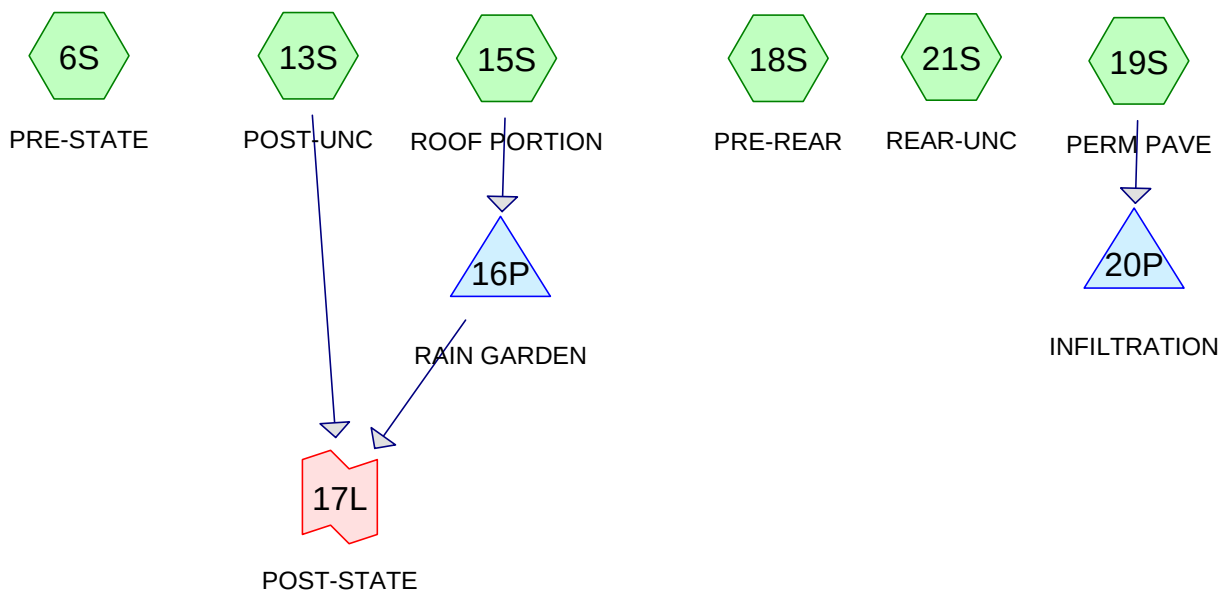


Routing Diagram for 151 STATE

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.065	74	>75% Grass cover, Good, HSG C (13S, 15S, 18S)
0.312	98	Paved parking, HSG C (6S, 13S, 18S, 19S, 21S)
0.254	98	Roofs, HSG C (6S, 13S, 15S)
0.631	96	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.631	HSG C	6S, 13S, 15S, 18S, 19S, 21S
0.000	HSG D	
0.000	Other	
0.631		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.065	0.000	0.000	0.065	>75% Grass cover, Good	13S, 15S, 18S
0.000	0.000	0.312	0.000	0.000	0.312	Paved parking	6S, 13S, 18S, 19S, 21S
0.000	0.000	0.254	0.000	0.000	0.254	Roofs	6S, 13S, 15S
0.000	0.000	0.631	0.000	0.000	0.631	TOTAL AREA	

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Type III 24-hr WQV Rainfall=1.20"

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Time span=0.00-24.00 hrs, dt=0.02 hrs, 1201 points
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 6S: PRE-STATE	Runoff Area=12,106 sf 100.00% Impervious Runoff Depth>0.98" Tc=6.0 min CN=0/98 Runoff=0.30 cfs 0.023 af
Subcatchment 13S: POST-UNC	Runoff Area=10,527 sf 86.29% Impervious Runoff Depth>0.86" Tc=6.0 min CN=74/98 Runoff=0.23 cfs 0.017 af
Subcatchment 15S: ROOF PORTION	Runoff Area=1,579 sf 77.71% Impervious Runoff Depth>0.78" Tc=6.0 min CN=74/98 Runoff=0.03 cfs 0.002 af
Subcatchment 18S: PRE-REAR	Runoff Area=1,646 sf 36.63% Impervious Runoff Depth>0.40" Tc=6.0 min CN=74/98 Runoff=0.02 cfs 0.001 af
Subcatchment 19S: PERM PAVE	Runoff Area=1,520 sf 100.00% Impervious Runoff Depth>0.98" Tc=6.0 min CN=0/98 Runoff=0.04 cfs 0.003 af
Subcatchment 21S: REAR-UNC	Runoff Area=126 sf 100.00% Impervious Runoff Depth>0.98" Tc=6.0 min CN=0/98 Runoff=0.00 cfs 0.000 af
Pond 16P: RAIN GARDEN	Peak Elev=52.47' Storage=52 cf Inflow=0.03 cfs 0.002 af Discarded=0.00 cfs 0.002 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.002 af
Pond 20P: INFILTRATION	Peak Elev=53.03' Storage=15 cf Inflow=0.04 cfs 0.003 af Outflow=0.02 cfs 0.003 af
Link 17L: POST-STATE	Inflow=0.23 cfs 0.017 af Primary=0.23 cfs 0.017 af

