J. EDWARDS & ASSOCIATES LLC

August 21, 2024

James DiMeo, P.E
Town Engineer
Town of Monroe
7 Fan Hill Road
Monroe, CT 06468

Re: 1536 & 1564 Monroe Turnpike

Dear James,

In response to the recent Inland Wetlands Commission review, we have revised our site layout. This latest layout depicts the road entrance north of the prior plans and results in a decrease in impervious coverage for the site from previous plans. We have reviewed our previous watershed modeling and updated it with the latest proposed basins. The contributing watershed areas, however, have not been updated to reflect the latest layout, but due to the decrease in impervious area, these should provide conservative runoff values. The latest plans depict a basin near the entrance, Detention Basin #3, that was not previously required. Watershed routing has been modified to include this basin and verify peak flow values. Detention Basin #3 has been sized to provide WQV for the upstream areas.

Please find enclosed the HydroCAD report, revised as noted above.

If you have any questions or concerns, please do not hesitate to contact our office.

Very truly yours,
J. Edwards & Associates LLC

Kevin W Fowler

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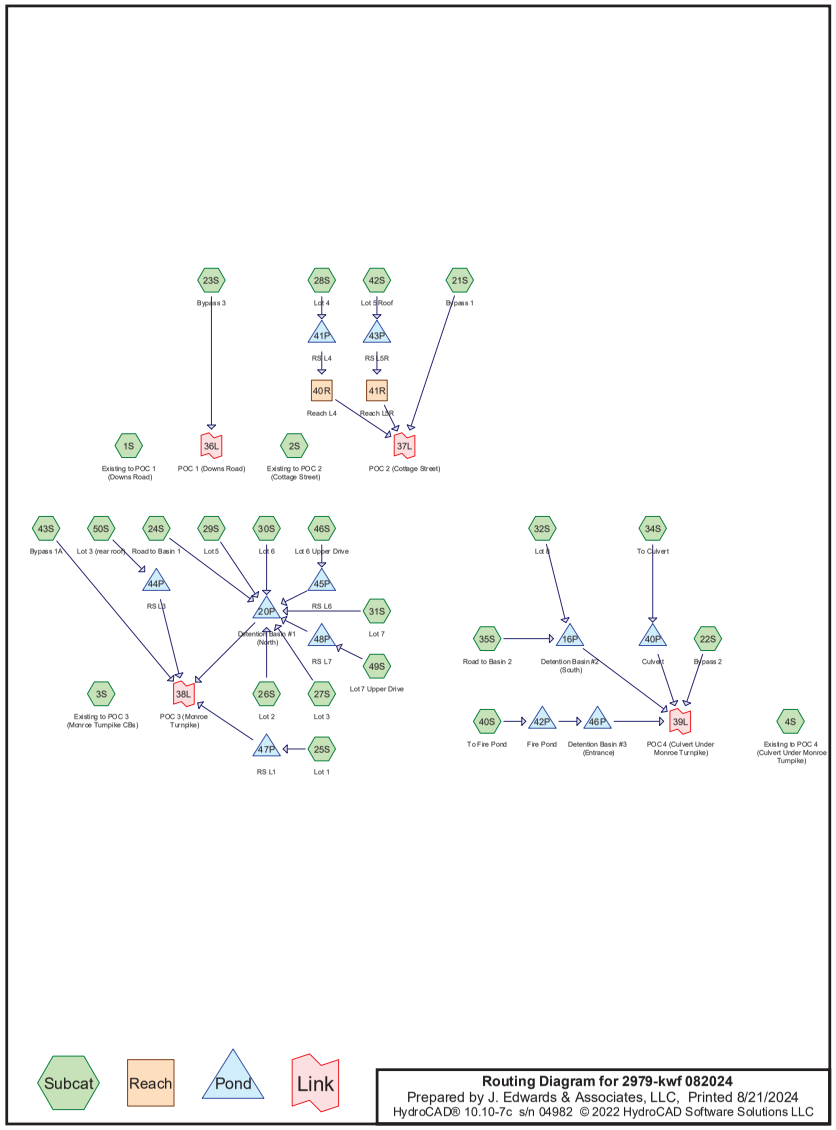
www.jedwardsassoc.com • www.leassoc.com
Engineering • Surveying • Site Planning



Routing Diagram for 2979-kwf 082024
Prepared by J. Edwards & Associates, LLC, Printed 8/21/2024
HydroCAD® 10.10-7c s/n 04982 © 2022 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
5.590	61	>75% Grass cover, Good, HSG B (21S, 22S, 23S, 24S, 25S, 26S, 27S, 28S, 29S, 30S, 31S, 32S, 35S, 43S, 46S, 49S)
0.166	74	>75% Grass cover, Good, HSG C (23S, 34S, 43S)
0.623	80	>75% Grass cover, Good, HSG D (22S, 25S, 29S, 32S, 34S, 35S, 43S)
0.663	98	Paved parking, HSG B (24S, 35S)
0.358	98	Roofs, HSG B (25S, 26S, 27S, 28S, 30S, 31S, 32S, 42S, 50S)
0.630	98	Unconnected pavement, HSG B (25S, 26S, 27S, 28S, 29S, 30S, 31S, 32S, 46S, 49S)
0.906	73	Woods, Fair, HSG C (23S)
19.669	55	Woods, Good, HSG B (1S, 2S, 3S, 4S, 21S, 22S, 23S, 24S, 35S, 40S, 43S)
13.701	70	Woods, Good, HSG C (1S, 4S, 34S, 35S, 40S, 43S)
18.757	77	Woods, Good, HSG D (1S, 4S, 22S, 23S, 34S, 35S, 40S, 43S)

Summary for Subcatchment 1S: Existing to POC 1 (Downs Road)

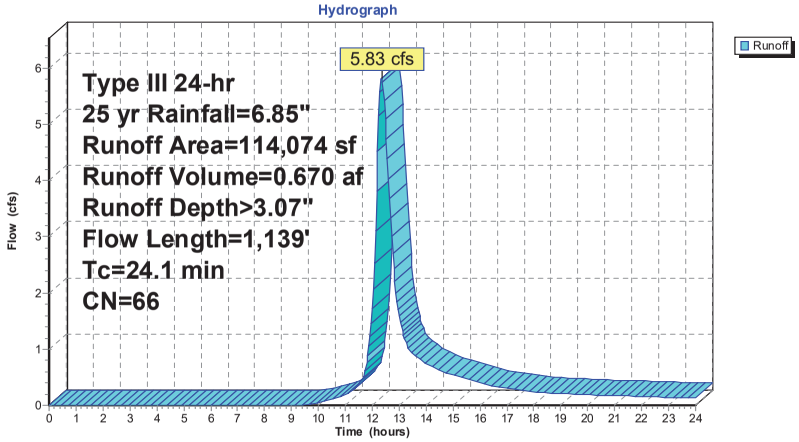
Runoff = 5.83 cfs @ 12.35 hrs, Volume= 0.670 af, Depth> 3.07"
Routed to nonexistent node 18L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
40,140	55	Woods, Good, HSG B
48,562	70	Woods, Good, HSG C
25,372	77	Woods, Good, HSG D
114,074	66	Weighted Average
114,074		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.5	100	0.2200	0.12		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.60"
2.8	400	0.2200	2.35		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
7.8	639	0.0750	1.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
24.1	1,139	Total			

Subcatchment 1S: Existing to POC 1 (Downs Road)



Summary for Subcatchment 2S: Existing to POC 2 (Cottage Street)

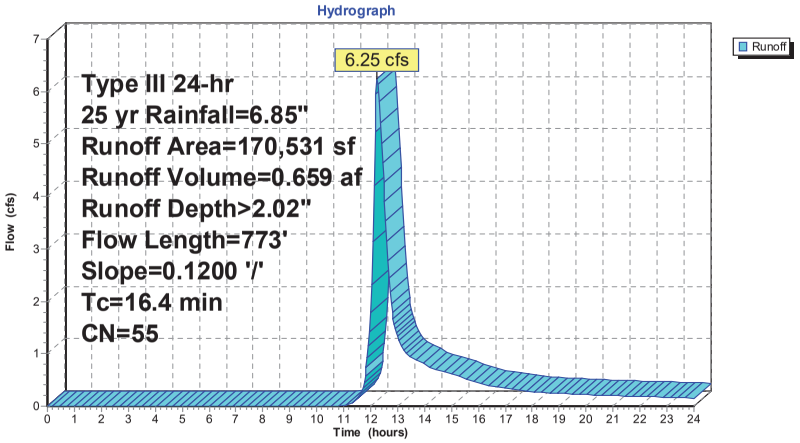
Runoff = 6.25 cfs @ 12.25 hrs, Volume= 0.659 af, Depth> 2.02"
Routed to nonexistent node 18L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
170,531	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
170,531	55	Weighted Average
170,531		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.1200	0.17		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.60"
6.5	673	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
16.4	773	Total			

Subcatchment 2S: Existing to POC 2 (Cottage Street)



Summary for Subcatchment 3S: Existing to POC 3 (Monroe Turnpike CBs)

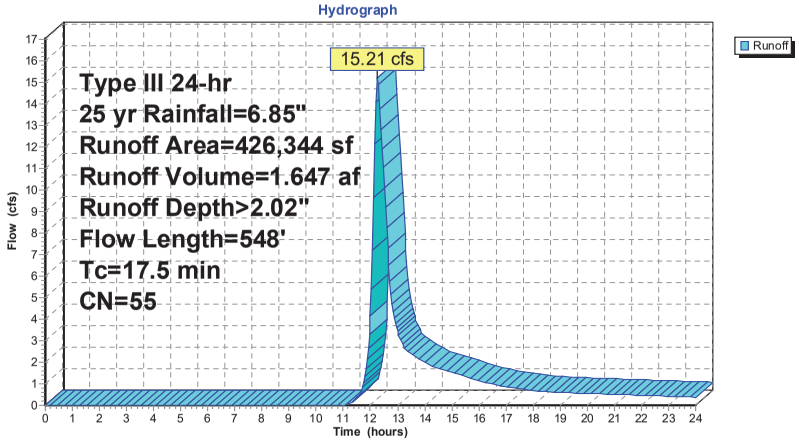
Runoff = 15.21 cfs @ 12.27 hrs, Volume= 1.647 af, Depth> 2.02"
Routed to nonexistent node 18L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
426,344	55	Woods, Good, HSG B
0	70	Woods, Good, HSG C
0	77	Woods, Good, HSG D
426,344	55	Weighted Average
426,344		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	100	0.2100	0.12		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.60"
2.5	349	0.2100	2.29		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.2	99	0.0700	1.32		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.5	548	Total			

Subcatchment 3S: Existing to POC 3 (Monroe Turnpike CBs)



Summary for Subcatchment 4S: Existing to POC 4 (Culvert Under Monroe Turnpike)

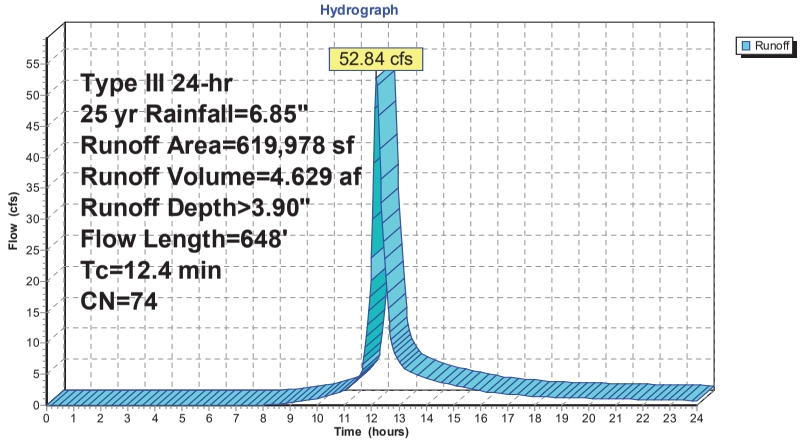
Runoff = 52.84 cfs @ 12.17 hrs, Volume= 4.629 af, Depth> 3.90"
Routed to nonexistent node 18L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
8,094	55	Woods, Good, HSG B
257,742	70	Woods, Good, HSG C
354,142	77	Woods, Good, HSG D
619,978	74	Weighted Average
619,978		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	100	0.2100	0.21		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.60"
3.3	449	0.2100	2.29		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.2	99	0.0700	1.32		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.4	648	Total			

Subcatchment 4S: Existing to POC 4 (Culvert Under Monroe Turnpike)



Summary for Subcatchment 21S: Bypass 1

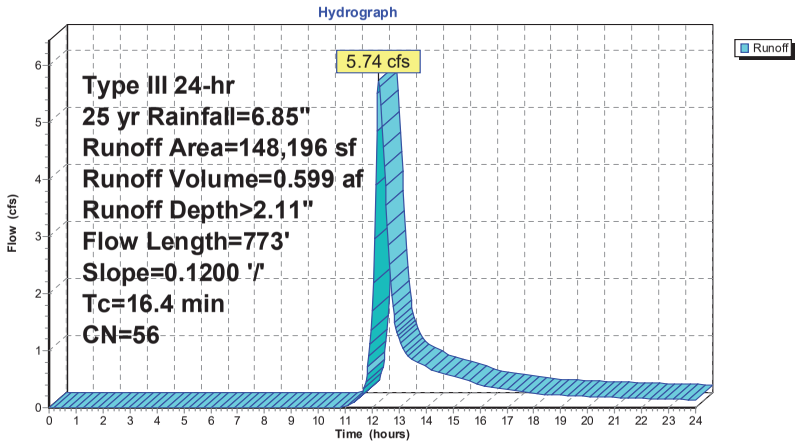
Runoff = 5.74 cfs @ 12.25 hrs, Volume= 0.599 af, Depth> 2.11"
Routed to Link 37L : POC 2 (Cottage Street)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
24,622	61	>75% Grass cover, Good, HSG B
0	74	>75% Grass cover, Good, HSG C
0	80	>75% Grass cover, Good, HSG D
123,574	55	Woods, Good, HSG B
0	70	Woods, Good, HSG C
0	77	Woods, Good, HSG D
148,196	56	Weighted Average
148,196		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.1200	0.17		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.60"
6.5	673	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
16.4	773	Total			

Subcatchment 21S: Bypass 1



Summary for Subcatchment 22S: Bypass 2

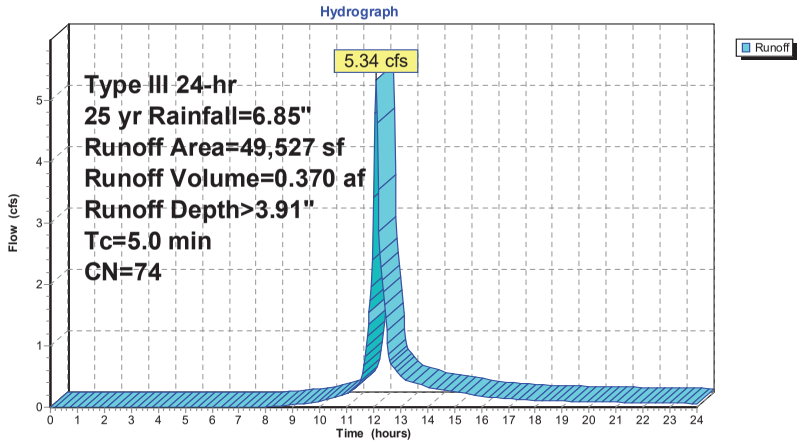
Runoff = 5.34 cfs @ 12.08 hrs, Volume= 0.370 af, Depth> 3.91"
Routed to Link 39L : POC 4 (Culvert Under Monroe Turnpike)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
1,172	61	>75% Grass cover, Good, HSG B
4,836	80	>75% Grass cover, Good, HSG D
7,389	55	Woods, Good, HSG B
36,130	77	Woods, Good, HSG D
49,527	74	Weighted Average
49,527		100.00% Pervious Area

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

Subcatchment 22S: Bypass 2



Summary for Subcatchment 23S: Bypass 3

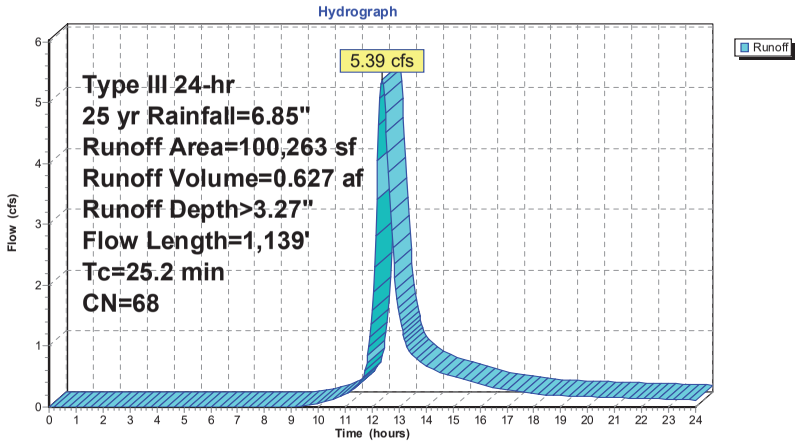
Runoff = 5.39 cfs @ 12.36 hrs, Volume= 0.627 af, Depth> 3.27"
Routed to Link 36L : POC 1 (Downs Road)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
7,961	61	>75% Grass cover, Good, HSG B
3,922	74	>75% Grass cover, Good, HSG C
25,559	55	Woods, Good, HSG B
39,449	73	Woods, Fair, HSG C
23,372	77	Woods, Good, HSG D
100,263	68	Weighted Average
100,263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.1800	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.60"
2.8	400	0.2200	2.35		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
7.8	639	0.0750	1.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
25.2	1,139	Total			

Subcatchment 23S: Bypass 3



Summary for Subcatchment 24S: Road to Basin 1

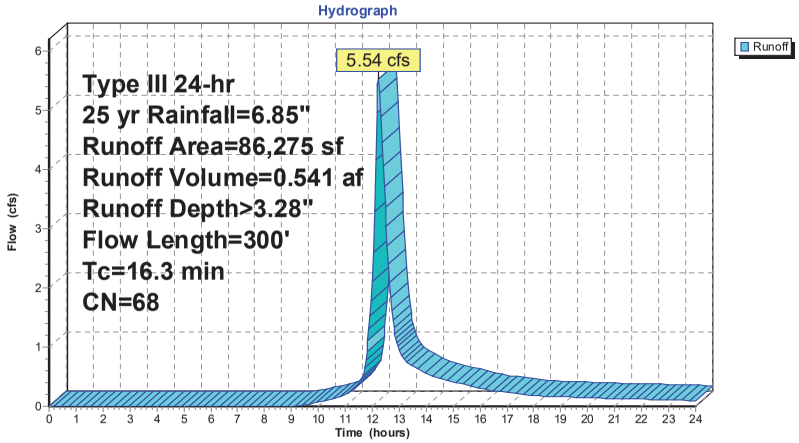
Runoff = 5.54 cfs @ 12.23 hrs, Volume= 0.541 af, Depth> 3.28"
Routed to Pond 20P : Detention Basin #1 (North)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
65,770	61	>75% Grass cover, Good, HSG B
0	80	>75% Grass cover, Good, HSG D
3,336	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
17,169	98	Paved parking, HSG B
86,275	68	Weighted Average
69,106		80.10% Pervious Area
17,169		19.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	25	0.0500	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.60"
7.4	75	0.0500	0.17		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.60"
0.4	108	0.1000	4.74		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.4	92	0.0330	3.69		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
16.3	300	Total			

Subcatchment 24S: Road to Basin 1



Summary for Subcatchment 25S: Lot 1

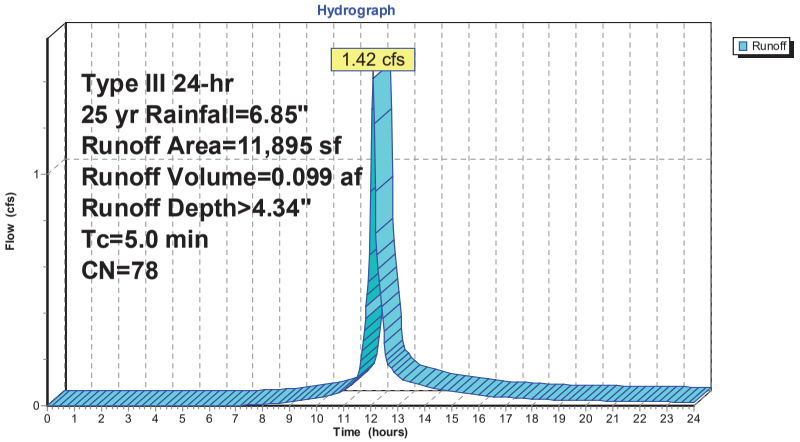
Runoff = 1.42 cfs @ 12.08 hrs, Volume= 0.099 af, Depth> 4.34"
Routed to Pond 47P : RS L1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
5,381	61	>75% Grass cover, Good, HSG B
2,344	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
1,950	98	Roofs, HSG B
2,220	98	Unconnected pavement, HSG B
11,895	78	Weighted Average
7,725		64.94% Pervious Area
4,170		35.06% Impervious Area
2,220		53.24% Unconnected

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

Subcatchment 25S: Lot 1



Summary for Subcatchment 26S: Lot 2

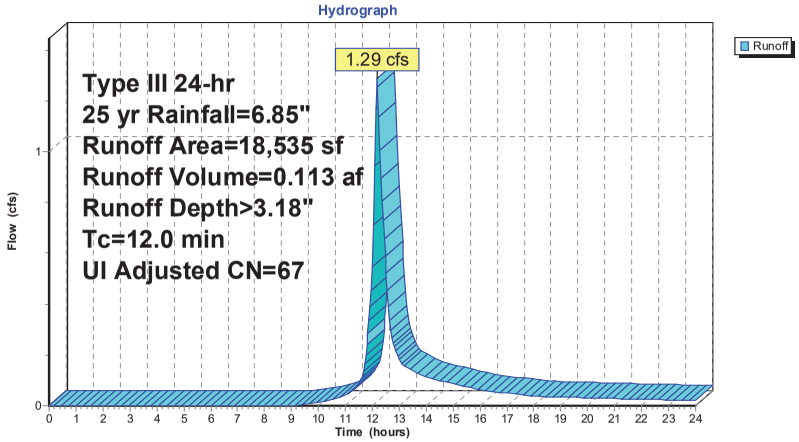
Runoff = 1.29 cfs @ 12.17 hrs, Volume= 0.113 af, Depth> 3.18"
Routed to Pond 20P : Detention Basin #1 (North)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Adj	Description
14,089	61		>75% Grass cover, Good, HSG B
0	80		>75% Grass cover, Good, HSG D
0	55		Woods, Good, HSG B
0	77		Woods, Good, HSG D
1,950	98		Roofs, HSG B
2,496	98		Unconnected pavement, HSG B
18,535	70	67	Weighted Average, UI Adjusted
14,089			76.01% Pervious Area
4,446			23.99% Impervious Area
2,496			56.14% Unconnected

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

Subcatchment 26S: Lot 2



Summary for Subcatchment 27S: Lot 3

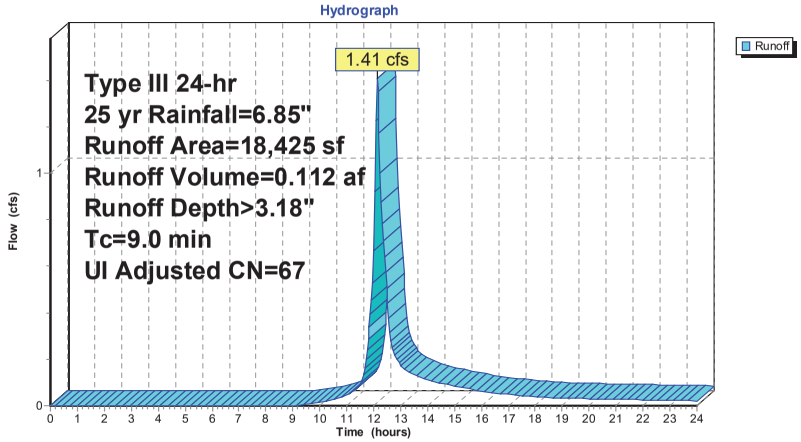
Runoff = 1.41 cfs @ 12.13 hrs, Volume= 0.112 af, Depth> 3.18"
Routed to Pond 20P : Detention Basin #1 (North)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Adj	Description
13,066	61		>75% Grass cover, Good, HSG B
0	80		>75% Grass cover, Good, HSG D
0	55		Woods, Good, HSG B
0	77		Woods, Good, HSG D
975	98		Roofs, HSG B
4,384	98		Unconnected pavement, HSG B
18,425	72	67	Weighted Average, UI Adjusted
13,066			70.91% Pervious Area
5,359			29.09% Impervious Area
4,384			81.81% Unconnected

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

Subcatchment 27S: Lot 3



Summary for Subcatchment 28S: Lot 4

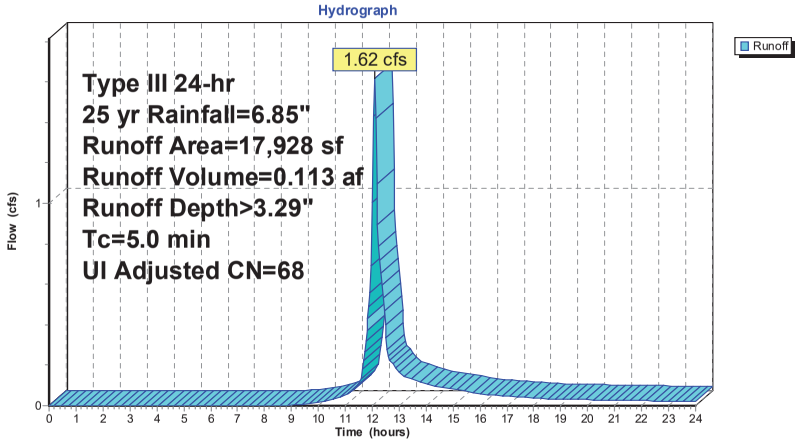
Runoff = 1.62 cfs @ 12.08 hrs, Volume= 0.113 af, Depth> 3.29"
Routed to Pond 41P : RS L4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Adj	Description
12,790	61		>75% Grass cover, Good, HSG B
0	80		>75% Grass cover, Good, HSG D
0	55		Woods, Good, HSG B
0	77		Woods, Good, HSG D
1,950	98		Roofs, HSG B
3,188	98		Unconnected pavement, HSG B
17,928	72	68	Weighted Average, UI Adjusted
12,790			71.34% Pervious Area
5,138			28.66% Impervious Area
3,188			62.05% Unconnected

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

Subcatchment 28S: Lot 4



Summary for Subcatchment 29S: Lot 5

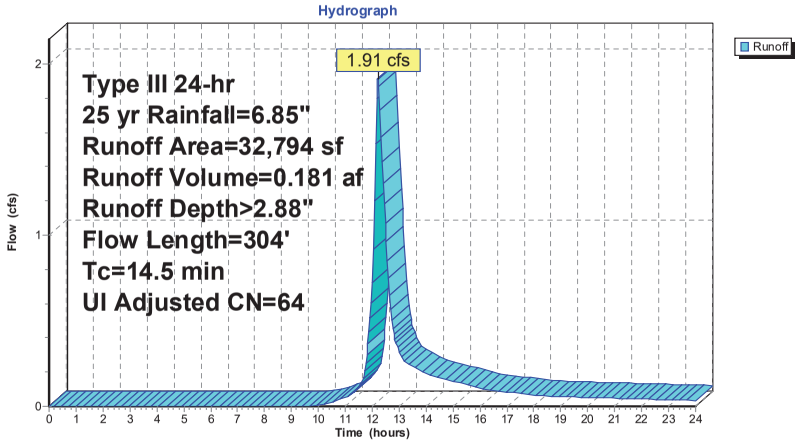
Runoff = 1.91 cfs @ 12.21 hrs, Volume= 0.181 af, Depth> 2.88"
Routed to Pond 20P : Detention Basin #1 (North)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Adj	Description
26,889	61		>75% Grass cover, Good, HSG B
1,736	80		>75% Grass cover, Good, HSG D
0	55		Woods, Good, HSG B
0	77		Woods, Good, HSG D
0	98		Roofs, HSG B
4,169	98		Unconnected pavement, HSG B
32,794	67	64	Weighted Average, UI Adjusted
28,625			87.29% Pervious Area
4,169			12.71% Impervious Area
4,169			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	20	0.0600	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.60"
7.3	80	0.0600	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.60"
0.4	119	0.1000	4.74		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.5	85	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
14.5	304	Total			

Subcatchment 29S: Lot 5



Summary for Subcatchment 30S: Lot 6

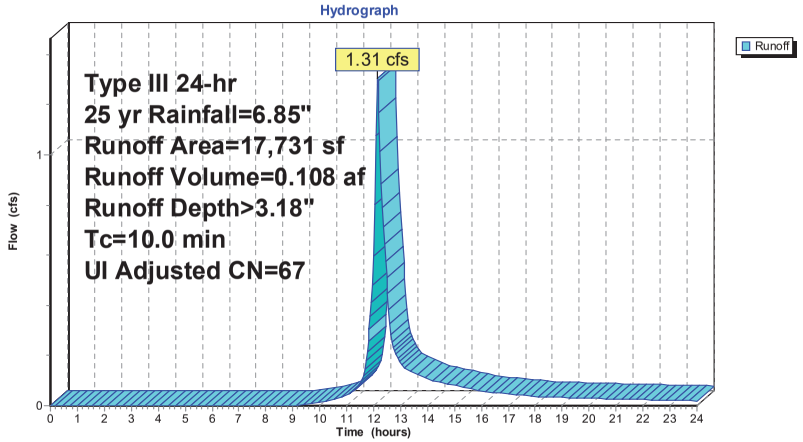
Runoff = 1.31 cfs @ 12.15 hrs, Volume= 0.108 af, Depth> 3.18"
Routed to Pond 20P : Detention Basin #1 (North)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Adj	Description
14,270	61		>75% Grass cover, Good, HSG B
0	80		>75% Grass cover, Good, HSG D
0	55		Woods, Good, HSG B
0	77		Woods, Good, HSG D
1,950	98		Roofs, HSG B
1,511	98		Unconnected pavement, HSG B
17,731	68	67	Weighted Average, UI Adjusted
14,270			80.48% Pervious Area
3,461			19.52% Impervious Area
1,511			43.66% Unconnected

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

Subcatchment 30S: Lot 6



Summary for Subcatchment 31S: Lot 7

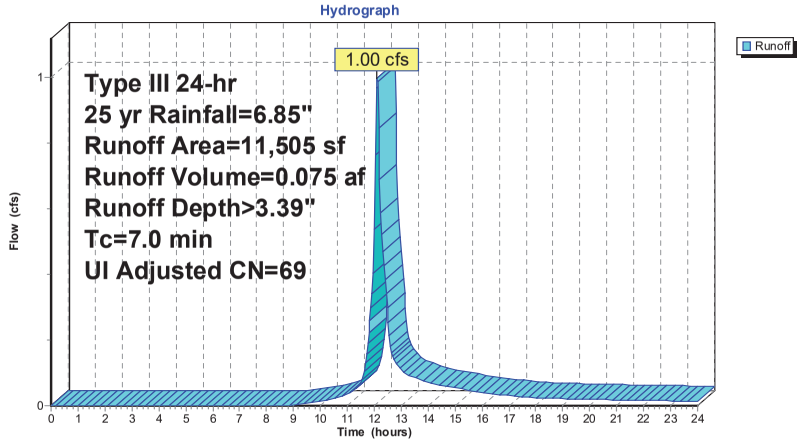
Runoff = 1.00 cfs @ 12.11 hrs, Volume= 0.075 af, Depth> 3.39"
Routed to Pond 20P : Detention Basin #1 (North)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Adj	Description
8,215	61		>75% Grass cover, Good, HSG B
0	80		>75% Grass cover, Good, HSG D
0	55		Woods, Good, HSG B
0	77		Woods, Good, HSG D
1,950	98		Roofs, HSG B
1,340	98		Unconnected pavement, HSG B
11,505	72	69	Weighted Average, UI Adjusted
8,215			71.40% Pervious Area
3,290			28.60% Impervious Area
1,340			40.73% Unconnected

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

Subcatchment 31S: Lot 7



Summary for Subcatchment 32S: Lot 8

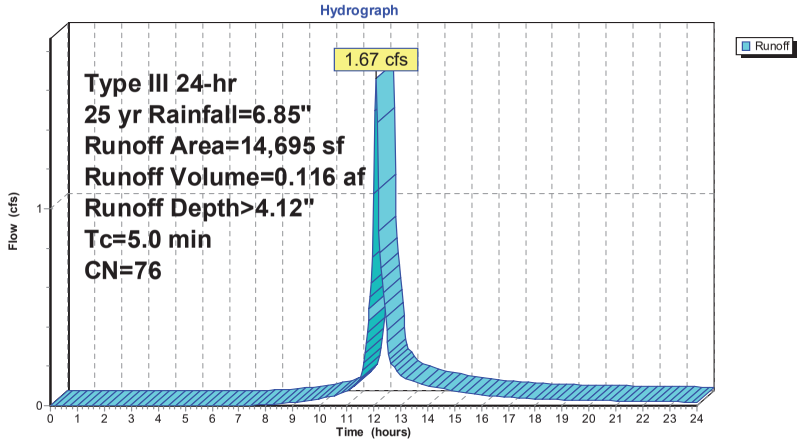
Runoff = 1.67 cfs @ 12.08 hrs, Volume= 0.116 af, Depth> 4.12"
Routed to Pond 16P : Detention Basin #2 (South)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
8,199	61	>75% Grass cover, Good, HSG B
1,369	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
1,950	98	Roofs, HSG B
3,177	98	Unconnected pavement, HSG B
14,695	76	Weighted Average
9,568		65.11% Pervious Area
5,127		34.89% Impervious Area
3,177		61.97% Unconnected

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

Subcatchment 32S: Lot 8



Summary for Subcatchment 34S: To Culvert

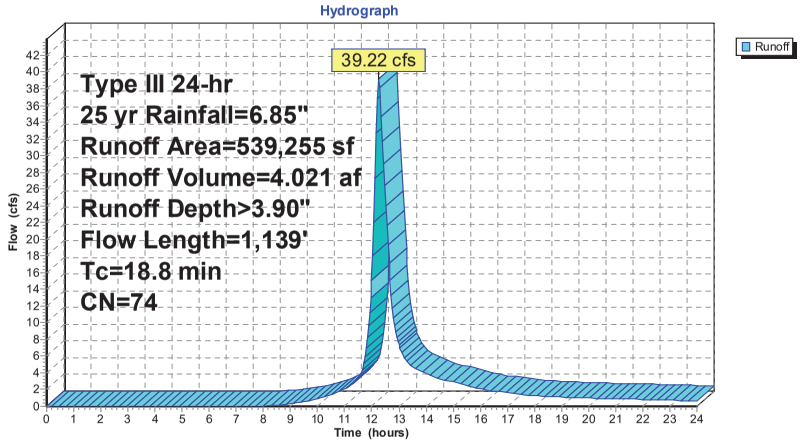
Runoff = 39.22 cfs @ 12.26 hrs, Volume= 4.021 af, Depth> 3.90"
Routed to Pond 40P : Culvert

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
0	61	>75% Grass cover, Good, HSG B
2,300	74	>75% Grass cover, Good, HSG C
11,231	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
234,744	70	Woods, Good, HSG C
290,980	77	Woods, Good, HSG D
0	98	Roofs, HSG B
0	98	Unconnected pavement, HSG B
539,255	74	Weighted Average
539,255		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.5	100	0.2200	0.12		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.60"
2.8	400	0.2200	2.35		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.5	639	0.7500	4.33		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
18.8	1,139	Total			

Subcatchment 34S: To Culvert



Summary for Subcatchment 35S: Road to Basin 2

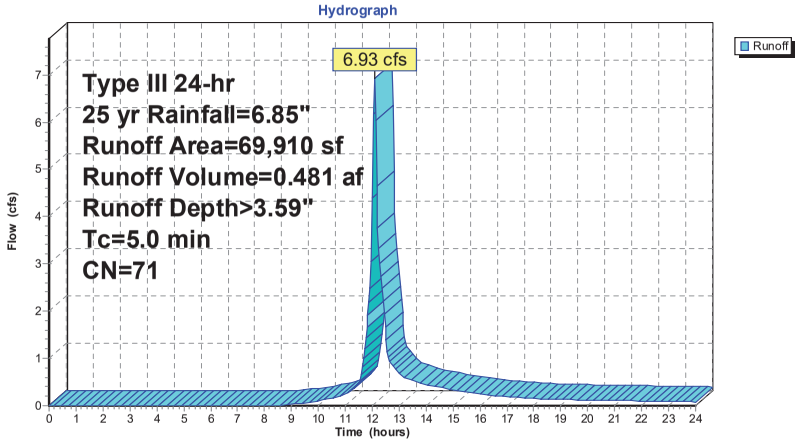
Runoff = 6.93 cfs @ 12.08 hrs, Volume= 0.481 af, Depth> 3.59"
Routed to Pond 16P : Detention Basin #2 (South)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
15,061	61	>75% Grass cover, Good, HSG B
0	74	>75% Grass cover, Good, HSG C
4,058	80	>75% Grass cover, Good, HSG D
15,055	55	Woods, Good, HSG B
11,839	70	Woods, Good, HSG C
12,167	77	Woods, Good, HSG D
11,730	98	Paved parking, HSG B
69,910	71	Weighted Average
58,180		83.22% Pervious Area
11,730		16.78% Impervious Area

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

Subcatchment 35S: Road to Basin 2



Summary for Subcatchment 40S: To Fire Pond

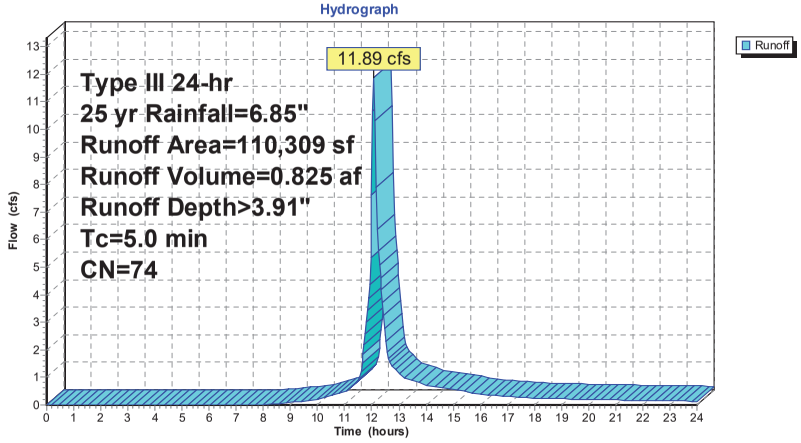
Runoff = 11.89 cfs @ 12.08 hrs, Volume= 0.825 af, Depth> 3.91"
Routed to Pond 42P : Fire Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
0	61	>75% Grass cover, Good, HSG B
0	80	>75% Grass cover, Good, HSG D
1,617	55	Woods, Good, HSG B
40,460	70	Woods, Good, HSG C
68,232	77	Woods, Good, HSG D
0	98	Paved parking, HSG B
110,309	74	Weighted Average
110,309		100.00% Pervious Area

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

Subcatchment 40S: To Fire Pond



Summary for Subcatchment 42S: Lot 5 Roof

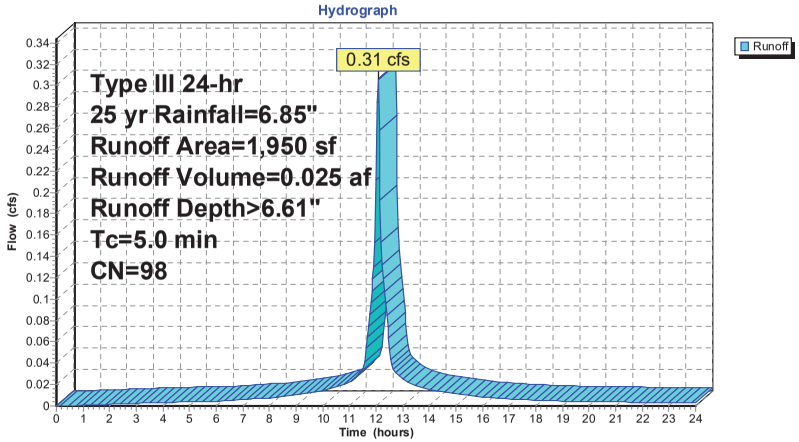
Runoff = 0.31 cfs @ 12.07 hrs, Volume= 0.025 af, Depth> 6.61"
Routed to Pond 43P : RS L5R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
0	61	>75% Grass cover, Good, HSG B
0	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
1,950	98	Roofs, HSG B
0	98	Unconnected pavement, HSG B
1,950	98	Weighted Average
1,950		100.00% Impervious Area

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

Subcatchment 42S: Lot 5 Roof



Summary for Subcatchment 43S: Bypass 1A

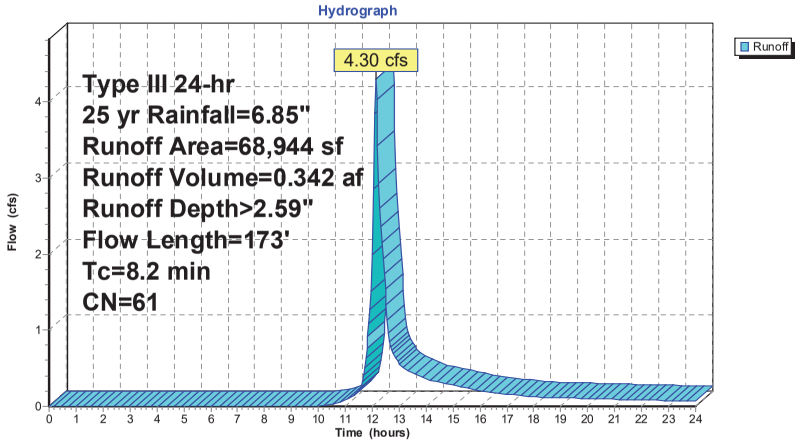
Runoff = 4.30 cfs @ 12.12 hrs, Volume= 0.342 af, Depth> 2.59"
Routed to Link 38L : POC 3 (Monroe Turnpike)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
21,102	61	>75% Grass cover, Good, HSG B
1,000	74	>75% Grass cover, Good, HSG C
1,548	80	>75% Grass cover, Good, HSG D
35,144	55	Woods, Good, HSG B
3,480	70	Woods, Good, HSG C
6,670	77	Woods, Good, HSG D
68,944	61	Weighted Average
68,944		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	50	0.2100	0.28		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.60"
4.5	50	0.2100	0.18		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.60"
0.7	73	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.2	173	Total			

Subcatchment 43S: Bypass 1A



Summary for Subcatchment 46S: Lot 6 Upper Drive

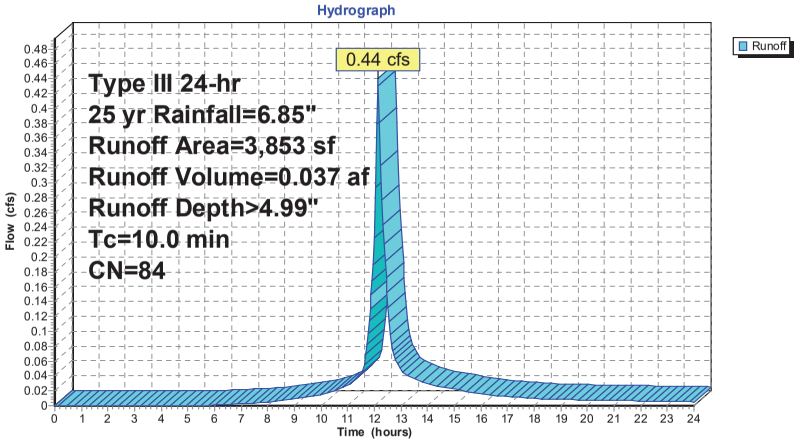
Runoff = 0.44 cfs @ 12.14 hrs, Volume= 0.037 af, Depth> 4.99"
Routed to Pond 45P : RS L6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
1,494	61	>75% Grass cover, Good, HSG B
0	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
0	98	Roofs, HSG B
2,359	98	Unconnected pavement, HSG B
3,853	84	Weighted Average
1,494		38.77% Pervious Area
2,359		61.23% Impervious Area
2,359		100.00% Unconnected

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

Subcatchment 46S: Lot 6 Upper Drive



Summary for Subcatchment 49S: Lot 7 Upper Drive

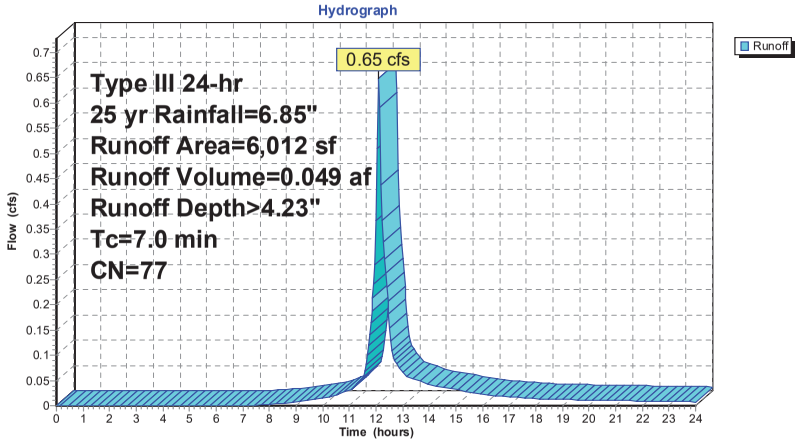
Runoff = 0.65 cfs @ 12.10 hrs, Volume= 0.049 af, Depth> 4.23"
Routed to Pond 48P : RS L7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
3,432	61	>75% Grass cover, Good, HSG B
0	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
0	98	Roofs, HSG B
2,580	98	Unconnected pavement, HSG B
6,012	77	Weighted Average
3,432		57.09% Pervious Area
2,580		42.91% Impervious Area
2,580		100.00% Unconnected

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

Subcatchment 49S: Lot 7 Upper Drive



Summary for Subcatchment 50S: Lot 3 (rear roof)

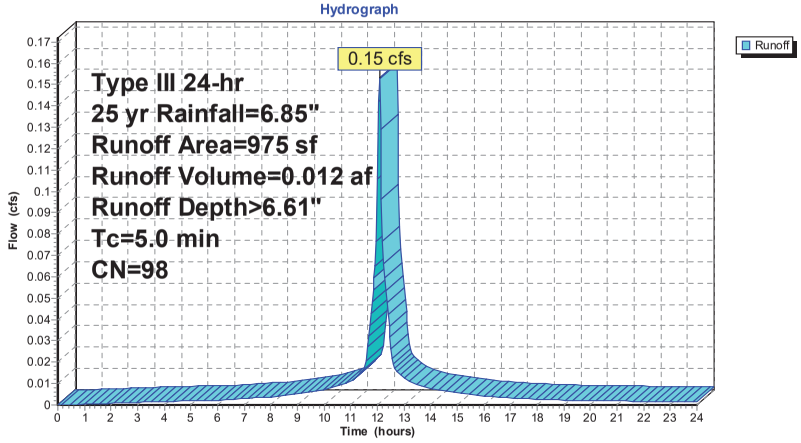
Runoff = 0.15 cfs @ 12.07 hrs, Volume= 0.012 af, Depth> 6.61"
Routed to Pond 44P : RS L3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 25 yr Rainfall=6.85"

Area (sf)	CN	Description
0	61	>75% Grass cover, Good, HSG B
0	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
975	98	Roofs, HSG B
0	98	Unconnected pavement, HSG B
975	98	Weighted Average
975		100.00% Impervious Area

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

Subcatchment 50S: Lot 3 (rear roof)



Summary for Reach 40R: Reach L4

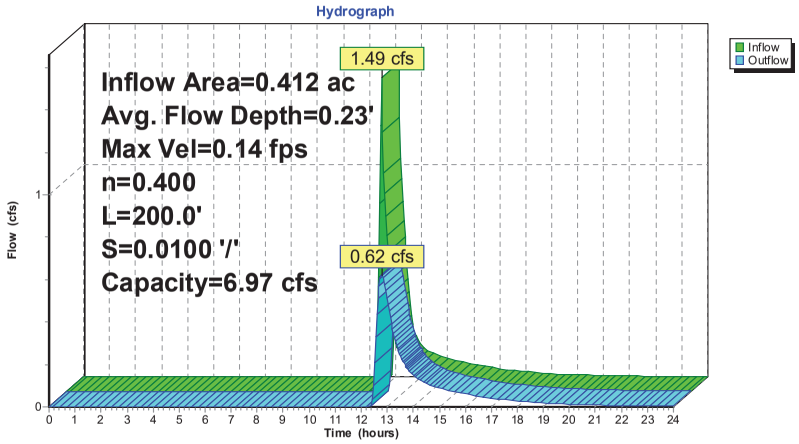
Inflow Area = 0.412 ac, 28.66% Impervious, Inflow Depth = 2.13" for 25 yr event
Inflow = 1.49 cfs @ 12.12 hrs, Volume= 0.073 af
Outflow = 0.62 cfs @ 12.79 hrs, Volume= 0.072 af, Atten= 58%, Lag= 40.4 min
Routed to Link 37L : POC 2 (Cottage Street)

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Max. Velocity= 0.14 fps, Min. Travel Time= 24.4 min
Avg. Velocity = 0.05 fps, Avg. Travel Time= 73.2 min

Peak Storage= 913 cf @ 12.38 hrs
Average Depth at Peak Storage= 0.23' , Surface Width= 20.00'
Bank-Full Depth= 1.00' Flow Area= 20.0 sf, Capacity= 6.97 cfs

20.00' x 1.00' deep channel, n= 0.400 Sheet flow: Woods+light brush
Length= 200.0' Slope= 0.0100 '/'
Inlet Invert= 270.00', Outlet Invert= 268.00'

Reach 40R: Reach L4



Stage-Area-Storage for Reach 40R: Reach L4

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
270.00	0.0	0	270.53	10.6	2,120
270.01	0.2	40	270.54	10.8	2,160
270.02	0.4	80	270.55	11.0	2,200
270.03	0.6	120	270.56	11.2	2,240
270.04	0.8	160	270.57	11.4	2,280
270.05	1.0	200	270.58	11.6	2,320
270.06	1.2	240	270.59	11.8	2,360
270.07	1.4	280	270.60	12.0	2,400
270.08	1.6	320	270.61	12.2	2,440
270.09	1.8	360	270.62	12.4	2,480
270.10	2.0	400	270.63	12.6	2,520
270.11	2.2	440	270.64	12.8	2,560
270.12	2.4	480	270.65	13.0	2,600
270.13	2.6	520	270.66	13.2	2,640
270.14	2.8	560	270.67	13.4	2,680
270.15	3.0	600	270.68	13.6	2,720
270.16	3.2	640	270.69	13.8	2,760
270.17	3.4	680	270.70	14.0	2,800
270.18	3.6	720	270.71	14.2	2,840
270.19	3.8	760	270.72	14.4	2,880
270.20	4.0	800	270.73	14.6	2,920
270.21	4.2	840	270.74	14.8	2,960
270.22	4.4	880	270.75	15.0	3,000
270.23	4.6	920	270.76	15.2	3,040
270.24	4.8	960	270.77	15.4	3,080
270.25	5.0	1,000	270.78	15.6	3,120
270.26	5.2	1,040	270.79	15.8	3,160
270.27	5.4	1,080	270.80	16.0	3,200
270.28	5.6	1,120	270.81	16.2	3,240
270.29	5.8	1,160	270.82	16.4	3,280
270.30	6.0	1,200	270.83	16.6	3,320
270.31	6.2	1,240	270.84	16.8	3,360
270.32	6.4	1,280	270.85	17.0	3,400
270.33	6.6	1,320	270.86	17.2	3,440
270.34	6.8	1,360	270.87	17.4	3,480
270.35	7.0	1,400	270.88	17.6	3,520
270.36	7.2	1,440	270.89	17.8	3,560
270.37	7.4	1,480	270.90	18.0	3,600
270.38	7.6	1,520	270.91	18.2	3,640
270.39	7.8	1,560	270.92	18.4	3,680
270.40	8.0	1,600	270.93	18.6	3,720
270.41	8.2	1,640	270.94	18.8	3,760
270.42	8.4	1,680	270.95	19.0	3,800
270.43	8.6	1,720	270.96	19.2	3,840
270.44	8.8	1,760	270.97	19.4	3,880
270.45	9.0	1,800	270.98	19.6	3,920
270.46	9.2	1,840	270.99	19.8	3,960
270.47	9.4	1,880	271.00	**20.0**	**4,000**
270.48	9.6	1,920			
270.49	9.8	1,960			
270.50	10.0	2,000			
270.51	10.2	2,040			
270.52	10.4	2,080			

