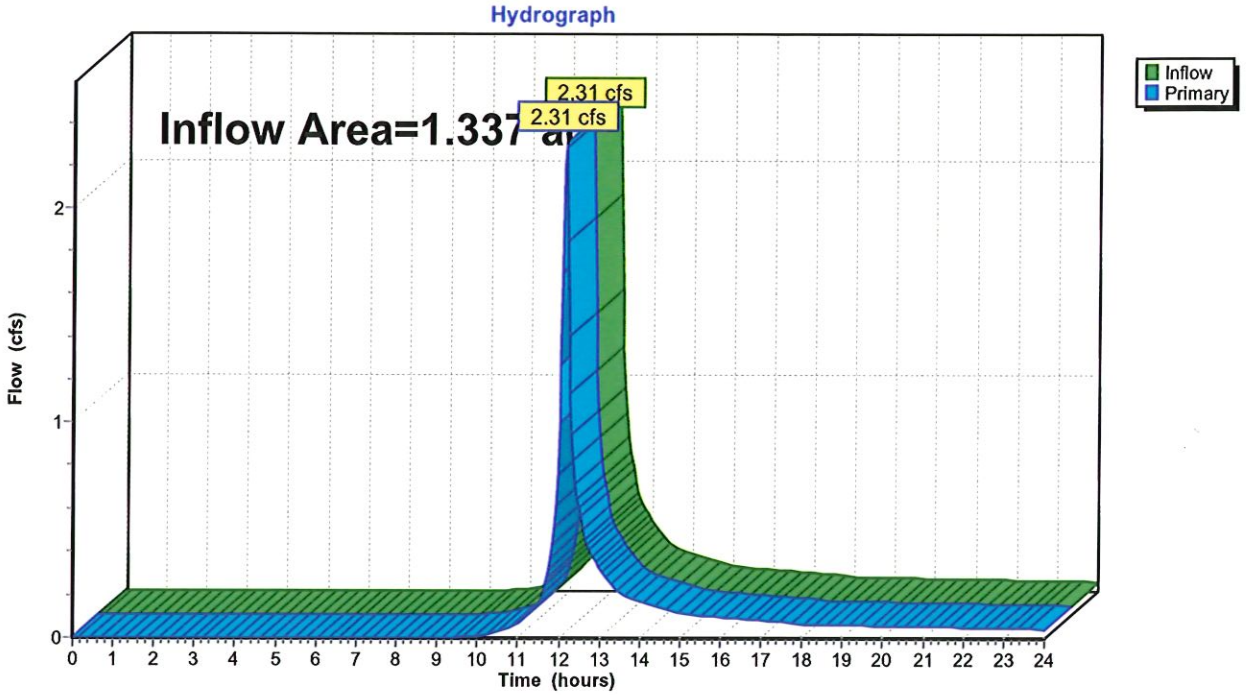
Summary for Link 1L: Combined Hydrograph

Inflow Area = 1.337 ac, 23.62% Impervious, Inflow Depth > 1.57" for 5 Year event
Inflow = 2.31 cfs @ 12.15 hrs, Volume= 0.175 af
Primary = 2.31 cfs @ 12.15 hrs, Volume= 0.175 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

Link 1L: Combined Hydrograph



Summary for Subcatchment 3S: Areas Routed to Retention

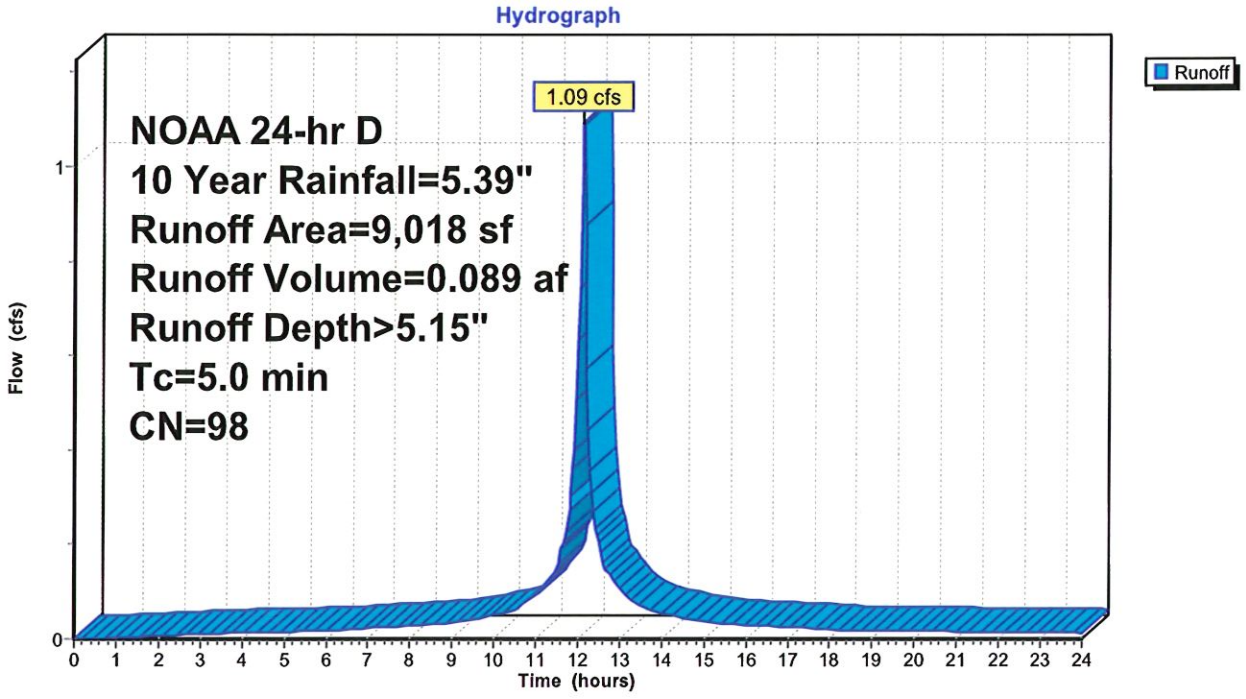
Runoff = 1.09 cfs @ 12.11 hrs, Volume= 0.089 af, Depth> 5.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 10 Year Rainfall=5.39"

	Area (sf)	CN	Description
*	9,018	98	Driveway/Parking
	9,018		100.00% Impervious Area

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

Subcatchment 3S: Areas Routed to Retention



Summary for Subcatchment 4S: Areas not Routed to Retention

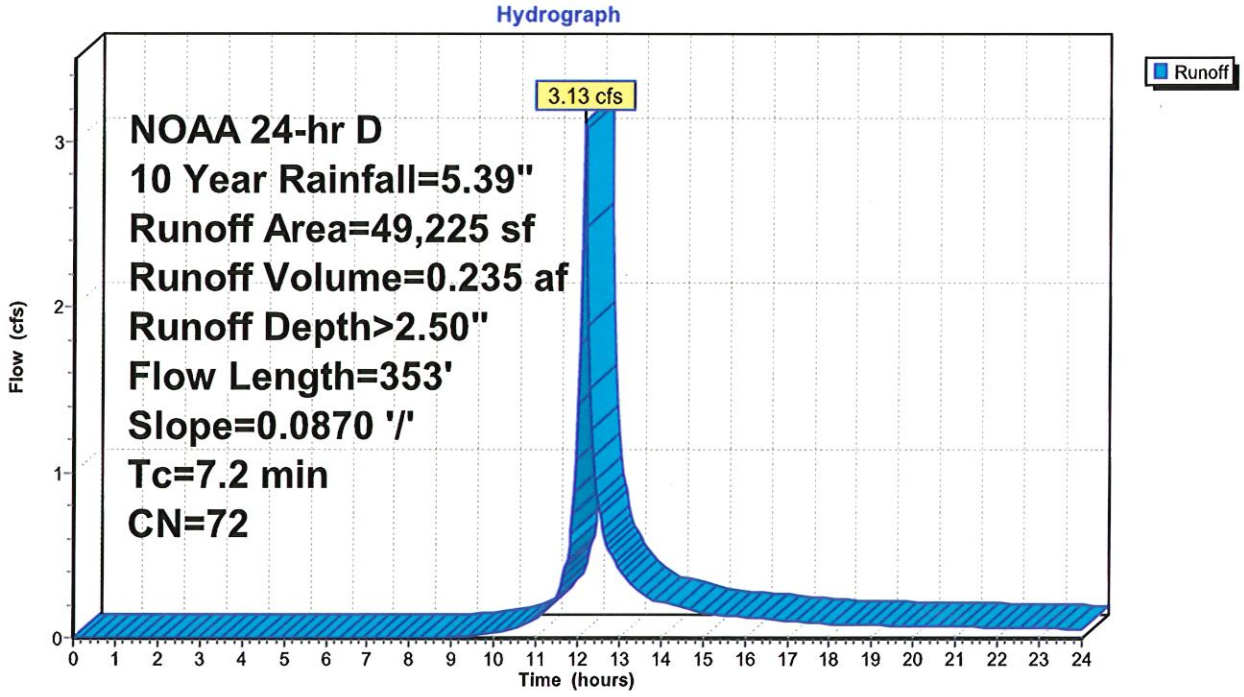
Runoff = 3.13 cfs @ 12.15 hrs, Volume= 0.235 af, Depth> 2.50"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 10 Year Rainfall=5.39"

	Area (sf)	CN	Description
*	4,741	98	Building
	44,484	69	50-75% Grass cover, Fair, HSG B
	49,225	72	Weighted Average
	44,484		90.37% Pervious Area
	4,741		9.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 4S: Areas not Routed to Retention



Summary for Pond 1P: 48" Concrete Galleries

Inflow Area = 0.207 ac,100.00% Impervious, Inflow Depth > 5.15" for 10 Year event
Inflow = 1.09 cfs @ 12.11 hrs, Volume= 0.089 af
Outflow = 0.07 cfs @ 10.84 hrs, Volume= 0.089 af, Atten= 93%, Lag= 0.0 min
Discarded = 0.07 cfs @ 10.84 hrs, Volume= 0.089 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 96.96' @ 13.43 hrs Surf.Area= 532 sf Storage= 1,446 cf

Plug-Flow detention time= 142.1 min calculated for 0.089 af (100% of inflow)
Center-of-Mass det. time= 141.6 min (888.1 - 746.6)

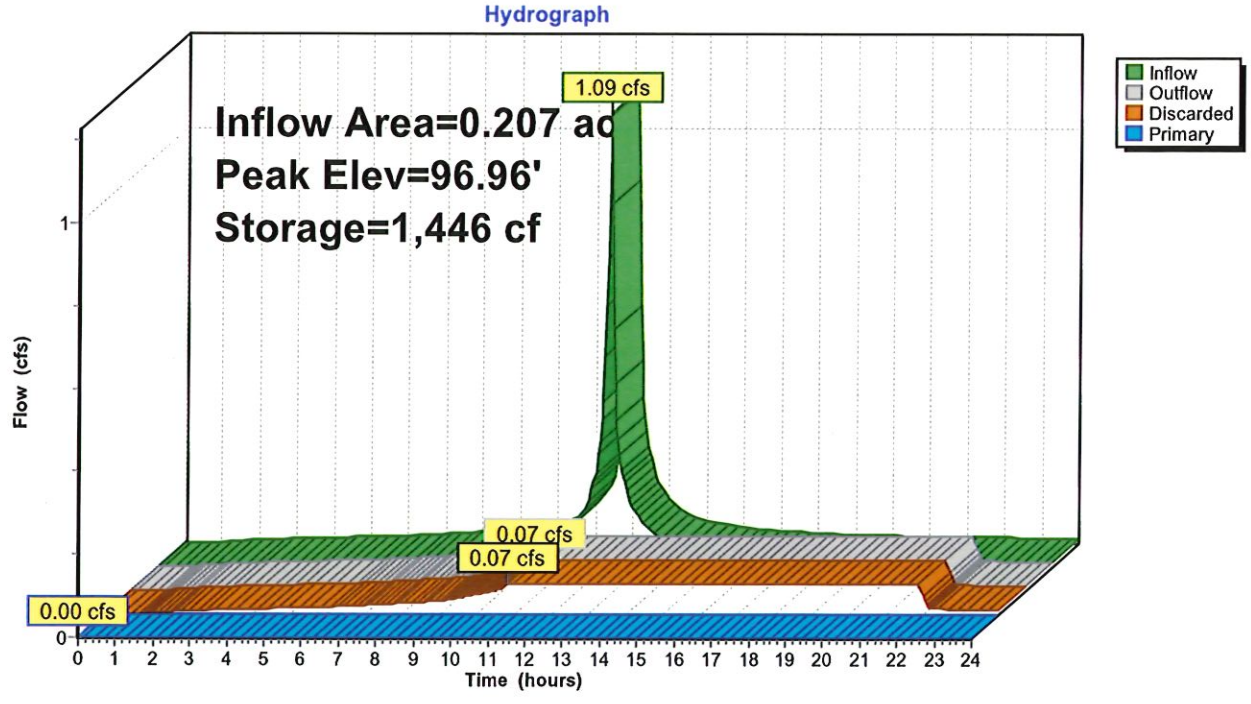
Volume	Invert	Avail.Storage	Storage Description
#1	93.90'	217 cf	**14.00'W x 38.00'L x 4.00'H Stone** 2,128 cf Overall - 1,585 cf Embedded = 543 cf x 40.0% Voids
#2	93.90'	1,585 cf	**12.00'W x 36.00'L x 3.67'H 48" Concrete Galleries** Inside #1
		1,802 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	97.90'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	93.90'	**6.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=0.07 cfs @ 10.84 hrs HW=93.94' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=93.90' (Free Discharge)
↑**1=Orifice/Grate** (Controls 0.00 cfs)

