Supplemental Report

FOR
The Preserve at Abbyville
And
Abbyville Commons

LOCATED IN
NORFOLK, MASSACHUSETTS

PREPARED FOR
Abbyville Development, LLC
and
Abbyville Residential, LLC
850 Franklin Street
Wrentham, Massachusetts 02093

PREPARED BY
UNITED CONSULTANTS, INC.
850 FRANKLIN STREET, SUITE 11D
WRENTHAM, MA. 02093

DATE:
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Note: Revised Grading and Utility Plans, Revised Roadway Profiles, and Revised Watershed Plans are being sent as separate documents.

APPENDIX A

2 YR POST-DEVELOPMENT
Sediment Fore-bays and Ponds

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 15P: Sed. FB A Peak Elev=181.79' Storage=0.158 af Inflow=7.28 cfs 0.802 af
Discarded=2.02 cfs 0.802 af Primary=0.00 cfs 0.000 af Outflow=2.02 cfs 0.802 af

Pond 91P: Sed FB-1 Peak Elev=171.78' Storage=0.002 af Inflow=0.39 cfs 0.033 af
Discarded=0.28 cfs 0.033 af Primary=0.00 cfs 0.000 af Outflow=0.28 cfs 0.033 af

Pond 92P: IB-1 Peak Elev=172.00' Storage=0.000 af Inflow=0.00 cfs 0.000 af
Discarded=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 94P: Infiltration trench Peak Elev=195.00' Storage=0.000 af Inflow=0.01 cfs 0.003 af
Outflow=0.01 cfs 0.003 af

Summary for Pond 15P: Sed. FB A

Inflow Area =	24.283 ac, 27.67% Impervious, Inflow Depth = 0.40" for 2 YR event				
Inflow =	7.28 cfs @	12.12 hrs,	Volume=	0.802 af	
Outflow =	2.02 cfs @	12.58 hrs,	Volume=	0.802 af,	Atten= 72%, Lag= 27.8 min
Discarded =	2.02 cfs @	12.58 hrs,	Volume=	0.802 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 181.79' @ 12.58 hrs Surf.Area= 0.099 ac Storage= 0.158 af

Plug-Flow detention time= 25.4 min calculated for 0.800 af (100% of inflow)
Center-of-Mass det. time= 25.4 min (896.3 - 870.9)

Volume	Invert	Avail.Storage	Storage Description
#1	179.00'	1.479 af	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
179.00	0.000	0.000	0.000	0.000
180.00	0.058	0.019	0.019	0.058
182.00	0.105	0.161	0.180	0.106
184.00	0.172	0.274	0.454	0.174
186.00	0.254	0.423	0.878	0.258
188.00	0.350	0.601	1.479	0.355

Device	Routing	Invert	Outlet Devices
#1	Primary	185.00'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	179.00'	**20.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=2.02 cfs @ 12.58 hrs HW=181.78' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 2.02 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=179.00' TW=184.00' (Dynamic Tailwater)
└**1=Orifice/Grate** (Controls 0.00 cfs)

Summary for Pond 91P: Sed FB-1

Inflow Area =	0.683 ac, 39.82% Impervious, Inflow Depth = 0.59" for 2 YR event				
Inflow =	0.39 cfs @	12.11 hrs,	Volume=	0.033 af	
Outflow =	0.28 cfs @	12.21 hrs,	Volume=	0.033 af,	Atten= 28%, Lag= 5.7 min
Discarded =	0.28 cfs @	12.21 hrs,	Volume=	0.033 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 171.78' @ 12.21 hrs Surf.Area= 0.014 ac Storage= 0.002 af

Plug-Flow detention time= 1.8 min calculated for 0.033 af (100% of inflow)
Center-of-Mass det. time= 1.8 min (885.5 - 883.7)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	0.207 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
171.50	0.000	0.000	0.000
172.00	0.025	0.006	0.006
174.00	0.049	0.074	0.080
176.00	0.078	0.127	0.207

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	**10.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83
#2	Discarded	171.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.28 cfs @ 12.21 hrs HW=171.78' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.28 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=171.50' TW=172.00' (Dynamic Tailwater)
└─**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 92P: IB-1

Inflow Area =	24.966 ac, 28.00% Impervious, Inflow Depth = 0.00" for 2 YR event			
Inflow =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	
Outflow =	0.00 cfs @	0.00 hrs, Volume=	0.000 af, Atten= 0%, Lag= 0.0 min	
Discarded =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 172.00' @ 0.00 hrs Surf.Area= 0.236 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	172.00'	1.238 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
172.00	0.236	0.000	0.000
174.00	0.308	0.544	0.544
176.00	0.386	0.694	1.238

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	172.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=172.00' (Free Discharge)
└─**2=Exfiltration** (Passes 0.00 cfs of 4.76 cfs potential flow)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=172.00' (Free Discharge)
└─**1=Orifice/Grate** (Controls 0.00 cfs)

Summary for Pond 94P: Infiltration trench

Inflow Area = 2.955 ac, 4.91% Impervious, Inflow Depth = 0.01" for 2 YR event
Inflow = 0.01 cfs @ 21.56 hrs, Volume= 0.003 af
Outflow = 0.01 cfs @ 21.56 hrs, Volume= 0.003 af, Atten= 0%, Lag= 0.0 min
Discarded = 0.01 cfs @ 21.56 hrs, Volume= 0.003 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 195.00' @ 0.00 hrs Surf.Area= 0.031 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (1,213.6 - 1,213.6)

Volume	Invert	Avail.Storage	Storage Description
#1	195.00'	0.031 af	**Custom Stage Data (Prismatic)** Listed below (Recalc) 0.093 af Overall x 33.0% Voids

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
195.00	0.031	0.000	0.000
198.00	0.031	0.093	0.093

Device	Routing	Invert	Outlet Devices
#1	Discarded	195.00'	**20.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 130.00'

Discarded OutFlow Max=0.00 cfs @ 21.56 hrs HW=195.00' (Free Discharge)
└─**1=Exfiltration** (Passes 0.00 cfs of 0.63 cfs potential flow)

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 80P: Forebay-2 Peak Elev=168.55' Storage=0.052 af Inflow=2.76 cfs 0.333 af
Discarded=1.12 cfs 0.333 af Primary=0.00 cfs 0.000 af Outflow=1.12 cfs 0.333 af

Pond 81P: Inf. Basin 2 Peak Elev=170.00' Storage=0.000 af Inflow=0.02 cfs 0.015 af
Discarded=0.02 cfs 0.015 af Primary=0.00 cfs 0.000 af Outflow=0.02 cfs 0.015 af

Summary for Pond 80P: Forebay-2

Inflow Area =	8.994 ac, 32.10% Impervious, Inflow Depth = 0.44" for 2 YR event				
Inflow =	2.76 cfs @	12.12 hrs,	Volume=	0.333 af	
Outflow =	1.12 cfs @	12.54 hrs,	Volume=	0.333 af,	Atten= 60%, Lag= 25.3 min
Discarded =	1.12 cfs @	12.54 hrs,	Volume=	0.333 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 168.55' @ 12.54 hrs Surf.Area= 0.055 ac Storage= 0.052 af

Plug-Flow detention time= 13.7 min calculated for 0.332 af (100% of inflow)
Center-of-Mass det. time= 13.7 min (902.5 - 888.8)

Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	0.503 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
167.00	0.000	0.000	0.000
168.00	0.048	0.024	0.024
170.00	0.075	0.123	0.147
172.00	0.109	0.184	0.331
173.50	0.120	0.172	0.503

Device	Routing	Invert	Outlet Devices
#1	Primary	173.00'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	167.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.12 cfs @ 12.54 hrs HW=168.54' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 1.12 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=167.00' TW=170.00' (Dynamic Tailwater)
└**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 81P: Inf. Basin 2

Inflow Area =	11.052 ac, 28.81% Impervious, Inflow Depth = 0.02" for 2 YR event				
Inflow =	0.02 cfs @	14.46 hrs,	Volume=	0.015 af	
Outflow =	0.02 cfs @	14.46 hrs,	Volume=	0.015 af,	Atten= 0%, Lag= 0.0 min
Discarded =	0.02 cfs @	14.46 hrs,	Volume=	0.015 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 170.00' @ 0.00 hrs Surf.Area= 0.052 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (1,036.0 - 1,036.0)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	0.512 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
170.00	0.052	0.000	0.000
172.00	0.089	0.141	0.141
174.00	0.282	0.371	0.512

Device	Routing	Invert	Outlet Devices
#1	Primary	173.50'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	170.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.00 cfs @ 14.46 hrs HW=170.00' (Free Discharge)
└─**2=Exfiltration** (Passes 0.00 cfs of 1.05 cfs potential flow)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=170.00' (Free Discharge)
└─**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 108P: FB-3 Peak Elev=167.00' Storage=0.096 af Inflow=5.16 cfs 0.711 af
Discarded=1.78 cfs 0.711 af Primary=0.00 cfs 0.000 af Outflow=1.78 cfs 0.711 af

Pond 109P: IB-3 Peak Elev=165.50' Storage=0.000 af Inflow=0.00 cfs 0.000 af
Discarded=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Summary for Pond 108P: FB-3

Inflow Area =	26.892 ac, 27.05% Impervious, Inflow Depth = 0.32" for 2 YR event				
Inflow =	5.16 cfs @	12.14 hrs,	Volume=	0.711 af	
Outflow =	1.78 cfs @	12.62 hrs,	Volume=	0.711 af,	Atten= 66%, Lag= 28.5 min
Discarded =	1.78 cfs @	12.62 hrs,	Volume=	0.711 af	
Primary =	0.00 cfs @	12.61 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 167.00' @ 12.62 hrs Surf.Area= 0.088 ac Storage= 0.096 af

Plug-Flow detention time= 14.7 min calculated for 0.710 af (100% of inflow)
Center-of-Mass det. time= 14.6 min (932.4 - 917.8)

Volume	Invert	Avail.Storage	Storage Description
#1	165.50'	0.193 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
165.50	0.000	0.000	0.000
166.00	0.069	0.017	0.017
168.00	0.107	0.176	0.193

Device	Routing	Invert	Outlet Devices
#1	Primary	167.00'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	165.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.78 cfs @ 12.62 hrs HW=167.00' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 1.78 cfs)

Primary OutFlow Max=0.00 cfs @ 12.61 hrs HW=167.00' TW=165.50' (Dynamic Tailwater)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 0.00 cfs @ 0.05 fps)

Summary for Pond 109P: IB-3

Inflow Area =	26.892 ac, 27.05% Impervious, Inflow Depth = 0.00" for 2 YR event				
Inflow =	0.00 cfs @	12.61 hrs,	Volume=	0.000 af	
Outflow =	0.00 cfs @	12.61 hrs,	Volume=	0.000 af,	Atten= 0%, Lag= 0.0 min
Discarded =	0.00 cfs @	12.61 hrs,	Volume=	0.000 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 165.50' @ 12.61 hrs Surf.Area= 0.000 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (756.8 - 756.8)

Volume	Invert	Avail.Storage	Storage Description
#1	165.50'	1.945 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
165.50	0.000	0.000	0.000
166.00	0.148	0.037	0.037
168.00	0.202	0.350	0.387
170.00	0.419	0.621	1.008
172.00	0.518	0.937	1.945

Device	Routing	Invert	Outlet Devices
#1	Primary	171.65'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	165.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.00 cfs @ 12.61 hrs HW=165.50' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.00 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=165.50' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

APPENDIX B

10 YR POST-DEVELOPMENT
Sediment Fore-bays and Ponds

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 15P: Sed. FB A Peak Elev=184.40' Storage=0.525 af Inflow=15.30 cfs 2.064 af
Discarded=3.82 cfs 2.064 af Primary=0.00 cfs 0.000 af Outflow=3.82 cfs 2.064 af

Pond 91P: Sed FB-1 Peak Elev=172.11' Storage=0.009 af Inflow=1.02 cfs 0.081 af
Discarded=0.53 cfs 0.081 af Primary=0.00 cfs 0.000 af Outflow=0.53 cfs 0.081 af

Pond 92P: IB-1 Peak Elev=172.00' Storage=0.000 af Inflow=0.00 cfs 0.000 af
Discarded=0.00 cfs 0.000 af Primary=0.00 cfs 0.000 af Outflow=0.00 cfs 0.000 af

Pond 94P: Infiltration trench Peak Elev=195.00' Storage=0.000 af Inflow=0.22 cfs 0.065 af
Outflow=0.22 cfs 0.065 af

Summary for Pond 15P: Sed. FB A

Inflow Area =	24.283 ac, 27.67% Impervious, Inflow Depth = 1.02" for 10 YR event				
Inflow =	15.30 cfs @	12.13 hrs,	Volume=	2.064 af	
Outflow =	3.82 cfs @	13.10 hrs,	Volume=	2.064 af,	Atten= 75%, Lag= 58.5 min
Discarded =	3.82 cfs @	13.10 hrs,	Volume=	2.064 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 184.40' @ 13.10 hrs Surf.Area= 0.187 ac Storage= 0.525 af

Plug-Flow detention time= 63.2 min calculated for 2.061 af (100% of inflow)
Center-of-Mass det. time= 63.1 min (933.3 - 870.1)

Volume	Invert	Avail.Storage	Storage Description
#1	179.00'	1.479 af	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
179.00	0.000	0.000	0.000	0.000
180.00	0.058	0.019	0.019	0.058
182.00	0.105	0.161	0.180	0.106
184.00	0.172	0.274	0.454	0.174
186.00	0.254	0.423	0.878	0.258
188.00	0.350	0.601	1.479	0.355

Device	Routing	Invert	Outlet Devices
#1	Primary	185.00'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	179.00'	**20.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=3.82 cfs @ 13.10 hrs HW=184.40' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 3.82 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=179.00' TW=184.00' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Controls 0.00 cfs)

Summary for Pond 91P: Sed FB-1

Inflow Area =	0.683 ac, 39.82% Impervious, Inflow Depth = 1.43" for 10 YR event				
Inflow =	1.02 cfs @	12.11 hrs,	Volume=	0.081 af	
Outflow =	0.53 cfs @	12.30 hrs,	Volume=	0.081 af,	Atten= 48%, Lag= 11.8 min
Discarded =	0.53 cfs @	12.30 hrs,	Volume=	0.081 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 172.11' @ 12.30 hrs Surf.Area= 0.026 ac Storage= 0.009 af

Plug-Flow detention time= 4.7 min calculated for 0.081 af (100% of inflow)
Center-of-Mass det. time= 4.7 min (864.6 - 859.9)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	0.207 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
171.50	0.000	0.000	0.000
172.00	0.025	0.006	0.006
174.00	0.049	0.074	0.080
176.00	0.078	0.127	0.207

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	**10.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83
#2	Discarded	171.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.53 cfs @ 12.30 hrs HW=172.11' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.53 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=171.50' TW=172.00' (Dynamic Tailwater)
└**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 92P: IB-1

Inflow Area =	24.966 ac, 28.00% Impervious, Inflow Depth = 0.00" for 10 YR event				
Inflow =	0.00 cfs @	0.00 hrs, Volume=	0.000 af		
Outflow =	0.00 cfs @	0.00 hrs, Volume=	0.000 af, Atten= 0%, Lag= 0.0 min		
Discarded =	0.00 cfs @	0.00 hrs, Volume=	0.000 af		
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 172.00' @ 0.00 hrs Surf.Area= 0.236 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no inflow)

Volume	Invert	Avail.Storage	Storage Description
#1	172.00'	1.238 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
172.00	0.236	0.000	0.000
174.00	0.308	0.544	0.544
176.00	0.386	0.694	1.238

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	172.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.00 cfs @ 0.00 hrs HW=172.00' (Free Discharge)
└─**2=Exfiltration** (Passes 0.00 cfs of 4.76 cfs potential flow)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=172.00' (Free Discharge)
└─**1=Orifice/Grate** (Controls 0.00 cfs)

Summary for Pond 94P: Infiltration trench

Inflow Area = 2.955 ac, 4.91% Impervious, Inflow Depth = 0.26" for 10 YR event
Inflow = 0.22 cfs @ 12.45 hrs, Volume= 0.065 af
Outflow = 0.22 cfs @ 12.45 hrs, Volume= 0.065 af, Atten= 0%, Lag= 0.0 min
Discarded = 0.22 cfs @ 12.45 hrs, Volume= 0.065 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 195.00' @ 0.00 hrs Surf.Area= 0.031 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (986.5 - 986.5)

Volume	Invert	Avail.Storage	Storage Description
#1	195.00'	0.031 af	**Custom Stage Data (Prismatic)** Listed below (Recalc) 0.093 af Overall x 33.0% Voids

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
195.00	0.031	0.000	0.000
198.00	0.031	0.093	0.093

Device	Routing	Invert	Outlet Devices
#1	Discarded	195.00'	**20.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 130.00'

Discarded OutFlow Max=0.00 cfs @ 12.45 hrs HW=195.00' (Free Discharge)
└─**1=Exfiltration** (Passes 0.00 cfs of 0.63 cfs potential flow)

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 80P: Forebay-2 Peak Elev=171.04' Storage=0.234 af Inflow=7.35 cfs 0.866 af
Discarded=1.87 cfs 0.866 af Primary=0.00 cfs 0.000 af Outflow=1.87 cfs 0.866 af

Pond 81P: Inf. Basin 2 Peak Elev=170.00' Storage=0.000 af Inflow=0.68 cfs 0.088 af
Discarded=0.68 cfs 0.088 af Primary=0.00 cfs 0.000 af Outflow=0.68 cfs 0.088 af

Summary for Pond 80P: Forebay-2

Inflow Area =	8.994 ac, 32.10% Impervious, Inflow Depth = 1.15" for 10 YR event				
Inflow =	7.35 cfs @	12.12 hrs,	Volume=	0.866 af	
Outflow =	1.87 cfs @	12.83 hrs,	Volume=	0.866 af,	Atten= 75%, Lag= 42.9 min
Discarded =	1.87 cfs @	12.83 hrs,	Volume=	0.866 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 171.04' @ 12.83 hrs Surf.Area= 0.093 ac Storage= 0.234 af

Plug-Flow detention time= 50.9 min calculated for 0.864 af (100% of inflow)
Center-of-Mass det. time= 50.8 min (920.8 - 869.9)

Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	0.503 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
167.00	0.000	0.000	0.000
168.00	0.048	0.024	0.024
170.00	0.075	0.123	0.147
172.00	0.109	0.184	0.331
173.50	0.120	0.172	0.503

Device	Routing	Invert	Outlet Devices
#1	Primary	173.00'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	167.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.87 cfs @ 12.83 hrs HW=171.04' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 1.87 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=167.00' TW=170.00' (Dynamic Tailwater)
└**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 81P: Inf. Basin 2

Inflow Area =	11.052 ac, 28.81% Impervious, Inflow Depth = 0.10" for 10 YR event				
Inflow =	0.68 cfs @	12.06 hrs,	Volume=	0.088 af	
Outflow =	0.68 cfs @	12.06 hrs,	Volume=	0.088 af,	Atten= 0%, Lag= 0.0 min
Discarded =	0.68 cfs @	12.06 hrs,	Volume=	0.088 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 170.00' @ 12.05 hrs Surf.Area= 0.052 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (926.8 - 926.8)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	0.512 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
170.00	0.052	0.000	0.000
172.00	0.089	0.141	0.141
174.00	0.282	0.371	0.512

Device	Routing	Invert	Outlet Devices
#1	Primary	173.50'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	170.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.05 cfs @ 12.06 hrs HW=170.00' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 1.05 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=170.00' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 108P: FB-3 Peak Elev=167.76' Storage=0.168 af Inflow=14.09 cfs 2.113 af
Discarded=2.07 cfs 1.395 af Primary=9.98 cfs 0.718 af Outflow=12.05 cfs 2.113 af

Pond 109P: IB-3 Peak Elev=167.34' Storage=0.259 af Inflow=9.98 cfs 0.718 af
Discarded=3.71 cfs 0.718 af Primary=0.00 cfs 0.000 af Outflow=3.71 cfs 0.718 af

Summary for Pond 108P: FB-3

Inflow Area =	26.892 ac, 27.05% Impervious, Inflow Depth = 0.94" for 10 YR event				
Inflow =	14.09 cfs @	12.16 hrs,	Volume=	2.113 af	
Outflow =	12.05 cfs @	12.30 hrs,	Volume=	2.113 af,	Atten= 15%, Lag= 8.6 min
Discarded =	2.07 cfs @	12.30 hrs,	Volume=	1.395 af	
Primary =	9.98 cfs @	12.30 hrs,	Volume=	0.718 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 167.76' @ 12.30 hrs Surf.Area= 0.102 ac Storage= 0.168 af

Plug-Flow detention time= 18.6 min calculated for 2.110 af (100% of inflow)
Center-of-Mass det. time= 18.6 min (910.5 - 891.9)

Volume	Invert	Avail.Storage	Storage Description
#1	165.50'	0.193 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
165.50	0.000	0.000	0.000
166.00	0.069	0.017	0.017
168.00	0.107	0.176	0.193

Device	Routing	Invert	Outlet Devices
#1	Primary	167.00'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	165.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.07 cfs @ 12.30 hrs HW=167.76' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 2.07 cfs)

Primary OutFlow Max=9.98 cfs @ 12.30 hrs HW=167.76' TW=166.31' (Dynamic Tailwater)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 9.98 cfs @ 1.31 fps)

Summary for Pond 109P: IB-3

Inflow Area =	26.892 ac, 27.05% Impervious, Inflow Depth = 0.32" for 10 YR event				
Inflow =	9.98 cfs @	12.30 hrs,	Volume=	0.718 af	
Outflow =	3.71 cfs @	12.89 hrs,	Volume=	0.718 af,	Atten= 63%, Lag= 35.3 min
Discarded =	3.71 cfs @	12.89 hrs,	Volume=	0.718 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 167.34' @ 12.89 hrs Surf.Area= 0.184 ac Storage= 0.259 af

Plug-Flow detention time= 32.6 min calculated for 0.717 af (100% of inflow)
Center-of-Mass det. time= 32.5 min (805.3 - 772.7)

Volume	Invert	Avail.Storage	Storage Description
#1	165.50'	1.945 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
165.50	0.000	0.000	0.000
166.00	0.148	0.037	0.037
168.00	0.202	0.350	0.387
170.00	0.419	0.621	1.008
172.00	0.518	0.937	1.945

Device	Routing	Invert	Outlet Devices
#1	Primary	171.65'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	165.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=3.71 cfs @ 12.89 hrs HW=167.33' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 3.71 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=165.50' (Free Discharge)
└─**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

APPENDIX C

25 YR POST-DEVELOPMENT
Sediment Fore-bays and Ponds

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 15P: Sed. FB A Peak Elev=185.24' Storage=0.697 af Inflow=20.65 cfs 2.766 af
Discarded=4.52 cfs 2.619 af Primary=3.08 cfs 0.147 af Outflow=7.59 cfs 2.766 af

Pond 91P: Sed FB-1 Peak Elev=172.35' Storage=0.016 af Inflow=1.37 cfs 0.106 af
Discarded=0.59 cfs 0.106 af Primary=0.00 cfs 0.000 af Outflow=0.59 cfs 0.106 af

Pond 92P: IB-1 Peak Elev=172.00' Storage=0.000 af Inflow=3.10 cfs 0.147 af
Discarded=3.10 cfs 0.147 af Primary=0.00 cfs 0.000 af Outflow=3.10 cfs 0.147 af

Pond 94P: Infiltration trench Peak Elev=195.00' Storage=0.000 af Inflow=0.56 cfs 0.112 af
Outflow=0.56 cfs 0.112 af

Summary for Pond 15P: Sed. FB A

Inflow Area =	24.283 ac, 27.67% Impervious, Inflow Depth = 1.37" for 25 YR event				
Inflow =	20.65 cfs @	12.13 hrs, Volume=	2.766 af		
Outflow =	7.59 cfs @	12.75 hrs, Volume=	2.766 af, Atten= 63%, Lag= 37.1 min		
Discarded =	4.52 cfs @	12.75 hrs, Volume=	2.619 af		
Primary =	3.08 cfs @	12.75 hrs, Volume=	0.147 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 185.24' @ 12.75 hrs Surf.Area= 0.221 ac Storage= 0.697 af

Plug-Flow detention time= 70.2 min calculated for 2.762 af (100% of inflow)
Center-of-Mass det. time= 70.1 min (936.3 - 866.3)

Volume	Invert	Avail.Storage	Storage Description
#1	179.00'	1.479 af	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
179.00	0.000	0.000	0.000	0.000
180.00	0.058	0.019	0.019	0.058
182.00	0.105	0.161	0.180	0.106
184.00	0.172	0.274	0.454	0.174
186.00	0.254	0.423	0.878	0.258
188.00	0.350	0.601	1.479	0.355

Device	Routing	Invert	Outlet Devices
#1	Primary	185.00'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	179.00'	**20.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=4.52 cfs @ 12.75 hrs HW=185.24' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 4.52 cfs)

Primary OutFlow Max=3.08 cfs @ 12.75 hrs HW=185.24' TW=184.69' (Dynamic Tailwater)
└**1=Orifice/Grate** (Weir Controls 3.08 cfs @ 1.60 fps)

Summary for Pond 91P: Sed FB-1

Inflow Area =	0.683 ac, 39.82% Impervious, Inflow Depth = 1.87" for 25 YR event				
Inflow =	1.37 cfs @	12.11 hrs, Volume=	0.106 af		
Outflow =	0.59 cfs @	12.37 hrs, Volume=	0.106 af, Atten= 57%, Lag= 16.1 min		
Discarded =	0.59 cfs @	12.37 hrs, Volume=	0.106 af		
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 172.35' @ 12.37 hrs Surf.Area= 0.029 ac Storage= 0.016 af

Plug-Flow detention time= 7.1 min calculated for 0.106 af (100% of inflow)
Center-of-Mass det. time= 7.1 min (859.8 - 852.7)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	0.207 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
171.50	0.000	0.000	0.000
172.00	0.025	0.006	0.006
174.00	0.049	0.074	0.080
176.00	0.078	0.127	0.207

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	**10.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83
#2	Discarded	171.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.59 cfs @ 12.37 hrs HW=172.34' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.59 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=171.50' TW=172.00' (Dynamic Tailwater)
└─**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 92P: IB-1

Inflow Area =	24.966 ac, 28.00% Impervious, Inflow Depth = 0.07" for 25 YR event				
Inflow =	3.10 cfs @	12.76 hrs,	Volume=	0.147 af	
Outflow =	3.10 cfs @	12.76 hrs,	Volume=	0.147 af,	Atten= 0%, Lag= 0.0 min
Discarded =	3.10 cfs @	12.76 hrs,	Volume=	0.147 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 172.00' @ 12.76 hrs Surf.Area= 0.236 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (776.6 - 776.6)

Volume	Invert	Avail.Storage	Storage Description
#1	172.00'	1.238 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
172.00	0.236	0.000	0.000
174.00	0.308	0.544	0.544
176.00	0.386	0.694	1.238

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	172.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=4.76 cfs @ 12.76 hrs HW=172.00' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 4.76 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=172.00' (Free Discharge)
└**1=Orifice/Grate** (Controls 0.00 cfs)

Summary for Pond 94P: Infiltration trench

Inflow Area =	2.955 ac,	4.91% Impervious,	Inflow Depth =	0.45" for 25 YR event
Inflow =	0.56 cfs @	12.37 hrs, Volume=	0.112 af	
Outflow =	0.56 cfs @	12.37 hrs, Volume=	0.112 af,	Atten= 0%, Lag= 0.1 min
Discarded =	0.56 cfs @	12.37 hrs, Volume=	0.112 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 195.00' @ 12.36 hrs Surf.Area= 0.031 ac Storage= 0.000 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.0 min (954.1 - 954.1)

Volume	Invert	Avail.Storage	Storage Description
#1	195.00'	0.031 af	**Custom Stage Data (Prismatic)** Listed below (Recalc) 0.093 af Overall x 33.0% Voids

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
195.00	0.031	0.000	0.000
198.00	0.031	0.093	0.093

Device	Routing	Invert	Outlet Devices
#1	Discarded	195.00'	**20.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 130.00'

Discarded OutFlow Max=0.63 cfs @ 12.37 hrs HW=195.00' (Free Discharge)
└**1=Exfiltration** (Controls 0.63 cfs)

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 80P: Forebay-2 Peak Elev=172.19' Storage=0.351 af Inflow=9.95 cfs 1.153 af
Discarded=2.23 cfs 1.153 af Primary=0.00 cfs 0.000 af Outflow=2.23 cfs 1.153 af

Pond 81P: Inf. Basin 2 Peak Elev=170.04' Storage=0.002 af Inflow=1.37 cfs 0.135 af
Discarded=1.06 cfs 0.135 af Primary=0.00 cfs 0.000 af Outflow=1.06 cfs 0.135 af

Summary for Pond 80P: Forebay-2

Inflow Area =	8.994 ac, 32.10% Impervious, Inflow Depth = 1.54" for 25 YR event				
Inflow =	9.95 cfs @	12.12 hrs,	Volume=	1.153 af	
Outflow =	2.23 cfs @	12.93 hrs,	Volume=	1.153 af,	Atten= 78%, Lag= 48.3 min
Discarded =	2.23 cfs @	12.93 hrs,	Volume=	1.153 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 172.19' @ 12.93 hrs Surf.Area= 0.110 ac Storage= 0.351 af

Plug-Flow detention time= 68.1 min calculated for 1.152 af (100% of inflow)
Center-of-Mass det. time= 68.0 min (931.3 - 863.3)

Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	0.503 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
167.00	0.000	0.000	0.000
168.00	0.048	0.024	0.024
170.00	0.075	0.123	0.147
172.00	0.109	0.184	0.331
173.50	0.120	0.172	0.503

Device	Routing	Invert	Outlet Devices
#1	Primary	173.00'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	167.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.23 cfs @ 12.93 hrs HW=172.19' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 2.23 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=167.00' TW=170.00' (Dynamic Tailwater)
└─**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 81P: Inf. Basin 2

Inflow Area =	11.052 ac, 28.81% Impervious, Inflow Depth = 0.15" for 25 YR event				
Inflow =	1.37 cfs @	12.03 hrs,	Volume=	0.135 af	
Outflow =	1.06 cfs @	12.10 hrs,	Volume=	0.135 af,	Atten= 22%, Lag= 3.8 min
Discarded =	1.06 cfs @	12.10 hrs,	Volume=	0.135 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 170.04' @ 12.10 hrs Surf.Area= 0.053 ac Storage= 0.002 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.7 min (908.1 - 907.4)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	0.512 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
170.00	0.052	0.000	0.000
172.00	0.089	0.141	0.141
174.00	0.282	0.371	0.512

Device	Routing	Invert	Outlet Devices
#1	Primary	173.50'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	170.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.06 cfs @ 12.10 hrs HW=170.04' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 1.06 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=170.00' (Free Discharge)
└─**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 108P: FB-3 Peak Elev=168.47' Storage=0.193 af Inflow=20.24 cfs 2.899 af
Discarded=2.16 cfs 1.644 af Primary=17.41 cfs 1.255 af Outflow=19.58 cfs 2.899 af

Pond 109P: IB-3 Peak Elev=168.45' Storage=0.490 af Inflow=17.41 cfs 1.255 af
Discarded=5.06 cfs 1.255 af Primary=0.00 cfs 0.000 af Outflow=5.06 cfs 1.255 af

Summary for Pond 108P: FB-3

Inflow Area =	26.892 ac, 27.05% Impervious, Inflow Depth = 1.29" for 25 YR event				
Inflow =	20.24 cfs @	12.16 hrs,	Volume=	2.899 af	
Outflow =	19.58 cfs @	12.22 hrs,	Volume=	2.899 af,	Atten= 3%, Lag= 3.5 min
Discarded =	2.16 cfs @	12.20 hrs,	Volume=	1.644 af	
Primary =	17.41 cfs @	12.22 hrs,	Volume=	1.255 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 168.47' @ 12.95 hrs Surf.Area= 0.107 ac Storage= 0.193 af

Plug-Flow detention time= 19.3 min calculated for 2.895 af (100% of inflow)
Center-of-Mass det. time= 19.3 min (902.7 - 883.4)

Volume	Invert	Avail.Storage	Storage Description
#1	165.50'	0.193 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
165.50	0.000	0.000	0.000
166.00	0.069	0.017	0.017
168.00	0.107	0.176	0.193

Device	Routing	Invert	Outlet Devices
#1	Primary	167.00'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	165.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.16 cfs @ 12.20 hrs HW=168.09' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 2.16 cfs)

Primary OutFlow Max=16.82 cfs @ 12.22 hrs HW=168.08' TW=166.50' (Dynamic Tailwater)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 16.82 cfs @ 1.56 fps)

Summary for Pond 109P: IB-3

Inflow Area =	26.892 ac, 27.05% Impervious, Inflow Depth = 0.56" for 25 YR event				
Inflow =	17.41 cfs @	12.22 hrs,	Volume=	1.255 af	
Outflow =	5.06 cfs @	12.92 hrs,	Volume=	1.255 af,	Atten= 71%, Lag= 41.7 min
Discarded =	5.06 cfs @	12.92 hrs,	Volume=	1.255 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 168.45' @ 12.92 hrs Surf.Area= 0.251 ac Storage= 0.490 af

Plug-Flow detention time= 52.0 min calculated for 1.254 af (100% of inflow)
Center-of-Mass det. time= 51.9 min (835.5 - 783.5)

Volume	Invert	Avail.Storage	Storage Description
#1	165.50'	1.945 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
165.50	0.000	0.000	0.000
166.00	0.148	0.037	0.037
168.00	0.202	0.350	0.387
170.00	0.419	0.621	1.008
172.00	0.518	0.937	1.945

Device	Routing	Invert	Outlet Devices
#1	Primary	171.65'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	165.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=5.06 cfs @ 12.92 hrs HW=168.45' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 5.06 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=165.50' (Free Discharge)
└─**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

APPENDIX D

50 YR POST-DEVELOPMENT
Sediment Fore-bays and Ponds

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 15P: Sed. FB A Peak Elev=185.54' Storage=0.765 af Inflow=27.02 cfs 3.539 af
Discarded=4.78 cfs 2.989 af Primary=10.33 cfs 0.551 af Outflow=15.11 cfs 3.539 af

Pond 91P: Sed FB-1 Peak Elev=172.60' Storage=0.023 af Inflow=1.75 cfs 0.133 af
Discarded=0.65 cfs 0.133 af Primary=0.00 cfs 0.000 af Outflow=0.65 cfs 0.133 af

Pond 92P: IB-1 Peak Elev=172.00' Storage=0.000 af Inflow=3.61 cfs 0.552 af
Discarded=3.61 cfs 0.552 af Primary=0.00 cfs 0.000 af Outflow=3.61 cfs 0.552 af

Pond 94P: Infiltration trench Peak Elev=196.05' Storage=0.011 af Inflow=1.04 cfs 0.169 af
Outflow=0.64 cfs 0.169 af

Summary for Pond 15P: Sed. FB A

Inflow Area =	24.283 ac, 27.67% Impervious, Inflow Depth = 1.75" for 50 YR event				
Inflow =	27.02 cfs @	12.14 hrs,	Volume=	3.539 af	
Outflow =	15.11 cfs @	12.51 hrs,	Volume=	3.539 af,	Atten= 44%, Lag= 22.6 min
Discarded =	4.78 cfs @	12.51 hrs,	Volume=	2.989 af	
Primary =	10.33 cfs @	12.51 hrs,	Volume=	0.551 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 185.54' @ 12.51 hrs Surf.Area= 0.234 ac Storage= 0.765 af

Plug-Flow detention time= 66.1 min calculated for 3.534 af (100% of inflow)
Center-of-Mass det. time= 66.0 min (928.4 - 862.4)

Volume	Invert	Avail.Storage	Storage Description
#1	179.00'	1.479 af	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
179.00	0.000	0.000	0.000	0.000
180.00	0.058	0.019	0.019	0.058
182.00	0.105	0.161	0.180	0.106
184.00	0.172	0.274	0.454	0.174
186.00	0.254	0.423	0.878	0.258
188.00	0.350	0.601	1.479	0.355

Device	Routing	Invert	Outlet Devices
#1	Primary	185.00'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	179.00'	**20.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=4.78 cfs @ 12.51 hrs HW=185.54' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 4.78 cfs)

Primary OutFlow Max=10.25 cfs @ 12.51 hrs HW=185.54' TW=185.00' (Dynamic Tailwater)
└**1=Orifice/Grate** (Weir Controls 10.25 cfs @ 2.39 fps)

Summary for Pond 91P: Sed FB-1

Inflow Area =	0.683 ac, 39.82% Impervious, Inflow Depth = 2.34" for 50 YR event				
Inflow =	1.75 cfs @	12.10 hrs,	Volume=	0.133 af	
Outflow =	0.65 cfs @	12.42 hrs,	Volume=	0.133 af,	Atten= 63%, Lag= 18.8 min
Discarded =	0.65 cfs @	12.42 hrs,	Volume=	0.133 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 172.60' @ 12.42 hrs Surf.Area= 0.032 ac Storage= 0.023 af

Plug-Flow detention time= 9.9 min calculated for 0.133 af (100% of inflow)
Center-of-Mass det. time= 9.8 min (856.6 - 846.7)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	0.207 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
171.50	0.000	0.000	0.000
172.00	0.025	0.006	0.006
174.00	0.049	0.074	0.080
176.00	0.078	0.127	0.207

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	**10.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83
#2	Discarded	171.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.65 cfs @ 12.42 hrs HW=172.60' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 0.65 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=171.50' TW=172.00' (Dynamic Tailwater)
└**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 92P: IB-1

Inflow Area =	24.966 ac, 28.00% Impervious, Inflow Depth = 0.27" for 50 YR event			
Inflow =	3.61 cfs @	12.40 hrs, Volume=	0.552 af	
Outflow =	3.61 cfs @	12.45 hrs, Volume=	0.552 af, Atten= 0%, Lag= 3.0 min	
Discarded =	3.61 cfs @	12.45 hrs, Volume=	0.552 af	
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 172.00' @ 12.45 hrs Surf.Area= 0.236 ac Storage= 0.000 af

Plug-Flow detention time= 0.0 min calculated for 0.551 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (796.2 - 796.2)

Volume	Invert	Avail.Storage	Storage Description
#1	172.00'	1.238 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
172.00	0.236	0.000	0.000
174.00	0.308	0.544	0.544
176.00	0.386	0.694	1.238

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	172.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=4.76 cfs @ 12.45 hrs HW=172.00' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 4.76 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=172.00' (Free Discharge)
└**1=Orifice/Grate** (Controls 0.00 cfs)

Summary for Pond 94P: Infiltration trench

Inflow Area = 2.955 ac, 4.91% Impervious, Inflow Depth = 0.69" for 50 YR event
Inflow = 1.04 cfs @ 12.20 hrs, Volume= 0.169 af
Outflow = 0.64 cfs @ 12.56 hrs, Volume= 0.169 af, Atten= 39%, Lag= 21.6 min
Discarded = 0.64 cfs @ 12.56 hrs, Volume= 0.169 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 196.05' @ 12.56 hrs Surf.Area= 0.031 ac Storage= 0.011 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 2.8 min (935.6 - 932.8)

Volume	Invert	Avail.Storage	Storage Description
#1	195.00'	0.031 af	**Custom Stage Data (Prismatic)** Listed below (Recalc) 0.093 af Overall x 33.0% Voids

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
195.00	0.031	0.000	0.000
198.00	0.031	0.093	0.093

