



December 2, 2020

TECHNICAL REPORT

# PARTIN SETTLEMENT ROAD BOX CULVERT HYDRAULIC STUDY

**Submitted to:**  
Osceola County Transportation & Transit Department





## Table of Contents

1. Executive summary.....	1
2. Project Description.....	1
3. Existing Conditions .....	2
3.1. Floodplains .....	3
3.2. Environmental Considerations.....	4
4. Evaluation of Alternatives .....	4
4.1 Constraints .....	4
4.2 Design Criteria .....	5
5. Hydrology .....	6
6. Hydraulics.....	7
7. Scour .....	10
8. Deck drainage.....	11
9. Recommendations.....	11
References .....	12

## List of Tables

Table 1. Modeled stages and discharges at the Partin Settlement Road Box Culvert from the 2015 Design	2
Table 2. Surveyed elevations and dimensions of Partin Settlement Road Box-Culvert .....	2
Table 3. Culvert Design Criteria .....	5
Table 4. Modeled stages and discharges from the revised existing conditions ICPR model.....	7
Table 5. Downstream tailwater elevations used to calculate slope in HEC-RAS (Modeled stages at ICPR Node FENNEL_PSETFSHN).....	8
Table 6. ICPR modeling results of water surface elevation and discharge .....	8
Table 7. HEC-RAS modeling results of water surface elevation and velocity .....	9

## List of Figures

Figure 1. North side of box-culvert facing south and downstream .....	3
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## List of Appendices

- Appendix A Survey Information
- Appendix B FEMA FIRM Map
- Appendix C Roadway Typical Sections
- Appendix D ICPR Computations
- Appendix E HEC-RAS Computations
- Appendix F Spread Calculations
- Appendix G Photos

# 1. EXECUTIVE SUMMARY

As part of safety improvements for Partin Settlement Road, the roadway will be increased to from two lanes to four lanes, and a 10-foot multi-use path will be added. Due to these improvements, widening the roadway over the Fennel Slough Canal is required. This will require the existing dual 5' x 11' box culvert spanning the canal to be extended. For economic and hydraulic reasons, widening the existing roadway by 56 feet on the south side is recommended to avoid impacts to the existing pedestrian bridge to the north, resulting in an overall roadway width of 94 feet. An extension is recommended instead of a replacement because the existing 2016 culvert is in good condition. H&H analysis was performed to identify the effect of alterations to the box culvert and channel hydraulics. H&H modeling was performed in ICPR v4 and HEC-RAS v5.07. The analysis indicates that the box culvert extension will result in a 0.5-inch decrease in headwater stage for the (50-year) design flood. This appears to be achieved because the culvert is not fully submerged during large storm events, thus the extension behaves as an improved channel condition instead of a culvert under pressure flow. The ICPR simulation shows that the design for the lengthened box culvert (50-year 24 hour) stage is 60.42 ft, and the HEC-RAS simulation shows that stage to be 59.67 ft. The inside top of the culvert is 60.15 ft, and the top of the head wall is 61.21 ft. These results meet Osceola County criteria which require the design headwater elevation in a box culvert to not exceed the top of the end wall at the entrance. The proposed condition also meets FDOT criteria which state that the design headwater stage should be at or below the travel lanes, which are at 61.4 ft NAVD88 at the crossing location. Design tailwater velocity is 2.79 ft/s, which is a 0.16 ft/s increase over existing. This is above the 1.50 ft/s allowable velocity for silt-bottomed channels (2020 FDOT Design Manual), so riprap outlet protection is proposed. No rubble riprap nor scour is present downstream of the existing box culvert despite the somewhat excessive velocity in existing conditions. Therefore, only 20 feet of rubble riprap protection is proposed downstream of the proposed box culvert in Fennel Slough extending up the existing side slopes to 60.25 ft NAVD88, the tailwater elevation. Spread calculations are performed per FDOT requirements by application of the Rational Method with a rainfall intensity of 4 inches/hour. Spread on both north and south sides of the box culvert meets FDOT criteria of keeping either ½ of lane clear for a design speed below 45 mph.

# 2. PROJECT DESCRIPTION

This project entails widening the existing roadway for Partin Settlement Road over Fennel Slough Canal by 56 feet, as part of safety improvements for Partin Settlement Road. Partin Settlement Road is a two-lane roadway in Osceola County which crosses over the canal approximately 650 feet east of Interstate Aeronautical Drive and 1700 feet north of Fish Lake. The project is located in Section 30, Township 25, Range 30. The existing structure, constructed in 2016, is a dual 5' x 11' box culvert. The structure has an overall length of 38'-0" with an out-to-out width of 24'-6". The structure currently provides single eastbound and westbound travel lanes. The existing roadway will be widened to the south by 56 feet to accommodate the increased number of travel lanes and multi-use path, without impacting the existing pedestrian bridge to the north. The box culvert was last replaced in 2016. All elevation references in this report are to NAVD88.

### 3. EXISTING CONDITIONS

The existing 38-foot box culvert where Partin Settlement Road crosses Fennel Slough has dual 5' x 11' (rise x span) concrete box culverts, separated by 9.4 feet. The top of each headwall is at 62.2, which is above the crest of the road at 61.7. The box culverts are in good condition. The normal flow depth is approximately 1 foot of water within the culverts. The channel is a manmade canal upstream of Partin Settlement Road and the natural streambed of Fennel Slough downstream of the culverts. The canal is partially stabilized with concrete at the channel bends. Upstream (approximately 29 feet north) of the box culvert is a 66-foot aluminum pedestrian bridge. The canal embankments are lined with rubble riprap for approximately 80 feet north of the box culvert. No rubble riprap exists downstream of the box culvert, and no scour was observed there. The channel substrate is silt. Fennel Slough drains into Fish Lake.

The box culvert was originally modeled by Inwood Consulting Engineers in the Bass Slough Study conducted in 2003. This design was modified with the Partin Settlement Promenade design by Hanson, Walter & Associates (App #080411-26) in 2010. The design and modeling were revised by Hanson, Walter & Associates in 2015. The modeled stages and discharges from the 2015 design are listed in Table 1.

Table 1. Modeled stages and discharges at the Partin Settlement Road Box Culvert from the 2015 Design

Simulation		Partin Settlement Road	
		Stage (ft)	Discharge (cfs)
		Upstream	Downstream
<b>10-year/72-hour</b>		59.051	58.968
<b>50-year/24hour</b>		59.315	59.179
<b>100-year/72-hour</b>		59.755	59.616

A survey conducted in September 2020 showed that the existing culvert has the following inverts (Table 2, Appendix A).

Table 2. Surveyed elevations and dimensions of Partin Settlement Road Box-Culvert

	Culvert	West Culvert	East Culvert
<b>North Side</b>	Invert Elevation (ft)	55.16	55.18
	Inside Top of Opening Elevation (ft)	60.17	60.15
	Top of Culvert Elevation (ft)	61.08	61.12
	Roadway Elevation (ft)	61.51	
	Top of Headwall (ft)	62.21	
<b>South Side</b>	Invert Elevation (ft)	55.26	55.14
	Inside Top of Opening Elevation (ft)	60.18	60.11
	Top of Culvert Elevation (ft)	61.1	61.05
	Roadway Elevation (ft)	61.4	
	Top of Headwall (ft)	62.17	



Figure 1. North side of box-culvert facing south and downstream

### 3.1. FLOODPLAINS

The culvert and stream are located within a Zone A 100-year floodplain (Map Number 12097C0090G, effective June 18, 2013, included in Appendix B). No base flood elevation (BFE) is included for the floodplain at the project location. However, the Fish Lake floodplain connects to the Lake Tohopekaliga floodplain, which has a 100-year flood stage of 57 (Map Number 12097C0090G, effective June 18, 2013). Existing studies do not report flooding of Fennel Slough associated with Partin Settlement Road. This floodplain will be impacted by the widening of Partin Settlement Road.

H&H analysis shows that the 100-year 24-hour headwater stage, 60.60, exceeds the inside top of the bridge culvert but does not exceed the elevation of the travel lanes on Partin Settlement Road. The proposed 100-year 24-hour headwater stage is 0.5 inches less than the existing 100-year 24-hour headwater stage.

## 3.2. ENVIRONMENTAL CONSIDERATIONS

The streambed of the Fennel Slough canal and slough is largely free of vegetation, though some marshweed (*Limnophila sp.*), water hyacinth (*Pontederia crassipes*), and emergent vegetation is present. The banks upstream of Partin Settlement Road are vegetated with grasses and invasive vegetation including Peruvian primrose willow (*Ludwigia peruviana*). The banks of Fennel Slough downstream of Partin Settlement Road are dominated by wax myrtle (*Morella cerifera*) and the invasive Brazilian Pepper (*Schinus terebinthifolia*). Use of this waterway by reptiles, small fish, and amphibians is likely. Wading birds including a Roseate Spoonbill were observed foraging in the slough canal on 10/15/2020.

The slough drains into Fish Lake, and the U.S. Army Corps of Engineers (USACE) may claim the slough as jurisdictional Waters of the U.S. Therefore, for permitting purposes, the project may require a Nationwide Permit (NWP). Work in or over the slough will also require an ERP from the South Florida Water Management District (SFWMD). Permitting for impacts due to the box culvert extension will be conducted with the other proposed Partin Settlement Road improvements.

The Florida Department of Environmental Protection (FDEP) Division of State Lands will be consulted to determine if there is an existing easement or if the waterway comprises sovereign submerged lands at this location.

## 4. EVALUATION OF ALTERNATIVES

Bobby Cox with Osceola County Road and Bridge indicated the County had no knowledge of any flooding on the Fennel Slough box culvert or anywhere else on Partin Settlement Road (phone call with Steve Collins, 10/26/2020). A field review conducted by JMT on 10/15/2020 shows no evidence of scour nor excessive deposition.

Several roadway typical sections are being considered (Appendix C). Option 1 includes a 22-foot median, two 11-foot travel lanes, curb-and-gutter, a 4-foot grass strip, one 6-foot sidewalk, and one 10-foot multi-use path. Option 2 includes a 17-foot median, two 11-foot travel lanes, two 4-foot bike lanes, curb-and-gutter, a 4-foot grass strip, and two 8-foot multi-use paths. Option 3 includes a 22-foot median, two 11-foot travel lanes, curb-and-gutter, a 4-foot grass strip, and two 10-foot multi-use paths. A typical section over the box culvert has not been developed, but it was assumed that evaluating a 94-foot box culvert length would be adequate to determine the impact of the box culvert extension for this design phase. This is comparable to Option 1.

## 4.1 CONSTRAINTS

Since the box culvert is being extended, the horizontal and vertical geometrics are already set. The existing structure, constructed in 2016, is a box culvert with dual 5' x 11' (rise x span) concrete box culverts. The structure has an overall length of 38'-0" with an out-to-out width of 24'-6". The box culvert currently provided singular eastbound and westbound travel lanes with shoulders. No sidewalks are provided.

The proposed box culvert will be widened approximately 56 feet to the south to accommodate two additional travel lanes and two 10-foot multiuse paths resulting in an overall box culvert width of 94'-0". The road is being widened to the south to avoid impacting an existing 66-foot aluminum pedestrian bridge approximately 29 feet north of the box culvert. The landuse south of Partin Settlement Road includes pasture, Fennel Slough, and a stormwater pond.

## 4.2 DESIGN CRITERIA

The culvert design criteria from the regulating agencies associated with this project are included in Table 3.

Table 3. Culvert Design Criteria

Criteria	SFWMD	Osceola County	Osceola County Municipal Code	FDOT
<b>Material</b>	N/A	RCP	N/A	Match existing material for extension
<b>Concrete thickness over culvert</b>	N/A	4" min and 6" min at roadway edge	N/A	N/A
<b>Cover Requirement</b>	N/A	Refer to FDOT	N/A	Top of pipe 1 foot below subbase
<b>Design Storm</b>	25-year 3-day or stricter	N/A	50-year 24-hour	50-year
<b>Design Storm Event</b>	N/A	N/A	10-year 72-hour	N/A
<b>Rainfall Data</b>	Either: <b>A)</b> Appendix C SWERP applicants handbook Volume II <b>B)</b> Gage Data <b>C)</b> U.S Dept of Agriculture, Soil Conservation Service <b>D)</b> FDOT Drainage Manual Appendix B	N/A	N/A	IDF Curves Table
<b>Runoff Calculation</b>	Either: <b>A)</b> Rainfall minus losses and storage <b>B)</b> U.S. Dept of Agriculture, Natural Resources Conservation Service, "National Engineering Handbook" <b>C)</b> Rational method	N/A	Refer to FDOT or WMD	Rational Equation
<b>Design Tailwater</b>	Maximum stage which would exist in the receiving water from a storm equal to the project design storm	N/A	Agency regulated control elevation	Highest tailwater elevation coincident with the design storm event

Criteria	SFWMD	Osceola County	Osceola County Municipal Code	FDOT
Allowable Headwater	N/A	N/A	Should not exceed top of end wall at the entrance	At or below travel lanes
Pipe Grade	N/A	N/A	2.5 fps flowing full	2.5 fps flowing full

## 5. HYDROLOGY

Discharges were calculated in ICPR v4 using the model originally developed by Inwood Consulting Engineers in the 2003 Bass Slough Study. This design was modified with the Partin Settlement Promenade design by Hanson, Walter & Associates (App #080411-26) in 2010. The design and modeling were revised by Hanson, Walter & Associates in 2015.

The 2015 ICPR modeling was used as a starting point for this assessment. Review of the existing modeling, along with collected survey information and available existing permits, identified several modifications necessary for an adequate representation of the system in this area to create a revised existing conditions model suitable for use in comparing existing and proposed conditions. Modifications include the following:

1. The control structure from Pond-A upstream of Partin Settlement Road was modified to reflect surveyed dimensions and elevations.
  - a. Weir widths and elevations surveyed did not match the model information nor the permitted plans.
2. The cross-sections immediately upstream and downstream of Partin Settlement Road were adjusted to reflect survey dimensions and elevations.
  - a. The upstream section was replaced from a trapezoidal section to match the surveyed section at the pedestrian bridge.
  - b. The downstream section was revised from an approximately 120-foot wide bank-to-bank section to the surveyed approximately 60-foot wide bank-to-bank section.
3. The Partin Settlement Road culverts were adjusted to reflect surveyed dimensions and elevations.
  - a. The 2015 modeling information showed the culverts as 5.5'x11' boxes with a 64-foot length as opposed to the surveyed dimensions of 5'x11' boxes with a 38-foot length.
4. An erroneous elliptical pipe modeled adjacent to Aeronautical Drive was removed from the modeling. This pipe culvert appears to be a remnant from an earlier development plan for the parcels north of the Partin Settlement Road Crossing.
5. 50-year/ and 100-year/24-hour events were added to the modeled simulations to demonstrate compliance with regulatory constraints.

The modeled stages and discharges from the revised existing conditions model are included in Table 4. These discharges were used for modeling the existing and proposed box culvert in HEC-RAS.

Table 4. Modeled stages and discharges from the revised existing conditions ICPR model

Simulation	Partin Settlement Road		Discharge (cfs)
	Stage (ft)	Upstream	
<b>10-year/24-hour</b>		58.93	196.23
<b>10-year/72-hour</b>		59.57	265.20
<b>50-year/24-hour</b>		60.46	443.34
<b>100-year/24-hour</b>		60.64	475.78
<b>100-year/72-hour</b>		60.40	414.85

## 6. HYDRAULICS

A field survey was performed to characterize the channel and the project area. The survey of the Fennel Slough Canal and box culvert is included in Appendix A. Five cross sections of the channel were pulled from this survey for modeling, including:

1. 100 feet upstream of Partin Settlement Road box culvert in Fennel Slough canal (HEC-RAS Station 390)
2. 29 feet upstream of Partin Settlement Road box culvert under aluminum pedestrian bridge (HEC-RAS Station 287)
3. 5 feet upstream of Partin Settlement Road box culvert (HEC-RAS Station 260)
4. 5 feet downstream of Partin Settlement Road box culvert (HEC-RAS Station 156)
5. 65 feet downstream of Partin Settlement Road box culvert (HEC-RAS Station 139)

The survey was supplemented with 1-foot contours derived from LiDAR to confirm extended floodplain elevations. The position of each section is shown in Appendix A. Where the modeled water surface elevations exceed the input cross sections, HEC-RAS extrapolates vertically. Therefore, the modeled HEC-RAS results will be conservative where some section extrapolation occurs.

For proposed conditions, the downstream culvert invert is assumed to be 55.00.

Existing and proposed conditions were modeled using ICPR v4 and HEC-RAS v.5.0.7.

The Manning's N for the canal and slough was set to 0.07 in both ICPR (Cross Sections X-0010C and X-0020C) and HEC-RAS (Stations 390, 156, 139). HEC-RAS stations 287 and 260 used a Manning's N of 0.035 to represent existing rubble riprap at those sections.

The entire Fennel Slough to Fish Lake system is modeled in ICPR, so no upstream or downstream boundary conditions are set in ICPR. The upstream boundary condition in HEC-RAS was set to normal depth with a slope of 0.000722, which is the calculated slope from the US192 box culvert to the Partin Settlement Road box culvert. The downstream boundary condition in HEC-RAS was set to normal depth with a slope determined from the downstream channel link in the ICPR model for each simulated storm

(Table 5). Note that the downstream channel length is 587 feet in existing conditions and 531 feet in proposed conditions.

Table 5. Downstream tailwater elevations used to calculate slope in HEC-RAS (Modeled stages at ICPR Node FENNEL\_PSETFSHN)

Existing / Proposed Conditions	Simulation	Stage at ICPR Node FENNEL_PSETL_DS (ft NAVD 88)	Stage at ICPR Node FENNEL_PSETFSHN (ft NAVD 88)	Downstream Slope
Existing	10-year 24-hour	58.88	58.01	0.001482
	10-year 72-hour	59.50	58.62	0.001499
	50-year 24-hour	60.31	58.97	0.002283
	100-year 24-hour	60.47	59.11	0.002317
	100-year 72-hour	60.27	59.17	0.001874
Proposed	10-year 24-hour	58.84	58.01	0.001563
	10-year 72-hour	59.46	58.62	0.001563
	50-year 24-hour	60.24	58.97	0.002373
	100-year 24-hour	60.40	59.11	0.002411
	100-year 72-hour	60.21	59.17	0.001940

The comparison of stages and discharges, as modeled in ICPR, between the existing box culvert and the proposed box culvert extension are summarized in Table 6. Full results are included in Appendix D.

Table 6. ICPR modeling results of water surface elevation and discharge

Simulation	Partin Settlement Road			Discharge (cfs)	
	Stage (ft)		Upstream		
	Downstream	Upstream			
Existing	10-year/24-hour	58.93	58.88	196.23	
	10-year/72-hour	59.57	59.50	265.20	
	50-year/24-hour	60.46	60.31	443.34	
	100-year/24-hour	60.64	60.47	475.78	
	100-year/72-hour	60.40	60.27	414.85	

		Partin Settlement Road		
		Stage (ft)		Discharge (cfs)
Simulation		Upstream	Downstream	
<b>Proposed</b>	<b>10-year/24-hour</b>	58.89	58.84	197.81
	<b>10-year/72-hour</b>	59.53	59.46	267.27
	<b>50-year/24-hour</b>	60.42	60.24	444.65
	<b>100-year/24-hour</b>	60.60	60.40	477.49
	<b>100-year/72-hour</b>	60.37	60.21	416.20
<b>Difference</b>	<b>10-year/24-hour</b>	-0.04	-0.04	1.58
	<b>10-year/72-hour</b>	-0.04	-0.04	2.07
	<b>50-year/24-hour</b>	-0.04	-0.07	1.31
	<b>100-year/24-hour</b>	-0.04	-0.07	1.71
	<b>100-year/72-hour</b>	-0.03	-0.06	1.35

The results of the existing and proposed HEC-RAS models are included in Appendix E, and the differences between stage and velocity are summarized in Table 7. HEC-RAS was used as a tool for modeling velocity

Table 7. HEC-RAS modeling results of water surface elevation and velocity

Partin Settlement Road Difference between Box-Culvert Extension and Existing								
	River Station	Simulation	Existing	Proposed	Delta	Existing	Proposed	Delta
			W.S. Elev	W.S. Elev	W.S. Elev	Vel Chnl	Vel Chnl	Vel Chnl
	100 feet upstream of box culvert	390	10 YR 24 HR	58.83	58.73	-0.1	1.45	1.5
		390	10 YR 72 HR	59.21	59.11	-0.1	1.74	1.79
		390	50 YR 24 HR	59.93	59.8	-0.13	2.37	2.45
		390	100 YR 24 HR	60.06	59.93	-0.13	2.45	2.54
		390	100 YR 72 HR	59.86	59.76	-0.1	2.25	2.32
	Pedestrian Bridge	287	10 YR 24 HR	58.79	58.69	-0.1	1.27	1.31
		287	10 YR 72 HR	59.17	59.06	-0.11	1.52	1.57
		287	50 YR 24 HR	59.86	59.72	-0.14	2.07	2.15
		287	100 YR 24 HR	59.99	59.85	-0.14	2.15	2.23
		287	100 YR 72 HR	59.8	59.68	-0.12	1.97	2.03
	5 feet upstream of box culvert	260	10 YR 24 HR	58.77	58.67	-0.1	1.48	1.53
		260	10 YR 72 HR	59.14	59.04	-0.1	1.77	1.83
		260	50 YR 24 HR	59.82	59.67	-0.15	2.43	2.52
		260	100 YR 24 HR	59.94	59.8	-0.14	2.51	2.61
		260	100 YR 72 HR	59.76	59.64	-0.12	2.31	2.38
	Partin Settlement Road box culvert	217						
			10 YR 24 HR	58.63	58.53	-0.1	1.48	1.54
								0.06

Partin Settlement Road Difference between Box-Culvert Extension and Existing								
	River Station	Simulation	Existing W.S. Elev (cfs)	Proposed W.S. Elev (ft)	Delta W.S. Elev (ft)	Existing Vel Chnl (ft/s)	Proposed Vel Chnl (ft/s)	Delta Vel Chnl (ft/s)
<b>5 feet downstream of existing/proposed box culvert</b>		10 YR 72 HR	58.93	58.81	-0.12	1.8	1.87	0.07
		50 YR 24 HR	59.33	59.15	-0.18	2.63	2.79	0.16
		100 YR 24 HR	59.41	59.22	-0.19	2.75	2.92	0.17
		100 YR 72 HR	59.34	59.19	-0.15	2.45	2.58	0.13
<b>65 feet downstream of existing box culvert</b>	139	10 YR 24 HR	58.53	58.51	-0.02	1.39	1.42	0.03
	139	10 YR 72 HR	58.82	58.8	-0.02	1.52	1.54	0.02
	139	50 YR 24 HR	59.17	59.15	-0.02	2.04	2.07	0.03
	139	100 YR 24 HR	59.24	59.22	-0.02	2.09	2.12	0.03
	139	100 YR 72 HR	59.21	59.19	-0.02	1.86	1.89	0.03

Results of both the ICPR and HEC-RAS simulations show that the proposed culvert extension will result in a slight decrease in water surface elevation both upstream and downstream of the existing box culvert. This appears to be achieved because the culvert is not fully submerged during large storm events, thus the extension behaves as an improved channel condition instead of a culvert under pressure flow.

The Osceola County criteria for headwater elevation in a box culvert is that the design stage should not exceed the top of the end wall at the entrance. The ICPR simulation shows that the design (50-year 24 hour) stage is 60.42 ft, and the HEC-RAS simulation shows that that stage to be 59.67 ft. The inside top of the culvert is 60.15 ft, but the top of the head wall is 61.21 ft, so there is sufficient clearance.

Because the water surface elevation at all HEC-RAS sections is shown to decrease by one inch in proposed conditions, including the 100-year 24-hour and 100-year 72-hour events, there is no impact to the 100-year floodplain.

## 7. SCOUR

Channel degradation is not expected at the box culvert. The upstream channel is currently lined with rubble riprap for over 30 feet. No rubble riprap nor scour is present downstream of the existing box culvert. Design tailwater velocity is 2.79 ft/s, which is a 0.16 ft/s increase over existing. This is above the 1.50 ft/s allowable velocity for silt-bottomed channels (2020 FDOT Design Manual), so riprap outlet protection is proposed. No rubble riprap nor scour is present downstream of the existing box culvert despite the somewhat excessive velocity in existing conditions (2.63 ft/s at the 50-year 24-hour event). Therefore, only 20 feet of rubble riprap protection is recommended downstream of the proposed box culvert in Fennel Slough extending up the existing side slopes to 60.25 ft NAVD88. This is the tailwater elevation from the ICPR modeling (Table 6), which is slightly higher than the calculated tailwater elevation from the HEC-RAS modeling. It is recommended to be conservative.

According to the 2020 FDOT Drainage Manual a lining type of rubble riprap can withstand a maximum velocity of 6 feet per second. Thus, rubble for bank and shore protection should provide suitable protection. Recommended rubble by FDOT Standard Specification 530 for bank and shore protection is as follows:

“530-2.1.3.1 Rubble (Bank and Shore Protection): Provide sound, hard, durable rubble, free of open or incipient cracks, soft seams, or other structural defects, consisting of broken stone with a bulk specific gravity of at least 2.20. Ensure that stones are rough and angular.

For this application, use broken stone meeting the following gradation and thickness requirements:”

Weight Maximum Pounds	Weight 50% Pounds	Weight Minimum Pounds	Minimum Blanket Thickness in Feet
670	290	60	2.5
Ensure that at least 97% of the material by weight is smaller than Weight Maximum pounds].			
Ensure that at least 50% of the material by weight is greater than Weight 50% pounds].			
Ensure that at least 85% of the material by weight is greater than Weight Minimum pounds.			

## 8. DECK DRAINAGE

Deck runoff will be conveyed to curb inlets and will be conveyed to a pond via a storm sewer system. Spread was calculated at the end of the approach slabs per FDOT Drainage Design Guide (2020), which requires the application of the Rational Method with a rainfall intensity of 4 inches/hour for roadway spread calculations. Accordingly, spread is estimated to be 3.45, 3.45, 3.55, and 3.55 feet respectively on the north-east, north-west, south-east, and south-west sides of the bridge (Appendix F). Thus, spread meets FDOT criteria of keeping ½ of lane clear for a design speed below 45 mph (FDOT Drainage Manual, 2020).

## 9. RECOMMENDATIONS

Extending the existing dual box-culverts by 56'-0" to the south side is recommended to provide a total box culvert length of 94'-0". An extension is recommended instead of a replacement because the existing 2016 culvert is in good condition. Hydraulic analysis shows only negligible alterations to existing channel hydraulic conditions under both the design flood (e.g. water surface elevation decreases of an inch under the 50-year storm) and base flood (e.g. water surface elevation decreases of an inch under the 100-year storm). Rubble riprap exists upstream of the box culvert. A length of 20 feet of rubble riprap protection is recommended downstream of the proposed box culvert in Fennel Slough extending up the existing side slopes to 60.25 ft NAVD88.

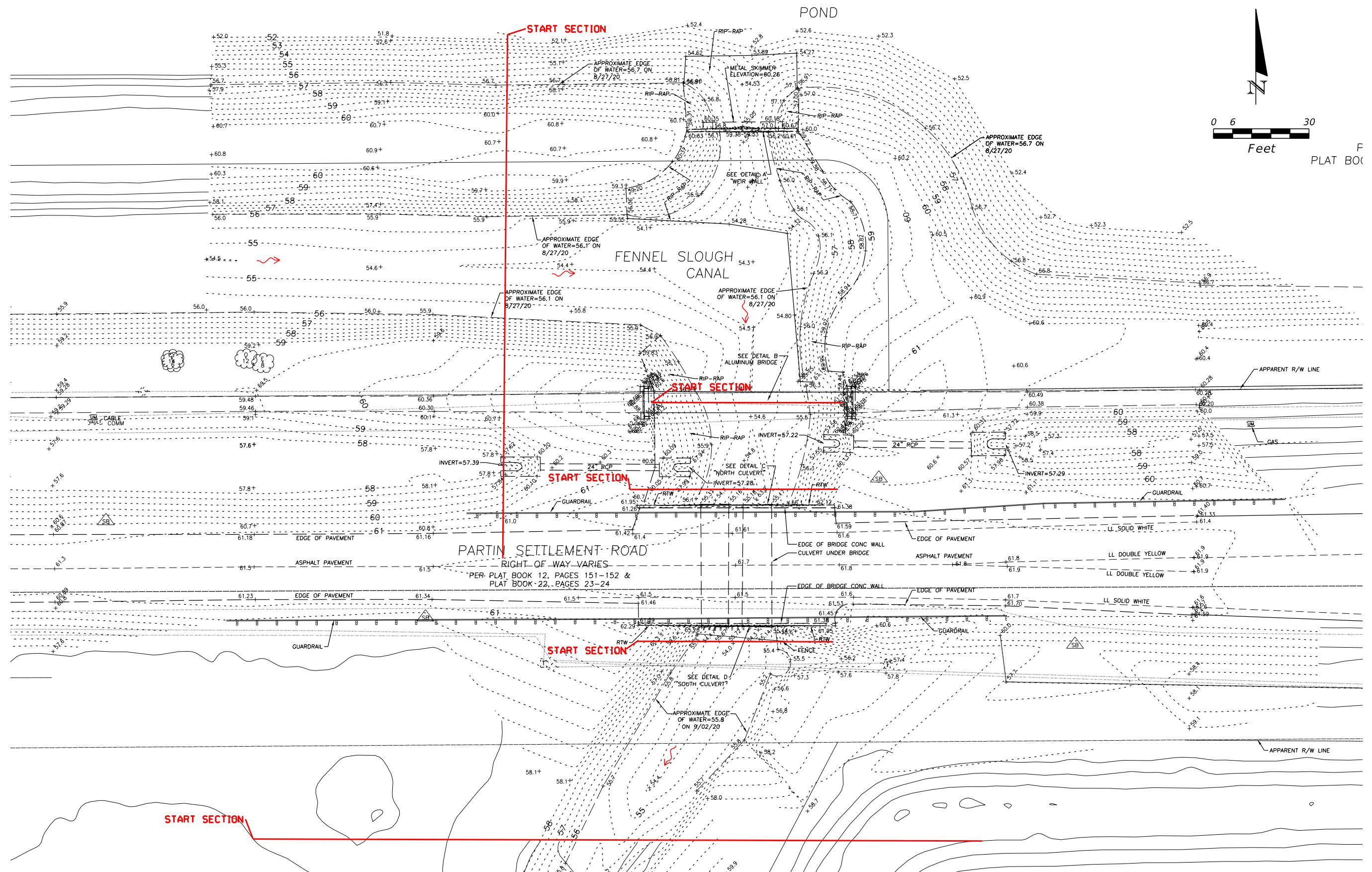


## REFERENCES

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- State of Florida Department of Transportation, 2020. FDOT Design Manual.
- State of Florida Department of Transportation, 2020. FDOT Drainage Manual.
- State of Florida Department of Transportation, 2005. FDOT Bridge Scour Manual.
- State of Florida Department of Transportation, 2020. FDOT Drainage Design Guide.
- State of Florida Department of Transportation, 2016. FDOT Standard Specification 530.



## APPENDIX A: SURVEY INFORMATION



STEVEN D. COLLINS, P.E., Ph.D.  
P.E. LICENSE NUMBER 80872  
JMT - JOHNSON, MIRMIRAN & THOMPSON  
615 CRESCENT EXECUTIVE COURT, SUITE 106  
LAKE MARY, FL 32746  
CERTIFICATE OF AUTHORIZATION NO.: 5917

*OSCEOLA COUNTY*

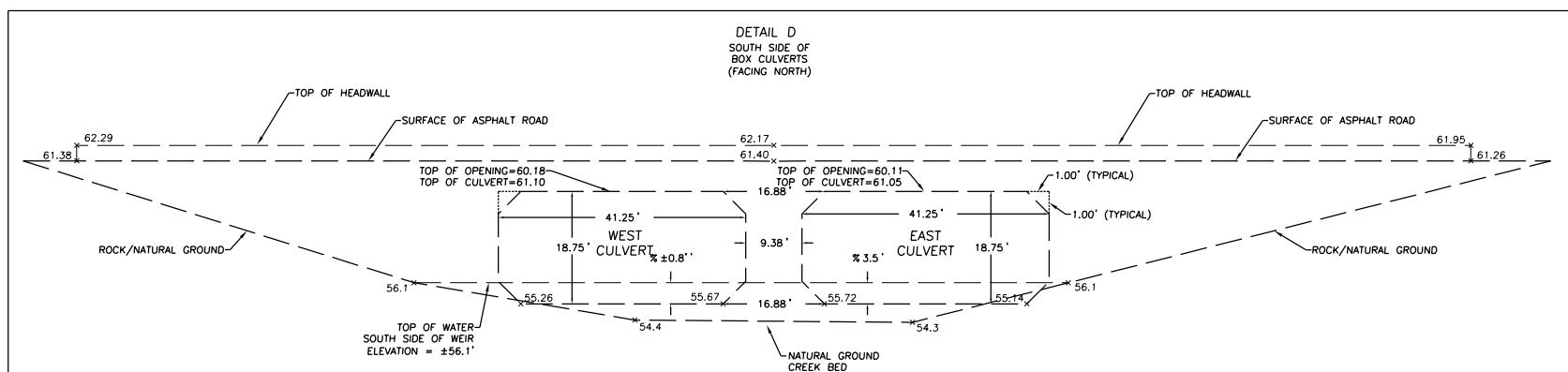
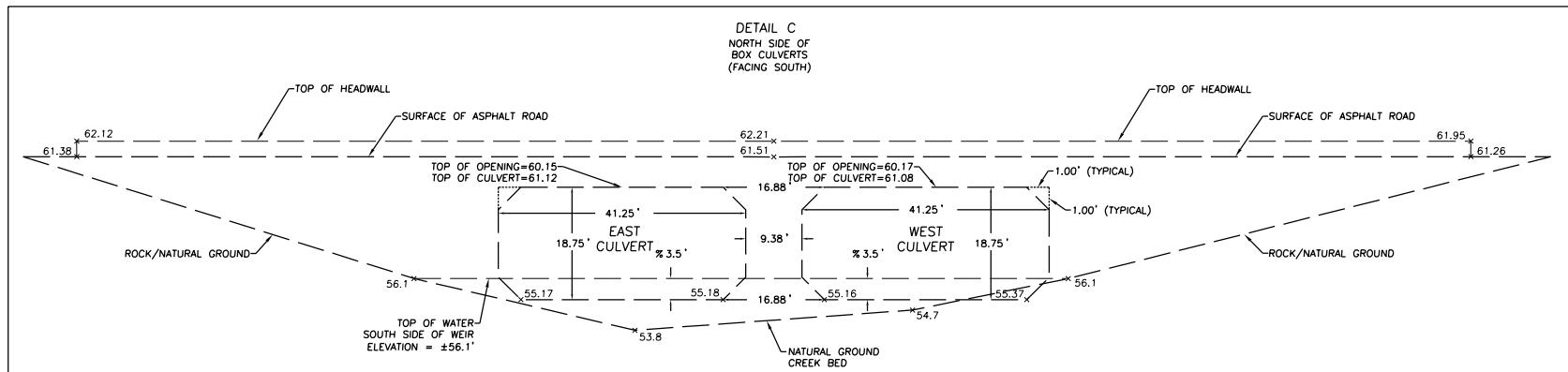
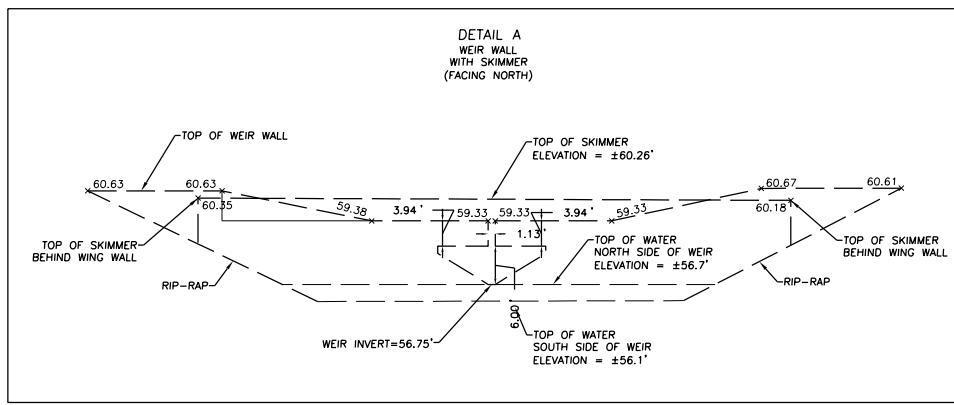
## *HYDRAULICS SECTIONS*

SHEET  
NO.

- 1 -

\$DATE\$ \$TIME\$ \$FILE\$

\$D



*DATE\$*      \$TIME\$      \$FILE\$

REVISIONS				STEVEN D. COLLINS, P.E., Ph.D. P.E. LICENSE NUMBER 80872 <u>JMT - JOHNSON, MIRMAN &amp; THOMPSON</u> <u>615 CRESCENT EXECUTIVE COURT, SUITE 106</u> <u>LAKE MARY, FL 32746</u> CERTIFICATE OF AUTHORIZATION NO.: <u>5917</u>	OSCEOLA COUNTY ROAD NO.      COUNTY      OSCEOLA COUNTY CIP <u>CR 523</u> <u>OSCEOLA</u> <u>01785303</u>	<u>SURVEYED CULVERT CROSS SECTIONS</u> -----	SHEET NO. <u>2</u>
DATE	DESCRIPTION	DATE	DESCRIPTION				





## APPENDIX B: FEMA FIRM MAP

## NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or Floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations (BFEs)** shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Transverse Mercator State Plane Florida East FIPS 0901. The horizontal datum was NAD83 HARN, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referred to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov>, or contact the National Geodetic Survey at the following address:

NGS Information Services  
NOAA, NNGS12  
National Geodetic Survey  
SSMC-3, #9208  
1315 East-West Highway  
Silver Spring, Maryland 20910-3282  
(301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242 or visit its website at <http://www.ngs.noaa.gov>.

Base map information shown on this FIRM was provided in digital format by the Osceola County Planning Office. Orthophotography was collected in late 2007 early 2008.