Summary for Reach 41R: Reach L5R

Inflow Area = 0.045 ac,100.00% Impervious, Inflow Depth = 2.87" for 25 yr event
Inflow = 0.28 cfs @ 12.10 hrs, Volume= 0.011 af
Outflow = 0.09 cfs @ 12.99 hrs, Volume= 0.011 af, Atten= 67%, Lag= 53.6 min
Routed to Link 37L : POC 2 (Cottage Street)

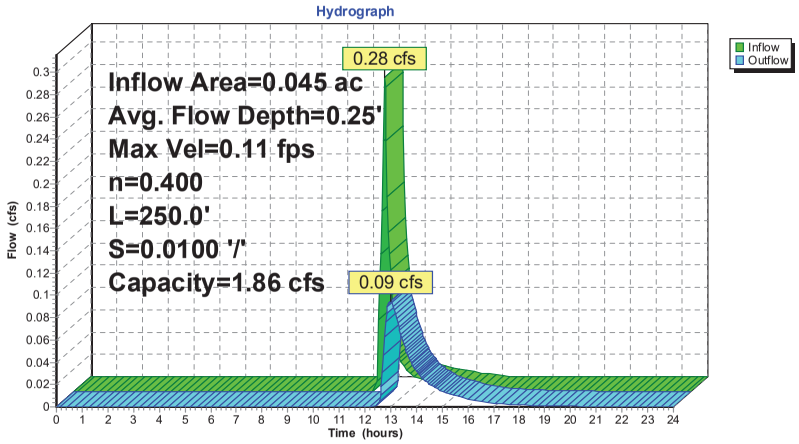
Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Max. Velocity= 0.11 fps, Min. Travel Time= 37.1 min
Avg. Velocity = 0.04 fps, Avg. Travel Time= 103.6 min

Peak Storage= 210 cf @ 12.37 hrs
Average Depth at Peak Storage= 0.25' , Surface Width= 5.01'
Bank-Full Depth= 1.00' Flow Area= 6.7 sf, Capacity= 1.86 cfs

10.00' x 1.00' deep Parabolic Channel, n= 0.400 Sheet flow: Woods+light brush
Length= 250.0' Slope= 0.0100 '/'
Inlet Invert= 288.50', Outlet Invert= 286.00'

‡

Reach 41R: Reach L5R



Stage-Area-Storage for Reach 41R: Reach L5R

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
288.50	0.0	0	289.03	2.6	643
288.51	0.0	2	289.04	2.6	661
288.52	0.0	5	289.05	2.7	680
288.53	0.0	9	289.06	2.8	698
288.54	0.1	13	289.07	2.9	717
288.55	0.1	19	289.08	2.9	736
288.56	0.1	24	289.09	3.0	755
288.57	0.1	31	289.10	3.1	775
288.58	0.2	38	289.11	3.2	794
288.59	0.2	45	289.12	3.3	814
288.60	0.2	53	289.13	3.3	833
288.61	0.2	61	289.14	3.4	853
288.62	0.3	69	289.15	3.5	873
288.63	0.3	78	289.16	3.6	894
288.64	0.3	87	289.17	3.7	914
288.65	0.4	97	289.18	3.7	935
288.66	0.4	107	289.19	3.8	955
288.67	0.5	117	289.20	3.9	976
288.68	0.5	127	289.21	4.0	997
288.69	0.6	138	289.22	4.1	1,018
288.70	0.6	149	289.23	4.2	1,040
288.71	0.6	160	289.24	4.2	1,061
288.72	0.7	172	289.25	4.3	1,083
288.73	0.7	184	289.26	4.4	1,104
288.74	0.8	196	289.27	4.5	1,126
288.75	0.8	208	289.28	4.6	1,148
288.76	0.9	221	289.29	4.7	1,170
288.77	0.9	234	289.30	4.8	1,193
288.78	1.0	247	289.31	4.9	1,215
288.79	1.0	260	289.32	5.0	1,238
288.80	1.1	274	289.33	5.0	1,260
288.81	1.2	288	289.34	5.1	1,283
288.82	1.2	302	289.35	5.2	1,306
288.83	1.3	316	289.36	5.3	1,329
288.84	1.3	330	289.37	5.4	1,352
288.85	1.4	345	289.38	5.5	1,376
288.86	1.4	360	289.39	5.6	1,399
288.87	1.5	375	289.40	5.7	1,423
288.88	1.6	390	289.41	5.8	1,447
288.89	1.6	406	289.42	5.9	1,471
288.90	1.7	422	289.43	6.0	1,495
288.91	1.8	438	289.44	6.1	1,519
288.92	1.8	454	289.45	6.2	1,543
288.93	1.9	470	289.46	6.3	1,568
288.94	1.9	486	289.47	6.4	1,592
288.95	2.0	503	289.48	6.5	1,617
288.96	2.1	520	289.49	6.6	1,642
288.97	2.1	537	289.50	**6.7**	**1,667**
288.98	2.2	554			
288.99	2.3	572			
289.00	2.4	589			
289.01	2.4	607			
289.02	2.5	625			

Summary for Pond 16P: Detention Basin #2 (South)

Inflow Area = 1.942 ac, 19.92% Impervious, Inflow Depth > 3.69" for 25 yr event
Inflow = 8.60 cfs @ 12.08 hrs, Volume= 0.597 af
Outflow = 8.25 cfs @ 12.10 hrs, Volume= 0.546 af, Atten= 4%, Lag= 1.3 min
Discarded = 0.04 cfs @ 12.10 hrs, Volume= 0.041 af
Primary = 8.21 cfs @ 12.10 hrs, Volume= 0.506 af
Routed to Link 39L : POC 4 (Culvert Under Monroe Turnpike)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 279.96' @ 12.10 hrs Surf.Area= 2,062 sf Storage= 3,056 cf

Plug-Flow detention time= 60.8 min calculated for 0.546 af (92% of inflow)
Center-of-Mass det. time= 18.5 min (844.5 - 826.0)

Volume	Invert	Avail.Storage	Storage Description
#1	278.00'	8,672 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

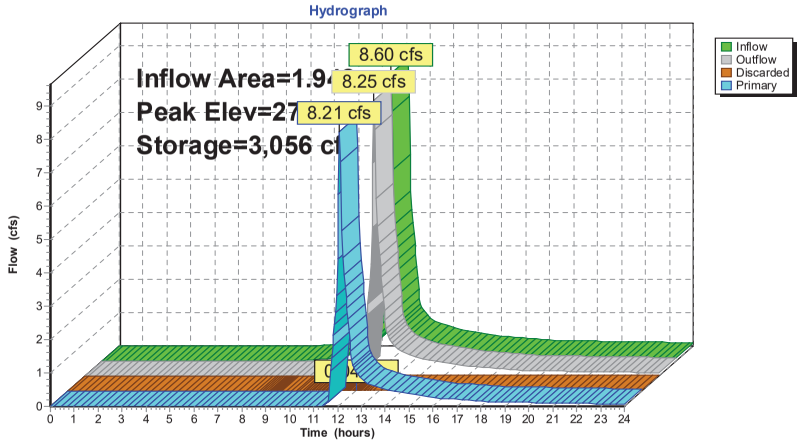
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
278.00	1,054	0	0
280.00	2,082	3,136	3,136
282.00	3,454	5,536	8,672

Device	Routing	Invert	Outlet Devices
#1	Primary	281.00'	**10.0' long Emergency Weir** 2 End Contraction(s) 1.0' Crest Height
#2	Primary	276.50'	**24.0" Round Outlet Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 276.50' / 273.00' S= 0.0700 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 3.14 sf
#3	Device 2	279.50'	**8.0' long Slot Weir** Cv= 2.62 (C= 3.28)
#4	Device 2	281.00'	**2.0" x 2.0" Horiz. Grate Top X 8.00 columns** X 8 rows C= 0.600 in 24.0" x 24.0" Grate (44% open area) Limited to weir flow at low heads
#5	Discarded	278.00'	**0.520 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 276.00'

Discarded OutFlow Max=0.04 cfs @ 12.10 hrs HW=279.95' (Free Discharge)
└**5=Exfiltration** (Controls 0.04 cfs)

Primary OutFlow Max=8.00 cfs @ 12.10 hrs HW=279.95' (Free Discharge)
└**1=Emergency Weir** (Controls 0.00 cfs)
└**2=Outlet Culvert** (Passes 8.00 cfs of 23.69 cfs potential flow)
└**3=Slot Weir** (Weir Controls 8.00 cfs @ 2.21 fps)
└**4=Grate Top** (Controls 0.00 cfs)

Pond 16P: Detention Basin #2 (South)



Stage-Area-Storage for Pond 16P: Detention Basin #2 (South)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
278.00	1,054	0	280.65	2,528	4,634
278.05	1,080	53	280.70	2,562	4,761
278.10	1,105	108	280.75	2,597	4,890
278.15	1,131	164	280.80	2,631	5,021
278.20	1,157	221	280.85	2,665	5,154
278.25	1,183	280	280.90	2,699	5,288
278.30	1,208	339	280.95	2,734	5,423
278.35	1,234	400	281.00	2,768	5,561
278.40	1,260	463	281.05	2,802	5,700
278.45	1,285	526	281.10	2,837	5,841
278.50	1,311	591	281.15	2,871	5,984
278.55	1,337	657	281.20	2,905	6,128
278.60	1,362	725	281.25	2,940	6,274
278.65	1,388	794	281.30	2,974	6,422
278.70	1,414	864	281.35	3,008	6,572
278.75	1,440	935	281.40	3,042	6,723
278.80	1,465	1,008	281.45	3,077	6,876
278.85	1,491	1,082	281.50	3,111	7,031
278.90	1,517	1,157	281.55	3,145	7,187
278.95	1,542	1,233	281.60	3,180	7,345
279.00	1,568	1,311	281.65	3,214	7,505
279.05	1,594	1,390	281.70	3,248	7,667
279.10	1,619	1,470	281.75	3,283	7,830
279.15	1,645	1,552	281.80	3,317	7,995
279.20	1,671	1,635	281.85	3,351	8,162
279.25	1,697	1,719	281.90	3,385	8,330
279.30	1,722	1,805	281.95	3,420	8,500
279.35	1,748	1,891	282.00	**3,454**	**8,672**
279.40	1,774	1,979			
279.45	1,799	2,069			
279.50	1,825	2,159			
279.55	1,851	2,251			
279.60	1,876	2,344			
279.65	1,902	2,439			
279.70	1,928	2,535			
279.75	1,954	2,632			
279.80	1,979	2,730			
279.85	2,005	2,829			
279.90	2,031	2,930			
279.95	2,056	3,033			
280.00	2,082	3,136			
280.05	2,116	3,241			
280.10	2,151	3,348			
280.15	2,185	3,456			
280.20	2,219	3,566			
280.25	2,254	3,678			
280.30	2,288	3,791			
280.35	2,322	3,907			
280.40	2,356	4,024			
280.45	2,391	4,142			
280.50	2,425	4,263			
280.55	2,459	4,385			
280.60	2,494	4,509			

Summary for Pond 20P: Detention Basin #1 (North)

Inflow Area = 4.480 ac, 21.95% Impervious, Inflow Depth > 3.09" for 25 yr event
Inflow = 11.96 cfs @ 12.19 hrs, Volume= 1.153 af
Outflow = 11.01 cfs @ 12.27 hrs, Volume= 1.094 af, Atten= 8%, Lag= 4.4 min
Discarded = 0.13 cfs @ 12.27 hrs, Volume= 0.095 af
Primary = 10.88 cfs @ 12.27 hrs, Volume= 0.999 af
Routed to Link 38L : POC 3 (Monroe Turnpike)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 267.58' @ 12.27 hrs Surf.Area= 4,455 sf Storage= 8,620 cf

Plug-Flow detention time= 62.2 min calculated for 1.094 af (95% of inflow)
Center-of-Mass det. time= 35.1 min (877.9 - 842.7)

Volume	Invert	Avail.Storage	Storage Description
#1	265.00'	18,819 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

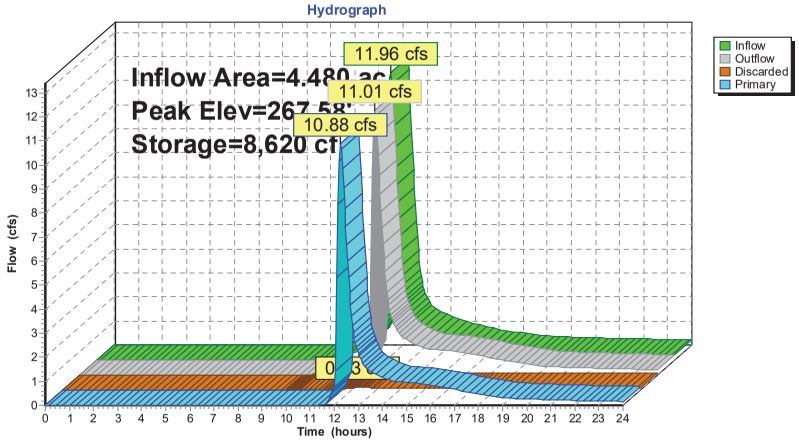
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
265.00	2,255	0	0
266.00	3,071	2,663	2,663
268.00	4,820	7,891	10,554
269.50	6,200	8,265	18,819

Device	Routing	Invert	Outlet Devices
#1	Primary	268.50'	**10.0' long Emergency Overflow Weir** 2 End Contraction(s) 1.0' Crest Height
#2	Primary	259.00'	**24.0" Round Outlet Culvert** L= 58.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 259.00' / 253.20' S= 0.1000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#3	Device 2	265.75'	**6.0" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#4	Device 2	267.00'	**7.0' long x 0.50' rise Weir Slot** Cv= 2.62 (C= 3.28)
#5	Device 2	268.50'	**4.0" x 2.0" Horiz. Grate Top X 8.00 columns** X 9 rows C= 0.600 in 36.0" x 24.0" Grate (67% open area) Limited to weir flow at low heads
#6	Device 2	264.00'	**4.0" Round Underdrain** L= 90.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 264.00' / 264.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.09 sf
#7	Device 6	265.00'	**1.020 in/hr Exfil to underdrain X 0.25 over Surface area** Conductivity to Groundwater Elevation = 262.00'
#8	Discarded	265.00'	**1.020 in/hr Exfiltration X 0.75 over Surface area** Conductivity to Groundwater Elevation = 262.00'

Discarded OutFlow Max=0.13 cfs @ 12.27 hrs HW=267.58' (Free Discharge)
└**8=Exfiltration** (Controls 0.13 cfs)

Primary OutFlow Max=10.84 cfs @ 12.27 hrs HW=267.58' (Free Discharge)
└**1=Emergency Overflow Weir** (Controls 0.00 cfs)
└**2=Outlet Culvert** (Passes 10.84 cfs of 41.65 cfs potential flow)
└**3=Orifice** (Orifice Controls 1.19 cfs @ 6.05 fps)
└**4=Weir Slot** (Orifice Controls 9.61 cfs @ 2.75 fps)
└**5=Grate Top** (Controls 0.00 cfs)
└**6=Underdrain** (Passes 0.04 cfs of 0.43 cfs potential flow)
└**7=Exfil to underdrain** (Controls 0.04 cfs)

Pond 20P: Detention Basin #1 (North)



Stage-Area-Storage for Pond 20P: Detention Basin #1 (North)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
265.00	2,255	0	267.65	4,514	8,921
265.05	2,296	114	267.70	4,558	9,147
265.10	2,337	230	267.75	4,601	9,376
265.15	2,377	347	267.80	4,645	9,607
265.20	2,418	467	267.85	4,689	9,841
265.25	2,459	589	267.90	4,733	10,076
265.30	2,500	713	267.95	4,776	10,314
265.35	2,541	839	268.00	4,820	10,554
265.40	2,581	967	268.05	4,866	10,796
265.45	2,622	1,097	268.10	4,912	11,041
265.50	2,663	1,230	268.15	4,958	11,287
265.55	2,704	1,364	268.20	5,004	11,536
265.60	2,745	1,500	268.25	5,050	11,788
265.65	2,785	1,638	268.30	5,096	12,041
265.70	2,826	1,778	268.35	5,142	12,297
265.75	2,867	1,921	268.40	5,188	12,556
265.80	2,908	2,065	268.45	5,234	12,816
265.85	2,949	2,212	268.50	5,280	13,079
265.90	2,989	2,360	268.55	5,326	13,344
265.95	3,030	2,510	268.60	5,372	13,612
266.00	3,071	2,663	268.65	5,418	13,881
266.05	3,115	2,818	268.70	5,464	14,153
266.10	3,158	2,974	268.75	5,510	14,428
266.15	3,202	3,133	268.80	5,556	14,704
266.20	3,246	3,295	268.85	5,602	14,983
266.25	3,290	3,458	268.90	5,648	15,265
266.30	3,333	3,624	268.95	5,694	15,548
266.35	3,377	3,791	269.00	5,740	15,834
266.40	3,421	3,961	269.05	5,786	16,122
266.45	3,465	4,133	269.10	5,832	16,413
266.50	3,508	4,308	269.15	5,878	16,705
266.55	3,552	4,484	269.20	5,924	17,000
266.60	3,596	4,663	269.25	5,970	17,298
266.65	3,639	4,844	269.30	6,016	17,597
266.70	3,683	5,027	269.35	6,062	17,899
266.75	3,727	5,212	269.40	6,108	18,204
266.80	3,771	5,400	269.45	6,154	18,510
266.85	3,814	5,589	269.50	**6,200**	**18,819**
266.90	3,858	5,781			
266.95	3,902	5,975			
267.00	3,946	6,171			
267.05	3,989	6,370			
267.10	4,033	6,570			
267.15	4,077	6,773			
267.20	4,120	6,978			
267.25	4,164	7,185			
267.30	4,208	7,394			
267.35	4,252	7,606			
267.40	4,295	7,819			
267.45	4,339	8,035			
267.50	4,383	8,253			
267.55	4,426	8,474			
267.60	4,470	8,696			

Summary for Pond 40P: Culvert

Inflow Area = 12.380 ac, 0.00% Impervious, Inflow Depth > 3.90" for 25 yr event
Inflow = 39.22 cfs @ 12.26 hrs, Volume= 4.021 af
Outflow = 39.06 cfs @ 12.28 hrs, Volume= 4.020 af, Atten= 0%, Lag= 1.0 min
Primary = 39.06 cfs @ 12.28 hrs, Volume= 4.020 af
Routed to Link 39L : POC 4 (Culvert Under Monroe Turnpike)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 296.85' @ 12.28 hrs Surf.Area= 1,956 sf Storage= 1,967 cf

Plug-Flow detention time= 1.0 min calculated for 4.013 af (100% of inflow)
Center-of-Mass det. time= 0.8 min (833.3 - 832.6)

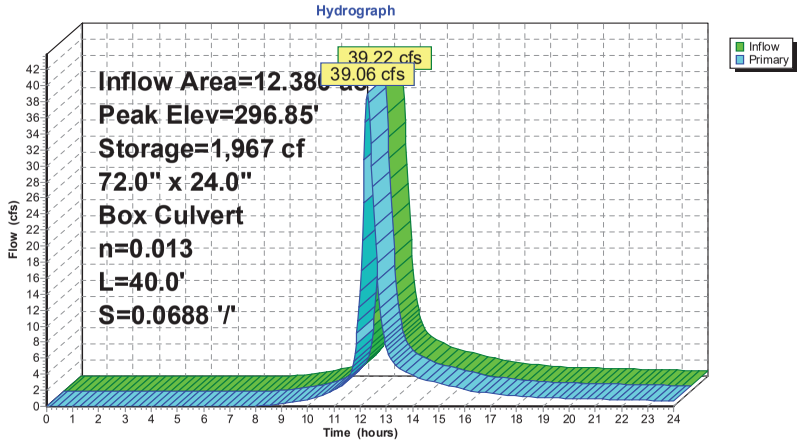
Volume	Invert	Avail.Storage	Storage Description
#1	295.25'	30,417 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
295.25	500	0	0
298.00	3,000	4,813	4,813
300.00	6,260	9,260	14,073
302.00	10,084	16,344	30,417

Device	Routing	Invert	Outlet Devices
#1	Primary	295.25'	**72.0" W x 24.0" H Box Box Culvert** L= 40.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 295.25' / 292.50' S= 0.0688 '/' Cc= 0.900 n= 0.013 Concrete, trowel finish, Flow Area= 12.00 sf

Primary OutFlow Max=38.97 cfs @ 12.28 hrs HW=296.85' (Free Discharge)
1=Box Culvert (Inlet Controls 38.97 cfs @ 4.06 fps)

Pond 40P: Culvert



Stage-Area-Storage for Pond 40P: Culvert

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
295.25	500	0	300.55	7,312	17,805
295.35	591	55	300.65	7,503	18,545
295.45	682	118	300.75	7,694	19,305
295.55	773	191	300.85	7,885	20,084
295.65	864	273	300.95	8,076	20,882
295.75	955	364	301.05	8,268	21,699
295.85	1,045	464	301.15	8,459	22,536
295.95	1,136	573	301.25	8,650	23,391
296.05	1,227	691	301.35	8,841	24,266
296.15	1,318	818	301.45	9,032	25,159
296.25	1,409	955	301.55	9,224	26,072
296.35	1,500	1,100	301.65	9,415	27,004
296.45	1,591	1,255	301.75	9,606	27,955
296.55	1,682	1,418	301.85	9,797	28,925
296.65	1,773	1,591	301.95	**9,988**	**29,915**
296.75	1,864	1,773			
296.85	1,955	1,964			
296.95	2,045	2,164			
297.05	2,136	2,373			
297.15	2,227	2,591			
297.25	2,318	2,818			
297.35	2,409	3,055			
297.45	2,500	3,300			
297.55	2,591	3,555			
297.65	2,682	3,818			
297.75	2,773	4,091			
297.85	2,864	4,373			
297.95	2,955	4,664			
298.05	3,082	4,965			
298.15	3,244	5,281			
298.25	3,408	5,613			
298.35	3,571	5,962			
298.45	3,733	6,328			
298.55	3,897	6,709			
298.65	4,059	7,107			
298.75	4,223	7,521			
298.85	4,386	7,951			
298.95	4,548	8,398			
299.05	4,712	8,861			
299.15	4,874	9,340			
299.25	5,038	9,836			
299.35	5,201	10,348			
299.45	5,363	10,876			
299.55	5,527	11,421			
299.65	5,689	11,981			
299.75	5,853	12,558			
299.85	6,016	13,152			
299.95	6,178	13,762			
300.05	6,356	14,388			
300.15	6,547	15,033			
300.25	6,738	15,697			
300.35	6,929	16,381			
300.45	7,120	17,083			

Summary for Pond 41P: RS L4

Inflow Area = 0.412 ac, 28.66% Impervious, Inflow Depth > 3.29" for 25 yr event
Inflow = 1.62 cfs @ 12.08 hrs, Volume= 0.113 af
Outflow = 1.53 cfs @ 12.12 hrs, Volume= 0.101 af, Atten= 6%, Lag= 2.4 min
Discarded = 0.04 cfs @ 12.12 hrs, Volume= 0.028 af
Primary = 1.49 cfs @ 12.12 hrs, Volume= 0.073 af
Routed to Reach 40R : Reach L4

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 275.11' @ 12.12 hrs Surf.Area= 924 sf Storage= 835 cf

Plug-Flow detention time= 74.7 min calculated for 0.101 af (90% of inflow)
Center-of-Mass det. time= 25.2 min (860.1 - 834.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	272.50'	284 cf	**6.00'W x 98.00'L x 2.50'H Field A** 1,470 cf Overall - 760 cf Embedded = 710 cf x 40.0% Voids
#2A	273.00'	544 cf	**Concrete Galley 4x8x2** x 12 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf
#3	275.00'	50 cf	**10.50'W x 32.00'L x 0.75'H Prismatoid** 252 cf Overall x 20.0% Voids
		878 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	274.00'	**8.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 274.00' / 271.83' S= 0.0775 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Discarded	272.50'	**1.020 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 270.50'

Discarded OutFlow Max=0.04 cfs @ 12.12 hrs HW=275.11' (Free Discharge)
↑**2=Exfiltration** (Controls 0.04 cfs)

Primary OutFlow Max=1.48 cfs @ 12.12 hrs HW=275.11' (Free Discharge)
↑**1=Culvert** (Inlet Controls 1.48 cfs @ 4.24 fps)

Pond 41P: RS L4 - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

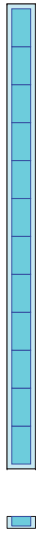
12 Chambers/Row x 8.00' Long = 96.00' Row Length +12.0" End Stone x 2 = 98.00' Base Length
1 Rows x 48.0" Wide + 12.0" Side Stone x 2 = 6.00' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

12 Chambers x 45.3 cf = 543.6 cf Chamber Storage
12 Chambers x 63.4 cf = 760.3 cf Displacement

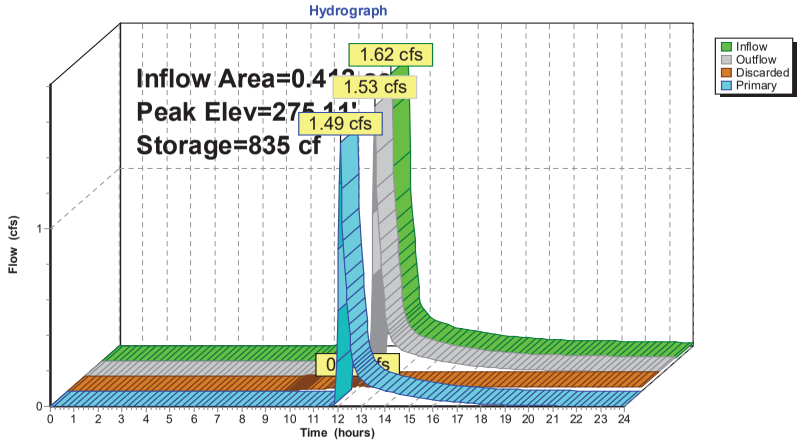
1,470.0 cf Field - 760.3 cf Chambers = 709.7 cf Stone x 40.0% Voids = 283.9 cf Stone Storage

Chamber Storage + Stone Storage = 827.5 cf = 0.019 af
Overall Storage Efficiency = 56.3%
Overall System Size = 98.00' x 6.00' x 2.50'

12 Chambers
54.4 cy Field
26.3 cy Stone



Pond 41P: RS L4



Stage-Area-Storage for Pond 41P: RS L4

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
272.50	588	0	275.15	924	838
272.55	588	12	275.20	924	841
272.60	588	24	275.25	924	844
272.65	588	35	275.30	924	848
272.70	588	47	275.35	924	851
272.75	588	59	275.40	924	854
272.80	588	71	275.45	924	858
272.85	588	82	275.50	924	861
272.90	588	94	275.55	924	864
272.95	588	106	275.60	924	868
273.00	588	118	275.65	924	871
273.05	588	138	275.70	924	875
273.10	588	157	275.75	924	**878**
273.15	588	177			
273.20	588	197			
273.25	588	217			
273.30	588	237			
273.35	588	257			
273.40	588	277			
273.45	588	297			
273.50	588	317			
273.55	588	337			
273.60	588	356			
273.65	588	376			
273.70	588	396			
273.75	588	416			
273.80	588	436			
273.85	588	456			
273.90	588	476			
273.95	588	496			
274.00	588	516			
274.05	588	536			
274.10	588	556			
274.15	588	575			
274.20	588	595			
274.25	588	615			
274.30	588	635			
274.35	588	655			
274.40	588	675			
274.45	588	695			
274.50	588	715			
274.55	588	735			
274.60	588	754			
274.65	588	772			
274.70	588	789			
274.75	588	807			
274.80	588	811			
274.85	588	815			
274.90	588	819			
274.95	588	823			
275.00	**924**	827			
275.05	924	831			
275.10	924	834			

Summary for Pond 42P: Fire Pond

Inflow Area = 2.532 ac, 0.00% Impervious, Inflow Depth > 3.91" for 25 yr event
Inflow = 11.89 cfs @ 12.08 hrs, Volume= 0.825 af
Outflow = 11.75 cfs @ 12.09 hrs, Volume= 0.823 af, Atten= 1%, Lag= 0.7 min
Primary = 11.75 cfs @ 12.09 hrs, Volume= 0.823 af
Routed to Pond 46P : Detention Basin #3 (Entrance)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 304.01' @ 12.09 hrs Surf.Area= 1,340 sf Storage= 1,224 cf

Plug-Flow detention time= 5.3 min calculated for 0.823 af (100% of inflow)
Center-of-Mass det. time= 3.9 min (825.4 - 821.5)

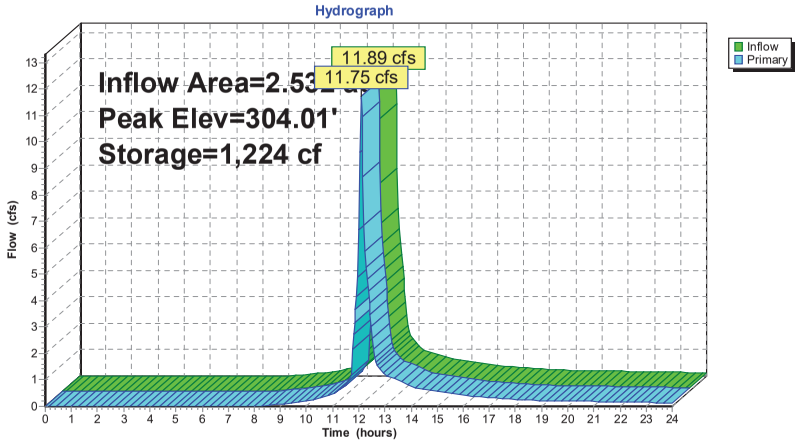
Volume	Invert	Avail.Storage	Storage Description
#1	303.00'	1,917 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
303.00	1,080	0	0
304.00	1,336	1,208	1,208
304.50	1,500	709	1,917

Device	Routing	Invert	Outlet Devices
#1	Primary	303.50'	**8.0' long Emergency Weir** 2 End Contraction(s) 1.0' Crest Height
#2	Primary	296.00'	**8.0" Round Culvert** L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 296.00' / 290.00' S= 0.0750 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#3	Device 2	303.00'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=11.49 cfs @ 12.09 hrs HW=304.00' (Free Discharge)
└**1=Emergency Weir** (Weir Controls 9.81 cfs @ 2.46 fps)
└**2=Culvert** (Passes 1.68 cfs of 4.65 cfs potential flow)
└**3=Orifice/Grate** (Orifice Controls 1.68 cfs @ 4.82 fps)

Pond 42P: Fire Pond



Stage-Area-Storage for Pond 42P: Fire Pond

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
303.00	1,080	0	304.06	1,356	1,289
303.02	1,085	22	304.08	1,362	1,316
303.04	1,090	43	304.10	1,369	1,343
303.06	1,095	65	304.12	1,375	1,371
303.08	1,100	87	304.14	1,382	1,398
303.10	1,106	109	304.16	1,388	1,426
303.12	1,111	131	304.18	1,395	1,454
303.14	1,116	154	304.20	1,402	1,482
303.16	1,121	176	304.22	1,408	1,510
303.18	1,126	199	304.24	1,415	1,538
303.20	1,131	221	304.26	1,421	1,566
303.22	1,136	244	304.28	1,428	1,595
303.24	1,141	267	304.30	1,434	1,624
303.26	1,147	289	304.32	1,441	1,652
303.28	1,152	312	304.34	1,448	1,681
303.30	1,157	336	304.36	1,454	1,710
303.32	1,162	359	304.38	1,461	1,739
303.34	1,167	382	304.40	1,467	1,769
303.36	1,172	405	304.42	1,474	1,798
303.38	1,177	429	304.44	1,480	1,828
303.40	1,182	452	304.46	1,487	1,857
303.42	1,188	476	304.48	1,493	1,887
303.44	1,193	500	304.50	**1,500**	**1,917**
303.46	1,198	524			
303.48	1,203	548			
303.50	1,208	572			
303.52	1,213	596			
303.54	1,218	621			
303.56	1,223	645			
303.58	1,228	669			
303.60	1,234	694			
303.62	1,239	719			
303.64	1,244	744			
303.66	1,249	769			
303.68	1,254	794			
303.70	1,259	819			
303.72	1,264	844			
303.74	1,269	869			
303.76	1,275	895			
303.78	1,280	920			
303.80	1,285	946			
303.82	1,290	972			
303.84	1,295	998			
303.86	1,300	1,023			
303.88	1,305	1,050			
303.90	1,310	1,076			
303.92	1,316	1,102			
303.94	1,321	1,128			
303.96	1,326	1,155			
303.98	1,331	1,181			
304.00	1,336	1,208			
304.02	1,343	1,235			
304.04	1,349	1,262			

Summary for Pond 43P: RS L5R

Inflow Area = 0.045 ac,100.00% Impervious, Inflow Depth > 6.61" for 25 yr event
Inflow = 0.31 cfs @ 12.07 hrs, Volume= 0.025 af
Outflow = 0.29 cfs @ 12.10 hrs, Volume= 0.022 af, Atten= 5%, Lag= 1.5 min
Discarded = 0.01 cfs @ 12.10 hrs, Volume= 0.012 af
Primary = 0.28 cfs @ 12.10 hrs, Volume= 0.011 af
Routed to Reach 41R : Reach L5R

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 290.51' @ 12.10 hrs Surf.Area= 189 sf Storage= 234 cf

Plug-Flow detention time= 118.2 min calculated for 0.022 af (91% of inflow)
Center-of-Mass det. time= 70.2 min (812.1 - 742.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	288.50'	88 cf	**10.50'W x 18.00'L x 2.50'H Field A** 473 cf Overall - 253 cf Embedded = 219 cf x 40.0% Voids
#2A	289.00'	181 cf	**Concrete Galley 4x8x2** x 4 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf 4 Chambers in 2 Rows
		269 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	290.17'	**6.0" Round Culvert** L= 13.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 290.17' / 289.00' S= 0.0900 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#2	Discarded	288.50'	**1.020 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 286.50'

Discarded OutFlow Max=0.01 cfs @ 12.10 hrs HW=290.50' (Free Discharge)
↑—**2=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.28 cfs @ 12.10 hrs HW=290.50' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.28 cfs @ 1.97 fps)

Pond 43P: RS L5R - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

48.0" Wide + 6.0" Spacing = 54.0" C-C Row Spacing

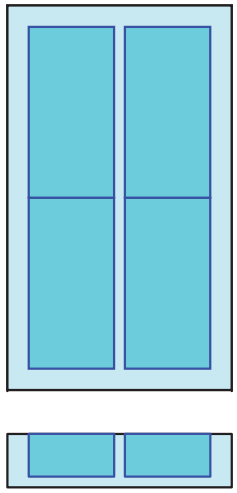
2 Chambers/Row x 8.00' Long = 16.00' Row Length +12.0" End Stone x 2 = 18.00' Base Length
2 Rows x 48.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 10.50' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

4 Chambers x 45.3 cf = 181.2 cf Chamber Storage
4 Chambers x 63.4 cf = 253.4 cf Displacement

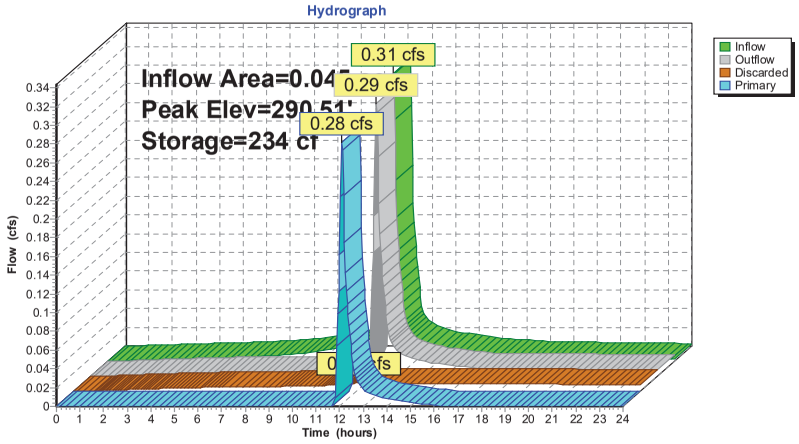
472.5 cf Field - 253.4 cf Chambers = 219.1 cf Stone x 40.0% Voids = 87.6 cf Stone Storage

Chamber Storage + Stone Storage = 268.8 cf = 0.006 af
Overall Storage Efficiency = 56.9%
Overall System Size = 18.00' x 10.50' x 2.50'

4 Chambers
17.5 cy Field
8.1 cy Stone



Pond 43P: RS L5R



Stage-Area-Storage for Pond 43P: RS L5R

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
288.50	**189**	0
288.55	189	4
288.60	189	8
288.65	189	11
288.70	189	15
288.75	189	19
288.80	189	23
288.85	189	26
288.90	189	30
288.95	189	34
289.00	189	38
289.05	189	44
289.10	189	51
289.15	189	57
289.20	189	64
289.25	189	70
289.30	189	77
289.35	189	83
289.40	189	90
289.45	189	96
289.50	189	103
289.55	189	109
289.60	189	116
289.65	189	122
289.70	189	129
289.75	189	135
289.80	189	142
289.85	189	148
289.90	189	155
289.95	189	161
290.00	189	168
290.05	189	174
290.10	189	181
290.15	189	187
290.20	189	194
290.25	189	200
290.30	189	207
290.35	189	213
290.40	189	220
290.45	189	226
290.50	189	233
290.55	189	239
290.60	189	245
290.65	189	251
290.70	189	257
290.75	189	263
290.80	189	264
290.85	189	265
290.90	189	266
290.95	189	268
291.00	189	**269**

Summary for Pond 44P: RS L3

Inflow Area = 0.022 ac,100.00% Impervious, Inflow Depth > 6.61" for 25 yr event
Inflow = 0.15 cfs @ 12.07 hrs, Volume= 0.012 af
Outflow = 0.02 cfs @ 12.80 hrs, Volume= 0.011 af, Atten= 90%, Lag= 43.4 min
Discarded = 0.01 cfs @ 12.80 hrs, Volume= 0.011 af
Primary = 0.01 cfs @ 12.80 hrs, Volume= 0.000 af
Routed to Link 38L : POC 3 (Monroe Turnpike)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 262.94' @ 12.80 hrs Surf.Area= 204 sf Storage= 237 cf

Plug-Flow detention time= 219.6 min calculated for 0.011 af (90% of inflow)
Center-of-Mass det. time= 170.5 min (912.5 - 742.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	261.00'	103 cf	**6.00'W x 34.00'L x 2.50'H Field A** 510 cf Overall - 253 cf Embedded = 257 cf x 40.0% Voids
#2A	261.50'	181 cf	**Concrete Galley 4x8x2** x 4 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf
		284 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	262.90'	**6.0" Round Culvert** L= 101.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 262.90' / 248.36' S= 0.1440 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#2	Discarded	261.00'	**1.020 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 259.00'

Discarded OutFlow Max=0.01 cfs @ 12.80 hrs HW=262.94' (Free Discharge)
↑**2=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.01 cfs @ 12.80 hrs HW=262.94' (Free Discharge)
↑**1=Culvert** (Inlet Controls 0.01 cfs @ 0.69 fps)

Pond 44P: RS L3 - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

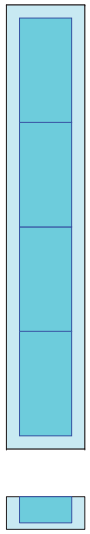
4 Chambers/Row x 8.00' Long = 32.00' Row Length +12.0" End Stone x 2 = 34.00' Base Length
1 Rows x 48.0" Wide + 12.0" Side Stone x 2 = 6.00' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

4 Chambers x 45.3 cf = 181.2 cf Chamber Storage
4 Chambers x 63.4 cf = 253.4 cf Displacement

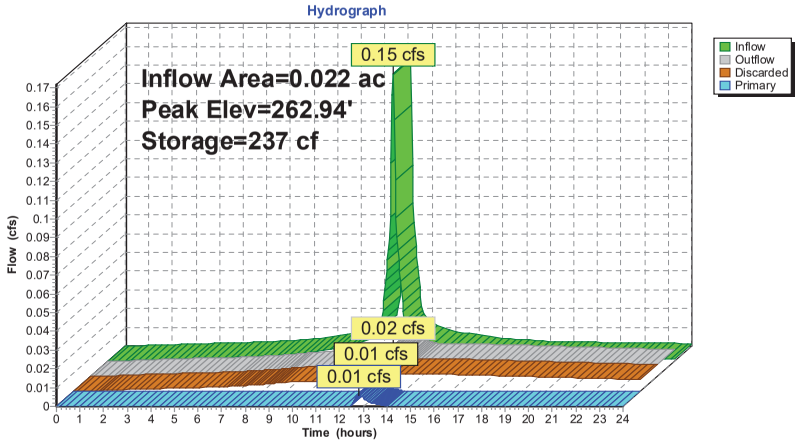
510.0 cf Field - 253.4 cf Chambers = 256.6 cf Stone x 40.0% Voids = 102.6 cf Stone Storage

Chamber Storage + Stone Storage = 283.8 cf = 0.007 af
Overall Storage Efficiency = 55.7%
Overall System Size = 34.00' x 6.00' x 2.50'

4 Chambers
18.9 cy Field
9.5 cy Stone



Pond 44P: RS L3



Stage-Area-Storage for Pond 44P: RS L3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
261.00	**204**	0
261.05	204	4
261.10	204	8
261.15	204	12
261.20	204	16
261.25	204	20
261.30	204	24
261.35	204	29
261.40	204	33
261.45	204	37
261.50	204	41
261.55	204	48
261.60	204	54
261.65	204	61
261.70	204	68
261.75	204	75
261.80	204	82
261.85	204	88
261.90	204	95
261.95	204	102
262.00	204	109
262.05	204	116
262.10	204	122
262.15	204	129
262.20	204	136
262.25	204	143
262.30	204	150
262.35	204	156
262.40	204	163
262.45	204	170
262.50	204	177
262.55	204	184
262.60	204	190
262.65	204	197
262.70	204	204
262.75	204	211
262.80	204	217
262.85	204	224
262.90	204	231
262.95	204	238
263.00	204	245
263.05	204	251
263.10	204	258
263.15	204	264
263.20	204	270
263.25	204	276
263.30	204	278
263.35	204	279
263.40	204	281
263.45	204	282
263.50	204	**284**

Summary for Pond 45P: RS L6

Inflow Area = 0.088 ac, 61.23% Impervious, Inflow Depth > 4.99" for 25 yr event
Inflow = 0.44 cfs @ 12.14 hrs, Volume= 0.037 af
Outflow = 0.05 cfs @ 12.92 hrs, Volume= 0.032 af, Atten= 88%, Lag= 47.3 min
Discarded = 0.03 cfs @ 12.92 hrs, Volume= 0.029 af
Primary = 0.03 cfs @ 12.92 hrs, Volume= 0.002 af
Routed to Pond 20P : Detention Basin #1 (North)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 302.26' @ 12.92 hrs Surf.Area= 686 sf Storage= 740 cf

Plug-Flow detention time= 238.6 min calculated for 0.032 af (86% of inflow)
Center-of-Mass det. time= 177.1 min (978.5 - 801.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	300.50'	193 cf	**6.00'W x 66.00'L x 2.50'H Field A** 990 cf Overall - 507 cf Embedded = 483 cf x 40.0% Voids
#2A	301.00'	362 cf	**Concrete Galley 4x8x2** x 8 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf
#3B	300.50'	113 cf	**5.00'W x 58.00'L x 2.50'H Field B** 725 cf Overall - 444 cf Embedded = 281 cf x 40.0% Voids
#4B	301.00'	317 cf	**Concrete Galley 4x8x2** x 7 Inside #3 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf
		985 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	302.17'	**6.0" Round Culvert** L= 101.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 302.17' / 287.93' S= 0.1410 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#2	Discarded	300.50'	**1.020 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 298.00'

Discarded OutFlow Max=0.03 cfs @ 12.92 hrs HW=302.26' (Free Discharge)
└**2=Exfiltration** (Controls 0.03 cfs)

Primary OutFlow Max=0.02 cfs @ 12.92 hrs HW=302.26' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.02 cfs @ 1.02 fps)

Pond 45P: RS L6 - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

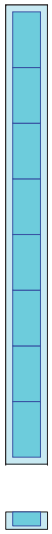
8 Chambers/Row x 8.00' Long = 64.00' Row Length +12.0" End Stone x 2 = 66.00' Base Length
1 Rows x 48.0" Wide + 12.0" Side Stone x 2 = 6.00' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

8 Chambers x 45.3 cf = 362.4 cf Chamber Storage
8 Chambers x 63.4 cf = 506.9 cf Displacement

990.0 cf Field - 506.9 cf Chambers = 483.1 cf Stone x 40.0% Voids = 193.2 cf Stone Storage

Chamber Storage + Stone Storage = 555.6 cf = 0.013 af
Overall Storage Efficiency = 56.1%
Overall System Size = 66.00' x 6.00' x 2.50'

8 Chambers
36.7 cy Field
17.9 cy Stone



Pond 45P: RS L6 - Chamber Wizard Field B

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

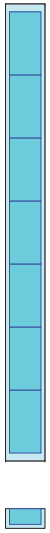
7 Chambers/Row x 8.00' Long = 56.00' Row Length +12.0" End Stone x 2 = 58.00' Base Length
1 Rows x 48.0" Wide + 6.0" Side Stone x 2 = 5.00' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

7 Chambers x 45.3 cf = 317.1 cf Chamber Storage
7 Chambers x 63.4 cf = 443.5 cf Displacement

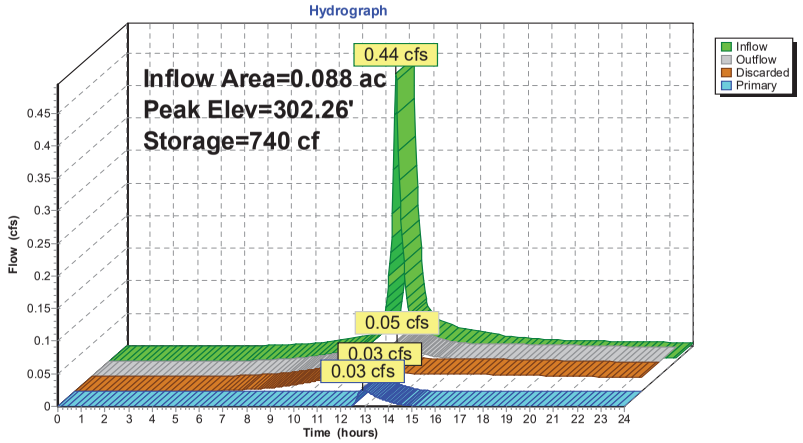
725.0 cf Field - 443.5 cf Chambers = 281.5 cf Stone x 40.0% Voids = 112.6 cf Stone Storage

Chamber Storage + Stone Storage = 429.7 cf = 0.010 af
Overall Storage Efficiency = 59.3%
Overall System Size = 58.00' x 5.00' x 2.50'

7 Chambers
26.9 cy Field
10.4 cy Stone



Pond 45P: RS L6



Stage-Area-Storage for Pond 45P: RS L6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
300.50	**686**	0
300.55	686	14
300.60	686	27
300.65	686	41
300.70	686	55
300.75	686	69
300.80	686	82
300.85	686	96
300.90	686	110
300.95	686	123
301.00	686	137
301.05	686	161
301.10	686	185
301.15	686	209
301.20	686	233
301.25	686	257
301.30	686	281
301.35	686	305
301.40	686	328
301.45	686	352
301.50	686	376
301.55	686	400
301.60	686	424
301.65	686	448
301.70	686	472
301.75	686	496
301.80	686	520
301.85	686	544
301.90	686	567
301.95	686	591
302.00	686	615
302.05	686	639
302.10	686	663
302.15	686	687
302.20	686	711
302.25	686	735
302.30	686	759
302.35	686	783
302.40	686	806
302.45	686	830
302.50	686	854
302.55	686	878
302.60	686	901
302.65	686	922
302.70	686	943
302.75	686	964
302.80	686	968
302.85	686	973
302.90	686	977
302.95	686	981
303.00	686	**985**

Summary for Pond 46P: Detention Basin #3 (Entrance)

Inflow Area = 2.532 ac, 0.00% Impervious, Inflow Depth > 3.90" for 25 yr event
Inflow = 11.75 cfs @ 12.09 hrs, Volume= 0.823 af
Outflow = 11.64 cfs @ 12.10 hrs, Volume= 0.801 af, Atten= 1%, Lag= 0.6 min
Primary = 11.64 cfs @ 12.10 hrs, Volume= 0.801 af
Routed to Link 39L : POC 4 (Culvert Under Monroe Turnpike)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 280.83' @ 12.10 hrs Surf.Area= 659 sf Storage= 1,498 cf

Plug-Flow detention time= 23.5 min calculated for 0.801 af (97% of inflow)
Center-of-Mass det. time= 7.9 min (833.3 - 825.4)

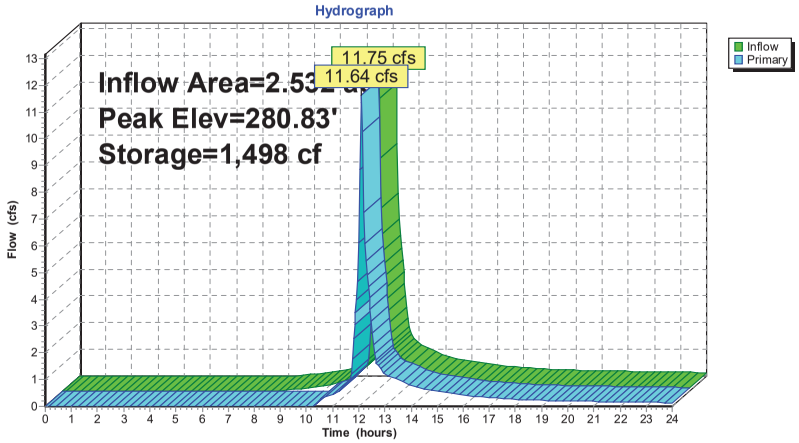
Volume	Invert	Avail.Storage	Storage Description
#1	278.00'	1,613 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
278.00	295	0	0
280.00	659	954	954
281.00	659	659	1,613

Device	Routing	Invert	Outlet Devices
#1	Primary	280.00'	**5.0' long (Profile 26) Broad-Crested Rectangular Weir** Head (feet) 0.49 0.98 1.48 Coef. (English) 3.06 3.13 3.13

Primary OutFlow Max=11.32 cfs @ 12.10 hrs HW=280.81' (Free Discharge)
↑**1=Broad-Crested Rectangular Weir** (Weir Controls 11.32 cfs @ 2.79 fps)

Pond 46P: Detention Basin #3 (Entrance)