Device	Routing	Invert	Outlet Devices
#1	Discarded	195.00'	**20.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 130.00'

Discarded OutFlow Max=0.64 cfs @ 12.56 hrs HW=196.05' (Free Discharge)
└**1=Exfiltration** (Controls 0.64 cfs)

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 80P: Forebay-2 Peak Elev=173.20' Storage=0.467 af Inflow=12.84 cfs 1.466 af
Discarded=2.38 cfs 1.418 af Primary=1.37 cfs 0.048 af Outflow=3.74 cfs 1.466 af

Pond 81P: Inf. Basin 2 Peak Elev=170.29' Storage=0.016 af Inflow=2.29 cfs 0.236 af
Discarded=1.16 cfs 0.236 af Primary=0.00 cfs 0.000 af Outflow=1.16 cfs 0.236 af

Summary for Pond 80P: Forebay-2

Inflow Area =	8.994 ac, 32.10% Impervious, Inflow Depth = 1.96" for 50 YR event				
Inflow =	12.84 cfs @	12.13 hrs,	Volume=	1.466 af	
Outflow =	3.74 cfs @	12.73 hrs,	Volume=	1.466 af,	Atten= 71%, Lag= 36.2 min
Discarded =	2.38 cfs @	12.73 hrs,	Volume=	1.418 af	
Primary =	1.37 cfs @	12.73 hrs,	Volume=	0.048 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 173.20' @ 12.73 hrs Surf.Area= 0.118 ac Storage= 0.467 af

Plug-Flow detention time= 81.9 min calculated for 1.464 af (100% of inflow)
Center-of-Mass det. time= 81.8 min (939.4 - 857.6)

Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	0.503 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
167.00	0.000	0.000	0.000
168.00	0.048	0.024	0.024
170.00	0.075	0.123	0.147
172.00	0.109	0.184	0.331
173.50	0.120	0.172	0.503

Device	Routing	Invert	Outlet Devices
#1	Primary	173.00'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	167.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.38 cfs @ 12.73 hrs HW=173.20' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 2.38 cfs)

Primary OutFlow Max=1.36 cfs @ 12.73 hrs HW=173.20' TW=170.16' (Dynamic Tailwater)
└─**1=Broad-Crested Rectangular Weir** (Weir Controls 1.36 cfs @ 0.67 fps)

Summary for Pond 81P: Inf. Basin 2

Inflow Area =	11.052 ac, 28.81% Impervious, Inflow Depth = 0.26" for 50 YR event				
Inflow =	2.29 cfs @	12.02 hrs,	Volume=	0.236 af	
Outflow =	1.16 cfs @	12.96 hrs,	Volume=	0.236 af,	Atten= 49%, Lag= 56.3 min
Discarded =	1.16 cfs @	12.96 hrs,	Volume=	0.236 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 170.29' @ 12.96 hrs Surf.Area= 0.057 ac Storage= 0.016 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 3.8 min (872.4 - 868.6)

Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	0.512 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
170.00	0.052	0.000	0.000
172.00	0.089	0.141	0.141
174.00	0.282	0.371	0.512

Device	Routing	Invert	Outlet Devices
#1	Primary	173.50'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	170.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.15 cfs @ 12.96 hrs HW=170.28' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 1.15 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=170.00' (Free Discharge)
└─**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Pond 108P: FB-3 Peak Elev=169.46' Storage=0.193 af Inflow=27.51 cfs 3.767 af
Discarded=2.16 cfs 1.850 af Primary=30.35 cfs 1.916 af Outflow=32.51 cfs 3.767 af

Pond 109P: IB-3 Peak Elev=169.43' Storage=0.787 af Inflow=30.35 cfs 1.916 af
Discarded=7.21 cfs 1.916 af Primary=0.00 cfs 0.000 af Outflow=7.21 cfs 1.916 af

Summary for Pond 108P: FB-3

Inflow Area =	26.892 ac, 27.05% Impervious, Inflow Depth = 1.68" for 50 YR event				
Inflow =	27.51 cfs @	12.17 hrs,	Volume=	3.767 af	
Outflow =	32.51 cfs @	12.16 hrs,	Volume=	3.767 af,	Atten= 0%, Lag= 0.0 min
Discarded =	2.16 cfs @	12.15 hrs,	Volume=	1.850 af	
Primary =	30.35 cfs @	12.16 hrs,	Volume=	1.916 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 169.46' @ 12.95 hrs Surf.Area= 0.107 ac Storage= 0.193 af

Plug-Flow detention time= 18.5 min calculated for 3.762 af (100% of inflow)
Center-of-Mass det. time= 18.5 min (894.9 - 876.4)

Volume	Invert	Avail.Storage	Storage Description
#1	165.50'	0.193 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
165.50	0.000	0.000	0.000
166.00	0.069	0.017	0.017
168.00	0.107	0.176	0.193

Device	Routing	Invert	Outlet Devices
#1	Primary	167.00'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	165.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.16 cfs @ 12.15 hrs HW=168.59' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 2.16 cfs)

Primary OutFlow Max=28.95 cfs @ 12.16 hrs HW=168.55' TW=166.62' (Dynamic Tailwater)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 28.95 cfs @ 1.87 fps)

Summary for Pond 109P: IB-3

Inflow Area =	26.892 ac, 27.05% Impervious, Inflow Depth = 0.86" for 50 YR event				
Inflow =	30.35 cfs @	12.16 hrs,	Volume=	1.916 af	
Outflow =	7.21 cfs @	12.92 hrs,	Volume=	1.916 af,	Atten= 76%, Lag= 46.1 min
Discarded =	7.21 cfs @	12.92 hrs,	Volume=	1.916 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 169.43' @ 12.92 hrs Surf.Area= 0.357 ac Storage= 0.787 af

Plug-Flow detention time= 62.2 min calculated for 1.914 af (100% of inflow)
Center-of-Mass det. time= 62.1 min (850.1 - 787.9)

Volume	Invert	Avail.Storage	Storage Description
#1	165.50'	1.945 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
165.50	0.000	0.000	0.000
166.00	0.148	0.037	0.037
168.00	0.202	0.350	0.387
170.00	0.419	0.621	1.008
172.00	0.518	0.937	1.945

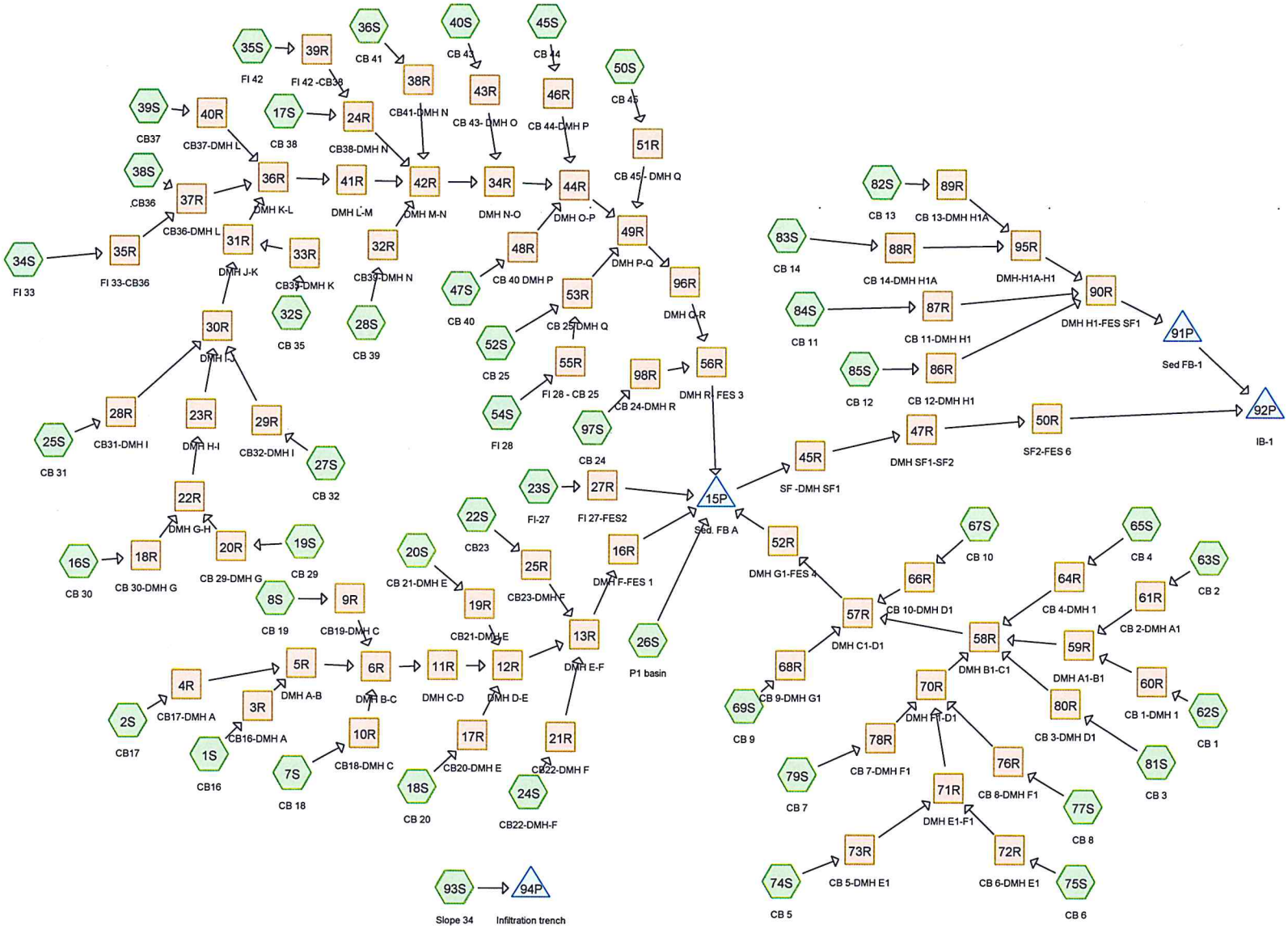
Device	Routing	Invert	Outlet Devices
#1	Primary	171.65'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	165.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=7.20 cfs @ 12.92 hrs HW=169.43' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 7.20 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=165.50' (Free Discharge)
└─**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

APPENDIX E

100 YR POST-DEVELOPMENT



Routing Diagram for LS-Apartments (prop Cond)-Basin 1

Prepared by CAQ Engineering Associates, Inc., Printed 7/14/2017

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
2.550	46	2 acre lots, 12% imp, HSG A (62S)
18.542	39	>75% Grass cover, Good, HSG A (1S, 2S, 7S, 8S, 16S, 17S, 19S, 20S, 23S, 24S, 25S, 26S, 27S, 32S, 34S, 35S, 36S, 38S, 39S, 40S, 45S, 52S, 54S, 62S, 63S, 65S, 67S, 69S, 74S, 75S, 77S, 79S, 81S, 82S, 83S, 84S, 85S, 93S, 97S)
0.372	98	Paved parking, HSG A (16S, 97S)
4.918	98	Paved roads w/curbs & sewers, HSG A (1S, 2S, 7S, 8S, 17S, 18S, 19S, 20S, 22S, 23S, 24S, 25S, 27S, 28S, 32S, 34S, 35S, 36S, 38S, 39S, 40S, 45S, 47S, 50S, 52S, 62S, 63S, 65S, 67S, 69S, 74S, 75S, 77S, 79S, 81S, 82S, 83S, 84S, 85S)
1.539	98	Roofs, HSG A (26S, 54S, 93S)
27.921	**54**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
27.921	HSG A	1S, 2S, 7S, 8S, 16S, 17S, 18S, 19S, 20S, 22S, 23S, 24S, 25S, 26S, 27S, 28S, 32S, 34S, 35S, 36S, 38S, 39S, 40S, 45S, 47S, 50S, 52S, 54S, 62S, 63S, 65S, 67S, 69S, 74S, 75S, 77S, 79S, 81S, 82S, 83S, 84S, 85S, 93S, 97S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
27.921		**TOTAL AREA**

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	3R	224.00	223.60	14.0	0.0286	0.013	12.0	0.0	0.0
2	4R	224.00	223.60	24.0	0.0167	0.013	12.0	0.0	0.0
3	5R	223.50	220.10	80.0	0.0425	0.013	12.0	0.0	0.0
4	6R	220.00	211.10	206.0	0.0432	0.013	12.0	0.0	0.0
5	9R	211.24	211.10	14.0	0.0100	0.013	12.0	0.0	0.0
6	10R	211.24	211.10	5.0	0.0280	0.013	12.0	0.0	0.0
7	11R	211.00	207.10	70.0	0.0557	0.013	12.0	0.0	0.0
8	12R	207.00	203.10	82.0	0.0476	0.013	12.0	0.0	0.0
9	13R	203.00	194.50	170.0	0.0500	0.013	12.0	0.0	0.0
10	16R	194.40	190.00	106.0	0.0415	0.013	12.0	0.0	0.0
11	17R	204.06	203.10	24.0	0.0400	0.013	12.0	0.0	0.0
12	18R	214.79	214.60	16.0	0.0119	0.013	12.0	0.0	0.0
13	19R	204.26	203.10	29.0	0.0400	0.013	12.0	0.0	0.0
14	20R	214.79	214.60	19.0	0.0100	0.013	12.0	0.0	0.0
15	21R	195.80	195.52	5.0	0.0560	0.013	12.0	0.0	0.0
16	22R	214.50	212.64	70.0	0.0266	0.013	12.0	0.0	0.0
17	23R	212.54	205.89	250.0	0.0266	0.013	15.0	0.0	0.0
18	24R	192.84	192.42	42.0	0.0100	0.013	12.0	0.0	0.0
19	25R	195.80	195.52	14.0	0.0200	0.013	12.0	0.0	0.0
20	27R	189.84	189.00	84.0	0.0100	0.013	12.0	0.0	0.0
21	28R	206.04	205.89	7.5	0.0200	0.013	12.0	0.0	0.0
22	29R	206.04	205.89	15.0	0.0100	0.013	12.0	0.0	0.0
23	30R	205.79	203.34	98.0	0.0250	0.013	15.0	0.0	0.0
24	31R	203.27	200.90	117.0	0.0203	0.013	15.0	0.0	0.0
25	32R	192.79	192.42	37.0	0.0100	0.013	12.0	0.0	0.0
26	33R	201.10	200.90	20.0	0.0100	0.013	12.0	0.0	0.0
27	34R	191.92	184.66	363.0	0.0200	0.013	18.0	0.0	0.0
28	35R	200.05	199.90	15.0	0.0100	0.013	12.0	0.0	0.0
29	36R	200.80	199.68	56.0	0.0200	0.013	15.0	0.0	0.0
30	37R	199.80	199.68	22.0	0.0055	0.013	12.0	0.0	0.0
31	38R	192.45	192.42	3.0	0.0100	0.013	12.0	0.0	0.0
32	39R	193.14	192.94	20.0	0.0100	0.013	12.0	0.0	0.0
33	40R	199.88	199.68	30.0	0.0067	0.013	12.0	0.0	0.0
34	41R	199.58	195.16	226.0	0.0196	0.013	15.0	0.0	0.0
35	42R	195.06	192.42	132.0	0.0200	0.013	18.0	0.0	0.0
36	43R	185.33	185.16	17.0	0.0100	0.013	12.0	0.0	0.0
37	44R	184.16	183.60	37.0	0.0151	0.013	24.0	0.0	0.0
38	45R	184.00	182.03	181.0	0.0109	0.013	12.0	0.0	0.0
39	46R	184.67	184.50	17.0	0.0100	0.013	12.0	0.0	0.0
40	47R	181.93	181.00	76.0	0.0122	0.013	12.0	0.0	0.0

Pipe Listing (all nodes) (continued)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
41	48R	184.54	184.50	4.0	0.0100	0.013	12.0	0.0	0.0
42	49R	183.50	183.25	37.0	0.0068	0.013	24.0	0.0	0.0
43	50R	180.90	179.00	185.0	0.0103	0.013	12.0	0.0	0.0
44	51R	184.41	184.25	16.0	0.0100	0.013	12.0	0.0	0.0
45	52R	185.88	185.25	63.0	0.0100	0.013	24.0	0.0	0.0
46	53R	184.79	184.25	27.0	0.0200	0.013	12.0	0.0	0.0
47	55R	185.29	184.89	23.0	0.0174	0.013	12.0	0.0	0.0
48	56R	182.67	182.28	73.0	0.0053	0.013	24.0	0.0	0.0
49	57R	187.13	185.98	135.0	0.0085	0.013	18.0	0.0	0.0
50	58R	190.61	187.23	337.0	0.0100	0.013	18.0	0.0	0.0
51	59R	192.20	191.10	110.0	0.0100	0.013	12.0	0.0	0.0
52	60R	192.44	192.30	14.0	0.0100	0.013	12.0	0.0	0.0
53	61R	192.44	192.30	8.0	0.0175	0.013	12.0	0.0	0.0
54	64R	188.20	187.63	57.0	0.0100	0.013	12.0	0.0	0.0
55	66R	186.56	186.48	5.0	0.0160	0.013	12.0	0.0	0.0
56	68R	186.56	186.48	8.0	0.0100	0.013	12.0	0.0	0.0
57	70R	187.90	187.50	60.0	0.0067	0.013	15.0	0.0	0.0
58	71R	190.53	188.29	114.0	0.0196	0.013	12.0	0.0	0.0
59	72R	190.77	190.63	5.0	0.0280	0.013	12.0	0.0	0.0
60	73R	190.77	190.63	14.0	0.0100	0.013	12.0	0.0	0.0
61	76R	188.52	188.29	7.0	0.0329	0.013	12.0	0.0	0.0
62	78R	188.52	188.29	23.0	0.0100	0.013	12.0	0.0	0.0
63	80R	188.25	187.63	62.0	0.0100	0.013	12.0	0.0	0.0
64	86R	183.08	182.90	18.0	0.0100	0.013	12.0	0.0	0.0
65	87R	183.28	182.90	38.0	0.0100	0.013	12.0	0.0	0.0
66	88R	183.46	183.29	17.0	0.0100	0.013	12.0	0.0	0.0
67	89R	183.35	183.29	6.0	0.0100	0.013	12.0	0.0	0.0
68	90R	182.80	180.00	140.0	0.0200	0.013	12.0	0.0	0.0
69	95R	183.19	182.90	29.0	0.0100	0.013	12.0	0.0	0.0
70	96R	183.15	182.77	40.0	0.0095	0.013	24.0	0.0	0.0
71	98R	184.29	184.25	2.0	0.0200	0.013	12.0	0.0	0.0

Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: CB16 Runoff Area=0.898 ac 10.02% Impervious Runoff Depth=1.14"
Tc=6.0 min CN=45 Runoff=0.87 cfs 0.086 af

Subcatchment 2S: CB17 Runoff Area=0.136 ac 56.62% Impervious Runoff Depth=3.66"
Tc=6.0 min CN=72 Runoff=0.57 cfs 0.041 af

Subcatchment 7S: CB 18 Runoff Area=0.249 ac 45.38% Impervious Runoff Depth=3.05"
Tc=0.0 min CN=66 Runoff=1.02 cfs 0.063 af

Subcatchment 8S: CB 19 Runoff Area=0.202 ac 54.95% Impervious Runoff Depth=3.56"
Tc=6.0 min CN=71 Runoff=0.83 cfs 0.060 af

Subcatchment 16S: CB 30 Runoff Area=0.691 ac 26.92% Impervious Runoff Depth=2.00"
Tc=6.0 min CN=55 Runoff=1.48 cfs 0.115 af

Subcatchment 17S: CB 38 Runoff Area=0.288 ac 69.44% Impervious Runoff Depth=4.51"
Tc=6.0 min CN=80 Runoff=1.48 cfs 0.108 af

Subcatchment 18S: CB 20 Runoff Area=0.046 ac 100.00% Impervious Runoff Depth=6.56"
Tc=6.0 min CN=98 Runoff=0.30 cfs 0.025 af

Subcatchment 19S: CB 29 Runoff Area=0.233 ac 48.93% Impervious Runoff Depth=3.25"
Tc=6.0 min CN=68 Runoff=0.87 cfs 0.063 af

Subcatchment 20S: CB 21-DMH E Runoff Area=0.054 ac 85.19% Impervious Runoff Depth=5.51"
Tc=6.0 min CN=89 Runoff=0.32 cfs 0.025 af

Subcatchment 22S: CB23 Runoff Area=0.256 ac 100.00% Impervious Runoff Depth=6.56"
Flow Length=3,500' Slope=0.0757 '/' Tc=14.9 min CN=98 Runoff=1.30 cfs 0.140 af

Subcatchment 23S: FI-27 Runoff Area=0.658 ac 10.49% Impervious Runoff Depth=1.14"
Flow Length=290' Slope=0.0655 '/' Tc=11.7 min CN=45 Runoff=0.52 cfs 0.063 af

Subcatchment 24S: CB22-DMH-F Runoff Area=0.102 ac 70.59% Impervious Runoff Depth=4.62"
Tc=6.0 min CN=81 Runoff=0.53 cfs 0.039 af

Subcatchment 25S: CB 31 Runoff Area=1.330 ac 26.17% Impervious Runoff Depth=1.91"
Flow Length=380' Slope=0.0421 '/' Tc=14.4 min CN=54 Runoff=2.07 cfs 0.211 af

Subcatchment 26S: P1 basin Runoff Area=1.500 ac 9.27% Impervious Runoff Depth=1.07"
Flow Length=240' Slope=0.1083 '/' Tc=8.0 min CN=44 Runoff=1.19 cfs 0.133 af

Subcatchment 27S: CB 32 Runoff Area=0.153 ac 76.47% Impervious Runoff Depth=4.95"
Tc=6.0 min CN=84 Runoff=0.85 cfs 0.063 af

Subcatchment 28S: CB 39 Runoff Area=0.179 ac 100.00% Impervious Runoff Depth=6.56"
Tc=6.0 min CN=98 Runoff=1.17 cfs 0.098 af

Subcatchment 32S: CB 35 Runoff Area=0.113 ac 74.34% Impervious Runoff Depth=4.84"
Tc=6.0 min CN=83 Runoff=0.62 cfs 0.046 af

Subcatchment 34S: FI 33 Runoff Area=0.727 ac 19.67% Impervious Runoff Depth=1.64"
Flow Length=240' Slope=0.0250 '/' Tc=13.9 min CN=51 Runoff=0.94 cfs 0.100 af

Subcatchment 35S: FI 42 Runoff Area=1.130 ac 26.81% Impervious Runoff Depth=2.00"
Flow Length=330' Slope=0.0136 '/' Tc=22.0 min CN=55 Runoff=1.57 cfs 0.188 af

Subcatchment 36S: CB 41 Runoff Area=0.132 ac 52.27% Impervious Runoff Depth=3.45"
Tc=6.0 min CN=70 Runoff=0.52 cfs 0.038 af

Subcatchment 38S: CB36 Runoff Area=0.208 ac 62.98% Impervious Runoff Depth=4.08"
Tc=6.0 min CN=76 Runoff=0.97 cfs 0.071 af

Subcatchment 39S: CB37 Runoff Area=0.037 ac 56.76% Impervious Runoff Depth=3.66"
Tc=6.0 min CN=72 Runoff=0.16 cfs 0.011 af

Subcatchment 40S: CB 43 Runoff Area=0.445 ac 72.13% Impervious Runoff Depth=4.73"
Tc=6.0 min CN=82 Runoff=2.38 cfs 0.175 af

Subcatchment 45S: CB 44 Runoff Area=0.096 ac 88.54% Impervious Runoff Depth=5.74"
Tc=6.0 min CN=91 Runoff=0.59 cfs 0.046 af

Subcatchment 47S: CB 40 Runoff Area=0.212 ac 100.00% Impervious Runoff Depth=6.56"
Tc=6.0 min CN=98 Runoff=1.38 cfs 0.116 af

Subcatchment 50S: CB 45 Runoff Area=0.146 ac 100.00% Impervious Runoff Depth=6.56"
Tc=6.0 min CN=98 Runoff=0.95 cfs 0.080 af

Subcatchment 52S: CB 25 Runoff Area=0.142 ac 79.58% Impervious Runoff Depth=5.17"
Tc=6.0 min CN=86 Runoff=0.82 cfs 0.061 af

Subcatchment 54S: FI 28 Runoff Area=6.749 ac 18.60% Impervious Runoff Depth=1.56"
Flow Length=1,100' Slope=0.0280 '/' Tc=45.7 min CN=50 Runoff=4.85 cfs 0.876 af

Subcatchment 62S: CB 1 Runoff Area=3.794 ac 11.81% Impervious Runoff Depth=1.22"
Flow Length=560' Slope=0.1071 '/' Tc=15.1 min CN=46 Runoff=3.09 cfs 0.387 af

Subcatchment 63S: CB 2 Runoff Area=0.189 ac 52.38% Impervious Runoff Depth=3.45"
Tc=6.0 min CN=70 Runoff=0.75 cfs 0.054 af

Subcatchment 65S: CB 4 Runoff Area=0.203 ac 57.14% Impervious Runoff Depth=3.76"
Tc=6.0 min CN=73 Runoff=0.88 cfs 0.064 af

Subcatchment 67S: CB 10 Runoff Area=0.063 ac 88.89% Impervious Runoff Depth=5.74"
Tc=6.0 min CN=91 Runoff=0.39 cfs 0.030 af

Subcatchment 69S: CB 9 Runoff Area=0.302 ac 48.01% Impervious Runoff Depth=3.15"
Tc=6.0 min CN=67 Runoff=1.09 cfs 0.079 af

Subcatchment 74S: CB 5 Runoff Area=0.134 ac 62.69% Impervious Runoff Depth=4.08"
Tc=6.0 min CN=76 Runoff=0.63 cfs 0.046 af

Subcatchment 75S: CB 6 Runoff Area=0.253 ac 53.36% Impervious Runoff Depth=3.45"
Tc=6.0 min CN=70 Runoff=1.00 cfs 0.073 af

Subcatchment 77S: CB 8 Runoff Area=0.066 ac 69.70% Impervious Runoff Depth=4.51"
Tc=6.0 min CN=80 Runoff=0.34 cfs 0.025 af

Subcatchment 79S: CB 7 Runoff Area=0.051 ac 64.71% Impervious Runoff Depth=4.19"
Tc=6.0 min CN=77 Runoff=0.24 cfs 0.018 af

Subcatchment 81S: CB 3 Runoff Area=1.806 ac 17.94% Impervious Runoff Depth=1.56"
Flow Length=420' Slope=0.1155 '/' Tc=10.4 min CN=50 Runoff=2.40 cfs 0.234 af

Subcatchment 82S: CB 13 Runoff Area=0.264 ac 56.06% Impervious Runoff Depth=3.66"
Tc=6.0 min CN=72 Runoff=1.11 cfs 0.081 af

Subcatchment 83S: CB 14 Runoff Area=0.202 ac 18.32% Impervious Runoff Depth=1.56"
Tc=6.0 min CN=50 Runoff=0.31 cfs 0.026 af

Subcatchment 84S: CB 11 Runoff Area=0.053 ac 7.55% Impervious Runoff Depth=0.99"
Tc=6.0 min CN=43 Runoff=0.04 cfs 0.004 af

Subcatchment 85S: CB 12 Runoff Area=0.164 ac 50.61% Impervious Runoff Depth=3.35"
Tc=6.0 min CN=69 Runoff=0.63 cfs 0.046 af

Subcatchment 93S: Slope 34 Runoff Area=2.955 ac 4.91% Impervious Runoff Depth=0.91"
Flow Length=320' Slope=0.1625 '/' Tc=8.7 min CN=42 Runoff=1.69 cfs 0.225 af

Subcatchment 97S: CB 24 Runoff Area=0.310 ac 60.00% Impervious Runoff Depth=3.87"
Tc=6.0 min CN=74 Runoff=1.38 cfs 0.100 af

Reach 3R: CB16-DMH A Avg. Flow Depth=0.26' Max Vel=5.43 fps Inflow=0.87 cfs 0.086 af
12.0" Round Pipe n=0.013 L=14.0' S=0.0286 '/' Capacity=6.02 cfs Outflow=0.87 cfs 0.086 af

Reach 4R: CB17-DMH A Avg. Flow Depth=0.24' Max Vel=3.99 fps Inflow=0.57 cfs 0.041 af
12.0" Round Pipe n=0.013 L=24.0' S=0.0167 '/' Capacity=4.60 cfs Outflow=0.57 cfs 0.041 af

Reach 5R: DMH A-B Avg. Flow Depth=0.30' Max Vel=7.24 fps Inflow=1.43 cfs 0.127 af
12.0" Round Pipe n=0.013 L=80.0' S=0.0425 '/' Capacity=7.34 cfs Outflow=1.43 cfs 0.127 af

Reach 6R: DMH B-C Avg. Flow Depth=0.42' Max Vel=8.75 fps Inflow=2.78 cfs 0.250 af
12.0" Round Pipe n=0.013 L=206.0' S=0.0432 '/' Capacity=7.41 cfs Outflow=2.77 cfs 0.250 af

Reach 9R: CB19-DMH C Avg. Flow Depth=0.33' Max Vel=3.69 fps Inflow=0.83 cfs 0.060 af
12.0" Round Pipe n=0.013 L=14.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.83 cfs 0.060 af

Reach 10R: CB18-DMH C Avg. Flow Depth=0.28' Max Vel=5.66 fps Inflow=1.02 cfs 0.063 af
12.0" Round Pipe n=0.013 L=5.0' S=0.0280 '/' Capacity=5.96 cfs Outflow=1.02 cfs 0.063 af

Reach 11R: DMH C-D Avg. Flow Depth=0.40' Max Vel=9.60 fps Inflow=2.77 cfs 0.250 af
12.0" Round Pipe n=0.013 L=70.0' S=0.0557 '/' Capacity=8.41 cfs Outflow=2.77 cfs 0.250 af

Reach 12R: DMH D-E Avg. Flow Depth=0.46' Max Vel=9.56 fps Inflow=3.40 cfs 0.300 af
12.0" Round Pipe n=0.013 L=82.0' S=0.0476 '/' Capacity=7.77 cfs Outflow=3.40 cfs 0.300 af

Reach 13R: DMH E-F Avg. Flow Depth=0.57' Max Vel=10.68 fps Inflow=4.96 cfs 0.479 af
12.0" Round Pipe n=0.013 L=170.0' S=0.0500 '/' Capacity=7.97 cfs Outflow=4.96 cfs 0.479 af

Reach 16R: DMH F-FES 1 Avg. Flow Depth=0.61' Max Vel=9.94 fps Inflow=4.96 cfs 0.479 af
12.0" Round Pipe n=0.013 L=106.0' S=0.0415 '/' Capacity=7.26 cfs Outflow=4.96 cfs 0.479 af

Reach 17R: CB20-DMH E Avg. Flow Depth=0.14' Max Vel=4.48 fps Inflow=0.30 cfs 0.025 af
12.0" Round Pipe n=0.013 L=24.0' S=0.0400 '/' Capacity=7.13 cfs Outflow=0.30 cfs 0.025 af

Reach 18R: CB 30-DMH G Avg. Flow Depth=0.43' Max Vel=4.61 fps Inflow=1.48 cfs 0.115 af
12.0" Round Pipe n=0.013 L=16.0' S=0.0119 '/' Capacity=3.88 cfs Outflow=1.48 cfs 0.115 af

Reach 19R: CB21-DMH E Avg. Flow Depth=0.15' Max Vel=4.59 fps Inflow=0.32 cfs 0.025 af
12.0" Round Pipe n=0.013 L=29.0' S=0.0400 '/' Capacity=7.13 cfs Outflow=0.33 cfs 0.025 af

Reach 20R: CB 29-DMH G Avg. Flow Depth=0.34' Max Vel=3.74 fps Inflow=0.87 cfs 0.063 af
12.0" Round Pipe n=0.013 L=19.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.87 cfs 0.063 af

Reach 21R: CB22-DMH F Avg. Flow Depth=0.17' Max Vel=5.99 fps Inflow=0.53 cfs 0.039 af
12.0" Round Pipe n=0.013 L=5.0' S=0.0560 '/' Capacity=8.43 cfs Outflow=0.53 cfs 0.039 af

Reach 22R: DMH G-H Avg. Flow Depth=0.44' Max Vel=7.00 fps Inflow=2.35 cfs 0.178 af
12.0" Round Pipe n=0.013 L=70.0' S=0.0266 '/' Capacity=5.81 cfs Outflow=2.35 cfs 0.178 af

Reach 23R: DMH H-I Avg. Flow Depth=0.40' Max Vel=6.90 fps Inflow=2.35 cfs 0.178 af
15.0" Round Pipe n=0.013 L=250.0' S=0.0266 '/' Capacity=10.54 cfs Outflow=2.34 cfs 0.178 af

Reach 24R: CB38-DMH N Avg. Flow Depth=0.57' Max Vel=4.77 fps Inflow=2.19 cfs 0.296 af
12.0" Round Pipe n=0.013 L=42.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=2.19 cfs 0.296 af

Reach 25R: CB23-DMH F Avg. Flow Depth=0.35' Max Vel=5.38 fps Inflow=1.30 cfs 0.140 af
12.0" Round Pipe n=0.013 L=14.0' S=0.0200 '/' Capacity=5.04 cfs Outflow=1.30 cfs 0.140 af

Reach 27R: FI 27-FES2 Avg. Flow Depth=0.26' Max Vel=3.24 fps Inflow=0.52 cfs 0.063 af
12.0" Round Pipe n=0.013 L=84.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.53 cfs 0.063 af

Reach 28R: CB31-DMH I Avg. Flow Depth=0.45' Max Vel=6.08 fps Inflow=2.07 cfs 0.211 af
12.0" Round Pipe n=0.013 L=7.5' S=0.0200 '/' Capacity=5.04 cfs Outflow=2.07 cfs 0.211 af

Reach 29R: CB32-DMH I Avg. Flow Depth=0.33' Max Vel=3.72 fps Inflow=0.85 cfs 0.063 af
12.0" Round Pipe n=0.013 L=15.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.85 cfs 0.063 af

Reach 30R: DMH I-J Avg. Flow Depth=0.59' Max Vel=8.11 fps Inflow=4.61 cfs 0.453 af
15.0" Round Pipe n=0.013 L=98.0' S=0.0250 '/' Capacity=10.21 cfs Outflow=4.62 cfs 0.453 af

Reach 31R: DMH J-K Avg. Flow Depth=0.67' Max Vel=7.70 fps Inflow=5.24 cfs 0.498 af
15.0" Round Pipe n=0.013 L=117.0' S=0.0203 '/' Capacity=9.19 cfs Outflow=5.17 cfs 0.498 af

Reach 32R: CB39-DMH N Avg. Flow Depth=0.39' Max Vel=4.05 fps Inflow=1.17 cfs 0.098 af
12.0" Round Pipe n=0.013 L=37.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.17 cfs 0.098 af

Reach 33R: CB35-DMH K Avg. Flow Depth=0.28' Max Vel=3.39 fps Inflow=0.62 cfs 0.046 af
12.0" Round Pipe n=0.013 L=20.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.62 cfs 0.046 af

Reach 34R: DMH N-O Avg. Flow Depth=1.07' Max Vel=9.44 fps Inflow=12.91 cfs 1.287 af
18.0" Round Pipe n=0.013 L=363.0' S=0.0200 '/' Capacity=14.86 cfs Outflow=12.73 cfs 1.287 af

Reach 35R: FI 33-CB36 Avg. Flow Depth=0.35' Max Vel=3.82 fps Inflow=0.94 cfs 0.100 af
12.0" Round Pipe n=0.013 L=15.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.94 cfs 0.100 af

Reach 36R: DMH K-L Avg. Flow Depth=0.81' Max Vel=8.18 fps Inflow=6.92 cfs 0.680 af
15.0" Round Pipe n=0.013 L=56.0' S=0.0200 '/' Capacity=9.14 cfs Outflow=6.92 cfs 0.680 af

Reach 37R: CB36-DMH L Avg. Flow Depth=0.56' Max Vel=3.51 fps Inflow=1.60 cfs 0.170 af
12.0" Round Pipe n=0.013 L=22.0' S=0.0055 '/' Capacity=2.63 cfs Outflow=1.60 cfs 0.170 af

Reach 38R: CB41-DMH N Avg. Flow Depth=0.26' Max Vel=3.24 fps Inflow=0.52 cfs 0.038 af
12.0" Round Pipe n=0.013 L=3.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.52 cfs 0.038 af

Reach 39R: FI 42 -CB38 Avg. Flow Depth=0.47' Max Vel=4.40 fps Inflow=1.57 cfs 0.188 af
12.0" Round Pipe n=0.013 L=20.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.57 cfs 0.188 af

Reach 40R: CB37-DMH L Avg. Flow Depth=0.16' Max Vel=1.97 fps Inflow=0.16 cfs 0.011 af
12.0" Round Pipe n=0.013 L=30.0' S=0.0067 '/' Capacity=2.91 cfs Outflow=0.16 cfs 0.011 af

Reach 41R: DMH L-M Avg. Flow Depth=0.82' Max Vel=8.12 fps Inflow=6.92 cfs 0.680 af
15.0" Round Pipe n=0.013 L=226.0' S=0.0196 '/' Capacity=9.03 cfs Outflow=6.96 cfs 0.680 af

Reach 42R: DMH M-N Avg. Flow Depth=0.93' Max Vel=9.11 fps Inflow=10.54 cfs 1.112 af
18.0" Round Pipe n=0.013 L=132.0' S=0.0200 '/' Capacity=14.86 cfs Outflow=10.56 cfs 1.112 af

Reach 43R: CB 43- DMH O Avg. Flow Depth=0.60' Max Vel=4.85 fps Inflow=2.38 cfs 0.175 af
12.0" Round Pipe n=0.013 L=17.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=2.38 cfs 0.175 af

Reach 44R: DMH O-P Avg. Flow Depth=1.03' Max Vel=8.92 fps Inflow=14.64 cfs 1.449 af
24.0" Round Pipe n=0.013 L=37.0' S=0.0151 '/' Capacity=27.83 cfs Outflow=14.64 cfs 1.449 af

Reach 45R: SF -DMH SF1 Avg. Flow Depth=1.00' Max Vel=5.39 fps Inflow=16.51 cfs 0.973 af
12.0" Round Pipe n=0.013 L=181.0' S=0.0109 '/' Capacity=3.72 cfs Outflow=3.74 cfs 0.976 af

Reach 46R: CB 44-DMH P Avg. Flow Depth=0.28' Max Vel=3.35 fps Inflow=0.59 cfs 0.046 af
12.0" Round Pipe n=0.013 L=17.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.59 cfs 0.046 af

Reach 47R: DMH SF1-SF2 Avg. Flow Depth=0.86' Max Vel=5.72 fps Inflow=3.74 cfs 0.976 af
12.0" Round Pipe n=0.013 L=76.0' S=0.0122 '/' Capacity=3.94 cfs Outflow=4.09 cfs 0.976 af

Reach 48R: CB 40 DMH P Avg. Flow Depth=0.43' Max Vel=4.24 fps Inflow=1.38 cfs 0.116 af
12.0" Round Pipe n=0.013 L=4.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.38 cfs 0.116 af

Reach 49R: DMH P-Q Avg. Flow Depth=1.48' Max Vel=6.68 fps Inflow=16.80 cfs 2.466 af
24.0" Round Pipe n=0.013 L=37.0' S=0.0068 '/' Capacity=18.60 cfs Outflow=16.80 cfs 2.466 af