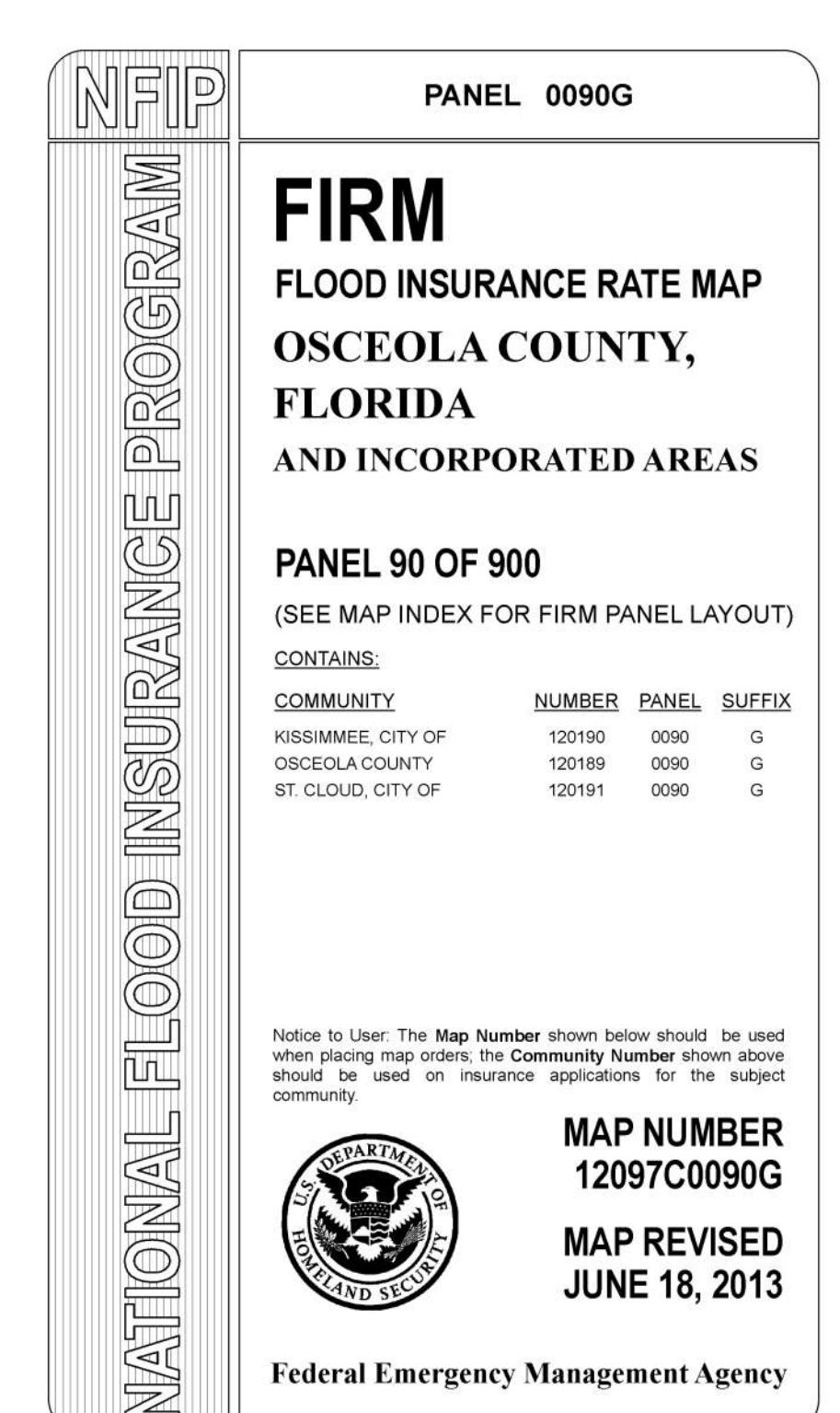
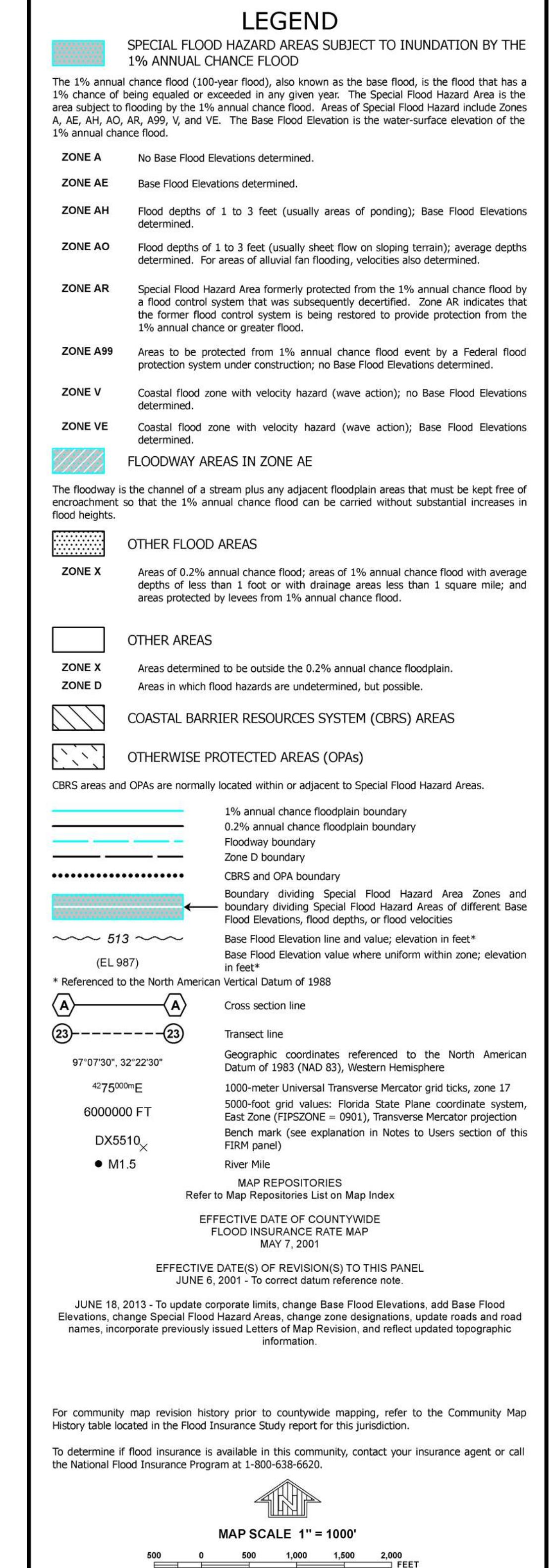
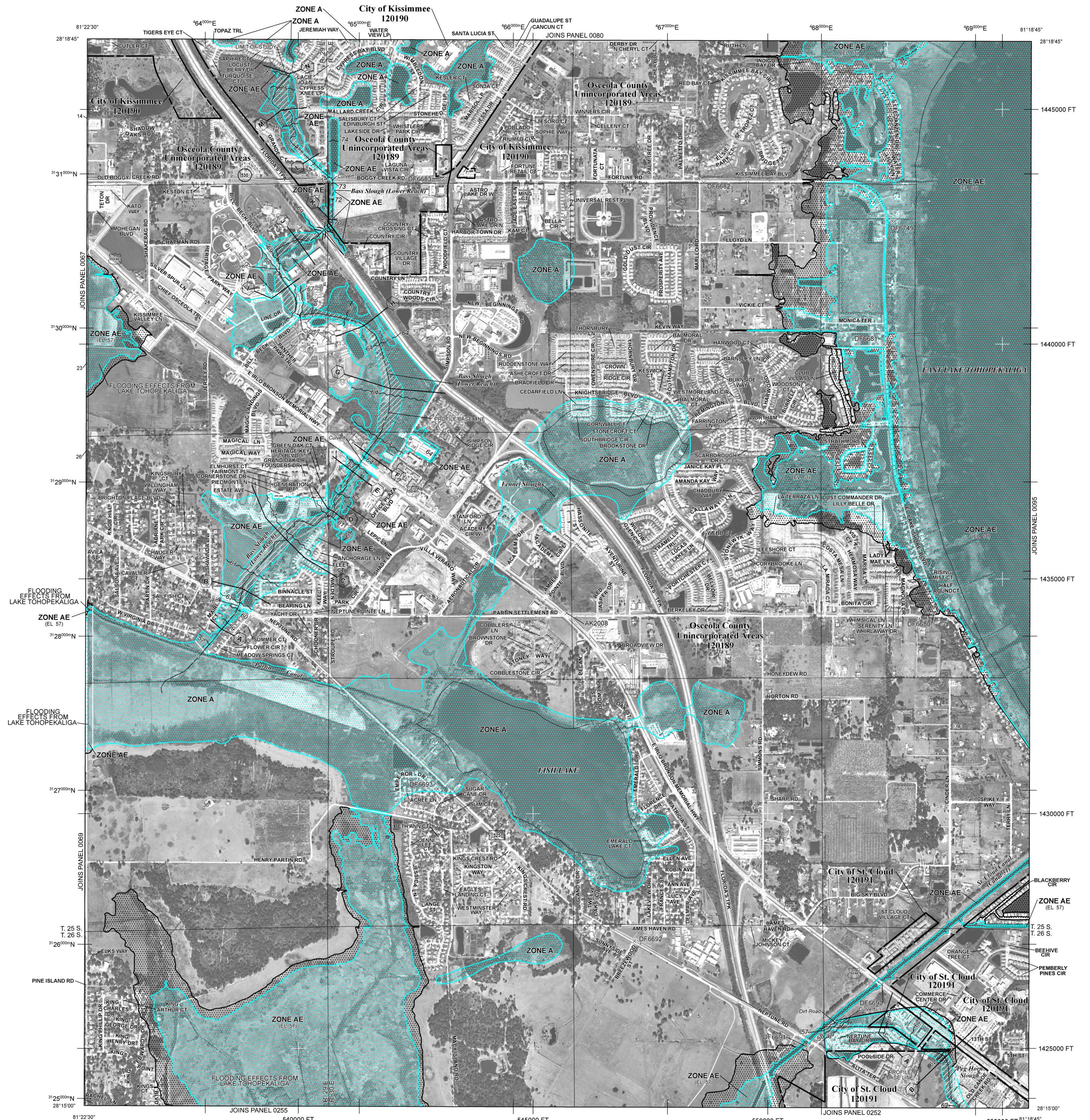
This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

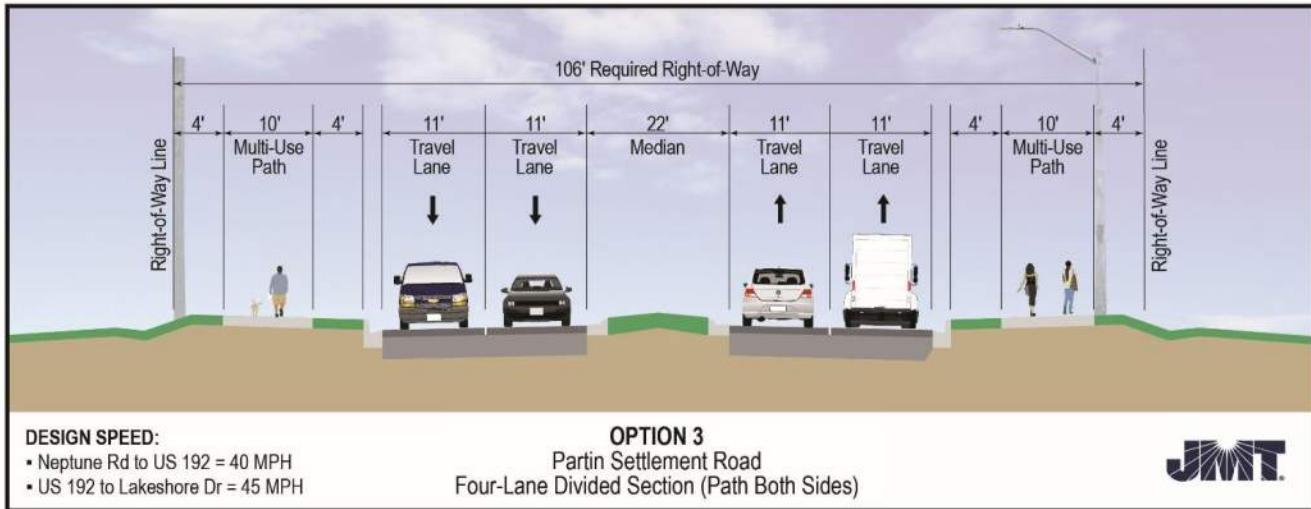
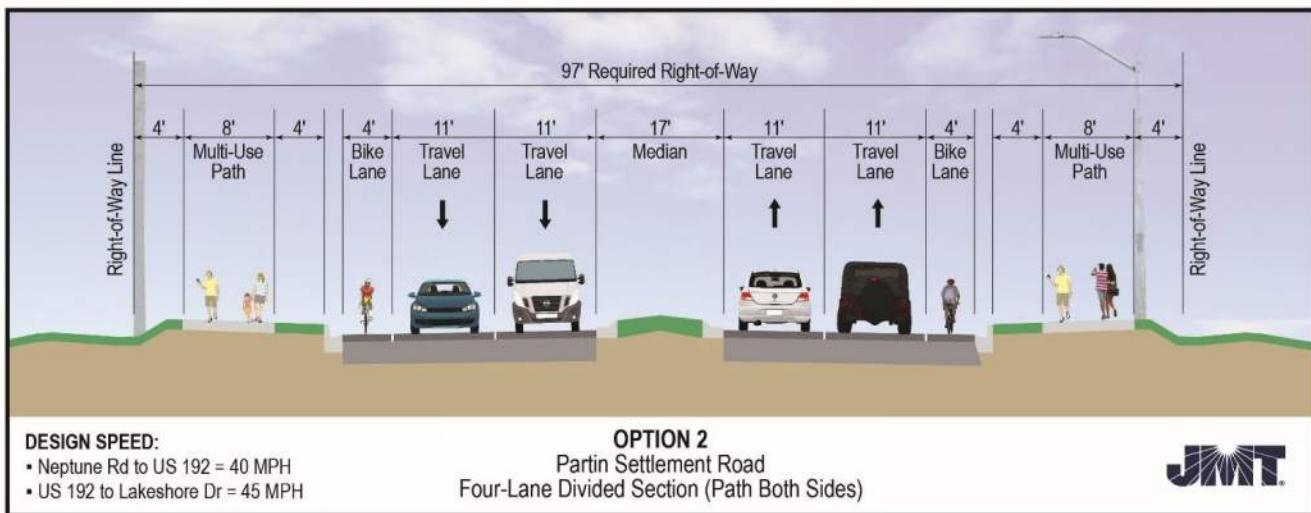
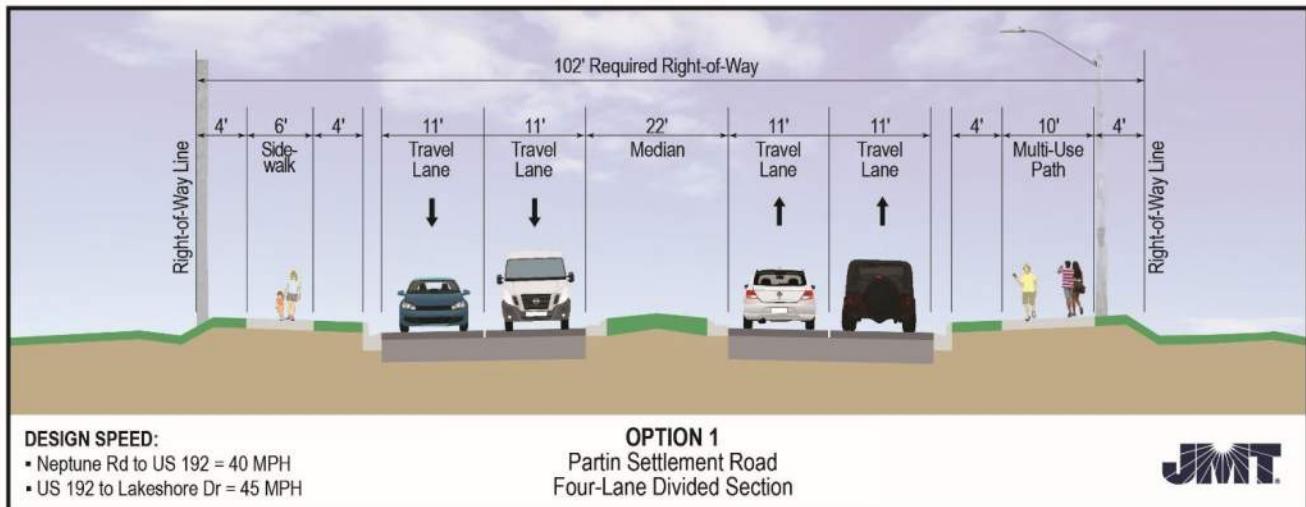
Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Mapping Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Map Service website at <http://www.msfc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of maps. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Map Information eXchange.

The "profile base lines" depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the "profile base line", in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.



## APPENDIX C: ROADWAY TYPICAL SECTIONS

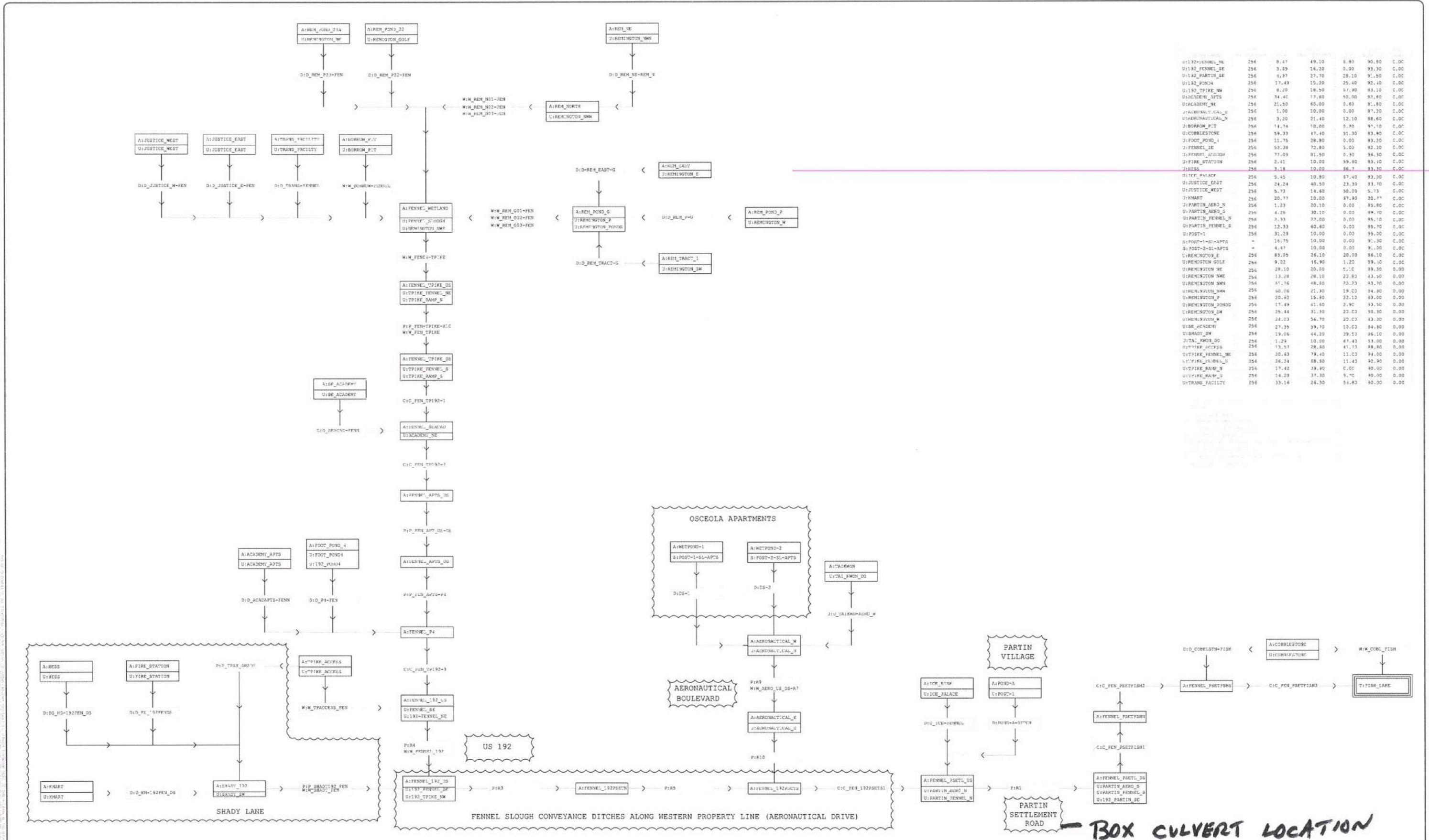




## APPENDIX D: ICPR COMPUTATIONS

### EXISTING

ICPR Node Diagram from 2016 permit



- BOX CULVERT LOCATION

REGISTRATION	143	PERIOD	



400 WEST EMMETT STREET, KISSIMMEE, FLORIDA 34741  
PHONE (407) 847-9433 FAX (407) 847-2495  
ENGINEERING, SURVEYING AND PLANNING  
Hanson, Walter & Associates

PARTIN VILLAGE

## POST DEVELOPMENT NODE DIAGRAM

**Simple Basin: 192-FENNEL\_NE**

Scenario: Existing  
Node: FENNEL\_192\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 49.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 8.4700 ac  
Curve Number: 90.8  
% Impervious: 6.80  
% DCIA: 6.80  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: 192\_FENNEL\_SE**

Scenario: Existing  
Node: FENNEL\_192\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 16.2000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 3.6900 ac  
Curve Number: 93.3  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: 192\_PARTIN\_SE**

Scenario: Existing  
Node: FENNEL\_PSETL\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 27.7000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 4.9700 ac  
Curve Number: 91.5  
% Impervious: 28.10  
% DCIA: 28.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: 192\_POND4

Scenario: Existing  
Node: FDOT\_POND\_4  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.2000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 17.4900 ac  
Curve Number: 92.4  
% Impervious: 25.40  
% DCIA: 25.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: 192\_TPIKE\_NW

Scenario: Existing  
Node: FENNEL\_192\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 18.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 8.2000 ac  
Curve Number: 83.1  
% Impervious: 67.90  
% DCIA: 67.90

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: ACADEMY\_APTS

Scenario: Existing  
Node: ACADEMY\_APTS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 17.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 34.4000 ac  
Curve Number: 82.8  
% Impervious: 50.00  
% DCIA: 50.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: ACADEMY\_NE

Scenario: Existing  
Node: FENNEL\_SEACAD  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 60.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 21.5000 ac  
Curve Number: 81.8  
% Impervious: 0.60  
% DCIA: 0.60  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: AERONAUTICAL\_E**

Scenario: Existing  
Node: AERONAUTICAL\_E  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 22.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 1.0000 ac  
Curve Number: 87.2  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: AERONAUTICAL\_N**

Scenario: Existing  
Node: AERONAUTICAL\_W  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 21.4000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 3.2000 ac  
Curve Number: 88.6  
% Impervious: 12.10  
% DCIA: 12.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: BORROW\_PIT**

Scenario: Existing  
Node: BORROW\_PIT  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 14.7400 ac  
Curve Number: 97.1  
% Impervious: 0.20  
% DCIA: 0.20  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: COBBLESTONE

Scenario: Existing  
Node: COBBLESTONE  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 47.4000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 59.3300 ac  
Curve Number: 83.9  
% Impervious: 51.30  
% DCIA: 51.30  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: FDOT\_POND\_4

Scenario: Existing  
Node: FDOT\_POND\_4  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 28.8000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 11.7500 ac  
Curve Number: 83.2  
% Impervious: 0.00  
% DCIA: 0.00

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: FENNEL\_SE

Scenario: Existing  
Node: FENNEL\_192\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 72.8000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 52.3800 ac  
Curve Number: 82.2  
% Impervious: 5.00  
% DCIA: 5.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: FENNEL\_SLOUGH

Scenario: Existing  
Node: FENNEL\_WETLAND  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 81.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 77.0900 ac  
Curve Number: 96.3  
% Impervious: 0.30  
% DCIA: 0.30  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: FIRE\_STATION**

Scenario: Existing  
Node: FIRE\_STATION  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 2.4100 ac  
Curve Number: 83.4  
% Impervious: 59.60  
% DCIA: 59.60  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: HESS**

Scenario: Existing  
Node: HESS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 3.1800 ac  
Curve Number: 83.3  
% Impervious: 66.70  
% DCIA: 66.70  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: ICE\_PALACE**

Scenario: Existing  
Node: ICE\_RINK  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.8000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 5.4500 ac  
Curve Number: 83.0  
% Impervious: 67.40  
% DCIA: 67.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: JUSTICE\_EAST

Scenario: Existing  
Node: JUSTICE\_EAST  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 40.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 24.2400 ac  
Curve Number: 83.7  
% Impervious: 23.30  
% DCIA: 23.30  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: JUSTICE\_WEST

Scenario: Existing  
Node: JUSTICE\_WEST  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 14.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 5.7300 ac  
Curve Number: 83.4  
% Impervious: 50.00  
% DCIA: 50.00

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: KMArt

Scenario: Existing  
Node: KMArt  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 20.7700 ac  
Curve Number: 83.1  
% Impervious: 67.90  
% DCIA: 67.90  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: PARTIN\_AERO\_N

Scenario: Existing  
Node: FENNEL\_PSETL\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 20.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 1.2300 ac  
Curve Number: 85.8  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: PARTIN\_AERO\_S**

Scenario: Existing  
Node: FENNEL\_PSETL\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 30.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 4.2600 ac  
Curve Number: 89.7  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: PARTIN\_FENNEL\_N**

Scenario: Existing  
Node: FENNEL\_PSETL\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 22.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 2.9300 ac  
Curve Number: 85.1  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: PARTIN\_FENNEL\_S**

Scenario: Existing  
Node: FENNEL\_PSETL\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 60.6000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 12.3300 ac  
Curve Number: 85.7  
% Impervious: 20.10  
% DCIA: 20.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: POST-1

Scenario: Existing  
Node: POND-A  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 31.2900 ac  
Curve Number: 94.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment: PARTIN VILLAGE

Simple Basin: POST-1-SL-APTS

Scenario: Existing  
Node: WETPOND-1  
Hydrograph Method: Santa Barbara Urban Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Area: 16.7500 ac  
Curve Number: 91.3  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Sfwmd72

Comment:

---

#### Simple Basin: POST-2-SL-APTS

Scenario: Existing  
Node: WETPOND-2  
Hydrograph Method: Santa Barbara Urban Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Area: 4.4700 ac  
Curve Number: 91.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Sfwmd72

Comment:

---

#### Simple Basin: REMIGTON\_GOLF

Scenario: Existing  
Node: REM\_POND\_22  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 46.9000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 9.0200 ac  
Curve Number: 89.4  
% Impervious: 1.20  
% DCIA: 1.20  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

#### Simple Basin: REMINGTON\_E

Scenario: Existing  
Node: REM\_EAST

Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 26.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 83.0500 ac  
Curve Number: 86.1  
% Impervious: 20.00  
% DCIA: 20.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: REMINGTON\_NE

Scenario: Existing  
Node: REM\_POND\_23A  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 20.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 28.1000 ac  
Curve Number: 89.3  
% Impervious: 5.10  
% DCIA: 5.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: REMINGTON\_NWE

Scenario: Existing  
Node: FENNEL\_WETLAND  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 28.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0

Area: 13.2800 ac  
Curve Number: 83.5  
% Impervious: 20.80  
    % DCIA: 20.80  
    % Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_NWN

Scenario: Existing  
Node: REM\_NE  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 48.6000 min  
Max Allowable Q: 999999.00 cfs  
    Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
    Area: 51.7600 ac  
    Curve Number: 83.7  
    % Impervious: 20.20  
        % DCIA: 20.20  
        % Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_NWW

Scenario: Existing  
Node: REM\_NORTH  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 21.9000 min  
Max Allowable Q: 999999.00 cfs  
    Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
    Area: 60.0600 ac  
    Curve Number: 84.8  
    % Impervious: 19.00  
        % DCIA: 19.00  
        % Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_P

Scenario: Existing  
Node: REM\_POND\_G  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.8000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 20.6200 ac  
Curve Number: 83.0  
% Impervious: 22.10  
% DCIA: 22.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_PONDG

Scenario: Existing  
Node: REM\_POND\_G  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 41.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 17.4900 ac  
Curve Number: 93.5  
% Impervious: 2.90  
% DCIA: 2.90  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_SW

Scenario: Existing

Node: REM\_TRACT\_1  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 31.3000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 25.4400 ac  
Curve Number: 80.3  
% Impervious: 20.00  
% DCIA: 20.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: REMINGTON\_W

Scenario: Existing  
Node: REM\_POND\_P  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 56.7000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 24.0300 ac  
Curve Number: 83.3  
% Impervious: 20.00  
% DCIA: 20.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: SE\_ACADEMY

Scenario: Existing  
Node: SE\_ACADEMY  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 59.7000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256

Peaking Factor: 256.0  
Area: 27.3500 ac  
Curve Number: 84.8  
% Impervious: 10.00  
    % DCIA: 10.00  
    % Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: SHADY\_SW

Scenario: Existing  
Node: SHADY\_192  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 44.2000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 19.0600 ac  
Curve Number: 86.1  
% Impervious: 39.50  
    % DCIA: 39.50  
    % Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: TAI\_KWON\_DO

Scenario: Existing  
Node: TAIKWON  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 1.2900 ac  
Curve Number: 83.0  
% Impervious: 67.40  
    % DCIA: 67.40  
    % Direct: 0.00  
Rainfall Name: Flmod

Comment:

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Simple Basin: TPIKE\_ACCESS

Scenario: Existing  
Node: TPIKE\_ACCESS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 28.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 13.5700 ac  
Curve Number: 88.8  
% Impervious: 41.70  
% DCIA: 41.70  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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Simple Basin: TPIKE\_FENNEL\_NE

Scenario: Existing  
Node: FENNEL\_TPIKE\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 79.4000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 20.6300 ac  
Curve Number: 94.0  
% Impervious: 11.00  
% DCIA: 11.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

Simple Basin: TPIKE\_FENNEL\_S

Scenario: Existing  
Node: FENNEL\_TPIKE\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 68.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 26.2400 ac  
Curve Number: 92.9  
% Impervious: 11.40  
% DCIA: 11.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: TPIKE\_RAMP\_N

Scenario: Existing  
Node: FENNEL\_TPIKE\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 39.9000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 17.4200 ac  
Curve Number: 90.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: TPIKE\_RAMP\_S

Scenario: Existing  
Node: FENNEL\_TPIKE\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 37.3000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr

Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 14.2800 ac  
Curve Number: 90.0  
% Impervious: 9.70  
% DCIA: 9.70  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: TRANS\_FACILITY

Scenario: Existing  
Node: TRANS\_FACILITY  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 26.3000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 33.1600 ac  
Curve Number: 80.0  
% Impervious: 54.80  
% DCIA: 54.80  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: 192-FENNEL\_NE

Scenario: Proposed  
Node: FENNEL\_192\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 49.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 8.4700 ac  
Curve Number: 90.8  
% Impervious: 6.80  
% DCIA: 6.80  
% Direct: 0.00

Rainfall Name: Flmod

Comment:

Simple Basin: 192\_FENNEL\_SE

Scenario: Proposed  
Node: FENNEL\_192\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 16.2000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 3.6900 ac  
Curve Number: 93.3  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: 192\_PARTIN\_SE

Scenario: Proposed  
Node: FENNEL\_PSETL\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 27.7000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 4.9700 ac  
Curve Number: 91.5  
% Impervious: 28.10  
% DCIA: 28.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: 192\_POND4**

Scenario: Proposed  
Node: FDOT\_POND\_4  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.2000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 17.4900 ac  
Curve Number: 92.4  
% Impervious: 25.40  
% DCIA: 25.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: 192\_TPIKE\_NW**

Scenario: Proposed  
Node: FENNEL\_192\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 18.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 8.2000 ac  
Curve Number: 83.1  
% Impervious: 67.90  
% DCIA: 67.90  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: ACADEMY\_APTS**

Scenario: Proposed  
Node: ACADEMY\_APTS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 17.6000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 34.4000 ac  
Curve Number: 82.8  
% Impervious: 50.00  
% DCIA: 50.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: ACADEMY\_NE

Scenario: Proposed  
Node: FENNEL\_SEACAD  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 60.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 21.5000 ac  
Curve Number: 81.8  
% Impervious: 0.60  
% DCIA: 0.60  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: AERONAUTICAL\_E

Scenario: Proposed  
Node: AERONAUTICAL\_E  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 22.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 1.0000 ac  
Curve Number: 87.2  
% Impervious: 0.00  
% DCIA: 0.00

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: AERONAUTICAL\_N

Scenario: Proposed  
Node: AERONAUTICAL\_W  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 21.4000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 3.2000 ac  
Curve Number: 88.6  
% Impervious: 12.10  
% DCIA: 12.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: BORROW\_PIT

Scenario: Proposed  
Node: BORROW\_PIT  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 14.7400 ac  
Curve Number: 97.1  
% Impervious: 0.20  
% DCIA: 0.20  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: COBBLESTONE**

Scenario: Proposed  
Node: COBBLESTONE  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 47.4000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 59.3300 ac  
Curve Number: 83.9  
% Impervious: 51.30  
% DCIA: 51.30  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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**Simple Basin: FDOT\_POND\_4**

Scenario: Proposed  
Node: FDOT\_POND\_4  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 28.8000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 11.7500 ac  
Curve Number: 83.2  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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**Simple Basin: FENNEL\_SE**

Scenario: Proposed  
Node: FENNEL\_192\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 72.8000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 52.3800 ac  
Curve Number: 82.2  
% Impervious: 5.00  
% DCIA: 5.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: FENNEL\_SLOUGH

Scenario: Proposed  
Node: FENNEL\_WETLAND  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 81.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 77.0900 ac  
Curve Number: 96.3  
% Impervious: 0.30  
% DCIA: 0.30  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: FIRE\_STATION

Scenario: Proposed  
Node: FIRE\_STATION  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 2.4100 ac  
Curve Number: 83.4  
% Impervious: 59.60  
% DCIA: 59.60

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: HESS

Scenario: Proposed  
Node: HESS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 3.1800 ac  
Curve Number: 83.3  
% Impervious: 66.70  
% DCIA: 66.70  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: ICE\_PALACE

Scenario: Proposed  
Node: ICE\_RINK  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.8000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 5.4500 ac  
Curve Number: 83.0  
% Impervious: 67.40  
% DCIA: 67.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: JUSTICE\_EAST**

Scenario: Proposed  
Node: JUSTICE\_EAST  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 40.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 24.2400 ac  
Curve Number: 83.7  
% Impervious: 23.30  
% DCIA: 23.30  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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**Simple Basin: JUSTICE\_WEST**

Scenario: Proposed  
Node: JUSTICE\_WEST  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 14.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 5.7300 ac  
Curve Number: 83.4  
% Impervious: 50.00  
% DCIA: 50.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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**Simple Basin: K MART**

Scenario: Proposed  
Node: K MART  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 20.7700 ac  
Curve Number: 83.1  
% Impervious: 67.90  
% DCIA: 67.90  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: PARTIN\_AERO\_N

Scenario: Proposed  
Node: FENNEL\_PSETL\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 20.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 1.2300 ac  
Curve Number: 85.8  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: PARTIN\_AERO\_S

Scenario: Proposed  
Node: FENNEL\_PSETL\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 30.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 4.2600 ac  
Curve Number: 89.7  
% Impervious: 0.00  
% DCIA: 0.00

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: PARTIN\_FENNEL\_N

Scenario: Proposed  
Node: FENNEL\_PSETL\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 22.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 2.9300 ac  
Curve Number: 85.1  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: PARTIN\_FENNEL\_S

Scenario: Proposed  
Node: FENNEL\_PSETL\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 60.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 12.3300 ac  
Curve Number: 85.7  
% Impervious: 20.10  
% DCIA: 20.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: POST-1**

Scenario: Proposed  
Node: POND-A  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 31.2900 ac  
Curve Number: 94.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment: PARTIN VILLAGE

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**Simple Basin: POST-1-SL-APTS**

Scenario: Proposed  
Node: WETPOND-1  
Hydrograph Method: Santa Barbara Urban Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Area: 16.7500 ac  
Curve Number: 91.3  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Sfwmd72

Comment:

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**Simple Basin: POST-2-SL-APTS**

Scenario: Proposed  
Node: WETPOND-2  
Hydrograph Method: Santa Barbara Urban Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Area: 4.4700 ac

Curve Number: 91.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Sfwmd72

Comment:

#### Simple Basin: REMIGTON\_GOLF

Scenario: Proposed  
Node: REM\_POND\_22  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 46.9000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 9.0200 ac  
Curve Number: 89.4  
% Impervious: 1.20  
% DCIA: 1.20  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: REMINGTON\_E

Scenario: Proposed  
Node: REM\_EAST  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 26.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 83.0500 ac  
Curve Number: 86.1  
% Impervious: 20.00  
% DCIA: 20.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: REMINGTON\_NE**

Scenario: Proposed  
Node: REM\_POND\_23A  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 20.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 28.1000 ac  
Curve Number: 89.3  
% Impervious: 5.10  
% DCIA: 5.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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**Simple Basin: REMINGTON\_NWE**

Scenario: Proposed  
Node: FENNEL\_WETLAND  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 28.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 13.2800 ac  
Curve Number: 83.5  
% Impervious: 20.80  
% DCIA: 20.80  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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**Simple Basin: REMINGTON\_NWN**

Scenario: Proposed  
Node: REM\_NE  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 48.6000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 51.7600 ac  
Curve Number: 83.7  
% Impervious: 20.20  
% DCIA: 20.20  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_NWW

Scenario: Proposed  
Node: REM\_NORTH  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 21.9000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 60.0600 ac  
Curve Number: 84.8  
% Impervious: 19.00  
% DCIA: 19.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_P

Scenario: Proposed  
Node: REM\_POND\_G  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.8000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 20.6200 ac  
Curve Number: 83.0  
% Impervious: 22.10  
% DCIA: 22.10

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_PONDG

Scenario: Proposed  
Node: REM\_POND\_G  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 41.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 17.4900 ac  
Curve Number: 93.5  
% Impervious: 2.90  
% DCIA: 2.90  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_SW

Scenario: Proposed  
Node: REM\_TRACT\_1  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 31.3000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 25.4400 ac  
Curve Number: 80.3  
% Impervious: 20.00  
% DCIA: 20.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: REMINGTON\_W**

Scenario: Proposed  
Node: REM\_POND\_P  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 56.7000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 24.0300 ac  
Curve Number: 83.3  
% Impervious: 20.00  
% DCIA: 20.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: SE\_ACADEMY**

Scenario: Proposed  
Node: SE\_ACADEMY  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 59.7000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 27.3500 ac  
Curve Number: 84.8  
% Impervious: 10.00  
% DCIA: 10.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: SHADY\_SW**

Scenario: Proposed  
Node: SHADY\_192  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 44.2000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 19.0600 ac  
Curve Number: 86.1  
% Impervious: 39.50  
% DCIA: 39.50  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: TAI\_KWON\_DO

Scenario: Proposed  
Node: TAIKWON  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 1.2900 ac  
Curve Number: 83.0  
% Impervious: 67.40  
% DCIA: 67.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: TPIKE\_ACCESS

Scenario: Proposed  
Node: TPIKE\_ACCESS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 28.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 13.5700 ac  
Curve Number: 88.8  
% Impervious: 41.70  
% DCIA: 41.70

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

---

Simple Basin: TPIKE\_FENNEL\_NE

Scenario: Proposed  
Node: FENNEL\_TPIKE\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 79.4000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 20.6300 ac  
Curve Number: 94.0  
% Impervious: 11.00  
% DCIA: 11.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

---

Simple Basin: TPIKE\_FENNEL\_S

Scenario: Proposed  
Node: FENNEL\_TPIKE\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 68.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 26.2400 ac  
Curve Number: 92.9  
% Impervious: 11.40  
% DCIA: 11.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

---

**Simple Basin: TPIKE\_RAMP\_N**

Scenario: Proposed  
Node: FENNEL\_TPIKE\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 39.9000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 17.4200 ac  
Curve Number: 90.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: TPIKE\_RAMP\_S**

Scenario: Proposed  
Node: FENNEL\_TPIKE\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 37.3000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 14.2800 ac  
Curve Number: 90.0  
% Impervious: 9.70  
% DCIA: 9.70  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: TRANS\_FACILITY**

Scenario: Proposed  
Node: TRANS\_FACILITY  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 26.3000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
 Unit Hydrograph: Uh256  
 Peaking Factor: 256.0  
 Area: 33.1600 ac  
 Curve Number: 80.0  
 % Impervious: 54.80  
 % DCIA: 54.80  
 % Direct: 0.00  
 Rainfall Name: Flmod

Comment:

---

#### Node: ACADEMY\_APTS

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
55.97	0.5000	21780
59.97	1.1000	47916
65.97	2.5000	108900
67.97	3.8000	165528

Comment:

---

#### Node: AERONAUTICAL\_E

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 56.12 ft  
 Warning Stage: 61.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.12	0.0000	0
58.00	0.2000	8712
59.00	1.0000	43560
59.50	1.5000	65340
60.00	2.0000	87120

Comment:

## Node: AERONAUTICAL\_W

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 56.20 ft  
 Warning Stage: 61.40 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.12	0.0000	0
58.00	0.2000	8712
59.00	1.0000	43560
59.50	1.5000	65340
60.00	2.0000	87120

Comment:

---

## Node: BORROW\_PIT

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 50.97 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
50.97	10.3000	448668
65.97	14.6600	638590
68.07	18.8000	818928

Comment:

---

## Node: COBBLESTONE

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 57.22 ft  
 Warning Stage: 62.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
49.97	2.2700	98881
57.97	4.8000	209088
62.47	6.9000	300564
62.97	20.0000	871200

Comment:

## Node: FDOT\_POND\_4

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 63.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
49.97	0.7600	33106
60.47	1.6700	72745
62.47	1.7700	77101
63.97	2.4800	108029
64.47	9.2800	404237

Comment:

---

## Node: FENNEL\_192PSETS

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 56.10 ft  
 Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.10	0.4800	20909
56.50	0.5000	21780
57.00	0.5200	22651
58.00	0.6000	26136
59.00	0.6600	28750
60.00	0.7200	31363
61.00	0.7820	34064
62.00	0.9080	39552
54.50	0.1000	4356

Comment: Doubled storage  
 FEnnel192psetn same size  
 no elliptical pipe

---

## Node: FENNEL\_192\_DS

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 56.71 ft  
 Warning Stage: 62.50 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.71	0.1100	4792
58.00	0.2000	8712
59.00	0.2500	10890
60.00	0.3800	16553
61.00	0.4700	20473
62.00	0.5000	21780
62.50	0.5500	23958

Comment:

---

#### Node: FENNEL\_192\_US

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 56.98 ft  
 Warning Stage: 63.00 ft

Comment:

---

#### Node: FENNEL\_APTS\_DS

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 59.19 ft  
 Warning Stage: 63.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.47	0.0000	0
59.47	0.0300	1307
60.97	0.1900	8276
62.97	0.7900	34412
63.97	1.0400	45302

Comment:

---

#### Node: FENNEL\_APTS\_US

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 59.19 ft

Warning Stage: 63.47 ft

Comment:

Node: FENNEL\_P4

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 59.19 ft  
Warning Stage: 62.97 ft

Comment:

Node: FENNEL\_PSETFSHN

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 57.17 ft  
Warning Stage: 59.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
58.00	1.8000	78408
59.00	2.1200	92347
60.00	2.4200	105415
61.00	2.7200	118483

Comment:

Node: FENNEL\_PSETFSHS

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 55.97 ft  
Warning Stage: 59.00 ft

Comment:

**Node: FENNEL\_PSETL\_DS**

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 55.00 ft  
Warning Stage: 61.50 ft

Comment:

**Node: FENNEL\_PSFTL\_US**

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 54.50 ft  
Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
50.00	0.1000	4356
64.00	0.1000	4356

Comment:

**Node: FENNEL\_SEACAD**

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 59.19 ft  
Warning Stage: 63.47 ft

Comment:

**Node: FENNEL\_TPIKE\_DS**

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 59.19 ft  
Warning Stage: 63.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
57.97	0.0300	1307

Stage [ft]	Area [ac]	Area [ft2]
59.97	0.9200	40075
62.97	5.4600	237838
64.97	8.1000	352836

Comment:

---

#### Node: FENNEL\_TPIKE\_US

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 59.19 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft2]
57.97	0.0000	0
59.97	0.1500	6534
61.97	1.3000	56628
63.97	5.4000	235224
64.97	5.7000	248292

Comment:

---

#### Node: FENNEL\_WETLAND

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.50 cfs  
 Initial Stage: 61.77 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft2]
59.97	4.2200	183823
63.97	61.5500	2681118
64.97	63.5300	2767367

Comment:

---

#### Node: FIRE\_STATION

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 64.97 ft

Warning Stage: 67.97 ft

Stage [ft]	Area [ac]	Area [ft2]
64.97	0.1900	8276
66.97	0.3200	13939
67.97	1.3500	58806

Comment:

---

#### Node: FISH\_LAKE

Scenario: Existing  
 Type: Time/Stage  
 Base Flow: 0.00 cfs  
 Initial Stage: 53.50 ft  
 Warning Stage: 58.00 ft  
 Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	54.50
0	0	0	24.0000	58.00
0	0	0	72.0000	58.00
0	0	0	100.0000	58.00

Comment:

---

#### Node: HESS

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 66.47 ft

Stage [ft]	Area [ac]	Area [ft2]
59.97	0.0000	0
62.97	0.1400	6098
65.97	0.5000	21780
66.97	0.9000	39204

Comment:

---

#### Node: ICE\_RINK

Scenario: Existing

Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.47 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
52.47	0.2600	11326
62.47	0.4300	18731
64.47	0.5400	23522
65.97	0.7400	32234
67.47	2.0500	89298

Comment:

---

#### Node: JUSTICE\_EAST

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 65.47 ft  
 Warning Stage: 70.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
64.97	0.0000	0
65.47	1.6400	71438
69.47	1.9800	86249
69.97	2.9400	128066

Comment:

---

#### Node: JUSTICE\_WEST

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 65.97 ft  
 Warning Stage: 68.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
62.97	0.4500	19602
67.97	1.1000	47916
68.97	2.5000	108900

Comment:

## Node: KMART

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 61.97 ft  
 Warning Stage: 67.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
61.97	0.0000	0
63.97	1.0500	45738
67.97	1.5900	69260
68.97	3.4700	151153

Comment:

---

## Node: POND-A

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 57.50 ft  
 Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
57.50	4.4900	195584
58.50	4.7000	204732
59.50	4.8900	213008
60.50	5.1000	222156
61.50	5.3100	231304

Comment:

---

## Node: REM\_EAST

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.97 ft  
 Warning Stage: 66.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
40.97	3.8600	168142
64.97	13.6900	596336
66.97	23.5400	1025402

Comment:

## Node: REM\_NE

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 63.97 ft  
 Warning Stage: 68.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
49.97	1.4500	63162
66.97	4.1700	181645
67.27	8.0200	349351

Comment:

---

## Node: REM\_NORTH

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 60.81 ft  
 Warning Stage: 64.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
40.47	3.1300	136343
58.47	5.1500	224334
60.47	5.5700	242629
64.47	6.8700	299257
66.27	12.5800	547985

Comment:

---

## Node: REM\_POND\_22

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 61.97 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
48.97	0.1700	7405
61.97	0.7200	31363
64.97	0.9000	39204
66.97	1.9800	86249

Comment:

## Node: REM\_POND\_23A

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.97 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
45.97	1.1900	51836
61.97	2.6400	114998
64.97	2.9500	128502
66.97	5.5000	239580

Comment:

---

## Node: REM\_POND\_G

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 60.62 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
40.77	8.2600	359806
60.47	11.2800	491357
63.97	12.0000	522720
64.97	13.1100	571072
67.22	17.8000	775368

Comment:

---

## Node: REM\_POND\_P

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 72.97 ft  
 Warning Stage: 75.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
60.97	1.9500	84942
75.97	2.9900	130244
77.97	6.8700	299257

Comment:

## Node: REM\_TRACT\_1

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 72.22 ft  
 Warning Stage: 76.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
60.97	1.4300	62291
70.97	1.8000	78408
75.97	2.4600	107158
77.97	3.7200	162043

Comment:

---

## Node: SE\_ACADEMY

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 62.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.97	1.3600	59242
61.97	2.1100	91912
63.97	3.6100	157252

Comment:

---

## Node: SHADY\_192

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 58.97 ft  
 Warning Stage: 63.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
58.97	0.0500	2178
61.97	0.9500	41382
62.97	1.3000	56628

Comment:

## Node: TAIKWON

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 58.50 ft  
 Warning Stage: 61.00 ft

Stage [ft]	Area [ac]	Area [ft2]
58.00	0.0000	0
59.50	0.1200	5227
61.00	0.1800	7841

Comment:

---

## Node: TPIKE\_ACCESS

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 63.97 ft

Stage [ft]	Area [ac]	Area [ft2]
59.97	0.0500	2178
61.97	0.2500	10890
62.97	1.0000	43560

Comment:

---

## Node: TRANS\_FACILITY

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 72.97 ft  
 Warning Stage: 75.47 ft

Stage [ft]	Area [ac]	Area [ft2]
63.97	3.2600	142006
66.97	3.8300	166835
71.97	4.5200	196891
75.97	5.4000	235224
76.97	18.0500	786258

Comment:

## Node: WETPOND-1

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.50 ft  
 Warning Stage: 66.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
62.50	2.0200	87991
63.00	2.0800	90605
64.00	2.2100	96268
65.00	2.3400	101930
66.00	2.4700	107593

Comment:

---

## Node: WETPOND-2

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.50 ft  
 Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.50	0.5100	22216
60.00	0.5400	23522
61.00	0.6100	26572
62.00	0.7900	34412

Comment:

---

## Node: ACADEMY\_APTS

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
55.97	0.5000	21780
59.97	1.1000	47916
65.97	2.5000	108900
67.97	3.8000	165528

Comment:

**Node: AERONAUTICAL\_E**

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 56.12 ft  
 Warning Stage: 61.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.12	0.0000	0
58.00	0.2000	8712
59.00	1.0000	43560
59.50	1.5000	65340
60.00	2.0000	87120

Comment:

---

**Node: AERONAUTICAL\_W**

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 56.20 ft  
 Warning Stage: 61.40 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.12	0.0000	0
58.00	0.2000	8712
59.00	1.0000	43560
59.50	1.5000	65340
60.00	2.0000	87120

Comment:

---

**Node: BORROW\_PIT**

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 50.97 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
50.97	10.3000	448668
65.97	14.6600	638590
68.07	18.8000	818928

Comment:

## Node: COBBLESTONE

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 57.22 ft  
 Warning Stage: 62.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
49.97	2.2700	98881
57.97	4.8000	209088
62.47	6.9000	300564
62.97	20.0000	871200

Comment:

---

## Node: FDOT\_POND\_4

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 63.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
49.97	0.7600	33106
60.47	1.6700	72745
62.47	1.7700	77101
63.97	2.4800	108029
64.47	9.2800	404237

Comment:

---

## Node: FENNEL\_192PSETS

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 56.10 ft  
 Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.10	0.4800	20909
56.50	0.5000	21780
57.00	0.5200	22651
58.00	0.6000	26136
59.00	0.6600	28750
60.00	0.7200	31363

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
61.00	0.7820	34064
62.00	0.9080	39552
54.50	0.1000	4356

Comment: Doubled storage

Fennel192psetn same size

no elliptical pipe

#### Node: FENNEL\_192\_DS

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 56.71 ft  
 Warning Stage: 62.50 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.71	0.1100	4792
58.00	0.2000	8712
59.00	0.2500	10890
60.00	0.3800	16553
61.00	0.4700	20473
62.00	0.5000	21780
62.50	0.5500	23958

Comment:

#### Node: FENNEL\_192\_US

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 56.98 ft  
 Warning Stage: 63.00 ft

Comment:

#### Node: FENNEL\_APTS\_DS

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 59.19 ft

Warning Stage: 63.47 ft

Stage [ft]	Area [ac]	Area [ft2]
56.47	0.0000	0
59.47	0.0300	1307
60.97	0.1900	8276
62.97	0.7900	34412
63.97	1.0400	45302

Comment:

---

#### Node: FENNEL\_APTS\_US

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 59.19 ft  
 Warning Stage: 63.47 ft

Comment:

---

#### Node: FENNEL\_P4

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 59.19 ft  
 Warning Stage: 62.97 ft

Comment:

---

#### Node: FENNEL\_PSETFSHN

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 57.17 ft  
 Warning Stage: 59.00 ft

Stage [ft]	Area [ac]	Area [ft2]
58.00	1.8000	78408
59.00	2.1200	92347
60.00	2.4200	105415

Stage [ft]	Area [ac]	Area [ft2]
61.00	2.7200	118483

Comment:

#### Node: FENNEL\_PSETFSHS

Scenario: Proposed  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 55.97 ft  
Warning Stage: 59.00 ft

Comment:

#### Node: FENNEL\_PSETL\_DS

Scenario: Proposed  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 55.00 ft  
Warning Stage: 61.50 ft

Comment:

#### Node: FENNEL\_PSETL\_US

Scenario: Proposed  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 54.50 ft  
Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft2]
50.00	0.1000	4356
64.00	0.1000	4356

Comment:

#### Node: FENNEL\_SEACAD

Scenario: Proposed

Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 59.19 ft  
Warning Stage: 63.47 ft

Comment:

Node: FENNEL\_TPIKE\_DS

Scenario: Proposed  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 59.19 ft  
Warning Stage: 63.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
57.97	0.0300	1307
59.97	0.9200	40075
62.97	5.4600	237838
64.97	8.1000	352836

Comment:

Node: FENNEL\_TPIKE\_US

Scenario: Proposed  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 59.19 ft  
Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
57.97	0.0000	0
59.97	0.1500	6534
61.97	1.3000	56628
63.97	5.4000	235224
64.97	5.7000	248292

Comment:

Node: FENNEL\_WETLAND

Scenario: Proposed  
Type: Stage/Area

Base Flow: 0.50 cfs  
 Initial Stage: 61.77 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.97	4.2200	183823
63.97	61.5500	2681118
64.97	63.5300	2767367

Comment:

---

#### Node: FIRE\_STATION

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 64.97 ft  
 Warning Stage: 67.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
64.97	0.1900	8276
66.97	0.3200	13939
67.97	1.3500	58806

Comment:

---

#### Node: FISH\_LAKE

Scenario: Proposed  
 Type: Time/Stage  
 Base Flow: 0.00 cfs  
 Initial Stage: 53.50 ft  
 Warning Stage: 58.00 ft  
 Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	54.50
0	0	0	24.0000	58.00
0	0	0	72.0000	58.00
0	0	0	100.0000	58.00

Comment:

---

#### Node: HESS

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 66.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.97	0.0000	0
62.97	0.1400	6098
65.97	0.5000	21780
66.97	0.9000	39204

Comment:

---

#### Node: ICE\_RINK

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.47 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
52.47	0.2600	11326
62.47	0.4300	18731
64.47	0.5400	23522
65.97	0.7400	32234
67.47	2.0500	89298

Comment:

---

#### Node: JUSTICE\_EAST

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 65.47 ft  
 Warning Stage: 70.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
64.97	0.0000	0
65.47	1.6400	71438
69.47	1.9800	86249
69.97	2.9400	128066

Comment:

## Node: JUSTICE\_WEST

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 65.97 ft  
 Warning Stage: 68.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
62.97	0.4500	19602
67.97	1.1000	47916
68.97	2.5000	108900

Comment:

---

## Node: KMArt

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 61.97 ft  
 Warning Stage: 67.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
61.97	0.0000	0
63.97	1.0500	45738
67.97	1.5900	69260
68.97	3.4700	151153

Comment:

---

## Node: POND-A

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 57.50 ft  
 Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
57.50	4.4900	195584
58.50	4.7000	204732
59.50	4.8900	213008
60.50	5.1000	222156
61.50	5.3100	231304

Comment:

## Node: REM\_EAST

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.97 ft  
 Warning Stage: 66.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
40.97	3.8600	168142
64.97	13.6900	596336
66.97	23.5400	1025402

Comment:

---

## Node: REM\_NE

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 63.97 ft  
 Warning Stage: 68.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
49.97	1.4500	63162
66.97	4.1700	181645
67.27	8.0200	349351

Comment:

---

## Node: REM\_NORTH

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 60.81 ft  
 Warning Stage: 64.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
40.47	3.1300	136343
58.47	5.1500	224334
60.47	5.5700	242629
64.47	6.8700	299257
66.27	12.5800	547985

Comment:

## Node: REM\_POND\_22

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 61.97 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
48.97	0.1700	7405
61.97	0.7200	31363
64.97	0.9000	39204
66.97	1.9800	86249

Comment:

---

## Node: REM\_POND\_23A

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.97 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
45.97	1.1900	51836
61.97	2.6400	114998
64.97	2.9500	128502
66.97	5.5000	239580

Comment:

---

## Node: REM\_POND\_G

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 60.62 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
40.77	8.2600	359806
60.47	11.2800	491357
63.97	12.0000	522720
64.97	13.1100	571072
67.22	17.8000	775368

Comment:

## Node: REM\_POND\_P

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 72.97 ft  
 Warning Stage: 75.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
60.97	1.9500	84942
75.97	2.9900	130244
77.97	6.8700	299257

Comment:

---

## Node: REM\_TRACT\_1

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 72.22 ft  
 Warning Stage: 76.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
60.97	1.4300	62291
70.97	1.8000	78408
75.97	2.4600	107158
77.97	3.7200	162043

Comment:

---

## Node: SE\_ACADEMY

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 62.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.97	1.3600	59242
61.97	2.1100	91912
63.97	3.6100	157252

Comment:

## Node: SHADY\_192

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 58.97 ft  
 Warning Stage: 63.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
58.97	0.0500	2178
61.97	0.9500	41382
62.97	1.3000	56628

Comment:

---

## Node: TAIKWON

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 58.50 ft  
 Warning Stage: 61.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
58.00	0.0000	0
59.50	0.1200	5227
61.00	0.1800	7841

Comment:

---

## Node: TPIKE\_ACCESS

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 63.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.97	0.0500	2178
61.97	0.2500	10890
62.97	1.0000	43560

Comment:

**Node: TRANS\_FACILITY**

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 72.97 ft  
 Warning Stage: 75.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
63.97	3.2600	142006
66.97	3.8300	166835
71.97	4.5200	196891
75.97	5.4000	235224
76.97	18.0500	786258

Comment:

---

**Node: WETPOND-1**

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.50 ft  
 Warning Stage: 66.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
62.50	2.0200	87991
63.00	2.0800	90605
64.00	2.2100	96268
65.00	2.3400	101930
66.00	2.4700	107593

Comment:

---

**Node: WETPOND-2**

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.50 ft  
 Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.50	0.5100	22216
60.00	0.5400	23522
61.00	0.6100	26572
62.00	0.7900	34412

---

Comment:
----------

Channel Link: C_FEN_192PSETS1	Upstream	Downstream
Scenario: Existing	Invert: 54.55 ft	Invert: 54.50 ft
From Node: FENNEL_192PSETS	Manning's N: 0.0600	Manning's N: 0.0600
To Node: FENNEL_PSETL_US	Geometry: Irregular	Geometry: Irregular
Link Count: 1	Cross Section: X-0010C	Cross Section: X-0010C
Flow Direction: Both		
Damping: 0.0000 ft		
Length: 80.00 ft		
Contraction Coef: 0.10		
Expansion Coef: 0.30		
Entr Loss Coef: 0.00		
Exit Loss Coef: 0.00		
Bend Loss Coef: 0.00		
Bend Location: 0.00 dec		
Energy Switch: Energy		

Comment:
----------

Channel Link: C_FEN_PSETFISH1	Upstream	Downstream
Scenario: Existing	Invert: 55.00 ft	Invert: 54.50 ft
From Node: FENNEL_PSETL_DS	Manning's N: 0.0000	Manning's N: 0.0000
To Node: FENNEL_PSETFSH	Geometry: Irregular	Geometry: Irregular
N	Cross Section: X-0020C	Cross Section: X-0020C
Link Count: 1		
Flow Direction: Both		
Damping: 0.0000 ft		
Length: 587.00 ft		
Contraction Coef: 0.10		
Expansion Coef: 0.30		
Entr Loss Coef: 0.00		
Exit Loss Coef: 0.00		
Bend Loss Coef: 0.00		
Bend Location: 0.00 dec		
Energy Switch: Energy		

Comment:
----------

Channel Link: C_FEN_PSETFISH2	Upstream	Downstream
Scenario: Existing	Invert: 54.50 ft	Invert: 54.00 ft
From Node: FENNEL_PSETFSH	Manning's N: 0.0000	Manning's N: 0.0000
N	Geometry: Irregular	Geometry: Irregular
To Node: FENNEL_PSETFSHS	Cross Section: X_FEN_PSETFISH2	Cross Section: X_FEN_PSETFISH2

Link Count: 1  
 Flow Direction: Both  
 Damping: 0.0000 ft  
 Length: 563.00 ft  
 Contraction Coef: 0.10  
 Expansion Coef: 0.30  
 Entr Loss Coef: 0.00  
 Exit Loss Coef: 0.00  
 Bend Loss Coef: 0.00  
 Bend Location: 0.00 dec  
 Energy Switch: Energy

Comment:

---

Channel Link: C_FEN_PSETFISH3	Upstream	Downstream
Scenario: Existing	Invert: 54.00 ft	Invert: 53.50 ft
From Node: FENNEL_PSETFSHS	Manning's N: 0.0000	Manning's N: 0.0000
To Node: FISH_LAKE	Geometry: Irregular	Geometry: Irregular
Link Count: 1	Cross Section: X_FEN_PSETFISH3	Cross Section: X_FEN_PSETFISH3
Flow Direction: Both		
Damping: 0.0000 ft		
Length: 525.00 ft		
Contraction Coef: 0.10		
Expansion Coef: 0.30		
Entr Loss Coef: 0.00		
Exit Loss Coef: 0.00		
Bend Loss Coef: 0.00		
Bend Location: 0.00 dec		
Energy Switch: Energy		

Comment:

---

Channel Link: C_FEN_TP192-1	Upstream	Downstream
Scenario: Existing	Invert: 57.02 ft	Invert: 56.41 ft
From Node: FENNEL_TPIKE_DS	Manning's N: 0.0000	Manning's N: 0.0000
To Node: FENNEL_SEACAD	Geometry: Irregular	Geometry: Irregular
Link Count: 1	Cross Section: X_FEN_TP192-1	Cross Section: X_FEN_TP192-1
Flow Direction: Both		
Damping: 0.0000 ft		
Length: 385.00 ft		
Contraction Coef: 0.10		
Expansion Coef: 0.30		
Entr Loss Coef: 0.00		
Exit Loss Coef: 0.00		
Bend Loss Coef: 0.00		
Bend Location: 0.00 dec		
Energy Switch: Energy		

Comment:
----------

Channel Link: C_FEN_TP192-2		Upstream	Downstream
Scenario:	Existing	Invert: 56.41 ft	Invert: 55.80 ft
From Node:	FENNEL_SEACAD	Manning's N: 0.0000	Manning's N: 0.0000
To Node:	FENNEL_APTS_US	Geometry: Irregular	Geometry: Irregular
Link Count:	1	Cross Section: X_FEN_TP192-2	Cross Section: X_FEN_TP192-2
Flow Direction:	Both		
Damping:	0.0000 ft		
Length:	620.00 ft		
Contraction Coef:	0.10		
Expansion Coef:	0.30		
Entr Loss Coef:	0.00		
Exit Loss Coef:	0.00		
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Comment:
----------

Channel Link: C_FEN_TP192-3		Upstream	Downstream
Scenario:	Existing	Invert: 56.77 ft	Invert: 56.47 ft
From Node:	FENNEL_P4	Manning's N: 0.0000	Manning's N: 0.0000
To Node:	FENNEL_192_US	Geometry: Irregular	Geometry: Irregular
Link Count:	1	Cross Section: X_FEN_TP192-3	Cross Section: X_FEN_TP192-3
Flow Direction:	Both		
Damping:	0.0000 ft		
Length:	705.00 ft		
Contraction Coef:	0.10		
Expansion Coef:	0.30		
Entr Loss Coef:	0.00		
Exit Loss Coef:	0.00		
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Comment:
----------

Drop Structure Link: D-REM_EAST-G		Upstream Pipe	Downstream Pipe
Scenario:	Existing	Invert: 59.97 ft	Invert: 59.47 ft
From Node:	REM_EAST	Manning's N: 0.0130	Manning's N: 0.0130
To Node:	REM_POND_G	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction:	Both	Bottom Clip	

Solution:	Combine	Default:	0.00 ft	Default:	0.00 ft
Increments:	10	Op Table:		Op Table:	
Pipe Count:	1	Ref Node:		Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0130	Manning's N:	0.0130
Length:	560.00 ft	Top Clip			
FHWA Code:	1	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0130	Manning's N:	0.0130
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	62.97 ft	Ref Node:	
Control Elevation:	62.97 ft	Discharge Coefficients	
Max Depth:	1.00 ft	Weir Default:	3.200
Max Width:	2.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	63.97 ft	Ref Node:	
Control Elevation:	63.97 ft	Discharge Coefficients	
Max Depth:	1.92 ft	Weir Default:	3.200
Max Width:	3.08 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: DS-1	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 60.50 ft	Invert: 58.25 ft
From Node: WETPOND-1	Manning's N: 0.0130	Manning's N: 0.0130
To Node: AERONAUTICAL_W	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 365.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		
Pipe Comment:		

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 62.50 ft	Op Table:
Control Elevation: 62.50 ft	Ref Node:
Max Depth: 0.25 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 63.25 ft	Op Table:
Control Elevation: 63.25 ft	Ref Node:
Max Depth: 2.05 ft	Discharge Coefficients
Max Width: 0.50 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	65.30 ft
Control Elevation:	65.30 ft
Max Depth:	2.00 ft
Max Width:	3.08 ft
Fillet:	0.00 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Discharge Coefficients	
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: DS-2	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 59.25 ft	Invert: 59.00 ft
From Node: WETPOND-2	Manning's N: 0.0130	Manning's N: 0.0130
To Node: AERONAUTICAL_W	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 72.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Circular
Invert:	59.50 ft
Control Elevation:	59.50 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:

Max Depth: 0.25 ft

## Discharge Coefficients

Weir Default: 3.200

Weir Table:

Orifice Default: 0.600

Orifice Table:

Weir Comment:

## Weir Component

Weir: 2

## Bottom Clip

Default: 0.00 ft

Weir Count: 1

Op Table:

Weir Flow Direction: Both

Ref Node:

Damping: 0.0000 ft

## Top Clip

Default: 0.00 ft

Weir Type: Sharp Crested Vertical

Op Table:

Geometry Type: Rectangular

Ref Node:

Invert: 60.25 ft

## Discharge Coefficients

Control Elevation: 60.25 ft

Weir Default: 3.200

Max Depth: 1.25 ft

Weir Table:

Max Width: 0.33 ft

Orifice Default: 0.600

Fillet: 0.00 ft

Orifice Table:

Weir Comment:

## Weir Component

Weir: 3

## Bottom Clip

Default: 0.00 ft

Weir Count: 1

Op Table:

Weir Flow Direction: Both

Ref Node:

Damping: 0.0000 ft

## Top Clip

Default: 0.00 ft

Weir Type: Horizontal

Op Table:

Geometry Type: Rectangular

Ref Node:

Invert: 61.50 ft

## Discharge Coefficients

Control Elevation: 61.50 ft

Weir Default: 3.200

Max Depth: 2.00 ft

Weir Table:

Max Width: 3.08 ft

Orifice Default: 0.600

Fillet: 0.00 ft

Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: DS_HS-192FEN_DS	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 59.97 ft	Invert: 59.78 ft
From Node: HESS	Manning's N: 0.0120	Manning's N: 0.0120
To Node: SHADY_192	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft

Flow Direction:	Both	Bottom Clip	
Solution:	Combine	Default:	0.00 ft
Increments:	10	Op Table:	
Pipe Count:	1	Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0120
Length:	461.00 ft	Top Clip	
FHWA Code:	1	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:	
Exit Loss Coef:	0.00	Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0120
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Circular	Op Table:	
Invert:	59.97 ft	Ref Node:	
Control Elevation:	59.97 ft	Discharge Coefficients	
Max Depth:	0.25 ft	Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	66.27 ft	Ref Node:	
Control Elevation:	66.27 ft	Discharge Coefficients	
Max Depth:	1.42 ft	Weir Default:	3.200
Max Width:	2.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	3	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both		

Damping:	0.0000 ft	
Weir Type:	Sharp Crested Vertical	Ref Node:
Geometry Type:	Rectangular	Top Clip
Invert:	63.07 ft	Default: 0.00 ft
Control Elevation:	63.07 ft	Op Table:
Max Depth:	3.17 ft	Ref Node:
Max Width:	0.33 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_ACADAPTS-FENN	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 58.75 ft	Invert: 58.60 ft
From Node: ACADEMY_APTS	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_P4	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both		Bottom Clip
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 66.00 ft		Top Clip
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 62.25 ft	Op Table:
Control Elevation: 62.25 ft	Ref Node:
Max Depth: 1.75 ft	Discharge Coefficients
Max Width: 2.17 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600

## Orifice Table:

Weir Comment:

## Weir Component

Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 59.00 ft	Op Table:
Control Elevation: 59.00 ft	Ref Node:
Max Depth: 0.33 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

## Weir Component

Weir: 3	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 64.00 ft	Op Table:
Control Elevation: 64.00 ft	Ref Node:
Max Depth: 2.08 ft	Discharge Coefficients
Max Width: 3.00 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_COBELSTN-FISH	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 57.22 ft	Invert: 56.97 ft
From Node: COBBLESTONE	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_PSETFSHS	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:

Damping:	0.0000 ft	Manning's N:	0.0130	Manning's N:	0.0130
Length:	30.00 ft	Top Clip			
FHWA Code:	1	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0130	Manning's N:	0.0130
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	58.37 ft	Ref Node:	
Control Elevation:	58.37 ft	Discharge Coefficients	
Max Depth:	3.33 ft	Weir Default:	3.200
Max Width:	2.50 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Circular	Op Table:	
Invert:	57.19 ft	Ref Node:	
Control Elevation:	57.19 ft	Discharge Coefficients	
Max Depth:	0.42 ft	Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	3	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	61.97 ft		

Control Elevation: 61.97 ft  
 Max Depth: 4.33 ft  
 Max Width: 6.00 ft  
 Fillet: 0.00 ft

Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_FS_192FENDS	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 61.97 ft	Invert: 61.47 ft
From Node: FIRE_STATION	Manning's N: 0.0120	Manning's N: 0.0120
To Node: SHADY_192	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 215.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 65.97 ft	Op Table:
Control Elevation: 65.97 ft	Ref Node:
Max Depth: 1.92 ft	Discharge Coefficients
Max Width: 3.08 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Weir Component

Weir:	2	
Weir Count:	1	Bottom Clip
Weir Flow Direction:	Both	Default: 0.00 ft
Damping:	0.0000 ft	Op Table:
Weir Type:	Sharp Crested Vertical	Ref Node:
Geometry Type:	Rectangular	Top Clip
Invert:	64.97 ft	Default: 0.00 ft
Control Elevation:	64.97 ft	Op Table:
Max Depth:	1.00 ft	Ref Node:
Max Width:	2.00 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_ICE-FENNEL	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 59.97 ft	Invert: 59.47 ft
From Node: ICE_RINK	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_PSETL_US	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 745.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	
Weir:	1 Bottom Clip
Weir Count:	1 Default: 0.00 ft
Weir Flow Direction:	Both Op Table:
Damping:	0.0000 ft Ref Node:
Weir Type:	Sharp Crested Vertical Top Clip
Geometry Type:	Rectangular Default: 0.00 ft
Invert:	63.37 ft Op Table:
Control Elevation:	63.37 ft Ref Node:
Max Depth:	1.00 ft Discharge Coefficients

Max Width: 1.42 ft  
Fillet: 0.00 ft

Weir Default: 3.200  
Weir Table:  
Orifice Default: 0.600  
Orifice Table:

Weir Comment:

Weir Component  
Weir: 2  
Weir Count: 1  
Weir Flow Direction: Both  
Damping: 0.0000 ft  
Weir Type: Sharp Crested Vertical  
Geometry Type: Circular  
Invert: 62.47 ft  
Control Elevation: 62.47 ft  
Max Depth: 0.25 ft

Bottom Clip

Default: 0.00 ft

Op Table:

Ref Node:

Top Clip

Default: 0.00 ft

Op Table:

Ref Node:

Discharge Coefficients

Weir Default: 3.200

Weir Table:

Orifice Default: 0.600

Orifice Table:

Weir Comment:

Weir Component  
Weir: 3  
Weir Count: 1  
Weir Flow Direction: Both  
Damping: 0.0000 ft  
Weir Type: Horizontal  
Geometry Type: Rectangular  
Invert: 65.57 ft  
Control Elevation: 65.57 ft  
Max Depth: 1.42 ft  
Max Width: 2.00 ft  
Fillet: 0.00 ft

Bottom Clip

Default: 0.00 ft

Op Table:

Ref Node:

Top Clip

Default: 0.00 ft

Op Table:

Ref Node:

Discharge Coefficients

Weir Default: 3.200

Weir Table:

Orifice Default: 0.600

Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D JUSTICE_E-FEN	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 64.97 ft	Invert: 64.77 ft
From Node: JUSTICE_EAST	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both		Bottom Clip

Solution:	Combine	Default:	0.00 ft	Default:	0.00 ft
Increments:	10	Op Table:		Op Table:	
Pipe Count:	1	Ref Node:		Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0130	Manning's N:	0.0130
Length:	40.00 ft	Top Clip			
FHWA Code:	1	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0130	Manning's N:	0.0130
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	67.47 ft	Ref Node:	
Control Elevation:	67.47 ft	Discharge Coefficients	
Max Depth:	0.33 ft	Weir Default:	3.200
Max Width:	0.58 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Circular	Op Table:	
Invert:	65.47 ft	Ref Node:	
Control Elevation:	65.47 ft	Discharge Coefficients	
Max Depth:	0.25 ft	Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	3	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft		

Weir Type:	Horizontal	
Geometry Type:	Rectangular	Top Clip
Invert:	69.97 ft	Default: 0.00 ft
Control Elevation:	69.97 ft	Op Table:
Max Depth:	1.92 ft	Ref Node:
Max Width:	3.08 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D JUSTICE_W-FEN	Upstream Pipe	Downstream Pipe
Scenario:	Existing	Invert: 64.77 ft
From Node:	JUSTICE_WEST	Manning's N: 0.0130
To Node:	FENNEL_WETLAND	Geometry: Circular
Link Count:	1	Max Depth: 1.50 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0130
Length:	20.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:
Exit Loss Coef:	1.00	Ref Node:
Bend Loss Coef:	0.00	Manning's N: 0.0130
Bend Location:	0.00 dec	
Energy Switch:	Energy	

Pipe Comment:

Weir Component	Bottom Clip
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	66.97 ft
Control Elevation:	66.97 ft
Max Depth:	0.33 ft
Max Width:	1.50 ft
Fillet:	0.00 ft
Top Clip	Default: 0.00 ft
	Op Table:
	Ref Node:
Discharge Coefficients	Default: 0.00 ft
	Op Table:
	Ref Node:
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Weir Component		Bottom Clip
Weir:	2	Default: 0.00 ft
Weir Count:	1	Op Table:
Weir Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Horizontal	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	67.77 ft	Ref Node:
Control Elevation:	67.77 ft	Discharge Coefficients
Max Depth:	1.92 ft	Weir Default: 3.200
Max Width:	2.25 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Weir Component		Bottom Clip
Weir:	3	Default: 0.00 ft
Weir Count:	1	Op Table:
Weir Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Sharp Crested Vertical	Default: 0.00 ft
Geometry Type:	Circular	Op Table:
Invert:	65.97 ft	Ref Node:
Control Elevation:	65.97 ft	Discharge Coefficients
Max Depth:	0.25 ft	Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_KM-192FEN_DS	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 62.47 ft	Invert: 62.12 ft
From Node: KMARTR	Manning's N: 0.0120	Manning's N: 0.0120
To Node: SHADY_192	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.00000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 66.00 ft	Top Clip	

FHWA Code:	30	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0120	Manning's N:	0.0120
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component	
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	64.72 ft
Control Elevation:	64.72 ft
Max Depth:	2.83 ft
Max Width:	2.25 ft
Fillet:	0.00 ft

Bottom Clip	Default:	0.00 ft
Op Table:		
Ref Node:		
Top Clip	Default:	0.00 ft
Op Table:		
Ref Node:		
Discharge Coefficients	Weir Default:	3.200
	Weir Table:	
	Orifice Default:	0.600
	Orifice Table:	

Weir Comment:

Weir Component	
Weir:	2
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Circular
Invert:	62.57 ft
Control Elevation:	62.57 ft
Max Depth:	0.33 ft

Bottom Clip	Default:	0.00 ft
Op Table:		
Ref Node:		
Top Clip	Default:	0.00 ft
Op Table:		
Ref Node:		
Discharge Coefficients	Weir Default:	3.200
	Weir Table:	
	Orifice Default:	0.600
	Orifice Table:	

Weir Comment:

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	66.97 ft
Control Elevation:	66.97 ft
Max Depth:	1.92 ft

Bottom Clip	Default:	0.00 ft
Op Table:		
Ref Node:		
Top Clip	Default:	0.00 ft
Op Table:		
Ref Node:		
Discharge Coefficients		

Max Width: 3.08 ft  
Fillet: 0.00 ft

Weir Default: 3.200  
Weir Table:  
Orifice Default: 0.600  
Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_P4-FEN	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 57.50 ft	Invert: 57.09 ft
From Node: FDOT_POND_4	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_P4	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 2	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 111.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	Bottom Clip	
Weir: 1	Default: 0.00 ft	
Weir Count: 2	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical	Default: 0.00 ft	
Geometry Type: Rectangular	Op Table:	
Invert: 59.53 ft	Ref Node:	
Control Elevation: 59.53 ft	Discharge Coefficients	
Max Depth: 2.00 ft	Weir Default: 3.200	
Max Width: 2.00 ft	Weir Table:	
Fillet: 0.00 ft	Orifice Default: 0.600	
	Orifice Table:	

Weir Comment:

Weir Component	Bottom Clip
Weir: 2	Default: 0.00 ft
Weir Count: 1	

Weir Flow Direction:	Both	
Damping:	0.0000 ft	Op Table:
Weir Type:	Sharp Crested Vertical	Ref Node:
Geometry Type:	Circular	Top Clip
Invert:	59.00 ft	Default: 0.00 ft
Control Elevation:	59.00 ft	Op Table:
Max Depth:	0.33 ft	Ref Node:
		Discharge Coefficients
		Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	61.50 ft
Control Elevation:	61.50 ft
Max Depth:	3.17 ft
Max Width:	3.00 ft
Fillet:	0.00 ft
	Bottom Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Top Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_NE-REM_N	Upstream Pipe	Downstream Pipe
Scenario:	Existing	Invert: 62.47 ft
From Node:	REM_NE	Manning's N: 0.0130
To Node:	REM_NORTH	Geometry: Circular
Link Count:	1	Max Depth: 2.00 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0130
Length:	965.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:
Exit Loss Coef:	0.00	Ref Node:
Bend Loss Coef:	0.00	Manning's N: 0.0130

Bend Location: 0.00 dec

Energy Switch: Energy

Pipe Comment:

**Weir Component**

Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 63.97 ft	Op Table:
Control Elevation: 63.97 ft	Ref Node:
Max Depth: 1.00 ft	Discharge Coefficients
Max Width: 2.00 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

**Weir Component**

Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 64.97 ft	Op Table:
Control Elevation: 64.97 ft	Ref Node:
Max Depth: 1.92 ft	Discharge Coefficients
Max Width: 3.08 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_P-G	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 60.97 ft	Invert: 60.47 ft
From Node: REM_POND_P	Manning's N: 0.0130	Manning's N: 0.0130
To Node: REM_POND_G	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:

Damping:	0.0000 ft	Manning's N:	0.0130	Manning's N:	0.0130
Length:	1565.00 ft			Top Clip	
FHWA Code:	1	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0130	Manning's N:	0.0130
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	72.97 ft	Ref Node:	
Control Elevation:	72.97 ft	Discharge Coefficients	
Max Depth:	1.00 ft	Weir Default:	3.200
Max Width:	2.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	73.97 ft	Ref Node:	
Control Elevation:	73.97 ft	Discharge Coefficients	
Max Depth:	1.92 ft	Weir Default:	3.200
Max Width:	3.08 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_P22-FEN	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 60.70 ft	Invert: 59.97 ft
From Node: REM_POND_22	Manning's N: 0.0120	Manning's N: 0.0120

To Node:	FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip
Solution:	Combine	Default:	0.00 ft
Increments:	10	Op Table:	
Pipe Count:	1	Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0120
Length:	843.00 ft		Top Clip
FHWA Code:	1	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:	
Exit Loss Coef:	1.00	Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0120
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component		
Weir:	1	
Weir Count:	1	
Weir Flow Direction:	Both	
Damping:	0.0000 ft	
Weir Type:	Sharp Crested Vertical	
Geometry Type:	Rectangular	
Invert:	61.97 ft	
Control Elevation:	61.97 ft	
Max Depth:	1.00 ft	
Max Width:	2.00 ft	
Fillet:	0.00 ft	
	Bottom Clip	
	Default:	0.00 ft
	Op Table:	
	Ref Node:	
	Top Clip	
	Default:	0.00 ft
	Op Table:	
	Ref Node:	
	Discharge Coefficients	
	Weir Default:	3.200
	Weir Table:	
	Orifice Default:	0.600
	Orifice Table:	

Weir Comment:

Weir Component		
Weir:	2	
Weir Count:	1	
Weir Flow Direction:	Both	
Damping:	0.0000 ft	
Weir Type:	Horizontal	
Geometry Type:	Rectangular	
Invert:	62.97 ft	
Control Elevation:	62.97 ft	
Max Depth:	1.92 ft	
Max Width:	3.08 ft	
Fillet:	0.00 ft	
	Bottom Clip	
	Default:	0.00 ft
	Op Table:	
	Ref Node:	
	Top Clip	
	Default:	0.00 ft
	Op Table:	
	Ref Node:	
	Discharge Coefficients	
	Weir Default:	3.200
	Weir Table:	
	Orifice Default:	0.600
	Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_P23-FEN	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 57.97 ft	Invert: 56.97 ft
From Node: REM_POND_23A	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 682.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		
Pipe Comment:		

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 63.77 ft	Op Table:
Control Elevation: 63.77 ft	Ref Node:
Max Depth: 2.08 ft	Discharge Coefficients
Max Width: 4.00 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 62.97 ft	Op Table:
Control Elevation: 62.97 ft	Ref Node:
Max Depth: 0.80 ft	Discharge Coefficients
Max Width: 2.42 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	65.87 ft
Control Elevation:	65.87 ft
Max Depth:	3.17 ft
Max Width:	3.00 ft
Fillet:	0.00 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Discharge Coefficients	
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_TRACT-G	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 68.72 ft	Invert: 67.97 ft
From Node: REM_TRACT_1	Manning's N: 0.0130	Manning's N: 0.0130
To Node: REM_POND_G	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 2278.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		
Pipe Comment:		

Weir Component	
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	73.42 ft
Control Elevation:	73.42 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:

Max Depth: 2.58 ft  
 Max Width: 3.00 ft  
 Fillet: 0.00 ft

Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Weir Component  
 Weir: 2  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Sharp Crested Vertical  
 Geometry Type: Circular  
 Invert: 72.22 ft  
 Control Elevation: 72.22 ft  
 Max Depth: 0.25 ft

Bottom Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Top Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Weir Component  
 Weir: 3  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Horizontal  
 Geometry Type: Rectangular  
 Invert: 75.97 ft  
 Control Elevation: 75.97 ft  
 Max Depth: 2.08 ft  
 Max Width: 3.00 ft  
 Fillet: 0.00 ft

Bottom Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Top Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_SEACAD-FENN	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 56.97 ft	Invert: 56.47 ft
From Node: SE_ACADEMY	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_SEACAD	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft

Flow Direction:	Both	Bottom Clip	
Solution:	Combine	Default:	0.00 ft
Increments:	10	Op Table:	Op Table:
Pipe Count:	1	Ref Node:	Ref Node:
Damping:	0.0000 ft	Manning's N:	0.0130
Length:	70.00 ft	Top Clip	
FHWA Code:	1	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:	Op Table:
Exit Loss Coef:	1.00	Ref Node:	Ref Node:
Bend Loss Coef:	0.00	Manning's N:	0.0130
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component	Bottom Clip		
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	59.97 ft	Ref Node:	
Control Elevation:	59.97 ft	Discharge Coefficients	
Max Depth:	1.00 ft	Weir Default:	3.200
Max Width:	2.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component	Bottom Clip		
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	60.97 ft	Ref Node:	
Control Elevation:	60.97 ft	Discharge Coefficients	
Max Depth:	1.92 ft	Weir Default:	3.200
Max Width:	3.08 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_TAIKWN-AERO_W	Upstream Pipe		Downstream Pipe	
	Invert:	58.50 ft	Invert:	58.40 ft
Scenario: Existing	Manning's N:	0.0130	Manning's N:	0.0130
From Node: TAIKWON	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
To Node: AERONAUTICAL_W	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Link Count: 1	Bottom Clip			
Flow Direction: Both	Default:	0.00 ft	Default:	0.00 ft
Solution: Combine	Op Table:		Op Table:	
Increments: 10	Ref Node:		Ref Node:	
Pipe Count: 1	Manning's N:	0.0130	Manning's N:	0.0130
Damping: 0.0000 ft	Top Clip			
Length: 34.00 ft	Default:	0.00 ft	Default:	0.00 ft
FHWA Code: 30	Op Table:		Op Table:	
Entr Loss Coef: 0.00	Ref Node:		Ref Node:	
Exit Loss Coef: 0.00	Manning's N:	0.0130	Manning's N:	0.0130
Bend Loss Coef: 0.00				
Bend Location: 0.00 dec				
Energy Switch: Energy				

Pipe Comment:

Weir Component	Bottom Clip	
Weir: 1	Default:	0.00 ft
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical	Default:	0.00 ft
Geometry Type: Rectangular	Op Table:	
Invert: 60.13 ft	Ref Node:	
Control Elevation: 60.13 ft	Discharge Coefficients	
Max Depth: 1.17 ft	Weir Default:	3.200
Max Width: 3.33 ft	Weir Table:	
Fillet: 0.00 ft	Orifice Default:	0.600
	Orifice Table:	

Weir Comment:

Weir Component	Bottom Clip	
Weir: 2	Default:	0.00 ft
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical	Default:	0.00 ft
Geometry Type: Circular	Op Table:	
Invert: 58.50 ft	Ref Node:	
Control Elevation: 58.50 ft	Discharge Coefficients	
Max Depth: 0.25 ft	Weir Default:	3.200
	Weir Table:	
	Orifice Default:	0.600
	Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip
Weir:	3	Default: 0.00 ft
Weir Count:	1	Op Table:
Weir Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Horizontal	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	61.50 ft	Ref Node:
Control Elevation:	61.50 ft	Discharge Coefficients
Max Depth:	1.42 ft	Weir Default: 3.200
Max Width:	2.00 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_TRANS-FENNEL	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 65.97 ft	Invert: 64.97 ft
From Node: TRANS_FACILITY	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 50.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component		Bottom Clip
Weir:	1	Default: 0.00 ft
Weir Count:	1	Op Table:
Weir Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Sharp Crested Vertical	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	72.97 ft	

Control Elevation: 72.97 ft  
 Max Depth: 1.00 ft  
 Max Width: 2.00 ft  
 Fillet: 0.00 ft

Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Weir Component  
 Weir: 2  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Horizontal  
 Geometry Type: Rectangular  
 Invert: 73.97 ft  
 Control Elevation: 73.97 ft  
 Max Depth: 1.92 ft  
 Max Width: 3.08 ft  
 Fillet: 0.00 ft

Bottom Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Top Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Drop Structure Comment:

Pipe Link: P\_FEN-TPIKE-R10

	Upstream	Downstream
Scenario: Existing	Invert: 58.09 ft	Invert: 57.99 ft
From Node: FENNEL_TPIKE_US	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_TPIKE_DS	Geometry: Rectangular	Geometry: Rectangular
Link Count: 2	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 9.00 ft	Max Width: 9.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 140.00 ft	Bottom Clip	
FHWA Code: 9	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Energy	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0120	Manning's N: 0.0120

Comment:

Pipe Link: P_FEN_APTS-P4	Upstream	Downstream
Scenario: Existing	Invert: 56.89 ft	Invert: 56.77 ft
From Node: FENNEL_APTS_DS	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_P4	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 226.00 ft	Op Table:	Op Table:
FHWA Code: 30	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0120	Manning's N: 0.0120
Exit Loss Coef: 0.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Energy	Ref Node:	Ref Node:
	Manning's N: 0.0120	Manning's N: 0.0120

Comment:

---

Pipe Link: P_FEN_APT_US-DS	Upstream	Downstream
Scenario: Existing	Invert: 56.82 ft	Invert: 56.49 ft
From Node: FENNEL_APTS_US	Manning's N: 0.0240	Manning's N: 0.0240
To Node: FENNEL_APTS_DS	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 3	Max Depth: 3.67 ft	Max Depth: 3.67 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 50.00 ft	Op Table:	Op Table:
FHWA Code: 30	Ref Node:	Ref Node:
Entr Loss Coef: 0.70	Manning's N: 0.0240	Manning's N: 0.0240
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Energy	Ref Node:	Ref Node:
	Manning's N: 0.0240	Manning's N: 0.0240

Comment:

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Pipe Link: P_SHADY192_FEN	Upstream	Downstream
Scenario: Existing	Invert: 58.97 ft	Invert: 57.97 ft
From Node: SHADY_192	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_192_DS	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 240.00 ft	Op Table:	Op Table:
FHWA Code: 30	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0120	Manning's N: 0.0120
Exit Loss Coef: 0.00	Top Clip	

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0120	Manning's N:	0.0120

Comment:
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Pipe Link: P_TPAX_SHADY		Upstream	Downstream
Scenario:	Existing	Invert:	59.97 ft
From Node:	TPIKE_ACCESS	Manning's N:	0.0120
To Node:	SHADY_192	Geometry:	Horizontal Ellipse
Link Count:	3	Max Depth:	1.75 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Length:	200.00 ft	Op Table:	
FHWA Code:	30	Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0120
Exit Loss Coef:	0.00	Top Clip	
Bend Loss Coef:	0.00	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:	
Energy Switch:	Energy	Ref Node:	
		Manning's N:	0.0120

Comment:
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Weir Link: Pond Notch		Bottom Clip	
Scenario:	Existing	Default:	0.00 ft
From Node:	POND-A	Op Table:	
To Node:	FENNEL_PSETL_US	Ref Node:	
Link Count:	1	Top Clip	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Sharp Crested Vertical	Ref Node:	
Geometry Type:	Trapezoidal	Discharge Coefficients	
Invert:	56.75 ft	Weir Default:	3.200
Control Elevation:	56.75 ft	Weir Table:	
Max Depth:	1.60 ft	Orifice Default:	0.600
Extrapolation Method:	Normal Projection	Orifice Table:	
Bottom Width:	0.30 ft		
Left Slope:	1.600 (h:v)		
Right Slope:	1.600 (h:v)		

Comment:
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Pipe Link: R1	Upstream	Downstream
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Scenario:	Existing	Invert:	55.17 ft	Invert:	55.14 ft
From Node:	FENNEL_PSETL_US	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	FENNEL_PSETL_DS	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	2	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	11.00 ft	Max Width:	11.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	38.00 ft			Bottom Clip	
FHWA Code:	14	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0120	Manning's N:	0.0120
Bend Location:	0.00 dec			Top Clip	
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0120	Manning's N:	0.0120

Comment:

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Pipe Link: R10		Upstream	Downstream
Scenario:	Existing	Invert:	57.43 ft
From Node:	AERONAUTICAL_E	Manning's N:	0.0120
To Node:	FENNEL_192PSETS	Geometry:	Circular
Link Count:	2	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip
Damping:	0.0000 ft	Default:	0.00 ft
Length:	54.00 ft	Op Table:	
FHWA Code:	1	Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0120
Exit Loss Coef:	1.00		Top Clip
Bend Loss Coef:	0.00	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:	
Energy Switch:	Energy	Ref Node:	
		Manning's N:	0.0120
			Manning's N:

Comment: 3-29x45

54 lf

56.12-56.08

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Pipe Link: R3		Upstream	Downstream
Scenario:	Existing	Invert:	56.33 ft
From Node:	FENNEL_192_DS	Manning's N:	0.0110
To Node:	FENNEL_192PSETS	Geometry:	Rectangular
Link Count:	2	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft
Length:	63.00 ft		Bottom Clip

FHWA Code:	9	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0110	Manning's N:	0.0110
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0110	Manning's N:	0.0110

Comment:

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Pipe Link: R4		Upstream	Downstream
Scenario:	Existing	Invert:	56.98 ft
From Node:	FENNEL_192_US	Manning's N:	0.0110
To Node:	FENNEL_192_DS	Geometry:	Rectangular
Link Count:	2	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft
Length:	134.00 ft	Bottom Clip	
FHWA Code:	9	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:	
Exit Loss Coef:	0.00	Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0110
Bend Location:	0.00 dec	Top Clip	
Energy Switch:	Energy	Default:	0.00 ft
		Op Table:	
		Ref Node:	
		Manning's N:	0.0110
Comment:			

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Pipe Link: R9		Upstream	Downstream
Scenario:	Existing	Invert:	57.56 ft
From Node:	AERONAUTICAL_W	Manning's N:	0.0170
To Node:	AERONAUTICAL_E	Geometry:	Circular
Link Count:	2	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Length:	56.00 ft	Op Table:	
FHWA Code:	1	Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0170
Exit Loss Coef:	0.00	Top Clip	
Bend Loss Coef:	0.00	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:	
Energy Switch:	Energy	Ref Node:	
		Manning's N:	0.0170

Comment: 2-38\*24

56.2

56.12

#### Weir Link: W\_BORROW-FENNEL

Scenario:	Existing	Bottom Clip
From Node:	BORROW_PIT	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	65.97 ft	Discharge Coefficients
Control Elevation:	65.97 ft	Weir Default: 3.200
Max Depth:	833333.25 ft	Weir Table:
Max Width:	670.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

#### Weir Link: W\_COBL\_FISH

Scenario:	Existing	Bottom Clip
From Node:	COBBLESTONE	Default: 0.00 ft
To Node:	FISH_LAKE	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	62.47 ft	Discharge Coefficients
Control Elevation:	62.47 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	100.00 ft	Orifice Table:
Left Slope:	10.000 (h:v)	
Right Slope:	10.000 (h:v)	

Comment:

#### Weir Link: W\_FENO4-TPIKE

Scenario:	Existing	Bottom Clip
From Node:	FENNEL_WETLAND	Default: 0.00 ft
To Node:	FENNEL_TPIKE_US	Op Table:

Link Count:	1	
Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Sharp Crested Vertical	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	64.96 ft	Ref Node:
Control Elevation:	64.96 ft	Discharge Coefficients
Max Depth:	8333.25 ft	Weir Default: 3.200
Max Width:	62.67 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Comment:

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#### Weir Link: W\_FENNEL\_192

Scenario:	Existing	Bottom Clip
From Node:	FENNEL_192_US	Default: 0.00 ft
To Node:	FENNEL_192_DS	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	63.47 ft	Discharge Coefficients
Control Elevation:	63.47 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	100.00 ft	Orifice Table:
Left Slope:	100.000 (h:v)	
Right Slope:	100.000 (h:v)	

Comment:

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#### Weir Link: W\_FEN\_TPIKE

Scenario:	Existing	Bottom Clip
From Node:	FENNEL_TPIKE_US	Default: 0.00 ft
To Node:	FENNEL_TPIKE_DS	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	68.44 ft	Discharge Coefficients
Control Elevation:	68.44 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	100.00 ft	Orifice Table:

Left Slope: 100.000 (h:v)  
 Right Slope: 100.000 (h:v)

Comment:

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#### Weir Link: W\_Rem\_G01-FEN

Scenario:	Existing	Bottom Clip
From Node:	REM_POND_G	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	60.47 ft	Discharge Coefficients
Control Elevation:	60.47 ft	Weir Default: 3.200
Max Depth:	0.92 ft	Weir Table:
Max Width:	10.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

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#### Weir Link: W\_Rem\_G02-FEN

Scenario:	Existing	Bottom Clip
From Node:	REM_POND_G	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	61.37 ft	Discharge Coefficients
Control Elevation:	61.37 ft	Weir Default: 3.200
Max Depth:	3.58 ft	Weir Table:
Max Width:	20.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

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#### Weir Link: W\_Rem\_G03-FEN

Scenario:	Existing	Bottom Clip
From Node:	REM_POND_G	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip

Damping:	0.0000 ft	
Weir Type:	Paved Road Vertical	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	64.97 ft	Ref Node:
Control Elevation:	64.97 ft	Discharge Coefficients
Max Depth:	833.25 ft	Weir Default: 3.200
Max Width:	44.00 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Comment:

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#### Weir Link: W\_Rem\_N01-FEN

Scenario:	Existing	Bottom Clip
From Node:	REM_NORTH	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	60.81 ft	Discharge Coefficients
Control Elevation:	60.81 ft	Weir Default: 3.200
Max Depth:	1.17 ft	Weir Table:
Max Width:	10.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

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#### Weir Link: W\_Rem\_N02-FEN

Scenario:	Existing	Bottom Clip
From Node:	REM_NORTH	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	62.01 ft	Discharge Coefficients
Control Elevation:	62.01 ft	Weir Default: 3.200
Max Depth:	2.25 ft	Weir Table:
Max Width:	20.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

**Weir Link: W\_Rem\_N03-FEN**

Scenario:	Existing	Bottom Clip
From Node:	REM_NORTH	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	64.23 ft	Discharge Coefficients
Control Elevation:	64.23 ft	Weir Default: 3.200
Max Depth:	833.25 ft	Weir Table:
Max Width:	42.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

**Weir Link: W\_SHADY\_FEN**

Scenario:	Existing	Bottom Clip
From Node:	SHADY_192	Default: 0.00 ft
To Node:	FENNEL_192_DS	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	63.47 ft	Discharge Coefficients
Control Elevation:	63.47 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	10.00 ft	Orifice Table:
Left Slope:	20.000 (h:v)	
Right Slope:	10.000 (h:v)	

Comment:

**Weir Link: W\_TPACCESS\_FEN**

Scenario:	Existing	Bottom Clip
From Node:	TPIKE_ACCESS	Default: 0.00 ft
To Node:	FENNEL_192_US	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	63.47 ft	Discharge Coefficients
Control Elevation:	63.47 ft	Weir Default: 2.800

Max Depth:	9999.00 ft	
Extrapolation Method:	Normal Projection	Weir Table:
Bottom Width:	20.00 ft	Orifice Default: 0.600
Left Slope:	10.000 (h:v)	Orifice Table:
Right Slope:	10.000 (h:v)	

Comment:

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#### Weir Link: pond-weir

Scenario:	Existing	Bottom Clip
From Node:	POND-A	Default: 0.00 ft
To Node:	FENNEL_PSETL_US	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	59.35 ft	Discharge Coefficients
Control Elevation:	59.36 ft	Weir Default: 3.200
Max Depth:	1.30 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	10.00 ft	Orifice Table:
Left Slope:	5.000 (h:v)	
Right Slope:	5.000 (h:v)	

Comment:

---

#### Weir Link: pond-weir top

Scenario:	Existing	Bottom Clip
From Node:	POND-A	Default: 0.00 ft
To Node:	FENNEL_PSETL_US	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	60.65 ft	Discharge Coefficients
Control Elevation:	60.65 ft	Weir Default: 3.200
Max Depth:	999.00 ft	Weir Table:
Max Width:	34.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

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#### Weir Link: w\_AERO\_US\_DS-R7

Scenario:	Existing	
From Node:	AERONAUTICAL_W	Bottom Clip
To Node:	AERONAUTICAL_E	Default: 0.00 ft
Link Count:	1	Op Table:
Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Paved Road Vertical	Default: 0.00 ft
Geometry Type:	Trapezoidal	Op Table:
Invert:	59.75 ft	Ref Node:
Control Elevation:	59.75 ft	Discharge Coefficients
Max Depth:	9999.00 ft	Weir Default: 3.200
Extrapolation Method:	Normal Projection	Weir Table:
Bottom Width:	400.00 ft	Orifice Default: 0.600
Left Slope:	100.000 (h:v)	Orifice Table:
Right Slope:	100.000 (h:v)	
Comment: change from 60.5 to 59.75		

Channel Link: C_FEN_192PSETS1	Upstream	Downstream
Scenario:	Proposed	Invert: 54.55 ft
From Node:	FENNEL_192PSETS	Manning's N: 0.0600
To Node:	FENNEL_PSETL_US	Geometry: Irregular
Link Count:	1	Cross Section: X-0010C
Flow Direction:	Both	Cross Section: X-0010C
Damping:	0.0000 ft	
Length:	80.00 ft	
Contraction Coef:	0.10	
Expansion Coef:	0.30	
Entr Loss Coef:	0.00	
Exit Loss Coef:	0.00	
Bend Loss Coef:	0.00	
Bend Location:	0.00 dec	
Energy Switch:	Energy	
Comment:		

Channel Link: C_FEN_PSETFISH1	Upstream	Downstream
Scenario:	Proposed	Invert: 55.00 ft
From Node:	FENNEL_PSETL_DS	Manning's N: 0.0000
To Node:	FENNEL_PSETFSH	Geometry: Irregular
N	Cross Section: X-0020C	Cross Section: X-0020C
Link Count:	1	
Flow Direction:	Both	
Damping:	0.0000 ft	
Length:	531.00 ft	
Contraction Coef:	0.10	
Expansion Coef:	0.30	

Entr Loss Coef: 0.00  
 Exit Loss Coef: 0.00  
 Bend Loss Coef: 0.00  
 Bend Location: 0.00 dec  
 Energy Switch: Energy

Comment:

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Channel Link: C_FEN_PSETFISH2		Upstream	Downstream
Scenario:	Proposed	Invert: 54.50 ft	Invert: 54.00 ft
From Node:	FENNEL_PSETFSH	Manning's N: 0.0000	Manning's N: 0.0000
N		Geometry: Irregular	Geometry: Irregular
To Node:	FENNEL_PSETFSHS	Cross Section: X_FEN_PSETFISH2	Cross Section: X_FEN_PSETFISH2
Link Count:	1		
Flow Direction:	Both		
Damping:	0.0000 ft		
Length:	563.00 ft		
Contraction Coef:	0.10		
Expansion Coef:	0.30		
Entr Loss Coef:	0.00		
Exit Loss Coef:	0.00		
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Comment:

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Channel Link: C_FEN_PSETFISH3		Upstream	Downstream
Scenario:	Proposed	Invert: 54.00 ft	Invert: 53.50 ft
From Node:	FENNEL_PSETFSHS	Manning's N: 0.0000	Manning's N: 0.0000
To Node:	FISH_LAKE	Geometry: Irregular	Geometry: Irregular
Link Count:	1	Cross Section: X_FEN_PSETFISH3	Cross Section: X_FEN_PSETFISH3
Flow Direction:	Both		
Damping:	0.0000 ft		
Length:	525.00 ft		
Contraction Coef:	0.10		
Expansion Coef:	0.30		
Entr Loss Coef:	0.00		
Exit Loss Coef:	0.00		
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Comment:

Channel Link: C_FEN_TP192-1		Upstream	Downstream
Scenario:	Proposed	Invert: 57.02 ft	Invert: 56.41 ft
From Node:	FENNEL_TPIKE_DS	Manning's N: 0.0000	Manning's N: 0.0000
To Node:	FENNEL_SEACAD	Geometry: Irregular	Geometry: Irregular
Link Count:	1	Cross Section: X_FEN_TP192-1	Cross Section: X_FEN_TP192-1
Flow Direction:	Both		
Damping:	0.0000 ft		
Length:	385.00 ft		
Contraction Coef:	0.10		
Expansion Coef:	0.30		
Entr Loss Coef:	0.00		
Exit Loss Coef:	0.00		
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		
Comment:			

Channel Link: C_FEN_TP192-2		Upstream	Downstream
Scenario:	Proposed	Invert: 56.41 ft	Invert: 55.80 ft
From Node:	FENNEL_SEACAD	Manning's N: 0.0000	Manning's N: 0.0000
To Node:	FENNEL_APts_US	Geometry: Irregular	Geometry: Irregular
Link Count:	1	Cross Section: X_FEN_TP192-2	Cross Section: X_FEN_TP192-2
Flow Direction:	Both		
Damping:	0.0000 ft		
Length:	620.00 ft		
Contraction Coef:	0.10		
Expansion Coef:	0.30		
Entr Loss Coef:	0.00		
Exit Loss Coef:	0.00		
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		
Comment:			

Channel Link: C_FEN_TP192-3		Upstream	Downstream
Scenario:	Proposed	Invert: 56.77 ft	Invert: 56.47 ft
From Node:	FENNEL_P4	Manning's N: 0.0000	Manning's N: 0.0000
To Node:	FENNEL_192_US	Geometry: Irregular	Geometry: Irregular
Link Count:	1	Cross Section: X_FEN_TP192-3	Cross Section: X_FEN_TP192-3
Flow Direction:	Both		
Damping:	0.0000 ft		
Length:	705.00 ft		
Contraction Coef:	0.10		
Expansion Coef:	0.30		
Entr Loss Coef:	0.00		

Exit Loss Coef: 0.00  
 Bend Loss Coef: 0.00  
 Bend Location: 0.00 dec  
 Energy Switch: Energy

Comment:

---

Drop Structure Link: D-REM_EAST-G	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 59.97 ft	Invert: 59.47 ft
From Node: REM_EAST	Manning's N: 0.0130	Manning's N: 0.0130
To Node: REM_POND_G	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 560.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

---

Weir Component	Bottom Clip	
Weir: 1	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical	Default: 0.00 ft	
Geometry Type: Rectangular	Op Table:	
Invert: 62.97 ft	Ref Node:	
Control Elevation: 62.97 ft	Discharge Coefficients	
Max Depth: 1.00 ft	Weir Default: 3.200	
Max Width: 2.00 ft	Weir Table:	
Fillet: 0.00 ft	Orifice Default: 0.600	
	Orifice Table:	

Weir Comment:

---

Weir Component	Bottom Clip	
Weir: 2	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Horizontal		

Geometry Type:	Rectangular	
Invert:	63.97 ft	Default: 0.00 ft
Control Elevation:	63.97 ft	Op Table:
Max Depth:	1.92 ft	Ref Node:
Max Width:	3.08 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: DS-1	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 60.50 ft	Invert: 58.25 ft
From Node: WETPOND-1	Manning's N: 0.0130	Manning's N: 0.0130
To Node: AERONAUTICAL_W	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both		Bottom Clip
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 365.00 ft		Top Clip
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 62.50 ft	Op Table:
Control Elevation: 62.50 ft	Ref Node:
Max Depth: 0.25 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Weir Component	
Weir:	2
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	63.25 ft
Control Elevation:	63.25 ft
Max Depth:	2.05 ft
Max Width:	0.50 ft
Fillet:	0.00 ft
Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	65.30 ft
Control Elevation:	65.30 ft
Max Depth:	2.00 ft
Max Width:	3.08 ft
Fillet:	0.00 ft
Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: DS-2	Upstream Pipe	Downstream Pipe
Scenario:	Proposed	Invert: 59.25 ft
From Node:	WETPOND-2	Manning's N: 0.0130
To Node:	AERONAUTICAL_W	Geometry: Circular
Link Count:	1	Max Depth: 2.00 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0130
Length:	72.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft

Entr Loss Coef: 0.50  
 Exit Loss Coef: 1.00  
 Bend Loss Coef: 0.00  
 Bend Location: 0.00 dec  
 Energy Switch: Energy

Op Table:  
 Ref Node:  
 Manning's N: 0.0130

Op Table:  
 Ref Node:  
 Manning's N: 0.0130

Pipe Comment:

Weir Component  
 Weir: 1  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Sharp Crested Vertical  
 Geometry Type: Circular  
 Invert: 59.50 ft  
 Control Elevation: 59.50 ft  
 Max Depth: 0.25 ft

Bottom Clip

Default: 0.00 ft

Op Table:

Ref Node:

Top Clip

Default: 0.00 ft

Op Table:

Ref Node:

Discharge Coefficients

Weir Default: 3.200

Weir Table:

Orifice Default: 0.600

Orifice Table:

Weir Comment:

Weir Component  
 Weir: 2  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Sharp Crested Vertical  
 Geometry Type: Rectangular  
 Invert: 60.25 ft  
 Control Elevation: 60.25 ft  
 Max Depth: 1.25 ft  
 Max Width: 0.33 ft  
 Fillet: 0.00 ft

Bottom Clip

Default: 0.00 ft

Op Table:

Ref Node:

Top Clip

Default: 0.00 ft

Op Table:

Ref Node:

Discharge Coefficients

Weir Default: 3.200

Weir Table:

Orifice Default: 0.600

Orifice Table:

Weir Comment:

Weir Component  
 Weir: 3  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Horizontal  
 Geometry Type: Rectangular  
 Invert: 61.50 ft  
 Control Elevation: 61.50 ft  
 Max Depth: 2.00 ft  
 Max Width: 3.08 ft

Bottom Clip

Default: 0.00 ft

Op Table:

Ref Node:

Top Clip

Default: 0.00 ft

Op Table:

Ref Node:

Discharge Coefficients

Weir Default: 3.200

Fillet: 0.00 ft

Weir Table:

Orifice Default: 0.600

Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: DS_HS-192FEN_DS	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 59.97 ft	Invert: 59.78 ft
From Node: HESS	Manning's N: 0.0120	Manning's N: 0.0120
To Node: SHADY_192	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 461.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	Bottom Clip	
Weir: 1	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical	Default: 0.00 ft	
Geometry Type: Circular	Op Table:	
Invert: 59.97 ft	Ref Node:	
Control Elevation: 59.97 ft	Discharge Coefficients	
Max Depth: 0.25 ft	Weir Default: 3.200	
	Weir Table:	
	Orifice Default: 0.600	
	Orifice Table:	

Weir Comment:

Weir Component	Bottom Clip
Weir: 2	Default: 0.00 ft
Weir Count: 1	Op Table:
Weir Flow Direction: Both	

Damping:	0.0000 ft	
Weir Type:	Horizontal	Ref Node:
Geometry Type:	Rectangular	Top Clip
Invert:	66.27 ft	Default: 0.00 ft
Control Elevation:	66.27 ft	Op Table:
Max Depth:	1.42 ft	Ref Node:
Max Width:	2.00 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	63.07 ft
Control Elevation:	63.07 ft
Max Depth:	3.17 ft
Max Width:	0.33 ft
Fillet:	0.00 ft
	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_ACADAPTS-FENN	Upstream Pipe	Downstream Pipe
Scenario:	Proposed	Invert: 58.75 ft
From Node:	ACADEMY_APTS	Manning's N: 0.0120
To Node:	FENNEL_P4	Geometry: Circular
Link Count:	1	Max Depth: 3.00 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0120
Length:	66.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:
Exit Loss Coef:	1.00	Ref Node:
Bend Loss Coef:	0.00	Manning's N: 0.0120
Bend Location:	0.00 dec	

Energy Switch: Energy

Pipe Comment:

#### Weir Component

Weir:	1	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Sharp Crested Vertical	Top Clip
Geometry Type:	Rectangular	Default: 0.00 ft
Invert:	62.25 ft	Op Table:
Control Elevation:	62.25 ft	Ref Node:
Max Depth:	1.75 ft	Discharge Coefficients
Max Width:	2.17 ft	Weir Default: 3.200
Fillet:	0.00 ft	Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

#### Weir Component

Weir:	2	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Sharp Crested Vertical	Top Clip
Geometry Type:	Circular	Default: 0.00 ft
Invert:	59.00 ft	Op Table:
Control Elevation:	59.00 ft	Ref Node:
Max Depth:	0.33 ft	Discharge Coefficients
		Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

#### Weir Component

Weir:	3	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Horizontal	Top Clip
Geometry Type:	Rectangular	Default: 0.00 ft
Invert:	64.00 ft	Op Table:
Control Elevation:	64.00 ft	Ref Node:
Max Depth:	2.08 ft	Discharge Coefficients
Max Width:	3.00 ft	Weir Default: 3.200
Fillet:	0.00 ft	Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

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Drop Structure Link: D_COBELSTN-FISH	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 57.22 ft	Invert: 56.97 ft
From Node: COBBLESTONE	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_PSETFSHS	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 30.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

---

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 58.37 ft	Op Table:
Control Elevation: 58.37 ft	Ref Node:
Max Depth: 3.33 ft	Discharge Coefficients
Max Width: 2.50 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

---

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 57.19 ft	Op Table:
Control Elevation: 57.19 ft	Ref Node:

Max Depth: 0.42 ft

## Discharge Coefficients

Weir Default: 3.200

Weir Table:

Orifice Default: 0.600

Orifice Table:

Weir Comment:

## Weir Component

Weir: 3

## Bottom Clip

Default: 0.00 ft

Weir Count: 1

Op Table:

Weir Flow Direction: Both

Ref Node:

Damping: 0.0000 ft

## Top Clip

Default: 0.00 ft

Weir Type: Horizontal

Op Table:

Geometry Type: Rectangular

Ref Node:

Invert: 61.97 ft

## Discharge Coefficients

Control Elevation: 61.97 ft

Weir Default: 3.200

Max Depth: 4.33 ft

Weir Table:

Max Width: 6.00 ft

Orifice Default: 0.600

Fillet: 0.00 ft

Orifice Table:

Weir Comment:

Drop Structure Comment:

## Drop Structure Link: D\_FS\_192FENDS

## Upstream Pipe

## Downstream Pipe

Scenario: Proposed

Invert: 61.97 ft

Invert: 61.47 ft

From Node: FIRE\_STATION

Manning's N: 0.0120

Manning's N: 0.0120

To Node: SHADY\_192

Geometry: Circular

Geometry: Circular

Link Count: 1

Max Depth: 2.00 ft

Max Depth: 2.00 ft

Flow Direction: Both

## Bottom Clip

Solution: Combine

Default: 0.00 ft

Default: 0.00 ft

Increments: 10

Op Table:

Op Table:

Pipe Count: 1

Ref Node:

Ref Node:

Damping: 0.00000 ft

Manning's N: 0.0120

Manning's N: 0.0120

Length: 215.00 ft

## Top Clip

FHWA Code: 1

Default: 0.00 ft

Default: 0.00 ft

Entr Loss Coef: 0.50

Op Table:

Op Table:

Exit Loss Coef: 0.00

Ref Node:

Ref Node:

Bend Loss Coef: 0.00

Manning's N: 0.0120

Manning's N: 0.0120

Bend Location: 0.00 dec

Energy Switch: Energy

Pipe Comment:

## Weir Component

Weir: 1

## Bottom Clip

Weir Count:	1	
Weir Flow Direction:	Both	Default: 0.00 ft
Damping:	0.0000 ft	Op Table:
Weir Type:	Horizontal	Ref Node:
Geometry Type:	Rectangular	Top Clip
Invert:	65.97 ft	Default: 0.00 ft
Control Elevation:	65.97 ft	Op Table:
Max Depth:	1.92 ft	Ref Node:
Max Width:	3.08 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:

Weir Comment:

Weir Component		
Weir:	2	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Sharp Crested Vertical	Top Clip
Geometry Type:	Rectangular	Default: 0.00 ft
Invert:	64.97 ft	Op Table:
Control Elevation:	64.97 ft	Ref Node:
Max Depth:	1.00 ft	Discharge Coefficients
Max Width:	2.00 ft	Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:
Fillet:	0.00 ft	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_ICE-FENNEL	Upstream Pipe	Downstream Pipe
Scenario:	Proposed	Invert: 59.47 ft
From Node:	ICE_RINK	Manning's N: 0.0130
To Node:	FENNEL_PSETL_US	Geometry: Circular
Link Count:	1	Max Depth: 1.25 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0130
Length:	745.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:
Exit Loss Coef:	1.00	Ref Node:

Bend Loss Coef: 0.00  
 Bend Location: 0.00 dec  
 Energy Switch: Energy

Manning's N: 0.0130

Manning's N: 0.0130

Pipe Comment:

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 63.37 ft	Op Table:
Control Elevation: 63.37 ft	Ref Node:
Max Depth: 1.00 ft	Discharge Coefficients
Max Width: 1.42 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:

Orifice Default: 0.600
Orifice Table:

Weir Comment:

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 62.47 ft	Op Table:
Control Elevation: 62.47 ft	Ref Node:
Max Depth: 0.25 ft	Discharge Coefficients

Weir Default: 3.200
Weir Table:
Orifice Default: 0.600
Orifice Table:

Weir Comment:

Weir Component	
Weir: 3	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 65.57 ft	Op Table:
Control Elevation: 65.57 ft	Ref Node:
Max Depth: 1.42 ft	Discharge Coefficients
Max Width: 2.00 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:

Orifice Default: 0.600

## Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D JUSTICE_E-FEN	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 64.97 ft	Invert: 64.77 ft
From Node: JUSTICE_EAST	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 40.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	Bottom Clip	
Weir: 1	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical	Default: 0.00 ft	
Geometry Type: Rectangular	Op Table:	
Invert: 67.47 ft	Ref Node:	
Control Elevation: 67.47 ft	Discharge Coefficients	
Max Depth: 0.33 ft	Weir Default: 3.200	
Max Width: 0.58 ft	Weir Table:	
Fillet: 0.00 ft	Orifice Default: 0.600	
	Orifice Table:	

Weir Comment:

Weir Component	Bottom Clip	
Weir: 2	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical		

Geometry Type:	Circular	
Invert:	65.47 ft	Default: 0.00 ft
Control Elevation:	65.47 ft	Op Table:
Max Depth:	0.25 ft	Ref Node:
		Discharge Coefficients
		Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	69.97 ft
Control Elevation:	69.97 ft
Max Depth:	1.92 ft
Max Width:	3.08 ft
Fillet:	0.00 ft
	Bottom Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Top Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D JUSTICE_W-FEN	Upstream Pipe	Downstream Pipe
Scenario:	Proposed	Invert: 64.97 ft
From Node:	JUSTICE_WEST	Manning's N: 0.0130
To Node:	FENNEL_WETLAND	Geometry: Circular
Link Count:	1	Max Depth: 1.50 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0130
Length:	20.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:
Exit Loss Coef:	1.00	Ref Node:
Bend Loss Coef:	0.00	Manning's N: 0.0130
Bend Location:	0.00 dec	
Energy Switch:	Energy	

Pipe Comment:

Weir Component

Weir:	1	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Sharp Crested Vertical	Top Clip
Geometry Type:	Rectangular	Default: 0.00 ft
Invert:	66.97 ft	Op Table:
Control Elevation:	66.97 ft	Ref Node:
Max Depth:	0.33 ft	Discharge Coefficients
Max Width:	1.50 ft	Weir Default: 3.200
Fillet:	0.00 ft	Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Weir Component

Weir:	2	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Horizontal	Top Clip
Geometry Type:	Rectangular	Default: 0.00 ft
Invert:	67.77 ft	Op Table:
Control Elevation:	67.77 ft	Ref Node:
Max Depth:	1.92 ft	Discharge Coefficients
Max Width:	2.25 ft	Weir Default: 3.200
Fillet:	0.00 ft	Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Weir Component

Weir:	3	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Sharp Crested Vertical	Top Clip
Geometry Type:	Circular	Default: 0.00 ft
Invert:	65.97 ft	Op Table:
Control Elevation:	65.97 ft	Ref Node:
Max Depth:	0.25 ft	Discharge Coefficients
		Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_KM-192FEN_DS	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 62.47 ft	Invert: 62.12 ft
From Node: KMArt	Manning's N: 0.0120	Manning's N: 0.0120
To Node: SHADY_192	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 66.00 ft	Top Clip	
FHWA Code: 30	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		
Pipe Comment:		

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 64.72 ft	Op Table:
Control Elevation: 64.72 ft	Ref Node:
Max Depth: 2.83 ft	Discharge Coefficients
Max Width: 2.25 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 62.57 ft	Op Table:
Control Elevation: 62.57 ft	Ref Node:
Max Depth: 0.33 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	66.97 ft
Control Elevation:	66.97 ft
Max Depth:	1.92 ft
Max Width:	3.08 ft
Fillet:	0.00 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Discharge Coefficients	
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_P4-FEN	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 57.50 ft	Invert: 57.09 ft
From Node: FDOT_POND_4	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_P4	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 2	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 111.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	
Weir:	1
Weir Count:	2
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	59.53 ft
Control Elevation:	59.53 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:

Max Depth: 2.00 ft  
 Max Width: 2.00 ft  
 Fillet: 0.00 ft

Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Weir Component  
 Weir: 2  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Sharp Crested Vertical  
 Geometry Type: Circular  
 Invert: 59.00 ft  
 Control Elevation: 59.00 ft  
 Max Depth: 0.33 ft

Bottom Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Top Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Weir Component  
 Weir: 3  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Horizontal  
 Geometry Type: Rectangular  
 Invert: 61.50 ft  
 Control Elevation: 61.50 ft  
 Max Depth: 3.17 ft  
 Max Width: 3.00 ft  
 Fillet: 0.00 ft

Bottom Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Top Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_NE-REM_N	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 62.97 ft	Invert: 62.47 ft
From Node: REM_NE	Manning's N: 0.0130	Manning's N: 0.0130
To Node: REM_NORTH	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft

Flow Direction:	Both	Bottom Clip	
Solution:	Combine	Default:	0.00 ft
Increments:	10	Op Table:	Op Table:
Pipe Count:	1	Ref Node:	Ref Node:
Damping:	0.0000 ft	Manning's N:	0.0130
Length:	965.00 ft	Top Clip	
FHWA Code:	1	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:	Op Table:
Exit Loss Coef:	0.00	Ref Node:	Ref Node:
Bend Loss Coef:	0.00	Manning's N:	0.0130
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component	Bottom Clip		
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	63.97 ft	Ref Node:	
Control Elevation:	63.97 ft	Discharge Coefficients	
Max Depth:	1.00 ft	Weir Default:	3.200
Max Width:	2.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component	Bottom Clip		
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	64.97 ft	Ref Node:	
Control Elevation:	64.97 ft	Discharge Coefficients	
Max Depth:	1.92 ft	Weir Default:	3.200
Max Width:	3.08 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_P-G	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 60.97 ft	Invert: 60.47 ft
From Node: REM_POND_P	Manning's N: 0.0130	Manning's N: 0.0130
To Node: REM_POND_G	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 1565.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		
Pipe Comment:		

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 72.97 ft	Op Table:
Control Elevation: 72.97 ft	Ref Node:
Max Depth: 1.00 ft	Discharge Coefficients
Max Width: 2.00 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 73.97 ft	Op Table:
Control Elevation: 73.97 ft	Ref Node:
Max Depth: 1.92 ft	Discharge Coefficients
Max Width: 3.08 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Drop Structure Comment:

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Drop Structure Link: D_Rem_P22-FEN	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 60.70 ft	Invert: 59.97 ft
From Node: REM_POND_22	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 843.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

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Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 61.97 ft	Op Table:
Control Elevation: 61.97 ft	Ref Node:
Max Depth: 1.00 ft	Discharge Coefficients
Max Width: 2.00 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

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Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 62.97 ft	Op Table:
Control Elevation: 62.97 ft	Ref Node:

Max Depth: 1.92 ft  
 Max Width: 3.08 ft  
 Fillet: 0.00 ft

Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Drop Structure Comment:

#### Drop Structure Link: D\_Rem\_P23-FEN

Scenario: Proposed  
 From Node: REM\_POND\_23A  
 To Node: FENNEL\_WETLAND  
 Link Count: 1  
 Flow Direction: Both  
 Solution: Combine  
 Increments: 10  
 Pipe Count: 1  
 Damping: 0.0000 ft  
 Length: 682.00 ft  
 FHWA Code: 1  
 Entr Loss Coef: 0.50  
 Exit Loss Coef: 0.00  
 Bend Loss Coef: 0.00  
 Bend Location: 0.00 dec  
 Energy Switch: Energy

Upstream Pipe  
 Invert: 57.97 ft  
 Manning's N: 0.0120  
 Geometry: Circular  
 Max Depth: 4.00 ft

Downstream Pipe  
 Invert: 56.97 ft  
 Manning's N: 0.0120  
 Geometry: Circular  
 Max Depth: 4.00 ft

#### Bottom Clip

Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Manning's N: 0.0120

#### Top Clip

Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Manning's N: 0.0120

Pipe Comment:

#### Weir Component

Weir: 1  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Horizontal  
 Geometry Type: Rectangular  
 Invert: 63.77 ft  
 Control Elevation: 63.77 ft  
 Max Depth: 2.08 ft  
 Max Width: 4.00 ft  
 Fillet: 0.00 ft

#### Bottom Clip

Default: 0.00 ft  
 Op Table:  
 Ref Node:

#### Top Clip

Default: 0.00 ft  
 Op Table:  
 Ref Node:

#### Discharge Coefficients

Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

#### Weir Component

Weir: 2

#### Bottom Clip

Weir Count:	1	
Weir Flow Direction:	Both	Default: 0.00 ft
Damping:	0.0000 ft	Op Table:
Weir Type:	Sharp Crested Vertical	Ref Node:
Geometry Type:	Rectangular	Top Clip
Invert:	62.97 ft	Default: 0.00 ft
Control Elevation:	62.97 ft	Op Table:
Max Depth:	0.80 ft	Ref Node:
Max Width:	2.42 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:

Weir Comment:

Weir Component		
Weir:	3	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Horizontal	Top Clip
Geometry Type:	Rectangular	Default: 0.00 ft
Invert:	65.87 ft	Op Table:
Control Elevation:	65.87 ft	Ref Node:
Max Depth:	3.17 ft	Discharge Coefficients
Max Width:	3.00 ft	Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:
Fillet:	0.00 ft	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_TRACT-G	Upstream Pipe	Downstream Pipe
Scenario:	Proposed	Invert: 68.72 ft
From Node:	REM_TRACT_1	Manning's N: 0.0130
To Node:	REM_POND_G	Geometry: Circular
Link Count:	1	Max Depth: 2.50 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0130
Length:	2278.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:
Exit Loss Coef:	1.00	Ref Node:

Bend Loss Coef: 0.00  
 Bend Location: 0.00 dec  
 Energy Switch: Energy

Manning's N: 0.0130

Manning's N: 0.0130

Pipe Comment:

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 73.42 ft	Op Table:
Control Elevation: 73.42 ft	Ref Node:
Max Depth: 2.58 ft	Discharge Coefficients
Max Width: 3.00 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:

Orifice Default: 0.600
Orifice Table:

Weir Comment:

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 72.22 ft	Op Table:
Control Elevation: 72.22 ft	Ref Node:
Max Depth: 0.25 ft	Discharge Coefficients

Weir Default: 3.200
Weir Table:
Orifice Default: 0.600
Orifice Table:

Weir Comment:

Weir Component	
Weir: 3	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 75.97 ft	Op Table:
Control Elevation: 75.97 ft	Ref Node:
Max Depth: 2.08 ft	Discharge Coefficients
Max Width: 3.00 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:

Orifice Default: 0.600

## Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_SEACAD-FENN	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 56.97 ft	Invert: 56.47 ft
From Node: SE_ACADEMY	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_SEACAD	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 70.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	Bottom Clip	
Weir: 1	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical	Default: 0.00 ft	
Geometry Type: Rectangular	Op Table:	
Invert: 59.97 ft	Ref Node:	
Control Elevation: 59.97 ft	Discharge Coefficients	
Max Depth: 1.00 ft	Weir Default: 3.200	
Max Width: 2.00 ft	Weir Table:	
Fillet: 0.00 ft	Orifice Default: 0.600	
	Orifice Table:	

Weir Comment:

Weir Component	Bottom Clip	
Weir: 2	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Horizontal		

Geometry Type:	Rectangular	
Invert:	60.97 ft	Default: 0.00 ft
Control Elevation:	60.97 ft	Op Table:
Max Depth:	1.92 ft	Ref Node:
Max Width:	3.08 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_TAIKWN-AERO_W	Upstream Pipe		Downstream Pipe
	Invert:	Manning's N:	Invert:
Scenario: Proposed	58.50 ft	0.0130	58.40 ft
From Node: TAIKWON	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse	
To Node: AERONAUTICAL_W	Max Depth: 1.00 ft	Max Depth: 1.00 ft	
Link Count: 1	Bottom Clip		
Flow Direction: Both	Default: 0.00 ft	Default: 0.00 ft	
Solution: Combine	Op Table:	Op Table:	
Increments: 10	Ref Node:	Ref Node:	
Pipe Count: 1	Manning's N: 0.0130	Manning's N: 0.0130	
Damping: 0.0000 ft	Top Clip		
Length: 34.00 ft	Default: 0.00 ft	Default: 0.00 ft	
FHWA Code: 30	Op Table:	Op Table:	
Entr Loss Coef: 0.00	Ref Node:	Ref Node:	
Exit Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130	
Bend Loss Coef: 0.00			
Bend Location: 0.00 dec			
Energy Switch: Energy			

Pipe Comment:

Weir Component	Bottom Clip
Weir: 1	Default: 0.00 ft
Weir Count: 1	Op Table:
Weir Flow Direction: Both	Ref Node:
Damping: 0.0000 ft	Top Clip
Weir Type: Sharp Crested Vertical	Default: 0.00 ft
Geometry Type: Rectangular	Op Table:
Invert: 60.13 ft	Ref Node:
Control Elevation: 60.13 ft	Discharge Coefficients
Max Depth: 1.17 ft	Weir Default: 3.200
Max Width: 3.33 ft	Weir Table:
Fillet: 0.00 ft	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Weir Component	
Weir:	2
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Circular
Invert:	58.50 ft
Control Elevation:	58.50 ft
Max Depth:	0.25 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Discharge Coefficients	
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	61.50 ft
Control Elevation:	61.50 ft
Max Depth:	1.42 ft
Max Width:	2.00 ft
Fillet:	0.00 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Discharge Coefficients	
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_TRANS-FENNEL		Upstream Pipe	Downstream Pipe
Scenario:	Proposed	Invert: 65.97 ft	Invert: 64.97 ft
From Node:	TRANS_FACILITY	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction:	Both	Bottom Clip	
Solution:	Combine	Default: 0.00 ft	Default: 0.00 ft
Increments:	10	Op Table:	Op Table:
Pipe Count:	1	Ref Node:	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length:	50.00 ft	Top Clip	

FHWA Code:	1	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0120	Manning's N:	0.0120
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	72.97 ft	Ref Node:	
Control Elevation:	72.97 ft	Discharge Coefficients	
Max Depth:	1.00 ft	Weir Default:	3.200
Max Width:	2.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	73.97 ft	Ref Node:	
Control Elevation:	73.97 ft	Discharge Coefficients	
Max Depth:	1.92 ft	Weir Default:	3.200
Max Width:	3.08 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Pipe Link: P_FEN-TPIKE-R10		Upstream	Downstream
Scenario:	Proposed	Invert:	58.09 ft
From Node:	FENNEL_TPIKE_US	Manning's N:	0.0120
To Node:	FENNEL_TPIKE_DS	Geometry:	Rectangular
Link Count:	2	Max Depth:	5.00 ft
			Max Depth: 5.00 ft

Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	140.00 ft			Bottom Clip	
FHWA Code:	9		Default: 0.00 ft		Default: 0.00 ft
Entr Loss Coef:	0.50		Op Table:		Op Table:
Exit Loss Coef:	1.00		Ref Node:		Ref Node:
Bend Loss Coef:	0.00	Manning's N:	0.0120	Manning's N:	0.0120
Bend Location:	0.00 dec			Top Clip	
Energy Switch:	Energy		Default: 0.00 ft		Default: 0.00 ft
			Op Table:		Op Table:
			Ref Node:		Ref Node:
		Manning's N:	0.0120	Manning's N:	0.0120

Comment:

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Pipe Link: P_FEN_APTS-P4		Upstream	Downstream
Scenario:	Proposed	Invert: 56.89 ft	Invert: 56.77 ft
From Node:	FENNEL_APTS_DS	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	FENNEL_P4	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count:	1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction:	Both		Bottom Clip
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	226.00 ft	Op Table:	Op Table:
FHWA Code:	30	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0120	Manning's N: 0.0120
Exit Loss Coef:	0.00		Top Clip
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:
		Manning's N: 0.0120	Manning's N: 0.0120

Comment:

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Pipe Link: P_FEN_APT_US-DS		Upstream	Downstream
Scenario:	Proposed	Invert: 56.82 ft	Invert: 56.49 ft
From Node:	FENNEL_APTS_US	Manning's N: 0.0240	Manning's N: 0.0240
To Node:	FENNEL_APTS_DS	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count:	3	Max Depth: 3.67 ft	Max Depth: 3.67 ft
Flow Direction:	Both		Bottom Clip
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	50.00 ft	Op Table:	Op Table:
FHWA Code:	30	Ref Node:	Ref Node:
Entr Loss Coef:	0.70	Manning's N: 0.0240	Manning's N: 0.0240
Exit Loss Coef:	1.00		Top Clip
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:

Manning's N: 0.0240

Manning's N: 0.0240

Comment:

**Pipe Link: P\_SHADY192\_FEN**

	Upstream	Downstream
Scenario:	Proposed	Invert: 58.97 ft
From Node:	SHADY_192	Manning's N: 0.0120
To Node:	FENNEL_192_DS	Geometry: Horizontal Ellipse
Link Count:	1	Max Depth: 3.50 ft
Flow Direction:	Both	Bottom Clip
Damping:	0.0000 ft	Default: 0.00 ft
Length:	240.00 ft	Op Table:
FHWA Code:	30	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0120
Exit Loss Coef:	0.00	Top Clip
Bend Loss Coef:	0.00	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:
Energy Switch:	Energy	Ref Node:
		Manning's N: 0.0120

Comment:

**Pipe Link: P\_TPAX\_SHADY**

	Upstream	Downstream
Scenario:	Proposed	Invert: 59.97 ft
From Node:	TPIKE_ACCESS	Manning's N: 0.0120
To Node:	SHADY_192	Geometry: Horizontal Ellipse
Link Count:	3	Max Depth: 1.75 ft
Flow Direction:	Both	Bottom Clip
Damping:	0.0000 ft	Default: 0.00 ft
Length:	200.00 ft	Op Table:
FHWA Code:	30	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0120
Exit Loss Coef:	0.00	Top Clip
Bend Loss Coef:	0.00	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:
Energy Switch:	Energy	Ref Node:
		Manning's N: 0.0120

Comment:

**Weir Link: Pond Notch**

	Bottom Clip
Scenario:	Proposed
From Node:	POND-A
To Node:	FENNEL_PSETL_US
Link Count:	1
	Default: 0.00 ft
	Op Table:
	Ref Node:

Flow Direction:	Both	
Damping:	0.0000 ft	Top Clip Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table: Ref Node:
Geometry Type:	Trapezoidal	
Invert:	56.75 ft	Discharge Coefficients Weir Default: 3.200
Control Elevation:	56.75 ft	Weir Table: Orifice Default: 0.600
Max Depth:	1.60 ft	Orifice Table:
Extrapolation Method:	Normal Projection	
Bottom Width:	0.30 ft	
Left Slope:	1.600 (h:v)	
Right Slope:	1.600 (h:v)	

Comment:

Pipe Link: R1				
			Upstream	Downstream
Scenario:	Proposed		Invert: 55.17 ft	Invert: 55.00 ft
From Node:	FENNEL_PSETL_US	Manning's N: 0.0120		Manning's N: 0.0120
To Node:	FENNEL_PSETL_DS	Geometry: Rectangular	Geometry: Rectangular	
Link Count:	2	Max Depth: 5.00 ft	Max Depth: 5.00 ft	
Flow Direction:	Both	Max Width: 11.00 ft	Max Width: 11.00 ft	
Damping:	0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft	
Length:	94.00 ft		Bottom Clip	
FHWA Code:	14	Default: 0.00 ft	Default: 0.00 ft	
Entr Loss Coef:	0.50	Op Table:	Op Table:	
Exit Loss Coef:	0.00	Ref Node:	Ref Node:	
Bend Loss Coef:	0.00	Manning's N: 0.0120	Manning's N: 0.0120	
Bend Location:	0.00 dec		Top Clip	
Energy Switch:	Energy	Default: 0.00 ft	Default: 0.00 ft	
		Op Table:	Op Table:	
		Ref Node:	Ref Node:	
		Manning's N: 0.0120	Manning's N: 0.0120	

Comment:

Pipe Link: R10				
			Upstream	Downstream
Scenario:	Proposed		Invert: 57.43 ft	Invert: 57.38 ft
From Node:	AERONAUTICAL_E	Manning's N: 0.0120		Manning's N: 0.0120
To Node:	FENNEL_192PSETS	Geometry: Circular	Geometry: Circular	
Link Count:	2	Max Depth: 2.00 ft	Max Depth: 2.00 ft	
Flow Direction:	Both		Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft	
Length:	54.00 ft	Op Table:	Op Table:	
FHWA Code:	1	Ref Node:	Ref Node:	
Entr Loss Coef:	0.50	Manning's N: 0.0120	Manning's N: 0.0120	
Exit Loss Coef:	1.00		Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft	
Bend Location:	0.00 dec	Op Table:	Op Table:	

Energy Switch: Energy	Ref Node: Manning's N: 0.0120	Ref Node: Manning's N: 0.0120
Comment: 3-29x45		
54 lf		
56.12-56.08		

Pipe Link: R3	Upstream		Downstream
	Scenario:	Invert: Manning's N:	Invert: Manning's N:
From Node: FENNEL_192_DS		Geometry: Rectangular	Geometry: Rectangular
To Node: FENNEL_192PSETS		Max Depth: 4.00 ft	Max Depth: 4.00 ft
Link Count: 2		Max Width: 10.00 ft	Max Width: 10.00 ft
Flow Direction: Both		Fillet: 0.00 ft	Fillet: 0.00 ft
Damping: 0.0000 ft		Bottom Clip	
Length: 63.00 ft		Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 9		Op Table:	Op Table:
Entr Loss Coef: 0.50		Ref Node:	Ref Node:
Exit Loss Coef: 0.00		Manning's N: 0.0110	Manning's N: 0.0110
Bend Loss Coef: 0.00		Top Clip	
Bend Location: 0.00 dec		Default: 0.00 ft	Default: 0.00 ft
Energy Switch: Energy		Op Table:	Op Table:
		Ref Node:	Ref Node:
		Manning's N: 0.0110	Manning's N: 0.0110

Comment:
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Pipe Link: R4	Upstream		Downstream
	Scenario:	Invert: Manning's N:	Invert: Manning's N:
From Node: FENNEL_192_US		Geometry: Rectangular	Geometry: Rectangular
To Node: FENNEL_192_DS		Max Depth: 4.00 ft	Max Depth: 4.00 ft
Link Count: 2		Max Width: 10.00 ft	Max Width: 10.00 ft
Flow Direction: Both		Fillet: 0.00 ft	Fillet: 0.00 ft
Damping: 0.0000 ft		Bottom Clip	
Length: 134.00 ft		Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 9		Op Table:	Op Table:
Entr Loss Coef: 0.50		Ref Node:	Ref Node:
Exit Loss Coef: 0.00		Manning's N: 0.0110	Manning's N: 0.0110
Bend Loss Coef: 0.00		Top Clip	
Bend Location: 0.00 dec		Default: 0.00 ft	Default: 0.00 ft
Energy Switch: Energy		Op Table:	Op Table:
		Ref Node:	Ref Node:
		Manning's N: 0.0110	Manning's N: 0.0110

Comment:
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Pipe Link: R9	Upstream	Downstream
Scenario: Proposed	Invert: 57.56 ft	Invert: 57.43 ft
From Node: AERONAUTICAL_W	Manning's N: 0.0170	Manning's N: 0.0170
To Node: AERONAUTICAL_E	Geometry: Circular	Geometry: Circular
Link Count: 2	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both		Bottom Clip
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 56.00 ft	Op Table:	Op Table:
FHWA Code: 1	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0170	Manning's N: 0.0170
Exit Loss Coef: 0.00		Top Clip
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Energy	Ref Node:	Ref Node:
	Manning's N: 0.0170	Manning's N: 0.0170

Comment: 2-38\*24

56.2

56.12

Weir Link: W_BORROW-FENNEL		
Scenario: Proposed		Bottom Clip
From Node: BORROW_PIT		Default: 0.00 ft
To Node: FENNEL_WETLAND		Op Table:
Link Count: 1		Ref Node:
Flow Direction: Both		Top Clip
Damping: 0.0000 ft		Default: 0.00 ft
Weir Type: Sharp Crested Vertical		Op Table:
Geometry Type: Rectangular		Ref Node:
Invert: 65.97 ft		Discharge Coefficients
Control Elevation: 65.97 ft		Weir Default: 3.200
Max Depth: 833333.25 ft		Weir Table:
Max Width: 670.00 ft		Orifice Default: 0.600
Fillet: 0.00 ft		Orifice Table:
Comment:		

Weir Link: W_COBL_FISH		
Scenario: Proposed		Bottom Clip
From Node: COBBLESTONE		Default: 0.00 ft
To Node: FISH_LAKE		Op Table:
Link Count: 1		Ref Node:
Flow Direction: Both		Top Clip
Damping: 0.0000 ft		Default: 0.00 ft
Weir Type: Broad Crested Vertical		Op Table:
Geometry Type: Trapezoidal		Ref Node:
Invert: 62.47 ft		Discharge Coefficients

Control Elevation:	62.47 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Extrapolation Method:	Normal Projection	Orifice Default:	0.600
Bottom Width:	100.00 ft	Orifice Table:	
Left Slope:	10.000 (h:v)		
Right Slope:	10.000 (h:v)		

Comment:

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#### Weir Link: W\_FEN04-TPIKE

Scenario:	Proposed	Bottom Clip	
From Node:	FENNEL_WETLAND	Default:	0.00 ft
To Node:	FENNEL_TPIKE_US	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	64.96 ft	Discharge Coefficients	
Control Elevation:	64.96 ft	Weir Default:	3.200
Max Depth:	8333.25 ft	Weir Table:	
Max Width:	62.67 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

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#### Weir Link: W\_FENNEL\_192

Scenario:	Proposed	Bottom Clip	
From Node:	FENNEL_192_US	Default:	0.00 ft
To Node:	FENNEL_192_DS	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Trapezoidal	Ref Node:	
Invert:	63.47 ft	Discharge Coefficients	
Control Elevation:	63.47 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Extrapolation Method:	Normal Projection	Orifice Default:	0.600
Bottom Width:	100.00 ft	Orifice Table:	
Left Slope:	100.000 (h:v)		
Right Slope:	100.000 (h:v)		

Comment:

## Weir Link: W\_FEN\_TPIKE

Scenario:	Proposed	Bottom Clip
From Node:	FENNEL_TPIKE_US	Default: 0.00 ft
To Node:	FENNEL_TPIKE_DS	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	68.44 ft	Discharge Coefficients
Control Elevation:	68.44 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	100.00 ft	Orifice Table:
Left Slope:	100.000 (h:v)	
Right Slope:	100.000 (h:v)	

Comment:

## Weir Link: W\_Rem\_G01-FEN

Scenario:	Proposed	Bottom Clip
From Node:	REM_POND_G	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	60.47 ft	Discharge Coefficients
Control Elevation:	60.47 ft	Weir Default: 3.200
Max Depth:	0.92 ft	Weir Table:
Max Width:	10.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

## Weir Link: W\_Rem\_G02-FEN

Scenario:	Proposed	Bottom Clip
From Node:	REM_POND_G	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	61.37 ft	Discharge Coefficients
Control Elevation:	61.37 ft	Weir Default: 3.200

Max Depth:	3.58 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

#### Weir Link: W\_Rem\_G03-FEN

Scenario:	Proposed	Bottom Clip	
From Node:	REM_POND_G	Default:	0.00 ft
To Node:	FENNEL_WETLAND	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	64.97 ft	Discharge Coefficients	
Control Elevation:	64.97 ft	Weir Default:	3.200
Max Depth:	833.25 ft	Weir Table:	
Max Width:	44.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

#### Weir Link: W\_Rem\_N01-FEN

Scenario:	Proposed	Bottom Clip	
From Node:	REM_NORTH	Default:	0.00 ft
To Node:	FENNEL_WETLAND	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	60.81 ft	Discharge Coefficients	
Control Elevation:	60.81 ft	Weir Default:	3.200
Max Depth:	1.17 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

#### Weir Link: W\_Rem\_N02-FEN

Scenario:	Proposed	Bottom Clip	
From Node:	REM_NORTH	Default:	0.00 ft
To Node:	FENNEL_WETLAND	Op Table:	

Link Count:	1	
Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Sharp Crested Vertical	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	62.01 ft	Ref Node:
Control Elevation:	62.01 ft	Discharge Coefficients
Max Depth:	2.25 ft	Weir Default: 3.200
Max Width:	20.00 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Comment:

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#### Weir Link: W\_Rem\_N03-FEN

Scenario:	Proposed	Bottom Clip
From Node:	REM_NORTH	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	64.23 ft	Discharge Coefficients
Control Elevation:	64.23 ft	Weir Default: 3.200
Max Depth:	833.25 ft	Weir Table:
Max Width:	42.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

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#### Weir Link: W\_SHADY\_FEN

Scenario:	Proposed	Bottom Clip
From Node:	SHADY_192	Default: 0.00 ft
To Node:	FENNEL_192_DS	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	63.47 ft	Discharge Coefficients
Control Elevation:	63.47 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	10.00 ft	Orifice Table:
Left Slope:	20.000 (h:v)	
Right Slope:	10.000 (h:v)	

Comment:

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#### Weir Link: W\_TPACCESS\_FEN

Scenario:	Proposed	Bottom Clip
From Node:	TPIKE_ACCESS	Default: 0.00 ft
To Node:	FENNEL_192_US	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	63.47 ft	Discharge Coefficients
Control Elevation:	63.47 ft	Weir Default: 2.800
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	20.00 ft	Orifice Table:
Left Slope:	10.000 (h:v)	
Right Slope:	10.000 (h:v)	

Comment:

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#### Weir Link: pond-weir

Scenario:	Proposed	Bottom Clip
From Node:	POND-A	Default: 0.00 ft
To Node:	FENNEL_PSETL_US	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	59.35 ft	Discharge Coefficients
Control Elevation:	59.36 ft	Weir Default: 3.200
Max Depth:	1.30 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	10.00 ft	Orifice Table:
Left Slope:	5.000 (h:v)	
Right Slope:	5.000 (h:v)	

Comment:

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#### Weir Link: pond-weir top

Scenario:	Proposed	Bottom Clip
From Node:	POND-A	Default: 0.00 ft
To Node:	FENNEL_PSETL_US	Op Table:

Link Count:	1	
Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Sharp Crested Vertical	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	60.65 ft	Ref Node:
Control Elevation:	60.65 ft	Discharge Coefficients
Max Depth:	999.00 ft	Weir Default: 3.200
Max Width:	34.00 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Comment:

---

Weir Link: w\_AERO\_US\_DS-R7

Scenario:	Proposed	Bottom Clip
From Node:	AERONAUTICAL_W	Default: 0.00 ft
To Node:	AERONAUTICAL_E	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	59.75 ft	Discharge Coefficients
Control Elevation:	59.75 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	400.00 ft	Orifice Table:
Left Slope:	100.000 (h:v)	
Right Slope:	100.000 (h:v)	

Comment: change from 60.5 to 59.75

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Simulation: 100yr-24hr

Scenario:	Existing
Run Date/Time:	10/27/2020 2:30:18 PM
Program Version:	ICPR4 4.07.01

General

Run Mode:	Normal						
Start Time:	0	Month	0	Day	0	Hour [hr]	0.0000
End Time:	0		0		0		24.0000
	Hydrology [sec]		Surface Hydraulics		Groundwater [sec]		
			[sec]				

Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		30.0000	

### Output Time Increments

#### Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

#### Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

#### Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

#### Restart File

Save Restart: False

### Resources & Lookup Tables

#### Resources

Rainfall Folder:  
Reference ET Folder:  
Unit Hydrograph  
Folder:

#### Lookup Tables

Boundary Stage Set:  
Extern Hydrograph Set:  
Curve Number Set:  
  
Green-Ampt Set:  
Vertical Layers Set:  
Impervious Set:  
Roughness Set:  
Crop Coef Set:  
Fillable Porosity Set:  
Conductivity Set:  
Leakage Set:

### Tolerances & Options

Time Marching: SAOR  
Max Iterations: 6  
Over-Relax Weight: 0.5 dec  
Fact:  
dZ Tolerance: 0.0010 ft  
  
Max dZ: 1.0000 ft  
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr  
ET for Manual Basins: False  
  
Smp/Man Basin Rain Opt:  
OF Region Rain Opt: Global  
Rainfall Name: ~FLMOD  
Rainfall Amount: 10.56 in

Edge Length Option: Automatic

Storm Duration: 24.0000 hr

Dflt Damping (2D): 0.0050 ft

Min Node Srf Area 100 ft<sup>2</sup>

(2D):

Energy Switch (2D): Energy

Dflt Damping (1D): 0.0050 ft

Min Node Srf Area 100 ft<sup>2</sup>

(1D):

Energy Switch (1D): Energy

Comment:

Simulation: 100yr-72hr

Scenario: Existing

Run Date/Time: 10/27/2020 2:30:58 PM

Program Version: ICPR4 4.07.01

**General**

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

Hydrology [sec]

Surface Hydraulics

Groundwater [sec]

[sec]

Min Calculation Time: 60.0000 0.1000 900.0000

Max Calculation Time: 60.0000

**Output Time Increments****Hydrology**

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

**Surface Hydraulics**

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

**Groundwater**

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

**Restart File**

Save Restart: False

**Resources & Lookup Tables**

Resources		Lookup Tables	
Rainfall Folder:	ICPR3	Boundary Stage Set:	
Reference ET Folder:		Extern Hydrograph Set:	
Unit Hydrograph Folder:	ICPR3	Curve Number Set:	
Tolerances & Options			
Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.5 dec	Smp/Man Basin Rain Opt:	Global
Fact:		OF Region Rain Opt:	Global
dZ Tolerance:	0.0010 ft	Rainfall Name:	Sfwmd72
Max dZ:	1.0000 ft	Rainfall Amount:	11.20 in
Link Optimizer Tol:	0.0001 ft	Storm Duration:	72.0000 hr
Edge Length Option:	Automatic	Dflt Damping (1D):	0.0050 ft
Dflt Damping (2D):	0.0050 ft	Min Node Srf Area (1D):	113 ft <sup>2</sup>
Min Node Srf Area (2D):	1 ft <sup>2</sup>	Energy Switch (1D):	Energy
Energy Switch (2D):	Energy		
Comment: PARTIN SETTLEMENT PROMENADE (PSP)			
PARTIN SETTLEMENT PROMENADE (PSP)			
<hr/>			
Simulation: 10yr-24hr			
Scenario:	Existing		
Run Date/Time:	10/27/2020 2:33:00 PM		
Program Version:	ICPR4 4.07.01		
General			
Run Mode:	Normal		
Start Time:	Year 0	Month 0	Day 0
			Hour [hr] 0.0000

End Time:	0	0	0	24.0000
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	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

#### Output Time Increments

##### Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

##### Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

##### Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

##### Restart File

Save Restart: False

#### Resources & Lookup Tables

##### Resources

Rainfall Folder: ICPR3  
 Reference ET Folder:  
 Unit Hydrograph ICPR3  
 Folder:

##### Lookup Tables

Boundary Stage Set:  
 Extern Hydrograph Set:  
 Curve Number Set:  
 Green-Ampt Set:  
 Vertical Layers Set:  
 Impervious Set:  
 Roughness Set:  
 Crop Coef Set:  
 Fillable Porosity Set:  
 Conductivity Set:  
 Leakage Set:

#### Tolerances & Options

Time Marching: SAOR  
 Max Iterations: 6  
 Over-Relax Weight 0.5 dec  
 Fact:  
 dZ Tolerance: 0.0010 ft

IA Recovery Time: 24.0000 hr  
 ET for Manual Basins: False  
 Smp/Man Basin Rain Global

Max dZ: 1.0000 ft  
 Link Optimizer Tol: 0.0001 ft  
 Edge Length Option: Automatic  
 Dflt Damping (2D): 0.0050 ft  
 Min Node Srf Area 1 ft<sup>2</sup>  
 (2D):  
 Energy Switch (2D): Energy

Opt:  
 OF Region Rain Opt: Global  
 Rainfall Name: Flmod  
 Rainfall Amount: 5.20 in  
 Storm Duration: 24.0000 hr  
 Dflt Damping (1D): 0.0050 ft  
 Min Node Srf Area 113 ft<sup>2</sup>  
 (1D):  
 Energy Switch (1D): Energy

Comment: PARTIN SETTLEMENT PROMENADE (PSP)

PARTIN SETTLEMENT PROMENADE (PSP)

Simulation: 10yr72hr

Scenario: Existing  
 Run Date/Time: 10/27/2020 2:33:30 PM  
 Program Version: ICPR4 4.07.01

#### General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

#### Output Time Increments

##### Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

##### Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

##### Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

**Restart File**

Save Restart: False

**Resources & Lookup Tables****Resources**

Rainfall Folder: ICPR3  
 Reference ET Folder:  
 Unit Hydrograph ICPR3  
 Folder:

**Lookup Tables**

Boundary Stage Set:  
 Extern Hydrograph Set:  
 Curve Number Set:  
 Green-Ampt Set:  
 Vertical Layers Set:  
 Impervious Set:  
 Roughness Set:  
 Crop Coef Set:  
 Fillable Porosity Set:  
 Conductivity Set:  
 Leakage Set:

**Tolerances & Options**

Time Marching: SAOR  
 Max Iterations: 6  
 Over-Relax Weight: 0.5 dec  
 Fact:  
 dZ Tolerance: 0.0010 ft  
 Max dZ: 1.0000 ft  
 Link Optimizer Tol: 0.0001 ft  
 Edge Length Option: Automatic  
 Dflt Damping (2D): 0.0050 ft  
 Min Node Srf Area (2D): 1 ft<sup>2</sup>  
 Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr  
 ET for Manual Basins: False  
 Smp/Man Basin Rain Opt:  
 OF Region Rain Opt: Global  
 Rainfall Name: Sfwm72  
 Rainfall Amount: 7.50 in  
 Storm Duration: 72.0000 hr  
 Dflt Damping (1D): 0.0050 ft  
 Min Node Srf Area (1D): 113 ft<sup>2</sup>  
 Energy Switch (1D): Energy

Comment: PARTIN SETTLEMENT PROMENADE (PSP)

PARTIN SETTLEMENT PROMENADE (PSP)

Simulation: 50yr-24hr

Scenario: Existing  
 Run Date/Time: 10/27/2020 2:35:54 PM

Program Version: ICPR4 4.07.01

### General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	24.0000
	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]	
Min Calculation Time:	60.0000	0.1000	900.0000	
Max Calculation Time:		60.0000		

### Output Time Increments

#### Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

#### Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

#### Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

### Restart File

Save Restart: False

### Resources & Lookup Tables

#### Resources

Rainfall Folder: ICPR3  
 Reference ET Folder:  
 Unit Hydrograph: ICPR3  
 Folder:

#### Lookup Tables

Boundary Stage Set:  
 Extern Hydrograph Set:  
 Curve Number Set:  
 Green-Ampt Set:  
 Vertical Layers Set:  
 Impervious Set:  
 Roughness Set:  
 Crop Coef Set:  
 Fillable Porosity Set:  
 Conductivity Set:  
 Leakage Set:

## Tolerances &amp; Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.5 dec	Smp/Man Basin Rain Opt:	Global
Fact:		OF Region Rain Opt:	Global
dZ Tolerance:	0.0010 ft	Rainfall Name:	Flmod
Max dZ:	1.0000 ft	Rainfall Amount:	9.84 in
Link Optimizer Tol:	0.0001 ft	Storm Duration:	24.0000 hr
Edge Length Option:	Automatic	Dflt Damping (1D):	0.0050 ft
Dflt Damping (2D):	0.0050 ft	Min Node Srf Area (1D):	113 ft <sup>2</sup>
Min Node Srf Area (2D):	1 ft <sup>2</sup>	Energy Switch (1D):	Energy
Energy Switch (2D):	Energy		

Comment: PARTIN SETTLEMENT PROMENADE (PSP)

PARTIN SETTLEMENT PROMENADE (PSP)

## Simple Basin Runoff Summary [Existing]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
192-FENN_EL_NE	100yr-24hr	23.96	12.5167	10.56	9.35	8.4700	91.4	6.80	6.80
192_FENN_EL_SE	100yr-24hr	18.97	12.1000	10.56	9.69	3.6900	93.3	0.00	0.00
192_PART_IN_SE	100yr-24hr	19.61	12.2333	10.56	9.72	4.9700	93.9	28.10	28.10
192_POND_4	100yr-24hr	92.53	12.1000	10.56	9.82	17.4900	94.3	25.40	25.40
192_TPIK_E_NW	100yr-24hr	39.10	12.1333	10.56	9.83	8.2000	94.4	67.90	67.90
ACADEMY_APTS	100yr-24hr	164.47	12.1167	10.56	9.43	34.4000	91.2	50.00	50.00
ACADEMY_NE	100yr-24hr	48.61	12.6667	10.56	8.10	21.5000	81.9	0.60	0.60
AERONAUTICAL_E	100yr-24hr	4.21	12.1833	10.56	8.91	1.0000	87.2	0.00	0.00
AERONAUTICAL_N	100yr-24hr	14.06	12.1667	10.56	9.26	3.2000	89.9	12.10	12.10
BORROW_PIT	100yr-24hr	92.95	12.0500	10.56	10.17	14.7400	97.1	0.20	0.20
COBBLESTONE	100yr-24hr	168.87	12.5000	10.56	9.43	59.3300	92.0	51.30	51.30
FDOT_PO_ND_4	100yr-24hr	41.63	12.2667	10.56	8.38	11.7500	83.2	0.00	0.00
FENNEL_SE	100yr-24hr	105.35	12.8167	10.56	8.20	52.3800	83.1	5.00	5.00
FENNEL_SLOUGH	100yr-24hr	162.44	12.8833	10.56	9.81	77.0900	96.3	0.30	0.30
FIRE_STATION	100yr-24hr	14.70	12.0500	10.56	9.69	2.4100	93.2	59.60	59.60
HESS	100yr-24hr	19.51	12.0500	10.56	9.83	3.1800	94.3	66.70	66.70
ICE_PALACE	100yr-24hr	32.54	12.0500	10.56	9.83	5.4500	94.3	67.40	67.40
JUSTICE_EAST	100yr-24hr	73.30	12.4167	10.56	8.88	24.2400	87.4	23.30	23.30
JUSTICE_WEST	100yr-24hr	29.87	12.0833	10.56	9.48	5.7300	91.6	50.00	50.00
KMART	100yr-24hr	127.50	12.0500	10.56	9.85	20.7700	94.4	67.90	67.90
PARTIN_AERO_N	100yr-24hr	5.39	12.1500	10.56	8.74	1.2300	85.8	0.00	0.00
PARTIN_AERO_S	100yr-24hr	15.73	12.2667	10.56	9.20	4.2600	89.7	0.00	0.00
PARTIN_FENNEL_N	100yr-24hr	12.19	12.1667	10.56	8.65	2.9300	85.1	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
PARTIN_F ENNEL_S	100yr-24hr	29.58	12.6500	10.56	8.94	12.3300	88.5	20.10	20.10
POST-1	100yr-24hr	195.32	12.0500	10.56	9.79	31.2900	94.0	0.00	0.00
POST-1-SL -APTS	100yr-24hr	114.82	12.0000	10.56	9.48	16.7500	91.3	0.00	0.00
POST-2-SL -APTS	100yr-24hr	30.59	12.0000	10.56	9.44	4.4700	91.0	0.00	0.00
REMIGTO N_GOLF	100yr-24hr	25.87	12.4833	10.56	9.12	9.0200	89.5	1.20	1.20
REMINGT ON_E	100yr-24hr	325.11	12.2167	10.56	9.10	83.0500	88.8	20.00	20.00
REMINGT ON_NE	100yr-24hr	127.82	12.1500	10.56	9.25	28.1000	89.8	5.10	5.10
REMINGT ON_NWE	100yr-24hr	48.95	12.2500	10.56	8.85	13.2800	86.8	20.80	20.80
REMINGT ON_NWN	100yr-24hr	140.06	12.5167	10.56	8.78	51.7600	86.9	20.20	20.20
REMINGT ON_NWW	100yr-24hr	254.10	12.1667	10.56	8.97	60.0600	87.6	19.00	19.00
REMINGT ON_P	100yr-24hr	100.61	12.1000	10.56	8.86	20.6200	86.7	22.10	22.10
REMINGT ON_POND G	100yr-24hr	55.42	12.4167	10.56	9.65	17.4900	93.7	2.90	2.90
REMINGT ON_SW	100yr-24hr	85.63	12.3000	10.56	8.49	25.4400	84.1	20.00	20.00
REMINGT ON_W	100yr-24hr	58.83	12.6167	10.56	8.71	24.0300	86.6	20.00	20.00
SE_ACADE MY	100yr-24hr	65.04	12.6500	10.56	8.66	27.3500	86.3	10.00	10.00
SHADY_S W	100yr-24hr	56.64	12.4500	10.56	9.37	19.0600	91.5	39.50	39.50
TAI_KWO N_DO	100yr-24hr	7.91	12.0500	10.56	9.83	1.2900	94.3	67.40	67.40
TPIKE_AC CESS	100yr-24hr	52.25	12.2500	10.56	9.67	13.5700	93.4	41.70	41.70
TPIKE_FE NNEL_NE	100yr-24hr	43.82	12.8667	10.56	9.62	20.6300	94.6	11.00	11.00
TPIKE_FE NNEL_S	100yr-24hr	61.02	12.7500	10.56	9.55	26.2400	93.7	11.40	11.40
TPIKE_RA MP_N	100yr-24hr	55.15	12.4000	10.56	9.20	17.4200	90.0	0.00	0.00
TPIKE_RA MP_S	100yr-24hr	47.18	12.3667	10.56	9.33	14.2800	90.9	9.70	9.70
TRANS_FA CILTY	100yr-24hr	128.73	12.2167	10.56	9.35	33.1600	90.8	54.80	54.80

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
192-FENN_EL_NE	100yr-72hr	19.16	60.4000	11.20	10.01	8.4700	91.4	6.80	6.80
192_FENN_EL_SE	100yr-72hr	15.33	60.0667	11.20	10.34	3.6900	93.3	0.00	0.00
192_PART_IN_SE	100yr-72hr	15.87	60.1667	11.20	10.37	4.9700	93.9	28.10	28.10
192_POND_4	100yr-72hr	74.57	60.0500	11.20	10.46	17.4900	94.3	25.40	25.40
192_TPIK_E_NW	100yr-72hr	31.84	60.0833	11.20	10.47	8.2000	94.4	67.90	67.90
ACADEMY_APTS	100yr-72hr	135.03	60.0833	11.20	10.07	34.4000	91.2	50.00	50.00
ACADEMY_NE	100yr-72hr	40.42	60.5333	11.20	8.77	21.5000	81.9	0.60	0.60
AERONAUTICAL_E	100yr-72hr	3.48	60.1167	11.20	9.55	1.0000	87.2	0.00	0.00
AERONAUTICAL_N	100yr-72hr	11.53	60.1167	11.20	9.90	3.2000	89.9	12.10	12.10
BORROW_PIT	100yr-72hr	72.90	60.0167	11.20	10.81	14.7400	97.1	0.20	0.20
COBBLESTONE	100yr-72hr	135.90	60.3833	11.20	10.09	59.3300	92.0	51.30	51.30
FDOT_POND_4	100yr-72hr	35.01	60.1833	11.20	9.02	11.7500	83.2	0.00	0.00
FENNEL_SE	100yr-72hr	87.16	60.6833	11.20	8.88	52.3800	83.1	5.00	5.00
FENNEL_SLOUGH	100yr-72hr	126.85	60.8000	11.20	10.52	77.0900	96.3	0.30	0.30
FIRE_STATION	100yr-72hr	11.69	60.0167	11.20	10.32	2.4100	93.1	59.60	59.60
HESS	100yr-72hr	15.48	60.0167	11.20	10.47	3.1800	94.3	66.70	66.70
ICE_PALACE	100yr-72hr	25.91	60.0167	11.20	10.47	5.4500	94.3	67.40	67.40
JUSTICE_EAST	100yr-72hr	60.24	60.3167	11.20	9.53	24.2400	87.4	23.30	23.30
JUSTICE_WEST	100yr-72hr	24.37	60.0500	11.20	10.12	5.7300	91.5	50.00	50.00
KMART	100yr-72hr	101.13	60.0167	11.20	10.48	20.7700	94.4	67.90	67.90
PARTIN_EROD_N	100yr-72hr	4.49	60.1000	11.20	9.38	1.2300	85.8	0.00	0.00
PARTIN_EROD_S	100yr-72hr	12.86	60.2000	11.20	9.85	4.2600	89.7	0.00	0.00
PARTIN_FENNEL_N	100yr-72hr	10.19	60.1167	11.20	9.28	2.9300	85.1	0.00	0.00
PARTIN_F	100yr-72hr	23.89	60.5333	11.20	9.61	12.3300	88.5	20.10	20.10

