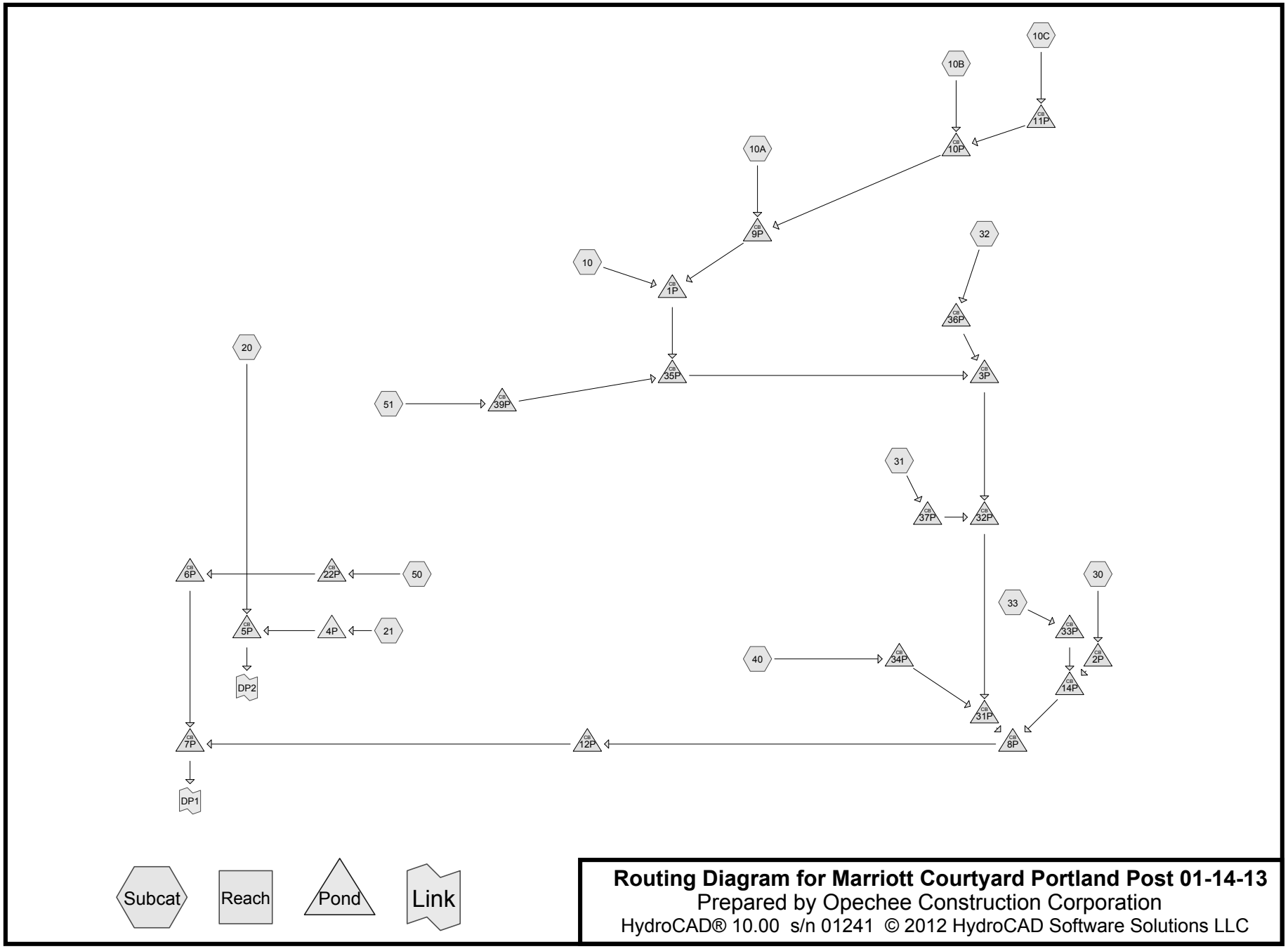

Routing Diagram for Marriott Courtyard Portland Post 01-14-13

Prepared by Opechee Construction Corporation

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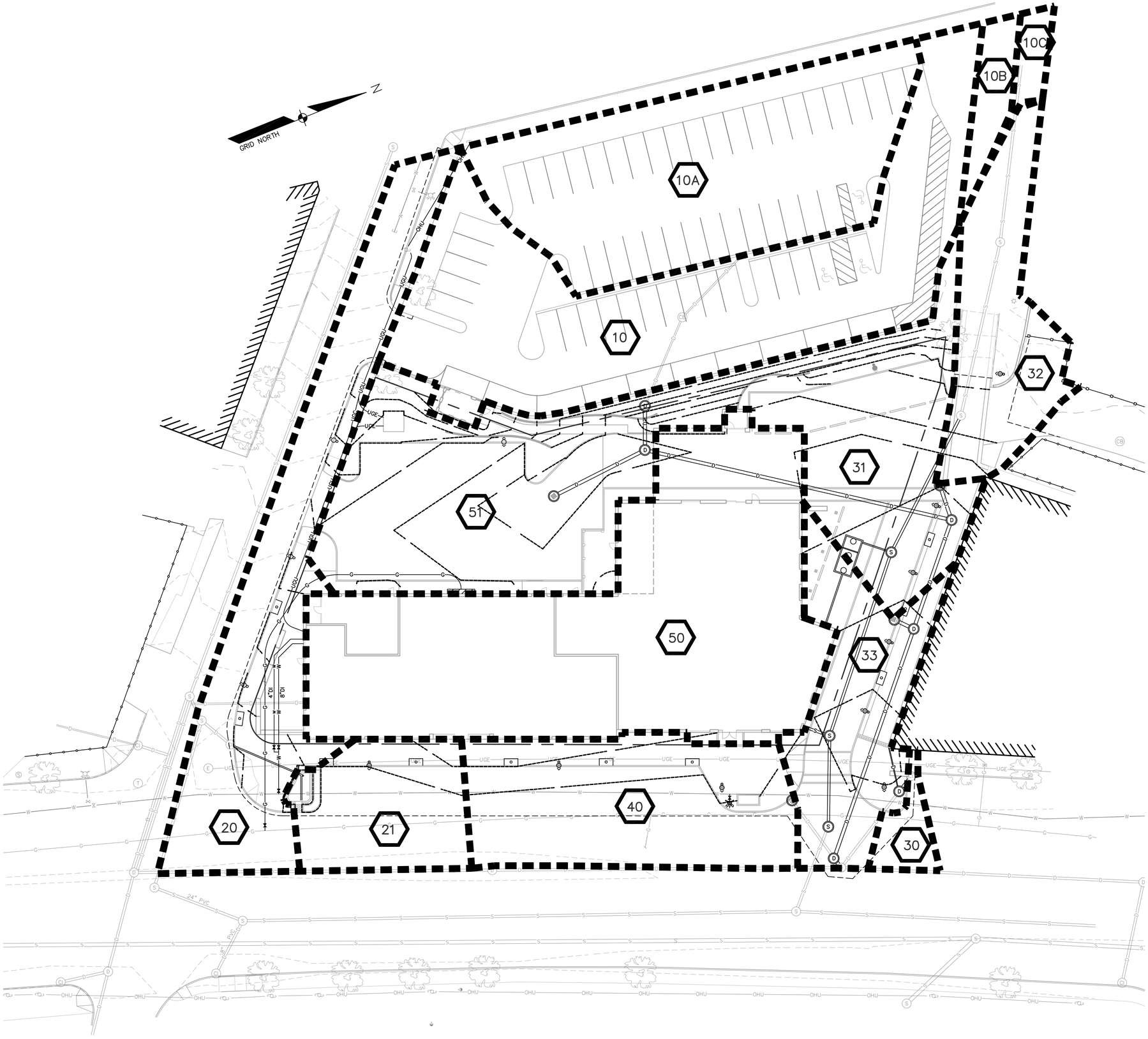