Reach 50R: SF2-FES 6 Avg. Flow Depth=1.00' Max Vel=5.04 fps Inflow=4.09 cfs 0.976 af
12.0" Round Pipe n=0.013 L=185.0' S=0.0103 '/' Capacity=3.61 cfs Outflow=3.61 cfs 0.976 af

Reach 51R: CB 45 - DMH Q Avg. Flow Depth=0.35' Max Vel=3.83 fps Inflow=0.95 cfs 0.080 af
12.0" Round Pipe n=0.013 L=16.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.95 cfs 0.080 af

Reach 52R: DMH G1-FES 4 Avg. Flow Depth=0.88' Max Vel=6.77 fps Inflow=8.95 cfs 1.010 af
24.0" Round Pipe n=0.013 L=63.0' S=0.0100 '/' Capacity=22.62 cfs Outflow=8.97 cfs 1.010 af

Reach 53R: CB 25 DMH Q Avg. Flow Depth=0.80' Max Vel=7.31 fps Inflow=4.95 cfs 0.937 af
12.0" Round Pipe n=0.013 L=27.0' S=0.0200 '/' Capacity=5.04 cfs Outflow=4.95 cfs 0.937 af

Reach 55R: FI 28 - CB 25 Avg. Flow Depth=0.85' Max Vel=6.82 fps Inflow=4.85 cfs 0.876 af
12.0" Round Pipe n=0.013 L=23.0' S=0.0174 '/' Capacity=4.70 cfs Outflow=4.85 cfs 0.876 af

Reach 56R: DMH R- FES 3 Avg. Flow Depth=1.83' Max Vel=5.98 fps Inflow=18.10 cfs 2.566 af
24.0" Round Pipe n=0.013 L=73.0' S=0.0053 '/' Capacity=16.54 cfs Outflow=17.88 cfs 2.566 af

Reach 57R: DMH C1-D1 Avg. Flow Depth=1.14' Max Vel=6.22 fps Inflow=8.93 cfs 1.010 af
18.0" Round Pipe n=0.013 L=135.0' S=0.0085 '/' Capacity=9.70 cfs Outflow=8.95 cfs 1.010 af

Reach 58R: DMH B1-C1 Avg. Flow Depth=0.96' Max Vel=6.50 fps Inflow=7.79 cfs 0.900 af
18.0" Round Pipe n=0.013 L=337.0' S=0.0100 '/' Capacity=10.52 cfs Outflow=7.81 cfs 0.900 af

Reach 59R: DMH A1-B1 Avg. Flow Depth=0.80' Max Vel=5.17 fps Inflow=3.47 cfs 0.441 af
12.0" Round Pipe n=0.013 L=110.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=3.47 cfs 0.441 af

Reach 60R: CB 1-DMH 1 Avg. Flow Depth=0.72' Max Vel=5.10 fps Inflow=3.09 cfs 0.387 af
12.0" Round Pipe n=0.013 L=14.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=3.09 cfs 0.387 af

Reach 61R: CB 2-DMH A1 Avg. Flow Depth=0.27' Max Vel=4.39 fps Inflow=0.75 cfs 0.054 af
12.0" Round Pipe n=0.013 L=8.0' S=0.0175 '/' Capacity=4.71 cfs Outflow=0.75 cfs 0.054 af

Reach 64R: CB 4-DMH 1 Avg. Flow Depth=0.34' Max Vel=3.76 fps Inflow=0.88 cfs 0.064 af
12.0" Round Pipe n=0.013 L=57.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.88 cfs 0.064 af

Reach 66R: CB 10-DMH D1 Avg. Flow Depth=0.20' Max Vel=3.51 fps Inflow=0.39 cfs 0.030 af
12.0" Round Pipe n=0.013 L=5.0' S=0.0160 '/' Capacity=4.51 cfs Outflow=0.39 cfs 0.030 af

Reach 68R: CB 9-DMH G1 Avg. Flow Depth=0.38' Max Vel=3.98 fps Inflow=1.09 cfs 0.079 af
12.0" Round Pipe n=0.013 L=8.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.09 cfs 0.079 af

Reach 70R: DMH F1-D1 Avg. Flow Depth=0.57' Max Vel=4.11 fps Inflow=2.22 cfs 0.161 af
15.0" Round Pipe n=0.013 L=60.0' S=0.0067 '/' Capacity=5.27 cfs Outflow=2.22 cfs 0.161 af

Reach 71R: DMH E1-F1 Avg. Flow Depth=0.39' Max Vel=5.69 fps Inflow=1.63 cfs 0.118 af
12.0" Round Pipe n=0.013 L=114.0' S=0.0196 '/' Capacity=4.99 cfs Outflow=1.64 cfs 0.118 af

Reach 72R: CB 6-DMH E1 Avg. Flow Depth=0.28' Max Vel=5.64 fps Inflow=1.00 cfs 0.073 af
12.0" Round Pipe n=0.013 L=5.0' S=0.0280 '/' Capacity=5.96 cfs Outflow=1.00 cfs 0.073 af

Reach 73R: CB 5-DMH E1 Avg. Flow Depth=0.28' Max Vel=3.41 fps Inflow=0.63 cfs 0.046 af
12.0" Round Pipe n=0.013 L=14.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.63 cfs 0.046 af

Reach 76R: CB 8-DMH F1 Avg. Flow Depth=0.16' Max Vel=4.34 fps Inflow=0.34 cfs 0.025 af
12.0" Round Pipe n=0.013 L=7.0' S=0.0329 '/' Capacity=6.46 cfs Outflow=0.34 cfs 0.025 af

Reach 78R: CB 7-DMH F1 Avg. Flow Depth=0.18' Max Vel=2.60 fps Inflow=0.24 cfs 0.018 af
12.0" Round Pipe n=0.013 L=23.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.24 cfs 0.018 af

Reach 80R: CB 3-DMH D1 Avg. Flow Depth=0.60' Max Vel=4.85 fps Inflow=2.40 cfs 0.234 af
12.0" Round Pipe n=0.013 L=62.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=2.40 cfs 0.234 af

Reach 86R: CB 12-DMH H1 Avg. Flow Depth=0.28' Max Vel=3.42 fps Inflow=0.63 cfs 0.046 af
12.0" Round Pipe n=0.013 L=18.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.63 cfs 0.046 af

Reach 87R: CB 11-DMH H1 Avg. Flow Depth=0.07' Max Vel=1.49 fps Inflow=0.04 cfs 0.004 af
12.0" Round Pipe n=0.013 L=38.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.04 cfs 0.004 af

Reach 88R: CB 14-DMH H1A Avg. Flow Depth=0.20' Max Vel=2.79 fps Inflow=0.31 cfs 0.026 af
12.0" Round Pipe n=0.013 L=17.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.31 cfs 0.026 af

Reach 89R: CB 13-DMH H1A Avg. Flow Depth=0.38' Max Vel=4.00 fps Inflow=1.11 cfs 0.081 af
12.0" Round Pipe n=0.013 L=6.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.11 cfs 0.081 af

Reach 90R: DMH H1-FES SF1 Avg. Flow Depth=0.45' Max Vel=6.12 fps Inflow=2.09 cfs 0.157 af
12.0" Round Pipe n=0.013 L=140.0' S=0.0200 '/' Capacity=5.04 cfs Outflow=2.09 cfs 0.157 af

Reach 95R: DMH-H1A-H1 Avg. Flow Depth=0.44' Max Vel=4.28 fps Inflow=1.42 cfs 0.107 af
12.0" Round Pipe n=0.013 L=29.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.42 cfs 0.107 af

Reach 96R: DMH Q-R Avg. Flow Depth=1.31' Max Vel=7.69 fps Inflow=16.80 cfs 2.466 af
24.0" Round Pipe n=0.013 L=40.0' S=0.0095 '/' Capacity=22.05 cfs Outflow=16.79 cfs 2.466 af

Reach 98R: CB 24-DMH R Avg. Flow Depth=0.36' Max Vel=5.46 fps Inflow=1.38 cfs 0.100 af
12.0" Round Pipe n=0.013 L=2.0' S=0.0200 '/' Capacity=5.04 cfs Outflow=1.38 cfs 0.100 af

Pond 15P: Sed. FB A Peak Elev=185.74' Storage=0.812 af Inflow=33.04 cfs 4.251 af
Discarded=4.95 cfs 3.277 af Primary=16.51 cfs 0.973 af Outflow=21.47 cfs 4.251 af

Pond 91P: Sed FB-1 Peak Elev=172.83' Storage=0.031 af Inflow=2.09 cfs 0.157 af
Discarded=0.70 cfs 0.157 af Primary=0.00 cfs 0.000 af Outflow=0.70 cfs 0.157 af

Pond 92P: IB-1 Peak Elev=172.00' Storage=0.000 af Inflow=3.61 cfs 0.976 af
Discarded=3.61 cfs 0.976 af Primary=0.00 cfs 0.000 af Outflow=3.61 cfs 0.976 af

Pond 94P: Infiltration trench Peak Elev=197.91' Storage=0.030 af Inflow=1.69 cfs 0.225 af
Outflow=0.65 cfs 0.226 af

Total Runoff Area = 27.921 ac Runoff Volume = 4.633 af Average Runoff Depth = 1.99"
74.45% Pervious = 20.786 ac 25.55% Impervious = 7.135 ac

Summary for Subcatchment 1S: CB16

Runoff = 0.87 cfs @ 12.12 hrs, Volume= 0.086 af, Depth= 1.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.090	98	Paved roads w/curbs & sewers, HSG A
0.808	39	>75% Grass cover, Good, HSG A
0.898	45	Weighted Average
0.808		89.98% Pervious Area
0.090		10.02% Impervious Area

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

Summary for Subcatchment 2S: CB17

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.041 af, Depth= 3.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.077	98	Paved roads w/curbs & sewers, HSG A
0.059	39	>75% Grass cover, Good, HSG A
0.136	72	Weighted Average
0.059		43.38% Pervious Area
0.077		56.62% Impervious Area

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

Summary for Subcatchment 7S: CB 18

Runoff = 1.02 cfs @ 12.01 hrs, Volume= 0.063 af, Depth= 3.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.113	98	Paved roads w/curbs & sewers, HSG A
0.136	39	>75% Grass cover, Good, HSG A
0.249	66	Weighted Average
0.136		54.62% Pervious Area
0.113		45.38% Impervious Area

Summary for Subcatchment 8S: CB 19

Runoff = 0.83 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 3.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.111	98	Paved roads w/curbs & sewers, HSG A
0.091	39	>75% Grass cover, Good, HSG A
0.202	71	Weighted Average
0.091		45.05% Pervious Area
0.111		54.95% Impervious Area

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

Summary for Subcatchment 16S: CB 30

Runoff = 1.48 cfs @ 12.10 hrs, Volume= 0.115 af, Depth= 2.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.186	98	Paved parking, HSG A
0.505	39	>75% Grass cover, Good, HSG A
0.691	55	Weighted Average
0.505		73.08% Pervious Area
0.186		26.92% Impervious Area

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

Summary for Subcatchment 17S: CB 38

Runoff = 1.48 cfs @ 12.09 hrs, Volume= 0.108 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.200	98	Paved roads w/curbs & sewers, HSG A
0.088	39	>75% Grass cover, Good, HSG A
0.288	80	Weighted Average
0.088		30.56% Pervious Area
0.200		69.44% Impervious Area

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

Summary for Subcatchment 18S: CB 20

Runoff = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af, Depth= 6.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.046	98	Paved roads w/curbs & sewers, HSG A
0.046		100.00% Impervious Area

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

Summary for Subcatchment 19S: CB 29

Runoff = 0.87 cfs @ 12.09 hrs, Volume= 0.063 af, Depth= 3.25"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.114	98	Paved roads w/curbs & sewers, HSG A
0.119	39	>75% Grass cover, Good, HSG A
0.233	68	Weighted Average
0.119		51.07% Pervious Area
0.114		48.93% Impervious Area

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

Summary for Subcatchment 20S: CB 21-DMH E

Runoff = 0.32 cfs @ 12.09 hrs, Volume= 0.025 af, Depth= 5.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.046	98	Paved roads w/curbs & sewers, HSG A
0.008	39	>75% Grass cover, Good, HSG A
0.054	89	Weighted Average
0.008		14.81% Pervious Area
0.046		85.19% Impervious Area

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

Summary for Subcatchment 22S: CB23

Runoff = 1.30 cfs @ 12.20 hrs, Volume= 0.140 af, Depth= 6.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.256	98	Paved roads w/curbs & sewers, HSG A
0.256		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.9	3,500	0.0757	3.91		**Lag/CN Method,**

Summary for Subcatchment 23S: FI-27

Runoff = 0.52 cfs @ 12.21 hrs, Volume= 0.063 af, Depth= 1.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.069	98	Paved roads w/curbs & sewers, HSG A
0.589	39	>75% Grass cover, Good, HSG A
0.658	45	Weighted Average
0.589		89.51% Pervious Area
0.069		10.49% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.7	290	0.0655	0.41		**Lag/CN Method,**

Summary for Subcatchment 24S: CB22-DMH-F

Runoff = 0.53 cfs @ 12.09 hrs, Volume= 0.039 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.072	98	Paved roads w/curbs & sewers, HSG A
0.030	39	>75% Grass cover, Good, HSG A
0.102	81	Weighted Average
0.030		29.41% Pervious Area
0.072		70.59% Impervious Area

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

Summary for Subcatchment 25S: CB 31

Runoff = 2.07 cfs @ 12.22 hrs, Volume= 0.211 af, Depth= 1.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.348	98	Paved roads w/curbs & sewers, HSG A
0.982	39	>75% Grass cover, Good, HSG A
1.330	54	Weighted Average
0.982		73.83% Pervious Area
0.348		26.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	380	0.0421	0.44		**Lag/CN Method,**

Summary for Subcatchment 26S: P1 basin

Runoff = 1.19 cfs @ 12.16 hrs, Volume= 0.133 af, Depth= 1.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.139	98	Roofs, HSG A
1.361	39	>75% Grass cover, Good, HSG A
1.500	44	Weighted Average
1.361		90.73% Pervious Area
0.139		9.27% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.0	240	0.1083	0.50		**Lag/CN Method, P1 basin**

Summary for Subcatchment 27S: CB 32

Runoff = 0.85 cfs @ 12.09 hrs, Volume= 0.063 af, Depth= 4.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.117	98	Paved roads w/curbs & sewers, HSG A
0.036	39	>75% Grass cover, Good, HSG A
0.153	84	Weighted Average
0.036		23.53% Pervious Area
0.117		76.47% Impervious Area

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

Summary for Subcatchment 28S: CB 39

Runoff = 1.17 cfs @ 12.09 hrs, Volume= 0.098 af, Depth= 6.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.179	98	Paved roads w/curbs & sewers, HSG A
0.179		100.00% Impervious Area

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

Summary for Subcatchment 32S: CB 35

Runoff = 0.62 cfs @ 12.09 hrs, Volume= 0.046 af, Depth= 4.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.084	98	Paved roads w/curbs & sewers, HSG A
0.029	39	>75% Grass cover, Good, HSG A
0.113	83	Weighted Average
0.029		25.66% Pervious Area
0.084		74.34% Impervious Area

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

Summary for Subcatchment 34S: FI 33

Runoff = 0.94 cfs @ 12.22 hrs, Volume= 0.100 af, Depth= 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.143	98	Paved roads w/curbs & sewers, HSG A
0.584	39	>75% Grass cover, Good, HSG A
0.727	51	Weighted Average
0.584		80.33% Pervious Area
0.143		19.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.9	240	0.0250	0.29		**Lag/CN Method,**

Summary for Subcatchment 35S: FI 42

Runoff = 1.57 cfs @ 12.34 hrs, Volume= 0.188 af, Depth= 2.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.303	98	Paved roads w/curbs & sewers, HSG A
0.827	39	>75% Grass cover, Good, HSG A
1.130	55	Weighted Average
0.827		73.19% Pervious Area
0.303		26.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.0	330	0.0136	0.25		**Lag/CN Method,**

Summary for Subcatchment 36S: CB 41

Runoff = 0.52 cfs @ 12.09 hrs, Volume= 0.038 af, Depth= 3.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.069	98	Paved roads w/curbs & sewers, HSG A
0.063	39	>75% Grass cover, Good, HSG A
0.132	70	Weighted Average
0.063		47.73% Pervious Area
0.069		52.27% Impervious Area

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

Summary for Subcatchment 38S: CB36

Runoff = 0.97 cfs @ 12.09 hrs, Volume= 0.071 af, Depth= 4.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.131	98	Paved roads w/curbs & sewers, HSG A
0.077	39	>75% Grass cover, Good, HSG A
0.208	76	Weighted Average
0.077		37.02% Pervious Area
0.131		62.98% Impervious Area

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

Summary for Subcatchment 39S: CB37

Runoff = 0.16 cfs @ 12.09 hrs, Volume= 0.011 af, Depth= 3.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.021	98	Paved roads w/curbs & sewers, HSG A
0.016	39	>75% Grass cover, Good, HSG A
0.037	72	Weighted Average
0.016		43.24% Pervious Area
0.021		56.76% Impervious Area

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

Summary for Subcatchment 40S: CB 43

Runoff = 2.38 cfs @ 12.09 hrs, Volume= 0.175 af, Depth= 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.321	98	Paved roads w/curbs & sewers, HSG A
0.124	39	>75% Grass cover, Good, HSG A
0.445	82	Weighted Average
0.124		27.87% Pervious Area
0.321		72.13% Impervious Area

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

Summary for Subcatchment 45S: CB 44

Runoff = 0.59 cfs @ 12.09 hrs, Volume= 0.046 af, Depth= 5.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.085	98	Paved roads w/curbs & sewers, HSG A
0.011	39	>75% Grass cover, Good, HSG A
0.096	91	Weighted Average
0.011		11.46% Pervious Area
0.085		88.54% Impervious Area

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

Summary for Subcatchment 47S: CB 40

Runoff = 1.38 cfs @ 12.09 hrs, Volume= 0.116 af, Depth= 6.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.212	98	Paved roads w/curbs & sewers, HSG A
0.212		100.00% Impervious Area

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

Summary for Subcatchment 50S: CB 45

Runoff = 0.95 cfs @ 12.09 hrs, Volume= 0.080 af, Depth= 6.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.146	98	Paved roads w/curbs & sewers, HSG A
0.146		100.00% Impervious Area

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

Summary for Subcatchment 52S: CB 25

Runoff = 0.82 cfs @ 12.09 hrs, Volume= 0.061 af, Depth= 5.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.113	98	Paved roads w/curbs & sewers, HSG A
0.029	39	>75% Grass cover, Good, HSG A
0.142	86	Weighted Average
0.029		20.42% Pervious Area
0.113		79.58% Impervious Area

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

Summary for Subcatchment 54S: FI 28

Runoff = 4.85 cfs @ 12.72 hrs, Volume= 0.876 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
1.255	98	Roofs, HSG A
5.494	39	>75% Grass cover, Good, HSG A
6.749	50	Weighted Average
5.494		81.40% Pervious Area
1.255		18.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.7	1,100	0.0280	0.40		**Lag/CN Method,**

Summary for Subcatchment 62S: CB 1

Runoff = 3.09 cfs @ 12.26 hrs, Volume= 0.387 af, Depth= 1.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.142	98	Paved roads w/curbs & sewers, HSG A
1.102	39	>75% Grass cover, Good, HSG A
2.550	46	2 acre lots, 12% imp, HSG A
3.794	46	Weighted Average
3.346		88.19% Pervious Area
0.448		11.81% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.1	560	0.1071	0.62		**Lag/CN Method,**

Summary for Subcatchment 63S: CB 2

Runoff = 0.75 cfs @ 12.09 hrs, Volume= 0.054 af, Depth= 3.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.099	98	Paved roads w/curbs & sewers, HSG A
0.090	39	>75% Grass cover, Good, HSG A
0.189	70	Weighted Average
0.090		47.62% Pervious Area
0.099		52.38% Impervious Area

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

Summary for Subcatchment 65S: CB 4

Runoff = 0.88 cfs @ 12.09 hrs, Volume= 0.064 af, Depth= 3.76"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.116	98	Paved roads w/curbs & sewers, HSG A
0.087	39	>75% Grass cover, Good, HSG A
0.203	73	Weighted Average
0.087		42.86% Pervious Area
0.116		57.14% Impervious Area

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

Summary for Subcatchment 67S: CB 10

Runoff = 0.39 cfs @ 12.09 hrs, Volume= 0.030 af, Depth= 5.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.056	98	Paved roads w/curbs & sewers, HSG A
0.007	39	>75% Grass cover, Good, HSG A
0.063	91	Weighted Average
0.007		11.11% Pervious Area
0.056		88.89% Impervious Area

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

Summary for Subcatchment 69S: CB 9

Runoff = 1.09 cfs @ 12.10 hrs, Volume= 0.079 af, Depth= 3.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.145	98	Paved roads w/curbs & sewers, HSG A
0.157	39	>75% Grass cover, Good, HSG A
0.302	67	Weighted Average
0.157		51.99% Pervious Area
0.145		48.01% Impervious Area

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

Summary for Subcatchment 74S: CB 5

Runoff = 0.63 cfs @ 12.09 hrs, Volume= 0.046 af, Depth= 4.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.084	98	Paved roads w/curbs & sewers, HSG A
0.050	39	>75% Grass cover, Good, HSG A
0.134	76	Weighted Average
0.050		37.31% Pervious Area
0.084		62.69% Impervious Area

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

Summary for Subcatchment 75S: CB 6

Runoff = 1.00 cfs @ 12.09 hrs, Volume= 0.073 af, Depth= 3.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.135	98	Paved roads w/curbs & sewers, HSG A
0.118	39	>75% Grass cover, Good, HSG A
0.253	70	Weighted Average
0.118		46.64% Pervious Area
0.135		53.36% Impervious Area

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

Summary for Subcatchment 77S: CB 8

Runoff = 0.34 cfs @ 12.09 hrs, Volume= 0.025 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.046	98	Paved roads w/curbs & sewers, HSG A
0.020	39	>75% Grass cover, Good, HSG A
0.066	80	Weighted Average
0.020		30.30% Pervious Area
0.046		69.70% Impervious Area

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

Summary for Subcatchment 79S: CB 7

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 0.018 af, Depth= 4.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.033	98	Paved roads w/curbs & sewers, HSG A
0.018	39	>75% Grass cover, Good, HSG A
0.051	77	Weighted Average
0.018		35.29% Pervious Area
0.033		64.71% Impervious Area

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

Summary for Subcatchment 81S: CB 3

Runoff = 2.40 cfs @ 12.17 hrs, Volume= 0.234 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.324	98	Paved roads w/curbs & sewers, HSG A
1.482	39	>75% Grass cover, Good, HSG A
1.806	50	Weighted Average
1.482		82.06% Pervious Area
0.324		17.94% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	420	0.1155	0.67		**Lag/CN Method,**

Summary for Subcatchment 82S: CB 13

Runoff = 1.11 cfs @ 12.09 hrs, Volume= 0.081 af, Depth= 3.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

	Area (ac)	CN	Description
*	0.148	98	Paved roads w/curbs & sewers, HSG A
	0.116	39	>75% Grass cover, Good, HSG A
	0.264	72	Weighted Average
	0.116		43.94% Pervious Area
	0.148		56.06% Impervious Area

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

Summary for Subcatchment 83S: CB 14

Runoff = 0.31 cfs @ 12.11 hrs, Volume= 0.026 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.037	98	Paved roads w/curbs & sewers, HSG A
0.165	39	>75% Grass cover, Good, HSG A
0.202	50	Weighted Average
0.165		81.68% Pervious Area
0.037		18.32% Impervious Area

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

Summary for Subcatchment 84S: CB 11

Runoff = 0.04 cfs @ 12.12 hrs, Volume= 0.004 af, Depth= 0.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.004	98	Paved roads w/curbs & sewers, HSG A
0.049	39	>75% Grass cover, Good, HSG A
0.053	43	Weighted Average
0.049		92.45% Pervious Area
0.004		7.55% Impervious Area

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

Summary for Subcatchment 85S: CB 12

Runoff = 0.63 cfs @ 12.09 hrs, Volume= 0.046 af, Depth= 3.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.083	98	Paved roads w/curbs & sewers, HSG A
0.081	39	>75% Grass cover, Good, HSG A
0.164	69	Weighted Average
0.081		49.39% Pervious Area
0.083		50.61% Impervious Area

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

Summary for Subcatchment 93S: Slope 34

Runoff = 1.69 cfs @ 12.18 hrs, Volume= 0.225 af, Depth= 0.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.145	98	Roofs, HSG A
2.810	39	>75% Grass cover, Good, HSG A
2.955	42	Weighted Average
2.810		95.09% Pervious Area
0.145		4.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
8.7	320	0.1625	0.61		**Lag/CN Method, Slope**

Summary for Subcatchment 97S: CB 24

Runoff = 1.38 cfs @ 12.09 hrs, Volume= 0.100 af, Depth= 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.186	98	Paved parking, HSG A
0.124	39	>75% Grass cover, Good, HSG A
0.310	74	Weighted Average
0.124		40.00% Pervious Area
0.186		60.00% Impervious Area

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

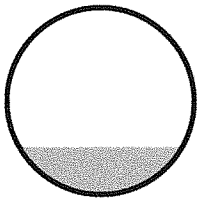
Summary for Reach 3R: CB16-DMH A

Inflow Area = 0.898 ac, 10.02% Impervious, Inflow Depth = 1.14" for 100 YR event
Inflow = 0.87 cfs @ 12.12 hrs, Volume= 0.086 af
Outflow = 0.87 cfs @ 12.12 hrs, Volume= 0.086 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.43 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.46 fps, Avg. Travel Time= 0.1 min

Peak Storage= 2 cf @ 12.12 hrs
Average Depth at Peak Storage= 0.26'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 6.02 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 14.0' Slope= 0.0286 '/'
Inlet Invert= 224.00', Outlet Invert= 223.60'



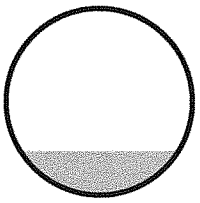
Summary for Reach 4R: CB17-DMH A

Inflow Area = 0.136 ac, 56.62% Impervious, Inflow Depth = 3.66" for 100 YR event
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.041 af
Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.041 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.99 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.42 fps, Avg. Travel Time= 0.3 min

Peak Storage= 3 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.24'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 4.60 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 24.0' Slope= 0.0167 '/'
Inlet Invert= 224.00', Outlet Invert= 223.60'



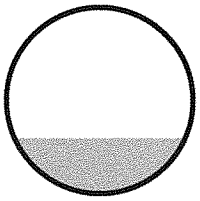
Summary for Reach 5R: DMH A-B

Inflow Area = 1.034 ac, 16.15% Impervious, Inflow Depth = 1.48" for 100 YR event
Inflow = 1.43 cfs @ 12.11 hrs, Volume= 0.127 af
Outflow = 1.43 cfs @ 12.11 hrs, Volume= 0.127 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.24 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.78 fps, Avg. Travel Time= 0.5 min

Peak Storage= 16 cf @ 12.11 hrs
Average Depth at Peak Storage= 0.30'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 7.34 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 80.0' Slope= 0.0425 '/'
Inlet Invert= 223.50', Outlet Invert= 220.10'



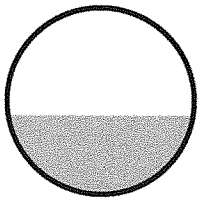
Summary for Reach 6R: DMH B-C

Inflow Area = 1.485 ac, 26.33% Impervious, Inflow Depth = 2.02" for 100 YR event
Inflow = 2.78 cfs @ 12.09 hrs, Volume= 0.250 af
Outflow = 2.77 cfs @ 12.09 hrs, Volume= 0.250 af, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.75 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 3.39 fps, Avg. Travel Time= 1.0 min

Peak Storage= 65 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.42'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 7.41 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 206.0' Slope= 0.0432 '/'
Inlet Invert= 220.00', Outlet Invert= 211.10'



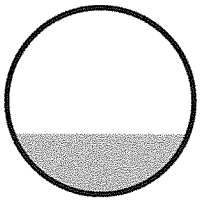
Summary for Reach 9R: CB19-DMH C

Inflow Area =	0.202 ac, 54.95% Impervious, Inflow Depth = 3.56" for 100 YR event			
Inflow =	0.83 cfs @ 12.09 hrs, Volume=	0.060 af		
Outflow =	0.83 cfs @ 12.09 hrs, Volume=	0.060 af, Atten= 0%, Lag= 0.1 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.69 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.33 fps, Avg. Travel Time= 0.2 min

Peak Storage= 3 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 14.0' Slope= 0.0100 '/'
Inlet Invert= 211.24', Outlet Invert= 211.10'



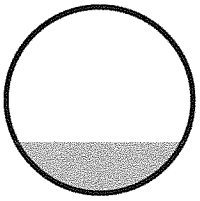
Summary for Reach 10R: CB18-DMH C

Inflow Area =	0.249 ac, 45.38% Impervious, Inflow Depth = 3.05" for 100 YR event			
Inflow =	1.02 cfs @ 12.01 hrs, Volume=	0.063 af		
Outflow =	1.02 cfs @ 12.01 hrs, Volume=	0.063 af, Atten= 0%, Lag= 0.0 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.66 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.00 fps, Avg. Travel Time= 0.0 min

Peak Storage= 1 cf @ 12.01 hrs
Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.96 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 5.0' Slope= 0.0280 '/'
Inlet Invert= 211.24', Outlet Invert= 211.10'



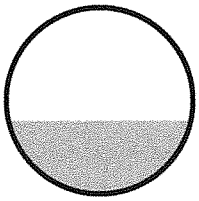
Summary for Reach 11R: DMH C-D

Inflow Area = 1.485 ac, 26.33% Impervious, Inflow Depth = 2.02" for 100 YR event
Inflow = 2.77 cfs @ 12.09 hrs, Volume= 0.250 af
Outflow = 2.77 cfs @ 12.09 hrs, Volume= 0.250 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.60 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.71 fps, Avg. Travel Time= 0.3 min

Peak Storage= 20 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.40'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 8.41 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 70.0' Slope= 0.0557 '/'
Inlet Invert= 211.00', Outlet Invert= 207.10'



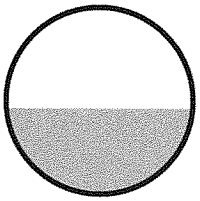
Summary for Reach 12R: DMH D-E

Inflow Area = 1.585 ac, 30.47% Impervious, Inflow Depth = 2.27" for 100 YR event
Inflow = 3.40 cfs @ 12.09 hrs, Volume= 0.300 af
Outflow = 3.40 cfs @ 12.09 hrs, Volume= 0.300 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.56 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.99 fps, Avg. Travel Time= 0.5 min

Peak Storage= 29 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.46'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 7.77 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 82.0' Slope= 0.0476 '/'
Inlet Invert= 207.00', Outlet Invert= 203.10'



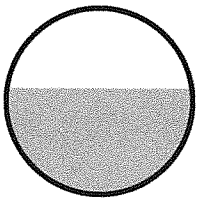
Summary for Reach 13R: DMH E-F

Inflow Area = 1.943 ac, 41.74% Impervious, Inflow Depth = 2.96" for 100 YR event
Inflow = 4.96 cfs @ 12.11 hrs, Volume= 0.479 af
Outflow = 4.96 cfs @ 12.11 hrs, Volume= 0.479 af, Atten= 0%, Lag= 0.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 10.68 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 3.67 fps, Avg. Travel Time= 0.8 min

Peak Storage= 79 cf @ 12.11 hrs
Average Depth at Peak Storage= 0.57'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 7.97 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 170.0' Slope= 0.0500 '/'
Inlet Invert= 203.00', Outlet Invert= 194.50'



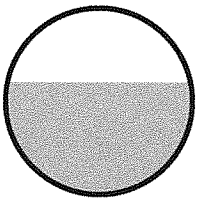
Summary for Reach 16R: DMH F-FES 1

Inflow Area = 1.943 ac, 41.74% Impervious, Inflow Depth = 2.96" for 100 YR event
Inflow = 4.96 cfs @ 12.11 hrs, Volume= 0.479 af
Outflow = 4.96 cfs @ 12.11 hrs, Volume= 0.479 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.94 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.44 fps, Avg. Travel Time= 0.5 min

Peak Storage= 53 cf @ 12.11 hrs
Average Depth at Peak Storage= 0.61'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 7.26 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 106.0' Slope= 0.0415 '/'
Inlet Invert= 194.40', Outlet Invert= 190.00'



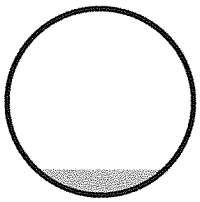
Summary for Reach 17R: CB20-DMH E

Inflow Area = 0.046 ac,100.00% Impervious, Inflow Depth = 6.56" for 100 YR event
Inflow = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af
Outflow = 0.30 cfs @ 12.09 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.48 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.50 fps, Avg. Travel Time= 0.3 min

Peak Storage= 2 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.14'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 7.13 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 24.0' Slope= 0.0400 '/'
Inlet Invert= 204.06', Outlet Invert= 203.10'



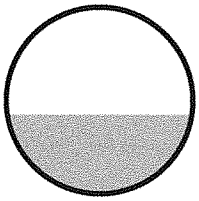
Summary for Reach 18R: CB 30-DMH G

Inflow Area = 0.691 ac, 26.92% Impervious, Inflow Depth = 2.00" for 100 YR event
Inflow = 1.48 cfs @ 12.10 hrs, Volume= 0.115 af
Outflow = 1.48 cfs @ 12.10 hrs, Volume= 0.115 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.61 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.87 fps, Avg. Travel Time= 0.1 min

Peak Storage= 5 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.43'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.88 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 16.0' Slope= 0.0119 '/'
Inlet Invert= 214.79', Outlet Invert= 214.60'



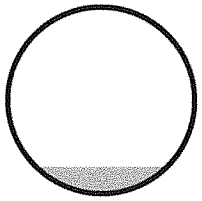
Summary for Reach 19R: CB21-DMH E

Inflow Area = 0.054 ac, 85.19% Impervious, Inflow Depth = 5.51" for 100 YR event
Inflow = 0.32 cfs @ 12.09 hrs, Volume= 0.025 af
Outflow = 0.33 cfs @ 12.09 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.59 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.52 fps, Avg. Travel Time= 0.3 min

Peak Storage= 2 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.15'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 7.13 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 29.0' Slope= 0.0400 '/'
Inlet Invert= 204.26', Outlet Invert= 203.10'



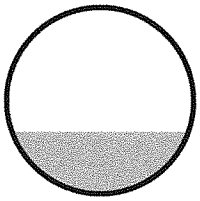
Summary for Reach 20R: CB 29-DMH G

Inflow Area =	0.233 ac, 48.93% Impervious, Inflow Depth = 3.25" for 100 YR event			
Inflow =	0.87 cfs @ 12.09 hrs, Volume=	0.063 af		
Outflow =	0.87 cfs @ 12.10 hrs, Volume=	0.063 af, Atten= 0%, Lag= 0.1 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.74 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.37 fps, Avg. Travel Time= 0.2 min

Peak Storage= 4 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.34'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 19.0' Slope= 0.0100 '/'
Inlet Invert= 214.79', Outlet Invert= 214.60'



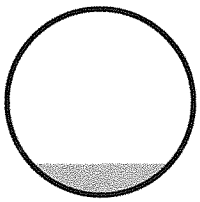
Summary for Reach 21R: CB22-DMH F

Inflow Area =	0.102 ac, 70.59% Impervious, Inflow Depth = 4.62" for 100 YR event			
Inflow =	0.53 cfs @ 12.09 hrs, Volume=	0.039 af		
Outflow =	0.53 cfs @ 12.09 hrs, Volume=	0.039 af, Atten= 0%, Lag= 0.0 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.99 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.03 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.17'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 8.43 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 5.0' Slope= 0.0560 '/'
Inlet Invert= 195.80', Outlet Invert= 195.52'



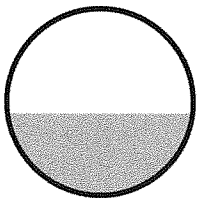
Summary for Reach 22R: DMH G-H

Inflow Area =	0.924 ac, 32.47% Impervious, Inflow Depth = 2.31" for 100 YR event				
Inflow =	2.35 cfs @ 12.10 hrs, Volume=	0.178 af			
Outflow =	2.35 cfs @ 12.10 hrs, Volume=	0.178 af, Atten= 0%, Lag= 0.1 min			

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.00 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.61 fps, Avg. Travel Time= 0.4 min

Peak Storage= 23 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.44'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.81 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 70.0' Slope= 0.0266 '/'
Inlet Invert= 214.50', Outlet Invert= 212.64'



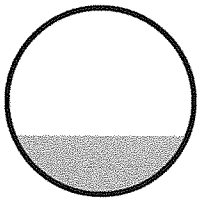
Summary for Reach 23R: DMH H-I

Inflow Area = 0.924 ac, 32.47% Impervious, Inflow Depth = 2.31" for 100 YR event
Inflow = 2.35 cfs @ 12.10 hrs, Volume= 0.178 af
Outflow = 2.34 cfs @ 12.11 hrs, Volume= 0.178 af, Atten= 0%, Lag= 0.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.90 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 2.52 fps, Avg. Travel Time= 1.7 min

Peak Storage= 85 cf @ 12.11 hrs
Average Depth at Peak Storage= 0.40'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 10.54 cfs

15.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 250.0' Slope= 0.0266 '/'
Inlet Invert= 212.54', Outlet Invert= 205.89'



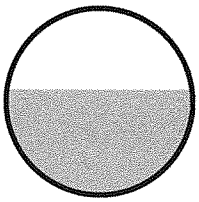
Summary for Reach 24R: CB38-DMH N

Inflow Area = 1.418 ac, 35.47% Impervious, Inflow Depth = 2.51" for 100 YR event
Inflow = 2.19 cfs @ 12.29 hrs, Volume= 0.296 af
Outflow = 2.19 cfs @ 12.29 hrs, Volume= 0.296 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.77 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.95 fps, Avg. Travel Time= 0.4 min

Peak Storage= 19 cf @ 12.29 hrs
Average Depth at Peak Storage= 0.57'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 42.0' Slope= 0.0100 '/'
Inlet Invert= 192.84', Outlet Invert= 192.42'



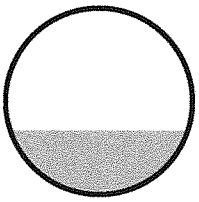
Summary for Reach 25R: CB23-DMH F

Inflow Area = 0.256 ac,100.00% Impervious, Inflow Depth = 6.56" for 100 YR event
Inflow = 1.30 cfs @ 12.20 hrs, Volume= 0.140 af
Outflow = 1.30 cfs @ 12.20 hrs, Volume= 0.140 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.38 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.93 fps, Avg. Travel Time= 0.1 min

Peak Storage= 3 cf @ 12.20 hrs
Average Depth at Peak Storage= 0.35'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.04 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 14.0' Slope= 0.0200 '/'
Inlet Invert= 195.80', Outlet Invert= 195.52'



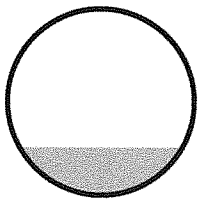
Summary for Reach 27R: FI 27-FES2

Inflow Area = 0.658 ac, 10.49% Impervious, Inflow Depth = 1.14" for 100 YR event
Inflow = 0.52 cfs @ 12.21 hrs, Volume= 0.063 af
Outflow = 0.53 cfs @ 12.22 hrs, Volume= 0.063 af, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.24 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 1.53 fps, Avg. Travel Time= 0.9 min

