

Uxbridge, MA
Linwood Street, Church Street
BETA Job No. 10151
June 2022

HYDROLOGIC/HYDRAULIC REPORT



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HYDROLOGIC/HYDRAULIC REPORT

Prepared by: BETA GROUP, INC.
Prepared for: Town of Uxbridge, MA

June 2022

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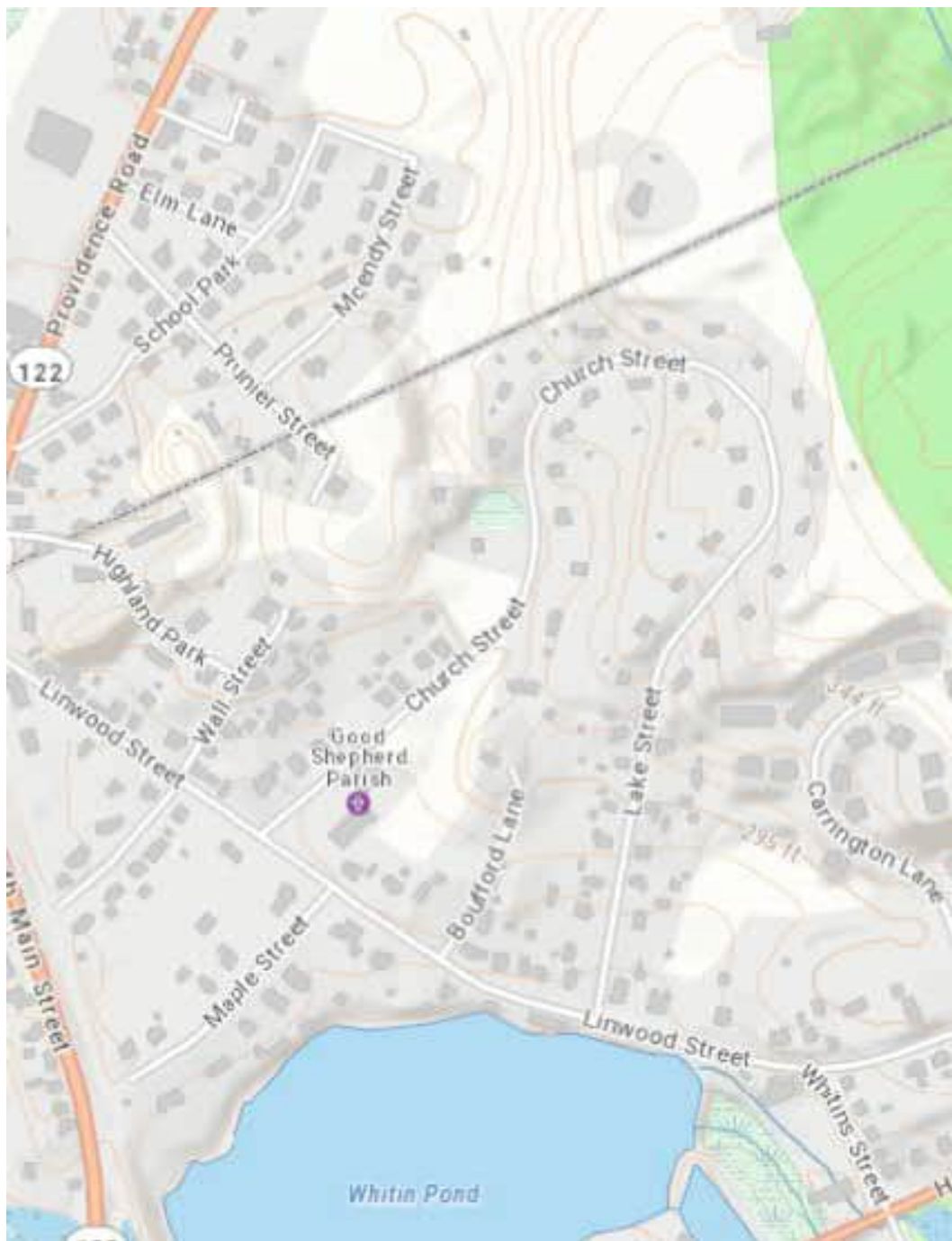
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1.0 PROJECT LOCUS



Project Locus Plan taken from MassMapper.

2.0 PROJECT NARRATIVE

2.1 OBJECTIVE OF CALCULATIONS

This calculation is an analysis of the area hydrology and stormwater system hydraulics for the watershed that contributes stormwater runoff flows on Linwood Street at Church Street in Uxbridge, MA. The objective is to identify issues and provide recommendations for improvements that can reduce frequency and severity of flooding.

2.2 CALCULATION METHODS AND ASSUMPTIONS

The following are methods used and the sources utilized for the design and analysis of the stormwater management system:

2.2.1 DATA SOURCES

- Field Observations and Measurements: November 2 and December 3, 2021
- USGS Maps
- MassGIS "Oliver"
- NRCS maps indicating majority of the soils in the project area are rated (hydrologic group) type B soils (moderate infiltration rate)
- Watershed Maps (Existing and Proposed)

2.2.2 HYDROCAD MODEL

"HydroCAD™ Stormwater Modeling System," version 10/00-22 by Applied Microcomputer Systems based upon SCS Technical Releases No. 20 for generating hydrologic calculations including peak flows and runoff volumes. Modeling includes the following assumptions:

- "CN" values used include:
 - 98 for pavement and roofs
 - 39 for >75% Grass cover, Good, HSG A
 - 61 for >75% Grass cover, Good, HSG B
 - 55 for Woods, Good, HSG B
- Minimum time of concentration was 6 minutes
- Point Precipitation Frequency Estimates from the NOAA Atlas 14, Volume 10, Version 3
- All gutter flow captured by inlet grate (assume no bypass)
- Flow that cannot be conveyed due to pipe capacity issues that exceeds the inlet grate elevation is conveyed in gutter flow to the next down gradient inlet as "Secondary Flow".

3.0 WATERSHED AND INFRASTRUCTURE DESCRIPTION

3.1 WATERSHED AREA

Stormwater runoff generated from the watershed is routed through the drainage system and outlets into Whitin Pond. The watershed area is bound by Route 122 to the west, the Blackstone River and Canal Heritage State Park to the east, bordered by Northbridge to the north, and Whitin Pond to the south. The catchment area map is included as Appendix A.

3.2 INFRASTRUCTURE DESCRIPTION

This watershed includes about 7,000 linear feet of roadway and 65 residential homes. Similar to older New England towns and cities, the drainage infrastructure does not meet current standards for system capacity to convey extreme storm events nor does it provide treatment of stormwater runoff for the following reasons.

1. Drainage systems were constructed over decades with different materials during lower development conditions. Most older pipes are undersized and/or may not be functioning under full capacity due to deterioration, sediment accumulation, debris blockage, or root intrusion.
2. Development within the watershed reduces the amount of rainfall that can be absorbed by the ground. Each time a house or driveway is expanded, impervious area increases thus increasing stormwater runoff.
3. Rainfall data indicates that frequency and severity of rainfall events have been increasing, causing an increase in runoff and flooding.
4. Non-typical conditions can also contribute to higher stormwater runoff including frozen ground, conditions, saturated soil conditions, significant snow melt during extreme rainfall events, extreme rainfall events when trees are dormant, and high leaves debris blockage.

3.3 OBSERVATIONS BY RESIDENTS

Resident of 132 Linwood Street provided the following observations:

1. There is excessive runoff down Church Street during rainfall events, "it is like a river during storms".
2. Stormwater runoff went over driveway and yard and flooded their house.
3. Houses #8 and #10 Church Street used to flood before the development was put in on Church Street/Lake Street.

4.0 FINDINGS

The following are issues identified in the development and interpretation of this report. The recommended action items have been broken down into three phases. BETA recommends all phases be completed to manage the stormwater runoff most effectively.

4.1 PHASE 1: MAINTENANCE

BETA field verified drainage structures within the system throughout Church Street, Lake Street, Linwood Street, Parkins Avenue and Maple Street. BETA recommends the following structures on Church Street (called out on the map in Appendix B) be maintained as noted:

- There is a 12" RCP in drainage manhole MH-699 (which is located at the driveway of 31 Church Street) that is directed south. The other end of the pipe could not be located. BETA recommends CCTV of the pipe to find the other end of the pipe and determine if this acts as an inlet to the drainage manhole or could act as an overflow outlet.
- There is a 12" RCP culvert under the driveway of 31 Church Street, where the inlet is visible to the north, but the outlet could not be located. BETA recommends CCTV of this pipe to find the outlet and determine if the culvert is functioning.
- The drainage system records show a pipe connecting drainage manhole MH-701 to MH-272 (in area in front of 24 Church Street). MH-272 could not be located in the field. BETA recommends CCTV of the pipe connection to find the distance to the assumed buried MH-272.
- The drainage system records show a pipe connecting drainage manhole MH-272 to MH-271 (in area in front of 24 Church Street). MH-271 could not be located in the field. BETA recommends CCTV of the pipe connection from CB-1152 to find the distance to the assumed buried MH-271.

4.2 PHASE 2: CRITICAL INFRASTRUCTURE IMPROVEMENTS

BETA noted catch basins in the field for opportunities to increase inlet function and using the HydroCAD model, noted areas of high stormwater runoff flows. To be able to manage these high flows, it is recommended to improve grate capacity of catch basins and add additional catch basins to the stormwater system. Locations for these opportunities are called out in Appendix B.

4.2.1 CATCH BASINS WITH HIGH BYPASS FLOW

BETA notes that inlets receiving high runoff flows (>1.65 cfs) are likely to have higher inlet bypass. Opportunities for adding additional inlets or improving grate capacity with double or cascade grates with curb inlets should be investigated for those listed in Table 4-1. Refer to catchment flow data from the HydroCAD model included in Appendix D.

Table 4-1. Catch Basins with High Bypass Potential due to High Flows

Catch Basin ID	Street	10-yr Flow (cfs)		Catch Basin ID	Street	10-yr Flow (cfs)
CB-652	Church St	2.11		CB-1153	Church St	7.59
CB-654	Church St	5.10		CB-1154	Church St	2.16
CB-656	Church St	2.43		CB-X	Church/Linwood St	6.55
CB-1661	Church St	2.97		CB-895	Linwood St	7.44
CB-1664	Church St	3.18		CB-896	Linwood St	2.94
CB-1665	Church St	5.09		CB-897	Linwood St	9.86**
CB-1668*	Church St	4.59		CB-893	Linwood St	2.23
CB-1669*	Church St	4.76		CB-892	Linwood St	2.17
CB-1152	Church St	2.19				

* Also has reduced inlet function due to location which allows bypass. See Appendix C for photos.

** High flow should be investigated further. BETA recommends double catch basin at intersection of Wall Street and Highland Park to help capture flow earlier in the catchment area.

4.2.2 STRUCTURES TO ADD TO THE STORMWATER SYSTEM

To help capture the amount of flow on the south end of Church Street (between #32 Church Street and house #8 Church Street, currently handled with CB-1669 and CB-1153), BETA recommends adding 3 additional catch basins to the system in the following locations:

- Near #26 Church Street: Double Catch Basin with Curb Inlet
- Near #14 Church Street: Cascade Grate with Curb Inlet
- Near #8 Church Street: Double Catch Basin with Curb Inlet

These catch basins would allow more stormwater runoff to flow into the stormwater system, instead of down the hill towards Linwood Street. With these additional catch basins tying into the existing Church Street system, the pipe between drainage manholes MH-702 and MH-703 (area in front of house #8 Church Street) would need to be upgraded from an 18" HDPE to a 24" RCP to handle the increased capacity of the system.

To manage the amount of flow running east down Linwood Street, BETA recommends adding 2 additional catch basins in the following locations:

- Near #165 Linwood Street: Cascade Grate with Curb Inlet
- Near #133 Linwood Street: Double Catch Basin with Curb Inlet

These additional catch basins would let more stormwater flow into the system that comes from the north/west, with less bypass of the existing structures.

4.3 PHASE 3: ADDITIONAL INFRASTRUCTURE IMPROVEMENTS

Areas of high stormwater flow could be found using the HydroCAD model. To manage these high flows, it is recommended to improve pipe capacity throughout the system. These locations are specified in the following sections, and noted in Appendix B.

4.3.1 CATCH BASINS THAT OVERFLOW DUE TO INSUFFICIENT PIPE CAPACITY

The HydroCAD model indicated several existing pipes are undersized, which causes stormwater runoff flows to either not be able to enter a catch basin or to overflow out of catch basins. These flows are identified in the HydroCAD model as structures with “secondary flow” (refer to Appendix D). Table 4-2 summarizes these findings, ordered giving priority to accommodate a 5-year storm then a 10-year storm.

Table 4-2. Undersized Pipes

Pipe Section		Street	Length (feet)	Pipe Size Change	
From	To			Existing	Proposed
5-Year Storm Overflows – Top Priority					
MH-663	MH-664	Linwood St	150	24" HDPE	30" RCP
MH-664	MH-673	Linwood St	90	24" HDPE	30" RCP
MH-673	OF-13	Linwood St	300	24" HDPE	30" RCP
MH-703	MH-663	Church St	56	18" HDPE	24" RCP
CB-895	CB-896	Linwood St	185	8" CMP	15" RCP
CB-896	CB-897	Linwood St	42	10" CMP	15" RCP
CB-897	MH-662	Linwood St	32	12" RCP	24" RCP
CB-X	CB-1153	Linwood/Church St	18	12" HDPE	15" RCP
CB-1153	MH-703	Church St	30	12" HDPE	15" RCP
10-Year Storm Overflows – Next Priority					
MH-662	MH-663	Linwood St	325	18" HDPE	30" RCP
CB-1152	MH-271	Church St	20	12" HDPE	15" RCP
CB-1668	MH-700	Church St	5	8" PVC	12" RCP
MH-702*	MH-703	Church St	195	18" HDPE	24" RCP

* Should be upgraded to manage stormwater flows with additional proposed catch basins on Church Street.

BETA did not investigate pipes that might have compromised capacities due to blockage with debris, sediment, roots, or damaged pipes.

5.0 SUMMARY OF FINDINGS

The area of flooding observed at 132 Linwood Street is located at the bottom of Church Street, which is a hill in the watershed. This location is susceptible to impacts associated with uncontrolled or excessive stormwater runoff.

Due to the high volume of stormwater runoff particularly in this portion of the watershed, an improved stormwater drainage system should be in place to handle the capacity. As mentioned in the previous sections, BETA recommends:

1. Maintenance

- a. CCTV the 12" RCP south in drainage manhole MH-699 to determine if this acts as an inlet to the drainage manhole or could act as an overflow outlet.
- b. CCTV the 12" RCP culvert under the driveway of 31 Church Street. Expose the outlet so the culvert can function correctly.
- c. CCTV the pipe connecting drainage manhole MH-701 to MH-272 (in area in front of 24 Church Street) to verify pipe connection and distance to MH-272.
- d. CCTV the pipe connection from CB-1152 to MH-271 (in area in front of 24 Church Street) to verify pipe connection and distance to MH-271.

2. Critical Infrastructure Improvements

- a. To handle high runoff flows as noted in Table 4-1, the following existing structures should be upgraded as noted (all with curb inlets, if possible):

i. Cascade Grates:

CB-652	CB-1661	CB-1669	CB-1154	CB-893
CB-654	CB-1664	CB-1152	CB-895	CB-892
CB-656	CB-1666	CB-1153	CB-896	

ii. Double Catch Basins:

CB-1665	CB-1668	CB-897
---------	---------	--------

- b. To increase capacity of the stormwater system, additional catch basins should be added:
 - i. Near #26 Church Street: Double Catch Basin with Curb Inlet
 - ii. Near #14 Church Street: Cascade Grate with Curb Inlet
 - iii. Near #8 Church Street: Double Catch Basin with Curb Inlet
 - iv. Near #165 Linwood Street: Cascade Grate with Curb Inlet
 - v. Near #133 Linwood Street: Double Catch Basin with Curb Inlet
 - vi. This includes additional pipe connections:

Catch basin in front of #26 Church Street:	6 FT of 12" RCP
Catch basin in front of #14 Church Street:	124 FT of 12" RCP
Catch basin in front of 8 Church Street:	30 FT of 12" RCP
Catch basin in front of #165 Linwood Street:	260 FT of 12" RCP
Catch basin in front of #133 Linwood Street:	65 FT of 12" RCP

3. Additional Infrastructure Improvements

- a. Increase pipe sizes to accommodate for flows as listed in Table 4-2.

APPENDIX A

- Watershed Catchment Area Map

Uxbridge, MA













Linwood Street Drainage

BETA

This Map is Intended for Planning Purposes Only
Issue Date: June 2022

0.045 0.0225 0 0.045 Miles

Map Legend

- | | | | |
|---|----------------|---|-------------------------|
|  | Catch Basin |  | Hydrologic Soil Group A |
|  | Drain Manhole |  | Hydrologic Soil Group B |
|  | Drain Inlet |  | Hydrologic Soil Group C |
|  | Outfall | | |
|  | Drain Junction | | |
|  | Drain Pipe | | |
|  | Basin | | |
|  | Subcatchments | | |
- 

N
W E
S



APPENDIX B

- **Drainage Recommendations Maps**
 - **Phase 1**
 - **Phase 2**
 - **Phase 3**

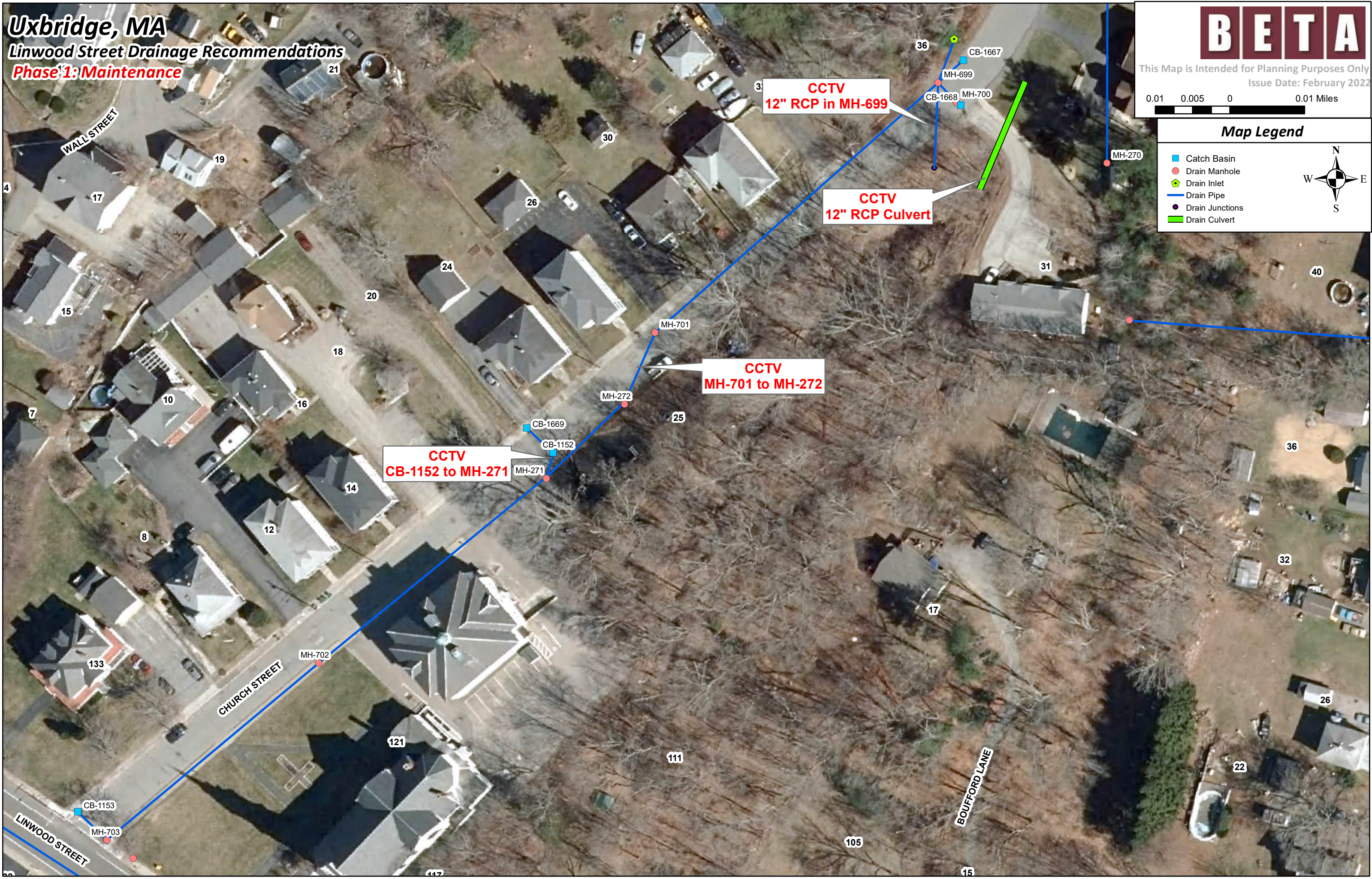
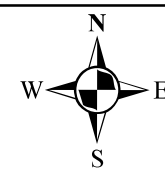
Uxbridge, MA
Linwood Street Drainage Recommendations
Phase 1: Maintenance

BETA

This Map is Intended for Planning Purposes Only
Issue Date: February 2022
0.01 0.005 0 0.01 Miles

Map Legend

- Catch Basin
- Drain Manhole
- Drain Inlet
- Drain Pipe
- Drain Junctions
- Drain Culvert



Uxbridge, MA

Linwood Street Drainage Recommendations

Phase 2: Critical Infrastructure Improvements

BETA

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Issue Date: February 2022

0.03 0.015 0 0.03 Miles

Map Legend

- Catch Basin
- Drain Manhole
- Drain Inlet
- Outfall
- Drain Pipe
- Drain Junctions
- Water Quality Structure
- Drain Culvert
- Basin



Uxbridge, MA

Linwood Street Drainage Recommendations

Phase 3: Additional Infrastructure Improvements

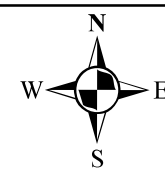


This Map is Intended for Planning Purposes Only
Issue Date: February 2022

0.015 0.0075 0 0.015 Miles

Map Legend

- Pipe Upgrades
- Catch Basin
- Drain Manhole
- Outfall
- Drain Pipe
- Drain Junctions
- Drain Culvert



APPENDIX C

- **Catch Basins with Reduced Inlet Function Photos**



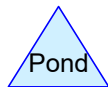
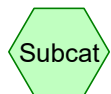
CB-1668: CB located in middle of house #31 driveway entrance – bypass likely



CB-1669: CB located in house #24 sidewalk/driveway – bypass likely

APPENDIX D

- **HydroCAD Model –10-Year Storm, Existing and Proposed Conditions**



Linwood Street Drainage - Existing

Type III 24-hr 10-yr Rainfall=5.14"

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Time span=1.00-24.00 hrs, dt=0.01 hrs, 2301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 74S: CS-1	Runoff Area=1.350 ac 9.63% Impervious Runoff Depth>1.45" Tc=6.0 min CN=61 Runoff=2.11 cfs 0.163 af
Subcatchment 75S: CS-2	Runoff Area=0.270 ac 48.15% Impervious Runoff Depth>2.92" Tc=6.0 min CN=79 Runoff=0.93 cfs 0.066 af
Subcatchment 76S: CS-3	Runoff Area=3.820 ac 5.76% Impervious Runoff Depth>1.31" Flow Length=177' Tc=6.8 min CN=59 Runoff=5.10 cfs 0.418 af
Subcatchment 77S: CS-4	Runoff Area=0.182 ac 17.58% Impervious Runoff Depth>1.98" Tc=6.0 min CN=68 Runoff=0.41 cfs 0.030 af
Subcatchment 78S: CS-5	Runoff Area=1.660 ac 18.07% Impervious Runoff Depth>1.74" Flow Length=212' Tc=15.1 min CN=65 Runoff=2.43 cfs 0.241 af
Subcatchment 79S: CS-6	Runoff Area=0.330 ac 27.27% Impervious Runoff Depth>2.22" Tc=6.0 min CN=71 Runoff=0.85 cfs 0.061 af
Subcatchment 80S: CS-7	Runoff Area=1.660 ac 14.46% Impervious Runoff Depth>1.67" Flow Length=244' Tc=7.1 min CN=64 Runoff=2.97 cfs 0.231 af
Subcatchment 81S: CS-8	Runoff Area=0.340 ac 29.41% Impervious Runoff Depth>2.30" Tc=6.0 min CN=72 Runoff=0.91 cfs 0.065 af
Subcatchment 82S: CS-9	Runoff Area=0.440 ac 27.27% Impervious Runoff Depth>2.22" Tc=6.0 min CN=71 Runoff=1.13 cfs 0.081 af
Subcatchment 83S: CS-10	Runoff Area=1.470 ac 14.97% Impervious Runoff Depth>1.90" Tc=6.0 min CN=67 Runoff=3.18 cfs 0.233 af
Subcatchment 84S: CS-11	Runoff Area=0.300 ac 36.67% Impervious Runoff Depth>2.56" Tc=6.0 min CN=75 Runoff=0.90 cfs 0.064 af
Subcatchment 85S: CS-12	Runoff Area=2.150 ac 24.65% Impervious Runoff Depth>2.06" Tc=6.0 min CN=69 Runoff=5.09 cfs 0.369 af
Subcatchment 86S: LS-7	Runoff Area=0.802 ac 2.74% Impervious Runoff Depth>1.38" Tc=6.0 min CN=60 Runoff=1.18 cfs 0.092 af
Subcatchment 87S: LS-1	Runoff Area=0.260 ac 26.92% Impervious Runoff Depth>2.22" Tc=6.0 min CN=71 Runoff=0.67 cfs 0.048 af
Subcatchment 88S: LS-3	Runoff Area=0.450 ac 48.89% Impervious Runoff Depth>2.92" Tc=6.0 min CN=79 Runoff=1.54 cfs 0.109 af
Subcatchment 89S: LS-2	Runoff Area=1.900 ac 12.63% Impervious Runoff Depth>1.45" Flow Length=183' Tc=6.3 min CN=61 Runoff=2.94 cfs 0.230 af

Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Subcatchment 90S: LS-4	Runoff Area=1.080 ac 13.89% Impervious Runoff Depth>1.52" Flow Length=237' Tc=6.8 min CN=62 Runoff=1.74 cfs 0.137 af
Subcatchment 91S: LS-6	Runoff Area=1.120 ac 16.96% Impervious Runoff Depth>1.67" Flow Length=291' Tc=7.0 min CN=64 Runoff=2.01 cfs 0.156 af
Subcatchment 92S: LS-5	Runoff Area=0.340 ac 47.06% Impervious Runoff Depth>2.83" Tc=6.0 min CN=78 Runoff=1.13 cfs 0.080 af
Subcatchment 95S: CS-15	Runoff Area=0.120 ac 100.00% Impervious Runoff Depth>4.90" Tc=6.0 min CN=98 Runoff=0.60 cfs 0.049 af
Subcatchment 96S: CS-16	Runoff Area=2.760 ac 11.23% Impervious Runoff Depth>1.52" Tc=6.0 min CN=62 Runoff=4.59 cfs 0.350 af
Subcatchment 97S: CS-17	Runoff Area=2.910 ac 17.53% Impervious Runoff Depth>1.67" Flow Length=705' Tc=9.6 min CN=64 Runoff=4.76 cfs 0.405 af
Subcatchment 98S: CS-18	Runoff Area=1.490 ac 12.75% Impervious Runoff Depth>1.38" Tc=6.0 min CN=60 Runoff=2.19 cfs 0.172 af
Subcatchment 99S: CS-19	Runoff Area=2.430 ac 47.33% Impervious Runoff Depth>2.74" Flow Length=279' Tc=6.8 min CN=77 Runoff=7.59 cfs 0.554 af
Subcatchment 100S: CS-20	Runoff Area=1.000 ac 23.00% Impervious Runoff Depth>1.90" Tc=6.0 min CN=67 Runoff=2.16 cfs 0.158 af
Subcatchment 101S: LD-6	Runoff Area=0.480 ac 50.00% Impervious Runoff Depth>2.06" Tc=6.0 min CN=69 Runoff=1.14 cfs 0.082 af
Subcatchment 102S: LD-7	Runoff Area=0.440 ac 38.64% Impervious Runoff Depth>1.52" Tc=6.0 min CN=62 Runoff=0.73 cfs 0.056 af
Subcatchment 103S: PS-1	Runoff Area=0.210 ac 47.62% Impervious Runoff Depth>1.90" Tc=6.0 min CN=67 Runoff=0.45 cfs 0.033 af
Subcatchment 104S: PS-2	Runoff Area=0.101 ac 79.21% Impervious Runoff Depth>3.59" Tc=6.0 min CN=86 Runoff=0.42 cfs 0.030 af
Subcatchment 105S: PS-3	Runoff Area=0.310 ac 58.06% Impervious Runoff Depth>2.39" Tc=6.0 min CN=73 Runoff=0.86 cfs 0.062 af
Subcatchment 106S: LD-5	Runoff Area=0.750 ac 58.67% Impervious Runoff Depth>2.47" Tc=6.0 min CN=74 Runoff=2.17 cfs 0.155 af
Subcatchment 107S: LD-4	Runoff Area=1.080 ac 45.37% Impervious Runoff Depth>1.82" Tc=6.0 min CN=66 Runoff=2.23 cfs 0.164 af
Subcatchment 108S: LD-3	Runoff Area=6.240 ac 15.87% Impervious Runoff Depth>1.67" Flow Length=895' Tc=10.7 min CN=64 Runoff=9.86 cfs 0.867 af

Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Subcatchment 109S: LD-2	Runoff Area=1.300 ac 19.23% Impervious Runoff Depth>1.98" Tc=6.0 min CN=68 Runoff=2.94 cfs 0.214 af
Subcatchment 110S: LD-1	Runoff Area=2.670 ac 33.33% Impervious Runoff Depth>2.39" Tc=6.0 min CN=73 Runoff=7.44 cfs 0.531 af
Subcatchment 111S: MS-1	Runoff Area=1.470 ac 39.46% Impervious Runoff Depth>1.52" Tc=6.0 min CN=62 Runoff=2.44 cfs 0.187 af
Subcatchment 112S: MS-2	Runoff Area=1.350 ac 22.96% Impervious Runoff Depth>0.92" Tc=6.0 min CN=53 Runoff=1.12 cfs 0.104 af
Subcatchment 113S: CS-13	Runoff Area=3.370 ac 6.82% Impervious Runoff Depth>1.31" Flow Length=190' Tc=6.3 min CN=59 Runoff=4.58 cfs 0.368 af
Subcatchment 114S: CS-14	Runoff Area=0.930 ac 8.60% Impervious Runoff Depth>1.45" Flow Length=158' Tc=6.5 min CN=61 Runoff=1.43 cfs 0.112 af
Subcatchment 115S: LD-8	Runoff Area=1.910 ac 48.69% Impervious Runoff Depth>2.92" Tc=6.0 min CN=79 Runoff=6.55 cfs 0.465 af
Pond 1P: CB-895	Peak Elev=275.44' Inflow=7.44 cfs 0.531 af Primary=1.06 cfs 0.367 af Secondary=6.39 cfs 0.165 af Outflow=7.44 cfs 0.531 af
Pond 2P: CB-896	Peak Elev=273.22' Inflow=10.39 cfs 0.745 af Primary=3.16 cfs 0.616 af Secondary=7.23 cfs 0.130 af Outflow=10.39 cfs 0.745 af
Pond 3P: CB-897	Peak Elev=272.64' Inflow=18.99 cfs 1.613 af Primary=8.61 cfs 1.420 af Secondary=10.38 cfs 0.193 af Outflow=18.99 cfs 1.613 af
Pond 4P: MH-662	Peak Elev=273.35' Inflow=14.72 cfs 1.864 af 18.0" Round Culvert n=0.010 L=323.7' S=0.0108 '/' Outflow=14.72 cfs 1.864 af
Pond 5P: CB-893	Peak Elev=270.28' Inflow=2.23 cfs 0.164 af Primary=2.23 cfs 0.164 af Secondary=0.00 cfs 0.000 af Outflow=2.23 cfs 0.164 af
Pond 6P: MH-663	Peak Elev=287.88' Inflow=60.87 cfs 7.407 af 24.0" Round Culvert n=0.010 L=150.0' S=0.0113 '/' Outflow=60.87 cfs 7.407 af
Pond 10P: CB-892	Peak Elev=269.07' Inflow=2.17 cfs 0.155 af Primary=2.17 cfs 0.155 af Secondary=0.00 cfs 0.000 af Outflow=2.17 cfs 0.155 af
Pond 11P: CB-898	Peak Elev=264.92' Inflow=0.73 cfs 0.056 af Primary=0.73 cfs 0.056 af Secondary=0.00 cfs 0.000 af Outflow=0.73 cfs 0.056 af
Pond 12P: MH-664	Peak Elev=285.78' Inflow=60.87 cfs 7.407 af 24.0" Round Culvert n=0.010 L=90.0' S=0.0056 '/' Outflow=60.87 cfs 7.407 af
Pond 13P: MH-673	Peak Elev=287.89' Inflow=64.41 cfs 7.698 af 24.0" Round Culvert n=0.010 L=296.0' S=0.0257 '/' Outflow=64.41 cfs 7.698 af

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Pond 14P: CB-918	Peak Elev=263.12' Inflow=2.44 cfs 0.187 af Primary=2.44 cfs 0.187 af Secondary=0.00 cfs 0.000 af Outflow=2.44 cfs 0.187 af
Pond 15P: CB-917	Peak Elev=262.58' Inflow=3.55 cfs 0.291 af Primary=3.55 cfs 0.291 af Secondary=0.00 cfs 0.000 af Outflow=3.55 cfs 0.291 af
Pond 17P: MH-NEW	Peak Elev=268.21' Inflow=19.12 cfs 0.374 af Outflow=19.12 cfs 0.374 af
Pond 18P: MH-703	Peak Elev=279.40' Inflow=26.57 cfs 5.114 af 18.0" Round Culvert n=0.010 L=55.0' S=0.0364 '/' Outflow=26.57 cfs 5.114 af
Pond 19P: CB-1154	Peak Elev=267.10' Inflow=4.53 cfs 0.177 af Primary=4.53 cfs 0.177 af Secondary=0.00 cfs 0.000 af Outflow=4.53 cfs 0.177 af
Pond 20P: CB-1153	Peak Elev=269.35' Inflow=12.21 cfs 1.028 af Primary=6.23 cfs 0.920 af Secondary=5.98 cfs 0.109 af Outflow=12.21 cfs 1.028 af
Pond 21P: MH-702	Peak Elev=276.81' Inflow=16.40 cfs 4.017 af 18.0" Round Culvert n=0.010 L=195.0' S=0.0369 '/' Outflow=16.40 cfs 4.017 af
Pond 22P: MH-271	Peak Elev=281.71' Inflow=16.40 cfs 4.017 af 18.0" Round Culvert n=0.010 L=202.0' S=0.0099 '/' Outflow=16.40 cfs 4.017 af
Pond 23P: CB-1152	Peak Elev=288.35' Inflow=8.57 cfs 0.596 af Primary=6.16 cfs 0.578 af Secondary=2.42 cfs 0.019 af Outflow=8.57 cfs 0.596 af
Pond 24P: CB-1669	Peak Elev=286.95' Inflow=4.76 cfs 0.405 af Primary=4.76 cfs 0.405 af Secondary=0.00 cfs 0.000 af Outflow=4.76 cfs 0.405 af
Pond 25P: MH-272	Peak Elev=287.41' Inflow=10.53 cfs 3.439 af 18.0" Round Culvert n=0.010 L=80.0' S=0.0100 '/' Outflow=10.53 cfs 3.439 af
Pond 26P: MH-701	Peak Elev=288.01' Inflow=10.53 cfs 3.439 af 18.0" Round Culvert n=0.010 L=54.0' S=0.0093 '/' Outflow=10.53 cfs 3.439 af
Pond 27P: MH-699	Peak Elev=295.31' Inflow=10.53 cfs 3.439 af 18.0" Round Culvert n=0.010 L=265.5' S=0.0275 '/' Outflow=10.53 cfs 3.439 af
Pond 28P: MH-700	Peak Elev=294.37' Inflow=2.62 cfs 0.330 af 12.0" Round Culvert n=0.012 L=17.0' S=0.0118 '/' Outflow=2.62 cfs 0.330 af
Pond 29P: CB-1668	Peak Elev=297.74' Inflow=4.59 cfs 0.350 af Primary=2.62 cfs 0.330 af Secondary=1.97 cfs 0.020 af Outflow=4.59 cfs 0.350 af
Pond 30P: CB-1667	Peak Elev=295.01' Inflow=0.60 cfs 0.049 af Primary=0.60 cfs 0.049 af Secondary=0.00 cfs 0.000 af Outflow=0.60 cfs 0.049 af
Pond 32P: MH-270	Peak Elev=306.53' Inflow=9.98 cfs 0.760 af 18.0" Round Culvert n=0.012 L=262.0' S=0.0187 '/' Outflow=9.98 cfs 0.760 af

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Pond 33P: MH-620

Peak Elev=301.45' Inflow=11.16 cfs 0.853 af
24.0" Round Culvert n=0.012 L=48.0' S=0.0256 '/' Outflow=11.16 cfs 0.853 af

Pond 34P: IN-37

Peak Elev=302.38' Inflow=1.18 cfs 0.092 af
18.0" Round Culvert n=0.012 L=40.0' S=0.0100 '/' Outflow=1.18 cfs 0.092 af

Pond 35P: (new Pond)

Peak Elev=308.93' Inflow=9.98 cfs 0.760 af
18.0" Round Culvert n=0.012 L=111.0' S=0.0216 '/' Outflow=9.98 cfs 0.760 af

Pond 36P: MH-443

Peak Elev=311.38' Inflow=9.98 cfs 0.760 af
18.0" Round Culvert n=0.012 L=300.0' S=0.0077 '/' Outflow=9.98 cfs 0.760 af

Pond 37P: CB-646

Peak Elev=312.24' Inflow=1.13 cfs 0.080 af
Primary=1.13 cfs 0.080 af Secondary=0.00 cfs 0.000 af Outflow=1.13 cfs 0.080 af

Pond 38P: CB-645

Peak Elev=312.33' Inflow=2.01 cfs 0.156 af
Primary=2.01 cfs 0.156 af Secondary=0.00 cfs 0.000 af Outflow=2.01 cfs 0.156 af

Pond 47P: MH-619

Peak Elev=301.36' Inflow=25.06 cfs 2.021 af
30.0" Round Culvert n=0.012 L=27.0' S=0.0185 '/' Outflow=25.06 cfs 2.021 af

Pond 48P: CB-1666

Peak Elev=299.86' Inflow=0.90 cfs 0.064 af
Primary=0.90 cfs 0.064 af Secondary=0.00 cfs 0.000 af Outflow=0.90 cfs 0.064 af

Pond 49P: CB-1665

Peak Elev=303.23' Inflow=5.09 cfs 0.369 af
Primary=5.09 cfs 0.369 af Secondary=0.00 cfs 0.000 af Outflow=5.09 cfs 0.369 af

Pond 50P: MH-618

Peak Elev=306.60' Inflow=19.13 cfs 1.589 af
24.0" Round Culvert n=0.025 L=166.0' S=0.0193 '/' Outflow=19.13 cfs 1.589 af

Pond 51P: MH-617

Peak Elev=307.67' Inflow=19.13 cfs 1.589 af
24.0" Round Culvert n=0.025 L=61.0' S=0.0279 '/' Outflow=19.13 cfs 1.589 af

Pond 52P: CB-1663

Peak Elev=306.05' Inflow=1.13 cfs 0.081 af
Primary=1.13 cfs 0.081 af Secondary=0.00 cfs 0.000 af Outflow=1.13 cfs 0.081 af

Pond 53P: CB-1664

Peak Elev=307.12' Inflow=3.18 cfs 0.233 af
Primary=3.18 cfs 0.233 af Secondary=0.00 cfs 0.000 af Outflow=3.18 cfs 0.233 af

Pond 54P: MH-616

Peak Elev=309.95' Inflow=14.88 cfs 1.275 af
24.0" Round Culvert n=0.025 L=72.0' S=0.0319 '/' Outflow=14.88 cfs 1.275 af

Pond 55P: MH-615

Peak Elev=313.35' Inflow=14.88 cfs 1.275 af
24.0" Round Culvert n=0.025 L=99.0' S=0.0303 '/' Outflow=14.88 cfs 1.275 af

Pond 56P: MH-614

Peak Elev=312.71' Inflow=0.91 cfs 0.065 af
12.0" Round Culvert n=0.012 L=21.7' S=0.0092 '/' Outflow=0.91 cfs 0.065 af

Pond 57P: CB-1661

Peak Elev=313.26' Inflow=2.97 cfs 0.231 af
Primary=2.97 cfs 0.231 af Secondary=0.00 cfs 0.000 af Outflow=2.97 cfs 0.231 af

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Pond 58P: CB-1662	Peak Elev=313.43' Inflow=0.91 cfs 0.065 af Primary=0.91 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.91 cfs 0.065 af
Pond 59P: MH-613	Peak Elev=316.13' Inflow=11.03 cfs 0.978 af 18.0" Round Culvert n=0.012 L=72.9' S=0.0329 '/' Outflow=11.03 cfs 0.978 af
Pond 60P: MH-612	Peak Elev=322.63' Inflow=11.03 cfs 0.978 af 18.0" Round Culvert n=0.012 L=67.8' S=0.0383 '/' Outflow=11.03 cfs 0.978 af
Pond 61P: MH-611	Peak Elev=330.13' Inflow=11.03 cfs 0.978 af 18.0" Round Culvert n=0.012 L=66.8' S=0.0419 '/' Outflow=11.03 cfs 0.978 af
Pond 62P: MH-610	Peak Elev=333.33' Inflow=0.85 cfs 0.061 af 12.0" Round Culvert n=0.012 L=16.5' S=0.0061 '/' Outflow=0.85 cfs 0.061 af
Pond 63P: CB-655	Peak Elev=333.81' Inflow=0.85 cfs 0.061 af Primary=0.85 cfs 0.061 af Secondary=0.00 cfs 0.000 af Outflow=0.85 cfs 0.061 af
Pond 64P: CB-656	Peak Elev=333.80' Inflow=2.43 cfs 0.241 af Primary=2.43 cfs 0.241 af Secondary=0.00 cfs 0.000 af Outflow=2.43 cfs 0.241 af
Pond 65P: MH-609	Peak Elev=338.08' Inflow=8.50 cfs 0.677 af 18.0" Round Culvert n=0.012 L=89.0' S=0.0449 '/' Outflow=8.50 cfs 0.677 af
Pond 66P: MH-608	Peak Elev=351.29' Inflow=8.50 cfs 0.677 af 12.0" Round Culvert n=0.012 L=146.0' S=0.0432 '/' Outflow=8.50 cfs 0.677 af
Pond 67P: CB-654	Peak Elev=353.57' Inflow=5.10 cfs 0.418 af Primary=5.10 cfs 0.418 af Secondary=0.00 cfs 0.000 af Outflow=5.10 cfs 0.418 af
Pond 69P: CB-653	Peak Elev=351.71' Inflow=0.41 cfs 0.030 af Primary=0.41 cfs 0.030 af Secondary=0.00 cfs 0.000 af Outflow=0.41 cfs 0.030 af
Pond 70P: MH-449	Peak Elev=357.01' Inflow=3.03 cfs 0.229 af 12.0" Round Culvert n=0.012 L=135.0' S=0.0370 '/' Outflow=3.03 cfs 0.229 af
Pond 71P: MH-448	Peak Elev=356.79' Inflow=0.93 cfs 0.066 af 12.0" Round Culvert n=0.012 L=26.0' S=0.0115 '/' Outflow=0.93 cfs 0.066 af
Pond 72P: CB-652	Peak Elev=357.13' Inflow=2.11 cfs 0.163 af Primary=2.11 cfs 0.163 af Secondary=0.00 cfs 0.000 af Outflow=2.11 cfs 0.163 af
Pond 73P: CB-651	Peak Elev=357.39' Inflow=0.93 cfs 0.066 af Primary=0.93 cfs 0.066 af Secondary=0.00 cfs 0.000 af Outflow=0.93 cfs 0.066 af
Pond 94P: BASIN	Peak Elev=300.41' Storage=50,660 cf Inflow=40.79 cfs 3.242 af Primary=7.83 cfs 2.948 af Secondary=0.00 cfs 0.000 af Outflow=7.83 cfs 2.948 af
Pond 95P: IN-38	Peak Elev=294.22' Inflow=8.20 cfs 3.060 af 24.0" Round Culvert n=0.012 L=27.0' S=0.0185 '/' Outflow=8.20 cfs 3.060 af

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Type III 24-hr 10-yr Rainfall=5.14"

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Pond 96P: CB-X

Peak Elev=267.60' Inflow=16.66 cfs 0.657 af

Primary=4.62 cfs 0.474 af Secondary=12.04 cfs 0.183 af Outflow=16.66 cfs 0.657 af

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Summary for Subcatchment 74S: CS-1

Runoff = 2.11 cfs @ 12.10 hrs, Volume= 0.163 af, Depth> 1.45"

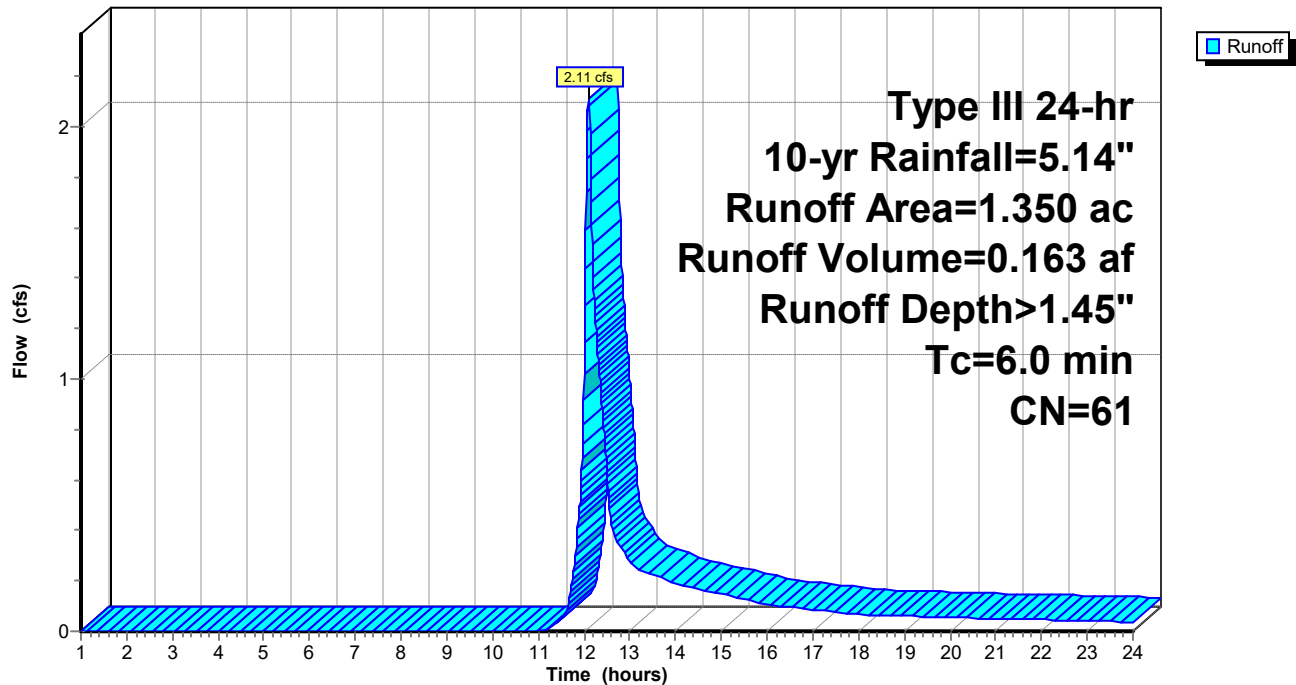
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.130	98	Paved parking, HSG B
0.410	61	>75% Grass cover, Good, HSG B
* 0.810	55	Woods, Good, HSG B
1.350	61	Weighted Average
1.220		90.37% Pervious Area
0.130		9.63% Impervious Area

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

Subcatchment 74S: CS-1

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 75S: CS-2

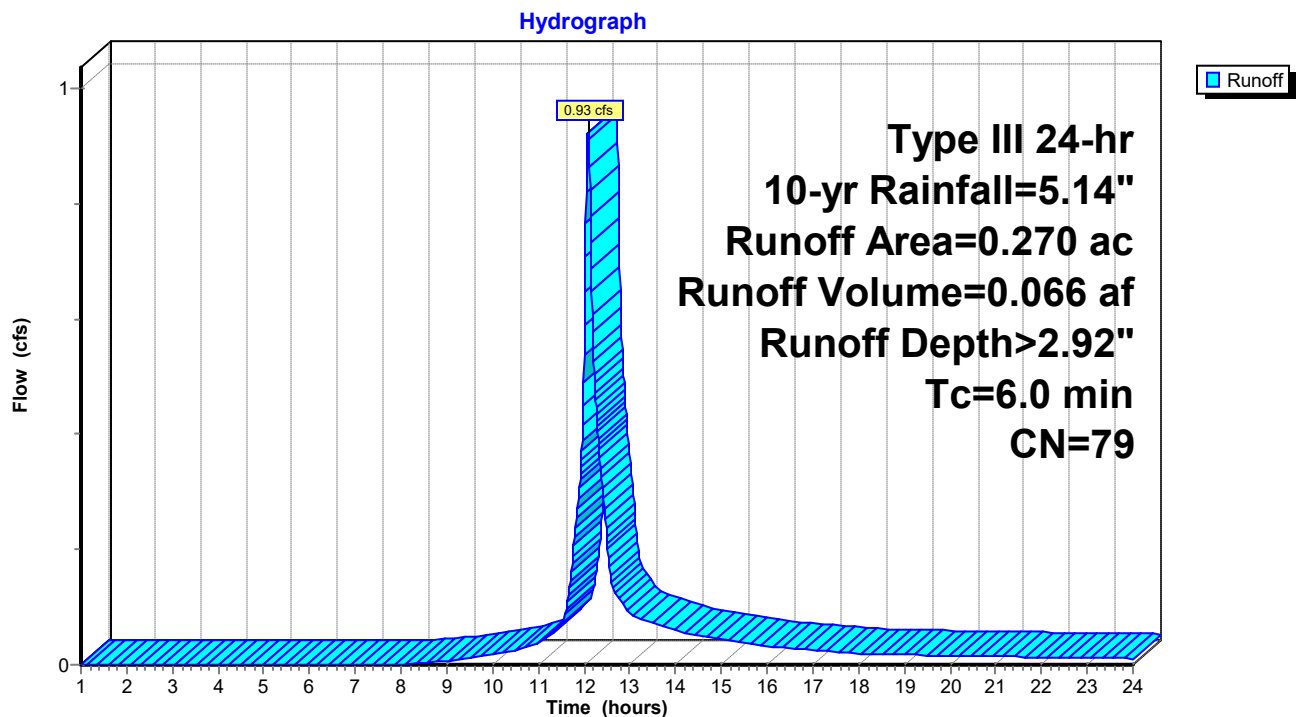
Runoff = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af, Depth> 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.130	98	Paved parking, HSG B
0.140	61	>75% Grass cover, Good, HSG B
0.270	79	Weighted Average
0.140		51.85% Pervious Area
0.130		48.15% Impervious Area

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

Subcatchment 75S: CS-2



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 76S: CS-3

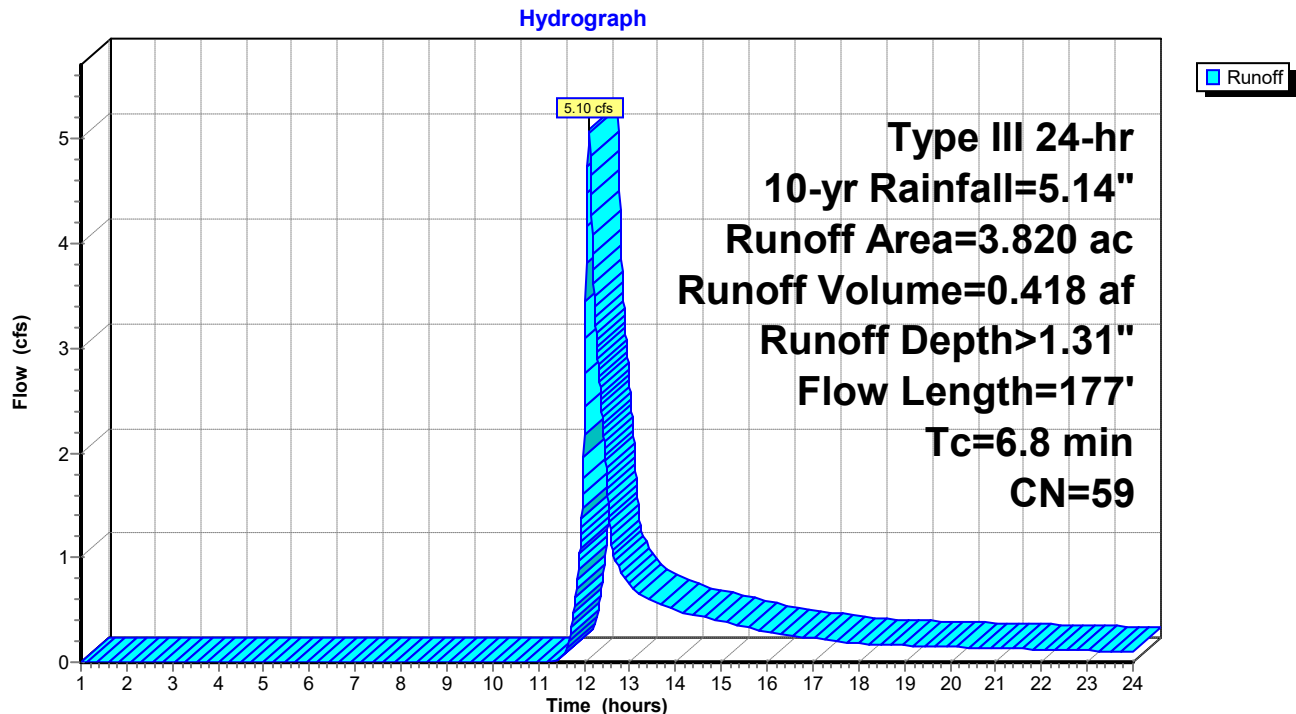
Runoff = 5.10 cfs @ 12.11 hrs, Volume= 0.418 af, Depth> 1.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.220	98	Paved parking, HSG B
0.800	61	>75% Grass cover, Good, HSG B
* 2.800	55	Woods, Good, HSG B
3.820	59	Weighted Average
3.600		94.24% Pervious Area
0.220		5.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	50	0.1250	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
0.9	100	0.1250	1.77		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.1	27	0.2000	3.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
6.8	177	Total			

Subcatchment 76S: CS-3



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Summary for Subcatchment 77S: CS-4

Runoff = 0.41 cfs @ 12.09 hrs, Volume= 0.030 af, Depth> 1.98"

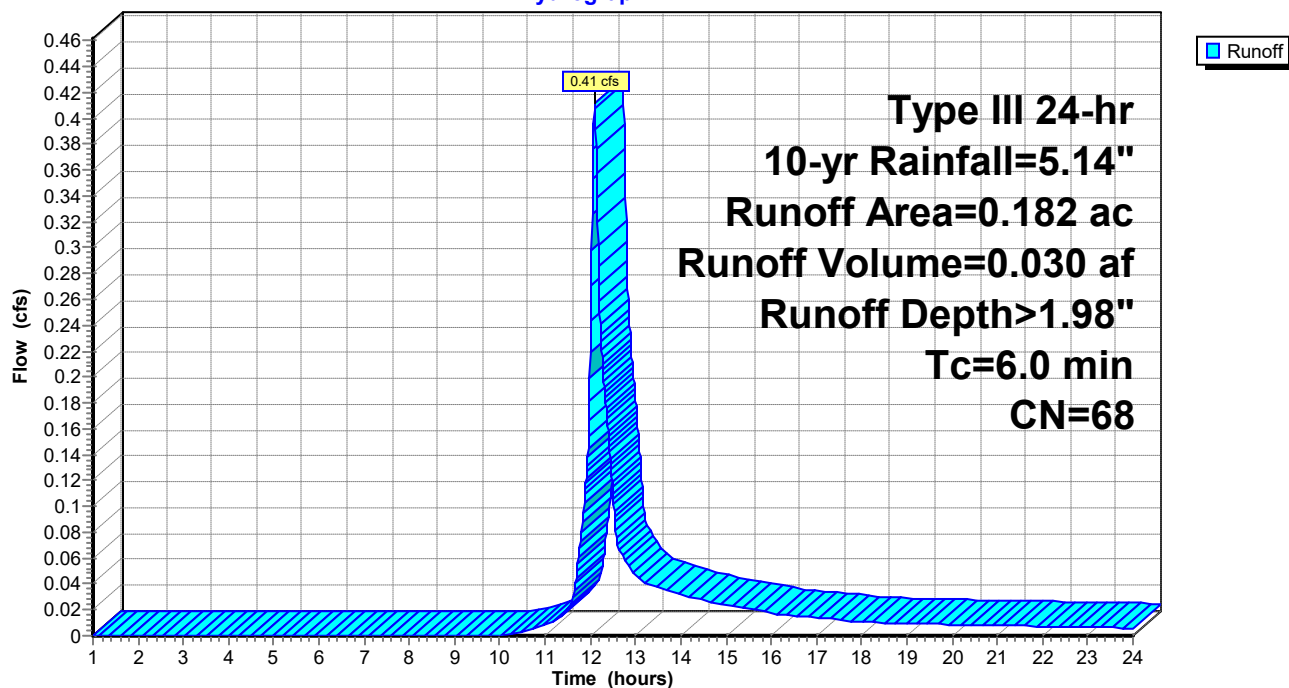
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.032	98	Paved parking, HSG B
0.150	61	>75% Grass cover, Good, HSG B
0.182	68	Weighted Average
0.150		82.42% Pervious Area
0.032		17.58% Impervious Area

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

Subcatchment 77S: CS-4

Hydrograph



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 78S: CS-5

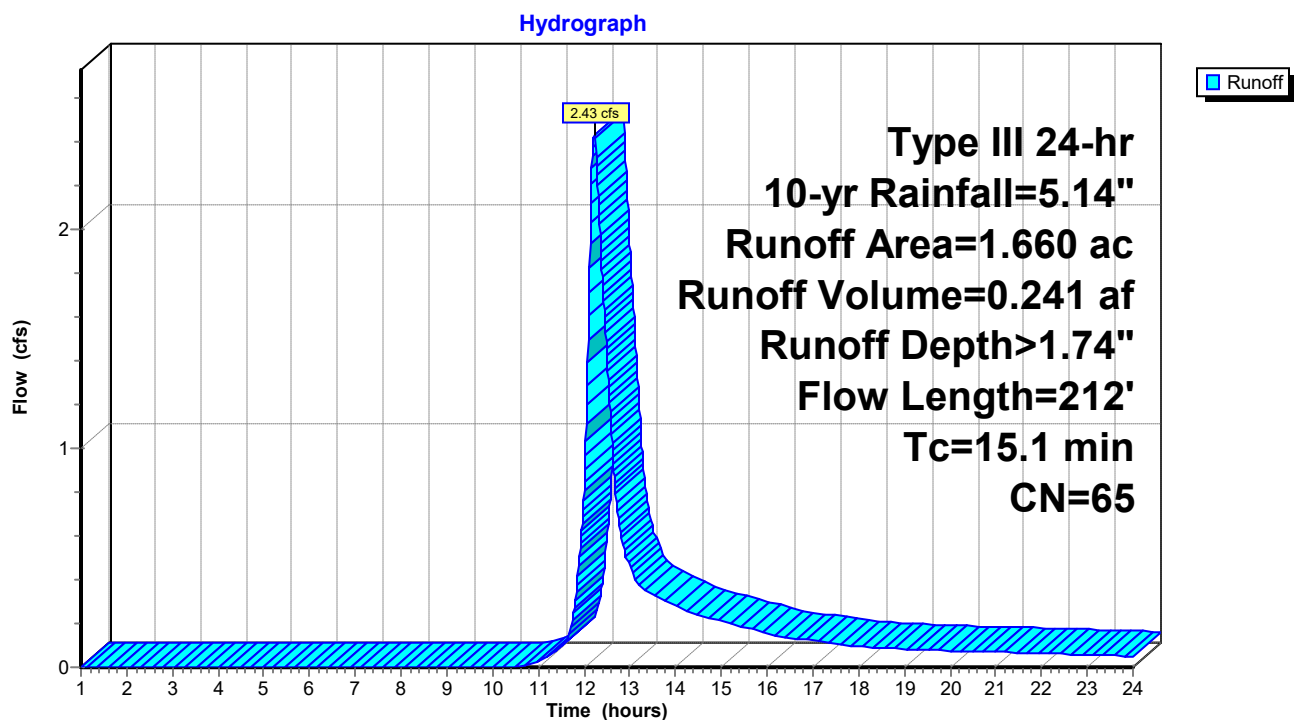
Runoff = 2.43 cfs @ 12.22 hrs, Volume= 0.241 af, Depth> 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.300	98	Water Surface, HSG B
0.510	61	>75% Grass cover, Good, HSG B
* 0.850	55	Woods, Good, HSG B
1.660	65	Weighted Average
1.360		81.93% Pervious Area
0.300		18.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	50	0.1250	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
8.9	85	0.1250	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
0.3	52	0.2000	3.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	25	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
15.1	212	Total			

Subcatchment 78S: CS-5



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Summary for Subcatchment 79S: CS-6

Runoff = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af, Depth> 2.22"

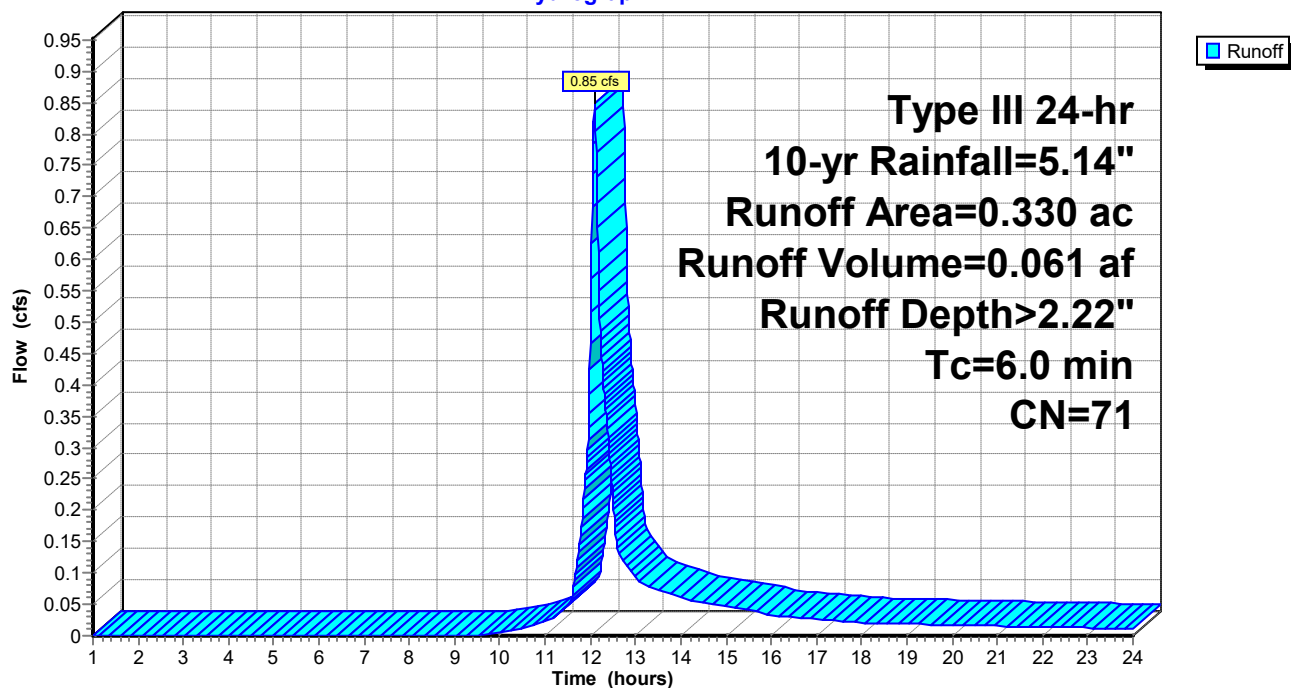
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.090	98	Paved parking, HSG B
0.240	61	>75% Grass cover, Good, HSG B
0.330	71	Weighted Average
0.240		72.73% Pervious Area
0.090		27.27% Impervious Area

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

Subcatchment 79S: CS-6

Hydrograph



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 80S: CS-7

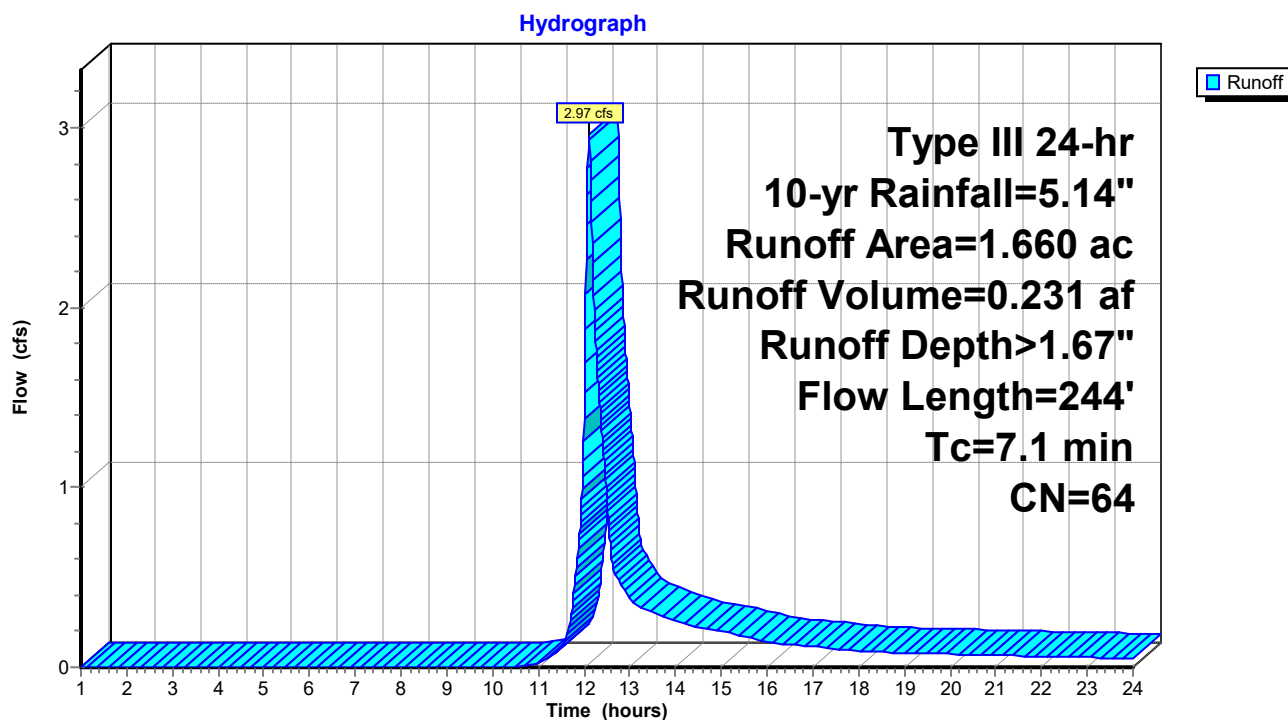
Runoff = 2.97 cfs @ 12.11 hrs, Volume= 0.231 af, Depth> 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.240	98	Paved parking, HSG B
0.710	61	>75% Grass cover, Good, HSG B
* 0.710	55	Woods, Good, HSG B
1.660	64	Weighted Average
1.420		85.54% Pervious Area
0.240		14.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	50	0.1250	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
0.9	100	0.1250	1.77		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.3	51	0.2000	3.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	43	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
7.1	244	Total			

Subcatchment 80S: CS-7



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Summary for Subcatchment 81S: CS-8

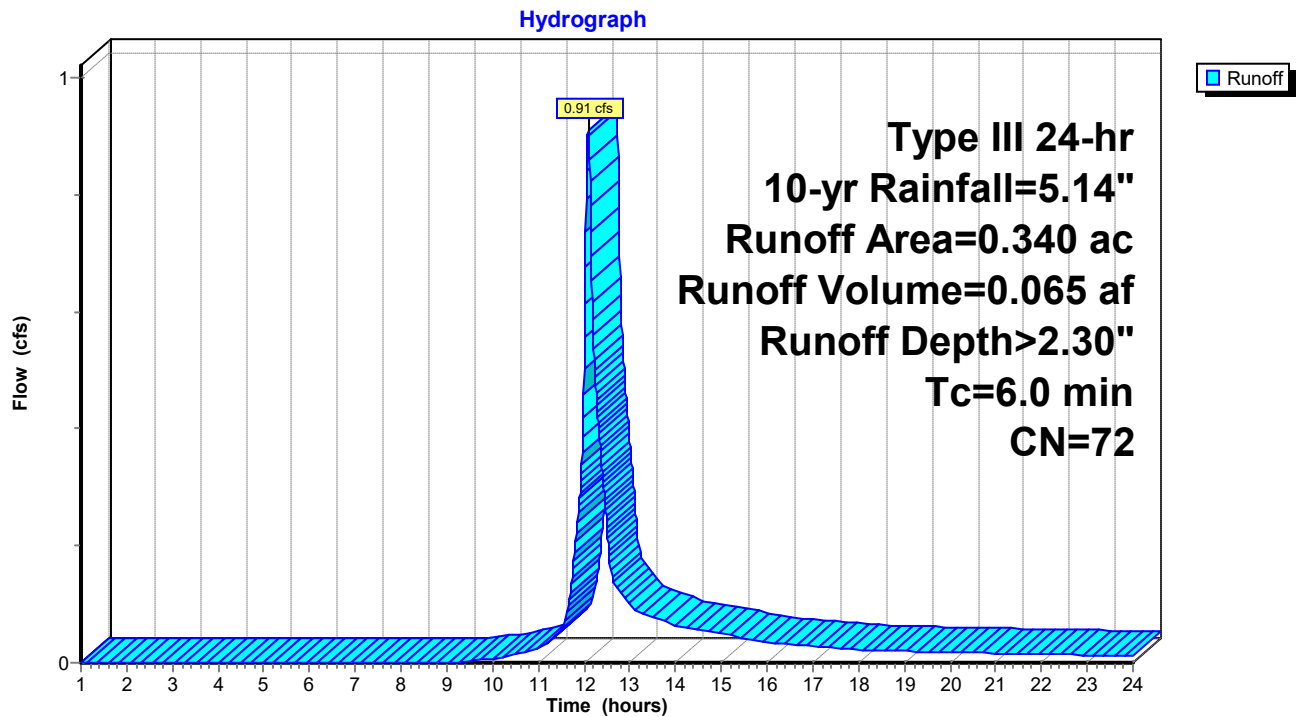
Runoff = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af, Depth> 2.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.100	98	Paved parking, HSG B
0.240	61	>75% Grass cover, Good, HSG B
0.340	72	Weighted Average
0.240		70.59% Pervious Area
0.100		29.41% Impervious Area

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

Subcatchment 81S: CS-8



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Summary for Subcatchment 82S: CS-9

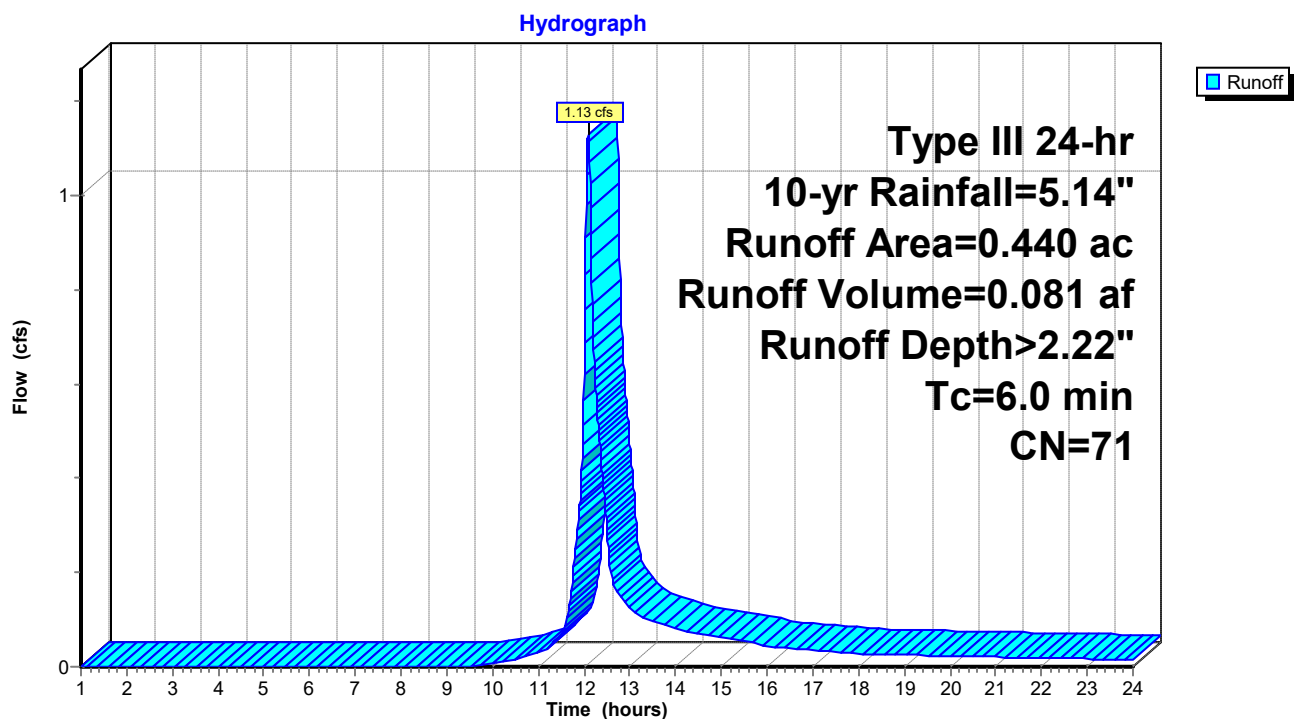
Runoff = 1.13 cfs @ 12.09 hrs, Volume= 0.081 af, Depth> 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.120	98	Paved parking, HSG B
0.320	61	>75% Grass cover, Good, HSG B
0.440	71	Weighted Average
0.320		72.73% Pervious Area
0.120		27.27% Impervious Area

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

Subcatchment 82S: CS-9



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 83S: CS-10

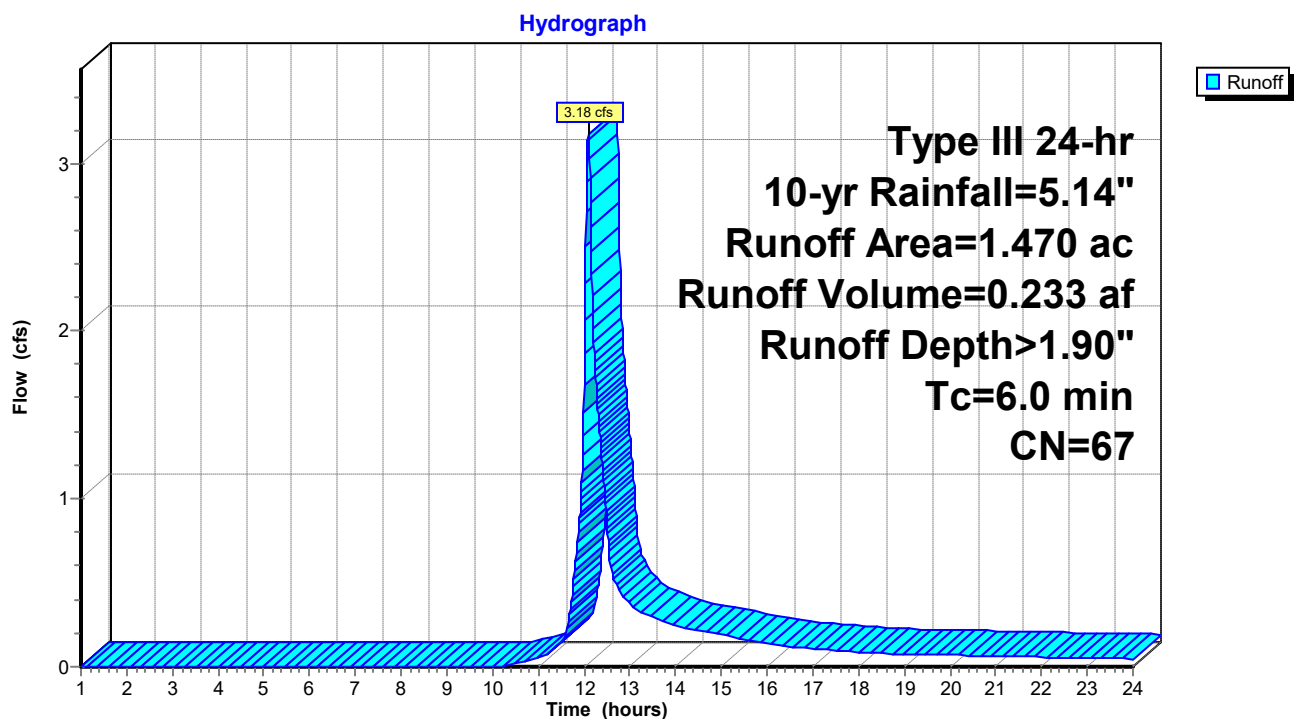
Runoff = 3.18 cfs @ 12.09 hrs, Volume= 0.233 af, Depth> 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.220	98	Paved parking, HSG B
1.250	61	>75% Grass cover, Good, HSG B
1.470	67	Weighted Average
1.250		85.03% Pervious Area
0.220		14.97% Impervious Area

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

Subcatchment 83S: CS-10



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 84S: CS-11

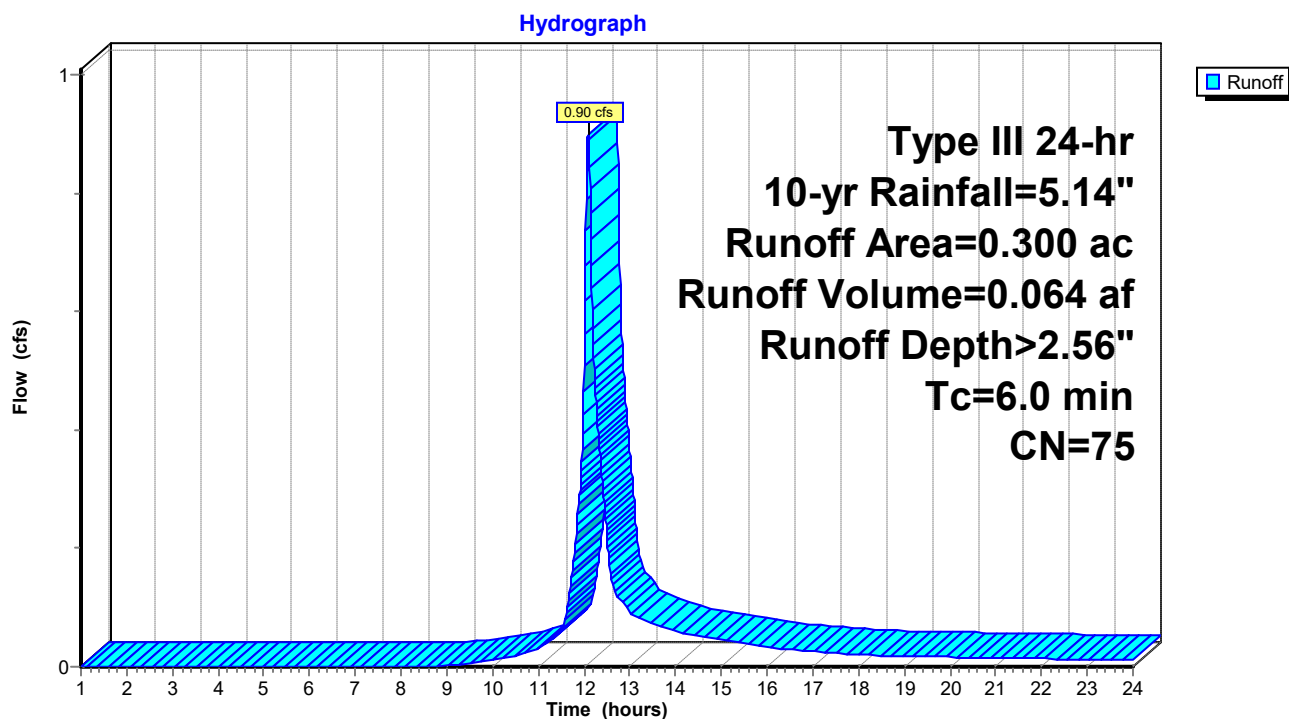
Runoff = 0.90 cfs @ 12.09 hrs, Volume= 0.064 af, Depth> 2.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.110	98	Paved parking, HSG B
0.190	61	>75% Grass cover, Good, HSG B
0.300	75	Weighted Average
0.190		63.33% Pervious Area
0.110		36.67% Impervious Area

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

Subcatchment 84S: CS-11



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 85S: CS-12

Runoff = 5.09 cfs @ 12.09 hrs, Volume= 0.369 af, Depth> 2.06"

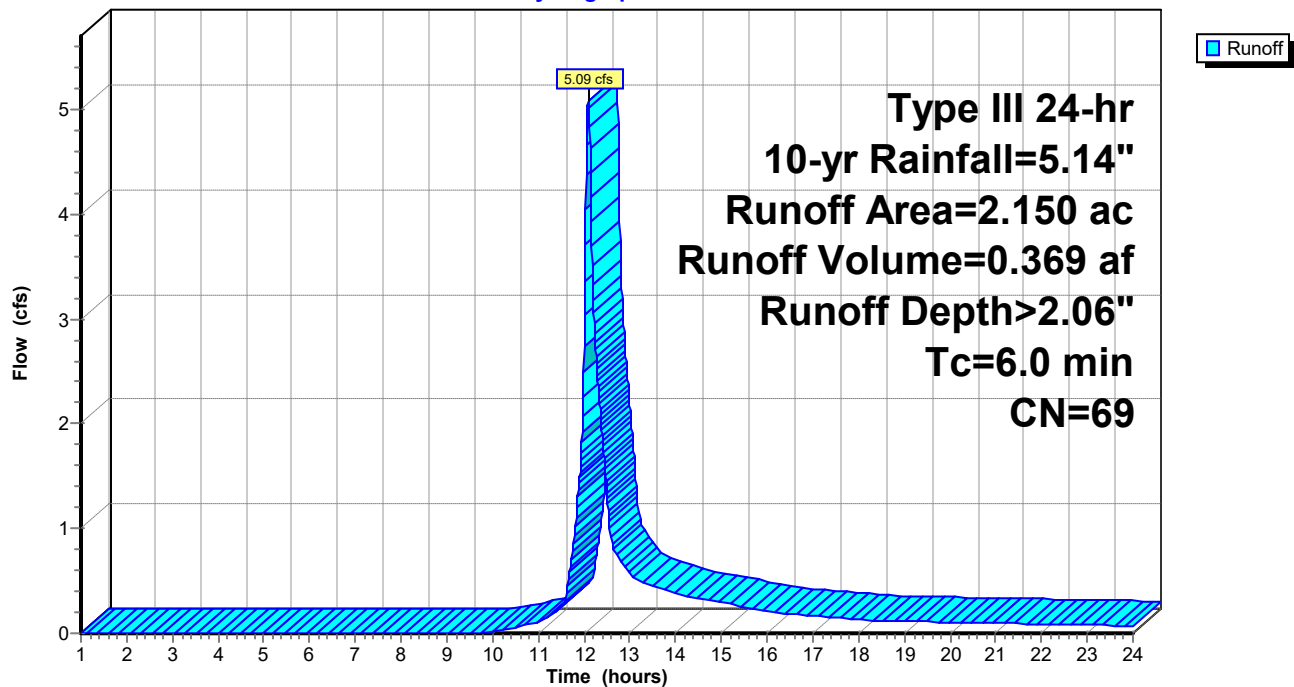
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.530	98	Paved parking, HSG B
1.160	61	>75% Grass cover, Good, HSG B
* 0.460	55	Woods, Good, HSG B
2.150	69	Weighted Average
1.620		75.35% Pervious Area
0.530		24.65% Impervious Area

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

Subcatchment 85S: CS-12

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 86S: LS-7

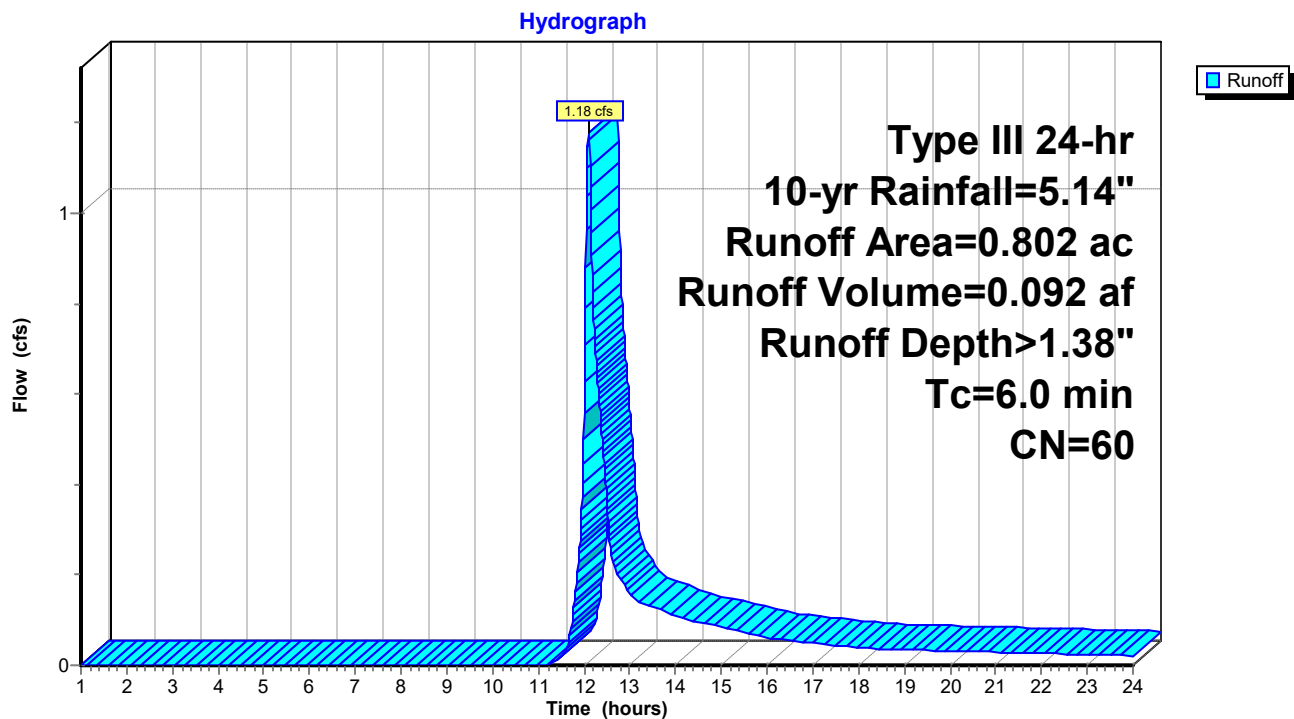
Runoff = 1.18 cfs @ 12.10 hrs, Volume= 0.092 af, Depth> 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.022	98	Paved parking, HSG B
0.520	61	>75% Grass cover, Good, HSG B
* 0.260	55	Woods, Good, HSG B
0.802	60	Weighted Average
0.780		97.26% Pervious Area
0.022		2.74% Impervious Area

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

Subcatchment 86S: LS-7



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 87S: LS-1

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 0.048 af, Depth> 2.22"

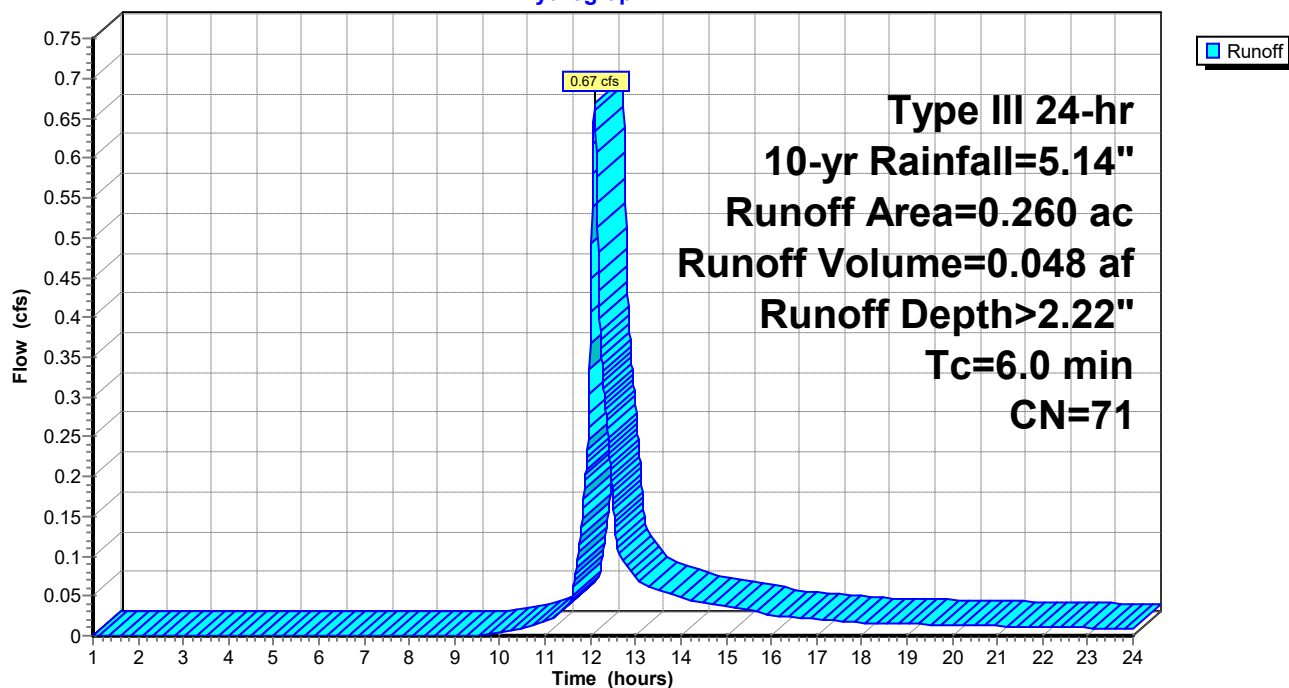
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.070	98	Paved parking, HSG B
0.190	61	>75% Grass cover, Good, HSG B
0.260	71	Weighted Average
0.190		73.08% Pervious Area
0.070		26.92% Impervious Area

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

Subcatchment 87S: LS-1

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 88S: LS-3

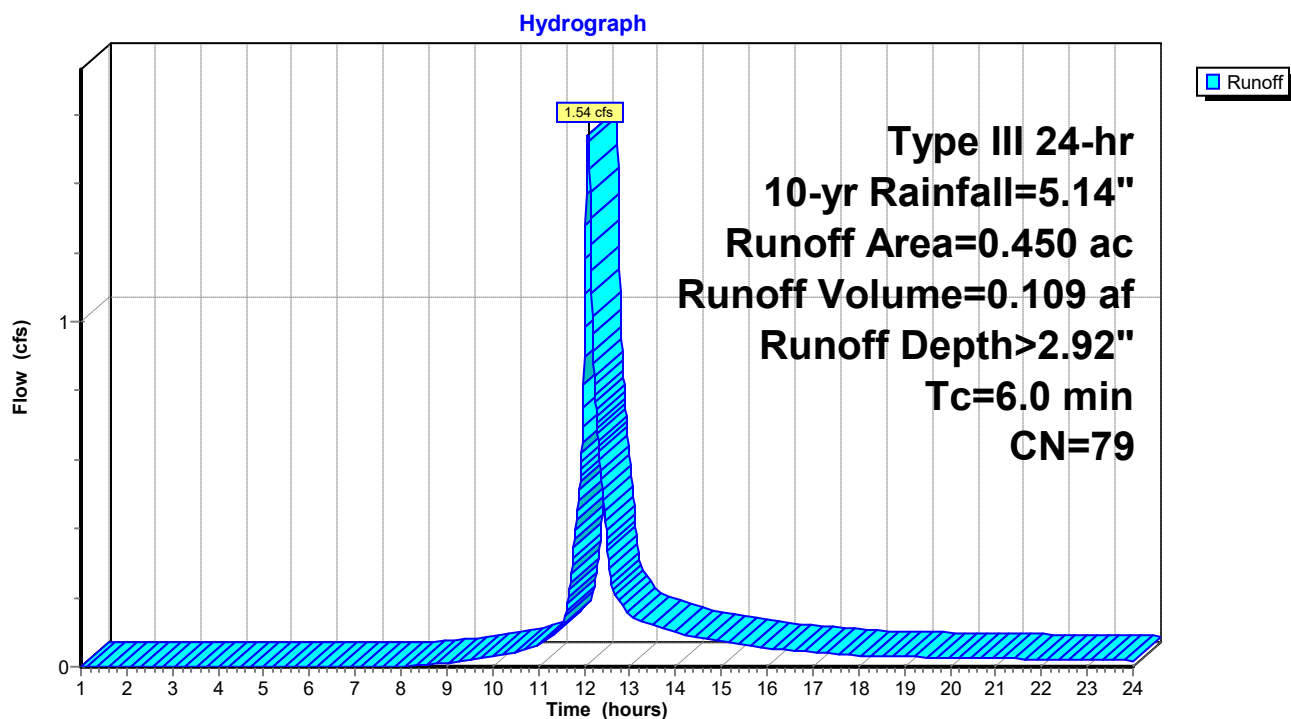
Runoff = 1.54 cfs @ 12.09 hrs, Volume= 0.109 af, Depth> 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.220	98	Paved parking, HSG B
0.230	61	>75% Grass cover, Good, HSG B
0.450	79	Weighted Average
0.230		51.11% Pervious Area
0.220		48.89% Impervious Area

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

Subcatchment 88S: LS-3



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 89S: LS-2

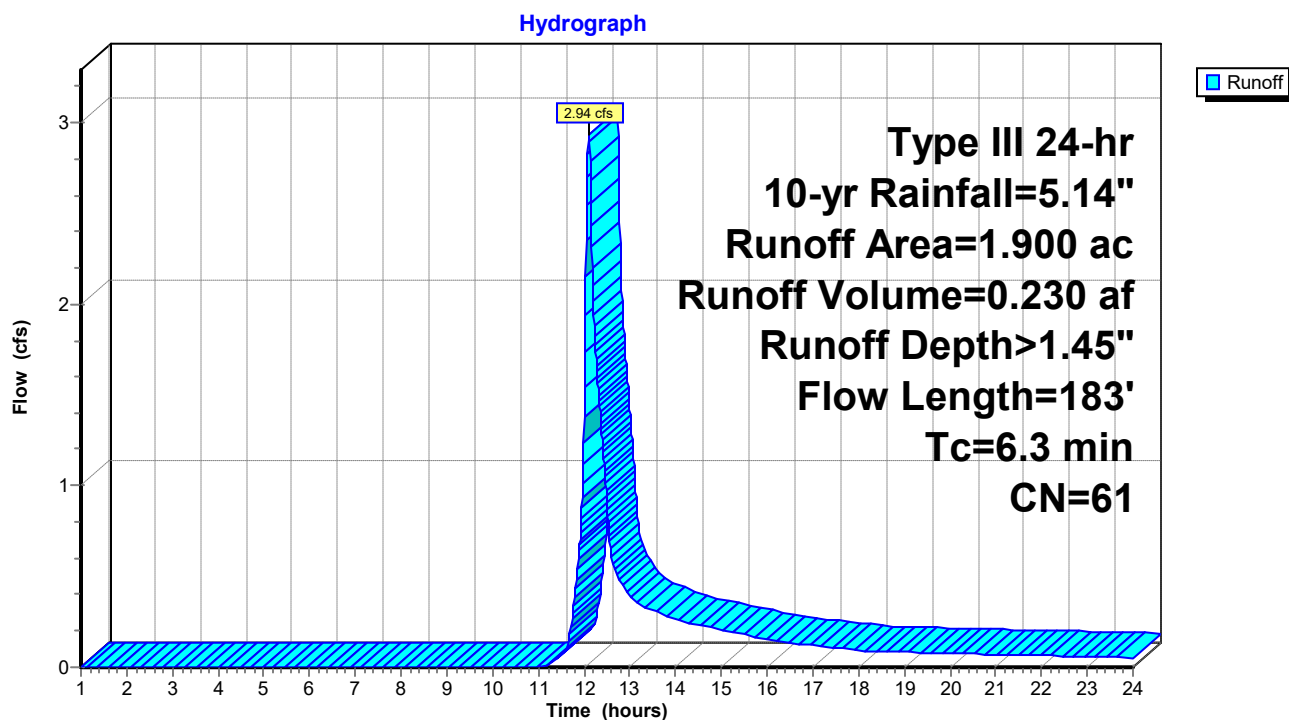
Runoff = 2.94 cfs @ 12.10 hrs, Volume= 0.230 af, Depth> 1.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.240	98	Paved parking, HSG B
0.210	61	>75% Grass cover, Good, HSG B
* 1.450	55	Woods, Good, HSG B
1.900	61	Weighted Average
1.660		87.37% Pervious Area
0.240		12.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	50	0.1500	0.15		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
0.6	67	0.1500	1.94		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	28	0.1200	2.42		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	38	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
6.3	183	Total			

Subcatchment 89S: LS-2



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 90S: LS-4

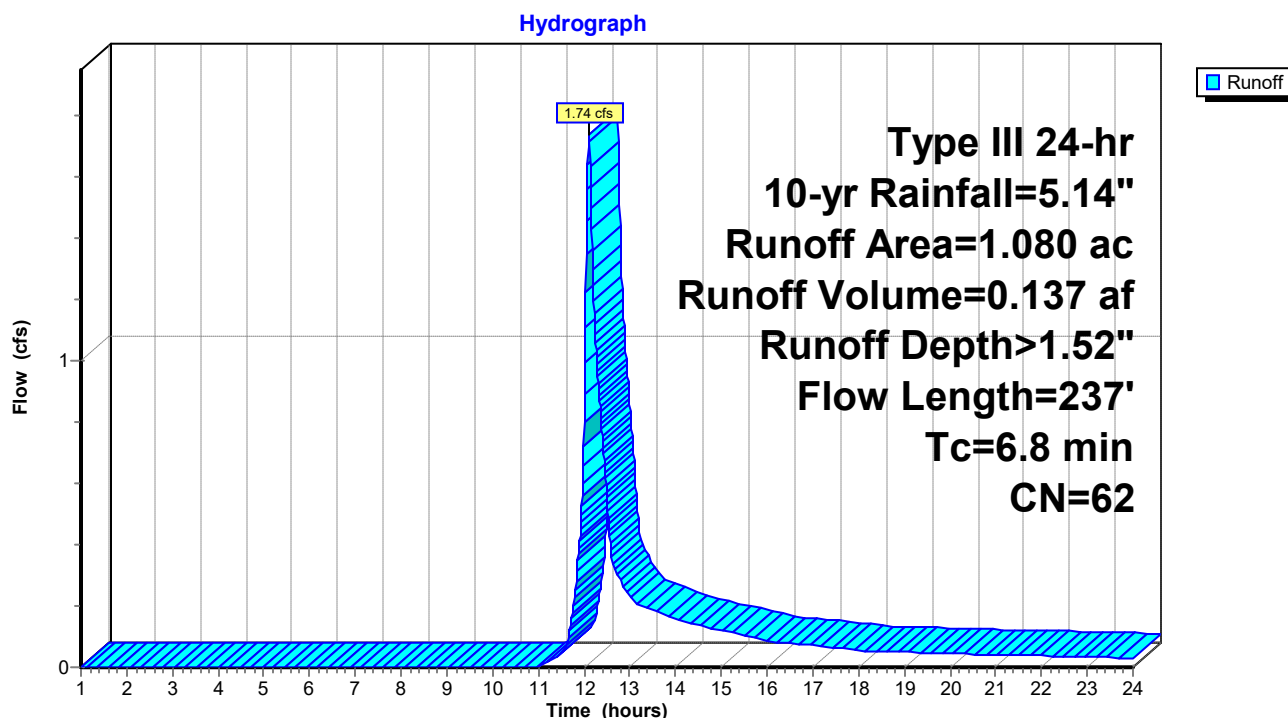
Runoff = 1.74 cfs @ 12.11 hrs, Volume= 0.137 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.150	98	Paved parking, HSG B
0.230	61	>75% Grass cover, Good, HSG B
0.700	55	Woods, Good, HSG B
1.080	62	Weighted Average
0.930		86.11% Pervious Area
0.150		13.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	50	0.1500	0.15		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
0.8	85	0.1200	1.73		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.5	70	0.1000	2.21		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	32	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
6.8	237	Total			

Subcatchment 90S: LS-4



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 91S: LS-6

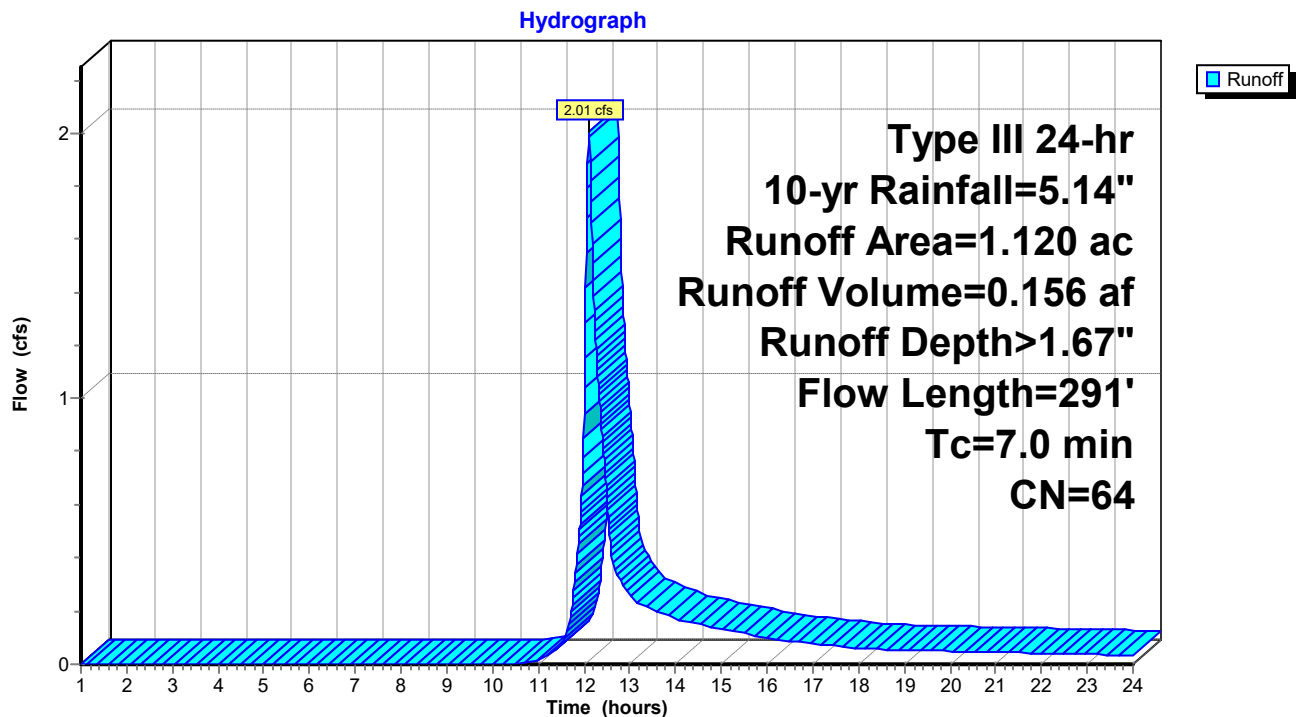
Runoff = 2.01 cfs @ 12.11 hrs, Volume= 0.156 af, Depth> 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.190	98	Paved parking, HSG B
0.230	61	>75% Grass cover, Good, HSG B
0.700	55	Woods, Good, HSG B
1.120	64	Weighted Average
0.930		83.04% Pervious Area
0.190		16.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	50	0.1500	0.15		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
1.0	120	0.1500	1.94		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.5	70	0.1000	2.21		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	51	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
7.0	291	Total			