Pond 1P: 48" Concrete Galleries

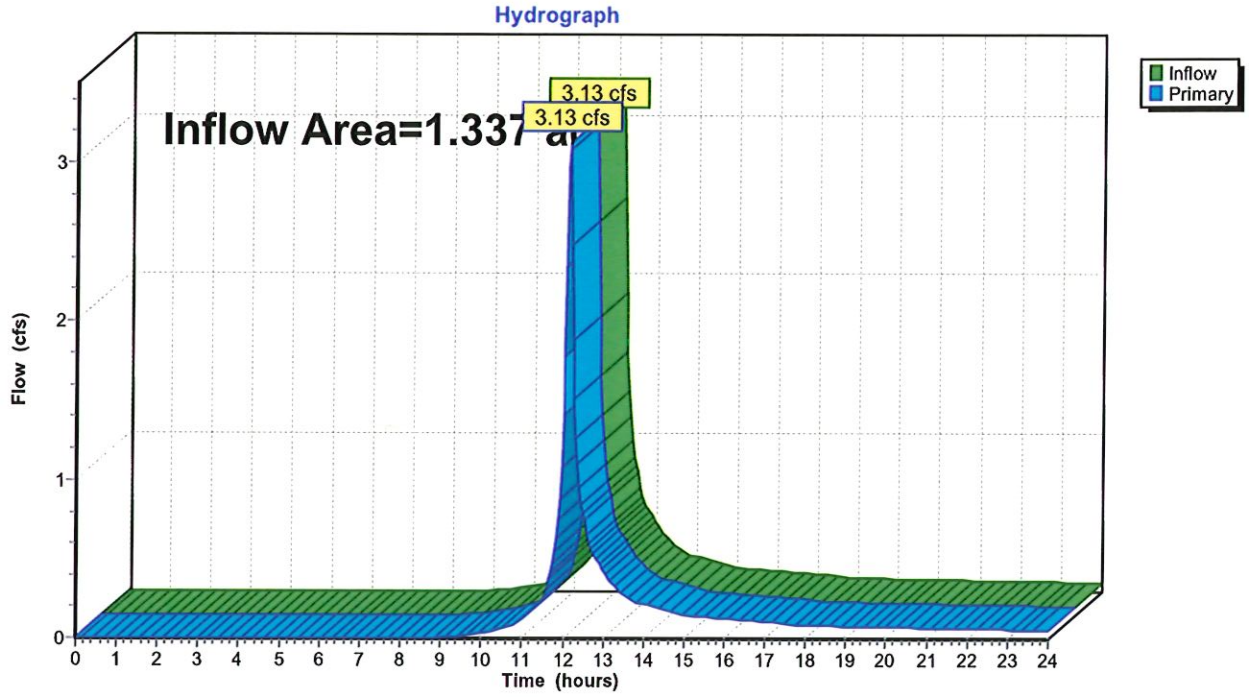


Summary for Link 1L: Combined Hydrograph

Inflow Area = 1.337 ac, 23.62% Impervious, Inflow Depth > 2.11" for 10 Year event
Inflow = 3.13 cfs @ 12.15 hrs, Volume= 0.235 af
Primary = 3.13 cfs @ 12.15 hrs, Volume= 0.235 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

Link 1L: Combined Hydrograph



Summary for Subcatchment 3S: Areas Routed to Retention

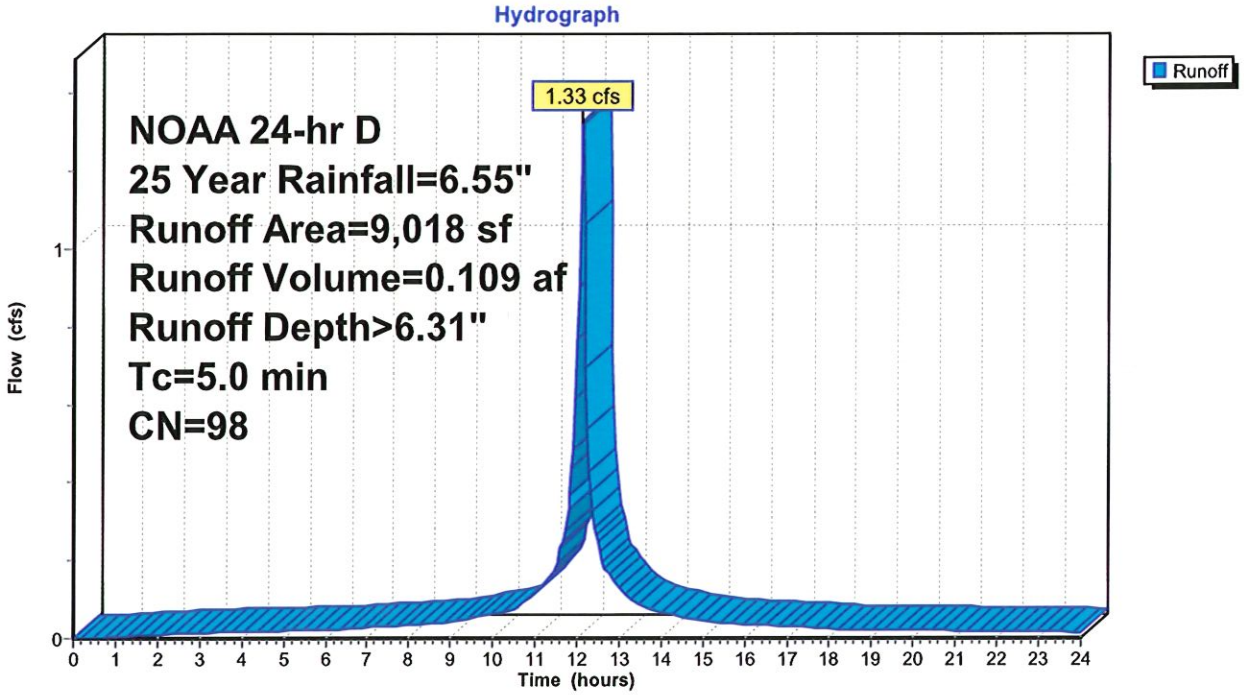
Runoff = 1.33 cfs @ 12.11 hrs, Volume= 0.109 af, Depth> 6.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 25 Year Rainfall=6.55"

	Area (sf)	CN	Description
*	9,018	98	Driveway/Parking
	9,018		100.00% Impervious Area

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

Subcatchment 3S: Areas Routed to Retention



Summary for Subcatchment 4S: Areas not Routed to Retention

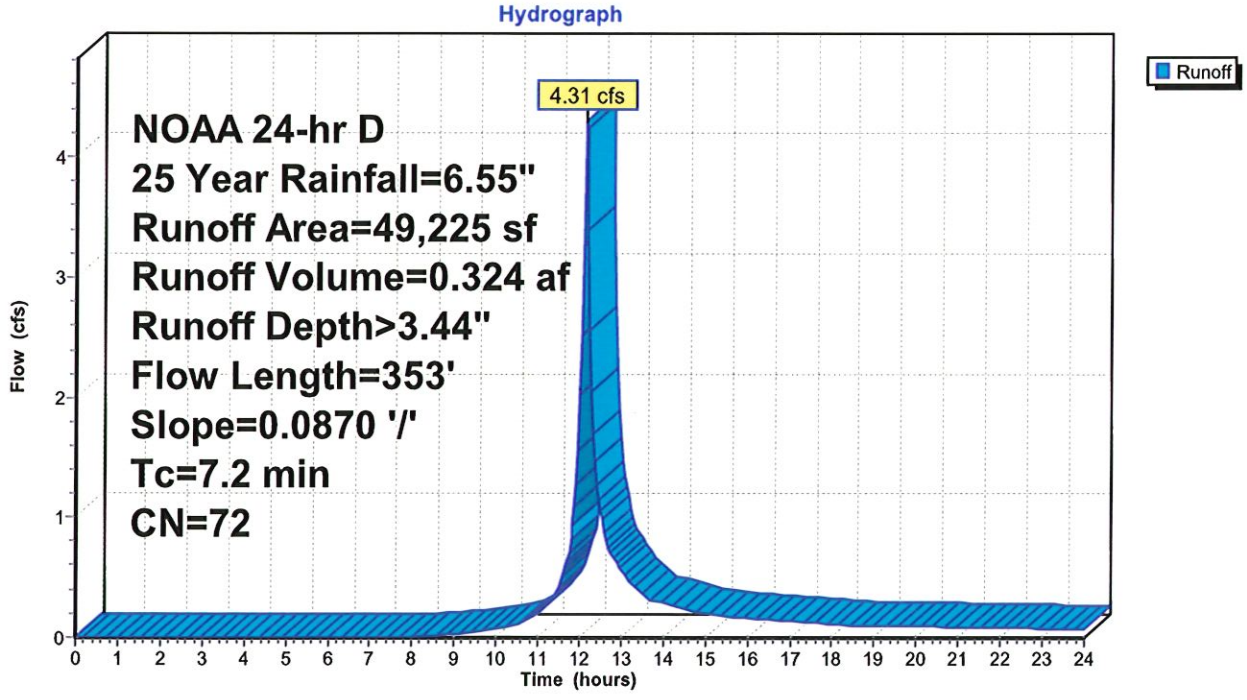
Runoff = 4.31 cfs @ 12.14 hrs, Volume= 0.324 af, Depth> 3.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 25 Year Rainfall=6.55"

	Area (sf)	CN	Description
*	4,741	98	Building
	44,484	69	50-75% Grass cover, Fair, HSG B
	49,225	72	Weighted Average
	44,484		90.37% Pervious Area
	4,741		9.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 4S: Areas not Routed to Retention



Summary for Pond 1P: 48" Concrete Galleries

Inflow Area = 0.207 ac,100.00% Impervious, Inflow Depth > 6.31" for 25 Year event
Inflow = 1.33 cfs @ 12.11 hrs, Volume= 0.109 af
Outflow = 0.23 cfs @ 12.80 hrs, Volume= 0.106 af, Atten= 83%, Lag= 41.2 min
Discarded = 0.07 cfs @ 10.60 hrs, Volume= 0.103 af
Primary = 0.16 cfs @ 12.80 hrs, Volume= 0.003 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 98.00' @ 12.80 hrs Surf.Area= 532 sf Storage= 1,802 cf

Plug-Flow detention time= 185.7 min calculated for 0.106 af (97% of inflow)
Center-of-Mass det. time= 168.8 min (912.2 - 743.5)