Peak Storage= 14 cf @ 12.22 hrs
Average Depth at Peak Storage= 0.26'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 84.0' Slope= 0.0100 '/'
Inlet Invert= 189.84', Outlet Invert= 189.00'



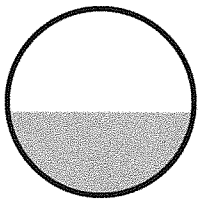
Summary for Reach 28R: CB31-DMH I

Inflow Area = 1.330 ac, 26.17% Impervious, Inflow Depth = 1.91" for 100 YR event
Inflow = 2.07 cfs @ 12.22 hrs, Volume= 0.211 af
Outflow = 2.07 cfs @ 12.22 hrs, Volume= 0.211 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.08 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.65 fps, Avg. Travel Time= 0.0 min

Peak Storage= 3 cf @ 12.22 hrs
Average Depth at Peak Storage= 0.45'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.04 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 7.5' Slope= 0.0200 '/'
Inlet Invert= 206.04', Outlet Invert= 205.89'



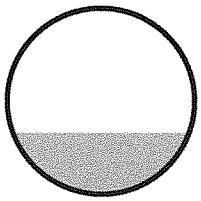
Summary for Reach 29R: CB32-DMH I

Inflow Area = 0.153 ac, 76.47% Impervious, Inflow Depth = 4.95" for 100 YR event
Inflow = 0.85 cfs @ 12.09 hrs, Volume= 0.063 af
Outflow = 0.85 cfs @ 12.09 hrs, Volume= 0.063 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.72 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.25 fps, Avg. Travel Time= 0.2 min

Peak Storage= 3 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 15.0' Slope= 0.0100 '/'
Inlet Invert= 206.04', Outlet Invert= 205.89'



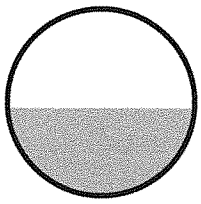
Summary for Reach 30R: DMH I-J

Inflow Area =	2.407 ac, 31.78% Impervious, Inflow Depth = 2.26" for 100 YR event			
Inflow =	4.61 cfs @ 12.13 hrs, Volume=	0.453 af		
Outflow =	4.62 cfs @ 12.14 hrs, Volume=	0.453 af, Atten= 0%, Lag= 0.3 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.11 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.84 fps, Avg. Travel Time= 0.6 min

Peak Storage= 56 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.59'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 10.21 cfs

15.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 98.0' Slope= 0.0250 '/'
Inlet Invert= 205.79', Outlet Invert= 203.34'



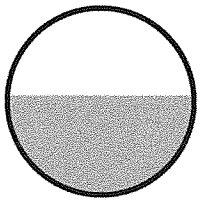
Summary for Reach 31R: DMH J-K

Inflow Area =	2.520 ac, 33.69% Impervious, Inflow Depth = 2.37" for 100 YR event			
Inflow =	5.24 cfs @ 12.12 hrs, Volume=	0.498 af		
Outflow =	5.17 cfs @ 12.13 hrs, Volume=	0.498 af, Atten= 1%, Lag= 0.4 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.70 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.74 fps, Avg. Travel Time= 0.7 min

Peak Storage= 79 cf @ 12.13 hrs
Average Depth at Peak Storage= 0.67'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 9.19 cfs

15.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 117.0' Slope= 0.0203 '/'
Inlet Invert= 203.27', Outlet Invert= 200.90'



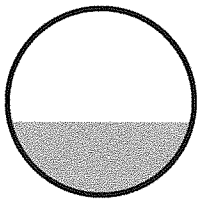
Summary for Reach 32R: CB39-DMH N

Inflow Area = 0.179 ac,100.00% Impervious, Inflow Depth = 6.56" for 100 YR event
Inflow = 1.17 cfs @ 12.09 hrs, Volume= 0.098 af
Outflow = 1.17 cfs @ 12.09 hrs, Volume= 0.098 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.05 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.37 fps, Avg. Travel Time= 0.5 min

Peak Storage= 11 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.39'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 37.0' Slope= 0.0100 '/'
Inlet Invert= 192.79', Outlet Invert= 192.42'



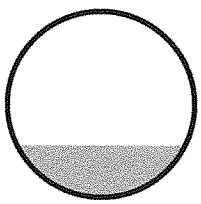
Summary for Reach 33R: CB35-DMH K

Inflow Area = 0.113 ac, 74.34% Impervious, Inflow Depth = 4.84" for 100 YR event
Inflow = 0.62 cfs @ 12.09 hrs, Volume= 0.046 af
Outflow = 0.62 cfs @ 12.09 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.39 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.14 fps, Avg. Travel Time= 0.3 min

Peak Storage= 4 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 20.0' Slope= 0.0100 '/'
Inlet Invert= 201.10', Outlet Invert= 200.90'



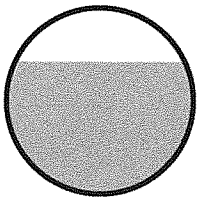
Summary for Reach 34R: DMH N-O

Inflow Area = 5.666 ac, 39.11% Impervious, Inflow Depth = 2.73" for 100 YR event
Inflow = 12.91 cfs @ 12.12 hrs, Volume= 1.287 af
Outflow = 12.73 cfs @ 12.13 hrs, Volume= 1.287 af, Atten= 1%, Lag= 0.8 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.44 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 3.13 fps, Avg. Travel Time= 1.9 min

Peak Storage= 489 cf @ 12.13 hrs
Average Depth at Peak Storage= 1.07'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 14.86 cfs

18.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 363.0' Slope= 0.0200 '/'
Inlet Invert= 191.92', Outlet Invert= 184.66'



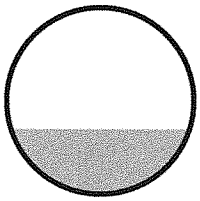
Summary for Reach 35R: FI 33-CB36

Inflow Area = 0.727 ac, 19.67% Impervious, Inflow Depth = 1.64" for 100 YR event
Inflow = 0.94 cfs @ 12.22 hrs, Volume= 0.100 af
Outflow = 0.94 cfs @ 12.22 hrs, Volume= 0.100 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.82 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.70 fps, Avg. Travel Time= 0.1 min

Peak Storage= 4 cf @ 12.22 hrs
Average Depth at Peak Storage= 0.35'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 15.0' Slope= 0.0100 '/'
Inlet Invert= 200.05', Outlet Invert= 199.90'



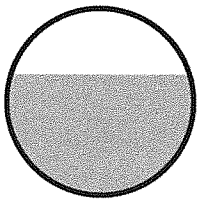
Summary for Reach 36R: DMH K-L

Inflow Area = 3.492 ac, 32.76% Impervious, Inflow Depth = 2.34" for 100 YR event
Inflow = 6.92 cfs @ 12.13 hrs, Volume= 0.680 af
Outflow = 6.92 cfs @ 12.13 hrs, Volume= 0.680 af, Atten= 0%, Lag= 0.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.18 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.98 fps, Avg. Travel Time= 0.3 min

Peak Storage= 47 cf @ 12.13 hrs
Average Depth at Peak Storage= 0.81'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 9.14 cfs

15.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 56.0' Slope= 0.0200 '/'
Inlet Invert= 200.80', Outlet Invert= 199.68'



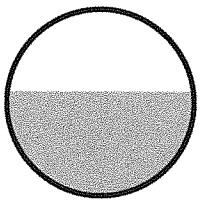
Summary for Reach 37R: CB36-DMH L

Inflow Area =	0.935 ac, 29.30% Impervious, Inflow Depth = 2.18" for 100 YR event			
Inflow =	1.60 cfs @ 12.14 hrs, Volume=	0.170 af		
Outflow =	1.60 cfs @ 12.14 hrs, Volume=	0.170 af, Atten= 0%, Lag= 0.1 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.51 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.40 fps, Avg. Travel Time= 0.3 min

Peak Storage= 10 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.56'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.63 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 22.0' Slope= 0.0055 '/'
Inlet Invert= 199.80', Outlet Invert= 199.68'



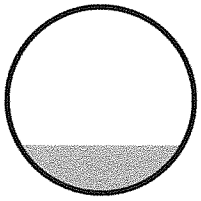
Summary for Reach 38R: CB41-DMH N

Inflow Area =	0.132 ac, 52.27% Impervious, Inflow Depth = 3.45" for 100 YR event			
Inflow =	0.52 cfs @ 12.09 hrs, Volume=	0.038 af		
Outflow =	0.52 cfs @ 12.09 hrs, Volume=	0.038 af, Atten= 0%, Lag= 0.0 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.24 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.17 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.26'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 3.0' Slope= 0.0100 '/'
Inlet Invert= 192.45', Outlet Invert= 192.42'



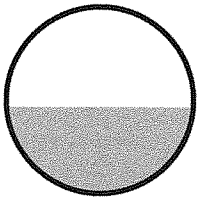
Summary for Reach 39R: FI 42 -CB38

Inflow Area =	1.130 ac, 26.81% Impervious, Inflow Depth = 2.00" for 100 YR event			
Inflow =	1.57 cfs @ 12.34 hrs, Volume=	0.188 af		
Outflow =	1.57 cfs @ 12.34 hrs, Volume=	0.188 af, Atten= 0%, Lag= 0.1 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.40 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.97 fps, Avg. Travel Time= 0.2 min

Peak Storage= 7 cf @ 12.34 hrs
Average Depth at Peak Storage= 0.47'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 20.0' Slope= 0.0100 '/'
Inlet Invert= 193.14', Outlet Invert= 192.94'



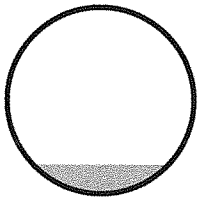
Summary for Reach 40R: CB37-DMH L

Inflow Area =	0.037 ac, 56.76% Impervious, Inflow Depth = 3.66" for 100 YR event			
Inflow =	0.16 cfs @ 12.09 hrs, Volume=	0.011 af		
Outflow =	0.16 cfs @ 12.10 hrs, Volume=	0.011 af, Atten= 0%, Lag= 0.2 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.97 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 0.70 fps, Avg. Travel Time= 0.7 min

Peak Storage= 2 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.16'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 2.91 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 30.0' Slope= 0.0067 '/'
Inlet Invert= 199.88', Outlet Invert= 199.68'



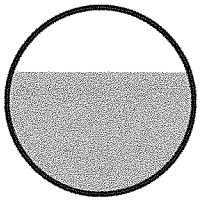
Summary for Reach 41R: DMH L-M

Inflow Area = 3.492 ac, 32.76% Impervious, Inflow Depth = 2.34" for 100 YR event
Inflow = 6.92 cfs @ 12.13 hrs, Volume= 0.680 af
Outflow = 6.96 cfs @ 12.14 hrs, Volume= 0.680 af, Atten= 0%, Lag= 0.6 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.12 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.94 fps, Avg. Travel Time= 1.3 min

Peak Storage= 194 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.82'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 9.03 cfs

15.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 226.0' Slope= 0.0196 '/'
Inlet Invert= 199.58', Outlet Invert= 195.16'



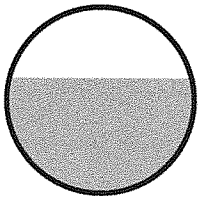
Summary for Reach 42R: DMH M-N

Inflow Area = 5.221 ac, 36.30% Impervious, Inflow Depth = 2.56" for 100 YR event
Inflow = 10.54 cfs @ 12.13 hrs, Volume= 1.112 af
Outflow = 10.56 cfs @ 12.13 hrs, Volume= 1.112 af, Atten= 0%, Lag= 0.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.11 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.02 fps, Avg. Travel Time= 0.7 min

Peak Storage= 153 cf @ 12.13 hrs
Average Depth at Peak Storage= 0.93'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 14.86 cfs

18.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 132.0' Slope= 0.0200 '/'
Inlet Invert= 195.06', Outlet Invert= 192.42'



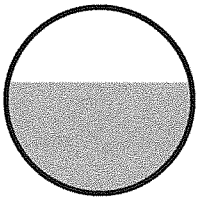
Summary for Reach 43R: CB 43- DMH O

Inflow Area = 0.445 ac, 72.13% Impervious, Inflow Depth = 4.73" for 100 YR event
Inflow = 2.38 cfs @ 12.09 hrs, Volume= 0.175 af
Outflow = 2.38 cfs @ 12.09 hrs, Volume= 0.175 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.85 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.71 fps, Avg. Travel Time= 0.2 min

Peak Storage= 8 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.60'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 17.0' Slope= 0.0100 '/'
Inlet Invert= 185.33', Outlet Invert= 185.16'



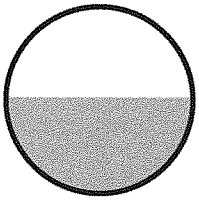
Summary for Reach 44R: DMH O-P

Inflow Area = 5.974 ac, 42.07% Impervious, Inflow Depth = 2.91" for 100 YR event
Inflow = 14.64 cfs @ 12.12 hrs, Volume= 1.449 af
Outflow = 14.64 cfs @ 12.12 hrs, Volume= 1.449 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.92 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.91 fps, Avg. Travel Time= 0.2 min

Peak Storage= 60 cf @ 12.12 hrs
Average Depth at Peak Storage= 1.03'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 27.83 cfs

24.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 37.0' Slope= 0.0151 '/'
Inlet Invert= 184.16', Outlet Invert= 183.60'



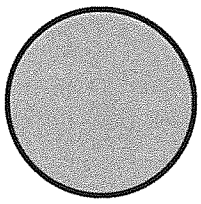
Summary for Reach 45R: SF -DMH SF1

Inflow Area = 24.283 ac, 27.67% Impervious, Inflow Depth = 0.48" for 100 YR event
Inflow = 16.51 cfs @ 12.43 hrs, Volume= 0.973 af
Outflow = 3.74 cfs @ 15.35 hrs, Volume= 0.976 af, Atten= 77%, Lag= 175.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.39 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 4.74 fps, Avg. Travel Time= 0.6 min

Peak Storage= 142 cf @ 12.25 hrs
Average Depth at Peak Storage= 1.00'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.72 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 181.0' Slope= 0.0109 '/'
Inlet Invert= 184.00', Outlet Invert= 182.03'



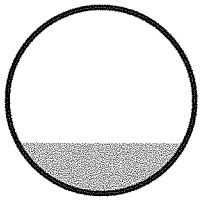
Summary for Reach 46R: CB 44-DMH P

Inflow Area = 0.096 ac, 88.54% Impervious, Inflow Depth = 5.74" for 100 YR event
Inflow = 0.59 cfs @ 12.09 hrs, Volume= 0.046 af
Outflow = 0.59 cfs @ 12.09 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.35 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.10 fps, Avg. Travel Time= 0.3 min

Peak Storage= 3 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 17.0' Slope= 0.0100 '/'
Inlet Invert= 184.67', Outlet Invert= 184.50'



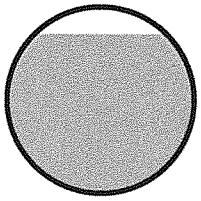
Summary for Reach 47R: DMH SF1-SF2

Inflow Area = 24.283 ac, 27.67% Impervious, Inflow Depth = 0.48" for 100 YR event
Inflow = 3.74 cfs @ 15.35 hrs, Volume= 0.976 af
Outflow = 4.09 cfs @ 12.30 hrs, Volume= 0.976 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.72 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 5.64 fps, Avg. Travel Time= 0.2 min

Peak Storage= 54 cf @ 12.30 hrs
Average Depth at Peak Storage= 0.86'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.94 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 76.0' Slope= 0.0122 '/'
Inlet Invert= 181.93', Outlet Invert= 181.00'



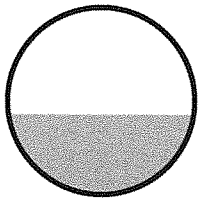
Summary for Reach 48R: CB 40 DMH P

Inflow Area = 0.212 ac,100.00% Impervious, Inflow Depth = 6.56" for 100 YR event
Inflow = 1.38 cfs @ 12.09 hrs, Volume= 0.116 af
Outflow = 1.38 cfs @ 12.09 hrs, Volume= 0.116 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.24 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.44 fps, Avg. Travel Time= 0.0 min

Peak Storage= 1 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.43'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 4.0' Slope= 0.0100 '/'
Inlet Invert= 184.54', Outlet Invert= 184.50'



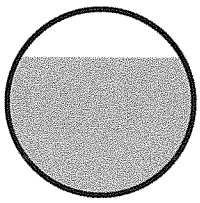
Summary for Reach 49R: DMH P-Q

Inflow Area = 13.011 ac, 30.95% Impervious, Inflow Depth = 2.27" for 100 YR event
Inflow = 16.80 cfs @ 12.12 hrs, Volume= 2.466 af
Outflow = 16.80 cfs @ 12.12 hrs, Volume= 2.466 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.68 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.50 fps, Avg. Travel Time= 0.2 min

Peak Storage= 93 cf @ 12.12 hrs
Average Depth at Peak Storage= 1.48'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 18.60 cfs

24.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 37.0' Slope= 0.0068 '/'
Inlet Invert= 183.50', Outlet Invert= 183.25'



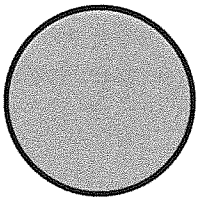
Summary for Reach 50R: SF2-FES 6

Inflow Area =	24.283 ac, 27.67% Impervious, Inflow Depth = 0.48" for 100 YR event				
Inflow =	4.09 cfs @ 12.30 hrs, Volume=	0.976 af			
Outflow =	3.61 cfs @ 12.30 hrs, Volume=	0.976 af, Atten= 12%, Lag= 0.0 min			

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.04 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 4.57 fps, Avg. Travel Time= 0.7 min

Peak Storage= 145 cf @ 12.30 hrs
Average Depth at Peak Storage= 1.00'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.61 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 185.0' Slope= 0.0103 '/'
Inlet Invert= 180.90', Outlet Invert= 179.00'



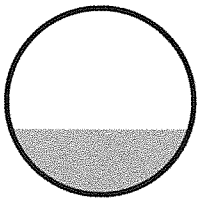
Summary for Reach 51R: CB 45 - DMH Q

Inflow Area = 0.146 ac,100.00% Impervious, Inflow Depth = 6.56" for 100 YR event
Inflow = 0.95 cfs @ 12.09 hrs, Volume= 0.080 af
Outflow = 0.95 cfs @ 12.09 hrs, Volume= 0.080 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.83 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.29 fps, Avg. Travel Time= 0.2 min

Peak Storage= 4 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.35'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 16.0' Slope= 0.0100 '/'
Inlet Invert= 184.41', Outlet Invert= 184.25'



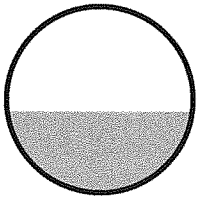
Summary for Reach 52R: DMH G1-FES 4

Inflow Area = 6.861 ac, 21.66% Impervious, Inflow Depth = 1.77" for 100 YR event
Inflow = 8.95 cfs @ 12.16 hrs, Volume= 1.010 af
Outflow = 8.97 cfs @ 12.16 hrs, Volume= 1.010 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.77 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.26 fps, Avg. Travel Time= 0.5 min

Peak Storage= 83 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.88'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 22.62 cfs

24.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 63.0' Slope= 0.0100 '/'
Inlet Invert= 185.88', Outlet Invert= 185.25'



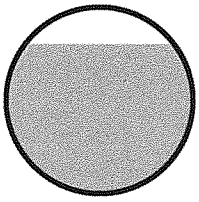
Summary for Reach 53R: CB 25 DMH Q

Inflow Area = 6.891 ac, 19.85% Impervious, Inflow Depth = 1.63" for 100 YR event
Inflow = 4.95 cfs @ 12.72 hrs, Volume= 0.937 af
Outflow = 4.95 cfs @ 12.72 hrs, Volume= 0.937 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.31 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.10 fps, Avg. Travel Time= 0.1 min

Peak Storage= 18 cf @ 12.72 hrs
Average Depth at Peak Storage= 0.80'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.04 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 27.0' Slope= 0.0200 '/'
Inlet Invert= 184.79', Outlet Invert= 184.25'



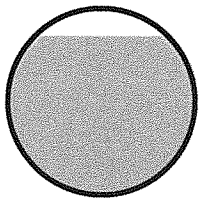
Summary for Reach 55R: Fl 28 - CB 25

Inflow Area = 6.749 ac, 18.60% Impervious, Inflow Depth = 1.56" for 100 YR event
Inflow = 4.85 cfs @ 12.72 hrs, Volume= 0.876 af
Outflow = 4.85 cfs @ 12.72 hrs, Volume= 0.876 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.82 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.65 fps, Avg. Travel Time= 0.1 min

Peak Storage= 16 cf @ 12.72 hrs
Average Depth at Peak Storage= 0.85'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 4.70 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 23.0' Slope= 0.0174 '/'
Inlet Invert= 185.29', Outlet Invert= 184.89'



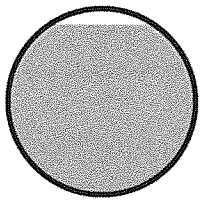
Summary for Reach 56R: DMH R- FES 3

Inflow Area = 13.321 ac, 31.63% Impervious, Inflow Depth = 2.31" for 100 YR event
Inflow = 18.10 cfs @ 12.12 hrs, Volume= 2.566 af
Outflow = 17.88 cfs @ 12.13 hrs, Volume= 2.566 af, Atten= 1%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.98 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.32 fps, Avg. Travel Time= 0.5 min

Peak Storage= 221 cf @ 12.13 hrs
Average Depth at Peak Storage= 1.83'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 16.54 cfs

24.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 73.0' Slope= 0.0053 '/'
Inlet Invert= 182.67', Outlet Invert= 182.28'



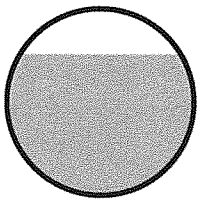
Summary for Reach 57R: DMH C1-D1

Inflow Area = 6.861 ac, 21.66% Impervious, Inflow Depth = 1.77" for 100 YR event
Inflow = 8.93 cfs @ 12.16 hrs, Volume= 1.010 af
Outflow = 8.95 cfs @ 12.16 hrs, Volume= 1.010 af, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.22 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 2.18 fps, Avg. Travel Time= 1.0 min

Peak Storage= 194 cf @ 12.16 hrs
Average Depth at Peak Storage= 1.14'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 9.70 cfs

18.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 135.0' Slope= 0.0085 '/'
Inlet Invert= 187.13', Outlet Invert= 185.98'



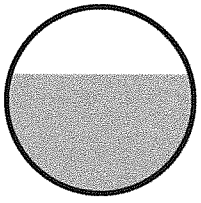
Summary for Reach 58R: DMH B1-C1

Inflow Area =	6.496 ac,	19.78% Impervious,	Inflow Depth =	1.66"	for 100 YR event
Inflow =	7.79 cfs @	12.16 hrs,	Volume=	0.900 af	
Outflow =	7.81 cfs @	12.17 hrs,	Volume=	0.900 af,	Atten= 0%, Lag= 0.5 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.50 fps, Min. Travel Time= 0.9 min
Avg. Velocity = 2.52 fps, Avg. Travel Time= 2.2 min

Peak Storage= 404 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.96'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.52 cfs

18.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 337.0' Slope= 0.0100 '/'
Inlet Invert= 190.61', Outlet Invert= 187.23'



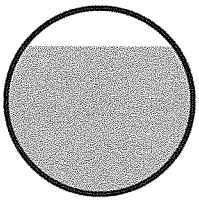
Summary for Reach 59R: DMH A1-B1

Inflow Area =	3.983 ac,	13.73% Impervious,	Inflow Depth =	1.33"	for 100 YR event
Inflow =	3.47 cfs @	12.25 hrs,	Volume=	0.441 af	
Outflow =	3.47 cfs @	12.26 hrs,	Volume=	0.441 af,	Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.17 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 2.34 fps, Avg. Travel Time= 0.8 min

Peak Storage= 74 cf @ 12.26 hrs
Average Depth at Peak Storage= 0.80'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 110.0' Slope= 0.0100 '/'
Inlet Invert= 192.20', Outlet Invert= 191.10'



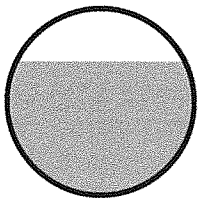
Summary for Reach 60R: CB 1-DMH 1

Inflow Area = 3.794 ac, 11.81% Impervious, Inflow Depth = 1.22" for 100 YR event
Inflow = 3.09 cfs @ 12.26 hrs, Volume= 0.387 af
Outflow = 3.09 cfs @ 12.26 hrs, Volume= 0.387 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.10 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.57 fps, Avg. Travel Time= 0.1 min

Peak Storage= 8 cf @ 12.26 hrs
Average Depth at Peak Storage= 0.72'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 14.0' Slope= 0.0100 '/'
Inlet Invert= 192.44', Outlet Invert= 192.30'



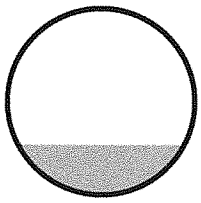
Summary for Reach 61R: CB 2-DMH A1

Inflow Area = 0.189 ac, 52.38% Impervious, Inflow Depth = 3.45" for 100 YR event
Inflow = 0.75 cfs @ 12.09 hrs, Volume= 0.054 af
Outflow = 0.75 cfs @ 12.09 hrs, Volume= 0.054 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.39 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.58 fps, Avg. Travel Time= 0.1 min

Peak Storage= 1 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.27'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 4.71 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 8.0' Slope= 0.0175 '/'
Inlet Invert= 192.44', Outlet Invert= 192.30'



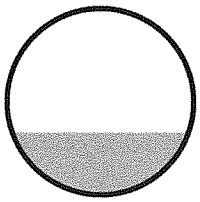
Summary for Reach 64R: CB 4-DMH 1

Inflow Area = 0.203 ac, 57.14% Impervious, Inflow Depth = 3.76" for 100 YR event
Inflow = 0.88 cfs @ 12.09 hrs, Volume= 0.064 af
Outflow = 0.88 cfs @ 12.10 hrs, Volume= 0.064 af, Atten= 0%, Lag= 0.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.76 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.34 fps, Avg. Travel Time= 0.7 min

Peak Storage= 13 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.34'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 57.0' Slope= 0.0100 '/'
Inlet Invert= 188.20', Outlet Invert= 187.63'



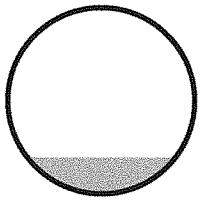
Summary for Reach 66R: CB 10-DMH D1

Inflow Area = 0.063 ac, 88.89% Impervious, Inflow Depth = 5.74" for 100 YR event
Inflow = 0.39 cfs @ 12.09 hrs, Volume= 0.030 af
Outflow = 0.39 cfs @ 12.09 hrs, Volume= 0.030 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.51 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.15 fps, Avg. Travel Time= 0.1 min

Peak Storage= 1 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.20'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 4.51 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 5.0' Slope= 0.0160 '/'
Inlet Invert= 186.56', Outlet Invert= 186.48'



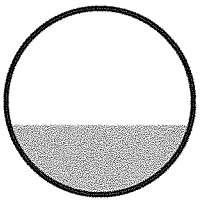
Summary for Reach 68R: CB 9-DMH G1

Inflow Area = 0.302 ac, 48.01% Impervious, Inflow Depth = 3.15" for 100 YR event
Inflow = 1.09 cfs @ 12.10 hrs, Volume= 0.079 af
Outflow = 1.09 cfs @ 12.10 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.98 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.47 fps, Avg. Travel Time= 0.1 min

Peak Storage= 2 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.38'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 8.0' Slope= 0.0100 '/'
Inlet Invert= 186.56', Outlet Invert= 186.48'



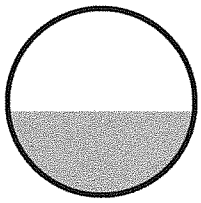
Summary for Reach 70R: DMH F1-D1

Inflow Area = 0.504 ac, 59.13% Impervious, Inflow Depth = 3.83" for 100 YR event
Inflow = 2.22 cfs @ 12.10 hrs, Volume= 0.161 af
Outflow = 2.22 cfs @ 12.10 hrs, Volume= 0.161 af, Atten= 0%, Lag= 0.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.11 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.39 fps, Avg. Travel Time= 0.7 min

Peak Storage= 32 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.57'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 5.27 cfs

15.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 60.0' Slope= 0.0067 '/'
Inlet Invert= 187.90', Outlet Invert= 187.50'



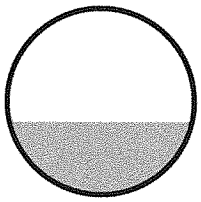
Summary for Reach 71R: DMH E1-F1

Inflow Area = 0.387 ac, 56.59% Impervious, Inflow Depth = 3.67" for 100 YR event
Inflow = 1.63 cfs @ 12.09 hrs, Volume= 0.118 af
Outflow = 1.64 cfs @ 12.10 hrs, Volume= 0.118 af, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.69 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 1.98 fps, Avg. Travel Time= 1.0 min

Peak Storage= 33 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.39'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 4.99 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 114.0' Slope= 0.0196 '/'
Inlet Invert= 190.53', Outlet Invert= 188.29'



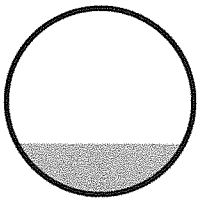
Summary for Reach 72R: CB 6-DMH E1

Inflow Area = 0.253 ac, 53.36% Impervious, Inflow Depth = 3.45" for 100 YR event
Inflow = 1.00 cfs @ 12.09 hrs, Volume= 0.073 af
Outflow = 1.00 cfs @ 12.09 hrs, Volume= 0.073 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.64 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.03 fps, Avg. Travel Time= 0.0 min

Peak Storage= 1 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.96 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 5.0' Slope= 0.0280 '/'
Inlet Invert= 190.77', Outlet Invert= 190.63'



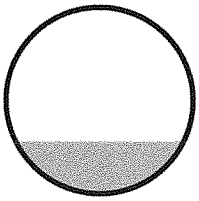
Summary for Reach 73R: CB 5-DMH E1

Inflow Area = 0.134 ac, 62.69% Impervious, Inflow Depth = 4.08" for 100 YR event
Inflow = 0.63 cfs @ 12.09 hrs, Volume= 0.046 af
Outflow = 0.63 cfs @ 12.09 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.41 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.19 fps, Avg. Travel Time= 0.2 min

Peak Storage= 3 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 14.0' Slope= 0.0100 '/'
Inlet Invert= 190.77', Outlet Invert= 190.63'



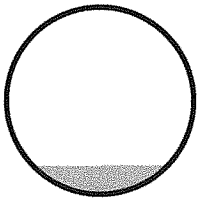
Summary for Reach 76R: CB 8-DMH F1

Inflow Area = 0.066 ac, 69.70% Impervious, Inflow Depth = 4.51" for 100 YR event
Inflow = 0.34 cfs @ 12.09 hrs, Volume= 0.025 af
Outflow = 0.34 cfs @ 12.09 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.34 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.48 fps, Avg. Travel Time= 0.1 min

Peak Storage= 1 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.16'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 6.46 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 7.0' Slope= 0.0329 '/'
Inlet Invert= 188.52', Outlet Invert= 188.29'



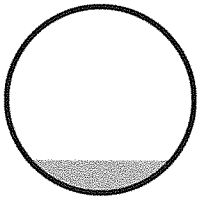
Summary for Reach 78R: CB 7-DMH F1

Inflow Area = 0.051 ac, 64.71% Impervious, Inflow Depth = 4.19" for 100 YR event
Inflow = 0.24 cfs @ 12.09 hrs, Volume= 0.018 af
Outflow = 0.24 cfs @ 12.09 hrs, Volume= 0.018 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.60 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 0.90 fps, Avg. Travel Time= 0.4 min

Peak Storage= 2 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.18'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 23.0' Slope= 0.0100 '/'
Inlet Invert= 188.52', Outlet Invert= 188.29'



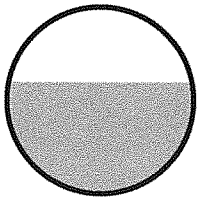
Summary for Reach 80R: CB 3-DMH D1

Inflow Area = 1.806 ac, 17.94% Impervious, Inflow Depth = 1.56" for 100 YR event
Inflow = 2.40 cfs @ 12.17 hrs, Volume= 0.234 af
Outflow = 2.40 cfs @ 12.17 hrs, Volume= 0.234 af, Atten= 0%, Lag= 0.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.85 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.20 fps, Avg. Travel Time= 0.5 min

Peak Storage= 31 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.60'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 62.0' Slope= 0.0100 '/'
Inlet Invert= 188.25', Outlet Invert= 187.63'



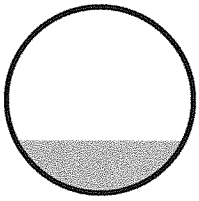
Summary for Reach 86R: CB 12-DMH H1

Inflow Area = 0.164 ac, 50.61% Impervious, Inflow Depth = 3.35" for 100 YR event
Inflow = 0.63 cfs @ 12.09 hrs, Volume= 0.046 af
Outflow = 0.63 cfs @ 12.10 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.42 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.24 fps, Avg. Travel Time= 0.2 min

Peak Storage= 3 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 18.0' Slope= 0.0100 '/'
Inlet Invert= 183.08', Outlet Invert= 182.90'



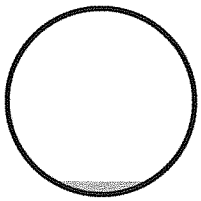
Summary for Reach 87R: CB 11-DMH H1

Inflow Area = 0.053 ac, 7.55% Impervious, Inflow Depth = 0.99" for 100 YR event
Inflow = 0.04 cfs @ 12.12 hrs, Volume= 0.004 af
Outflow = 0.04 cfs @ 12.13 hrs, Volume= 0.004 af, Atten= 2%, Lag= 0.6 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 1.49 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 0.71 fps, Avg. Travel Time= 0.9 min

Peak Storage= 1 cf @ 12.13 hrs
Average Depth at Peak Storage= 0.07'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 38.0' Slope= 0.0100 '/'
Inlet Invert= 183.28', Outlet Invert= 182.90'



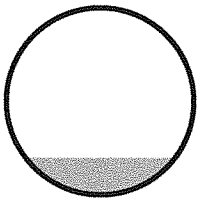
Summary for Reach 88R: CB 14-DMH H1A

Inflow Area = 0.202 ac, 18.32% Impervious, Inflow Depth = 1.56" for 100 YR event
Inflow = 0.31 cfs @ 12.11 hrs, Volume= 0.026 af
Outflow = 0.31 cfs @ 12.11 hrs, Volume= 0.026 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 2.79 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.17 fps, Avg. Travel Time= 0.2 min

Peak Storage= 2 cf @ 12.11 hrs
Average Depth at Peak Storage= 0.20'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 17.0' Slope= 0.0100 '/'
Inlet Invert= 183.46', Outlet Invert= 183.29'



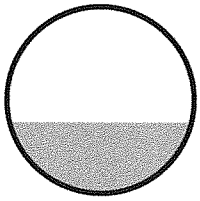
Summary for Reach 89R: CB 13-DMH H1A

Inflow Area = 0.264 ac, 56.06% Impervious, Inflow Depth = 3.66" for 100 YR event
Inflow = 1.11 cfs @ 12.09 hrs, Volume= 0.081 af
Outflow = 1.11 cfs @ 12.09 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.00 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.44 fps, Avg. Travel Time= 0.1 min

Peak Storage= 2 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.38'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 6.0' Slope= 0.0100 '/'
Inlet Invert= 183.35', Outlet Invert= 183.29'



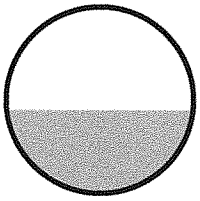
Summary for Reach 90R: DMH H1-FES SF1

Inflow Area =	0.683 ac, 39.82% Impervious, Inflow Depth = 2.76" for 100 YR event			
Inflow =	2.09 cfs @ 12.10 hrs, Volume=	0.157 af		
Outflow =	2.09 cfs @ 12.10 hrs, Volume=	0.157 af, Atten= 0%, Lag= 0.3 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.12 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 2.23 fps, Avg. Travel Time= 1.0 min

Peak Storage= 48 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.45'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.04 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 140.0' Slope= 0.0200 '/'
Inlet Invert= 182.80', Outlet Invert= 180.00'



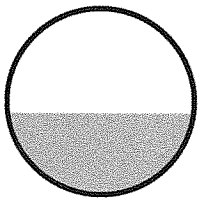
Summary for Reach 95R: DMH-H1A-H1

Inflow Area =	0.466 ac, 39.70% Impervious, Inflow Depth = 2.75" for 100 YR event			
Inflow =	1.42 cfs @ 12.10 hrs, Volume=	0.107 af		
Outflow =	1.42 cfs @ 12.10 hrs, Volume=	0.107 af, Atten= 0%, Lag= 0.1 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.28 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.57 fps, Avg. Travel Time= 0.3 min

Peak Storage= 10 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.44'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 29.0' Slope= 0.0100 '/'
Inlet Invert= 183.19', Outlet Invert= 182.90'



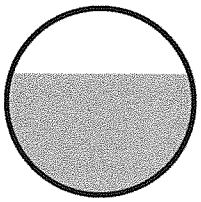
Summary for Reach 96R: DMH Q-R

Inflow Area = 13.011 ac, 30.95% Impervious, Inflow Depth = 2.27" for 100 YR event
Inflow = 16.80 cfs @ 12.12 hrs, Volume= 2.466 af
Outflow = 16.79 cfs @ 12.12 hrs, Volume= 2.466 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.69 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.83 fps, Avg. Travel Time= 0.2 min

Peak Storage= 87 cf @ 12.12 hrs
Average Depth at Peak Storage= 1.31'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 22.05 cfs

24.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 40.0' Slope= 0.0095 '/'
Inlet Invert= 183.15', Outlet Invert= 182.77'



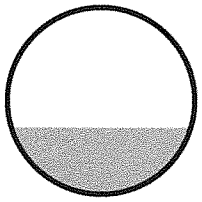
Summary for Reach 98R: CB 24-DMH R

Inflow Area = 0.310 ac, 60.00% Impervious, Inflow Depth = 3.87" for 100 YR event
Inflow = 1.38 cfs @ 12.09 hrs, Volume= 0.100 af
Outflow = 1.38 cfs @ 12.09 hrs, Volume= 0.100 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.46 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.94 fps, Avg. Travel Time= 0.0 min

Peak Storage= 1 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.36'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.04 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 2.0' Slope= 0.0200 '/'
Inlet Invert= 184.29', Outlet Invert= 184.25'



Summary for Pond 15P: Sed. FB A

Inflow Area = 24.283 ac, 27.67% Impervious, Inflow Depth = 2.10" for 100 YR event
Inflow = 33.04 cfs @ 12.14 hrs, Volume= 4.251 af
Outflow = 21.47 cfs @ 12.43 hrs, Volume= 4.251 af, Atten= 35%, Lag= 17.3 min
Discarded = 4.95 cfs @ 12.43 hrs, Volume= 3.277 af
Primary = 16.51 cfs @ 12.43 hrs, Volume= 0.973 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 185.74' @ 12.43 hrs Surf.Area= 0.242 ac Storage= 0.812 af