Total Runoff Area = 0.631 ac Runoff Volume = 0.047 af Average Runoff Depth = 0.89"
10.32% Pervious = 0.065 ac 89.68% Impervious = 0.566 ac

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Type III 24-hr WQV Rainfall=1.20"

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Summary for Subcatchment 6S: PRE-STATE

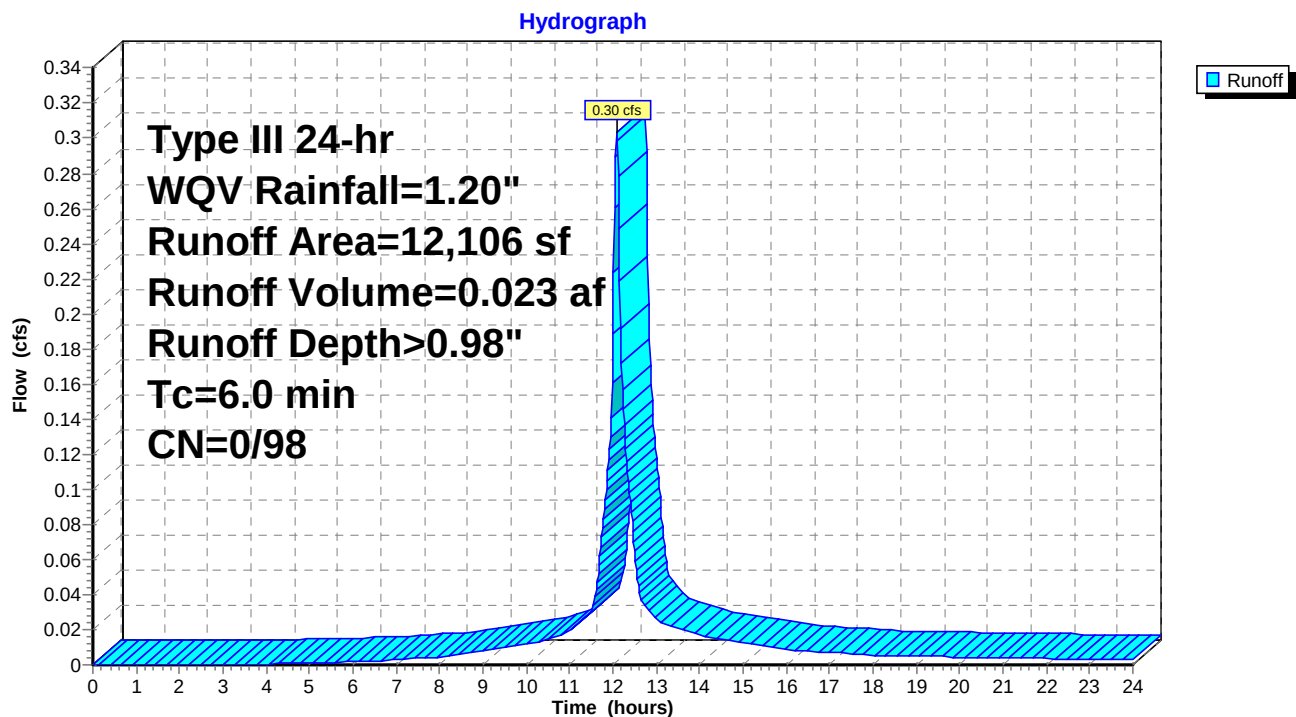
Runoff = 0.30 cfs @ 12.08 hrs, Volume= 0.023 af, Depth> 0.98"
Routed to nonexistent node 2P

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-24.00 hrs, dt= 0.02 hr
Type III 24-hr WQV Rainfall=1.20"

Area (sf)	CN	Description
5,533	98	Roofs, HSG C
6,573	98	Paved parking, HSG C
12,106	98	Weighted Average
12,106	98	100.00% Impervious Area

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

Subcatchment 6S: PRE-STATE



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Summary for Subcatchment 13S: POST-UNC