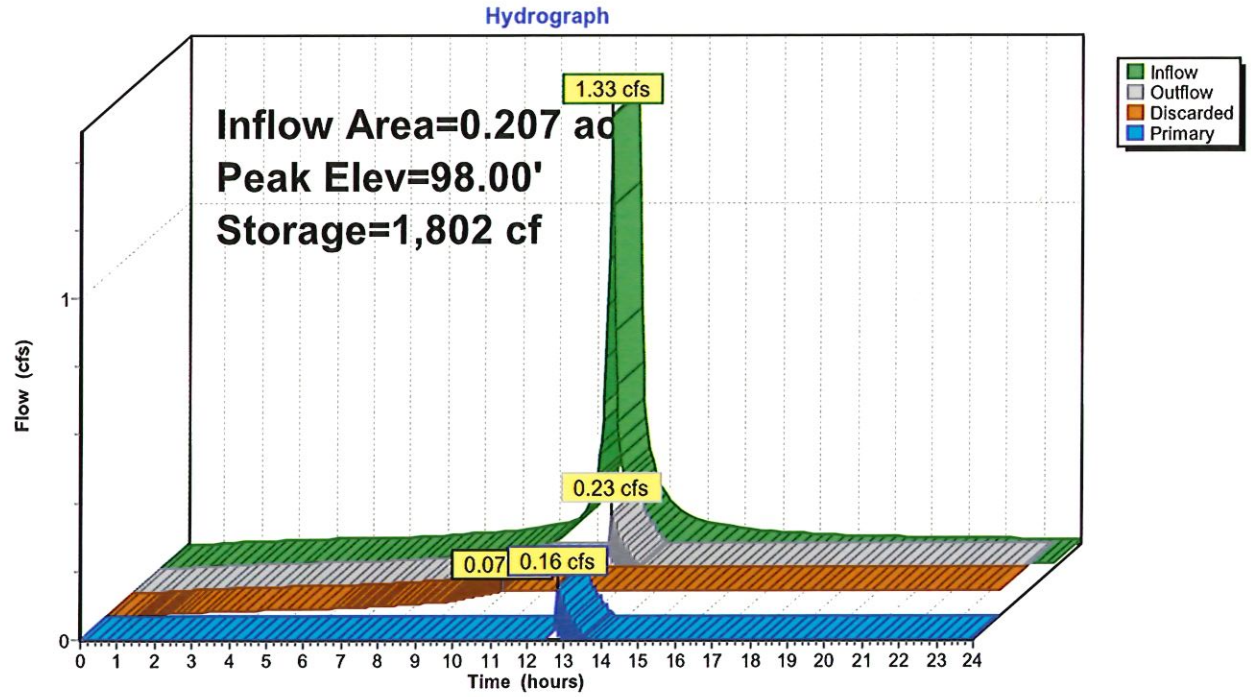
Volume	Invert	Avail.Storage	Storage Description
#1	93.90'	217 cf	**14.00'W x 38.00'L x 4.00'H Stone** 2,128 cf Overall - 1,585 cf Embedded = 543 cf x 40.0% Voids
#2	93.90'	1,585 cf	**12.00'W x 36.00'L x 3.67'H 48" Concrete Galleries** Inside #1
		1,802 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	97.90'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	93.90'	**6.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=0.07 cfs @ 10.60 hrs HW=93.94' (Free Discharge)
↑—**2=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=0.15 cfs @ 12.80 hrs HW=98.00' (Free Discharge)
↑—**1=Orifice/Grate** (Weir Controls 0.15 cfs @ 1.01 fps)

Pond 1P: 48" Concrete Galleries

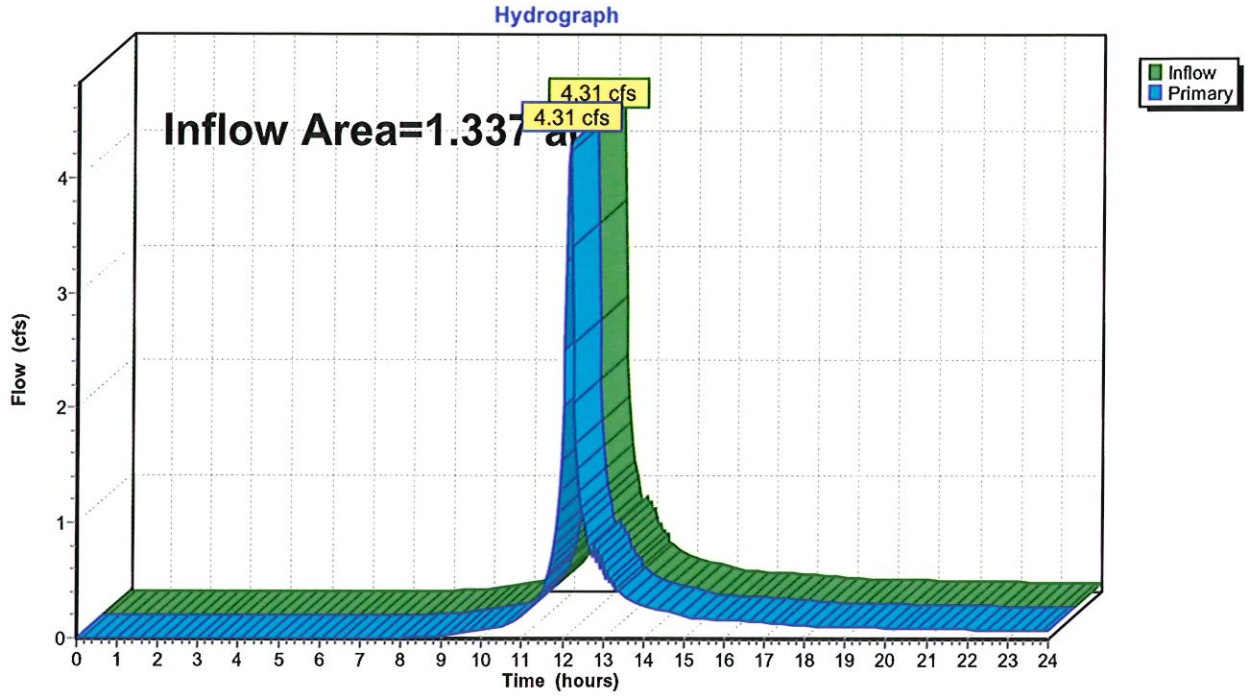


Summary for Link 1L: Combined Hydrograph

Inflow Area = 1.337 ac, 23.62% Impervious, Inflow Depth > 2.94" for 25 Year event
Inflow = 4.31 cfs @ 12.14 hrs, Volume= 0.327 af
Primary = 4.31 cfs @ 12.14 hrs, Volume= 0.327 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

Link 1L: Combined Hydrograph



Summary for Subcatchment 3S: Areas Routed to Retention

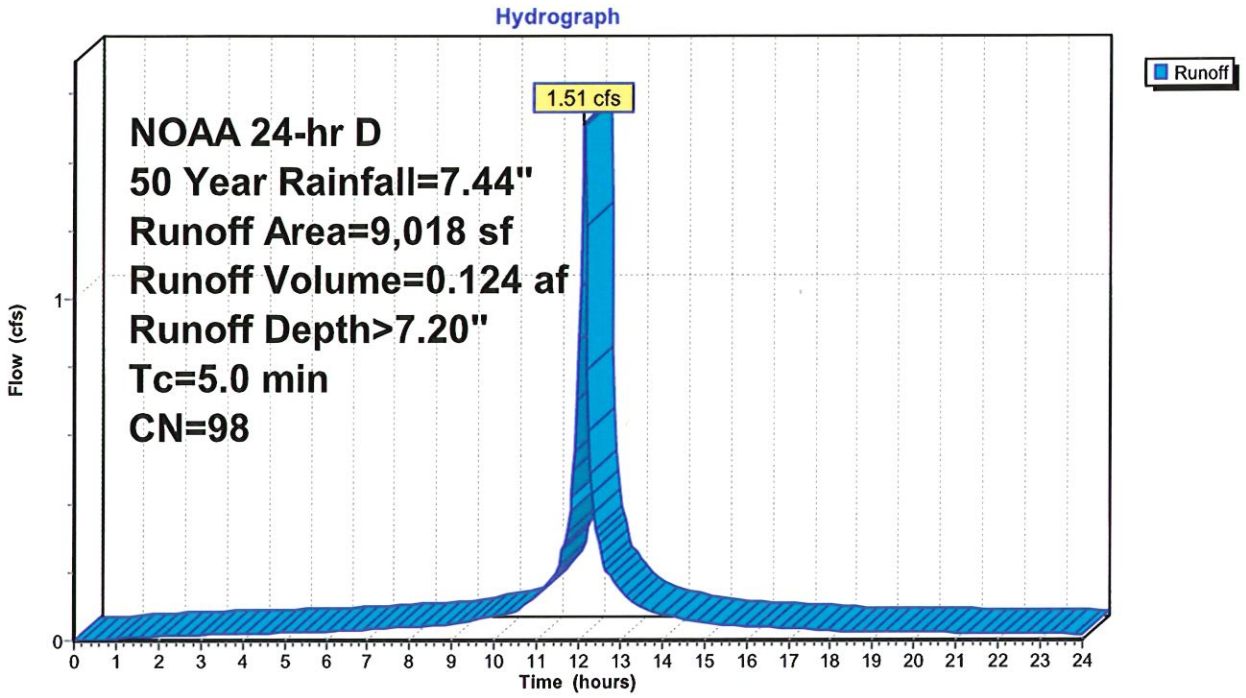
Runoff = 1.51 cfs @ 12.11 hrs, Volume= 0.124 af, Depth> 7.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 50 Year Rainfall=7.44"

	Area (sf)	CN	Description
*	9,018	98	Driveway/Parking
	9,018		100.00% Impervious Area

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

Subcatchment 3S: Areas Routed to Retention



Summary for Subcatchment 4S: Areas not Routed to Retention

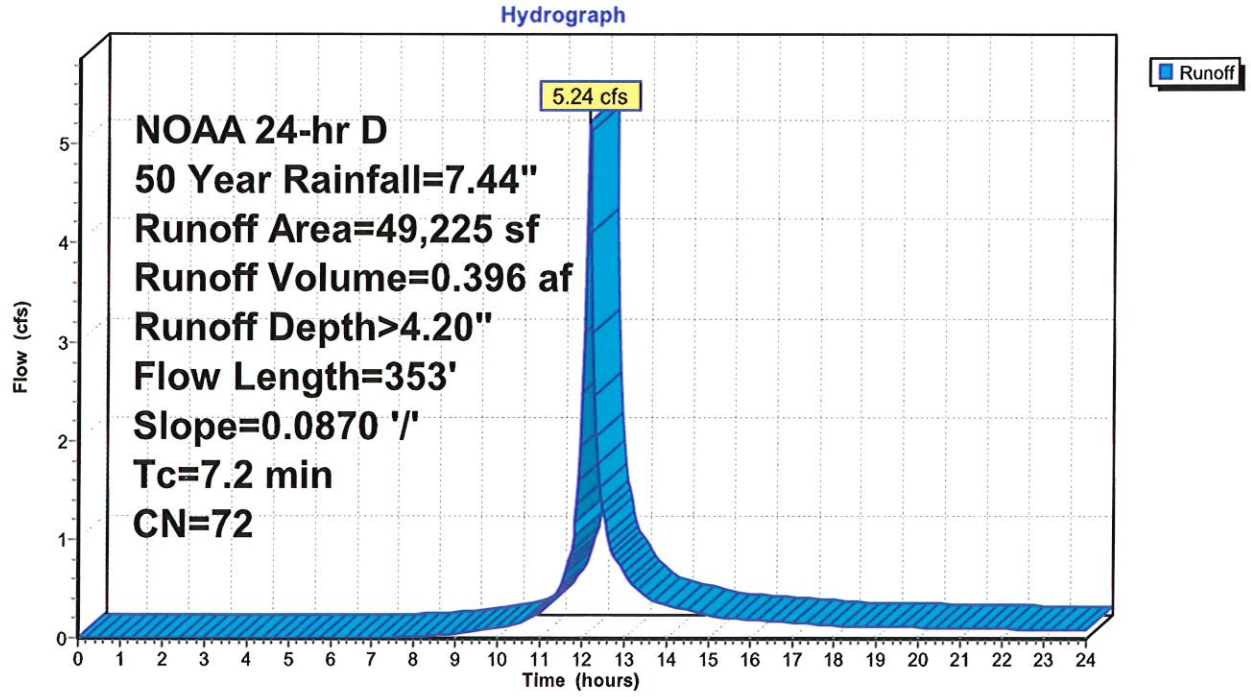
Runoff = 5.24 cfs @ 12.14 hrs, Volume= 0.396 af, Depth> 4.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 50 Year Rainfall=7.44"

	Area (sf)	CN	Description
*	4,741	98	Building
	44,484	69	50-75% Grass cover, Fair, HSG B
	49,225	72	Weighted Average
	44,484		90.37% Pervious Area
	4,741		9.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 4S: Areas not Routed to Retention



Summary for Pond 1P: 48" Concrete Galleries

Inflow Area = 0.207 ac,100.00% Impervious, Inflow Depth > 7.20" for 50 Year event
Inflow = 1.51 cfs @ 12.11 hrs, Volume= 0.124 af
Outflow = 0.42 cfs @ 12.35 hrs, Volume= 0.118 af, Atten= 72%, Lag= 13.9 min
Discarded = 0.07 cfs @ 10.24 hrs, Volume= 0.106 af
Primary = 0.35 cfs @ 12.35 hrs, Volume= 0.012 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 98.07' @ 12.35 hrs Surf.Area= 532 sf Storage= 1,802 cf

Plug-Flow detention time= 174.9 min calculated for 0.118 af (95% of inflow)
Center-of-Mass det. time= 145.1 min (886.7 - 741.6)