Subcatchment 91S: LS-6



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 92S: LS-5

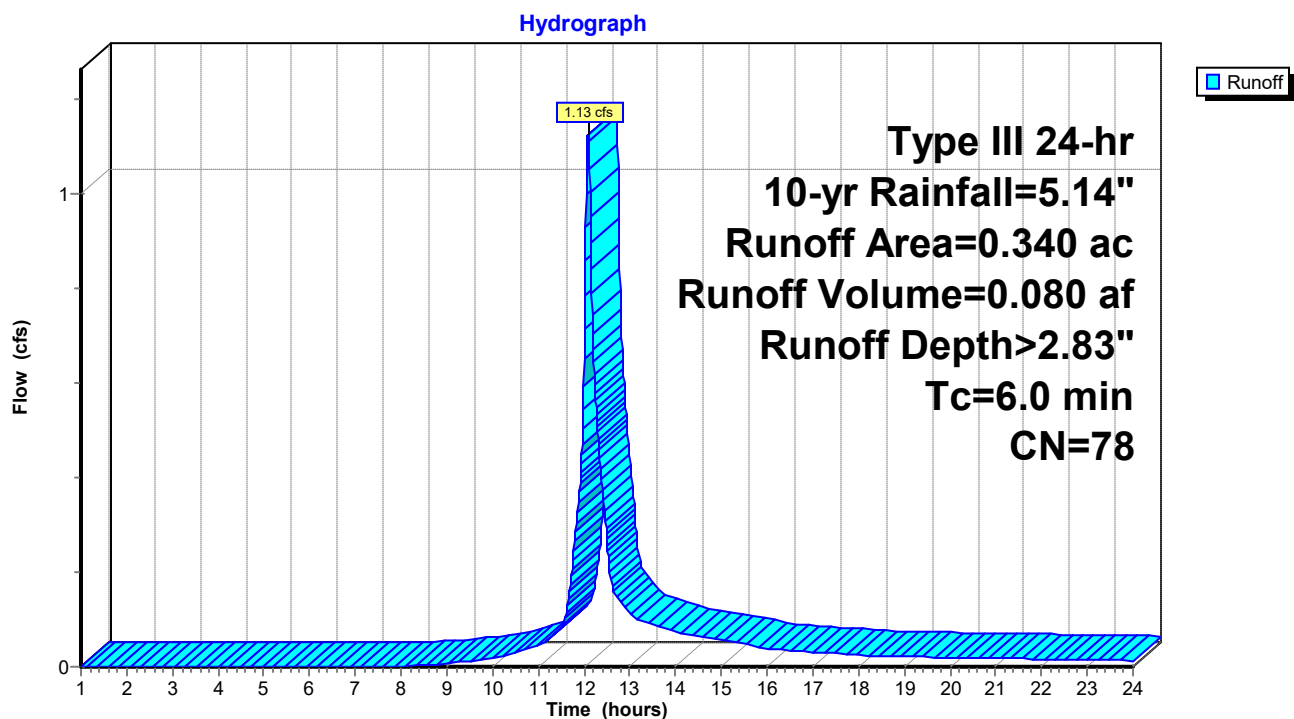
Runoff = 1.13 cfs @ 12.09 hrs, Volume= 0.080 af, Depth> 2.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.160	98	Paved parking, HSG B
0.180	61	>75% Grass cover, Good, HSG B
0.340	78	Weighted Average
0.180		52.94% Pervious Area
0.160		47.06% Impervious Area

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

Subcatchment 92S: LS-5



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 95S: CS-15

Runoff = 0.60 cfs @ 12.08 hrs, Volume= 0.049 af, Depth> 4.90"

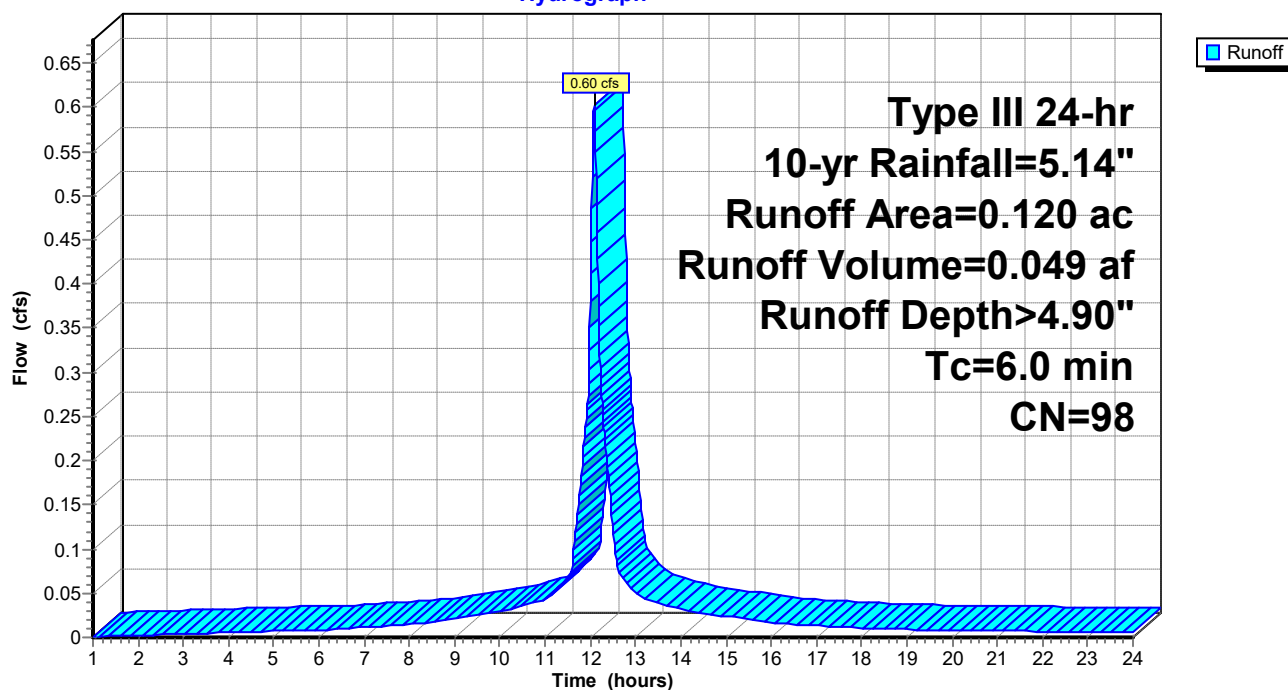
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.120	98	Paved parking, HSG B
0.120		100.00% Impervious Area

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

Subcatchment 95S: CS-15

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 96S: CS-16

Runoff = 4.59 cfs @ 12.10 hrs, Volume= 0.350 af, Depth> 1.52"

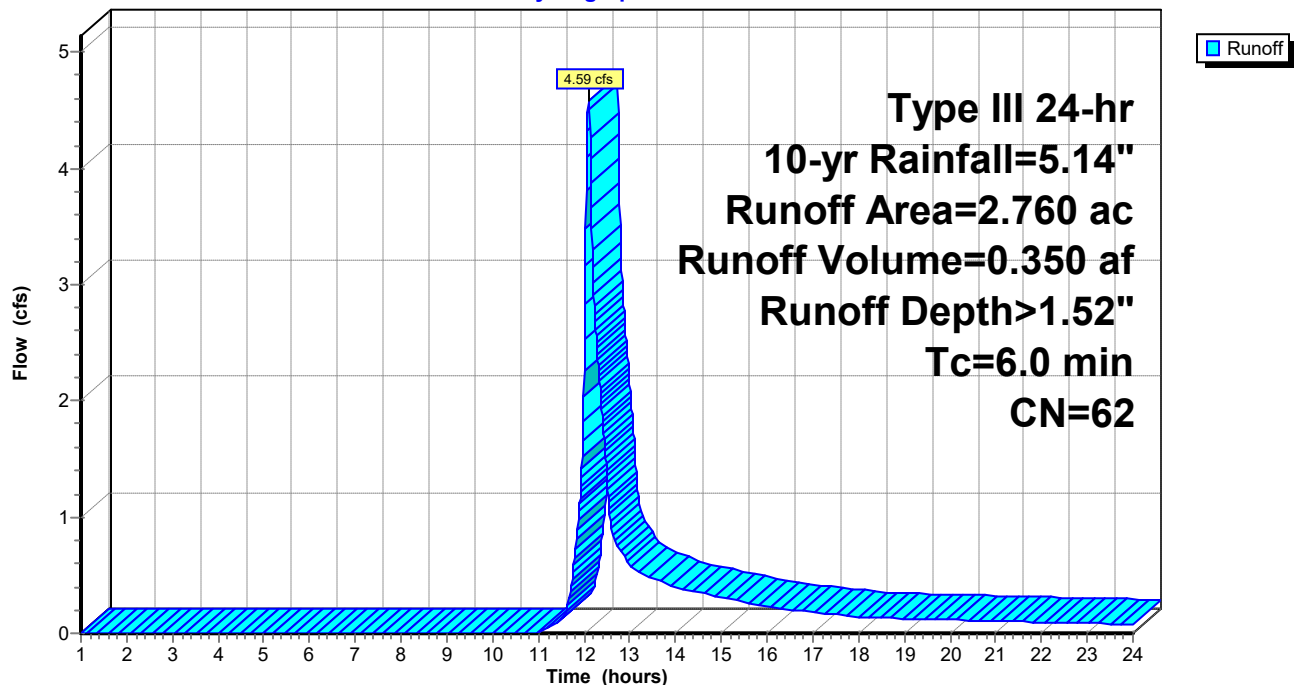
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.310	98	Paved parking, HSG B
0.920	61	>75% Grass cover, Good, HSG B
* 1.530	55	Woods, Good, HSG B
2.760	62	Weighted Average
2.450		88.77% Pervious Area
0.310		11.23% Impervious Area

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

Subcatchment 96S: CS-16

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 97S: CS-17

Runoff = 4.76 cfs @ 12.15 hrs, Volume= 0.405 af, Depth> 1.67"

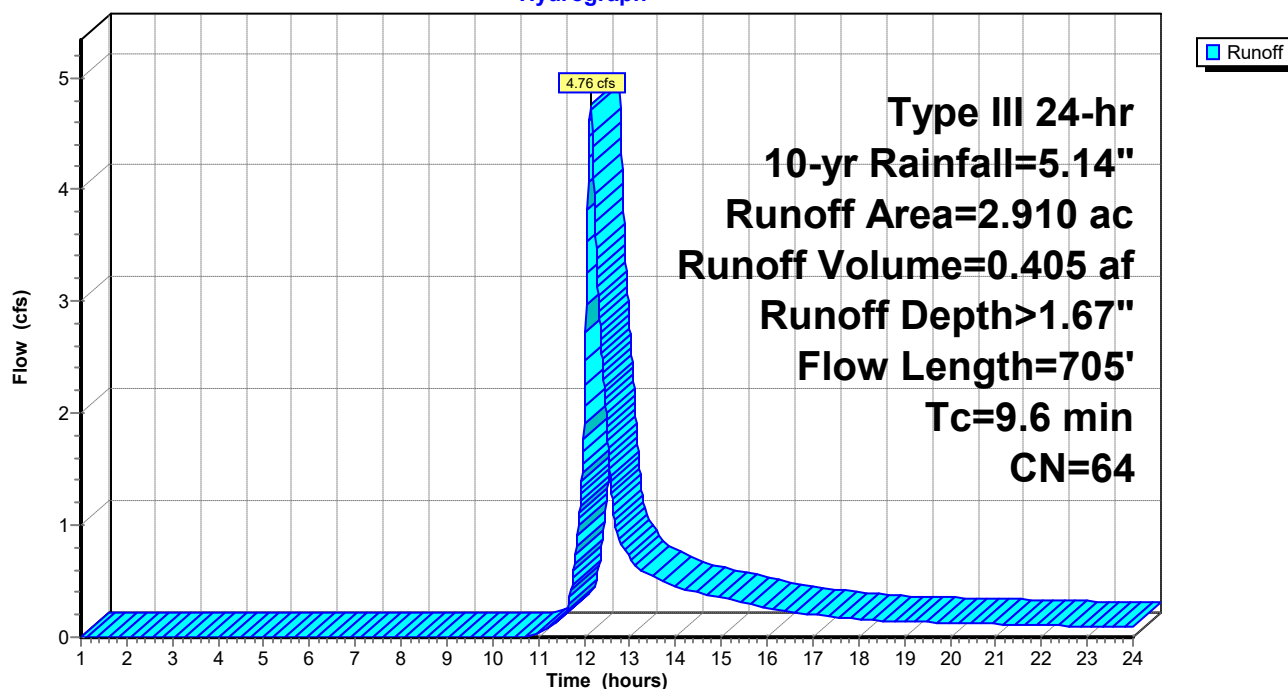
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.510	98	Paved parking, HSG B
0.900	61	>75% Grass cover, Good, HSG B
1.500	55	Woods, Good, HSG B
2.910	64	Weighted Average
2.400		82.47% Pervious Area
0.510		17.53% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.1000	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
2.1	245	0.1500	1.94		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.1	410	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
9.6	705	Total			

Subcatchment 97S: CS-17

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 98S: CS-18

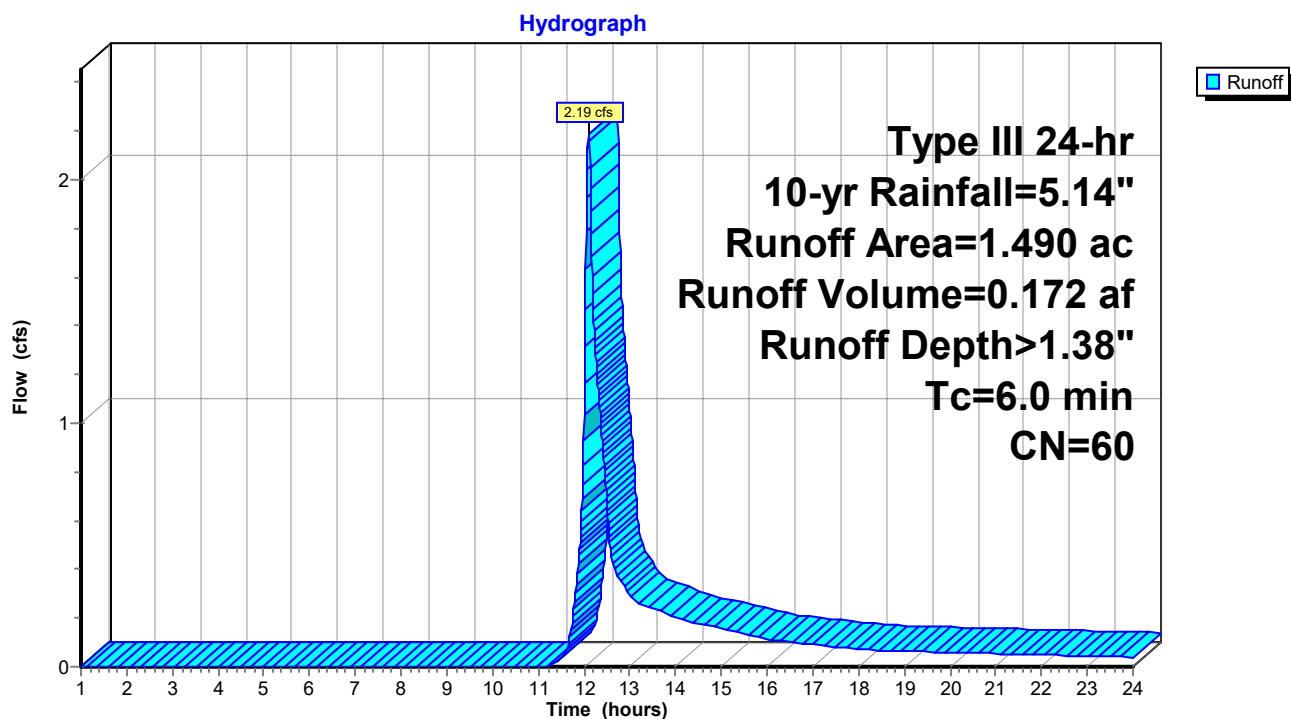
Runoff = 2.19 cfs @ 12.10 hrs, Volume= 0.172 af, Depth> 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.190	98	Paved parking, HSG B
1.300	55	Woods, Good, HSG B
1.490	60	Weighted Average
1.300		87.25% Pervious Area
0.190		12.75% Impervious Area

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

Subcatchment 98S: CS-18



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 99S: CS-19

Runoff = 7.59 cfs @ 12.10 hrs, Volume= 0.554 af, Depth> 2.74"

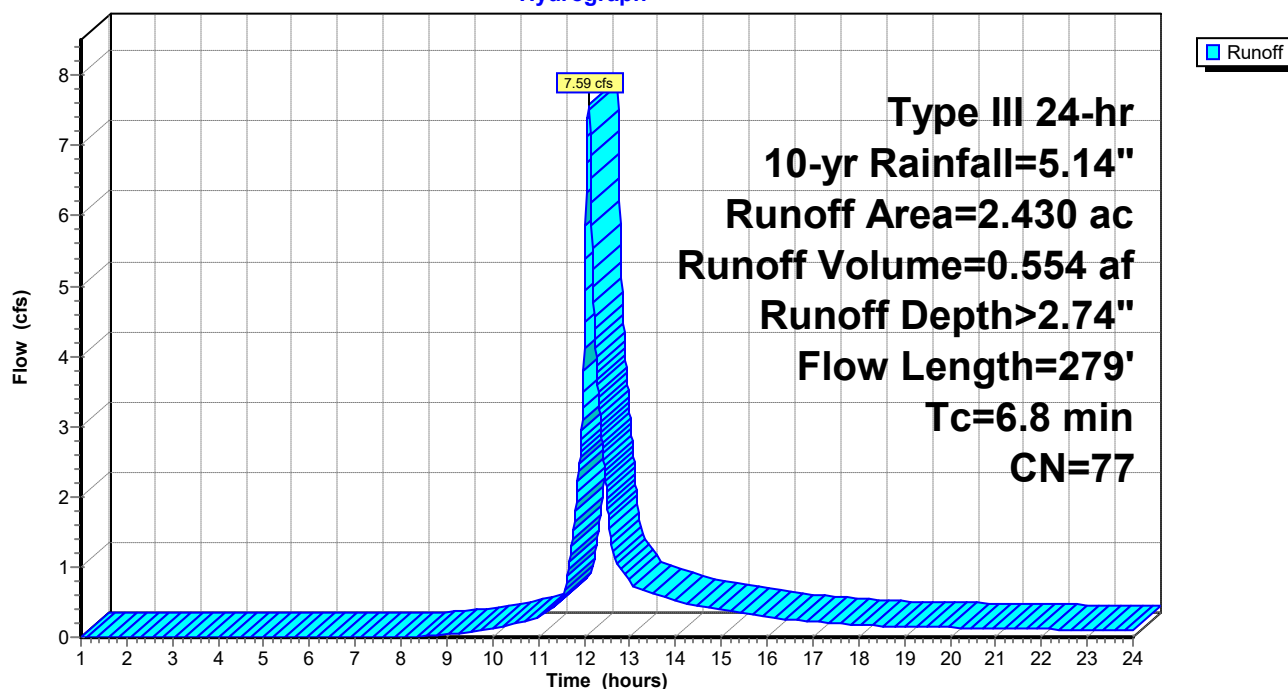
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
1.150	98	Paved parking, HSG B
0.510	61	>75% Grass cover, Good, HSG B
0.770	55	Woods, Good, HSG B
2.430	77	Weighted Average
1.280		52.67% Pervious Area
1.150		47.33% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	50	0.1200	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
0.4	43	0.1200	1.73		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.5	186	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
6.8	279	Total			

Subcatchment 99S: CS-19

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 100S: CS-20

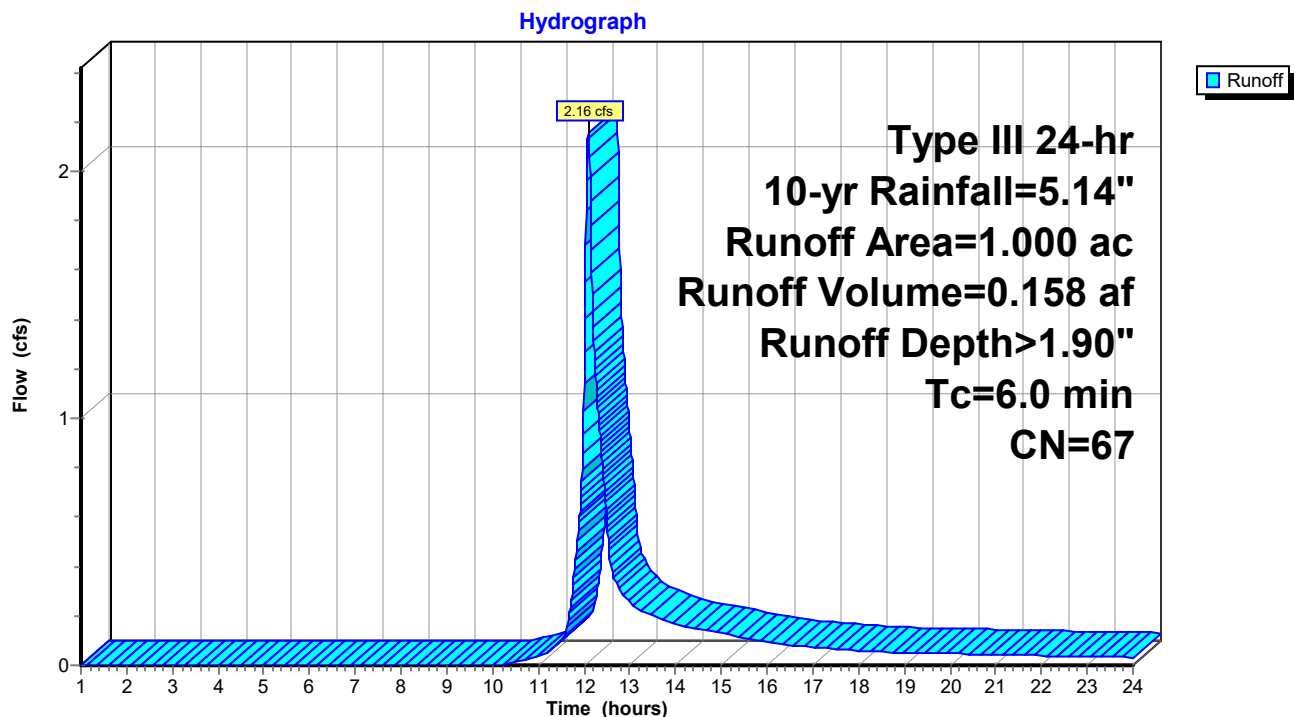
Runoff = 2.16 cfs @ 12.09 hrs, Volume= 0.158 af, Depth> 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.230	98	Paved parking, HSG B
0.330	61	>75% Grass cover, Good, HSG B
0.440	55	Woods, Good, HSG B
1.000	67	Weighted Average
0.770		77.00% Pervious Area
0.230		23.00% Impervious Area

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

Subcatchment 100S: CS-20



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 101S: LD-6

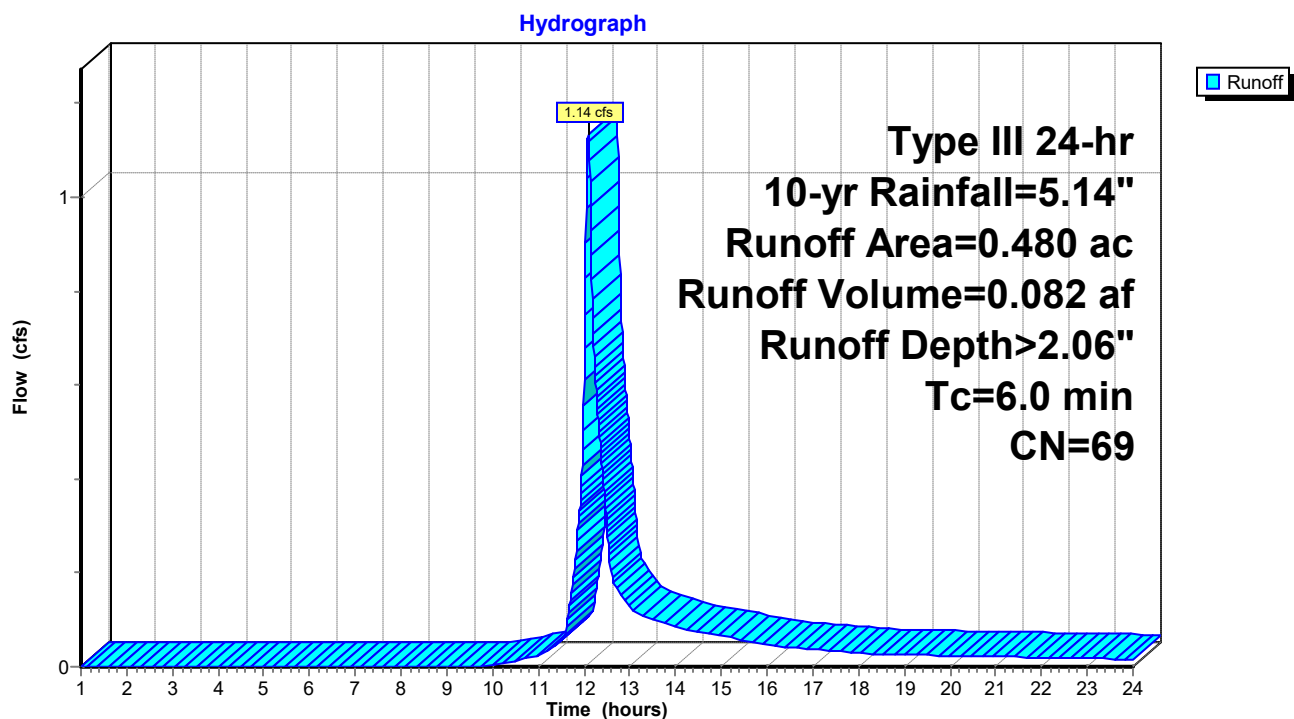
Runoff = 1.14 cfs @ 12.09 hrs, Volume= 0.082 af, Depth> 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.240	98	Paved parking, HSG A
0.240	39	>75% Grass cover, Good, HSG A
0.480	69	Weighted Average
0.240		50.00% Pervious Area
0.240		50.00% Impervious Area

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

Subcatchment 101S: LD-6



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 102S: LD-7

Runoff = 0.73 cfs @ 12.10 hrs, Volume= 0.056 af, Depth> 1.52"

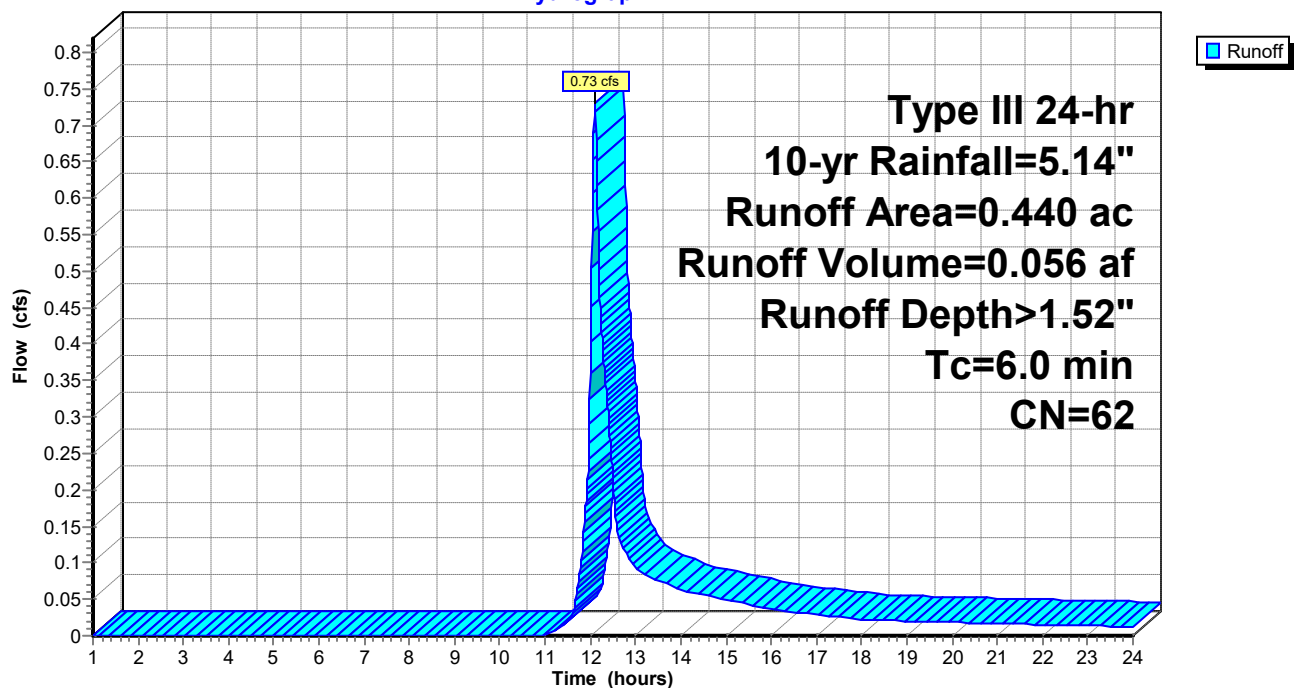
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.170	98	Paved parking, HSG A
0.270	39	>75% Grass cover, Good, HSG A
0.440	62	Weighted Average
0.270		61.36% Pervious Area
0.170		38.64% Impervious Area

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

Subcatchment 102S: LD-7

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 103S: PS-1

Runoff = 0.45 cfs @ 12.09 hrs, Volume= 0.033 af, Depth> 1.90"

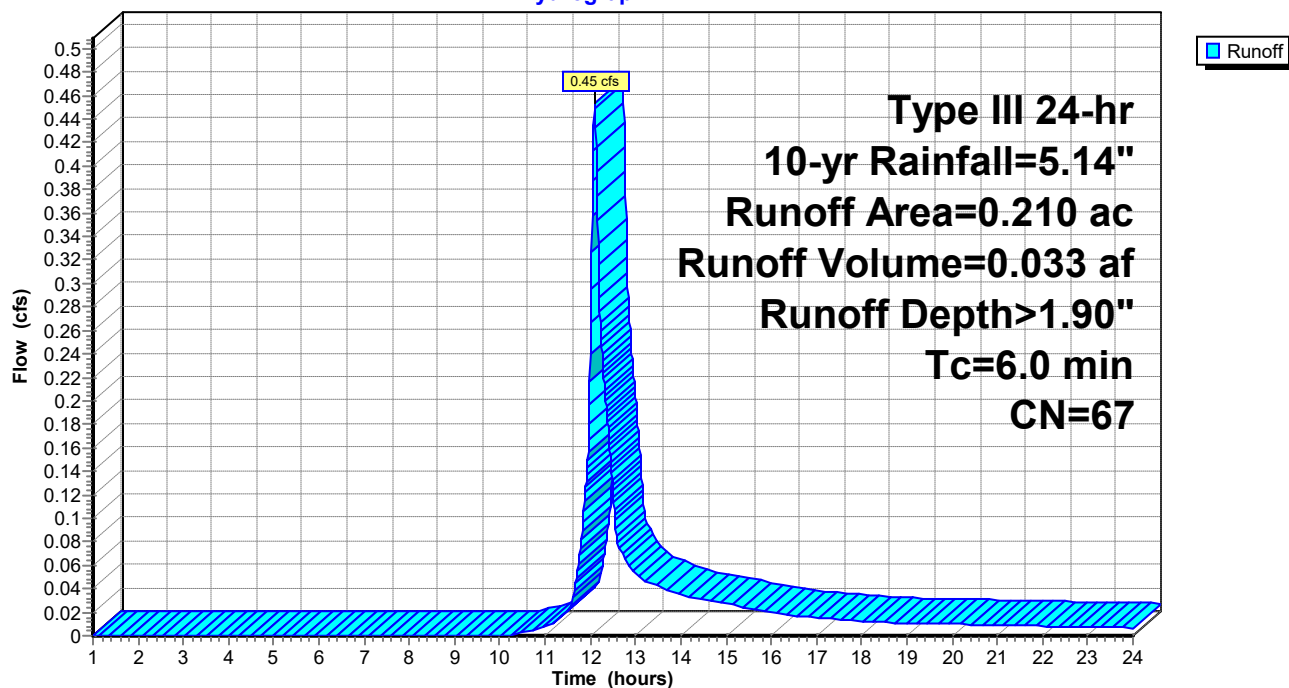
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.100	98	Paved parking, HSG A
0.110	39	>75% Grass cover, Good, HSG A
0.210	67	Weighted Average
0.110		52.38% Pervious Area
0.100		47.62% Impervious Area

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

Subcatchment 103S: PS-1

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 104S: PS-2

Runoff = 0.42 cfs @ 12.09 hrs, Volume= 0.030 af, Depth> 3.59"

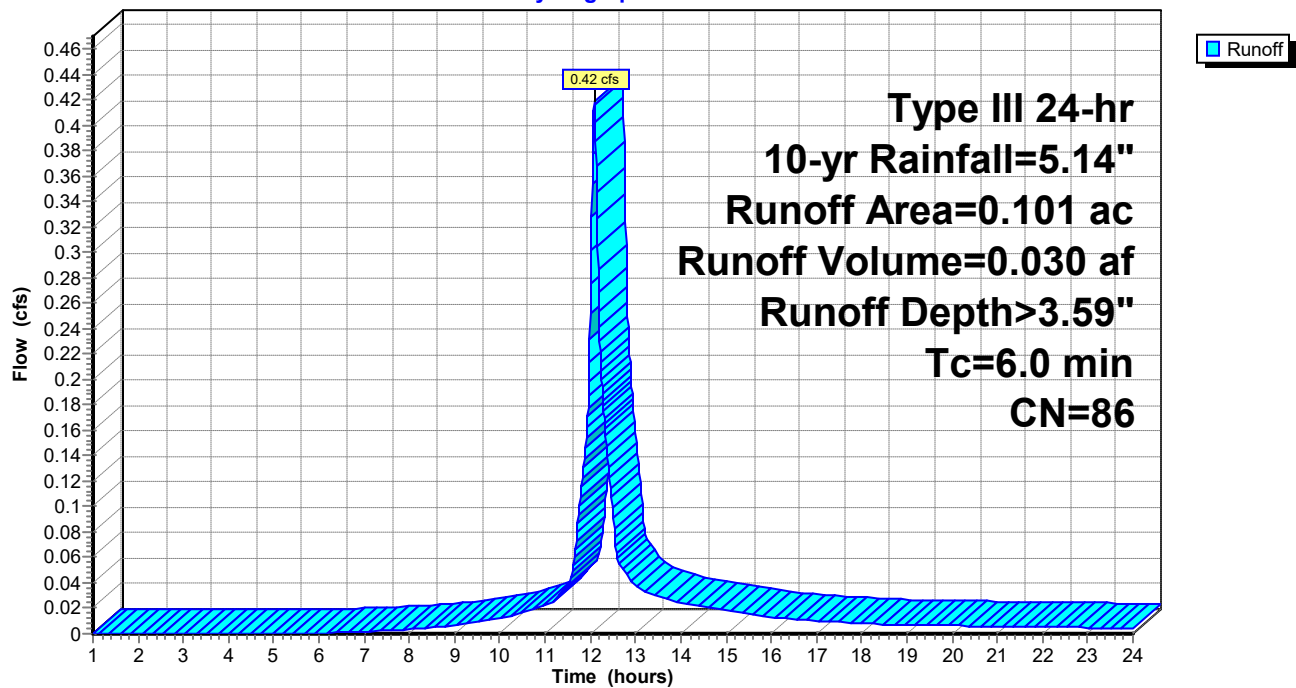
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.080	98	Paved parking, HSG A
0.021	39	>75% Grass cover, Good, HSG A
0.101	86	Weighted Average
0.021		20.79% Pervious Area
0.080		79.21% Impervious Area

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

Subcatchment 104S: PS-2

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 105S: PS-3

Runoff = 0.86 cfs @ 12.09 hrs, Volume= 0.062 af, Depth> 2.39"

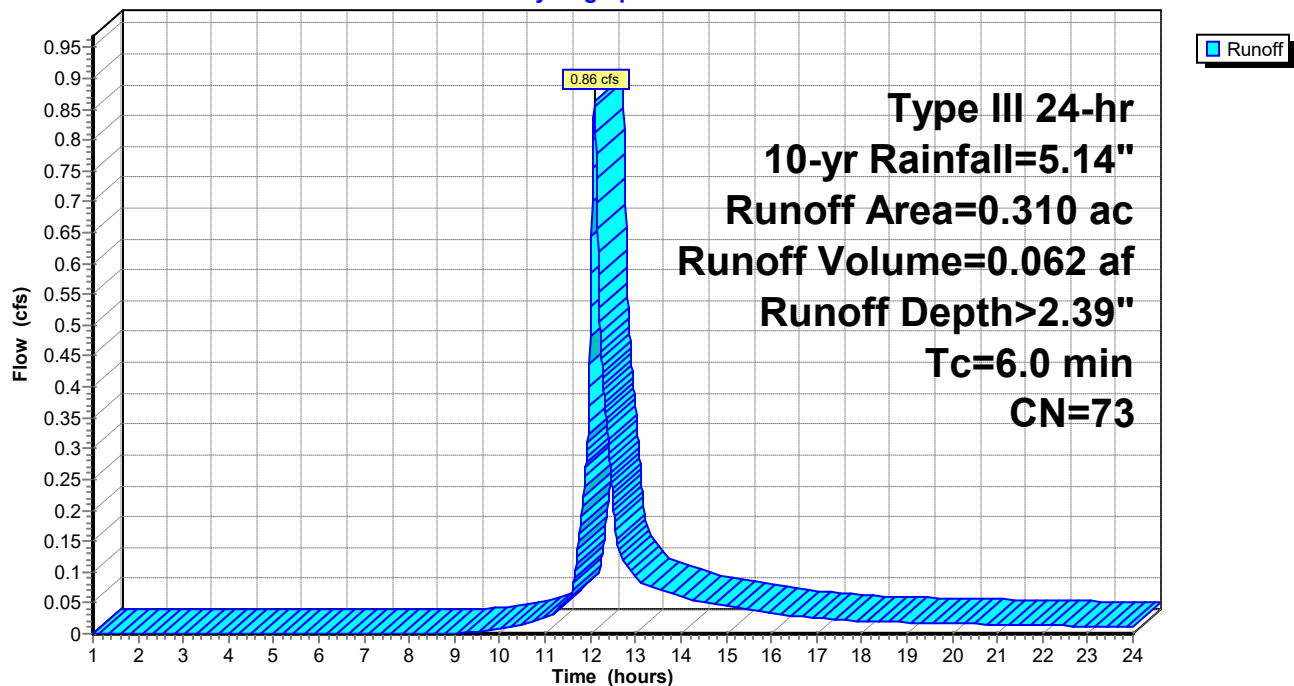
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.180	98	Paved parking, HSG A
0.130	39	>75% Grass cover, Good, HSG A
0.310	73	Weighted Average
0.130		41.94% Pervious Area
0.180		58.06% Impervious Area

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

Subcatchment 105S: PS-3

Hydrograph



Linwood Street Drainage - Existing

Prepared by {enter your company name here}

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 106S: LD-5

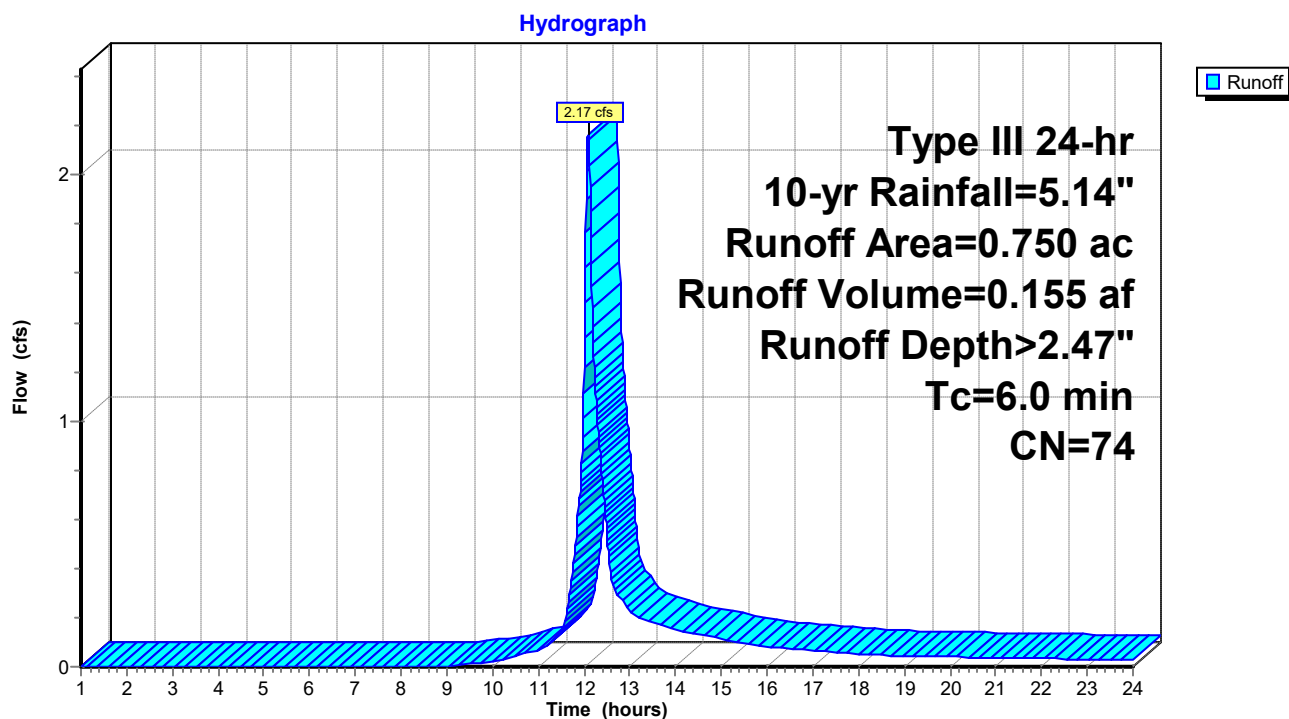
Runoff = 2.17 cfs @ 12.09 hrs, Volume= 0.155 af, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.440	98	Paved parking, HSG A
0.310	39	>75% Grass cover, Good, HSG A
0.750	74	Weighted Average
0.310		41.33% Pervious Area
0.440		58.67% Impervious Area

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

Subcatchment 106S: LD-5



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 107S: LD-4

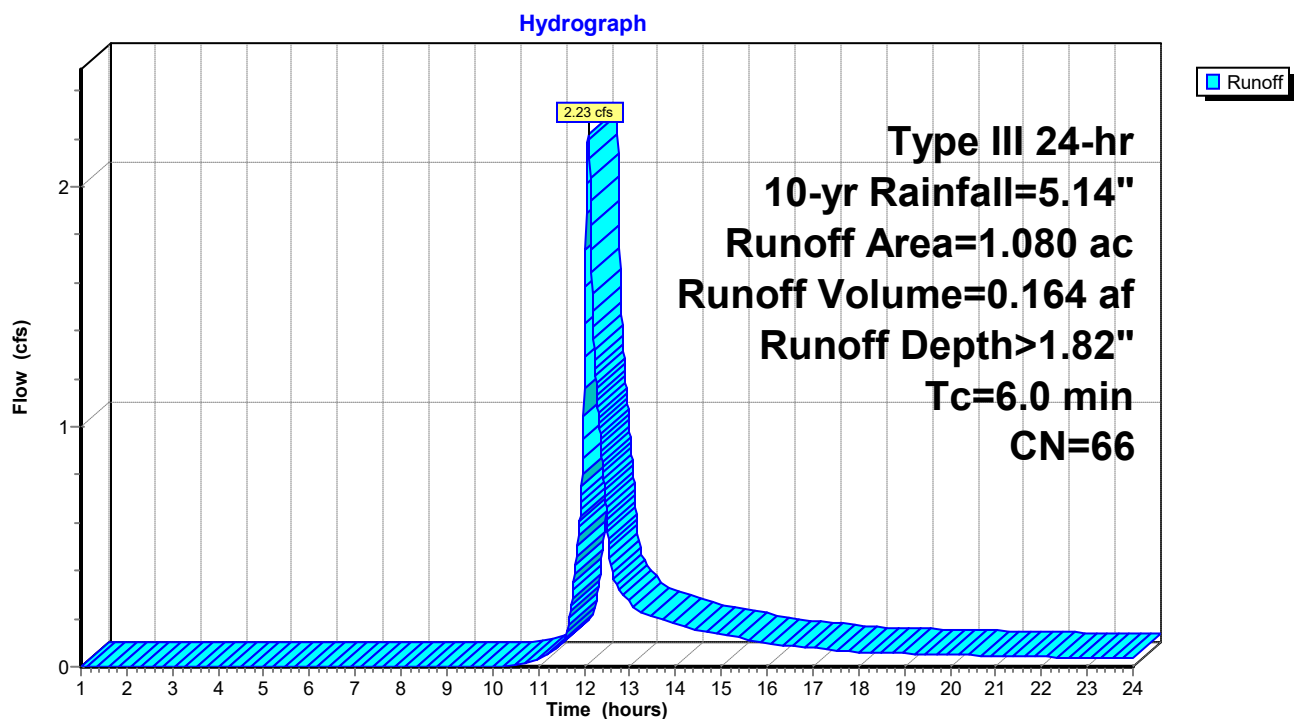
Runoff = 2.23 cfs @ 12.09 hrs, Volume= 0.164 af, Depth> 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.490	98	Paved parking, HSG A
0.590	39	>75% Grass cover, Good, HSG A
1.080	66	Weighted Average
0.590		54.63% Pervious Area
0.490		45.37% Impervious Area

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

Subcatchment 107S: LD-4



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 108S: LD-3

Runoff = 9.86 cfs @ 12.16 hrs, Volume= 0.867 af, Depth> 1.67"

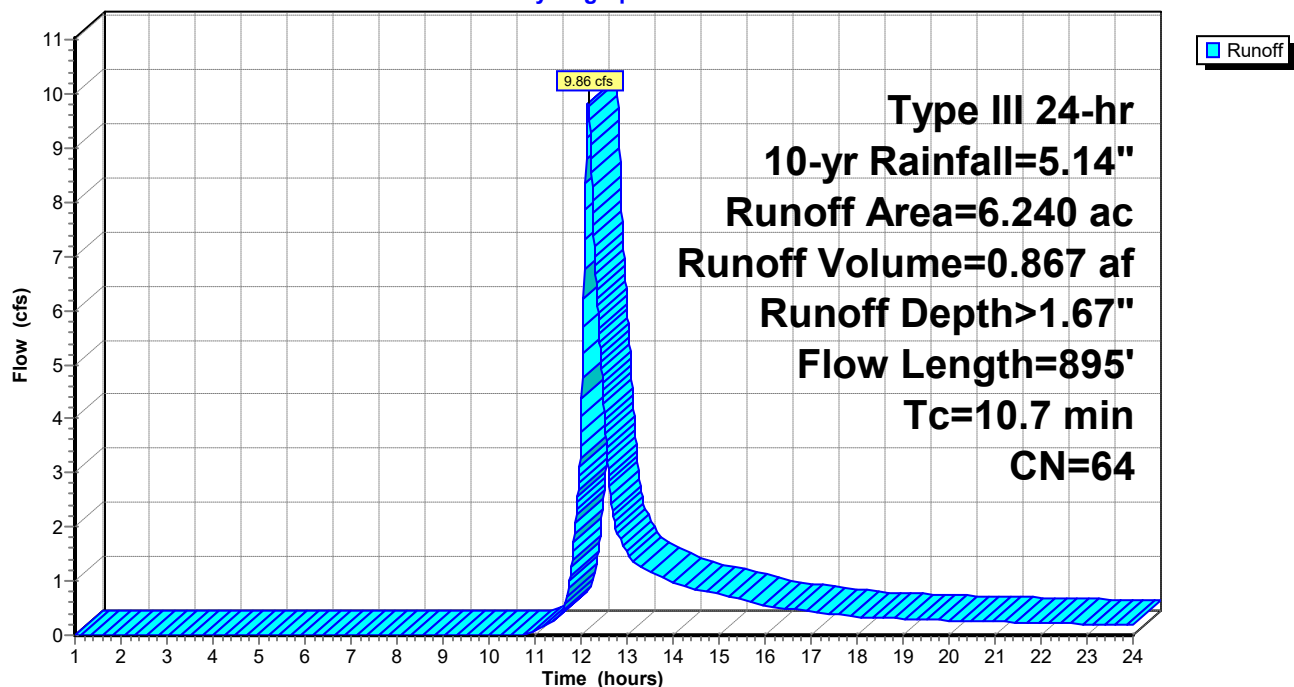
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.990	98	Paved parking, HSG B
1.970	61	>75% Grass cover, Good, HSG B
3.280	55	Woods, Good, HSG B
6.240	64	Weighted Average
5.250		84.13% Pervious Area
0.990		15.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.1000	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
2.9	275	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	570	0.1200	7.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps
10.7	895	Total			

Subcatchment 108S: LD-3

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 109S: LD-2

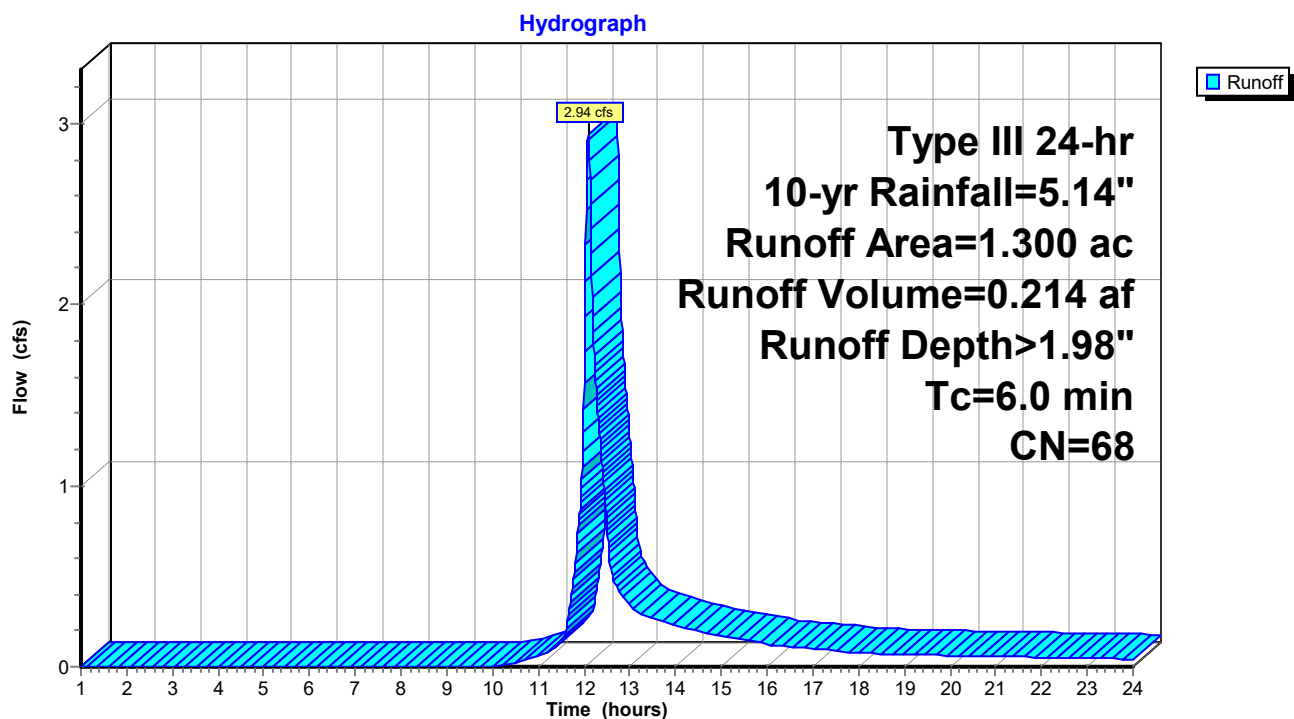
Runoff = 2.94 cfs @ 12.09 hrs, Volume= 0.214 af, Depth> 1.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.250	98	Paved parking, HSG B
1.050	61	>75% Grass cover, Good, HSG B
1.300	68	Weighted Average
1.050		80.77% Pervious Area
0.250		19.23% Impervious Area

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

Subcatchment 109S: LD-2



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 110S: LD-1

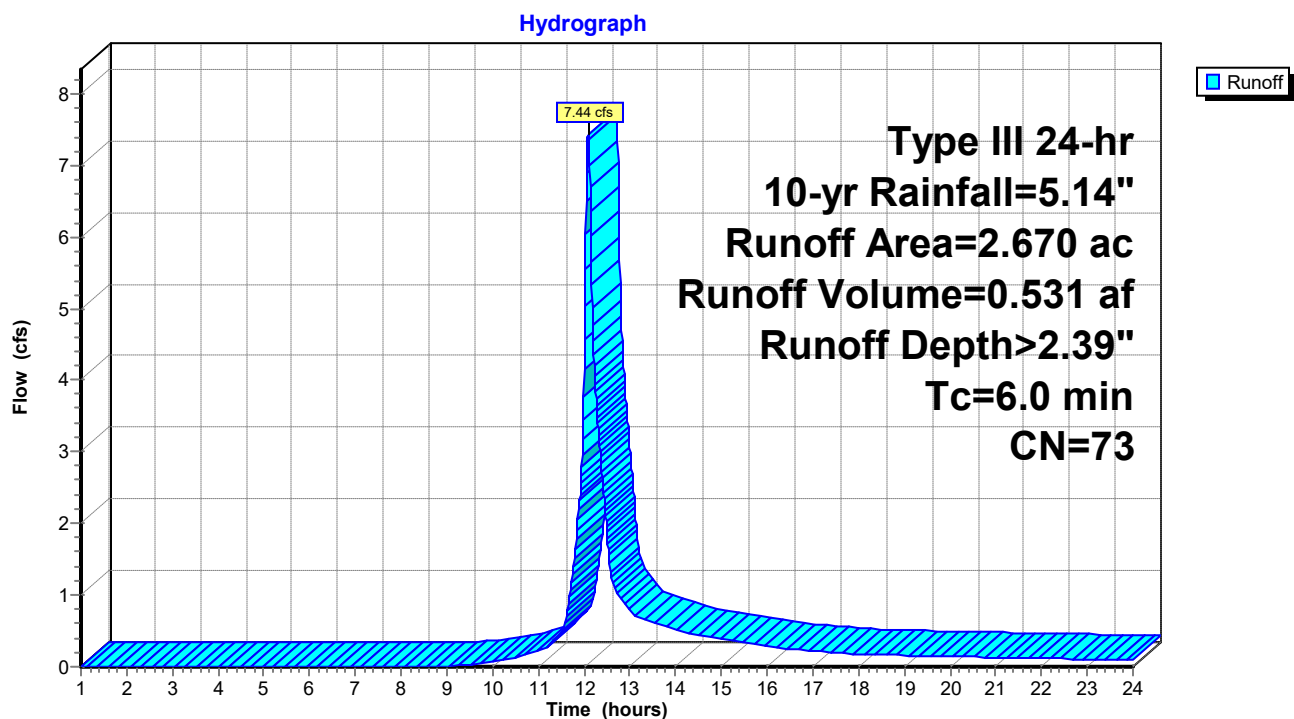
Runoff = 7.44 cfs @ 12.09 hrs, Volume= 0.531 af, Depth> 2.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.890	98	Paved parking, HSG A
1.780	61	>75% Grass cover, Good, HSG B
2.670	73	Weighted Average
1.780		66.67% Pervious Area
0.890		33.33% Impervious Area

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

Subcatchment 110S: LD-1



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 111S: MS-1

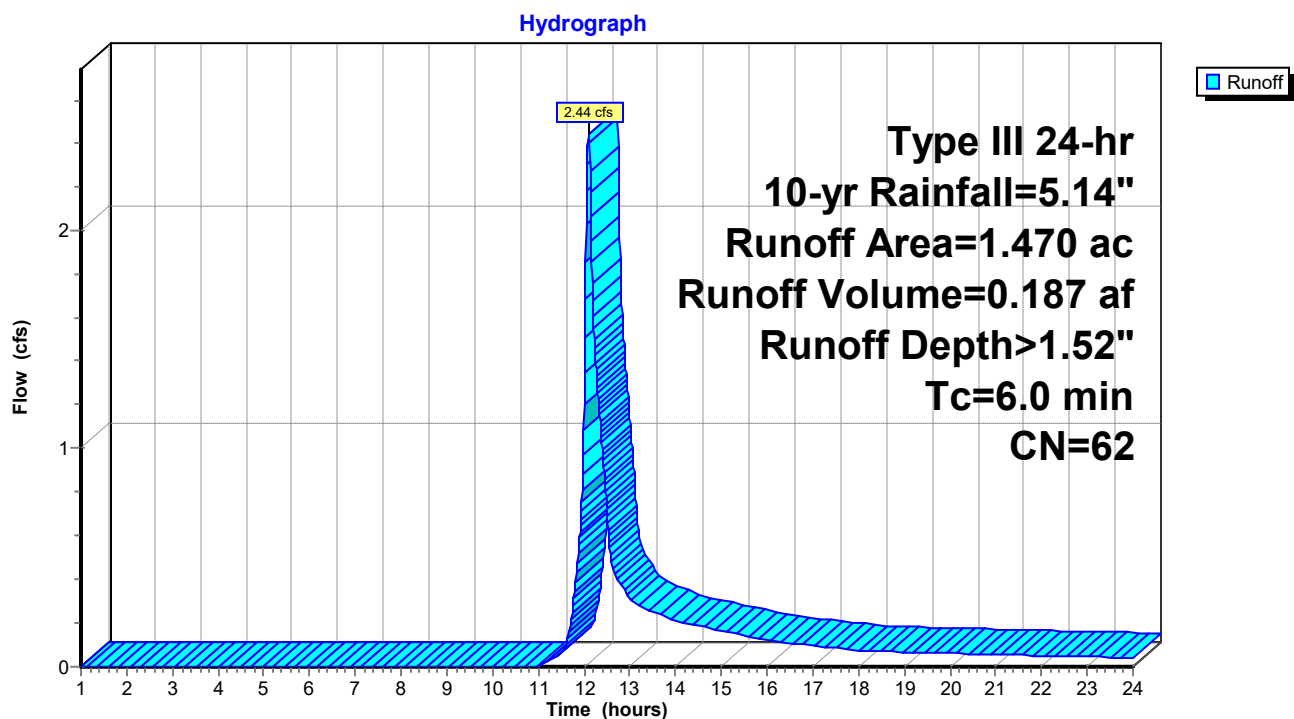
Runoff = 2.44 cfs @ 12.10 hrs, Volume= 0.187 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.580	98	Paved parking, HSG A
0.890	39	>75% Grass cover, Good, HSG A
1.470	62	Weighted Average
0.890		60.54% Pervious Area
0.580		39.46% Impervious Area

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

Subcatchment 111S: MS-1



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 112S: MS-2

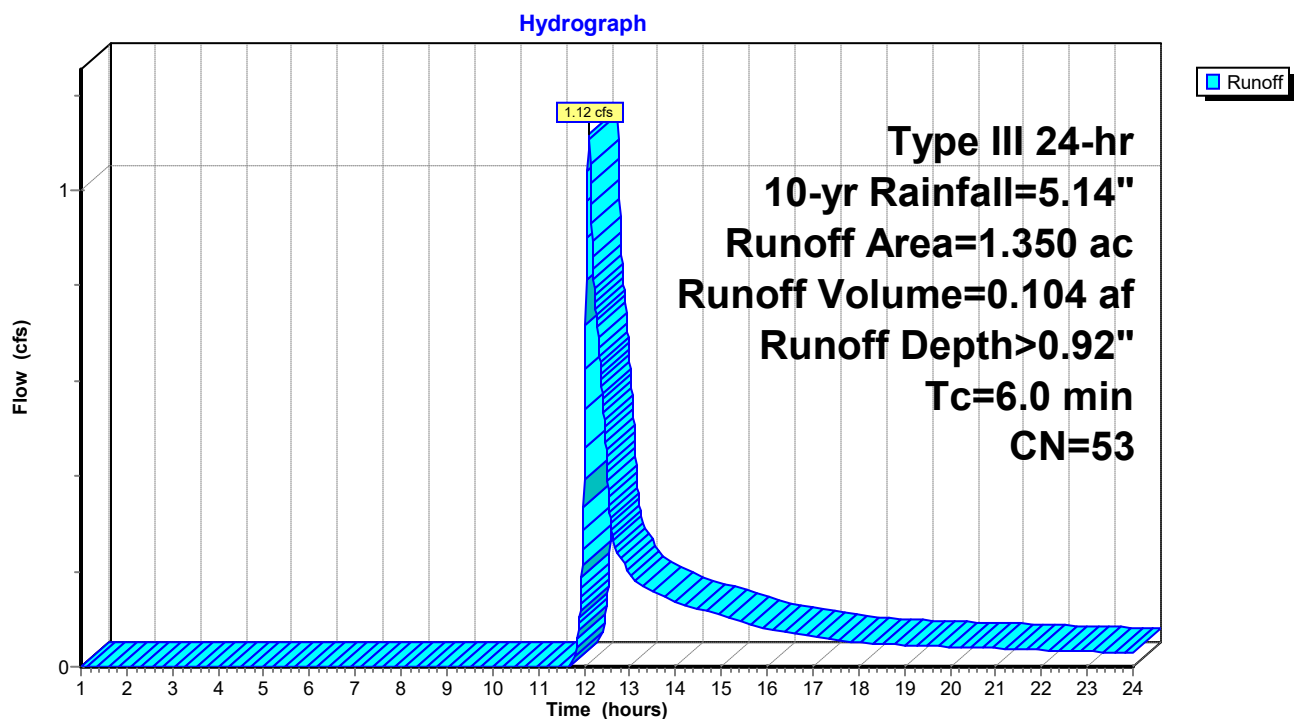
Runoff = 1.12 cfs @ 12.11 hrs, Volume= 0.104 af, Depth> 0.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.310	98	Paved parking, HSG A
1.040	39	>75% Grass cover, Good, HSG A
1.350	53	Weighted Average
1.040		77.04% Pervious Area
0.310		22.96% Impervious Area

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

Subcatchment 112S: MS-2



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 113S: CS-13

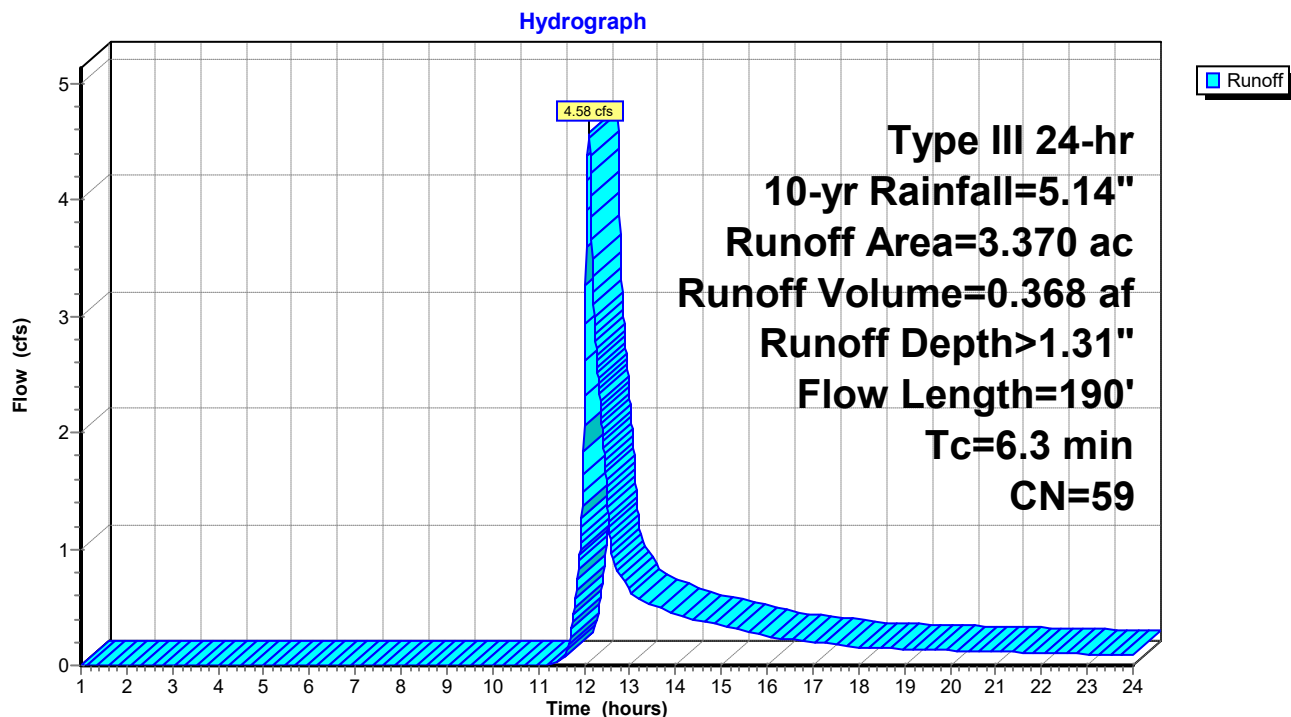
Runoff = 4.58 cfs @ 12.10 hrs, Volume= 0.368 af, Depth> 1.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.230	98	Paved parking, HSG B
0.350	61	>75% Grass cover, Good, HSG B
2.790	55	Woods, Good, HSG B
3.370	59	Weighted Average
3.140		93.18% Pervious Area
0.230		6.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	50	0.2000	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
1.5	140	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.3	190	Total			

Subcatchment 113S: CS-13



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 114S: CS-14

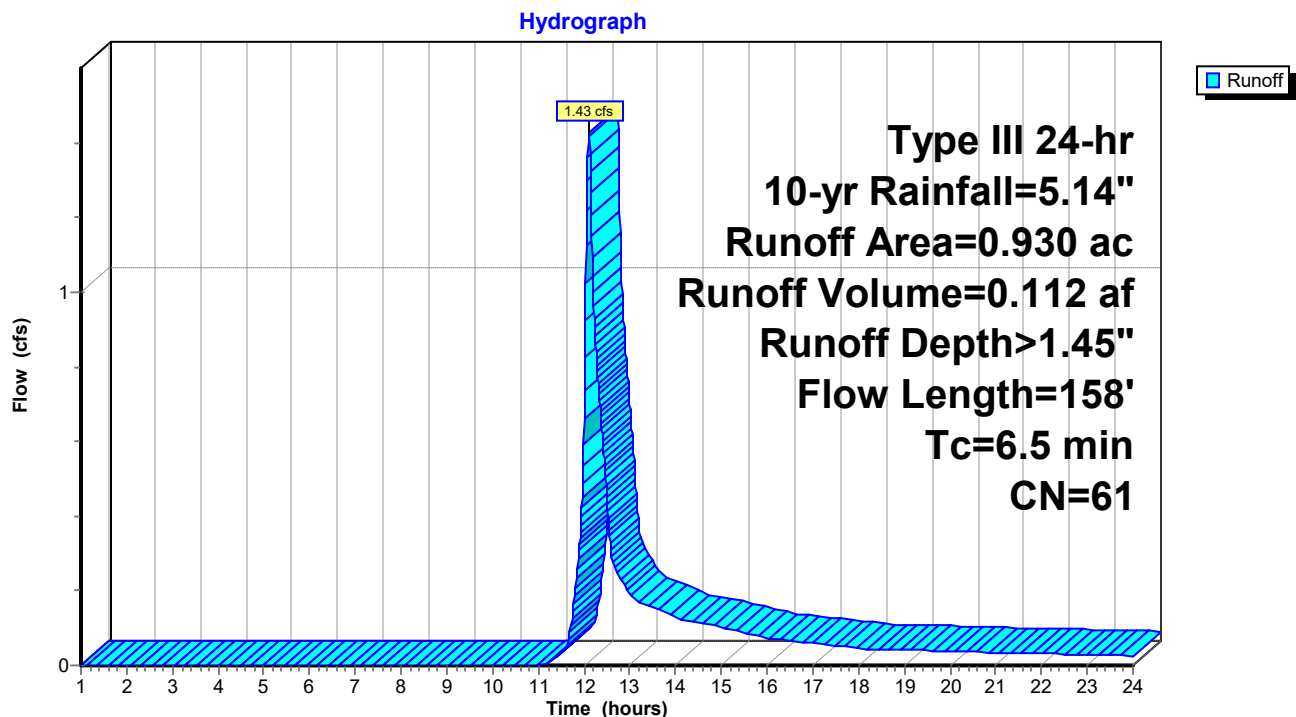
Runoff = 1.43 cfs @ 12.10 hrs, Volume= 0.112 af, Depth> 1.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.080	98	Paved parking, HSG B
0.380	61	>75% Grass cover, Good, HSG B
0.470	55	Woods, Good, HSG B
0.930	61	Weighted Average
0.850		91.40% Pervious Area
0.080		8.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	50	0.1500	0.15		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
1.1	108	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.5	158	Total			

Subcatchment 114S: CS-14



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 115S: LD-8

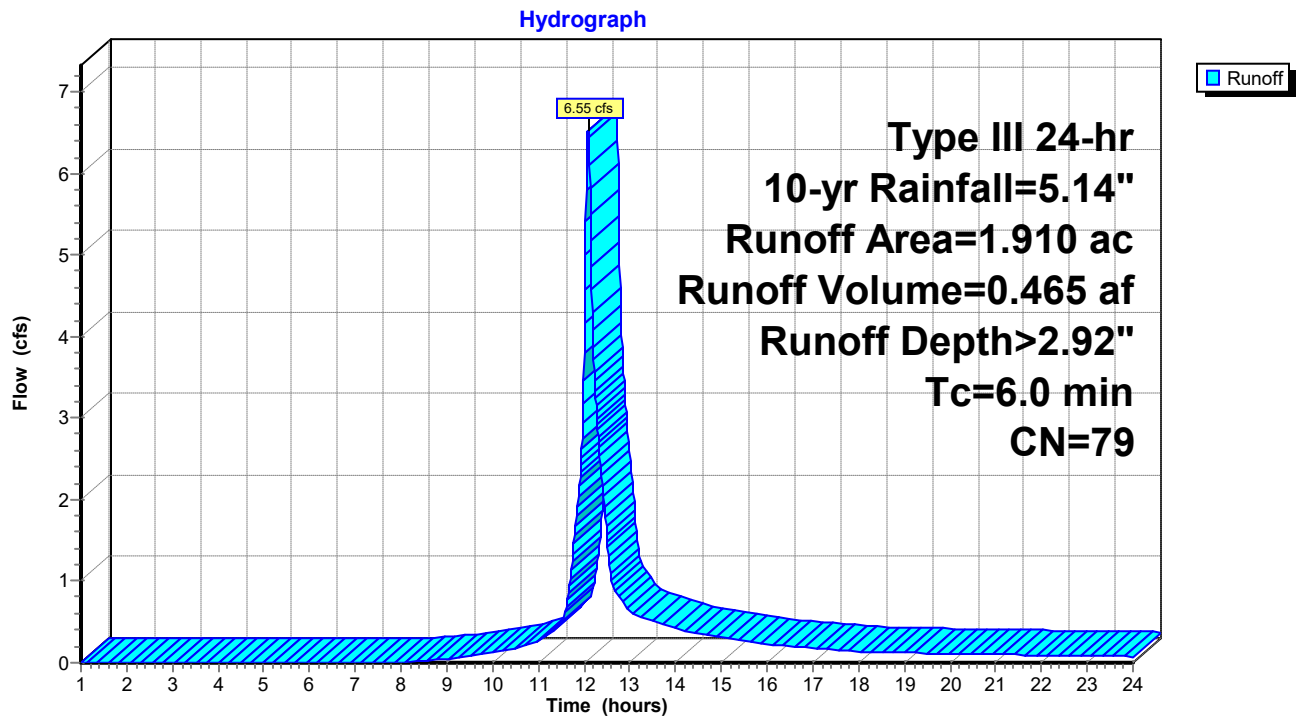
Runoff = 6.55 cfs @ 12.09 hrs, Volume= 0.465 af, Depth> 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.930	98	Paved parking, HSG B
0.980	61	>75% Grass cover, Good, HSG B
1.910	79	Weighted Average
0.980		51.31% Pervious Area
0.930		48.69% Impervious Area

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

Subcatchment 115S: LD-8



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 1P: CB-895

[57] Hint: Peaked at 275.44' (Flood elevation advised)

Inflow Area = 2.670 ac, 33.33% Impervious, Inflow Depth > 2.39" for 10-yr event
Inflow = 7.44 cfs @ 12.09 hrs, Volume= 0.531 af
Outflow = 7.44 cfs @ 12.09 hrs, Volume= 0.531 af, Atten= 0%, Lag= 0.0 min
Primary = 1.06 cfs @ 12.09 hrs, Volume= 0.367 af
Secondary = 6.39 cfs @ 12.09 hrs, Volume= 0.165 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 275.44' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	272.50'	8.0" Round CMP_Round 8" L= 184.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 272.50' / 269.30' S= 0.0174 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.35 sf
#2	Secondary	275.05'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.06 cfs @ 12.09 hrs HW=275.44' (Free Discharge)

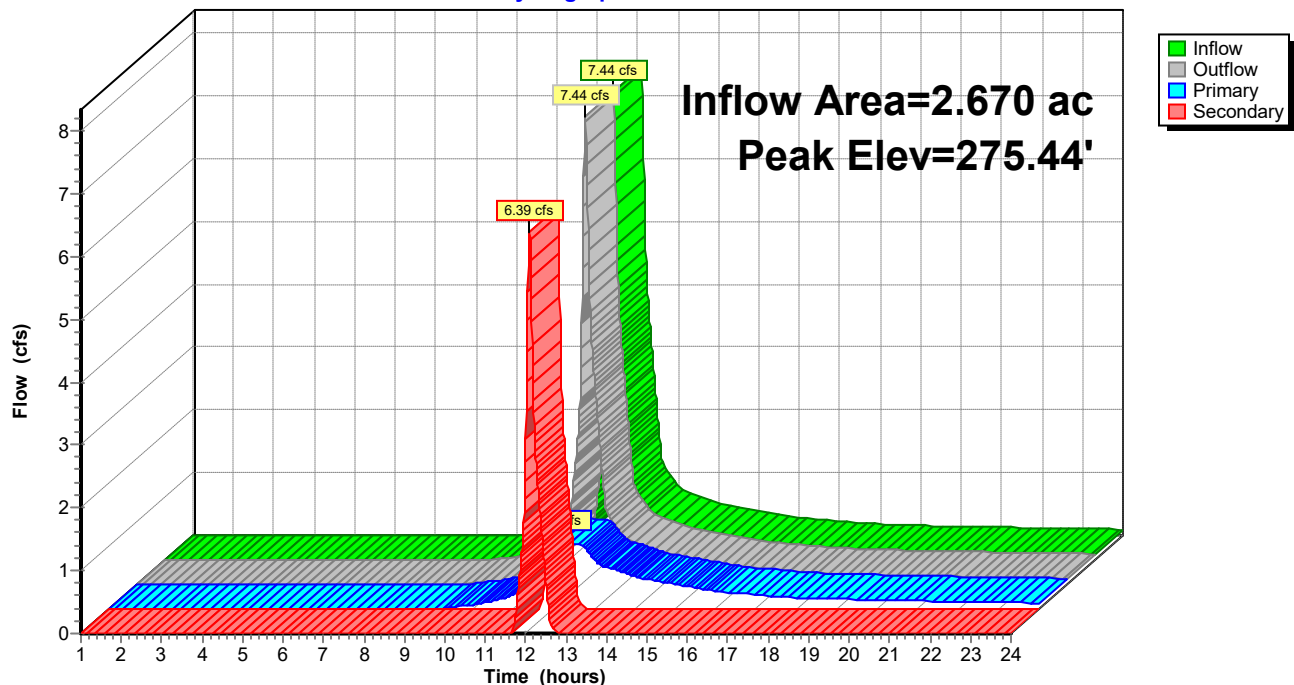
↑**1=CMP_Round 8"** (Barrel Controls 1.06 cfs @ 3.02 fps)

Secondary OutFlow Max=6.38 cfs @ 12.09 hrs HW=275.44' (Free Discharge)

↑**2=Orifice/Grate** (Weir Controls 6.38 cfs @ 2.04 fps)

Pond 1P: CB-895

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 2P: CB-896

[57] Hint: Peaked at 273.22' (Flood elevation advised)

[79] Warning: Submerged Pond 1P Primary device # 1 INLET by 0.72'

Inflow Area = 3.970 ac, 28.72% Impervious, Inflow Depth > 2.25" for 10-yr event
Inflow = 10.39 cfs @ 12.09 hrs, Volume= 0.745 af
Outflow = 10.39 cfs @ 12.09 hrs, Volume= 0.745 af, Atten= 0%, Lag= 0.0 min
Primary = 3.16 cfs @ 12.09 hrs, Volume= 0.616 af
Secondary = 7.23 cfs @ 12.09 hrs, Volume= 0.130 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 273.22' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	269.30'	10.0" Round CMP_Round 10" L= 41.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 269.30' / 268.20' S= 0.0265 ' S= 0.0265 ' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.55 sf
#2	Secondary	272.80'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.16 cfs @ 12.09 hrs HW=273.22' (Free Discharge)

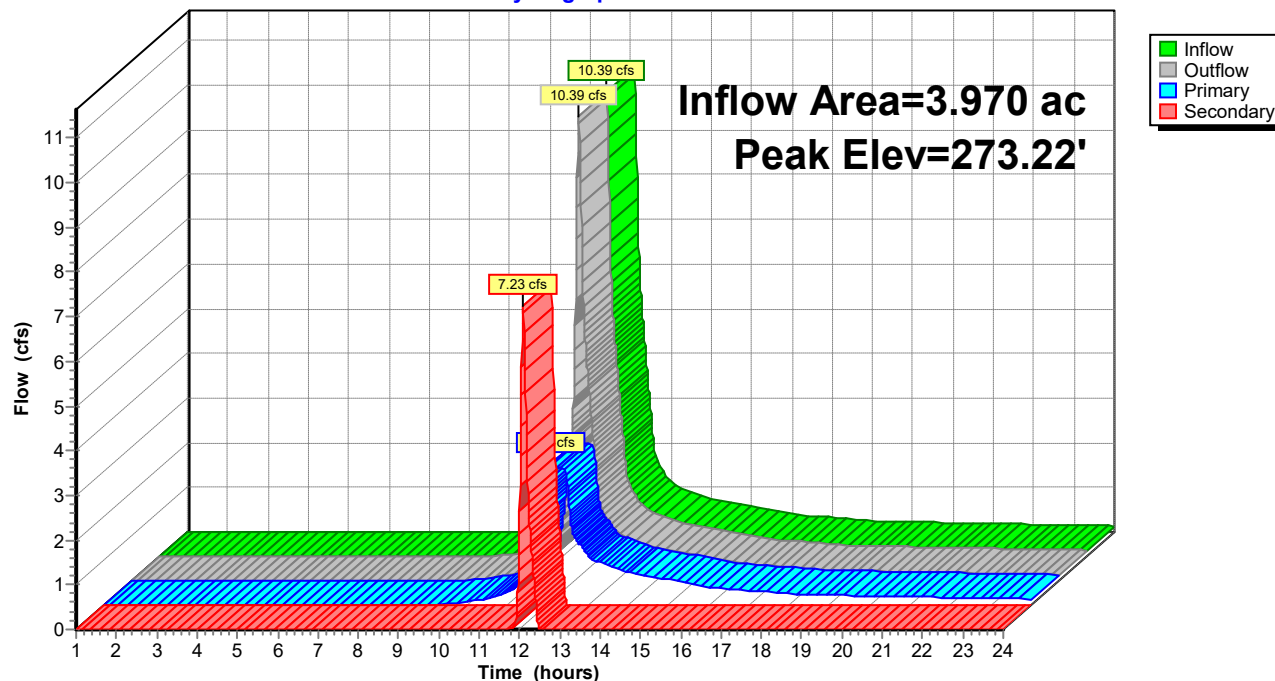
↑**1=CMP_Round 10"** (Barrel Controls 3.16 cfs @ 5.79 fps)

Secondary OutFlow Max=7.22 cfs @ 12.09 hrs HW=273.22' (Free Discharge)

↑**2=Orifice/Grate** (Weir Controls 7.22 cfs @ 2.13 fps)

Pond 2P: CB-896

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 3P: CB-897

[57] Hint: Peaked at 272.64' (Flood elevation advised)

[79] Warning: Submerged Pond 2P Primary device # 1 INLET by 3.34'

Inflow Area = 10.210 ac, 20.86% Impervious, Inflow Depth > 1.90" for 10-yr event
Inflow = 18.99 cfs @ 12.12 hrs, Volume= 1.613 af
Outflow = 18.99 cfs @ 12.12 hrs, Volume= 1.613 af, Atten= 0%, Lag= 0.0 min
Primary = 8.61 cfs @ 12.12 hrs, Volume= 1.420 af
Secondary = 10.38 cfs @ 12.12 hrs, Volume= 0.193 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 272.64' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	268.20'	12.0" Round RCP_Round 12" L= 32.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 268.20' / 267.80' S= 0.0125 ' S= 0.0125 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	272.10'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=8.61 cfs @ 12.12 hrs HW=272.64' (Free Discharge)

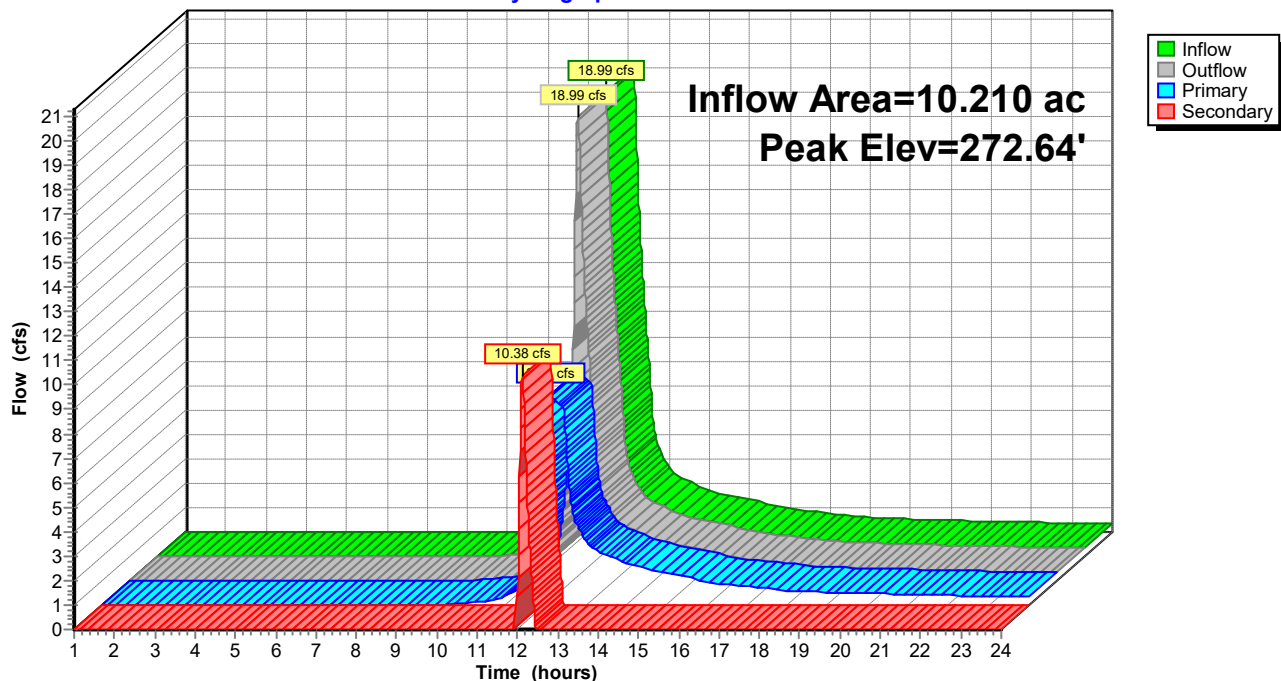
↑1=RCP_Round 12" (Barrel Controls 8.61 cfs @ 10.97 fps)

Secondary OutFlow Max=10.36 cfs @ 12.12 hrs HW=272.64' (Free Discharge)

↑2=Orifice/Grate (Weir Controls 10.36 cfs @ 2.40 fps)

Pond 3P: CB-897

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 4P: MH-662

[58] Hint: Peaked 0.63' above defined flood level

[81] Warning: Exceeded Pond 3P by 0.73' @ 12.09 hrs

[81] Warning: Exceeded Pond 5P by 3.08' @ 12.09 hrs

[81] Warning: Exceeded Pond 10P by 4.27' @ 12.09 hrs

Inflow Area = 12.661 ac, 27.01% Impervious, Inflow Depth > 1.77" for 10-yr event
Inflow = 14.72 cfs @ 12.09 hrs, Volume= 1.864 af
Outflow = 14.72 cfs @ 12.09 hrs, Volume= 1.864 af, Atten= 0%, Lag= 0.0 min
Primary = 14.72 cfs @ 12.09 hrs, Volume= 1.864 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 273.35' @ 12.09 hrs

Flood Elev= 272.72'

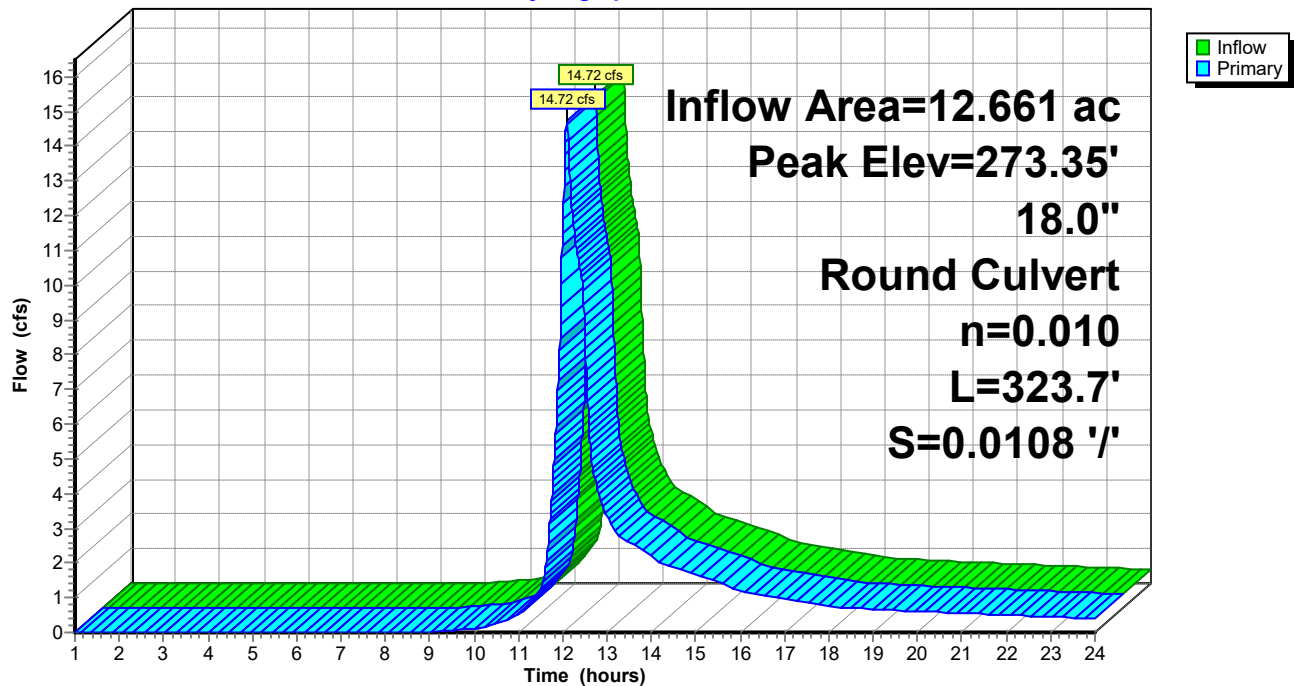
Device	Routing	Invert	Outlet Devices
#1	Primary	267.80'	18.0" Round 18" HDPE L= 323.7' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 267.80' / 264.30' S= 0.0108 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=14.71 cfs @ 12.09 hrs HW=273.35' (Free Discharge)

↑ **1=18" HDPE** (Inlet Controls 14.71 cfs @ 8.32 fps)

Pond 4P: MH-662

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 5P: CB-893

[57] Hint: Peaked at 270.28' (Flood elevation advised)

Inflow Area = 1.080 ac, 45.37% Impervious, Inflow Depth > 1.82" for 10-yr event
Inflow = 2.23 cfs @ 12.09 hrs, Volume= 0.164 af
Outflow = 2.23 cfs @ 12.09 hrs, Volume= 0.164 af, Atten= 0%, Lag= 0.0 min
Primary = 2.23 cfs @ 12.09 hrs, Volume= 0.164 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 270.28' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	268.50'	10.0" Round CMP_Round 10" L= 17.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 268.50' / 268.30' S= 0.0118 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.55 sf
#2	Secondary	272.53'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

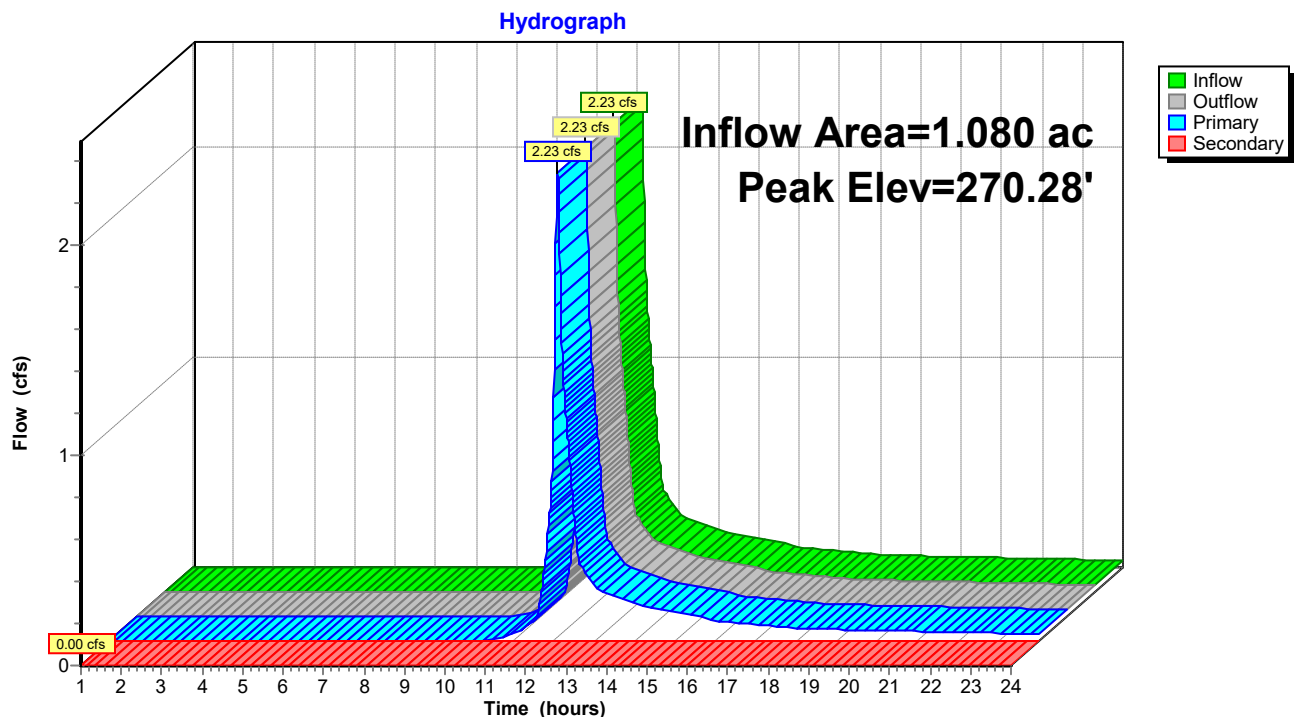
Primary OutFlow Max=2.22 cfs @ 12.09 hrs HW=270.27' (Free Discharge)

↑ **1=CMP_Round 10"** (Barrel Controls 2.22 cfs @ 4.07 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=268.50' (Free Discharge)

↑ **2=Orifice/Grate** (Controls 0.00 cfs)

Pond 5P: CB-893



Linwood Street Drainage - Existing

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Summary for Pond 6P: MH-663

[58] Hint: Peaked 19.21' above defined flood level

[81] Warning: Exceeded Pond 4P by 14.60' @ 12.11 hrs

[81] Warning: Exceeded Pond 11P by 22.95' @ 12.11 hrs

[81] Warning: Exceeded Pond 17P by 19.66' @ 12.11 hrs

[81] Warning: Exceeded Pond 18P by 8.79' @ 12.10 hrs

Inflow Area = 50.425 ac, 21.53% Impervious, Inflow Depth > 1.76" for 10-yr event
Inflow = 60.87 cfs @ 12.11 hrs, Volume= 7.407 af
Outflow = 60.87 cfs @ 12.11 hrs, Volume= 7.407 af, Atten= 0%, Lag= 0.0 min
Primary = 60.87 cfs @ 12.11 hrs, Volume= 7.407 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 287.88' @ 12.11 hrs

Flood Elev= 268.67'

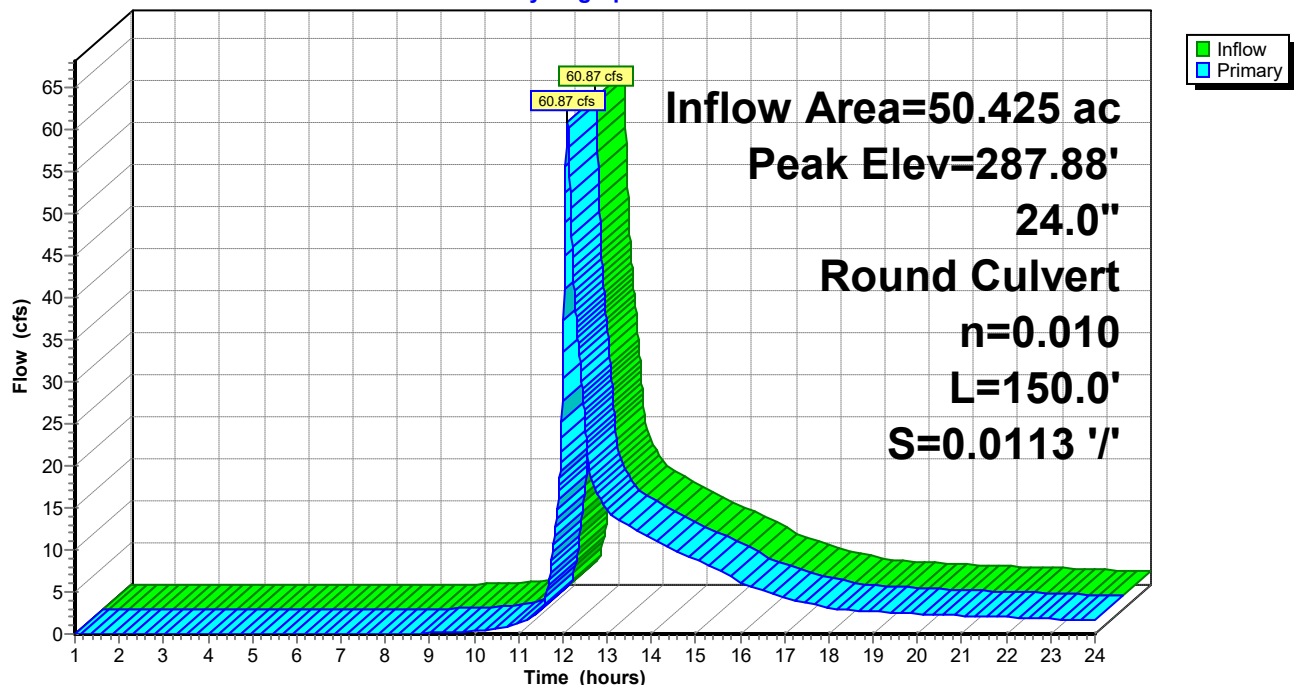
Device	Routing	Invert	Outlet Devices
#1	Primary	260.90'	24.0" Round 24" HDPE L= 150.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 260.90' / 259.20' S= 0.0113 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=60.82 cfs @ 12.11 hrs HW=287.84' (Free Discharge)

↑ **1=24" HDPE** (Inlet Controls 60.82 cfs @ 19.36 fps)

Pond 6P: MH-663

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 10P: CB-892

[57] Hint: Peaked at 269.07' (Flood elevation advised)

Inflow Area = 0.750 ac, 58.67% Impervious, Inflow Depth > 2.47" for 10-yr event
Inflow = 2.17 cfs @ 12.09 hrs, Volume= 0.155 af
Outflow = 2.17 cfs @ 12.09 hrs, Volume= 0.155 af, Atten= 0%, Lag= 0.0 min
Primary = 2.17 cfs @ 12.09 hrs, Volume= 0.155 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 269.07' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	268.20'	12.0" Round RCP_Round 12" L= 23.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 268.20' / 268.00' S= 0.0087 ' S= 0.0087 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	271.94'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

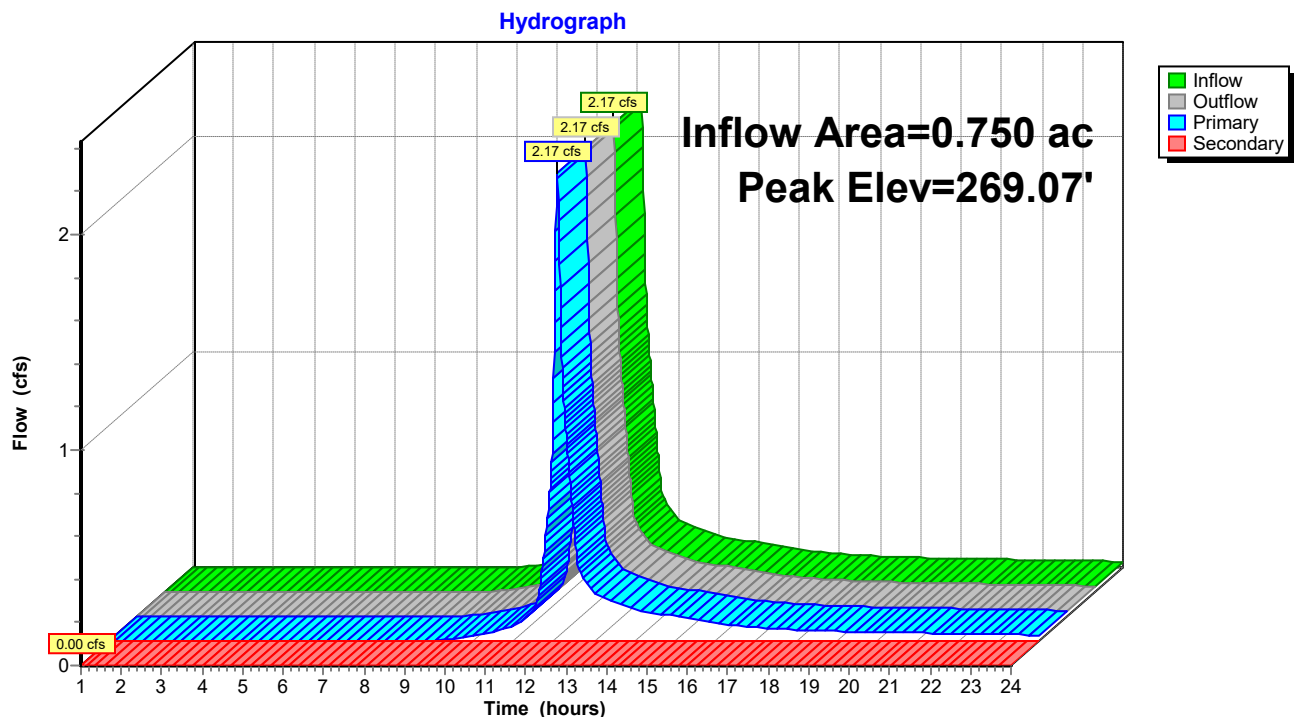
Primary OutFlow Max=2.17 cfs @ 12.09 hrs HW=269.07' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 2.17 cfs @ 3.97 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=268.20' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 10P: CB-892



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Summary for Pond 11P: CB-898

[57] Hint: Peaked at 264.92' (Flood elevation advised)

Inflow Area = 0.440 ac, 38.64% Impervious, Inflow Depth > 1.52" for 10-yr event
Inflow = 0.73 cfs @ 12.10 hrs, Volume= 0.056 af
Outflow = 0.73 cfs @ 12.10 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min
Primary = 0.73 cfs @ 12.10 hrs, Volume= 0.056 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 264.92' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	264.40'	12.0" Round 12" HDPE L= 15.6' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 264.40' / 264.30' S= 0.0064 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Secondary	268.22'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.73 cfs @ 12.10 hrs HW=264.92' (Free Discharge)

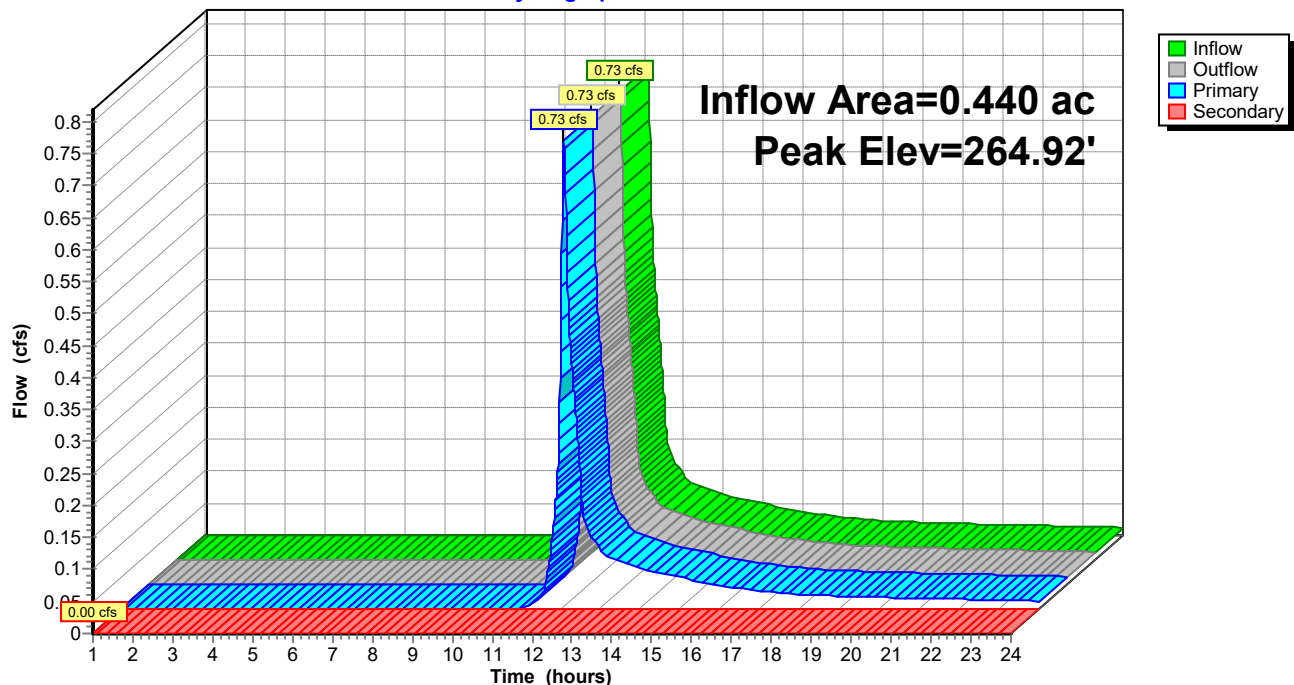
↑1=12" HDPE (Barrel Controls 0.73 cfs @ 2.56 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=264.40' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 11P: CB-898

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 12P: MH-664

[58] Hint: Peaked 15.28' above defined flood level

[79] Warning: Submerged Pond 6P Primary device # 1 INLET by 24.87'

Inflow Area = 50.425 ac, 21.53% Impervious, Inflow Depth > 1.76" for 10-yr event
Inflow = 60.87 cfs @ 12.11 hrs, Volume= 7.407 af
Outflow = 60.87 cfs @ 12.11 hrs, Volume= 7.407 af, Atten= 0%, Lag= 0.0 min
Primary = 60.87 cfs @ 12.11 hrs, Volume= 7.407 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 285.78' @ 12.11 hrs

Flood Elev= 270.50'

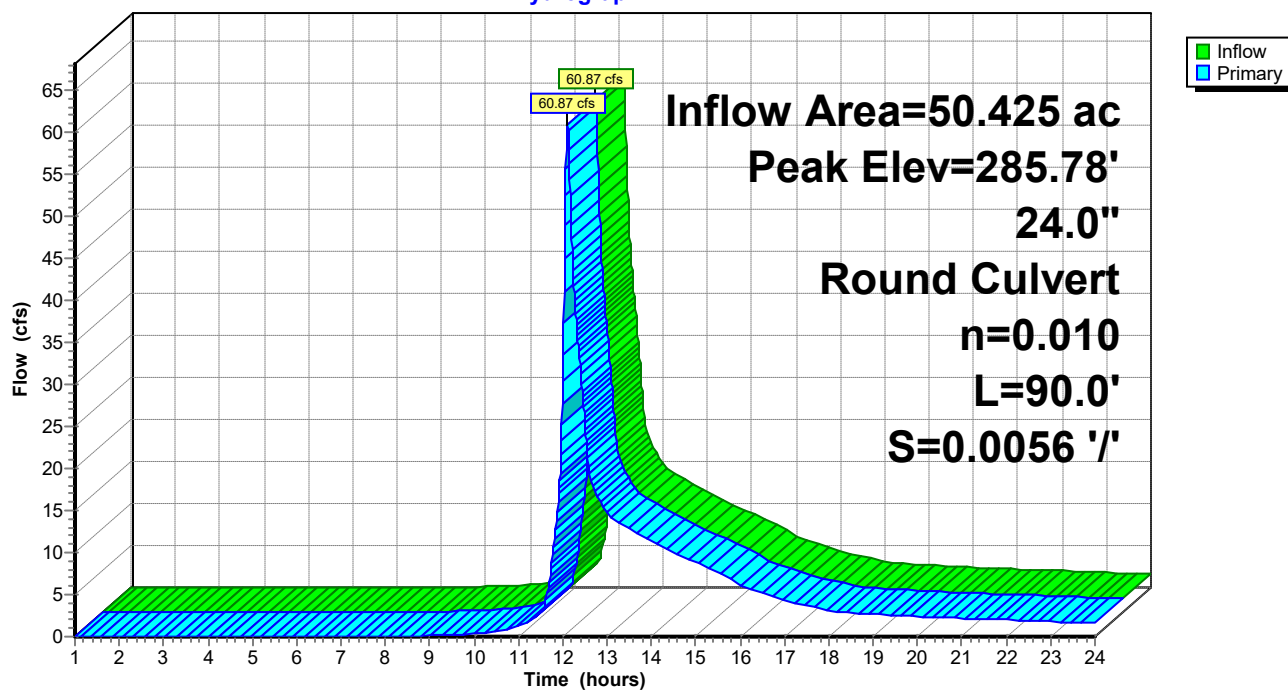
Device	Routing	Invert	Outlet Devices
#1	Primary	258.80'	24.0" Round 24" HDPE L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 258.80' / 258.30' S= 0.0056 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=60.82 cfs @ 12.11 hrs HW=285.74' (Free Discharge)

↑ **1=24" HDPE** (Inlet Controls 60.82 cfs @ 19.36 fps)