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
ENNEL_S	r								
POST-1	100yr-72hr	153.93	60.0167	11.20	10.43	31.2900	94.0	0.00	0.00
POST-1-SL-APTS	100yr-72hr	88.19	60.0000	11.20	10.12	16.7500	91.3	0.00	0.00
POST-2-SL-APTS	100yr-72hr	23.51	60.0000	11.20	10.08	4.4700	91.0	0.00	0.00
REMIGTON_GOLF	100yr-72hr	20.86	60.3833	11.20	9.78	9.0200	89.5	1.20	1.20
REMINGTON_E	100yr-72hr	267.99	60.1500	11.20	9.75	83.0500	88.8	20.00	20.00
REMINGTON_NE	100yr-72hr	104.78	60.1000	11.20	9.89	28.1000	89.8	5.10	5.10
REMINGTOM_NWE	100yr-72hr	40.68	60.1833	11.20	9.49	13.2800	86.8	20.80	20.80
REMINGTOM_NWN	100yr-72hr	114.51	60.4000	11.20	9.44	51.7600	86.9	20.20	20.20
REMINGTOM_NWW	100yr-72hr	210.84	60.1167	11.20	9.60	60.0600	87.6	19.00	19.00
REMINGTOM_P	100yr-72hr	83.46	60.0667	11.20	9.49	20.6200	86.6	22.10	22.10
REMINGTOM_PONDG	100yr-72hr	44.27	60.3167	11.20	10.32	17.4900	93.7	2.90	2.90
REMINGTOM_SW	100yr-72hr	71.98	60.2167	11.20	9.13	25.4400	84.1	20.00	20.00
REMINGTOM_W	100yr-72hr	48.01	60.4833	11.20	9.37	24.0300	86.5	20.00	20.00
SE_ACADEMY	100yr-72hr	52.99	60.5167	11.20	9.33	27.3500	86.3	10.00	10.00
SHADY_SW	100yr-72hr	45.71	60.3500	11.20	10.03	19.0600	91.5	39.50	39.50
TAI_KAWN_DO	100yr-72hr	6.28	60.0167	11.20	10.47	1.2900	94.3	67.40	67.40
TPIKE_ACCESS	100yr-72hr	42.42	60.1833	11.20	10.32	13.5700	93.4	41.70	41.70
TPIKE_FE_NNEL_NE	100yr-72hr	34.40	60.7667	11.20	10.33	20.6300	94.6	11.00	11.00
TPIKE_FE_NNEL_S	100yr-72hr	48.09	60.6333	11.20	10.24	26.2400	93.7	11.40	11.40
TPIKE_RA_MP_N	100yr-72hr	44.66	60.3000	11.20	9.86	17.4200	90.0	0.00	0.00
TPIKE_RA_MP_S	100yr-72hr	38.22	60.2667	11.20	9.99	14.2800	90.9	9.70	9.70
TRANS_FA_CILTY	100yr-72hr	106.08	60.1667	11.20	9.99	33.1600	90.7	54.80	54.80
192-FENN	10yr-24hr	10.95	12.5167	5.20	4.15	8.4700	91.5	6.80	6.80

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
EL_NE									
192_FENN	10yr-24hr	8.94	12.1000	5.20	4.40	3.6900	93.3	0.00	0.00
EL_SE									
192_PART	10yr-24hr	9.21	12.2500	5.20	4.46	4.9700	94.0	28.10	28.10
IN_SE									
192_POND	10yr-24hr	43.83	12.1000	5.20	4.53	17.4900	94.4	25.40	25.40
4									
192_TPIK	10yr-24hr	18.26	12.1333	5.20	4.58	8.2000	94.9	67.90	67.90
E_NW									
ACADEMY	10yr-24hr	74.18	12.1167	5.20	4.24	34.4000	91.9	50.00	50.00
_APTS									
ACADEMY	10yr-24hr	19.16	12.7000	5.20	3.16	21.5000	81.9	0.60	0.60
_NE									
AERONAU	10yr-24hr	1.83	12.1833	5.20	3.74	1.0000	87.2	0.00	0.00
TICAL_E									
AERONAU	10yr-24hr	6.32	12.1667	5.20	4.04	3.2000	90.1	12.10	12.10
TICAL_N									
BORROW_	10yr-24hr	45.36	12.0500	5.20	4.84	14.7400	97.1	0.20	0.20
PIT									
COBBLEST	10yr-24hr	76.65	12.5000	5.20	4.27	59.3300	92.5	51.30	51.30
ONE									
FDOT_PO	10yr-24hr	16.92	12.2833	5.20	3.33	11.7500	83.2	0.00	0.00
ND_4									
FENNEL_S	10yr-24hr	42.17	12.8500	5.20	3.26	52.3800	83.2	5.00	5.00
E									
FENNEL_S	10yr-24hr	78.40	12.9000	5.20	4.62	77.0900	96.3	0.30	0.30
LOUGH									
FIRE_STA	10yr-24hr	6.80	12.0500	5.20	4.45	2.4100	93.7	59.60	59.60
TION									
HESS	10yr-24hr	9.12	12.0500	5.20	4.58	3.1800	94.8	66.70	66.70
ICE_PALA	10yr-24hr	15.21	12.0500	5.20	4.58	5.4500	94.8	67.40	67.40
CE									
JUSTICE_	10yr-24hr	31.49	12.4333	5.20	3.78	24.2400	87.8	23.30	23.30
EAST									
JUSTICE_	10yr-24hr	13.54	12.0833	5.20	4.27	5.7300	92.1	50.00	50.00
WEST									
KMART	10yr-24hr	59.70	12.0500	5.20	4.59	20.7700	94.9	67.90	67.90
PARTIN_A	10yr-24hr	2.29	12.1500	5.20	3.60	1.2300	85.8	0.00	0.00
ERO_N									
PARTIN_A	10yr-24hr	7.07	12.2833	5.20	3.99	4.2600	89.7	0.00	0.00
ERO_S									
PARTIN_F	10yr-24hr	5.12	12.1833	5.20	3.53	2.9300	85.1	0.00	0.00
ENNEL_N									
PARTIN_F	10yr-24hr	12.88	12.6667	5.20	3.84	12.3300	88.8	20.10	20.10
ENNEL_S									
POST-1	10yr-24hr	93.05	12.0500	5.20	4.49	31.2900	94.0	0.00	0.00
POST-1-SL	10yr-24hr	53.30	12.0000	5.20	4.20	16.7500	91.3	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
-APTS									
POST-2-SL	10yr-24hr	14.15	12.0000	5.20	4.17	4.4700	91.0	0.00	0.00
-APTS									
REMIGTON_GOLF	10yr-24hr	11.55	12.5000	5.20	3.95	9.0200	89.5	1.20	1.20
REMINGTON_E	10yr-24hr	143.10	12.2333	5.20	3.93	83.0500	89.1	20.00	20.00
REMINGTON_NE	10yr-24hr	57.55	12.1500	5.20	4.03	28.1000	89.9	5.10	5.10
REMINGTON_NWE	10yr-24hr	20.92	12.2667	5.20	3.74	13.2800	87.2	20.80	20.80
REMINGTON_NWN	10yr-24hr	59.70	12.5333	5.20	3.71	51.7600	87.3	20.20	20.20
REMINGTON_NWW	10yr-24hr	110.07	12.1833	5.20	3.82	60.0600	87.9	19.00	19.00
REMINGTON_P	10yr-24hr	43.02	12.1000	5.20	3.74	20.6200	87.1	22.10	22.10
REMINGTON_POND	10yr-24hr	26.12	12.4333	5.20	4.40	17.4900	93.7	2.90	2.90
REMINGTON_SW	10yr-24hr	35.09	12.3167	5.20	3.47	25.4400	84.6	20.00	20.00
REMINGTON_W	10yr-24hr	24.91	12.6333	5.20	3.66	24.0300	86.9	20.00	20.00
SE_ACADEMY	10yr-24hr	27.48	12.6667	5.20	3.60	27.3500	86.5	10.00	10.00
SHADY_SW	10yr-24hr	25.63	12.4667	5.20	4.20	19.0600	91.9	39.50	39.50
TAI_KWON_DO	10yr-24hr	3.70	12.0500	5.20	4.58	1.2900	94.8	67.40	67.40
TPIKE_ACCESS	10yr-24hr	24.27	12.2667	5.20	4.42	13.5700	93.7	41.70	41.70
TPIKE_FENNEL_NE	10yr-24hr	20.74	12.8667	5.20	4.44	20.6300	94.7	11.00	11.00
TPIKE_FENNEL_S	10yr-24hr	28.60	12.7500	5.20	4.36	26.2400	93.7	11.40	11.40
TPIKE_RAMP_N	10yr-24hr	24.83	12.4167	5.20	4.01	17.4200	90.0	0.00	0.00
TPIKE_RAMP_S	10yr-24hr	21.45	12.3833	5.20	4.12	14.2800	91.0	9.70	9.70
TRANS_FAILITY	10yr-24hr	57.57	12.2333	5.20	4.20	33.1600	91.6	54.80	54.80
192-FENNEL_NE	10yr72hr	12.60	60.4000	7.50	6.39	8.4700	91.4	6.80	6.80
192-FENNEL_SE	10yr72hr	10.16	60.0667	7.50	6.67	3.6900	93.3	0.00	0.00
192_PART	10yr72hr	10.51	60.1667	7.50	6.72	4.9700	93.9	28.10	28.10

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
IN_SE									
192_POND_4	10yr72hr	49.48	60.0667	7.50	6.80	17.4900	94.3	25.40	25.40
192_TPIK_E_NW	10yr72hr	20.98	60.0833	7.50	6.83	8.2000	94.6	67.90	67.90
ACADEMY_APTS	10yr72hr	88.11	60.0833	7.50	6.46	34.4000	91.5	50.00	50.00
ACADEMY_NE	10yr72hr	25.40	60.5333	7.50	5.27	21.5000	81.9	0.60	0.60
AERONAUTICAL_E	10yr72hr	2.25	60.1167	7.50	5.95	1.0000	87.2	0.00	0.00
AERONAUTICAL_N	10yr72hr	7.55	60.1167	7.50	6.27	3.2000	90.0	12.10	12.10
BORROW_PIT	10yr72hr	48.73	60.0167	7.50	7.13	14.7400	97.1	0.20	0.20
COBBLESTONE	10yr72hr	88.85	60.3833	7.50	6.49	59.3300	92.2	51.30	51.30
FDOT_POND_4	10yr72hr	22.22	60.1833	7.50	5.47	11.7500	83.2	0.00	0.00
FENNEL_SE	10yr72hr	55.04	60.7000	7.50	5.39	52.3800	83.1	5.00	5.00
FENNEL_SLOUGH	10yr72hr	84.63	60.8000	7.50	6.90	77.0900	96.3	0.30	0.30
FIRE_STATION	10yr72hr	7.68	60.0167	7.50	6.69	2.4100	93.4	59.60	59.60
HESS	10yr72hr	10.21	60.0167	7.50	6.82	3.1800	94.5	66.70	66.70
ICE_PALACE	10yr72hr	17.08	60.0167	7.50	6.82	5.4500	94.5	67.40	67.40
JUSTICE_EAST	10yr72hr	38.79	60.3167	7.50	5.96	24.2400	87.6	23.30	23.30
JUSTICE_WEST	10yr72hr	15.93	60.0500	7.50	6.49	5.7300	91.8	50.00	50.00
KMART	10yr72hr	66.69	60.0167	7.50	6.84	20.7700	94.6	67.90	67.90
PARTIN_AERO_N	10yr72hr	2.89	60.1000	7.50	5.79	1.2300	85.8	0.00	0.00
PARTIN_AERO_S	10yr72hr	8.42	60.2000	7.50	6.22	4.2600	89.7	0.00	0.00
PARTIN_FENNEL_N	10yr72hr	6.54	60.1167	7.50	5.70	2.9300	85.1	0.00	0.00
PARTIN_FENNEL_S	10yr72hr	15.47	60.5333	7.50	6.04	12.3300	88.6	20.10	20.10
POST-1	10yr72hr	102.30	60.0167	7.50	6.76	31.2900	94.0	0.00	0.00
POST-1-SL-APTS	10yr72hr	58.22	60.0000	7.50	6.46	16.7500	91.3	0.00	0.00
POST-2-SL-APTS	10yr72hr	15.51	60.0000	7.50	6.42	4.4700	91.0	0.00	0.00
REMIGTO	10yr72hr	13.63	60.3833	7.50	6.18	9.0200	89.5	1.20	1.20

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
N_GOLF									
REMINGT ON_E	10yr72hr	174.09	60.1667	7.50	6.14	83.0500	88.9	20.00	20.00
REMINGT ON_NE	10yr72hr	68.61	60.1000	7.50	6.26	28.1000	89.8	5.10	5.10
REMINGT ON_NWE	10yr72hr	26.16	60.1833	7.50	5.91	13.2800	87.0	20.80	20.80
REMINGT ON_NWN	10yr72hr	73.59	60.4000	7.50	5.88	51.7600	87.0	20.20	20.20
REMINGT ON_NWW	10yr72hr	136.27	60.1167	7.50	6.01	60.0600	87.7	19.00	19.00
REMINGT ON_P	10yr72hr	53.69	60.0667	7.50	5.91	20.6200	86.8	22.10	22.10
REMINGT ON_POND G	10yr72hr	29.35	60.3167	7.50	6.67	17.4900	93.7	2.90	2.90
REMINGT ON_SW	10yr72hr	45.61	60.2167	7.50	5.60	25.4400	84.3	20.00	20.00
REMINGT ON_W	10yr72hr	30.78	60.4833	7.50	5.83	24.0300	86.7	20.00	20.00
SE_ACADE MY	10yr72hr	34.02	60.5167	7.50	5.78	27.3500	86.3	10.00	10.00
SHADY_S W	10yr72hr	29.90	60.3500	7.50	6.43	19.0600	91.6	39.50	39.50
TAI_KWO N_DO	10yr72hr	4.14	60.0167	7.50	6.82	1.2900	94.5	67.40	67.40
TPIKE_AC CESS	10yr72hr	27.98	60.1833	7.50	6.67	13.5700	93.5	41.70	41.70
TPIKE_FE NNEL_NE	10yr72hr	22.85	60.7667	7.50	6.71	20.6300	94.7	11.00	11.00
TPIKE_FE NNEL_S	10yr72hr	31.85	60.6333	7.50	6.62	26.2400	93.7	11.40	11.40
TPIKE_RA MP_N	10yr72hr	29.26	60.3000	7.50	6.24	17.4200	90.0	0.00	0.00
TPIKE_RA MP_S	10yr72hr	25.09	60.2667	7.50	6.36	14.2800	91.0	9.70	9.70
TRANS_FA CILTY	10yr72hr	68.91	60.1667	7.50	6.39	33.1600	91.1	54.80	54.80
192-FENN EL_NE	50yr-24hr	22.22	12.5167	9.84	8.64	8.4700	91.4	6.80	6.80
192_FENN EL_SE	50yr-24hr	17.63	12.1000	9.84	8.98	3.6900	93.3	0.00	0.00
192_PART IN_SE	50yr-24hr	18.22	12.2333	9.84	9.01	4.9700	93.9	28.10	28.10
192_POND 4	50yr-24hr	86.03	12.1000	9.84	9.11	17.4900	94.3	25.40	25.40
192_TPIK	50yr-24hr	36.31	12.1333	9.84	9.12	8.2000	94.5	67.90	67.90

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
E_NW									
ACADEMY_APTS	50yr-24hr	152.36	12.1167	9.84	8.73	34.4000	91.3	50.00	50.00
ACADEMY_NE	50yr-24hr	44.63	12.6667	9.84	7.42	21.5000	81.9	0.60	0.60
AERONAUTICAL_E	50yr-24hr	3.89	12.1833	9.84	8.21	1.0000	87.2	0.00	0.00
AERONAUTICAL_N	50yr-24hr	13.03	12.1667	9.84	8.55	3.2000	90.0	12.10	12.10
BORROW_PIT	50yr-24hr	86.57	12.0500	9.84	9.46	14.7400	97.1	0.20	0.20
COBBLESTONE	50yr-24hr	156.49	12.5000	9.84	8.73	59.3300	92.1	51.30	51.30
FDOT_POND_4	50yr-24hr	38.32	12.2667	9.84	7.69	11.7500	83.2	0.00	0.00
FENNEL_SE	50yr-24hr	96.82	12.8167	9.84	7.52	52.3800	83.1	5.00	5.00
FENNEL_SLOUGH	50yr-24hr	151.20	12.8833	9.84	9.12	77.0900	96.3	0.30	0.30
FIRE_STATION	50yr-24hr	13.64	12.0500	9.84	8.98	2.4100	93.2	59.60	59.60
HESS	50yr-24hr	18.12	12.0500	9.84	9.12	3.1800	94.3	66.70	66.70
ICE_PALACE	50yr-24hr	30.22	12.0500	9.84	9.12	5.4500	94.4	67.40	67.40
JUSTICE_EAST	50yr-24hr	67.69	12.4167	9.84	8.18	24.2400	87.4	23.30	23.30
JUSTICE_WEST	50yr-24hr	27.68	12.0833	9.84	8.77	5.7300	91.6	50.00	50.00
KMART	50yr-24hr	118.41	12.0500	9.84	9.14	20.7700	94.5	67.90	67.90
PARTIN_AERO_N	50yr-24hr	4.98	12.1500	9.84	8.04	1.2300	85.8	0.00	0.00
PARTIN_AERO_S	50yr-24hr	14.58	12.2667	9.84	8.50	4.2600	89.7	0.00	0.00
PARTIN_FENNEL_N	50yr-24hr	11.25	12.1667	9.84	7.95	2.9300	85.1	0.00	0.00
PARTIN_FENNEL_S	50yr-24hr	27.34	12.6667	9.84	8.25	12.3300	88.5	20.10	20.10
POST-1	50yr-24hr	181.67	12.0500	9.84	9.08	31.2900	94.0	0.00	0.00
POST-1-SL-APTS	50yr-24hr	106.63	12.0000	9.84	8.77	16.7500	91.3	0.00	0.00
POST-2-SL-APTS	50yr-24hr	28.40	12.0000	9.84	8.73	4.4700	91.0	0.00	0.00
REMIGTO_N_GOLF	50yr-24hr	23.96	12.5000	9.84	8.42	9.0200	89.5	1.20	1.20
REMINGTON_E	50yr-24hr	300.78	12.2167	9.84	8.40	83.0500	88.8	20.00	20.00
REMIGT	50yr-24hr	118.46	12.1500	9.84	8.54	28.1000	89.8	5.10	5.10

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
ON_NE									
REMINGT ON_NWE	50yr-24hr	45.19	12.2500	9.84	8.15	13.2800	86.9	20.80	20.80
REMINGT ON_NWN	50yr-24hr	129.28	12.5167	9.84	8.09	51.7600	86.9	20.20	20.20
REMINGT ON_NWW	50yr-24hr	234.83	12.1667	9.84	8.26	60.0600	87.6	19.00	19.00
REMINGT ON_P	50yr-24hr	92.89	12.1000	9.84	8.16	20.6200	86.7	22.10	22.10
REMINGT ON_POND G	50yr-24hr	51.51	12.4167	9.84	8.95	17.4900	93.7	2.90	2.90
REMINGT ON_SW	50yr-24hr	78.81	12.3000	9.84	7.80	25.4400	84.1	20.00	20.00
REMINGT ON_W	50yr-24hr	54.27	12.6167	9.84	8.02	24.0300	86.6	20.00	20.00
SE_ACAD MY	50yr-24hr	60.01	12.6500	9.84	7.97	27.3500	86.3	10.00	10.00
SHADY_S W	50yr-24hr	52.49	12.4500	9.84	8.67	19.0600	91.5	39.50	39.50
TAI_KWO N_DO	50yr-24hr	7.35	12.0500	9.84	9.12	1.2900	94.4	67.40	67.40
TPIKE_AC CESS	50yr-24hr	48.51	12.2500	9.84	8.96	13.5700	93.4	41.70	41.70
TPIKE_FE NNEL_NE	50yr-24hr	40.74	12.8667	9.84	8.92	20.6300	94.7	11.00	11.00
TPIKE_FE NNEL_S	50yr-24hr	56.69	12.7500	9.84	8.85	26.2400	93.7	11.40	11.40
TPIKE_RA MP_N	50yr-24hr	51.11	12.4000	9.84	8.50	17.4200	90.0	0.00	0.00
TPIKE_RA MP_S	50yr-24hr	43.75	12.3667	9.84	8.63	14.2800	91.0	9.70	9.70
TRANS_FA CILTY	50yr-24hr	119.14	12.2167	9.84	8.65	33.1600	90.8	54.80	54.80

## Node Max Conditions [Existing]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
ACADEMY_AP_TS	100yr-24hr	65.97	66.29	0.0010	164.47	65.74	117964
AERONAUTIC_AL_E	100yr-24hr	61.00	60.89	0.0010	65.39	29.57	87124
AERONAUTIC_AL_W	100yr-24hr	61.40	60.90	0.0010	54.15	65.07	87122
BORROW_PIT	100yr-24hr	65.97	52.16	0.0002	92.95	0.00	463771
COBBLESTON_E	100yr-24hr	62.47	62.17	0.0010	168.87	39.06	294404
FDOT_POND_4	100yr-24hr	63.97	63.56	0.0009	129.44	55.01	99672
FENNEL_192P_SETS	100yr-24hr	62.00	60.71	0.0009	454.98	453.09	35752
FENNEL_192_DS	100yr-24hr	62.50	61.02	0.0010	456.71	454.73	21101
FENNEL_192_US	100yr-24hr	63.00	61.21	0.0010	328.56	319.30	100426
FENNEL_APT_S_DS	100yr-24hr	63.47	62.69	0.0010	128.48	129.87	30725
FENNEL_APT_S_US	100yr-24hr	63.47	62.90	0.0009	123.01	128.23	150570
FENNEL_P4	100yr-24hr	62.97	62.07	0.0009	214.82	215.83	111692
FENNEL_PSE_TFSHN	100yr-24hr	59.00	59.11	0.0010	510.48	506.05	137729
FENNEL_PSE_TFSHS	100yr-24hr	59.00	58.64	0.0010	539.83	539.19	64761
FENNEL_PSE_TL_DS	100yr-24hr	61.50	60.47	0.0013	510.52	510.23	16646
FENNEL_PSE_TL_US	100yr-24hr	62.00	60.64	0.0010	475.78	475.78	7157
FENNEL_SEA_CAD	100yr-24hr	63.47	62.91	0.0009	148.21	122.76	172925
FENNEL_TPIK_E_DS	100yr-24hr	63.47	62.91	0.0009	170.36	92.38	286373
FENNEL_TPIK_E_US	100yr-24hr	64.97	62.92	0.0009	92.55	67.32	142531
FENNEL_WET_LAND	100yr-24hr	64.97	65.18	0.0005	492.65	86.74	2767367
FIRE_STATION	100yr-24hr	67.97	66.22	0.0005	14.70	12.38	11820
FISH_LAKE	100yr-24hr	58.00	58.00	0.0004	539.19	0.00	0
HESS	100yr-24hr	66.47	65.98	0.0009	19.51	4.80	21898
ICE_RINK	100yr-24hr	65.97	66.23	0.0010	32.54	8.54	42288
JUSTICE_EAST	100yr-24hr	70.47	70.79	0.0010	73.30	20.15	128066
JUSTICE_WEST	100yr-24hr	68.97	68.28	0.0005	29.87	11.67	66660

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
ST							
KMART	100yr-24hr	67.97	68.43	0.0010	127.50	50.78	106862
POND-A	100yr-24hr	62.00	60.67	0.0026	195.32	35.95	223725
REM_EAST	100yr-24hr	66.97	66.28	0.0006	325.11	16.36	878320
REM_NE	100yr-24hr	68.47	68.54	0.0009	140.06	19.09	349351
REM_NORTH	100yr-24hr	64.47	65.19	0.0005	265.11	152.61	398395
REM_POND_2	100yr-24hr	64.97	65.19	0.0007	25.87	10.56	44409
REM_POND_2	100yr-24hr	65.97	65.46	0.0005	127.82	61.07	155596
3A							
REM_POND_G	100yr-24hr	64.97	65.19	0.0005	173.80	57.36	590739
REM_POND_P	100yr-24hr	75.97	75.57	0.0009	58.83	19.37	129047
REM_TRACT_1	100yr-24hr	76.97	76.41	0.0009	85.63	25.95	119202
SE_ACADEMY	100yr-24hr	62.97	64.07	0.0010	65.04	20.88	157252
SHADY_192	100yr-24hr	63.97	63.69	0.0010	141.15	124.17	56657
TAIKWON	100yr-24hr	61.00	60.91	0.0007	7.91	6.37	7682
TPIKE_ACCESS	100yr-24hr	63.97	63.80	0.0010	52.25	31.15	43576
TRANS_FACILITY	100yr-24hr	75.47	75.38	0.0005	128.73	41.42	229528
WETPOND-1	100yr-24hr	66.00	66.02	0.0010	114.81	23.90	107593
WETPOND-2	100yr-24hr	62.00	62.11	0.0009	30.59	14.58	34412
ACADEMY_AP_TS	100yr-72hr	65.97	65.66	0.0010	135.03	62.50	105740
AERONAUTIC_AL_E	100yr-72hr	61.00	60.66	0.0010	60.59	27.42	87124
AERONAUTIC_AL_W	100yr-72hr	61.40	60.66	0.0009	51.52	60.33	87122
BORROW_PIT	100yr-72hr	65.97	52.24	0.0002	72.90	0.00	464706
COBBLESTON_E	100yr-72hr	62.47	61.89	0.0009	135.90	35.80	288775
FDOT_POND_4	100yr-72hr	63.97	63.02	0.0008	107.38	47.70	88500
FENNEL_192SETS	100yr-72hr	62.00	60.47	0.0007	395.79	394.94	35075
FENNEL_192_DS	100yr-72hr	62.50	60.70	0.0009	392.01	388.22	20945
FENNEL_192_US	100yr-72hr	63.00	60.83	0.0010	278.30	279.48	88531
FENNEL_APT_S_DS	100yr-72hr	63.47	62.41	0.0010	114.62	115.84	27091
FENNEL_APT_S_US	100yr-72hr	63.47	62.58	0.0007	110.83	114.37	110219
FENNEL_P4	100yr-72hr	62.97	61.92	0.0006	189.72	189.75	103476
FENNEL_PSE	100yr-72hr	59.00	59.17	0.0010	443.91	441.41	138676

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
TFSHN							
FENNEL_PSE_TFSHS	100yr-72hr	59.00	58.85	0.0010	473.92	473.76	68409
FENNEL_PSE_TL_DS	100yr-72hr	61.50	60.27	0.0017	443.89	443.66	16646
FENNEL_PSE_TL_US	100yr-72hr	62.00	60.40	0.0010	414.78	414.85	7157
FENNEL_SEA_CAD	100yr-72hr	63.47	62.59	0.0007	122.90	110.58	149938
FENNEL_TPIK_E_DS	100yr-72hr	63.47	62.59	0.0007	134.59	76.58	254716
FENNEL_TPIK_E_US	100yr-72hr	64.97	62.60	0.0009	72.81	56.70	113929
FENNEL_WET_LAND	100yr-72hr	64.97	65.37	0.0005	432.52	86.74	2767367
FIRE_STATION	100yr-72hr	67.97	66.12	0.0006	11.69	9.63	11546
FISH_LAKE	100yr-72hr	58.00	58.00	0.0003	473.76	0.01	0
HESS	100yr-72hr	66.47	65.51	0.0010	15.48	4.10	19371
ICE_RINK	100yr-72hr	65.97	65.83	0.0010	25.91	6.15	31407
JUSTICE_EAST	100yr-72hr	70.47	70.93	0.0008	60.24	20.25	128066
JUSTICE_WEST	100yr-72hr	68.97	68.23	0.0004	24.37	10.63	63597
KMART	100yr-72hr	67.97	67.83	0.0010	101.13	48.79	68454
POND-A	100yr-72hr	62.00	60.43	0.0023	153.93	30.25	221546
REM_EAST	100yr-72hr	66.97	66.21	0.0006	267.99	13.48	862492
REM_NE	100yr-72hr	68.47	68.13	0.0010	114.51	17.12	349351
REM_NORTH	100yr-72hr	64.47	65.37	0.0004	223.16	144.92	424064
REM_POND_22	100yr-72hr	64.97	65.38	0.0007	20.86	8.26	48883
REM_POND_23A	100yr-72hr	65.97	65.38	0.0005	104.78	44.05	151161
REM_POND_G	100yr-72hr	64.97	65.37	0.0005	152.37	72.00	607572
REM_POND_P	100yr-72hr	75.97	75.16	0.0008	48.01	18.52	127803
REM_TRACT_1	100yr-72hr	76.97	76.27	0.0009	71.98	24.29	115377
SE_ACADEMY	100yr-72hr	62.97	63.55	0.0010	52.99	19.12	143453
SHADY_192	100yr-72hr	63.97	63.19	0.0010	123.80	105.84	56657
TAIKWON	100yr-72hr	61.00	60.72	0.0008	6.28	5.03	7349
TPIKE_ACCES_S	100yr-72hr	63.97	63.34	0.0010	42.42	26.59	43576
TRANS_FACILITY	100yr-72hr	75.47	75.06	0.0005	106.08	40.31	226456
WETPOND-1	100yr-72hr	66.00	66.03	0.0010	88.19	24.08	107593
WETPOND-2	100yr-72hr	62.00	62.02	0.0009	23.51	13.20	34412

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
ACADEMY_AP_TS	10yr-24hr	65.97	64.14	0.0010	74.18	20.05	90281
AERONAUTIC_AL_E	10yr-24hr	61.00	59.01	0.0010	8.75	8.95	44107
AERONAUTIC_AL_W	10yr-24hr	61.40	59.03	0.0006	9.53	6.61	44966
BORROW_PIT	10yr-24hr	65.97	51.54	0.0001	45.36	0.00	455916
COBBLESTONE	10yr-24hr	62.47	59.94	0.0008	76.65	14.22	249160
FDOT_POND_4	10yr-24hr	63.97	61.55	0.0006	58.45	22.60	75104
FENNEL_192P_SETS	10yr-24hr	62.00	58.98	0.0008	189.98	189.17	31582
FENNEL_192_DS	10yr-24hr	62.50	59.10	0.0009	188.07	187.39	14044
FENNEL_192_US	10yr-24hr	63.00	59.17	0.0008	127.39	127.54	9963
FENNEL_APT_S_DS	10yr-24hr	63.47	61.44	0.0010	64.80	65.03	14476
FENNEL_APT_S_US	10yr-24hr	63.47	61.50	0.0009	64.15	64.55	60143
FENNEL_P4	10yr-24hr	62.97	61.25	0.0009	90.87	90.95	47689
FENNEL_PSE_TFSHN	10yr-24hr	59.00	58.01	0.0010	211.99	267.89	120126
FENNEL_PSE_TFSHS	10yr-24hr	59.00	58.01	0.0010	220.75	219.74	64510
FENNEL_PSE_TL_DS	10yr-24hr	61.50	58.88	0.0017	211.96	211.74	16646
FENNEL_PSE_TL_US	10yr-24hr	62.00	58.93	0.0010	196.12	196.23	6931
FENNEL_SEA_CAD	10yr-24hr	63.47	61.51	0.0009	66.02	63.90	81941
FENNEL_TPIK_E_DS	10yr-24hr	63.47	61.51	0.0009	79.97	44.66	171083
FENNEL_TPIK_E_US	10yr-24hr	64.97	61.52	0.0009	42.79	32.15	46571
FENNEL_WET_LAND	10yr-24hr	64.97	63.42	0.0005	190.06	86.74	2337422
FIRE_STATION	10yr-24hr	67.97	65.77	0.0004	6.79	4.59	10545
FISH_LAKE	10yr-24hr	58.00	58.00	0.0004	219.74	0.00	0
HESS	10yr-24hr	66.47	64.44	0.0010	9.12	2.07	13773
ICE_RINK	10yr-24hr	65.97	64.66	0.0006	15.21	3.92	24610
JUSTICE_EAST	10yr-24hr	70.47	68.99	0.0010	31.49	1.52	84475
JUSTICE_WEST	10yr-24hr	68.97	67.40	0.0004	13.54	1.51	44697

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
KMART	10yr-24hr	67.97	66.55	0.0010	59.70	18.45	60909
POND-A	10yr-24hr	62.00	58.97	0.0023	93.05	14.18	208632
REM_EAST	10yr-24hr	66.97	64.41	0.0004	143.10	11.87	586319
REM_NE	10yr-24hr	68.47	66.26	0.0008	59.70	12.67	176671
REM_NORTH	10yr-24hr	64.47	63.43	0.0005	113.36	55.26	284469
REM_POND_22	10yr-24hr	64.97	63.42	0.0005	11.55	6.12	35161
REM_POND_23A	10yr-24hr	65.97	64.35	0.0004	57.55	26.33	125704
REM_POND_G	10yr-24hr	64.97	63.42	0.0005	67.72	18.18	517808
REM_POND_P	10yr-24hr	75.97	74.13	0.0005	24.91	9.85	124697
REM_TRACT_1	10yr-24hr	76.97	74.29	0.0007	35.09	8.10	97490
SE_ACADEMY	10yr-24hr	62.97	61.91	0.0007	27.48	11.79	90931
SHADY_192	10yr-24hr	63.97	61.81	0.0010	67.86	60.85	39856
TAIKWON	10yr-24hr	61.00	60.37	0.0006	3.70	1.56	6751
TPIKE_ACCES_S	10yr-24hr	63.97	61.88	0.0010	24.27	20.68	10507
TRANS_FACILITY	10yr-24hr	75.47	74.29	0.0004	57.57	14.52	219128
WETPOND-1	10yr-24hr	66.00	64.45	0.0006	53.30	2.43	98826
WETPOND-2	10yr-24hr	62.00	61.21	0.0006	14.15	1.28	28179
ACADEMY_AP_TS	10yr72hr	65.97	64.71	0.0009	88.11	43.12	96108
AERONAUTIC_AL_E	10yr72hr	61.00	59.66	0.0009	14.15	16.33	72184
AERONAUTIC_AL_W	10yr72hr	61.40	59.71	0.0007	15.94	12.05	74276
BORROW_PIT	10yr72hr	65.97	51.81	0.0001	48.73	0.00	459305
COBBLESTON_E	10yr72hr	62.47	60.78	0.0007	88.85	23.72	266148
FDOT_POND_4	10yr72hr	63.97	61.94	0.0008	70.24	29.15	75954
FENNEL_192P_SETS	10yr72hr	62.00	59.63	0.0007	256.24	254.30	33309
FENNEL_192_DS	10yr72hr	62.50	59.76	0.0010	256.99	255.99	17746
FENNEL_192_US	10yr72hr	63.00	59.84	0.0010	177.77	177.41	14128
FENNEL_APT_S_DS	10yr72hr	63.47	61.77	0.0010	82.21	82.62	18744
FENNEL_APT_S_US	10yr72hr	63.47	61.86	0.0009	80.77	81.96	77876
FENNEL_P4	10yr72hr	62.97	61.50	0.0009	121.92	122.00	55532
FENNEL_PSE_TFSHN	10yr72hr	59.00	58.62	0.0010	285.02	283.05	130217

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
FENNEL_PSE_TFSHS	10yr72hr	59.00	58.42	0.0010	303.75	303.62	66440
FENNEL_PSE_TL_DS	10yr72hr	61.50	59.50	0.0017	285.00	284.77	16646
FENNEL_PSE_TL_US	10yr72hr	62.00	59.57	0.0010	265.19	265.20	7066
FENNEL_SEA_CAD	10yr72hr	63.47	61.87	0.0009	81.46	80.52	95067
FENNEL_TPIK_E_DS	10yr72hr	63.47	61.87	0.0009	87.93	54.45	196789
FENNEL_TPIK_E_US	10yr72hr	64.97	61.88	0.0009	48.08	34.53	55601
FENNEL_WET_LAND	10yr72hr	64.97	64.34	0.0004	263.85	86.74	2713377
FIRE_STATION	10yr72hr	67.97	65.86	0.0005	7.68	5.37	10796
FISH_LAKE	10yr72hr	58.00	58.00	0.0003	303.62	6.41	0
HESS	10yr72hr	66.47	64.69	0.0010	10.21	2.56	15106
ICE_RINK	10yr72hr	65.97	65.02	0.0008	17.08	4.15	26714
JUSTICE_EAST	10yr72hr	70.47	70.16	0.0010	38.79	4.69	128066
JUSTICE_WEST	10yr72hr	68.97	67.86	0.0004	15.93	3.06	47285
KMART	10yr72hr	67.97	67.05	0.0010	66.69	26.67	63860
POND-A	10yr72hr	62.00	59.61	0.0023	102.30	14.80	213988
REM_EAST	10yr72hr	66.97	65.12	0.0005	174.09	13.41	629467
REM_NE	10yr72hr	68.47	67.08	0.0009	73.59	15.30	243555
REM_NORTH	10yr72hr	64.47	64.35	0.0004	143.70	85.87	297517
REM_POND_22	10yr72hr	64.97	64.35	0.0006	13.63	5.98	37577
REM_POND_23A	10yr72hr	65.97	64.55	0.0005	68.61	36.52	126592
REM_POND_G	10yr72hr	64.97	64.35	0.0004	98.90	41.42	540915
REM_POND_P	10yr72hr	75.97	74.35	0.0005	30.78	16.52	125351
REM_TRACT_1	10yr72hr	76.97	75.12	0.0007	45.61	14.76	102262
SE_ACADEMY	10yr72hr	62.97	62.43	0.0010	34.02	14.46	107087
SHADY_192	10yr72hr	63.97	62.18	0.0010	83.73	73.05	45075
TAIKWON	10yr72hr	61.00	60.45	0.0007	4.14	2.17	6879
TPIKE_ACCES_S	10yr72hr	63.97	62.27	0.0010	27.98	20.84	20652
TRANS_FACILITY	10yr72hr	75.47	74.53	0.0005	68.91	23.19	221393
WETPOND-1	10yr72hr	66.00	65.28	0.0007	58.22	5.01	103510
WETPOND-2	10yr72hr	62.00	61.64	0.0007	15.51	3.71	31597
ACADEMY_AP	50yr-24hr	65.97	65.97	0.0010	152.36	64.34	108869

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
TS							
AERONAUTIC_AL_E	50yr-24hr	61.00	60.67	0.0010	55.19	27.71	87124
AERONAUTIC_AL_W	50yr-24hr	61.40	60.67	0.0010	45.41	54.89	87122
BORROW_PIT	50yr-24hr	65.97	52.08	0.0002	86.57	0.00	462723
COBBLESTON_E	50yr-24hr	62.47	61.88	0.0008	156.49	35.80	288630
FDOT_POND_4	50yr-24hr	63.97	63.30	0.0009	119.94	51.72	94116
FENNEL_192P_SETS	50yr-24hr	62.00	60.53	0.0008	426.47	423.50	35245
FENNEL_192_DS	50yr-24hr	62.50	60.80	0.0009	427.92	426.22	21000
FENNEL_192_US	50yr-24hr	63.00	60.95	0.0010	305.34	297.80	92197
FENNEL_APT_S_DS	50yr-24hr	63.47	62.55	0.0010	122.46	123.72	28995
FENNEL_APT_S_US	50yr-24hr	63.47	62.75	0.0009	118.33	122.21	116471
FENNEL_P4	50yr-24hr	62.97	61.99	0.0008	204.24	204.39	106708
FENNEL_PSE_TFSHN	50yr-24hr	59.00	58.97	0.0010	474.74	470.66	135618
FENNEL_PSE_TFSHS	50yr-24hr	59.00	58.51	0.0010	501.99	501.32	64685
FENNEL_PSE_TL_DS	50yr-24hr	61.50	60.31	0.0017	474.76	474.49	16646
FENNEL_PSE_TL_US	50yr-24hr	62.00	60.46	0.0010	443.34	443.34	7158
FENNEL_SEA_CAD	50yr-24hr	63.47	62.76	0.0009	137.75	118.08	164081
FENNEL_TPIK_E_DS	50yr-24hr	63.47	62.76	0.0009	158.39	86.75	273490
FENNEL_TPIK_E_US	50yr-24hr	64.97	62.77	0.0009	85.91	63.09	129213
FENNEL_WET_LAND	50yr-24hr	64.97	64.99	0.0005	455.00	86.74	2767367
FIRE_STATION	50yr-24hr	67.97	66.18	0.0005	13.64	11.25	11708
FISH_LAKE	50yr-24hr	58.00	58.00	0.0004	501.32	0.00	0
HESS	50yr-24hr	66.47	65.80	0.0010	18.12	4.55	20899
ICE_RINK	50yr-24hr	65.97	66.08	0.0010	30.22	8.14	36467
JUSTICE_EAST	50yr-24hr	70.47	70.63	0.0010	67.69	18.11	128066
JUSTICE_WEST	50yr-24hr	68.97	68.20	0.0004	27.68	10.17	62222
KMART	50yr-24hr	67.97	68.22	0.0010	118.41	49.65	90126