Stage-Area-Storage for Pond 46P: Detention Basin #3 (Entrance)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
278.00	295	0
278.05	304	15
278.10	313	30
278.15	322	46
278.20	331	63
278.25	341	79
278.30	350	97
278.35	359	114
278.40	368	133
278.45	377	151
278.50	386	170
278.55	395	190
278.60	404	210
278.65	413	230
278.70	422	251
278.75	432	272
278.80	441	294
278.85	450	316
278.90	459	339
278.95	468	362
279.00	477	386
279.05	486	410
279.10	495	435
279.15	504	460
279.20	513	485
279.25	523	511
279.30	532	537
279.35	541	564
279.40	550	591
279.45	559	619
279.50	568	647
279.55	577	676
279.60	586	705
279.65	595	734
279.70	604	764
279.75	614	795
279.80	623	826
279.85	632	857
279.90	641	889
279.95	650	921
280.00	**659**	954
280.05	659	987
280.10	659	1,020
280.15	659	1,053
280.20	659	1,086
280.25	659	1,119
280.30	659	1,152
280.35	659	1,185
280.40	659	1,218
280.45	659	1,251
280.50	659	1,284
280.55	659	1,316
280.60	659	1,349
280.65	659	1,382
280.70	659	1,415
280.75	659	1,448
280.80	659	1,481
280.85	659	1,514
280.90	659	1,547
280.95	659	1,580
281.00	659	**1,613**

Summary for Pond 47P: RS L1

Inflow Area = 0.273 ac, 35.06% Impervious, Inflow Depth > 4.34" for 25 yr event
Inflow = 1.42 cfs @ 12.08 hrs, Volume= 0.099 af
Outflow = 1.14 cfs @ 12.13 hrs, Volume= 0.088 af, Atten= 19%, Lag= 3.3 min
Discarded = 0.03 cfs @ 12.13 hrs, Volume= 0.034 af
Primary = 1.11 cfs @ 12.13 hrs, Volume= 0.054 af
Routed to Link 38L : POC 3 (Monroe Turnpike)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 282.27' @ 12.13 hrs Surf.Area= 686 sf Storage= 966 cf

Plug-Flow detention time= 98.4 min calculated for 0.088 af (89% of inflow)
Center-of-Mass det. time= 46.6 min (858.9 - 812.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	280.00'	193 cf	**6.00'W x 66.00'L x 2.50'H Field A** 990 cf Overall - 507 cf Embedded = 483 cf x 40.0% Voids
#2A	280.50'	362 cf	**Concrete Galley 4x8x2** x 8 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf
#3B	280.00'	113 cf	**5.00'W x 58.00'L x 2.50'H Field B** 725 cf Overall - 444 cf Embedded = 281 cf x 40.0% Voids
#4B	280.50'	317 cf	**Concrete Galley 4x8x2** x 7 Inside #3 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf
		985 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	281.50'	**8.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 281.50' / 279.83' S= 0.1113 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Discarded	280.00'	**1.020 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 278.00'

Discarded OutFlow Max=0.03 cfs @ 12.13 hrs HW=282.26' (Free Discharge)
↑—**2=Exfiltration** (Controls 0.03 cfs)

Primary OutFlow Max=1.09 cfs @ 12.13 hrs HW=282.25' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 1.09 cfs @ 3.13 fps)

Pond 47P: RS L1 - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

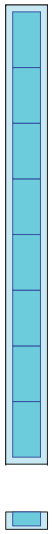
8 Chambers/Row x 8.00' Long = 64.00' Row Length +12.0" End Stone x 2 = 66.00' Base Length
1 Rows x 48.0" Wide + 12.0" Side Stone x 2 = 6.00' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

8 Chambers x 45.3 cf = 362.4 cf Chamber Storage
8 Chambers x 63.4 cf = 506.9 cf Displacement

990.0 cf Field - 506.9 cf Chambers = 483.1 cf Stone x 40.0% Voids = 193.2 cf Stone Storage

Chamber Storage + Stone Storage = 555.6 cf = 0.013 af
Overall Storage Efficiency = 56.1%
Overall System Size = 66.00' x 6.00' x 2.50'

8 Chambers
36.7 cy Field
17.9 cy Stone



Pond 47P: RS L1 - Chamber Wizard Field B

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

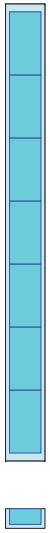
7 Chambers/Row x 8.00' Long = 56.00' Row Length +12.0" End Stone x 2 = 58.00' Base Length
1 Rows x 48.0" Wide + 6.0" Side Stone x 2 = 5.00' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

7 Chambers x 45.3 cf = 317.1 cf Chamber Storage
7 Chambers x 63.4 cf = 443.5 cf Displacement

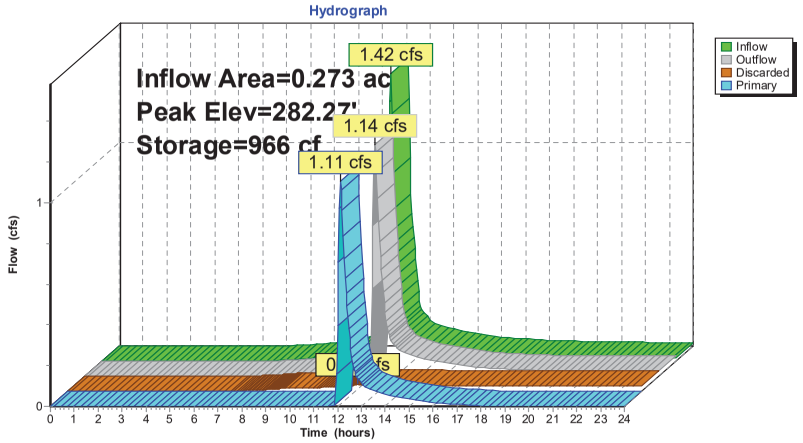
725.0 cf Field - 443.5 cf Chambers = 281.5 cf Stone x 40.0% Voids = 112.6 cf Stone Storage

Chamber Storage + Stone Storage = 429.7 cf = 0.010 af
Overall Storage Efficiency = 59.3%
Overall System Size = 58.00' x 5.00' x 2.50'

7 Chambers
26.9 cy Field
10.4 cy Stone



Pond 47P: RS L1



Stage-Area-Storage for Pond 47P: RS L1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
280.00	**686**	0
280.05	686	14
280.10	686	27
280.15	686	41
280.20	686	55
280.25	686	69
280.30	686	82
280.35	686	96
280.40	686	110
280.45	686	123
280.50	686	137
280.55	686	161
280.60	686	185
280.65	686	209
280.70	686	233
280.75	686	257
280.80	686	281
280.85	686	305
280.90	686	328
280.95	686	352
281.00	686	376
281.05	686	400
281.10	686	424
281.15	686	448
281.20	686	472
281.25	686	496
281.30	686	520
281.35	686	544
281.40	686	567
281.45	686	591
281.50	686	615
281.55	686	639
281.60	686	663
281.65	686	687
281.70	686	711
281.75	686	735
281.80	686	759
281.85	686	783
281.90	686	806
281.95	686	830
282.00	686	854
282.05	686	878
282.10	686	901
282.15	686	922
282.20	686	943
282.25	686	964
282.30	686	968
282.35	686	973
282.40	686	977
282.45	686	981
282.50	686	**985**

Summary for Pond 48P: RS L7

Inflow Area = 0.138 ac, 42.91% Impervious, Inflow Depth > 4.23" for 25 yr event
Inflow = 0.65 cfs @ 12.10 hrs, Volume= 0.049 af
Outflow = 0.36 cfs @ 12.26 hrs, Volume= 0.037 af, Atten= 45%, Lag= 9.3 min
Discarded = 0.01 cfs @ 12.26 hrs, Volume= 0.016 af
Primary = 0.34 cfs @ 12.26 hrs, Volume= 0.021 af
Routed to Pond 20P : Detention Basin #1 (North)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 309.06' @ 12.26 hrs Surf.Area= 525 sf Storage= 685 cf

Plug-Flow detention time= 145.0 min calculated for 0.037 af (77% of inflow)
Center-of-Mass det. time= 62.3 min (878.5 - 816.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	307.00'	221 cf	**10.50'W x 50.00'L x 2.50'H Field A** 1,313 cf Overall - 760 cf Embedded = 552 cf x 40.0% Voids
#2A	307.50'	544 cf	**Concrete Galley 4x8x2** x 12 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf 12 Chambers in 2 Rows
		764 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	308.67'	**6.0" Round Culvert** L= 56.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 308.67' / 294.05' S= 0.2611 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#2	Discarded	307.00'	**1.020 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 259.00'

Discarded OutFlow Max=0.01 cfs @ 12.26 hrs HW=309.05' (Free Discharge)
↑—**2=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.34 cfs @ 12.26 hrs HW=309.05' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.34 cfs @ 2.10 fps)

Pond 48P: RS L7 - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

48.0" Wide + 6.0" Spacing = 54.0" C-C Row Spacing

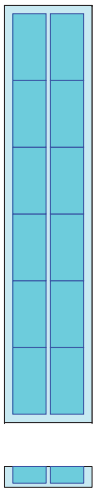
6 Chambers/Row x 8.00' Long = 48.00' Row Length +12.0" End Stone x 2 = 50.00' Base Length
2 Rows x 48.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 10.50' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

12 Chambers x 45.3 cf = 543.6 cf Chamber Storage
12 Chambers x 63.4 cf = 760.3 cf Displacement

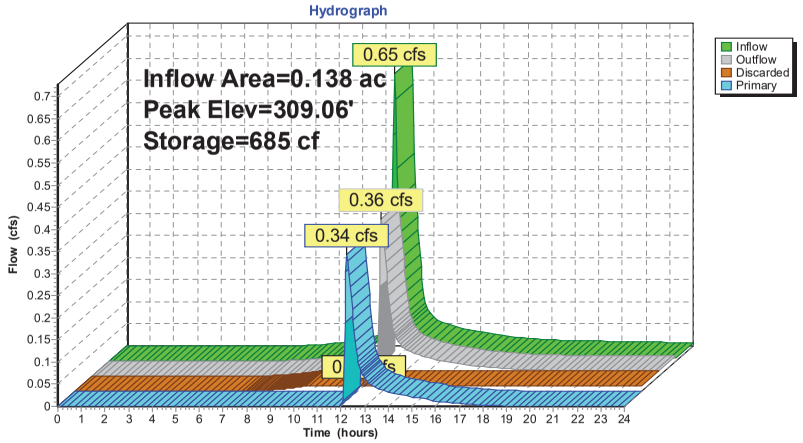
1,312.5 cf Field - 760.3 cf Chambers = 552.2 cf Stone x 40.0% Voids = 220.9 cf Stone Storage

Chamber Storage + Stone Storage = 764.5 cf = 0.018 af
Overall Storage Efficiency = 58.2%
Overall System Size = 50.00' x 10.50' x 2.50'

12 Chambers
48.6 cy Field
20.5 cy Stone



Pond 48P: RS L7



Stage-Area-Storage for Pond 48P: RS L7

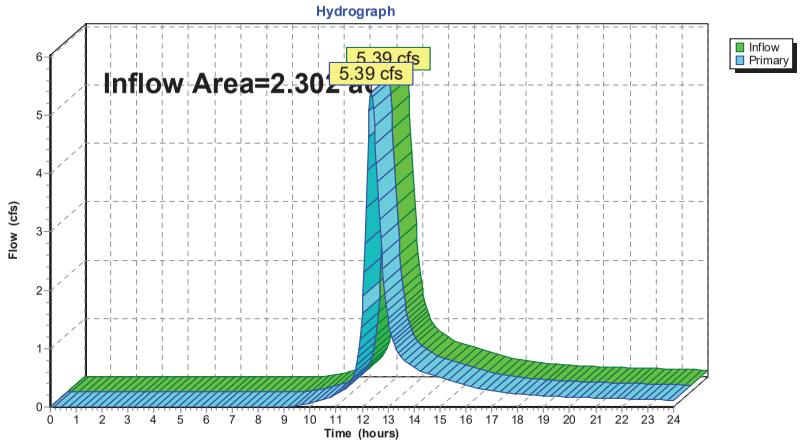
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
307.00	**525**	0
307.05	525	11
307.10	525	21
307.15	525	31
307.20	525	42
307.25	525	53
307.30	525	63
307.35	525	74
307.40	525	84
307.45	525	94
307.50	525	105
307.55	525	124
307.60	525	142
307.65	525	161
307.70	525	180
307.75	525	198
307.80	525	217
307.85	525	236
307.90	525	254
307.95	525	273
308.00	525	291
308.05	525	310
308.10	525	329
308.15	525	347
308.20	525	366
308.25	525	385
308.30	525	403
308.35	525	422
308.40	525	441
308.45	525	459
308.50	525	478
308.55	525	497
308.60	525	515
308.65	525	534
308.70	525	553
308.75	525	571
308.80	525	590
308.85	525	608
308.90	525	627
308.95	525	646
309.00	525	664
309.05	525	683
309.10	525	701
309.15	525	717
309.20	525	734
309.25	525	750
309.30	525	753
309.35	525	756
309.40	525	759
309.45	525	762
309.50	525	**764**

Summary for Link 36L: POC 1 (Downs Road)

Inflow Area = 2.302 ac, 0.00% Impervious, Inflow Depth > 3.27" for 25 yr event
Inflow = 5.39 cfs @ 12.36 hrs, Volume= 0.627 af
Primary = 5.39 cfs @ 12.36 hrs, Volume= 0.627 af, Atten= 0%, Lag= 0.0 min

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

Link 36L: POC 1 (Downs Road)

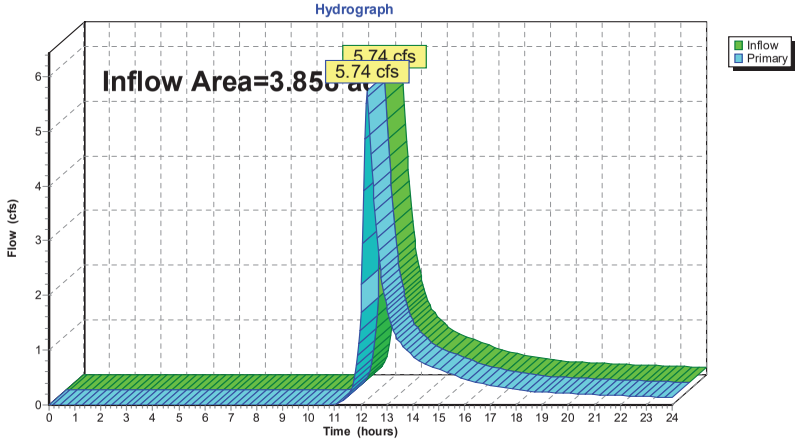


Summary for Link 37L: POC 2 (Cottage Street)

Inflow Area = 3.858 ac, 4.22% Impervious, Inflow Depth > 2.12" for 25 yr event
Inflow = 5.74 cfs @ 12.25 hrs, Volume= 0.682 af
Primary = 5.74 cfs @ 12.25 hrs, Volume= 0.682 af, Atten= 0%, Lag= 0.0 min

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

Link 37L: POC 2 (Cottage Street)

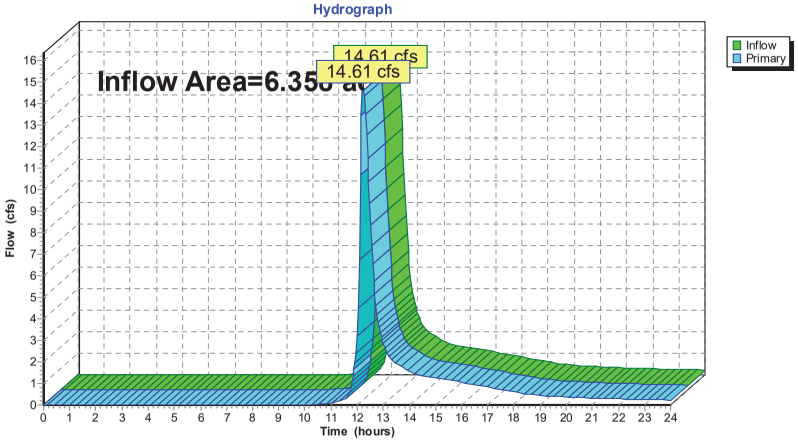


Summary for Link 38L: POC 3 (Monroe Turnpike)

Inflow Area = 6.358 ac, 17.32% Impervious, Inflow Depth > 2.63" for 25 yr event
Inflow = 14.61 cfs @ 12.22 hrs, Volume= 1.394 af
Primary = 14.61 cfs @ 12.22 hrs, Volume= 1.394 af, Atten= 0%, Lag= 0.0 min

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

Link 38L: POC 3 (Monroe Turnpike)

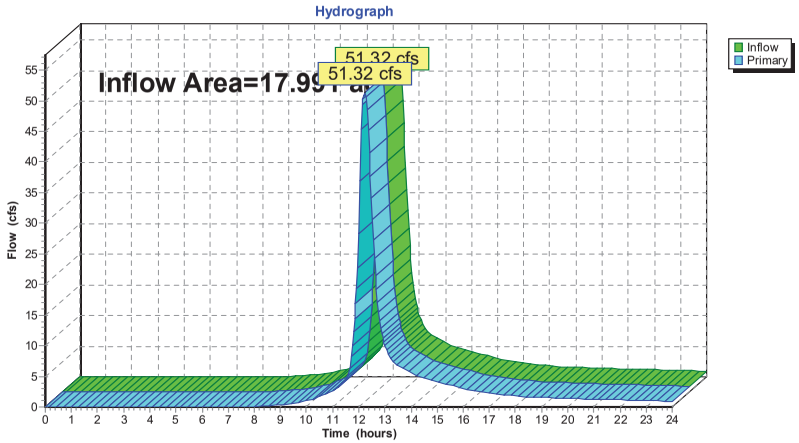


Summary for Link 39L: POC 4 (Culvert Under Monroe Turnpike)

Inflow Area = 17.991 ac, 2.15% Impervious, Inflow Depth > 3.80" for 25 yr event
Inflow = 51.32 cfs @ 12.24 hrs, Volume= 5.696 af
Primary = 51.32 cfs @ 12.24 hrs, Volume= 5.696 af, Atten= 0%, Lag= 0.0 min

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

Link 39L: POC 4 (Culvert Under Monroe Turnpike)



Summary for Subcatchment 1S: Existing to POC 1 (Downs Road)

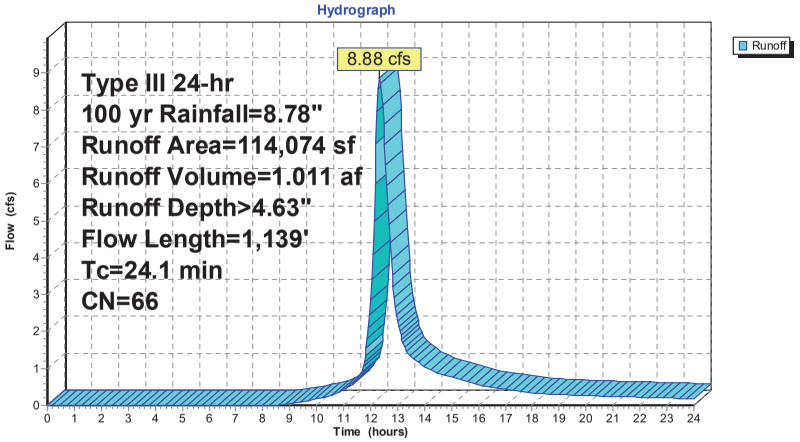
Runoff = 8.88 cfs @ 12.34 hrs, Volume= 1.011 af, Depth> 4.63"
Routed to nonexistent node 18L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
40,140	55	Woods, Good, HSG B
48,562	70	Woods, Good, HSG C
25,372	77	Woods, Good, HSG D
114,074	66	Weighted Average
114,074		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.5	100	0.2200	0.12		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.60"
2.8	400	0.2200	2.35		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
7.8	639	0.0750	1.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
24.1	1,139	Total			

Subcatchment 1S: Existing to POC 1 (Downs Road)



Summary for Subcatchment 2S: Existing to POC 2 (Cottage Street)

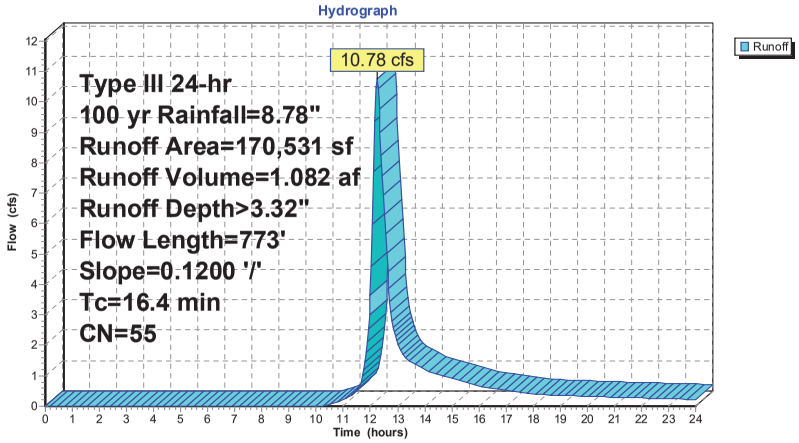
Runoff = 10.78 cfs @ 12.24 hrs, Volume= 1.082 af, Depth> 3.32"
Routed to nonexistent node 18L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
170,531	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
170,531	55	Weighted Average
170,531		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.1200	0.17		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.60"
6.5	673	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
16.4	773	Total			

Subcatchment 2S: Existing to POC 2 (Cottage Street)



Summary for Subcatchment 3S: Existing to POC 3 (Monroe Turnpike CBs)

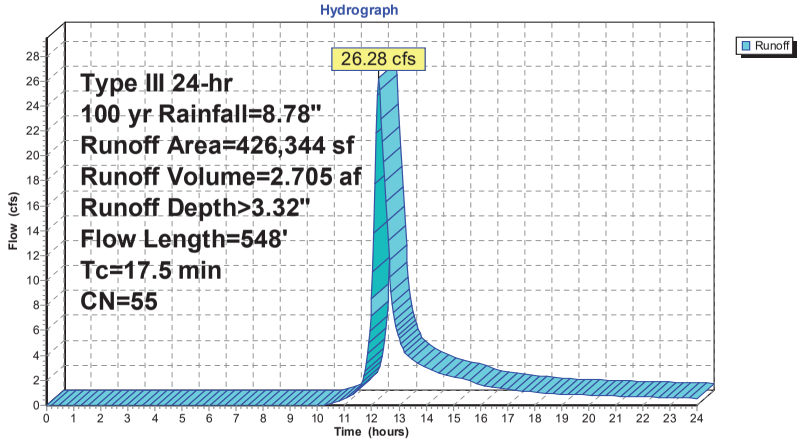
Runoff = 26.28 cfs @ 12.25 hrs, Volume= 2.705 af, Depth> 3.32"
Routed to nonexistent node 18L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
426,344	55	Woods, Good, HSG B
0	70	Woods, Good, HSG C
0	77	Woods, Good, HSG D
426,344	55	Weighted Average
426,344		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	100	0.2100	0.12		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.60"
2.5	349	0.2100	2.29		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.2	99	0.0700	1.32		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
17.5	548	Total			

Subcatchment 3S: Existing to POC 3 (Monroe Turnpike CBs)



Summary for Subcatchment 4S: Existing to POC 4 (Culvert Under Monroe Turnpike)

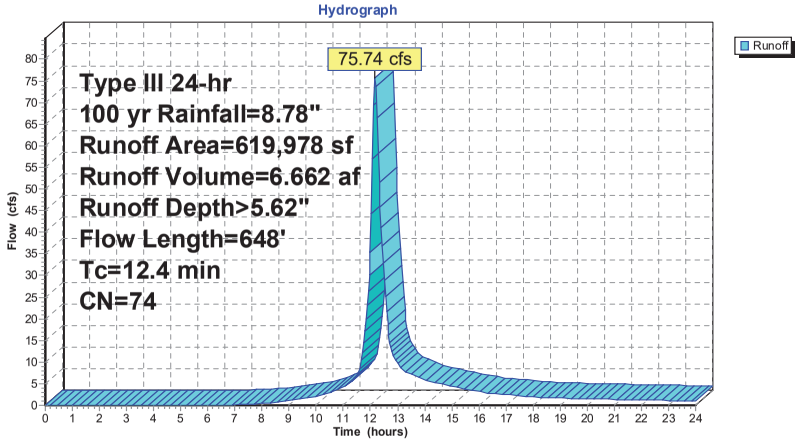
Runoff = 75.74 cfs @ 12.17 hrs, Volume= 6.662 af, Depth> 5.62"
Routed to nonexistent node 18L

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
8,094	55	Woods, Good, HSG B
257,742	70	Woods, Good, HSG C
354,142	77	Woods, Good, HSG D
619,978	74	Weighted Average
619,978		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.9	100	0.2100	0.21		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.60"
3.3	449	0.2100	2.29		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
1.2	99	0.0700	1.32		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
12.4	648	Total			

Subcatchment 4S: Existing to POC 4 (Culvert Under Monroe Turnpike)



Summary for Subcatchment 21S: Bypass 1

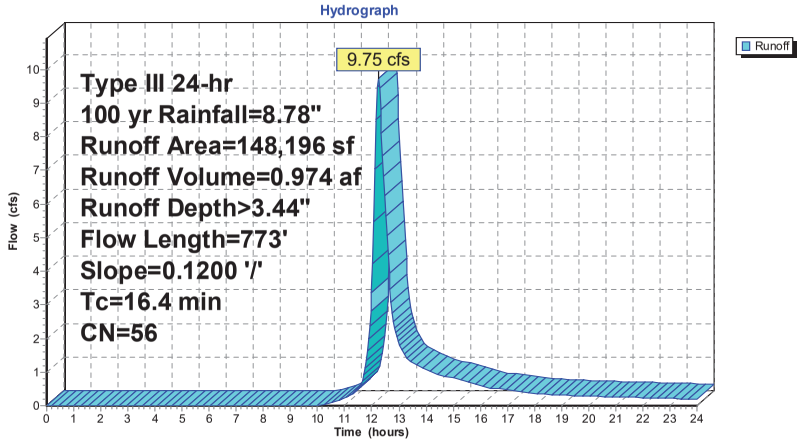
Runoff = 9.75 cfs @ 12.24 hrs, Volume= 0.974 af, Depth> 3.44"
Routed to Link 37L : POC 2 (Cottage Street)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
24,622	61	>75% Grass cover, Good, HSG B
0	74	>75% Grass cover, Good, HSG C
0	80	>75% Grass cover, Good, HSG D
123,574	55	Woods, Good, HSG B
0	70	Woods, Good, HSG C
0	77	Woods, Good, HSG D
148,196	56	Weighted Average
148,196		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.9	100	0.1200	0.17		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.60"
6.5	673	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
16.4	773	Total			

Subcatchment 21S: Bypass 1



Summary for Subcatchment 22S: Bypass 2

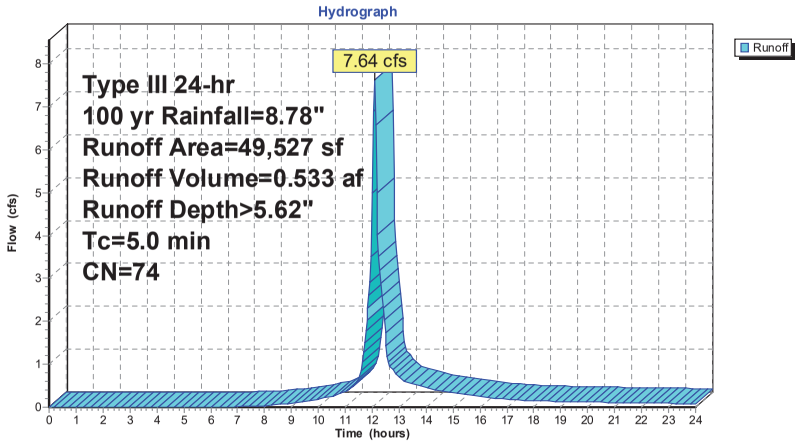
Runoff = 7.64 cfs @ 12.08 hrs, Volume= 0.533 af, Depth> 5.62"
Routed to Link 39L : POC 4 (Culvert Under Monroe Turnpike)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
1,172	61	>75% Grass cover, Good, HSG B
4,836	80	>75% Grass cover, Good, HSG D
7,389	55	Woods, Good, HSG B
36,130	77	Woods, Good, HSG D
49,527	74	Weighted Average
49,527		100.00% Pervious Area

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

Subcatchment 22S: Bypass 2



Summary for Subcatchment 23S: Bypass 3

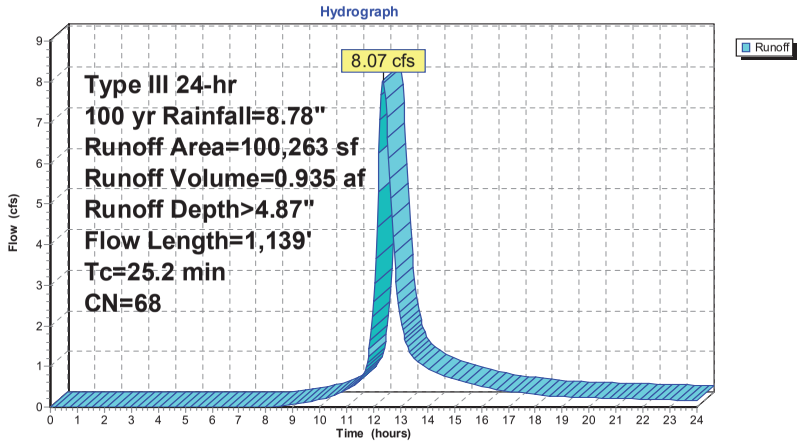
Runoff = 8.07 cfs @ 12.35 hrs, Volume= 0.935 af, Depth> 4.87"
Routed to Link 36L : POC 1 (Downs Road)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
7,961	61	>75% Grass cover, Good, HSG B
3,922	74	>75% Grass cover, Good, HSG C
25,559	55	Woods, Good, HSG B
39,449	73	Woods, Fair, HSG C
23,372	77	Woods, Good, HSG D
100,263	68	Weighted Average
100,263		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.6	100	0.1800	0.11		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.60"
2.8	400	0.2200	2.35		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
7.8	639	0.0750	1.37		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
25.2	1,139	Total			

Subcatchment 23S: Bypass 3



Summary for Subcatchment 24S: Road to Basin 1

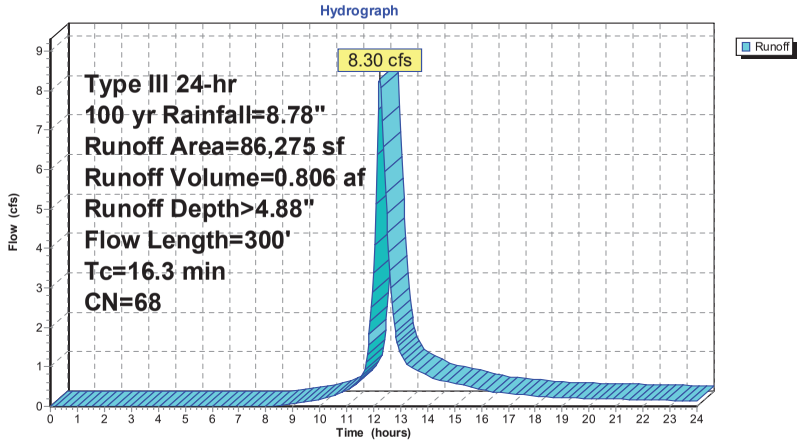
Runoff = 8.30 cfs @ 12.23 hrs, Volume= 0.806 af, Depth> 4.88"
Routed to Pond 20P : Detention Basin #1 (North)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
65,770	61	>75% Grass cover, Good, HSG B
0	80	>75% Grass cover, Good, HSG D
3,336	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
17,169	98	Paved parking, HSG B
86,275	68	Weighted Average
69,106		80.10% Pervious Area
17,169		19.90% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.1	25	0.0500	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.60"
7.4	75	0.0500	0.17		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.60"
0.4	108	0.1000	4.74		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.4	92	0.0330	3.69		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
16.3	300	Total			

Subcatchment 24S: Road to Basin 1



Summary for Subcatchment 25S: Lot 1

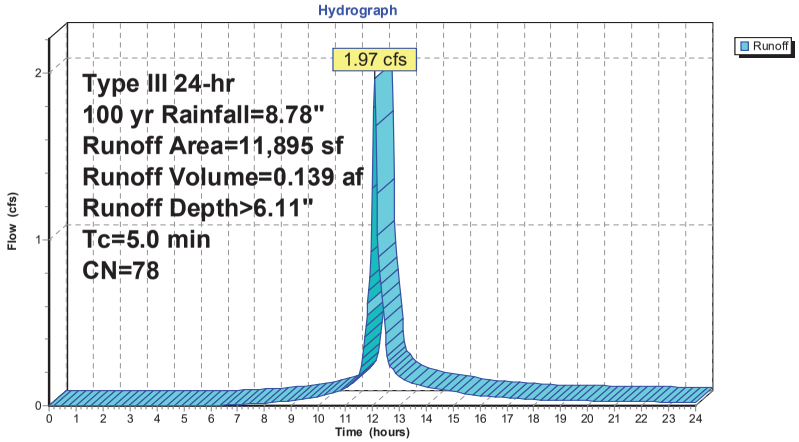
Runoff = 1.97 cfs @ 12.08 hrs, Volume= 0.139 af, Depth> 6.11"
Routed to Pond 47P : RS L1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
5,381	61	>75% Grass cover, Good, HSG B
2,344	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
1,950	98	Roofs, HSG B
2,220	98	Unconnected pavement, HSG B
11,895	78	Weighted Average
7,725		64.94% Pervious Area
4,170		35.06% Impervious Area
2,220		53.24% Unconnected

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

Subcatchment 25S: Lot 1



Summary for Subcatchment 26S: Lot 2

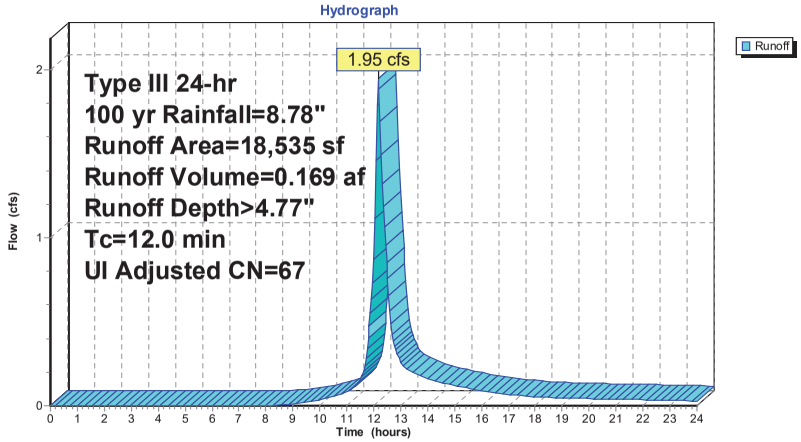
Runoff = 1.95 cfs @ 12.17 hrs, Volume= 0.169 af, Depth> 4.77"
Routed to Pond 20P : Detention Basin #1 (North)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Adj	Description
14,089	61		>75% Grass cover, Good, HSG B
0	80		>75% Grass cover, Good, HSG D
0	55		Woods, Good, HSG B
0	77		Woods, Good, HSG D
1,950	98		Roofs, HSG B
2,496	98		Unconnected pavement, HSG B
18,535	70	67	Weighted Average, UI Adjusted
14,089			76.01% Pervious Area
4,446			23.99% Impervious Area
2,496			56.14% Unconnected

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

Subcatchment 26S: Lot 2



Summary for Subcatchment 27S: Lot 3

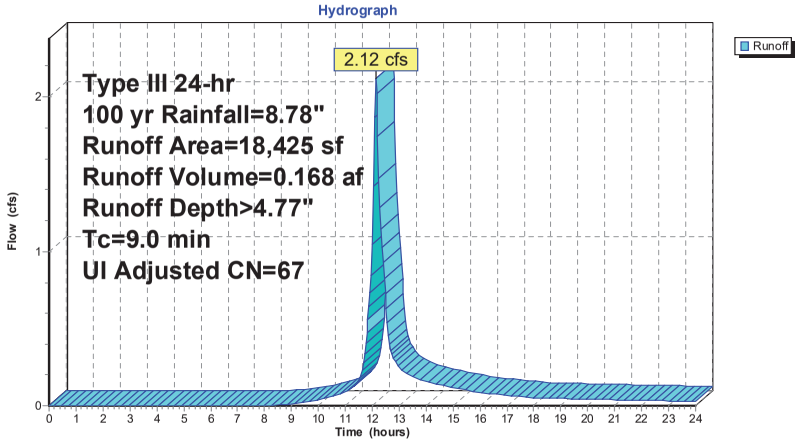
Runoff = 2.12 cfs @ 12.13 hrs, Volume= 0.168 af, Depth> 4.77"
Routed to Pond 20P : Detention Basin #1 (North)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Adj	Description
13,066	61		>75% Grass cover, Good, HSG B
0	80		>75% Grass cover, Good, HSG D
0	55		Woods, Good, HSG B
0	77		Woods, Good, HSG D
975	98		Roofs, HSG B
4,384	98		Unconnected pavement, HSG B
18,425	72	67	Weighted Average, UI Adjusted
13,066			70.91% Pervious Area
5,359			29.09% Impervious Area
4,384			81.81% Unconnected

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

Subcatchment 27S: Lot 3



Summary for Subcatchment 28S: Lot 4

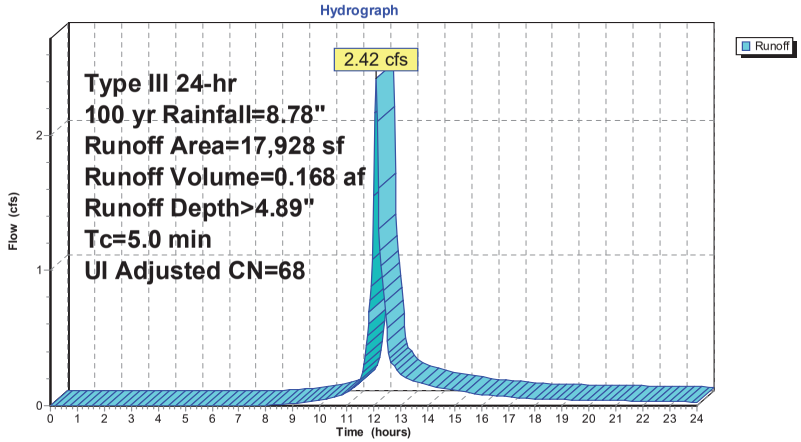
Runoff = 2.42 cfs @ 12.08 hrs, Volume= 0.168 af, Depth> 4.89"
Routed to Pond 41P : RS L4

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Adj	Description
12,790	61		>75% Grass cover, Good, HSG B
0	80		>75% Grass cover, Good, HSG D
0	55		Woods, Good, HSG B
0	77		Woods, Good, HSG D
1,950	98		Roofs, HSG B
3,188	98		Unconnected pavement, HSG B
17,928	72	68	Weighted Average, UI Adjusted
12,790			71.34% Pervious Area
5,138			28.66% Impervious Area
3,188			62.05% Unconnected

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

Subcatchment 28S: Lot 4



Summary for Subcatchment 29S: Lot 5

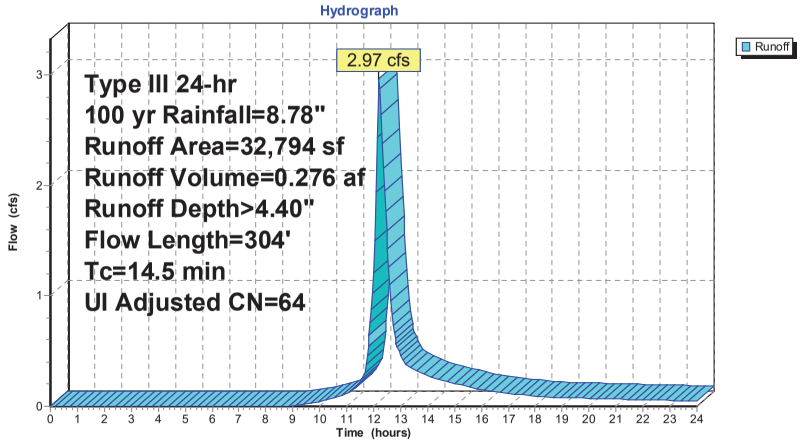
Runoff = 2.97 cfs @ 12.20 hrs, Volume= 0.276 af, Depth> 4.40"
Routed to Pond 20P : Detention Basin #1 (North)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Adj	Description
26,889	61		>75% Grass cover, Good, HSG B
1,736	80		>75% Grass cover, Good, HSG D
0	55		Woods, Good, HSG B
0	77		Woods, Good, HSG D
0	98		Roofs, HSG B
4,169	98		Unconnected pavement, HSG B
32,794	67	64	Weighted Average, UI Adjusted
28,625			87.29% Pervious Area
4,169			12.71% Impervious Area
4,169			100.00% Unconnected

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	20	0.0600	0.05		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.60"
7.3	80	0.0600	0.18		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.60"
0.4	119	0.1000	4.74		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
0.5	85	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
14.5	304	Total			

Subcatchment 29S: Lot 5



Summary for Subcatchment 30S: Lot 6

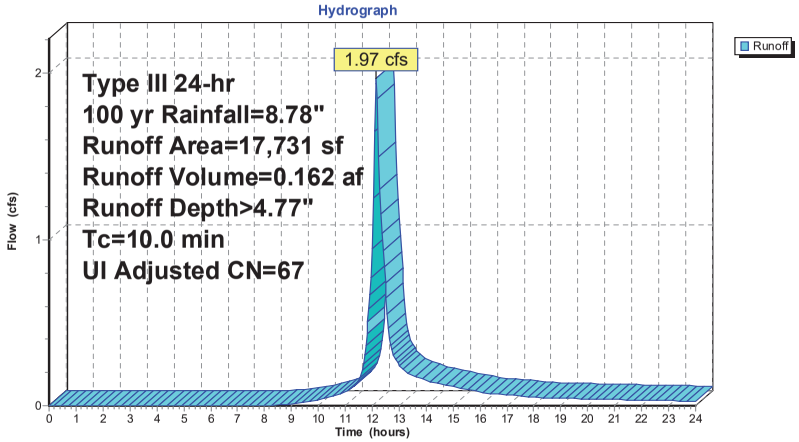
Runoff = 1.97 cfs @ 12.14 hrs, Volume= 0.162 af, Depth> 4.77"
Routed to Pond 20P : Detention Basin #1 (North)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Adj	Description
14,270	61		>75% Grass cover, Good, HSG B
0	80		>75% Grass cover, Good, HSG D
0	55		Woods, Good, HSG B
0	77		Woods, Good, HSG D
1,950	98		Roofs, HSG B
1,511	98		Unconnected pavement, HSG B
17,731	68	67	Weighted Average, UI Adjusted
14,270			80.48% Pervious Area
3,461			19.52% Impervious Area
1,511			43.66% Unconnected

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

Subcatchment 30S: Lot 6



Summary for Subcatchment 31S: Lot 7

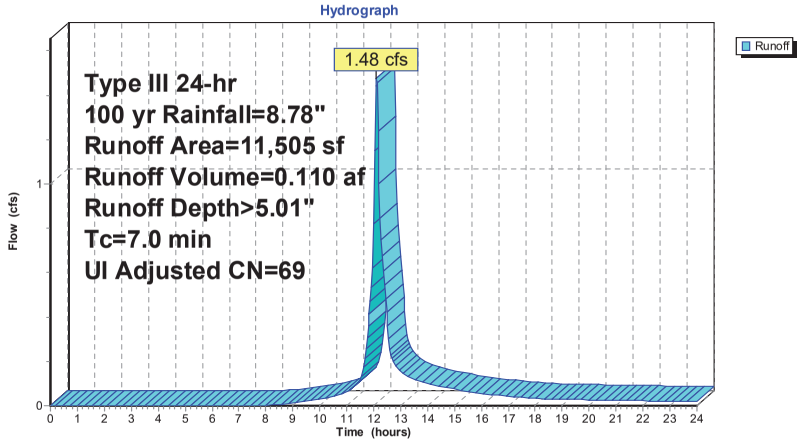
Runoff = 1.48 cfs @ 12.10 hrs, Volume= 0.110 af, Depth> 5.01"
Routed to Pond 20P : Detention Basin #1 (North)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Adj	Description
8,215	61		>75% Grass cover, Good, HSG B
0	80		>75% Grass cover, Good, HSG D
0	55		Woods, Good, HSG B
0	77		Woods, Good, HSG D
1,950	98		Roofs, HSG B
1,340	98		Unconnected pavement, HSG B
11,505	72	69	Weighted Average, UI Adjusted
8,215			71.40% Pervious Area
3,290			28.60% Impervious Area
1,340			40.73% Unconnected

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

Subcatchment 31S: Lot 7



Summary for Subcatchment 32S: Lot 8

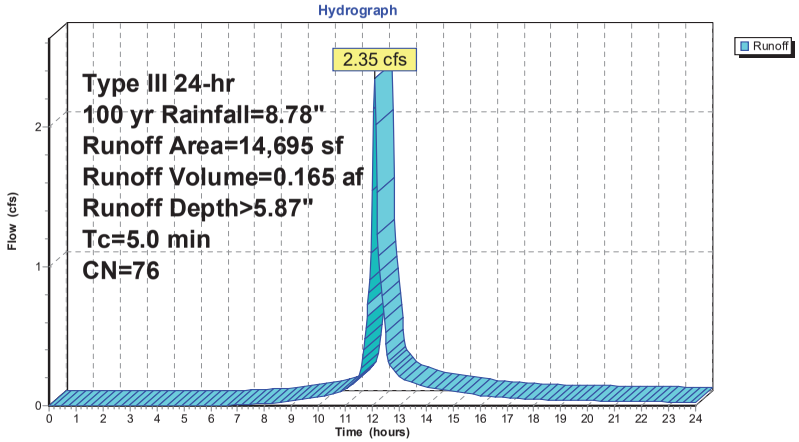
Runoff = 2.35 cfs @ 12.08 hrs, Volume= 0.165 af, Depth> 5.87"
Routed to Pond 16P : Detention Basin #2 (South)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
8,199	61	>75% Grass cover, Good, HSG B
1,369	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
1,950	98	Roofs, HSG B
3,177	98	Unconnected pavement, HSG B
14,695	76	Weighted Average
9,568		65.11% Pervious Area
5,127		34.89% Impervious Area
3,177		61.97% Unconnected

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

Subcatchment 32S: Lot 8



Summary for Subcatchment 34S: To Culvert

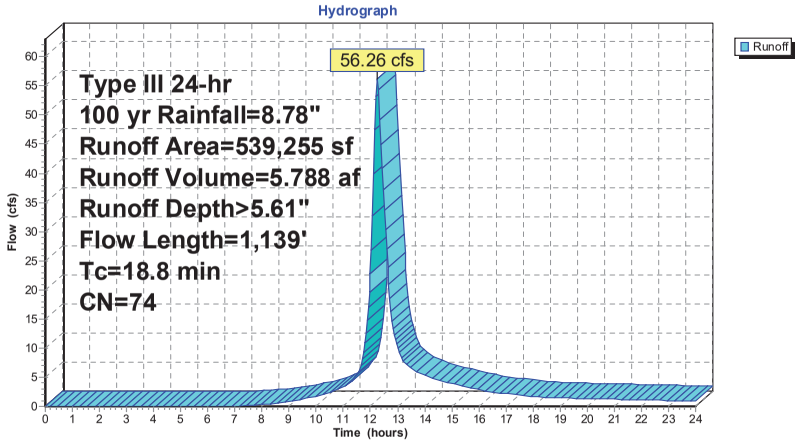
Runoff = 56.26 cfs @ 12.26 hrs, Volume= 5.788 af, Depth> 5.61"
Routed to Pond 40P : Culvert

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
0	61	>75% Grass cover, Good, HSG B
2,300	74	>75% Grass cover, Good, HSG C
11,231	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
234,744	70	Woods, Good, HSG C
290,980	77	Woods, Good, HSG D
0	98	Roofs, HSG B
0	98	Unconnected pavement, HSG B
539,255	74	Weighted Average
539,255		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.5	100	0.2200	0.12		**Sheet Flow,** Woods: Dense underbrush n= 0.800 P2= 3.60"
2.8	400	0.2200	2.35		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
2.5	639	0.7500	4.33		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
18.8	1,139	Total			

Subcatchment 34S: To Culvert



Summary for Subcatchment 35S: Road to Basin 2

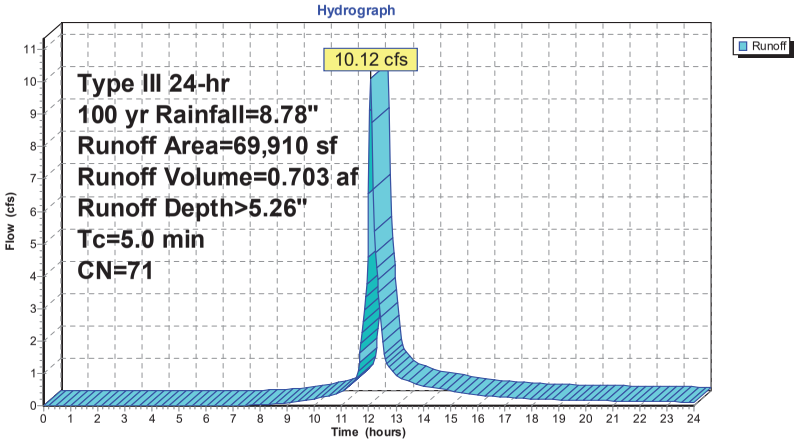
Runoff = 10.12 cfs @ 12.08 hrs, Volume= 0.703 af, Depth> 5.26"
Routed to Pond 16P : Detention Basin #2 (South)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
15,061	61	>75% Grass cover, Good, HSG B
0	74	>75% Grass cover, Good, HSG C
4,058	80	>75% Grass cover, Good, HSG D
15,055	55	Woods, Good, HSG B
11,839	70	Woods, Good, HSG C
12,167	77	Woods, Good, HSG D
11,730	98	Paved parking, HSG B
69,910	71	Weighted Average
58,180		83.22% Pervious Area
11,730		16.78% Impervious Area

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

Subcatchment 35S: Road to Basin 2



Summary for Subcatchment 40S: To Fire Pond

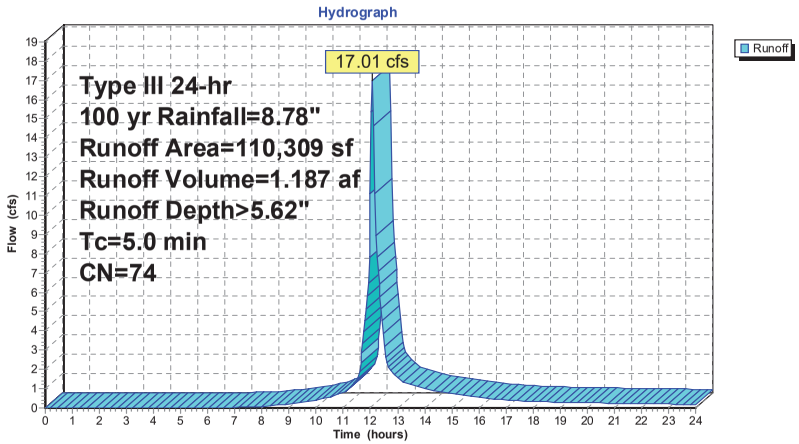
Runoff = 17.01 cfs @ 12.08 hrs, Volume= 1.187 af, Depth> 5.62"
Routed to Pond 42P : Fire Pond

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
0	61	>75% Grass cover, Good, HSG B
0	80	>75% Grass cover, Good, HSG D
1,617	55	Woods, Good, HSG B
40,460	70	Woods, Good, HSG C
68,232	77	Woods, Good, HSG D
0	98	Paved parking, HSG B
110,309	74	Weighted Average
110,309		100.00% Pervious Area

