

STORMWATER REPORT

FOR

Muscadine Place Subdivision

August 2, 2022



MULLINS, LLC
2101 W. Clinton Avenue. Ste. 503
Huntsville, AL 35805

A stormwater analysis was performed on the proposed subdivision using HydroCAD software. The SCS TR-20 method was used to calculate pre and post runoff conditions. The analysis was performed for 2, 5, 10, 25, 50 and 100 year storm events. The existing conditions of the site has stormwater exiting to the south western corner and eastern side of the property.

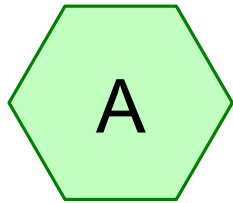
Upon completion of the design, the stormwater will still exit through the south western corner of the property after going through a detention pond. The runoff will be decreased due to detention ponds and outfall metering structure and by reducing the amount of area being sent to the eastern side of the property. A schematic associated with the proposed drainage areas has been provided for informational purposes as well as the related calculations:

	SOUTHWEST OUTFALL (cfs)		EASTERN OUTFALL (cfs)	
	PRE OUTFALL	POST OUTFALL	PRE OUTFALL	POST OUTFALL
2 YEAR EVENT	51.18	10.93	30.45	6.90
5 YEAR EVENT	74.15	34.31	44.03	9.83
10 YEAR EVENT	92.22	51.52	54.70	12.14
25 YEAR EVENT	107.75	63.38	63.85	14.11
50 YEAR EVENT	124.56	74.48	73.92	16.23
100 YEAR EVENT	141.36	84.00	83.83	18.35

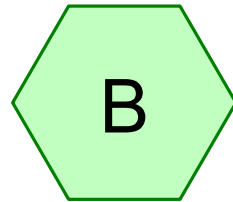
* See Drainage Maps

The following sheets provide a more detailed analysis of the above mentioned capacities.

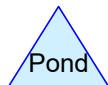
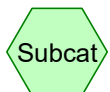
- I. **PRE DEVELOPED SCHEMATIC**
- II. **PRE DEVELOPED 2, 5, 10, 25, 50 AND 100 YEAR EVENT**
- III. **POST DEVELOPED SCHEMATIC**
- IV. **POST DEVELOPED PIPE 25 YEAR EVENTS**
- V. **POST DEVELOPED POND ALL EVENTS**
- VI. **DRAINAGE MAPS**



30.838



10.937



Routing Diagram for PRE

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PRE

Type III 24-hr 2 Year Rainfall=6.00"

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Summary for Subcatchment A: 30.838

Runoff = 51.18 cfs @ 12.80 hrs, Volume= 8.447 af, Depth> 3.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 Year Rainfall=6.00"

Area (ac)	CN	Description
* 30.838	78	Row crops, straight row, Good, HSG B
30.838		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
59.7	1,480	0.0060	0.41		Lag/CN Method,

Summary for Subcatchment B: 10.937

Runoff = 30.45 cfs @ 12.28 hrs, Volume= 3.036 af, Depth> 3.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2 Year Rainfall=6.00"

Area (ac)	CN	Description
10.937	78	Row crops, straight row, Good, HSG B
10.937		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	450	0.0075	0.36		Lag/CN Method,

PRE

Type III 24-hr 5 Year Rainfall=7.80"

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Summary for Subcatchment A: 30.838

Runoff = 74.15 cfs @ 12.80 hrs, Volume= 12.360 af, Depth> 4.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 5 Year Rainfall=7.80"

Area (ac)	CN	Description
* 30.838	78	Row crops, straight row, Good, HSG B
30.838		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
59.7	1,480	0.0060	0.41		Lag/CN Method,

Summary for Subcatchment B: 10.937

Runoff = 44.03 cfs @ 12.28 hrs, Volume= 4.439 af, Depth> 4.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 5 Year Rainfall=7.80"

Area (ac)	CN	Description
10.937	78	Row crops, straight row, Good, HSG B
10.937		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	450	0.0075	0.36		Lag/CN Method,

PRE

Type III 24-hr 10 Year Rainfall=9.20"

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Summary for Subcatchment A: 30.838

Runoff = 92.22 cfs @ 12.79 hrs, Volume= 15.502 af, Depth> 6.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=9.20"

Area (ac)	CN	Description
* 30.838	78	Row crops, straight row, Good, HSG B
30.838		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
59.7	1,480	0.0060	0.41		Lag/CN Method,

Summary for Subcatchment B: 10.937

Runoff = 54.70 cfs @ 12.28 hrs, Volume= 5.565 af, Depth> 6.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10 Year Rainfall=9.20"

Area (ac)	CN	Description
10.937	78	Row crops, straight row, Good, HSG B
10.937		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	450	0.0075	0.36		Lag/CN Method,

PRE

Type III 24-hr 25 Year Rainfall=10.40"

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Summary for Subcatchment A: 30.838

Runoff = 107.75 cfs @ 12.79 hrs, Volume= 18.239 af, Depth> 7.10"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 30.838	78	Row crops, straight row, Good, HSG B
30.838		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
59.7	1,480	0.0060	0.41		Lag/CN Method,

Summary for Subcatchment B: 10.937

Runoff = 63.85 cfs @ 12.28 hrs, Volume= 6.545 af, Depth> 7.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
10.937	78	Row crops, straight row, Good, HSG B
10.937		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	450	0.0075	0.36		Lag/CN Method,

PRE

Type III 24-hr 50 Year Rainfall=11.70"

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Summary for Subcatchment A: 30.838

Runoff = 124.56 cfs @ 12.79 hrs, Volume= 21.239 af, Depth> 8.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 Year Rainfall=11.70"

Area (ac)	CN	Description
* 30.838	78	Row crops, straight row, Good, HSG B
30.838		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
59.7	1,480	0.0060	0.41		Lag/CN Method,

Summary for Subcatchment B: 10.937

Runoff = 73.92 cfs @ 12.27 hrs, Volume= 7.619 af, Depth> 8.36"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 50 Year Rainfall=11.70"

Area (ac)	CN	Description
10.937	78	Row crops, straight row, Good, HSG B
10.937		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	450	0.0075	0.36		Lag/CN Method,

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Type III 24-hr 100 Year Rainfall=13.00"

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Summary for Subcatchment A: 30.838

Runoff = 141.36 cfs @ 12.79 hrs, Volume= 24.263 af, Depth> 9.44"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 Year Rainfall=13.00"

Area (ac)	CN	Description
* 30.838	78	Row crops, straight row, Good, HSG B
30.838		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
59.7	1,480	0.0060	0.41		Lag/CN Method,

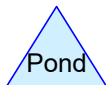
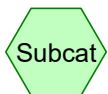
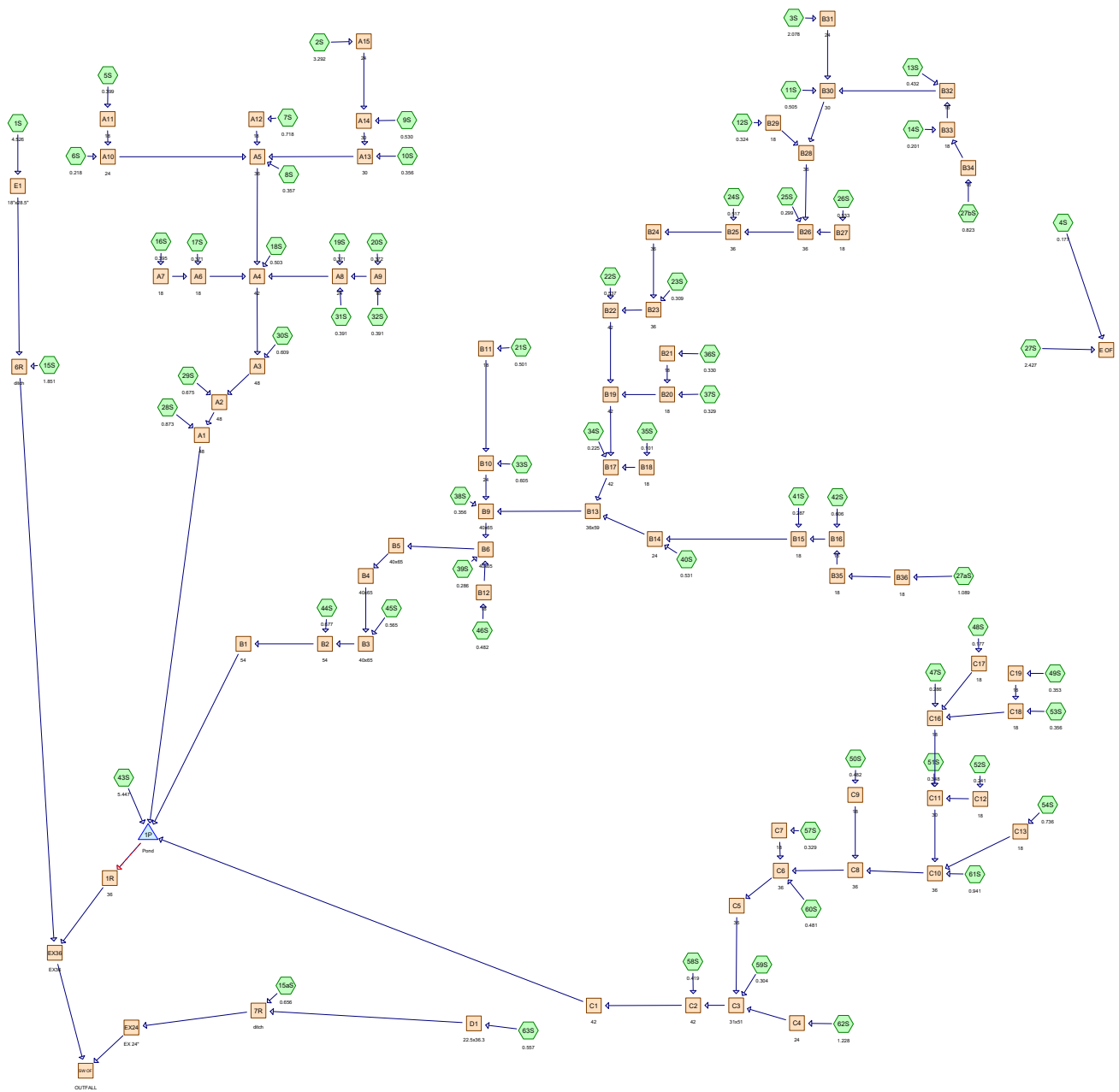
Summary for Subcatchment B: 10.937

Runoff = 83.83 cfs @ 12.27 hrs, Volume= 8.699 af, Depth> 9.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 Year Rainfall=13.00"

Area (ac)	CN	Description
10.937	78	Row crops, straight row, Good, HSG B
10.937		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.6	450	0.0075	0.36		Lag/CN Method,



Routing Diagram for POST

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Summary for Subcatchment 1S: 4.526

Runoff = 8.82 cfs @ 13.19 hrs, Volume= 1.823 af, Depth> 4.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
4.526	61	1/4 acre lots, 38% imp, HSG A
2.806		62.00% Pervious Area
1.720		38.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
86.9	1,827	0.0100	0.35		Lag/CN Method,

Summary for Subcatchment 2S: 3.292

Runoff = 19.11 cfs @ 12.28 hrs, Volume= 1.970 af, Depth> 7.18"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 3.292	78	
3.292		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.9	550	0.0100	0.44		Lag/CN Method,

Summary for Subcatchment 3S: 2.078

Runoff = 14.52 cfs @ 12.17 hrs, Volume= 1.246 af, Depth> 7.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 2.078	78	
2.078		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.9	300	0.0100	0.39		Lag/CN Method,

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Type III 24-hr 25 Year Rainfall=10.40"

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Summary for Subcatchment 4S: 0.177

Runoff = 1.56 cfs @ 12.07 hrs, Volume= 0.106 af, Depth> 7.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.177	78	
0.177		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	100		0.33		Direct Entry,

Summary for Subcatchment 5S: 0.399

Runoff = 3.83 cfs @ 12.07 hrs, Volume= 0.272 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.399	86	
0.399		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	200	0.0200	0.66		Lag/CN Method,

Summary for Subcatchment 6S: 0.218

Runoff = 2.09 cfs @ 12.07 hrs, Volume= 0.149 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.218	86	
0.218		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	200	0.0200	0.66		Lag/CN Method,

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Type III 24-hr 25 Year Rainfall=10.40"

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Summary for Subcatchment 7S: 0.718

Runoff = 6.71 cfs @ 12.09 hrs, Volume= 0.490 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.718	86	
0.718		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	250	0.0200	0.69		Lag/CN Method,

Summary for Subcatchment 8S: 0.357

Runoff = 3.44 cfs @ 12.07 hrs, Volume= 0.244 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.357	86	
0.357		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	150		0.50		Direct Entry,

Summary for Subcatchment 9S: 0.530

Runoff = 4.75 cfs @ 12.11 hrs, Volume= 0.362 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.530	86	
0.530		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.6	330	0.0200	0.73		Lag/CN Method,

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Type III 24-hr 25 Year Rainfall=10.40"

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Summary for Subcatchment 10S: 0.356

Runoff = 3.32 cfs @ 12.09 hrs, Volume= 0.243 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.356	86	
0.356		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	255	0.0200	0.69		Lag/CN Method,

Summary for Subcatchment 11S: 0.505

Runoff = 4.57 cfs @ 12.10 hrs, Volume= 0.345 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.505	86	
0.505		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	315	0.0200	0.72		Lag/CN Method,