Plug-Flow detention time= 62.7 min calculated for 4.245 af (100% of inflow)
Center-of-Mass det. time= 62.6 min (921.9 - 859.3)

Volume	Invert	Avail.Storage	Storage Description
#1	179.00'	1.479 af	**Custom Stage Data (Conic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)	Wet.Area (acres)
179.00	0.000	0.000	0.000	0.000
180.00	0.058	0.019	0.019	0.058
182.00	0.105	0.161	0.180	0.106
184.00	0.172	0.274	0.454	0.174
186.00	0.254	0.423	0.878	0.258
188.00	0.350	0.601	1.479	0.355

Device	Routing	Invert	Outlet Devices
#1	Primary	185.00'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	179.00'	**20.000 in/hr Exfiltration over Wetted area**

Discarded OutFlow Max=4.95 cfs @ 12.43 hrs HW=185.73' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 4.95 cfs)

Primary OutFlow Max=16.42 cfs @ 12.43 hrs HW=185.73' TW=185.00' (Dynamic Tailwater)
└─**1=Orifice/Grate** (Weir Controls 16.42 cfs @ 2.80 fps)

Summary for Pond 91P: Sed FB-1

Inflow Area =	0.683 ac, 39.82% Impervious, Inflow Depth = 2.76" for 100 YR event				
Inflow =	2.09 cfs @	12.10 hrs,	Volume=	0.157 af	
Outflow =	0.70 cfs @	12.44 hrs,	Volume=	0.157 af,	Atten= 66%, Lag= 20.3 min
Discarded =	0.70 cfs @	12.44 hrs,	Volume=	0.157 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 172.83' @ 12.44 hrs Surf.Area= 0.035 ac Storage= 0.031 af

Plug-Flow detention time= 12.4 min calculated for 0.157 af (100% of inflow)
Center-of-Mass det. time= 12.4 min (854.7 - 842.3)

Volume	Invert	Avail.Storage	Storage Description
#1	171.50'	0.207 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
171.50	0.000	0.000	0.000
172.00	0.025	0.006	0.006
174.00	0.049	0.074	0.080
176.00	0.078	0.127	0.207

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	**10.0' long x 6.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.37 2.51 2.70 2.68 2.68 2.67 2.65 2.65 2.65 2.65 2.66 2.66 2.67 2.69 2.72 2.76 2.83

#2 Discarded 171.50' **20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=0.70 cfs @ 12.44 hrs HW=172.83' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 0.70 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=171.50' TW=172.00' (Dynamic Tailwater)
└─**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond 92P: IB-1

Inflow Area =	24.966 ac, 28.00% Impervious, Inflow Depth = 0.47" for 100 YR event			
Inflow =	3.61 cfs @	12.30 hrs, Volume=	0.976 af	
Outflow =	3.61 cfs @	12.35 hrs, Volume=	0.976 af, Atten= 0%, Lag= 3.0 min	
Discarded =	3.61 cfs @	12.35 hrs, Volume=	0.976 af	
Primary =	0.00 cfs @	0.00 hrs, Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 172.00' @ 12.35 hrs Surf.Area= 0.236 ac Storage= 0.000 af

Plug-Flow detention time= 0.0 min calculated for 0.976 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (832.7 - 832.7)

Volume	Invert	Avail.Storage	Storage Description
#1	172.00'	1.238 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
172.00	0.236	0.000	0.000
174.00	0.308	0.544	0.544
176.00	0.386	0.694	1.238

Device	Routing	Invert	Outlet Devices
#1	Primary	175.50'	**24.0" x 24.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#2	Discarded	172.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=4.76 cfs @ 12.35 hrs HW=172.00' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 4.76 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=172.00' (Free Discharge)
└─**1=Orifice/Grate** (Controls 0.00 cfs)

Summary for Pond 94P: Infiltration trench

Inflow Area =	2.955 ac, 4.91% Impervious, Inflow Depth = 0.91" for 100 YR event			
Inflow =	1.69 cfs @	12.18 hrs, Volume=	0.225 af	
Outflow =	0.65 cfs @	12.65 hrs, Volume=	0.226 af, Atten= 61%, Lag= 28.3 min	
Discarded =	0.65 cfs @	12.65 hrs, Volume=	0.226 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs

Peak Elev= 197.91' @ 12.65 hrs Surf.Area= 0.031 ac Storage= 0.030 af

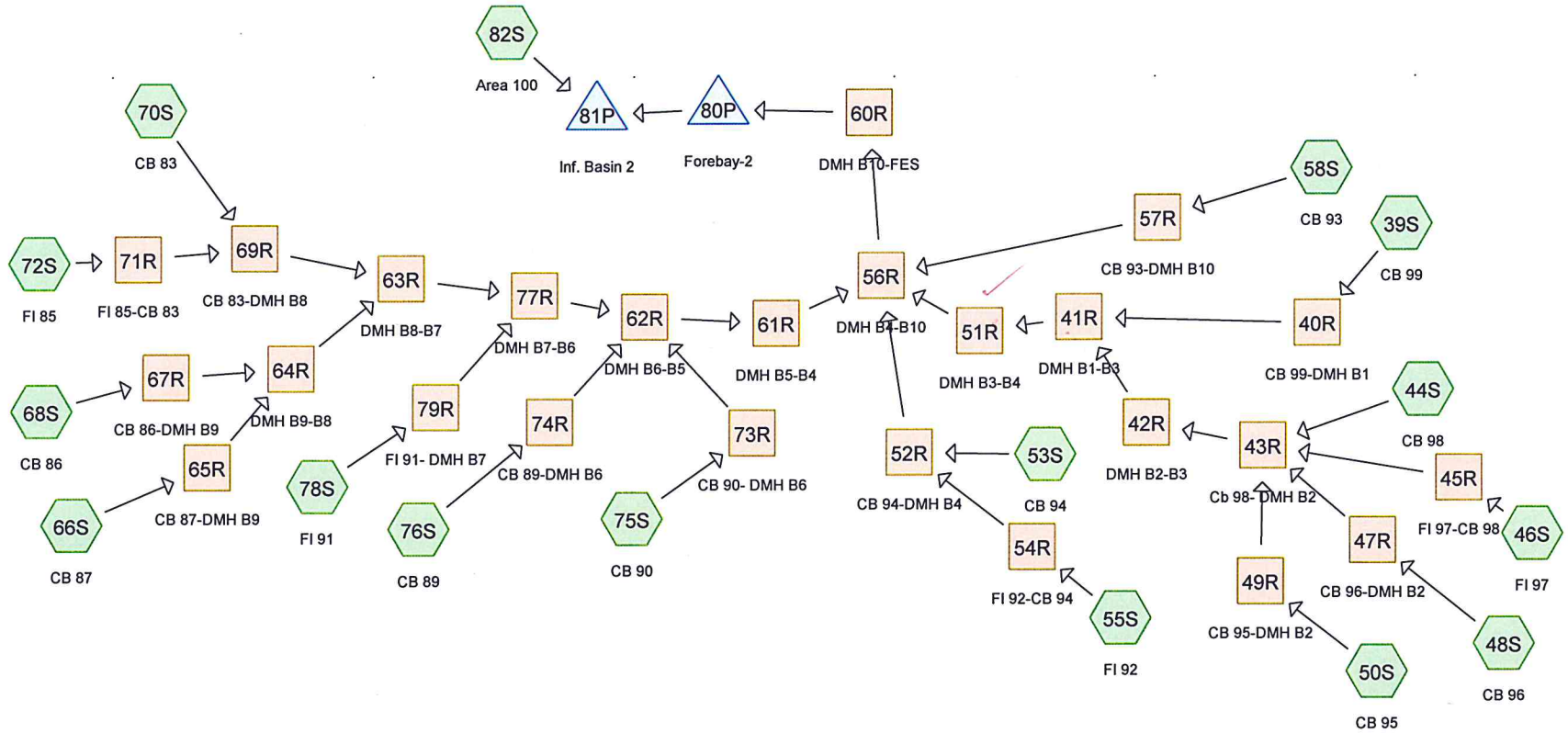
Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 10.3 min (929.7 - 919.4)

Volume	Invert	Avail.Storage	Storage Description
#1	195.00'	0.031 af	**Custom Stage Data (Prismatic)** Listed below (Recalc) 0.093 af Overall x 33.0% Voids

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
195.00	0.031	0.000	0.000
198.00	0.031	0.093	0.093

Device	Routing	Invert	Outlet Devices
#1	Discarded	195.00'	**20.000 in/hr Exfiltration over Surface area** Conductivity to Groundwater Elevation = 130.00'

Discarded OutFlow Max=0.65 cfs @ 12.65 hrs HW=197.91' (Free Discharge)
└**1=Exfiltration** (Controls 0.65 cfs)



Routing Diagram for LS-Basin 2

Prepared by CAQ Engineering Associates, Inc., Printed 7/14/2017

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Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 39S: CB 99 Runoff Area=0.121 ac 76.03% Impervious Runoff Depth=4.95"
Tc=6.0 min CN=84 Runoff=0.67 cfs 0.050 af

Subcatchment 44S: CB 98 Runoff Area=0.136 ac 80.88% Impervious Runoff Depth=5.29"
Tc=6.0 min CN=87 Runoff=0.79 cfs 0.060 af

Subcatchment 46S: FI 97 Runoff Area=0.929 ac 46.29% Impervious Runoff Depth=3.05"
Flow Length=240' Slope=0.0208 '/' Tc=10.4 min CN=66 Runoff=2.81 cfs 0.236 af

Subcatchment 48S: CB 96 Runoff Area=0.295 ac 59.66% Impervious Runoff Depth=3.87"
Tc=0.0 min CN=74 Runoff=1.54 cfs 0.095 af

Subcatchment 50S: CB 95 Runoff Area=0.354 ac 50.85% Impervious Runoff Depth=3.35"
Tc=0.0 min CN=69 Runoff=1.60 cfs 0.099 af

Subcatchment 53S: CB 94 Runoff Area=0.176 ac 80.68% Impervious Runoff Depth=5.29"
Tc=6.0 min CN=87 Runoff=1.03 cfs 0.078 af

Subcatchment 55S: FI 92 Runoff Area=2.315 ac 22.89% Impervious Runoff Depth=1.82"
Flow Length=530' Slope=0.0340 '/' Tc=21.4 min CN=53 Runoff=2.89 cfs 0.351 af

Subcatchment 58S: CB 93 Runoff Area=0.547 ac 35.83% Impervious Runoff Depth=2.46"
Tc=6.0 min CN=60 Runoff=1.50 cfs 0.112 af

Subcatchment 66S: CB 87 Runoff Area=0.410 ac 29.51% Impervious Runoff Depth=2.09"
Tc=6.0 min CN=56 Runoff=0.93 cfs 0.071 af

Subcatchment 68S: CB 86 Runoff Area=0.263 ac 80.99% Impervious Runoff Depth=5.29"
Tc=6.0 min CN=87 Runoff=1.54 cfs 0.116 af

Subcatchment 70S: CB 83 Runoff Area=0.042 ac 64.29% Impervious Runoff Depth=4.19"
Tc=0.0 min CN=77 Runoff=0.24 cfs 0.015 af

Subcatchment 72S: FI 85 Runoff Area=0.715 ac 15.38% Impervious Runoff Depth=1.39"
Flow Length=300' Slope=0.0400 '/' Tc=14.2 min CN=48 Runoff=0.72 cfs 0.083 af

Subcatchment 75S: CB 90 Runoff Area=0.613 ac 37.19% Impervious Runoff Depth=2.56"
Flow Length=420' Slope=0.0476 '/' Tc=12.3 min CN=61 Runoff=1.43 cfs 0.131 af

Subcatchment 76S: CB 89 Runoff Area=0.609 ac 39.08% Impervious Runoff Depth=2.65"
Tc=6.0 min CN=62 Runoff=1.82 cfs 0.135 af

Subcatchment 78S: FI 91 Runoff Area=1.469 ac 6.40% Impervious Runoff Depth=0.99"
Flow Length=310' Slope=0.0580 '/' Tc=13.8 min CN=43 Runoff=0.86 cfs 0.121 af

Subcatchment 82S: Area 100 Runoff Area=2.058 ac 14.43% Impervious Runoff Depth=1.39"
Tc=0.0 min CN=48 Runoff=3.14 cfs 0.238 af

Reach 40R: CB 99-DMH B1 Avg. Flow Depth=0.29' Max Vel=3.48 fps Inflow=0.67 cfs 0.050 af
12.0" Round Pipe n=0.013 L=14.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.67 cfs 0.050 af

Reach 41R: DMH B1-B3 Avg. Flow Depth=0.88' Max Vel=7.83 fps Inflow=5.68 cfs 0.540 af
12.0" Round Pipe n=0.013 L=110.0' S=0.0229 '/' Capacity=5.39 cfs Outflow=5.70 cfs 0.540 af

Reach 42R: DMH B2-B3 Avg. Flow Depth=0.82' Max Vel=7.31 fps Inflow=5.04 cfs 0.490 af
12.0" Round Pipe n=0.013 L=22.0' S=0.0200 '/' Capacity=5.04 cfs Outflow=5.05 cfs 0.490 af

Reach 43R: Cb 98- DMH B2 Avg. Flow Depth=0.82' Max Vel=7.31 fps Inflow=5.03 cfs 0.490 af
12.0" Round Pipe n=0.013 L=31.0' S=0.0200 '/' Capacity=5.04 cfs Outflow=5.04 cfs 0.490 af

Reach 45R: FI 97-CB 98 Avg. Flow Depth=0.67' Max Vel=5.03 fps Inflow=2.81 cfs 0.236 af
12.0" Round Pipe n=0.013 L=18.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=2.81 cfs 0.236 af

Reach 47R: CB 96-DMH B2 Avg. Flow Depth=0.46' Max Vel=4.37 fps Inflow=1.54 cfs 0.095 af
12.0" Round Pipe n=0.013 L=12.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.54 cfs 0.095 af

Reach 49R: CB 95-DMH B2 Avg. Flow Depth=0.47' Max Vel=4.41 fps Inflow=1.60 cfs 0.099 af
12.0" Round Pipe n=0.013 L=10.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.59 cfs 0.099 af

Reach 51R: DMH B3-B4 Avg. Flow Depth=0.89' Max Vel=6.14 fps Inflow=5.70 cfs 0.540 af
15.0" Round Pipe n=0.013 L=121.0' S=0.0108 '/' Capacity=6.72 cfs Outflow=5.73 cfs 0.540 af

Reach 52R: CB 94-DMH B4 Avg. Flow Depth=0.76' Max Vel=5.15 fps Inflow=3.30 cfs 0.428 af
12.0" Round Pipe n=0.013 L=4.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=3.30 cfs 0.428 af

Reach 54R: FI 92-CB 94 Avg. Flow Depth=0.68' Max Vel=5.05 fps Inflow=2.89 cfs 0.351 af
12.0" Round Pipe n=0.013 L=10.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=2.89 cfs 0.351 af

Reach 56R: DMH B4-B10 Avg. Flow Depth=1.22' Max Vel=7.76 fps Inflow=15.59 cfs 1.751 af
24.0" Round Pipe n=0.013 L=17.0' S=0.0100 '/' Capacity=22.62 cfs Outflow=15.59 cfs 1.751 af

Reach 57R: CB 93-DMH B10 Avg. Flow Depth=0.27' Max Vel=8.78 fps Inflow=1.50 cfs 0.112 af
12.0" Round Pipe n=0.013 L=3.0' S=0.0700 '/' Capacity=9.43 cfs Outflow=1.50 cfs 0.112 af

Reach 60R: DMH B10-FES Avg. Flow Depth=1.38' Max Vel=6.76 fps Inflow=15.59 cfs 1.751 af
24.0" Round Pipe n=0.013 L=38.0' S=0.0071 '/' Capacity=19.07 cfs Outflow=15.60 cfs 1.751 af

Reach 61R: DMH B5-B4 Avg. Flow Depth=0.84' Max Vel=6.23 fps Inflow=6.37 cfs 0.671 af
18.0" Round Pipe n=0.013 L=52.0' S=0.0100 '/' Capacity=10.50 cfs Outflow=6.38 cfs 0.671 af

Reach 62R: DMH B6-B5 Avg. Flow Depth=1.20' Max Vel=4.19 fps Inflow=6.36 cfs 0.671 af
18.0" Round Pipe n=0.013 L=47.0' S=0.0038 '/' Capacity=6.50 cfs Outflow=6.37 cfs 0.671 af

Reach 63R: DMH B8-B7 Avg. Flow Depth=0.76' Max Vel=4.60 fps Inflow=2.97 cfs 0.285 af
12.0" Round Pipe n=0.013 L=175.0' S=0.0080 '/' Capacity=3.19 cfs Outflow=2.96 cfs 0.285 af

Reach 64R: DMH B9-B8 Avg. Flow Depth=0.61' Max Vel=4.89 fps Inflow=2.46 cfs 0.187 af
12.0" Round Pipe n=0.013 L=16.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=2.46 cfs 0.187 af

Reach 65R: CB 87-DMH B9 Avg. Flow Depth=0.35' Max Vel=3.81 fps Inflow=0.93 cfs 0.071 af
12.0" Round Pipe n=0.013 L=9.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.93 cfs 0.071 af

Reach 67R: CB 86-DMH B9 Avg. Flow Depth=0.37' Max Vel=5.87 fps Inflow=1.54 cfs 0.116 af
12.0" Round Pipe n=0.013 L=4.0' S=0.0225 '/' Capacity=5.34 cfs Outflow=1.54 cfs 0.116 af

Reach 69R: CB 83-DMH B8 Avg. Flow Depth=0.32' Max Vel=3.65 fps Inflow=0.80 cfs 0.097 af
12.0" Round Pipe n=0.013 L=17.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.80 cfs 0.097 af

Reach 71R: FI 85-CB 83 Avg. Flow Depth=0.30' Max Vel=3.55 fps Inflow=0.72 cfs 0.083 af
12.0" Round Pipe n=0.013 L=13.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.72 cfs 0.083 af

Reach 73R: CB 90- DMH B6 Avg. Flow Depth=0.29' Max Vel=7.38 fps Inflow=1.43 cfs 0.131 af
12.0" Round Pipe n=0.013 L=10.0' S=0.0450 '/' Capacity=7.56 cfs Outflow=1.43 cfs 0.131 af

Reach 74R: CB 89-DMH B6 Avg. Flow Depth=0.38' Max Vel=6.68 fps Inflow=1.82 cfs 0.135 af
12.0" Round Pipe n=0.013 L=16.0' S=0.0281 '/' Capacity=5.98 cfs Outflow=1.82 cfs 0.135 af

Reach 77R: DMH B7-B6 Avg. Flow Depth=0.73' Max Vel=5.51 fps Inflow=3.40 cfs 0.406 af
12.0" Round Pipe n=0.013 L=45.0' S=0.0116 '/' Capacity=3.83 cfs Outflow=3.40 cfs 0.406 af

Reach 79R: FI 91- DMH B7 Avg. Flow Depth=0.34' Max Vel=3.73 fps Inflow=0.86 cfs 0.121 af
12.0" Round Pipe n=0.013 L=22.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.87 cfs 0.121 af

Pond 80P: Forebay-2 Peak Elev=173.50' Storage=0.503 af Inflow=15.60 cfs 1.751 af
Discarded=2.42 cfs 1.551 af Primary=5.35 cfs 0.201 af Outflow=7.77 cfs 1.751 af

Pond 81P: Inf. Basin 2 Peak Elev=172.04' Storage=0.145 af Inflow=5.93 cfs 0.439 af
Discarded=1.88 cfs 0.439 af Primary=0.00 cfs 0.000 af Outflow=1.88 cfs 0.439 af

Total Runoff Area = 11.052 ac Runoff Volume = 1.989 af Average Runoff Depth = 2.16"
71.19% Pervious = 7.868 ac 28.81% Impervious = 3.184 ac

Summary for Subcatchment 39S: CB 99

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 0.050 af, Depth= 4.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.029	39	>75% Grass cover, Good, HSG A
0.092	98	Paved roads w/curbs & sewers, HSG A
0.121	84	Weighted Average
0.029		23.97% Pervious Area
0.092		76.03% Impervious Area

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

Summary for Subcatchment 44S: CB 98

Runoff = 0.79 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 5.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.026	39	>75% Grass cover, Good, HSG A
0.110	98	Paved roads w/curbs & sewers, HSG A
0.136	87	Weighted Average
0.026		19.12% Pervious Area
0.110		80.88% Impervious Area

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

Summary for Subcatchment 46S: FI 97

Runoff = 2.81 cfs @ 12.15 hrs, Volume= 0.236 af, Depth= 3.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.430	98	Roofs, HSG A
0.499	39	>75% Grass cover, Good, HSG A
0.929	66	Weighted Average
0.499		53.71% Pervious Area
0.430		46.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	240	0.0208	0.38		**Lag/CN Method,**

Summary for Subcatchment 48S: CB 96

Runoff = 1.54 cfs @ 12.00 hrs, Volume= 0.095 af, Depth= 3.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.116	98	Roofs, HSG A
0.060	98	Paved roads w/curbs & sewers, HSG A
0.119	39	>75% Grass cover, Good, HSG A
0.295	74	Weighted Average
0.119		40.34% Pervious Area
0.176		59.66% Impervious Area

Summary for Subcatchment 50S: CB 95

Runoff = 1.60 cfs @ 12.01 hrs, Volume= 0.099 af, Depth= 3.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.116	98	Roofs, HSG A
0.064	98	Paved roads w/curbs & sewers, HSG A
0.174	39	>75% Grass cover, Good, HSG A
0.354	69	Weighted Average
0.174		49.15% Pervious Area
0.180		50.85% Impervious Area

Summary for Subcatchment 53S: CB 94

Runoff = 1.03 cfs @ 12.09 hrs, Volume= 0.078 af, Depth= 5.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.034	39	>75% Grass cover, Good, HSG A
0.142	98	Paved roads w/curbs & sewers, HSG A
0.176	87	Weighted Average
0.034		19.32% Pervious Area
0.142		80.68% Impervious Area

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

Summary for Subcatchment 55S: FI 92

Runoff = 2.89 cfs @ 12.34 hrs, Volume= 0.351 af, Depth= 1.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.530	98	Roofs, HSG A
1.785	39	>75% Grass cover, Good, HSG A
2.315	53	Weighted Average
1.785		77.11% Pervious Area
0.530		22.89% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.4	530	0.0340	0.41		**Lag/CN Method,**

Summary for Subcatchment 58S: CB 93

Runoff = 1.50 cfs @ 12.10 hrs, Volume= 0.112 af, Depth= 2.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.196	98	Paved roads w/curbs & sewers, HSG A
0.351	39	>75% Grass cover, Good, HSG A
0.547	60	Weighted Average
0.351		64.17% Pervious Area
0.196		35.83% Impervious Area

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

Summary for Subcatchment 66S: CB 87

Runoff = 0.93 cfs @ 12.10 hrs, Volume= 0.071 af, Depth= 2.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.064	98	Paved roads w/curbs & sewers, HSG A
0.057	98	Roofs, HSG A
0.289	39	>75% Grass cover, Good, HSG A
0.410	56	Weighted Average
0.289		70.49% Pervious Area
0.121		29.51% Impervious Area

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

Summary for Subcatchment 68S: CB 86

Runoff = 1.54 cfs @ 12.09 hrs, Volume= 0.116 af, Depth= 5.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.050	39	>75% Grass cover, Good, HSG A
0.213	98	Paved roads w/curbs & sewers, HSG A
0.263	87	Weighted Average
0.050		19.01% Pervious Area
0.213		80.99% Impervious Area

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

Summary for Subcatchment 70S: CB 83

Runoff = 0.24 cfs @ 12.00 hrs, Volume= 0.015 af, Depth= 4.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.027	98	Paved roads w/curbs & sewers, HSG A
0.015	39	>75% Grass cover, Good, HSG A
0.042	77	Weighted Average
0.015		35.71% Pervious Area
0.027		64.29% Impervious Area

Summary for Subcatchment 72S: FI 85

Runoff = 0.72 cfs @ 12.24 hrs, Volume= 0.083 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.110	98	Roofs, HSG A
0.605	39	>75% Grass cover, Good, HSG A
0.715	48	Weighted Average
0.605		84.62% Pervious Area
0.110		15.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.2	300	0.0400	0.35		**Lag/CN Method,**

Summary for Subcatchment 75S: CB 90

Runoff = 1.43 cfs @ 12.18 hrs, Volume= 0.131 af, Depth= 2.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.143	98	Roofs, HSG A
0.085	98	Paved roads w/curbs & sewers, HSG A
0.385	39	>75% Grass cover, Good, HSG A
0.613	61	Weighted Average
0.385		62.81% Pervious Area
0.228		37.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.3	420	0.0476	0.57		**Lag/CN Method,**

Summary for Subcatchment 76S: CB 89

Runoff = 1.82 cfs @ 12.10 hrs, Volume= 0.135 af, Depth= 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.090	98	Roofs, HSG A
0.148	98	Paved roads w/curbs & sewers, HSG A
0.371	39	>75% Grass cover, Good, HSG A
0.609	62	Weighted Average
0.371		60.92% Pervious Area
0.238		39.08% Impervious Area

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

Summary for Subcatchment 78S: FI 91

Runoff = 0.86 cfs @ 12.27 hrs, Volume= 0.121 af, Depth= 0.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.094	98	Roofs, HSG A
1.375	39	>75% Grass cover, Good, HSG A
1.469	43	Weighted Average
1.375		93.60% Pervious Area
0.094		6.40% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
13.8	310	0.0580	0.37		**Lag/CN Method,**

Summary for Subcatchment 82S: Area 100

Runoff = 3.14 cfs @ 12.02 hrs, Volume= 0.238 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.168	98	Roofs, HSG A
0.129	98	Water Surface, HSG A
1.761	39	>75% Grass cover, Good, HSG A
2.058	48	Weighted Average
1.761		85.57% Pervious Area
0.297		14.43% Impervious Area

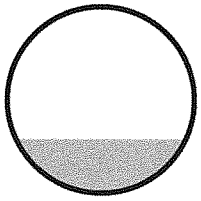
Summary for Reach 40R: CB 99-DMH B1

Inflow Area = 0.121 ac, 76.03% Impervious, Inflow Depth = 4.95" for 100 YR event
Inflow = 0.67 cfs @ 12.09 hrs, Volume= 0.050 af
Outflow = 0.67 cfs @ 12.09 hrs, Volume= 0.050 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.48 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.16 fps, Avg. Travel Time= 0.2 min

Peak Storage= 3 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.29'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 14.0' Slope= 0.0100 '/'
Inlet Invert= 180.11', Outlet Invert= 179.97'



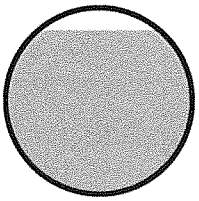
Summary for Reach 41R: DMH B1-B3

Inflow Area = 1.835 ac, 53.84% Impervious, Inflow Depth = 3.53" for 100 YR event
Inflow = 5.68 cfs @ 12.06 hrs, Volume= 0.540 af
Outflow = 5.70 cfs @ 12.06 hrs, Volume= 0.540 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.83 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.93 fps, Avg. Travel Time= 0.6 min

Peak Storage= 81 cf @ 12.06 hrs
Average Depth at Peak Storage= 0.88'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.39 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 110.0' Slope= 0.0229 '/'
Inlet Invert= 179.87', Outlet Invert= 177.35'



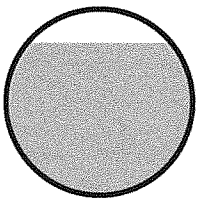
Summary for Reach 42R: DMH B2-B3

Inflow Area = 1.714 ac, 52.28% Impervious, Inflow Depth = 3.43" for 100 YR event
Inflow = 5.04 cfs @ 12.05 hrs, Volume= 0.490 af
Outflow = 5.05 cfs @ 12.05 hrs, Volume= 0.490 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.31 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.69 fps, Avg. Travel Time= 0.1 min

Peak Storage= 15 cf @ 12.05 hrs
Average Depth at Peak Storage= 0.82'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.04 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 22.0' Slope= 0.0200 '/'
Inlet Invert= 177.79', Outlet Invert= 177.35'



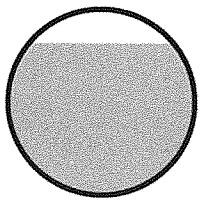
Summary for Reach 43R: Cb 98- DMH B2

Inflow Area = 1.714 ac, 52.28% Impervious, Inflow Depth = 3.43" for 100 YR event
Inflow = 5.03 cfs @ 12.05 hrs, Volume= 0.490 af
Outflow = 5.04 cfs @ 12.05 hrs, Volume= 0.490 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.31 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.69 fps, Avg. Travel Time= 0.2 min

Peak Storage= 21 cf @ 12.05 hrs
Average Depth at Peak Storage= 0.82'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.04 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 31.0' Slope= 0.0200 '/'
Inlet Invert= 178.51', Outlet Invert= 177.89'



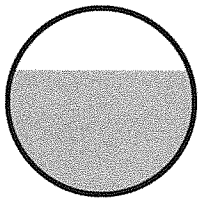
Summary for Reach 45R: FI 97-CB 98

Inflow Area = 0.929 ac, 46.29% Impervious, Inflow Depth = 3.05" for 100 YR event
Inflow = 2.81 cfs @ 12.15 hrs, Volume= 0.236 af
Outflow = 2.81 cfs @ 12.15 hrs, Volume= 0.236 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.03 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.03 fps, Avg. Travel Time= 0.1 min

Peak Storage= 10 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.67'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 18.0' Slope= 0.0100 '/'
Inlet Invert= 178.79', Outlet Invert= 178.61'



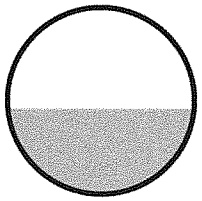
Summary for Reach 47R: CB 96-DMH B2

Inflow Area = 0.295 ac, 59.66% Impervious, Inflow Depth = 3.87" for 100 YR event
Inflow = 1.54 cfs @ 12.00 hrs, Volume= 0.095 af
Outflow = 1.54 cfs @ 12.00 hrs, Volume= 0.095 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.37 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.50 fps, Avg. Travel Time= 0.1 min

Peak Storage= 4 cf @ 12.00 hrs
Average Depth at Peak Storage= 0.46'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 12.0' Slope= 0.0100 '/'
Inlet Invert= 178.01', Outlet Invert= 177.89'



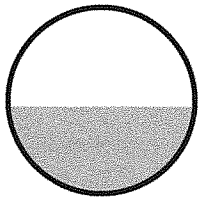
Summary for Reach 49R: CB 95-DMH B2

Inflow Area = 0.354 ac, 50.85% Impervious, Inflow Depth = 3.35" for 100 YR event
Inflow = 1.60 cfs @ 12.01 hrs, Volume= 0.099 af
Outflow = 1.59 cfs @ 12.01 hrs, Volume= 0.099 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.41 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.57 fps, Avg. Travel Time= 0.1 min

Peak Storage= 4 cf @ 12.01 hrs
Average Depth at Peak Storage= 0.47'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 10.0' Slope= 0.0100 '/'
Inlet Invert= 177.99', Outlet Invert= 177.89'



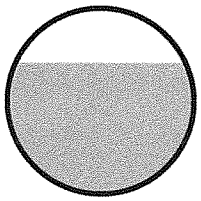
Summary for Reach 51R: DMH B3-B4

Inflow Area = 1.835 ac, 53.84% Impervious, Inflow Depth = 3.53" for 100 YR event
Inflow = 5.70 cfs @ 12.06 hrs, Volume= 0.540 af
Outflow = 5.73 cfs @ 12.07 hrs, Volume= 0.540 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.14 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.18 fps, Avg. Travel Time= 0.9 min

Peak Storage= 113 cf @ 12.07 hrs
Average Depth at Peak Storage= 0.89'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 6.72 cfs

15.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 121.0' Slope= 0.0108 '/'
Inlet Invert= 177.10', Outlet Invert= 175.79'



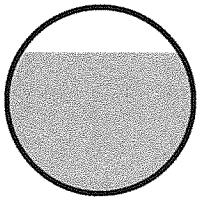
Summary for Reach 52R: CB 94-DMH B4

Inflow Area = 2.491 ac, 26.98% Impervious, Inflow Depth = 2.06" for 100 YR event
Inflow = 3.30 cfs @ 12.32 hrs, Volume= 0.428 af
Outflow = 3.30 cfs @ 12.32 hrs, Volume= 0.428 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.15 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.03 fps, Avg. Travel Time= 0.0 min

Peak Storage= 3 cf @ 12.32 hrs
Average Depth at Peak Storage= 0.76'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 4.0' Slope= 0.0100 '/'
Inlet Invert= 176.08', Outlet Invert= 176.04'



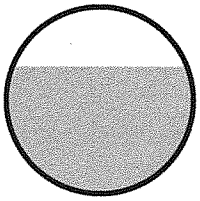
Summary for Reach 54R: FI 92-CB 94

Inflow Area = 2.315 ac, 22.89% Impervious, Inflow Depth = 1.82" for 100 YR event
Inflow = 2.89 cfs @ 12.34 hrs, Volume= 0.351 af
Outflow = 2.89 cfs @ 12.34 hrs, Volume= 0.351 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.05 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.38 fps, Avg. Travel Time= 0.1 min

Peak Storage= 6 cf @ 12.34 hrs
Average Depth at Peak Storage= 0.68'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 10.0' Slope= 0.0100 '/'
Inlet Invert= 176.28', Outlet Invert= 176.18'



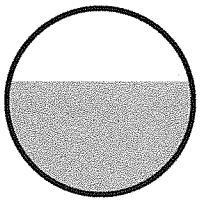
Summary for Reach 56R: DMH B4-B10

Inflow Area = 8.994 ac, 32.10% Impervious, Inflow Depth = 2.34" for 100 YR event
Inflow = 15.59 cfs @ 12.13 hrs, Volume= 1.751 af
Outflow = 15.59 cfs @ 12.13 hrs, Volume= 1.751 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.76 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.82 fps, Avg. Travel Time= 0.1 min

Peak Storage= 34 cf @ 12.13 hrs
Average Depth at Peak Storage= 1.22'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 22.62 cfs

24.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 17.0' Slope= 0.0100 '/'
Inlet Invert= 175.04', Outlet Invert= 174.87'



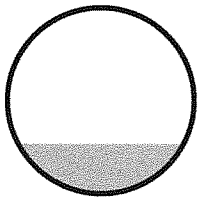
Summary for Reach 57R: CB 93-DMH B10

Inflow Area = 0.547 ac, 35.83% Impervious, Inflow Depth = 2.46" for 100 YR event
Inflow = 1.50 cfs @ 12.10 hrs, Volume= 0.112 af
Outflow = 1.50 cfs @ 12.10 hrs, Volume= 0.112 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.78 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 3.36 fps, Avg. Travel Time= 0.0 min

Peak Storage= 1 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.27'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 9.43 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 3.0' Slope= 0.0700 '/'
Inlet Invert= 176.08', Outlet Invert= 175.87'



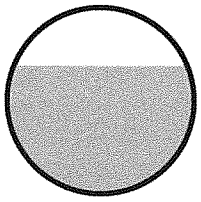
Summary for Reach 60R: DMH B10-FES

Inflow Area = 8.994 ac, 32.10% Impervious, Inflow Depth = 2.34" for 100 YR event
Inflow = 15.59 cfs @ 12.13 hrs, Volume= 1.751 af
Outflow = 15.60 cfs @ 12.13 hrs, Volume= 1.751 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.76 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.50 fps, Avg. Travel Time= 0.3 min

Peak Storage= 88 cf @ 12.13 hrs
Average Depth at Peak Storage= 1.38'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 19.07 cfs

24.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 38.0' Slope= 0.0071 '/'
Inlet Invert= 174.77', Outlet Invert= 174.50'



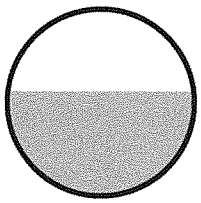
Summary for Reach 61R: DMH B5-B4

Inflow Area = 4.121 ac, 25.02% Impervious, Inflow Depth = 1.95" for 100 YR event
Inflow = 6.37 cfs @ 12.14 hrs, Volume= 0.671 af
Outflow = 6.38 cfs @ 12.14 hrs, Volume= 0.671 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.23 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.23 fps, Avg. Travel Time= 0.4 min

Peak Storage= 53 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.84'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.50 cfs

18.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 52.0' Slope= 0.0100 '/'
Inlet Invert= 176.06', Outlet Invert= 175.54'



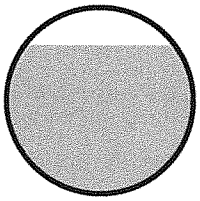
Summary for Reach 62R: DMH B6-B5

Inflow Area = 4.121 ac, 25.02% Impervious, Inflow Depth = 1.95" for 100 YR event
Inflow = 6.36 cfs @ 12.13 hrs, Volume= 0.671 af
Outflow = 6.37 cfs @ 12.14 hrs, Volume= 0.671 af, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.19 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.58 fps, Avg. Travel Time= 0.5 min

Peak Storage= 71 cf @ 12.14 hrs
Average Depth at Peak Storage= 1.20'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 6.50 cfs

18.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 47.0' Slope= 0.0038 '/'
Inlet Invert= 176.34', Outlet Invert= 176.16'



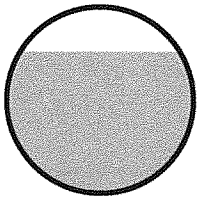
Summary for Reach 63R: DMH B8-B7

Inflow Area =	1.430 ac,	32.94% Impervious,	Inflow Depth =	2.39"	for 100 YR event
Inflow =	2.97 cfs @	12.10 hrs, Volume=	0.285 af		
Outflow =	2.96 cfs @	12.11 hrs, Volume=	0.285 af,	Atten= 0%,	Lag= 0.5 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.60 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 1.72 fps, Avg. Travel Time= 1.7 min

Peak Storage= 112 cf @ 12.11 hrs
Average Depth at Peak Storage= 0.76'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.19 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 175.0' Slope= 0.0080 '/'
Inlet Invert= 178.86', Outlet Invert= 177.46'



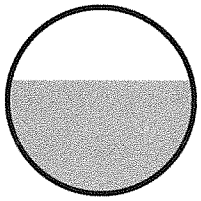
Summary for Reach 64R: DMH B9-B8

Inflow Area =	0.673 ac,	49.63% Impervious,	Inflow Depth =	3.34"	for 100 YR event
Inflow =	2.46 cfs @	12.09 hrs, Volume=	0.187 af		
Outflow =	2.46 cfs @	12.09 hrs, Volume=	0.187 af,	Atten= 0%,	Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.89 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.68 fps, Avg. Travel Time= 0.2 min

Peak Storage= 8 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.61'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 16.0' Slope= 0.0100 '/'
Inlet Invert= 179.12', Outlet Invert= 178.96'



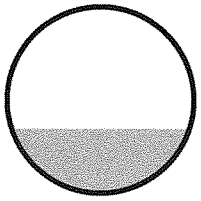
Summary for Reach 65R: CB 87-DMH B9

Inflow Area = 0.410 ac, 29.51% Impervious, Inflow Depth = 2.09" for 100 YR event
Inflow = 0.93 cfs @ 12.10 hrs, Volume= 0.071 af
Outflow = 0.93 cfs @ 12.10 hrs, Volume= 0.071 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.81 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.52 fps, Avg. Travel Time= 0.1 min