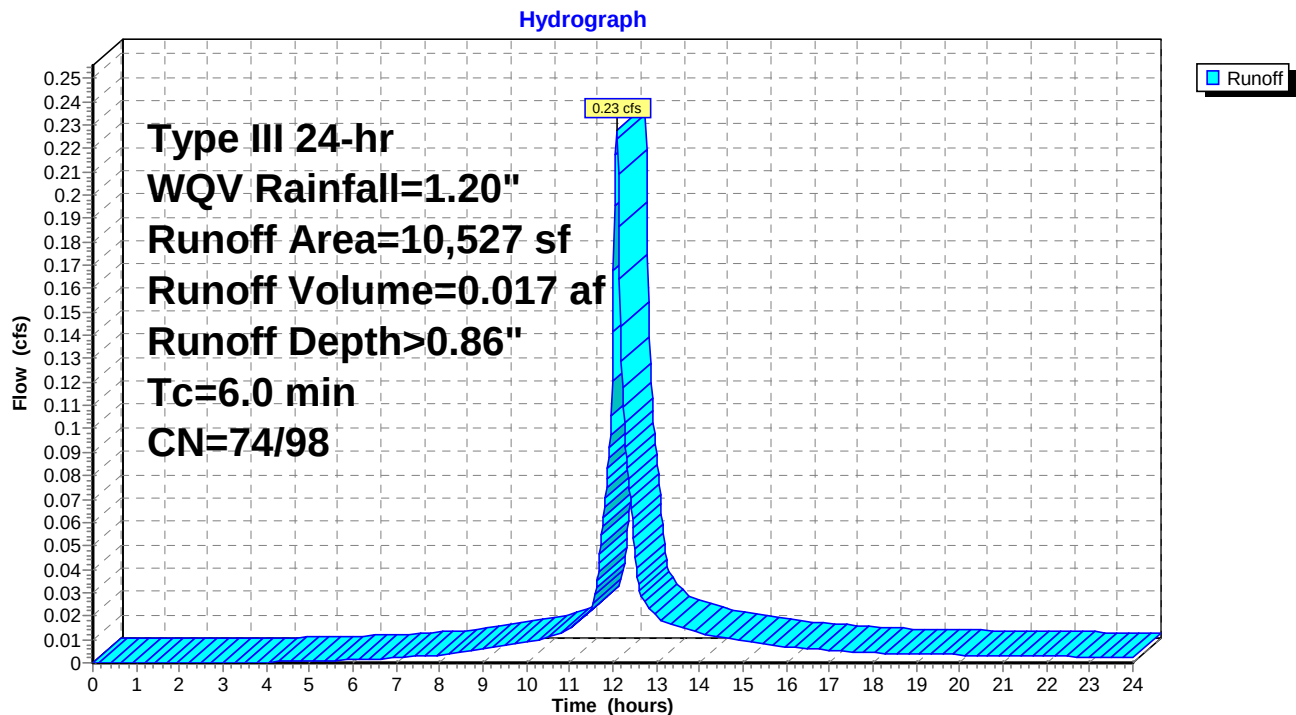
Runoff = 0.23 cfs @ 12.08 hrs, Volume= 0.017 af, Depth> 0.86"
Routed to Link 17L : POST-STATE

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-24.00 hrs, dt= 0.02 hr
Type III 24-hr WQV Rainfall=1.20"

Area (sf)	CN	Description
4,306	98	Roofs, HSG C
1,443	74	>75% Grass cover, Good, HSG C
4,778	98	Paved parking, HSG C
10,527	95	Weighted Average
1,443	74	13.71% Pervious Area
9,084	98	86.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, 1

Subcatchment 13S: POST-UNC



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Type III 24-hr WQV Rainfall=1.20"

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Summary for Subcatchment 15S: ROOF PORTION