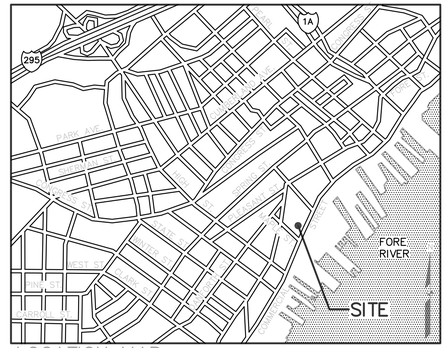

LOCATION MAP

N.T.S.

GRAPHIC SCALE

0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

REVISION SCHEDULE

DATE	REVISION DESCRIPTION	BY

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OPECHEE
CONSTRUCTION CORPORATION
11 CORPORATE DRIVE, BELMONT NH 03220
PHONE (603)527-9090 FAX (603)527-9191

POST-DEVELOPMENT DRAINAGE PLAN

PROJECT:
MIXED-USE REDEVELOPMENT
PORTLAND, ME

DATE: 10-22-12
SCALE: 1"=20'
DRAWN BY: BJS

D02
SHEET: 2 OF 2

Proposed 2-Year Storm Event

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 3
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment10: Runoff Area=16,540 sf 76.80% Impervious Runoff Depth=1.90"
Tc=6.0 min CN=89 Runoff=0.8 cfs 0.060 af

Subcatchment10A: Runoff Area=12,940 sf 77.53% Impervious Runoff Depth=1.59"
Tc=6.0 min CN=85 Runoff=0.6 cfs 0.039 af

Subcatchment10B: Runoff Area=1,106 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.1 cfs 0.006 af

Subcatchment10C: Runoff Area=571 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.0 cfs 0.003 af

Subcatchment20: Runoff Area=10,882 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.7 cfs 0.058 af

Subcatchment21: Runoff Area=3,990 sf 97.74% Impervious Runoff Depth=2.66"
Tc=6.0 min CN=97 Runoff=0.3 cfs 0.020 af

Subcatchment30: Runoff Area=670 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.0 cfs 0.004 af

Subcatchment31: Runoff Area=8,082 sf 77.04% Impervious Runoff Depth=2.16"
Tc=6.0 min CN=92 Runoff=0.5 cfs 0.033 af

Subcatchment32: Runoff Area=5,262 sf 61.88% Impervious Runoff Depth=1.90"
Tc=6.0 min CN=89 Runoff=0.3 cfs 0.019 af

Subcatchment33: Runoff Area=6,212 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.4 cfs 0.033 af

Subcatchment40: Runoff Area=7,991 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.5 cfs 0.042 af

Subcatchment50: Runoff Area=19,662 sf 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=1.3 cfs 0.104 af

Subcatchment51: Runoff Area=12,178 sf 71.03% Impervious Runoff Depth=2.07"
Tc=6.0 min CN=91 Runoff=0.7 cfs 0.048 af

Pond 1P: Peak Elev=10.15' Inflow=1.5 cfs 0.108 af
15.0" Round Culvert n=0.012 L=15.0' S=0.0447 '/' Outflow=1.5 cfs 0.108 af

Pond 2P: Peak Elev=8.20' Inflow=0.0 cfs 0.004 af
12.0" Round Culvert n=0.012 L=6.0' S=0.0067 '/' Outflow=0.0 cfs 0.004 af

Pond 3P: Peak Elev=8.81' Inflow=2.4 cfs 0.176 af
18.0" Round Culvert n=0.012 L=47.0' S=0.0072 '/' Outflow=2.4 cfs 0.176 af

Pond 4P: Peak Elev=11.53' Storage=128 cf Inflow=0.3 cfs 0.020 af
Outflow=0.3 cfs 0.020 af

Pond 5P: Peak Elev=6.90' Inflow=1.0 cfs 0.078 af
12.0" Round Culvert n=0.012 L=15.0' S=0.0153 '/' Outflow=1.0 cfs 0.078 af

Pond 6P: Peak Elev=6.69' Inflow=1.3 cfs 0.104 af
18.0" Round Culvert n=0.012 L=75.0' S=0.0073 '/' Outflow=1.3 cfs 0.104 af

Pond 7P: Peak Elev=6.45' Inflow=5.2 cfs 0.392 af
24.0" Round Culvert n=0.012 L=44.0' S=0.0052 '/' Outflow=5.2 cfs 0.392 af

Pond 8P: Peak Elev=8.19' Inflow=3.9 cfs 0.288 af
18.0" Round Culvert n=0.012 L=150.0' S=0.0010 '/' Outflow=3.9 cfs 0.288 af

Pond 9P: Peak Elev=14.66' Inflow=0.7 cfs 0.048 af
12.0" Round Culvert n=0.012 L=32.0' S=0.0156 '/' Outflow=0.7 cfs 0.048 af

Pond 10P: Peak Elev=17.16' Inflow=0.1 cfs 0.009 af
12.0" Round Culvert n=0.012 L=101.0' S=0.0272 '/' Outflow=0.1 cfs 0.009 af

Pond 11P: Peak Elev=21.09' Inflow=0.0 cfs 0.003 af
12.0" Round Culvert n=0.012 L=34.0' S=0.1176 '/' Outflow=0.0 cfs 0.003 af

Pond 12P: Peak Elev=7.88' Inflow=3.9 cfs 0.288 af
18.0" Round Culvert n=0.012 L=145.0' S=-0.0003 '/' Outflow=3.9 cfs 0.288 af