Pond 12P: MH-664

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 13P: MH-673

[58] Hint: Peaked 20.13' above defined flood level

[81] Warning: Exceeded Pond 12P by 2.11' @ 12.10 hrs

[81] Warning: Exceeded Pond 15P by 25.30' @ 12.11 hrs

Inflow Area = 53.245 ac, 22.06% Impervious, Inflow Depth > 1.73" for 10-yr event
Inflow = 64.41 cfs @ 12.11 hrs, Volume= 7.698 af
Outflow = 64.41 cfs @ 12.11 hrs, Volume= 7.698 af, Atten= 0%, Lag= 0.0 min
Primary = 64.41 cfs @ 12.11 hrs, Volume= 7.698 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 287.89' @ 12.11 hrs

Flood Elev= 267.76'

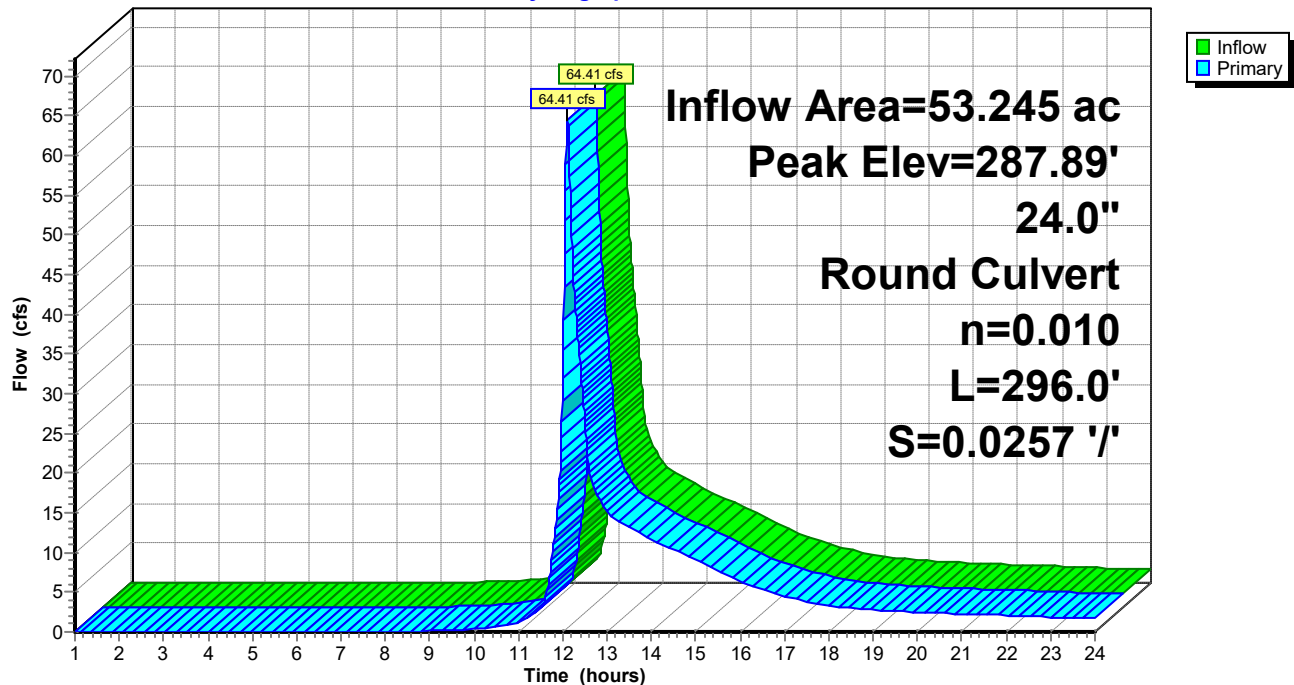
Device	Routing	Invert	Outlet Devices
#1	Primary	257.80'	24.0" Round 24" HDPE L= 296.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 257.80' / 250.18' S= 0.0257 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=64.35 cfs @ 12.11 hrs HW=287.84' (Free Discharge)

↑ **1=24" HDPE** (Inlet Controls 64.35 cfs @ 20.48 fps)

Pond 13P: MH-673

Hydrograph



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Summary for Pond 14P: CB-918

[57] Hint: Peaked at 263.12' (Flood elevation advised)

Inflow Area = 1.470 ac, 39.46% Impervious, Inflow Depth > 1.52" for 10-yr event
Inflow = 2.44 cfs @ 12.10 hrs, Volume= 0.187 af
Outflow = 2.44 cfs @ 12.10 hrs, Volume= 0.187 af, Atten= 0%, Lag= 0.0 min
Primary = 2.44 cfs @ 12.10 hrs, Volume= 0.187 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 263.12' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	262.20'	12.0" Round RCP_Round 12" L= 33.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 262.20' / 261.90' S= 0.0091 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	266.90'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.44 cfs @ 12.10 hrs HW=263.12' (Free Discharge)

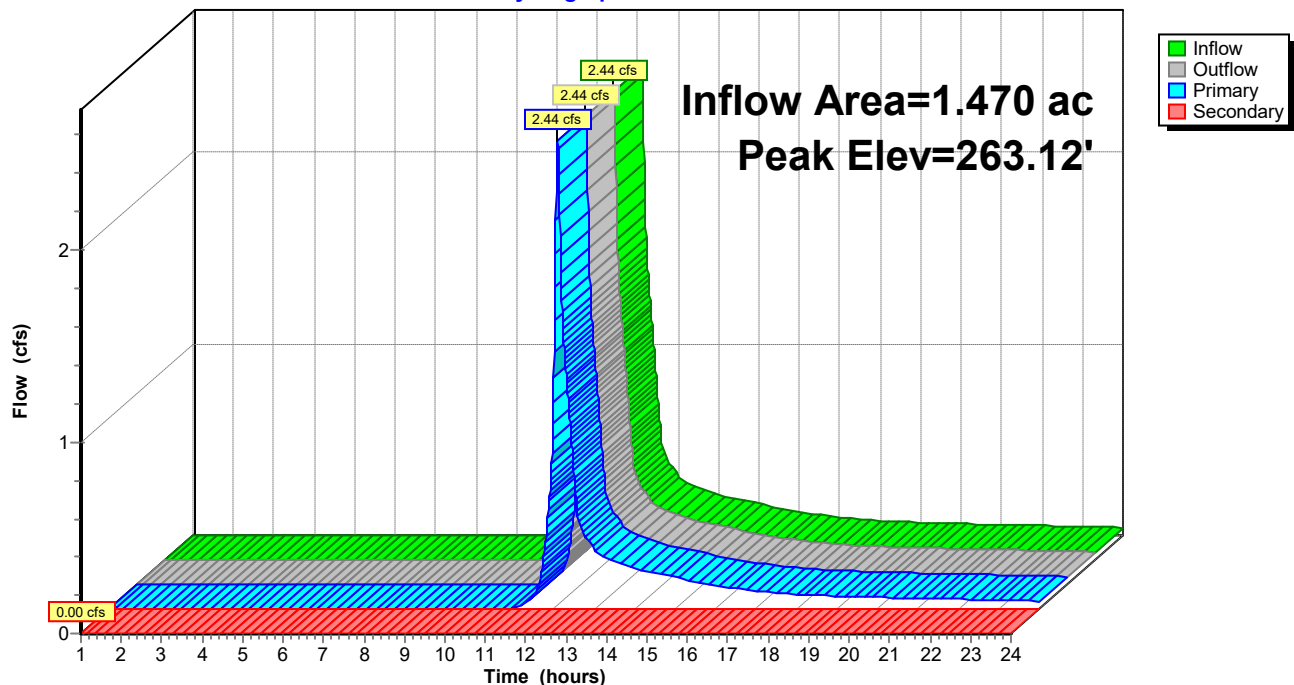
↑1=RCP_Round 12" (Barrel Controls 2.44 cfs @ 4.23 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=262.20' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 14P: CB-918

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 15P: CB-917

[57] Hint: Peaked at 262.58' (Flood elevation advised)

[79] Warning: Submerged Pond 14P Primary device # 1 INLET by 0.38'

Inflow Area = 2.820 ac, 31.56% Impervious, Inflow Depth > 1.24" for 10-yr event
Inflow = 3.55 cfs @ 12.10 hrs, Volume= 0.291 af
Outflow = 3.55 cfs @ 12.10 hrs, Volume= 0.291 af, Atten= 0%, Lag= 0.0 min
Primary = 3.55 cfs @ 12.10 hrs, Volume= 0.291 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 262.58' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	261.80'	24.0" Round RCP_Round 24" L= 50.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 261.80' / 261.30' S= 0.0100 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf
#2	Secondary	267.00'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.55 cfs @ 12.10 hrs HW=262.58' (Free Discharge)

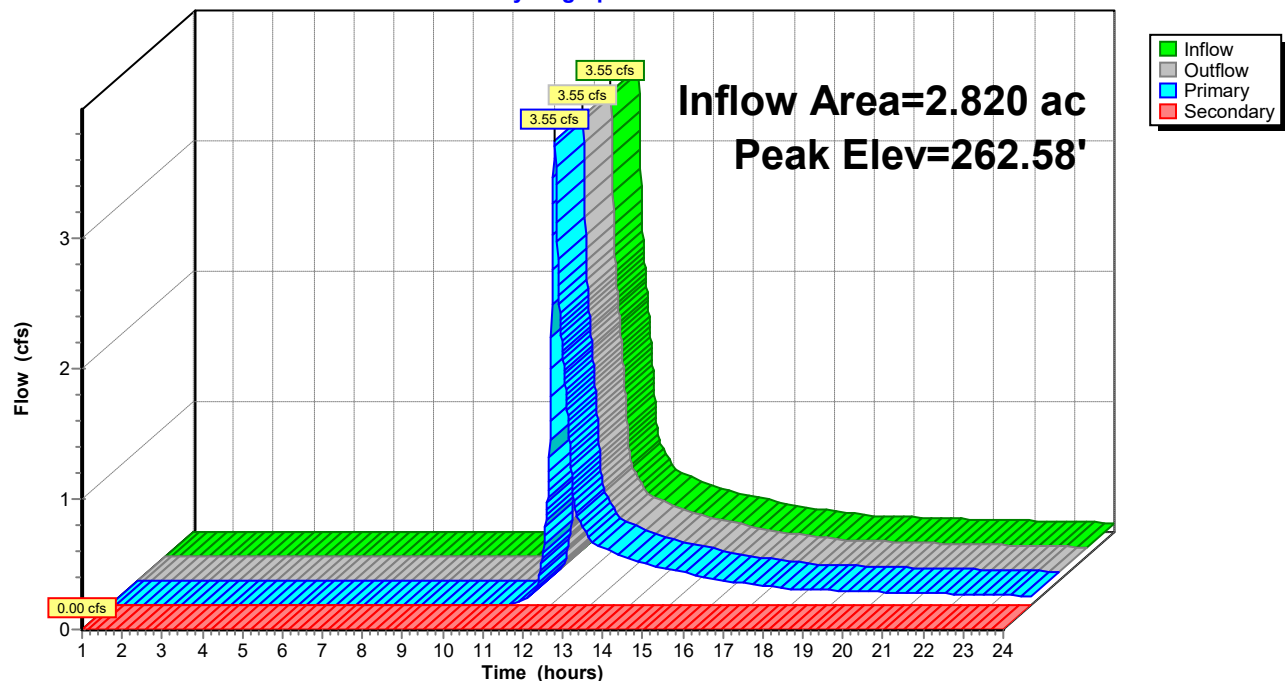
↑1=RCP_Round 24" (Barrel Controls 3.55 cfs @ 4.62 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=261.80' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 15P: CB-917

Hydrograph



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Summary for Pond 17P: MH-NEW

[81] Warning: Exceeded Pond 96P by 0.62' @ 12.10 hrs

Inflow Area = 0.480 ac, 50.00% Impervious, Inflow Depth > 9.35" for 10-yr event
Inflow = 19.12 cfs @ 12.11 hrs, Volume= 0.374 af
Outflow = 19.12 cfs @ 12.11 hrs, Volume= 0.374 af, Atten= 0%, Lag= 0.0 min
Primary = 19.12 cfs @ 12.11 hrs, Volume= 0.374 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 268.21' @ 12.11 hrs

Flood Elev= 268.88'

Device	Routing	Invert	Outlet Devices
#1	Primary	265.00'	18.0" Round RCP_Round 18" L= 30.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 265.00' / 264.50' S= 0.0167 ' S= 0.0167 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf
#2	Primary	268.02'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	268.02'	24.0" W x 2.0" H Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=19.07 cfs @ 12.11 hrs HW=268.21' (Free Discharge)

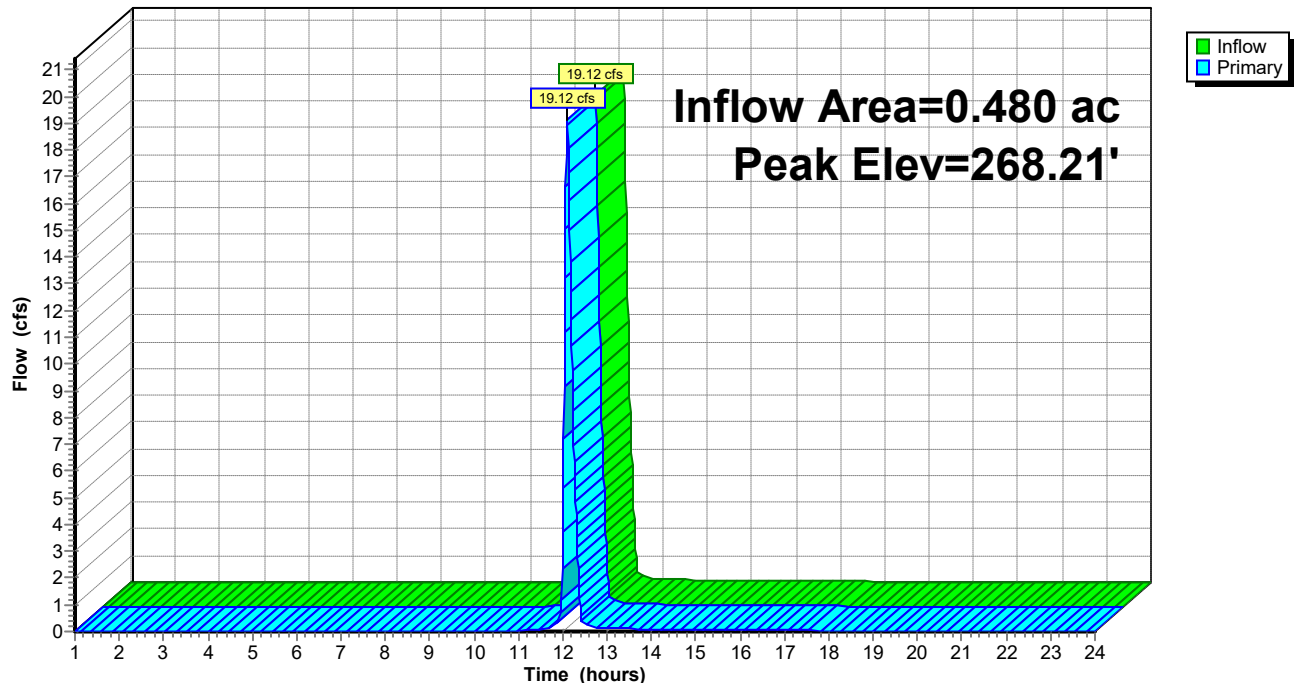
1=RCP_Round 18" (Barrel Controls 16.34 cfs @ 9.24 fps)

2=Orifice/Grate (Weir Controls 2.22 cfs @ 1.44 fps)

3=Orifice/Grate (Orifice Controls 0.52 cfs @ 1.55 fps)

Pond 17P: MH-NEW

Hydrograph



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Summary for Pond 18P: MH-703

[58] Hint: Peaked 10.40' above defined flood level

[81] Warning: Exceeded Pond 19P by 12.54' @ 12.14 hrs

[81] Warning: Exceeded Pond 20P by 10.05' @ 12.12 hrs

[81] Warning: Exceeded Pond 21P by 2.95' @ 12.11 hrs

Inflow Area = 36.844 ac, 19.06% Impervious, Inflow Depth > 1.67" for 10-yr event
Inflow = 26.57 cfs @ 12.12 hrs, Volume= 5.114 af
Outflow = 26.57 cfs @ 12.12 hrs, Volume= 5.114 af, Atten= 0%, Lag= 0.0 min
Primary = 26.57 cfs @ 12.12 hrs, Volume= 5.114 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 279.40' @ 12.12 hrs

Flood Elev= 269.00'

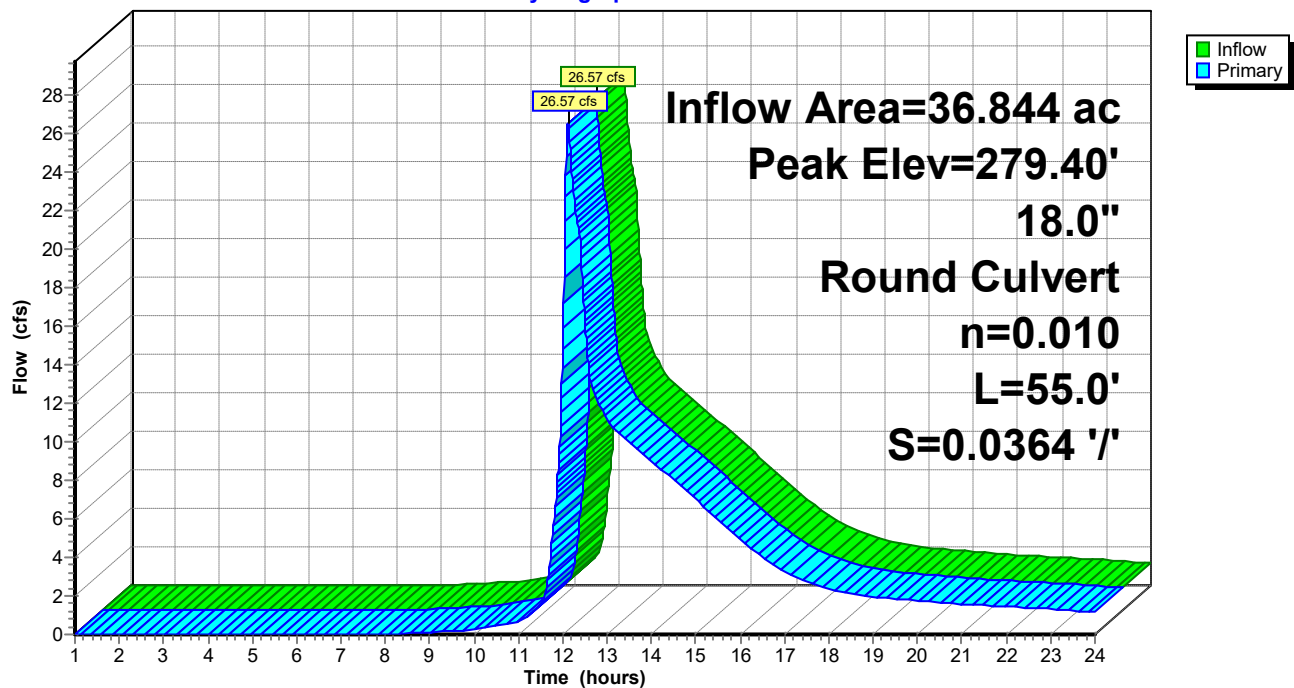
Device	Routing	Invert	Outlet Devices
#1	Primary	263.00'	18.0" Round 18" HDPE L= 55.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 263.00' / 261.00' S= 0.0364 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=26.56 cfs @ 12.12 hrs HW=279.39' (Free Discharge)

↑ **1=18" HDPE** (Inlet Controls 26.56 cfs @ 15.03 fps)

Pond 18P: MH-703

Hydrograph



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Summary for Pond 19P: CB-1154

[57] Hint: Peaked at 267.10' (Flood elevation advised)

Inflow Area = 1.000 ac, 23.00% Impervious, Inflow Depth > 2.12" for 10-yr event
Inflow = 4.53 cfs @ 12.11 hrs, Volume= 0.177 af
Outflow = 4.53 cfs @ 12.11 hrs, Volume= 0.177 af, Atten= 0%, Lag= 0.0 min
Primary = 4.53 cfs @ 12.11 hrs, Volume= 0.177 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 267.10' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	264.30'	12.0" Round 12" HDPE L= 6.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 264.30' / 262.90' S= 0.2333 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Secondary	268.77'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

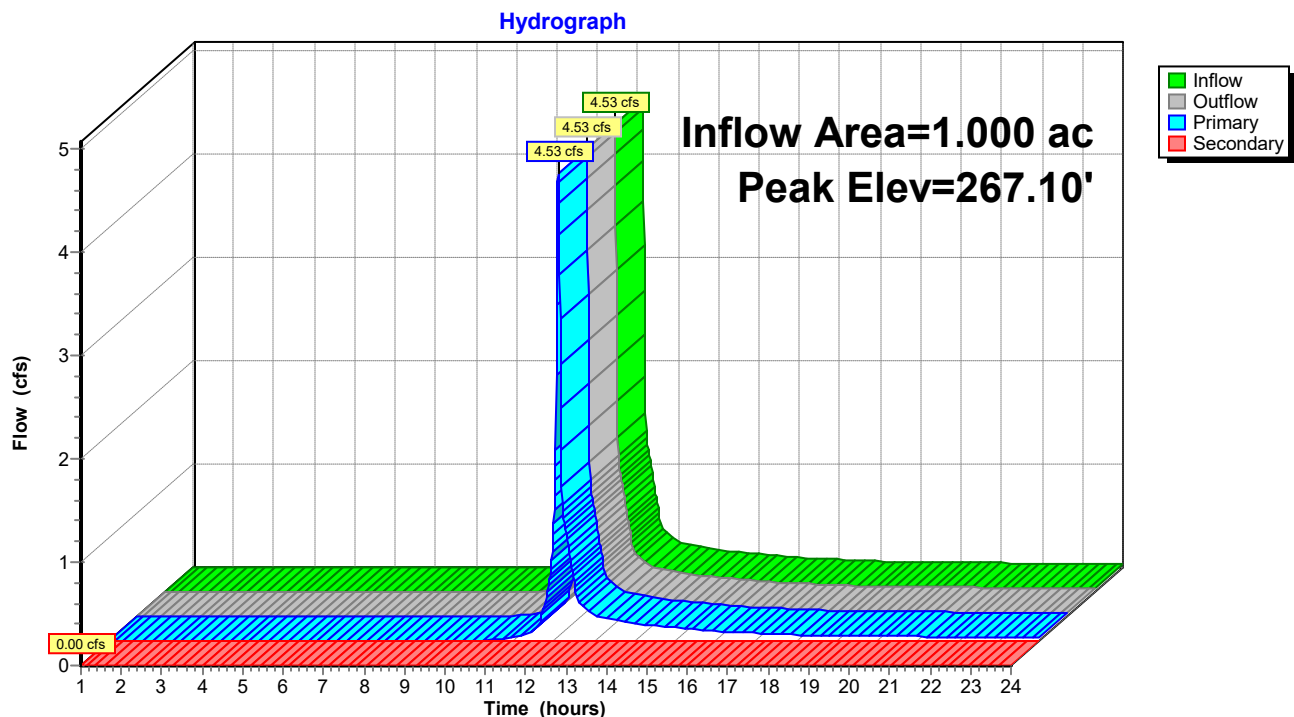
Primary OutFlow Max=4.53 cfs @ 12.11 hrs HW=267.10' (Free Discharge)

↑1=12" HDPE (Inlet Controls 4.53 cfs @ 5.76 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=264.30' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 19P: CB-1154



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Summary for Pond 20P: CB-1153

[57] Hint: Peaked at 269.35' (Flood elevation advised)

[81] Warning: Exceeded Pond 96P by 2.85' @ 11.97 hrs

Inflow Area = 4.340 ac, 47.93% Impervious, Inflow Depth > 2.84" for 10-yr event
Inflow = 12.21 cfs @ 12.10 hrs, Volume= 1.028 af
Outflow = 12.21 cfs @ 12.10 hrs, Volume= 1.028 af, Atten= 0%, Lag= 0.0 min
Primary = 6.23 cfs @ 12.10 hrs, Volume= 0.920 af
Secondary = 5.98 cfs @ 12.10 hrs, Volume= 0.109 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 269.35' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	264.50'	12.0" Round 12" HDPE L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 264.50' / 262.90' S= 0.0667 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Secondary	268.98'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=6.23 cfs @ 12.10 hrs HW=269.35' (Free Discharge)

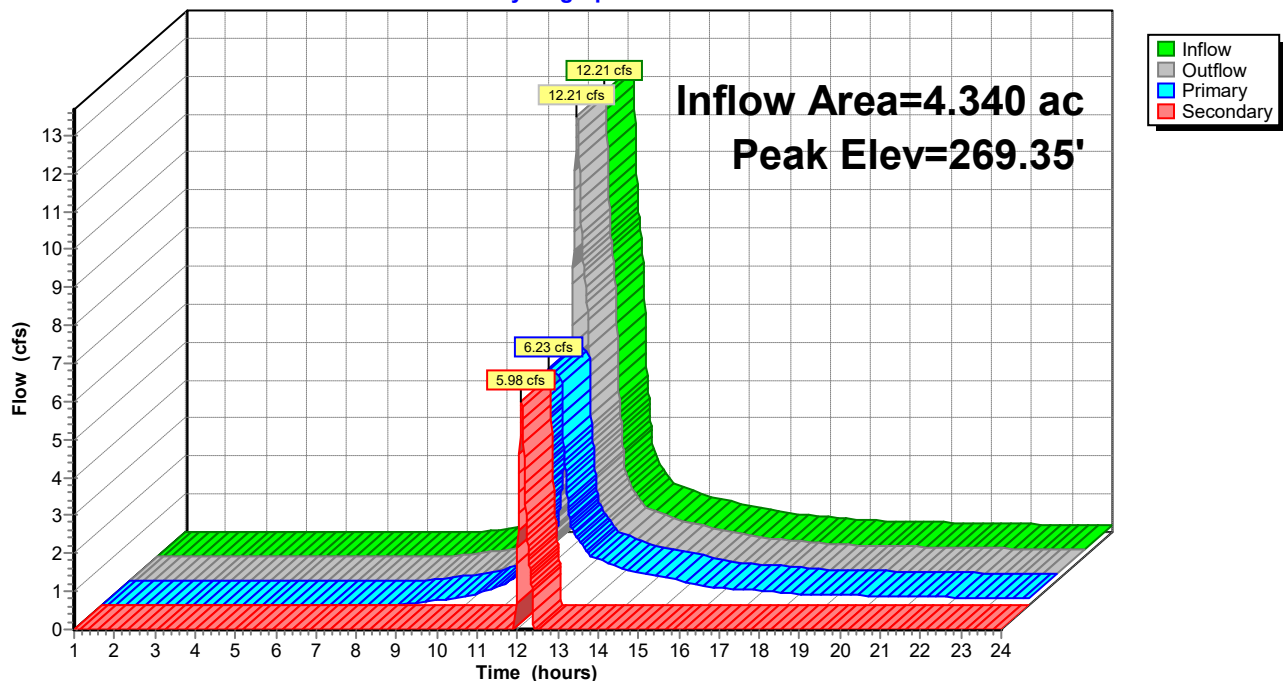
↑ **1=12" HDPE** (Inlet Controls 6.23 cfs @ 7.93 fps)

Secondary OutFlow Max=5.97 cfs @ 12.10 hrs HW=269.35' (Free Discharge)

↑ **2=Orifice/Grate** (Weir Controls 5.97 cfs @ 2.00 fps)

Pond 20P: CB-1153

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 21P: MH-702

[79] Warning: Submerged Pond 22P Primary device # 1 INLET by 1.80'

Inflow Area = 31.504 ac, 14.96% Impervious, Inflow Depth > 1.53" for 10-yr event
Inflow = 16.40 cfs @ 12.20 hrs, Volume= 4.017 af
Outflow = 16.40 cfs @ 12.20 hrs, Volume= 4.017 af, Atten= 0%, Lag= 0.0 min
Primary = 16.40 cfs @ 12.20 hrs, Volume= 4.017 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 276.81' @ 12.20 hrs

Flood Elev= 278.13'

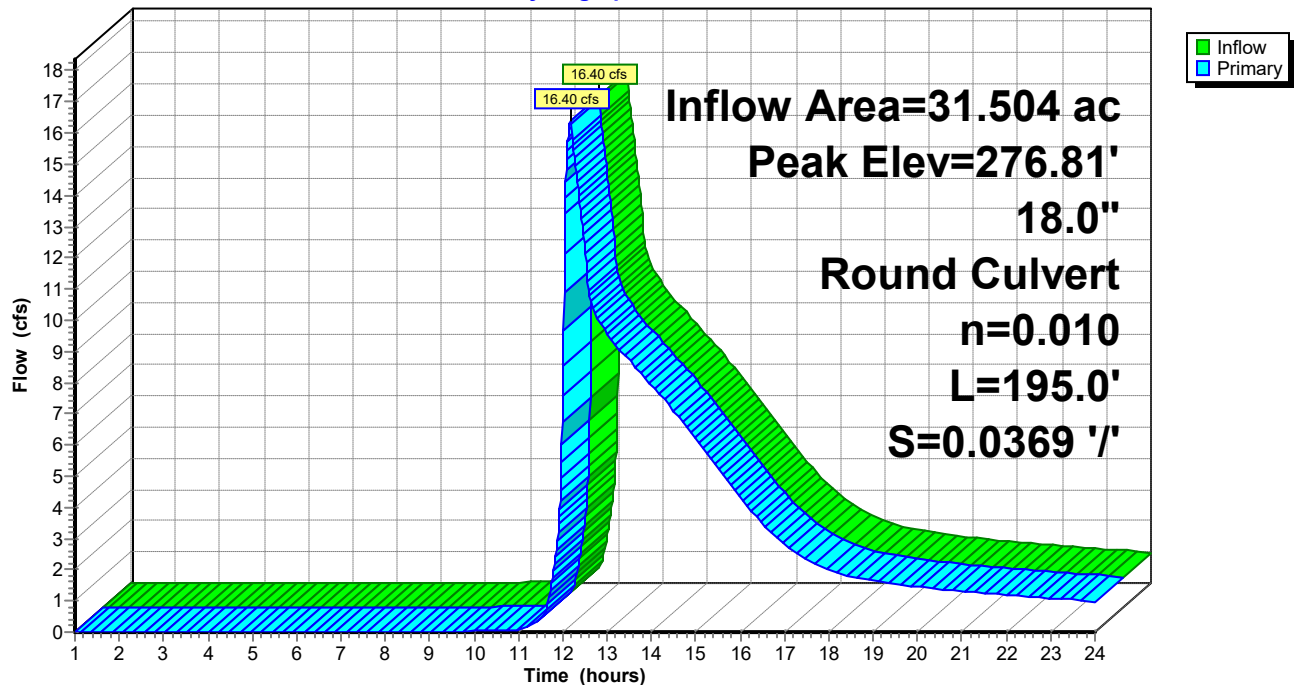
Device	Routing	Invert	Outlet Devices
#1	Primary	270.10'	18.0" Round 18" HDPE L= 195.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 270.10' / 262.90' S= 0.0369 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=16.38 cfs @ 12.20 hrs HW=276.80' (Free Discharge)

↑ **1=18" HDPE** (Inlet Controls 16.38 cfs @ 9.27 fps)

Pond 21P: MH-702

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 22P: MH-271

Inflow Area = 31.504 ac, 14.96% Impervious, Inflow Depth > 1.53" for 10-yr event
Inflow = 16.40 cfs @ 12.20 hrs, Volume= 4.017 af
Outflow = 16.40 cfs @ 12.20 hrs, Volume= 4.017 af, Atten= 0%, Lag= 0.0 min
Primary = 16.40 cfs @ 12.20 hrs, Volume= 4.017 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 281.71' @ 12.20 hrs

Flood Elev= 288.06'

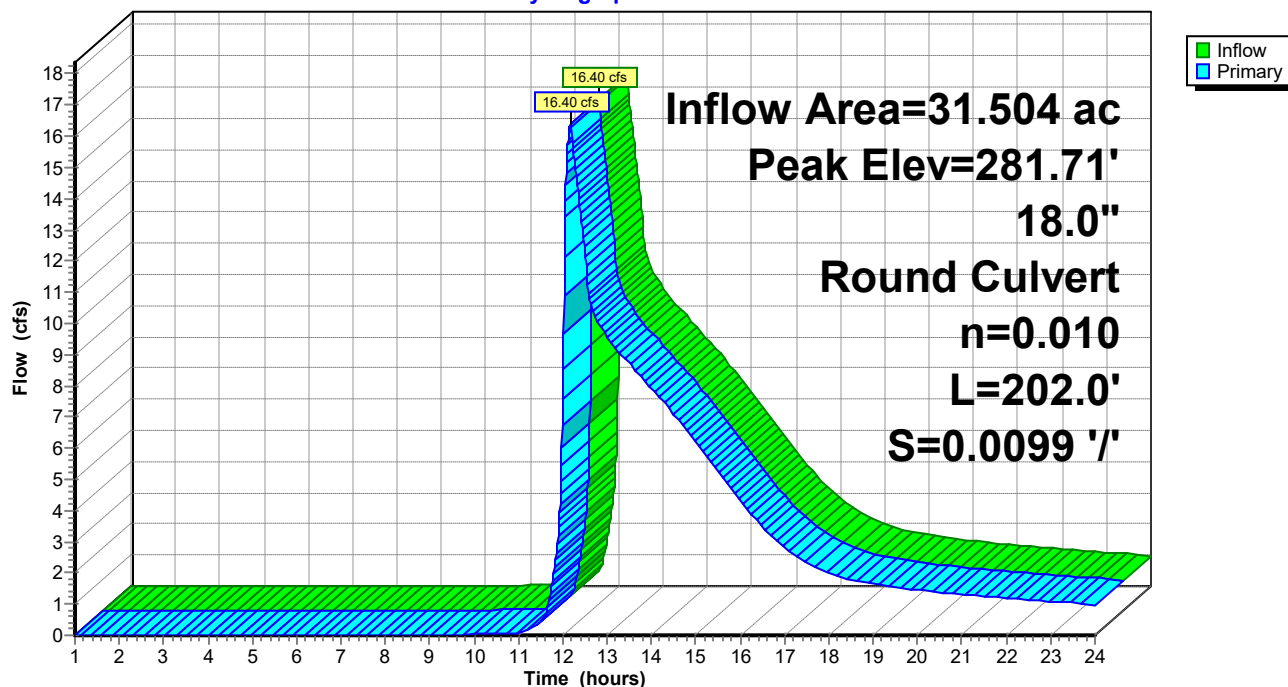
Device	Routing	Invert	Outlet Devices
#1	Primary	275.00'	18.0" Round 18" HDPE L= 202.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 275.00' / 273.00' S= 0.0099 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=16.38 cfs @ 12.20 hrs HW=281.70' (Free Discharge)

↑ **1=18" HDPE** (Inlet Controls 16.38 cfs @ 9.27 fps)

Pond 22P: MH-271

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 23P: CB-1152

[57] Hint: Peaked at 288.35' (Flood elevation advised)

[81] Warning: Exceeded Pond 24P by 2.70' @ 12.05 hrs

Inflow Area = 4.400 ac, 15.91% Impervious, Inflow Depth > 1.63" for 10-yr event
Inflow = 8.57 cfs @ 12.11 hrs, Volume= 0.596 af
Outflow = 8.57 cfs @ 12.11 hrs, Volume= 0.596 af, Atten= 0%, Lag= 0.0 min
Primary = 6.16 cfs @ 12.11 hrs, Volume= 0.578 af
Secondary = 2.42 cfs @ 12.11 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 288.35' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	283.60'	12.0" Round 12" HDPE L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 283.60' / 283.40' S= 0.0111 ' S= 0.0111 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Secondary	288.15'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=6.16 cfs @ 12.11 hrs HW=288.35' (Free Discharge)

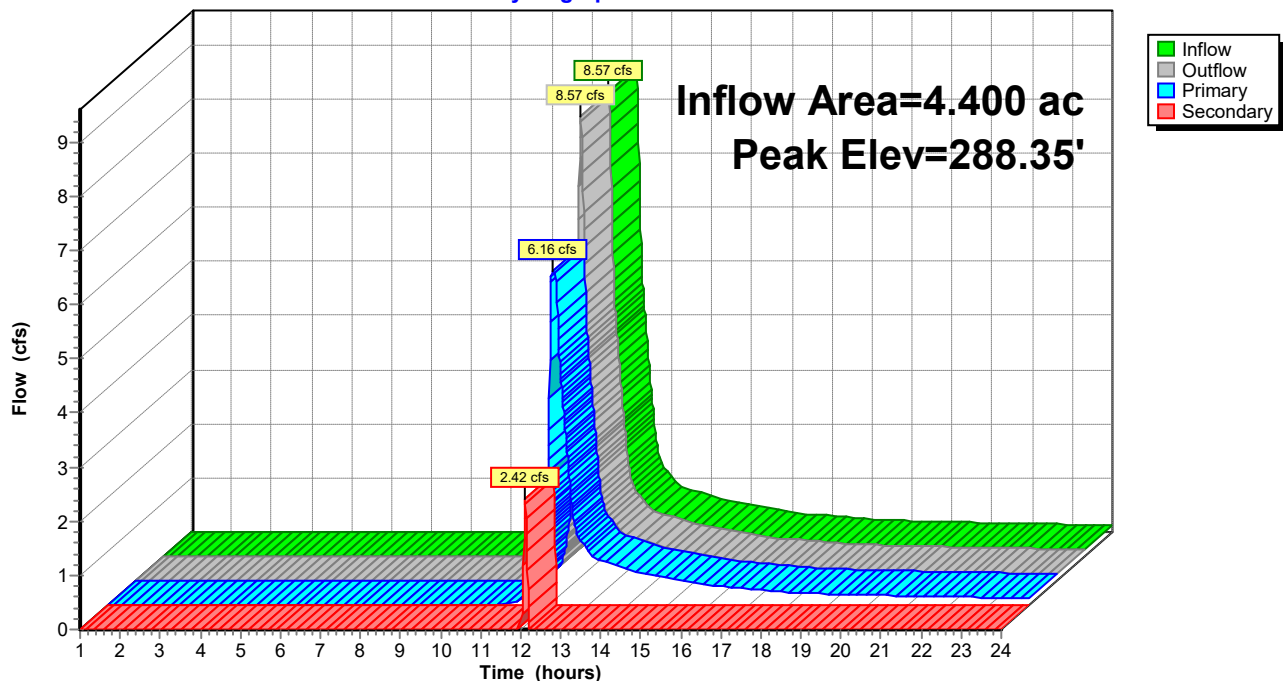
↑1=12" HDPE (Inlet Controls 6.16 cfs @ 7.84 fps)

Secondary OutFlow Max=2.39 cfs @ 12.11 hrs HW=288.35' (Free Discharge)

↑2=Orifice/Grate (Weir Controls 2.39 cfs @ 1.47 fps)

Pond 23P: CB-1152

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 24P: CB-1669

[57] Hint: Peaked at 286.95' (Flood elevation advised)

Inflow Area = 2.910 ac, 17.53% Impervious, Inflow Depth > 1.67" for 10-yr event
Inflow = 4.76 cfs @ 12.15 hrs, Volume= 0.405 af
Outflow = 4.76 cfs @ 12.15 hrs, Volume= 0.405 af, Atten= 0%, Lag= 0.0 min
Primary = 4.76 cfs @ 12.15 hrs, Volume= 0.405 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 286.95' @ 12.15 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	283.90'	12.0" Round 12" HDPE L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 283.90' / 283.70' S= 0.0083 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Secondary	288.36'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=4.76 cfs @ 12.15 hrs HW=286.94' (Free Discharge)

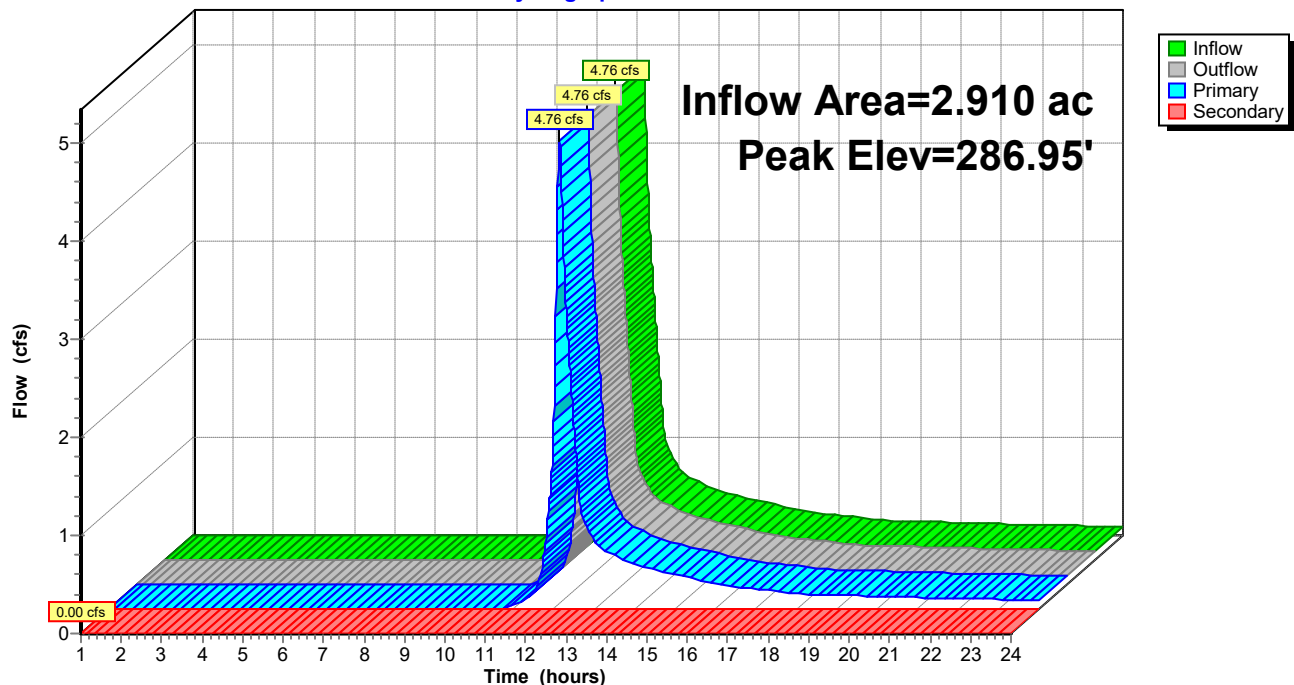
↑1=12" HDPE (Inlet Controls 4.76 cfs @ 6.06 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=283.90' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 24P: CB-1669

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 25P: MH-272

[79] Warning: Submerged Pond 26P Primary device # 1 INLET by 2.61'

Inflow Area = 27.104 ac, 14.81% Impervious, Inflow Depth > 1.52" for 10-yr event
Inflow = 10.53 cfs @ 12.26 hrs, Volume= 3.439 af
Outflow = 10.53 cfs @ 12.26 hrs, Volume= 3.439 af, Atten= 0%, Lag= 0.0 min
Primary = 10.53 cfs @ 12.26 hrs, Volume= 3.439 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 287.41' @ 12.26 hrs

Flood Elev= 290.77'

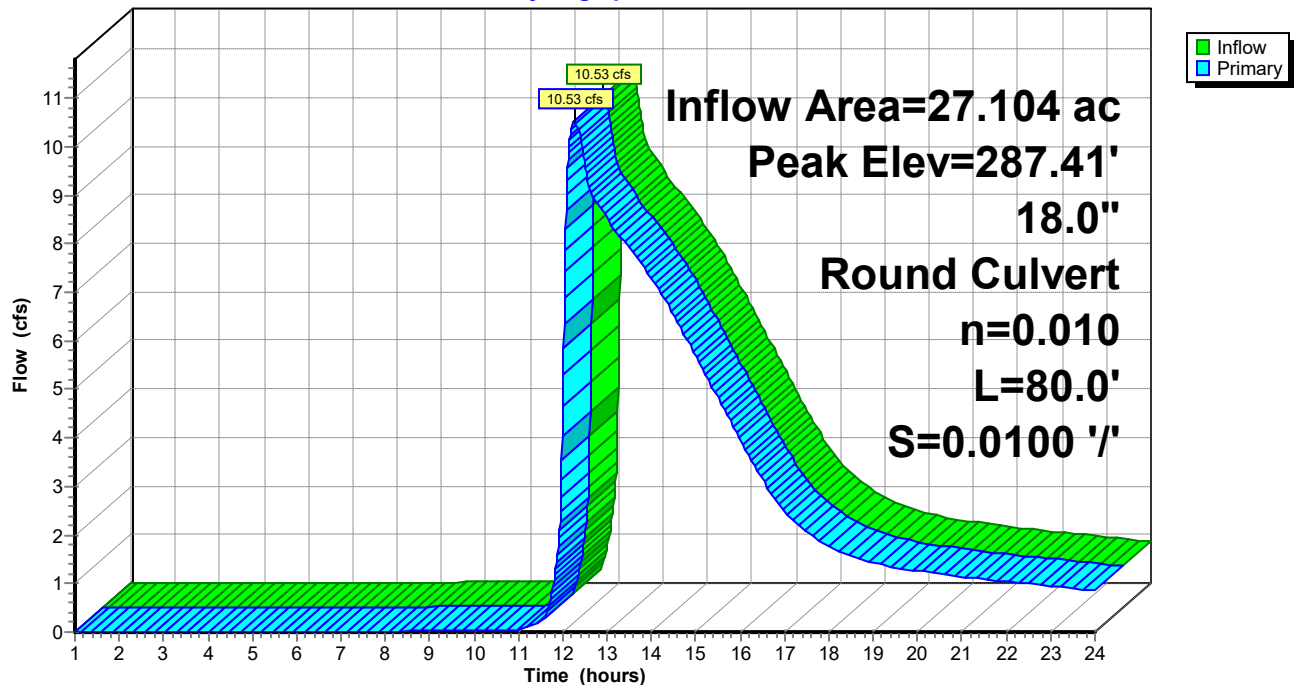
Device	Routing	Invert	Outlet Devices
#1	Primary	284.20'	18.0" Round 18" HDPE L= 80.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 284.20' / 283.40' S= 0.0100 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.53 cfs @ 12.26 hrs HW=287.41' (Free Discharge)

↑ **1=18" HDPE** (Inlet Controls 10.53 cfs @ 5.96 fps)

Pond 25P: MH-272

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 26P: MH-701

[79] Warning: Submerged Pond 27P Primary device # 1 OUTLET by 3.21'

Inflow Area = 27.104 ac, 14.81% Impervious, Inflow Depth > 1.52" for 10-yr event
Inflow = 10.53 cfs @ 12.26 hrs, Volume= 3.439 af
Outflow = 10.53 cfs @ 12.26 hrs, Volume= 3.439 af, Atten= 0%, Lag= 0.0 min
Primary = 10.53 cfs @ 12.26 hrs, Volume= 3.439 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 288.01' @ 12.26 hrs

Flood Elev= 291.59'

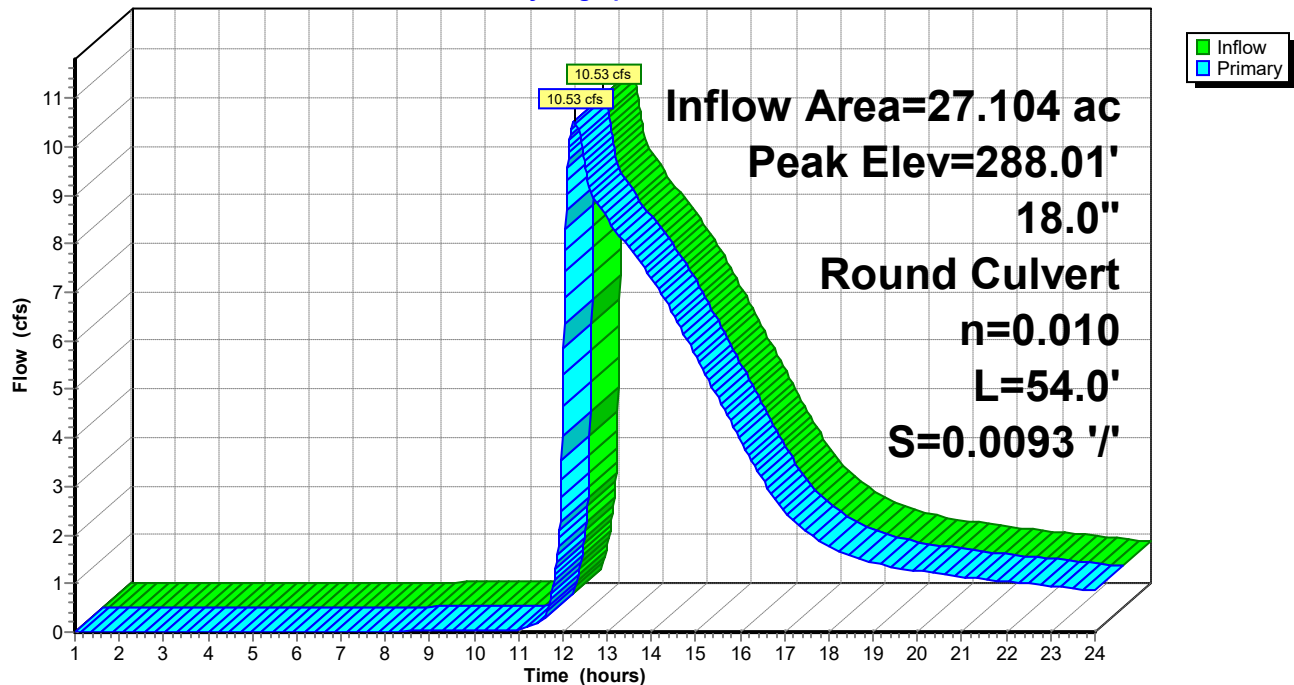
Device	Routing	Invert	Outlet Devices
#1	Primary	284.80'	18.0" Round 18" HDPE L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 284.80' / 284.30' S= 0.0093 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.53 cfs @ 12.26 hrs HW=288.01' (Free Discharge)

↑ **1=18" HDPE** (Inlet Controls 10.53 cfs @ 5.96 fps)

Pond 26P: MH-701

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 27P: MH-699

[81] Warning: Exceeded Pond 28P by 0.99' @ 12.35 hrs

[81] Warning: Exceeded Pond 30P by 0.45' @ 12.26 hrs

[81] Warning: Exceeded Pond 95P by 1.14' @ 12.26 hrs

Inflow Area = 27.104 ac, 14.81% Impervious, Inflow Depth > 1.52" for 10-yr event
Inflow = 10.53 cfs @ 12.26 hrs, Volume= 3.439 af
Outflow = 10.53 cfs @ 12.26 hrs, Volume= 3.439 af, Atten= 0%, Lag= 0.0 min
Primary = 10.53 cfs @ 12.26 hrs, Volume= 3.439 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 295.31' @ 12.26 hrs

Flood Elev= 297.80'

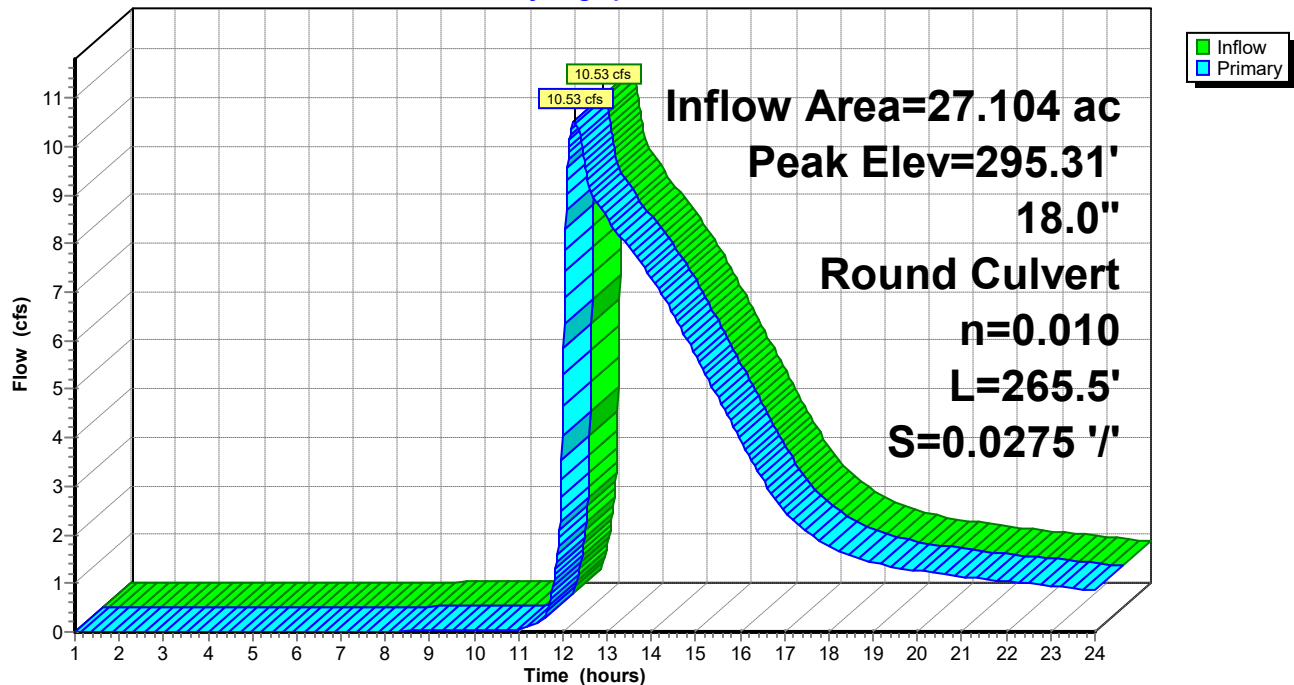
Device	Routing	Invert	Outlet Devices
#1	Primary	292.10'	18.0" Round 18" HDPE L= 265.5' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 292.10' / 284.80' S= 0.0275 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.53 cfs @ 12.26 hrs HW=295.31' (Free Discharge)

↑ **1=18" HDPE** (Inlet Controls 10.53 cfs @ 5.96 fps)

Pond 27P: MH-699

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 28P: MH-700

[79] Warning: Submerged Pond 29P Primary device # 1 by 0.87'

Inflow Area = 2.760 ac, 11.23% Impervious, Inflow Depth > 1.43" for 10-yr event
Inflow = 2.62 cfs @ 12.10 hrs, Volume= 0.330 af
Outflow = 2.62 cfs @ 12.10 hrs, Volume= 0.330 af, Atten= 0%, Lag= 0.0 min
Primary = 2.62 cfs @ 12.10 hrs, Volume= 0.330 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 294.37' @ 12.10 hrs

Flood Elev= 297.69'

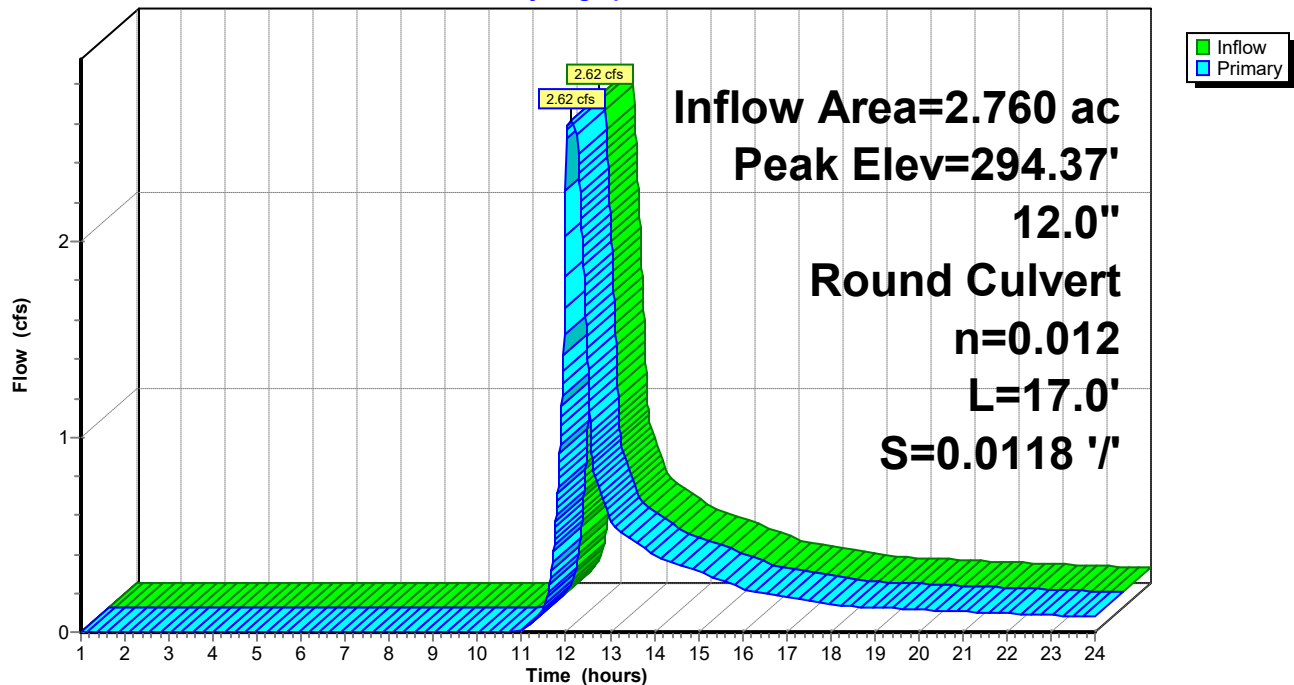
Device	Routing	Invert	Outlet Devices
#1	Primary	293.40'	12.0" Round RCP_Round 12" L= 17.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 293.40' / 293.20' S= 0.0118 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=2.62 cfs @ 12.10 hrs HW=294.37' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 2.62 cfs @ 4.28 fps)

Pond 28P: MH-700

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 29P: CB-1668

[57] Hint: Peaked at 297.74' (Flood elevation advised)

Inflow Area = 2.760 ac, 11.23% Impervious, Inflow Depth > 1.52" for 10-yr event
Inflow = 4.59 cfs @ 12.10 hrs, Volume= 0.350 af
Outflow = 4.59 cfs @ 12.10 hrs, Volume= 0.350 af, Atten= 0%, Lag= 0.0 min
Primary = 2.62 cfs @ 12.10 hrs, Volume= 0.330 af
Secondary = 1.97 cfs @ 12.10 hrs, Volume= 0.020 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 297.74' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	293.50'	8.0" Round 8" PVC L= 4.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 293.50' / 293.50' S= 0.0000 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Secondary	297.56'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.62 cfs @ 12.10 hrs HW=297.74' (Free Discharge)

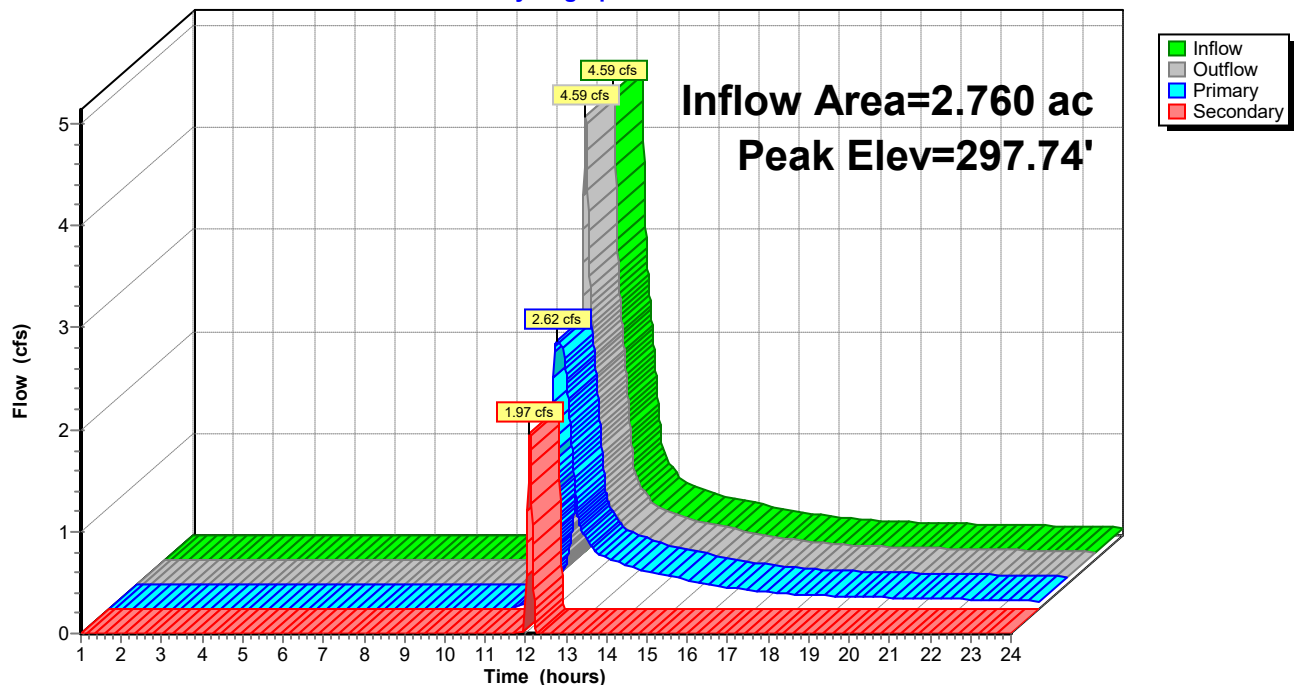
↑1=8" PVC (Inlet Controls 2.62 cfs @ 7.51 fps)

Secondary OutFlow Max=1.95 cfs @ 12.10 hrs HW=297.74' (Free Discharge)

↑2=Orifice/Grate (Weir Controls 1.95 cfs @ 1.38 fps)

Pond 29P: CB-1668

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 30P: CB-1667

[57] Hint: Peaked at 295.01' (Flood elevation advised)

Inflow Area = 0.120 ac, 100.00% Impervious, Inflow Depth > 4.90" for 10-yr event
Inflow = 0.60 cfs @ 12.08 hrs, Volume= 0.049 af
Outflow = 0.60 cfs @ 12.08 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min
Primary = 0.60 cfs @ 12.08 hrs, Volume= 0.049 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 295.01' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	294.60'	12.0" Round RCP_Round 12" L= 24.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 294.60' / 294.40' S= 0.0083 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	298.43'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.60 cfs @ 12.08 hrs HW=295.01' (Free Discharge)

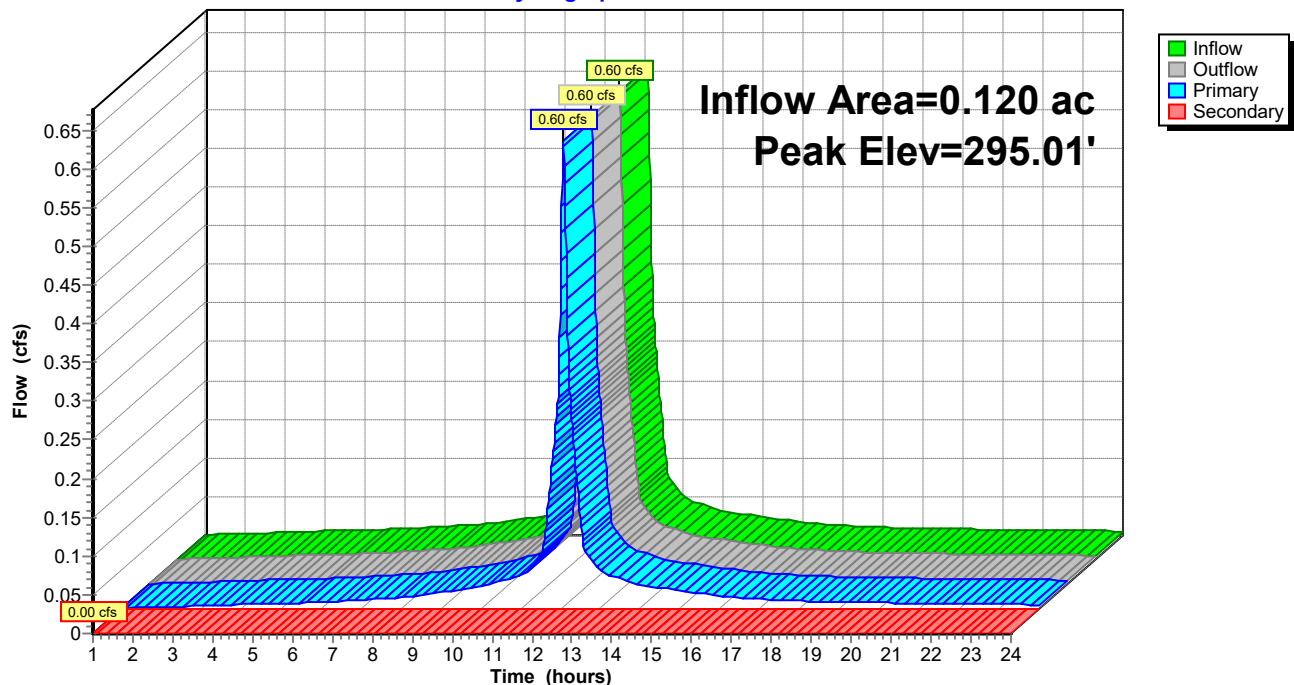
↑1=RCP_Round 12" (Barrel Controls 0.60 cfs @ 2.95 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=294.60' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 30P: CB-1667

Hydrograph



Linwood Street Drainage - Existing

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 32P: MH-270

[79] Warning: Submerged Pond 35P Primary device # 1 OUTLET by 1.63'

Inflow Area = 5.150 ac, 20.00% Impervious, Inflow Depth > 1.77" for 10-yr event
Inflow = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af
Outflow = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af, Atten= 0%, Lag= 0.0 min
Primary = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 306.53' @ 12.10 hrs

Flood Elev= 310.64'

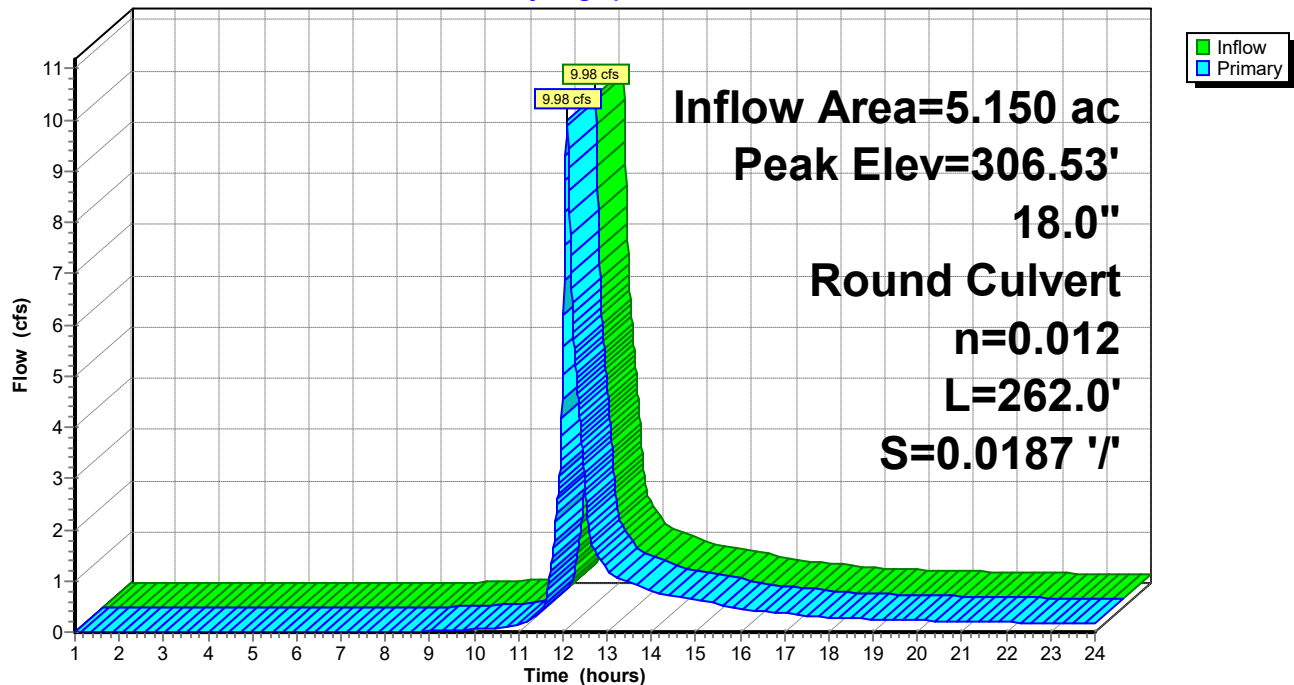
Device	Routing	Invert	Outlet Devices
#1	Primary	304.90'	18.0" Round RCP_Round 18" L= 262.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 304.90' / 300.00' S= 0.0187 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=9.98 cfs @ 12.10 hrs HW=306.53' (Free Discharge)

↑1=RCP_Round 18" (Inlet Controls 9.98 cfs @ 5.65 fps)

Pond 32P: MH-270

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 33P: MH-620

[79] Warning: Submerged Pond 32P Primary device # 1 OUTLET by 1.45'

Inflow Area = 5.952 ac, 17.67% Impervious, Inflow Depth > 1.72" for 10-yr event
Inflow = 11.16 cfs @ 12.10 hrs, Volume= 0.853 af
Outflow = 11.16 cfs @ 12.10 hrs, Volume= 0.853 af, Atten= 0%, Lag= 0.0 min
Primary = 11.16 cfs @ 12.10 hrs, Volume= 0.853 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 301.45' @ 12.10 hrs

Flood Elev= 304.28'

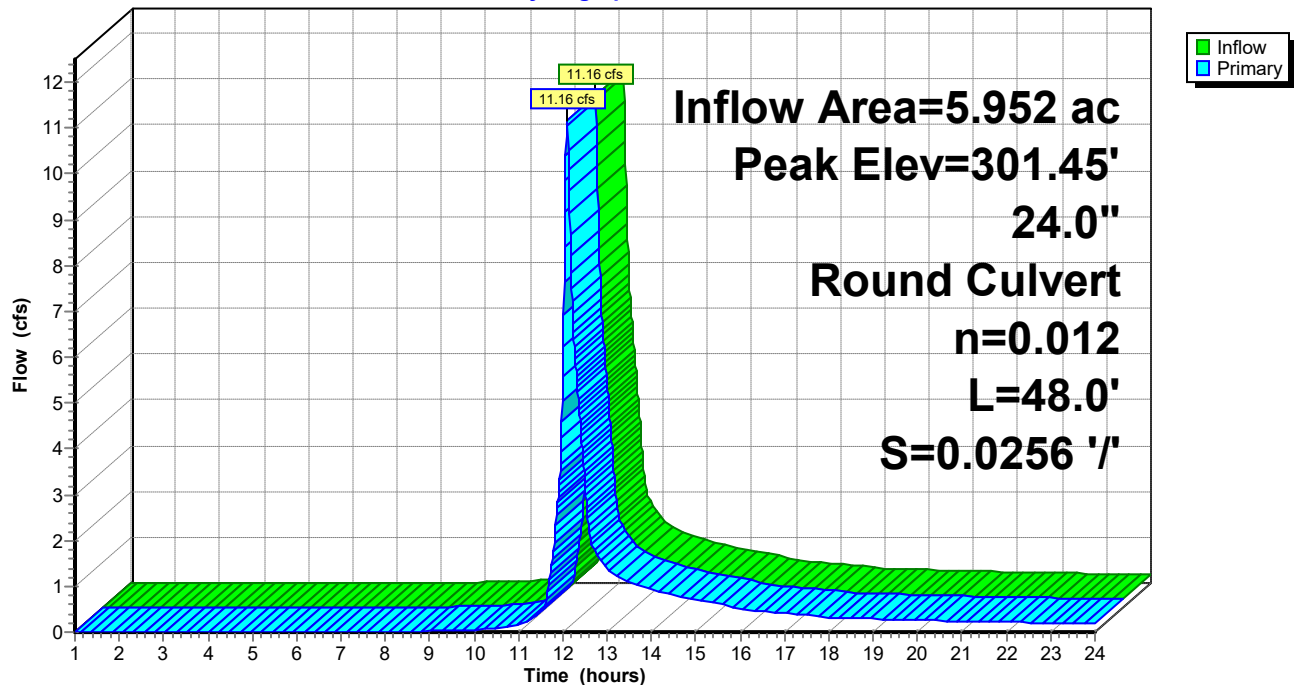
Device	Routing	Invert	Outlet Devices
#1	Primary	300.10'	24.0" Round RCP_Round 24" L= 48.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 300.10' / 298.87' S= 0.0256 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=11.16 cfs @ 12.10 hrs HW=301.45' (Free Discharge)

↑1=RCP_Round 24" (Inlet Controls 11.16 cfs @ 4.95 fps)

Pond 33P: MH-620

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 34P: IN-37

[57] Hint: Peaked at 302.38' (Flood elevation advised)

Inflow Area = 0.802 ac, 2.74% Impervious, Inflow Depth > 1.38" for 10-yr event
Inflow = 1.18 cfs @ 12.10 hrs, Volume= 0.092 af
Outflow = 1.18 cfs @ 12.10 hrs, Volume= 0.092 af, Atten= 0%, Lag= 0.0 min
Primary = 1.18 cfs @ 12.10 hrs, Volume= 0.092 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 302.38' @ 12.10 hrs

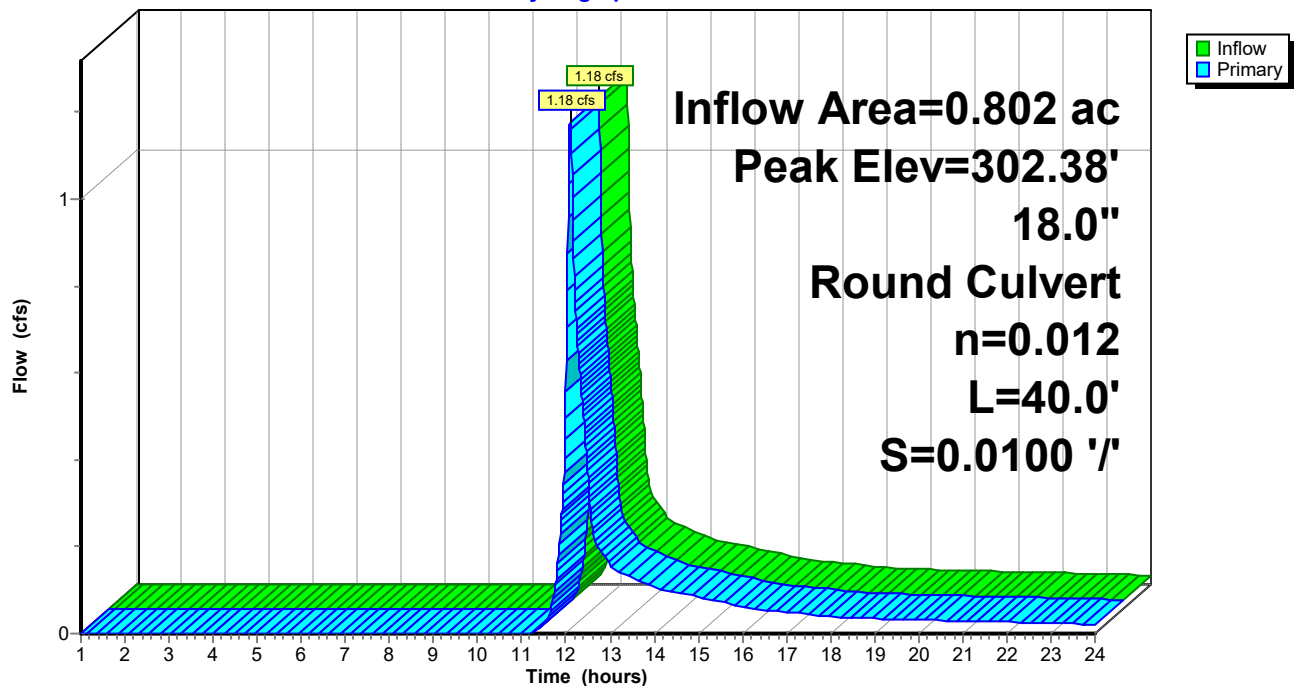
Device	Routing	Invert	Outlet Devices
#1	Primary	301.90'	18.0" Round RCP_Round 18" L= 40.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 301.90' / 301.50' S= 0.0100 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=1.18 cfs @ 12.10 hrs HW=302.38' (Free Discharge)

↑1=RCP_Round 18" (Barrel Controls 1.18 cfs @ 3.63 fps)

Pond 34P: IN-37

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 35P: (new Pond)

[79] Warning: Submerged Pond 36P Primary device # 1 OUTLET by 1.63'

Inflow Area = 5.150 ac, 20.00% Impervious, Inflow Depth > 1.77" for 10-yr event
Inflow = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af
Outflow = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af, Atten= 0%, Lag= 0.0 min
Primary = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 308.93' @ 12.10 hrs

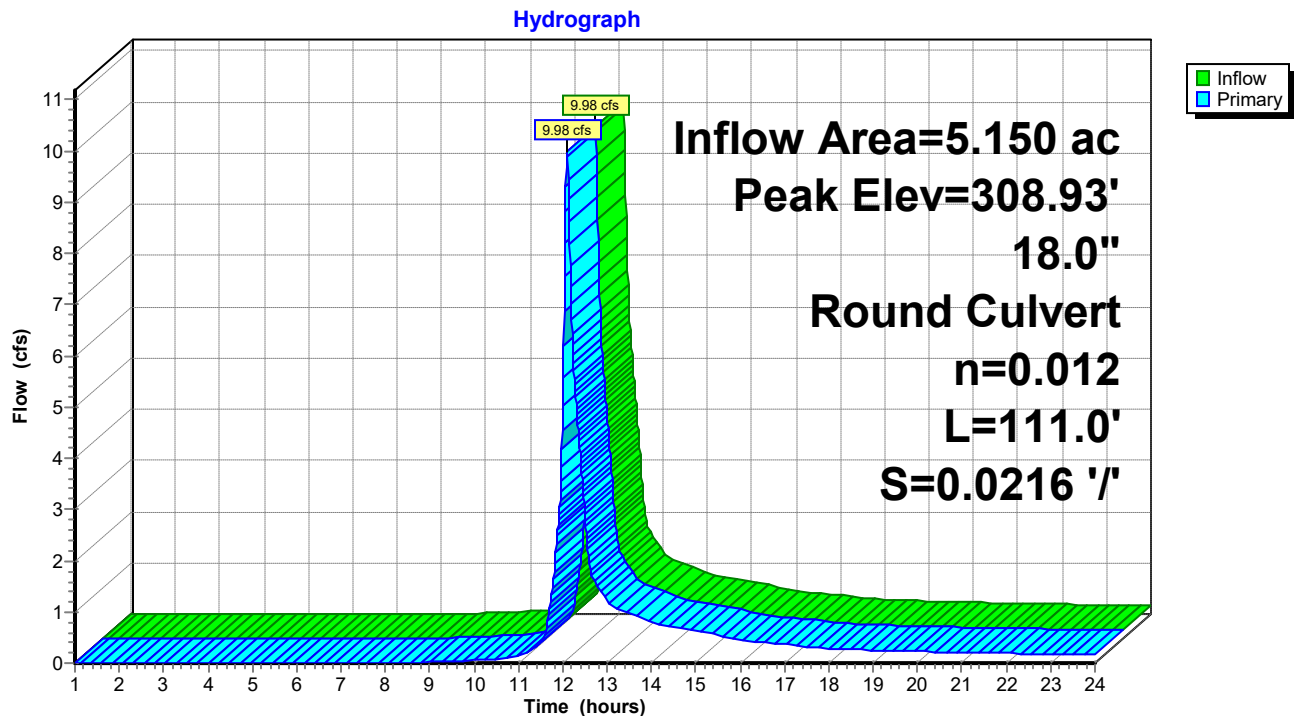
Flood Elev= 314.81'

Device	Routing	Invert	Outlet Devices
#1	Primary	307.30'	18.0" Round RCP_Round 18" L= 111.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 307.30' / 304.90' S= 0.0216 '/ Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=9.98 cfs @ 12.10 hrs HW=308.93' (Free Discharge)

↑1=RCP_Round 18" (Inlet Controls 9.98 cfs @ 5.65 fps)

Pond 35P: (new Pond)



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Summary for Pond 36P: MH-443

Inflow Area = 5.150 ac, 20.00% Impervious, Inflow Depth > 1.77" for 10-yr event
Inflow = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af
Outflow = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af, Atten= 0%, Lag= 0.0 min
Primary = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 311.38' @ 12.10 hrs

Flood Elev= 315.61'

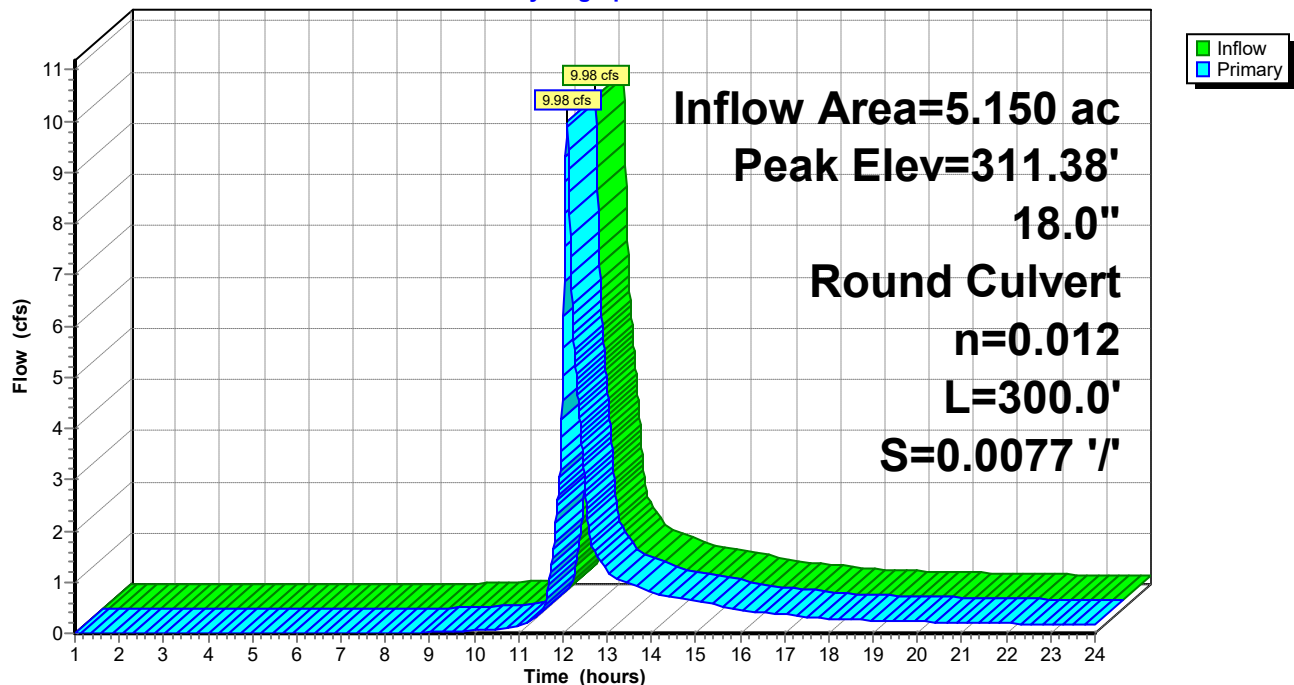
Device	Routing	Invert	Outlet Devices
#1	Primary	309.60'	18.0" Round RCP_Round 18" L= 300.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 309.60' / 307.30' S= 0.0077 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=9.99 cfs @ 12.10 hrs HW=311.38' (Free Discharge)

↑1=RCP_Round 18" (Barrel Controls 9.99 cfs @ 6.02 fps)

Pond 36P: MH-443

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 37P: CB-646

[57] Hint: Peaked at 312.24' (Flood elevation advised)

Inflow Area = 0.340 ac, 47.06% Impervious, Inflow Depth > 2.83" for 10-yr event
Inflow = 1.13 cfs @ 12.09 hrs, Volume= 0.080 af
Outflow = 1.13 cfs @ 12.09 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.0 min
Primary = 1.13 cfs @ 12.09 hrs, Volume= 0.080 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 312.24' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	311.70'	12.0" Round RCP_Round 12" L= 24.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 311.70' / 311.40' S= 0.0125 ' S= 0.0125 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	316.08'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

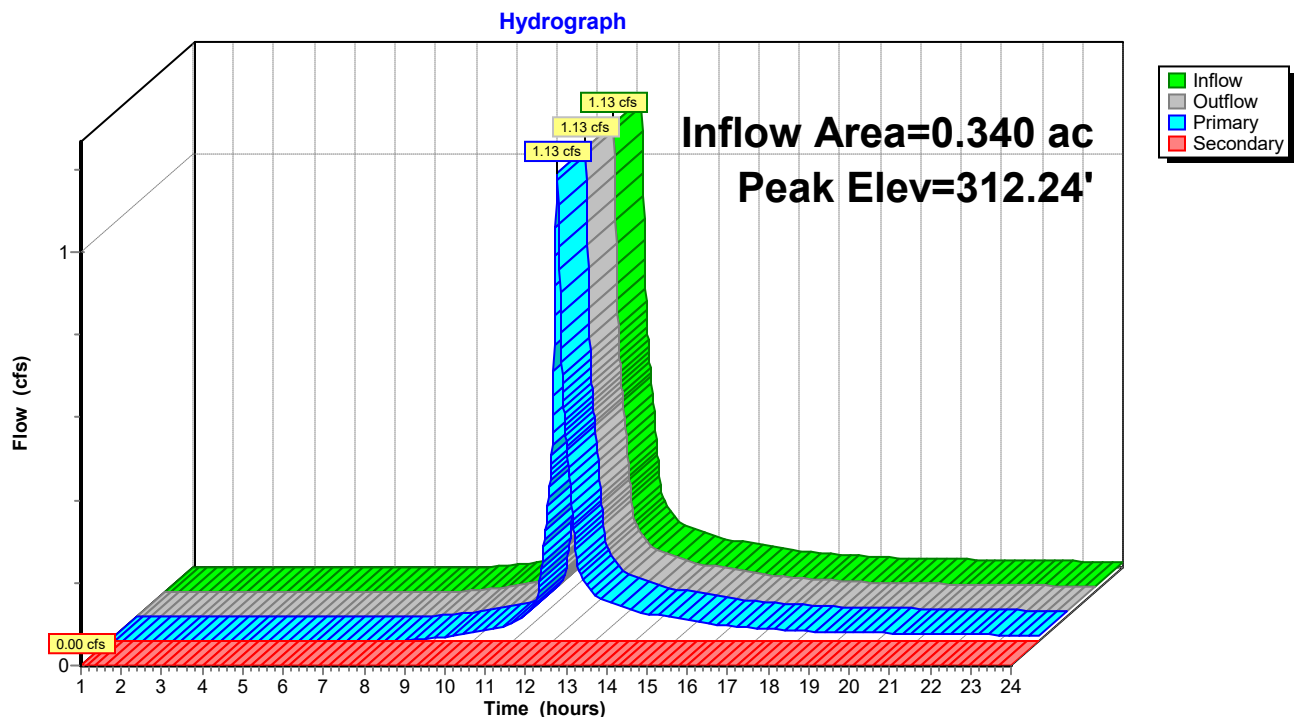
Primary OutFlow Max=1.13 cfs @ 12.09 hrs HW=312.24' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 1.13 cfs @ 3.77 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=311.70' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 37P: CB-646



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Summary for Pond 38P: CB-645

[57] Hint: Peaked at 312.33' (Flood elevation advised)

Inflow Area = 1.120 ac, 16.96% Impervious, Inflow Depth > 1.67" for 10-yr event
Inflow = 2.01 cfs @ 12.11 hrs, Volume= 0.156 af
Outflow = 2.01 cfs @ 12.11 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.0 min
Primary = 2.01 cfs @ 12.11 hrs, Volume= 0.156 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 312.33' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	311.50'	12.0" Round RCP_Round 12" L= 5.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 311.50' / 311.40' S= 0.0200 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	316.34'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.01 cfs @ 12.11 hrs HW=312.33' (Free Discharge)

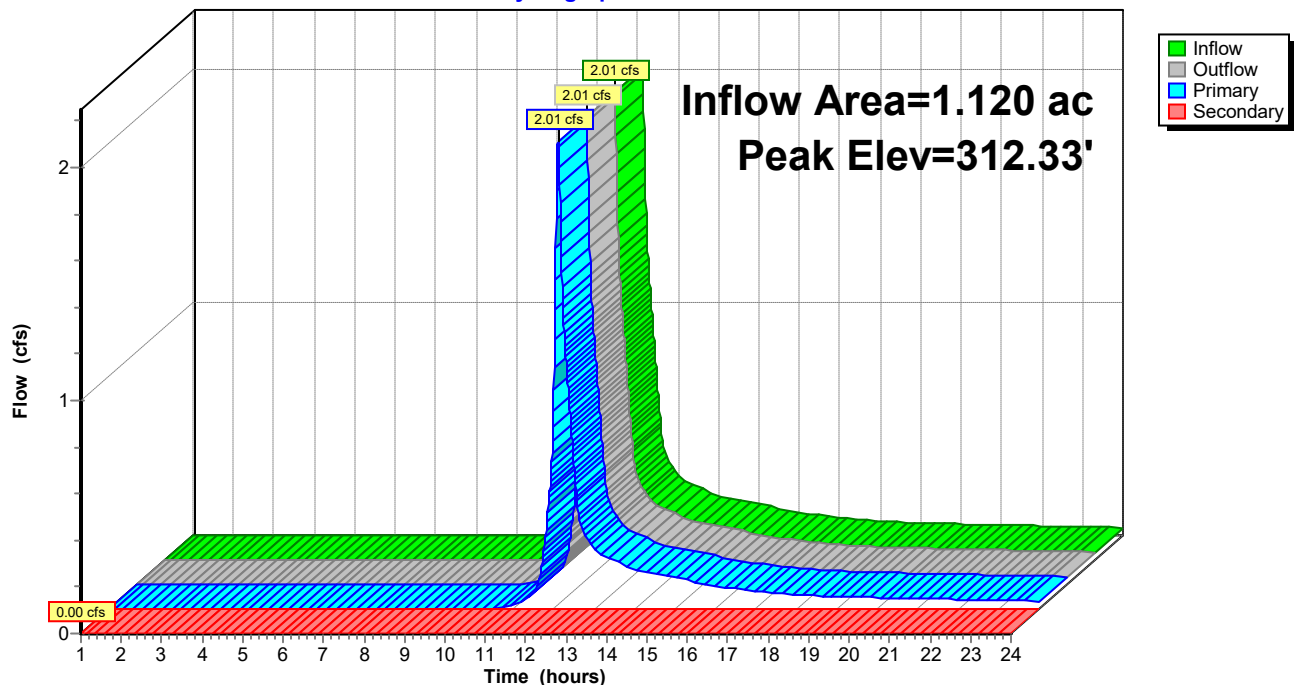
↑**1=RCP_Round 12"** (Barrel Controls 2.01 cfs @ 3.89 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=311.50' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 38P: CB-645

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 47P: MH-619

[81] Warning: Exceeded Pond 48P by 1.51' @ 12.11 hrs

[81] Warning: Exceeded Pond 49P by 0.02' @ 12.41 hrs

[79] Warning: Submerged Pond 50P Primary device # 1 OUTLET by 2.26'

Inflow Area = 13.972 ac, 15.90% Impervious, Inflow Depth > 1.74" for 10-yr event
Inflow = 25.06 cfs @ 12.10 hrs, Volume= 2.021 af
Outflow = 25.06 cfs @ 12.10 hrs, Volume= 2.021 af, Atten= 0%, Lag= 0.0 min
Primary = 25.06 cfs @ 12.10 hrs, Volume= 2.021 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 301.36' @ 12.10 hrs

Flood Elev= 304.03'

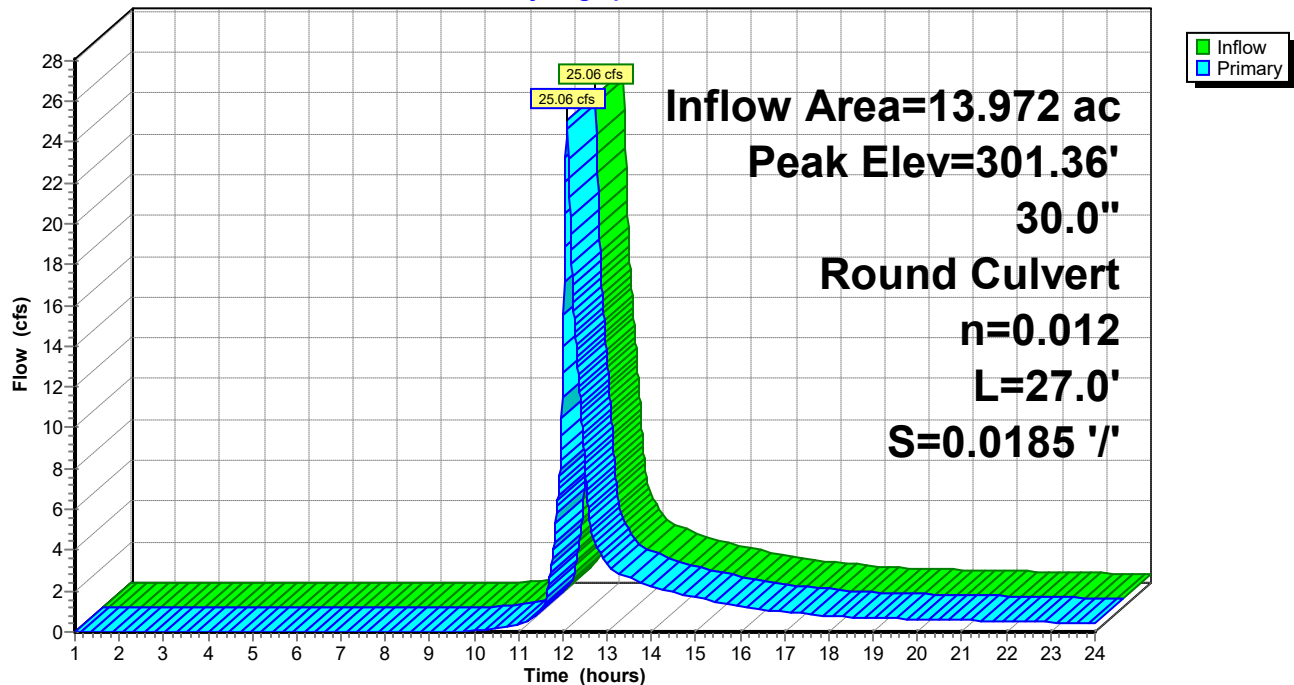
Device	Routing	Invert	Outlet Devices
#1	Primary	299.10'	30.0" Round RCP_Round 30" L= 27.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 299.10' / 298.60' S= 0.0185 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 4.91 sf

Primary OutFlow Max=25.03 cfs @ 12.10 hrs HW=301.36' (Free Discharge)

↑1=RCP_Round 30" (Barrel Controls 25.03 cfs @ 7.07 fps)

Pond 47P: MH-619

Hydrograph



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Summary for Pond 48P: CB-1666

[57] Hint: Peaked at 299.86' (Flood elevation advised)

Inflow Area = 0.300 ac, 36.67% Impervious, Inflow Depth > 2.56" for 10-yr event
Inflow = 0.90 cfs @ 12.09 hrs, Volume= 0.064 af
Outflow = 0.90 cfs @ 12.09 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min
Primary = 0.90 cfs @ 12.09 hrs, Volume= 0.064 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 299.86' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	299.20'	12.0" Round CMP_Round 12" L= 10.6' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 299.20' / 299.10' S= 0.0094 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf
#2	Secondary	303.72'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.90 cfs @ 12.09 hrs HW=299.86' (Free Discharge)

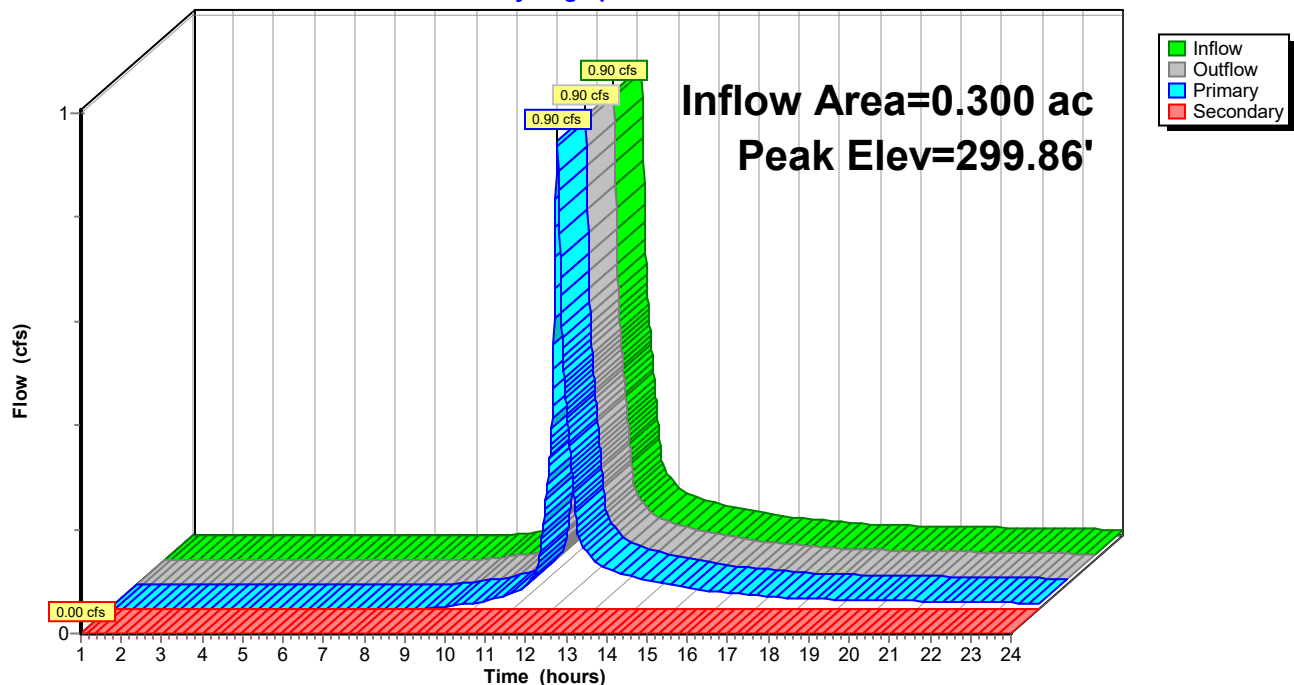
↑**1=CMP_Round 12"** (Barrel Controls 0.90 cfs @ 2.33 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=299.20' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 48P: CB-1666

Hydrograph



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Summary for Pond 49P: CB-1665

[57] Hint: Peaked at 303.23' (Flood elevation advised)

Inflow Area = 2.150 ac, 24.65% Impervious, Inflow Depth > 2.06" for 10-yr event
Inflow = 5.09 cfs @ 12.09 hrs, Volume= 0.369 af
Outflow = 5.09 cfs @ 12.09 hrs, Volume= 0.369 af, Atten= 0%, Lag= 0.0 min
Primary = 5.09 cfs @ 12.09 hrs, Volume= 0.369 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 303.23' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	299.40'	12.0" Round CMP_Round 12" L= 25.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 299.40' / 299.10' S= 0.0120 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf
#2	Secondary	303.76'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=5.08 cfs @ 12.09 hrs HW=303.23' (Free Discharge)

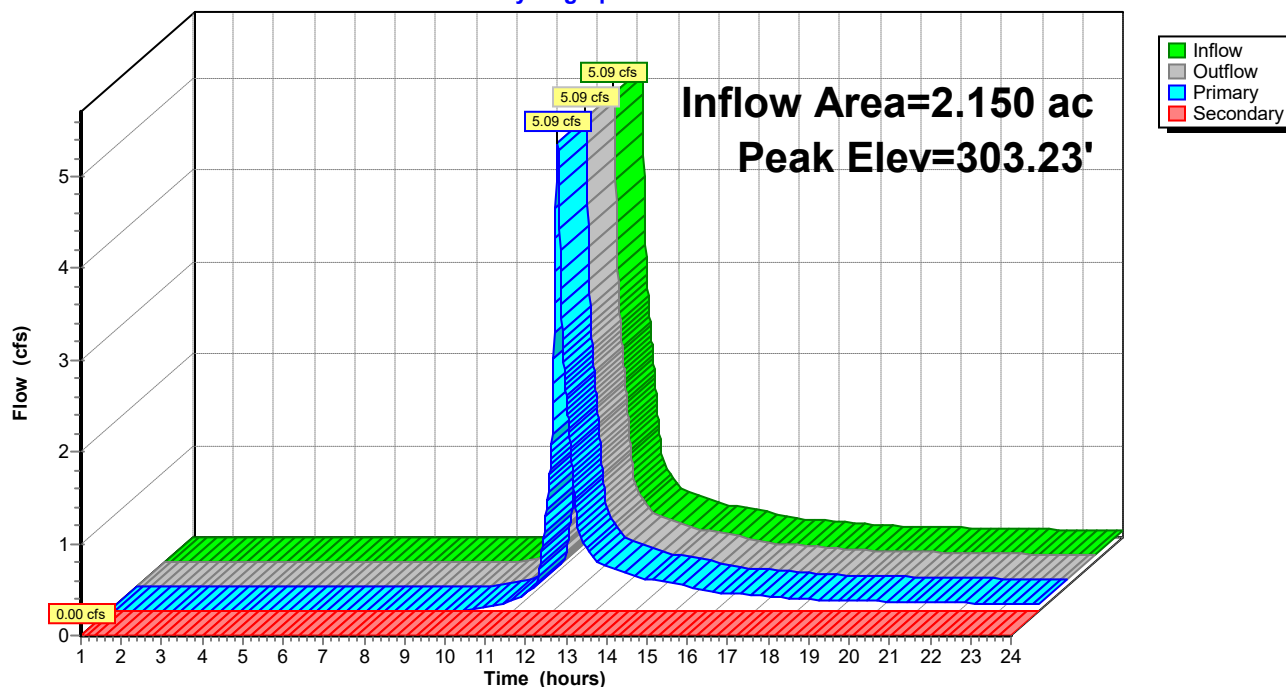
↑**1=CMP_Round 12"** (Barrel Controls 5.08 cfs @ 6.47 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=299.40' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 49P: CB-1665

Hydrograph



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Summary for Pond 50P: MH-618

[79] Warning: Submerged Pond 51P Primary device # 1 INLET by 2.49'

Inflow Area = 11.522 ac, 13.73% Impervious, Inflow Depth > 1.65" for 10-yr event
Inflow = 19.13 cfs @ 12.11 hrs, Volume= 1.589 af
Outflow = 19.13 cfs @ 12.11 hrs, Volume= 1.589 af, Atten= 0%, Lag= 0.0 min
Primary = 19.13 cfs @ 12.11 hrs, Volume= 1.589 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 306.60' @ 12.11 hrs

Flood Elev= 307.53'

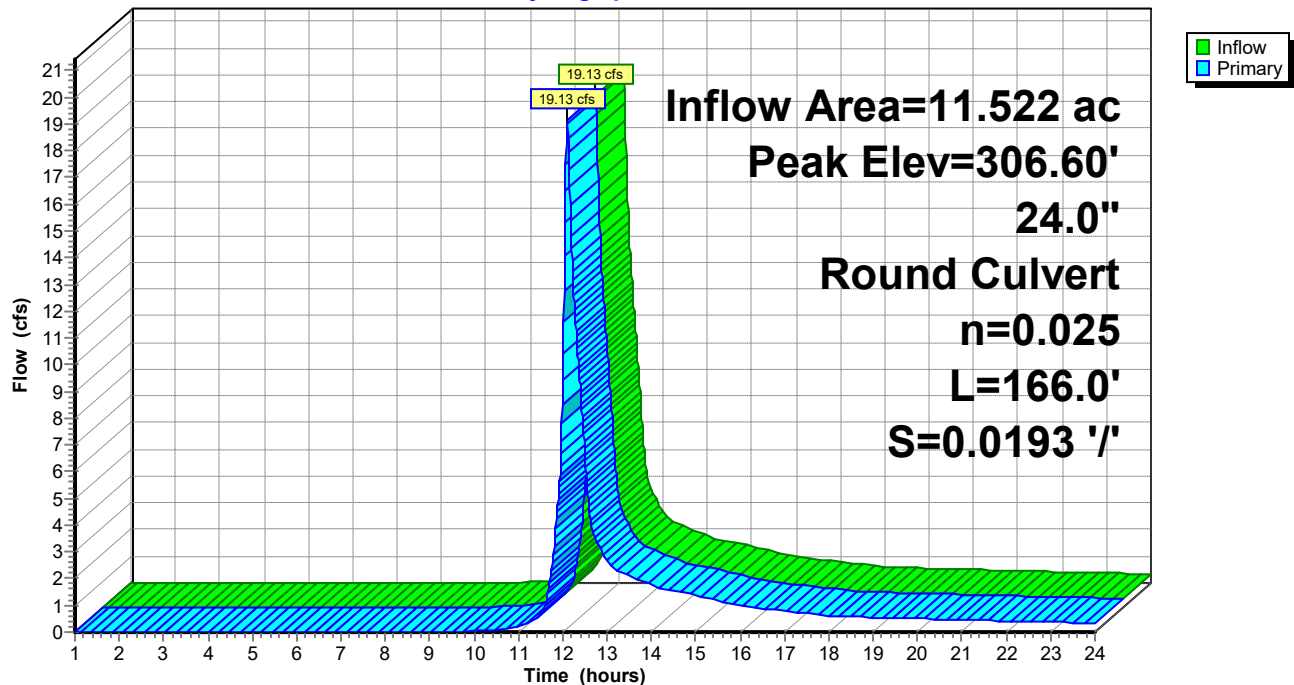
Device	Routing	Invert	Outlet Devices
#1	Primary	302.30'	24.0" Round CMP_Round 24" L= 166.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 302.30' / 299.10' S= 0.0193 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 3.14 sf

Primary OutFlow Max=19.10 cfs @ 12.11 hrs HW=306.58' (Free Discharge)

↑1=CMP_Round 24" (Barrel Controls 19.10 cfs @ 6.08 fps)

Pond 50P: MH-618

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 51P: MH-617

[81] Warning: Exceeded Pond 52P by 1.62' @ 12.11 hrs

[81] Warning: Exceeded Pond 53P by 0.58' @ 12.11 hrs

[79] Warning: Submerged Pond 54P Primary device # 1 INLET by 0.26'