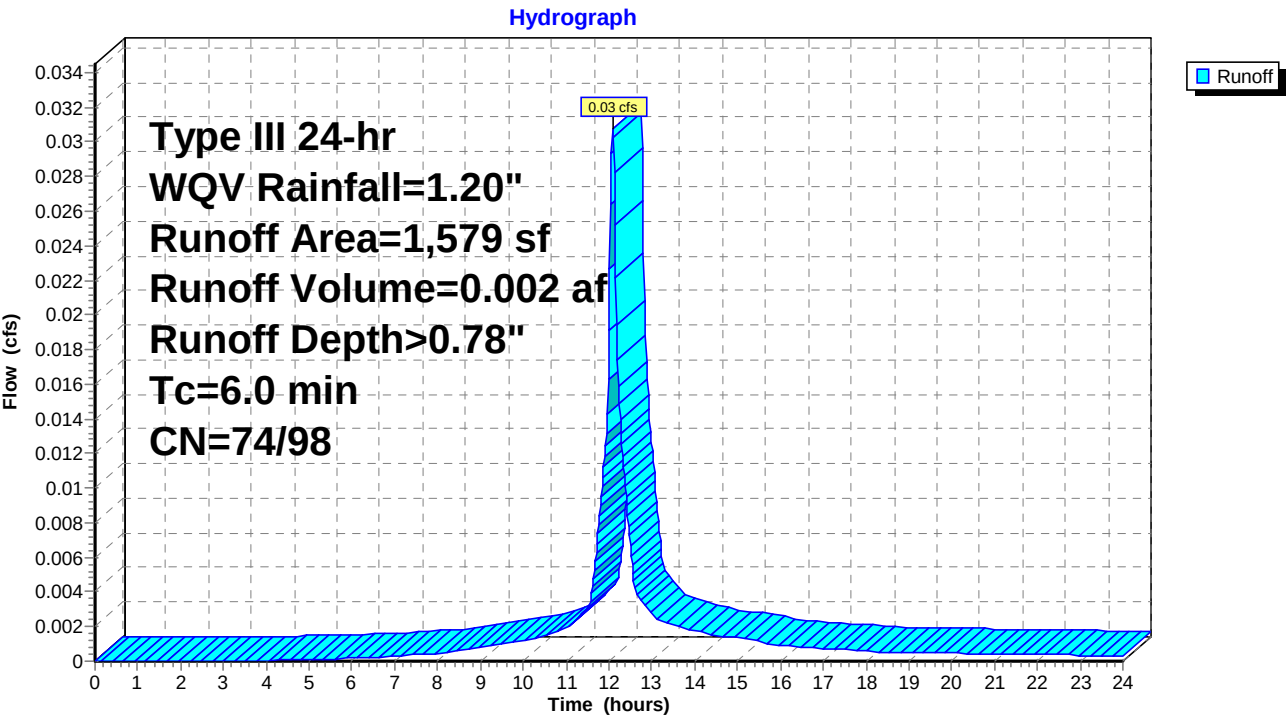
Runoff = 0.03 cfs @ 12.08 hrs, Volume= 0.002 af, Depth> 0.78"
Routed to Pond 16P : RAIN GARDEN

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-24.00 hrs, dt= 0.02 h
Type III 24-hr WQV Rainfall=1.20"

Area (sf)	CN	Description
1,227	98	Roofs, HSG C
352	74	>75% Grass cover, Good, HSG C
1,579	93	Weighted Average
352	74	22.29% Pervious Area
1,227	98	77.71% Impervious Area

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

Subcatchment 15S: ROOF PORTION



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Type III 24-hr WQV Rainfall=1.20"

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Summary for Subcatchment 18S: PRE-REAR

Runoff = 0.02 cfs @ 12.08 hrs, Volume= 0.001 af, Depth> 0.40"

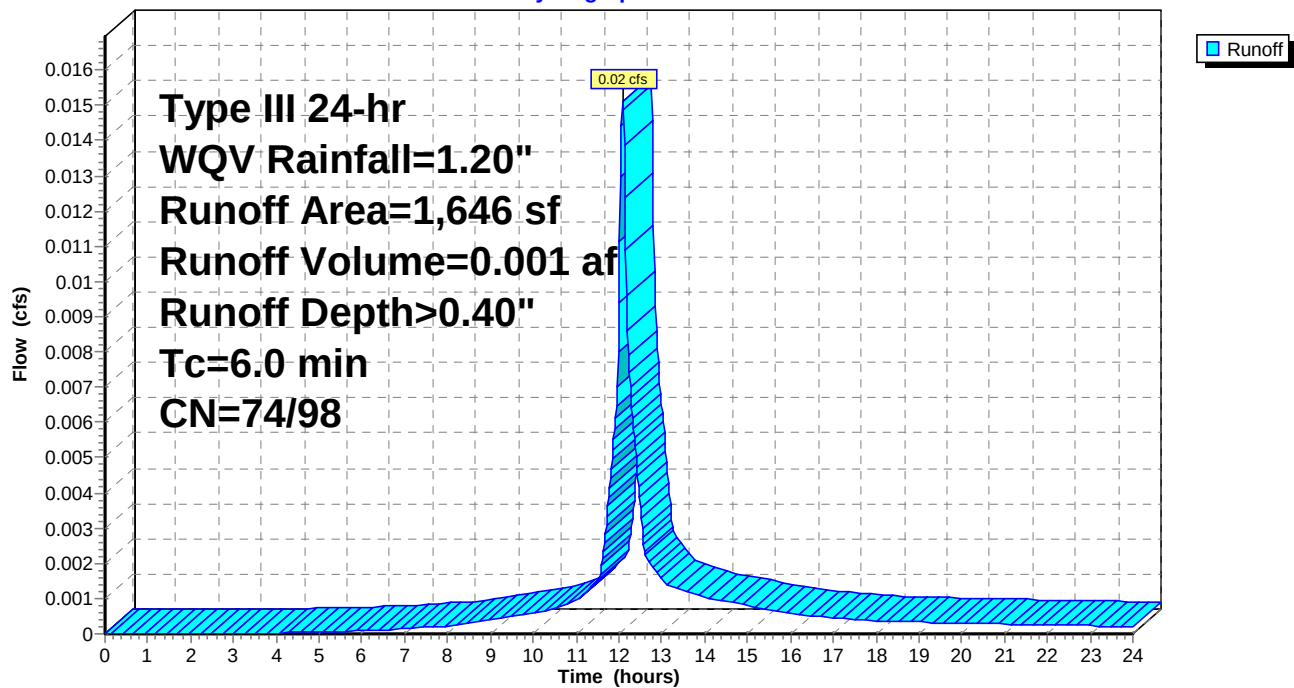
Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-24.00 hrs, dt= 0.02 hr
Type III 24-hr WQV Rainfall=1.20"