Peak Storage= 2 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.35'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 9.0' Slope= 0.0100 '/'
Inlet Invert= 179.31', Outlet Invert= 179.22'



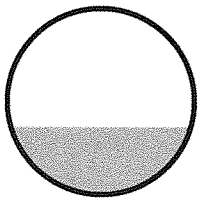
Summary for Reach 67R: CB 86-DMH B9

Inflow Area = 0.263 ac, 80.99% Impervious, Inflow Depth = 5.29" for 100 YR event
Inflow = 1.54 cfs @ 12.09 hrs, Volume= 0.116 af
Outflow = 1.54 cfs @ 12.09 hrs, Volume= 0.116 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.87 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.96 fps, Avg. Travel Time= 0.0 min

Peak Storage= 1 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.37'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.34 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 4.0' Slope= 0.0225 '/'
Inlet Invert= 179.31', Outlet Invert= 179.22'



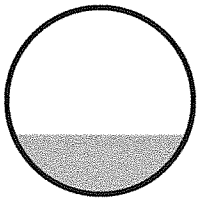
Summary for Reach 69R: CB 83-DMH B8

Inflow Area = 0.757 ac, 18.10% Impervious, Inflow Depth = 1.54" for 100 YR event
Inflow = 0.80 cfs @ 12.23 hrs, Volume= 0.097 af
Outflow = 0.80 cfs @ 12.23 hrs, Volume= 0.097 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.65 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.45 fps, Avg. Travel Time= 0.2 min

Peak Storage= 4 cf @ 12.23 hrs
Average Depth at Peak Storage= 0.32'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 17.0' Slope= 0.0100 '/'
Inlet Invert= 179.13', Outlet Invert= 178.96'



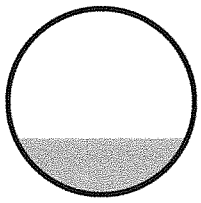
Summary for Reach 71R: FI 85-CB 83

Inflow Area = 0.715 ac, 15.38% Impervious, Inflow Depth = 1.39" for 100 YR event
Inflow = 0.72 cfs @ 12.24 hrs, Volume= 0.083 af
Outflow = 0.72 cfs @ 12.24 hrs, Volume= 0.083 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.55 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.63 fps, Avg. Travel Time= 0.1 min

Peak Storage= 3 cf @ 12.24 hrs
Average Depth at Peak Storage= 0.30'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 13.0' Slope= 0.0100 '/'
Inlet Invert= 179.36', Outlet Invert= 179.23'



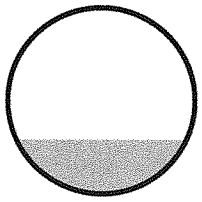
Summary for Reach 73R: CB 90- DMH B6

Inflow Area = 0.613 ac, 37.19% Impervious, Inflow Depth = 2.56" for 100 YR event
Inflow = 1.43 cfs @ 12.18 hrs, Volume= 0.131 af
Outflow = 1.43 cfs @ 12.18 hrs, Volume= 0.131 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.38 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.96 fps, Avg. Travel Time= 0.1 min

Peak Storage= 2 cf @ 12.18 hrs
Average Depth at Peak Storage= 0.29'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 7.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 10.0' Slope= 0.0450 '/'
Inlet Invert= 177.39', Outlet Invert= 176.94'



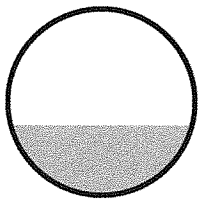
Summary for Reach 74R: CB 89-DMH B6

Inflow Area = 0.609 ac, 39.08% Impervious, Inflow Depth = 2.65" for 100 YR event
Inflow = 1.82 cfs @ 12.10 hrs, Volume= 0.135 af
Outflow = 1.82 cfs @ 12.10 hrs, Volume= 0.135 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.68 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.55 fps, Avg. Travel Time= 0.1 min

Peak Storage= 4 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.38'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.98 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 16.0' Slope= 0.0281 '/'
Inlet Invert= 177.39', Outlet Invert= 176.94'



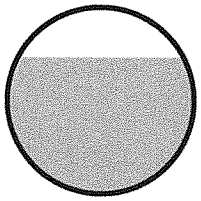
Summary for Reach 77R: DMH B7-B6

Inflow Area = 2.899 ac, 19.49% Impervious, Inflow Depth = 1.68" for 100 YR event
Inflow = 3.40 cfs @ 12.14 hrs, Volume= 0.406 af
Outflow = 3.40 cfs @ 12.14 hrs, Volume= 0.406 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.51 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.18 fps, Avg. Travel Time= 0.3 min

Peak Storage= 28 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.73'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.83 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 45.0' Slope= 0.0116 '/'
Inlet Invert= 176.96', Outlet Invert= 176.44'



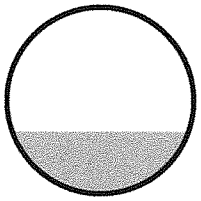
Summary for Reach 79R: FI 91- DMH B7

Inflow Area =	1.469 ac,	6.40% Impervious,	Inflow Depth =	0.99"	for 100 YR event
Inflow =	0.86 cfs @	12.27 hrs,	Volume=	0.121 af	
Outflow =	0.87 cfs @	12.27 hrs,	Volume=	0.121 af,	Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.73 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.87 fps, Avg. Travel Time= 0.2 min

Peak Storage= 5 cf @ 12.27 hrs
Average Depth at Peak Storage= 0.34'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 22.0' Slope= 0.0100 '/'
Inlet Invert= 177.68', Outlet Invert= 177.46'



Summary for Pond 80P: Forebay-2

Inflow Area =	8.994 ac,	32.10% Impervious,	Inflow Depth =	2.34"	for 100 YR event
Inflow =	15.60 cfs @	12.13 hrs,	Volume=	1.751 af	
Outflow =	7.77 cfs @	12.52 hrs,	Volume=	1.751 af,	Atten= 50%, Lag= 23.3 min
Discarded =	2.42 cfs @	12.52 hrs,	Volume=	1.551 af	
Primary =	5.35 cfs @	12.52 hrs,	Volume=	0.201 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 173.50' @ 12.52 hrs Surf.Area= 0.120 ac Storage= 0.503 af

Plug-Flow detention time= 78.3 min calculated for 1.749 af (100% of inflow)
Center-of-Mass det. time= 78.2 min (931.6 - 853.4)

Volume	Invert	Avail.Storage	Storage Description
#1	167.00'	0.503 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
167.00	0.000	0.000	0.000
168.00	0.048	0.024	0.024
170.00	0.075	0.123	0.147
172.00	0.109	0.184	0.331
173.50	0.120	0.172	0.503

Device	Routing	Invert	Outlet Devices
#1	Primary	173.00'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	167.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.42 cfs @ 12.52 hrs HW=173.50' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 2.42 cfs)

Primary OutFlow Max=5.26 cfs @ 12.52 hrs HW=173.50' TW=171.14' (Dynamic Tailwater)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 5.26 cfs @ 1.06 fps)

Summary for Pond 81P: Inf. Basin 2

Inflow Area =	11.052 ac, 28.81% Impervious, Inflow Depth = 0.48" for 100 YR event				
Inflow =	5.93 cfs @	12.52 hrs,	Volume=	0.439 af	
Outflow =	1.88 cfs @	12.97 hrs,	Volume=	0.439 af,	Atten= 68%, Lag= 27.0 min
Discarded =	1.88 cfs @	12.97 hrs,	Volume=	0.439 af	
Primary =	0.00 cfs @	0.00 hrs,	Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 172.04' @ 12.97 hrs Surf.Area= 0.093 ac Storage= 0.145 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 28.4 min (857.0 - 828.6)

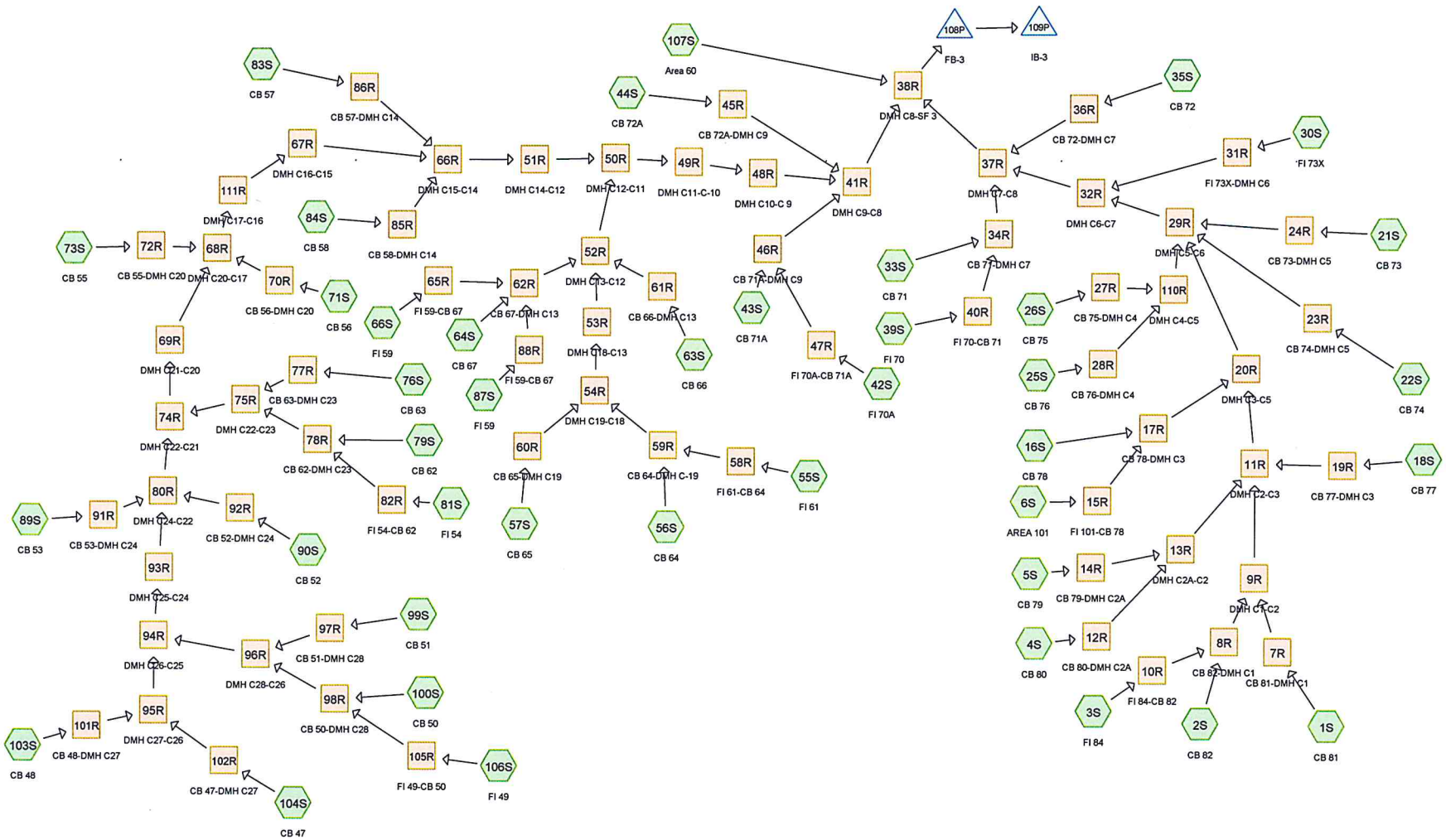
Volume	Invert	Avail.Storage	Storage Description
#1	170.00'	0.512 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
170.00	0.052	0.000	0.000
172.00	0.089	0.141	0.141
174.00	0.282	0.371	0.512

Device	Routing	Invert	Outlet Devices
#1	Primary	173.50'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	170.00'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=1.88 cfs @ 12.97 hrs HW=172.04' (Free Discharge)
└─**2=Exfiltration** (Exfiltration Controls 1.88 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=170.00' (Free Discharge)
└─**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)



Routing Diagram for LS-Basin 3

Prepared by CAQ Engineering Associates, Inc., Printed 7/14/2017

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Time span=0.00-36.00 hrs, dt=0.05 hrs, 721 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S: CB 81 Runoff Area=0.106 ac 72.64% Impervious Runoff Depth=4.73"
Tc=6.0 min CN=82 Runoff=0.57 cfs 0.042 af

Subcatchment 2S: CB 82 Runoff Area=0.114 ac 68.42% Impervious Runoff Depth=4.40"
Tc=6.0 min CN=79 Runoff=0.57 cfs 0.042 af

Subcatchment 3S: FI 84 Runoff Area=0.398 ac 28.39% Impervious Runoff Depth=2.09"
Flow Length=200' Slope=0.0500 '/' Tc=7.5 min CN=56 Runoff=0.85 cfs 0.069 af

Subcatchment 4S: CB 80 Runoff Area=0.156 ac 66.67% Impervious Runoff Depth=4.29"
Tc=6.0 min CN=78 Runoff=0.77 cfs 0.056 af

Subcatchment 5S: CB 79 Runoff Area=0.160 ac 63.75% Impervious Runoff Depth=4.19"
Tc=6.0 min CN=77 Runoff=0.77 cfs 0.056 af

Subcatchment 6S: AREA 101 Runoff Area=1.231 ac 21.36% Impervious Runoff Depth=1.73"
Flow Length=400' Slope=0.0450 '/' Tc=15.2 min CN=52 Runoff=1.64 cfs 0.177 af

Subcatchment 16S: CB 78 Runoff Area=0.119 ac 80.67% Impervious Runoff Depth=5.29"
Tc=6.0 min CN=87 Runoff=0.69 cfs 0.052 af

Subcatchment 18S: CB 77 Runoff Area=0.898 ac 27.62% Impervious Runoff Depth=2.00"
Flow Length=260' Slope=0.0385 '/' Tc=10.8 min CN=55 Runoff=1.64 cfs 0.150 af

Subcatchment 21S: CB 73 Runoff Area=0.210 ac 39.52% Impervious Runoff Depth=2.65"
Tc=6.0 min CN=62 Runoff=0.63 cfs 0.046 af

Subcatchment 22S: CB 74 Runoff Area=1.076 ac 15.52% Impervious Runoff Depth=1.39"
Flow Length=300' Slope=0.0233 '/' Tc=18.6 min CN=48 Runoff=0.98 cfs 0.124 af

Subcatchment 25S: CB 76 Runoff Area=0.208 ac 51.92% Impervious Runoff Depth=3.45"
Tc=6.0 min CN=70 Runoff=0.82 cfs 0.060 af

Subcatchment 26S: CB 75 Runoff Area=0.205 ac 50.73% Impervious Runoff Depth=3.35"
Tc=6.0 min CN=69 Runoff=0.79 cfs 0.057 af

Subcatchment 30S: FI 73X Runoff Area=0.812 ac 15.52% Impervious Runoff Depth=1.39"
Flow Length=280' Slope=0.0214 '/' Tc=18.4 min CN=48 Runoff=0.74 cfs 0.094 af

Subcatchment 33S: CB 71 Runoff Area=0.302 ac 66.56% Impervious Runoff Depth=4.29"
Tc=6.0 min CN=78 Runoff=1.48 cfs 0.108 af

Subcatchment 35S: CB 72 Runoff Area=0.317 ac 70.03% Impervious Runoff Depth=4.51"
Tc=6.0 min CN=80 Runoff=1.63 cfs 0.119 af

Subcatchment 39S: FI 70 Runoff Area=1.307 ac 31.91% Impervious Runoff Depth=2.27"
Flow Length=180' Slope=0.0139 '/' Tc=12.4 min CN=58 Runoff=2.65 cfs 0.248 af

Subcatchment 42S: FI 70A Runoff Area=5.018 ac 19.51% Impervious Runoff Depth=1.64"
Flow Length=720' Slope=0.0333 '/' Tc=29.1 min CN=51 Runoff=4.85 cfs 0.687 af

Subcatchment 43S: CB 71A Runoff Area=0.151 ac 66.89% Impervious Runoff Depth=4.29"
Tc=6.0 min CN=78 Runoff=0.74 cfs 0.054 af

Subcatchment 44S: CB 72A Runoff Area=0.147 ac 68.03% Impervious Runoff Depth=4.40"
Tc=6.0 min CN=79 Runoff=0.74 cfs 0.054 af

Subcatchment 55S: FI 61 Runoff Area=1.166 ac 37.56% Impervious Runoff Depth=2.56"
Flow Length=320' Slope=0.0312 '/' Tc=12.2 min CN=61 Runoff=2.73 cfs 0.249 af

Subcatchment 56S: CB 64 Runoff Area=0.109 ac 52.29% Impervious Runoff Depth=3.45"
Tc=6.0 min CN=70 Runoff=0.43 cfs 0.031 af

Subcatchment 57S: CB 65 Runoff Area=0.119 ac 50.42% Impervious Runoff Depth=3.35"
Tc=6.0 min CN=69 Runoff=0.46 cfs 0.033 af

Subcatchment 63S: CB 66 Runoff Area=0.034 ac 50.00% Impervious Runoff Depth=3.35"
Tc=6.0 min CN=69 Runoff=0.13 cfs 0.009 af

Subcatchment 64S: CB 67 Runoff Area=0.030 ac 50.00% Impervious Runoff Depth=3.35"
Tc=6.0 min CN=69 Runoff=0.12 cfs 0.008 af

Subcatchment 66S: FI 59 Runoff Area=0.455 ac 20.66% Impervious Runoff Depth=1.64"
Flow Length=260' Slope=0.0115 '/' Tc=21.9 min CN=51 Runoff=0.49 cfs 0.062 af

Subcatchment 71S: CB 56 Runoff Area=0.109 ac 70.64% Impervious Runoff Depth=4.62"
Tc=6.0 min CN=81 Runoff=0.57 cfs 0.042 af

Subcatchment 73S: CB 55 Runoff Area=1.224 ac 14.38% Impervious Runoff Depth=1.31"
Flow Length=300' Slope=0.0800 '/' Tc=10.3 min CN=47 Runoff=1.26 cfs 0.133 af

Subcatchment 76S: CB 63 Runoff Area=0.098 ac 66.33% Impervious Runoff Depth=4.29"
Tc=6.0 min CN=78 Runoff=0.48 cfs 0.035 af

Subcatchment 79S: CB 62 Runoff Area=0.054 ac 50.00% Impervious Runoff Depth=3.35"
Tc=6.0 min CN=69 Runoff=0.21 cfs 0.015 af

Subcatchment 81S: FI 54 Runoff Area=0.743 ac 22.75% Impervious Runoff Depth=1.73"
Flow Length=320' Slope=0.0375 '/' Tc=14.0 min CN=52 Runoff=1.03 cfs 0.107 af

Subcatchment 83S: CB 57 Runoff Area=0.239 ac 66.53% Impervious Runoff Depth=4.29"
Tc=6.0 min CN=78 Runoff=1.17 cfs 0.086 af

Subcatchment 84S: CB 58 Runoff Area=0.208 ac 50.00% Impervious Runoff Depth=3.35"
Tc=6.0 min CN=69 Runoff=0.80 cfs 0.058 af

Subcatchment 87S: FI 59 Runoff Area=0.455 ac 18.24% Impervious Runoff Depth=1.56"
Flow Length=260' Slope=0.0115 '/' Tc=22.5 min CN=50 Runoff=0.45 cfs 0.059 af

Subcatchment 89S: CB 53 Runoff Area=1.344 ac 13.10% Impervious Runoff Depth=1.31"
Flow Length=440' Slope=0.0800 '/' Tc=14.0 min CN=47 Runoff=1.24 cfs 0.146 af

Subcatchment 90S: CB 52 Runoff Area=0.120 ac 69.17% Impervious Runoff Depth=4.51"
Tc=6.0 min CN=80 Runoff=0.62 cfs 0.045 af

Subcatchment 99S: CB 51 Runoff Area=0.227 ac 88.55% Impervious Runoff Depth=5.74"
Tc=6.0 min CN=91 Runoff=1.40 cfs 0.109 af

Subcatchment 100S: CB 50 Runoff Area=0.193 ac 33.16% Impervious Runoff Depth=2.37"
Tc=6.0 min CN=59 Runoff=0.51 cfs 0.038 af

Subcatchment 103S: CB 48 Runoff Area=1.651 ac 15.32% Impervious Runoff Depth=1.39"
Flow Length=340' Slope=0.0800 '/' Tc=11.1 min CN=48 Runoff=1.80 cfs 0.191 af

Subcatchment 104S: CB 47 Runoff Area=0.181 ac 66.85% Impervious Runoff Depth=4.29"
Tc=6.0 min CN=78 Runoff=0.89 cfs 0.065 af

Subcatchment 106S: FI 49 Runoff Area=0.683 ac 31.48% Impervious Runoff Depth=2.27"
Flow Length=280' Slope=0.0210 '/' Tc=14.4 min CN=58 Runoff=1.32 cfs 0.129 af

Subcatchment 107S: Area 60 Runoff Area=4.515 ac 20.60% Impervious Runoff Depth=1.64"
Flow Length=600' Slope=0.0166 '/' Tc=35.6 min CN=51 Runoff=3.98 cfs 0.618 af

Reach 7R: CB 81-DMH C1 Avg. Flow Depth=0.27' Max Vel=3.31 fps Inflow=0.57 cfs 0.042 af
12.0" Round Pipe n=0.013 L=13.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.57 cfs 0.042 af

Reach 8R: CB 82-DMH C1 Avg. Flow Depth=0.37' Max Vel=5.35 fps Inflow=1.41 cfs 0.111 af
12.0" Round Pipe n=0.013 L=7.0' S=0.0186 '/' Capacity=4.86 cfs Outflow=1.41 cfs 0.111 af

Reach 9R: DMH C1-C2 Avg. Flow Depth=0.53' Max Vel=4.65 fps Inflow=1.97 cfs 0.153 af
12.0" Round Pipe n=0.013 L=34.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.97 cfs 0.153 af

Reach 10R: FI 84-CB 82 Avg. Flow Depth=0.33' Max Vel=3.70 fps Inflow=0.85 cfs 0.069 af
12.0" Round Pipe n=0.013 L=20.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.85 cfs 0.069 af

Reach 11R: DMH C2-C3 Avg. Flow Depth=0.81' Max Vel=5.76 fps Inflow=4.90 cfs 0.414 af
15.0" Round Pipe n=0.013 L=206.0' S=0.0100 '/' Capacity=6.46 cfs Outflow=4.88 cfs 0.414 af

Reach 12R: CB 80-DMH C2A Avg. Flow Depth=0.31' Max Vel=3.61 fps Inflow=0.77 cfs 0.056 af
12.0" Round Pipe n=0.013 L=4.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.77 cfs 0.056 af

Reach 13R: DMH C2A-C2 Avg. Flow Depth=0.46' Max Vel=4.36 fps Inflow=1.53 cfs 0.112 af
12.0" Round Pipe n=0.013 L=18.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.53 cfs 0.112 af

Reach 14R: CB 79-DMH C2A Avg. Flow Depth=0.32' Max Vel=3.61 fps Inflow=0.77 cfs 0.056 af
12.0" Round Pipe n=0.013 L=12.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.77 cfs 0.056 af

Reach 15R: FI 101-CB 78 Avg. Flow Depth=0.48' Max Vel=4.44 fps Inflow=1.64 cfs 0.177 af
12.0" Round Pipe n=0.013 L=16.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.64 cfs 0.177 af

Reach 17R: CB 78-DMH C3 Avg. Flow Depth=0.54' Max Vel=4.67 fps Inflow=2.01 cfs 0.230 af
12.0" Round Pipe n=0.013 L=8.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=2.01 cfs 0.230 af

Reach 19R: CB 77-DMH C3 Avg. Flow Depth=0.48' Max Vel=4.43 fps Inflow=1.64 cfs 0.150 af
12.0" Round Pipe n=0.013 L=12.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.64 cfs 0.150 af

Reach 20R: DMH C3-C5 Avg. Flow Depth=1.06' Max Vel=6.00 fps Inflow=6.64 cfs 0.644 af
15.0" Round Pipe n=0.013 L=55.0' S=0.0100 '/' Capacity=6.46 cfs Outflow=6.65 cfs 0.644 af

Reach 23R: CB 74-DMH C5 Avg. Flow Depth=0.36' Max Vel=3.87 fps Inflow=0.98 cfs 0.124 af
12.0" Round Pipe n=0.013 L=43.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.98 cfs 0.124 af

Reach 24R: CB 73-DMH C5 Avg. Flow Depth=0.28' Max Vel=3.42 fps Inflow=0.63 cfs 0.046 af
12.0" Round Pipe n=0.013 L=32.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.63 cfs 0.046 af

Reach 27R: CB 75-DMH C4 Avg. Flow Depth=0.32' Max Vel=3.64 fps Inflow=0.79 cfs 0.057 af
12.0" Round Pipe n=0.013 L=6.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.79 cfs 0.057 af

Reach 28R: CB 76-DMH C4 Avg. Flow Depth=0.33' Max Vel=3.69 fps Inflow=0.82 cfs 0.060 af
12.0" Round Pipe n=0.013 L=15.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.83 cfs 0.060 af

Reach 29R: DMH C5-C6 Avg. Flow Depth=1.09' Max Vel=6.70 fps Inflow=9.16 cfs 0.932 af
18.0" Round Pipe n=0.013 L=105.0' S=0.0100 '/' Capacity=10.50 cfs Outflow=9.19 cfs 0.932 af

Reach 31R: FI 73X-DMH C6 Avg. Flow Depth=0.31' Max Vel=3.58 fps Inflow=0.74 cfs 0.094 af
12.0" Round Pipe n=0.013 L=40.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.74 cfs 0.094 af

Reach 32R: DMH C6-C7 Avg. Flow Depth=1.13' Max Vel=6.74 fps Inflow=9.60 cfs 1.026 af
18.0" Round Pipe n=0.013 L=127.0' S=0.0100 '/' Capacity=10.50 cfs Outflow=9.63 cfs 1.026 af

Reach 34R: CB 71-DMH C7 Avg. Flow Depth=0.64' Max Vel=7.03 fps Inflow=3.74 cfs 0.356 af
12.0" Round Pipe n=0.013 L=7.0' S=0.0200 '/' Capacity=5.04 cfs Outflow=3.74 cfs 0.356 af

Reach 36R: CB 72-DMH C7 Avg. Flow Depth=0.47' Max Vel=4.43 fps Inflow=1.63 cfs 0.119 af
12.0" Round Pipe n=0.013 L=14.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.63 cfs 0.119 af

Reach 37R: DMH C7-C8 Avg. Flow Depth=1.18' Max Vel=7.67 fps Inflow=14.71 cfs 1.501 af
24.0" Round Pipe n=0.013 L=99.0' S=0.0100 '/' Capacity=22.62 cfs Outflow=14.74 cfs 1.501 af

Reach 38R: DMH C8-SF 3 Avg. Flow Depth=2.12' Max Vel=7.66 fps Inflow=33.99 cfs 4.565 af
30.0" Round Pipe n=0.013 L=170.0' S=0.0065 '/' Capacity=32.99 cfs Outflow=34.02 cfs 4.565 af

Reach 40R: FI 70-CB 71 Avg. Flow Depth=0.56' Max Vel=5.00 fps Inflow=2.65 cfs 0.248 af
15.0" Round Pipe n=0.013 L=50.0' S=0.0100 '/' Capacity=6.46 cfs Outflow=2.65 cfs 0.248 af

Reach 41R: DMH C9-C8 Avg. Flow Depth=1.08' Max Vel=10.50 fps Inflow=18.32 cfs 2.447 af
24.0" Round Pipe n=0.013 L=98.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=18.11 cfs 2.447 af

Reach 45R: CB 72A-DMH C9 Avg. Flow Depth=0.31' Max Vel=3.57 fps Inflow=0.74 cfs 0.054 af
12.0" Round Pipe n=0.013 L=12.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.74 cfs 0.054 af

Reach 46R: CB 71A-DMH C9 Avg. Flow Depth=0.55' Max Vel=9.41 fps Inflow=4.15 cfs 0.741 af
12.0" Round Pipe n=0.013 L=3.0' S=0.0400 '/' Capacity=7.13 cfs Outflow=4.15 cfs 0.741 af

Reach 47R: FI 70A-CB 71A Avg. Flow Depth=1.00' Max Vel=5.12 fps Inflow=4.85 cfs 0.687 af
12.0" Round Pipe n=0.013 L=25.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=3.84 cfs 0.687 af

Reach 48R: DMH C10-C 9 Avg. Flow Depth=1.14' Max Vel=8.30 fps Inflow=15.29 cfs 1.652 af
24.0" Round Pipe n=0.013 L=74.0' S=0.0120 '/' Capacity=24.81 cfs Outflow=15.31 cfs 1.652 af

Reach 49R: DMH C11-C-10 Avg. Flow Depth=1.20' Max Vel=7.73 fps Inflow=15.25 cfs 1.652 af
24.0" Round Pipe n=0.013 L=107.0' S=0.0100 '/' Capacity=22.62 cfs Outflow=15.29 cfs 1.652 af

Reach 50R: DMH C12-C11 Avg. Flow Depth=1.20' Max Vel=7.72 fps Inflow=15.24 cfs 1.652 af
24.0" Round Pipe n=0.013 L=52.0' S=0.0100 '/' Capacity=22.62 cfs Outflow=15.25 cfs 1.652 af

Reach 51R: DMH C14-C12 Avg. Flow Depth=1.33' Max Vel=6.78 fps Inflow=11.12 cfs 1.199 af
18.0" Round Pipe n=0.013 L=22.0' S=0.0100 '/' Capacity=10.50 cfs Outflow=11.13 cfs 1.199 af

Reach 52R: DMH C13-C12 Avg. Flow Depth=0.73' Max Vel=5.58 fps Inflow=4.13 cfs 0.452 af
15.0" Round Pipe n=0.013 L=24.0' S=0.0100 '/' Capacity=6.46 cfs Outflow=4.13 cfs 0.452 af

Reach 53R: DMH C18-C13 Avg. Flow Depth=0.78' Max Vel=5.16 fps Inflow=3.41 cfs 0.313 af
12.0" Round Pipe n=0.013 L=37.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=3.41 cfs 0.313 af

Reach 54R: DMH C19-C18 Avg. Flow Depth=0.78' Max Vel=5.16 fps Inflow=3.41 cfs 0.313 af
12.0" Round Pipe n=0.013 L=42.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=3.41 cfs 0.313 af

Reach 58R: FI 61-CB 64 Avg. Flow Depth=0.66' Max Vel=4.99 fps Inflow=2.73 cfs 0.249 af
12.0" Round Pipe n=0.013 L=10.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=2.73 cfs 0.249 af

Reach 59R: CB 64-DMH C-19 Avg. Flow Depth=0.58' Max Vel=6.44 fps Inflow=3.06 cfs 0.280 af
12.0" Round Pipe n=0.013 L=5.0' S=0.0180 '/' Capacity=4.78 cfs Outflow=3.06 cfs 0.280 af

Reach 60R: CB 65-DMH C19 Avg. Flow Depth=0.24' Max Vel=3.12 fps Inflow=0.46 cfs 0.033 af
12.0" Round Pipe n=0.013 L=9.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.46 cfs 0.033 af

Reach 61R: CB 66-DMH C13 Avg. Flow Depth=0.10' Max Vel=3.34 fps Inflow=0.13 cfs 0.009 af
12.0" Round Pipe n=0.013 L=2.0' S=0.0350 '/' Capacity=6.67 cfs Outflow=0.13 cfs 0.009 af

Reach 62R: CB 67-DMH C13 Avg. Flow Depth=0.36' Max Vel=3.89 fps Inflow=0.99 cfs 0.130 af
12.0" Round Pipe n=0.013 L=7.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.99 cfs 0.130 af

Reach 65R: FI 59-CB 67 Avg. Flow Depth=0.25' Max Vel=3.19 fps Inflow=0.49 cfs 0.062 af
12.0" Round Pipe n=0.013 L=15.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=0.49 cfs 0.062 af

Reach 66R: DMH C15-C14 Avg. Flow Depth=1.33' Max Vel=6.78 fps Inflow=11.09 cfs 1.199 af
18.0" Round Pipe n=0.013 L=139.0' S=0.0100 '/' Capacity=10.50 cfs Outflow=11.12 cfs 1.199 af

Reach 67R: DMH C16-C15 Avg. Flow Depth=1.12' Max Vel=6.73 fps Inflow=9.46 cfs 1.056 af
18.0" Round Pipe n=0.013 L=78.0' S=0.0100 '/' Capacity=10.50 cfs Outflow=9.49 cfs 1.056 af

Reach 68R: DMH C20-C17 Avg. Flow Depth=1.06' Max Vel=7.06 fps Inflow=9.37 cfs 1.056 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0112 '/' Capacity=11.12 cfs Outflow=9.42 cfs 1.056 af

Reach 69R: DMH C21-C20 Avg. Flow Depth=0.81' Max Vel=9.14 fps Inflow=7.66 cfs 0.880 af
15.0" Round Pipe n=0.013 L=62.0' S=0.0250 '/' Capacity=10.21 cfs Outflow=7.68 cfs 0.880 af

Reach 70R: CB 56-DMH C20 Avg. Flow Depth=0.20' Max Vel=5.05 fps Inflow=0.57 cfs 0.042 af
12.0" Round Pipe n=0.013 L=4.0' S=0.0325 '/' Capacity=6.42 cfs Outflow=0.57 cfs 0.042 af

Reach 72R: CB 55-DMH C20 Avg. Flow Depth=0.41' Max Vel=4.12 fps Inflow=1.26 cfs 0.133 af
12.0" Round Pipe n=0.013 L=13.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.26 cfs 0.133 af

Reach 74R: DMH C22-C21 Avg. Flow Depth=0.76' Max Vel=9.82 fps Inflow=7.62 cfs 0.880 af
15.0" Round Pipe n=0.013 L=76.0' S=0.0300 '/' Capacity=11.19 cfs Outflow=7.66 cfs 0.880 af

Reach 75R: DMH C22-C23 Avg. Flow Depth=0.45' Max Vel=4.30 fps Inflow=1.46 cfs 0.157 af
12.0" Round Pipe n=0.013 L=14.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.46 cfs 0.157 af

Reach 77R: CB 63-DMH C23 Avg. Flow Depth=0.21' Max Vel=4.04 fps Inflow=0.48 cfs 0.035 af
12.0" Round Pipe n=0.013 L=2.0' S=0.0200 '/' Capacity=5.04 cfs Outflow=0.48 cfs 0.035 af

Reach 78R: CB 62-DMH C23 Avg. Flow Depth=0.39' Max Vel=4.04 fps Inflow=1.15 cfs 0.122 af
12.0" Round Pipe n=0.013 L=13.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.15 cfs 0.122 af

Reach 80R: DMH C24-C22 Avg. Flow Depth=1.00' Max Vel=8.95 fps Inflow=6.69 cfs 0.723 af
12.0" Round Pipe n=0.013 L=29.0' S=0.0300 '/' Capacity=6.17 cfs Outflow=6.22 cfs 0.723 af

Reach 82R: FI 54-CB 62 Avg. Flow Depth=0.37' Max Vel=3.91 fps Inflow=1.03 cfs 0.107 af
12.0" Round Pipe n=0.013 L=15.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.03 cfs 0.107 af

Reach 85R: CB 58-DMH C14 Avg. Flow Depth=0.28' Max Vel=4.35 fps Inflow=0.80 cfs 0.058 af
12.0" Round Pipe n=0.013 L=8.0' S=0.0162 '/' Capacity=4.54 cfs Outflow=0.80 cfs 0.058 af

Reach 86R: CB 57-DMH C14 Avg. Flow Depth=0.40' Max Vel=4.06 fps Inflow=1.17 cfs 0.086 af
12.0" Round Pipe n=0.013 L=13.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.17 cfs 0.086 af

Reach 88R: FI 59-CB 67 Avg. Flow Depth=0.22' Max Vel=3.45 fps Inflow=0.45 cfs 0.059 af
12.0" Round Pipe n=0.013 L=15.0' S=0.0133 '/' Capacity=4.11 cfs Outflow=0.45 cfs 0.059 af

Reach 91R: CB 53-DMH C24 Avg. Flow Depth=0.41' Max Vel=4.12 fps Inflow=1.24 cfs 0.146 af
12.0" Round Pipe n=0.013 L=12.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.24 cfs 0.146 af

Reach 92R: CB 52-DMH C24 Avg. Flow Depth=0.24' Max Vel=4.34 fps Inflow=0.62 cfs 0.045 af
12.0" Round Pipe n=0.013 L=6.0' S=0.0200 '/' Capacity=5.04 cfs Outflow=0.62 cfs 0.045 af

Reach 93R: DMH C25-C24 Avg. Flow Depth=0.73' Max Vel=8.40 fps Inflow=5.18 cfs 0.532 af
12.0" Round Pipe n=0.013 L=32.0' S=0.0269 '/' Capacity=5.84 cfs Outflow=5.18 cfs 0.532 af

Reach 94R: DMH C26-C25 Avg. Flow Depth=0.75' Max Vel=8.14 fps Inflow=5.17 cfs 0.532 af
12.0" Round Pipe n=0.013 L=111.0' S=0.0250 '/' Capacity=5.64 cfs Outflow=5.18 cfs 0.532 af

Reach 95R: DMH C27-C26 Avg. Flow Depth=0.46' Max Vel=6.93 fps Inflow=2.46 cfs 0.256 af
12.0" Round Pipe n=0.013 L=36.0' S=0.0250 '/' Capacity=5.63 cfs Outflow=2.46 cfs 0.256 af

Reach 96R: DMH C28-C26 Avg. Flow Depth=0.47' Max Vel=7.66 fps Inflow=2.82 cfs 0.276 af
12.0" Round Pipe n=0.013 L=21.0' S=0.0300 '/' Capacity=6.17 cfs Outflow=2.82 cfs 0.276 af

Reach 97R: CB 51-DMH C28 Avg. Flow Depth=0.28' Max Vel=7.62 fps Inflow=1.40 cfs 0.109 af
12.0" Round Pipe n=0.013 L=2.0' S=0.0500 '/' Capacity=7.97 cfs Outflow=1.40 cfs 0.109 af

Reach 98R: CB 50-DMH C28 Avg. Flow Depth=0.48' Max Vel=4.45 fps Inflow=1.65 cfs 0.168 af
12.0" Round Pipe n=0.013 L=10.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.65 cfs 0.168 af

Reach 101R: CB 48-DMH C27 Avg. Flow Depth=0.50' Max Vel=4.55 fps Inflow=1.80 cfs 0.191 af
12.0" Round Pipe n=0.013 L=14.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.80 cfs 0.191 af

Reach 102R: CB 47-DMH C27 Avg. Flow Depth=0.27' Max Vel=5.10 fps Inflow=0.89 cfs 0.065 af
12.0" Round Pipe n=0.013 L=6.0' S=0.0233 '/' Capacity=5.44 cfs Outflow=0.89 cfs 0.065 af

Reach 105R: FI 49-CB 50 Avg. Flow Depth=0.42' Max Vel=4.19 fps Inflow=1.32 cfs 0.129 af
12.0" Round Pipe n=0.013 L=15.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.32 cfs 0.129 af

Reach 110R: DMH C4-C5 Avg. Flow Depth=0.47' Max Vel=4.42 fps Inflow=1.61 cfs 0.117 af
12.0" Round Pipe n=0.013 L=30.0' S=0.0100 '/' Capacity=3.56 cfs Outflow=1.62 cfs 0.117 af