Inflow Area = 11.522 ac, 13.73% Impervious, Inflow Depth > 1.65" for 10-yr event
Inflow = 19.13 cfs @ 12.11 hrs, Volume= 1.589 af
Outflow = 19.13 cfs @ 12.11 hrs, Volume= 1.589 af, Atten= 0%, Lag= 0.0 min
Primary = 19.13 cfs @ 12.11 hrs, Volume= 1.589 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 307.67' @ 12.11 hrs

Flood Elev= 310.23'

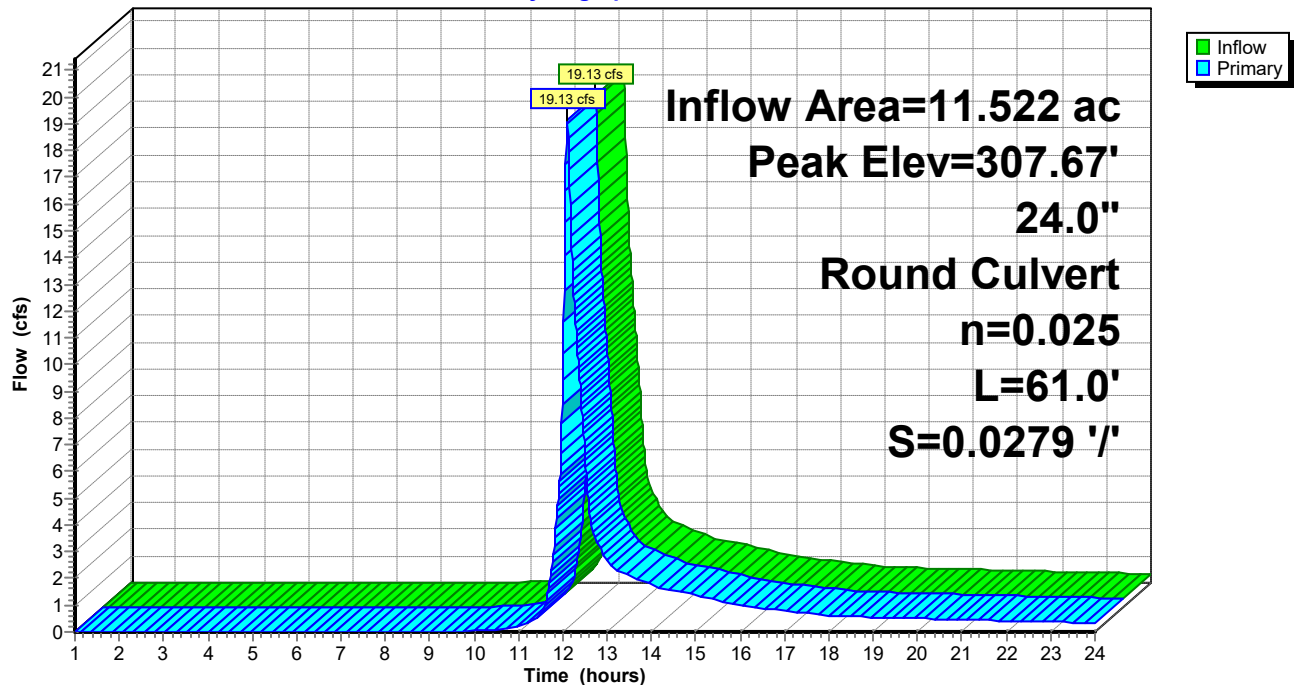
Device	Routing	Invert	Outlet Devices
#1	Primary	304.10'	24.0" Round CMP_Round 24" L= 61.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 304.10' / 302.40' S= 0.0279 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 3.14 sf

Primary OutFlow Max=19.10 cfs @ 12.11 hrs HW=307.66' (Free Discharge)

↑1=CMP_Round 24" (Inlet Controls 19.10 cfs @ 6.08 fps)

Pond 51P: MH-617

Hydrograph



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Summary for Pond 52P: CB-1663

[57] Hint: Peaked at 306.05' (Flood elevation advised)

Inflow Area = 0.440 ac, 27.27% Impervious, Inflow Depth > 2.22" for 10-yr event
Inflow = 1.13 cfs @ 12.09 hrs, Volume= 0.081 af
Outflow = 1.13 cfs @ 12.09 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min
Primary = 1.13 cfs @ 12.09 hrs, Volume= 0.081 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 306.05' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	305.30'	12.0" Round CMP_Round 12" L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 305.30' / 305.10' S= 0.0100 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf
#2	Secondary	310.92'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.13 cfs @ 12.09 hrs HW=306.05' (Free Discharge)

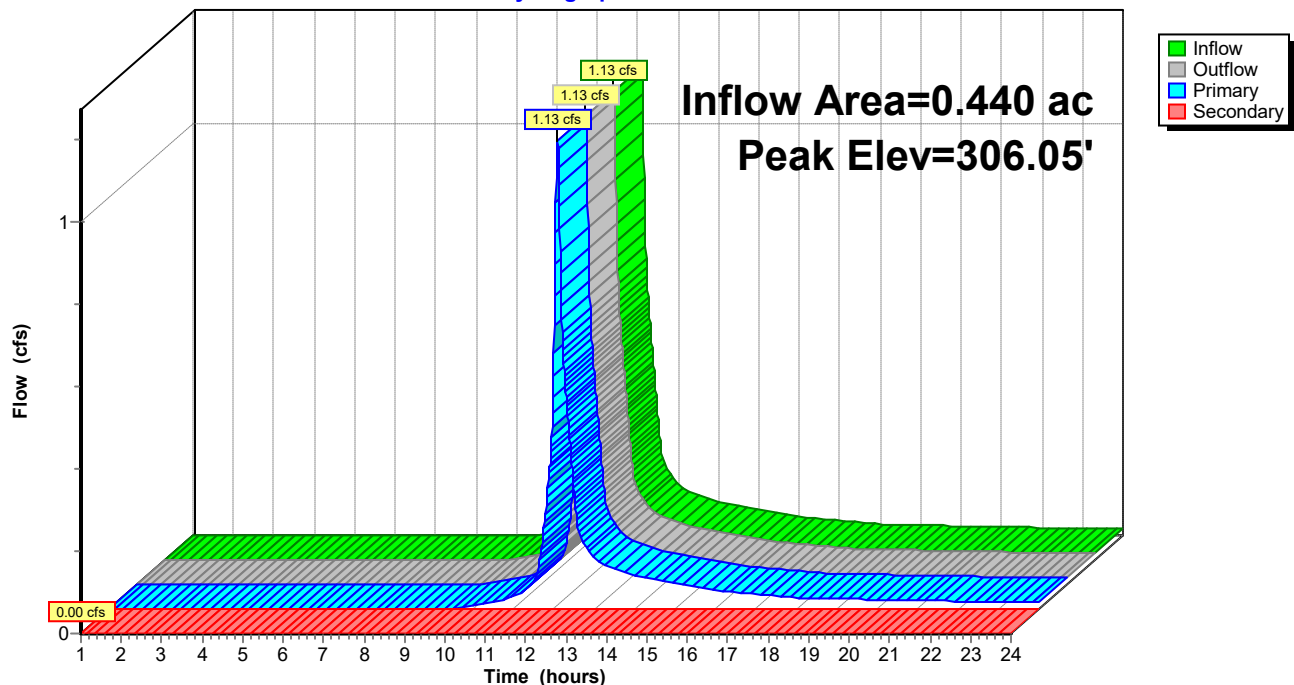
↑**1=CMP_Round 12"** (Barrel Controls 1.13 cfs @ 2.49 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=305.30' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 52P: CB-1663

Hydrograph



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Summary for Pond 53P: CB-1664

[57] Hint: Peaked at 307.12' (Flood elevation advised)

Inflow Area = 1.470 ac, 14.97% Impervious, Inflow Depth > 1.90" for 10-yr event
Inflow = 3.18 cfs @ 12.09 hrs, Volume= 0.233 af
Outflow = 3.18 cfs @ 12.09 hrs, Volume= 0.233 af, Atten= 0%, Lag= 0.0 min
Primary = 3.18 cfs @ 12.09 hrs, Volume= 0.233 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 307.12' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	305.30'	12.0" Round CMP_Round 12" L= 18.3' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 305.30' / 305.10' S= 0.0109 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf
#2	Secondary	310.01'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.17 cfs @ 12.09 hrs HW=307.12' (Free Discharge)

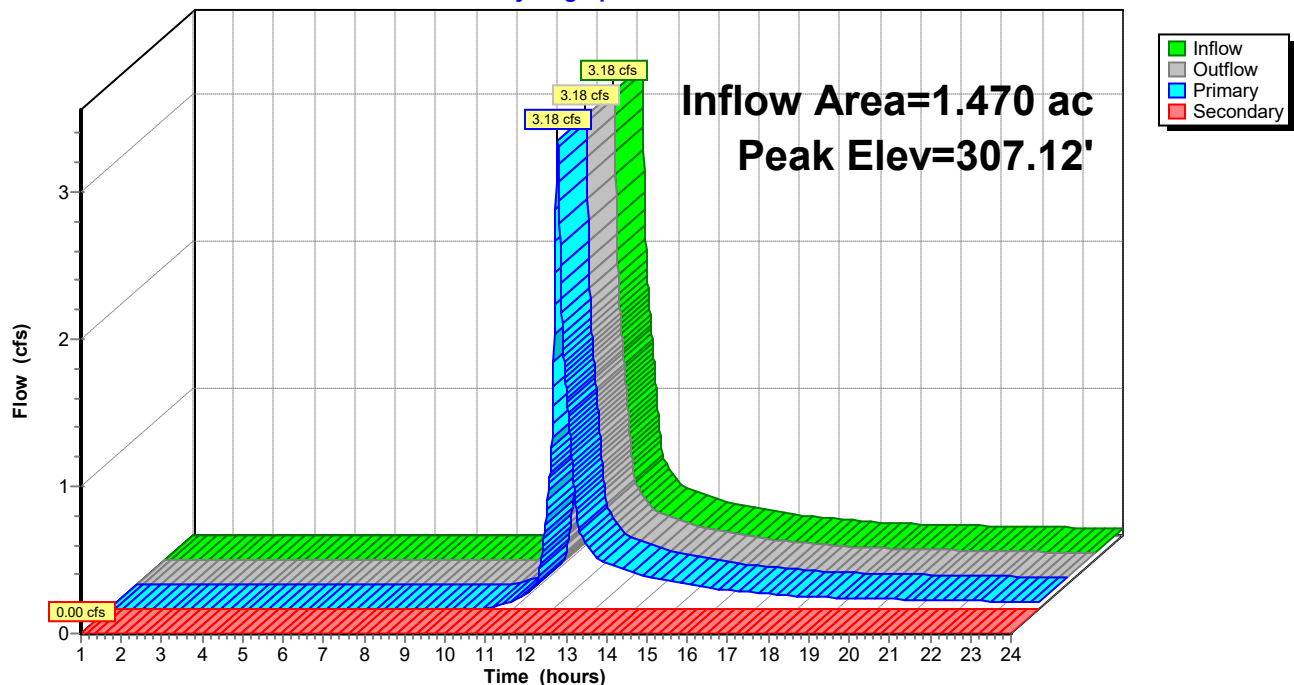
↑**1=CMP_Round 12"** (Barrel Controls 3.17 cfs @ 4.04 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=305.30' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 53P: CB-1664

Hydrograph



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Summary for Pond 54P: MH-616

[79] Warning: Submerged Pond 55P Primary device # 1 OUTLET by 2.15'

Inflow Area = 9.612 ac, 12.92% Impervious, Inflow Depth > 1.59" for 10-yr event
Inflow = 14.88 cfs @ 12.11 hrs, Volume= 1.275 af
Outflow = 14.88 cfs @ 12.11 hrs, Volume= 1.275 af, Atten= 0%, Lag= 0.0 min
Primary = 14.88 cfs @ 12.11 hrs, Volume= 1.275 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 309.95' @ 12.11 hrs

Flood Elev= 313.19'

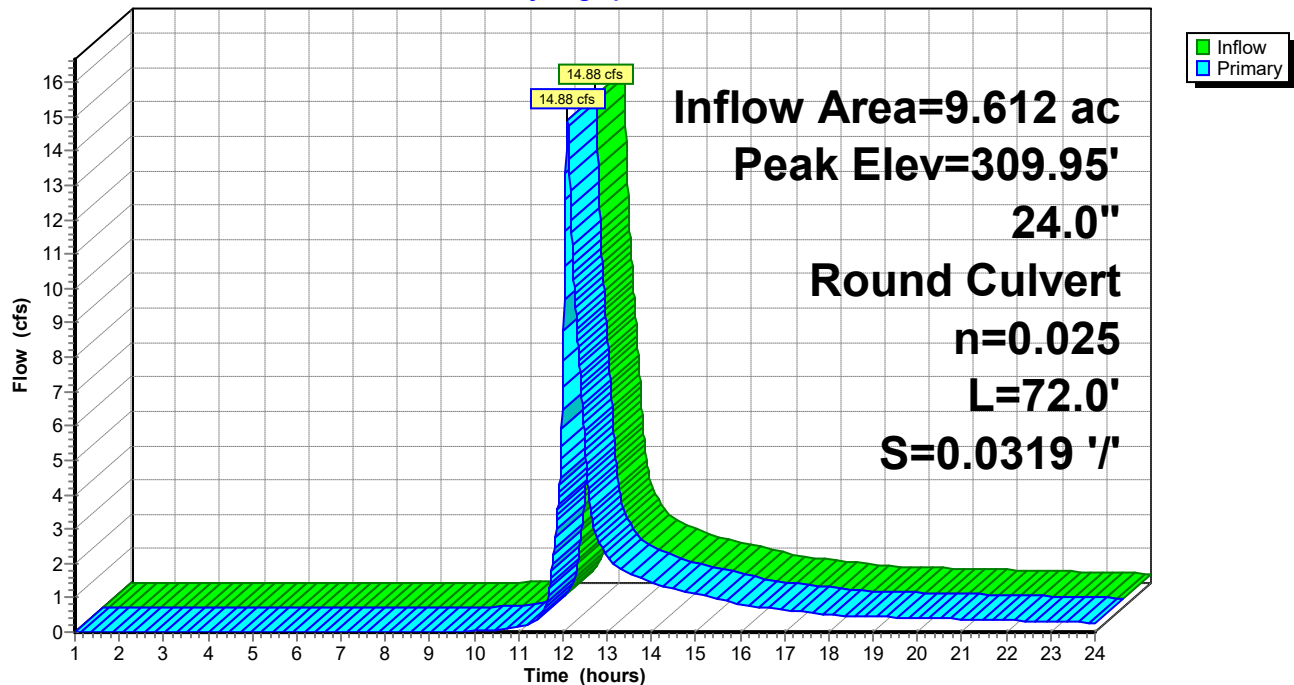
Device	Routing	Invert	Outlet Devices
#1	Primary	307.40'	24.0" Round CMP_Round 24" L= 72.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 307.40' / 305.10' S= 0.0319 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 3.14 sf

Primary OutFlow Max=14.88 cfs @ 12.11 hrs HW=309.95' (Free Discharge)

↑ **1=CMP_Round 24"** (Inlet Controls 14.88 cfs @ 4.74 fps)

Pond 54P: MH-616

Hydrograph



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Summary for Pond 55P: MH-615

[81] Warning: Exceeded Pond 56P by 0.65' @ 12.11 hrs

[81] Warning: Exceeded Pond 57P by 0.09' @ 12.11 hrs

[79] Warning: Submerged Pond 59P Primary device # 1 OUTLET by 1.45'

Inflow Area = 9.612 ac, 12.92% Impervious, Inflow Depth > 1.59" for 10-yr event
Inflow = 14.88 cfs @ 12.11 hrs, Volume= 1.275 af
Outflow = 14.88 cfs @ 12.11 hrs, Volume= 1.275 af, Atten= 0%, Lag= 0.0 min
Primary = 14.88 cfs @ 12.11 hrs, Volume= 1.275 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 313.35' @ 12.11 hrs

Flood Elev= 317.41'

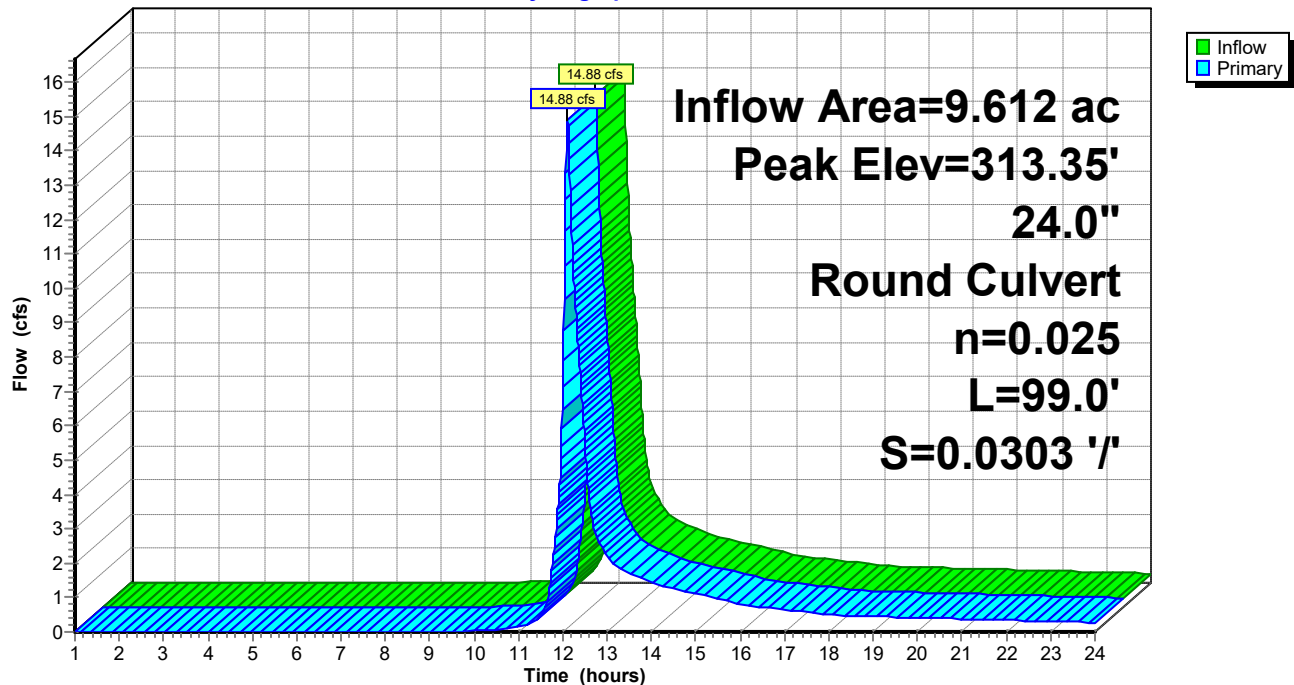
Device	Routing	Invert	Outlet Devices
#1	Primary	310.80'	24.0" Round CMP_Round 24" L= 99.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 310.80' / 307.80' S= 0.0303 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 3.14 sf

Primary OutFlow Max=14.88 cfs @ 12.11 hrs HW=313.35' (Free Discharge)

↑1=CMP_Round 24" (Inlet Controls 14.88 cfs @ 4.74 fps)

Pond 55P: MH-615

Hydrograph



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Summary for Pond 56P: MH-614

[79] Warning: Submerged Pond 58P Primary device # 1 INLET by 0.31'

Inflow Area = 0.340 ac, 29.41% Impervious, Inflow Depth > 2.30" for 10-yr event
Inflow = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af
Outflow = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af, Atten= 0%, Lag= 0.0 min
Primary = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 312.71' @ 12.09 hrs

Flood Elev= 318.31'

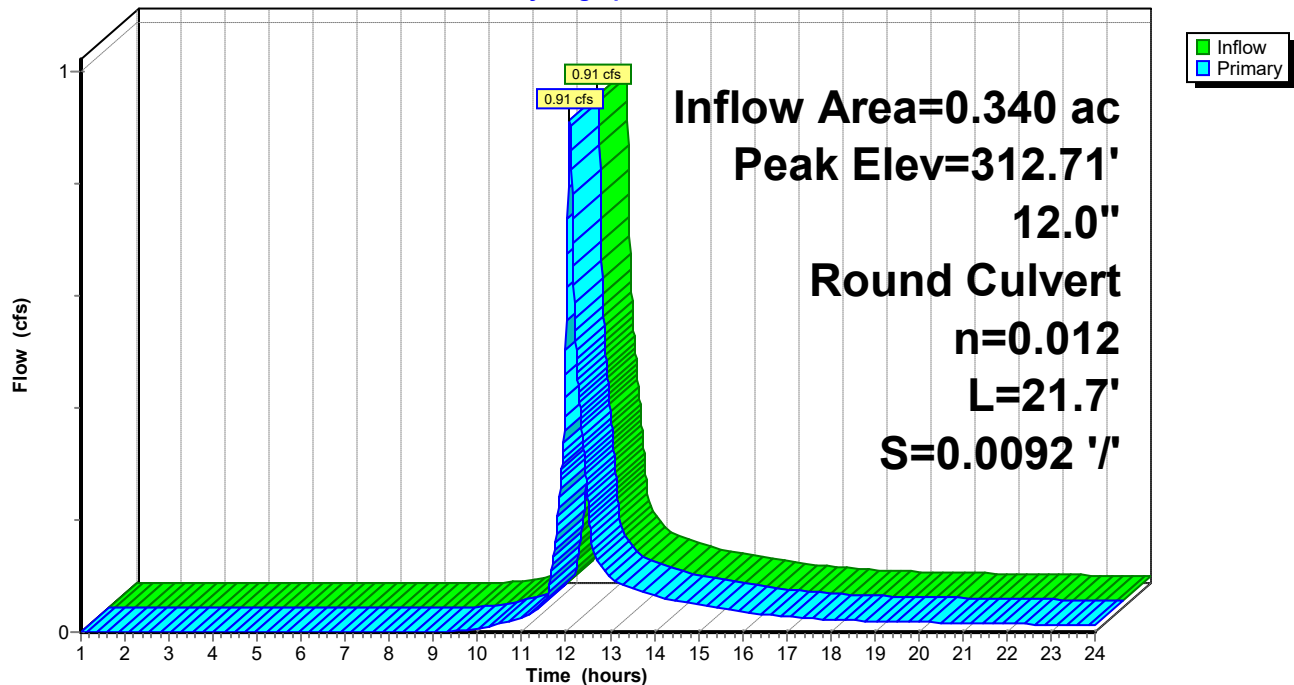
Device	Routing	Invert	Outlet Devices
#1	Primary	312.20'	12.0" Round RCP_Round 12" L= 21.7' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 312.20' / 312.00' S= 0.0092 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.91 cfs @ 12.09 hrs HW=312.71' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 0.91 cfs @ 3.29 fps)

Pond 56P: MH-614

Hydrograph



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Summary for Pond 57P: CB-1661

[57] Hint: Peaked at 313.26' (Flood elevation advised)

Inflow Area = 1.660 ac, 14.46% Impervious, Inflow Depth > 1.67" for 10-yr event
Inflow = 2.97 cfs @ 12.11 hrs, Volume= 0.231 af
Outflow = 2.97 cfs @ 12.11 hrs, Volume= 0.231 af, Atten= 0%, Lag= 0.0 min
Primary = 2.97 cfs @ 12.11 hrs, Volume= 0.231 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 313.26' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	312.20'	12.0" Round RCP_Round 12" L= 16.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 312.20' / 312.00' S= 0.0125 ' S= 0.0125 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	318.51'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.97 cfs @ 12.11 hrs HW=313.26' (Free Discharge)

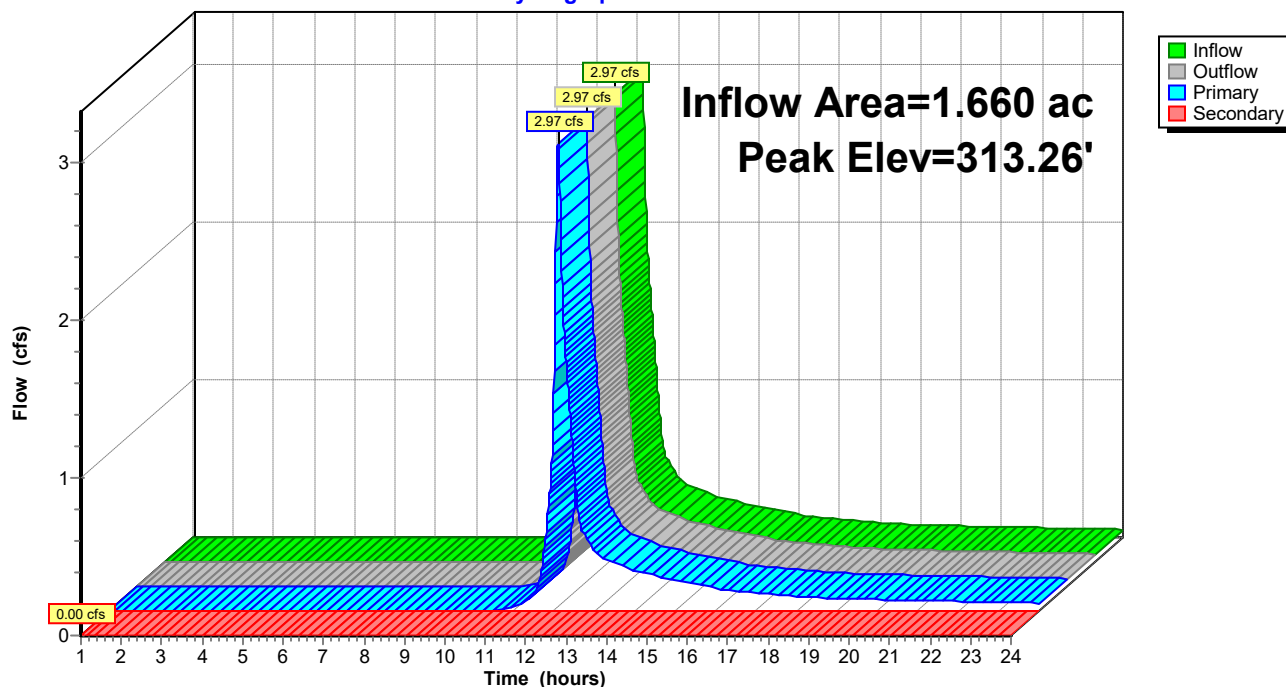
↑1=RCP_Round 12" (Barrel Controls 2.97 cfs @ 4.43 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=312.20' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 57P: CB-1661

Hydrograph



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Summary for Pond 58P: CB-1662

[57] Hint: Peaked at 313.43' (Flood elevation advised)

Inflow Area = 0.340 ac, 29.41% Impervious, Inflow Depth > 2.30" for 10-yr event
Inflow = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af
Outflow = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af, Atten= 0%, Lag= 0.0 min
Primary = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 313.43' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	312.40'	8.0" Round CMP_Round 8" L= 12.3' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 312.40' / 312.30' S= 0.0081 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.35 sf
#2	Secondary	318.61'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.91 cfs @ 12.09 hrs HW=313.43' (Free Discharge)

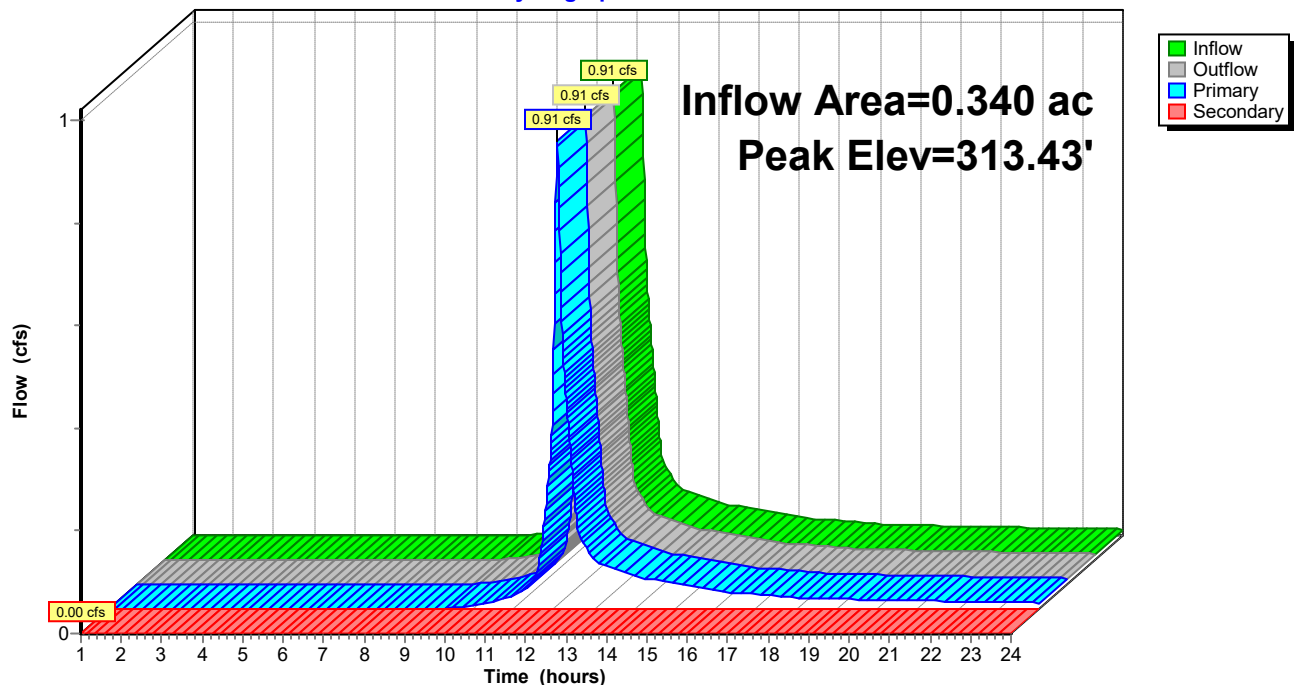
↑1=CMP_Round 8" (Barrel Controls 0.91 cfs @ 2.61 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=312.40' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 58P: CB-1662

Hydrograph



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Summary for Pond 59P: MH-613

Inflow Area = 7.612 ac, 11.85% Impervious, Inflow Depth > 1.54" for 10-yr event
Inflow = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af
Outflow = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af, Atten= 0%, Lag= 0.0 min
Primary = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 316.13' @ 12.11 hrs

Flood Elev= 323.82'

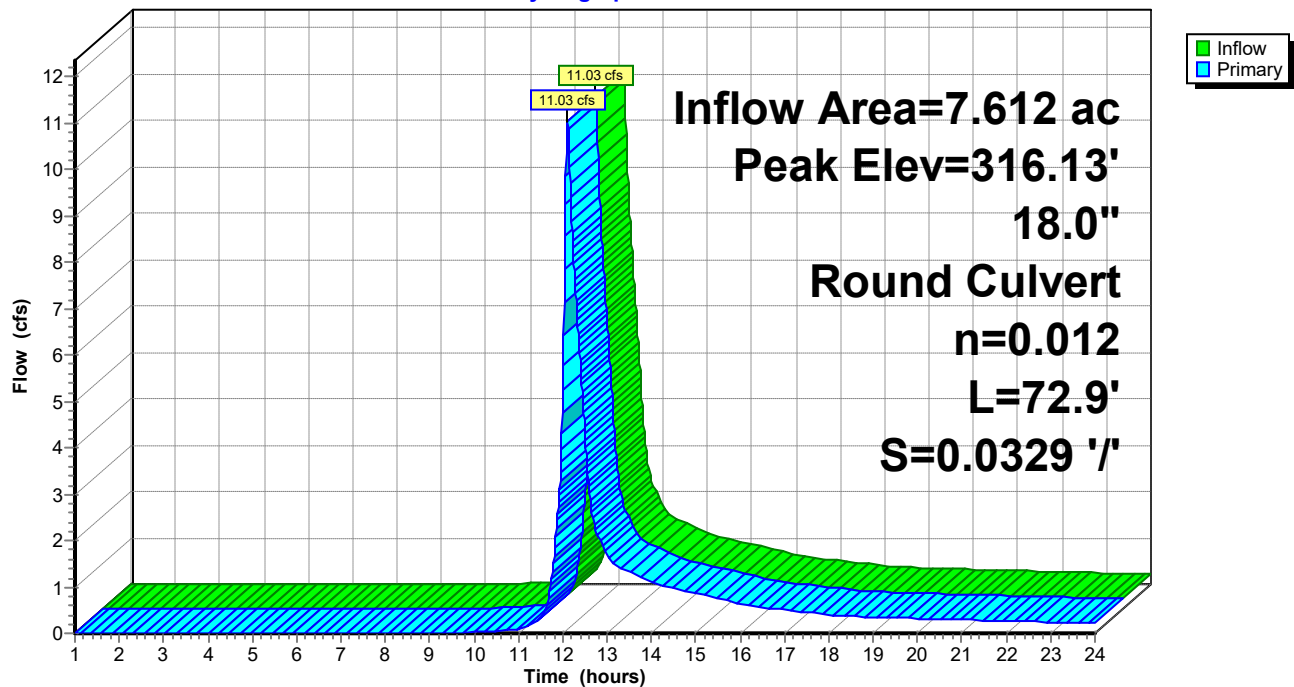
Device	Routing	Invert	Outlet Devices
#1	Primary	314.30'	18.0" Round RCP_Round 18" L= 72.9' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 314.30' / 311.90' S= 0.0329 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=11.02 cfs @ 12.11 hrs HW=316.12' (Free Discharge)

↑1=RCP_Round 18" (Inlet Controls 11.02 cfs @ 6.24 fps)

Pond 59P: MH-613

Hydrograph



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Summary for Pond 60P: MH-612

Inflow Area = 7.612 ac, 11.85% Impervious, Inflow Depth > 1.54" for 10-yr event
Inflow = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af
Outflow = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af, Atten= 0%, Lag= 0.0 min
Primary = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 322.63' @ 12.11 hrs

Flood Elev= 330.18'

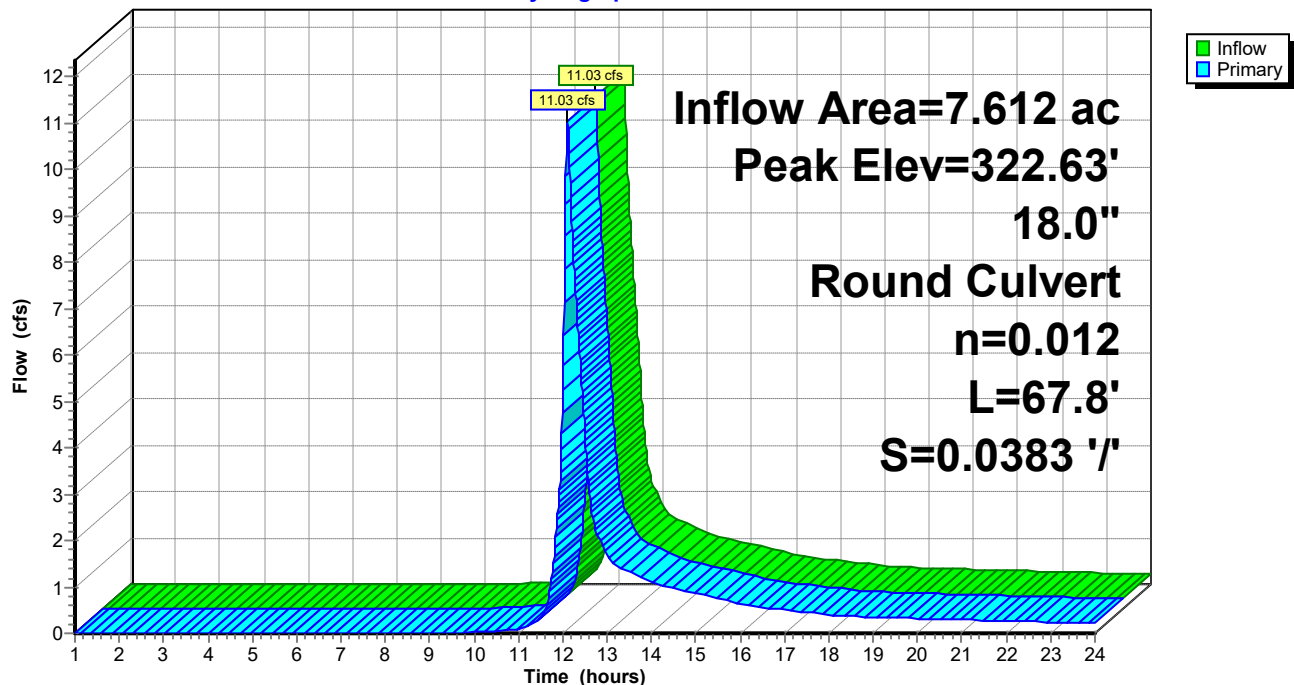
Device	Routing	Invert	Outlet Devices
#1	Primary	320.80'	18.0" Round RCP_Round 18" L= 67.8' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 320.80' / 318.20' S= 0.0383 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=11.02 cfs @ 12.11 hrs HW=322.62' (Free Discharge)

↑1=RCP_Round 18" (Inlet Controls 11.02 cfs @ 6.24 fps)

Pond 60P: MH-612

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 61P: MH-611

Inflow Area = 7.612 ac, 11.85% Impervious, Inflow Depth > 1.54" for 10-yr event
Inflow = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af
Outflow = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af, Atten= 0%, Lag= 0.0 min
Primary = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 330.13' @ 12.11 hrs

Flood Elev= 336.99'

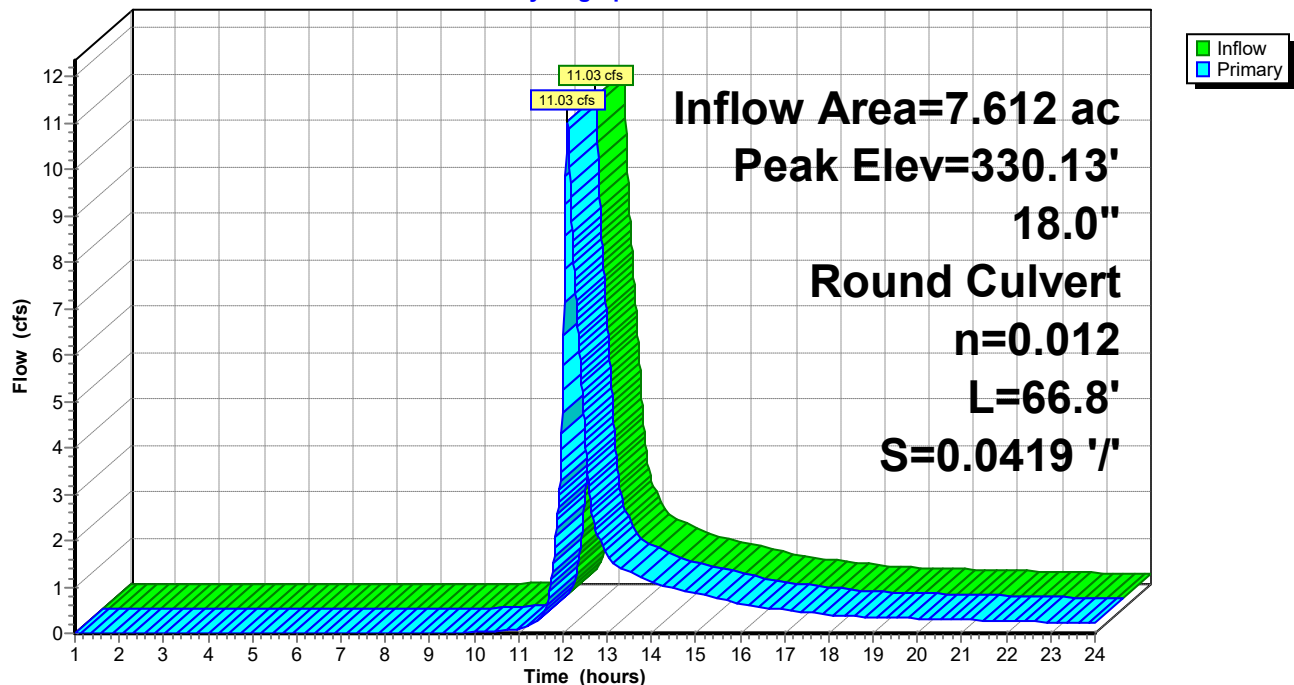
Device	Routing	Invert	Outlet Devices
#1	Primary	328.30'	18.0" Round RCP_Round 18" L= 66.8' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 328.30' / 325.50' S= 0.0419 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=11.02 cfs @ 12.11 hrs HW=330.12' (Free Discharge)

↑1=RCP_Round 18" (Inlet Controls 11.02 cfs @ 6.24 fps)

Pond 61P: MH-611

Hydrograph



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Summary for Pond 62P: MH-610

[79] Warning: Submerged Pond 63P Primary device # 1 INLET by 0.33'

Inflow Area = 0.330 ac, 27.27% Impervious, Inflow Depth > 2.22" for 10-yr event
Inflow = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af
Outflow = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min
Primary = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 333.33' @ 12.09 hrs

Flood Elev= 338.27'

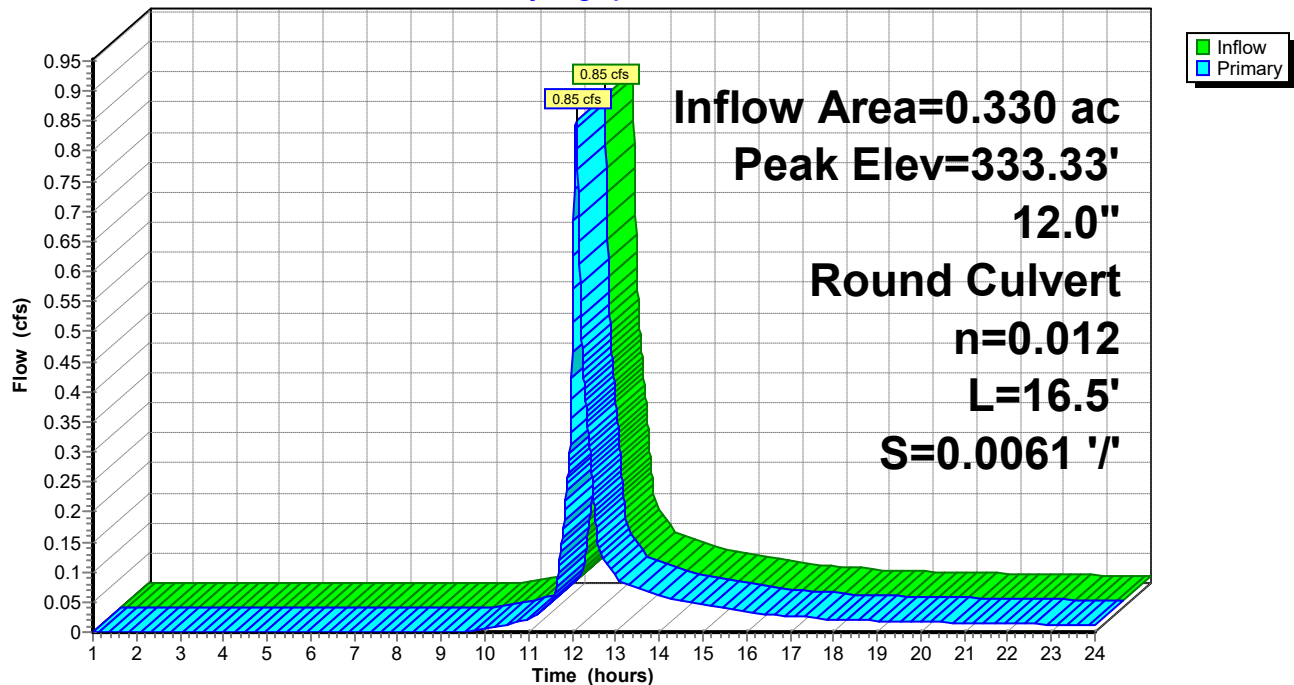
Device	Routing	Invert	Outlet Devices
#1	Primary	332.80'	12.0" Round RCP_Round 12" L= 16.5' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 332.80' / 332.70' S= 0.0061 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.85 cfs @ 12.09 hrs HW=333.33' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 0.85 cfs @ 2.93 fps)

Pond 62P: MH-610

Hydrograph



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Summary for Pond 63P: CB-655

[57] Hint: Peaked at 333.81' (Flood elevation advised)

Inflow Area = 0.330 ac, 27.27% Impervious, Inflow Depth > 2.22" for 10-yr event
Inflow = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af
Outflow = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min
Primary = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 333.81' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	333.00'	8.0" Round Culvert L= 6.7' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 333.00' / 332.90' S= 0.0149 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.35 sf
#2	Secondary	338.16'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

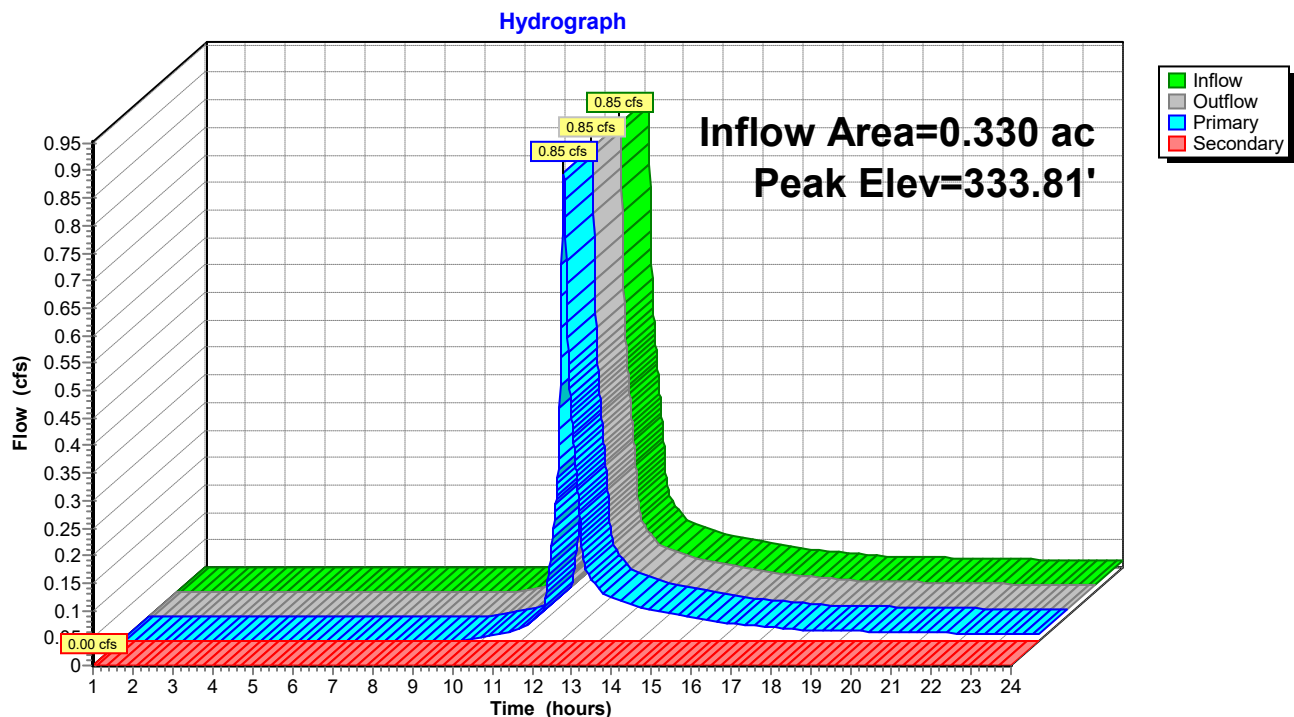
Primary OutFlow Max=0.85 cfs @ 12.09 hrs HW=333.81' (Free Discharge)

↑**1=Culvert** (Barrel Controls 0.85 cfs @ 2.56 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=333.00' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 63P: CB-655



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Summary for Pond 64P: CB-656

[57] Hint: Peaked at 333.80' (Flood elevation advised)

Inflow Area = 1.660 ac, 18.07% Impervious, Inflow Depth > 1.74" for 10-yr event
Inflow = 2.43 cfs @ 12.22 hrs, Volume= 0.241 af
Outflow = 2.43 cfs @ 12.22 hrs, Volume= 0.241 af, Atten= 0%, Lag= 0.0 min
Primary = 2.43 cfs @ 12.22 hrs, Volume= 0.241 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 333.80' @ 12.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	332.80'	12.0" Round RCP_Round 12" L= 16.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 332.80' / 332.70' S= 0.0063 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	337.64'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.43 cfs @ 12.22 hrs HW=333.80' (Free Discharge)

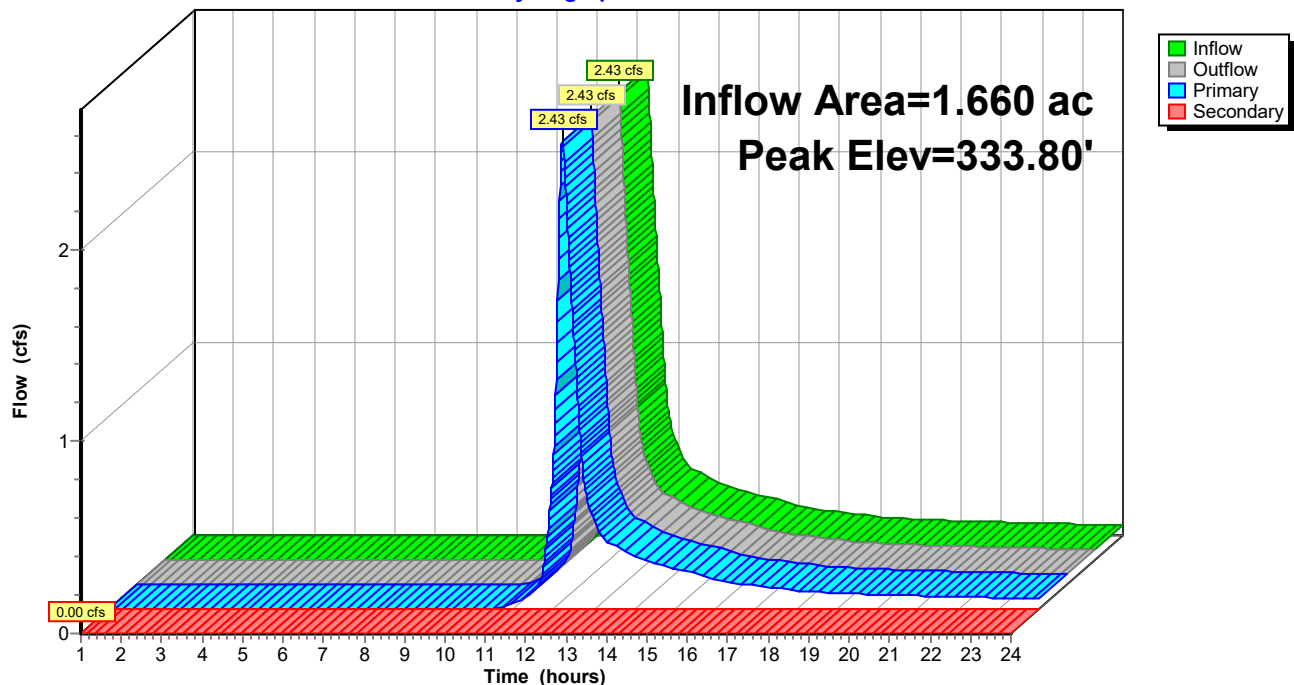
↑1=RCP_Round 12" (Barrel Controls 2.43 cfs @ 3.84 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=332.80' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 64P: CB-656

Hydrograph



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Summary for Pond 65P: MH-609

Inflow Area = 5.622 ac, 9.11% Impervious, Inflow Depth > 1.44" for 10-yr event
Inflow = 8.50 cfs @ 12.10 hrs, Volume= 0.677 af
Outflow = 8.50 cfs @ 12.10 hrs, Volume= 0.677 af, Atten= 0%, Lag= 0.0 min
Primary = 8.50 cfs @ 12.10 hrs, Volume= 0.677 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 338.08' @ 12.10 hrs

Flood Elev= 345.65'

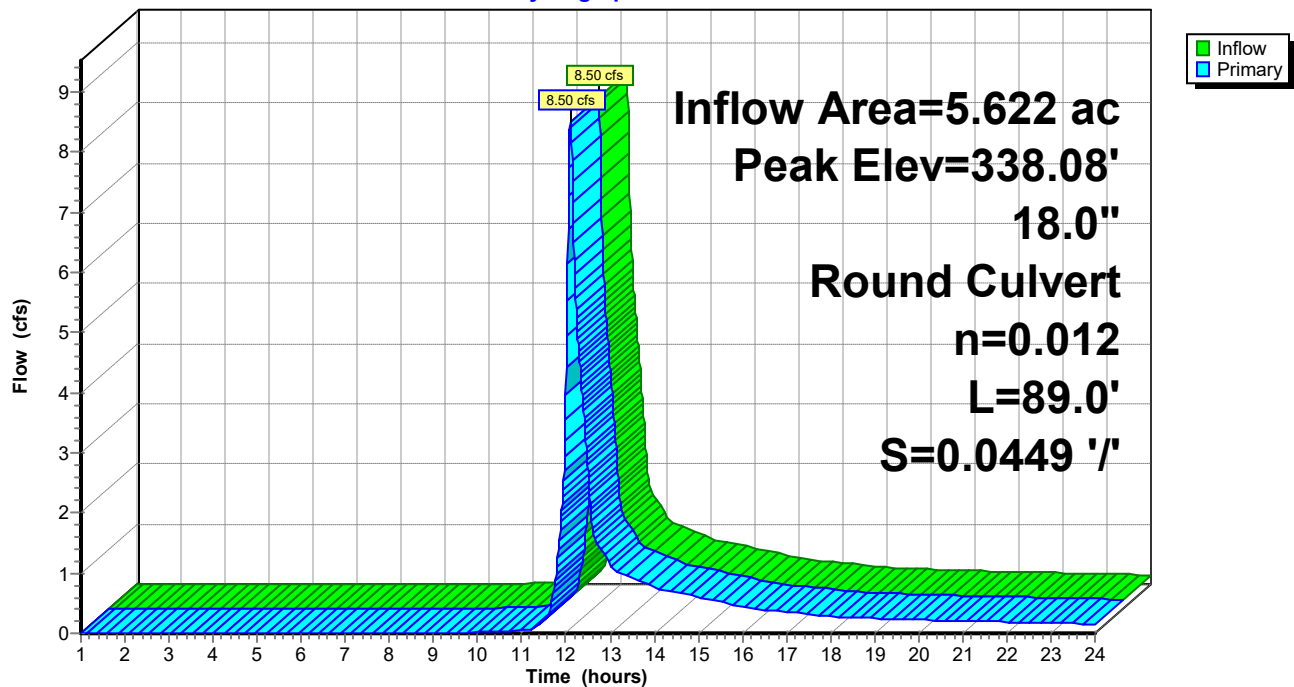
Device	Routing	Invert	Outlet Devices
#1	Primary	336.70'	18.0" Round RCP_Round 18" L= 89.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 336.70' / 332.70' S= 0.0449 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=8.50 cfs @ 12.10 hrs HW=338.08' (Free Discharge)

↑1=RCP_Round 18" (Inlet Controls 8.50 cfs @ 5.00 fps)

Pond 65P: MH-609

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 66P: MH-608

[79] Warning: Submerged Pond 69P Primary device # 1 OUTLET by 0.16'

[79] Warning: Submerged Pond 70P Primary device # 1 OUTLET by 0.16'

Inflow Area = 5.622 ac, 9.11% Impervious, Inflow Depth > 1.44" for 10-yr event
Inflow = 8.50 cfs @ 12.10 hrs, Volume= 0.677 af
Outflow = 8.50 cfs @ 12.10 hrs, Volume= 0.677 af, Atten= 0%, Lag= 0.0 min
Primary = 8.50 cfs @ 12.10 hrs, Volume= 0.677 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 351.29' @ 12.10 hrs

Flood Elev= 356.43'

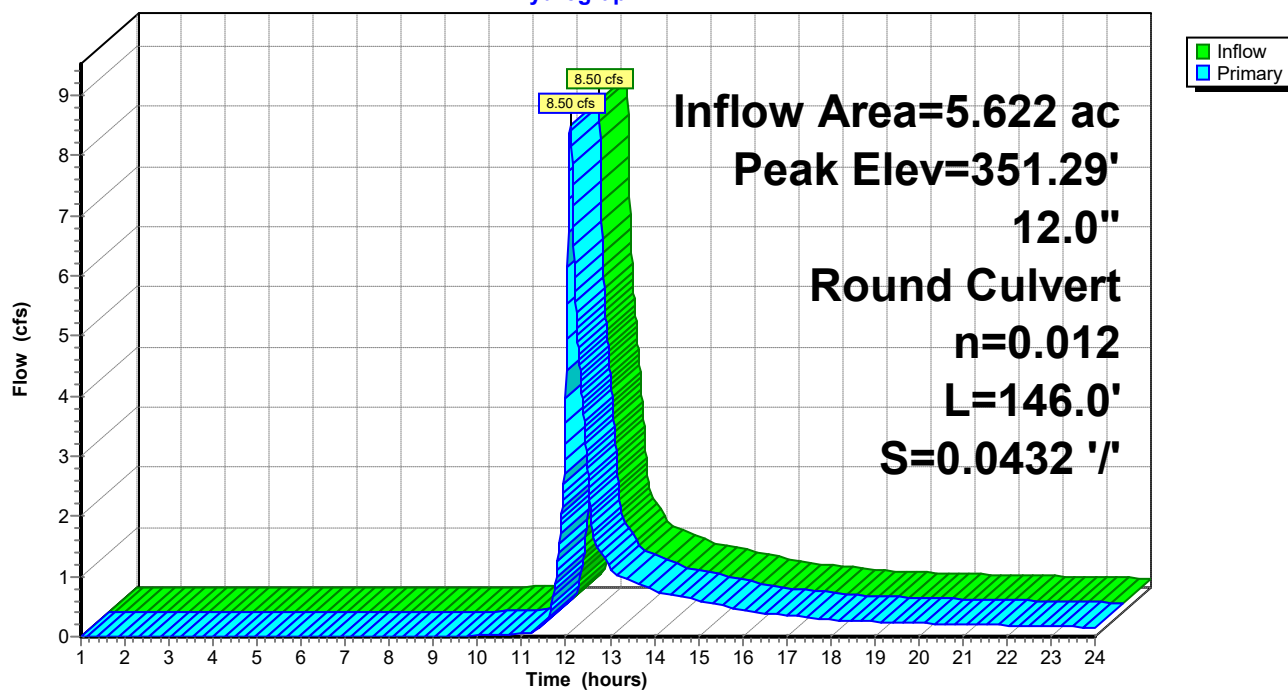
Device	Routing	Invert	Outlet Devices
#1	Primary	347.30'	12.0" Round RCP_Round 12" L= 146.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 347.30' / 341.00' S= 0.0432 ' S= 0.0432 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=8.49 cfs @ 12.10 hrs HW=351.26' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 8.49 cfs @ 10.81 fps)

Pond 66P: MH-608

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 67P: CB-654

[57] Hint: Peaked at 353.57' (Flood elevation advised)

Inflow Area = 3.820 ac, 5.76% Impervious, Inflow Depth > 1.31" for 10-yr event
Inflow = 5.10 cfs @ 12.11 hrs, Volume= 0.418 af
Outflow = 5.10 cfs @ 12.11 hrs, Volume= 0.418 af, Atten= 0%, Lag= 0.0 min
Primary = 5.10 cfs @ 12.11 hrs, Volume= 0.418 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 353.57' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	351.70'	12.0" Round RCP_Round 12" L= 10.6' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 351.70' / 351.60' S= 0.0094 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	356.49'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=5.09 cfs @ 12.11 hrs HW=353.57' (Free Discharge)

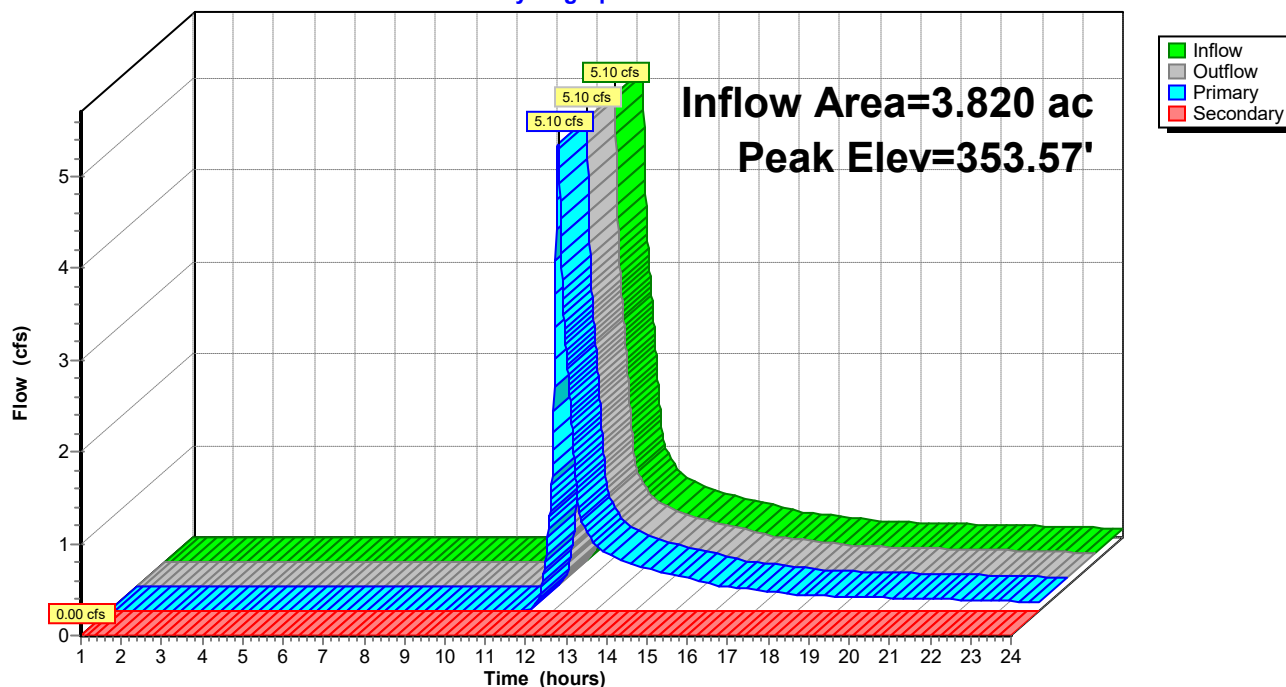
↑1=RCP_Round 12" (Barrel Controls 5.09 cfs @ 6.48 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=351.70' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 67P: CB-654

Hydrograph



Linwood Street Drainage - Existing

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Summary for Pond 69P: CB-653

[57] Hint: Peaked at 351.71' (Flood elevation advised)

Inflow Area = 0.182 ac, 17.58% Impervious, Inflow Depth > 1.98" for 10-yr event
Inflow = 0.41 cfs @ 12.09 hrs, Volume= 0.030 af
Outflow = 0.41 cfs @ 12.09 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 min
Primary = 0.41 cfs @ 12.09 hrs, Volume= 0.030 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 351.71' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	351.40'	12.0" Round RCP_Round 12" L= 27.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 351.40' / 351.10' S= 0.0111 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	356.63'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.41 cfs @ 12.09 hrs HW=351.71' (Free Discharge)

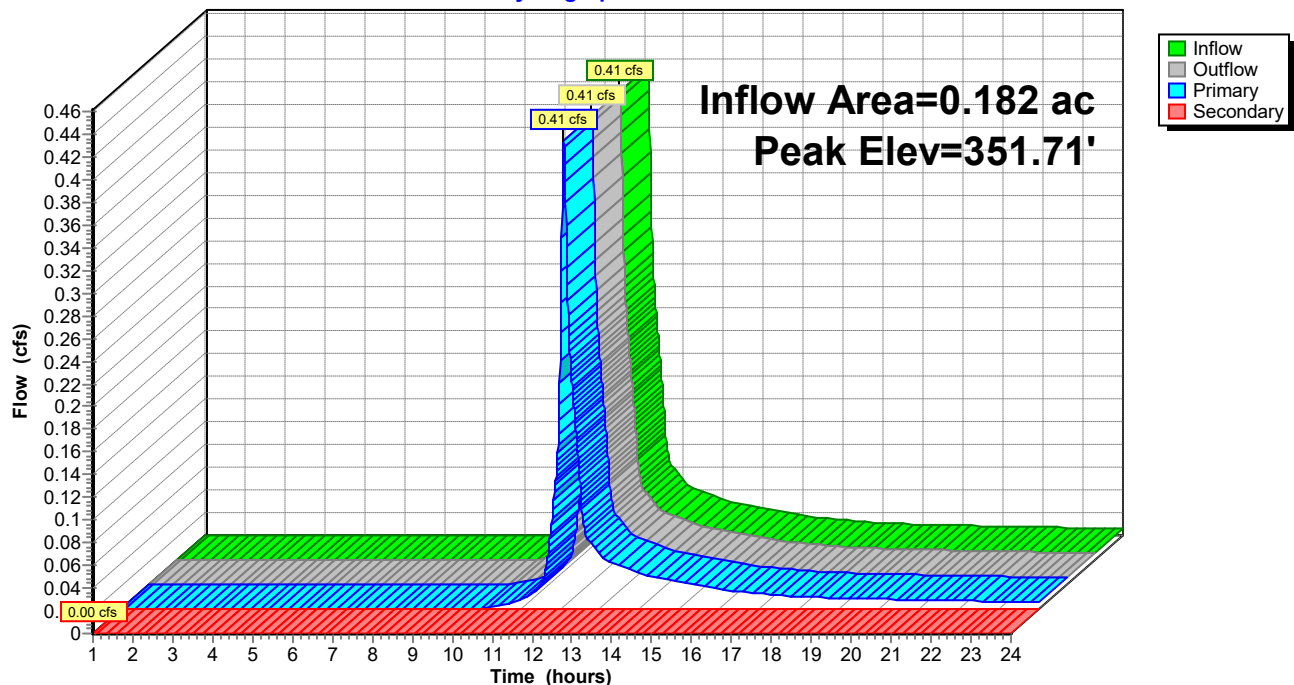
↑**1=RCP_Round 12"** (Barrel Controls 0.41 cfs @ 2.95 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=351.40' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 69P: CB-653

Hydrograph



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Summary for Pond 70P: MH-449

[81] Warning: Exceeded Pond 71P by 0.22' @ 12.10 hrs

[79] Warning: Submerged Pond 72P Primary device # 1 INLET by 0.71'

Inflow Area = 1.620 ac, 16.05% Impervious, Inflow Depth > 1.70" for 10-yr event
Inflow = 3.03 cfs @ 12.10 hrs, Volume= 0.229 af
Outflow = 3.03 cfs @ 12.10 hrs, Volume= 0.229 af, Atten= 0%, Lag= 0.0 min
Primary = 3.03 cfs @ 12.10 hrs, Volume= 0.229 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 357.01' @ 12.10 hrs

Flood Elev= 360.55'

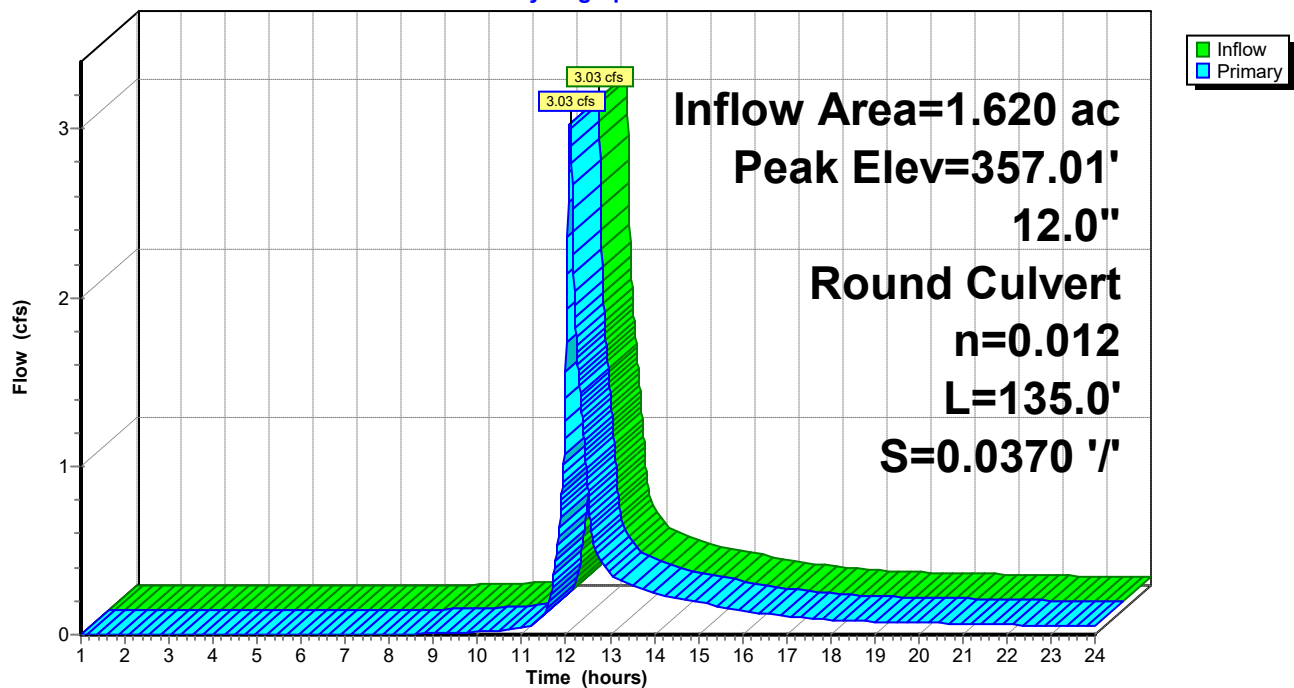
Device	Routing	Invert	Outlet Devices
#1	Primary	356.10'	12.0" Round RCP_Round 12" L= 135.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 356.10' / 351.10' S= 0.0370 ' S= 0.0370 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=3.03 cfs @ 12.10 hrs HW=357.01' (Free Discharge)

↑1=RCP_Round 12" (Inlet Controls 3.03 cfs @ 4.05 fps)

Pond 70P: MH-449

Hydrograph



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Summary for Pond 71P: MH-448

[79] Warning: Submerged Pond 73P Primary device # 1 INLET by 0.29'

Inflow Area = 0.270 ac, 48.15% Impervious, Inflow Depth > 2.92" for 10-yr event
Inflow = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af
Outflow = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.0 min
Primary = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 356.79' @ 12.09 hrs

Flood Elev= 361.12'

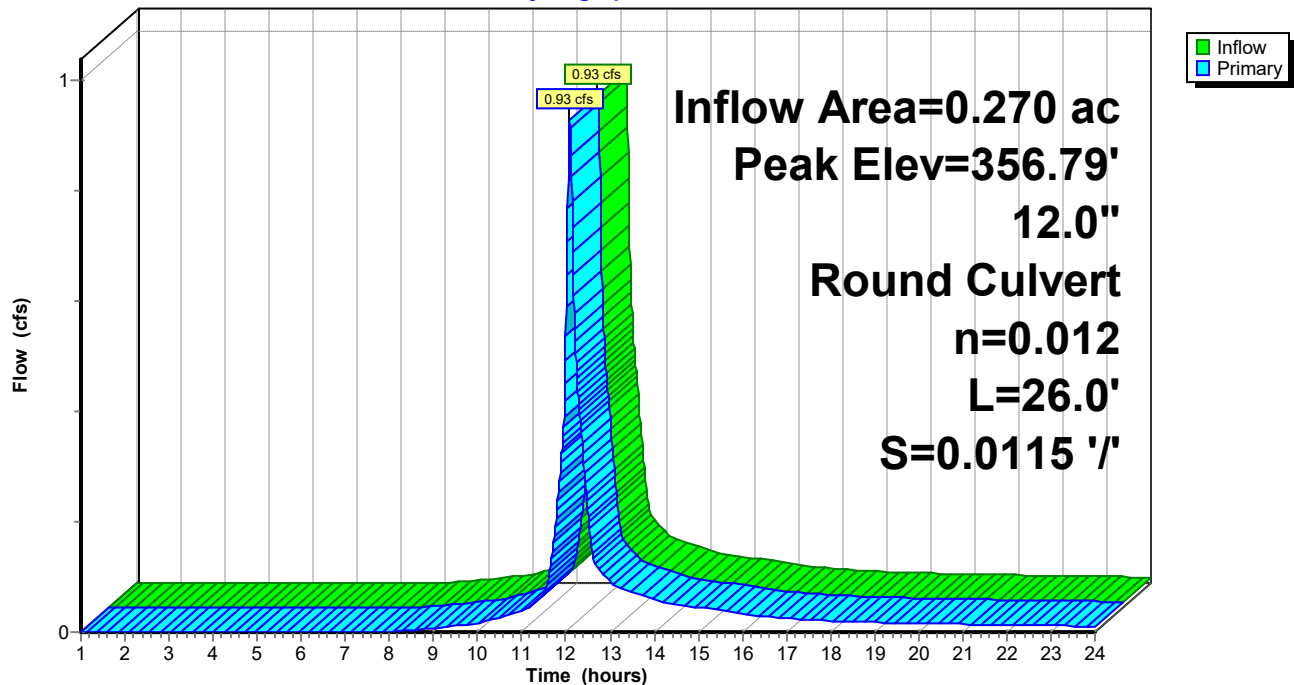
Device	Routing	Invert	Outlet Devices
#1	Primary	356.30'	12.0" Round RCP_Round 12" L= 26.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 356.30' / 356.00' S= 0.0115 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.92 cfs @ 12.09 hrs HW=356.79' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 0.92 cfs @ 3.56 fps)

Pond 71P: MH-448

Hydrograph



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Summary for Pond 72P: CB-652

[57] Hint: Peaked at 357.13' (Flood elevation advised)

Inflow Area = 1.350 ac, 9.63% Impervious, Inflow Depth > 1.45" for 10-yr event
Inflow = 2.11 cfs @ 12.10 hrs, Volume= 0.163 af
Outflow = 2.11 cfs @ 12.10 hrs, Volume= 0.163 af, Atten= 0%, Lag= 0.0 min
Primary = 2.11 cfs @ 12.10 hrs, Volume= 0.163 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 357.13' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	356.30'	12.0" Round RCP_Round 12" L= 16.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 356.30' / 356.10' S= 0.0125 ' S= 0.0125 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	360.82'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

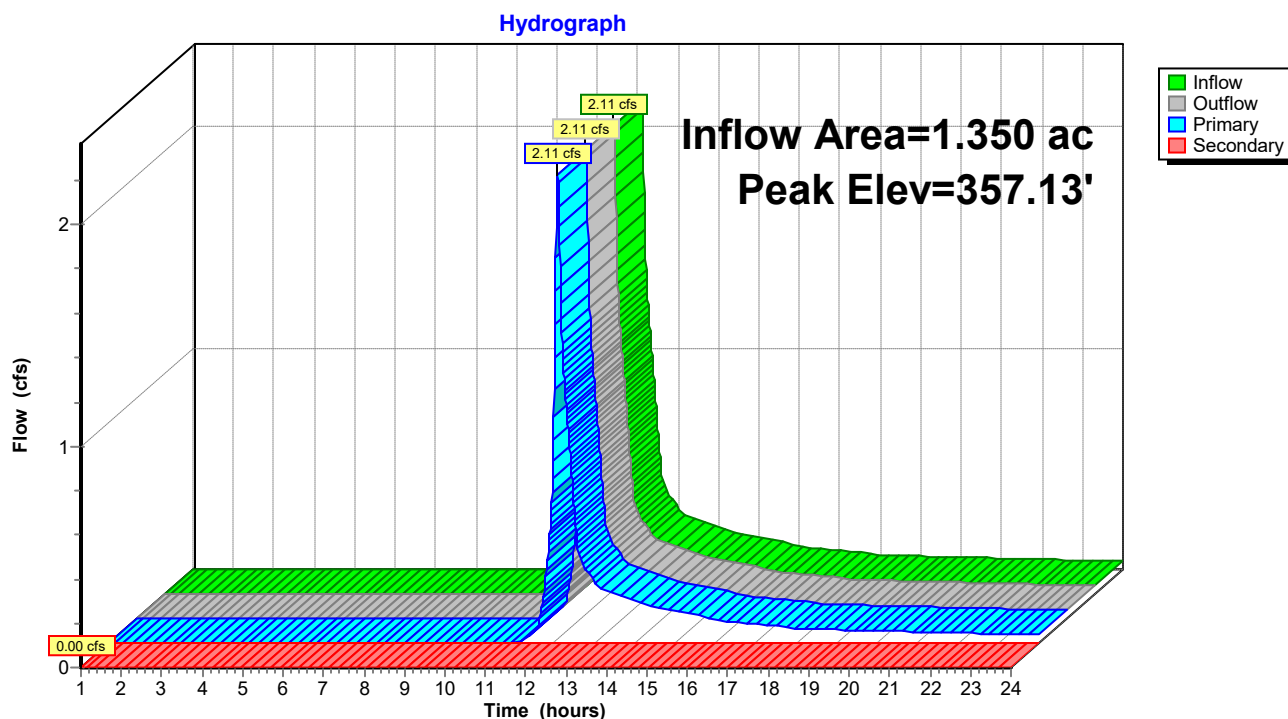
Primary OutFlow Max=2.11 cfs @ 12.10 hrs HW=357.13' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 2.11 cfs @ 4.10 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=356.30' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 72P: CB-652



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Summary for Pond 73P: CB-651

[57] Hint: Peaked at 357.39' (Flood elevation advised)

Inflow Area = 0.270 ac, 48.15% Impervious, Inflow Depth > 2.92" for 10-yr event
Inflow = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af
Outflow = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.0 min
Primary = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 357.39' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	356.50'	8.0" Round CMP_Round 8" L= 6.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 356.50' / 356.40' S= 0.0167 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.35 sf
#2	Secondary	360.84'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

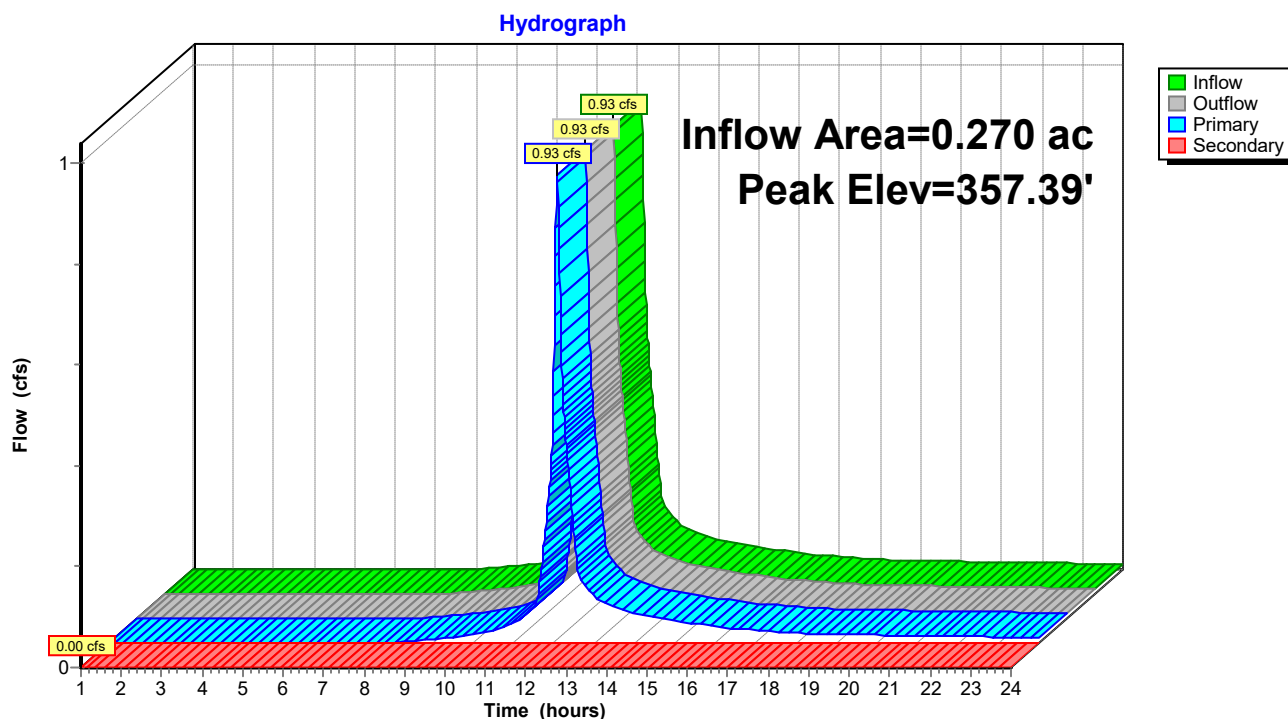
Primary OutFlow Max=0.91 cfs @ 12.09 hrs HW=357.39' (Free Discharge)

↑1=CMP_Round 8" (Barrel Controls 0.91 cfs @ 2.60 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=356.50' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 73P: CB-651



Linwood Street Drainage - Existing

Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 94P: BASIN

[79] Warning: Submerged Pond 33P Primary device # 1 INLET by 0.31'

[81] Warning: Exceeded Pond 47P by 0.54' @ 12.84 hrs

Inflow Area = 23.294 ac, 15.04% Impervious, Inflow Depth > 1.67" for 10-yr event
 Inflow = 40.79 cfs @ 12.10 hrs, Volume= 3.242 af
 Outflow = 7.83 cfs @ 12.64 hrs, Volume= 2.948 af, Atten= 81%, Lag= 32.5 min
 Primary = 7.83 cfs @ 12.64 hrs, Volume= 2.948 af
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 300.41' @ 12.64 hrs Surf.Area= 13,792 sf Storage= 50,660 cf
 Flood Elev= 302.60' Surf.Area= 18,030 sf Storage= 84,156 cf

Plug-Flow detention time= 110.1 min calculated for 2.947 af (91% of inflow)
 Center-of-Mass det. time= 65.6 min (925.0 - 859.5)

Volume	Invert	Avail.Storage	Storage Description
#1	296.00'	84,156 cf	Custom Stage Data (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
296.00	9,365	541.3	0	0	9,365
298.00	11,248	597.1	20,584	20,584	14,547
300.00	13,347	689.0	24,565	45,149	24,040
302.00	15,607	703.7	28,925	74,074	26,183
302.60	18,030	724.1	10,082	84,156	28,540

Device	Routing	Invert	Outlet Devices
#1	Primary	296.90'	12.0" Round RCP_Round 12" L= 40.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 295.80' / 296.90' S= -0.0275 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	302.60'	48.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=7.83 cfs @ 12.64 hrs HW=300.41' (Free Discharge)↑ **1=RCP_Round 12"** (Outlet Controls 7.83 cfs @ 9.97 fps)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=296.00' (Free Discharge)↑ **2=Orifice/Grate** (Controls 0.00 cfs)

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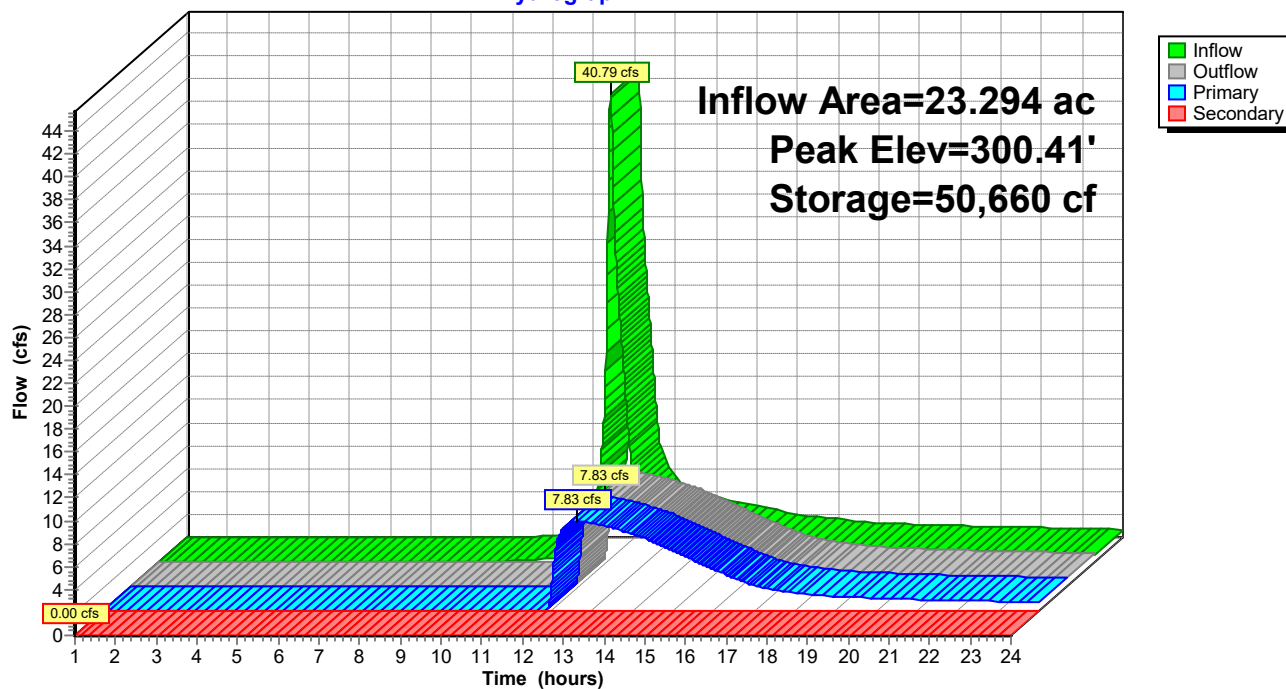
Type III 24-hr 10-yr Rainfall=5.14"

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Pond 94P: BASIN

Hydrograph



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Summary for Pond 95P: IN-38

[57] Hint: Peaked at 294.22' (Flood elevation advised)

Inflow Area = 24.224 ac, 14.80% Impervious, Inflow Depth > 1.52" for 10-yr event
Inflow = 8.20 cfs @ 12.49 hrs, Volume= 3.060 af
Outflow = 8.20 cfs @ 12.49 hrs, Volume= 3.060 af, Atten= 0%, Lag= 0.0 min
Primary = 8.20 cfs @ 12.49 hrs, Volume= 3.060 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

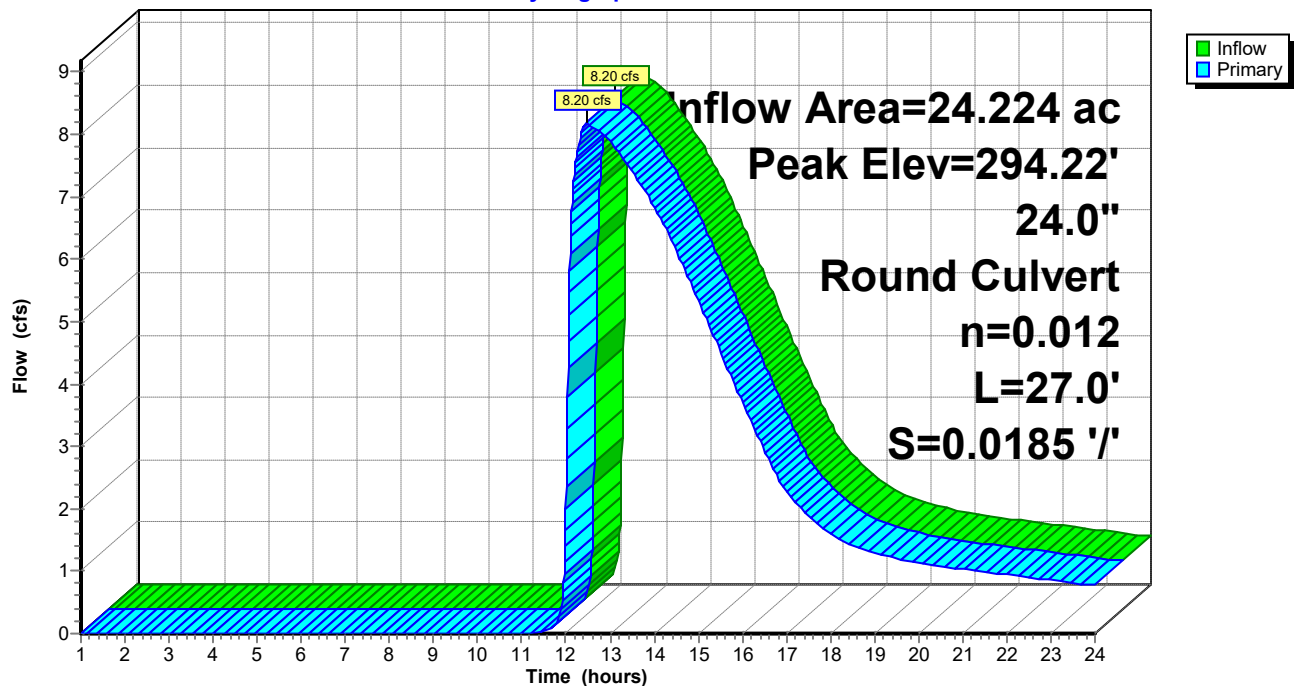
Peak Elev= 294.22' @ 12.49 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	293.00'	24.0" Round RCP_Round 24" L= 27.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 293.00' / 292.50' S= 0.0185 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=8.20 cfs @ 12.49 hrs HW=294.22' (Free Discharge)
↑1=RCP_Round 24" (Barrel Controls 8.20 cfs @ 5.86 fps)

Pond 95P: IN-38

Hydrograph



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Summary for Pond 96P: CB-X

[57] Hint: Peaked at 267.60' (Flood elevation advised)

Inflow Area = 1.910 ac, 48.69% Impervious, Inflow Depth > 4.13" for 10-yr event
Inflow = 16.66 cfs @ 12.11 hrs, Volume= 0.657 af
Outflow = 16.66 cfs @ 12.11 hrs, Volume= 0.657 af, Atten= 0%, Lag= 0.0 min
Primary = 4.62 cfs @ 12.11 hrs, Volume= 0.474 af
Secondary = 12.04 cfs @ 12.11 hrs, Volume= 0.183 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 267.60' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	264.70'	12.0" Round 12" HDPE L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 264.70' / 264.50' S= 0.0111 ' S= 0.0111 ' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Secondary	267.00'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

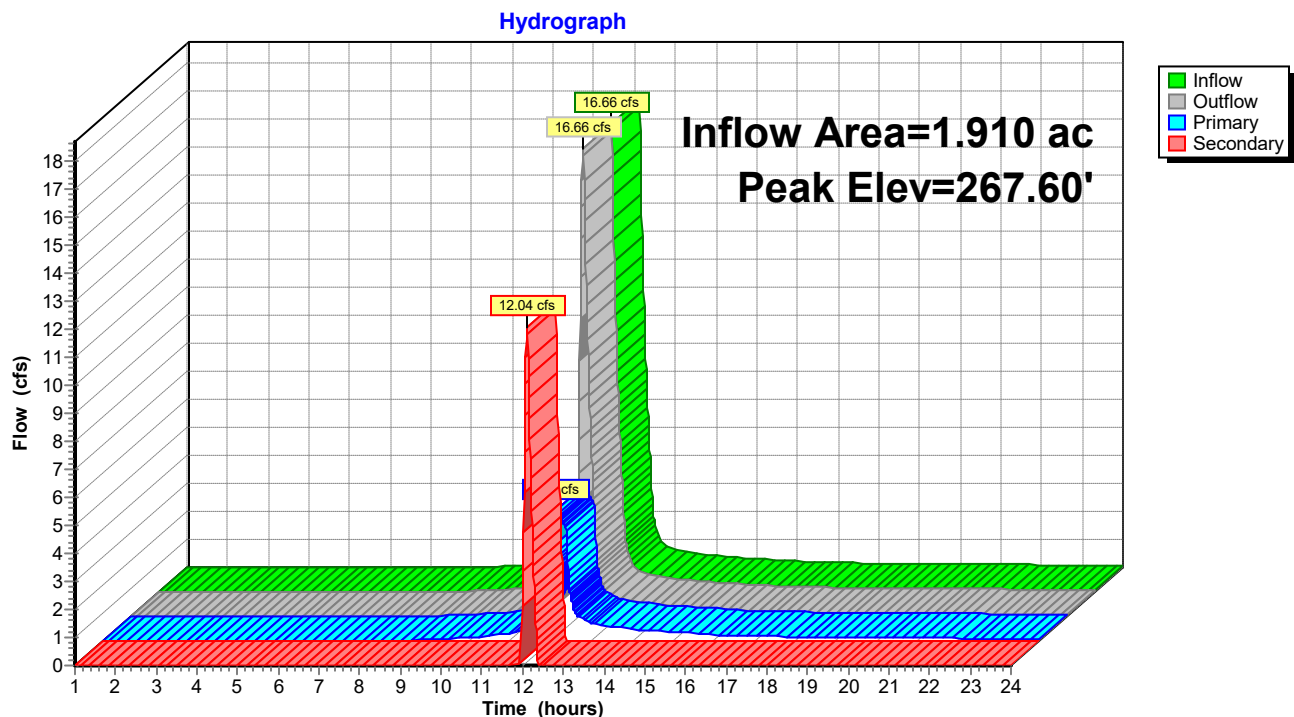
Primary OutFlow Max=4.62 cfs @ 12.11 hrs HW=267.60' (Free Discharge)

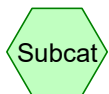
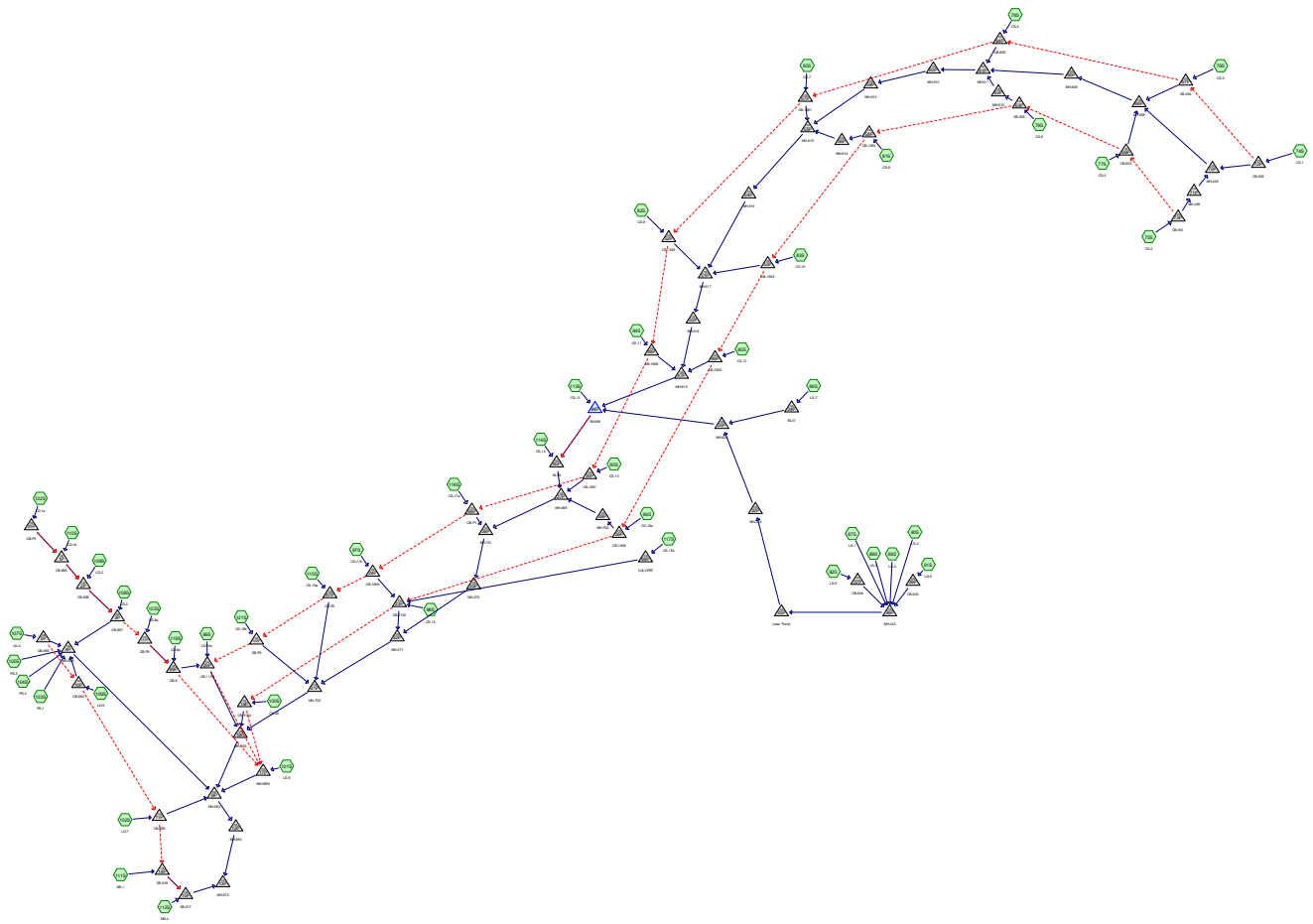
↑ **1=12" HDPE** (Inlet Controls 4.62 cfs @ 5.88 fps)

Secondary OutFlow Max=12.02 cfs @ 12.11 hrs HW=267.60' (Free Discharge)

↑ **2=Orifice/Grate** (Weir Controls 12.02 cfs @ 2.52 fps)

Pond 96P: CB-X

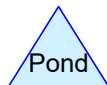




Subcat



Reach



Pond



Link

Routing Diagram for Linwood Street Drainage - Proposed
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Time span=1.00-24.00 hrs, dt=0.01 hrs, 2301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 74S: CS-1	Runoff Area=1.350 ac 9.63% Impervious Runoff Depth>1.45" Tc=6.0 min CN=61 Runoff=2.11 cfs 0.163 af
Subcatchment 75S: CS-2	Runoff Area=0.270 ac 48.15% Impervious Runoff Depth>2.92" Tc=6.0 min CN=79 Runoff=0.93 cfs 0.066 af
Subcatchment 76S: CS-3	Runoff Area=3.820 ac 5.76% Impervious Runoff Depth>1.31" Flow Length=177' Tc=6.8 min CN=59 Runoff=5.10 cfs 0.418 af
Subcatchment 77S: CS-4	Runoff Area=0.182 ac 17.58% Impervious Runoff Depth>1.98" Tc=6.0 min CN=68 Runoff=0.41 cfs 0.030 af
Subcatchment 78S: CS-5	Runoff Area=1.660 ac 18.07% Impervious Runoff Depth>1.74" Flow Length=212' Tc=15.1 min CN=65 Runoff=2.43 cfs 0.241 af
Subcatchment 79S: CS-6	Runoff Area=0.330 ac 27.27% Impervious Runoff Depth>2.22" Tc=6.0 min CN=71 Runoff=0.85 cfs 0.061 af
Subcatchment 80S: CS-7	Runoff Area=1.660 ac 14.46% Impervious Runoff Depth>1.67" Flow Length=244' Tc=7.1 min CN=64 Runoff=2.97 cfs 0.231 af
Subcatchment 81S: CS-8	Runoff Area=0.340 ac 29.41% Impervious Runoff Depth>2.30" Tc=6.0 min CN=72 Runoff=0.91 cfs 0.065 af
Subcatchment 82S: CS-9	Runoff Area=0.440 ac 27.27% Impervious Runoff Depth>2.22" Tc=6.0 min CN=71 Runoff=1.13 cfs 0.081 af
Subcatchment 83S: CS-10	Runoff Area=1.470 ac 14.97% Impervious Runoff Depth>1.90" Tc=6.0 min CN=67 Runoff=3.18 cfs 0.233 af
Subcatchment 84S: CS-11	Runoff Area=0.300 ac 36.67% Impervious Runoff Depth>2.56" Tc=6.0 min CN=75 Runoff=0.90 cfs 0.064 af
Subcatchment 85S: CS-12	Runoff Area=2.150 ac 24.65% Impervious Runoff Depth>2.06" Tc=6.0 min CN=69 Runoff=5.09 cfs 0.369 af
Subcatchment 86S: LS-7	Runoff Area=0.802 ac 2.74% Impervious Runoff Depth>1.38" Tc=6.0 min CN=60 Runoff=1.18 cfs 0.092 af
Subcatchment 87S: LS-1	Runoff Area=0.260 ac 26.92% Impervious Runoff Depth>2.22" Tc=6.0 min CN=71 Runoff=0.67 cfs 0.048 af
Subcatchment 88S: LS-3	Runoff Area=0.450 ac 48.89% Impervious Runoff Depth>2.92" Tc=6.0 min CN=79 Runoff=1.54 cfs 0.109 af
Subcatchment 89S: LS-2	Runoff Area=1.900 ac 12.63% Impervious Runoff Depth>1.45" Flow Length=183' Tc=6.3 min CN=61 Runoff=2.94 cfs 0.230 af

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Subcatchment 90S: LS-4	Runoff Area=1.080 ac 13.89% Impervious Runoff Depth>1.52" Flow Length=237' Tc=6.8 min CN=62 Runoff=1.74 cfs 0.137 af
Subcatchment 91S: LS-6	Runoff Area=1.120 ac 16.96% Impervious Runoff Depth>1.67" Flow Length=291' Tc=7.0 min CN=64 Runoff=2.01 cfs 0.156 af
Subcatchment 92S: LS-5	Runoff Area=0.340 ac 47.06% Impervious Runoff Depth>2.83" Tc=6.0 min CN=78 Runoff=1.13 cfs 0.080 af
Subcatchment 95S: CS-15	Runoff Area=0.120 ac 100.00% Impervious Runoff Depth>4.90" Tc=6.0 min CN=98 Runoff=0.60 cfs 0.049 af
Subcatchment 96S: CS-16a	Runoff Area=2.670 ac 5.24% Impervious Runoff Depth>1.31" Tc=6.0 min CN=59 Runoff=3.67 cfs 0.292 af
Subcatchment 97S: CS-17b	Runoff Area=0.530 ac 28.30% Impervious Runoff Depth>2.14" Flow Length=480' Tc=9.4 min CN=70 Runoff=1.16 cfs 0.094 af
Subcatchment 98S: CS-18	Runoff Area=1.490 ac 12.75% Impervious Runoff Depth>1.38" Tc=6.0 min CN=60 Runoff=2.19 cfs 0.172 af
Subcatchment 99S: CS-19c	Runoff Area=0.460 ac 26.09% Impervious Runoff Depth>2.22" Tc=6.0 min CN=71 Runoff=1.19 cfs 0.085 af
Subcatchment 100S: CS-20	Runoff Area=1.000 ac 23.00% Impervious Runoff Depth>1.90" Tc=6.0 min CN=67 Runoff=2.16 cfs 0.158 af
Subcatchment 101S: LD-6	Runoff Area=0.480 ac 50.00% Impervious Runoff Depth>2.06" Tc=6.0 min CN=69 Runoff=1.14 cfs 0.082 af
Subcatchment 102S: LD-7	Runoff Area=0.440 ac 38.64% Impervious Runoff Depth>1.52" Tc=6.0 min CN=62 Runoff=0.73 cfs 0.056 af
Subcatchment 103S: PS-1	Runoff Area=0.210 ac 47.62% Impervious Runoff Depth>1.90" Tc=6.0 min CN=67 Runoff=0.45 cfs 0.033 af
Subcatchment 104S: PS-2	Runoff Area=0.101 ac 79.21% Impervious Runoff Depth>3.59" Tc=6.0 min CN=86 Runoff=0.42 cfs 0.030 af
Subcatchment 105S: PS-3	Runoff Area=0.310 ac 58.06% Impervious Runoff Depth>2.39" Tc=6.0 min CN=73 Runoff=0.86 cfs 0.062 af
Subcatchment 106S: LD-5	Runoff Area=0.750 ac 58.67% Impervious Runoff Depth>2.47" Tc=6.0 min CN=74 Runoff=2.17 cfs 0.155 af
Subcatchment 107S: LD-4	Runoff Area=1.080 ac 45.37% Impervious Runoff Depth>1.82" Tc=6.0 min CN=66 Runoff=2.23 cfs 0.164 af
Subcatchment 108S: LD-3	Runoff Area=6.240 ac 15.87% Impervious Runoff Depth>1.67" Flow Length=895' Tc=10.7 min CN=64 Runoff=9.86 cfs 0.867 af

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Subcatchment 109S: LD-2	Runoff Area=1.300 ac 19.23% Impervious Runoff Depth>1.98" Tc=6.0 min CN=68 Runoff=2.94 cfs 0.214 af
Subcatchment 110S: LD-1b	Runoff Area=0.930 ac 46.24% Impervious Runoff Depth>2.22" Tc=6.0 min CN=71 Runoff=2.40 cfs 0.172 af
Subcatchment 111S: MS-1	Runoff Area=1.470 ac 39.46% Impervious Runoff Depth>1.52" Tc=6.0 min CN=62 Runoff=2.44 cfs 0.187 af
Subcatchment 112S: MS-2	Runoff Area=1.350 ac 22.96% Impervious Runoff Depth>0.92" Tc=6.0 min CN=53 Runoff=1.12 cfs 0.104 af
Subcatchment 113S: CS-13	Runoff Area=3.370 ac 6.82% Impervious Runoff Depth>1.31" Flow Length=190' Tc=6.3 min CN=59 Runoff=4.58 cfs 0.368 af
Subcatchment 114S: CS-14	Runoff Area=0.930 ac 8.60% Impervious Runoff Depth>1.45" Flow Length=158' Tc=6.5 min CN=61 Runoff=1.43 cfs 0.112 af
Subcatchment 115S: CS-19a	Runoff Area=1.600 ac 30.00% Impervious Runoff Depth>2.14" Flow Length=550' Tc=9.4 min CN=70 Runoff=3.51 cfs 0.285 af
Subcatchment 116S: CS-17a	Runoff Area=2.400 ac 10.00% Impervious Runoff Depth>1.52" Flow Length=545' Tc=10.5 min CN=62 Runoff=3.40 cfs 0.304 af
Subcatchment 117S: CS-16b	Runoff Area=0.240 ac 0.00% Impervious Runoff Depth>1.18" Tc=0.0 min CN=57 Runoff=0.35 cfs 0.024 af
Subcatchment 119S: LD-8b	Runoff Area=0.550 ac 23.64% Impervious Runoff Depth>2.14" Tc=6.0 min CN=70 Runoff=1.36 cfs 0.098 af
Subcatchment 121S: CS-19b	Runoff Area=0.570 ac 89.47% Impervious Runoff Depth>4.44" Tc=6.0 min CN=94 Runoff=2.76 cfs 0.211 af
Subcatchment 122S: LD-1a	Runoff Area=1.900 ac 27.89% Impervious Runoff Depth>1.38" Flow Length=500' Tc=8.0 min CN=60 Runoff=2.59 cfs 0.219 af
Subcatchment 123S: LD-8a	Runoff Area=1.350 ac 49.63% Impervious Runoff Depth>2.92" Tc=6.0 min CN=79 Runoff=4.63 cfs 0.328 af
Pond 1P: CB-895	Peak Elev=273.56' Inflow=4.89 cfs 0.391 af Primary=4.89 cfs 0.391 af Secondary=0.00 cfs 0.000 af Outflow=4.89 cfs 0.391 af
Pond 2P: CB-896	Peak Elev=271.04' Inflow=7.80 cfs 0.605 af Primary=7.80 cfs 0.605 af Secondary=0.00 cfs 0.000 af Outflow=7.80 cfs 0.605 af
Pond 3P: CB-897	Peak Elev=270.30' Inflow=16.93 cfs 1.472 af Primary=16.93 cfs 1.472 af Secondary=0.00 cfs 0.000 af Outflow=16.93 cfs 1.472 af
Pond 4P: MH-662	Peak Elev=269.65' Inflow=22.63 cfs 1.916 af 30.0" Round Culvert n=0.012 L=323.7' S=0.0108 '/' Outflow=22.63 cfs 1.916 af