Summary for Subcatchment 12S: 0.324

Runoff = 3.11 cfs @ 12.07 hrs, Volume= 0.221 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.324	86	
0.324		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	200	0.0200	0.66		Lag/CN Method,

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Type III 24-hr 25 Year Rainfall=10.40"

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Summary for Subcatchment 13S: 0.432

Runoff = 3.98 cfs @ 12.10 hrs, Volume= 0.295 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.432	86	
0.432		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.7	285	0.0200	0.71		Lag/CN Method,

Summary for Subcatchment 14S: 0.201

Runoff = 1.91 cfs @ 12.08 hrs, Volume= 0.137 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.201	86	
0.201		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	210	0.0200	0.66		Lag/CN Method,

Summary for Subcatchment 15aS: 0.656

Runoff = 3.73 cfs @ 12.27 hrs, Volume= 0.372 af, Depth> 6.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.656	75	
0.656		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.8	460	0.0100	0.39		Lag/CN Method,

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Type III 24-hr 25 Year Rainfall=10.40"

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Summary for Subcatchment 15S: 1.851

Runoff = 11.37 cfs @ 12.25 hrs, Volume= 1.108 af, Depth> 7.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 1.851	78	
1.851		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.2	460	0.0100	0.42		Lag/CN Method,

Summary for Subcatchment 16S: 0.395

Runoff = 3.72 cfs @ 12.08 hrs, Volume= 0.270 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.395	86	
0.395		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	230	0.0200	0.68		Lag/CN Method,

Summary for Subcatchment 17S: 0.371

Runoff = 3.50 cfs @ 12.08 hrs, Volume= 0.253 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.371	86	
0.371		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	230	0.0200	0.68		Lag/CN Method,

POST

Type III 24-hr 25 Year Rainfall=10.40"

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Summary for Subcatchment 18S: 0.503

Runoff = 4.68 cfs @ 12.09 hrs, Volume= 0.343 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.503	86	
0.503		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	220	0.0150	0.58		Lag/CN Method,

Summary for Subcatchment 19S: 0.371

Runoff = 3.50 cfs @ 12.08 hrs, Volume= 0.253 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.371	86	
0.371		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	230	0.0200	0.68		Lag/CN Method,

Summary for Subcatchment 20S: 0.372

Runoff = 3.50 cfs @ 12.08 hrs, Volume= 0.254 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.372	86	
0.372		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	230	0.0200	0.68		Lag/CN Method,

POST

Type III 24-hr 25 Year Rainfall=10.40"

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Summary for Subcatchment 21S: 0.501

Runoff = 4.66 cfs @ 12.09 hrs, Volume= 0.342 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.501	86	
0.501		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	220	0.0150	0.58		Lag/CN Method,

Summary for Subcatchment 22S: 0.537

Runoff = 4.98 cfs @ 12.09 hrs, Volume= 0.367 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.537	86	
0.537		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	270	0.0200	0.70		Lag/CN Method,

Summary for Subcatchment 23S: 0.309

Runoff = 2.87 cfs @ 12.09 hrs, Volume= 0.211 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.309	86	
0.309		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	260	0.0200	0.69		Lag/CN Method,

POST

Type III 24-hr 25 Year Rainfall=10.40"

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Summary for Subcatchment 24S: 0.517

Runoff = 4.85 cfs @ 12.09 hrs, Volume= 0.353 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.517	86	
0.517		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	200	0.0150	0.57		Lag/CN Method,

Summary for Subcatchment 25S: 0.299

Runoff = 2.87 cfs @ 12.07 hrs, Volume= 0.204 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.299	86	
0.299		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	200	0.0200	0.66		Lag/CN Method,

Summary for Subcatchment 26S: 0.533

Runoff = 5.12 cfs @ 12.07 hrs, Volume= 0.364 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.533	86	
0.533		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.1	200	0.0200	0.66		Lag/CN Method,

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Type III 24-hr 25 Year Rainfall=10.40"

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Summary for Subcatchment 27aS: 1.089

Runoff = 3.95 cfs @ 12.29 hrs, Volume= 0.390 af, Depth> 4.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

	Area (sf)	CN	Description
	33,451	39	>75% Grass cover, Good, HSG A
*	13,986	98	
	47,437	56	Weighted Average
	33,451		70.52% Pervious Area
	13,986		29.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
20.1	250	0.0100	0.21		Lag/CN Method,

Summary for Subcatchment 27bS: 0.823

Runoff = 3.10 cfs @ 12.24 hrs, Volume= 0.286 af, Depth> 4.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

	Area (ac)	CN	Description
	0.596	39	>75% Grass cover, Good, HSG A
*	0.227	98	
	0.823	55	Weighted Average
	0.596		72.42% Pervious Area
	0.227		27.58% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
16.8	250	0.0150	0.25		Lag/CN Method,

Summary for Subcatchment 27S: 2.427

Runoff = 13.52 cfs @ 12.33 hrs, Volume= 1.502 af, Depth> 7.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

	Area (ac)	CN	Description
*	2.427	80	
	2.427		100.00% Pervious Area

POST

Type III 24-hr 25 Year Rainfall=10.40"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
24.6	725	0.0100	0.49		Lag/CN Method,

Summary for Subcatchment 28S: 0.873

Runoff = 7.78 cfs @ 12.11 hrs, Volume= 0.596 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.873	86	
0.873		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.8	340	0.0200	0.73		Lag/CN Method,

Summary for Subcatchment 29S: 0.675

Runoff = 6.11 cfs @ 12.10 hrs, Volume= 0.461 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.675	86	
0.675		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	315	0.0200	0.72		Lag/CN Method,

Summary for Subcatchment 30S: 0.609

Runoff = 5.56 cfs @ 12.10 hrs, Volume= 0.416 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.609	86	
0.609		100.00% Pervious Area

POST

Type III 24-hr 25 Year Rainfall=10.40"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.0	250	0.0150	0.59		Lag/CN Method,

Summary for Subcatchment 31S: 0.391

Runoff = 3.64 cfs @ 12.09 hrs, Volume= 0.267 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.391	86	
0.391		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.3	260	0.0200	0.69		Lag/CN Method,

Summary for Subcatchment 32S: 0.391

Runoff = 3.65 cfs @ 12.09 hrs, Volume= 0.267 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.391	86	
0.391		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.1	250	0.0200	0.69		Lag/CN Method,

Summary for Subcatchment 33S: 0.605

Runoff = 5.48 cfs @ 12.10 hrs, Volume= 0.413 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.605	86	
0.605		100.00% Pervious Area

POST

Type III 24-hr 25 Year Rainfall=10.40"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	265	0.0150	0.60		Lag/CN Method,

Summary for Subcatchment 34S: 0.225

Runoff = 2.13 cfs @ 12.08 hrs, Volume= 0.154 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.225	86	
0.225		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	220	0.0200	0.67		Lag/CN Method,

Summary for Subcatchment 35S: 0.101

Runoff = 0.97 cfs @ 12.07 hrs, Volume= 0.069 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.101	86	
0.101		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	125		0.42		Direct Entry,

Summary for Subcatchment 36S: 0.330

Runoff = 3.12 cfs @ 12.08 hrs, Volume= 0.225 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.330	86	
0.330		100.00% Pervious Area

POST

Type III 24-hr 25 Year Rainfall=10.40"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	220	0.0200	0.67		Lag/CN Method,

Summary for Subcatchment 37S: 0.329

Runoff = 3.12 cfs @ 12.08 hrs, Volume= 0.225 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.329	86	
0.329		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	210	0.0200	0.66		Lag/CN Method,

Summary for Subcatchment 38S: 0.356

Runoff = 3.35 cfs @ 12.08 hrs, Volume= 0.243 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.356	86	
0.356		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	230	0.0200	0.68		Lag/CN Method,

Summary for Subcatchment 39S: 0.286

Runoff = 2.71 cfs @ 12.08 hrs, Volume= 0.195 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.286	86	
0.286		100.00% Pervious Area

POST

Type III 24-hr 25 Year Rainfall=10.40"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	220	0.0200	0.67		Lag/CN Method,

Summary for Subcatchment 40S: 0.531

Runoff = 4.90 cfs @ 12.10 hrs, Volume= 0.363 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.531	86	
0.531		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.6	230	0.0150	0.59		Lag/CN Method,

Summary for Subcatchment 41S: 0.287

Runoff = 2.77 cfs @ 12.07 hrs, Volume= 0.196 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.287	86	
0.287		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	170		0.57		Direct Entry,

Summary for Subcatchment 42S: 0.606

Runoff = 5.72 cfs @ 12.08 hrs, Volume= 0.414 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.606	86	
0.606		100.00% Pervious Area

POST

Type III 24-hr 25 Year Rainfall=10.40"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.6	225	0.0200	0.67		Lag/CN Method,

Summary for Subcatchment 43S: 5.447

Runoff = 52.52 cfs @ 12.07 hrs, Volume= 3.720 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 5.447	86	
5.447		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	150		0.50		Direct Entry,

Summary for Subcatchment 44S: 0.677

Runoff = 6.13 cfs @ 12.10 hrs, Volume= 0.462 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.677	86	
0.677		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.3	315	0.0200	0.72		Lag/CN Method,

Summary for Subcatchment 45S: 0.565

Runoff = 5.32 cfs @ 12.08 hrs, Volume= 0.386 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.565	86	
0.565		100.00% Pervious Area

POST

Type III 24-hr 25 Year Rainfall=10.40"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.7	230	0.0200	0.68		Lag/CN Method,

Summary for Subcatchment 46S: 0.482

Runoff = 4.43 cfs @ 12.10 hrs, Volume= 0.329 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.482	86	
0.482		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.8	240	0.0150	0.59		Lag/CN Method,

Summary for Subcatchment 47S: 0.286

Runoff = 2.73 cfs @ 12.07 hrs, Volume= 0.195 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.286	86	
0.286		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.2	205	0.0200	0.66		Lag/CN Method,

Summary for Subcatchment 48S: 0.177

Runoff = 1.67 cfs @ 12.08 hrs, Volume= 0.121 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.177	86	
0.177		100.00% Pervious Area

POST

Type III 24-hr 25 Year Rainfall=10.40"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	220	0.0200	0.67		Lag/CN Method,

Summary for Subcatchment 49S: 0.353

Runoff = 3.35 cfs @ 12.08 hrs, Volume= 0.241 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.353	86	
0.353		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	215	0.0200	0.67		Lag/CN Method,

Summary for Subcatchment 50S: 0.482

Runoff = 4.49 cfs @ 12.09 hrs, Volume= 0.329 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.482	86	
0.482		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	215	0.0150	0.58		Lag/CN Method,

Summary for Subcatchment 51S: 0.348

Runoff = 3.27 cfs @ 12.08 hrs, Volume= 0.238 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.348	86	
0.348		100.00% Pervious Area

POST

Type III 24-hr 25 Year Rainfall=10.40"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.8	235	0.0200	0.68		Lag/CN Method,

Summary for Subcatchment 52S: 0.241

Runoff = 2.28 cfs @ 12.08 hrs, Volume= 0.165 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.241	86	
0.241		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.4	215	0.0200	0.67		Lag/CN Method,

Summary for Subcatchment 53S: 0.356

Runoff = 3.38 cfs @ 12.08 hrs, Volume= 0.243 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.356	86	
0.356		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.3	210	0.0200	0.66		Lag/CN Method,

Summary for Subcatchment 54S: 0.736

Runoff = 6.45 cfs @ 12.11 hrs, Volume= 0.502 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.736	86	
0.736		100.00% Pervious Area

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Type III 24-hr 25 Year Rainfall=10.40"

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.3	370	0.0200	0.74		Lag/CN Method,

Summary for Subcatchment 57S: 0.329

Runoff = 2.68 cfs @ 12.09 hrs, Volume= 0.195 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (sf)	CN	Description
* 12,445	86	
12,445		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.9	240	0.0200	0.68		Lag/CN Method,

Summary for Subcatchment 58S: 0.419

Runoff = 3.96 cfs @ 12.08 hrs, Volume= 0.286 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.419	86	
0.419		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.5	220	0.0200	0.67		Lag/CN Method,

Summary for Subcatchment 59S: 0.304

Runoff = 2.93 cfs @ 12.07 hrs, Volume= 0.208 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.304	86	
0.304		100.00% Pervious Area

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	175		0.58		Direct Entry,

Summary for Subcatchment 60S: 0.481

Runoff = 4.41 cfs @ 12.10 hrs, Volume= 0.328 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.481	86	
0.481		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.9	295	0.0200	0.71		Lag/CN Method,

Summary for Subcatchment 61S: 0.941

Runoff = 7.57 cfs @ 12.15 hrs, Volume= 0.642 af, Depth> 8.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.941	86	
0.941		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.2	540	0.0200	0.80		Lag/CN Method,

Summary for Subcatchment 62S: 1.228

Runoff = 8.37 cfs @ 12.20 hrs, Volume= 0.762 af, Depth> 7.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 1.228	80	
1.228		100.00% Pervious Area

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Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	500	0.0150	0.56		Lag/CN Method,

Summary for Subcatchment 63S: 0.557

Runoff = 3.03 cfs @ 12.30 hrs, Volume= 0.315 af, Depth> 6.79"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 Year Rainfall=10.40"

Area (ac)	CN	Description
* 0.557	75	
0.557		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.9	520	0.0100	0.40		Lag/CN Method,