Reach 111R: DMH C17-C16 Avg. Flow Depth=1.11' Max Vel=6.73 fps Inflow=9.42 cfs 1.056 af
18.0" Round Pipe n=0.013 L=78.0' S=0.0100 '/' Capacity=10.50 cfs Outflow=9.46 cfs 1.056 af

Pond 108P: FB-3 Peak Elev=170.17' Storage=0.193 af Inflow=34.02 cfs 4.565 af
Discarded=2.16 cfs 2.009 af Primary=31.56 cfs 2.557 af Outflow=33.72 cfs 4.565 af

Pond 109P: IB-3 Peak Elev=170.16' Storage=1.077 af Inflow=31.56 cfs 2.557 af
Discarded=8.61 cfs 2.557 af Primary=0.00 cfs 0.000 af Outflow=8.61 cfs 2.557 af

Total Runoff Area = 26.892 ac Runoff Volume = 4.565 af Average Runoff Depth = 2.04"
72.95% Pervious = 19.619 ac 27.05% Impervious = 7.273 ac

Summary for Subcatchment 1S: CB 81

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.042 af, Depth= 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.077	98	Paved roads w/curbs & sewers, HSG A
0.029	39	>75% Grass cover, Good, HSG A
0.106	82	Weighted Average
0.029		27.36% Pervious Area
0.077		72.64% Impervious Area

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

Summary for Subcatchment 2S: CB 82

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.042 af, Depth= 4.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.078	98	Paved roads w/curbs & sewers, HSG A
0.036	39	>75% Grass cover, Good, HSG A
0.114	79	Weighted Average
0.036		31.58% Pervious Area
0.078		68.42% Impervious Area

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

Summary for Subcatchment 3S: FI 84

Runoff = 0.85 cfs @ 12.12 hrs, Volume= 0.069 af, Depth= 2.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.113	98	Roofs, HSG A
0.285	39	>75% Grass cover, Good, HSG A
0.398	56	Weighted Average
0.285		71.61% Pervious Area
0.113		28.39% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
7.5	200	0.0500	0.44		**Lag/CN Method,**

Summary for Subcatchment 4S: CB 80

Runoff = 0.77 cfs @ 12.09 hrs, Volume= 0.056 af, Depth= 4.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.104	98	Paved roads w/curbs & sewers, HSG A
0.052	39	>75% Grass cover, Good, HSG A
0.156	78	Weighted Average
0.052		33.33% Pervious Area
0.104		66.67% Impervious Area

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

Summary for Subcatchment 5S: CB 79

Runoff = 0.77 cfs @ 12.09 hrs, Volume= 0.056 af, Depth= 4.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.102	98	Paved roads w/curbs & sewers, HSG A
0.058	39	>75% Grass cover, Good, HSG A
0.160	77	Weighted Average
0.058		36.25% Pervious Area
0.102		63.75% Impervious Area

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

Summary for Subcatchment 6S: AREA 101

Runoff = 1.64 cfs @ 12.24 hrs, Volume= 0.177 af, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.263	98	Roofs, HSG A
0.968	39	>75% Grass cover, Good, HSG A
1.231	52	Weighted Average
0.968		78.64% Pervious Area
0.263		21.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.2	400	0.0450	0.44		**Lag/CN Method,**

Summary for Subcatchment 16S: CB 78

Runoff = 0.69 cfs @ 12.09 hrs, Volume= 0.052 af, Depth= 5.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.023	39	>75% Grass cover, Good, HSG A
0.096	98	Paved roads w/curbs & sewers, HSG A
0.119	87	Weighted Average
0.023		19.33% Pervious Area
0.096		80.67% Impervious Area

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

Summary for Subcatchment 18S: CB 77

Runoff = 1.64 cfs @ 12.17 hrs, Volume= 0.150 af, Depth= 2.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.143	98	Paved roads w/curbs & sewers, HSG A
0.105	98	Roofs, HSG A
0.650	39	>75% Grass cover, Good, HSG A
0.898	55	Weighted Average
0.650		72.38% Pervious Area
0.248		27.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.8	260	0.0385	0.40		**Lag/CN Method,**

Summary for Subcatchment 21S: CB 73

Runoff = 0.63 cfs @ 12.10 hrs, Volume= 0.046 af, Depth= 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.083	98	Paved roads w/curbs & sewers, HSG A
0.127	39	>75% Grass cover, Good, HSG A
0.210	62	Weighted Average
0.127		60.48% Pervious Area
0.083		39.52% Impervious Area

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

Summary for Subcatchment 22S: CB 74

Runoff = 0.98 cfs @ 12.31 hrs, Volume= 0.124 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.084	98	Roofs, HSG A
0.083	98	Paved roads w/curbs & sewers, HSG A
0.909	39	>75% Grass cover, Good, HSG A
1.076	48	Weighted Average
0.909		84.48% Pervious Area
0.167		15.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.6	300	0.0233	0.27		**Lag/CN Method,**

Summary for Subcatchment 25S: CB 76

Runoff = 0.82 cfs @ 12.09 hrs, Volume= 0.060 af, Depth= 3.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.108	98	Paved roads w/curbs & sewers, HSG A
0.100	39	>75% Grass cover, Good, HSG A
0.208	70	Weighted Average
0.100		48.08% Pervious Area
0.108		51.92% Impervious Area

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

Summary for Subcatchment 26S: CB 75

Runoff = 0.79 cfs @ 12.09 hrs, Volume= 0.057 af, Depth= 3.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.104	98	Paved roads w/curbs & sewers, HSG A
0.101	39	>75% Grass cover, Good, HSG A
0.205	69	Weighted Average
0.101		49.27% Pervious Area
0.104		50.73% Impervious Area

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

Summary for Subcatchment 30S: FI 73X

Runoff = 0.74 cfs @ 12.31 hrs, Volume= 0.094 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.126	98	Roofs, HSG A
0.686	39	>75% Grass cover, Good, HSG A
0.812	48	Weighted Average
0.686		84.48% Pervious Area
0.126		15.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.4	280	0.0214	0.25		**Lag/CN Method,**

Summary for Subcatchment 33S: CB 71

Runoff = 1.48 cfs @ 12.09 hrs, Volume= 0.108 af, Depth= 4.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.201	98	Paved roads w/curbs & sewers, HSG A
0.101	39	>75% Grass cover, Good, HSG A
0.302	78	Weighted Average
0.101		33.44% Pervious Area
0.201		66.56% Impervious Area

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

Summary for Subcatchment 35S: CB 72

Runoff = 1.63 cfs @ 12.09 hrs, Volume= 0.119 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.222	98	Paved roads w/curbs & sewers, HSG A
0.095	39	>75% Grass cover, Good, HSG A
0.317	80	Weighted Average
0.095		29.97% Pervious Area
0.222		70.03% Impervious Area

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

Summary for Subcatchment 39S: FI 70

Runoff = 2.65 cfs @ 12.19 hrs, Volume= 0.248 af, Depth= 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.207	98	Roofs, HSG A
0.210	98	Paved roads w/curbs & sewers, HSG A
0.890	39	>75% Grass cover, Good, HSG A
1.307	58	Weighted Average
0.890		68.09% Pervious Area
0.417		31.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.4	180	0.0139	0.24		**Lag/CN Method,**

Summary for Subcatchment 42S: FI 70A

Runoff = 4.85 cfs @ 12.47 hrs, Volume= 0.687 af, Depth= 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.712	98	Roofs, HSG A
0.267	98	Paved roads w/curbs & sewers, HSG A
4.039	39	>75% Grass cover, Good, HSG A
5.018	51	Weighted Average
4.039		80.49% Pervious Area
0.979		19.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
29.1	720	0.0333	0.41		**Lag/CN Method,**

Summary for Subcatchment 43S: CB 71A

Runoff = 0.74 cfs @ 12.09 hrs, Volume= 0.054 af, Depth= 4.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.101	98	Paved roads w/curbs & sewers, HSG A
0.050	39	>75% Grass cover, Good, HSG A
0.151	78	Weighted Average
0.050		33.11% Pervious Area
0.101		66.89% Impervious Area

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

Summary for Subcatchment 44S: CB 72A

Runoff = 0.74 cfs @ 12.09 hrs, Volume= 0.054 af, Depth= 4.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.100	98	Paved roads w/curbs & sewers, HSG A
0.047	39	>75% Grass cover, Good, HSG A
0.147	79	Weighted Average
0.047		31.97% Pervious Area
0.100		68.03% Impervious Area

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

Summary for Subcatchment 55S: FI 61

Runoff = 2.73 cfs @ 12.18 hrs, Volume= 0.249 af, Depth= 2.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.157	98	Paved roads w/curbs & sewers, HSG A
0.281	98	Roofs, HSG A
0.728	39	>75% Grass cover, Good, HSG A
1.166	61	Weighted Average
0.728		62.44% Pervious Area
0.438		37.56% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
12.2	320	0.0312	0.44		**Lag/CN Method,**

Summary for Subcatchment 56S: CB 64

Runoff = 0.43 cfs @ 12.09 hrs, Volume= 0.031 af, Depth= 3.45"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.057	98	Paved roads w/curbs & sewers, HSG A
0.052	39	>75% Grass cover, Good, HSG A
0.109	70	Weighted Average
0.052		47.71% Pervious Area
0.057		52.29% Impervious Area

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

Summary for Subcatchment 57S: CB 65

Runoff = 0.46 cfs @ 12.09 hrs, Volume= 0.033 af, Depth= 3.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.060	98	Paved roads w/curbs & sewers, HSG A
0.059	39	>75% Grass cover, Good, HSG A
0.119	69	Weighted Average
0.059		49.58% Pervious Area
0.060		50.42% Impervious Area

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

Summary for Subcatchment 63S: CB 66

Runoff = 0.13 cfs @ 12.09 hrs, Volume= 0.009 af, Depth= 3.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.017	98	Paved roads w/curbs & sewers, HSG A
0.017	39	>75% Grass cover, Good, HSG A
0.034	69	Weighted Average
0.017		50.00% Pervious Area
0.017		50.00% Impervious Area

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

Summary for Subcatchment 64S: CB 67

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.008 af, Depth= 3.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.015	98	Paved roads w/curbs & sewers, HSG A
0.015	39	>75% Grass cover, Good, HSG A
0.030	69	Weighted Average
0.015		50.00% Pervious Area
0.015		50.00% Impervious Area

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

Summary for Subcatchment 66S: FI 59

Runoff = 0.49 cfs @ 12.35 hrs, Volume= 0.062 af, Depth= 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.094	98	Roofs, HSG A
0.361	39	>75% Grass cover, Good, HSG A
0.455	51	Weighted Average
0.361		79.34% Pervious Area
0.094		20.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.9	260	0.0115	0.20		**Lag/CN Method,**

Summary for Subcatchment 71S: CB 56

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.042 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.032	39	>75% Grass cover, Good, HSG A
0.077	98	Paved roads w/curbs & sewers, HSG A
0.109	81	Weighted Average
0.032		29.36% Pervious Area
0.077		70.64% Impervious Area

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

Summary for Subcatchment 73S: CB 55

Runoff = 1.26 cfs @ 12.17 hrs, Volume= 0.133 af, Depth= 1.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.093	98	Roofs, HSG A
0.083	98	Paved roads w/curbs & sewers, HSG A
1.048	39	>75% Grass cover, Good, HSG A
1.224	47	Weighted Average
1.048		85.62% Pervious Area
0.176		14.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.3	300	0.0800	0.48		**Lag/CN Method,**

Summary for Subcatchment 76S: CB 63

Runoff = 0.48 cfs @ 12.09 hrs, Volume= 0.035 af, Depth= 4.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.065	98	Paved roads w/curbs & sewers, HSG A
0.033	39	>75% Grass cover, Good, HSG A
0.098	78	Weighted Average
0.033		33.67% Pervious Area
0.065		66.33% Impervious Area

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

Summary for Subcatchment 79S: CB 62

Runoff = 0.21 cfs @ 12.09 hrs, Volume= 0.015 af, Depth= 3.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.027	98	Paved roads w/curbs & sewers, HSG A
0.027	39	>75% Grass cover, Good, HSG A
0.054	69	Weighted Average
0.027		50.00% Pervious Area
0.027		50.00% Impervious Area

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

Summary for Subcatchment 81S: FI 54

Runoff = 1.03 cfs @ 12.22 hrs, Volume= 0.107 af, Depth= 1.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.169	98	Roofs, HSG A
0.574	39	>75% Grass cover, Good, HSG A
0.743	52	Weighted Average
0.574		77.25% Pervious Area
0.169		22.75% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0	320	0.0375	0.38		**Lag/CN Method,**

Summary for Subcatchment 83S: CB 57

Runoff = 1.17 cfs @ 12.09 hrs, Volume= 0.086 af, Depth= 4.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.159	98	Paved roads w/curbs & sewers, HSG A
0.080	39	>75% Grass cover, Good, HSG A
0.239	78	Weighted Average
0.080		33.47% Pervious Area
0.159		66.53% Impervious Area

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

Summary for Subcatchment 84S: CB 58

Runoff = 0.80 cfs @ 12.09 hrs, Volume= 0.058 af, Depth= 3.35"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.104	98	Paved roads w/curbs & sewers, HSG A
0.104	39	>75% Grass cover, Good, HSG A
0.208	69	Weighted Average
0.104		50.00% Pervious Area
0.104		50.00% Impervious Area

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

Summary for Subcatchment 87S: FI 59

Runoff = 0.45 cfs @ 12.37 hrs, Volume= 0.059 af, Depth= 1.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.083	98	Roofs, HSG A
0.372	39	>75% Grass cover, Good, HSG A
0.455	50	Weighted Average
0.372		81.76% Pervious Area
0.083		18.24% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
22.5	260	0.0115	0.19		**Lag/CN Method,**

Summary for Subcatchment 89S: CB 53

Runoff = 1.24 cfs @ 12.24 hrs, Volume= 0.146 af, Depth= 1.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.093	98	Roofs, HSG A
0.083	98	Paved roads w/curbs & sewers, HSG A
1.168	39	>75% Grass cover, Good, HSG A
1.344	47	Weighted Average
1.168		86.90% Pervious Area
0.176		13.10% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.0	440	0.0800	0.52		**Lag/CN Method,**

Summary for Subcatchment 90S: CB 52

Runoff = 0.62 cfs @ 12.09 hrs, Volume= 0.045 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.037	39	>75% Grass cover, Good, HSG A
0.083	98	Paved roads w/curbs & sewers, HSG A
0.120	80	Weighted Average
0.037		30.83% Pervious Area
0.083		69.17% Impervious Area

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

Summary for Subcatchment 99S: CB 51

Runoff = 1.40 cfs @ 12.09 hrs, Volume= 0.109 af, Depth= 5.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.026	39	>75% Grass cover, Good, HSG A
0.201	98	Paved roads w/curbs & sewers, HSG A
0.227	91	Weighted Average
0.026		11.45% Pervious Area
0.201		88.55% Impervious Area

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

Summary for Subcatchment 100S: CB 50

Runoff = 0.51 cfs @ 12.10 hrs, Volume= 0.038 af, Depth= 2.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.064	98	Paved roads w/curbs & sewers, HSG A
0.129	39	>75% Grass cover, Good, HSG A
0.193	59	Weighted Average
0.129		66.84% Pervious Area
0.064		33.16% Impervious Area

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

Summary for Subcatchment 103S: CB 48

Runoff = 1.80 cfs @ 12.19 hrs, Volume= 0.191 af, Depth= 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.093	98	Roofs, HSG A
0.160	98	Paved roads w/curbs & sewers, HSG A
1.398	39	>75% Grass cover, Good, HSG A
1.651	48	Weighted Average
1.398		84.68% Pervious Area
0.253		15.32% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.1	340	0.0800	0.51		**Lag/CN Method,**

Summary for Subcatchment 104S: CB 47

Runoff = 0.89 cfs @ 12.09 hrs, Volume= 0.065 af, Depth= 4.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.121	98	Paved roads w/curbs & sewers, HSG A
0.060	39	>75% Grass cover, Good, HSG A
0.181	78	Weighted Average
0.060		33.15% Pervious Area
0.121		66.85% Impervious Area

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

Summary for Subcatchment 106S: FI 49

Runoff = 1.32 cfs @ 12.21 hrs, Volume= 0.129 af, Depth= 2.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.215	98	Roofs, HSG A
0.468	39	>75% Grass cover, Good, HSG A
0.683	58	Weighted Average
0.468		68.52% Pervious Area
0.215		31.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.4	280	0.0210	0.32		**Lag/CN Method,**

Summary for Subcatchment 107S: Area 60

Runoff = 3.98 cfs @ 12.57 hrs, Volume= 0.618 af, Depth= 1.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Type III 24-hr 100 YR Rainfall=6.80"

Area (ac)	CN	Description
0.423	98	Roofs, HSG A
0.507	98	Water Surface, HSG A
3.585	39	>75% Grass cover, Good, HSG A
4.515	51	Weighted Average
3.585		79.40% Pervious Area
0.930		20.60% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
35.6	600	0.0166	0.28		**Lag/CN Method,**

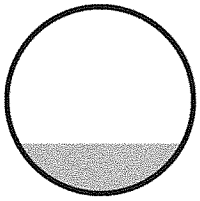
Summary for Reach 7R: CB 81-DMH C1

Inflow Area = 0.106 ac, 72.64% Impervious, Inflow Depth = 4.73" for 100 YR event
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.042 af
Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.31 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.12 fps, Avg. Travel Time= 0.2 min

Peak Storage= 2 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.27'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 13.0' Slope= 0.0100 '/'
Inlet Invert= 178.07', Outlet Invert= 177.94'



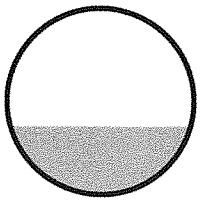
Summary for Reach 8R: CB 82-DMH C1

Inflow Area = 0.512 ac, 37.30% Impervious, Inflow Depth = 2.60" for 100 YR event
Inflow = 1.41 cfs @ 12.11 hrs, Volume= 0.111 af
Outflow = 1.41 cfs @ 12.11 hrs, Volume= 0.111 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.35 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.86 fps, Avg. Travel Time= 0.1 min

Peak Storage= 2 cf @ 12.11 hrs
Average Depth at Peak Storage= 0.37'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 4.86 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 7.0' Slope= 0.0186 '/'
Inlet Invert= 178.07', Outlet Invert= 177.94'



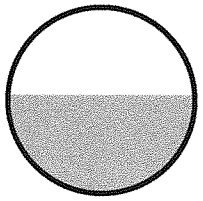
Summary for Reach 9R: DMH C1-C2

Inflow Area = 0.618 ac, 43.37% Impervious, Inflow Depth = 2.97" for 100 YR event
Inflow = 1.97 cfs @ 12.10 hrs, Volume= 0.153 af
Outflow = 1.97 cfs @ 12.10 hrs, Volume= 0.153 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.65 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.62 fps, Avg. Travel Time= 0.4 min

Peak Storage= 14 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.53'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 34.0' Slope= 0.0100 '/'
Inlet Invert= 177.84', Outlet Invert= 177.50'



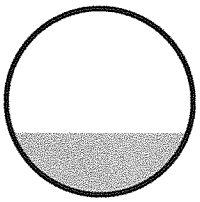
Summary for Reach 10R: FI 84-CB 82

Inflow Area = 0.398 ac, 28.39% Impervious, Inflow Depth = 2.09" for 100 YR event
Inflow = 0.85 cfs @ 12.12 hrs, Volume= 0.069 af
Outflow = 0.85 cfs @ 12.12 hrs, Volume= 0.069 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.70 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.50 fps, Avg. Travel Time= 0.2 min

Peak Storage= 5 cf @ 12.12 hrs
Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 20.0' Slope= 0.0100 '/'
Inlet Invert= 178.37', Outlet Invert= 178.17'



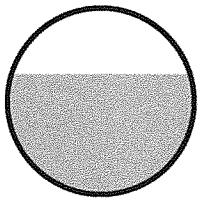
Summary for Reach 11R: DMH C2-C3

Inflow Area = 1.832 ac, 39.41% Impervious, Inflow Depth = 2.71" for 100 YR event
Inflow = 4.90 cfs @ 12.11 hrs, Volume= 0.414 af
Outflow = 4.88 cfs @ 12.12 hrs, Volume= 0.414 af, Atten= 1%, Lag= 0.5 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.76 fps, Min. Travel Time= 0.6 min
Avg. Velocity = 2.06 fps, Avg. Travel Time= 1.7 min

Peak Storage= 174 cf @ 12.12 hrs
Average Depth at Peak Storage= 0.81'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 6.46 cfs

15.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 206.0' Slope= 0.0100 '/'
Inlet Invert= 177.40', Outlet Invert= 175.34'



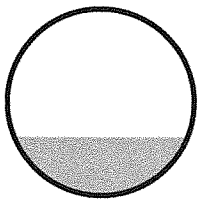
Summary for Reach 12R: CB 80-DMH C2A

Inflow Area = 0.156 ac, 66.67% Impervious, Inflow Depth = 4.29" for 100 YR event
Inflow = 0.77 cfs @ 12.09 hrs, Volume= 0.056 af
Outflow = 0.77 cfs @ 12.09 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.61 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.25 fps, Avg. Travel Time= 0.1 min

Peak Storage= 1 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.31'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 4.0' Slope= 0.0100 '/'
Inlet Invert= 177.82', Outlet Invert= 177.78'



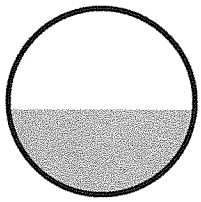
Summary for Reach 13R: DMH C2A-C2

Inflow Area = 0.316 ac, 65.19% Impervious, Inflow Depth = 4.24" for 100 YR event
Inflow = 1.53 cfs @ 12.09 hrs, Volume= 0.112 af
Outflow = 1.53 cfs @ 12.09 hrs, Volume= 0.112 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.36 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.53 fps, Avg. Travel Time= 0.2 min

Peak Storage= 6 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.46'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 18.0' Slope= 0.0100 '/'
Inlet Invert= 177.68', Outlet Invert= 177.50'



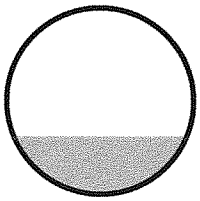
Summary for Reach 14R: CB 79-DMH C2A

Inflow Area = 0.160 ac, 63.75% Impervious, Inflow Depth = 4.19" for 100 YR event
Inflow = 0.77 cfs @ 12.09 hrs, Volume= 0.056 af
Outflow = 0.77 cfs @ 12.09 hrs, Volume= 0.056 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.61 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.25 fps, Avg. Travel Time= 0.2 min

Peak Storage= 3 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.32'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 12.0' Slope= 0.0100 '/'
Inlet Invert= 177.90', Outlet Invert= 177.78'



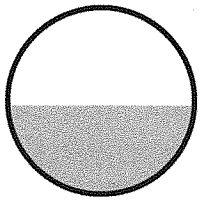
Summary for Reach 15R: FI 101-CB 78

Inflow Area =	1.231 ac, 21.36% Impervious, Inflow Depth = 1.73" for 100 YR event			
Inflow =	1.64 cfs @ 12.24 hrs, Volume=	0.177 af		
Outflow =	1.64 cfs @ 12.24 hrs, Volume=	0.177 af, Atten= 0%, Lag= 0.1 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.44 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.99 fps, Avg. Travel Time= 0.1 min

Peak Storage= 6 cf @ 12.24 hrs
Average Depth at Peak Storage= 0.48'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 16.0' Slope= 0.0100 '/'
Inlet Invert= 175.68', Outlet Invert= 175.52'



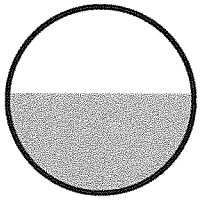
Summary for Reach 17R: CB 78-DMH C3

Inflow Area = 1.350 ac, 26.59% Impervious, Inflow Depth = 2.04" for 100 YR event
Inflow = 2.01 cfs @ 12.21 hrs, Volume= 0.230 af
Outflow = 2.01 cfs @ 12.21 hrs, Volume= 0.230 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.67 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.72 fps, Avg. Travel Time= 0.1 min

Peak Storage= 3 cf @ 12.21 hrs
Average Depth at Peak Storage= 0.54'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 8.0' Slope= 0.0100 '/'
Inlet Invert= 175.42', Outlet Invert= 175.34'



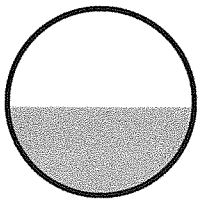
Summary for Reach 19R: CB 77-DMH C3

Inflow Area = 0.898 ac, 27.62% Impervious, Inflow Depth = 2.00" for 100 YR event
Inflow = 1.64 cfs @ 12.17 hrs, Volume= 0.150 af
Outflow = 1.64 cfs @ 12.17 hrs, Volume= 0.150 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.43 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.88 fps, Avg. Travel Time= 0.1 min

Peak Storage= 4 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.48'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 12.0' Slope= 0.0100 '/'
Inlet Invert= 175.46', Outlet Invert= 175.34'



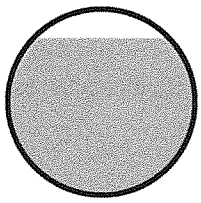
Summary for Reach 20R: DMH C3-C5

Inflow Area = 3.182 ac, 33.97% Impervious, Inflow Depth = 2.43" for 100 YR event
Inflow = 6.64 cfs @ 12.14 hrs, Volume= 0.644 af
Outflow = 6.65 cfs @ 12.14 hrs, Volume= 0.644 af, Atten= 0%, Lag= 0.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.00 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.23 fps, Avg. Travel Time= 0.4 min

Peak Storage= 61 cf @ 12.14 hrs
Average Depth at Peak Storage= 1.06'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 6.46 cfs

15.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 55.0' Slope= 0.0100 '/'
Inlet Invert= 175.09', Outlet Invert= 174.54'



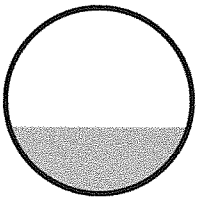
Summary for Reach 23R: CB 74-DMH C5

Inflow Area = 1.076 ac, 15.52% Impervious, Inflow Depth = 1.39" for 100 YR event
Inflow = 0.98 cfs @ 12.31 hrs, Volume= 0.124 af
Outflow = 0.98 cfs @ 12.32 hrs, Volume= 0.124 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.87 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.82 fps, Avg. Travel Time= 0.4 min

Peak Storage= 11 cf @ 12.32 hrs
Average Depth at Peak Storage= 0.36'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 43.0' Slope= 0.0100 '/'
Inlet Invert= 175.24', Outlet Invert= 174.81'



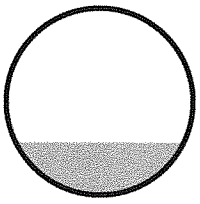
Summary for Reach 24R: CB 73-DMH C5

Inflow Area = 0.210 ac, 39.52% Impervious, Inflow Depth = 2.65" for 100 YR event
Inflow = 0.63 cfs @ 12.10 hrs, Volume= 0.046 af
Outflow = 0.63 cfs @ 12.10 hrs, Volume= 0.046 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.42 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.29 fps, Avg. Travel Time= 0.4 min

Peak Storage= 6 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 32.0' Slope= 0.0100 '/'
Inlet Invert= 175.13', Outlet Invert= 174.81'



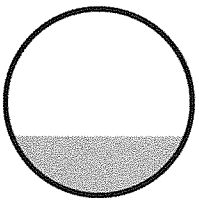
Summary for Reach 27R: CB 75-DMH C4

Inflow Area = 0.205 ac, 50.73% Impervious, Inflow Depth = 3.35" for 100 YR event
Inflow = 0.79 cfs @ 12.09 hrs, Volume= 0.057 af
Outflow = 0.79 cfs @ 12.09 hrs, Volume= 0.057 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.64 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.32 fps, Avg. Travel Time= 0.1 min

Peak Storage= 1 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.32'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 6.0' Slope= 0.0100 '/'
Inlet Invert= 175.27', Outlet Invert= 175.21'



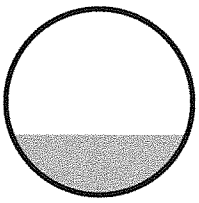
Summary for Reach 28R: CB 76-DMH C4

Inflow Area = 0.208 ac, 51.92% Impervious, Inflow Depth = 3.45" for 100 YR event
Inflow = 0.82 cfs @ 12.09 hrs, Volume= 0.060 af
Outflow = 0.83 cfs @ 12.09 hrs, Volume= 0.060 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.69 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.34 fps, Avg. Travel Time= 0.2 min

Peak Storage= 3 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.33'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 15.0' Slope= 0.0100 '/'
Inlet Invert= 175.36', Outlet Invert= 175.21'



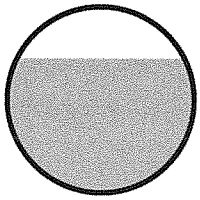
Summary for Reach 29R: DMH C5-C6

Inflow Area = 4.881 ac, 31.61% Impervious, Inflow Depth = 2.29" for 100 YR event
Inflow = 9.16 cfs @ 12.13 hrs, Volume= 0.932 af
Outflow = 9.19 cfs @ 12.14 hrs, Volume= 0.932 af, Atten= 0%, Lag= 0.4 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.70 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.40 fps, Avg. Travel Time= 0.7 min

Peak Storage= 144 cf @ 12.14 hrs
Average Depth at Peak Storage= 1.09'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.50 cfs

18.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 105.0' Slope= 0.0100 '/'
Inlet Invert= 174.31', Outlet Invert= 173.26'



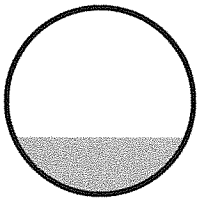
Summary for Reach 31R: FI 73X-DMH C6

Inflow Area =	0.812 ac,	15.52% Impervious,	Inflow Depth =	1.39"	for 100 YR event
Inflow =	0.74 cfs @	12.31 hrs,	Volume=	0.094 af	
Outflow =	0.74 cfs @	12.31 hrs,	Volume=	0.094 af,	Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.58 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.68 fps, Avg. Travel Time= 0.4 min

Peak Storage= 8 cf @ 12.31 hrs
Average Depth at Peak Storage= 0.31'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 40.0' Slope= 0.0100 '/'
Inlet Invert= 174.16', Outlet Invert= 173.76'



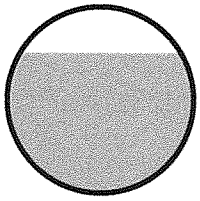
Summary for Reach 32R: DMH C6-C7

Inflow Area = 5.693 ac, 29.32% Impervious, Inflow Depth = 2.16" for 100 YR event
Inflow = 9.60 cfs @ 12.14 hrs, Volume= 1.026 af
Outflow = 9.63 cfs @ 12.15 hrs, Volume= 1.026 af, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.74 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.47 fps, Avg. Travel Time= 0.9 min

Peak Storage= 181 cf @ 12.15 hrs
Average Depth at Peak Storage= 1.13'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.50 cfs

18.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 127.0' Slope= 0.0100 '/'
Inlet Invert= 173.16', Outlet Invert= 171.89'



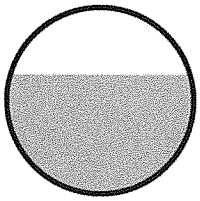
Summary for Reach 34R: CB 71-DMH C7

Inflow Area = 1.609 ac, 38.41% Impervious, Inflow Depth = 2.65" for 100 YR event
Inflow = 3.74 cfs @ 12.15 hrs, Volume= 0.356 af
Outflow = 3.74 cfs @ 12.15 hrs, Volume= 0.356 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.03 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.67 fps, Avg. Travel Time= 0.0 min

Peak Storage= 4 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.64'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.04 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 7.0' Slope= 0.0200 '/'
Inlet Invert= 172.53', Outlet Invert= 172.39'



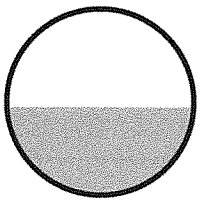
Summary for Reach 36R: CB 72-DMH C7

Inflow Area = 0.317 ac, 70.03% Impervious, Inflow Depth = 4.51" for 100 YR event
Inflow = 1.63 cfs @ 12.09 hrs, Volume= 0.119 af
Outflow = 1.63 cfs @ 12.09 hrs, Volume= 0.119 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.43 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.54 fps, Avg. Travel Time= 0.2 min

Peak Storage= 5 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.47'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 14.0' Slope= 0.0100 '/'
Inlet Invert= 172.53', Outlet Invert= 172.39'



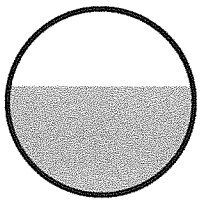
Summary for Reach 37R: DMH C7-C8

Inflow Area = 7.619 ac, 32.93% Impervious, Inflow Depth = 2.36" for 100 YR event
Inflow = 14.71 cfs @ 12.14 hrs, Volume= 1.501 af
Outflow = 14.74 cfs @ 12.14 hrs, Volume= 1.501 af, Atten= 0%, Lag= 0.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.67 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.67 fps, Avg. Travel Time= 0.6 min

Peak Storage= 190 cf @ 12.14 hrs
Average Depth at Peak Storage= 1.18'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 22.62 cfs

24.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 99.0' Slope= 0.0100 '/'
Inlet Invert= 171.39', Outlet Invert= 170.40'



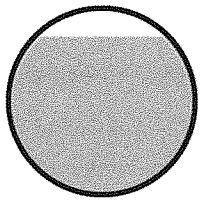
Summary for Reach 38R: DMH C8-SF 3

Inflow Area = 26.892 ac, 27.05% Impervious, Inflow Depth = 2.04" for 100 YR event
Inflow = 33.99 cfs @ 12.16 hrs, Volume= 4.565 af
Outflow = 34.02 cfs @ 12.17 hrs, Volume= 4.565 af, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.66 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 2.91 fps, Avg. Travel Time= 1.0 min

Peak Storage= 755 cf @ 12.17 hrs
Average Depth at Peak Storage= 2.12'
Bank-Full Depth= 2.50' Flow Area= 4.9 sf, Capacity= 32.99 cfs

30.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 170.0' Slope= 0.0065 '/'
Inlet Invert= 171.50', Outlet Invert= 170.40'



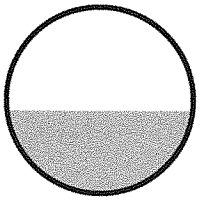
Summary for Reach 40R: FI 70-CB 71

Inflow Area = 1.307 ac, 31.91% Impervious, Inflow Depth = 2.27" for 100 YR event
Inflow = 2.65 cfs @ 12.19 hrs, Volume= 0.248 af
Outflow = 2.65 cfs @ 12.19 hrs, Volume= 0.248 af, Atten= 0%, Lag= 0.2 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.00 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.08 fps, Avg. Travel Time= 0.4 min

Peak Storage= 27 cf @ 12.19 hrs
Average Depth at Peak Storage= 0.56'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 6.46 cfs

15.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 50.0' Slope= 0.0100 '/'
Inlet Invert= 173.03', Outlet Invert= 172.53'



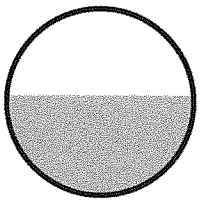
Summary for Reach 41R: DMH C9-C8

Inflow Area =	14.758 ac,	25.98% Impervious,	Inflow Depth =	1.99"	for 100 YR event
Inflow =	18.32 cfs @	12.17 hrs, Volume=	2.447 af		
Outflow =	18.11 cfs @	12.15 hrs, Volume=	2.447 af,	Atten= 1%,	Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 10.50 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.78 fps, Avg. Travel Time= 0.4 min

Peak Storage= 169 cf @ 12.15 hrs
Average Depth at Peak Storage= 1.08'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 98.0' Slope= 0.0200 '/'
Inlet Invert= 172.36', Outlet Invert= 170.40'



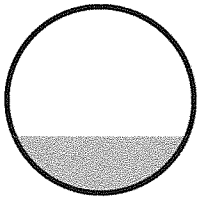
Summary for Reach 45R: CB 72A-DMH C9

Inflow Area =	0.147 ac,	68.03% Impervious,	Inflow Depth =	4.40"	for 100 YR event
Inflow =	0.74 cfs @	12.09 hrs, Volume=	0.054 af		
Outflow =	0.74 cfs @	12.09 hrs, Volume=	0.054 af,	Atten= 0%,	Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.57 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.23 fps, Avg. Travel Time= 0.2 min

Peak Storage= 2 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.31'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 12.0' Slope= 0.0100 '/'
Inlet Invert= 173.58', Outlet Invert= 173.46'



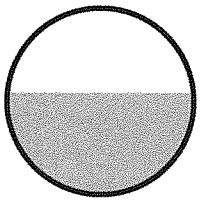
Summary for Reach 46R: CB 71A-DMH C9

Inflow Area =	5.169 ac, 20.89% Impervious, Inflow Depth = 1.72" for 100 YR event				
Inflow =	4.15 cfs @ 12.31 hrs, Volume=	0.741 af			
Outflow =	4.15 cfs @ 12.31 hrs, Volume=	0.741 af, Atten= 0%, Lag= 0.0 min			

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.41 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 4.05 fps, Avg. Travel Time= 0.0 min

Peak Storage= 1 cf @ 12.31 hrs
Average Depth at Peak Storage= 0.55'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 7.13 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 3.0' Slope= 0.0400 '/'
Inlet Invert= 173.58', Outlet Invert= 173.46'



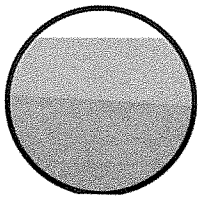
Summary for Reach 47R: FI 70A-CB 71A

Inflow Area = 5.018 ac, 19.51% Impervious, Inflow Depth = 1.64" for 100 YR event
Inflow = 4.85 cfs @ 12.47 hrs, Volume= 0.687 af
Outflow = 4.85 cfs @ 12.47 hrs, Volume= 0.687 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.86 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.52 fps, Avg. Travel Time= 0.1 min

Peak Storage= 18 cf @ 12.47 hrs
Average Depth at Peak Storage= 0.84'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 4.73 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 25.0' Slope= 0.0176 '/'
Inlet Invert= 174.12', Outlet Invert= 173.68'



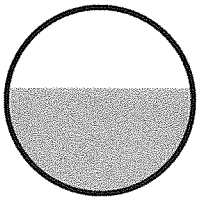
Summary for Reach 48R: DMH C10-C 9

Inflow Area = 9.442 ac, 28.11% Impervious, Inflow Depth = 2.10" for 100 YR event
Inflow = 15.29 cfs @ 12.16 hrs, Volume= 1.652 af
Outflow = 15.31 cfs @ 12.16 hrs, Volume= 1.652 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.30 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.85 fps, Avg. Travel Time= 0.4 min

Peak Storage= 136 cf @ 12.16 hrs
Average Depth at Peak Storage= 1.14'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 24.81 cfs

24.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 74.0' Slope= 0.0120 '/'
Inlet Invert= 173.35', Outlet Invert= 172.46'



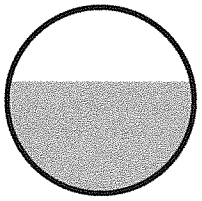
Summary for Reach 49R: DMH C11-C-10

Inflow Area = 9.442 ac, 28.11% Impervious, Inflow Depth = 2.10" for 100 YR event
Inflow = 15.25 cfs @ 12.16 hrs, Volume= 1.652 af
Outflow = 15.29 cfs @ 12.16 hrs, Volume= 1.652 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.73 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.67 fps, Avg. Travel Time= 0.7 min