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Pond 5P: CB-893	Peak Elev=270.28' Inflow=2.23 cfs 0.164 af Primary=2.23 cfs 0.164 af Secondary=0.00 cfs 0.000 af Outflow=2.23 cfs 0.164 af
Pond 6P: MH-663	Peak Elev=266.62' Inflow=56.60 cfs 7.214 af 30.0" Round Culvert n=0.012 L=150.0' S=0.0113 '/' Outflow=56.60 cfs 7.214 af
Pond 10P: CB-892	Peak Elev=269.07' Inflow=2.17 cfs 0.155 af Primary=2.17 cfs 0.155 af Secondary=0.00 cfs 0.000 af Outflow=2.17 cfs 0.155 af
Pond 11P: CB-898	Peak Elev=264.92' Inflow=0.73 cfs 0.056 af Primary=0.73 cfs 0.056 af Secondary=0.00 cfs 0.000 af Outflow=0.73 cfs 0.056 af
Pond 12P: MH-664	Peak Elev=264.74' Inflow=56.60 cfs 7.214 af 30.0" Round Culvert n=0.012 L=90.0' S=0.0056 '/' Outflow=56.60 cfs 7.214 af
Pond 13P: MH-673	Peak Elev=263.19' Inflow=60.12 cfs 7.505 af 30.0" Round Culvert n=0.012 L=296.0' S=0.0257 '/' Outflow=60.12 cfs 7.505 af
Pond 14P: CB-918	Peak Elev=263.12' Inflow=2.44 cfs 0.187 af Primary=2.44 cfs 0.187 af Secondary=0.00 cfs 0.000 af Outflow=2.44 cfs 0.187 af
Pond 15P: CB-917	Peak Elev=262.58' Inflow=3.55 cfs 0.291 af Primary=3.55 cfs 0.291 af Secondary=0.00 cfs 0.000 af Outflow=3.55 cfs 0.291 af
Pond 17P: MH-NEW	Peak Elev=265.43' Inflow=1.14 cfs 0.082 af Outflow=1.14 cfs 0.082 af
Pond 18P: MH-703	Peak Elev=266.89' Inflow=32.17 cfs 5.161 af 24.0" Round Culvert n=0.012 L=55.0' S=0.0364 '/' Outflow=32.17 cfs 5.161 af
Pond 19P: CB-1154	Peak Elev=265.32' Inflow=2.16 cfs 0.158 af Primary=2.16 cfs 0.158 af Secondary=0.00 cfs 0.000 af Outflow=2.16 cfs 0.158 af
Pond 20P: CB-1153	Peak Elev=266.07' Inflow=7.17 cfs 0.511 af Primary=7.17 cfs 0.511 af Secondary=0.00 cfs 0.000 af Outflow=7.17 cfs 0.511 af
Pond 21P: MH-702	Peak Elev=272.62' Inflow=23.31 cfs 4.491 af 24.0" Round Culvert n=0.012 L=195.0' S=0.0369 '/' Outflow=23.31 cfs 4.491 af
Pond 22P: MH-271	Peak Elev=282.46' Inflow=17.40 cfs 3.995 af 18.0" Round Culvert n=0.010 L=202.0' S=0.0099 '/' Outflow=17.40 cfs 3.995 af
Pond 23P: CB-1152	Peak Elev=284.62' Inflow=3.47 cfs 0.289 af Primary=3.47 cfs 0.289 af Secondary=0.00 cfs 0.000 af Outflow=3.47 cfs 0.289 af
Pond 24P: CB-1669	Peak Elev=284.55' Inflow=1.16 cfs 0.094 af Primary=1.16 cfs 0.094 af Secondary=0.00 cfs 0.000 af Outflow=1.16 cfs 0.094 af
Pond 25P: MH-272	Peak Elev=289.34' Inflow=14.07 cfs 3.706 af 18.0" Round Culvert n=0.010 L=80.0' S=0.0100 '/' Outflow=14.07 cfs 3.706 af

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Pond 26P: MH-701	Peak Elev=289.94' Inflow=14.07 cfs 3.706 af 18.0" Round Culvert n=0.010 L=54.0' S=0.0093 '/' Outflow=14.07 cfs 3.706 af
Pond 27P: MH-699	Peak Elev=295.40' Inflow=10.73 cfs 3.401 af 18.0" Round Culvert n=0.010 L=265.5' S=0.0275 '/' Outflow=10.73 cfs 3.401 af
Pond 28P: MH-700	Peak Elev=294.76' Inflow=3.67 cfs 0.292 af 12.0" Round Culvert n=0.012 L=17.0' S=0.0118 '/' Outflow=3.67 cfs 0.292 af
Pond 29P: CB-1668	Peak Elev=294.94' Inflow=3.67 cfs 0.292 af Primary=3.67 cfs 0.292 af Secondary=0.00 cfs 0.000 af Outflow=3.67 cfs 0.292 af
Pond 30P: CB-1667	Peak Elev=295.01' Inflow=0.60 cfs 0.049 af Primary=0.60 cfs 0.049 af Secondary=0.00 cfs 0.000 af Outflow=0.60 cfs 0.049 af
Pond 31P: CB-P4	Peak Elev=279.81' Inflow=2.59 cfs 0.219 af Primary=2.59 cfs 0.219 af Secondary=0.00 cfs 0.000 af Outflow=2.59 cfs 0.219 af
Pond 32P: MH-270	Peak Elev=306.53' Inflow=9.98 cfs 0.760 af 18.0" Round Culvert n=0.012 L=262.0' S=0.0187 '/' Outflow=9.98 cfs 0.760 af
Pond 33P: MH-620	Peak Elev=301.45' Inflow=11.16 cfs 0.853 af 24.0" Round Culvert n=0.012 L=48.0' S=0.0256 '/' Outflow=11.16 cfs 0.853 af
Pond 34P: IN-37	Peak Elev=302.38' Inflow=1.18 cfs 0.092 af 18.0" Round Culvert n=0.012 L=40.0' S=0.0100 '/' Outflow=1.18 cfs 0.092 af
Pond 35P: (new Pond)	Peak Elev=308.93' Inflow=9.98 cfs 0.760 af 18.0" Round Culvert n=0.012 L=111.0' S=0.0216 '/' Outflow=9.98 cfs 0.760 af
Pond 36P: MH-443	Peak Elev=311.38' Inflow=9.98 cfs 0.760 af 18.0" Round Culvert n=0.012 L=300.0' S=0.0077 '/' Outflow=9.98 cfs 0.760 af
Pond 37P: CB-646	Peak Elev=312.24' Inflow=1.13 cfs 0.080 af Primary=1.13 cfs 0.080 af Secondary=0.00 cfs 0.000 af Outflow=1.13 cfs 0.080 af
Pond 38P: CB-645	Peak Elev=312.33' Inflow=2.01 cfs 0.156 af Primary=2.01 cfs 0.156 af Secondary=0.00 cfs 0.000 af Outflow=2.01 cfs 0.156 af
Pond 47P: MH-619	Peak Elev=301.36' Inflow=25.06 cfs 2.021 af 30.0" Round Culvert n=0.012 L=27.0' S=0.0185 '/' Outflow=25.06 cfs 2.021 af
Pond 48P: CB-1666	Peak Elev=299.86' Inflow=0.90 cfs 0.064 af Primary=0.90 cfs 0.064 af Secondary=0.00 cfs 0.000 af Outflow=0.90 cfs 0.064 af
Pond 49P: CB-1665	Peak Elev=303.23' Inflow=5.09 cfs 0.369 af Primary=5.09 cfs 0.369 af Secondary=0.00 cfs 0.000 af Outflow=5.09 cfs 0.369 af
Pond 50P: MH-618	Peak Elev=306.60' Inflow=19.13 cfs 1.589 af 24.0" Round Culvert n=0.025 L=166.0' S=0.0193 '/' Outflow=19.13 cfs 1.589 af

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Pond 51P: MH-617

Peak Elev=307.67' Inflow=19.13 cfs 1.589 af
24.0" Round Culvert n=0.025 L=61.0' S=0.0279 '/' Outflow=19.13 cfs 1.589 af

Pond 52P: CB-1663

Peak Elev=306.05' Inflow=1.13 cfs 0.081 af
Primary=1.13 cfs 0.081 af Secondary=0.00 cfs 0.000 af Outflow=1.13 cfs 0.081 af

Pond 53P: CB-1664

Peak Elev=307.12' Inflow=3.18 cfs 0.233 af
Primary=3.18 cfs 0.233 af Secondary=0.00 cfs 0.000 af Outflow=3.18 cfs 0.233 af

Pond 54P: MH-616

Peak Elev=309.95' Inflow=14.88 cfs 1.275 af
24.0" Round Culvert n=0.025 L=72.0' S=0.0319 '/' Outflow=14.88 cfs 1.275 af

Pond 55P: MH-615

Peak Elev=313.35' Inflow=14.88 cfs 1.275 af
24.0" Round Culvert n=0.025 L=99.0' S=0.0303 '/' Outflow=14.88 cfs 1.275 af

Pond 56P: MH-614

Peak Elev=312.71' Inflow=0.91 cfs 0.065 af
12.0" Round Culvert n=0.012 L=21.7' S=0.0092 '/' Outflow=0.91 cfs 0.065 af

Pond 57P: CB-1661

Peak Elev=313.26' Inflow=2.97 cfs 0.231 af
Primary=2.97 cfs 0.231 af Secondary=0.00 cfs 0.000 af Outflow=2.97 cfs 0.231 af

Pond 58P: CB-1662

Peak Elev=313.43' Inflow=0.91 cfs 0.065 af
Primary=0.91 cfs 0.065 af Secondary=0.00 cfs 0.000 af Outflow=0.91 cfs 0.065 af

Pond 59P: MH-613

Peak Elev=316.13' Inflow=11.03 cfs 0.978 af
18.0" Round Culvert n=0.012 L=72.9' S=0.0329 '/' Outflow=11.03 cfs 0.978 af

Pond 60P: MH-612

Peak Elev=322.63' Inflow=11.03 cfs 0.978 af
18.0" Round Culvert n=0.012 L=67.8' S=0.0383 '/' Outflow=11.03 cfs 0.978 af

Pond 61P: MH-611

Peak Elev=330.13' Inflow=11.03 cfs 0.978 af
18.0" Round Culvert n=0.012 L=66.8' S=0.0419 '/' Outflow=11.03 cfs 0.978 af

Pond 62P: MH-610

Peak Elev=333.33' Inflow=0.85 cfs 0.061 af
12.0" Round Culvert n=0.012 L=16.5' S=0.0061 '/' Outflow=0.85 cfs 0.061 af

Pond 63P: CB-655

Peak Elev=333.81' Inflow=0.85 cfs 0.061 af
Primary=0.85 cfs 0.061 af Secondary=0.00 cfs 0.000 af Outflow=0.85 cfs 0.061 af

Pond 64P: CB-656

Peak Elev=333.80' Inflow=2.43 cfs 0.241 af
Primary=2.43 cfs 0.241 af Secondary=0.00 cfs 0.000 af Outflow=2.43 cfs 0.241 af

Pond 65P: MH-609

Peak Elev=338.08' Inflow=8.50 cfs 0.677 af
18.0" Round Culvert n=0.012 L=89.0' S=0.0449 '/' Outflow=8.50 cfs 0.677 af

Pond 66P: MH-608

Peak Elev=351.29' Inflow=8.50 cfs 0.677 af
12.0" Round Culvert n=0.012 L=146.0' S=0.0432 '/' Outflow=8.50 cfs 0.677 af

Pond 67P: CB-654

Peak Elev=353.57' Inflow=5.10 cfs 0.418 af
Primary=5.10 cfs 0.418 af Secondary=0.00 cfs 0.000 af Outflow=5.10 cfs 0.418 af

Linwood Street Drainage - Proposed

Type III 24-hr 10-yr Rainfall=5.14"

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Pond 69P: CB-653

Peak Elev=351.71' Inflow=0.41 cfs 0.030 af
Primary=0.41 cfs 0.030 af Secondary=0.00 cfs 0.000 af Outflow=0.41 cfs 0.030 af

Pond 70P: MH-449

Peak Elev=357.01' Inflow=3.03 cfs 0.229 af
12.0" Round Culvert n=0.012 L=135.0' S=0.0370 '/' Outflow=3.03 cfs 0.229 af

Pond 71P: MH-448

Peak Elev=356.79' Inflow=0.93 cfs 0.066 af
12.0" Round Culvert n=0.012 L=26.0' S=0.0115 '/' Outflow=0.93 cfs 0.066 af

Pond 72P: CB-652

Peak Elev=357.13' Inflow=2.11 cfs 0.163 af
Primary=2.11 cfs 0.163 af Secondary=0.00 cfs 0.000 af Outflow=2.11 cfs 0.163 af

Pond 73P: CB-651

Peak Elev=357.39' Inflow=0.93 cfs 0.066 af
Primary=0.93 cfs 0.066 af Secondary=0.00 cfs 0.000 af Outflow=0.93 cfs 0.066 af

Pond 94P: BASIN

Peak Elev=300.41' Storage=50,660 cf Inflow=40.79 cfs 3.242 af
Primary=7.83 cfs 2.948 af Secondary=0.00 cfs 0.000 af Outflow=7.83 cfs 2.948 af

Pond 95P: IN-38

Peak Elev=294.22' Inflow=8.20 cfs 3.060 af
24.0" Round Culvert n=0.012 L=27.0' S=0.0185 '/' Outflow=8.20 cfs 3.060 af

Pond 96P: CB-P1

Peak Elev=288.25' Inflow=3.40 cfs 0.304 af
Primary=3.40 cfs 0.304 af Secondary=0.00 cfs 0.000 af Outflow=3.40 cfs 0.304 af

Pond 97P: CB-P2

Peak Elev=276.55' Inflow=3.51 cfs 0.285 af
Primary=3.51 cfs 0.285 af Secondary=0.00 cfs 0.000 af Outflow=3.51 cfs 0.285 af

Pond 98P: CULVERT

Peak Elev=298.33' Inflow=0.35 cfs 0.024 af
12.0" Round Culvert n=0.012 L=80.0' S=0.0100 '/' Outflow=0.35 cfs 0.024 af

Pond 99P: CB-X

Peak Elev=266.25' Inflow=5.99 cfs 0.426 af
Primary=5.99 cfs 0.426 af Secondary=0.00 cfs 0.000 af Outflow=5.99 cfs 0.426 af

Pond 120P: CB-P3

Peak Elev=274.44' Inflow=2.76 cfs 0.211 af
Primary=2.76 cfs 0.211 af Secondary=0.00 cfs 0.000 af Outflow=2.76 cfs 0.211 af

Pond 121P: CB-P5

Peak Elev=267.76' Inflow=4.63 cfs 0.328 af
Primary=4.63 cfs 0.328 af Secondary=0.00 cfs 0.000 af Outflow=4.63 cfs 0.328 af

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Summary for Subcatchment 74S: CS-1

Runoff = 2.11 cfs @ 12.10 hrs, Volume= 0.163 af, Depth> 1.45"

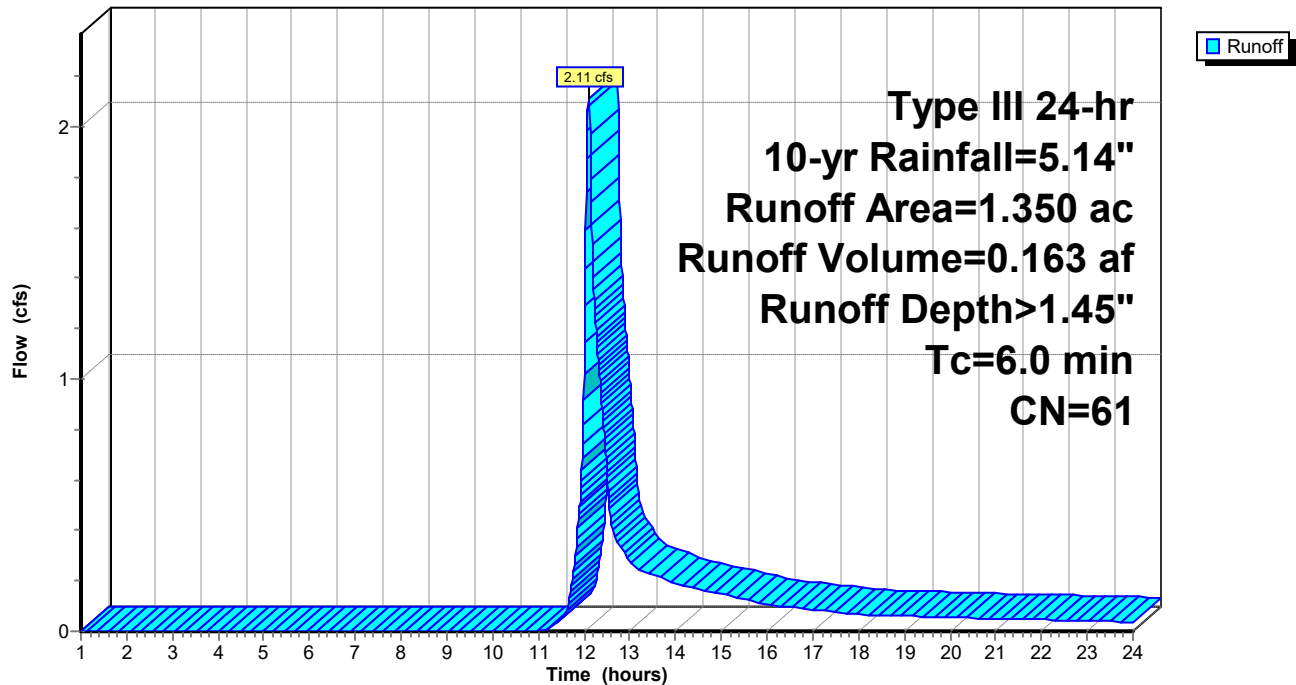
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.130	98	Paved parking, HSG B
0.410	61	>75% Grass cover, Good, HSG B
* 0.810	55	Woods, Good, HSG B
1.350	61	Weighted Average
1.220		90.37% Pervious Area
0.130		9.63% Impervious Area

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

Subcatchment 74S: CS-1

Hydrograph



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 75S: CS-2

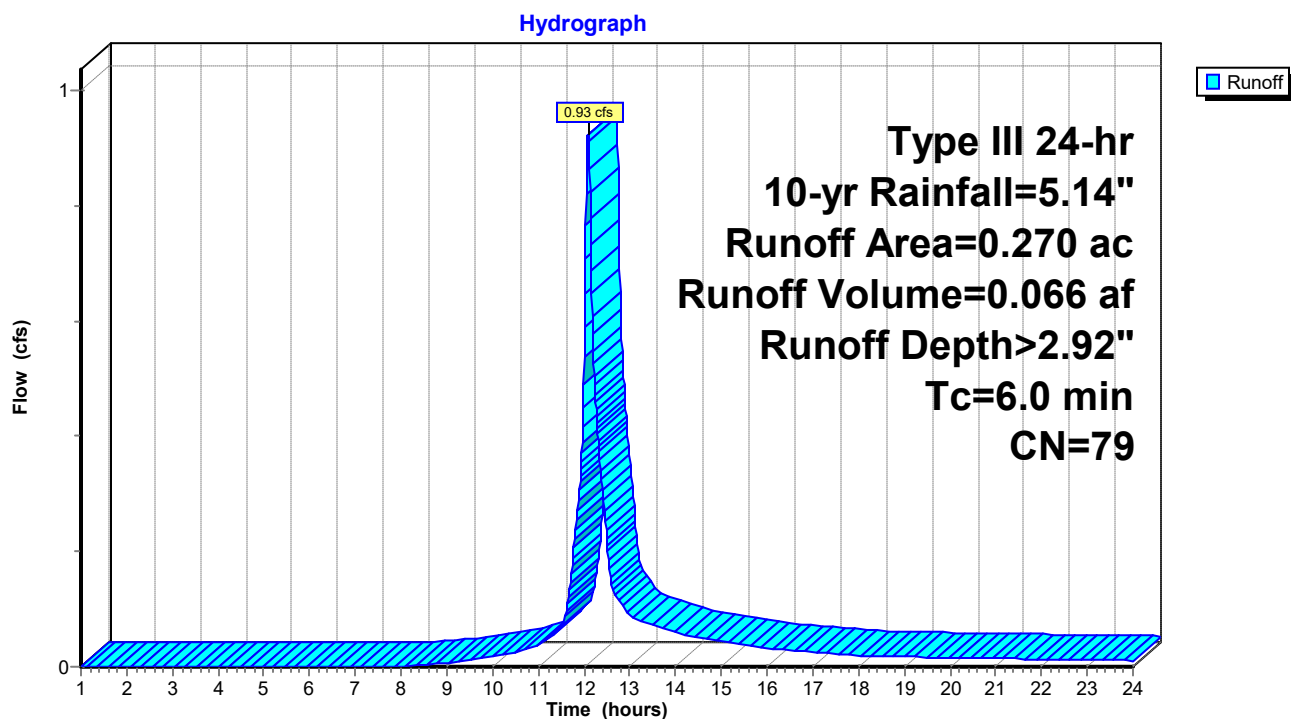
Runoff = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af, Depth> 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.130	98	Paved parking, HSG B
0.140	61	>75% Grass cover, Good, HSG B
0.270	79	Weighted Average
0.140		51.85% Pervious Area
0.130		48.15% Impervious Area

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

Subcatchment 75S: CS-2



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Summary for Subcatchment 76S: CS-3

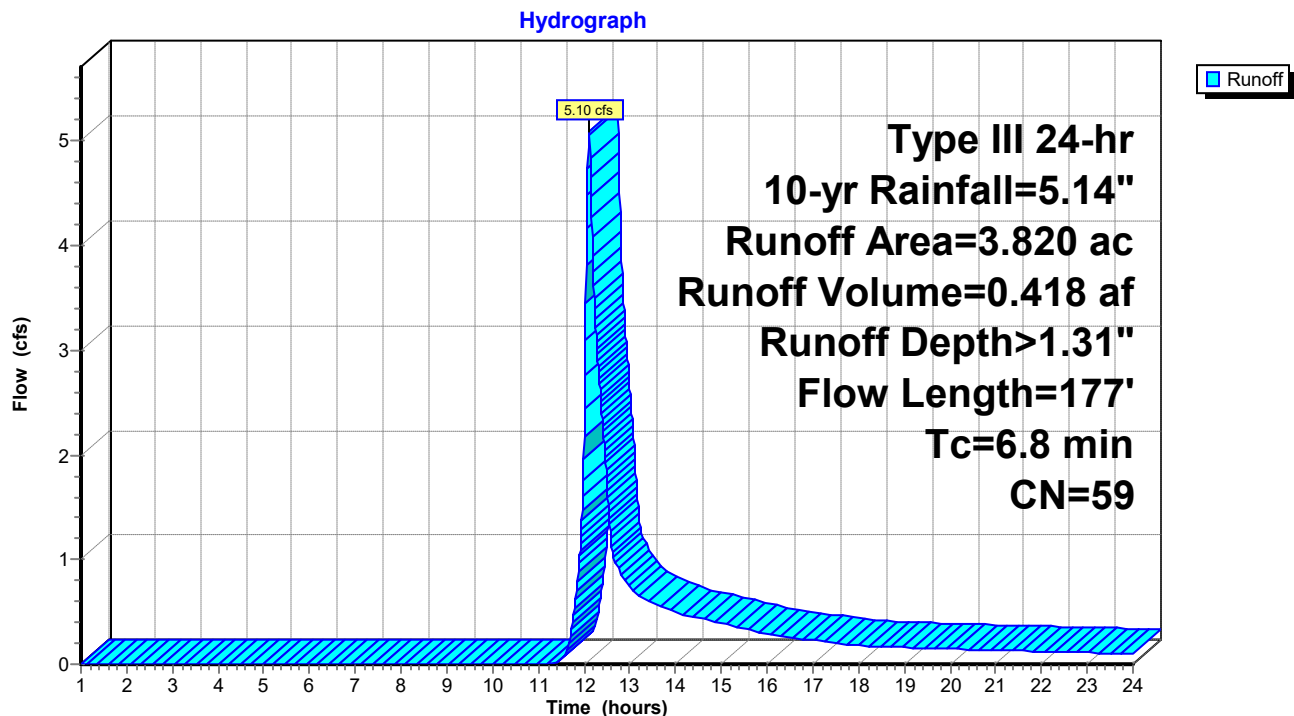
Runoff = 5.10 cfs @ 12.11 hrs, Volume= 0.418 af, Depth> 1.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.220	98	Paved parking, HSG B
0.800	61	>75% Grass cover, Good, HSG B
* 2.800	55	Woods, Good, HSG B
3.820	59	Weighted Average
3.600		94.24% Pervious Area
0.220		5.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	50	0.1250	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
0.9	100	0.1250	1.77		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.1	27	0.2000	3.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
6.8	177	Total			

Subcatchment 76S: CS-3



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Summary for Subcatchment 77S: CS-4

Runoff = 0.41 cfs @ 12.09 hrs, Volume= 0.030 af, Depth> 1.98"

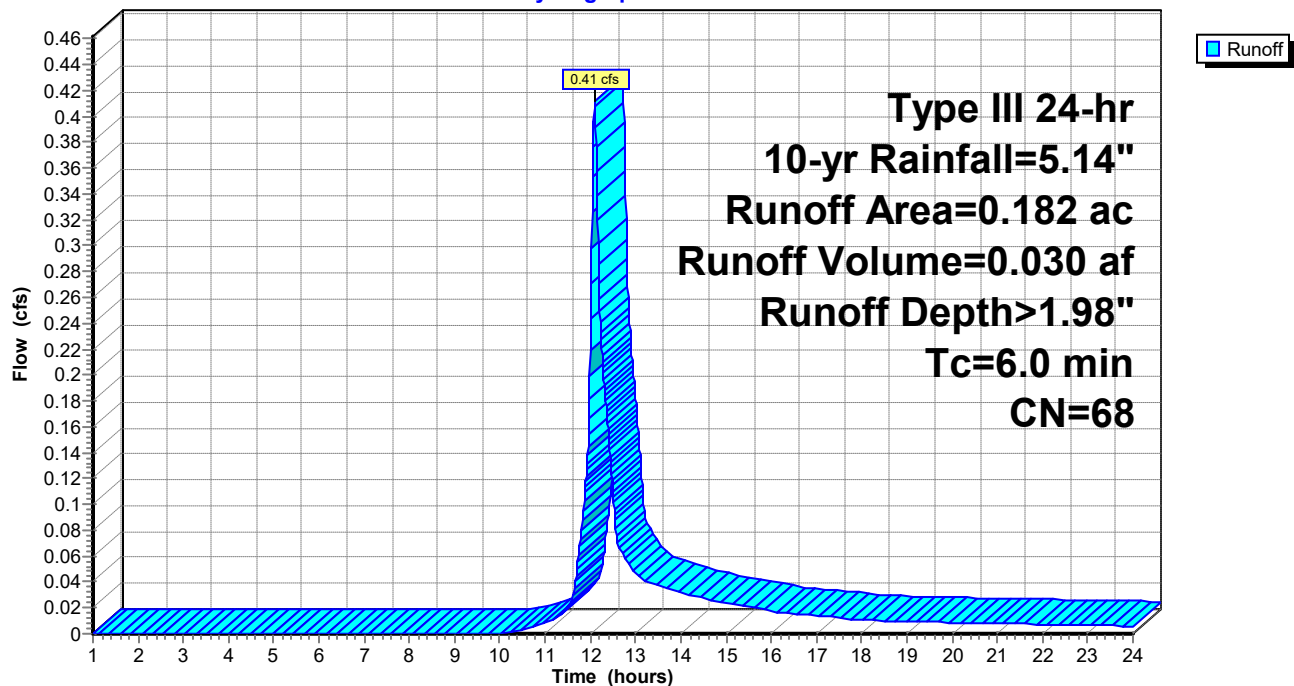
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.032	98	Paved parking, HSG B
0.150	61	>75% Grass cover, Good, HSG B
0.182	68	Weighted Average
0.150		82.42% Pervious Area
0.032		17.58% Impervious Area

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

Subcatchment 77S: CS-4

Hydrograph



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 78S: CS-5

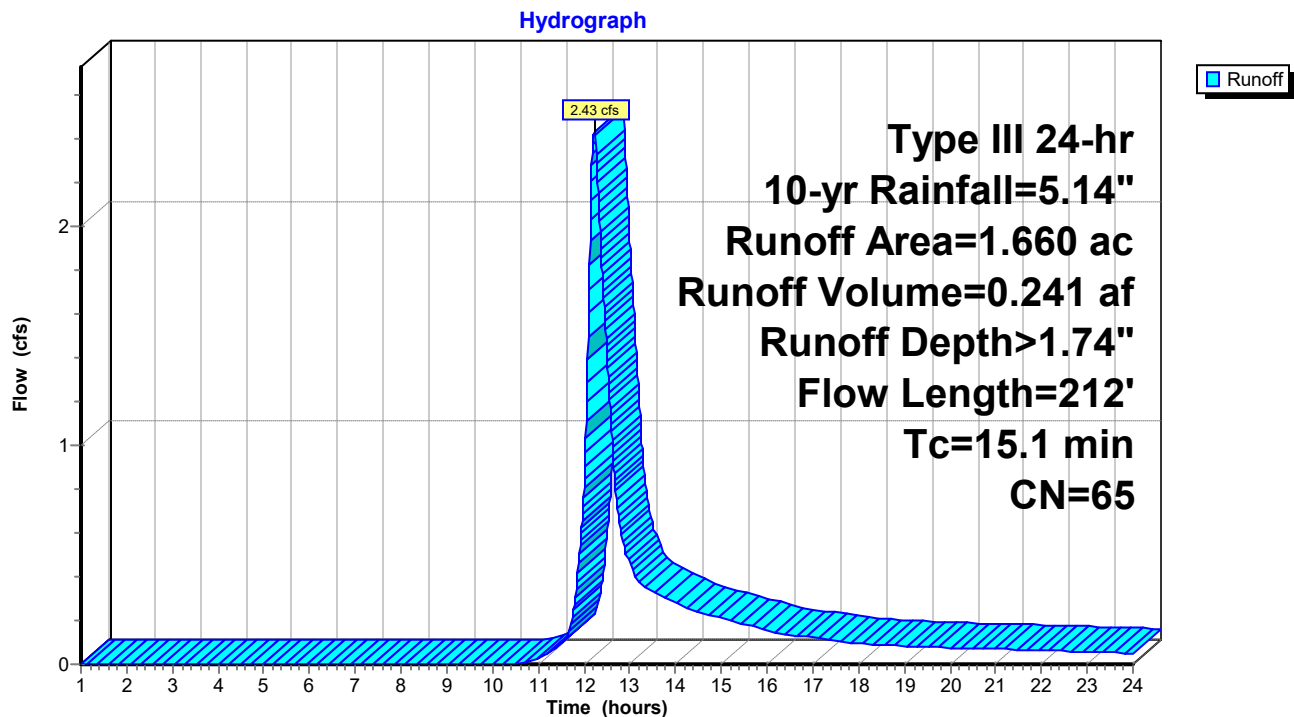
Runoff = 2.43 cfs @ 12.22 hrs, Volume= 0.241 af, Depth> 1.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.300	98	Water Surface, HSG B
0.510	61	>75% Grass cover, Good, HSG B
* 0.850	55	Woods, Good, HSG B
1.660	65	Weighted Average
1.360		81.93% Pervious Area
0.300		18.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	50	0.1250	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
8.9	85	0.1250	0.16		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
0.3	52	0.2000	3.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	25	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
15.1	212	Total			

Subcatchment 78S: CS-5



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 79S: CS-6

Runoff = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af, Depth> 2.22"

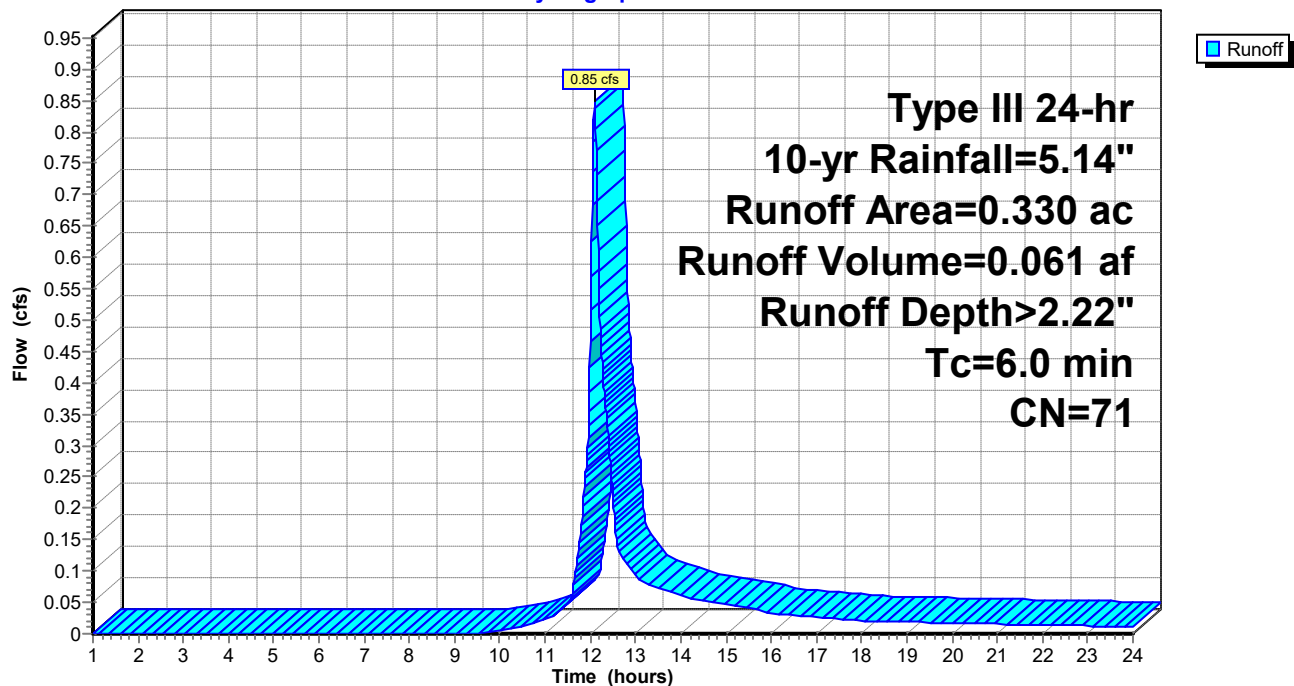
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.090	98	Paved parking, HSG B
0.240	61	>75% Grass cover, Good, HSG B
0.330	71	Weighted Average
0.240		72.73% Pervious Area
0.090		27.27% Impervious Area

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

Subcatchment 79S: CS-6

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 80S: CS-7

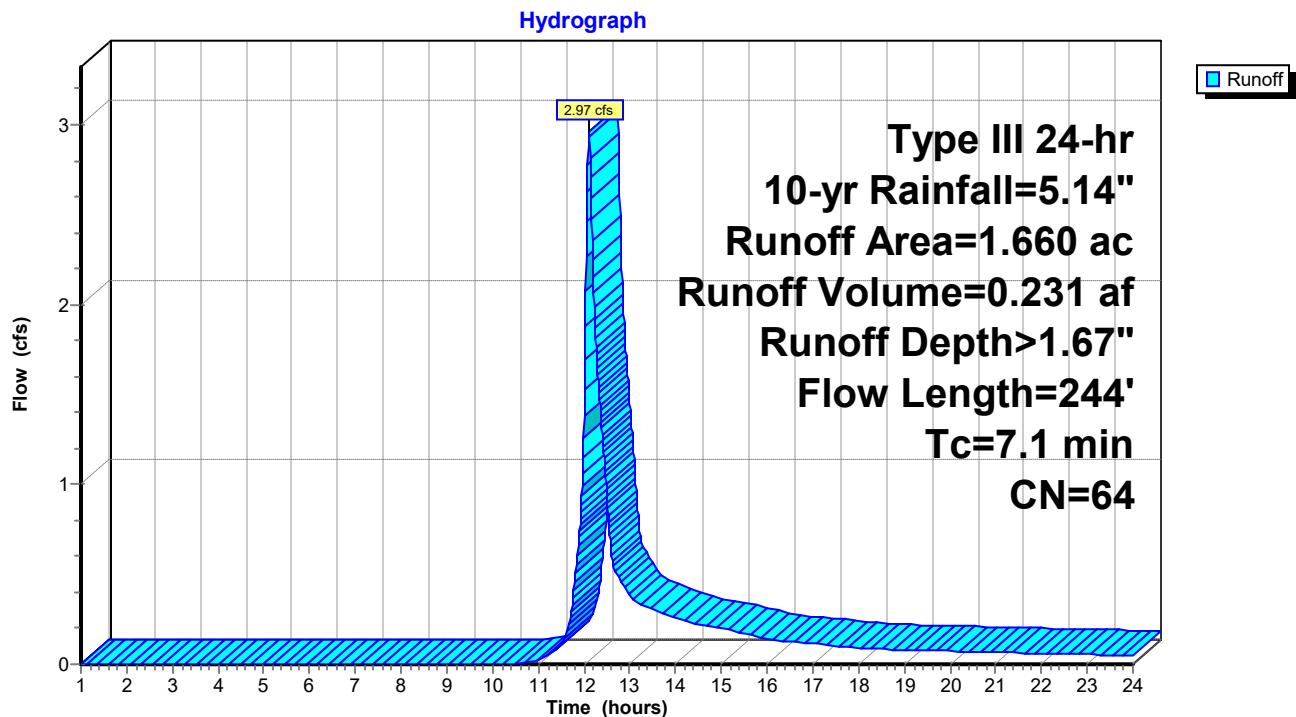
Runoff = 2.97 cfs @ 12.11 hrs, Volume= 0.231 af, Depth> 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.240	98	Paved parking, HSG B
0.710	61	>75% Grass cover, Good, HSG B
* 0.710	55	Woods, Good, HSG B
1.660	64	Weighted Average
1.420		85.54% Pervious Area
0.240		14.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	50	0.1250	0.14		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
0.9	100	0.1250	1.77		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.3	51	0.2000	3.13		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	43	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
7.1	244	Total			

Subcatchment 80S: CS-7



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 81S: CS-8

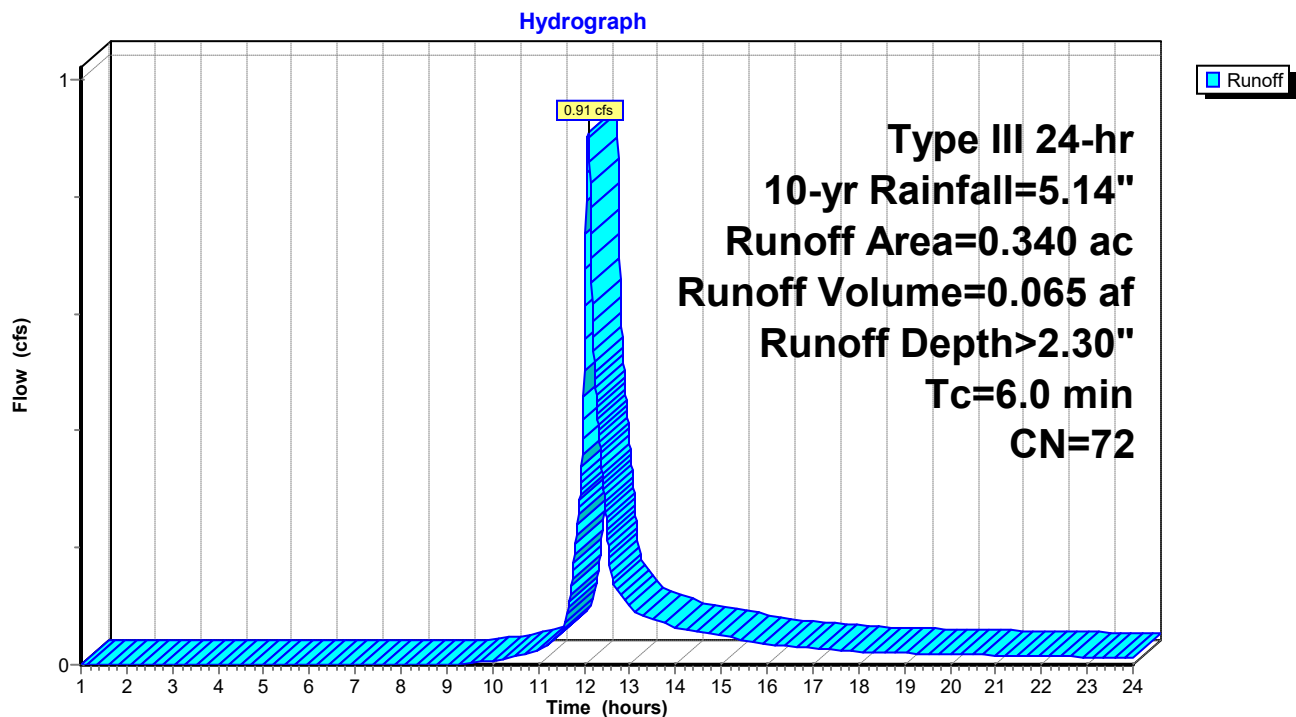
Runoff = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af, Depth> 2.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.100	98	Paved parking, HSG B
0.240	61	>75% Grass cover, Good, HSG B
0.340	72	Weighted Average
0.240		70.59% Pervious Area
0.100		29.41% Impervious Area

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

Subcatchment 81S: CS-8



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Summary for Subcatchment 82S: CS-9

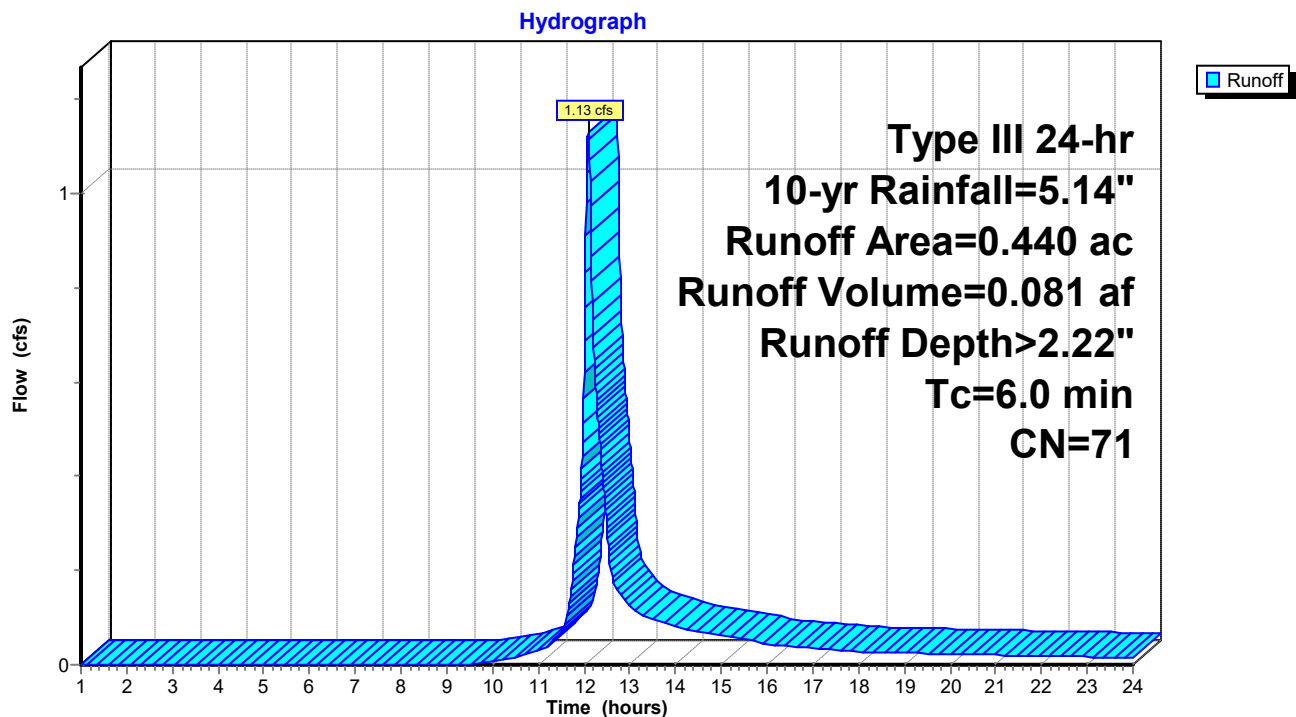
Runoff = 1.13 cfs @ 12.09 hrs, Volume= 0.081 af, Depth> 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.120	98	Paved parking, HSG B
0.320	61	>75% Grass cover, Good, HSG B
0.440	71	Weighted Average
0.320		72.73% Pervious Area
0.120		27.27% Impervious Area

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

Subcatchment 82S: CS-9



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Summary for Subcatchment 83S: CS-10

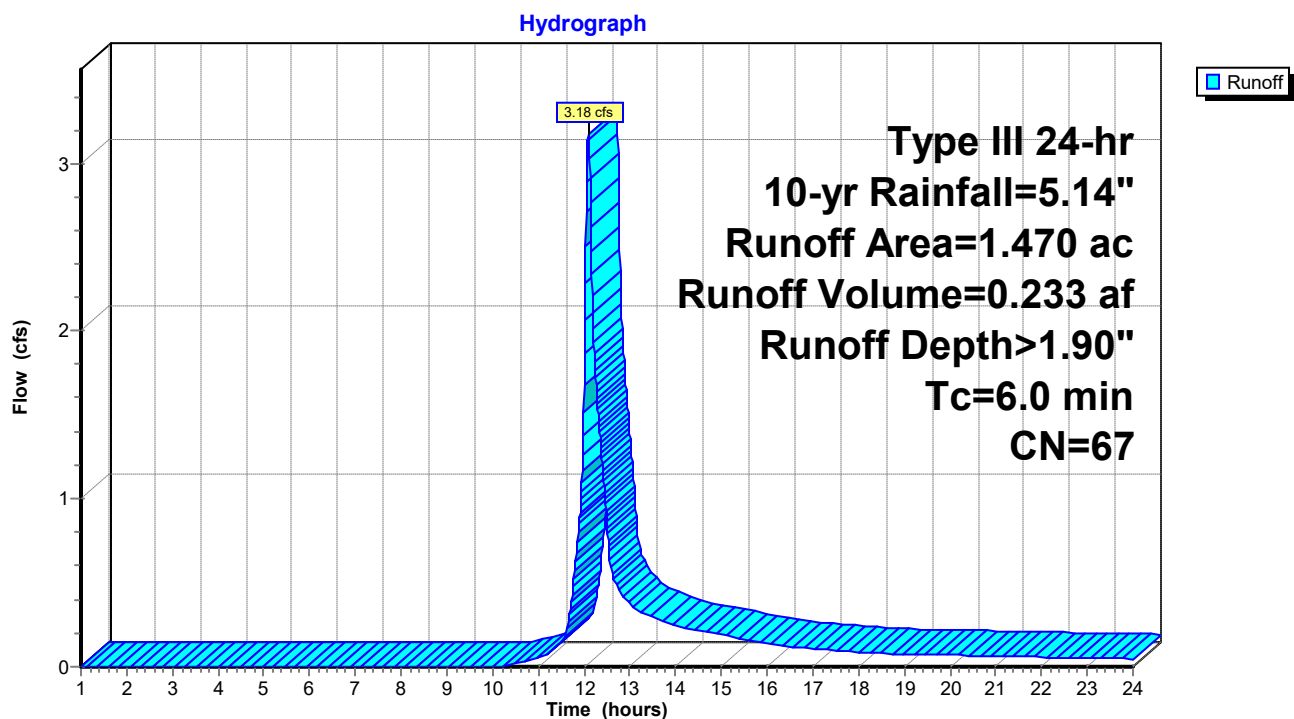
Runoff = 3.18 cfs @ 12.09 hrs, Volume= 0.233 af, Depth> 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.220	98	Paved parking, HSG B
1.250	61	>75% Grass cover, Good, HSG B
1.470	67	Weighted Average
1.250		85.03% Pervious Area
0.220		14.97% Impervious Area

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

Subcatchment 83S: CS-10



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 84S: CS-11

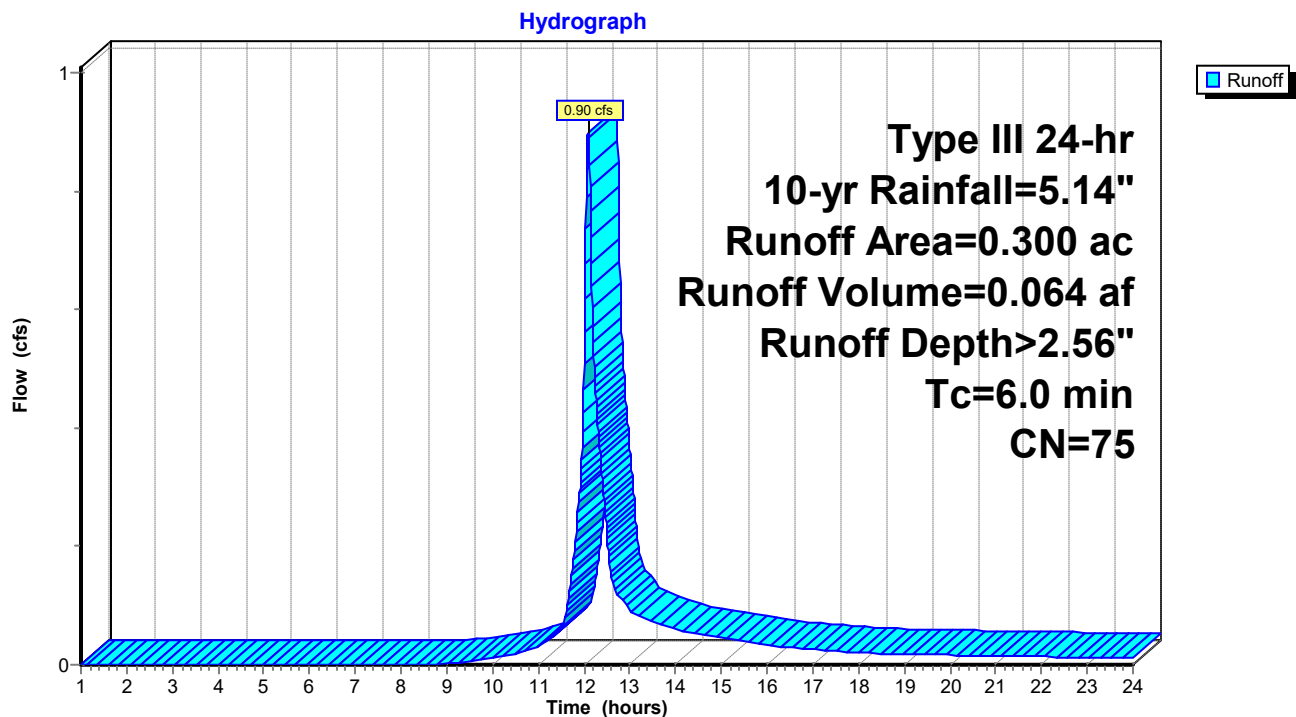
Runoff = 0.90 cfs @ 12.09 hrs, Volume= 0.064 af, Depth> 2.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.110	98	Paved parking, HSG B
0.190	61	>75% Grass cover, Good, HSG B
0.300	75	Weighted Average
0.190		63.33% Pervious Area
0.110		36.67% Impervious Area

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

Subcatchment 84S: CS-11



Linwood Street Drainage - Proposed

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Summary for Subcatchment 85S: CS-12

Runoff = 5.09 cfs @ 12.09 hrs, Volume= 0.369 af, Depth> 2.06"

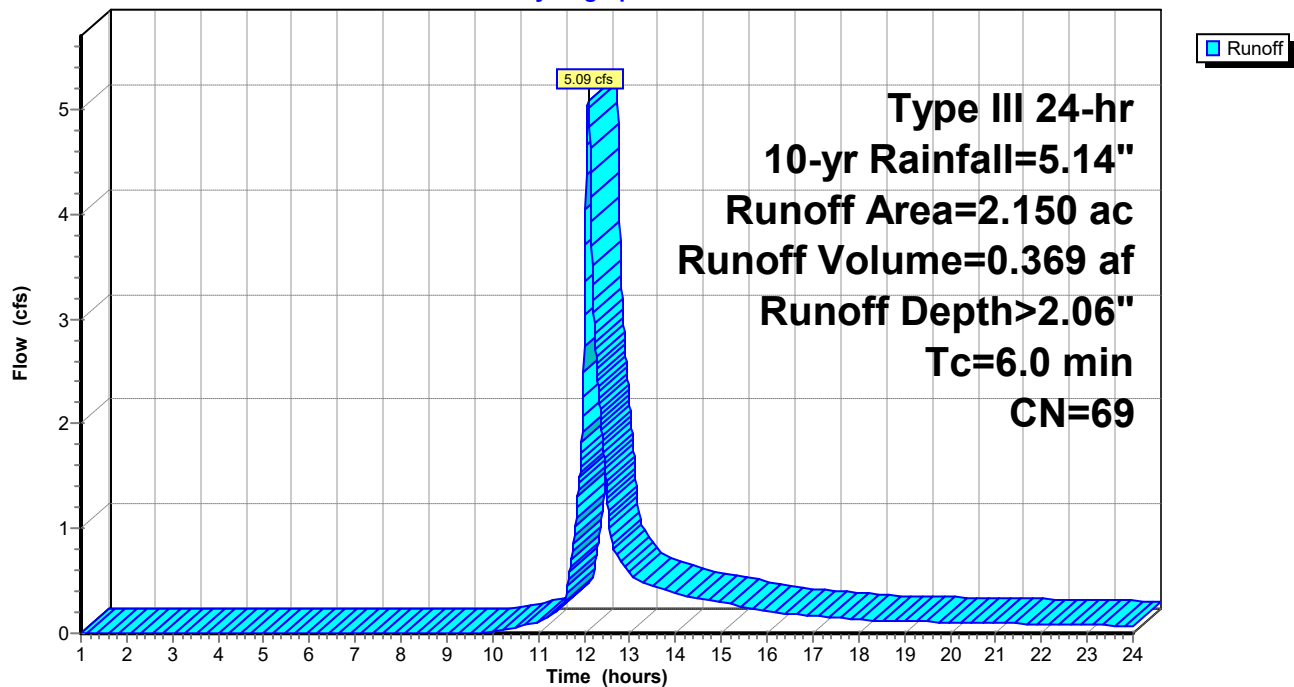
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.530	98	Paved parking, HSG B
1.160	61	>75% Grass cover, Good, HSG B
* 0.460	55	Woods, Good, HSG B
2.150	69	Weighted Average
1.620		75.35% Pervious Area
0.530		24.65% Impervious Area

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

Subcatchment 85S: CS-12

Hydrograph



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 86S: LS-7

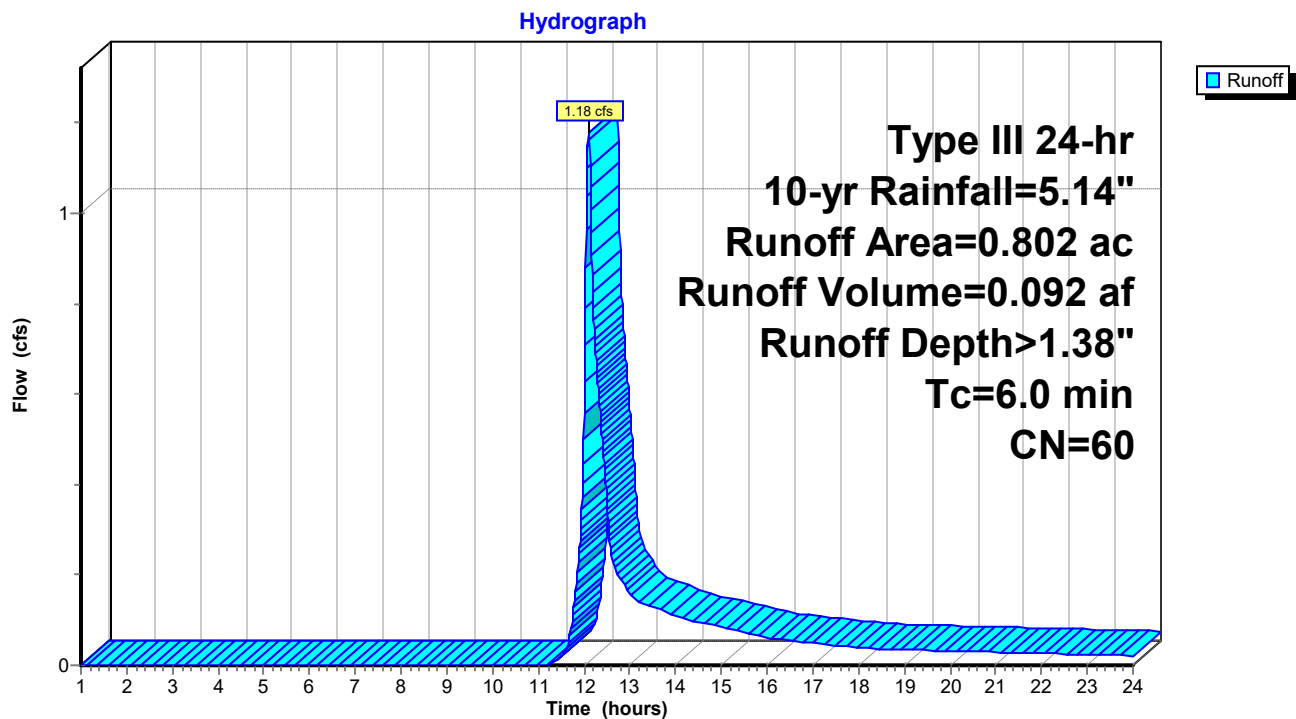
Runoff = 1.18 cfs @ 12.10 hrs, Volume= 0.092 af, Depth> 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.022	98	Paved parking, HSG B
0.520	61	>75% Grass cover, Good, HSG B
* 0.260	55	Woods, Good, HSG B
0.802	60	Weighted Average
0.780		97.26% Pervious Area
0.022		2.74% Impervious Area

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

Subcatchment 86S: LS-7



Linwood Street Drainage - Proposed

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Summary for Subcatchment 87S: LS-1

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 0.048 af, Depth> 2.22"

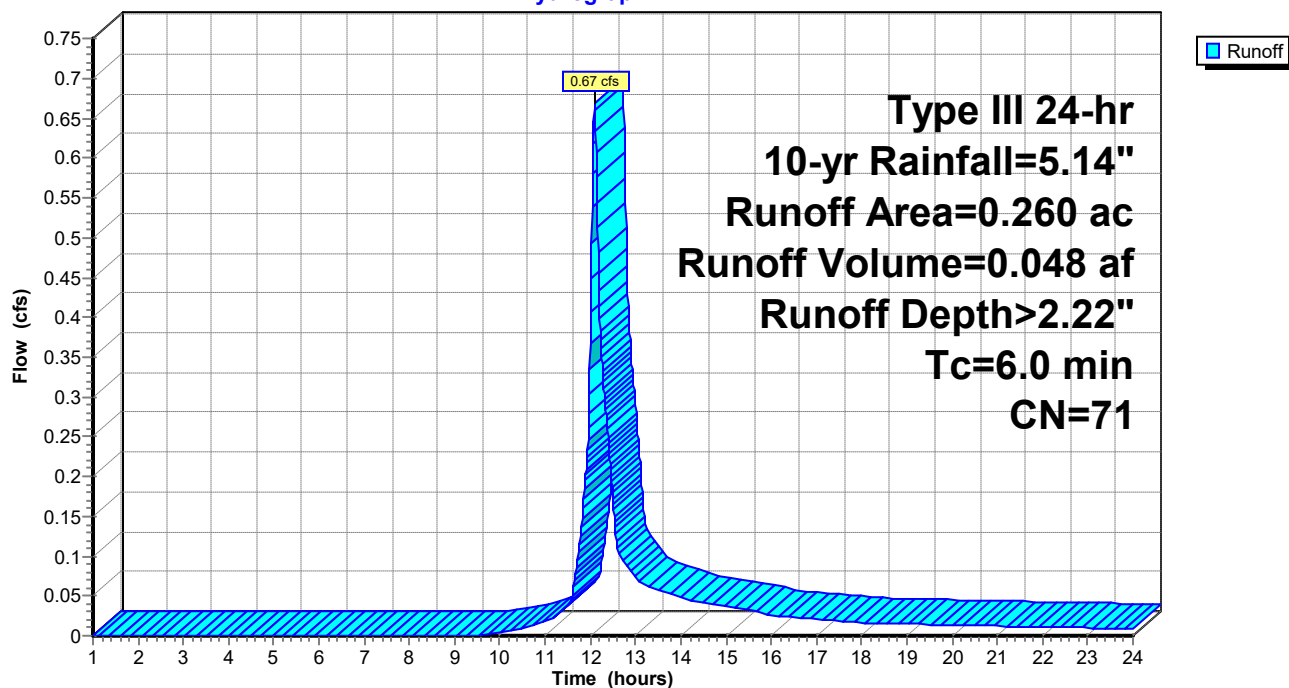
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.070	98	Paved parking, HSG B
0.190	61	>75% Grass cover, Good, HSG B
0.260	71	Weighted Average
0.190		73.08% Pervious Area
0.070		26.92% Impervious Area

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

Subcatchment 87S: LS-1

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 88S: LS-3

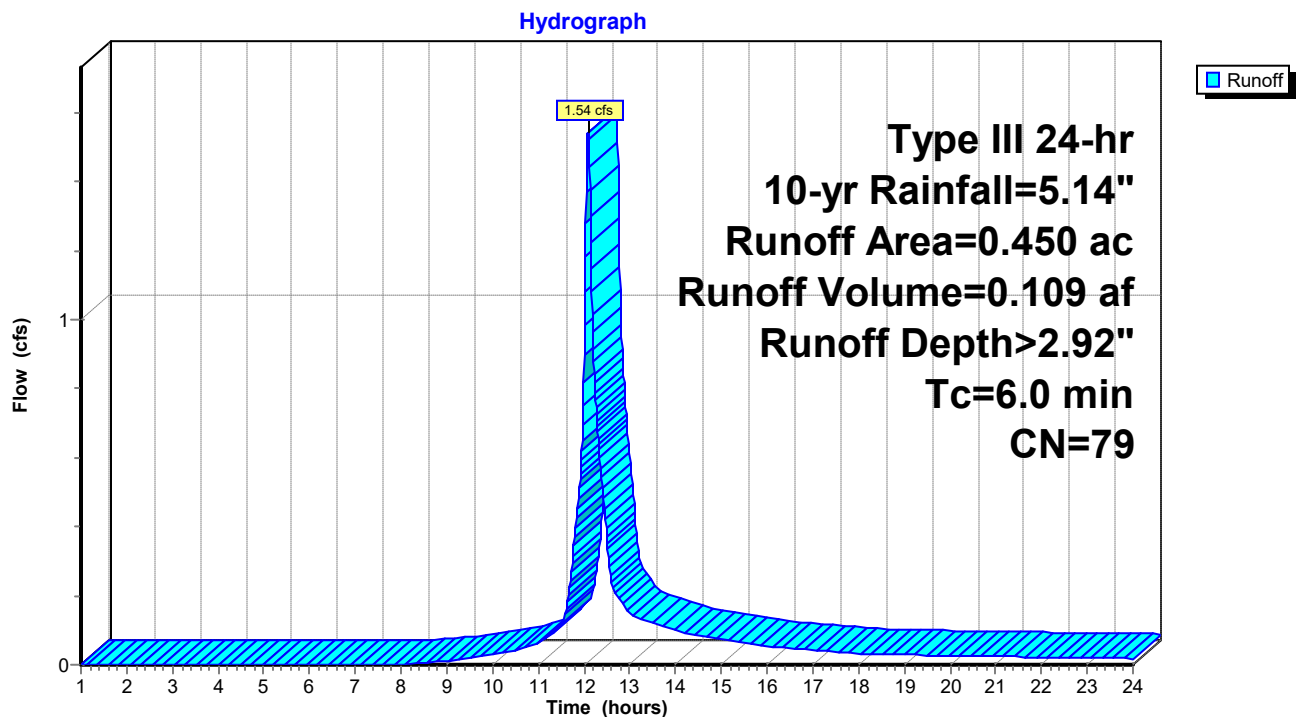
Runoff = 1.54 cfs @ 12.09 hrs, Volume= 0.109 af, Depth> 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.220	98	Paved parking, HSG B
0.230	61	>75% Grass cover, Good, HSG B
0.450	79	Weighted Average
0.230		51.11% Pervious Area
0.220		48.89% Impervious Area

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

Subcatchment 88S: LS-3



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 89S: LS-2

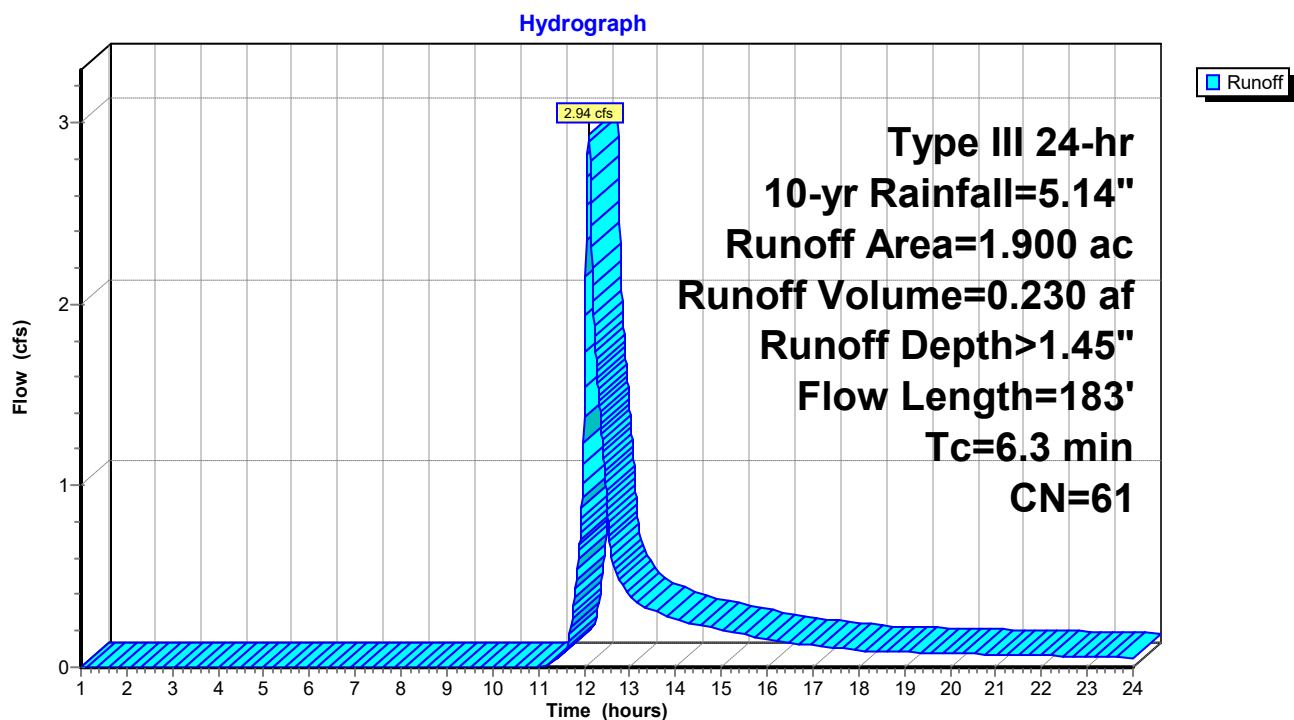
Runoff = 2.94 cfs @ 12.10 hrs, Volume= 0.230 af, Depth> 1.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.240	98	Paved parking, HSG B
0.210	61	>75% Grass cover, Good, HSG B
* 1.450	55	Woods, Good, HSG B
1.900	61	Weighted Average
1.660		87.37% Pervious Area
0.240		12.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	50	0.1500	0.15		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
0.6	67	0.1500	1.94		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.2	28	0.1200	2.42		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	38	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
6.3	183	Total			

Subcatchment 89S: LS-2



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 90S: LS-4

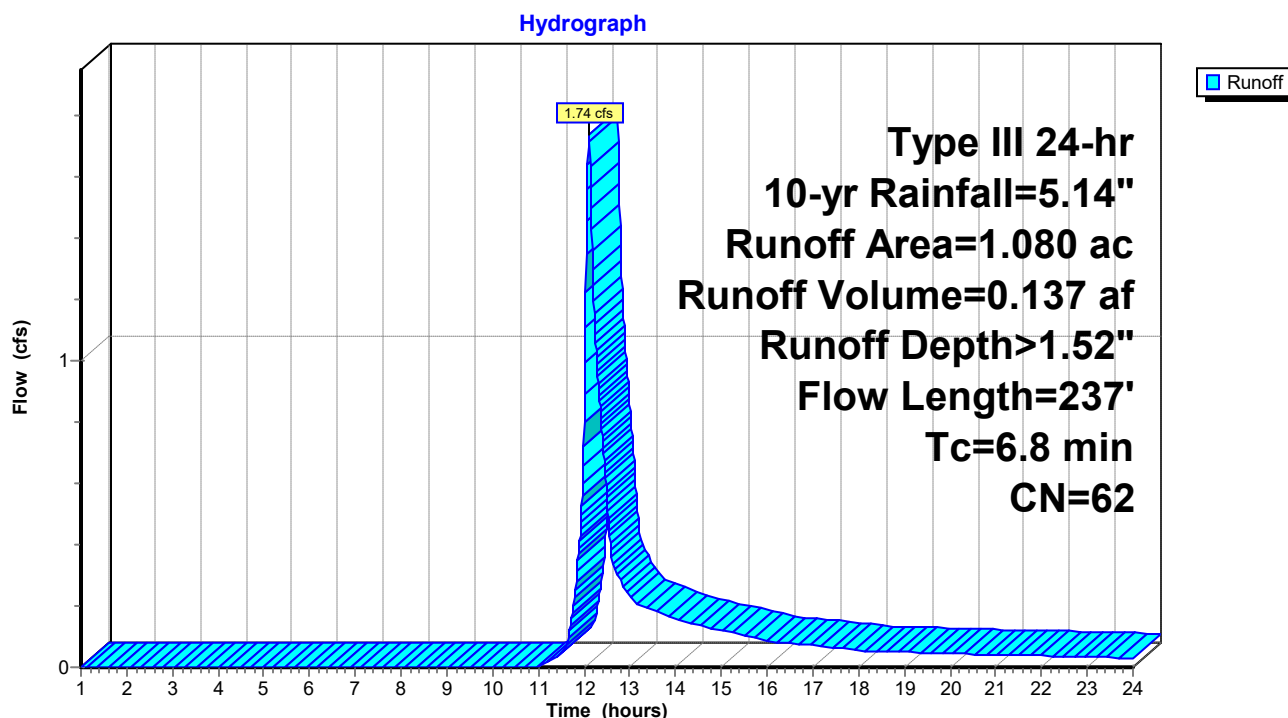
Runoff = 1.74 cfs @ 12.11 hrs, Volume= 0.137 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.150	98	Paved parking, HSG B
0.230	61	>75% Grass cover, Good, HSG B
0.700	55	Woods, Good, HSG B
1.080	62	Weighted Average
0.930		86.11% Pervious Area
0.150		13.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	50	0.1500	0.15		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
0.8	85	0.1200	1.73		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.5	70	0.1000	2.21		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	32	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
6.8	237	Total			

Subcatchment 90S: LS-4



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 91S: LS-6

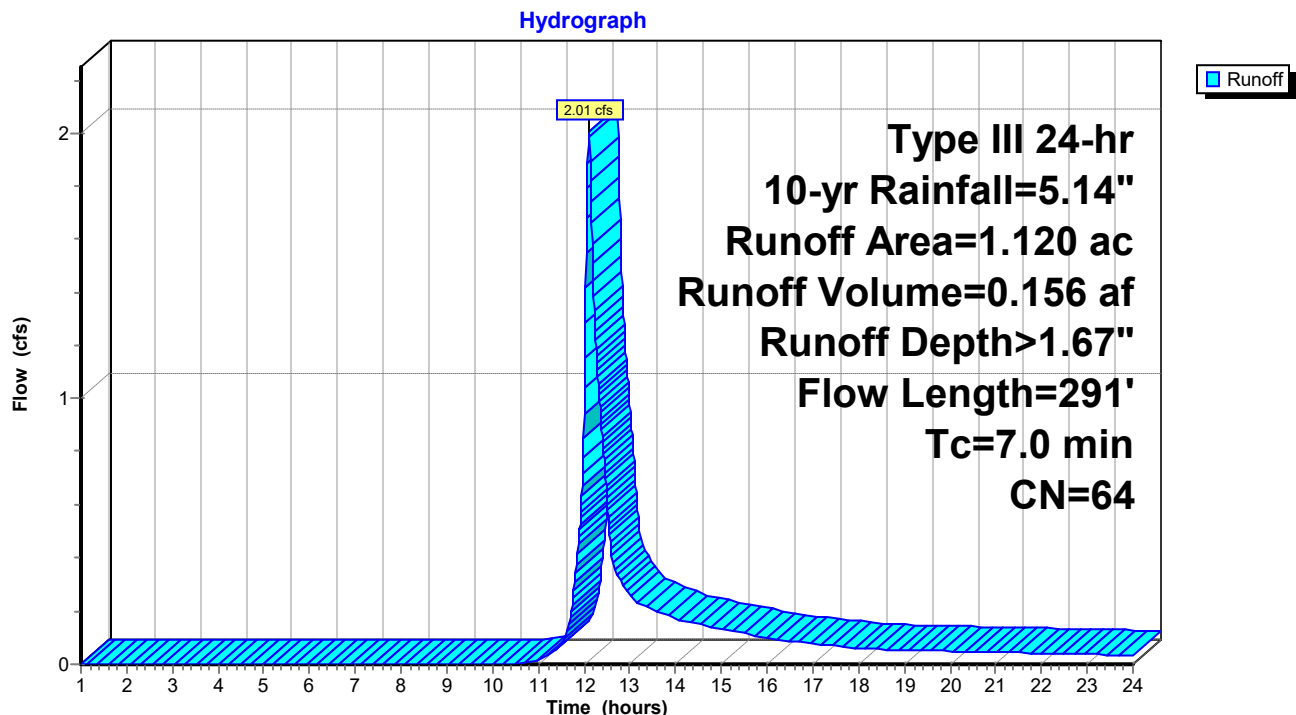
Runoff = 2.01 cfs @ 12.11 hrs, Volume= 0.156 af, Depth> 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.190	98	Paved parking, HSG B
0.230	61	>75% Grass cover, Good, HSG B
0.700	55	Woods, Good, HSG B
1.120	64	Weighted Average
0.930		83.04% Pervious Area
0.190		16.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	50	0.1500	0.15		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
1.0	120	0.1500	1.94		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.5	70	0.1000	2.21		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.1	51	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
7.0	291	Total			

Subcatchment 91S: LS-6



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 92S: LS-5

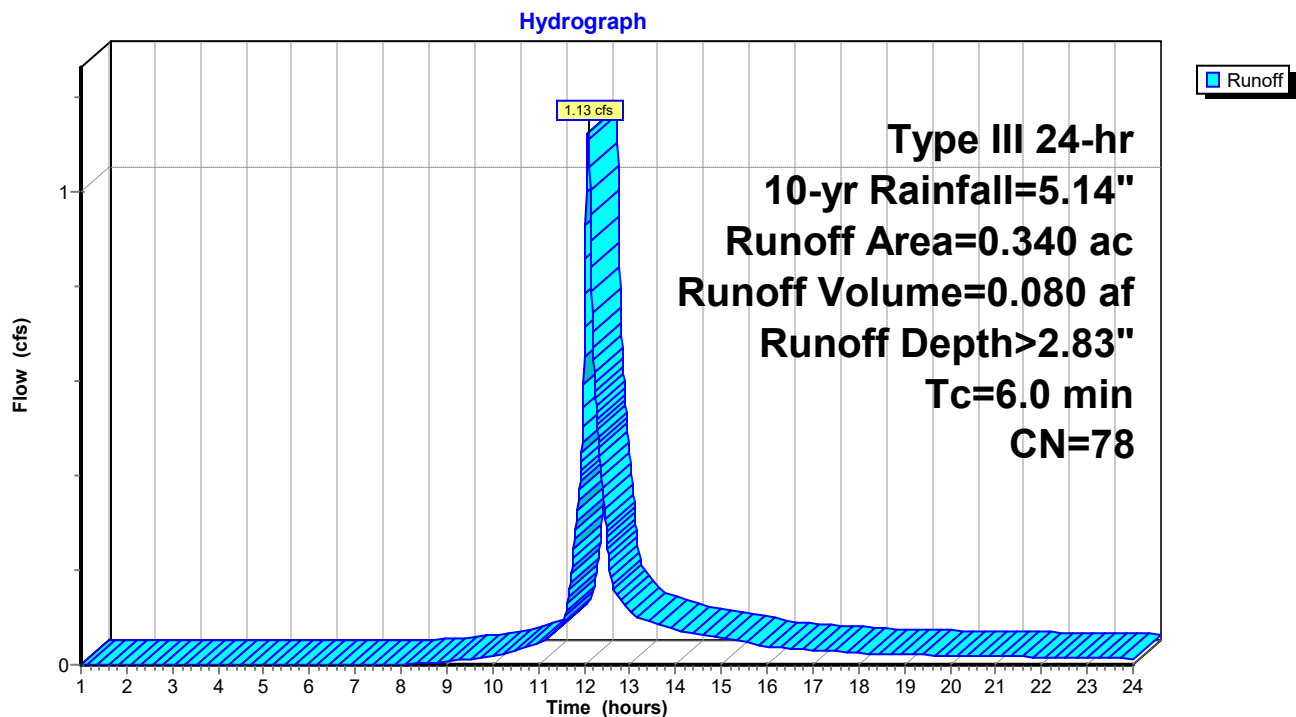
Runoff = 1.13 cfs @ 12.09 hrs, Volume= 0.080 af, Depth> 2.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.160	98	Paved parking, HSG B
0.180	61	>75% Grass cover, Good, HSG B
0.340	78	Weighted Average
0.180		52.94% Pervious Area
0.160		47.06% Impervious Area

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

Subcatchment 92S: LS-5



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 95S: CS-15

Runoff = 0.60 cfs @ 12.08 hrs, Volume= 0.049 af, Depth> 4.90"

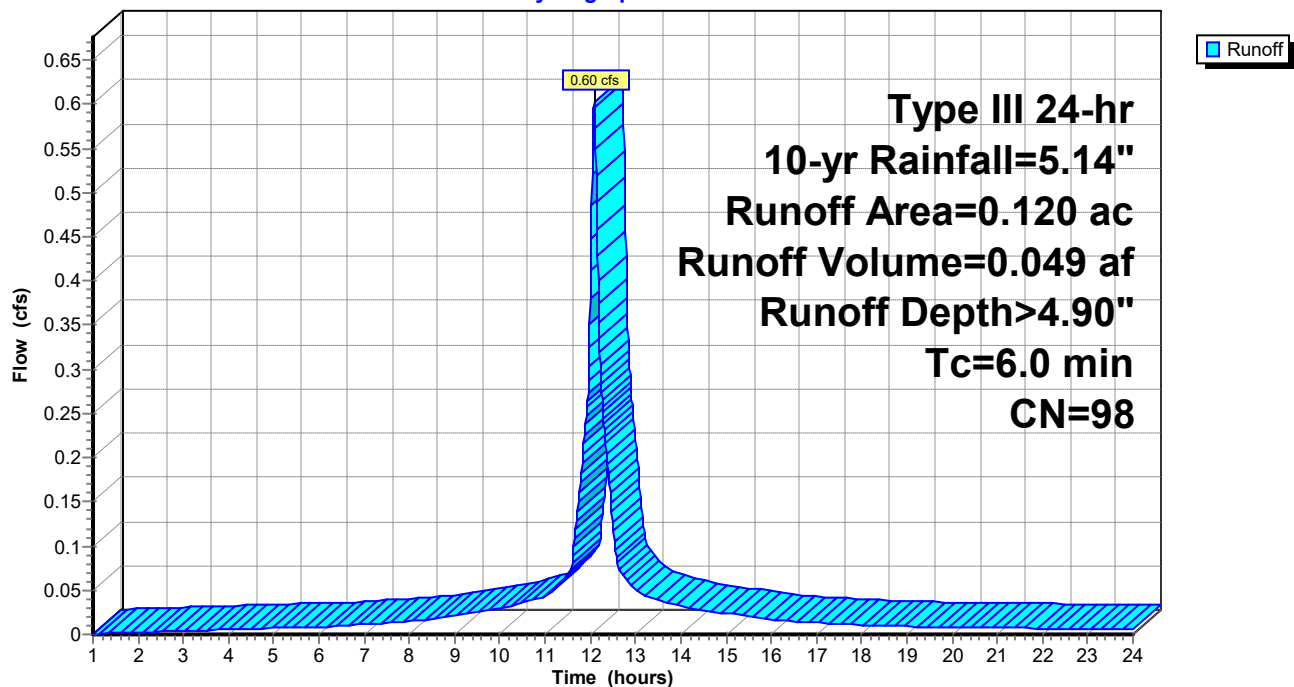
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.120	98	Paved parking, HSG B
0.120		100.00% Impervious Area

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

Subcatchment 95S: CS-15

Hydrograph



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 96S: CS-16a

Runoff = 3.67 cfs @ 12.10 hrs, Volume= 0.292 af, Depth> 1.31"

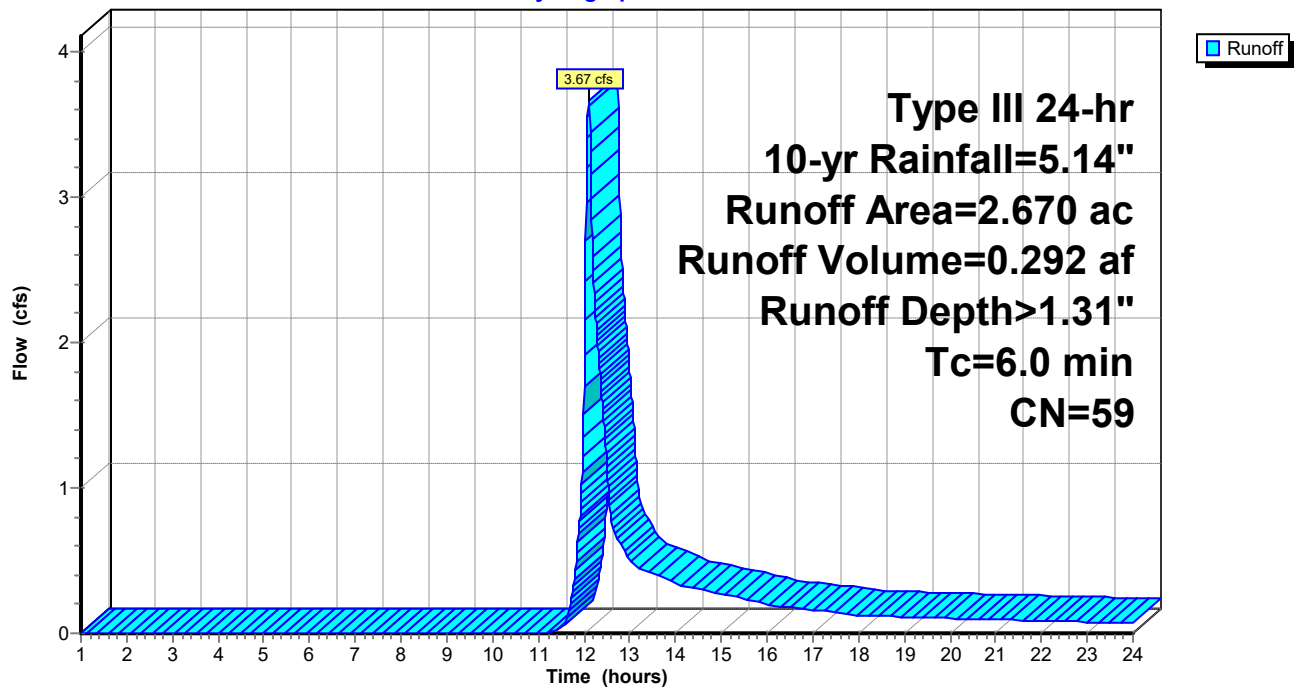
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.140	98	Paved parking, HSG B
0.840	61	>75% Grass cover, Good, HSG B
* 1.690	55	Woods, Good, HSG B
2.670	59	Weighted Average
2.530		94.76% Pervious Area
0.140		5.24% Impervious Area

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

Subcatchment 96S: CS-16a

Hydrograph



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 97S: CS-17b

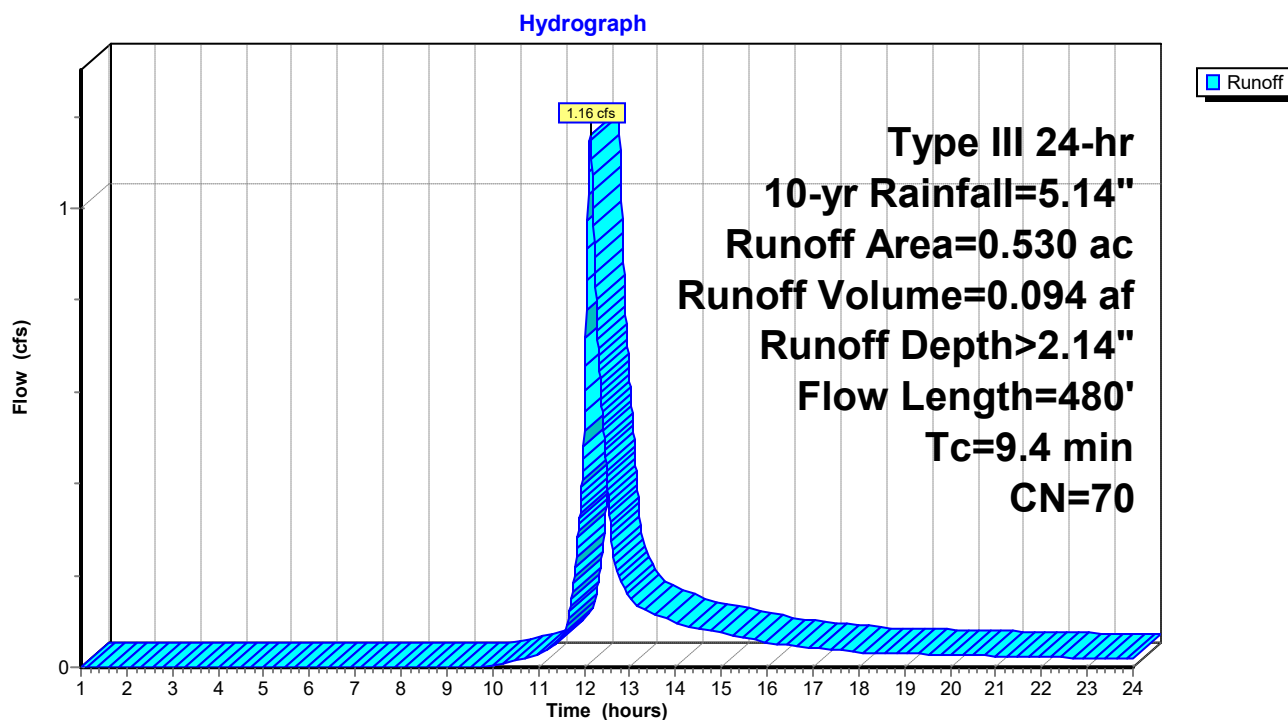
Runoff = 1.16 cfs @ 12.14 hrs, Volume= 0.094 af, Depth> 2.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.150	98	Paved parking, HSG B
0.220	61	>75% Grass cover, Good, HSG B
* 0.160	55	Woods, Good, HSG B
0.530	70	Weighted Average
0.380		71.70% Pervious Area
0.150		28.30% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.1000	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
1.7	200	0.1500	1.94		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.0	130	0.1000	2.21		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.3	100	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
9.4	480	Total			

Subcatchment 97S: CS-17b



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 98S: CS-18

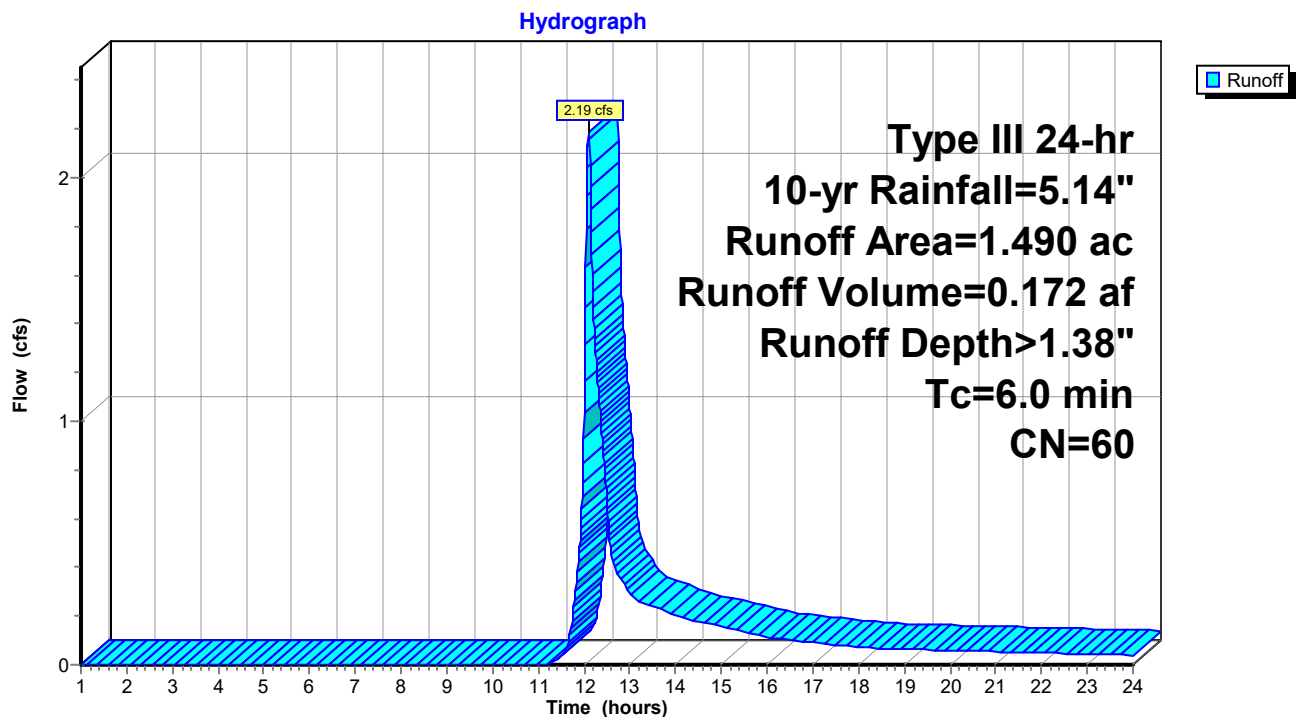
Runoff = 2.19 cfs @ 12.10 hrs, Volume= 0.172 af, Depth> 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.190	98	Paved parking, HSG B
1.300	55	Woods, Good, HSG B
1.490	60	Weighted Average
1.300		87.25% Pervious Area
0.190		12.75% Impervious Area

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

Subcatchment 98S: CS-18



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 99S: CS-19c

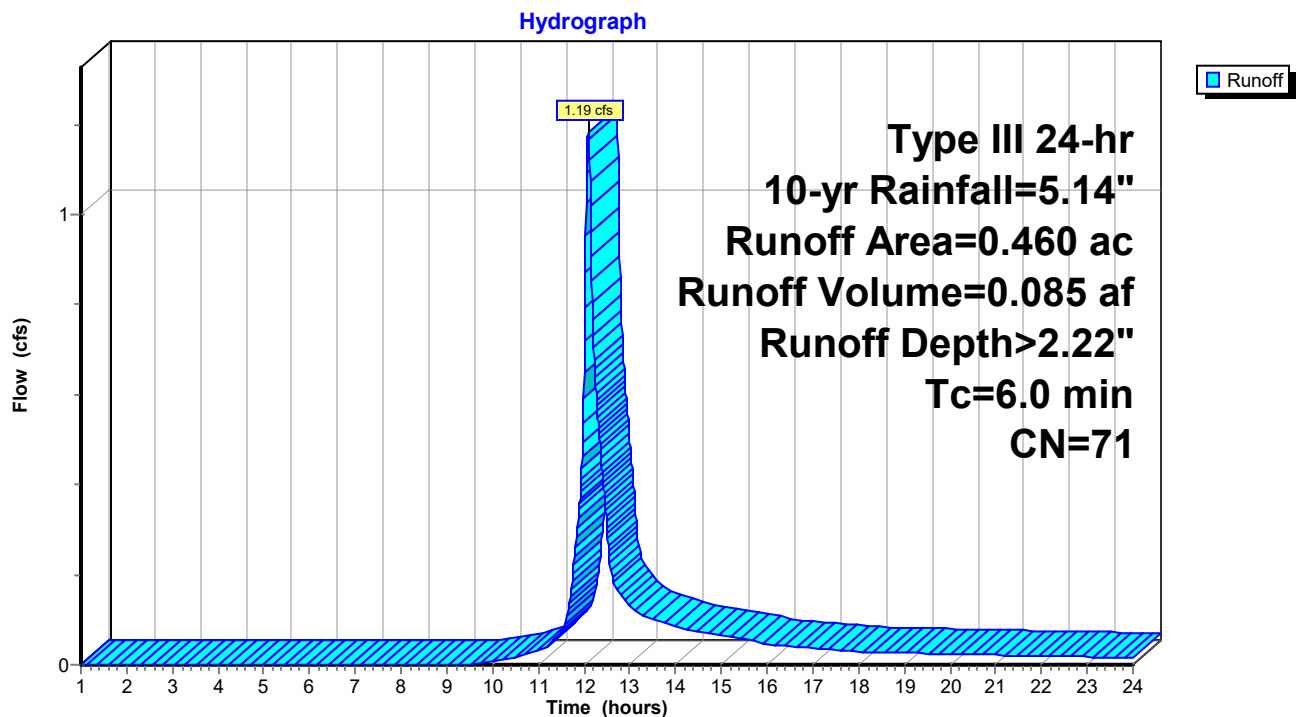
Runoff = 1.19 cfs @ 12.09 hrs, Volume= 0.085 af, Depth> 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.120	98	Paved parking, HSG B
0.340	61	>75% Grass cover, Good, HSG B
0.460	71	Weighted Average
0.340		73.91% Pervious Area
0.120		26.09% Impervious Area

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

Subcatchment 99S: CS-19c



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Summary for Subcatchment 100S: CS-20

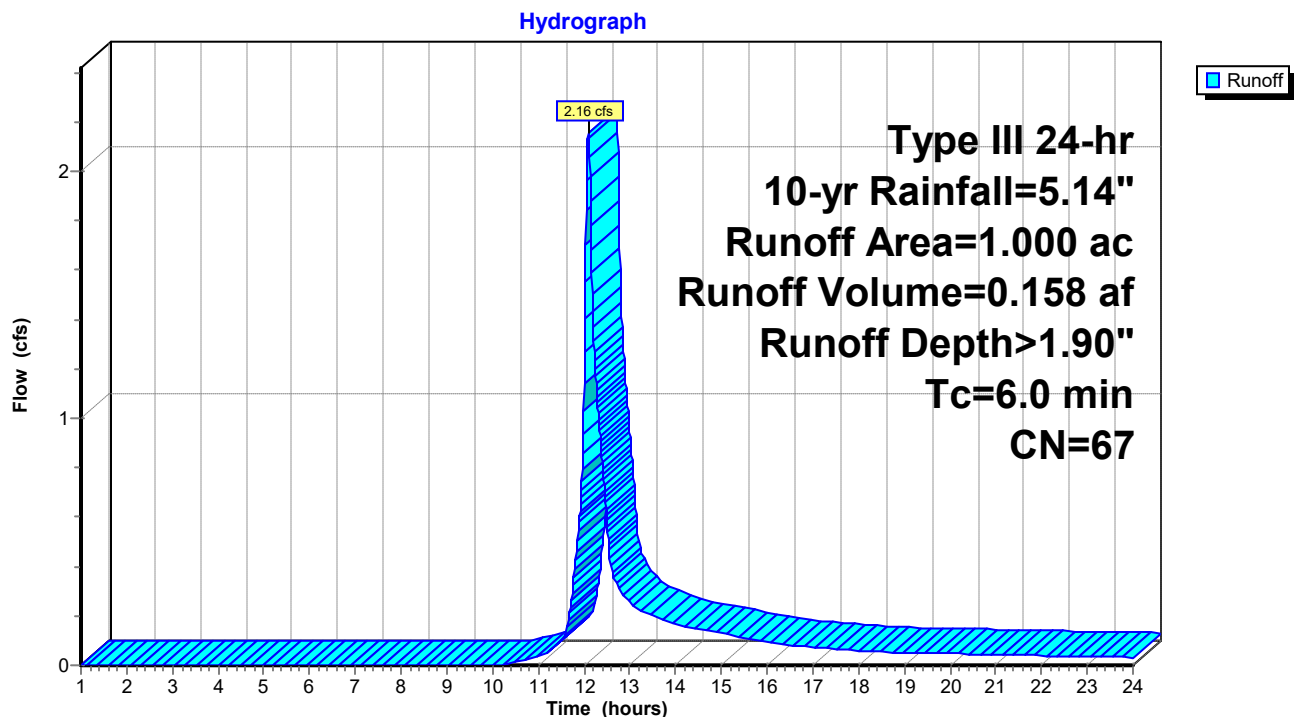
Runoff = 2.16 cfs @ 12.09 hrs, Volume= 0.158 af, Depth> 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.230	98	Paved parking, HSG B
0.330	61	>75% Grass cover, Good, HSG B
0.440	55	Woods, Good, HSG B
1.000	67	Weighted Average
0.770		77.00% Pervious Area
0.230		23.00% Impervious Area

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

Subcatchment 100S: CS-20



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Summary for Subcatchment 101S: LD-6

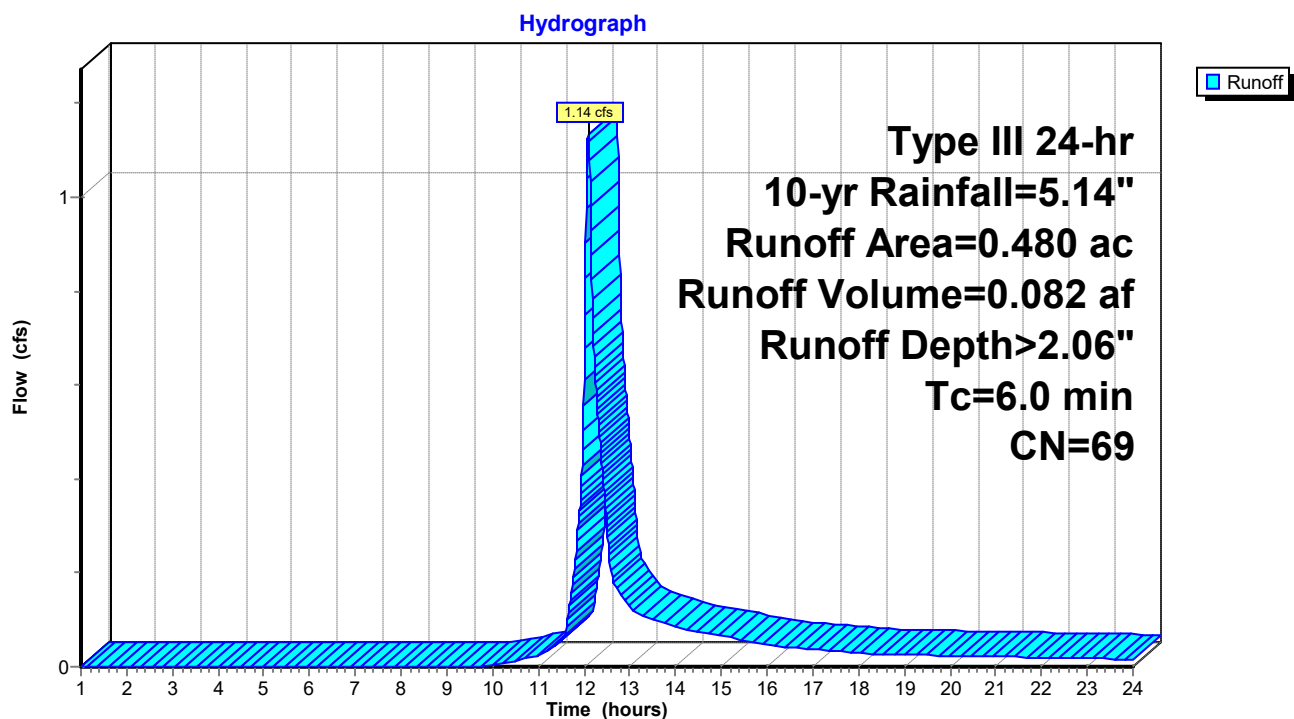
Runoff = 1.14 cfs @ 12.09 hrs, Volume= 0.082 af, Depth> 2.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.240	98	Paved parking, HSG A
0.240	39	>75% Grass cover, Good, HSG A
0.480	69	Weighted Average
0.240		50.00% Pervious Area
0.240		50.00% Impervious Area

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

Subcatchment 101S: LD-6



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 102S: LD-7

Runoff = 0.73 cfs @ 12.10 hrs, Volume= 0.056 af, Depth> 1.52"

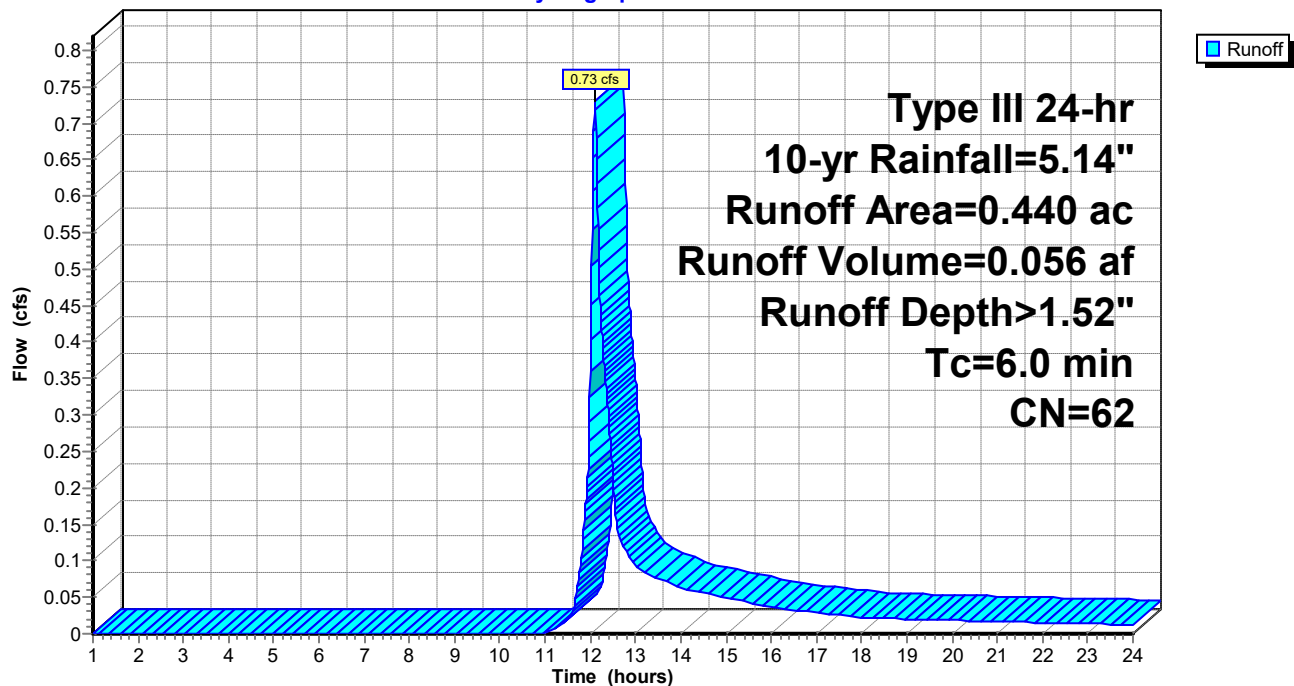
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.170	98	Paved parking, HSG A
0.270	39	>75% Grass cover, Good, HSG A
0.440	62	Weighted Average
0.270		61.36% Pervious Area
0.170		38.64% Impervious Area

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

Subcatchment 102S: LD-7

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 103S: PS-1

Runoff = 0.45 cfs @ 12.09 hrs, Volume= 0.033 af, Depth> 1.90"

