=6.0 min CN=88 Runoff=0.89 cfs 2,723 cf
Subcatchment 752: F 3+60 R	Runoff Area=6,115 sf 78.66% Impervious Runoff Depth=6.77" Tc=6.0 min CN=93 Runoff=1.08 cfs 3,448 cf
Subcatchment 753: F 3+60 L	Runoff Area=14,360 sf 59.02% Impervious Runoff Depth=6.18" Tc=6.0 min CN=88 Runoff=2.41 cfs 7,393 cf
Subcatchment 783: H 5+60 R	Runoff Area=11,200 sf 77.14% Impervious Runoff Depth=6.77" Tc=6.0 min CN=93 Runoff=1.98 cfs 6,315 cf
Subcatchment 784S: H 5+60 L	Runoff Area=25,640 sf 39.94% Impervious Runoff Depth=5.71" Tc=6.0 min CN=84 Runoff=4.06 cfs 12,205 cf
Subcatchment 786: H 7+75 L	Runoff Area=10,720 sf 46.97% Impervious Runoff Depth=5.83" Tc=6.0 min CN=85 Runoff=1.72 cfs 5,206 cf
Subcatchment 787: H 7+75 R	Runoff Area=20,420 sf 62.66% Impervious Runoff Depth=6.29" Tc=6.0 min CN=89 Runoff=3.47 cfs 10,712 cf
Subcatchment 789: H 9+25 R	Runoff Area=11,750 sf 47.32% Impervious Runoff Depth=5.83" Tc=6.0 min CN=85 Runoff=1.89 cfs 5,707 cf
Subcatchment 790: H 9+25 L	Runoff Area=10,515 sf 49.74% Impervious Runoff Depth=5.94" Tc=6.0 min CN=86 Runoff=1.71 cfs 5,209 cf

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Subcatchment 795: Overland LCB A-4

Runoff Area=36,035 sf 13.54% Impervious Runoff Depth=4.91"
Tc=6.0 min CN=77 Runoff=5.00 cfs 14,741 cf

Reach 1R: (new Reach)

Avg. Flow Depth=0.13' Max Vel=0.60 fps Inflow=1.80 cfs 1,381 cf
n=0.130 L=200.0' S=0.1950 '/' Capacity=0.18 cfs Outflow=1.06 cfs 1,381 cf

Reach 5R: overland to Abut Wetland

Avg. Flow Depth=0.30' Max Vel=0.24 fps Inflow=5.15 cfs 11,305 cf
n=0.400 L=215.0' S=0.0419 '/' Capacity=1.32 cfs Outflow=2.71 cfs 11,304 cf

Pond 5P: Bailey Wetlands

Peak Elev=778.35' Storage=5,972 cf Inflow=13.65 cfs 51,711 cf
Discarded=0.57 cfs 20,046 cf Primary=9.44 cfs 31,655 cf Outflow=10.01 cfs 51,702 cf

Pond 7P: wetlands

Peak Elev=751.19' Storage=0 cf Inflow=1.72 cfs 9,963 cf
Outflow=1.72 cfs 9,963 cf

Pond 53P: Northerly Bailey Basin

Peak Elev=778.05' Storage=6,030 cf Inflow=9.70 cfs 33,772 cf
Discarded=0.62 cfs 22,468 cf Primary=5.15 cfs 11,305 cf Outflow=5.77 cfs 33,773 cf

Pond 60P: Abutters Isolated wetland

Inflow=2.72 cfs 11,634 cf
Primary=2.72 cfs 11,634 cf

Pond 100P: Basin E

Peak Elev=789.43' Storage=1,884 cf Inflow=3.26 cfs 10,204 cf
Discarded=0.36 cfs 8,824 cf Primary=1.80 cfs 1,381 cf Outflow=2.16 cfs 10,205 cf

Pond 101P: PT4+50 R

Peak Elev=790.19' Inflow=0.79 cfs 2,397 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0175 '/' Outflow=0.79 cfs 2,397 cf

Pond 102P: PT4+75 L

Peak Elev=790.53' Inflow=2.46 cfs 7,297 cf
12.0" Round Culvert n=0.013 L=22.0' S=0.0100 '/' Outflow=2.46 cfs 7,297 cf

Pond 105P: DMH F 4+60

Peak Elev=790.12' Inflow=3.25 cfs 9,695 cf
15.0" Round Culvert n=0.013 L=39.0' S=0.0303 '/' Outflow=3.25 cfs 9,695 cf