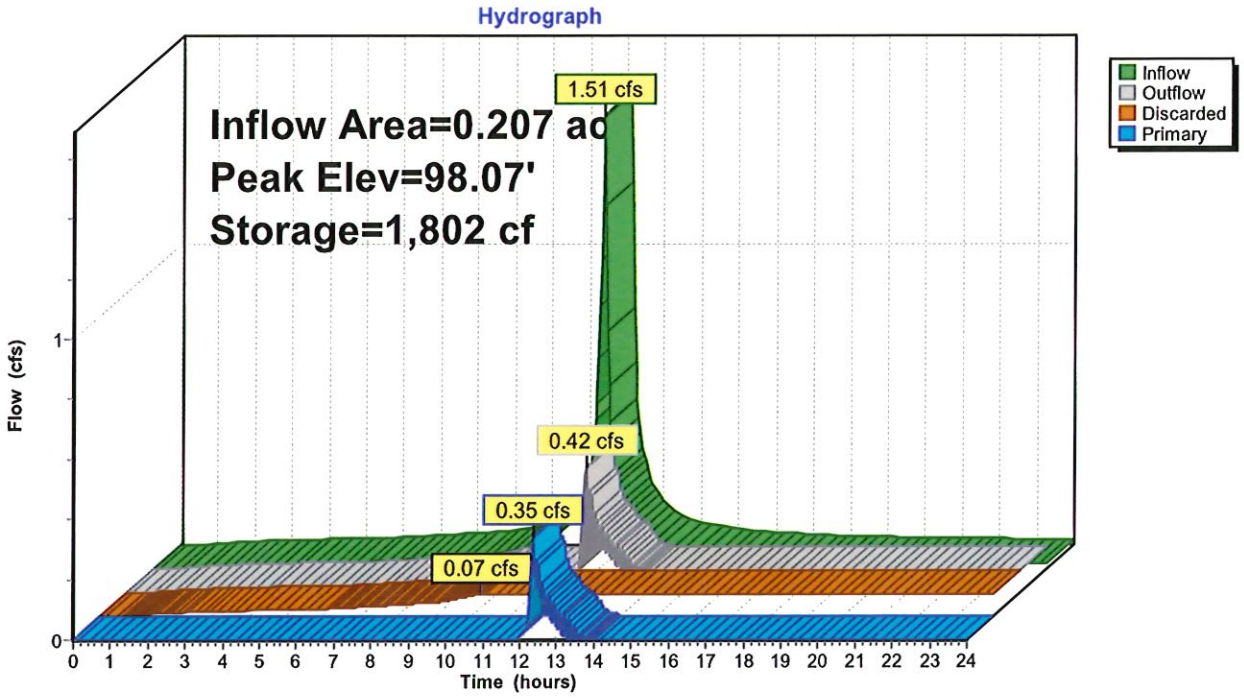
Volume	Invert	Avail.Storage	Storage Description
#1	93.90'	217 cf	**14.00'W x 38.00'L x 4.00'H Stone**
			2,128 cf Overall - 1,585 cf Embedded = 543 cf x 40.0% Voids
#2	93.90'	1,585 cf	**12.00'W x 36.00'L x 3.67'H 48" Concrete Galleries** Inside #1
		1,802 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	97.90'	**6.0" Horiz. Orifice/Grate** C= 0.600
			Limited to weir flow at low heads
#2	Discarded	93.90'	**6.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=0.07 cfs @ 10.24 hrs HW=93.94' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=0.33 cfs @ 12.35 hrs HW=98.06' (Free Discharge)
↑**1=Orifice/Grate** (Weir Controls 0.33 cfs @ 1.31 fps)

Pond 1P: 48" Concrete Galleries

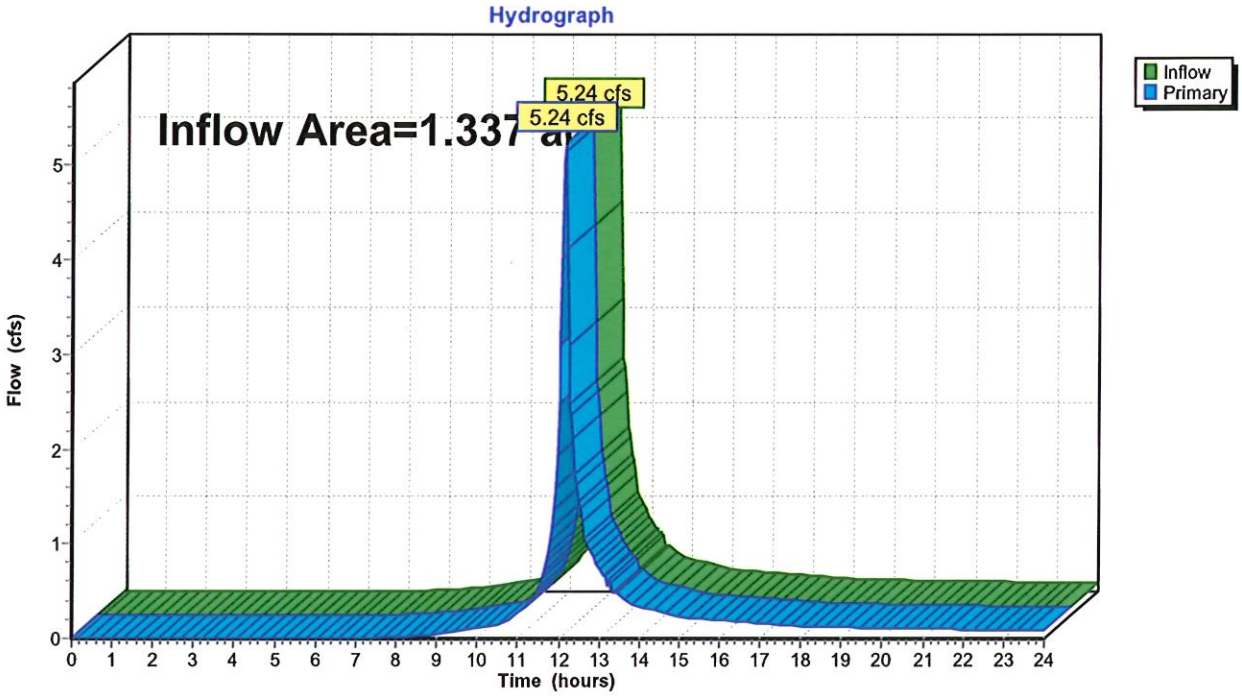


Summary for Link 1L: Combined Hydrograph

Inflow Area = 1.337 ac, 23.62% Impervious, Inflow Depth > 3.66" for 50 Year event
Inflow = 5.24 cfs @ 12.14 hrs, Volume= 0.407 af
Primary = 5.24 cfs @ 12.14 hrs, Volume= 0.407 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

Link 1L: Combined Hydrograph



Summary for Subcatchment 3S: Areas Routed to Retention

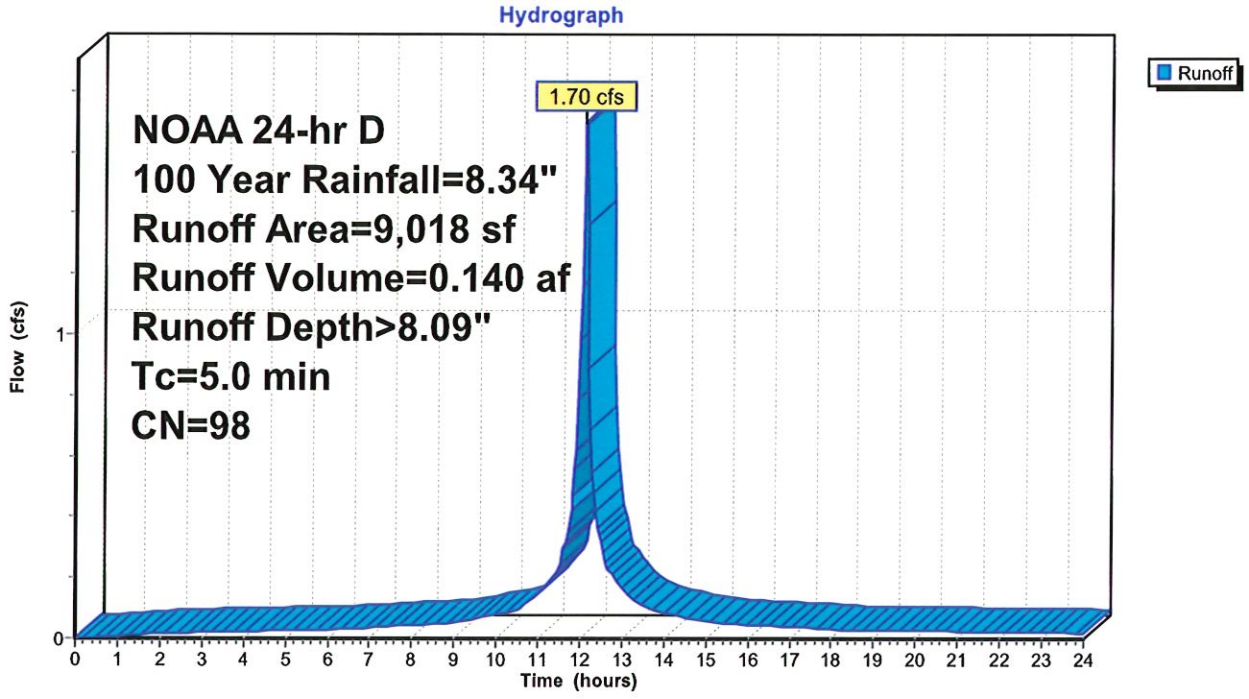
Runoff = 1.70 cfs @ 12.11 hrs, Volume= 0.140 af, Depth> 8.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 100 Year Rainfall=8.34"

	Area (sf)	CN	Description
*	9,018	98	Driveway/Parking
	9,018		100.00% Impervious Area

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

Subcatchment 3S: Areas Routed to Retention



Summary for Subcatchment 4S: Areas not Routed to Retention

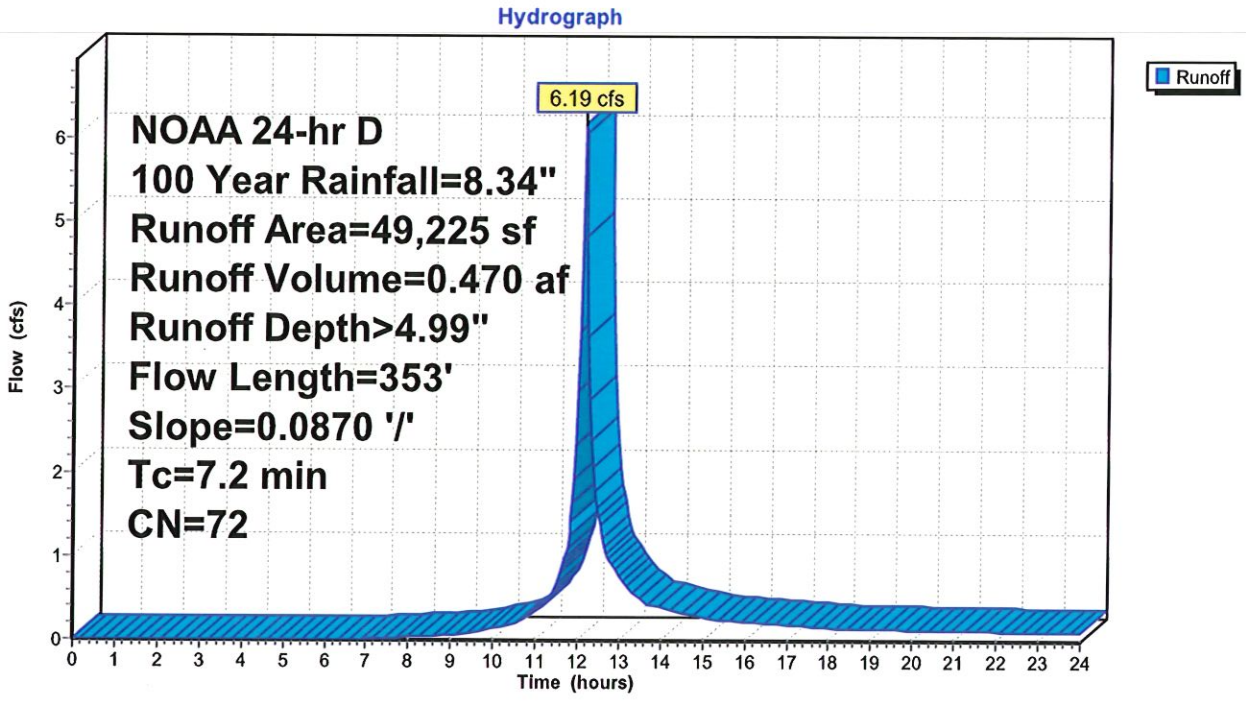
Runoff = 6.19 cfs @ 12.14 hrs, Volume= 0.470 af, Depth> 4.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 100 Year Rainfall=8.34"

	Area (sf)	CN	Description
*	4,741	98	Building
	44,484	69	50-75% Grass cover, Fair, HSG B
	49,225	72	Weighted Average
	44,484		90.37% Pervious Area
	4,741		9.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 4S: Areas not Routed to Retention