Pond 14P: Peak Elev=8.20' Inflow=0.5 cfs 0.036 af
12.0" Round Culvert n=0.012 L=40.0' S=0.0053 '/' Outflow=0.5 cfs 0.036 af

Pond 22P: Peak Elev=9.19' Inflow=1.3 cfs 0.104 af
8.0" Round Culvert n=0.012 L=52.0' S=0.0075 '/' Outflow=1.3 cfs 0.104 af

Pond 31P: Peak Elev=8.35' Inflow=3.4 cfs 0.251 af
18.0" Round Culvert n=0.012 L=3.0' S=0.0067 '/' Outflow=3.4 cfs 0.251 af

Pond 32P: Peak Elev=8.60' Inflow=2.9 cfs 0.209 af
18.0" Round Culvert n=0.012 L=102.0' S=0.0072 '/' Outflow=2.9 cfs 0.209 af

Pond 33P: Peak Elev=8.27' Inflow=0.4 cfs 0.033 af
8.0" Round Culvert n=0.012 L=20.0' S=0.0300 '/' Outflow=0.4 cfs 0.033 af

Pond 34P: Peak Elev=8.37' Inflow=0.5 cfs 0.042 af
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.5 cfs 0.042 af

Pond 35P: Peak Elev=9.57' Inflow=2.2 cfs 0.157 af
18.0" Round Culvert n=0.012 L=137.0' S=0.0070 '/' Outflow=2.2 cfs 0.157 af

Pond 36P: Peak Elev=8.82' Inflow=0.3 cfs 0.019 af
12.0" Round Culvert n=0.012 L=16.0' S=0.0100 '/' Outflow=0.3 cfs 0.019 af

Pond 37P: Peak Elev=8.61' Inflow=0.5 cfs 0.033 af
12.0" Round Culvert n=0.012 L=9.0' S=0.0100 '/' Outflow=0.5 cfs 0.033 af

Pond 39P: Peak Elev=9.84' Inflow=0.7 cfs 0.048 af
12.0" Round Culvert n=0.012 L=44.0' S=0.0100 '/' Outflow=0.7 cfs 0.048 af

Link DP1: Inflow=5.2 cfs 0.392 af
Primary=5.2 cfs 0.392 af

Link DP2: Inflow=1.0 cfs 0.078 af
Primary=1.0 cfs 0.078 af

Total Runoff Area = 2.435 ac Runoff Volume = 0.470 af Average Runoff Depth = 2.32"
13.41% Pervious = 0.327 ac 86.59% Impervious = 2.109 ac

Summary for Subcatchment 10:

Runoff = 0.8 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 1.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
1,773	39	>75% Grass cover, Good, HSG A
2,065	74	>75% Grass cover, Good, HSG C
12,702	98	Paved parking, HSG A
16,540	89	Weighted Average
3,838		23.20% Pervious Area
12,702		76.80% Impervious Area

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

Summary for Subcatchment 10A:

Runoff = 0.6 cfs @ 12.09 hrs, Volume= 0.039 af, Depth= 1.59"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
10,033	98	Paved parking, HSG C
100	74	>75% Grass cover, Good, HSG C
2,807	39	>75% Grass cover, Good, HSG A
12,940	85	Weighted Average
2,907		22.47% Pervious Area
10,033		77.53% Impervious Area

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

Summary for Subcatchment 10B:

Runoff = 0.1 cfs @ 12.08 hrs, Volume= 0.006 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
1,106	98	Paved parking, HSG A
1,106		100.00% Impervious Area

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

Summary for Subcatchment 10C:

Runoff = 0.0 cfs @ 12.08 hrs, Volume= 0.003 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
571	98	Paved parking, HSG A
571		100.00% Impervious Area

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

Summary for Subcatchment 20:

Runoff = 0.7 cfs @ 12.08 hrs, Volume= 0.058 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
10,882	98	Paved parking, HSG A
10,882		100.00% Impervious Area

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

Summary for Subcatchment 21:

Runoff = 0.3 cfs @ 12.08 hrs, Volume= 0.020 af, Depth= 2.66"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
90	74	>75% Grass cover, Good, HSG C
3,900	98	Paved parking, HSG C
3,990	97	Weighted Average
90		2.26% Pervious Area
3,900		97.74% Impervious Area

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

Summary for Subcatchment 30:

Runoff = 0.0 cfs @ 12.08 hrs, Volume= 0.004 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
670	98	Paved parking, HSG C
670		100.00% Impervious Area

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

Summary for Subcatchment 31:

Runoff = 0.5 cfs @ 12.09 hrs, Volume= 0.033 af, Depth= 2.16"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
1,856	74	>75% Grass cover, Good, HSG C
6,226	98	Paved parking, HSG C
8,082	92	Weighted Average
1,856		22.96% Pervious Area
6,226		77.04% Impervious Area

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

Summary for Subcatchment 32:

Runoff = 0.3 cfs @ 12.09 hrs, Volume= 0.019 af, Depth= 1.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
2,006	74	>75% Grass cover, Good, HSG C
3,256	98	Paved parking, HSG C
5,262	89	Weighted Average
2,006		38.12% Pervious Area
3,256		61.88% Impervious Area

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

Summary for Subcatchment 33:

Runoff = 0.4 cfs @ 12.08 hrs, Volume= 0.033 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
6,212	98	Paved parking, HSG C
6,212		100.00% Impervious Area

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

Summary for Subcatchment 40:

Runoff = 0.5 cfs @ 12.08 hrs, Volume= 0.042 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
7,991	98	Paved parking, HSG C
7,991		100.00% Impervious Area

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

Summary for Subcatchment 50:

Runoff = 1.3 cfs @ 12.08 hrs, Volume= 0.104 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
19,662	98	Roofs, HSG C
19,662		100.00% Impervious Area

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

Summary for Subcatchment 51:

Runoff = 0.7 cfs @ 12.09 hrs, Volume= 0.048 af, Depth= 2.07"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (sf)	CN	Description
3,528	74	>75% Grass cover, Good, HSG C
8,650	98	Paved parking, HSG C
12,178	91	Weighted Average
3,528		28.97% Pervious Area
8,650		71.03% Impervious Area

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

Summary for Pond 1P:

Inflow Area = 0.715 ac, 78.35% Impervious, Inflow Depth = 1.82" for 2-yr event
Inflow = 1.5 cfs @ 12.09 hrs, Volume= 0.108 af
Outflow = 1.5 cfs @ 12.09 hrs, Volume= 0.108 af, Atten= 0%, Lag= 0.0 min
Primary = 1.5 cfs @ 12.09 hrs, Volume= 0.108 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 10.15' @ 12.09 hrs
Flood Elev= 18.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	9.56'	**15.0" Round Culvert** L= 15.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 9.56' / 8.89' S= 0.0447 '/' Cc= 0.900 n= 0.012, Flow Area= 1.23 sf