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
POND-A	50yr-24hr	62.00	60.49	0.0023	181.67	32.59	222051
REM_EAST	50yr-24hr	66.97	66.05	0.0006	300.78	16.15	828798
REM_NE	50yr-24hr	68.47	68.28	0.0009	129.28	18.56	349351
REM_NORTH	50yr-24hr	64.47	64.99	0.0005	245.10	139.37	371185
REM_POND_22	50yr-24hr	64.97	64.99	0.0006	23.96	10.23	39737
REM_POND_23A	50yr-24hr	65.97	65.29	0.0006	118.46	60.12	146025
REM_POND_G	50yr-24hr	64.97	64.99	0.0005	159.64	50.38	572889
REM_POND_P	50yr-24hr	75.97	75.30	0.0009	54.27	19.37	128222
REM_TRACT_1	50yr-24hr	76.97	76.25	0.0009	78.81	18.66	114819
SE_ACADEMY	50yr-24hr	62.97	63.82	0.0010	60.01	20.07	152284
SHADY_192	50yr-24hr	63.97	63.56	0.0010	133.85	117.63	56657
TAIKWON	50yr-24hr	61.00	60.78	0.0007	7.35	5.81	7459
TPIKE_ACCES_S	50yr-24hr	63.97	63.68	0.0010	48.51	28.41	43576
TRANS_FACILITY	50yr-24hr	75.47	75.19	0.0005	119.14	41.42	227708
WETPOND-1	50yr-24hr	66.00	65.85	0.0010	106.63	19.71	106731
WETPOND-2	50yr-24hr	62.00	62.02	0.0009	28.40	13.18	34412

## Link Min/Max Conditions [Existing]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
C_FEN_192PS ETS1	100yr-24hr	453.09	-3.16	8.69	1.72	3.70	2.45
C_FEN_PSETF ISH1	100yr-24hr	510.23	-70.89	0.38	2.21	-4.37	-2.62
C_FEN_PSETF ISH2	100yr-24hr	506.05	0.00	-0.23	1.52	2.01	1.64
C_FEN_PSETF ISH3	100yr-24hr	539.19	0.00	0.21	2.23	4.23	3.23
C_FEN_TP192 -1	100yr-24hr	92.38	0.00	-1.40	0.21	0.17	0.19
C_FEN_TP192 -2	100yr-24hr	122.76	0.00	-2.64	0.20	0.15	0.18
C_FEN_TP192 -3	100yr-24hr	215.83	0.00	-0.12	0.87	5.14	2.92
D-REM_EAST-G - Pipe	100yr-24hr	16.36	0.00	0.01	0.00	0.00	0.00
D-REM_EAST-G - Weir: 1	100yr-24hr	7.87	0.00	-0.01	3.94	3.94	3.94
D-REM_EAST-G - Weir: 2	100yr-24hr	12.23	0.00	0.01	2.07	2.07	2.07
DS-1 - Pipe	100yr-24hr	23.90	0.00	0.03	0.00	0.00	0.00
DS-1 - Weir: 1	100yr-24hr	0.41	0.00	0.00	0.00	0.00	0.00
DS-1 - Weir: 2	100yr-24hr	6.23	0.00	0.02	6.08	6.08	6.08
DS-1 - Weir: 3	100yr-24hr	19.61	0.00	0.02	2.70	2.70	2.70
DS-2 - Pipe	100yr-24hr	14.58	0.00	0.02	0.00	0.00	0.00
DS-2 - Weir: 1	100yr-24hr	0.30	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 2	100yr-24hr	1.97	0.00	0.01	4.74	4.74	4.74
DS-2 - Weir: 3	100yr-24hr	13.29	0.00	0.04	2.23	2.23	2.23
DS_HS-192FE N_DS - Pipe	100yr-24hr	4.80	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 1	100yr-24hr	0.44	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 2	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 3	100yr-24hr	4.49	0.00	0.00	4.95	4.95	4.95
D_ACADAPTS	100yr-24hr	65.74	0.00	0.37	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
-FENN - Pipe							
D_ACADAPTS	100yr-24hr	24.61	0.00	-0.01	6.49	6.49	6.49
-FENN - Weir: 1							
D_ACADAPTS	100yr-24hr	0.73	0.00	-0.01	8.32	8.32	8.32
-FENN - Weir: 2							
D_ACADAPTS	100yr-24hr	40.56	0.00	0.04	6.49	6.49	6.49
-FENN - Weir: 3							
D_COBELSTN	100yr-24hr	39.06	0.00	0.02	0.00	0.00	0.00
-FISH - Pipe							
D_COBELSTN	100yr-24hr	35.91	0.00	0.01	4.31	4.31	4.31
-FISH - Weir: 1							
D_COBELSTN	100yr-24hr	0.64	0.00	-0.01	4.71	4.71	4.71
-FISH - Weir: 2							
D_COBELSTN	100yr-24hr	5.78	0.00	-0.01	1.42	1.42	1.42
-FISH - Weir: 3							
D_FS_192FEN	100yr-24hr	12.38	0.00	0.01	0.00	0.00	0.00
DS - Pipe							
D_FS_192FEN	100yr-24hr	4.04	0.00	0.01	1.60	1.60	1.60
DS - Weir: 1							
D_FS_192FEN	100yr-24hr	8.34	0.00	0.00	4.17	4.17	4.17
DS - Weir: 2							
D_ICE-FENNE	100yr-24hr	8.53	0.00	0.01	0.00	0.00	0.00
L - Pipe							
D_ICE-FENNE	100yr-24hr	4.34	0.00	0.02	3.06	3.06	3.06
L - Weir: 1							
D_ICE-FENNE	100yr-24hr	0.28	0.00	0.00	0.00	0.00	0.00
L - Weir: 2							
D_ICE-FENNE	100yr-24hr	5.63	0.00	0.01	1.99	1.99	1.99
L - Weir: 3							
D JUSTICE_E	100yr-24hr	20.14	0.00	0.02	0.00	0.00	0.00
-FEN - Pipe							
D JUSTICE_E	100yr-24hr	1.56	0.00	0.00	8.02	8.02	8.02
-FEN - Weir: 1							
D JUSTICE_E	100yr-24hr	0.49	0.00	0.00	0.00	0.00	0.00
-FEN - Weir: 2							
D JUSTICE_E	100yr-24hr	19.35	0.00	0.02	3.27	3.27	3.27
-FEN - Weir: 3							
D JUSTICE_	100yr-24hr	11.67	0.00	0.01	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
W-FEN - Pipe							
D JUSTICE_ W-FEN - Weir: 1	100yr-24hr	2.45	0.00	0.00	4.90	4.90	4.90
D JUSTICE_ W-FEN - Weir: 2	100yr-24hr	9.64	0.00	0.01	2.28	2.28	2.28
D JUSTICE_ W-FEN - Weir: 3	100yr-24hr	0.32	0.00	0.00	0.00	0.00	0.00
D_KM-192FE N_DS - Pipe	100yr-24hr	50.78	0.00	0.46	0.00	0.00	0.00
D_KM-192FE N_DS - Weir: 1	100yr-24hr	27.28	0.00	0.51	4.83	4.83	4.83
D_KM-192FE N_DS - Weir: 2	100yr-24hr	0.63	0.00	0.01	7.17	7.17	7.17
D_KM-192FE N_DS - Weir: 3	100yr-24hr	24.26	0.00	0.42	4.10	4.10	4.10
D_P4-FEN - Pipe	100yr-24hr	55.01	0.00	4.10	0.00	0.00	0.00
D_P4-FEN - Weir: 1	100yr-24hr	25.02	0.00	-3.94	3.13	3.13	3.13
D_P4-FEN - Weir: 2	100yr-24hr	0.37	0.00	0.02	4.22	4.22	4.22
D_P4-FEN - Weir: 3	100yr-24hr	29.72	0.00	0.12	3.13	3.13	3.13
D_Rem_NE-R EM_N - Pipe	100yr-24hr	19.09	0.00	0.07	0.00	0.00	0.00
D_Rem_NE-R EM_N - Weir: 1	100yr-24hr	5.30	0.00	0.14	2.65	2.65	2.65
D_Rem_NE-R EM_N - Weir: 2	100yr-24hr	14.26	0.00	0.02	2.41	2.41	2.41
D_Rem_P-G - Pipe	100yr-24hr	19.37	0.00	-0.02	0.00	0.00	0.00
D_Rem_P-G - Weir: 1	100yr-24hr	9.27	0.00	0.02	4.64	4.64	4.64
D_Rem_P-G - Weir: 2	100yr-24hr	14.47	0.00	-0.03	2.45	2.45	2.45
D_Rem_P22-FEN - Pipe	100yr-24hr	10.56	0.00	0.16	0.00	0.00	0.00
D_Rem_P22-FEN - Weir: 1	100yr-24hr	4.82	0.00	0.32	2.41	2.41	2.41

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_Rem_P22-FEN - Weir: 2	100yr-24hr	7.89	0.00	0.01	1.34	1.34	1.34
D_Rem_P23-FEN - Pipe	100yr-24hr	61.07	0.00	0.04	0.00	0.00	0.00
D_Rem_P23-FEN - Weir: 1	100yr-24hr	49.57	0.00	0.03	5.95	5.95	5.95
D_Rem_P23-FEN - Weir: 2	100yr-24hr	11.75	0.00	-0.01	6.08	6.08	6.08
D_Rem_P23-FEN - Weir: 3	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Pipe	100yr-24hr	25.95	0.00	-2.77	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 1	100yr-24hr	19.01	0.00	-5.53	3.46	3.46	3.46
D_Rem_TRAC_T-G - Weir: 2	100yr-24hr	0.34	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 3	100yr-24hr	8.00	0.00	0.01	1.79	1.79	1.79
D_SEACAD-FENN - Pipe	100yr-24hr	20.88	0.00	0.09	0.00	0.00	0.00
D_SEACAD-FENN - Weir: 1	100yr-24hr	5.28	0.00	0.19	2.64	2.64	2.64
D_SEACAD-FENN - Weir: 2	100yr-24hr	15.60	0.00	-0.01	2.64	2.64	2.64
D_TAIKWN-AERO_W - Pipe	100yr-24hr	6.37	-0.60	-0.02	0.00	0.00	0.00
D_TAIKWN-AERO_W - Weir: 1	100yr-24hr	6.18	-0.58	0.03	2.66	2.66	2.66
D_TAIKWN-AERO_W - Weir: 2	100yr-24hr	0.28	-0.03	0.00	0.00	0.00	0.00
D_TAIKWN-AERO_W - Weir: 3	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_TRANS-FE_NNEL - Pipe	100yr-24hr	41.42	0.00	0.03	0.00	0.00	0.00
D_TRANS-FE_NNEL - Weir: 1	100yr-24hr	11.60	0.00	0.00	5.80	5.80	5.80
D_TRANS-FE_NNEL - Weir: 2	100yr-24hr	30.95	0.00	0.02	5.24	5.24	5.24
P_FEN-TPIKE-R10	100yr-24hr	67.32	0.00	-3.00	0.97	0.95	0.96
P_FEN_APTS-P4	100yr-24hr	129.87	-7.55	2.95	6.42	6.42	6.42

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
P_FEN_APT_US-DS	100yr-24hr	128.23	-3.61	11.37	2.51	2.51	2.51
P_SHADY192_FEN	100yr-24hr	119.93	0.00	0.05	7.74	8.22	7.98
P_TPAX_SHA DY	100yr-24hr	28.06	0.00	-0.08	2.41	2.41	2.41
Pond Notch	100yr-24hr	16.39	-0.69	-1.23	3.58	3.58	3.58
R1	100yr-24hr	475.78	-16.44	-14.31	4.33	4.33	4.33
R10	100yr-24hr	29.29	-22.19	0.23	4.66	4.66	4.66
R3	100yr-24hr	454.73	0.00	-6.25	5.68	5.68	5.68
R4	100yr-24hr	319.30	0.00	-7.74	3.99	3.99	3.99
R9	100yr-24hr	14.47	0.00	-0.53	2.31	2.31	2.31
W_BORROW-FENNEL	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_COBL_FISH	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN04-TPI KE	100yr-24hr	21.23	0.00	0.02	1.51	1.51	1.51
W_FENNEL_192	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN_TPIKE	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_G01-FEN	100yr-24hr	8.72	-40.47	0.34	-4.41	-4.41	-4.41
W_Rem_G02-FEN	100yr-24hr	49.46	-16.19	11.21	2.37	2.37	2.37
W_Rem_G03-FEN	100yr-24hr	4.56	0.00	0.01	0.53	0.53	0.53
W_Rem_N01-FEN	100yr-24hr	52.08	-30.08	2.21	4.46	4.46	4.46
W_Rem_N02-FEN	100yr-24hr	102.31	0.00	11.95	3.38	3.38	3.38
W_Rem_N03-FEN	100yr-24hr	2.61	0.00	-0.02	0.49	0.49	0.49
W_SHADY_FENN	100yr-24hr	4.24	0.00	0.01	1.43	1.43	1.43
W_TPACCESS_FEN	100yr-24hr	11.81	0.00	0.02	1.55	1.55	1.55
pond-weir	100yr-24hr	26.98	-0.62	-0.17	1.98	1.98	1.98
pond-weir top	100yr-24hr	0.34	0.00	0.00	0.00	0.00	0.00
w_AERO_US_DS-R7	100yr-24hr	64.61	-0.44	-64.22	0.93	0.93	0.93
C_FEN_192PS ETS1	100yr-72hr	394.94	-3.18	24.71	1.58	3.70	2.45
C_FEN_PSETF ISH1	100yr-72hr	443.66	-70.89	1.42	2.02	-4.37	-2.62
C_FEN_PSETF	100yr-72hr	441.41	0.00	2.44	1.30	2.01	1.64

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
ISH2							
C_FEN_PSETF	100yr-72hr	473.76	-0.01	-1.40	1.84	3.33	2.23
ISH3							
C_FEN_TP192 -1	100yr-72hr	76.58	0.00	9.38	0.20	0.15	0.18
C_FEN_TP192 -2	100yr-72hr	110.58	0.00	-8.77	0.18	0.14	0.16
C_FEN_TP192 -3	100yr-72hr	189.75	0.00	-0.11	0.85	5.37	3.06
D-REM_EAST-G - Pipe	100yr-72hr	13.48	0.00	0.00	0.00	0.00	0.00
D-REM_EAST-G - Weir: 1	100yr-72hr	6.01	0.00	0.00	3.01	3.01	3.01
D-REM_EAST-G - Weir: 2	100yr-72hr	10.07	0.00	0.01	1.70	1.70	1.70
DS-1 - Pipe	100yr-72hr	24.08	0.00	0.03	0.00	0.00	0.00
DS-1 - Weir: 1	100yr-72hr	0.41	0.00	0.00	0.00	0.00	0.00
DS-1 - Weir: 2	100yr-72hr	6.23	0.00	0.02	6.08	6.08	6.08
DS-1 - Weir: 3	100yr-72hr	19.90	0.00	0.02	2.70	2.70	2.70
DS-2 - Pipe	100yr-72hr	13.20	0.00	0.02	0.00	0.00	0.00
DS-2 - Weir: 1	100yr-72hr	0.30	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 2	100yr-72hr	1.97	0.00	0.01	4.72	4.72	4.72
DS-2 - Weir: 3	100yr-72hr	11.74	0.00	0.02	2.23	2.23	2.23
DS_HS-192FE N_DS - Pipe	100yr-72hr	4.10	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 1	100yr-72hr	0.43	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 2	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 3	100yr-72hr	3.78	0.00	0.00	4.80	4.80	4.80
D_ACADAPTS -FENN - Pipe	100yr-72hr	62.50	0.00	0.37	0.00	0.00	0.00
D_ACADAPTS -FENN - Weir: 1	100yr-72hr	24.33	0.00	0.01	6.42	6.42	6.42
D_ACADAPTS -FENN - Weir:	100yr-72hr	0.74	0.00	-0.01	8.44	8.44	8.44

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
2							
D_ACADAPTS -FENN - Weir: 3	100yr-72hr	38.57	0.00	-0.04	6.17	6.17	6.17
D_COBELSTN -FISH - Pipe	100yr-72hr	35.80	-0.21	0.01	0.00	0.00	0.00
D_COBELSTN -FISH - Weir: 1	100yr-72hr	35.17	0.00	0.01	4.22	4.22	4.22
D_COBELSTN -FISH - Weir: 2	100yr-72hr	0.64	-0.21	-0.01	4.71	4.71	4.71
D_COBELSTN -FISH - Weir: 3	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Pipe	100yr-72hr	9.63	0.00	0.01	0.00	0.00	0.00
D_FS_192FEN DS - Weir: 1	100yr-72hr	1.95	0.00	0.00	1.26	1.26	1.26
D_FS_192FEN DS - Weir: 2	100yr-72hr	7.68	0.00	0.00	3.84	3.84	3.84
D_ICE-FENNE L - Pipe	100yr-72hr	6.15	0.00	0.01	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 1	100yr-72hr	4.31	0.00	0.02	3.04	3.04	3.04
D_ICE-FENNE L - Weir: 2	100yr-72hr	0.28	0.00	0.00	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 3	100yr-72hr	2.80	0.00	0.00	1.59	1.59	1.59
D_JUSTICE_E -FEN - Pipe	100yr-72hr	20.25	0.00	0.03	0.00	0.00	0.00
D_JUSTICE_E -FEN - Weir: 1	100yr-72hr	1.56	0.00	0.00	8.02	8.02	8.02
D_JUSTICE_E -FEN - Weir: 2	100yr-72hr	0.49	0.00	0.00	0.00	0.00	0.00
D_JUSTICE_E -FEN - Weir: 3	100yr-72hr	19.45	0.00	-0.02	3.29	3.29	3.29
D_JUSTICE_W-FEN - Pipe	100yr-72hr	10.63	0.00	0.01	0.00	0.00	0.00
D_JUSTICE_W-FEN - Weir: 1	100yr-72hr	2.45	0.00	0.00	4.90	4.90	4.90
D_JUSTICE_W-FEN -	100yr-72hr	8.24	0.00	-0.01	2.16	2.16	2.16

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
Weir: 2							
D_JUSTICE_W-FEN - Weir: 3	100yr-72hr	0.32	0.00	0.00	0.00	0.00	0.00
D_KM-192FE_N_DS - Pipe	100yr-72hr	48.78	0.00	-0.04	0.00	0.00	0.00
D_KM-192FE_N_DS - Weir: 1	100yr-72hr	27.29	0.00	0.02	4.83	4.83	4.83
D_KM-192FE_N_DS - Weir: 2	100yr-72hr	0.63	0.00	0.00	7.17	7.17	7.17
D_KM-192FE_N_DS - Weir: 3	100yr-72hr	24.08	0.00	-0.03	4.07	4.07	4.07
D_P4-FEN - Pipe	100yr-72hr	47.70	0.00	4.10	0.00	0.00	0.00
D_P4-FEN - Weir: 1	100yr-72hr	23.27	0.00	-3.96	2.91	2.91	2.91
D_P4-FEN - Weir: 2	100yr-72hr	0.37	0.00	0.02	4.21	4.21	4.21
D_P4-FEN - Weir: 3	100yr-72hr	25.77	0.00	0.12	2.71	2.71	2.71
D_Rem_NE-R_EM_N - Pipe	100yr-72hr	17.12	0.00	0.07	0.00	0.00	0.00
D_Rem_NE-R_EM_N - Weir: 1	100yr-72hr	5.30	0.00	0.14	2.65	2.65	2.65
D_Rem_NE-R_EM_N - Weir: 2	100yr-72hr	12.79	0.00	0.01	2.16	2.16	2.16
D_Rem_P-G - Pipe	100yr-72hr	18.52	0.00	-0.04	0.00	0.00	0.00
D_Rem_P-G - Weir: 1	100yr-72hr	9.15	0.00	0.04	4.58	4.58	4.58
D_Rem_P-G - Weir: 2	100yr-72hr	13.84	0.00	-0.02	2.34	2.34	2.34
D_Rem_P22-FEN - Pipe	100yr-72hr	8.26	0.00	0.22	0.00	0.00	0.00
D_Rem_P22-FEN - Weir: 1	100yr-72hr	2.09	0.00	0.46	1.39	1.39	1.39
D_Rem_P22-FEN - Weir: 2	100yr-72hr	6.17	0.00	-0.02	1.04	1.04	1.04
D_Rem_P23-FEN - Pipe	100yr-72hr	44.05	-0.16	-0.04	0.00	0.00	0.00
D_Rem_P23-FEN - Weir: 1	100yr-72hr	35.76	-0.08	-0.02	4.29	4.29	4.29

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_Rem_P23-FEN - Weir: 2	100yr-72hr	8.30	-0.07	-0.01	4.29	4.29	4.29
D_Rem_P23-FEN - Weir: 3	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Pipe	100yr-72hr	24.29	0.00	-3.66	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 1	100yr-72hr	19.01	0.00	5.53	3.46	3.46	3.46
D_Rem_TRAC_T-G - Weir: 2	100yr-72hr	0.34	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 3	100yr-72hr	5.21	0.00	0.01	1.71	1.71	1.71
D_SEACAD-FENN - Pipe	100yr-72hr	19.12	0.00	0.04	0.00	0.00	0.00
D_SEACAD-FENN - Weir: 1	100yr-72hr	4.94	0.00	0.08	2.58	2.58	2.58
D_TAIKWN-AERO_W - Pipe	100yr-72hr	14.29	0.00	-0.01	2.42	2.42	2.42
D_TAIKWN-AERO_W - Weir: 1	100yr-72hr	5.03	0.00	-0.01	0.00	0.00	0.00
D_TAIKWN-AERO_W - Weir: 2	100yr-72hr	4.80	0.00	0.01	2.45	2.45	2.45
D_TAIKWN-AERO_W - Weir: 3	100yr-72hr	0.28	0.00	0.00	0.00	0.00	0.00
D_TRANS-FE_NNEL - Pipe	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
D_TRANS-FE_NNEL - Weir: 1	100yr-72hr	40.31	0.00	0.03	0.00	0.00	0.00
D_TRANS-FE_NNEL - Weir: 2	100yr-72hr	11.60	0.00	0.00	5.80	5.80	5.80
P_FEN-TPIKE-R10	100yr-72hr	29.62	0.00	0.02	5.01	5.01	5.01
P_FEN_APTS-P4	100yr-72hr	56.70	0.00	-9.21	0.94	0.92	0.93
P_FEN_APT_US-DS	100yr-72hr	115.84	0.00	2.76	5.72	5.72	5.72
P_SHADY192_FEN	100yr-72hr	114.37	0.00	11.12	2.24	2.24	2.24
P_TPAX_SHA_DY	100yr-72hr	105.84	0.00	0.05	6.83	7.51	7.16
		26.59	0.00	-0.08	2.29	2.29	2.29

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
Pond Notch	100yr-72hr	14.90	-5.61	1.45	3.26	3.26	3.26
R1	100yr-72hr	414.85	-16.44	-40.45	3.77	3.77	3.77
R10	100yr-72hr	27.42	-17.58	0.18	4.36	4.36	4.36
R3	100yr-72hr	388.22	0.00	-15.43	4.85	4.85	4.85
R4	100yr-72hr	279.48	0.00	12.57	3.66	3.49	3.58
R9	100yr-72hr	14.10	0.00	-0.61	2.24	2.24	2.24
W_BORROW-FENNEL	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_COBL_FISH	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN04-TPIKE	100yr-72hr	52.52	0.00	0.04	2.05	2.05	2.05
W_FENNEL_192	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN_TPIKE	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_G01-FEN	100yr-72hr	4.22	-40.47	-0.39	-4.41	-4.41	-4.41
W_Rem_G02-FEN	100yr-72hr	67.78	-16.19	10.80	1.62	1.62	1.62
W_Rem_G03-FEN	100yr-72hr	8.40	0.00	0.01	0.84	0.84	0.84
W_Rem_N01-FEN	100yr-72hr	35.75	-30.08	4.06	-3.07	-3.07	-3.07
W_Rem_N02-FEN	100yr-72hr	109.41	0.00	15.90	2.74	2.74	2.74
W_Rem_N03-FEN	100yr-72hr	3.12	0.00	-0.03	0.79	0.79	0.79
W_SHADY_FEN	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_TPACCESS_FEN	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
pond-weir	100yr-72hr	21.86	0.00	-0.25	1.92	1.92	1.92
pond-weir top	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
w_AERO_US_DS-R7	100yr-72hr	59.79	0.00	-59.41	0.92	0.92	0.92
C_FEN_192PS_ETS1	10yr-24hr	189.17	-3.18	-18.55	1.20	3.70	2.45
C_FEN_PSETF_ISH1	10yr-24hr	211.74	-70.89	-0.45	1.48	-4.37	-2.62
C_FEN_PSETF_ISH2	10yr-24hr	211.04	0.00	-0.26	1.27	2.01	1.64
C_FEN_PSETF_ISH3	10yr-24hr	219.74	0.00	0.14	1.45	3.33	2.23
C_FEN_TP192-1	10yr-24hr	44.66	0.00	-14.77	0.20	0.16	0.18
C_FEN_TP192	10yr-24hr	63.90	0.00	16.00	0.15	0.12	0.14

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
-2							
C_FEN_TP192	10yr-24hr	90.95	0.00	0.09	0.87	5.61	3.21
-3							
D-REM_EAST-G - Pipe	10yr-24hr	11.87	0.00	0.02	0.00	0.00	0.00
D-REM_EAST-G - Weir: 1	10yr-24hr	7.96	0.00	-0.01	3.98	3.98	3.98
D-REM_EAST-G - Weir: 2	10yr-24hr	7.30	0.00	0.01	1.86	1.86	1.86
DS-1 - Pipe	10yr-24hr	2.43	0.00	0.00	0.00	0.00	0.00
DS-1 - Weir: 1	10yr-24hr	0.32	0.00	0.00	0.00	0.00	0.00
DS-1 - Weir: 2	10yr-24hr	2.11	0.00	0.00	3.51	3.51	3.51
DS-1 - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
DS-2 - Pipe	10yr-24hr	1.28	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 1	10yr-24hr	0.28	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 2	10yr-24hr	1.00	0.00	0.00	3.13	3.13	3.13
DS-2 - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Pipe	10yr-24hr	2.07	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 1	10yr-24hr	0.42	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 2	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 3	10yr-24hr	1.71	0.00	0.00	3.74	3.74	3.74
D_ACADAPTS -FENN - Pipe	10yr-24hr	20.05	0.00	0.37	0.00	0.00	0.00
D_ACADAPTS -FENN - Weir: 1	10yr-24hr	17.69	0.00	0.01	4.66	4.66	4.66
D_ACADAPTS -FENN - Weir: 2	10yr-24hr	0.72	0.00	-0.01	8.21	8.21	8.21
D_ACADAPTS -FENN - Weir: 3	10yr-24hr	1.67	0.00	0.01	1.19	1.19	1.19
D_COBELSTN -FISH - Pipe	10yr-24hr	14.22	0.00	0.01	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_COBELSTN -FISH - Weir: 1	10yr-24hr	13.60	0.00	0.01	3.46	3.46	3.46
D_COBELSTN -FISH - Weir: 2	10yr-24hr	0.61	0.00	-0.01	4.50	4.50	4.50
D_COBELSTN -FISH - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Pipe	10yr-24hr	4.59	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Weir: 1	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Weir: 2	10yr-24hr	4.59	0.00	0.00	2.86	2.86	2.86
D_ICE-FENNE L - Pipe	10yr-24hr	3.92	0.00	-0.01	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 1	10yr-24hr	3.79	0.00	-0.01	2.80	2.80	2.80
D_ICE-FENNE L - Weir: 2	10yr-24hr	0.28	0.00	0.00	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D JUSTICE_E -FEN - Pipe	10yr-24hr	1.52	0.00	0.00	0.00	0.00	0.00
D JUSTICE_E -FEN - Weir: 1	10yr-24hr	1.09	0.00	0.00	5.60	5.60	5.60
D JUSTICE_E -FEN - Weir: 2	10yr-24hr	0.44	0.00	0.00	0.00	0.00	0.00
D JUSTICE_E -FEN - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D JUSTICE_W-FEN - Pipe	10yr-24hr	1.51	0.00	0.00	0.00	0.00	0.00
D JUSTICE_W-FEN - Weir: 1	10yr-24hr	1.24	0.00	0.00	2.48	2.48	2.48
D JUSTICE_W-FEN - Weir: 2	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D JUSTICE_W-FEN - Weir: 3	10yr-24hr	0.27	0.00	0.00	0.00	0.00	0.00
D_KM-192FE N_DS - Pipe	10yr-24hr	18.45	0.00	0.02	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_KM-192FE N_DS - Weir: 1	10yr-24hr	17.82	0.00	0.01	4.33	4.33	4.33
D_KM-192FE N_DS - Weir: 2	10yr-24hr	0.63	0.00	0.00	7.17	7.17	7.17
D_KM-192FE N_DS - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_P4-FEN - Pipe	10yr-24hr	22.60	0.00	4.10	0.00	0.00	0.00
D_P4-FEN - Weir: 1	10yr-24hr	22.30	0.00	-0.01	3.24	3.24	3.24
D_P4-FEN - Weir: 2	10yr-24hr	0.37	0.00	-0.01	4.25	4.25	4.25
D_P4-FEN - Weir: 3	10yr-24hr	0.48	0.00	0.00	0.74	0.74	0.74
D_Rem_NE-R EM_N - Pipe	10yr-24hr	12.67	0.00	0.08	0.00	0.00	0.00
D_Rem_NE-R EM_N - Weir: 1	10yr-24hr	5.30	0.00	0.13	2.65	2.65	2.65
D_Rem_NE-R EM_N - Weir: 2	10yr-24hr	9.47	0.00	0.02	1.60	1.60	1.60
D_Rem_P-G - Pipe	10yr-24hr	9.85	0.00	0.01	0.00	0.00	0.00
D_Rem_P-G - Weir: 1	10yr-24hr	7.75	0.00	0.00	3.87	3.87	3.87
D_Rem_P-G - Weir: 2	10yr-24hr	2.11	0.00	0.00	1.29	1.29	1.29
D_Rem_P22-FEN - Pipe	10yr-24hr	6.12	0.00	0.23	0.00	0.00	0.00
D_Rem_P22-FEN - Weir: 1	10yr-24hr	5.46	0.00	0.47	2.73	2.73	2.73
D_Rem_P22-FEN - Weir: 2	10yr-24hr	1.73	0.00	-0.01	1.21	1.21	1.21
D_Rem_P23-FEN - Pipe	10yr-24hr	26.33	0.00	0.03	0.00	0.00	0.00
D_Rem_P23-FEN - Weir: 1	10yr-24hr	17.12	0.00	0.02	2.43	2.43	2.43
D_Rem_P23-FEN - Weir: 2	10yr-24hr	9.20	0.00	0.00	4.76	4.76	4.76
D_Rem_P23-FEN - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_Rem_Trac_T-G - Pipe	10yr-24hr	8.10	0.00	0.01	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_Rem_Trac T-G - Weir: 1	10yr-24hr	7.77	0.00	0.01	2.98	2.98	2.98
D_Rem_Trac T-G - Weir: 2	10yr-24hr	0.33	0.00	0.00	0.00	0.00	0.00
D_Rem_Trac T-G - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_SEACAD-F ENN - Pipe	10yr-24hr	11.79	0.00	0.26	0.00	0.00	0.00
D_SEACAD-F ENN - Weir: 1	10yr-24hr	4.91	0.00	0.51	2.61	2.61	2.61
D_SEACAD-F ENN - Weir: 2	10yr-24hr	8.81	0.00	0.01	1.49	1.49	1.49
D_TAIKWN-A ERO_W - Pipe	10yr-24hr	1.56	0.00	0.00	0.00	0.00	0.00
D_TAIKWN-A ERO_W - Weir: 1	10yr-24hr	1.29	0.00	0.00	1.58	1.58	1.58
D_TAIKWN-A ERO_W - Weir: 2	10yr-24hr	0.28	0.00	0.00	0.00	0.00	0.00
D_TAIKWN-A ERO_W - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_TRANS-FE NNEL - Pipe	10yr-24hr	14.52	0.00	0.01	0.00	0.00	0.00
D_TRANS-FE NNEL - Weir: 1	10yr-24hr	8.72	0.00	0.00	4.36	4.36	4.36
D_TRANS-FE NNEL - Weir: 2	10yr-24hr	5.80	0.00	0.01	1.81	1.81	1.81
P_FEN-TPIKE-R10	10yr-24hr	32.15	0.00	-6.12	0.81	0.78	0.80
P_FEN_APTS-P4	10yr-24hr	65.03	0.00	2.66	3.21	3.21	3.21
P_FEN_APT_US-DS	10yr-24hr	64.55	0.00	10.02	1.27	1.27	1.27
P_SHADY192_FEN	10yr-24hr	60.85	0.00	-0.05	4.55	8.22	6.38
P_TPAX_SHA-DY	10yr-24hr	20.68	0.00	-0.08	2.80	1.78	2.29
Pond Notch	10yr-24hr	14.18	-3.11	1.42	3.10	3.10	3.10
R1	10yr-24hr	196.23	-16.44	39.10	2.37	-2.85	2.38
R10	10yr-24hr	8.95	-5.55	-0.10	2.02	3.28	2.45
R3	10yr-24hr	187.39	0.00	0.76	3.42	3.54	3.48
R4	10yr-24hr	127.54	0.00	0.15	2.97	2.67	2.82
R9	10yr-24hr	6.61	0.00	0.03	2.10	2.41	2.14

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
W_BORROW-FENNEL	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_COBL_FISH	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FENO4-TPIKE	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FENNEL_192	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN_TPIKE	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_G01-FEN	10yr-24hr	6.08	-40.47	-0.39	-4.41	-4.41	-4.41
W_Rem_G02-FEN	10yr-24hr	12.47	-16.19	-0.09	1.57	1.57	1.57
W_Rem_G03-FEN	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_N01-FEN	10yr-24hr	38.86	-30.08	-0.03	3.33	3.33	3.33
W_Rem_N02-FEN	10yr-24hr	18.81	0.00	-0.02	2.11	2.11	2.11
W_Rem_N03-FEN	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_SHADY_FENN	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_TPACCESS_FEN	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
pond-weir	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
pond-weir top	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
w_AERO_US_DS-R7	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
C_FEN_192SETS1	10yr72hr	254.04	-3.18	23.45	1.27	3.70	2.45
C_FEN_PSETFISH1	10yr72hr	284.77	-70.89	1.69	1.61	-4.37	-2.62
C_FEN_PSETFISH2	10yr72hr	283.05	-3.82	2.76	1.27	2.01	1.64
C_FEN_PSETFISH3	10yr72hr	303.62	-6.41	-1.71	1.35	3.33	2.23
C_FEN_TP192-1	10yr72hr	54.45	0.00	4.72	0.15	0.12	0.13
C_FEN_TP192-2	10yr72hr	80.52	0.00	4.64	0.17	0.13	0.15
C_FEN_TP192-3	10yr72hr	122.00	0.00	0.13	0.86	4.35	2.55
D-REM_EAST-G - Pipe	10yr72hr	13.41	0.00	0.01	0.00	0.00	0.00
D-REM_EAST-	10yr72hr	6.93	0.00	0.00	3.47	3.47	3.47

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
G - Weir: 1							
D-REM_EAST-G - Weir: 2	10yr72hr	10.02	0.00	0.01	1.74	1.74	1.74
DS-1 - Pipe	10yr72hr	5.01	0.00	0.00	0.00	0.00	0.00
DS-1 - Weir: 1	10yr72hr	0.38	0.00	0.00	0.00	0.00	0.00
DS-1 - Weir: 2	10yr72hr	4.62	0.00	0.00	4.56	4.56	4.56
DS-1 - Weir: 3	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
DS-2 - Pipe	10yr72hr	3.71	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 1	10yr72hr	0.30	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 2	10yr72hr	1.71	0.00	0.00	4.10	4.10	4.10
DS-2 - Weir: 3	10yr72hr	1.72	0.00	0.00	1.20	1.20	1.20
DS_HS-192FE_N_DS - Pipe	10yr72hr	2.56	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE_N_DS - Weir: 1	10yr72hr	0.42	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE_N_DS - Weir: 2	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE_N_DS - Weir: 3	10yr72hr	2.21	0.00	0.00	4.08	4.08	4.08
D_ACADAPTS -FENN - Pipe	10yr72hr	43.12	0.00	0.37	0.00	0.00	0.00
D_ACADAPTS -FENN - Weir: 1	10yr72hr	22.98	0.00	0.01	6.06	6.06	6.06
D_ACADAPTS -FENN - Weir: 2	10yr72hr	0.74	0.00	-0.01	8.51	8.51	8.51
D_ACADAPTS -FENN - Weir: 3	10yr72hr	19.52	0.00	0.02	2.70	2.70	2.70
D_COBELSTN -FISH - Pipe	10yr72hr	23.72	-0.38	0.01	0.00	0.00	0.00
D_COBELSTN -FISH - Weir: 1	10yr72hr	23.08	0.00	0.01	3.84	3.84	3.84
D_COBELSTN -FISH - Weir: 2	10yr72hr	0.64	-0.38	-0.01	4.68	4.68	4.68

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_COBELSTN -FISH - Weir: 3	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Pipe	10yr72hr	5.37	0.00	-0.01	0.00	0.00	0.00
D_FS_192FEN DS - Weir: 1	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Weir: 2	10yr72hr	5.37	0.00	0.00	3.02	3.02	3.02
D_ICE-FENNE L - Pipe	10yr72hr	4.15	0.00	0.01	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 1	10yr72hr	4.01	0.00	0.01	2.83	2.83	2.83
D_ICE-FENNE L - Weir: 2	10yr72hr	0.28	0.00	0.00	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 3	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
D JUSTICE_E -FEN - Pipe	10yr72hr	4.69	0.00	0.01	0.00	0.00	0.00
D JUSTICE_E -FEN - Weir: 1	10yr72hr	1.49	0.00	0.00	7.65	7.65	7.65
D JUSTICE_E -FEN - Weir: 2	10yr72hr	0.49	0.00	0.00	0.00	0.00	0.00
D JUSTICE_E -FEN - Weir: 3	10yr72hr	2.73	0.00	0.00	1.41	1.41	1.41
D JUSTICE_W-FEN - Pipe	10yr72hr	3.06	0.00	0.00	0.00	0.00	0.00
D JUSTICE_W-FEN - Weir: 1	10yr72hr	2.04	0.00	0.00	4.09	4.09	4.09
D JUSTICE_W-FEN - Weir: 2	10yr72hr	0.70	0.00	0.00	0.95	0.95	0.95
D JUSTICE_W-FEN - Weir: 3	10yr72hr	0.31	0.00	0.00	0.00	0.00	0.00
D_KM-192FE N_DS - Pipe	10yr72hr	26.67	0.00	0.02	0.00	0.00	0.00
D_KM-192FE N_DS - Weir: 1	10yr72hr	25.31	0.00	0.01	4.82	4.82	4.82
D_KM-192FE N_DS - Weir: 2	10yr72hr	0.63	0.00	0.00	7.17	7.17	7.17