Summary for Pond 1P: 48" Concrete Galleries

Inflow Area = 0.207 ac,100.00% Impervious, Inflow Depth > 8.09" for 100 Year event
Inflow = 1.70 cfs @ 12.11 hrs, Volume= 0.140 af
Outflow = 1.14 cfs @ 12.20 hrs, Volume= 0.131 af, Atten= 33%, Lag= 5.4 min
Discarded = 0.07 cfs @ 9.88 hrs, Volume= 0.109 af
Primary = 1.06 cfs @ 12.20 hrs, Volume= 0.021 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 99.15' @ 12.20 hrs Surf.Area= 532 sf Storage= 1,802 cf

Plug-Flow detention time= 163.0 min calculated for 0.131 af (94% of inflow)
Center-of-Mass det. time= 125.0 min (865.1 - 740.1)

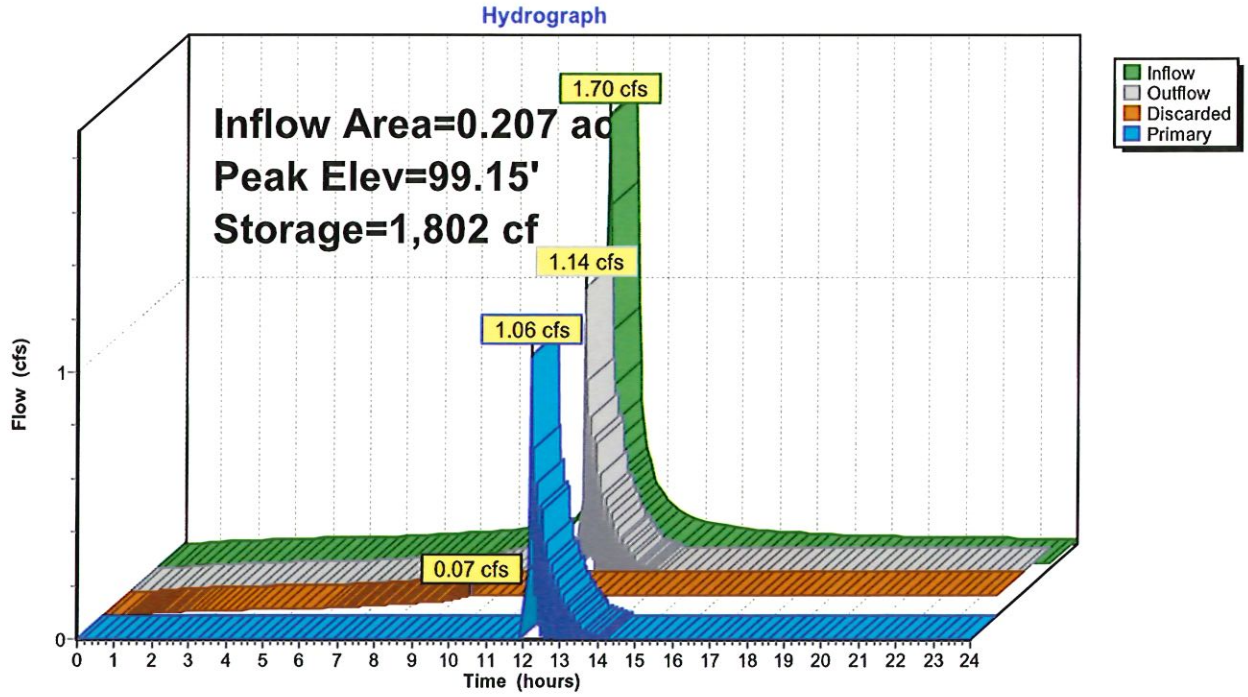
Volume	Invert	Avail.Storage	Storage Description
#1	93.90'	217 cf	**14.00'W x 38.00'L x 4.00'H Stone** 2,128 cf Overall - 1,585 cf Embedded = 543 cf x 40.0% Voids
#2	93.90'	1,585 cf	**12.00'W x 36.00'L x 3.67'H 48" Concrete Galleries** Inside #1
		1,802 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	97.90'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	93.90'	**6.000 in/hr Exfiltration over Horizontal area**

Discarded OutFlow Max=0.07 cfs @ 9.88 hrs HW=93.94' (Free Discharge)
↑**2=Exfiltration** (Exfiltration Controls 0.07 cfs)

Primary OutFlow Max=1.00 cfs @ 12.20 hrs HW=99.03' (Free Discharge)
↑**1=Orifice/Grate** (Orifice Controls 1.00 cfs @ 5.11 fps)

Pond 1P: 48" Concrete Galleries

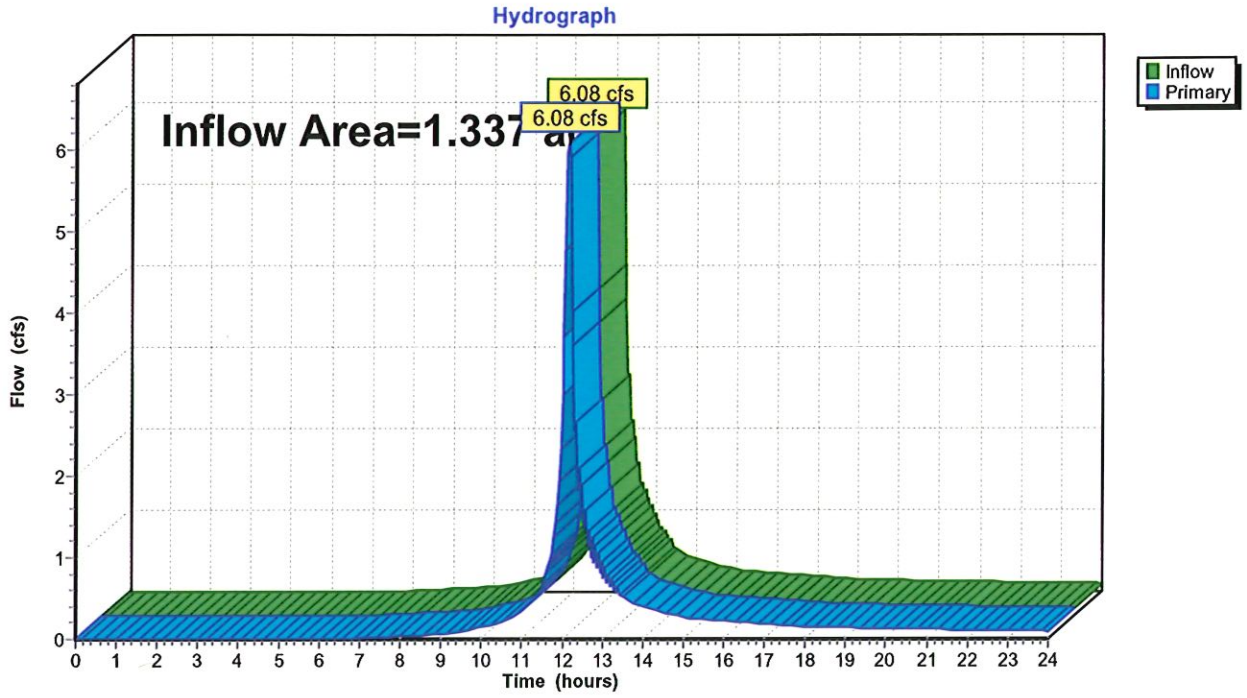


Summary for Link 1L: Combined Hydrograph

Inflow Area = 1.337 ac, 23.62% Impervious, Inflow Depth > 4.41" for 100 Year event
Inflow = 6.08 cfs @ 12.16 hrs, Volume= 0.491 af
Primary = 6.08 cfs @ 12.16 hrs, Volume= 0.491 af, Atten= 0%, Lag= 0.0 min

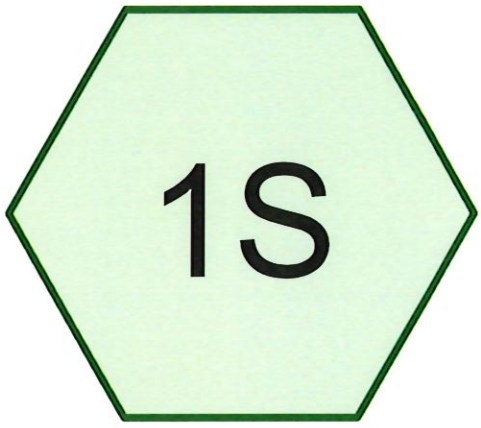
Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs

Link 1L: Combined Hydrograph



APPENDIX "D"

HYDROCAD ANALYSIS
PHASE 2



Existing Conditions

Subcat Reach Pond Link

Routing Diagram for 2578ExistingRev2
Prepared by Fairfield County Engineering LLC, Printed 3/7/2025

Summary for Subcatchment 1S: Existing Conditions

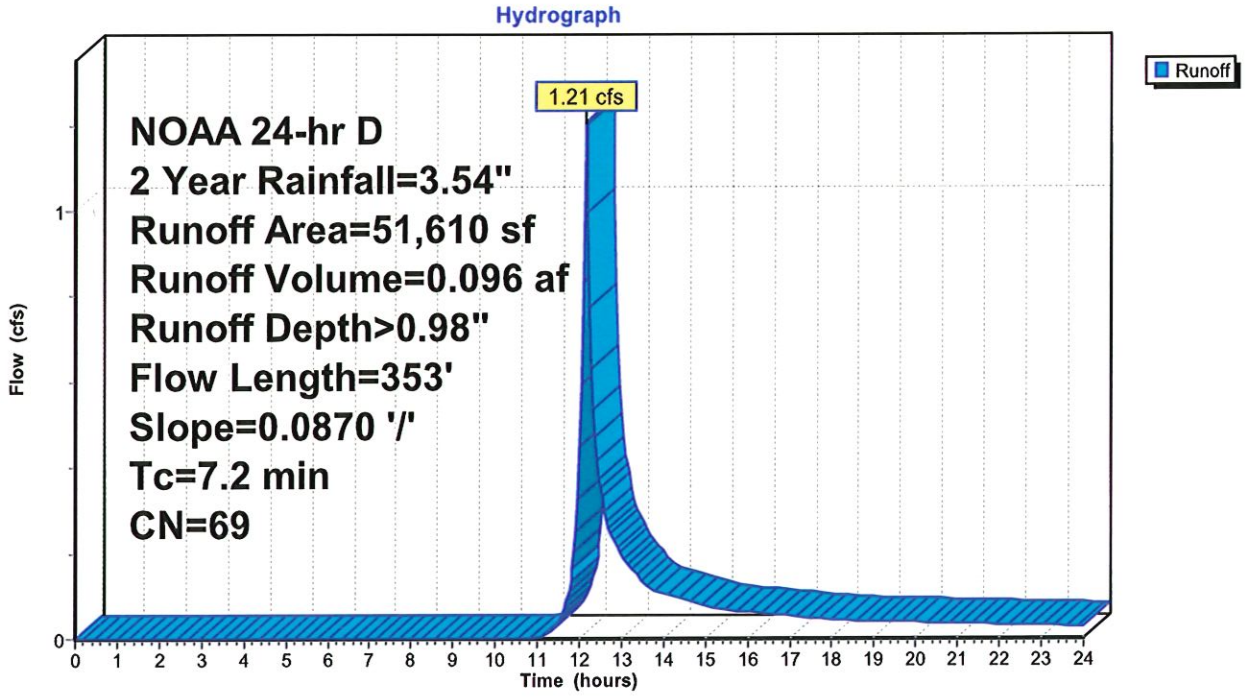
Runoff = 1.21 cfs @ 12.15 hrs, Volume= 0.096 af, Depth> 0.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 2 Year Rainfall=3.54"

Area (sf)	CN	Description
51,610	69	50-75% Grass cover, Fair, HSG B
51,610		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 1S: Existing Conditions