Primary OutFlow Max=1.5 cfs @ 12.09 hrs HW=10.15' TW=9.57' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 1.5 cfs @ 2.62 fps)

Summary for Pond 2P:

Inflow Area = 0.015 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.0 cfs @ 12.08 hrs, Volume= 0.004 af
Outflow = 0.0 cfs @ 12.08 hrs, Volume= 0.004 af, Atten= 0%, Lag= 0.0 min
Primary = 0.0 cfs @ 12.08 hrs, Volume= 0.004 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3

Peak Elev= 8.20' @ 12.09 hrs
Flood Elev= 10.62'

Device	Routing	Invert	Outlet Devices
#1	Primary	6.79'	**12.0" Round Culvert** L= 6.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 6.79' / 6.75' S= 0.0067 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.0 cfs @ 12.08 hrs HW=8.19' TW=8.20' (Dynamic Tailwater)
↑—**1=Culvert** (Controls 0.0 cfs)

Summary for Pond 3P:

Inflow Area = 1.116 ac, 74.73% Impervious, Inflow Depth = 1.89" for 2-yr event
Inflow = 2.4 cfs @ 12.09 hrs, Volume= 0.176 af
Outflow = 2.4 cfs @ 12.09 hrs, Volume= 0.176 af, Atten= 0%, Lag= 0.0 min
Primary = 2.4 cfs @ 12.09 hrs, Volume= 0.176 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 8.81' @ 12.09 hrs
Flood Elev= 12.84'

Device	Routing	Invert	Outlet Devices
#1	Primary	7.73'	**18.0" Round Culvert** L= 47.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 7.73' / 7.39' S= 0.0072 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.4 cfs @ 12.09 hrs HW=8.81' TW=8.59' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 2.4 cfs @ 2.51 fps)

Summary for Pond 4P:

Inflow Area = 0.092 ac, 97.74% Impervious, Inflow Depth = 2.66" for 2-yr event
Inflow = 0.3 cfs @ 12.08 hrs, Volume= 0.020 af
Outflow = 0.3 cfs @ 12.08 hrs, Volume= 0.020 af, Atten= 0%, Lag= 0.0 min
Primary = 0.3 cfs @ 12.08 hrs, Volume= 0.020 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 11.53' @ 12.08 hrs Surf.Area= 84 sf Storage= 128 cf
Flood Elev= 11.50' Surf.Area= 84 sf Storage= 128 cf

Plug-Flow detention time= 85.8 min calculated for 0.020 af (100% of inflow)
Center-of-Mass det. time= 85.7 min (853.4 - 767.7)

Volume	Invert	Avail.Storage	Storage Description
#1	7.50'	128 cf	**Crushed Stone (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
7.50	80	0.0	0	0
7.51	80	40.0	0	0
9.50	80	40.0	64	64
9.51	80	20.0	0	64
11.00	80	20.0	24	88
11.01	80	100.0	1	89
11.42	80	100.0	33	122
11.50	84	100.0	7	128

Device	Routing	Invert	Outlet Devices
#1	Primary	7.50'	**6.0" Round Culvert** L= 32.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 7.50' / 6.87' S= 0.0197 '/' Cc= 0.900 n= 0.012, Flow Area= 0.20 sf
#2	Device 1	7.50'	**4.000 in/hr Exfiltration over Surface area**
#3	Primary	11.42'	**3.0' long x 4.8' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.35 2.51 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.66 2.68 2.67 2.70 2.72 2.77 2.85 2.97

Primary OutFlow Max=0.3 cfs @ 12.08 hrs HW=11.53' TW=6.90' (Dynamic Tailwater)
- **1=Culvert** (Passes 0.0 cfs of 1.5 cfs potential flow)
  - **2=Exfiltration** (Exfiltration Controls 0.0 cfs)
- **3=Broad-Crested Rectangular Weir** (Weir Controls 0.3 cfs @ 0.79 fps)

Summary for Pond 5P:

Inflow Area = 0.341 ac, 99.39% Impervious, Inflow Depth = 2.74" for 2-yr event
Inflow = 1.0 cfs @ 12.08 hrs, Volume= 0.078 af
Outflow = 1.0 cfs @ 12.08 hrs, Volume= 0.078 af, Atten= 0%, Lag= 0.0 min
Primary = 1.0 cfs @ 12.08 hrs, Volume= 0.078 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 6.90' @ 12.08 hrs
Flood Elev= 11.54'

Device	Routing	Invert	Outlet Devices
#1	Primary	6.37'	**12.0" Round Culvert** L= 15.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 6.37' / 6.14' S= 0.0153 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=1.0 cfs @ 12.08 hrs HW=6.90' TW=0.00' (Dynamic Tailwater)
- **1=Culvert** (Barrel Controls 1.0 cfs @ 3.42 fps)

Summary for Pond 6P:

Inflow Area = 0.451 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 1.3 cfs @ 12.08 hrs, Volume= 0.104 af
Outflow = 1.3 cfs @ 12.08 hrs, Volume= 0.104 af, Atten= 0%, Lag= 0.0 min
Primary = 1.3 cfs @ 12.08 hrs, Volume= 0.104 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 6.69' @ 12.08 hrs
Flood Elev= 11.45'

Device	Routing	Invert	Outlet Devices
#1	Primary	5.96'	**18.0" Round Culvert** L= 75.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 5.96' / 5.41' S= 0.0073 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=1.3 cfs @ 12.08 hrs HW=6.69' TW=6.45' (Dynamic Tailwater)
1=Culvert (Outlet Controls 1.3 cfs @ 2.24 fps)

Summary for Pond 7P:

Inflow Area = 2.094 ac, 84.50% Impervious, Inflow Depth = 2.25" for 2-yr event
Inflow = 5.2 cfs @ 12.09 hrs, Volume= 0.392 af
Outflow = 5.2 cfs @ 12.09 hrs, Volume= 0.392 af, Atten= 0%, Lag= 0.0 min
Primary = 5.2 cfs @ 12.09 hrs, Volume= 0.392 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 6.45' @ 12.09 hrs
Flood Elev= 11.91'

Device	Routing	Invert	Outlet Devices
#1	Primary	5.31'	**24.0" Round Culvert** L= 44.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 5.31' / 5.08' S= 0.0052 '/' Cc= 0.900 n= 0.012, Flow Area= 3.14 sf

Primary OutFlow Max=5.2 cfs @ 12.09 hrs HW=6.45' TW=0.00' (Dynamic Tailwater)
1=Culvert (Barrel Controls 5.2 cfs @ 4.04 fps)

Summary for Pond 8P:

Inflow Area = 1.643 ac, 80.25% Impervious, Inflow Depth = 2.10" for 2-yr event
Inflow = 3.9 cfs @ 12.09 hrs, Volume= 0.288 af
Outflow = 3.9 cfs @ 12.09 hrs, Volume= 0.288 af, Atten= 0%, Lag= 0.0 min
Primary = 3.9 cfs @ 12.09 hrs, Volume= 0.288 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 8.19' @ 12.09 hrs
Flood Elev= 11.84'

Device	Routing	Invert	Outlet Devices
#1	Primary	6.52'	**18.0" Round Culvert** L= 150.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 6.52' / 6.37' S= 0.0010 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.9 cfs @ 12.09 hrs HW=8.19' TW=7.87' (Dynamic Tailwater)
1=Culvert (Outlet Controls 3.9 cfs @ 2.47 fps)

Summary for Pond 9P:

Inflow Area = 0.336 ac, 80.11% Impervious, Inflow Depth = 1.72" for 2-yr event
Inflow = 0.7 cfs @ 12.09 hrs, Volume= 0.048 af
Outflow = 0.7 cfs @ 12.09 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min
Primary = 0.7 cfs @ 12.09 hrs, Volume= 0.048 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 14.66' @ 12.09 hrs
Flood Elev= 19.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	14.25'	**12.0" Round Culvert** L= 32.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 14.25' / 13.75' S= 0.0156 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.7 cfs @ 12.09 hrs HW=14.66' TW=10.15' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.7 cfs @ 2.18 fps)

Summary for Pond 10P:

Inflow Area = 0.038 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.1 cfs @ 12.08 hrs, Volume= 0.009 af
Outflow = 0.1 cfs @ 12.08 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min
Primary = 0.1 cfs @ 12.08 hrs, Volume= 0.009 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 17.16' @ 12.08 hrs
Flood Elev= 23.52'

Device	Routing	Invert	Outlet Devices
#1	Primary	17.00'	**12.0" Round Culvert** L= 101.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 17.00' / 14.25' S= 0.0272 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.1 cfs @ 12.08 hrs HW=17.16' TW=14.66' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.1 cfs @ 1.37 fps)

Summary for Pond 11P:

Inflow Area = 0.013 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.0 cfs @ 12.08 hrs, Volume= 0.003 af
Outflow = 0.0 cfs @ 12.08 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min
Primary = 0.0 cfs @ 12.08 hrs, Volume= 0.003 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 21.09' @ 12.08 hrs
Flood Elev= 26.25'

Device	Routing	Invert	Outlet Devices
#1	Primary	21.00'	**12.0" Round Culvert** L= 34.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 21.00' / 17.00' S= 0.1176 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.0 cfs @ 12.08 hrs HW=21.09' TW=17.16' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.0 cfs @ 1.04 fps)

Summary for Pond 12P:

Inflow Area = 1.643 ac, 80.25% Impervious, Inflow Depth = 2.10" for 2-yr event
Inflow = 3.9 cfs @ 12.09 hrs, Volume= 0.288 af
Outflow = 3.9 cfs @ 12.09 hrs, Volume= 0.288 af, Atten= 0%, Lag= 0.0 min
Primary = 3.9 cfs @ 12.09 hrs, Volume= 0.288 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 7.88' @ 12.09 hrs
Flood Elev= 12.12'

Device	Routing	Invert	Outlet Devices
#1	Primary	6.41'	**18.0" Round Culvert** L= 145.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 6.37' / 6.41' S= -0.0003 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.9 cfs @ 12.09 hrs HW=7.87' TW=6.45' (Dynamic Tailwater)
1=Culvert (Barrel Controls 3.9 cfs @ 2.73 fps)

Summary for Pond 14P:

Inflow Area = 0.158 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.5 cfs @ 12.08 hrs, Volume= 0.036 af
Outflow = 0.5 cfs @ 12.08 hrs, Volume= 0.036 af, Atten= 0%, Lag= 0.0 min
Primary = 0.5 cfs @ 12.08 hrs, Volume= 0.036 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 8.20' @ 12.09 hrs
Flood Elev= 11.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	6.73'	**12.0" Round Culvert** L= 40.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 6.73' / 6.52' S= 0.0053 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.5 cfs @ 12.08 hrs HW=8.20' TW=8.19' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 0.5 cfs @ 0.58 fps)

Summary for Pond 22P:

Inflow Area = 0.451 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 1.3 cfs @ 12.08 hrs, Volume= 0.104 af
Outflow = 1.3 cfs @ 12.08 hrs, Volume= 0.104 af, Atten= 0%, Lag= 0.0 min
Primary = 1.3 cfs @ 12.08 hrs, Volume= 0.104 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 9.19' @ 12.08 hrs
Flood Elev= 14.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	8.06'	**8.0" Round Culvert** L= 52.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 8.06' / 7.67' S= 0.0075 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf

Primary OutFlow Max=1.3 cfs @ 12.08 hrs HW=9.19' TW=6.69' (Dynamic Tailwater)
↑—**1=Culvert** (Barrel Controls 1.3 cfs @ 3.75 fps)

Summary for Pond 31P:

Inflow Area = 1.485 ac, 78.14% Impervious, Inflow Depth = 2.03" for 2-yr event
Inflow = 3.4 cfs @ 12.09 hrs, Volume= 0.251 af
Outflow = 3.4 cfs @ 12.09 hrs, Volume= 0.251 af, Atten= 0%, Lag= 0.0 min
Primary = 3.4 cfs @ 12.09 hrs, Volume= 0.251 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 8.35' @ 12.09 hrs
Flood Elev= 11.42'

Device	Routing	Invert	Outlet Devices
#1	Primary	6.54'	**18.0" Round Culvert** L= 3.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 6.54' / 6.52' S= 0.0067 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=3.4 cfs @ 12.09 hrs HW=8.35' TW=8.19' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 3.4 cfs @ 1.94 fps)

Summary for Pond 32P:

Inflow Area = 1.301 ac, 75.06% Impervious, Inflow Depth = 1.93" for 2-yr event
Inflow = 2.9 cfs @ 12.09 hrs, Volume= 0.209 af
Outflow = 2.9 cfs @ 12.09 hrs, Volume= 0.209 af, Atten= 0%, Lag= 0.0 min
Primary = 2.9 cfs @ 12.09 hrs, Volume= 0.209 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 8.60' @ 12.09 hrs
Flood Elev= 11.82'

Device	Routing	Invert	Outlet Devices
#1	Primary	7.29'	**18.0" Round Culvert** L= 102.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 7.29' / 6.56' S= 0.0072 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.9 cfs @ 12.09 hrs HW=8.59' TW=8.35' (Dynamic Tailwater)
1=Culvert (Outlet Controls 2.9 cfs @ 2.36 fps)