Summary for Reach 1R: 36

Inflow Area = 36.434 ac, 1.50% Impervious, Inflow Depth > 6.83" for 25 Year event

Inflow = 58.61 cfs @ 12.67 hrs, Volume= 20.728 af

Outflow = 58.61 cfs @ 12.67 hrs, Volume= 20.726 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 10.70 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 5.92 fps, Avg. Travel Time= 0.2 min

Peak Storage= 302 cf @ 12.67 hrs

Average Depth at Peak Storage= 2.17'

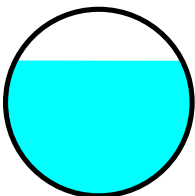
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 67.10 cfs

36.0" Round Pipe

n= 0.011

Length= 55.2' Slope= 0.0072 '/'

Inlet Invert= 54.20', Outlet Invert= 53.80'



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Type III 24-hr 25 Year Rainfall=10.40"

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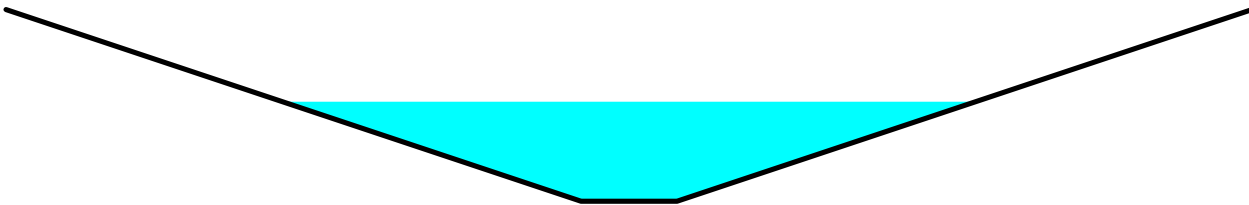
Summary for Reach 6R: ditch

Inflow Area = 6.377 ac, 26.97% Impervious, Inflow Depth > 5.51" for 25 Year event
Inflow = 13.28 cfs @ 12.26 hrs, Volume= 2.930 af
Outflow = 12.51 cfs @ 12.43 hrs, Volume= 2.911 af, Atten= 6%, Lag= 10.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.93 fps, Min. Travel Time= 5.5 min
Avg. Velocity = 1.55 fps, Avg. Travel Time= 10.4 min

Peak Storage= 4,156 cf @ 12.34 hrs
Average Depth at Peak Storage= 1.04'
Bank-Full Depth= 2.00' Flow Area= 14.0 sf, Capacity= 60.98 cfs

1.00' x 2.00' deep channel, n= 0.022
Side Slope Z-value= 3.0 '/' Top Width= 13.00'
Length= 970.0' Slope= 0.0040 '/'
Inlet Invert= 57.70', Outlet Invert= 53.80'



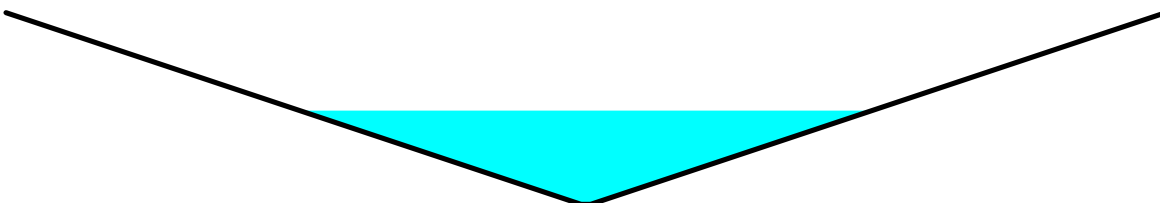
Summary for Reach 7R: ditch

Inflow Area = 1.213 ac, 0.00% Impervious, Inflow Depth > 6.79" for 25 Year event
Inflow = 6.69 cfs @ 12.29 hrs, Volume= 0.687 af
Outflow = 6.59 cfs @ 12.36 hrs, Volume= 0.685 af, Atten= 2%, Lag= 4.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.23 fps, Min. Travel Time= 2.4 min
Avg. Velocity = 1.02 fps, Avg. Travel Time= 5.2 min

Peak Storage= 950 cf @ 12.32 hrs
Average Depth at Peak Storage= 0.98'
Bank-Full Depth= 2.00' Flow Area= 12.2 sf, Capacity= 43.60 cfs

0.10' x 2.00' deep channel, n= 0.022
Side Slope Z-value= 3.0 '/' Top Width= 12.10'
Length= 320.0' Slope= 0.0030 '/'
Inlet Invert= 55.95', Outlet Invert= 55.00'



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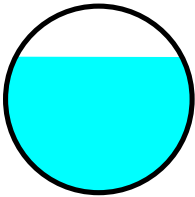
Summary for Reach A1: 48

Inflow Area = 10.821 ac, 0.00% Impervious, Inflow Depth > 7.87" for 25 Year event
Inflow = 75.30 cfs @ 12.13 hrs, Volume= 7.099 af
Outflow = 75.03 cfs @ 12.13 hrs, Volume= 7.098 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.68 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.28 fps, Avg. Travel Time= 0.4 min

Peak Storage= 845 cf @ 12.13 hrs
Average Depth at Peak Storage= 2.91'
Bank-Full Depth= 4.00' Flow Area= 12.6 sf, Capacity= 85.71 cfs

48.0" Round Pipe
n= 0.011
Length= 86.3' Slope= 0.0025 '/
Inlet Invert= 54.42', Outlet Invert= 54.20'



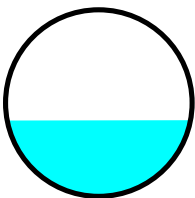
Summary for Reach A10: 24

Inflow Area = 0.617 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 5.87 cfs @ 12.08 hrs, Volume= 0.421 af
Outflow = 5.69 cfs @ 12.10 hrs, Volume= 0.421 af, Atten= 3%, Lag= 1.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.88 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 1.82 fps, Avg. Travel Time= 2.3 min

Peak Storage= 305 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.81'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 16.87 cfs

24.0" Round Pipe
n= 0.011
Length= 253.6' Slope= 0.0040 '/
Inlet Invert= 56.85', Outlet Invert= 55.84'



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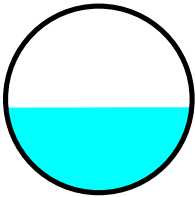
Summary for Reach A11: 18

Inflow Area = 0.399 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 3.83 cfs @ 12.07 hrs, Volume= 0.272 af
Outflow = 3.79 cfs @ 12.08 hrs, Volume= 0.272 af, Atten= 1%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.81 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.82 fps, Avg. Travel Time= 0.3 min

Peak Storage= 23 cf @ 12.08 hrs
Average Depth at Peak Storage= 0.69'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 8.91 cfs

18.0" Round Pipe
n= 0.011
Length= 29.1' Slope= 0.0052 '
Inlet Invert= 57.55', Outlet Invert= 57.40'



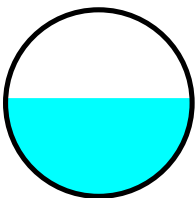
Summary for Reach A12: 18

Inflow Area = 0.718 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 6.71 cfs @ 12.09 hrs, Volume= 0.490 af
Outflow = 6.69 cfs @ 12.09 hrs, Volume= 0.490 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.11 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.72 fps, Avg. Travel Time= 0.2 min

Peak Storage= 30 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.79'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 12.32 cfs

18.0" Round Pipe
n= 0.011
Length= 31.5' Slope= 0.0098 '
Inlet Invert= 56.90', Outlet Invert= 56.59'



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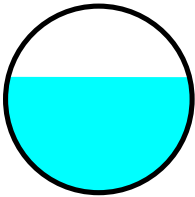
Summary for Reach A13: 30

Inflow Area = 4.178 ac, 0.00% Impervious, Inflow Depth > 7.39" for 25 Year event
Inflow = 22.85 cfs @ 12.27 hrs, Volume= 2.574 af
Outflow = 22.79 cfs @ 12.28 hrs, Volume= 2.572 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.14 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 3.09 fps, Avg. Travel Time= 1.1 min

Peak Storage= 644 cf @ 12.27 hrs
Average Depth at Peak Storage= 1.55'
Bank-Full Depth= 2.50' Flow Area= 4.9 sf, Capacity= 32.39 cfs

30.0" Round Pipe
n= 0.011
Length= 201.6' Slope= 0.0045 '/
Inlet Invert= 56.60', Outlet Invert= 55.70'



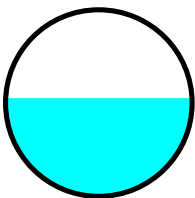
Summary for Reach A14: 30

Inflow Area = 3.822 ac, 0.00% Impervious, Inflow Depth > 7.32" for 25 Year event
Inflow = 21.37 cfs @ 12.28 hrs, Volume= 2.331 af
Outflow = 21.36 cfs @ 12.28 hrs, Volume= 2.331 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.14 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.42 fps, Avg. Travel Time= 0.1 min

Peak Storage= 76 cf @ 12.28 hrs
Average Depth at Peak Storage= 1.32'
Bank-Full Depth= 2.50' Flow Area= 4.9 sf, Capacity= 39.17 cfs

30.0" Round Pipe
n= 0.011
Length= 29.1' Slope= 0.0065 '/
Inlet Invert= 57.45', Outlet Invert= 57.26'



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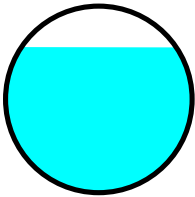
Summary for Reach A15: 24

Inflow Area = 3.292 ac, 0.00% Impervious, Inflow Depth > 7.18" for 25 Year event
Inflow = 19.11 cfs @ 12.28 hrs, Volume= 1.970 af
Outflow = 19.04 cfs @ 12.29 hrs, Volume= 1.969 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.27 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 3.13 fps, Avg. Travel Time= 0.9 min

Peak Storage= 419 cf @ 12.29 hrs
Average Depth at Peak Storage= 1.56'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 20.08 cfs

24.0" Round Pipe
n= 0.011
Length= 159.6' Slope= 0.0056 '/
Inlet Invert= 58.90', Outlet Invert= 58.00'



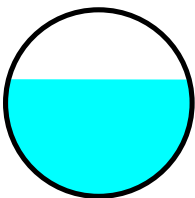
Summary for Reach A2: 48

Inflow Area = 9.948 ac, 0.00% Impervious, Inflow Depth > 7.85" for 25 Year event
Inflow = 67.89 cfs @ 12.13 hrs, Volume= 6.504 af
Outflow = 67.81 cfs @ 12.13 hrs, Volume= 6.503 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.16 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.43 fps, Avg. Travel Time= 0.1 min

Peak Storage= 241 cf @ 12.13 hrs
Average Depth at Peak Storage= 2.51'
Bank-Full Depth= 4.00' Flow Area= 12.6 sf, Capacity= 94.57 cfs

48.0" Round Pipe
n= 0.011
Length= 29.0' Slope= 0.0031 '/
Inlet Invert= 54.51', Outlet Invert= 54.42'



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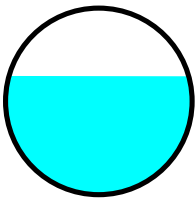
Summary for Reach A3: 48

Inflow Area = 9.273 ac, 0.00% Impervious, Inflow Depth > 7.82" for 25 Year event
Inflow = 62.94 cfs @ 12.12 hrs, Volume= 6.044 af
Outflow = 62.14 cfs @ 12.13 hrs, Volume= 6.043 af, Atten= 1%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.40 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.12 fps, Avg. Travel Time= 0.4 min

Peak Storage= 697 cf @ 12.13 hrs
Average Depth at Peak Storage= 2.54'
Bank-Full Depth= 4.00' Flow Area= 12.6 sf, Capacity= 85.44 cfs

48.0" Round Pipe
n= 0.011
Length= 82.9' Slope= 0.0025 '/
Inlet Invert= 54.72', Outlet Invert= 54.51'



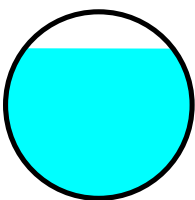
Summary for Reach A4: 42

Inflow Area = 8.664 ac, 0.00% Impervious, Inflow Depth > 7.80" for 25 Year event
Inflow = 58.59 cfs @ 12.11 hrs, Volume= 5.631 af
Outflow = 57.17 cfs @ 12.13 hrs, Volume= 5.629 af, Atten= 2%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.03 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 3.08 fps, Avg. Travel Time= 0.9 min

Peak Storage= 1,431 cf @ 12.12 hrs
Average Depth at Peak Storage= 2.81'
Bank-Full Depth= 3.50' Flow Area= 9.6 sf, Capacity= 59.35 cfs

42.0" Round Pipe
n= 0.011
Length= 172.6' Slope= 0.0025 '/
Inlet Invert= 55.15', Outlet Invert= 54.72'



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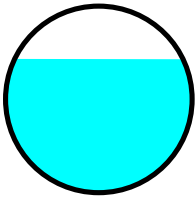
Summary for Reach A5: 36

Inflow Area = 5.870 ac, 0.00% Impervious, Inflow Depth > 7.62" for 25 Year event
Inflow = 34.36 cfs @ 12.12 hrs, Volume= 3.727 af
Outflow = 33.65 cfs @ 12.15 hrs, Volume= 3.725 af, Atten= 2%, Lag= 1.7 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.26 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 2.77 fps, Avg. Travel Time= 1.3 min