Pond 110P: Recharge Area

Peak Elev=773.12' Storage=4,404 cf Inflow=8.41 cfs 26,787 cf
Discarded=0.62 cfs 20,838 cf Primary=6.97 cfs 5,950 cf Outflow=7.58 cfs 26,788 cf

Pond 111P: PT2+25 R

Peak Elev=773.82' Inflow=0.76 cfs 2,224 cf
12.0" Round Culvert n=0.013 L=21.0' S=0.0205 '/' Outflow=0.76 cfs 2,224 cf

Pond 112P: DMH PT 3+25 L

Peak Elev=780.51' Inflow=3.28 cfs 9,638 cf
12.0" Round Culvert n=0.013 L=110.0' S=0.0740 '/' Outflow=3.28 cfs 9,638 cf

Pond 113P: PT2+25 L

Peak Elev=774.10' Inflow=2.32 cfs 7,979 cf
12.0" Round Culvert n=0.013 L=13.0' S=0.0331 '/' Outflow=2.32 cfs 7,979 cf

Pond 114P: DMH PT 2+15

Peak Elev=773.80' Inflow=6.18 cfs 19,841 cf
15.0" Round Culvert n=0.013 L=59.0' S=0.0200 '/' Outflow=6.18 cfs 19,841 cf

Pond 115P: LCB IN SWALE

Peak Elev=773.33' Inflow=2.23 cfs 6,946 cf
12.0" Round Culvert n=0.013 L=5.0' S=0.0000 '/' Outflow=2.23 cfs 6,946 cf

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Pond 201P: PT0+63 RT

Peak Elev=777.05' Inflow=0.97 cfs 2,884 cf
12.0" Round Culvert n=0.013 L=25.0' S=0.0100 '/' Outflow=0.97 cfs 2,884 cf

Pond 202P: PT 0+63 L

Peak Elev=769.17' Inflow=3.74 cfs 11,752 cf
12.0" Round Culvert n=0.013 L=15.0' S=0.0167 '/' Outflow=3.74 cfs 11,752 cf

Pond 203P: DMH PT 0+50

Peak Elev=768.53' Inflow=10.90 cfs 20,586 cf
18.0" Round Culvert n=0.013 L=44.0' S=0.0200 '/' Outflow=10.90 cfs 20,586 cf

Pond 204P: DMH PT 0+19

Peak Elev=767.01' Inflow=10.90 cfs 20,586 cf
18.0" Round Culvert n=0.013 L=74.0' S=0.0200 '/' Outflow=10.90 cfs 20,586 cf

Pond 310P: Basin D-1

Peak Elev=836.93' Storage=5,556 cf Inflow=1.82 cfs 5,556 cf
Outflow=0.00 cfs 0 cf

Pond 320P: Basin D-2

Peak Elev=819.62' Storage=5,628 cf Inflow=9.43 cfs 29,495 cf
Outflow=6.34 cfs 28,604 cf

Pond 321P: F11+75 R

Peak Elev=824.02' Inflow=2.78 cfs 8,681 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0400 '/' Outflow=2.78 cfs 8,681 cf

Pond 322P: F11+75 L

Peak Elev=823.62' Inflow=1.40 cfs 4,454 cf
12.0" Round Culvert n=0.013 L=22.0' S=0.0218 '/' Outflow=1.40 cfs 4,454 cf

Pond 323P: DMH F11+85

Peak Elev=823.48' Inflow=4.17 cfs 13,135 cf
12.0" Round Culvert n=0.013 L=99.0' S=0.0200 '/' Outflow=4.17 cfs 13,135 cf

Pond 324P: DMH F12+85

Peak Elev=821.18' Inflow=4.17 cfs 13,135 cf
12.0" Round Culvert n=0.013 L=93.0' S=0.0190 '/' Outflow=4.17 cfs 13,135 cf

Pond 325P: DMH F13+25

Peak Elev=819.69' Inflow=3.78 cfs 11,785 cf
18.0" Round Culvert n=0.013 L=20.0' S=0.0070 '/' Outflow=3.78 cfs 11,785 cf

Pond 326P: F13+88 R

Peak Elev=819.88' Inflow=2.39 cfs 7,331 cf
12.0" Round Culvert n=0.013 L=12.0' S=0.0100 '/' Outflow=2.39 cfs 7,331 cf

Pond 327P: F13+76 L

Peak Elev=819.77' Inflow=1.40 cfs 4,454 cf
12.0" Round Culvert n=0.013 L=70.0' S=0.0070 '/' Outflow=1.40 cfs 4,454 cf