Summary for Pond 33P:

Inflow Area = 0.143 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.4 cfs @ 12.08 hrs, Volume= 0.033 af
Outflow = 0.4 cfs @ 12.08 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min
Primary = 0.4 cfs @ 12.08 hrs, Volume= 0.033 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 8.27' @ 12.09 hrs
Flood Elev= 10.62'

Device	Routing	Invert	Outlet Devices
#1	Primary	7.60'	**8.0" Round Culvert** L= 20.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 7.60' / 7.00' S= 0.0300 '/' Cc= 0.900 n= 0.012, Flow Area= 0.35 sf

Primary OutFlow Max=0.4 cfs @ 12.08 hrs HW=8.27' TW=8.20' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.4 cfs @ 1.39 fps)

Summary for Pond 34P:

Inflow Area = 0.183 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.5 cfs @ 12.08 hrs, Volume= 0.042 af
Outflow = 0.5 cfs @ 12.08 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min
Primary = 0.5 cfs @ 12.08 hrs, Volume= 0.042 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 8.37' @ 12.09 hrs
Flood Elev= 11.20'

Device	Routing	Invert	Outlet Devices
#1	Primary	6.69'	**12.0" Round Culvert** L= 26.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 6.69' / 6.56' S= 0.0050 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.4 cfs @ 12.08 hrs HW=8.36' TW=8.35' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.4 cfs @ 0.52 fps)

Summary for Pond 35P:

Inflow Area = 0.995 ac, 76.29% Impervious, Inflow Depth = 1.89" for 2-yr event
Inflow = 2.2 cfs @ 12.09 hrs, Volume= 0.157 af
Outflow = 2.2 cfs @ 12.09 hrs, Volume= 0.157 af, Atten= 0%, Lag= 0.0 min
Primary = 2.2 cfs @ 12.09 hrs, Volume= 0.157 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 9.57' @ 12.09 hrs
Flood Elev= 13.35'

Device	Routing	Invert	Outlet Devices
#1	Primary	8.79'	**18.0" Round Culvert** L= 137.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 8.79' / 7.83' S= 0.0070 '/' Cc= 0.900 n= 0.012, Flow Area= 1.77 sf

Primary OutFlow Max=2.2 cfs @ 12.09 hrs HW=9.57' TW=8.81' (Dynamic Tailwater)
1=Culvert (Outlet Controls 2.2 cfs @ 3.42 fps)

Summary for Pond 36P:

Inflow Area = 0.121 ac, 61.88% Impervious, Inflow Depth = 1.90" for 2-yr event
Inflow = 0.3 cfs @ 12.09 hrs, Volume= 0.019 af
Outflow = 0.3 cfs @ 12.09 hrs, Volume= 0.019 af, Atten= 0%, Lag= 0.0 min
Primary = 0.3 cfs @ 12.09 hrs, Volume= 0.019 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 8.82' @ 12.09 hrs
Flood Elev= 13.00'

Device	Routing	Invert	Outlet Devices
#1	Primary	7.99'	**12.0" Round Culvert** L= 16.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 7.99' / 7.83' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.3 cfs @ 12.09 hrs HW=8.81' TW=8.81' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.3 cfs @ 0.49 fps)

Summary for Pond 37P:

Inflow Area = 0.186 ac, 77.04% Impervious, Inflow Depth = 2.16" for 2-yr event
Inflow = 0.5 cfs @ 12.09 hrs, Volume= 0.033 af
Outflow = 0.5 cfs @ 12.09 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min
Primary = 0.5 cfs @ 12.09 hrs, Volume= 0.033 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 8.61' @ 12.09 hrs
Flood Elev= 11.75'

Device	Routing	Invert	Outlet Devices
#1	Primary	7.48'	**12.0" Round Culvert** L= 9.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 7.48' / 7.39' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.4 cfs @ 12.09 hrs HW=8.60' TW=8.59' (Dynamic Tailwater)
1=Culvert (Inlet Controls 0.4 cfs @ 0.53 fps)

Summary for Pond 39P:

Inflow Area = 0.280 ac, 71.03% Impervious, Inflow Depth = 2.07" for 2-yr event
Inflow = 0.7 cfs @ 12.09 hrs, Volume= 0.048 af
Outflow = 0.7 cfs @ 12.09 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.0 min
Primary = 0.7 cfs @ 12.09 hrs, Volume= 0.048 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 9.84' @ 12.09 hrs
Flood Elev= 13.10'

Device	Routing	Invert	Outlet Devices
#1	Primary	9.33'	**12.0" Round Culvert** L= 44.0' RCP, sq.cut end projecting, Ke= 0.500 Inlet / Outlet Invert= 9.33' / 8.89' S= 0.0100 '/' Cc= 0.900 n= 0.012, Flow Area= 0.79 sf

Primary OutFlow Max=0.7 cfs @ 12.09 hrs HW=9.84' TW=9.57' (Dynamic Tailwater)
1=Culvert (Outlet Controls 0.7 cfs @ 2.41 fps)

Summary for Link DP1:

Inflow Area = 2.094 ac, 84.50% Impervious, Inflow Depth = 2.25" for 2-yr event
Inflow = 5.2 cfs @ 12.09 hrs, Volume= 0.392 af
Primary = 5.2 cfs @ 12.09 hrs, Volume= 0.392 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Summary for Link DP2:

Inflow Area = 0.341 ac, 99.39% Impervious, Inflow Depth = 2.74" for 2-yr event
Inflow = 1.0 cfs @ 12.08 hrs, Volume= 0.078 af
Primary = 1.0 cfs @ 12.08 hrs, Volume= 0.078 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-36.00 hrs, dt= 0.01 hrs

Proposed 10-Year Storm Event

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 3
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment10: Runoff Area=16,540 sf 76.80% Impervious Runoff Depth=3.49"
Tc=6.0 min CN=89 Runoff=1.5 cfs 0.110 af

Subcatchment10A: Runoff Area=12,940 sf 77.53% Impervious Runoff Depth=3.09"
Tc=6.0 min CN=85 Runoff=1.1 cfs 0.077 af

Subcatchment10B: Runoff Area=1,106 sf 100.00% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=98 Runoff=0.1 cfs 0.009 af

Subcatchment10C: Runoff Area=571 sf 100.00% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=98 Runoff=0.1 cfs 0.005 af

Subcatchment20: Runoff Area=10,882 sf 100.00% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=98 Runoff=1.1 cfs 0.093 af

Subcatchment21: Runoff Area=3,990 sf 97.74% Impervious Runoff Depth=4.35"
Tc=6.0 min CN=97 Runoff=0.4 cfs 0.033 af