Peak Storage= 1,193 cf @ 12.13 hrs
Average Depth at Peak Storage= 2.15'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 39.37 cfs

36.0" Round Pipe
n= 0.011
Length= 220.5' Slope= 0.0025 '/
Inlet Invert= 55.70', Outlet Invert= 55.15'



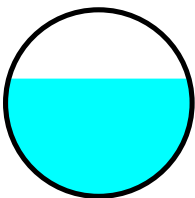
Summary for Reach A6: 18

Inflow Area = 0.766 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 7.21 cfs @ 12.09 hrs, Volume= 0.523 af
Outflow = 7.11 cfs @ 12.10 hrs, Volume= 0.523 af, Atten= 1%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.13 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 2.38 fps, Avg. Travel Time= 1.0 min

Peak Storage= 166 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.95'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 9.94 cfs

18.0" Round Pipe
n= 0.011
Length= 140.5' Slope= 0.0064 '/
Inlet Invert= 56.55', Outlet Invert= 55.65'



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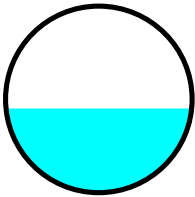
Summary for Reach A7: 18

Inflow Area = 0.395 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 3.72 cfs @ 12.08 hrs, Volume= 0.270 af
Outflow = 3.71 cfs @ 12.09 hrs, Volume= 0.270 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.81 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.81 fps, Avg. Travel Time= 0.3 min

Peak Storage= 22 cf @ 12.08 hrs
Average Depth at Peak Storage= 0.68'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 8.93 cfs

18.0" Round Pipe
n= 0.011
Length= 29.0' Slope= 0.0052 '/
Inlet Invert= 56.70', Outlet Invert= 56.55'



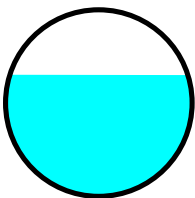
Summary for Reach A8: 24

Inflow Area = 1.525 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 14.26 cfs @ 12.09 hrs, Volume= 1.041 af
Outflow = 14.08 cfs @ 12.10 hrs, Volume= 1.041 af, Atten= 1%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.60 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 2.58 fps, Avg. Travel Time= 0.9 min

Peak Storage= 304 cf @ 12.09 hrs
Average Depth at Peak Storage= 1.30'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 18.86 cfs

24.0" Round Pipe
n= 0.011
Length= 140.6' Slope= 0.0050 '/
Inlet Invert= 56.55', Outlet Invert= 55.85'



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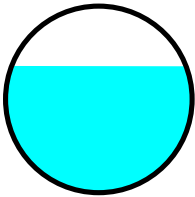
Summary for Reach A9: 18

Inflow Area = 0.763 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 7.15 cfs @ 12.09 hrs, Volume= 0.521 af
Outflow = 7.14 cfs @ 12.09 hrs, Volume= 0.521 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.61 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.21 fps, Avg. Travel Time= 0.2 min

Peak Storage= 37 cf @ 12.09 hrs
Average Depth at Peak Storage= 1.02'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 8.93 cfs

18.0" Round Pipe
n= 0.011
Length= 29.0' Slope= 0.0052 '/
Inlet Invert= 57.20', Outlet Invert= 57.05'



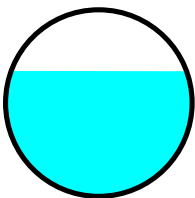
Summary for Reach B1: 54

Inflow Area = 13.528 ac, 4.05% Impervious, Inflow Depth > 7.46" for 25 Year event
Inflow = 91.71 cfs @ 12.15 hrs, Volume= 8.410 af
Outflow = 91.56 cfs @ 12.15 hrs, Volume= 8.409 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.09 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.37 fps, Avg. Travel Time= 0.2 min

Peak Storage= 455 cf @ 12.15 hrs
Average Depth at Peak Storage= 3.02'
Bank-Full Depth= 4.50' Flow Area= 15.9 sf, Capacity= 116.06 cfs

54.0" Round Pipe
n= 0.011
Length= 40.1' Slope= 0.0025 '/
Inlet Invert= 54.30', Outlet Invert= 54.20'



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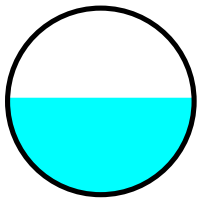
Summary for Reach B10: 24

Inflow Area = 1.106 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 9.99 cfs @ 12.11 hrs, Volume= 0.755 af
Outflow = 9.96 cfs @ 12.11 hrs, Volume= 0.755 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.04 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.33 fps, Avg. Travel Time= 0.1 min

Peak Storage= 34 cf @ 12.11 hrs
Average Depth at Peak Storage= 1.04'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 18.67 cfs

24.0" Round Pipe
n= 0.011
Length= 20.5' Slope= 0.0049 '
Inlet Invert= 56.55', Outlet Invert= 56.45'



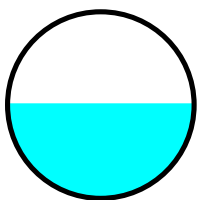
Summary for Reach B11: 18

Inflow Area = 0.501 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 4.66 cfs @ 12.09 hrs, Volume= 0.342 af
Outflow = 4.52 cfs @ 12.11 hrs, Volume= 0.342 af, Atten= 3%, Lag= 1.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.13 fps, Min. Travel Time= 0.7 min
Avg. Velocity = 1.95 fps, Avg. Travel Time= 1.8 min

Peak Storage= 191 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.77'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 8.98 cfs

18.0" Round Pipe
n= 0.011
Length= 210.1' Slope= 0.0052 '
Inlet Invert= 58.15', Outlet Invert= 57.05'



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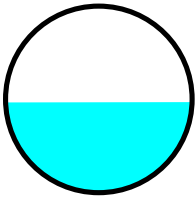
Summary for Reach B12: 18

Inflow Area = 0.482 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 4.43 cfs @ 12.10 hrs, Volume= 0.329 af
Outflow = 4.40 cfs @ 12.10 hrs, Volume= 0.329 af, Atten= 1%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.21 fps, Min. Travel Time= 0.1 min
Avg. Velocity= 1.99 fps, Avg. Travel Time= 0.4 min

Peak Storage= 38 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.73'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 9.33 cfs

18.0" Round Pipe
n= 0.011
Length= 44.3' Slope= 0.0056 '
Inlet Invert= 57.20', Outlet Invert= 56.95'



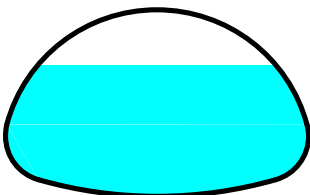
Summary for Reach B13: 36x59

Inflow Area = 10.056 ac, 5.45% Impervious, Inflow Depth > 7.22" for 25 Year event
Inflow = 65.08 cfs @ 12.13 hrs, Volume= 6.053 af
Outflow = 64.79 cfs @ 12.14 hrs, Volume= 6.051 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.18 fps, Min. Travel Time= 0.3 min
Avg. Velocity= 2.70 fps, Avg. Travel Time= 0.8 min

Peak Storage= 1,149 cf @ 12.13 hrs
Average Depth at Peak Storage= 2.12'
Bank-Full Depth= 3.00' Flow Area= 11.4 sf, Capacity= 72.14 cfs

58.5" W x 36.0" H, R=30.0"/84.0" Pipe Arch Pipe
n= 0.011
Length= 126.7' Slope= 0.0025 '
Inlet Invert= 55.87', Outlet Invert= 55.55'



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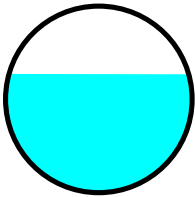
Summary for Reach B14: 24

Inflow Area = 2.513 ac, 12.78% Impervious, Inflow Depth > 6.50" for 25 Year event
Inflow = 15.00 cfs @ 12.10 hrs, Volume= 1.361 af
Outflow = 14.92 cfs @ 12.11 hrs, Volume= 1.361 af, Atten= 1%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.12 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.93 fps, Avg. Travel Time= 0.4 min

Peak Storage= 136 cf @ 12.11 hrs
Average Depth at Peak Storage= 1.27'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 20.49 cfs

24.0" Round Pipe
n= 0.011
Length= 64.7' Slope= 0.0059 '/
Inlet Invert= 56.25', Outlet Invert= 55.87'



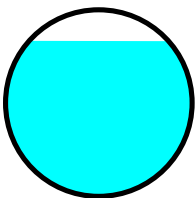
Summary for Reach B15: 18

Inflow Area = 1.982 ac, 16.20% Impervious, Inflow Depth > 6.05" for 25 Year event
Inflow = 10.28 cfs @ 12.09 hrs, Volume= 0.999 af
Outflow = 10.12 cfs @ 12.11 hrs, Volume= 0.998 af, Atten= 1%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.55 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.88 fps, Avg. Travel Time= 1.2 min

Peak Storage= 317 cf @ 12.10 hrs
Average Depth at Peak Storage= 1.25'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.16 cfs

18.0" Round Pipe
n= 0.011
Length= 201.7' Slope= 0.0067 '/
Inlet Invert= 58.10', Outlet Invert= 56.75'



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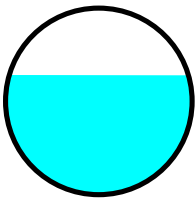
Summary for Reach B16: 18

Inflow Area = 1.695 ac, 18.94% Impervious, Inflow Depth > 5.69" for 25 Year event
Inflow = 7.63 cfs @ 12.10 hrs, Volume= 0.803 af
Outflow = 7.62 cfs @ 12.10 hrs, Volume= 0.803 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.39 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.71 fps, Avg. Travel Time= 0.2 min

Peak Storage= 35 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.96'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.31 cfs

18.0" Round Pipe
n= 0.011
Length= 29.0' Slope= 0.0069 '
Inlet Invert= 58.40', Outlet Invert= 58.20'



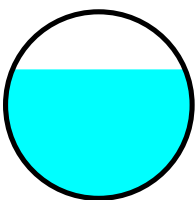
Summary for Reach B17: 42

Inflow Area = 7.543 ac, 3.01% Impervious, Inflow Depth > 7.47" for 25 Year event
Inflow = 50.86 cfs @ 12.13 hrs, Volume= 4.693 af
Outflow = 50.81 cfs @ 12.14 hrs, Volume= 4.692 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.16 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.00 fps, Avg. Travel Time= 0.2 min

Peak Storage= 237 cf @ 12.13 hrs
Average Depth at Peak Storage= 2.42'
Bank-Full Depth= 3.50' Flow Area= 9.6 sf, Capacity= 61.72 cfs

42.0" Round Pipe
n= 0.011
Length= 33.4' Slope= 0.0027 '
Inlet Invert= 55.96', Outlet Invert= 55.87'



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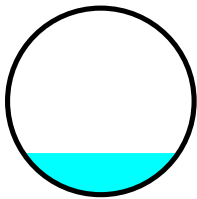
Summary for Reach B18: 18

Inflow Area = 0.101 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 0.97 cfs @ 12.07 hrs, Volume= 0.069 af
Outflow = 0.96 cfs @ 12.08 hrs, Volume= 0.069 af, Atten= 1%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.28 fps, Min. Travel Time= 0.1 min
Avg. Velocity= 1.21 fps, Avg. Travel Time= 0.4 min

Peak Storage= 9 cf @ 12.07 hrs
Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 8.93 cfs

18.0" Round Pipe
n= 0.011
Length= 29.0' Slope= 0.0052 '
Inlet Invert= 58.60', Outlet Invert= 58.45'



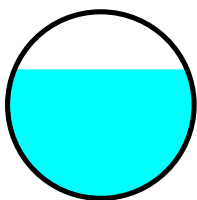
Summary for Reach B19: 42

Inflow Area = 7.217 ac, 3.15% Impervious, Inflow Depth > 7.43" for 25 Year event
Inflow = 48.54 cfs @ 12.13 hrs, Volume= 4.471 af
Outflow = 48.39 cfs @ 12.14 hrs, Volume= 4.470 af, Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.84 fps, Min. Travel Time= 0.2 min
Avg. Velocity= 2.86 fps, Avg. Travel Time= 0.5 min

Peak Storage= 665 cf @ 12.13 hrs
Average Depth at Peak Storage= 2.42'
Bank-Full Depth= 3.50' Flow Area= 9.6 sf, Capacity= 58.94 cfs

42.0" Round Pipe
n= 0.011
Length= 93.6' Slope= 0.0025 '
Inlet Invert= 56.19', Outlet Invert= 55.96'



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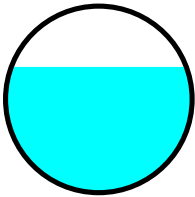
Summary for Reach B2: 54

Inflow Area = 13.528 ac, 4.05% Impervious, Inflow Depth > 7.46" for 25 Year event
Inflow = 92.22 cfs @ 12.14 hrs, Volume= 8.413 af
Outflow = 91.71 cfs @ 12.15 hrs, Volume= 8.410 af, Atten= 1%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.09 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 3.37 fps, Avg. Travel Time= 0.8 min

Peak Storage= 1,833 cf @ 12.15 hrs
Average Depth at Peak Storage= 3.03'
Bank-Full Depth= 4.50' Flow Area= 15.9 sf, Capacity= 115.98 cfs

