

Project Description

File Name As-built outlet STM &offsite (100yr).SPF

Project Options

Flow Units CFS
Elevation Type Elevation
Hydrology Method Rational
Time of Concentration (TOC) Method User-Defined
Link Routing Method Hydrodynamic
Enable Overflow Ponding at Nodes YES
Skip Steady State Analysis Time Periods NO

Analysis Options

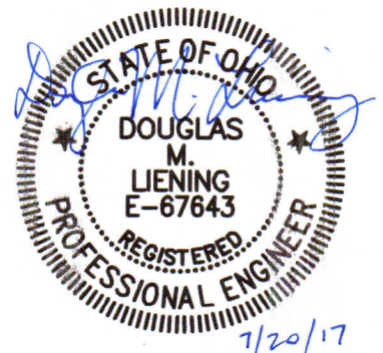
Start Analysis On Jul 17, 2017 00:00:00
End Analysis On Jul 18, 2017 00:00:00
Start Reporting On Jul 17, 2017 00:00:00
Antecedent Dry Days 0 days
Runoff (Dry Weather) Time Step 0 01:00:00 days hh:mm:ss
Runoff (Wet Weather) Time Step 0 00:05:00 days hh:mm:ss
Reporting Time Step 0 00:05:00 days hh:mm:ss
Routing Time Step 30 seconds

Number of Elements

	Qty
Rain Gages	0
Subbasins.....	0
Nodes.....	10
Junctions	8
Outfalls	1
Flow Diversions	0
Inlets	0
Storage Nodes	1
Links.....	9
Channels	0
Pipes	9
Pumps	0
Orifices	0
Weirs	0
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

Rainfall Intensity..... 0 in/hr



Node Summary

SN	Element ID	Element Type	Invert Elevation	Ground/Rim (Max) Elevation	Initial Water Elevation	Surcharge Elevation	Ponded Area	Peak Inflow	Max HGL Elevation Attained	Max Surcharge Depth Attained	Min Freeboard Attained	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
			(ft)	(ft)	(ft)	(ft)	(ft²)	(cfs)	(ft)	(ft)	(ft)	(days hh:mm)	(ac-in)	(min)
1	EX-1.0	Junction	858.94	862.00	858.92	862.00	100.00	15.34	860.43	0.00	1.57	0 00:00	0.00	0.00
2	EX-CB2	Junction	860.38	864.47	860.38	864.47	100.00	7.15	861.31	0.00	3.16	0 00:00	0.00	0.00
3	PROP-1.15	Junction	859.84	864.58	859.84	864.58	100.00	25.51	862.42	0.00	2.16	0 00:00	0.00	0.00
4	PROP-1.16	Junction	859.42	868.81	859.42	868.81	100.00	8.17	862.09	0.00	6.72	0 00:00	0.00	0.00
5	PROP-1.17	Junction	859.27	869.02	859.27	869.02	100.00	8.13	861.61	0.00	7.41	0 00:00	0.00	0.00
6	PROP-1.18	Junction	859.02	865.70	859.02	865.70	100.00	8.08	861.28	0.00	4.42	0 00:00	0.00	0.00
7	PROP-1.19	Junction	858.90	866.91	858.90	866.91	100.00	8.19	860.81	0.00	6.10	0 00:00	0.00	0.00
8	PROP-1.20	Junction	858.85	867.28	858.85	867.28	100.00	8.18	860.64	0.00	6.64	0 00:00	0.00	0.00
9	EX-CBINLET3	Outfall	858.24					15.31	859.37					
10	PROP-1.14	Storage Node	859.97	866.08	866.00		6770.00	8.06	866.04				0.00	0.00