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

Subcatchment 40S: To Fire Pond



Summary for Subcatchment 42S: Lot 5 Roof

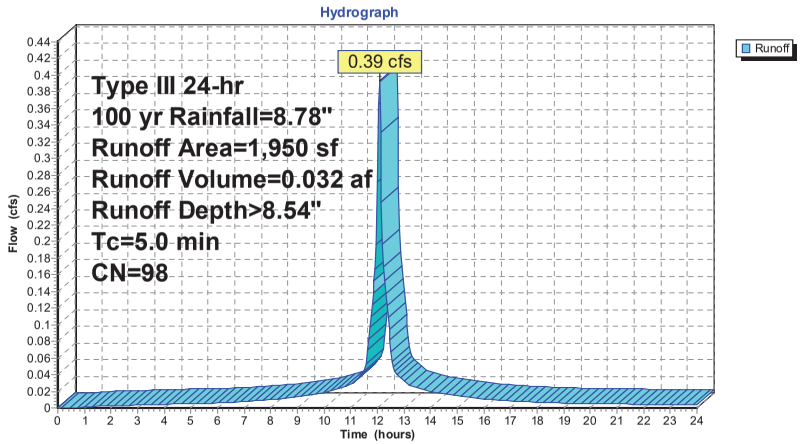
Runoff = 0.39 cfs @ 12.07 hrs, Volume= 0.032 af, Depth> 8.54"
Routed to Pond 43P : RS L5R

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
0	61	>75% Grass cover, Good, HSG B
0	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
1,950	98	Roofs, HSG B
0	98	Unconnected pavement, HSG B
1,950	98	Weighted Average
1,950		100.00% Impervious Area

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

Subcatchment 42S: Lot 5 Roof



Summary for Subcatchment 43S: Bypass 1A

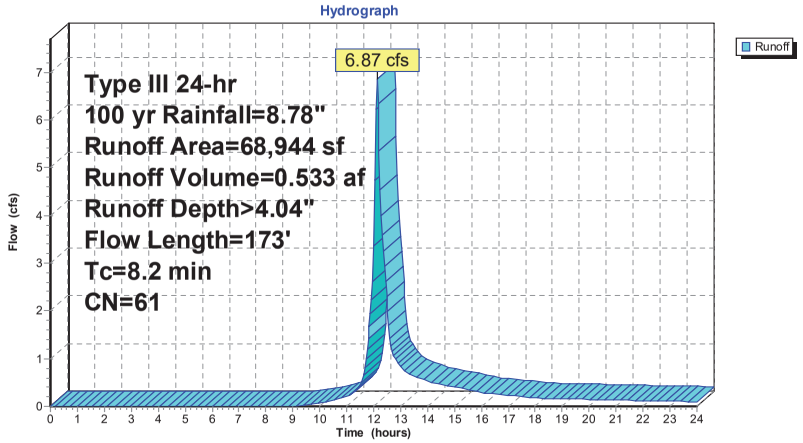
Runoff = 6.87 cfs @ 12.12 hrs, Volume= 0.533 af, Depth> 4.04"
Routed to Link 38L : POC 3 (Monroe Turnpike)

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
21,102	61	>75% Grass cover, Good, HSG B
1,000	74	>75% Grass cover, Good, HSG C
1,548	80	>75% Grass cover, Good, HSG D
35,144	55	Woods, Good, HSG B
3,480	70	Woods, Good, HSG C
6,670	77	Woods, Good, HSG D
68,944	61	Weighted Average
68,944		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.0	50	0.2100	0.28		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.60"
4.5	50	0.2100	0.18		**Sheet Flow,** Woods: Light underbrush n= 0.400 P2= 3.60"
0.7	73	0.1200	1.73		**Shallow Concentrated Flow,** Woodland Kv= 5.0 fps
8.2	173	Total			

Subcatchment 43S: Bypass 1A



Summary for Subcatchment 46S: Lot 6 Upper Drive

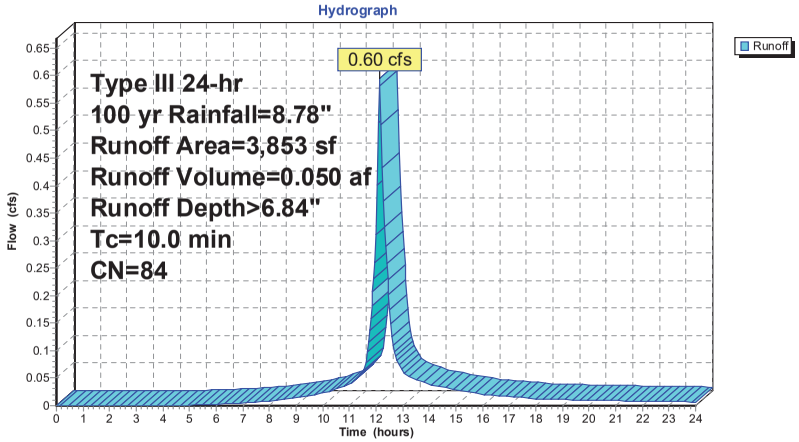
Runoff = 0.60 cfs @ 12.14 hrs, Volume= 0.050 af, Depth> 6.84"
Routed to Pond 45P : RS L6

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
1,494	61	>75% Grass cover, Good, HSG B
0	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
0	98	Roofs, HSG B
2,359	98	Unconnected pavement, HSG B
3,853	84	Weighted Average
1,494		38.77% Pervious Area
2,359		61.23% Impervious Area
2,359		100.00% Unconnected

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

Subcatchment 46S: Lot 6 Upper Drive



Summary for Subcatchment 49S: Lot 7 Upper Drive

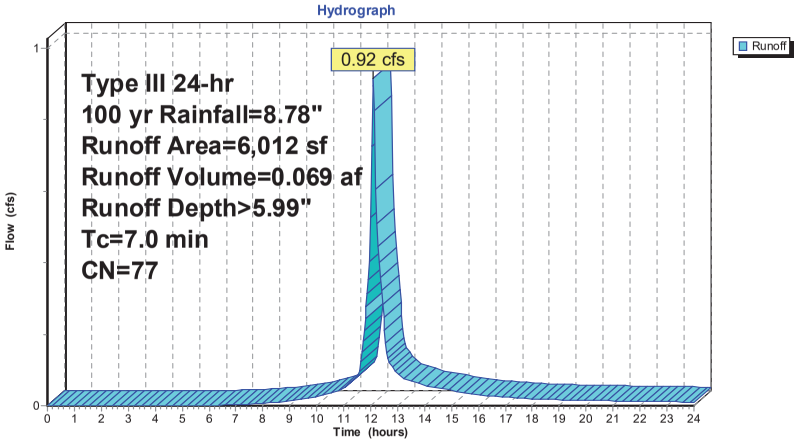
Runoff = 0.92 cfs @ 12.10 hrs, Volume= 0.069 af, Depth> 5.99"
Routed to Pond 48P : RS L7

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
3,432	61	>75% Grass cover, Good, HSG B
0	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
0	98	Roofs, HSG B
2,580	98	Unconnected pavement, HSG B
6,012	77	Weighted Average
3,432		57.09% Pervious Area
2,580		42.91% Impervious Area
2,580		100.00% Unconnected

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

Subcatchment 49S: Lot 7 Upper Drive



Summary for Subcatchment 50S: Lot 3 (rear roof)

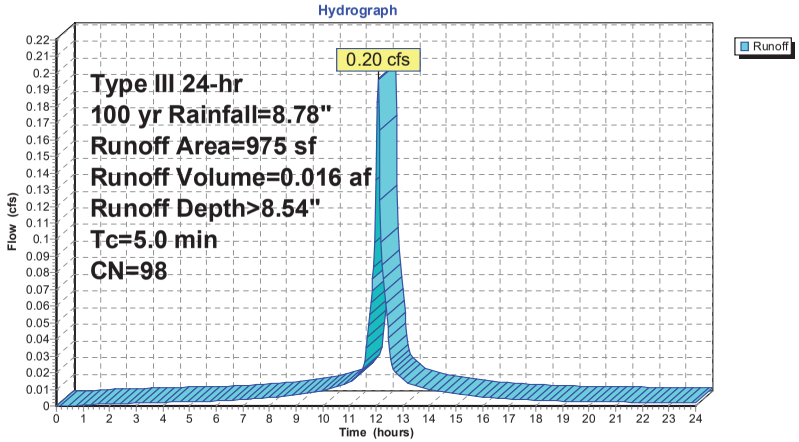
Runoff = 0.20 cfs @ 12.07 hrs, Volume= 0.016 af, Depth> 8.54"
Routed to Pond 44P : RS L3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type III 24-hr 100 yr Rainfall=8.78"

Area (sf)	CN	Description
0	61	>75% Grass cover, Good, HSG B
0	80	>75% Grass cover, Good, HSG D
0	55	Woods, Good, HSG B
0	77	Woods, Good, HSG D
975	98	Roofs, HSG B
0	98	Unconnected pavement, HSG B
975	98	Weighted Average
975		100.00% Impervious Area

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

Subcatchment 50S: Lot 3 (rear roof)



Summary for Reach 40R: Reach L4

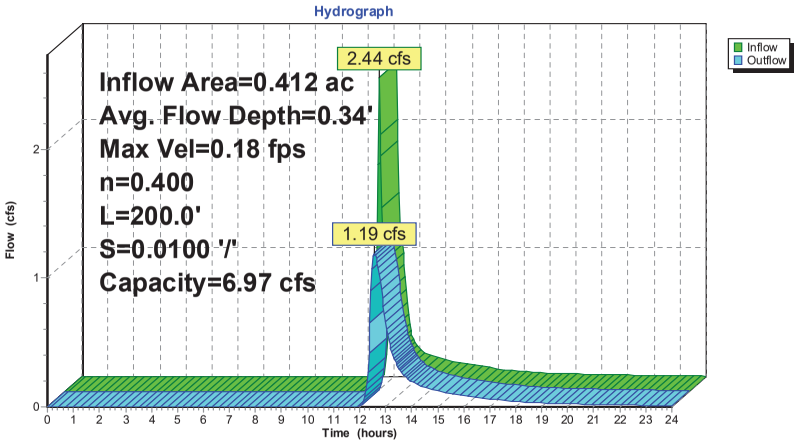
Inflow Area = 0.412 ac, 28.66% Impervious, Inflow Depth > 3.65" for 100 yr event
Inflow = 2.44 cfs @ 12.08 hrs, Volume= 0.125 af
Outflow = 1.19 cfs @ 12.57 hrs, Volume= 0.124 af, Atten= 51%, Lag= 28.9 min
Routed to Link 37L : POC 2 (Cottage Street)

Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Max. Velocity= 0.18 fps, Min. Travel Time= 18.9 min
Avg. Velocity = 0.06 fps, Avg. Travel Time= 59.0 min

Peak Storage= 1,353 cf @ 12.25 hrs
Average Depth at Peak Storage= 0.34' , Surface Width= 20.00'
Bank-Full Depth= 1.00' Flow Area= 20.0 sf, Capacity= 6.97 cfs

20.00' x 1.00' deep channel, n= 0.400 Sheet flow: Woods+light brush
Length= 200.0' Slope= 0.0100 '/'
Inlet Invert= 270.00', Outlet Invert= 268.00'

Reach 40R: Reach L4



Stage-Area-Storage for Reach 40R: Reach L4

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
270.00	0.0	0	270.53	10.6	2,120
270.01	0.2	40	270.54	10.8	2,160
270.02	0.4	80	270.55	11.0	2,200
270.03	0.6	120	270.56	11.2	2,240
270.04	0.8	160	270.57	11.4	2,280
270.05	1.0	200	270.58	11.6	2,320
270.06	1.2	240	270.59	11.8	2,360
270.07	1.4	280	270.60	12.0	2,400
270.08	1.6	320	270.61	12.2	2,440
270.09	1.8	360	270.62	12.4	2,480
270.10	2.0	400	270.63	12.6	2,520
270.11	2.2	440	270.64	12.8	2,560
270.12	2.4	480	270.65	13.0	2,600
270.13	2.6	520	270.66	13.2	2,640
270.14	2.8	560	270.67	13.4	2,680
270.15	3.0	600	270.68	13.6	2,720
270.16	3.2	640	270.69	13.8	2,760
270.17	3.4	680	270.70	14.0	2,800
270.18	3.6	720	270.71	14.2	2,840
270.19	3.8	760	270.72	14.4	2,880
270.20	4.0	800	270.73	14.6	2,920
270.21	4.2	840	270.74	14.8	2,960
270.22	4.4	880	270.75	15.0	3,000
270.23	4.6	920	270.76	15.2	3,040
270.24	4.8	960	270.77	15.4	3,080
270.25	5.0	1,000	270.78	15.6	3,120
270.26	5.2	1,040	270.79	15.8	3,160
270.27	5.4	1,080	270.80	16.0	3,200
270.28	5.6	1,120	270.81	16.2	3,240
270.29	5.8	1,160	270.82	16.4	3,280
270.30	6.0	1,200	270.83	16.6	3,320
270.31	6.2	1,240	270.84	16.8	3,360
270.32	6.4	1,280	270.85	17.0	3,400
270.33	6.6	1,320	270.86	17.2	3,440
270.34	6.8	1,360	270.87	17.4	3,480
270.35	7.0	1,400	270.88	17.6	3,520
270.36	7.2	1,440	270.89	17.8	3,560
270.37	7.4	1,480	270.90	18.0	3,600
270.38	7.6	1,520	270.91	18.2	3,640
270.39	7.8	1,560	270.92	18.4	3,680
270.40	8.0	1,600	270.93	18.6	3,720
270.41	8.2	1,640	270.94	18.8	3,760
270.42	8.4	1,680	270.95	19.0	3,800
270.43	8.6	1,720	270.96	19.2	3,840
270.44	8.8	1,760	270.97	19.4	3,880
270.45	9.0	1,800	270.98	19.6	3,920
270.46	9.2	1,840	270.99	19.8	3,960
270.47	9.4	1,880	271.00	**20.0**	**4,000**
270.48	9.6	1,920			
270.49	9.8	1,960			
270.50	10.0	2,000			
270.51	10.2	2,040			
270.52	10.4	2,080			

Summary for Reach 41R: Reach L5R

Inflow Area = 0.045 ac,100.00% Impervious, Inflow Depth = 4.43" for 100 yr event
Inflow = 0.36 cfs @ 12.10 hrs, Volume= 0.017 af
Outflow = 0.15 cfs @ 12.83 hrs, Volume= 0.016 af, Atten= 58%, Lag= 44.1 min
Routed to Link 37L : POC 2 (Cottage Street)

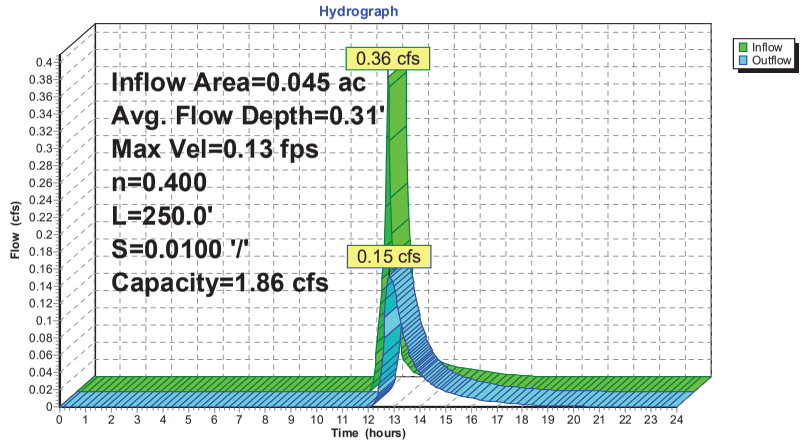
Routing by Stor-Ind+Trans method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Max. Velocity= 0.13 fps, Min. Travel Time= 32.0 min
Avg. Velocity = 0.05 fps, Avg. Travel Time= 91.4 min

Peak Storage= 293 cf @ 12.30 hrs
Average Depth at Peak Storage= 0.31' , Surface Width= 5.60'
Bank-Full Depth= 1.00' Flow Area= 6.7 sf, Capacity= 1.86 cfs

10.00' x 1.00' deep Parabolic Channel, n= 0.400 Sheet flow: Woods+light brush
Length= 250.0' Slope= 0.0100 '/'
Inlet Invert= 288.50', Outlet Invert= 286.00'

‡

Reach 41R: Reach L5R



Stage-Area-Storage for Reach 41R: Reach L5R

Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)	Elevation (feet)	End-Area (sq-ft)	Storage (cubic-feet)
288.50	0.0	0	289.03	2.6	643
288.51	0.0	2	289.04	2.6	661
288.52	0.0	5	289.05	2.7	680
288.53	0.0	9	289.06	2.8	698
288.54	0.1	13	289.07	2.9	717
288.55	0.1	19	289.08	2.9	736
288.56	0.1	24	289.09	3.0	755
288.57	0.1	31	289.10	3.1	775
288.58	0.2	38	289.11	3.2	794
288.59	0.2	45	289.12	3.3	814
288.60	0.2	53	289.13	3.3	833
288.61	0.2	61	289.14	3.4	853
288.62	0.3	69	289.15	3.5	873
288.63	0.3	78	289.16	3.6	894
288.64	0.3	87	289.17	3.7	914
288.65	0.4	97	289.18	3.7	935
288.66	0.4	107	289.19	3.8	955
288.67	0.5	117	289.20	3.9	976
288.68	0.5	127	289.21	4.0	997
288.69	0.6	138	289.22	4.1	1,018
288.70	0.6	149	289.23	4.2	1,040
288.71	0.6	160	289.24	4.2	1,061
288.72	0.7	172	289.25	4.3	1,083
288.73	0.7	184	289.26	4.4	1,104
288.74	0.8	196	289.27	4.5	1,126
288.75	0.8	208	289.28	4.6	1,148
288.76	0.9	221	289.29	4.7	1,170
288.77	0.9	234	289.30	4.8	1,193
288.78	1.0	247	289.31	4.9	1,215
288.79	1.0	260	289.32	5.0	1,238
288.80	1.1	274	289.33	5.0	1,260
288.81	1.2	288	289.34	5.1	1,283
288.82	1.2	302	289.35	5.2	1,306
288.83	1.3	316	289.36	5.3	1,329
288.84	1.3	330	289.37	5.4	1,352
288.85	1.4	345	289.38	5.5	1,376
288.86	1.4	360	289.39	5.6	1,399
288.87	1.5	375	289.40	5.7	1,423
288.88	1.6	390	289.41	5.8	1,447
288.89	1.6	406	289.42	5.9	1,471
288.90	1.7	422	289.43	6.0	1,495
288.91	1.8	438	289.44	6.1	1,519
288.92	1.8	454	289.45	6.2	1,543
288.93	1.9	470	289.46	6.3	1,568
288.94	1.9	486	289.47	6.4	1,592
288.95	2.0	503	289.48	6.5	1,617
288.96	2.1	520	289.49	6.6	1,642
288.97	2.1	537	289.50	**6.7**	**1,667**
288.98	2.2	554			
288.99	2.3	572			
289.00	2.4	589			
289.01	2.4	607			
289.02	2.5	625			

Summary for Pond 16P: Detention Basin #2 (South)

Inflow Area = 1.942 ac, 19.92% Impervious, Inflow Depth > 5.37" for 100 yr event
Inflow = 12.48 cfs @ 12.08 hrs, Volume= 0.868 af
Outflow = 12.06 cfs @ 12.10 hrs, Volume= 0.818 af, Atten= 3%, Lag= 1.2 min
Discarded = 0.04 cfs @ 12.10 hrs, Volume= 0.044 af
Primary = 12.01 cfs @ 12.10 hrs, Volume= 0.774 af
Routed to Link 39L : POC 4 (Culvert Under Monroe Turnpike)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 280.09' @ 12.10 hrs Surf.Area= 2,147 sf Storage= 3,336 cf

Plug-Flow detention time= 46.7 min calculated for 0.818 af (94% of inflow)
Center-of-Mass det. time= 15.5 min (830.8 - 815.3)

Volume	Invert	Avail.Storage	Storage Description
#1	278.00'	8,672 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

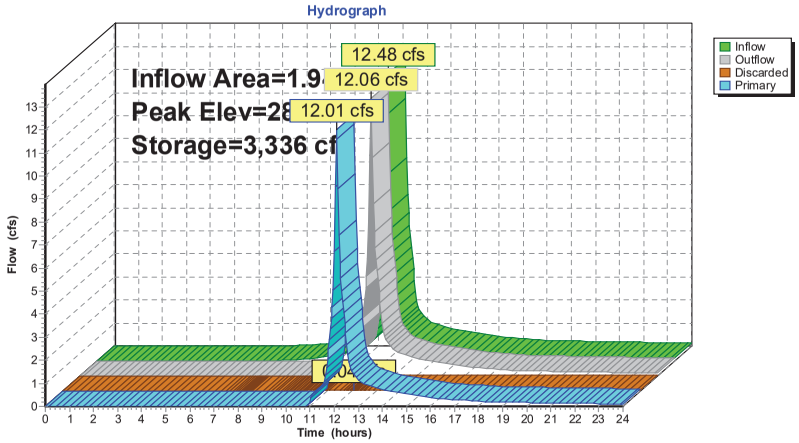
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
278.00	1,054	0	0
280.00	2,082	3,136	3,136
282.00	3,454	5,536	8,672

Device	Routing	Invert	Outlet Devices
#1	Primary	281.00'	**10.0' long Emergency Weir** 2 End Contraction(s) 1.0' Crest Height
#2	Primary	276.50'	**24.0" Round Outlet Culvert** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 276.50' / 273.00' S= 0.0700 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 3.14 sf
#3	Device 2	279.50'	**8.0' long Slot Weir** Cv= 2.62 (C= 3.28)
#4	Device 2	281.00'	**2.0" x 2.0" Horiz. Grate Top X 8.00 columns** X 8 rows C= 0.600 in 24.0" x 24.0" Grate (44% open area) Limited to weir flow at low heads
#5	Discarded	278.00'	**0.520 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 276.00'

Discarded OutFlow Max=0.04 cfs @ 12.10 hrs HW=280.08' (Free Discharge)
└**5=Exfiltration** (Controls 0.04 cfs)

Primary OutFlow Max=11.71 cfs @ 12.10 hrs HW=280.08' (Free Discharge)
├**1=Emergency Weir** (Controls 0.00 cfs)
└**2=Outlet Culvert** (Passes 11.71 cfs of 24.32 cfs potential flow)
  ├**3=Slot Weir** (Weir Controls 11.71 cfs @ 2.50 fps)
  └**4=Grate Top** (Controls 0.00 cfs)

Pond 16P: Detention Basin #2 (South)



Stage-Area-Storage for Pond 16P: Detention Basin #2 (South)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
278.00	1,054	0	280.65	2,528	4,634
278.05	1,080	53	280.70	2,562	4,761
278.10	1,105	108	280.75	2,597	4,890
278.15	1,131	164	280.80	2,631	5,021
278.20	1,157	221	280.85	2,665	5,154
278.25	1,183	280	280.90	2,699	5,288
278.30	1,208	339	280.95	2,734	5,423
278.35	1,234	400	281.00	2,768	5,561
278.40	1,260	463	281.05	2,802	5,700
278.45	1,285	526	281.10	2,837	5,841
278.50	1,311	591	281.15	2,871	5,984
278.55	1,337	657	281.20	2,905	6,128
278.60	1,362	725	281.25	2,940	6,274
278.65	1,388	794	281.30	2,974	6,422
278.70	1,414	864	281.35	3,008	6,572
278.75	1,440	935	281.40	3,042	6,723
278.80	1,465	1,008	281.45	3,077	6,876
278.85	1,491	1,082	281.50	3,111	7,031
278.90	1,517	1,157	281.55	3,145	7,187
278.95	1,542	1,233	281.60	3,180	7,345
279.00	1,568	1,311	281.65	3,214	7,505
279.05	1,594	1,390	281.70	3,248	7,667
279.10	1,619	1,470	281.75	3,283	7,830
279.15	1,645	1,552	281.80	3,317	7,995
279.20	1,671	1,635	281.85	3,351	8,162
279.25	1,697	1,719	281.90	3,385	8,330
279.30	1,722	1,805	281.95	3,420	8,500
279.35	1,748	1,891	282.00	**3,454**	**8,672**
279.40	1,774	1,979			
279.45	1,799	2,069			
279.50	1,825	2,159			
279.55	1,851	2,251			
279.60	1,876	2,344			
279.65	1,902	2,439			
279.70	1,928	2,535			
279.75	1,954	2,632			
279.80	1,979	2,730			
279.85	2,005	2,829			
279.90	2,031	2,930			
279.95	2,056	3,033			
280.00	2,082	3,136			
280.05	2,116	3,241			
280.10	2,151	3,348			
280.15	2,185	3,456			
280.20	2,219	3,566			
280.25	2,254	3,678			
280.30	2,288	3,791			
280.35	2,322	3,907			
280.40	2,356	4,024			
280.45	2,391	4,142			
280.50	2,425	4,263			
280.55	2,459	4,385			
280.60	2,494	4,509			

Summary for Pond 20P: Detention Basin #1 (North)

Inflow Area = 4.480 ac, 21.95% Impervious, Inflow Depth > 4.67" for 100 yr event
Inflow = 18.53 cfs @ 12.17 hrs, Volume= 1.743 af
Outflow = 16.22 cfs @ 12.27 hrs, Volume= 1.679 af, Atten= 12%, Lag= 6.0 min
Discarded = 0.14 cfs @ 12.27 hrs, Volume= 0.107 af
Primary = 16.08 cfs @ 12.27 hrs, Volume= 1.573 af
Routed to Link 38L : POC 3 (Monroe Turnpike)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 267.99' @ 12.27 hrs Surf.Area= 4,809 sf Storage= 10,495 cf

Plug-Flow detention time= 49.2 min calculated for 1.679 af (96% of inflow)
Center-of-Mass det. time= 29.0 min (859.9 - 830.9)

Volume	Invert	Avail.Storage	Storage Description
#1	265.00'	18,819 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

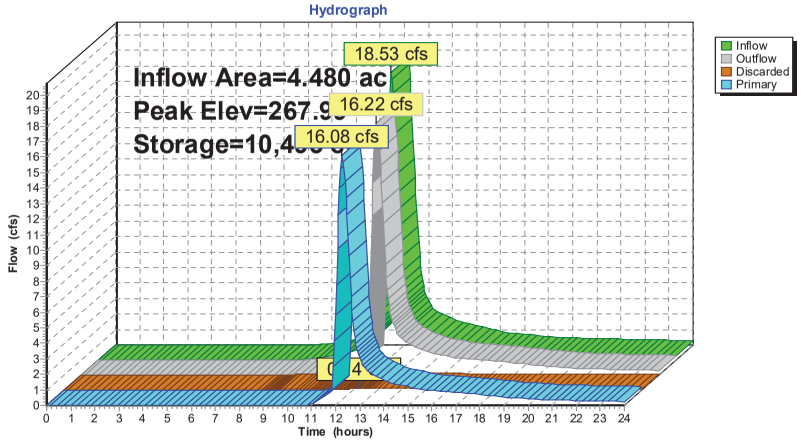
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
265.00	2,255	0	0
266.00	3,071	2,663	2,663
268.00	4,820	7,891	10,554
269.50	6,200	8,265	18,819

Device	Routing	Invert	Outlet Devices
#1	Primary	268.50'	**10.0' long Emergency Overflow Weir** 2 End Contraction(s) 1.0' Crest Height
#2	Primary	259.00'	**24.0" Round Outlet Culvert** L= 58.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 259.00' / 253.20' S= 0.1000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf
#3	Device 2	265.75'	**6.0" Vert. Orifice** C= 0.600 Limited to weir flow at low heads
#4	Device 2	267.00'	**7.0' long x 0.50' rise Weir Slot** Cv= 2.62 (C= 3.28)
#5	Device 2	268.50'	**4.0" x 2.0" Horiz. Grate Top X 8.00 columns** X 9 rows C= 0.600 in 36.0" x 24.0" Grate (67% open area) Limited to weir flow at low heads
#6	Device 2	264.00'	**4.0" Round Underdrain** L= 90.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 264.00' / 264.00' S= 0.0000 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.09 sf
#7	Device 6	265.00'	**1.020 in/hr Exfil to underdrain X 0.25 over Surface area** Conductivity to Groundwater Elevation = 262.00'
#8	Discarded	265.00'	**1.020 in/hr Exfiltration X 0.75 over Surface area** Conductivity to Groundwater Elevation = 262.00'

Discarded OutFlow Max=0.14 cfs @ 12.27 hrs HW=267.99' (Free Discharge)
└**8=Exfiltration** (Controls 0.14 cfs)

Primary OutFlow Max=16.05 cfs @ 12.27 hrs HW=267.99' (Free Discharge)
└**1=Emergency Overflow Weir** (Controls 0.00 cfs)
└**2=Outlet Culvert** (Passes 16.05 cfs of 42.75 cfs potential flow)
3=Orifice (Orifice Controls 1.33 cfs @ 6.78 fps)
4=Weir Slot (Orifice Controls 14.67 cfs @ 4.19 fps)
5=Grate Top (Controls 0.00 cfs)
6=Underdrain (Passes 0.05 cfs of 0.45 cfs potential flow)
└**7=Exfil to underdrain** (Controls 0.05 cfs)

Pond 20P: Detention Basin #1 (North)



Stage-Area-Storage for Pond 20P: Detention Basin #1 (North)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
265.00	2,255	0	267.65	4,514	8,921
265.05	2,296	114	267.70	4,558	9,147
265.10	2,337	230	267.75	4,601	9,376
265.15	2,377	347	267.80	4,645	9,607
265.20	2,418	467	267.85	4,689	9,841
265.25	2,459	589	267.90	4,733	10,076
265.30	2,500	713	267.95	4,776	10,314
265.35	2,541	839	268.00	4,820	10,554
265.40	2,581	967	268.05	4,866	10,796
265.45	2,622	1,097	268.10	4,912	11,041
265.50	2,663	1,230	268.15	4,958	11,287
265.55	2,704	1,364	268.20	5,004	11,536
265.60	2,745	1,500	268.25	5,050	11,788
265.65	2,785	1,638	268.30	5,096	12,041
265.70	2,826	1,778	268.35	5,142	12,297
265.75	2,867	1,921	268.40	5,188	12,556
265.80	2,908	2,065	268.45	5,234	12,816
265.85	2,949	2,212	268.50	5,280	13,079
265.90	2,989	2,360	268.55	5,326	13,344
265.95	3,030	2,510	268.60	5,372	13,612
266.00	3,071	2,663	268.65	5,418	13,881
266.05	3,115	2,818	268.70	5,464	14,153
266.10	3,158	2,974	268.75	5,510	14,428
266.15	3,202	3,133	268.80	5,556	14,704
266.20	3,246	3,295	268.85	5,602	14,983
266.25	3,290	3,458	268.90	5,648	15,265
266.30	3,333	3,624	268.95	5,694	15,548
266.35	3,377	3,791	269.00	5,740	15,834
266.40	3,421	3,961	269.05	5,786	16,122
266.45	3,465	4,133	269.10	5,832	16,413
266.50	3,508	4,308	269.15	5,878	16,705
266.55	3,552	4,484	269.20	5,924	17,000
266.60	3,596	4,663	269.25	5,970	17,298
266.65	3,639	4,844	269.30	6,016	17,597
266.70	3,683	5,027	269.35	6,062	17,899
266.75	3,727	5,212	269.40	6,108	18,204
266.80	3,771	5,400	269.45	6,154	18,510
266.85	3,814	5,589	269.50	**6,200**	**18,819**
266.90	3,858	5,781			
266.95	3,902	5,975			
267.00	3,946	6,171			
267.05	3,989	6,370			
267.10	4,033	6,570			
267.15	4,077	6,773			
267.20	4,120	6,978			
267.25	4,164	7,185			
267.30	4,208	7,394			
267.35	4,252	7,606			
267.40	4,295	7,819			
267.45	4,339	8,035			
267.50	4,383	8,253			
267.55	4,426	8,474			
267.60	4,470	8,696			

Summary for Pond 40P: Culvert

Inflow Area = 12.380 ac, 0.00% Impervious, Inflow Depth > 5.61" for 100 yr event
Inflow = 56.26 cfs @ 12.26 hrs, Volume= 5.788 af
Outflow = 55.93 cfs @ 12.27 hrs, Volume= 5.786 af, Atten= 1%, Lag= 1.1 min
Primary = 55.93 cfs @ 12.27 hrs, Volume= 5.786 af
Routed to Link 39L : POC 4 (Culvert Under Monroe Turnpike)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 297.29' @ 12.27 hrs Surf.Area= 2,354 sf Storage= 2,911 cf

Plug-Flow detention time= 0.9 min calculated for 5.776 af (100% of inflow)
Center-of-Mass det. time= 0.8 min (823.0 - 822.3)

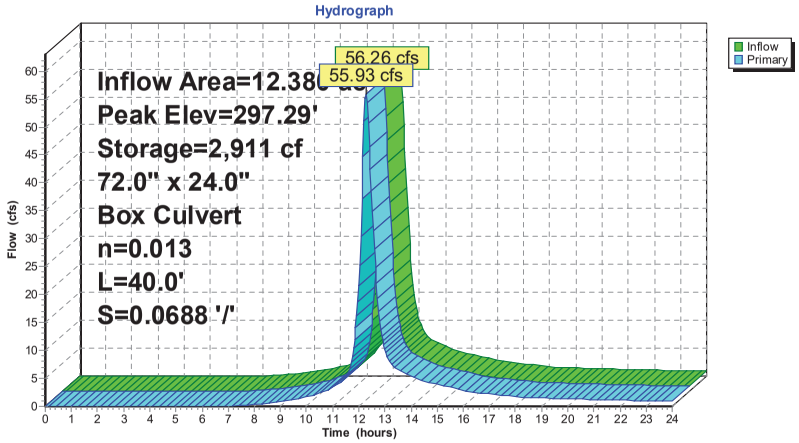
Volume	Invert	Avail.Storage	Storage Description
#1	295.25'	30,417 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
295.25	500	0	0
298.00	3,000	4,813	4,813
300.00	6,260	9,260	14,073
302.00	10,084	16,344	30,417

Device	Routing	Invert	Outlet Devices
#1	Primary	295.25'	**72.0" W x 24.0" H Box Box Culvert** L= 40.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 295.25' / 292.50' S= 0.0688 '/' Cc= 0.900 n= 0.013 Concrete, trowel finish, Flow Area= 12.00 sf

Primary OutFlow Max=55.79 cfs @ 12.27 hrs HW=297.29' (Free Discharge)
↑**1=Box Culvert** (Inlet Controls 55.79 cfs @ 4.65 fps)

Pond 40P: Culvert



Stage-Area-Storage for Pond 40P: Culvert

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
295.25	500	0	300.55	7,312	17,805
295.35	591	55	300.65	7,503	18,545
295.45	682	118	300.75	7,694	19,305
295.55	773	191	300.85	7,885	20,084
295.65	864	273	300.95	8,076	20,882
295.75	955	364	301.05	8,268	21,699
295.85	1,045	464	301.15	8,459	22,536
295.95	1,136	573	301.25	8,650	23,391
296.05	1,227	691	301.35	8,841	24,266
296.15	1,318	818	301.45	9,032	25,159
296.25	1,409	955	301.55	9,224	26,072
296.35	1,500	1,100	301.65	9,415	27,004
296.45	1,591	1,255	301.75	9,606	27,955
296.55	1,682	1,418	301.85	9,797	28,925
296.65	1,773	1,591	301.95	**9,988**	**29,915**
296.75	1,864	1,773			
296.85	1,955	1,964			
296.95	2,045	2,164			
297.05	2,136	2,373			
297.15	2,227	2,591			
297.25	2,318	2,818			
297.35	2,409	3,055			
297.45	2,500	3,300			
297.55	2,591	3,555			
297.65	2,682	3,818			
297.75	2,773	4,091			
297.85	2,864	4,373			
297.95	2,955	4,664			
298.05	3,082	4,965			
298.15	3,244	5,281			
298.25	3,408	5,613			
298.35	3,571	5,962			
298.45	3,733	6,328			
298.55	3,897	6,709			
298.65	4,059	7,107			
298.75	4,223	7,521			
298.85	4,386	7,951			
298.95	4,548	8,398			
299.05	4,712	8,861			
299.15	4,874	9,340			
299.25	5,038	9,836			
299.35	5,201	10,348			
299.45	5,363	10,876			
299.55	5,527	11,421			
299.65	5,689	11,981			
299.75	5,853	12,558			
299.85	6,016	13,152			
299.95	6,178	13,762			
300.05	6,356	14,388			
300.15	6,547	15,033			
300.25	6,738	15,697			
300.35	6,929	16,381			
300.45	7,120	17,083			

Summary for Pond 41P: RS L4

Inflow Area = 0.412 ac, 28.66% Impervious, Inflow Depth > 4.89" for 100 yr event
Inflow = 2.42 cfs @ 12.08 hrs, Volume= 0.168 af
Outflow = 2.49 cfs @ 12.08 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.4 min
Discarded = 0.05 cfs @ 12.08 hrs, Volume= 0.030 af
Primary = 2.44 cfs @ 12.08 hrs, Volume= 0.125 af
Routed to Reach 40R : Reach L4

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 276.44' @ 12.08 hrs Surf.Area= 924 sf Storage= 878 cf

Plug-Flow detention time= 55.4 min calculated for 0.156 af (93% of inflow)
Center-of-Mass det. time= 18.1 min (841.5 - 823.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	272.50'	284 cf	**6.00'W x 98.00'L x 2.50'H Field A** 1,470 cf Overall - 760 cf Embedded = 710 cf x 40.0% Voids
#2A	273.00'	544 cf	**Concrete Galley 4x8x2** x 12 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf
#3	275.00'	50 cf	**10.50'W x 32.00'L x 0.75'H Prismatoid** 252 cf Overall x 20.0% Voids
		878 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	274.00'	**8.0" Round Culvert** L= 28.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 274.00' / 271.83' S= 0.0775 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Discarded	272.50'	**1.020 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 270.50'

Discarded OutFlow Max=0.05 cfs @ 12.08 hrs HW=276.37' (Free Discharge)
↑**2=Exfiltration** (Controls 0.05 cfs)

Primary OutFlow Max=2.39 cfs @ 12.08 hrs HW=276.36' (Free Discharge)
↑**1=Culvert** (Inlet Controls 2.39 cfs @ 6.85 fps)

Pond 41P: RS L4 - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

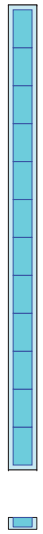
12 Chambers/Row x 8.00' Long = 96.00' Row Length +12.0" End Stone x 2 = 98.00' Base Length
1 Rows x 48.0" Wide + 12.0" Side Stone x 2 = 6.00' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

12 Chambers x 45.3 cf = 543.6 cf Chamber Storage
12 Chambers x 63.4 cf = 760.3 cf Displacement

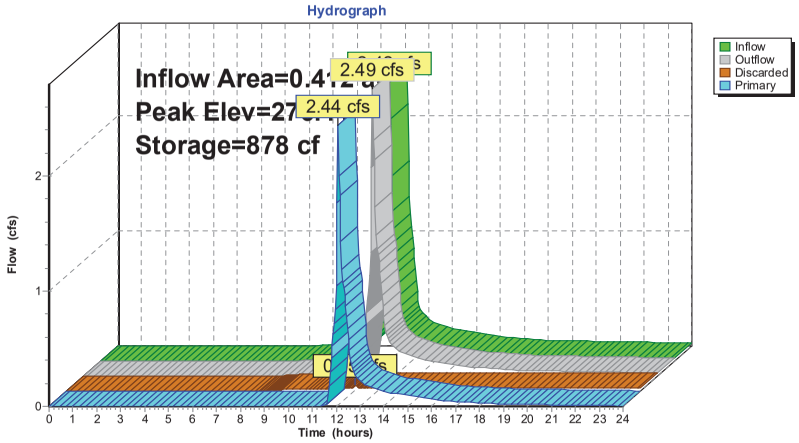
1,470.0 cf Field - 760.3 cf Chambers = 709.7 cf Stone x 40.0% Voids = 283.9 cf Stone Storage

Chamber Storage + Stone Storage = 827.5 cf = 0.019 af
Overall Storage Efficiency = 56.3%
Overall System Size = 98.00' x 6.00' x 2.50'

12 Chambers
54.4 cy Field
26.3 cy Stone



Pond 41P: RS L4



Stage-Area-Storage for Pond 41P: RS L4

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
272.50	588	0	275.15	924	838
272.55	588	12	275.20	924	841
272.60	588	24	275.25	924	844
272.65	588	35	275.30	924	848
272.70	588	47	275.35	924	851
272.75	588	59	275.40	924	854
272.80	588	71	275.45	924	858
272.85	588	82	275.50	924	861
272.90	588	94	275.55	924	864
272.95	588	106	275.60	924	868
273.00	588	118	275.65	924	871
273.05	588	138	275.70	924	875
273.10	588	157	275.75	924	**878**
273.15	588	177	275.80	924	878
273.20	588	197	275.85	924	878
273.25	588	217	275.90	924	878
273.30	588	237	275.95	924	878
273.35	588	257	276.00	924	878
273.40	588	277	276.05	924	878
273.45	588	297	276.10	924	878
273.50	588	317	276.15	924	878
273.55	588	337	276.20	924	878
273.60	588	356	276.25	924	878
273.65	588	376	276.30	924	878
273.70	588	396	276.35	924	878
273.75	588	416	276.40	924	878
273.80	588	436			
273.85	588	456			
273.90	588	476			
273.95	588	496			
274.00	588	516			
274.05	588	536			
274.10	588	556			
274.15	588	575			
274.20	588	595			
274.25	588	615			
274.30	588	635			
274.35	588	655			
274.40	588	675			
274.45	588	695			
274.50	588	715			
274.55	588	735			
274.60	588	754			
274.65	588	772			
274.70	588	789			
274.75	588	807			
274.80	588	811			
274.85	588	815			
274.90	588	819			
274.95	588	823			
275.00	**924**	827			
275.05	924	831			
275.10	924	834			

Summary for Pond 42P: Fire Pond

Inflow Area = 2.532 ac, 0.00% Impervious, Inflow Depth > 5.62" for 100 yr event
Inflow = 17.01 cfs @ 12.08 hrs, Volume= 1.187 af
Outflow = 16.86 cfs @ 12.09 hrs, Volume= 1.185 af, Atten= 1%, Lag= 0.7 min
Primary = 16.86 cfs @ 12.09 hrs, Volume= 1.185 af
Routed to Pond 46P : Detention Basin #3 (Entrance)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 304.16' @ 12.09 hrs Surf.Area= 1,390 sf Storage= 1,431 cf

Plug-Flow detention time= 4.8 min calculated for 1.183 af (100% of inflow)
Center-of-Mass det. time= 3.7 min (814.8 - 811.1)

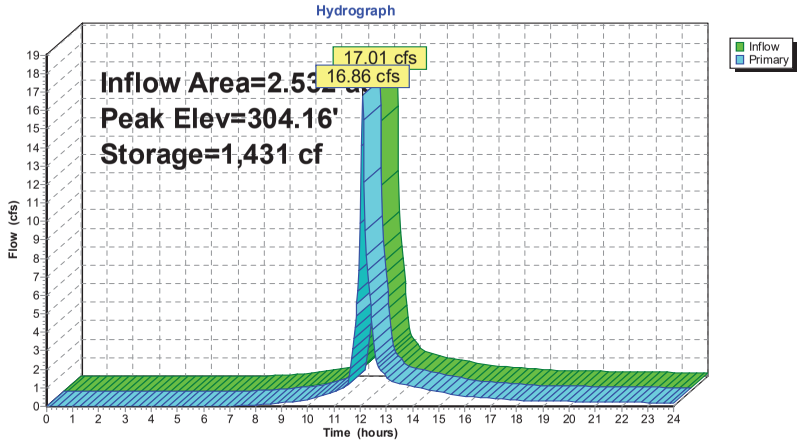
Volume	Invert	Avail.Storage	Storage Description
#1	303.00'	1,917 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
303.00	1,080	0	0
304.00	1,336	1,208	1,208
304.50	1,500	709	1,917

Device	Routing	Invert	Outlet Devices
#1	Primary	303.50'	**8.0' long Emergency Weir** 2 End Contraction(s) 1.0' Crest Height
#2	Primary	296.00'	**8.0" Round Culvert** L= 80.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 296.00' / 290.00' S= 0.0750 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#3	Device 2	303.00'	**8.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Primary OutFlow Max=16.56 cfs @ 12.09 hrs HW=304.16' (Free Discharge)
└**1=Emergency Weir** (Weir Controls 14.75 cfs @ 2.86 fps)
└**2=Culvert** (Passes 1.81 cfs of 4.70 cfs potential flow)
└**3=Orifice/Grate** (Orifice Controls 1.81 cfs @ 5.18 fps)

Pond 42P: Fire Pond



Stage-Area-Storage for Pond 42P: Fire Pond

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
303.00	1,080	0	304.06	1,356	1,289
303.02	1,085	22	304.08	1,362	1,316
303.04	1,090	43	304.10	1,369	1,343
303.06	1,095	65	304.12	1,375	1,371
303.08	1,100	87	304.14	1,382	1,398
303.10	1,106	109	304.16	1,388	1,426
303.12	1,111	131	304.18	1,395	1,454
303.14	1,116	154	304.20	1,402	1,482
303.16	1,121	176	304.22	1,408	1,510
303.18	1,126	199	304.24	1,415	1,538
303.20	1,131	221	304.26	1,421	1,566
303.22	1,136	244	304.28	1,428	1,595
303.24	1,141	267	304.30	1,434	1,624
303.26	1,147	289	304.32	1,441	1,652
303.28	1,152	312	304.34	1,448	1,681
303.30	1,157	336	304.36	1,454	1,710
303.32	1,162	359	304.38	1,461	1,739
303.34	1,167	382	304.40	1,467	1,769
303.36	1,172	405	304.42	1,474	1,798
303.38	1,177	429	304.44	1,480	1,828
303.40	1,182	452	304.46	1,487	1,857
303.42	1,188	476	304.48	1,493	1,887
303.44	1,193	500	304.50	**1,500**	**1,917**
303.46	1,198	524			
303.48	1,203	548			
303.50	1,208	572			
303.52	1,213	596			
303.54	1,218	621			
303.56	1,223	645			
303.58	1,228	669			
303.60	1,234	694			
303.62	1,239	719			
303.64	1,244	744			
303.66	1,249	769			
303.68	1,254	794			
303.70	1,259	819			
303.72	1,264	844			
303.74	1,269	869			
303.76	1,275	895			
303.78	1,280	920			
303.80	1,285	946			
303.82	1,290	972			
303.84	1,295	998			
303.86	1,300	1,023			
303.88	1,305	1,050			
303.90	1,310	1,076			
303.92	1,316	1,102			
303.94	1,321	1,128			
303.96	1,326	1,155			
303.98	1,331	1,181			
304.00	1,336	1,208			
304.02	1,343	1,235			
304.04	1,349	1,262			

Summary for Pond 43P: RS L5R

Inflow Area = 0.045 ac,100.00% Impervious, Inflow Depth > 8.54" for 100 yr event
Inflow = 0.39 cfs @ 12.07 hrs, Volume= 0.032 af
Outflow = 0.37 cfs @ 12.10 hrs, Volume= 0.029 af, Atten= 5%, Lag= 1.5 min
Discarded = 0.01 cfs @ 12.10 hrs, Volume= 0.012 af
Primary = 0.36 cfs @ 12.10 hrs, Volume= 0.017 af
Routed to Reach 41R : Reach L5R

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 290.57' @ 12.10 hrs Surf.Area= 189 sf Storage= 242 cf

Plug-Flow detention time= 100.7 min calculated for 0.029 af (91% of inflow)
Center-of-Mass det. time= 53.9 min (792.7 - 738.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	288.50'	88 cf	**10.50'W x 18.00'L x 2.50'H Field A** 473 cf Overall - 253 cf Embedded = 219 cf x 40.0% Voids
#2A	289.00'	181 cf	**Concrete Galley 4x8x2** x 4 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf 4 Chambers in 2 Rows
		269 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	290.17'	**6.0" Round Culvert** L= 13.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 290.17' / 289.00' S= 0.0900 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#2	Discarded	288.50'	**1.020 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 286.50'

Discarded OutFlow Max=0.01 cfs @ 12.10 hrs HW=290.57' (Free Discharge)
↑—**2=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.36 cfs @ 12.10 hrs HW=290.57' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.36 cfs @ 2.14 fps)

Pond 43P: RS L5R - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

48.0" Wide + 6.0" Spacing = 54.0" C-C Row Spacing

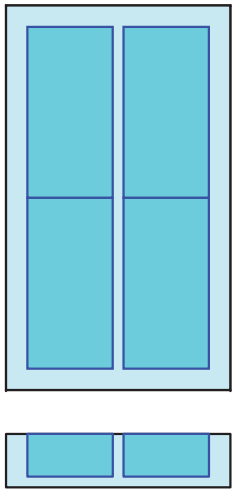
2 Chambers/Row x 8.00' Long = 16.00' Row Length +12.0" End Stone x 2 = 18.00' Base Length
2 Rows x 48.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 10.50' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

4 Chambers x 45.3 cf = 181.2 cf Chamber Storage
4 Chambers x 63.4 cf = 253.4 cf Displacement

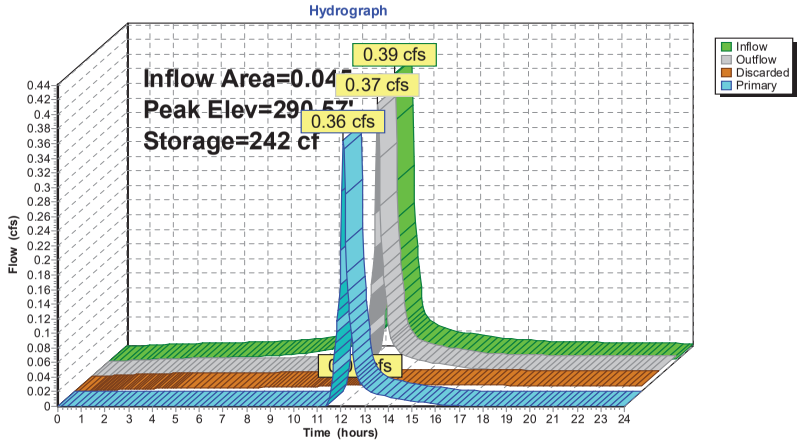
472.5 cf Field - 253.4 cf Chambers = 219.1 cf Stone x 40.0% Voids = 87.6 cf Stone Storage

Chamber Storage + Stone Storage = 268.8 cf = 0.006 af
Overall Storage Efficiency = 56.9%
Overall System Size = 18.00' x 10.50' x 2.50'

4 Chambers
17.5 cy Field
8.1 cy Stone



Pond 43P: RS L5R



Stage-Area-Storage for Pond 43P: RS L5R

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
288.50	**189**	0
288.55	189	4
288.60	189	8
288.65	189	11
288.70	189	15
288.75	189	19
288.80	189	23
288.85	189	26
288.90	189	30
288.95	189	34
289.00	189	38
289.05	189	44
289.10	189	51
289.15	189	57
289.20	189	64
289.25	189	70
289.30	189	77
289.35	189	83
289.40	189	90
289.45	189	96
289.50	189	103
289.55	189	109
289.60	189	116
289.65	189	122
289.70	189	129
289.75	189	135
289.80	189	142
289.85	189	148
289.90	189	155
289.95	189	161
290.00	189	168
290.05	189	174
290.10	189	181
290.15	189	187
290.20	189	194
290.25	189	200
290.30	189	207
290.35	189	213
290.40	189	220
290.45	189	226
290.50	189	233
290.55	189	239
290.60	189	245
290.65	189	251
290.70	189	257
290.75	189	263
290.80	189	264
290.85	189	265
290.90	189	266
290.95	189	268
291.00	189	**269**