54.0" Round Pipe
n= 0.011
Length= 160.6' Slope= 0.0025 '/
Inlet Invert= 54.70', Outlet Invert= 54.30'



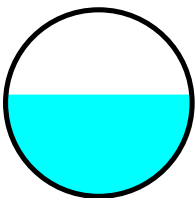
Summary for Reach B20: 18

Inflow Area = 0.659 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 6.23 cfs @ 12.08 hrs, Volume= 0.450 af
Outflow = 6.20 cfs @ 12.09 hrs, Volume= 0.450 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.29 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.41 fps, Avg. Travel Time= 0.5 min

Peak Storage= 66 cf @ 12.08 hrs
Average Depth at Peak Storage= 0.82'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.76 cfs

18.0" Round Pipe
n= 0.011
Length= 66.5' Slope= 0.0075 '/
Inlet Invert= 58.55', Outlet Invert= 58.05'



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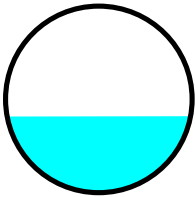
Summary for Reach B21: 18

Inflow Area = 0.330 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 3.12 cfs @ 12.08 hrs, Volume= 0.225 af
Outflow = 3.11 cfs @ 12.08 hrs, Volume= 0.225 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.58 fps, Min. Travel Time= 0.1 min
Avg. Velocity= 1.72 fps, Avg. Travel Time= 0.3 min

Peak Storage= 20 cf @ 12.08 hrs
Average Depth at Peak Storage= 0.61'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 8.93 cfs

18.0" Round Pipe
n= 0.011
Length= 29.0' Slope= 0.0052 '
Inlet Invert= 58.80', Outlet Invert= 58.65'



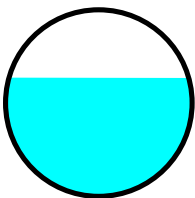
Summary for Reach B22: 42

Inflow Area = 6.558 ac, 3.46% Impervious, Inflow Depth > 7.36" for 25 Year event
Inflow = 43.47 cfs @ 12.13 hrs, Volume= 4.023 af
Outflow = 43.34 cfs @ 12.14 hrs, Volume= 4.021 af, Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.75 fps, Min. Travel Time= 0.2 min
Avg. Velocity= 2.79 fps, Avg. Travel Time= 0.6 min

Peak Storage= 642 cf @ 12.14 hrs
Average Depth at Peak Storage= 2.22'
Bank-Full Depth= 3.50' Flow Area= 9.6 sf, Capacity= 59.57 cfs

42.0" Round Pipe
n= 0.011
Length= 99.6' Slope= 0.0025 '
Inlet Invert= 56.44', Outlet Invert= 56.19'



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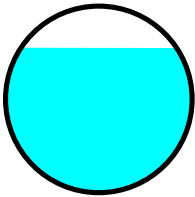
Summary for Reach B23: 36

Inflow Area = 6.021 ac, 3.77% Impervious, Inflow Depth > 7.29" for 25 Year event
Inflow = 39.20 cfs @ 12.14 hrs, Volume= 3.656 af
Outflow = 39.17 cfs @ 12.14 hrs, Volume= 3.656 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.66 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.85 fps, Avg. Travel Time= 0.2 min

Peak Storage= 171 cf @ 12.14 hrs
Average Depth at Peak Storage= 2.33'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 41.40 cfs

36.0" Round Pipe
n= 0.011
Length= 29.0' Slope= 0.0028 '/
Inlet Invert= 56.52', Outlet Invert= 56.44'



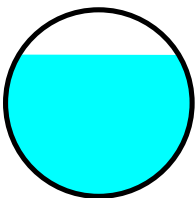
Summary for Reach B24: 36

Inflow Area = 5.712 ac, 3.97% Impervious, Inflow Depth > 7.24" for 25 Year event
Inflow = 36.87 cfs @ 12.14 hrs, Volume= 3.446 af
Outflow = 36.80 cfs @ 12.15 hrs, Volume= 3.445 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.42 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.73 fps, Avg. Travel Time= 0.4 min

Peak Storage= 403 cf @ 12.14 hrs
Average Depth at Peak Storage= 2.27'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 39.97 cfs

36.0" Round Pipe
n= 0.011
Length= 70.0' Slope= 0.0026 '/
Inlet Invert= 56.70', Outlet Invert= 56.52'



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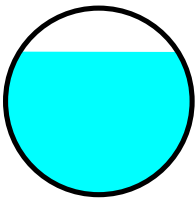
Summary for Reach B25: 36

Inflow Area = 5.712 ac, 3.97% Impervious, Inflow Depth > 7.24" for 25 Year event
Inflow = 37.00 cfs @ 12.13 hrs, Volume= 3.447 af
Outflow = 36.87 cfs @ 12.14 hrs, Volume= 3.446 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.37 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.72 fps, Avg. Travel Time= 0.7 min

Peak Storage= 643 cf @ 12.13 hrs
Average Depth at Peak Storage= 2.30'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 39.66 cfs

36.0" Round Pipe
n= 0.011
Length= 110.6' Slope= 0.0025 '/
Inlet Invert= 56.98', Outlet Invert= 56.70'



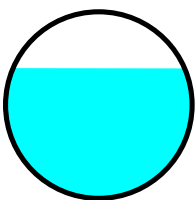
Summary for Reach B26: 36

Inflow Area = 5.195 ac, 4.37% Impervious, Inflow Depth > 7.15" for 25 Year event
Inflow = 33.00 cfs @ 12.13 hrs, Volume= 3.095 af
Outflow = 32.90 cfs @ 12.14 hrs, Volume= 3.094 af, Atten= 0%, Lag= 0.8 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.27 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.63 fps, Avg. Travel Time= 0.7 min

Peak Storage= 582 cf @ 12.13 hrs
Average Depth at Peak Storage= 2.09'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 39.66 cfs

36.0" Round Pipe
n= 0.011
Length= 110.6' Slope= 0.0025 '/
Inlet Invert= 57.26', Outlet Invert= 56.98'



POST

Type III 24-hr 25 Year Rainfall=10.40"

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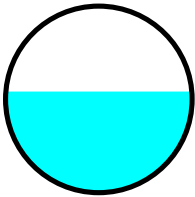
Summary for Reach B27: 18

Inflow Area = 0.533 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 5.12 cfs @ 12.07 hrs, Volume= 0.364 af
Outflow = 5.07 cfs @ 12.08 hrs, Volume= 0.364 af, Atten= 1%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.18 fps, Min. Travel Time= 0.1 min
Avg. Velocity= 1.98 fps, Avg. Travel Time= 0.2 min

Peak Storage= 28 cf @ 12.07 hrs
Average Depth at Peak Storage= 0.81'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 8.93 cfs

18.0" Round Pipe
n= 0.011
Length= 29.0' Slope= 0.0052 '/
Inlet Invert= 57.90', Outlet Invert= 57.75'



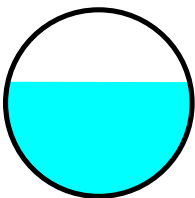
Summary for Reach B28: 36

Inflow Area = 4.363 ac, 5.20% Impervious, Inflow Depth > 6.95" for 25 Year event
Inflow = 27.23 cfs @ 12.15 hrs, Volume= 2.528 af
Outflow = 27.13 cfs @ 12.16 hrs, Volume= 2.527 af, Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.00 fps, Min. Travel Time= 0.3 min
Avg. Velocity= 2.45 fps, Avg. Travel Time= 0.8 min

Peak Storage= 550 cf @ 12.16 hrs
Average Depth at Peak Storage= 1.84'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 39.25 cfs

36.0" Round Pipe
n= 0.011
Length= 121.0' Slope= 0.0025 '/
Inlet Invert= 57.56', Outlet Invert= 57.26'



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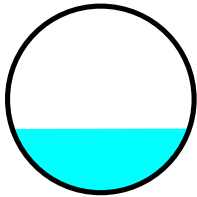
Summary for Reach B29: 18

Inflow Area = 0.324 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 3.11 cfs @ 12.07 hrs, Volume= 0.221 af
Outflow = 3.08 cfs @ 12.08 hrs, Volume= 0.221 af, Atten= 1%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.73 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.14 fps, Avg. Travel Time= 0.3 min

Peak Storage= 21 cf @ 12.08 hrs
Average Depth at Peak Storage= 0.51'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 12.25 cfs

18.0" Round Pipe
n= 0.011
Length= 39.0' Slope= 0.0097 '
Inlet Invert= 58.80', Outlet Invert= 58.42'



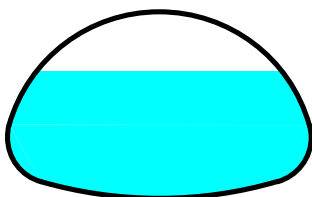
Summary for Reach B3: 40x65

Inflow Area = 12.851 ac, 4.26% Impervious, Inflow Depth > 7.43" for 25 Year event
Inflow = 86.76 cfs @ 12.14 hrs, Volume= 7.952 af
Outflow = 86.68 cfs @ 12.14 hrs, Volume= 7.951 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.01 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.98 fps, Avg. Travel Time= 0.2 min

Peak Storage= 314 cf @ 12.14 hrs
Average Depth at Peak Storage= 2.27'
Bank-Full Depth= 3.33' Flow Area= 14.1 sf, Capacity= 99.87 cfs

65.0" W x 40.0" H, R=33.4"/92.5" Pipe Arch Pipe
n= 0.011
Length= 29.0' Slope= 0.0028 '
Inlet Invert= 54.78', Outlet Invert= 54.70'



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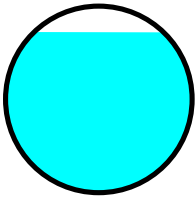
Summary for Reach B30: 30

Inflow Area = 4.039 ac, 5.62% Impervious, Inflow Depth > 6.86" for 25 Year event
Inflow = 25.14 cfs @ 12.16 hrs, Volume= 2.308 af
Outflow = 25.07 cfs @ 12.16 hrs, Volume= 2.307 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.61 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.43 fps, Avg. Travel Time= 0.4 min

Peak Storage= 235 cf @ 12.16 hrs
Average Depth at Peak Storage= 2.15'
Bank-Full Depth= 2.50' Flow Area= 4.9 sf, Capacity= 24.17 cfs

30.0" Round Pipe
n= 0.011
Length= 52.3' Slope= 0.0025 '/
Inlet Invert= 57.69', Outlet Invert= 57.56'



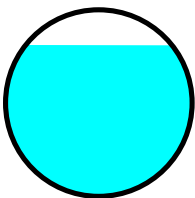
Summary for Reach B31: 24

Inflow Area = 2.078 ac, 0.00% Impervious, Inflow Depth > 7.20" for 25 Year event
Inflow = 14.52 cfs @ 12.17 hrs, Volume= 1.246 af
Outflow = 14.32 cfs @ 12.19 hrs, Volume= 1.246 af, Atten= 1%, Lag= 1.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.29 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.19 fps, Avg. Travel Time= 1.2 min

Peak Storage= 430 cf @ 12.18 hrs
Average Depth at Peak Storage= 1.62'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 14.59 cfs

24.0" Round Pipe
n= 0.011
Length= 157.8' Slope= 0.0030 '/
Inlet Invert= 58.16', Outlet Invert= 57.69'



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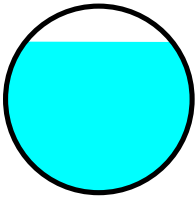
Summary for Reach B32: 18

Inflow Area = 1.456 ac, 15.59% Impervious, Inflow Depth > 5.92" for 25 Year event
Inflow = 7.79 cfs @ 12.11 hrs, Volume= 0.718 af
Outflow = 7.66 cfs @ 12.12 hrs, Volume= 0.717 af, Atten= 2%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.07 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.17 fps, Avg. Travel Time= 1.1 min

Peak Storage= 214 cf @ 12.12 hrs
Average Depth at Peak Storage= 1.21'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 7.86 cfs

18.0" Round Pipe
n= 0.011
Length= 139.8' Slope= 0.0040 '/
Inlet Invert= 58.25', Outlet Invert= 57.69'



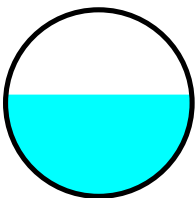
Summary for Reach B33: 18

Inflow Area = 1.024 ac, 22.17% Impervious, Inflow Depth > 4.96" for 25 Year event
Inflow = 4.01 cfs @ 12.20 hrs, Volume= 0.423 af
Outflow = 4.01 cfs @ 12.20 hrs, Volume= 0.423 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.06 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.65 fps, Avg. Travel Time= 0.3 min

Peak Storage= 29 cf @ 12.20 hrs
Average Depth at Peak Storage= 0.82'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 6.92 cfs

18.0" Round Pipe
n= 0.011
Length= 29.0' Slope= 0.0031 '/
Inlet Invert= 58.34', Outlet Invert= 58.25'



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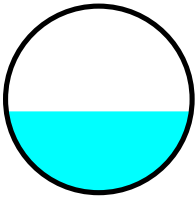
Summary for Reach B34: 18

Inflow Area = 0.823 ac, 27.58% Impervious, Inflow Depth > 4.17" for 25 Year event
Inflow = 3.10 cfs @ 12.24 hrs, Volume= 0.286 af
Outflow = 3.10 cfs @ 12.25 hrs, Volume= 0.286 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.21 fps, Min. Travel Time= 0.1 min
Avg. Velocity= 1.90 fps, Avg. Travel Time= 0.3 min