Peak Storage= 212 cf @ 12.16 hrs
Average Depth at Peak Storage= 1.20'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 22.62 cfs

24.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 107.0' Slope= 0.0100 '/'
Inlet Invert= 174.52', Outlet Invert= 173.45'



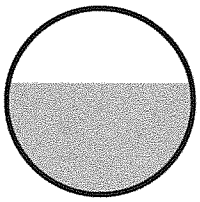
Summary for Reach 50R: DMH C12-C11

Inflow Area = 9.442 ac, 28.11% Impervious, Inflow Depth = 2.10" for 100 YR event
Inflow = 15.24 cfs @ 12.16 hrs, Volume= 1.652 af
Outflow = 15.25 cfs @ 12.16 hrs, Volume= 1.652 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.72 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.67 fps, Avg. Travel Time= 0.3 min

Peak Storage= 103 cf @ 12.16 hrs
Average Depth at Peak Storage= 1.20'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 22.62 cfs

24.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 52.0' Slope= 0.0100 '/'
Inlet Invert= 175.14', Outlet Invert= 174.62'



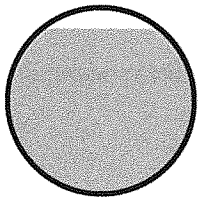
Summary for Reach 51R: DMH C14-C12

Inflow Area = 7.074 ac, 26.72% Impervious, Inflow Depth = 2.03" for 100 YR event
Inflow = 11.12 cfs @ 12.15 hrs, Volume= 1.199 af
Outflow = 11.13 cfs @ 12.15 hrs, Volume= 1.199 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.78 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.54 fps, Avg. Travel Time= 0.1 min

Peak Storage= 37 cf @ 12.15 hrs
Average Depth at Peak Storage= 1.33'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.50 cfs

18.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 22.0' Slope= 0.0100 '/'
Inlet Invert= 175.86', Outlet Invert= 175.64'



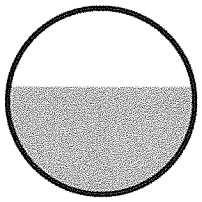
Summary for Reach 52R: DMH C13-C12

Inflow Area = 2.368 ac, 32.26% Impervious, Inflow Depth = 2.29" for 100 YR event
Inflow = 4.13 cfs @ 12.18 hrs, Volume= 0.452 af
Outflow = 4.13 cfs @ 12.18 hrs, Volume= 0.452 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.58 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.27 fps, Avg. Travel Time= 0.2 min

Peak Storage= 18 cf @ 12.18 hrs
Average Depth at Peak Storage= 0.73'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 6.46 cfs

15.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 24.0' Slope= 0.0100 '/'
Inlet Invert= 176.13', Outlet Invert= 175.89'



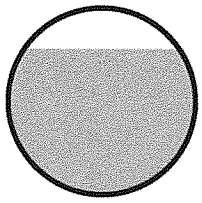
Summary for Reach 53R: DMH C18-C13

Inflow Area = 1.394 ac, 39.81% Impervious, Inflow Depth = 2.70" for 100 YR event
Inflow = 3.41 cfs @ 12.16 hrs, Volume= 0.313 af
Outflow = 3.41 cfs @ 12.16 hrs, Volume= 0.313 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.16 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.11 fps, Avg. Travel Time= 0.3 min

Peak Storage= 24 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.78'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 37.0' Slope= 0.0100 '/'
Inlet Invert= 176.75', Outlet Invert= 176.38'



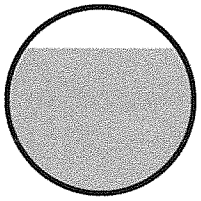
Summary for Reach 54R: DMH C19-C18

Inflow Area = 1.394 ac, 39.81% Impervious, Inflow Depth = 2.70" for 100 YR event
Inflow = 3.41 cfs @ 12.16 hrs, Volume= 0.313 af
Outflow = 3.41 cfs @ 12.16 hrs, Volume= 0.313 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.16 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.11 fps, Avg. Travel Time= 0.3 min

Peak Storage= 28 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.78'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 42.0' Slope= 0.0100 '/'
Inlet Invert= 177.27', Outlet Invert= 176.85'



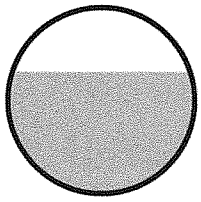
Summary for Reach 58R: FI 61-CB 64

Inflow Area = 1.166 ac, 37.56% Impervious, Inflow Depth = 2.56" for 100 YR event
Inflow = 2.73 cfs @ 12.18 hrs, Volume= 0.249 af
Outflow = 2.73 cfs @ 12.18 hrs, Volume= 0.249 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.99 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.11 fps, Avg. Travel Time= 0.1 min

Peak Storage= 5 cf @ 12.18 hrs
Average Depth at Peak Storage= 0.66'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 10.0' Slope= 0.0100 '/'
Inlet Invert= 177.66', Outlet Invert= 177.56'



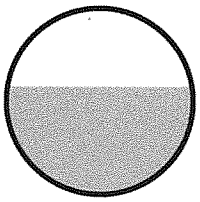
Summary for Reach 59R: CB 64-DMH C-19

Inflow Area = 1.275 ac, 38.82% Impervious, Inflow Depth = 2.64" for 100 YR event
Inflow = 3.06 cfs @ 12.17 hrs, Volume= 0.280 af
Outflow = 3.06 cfs @ 12.17 hrs, Volume= 0.280 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.44 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.51 fps, Avg. Travel Time= 0.0 min

Peak Storage= 2 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.58'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 4.78 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 5.0' Slope= 0.0180 '/'
Inlet Invert= 177.46', Outlet Invert= 177.37'



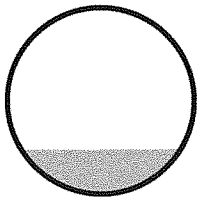
Summary for Reach 60R: CB 65-DMH C19

Inflow Area = 0.119 ac, 50.42% Impervious, Inflow Depth = 3.35" for 100 YR event
Inflow = 0.46 cfs @ 12.09 hrs, Volume= 0.033 af
Outflow = 0.46 cfs @ 12.09 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.12 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.13 fps, Avg. Travel Time= 0.1 min

Peak Storage= 1 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.24'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 9.0' Slope= 0.0100 '/'
Inlet Invert= 177.46', Outlet Invert= 177.37'



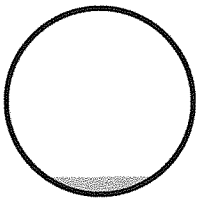
Summary for Reach 61R: CB 66-DMH C13

Inflow Area = 0.034 ac, 50.00% Impervious, Inflow Depth = 3.35" for 100 YR event
Inflow = 0.13 cfs @ 12.09 hrs, Volume= 0.009 af
Outflow = 0.13 cfs @ 12.09 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.34 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.23 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.10'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 6.67 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 2.0' Slope= 0.0350 '/'
Inlet Invert= 176.45', Outlet Invert= 176.38'



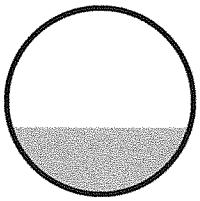
Summary for Reach 62R: CB 67-DMH C13

Inflow Area = 0.940 ac, 20.43% Impervious, Inflow Depth = 1.66" for 100 YR event
Inflow = 0.99 cfs @ 12.35 hrs, Volume= 0.130 af
Outflow = 0.99 cfs @ 12.36 hrs, Volume= 0.130 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.89 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.61 fps, Avg. Travel Time= 0.1 min

Peak Storage= 2 cf @ 12.36 hrs
Average Depth at Peak Storage= 0.36'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 7.0' Slope= 0.0100 '/'
Inlet Invert= 176.45', Outlet Invert= 176.38'



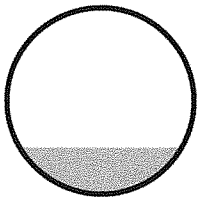
Summary for Reach 65R: FI 59-CB 67

Inflow Area = 0.455 ac, 20.66% Impervious, Inflow Depth = 1.64" for 100 YR event
Inflow = 0.49 cfs @ 12.35 hrs, Volume= 0.062 af
Outflow = 0.49 cfs @ 12.35 hrs, Volume= 0.062 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.19 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.46 fps, Avg. Travel Time= 0.2 min

Peak Storage= 2 cf @ 12.35 hrs
Average Depth at Peak Storage= 0.25'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 15.0' Slope= 0.0100 '/'
Inlet Invert= 176.70', Outlet Invert= 176.55'



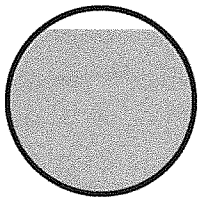
Summary for Reach 66R: DMH C15-C14

Inflow Area = 7.074 ac, 26.72% Impervious, Inflow Depth = 2.03" for 100 YR event
Inflow = 11.09 cfs @ 12.14 hrs, Volume= 1.199 af
Outflow = 11.12 cfs @ 12.15 hrs, Volume= 1.199 af, Atten= 0%, Lag= 0.5 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.78 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.53 fps, Avg. Travel Time= 0.9 min

Peak Storage= 230 cf @ 12.15 hrs
Average Depth at Peak Storage= 1.33'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.50 cfs

18.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 139.0' Slope= 0.0100 '/'
Inlet Invert= 177.35', Outlet Invert= 175.96'



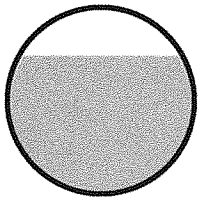
Summary for Reach 67R: DMH C16-C15

Inflow Area =	6.627 ac, 24.55% Impervious, Inflow Depth = 1.91" for 100 YR event			
Inflow =	9.46 cfs @ 12.16 hrs, Volume=	1.056 af		
Outflow =	9.49 cfs @ 12.16 hrs, Volume=	1.056 af, Atten= 0%, Lag= 0.1 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.73 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.45 fps, Avg. Travel Time= 0.5 min

Peak Storage= 110 cf @ 12.16 hrs
Average Depth at Peak Storage= 1.12'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.50 cfs

18.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 78.0' Slope= 0.0100 '/'
Inlet Invert= 178.23', Outlet Invert= 177.45'



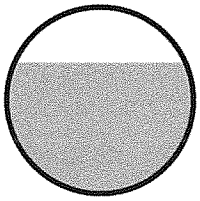
Summary for Reach 68R: DMH C20-C17

Inflow Area =	6.627 ac, 24.55% Impervious, Inflow Depth = 1.91" for 100 YR event			
Inflow =	9.37 cfs @ 12.15 hrs, Volume=	1.056 af		
Outflow =	9.42 cfs @ 12.16 hrs, Volume=	1.056 af, Atten= 0%, Lag= 0.1 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.06 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.56 fps, Avg. Travel Time= 0.5 min

Peak Storage= 111 cf @ 12.16 hrs
Average Depth at Peak Storage= 1.06'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 11.12 cfs

18.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 83.0' Slope= 0.0112 '/'
Inlet Invert= 180.14', Outlet Invert= 179.21'



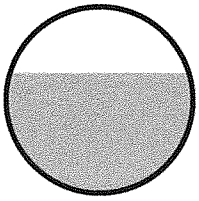
Summary for Reach 69R: DMH C21-C20

Inflow Area = 5.294 ac, 25.95% Impervious, Inflow Depth = 2.00" for 100 YR event
Inflow = 7.66 cfs @ 12.16 hrs, Volume= 0.880 af
Outflow = 7.68 cfs @ 12.16 hrs, Volume= 0.880 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.14 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.31 fps, Avg. Travel Time= 0.3 min

Peak Storage= 52 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.81'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 10.21 cfs

15.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 62.0' Slope= 0.0250 '/'
Inlet Invert= 181.94', Outlet Invert= 180.39'



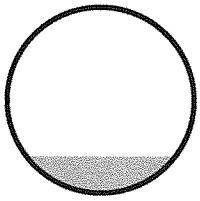
Summary for Reach 70R: CB 56-DMH C20

Inflow Area = 0.109 ac, 70.64% Impervious, Inflow Depth = 4.62" for 100 YR event
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.042 af
Outflow = 0.57 cfs @ 12.09 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.05 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.71 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.20'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 6.42 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 4.0' Slope= 0.0325 '/'
Inlet Invert= 180.77', Outlet Invert= 180.64'



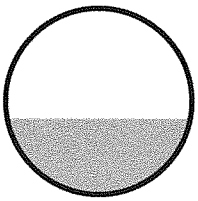
Summary for Reach 72R: CB 55-DMH C20

Inflow Area = 1.224 ac, 14.38% Impervious, Inflow Depth = 1.31" for 100 YR event
Inflow = 1.26 cfs @ 12.17 hrs, Volume= 0.133 af
Outflow = 1.26 cfs @ 12.17 hrs, Volume= 0.133 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.12 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.91 fps, Avg. Travel Time= 0.1 min

Peak Storage= 4 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.41'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 13.0' Slope= 0.0100 '/'
Inlet Invert= 180.77', Outlet Invert= 180.64'



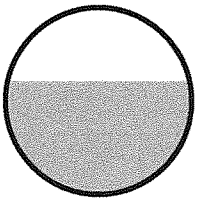
Summary for Reach 74R: DMH C22-C21

Inflow Area = 5.294 ac, 25.95% Impervious, Inflow Depth = 2.00" for 100 YR event
Inflow = 7.62 cfs @ 12.17 hrs, Volume= 0.880 af
Outflow = 7.66 cfs @ 12.16 hrs, Volume= 0.880 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 9.82 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.54 fps, Avg. Travel Time= 0.4 min

Peak Storage= 59 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.76'
Bank-Full Depth= 1.25' Flow Area= 1.2 sf, Capacity= 11.19 cfs

15.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 76.0' Slope= 0.0300 '/'
Inlet Invert= 184.32', Outlet Invert= 182.04'



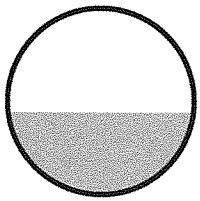
Summary for Reach 75R: DMH C22-C23

Inflow Area = 0.895 ac, 29.16% Impervious, Inflow Depth = 2.11" for 100 YR event
Inflow = 1.46 cfs @ 12.17 hrs, Volume= 0.157 af
Outflow = 1.46 cfs @ 12.17 hrs, Volume= 0.157 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.30 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.65 fps, Avg. Travel Time= 0.1 min

Peak Storage= 5 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.45'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 14.0' Slope= 0.0100 '/'
Inlet Invert= 184.81', Outlet Invert= 184.67'



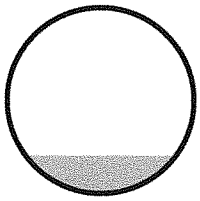
Summary for Reach 77R: CB 63-DMH C23

Inflow Area = 0.098 ac, 66.33% Impervious, Inflow Depth = 4.29" for 100 YR event
Inflow = 0.48 cfs @ 12.09 hrs, Volume= 0.035 af
Outflow = 0.48 cfs @ 12.09 hrs, Volume= 0.035 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.04 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.39 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.21'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.04 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 2.0' Slope= 0.0200 '/'
Inlet Invert= 184.95', Outlet Invert= 184.91'



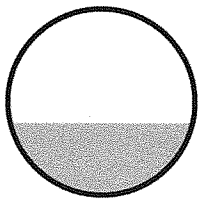
Summary for Reach 78R: CB 62-DMH C23

Inflow Area = 0.797 ac, 24.59% Impervious, Inflow Depth = 1.84" for 100 YR event
Inflow = 1.15 cfs @ 12.21 hrs, Volume= 0.122 af
Outflow = 1.15 cfs @ 12.21 hrs, Volume= 0.122 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.04 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.61 fps, Avg. Travel Time= 0.1 min

Peak Storage= 4 cf @ 12.21 hrs
Average Depth at Peak Storage= 0.39'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 13.0' Slope= 0.0100 '/'
Inlet Invert= 185.04', Outlet Invert= 184.91'



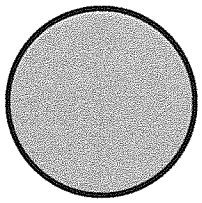
Summary for Reach 80R: DMH C24-C22

Inflow Area =	4.399 ac, 25.30% Impervious, Inflow Depth = 1.97" for 100 YR event			
Inflow =	6.69 cfs @ 12.16 hrs, Volume=	0.723 af		
Outflow =	6.22 cfs @ 12.10 hrs, Volume=	0.723 af, Atten= 7%, Lag= 0.0 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.95 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.43 fps, Avg. Travel Time= 0.1 min

Peak Storage= 23 cf @ 12.15 hrs
Average Depth at Peak Storage= 1.00'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 6.17 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 29.0' Slope= 0.0300 '/'
Inlet Invert= 185.54', Outlet Invert= 184.67'



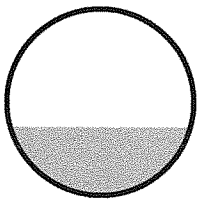
Summary for Reach 82R: FI 54-CB 62

Inflow Area =	0.743 ac, 22.75% Impervious, Inflow Depth = 1.73" for 100 YR event			
Inflow =	1.03 cfs @ 12.22 hrs, Volume=	0.107 af		
Outflow =	1.03 cfs @ 12.22 hrs, Volume=	0.107 af, Atten= 0%, Lag= 0.0 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.91 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.72 fps, Avg. Travel Time= 0.1 min

Peak Storage= 4 cf @ 12.22 hrs
Average Depth at Peak Storage= 0.37'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 15.0' Slope= 0.0100 '/'
Inlet Invert= 185.29', Outlet Invert= 185.14'



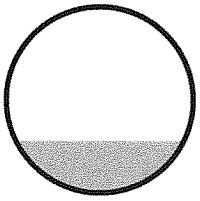
Summary for Reach 85R: CB 58-DMH C14

Inflow Area = 0.208 ac, 50.00% Impervious, Inflow Depth = 3.35" for 100 YR event
Inflow = 0.80 cfs @ 12.09 hrs, Volume= 0.058 af
Outflow = 0.80 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.35 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.58 fps, Avg. Travel Time= 0.1 min

Peak Storage= 1 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 4.54 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 8.0' Slope= 0.0162 '/'
Inlet Invert= 176.59', Outlet Invert= 176.46'



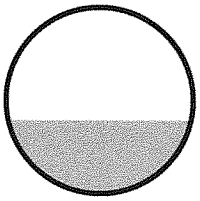
Summary for Reach 86R: CB 57-DMH C14

Inflow Area = 0.239 ac, 66.53% Impervious, Inflow Depth = 4.29" for 100 YR event
Inflow = 1.17 cfs @ 12.09 hrs, Volume= 0.086 af
Outflow = 1.17 cfs @ 12.09 hrs, Volume= 0.086 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.06 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.42 fps, Avg. Travel Time= 0.2 min

Peak Storage= 4 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.40'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 13.0' Slope= 0.0100 '/'
Inlet Invert= 176.59', Outlet Invert= 176.46'



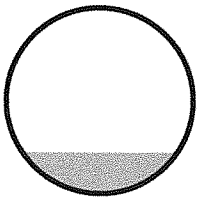
Summary for Reach 88R: FI 59-CB 67

Inflow Area = 0.455 ac, 18.24% Impervious, Inflow Depth = 1.56" for 100 YR event
Inflow = 0.45 cfs @ 12.37 hrs, Volume= 0.059 af
Outflow = 0.45 cfs @ 12.37 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.45 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.60 fps, Avg. Travel Time= 0.2 min

Peak Storage= 2 cf @ 12.37 hrs
Average Depth at Peak Storage= 0.22'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 4.11 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 15.0' Slope= 0.0133 '/'
Inlet Invert= 177.20', Outlet Invert= 177.00'



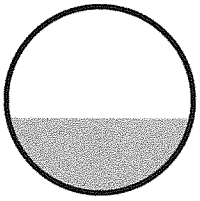
Summary for Reach 91R: CB 53-DMH C24

Inflow Area = 1.344 ac, 13.10% Impervious, Inflow Depth = 1.31" for 100 YR event
Inflow = 1.24 cfs @ 12.24 hrs, Volume= 0.146 af
Outflow = 1.24 cfs @ 12.24 hrs, Volume= 0.146 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.12 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.94 fps, Avg. Travel Time= 0.1 min

Peak Storage= 4 cf @ 12.24 hrs
Average Depth at Peak Storage= 0.41'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 12.0' Slope= 0.0100 '/'
Inlet Invert= 185.76', Outlet Invert= 185.64'



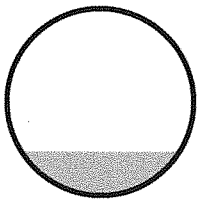
Summary for Reach 92R: CB 52-DMH C24

Inflow Area = 0.120 ac, 69.17% Impervious, Inflow Depth = 4.51" for 100 YR event
Inflow = 0.62 cfs @ 12.09 hrs, Volume= 0.045 af
Outflow = 0.62 cfs @ 12.09 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.34 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.48 fps, Avg. Travel Time= 0.1 min

Peak Storage= 1 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.24'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.04 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 6.0' Slope= 0.0200 '/'
Inlet Invert= 185.76', Outlet Invert= 185.64'



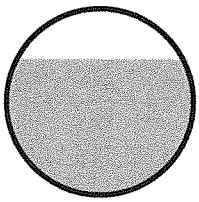
Summary for Reach 93R: DMH C25-C24

Inflow Area = 2.935 ac, 29.10% Impervious, Inflow Depth = 2.17" for 100 YR event
Inflow = 5.18 cfs @ 12.14 hrs, Volume= 0.532 af
Outflow = 5.18 cfs @ 12.15 hrs, Volume= 0.532 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.40 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 3.05 fps, Avg. Travel Time= 0.2 min

Peak Storage= 20 cf @ 12.15 hrs
Average Depth at Peak Storage= 0.73'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.84 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 32.0' Slope= 0.0269 '/'
Inlet Invert= 186.50', Outlet Invert= 185.64'



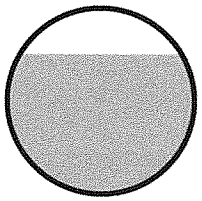
Summary for Reach 94R: DMH C26-C25

Inflow Area = 2.935 ac, 29.10% Impervious, Inflow Depth = 2.17" for 100 YR event
Inflow = 5.17 cfs @ 12.14 hrs, Volume= 0.532 af
Outflow = 5.18 cfs @ 12.14 hrs, Volume= 0.532 af, Atten= 0%, Lag= 0.3 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.14 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.97 fps, Avg. Travel Time= 0.6 min

Peak Storage= 71 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.75'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.64 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 111.0' Slope= 0.0250 '/'
Inlet Invert= 189.38', Outlet Invert= 186.60'



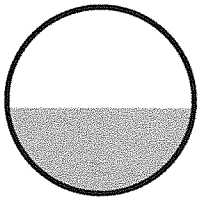
Summary for Reach 95R: DMH C27-C26

Inflow Area =	1.832 ac, 20.41% Impervious, Inflow Depth = 1.68" for 100 YR event			
Inflow =	2.46 cfs @ 12.16 hrs, Volume=	0.256 af		
Outflow =	2.46 cfs @ 12.16 hrs, Volume=	0.256 af, Atten= 0%, Lag= 0.1 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.93 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.67 fps, Avg. Travel Time= 0.2 min

Peak Storage= 13 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.46'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.63 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 36.0' Slope= 0.0250 '/'
Inlet Invert= 190.38', Outlet Invert= 189.48'



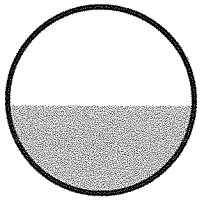
Summary for Reach 96R: DMH C28-C26

Inflow Area =	1.103 ac, 43.52% Impervious, Inflow Depth = 3.00" for 100 YR event			
Inflow =	2.82 cfs @ 12.12 hrs, Volume=	0.276 af		
Outflow =	2.82 cfs @ 12.12 hrs, Volume=	0.276 af, Atten= 0%, Lag= 0.0 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.66 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.66 fps, Avg. Travel Time= 0.1 min

Peak Storage= 8 cf @ 12.12 hrs
Average Depth at Peak Storage= 0.47'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 6.17 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 21.0' Slope= 0.0300 '/'
Inlet Invert= 190.11', Outlet Invert= 189.48'



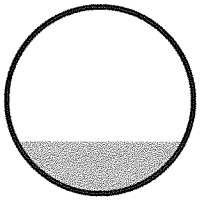
Summary for Reach 97R: CB 51-DMH C28

Inflow Area =	0.227 ac, 88.55% Impervious, Inflow Depth = 5.74" for 100 YR event			
Inflow =	1.40 cfs @ 12.09 hrs, Volume=	0.109 af		
Outflow =	1.40 cfs @ 12.09 hrs, Volume=	0.109 af, Atten= 0%, Lag= 0.0 min		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.62 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 2.50 fps, Avg. Travel Time= 0.0 min

Peak Storage= 0 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.28'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 7.97 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 2.0' Slope= 0.0500 '/'
Inlet Invert= 190.31', Outlet Invert= 190.21'



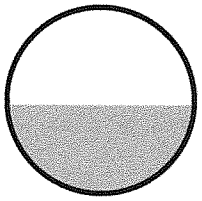
Summary for Reach 98R: CB 50-DMH C28

Inflow Area = 0.876 ac, 31.85% Impervious, Inflow Depth = 2.30" for 100 YR event
Inflow = 1.65 cfs @ 12.19 hrs, Volume= 0.168 af
Outflow = 1.65 cfs @ 12.19 hrs, Volume= 0.168 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.45 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.88 fps, Avg. Travel Time= 0.1 min

Peak Storage= 4 cf @ 12.19 hrs
Average Depth at Peak Storage= 0.48'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 10.0' Slope= 0.0100 '/'
Inlet Invert= 190.31', Outlet Invert= 190.21'



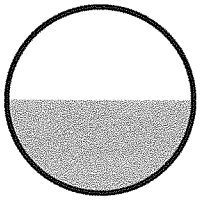
Summary for Reach 101R: CB 48-DMH C27

Inflow Area = 1.651 ac, 15.32% Impervious, Inflow Depth = 1.39" for 100 YR event
Inflow = 1.80 cfs @ 12.19 hrs, Volume= 0.191 af
Outflow = 1.80 cfs @ 12.19 hrs, Volume= 0.191 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.55 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.11 fps, Avg. Travel Time= 0.1 min

Peak Storage= 6 cf @ 12.19 hrs
Average Depth at Peak Storage= 0.50'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 14.0' Slope= 0.0100 '/'
Inlet Invert= 190.62', Outlet Invert= 190.48'



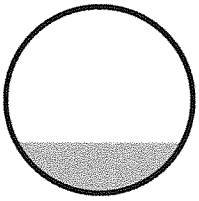
Summary for Reach 102R: CB 47-DMH C27

Inflow Area = 0.181 ac, 66.85% Impervious, Inflow Depth = 4.29" for 100 YR event
Inflow = 0.89 cfs @ 12.09 hrs, Volume= 0.065 af
Outflow = 0.89 cfs @ 12.09 hrs, Volume= 0.065 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.10 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 1.76 fps, Avg. Travel Time= 0.1 min

Peak Storage= 1 cf @ 12.09 hrs
Average Depth at Peak Storage= 0.27'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 5.44 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 6.0' Slope= 0.0233 '/'
Inlet Invert= 190.62', Outlet Invert= 190.48'



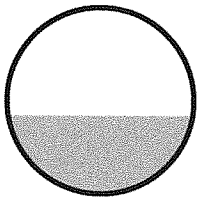
Summary for Reach 105R: FI 49-CB 50

Inflow Area = 0.683 ac, 31.48% Impervious, Inflow Depth = 2.27" for 100 YR event
Inflow = 1.32 cfs @ 12.21 hrs, Volume= 0.129 af
Outflow = 1.32 cfs @ 12.22 hrs, Volume= 0.129 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.19 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.76 fps, Avg. Travel Time= 0.1 min

Peak Storage= 5 cf @ 12.22 hrs
Average Depth at Peak Storage= 0.42'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 15.0' Slope= 0.0100 '/'
Inlet Invert= 190.56', Outlet Invert= 190.41'



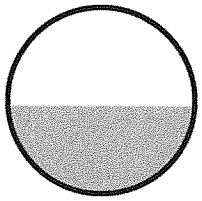
Summary for Reach 110R: DMH C4-C5

Inflow Area = 0.413 ac, 51.33% Impervious, Inflow Depth = 3.40" for 100 YR event
Inflow = 1.61 cfs @ 12.09 hrs, Volume= 0.117 af
Outflow = 1.62 cfs @ 12.10 hrs, Volume= 0.117 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.42 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 1.62 fps, Avg. Travel Time= 0.3 min

Peak Storage= 11 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.47'
Bank-Full Depth= 1.00' Flow Area= 0.8 sf, Capacity= 3.56 cfs

12.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 30.0' Slope= 0.0100 '/'
Inlet Invert= 175.11', Outlet Invert= 174.81'



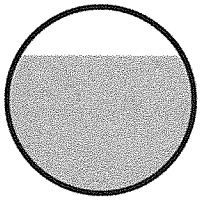
Summary for Reach 111R: DMH C17-C16

Inflow Area = 6.627 ac, 24.55% Impervious, Inflow Depth = 1.91" for 100 YR event
Inflow = 9.42 cfs @ 12.16 hrs, Volume= 1.056 af
Outflow = 9.46 cfs @ 12.16 hrs, Volume= 1.056 af, Atten= 0%, Lag= 0.1 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.73 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.46 fps, Avg. Travel Time= 0.5 min

Peak Storage= 110 cf @ 12.16 hrs
Average Depth at Peak Storage= 1.11'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 10.50 cfs

18.0" Round Pipe
n= 0.013 Concrete pipe, bends & connections
Length= 78.0' Slope= 0.0100 '/'
Inlet Invert= 179.11', Outlet Invert= 178.33'



Summary for Pond 108P: FB-3

Inflow Area =	26.892 ac, 27.05% Impervious, Inflow Depth = 2.04" for 100 YR event				
Inflow =	34.02 cfs @	12.17 hrs, Volume=	4.565 af		
Outflow =	33.72 cfs @	12.18 hrs, Volume=	4.565 af, Atten= 1%, Lag= 0.6 min		
Discarded =	2.16 cfs @	12.10 hrs, Volume=	2.009 af		
Primary =	31.56 cfs @	12.18 hrs, Volume=	2.557 af		

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 170.17' @ 13.10 hrs Surf.Area= 0.107 ac Storage= 0.193 af

Plug-Flow detention time= 17.9 min calculated for 4.559 af (100% of inflow)
Center-of-Mass det. time= 17.9 min (889.4 - 871.5)

Volume	Invert	Avail.Storage	Storage Description
#1	165.50'	0.193 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
165.50	0.000	0.000	0.000
166.00	0.069	0.017	0.017
168.00	0.107	0.176	0.193

Device	Routing	Invert	Outlet Devices
#1	Primary	167.00'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	165.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=2.16 cfs @ 12.10 hrs HW=168.52' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 2.16 cfs)

Primary OutFlow Max=29.44 cfs @ 12.18 hrs HW=168.64' TW=167.48' (Dynamic Tailwater)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 29.44 cfs @ 1.80 fps)

Summary for Pond 109P: IB-3

Inflow Area = 26.892 ac, 27.05% Impervious, Inflow Depth = 1.14" for 100 YR event
Inflow = 31.56 cfs @ 12.18 hrs, Volume= 2.557 af
Outflow = 8.61 cfs @ 13.06 hrs, Volume= 2.557 af, Atten= 73%, Lag= 52.8 min
Discarded = 8.61 cfs @ 13.06 hrs, Volume= 2.557 af
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0.000 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.05 hrs
Peak Elev= 170.16' @ 13.06 hrs Surf.Area= 0.427 ac Storage= 1.077 af

Plug-Flow detention time= 70.0 min calculated for 2.553 af (100% of inflow)
Center-of-Mass det. time= 69.9 min (860.9 - 791.0)

Volume	Invert	Avail.Storage	Storage Description
#1	165.50'	1.945 af	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (acres)	Inc.Store (acre-feet)	Cum.Store (acre-feet)
165.50	0.000	0.000	0.000
166.00	0.148	0.037	0.037
168.00	0.202	0.350	0.387
170.00	0.419	0.621	1.008
172.00	0.518	0.937	1.945

Device	Routing	Invert	Outlet Devices
#1	Primary	171.65'	**10.0' long Broad-Crested Rectangular Weir** Head (feet) 3.00 Coef. (English) 1.50
#2	Discarded	165.50'	**20.000 in/hr Exfiltration over Surface area**

Discarded OutFlow Max=8.61 cfs @ 13.06 hrs HW=170.16' (Free Discharge)
└**2=Exfiltration** (Exfiltration Controls 8.61 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=165.50' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

APPENDIX F

Total Suspend Solid Removal Calculations:

The Abbyville sites will have deep sump hooded catch basins installed at all catch basin and field inlet locations. The storm-water system will collect the storm-water and transport it through a pipng system which will outlet to one of four sediment fore-bays. The sediment fore-bays will then which flow into three infiltration basins.

TSS Removal will be as follows for all three treatment trains:

Deep sump hooded catch basin = 25% removal - 100% x 0.25% = 25% TSS Removed

Sediment Fore-bay = 25% removal - 75% x 25% = 19% Removed

25% + 19% = 44% TSS Removed prior to discharge to the three infiltration basins.

Infiltration Basin (with 44% TSS Removed prior to discharge) allows for a 80% TSS removal rate.

APPENDIX G

United
Consultants, Inc.
850 Franklin Street Suite 11D
Wrentham, MA 02093
508-384-6560 FAX 508-384-6566

Street Widths

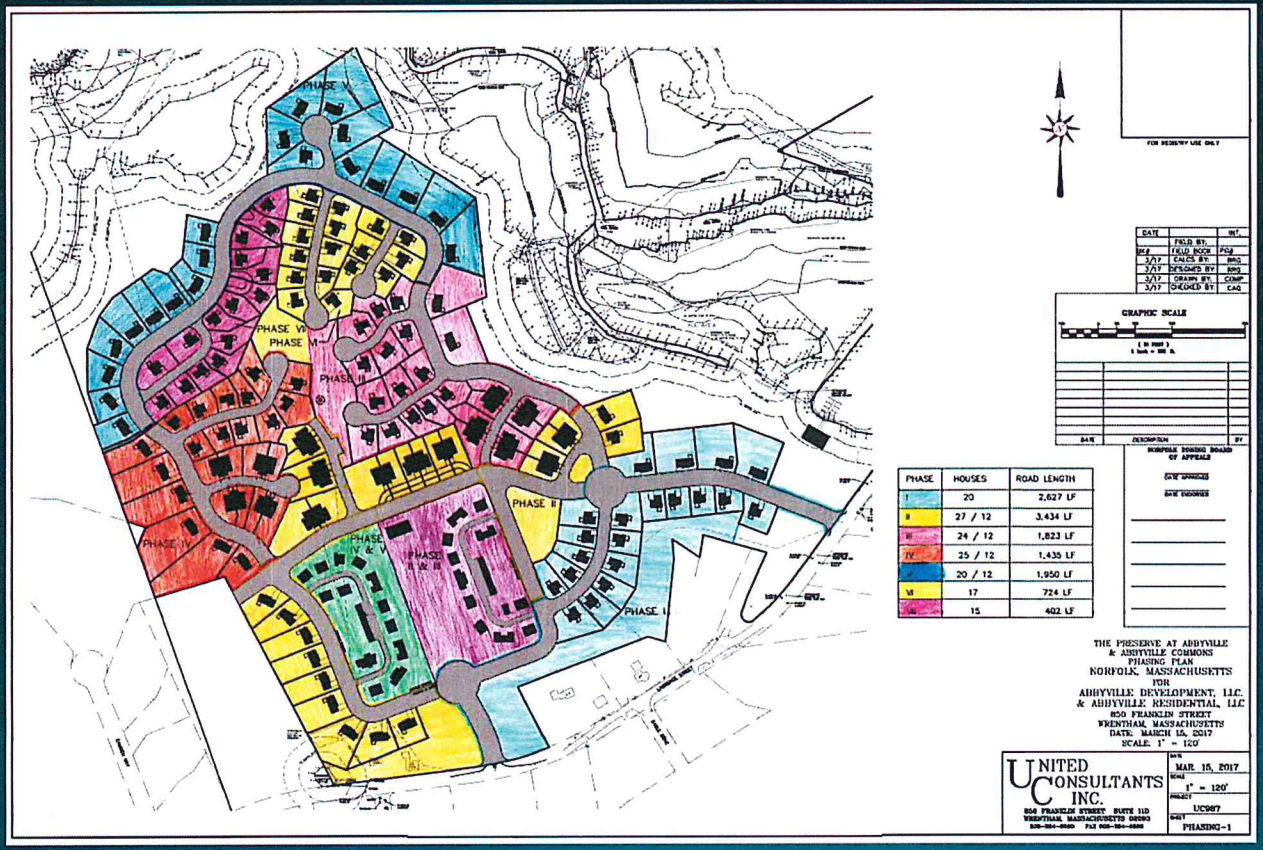
The Preserve at Abbyville and Abbyville Commons

Street Name	Right of Way Width (Feet)		Pavement Width (Feet)	
	Required	Proposed	Required	Proposed
Buckley Boulevard	60	60	28	13' divided
Annies Loop	60	60	28	26
Elliot Boulevard	60	50	28	26
Manns Loop	60	40	26	26
Richard Road	33	30	13	18
Dorethea Circle	33	30	13	18
Albert Drive	33	30	13	18
Waite Circle	50	30	24	18
Daniel Drive	60	30	26	18
Batts Loop	33	30	13	18
Morse Road	33	30	13	18
Thayer	50	30	24	18
Green Circle	50	30	24	26

Note: Richard Road, Dorethea Circle, Albert Drive, Batts Loop, Morse Road are proposed to be one way.

APPENDIX H

Project Phasing



PHASE	HOUSES	ROAD LENGTH
I	20	2,627 LF
II	27 / 12	3,434 LF
III	24 / 12	1,823 LF
IV	25 / 12	1,435 LF
V	20 / 12	1,950 LF
VI	17	724 LF
VII	15	402 LF

THE PRESERVE AT ABBYVILLE and ABBYVILLE COMMONS
Norfolk, MA

Proposed Phasing Schedule For Construction & Site Work

Phase	Schedule*	Units	Length of Road	Cuts	Fills	E.D.T.T.E.R.**
I	18-24 Months	20	2,627 LF	338,016 YD	13,704 YD	32-46
II	18-24 Months	39	3,434 LF	285,214 YD	31,600 YD	30-36
III	12-18 Months	36	1,823 LF	220,228 YD	10,133 YD	32-56
IV	12-18 Months	37	1,435 LF	199,653 YD	29,417 YD	24-46
V	18-24 Months	32	1,950 LF	212,808 YD	38,186 YD	16-24
VI	12-18 Months	17	724 LF	201,381 YD	17,717 YD	30-46
VII	12-18 Months	15	402 LF	11,000 YD	0	3

* *Schedule assumes up to a six month overlap of construction from one Phase to the next.*

** *E.D.T.T.E.R. is Estimated Daily Truck Trips for Earth Removal, no trucking on weekends or holidays*

Truck trips are based on a carrying capacity of 25-28 cubic yards

Proposed Phasing Plan is based upon Original Submittal, revisions are not reflected