Link Summary

SN	Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Reported Condition
					(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)	(ft)		(min)	
1	Link-01	Pipe	PROP-1.18	PROP-1.19	271.00	859.02	858.91	0.0400	24.000	0.0130	8.19	4.56	1.80	2.63	1.95	0.98	0.00	> CAPACITY
2	Link-02	Pipe	PROP-1.14	PROP-1.15	36.00	859.97	859.84	0.3600	24.000	0.0130	25.51	13.59	1.88	12.03	2.00	1.00	1432.00	SURCHARGED
3	Link-03	Pipe	EX-CB2	EX-1.0	64.00	860.38	858.97	2.2000	18.000	0.0130	7.53	15.59	0.48	7.61	1.15	0.77	0.00	Calculated
4	Link-04	Pipe	EX-1.0	EX-CBINLET3	56.39	858.92	858.24	1.2100	24.000	0.0130	15.31	25.20	0.61	7.06	1.30	0.65	0.00	Calculated
5	Pipe - (60)	Pipe	PROP-1.15	PROP-1.16	183.00	859.84	859.51	0.1800	24.000	0.0130	8.17	9.61	0.85	3.67	2.00	1.00	1432.00	SURCHARGED
6	Pipe - (61)	Pipe	PROP-1.16	PROP-1.17	335.00	859.42	859.27	0.0400	24.000	0.0130	8.13	4.79	1.70	3.86	2.00	1.00	1431.00	SURCHARGED
7	Pipe - (62)	Pipe	PROP-1.17	PROP-1.18	162.00	859.13	859.08	0.0300	18.000	0.0130	8.08	7.19	1.12	2.29	1.50	1.00	1435.00	SURCHARGED
8	Pipe - (66)	Pipe	PROP-1.19	PROP-1.20	41.00	858.90	858.88	0.0500	24.000	0.0130	8.18	5.00	1.64	3.04	1.83	0.92	0.00	> CAPACITY
9	Pipe - (67)	Pipe	PROP-1.20	EX-1.0	25.00	858.85	858.94	-0.3600	24.000	0.0130	8.17	13.57	0.60	4.18	1.63	0.82	0.00	Calculated

Junction Input

SN	Element ID	Invert Elevation	Ground/Rim (Max) Elevation	Ground/Rim (Max) Offset	Initial Water Elevation	Initial Water Depth	Surcharge Elevation	Surcharge Depth	Ponded Area	Minimum Pipe Cover
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft²)	(in)
1	EX-1.0	858.94	862.00	3.06	858.92	-0.02	862.00	0.00	100.00	12.72
2	EX-CB2	860.38	864.47	4.09	860.38	0.00	864.47	0.00	100.00	31.08
3	PROP-1.15	859.84	864.58	4.74	859.84	0.00	864.58	0.00	100.00	32.88
4	PROP-1.16	859.42	868.81	9.39	859.42	0.00	868.81	0.00	100.00	87.60
5	PROP-1.17	859.27	869.02	9.75	859.27	0.00	869.02	0.00	100.00	93.00
6	PROP-1.18	859.02	865.70	6.68	859.02	0.00	865.70	0.00	100.00	56.16
7	PROP-1.19	858.90	866.91	8.01	858.90	0.00	866.91	0.00	100.00	72.00
8	PROP-1.20	858.85	867.28	8.43	858.85	0.00	867.28	0.00	100.00	76.80

Junction Results

SN	Element ID	Peak Inflow	Peak Lateral Inflow	Max HGL Elevation Attained	Max HGL Depth Attained	Max Surge Depth Attained	Min Freeboard Attained	Average HGL Elevation Attained	Average HGL Depth Attained	Time of Max HGL Occurrence	Time of Peak Flooding Occurrence	Total Flooded Volume	Total Time Flooded
		(cfs)	(cfs)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(days hh:mm)	(days hh:mm)	(ac-in)	(min)
1	EX-1.0	15.34	0.00	860.43	1.49	0.00	1.57	860.41	1.47	0 00:10	0 00:00	0.00	0.00
2	EX-CB2	7.15	7.15	861.31	0.93	0.00	3.16	861.23	0.85	0 00:00	0 00:00	0.00	0.00
3	PROP-1.15	25.51	0.00	862.42	2.58	0.00	2.16	862.39	2.55	0 00:09	0 00:00	0.00	0.00
4	PROP-1.16	8.17	0.00	862.09	2.67	0.00	6.72	862.06	2.64	0 00:09	0 00:00	0.00	0.00
5	PROP-1.17	8.13	0.00	861.61	2.34	0.00	7.41	861.53	2.26	0 00:09	0 00:00	0.00	0.00
6	PROP-1.18	8.08	0.00	861.28	2.26	0.00	4.42	861.21	2.19	0 00:09	0 00:00	0.00	0.00
7	PROP-1.19	8.19	0.00	860.81	1.91	0.00	6.10	860.80	1.90	0 00:10	0 00:00	0.00	0.00
8	PROP-1.20	8.18	0.00	860.64	1.79	0.00	6.64	860.63	1.78	0 00:10	0 00:00	0.00	0.00