Summary for Subcatchment 1S: Existing Conditions

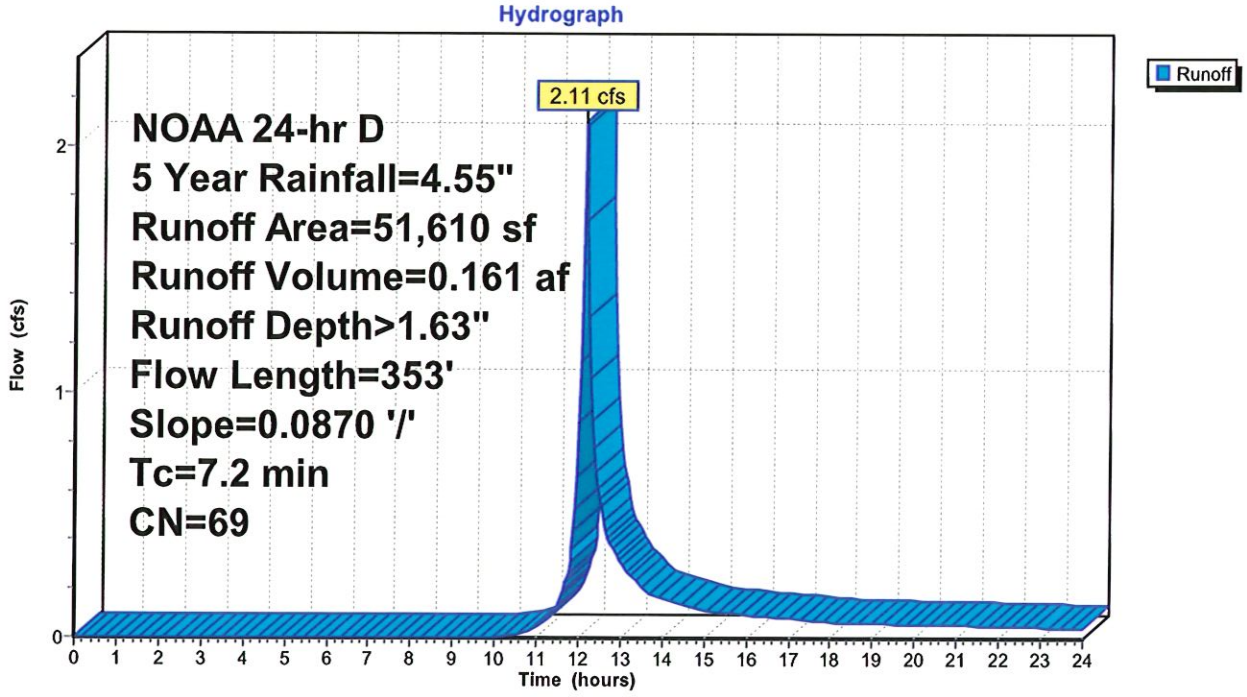
Runoff = 2.11 cfs @ 12.15 hrs, Volume= 0.161 af, Depth> 1.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 5 Year Rainfall=4.55"

Area (sf)	CN	Description
51,610	69	50-75% Grass cover, Fair, HSG B
51,610		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 1S: Existing Conditions



Summary for Subcatchment 1S: Existing Conditions

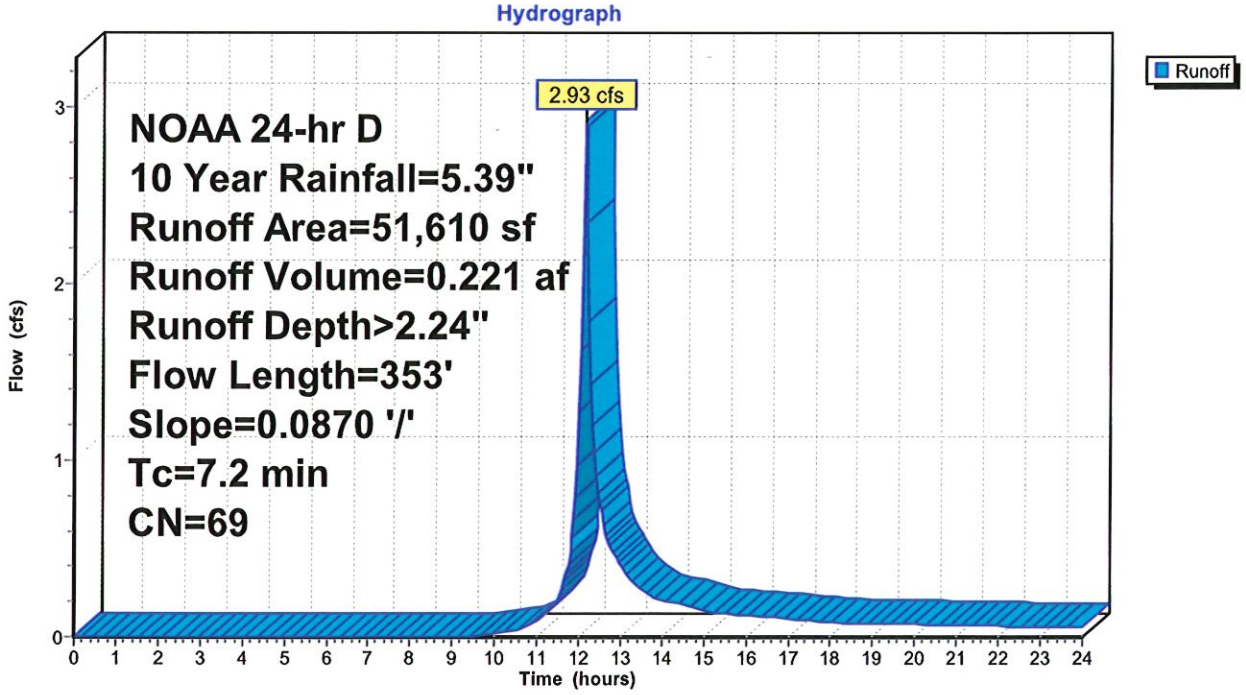
Runoff = 2.93 cfs @ 12.15 hrs, Volume= 0.221 af, Depth> 2.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 10 Year Rainfall=5.39"

Area (sf)	CN	Description
51,610	69	50-75% Grass cover, Fair, HSG B
51,610		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 1S: Existing Conditions



Summary for Subcatchment 1S: Existing Conditions

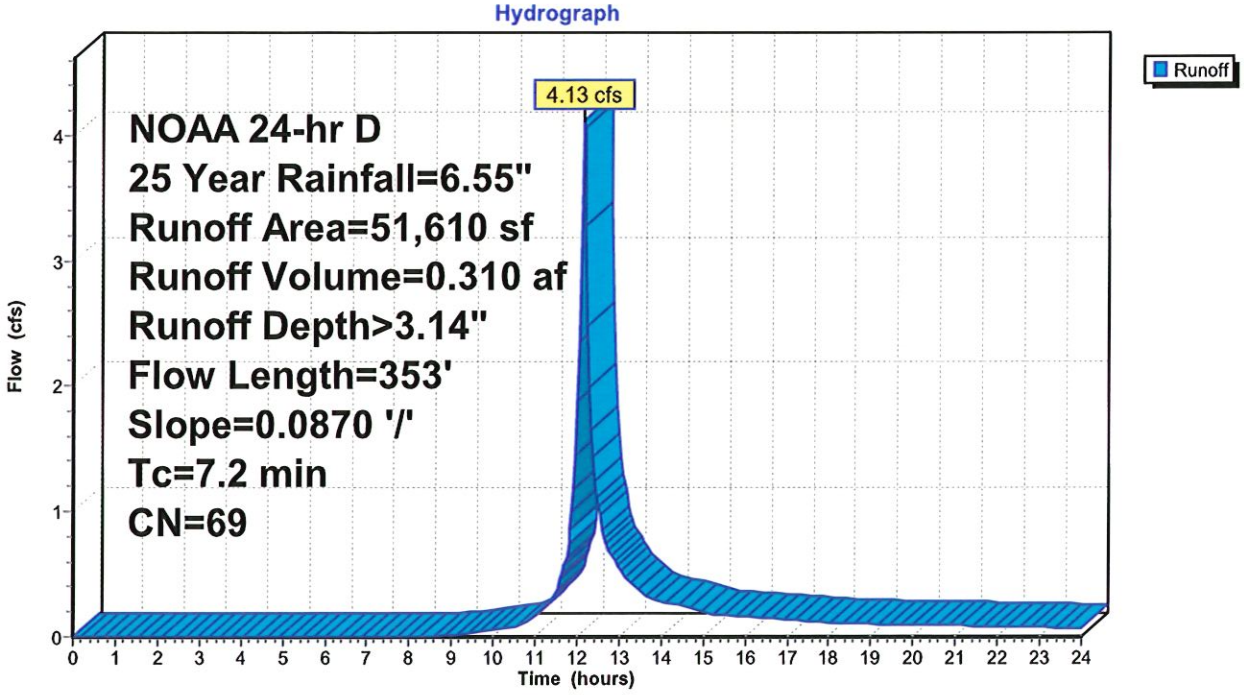
Runoff = 4.13 cfs @ 12.15 hrs, Volume= 0.310 af, Depth> 3.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 25 Year Rainfall=6.55"

Area (sf)	CN	Description
51,610	69	50-75% Grass cover, Fair, HSG B
51,610		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 1S: Existing Conditions



Summary for Subcatchment 1S: Existing Conditions

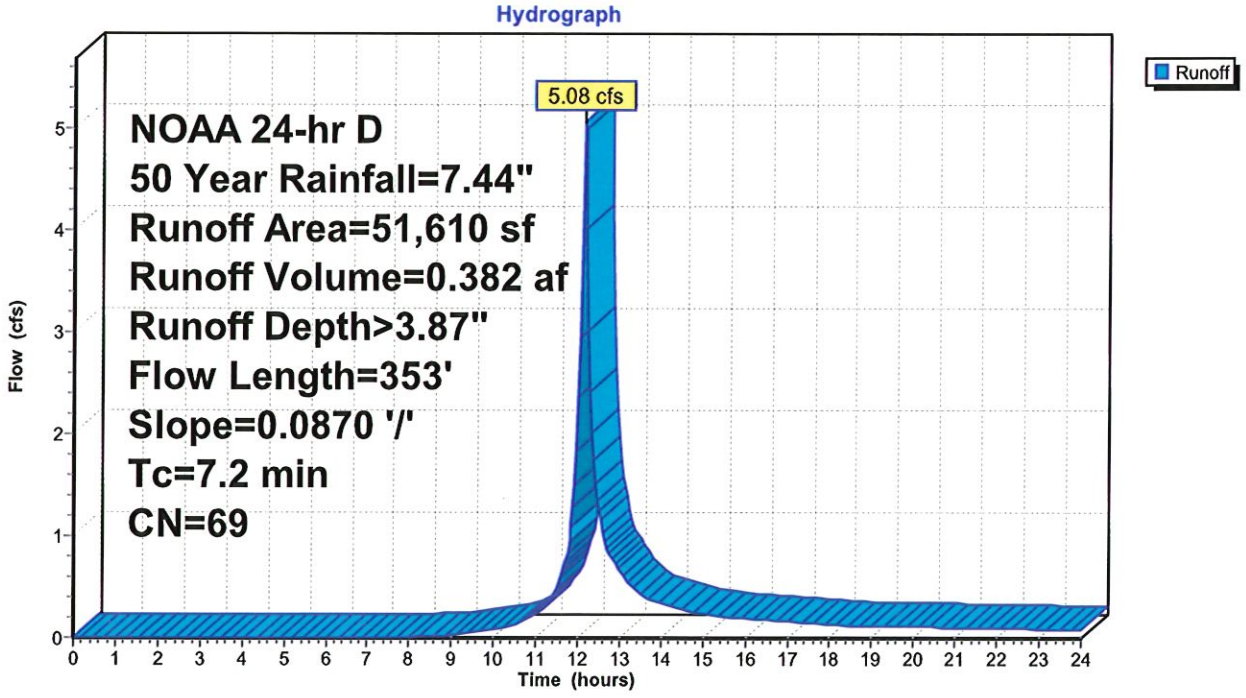
Runoff = 5.08 cfs @ 12.14 hrs, Volume= 0.382 af, Depth> 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 50 Year Rainfall=7.44"

Area (sf)	CN	Description
51,610	69	50-75% Grass cover, Fair, HSG B
51,610		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 1S: Existing Conditions



Summary for Subcatchment 1S: Existing Conditions

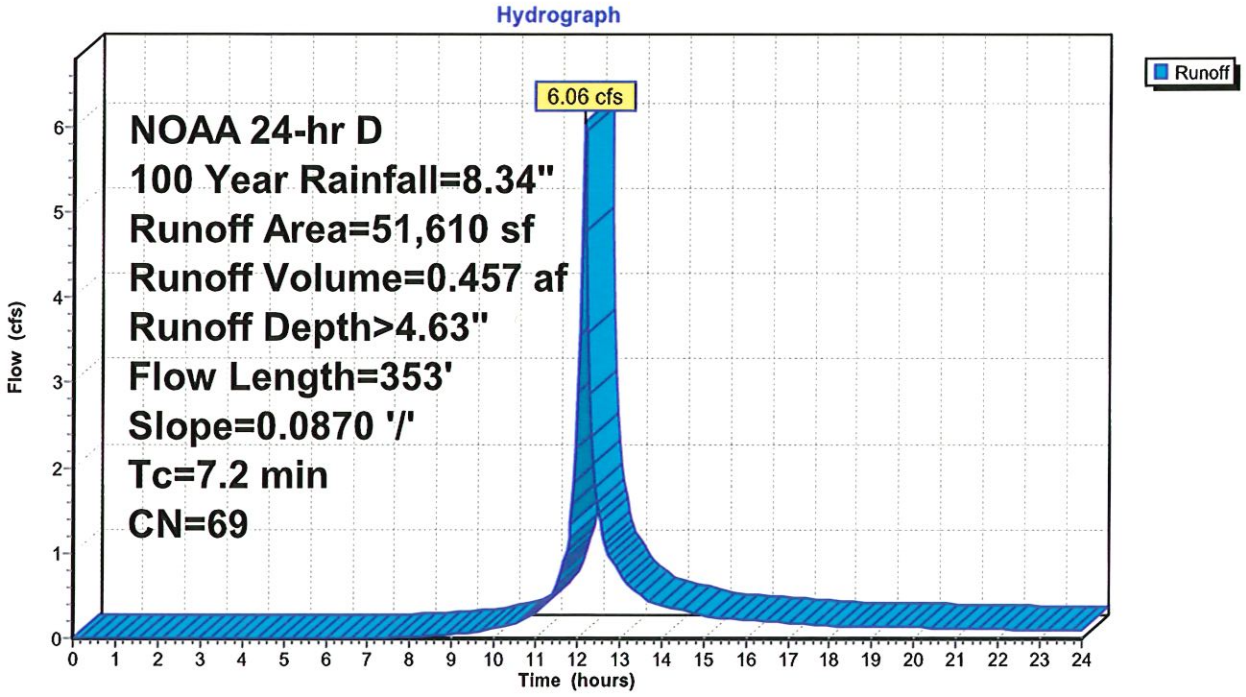
Runoff = 6.06 cfs @ 12.14 hrs, Volume= 0.457 af, Depth> 4.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 100 Year Rainfall=8.34"