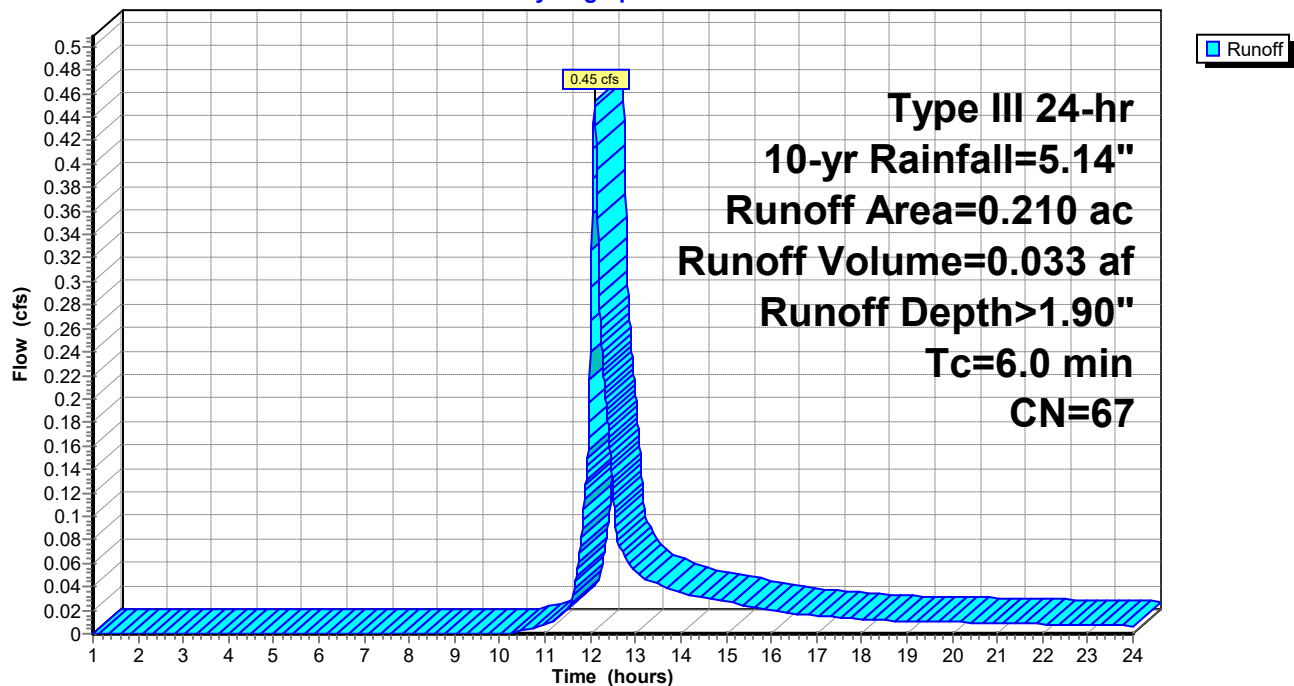
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.100	98	Paved parking, HSG A
0.110	39	>75% Grass cover, Good, HSG A
0.210	67	Weighted Average
0.110		52.38% Pervious Area
0.100		47.62% Impervious Area

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

Subcatchment 103S: PS-1

Hydrograph



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 104S: PS-2

Runoff = 0.42 cfs @ 12.09 hrs, Volume= 0.030 af, Depth> 3.59"

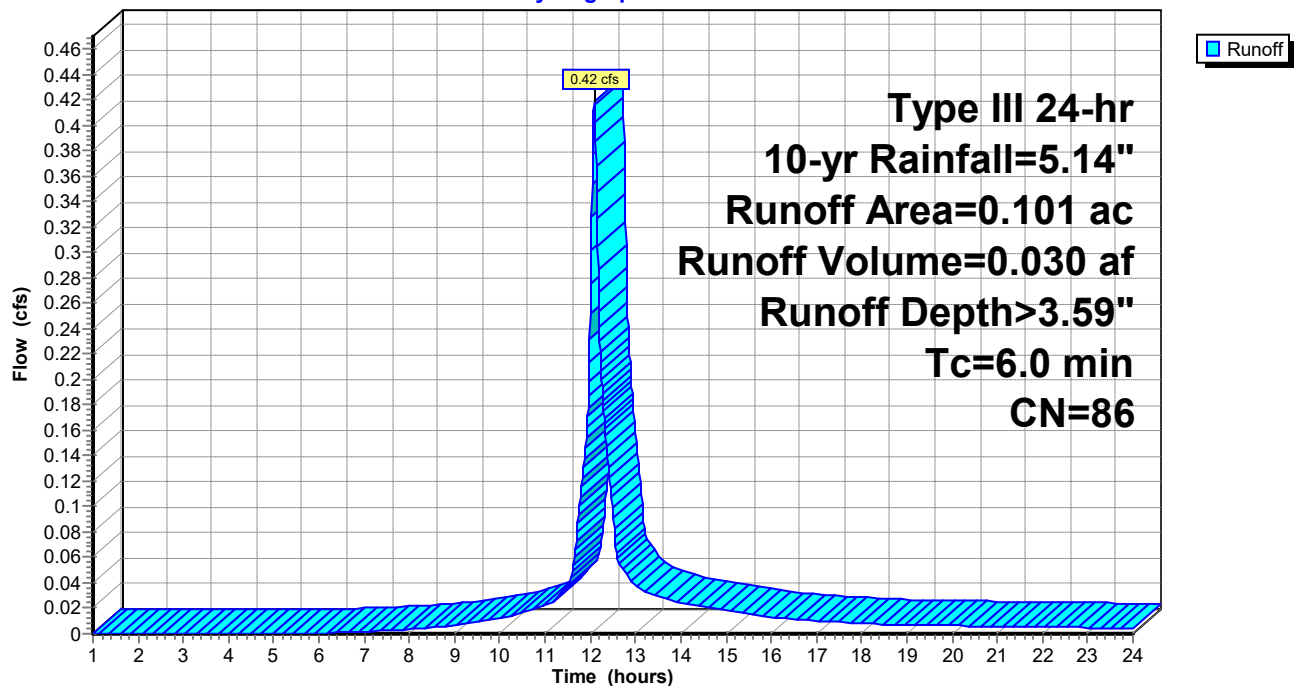
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.080	98	Paved parking, HSG A
0.021	39	>75% Grass cover, Good, HSG A
0.101	86	Weighted Average
0.021		20.79% Pervious Area
0.080		79.21% Impervious Area

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

Subcatchment 104S: PS-2

Hydrograph



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 105S: PS-3

Runoff = 0.86 cfs @ 12.09 hrs, Volume= 0.062 af, Depth> 2.39"

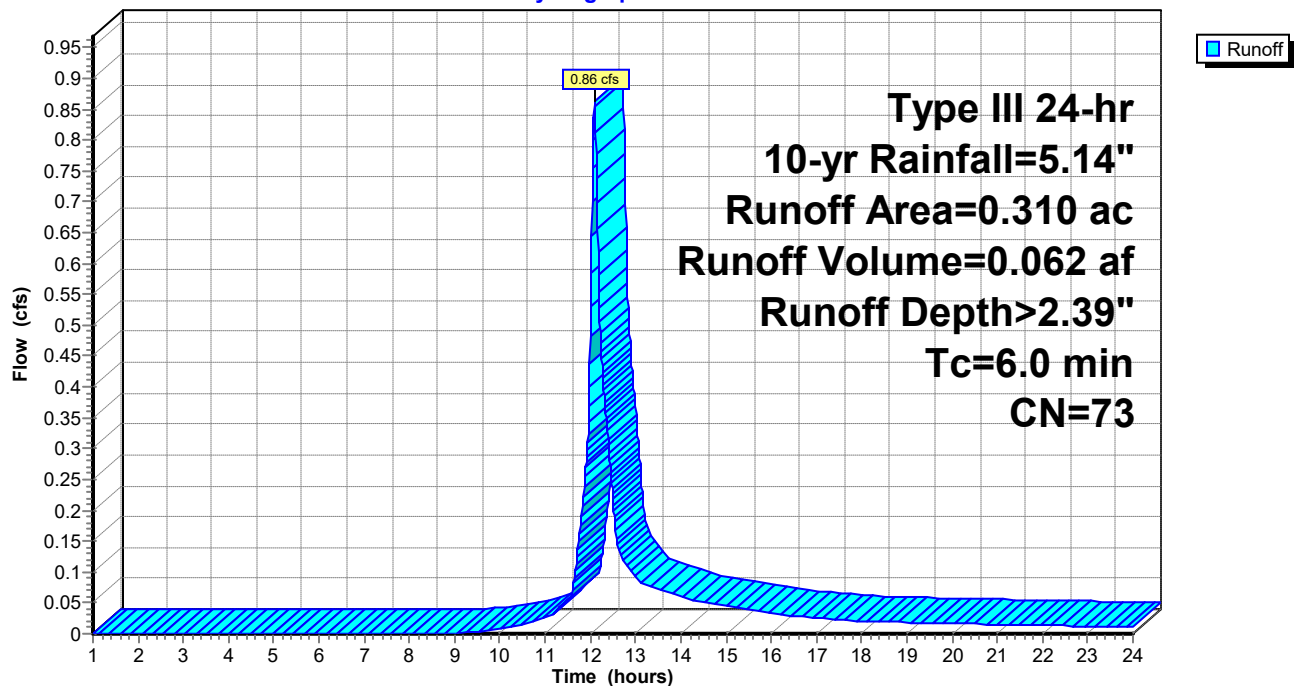
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.180	98	Paved parking, HSG A
0.130	39	>75% Grass cover, Good, HSG A
0.310	73	Weighted Average
0.130		41.94% Pervious Area
0.180		58.06% Impervious Area

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

Subcatchment 105S: PS-3

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 106S: LD-5

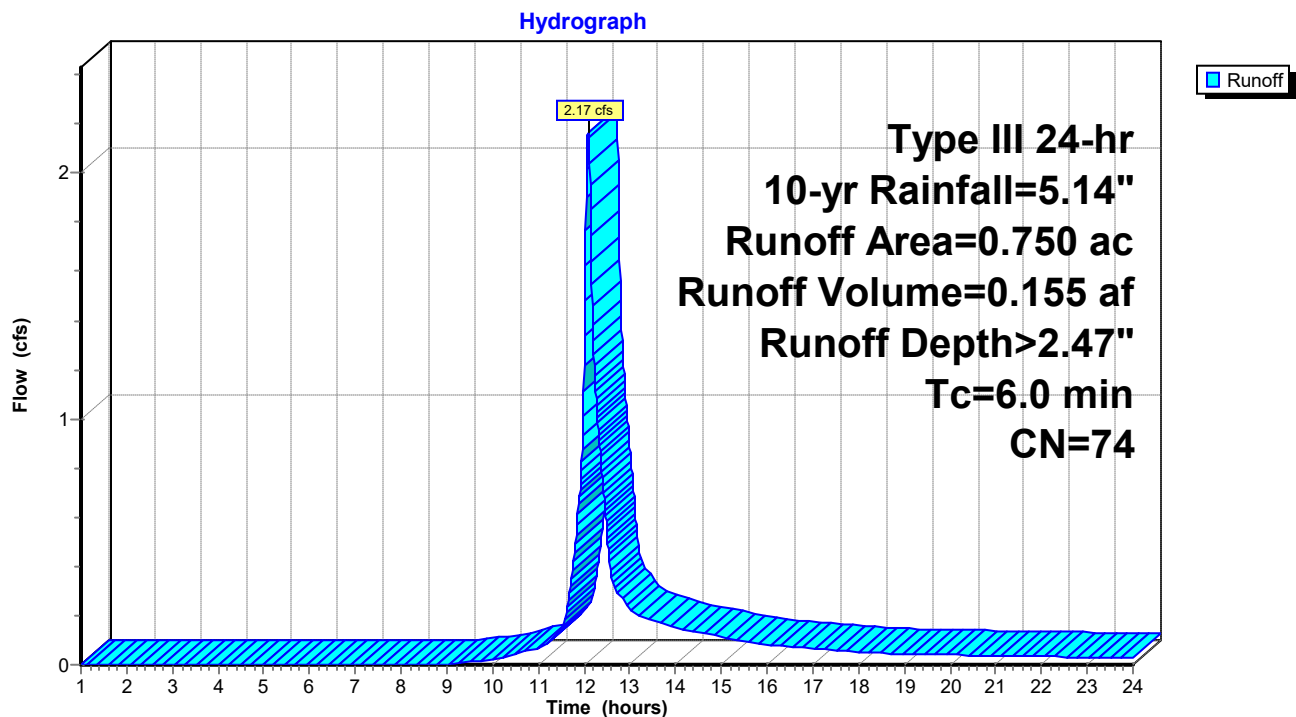
Runoff = 2.17 cfs @ 12.09 hrs, Volume= 0.155 af, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.440	98	Paved parking, HSG A
0.310	39	>75% Grass cover, Good, HSG A
0.750	74	Weighted Average
0.310		41.33% Pervious Area
0.440		58.67% Impervious Area

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

Subcatchment 106S: LD-5



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 107S: LD-4

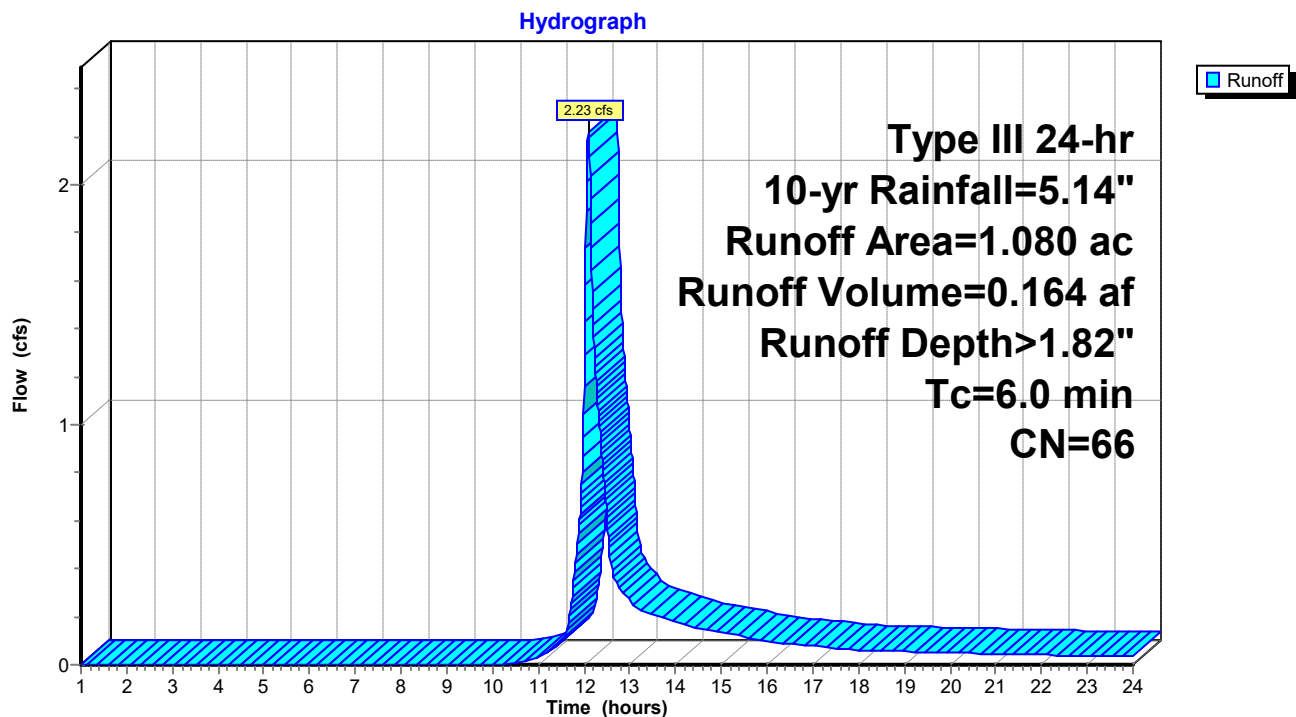
Runoff = 2.23 cfs @ 12.09 hrs, Volume= 0.164 af, Depth> 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.490	98	Paved parking, HSG A
0.590	39	>75% Grass cover, Good, HSG A
1.080	66	Weighted Average
0.590		54.63% Pervious Area
0.490		45.37% Impervious Area

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

Subcatchment 107S: LD-4



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 108S: LD-3

Runoff = 9.86 cfs @ 12.16 hrs, Volume= 0.867 af, Depth> 1.67"

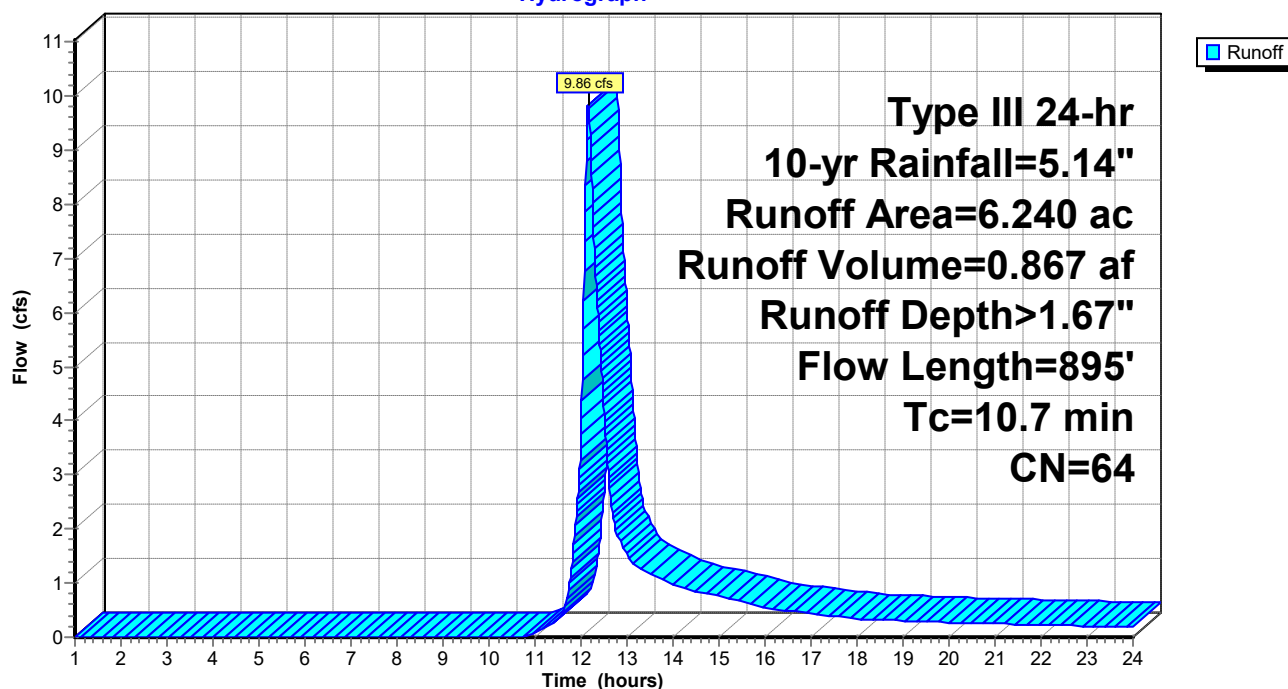
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.990	98	Paved parking, HSG B
1.970	61	>75% Grass cover, Good, HSG B
3.280	55	Woods, Good, HSG B
6.240	64	Weighted Average
5.250		84.13% Pervious Area
0.990		15.87% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.1000	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
2.9	275	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.4	570	0.1200	7.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps
10.7	895	Total			

Subcatchment 108S: LD-3

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 109S: LD-2

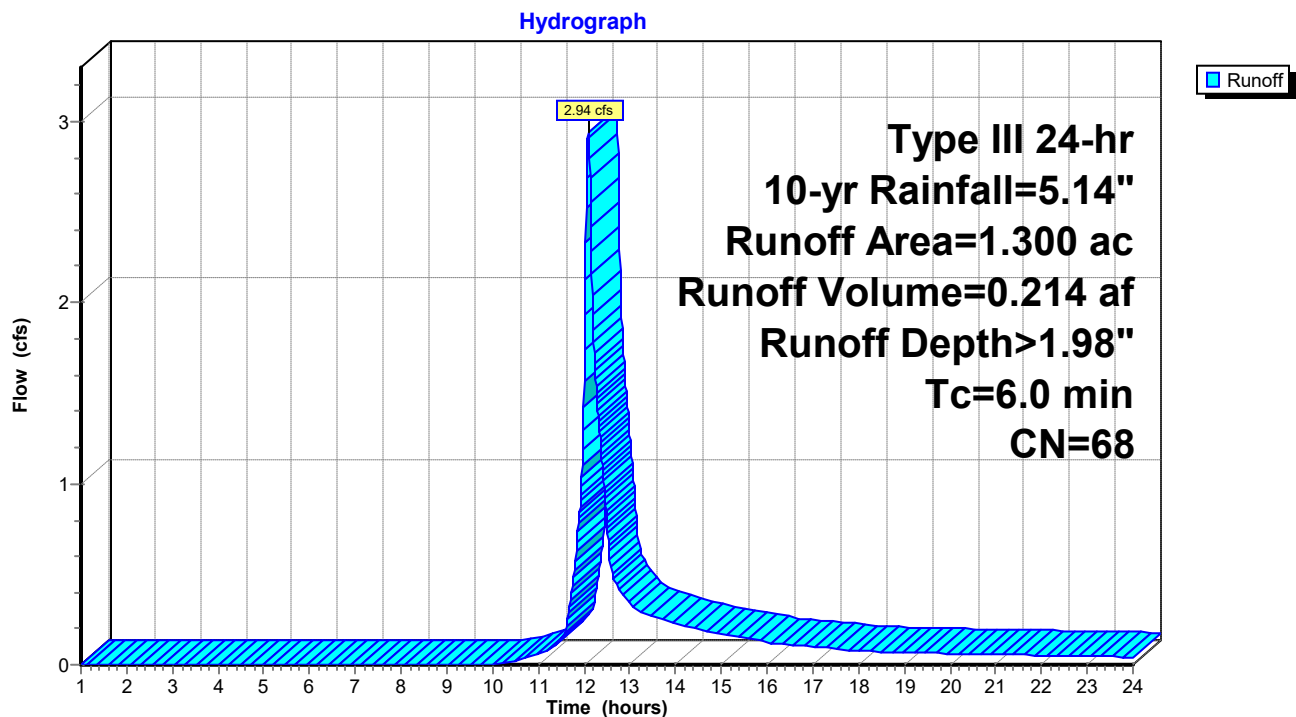
Runoff = 2.94 cfs @ 12.09 hrs, Volume= 0.214 af, Depth> 1.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.250	98	Paved parking, HSG B
1.050	61	>75% Grass cover, Good, HSG B
1.300	68	Weighted Average
1.050		80.77% Pervious Area
0.250		19.23% Impervious Area

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

Subcatchment 109S: LD-2



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 110S: LD-1b

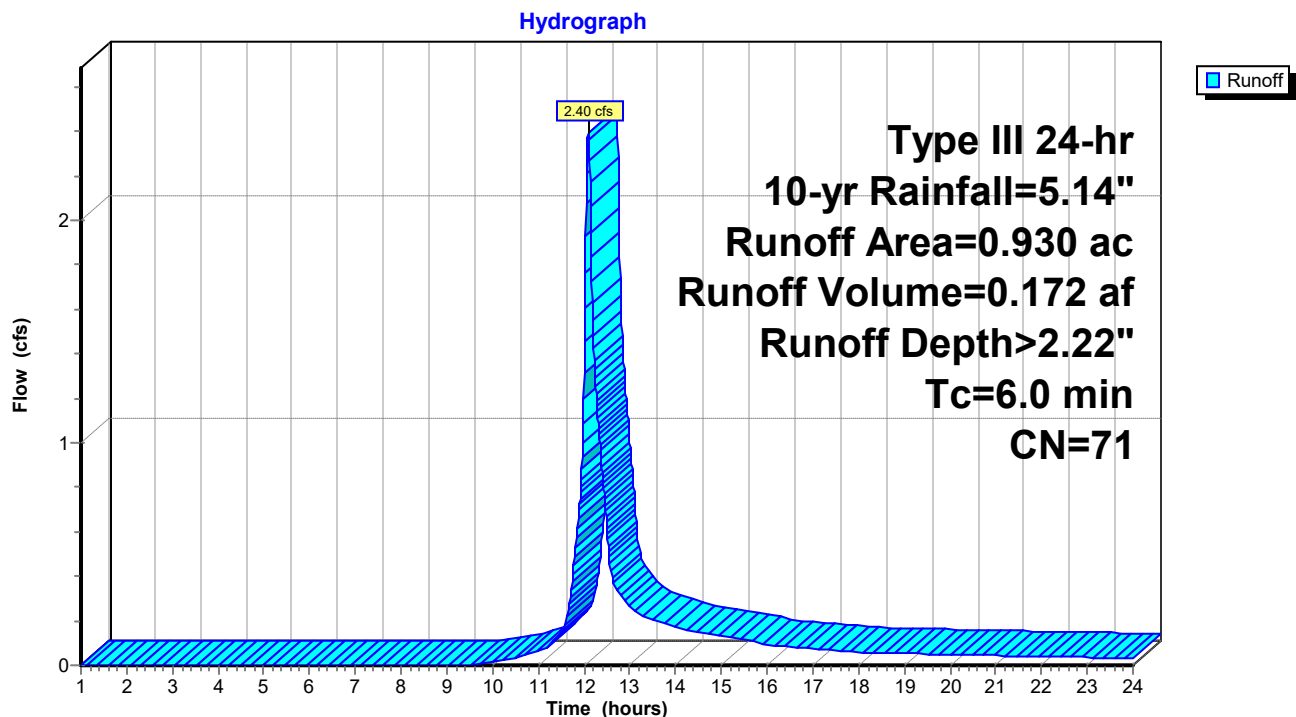
Runoff = 2.40 cfs @ 12.09 hrs, Volume= 0.172 af, Depth> 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.430	98	Paved parking, HSG A
0.250	39	>75% Grass cover, Good, HSG A
0.250	55	Woods, Good, HSG B
0.930	71	Weighted Average
0.500		53.76% Pervious Area
0.430		46.24% Impervious Area

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

Subcatchment 110S: LD-1b



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 111S: MS-1

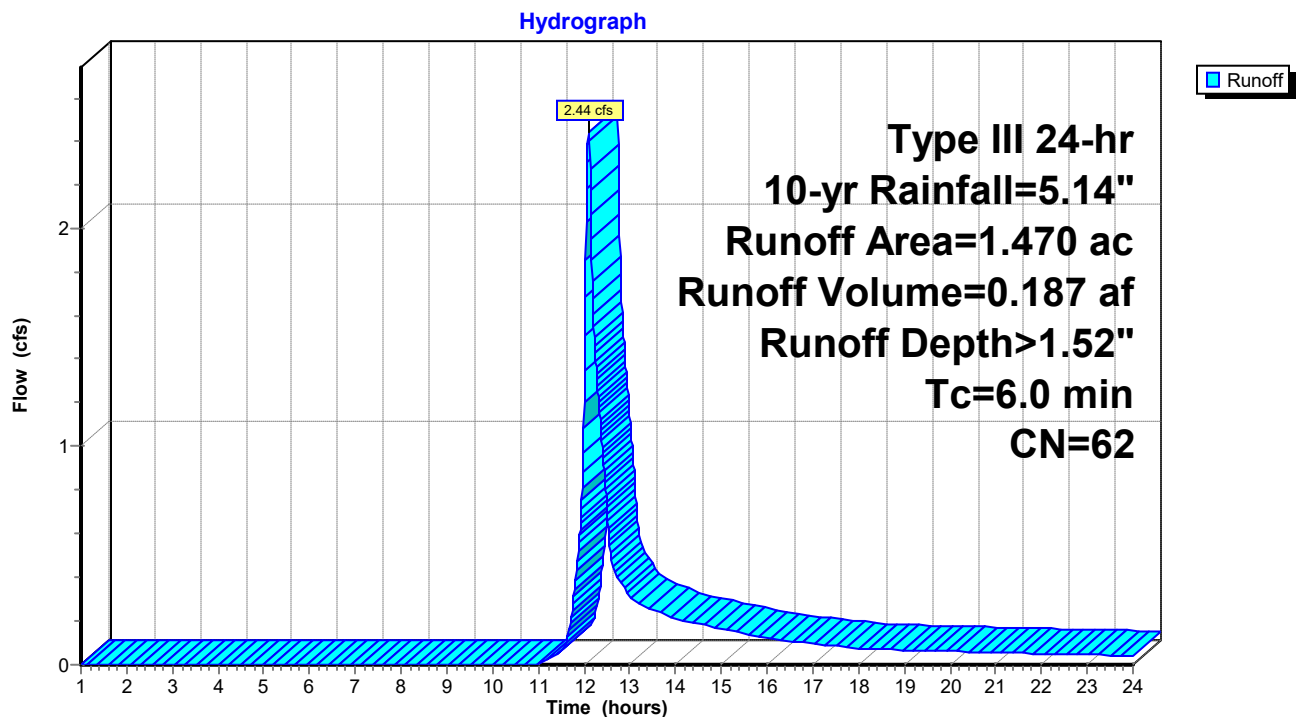
Runoff = 2.44 cfs @ 12.10 hrs, Volume= 0.187 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.580	98	Paved parking, HSG A
0.890	39	>75% Grass cover, Good, HSG A
1.470	62	Weighted Average
0.890		60.54% Pervious Area
0.580		39.46% Impervious Area

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

Subcatchment 111S: MS-1



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 112S: MS-2

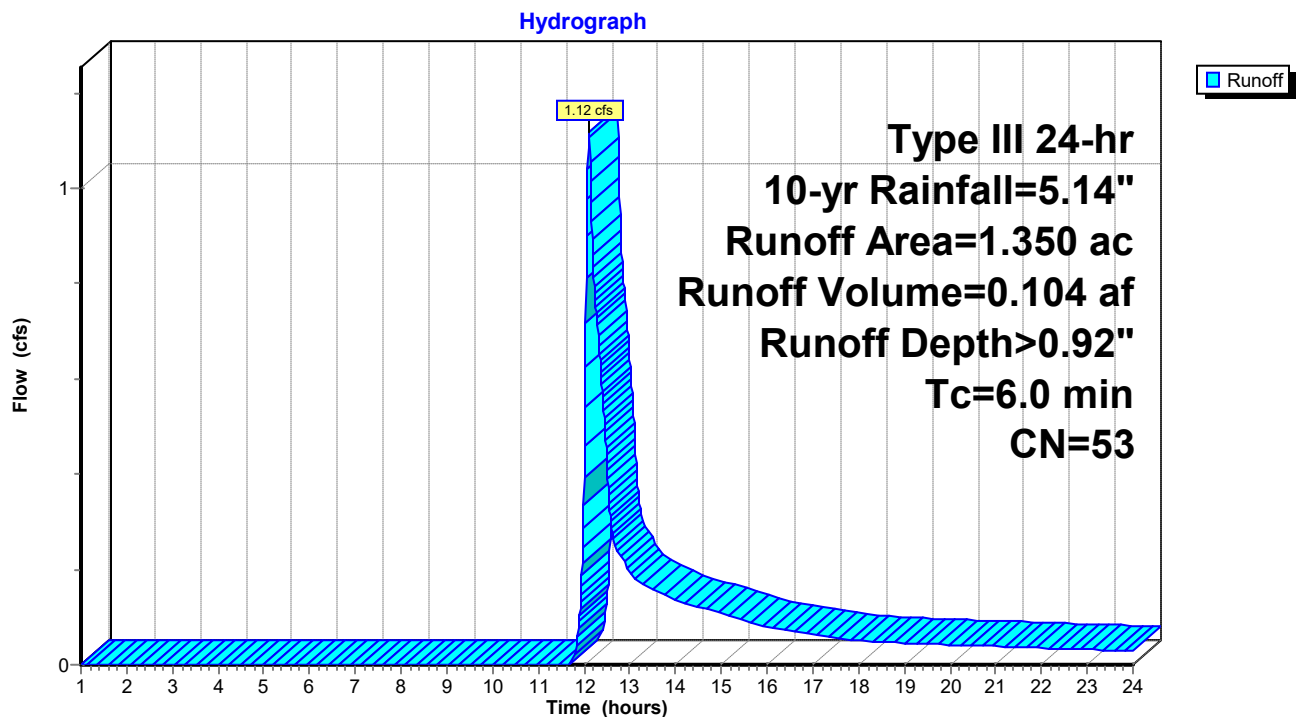
Runoff = 1.12 cfs @ 12.11 hrs, Volume= 0.104 af, Depth> 0.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.310	98	Paved parking, HSG A
1.040	39	>75% Grass cover, Good, HSG A
1.350	53	Weighted Average
1.040		77.04% Pervious Area
0.310		22.96% Impervious Area

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

Subcatchment 112S: MS-2



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 113S: CS-13

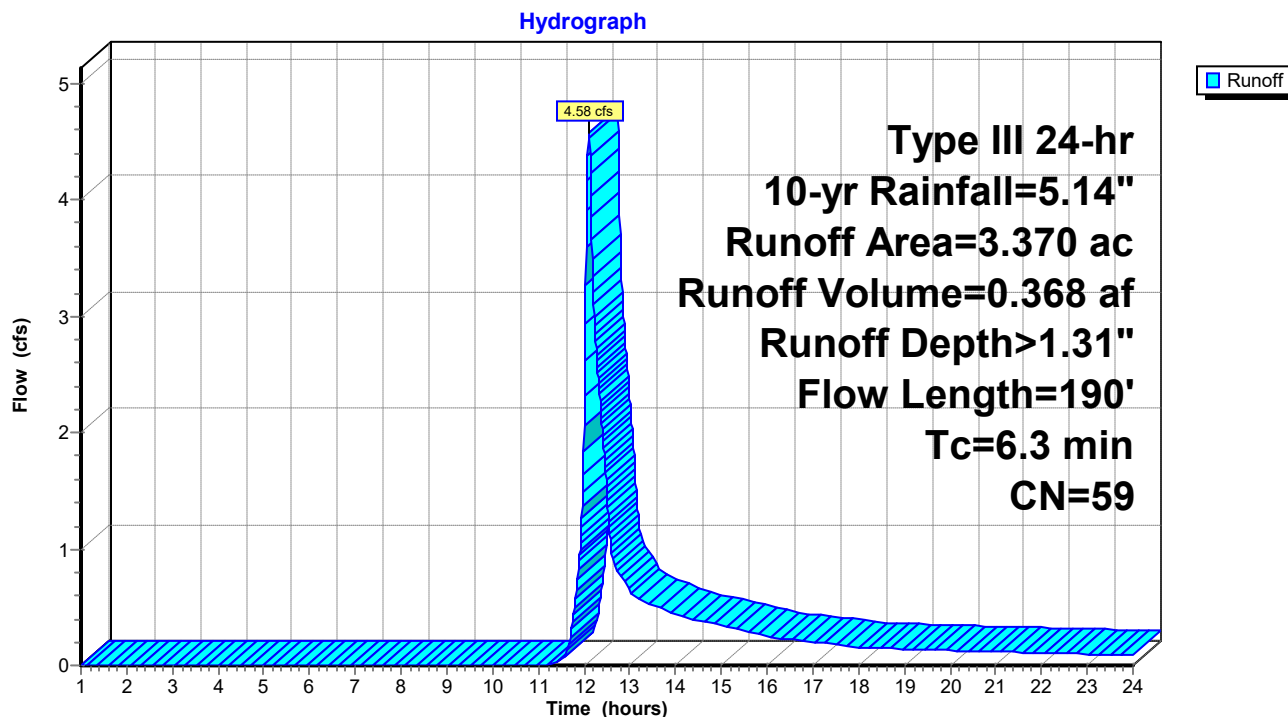
Runoff = 4.58 cfs @ 12.10 hrs, Volume= 0.368 af, Depth> 1.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.230	98	Paved parking, HSG B
0.350	61	>75% Grass cover, Good, HSG B
2.790	55	Woods, Good, HSG B
3.370	59	Weighted Average
3.140		93.18% Pervious Area
0.230		6.82% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	50	0.2000	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
1.5	140	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.3	190	Total			

Subcatchment 113S: CS-13



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 114S: CS-14

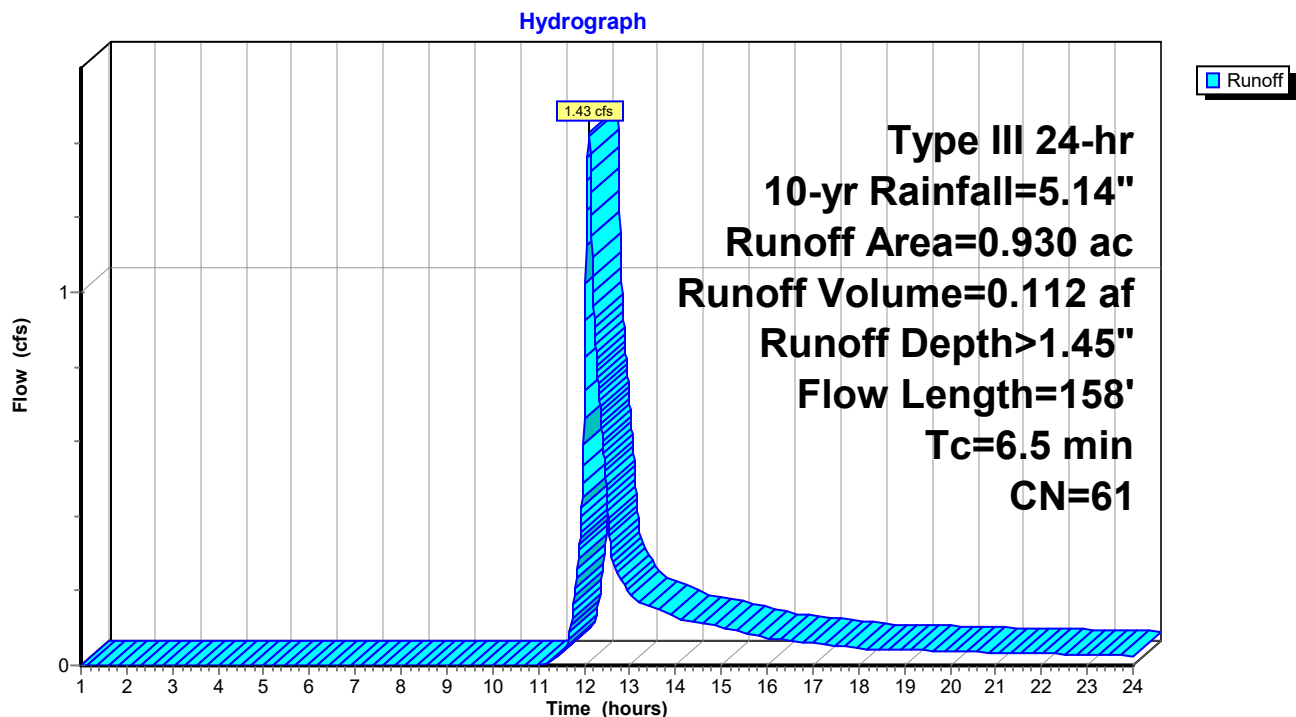
Runoff = 1.43 cfs @ 12.10 hrs, Volume= 0.112 af, Depth> 1.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.080	98	Paved parking, HSG B
0.380	61	>75% Grass cover, Good, HSG B
0.470	55	Woods, Good, HSG B
0.930	61	Weighted Average
0.850		91.40% Pervious Area
0.080		8.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	50	0.1500	0.15		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
1.1	108	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
6.5	158	Total			

Subcatchment 114S: CS-14



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 115S: CS-19a

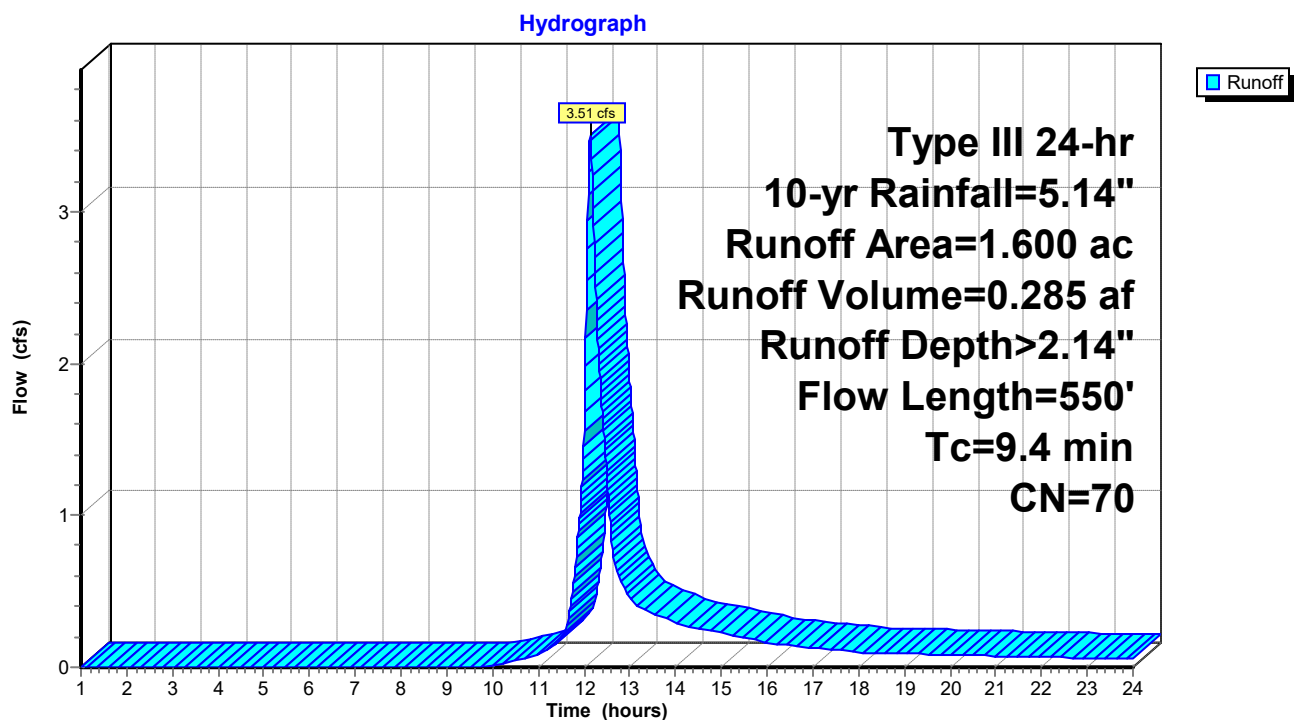
Runoff = 3.51 cfs @ 12.14 hrs, Volume= 0.285 af, Depth> 2.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.480	98	Paved parking, HSG B
0.480	61	>75% Grass cover, Good, HSG B
* 0.640	55	Woods, Good, HSG B
1.600	70	Weighted Average
1.120		70.00% Pervious Area
0.480		30.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.1000	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
1.7	200	0.1500	1.94		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.8	100	0.1000	2.21		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.5	200	0.1000	6.42		Shallow Concentrated Flow, Paved Kv= 20.3 fps
9.4	550	Total			

Subcatchment 115S: CS-19a



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 116S: CS-17a

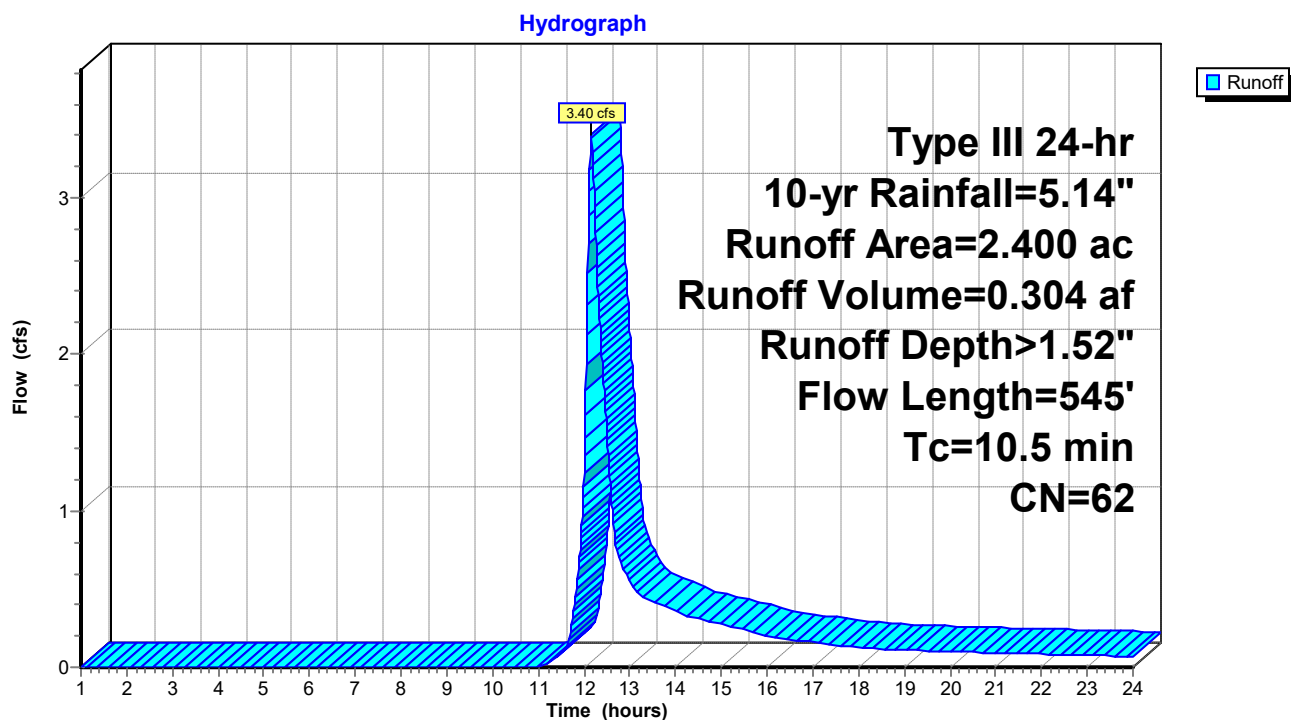
Runoff = 3.40 cfs @ 12.16 hrs, Volume= 0.304 af, Depth> 1.52"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.240	98	Paved parking, HSG B
0.960	61	>75% Grass cover, Good, HSG B
* 1.200	55	Woods, Good, HSG B
2.400	62	Weighted Average
2.160		90.00% Pervious Area
0.240		10.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	50	0.1000	0.13		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
2.1	245	0.1500	1.94		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
1.1	145	0.1000	2.21		Shallow Concentrated Flow, Short Grass Pasture Kv= 7.0 fps
0.9	105	0.0100	2.03		Shallow Concentrated Flow, Paved Kv= 20.3 fps
10.5	545	Total			

Subcatchment 116S: CS-17a



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 117S: CS-16b

[46] Hint: $T_c=0$ (Instant runoff peak depends on dt)

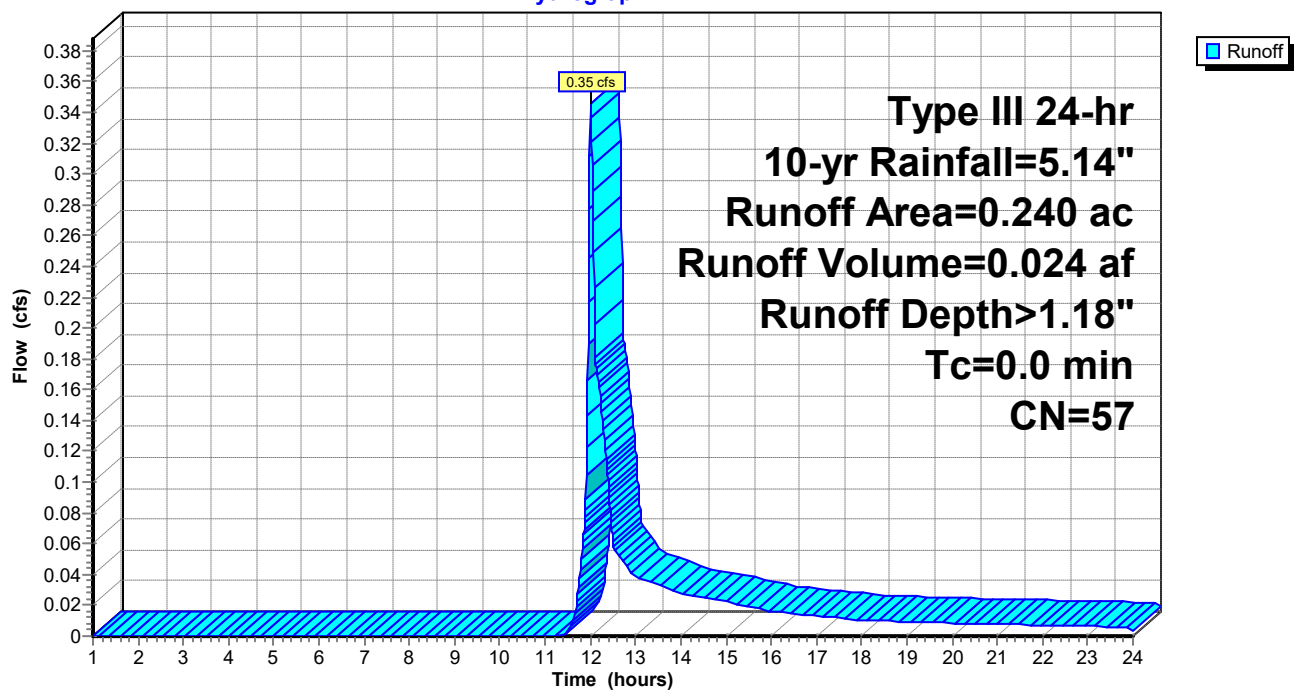
Runoff = 0.35 cfs @ 12.00 hrs, Volume= 0.024 af, Depth> 1.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, $dt=0.01$ hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.060	61	>75% Grass cover, Good, HSG B
0.180	55	Woods, Good, HSG B
0.240	57	Weighted Average
0.240		100.00% Pervious Area

Subcatchment 117S: CS-16b

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 119S: LD-8b

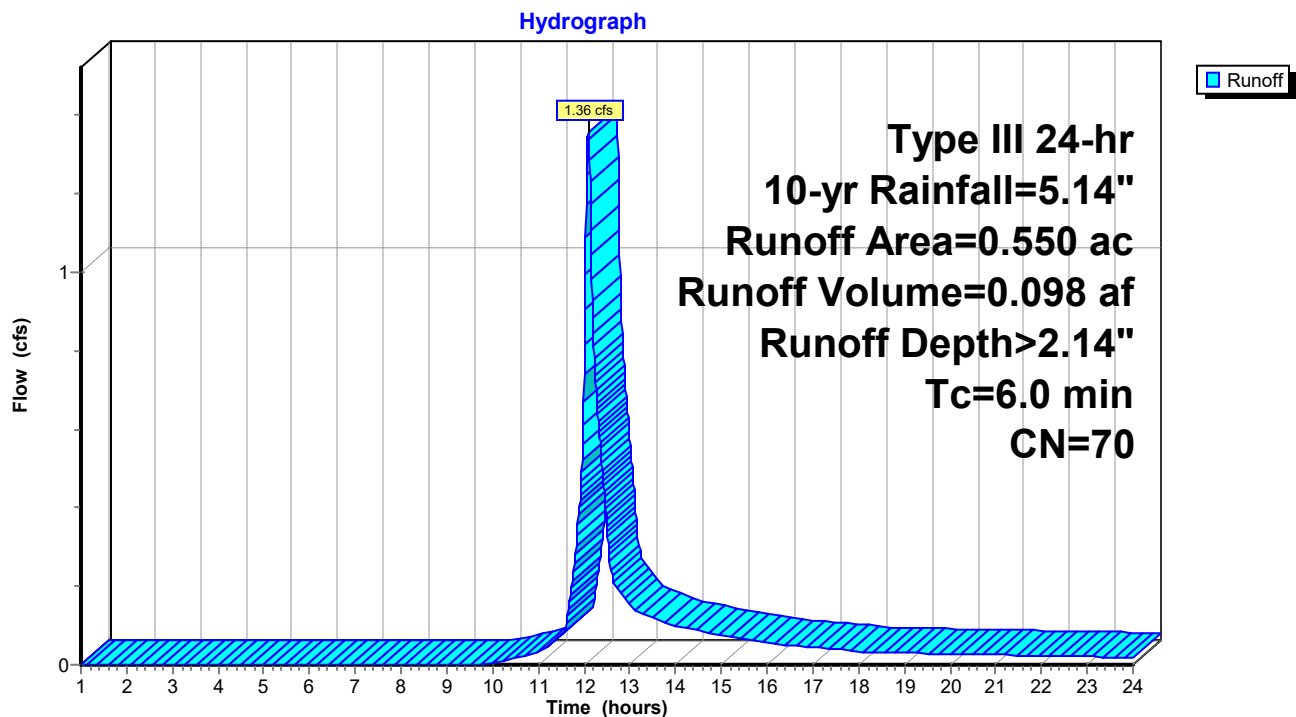
Runoff = 1.36 cfs @ 12.09 hrs, Volume= 0.098 af, Depth> 2.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.130	98	Paved parking, HSG B
0.420	61	>75% Grass cover, Good, HSG B
0.550	70	Weighted Average
0.420		76.36% Pervious Area
0.130		23.64% Impervious Area

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

Subcatchment 119S: LD-8b



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 121S: CS-19b

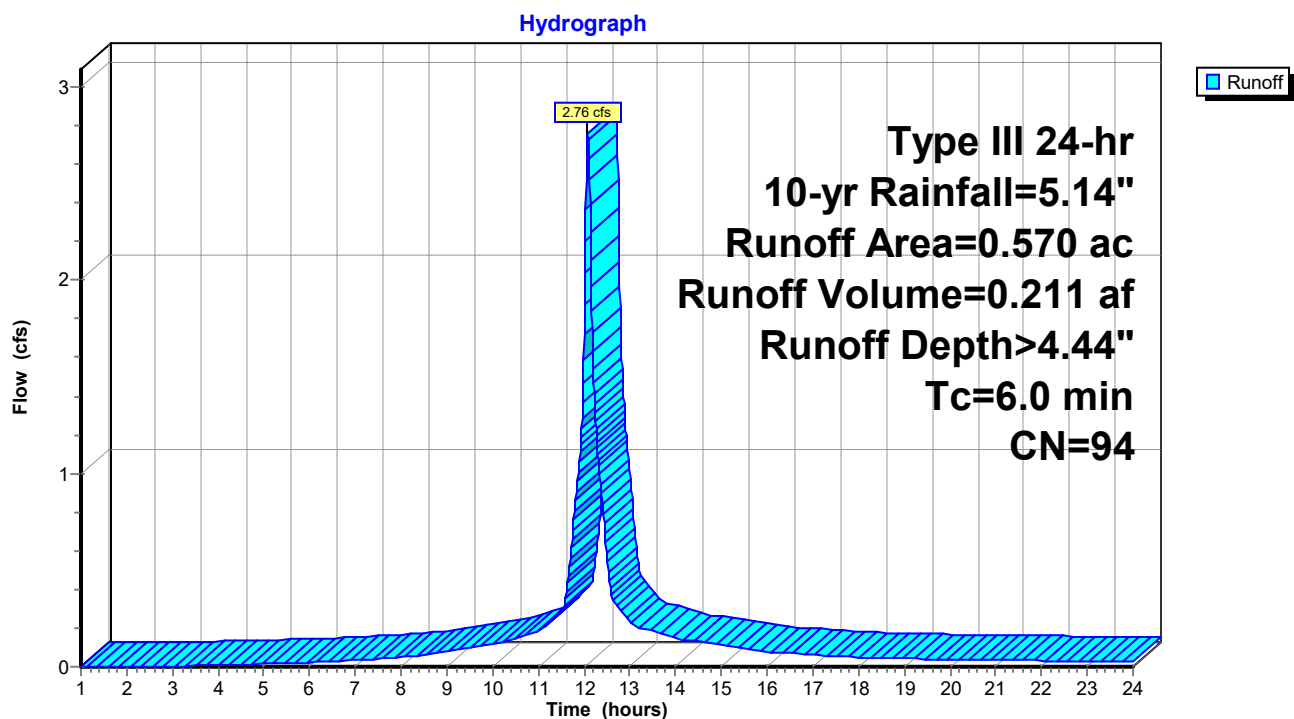
Runoff = 2.76 cfs @ 12.08 hrs, Volume= 0.211 af, Depth> 4.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.510	98	Paved parking, HSG B
0.060	61	>75% Grass cover, Good, HSG B
0.570	94	Weighted Average
0.060		10.53% Pervious Area
0.510		89.47% Impervious Area

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

Subcatchment 121S: CS-19b



Linwood Street Drainage - Proposed

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Summary for Subcatchment 122S: LD-1a

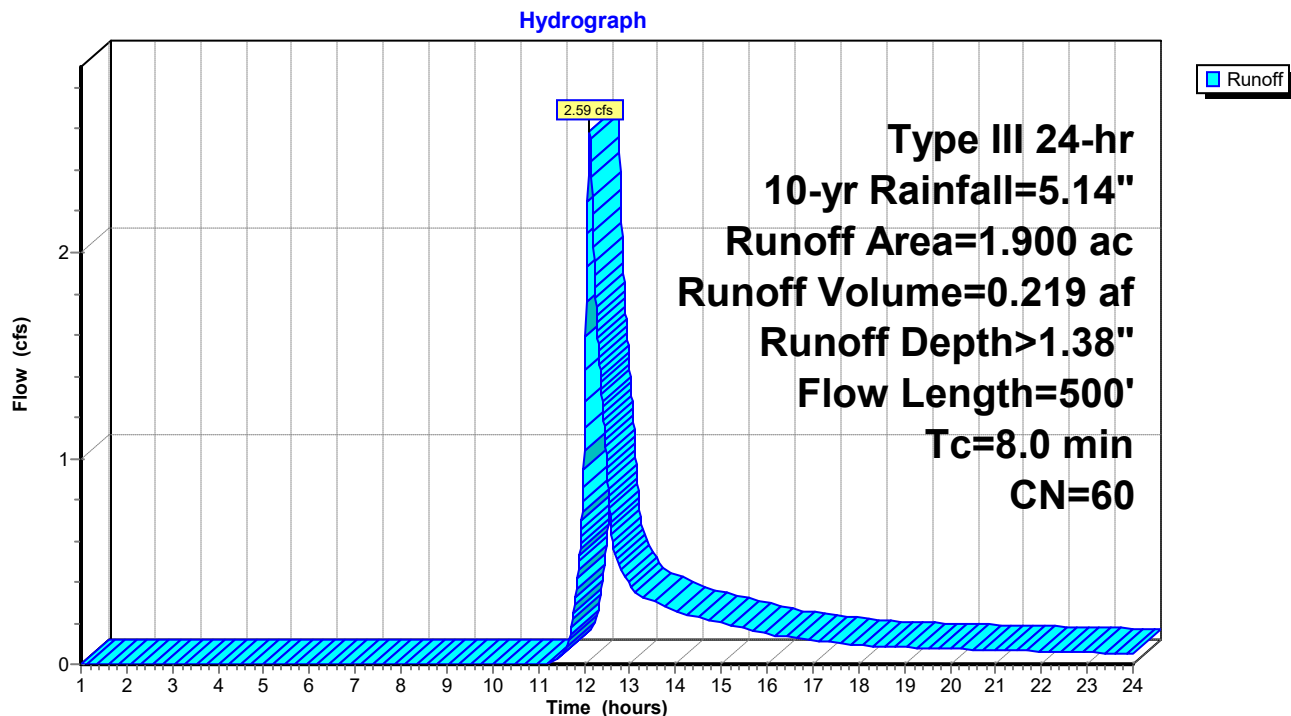
Runoff = 2.59 cfs @ 12.13 hrs, Volume= 0.219 af, Depth> 1.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.530	98	Paved parking, HSG A
0.780	39	>75% Grass cover, Good, HSG A
0.590	55	Woods, Good, HSG B
1.900	60	Weighted Average
1.370		72.11% Pervious Area
0.530		27.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.8	50	0.2000	0.17		Sheet Flow, Woods: Light underbrush n= 0.400 P2= 3.31"
2.4	230	0.1000	1.58		Shallow Concentrated Flow, Woodland Kv= 5.0 fps
0.8	220	0.0500	4.54		Shallow Concentrated Flow, Paved Kv= 20.3 fps
8.0	500	Total			

Subcatchment 122S: LD-1a



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Subcatchment 123S: LD-8a

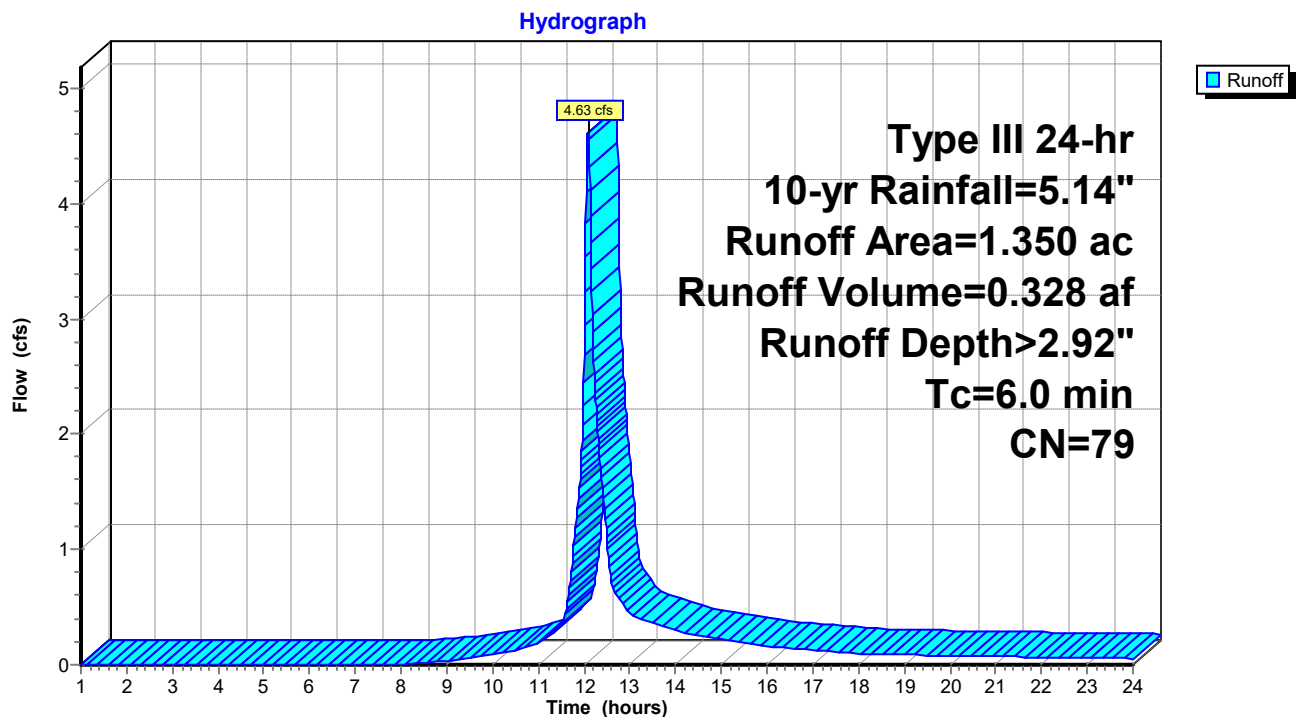
Runoff = 4.63 cfs @ 12.09 hrs, Volume= 0.328 af, Depth> 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-yr Rainfall=5.14"

Area (ac)	CN	Description
0.670	98	Paved parking, HSG B
0.680	61	>75% Grass cover, Good, HSG B
1.350	79	Weighted Average
0.680		50.37% Pervious Area
0.670		49.63% Impervious Area

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

Subcatchment 123S: LD-8a



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 1P: CB-895

[57] Hint: Peaked at 273.56' (Flood elevation advised)

[79] Warning: Submerged Pond 31P Primary device # 1 OUTLET by 1.06'

Inflow Area = 2.830 ac, 33.92% Impervious, Inflow Depth > 1.66" for 10-yr event
Inflow = 4.89 cfs @ 12.11 hrs, Volume= 0.391 af
Outflow = 4.89 cfs @ 12.11 hrs, Volume= 0.391 af, Atten= 0%, Lag= 0.0 min
Primary = 4.89 cfs @ 12.11 hrs, Volume= 0.391 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 273.56' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	272.50'	15.0" Round RCP_Round 15" L= 184.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 272.50' / 269.30' S= 0.0174 ' S= 0.0174 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.23 sf
#2	Secondary	275.05'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=4.89 cfs @ 12.11 hrs HW=273.56' (Free Discharge)

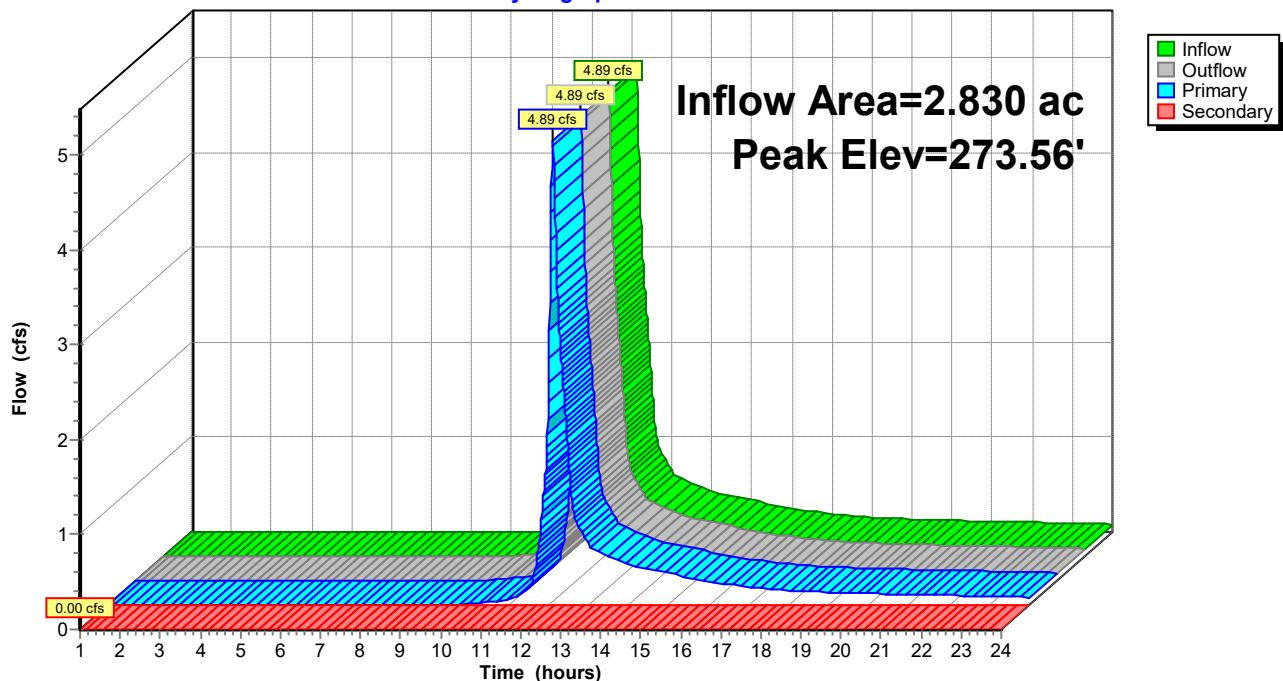
↑1=RCP_Round 15" (Inlet Controls 4.89 cfs @ 4.39 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=272.50' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 1P: CB-895

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 2P: CB-896

[57] Hint: Peaked at 271.04' (Flood elevation advised)

[79] Warning: Submerged Pond 1P Primary device # 1 OUTLET by 1.74'

Inflow Area = 4.130 ac, 29.30% Impervious, Inflow Depth > 1.76" for 10-yr event
Inflow = 7.80 cfs @ 12.10 hrs, Volume= 0.605 af
Outflow = 7.80 cfs @ 12.10 hrs, Volume= 0.605 af, Atten= 0%, Lag= 0.0 min
Primary = 7.80 cfs @ 12.10 hrs, Volume= 0.605 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 271.04' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	269.30'	15.0" Round RCP_Round 15" L= 41.5' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 269.30' / 268.20' S= 0.0265 ' S= 0.0265 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.23 sf
#2	Secondary	272.80'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=7.79 cfs @ 12.10 hrs HW=271.04' (Free Discharge)

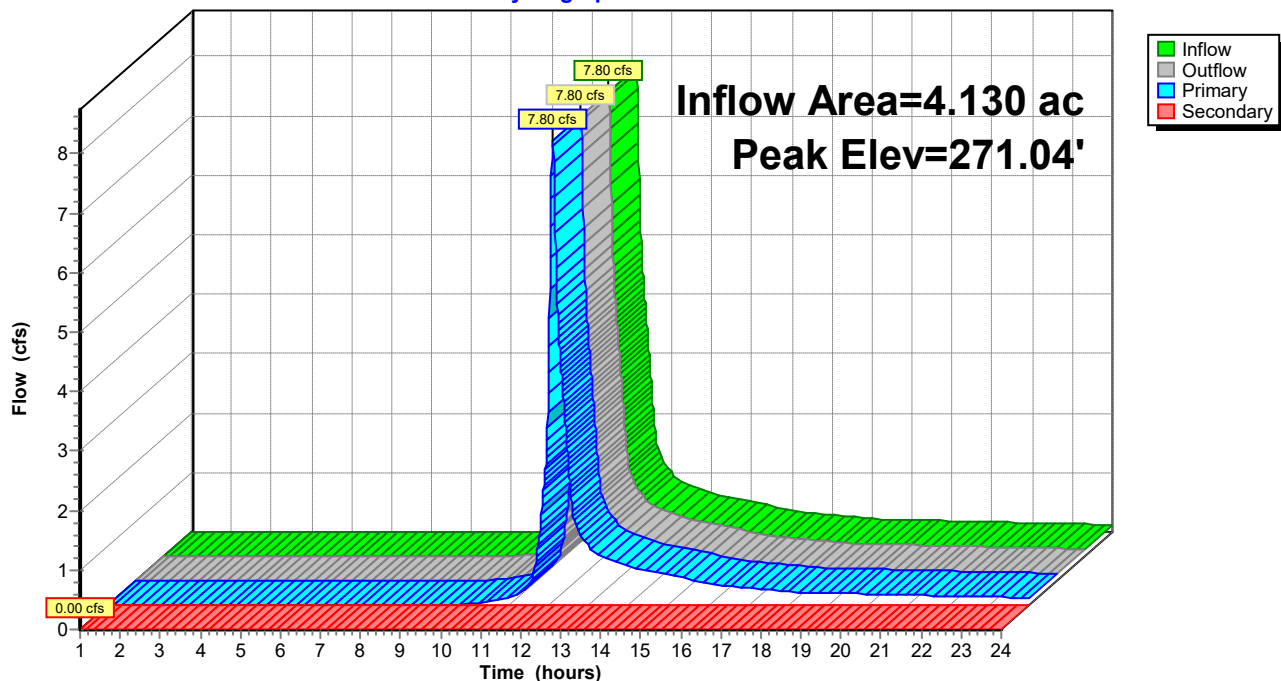
↑1=RCP_Round 15" (Inlet Controls 7.79 cfs @ 6.35 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=269.30' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 2P: CB-896

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 3P: CB-897

[57] Hint: Peaked at 270.30' (Flood elevation advised)

[79] Warning: Submerged Pond 2P Primary device # 1 INLET by 1.00'

Inflow Area = 10.370 ac, 21.22% Impervious, Inflow Depth > 1.70" for 10-yr event
Inflow = 16.93 cfs @ 12.13 hrs, Volume= 1.472 af
Outflow = 16.93 cfs @ 12.13 hrs, Volume= 1.472 af, Atten= 0%, Lag= 0.0 min
Primary = 16.93 cfs @ 12.13 hrs, Volume= 1.472 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 270.30' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	268.20'	24.0" Round RCP_Round 24" L= 32.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 268.20' / 267.80' S= 0.0125 ' S= 0.0125 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf
#2	Secondary	272.10'	24.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=16.92 cfs @ 12.13 hrs HW=270.30' (Free Discharge)

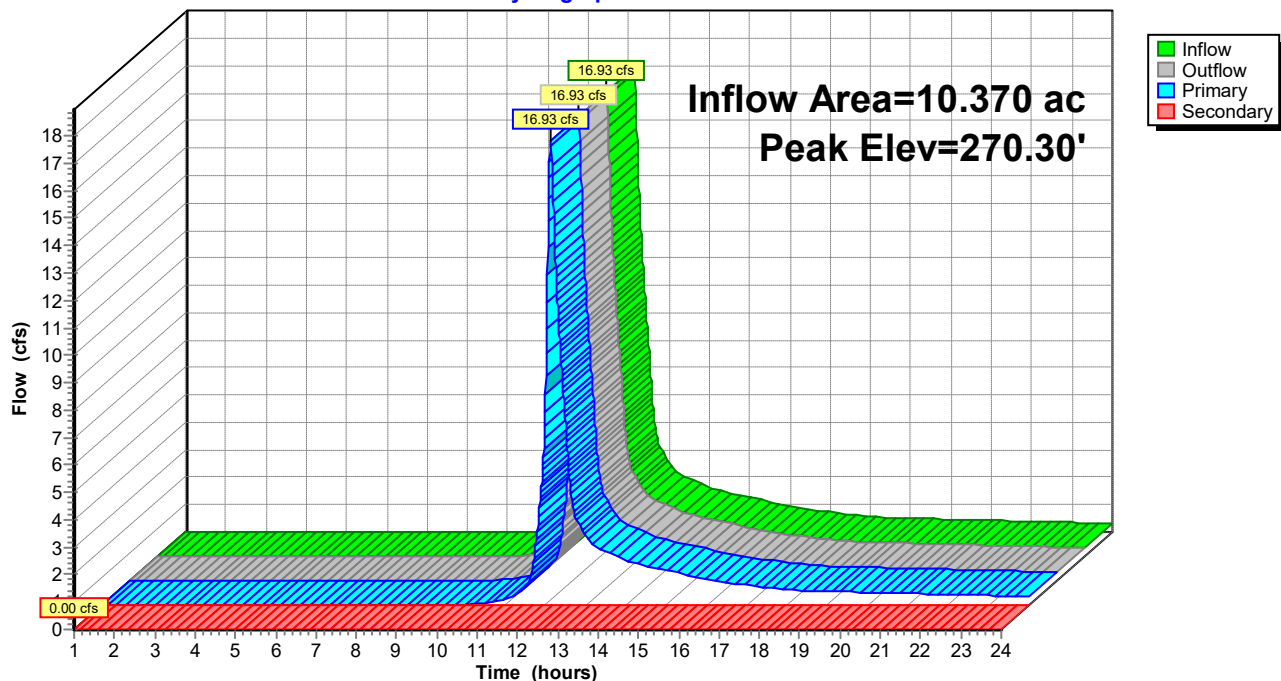
↑1=RCP_Round 24" (Barrel Controls 16.92 cfs @ 6.38 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=268.20' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 3P: CB-897

Hydrograph



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Summary for Pond 4P: MH-662

[79] Warning: Submerged Pond 3P Primary device # 1 INLET by 1.45'

[79] Warning: Submerged Pond 5P Primary device # 1 INLET by 1.15'

[81] Warning: Exceeded Pond 10P by 0.65' @ 12.15 hrs

Inflow Area = 12.821 ac, 27.22% Impervious, Inflow Depth > 1.79" for 10-yr event
Inflow = 22.63 cfs @ 12.12 hrs, Volume= 1.916 af
Outflow = 22.63 cfs @ 12.12 hrs, Volume= 1.916 af, Atten= 0%, Lag= 0.0 min
Primary = 22.63 cfs @ 12.12 hrs, Volume= 1.916 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 269.65' @ 12.12 hrs

Flood Elev= 272.72'

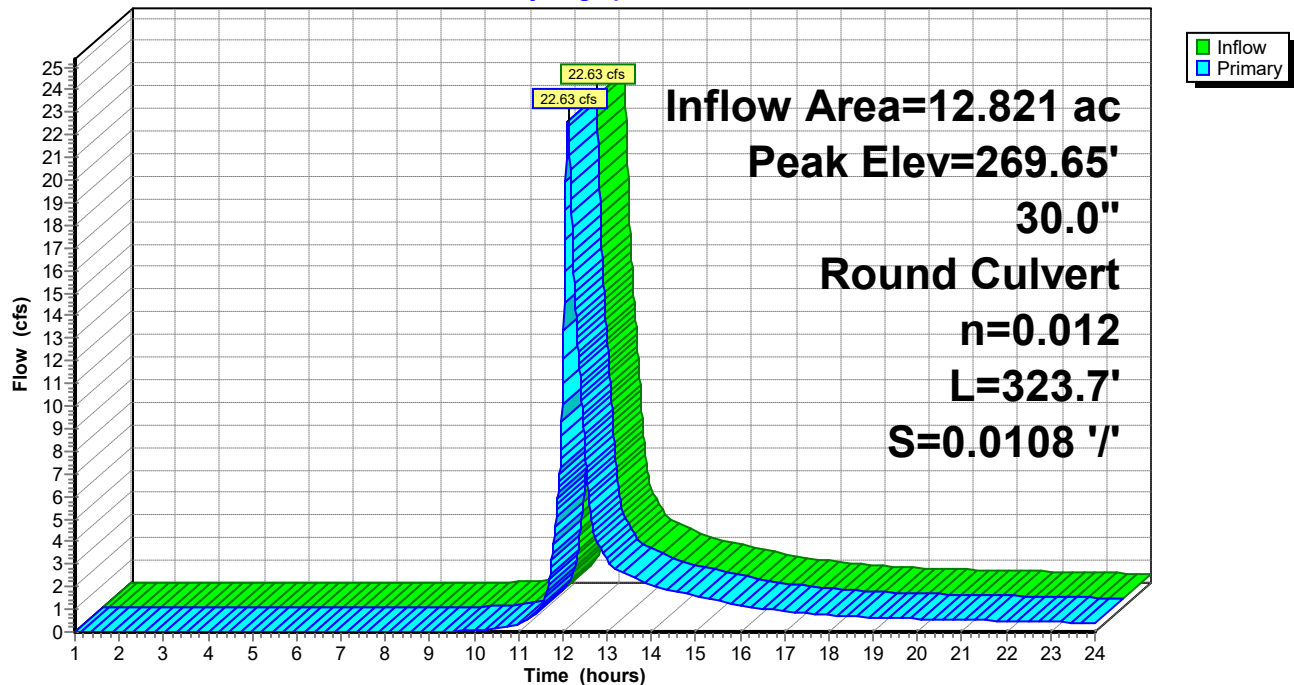
Device	Routing	Invert	Outlet Devices
#1	Primary	267.80'	30.0" Round RCP_Round 30" L= 323.7' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 267.80' / 264.30' S= 0.0108 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 4.91 sf

Primary OutFlow Max=22.62 cfs @ 12.12 hrs HW=269.65' (Free Discharge)

↑1=RCP_Round 30" (Inlet Controls 22.62 cfs @ 5.79 fps)

Pond 4P: MH-662

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 5P: CB-893

[57] Hint: Peaked at 270.28' (Flood elevation advised)

Inflow Area = 1.080 ac, 45.37% Impervious, Inflow Depth > 1.82" for 10-yr event
Inflow = 2.23 cfs @ 12.09 hrs, Volume= 0.164 af
Outflow = 2.23 cfs @ 12.09 hrs, Volume= 0.164 af, Atten= 0%, Lag= 0.0 min
Primary = 2.23 cfs @ 12.09 hrs, Volume= 0.164 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 270.28' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	268.50'	10.0" Round CMP_Round 10" L= 17.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 268.50' / 268.30' S= 0.0118 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.55 sf
#2	Secondary	272.53'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

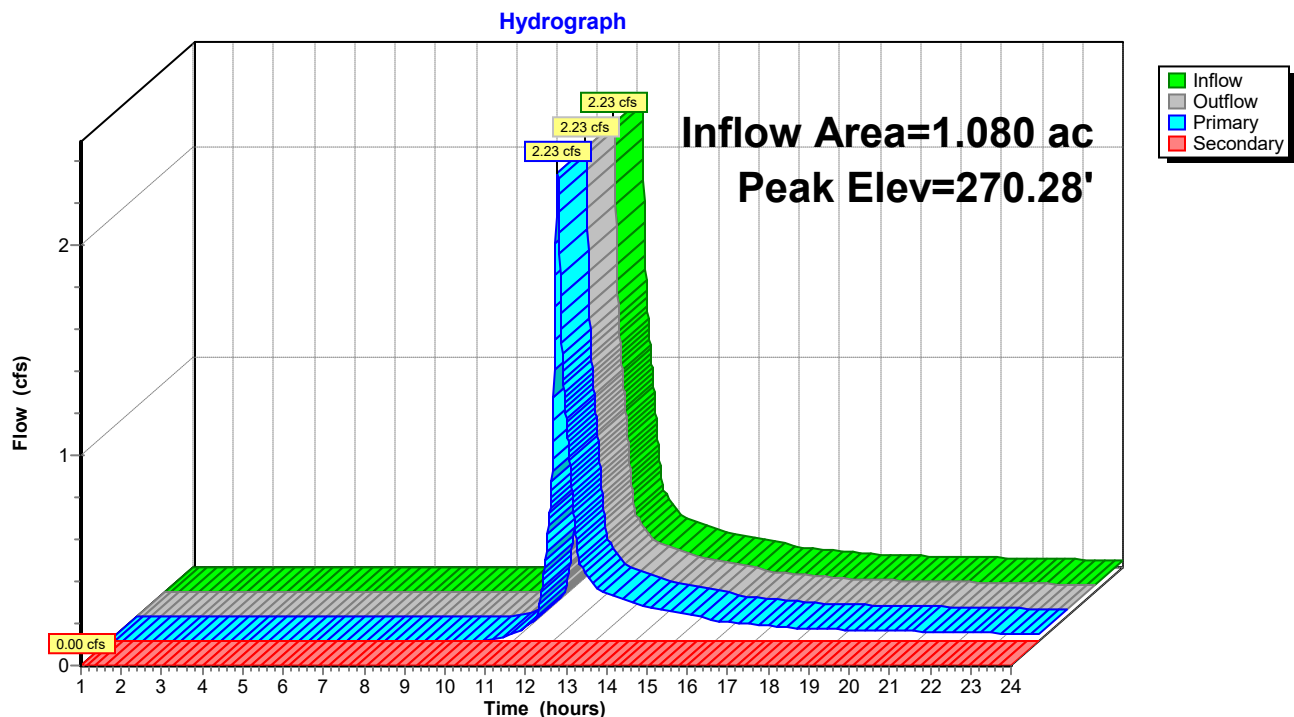
Primary OutFlow Max=2.22 cfs @ 12.09 hrs HW=270.27' (Free Discharge)

↑ **1=CMP_Round 10"** (Barrel Controls 2.22 cfs @ 4.07 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=268.50' (Free Discharge)

↑ **2=Orifice/Grate** (Controls 0.00 cfs)

Pond 5P: CB-893



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Summary for Pond 6P: MH-663

[79] Warning: Submerged Pond 4P Primary device # 1 OUTLET by 2.31'

[81] Warning: Exceeded Pond 11P by 1.69' @ 12.11 hrs

[81] Warning: Exceeded Pond 17P by 1.19' @ 12.11 hrs

[79] Warning: Submerged Pond 18P Primary device # 1 INLET by 3.61'

Inflow Area = 50.945 ac, 20.54% Impervious, Inflow Depth > 1.70" for 10-yr event
Inflow = 56.60 cfs @ 12.11 hrs, Volume= 7.214 af
Outflow = 56.60 cfs @ 12.11 hrs, Volume= 7.214 af, Atten= 0%, Lag= 0.0 min
Primary = 56.60 cfs @ 12.11 hrs, Volume= 7.214 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 266.62' @ 12.11 hrs

Flood Elev= 268.67'

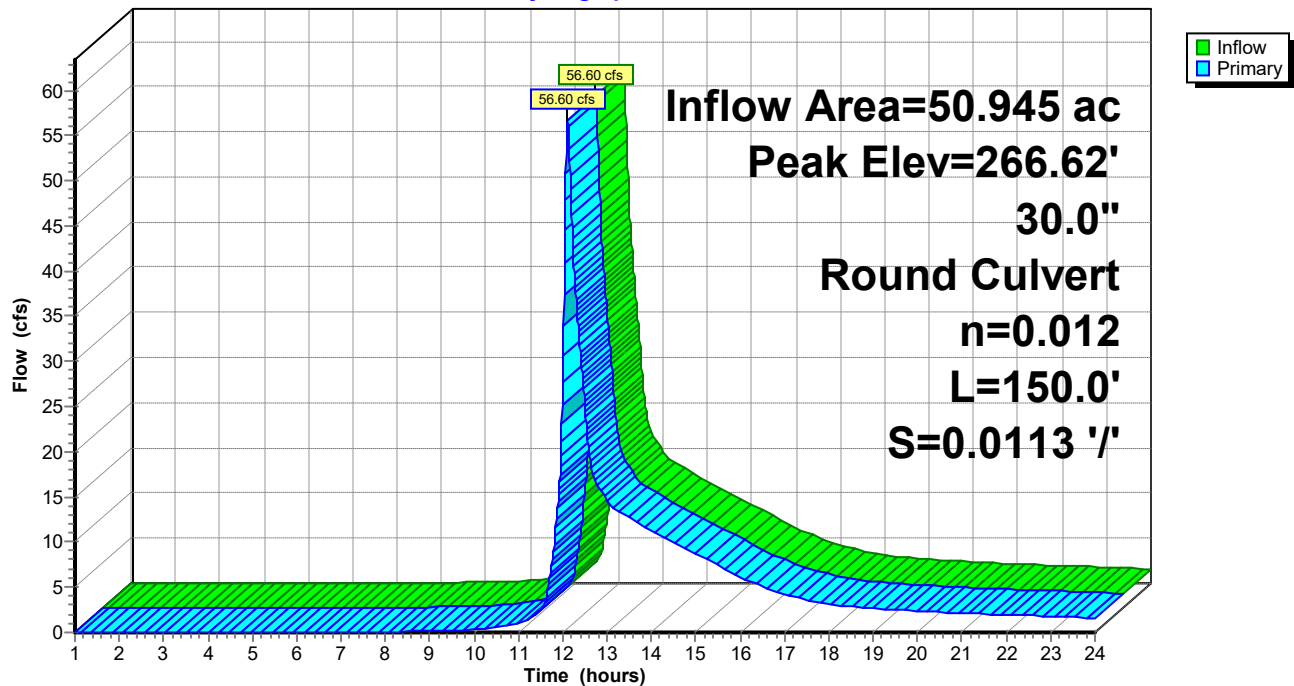
Device	Routing	Invert	Outlet Devices
#1	Primary	260.90'	30.0" Round RCP_Round 30" L= 150.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 260.90' / 259.20' S= 0.0113 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 4.91 sf

Primary OutFlow Max=56.53 cfs @ 12.11 hrs HW=266.61' (Free Discharge)

↑1=RCP_Round 30" (Barrel Controls 56.53 cfs @ 11.52 fps)

Pond 6P: MH-663

Hydrograph



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Summary for Pond 10P: CB-892

[57] Hint: Peaked at 269.07' (Flood elevation advised)

Inflow Area = 0.750 ac, 58.67% Impervious, Inflow Depth > 2.47" for 10-yr event
Inflow = 2.17 cfs @ 12.09 hrs, Volume= 0.155 af
Outflow = 2.17 cfs @ 12.09 hrs, Volume= 0.155 af, Atten= 0%, Lag= 0.0 min
Primary = 2.17 cfs @ 12.09 hrs, Volume= 0.155 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 269.07' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	268.20'	12.0" Round RCP_Round 12" L= 23.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 268.20' / 268.00' S= 0.0087 ' S= 0.0087 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	271.94'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

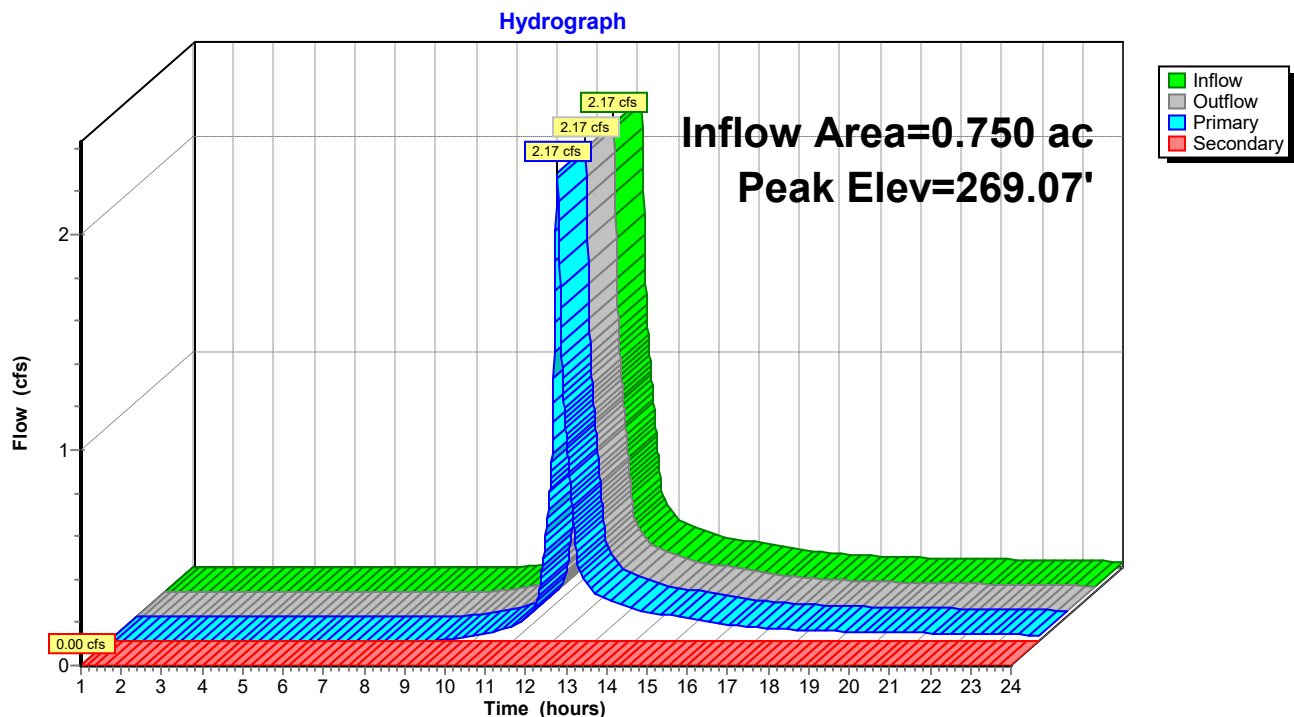
Primary OutFlow Max=2.17 cfs @ 12.09 hrs HW=269.07' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 2.17 cfs @ 3.97 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=268.20' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 10P: CB-892



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Summary for Pond 11P: CB-898

[57] Hint: Peaked at 264.92' (Flood elevation advised)

Inflow Area = 0.440 ac, 38.64% Impervious, Inflow Depth > 1.52" for 10-yr event
Inflow = 0.73 cfs @ 12.10 hrs, Volume= 0.056 af
Outflow = 0.73 cfs @ 12.10 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min
Primary = 0.73 cfs @ 12.10 hrs, Volume= 0.056 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 264.92' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	264.40'	12.0" Round 12" HDPE L= 15.6' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 264.40' / 264.30' S= 0.0064 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Secondary	268.22'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.73 cfs @ 12.10 hrs HW=264.92' (Free Discharge)

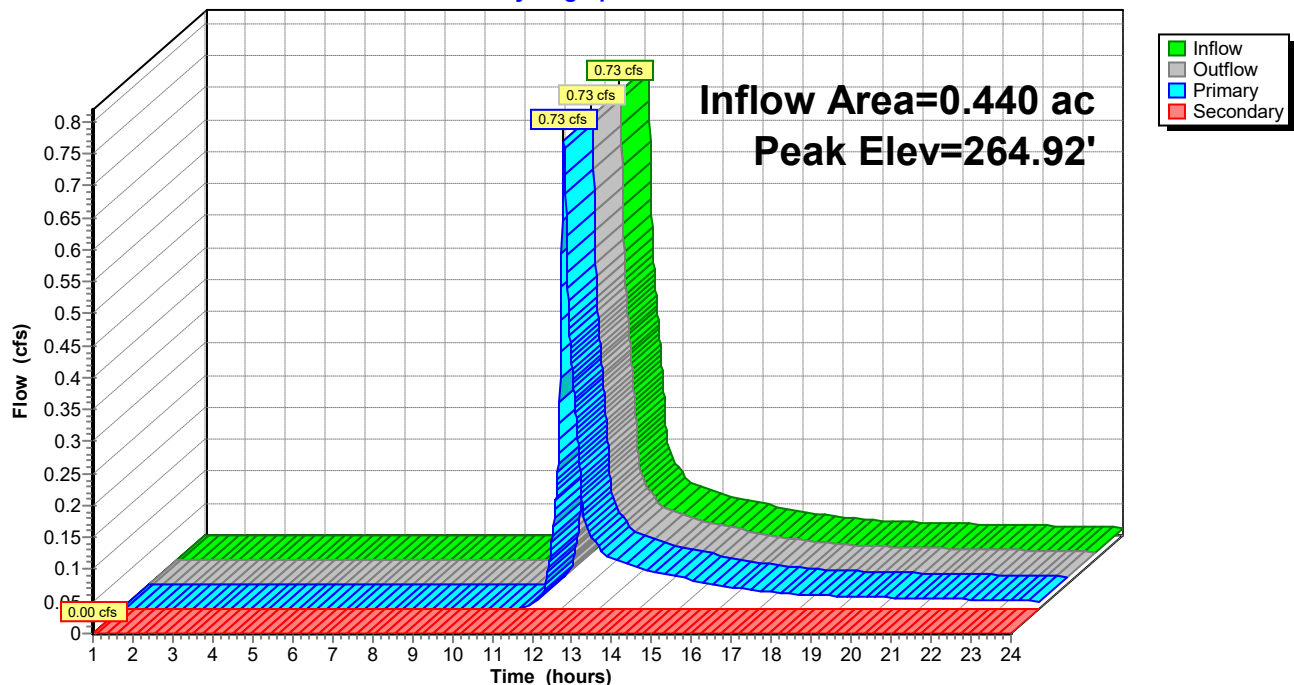
↑1=12" HDPE (Barrel Controls 0.73 cfs @ 2.56 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=264.40' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 11P: CB-898

Hydrograph



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Summary for Pond 12P: MH-664

[79] Warning: Submerged Pond 6P Primary device # 1 INLET by 3.84'

Inflow Area = 50.945 ac, 20.54% Impervious, Inflow Depth > 1.70" for 10-yr event
Inflow = 56.60 cfs @ 12.11 hrs, Volume= 7.214 af
Outflow = 56.60 cfs @ 12.11 hrs, Volume= 7.214 af, Atten= 0%, Lag= 0.0 min
Primary = 56.60 cfs @ 12.11 hrs, Volume= 7.214 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 264.74' @ 12.11 hrs

Flood Elev= 270.50'

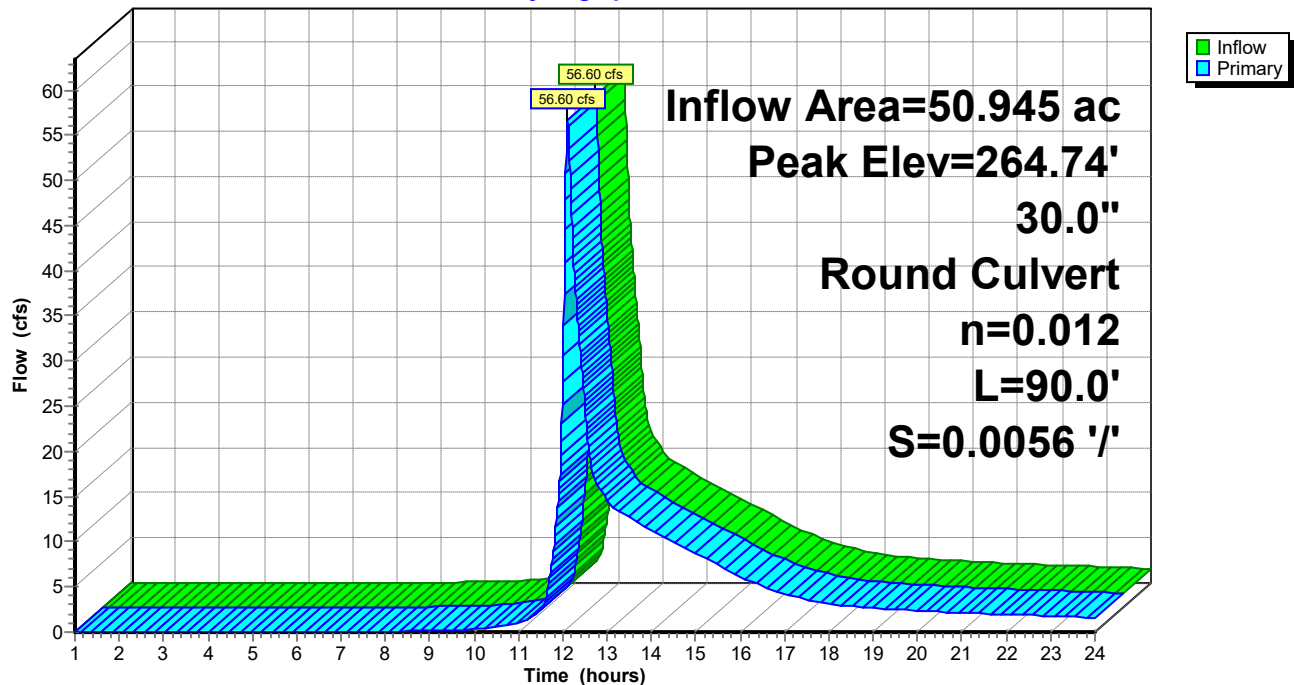
Device	Routing	Invert	Outlet Devices
#1	Primary	258.80'	30.0" Round RCP_Round 30" L= 90.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 258.80' / 258.30' S= 0.0056 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 4.91 sf

Primary OutFlow Max=56.53 cfs @ 12.11 hrs HW=264.73' (Free Discharge)

↑1=RCP_Round 30" (Barrel Controls 56.53 cfs @ 11.52 fps)

Pond 12P: MH-664

Hydrograph



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Summary for Pond 13P: MH-673

[79] Warning: Submerged Pond 12P Primary device # 1 INLET by 4.39'

[81] Warning: Exceeded Pond 15P by 0.61' @ 12.11 hrs

Inflow Area = 53.765 ac, 21.12% Impervious, Inflow Depth > 1.68" for 10-yr event
Inflow = 60.12 cfs @ 12.11 hrs, Volume= 7.505 af
Outflow = 60.12 cfs @ 12.11 hrs, Volume= 7.505 af, Atten= 0%, Lag= 0.0 min
Primary = 60.12 cfs @ 12.11 hrs, Volume= 7.505 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 263.19' @ 12.11 hrs

Flood Elev= 267.76'

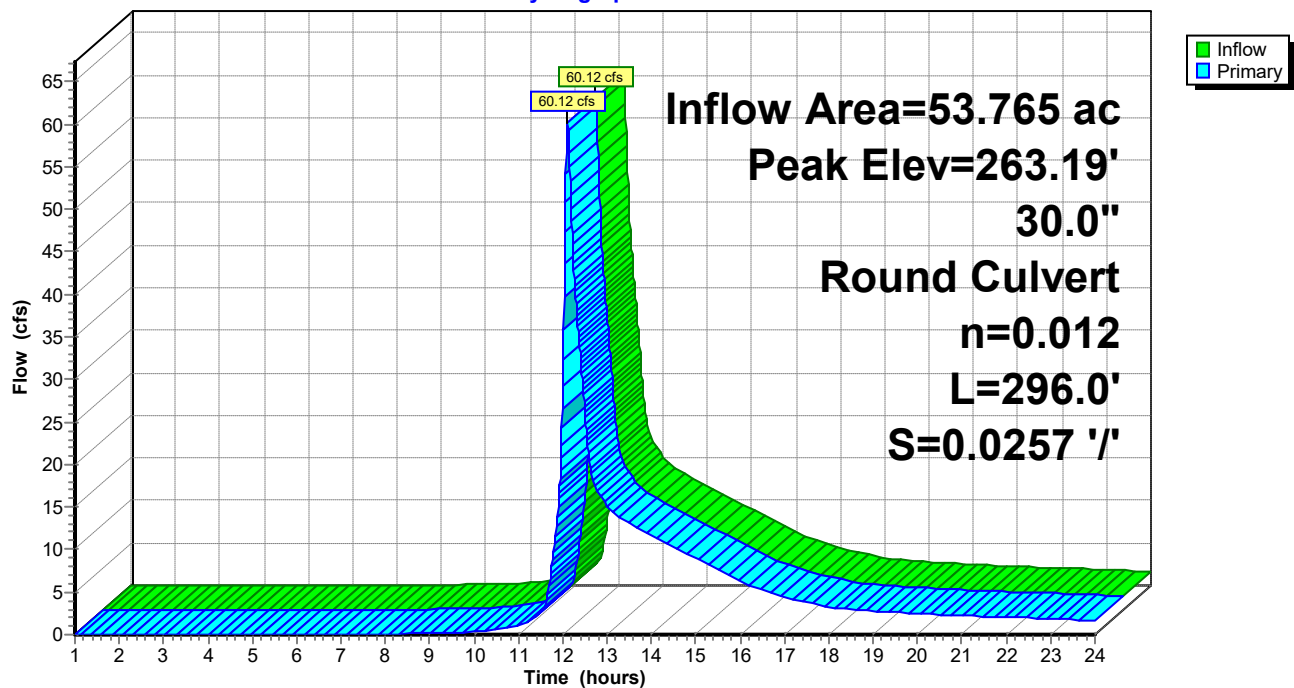
Device	Routing	Invert	Outlet Devices
#1	Primary	257.80'	30.0" Round RCP_Round 30" L= 296.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 257.80' / 250.18' S= 0.0257 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 4.91 sf

Primary OutFlow Max=60.06 cfs @ 12.11 hrs HW=263.18' (Free Discharge)

↑1=RCP_Round 30" (Inlet Controls 60.06 cfs @ 12.23 fps)

Pond 13P: MH-673

Hydrograph



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Summary for Pond 14P: CB-918

[57] Hint: Peaked at 263.12' (Flood elevation advised)

Inflow Area = 1.470 ac, 39.46% Impervious, Inflow Depth > 1.52" for 10-yr event
Inflow = 2.44 cfs @ 12.10 hrs, Volume= 0.187 af
Outflow = 2.44 cfs @ 12.10 hrs, Volume= 0.187 af, Atten= 0%, Lag= 0.0 min
Primary = 2.44 cfs @ 12.10 hrs, Volume= 0.187 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 263.12' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	262.20'	12.0" Round RCP_Round 12" L= 33.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 262.20' / 261.90' S= 0.0091 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	266.90'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.44 cfs @ 12.10 hrs HW=263.12' (Free Discharge)

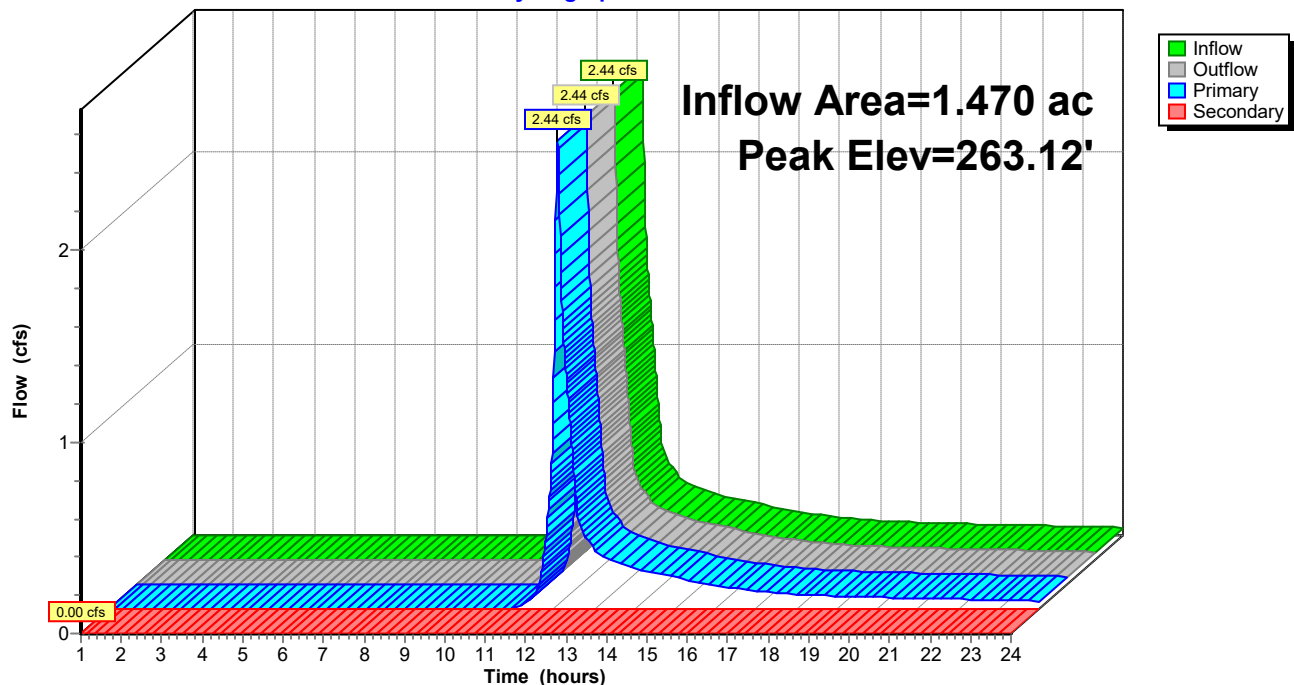
↑**1=RCP_Round 12"** (Barrel Controls 2.44 cfs @ 4.23 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=262.20' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 14P: CB-918

Hydrograph



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Summary for Pond 15P: CB-917

[57] Hint: Peaked at 262.58' (Flood elevation advised)

[79] Warning: Submerged Pond 14P Primary device # 1 INLET by 0.38'