Peak Storage= 22 cf @ 12.24 hrs
Average Depth at Peak Storage= 0.65'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 7.93 cfs

18.0" Round Pipe
n= 0.011
Length= 29.4' Slope= 0.0041 '
Inlet Invert= 58.46', Outlet Invert= 58.34'



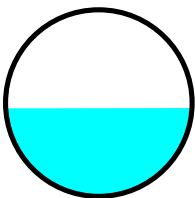
Summary for Reach B35: 18

Inflow Area = 1.089 ac, 29.48% Impervious, Inflow Depth > 4.29" for 25 Year event
Inflow = 3.93 cfs @ 12.30 hrs, Volume= 0.390 af
Outflow = 3.93 cfs @ 12.31 hrs, Volume= 0.389 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.78 fps, Min. Travel Time= 0.2 min
Avg. Velocity= 2.20 fps, Avg. Travel Time= 0.3 min

Peak Storage= 36 cf @ 12.30 hrs
Average Depth at Peak Storage= 0.71'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 8.65 cfs

18.0" Round Pipe
n= 0.011
Length= 43.3' Slope= 0.0048 '
Inlet Invert= 58.61', Outlet Invert= 58.40'



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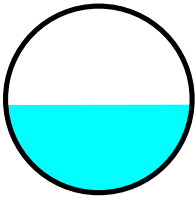
Summary for Reach B36: 18

Inflow Area = 1.089 ac, 29.48% Impervious, Inflow Depth > 4.30" for 25 Year event
Inflow = 3.95 cfs @ 12.29 hrs, Volume= 0.390 af
Outflow = 3.93 cfs @ 12.30 hrs, Volume= 0.390 af, Atten= 0%, Lag= 0.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.83 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.21 fps, Avg. Travel Time= 1.0 min

Peak Storage= 107 cf @ 12.29 hrs
Average Depth at Peak Storage= 0.71'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 8.76 cfs

18.0" Round Pipe
n= 0.011
Length= 130.6' Slope= 0.0050 '/
Inlet Invert= 59.26', Outlet Invert= 58.61'



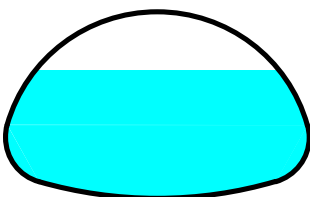
Summary for Reach B4: 40x65

Inflow Area = 12.286 ac, 4.46% Impervious, Inflow Depth > 7.39" for 25 Year event
Inflow = 82.92 cfs @ 12.14 hrs, Volume= 7.569 af
Outflow = 82.57 cfs @ 12.15 hrs, Volume= 7.566 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.59 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.82 fps, Avg. Travel Time= 0.7 min

Peak Storage= 1,332 cf @ 12.14 hrs
Average Depth at Peak Storage= 2.30'
Bank-Full Depth= 3.33' Flow Area= 14.1 sf, Capacity= 94.41 cfs

65.0" W x 40.0" H, R=33.4"/92.5" Pipe Arch Pipe
n= 0.011
Length= 121.7' Slope= 0.0025 '/
Inlet Invert= 55.08', Outlet Invert= 54.78'



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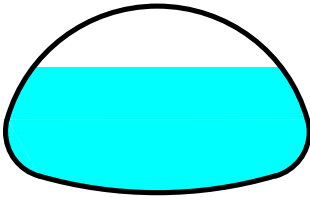
Summary for Reach B5: 40x65

Inflow Area = 12.286 ac, 4.46% Impervious, Inflow Depth > 7.39" for 25 Year event
Inflow = 83.03 cfs @ 12.13 hrs, Volume= 7.570 af
Outflow = 82.92 cfs @ 12.14 hrs, Volume= 7.569 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.76 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.88 fps, Avg. Travel Time= 0.2 min

Peak Storage= 409 cf @ 12.14 hrs
Average Depth at Peak Storage= 2.24'
Bank-Full Depth= 3.33' Flow Area= 14.1 sf, Capacity= 97.16 cfs

65.0" W x 40.0" H, R=33.4"/92.5" Pipe Arch Pipe
n= 0.011
Length= 38.3' Slope= 0.0026 '/
Inlet Invert= 55.18', Outlet Invert= 55.08'



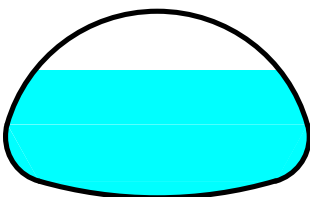
Summary for Reach B6: 40x65

Inflow Area = 12.286 ac, 4.46% Impervious, Inflow Depth > 7.40" for 25 Year event
Inflow = 84.11 cfs @ 12.12 hrs, Volume= 7.572 af
Outflow = 83.03 cfs @ 12.13 hrs, Volume= 7.570 af, Atten= 1%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.66 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.85 fps, Avg. Travel Time= 0.6 min

Peak Storage= 1,121 cf @ 12.13 hrs
Average Depth at Peak Storage= 2.28'
Bank-Full Depth= 3.33' Flow Area= 14.1 sf, Capacity= 95.54 cfs

65.0" W x 40.0" H, R=33.4"/92.5" Pipe Arch Pipe
n= 0.011
Length= 103.0' Slope= 0.0025 '/
Inlet Invert= 55.44', Outlet Invert= 55.18'



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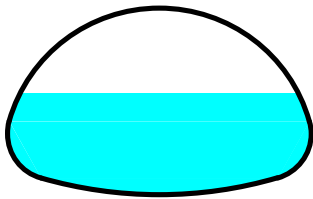
Summary for Reach B9: 40x65

Inflow Area = 11.518 ac, 4.76% Impervious, Inflow Depth > 7.34" for 25 Year event
Inflow = 77.03 cfs @ 12.13 hrs, Volume= 7.048 af
Outflow = 76.95 cfs @ 12.13 hrs, Volume= 7.048 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.82 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.19 fps, Avg. Travel Time= 0.2 min

Peak Storage= 253 cf @ 12.13 hrs
Average Depth at Peak Storage= 1.82'
Bank-Full Depth= 3.33' Flow Area= 14.1 sf, Capacity= 117.11 cfs

65.0" W x 40.0" H, R=33.4"/92.5" Pipe Arch Pipe
n= 0.011
Length= 29.0' Slope= 0.0038 '/
Inlet Invert= 55.55', Outlet Invert= 55.44'



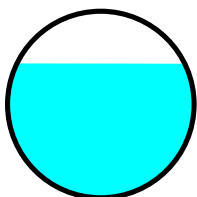
Summary for Reach C1: 42

Inflow Area = 6.638 ac, 0.00% Impervious, Inflow Depth > 8.04" for 25 Year event
Inflow = 51.38 cfs @ 12.15 hrs, Volume= 4.448 af
Outflow = 51.24 cfs @ 12.15 hrs, Volume= 4.447 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.94 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.88 fps, Avg. Travel Time= 0.3 min

Peak Storage= 388 cf @ 12.15 hrs
Average Depth at Peak Storage= 2.52'
Bank-Full Depth= 3.50' Flow Area= 9.6 sf, Capacity= 59.28 cfs

42.0" Round Pipe
n= 0.011
Length= 52.3' Slope= 0.0025 '/
Inlet Invert= 54.33', Outlet Invert= 54.20'



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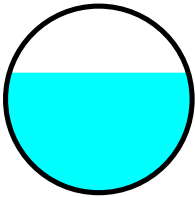
Summary for Reach C10: 36

Inflow Area = 3.438 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 29.55 cfs @ 12.11 hrs, Volume= 2.346 af
Outflow = 29.02 cfs @ 12.12 hrs, Volume= 2.344 af, Atten= 2%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.11 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 2.45 fps, Avg. Travel Time= 0.9 min

Peak Storage= 672 cf @ 12.12 hrs
Average Depth at Peak Storage= 1.93'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 39.47 cfs

36.0" Round Pipe
n= 0.011
Length= 139.6' Slope= 0.0025 '/
Inlet Invert= 55.86', Outlet Invert= 55.51'



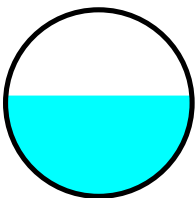
Summary for Reach C11: 30

Inflow Area = 1.761 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 16.39 cfs @ 12.09 hrs, Volume= 1.202 af
Outflow = 16.31 cfs @ 12.10 hrs, Volume= 1.202 af, Atten= 1%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.05 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.32 fps, Avg. Travel Time= 0.4 min

Peak Storage= 146 cf @ 12.09 hrs
Average Depth at Peak Storage= 1.35'
Bank-Full Depth= 2.50' Flow Area= 4.9 sf, Capacity= 28.78 cfs

30.0" Round Pipe
n= 0.011
Length= 53.9' Slope= 0.0035 '/
Inlet Invert= 56.05', Outlet Invert= 55.86'



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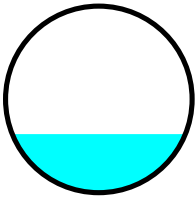
Summary for Reach C12: 18

Inflow Area = 0.241 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 2.28 cfs @ 12.08 hrs, Volume= 0.165 af
Outflow = 2.28 cfs @ 12.08 hrs, Volume= 0.165 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.80 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.78 fps, Avg. Travel Time= 0.3 min

Peak Storage= 16 cf @ 12.08 hrs
Average Depth at Peak Storage= 0.47'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.74 cfs

18.0" Round Pipe
n= 0.011
Length= 33.4' Slope= 0.0075 '
Inlet Invert= 56.30', Outlet Invert= 56.05'



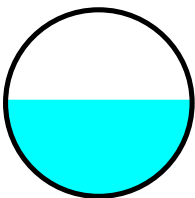
Summary for Reach C13: 18

Inflow Area = 0.736 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 6.45 cfs @ 12.11 hrs, Volume= 0.502 af
Outflow = 6.39 cfs @ 12.12 hrs, Volume= 0.502 af, Atten= 1%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.95 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.71 fps, Avg. Travel Time= 0.5 min

Peak Storage= 69 cf @ 12.12 hrs
Average Depth at Peak Storage= 0.78'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 12.14 cfs

18.0" Round Pipe
n= 0.011
Length= 74.3' Slope= 0.0096 '
Inlet Invert= 57.01', Outlet Invert= 56.30'



POST

Type III 24-hr 25 Year Rainfall=10.40"

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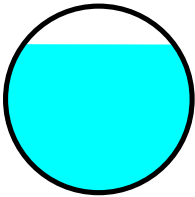
Summary for Reach C16: 18

Inflow Area = 1.172 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 11.04 cfs @ 12.08 hrs, Volume= 0.800 af
Outflow = 10.87 cfs @ 12.10 hrs, Volume= 0.800 af, Atten= 1%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.33 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 2.97 fps, Avg. Travel Time= 1.0 min

Peak Storage= 262 cf @ 12.09 hrs
Average Depth at Peak Storage= 1.19'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 11.37 cfs

18.0" Round Pipe
n= 0.011
Length= 173.9' Slope= 0.0084 '/
Inlet Invert= 57.51', Outlet Invert= 56.05'



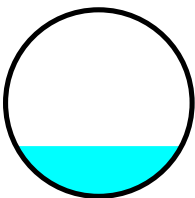
Summary for Reach C17: 18

Inflow Area = 0.177 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 1.67 cfs @ 12.08 hrs, Volume= 0.121 af
Outflow = 1.66 cfs @ 12.09 hrs, Volume= 0.121 af, Atten= 1%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.37 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.61 fps, Avg. Travel Time= 0.9 min

Peak Storage= 34 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.40'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.60 cfs

18.0" Round Pipe
n= 0.011
Length= 87.7' Slope= 0.0073 '/
Inlet Invert= 58.20', Outlet Invert= 57.56'



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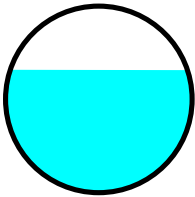
Summary for Reach C18: 18

Inflow Area = 0.709 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 6.71 cfs @ 12.08 hrs, Volume= 0.484 af
Outflow = 6.67 cfs @ 12.09 hrs, Volume= 0.484 af, Atten= 1%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.44 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.13 fps, Avg. Travel Time= 0.5 min

Peak Storage= 84 cf @ 12.08 hrs
Average Depth at Peak Storage= 0.99'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 8.75 cfs

18.0" Round Pipe
n= 0.011
Length= 68.5' Slope= 0.0050 '/
Inlet Invert= 57.90', Outlet Invert= 57.56'



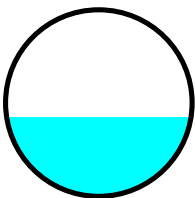
Summary for Reach C19: 18

Inflow Area = 0.353 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 3.35 cfs @ 12.08 hrs, Volume= 0.241 af
Outflow = 3.34 cfs @ 12.08 hrs, Volume= 0.241 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.67 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.75 fps, Avg. Travel Time= 0.3 min

Peak Storage= 21 cf @ 12.08 hrs
Average Depth at Peak Storage= 0.64'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 8.93 cfs

18.0" Round Pipe
n= 0.011
Length= 29.0' Slope= 0.0052 '/
Inlet Invert= 58.10', Outlet Invert= 57.95'



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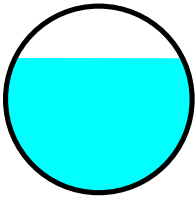
Summary for Reach C2: 42