Subcatchment30: Runoff Area=670 sf 100.00% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=98 Runoff=0.1 cfs 0.006 af

Subcatchment31: Runoff Area=8,082 sf 77.04% Impervious Runoff Depth=3.80"
Tc=6.0 min CN=92 Runoff=0.8 cfs 0.059 af

Subcatchment32: Runoff Area=5,262 sf 61.88% Impervious Runoff Depth=3.49"
Tc=6.0 min CN=89 Runoff=0.5 cfs 0.035 af

Subcatchment33: Runoff Area=6,212 sf 100.00% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=98 Runoff=0.7 cfs 0.053 af

Subcatchment40: Runoff Area=7,991 sf 100.00% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=98 Runoff=0.8 cfs 0.068 af

Subcatchment50: Runoff Area=19,662 sf 100.00% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=98 Runoff=2.1 cfs 0.168 af

Subcatchment51: Runoff Area=12,178 sf 71.03% Impervious Runoff Depth=3.69"
Tc=6.0 min CN=91 Runoff=1.2 cfs 0.086 af

Pond 1P: Peak Elev=11.25' Inflow=2.8 cfs 0.201 af
15.0" Round Culvert n=0.012 L=15.0' S=0.0447 '/' Outflow=2.8 cfs 0.201 af

Pond 2P: Peak Elev=9.63' Inflow=0.1 cfs 0.006 af
12.0" Round Culvert n=0.012 L=6.0' S=0.0067 '/' Outflow=0.1 cfs 0.006 af

Pond 3P: Peak Elev=10.77' Inflow=4.4 cfs 0.322 af
18.0" Round Culvert n=0.012 L=47.0' S=0.0072 '/' Outflow=4.4 cfs 0.322 af

Pond 4P: Peak Elev=11.57' Storage=128 cf Inflow=0.4 cfs 0.033 af
Outflow=0.4 cfs 0.033 af

Pond 5P: Peak Elev=7.07' Inflow=1.6 cfs 0.126 af
12.0" Round Culvert n=0.012 L=15.0' S=0.0153 '/' Outflow=1.6 cfs 0.126 af

Pond 6P: Peak Elev=7.06' Inflow=2.1 cfs 0.168 af
18.0" Round Culvert n=0.012 L=75.0' S=0.0073 '/' Outflow=2.1 cfs 0.168 af

Pond 7P: Peak Elev=6.88' Inflow=8.8 cfs 0.676 af
24.0" Round Culvert n=0.012 L=44.0' S=0.0052 '/' Outflow=8.8 cfs 0.676 af

Pond 8P: Peak Elev=9.59' Inflow=6.8 cfs 0.508 af
18.0" Round Culvert n=0.012 L=150.0' S=0.0010 '/' Outflow=6.8 cfs 0.508 af

Pond 9P: Peak Elev=14.84' Inflow=1.2 cfs 0.091 af
12.0" Round Culvert n=0.012 L=32.0' S=0.0156 '/' Outflow=1.2 cfs 0.091 af

Pond 10P: Peak Elev=17.20' Inflow=0.2 cfs 0.014 af
12.0" Round Culvert n=0.012 L=101.0' S=0.0272 '/' Outflow=0.2 cfs 0.014 af

Pond 11P: Peak Elev=21.12' Inflow=0.1 cfs 0.005 af
12.0" Round Culvert n=0.012 L=34.0' S=0.1176 '/' Outflow=0.1 cfs 0.005 af

Pond 12P: Peak Elev=8.72' Inflow=6.8 cfs 0.508 af
18.0" Round Culvert n=0.012 L=145.0' S=-0.0003 '/' Outflow=6.8 cfs 0.508 af

Pond 14P: Peak Elev=9.63' Inflow=0.7 cfs 0.059 af
12.0" Round Culvert n=0.012 L=40.0' S=0.0053 '/' Outflow=0.7 cfs 0.059 af

Pond 22P: Peak Elev=10.47' Inflow=2.1 cfs 0.168 af
8.0" Round Culvert n=0.012 L=52.0' S=0.0075 '/' Outflow=2.1 cfs 0.168 af

Pond 31P: Peak Elev=10.10' Inflow=6.0 cfs 0.449 af
18.0" Round Culvert n=0.012 L=3.0' S=0.0067 '/' Outflow=6.0 cfs 0.449 af

Pond 32P: Peak Elev=10.50' Inflow=5.2 cfs 0.381 af
18.0" Round Culvert n=0.012 L=102.0' S=0.0072 '/' Outflow=5.2 cfs 0.381 af

Pond 33P: Peak Elev=9.78' Inflow=0.7 cfs 0.053 af
8.0" Round Culvert n=0.012 L=20.0' S=0.0300 '/' Outflow=0.7 cfs 0.053 af

Pond 34P: Peak Elev=10.14' Inflow=0.8 cfs 0.068 af
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=0.8 cfs 0.068 af

Pond 35P: Peak Elev=11.05' Inflow=3.9 cfs 0.287 af
18.0" Round Culvert n=0.012 L=137.0' S=0.0070 '/' Outflow=3.9 cfs 0.287 af

Pond 36P: Peak Elev=10.79' Inflow=0.5 cfs 0.035 af
12.0" Round Culvert n=0.012 L=16.0' S=0.0100 '/' Outflow=0.5 cfs 0.035 af

Pond 37P: Peak Elev=10.55' Inflow=0.8 cfs 0.059 af
12.0" Round Culvert n=0.012 L=9.0' S=0.0100 '/' Outflow=0.8 cfs 0.059 af

Pond 39P: Peak Elev=11.13' Inflow=1.2 cfs 0.086 af
12.0" Round Culvert n=0.012 L=44.0' S=0.0100 '/' Outflow=1.2 cfs 0.086 af

Link DP1: Inflow=8.8 cfs 0.676 af
Primary=8.8 cfs 0.676 af

Link DP2: Inflow=1.6 cfs 0.126 af
Primary=1.6 cfs 0.126 af

Total Runoff Area = 2.435 ac Runoff Volume = 0.802 af Average Runoff Depth = 3.95"
13.41% Pervious = 0.327 ac 86.59% Impervious = 2.109 ac

Proposed 25-Year Storm Event

Time span=0.00-36.00 hrs, dt=0.01 hrs, 3601 points x 3
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment10: Runoff Area=16,540 sf 76.80% Impervious Runoff Depth=4.25"
Tc=6.0 min CN=89 Runoff=1.8 cfs 0.135 af

Subcatchment10A: Runoff Area=12,940 sf 77.53% Impervious Runoff Depth=3.83"
Tc=6.0 min CN=85 Runoff=1.3 cfs 0.095 af

Subcatchment10B: Runoff Area=1,106 sf 100.00% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=98 Runoff=0.1 cfs 0.011 af