Pond 520P: Lower Basin B-2

Peak Elev=780.88' Storage=4,666 cf Inflow=13.71 cfs 38,702 cf
Discarded=0.24 cfs 9,151 cf Primary=11.80 cfs 29,551 cf Outflow=12.04 cfs 38,702 cf

Pond 521P: DMH H 1+90

Peak Elev=782.30' Inflow=5.34 cfs 15,835 cf
15.0" Round Culvert n=0.013 L=22.0' S=0.0200 '/' Outflow=5.34 cfs 15,835 cf

Pond 522P: H 2+0 L

Peak Elev=782.76' Inflow=4.25 cfs 12,484 cf
15.0" Round Culvert n=0.013 L=22.0' S=0.0300 '/' Outflow=4.25 cfs 12,484 cf

Pond 523P: H 2+0 R

Peak Elev=782.37' Inflow=1.09 cfs 3,351 cf
12.0" Round Culvert n=0.013 L=13.0' S=0.0200 '/' Outflow=1.09 cfs 3,351 cf

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Pond 524P: Stormwater unit

Peak Elev=781.55' Inflow=5.34 cfs 15,835 cf
15.0" Round Culvert n=0.013 L=18.0' S=0.0311 '/' Outflow=5.34 cfs 15,835 cf

Pond 525P: H 2+0 R

Peak Elev=778.54' Inflow=0.84 cfs 2,542 cf
12.0" Round Culvert n=0.013 L=10.0' S=0.0200 '/' Outflow=0.84 cfs 2,542 cf

Pond 526P: H 2+0 R

Peak Elev=778.52' Inflow=0.84 cfs 2,525 cf
15.0" Round Culvert n=0.013 L=19.0' S=0.0105 '/' Outflow=0.84 cfs 2,525 cf

Pond 527P: DMH H 0+80

Peak Elev=778.47' Inflow=1.68 cfs 5,067 cf
15.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=1.68 cfs 5,067 cf

Pond 528P: Stormwater Unit

Peak Elev=778.40' Inflow=1.68 cfs 5,067 cf
15.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=1.68 cfs 5,067 cf

Pond 530P: Upper Basin B-1

Peak Elev=785.87' Storage=3,467 cf Inflow=8.73 cfs 25,987 cf
Discarded=0.08 cfs 3,807 cf Primary=8.31 cfs 22,109 cf Outflow=8.39 cfs 25,916 cf

Pond 531P: DMH H 3+40

Peak Elev=788.51' Inflow=6.96 cfs 20,532 cf
15.0" Round Culvert n=0.013 L=82.0' S=0.0305 '/' Outflow=6.96 cfs 20,532 cf

Pond 532P: H 3+50 L

Peak Elev=789.21' Inflow=4.98 cfs 14,681 cf
15.0" Round Culvert n=0.013 L=22.0' S=0.0436 '/' Outflow=4.98 cfs 14,681 cf

Pond 533P: H 3+50 R

Peak Elev=788.78' Inflow=1.99 cfs 5,851 cf
12.0" Round Culvert n=0.013 L=11.0' S=0.0645 '/' Outflow=1.99 cfs 5,851 cf

Pond 700P: Basin A

Peak Elev=786.96' Storage=48,113 cf Inflow=45.05 cfs 152,783 cf
Discarded=4.93 cfs 152,783 cf Primary=0.00 cfs 0 cf Outflow=4.93 cfs 152,783 cf

Pond 701P: DMH A-1

Peak Elev=792.34' Inflow=23.31 cfs 70,933 cf
36.0" Round Culvert n=0.013 L=50.0' S=0.0200 '/' Outflow=23.31 cfs 70,933 cf

Pond 702P: DMH A-2

Peak Elev=794.09' Inflow=23.31 cfs 70,933 cf
36.0" Round Culvert n=0.013 L=168.0' S=0.0100 '/' Outflow=23.31 cfs 70,933 cf

Pond 710P: DMH F 0-10

Peak Elev=794.63' Inflow=19.32 cfs 65,624 cf
24.0" Round Culvert n=0.013 L=72.0' S=0.0556 '/' Outflow=19.32 cfs 65,624 cf

Pond 711P: DMH

Peak Elev=794.79' Inflow=1.22 cfs 3,761 cf
12.0" Round Culvert n=0.013 L=29.0' S=0.0100 '/' Outflow=1.22 cfs 3,761 cf