Pipe Input

SN	Element ID	Length	Inlet Invert Elevation	Inlet Invert Offset	Outlet Invert Elevation	Outlet Invert Offset	Total Drop	Average Slope	Pipe Shape	Pipe Diameter or Height	Pipe Width	Manning's Roughness	Entrance Losses	Exit/Bend Losses	Additional Losses	Initial Flow	No. of Barrels
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(%)		(in)	(in)					(cfs)	
1	Link-01	271.00	859.02	0.00	858.91	0.01	0.11	0.0400	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	1
2	Link-02	36.00	859.97	0.00	859.84	0.00	0.13	0.3600	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	1
3	Link-03	64.00	860.38	0.00	858.97	0.03	1.41	2.2000	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	1
4	Link-04	56.39	858.92	-0.02	858.24	0.00	0.68	1.2100	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	1
5	Pipe - (60)	183.00	859.84	0.00	859.51	0.09	0.33	0.1800	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	1
6	Pipe - (61)	335.00	859.42	0.00	859.27	0.00	0.15	0.0400	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	1
7	Pipe - (62)	162.00	859.13	-0.14	859.08	0.06	0.05	0.0300	CIRCULAR	18.000	18.000	0.0130	0.5000	0.5000	0.0000	0.00	2
8	Pipe - (66)	41.00	858.90	0.00	858.88	0.03	0.02	0.0500	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	1
9	Pipe - (67)	25.00	858.85	0.00	858.94	0.00	-0.09	-0.3600	CIRCULAR	24.000	24.000	0.0130	0.5000	0.5000	0.0000	0.00	1

Pipe Results

SN	Element ID	Peak Flow	Time of Peak Flow Occurrence	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity	Travel Time	Peak Flow Depth	Peak Flow Depth/ Total Depth Ratio	Total Time Surcharged	Froude Number	Reported Condition
		(cfs)	(days hh:mm)	(cfs)		(ft/sec)	(min)	(ft)		(min)		
1	Link-01	8.19	0 00:09	4.56	1.80	2.63	1.72	1.95	0.98	0.00		> CAPACITY
2	Link-02	25.51	0 00:00	13.59	1.88	12.03	0.05	2.00	1.00	1432.00		SURCHARGED
3	Link-03	7.53	0 00:00	15.59	0.48	7.61	0.14	1.15	0.77	0.00		Calculated
4	Link-04	15.31	0 00:10	25.20	0.61	7.06	0.13	1.30	0.65	0.00		Calculated
5	Pipe - (60)	8.17	0 00:03	9.61	0.85	3.67	0.83	2.00	1.00	1432.00		SURCHARGED
6	Pipe - (61)	8.13	0 00:09	4.79	1.70	3.86	1.45	2.00	1.00	1431.00		SURCHARGED
7	Pipe - (62)	8.08	0 00:10	7.19	1.12	2.29	1.18	1.50	1.00	1435.00		SURCHARGED
8	Pipe - (66)	8.18	0 00:10	5.00	1.64	3.04	0.22	1.83	0.92	0.00		> CAPACITY
9	Pipe - (67)	8.17	0 00:10	13.57	0.60	4.18	0.10	1.63	0.82	0.00		Calculated