Area (sf)	CN	Description
1,043	74	>75% Grass cover, Good, HSG C
603	98	Paved parking, HSG C
1,646	83	Weighted Average
1,043	74	63.37% Pervious Area
603	98	36.63% Impervious Area

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

Subcatchment 18S: PRE-REAR

Hydrograph



Summary for Subcatchment 19S: PERM PAVE

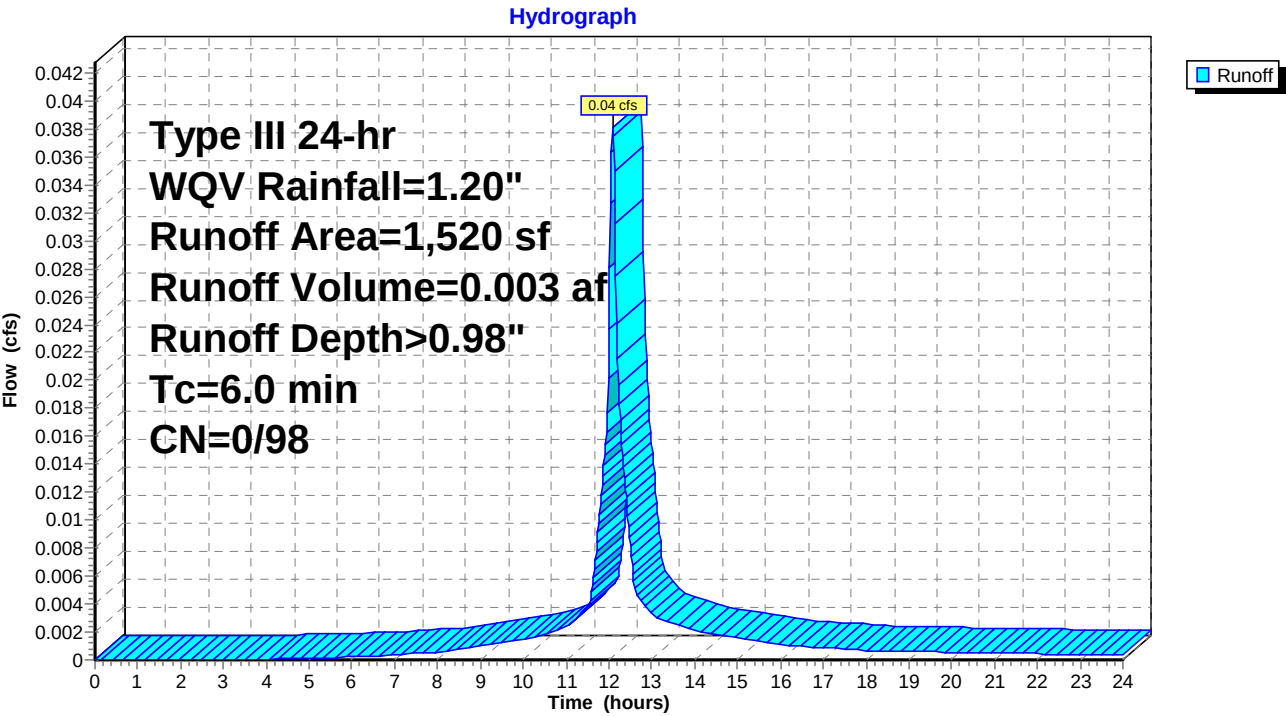
Runoff = 0.04 cfs @ 12.08 hrs, Volume= 0.003 af, Depth> 0.98"
Routed to Pond 20P : INFILTRATION