Inflow Area = 2.820 ac, 31.56% Impervious, Inflow Depth > 1.24" for 10-yr event
Inflow = 3.55 cfs @ 12.10 hrs, Volume= 0.291 af
Outflow = 3.55 cfs @ 12.10 hrs, Volume= 0.291 af, Atten= 0%, Lag= 0.0 min
Primary = 3.55 cfs @ 12.10 hrs, Volume= 0.291 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 262.58' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	261.80'	24.0" Round RCP_Round 24" L= 50.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 261.80' / 261.30' S= 0.0100 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf
#2	Secondary	267.00'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.55 cfs @ 12.10 hrs HW=262.58' (Free Discharge)

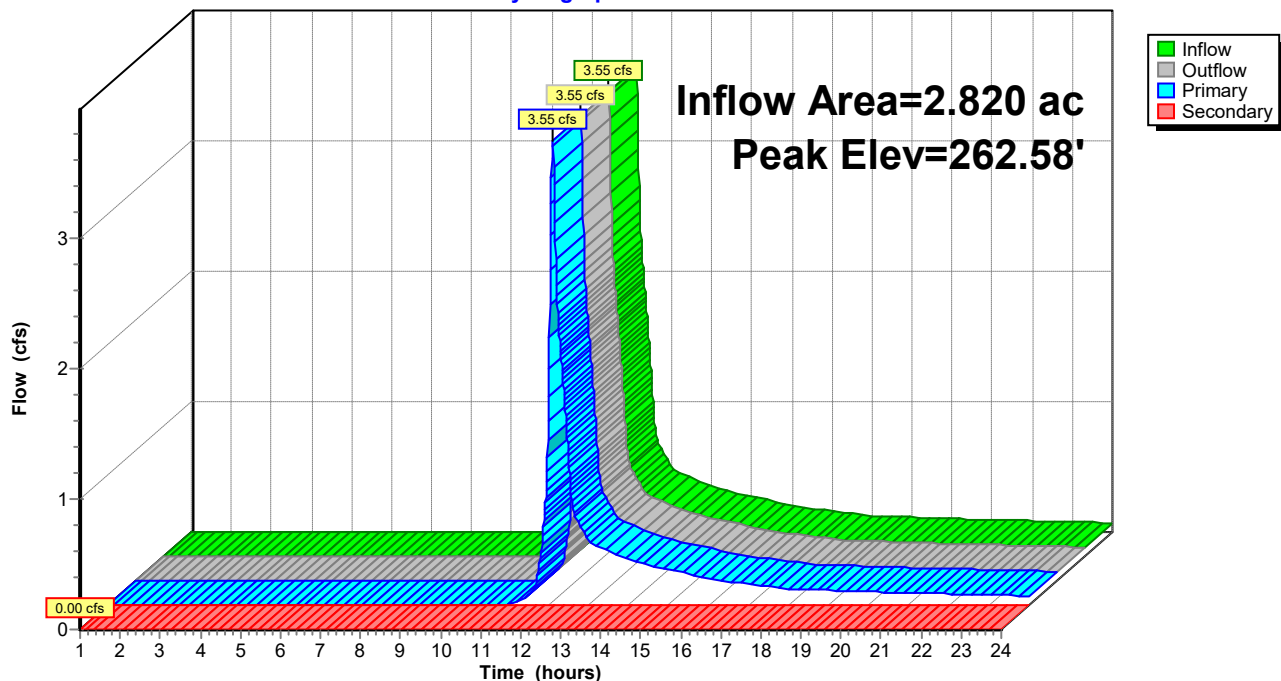
↑1=RCP_Round 24" (Barrel Controls 3.55 cfs @ 4.62 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=261.80' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 15P: CB-917

Hydrograph



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Summary for Pond 17P: MH-NEW

Inflow Area = 0.480 ac, 50.00% Impervious, Inflow Depth > 2.06" for 10-yr event
Inflow = 1.14 cfs @ 12.09 hrs, Volume= 0.082 af
Outflow = 1.14 cfs @ 12.09 hrs, Volume= 0.082 af, Atten= 0%, Lag= 0.0 min
Primary = 1.14 cfs @ 12.09 hrs, Volume= 0.082 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 265.43' @ 12.09 hrs

Flood Elev= 268.88'

Device	Routing	Invert	Outlet Devices
#1	Primary	265.00'	18.0" Round RCP_Round 18" L= 30.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 265.00' / 264.50' S= 0.0167 ' S= 0.0167 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf
#2	Primary	268.02'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Primary	268.02'	24.0" W x 2.0" H Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=1.13 cfs @ 12.09 hrs HW=265.43' (Free Discharge)

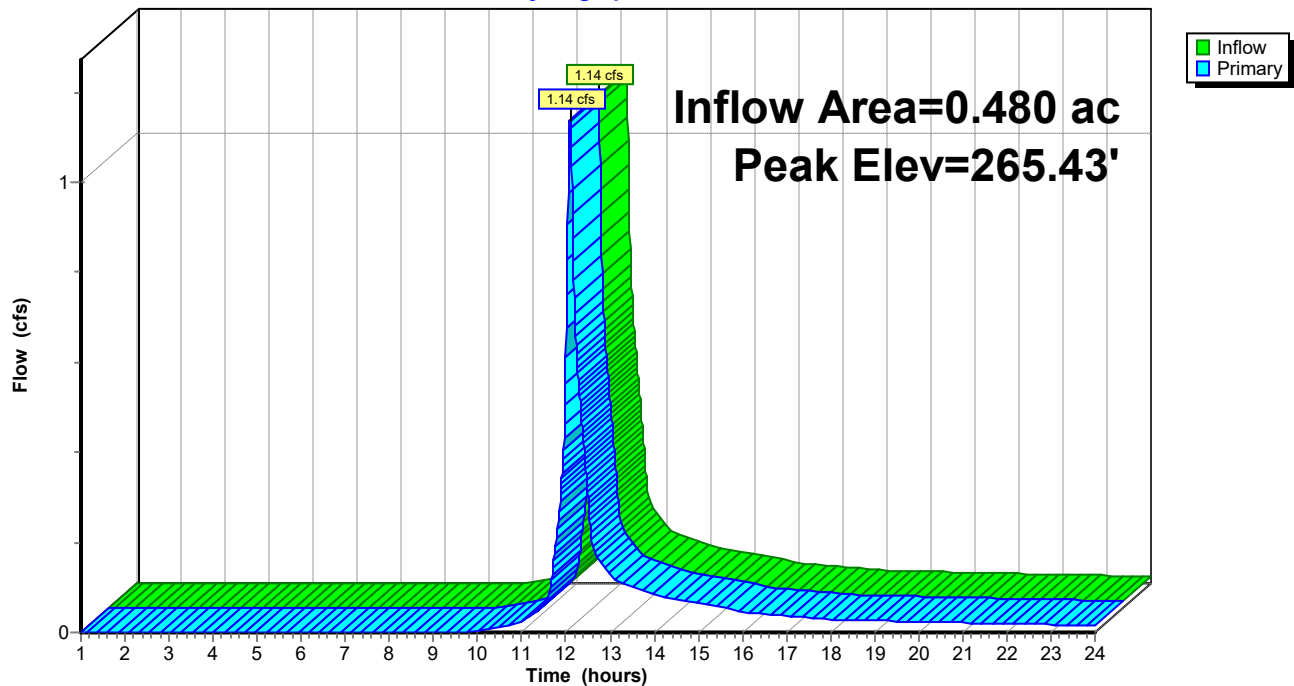
1=RCP_Round 18" (Barrel Controls 1.13 cfs @ 4.09 fps)

2=Orifice/Grate (Controls 0.00 cfs)

3=Orifice/Grate (Controls 0.00 cfs)

Pond 17P: MH-NEW

Hydrograph



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Summary for Pond 18P: MH-703

[81] Warning: Exceeded Pond 19P by 1.61' @ 12.12 hrs

[81] Warning: Exceeded Pond 20P by 0.93' @ 12.13 hrs

[79] Warning: Submerged Pond 21P Primary device # 1 OUTLET by 3.99'

Inflow Area = 37.204 ac, 17.64% Impervious, Inflow Depth > 1.66" for 10-yr event
Inflow = 32.17 cfs @ 12.11 hrs, Volume= 5.161 af
Outflow = 32.17 cfs @ 12.11 hrs, Volume= 5.161 af, Atten= 0%, Lag= 0.0 min
Primary = 32.17 cfs @ 12.11 hrs, Volume= 5.161 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 266.89' @ 12.11 hrs

Flood Elev= 269.00'

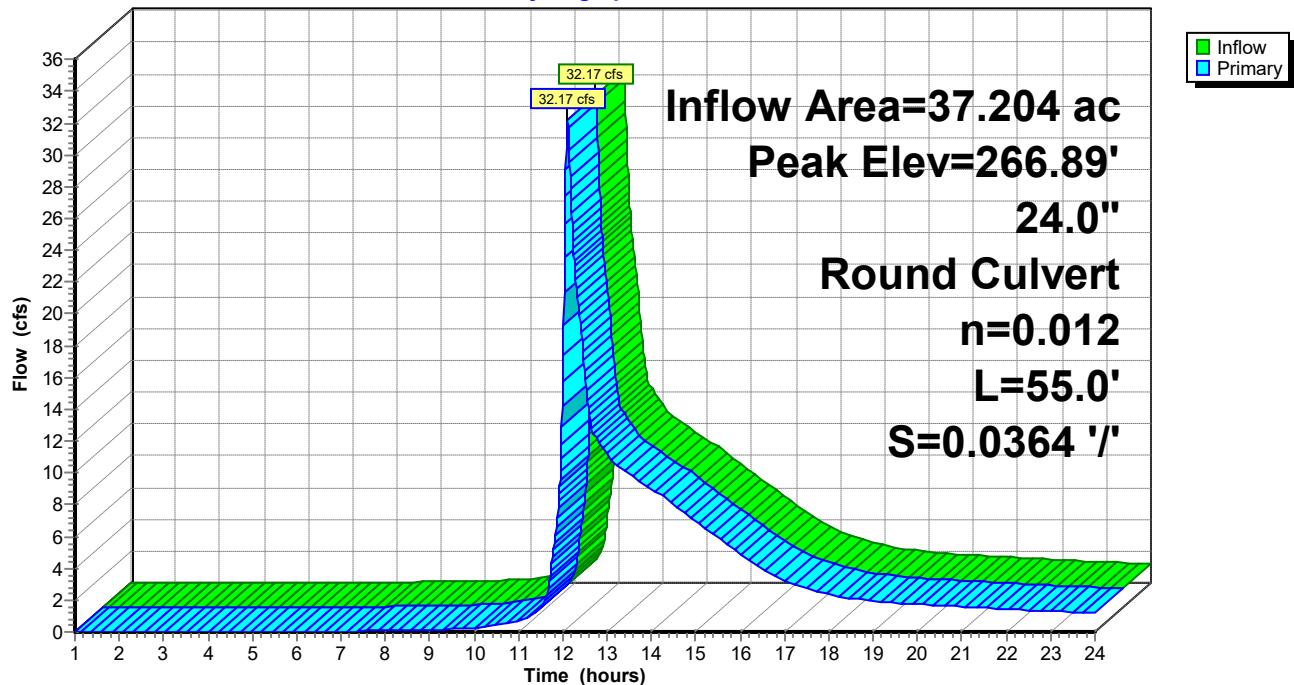
Device	Routing	Invert	Outlet Devices
#1	Primary	263.00'	24.0" Round RCP_Round 24" L= 55.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 263.00' / 261.00' S= 0.0364 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=32.15 cfs @ 12.11 hrs HW=266.89' (Free Discharge)

↑1=RCP_Round 24" (Inlet Controls 32.15 cfs @ 10.23 fps)

Pond 18P: MH-703

Hydrograph



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Summary for Pond 19P: CB-1154

[57] Hint: Peaked at 265.32' (Flood elevation advised)

Inflow Area = 1.000 ac, 23.00% Impervious, Inflow Depth > 1.90" for 10-yr event
Inflow = 2.16 cfs @ 12.09 hrs, Volume= 0.158 af
Outflow = 2.16 cfs @ 12.09 hrs, Volume= 0.158 af, Atten= 0%, Lag= 0.0 min
Primary = 2.16 cfs @ 12.09 hrs, Volume= 0.158 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 265.32' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	264.30'	12.0" Round 12" HDPE L= 6.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 264.30' / 262.90' S= 0.2333 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Secondary	268.77'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.16 cfs @ 12.09 hrs HW=265.32' (Free Discharge)

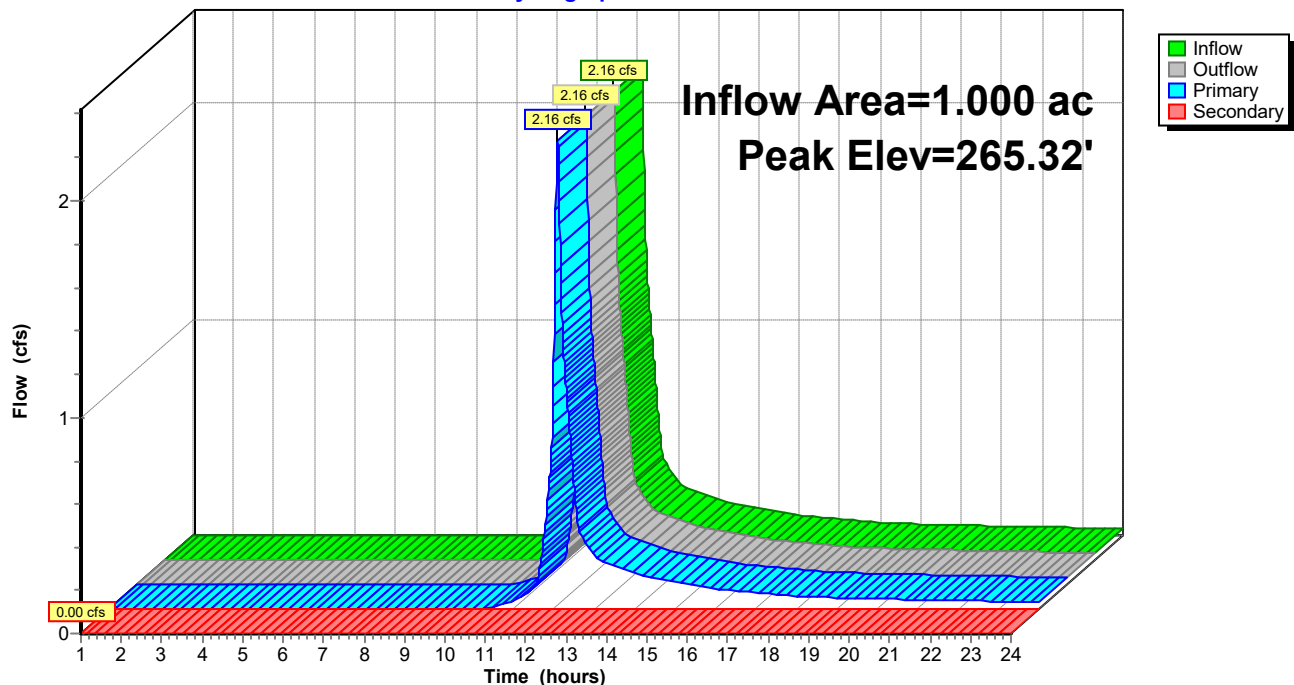
↑**1=12" HDPE** (Inlet Controls 2.16 cfs @ 2.75 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=264.30' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 19P: CB-1154

Hydrograph



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Summary for Pond 20P: CB-1153

[57] Hint: Peaked at 266.07' (Flood elevation advised)

[79] Warning: Submerged Pond 99P Primary device # 1 INLET by 1.37'

Inflow Area = 2.360 ac, 38.98% Impervious, Inflow Depth > 2.60" for 10-yr event
Inflow = 7.17 cfs @ 12.09 hrs, Volume= 0.511 af
Outflow = 7.17 cfs @ 12.09 hrs, Volume= 0.511 af, Atten= 0%, Lag= 0.0 min
Primary = 7.17 cfs @ 12.09 hrs, Volume= 0.511 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 266.07' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	264.50'	15.0" Round RCP_Round 15" L= 24.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 264.50' / 262.90' S= 0.0667 ' S= 0.0667 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.23 sf
#2	Secondary	268.98'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=7.17 cfs @ 12.09 hrs HW=266.07' (Free Discharge)

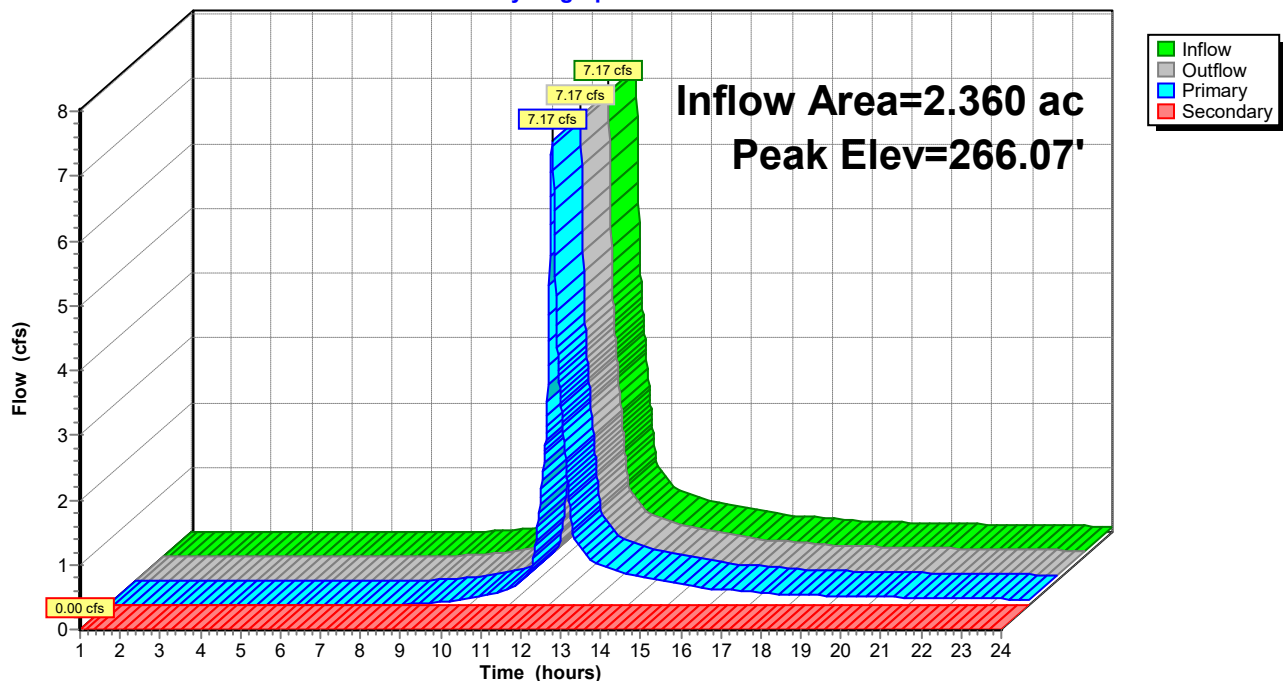
↑1=RCP_Round 15" (Inlet Controls 7.17 cfs @ 5.84 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=264.50' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 20P: CB-1153

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 21P: MH-702

Inflow Area = 33.844 ac, 16.00% Impervious, Inflow Depth > 1.59" for 10-yr event
Inflow = 23.31 cfs @ 12.13 hrs, Volume= 4.491 af
Outflow = 23.31 cfs @ 12.13 hrs, Volume= 4.491 af, Atten= 0%, Lag= 0.0 min
Primary = 23.31 cfs @ 12.13 hrs, Volume= 4.491 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 272.62' @ 12.13 hrs

Flood Elev= 278.13'

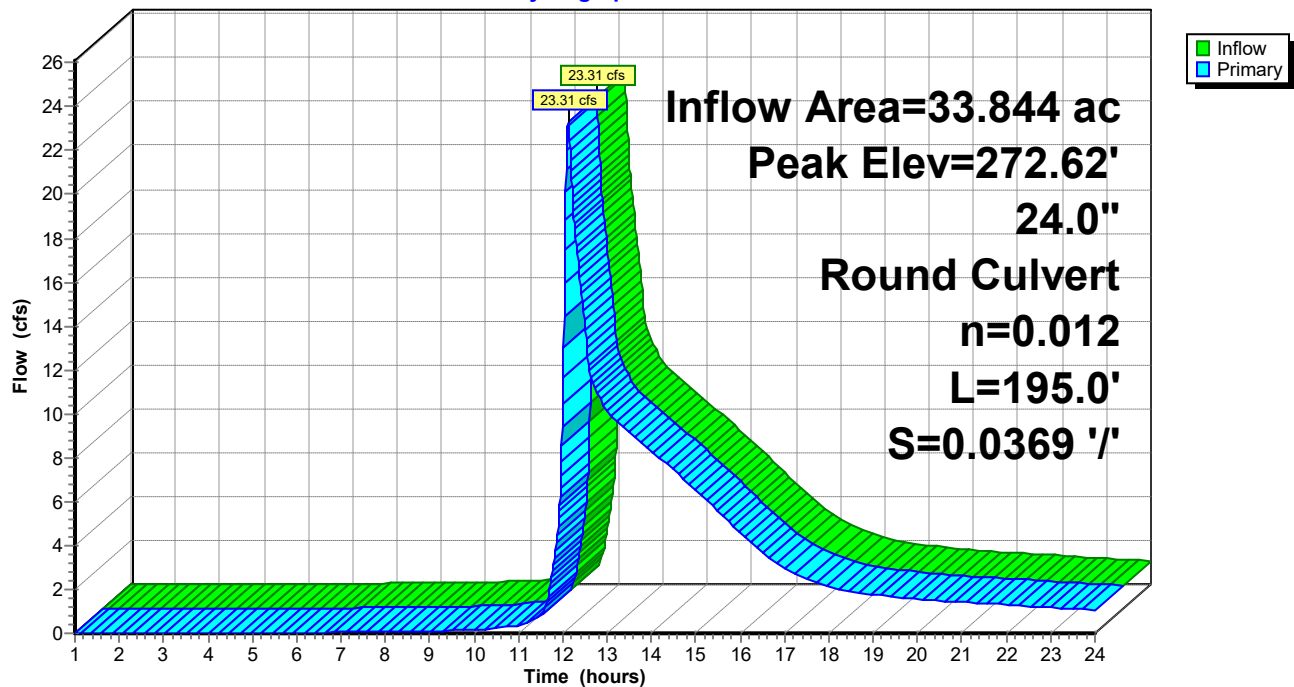
Device	Routing	Invert	Outlet Devices
#1	Primary	270.10'	24.0" Round RCP_Round 24" L= 195.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 270.10' / 262.90' S= 0.0369 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=23.29 cfs @ 12.13 hrs HW=272.62' (Free Discharge)

↑1=RCP_Round 24" (Inlet Controls 23.29 cfs @ 7.41 fps)

Pond 21P: MH-702

Hydrograph



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Summary for Pond 22P: MH-271

Inflow Area = 31.674 ac, 13.97% Impervious, Inflow Depth > 1.51" for 10-yr event
Inflow = 17.40 cfs @ 12.13 hrs, Volume= 3.995 af
Outflow = 17.40 cfs @ 12.13 hrs, Volume= 3.995 af, Atten= 0%, Lag= 0.0 min
Primary = 17.40 cfs @ 12.13 hrs, Volume= 3.995 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 282.46' @ 12.13 hrs

Flood Elev= 288.06'

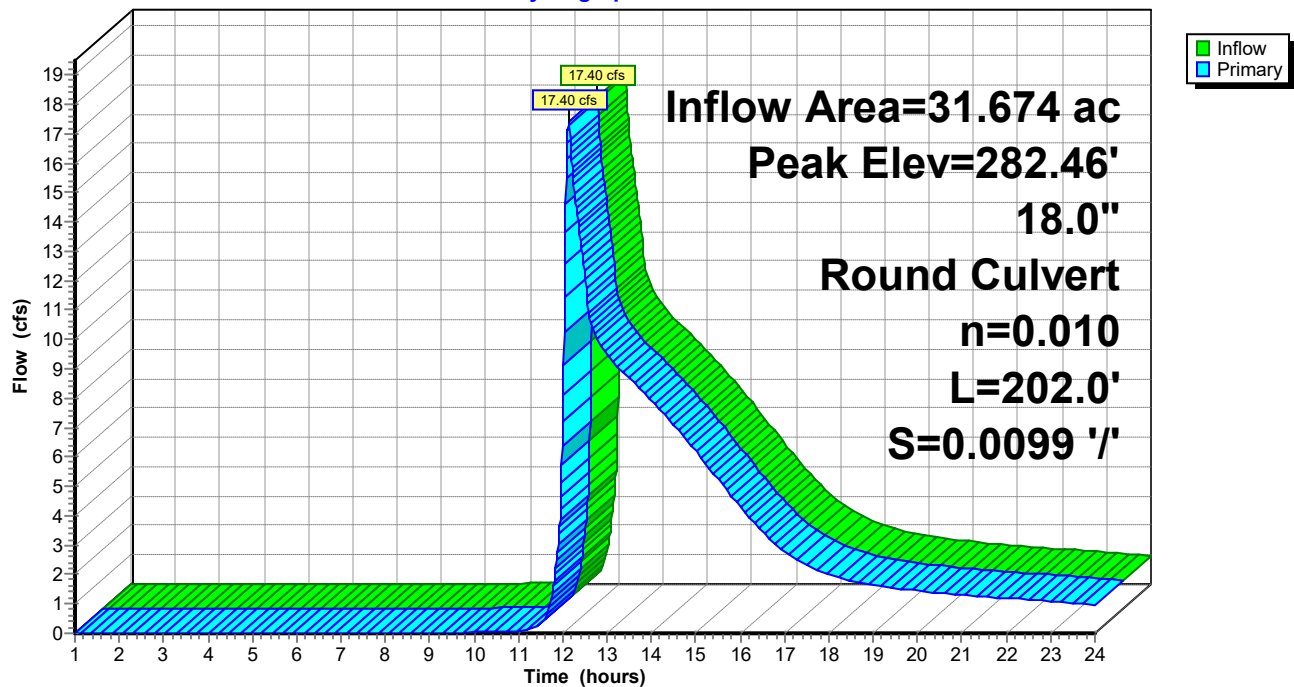
Device	Routing	Invert	Outlet Devices
#1	Primary	275.00'	18.0" Round 18" HDPE L= 202.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 275.00' / 273.00' S= 0.0099 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=17.39 cfs @ 12.13 hrs HW=282.45' (Free Discharge)

↑ **1=18" HDPE** (Inlet Controls 17.39 cfs @ 9.84 fps)

Pond 22P: MH-271

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 23P: CB-1152

[57] Hint: Peaked at 284.62' (Flood elevation advised)

[81] Warning: Exceeded Pond 24P by 0.11' @ 12.08 hrs

Inflow Area = 2.260 ac, 15.04% Impervious, Inflow Depth > 1.54" for 10-yr event
Inflow = 3.47 cfs @ 12.11 hrs, Volume= 0.289 af
Outflow = 3.47 cfs @ 12.11 hrs, Volume= 0.289 af, Atten= 0%, Lag= 0.0 min
Primary = 3.47 cfs @ 12.11 hrs, Volume= 0.289 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 284.62' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	283.60'	15.0" Round RCP_Round 15" L= 18.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 283.60' / 283.40' S= 0.0111 ' S= 0.0111 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.23 sf
#2	Secondary	288.15'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.46 cfs @ 12.11 hrs HW=284.62' (Free Discharge)

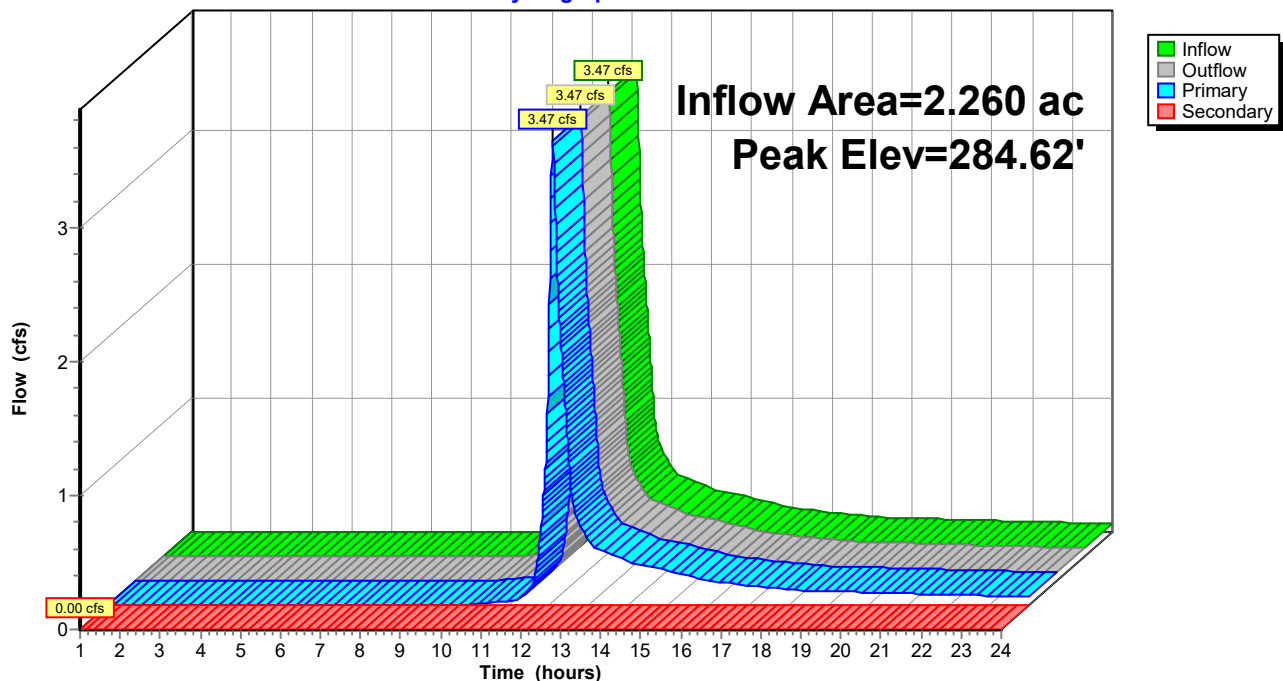
↑1=RCP_Round 15" (Barrel Controls 3.46 cfs @ 4.41 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=283.60' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 23P: CB-1152

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 24P: CB-1669

[57] Hint: Peaked at 284.55' (Flood elevation advised)

Inflow Area = 0.530 ac, 28.30% Impervious, Inflow Depth > 2.14" for 10-yr event
Inflow = 1.16 cfs @ 12.14 hrs, Volume= 0.094 af
Outflow = 1.16 cfs @ 12.14 hrs, Volume= 0.094 af, Atten= 0%, Lag= 0.0 min
Primary = 1.16 cfs @ 12.14 hrs, Volume= 0.094 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 284.55' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	283.90'	12.0" Round 12" HDPE L= 24.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 283.90' / 283.70' S= 0.0083 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.79 sf
#2	Secondary	288.36'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.16 cfs @ 12.14 hrs HW=284.55' (Free Discharge)

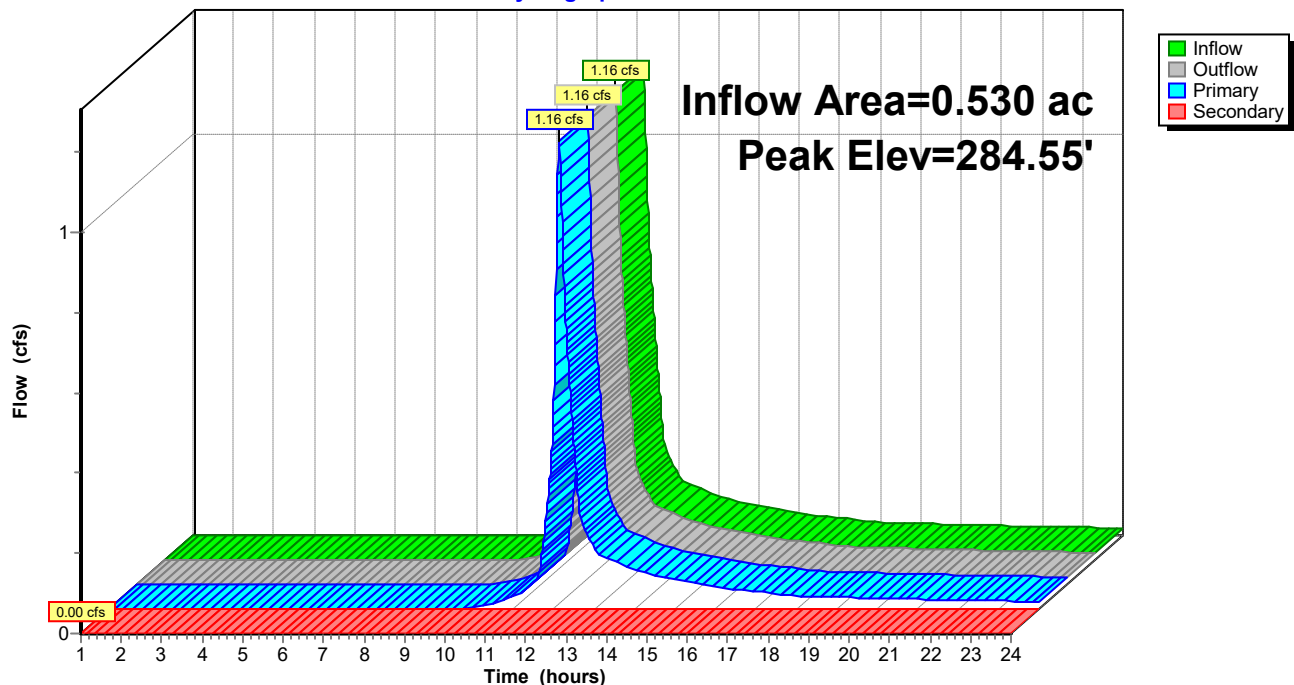
↑1=12" HDPE (Inlet Controls 1.16 cfs @ 2.16 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=283.90' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 24P: CB-1669

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 25P: MH-272

[79] Warning: Submerged Pond 26P Primary device # 1 INLET by 4.53'

Inflow Area = 29.414 ac, 13.88% Impervious, Inflow Depth > 1.51" for 10-yr event
Inflow = 14.07 cfs @ 12.14 hrs, Volume= 3.706 af
Outflow = 14.07 cfs @ 12.14 hrs, Volume= 3.706 af, Atten= 0%, Lag= 0.0 min
Primary = 14.07 cfs @ 12.14 hrs, Volume= 3.706 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 289.34' @ 12.14 hrs

Flood Elev= 290.77'

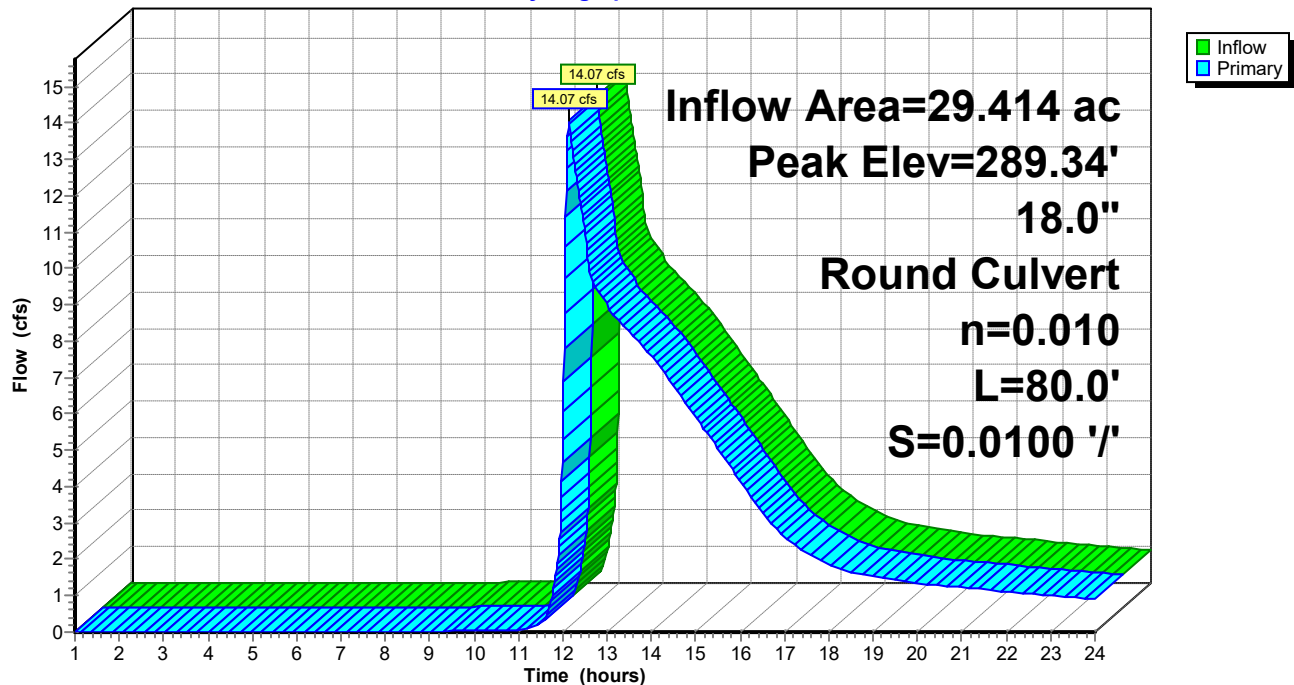
Device	Routing	Invert	Outlet Devices
#1	Primary	284.20'	18.0" Round 18" HDPE L= 80.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 284.20' / 283.40' S= 0.0100 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=14.06 cfs @ 12.14 hrs HW=289.33' (Free Discharge)

↑ **1=18" HDPE** (Inlet Controls 14.06 cfs @ 7.96 fps)

Pond 25P: MH-272

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 26P: MH-701

[79] Warning: Submerged Pond 27P Primary device # 1 OUTLET by 5.13'

[81] Warning: Exceeded Pond 96P by 1.71' @ 12.14 hrs

Inflow Area = 29.414 ac, 13.88% Impervious, Inflow Depth > 1.51" for 10-yr event
Inflow = 14.07 cfs @ 12.14 hrs, Volume= 3.706 af
Outflow = 14.07 cfs @ 12.14 hrs, Volume= 3.706 af, Atten= 0%, Lag= 0.0 min
Primary = 14.07 cfs @ 12.14 hrs, Volume= 3.706 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 289.94' @ 12.14 hrs

Flood Elev= 291.59'

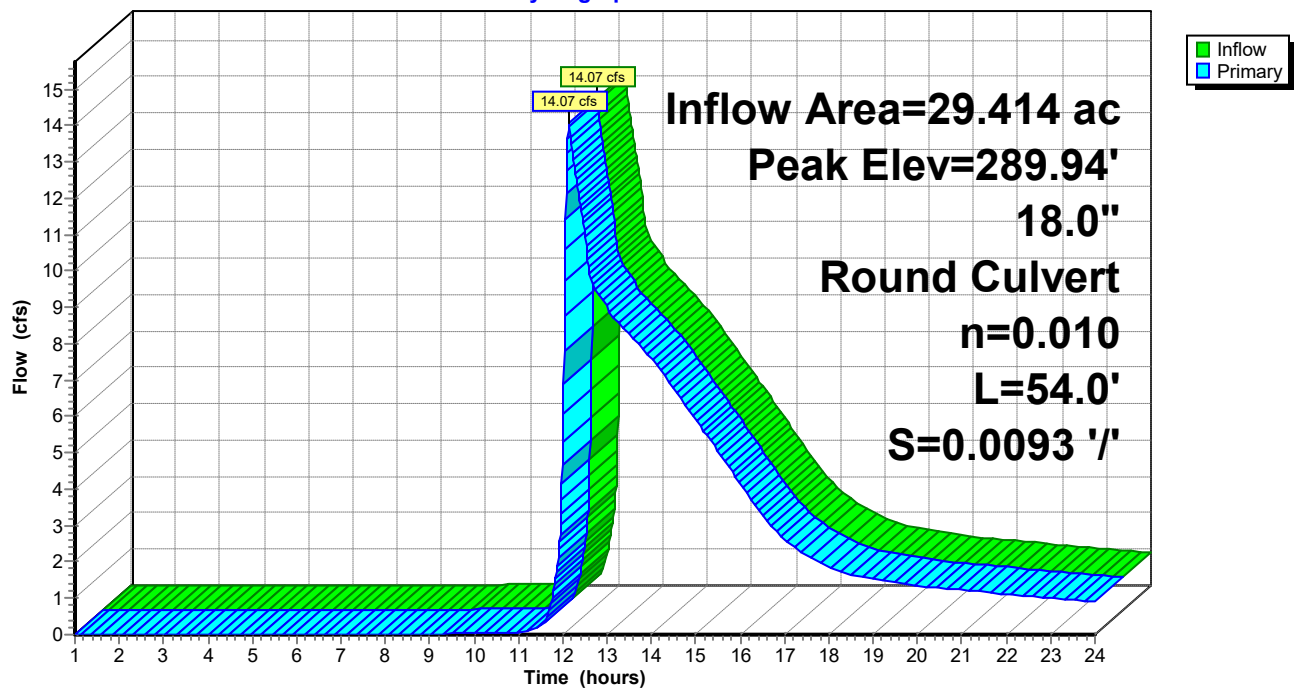
Device	Routing	Invert	Outlet Devices
#1	Primary	284.80'	18.0" Round 18" HDPE L= 54.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 284.80' / 284.30' S= 0.0093 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=14.06 cfs @ 12.14 hrs HW=289.93' (Free Discharge)

↑ **1=18" HDPE** (Inlet Controls 14.06 cfs @ 7.96 fps)

Pond 26P: MH-701

Hydrograph



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Summary for Pond 27P: MH-699

[81] Warning: Exceeded Pond 28P by 0.93' @ 12.37 hrs

[81] Warning: Exceeded Pond 30P by 0.43' @ 12.14 hrs

[81] Warning: Exceeded Pond 95P by 1.32' @ 12.13 hrs

Inflow Area = 27.014 ac, 14.23% Impervious, Inflow Depth > 1.51" for 10-yr event
Inflow = 10.73 cfs @ 12.13 hrs, Volume= 3.401 af
Outflow = 10.73 cfs @ 12.13 hrs, Volume= 3.401 af, Atten= 0%, Lag= 0.0 min
Primary = 10.73 cfs @ 12.13 hrs, Volume= 3.401 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 295.40' @ 12.13 hrs

Flood Elev= 297.80'

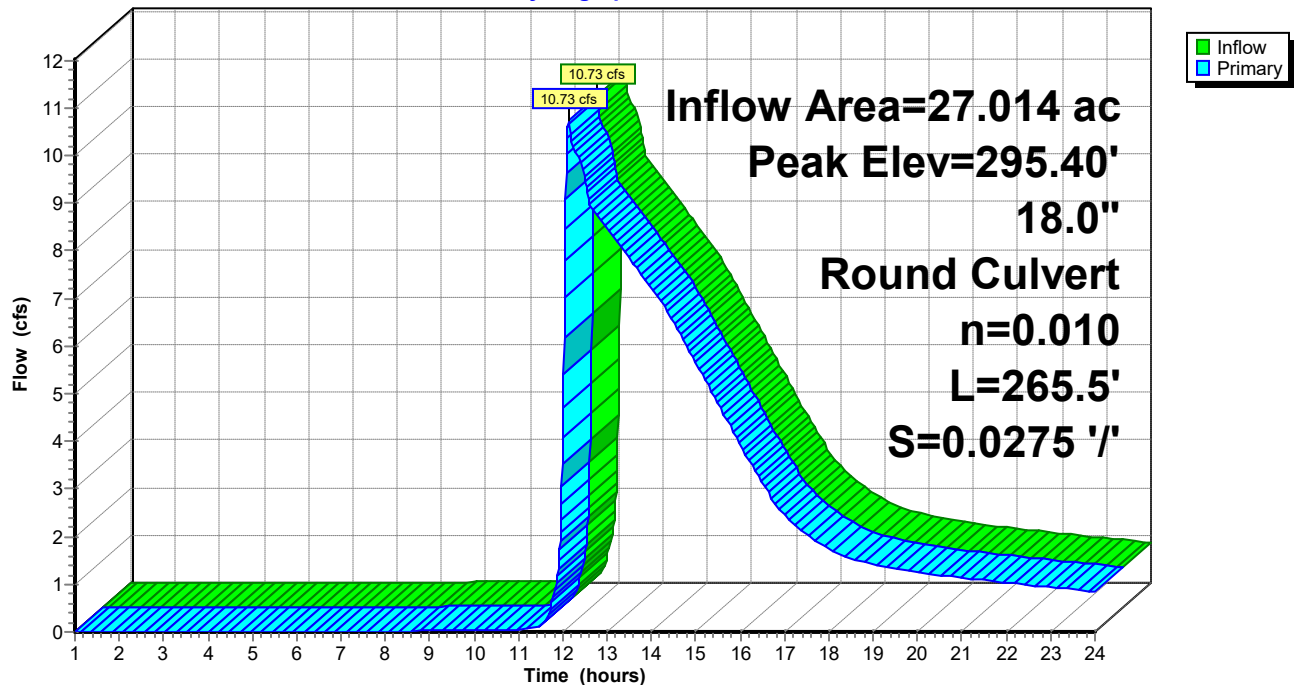
Device	Routing	Invert	Outlet Devices
#1	Primary	292.10'	18.0" Round 18" HDPE L= 265.5' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 292.10' / 284.80' S= 0.0275 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.73 cfs @ 12.13 hrs HW=295.40' (Free Discharge)

↑ **1=18" HDPE** (Inlet Controls 10.73 cfs @ 6.07 fps)

Pond 27P: MH-699

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 28P: MH-700

[79] Warning: Submerged Pond 29P Primary device # 1 by 1.26'

Inflow Area = 2.670 ac, 5.24% Impervious, Inflow Depth > 1.31" for 10-yr event
Inflow = 3.67 cfs @ 12.10 hrs, Volume= 0.292 af
Outflow = 3.67 cfs @ 12.10 hrs, Volume= 0.292 af, Atten= 0%, Lag= 0.0 min
Primary = 3.67 cfs @ 12.10 hrs, Volume= 0.292 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 294.76' @ 12.10 hrs

Flood Elev= 297.69'

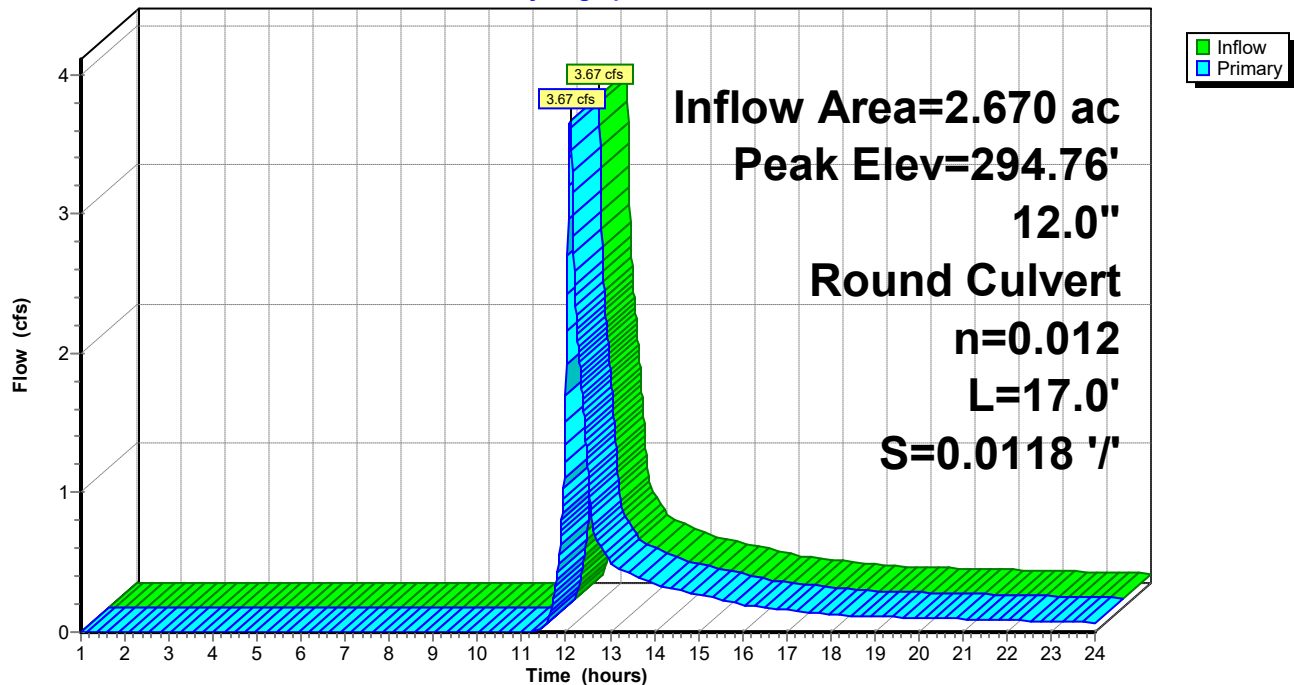
Device	Routing	Invert	Outlet Devices
#1	Primary	293.40'	12.0" Round RCP_Round 12" L= 17.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 293.40' / 293.20' S= 0.0118 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=3.66 cfs @ 12.10 hrs HW=294.76' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 3.66 cfs @ 4.66 fps)

Pond 28P: MH-700

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 29P: CB-1668

[57] Hint: Peaked at 294.94' (Flood elevation advised)

Inflow Area = 2.670 ac, 5.24% Impervious, Inflow Depth > 1.31" for 10-yr event
Inflow = 3.67 cfs @ 12.10 hrs, Volume= 0.292 af
Outflow = 3.67 cfs @ 12.10 hrs, Volume= 0.292 af, Atten= 0%, Lag= 0.0 min
Primary = 3.67 cfs @ 12.10 hrs, Volume= 0.292 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 294.94' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	293.50'	12.0" Round RCP_Round 12" L= 4.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 293.50' / 293.50' S= 0.0000 ' S= 0.0000 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	297.56'	24.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.67 cfs @ 12.10 hrs HW=294.94' (Free Discharge)

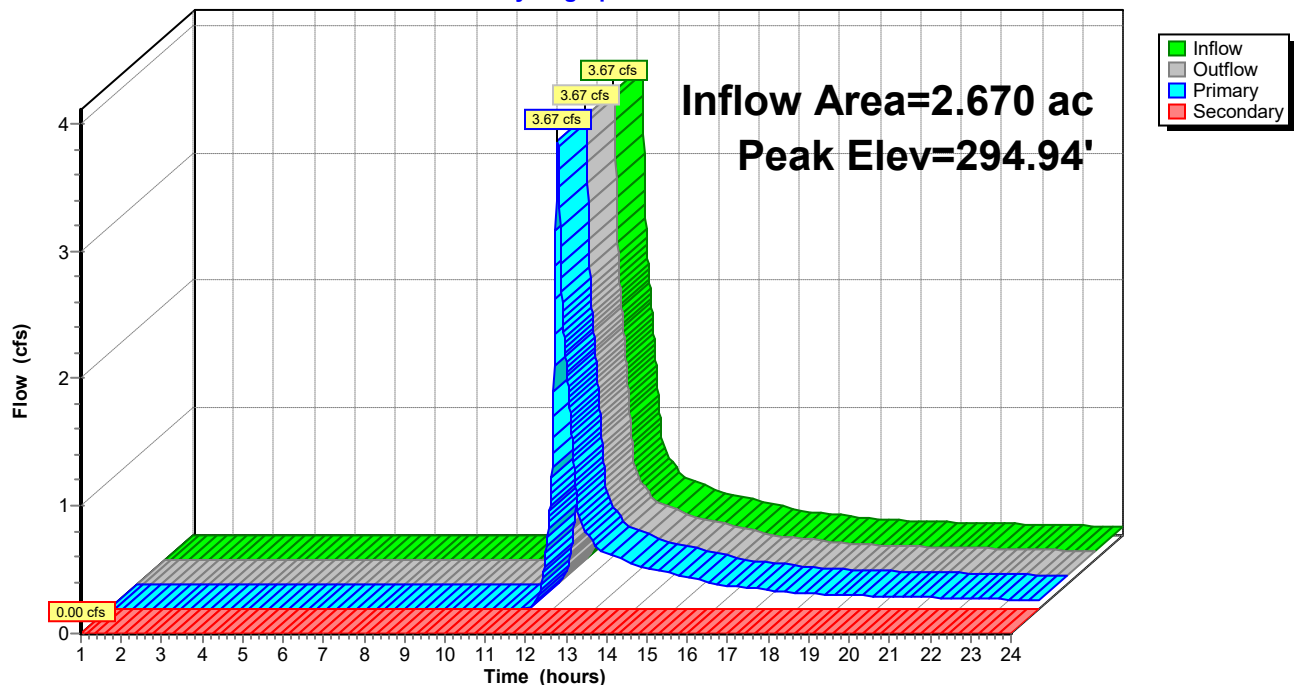
↑1=RCP_Round 12" (Barrel Controls 3.67 cfs @ 4.67 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=293.50' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 29P: CB-1668

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 30P: CB-1667

[57] Hint: Peaked at 295.01' (Flood elevation advised)

Inflow Area = 0.120 ac, 100.00% Impervious, Inflow Depth > 4.90" for 10-yr event
Inflow = 0.60 cfs @ 12.08 hrs, Volume= 0.049 af
Outflow = 0.60 cfs @ 12.08 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min
Primary = 0.60 cfs @ 12.08 hrs, Volume= 0.049 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 295.01' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	294.60'	12.0" Round RCP_Round 12" L= 24.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 294.60' / 294.40' S= 0.0083 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	298.43'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.60 cfs @ 12.08 hrs HW=295.01' (Free Discharge)

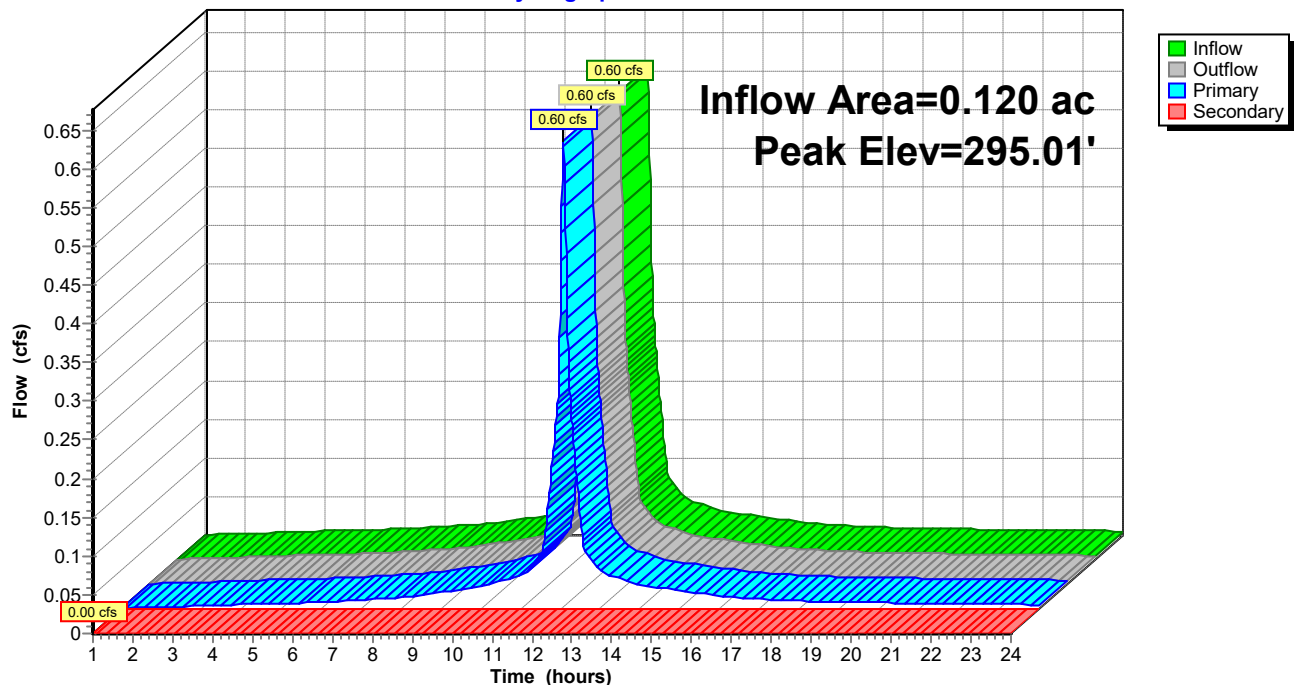
↑1=RCP_Round 12" (Barrel Controls 0.60 cfs @ 2.95 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=294.60' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 30P: CB-1667

Hydrograph



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Summary for Pond 31P: CB-P4

[57] Hint: Peaked at 279.81' (Flood elevation advised)

Inflow Area = 1.900 ac, 27.89% Impervious, Inflow Depth > 1.38" for 10-yr event
Inflow = 2.59 cfs @ 12.13 hrs, Volume= 0.219 af
Outflow = 2.59 cfs @ 12.13 hrs, Volume= 0.219 af, Atten= 0%, Lag= 0.0 min
Primary = 2.59 cfs @ 12.13 hrs, Volume= 0.219 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 279.81' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	279.00'	12.0" Round RCP_Round 12" L= 260.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 279.00' / 272.50' S= 0.0250 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	284.00'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

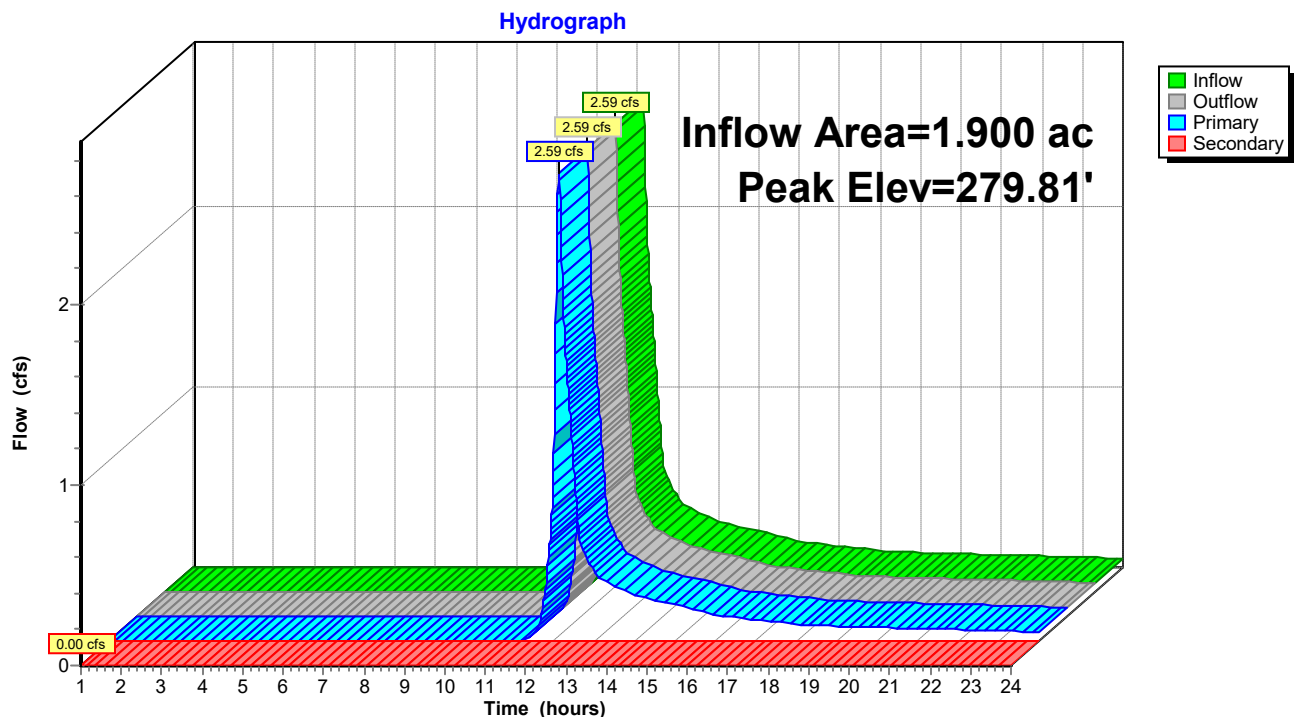
Primary OutFlow Max=2.59 cfs @ 12.13 hrs HW=279.81' (Free Discharge)

↑1=RCP_Round 12" (Inlet Controls 2.59 cfs @ 3.82 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=279.00' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 31P: CB-P4



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Summary for Pond 32P: MH-270

[79] Warning: Submerged Pond 35P Primary device # 1 OUTLET by 1.63'

Inflow Area = 5.150 ac, 20.00% Impervious, Inflow Depth > 1.77" for 10-yr event
Inflow = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af
Outflow = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af, Atten= 0%, Lag= 0.0 min
Primary = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 306.53' @ 12.10 hrs

Flood Elev= 310.64'

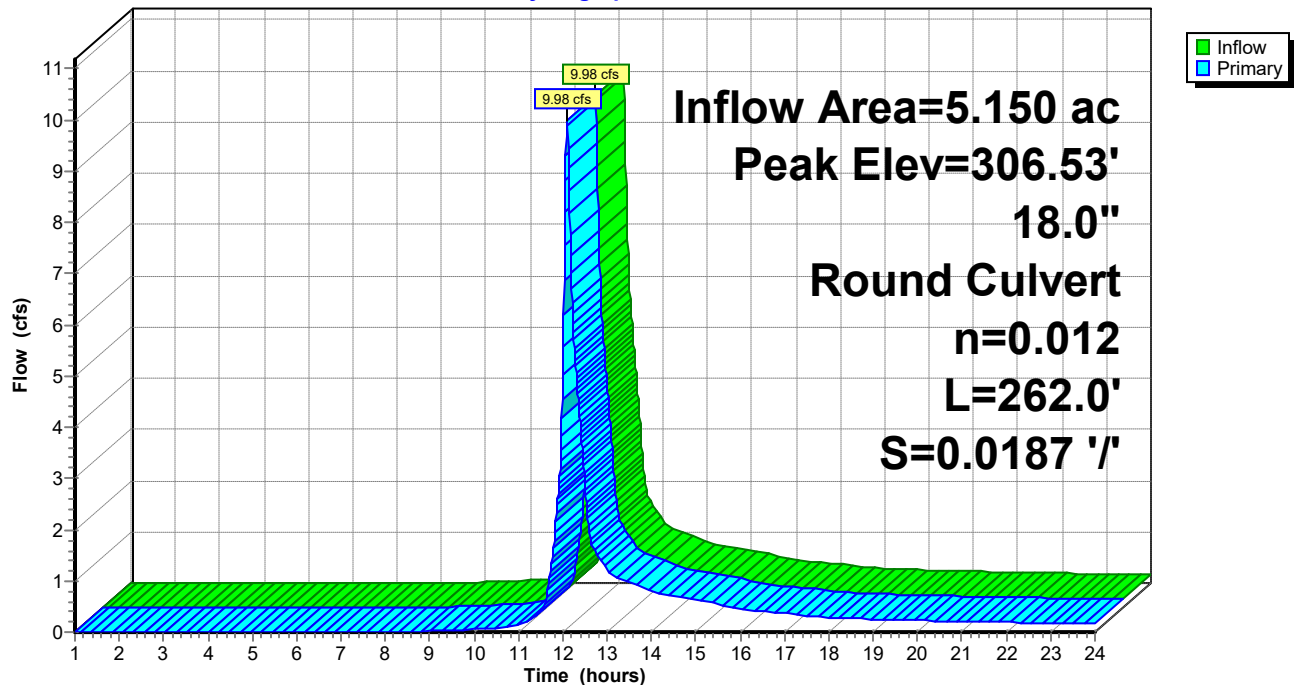
Device	Routing	Invert	Outlet Devices
#1	Primary	304.90'	18.0" Round RCP_Round 18" L= 262.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 304.90' / 300.00' S= 0.0187 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=9.98 cfs @ 12.10 hrs HW=306.53' (Free Discharge)

↑1=RCP_Round 18" (Inlet Controls 9.98 cfs @ 5.65 fps)

Pond 32P: MH-270

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 33P: MH-620

[79] Warning: Submerged Pond 32P Primary device # 1 OUTLET by 1.45'

Inflow Area = 5.952 ac, 17.67% Impervious, Inflow Depth > 1.72" for 10-yr event
Inflow = 11.16 cfs @ 12.10 hrs, Volume= 0.853 af
Outflow = 11.16 cfs @ 12.10 hrs, Volume= 0.853 af, Atten= 0%, Lag= 0.0 min
Primary = 11.16 cfs @ 12.10 hrs, Volume= 0.853 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 301.45' @ 12.10 hrs

Flood Elev= 304.28'

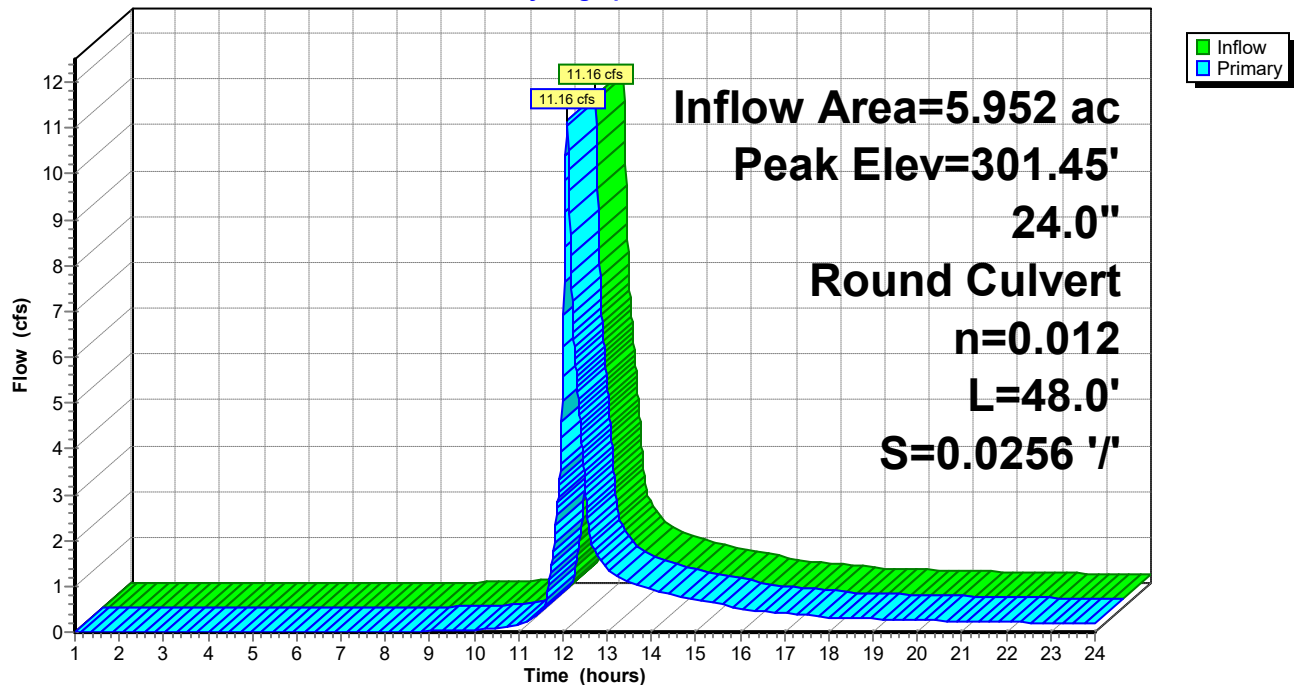
Device	Routing	Invert	Outlet Devices
#1	Primary	300.10'	24.0" Round RCP_Round 24" L= 48.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 300.10' / 298.87' S= 0.0256 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=11.16 cfs @ 12.10 hrs HW=301.45' (Free Discharge)

↑1=RCP_Round 24" (Inlet Controls 11.16 cfs @ 4.95 fps)

Pond 33P: MH-620

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 34P: IN-37

[57] Hint: Peaked at 302.38' (Flood elevation advised)

Inflow Area = 0.802 ac, 2.74% Impervious, Inflow Depth > 1.38" for 10-yr event
Inflow = 1.18 cfs @ 12.10 hrs, Volume= 0.092 af
Outflow = 1.18 cfs @ 12.10 hrs, Volume= 0.092 af, Atten= 0%, Lag= 0.0 min
Primary = 1.18 cfs @ 12.10 hrs, Volume= 0.092 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 302.38' @ 12.10 hrs

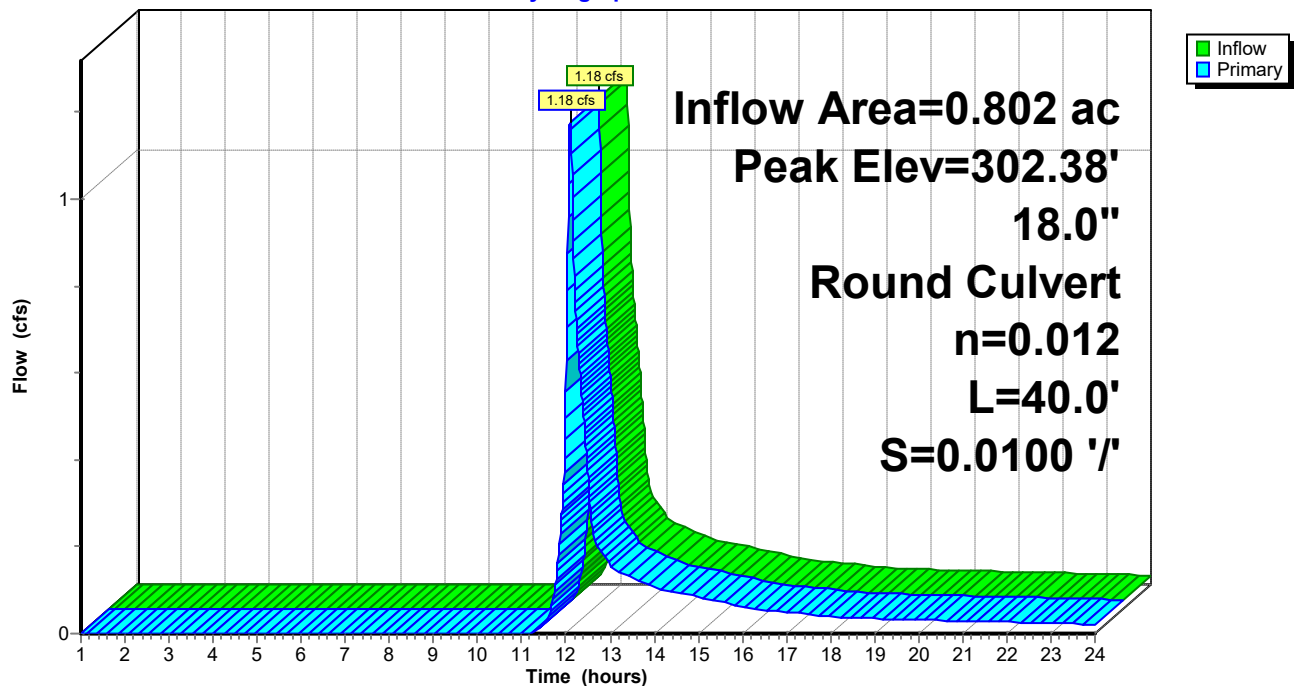
Device	Routing	Invert	Outlet Devices
#1	Primary	301.90'	18.0" Round RCP_Round 18" L= 40.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 301.90' / 301.50' S= 0.0100 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=1.18 cfs @ 12.10 hrs HW=302.38' (Free Discharge)

↑1=RCP_Round 18" (Barrel Controls 1.18 cfs @ 3.63 fps)

Pond 34P: IN-37

Hydrograph



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Summary for Pond 35P: (new Pond)

[79] Warning: Submerged Pond 36P Primary device # 1 OUTLET by 1.63'

Inflow Area = 5.150 ac, 20.00% Impervious, Inflow Depth > 1.77" for 10-yr event
Inflow = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af
Outflow = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af, Atten= 0%, Lag= 0.0 min
Primary = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 308.93' @ 12.10 hrs

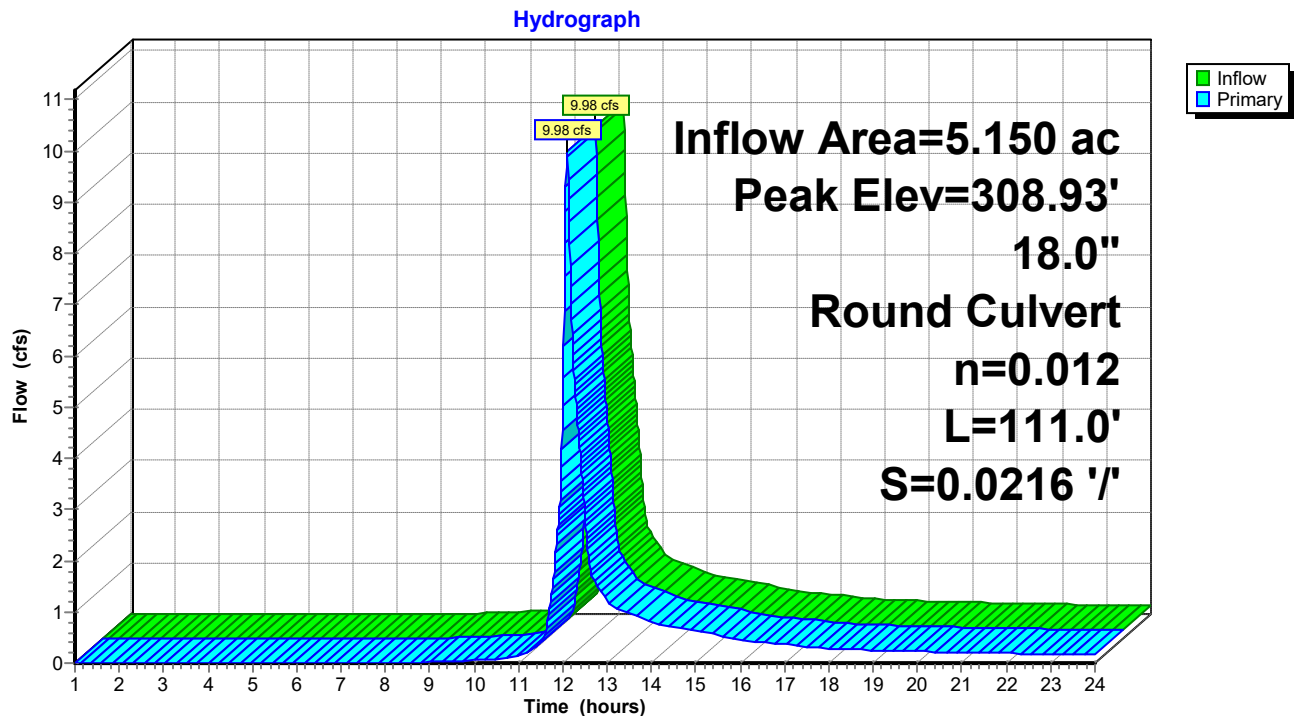
Flood Elev= 314.81'

Device	Routing	Invert	Outlet Devices
#1	Primary	307.30'	18.0" Round RCP_Round 18" L= 111.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 307.30' / 304.90' S= 0.0216 '/ Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=9.98 cfs @ 12.10 hrs HW=308.93' (Free Discharge)

↑1=RCP_Round 18" (Inlet Controls 9.98 cfs @ 5.65 fps)

Pond 35P: (new Pond)



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Summary for Pond 36P: MH-443

Inflow Area = 5.150 ac, 20.00% Impervious, Inflow Depth > 1.77" for 10-yr event
Inflow = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af
Outflow = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af, Atten= 0%, Lag= 0.0 min
Primary = 9.98 cfs @ 12.10 hrs, Volume= 0.760 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 311.38' @ 12.10 hrs

Flood Elev= 315.61'

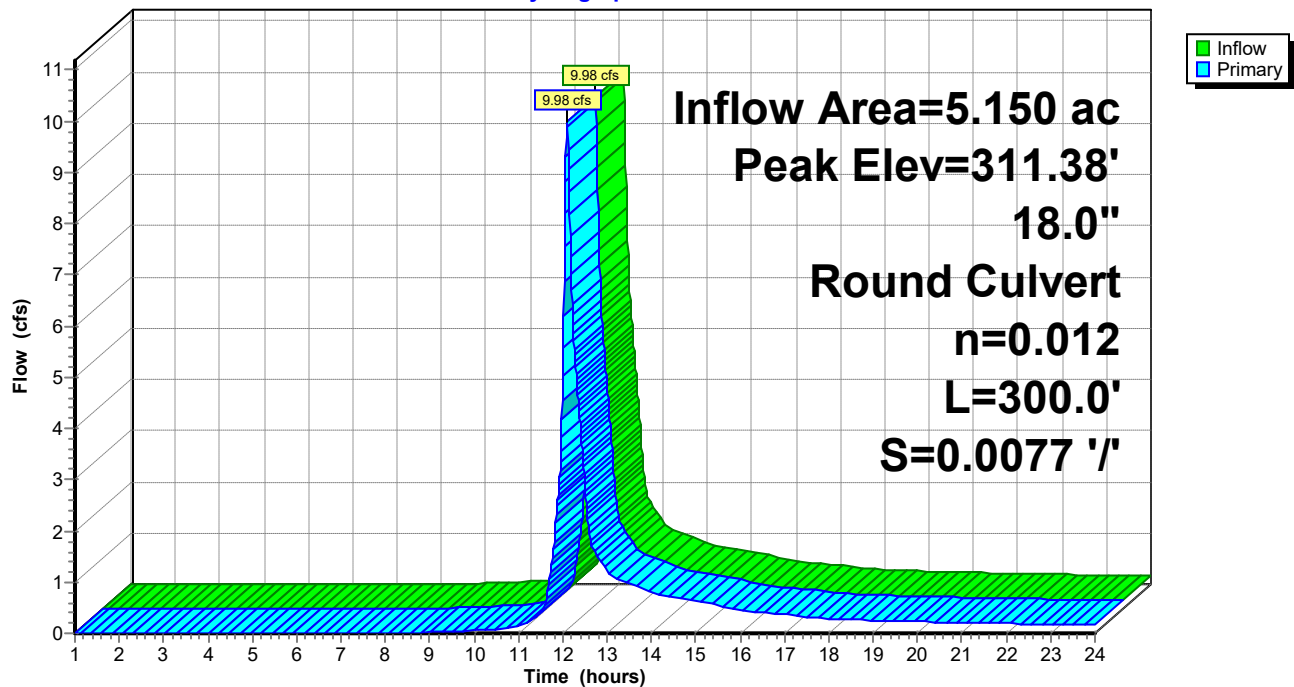
Device	Routing	Invert	Outlet Devices
#1	Primary	309.60'	18.0" Round RCP_Round 18" L= 300.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 309.60' / 307.30' S= 0.0077 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=9.99 cfs @ 12.10 hrs HW=311.38' (Free Discharge)

↑1=RCP_Round 18" (Barrel Controls 9.99 cfs @ 6.02 fps)

Pond 36P: MH-443

Hydrograph



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Summary for Pond 37P: CB-646

[57] Hint: Peaked at 312.24' (Flood elevation advised)

Inflow Area = 0.340 ac, 47.06% Impervious, Inflow Depth > 2.83" for 10-yr event
Inflow = 1.13 cfs @ 12.09 hrs, Volume= 0.080 af
Outflow = 1.13 cfs @ 12.09 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.0 min
Primary = 1.13 cfs @ 12.09 hrs, Volume= 0.080 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 312.24' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	311.70'	12.0" Round RCP_Round 12" L= 24.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 311.70' / 311.40' S= 0.0125 ' S= 0.0125 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	316.08'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

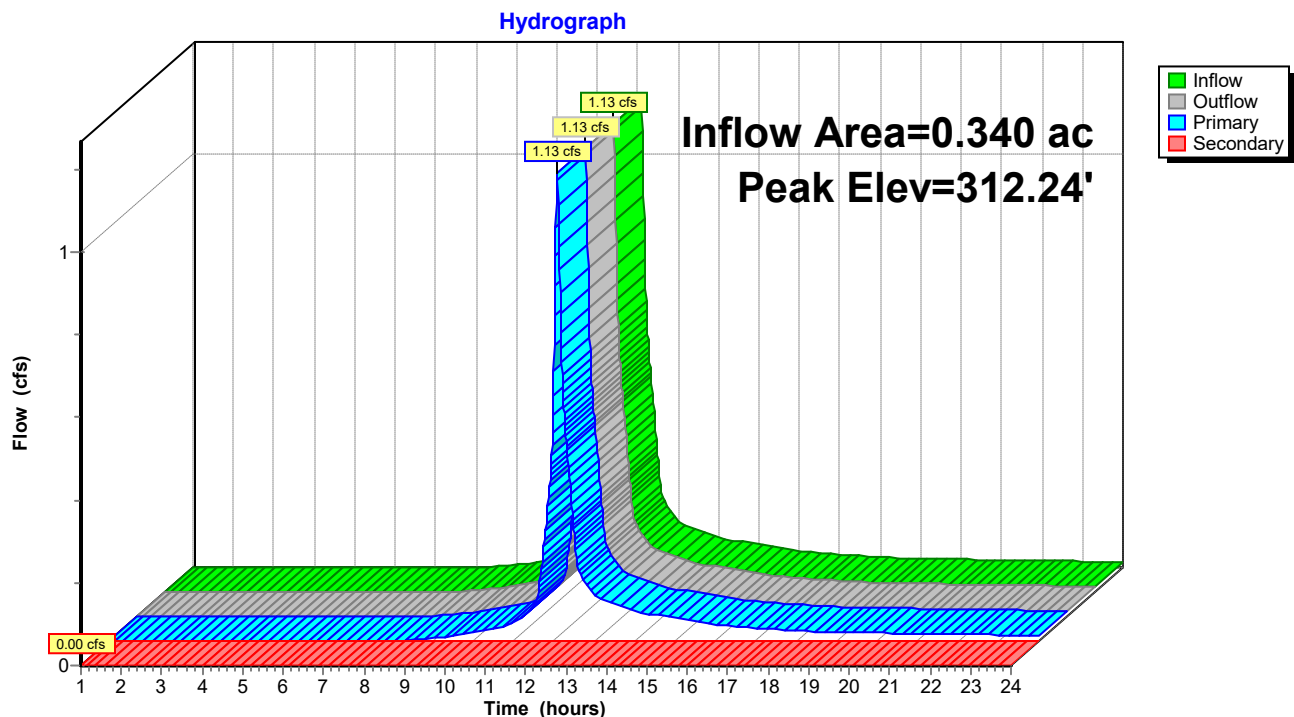
Primary OutFlow Max=1.13 cfs @ 12.09 hrs HW=312.24' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 1.13 cfs @ 3.77 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=311.70' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 37P: CB-646



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Summary for Pond 38P: CB-645

[57] Hint: Peaked at 312.33' (Flood elevation advised)

Inflow Area = 1.120 ac, 16.96% Impervious, Inflow Depth > 1.67" for 10-yr event
Inflow = 2.01 cfs @ 12.11 hrs, Volume= 0.156 af
Outflow = 2.01 cfs @ 12.11 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.0 min
Primary = 2.01 cfs @ 12.11 hrs, Volume= 0.156 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 312.33' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	311.50'	12.0" Round RCP_Round 12" L= 5.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 311.50' / 311.40' S= 0.0200 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	316.34'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

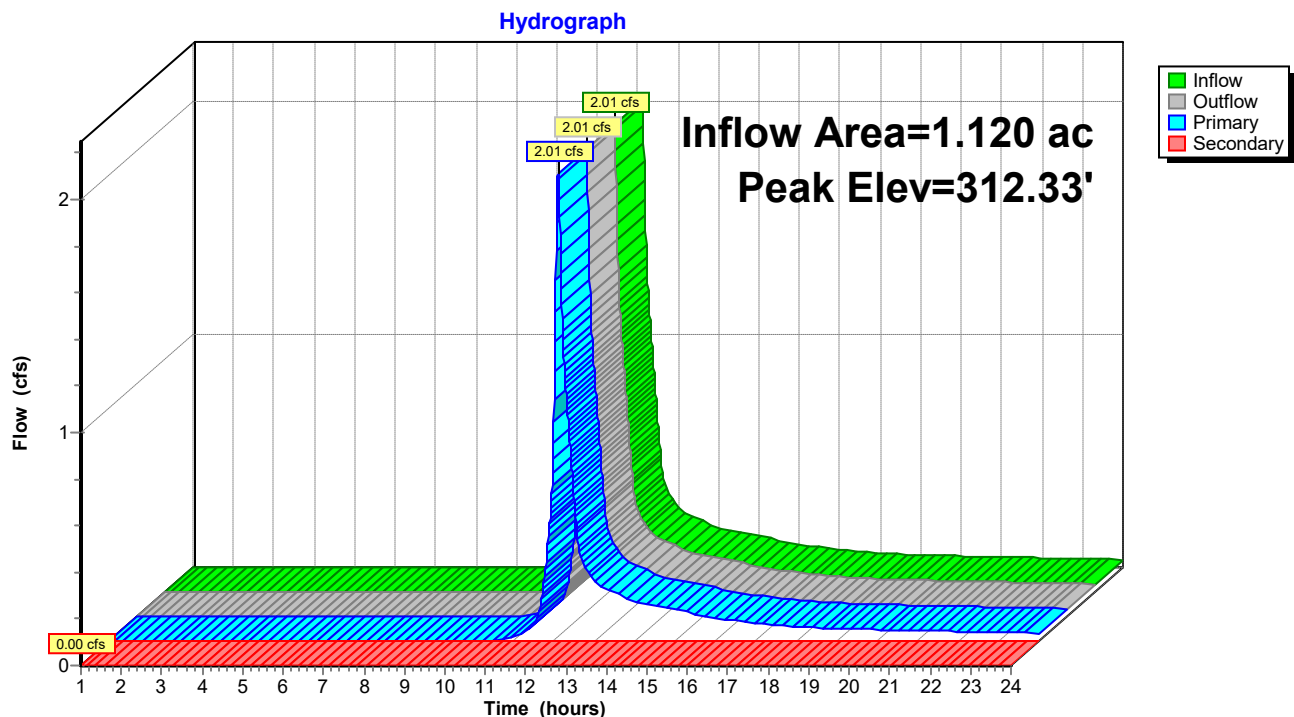
Primary OutFlow Max=2.01 cfs @ 12.11 hrs HW=312.33' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 2.01 cfs @ 3.89 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=311.50' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 38P: CB-645



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Summary for Pond 47P: MH-619

[81] Warning: Exceeded Pond 48P by 1.51' @ 12.11 hrs

[81] Warning: Exceeded Pond 49P by 0.02' @ 12.41 hrs

[79] Warning: Submerged Pond 50P Primary device # 1 OUTLET by 2.26'

Inflow Area = 13.972 ac, 15.90% Impervious, Inflow Depth > 1.74" for 10-yr event
Inflow = 25.06 cfs @ 12.10 hrs, Volume= 2.021 af
Outflow = 25.06 cfs @ 12.10 hrs, Volume= 2.021 af, Atten= 0%, Lag= 0.0 min
Primary = 25.06 cfs @ 12.10 hrs, Volume= 2.021 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 301.36' @ 12.10 hrs

Flood Elev= 304.03'

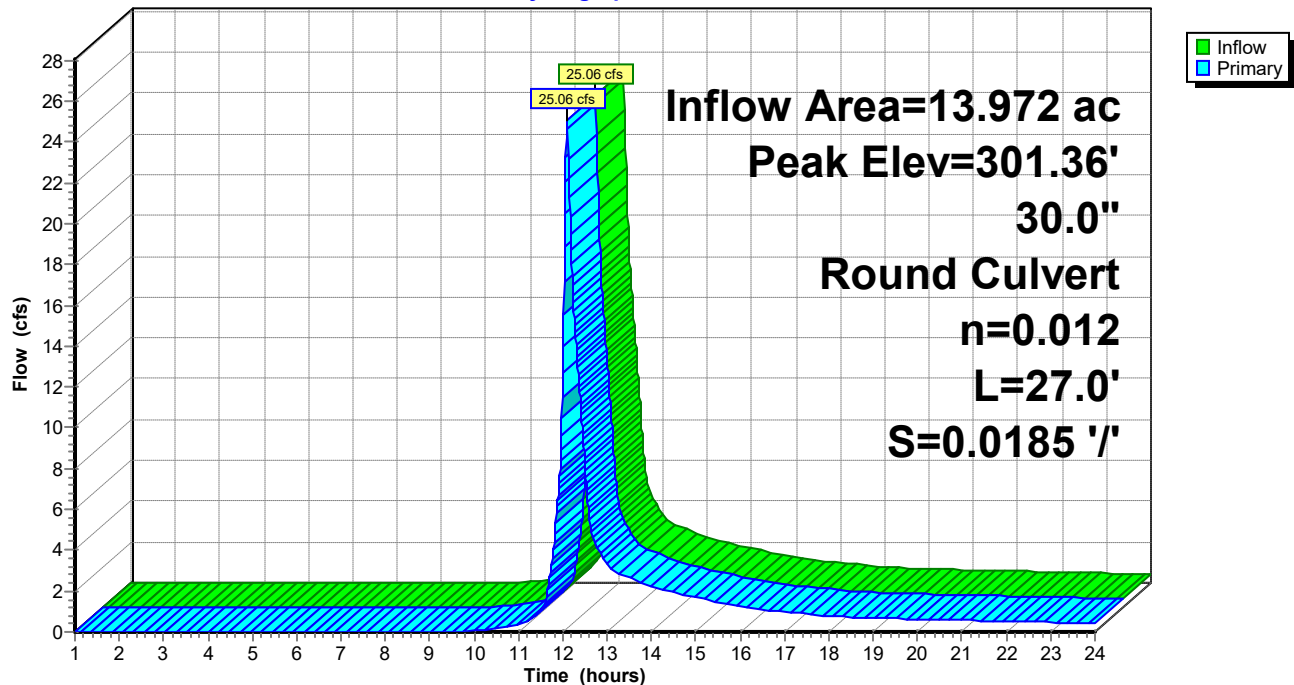
Device	Routing	Invert	Outlet Devices
#1	Primary	299.10'	30.0" Round RCP_Round 30" L= 27.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 299.10' / 298.60' S= 0.0185 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 4.91 sf

Primary OutFlow Max=25.03 cfs @ 12.10 hrs HW=301.36' (Free Discharge)

↑1=RCP_Round 30" (Barrel Controls 25.03 cfs @ 7.07 fps)

Pond 47P: MH-619

Hydrograph



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Summary for Pond 48P: CB-1666

[57] Hint: Peaked at 299.86' (Flood elevation advised)

Inflow Area = 0.300 ac, 36.67% Impervious, Inflow Depth > 2.56" for 10-yr event
Inflow = 0.90 cfs @ 12.09 hrs, Volume= 0.064 af
Outflow = 0.90 cfs @ 12.09 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.0 min
Primary = 0.90 cfs @ 12.09 hrs, Volume= 0.064 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 299.86' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	299.20'	12.0" Round CMP_Round 12" L= 10.6' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 299.20' / 299.10' S= 0.0094 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf
#2	Secondary	303.72'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.90 cfs @ 12.09 hrs HW=299.86' (Free Discharge)

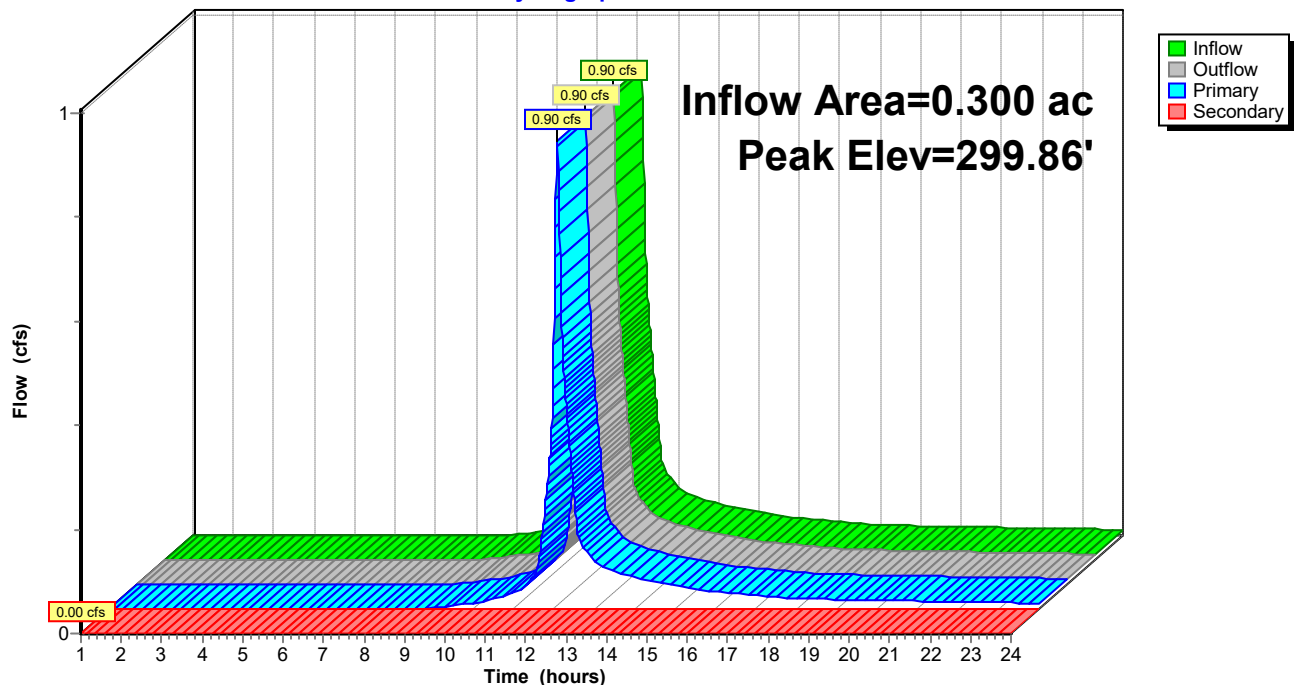
↑**1=CMP_Round 12"** (Barrel Controls 0.90 cfs @ 2.33 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=299.20' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 48P: CB-1666

Hydrograph



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Summary for Pond 49P: CB-1665

[57] Hint: Peaked at 303.23' (Flood elevation advised)

Inflow Area = 2.150 ac, 24.65% Impervious, Inflow Depth > 2.06" for 10-yr event
Inflow = 5.09 cfs @ 12.09 hrs, Volume= 0.369 af
Outflow = 5.09 cfs @ 12.09 hrs, Volume= 0.369 af, Atten= 0%, Lag= 0.0 min
Primary = 5.09 cfs @ 12.09 hrs, Volume= 0.369 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 303.23' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	299.40'	12.0" Round CMP_Round 12" L= 25.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 299.40' / 299.10' S= 0.0120 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf
#2	Secondary	303.76'	24.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=5.08 cfs @ 12.09 hrs HW=303.23' (Free Discharge)

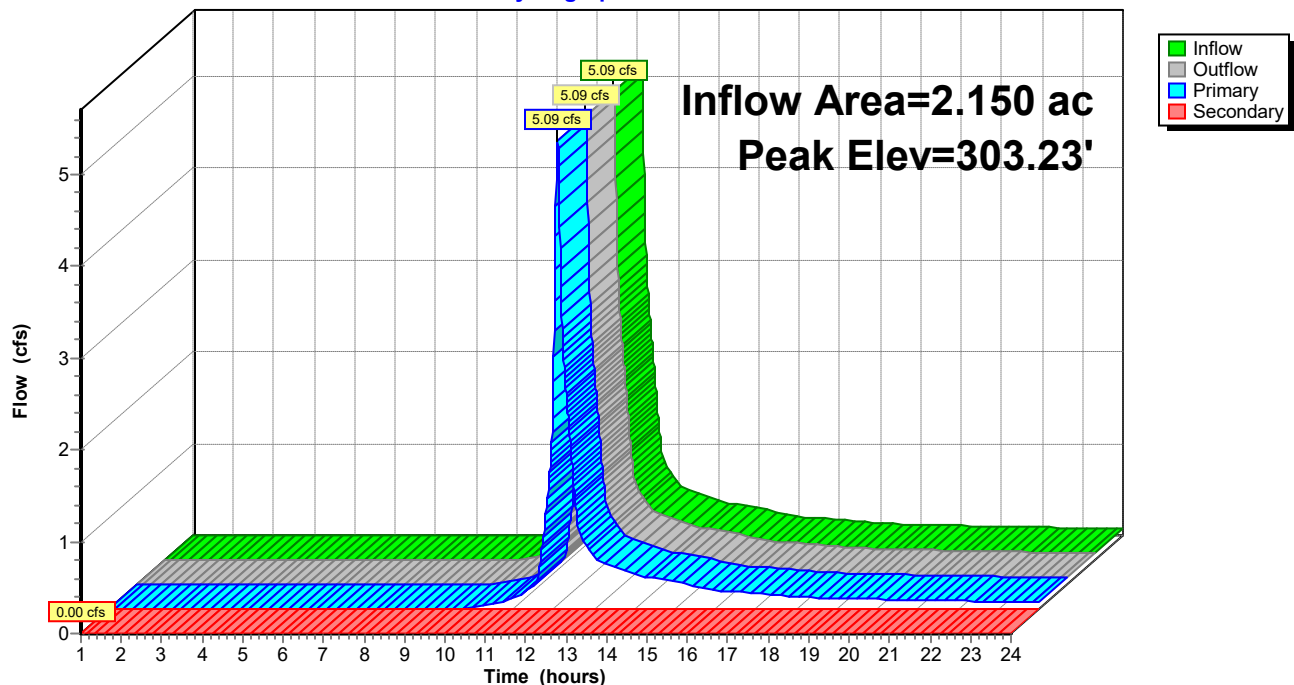
↑1=CMP_Round 12" (Barrel Controls 5.08 cfs @ 6.47 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=299.40' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 49P: CB-1665

Hydrograph



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Summary for Pond 50P: MH-618

[79] Warning: Submerged Pond 51P Primary device # 1 INLET by 2.49'

Inflow Area = 11.522 ac, 13.73% Impervious, Inflow Depth > 1.65" for 10-yr event
Inflow = 19.13 cfs @ 12.11 hrs, Volume= 1.589 af
Outflow = 19.13 cfs @ 12.11 hrs, Volume= 1.589 af, Atten= 0%, Lag= 0.0 min
Primary = 19.13 cfs @ 12.11 hrs, Volume= 1.589 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 306.60' @ 12.11 hrs

Flood Elev= 307.53'

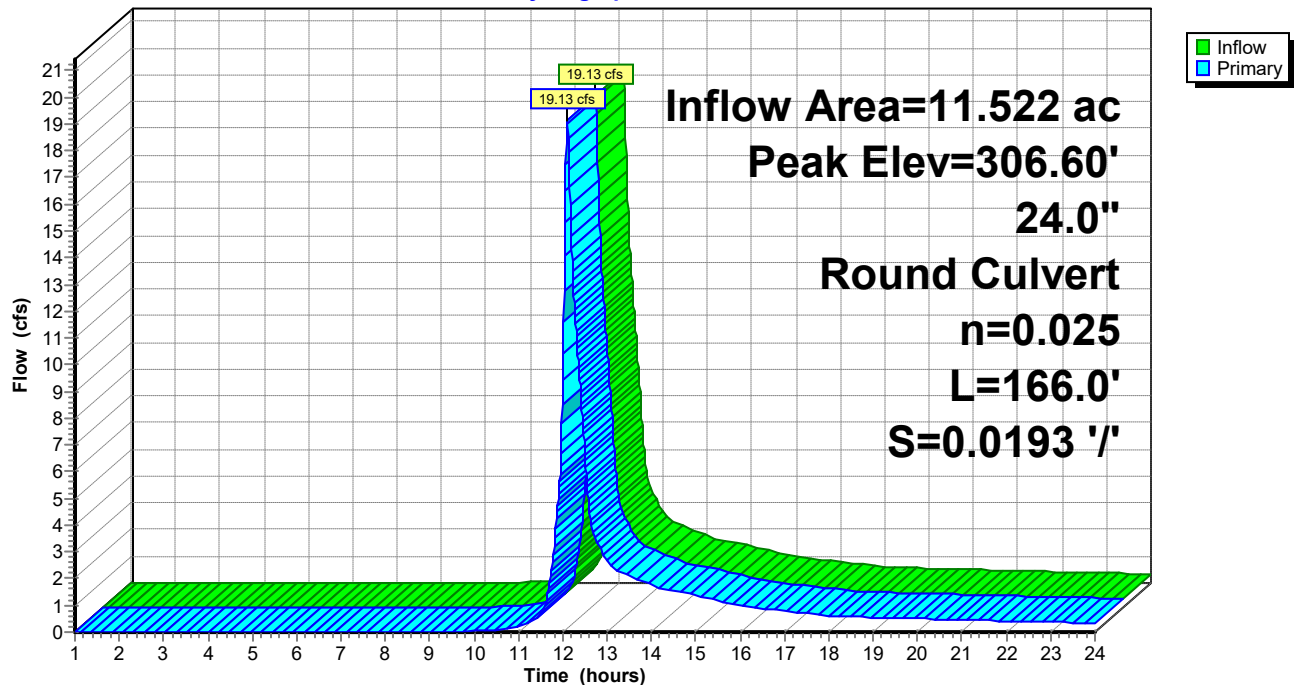
Device	Routing	Invert	Outlet Devices
#1	Primary	302.30'	24.0" Round CMP_Round 24" L= 166.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 302.30' / 299.10' S= 0.0193 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 3.14 sf

Primary OutFlow Max=19.10 cfs @ 12.11 hrs HW=306.58' (Free Discharge)

↑1=CMP_Round 24" (Barrel Controls 19.10 cfs @ 6.08 fps)

Pond 50P: MH-618

Hydrograph



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Summary for Pond 51P: MH-617

[81] Warning: Exceeded Pond 52P by 1.62' @ 12.11 hrs

[81] Warning: Exceeded Pond 53P by 0.58' @ 12.11 hrs

[79] Warning: Submerged Pond 54P Primary device # 1 INLET by 0.26'

Inflow Area = 11.522 ac, 13.73% Impervious, Inflow Depth > 1.65" for 10-yr event
Inflow = 19.13 cfs @ 12.11 hrs, Volume= 1.589 af
Outflow = 19.13 cfs @ 12.11 hrs, Volume= 1.589 af, Atten= 0%, Lag= 0.0 min
Primary = 19.13 cfs @ 12.11 hrs, Volume= 1.589 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 307.67' @ 12.11 hrs

Flood Elev= 310.23'

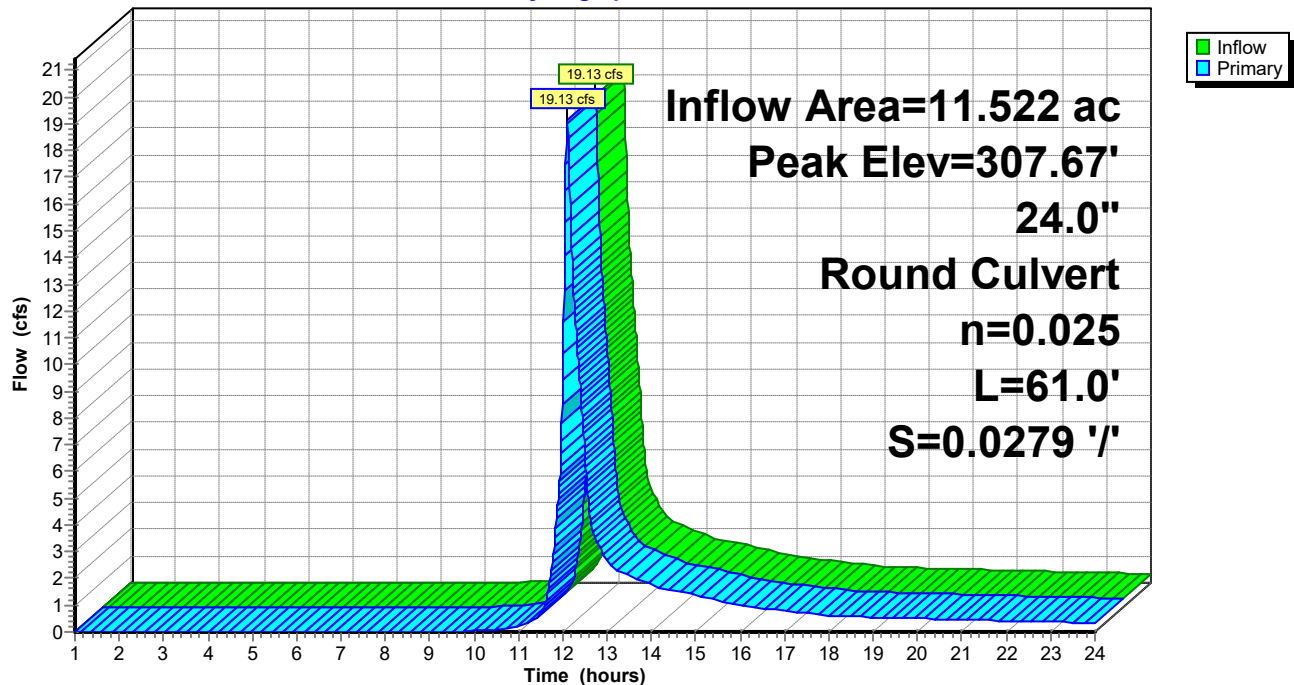
Device	Routing	Invert	Outlet Devices
#1	Primary	304.10'	24.0" Round CMP_Round 24" L= 61.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 304.10' / 302.40' S= 0.0279 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 3.14 sf

Primary OutFlow Max=19.10 cfs @ 12.11 hrs HW=307.66' (Free Discharge)

↑1=CMP_Round 24" (Inlet Controls 19.10 cfs @ 6.08 fps)

Pond 51P: MH-617

Hydrograph



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Summary for Pond 52P: CB-1663

[57] Hint: Peaked at 306.05' (Flood elevation advised)

Inflow Area = 0.440 ac, 27.27% Impervious, Inflow Depth > 2.22" for 10-yr event
Inflow = 1.13 cfs @ 12.09 hrs, Volume= 0.081 af
Outflow = 1.13 cfs @ 12.09 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min
Primary = 1.13 cfs @ 12.09 hrs, Volume= 0.081 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 306.05' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	305.30'	12.0" Round CMP_Round 12" L= 20.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 305.30' / 305.10' S= 0.0100 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf
#2	Secondary	310.92'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=1.13 cfs @ 12.09 hrs HW=306.05' (Free Discharge)