Inflow Area = 6.638 ac, 0.00% Impervious, Inflow Depth > 8.04" for 25 Year event
Inflow = 51.70 cfs @ 12.13 hrs, Volume= 4.450 af
Outflow = 51.38 cfs @ 12.15 hrs, Volume= 4.448 af, Atten= 1%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.97 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.89 fps, Avg. Travel Time= 0.8 min

Peak Storage= 1,037 cf @ 12.14 hrs
Average Depth at Peak Storage= 2.52'
Bank-Full Depth= 3.50' Flow Area= 9.6 sf, Capacity= 59.54 cfs

42.0" Round Pipe
n= 0.011
Length= 139.6' Slope= 0.0025 '/
Inlet Invert= 54.68', Outlet Invert= 54.33'



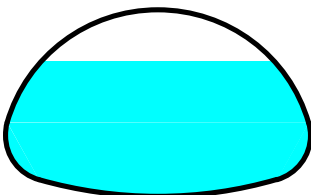
Summary for Reach C3: 31x51

Inflow Area = 6.219 ac, 0.00% Impervious, Inflow Depth > 8.04" for 25 Year event
Inflow = 48.59 cfs @ 12.14 hrs, Volume= 4.164 af
Outflow = 48.53 cfs @ 12.14 hrs, Volume= 4.164 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.87 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.54 fps, Avg. Travel Time= 0.2 min

Peak Storage= 205 cf @ 12.14 hrs
Average Depth at Peak Storage= 1.90'
Bank-Full Depth= 2.61' Flow Area= 8.7 sf, Capacity= 52.20 cfs

51.1" W x 31.3" H, R=26.3"/73.0" Pipe Arch Pipe
n= 0.011
Length= 29.0' Slope= 0.0028 '/
Inlet Invert= 54.76', Outlet Invert= 54.68'



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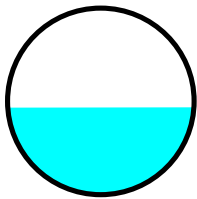
Summary for Reach C4: 24

Inflow Area = 1.228 ac, 0.00% Impervious, Inflow Depth > 7.45" for 25 Year event
Inflow = 8.37 cfs @ 12.20 hrs, Volume= 0.762 af
Outflow = 8.35 cfs @ 12.21 hrs, Volume= 0.762 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.82 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.30 fps, Avg. Travel Time= 0.4 min

Peak Storage= 73 cf @ 12.20 hrs
Average Depth at Peak Storage= 0.93'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 18.83 cfs

24.0" Round Pipe
n= 0.011
Length= 50.4' Slope= 0.0050 '/
Inlet Invert= 54.78', Outlet Invert= 54.53'



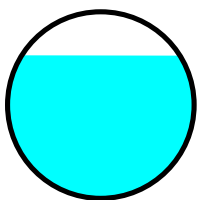
Summary for Reach C5: 36

Inflow Area = 4.687 ac, 0.00% Impervious, Inflow Depth > 8.18" for 25 Year event
Inflow = 39.45 cfs @ 12.12 hrs, Volume= 3.195 af
Outflow = 38.93 cfs @ 12.13 hrs, Volume= 3.194 af, Atten= 1%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.74 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.80 fps, Avg. Travel Time= 0.7 min

Peak Storage= 676 cf @ 12.13 hrs
Average Depth at Peak Storage= 2.30'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 41.97 cfs

36.0" Round Pipe
n= 0.011
Length= 116.4' Slope= 0.0028 '/
Inlet Invert= 55.09', Outlet Invert= 54.76'



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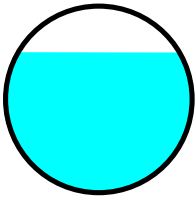
Summary for Reach C6: 36

Inflow Area = 4.687 ac, 0.00% Impervious, Inflow Depth > 8.18" for 25 Year event
Inflow = 39.69 cfs @ 12.12 hrs, Volume= 3.196 af
Outflow = 39.45 cfs @ 12.12 hrs, Volume= 3.195 af, Atten= 1%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.93 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.86 fps, Avg. Travel Time= 0.3 min

Peak Storage= 303 cf @ 12.12 hrs
Average Depth at Peak Storage= 2.26'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 43.27 cfs

36.0" Round Pipe
n= 0.011
Length= 53.1' Slope= 0.0030 '/
Inlet Invert= 55.25', Outlet Invert= 55.09'



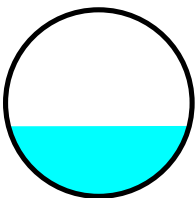
Summary for Reach C7: 18

Inflow Area = 0.286 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 2.68 cfs @ 12.09 hrs, Volume= 0.195 af
Outflow = 2.67 cfs @ 12.09 hrs, Volume= 0.195 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.41 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.65 fps, Avg. Travel Time= 0.3 min

Peak Storage= 18 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.56'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 8.93 cfs

18.0" Round Pipe
n= 0.011
Length= 29.0' Slope= 0.0052 '/
Inlet Invert= 56.50', Outlet Invert= 56.35'



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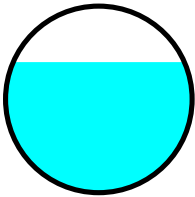
Summary for Reach C8: 36

Inflow Area = 3.920 ac, 0.00% Impervious, Inflow Depth > 8.18" for 25 Year event
Inflow = 33.34 cfs @ 12.12 hrs, Volume= 2.673 af
Outflow = 32.75 cfs @ 12.13 hrs, Volume= 2.673 af, Atten= 2%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.26 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.55 fps, Avg. Travel Time= 0.7 min

Peak Storage= 546 cf @ 12.12 hrs
Average Depth at Peak Storage= 2.10'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 39.60 cfs

36.0" Round Pipe
n= 0.011
Length= 103.0' Slope= 0.0025 '/
Inlet Invert= 55.51', Outlet Invert= 55.25'



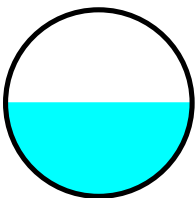
Summary for Reach C9: 18

Inflow Area = 0.482 ac, 0.00% Impervious, Inflow Depth > 8.19" for 25 Year event
Inflow = 4.49 cfs @ 12.09 hrs, Volume= 0.329 af
Outflow = 4.47 cfs @ 12.09 hrs, Volume= 0.329 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.02 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.91 fps, Avg. Travel Time= 0.4 min

Peak Storage= 37 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.76'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 8.83 cfs

18.0" Round Pipe
n= 0.011
Length= 41.5' Slope= 0.0051 '/
Inlet Invert= 57.00', Outlet Invert= 56.79'



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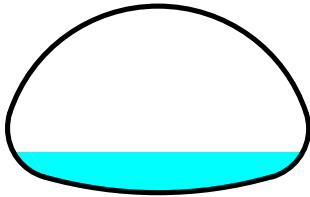
Summary for Reach D1: 22.5x36.3

Inflow Area = 0.557 ac, 0.00% Impervious, Inflow Depth > 6.79" for 25 Year event
Inflow = 3.03 cfs @ 12.30 hrs, Volume= 0.315 af
Outflow = 3.02 cfs @ 12.31 hrs, Volume= 0.315 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.37 fps, Min. Travel Time= 0.6 min
Avg. Velocity= 1.25 fps, Avg. Travel Time= 1.6 min

Peak Storage= 110 cf @ 12.30 hrs
Average Depth at Peak Storage= 0.40'
Bank-Full Depth= 1.88' Flow Area= 4.4 sf, Capacity= 23.33 cfs

36.3" W x 22.5" H, R=18.8"/51.0" Pipe Arch Pipe
n= 0.011
Length= 122.4' Slope= 0.0033 '/
Inlet Invert= 56.35', Outlet Invert= 55.95'



Summary for Reach E OF:

Inflow Area = 2.604 ac, 0.00% Impervious, Inflow Depth > 7.41" for 25 Year event
Inflow = 14.11 cfs @ 12.32 hrs, Volume= 1.609 af
Outflow = 14.11 cfs @ 12.32 hrs, Volume= 1.609 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach E1: 18"x28.5"

Inflow Area = 4.526 ac, 38.00% Impervious, Inflow Depth > 4.83" for 25 Year event
Inflow = 8.82 cfs @ 13.19 hrs, Volume= 1.823 af
Outflow = 8.81 cfs @ 13.20 hrs, Volume= 1.822 af, Atten= 0%, Lag= 0.7 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.28 fps, Min. Travel Time= 0.4 min
Avg. Velocity= 2.75 fps, Avg. Travel Time= 0.8 min

Peak Storage= 208 cf @ 13.20 hrs
Average Depth at Peak Storage= 0.80'
Bank-Full Depth= 1.50' Flow Area= 2.8 sf, Capacity= 14.02 cfs

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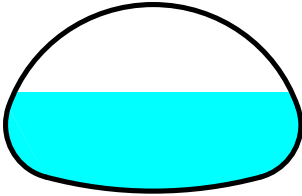
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28.5" W x 18.0" H, R=14.8"/40.7" Pipe Arch Pipe

n= 0.011

Length= 124.8' Slope= 0.0040 '/'

Inlet Invert= 58.20', Outlet Invert= 57.70'



Summary for Reach EX24: EX 24"

Inflow Area = 1.213 ac, 0.00% Impervious, Inflow Depth > 6.77" for 25 Year event
Inflow = 6.59 cfs @ 12.36 hrs, Volume= 0.685 af
Outflow = 6.58 cfs @ 12.37 hrs, Volume= 0.685 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 6.82 fps, Min. Travel Time= 0.1 min

Avg. Velocity = 2.77 fps, Avg. Travel Time= 0.3 min

Peak Storage= 53 cf @ 12.36 hrs

Average Depth at Peak Storage= 0.69'

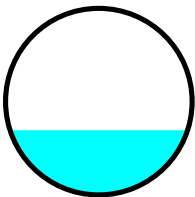
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 25.56 cfs

24.0" Round Pipe

n= 0.011

Length= 54.7' Slope= 0.0091 '/'

Inlet Invert= 54.80', Outlet Invert= 54.30'



Summary for Reach EX36: EX36

Inflow Area = 42.811 ac, 5.30% Impervious, Inflow Depth > 6.63" for 25 Year event
Inflow = 69.83 cfs @ 12.53 hrs, Volume= 23.637 af
Outflow = 69.82 cfs @ 12.54 hrs, Volume= 23.631 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Max. Velocity= 11.93 fps, Min. Travel Time= 0.2 min

Avg. Velocity = 6.71 fps, Avg. Travel Time= 0.3 min

Peak Storage= 794 cf @ 12.53 hrs

Average Depth at Peak Storage= 2.32'

Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 74.15 cfs

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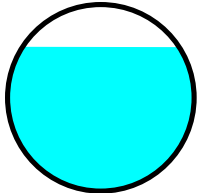
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36.0" Round Pipe

n= 0.011

Length= 135.6' Slope= 0.0088 1'

Inlet Invert= 53.80', Outlet Invert= 52.60'

**Summary for Reach SW OF: OUTFALL**

Inflow Area = 44.024 ac, 5.15% Impervious, Inflow Depth > 6.63" for 25 Year event
 Inflow = 75.47 cfs @ 12.47 hrs, Volume= 24.316 af
 Outflow = 75.47 cfs @ 12.47 hrs, Volume= 24.316 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: Pond

Inflow Area = 36.434 ac, 1.50% Impervious, Inflow Depth > 7.80" for 25 Year event
 Inflow = 259.20 cfs @ 12.12 hrs, Volume= 23.674 af
 Outflow = 58.61 cfs @ 12.67 hrs, Volume= 20.728 af, Atten= 77%, Lag= 32.8 min
 Primary = 57.41 cfs @ 12.67 hrs, Volume= 20.043 af
 Secondary = 1.20 cfs @ 12.67 hrs, Volume= 0.685 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 57.75' @ 12.67 hrs Surf.Area= 150,001 sf Storage= 501,659 cf

Plug-Flow detention time= 140.8 min calculated for 20.728 af (88% of inflow)
 Center-of-Mass det. time= 102.1 min (863.4 - 761.3)

Volume	Invert	Avail.Storage	Storage Description
#1	54.20'	1,634,618 cf	Custom Stage Data (Conic) Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.20	132,769	0	0	132,769
55.00	136,579	107,736	107,736	136,719
56.00	141,402	138,984	246,719	141,719
57.00	146,291	143,840	390,559	146,790
58.00	151,248	148,763	539,321	151,932
59.00	156,766	153,999	693,320	157,623
65.00	157,000	941,298	1,634,618	166,050

Device	Routing	Invert	Outlet Devices
#1	Secondary	54.20'	5.0" Vert. Orifice/Grate C= 0.600
#2	Primary	54.80'	36.0" W x 10.0" H Vert. Orifice/Grate X 3.00 C= 0.600

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Primary OutFlow Max=57.40 cfs @ 12.67 hrs HW=57.75' (Free Discharge)

└**2=Orifice/Grate** (Orifice Controls 57.40 cfs @ 7.65 fps)

Secondary OutFlow Max=1.20 cfs @ 12.67 hrs HW=57.75' (Free Discharge)

└**1=Orifice/Grate** (Orifice Controls 1.20 cfs @ 8.80 fps)

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Page 1

Project Notes

Rainfall events imported from "POSTDEVELOPMENT.hcp"

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Type III 24-hr 2 Year Rainfall=6.00"