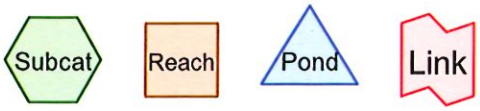
Area (sf)	CN	Description
51,610	69	50-75% Grass cover, Fair, HSG B
51,610		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 1S: Existing Conditions



Proposed Conditions



Summary for Subcatchment 2S: Proposed Conditions

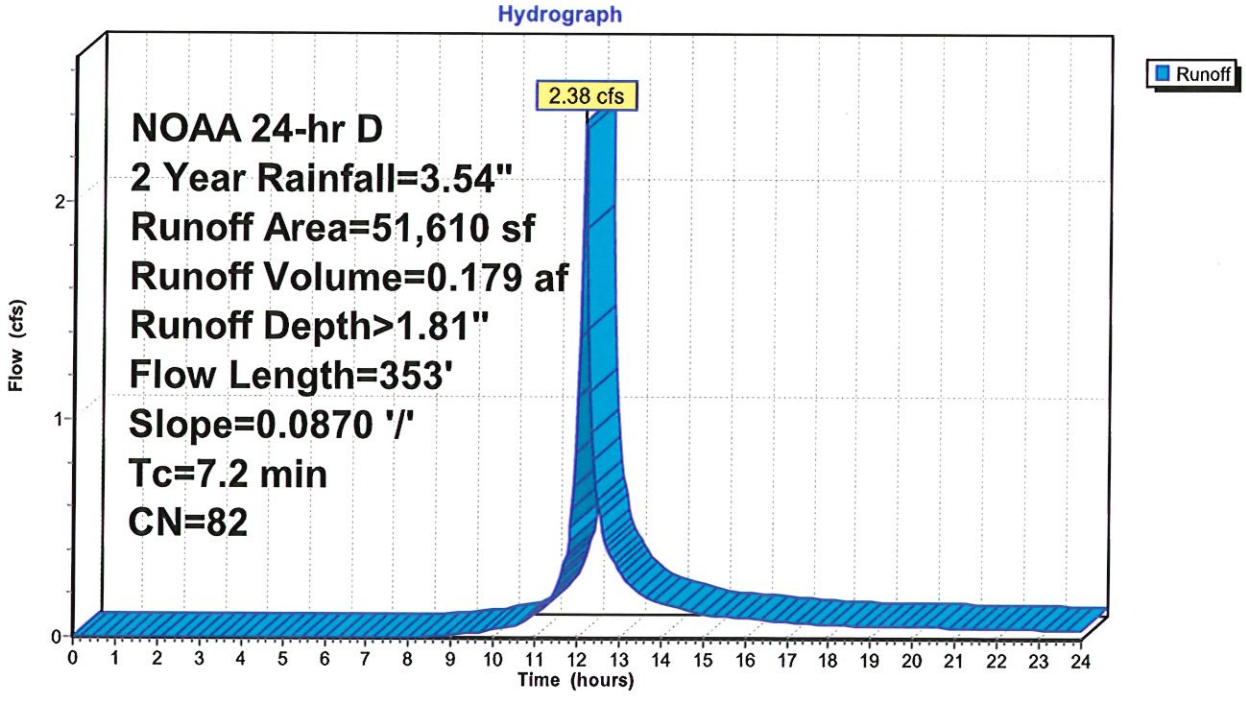
Runoff = 2.38 cfs @ 12.14 hrs, Volume= 0.179 af, Depth> 1.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 2 Year Rainfall=3.54"

	Area (sf)	CN	Description
*	12,169	98	Buildings
*	10,597	98	Driveway/Parking
	28,844	69	50-75% Grass cover, Fair, HSG B
	51,610	82	Weighted Average
	28,844		55.89% Pervious Area
	22,766		44.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 2S: Proposed Conditions



Summary for Subcatchment 2S: Proposed Conditions

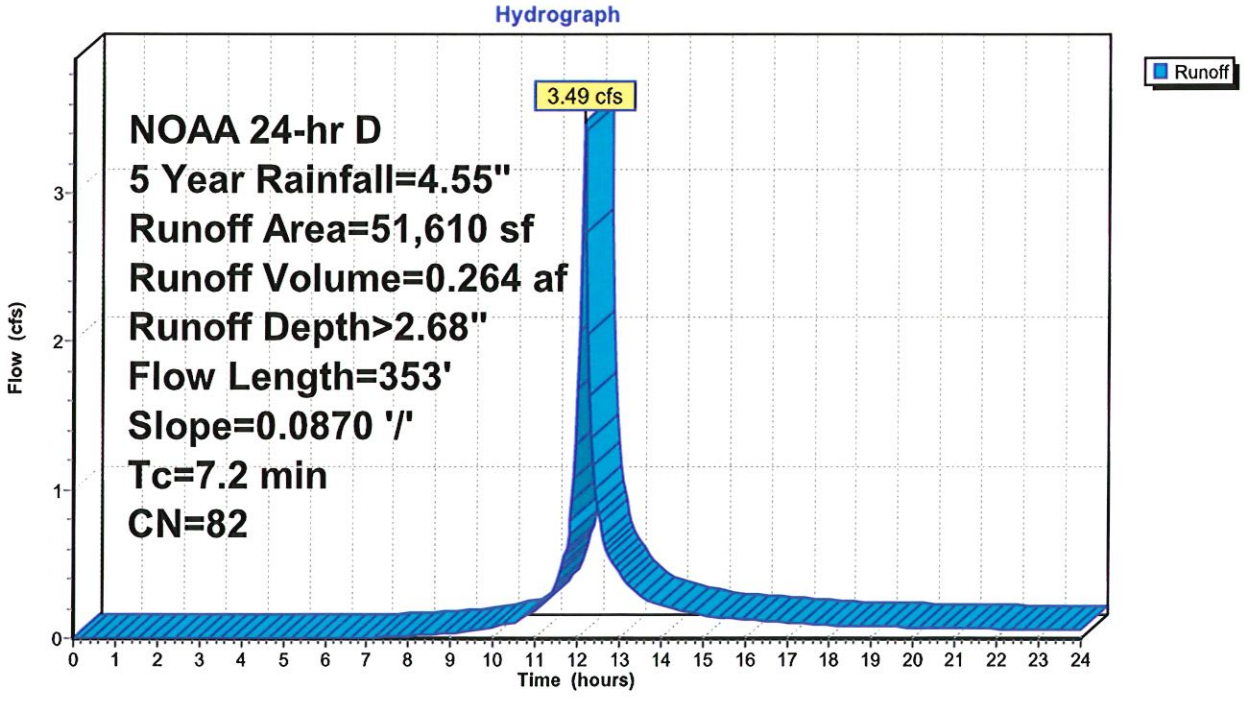
Runoff = 3.49 cfs @ 12.14 hrs, Volume= 0.264 af, Depth> 2.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 5 Year Rainfall=4.55"

	Area (sf)	CN	Description
*	12,169	98	Buildings
*	10,597	98	Driveway/Parking
	28,844	69	50-75% Grass cover, Fair, HSG B
	51,610	82	Weighted Average
	28,844		55.89% Pervious Area
	22,766		44.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 2S: Proposed Conditions



Summary for Subcatchment 2S: Proposed Conditions

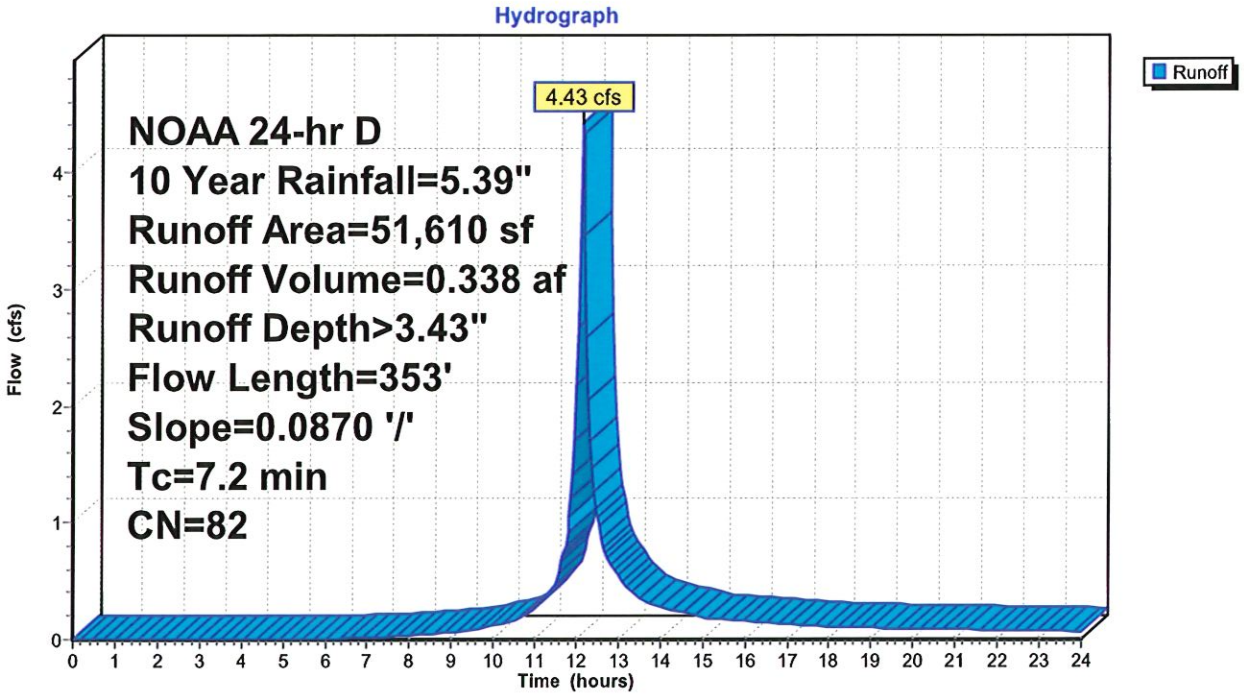
Runoff = 4.43 cfs @ 12.14 hrs, Volume= 0.338 af, Depth> 3.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 10 Year Rainfall=5.39"

	Area (sf)	CN	Description
*	12,169	98	Buildings
*	10,597	98	Driveway/Parking
	28,844	69	50-75% Grass cover, Fair, HSG B
	51,610	82	Weighted Average
	28,844		55.89% Pervious Area
	22,766		44.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 2S: Proposed Conditions