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-24.00 hrs, dt= 0.02 h
Type III 24-hr WQV Rainfall=1.20"

Area (sf)	CN	Description
1,520	98	Paved parking, HSG C
1,520	98	100.00% Impervious Area

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

Subcatchment 19S: PERM PAVE



Summary for Subcatchment 21S: REAR-UNC

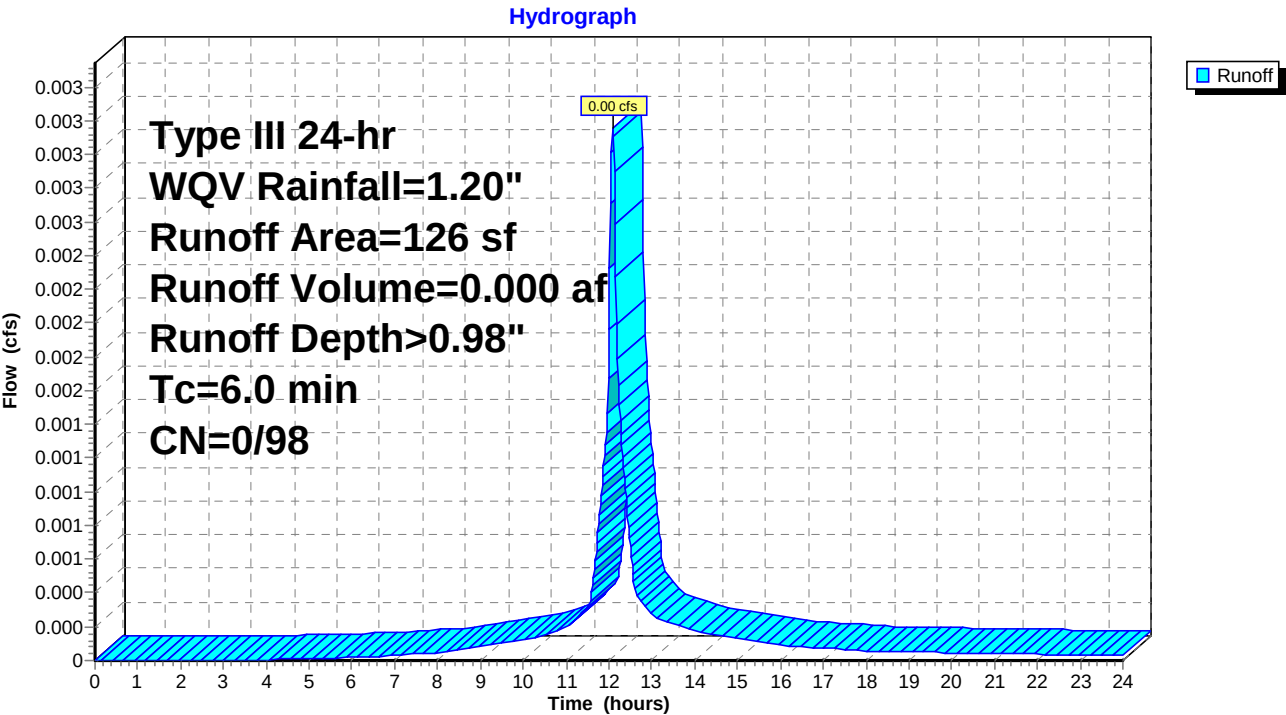
Runoff = 0.00 cfs @ 12.08 hrs, Volume= 0.000 af, Depth> 0.98"

Runoff by SCS TR-20 method, UH=SCS, Split Pervious/Imperv. UI as Pervious, Time Span= 0.00-24.00 hrs, dt= 0.02 hr
Type III 24-hr WQV Rainfall=1.20"

Area (sf)	CN	Description
126	98	Paved parking, HSG C
126	98	100.00% Impervious Area

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

Subcatchment 21S: REAR-UNC



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Type III 24-hr WQV Rainfall=1.20"

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Summary for Pond 16P: RAIN GARDEN

Inflow Area = 0.036 ac, 77.71% Impervious, Inflow Depth > 0.78" for WQV event
 Inflow = 0.03 cfs @ 12.08 hrs, Volume= 0.002 af
 Outflow = 0.00 cfs @ 14.22 hrs, Volume= 0.002 af, Atten= 95%, Lag= 127.8 min
 Discarded = 0.00 cfs @ 14.22 hrs, Volume= 0.002 af
 Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af
 Routed to Link 17L : POST-STATE