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Summary for Pond 1P: Pond

Inflow Area = 36.434 ac, 1.50% Impervious, Inflow Depth > 3.86" for 2 Year event
 Inflow = 130.72 cfs @ 12.13 hrs, Volume= 11.728 af
 Outflow = 34.02 cfs @ 12.64 hrs, Volume= 9.160 af, Atten= 74%, Lag= 30.7 min
 Primary = 33.17 cfs @ 12.64 hrs, Volume= 8.687 af
 Secondary = 0.85 cfs @ 12.64 hrs, Volume= 0.473 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 56.08' @ 12.64 hrs Surf.Area= 141,785 sf Storage= 257,887 cf

Plug-Flow detention time= 149.2 min calculated for 9.130 af (78% of inflow)
 Center-of-Mass det. time= 94.2 min (870.3 - 776.1)

Volume	Invert	Avail.Storage	Storage Description	
#1	54.20'	1,634,618 cf	Custom Stage Data (Conic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.20	132,769	0	0	132,769
55.00	136,579	107,736	107,736	136,719
56.00	141,402	138,984	246,719	141,719
57.00	146,291	143,840	390,559	146,790
58.00	151,248	148,763	539,321	151,932
59.00	156,766	153,999	693,320	157,623
65.00	157,000	941,298	1,634,618	166,050

Device	Routing	Invert	Outlet Devices	
#1	Secondary	54.20'	5.0" Vert. Orifice/Grate	C= 0.600
#2	Primary	54.80'	36.0" W x 10.0" H Vert. Orifice/Grate X 3.00	C= 0.600

Primary OutFlow Max=33.18 cfs @ 12.64 hrs HW=56.08' (Free Discharge)
 ↑ **2=Orifice/Grate** (Orifice Controls 33.18 cfs @ 4.42 fps)

Secondary OutFlow Max=0.85 cfs @ 12.64 hrs HW=56.08' (Free Discharge)
 ↑ **1=Orifice/Grate** (Orifice Controls 0.85 cfs @ 6.22 fps)

POST

Type III 24-hr 5 Year Rainfall=7.80"

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Summary for Pond 1P: Pond

Inflow Area = 36.434 ac, 1.50% Impervious, Inflow Depth > 5.45" for 5 Year event
 Inflow = 182.72 cfs @ 12.13 hrs, Volume= 16.558 af
 Outflow = 45.94 cfs @ 12.65 hrs, Volume= 13.833 af, Atten= 75%, Lag= 31.0 min
 Primary = 44.93 cfs @ 12.65 hrs, Volume= 13.271 af
 Secondary = 1.01 cfs @ 12.65 hrs, Volume= 0.562 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 56.77' @ 12.65 hrs Surf.Area= 145,180 sf Storage= 357,665 cf

Plug-Flow detention time= 142.6 min calculated for 13.832 af (84% of inflow)
 Center-of-Mass det. time= 95.9 min (864.4 - 768.5)

Volume	Invert	Avail.Storage	Storage Description	
#1	54.20'	1,634,618 cf	Custom Stage Data (Conic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.20	132,769	0	0	132,769
55.00	136,579	107,736	107,736	136,719
56.00	141,402	138,984	246,719	141,719
57.00	146,291	143,840	390,559	146,790
58.00	151,248	148,763	539,321	151,932
59.00	156,766	153,999	693,320	157,623
65.00	157,000	941,298	1,634,618	166,050

Device	Routing	Invert	Outlet Devices	
#1	Secondary	54.20'	5.0" Vert. Orifice/Grate	C= 0.600
#2	Primary	54.80'	36.0" W x 10.0" H Vert. Orifice/Grate X 3.00	C= 0.600

Primary OutFlow Max=44.93 cfs @ 12.65 hrs HW=56.77' (Free Discharge)
 ↑ **2=Orifice/Grate** (Orifice Controls 44.93 cfs @ 5.99 fps)

Secondary OutFlow Max=1.01 cfs @ 12.65 hrs HW=56.77' (Free Discharge)
 ↑ **1=Orifice/Grate** (Orifice Controls 1.01 cfs @ 7.41 fps)

POST

Type III 24-hr 10 Year Rainfall=9.20"

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Summary for Pond 1P: Pond

Inflow Area = 36.434 ac, 1.50% Impervious, Inflow Depth > 6.71" for 10 Year event
 Inflow = 223.08 cfs @ 12.13 hrs, Volume= 20.376 af
 Outflow = 53.20 cfs @ 12.66 hrs, Volume= 17.532 af, Atten= 76%, Lag= 32.0 min
 Primary = 52.09 cfs @ 12.66 hrs, Volume= 16.902 af
 Secondary = 1.12 cfs @ 12.66 hrs, Volume= 0.629 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 57.30' @ 12.66 hrs Surf.Area= 147,791 sf Storage= 435,308 cf

Plug-Flow detention time= 140.4 min calculated for 17.473 af (86% of inflow)
 Center-of-Mass det. time= 99.1 min (863.3 - 764.2)

Volume	Invert	Avail.Storage	Storage Description	
#1	54.20'	1,634,618 cf	Custom Stage Data (Conic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.20	132,769	0	0	132,769
55.00	136,579	107,736	107,736	136,719
56.00	141,402	138,984	246,719	141,719
57.00	146,291	143,840	390,559	146,790
58.00	151,248	148,763	539,321	151,932
59.00	156,766	153,999	693,320	157,623
65.00	157,000	941,298	1,634,618	166,050

Device	Routing	Invert	Outlet Devices	
#1	Secondary	54.20'	5.0" Vert. Orifice/Grate	C= 0.600
#2	Primary	54.80'	36.0" W x 10.0" H Vert. Orifice/Grate X 3.00	C= 0.600

Primary OutFlow Max=52.08 cfs @ 12.66 hrs HW=57.30' (Free Discharge)
 ↑ **2=Orifice/Grate** (Orifice Controls 52.08 cfs @ 6.94 fps)

Secondary OutFlow Max=1.12 cfs @ 12.66 hrs HW=57.30' (Free Discharge)
 ↑ **1=Orifice/Grate** (Orifice Controls 1.12 cfs @ 8.19 fps)

POST

Type III 24-hr 25 Year Rainfall=10.40"

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Summary for Pond 1P: Pond

Inflow Area = 36.434 ac, 1.50% Impervious, Inflow Depth > 7.80" for 25 Year event
 Inflow = 259.20 cfs @ 12.12 hrs, Volume= 23.674 af
 Outflow = 58.61 cfs @ 12.67 hrs, Volume= 20.728 af, Atten= 77%, Lag= 32.8 min
 Primary = 57.41 cfs @ 12.67 hrs, Volume= 20.043 af
 Secondary = 1.20 cfs @ 12.67 hrs, Volume= 0.685 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 57.75' @ 12.67 hrs Surf.Area= 150,001 sf Storage= 501,659 cf

Plug-Flow detention time= 140.8 min calculated for 20.728 af (88% of inflow)
 Center-of-Mass det. time= 102.1 min (863.4 - 761.3)

Volume	Invert	Avail.Storage	Storage Description	
#1	54.20'	1,634,618 cf	Custom Stage Data (Conic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.20	132,769	0	0	132,769
55.00	136,579	107,736	107,736	136,719
56.00	141,402	138,984	246,719	141,719
57.00	146,291	143,840	390,559	146,790
58.00	151,248	148,763	539,321	151,932
59.00	156,766	153,999	693,320	157,623
65.00	157,000	941,298	1,634,618	166,050

Device	Routing	Invert	Outlet Devices	
#1	Secondary	54.20'	5.0" Vert. Orifice/Grate	C= 0.600
#2	Primary	54.80'	36.0" W x 10.0" H Vert. Orifice/Grate X 3.00	C= 0.600

Primary OutFlow Max=57.40 cfs @ 12.67 hrs HW=57.75' (Free Discharge)
 ↑ **2=Orifice/Grate** (Orifice Controls 57.40 cfs @ 7.65 fps)

Secondary OutFlow Max=1.20 cfs @ 12.67 hrs HW=57.75' (Free Discharge)
 ↑ **1=Orifice/Grate** (Orifice Controls 1.20 cfs @ 8.80 fps)

POST

Type III 24-hr 50 Year Rainfall=11.70"

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Summary for Pond 1P: Pond

Inflow Area = 36.434 ac, 1.50% Impervious, Inflow Depth > 8.98" for 50 Year event
 Inflow = 289.70 cfs @ 12.12 hrs, Volume= 27.263 af
 Outflow = 63.88 cfs @ 12.69 hrs, Volume= 24.208 af, Atten= 78%, Lag= 34.0 min
 Primary = 62.60 cfs @ 12.69 hrs, Volume= 23.463 af
 Secondary = 1.28 cfs @ 12.69 hrs, Volume= 0.745 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 58.23' @ 12.69 hrs Surf.Area= 152,490 sf Storage= 573,755 cf

Plug-Flow detention time= 140.9 min calculated for 24.127 af (88% of inflow)
 Center-of-Mass det. time= 105.4 min (864.2 - 758.8)

Volume	Invert	Avail.Storage	Storage Description	
#1	54.20'	1,634,618 cf	Custom Stage Data (Conic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.20	132,769	0	0	132,769
55.00	136,579	107,736	107,736	136,719
56.00	141,402	138,984	246,719	141,719
57.00	146,291	143,840	390,559	146,790
58.00	151,248	148,763	539,321	151,932
59.00	156,766	153,999	693,320	157,623
65.00	157,000	941,298	1,634,618	166,050

Device	Routing	Invert	Outlet Devices	
#1	Secondary	54.20'	5.0" Vert. Orifice/Grate	C= 0.600
#2	Primary	54.80'	36.0" W x 10.0" H Vert. Orifice/Grate X 3.00	C= 0.600

Primary OutFlow Max=62.60 cfs @ 12.69 hrs HW=58.23' (Free Discharge)
 ↑ **2=Orifice/Grate** (Orifice Controls 62.60 cfs @ 8.35 fps)

Secondary OutFlow Max=1.28 cfs @ 12.69 hrs HW=58.23' (Free Discharge)
 ↑ **1=Orifice/Grate** (Orifice Controls 1.28 cfs @ 9.41 fps)

POST

Type III 24-hr 100 Year Rainfall=13.00"

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Summary for Pond 1P: Pond

Inflow Area = 36.434 ac, 1.50% Impervious, Inflow Depth > 10.17" for 100 Year event
 Inflow = 312.34 cfs @ 12.11 hrs, Volume= 30.863 af
 Outflow = 68.72 cfs @ 12.73 hrs, Volume= 27.693 af, Atten= 78%, Lag= 36.7 min
 Primary = 67.36 cfs @ 12.73 hrs, Volume= 26.890 af
 Secondary = 1.36 cfs @ 12.73 hrs, Volume= 0.802 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
 Peak Elev= 58.70' @ 12.73 hrs Surf.Area= 155,100 sf Storage= 646,523 cf

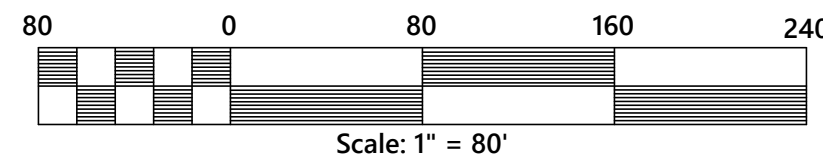
Plug-Flow detention time= 142.1 min calculated for 27.600 af (89% of inflow)
 Center-of-Mass det. time= 108.7 min (865.5 - 756.8)

Volume	Invert	Avail.Storage	Storage Description	
#1	54.20'	1,634,618 cf	Custom Stage Data (Conic) Listed below (Recalc)	
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.20	132,769	0	0	132,769
55.00	136,579	107,736	107,736	136,719
56.00	141,402	138,984	246,719	141,719
57.00	146,291	143,840	390,559	146,790
58.00	151,248	148,763	539,321	151,932
59.00	156,766	153,999	693,320	157,623
65.00	157,000	941,298	1,634,618	166,050

Device	Routing	Invert	Outlet Devices	
#1	Secondary	54.20'	5.0" Vert. Orifice/Grate	C= 0.600
#2	Primary	54.80'	36.0" W x 10.0" H Vert. Orifice/Grate X 3.00	C= 0.600

Primary OutFlow Max=67.35 cfs @ 12.73 hrs HW=58.70' (Free Discharge)
 ↑ **2=Orifice/Grate** (Orifice Controls 67.35 cfs @ 8.98 fps)

Secondary OutFlow Max=1.36 cfs @ 12.73 hrs HW=58.70' (Free Discharge)
 ↑ **1=Orifice/Grate** (Orifice Controls 1.36 cfs @ 9.97 fps)



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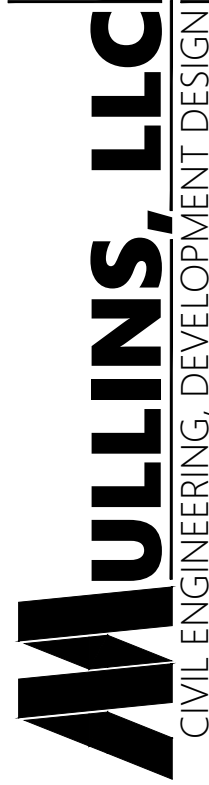
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MUSCADINE PLACE SUBDIVISION

FOLEY, ALABAMA

PREPARED FOR: BRELAND HOMES COASTAL, LLC



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