Summary for Subcatchment 2S: Proposed Conditions

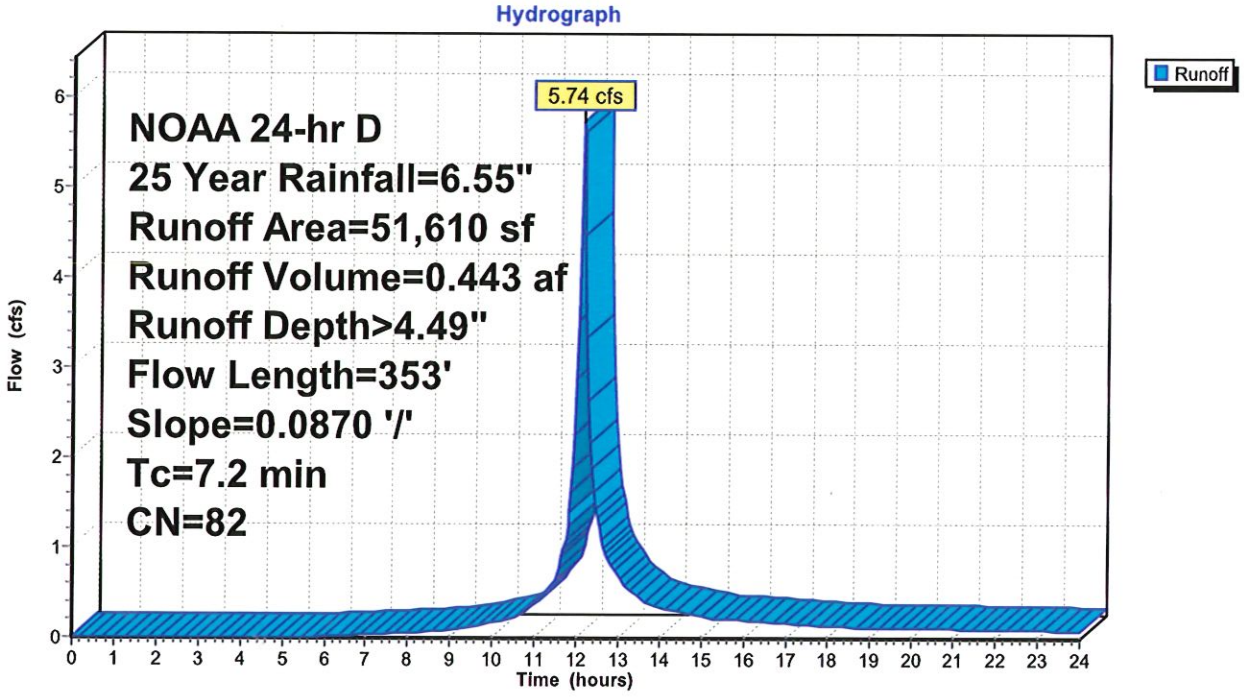
Runoff = 5.74 cfs @ 12.14 hrs, Volume= 0.443 af, Depth> 4.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 25 Year Rainfall=6.55"

	Area (sf)	CN	Description
*	12,169	98	Buildings
*	10,597	98	Driveway/Parking
	28,844	69	50-75% Grass cover, Fair, HSG B
	51,610	82	Weighted Average
	28,844		55.89% Pervious Area
	22,766		44.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 2S: Proposed Conditions



Summary for Subcatchment 2S: Proposed Conditions

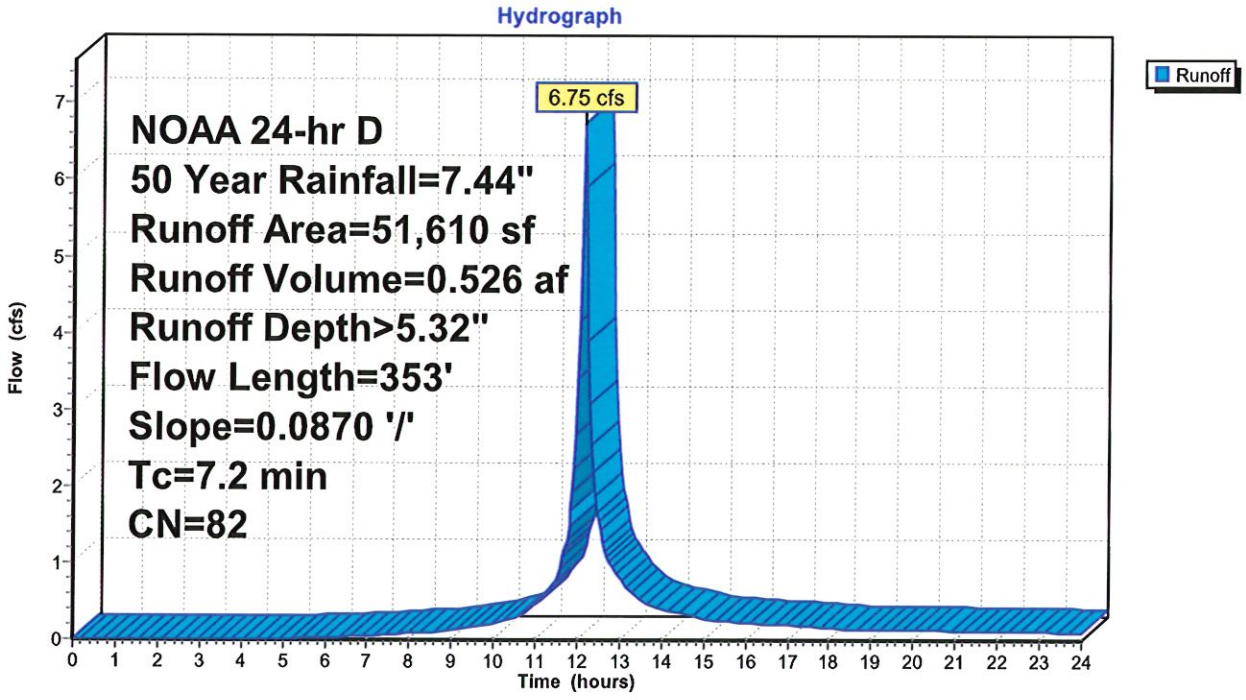
Runoff = 6.75 cfs @ 12.14 hrs, Volume= 0.526 af, Depth> 5.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 50 Year Rainfall=7.44"

	Area (sf)	CN	Description
*	12,169	98	Buildings
*	10,597	98	Driveway/Parking
	28,844	69	50-75% Grass cover, Fair, HSG B
	51,610	82	Weighted Average
	28,844		55.89% Pervious Area
	22,766		44.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 2S: Proposed Conditions



Summary for Subcatchment 2S: Proposed Conditions

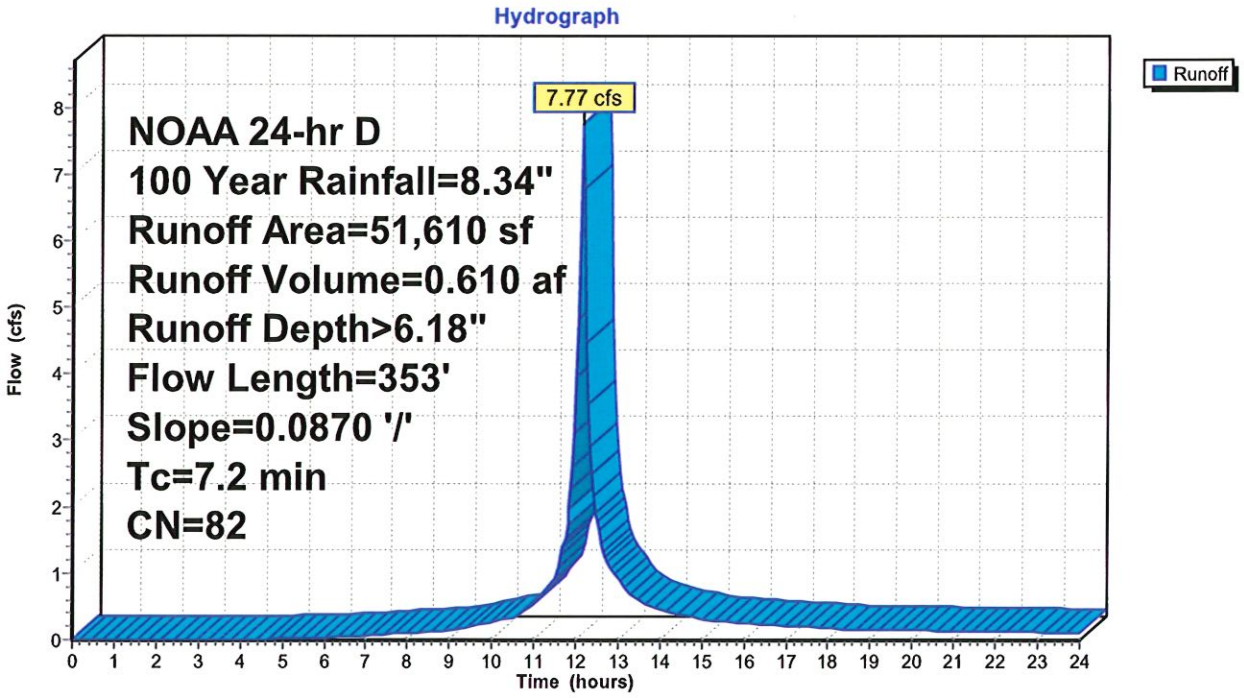
Runoff = 7.77 cfs @ 12.14 hrs, Volume= 0.610 af, Depth> 6.18"

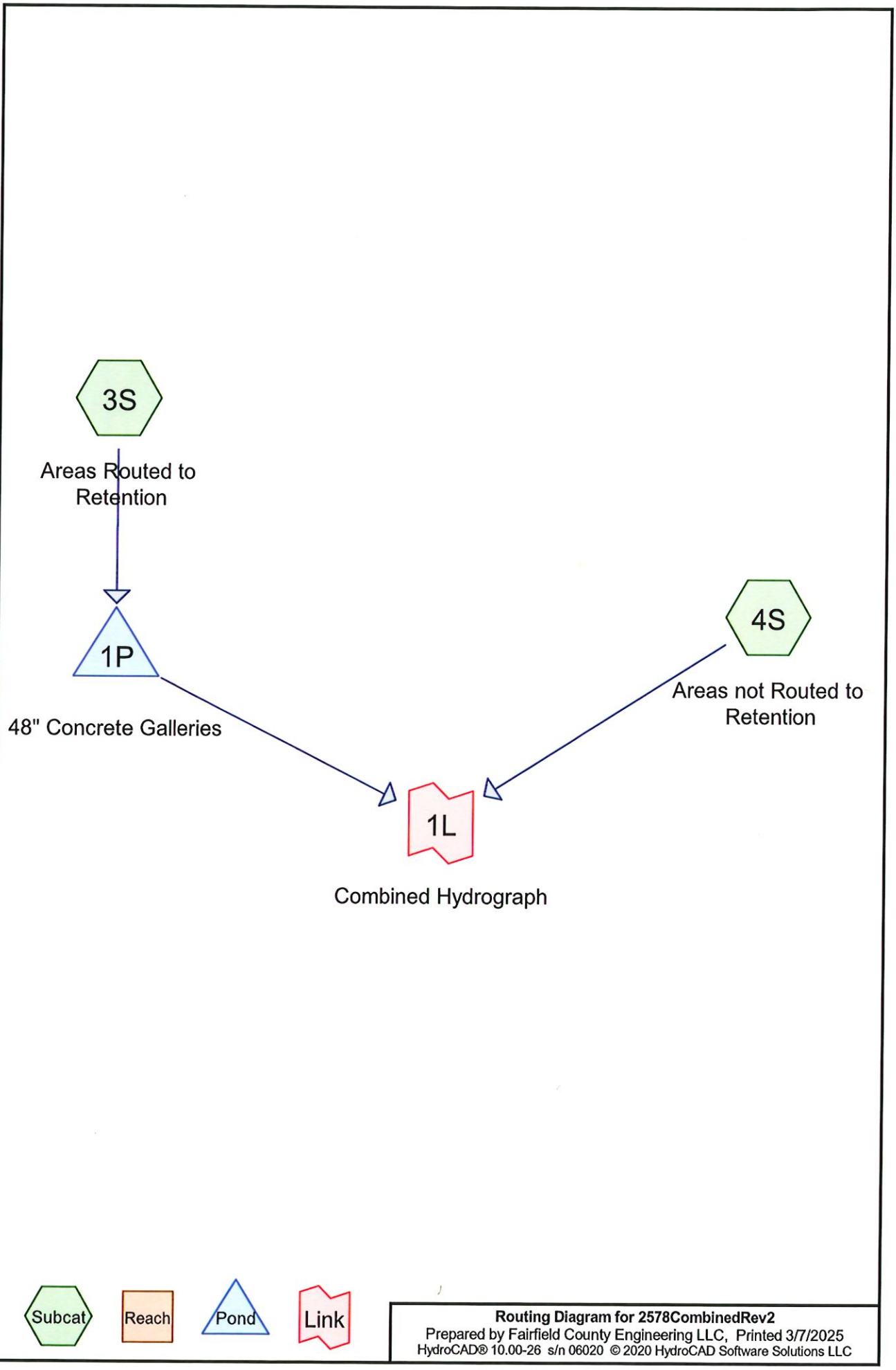
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
NOAA 24-hr D 100 Year Rainfall=8.34"

	Area (sf)	CN	Description
*	12,169	98	Buildings
*	10,597	98	Driveway/Parking
	28,844	69	50-75% Grass cover, Fair, HSG B
	51,610	82	Weighted Average
	28,844		55.89% Pervious Area
	22,766		44.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	100	0.0870	0.32		**Sheet Flow, Sheet Flow** Grass: Short n= 0.150 P2= 3.54"
2.0	253	0.0870	2.06		**Shallow Concentrated Flow, Shallow Concentrated Flow** Short Grass Pasture Kv= 7.0 fps
7.2	353	Total			

Subcatchment 2S: Proposed Conditions





Routing Diagram for 2578CombinedRev2
Prepared by Fairfield County Engineering LLC, Printed 3/7/2025