Subcatchment10C: Runoff Area=571 sf 100.00% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=98 Runoff=0.1 cfs 0.006 af

Subcatchment20: Runoff Area=10,882 sf 100.00% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=98 Runoff=1.3 cfs 0.110 af

Subcatchment21: Runoff Area=3,990 sf 97.74% Impervious Runoff Depth=5.15"
Tc=6.0 min CN=97 Runoff=0.5 cfs 0.039 af

Subcatchment30: Runoff Area=670 sf 100.00% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=98 Runoff=0.1 cfs 0.007 af

Subcatchment31: Runoff Area=8,082 sf 77.04% Impervious Runoff Depth=4.58"
Tc=6.0 min CN=92 Runoff=0.9 cfs 0.071 af

Subcatchment32: Runoff Area=5,262 sf 61.88% Impervious Runoff Depth=4.25"
Tc=6.0 min CN=89 Runoff=0.6 cfs 0.043 af

Subcatchment33: Runoff Area=6,212 sf 100.00% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=98 Runoff=0.8 cfs 0.063 af

Subcatchment40: Runoff Area=7,991 sf 100.00% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=98 Runoff=1.0 cfs 0.080 af

Subcatchment50: Runoff Area=19,662 sf 100.00% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=98 Runoff=2.4 cfs 0.198 af

Subcatchment51: Runoff Area=12,178 sf 71.03% Impervious Runoff Depth=4.47"
Tc=6.0 min CN=91 Runoff=1.4 cfs 0.104 af

Pond 1P: Peak Elev=12.77' Inflow=3.4 cfs 0.246 af
15.0" Round Culvert n=0.012 L=15.0' S=0.0447 '/' Outflow=3.4 cfs 0.246 af

Pond 2P: Peak Elev=10.39' Inflow=0.1 cfs 0.007 af
12.0" Round Culvert n=0.012 L=6.0' S=0.0067 '/' Outflow=0.1 cfs 0.007 af

Pond 3P: Peak Elev=12.06' Inflow=5.3 cfs 0.393 af
18.0" Round Culvert n=0.012 L=47.0' S=0.0072 '/' Outflow=5.3 cfs 0.393 af

Pond 4P: Peak Elev=11.59' Storage=128 cf Inflow=0.5 cfs 0.039 af
Outflow=0.5 cfs 0.039 af

Pond 5P: Peak Elev=7.15' Inflow=1.8 cfs 0.149 af
12.0" Round Culvert n=0.012 L=15.0' S=0.0153 '/' Outflow=1.8 cfs 0.149 af

Pond 6P: Peak Elev=7.23' Inflow=2.4 cfs 0.198 af
18.0" Round Culvert n=0.012 L=75.0' S=0.0073 '/' Outflow=2.4 cfs 0.198 af

Pond 7P: Peak Elev=7.07' Inflow=10.5 cfs 0.812 af
24.0" Round Culvert n=0.012 L=44.0' S=0.0052 '/' Outflow=10.5 cfs 0.812 af

Pond 8P: Peak Elev=10.35' Inflow=8.1 cfs 0.614 af
18.0" Round Culvert n=0.012 L=150.0' S=0.0010 '/' Outflow=8.1 cfs 0.614 af

Pond 9P: Peak Elev=14.91' Inflow=1.5 cfs 0.112 af
12.0" Round Culvert n=0.012 L=32.0' S=0.0156 '/' Outflow=1.5 cfs 0.112 af

Pond 10P: Peak Elev=17.22' Inflow=0.2 cfs 0.017 af
12.0" Round Culvert n=0.012 L=101.0' S=0.0272 '/' Outflow=0.2 cfs 0.017 af

Pond 11P: Peak Elev=21.13' Inflow=0.1 cfs 0.006 af
12.0" Round Culvert n=0.012 L=34.0' S=0.1176 '/' Outflow=0.1 cfs 0.006 af

Pond 12P: Peak Elev=9.10' Inflow=8.1 cfs 0.614 af
18.0" Round Culvert n=0.012 L=145.0' S=-0.0003 '/' Outflow=8.1 cfs 0.614 af

Pond 14P: Peak Elev=10.40' Inflow=0.9 cfs 0.069 af
12.0" Round Culvert n=0.012 L=40.0' S=0.0053 '/' Outflow=0.9 cfs 0.069 af

Pond 22P: Peak Elev=11.27' Inflow=2.4 cfs 0.198 af
8.0" Round Culvert n=0.012 L=52.0' S=0.0075 '/' Outflow=2.4 cfs 0.198 af

Pond 31P: Peak Elev=11.08' Inflow=7.3 cfs 0.544 af
18.0" Round Culvert n=0.012 L=3.0' S=0.0067 '/' Outflow=7.3 cfs 0.544 af

Pond 32P: Peak Elev=11.67' Inflow=6.3 cfs 0.464 af
18.0" Round Culvert n=0.012 L=102.0' S=0.0072 '/' Outflow=6.3 cfs 0.464 af

Pond 33P: Peak Elev=10.60' Inflow=0.8 cfs 0.063 af
8.0" Round Culvert n=0.012 L=20.0' S=0.0300 '/' Outflow=0.8 cfs 0.063 af

Pond 34P: Peak Elev=11.13' Inflow=1.0 cfs 0.080 af
12.0" Round Culvert n=0.012 L=26.0' S=0.0050 '/' Outflow=1.0 cfs 0.080 af

Pond 35P: Peak Elev=12.46' Inflow=4.7 cfs 0.350 af
18.0" Round Culvert n=0.012 L=137.0' S=0.0070 '/' Outflow=4.7 cfs 0.350 af

Pond 36P: Peak Elev=12.08' Inflow=0.6 cfs 0.043 af
12.0" Round Culvert n=0.012 L=16.0' S=0.0100 '/' Outflow=0.6 cfs 0.043 af

Pond 37P: Peak Elev=11.73' Inflow=0.9 cfs 0.071 af
12.0" Round Culvert n=0.012 L=9.0' S=0.0100 '/' Outflow=0.9 cfs 0.071 af

Pond 39P: Peak Elev=12.58' Inflow=1.4 cfs 0.104 af
12.0" Round Culvert n=0.012 L=44.0' S=0.0100 '/' Outflow=1.4 cfs 0.104 af

Link DP1: Inflow=10.5 cfs 0.812 af
Primary=10.5 cfs 0.812 af

Link DP2: Inflow=1.8 cfs 0.149 af
Primary=1.8 cfs 0.149 af

Total Runoff Area = 2.435 ac Runoff Volume = 0.961 af Average Runoff Depth = 4.73"
13.41% Pervious = 0.327 ac 86.59% Impervious = 2.109 ac