Summary for Pond 44P: RS L3

Inflow Area = 0.022 ac,100.00% Impervious, Inflow Depth > 8.54" for 100 yr event
Inflow = 0.20 cfs @ 12.07 hrs, Volume= 0.016 af
Outflow = 0.08 cfs @ 12.26 hrs, Volume= 0.014 af, Atten= 58%, Lag= 11.2 min
Discarded = 0.01 cfs @ 12.26 hrs, Volume= 0.012 af
Primary = 0.07 cfs @ 12.26 hrs, Volume= 0.003 af
Routed to Link 38L : POC 3 (Monroe Turnpike)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 263.06' @ 12.26 hrs Surf.Area= 204 sf Storage= 253 cf

Plug-Flow detention time= 184.2 min calculated for 0.014 af (89% of inflow)
Center-of-Mass det. time= 132.4 min (871.2 - 738.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	261.00'	103 cf	**6.00'W x 34.00'L x 2.50'H Field A** 510 cf Overall - 253 cf Embedded = 257 cf x 40.0% Voids
#2A	261.50'	181 cf	**Concrete Galley 4x8x2** x 4 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf
		284 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	262.90'	**6.0" Round Culvert** L= 101.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 262.90' / 248.36' S= 0.1440 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#2	Discarded	261.00'	**1.020 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 259.00'

Discarded OutFlow Max=0.01 cfs @ 12.26 hrs HW=263.06' (Free Discharge)
↑**2=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.07 cfs @ 12.26 hrs HW=263.06' (Free Discharge)
↑**1=Culvert** (Inlet Controls 0.07 cfs @ 1.35 fps)

Pond 44P: RS L3 - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

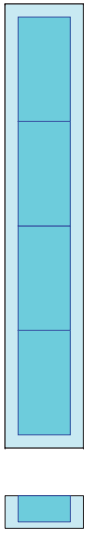
4 Chambers/Row x 8.00' Long = 32.00' Row Length +12.0" End Stone x 2 = 34.00' Base Length
1 Rows x 48.0" Wide + 12.0" Side Stone x 2 = 6.00' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

4 Chambers x 45.3 cf = 181.2 cf Chamber Storage
4 Chambers x 63.4 cf = 253.4 cf Displacement

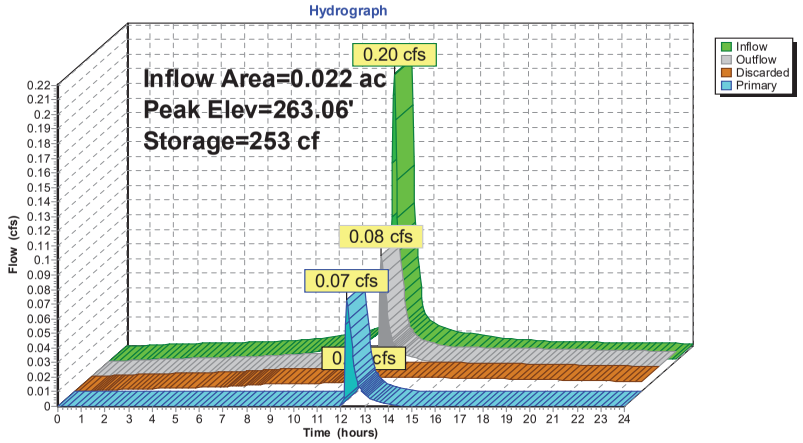
510.0 cf Field - 253.4 cf Chambers = 256.6 cf Stone x 40.0% Voids = 102.6 cf Stone Storage

Chamber Storage + Stone Storage = 283.8 cf = 0.007 af
Overall Storage Efficiency = 55.7%
Overall System Size = 34.00' x 6.00' x 2.50'

4 Chambers
18.9 cy Field
9.5 cy Stone



Pond 44P: RS L3



Stage-Area-Storage for Pond 44P: RS L3

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
261.00	**204**	0
261.05	204	4
261.10	204	8
261.15	204	12
261.20	204	16
261.25	204	20
261.30	204	24
261.35	204	29
261.40	204	33
261.45	204	37
261.50	204	41
261.55	204	48
261.60	204	54
261.65	204	61
261.70	204	68
261.75	204	75
261.80	204	82
261.85	204	88
261.90	204	95
261.95	204	102
262.00	204	109
262.05	204	116
262.10	204	122
262.15	204	129
262.20	204	136
262.25	204	143
262.30	204	150
262.35	204	156
262.40	204	163
262.45	204	170
262.50	204	177
262.55	204	184
262.60	204	190
262.65	204	197
262.70	204	204
262.75	204	211
262.80	204	217
262.85	204	224
262.90	204	231
262.95	204	238
263.00	204	245
263.05	204	251
263.10	204	258
263.15	204	264
263.20	204	270
263.25	204	276
263.30	204	278
263.35	204	279
263.40	204	281
263.45	204	282
263.50	204	**284**

Summary for Pond 45P: RS L6

Inflow Area = 0.088 ac, 61.23% Impervious, Inflow Depth > 6.84" for 100 yr event
Inflow = 0.60 cfs @ 12.14 hrs, Volume= 0.050 af
Outflow = 0.25 cfs @ 12.42 hrs, Volume= 0.043 af, Atten= 58%, Lag= 16.8 min
Discarded = 0.03 cfs @ 12.42 hrs, Volume= 0.031 af
Primary = 0.22 cfs @ 12.42 hrs, Volume= 0.012 af
Routed to Pond 20P : Detention Basin #1 (North)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 302.46' @ 12.42 hrs Surf.Area= 686 sf Storage= 836 cf

Plug-Flow detention time= 185.8 min calculated for 0.043 af (86% of inflow)
Center-of-Mass det. time= 125.5 min (918.1 - 792.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	300.50'	193 cf	**6.00'W x 66.00'L x 2.50'H Field A** 990 cf Overall - 507 cf Embedded = 483 cf x 40.0% Voids
#2A	301.00'	362 cf	**Concrete Galley 4x8x2** x 8 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf
#3B	300.50'	113 cf	**5.00'W x 58.00'L x 2.50'H Field B** 725 cf Overall - 444 cf Embedded = 281 cf x 40.0% Voids
#4B	301.00'	317 cf	**Concrete Galley 4x8x2** x 7 Inside #3 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf
		985 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	302.17'	**6.0" Round Culvert** L= 101.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 302.17' / 287.93' S= 0.1410 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#2	Discarded	300.50'	**1.020 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 298.00'

Discarded OutFlow Max=0.03 cfs @ 12.42 hrs HW=302.46' (Free Discharge)
↑—**2=Exfiltration** (Controls 0.03 cfs)

Primary OutFlow Max=0.22 cfs @ 12.42 hrs HW=302.46' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.22 cfs @ 1.84 fps)

Pond 45P: RS L6 - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

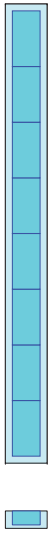
8 Chambers/Row x 8.00' Long = 64.00' Row Length +12.0" End Stone x 2 = 66.00' Base Length
1 Rows x 48.0" Wide + 12.0" Side Stone x 2 = 6.00' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

8 Chambers x 45.3 cf = 362.4 cf Chamber Storage
8 Chambers x 63.4 cf = 506.9 cf Displacement

990.0 cf Field - 506.9 cf Chambers = 483.1 cf Stone x 40.0% Voids = 193.2 cf Stone Storage

Chamber Storage + Stone Storage = 555.6 cf = 0.013 af
Overall Storage Efficiency = 56.1%
Overall System Size = 66.00' x 6.00' x 2.50'

8 Chambers
36.7 cy Field
17.9 cy Stone



Pond 45P: RS L6 - Chamber Wizard Field B

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

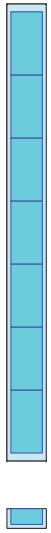
7 Chambers/Row x 8.00' Long = 56.00' Row Length +12.0" End Stone x 2 = 58.00' Base Length
1 Rows x 48.0" Wide + 6.0" Side Stone x 2 = 5.00' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

7 Chambers x 45.3 cf = 317.1 cf Chamber Storage
7 Chambers x 63.4 cf = 443.5 cf Displacement

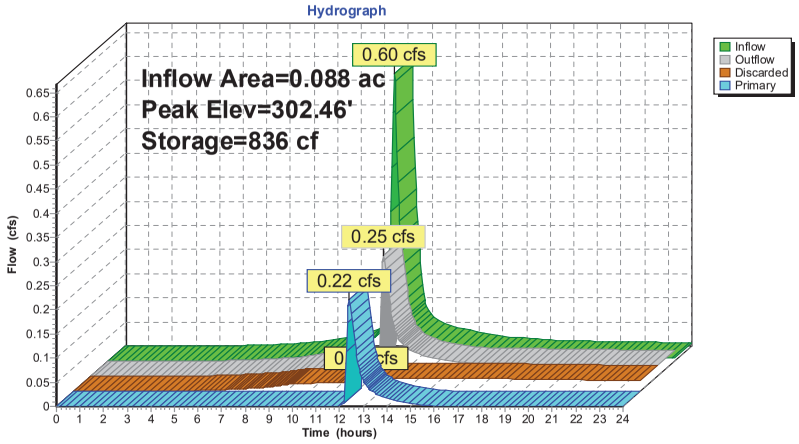
725.0 cf Field - 443.5 cf Chambers = 281.5 cf Stone x 40.0% Voids = 112.6 cf Stone Storage

Chamber Storage + Stone Storage = 429.7 cf = 0.010 af
Overall Storage Efficiency = 59.3%
Overall System Size = 58.00' x 5.00' x 2.50'

7 Chambers
26.9 cy Field
10.4 cy Stone



Pond 45P: RS L6



Stage-Area-Storage for Pond 45P: RS L6

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
300.50	**686**	0
300.55	686	14
300.60	686	27
300.65	686	41
300.70	686	55
300.75	686	69
300.80	686	82
300.85	686	96
300.90	686	110
300.95	686	123
301.00	686	137
301.05	686	161
301.10	686	185
301.15	686	209
301.20	686	233
301.25	686	257
301.30	686	281
301.35	686	305
301.40	686	328
301.45	686	352
301.50	686	376
301.55	686	400
301.60	686	424
301.65	686	448
301.70	686	472
301.75	686	496
301.80	686	520
301.85	686	544
301.90	686	567
301.95	686	591
302.00	686	615
302.05	686	639
302.10	686	663
302.15	686	687
302.20	686	711
302.25	686	735
302.30	686	759
302.35	686	783
302.40	686	806
302.45	686	830
302.50	686	854
302.55	686	878
302.60	686	901
302.65	686	922
302.70	686	943
302.75	686	964
302.80	686	968
302.85	686	973
302.90	686	977
302.95	686	981
303.00	686	**985**

Summary for Pond 46P: Detention Basin #3 (Entrance)

Inflow Area = 2.532 ac, 0.00% Impervious, Inflow Depth > 5.61" for 100 yr event
Inflow = 16.86 cfs @ 12.09 hrs, Volume= 1.185 af
Outflow = 16.92 cfs @ 12.09 hrs, Volume= 1.162 af, Atten= 0%, Lag= 0.2 min
Primary = 16.92 cfs @ 12.09 hrs, Volume= 1.162 af
Routed to Link 39L : POC 4 (Culvert Under Monroe Turnpike)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 281.05' @ 12.09 hrs Surf.Area= 659 sf Storage= 1,613 cf

Plug-Flow detention time= 17.8 min calculated for 1.160 af (98% of inflow)
Center-of-Mass det. time= 6.6 min (821.4 - 814.8)

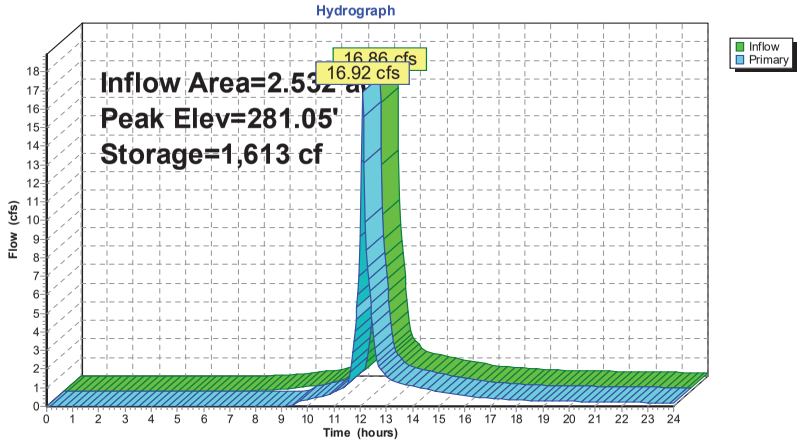
Volume	Invert	Avail.Storage	Storage Description
#1	278.00'	1,613 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
278.00	295	0	0
280.00	659	954	954
281.00	659	659	1,613

Device	Routing	Invert	Outlet Devices
#1	Primary	280.00'	**5.0' long (Profile 26) Broad-Crested Rectangular Weir** Head (feet) 0.49 0.98 1.48 Coef. (English) 3.06 3.13 3.13

Primary OutFlow Max=16.46 cfs @ 12.09 hrs HW=281.03' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 16.46 cfs @ 3.18 fps)

Pond 46P: Detention Basin #3 (Entrance)



Stage-Area-Storage for Pond 46P: Detention Basin #3 (Entrance)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
278.00	295	0	280.65	659	1,382
278.05	304	15	280.70	659	1,415
278.10	313	30	280.75	659	1,448
278.15	322	46	280.80	659	1,481
278.20	331	63	280.85	659	1,514
278.25	341	79	280.90	659	1,547
278.30	350	97	280.95	659	1,580
278.35	359	114	281.00	659	**1,613**
278.40	368	133	281.05	659	1,613
278.45	377	151			
278.50	386	170			
278.55	395	190			
278.60	404	210			
278.65	413	230			
278.70	422	251			
278.75	432	272			
278.80	441	294			
278.85	450	316			
278.90	459	339			
278.95	468	362			
279.00	477	386			
279.05	486	410			
279.10	495	435			
279.15	504	460			
279.20	513	485			
279.25	523	511			
279.30	532	537			
279.35	541	564			
279.40	550	591			
279.45	559	619			
279.50	568	647			
279.55	577	676			
279.60	586	705			
279.65	595	734			
279.70	604	764			
279.75	614	795			
279.80	623	826			
279.85	632	857			
279.90	641	889			
279.95	650	921			
280.00	**659**	954			
280.05	659	987			
280.10	659	1,020			
280.15	659	1,053			
280.20	659	1,086			
280.25	659	1,119			
280.30	659	1,152			
280.35	659	1,185			
280.40	659	1,218			
280.45	659	1,251			
280.50	659	1,284			
280.55	659	1,316			
280.60	659	1,349			

Summary for Pond 47P: RS L1

Inflow Area = 0.273 ac, 35.06% Impervious, Inflow Depth > 6.11" for 100 yr event
Inflow = 1.97 cfs @ 12.08 hrs, Volume= 0.139 af
Outflow = 2.35 cfs @ 12.08 hrs, Volume= 0.126 af, Atten= 0%, Lag= 0.4 min
Discarded = 0.05 cfs @ 12.08 hrs, Volume= 0.037 af
Primary = 2.30 cfs @ 12.08 hrs, Volume= 0.089 af
Routed to Link 38L : POC 3 (Monroe Turnpike)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 283.71' @ 12.08 hrs Surf.Area= 686 sf Storage= 985 cf

Plug-Flow detention time= 75.6 min calculated for 0.126 af (91% of inflow)
Center-of-Mass det. time= 29.6 min (832.2 - 802.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	280.00'	193 cf	**6.00'W x 66.00'L x 2.50'H Field A** 990 cf Overall - 507 cf Embedded = 483 cf x 40.0% Voids
#2A	280.50'	362 cf	**Concrete Galley 4x8x2** x 8 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf
#3B	280.00'	113 cf	**5.00'W x 58.00'L x 2.50'H Field B** 725 cf Overall - 444 cf Embedded = 281 cf x 40.0% Voids
#4B	280.50'	317 cf	**Concrete Galley 4x8x2** x 7 Inside #3 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf
		985 cf	Total Available Storage

Storage Group A created with Chamber Wizard
Storage Group B created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	281.50'	**8.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 281.50' / 279.83' S= 0.1113 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.35 sf
#2	Discarded	280.00'	**1.020 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 278.00'

Discarded OutFlow Max=0.05 cfs @ 12.08 hrs HW=283.68' (Free Discharge)
↑—**2=Exfiltration** (Controls 0.05 cfs)

Primary OutFlow Max=2.28 cfs @ 12.08 hrs HW=283.67' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 2.28 cfs @ 6.52 fps)

Pond 47P: RS L1 - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

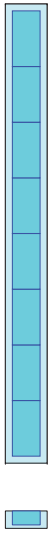
8 Chambers/Row x 8.00' Long = 64.00' Row Length +12.0" End Stone x 2 = 66.00' Base Length
1 Rows x 48.0" Wide + 12.0" Side Stone x 2 = 6.00' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

8 Chambers x 45.3 cf = 362.4 cf Chamber Storage
8 Chambers x 63.4 cf = 506.9 cf Displacement

990.0 cf Field - 506.9 cf Chambers = 483.1 cf Stone x 40.0% Voids = 193.2 cf Stone Storage

Chamber Storage + Stone Storage = 555.6 cf = 0.013 af
Overall Storage Efficiency = 56.1%
Overall System Size = 66.00' x 6.00' x 2.50'

8 Chambers
36.7 cy Field
17.9 cy Stone



Pond 47P: RS L1 - Chamber Wizard Field B

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

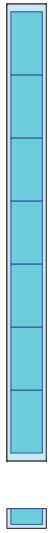
7 Chambers/Row x 8.00' Long = 56.00' Row Length +12.0" End Stone x 2 = 58.00' Base Length
1 Rows x 48.0" Wide + 6.0" Side Stone x 2 = 5.00' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

7 Chambers x 45.3 cf = 317.1 cf Chamber Storage
7 Chambers x 63.4 cf = 443.5 cf Displacement

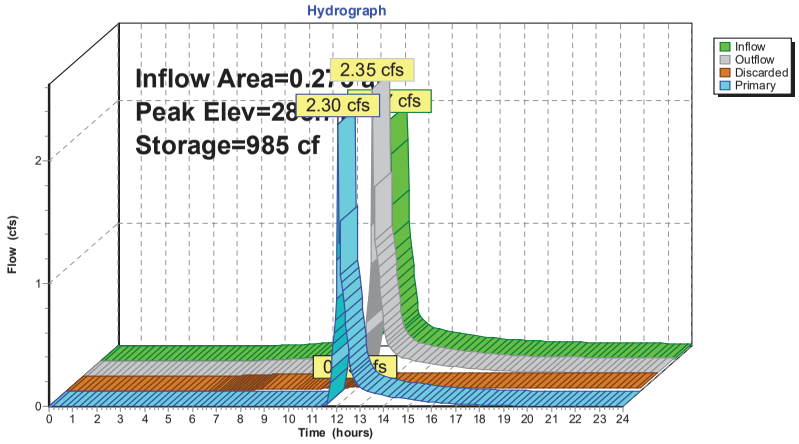
725.0 cf Field - 443.5 cf Chambers = 281.5 cf Stone x 40.0% Voids = 112.6 cf Stone Storage

Chamber Storage + Stone Storage = 429.7 cf = 0.010 af
Overall Storage Efficiency = 59.3%
Overall System Size = 58.00' x 5.00' x 2.50'

7 Chambers
26.9 cy Field
10.4 cy Stone



Pond 47P: RS L1



Stage-Area-Storage for Pond 47P: RS L1

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
280.00	**686**	0	282.65	686	985
280.05	686	14	282.70	686	985
280.10	686	27	282.75	686	985
280.15	686	41	282.80	686	985
280.20	686	55	282.85	686	985
280.25	686	69	282.90	686	985
280.30	686	82	282.95	686	985
280.35	686	96	283.00	686	985
280.40	686	110	283.05	686	985
280.45	686	123	283.10	686	985
280.50	686	137	283.15	686	985
280.55	686	161	283.20	686	985
280.60	686	185	283.25	686	985
280.65	686	209	283.30	686	985
280.70	686	233	283.35	686	985
280.75	686	257	283.40	686	985
280.80	686	281	283.45	686	985
280.85	686	305	283.50	686	985
280.90	686	328	283.55	686	985
280.95	686	352	283.60	686	985
281.00	686	376	283.65	686	985
281.05	686	400	283.70	686	985
281.10	686	424			
281.15	686	448			
281.20	686	472			
281.25	686	496			
281.30	686	520			
281.35	686	544			
281.40	686	567			
281.45	686	591			
281.50	686	615			
281.55	686	639			
281.60	686	663			
281.65	686	687			
281.70	686	711			
281.75	686	735			
281.80	686	759			
281.85	686	783			
281.90	686	806			
281.95	686	830			
282.00	686	854			
282.05	686	878			
282.10	686	901			
282.15	686	922			
282.20	686	943			
282.25	686	964			
282.30	686	968			
282.35	686	973			
282.40	686	977			
282.45	686	981			
282.50	686	**985**			
282.55	686	985			
282.60	686	985			

Summary for Pond 48P: RS L7

Inflow Area = 0.138 ac, 42.91% Impervious, Inflow Depth > 5.99" for 100 yr event
Inflow = 0.92 cfs @ 12.10 hrs, Volume= 0.069 af
Outflow = 0.91 cfs @ 12.16 hrs, Volume= 0.057 af, Atten= 0%, Lag= 3.3 min
Discarded = 0.01 cfs @ 12.16 hrs, Volume= 0.017 af
Primary = 0.90 cfs @ 12.16 hrs, Volume= 0.040 af
Routed to Pond 20P : Detention Basin #1 (North)

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Peak Elev= 309.82' @ 12.16 hrs Surf.Area= 525 sf Storage= 764 cf

Plug-Flow detention time= 108.7 min calculated for 0.057 af (82% of inflow)
Center-of-Mass det. time= 38.2 min (844.6 - 806.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	307.00'	221 cf	**10.50'W x 50.00'L x 2.50'H Field A** 1,313 cf Overall - 760 cf Embedded = 552 cf x 40.0% Voids
#2A	307.50'	544 cf	**Concrete Galley 4x8x2** x 12 Inside #1 Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf 12 Chambers in 2 Rows
		764 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	308.67'	**6.0" Round Culvert** L= 56.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 308.67' / 294.05' S= 0.2611 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.20 sf
#2	Discarded	307.00'	**1.020 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 259.00'

Discarded OutFlow Max=0.01 cfs @ 12.16 hrs HW=309.79' (Free Discharge)
↑—**2=Exfiltration** (Controls 0.01 cfs)

Primary OutFlow Max=0.88 cfs @ 12.16 hrs HW=309.78' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.88 cfs @ 4.47 fps)

Pond 48P: RS L7 - Chamber Wizard Field A

Chamber Model = Concrete Galley 4x8x2 (Concrete Galley, UCPI 24" Low Profile Galley or equivalent)
Inside= 42.0"W x 21.0"H => 6.04 sf x 7.50'L = 45.3 cf
Outside= 48.0"W x 24.0"H => 7.92 sf x 8.00'L = 63.4 cf

48.0" Wide + 6.0" Spacing = 54.0" C-C Row Spacing

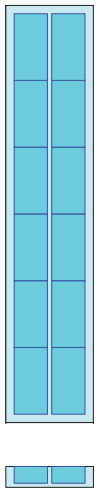
6 Chambers/Row x 8.00' Long = 48.00' Row Length +12.0" End Stone x 2 = 50.00' Base Length
2 Rows x 48.0" Wide + 6.0" Spacing x 1 + 12.0" Side Stone x 2 = 10.50' Base Width
6.0" Stone Base + 24.0" Chamber Height = 2.50' Field Height

12 Chambers x 45.3 cf = 543.6 cf Chamber Storage
12 Chambers x 63.4 cf = 760.3 cf Displacement

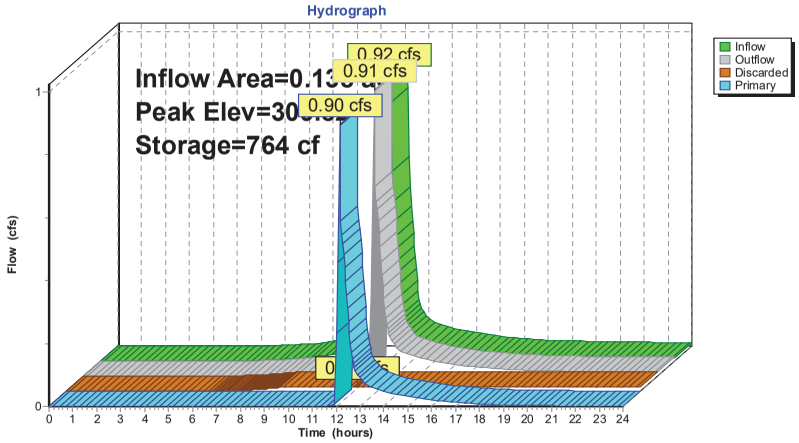
1,312.5 cf Field - 760.3 cf Chambers = 552.2 cf Stone x 40.0% Voids = 220.9 cf Stone Storage

Chamber Storage + Stone Storage = 764.5 cf = 0.018 af
Overall Storage Efficiency = 58.2%
Overall System Size = 50.00' x 10.50' x 2.50'

12 Chambers
48.6 cy Field
20.5 cy Stone



Pond 48P: RS L7



Stage-Area-Storage for Pond 48P: RS L7

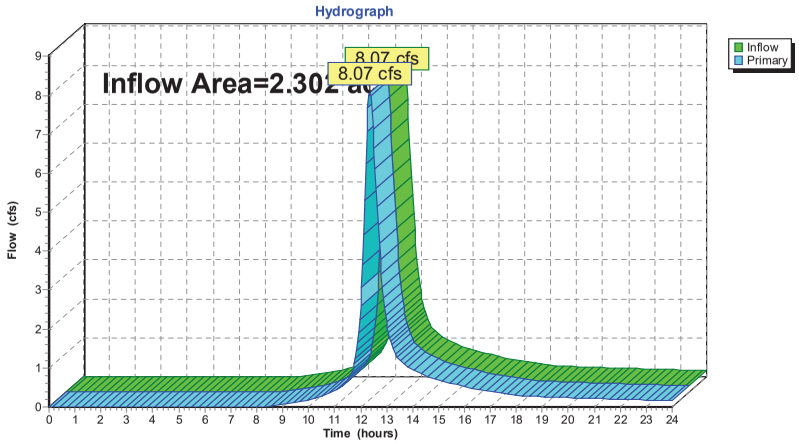
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)	Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
307.00	**525**	0	309.65	525	764
307.05	525	11	309.70	525	764
307.10	525	21	309.75	525	764
307.15	525	31	309.80	525	764
307.20	525	42			
307.25	525	53			
307.30	525	63			
307.35	525	74			
307.40	525	84			
307.45	525	94			
307.50	525	105			
307.55	525	124			
307.60	525	142			
307.65	525	161			
307.70	525	180			
307.75	525	198			
307.80	525	217			
307.85	525	236			
307.90	525	254			
307.95	525	273			
308.00	525	291			
308.05	525	310			
308.10	525	329			
308.15	525	347			
308.20	525	366			
308.25	525	385			
308.30	525	403			
308.35	525	422			
308.40	525	441			
308.45	525	459			
308.50	525	478			
308.55	525	497			
308.60	525	515			
308.65	525	534			
308.70	525	553			
308.75	525	571			
308.80	525	590			
308.85	525	608			
308.90	525	627			
308.95	525	646			
309.00	525	664			
309.05	525	683			
309.10	525	701			
309.15	525	717			
309.20	525	734			
309.25	525	750			
309.30	525	753			
309.35	525	756			
309.40	525	759			
309.45	525	762			
309.50	525	**764**			
309.55	525	764			
309.60	525	764			

Summary for Link 36L: POC 1 (Downs Road)

Inflow Area = 2.302 ac, 0.00% Impervious, Inflow Depth > 4.87" for 100 yr event
Inflow = 8.07 cfs @ 12.35 hrs, Volume= 0.935 af
Primary = 8.07 cfs @ 12.35 hrs, Volume= 0.935 af, Atten= 0%, Lag= 0.0 min

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

Link 36L: POC 1 (Downs Road)

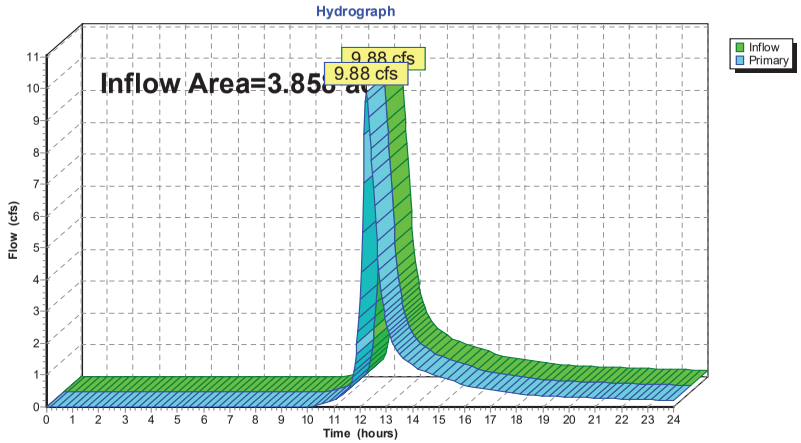


Summary for Link 37L: POC 2 (Cottage Street)

Inflow Area = 3.858 ac, 4.22% Impervious, Inflow Depth > 3.47" for 100 yr event
Inflow = 9.88 cfs @ 12.24 hrs, Volume= 1.114 af
Primary = 9.88 cfs @ 12.24 hrs, Volume= 1.114 af, Atten= 0%, Lag= 0.0 min

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

Link 37L: POC 2 (Cottage Street)

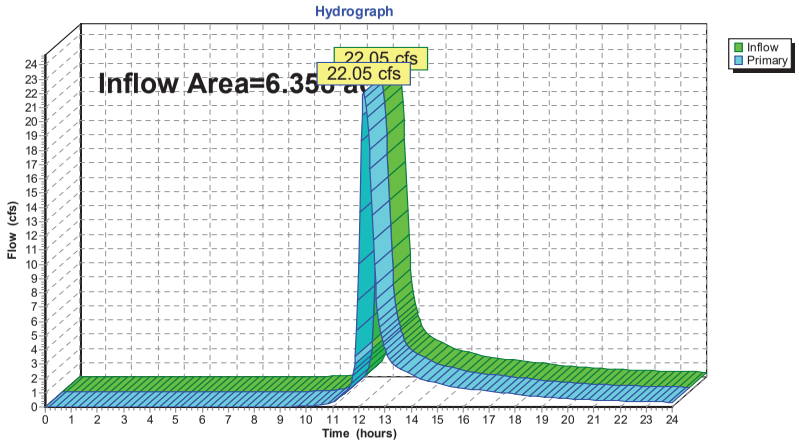


Summary for Link 38L: POC 3 (Monroe Turnpike)

Inflow Area = 6.358 ac, 17.32% Impervious, Inflow Depth > 4.15" for 100 yr event
Inflow = 22.05 cfs @ 12.18 hrs, Volume= 2.198 af
Primary = 22.05 cfs @ 12.18 hrs, Volume= 2.198 af, Atten= 0%, Lag= 0.0 min

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

Link 38L: POC 3 (Monroe Turnpike)

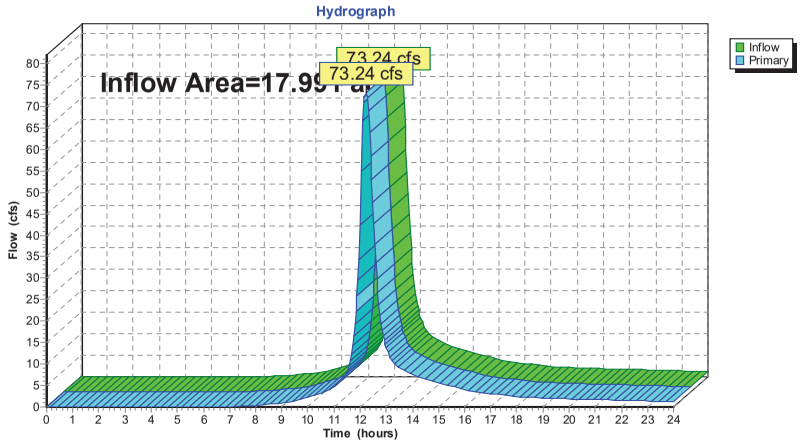


Summary for Link 39L: POC 4 (Culvert Under Monroe Turnpike)

Inflow Area = 17.991 ac, 2.15% Impervious, Inflow Depth > 5.51" for 100 yr event
Inflow = 73.24 cfs @ 12.24 hrs, Volume= 8.255 af
Primary = 73.24 cfs @ 12.24 hrs, Volume= 8.255 af, Atten= 0%, Lag= 0.0 min

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

Link 39L: POC 4 (Culvert Under Monroe Turnpike)



Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: Existing to POC 1 Runoff Area=114,074 sf 0.00% Impervious Runoff Depth>0.85"
Flow Length=1,139' Tc=24.1 min CN=66 Runoff=1.42 cfs 0.185 af

Subcatchment 2S: Existing to POC 2 Runoff Area=170,531 sf 0.00% Impervious Runoff Depth>0.38"
Flow Length=773' Slope=0.1200 '/' Tc=16.4 min CN=55 Runoff=0.68 cfs 0.123 af

Subcatchment 3S: Existing to POC 3 Runoff Area=426,344 sf 0.00% Impervious Runoff Depth>0.38"
Flow Length=548' Tc=17.5 min CN=55 Runoff=1.66 cfs 0.308 af

Subcatchment 4S: Existing to POC 4 Runoff Area=619,978 sf 0.00% Impervious Runoff Depth>1.31"
Flow Length=648' Tc=12.4 min CN=74 Runoff=16.94 cfs 1.549 af

Subcatchment 21S: Bypass 1 Runoff Area=148,196 sf 0.00% Impervious Runoff Depth>0.41"
Flow Length=773' Slope=0.1200 '/' Tc=16.4 min CN=56 Runoff=0.68 cfs 0.117 af

Subcatchment 22S: Bypass 2 Runoff Area=49,527 sf 0.00% Impervious Runoff Depth>1.31"
Tc=5.0 min CN=74 Runoff=1.73 cfs 0.124 af

Subcatchment 23S: Bypass 3 Runoff Area=100,263 sf 0.00% Impervious Runoff Depth>0.95"
Flow Length=1,139' Tc=25.2 min CN=68 Runoff=1.42 cfs 0.183 af

Subcatchment 24S: Road to Basin 1 Runoff Area=86,275 sf 19.90% Impervious Runoff Depth>0.96"
Flow Length=300' Tc=16.3 min CN=68 Runoff=1.46 cfs 0.158 af

Subcatchment 25S: Lot 1 Runoff Area=11,895 sf 35.06% Impervious Runoff Depth>1.57"
Tc=5.0 min CN=78 Runoff=0.51 cfs 0.036 af

Subcatchment 26S: Lot 2 Runoff Area=18,535 sf 23.99% Impervious Runoff Depth>0.90"
Tc=12.0 min UI Adjusted CN=67 Runoff=0.32 cfs 0.032 af

Subcatchment 27S: Lot 3 Runoff Area=18,425 sf 29.09% Impervious Runoff Depth>0.90"
Tc=9.0 min UI Adjusted CN=67 Runoff=0.35 cfs 0.032 af

Subcatchment 28S: Lot 4 Runoff Area=17,928 sf 28.66% Impervious Runoff Depth>0.96"
Tc=5.0 min UI Adjusted CN=68 Runoff=0.43 cfs 0.033 af

Subcatchment 29S: Lot 5 Runoff Area=32,794 sf 12.71% Impervious Runoff Depth>0.75"
Flow Length=304' Tc=14.5 min UI Adjusted CN=64 Runoff=0.42 cfs 0.047 af

Subcatchment 30S: Lot 6 Runoff Area=17,731 sf 19.52% Impervious Runoff Depth>0.90"
Tc=10.0 min UI Adjusted CN=67 Runoff=0.33 cfs 0.031 af

Subcatchment 31S: Lot 7 Runoff Area=11,505 sf 28.60% Impervious Runoff Depth>1.01"
Tc=7.0 min UI Adjusted CN=69 Runoff=0.27 cfs 0.022 af

Subcatchment 32S: Lot 8 Runoff Area=14,695 sf 34.89% Impervious Runoff Depth>1.44"
Tc=5.0 min CN=76 Runoff=0.57 cfs 0.040 af

Subcatchment 34S: To Culvert Runoff Area=539,255 sf 0.00% Impervious Runoff Depth>1.30"
Flow Length=1,139' Tc=18.8 min CN=74 Runoff=12.60 cfs 1.345 af

Subcatchment 35S: Road to Basin 2 Runoff Area=69,910 sf 16.78% Impervious Runoff Depth>1.13"
Tc=5.0 min CN=71 Runoff=2.05 cfs 0.151 af

Subcatchment 40S: To Fire Pond Runoff Area=110,309 sf 0.00% Impervious Runoff Depth>1.31"
Tc=5.0 min CN=74 Runoff=3.86 cfs 0.276 af

Subcatchment 42S: Lot 5 Roof Runoff Area=1,950 sf 100.00% Impervious Runoff Depth>3.36"
Tc=5.0 min CN=98 Runoff=0.16 cfs 0.013 af

Subcatchment 43S: Bypass 1A Runoff Area=68,944 sf 0.00% Impervious Runoff Depth>0.62"
Flow Length=173' Tc=8.2 min CN=61 Runoff=0.77 cfs 0.081 af

Subcatchment 46S: Lot 6 Upper Drive Runoff Area=3,853 sf 61.23% Impervious Runoff Depth>2.02"
Tc=10.0 min CN=84 Runoff=0.18 cfs 0.015 af

Subcatchment 49S: Lot 7 Upper Drive Runoff Area=6,012 sf 42.91% Impervious Runoff Depth>1.50"
Tc=7.0 min CN=77 Runoff=0.23 cfs 0.017 af

Subcatchment 50S: Lot 3 (rear roof) Runoff Area=975 sf 100.00% Impervious Runoff Depth>3.36"
Tc=5.0 min CN=98 Runoff=0.08 cfs 0.006 af

Reach 40R: Reach L4 Avg. Flow Depth=0.02' Max Vel=0.03 fps Inflow=0.03 cfs 0.004 af
n=0.400 L=200.0' S=0.0100 '/' Capacity=6.97 cfs Outflow=0.01 cfs 0.004 af

Reach 41R: Reach L5R Avg. Flow Depth=0.09' Max Vel=0.06 fps Inflow=0.05 cfs 0.002 af
n=0.400 L=250.0' S=0.0100 '/' Capacity=1.86 cfs Outflow=0.01 cfs 0.002 af

Pond 16P: Detention Basin #2 (South) Peak Elev=279.63' Storage=2,405 cf Inflow=2.62 cfs 0.191 af
Discarded=0.04 cfs 0.036 af Primary=1.27 cfs 0.106 af Outflow=1.30 cfs 0.141 af

Pond 20P: Detention Basin #1 (North) Peak Elev=266.55' Storage=4,487 cf Inflow=2.95 cfs 0.322 af
Discarded=0.09 cfs 0.070 af Primary=0.73 cfs 0.204 af Outflow=0.82 cfs 0.274 af

Pond 40P: Culvert Peak Elev=296.00' Storage=634 cf Inflow=12.60 cfs 1.345 af
72.0" x 24.0" Box Culvert n=0.013 L=40.0' S=0.0688 '/' Outflow=12.58 cfs 1.344 af

Pond 41P: RS L4 Peak Elev=274.10' Storage=555 cf Inflow=0.43 cfs 0.033 af
Discarded=0.02 cfs 0.023 af Primary=0.03 cfs 0.004 af Outflow=0.06 cfs 0.028 af

Pond 42P: Fire Pond Peak Elev=303.69' Storage=812 cf Inflow=3.86 cfs 0.276 af
Outflow=3.69 cfs 0.275 af

Pond 43P: RS L5R Peak Elev=290.30' Storage=206 cf Inflow=0.16 cfs 0.013 af
Discarded=0.01 cfs 0.010 af Primary=0.05 cfs 0.002 af Outflow=0.06 cfs 0.011 af

Pond 44P: RS L3 Peak Elev=261.96' Storage=103 cf Inflow=0.08 cfs 0.006 af
Discarded=0.01 cfs 0.006 af Primary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.006 af

Pond 45P: RS L6 Peak Elev=301.24' Storage=251 cf Inflow=0.18 cfs 0.015 af
Discarded=0.02 cfs 0.015 af Primary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.015 af

Pond 46P: Detention Basin #3 (Entrance) Peak Elev=280.39' Storage=1,212 cf Inflow=3.69 cfs 0.275 af
Outflow=3.75 cfs 0.253 af

Pond 47P: RS L1 Peak Elev=281.60' Storage=662 cf Inflow=0.51 cfs 0.036 af
Discarded=0.03 cfs 0.028 af Primary=0.03 cfs 0.003 af Outflow=0.06 cfs 0.031 af

Pond 48P: RS L7 Peak Elev=308.23' Storage=376 cf Inflow=0.23 cfs 0.017 af
Discarded=0.01 cfs 0.014 af Primary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.014 af

Link 36L: POC 1 (Downs Road) Inflow=1.42 cfs 0.183 af
Primary=1.42 cfs 0.183 af

Link 37L: POC 2 (Cottage Street) Inflow=0.68 cfs 0.123 af
Primary=0.68 cfs 0.123 af

Link 38L: POC 3 (Monroe Turnpike) Inflow=1.02 cfs 0.289 af
Primary=1.02 cfs 0.289 af

Link 39L: POC 4 (Culvert Under Monroe Turnpike) Inflow=16.67 cfs 1.827 af
Primary=16.67 cfs 1.827 af

Total Runoff Area = 61.063 ac Runoff Volume = 4.924 af Average Runoff Depth = 0.97"
97.30% Pervious = 59.412 ac 2.70% Impervious = 1.651 ac

Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: Existing to POC 1 Runoff Area=114,074 sf 0.00% Impervious Runoff Depth>1.51"
Flow Length=1,139' Tc=24.1 min CN=66 Runoff=2.74 cfs 0.330 af

Subcatchment 2S: Existing to POC 2 Runoff Area=170,531 sf 0.00% Impervious Runoff Depth>0.83"
Flow Length=773' Slope=0.1200 '/' Tc=16.4 min CN=55 Runoff=2.08 cfs 0.269 af

Subcatchment 3S: Existing to POC 3 Runoff Area=426,344 sf 0.00% Impervious Runoff Depth>0.83"
Flow Length=548' Tc=17.5 min CN=55 Runoff=5.08 cfs 0.673 af

Subcatchment 4S: Existing to POC 4 Runoff Area=619,978 sf 0.00% Impervious Runoff Depth>2.11"
Flow Length=648' Tc=12.4 min CN=74 Runoff=28.33 cfs 2.508 af

Subcatchment 21S: Bypass 1 Runoff Area=148,196 sf 0.00% Impervious Runoff Depth>0.88"
Flow Length=773' Slope=0.1200 '/' Tc=16.4 min CN=56 Runoff=2.00 cfs 0.250 af

Subcatchment 22S: Bypass 2 Runoff Area=49,527 sf 0.00% Impervious Runoff Depth>2.12"
Tc=5.0 min CN=74 Runoff=2.87 cfs 0.201 af

Subcatchment 23S: Bypass 3 Runoff Area=100,263 sf 0.00% Impervious Runoff Depth>1.65"
Flow Length=1,139' Tc=25.2 min CN=68 Runoff=2.63 cfs 0.317 af

Subcatchment 24S: Road to Basin 1 Runoff Area=86,275 sf 19.90% Impervious Runoff Depth>1.66"
Flow Length=300' Tc=16.3 min CN=68 Runoff=2.70 cfs 0.273 af

Subcatchment 25S: Lot 1 Runoff Area=11,895 sf 35.06% Impervious Runoff Depth>2.45"
Tc=5.0 min CN=78 Runoff=0.80 cfs 0.056 af

Subcatchment 26S: Lot 2 Runoff Area=18,535 sf 23.99% Impervious Runoff Depth>1.59"
Tc=12.0 min UI Adjusted CN=67 Runoff=0.62 cfs 0.056 af

Subcatchment 27S: Lot 3 Runoff Area=18,425 sf 29.09% Impervious Runoff Depth>1.59"
Tc=9.0 min UI Adjusted CN=67 Runoff=0.67 cfs 0.056 af

Subcatchment 28S: Lot 4 Runoff Area=17,928 sf 28.66% Impervious Runoff Depth>1.66"
Tc=5.0 min UI Adjusted CN=68 Runoff=0.79 cfs 0.057 af

Subcatchment 29S: Lot 5 Runoff Area=32,794 sf 12.71% Impervious Runoff Depth>1.38"
Flow Length=304' Tc=14.5 min UI Adjusted CN=64 Runoff=0.86 cfs 0.086 af

Subcatchment 30S: Lot 6 Runoff Area=17,731 sf 19.52% Impervious Runoff Depth>1.59"
Tc=10.0 min UI Adjusted CN=67 Runoff=0.63 cfs 0.054 af

Subcatchment 31S: Lot 7 Runoff Area=11,505 sf 28.60% Impervious Runoff Depth>1.73"
Tc=7.0 min UI Adjusted CN=69 Runoff=0.50 cfs 0.038 af

Subcatchment 32S: Lot 8 Runoff Area=14,695 sf 34.89% Impervious Runoff Depth>2.28"
Tc=5.0 min CN=76 Runoff=0.92 cfs 0.064 af

Subcatchment 34S: To Culvert Runoff Area=539,255 sf 0.00% Impervious Runoff Depth>2.11"
Flow Length=1,139' Tc=18.8 min CN=74 Runoff=20.98 cfs 2.178 af

Subcatchment 35S: Road to Basin 2 Runoff Area=69,910 sf 16.78% Impervious Runoff Depth>1.88"
Tc=5.0 min CN=71 Runoff=3.57 cfs 0.252 af

Subcatchment 40S: To Fire Pond Runoff Area=110,309 sf 0.00% Impervious Runoff Depth>2.12"
Tc=5.0 min CN=74 Runoff=6.40 cfs 0.447 af

Subcatchment 42S: Lot 5 Roof Runoff Area=1,950 sf 100.00% Impervious Runoff Depth>4.45"
Tc=5.0 min CN=98 Runoff=0.21 cfs 0.017 af

Subcatchment 43S: Bypass 1A Runoff Area=68,944 sf 0.00% Impervious Runoff Depth>1.18"
Flow Length=173' Tc=8.2 min CN=61 Runoff=1.79 cfs 0.156 af

Subcatchment 46S: Lot 6 Upper Drive Runoff Area=3,853 sf 61.23% Impervious Runoff Depth>2.98"
Tc=10.0 min CN=84 Runoff=0.27 cfs 0.022 af

Subcatchment 49S: Lot 7 Upper Drive Runoff Area=6,012 sf 42.91% Impervious Runoff Depth>2.36"
Tc=7.0 min CN=77 Runoff=0.36 cfs 0.027 af

Subcatchment 50S: Lot 3 (rear roof) Runoff Area=975 sf 100.00% Impervious Runoff Depth>4.45"
Tc=5.0 min CN=98 Runoff=0.10 cfs 0.008 af

Reach 40R: Reach L4 Avg. Flow Depth=0.09' Max Vel=0.07 fps Inflow=0.37 cfs 0.023 af
n=0.400 L=200.0' S=0.0100 '/' Capacity=6.97 cfs Outflow=0.13 cfs 0.023 af

Reach 41R: Reach L5R Avg. Flow Depth=0.16' Max Vel=0.08 fps Inflow=0.16 cfs 0.005 af
n=0.400 L=250.0' S=0.0100 '/' Capacity=1.86 cfs Outflow=0.03 cfs 0.005 af

Pond 16P: Detention Basin #2 (South) Peak Elev=279.79' Storage=2,712 cf Inflow=4.49 cfs 0.316 af
Discarded=0.04 cfs 0.037 af Primary=4.11 cfs 0.229 af Outflow=4.15 cfs 0.266 af

Pond 20P: Detention Basin #1 (North) Peak Elev=267.20' Storage=6,994 cf Inflow=5.58 cfs 0.567 af
Discarded=0.11 cfs 0.080 af Primary=3.19 cfs 0.435 af Outflow=3.30 cfs 0.515 af

Pond 40P: Culvert Peak Elev=296.31' Storage=1,036 cf Inflow=20.98 cfs 2.178 af
72.0" x 24.0" Box Culvert n=0.013 L=40.0' S=0.0688 '/' Outflow=20.94 cfs 2.177 af

Pond 41P: RS L4 Peak Elev=274.35' Storage=654 cf Inflow=0.79 cfs 0.057 af
Discarded=0.03 cfs 0.025 af Primary=0.37 cfs 0.023 af Outflow=0.39 cfs 0.049 af

Pond 42P: Fire Pond Peak Elev=303.81' Storage=965 cf Inflow=6.40 cfs 0.447 af
Outflow=6.27 cfs 0.446 af

Pond 43P: RS L5R Peak Elev=290.42' Storage=222 cf Inflow=0.21 cfs 0.017 af
Discarded=0.01 cfs 0.010 af Primary=0.16 cfs 0.005 af Outflow=0.17 cfs 0.015 af

Pond 44P: RS L3 Peak Elev=262.29' Storage=148 cf Inflow=0.10 cfs 0.008 af
Discarded=0.01 cfs 0.008 af Primary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.008 af

Pond 45P: RS L6 Peak Elev=301.59' Storage=417 cf Inflow=0.27 cfs 0.022 af
Discarded=0.02 cfs 0.022 af Primary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.022 af

Pond 46P: Detention Basin #3 (Entrance) Peak Elev=280.55' Storage=1,314 cf Inflow=6.27 cfs 0.446 af
Outflow=6.19 cfs 0.423 af

Pond 47P: RS L1 Peak Elev=281.82' Storage=769 cf Inflow=0.80 cfs 0.056 af
Discarded=0.03 cfs 0.030 af Primary=0.32 cfs 0.018 af Outflow=0.35 cfs 0.049 af

Pond 48P: RS L7 Peak Elev=308.75' Storage=573 cf Inflow=0.36 cfs 0.027 af
Discarded=0.01 cfs 0.015 af Primary=0.02 cfs 0.003 af Outflow=0.03 cfs 0.018 af

Link 36L: POC 1 (Downs Road) Inflow=2.63 cfs 0.317 af
Primary=2.63 cfs 0.317 af

Link 37L: POC 2 (Cottage Street) Inflow=2.00 cfs 0.278 af
Primary=2.00 cfs 0.278 af

Link 38L: POC 3 (Monroe Turnpike) Inflow=4.20 cfs 0.609 af
Primary=4.20 cfs 0.609 af

Link 39L: POC 4 (Culvert Under Monroe Turnpike) Inflow=27.75 cfs 3.030 af
Primary=27.75 cfs 3.030 af

Total Runoff Area = 61.063 ac Runoff Volume = 8.394 af Average Runoff Depth = 1.65"
97.30% Pervious = 59.412 ac 2.70% Impervious = 1.651 ac

Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: Existing to POC 1 Runoff Area=114,074 sf 0.00% Impervious Runoff Depth>2.14"
Flow Length=1,139' Tc=24.1 min CN=66 Runoff=3.98 cfs 0.466 af

Subcatchment 2S: Existing to POC 2 Runoff Area=170,531 sf 0.00% Impervious Runoff Depth>1.29"
Flow Length=773' Slope=0.1200 '/' Tc=16.4 min CN=55 Runoff=3.67 cfs 0.420 af