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.02 hrs

Peak Elev= 52.47' @ 14.22 hrs Surf.Area= 141 sf Storage= 52 cf

Plug-Flow detention time= 271.6 min calculated for 0.002 af (78% of inflow)

Center-of-Mass det. time= 191.2 min (976.3 - 785.1)

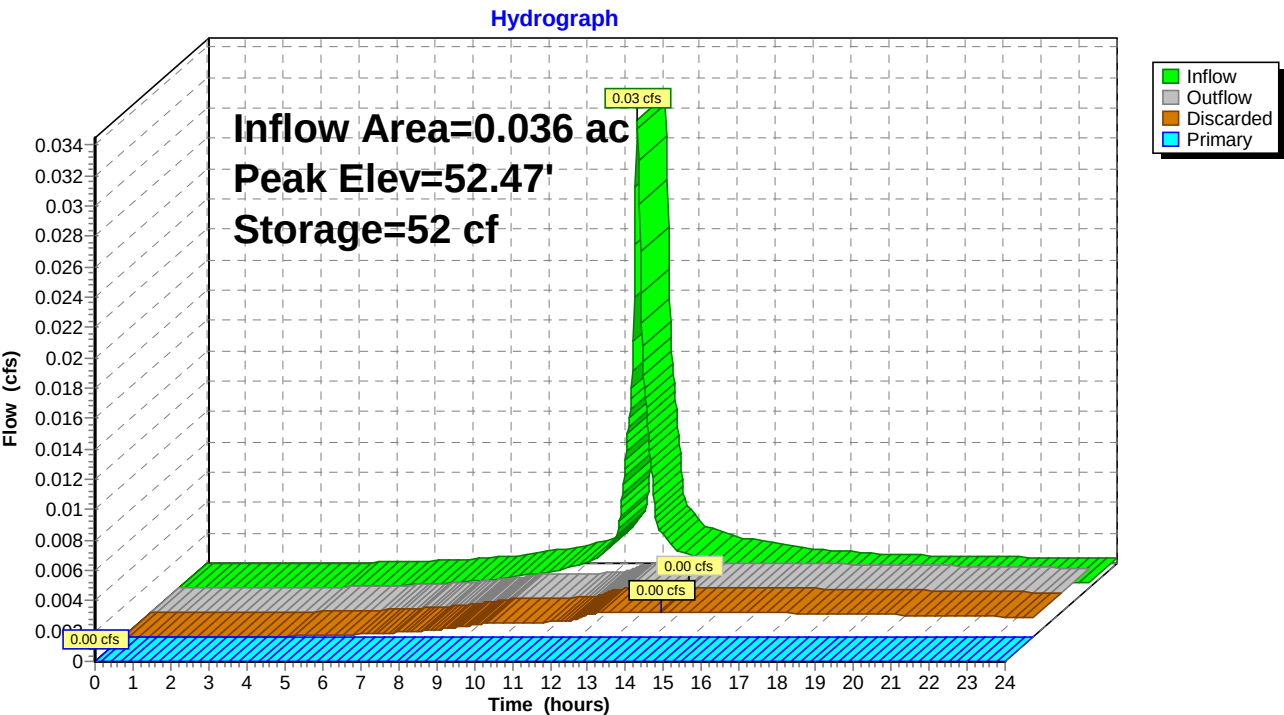
Volume	Invert	Avail.Storage	Storage Description
#1	52.00'	145 cf	Custom Stage Data (Prismatic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
52.00	79	0	0
53.00	211	145	145

Device	Routing	Invert	Outlet Devices
#1	Discarded	52.00'	0.500 in/hr Exfiltration over Surface area
#2	Primary	52.67'	3.0' long x 1.0' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00
			2.50 3.00
			Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31
			3.30 3.31 3.32

Discarded OutFlow Max=0.00 cfs @ 14.22 hrs HW=52.47' (Free Discharge)↑ **1=Exfiltration** (Exfiltration Controls 0.00 cfs)**Primary OutFlow** Max=0.00 cfs @ 0.00 hrs HW=52.00' (Free Discharge)↑ **2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond 16P: RAIN GARDEN



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Type III 24-hr WQV Rainfall=1.20"

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Summary for Pond 20P: INFILTRATION