Storage Nodes

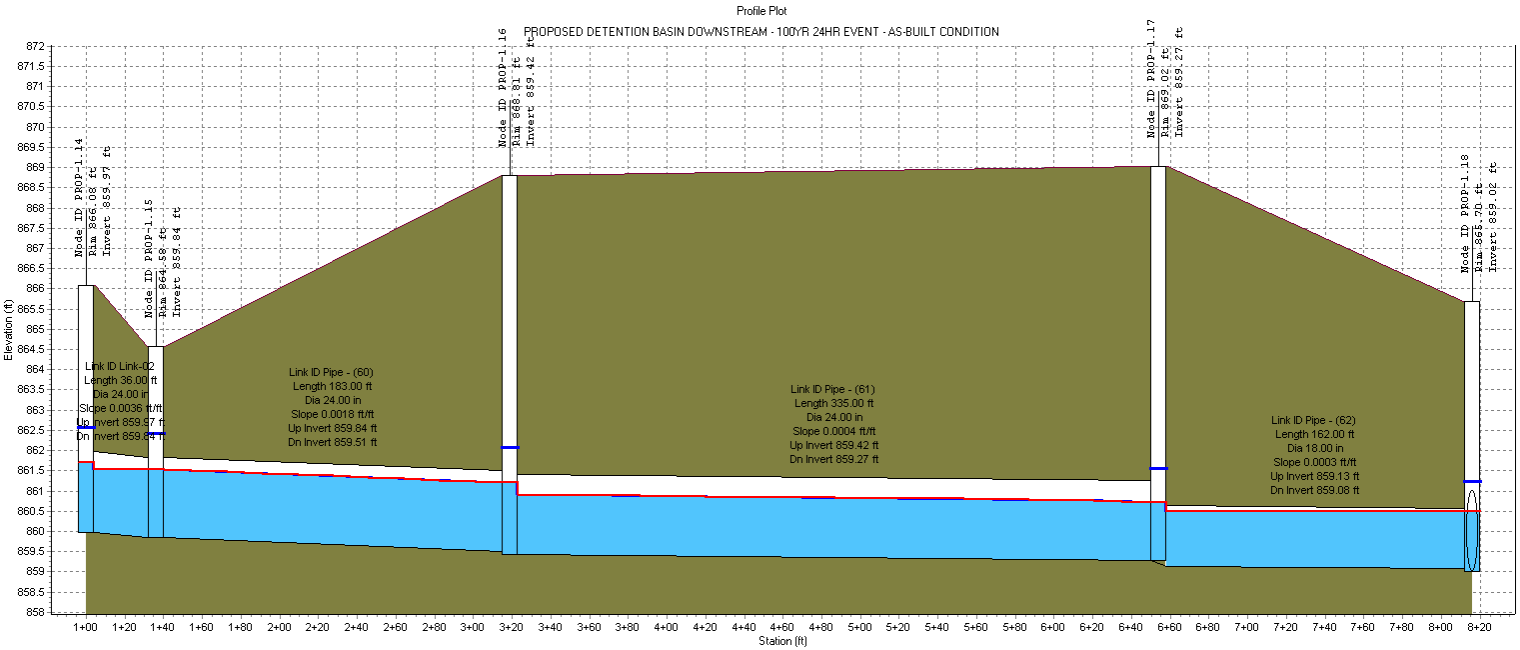
Storage Node : PROP-1.14

Input Data

Invert Elevation (ft)	859.97
Max (Rim) Elevation (ft)	866.08
Max (Rim) Offset (ft)	6.11
Initial Water Elevation (ft)	866.00
Initial Water Depth (ft)	6.03
Ponded Area (ft²)	6770.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	8.06
Peak Lateral Inflow (cfs)	8.06
Peak Outflow (cfs)	25.51
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	866.04
Max HGL Depth Attained (ft)	6.07
Average HGL Elevation Attained (ft)	862.54
Average HGL Depth Attained (ft)	2.57
Time of Max HGL Occurrence (days hh:mm)	0 00:00
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00



Node ID:	PROP-1.14	PROP-1.15	PROP-1.16	PROP-1.17	PROP-1.18
Rim (ft):	866.08	864.58	868.81	869.02	865.70
Invert (ft):	859.97	859.84	859.42	859.27	859.02
Min Pipe Cover (ft):	2.74	7.30	7.75	4.68	
Max HGL (ft):	866.04	862.42	862.09	861.61	861.28
Link ID:	Link-02	Pipe - (60)	Pipe - (61)	Pipe - (62)	
Length (ft):	36.00	183.00	335.00	162.00	
Dia (in):	24.00	24.00	24.00	18.00	
Slope (ft/ft):	0.0036	0.0018	0.0004	0.0003	
Up Invert (ft):	859.97	859.84	859.42	859.13	
Dn Invert (ft):	859.84	859.51	859.27	859.08	
Max Q (cfs):	25.51	8.17	8.13	8.08	
Max Vel (ft/s):	12.03	3.67	3.86	2.29	
Max Depth (ft):	2.00	2.00	2.00	1.50	