Pond 712P: F 0-2

Peak Elev=795.40' Inflow=3.38 cfs 10,080 cf
12.0" Round Culvert n=0.013 L=30.0' S=0.0100 '/' Outflow=3.38 cfs 10,080 cf

Pond 713P: DMH F 0+85

Peak Elev=798.75' Inflow=14.73 cfs 51,783 cf
18.0" Round Culvert n=0.013 L=95.0' S=0.0198 '/' Outflow=14.73 cfs 51,783 cf

Pond 714P: F 1+0 L

Peak Elev=799.46' Inflow=3.26 cfs 9,950 cf
12.0" Round Culvert n=0.013 L=16.0' S=0.0281 '/' Outflow=3.26 cfs 9,950 cf

Pine Tree Post

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MA-Holden_files 24-hr S1 100-yr Rainfall=7.60"

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Pond 715P: F 1+0 R

Peak Elev=799.30' Inflow=2.87 cfs 9,003 cf
12.0" Round Culvert n=0.013 L=16.0' S=0.0281 '/' Outflow=2.87 cfs 9,003 cf

Pond 720P: Basin C-2

Peak Elev=819.07' Storage=5,726 cf Inflow=8.24 cfs 26,680 cf
Primary=6.02 cfs 24,448 cf Secondary=0.00 cfs 0 cf Outflow=6.02 cfs 24,448 cf

Pond 721P: DMH C-3

Peak Elev=816.92' Inflow=6.02 cfs 24,448 cf
15.0" Round Culvert n=0.013 L=98.0' S=0.0100 '/' Outflow=6.02 cfs 24,448 cf

Pond 722P: LCB C5

Peak Elev=816.22' Inflow=2.65 cfs 8,382 cf
12.0" Round Culvert n=0.013 L=17.0' S=0.0588 '/' Outflow=2.65 cfs 8,382 cf

Pond 723P: DMH C4

Peak Elev=815.75' Inflow=8.61 cfs 32,830 cf
15.0" Round Culvert n=0.013 L=173.0' S=0.0347 '/' Outflow=8.61 cfs 32,830 cf

Pond 724P: DMH F0+66L

Peak Elev=801.85' Inflow=8.61 cfs 32,830 cf
15.0" Round Culvert n=0.013 L=50.0' S=0.0500 '/' Outflow=8.61 cfs 32,830 cf

Pond 730P: Basin C-1

Peak Elev=821.96' Storage=2,822 cf Inflow=8.05 cfs 24,668 cf
Outflow=7.12 cfs 23,049 cf

Pond 731: DMH F6+0

Peak Elev=828.84' Inflow=6.91 cfs 21,304 cf
12.0" Round Culvert n=0.013 L=63.0' S=0.0317 '/' Outflow=6.91 cfs 21,304 cf

Pond 732P: 6+10L

Peak Elev=828.99' Inflow=1.47 cfs 4,744 cf
12.0" Round Culvert n=0.013 L=13.0' S=0.0200 '/' Outflow=1.47 cfs 4,744 cf

Pond 733P: F 6+10 R

Peak Elev=829.86' Inflow=3.86 cfs 11,715 cf
12.0" Round Culvert n=0.013 L=21.0' S=0.0124 '/' Outflow=3.86 cfs 11,715 cf

Pond 734P: DMH F7+20

Peak Elev=829.16' Inflow=1.58 cfs 4,845 cf
12.0" Round Culvert n=0.013 L=121.0' S=0.0100 '/' Outflow=1.58 cfs 4,845 cf

Pond 735P: DMH F7+90

Peak Elev=829.58' Inflow=1.58 cfs 4,845 cf
12.0" Round Culvert n=0.013 L=71.0' S=0.0100 '/' Outflow=1.58 cfs 4,845 cf

Pond 736P: DMH F9+25

Peak Elev=830.77' Inflow=1.58 cfs 4,845 cf
12.0" Round Culvert n=0.013 L=136.0' S=0.0100 '/' Outflow=1.58 cfs 4,845 cf

Pond 737P: H 11+60

Peak Elev=831.01' Inflow=0.69 cfs 2,121 cf
12.0" Round Culvert n=0.013 L=30.0' S=0.0100 '/' Outflow=0.69 cfs 2,121 cf

Pond 738P: F9+49R

Peak Elev=831.14' Inflow=0.89 cfs 2,723 cf
12.0" Round Culvert n=0.013 L=34.0' S=0.0124 '/' Outflow=0.89 cfs 2,723 cf