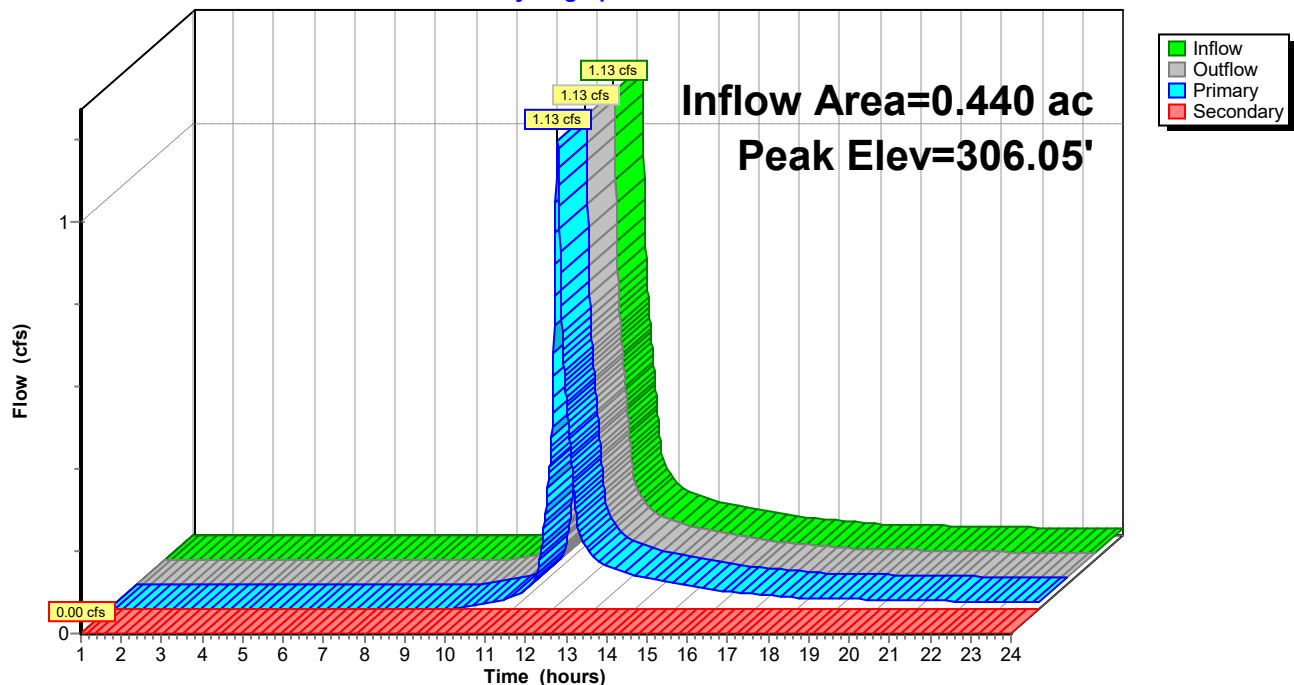
↑**1=CMP_Round 12"** (Barrel Controls 1.13 cfs @ 2.49 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=305.30' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 52P: CB-1663

Hydrograph



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Summary for Pond 53P: CB-1664

[57] Hint: Peaked at 307.12' (Flood elevation advised)

Inflow Area = 1.470 ac, 14.97% Impervious, Inflow Depth > 1.90" for 10-yr event
Inflow = 3.18 cfs @ 12.09 hrs, Volume= 0.233 af
Outflow = 3.18 cfs @ 12.09 hrs, Volume= 0.233 af, Atten= 0%, Lag= 0.0 min
Primary = 3.18 cfs @ 12.09 hrs, Volume= 0.233 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 307.12' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	305.30'	12.0" Round CMP_Round 12" L= 18.3' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 305.30' / 305.10' S= 0.0109 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.79 sf
#2	Secondary	310.01'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.17 cfs @ 12.09 hrs HW=307.12' (Free Discharge)

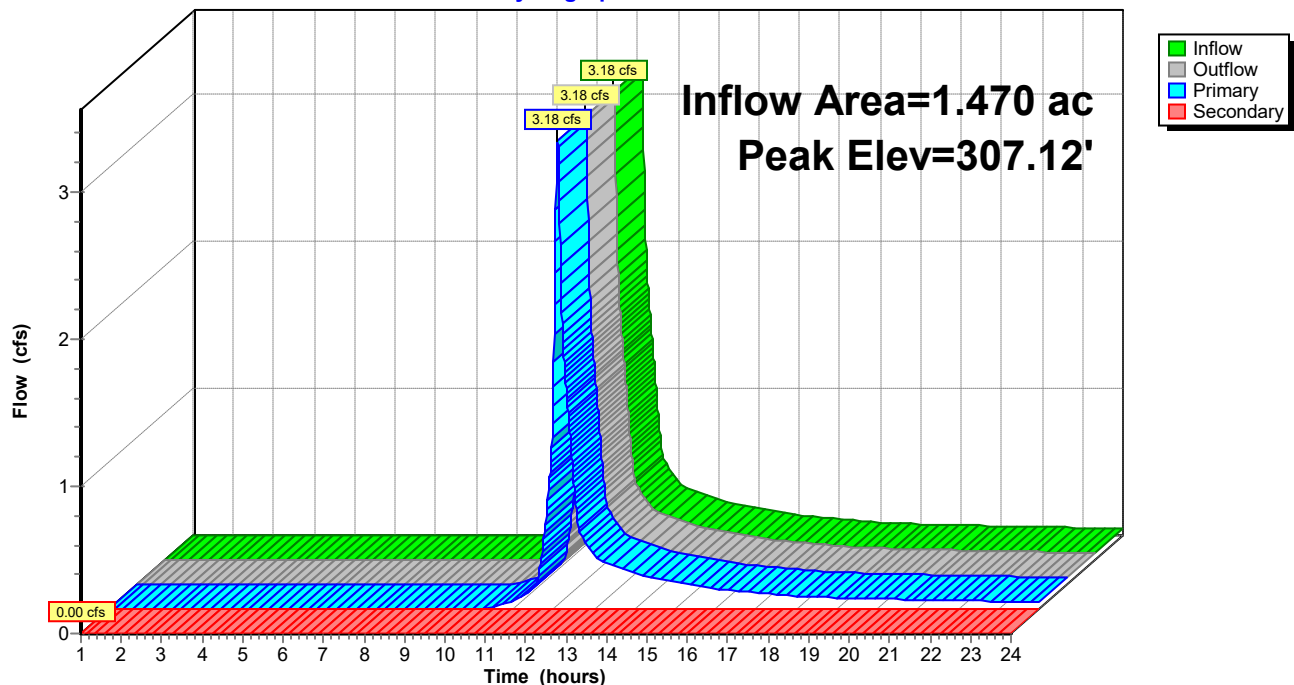
↑**1=CMP_Round 12"** (Barrel Controls 3.17 cfs @ 4.04 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=305.30' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 53P: CB-1664

Hydrograph



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Summary for Pond 54P: MH-616

[79] Warning: Submerged Pond 55P Primary device # 1 OUTLET by 2.15'

Inflow Area = 9.612 ac, 12.92% Impervious, Inflow Depth > 1.59" for 10-yr event
Inflow = 14.88 cfs @ 12.11 hrs, Volume= 1.275 af
Outflow = 14.88 cfs @ 12.11 hrs, Volume= 1.275 af, Atten= 0%, Lag= 0.0 min
Primary = 14.88 cfs @ 12.11 hrs, Volume= 1.275 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 309.95' @ 12.11 hrs

Flood Elev= 313.19'

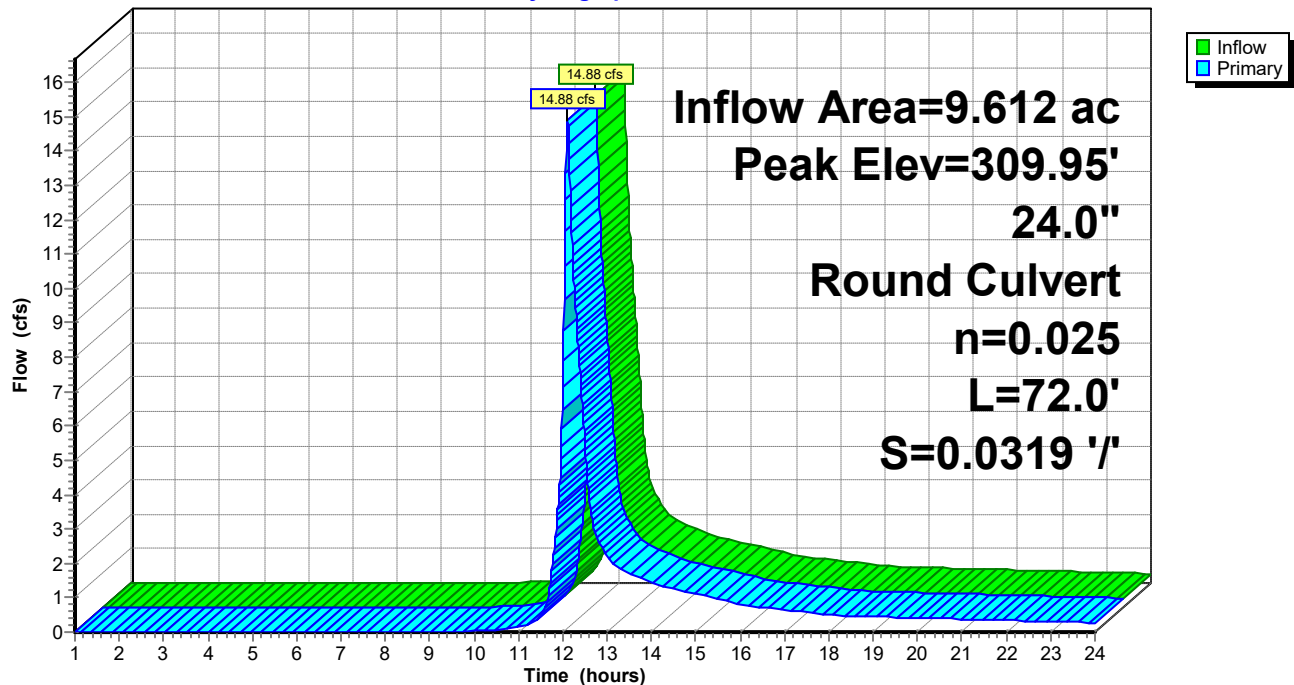
Device	Routing	Invert	Outlet Devices
#1	Primary	307.40'	24.0" Round CMP_Round 24" L= 72.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 307.40' / 305.10' S= 0.0319 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 3.14 sf

Primary OutFlow Max=14.88 cfs @ 12.11 hrs HW=309.95' (Free Discharge)

↑ **1=CMP_Round 24"** (Inlet Controls 14.88 cfs @ 4.74 fps)

Pond 54P: MH-616

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 55P: MH-615

[81] Warning: Exceeded Pond 56P by 0.65' @ 12.11 hrs

[81] Warning: Exceeded Pond 57P by 0.09' @ 12.11 hrs

[79] Warning: Submerged Pond 59P Primary device # 1 OUTLET by 1.45'

Inflow Area = 9.612 ac, 12.92% Impervious, Inflow Depth > 1.59" for 10-yr event
Inflow = 14.88 cfs @ 12.11 hrs, Volume= 1.275 af
Outflow = 14.88 cfs @ 12.11 hrs, Volume= 1.275 af, Atten= 0%, Lag= 0.0 min
Primary = 14.88 cfs @ 12.11 hrs, Volume= 1.275 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 313.35' @ 12.11 hrs

Flood Elev= 317.41'

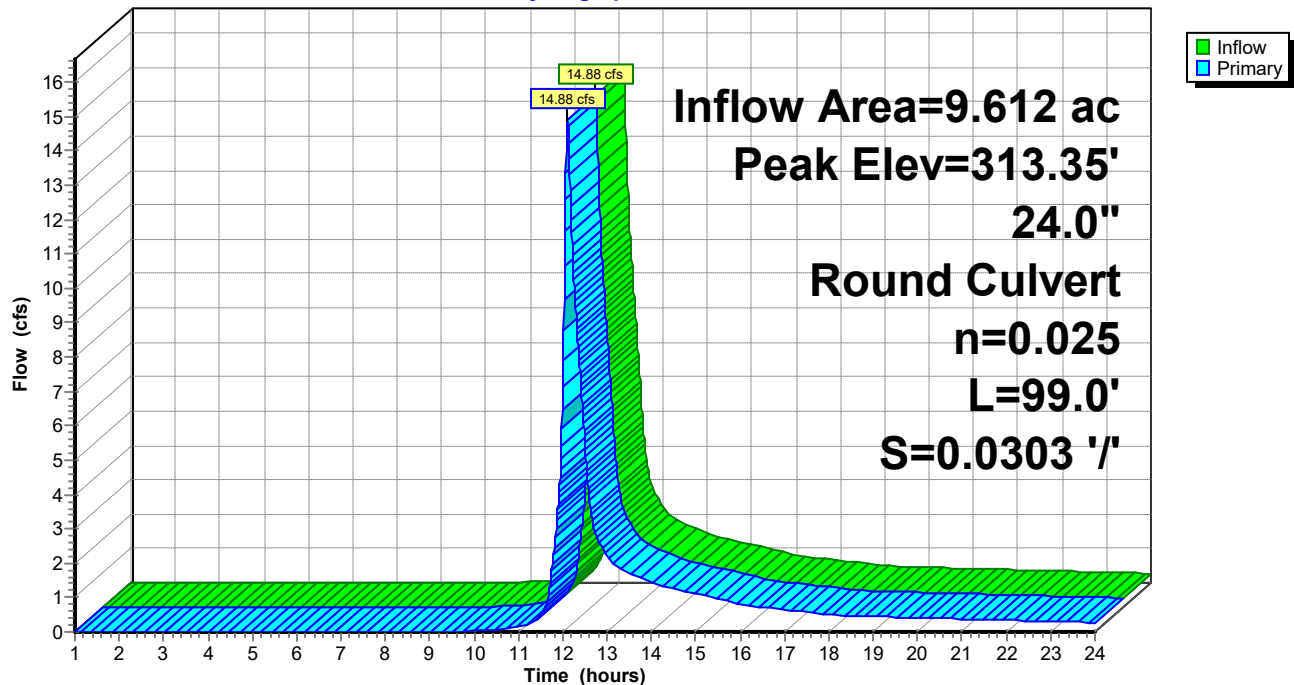
Device	Routing	Invert	Outlet Devices
#1	Primary	310.80'	24.0" Round CMP_Round 24" L= 99.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 310.80' / 307.80' S= 0.0303 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 3.14 sf

Primary OutFlow Max=14.88 cfs @ 12.11 hrs HW=313.35' (Free Discharge)

↑1=CMP_Round 24" (Inlet Controls 14.88 cfs @ 4.74 fps)

Pond 55P: MH-615

Hydrograph



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Summary for Pond 56P: MH-614

[79] Warning: Submerged Pond 58P Primary device # 1 INLET by 0.31'

Inflow Area = 0.340 ac, 29.41% Impervious, Inflow Depth > 2.30" for 10-yr event
Inflow = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af
Outflow = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af, Atten= 0%, Lag= 0.0 min
Primary = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 312.71' @ 12.09 hrs

Flood Elev= 318.31'

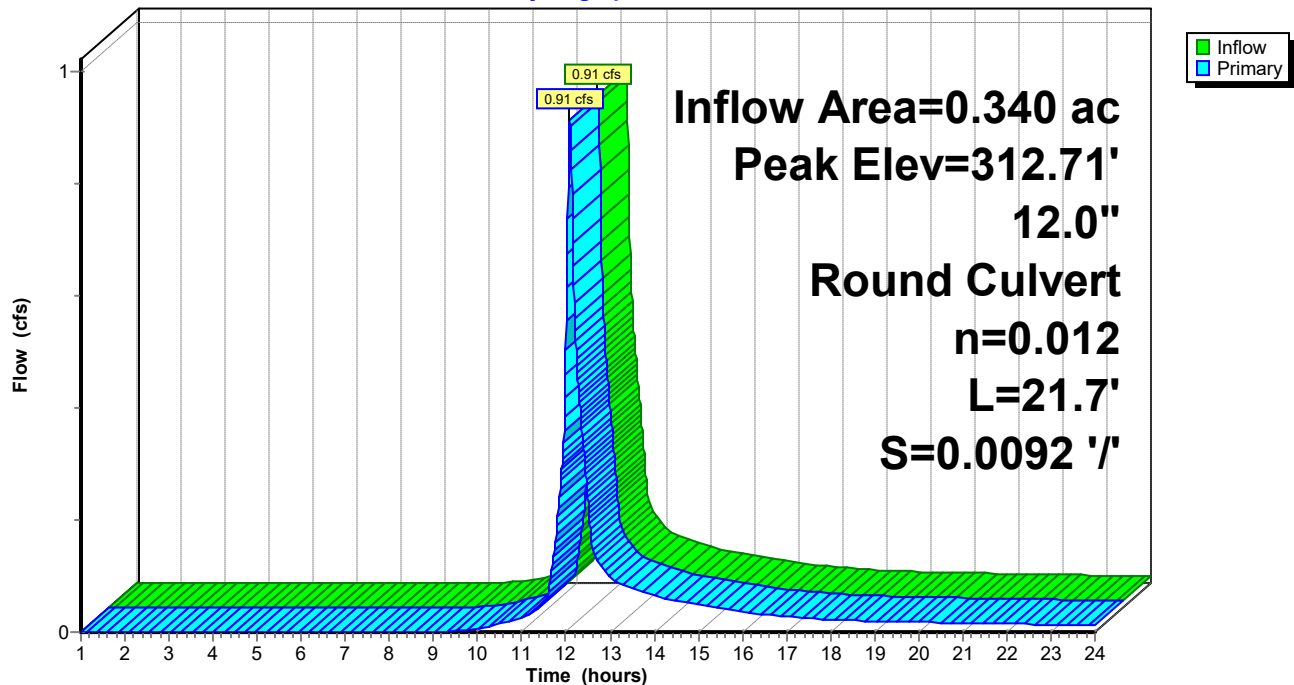
Device	Routing	Invert	Outlet Devices
#1	Primary	312.20'	12.0" Round RCP_Round 12" L= 21.7' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 312.20' / 312.00' S= 0.0092 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.91 cfs @ 12.09 hrs HW=312.71' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 0.91 cfs @ 3.29 fps)

Pond 56P: MH-614

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 57P: CB-1661

[57] Hint: Peaked at 313.26' (Flood elevation advised)

Inflow Area = 1.660 ac, 14.46% Impervious, Inflow Depth > 1.67" for 10-yr event
Inflow = 2.97 cfs @ 12.11 hrs, Volume= 0.231 af
Outflow = 2.97 cfs @ 12.11 hrs, Volume= 0.231 af, Atten= 0%, Lag= 0.0 min
Primary = 2.97 cfs @ 12.11 hrs, Volume= 0.231 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 313.26' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	312.20'	12.0" Round RCP_Round 12" L= 16.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 312.20' / 312.00' S= 0.0125 ' S= 0.0125 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	318.51'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.97 cfs @ 12.11 hrs HW=313.26' (Free Discharge)

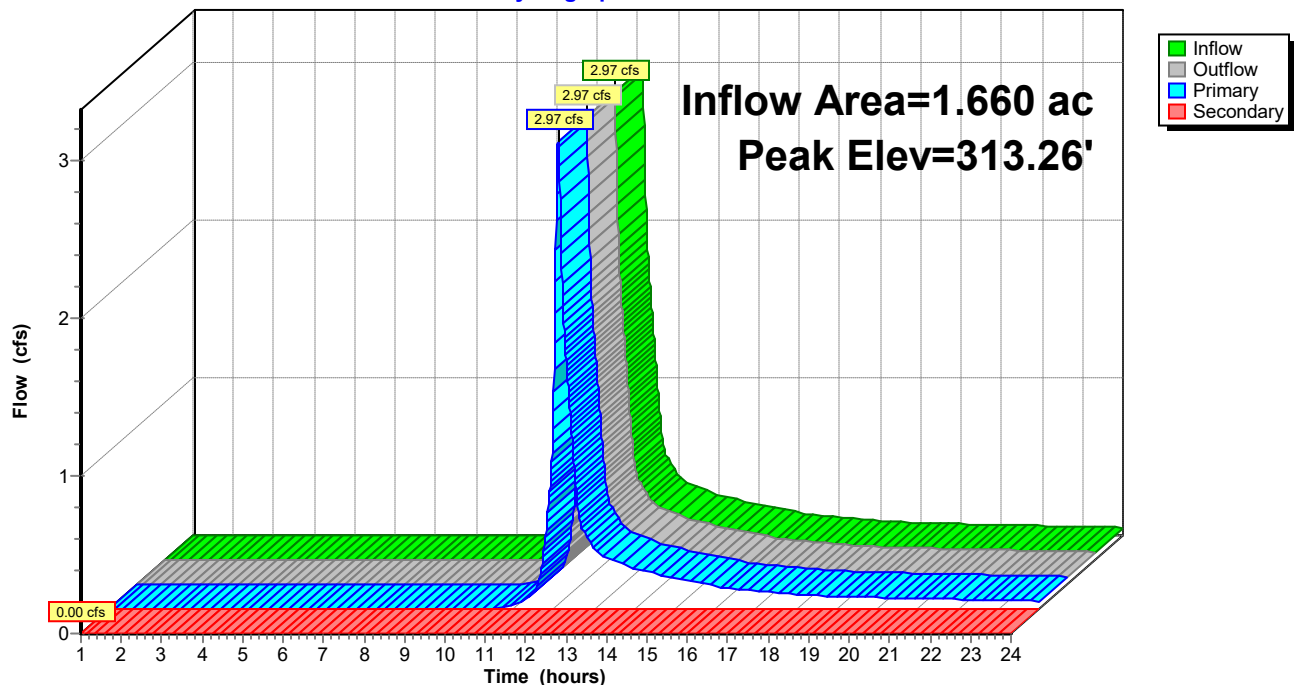
↑1=RCP_Round 12" (Barrel Controls 2.97 cfs @ 4.43 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=312.20' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 57P: CB-1661

Hydrograph



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Summary for Pond 58P: CB-1662

[57] Hint: Peaked at 313.43' (Flood elevation advised)

Inflow Area = 0.340 ac, 29.41% Impervious, Inflow Depth > 2.30" for 10-yr event
Inflow = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af
Outflow = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af, Atten= 0%, Lag= 0.0 min
Primary = 0.91 cfs @ 12.09 hrs, Volume= 0.065 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 313.43' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	312.40'	8.0" Round CMP_Round 8" L= 12.3' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 312.40' / 312.30' S= 0.0081 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.35 sf
#2	Secondary	318.61'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.91 cfs @ 12.09 hrs HW=313.43' (Free Discharge)

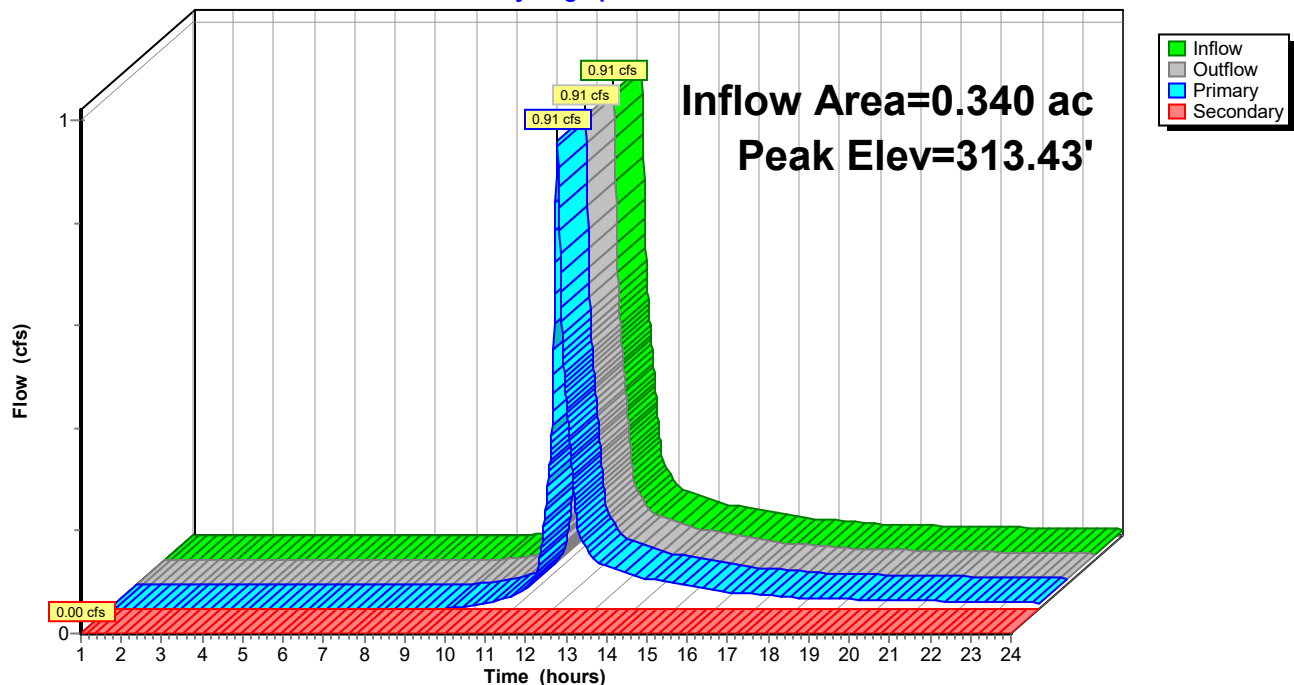
↑1=CMP_Round 8" (Barrel Controls 0.91 cfs @ 2.61 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=312.40' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 58P: CB-1662

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 59P: MH-613

Inflow Area = 7.612 ac, 11.85% Impervious, Inflow Depth > 1.54" for 10-yr event
Inflow = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af
Outflow = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af, Atten= 0%, Lag= 0.0 min
Primary = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 316.13' @ 12.11 hrs

Flood Elev= 323.82'

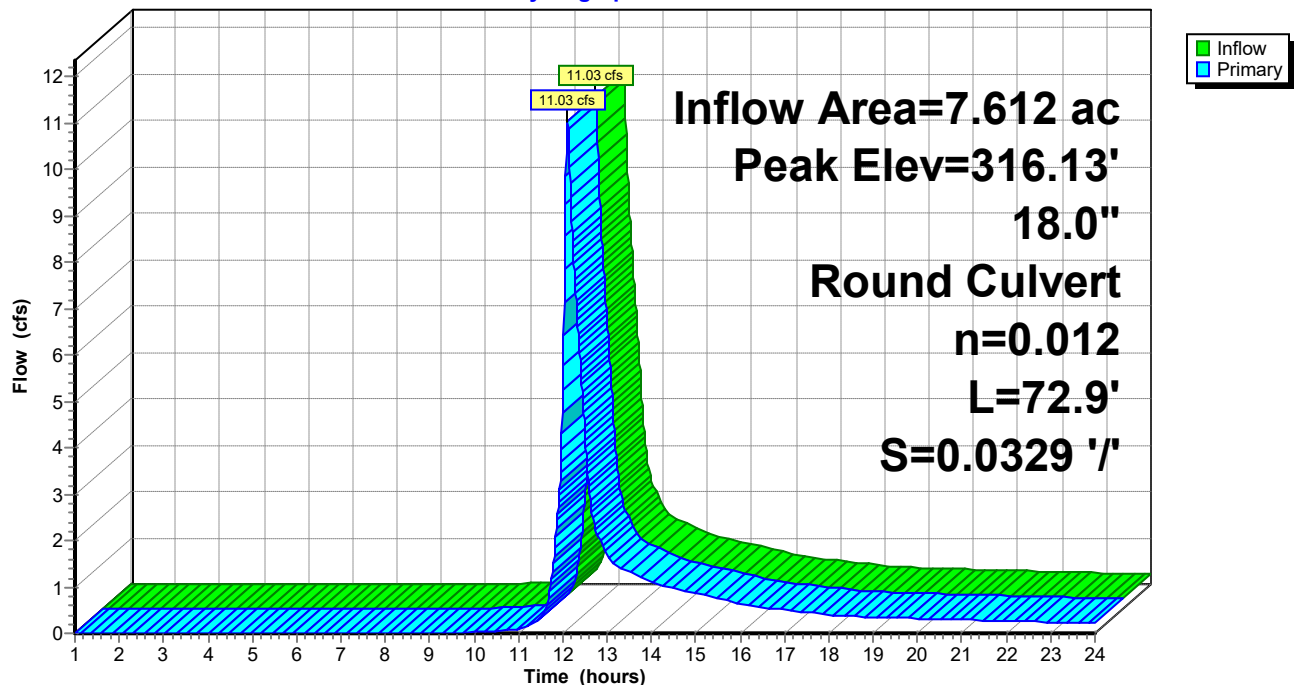
Device	Routing	Invert	Outlet Devices
#1	Primary	314.30'	18.0" Round RCP_Round 18" L= 72.9' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 314.30' / 311.90' S= 0.0329 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=11.02 cfs @ 12.11 hrs HW=316.12' (Free Discharge)

↑1=RCP_Round 18" (Inlet Controls 11.02 cfs @ 6.24 fps)

Pond 59P: MH-613

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 60P: MH-612

Inflow Area = 7.612 ac, 11.85% Impervious, Inflow Depth > 1.54" for 10-yr event
Inflow = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af
Outflow = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af, Atten= 0%, Lag= 0.0 min
Primary = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 322.63' @ 12.11 hrs

Flood Elev= 330.18'

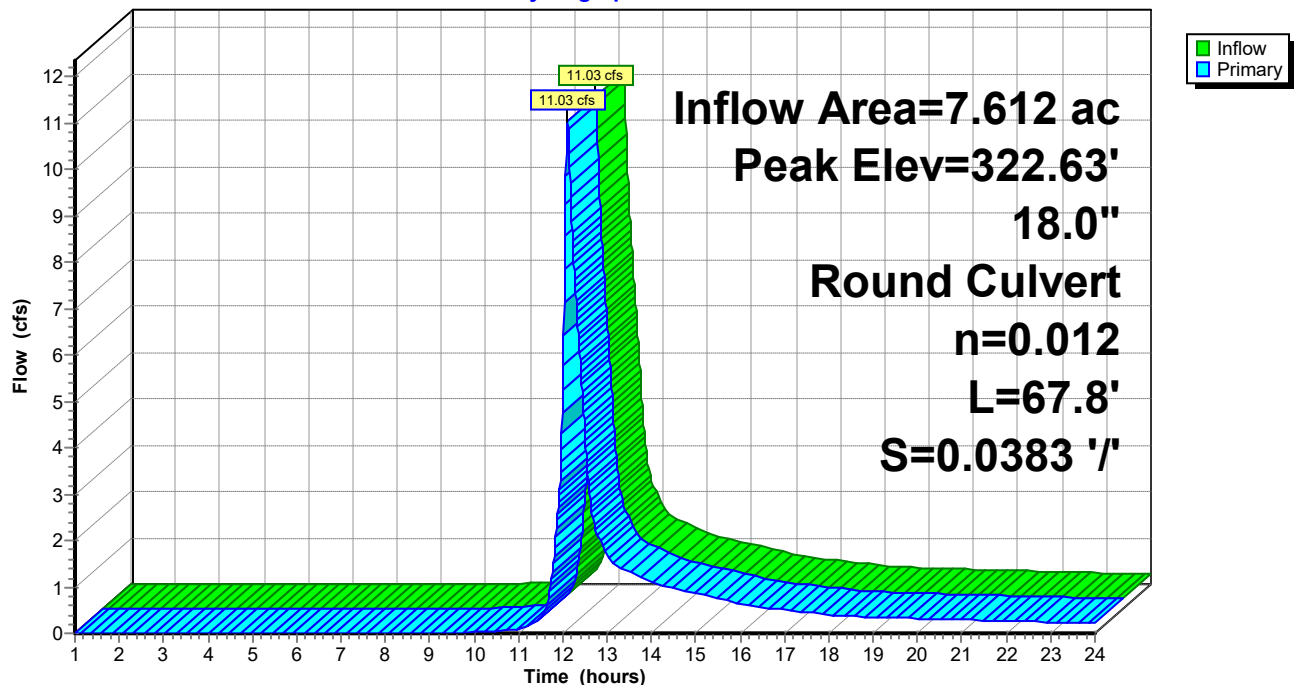
Device	Routing	Invert	Outlet Devices
#1	Primary	320.80'	18.0" Round RCP_Round 18" L= 67.8' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 320.80' / 318.20' S= 0.0383 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=11.02 cfs @ 12.11 hrs HW=322.62' (Free Discharge)

↑1=RCP_Round 18" (Inlet Controls 11.02 cfs @ 6.24 fps)

Pond 60P: MH-612

Hydrograph



Linwood Street Drainage - Proposed

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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 61P: MH-611

Inflow Area = 7.612 ac, 11.85% Impervious, Inflow Depth > 1.54" for 10-yr event
Inflow = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af
Outflow = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af, Atten= 0%, Lag= 0.0 min
Primary = 11.03 cfs @ 12.11 hrs, Volume= 0.978 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 330.13' @ 12.11 hrs

Flood Elev= 336.99'

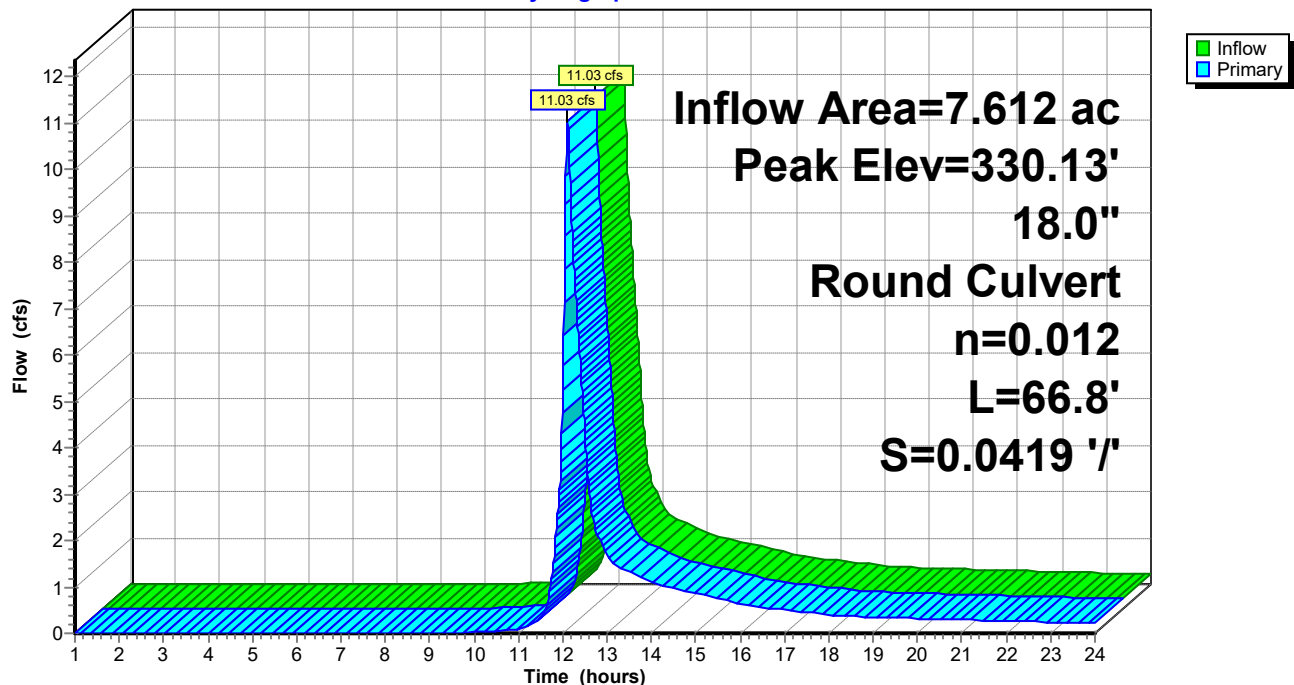
Device	Routing	Invert	Outlet Devices
#1	Primary	328.30'	18.0" Round RCP_Round 18" L= 66.8' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 328.30' / 325.50' S= 0.0419 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=11.02 cfs @ 12.11 hrs HW=330.12' (Free Discharge)

↑1=RCP_Round 18" (Inlet Controls 11.02 cfs @ 6.24 fps)

Pond 61P: MH-611

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 62P: MH-610

[79] Warning: Submerged Pond 63P Primary device # 1 INLET by 0.33'

Inflow Area = 0.330 ac, 27.27% Impervious, Inflow Depth > 2.22" for 10-yr event
Inflow = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af
Outflow = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min
Primary = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 333.33' @ 12.09 hrs

Flood Elev= 338.27'

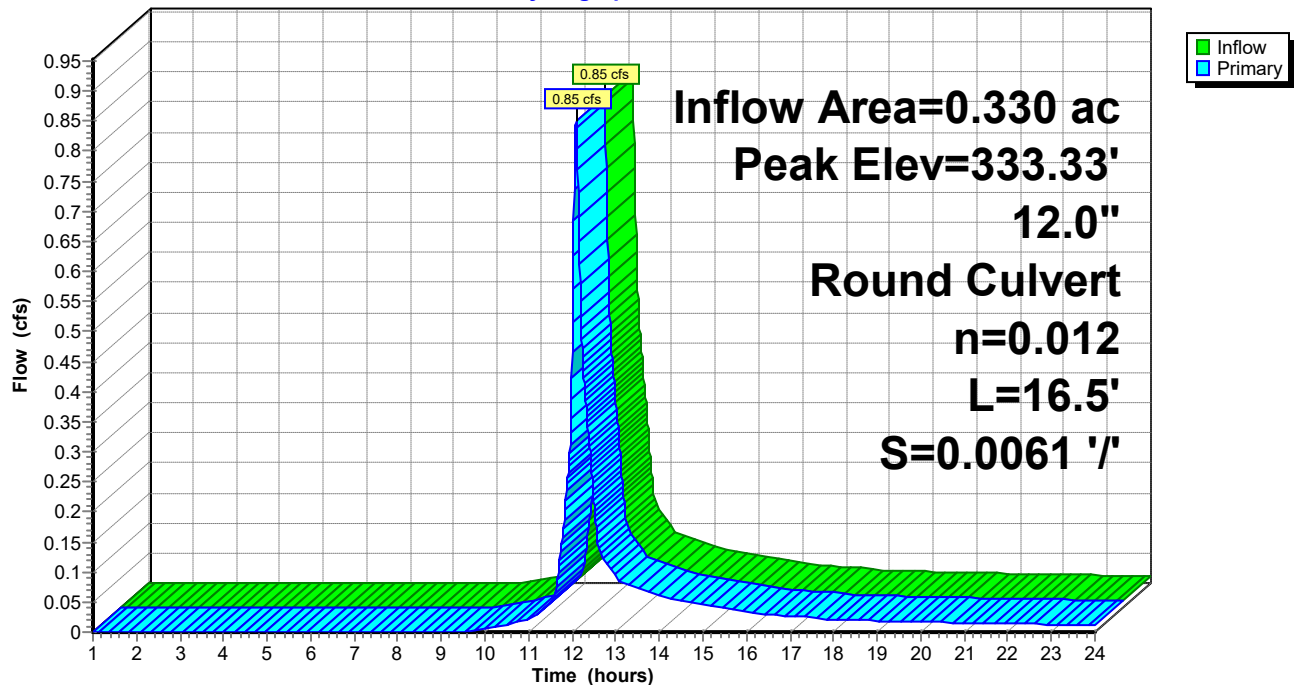
Device	Routing	Invert	Outlet Devices
#1	Primary	332.80'	12.0" Round RCP_Round 12" L= 16.5' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 332.80' / 332.70' S= 0.0061 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.85 cfs @ 12.09 hrs HW=333.33' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 0.85 cfs @ 2.93 fps)

Pond 62P: MH-610

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 63P: CB-655

[57] Hint: Peaked at 333.81' (Flood elevation advised)

Inflow Area = 0.330 ac, 27.27% Impervious, Inflow Depth > 2.22" for 10-yr event
Inflow = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af
Outflow = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af, Atten= 0%, Lag= 0.0 min
Primary = 0.85 cfs @ 12.09 hrs, Volume= 0.061 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 333.81' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	333.00'	8.0" Round Culvert L= 6.7' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 333.00' / 332.90' S= 0.0149 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.35 sf
#2	Secondary	338.16'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

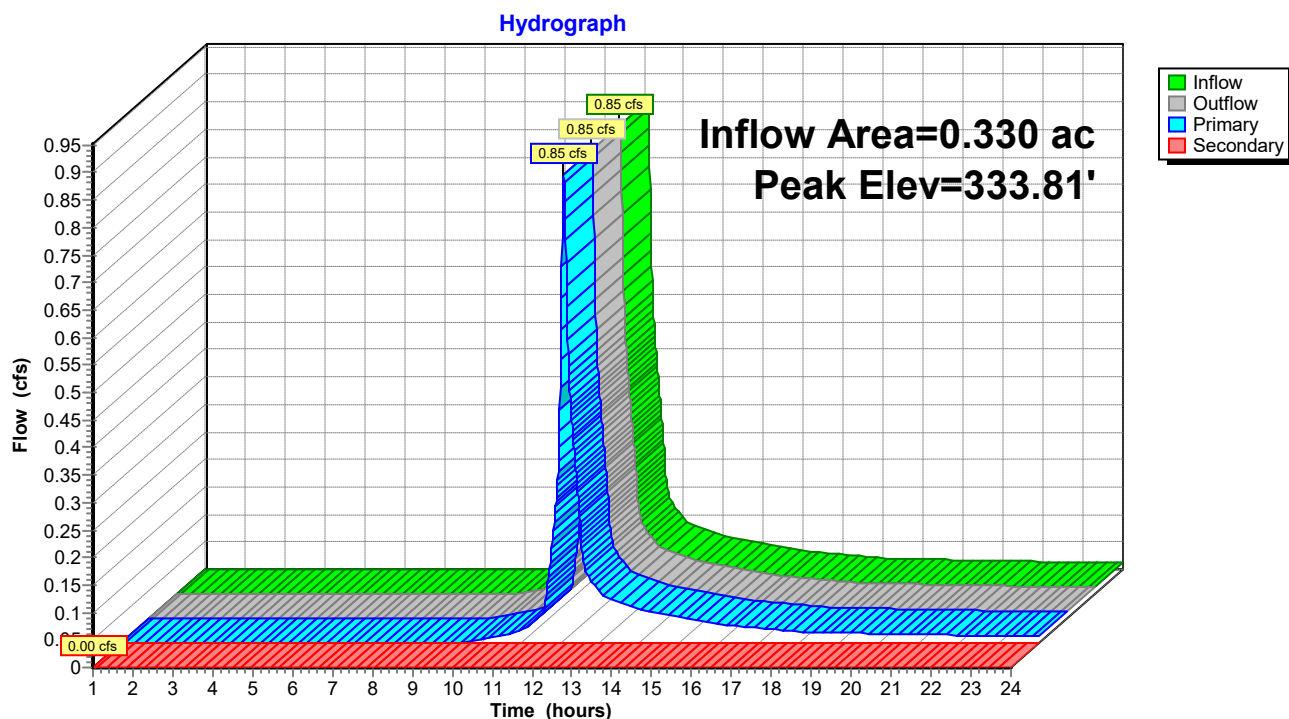
Primary OutFlow Max=0.85 cfs @ 12.09 hrs HW=333.81' (Free Discharge)

↑**1=Culvert** (Barrel Controls 0.85 cfs @ 2.56 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=333.00' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 63P: CB-655



Linwood Street Drainage - Proposed

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Summary for Pond 64P: CB-656

[57] Hint: Peaked at 333.80' (Flood elevation advised)

Inflow Area = 1.660 ac, 18.07% Impervious, Inflow Depth > 1.74" for 10-yr event
Inflow = 2.43 cfs @ 12.22 hrs, Volume= 0.241 af
Outflow = 2.43 cfs @ 12.22 hrs, Volume= 0.241 af, Atten= 0%, Lag= 0.0 min
Primary = 2.43 cfs @ 12.22 hrs, Volume= 0.241 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 333.80' @ 12.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	332.80'	12.0" Round RCP_Round 12" L= 16.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 332.80' / 332.70' S= 0.0063 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	337.64'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=2.43 cfs @ 12.22 hrs HW=333.80' (Free Discharge)

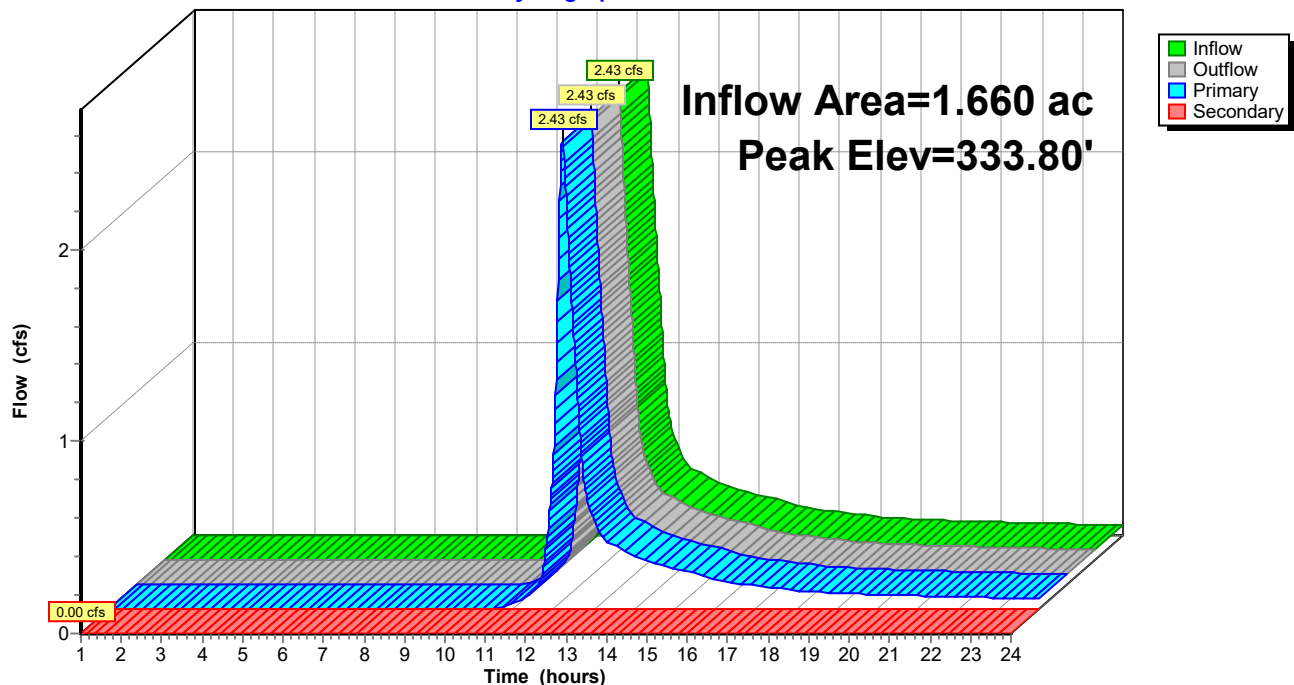
↑1=RCP_Round 12" (Barrel Controls 2.43 cfs @ 3.84 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=332.80' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 64P: CB-656

Hydrograph



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Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 65P: MH-609

Inflow Area = 5.622 ac, 9.11% Impervious, Inflow Depth > 1.44" for 10-yr event
Inflow = 8.50 cfs @ 12.10 hrs, Volume= 0.677 af
Outflow = 8.50 cfs @ 12.10 hrs, Volume= 0.677 af, Atten= 0%, Lag= 0.0 min
Primary = 8.50 cfs @ 12.10 hrs, Volume= 0.677 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 338.08' @ 12.10 hrs

Flood Elev= 345.65'

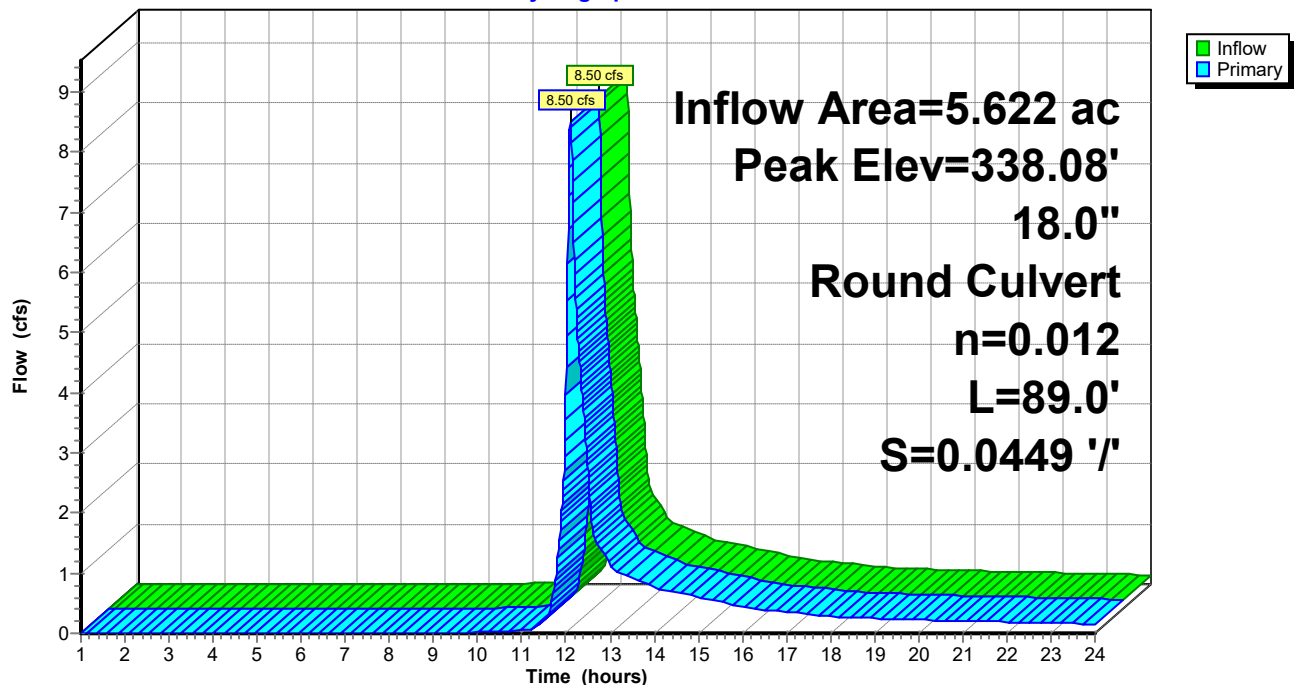
Device	Routing	Invert	Outlet Devices
#1	Primary	336.70'	18.0" Round RCP_Round 18" L= 89.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 336.70' / 332.70' S= 0.0449 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.77 sf

Primary OutFlow Max=8.50 cfs @ 12.10 hrs HW=338.08' (Free Discharge)

↑1=RCP_Round 18" (Inlet Controls 8.50 cfs @ 5.00 fps)

Pond 65P: MH-609

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 66P: MH-608

[79] Warning: Submerged Pond 69P Primary device # 1 OUTLET by 0.16'

[79] Warning: Submerged Pond 70P Primary device # 1 OUTLET by 0.16'

Inflow Area = 5.622 ac, 9.11% Impervious, Inflow Depth > 1.44" for 10-yr event
Inflow = 8.50 cfs @ 12.10 hrs, Volume= 0.677 af
Outflow = 8.50 cfs @ 12.10 hrs, Volume= 0.677 af, Atten= 0%, Lag= 0.0 min
Primary = 8.50 cfs @ 12.10 hrs, Volume= 0.677 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 351.29' @ 12.10 hrs

Flood Elev= 356.43'

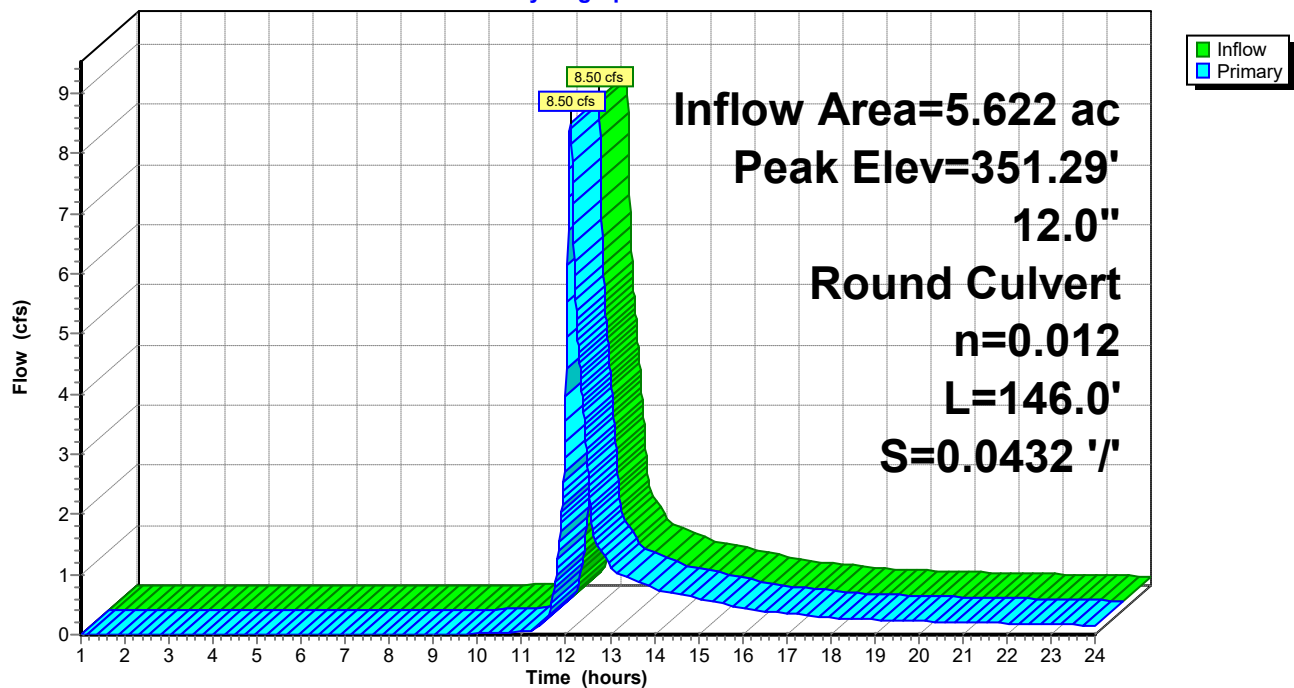
Device	Routing	Invert	Outlet Devices
#1	Primary	347.30'	12.0" Round RCP_Round 12" L= 146.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 347.30' / 341.00' S= 0.0432 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=8.49 cfs @ 12.10 hrs HW=351.26' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 8.49 cfs @ 10.81 fps)

Pond 66P: MH-608

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 67P: CB-654

[57] Hint: Peaked at 353.57' (Flood elevation advised)

Inflow Area = 3.820 ac, 5.76% Impervious, Inflow Depth > 1.31" for 10-yr event
Inflow = 5.10 cfs @ 12.11 hrs, Volume= 0.418 af
Outflow = 5.10 cfs @ 12.11 hrs, Volume= 0.418 af, Atten= 0%, Lag= 0.0 min
Primary = 5.10 cfs @ 12.11 hrs, Volume= 0.418 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 353.57' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	351.70'	12.0" Round RCP_Round 12" L= 10.6' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 351.70' / 351.60' S= 0.0094 ' S= 0.0094 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	356.49'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=5.09 cfs @ 12.11 hrs HW=353.57' (Free Discharge)

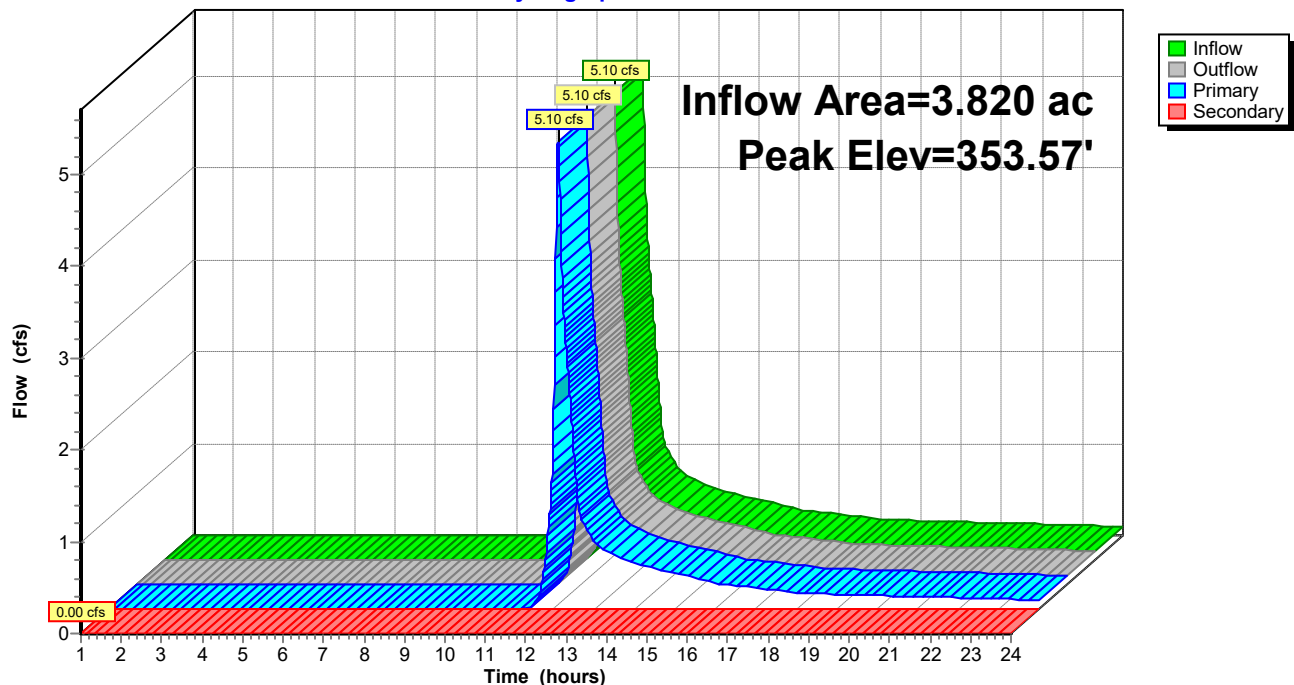
↑1=RCP_Round 12" (Barrel Controls 5.09 cfs @ 6.48 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=351.70' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 67P: CB-654

Hydrograph



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Summary for Pond 69P: CB-653

[57] Hint: Peaked at 351.71' (Flood elevation advised)

Inflow Area = 0.182 ac, 17.58% Impervious, Inflow Depth > 1.98" for 10-yr event
Inflow = 0.41 cfs @ 12.09 hrs, Volume= 0.030 af
Outflow = 0.41 cfs @ 12.09 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 min
Primary = 0.41 cfs @ 12.09 hrs, Volume= 0.030 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 351.71' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	351.40'	12.0" Round RCP_Round 12" L= 27.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 351.40' / 351.10' S= 0.0111 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	356.63'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=0.41 cfs @ 12.09 hrs HW=351.71' (Free Discharge)

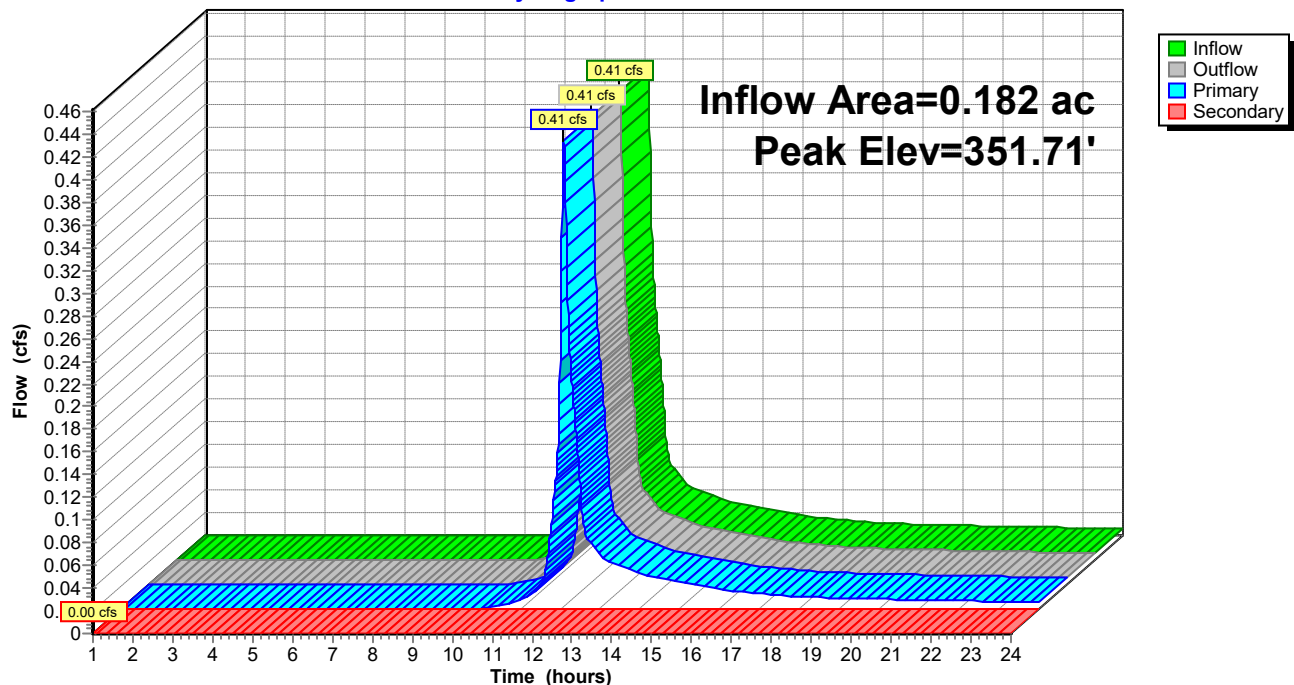
↑**1=RCP_Round 12"** (Barrel Controls 0.41 cfs @ 2.95 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=351.40' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 69P: CB-653

Hydrograph



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Summary for Pond 70P: MH-449

[81] Warning: Exceeded Pond 71P by 0.22' @ 12.10 hrs

[79] Warning: Submerged Pond 72P Primary device # 1 INLET by 0.71'

Inflow Area = 1.620 ac, 16.05% Impervious, Inflow Depth > 1.70" for 10-yr event
Inflow = 3.03 cfs @ 12.10 hrs, Volume= 0.229 af
Outflow = 3.03 cfs @ 12.10 hrs, Volume= 0.229 af, Atten= 0%, Lag= 0.0 min
Primary = 3.03 cfs @ 12.10 hrs, Volume= 0.229 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 357.01' @ 12.10 hrs

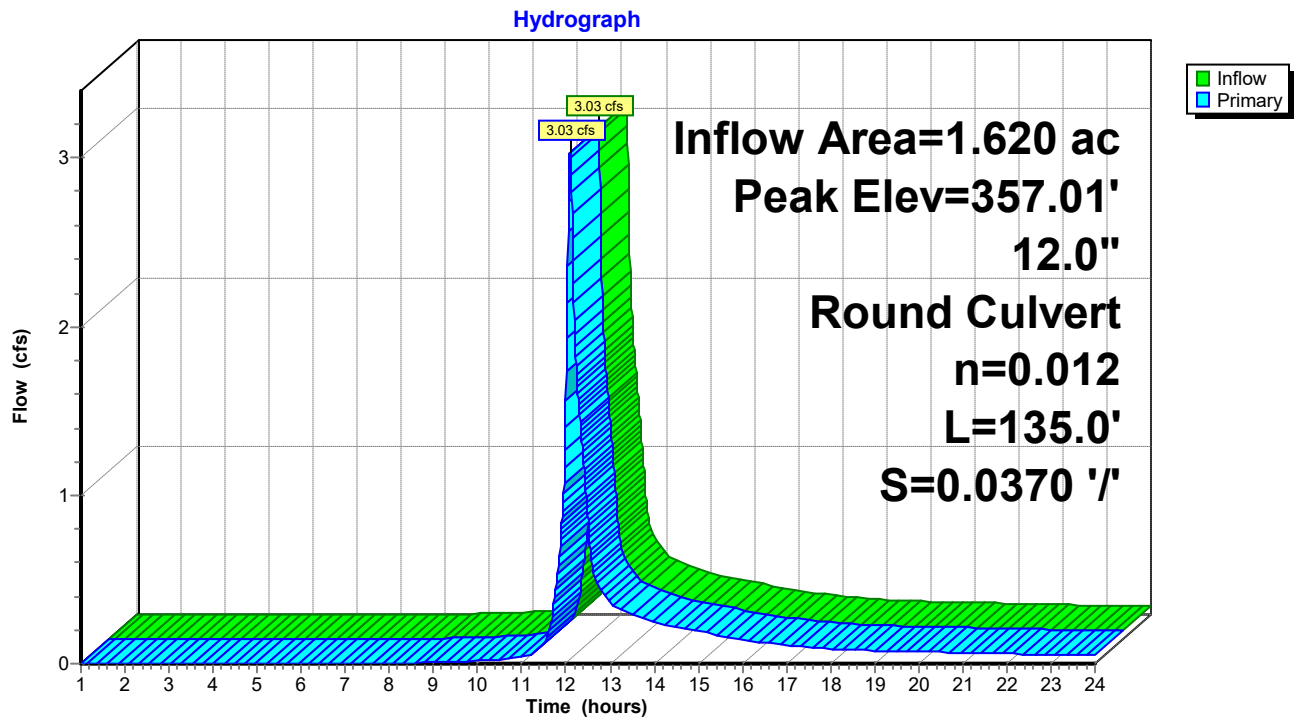
Flood Elev= 360.55'

Device	Routing	Invert	Outlet Devices
#1	Primary	356.10'	12.0" Round RCP_Round 12" L= 135.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 356.10' / 351.10' S= 0.0370 ' S= 0.0370 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=3.03 cfs @ 12.10 hrs HW=357.01' (Free Discharge)

↑1=RCP_Round 12" (Inlet Controls 3.03 cfs @ 4.05 fps)

Pond 70P: MH-449



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Summary for Pond 71P: MH-448

[79] Warning: Submerged Pond 73P Primary device # 1 INLET by 0.29'

Inflow Area = 0.270 ac, 48.15% Impervious, Inflow Depth > 2.92" for 10-yr event
Inflow = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af
Outflow = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.0 min
Primary = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 356.79' @ 12.09 hrs

Flood Elev= 361.12'

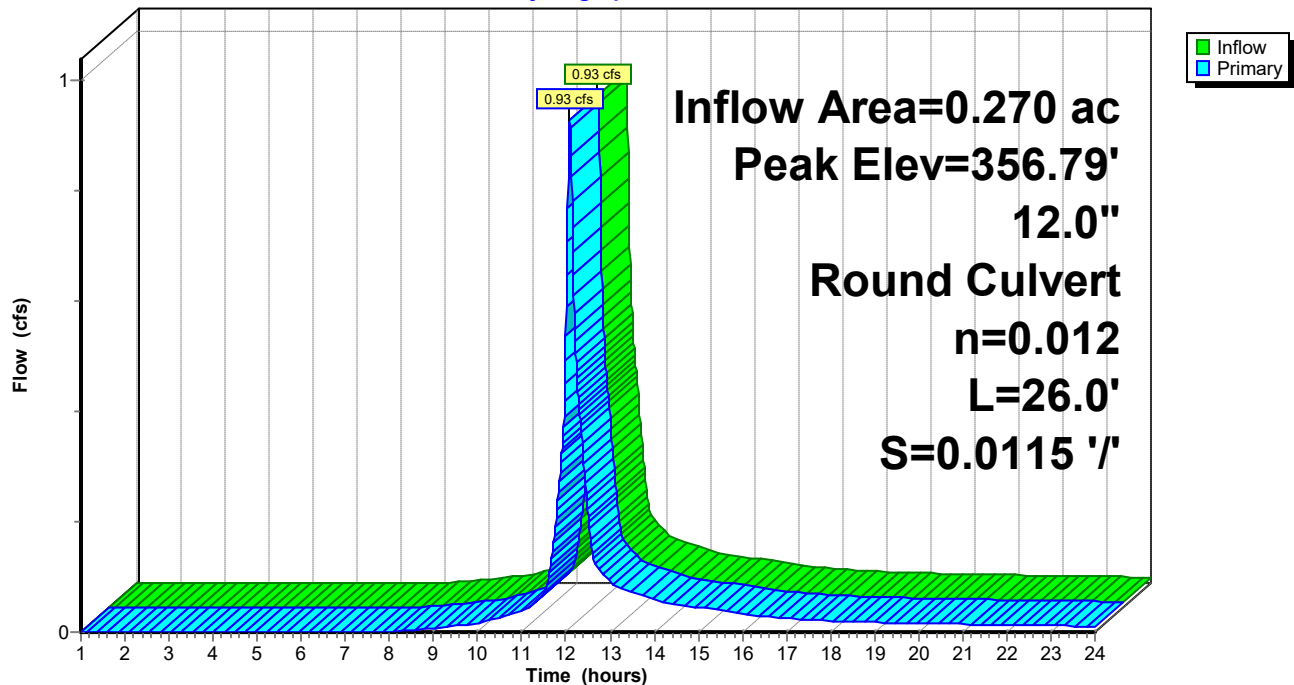
Device	Routing	Invert	Outlet Devices
#1	Primary	356.30'	12.0" Round RCP_Round 12" L= 26.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 356.30' / 356.00' S= 0.0115 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.92 cfs @ 12.09 hrs HW=356.79' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 0.92 cfs @ 3.56 fps)

Pond 71P: MH-448

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 72P: CB-652

[57] Hint: Peaked at 357.13' (Flood elevation advised)

Inflow Area = 1.350 ac, 9.63% Impervious, Inflow Depth > 1.45" for 10-yr event
Inflow = 2.11 cfs @ 12.10 hrs, Volume= 0.163 af
Outflow = 2.11 cfs @ 12.10 hrs, Volume= 0.163 af, Atten= 0%, Lag= 0.0 min
Primary = 2.11 cfs @ 12.10 hrs, Volume= 0.163 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 357.13' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	356.30'	12.0" Round RCP_Round 12" L= 16.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 356.30' / 356.10' S= 0.0125 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	360.82'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

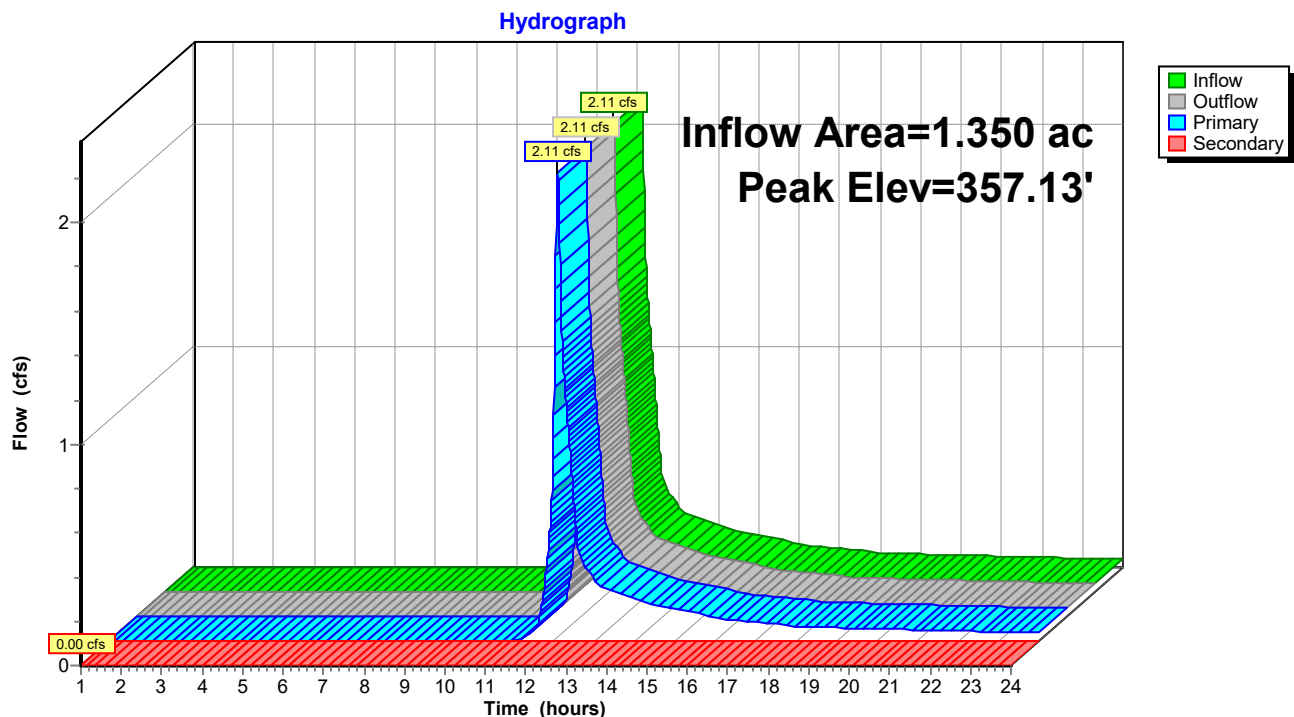
Primary OutFlow Max=2.11 cfs @ 12.10 hrs HW=357.13' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 2.11 cfs @ 4.10 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=356.30' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 72P: CB-652



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Summary for Pond 73P: CB-651

[57] Hint: Peaked at 357.39' (Flood elevation advised)

Inflow Area = 0.270 ac, 48.15% Impervious, Inflow Depth > 2.92" for 10-yr event
Inflow = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af
Outflow = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af, Atten= 0%, Lag= 0.0 min
Primary = 0.93 cfs @ 12.09 hrs, Volume= 0.066 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 357.39' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	356.50'	8.0" Round CMP_Round 8" L= 6.0' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 356.50' / 356.40' S= 0.0167 '/' Cc= 0.900 n= 0.025 Corrugated metal, Flow Area= 0.35 sf
#2	Secondary	360.84'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

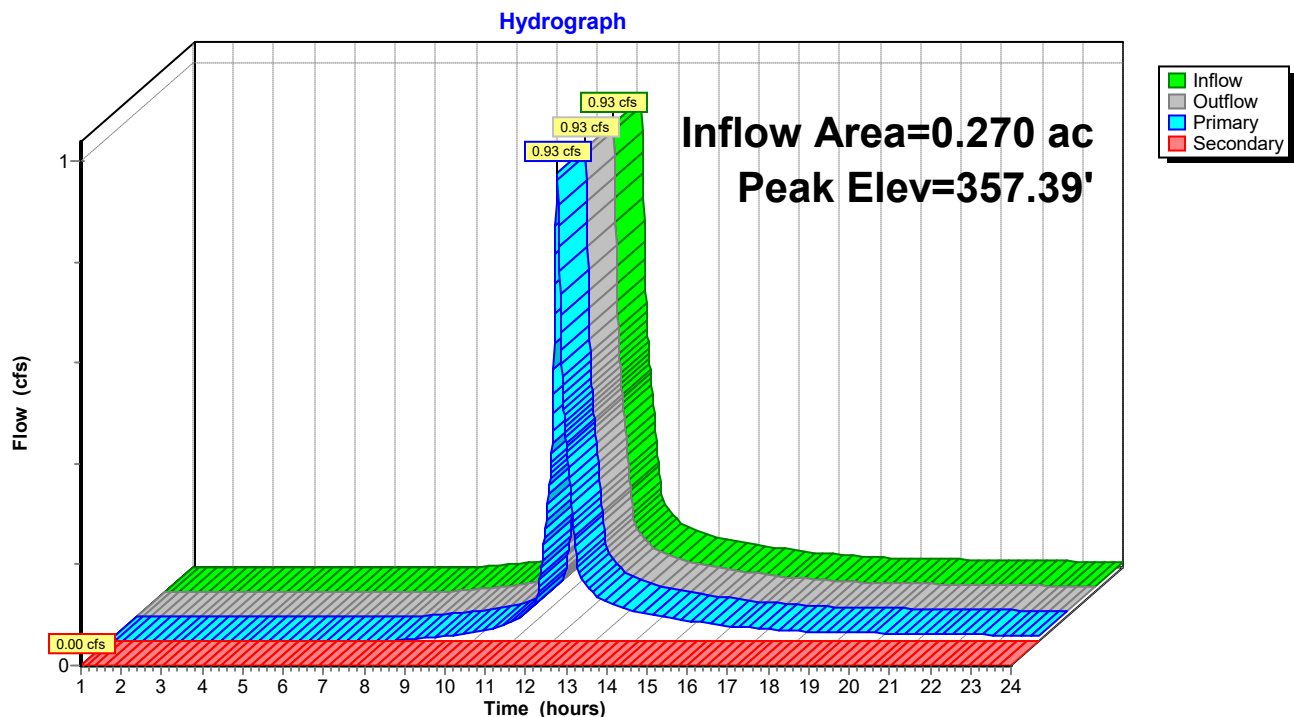
Primary OutFlow Max=0.91 cfs @ 12.09 hrs HW=357.39' (Free Discharge)

↑1=CMP_Round 8" (Barrel Controls 0.91 cfs @ 2.60 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=356.50' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 73P: CB-651



Linwood Street Drainage - Proposed

Type III 24-hr 10-yr Rainfall=5.14"

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Summary for Pond 94P: BASIN

[79] Warning: Submerged Pond 33P Primary device # 1 INLET by 0.31'

[81] Warning: Exceeded Pond 47P by 0.54' @ 12.84 hrs

Inflow Area = 23.294 ac, 15.04% Impervious, Inflow Depth > 1.67" for 10-yr event
 Inflow = 40.79 cfs @ 12.10 hrs, Volume= 3.242 af
 Outflow = 7.83 cfs @ 12.64 hrs, Volume= 2.948 af, Atten= 81%, Lag= 32.5 min
 Primary = 7.83 cfs @ 12.64 hrs, Volume= 2.948 af
 Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs
 Peak Elev= 300.41' @ 12.64 hrs Surf.Area= 13,792 sf Storage= 50,660 cf
 Flood Elev= 302.60' Surf.Area= 18,030 sf Storage= 84,156 cf

Plug-Flow detention time= 110.1 min calculated for 2.947 af (91% of inflow)
 Center-of-Mass det. time= 65.6 min (925.0 - 859.5)

Volume	Invert	Avail.Storage	Storage Description
#1	296.00'	84,156 cf	Custom Stage Data (Irregular) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
296.00	9,365	541.3	0	0	9,365
298.00	11,248	597.1	20,584	20,584	14,547
300.00	13,347	689.0	24,565	45,149	24,040
302.00	15,607	703.7	28,925	74,074	26,183
302.60	18,030	724.1	10,082	84,156	28,540

Device	Routing	Invert	Outlet Devices
#1	Primary	296.90'	12.0" Round RCP_Round 12" L= 40.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 295.80' / 296.90' S= -0.0275 ' S= -0.0275 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	302.60'	48.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=7.83 cfs @ 12.64 hrs HW=300.41' (Free Discharge)↑ **1=RCP_Round 12"** (Outlet Controls 7.83 cfs @ 9.97 fps)**Secondary OutFlow** Max=0.00 cfs @ 1.00 hrs HW=296.00' (Free Discharge)↑ **2=Orifice/Grate** (Controls 0.00 cfs)

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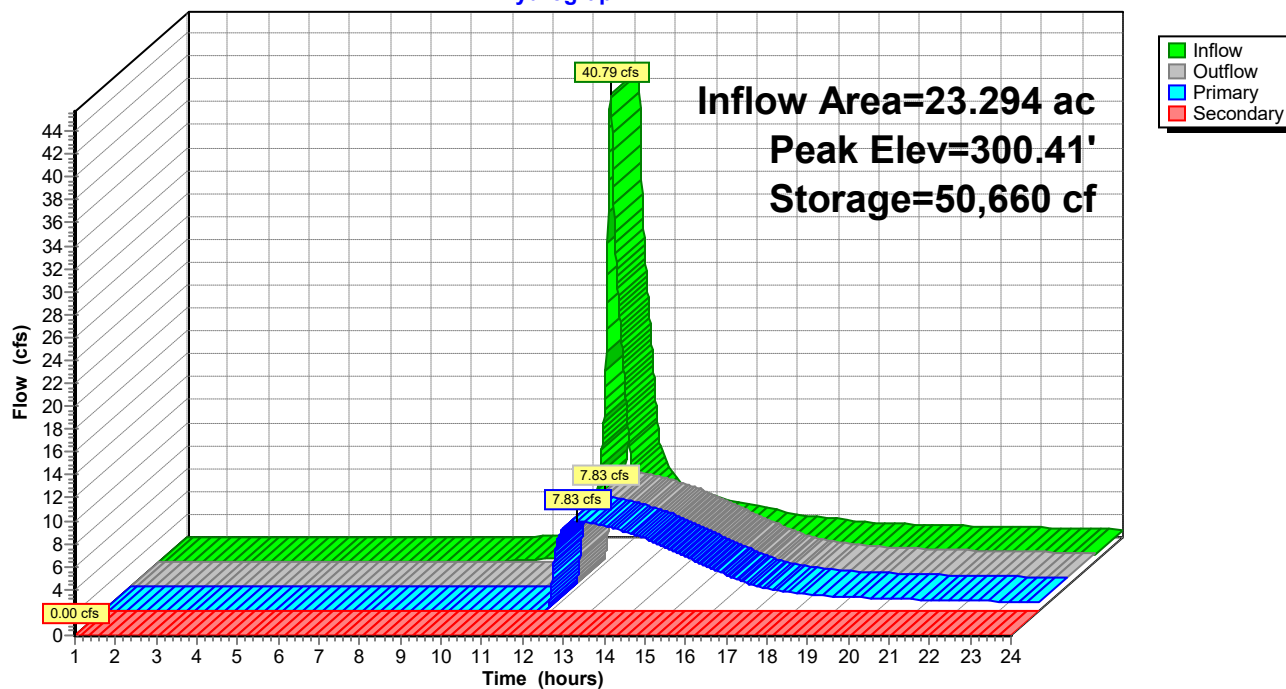
Type III 24-hr 10-yr Rainfall=5.14"

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Pond 94P: BASIN

Hydrograph



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Summary for Pond 95P: IN-38

[57] Hint: Peaked at 294.22' (Flood elevation advised)

Inflow Area = 24.224 ac, 14.80% Impervious, Inflow Depth > 1.52" for 10-yr event
Inflow = 8.20 cfs @ 12.49 hrs, Volume= 3.060 af
Outflow = 8.20 cfs @ 12.49 hrs, Volume= 3.060 af, Atten= 0%, Lag= 0.0 min
Primary = 8.20 cfs @ 12.49 hrs, Volume= 3.060 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 294.22' @ 12.49 hrs

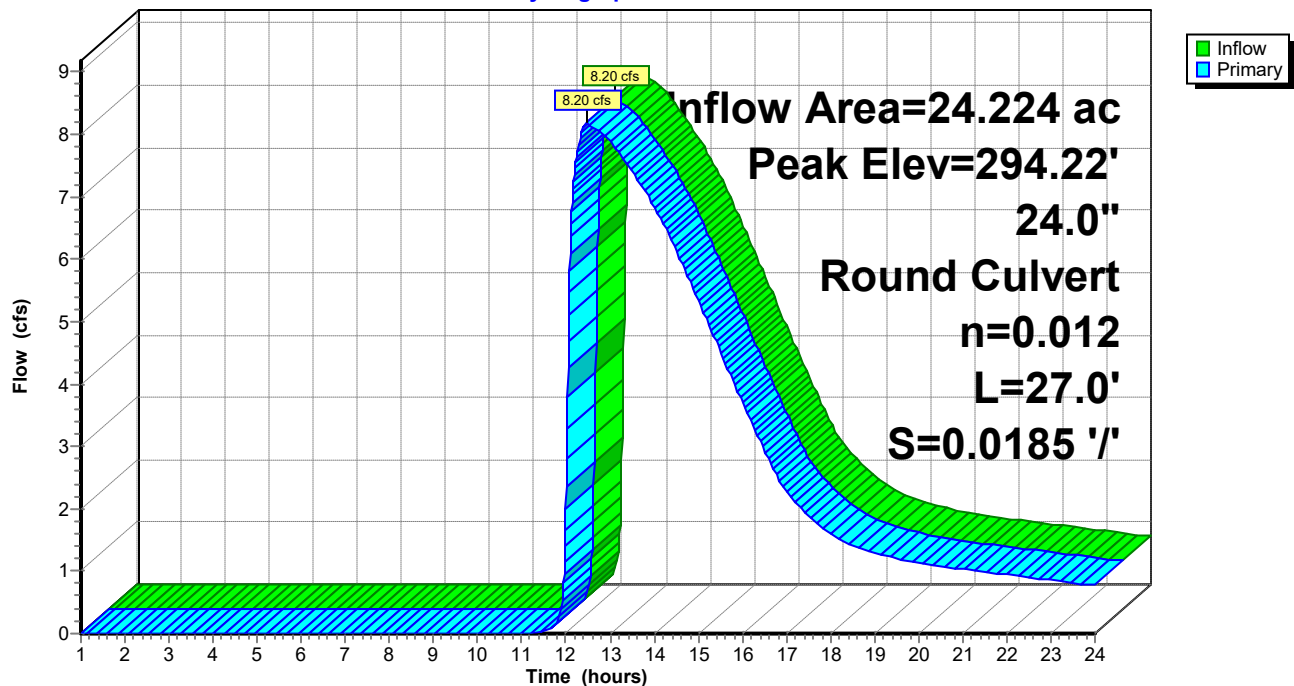
Device	Routing	Invert	Outlet Devices
#1	Primary	293.00'	24.0" Round RCP_Round 24" L= 27.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 293.00' / 292.50' S= 0.0185 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf

Primary OutFlow Max=8.20 cfs @ 12.49 hrs HW=294.22' (Free Discharge)

↑1=RCP_Round 24" (Barrel Controls 8.20 cfs @ 5.86 fps)

Pond 95P: IN-38

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 96P: CB-P1

[57] Hint: Peaked at 288.25' (Flood elevation advised)

Inflow Area = 2.400 ac, 10.00% Impervious, Inflow Depth > 1.52" for 10-yr event
Inflow = 3.40 cfs @ 12.16 hrs, Volume= 0.304 af
Outflow = 3.40 cfs @ 12.16 hrs, Volume= 0.304 af, Atten= 0%, Lag= 0.0 min
Primary = 3.40 cfs @ 12.16 hrs, Volume= 0.304 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 288.25' @ 12.16 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	287.00'	12.0" Round RCP_Round 12" L= 6.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 287.00' / 286.90' S= 0.0167 ' S= 0.0167 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	291.00'	24.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.40 cfs @ 12.16 hrs HW=288.24' (Free Discharge)

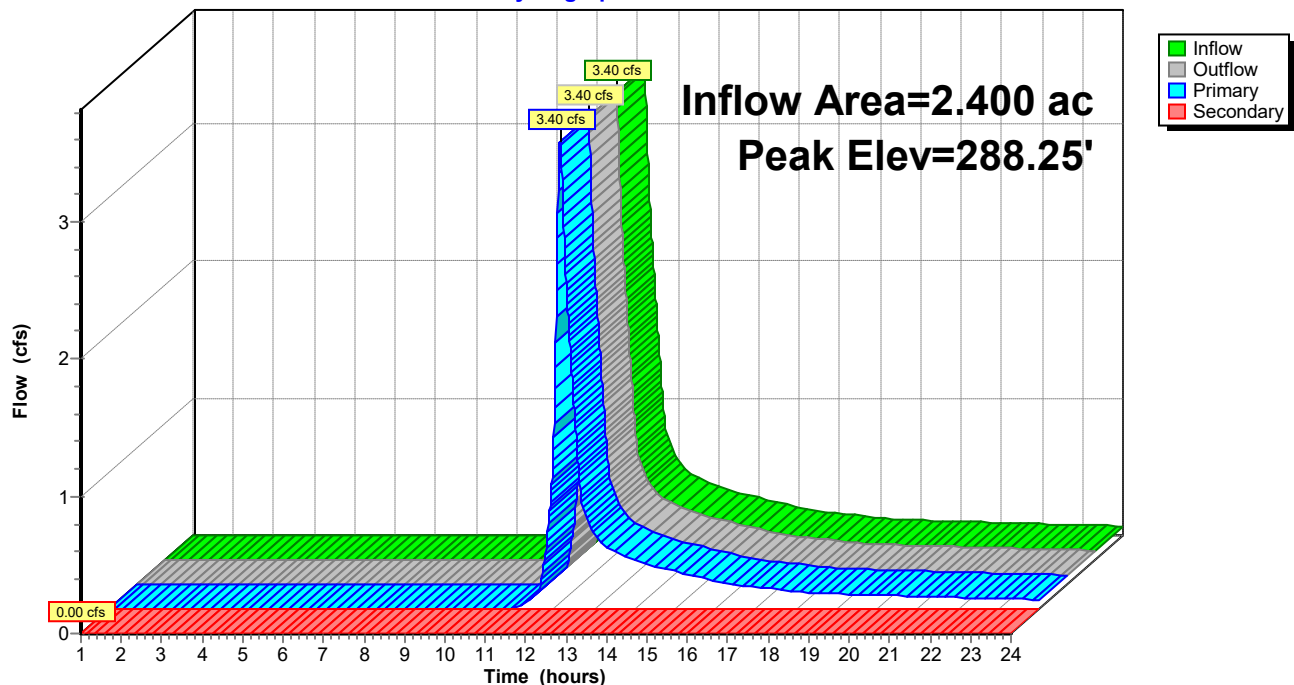
↑1=RCP_Round 12" (Barrel Controls 3.40 cfs @ 4.46 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=287.00' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 96P: CB-P1

Hydrograph



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Summary for Pond 97P: CB-P2

[57] Hint: Peaked at 276.55' (Flood elevation advised)

Inflow Area = 1.600 ac, 30.00% Impervious, Inflow Depth > 2.14" for 10-yr event
Inflow = 3.51 cfs @ 12.14 hrs, Volume= 0.285 af
Outflow = 3.51 cfs @ 12.14 hrs, Volume= 0.285 af, Atten= 0%, Lag= 0.0 min
Primary = 3.51 cfs @ 12.14 hrs, Volume= 0.285 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 276.55' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	275.50'	12.0" Round RCP_Round 12" L= 124.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 275.50' / 273.00' S= 0.0202 ' S= 0.0202 ' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	282.00'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=3.51 cfs @ 12.14 hrs HW=276.55' (Free Discharge)

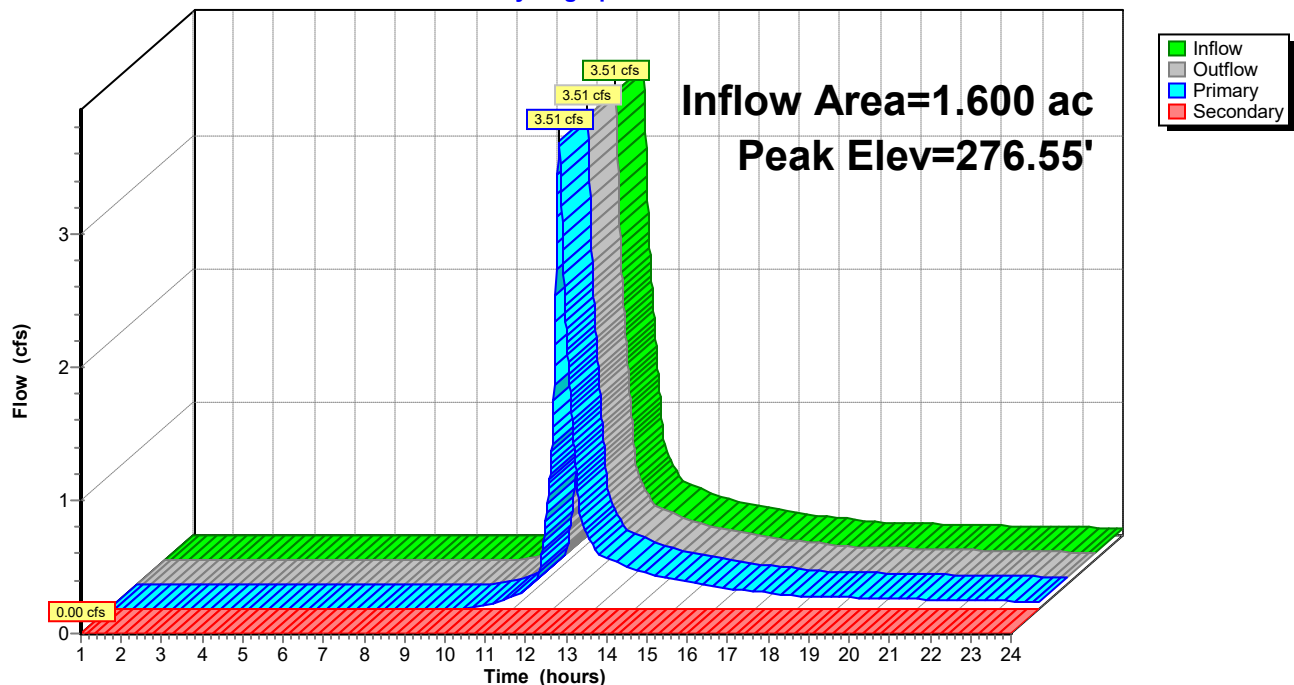
↑1=RCP_Round 12" (Inlet Controls 3.51 cfs @ 4.47 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=275.50' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 97P: CB-P2

Hydrograph



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Summary for Pond 98P: CULVERT

[57] Hint: Peaked at 298.33' (Flood elevation advised)

Inflow Area = 0.240 ac, 0.00% Impervious, Inflow Depth > 1.18" for 10-yr event
Inflow = 0.35 cfs @ 12.00 hrs, Volume= 0.024 af
Outflow = 0.35 cfs @ 12.00 hrs, Volume= 0.024 af, Atten= 0%, Lag= 0.0 min
Primary = 0.35 cfs @ 12.00 hrs, Volume= 0.024 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 298.33' @ 12.00 hrs

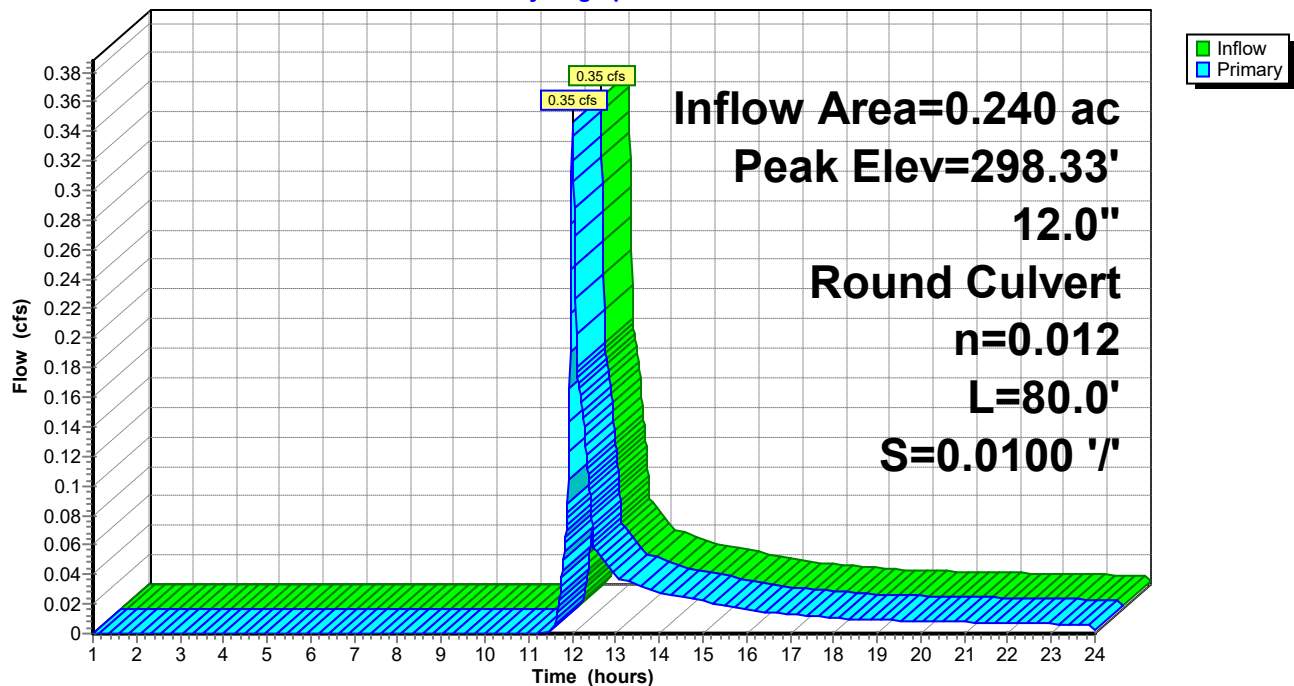
Device	Routing	Invert	Outlet Devices
#1	Primary	298.05'	12.0" Round RCP_Round 12" L= 80.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 298.05' / 297.25' S= 0.0100 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf

Primary OutFlow Max=0.34 cfs @ 12.00 hrs HW=298.33' (Free Discharge)

↑1=RCP_Round 12" (Barrel Controls 0.34 cfs @ 2.91 fps)

Pond 98P: CULVERT

Hydrograph



Linwood Street Drainage - Proposed

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Summary for Pond 99P: CB-X

[57] Hint: Peaked at 266.25' (Flood elevation advised)

[79] Warning: Submerged Pond 121P Primary device # 1 OUTLET by 1.25'

Inflow Area = 1.900 ac, 42.11% Impervious, Inflow Depth > 2.69" for 10-yr event
Inflow = 5.99 cfs @ 12.09 hrs, Volume= 0.426 af
Outflow = 5.99 cfs @ 12.09 hrs, Volume= 0.426 af, Atten= 0%, Lag= 0.0 min
Primary = 5.99 cfs @ 12.09 hrs, Volume= 0.426 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 266.25' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	264.70'	15.0" Round RCP_Round 15" L= 18.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 264.70' / 264.50' S= 0.0111 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 1.23 sf
#2	Secondary	267.00'	24.0" x 24.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

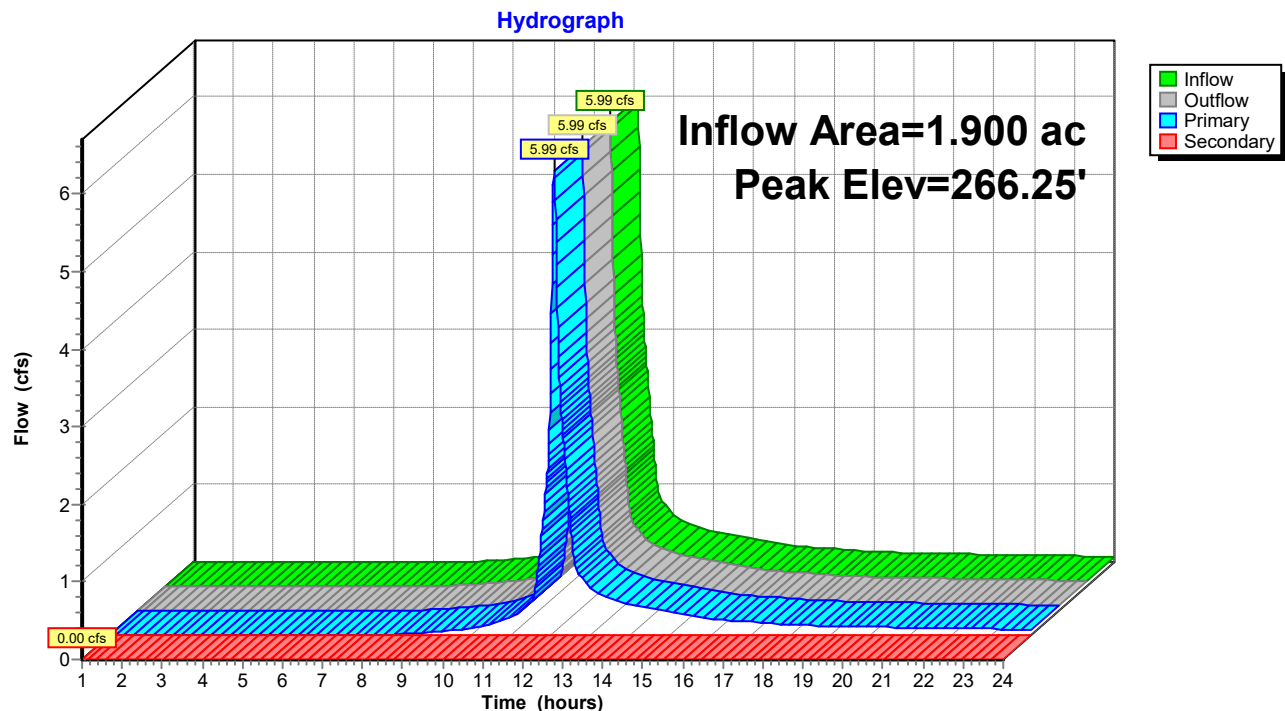
Primary OutFlow Max=5.98 cfs @ 12.09 hrs HW=266.25' (Free Discharge)

↑1=RCP_Round 15" (Barrel Controls 5.98 cfs @ 5.04 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=264.70' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 99P: CB-X



Linwood Street Drainage - Proposed

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Summary for Pond 120P: CB-P3

[57] Hint: Peaked at 274.44' (Flood elevation advised)

Inflow Area = 0.570 ac, 89.47% Impervious, Inflow Depth > 4.44" for 10-yr event
Inflow = 2.76 cfs @ 12.08 hrs, Volume= 0.211 af
Outflow = 2.76 cfs @ 12.08 hrs, Volume= 0.211 af, Atten= 0%, Lag= 0.0 min
Primary = 2.76 cfs @ 12.08 hrs, Volume= 0.211 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 274.44' @ 12.08 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	273.60'	12.0" Round RCP_Round 12" L= 30.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 273.60' / 273.00' S= 0.0200 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	278.00'	24.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

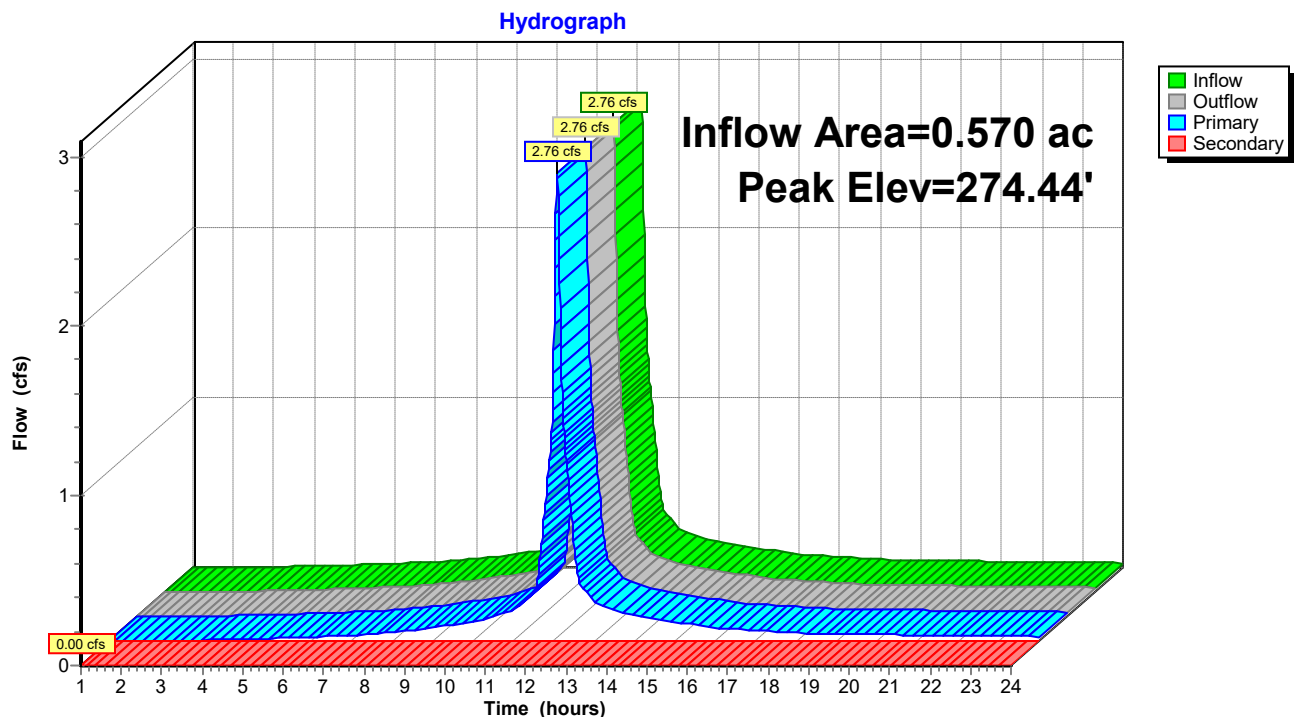
Primary OutFlow Max=2.75 cfs @ 12.08 hrs HW=274.44' (Free Discharge)

↑1=RCP_Round 12" (Inlet Controls 2.75 cfs @ 3.90 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=273.60' (Free Discharge)

↑2=Orifice/Grate (Controls 0.00 cfs)

Pond 120P: CB-P3



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Summary for Pond 121P: CB-P5

[57] Hint: Peaked at 267.76' (Flood elevation advised)

Inflow Area = 1.350 ac, 49.63% Impervious, Inflow Depth > 2.92" for 10-yr event
Inflow = 4.63 cfs @ 12.09 hrs, Volume= 0.328 af
Outflow = 4.63 cfs @ 12.09 hrs, Volume= 0.328 af, Atten= 0%, Lag= 0.0 min
Primary = 4.63 cfs @ 12.09 hrs, Volume= 0.328 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-24.00 hrs, dt= 0.01 hrs

Peak Elev= 267.76' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	266.30'	12.0" Round RCP_Round 12" L= 65.0' RCP, groove end projecting, Ke= 0.200 Inlet / Outlet Invert= 266.30' / 265.00' S= 0.0200 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Secondary	270.00'	24.0" x 48.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=4.62 cfs @ 12.09 hrs HW=267.76' (Free Discharge)

↑**1=RCP_Round 12"** (Inlet Controls 4.62 cfs @ 5.89 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=266.30' (Free Discharge)

↑**2=Orifice/Grate** (Controls 0.00 cfs)

Pond 121P: CB-P5

Hydrograph