Inflow Area = 0.035 ac, 100.00% Impervious, Inflow Depth > 0.98" for WQV event
 Inflow = 0.04 cfs @ 12.08 hrs, Volume= 0.003 af
 Outflow = 0.02 cfs @ 12.02 hrs, Volume= 0.003 af, Atten= 54%, Lag= 0.0 min
 Discarded = 0.02 cfs @ 12.02 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.02 hrs
 Peak Elev= 53.03' @ 12.25 hrs Surf.Area= 1,520 sf Storage= 15 cf

Plug-Flow detention time= 6.7 min calculated for 0.003 af (100% of inflow)
 Center-of-Mass det. time= 6.1 min (787.6 - 781.5)

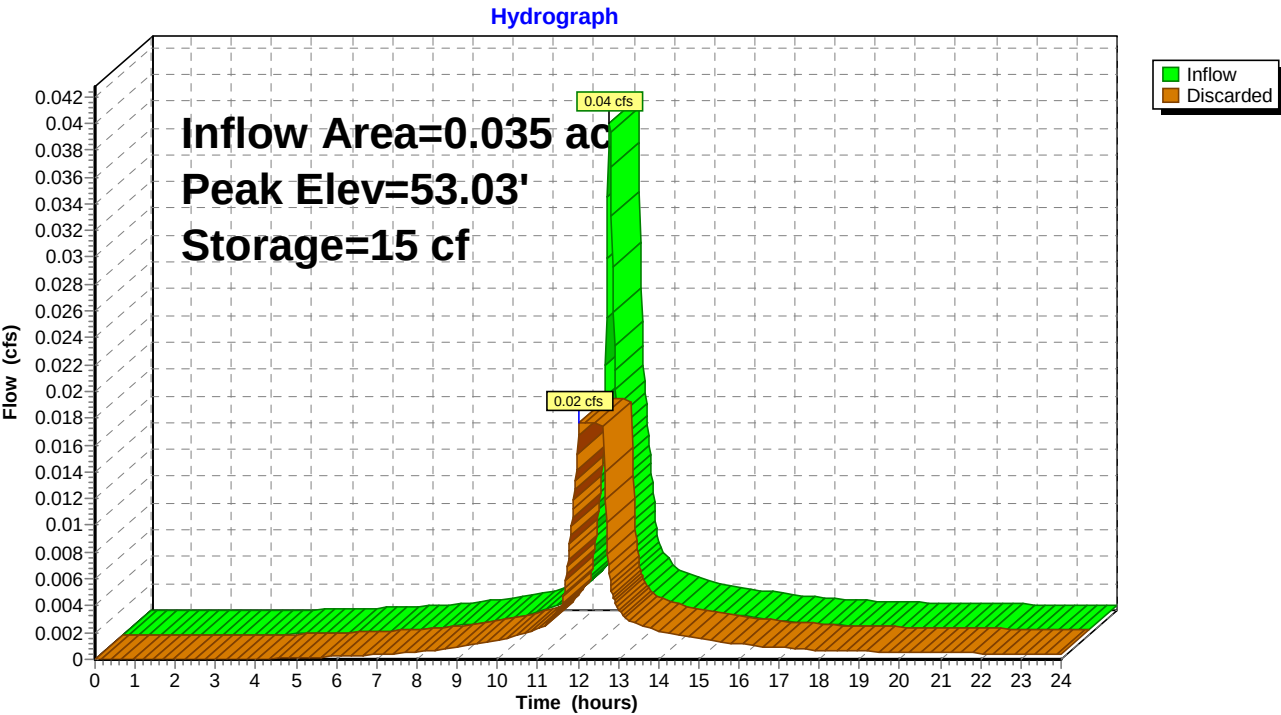
Volume	Invert	Avail.Storage	Storage Description
#1	53.00'	502 cf	Custom Stage Data (Prismatic) Listed below (Recalc) 1,520 cf Overall x 33.0% Voids

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
53.00	1,520	0	0
54.00	1,520	1,520	1,520

Device	Routing	Invert	Outlet Devices
#1	Discarded	53.00'	0.500 in/hr Exfiltration over Surface area

Discarded OutFlow Max=0.02 cfs @ 12.02 hrs HW=53.01' (Free Discharge)
 ↑ **1=Exfiltration** (Exfiltration Controls 0.02 cfs)

Pond 20P: INFILTRATION



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Type III 24-hr WQV Rainfall=1.20"

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Summary for Link 17L: POST-STATE

Inflow Area = 0.278 ac, 85.17% Impervious, Inflow Depth > 0.75" for WQV event
Inflow = 0.23 cfs @ 12.08 hrs, Volume= 0.017 af
Primary = 0.23 cfs @ 12.08 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.02 hrs

Link 17L: POST-STATE