Pond 750P: DMH F 2+75

Peak Elev=807.30' Inflow=3.49 cfs 10,840 cf
12.0" Round Culvert n=0.013 L=73.0' S=0.0200 '/' Outflow=3.49 cfs 10,840 cf

Pond 751P: DMH F 3+60

Peak Elev=812.13' Inflow=3.49 cfs 10,840 cf
12.0" Round Culvert n=0.013 L=88.0' S=0.0538 '/' Outflow=3.49 cfs 10,840 cf

Pine Tree Post*MA-Holden_files 24-hr S1 100-yr Rainfall=7.60"*

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Pond 752P: F 3+60 R	Peak Elev=812.33' Inflow=1.08 cfs 3,448 cf 12.0" Round Culvert n=0.013 L=16.0' S=0.0531 '/' Outflow=1.08 cfs 3,448 cf
Pond 753P: F 3+60L	Peak Elev=812.61' Inflow=2.41 cfs 7,393 cf 12.0" Round Culvert n=0.013 L=25.0' S=0.0340 '/' Outflow=2.41 cfs 7,393 cf
Pond 780P: DMH A-3	Peak Elev=795.48' Inflow=19.82 cfs 60,093 cf 36.0" Round Culvert n=0.013 L=150.0' S=0.0100 '/' Outflow=19.82 cfs 60,093 cf
Pond 781P: DMH H 5+15	Peak Elev=796.38' Inflow=14.83 cfs 45,352 cf 36.0" Round Culvert n=0.013 L=107.0' S=0.0100 '/' Outflow=14.83 cfs 45,352 cf
Pond 782P: DMH H 5+50	Peak Elev=802.04' Inflow=14.83 cfs 45,352 cf 18.0" Round Culvert n=0.013 L=35.0' S=0.0606 '/' Outflow=14.83 cfs 45,352 cf
Pond 783P: H 5+60 R	Peak Elev=802.30' Inflow=1.98 cfs 6,315 cf 12.0" Round Culvert n=0.013 L=22.0' S=0.0282 '/' Outflow=1.98 cfs 6,315 cf
Pond 784P: H 5+60 L	Peak Elev=803.16' Inflow=4.06 cfs 12,205 cf 12.0" Round Culvert n=0.013 L=12.0' S=0.0517 '/' Outflow=4.06 cfs 12,205 cf
Pond 785P: DMH H 7+65	Peak Elev=820.28' Inflow=8.79 cfs 26,833 cf 15.0" Round Culvert n=0.013 L=215.0' S=0.0881 '/' Outflow=8.79 cfs 26,833 cf
Pond 786P: H 7+75 L	Peak Elev=820.65' Inflow=1.72 cfs 5,206 cf 12.0" Round Culvert n=0.013 L=22.0' S=0.0332 '/' Outflow=1.72 cfs 5,206 cf
Pond 787P: H 7+75R	Peak Elev=821.18' Inflow=3.47 cfs 10,712 cf 12.0" Round Culvert n=0.013 L=12.0' S=0.0608 '/' Outflow=3.47 cfs 10,712 cf
Pond 788P: DMH H 9+10	Peak Elev=829.96' Inflow=3.60 cfs 10,915 cf 12.0" Round Culvert n=0.013 L=143.0' S=0.0700 '/' Outflow=3.60 cfs 10,915 cf
Pond 789P: H 9+25 R	Peak Elev=830.22' Inflow=1.89 cfs 5,707 cf 12.0" Round Culvert n=0.013 L=14.0' S=0.0429 '/' Outflow=1.89 cfs 5,707 cf
Pond 790P: H 9+25 L	Peak Elev=830.21' Inflow=1.71 cfs 5,209 cf 12.0" Round Culvert n=0.013 L=25.0' S=0.0240 '/' Outflow=1.71 cfs 5,209 cf
Pond 795P: LCB A-4	Peak Elev=808.25' Inflow=5.00 cfs 14,741 cf 12.0" Round Culvert n=0.013 L=24.0' S=0.0200 '/' Outflow=5.00 cfs 14,741 cf
Link 311L: POA- Salisbury	Inflow=13.87 cfs 65,879 cf Primary=13.87 cfs 65,879 cf
Link POA 1: Railroad Tracks	Inflow=12.57 cfs 38,622 cf Primary=12.57 cfs 38,622 cf

Total Runoff Area = 1,242,994 sf Runoff Volume = 369,184 cf Average Runoff Depth = 3.56"
74.07% Pervious = 920,727 sf 25.93% Impervious = 322,267 sf