Subcatchment 3S: Existing to POC 3 Runoff Area=426,344 sf 0.00% Impervious Runoff Depth>1.29"
Flow Length=548' Tc=17.5 min CN=55 Runoff=8.97 cfs 1.050 af

Subcatchment 4S: Existing to POC 4 Runoff Area=619,978 sf 0.00% Impervious Runoff Depth>2.84"
Flow Length=648' Tc=12.4 min CN=74 Runoff=38.42 cfs 3.374 af

Subcatchment 21S: Bypass 1 Runoff Area=148,196 sf 0.00% Impervious Runoff Depth>1.36"
Flow Length=773' Slope=0.1200 '/' Tc=16.4 min CN=56 Runoff=3.45 cfs 0.385 af

Subcatchment 22S: Bypass 2 Runoff Area=49,527 sf 0.00% Impervious Runoff Depth>2.85"
Tc=5.0 min CN=74 Runoff=3.89 cfs 0.270 af

Subcatchment 23S: Bypass 3 Runoff Area=100,263 sf 0.00% Impervious Runoff Depth>2.30"
Flow Length=1,139' Tc=25.2 min CN=68 Runoff=3.75 cfs 0.442 af

Subcatchment 24S: Road to Basin 1 Runoff Area=86,275 sf 19.90% Impervious Runoff Depth>2.31"
Flow Length=300' Tc=16.3 min CN=68 Runoff=3.85 cfs 0.381 af

Subcatchment 25S: Lot 1 Runoff Area=11,895 sf 35.06% Impervious Runoff Depth>3.23"
Tc=5.0 min CN=78 Runoff=1.06 cfs 0.073 af

Subcatchment 26S: Lot 2 Runoff Area=18,535 sf 23.99% Impervious Runoff Depth>2.23"
Tc=12.0 min UI Adjusted CN=67 Runoff=0.89 cfs 0.079 af

Subcatchment 27S: Lot 3 Runoff Area=18,425 sf 29.09% Impervious Runoff Depth>2.23"
Tc=9.0 min UI Adjusted CN=67 Runoff=0.97 cfs 0.079 af

Subcatchment 28S: Lot 4 Runoff Area=17,928 sf 28.66% Impervious Runoff Depth>2.32"
Tc=5.0 min UI Adjusted CN=68 Runoff=1.13 cfs 0.079 af

Subcatchment 29S: Lot 5 Runoff Area=32,794 sf 12.71% Impervious Runoff Depth>1.98"
Flow Length=304' Tc=14.5 min UI Adjusted CN=64 Runoff=1.28 cfs 0.124 af

Subcatchment 30S: Lot 6 Runoff Area=17,731 sf 19.52% Impervious Runoff Depth>2.23"
Tc=10.0 min UI Adjusted CN=67 Runoff=0.90 cfs 0.076 af

Subcatchment 31S: Lot 7 Runoff Area=11,505 sf 28.60% Impervious Runoff Depth>2.40"
Tc=7.0 min UI Adjusted CN=69 Runoff=0.70 cfs 0.053 af

Subcatchment 32S: Lot 8 Runoff Area=14,695 sf 34.89% Impervious Runoff Depth>3.04"
Tc=5.0 min CN=76 Runoff=1.23 cfs 0.085 af

Subcatchment 34S: To Culvert Runoff Area=539,255 sf 0.00% Impervious Runoff Depth>2.84"
Flow Length=1,139' Tc=18.8 min CN=74 Runoff=28.46 cfs 2.931 af

Subcatchment 35S: Road to Basin 2 Runoff Area=69,910 sf 16.78% Impervious Runoff Depth>2.58"
Tc=5.0 min CN=71 Runoff=4.95 cfs 0.345 af

Subcatchment 40S: To Fire Pond Runoff Area=110,309 sf 0.00% Impervious Runoff Depth>2.85"
Tc=5.0 min CN=74 Runoff=8.67 cfs 0.601 af

Subcatchment 42S: Lot 5 Roof Runoff Area=1,950 sf 100.00% Impervious Runoff Depth>5.36"
Tc=5.0 min CN=98 Runoff=0.25 cfs 0.020 af

Subcatchment 43S: Bypass 1A Runoff Area=68,944 sf 0.00% Impervious Runoff Depth>1.74"
Flow Length=173' Tc=8.2 min CN=61 Runoff=2.79 cfs 0.229 af

Subcatchment 46S: Lot 6 Upper Drive Runoff Area=3,853 sf 61.23% Impervious Runoff Depth>3.82"
Tc=10.0 min CN=84 Runoff=0.34 cfs 0.028 af

Subcatchment 49S: Lot 7 Upper Drive Runoff Area=6,012 sf 42.91% Impervious Runoff Depth>3.13"
Tc=7.0 min CN=77 Runoff=0.48 cfs 0.036 af

Subcatchment 50S: Lot 3 (rear roof) Runoff Area=975 sf 100.00% Impervious Runoff Depth>5.36"
Tc=5.0 min CN=98 Runoff=0.13 cfs 0.010 af

Reach 40R: Reach L4 Avg. Flow Depth=0.15' Max Vel=0.10 fps Inflow=0.81 cfs 0.043 af
n=0.400 L=200.0' S=0.0100 '/' Capacity=6.97 cfs Outflow=0.31 cfs 0.042 af

Reach 41R: Reach L5R Avg. Flow Depth=0.20' Max Vel=0.10 fps Inflow=0.22 cfs 0.007 af
n=0.400 L=250.0' S=0.0100 '/' Capacity=1.86 cfs Outflow=0.06 cfs 0.007 af

Pond 16P: Detention Basin #2 (South) Peak Elev=279.87' Storage=2,863 cf Inflow=6.18 cfs 0.430 af
Discarded=0.04 cfs 0.039 af Primary=5.82 cfs 0.341 af Outflow=5.86 cfs 0.380 af

Pond 20P: Detention Basin #1 (North) Peak Elev=267.38' Storage=7,725 cf Inflow=8.04 cfs 0.802 af
Discarded=0.12 cfs 0.087 af Primary=6.48 cfs 0.660 af Outflow=6.60 cfs 0.746 af

Pond 40P: Culvert Peak Elev=296.55' Storage=1,410 cf Inflow=28.46 cfs 2.931 af
72.0" x 24.0" Box Culvert n=0.013 L=40.0' S=0.0688 '/' Outflow=28.40 cfs 2.929 af

Pond 41P: RS L4 Peak Elev=274.57' Storage=742 cf Inflow=1.13 cfs 0.079 af
Discarded=0.03 cfs 0.027 af Primary=0.81 cfs 0.043 af Outflow=0.84 cfs 0.069 af

Pond 42P: Fire Pond Peak Elev=303.90' Storage=1,079 cf Inflow=8.67 cfs 0.601 af
Outflow=8.53 cfs 0.600 af

Pond 43P: RS L5R Peak Elev=290.47' Storage=228 cf Inflow=0.25 cfs 0.020 af
Discarded=0.01 cfs 0.011 af Primary=0.22 cfs 0.007 af Outflow=0.23 cfs 0.018 af

Pond 44P: RS L3 Peak Elev=262.58' Storage=188 cf Inflow=0.13 cfs 0.010 af
Discarded=0.01 cfs 0.010 af Primary=0.00 cfs 0.000 af Outflow=0.01 cfs 0.010 af

Pond 45P: RS L6 Peak Elev=301.91' Storage=572 cf Inflow=0.34 cfs 0.028 af
Discarded=0.03 cfs 0.026 af Primary=0.00 cfs 0.000 af Outflow=0.03 cfs 0.026 af

Pond 46P: Detention Basin #3 (Entrance) Peak Elev=280.67' Storage=1,394 cf Inflow=8.53 cfs 0.600 af
Outflow=8.41 cfs 0.577 af

Pond 47P: RS L1 Peak Elev=282.01' Storage=858 cf Inflow=1.06 cfs 0.073 af
Discarded=0.03 cfs 0.032 af Primary=0.69 cfs 0.032 af Outflow=0.72 cfs 0.065 af

Pond 48P: RS L7 Peak Elev=308.89' Storage=625 cf Inflow=0.48 cfs 0.036 af
Discarded=0.01 cfs 0.015 af Primary=0.14 cfs 0.011 af Outflow=0.15 cfs 0.026 af

Link 36L: POC 1 (Downs Road) Inflow=3.75 cfs 0.442 af
Primary=3.75 cfs 0.442 af

Link 37L: POC 2 (Cottage Street) Inflow=3.45 cfs 0.435 af
Primary=3.45 cfs 0.435 af

Link 38L: POC 3 (Monroe Turnpike) Inflow=8.52 cfs 0.921 af
Primary=8.52 cfs 0.921 af

Link 39L: POC 4 (Culvert Under Monroe Turnpike) Inflow=37.47 cfs 4.118 af
Primary=37.47 cfs 4.118 af

Total Runoff Area = 61.063 ac Runoff Volume = 11.636 af Average Runoff Depth = 2.29"
97.30% Pervious = 59.412 ac 2.70% Impervious = 1.651 ac

Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: Existing to POC 1 Runoff Area=114,074 sf 0.00% Impervious Runoff Depth>3.07"
Flow Length=1,139' Tc=24.1 min CN=66 Runoff=5.83 cfs 0.670 af

Subcatchment 2S: Existing to POC 2 Runoff Area=170,531 sf 0.00% Impervious Runoff Depth>2.02"
Flow Length=773' Slope=0.1200 '/' Tc=16.4 min CN=55 Runoff=6.25 cfs 0.659 af

Subcatchment 3S: Existing to POC 3 Runoff Area=426,344 sf 0.00% Impervious Runoff Depth>2.02"
Flow Length=548' Tc=17.5 min CN=55 Runoff=15.21 cfs 1.647 af

Subcatchment 4S: Existing to POC 4 Runoff Area=619,978 sf 0.00% Impervious Runoff Depth>3.90"
Flow Length=648' Tc=12.4 min CN=74 Runoff=52.84 cfs 4.629 af

Subcatchment 21S: Bypass 1 Runoff Area=148,196 sf 0.00% Impervious Runoff Depth>2.11"
Flow Length=773' Slope=0.1200 '/' Tc=16.4 min CN=56 Runoff=5.74 cfs 0.599 af

Subcatchment 22S: Bypass 2 Runoff Area=49,527 sf 0.00% Impervious Runoff Depth>3.91"
Tc=5.0 min CN=74 Runoff=5.34 cfs 0.370 af

Subcatchment 23S: Bypass 3 Runoff Area=100,263 sf 0.00% Impervious Runoff Depth>3.27"
Flow Length=1,139' Tc=25.2 min CN=68 Runoff=5.39 cfs 0.627 af

Subcatchment 24S: Road to Basin 1 Runoff Area=86,275 sf 19.90% Impervious Runoff Depth>3.28"
Flow Length=300' Tc=16.3 min CN=68 Runoff=5.54 cfs 0.541 af

Subcatchment 25S: Lot 1 Runoff Area=11,895 sf 35.06% Impervious Runoff Depth>4.34"
Tc=5.0 min CN=78 Runoff=1.42 cfs 0.099 af

Subcatchment 26S: Lot 2 Runoff Area=18,535 sf 23.99% Impervious Runoff Depth>3.18"
Tc=12.0 min UI Adjusted CN=67 Runoff=1.29 cfs 0.113 af

Subcatchment 27S: Lot 3 Runoff Area=18,425 sf 29.09% Impervious Runoff Depth>3.18"
Tc=9.0 min UI Adjusted CN=67 Runoff=1.41 cfs 0.112 af

Subcatchment 28S: Lot 4 Runoff Area=17,928 sf 28.66% Impervious Runoff Depth>3.29"
Tc=5.0 min UI Adjusted CN=68 Runoff=1.62 cfs 0.113 af

Subcatchment 29S: Lot 5 Runoff Area=32,794 sf 12.71% Impervious Runoff Depth>2.88"
Flow Length=304' Tc=14.5 min UI Adjusted CN=64 Runoff=1.91 cfs 0.181 af

Subcatchment 30S: Lot 6 Runoff Area=17,731 sf 19.52% Impervious Runoff Depth>3.18"
Tc=10.0 min UI Adjusted CN=67 Runoff=1.31 cfs 0.108 af

Subcatchment 31S: Lot 7 Runoff Area=11,505 sf 28.60% Impervious Runoff Depth>3.39"
Tc=7.0 min UI Adjusted CN=69 Runoff=1.00 cfs 0.075 af

Subcatchment 32S: Lot 8 Runoff Area=14,695 sf 34.89% Impervious Runoff Depth>4.12"
Tc=5.0 min CN=76 Runoff=1.67 cfs 0.116 af

Subcatchment 34S: To Culvert Runoff Area=539,255 sf 0.00% Impervious Runoff Depth>3.90"
Flow Length=1,139' Tc=18.8 min CN=74 Runoff=39.22 cfs 4.021 af

Subcatchment 35S: Road to Basin 2 Runoff Area=69,910 sf 16.78% Impervious Runoff Depth>3.59"
Tc=5.0 min CN=71 Runoff=6.93 cfs 0.481 af

Subcatchment 40S: To Fire Pond Runoff Area=110,309 sf 0.00% Impervious Runoff Depth>3.91"
Tc=5.0 min CN=74 Runoff=11.89 cfs 0.825 af

Subcatchment 42S: Lot 5 Roof Runoff Area=1,950 sf 100.00% Impervious Runoff Depth>6.61"
Tc=5.0 min CN=98 Runoff=0.31 cfs 0.025 af

Subcatchment 43S: Bypass 1A Runoff Area=68,944 sf 0.00% Impervious Runoff Depth>2.59"
Flow Length=173' Tc=8.2 min CN=61 Runoff=4.30 cfs 0.342 af

Subcatchment 46S: Lot 6 Upper Drive Runoff Area=3,853 sf 61.23% Impervious Runoff Depth>4.99"
Tc=10.0 min CN=84 Runoff=0.44 cfs 0.037 af

Subcatchment 49S: Lot 7 Upper Drive Runoff Area=6,012 sf 42.91% Impervious Runoff Depth>4.23"
Tc=7.0 min CN=77 Runoff=0.65 cfs 0.049 af

Subcatchment 50S: Lot 3 (rear roof) Runoff Area=975 sf 100.00% Impervious Runoff Depth>6.61"
Tc=5.0 min CN=98 Runoff=0.15 cfs 0.012 af

Reach 40R: Reach L4 Avg. Flow Depth=0.23' Max Vel=0.14 fps Inflow=1.49 cfs 0.073 af
n=0.400 L=200.0' S=0.0100 '/' Capacity=6.97 cfs Outflow=0.62 cfs 0.072 af

Reach 41R: Reach L5R Avg. Flow Depth=0.25' Max Vel=0.11 fps Inflow=0.28 cfs 0.011 af
n=0.400 L=250.0' S=0.0100 '/' Capacity=1.86 cfs Outflow=0.09 cfs 0.011 af

Pond 16P: Detention Basin #2 (South) Peak Elev=279.96' Storage=3,056 cf Inflow=8.60 cfs 0.597 af
Discarded=0.04 cfs 0.041 af Primary=8.21 cfs 0.506 af Outflow=8.25 cfs 0.546 af

Pond 20P: Detention Basin #1 (North) Peak Elev=267.58' Storage=8,620 cf Inflow=11.96 cfs 1.153 af
Discarded=0.13 cfs 0.095 af Primary=10.88 cfs 0.999 af Outflow=11.01 cfs 1.094 af

Pond 40P: Culvert Peak Elev=296.85' Storage=1,967 cf Inflow=39.22 cfs 4.021 af
72.0" x 24.0" Box Culvert n=0.013 L=40.0' S=0.0688 '/' Outflow=39.06 cfs 4.020 af

Pond 41P: RS L4 Peak Elev=275.11' Storage=835 cf Inflow=1.62 cfs 0.113 af
Discarded=0.04 cfs 0.028 af Primary=1.49 cfs 0.073 af Outflow=1.53 cfs 0.101 af

Pond 42P: Fire Pond Peak Elev=304.01' Storage=1,224 cf Inflow=11.89 cfs 0.825 af
Outflow=11.75 cfs 0.823 af

Pond 43P: RS L5R Peak Elev=290.51' Storage=234 cf Inflow=0.31 cfs 0.025 af
Discarded=0.01 cfs 0.012 af Primary=0.28 cfs 0.011 af Outflow=0.29 cfs 0.022 af

Pond 44P: RS L3 Peak Elev=262.94' Storage=237 cf Inflow=0.15 cfs 0.012 af
Discarded=0.01 cfs 0.011 af Primary=0.01 cfs 0.000 af Outflow=0.02 cfs 0.011 af

Pond 45P: RS L6 Peak Elev=302.26' Storage=740 cf Inflow=0.44 cfs 0.037 af
Discarded=0.03 cfs 0.029 af Primary=0.03 cfs 0.002 af Outflow=0.05 cfs 0.032 af

Pond 46P: Detention Basin #3 (Entrance) Peak Elev=280.83' Storage=1,498 cf Inflow=11.75 cfs 0.823 af
Outflow=11.64 cfs 0.801 af

Pond 47P: RS L1 Peak Elev=282.27' Storage=966 cf Inflow=1.42 cfs 0.099 af
Discarded=0.03 cfs 0.034 af Primary=1.11 cfs 0.054 af Outflow=1.14 cfs 0.088 af

Pond 48P: RS L7 Peak Elev=309.06' Storage=685 cf Inflow=0.65 cfs 0.049 af
Discarded=0.01 cfs 0.016 af Primary=0.34 cfs 0.021 af Outflow=0.36 cfs 0.037 af

Link 36L: POC 1 (Downs Road) Inflow=5.39 cfs 0.627 af
Primary=5.39 cfs 0.627 af

Link 37L: POC 2 (Cottage Street) Inflow=5.74 cfs 0.682 af
Primary=5.74 cfs 0.682 af

Link 38L: POC 3 (Monroe Turnpike) Inflow=14.61 cfs 1.394 af
Primary=14.61 cfs 1.394 af

Link 39L: POC 4 (Culvert Under Monroe Turnpike) Inflow=51.32 cfs 5.696 af
Primary=51.32 cfs 5.696 af

Total Runoff Area = 61.063 ac Runoff Volume = 16.449 af Average Runoff Depth = 3.23"
97.30% Pervious = 59.412 ac 2.70% Impervious = 1.651 ac

Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: Existing to POC 1 Runoff Area=114,074 sf 0.00% Impervious Runoff Depth>3.80"
Flow Length=1,139' Tc=24.1 min CN=66 Runoff=7.26 cfs 0.829 af

Subcatchment 2S: Existing to POC 2 Runoff Area=170,531 sf 0.00% Impervious Runoff Depth>2.62"
Flow Length=773' Slope=0.1200 '/' Tc=16.4 min CN=55 Runoff=8.34 cfs 0.854 af

Subcatchment 3S: Existing to POC 3 Runoff Area=426,344 sf 0.00% Impervious Runoff Depth>2.62"
Flow Length=548' Tc=17.5 min CN=55 Runoff=20.33 cfs 2.134 af

Subcatchment 4S: Existing to POC 4 Runoff Area=619,978 sf 0.00% Impervious Runoff Depth>4.71"
Flow Length=648' Tc=12.4 min CN=74 Runoff=63.70 cfs 5.587 af

Subcatchment 21S: Bypass 1 Runoff Area=148,196 sf 0.00% Impervious Runoff Depth>2.72"
Flow Length=773' Slope=0.1200 '/' Tc=16.4 min CN=56 Runoff=7.59 cfs 0.772 af

Subcatchment 22S: Bypass 2 Runoff Area=49,527 sf 0.00% Impervious Runoff Depth>4.72"
Tc=5.0 min CN=74 Runoff=6.43 cfs 0.447 af

Subcatchment 23S: Bypass 3 Runoff Area=100,263 sf 0.00% Impervious Runoff Depth>4.02"
Flow Length=1,139' Tc=25.2 min CN=68 Runoff=6.65 cfs 0.771 af

Subcatchment 24S: Road to Basin 1 Runoff Area=86,275 sf 19.90% Impervious Runoff Depth>4.03"
Flow Length=300' Tc=16.3 min CN=68 Runoff=6.84 cfs 0.665 af

Subcatchment 25S: Lot 1 Runoff Area=11,895 sf 35.06% Impervious Runoff Depth>5.18"
Tc=5.0 min CN=78 Runoff=1.68 cfs 0.118 af

Subcatchment 26S: Lot 2 Runoff Area=18,535 sf 23.99% Impervious Runoff Depth>3.92"
Tc=12.0 min UI Adjusted CN=67 Runoff=1.60 cfs 0.139 af

Subcatchment 27S: Lot 3 Runoff Area=18,425 sf 29.09% Impervious Runoff Depth>3.92"
Tc=9.0 min UI Adjusted CN=67 Runoff=1.75 cfs 0.138 af

Subcatchment 28S: Lot 4 Runoff Area=17,928 sf 28.66% Impervious Runoff Depth>4.04"
Tc=5.0 min UI Adjusted CN=68 Runoff=2.00 cfs 0.139 af

Subcatchment 29S: Lot 5 Runoff Area=32,794 sf 12.71% Impervious Runoff Depth>3.59"
Flow Length=304' Tc=14.5 min UI Adjusted CN=64 Runoff=2.41 cfs 0.225 af

Subcatchment 30S: Lot 6 Runoff Area=17,731 sf 19.52% Impervious Runoff Depth>3.92"
Tc=10.0 min UI Adjusted CN=67 Runoff=1.62 cfs 0.133 af

Subcatchment 31S: Lot 7 Runoff Area=11,505 sf 28.60% Impervious Runoff Depth>4.15"
Tc=7.0 min UI Adjusted CN=69 Runoff=1.22 cfs 0.091 af

Subcatchment 32S: Lot 8 Runoff Area=14,695 sf 34.89% Impervious Runoff Depth>4.95"
Tc=5.0 min CN=76 Runoff=1.99 cfs 0.139 af

Subcatchment 34S: To Culvert Runoff Area=539,255 sf 0.00% Impervious Runoff Depth>4.70"
Flow Length=1,139' Tc=18.8 min CN=74 Runoff=47.29 cfs 4.853 af

Subcatchment 35S: Road to Basin 2 Runoff Area=69,910 sf 16.78% Impervious Runoff Depth>4.38"
Tc=5.0 min CN=71 Runoff=8.44 cfs 0.585 af

Subcatchment 40S: To Fire Pond Runoff Area=110,309 sf 0.00% Impervious Runoff Depth>4.72"
Tc=5.0 min CN=74 Runoff=14.32 cfs 0.995 af

Subcatchment 42S: Lot 5 Roof Runoff Area=1,950 sf 100.00% Impervious Runoff Depth>7.53"
Tc=5.0 min CN=98 Runoff=0.35 cfs 0.028 af

Subcatchment 43S: Bypass 1A Runoff Area=68,944 sf 0.00% Impervious Runoff Depth>3.26"
Flow Length=173' Tc=8.2 min CN=61 Runoff=5.50 cfs 0.431 af

Subcatchment 46S: Lot 6 Upper Drive Runoff Area=3,853 sf 61.23% Impervious Runoff Depth>5.87"
Tc=10.0 min CN=84 Runoff=0.51 cfs 0.043 af

Subcatchment 49S: Lot 7 Upper Drive Runoff Area=6,012 sf 42.91% Impervious Runoff Depth>5.06"
Tc=7.0 min CN=77 Runoff=0.77 cfs 0.058 af

Subcatchment 50S: Lot 3 (rear roof) Runoff Area=975 sf 100.00% Impervious Runoff Depth>7.53"
Tc=5.0 min CN=98 Runoff=0.17 cfs 0.014 af

Reach 40R: Reach L4 Avg. Flow Depth=0.28' Max Vel=0.16 fps Inflow=1.91 cfs 0.097 af
n=0.400 L=200.0' S=0.0100 '/' Capacity=6.97 cfs Outflow=0.88 cfs 0.096 af

Reach 41R: Reach L5R Avg. Flow Depth=0.28' Max Vel=0.12 fps Inflow=0.32 cfs 0.013 af
n=0.400 L=250.0' S=0.0100 '/' Capacity=1.86 cfs Outflow=0.12 cfs 0.013 af

Pond 16P: Detention Basin #2 (South) Peak Elev=280.03' Storage=3,192 cf Inflow=10.43 cfs 0.724 af
Discarded=0.04 cfs 0.042 af Primary=10.01 cfs 0.632 af Outflow=10.05 cfs 0.674 af

Pond 20P: Detention Basin #1 (North) Peak Elev=267.76' Storage=9,428 cf Inflow=14.99 cfs 1.429 af
Discarded=0.13 cfs 0.101 af Primary=13.46 cfs 1.267 af Outflow=13.59 cfs 1.367 af

Pond 40P: Culvert Peak Elev=297.06' Storage=2,404 cf Inflow=47.29 cfs 4.853 af
72.0" x 24.0" Box Culvert n=0.013 L=40.0' S=0.0688 '/' Outflow=47.08 cfs 4.852 af

Pond 41P: RS L4 Peak Elev=275.60' Storage=868 cf Inflow=2.00 cfs 0.139 af
Discarded=0.05 cfs 0.029 af Primary=1.91 cfs 0.097 af Outflow=1.95 cfs 0.127 af

Pond 42P: Fire Pond Peak Elev=304.09' Storage=1,325 cf Inflow=14.32 cfs 0.995 af
Outflow=14.17 cfs 0.993 af

Pond 43P: RS L5R Peak Elev=290.54' Storage=238 cf Inflow=0.35 cfs 0.028 af
Discarded=0.01 cfs 0.012 af Primary=0.32 cfs 0.013 af Outflow=0.33 cfs 0.025 af

Pond 44P: RS L3 Peak Elev=263.01' Storage=246 cf Inflow=0.17 cfs 0.014 af
Discarded=0.01 cfs 0.011 af Primary=0.04 cfs 0.001 af Outflow=0.05 cfs 0.013 af

Pond 45P: RS L6 Peak Elev=302.37' Storage=793 cf Inflow=0.51 cfs 0.043 af
Discarded=0.03 cfs 0.030 af Primary=0.11 cfs 0.007 af Outflow=0.14 cfs 0.037 af

Pond 46P: Detention Basin #3 (Entrance) Peak Elev=280.93' Storage=1,569 cf Inflow=14.17 cfs 0.993 af
Outflow=14.05 cfs 0.971 af

Pond 47P: RS L1 Peak Elev=282.83' Storage=985 cf Inflow=1.68 cfs 0.118 af
Discarded=0.04 cfs 0.036 af Primary=1.68 cfs 0.070 af Outflow=1.72 cfs 0.106 af

Pond 48P: RS L7 Peak Elev=309.21' Storage=739 cf Inflow=0.77 cfs 0.058 af
Discarded=0.01 cfs 0.017 af Primary=0.51 cfs 0.030 af Outflow=0.53 cfs 0.046 af

Link 36L: POC 1 (Downs Road) Inflow=6.65 cfs 0.771 af
Primary=6.65 cfs 0.771 af

Link 37L: POC 2 (Cottage Street) Inflow=7.60 cfs 0.882 af
Primary=7.60 cfs 0.882 af

Link 38L: POC 3 (Monroe Turnpike) Inflow=18.18 cfs 1.769 af
Primary=18.18 cfs 1.769 af

Link 39L: POC 4 (Culvert Under Monroe Turnpike) Inflow=61.72 cfs 6.901 af
Primary=61.72 cfs 6.901 af

Total Runoff Area = 61.063 ac Runoff Volume = 20.190 af Average Runoff Depth = 3.97"
97.30% Pervious = 59.412 ac 2.70% Impervious = 1.651 ac

Time span=0.00-24.00 hrs, dt=0.04 hrs, 601 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 1S: Existing to POC 1 Runoff Area=114,074 sf 0.00% Impervious Runoff Depth>4.63"
Flow Length=1,139' Tc=24.1 min CN=66 Runoff=8.88 cfs 1.011 af

Subcatchment 2S: Existing to POC 2 Runoff Area=170,531 sf 0.00% Impervious Runoff Depth>3.32"
Flow Length=773' Slope=0.1200 '/' Tc=16.4 min CN=55 Runoff=10.78 cfs 1.082 af

Subcatchment 3S: Existing to POC 3 Runoff Area=426,344 sf 0.00% Impervious Runoff Depth>3.32"
Flow Length=548' Tc=17.5 min CN=55 Runoff=26.28 cfs 2.705 af

Subcatchment 4S: Existing to POC 4 Runoff Area=619,978 sf 0.00% Impervious Runoff Depth>5.62"
Flow Length=648' Tc=12.4 min CN=74 Runoff=75.74 cfs 6.662 af

Subcatchment 21S: Bypass 1 Runoff Area=148,196 sf 0.00% Impervious Runoff Depth>3.44"
Flow Length=773' Slope=0.1200 '/' Tc=16.4 min CN=56 Runoff=9.75 cfs 0.974 af

Subcatchment 22S: Bypass 2 Runoff Area=49,527 sf 0.00% Impervious Runoff Depth>5.62"
Tc=5.0 min CN=74 Runoff=7.64 cfs 0.533 af

Subcatchment 23S: Bypass 3 Runoff Area=100,263 sf 0.00% Impervious Runoff Depth>4.87"
Flow Length=1,139' Tc=25.2 min CN=68 Runoff=8.07 cfs 0.935 af

Subcatchment 24S: Road to Basin 1 Runoff Area=86,275 sf 19.90% Impervious Runoff Depth>4.88"
Flow Length=300' Tc=16.3 min CN=68 Runoff=8.30 cfs 0.806 af

Subcatchment 25S: Lot 1 Runoff Area=11,895 sf 35.06% Impervious Runoff Depth>6.11"
Tc=5.0 min CN=78 Runoff=1.97 cfs 0.139 af

Subcatchment 26S: Lot 2 Runoff Area=18,535 sf 23.99% Impervious Runoff Depth>4.77"
Tc=12.0 min UI Adjusted CN=67 Runoff=1.95 cfs 0.169 af

Subcatchment 27S: Lot 3 Runoff Area=18,425 sf 29.09% Impervious Runoff Depth>4.77"
Tc=9.0 min UI Adjusted CN=67 Runoff=2.12 cfs 0.168 af

Subcatchment 28S: Lot 4 Runoff Area=17,928 sf 28.66% Impervious Runoff Depth>4.89"
Tc=5.0 min UI Adjusted CN=68 Runoff=2.42 cfs 0.168 af

Subcatchment 29S: Lot 5 Runoff Area=32,794 sf 12.71% Impervious Runoff Depth>4.40"
Flow Length=304' Tc=14.5 min UI Adjusted CN=64 Runoff=2.97 cfs 0.276 af

Subcatchment 30S: Lot 6 Runoff Area=17,731 sf 19.52% Impervious Runoff Depth>4.77"
Tc=10.0 min UI Adjusted CN=67 Runoff=1.97 cfs 0.162 af

Subcatchment 31S: Lot 7 Runoff Area=11,505 sf 28.60% Impervious Runoff Depth>5.01"
Tc=7.0 min UI Adjusted CN=69 Runoff=1.48 cfs 0.110 af

Subcatchment 32S: Lot 8 Runoff Area=14,695 sf 34.89% Impervious Runoff Depth>5.87"
Tc=5.0 min CN=76 Runoff=2.35 cfs 0.165 af

Subcatchment 34S: To Culvert Runoff Area=539,255 sf 0.00% Impervious Runoff Depth>5.61"
Flow Length=1,139' Tc=18.8 min CN=74 Runoff=56.26 cfs 5.788 af

Subcatchment 35S: Road to Basin 2 Runoff Area=69,910 sf 16.78% Impervious Runoff Depth>5.26"
Tc=5.0 min CN=71 Runoff=10.12 cfs 0.703 af

Subcatchment 40S: To Fire Pond Runoff Area=110,309 sf 0.00% Impervious Runoff Depth>5.62"
Tc=5.0 min CN=74 Runoff=17.01 cfs 1.187 af

Subcatchment 42S: Lot 5 Roof Runoff Area=1,950 sf 100.00% Impervious Runoff Depth>8.54"
Tc=5.0 min CN=98 Runoff=0.39 cfs 0.032 af

Subcatchment 43S: Bypass 1A Runoff Area=68,944 sf 0.00% Impervious Runoff Depth>4.04"
Flow Length=173' Tc=8.2 min CN=61 Runoff=6.87 cfs 0.533 af

Subcatchment 46S: Lot 6 Upper Drive Runoff Area=3,853 sf 61.23% Impervious Runoff Depth>6.84"
Tc=10.0 min CN=84 Runoff=0.60 cfs 0.050 af

Subcatchment 49S: Lot 7 Upper Drive Runoff Area=6,012 sf 42.91% Impervious Runoff Depth>5.99"
Tc=7.0 min CN=77 Runoff=0.92 cfs 0.069 af

Subcatchment 50S: Lot 3 (rear roof) Runoff Area=975 sf 100.00% Impervious Runoff Depth>8.54"
Tc=5.0 min CN=98 Runoff=0.20 cfs 0.016 af

Reach 40R: Reach L4 Avg. Flow Depth=0.34' Max Vel=0.18 fps Inflow=2.44 cfs 0.125 af
n=0.400 L=200.0' S=0.0100 '/' Capacity=6.97 cfs Outflow=1.19 cfs 0.124 af

Reach 41R: Reach L5R Avg. Flow Depth=0.31' Max Vel=0.13 fps Inflow=0.36 cfs 0.017 af
n=0.400 L=250.0' S=0.0100 '/' Capacity=1.86 cfs Outflow=0.15 cfs 0.016 af

Pond 16P: Detention Basin #2 (South) Peak Elev=280.09' Storage=3,336 cf Inflow=12.48 cfs 0.868 af
Discarded=0.04 cfs 0.044 af Primary=12.01 cfs 0.774 af Outflow=12.06 cfs 0.818 af

Pond 20P: Detention Basin #1 (North) Peak Elev=267.99' Storage=10,495 cf Inflow=18.53 cfs 1.743 af
Discarded=0.14 cfs 0.107 af Primary=16.08 cfs 1.573 af Outflow=16.22 cfs 1.679 af

Pond 40P: Culvert Peak Elev=297.29' Storage=2,911 cf Inflow=56.26 cfs 5.788 af
72.0" x 24.0" Box Culvert n=0.013 L=40.0' S=0.0688 '/' Outflow=55.93 cfs 5.786 af

Pond 41P: RS L4 Peak Elev=276.44' Storage=878 cf Inflow=2.42 cfs 0.168 af
Discarded=0.05 cfs 0.030 af Primary=2.44 cfs 0.125 af Outflow=2.49 cfs 0.156 af

Pond 42P: Fire Pond Peak Elev=304.16' Storage=1,431 cf Inflow=17.01 cfs 1.187 af
Outflow=16.86 cfs 1.185 af

Pond 43P: RS L5R Peak Elev=290.57' Storage=242 cf Inflow=0.39 cfs 0.032 af
Discarded=0.01 cfs 0.012 af Primary=0.36 cfs 0.017 af Outflow=0.37 cfs 0.029 af

Pond 44P: RS L3 Peak Elev=263.06' Storage=253 cf Inflow=0.20 cfs 0.016 af
Discarded=0.01 cfs 0.012 af Primary=0.07 cfs 0.003 af Outflow=0.08 cfs 0.014 af

Pond 45P: RS L6 Peak Elev=302.46' Storage=836 cf Inflow=0.60 cfs 0.050 af
Discarded=0.03 cfs 0.031 af Primary=0.22 cfs 0.012 af Outflow=0.25 cfs 0.043 af

Pond 46P: Detention Basin #3 (Entrance) Peak Elev=281.05' Storage=1,613 cf Inflow=16.86 cfs 1.185 af
Outflow=16.92 cfs 1.162 af

Pond 47P: RS L1 Peak Elev=283.71' Storage=985 cf Inflow=1.97 cfs 0.139 af
Discarded=0.05 cfs 0.037 af Primary=2.30 cfs 0.089 af Outflow=2.35 cfs 0.126 af

Pond 48P: RS L7 Peak Elev=309.82' Storage=764 cf Inflow=0.92 cfs 0.069 af
Discarded=0.01 cfs 0.017 af Primary=0.90 cfs 0.040 af Outflow=0.91 cfs 0.057 af

Link 36L: POC 1 (Downs Road) Inflow=8.07 cfs 0.935 af
Primary=8.07 cfs 0.935 af

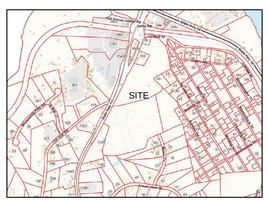
Link 37L: POC 2 (Cottage Street) Inflow=9.88 cfs 1.114 af
Primary=9.88 cfs 1.114 af

Link 38L: POC 3 (Monroe Turnpike) Inflow=22.05 cfs 2.198 af
Primary=22.05 cfs 2.198 af

Link 39L: POC 4 (Culvert Under Monroe Turnpike) Inflow=73.24 cfs 8.255 af
Primary=73.24 cfs 8.255 af

Total Runoff Area = 61.063 ac Runoff Volume = 24.444 af Average Runoff Depth = 4.80"
97.30% Pervious = 59.412 ac 2.70% Impervious = 1.651 ac

SUN VALLEY GLEN
A CLUSTER SUBDIVISION
1536 & 1564 MONROE TURNPIKE
IN
MONROE, CONNECTICUT
PREPARED FOR
JANS LAND DEVELOPMENT, LLC



VICINITY MAP
1"=500'

DRAWING LIST

L-1	EXISTING CONDITIONS SURVEY
L-2	SUBDIVISION MAP
L-3	LAYOUT PLAN
A-1	AREA PLAN
S-1 TO S-3	SITE PLANS
E-1 & E-2	EROSION CONTROL PLANS
E-3	EROSION CONTROL PLAN ENLARGEMENT
P-1	PLAN-PROFILE
D-1 TO D-5	DETAILS
WET.1	WETLANDS MITIGATION PLAN (BY OTHERS)

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SUN VALLEY GLEN
1536 & 1564 MONROE TURNPIKE
MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	8-05-24	TOWN
2	8-20-24	IWWC

DATE: 10-01-23
PROJECT #: 2979
DRAWING FILE: 2979
DRAWN BY: NDC
SCALE:

TITLE

SHEET NUMBER

K:\PROJECTS\2979-ALIX- 1536 AND 1564 MONROE TURNPIKE, MONROE, CT\DRAWINGS\TITLE

NOTES:

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE SECTIONS 20-300B-1 THROUGH 20-300B-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES – "MINIMUM STANDARDS FOR SURVEY AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. IT IS AN IMPROVEMENT LOCATION SURVEY BASED UPON A DEPENDENT RESURVEY AND CONFORMS TO HORIZONTAL ACCURACY CLASS A-2.

2. REFERENCE IS MADE TO THE FOLLOWING MAPS ON FILE IN THE MONROE TOWN CLERK'S OFFICE:

   A. "PLAN OF PROPERTY FOR STANLEY DRING, BEATRICE DRING, ELSIE DOWNS MONROE CONNECTICUT SCALE 1"=50' APRIL 1, 1975" PREPARED BY BURTON DAY ON FILE AS MAP #1187.

   B. "RESUBDIVISION PLAN BUCK HILL ESTATES SECTION II PREPARED FOR SUBWOOD DEVELOPEMENT COMPANY MONROE, CONN. SCALE 1"=100' SEPTEMBER 18, 1988" PREPARED BY L. EDWARDS & ASSOCIATES ON FILE AS MAP #2112.

   C. "PROPERTY SURVEY PREPARED FOR ROBERT E. DeLUCA & ROSEANNE DeLUCA 1520 MONROE TURNPIKE (RT 111) MONROE, CONNECTICUT SCALE: 1'=50' DATE: 7/2/96" PREPARED BY PAUL A. BRAUTIGAM ON FILE AS MAP #2448.

   D. "CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF MONROE MONROE–STEVENSON ROAD FROM MONROE CENTER NO. EASTERLY TO THE NEWTOWN–DERBY ROAD ROUTE 111 SCALE 1"=40' APRIL 28, 1939 NUMBER 84–08 SHEETS 9&10 OF 10.

3. THE LOCATION OF UNDERGROUND UTILITIES, IF ANY, IS UNKNOWN

4. PLAN PREPARED FOR WADE ALIX

5. LOT CORNER MARKERS DEPICTED HEREON WERE FOUND AND/OR SET DURING COMPLETION OF THIS SURVEY.

6. BEARING BASED ON CT STATE PLANE COORDINATES (NAD83)

7. CERTIFICATION OF THIS MAP APPLIES TO CONDITIONS AS OF THE ORIGINAL DATE OR REVISED DATE DEPICTED HEREON. EXISTING CONDITIONS ON THIS PROPERTY MAY HAVE CHANGED SINCE THAT DATE AND AN UPDATED SURVEY IS RECOMMENDED TO ACCURATELY DEPICT THE CURRENT CONDITIONS.

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REVISIONS

#	DATE	DESCRIPTION
1	8-05-24	TOWN
2	8-20-24	IWWC

DATE: 10-01-23
PROJECT #: 2979
DRAWING FILE: 2979
DRAWN BY: NDC
SCALE: 1"=100'

TITLE

PROPERTY LINE REVISION SURVEY

SHEET NUMBER

L-1

K:\PROJECTS\2979–ALIX– 1536 AND 1564 MONROE TURNPIKE, MONROE, CT\DRAWINGS\1.1 L-1 EXC

NOTES:

1. THIS SURVEY AND MAP HAS BEEN PREPARED IN ACCORDANCE WITH THE SECTIONS 20-300B-1 THROUGH 20-300B-20 OF THE REGULATIONS OF CONNECTICUT STATE AGENCIES – "MINIMUM STANDARDS FOR SURVEY AND MAPS IN THE STATE OF CONNECTICUT" AS ENDORSED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. IT IS AN IMPROVEMENT LOCATION SURVEY BASED UPON A DEPENDENT RESURVEY AND CONFORMS TO HORIZONTAL ACCURACY CLASS A-2.
2. REFERENCE IS MADE TO THE FOLLOWING MAPS ON FILE IN THE MONROE TOWN CLERK'S OFFICE:
   A. "PLAN OF PROPERTY FOR STANLEY DRING, BEATRICE DRING, ELSIE DOWNS MONROE CONNECTICUT SCALE 1"=50' APRIL 1, 1975" PREPARED BY BURTON DAY ON FILE AS MAP #1187.
   B. "RESUBDIVISION PLAN BUCK HILL ESTATES SECTION II PREPARED FOR SUBWOOD DEVELOPEMENT COMPANY MONROE, CONN. SCALE 1"=100' SEPTEMBER 18, 1988" PREPARED BY L. EDWARDS & ASSOCIATES ON FILE AS MAP #2112.
   C. "PROPERTY SURVEY PREPARED FOR ROBERT E. DeLUCA & ROSEANNE DeLUCA 1520 MONROE TURNPIKE (RT 111) MONROE, CONNECTICUT SCALE: 1'=50' DATE: 7/2/96" PREPARED BY PAUL A. BRAUTIGAM ON FILE AS MAP #2448.
   D. "CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF MONROE MONROE-STEVENSON ROAD FROM MONROE CENTER NO. EASTERLY TO THE NEWTOWN-DERBY ROAD ROUTE 111 SCALE 1"=40' APRIL 28, 1939 NUMBER 84-08 SHEETS 9&10 OF 10.
3. THE LOCATION OF UNDERGROUND UTILITIES, IF ANY, IS UNKNOWN
4. PLAN PREPARED FOR JANS LAND DEVELOPMENT, LLC
5. LOT CORNER MARKERS DEPICTED HEREON WERE FOUND AND/OR SET DURING COMPLETION OF THIS SURVEY.
6. BEARING BASED ON CT STATE PLANE COORDINATES (NAD83)
7. CERTIFICATION OF THIS MAP APPLIES TO CONDITIONS AS OF THE ORIGINAL DATE OR REVISED DATE DEPICTED HEREON. EXISTING CONDITIONS ON THIS PROPERTY MAY HAVE CHANGED SINCE THAT DATE AND AN UPDATED SURVEY IS RECOMMENDED TO ACCURATELY DEPICT THE CURRENT CONDITIONS.
8. REFER TO MONROE ZONING REGULATIONS DEFINITIONS:

CLUSTER SUBDIVISION – A SUBDIVISION IN WHICH THE LOT SIZES MAY BE REDUCED UPON APPROVAL BY THE PLANNING AND ZONING COMMISSION IN EXCHANGE FOR THE PROVISION OF PERMANENT OPEN SPACE.

9. TOTAL PARCEL AREA: 31.163 ACRES
   PROPOSED OPEN SPACE AREA: 12.5581 ACRES
   OPEN SPACE PROVIDED = 40%

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- 520.2 EXISTING SPOT ELEVATION
- 520.2 PROPOSED SPOT ELEVATION
- EXISTING DRAINAGE
- PROPOSED DRAINAGE
- EXISTING SANITARY
- PROPOSED SANITARY
- L SANITARY LATERALS
- FM FORCE MAIN
- FD FOOTING DRAIN
- RD ROOF DRAIN
- W WATER SERVICE
- G GAS LINE
- COTG CLEAN OUT TO GRADE
- FF FINISHED FLOOR
- GF GARAGE FLOOR
- BS BASEMENT SLAB
- R HANDICAP RAMP
- V VAN ACCESSIBLE SPACE
- WL 27 INLAND WETLANDS WITH FLAG #
- OBSERVATION HOLE
- PERCOLATION TEST
- GTD GRADE TO DRAIN
- SF SYNTHETIC FILTER BARRIER
- WATER BREAK
- LOD LIMIT OF DISTURBANCE
- FE FOUNDATION ENVELOPE
- BUILDING SETBACK LINE
- DE DRAINAGE EASEMENT
- GE GRADING EASEMENT
- SR SLOPE RIGHTS
- CE CONSERVATION EASEMENT
- ME MAINTENANCE EASEMENT
- UPLAND REVIEW LIMIT
- WATERCOURSE
- WATERCOURSE OFFSET

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
C1	15.00'	27.91'	24.05'	S 26°00'21" E	106°36'34"	20.13'
C2	175.00'	118.95'	116.67'	N 81°13'03" E	38°56'38"	61.87'
C3	175.00'	116.22'	114.10'	N 42°43'11" E	38°03'07"	60.35'
C4	35.00'	31.05'	30.04'	N 01°43'23" W	50°50'00"	16.63'
C5	60.00'	294.96'	75.79'	S 66°18'23" E	281°40'00"	48.88'
C6	35.00'	31.05'	30.04'	S 49°06'37" W	50°50'00"	16.63'
C7	225.00'	149.43'	146.70'	S 42°43'11" W	38°03'07"	77.59'
C8	225.00'	175.02'	170.64'	S 84°01'46" W	44°34'03"	92.20'
C9	15.00'	20.69'	19.09'	S 66°48'22" W	79°00'52"	12.37'
C10	60.00'	89.54'	81.46'	N 15°36'37" E	85°29'59"	55.46'
C11	60.00'	73.97'	69.38'	S 86°19'15" E	70°38'18"	42.51'
C12	60.00'	25.33'	25.14'	S 38°54'25" E	24°11'22"	12.86'
C13	60.00'	106.12'	92.82'	S 23°51'26" W	101°20'21"	73.23'

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MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	8-05-24	TOWN
2	8-20-24	IWWC

DATE: 10-01-23
PROJECT #: 2979
DRAWING FILE: 2979
DRAWN BY: NDC
SCALE: 1"=100'

TITLE

CLUSTER SUBDIVISION MAP

SHEET NUMBER

L-2

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- 520.2 EXISTING SPOT ELEVATION
- 520.2 PROPOSED SPOT ELEVATION
- EXISTING DRAINAGE
- PROPOSED DRAINAGE
- EXISTING SANITARY
- PROPOSED SANITARY
- L SANITARY LATERALS
- FM FORCE MAIN
- FD FOOTING DRAIN
- RD ROOF DRAIN
- W WATER SERVICE
- G GAS LINE
- COTG CLEAN OUT TO GRADE
- FF FINISHED FLOOR
- GF GARAGE FLOOR
- BS BASEMENT SLAB
- R HANDICAP RAMP
- V VAN ACCESSIBLE SPACE
- W 27 INLAND WETLANDS WITH FLAG #
- OBSERVATION HOLE
- PERCOLATION TEST
- GTD GRADE TO DRAIN
- SF SYNTHETIC FILTER BARRIER
- WATER BREAK
- LOD LIMIT OF DISTURBANCE
- FE FOUNDATION ENVELOPE
- BUILDING SETBACK LINE
- DE DRAINAGE EASEMENT
- GE GRADING EASEMENT
- SR SLOPE RIGHTS
- CE CONSERVATION EASEMENT
- ME MAINTENANCE EASEMENT
- UPLAND REVIEW LIMIT
- WATERCOURSE
- WATERCOURSE OFFSET

100 0 100 200

PERMIT SET – NOT FOR CONSTRUCTION

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www.jedwardsassoc.com

STATE OF CONNECTICUT — JASON EDWARDS — No. 20308 — LICENSED PROFESSIONAL ENGINEER

STATE OF CONNECTICUT — JASON EDWARDS — No. 70308 — LICENSED LAND SURVEYOR

SUN VALLEY GLEN
1536 & 1564 MONROE TURNPIKE
MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	8-05-24	TOWN
2	8-20-24	IWWC

DATE: 10-01-23
PROJECT #: 2979
DRAWING FILE: 2979
DRAWN BY: NDC
SCALE: 1"=100'

TITLE

LAYOUT PLAN

SHEET NUMBER

L-3

K:\PROJECTS\2979-ALIX- 1536 AND 1564 MONROE TURNPIKE, MONROE, CT\DRAWINGS\2.0 L-3 LAYOUT

LEGEND:

DIRECTION OF FLOW

150 0 150 300

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MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	8-05-24	TOWN
2	8-20-24	IWWC

DATE: 10-01-23
PROJECT #: 2979
DRAWING FILE: 2979
DRAWN BY: NDC
SCALE: 1"=150'

TITLE

AREA PLAN

SHEET NUMBER

A-1

K:\PROJECTS\2979-ALIX- 1536 AND 1564 MONROE TURNPIKE, MONROE, CT\DRAWINGS\1.3 A-1 AREA PLAN

NOTE

INDIVIDUAL LOT DEVELOPMENT SHOWN ON THESE SITE PLANS WITH THE EXCEPTION OF DETENTION BASINS, DEMONSTRATE SUBDIVISION FEASIBILITY ONLY. ACTUAL LOT DEVELOPMENT DETAIL WILL BE SHOWN ON INDIVIDUAL SITE PLANS SUBMITTED FOR TOWN REVIEW AT TIME OF BUILDING PERMIT APPLICATION.

DIRECT WETLAND DISTURBANCE: 0.026 ac.
UPLAND REVIEW AREA DISTURBANCE: 0.56 ac.

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REVISIONS

#	DATE	DESCRIPTION
1	8-05-24	TOWN
2	8-20-24	IWWC

DATE:	10-01-23
PROJECT #:	2979
DRAWING FILE:	2979
DRAWN BY:	NDC
SCALE:	1"= 40'

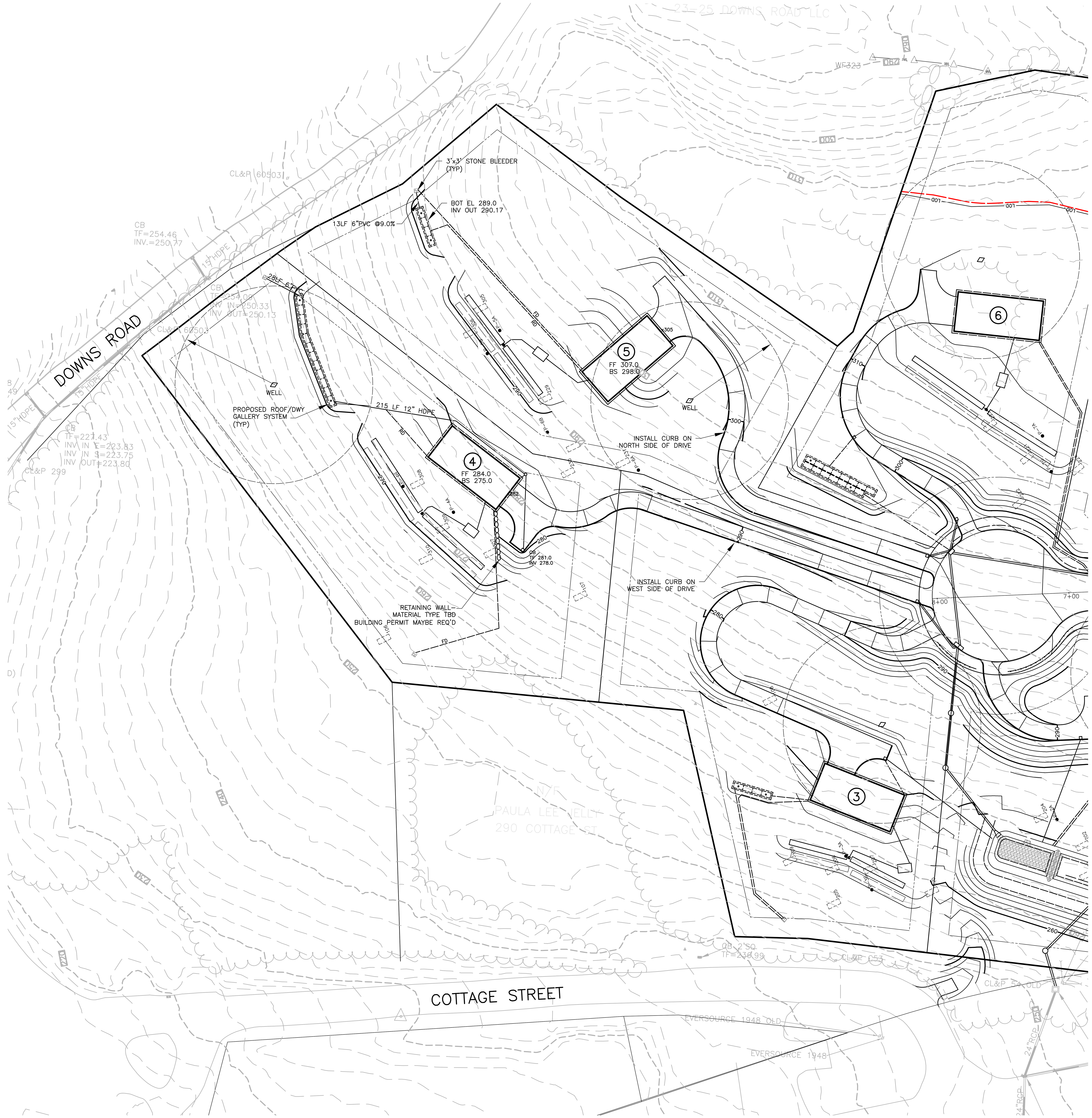
TITLE

SITE PLAN

SHEET NUMBER

S-1

K:\PROJECTS\2979-ALIX- 1536 AND 1564 MONROE TURNPIKE, MONROE, CT\DRAWINGS\2.1 S-1



LEGEND

(line)	EXISTING CONTOUR
(line)	PROPOSED CONTOUR
+520.2	EXISTING SPOT ELEVATION
520.2 x	PROPOSED SPOT ELEVATION
(symbol)	EXISTING DRAINAGE
(symbol)	PROPOSED DRAINAGE
(symbol)	EXISTING SANITARY
(symbol)	PROPOSED SANITARY
L	SANITARY LATERALS
FM	FORCE MAIN
FD	FOOTING DRAIN
RD	ROOF DRAIN
W	WATER SERVICE
G	GAS LINE
o COTG	CLEAN OUT TO GRADE
FF	FINISHED FLOOR
GF	GARAGE FLOOR
BS	BASEMENT SLAB
R	HANDICAP RAMP
V	VAN ACCESSIBLE SPACE
WL 27	INLAND WETLANDS WITH FLAG #
(symbol)	OBSERVATION HOLE
●	PERCOLATION TEST
GTD	GRADE TO DRAIN
SF	SYNTHETIC FILTER BARRIER
(symbol)	WATER BREAK
LOD	LIMIT OF DISTURBANCE
FE	FOUNDATION ENVELOPE
(line)	BUILDING SETBACK LINE
DE	DRAINAGE EASEMENT
GE	GRADING EASEMENT
SR	SLOPE RIGHTS
CE	CONSERVATION EASEMENT
ME	MAINTENANCE EASEMENT
(red dashed line)	UPLAND REVIEW LIMIT
(cyan line)	WATERCOURSE
(red dashed line)	WATERCOURSE OFFSET

40 0 40 80

PERMIT SET – NOT FOR CONSTRUCTION

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STATE OF CONNECTICUT JASON EDWARDS No. 70308 LICENSED LAND SURVEYOR

SUN VALLEY GLEN
1536 & 1564 MONROE TURNPIKE
MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	8–05–24	TOWN
2	8–20–24	IWWC

DATE: 10-01-23
PROJECT #: 2979
DRAWING FILE: 2979
DRAWN BY: NDC
SCALE: 1"=40'

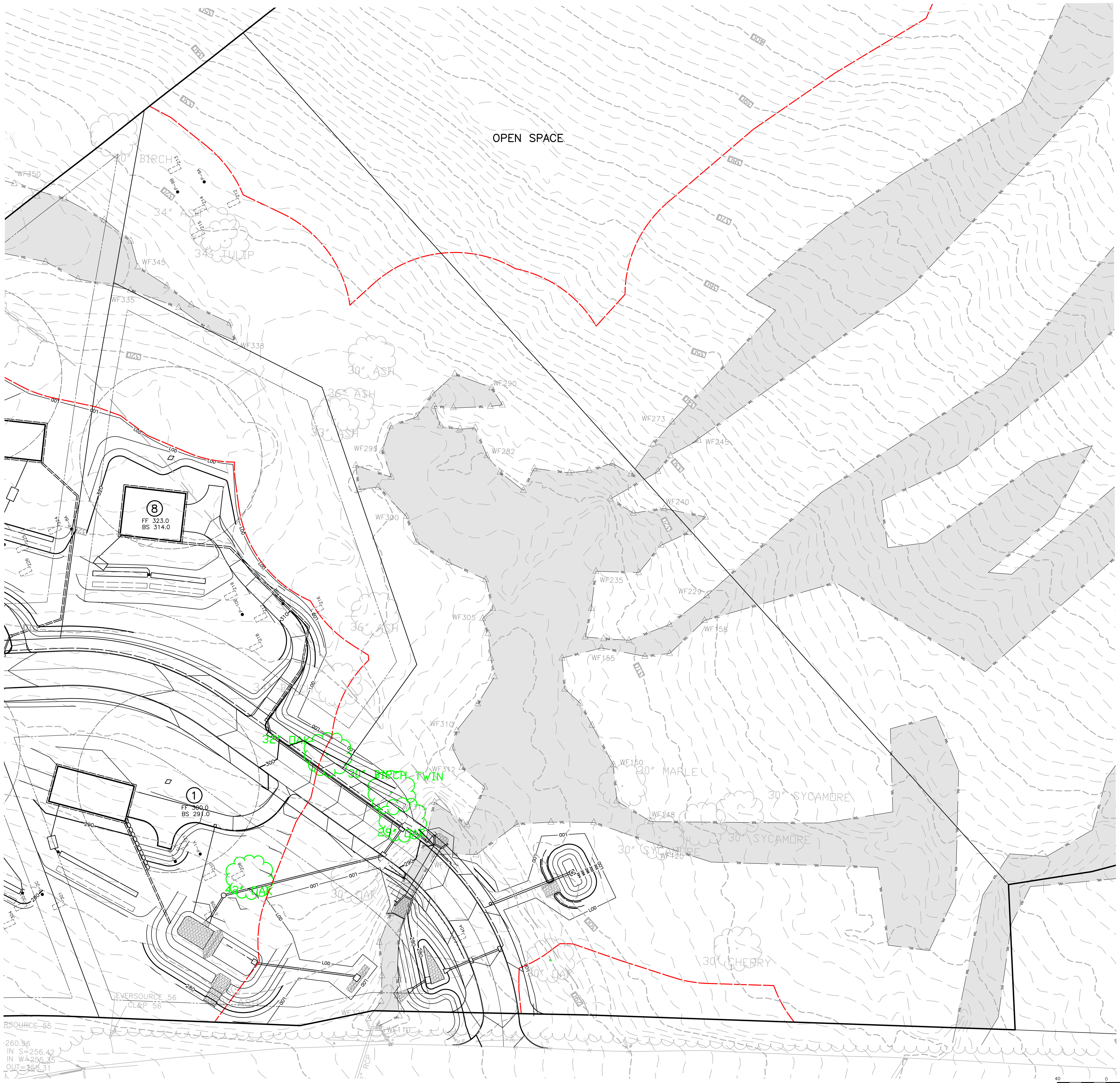
TITLE

SITE PLAN

SHEET NUMBER

S–2

K:\PROJECTS\2979–ALIX– 1536 AND 1564 MONROE TURNPIKE, MONROE, CT\DRAWINGS\2.2 S–2



LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- 520.2 EXISTING SPOT ELEVATION
- 520.2 PROPOSED SPOT ELEVATION
- EXISTING DRAINAGE
- PROPOSED DRAINAGE
- EXISTING SANITARY
- PROPOSED SANITARY
- L SANITARY LATERALS
- FM FORCE MAIN
- FD FOOTING DRAIN
- RD ROOF DRAIN
- W WATER SERVICE
- G GAS LINE
- COTG CLEAN OUT TO GRADE
- FF FINISHED FLOOR
- GF GARAGE FLOOR
- BS BASEMENT SLAB
- R HANDICAP RAMP
- V VAN ACCESSIBLE SPACE
- WL INLAND WETLANDS WITH FLAG #
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REVISIONS

#	DATE	DESCRIPTION
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2	8-20-24	IWWC

DATE: 10-01-23
PROJECT #: 2979
DRAWING FILE: 2979
DRAWN BY: NDC
SCALE: 1"=40'

TITLE

SITE PLAN

SHEET NUMBER

S-3

K:\PROJECTS\2979-ALIX- 1536 AND 1564 MONROE TURNPIKE, MONROE, CT\DRAWINGS\2.3 S-3

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING DRAINAGE
- PROPOSED DRAINAGE
- EXISTING SANITARY
- PROPOSED SANITARY
- SANITARY LATERALS
- FORCE MAIN
- FOOTING DRAIN
- ROOF DRAIN
- WATER SERVICE
- GAS LINE
- COTG — CLEAN OUT TO GRADE
- FF — FINISHED FLOOR
- GF — GARAGE FLOOR
- BS — BASEMENT SLAB
- R — HANDICAP RAMP
- V — VAN ACCESSIBLE SPACE
- WO — CONCRETE WASHOUT BASIN
- INLAND WETLANDS WITH FLAG #
- OBSERVATION HOLE
- PERCOLATION TEST
- GRADE TO DRAIN
- SYNTHETIC FILTER BARRIER
- WATER BREAK
- LIMIT OF DISTURBANCE
- FOUNDATION ENVELOPE
- BUILDING SETBACK LINE
- DRAINAGE EASEMENT
- GRADING EASEMENT
- SLOPE RIGHTS
- CONSERVATION EASEMENT
- MAINTENANCE EASEMENT
- UPLAND REVIEW LIMIT
- WATERCOURSE
- WATERCOURSE OFFSET

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MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	8-05-24	TOWN
2	8-20-24	IWWC

DATE: 10-01-23
PROJECT #: 2979
DRAWING FILE: 2979
DRAWN BY: NDC
SCALE: 1"= 40'

TITLE

EROSION CONTROL PLAN

SHEET NUMBER

E-1

K:\PROJECTS\2979-ALIX- 1536 AND 1564 MONROE TURNPIKE, MONROE, CT\DRAWINGS\3.1 E-1

LEGEND

Symbol	Description
	EXISTING CONTOUR
	PROPOSED CONTOUR
520.2	EXISTING SPOT ELEVATION
520.2 x	PROPOSED SPOT ELEVATION
	EXISTING DRAINAGE
	PROPOSED DRAINAGE
	EXISTING SANITARY
	PROPOSED SANITARY
L	SANITARY LATERALS
FM	FORCE MAIN
FD	FOOTING DRAIN
RD	ROOF DRAIN
W	WATER SERVICE
G	GAS LINE
COTG	CLEAN OUT TO GRADE
FF	FINISHED FLOOR
GF	GARAGE FLOOR
BS	BASEMENT SLAB
R	HANDICAP RAMP
V	VAN ACCESSIBLE SPACE
WO	CONCRETE WASHOUT BASIN
WL 27	INLAND WETLANDS WITH FLAG #
	OBSERVATION HOLE
	PERCOLATION TEST
GTD	GRADE TO DRAIN
SF	SYNTHETIC FILTER BARRIER
	WATER BREAK
LOD	LIMIT OF DISTURBANCE
FE	FOUNDATION ENVELOPE
	BUILDING SETBACK LINE
DE	DRAINAGE EASEMENT
GE	GRADING EASEMENT
SR	SLOPE RIGHTS
CE	CONSERVATION EASEMENT
ME	MAINTENANCE EASEMENT
	UPLAND REVIEW LIMIT
	WATERCOURSE
	WATERCOURSE OFFSET

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MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	8-05-24	TOWN
2	8-20-24	IWWC

DATE: 10-01-23
PROJECT #: 2979
DRAWING FILE: 2979
DRAWN BY: NDC
SCALE: 1"=40'

TITLE

EROSION CONTROL PLAN

SHEET NUMBER

E-2

K:\PROJECTS\2979-ALIX- 1536 AND 1564 MONROE TURNPIKE, MONROE, CT\DRAWINGS\3.2 E-2

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- 520.2 EXISTING SPOT ELEVATION
- 520.2 PROPOSED SPOT ELEVATION
- EXISTING DRAINAGE
- PROPOSED DRAINAGE
- EXISTING SANITARY
- PROPOSED SANITARY
- L SANITARY LATERALS
- FM FORCE MAIN
- FD FOOTING DRAIN
- RD ROOF DRAIN
- W WATER SERVICE
- G GAS LINE
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- GF GARAGE FLOOR
- BS BASEMENT SLAB
- R HANDICAP RAMP
- V VAN ACCESSIBLE SPACE
- WL INLAND WETLANDS WITH FLAG #
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- PERCOLATION TEST
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- SR SLOPE RIGHTS
- CE CONSERVATION EASEMENT
- ME MAINTENANCE EASEMENT
- UPLAND REVIEW LIMIT
- WATERCOURSE
- WATERCOURSE OFFSET

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SUN VALLEY GLEN
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MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	8-05-24	TOWN
2	8-20-24	IWWC

DATE:	10-01-23
PROJECT #:	2979
DRAWING FILE:	2979
DRAWN BY:	NDC
SCALE:	1"= 20'

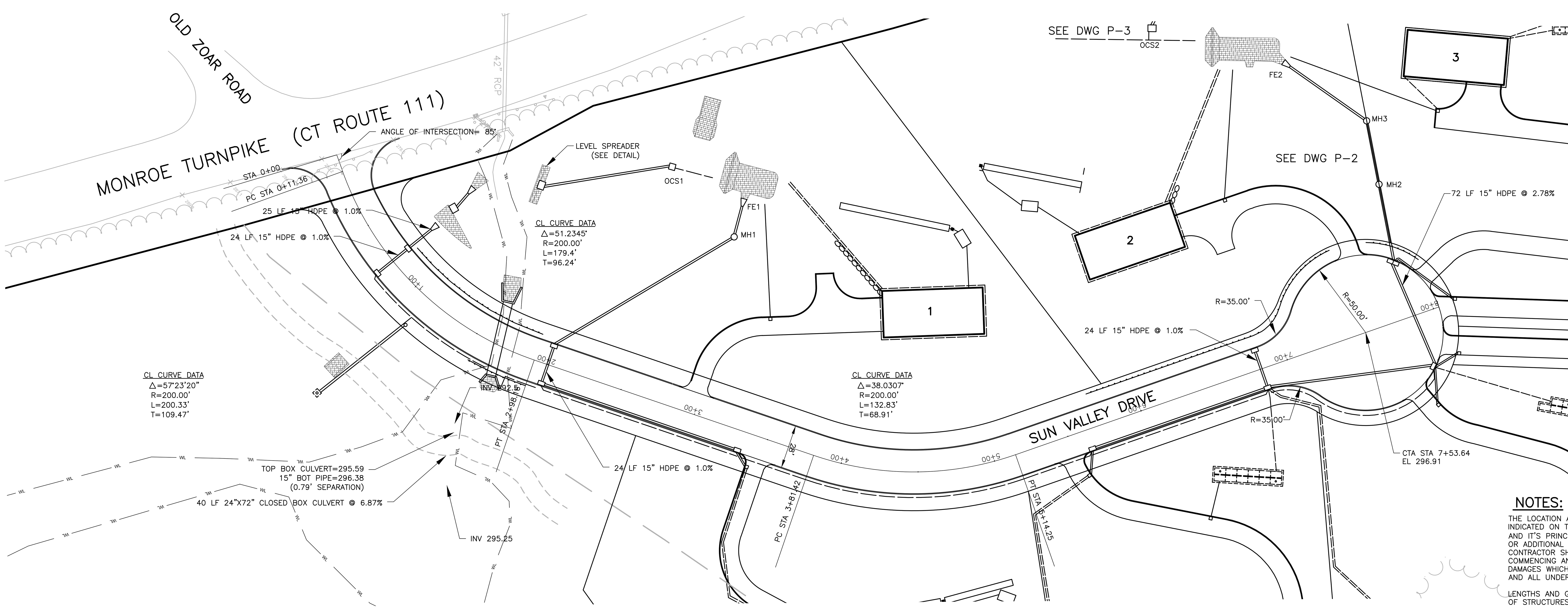
TITLE

EROSION CONTROL PLAN ENLARGEMENT

SHEET NUMBER

E-3

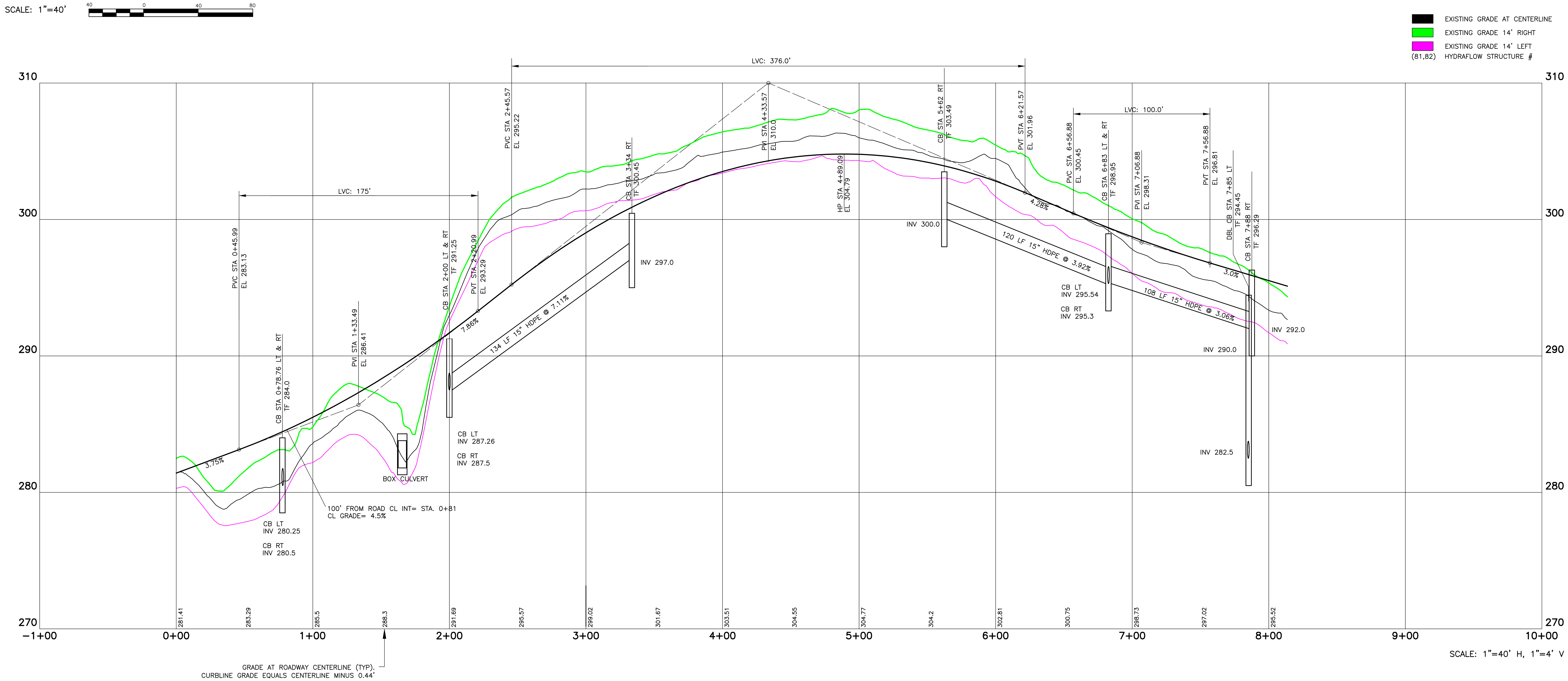
K:\PROJECTS\2979-ALIX- 1536 AND 1564 MONROE TURNPIKE, MONROE, CT\DRAWINGS\3.1.1 E-3 20 SCALE



NOTES:

THE LOCATION AND ELEVATION OF UNDERGROUND UTILITIES ARE UNKNOWN. IF THEY ARE INDICATED ON THESE PLANS, THEY ARE APPROXIMATE AND J.EDWARDS & ASSOCIATES AND IT'S PRINCIPALS AND/OR EMPLOYEES SHALL NOT BE RESPONSIBLE FOR ANY DAMAGES OR ADDITIONAL COSTS WHICH RESULT FROM THE EXISTENCE OF SAID UTILITIES. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING ANY WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY OCCUR BY THE FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

LENGTHS AND GRADES OF PROPOSED PIPES ARE NOTED FROM CENTERLINE TO CENTERLINE OF STRUCTURES.



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REVISIONS

#	DATE	DESCRIPTION
1	8-05-24	TOWN
2	8-20-24	IWWC

DATE: 10-01-23
PROJECT #: 2979
DRAWING FILE: 2979
DRAWN BY: NDC
SCALE: AS NOTED

TITLE

PLAN–PROFILE

SHEET NUMBER

P–1

GENERAL NOTES

1. These plans are for governmental approval only and are not to be used for construction.

2. The proposed improvements indicated on these plans are shown as one of many possible layouts. Any variation from these plans is to be approved by a professional engineer.

3. Topographic data and property lines shown based upon "Property Line Revision Survey, Sun Valley Glen, 1536 & 1564 Monroe Turnpike, Monroe CT, Scale 1"=40' dated 12-11-23. by J. Edwards & Associates, LLC.

4. Owner:
   John V. Mangieri.
   221 Ocean Grande Boulevard U#709
   Jupiter, FL 33477

   Applicant:
   Jans Land Development, LLC.
   9 Whitetail Drive
   Monroe, CT 06468

5. Total area of site is 33.51 acres.

6. Total area of on-site wetlands is 4.59 acres.

7. The site is located in zone RF-2.

8. Inland wetlands were delineated in the field by Steven Danzer PhD of Steven Danzer PhD and Associates, LLC. Wetland flags were located by J. Edwards & Associates, LLC.

9. Reference is made to a document titled: Stormwater Management Report, For The Proposed Development Of Sun Valley Glen, Residential Development Located At 1536 & 1564 Monroe Turnpike, Monroe CT., Prepared on : November 9, 2023 Revised to August 21, 2024 Prepared by J. Edwards & Associates LLC.

10. Proposed dwellings will be served with private wells and private sewage disposal systems.

11. The location of underground utilities, if any, is unknown. Call Before-You-Dig 1-800-922-4455.

12. Retaining walls are to be designed by a structural engineer.

13. It is the contractor's responsibility to verify all on-site and off-site field conditions and establish that no changes have occurred since the issuance of this plan. The design engineer is to be notified of any field conditions which conflict with this plan.

14. Existing grades shown hereon are to be verified by the contractor prior to commencing construction.

15. All construction methods, materials and system installations are to conform to Town of Monroe Standards and the State of Connecticut Department of Transportation, Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, July 2020, with latest revisions, to conform all applicable local and state regulations and to normal standards of good practice.

16. Proposed utilities are to be underground. A single trench and conduit installation should be utilized for crossing lines under roadway.

17. Prior to commencement of construction, a preconstruction conference is to be held with the design engineer, the owner, the contractor, the Town Engineer and representatives from the Planning and Zoning and Conservation Administrations to review construction and time tables.

18. Construction will begin shortly after necessary approvals are obtained. Construction is anticipated to be completed within five years from the time of commencement.

19. Approximately 9 acres will be disturbed for the improvements indicated on the plans.

20. Unpaved driveways shall not exceed 8% in profile slope.

21. Town of Monroe will require adequate compaction testing of the base and sub-base of the proposed road prior to road acceptance.

22. Town of Monroe will not accept maintenance for proposed detention basins.

PROJECT DESCRIPTION

The proposal is to construct 800 linear feet of roadway to access eight proposed single family dwellings with associated site improvements. Stormwater is collected and treated within two detention basins before being discharged to an existing watercourse and State of Connecticut drainage system.

STORMWATER POLLUTION CONTROL PLAN

1. Erosion and sediment control measures will be constructed in accordance with the Town of Monroe Standards, State of Connecticut Department of Transportation Standard Specifications for Roads, Bridges and Incidental Construction, Form 818, 2020, with latest revisions, and 2002 Connecticut Guidelines for Soil Erosion and Sediment Control,

2. The Stormwater Pollution Control Plan shall include all erosion and sedimentation control shown on the approved maps and detail sheets. These controls are assumed to be the minimum required, and the contractor may be required to install additional measures as site conditions and weather warrant.

3. All erosion and sediment control devices will be installed prior to the start of clearing and grubbing operations and excavation work. All the devices will be maintained as specified in this document until the disturbed earth has been paved or vegetated, at which time the devices will be removed.

4. All construction methods, materials and system installations are to conform to all applicable local and state regulations.

5. Grading to be according to all applicable regulations and normal standards of good practice.

6. Land disturbance will be kept to a minimum. Restabilization will be scheduled as soon as practicable.

7. Stockpiles of topsoil and common fill shall be surrounded with silt fence and temporarily stabilized by seeding with a 50-50 mix of annual and perennial rye grass at the rate of one pound per 1,000 square feet of surface area shall be employed between March 15 and June 15 or August 1 and October 1. Mulch with straw or hay at the rate of 70 to 90 pounds per 1,000 square feet until stabilized.

8. All control measures will be maintained in effective condition throughout the construction period until the area is stabilized.

9. Maintenance of the erosion controls shall consist of inspection at the start of each work day with special attention afforded following storm events. Noted deficiencies shall be corrected immediately. Accumulated sediment shall be removed from the erosion control device and dispersed temporarily on the upland portion of the disturbed area. Additional seeding or mulching shall be employed as required.

10. The contractor is to inspect the site daily during construction to insure the integrity of the erosion controls.

11. The contractor is to have available at all times extra silt fence, hay bale mulch, grass seed and riprap to implement additional erosion control measures not foreseen in this plan.

12. Prior to closing the site down for winter, if required, the contractor shall schedule a meeting with the project engineer and Town Engineer to review site conditions and make recommendations to minimize erosion during the winter. The meeting is to be held no later than October 1,of any given year.

13. Accumulated sediment is to be disposed of in an area approved by the design engineer, and coordination with Town Engineer.

14. This plan and report may be modified by the design engineer based upon field conditions, and also requires approval by Monroe Town Engineer.

15. Catch basins shall be protected with silt sacks, haybales, and/or silt fence during construction until all disturbed areas are stabilized.

16. Water breaks, silt fence, haybales and other measures are to be maintained until drainage is complete and site is stabilized with vegetated cover.

17. Stabilization practices may include silt fences, temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation and other vegetative and non-structural measures as identified in the Guidelines. Where construction activities have permanently ceased or have temporarily been suspended for more than seven days or when final grades are reached in any portion of the site, stabilization practices shall be implemented within three days. Areas which remain disturbed but inactive for at least thirty days shall receive temporary seeding and/or mulching in accordance with the Guidelines. Areas that will remain disturbed beyond the planting season, shall receive long-term, non-vegetative stabilization sufficient to protect the site through the winter.

18. Structural practices include but are not limited to earth dikes (diversions), drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, outlet protection, reinforced soil retained systems, gabions and temporary or permanent sediment basins and chambers.

19. Disturbance for individual lot development will be limited to 1 acre at any one time. Overland drainage from uphill sources will be diverted around the disturbed portions of the lot until those disturbed areas have been stabilized. If more than 1 acre is to be disturbed at one time, sediment traps must be provided. These sediment traps shall have a storage capacity of 134 cubic yards per acre of tributary area. Possible locations are shown on the erosion control plan. The detention basin required by the Stormwater Pollution Control Plan may be used during construction as a temporary sediment basin. Outlet structures from sediment basins shall not encroach upon a wetland.

20. De-watering waste waters might be generated during the construction of the underground utilities and the excavation for basements. Contractors shall arrange for the pumping of water in excavations to occur in sumps created in the excavation and will discharge into temporary sediment traps.

21. All contractors and subcontractors working on site will ensure that no litter, debris, building material or similar material is discharged to the waters of the State.

22. Contractors will implement techniques to control the generation of dust.

23. All post construction storm water structures will be cleaned of construction sediment and any remaining silt fence shall be removed.

24. Individual lots will have their anti-tracking pads installed at all points where construction traffic exits the lot to paved surfaces and silt fence installed as shown on the plans or as required downhill of areas of disturbed earth. Refer to the detail drawings for specifics on proposed measures.

Michael Czesnowski of Jans Land Development, LLC, phone 203-650-4703 is assigned the responsibility for implementing this Stormwater Pollution Control Plan during the construction. This responsibility includes the installation and maintenance of control measures, informing all parties engaged on the construction site of the requirements and objectives of the plan. If the land is transferred, the Planning and Zoning office shall be notified and a copy of the Stormwater Pollution Control Plan shall be conveyed to the new owners. It shall become the responsibility of the new owners to implement the Stormwater Pollution Control Plan for the individual lots as outlined in this Stormwater Pollution Control Plan.

____
Registrant   Date

CONSTRUCTION SEQUENCE

1. Install anti-tracking apron as shown where construction traffic enters a public right-of-way.

2. Install perimeter erosion and sediment controls and sediment controls necessary for road construction.

3. Construct temporary construction access drive off Cottage Street in the vicinity of detention basin #1. This shall allow for tree clearing equipment access.

4. Tree clearing to commence at sta. 1+85 Sun Valley Drive and extend to cul-de-sac. Cut trees to be stockpiled outside of any regulated areas.

5. Tree clearing for Sun Valley Drive from sta. 0+0 extending to sta. 1+85 and for detention basin #2 to be accessed from the State Highway. Cut trees to be exported from site immediately.

6. Construct detention basins. Permanent outlet structures are to be sealed off to allow basin to function as temporary sediment traps 1 and 4.

7. Construct temporary sediment traps 2 and 3.

8. Excavate all stumps located in the structural area and remove to a disposal site or stockpile area to be chipped. No stumps are to be buried. Stumps are to be disposed of in accordance with current State law.

9. Cross culvert construction will commence. Refer to specific construction sequence this page.

10. Strip all topsoil and stockpile in an approved area and secure with erosion and sediment controls.

11. Direct stormwater runoff from the construction area with swales and diversion berms as necessary to flow into the temporary sediment traps.

12. Construct Sun Valley Drive from sta 0+0 thru sta 8+04 and the cul-de-sac.

13. Install drainage pipes and structures for Sun Valley Drive beginning at the outlets and proceeding upstream.

14. Install road under drains.

15. Install underground utilities.

16. Place silt sacks in new catch basins.

17. Place, grade and compact the processed aggregate in the roadway base. Town of Monroe will require adequate compaction testing of the base and sub-base of the proposed road prior to road acceptance.

18. Remove temporary sediment traps 2 and 3. Temporary sediment traps 1 and 4 will have the accumulated sediment removed and the final berms for the permanent detention basins micro graded. Planting and seeding shall follow.

19. Install first course of bituminous concrete.

20. Install curbing.

21. Apply stabilization measures to remaining disturbed areas in accordance with the Stormwater Quality Management Plan (topsoil, seeding, sodding, mulching, etc.)

22. Inspect and clean drainage system as needed.

23. Install the final course of bituminous concrete pavement.

24. Landscaping and streetscape to be installed.

25. After site is stabilized in accordance with the applicable Stormwater Quality Management Plan measures, remove temporary erosion and sediment controls.

26. Disturbance for individual lot development thereafter will be limited to 1 acre at any one time. Overland drainage from uphill sources will be diverted around the disturbed portions of the lot until those disturbed areas have been stabilized. If more than 1 acre is to be disturbed at one time, sediment traps must be provided. These sediment traps shall have a storage capacity of 134 cubic yards per acre of tributary area.

CROSS CULVERT CONSTRUCTION SEQUENCE:

1. Time period of construction should attempt to coincide with 5 consecutive days without rainfall.

2. Equipment access and culvert material delivery shall be made from the State Highway. Construction accessway will be formed on natural grade with no excessive cuts or earth moving operations.

3. Excavate pumping pit upstream of stream crossing and situate pump hose outfall within HDPE piping (emergency bypass method) extending to temporary sediment trap #1. Pumping will be the primary method for bypassing stream flow.

4. Install stone diversion berm up stream of culvert crossing

4. Stake haybales upstream of proposed headwall installation.

6. Excavate and place foundation stone for cast in place headwall and endwall. and precast box culvert sections.

7. Each box culvert section to be installed in two pieces with the use of an excavator. Lower sections will be placed first.

9. Construct headwall and endwall and backfill accordingly.

10. Install outfall riprap protection.

11. Remove pumping pit and install inlet riprap protection.

12. Re-establish stream flowpath. And remove temporary bypass piping.

13. Rough grade roadway and place embankment stabilization accordingly.

POST CONSTRUCTION STORM WATER MANAGEMENT PLAN:

1. The catch basins and detention basins shall be inspected annually by the Town of Monroe. Sediment shall be removed when one-half the capacity of the basin forebay has been reached.

2. Detention basin 1 pipe outlet shall be inspected for erosion at least annually and after major storm events by the Town of Monroe.

3. The dates and results of the inspections and cleaning shall be kept on file will be made available for inspection upon request.

DETENTION BASIN CONSTRUCTION

Materials

Earthen berms shall be used for detention and retention basins. They shall be constructed on stable soils and shall be free of topsoil, organic matter and debris. The fill material for the embankment shall be taken from approved borrow areas. It shall be clean mineral soil, free of roots, woody vegetation, stumps, sod, oversized stones, rocks or other organic or unsuitable material. The Material selected shall have enough strength for the embankment to remain stable and be tight enough, when properly compacted, to prevent excessive seepage of water through the dam. The embankment materials for this work shall conform to the following gradation.

Sieve size	Percent passing
6"	0-20
3/4"	60-85
#4	45-75
#40	30-60
#200	15-50

No stones larger than 6 inches shall be allowed within the compacted embankment. Within 2 feet of any structure, the maximum size shall be 3 inches.

The soil intended for the embankment shall be laboratory tested with a written report by a professional engineer licensed to practice in Connecticut, experienced in the field of soil mechanics. The report shall carry the Engineer's findings and suggested design parameters if at variance with those proposed in the design.

Construction methods

The top width of the berm is to be a minimum of 8 feet. The downstream (outer) slope of the berm shall be at a slope of two horizontal to one vertical. The upstream (inner) slope of the berm shall be at a slope of three horizontal to one vertical with a planted vegetative cover. This slope can be increased to 2:1 if protected by stone riprap.

The area beneath the berm shall be known as the subgrade. All soft and yielding material and other portions of the subgrade which will not compact readily when rolled, vibrated or tamped shall be removed and replaced with suitable material.

Construction shall not take place during cold periods where temperatures are consistently lower than 40 degrees Fahrenheit. All topsoil, organic matter and debris shall be removed from the area of the berm.

The surface of the subgrade shall be compacted uniformly by rolling with an approved power roller having a minimum compression of three hundred pounds per inch of width of tread on the rear wheel or wheels and weighing not less than ten tons, or with an equivalent vibratory roller or compactor. The contractor shall protect the subgrade from damage by exercising such precautions as are necessary. At all times the subgrade surface shall be kept in such condition that it will drain readily and correctly. The subgrade shall be checked by the Engineer before any berm material is placed thereon. Should the subgrade become churned up and mixed with the berm material at any time, the contractor shall remove the mixture and replace it with new subgrade material. Such replaced subgrade material shall be thoroughly compacted.

The subgrade shall be excavated to a depth to allow the berm material to be notched into the subgrade a minimum of eighteen inches. The subgrade shall be covered with woven geotextile before the placement of the berm material.

Compaction

The fill material shall contain the proper amount of moisture to ensure that 90%-95% standard proctor compaction will be achieved. Special care shall be taken in compacting around the anti-seep collars, conduits and structures to avoid damage and achieve desired compaction.

The berm material shall be placed in layers of not over six inches in depth. The surface shall be compacted uniformly by rolling with an approved power roller having a minimum compression of three hundred pounds per inch of width of tread on the rear wheel or wheels and weighing not less than ten tons or with an equivalent vibratory roller or compactor.

The dry density after compaction shall not be less than 95 percent of the dry density for that berm material when tested in accordance with AASHTO T-180, Method D.

CUT-FILL ANALYSIS

Construction of roadway and detention basins results in a net import of 330 cubic yards. The earthern material will be acquired from elsewhere on the site. Direct wetland impact construction activities result in 130 cubic yards of fill. Quantities of material used in individual lot site development as shown on the plans are to change and therefore have not been included in this analysis.

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STATE OF CONNECTICUT · JASON R. EDWARDS · No. 22007 · LICENSED · PROFESSIONAL ENGINEER

STATE OF CONNECTICUT · JASON EDWARDS · No. 70308 · LICENSED · LAND SURVEYOR

SUN VALLEY GLEN
1536 & 1564 MONROE TURNPIKE
MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	8-05-24	TOWN
2	8-20-24	IWWC

DATE: 10-01-23
PROJECT #: 2979
DRAWING FILE: 2979
DRAWN BY: NDC
SCALE:

TITLE

DETAILS

SHEET NUMBER

D-1

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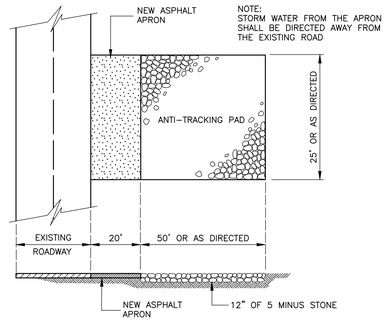
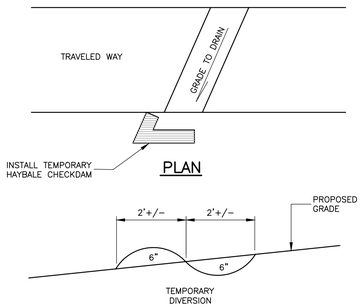
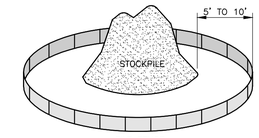


ANTI-TRACKING PAD

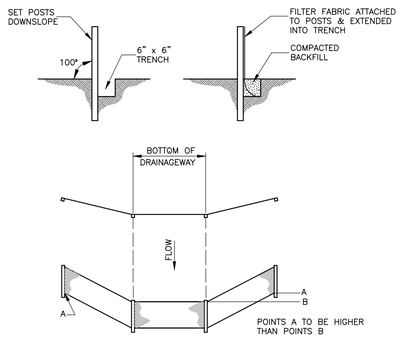


TEMPORARY WATER BREAK

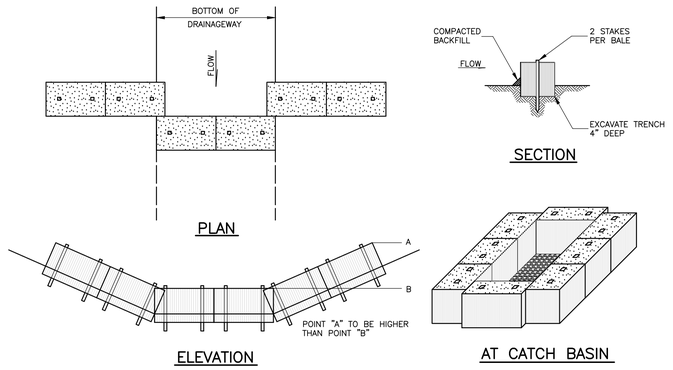


APPLY MIXTURE OF PERRENIAL RYEGRASS, ANNUAL RYEGRASS AND WINTER RYE AT A RATE OF 10 LBS PER 1000 SF

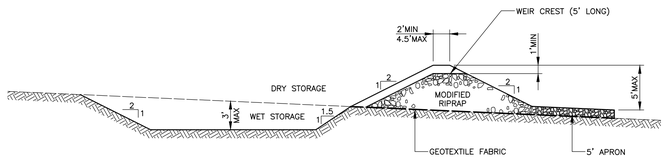
STOCKPILE STABILIZATION



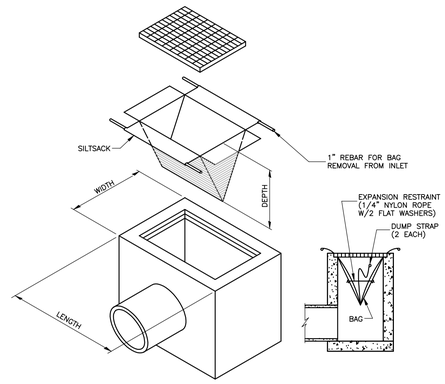
SYNTHETIC FILTER BARRIER



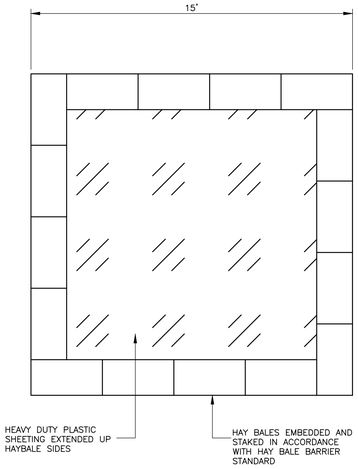
HAYBALE BARRIER



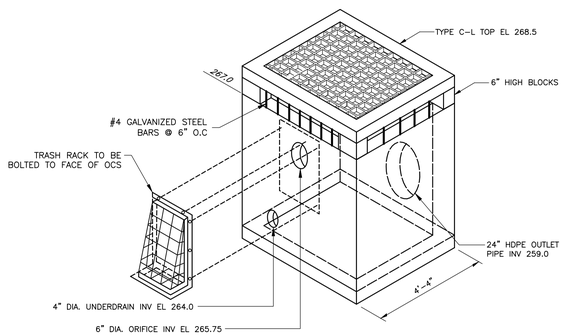
TEMPORARY SEDIMENT TRAP



SEDIMENT CONTROL AT INLET

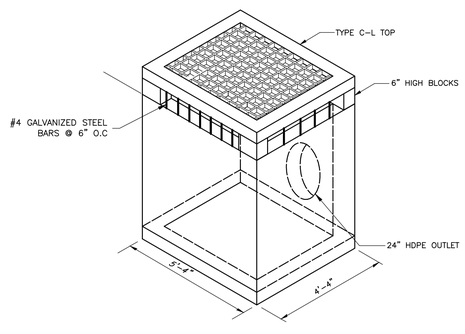


CONCRETE WASHOUT BASIN



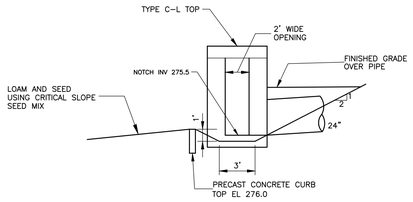
OUTLET CONTROL STRUCTURE DETENTION BASIN#1

6" SUMP (MIN)

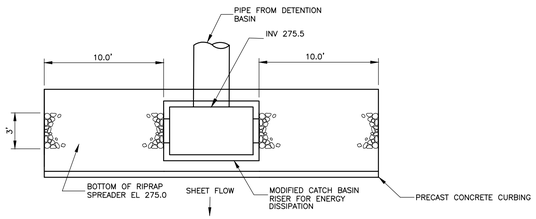


OUTLET CONTROL STRUCTURE DETENTION BASIN#2

6" SUMP (MIN)

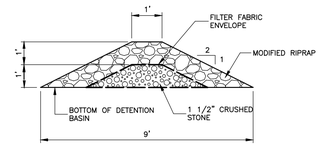


SECTION

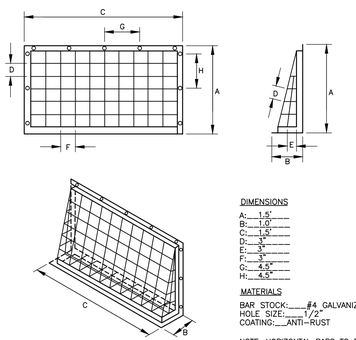


PLAN

LEVEL SPREADER



BASIN RIPRAP BERM



DIMENSIONS

A:___1.5"
B:___1.0"
C:___1.5"
D:___3"
E:___3"
F:___3"
G:___4.5"
H:___4.5"

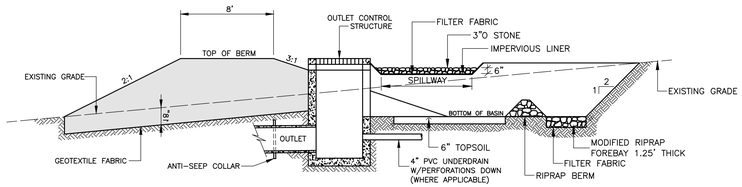
MATERIALS

BAR STOCK:____#4 GALVANIZED STEEL
HOLE SIZE:____1/2"
COATING:____ANTI-RUST

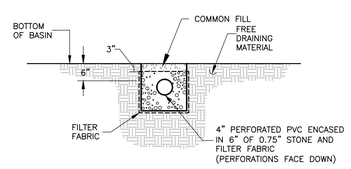
NOTE: HORIZONTAL BARS TO BE PLACED INSIDE OF VERTICAL BARS.

TRASH RACK

HAALA INDUSTRIES
PART #AG4830BF-3
(OR APPROVED EQUAL)



STORMWATER DETENTION BASIN



STORMWATER POND UNDERDRAIN

4'X4' ANTI-SEEP COLLAR

(BY SCHEIB DRAINAGE PRODUCTS OR APPROVED EQUAL)

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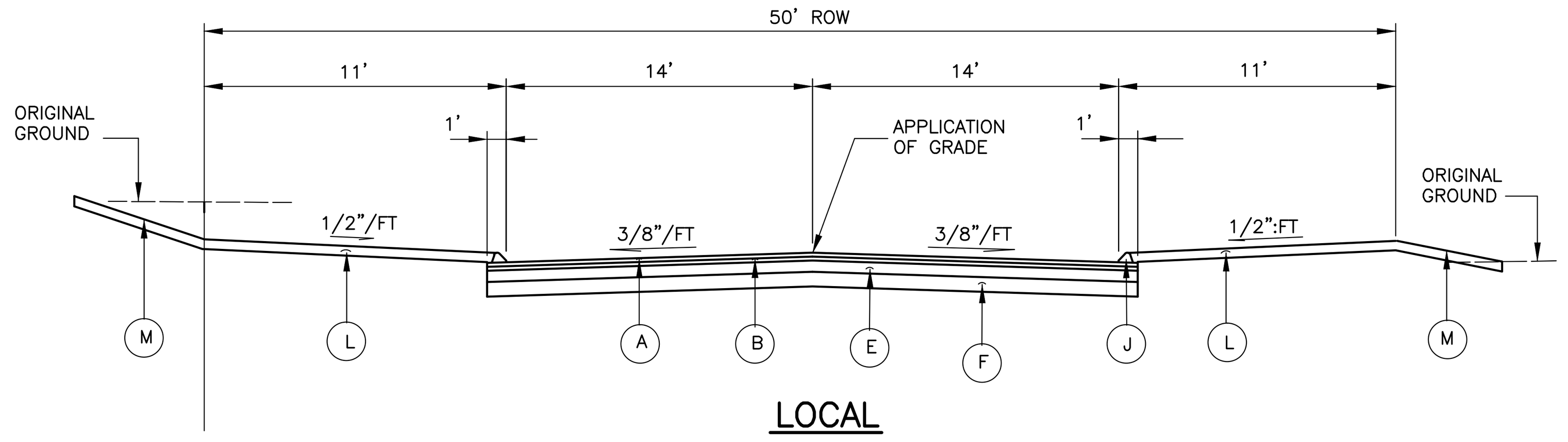
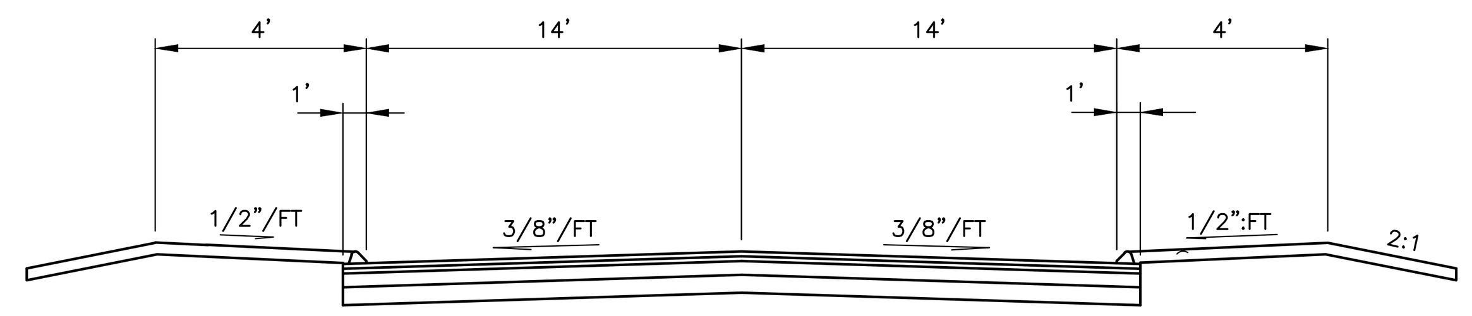
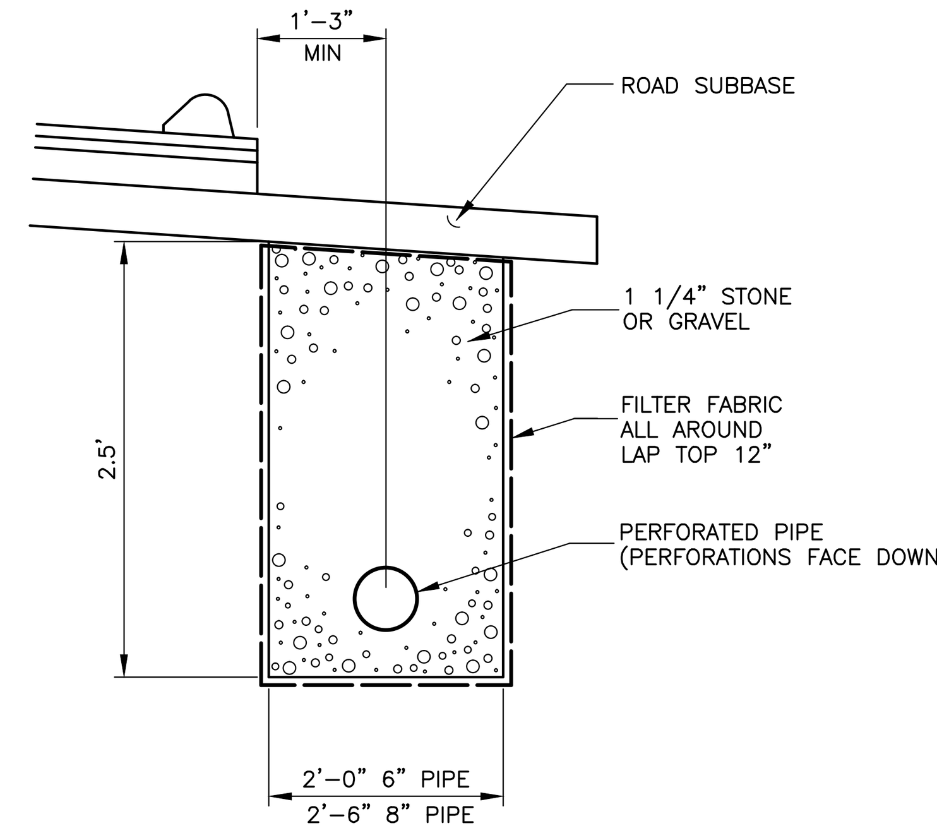


LOCAL
ROADWAY SECTION

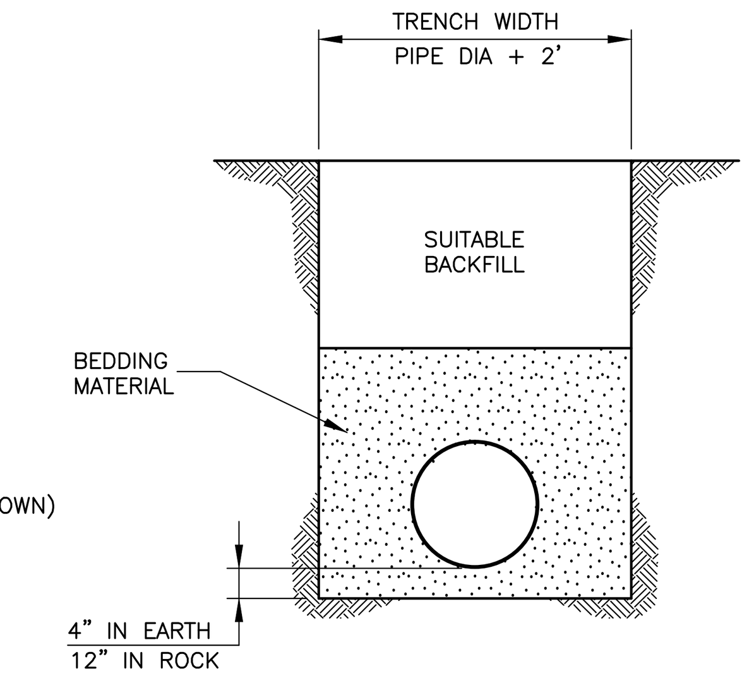
- (A) 1 1/2" BITUMINOUS CONCRETE – CLASS 2 FINISH COAT
- (B) 1 1/2" BITUMINOUS CONCRETE – CLASS 1 BINDER COAT
- (E) 4" PROCESSED AGGREGATE BASE
- (F) 6" GRAVEL SUBBASE
- (J) 6" BITUMINOUS CONCRETE LIP CURBING
- (L) 6" TOPSOIL, FERTILIZE AND SEED
- (M) 2:1 SLOPE (MAX) METAL BEAM RAIL REQUIRED ON FILL SLOPES 4:1 OR STEEPER



WETLANDS CROSSING ROADWAY SECTION
(STA 1+80 THRU 2+80)

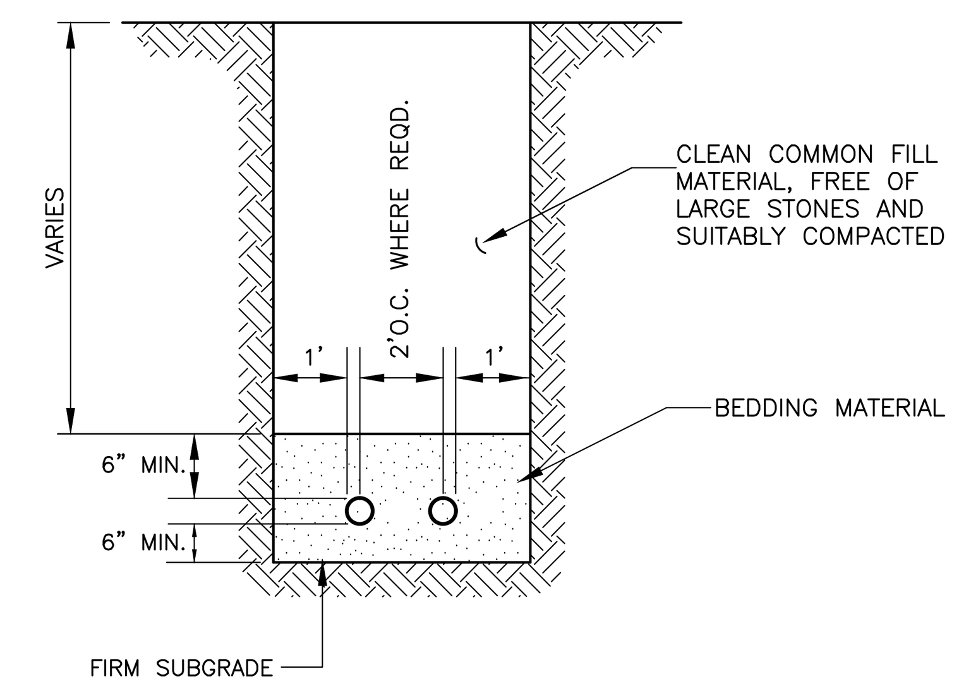


ROADWAY UNDERDRAIN



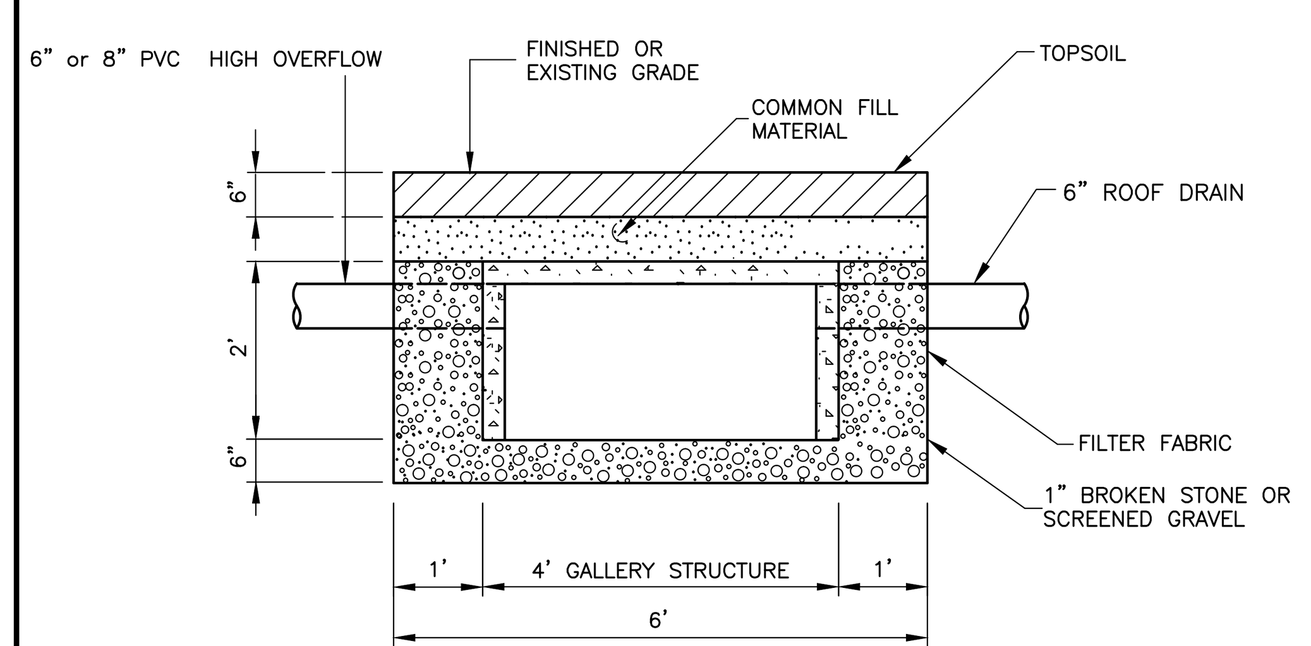
BEDDING MATERIAL TO BE SAND OR SANDY SOIL WHICH PASSES A 3/8" SIEVE WITH NOT MORE THAN 10% PASSING A #200 SIEVE. WHEN GROUND WATER IS ENCOUNTERED, THE ENGINEER MAY ALLOW 3/4" STONE CONFORMING TO CT DOT FORM 814A ARTICLE M.01.01 TO BE USED INSTEAD.

DRAINAGE PIPE TRENCH

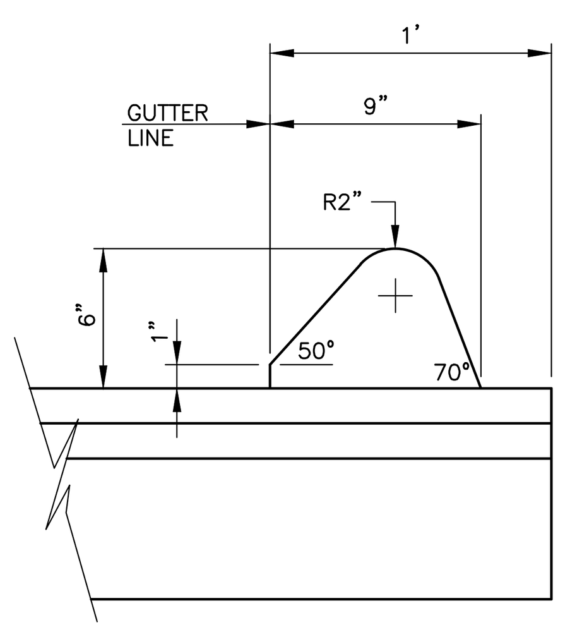


BEDDING MATERIAL TO BE SAND OR SANDY SOIL WHICH PASSES A 3/8" SIEVE WITH NOT MORE THAN 10% PASSING A #200 SIEVE. WHEN GROUND WATER IS ENCOUNTERED, THE ENGINEER MAY ALLOW 3/4" STONE CONFORMING TO CT DOT FORM 817 ARTICLE M.01.01 TO BE USED INSTEAD.

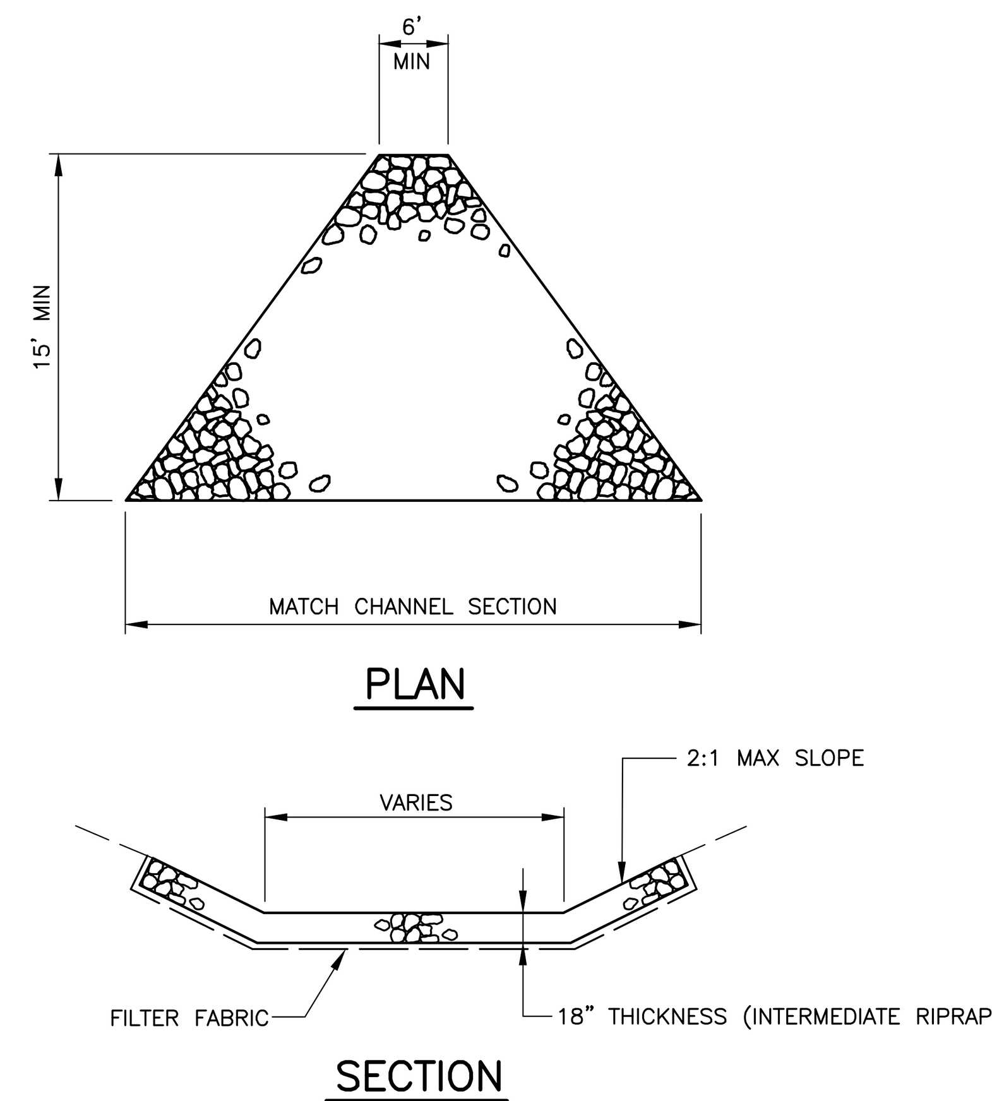
UTILITIES TRENCH



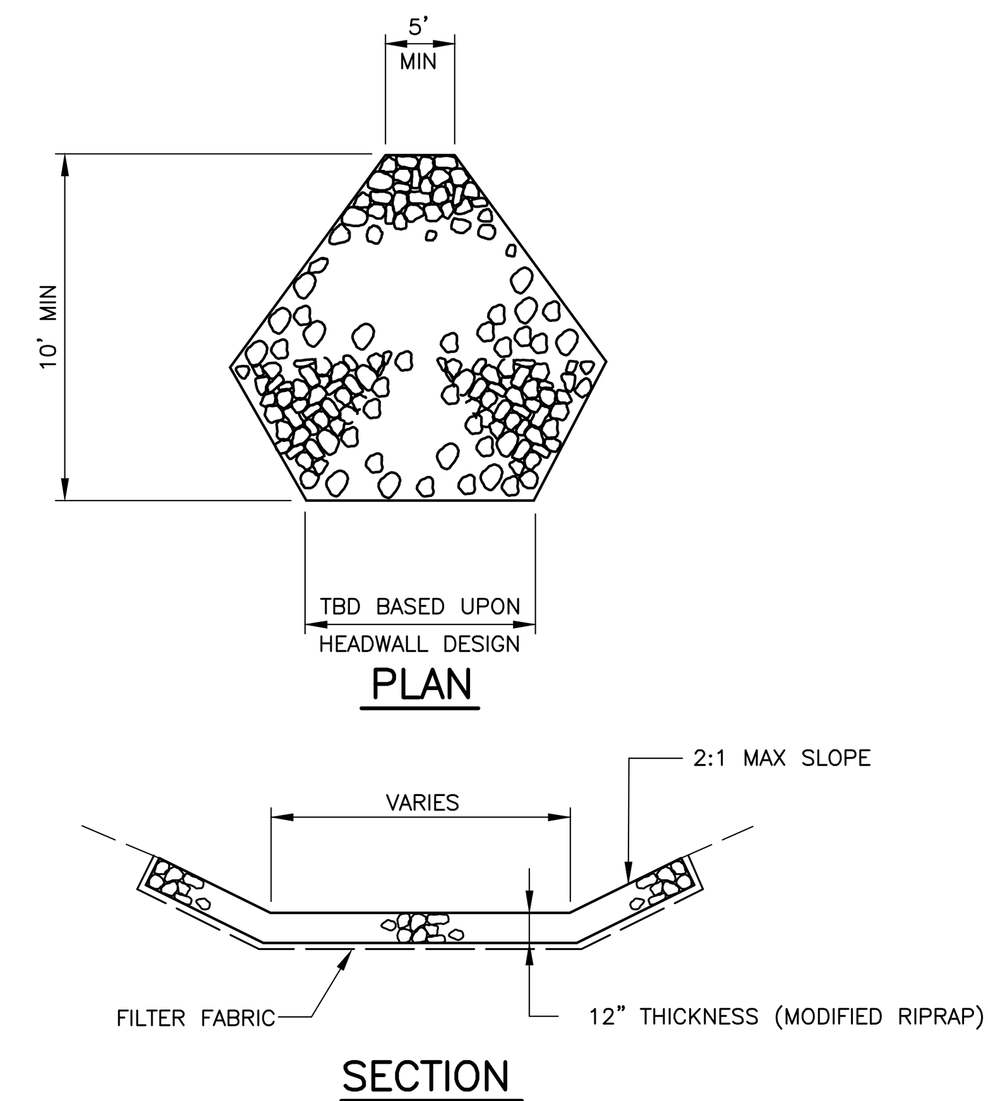
ROOF DRAIN 24" x 48" RECHARGE GALLERY



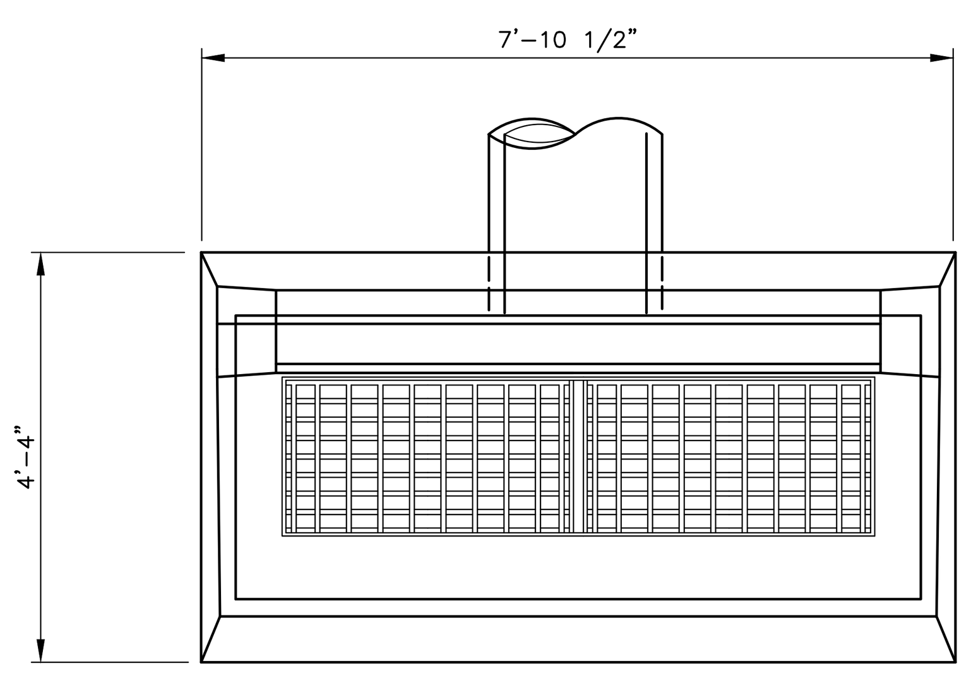
BITUMINOUS LIP CURBING



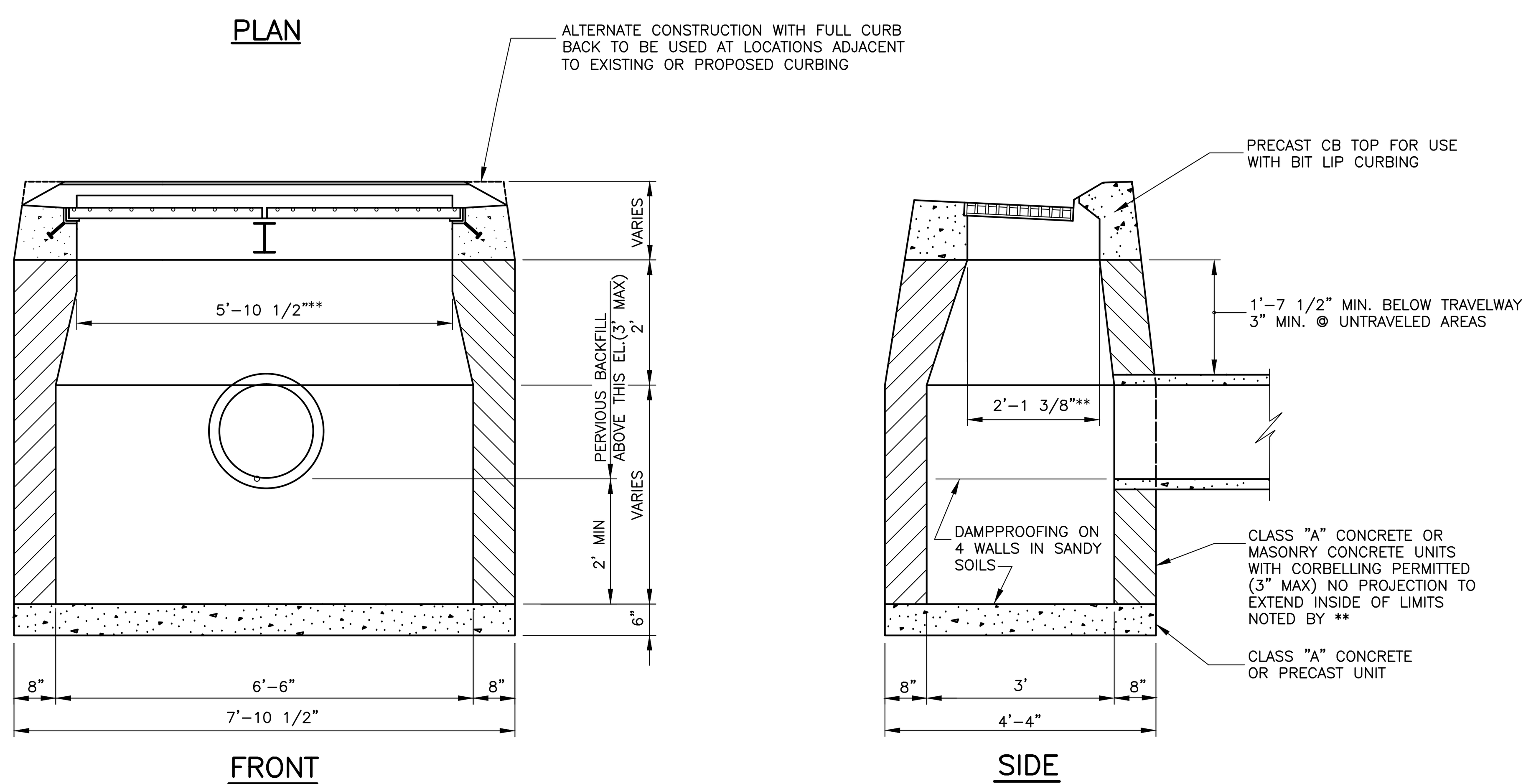
RIPRAP APRON (CULVERT EXIT)



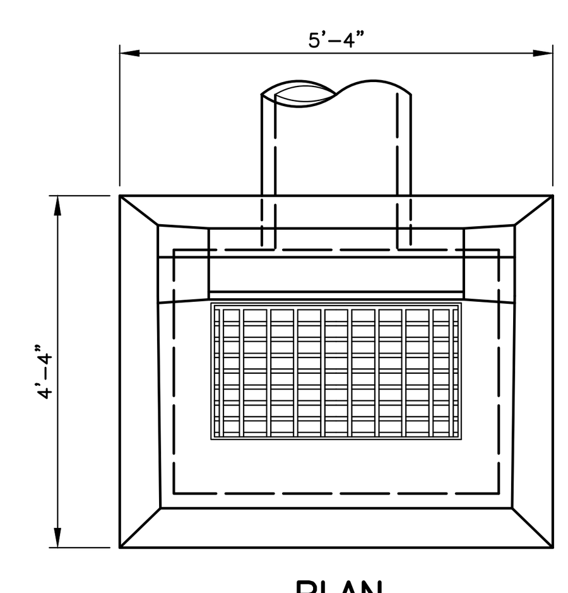
RIPRAP APRON (CULVERT ENTRANCE)



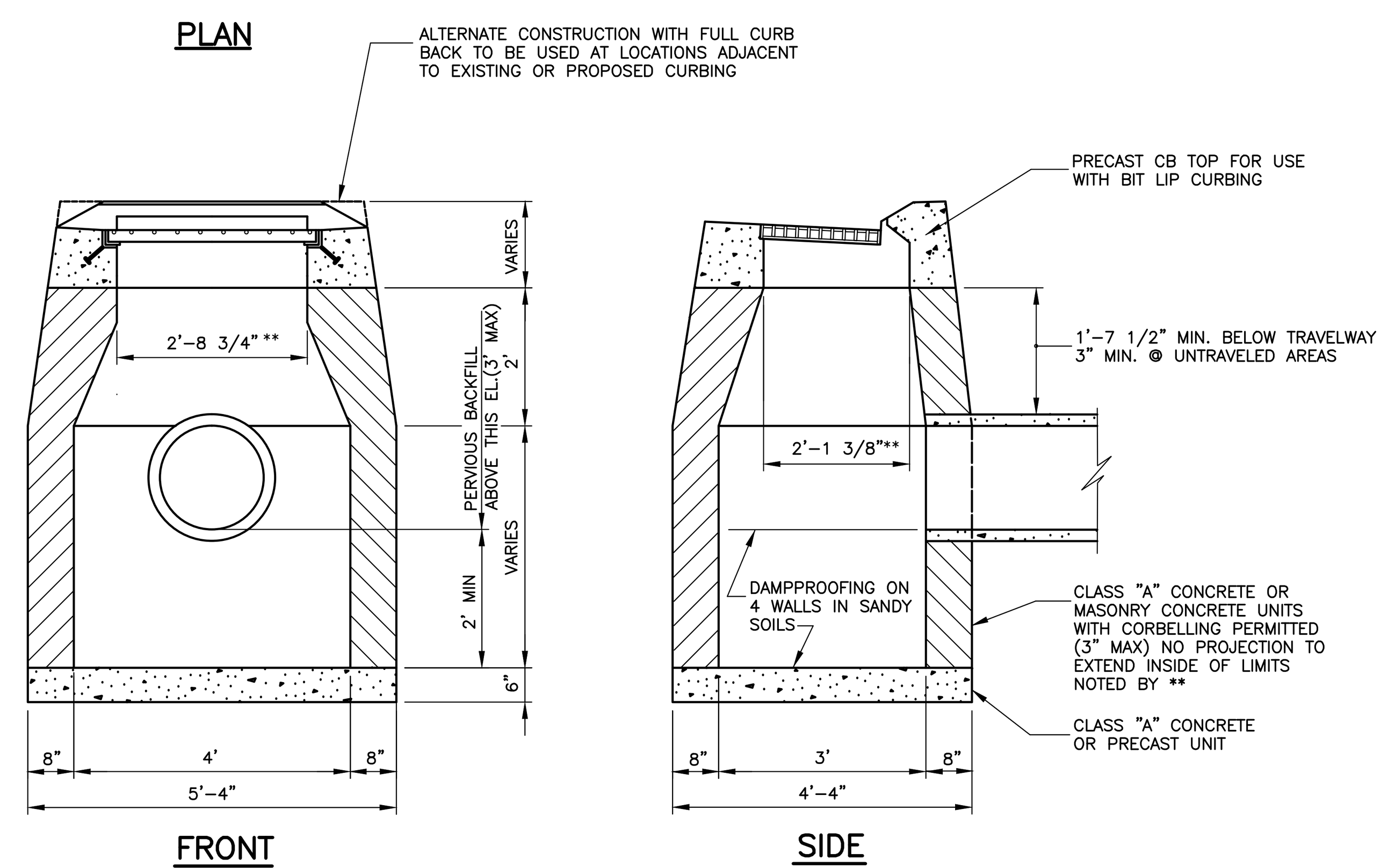
NOTE:
WHERE PRECAST CONCRETE UNITS ARE USED FOR THE SUMP, THE TOP OF THE UNIT SHALL BE AT LEAST 6" BELOW THE BOTTOM OF THE PIPE OUTLETTING FROM THE CATCH BASIN



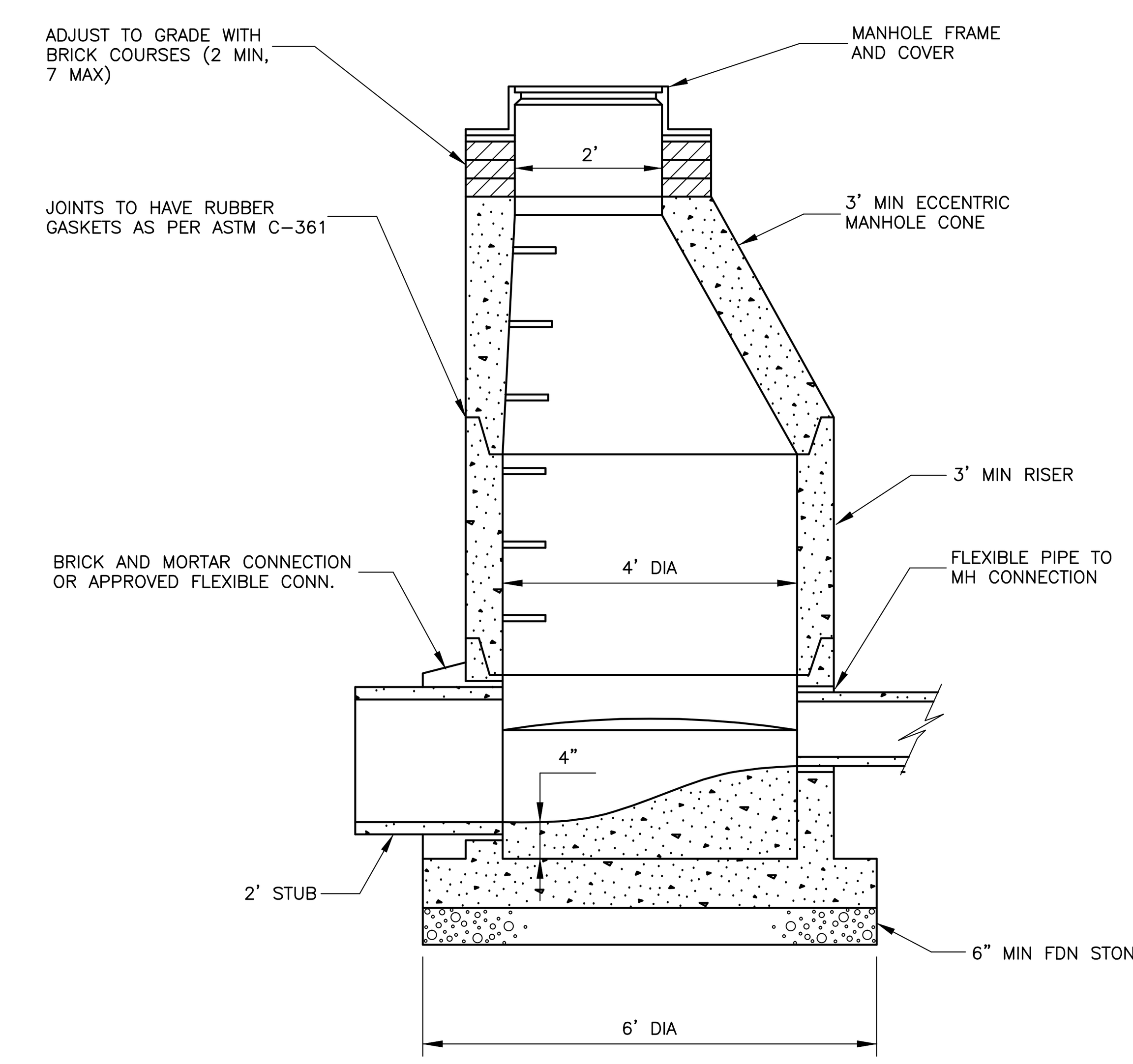
TYPE "C" CATCH BASIN – DOUBLE GRATE



NOTE:
WHERE PRECAST CONCRETE UNITS ARE USED FOR THE SUMP, THE TOP OF THE UNIT SHALL BE AT LEAST 6" BELOW THE BOTTOM OF THE PIPE OUTLETTING FROM THE CATCH BASIN



TYPE "C" CATCH BASIN



48" PRECAST CONCRETE MANHOLE

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DRAWN BY: NDC
SCALE:

TITLE

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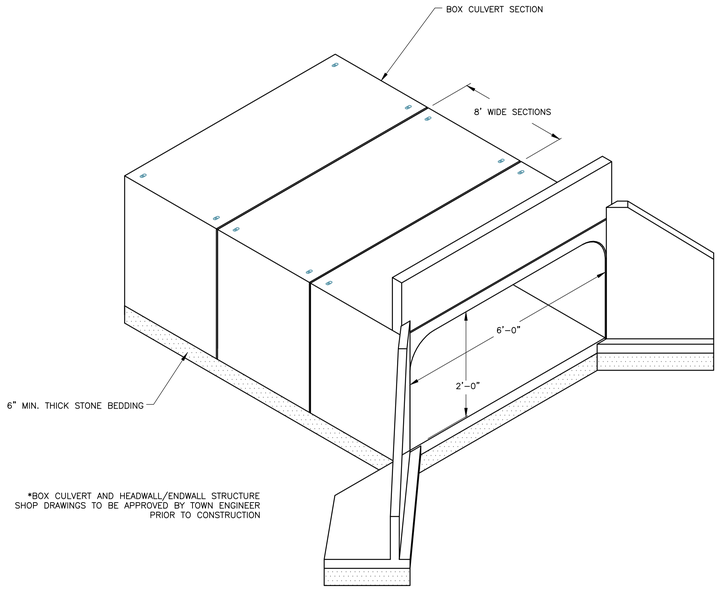
SHEET NUMBER

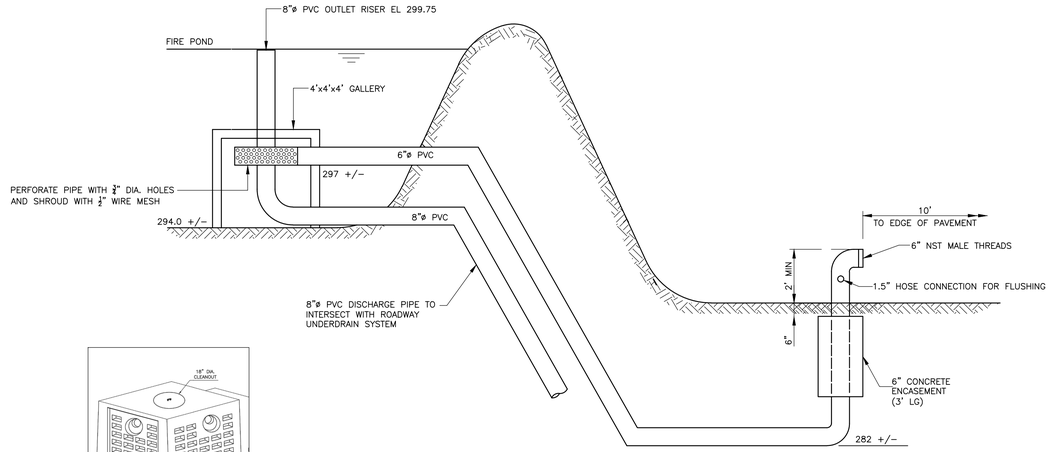
D-3

K:\PROJECTS\2979-ALIX- 1536 AND 1564 MONROE TURNPIKE, MONROE, CT\DRAWINGS\3.3 D-3



*BOX CULVERT AND HEADWALL/ENDWALL STRUCTURE SHOP DRAWINGS TO BE APPROVED BY TOWN ENGINEER PRIOR TO CONSTRUCTION

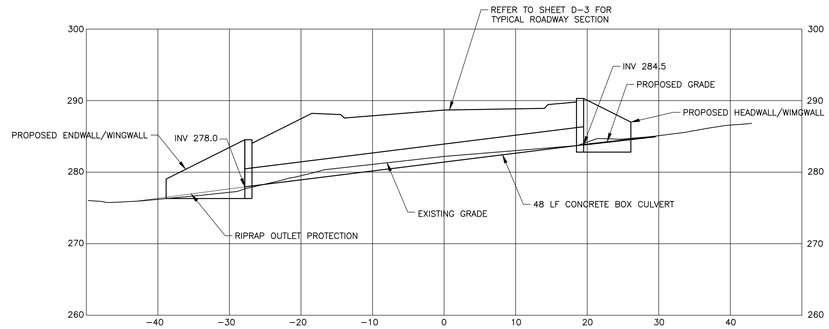
GENERIC CLOSED BOX CULVERT SECTION



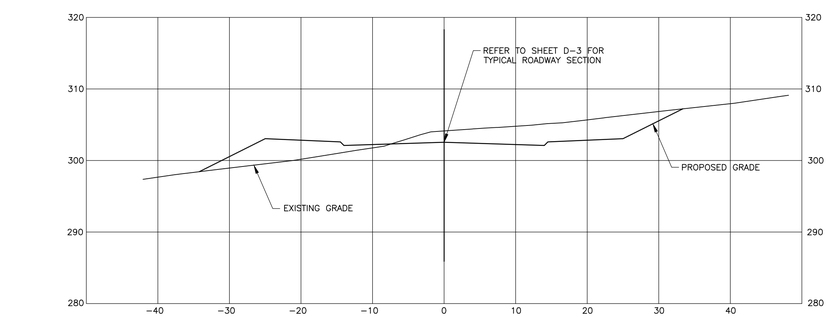
DRY HYDRANT PIPING
N.T.S

CONCRETE GALLERY

MODEL 4X4X4END-HD BY CONNECTICUT PRECAST CORP.



GENERIC CLOSED BOX CULVERT SECTION
SCALE: 1"=10'



STA. 6+00
SCALE: 1"=10'

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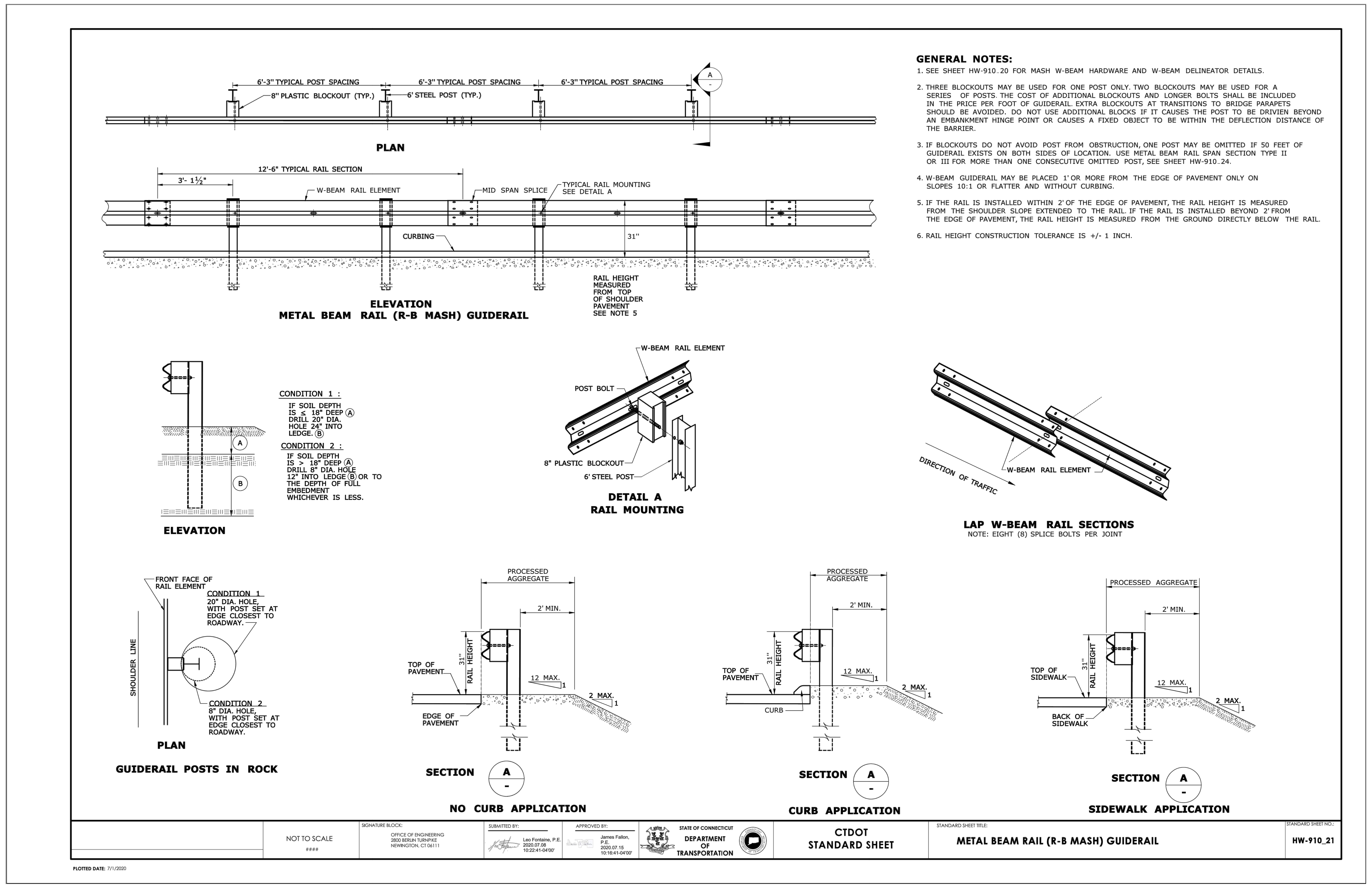
D-4



GENERAL NOTES:
1. SEE SHEET HW-910_20 FOR MASH W-BEAM HARDWARE AND W-BEAM DELINEATOR DETAILS.
2. THREE BLOCKOUTS MAY BE USED FOR ONE POST ONLY. TWO BLOCKOUTS MAY BE USED FOR A SERIES OF POSTS. THE COST OF ADDITIONAL BLOCKOUTS AND LONGER BOLTS SHALL BE INCLUDED IN THE PRICE PER FOOT OF GUIDERAIL. EXTRA BLOCKOUTS AT TRANSITIONS TO BRIDGE PARAPETS SHOULD BE AVOIDED. DO NOT USE ADDITIONAL BLOCKS IF IT CAUSES THE POST TO BE DRIVIEN BEYOND AN EMBANKMENT HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.
3. IF BLOCKOUTS DO NOT AVOID POST FROM OBSTRUCTION, ONE POST MAY BE OMITTED IF 50 FEET OF GUIDERAIL EXISTS ON BOTH SIDES OF LOCATION. USE METAL BEAM RAIL SPAN SECTION TYPE II OR III FOR MORE THAN ONE CONSECUTIVE OMITTED POST, SEE SHEET HW-910_24.
4. W-BEAM GUIDERAIL MAY BE PLACED 1' OR MORE FROM THE EDGE OF PAVEMENT ONLY ON SLOPES 10:1 OR FLATTER AND WITHOUT CURBING.
5. IF THE RAIL IS INSTALLED WITHIN 2' OF THE EDGE OF PAVEMENT, THE RAIL HEIGHT IS MEASURED FROM THE SHOULDER SLOPE EXTENDED TO THE RAIL. IF THE RAIL IS INSTALLED BEYOND 2' FROM THE EDGE OF PAVEMENT, THE RAIL HEIGHT IS MEASURED FROM THE GROUND DIRECTLY BELOW THE RAIL.
6. RAIL HEIGHT CONSTRUCTION TOLERANCE IS +/- 1 INCH.
PLAN
ELEVATION
METAL BEAM RAIL (R-B MASH) GUIDERAIL
ELEVATION
DETAIL A
RAIL MOUNTING
LAP W-BEAM RAIL SECTIONS
NOTE: EIGHT (8) SPLICE BOLTS PER JOINT
PLAN
GUIDERAIL POSTS IN ROCK
SECTION A
NO CURB APPLICATION
SECTION A
CURB APPLICATION
SECTION A
SIDEWALK APPLICATION
NOT TO SCALE
CTDOT
STANDARD SHEET
METAL BEAM RAIL (R-B MASH) GUIDERAIL
HW-910_21

METAL GUARD RAIL

PERMIT SET — NOT FOR CONSTRUCTION

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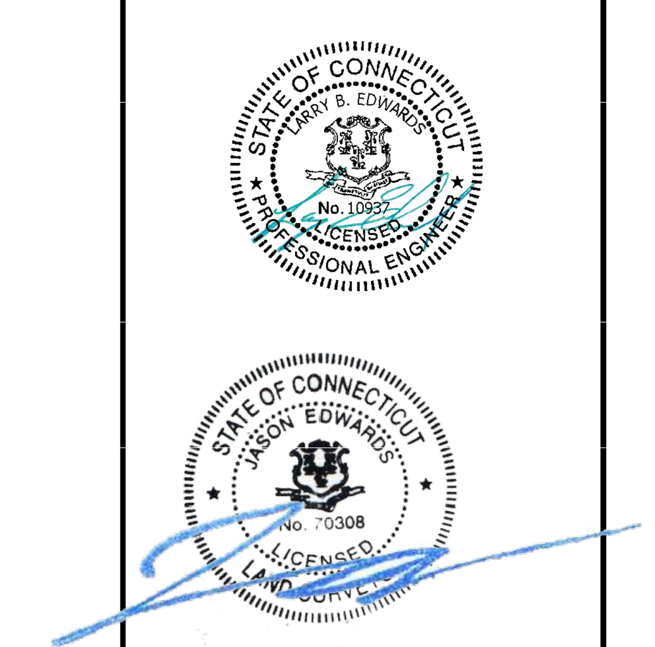

SUN VALLEY GLEN
1536 & 1564 MONROE TURNPIKE
MONROE, CONNECTICUT

REVISIONS

#	DATE	DESCRIPTION
1	8-05-24	TOWN
2	8-20-24	IWWC

DATE: 10-01-23
PROJECT #: 2979
DRAWING FILE: 2979
DRAWN BY: NDC
SCALE:

TITLE

DETAILS

SHEET NUMBER

D-5

K:\PROJECTS\2979-ALIX- 1536 AND 1564 MONROE TURNPIKE, MONROE, CT\DRAWINGS\5.5 D-5

GENERAL NOTES:

1. EXACT LOCATION OF PROPOSED PLANTINGS AND SPECIES TYPES MAY VARY FROM THIS PLAN BASED ON SITE PLAN REVISIONS AND/OR ACTUAL FIELD CONDITIONS.
2. PLANT SPECIES SUBSTITUTIONS MAY BE MADE WITH THE APPROVAL OF THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PLANTING.
3. ALL PLANTING METHODS SHALL BE IN ACCORDANCE WITH THE "AMERICAN STANDARDS FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
4. SPRAY NEW PLANTINGS IMMEDIATELY AFTER INSTALLATION WITH A WHITE-TAILED DEER REPELLENT AND CONTINUE AS NEEDED TO MAINTAIN PLANTS FREE OF SIGNIFICANT DEER BROWSING. PROTECT TRUNKS OF NEWLY PLANTED TREES FROM DEER RUBBING AS NEEDED TO MAINTAIN HEALTHY TREES.

SEEDING NOTES:

1. FOR ALL SEEDING AREAS, APPLY SEED MIX AT THE METHODS AND 125 % THE RATE RECOMMENDED BY THE MANUFACTURER. SEED MIX SUBSTITUTIONS SHALL BE APPROVED BY THE PROJECT LANDSCAPE ARCHITECT PRIOR TO USE. APPLY SOIL AMENDMENTS AS NEEDED TO ESTABLISH PROPER SEED GERMINATION AND GROWTH.
2. BASIN BOTTOM : SEED THIS AREA WITH "NEW ENGLAND EROSION CONTROL / RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES" BY NEW ENGLAND WETLAND PLANTS, INC. (413-548-8000).
3. BASIN SIDE SLOPES AND DISTURBED WETLAND BUFFERS : SEED THIS AREA WITH "NEW ENGLAND CONSERVATION / WILDLIFE MIX" BY NEW ENGLAND WETLAND PLANTS, INC. (413-548-8000).
4. WETLAND CREATION AREA : SEED THIS AREA WITH "WETMIX" BY NEW ENGLAND WETLAND PLANTS, INC. (413-548-8000).

WETLAND CREATION NOTES:

1. STOCKPILE TOPSOIL IN NEARBY AREA FOR USE AS A TOP SOIL LAYER OF WETLAND CREATION AREA.
2. AVOID SOIL COMPACTION BY HEAVY MACHINERY IN THE WETLAND CREATION IF FEASIBLE. DECOMPRESS SOILS AS NEEDED.
3. WETLAND CREATION AREAS SHALL BE GRADED IN A MANOR THAT HAS A UNDULATING TOPOGRAPHY WITH NUMEROUS 2-4" DEEP RANDOMLY PLACED MICRO-DEPRESSIONS (I.E.; TIRE DEPRESSIONS) THROUGHOUT THE WETLAND CREATION AREA.
4. ADD COARSE WOODY DEBRIS, SUCH AS LOGS, STUMPS, AND SMALLER BRANCHES (BUT NOT WOOD CHIPS OR WOOD MULCH) OVER THE CREATED WETLAND AREAS.
5. DO NOT FERTILIZE MITIGATION AREAS UNLESS DIRECTED BY THE PROJECT LANDSCAPE ARCHITECT.

PLANT LIST

QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
7	AR	ACER RUBRUM	RED MAPLE	1 3/4-2" CAL.	B&B
5	AR2	ACER RUBRUM	RED MAPLE	1-1 1/2" CAL.	B&B
3	LT	LIRIODENDRON TULIPIFERA	TULIPTREE	8-9' HT.	B&B
4	QB	QUERCUS BICOLOR	SWAMP WHITE OAK	1 3/4-2" CAL.	B&B
14	QP	QUERCUS PALUSTRIS	PIN OAK	1 3/4-2" CAL.	B&B
15	AC	AMELANCHIER CANADENSIS	SHAD	5-6' HT.	B&B
4	CC	CERCIS CANADENSIS	REDBUD	7-8' HT.	B&B
9	IO	ILEX OPACA	AMERICAN HOLLY	4-6' HT.	B&B
8	PA	PICEA ABIES	NORWAY SPRUCE	7-8' HT.	B&B
32	PS	PINUS STROBUS	WHITE PINE	6-7' HT.	B&B
64	LB	LINDERA BENZOIN	SPICEBUSH	2-3' HT.	CONT.
125	MP	MYRICA PENSYLVANICA	NORTHERN BAYBERRY	2-3' HT.	CONT.
30	HF	DENNSTAEDTIA PUNCTILOBA	HAYSCENTED FERN		1 QT.

REVISIONS:		
3	8.21.24	REVISED SITE PLAN
2	6.1.24	REVISED SITE PLAN
1	1.31.24	FIRE POND AND FENCE

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DRAWING TITLE: WETLAND MITIGATION PLAN

PROJECT: 1536 MONROE TURNPIKE
MONROE, CONNECTICUT

SEAL:

DATE: 12.11.23

SCALE: 1"=50'

DRAWING NO.: WET.1