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_KM-192FE N_DS - Weir: 3	10yr72hr	0.75	0.00	0.00	0.91	0.91	0.91
D_P4-FEN - Pipe	10yr72hr	29.14	0.00	4.10	0.00	0.00	0.00
D_P4-FEN - Weir: 1	10yr72hr	23.70	0.00	-3.66	2.96	2.96	2.96
D_P4-FEN - Weir: 2	10yr72hr	0.37	0.00	0.02	4.21	4.21	4.21
D_P4-FEN - Weir: 3	10yr72hr	9.59	0.00	0.22	1.88	1.88	1.88
D_Rem_NE-R EM_N - Pipe	10yr72hr	15.30	0.00	0.07	0.00	0.00	0.00
D_Rem_NE-R EM_N - Weir: 1	10yr72hr	5.30	0.00	0.14	2.65	2.65	2.65
D_Rem_NE-R EM_N - Weir: 2	10yr72hr	11.43	0.00	0.01	1.93	1.93	1.93
D_Rem_P-G - Pipe	10yr72hr	16.52	0.00	0.02	0.00	0.00	0.00
D_Rem_P-G - Weir: 1	10yr72hr	9.03	0.00	0.00	4.51	4.51	4.51
D_Rem_P-G - Weir: 2	10yr72hr	7.49	0.00	0.01	1.97	1.97	1.97
D_Rem_P22-FEN - Pipe	10yr72hr	5.98	0.00	0.14	0.00	0.00	0.00
D_Rem_P22-FEN - Weir: 1	10yr72hr	2.69	0.00	0.28	1.35	1.35	1.35
D_Rem_P22-FEN - Weir: 2	10yr72hr	4.28	0.00	0.01	0.97	0.97	0.97
D_Rem_P23-FEN - Pipe	10yr72hr	36.52	-0.01	0.03	0.00	0.00	0.00
D_Rem_P23-FEN - Weir: 1	10yr72hr	26.60	0.00	0.02	2.82	2.82	2.82
D_Rem_P23-FEN - Weir: 2	10yr72hr	10.07	-0.01	0.04	5.21	5.21	5.21
D_Rem_P23-FEN - Weir: 3	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Pipe	10yr72hr	14.76	0.00	0.01	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 1	10yr72hr	14.60	0.00	-0.02	3.46	3.46	3.46
D_Rem_TRAC_T-G - Weir: 2	10yr72hr	0.34	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 3	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_SEACAD-F ENN - Pipe	10yr72hr	14.46	0.00	0.22	0.00	0.00	0.00
D_SEACAD-F ENN - Weir: 1	10yr72hr	5.03	0.00	0.43	2.62	2.62	2.62
D_SEACAD-F ENN - Weir: 2	10yr72hr	10.81	0.00	0.01	1.83	1.83	1.83
D_TAIKWN-A ERO_W - Pipe	10yr72hr	2.17	0.00	0.00	0.00	0.00	0.00
D_TAIKWN-A ERO_W - Weir: 1	10yr72hr	1.91	0.00	0.00	1.80	1.80	1.80
D_TAIKWN-A ERO_W - Weir: 2	10yr72hr	0.28	0.00	0.00	0.00	0.00	0.00
D_TAIKWN-A ERO_W - Weir: 3	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
D_TRANS-FE NNEL - Pipe	10yr72hr	23.19	0.00	0.02	0.00	0.00	0.00
D_TRANS-FE NNEL - Weir: 1	10yr72hr	9.89	0.00	0.00	4.95	4.95	4.95
D_TRANS-FE NNEL - Weir: 2	10yr72hr	13.29	0.00	0.01	2.39	2.39	2.39
P_FEN-TPIKE-R10	10yr72hr	34.53	0.00	-8.05	0.63	0.61	0.62
P_FEN_APTS-P4	10yr72hr	82.62	-4.67	2.72	4.08	4.08	4.08
P_FEN_APT_US-DS	10yr72hr	81.96	-1.29	10.72	1.61	1.61	1.61
P_SHADY192_FEN	10yr72hr	73.05	0.00	0.05	4.91	7.61	5.90
P_TPAX_SHA-DY	10yr72hr	20.84	0.00	-0.08	2.62	1.79	2.03
Pond Notch	10yr72hr	14.80	-5.76	1.42	3.24	3.24	3.24
R1	10yr72hr	265.20	-16.44	44.10	2.74	-2.85	2.75
R10	10yr72hr	16.33	-11.73	0.14	2.61	2.80	2.70
R3	10yr72hr	255.99	0.00	-16.26	3.77	3.90	3.83
R4	10yr72hr	177.41	0.00	13.36	3.11	2.89	3.00
R9	10yr72hr	12.05	-0.94	0.03	1.94	-2.05	1.93
W_BORROW-FENNEL	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_COBL_FISH	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN04-TPIKE	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
W_FENNEL_192	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN_TPIKE	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_G01-FEN	10yr72hr	3.52	-40.47	0.26	-4.41	-4.41	-4.41
W_Rem_G02-FEN	10yr72hr	37.90	-16.19	-0.43	1.40	1.40	1.40
W_Rem_G03-FEN	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_N01-FEN	10yr72hr	31.73	-30.08	4.12	-3.07	-3.07	-3.07
W_Rem_N02-FEN	10yr72hr	54.59	0.00	14.82	2.35	2.35	2.35
W_Rem_N03-FEN	10yr72hr	0.80	0.00	-0.02	0.16	0.16	0.16
W_SHADY_FENN	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_TPACCESS_FEN	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
pond-weir	10yr72hr	3.80	0.00	0.01	1.46	1.46	1.46
pond-weir top	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
w_AERO_US_DS-R7	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
C_FEN_192PS_ETS1	50yr-24hr	422.91	-3.17	-9.08	1.67	3.70	2.45
C_FEN_PSETF_ISH1	50yr-24hr	474.49	-70.89	-0.49	2.14	-4.37	-2.62
C_FEN_PSETF_ISH2	50yr-24hr	470.66	0.00	-0.38	1.47	2.01	1.64
C_FEN_PSETF_ISH3	50yr-24hr	501.32	0.00	0.21	2.16	3.92	3.04
C_FEN_TP192-1	50yr-24hr	86.75	0.00	-1.28	0.20	0.16	0.18
C_FEN_TP192-2	50yr-24hr	118.08	0.00	-1.98	0.19	0.15	0.17
C_FEN_TP192-3	50yr-24hr	204.39	0.00	-0.18	0.87	5.16	2.94
D-REM_EAST-G - Pipe	50yr-24hr	16.15	0.00	0.02	0.00	0.00	0.00
D-REM_EAST-G - Weir: 1	50yr-24hr	7.91	0.00	-0.01	3.96	3.96	3.96
D-REM_EAST-G - Weir: 2	50yr-24hr	12.07	0.00	0.01	2.04	2.04	2.04
DS-1 - Pipe	50yr-24hr	19.71	0.00	0.02	0.00	0.00	0.00
DS-1 - Weir: 1	50yr-24hr	0.41	0.00	0.00	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
DS-1 - Weir: 2	50yr-24hr	6.19	0.00	0.00	6.03	6.03	6.03
DS-1 - Weir: 3	50yr-24hr	13.19	0.00	0.01	2.37	2.37	2.37
DS-2 - Pipe	50yr-24hr	13.18	0.00	0.02	0.00	0.00	0.00
DS-2 - Weir: 1	50yr-24hr	0.30	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 2	50yr-24hr	1.96	0.00	0.01	4.71	4.71	4.71
DS-2 - Weir: 3	50yr-24hr	11.71	0.00	0.01	2.23	2.23	2.23
DS_HS-192FE N_DS - Pipe	50yr-24hr	4.55	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 1	50yr-24hr	0.44	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 2	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 3	50yr-24hr	4.24	0.00	0.00	4.89	4.89	4.89
D_ACADAPTS -FENN - Pipe	50yr-24hr	64.34	0.00	0.37	0.00	0.00	0.00
D_ACADAPTS -FENN - Weir: 1	50yr-24hr	24.24	0.00	0.01	6.39	6.39	6.39
D_ACADAPTS -FENN - Weir: 2	50yr-24hr	0.73	0.00	-0.01	8.38	8.38	8.38
D_ACADAPTS -FENN - Weir: 3	50yr-24hr	39.70	0.00	-0.04	6.35	6.35	6.35
D_COBELSTN -FISH - Pipe	50yr-24hr	35.80	0.00	0.01	0.00	0.00	0.00
D_COBELSTN -FISH - Weir: 1	50yr-24hr	35.18	0.00	0.01	4.22	4.22	4.22
D_COBELSTN -FISH - Weir: 2	50yr-24hr	0.64	0.00	-0.01	4.71	4.71	4.71
D_COBELSTN -FISH - Weir: 3	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Pipe	50yr-24hr	11.25	0.00	0.01	0.00	0.00	0.00
D_FS_192FEN	50yr-24hr	3.13	0.00	0.01	1.47	1.47	1.47

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
DS - Weir: 1							
D_FS_192FEN	50yr-24hr	8.12	0.00	0.00	4.06	4.06	4.06
DS - Weir: 2							
D_ICE-FENNE L - Pipe	50yr-24hr	8.14	0.00	0.01	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 1	50yr-24hr	4.31	0.00	-0.02	3.04	3.04	3.04
D_ICE-FENNE L - Weir: 2	50yr-24hr	0.28	0.00	0.00	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 3	50yr-24hr	5.37	0.00	0.01	1.89	1.89	1.89
D_JUSTICE_E -FEN - Pipe	50yr-24hr	18.11	0.00	0.03	0.00	0.00	0.00
D_JUSTICE_E -FEN - Weir: 1	50yr-24hr	1.56	0.00	0.00	8.02	8.02	8.02
D_JUSTICE_E -FEN - Weir: 2	50yr-24hr	0.49	0.00	0.00	0.00	0.00	0.00
D_JUSTICE_E -FEN - Weir: 3	50yr-24hr	17.12	0.00	0.02	2.60	2.60	2.60
D_JUSTICE_W-FEN - Pipe	50yr-24hr	10.17	0.00	0.01	0.00	0.00	0.00
D_JUSTICE_W-FEN - Weir: 1	50yr-24hr	2.45	0.00	0.00	4.90	4.90	4.90
D_JUSTICE_W-FEN - Weir: 2	50yr-24hr	7.64	0.00	0.01	2.11	2.11	2.11
D_JUSTICE_W-FEN - Weir: 3	50yr-24hr	0.32	0.00	0.00	0.00	0.00	0.00
D_KM-192FE N_DS - Pipe	50yr-24hr	49.65	0.00	0.47	0.00	0.00	0.00
D_KM-192FE N_DS - Weir: 1	50yr-24hr	27.28	0.00	0.52	4.83	4.83	4.83
D_KM-192FE N_DS - Weir: 2	50yr-24hr	0.63	0.00	0.01	7.17	7.17	7.17
D_KM-192FE N_DS - Weir: 3	50yr-24hr	24.08	0.00	0.42	4.07	4.07	4.07
D_P4-FEN - Pipe	50yr-24hr	51.72	0.00	4.10	0.00	0.00	0.00
D_P4-FEN -	50yr-24hr	25.56	0.00	-3.94	3.20	3.20	3.20

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
Weir: 1							
D_P4-FEN - Weir: 2	50yr-24hr	0.37	0.00	0.02	4.22	4.22	4.22
D_P4-FEN - Weir: 3	50yr-24hr	27.94	0.00	0.12	2.94	2.94	2.94
D_Rem_NE-R EM_N - Pipe	50yr-24hr	18.56	0.00	0.07	0.00	0.00	0.00
D_Rem_NE-R EM_N - Weir: 1	50yr-24hr	5.30	0.00	0.14	2.65	2.65	2.65
D_Rem_NE-R EM_N - Weir: 2	50yr-24hr	13.87	0.00	0.02	2.35	2.35	2.35
D_Rem_P-G - Pipe	50yr-24hr	19.37	0.00	-0.03	0.00	0.00	0.00
D_Rem_P-G - Weir: 1	50yr-24hr	9.28	0.00	0.02	4.64	4.64	4.64
D_Rem_P-G - Weir: 2	50yr-24hr	14.47	0.00	-0.03	2.45	2.45	2.45
D_Rem_P22-FEN - Pipe	50yr-24hr	10.23	0.00	0.14	0.00	0.00	0.00
D_Rem_P22-FEN - Weir: 1	50yr-24hr	4.94	0.00	0.27	2.47	2.47	2.47
D_Rem_P22-FEN - Weir: 2	50yr-24hr	7.64	0.00	0.01	1.36	1.36	1.36
D_Rem_P23-FEN - Pipe	50yr-24hr	60.12	0.00	0.04	0.00	0.00	0.00
D_Rem_P23-FEN - Weir: 1	50yr-24hr	48.80	0.00	0.03	5.86	5.86	5.86
D_Rem_P23-FEN - Weir: 2	50yr-24hr	11.82	0.00	-0.01	6.12	6.12	6.12
D_Rem_P23-FEN - Weir: 3	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_Rem_Trac_T-G - Pipe	50yr-24hr	18.66	0.00	0.03	0.00	0.00	0.00
D_Rem_Trac_T-G - Weir: 1	50yr-24hr	17.91	0.00	-0.06	3.46	3.46	3.46
D_Rem_Trac_T-G - Weir: 2	50yr-24hr	0.34	0.00	0.00	0.00	0.00	0.00
D_Rem_Trac_T-G - Weir: 3	50yr-24hr	4.76	0.00	0.01	1.68	1.68	1.68
D_SEACAD-F ENN - Pipe	50yr-24hr	20.07	0.00	0.19	0.00	0.00	0.00
D_SEACAD-F ENN - Weir: 1	50yr-24hr	5.08	0.00	0.38	2.55	2.55	2.55
D_SEACAD-F ENN - Weir: 2	50yr-24hr	15.00	0.00	-0.01	2.54	2.54	2.54

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_TAIKWN-A ERO_W - Pipe	50yr-24hr	5.81	-0.32	-0.01	0.00	0.00	0.00
D_TAIKWN-A ERO_W - Weir: 1	50yr-24hr	5.60	-0.30	0.01	2.58	2.58	2.58
D_TAIKWN-A ERO_W - Weir: 2	50yr-24hr	0.28	-0.02	0.00	0.00	0.00	0.00
D_TAIKWN-A ERO_W - Weir: 3	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_TRANS-FE NNEL - Pipe	50yr-24hr	41.42	0.00	0.03	0.00	0.00	0.00
D_TRANS-FE NNEL - Weir: 1	50yr-24hr	11.60	0.00	0.00	5.80	5.80	5.80
D_TRANS-FE NNEL - Weir: 2	50yr-24hr	30.95	0.00	0.02	5.24	5.24	5.24
P_FEN-TPIKE-R10	50yr-24hr	63.09	0.00	-2.82	0.92	0.90	0.91
P_FEN_APTS-P4	50yr-24hr	123.72	-14.99	-2.94	6.11	6.11	6.11
P_FEN_APT_US-DS	50yr-24hr	122.21	-10.58	10.47	2.40	2.40	2.40
P_SHADY192_FEN	50yr-24hr	116.63	0.00	0.05	7.53	8.07	7.80
P_TPAX_SHA_DY	50yr-24hr	28.41	0.00	-0.08	2.44	2.44	2.44
Pond Notch	50yr-24hr	16.59	-2.22	1.07	3.63	3.63	3.63
R1	50yr-24hr	443.34	-16.44	-28.33	4.03	4.03	4.03
R10	50yr-24hr	27.71	-21.43	0.24	4.41	4.41	4.41
R3	50yr-24hr	426.22	0.00	7.08	5.33	5.33	5.33
R4	50yr-24hr	297.80	0.00	-7.79	3.80	3.72	3.74
R9	50yr-24hr	14.44	0.00	-0.56	2.30	2.30	2.30
W_BORROW-FENNEL	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_COBL_FISH	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN04-TPIKE	50yr-24hr	0.90	0.00	0.01	0.00	0.00	0.00
W_FENNEL_192	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN_TPIKE	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_G01-FEN	50yr-24hr	8.26	-40.47	-0.45	-4.41	-4.41	-4.41

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
W_Rem_G02-FEN	50yr-24hr	42.85	-16.19	8.93	2.26	2.26	2.26
W_Rem_G03-FEN	50yr-24hr	0.25	0.00	0.00	0.00	0.00	0.00
W_Rem_N01-FEN	50yr-24hr	50.87	-30.08	1.53	4.36	4.36	4.36
W_Rem_N02-FEN	50yr-24hr	90.29	0.00	11.99	3.28	3.28	3.28
W_Rem_N03-FEN	50yr-24hr	2.17	0.00	-0.02	0.39	0.39	0.39
W_Shady_FEN	50yr-24hr	1.00	0.00	0.00	0.95	0.95	0.95
W_Tpaccess_FEN	50yr-24hr	6.04	0.00	-0.01	1.27	1.27	1.27
pond-weir	50yr-24hr	23.67	-2.84	-0.23	1.99	1.99	1.99
pond-weir top	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
w_Aero_us_DS-R7	50yr-24hr	54.38	0.00	-53.01	0.82	0.82	0.82



## APPENDIX D: ICPR COMPUTATIONS

**PROPOSED**

**Simple Basin: 192-FENNEL\_NE**

Scenario: Existing  
Node: FENNEL\_192\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 49.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 8.4700 ac  
Curve Number: 90.8  
% Impervious: 6.80  
% DCIA: 6.80  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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**Simple Basin: 192\_FENNEL\_SE**

Scenario: Existing  
Node: FENNEL\_192\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 16.2000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 3.6900 ac  
Curve Number: 93.3  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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**Simple Basin: 192\_PARTIN\_SE**

Scenario: Existing  
Node: FENNEL\_PSETL\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 27.7000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 4.9700 ac  
Curve Number: 91.5  
% Impervious: 28.10  
% DCIA: 28.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: 192\_POND4

Scenario: Existing  
Node: FDOT\_POND\_4  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.2000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 17.4900 ac  
Curve Number: 92.4  
% Impervious: 25.40  
% DCIA: 25.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: 192\_TPIKE\_NW

Scenario: Existing  
Node: FENNEL\_192\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 18.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 8.2000 ac  
Curve Number: 83.1  
% Impervious: 67.90  
% DCIA: 67.90

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: ACADEMY\_APTS

Scenario: Existing  
Node: ACADEMY\_APTS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 17.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 34.4000 ac  
Curve Number: 82.8  
% Impervious: 50.00  
% DCIA: 50.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: ACADEMY\_NE

Scenario: Existing  
Node: FENNEL\_SEACAD  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 60.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 21.5000 ac  
Curve Number: 81.8  
% Impervious: 0.60  
% DCIA: 0.60  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: AERONAUTICAL\_E**

Scenario: Existing  
Node: AERONAUTICAL\_E  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 22.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 1.0000 ac  
Curve Number: 87.2  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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**Simple Basin: AERONAUTICAL\_N**

Scenario: Existing  
Node: AERONAUTICAL\_W  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 21.4000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 3.2000 ac  
Curve Number: 88.6  
% Impervious: 12.10  
% DCIA: 12.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: BORROW\_PIT**

Scenario: Existing  
Node: BORROW\_PIT  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 14.7400 ac  
Curve Number: 97.1  
% Impervious: 0.20  
% DCIA: 0.20  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: COBBLESTONE

Scenario: Existing  
Node: COBBLESTONE  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 47.4000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 59.3300 ac  
Curve Number: 83.9  
% Impervious: 51.30  
% DCIA: 51.30  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: FDOT\_POND\_4

Scenario: Existing  
Node: FDOT\_POND\_4  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 28.8000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 11.7500 ac  
Curve Number: 83.2  
% Impervious: 0.00  
% DCIA: 0.00

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: FENNEL\_SE

Scenario: Existing  
Node: FENNEL\_192\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 72.8000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 52.3800 ac  
Curve Number: 82.2  
% Impervious: 5.00  
% DCIA: 5.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: FENNEL\_SLOUGH

Scenario: Existing  
Node: FENNEL\_WETLAND  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 81.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 77.0900 ac  
Curve Number: 96.3  
% Impervious: 0.30  
% DCIA: 0.30  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: FIRE\_STATION**

Scenario: Existing  
Node: FIRE\_STATION  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 2.4100 ac  
Curve Number: 83.4  
% Impervious: 59.60  
% DCIA: 59.60  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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**Simple Basin: HESS**

Scenario: Existing  
Node: HESS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 3.1800 ac  
Curve Number: 83.3  
% Impervious: 66.70  
% DCIA: 66.70  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: ICE\_PALACE**

Scenario: Existing  
Node: ICE\_RINK  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.8000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 5.4500 ac  
Curve Number: 83.0  
% Impervious: 67.40  
% DCIA: 67.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: JUSTICE\_EAST

Scenario: Existing  
Node: JUSTICE\_EAST  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 40.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 24.2400 ac  
Curve Number: 83.7  
% Impervious: 23.30  
% DCIA: 23.30  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: JUSTICE\_WEST

Scenario: Existing  
Node: JUSTICE\_WEST  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 14.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 5.7300 ac  
Curve Number: 83.4  
% Impervious: 50.00  
% DCIA: 50.00

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: KMArt

Scenario: Existing  
Node: KMArt  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 20.7700 ac  
Curve Number: 83.1  
% Impervious: 67.90  
% DCIA: 67.90  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: PARTIN\_AERO\_N

Scenario: Existing  
Node: FENNEL\_PSETL\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 20.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 1.2300 ac  
Curve Number: 85.8  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: PARTIN\_AERO\_S**

Scenario: Existing  
Node: FENNEL\_PSETL\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 30.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 4.2600 ac  
Curve Number: 89.7  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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**Simple Basin: PARTIN\_FENNEL\_N**

Scenario: Existing  
Node: FENNEL\_PSETL\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 22.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 2.9300 ac  
Curve Number: 85.1  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: PARTIN\_FENNEL\_S**

Scenario: Existing  
Node: FENNEL\_PSETL\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 60.6000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 12.3300 ac  
Curve Number: 85.7  
% Impervious: 20.10  
% DCIA: 20.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: POST-1

Scenario: Existing  
Node: POND-A  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 31.2900 ac  
Curve Number: 94.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment: PARTIN VILLAGE

Simple Basin: POST-1-SL-APTS

Scenario: Existing  
Node: WETPOND-1  
Hydrograph Method: Santa Barbara Urban Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Area: 16.7500 ac  
Curve Number: 91.3  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Sfwmd72

Comment:

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#### Simple Basin: POST-2-SL-APTS

Scenario: Existing  
Node: WETPOND-2  
Hydrograph Method: Santa Barbara Urban Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Area: 4.4700 ac  
Curve Number: 91.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Sfwmd72

Comment:

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#### Simple Basin: REMIGTON\_GOLF

Scenario: Existing  
Node: REM\_POND\_22  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 46.9000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 9.0200 ac  
Curve Number: 89.4  
% Impervious: 1.20  
% DCIA: 1.20  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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#### Simple Basin: REMINGTON\_E

Scenario: Existing  
Node: REM\_EAST

Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 26.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 83.0500 ac  
Curve Number: 86.1  
% Impervious: 20.00  
% DCIA: 20.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: REMINGTON\_NE

Scenario: Existing  
Node: REM\_POND\_23A  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 20.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 28.1000 ac  
Curve Number: 89.3  
% Impervious: 5.10  
% DCIA: 5.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: REMINGTON\_NWE

Scenario: Existing  
Node: FENNEL\_WETLAND  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 28.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0

Area: 13.2800 ac  
Curve Number: 83.5  
% Impervious: 20.80  
    % DCIA: 20.80  
    % Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_NWN

Scenario: Existing  
Node: REM\_NE  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 48.6000 min  
Max Allowable Q: 999999.00 cfs  
    Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
    Area: 51.7600 ac  
    Curve Number: 83.7  
    % Impervious: 20.20  
        % DCIA: 20.20  
        % Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_NWW

Scenario: Existing  
Node: REM\_NORTH  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 21.9000 min  
Max Allowable Q: 999999.00 cfs  
    Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
    Area: 60.0600 ac  
    Curve Number: 84.8  
    % Impervious: 19.00  
        % DCIA: 19.00  
        % Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_P

Scenario: Existing  
Node: REM\_POND\_G  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.8000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 20.6200 ac  
Curve Number: 83.0  
% Impervious: 22.10  
% DCIA: 22.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_PONDG

Scenario: Existing  
Node: REM\_POND\_G  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 41.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 17.4900 ac  
Curve Number: 93.5  
% Impervious: 2.90  
% DCIA: 2.90  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_SW

Scenario: Existing

Node: REM\_TRACT\_1  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 31.3000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 25.4400 ac  
Curve Number: 80.3  
% Impervious: 20.00  
% DCIA: 20.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: REMINGTON\_W

Scenario: Existing  
Node: REM\_POND\_P  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 56.7000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 24.0300 ac  
Curve Number: 83.3  
% Impervious: 20.00  
% DCIA: 20.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: SE\_ACADEMY

Scenario: Existing  
Node: SE\_ACADEMY  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 59.7000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256

Peaking Factor: 256.0  
Area: 27.3500 ac  
Curve Number: 84.8  
% Impervious: 10.00  
    % DCIA: 10.00  
    % Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: SHADY\_SW

Scenario: Existing  
Node: SHADY\_192  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 44.2000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 19.0600 ac  
Curve Number: 86.1  
% Impervious: 39.50  
    % DCIA: 39.50  
    % Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: TAI\_KWON\_DO

Scenario: Existing  
Node: TAIKWON  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 1.2900 ac  
Curve Number: 83.0  
% Impervious: 67.40  
    % DCIA: 67.40  
    % Direct: 0.00  
Rainfall Name: Flmod

Comment:

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Simple Basin: TPIKE\_ACCESS

Scenario: Existing  
Node: TPIKE\_ACCESS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 28.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 13.5700 ac  
Curve Number: 88.8  
% Impervious: 41.70  
% DCIA: 41.70  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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Simple Basin: TPIKE\_FENNEL\_NE

Scenario: Existing  
Node: FENNEL\_TPIKE\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 79.4000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 20.6300 ac  
Curve Number: 94.0  
% Impervious: 11.00  
% DCIA: 11.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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Simple Basin: TPIKE\_FENNEL\_S

Scenario: Existing  
Node: FENNEL\_TPIKE\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 68.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 26.2400 ac  
Curve Number: 92.9  
% Impervious: 11.40  
% DCIA: 11.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: TPIKE\_RAMP\_N

Scenario: Existing  
Node: FENNEL\_TPIKE\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 39.9000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 17.4200 ac  
Curve Number: 90.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: TPIKE\_RAMP\_S

Scenario: Existing  
Node: FENNEL\_TPIKE\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 37.3000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr

Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 14.2800 ac  
Curve Number: 90.0  
% Impervious: 9.70  
% DCIA: 9.70  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: TRANS\_FACILITY

Scenario: Existing  
Node: TRANS\_FACILITY  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 26.3000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 33.1600 ac  
Curve Number: 80.0  
% Impervious: 54.80  
% DCIA: 54.80  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: 192-FENNEL\_NE

Scenario: Proposed  
Node: FENNEL\_192\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 49.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 8.4700 ac  
Curve Number: 90.8  
% Impervious: 6.80  
% DCIA: 6.80  
% Direct: 0.00

Rainfall Name: Flmod

Comment:

Simple Basin: 192\_FENNEL\_SE

Scenario: Proposed  
Node: FENNEL\_192\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 16.2000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 3.6900 ac  
Curve Number: 93.3  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: 192\_PARTIN\_SE

Scenario: Proposed  
Node: FENNEL\_PSETL\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 27.7000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 4.9700 ac  
Curve Number: 91.5  
% Impervious: 28.10  
% DCIA: 28.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: 192\_POND4**

Scenario: Proposed  
Node: FDOT\_POND\_4  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.2000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 17.4900 ac  
Curve Number: 92.4  
% Impervious: 25.40  
% DCIA: 25.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: 192\_TPIKE\_NW**

Scenario: Proposed  
Node: FENNEL\_192\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 18.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 8.2000 ac  
Curve Number: 83.1  
% Impervious: 67.90  
% DCIA: 67.90  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: ACADEMY\_APTS**

Scenario: Proposed  
Node: ACADEMY\_APTS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 17.6000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 34.4000 ac  
Curve Number: 82.8  
% Impervious: 50.00  
% DCIA: 50.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: ACADEMY\_NE

Scenario: Proposed  
Node: FENNEL\_SEACAD  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 60.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 21.5000 ac  
Curve Number: 81.8  
% Impervious: 0.60  
% DCIA: 0.60  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: AERONAUTICAL\_E

Scenario: Proposed  
Node: AERONAUTICAL\_E  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 22.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 1.0000 ac  
Curve Number: 87.2  
% Impervious: 0.00  
% DCIA: 0.00

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: AERONAUTICAL\_N

Scenario: Proposed  
Node: AERONAUTICAL\_W  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 21.4000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 3.2000 ac  
Curve Number: 88.6  
% Impervious: 12.10  
% DCIA: 12.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: BORROW\_PIT

Scenario: Proposed  
Node: BORROW\_PIT  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 14.7400 ac  
Curve Number: 97.1  
% Impervious: 0.20  
% DCIA: 0.20  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: COBBLESTONE**

Scenario: Proposed  
Node: COBBLESTONE  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 47.4000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 59.3300 ac  
Curve Number: 83.9  
% Impervious: 51.30  
% DCIA: 51.30  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: FDOT\_POND\_4**

Scenario: Proposed  
Node: FDOT\_POND\_4  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 28.8000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 11.7500 ac  
Curve Number: 83.2  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: FENNEL\_SE**

Scenario: Proposed  
Node: FENNEL\_192\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 72.8000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 52.3800 ac  
Curve Number: 82.2  
% Impervious: 5.00  
% DCIA: 5.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: FENNEL\_SLOUGH

Scenario: Proposed  
Node: FENNEL\_WETLAND  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 81.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 77.0900 ac  
Curve Number: 96.3  
% Impervious: 0.30  
% DCIA: 0.30  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: FIRE\_STATION

Scenario: Proposed  
Node: FIRE\_STATION  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 2.4100 ac  
Curve Number: 83.4  
% Impervious: 59.60  
% DCIA: 59.60

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

#### Simple Basin: HESS

Scenario: Proposed  
Node: HESS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 3.1800 ac  
Curve Number: 83.3  
% Impervious: 66.70  
% DCIA: 66.70  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

#### Simple Basin: ICE\_PALACE

Scenario: Proposed  
Node: ICE\_RINK  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.8000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 5.4500 ac  
Curve Number: 83.0  
% Impervious: 67.40  
% DCIA: 67.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: JUSTICE\_EAST**

Scenario: Proposed  
Node: JUSTICE\_EAST  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 40.5000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 24.2400 ac  
Curve Number: 83.7  
% Impervious: 23.30  
% DCIA: 23.30  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: JUSTICE\_WEST**

Scenario: Proposed  
Node: JUSTICE\_WEST  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 14.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 5.7300 ac  
Curve Number: 83.4  
% Impervious: 50.00  
% DCIA: 50.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: KMArt**

Scenario: Proposed  
Node: KMArt  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 20.7700 ac  
Curve Number: 83.1  
% Impervious: 67.90  
% DCIA: 67.90  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: PARTIN\_AERO\_N

Scenario: Proposed  
Node: FENNEL\_PSETL\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 20.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 1.2300 ac  
Curve Number: 85.8  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: PARTIN\_AERO\_S

Scenario: Proposed  
Node: FENNEL\_PSETL\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 30.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 4.2600 ac  
Curve Number: 89.7  
% Impervious: 0.00  
% DCIA: 0.00

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: PARTIN\_FENNEL\_N

Scenario: Proposed  
Node: FENNEL\_PSETL\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 22.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 2.9300 ac  
Curve Number: 85.1  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: PARTIN\_FENNEL\_S

Scenario: Proposed  
Node: FENNEL\_PSETL\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 60.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 12.3300 ac  
Curve Number: 85.7  
% Impervious: 20.10  
% DCIA: 20.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: POST-1**

Scenario: Proposed  
Node: POND-A  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 31.2900 ac  
Curve Number: 94.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment: PARTIN VILLAGE

---

**Simple Basin: POST-1-SL-APTS**

Scenario: Proposed  
Node: WETPOND-1  
Hydrograph Method: Santa Barbara Urban Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Area: 16.7500 ac  
Curve Number: 91.3  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Sfwmd72

Comment:

---

**Simple Basin: POST-2-SL-APTS**

Scenario: Proposed  
Node: WETPOND-2  
Hydrograph Method: Santa Barbara Urban Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Area: 4.4700 ac

Curve Number: 91.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Sfwmd72

Comment:

#### Simple Basin: REMIGTON\_GOLF

Scenario: Proposed  
Node: REM\_POND\_22  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 46.9000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 9.0200 ac  
Curve Number: 89.4  
% Impervious: 1.20  
% DCIA: 1.20  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

#### Simple Basin: REMINGTON\_E

Scenario: Proposed  
Node: REM\_EAST  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 26.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 83.0500 ac  
Curve Number: 86.1  
% Impervious: 20.00  
% DCIA: 20.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: REMINGTON\_NE**

Scenario: Proposed  
Node: REM\_POND\_23A  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 20.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 28.1000 ac  
Curve Number: 89.3  
% Impervious: 5.10  
% DCIA: 5.10  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: REMINGTON\_NWE**

Scenario: Proposed  
Node: FENNEL\_WETLAND  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 28.1000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 13.2800 ac  
Curve Number: 83.5  
% Impervious: 20.80  
% DCIA: 20.80  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: REMINGTON\_NWN**

Scenario: Proposed  
Node: REM\_NE  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 48.6000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 51.7600 ac  
Curve Number: 83.7  
% Impervious: 20.20  
% DCIA: 20.20  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_NWW

Scenario: Proposed  
Node: REM\_NORTH  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 21.9000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 60.0600 ac  
Curve Number: 84.8  
% Impervious: 19.00  
% DCIA: 19.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_P

Scenario: Proposed  
Node: REM\_POND\_G  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 15.8000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 20.6200 ac  
Curve Number: 83.0  
% Impervious: 22.10  
% DCIA: 22.10

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_PONDG

Scenario: Proposed  
Node: REM\_POND\_G  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 41.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 17.4900 ac  
Curve Number: 93.5  
% Impervious: 2.90  
% DCIA: 2.90  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

Simple Basin: REMINGTON\_SW

Scenario: Proposed  
Node: REM\_TRACT\_1  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 31.3000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 25.4400 ac  
Curve Number: 80.3  
% Impervious: 20.00  
% DCIA: 20.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

**Simple Basin: REMINGTON\_W**

Scenario: Proposed  
Node: REM\_POND\_P  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 56.7000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 24.0300 ac  
Curve Number: 83.3  
% Impervious: 20.00  
% DCIA: 20.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: SE\_ACADEMY**

Scenario: Proposed  
Node: SE\_ACADEMY  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 59.7000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 27.3500 ac  
Curve Number: 84.8  
% Impervious: 10.00  
% DCIA: 10.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: SHADY\_SW**

Scenario: Proposed  
Node: SHADY\_192  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 44.2000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 19.0600 ac  
Curve Number: 86.1  
% Impervious: 39.50  
% DCIA: 39.50  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

#### Simple Basin: TAI\_KWON\_DO

Scenario: Proposed  
Node: TAIKWON  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 10.0000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 1.2900 ac  
Curve Number: 83.0  
% Impervious: 67.40  
% DCIA: 67.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

#### Simple Basin: TPIKE\_ACCESS

Scenario: Proposed  
Node: TPIKE\_ACCESS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 28.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 13.5700 ac  
Curve Number: 88.8  
% Impervious: 41.70  
% DCIA: 41.70

% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

---

Simple Basin: TPIKE\_FENNEL\_NE

Scenario: Proposed  
Node: FENNEL\_TPIKE\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 79.4000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 20.6300 ac  
Curve Number: 94.0  
% Impervious: 11.00  
% DCIA: 11.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

---

Simple Basin: TPIKE\_FENNEL\_S

Scenario: Proposed  
Node: FENNEL\_TPIKE\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 68.6000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 26.2400 ac  
Curve Number: 92.9  
% Impervious: 11.40  
% DCIA: 11.40  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

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**Simple Basin: TPIKE\_RAMP\_N**

Scenario: Proposed  
Node: FENNEL\_TPIKE\_US  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 39.9000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 17.4200 ac  
Curve Number: 90.0  
% Impervious: 0.00  
% DCIA: 0.00  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: TPIKE\_RAMP\_S**

Scenario: Proposed  
Node: FENNEL\_TPIKE\_DS  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 37.3000 min  
Max Allowable Q: 999999.00 cfs  
Time Shift: 0.0000 hr  
Unit Hydrograph: Uh256  
Peaking Factor: 256.0  
Area: 14.2800 ac  
Curve Number: 90.0  
% Impervious: 9.70  
% DCIA: 9.70  
% Direct: 0.00  
Rainfall Name: Flmod

Comment:

---

**Simple Basin: TRANS\_FACILITY**

Scenario: Proposed  
Node: TRANS\_FACILITY  
Hydrograph Method: NRCS Unit Hydrograph  
Infiltration Method: Curve Number  
Time of Concentration: 26.3000 min  
Max Allowable Q: 999999.00 cfs

Time Shift: 0.0000 hr  
 Unit Hydrograph: Uh256  
 Peaking Factor: 256.0  
 Area: 33.1600 ac  
 Curve Number: 80.0  
 % Impervious: 54.80  
 % DCIA: 54.80  
 % Direct: 0.00  
 Rainfall Name: Flmod

Comment:

---

#### Node: ACADEMY\_APTS

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
55.97	0.5000	21780
59.97	1.1000	47916
65.97	2.5000	108900
67.97	3.8000	165528

Comment:

---

#### Node: AERONAUTICAL\_E

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 56.12 ft  
 Warning Stage: 61.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.12	0.0000	0
58.00	0.2000	8712
59.00	1.0000	43560
59.50	1.5000	65340
60.00	2.0000	87120

Comment:

## Node: AERONAUTICAL\_W

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 56.20 ft  
 Warning Stage: 61.40 ft

Stage [ft]	Area [ac]	Area [ft2]
56.12	0.0000	0
58.00	0.2000	8712
59.00	1.0000	43560
59.50	1.5000	65340
60.00	2.0000	87120

Comment:

---

## Node: BORROW\_PIT

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 50.97 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft2]
50.97	10.3000	448668
65.97	14.6600	638590
68.07	18.8000	818928

Comment:

---

## Node: COBBLESTONE

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 57.22 ft  
 Warning Stage: 62.47 ft

Stage [ft]	Area [ac]	Area [ft2]
49.97	2.2700	98881
57.97	4.8000	209088
62.47	6.9000	300564
62.97	20.0000	871200

Comment:

## Node: FDOT\_POND\_4

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 63.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
49.97	0.7600	33106
60.47	1.6700	72745
62.47	1.7700	77101
63.97	2.4800	108029
64.47	9.2800	404237

Comment:

---

## Node: FENNEL\_192PSETS

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 56.10 ft  
 Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.10	0.4800	20909
56.50	0.5000	21780
57.00	0.5200	22651
58.00	0.6000	26136
59.00	0.6600	28750
60.00	0.7200	31363
61.00	0.7820	34064
62.00	0.9080	39552
54.50	0.1000	4356

Comment: Doubled storage  
 FEnnel192psetn same size  
 no elliptical pipe

---

## Node: FENNEL\_192\_DS

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 56.71 ft  
 Warning Stage: 62.50 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.71	0.1100	4792
58.00	0.2000	8712
59.00	0.2500	10890
60.00	0.3800	16553
61.00	0.4700	20473
62.00	0.5000	21780
62.50	0.5500	23958

Comment:

---

#### Node: FENNEL\_192\_US

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 56.98 ft  
 Warning Stage: 63.00 ft

Comment:

---

#### Node: FENNEL\_APTS\_DS

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 59.19 ft  
 Warning Stage: 63.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.47	0.0000	0
59.47	0.0300	1307
60.97	0.1900	8276
62.97	0.7900	34412
63.97	1.0400	45302

Comment:

---

#### Node: FENNEL\_APTS\_US

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 59.19 ft

Warning Stage: 63.47 ft

Comment:

Node: FENNEL\_P4

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 59.19 ft  
Warning Stage: 62.97 ft

Comment:

Node: FENNEL\_PSETFSHN

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 57.17 ft  
Warning Stage: 59.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
58.00	1.8000	78408
59.00	2.1200	92347
60.00	2.4200	105415
61.00	2.7200	118483

Comment:

Node: FENNEL\_PSETFSHS

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 55.97 ft  
Warning Stage: 59.00 ft

Comment:

**Node: FENNEL\_PSETL\_DS**

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 55.00 ft  
Warning Stage: 61.50 ft

Comment:

**Node: FENNEL\_PSFTL\_US**

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 54.50 ft  
Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
50.00	0.1000	4356
64.00	0.1000	4356

Comment:

**Node: FENNEL\_SEACAD**

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 59.19 ft  
Warning Stage: 63.47 ft

Comment:

**Node: FENNEL\_TPIKE\_DS**

Scenario: Existing  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 59.19 ft  
Warning Stage: 63.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
57.97	0.0300	1307

Stage [ft]	Area [ac]	Area [ft2]
59.97	0.9200	40075
62.97	5.4600	237838
64.97	8.1000	352836

Comment:

---

#### Node: FENNEL\_TPIKE\_US

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 59.19 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft2]
57.97	0.0000	0
59.97	0.1500	6534
61.97	1.3000	56628
63.97	5.4000	235224
64.97	5.7000	248292

Comment:

---

#### Node: FENNEL\_WETLAND

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.50 cfs  
 Initial Stage: 61.77 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft2]
59.97	4.2200	183823
63.97	61.5500	2681118
64.97	63.5300	2767367

Comment:

---

#### Node: FIRE\_STATION

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 64.97 ft

Warning Stage: 67.97 ft

Stage [ft]	Area [ac]	Area [ft2]
64.97	0.1900	8276
66.97	0.3200	13939
67.97	1.3500	58806

Comment:

---

#### Node: FISH\_LAKE

Scenario: Existing  
 Type: Time/Stage  
 Base Flow: 0.00 cfs  
 Initial Stage: 53.50 ft  
 Warning Stage: 58.00 ft  
 Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	54.50
0	0	0	24.0000	58.00
0	0	0	72.0000	58.00
0	0	0	100.0000	58.00

Comment:

---

#### Node: HESS

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 66.47 ft

Stage [ft]	Area [ac]	Area [ft2]
59.97	0.0000	0
62.97	0.1400	6098
65.97	0.5000	21780
66.97	0.9000	39204

Comment:

---

#### Node: ICE\_RINK

Scenario: Existing

Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.47 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
52.47	0.2600	11326
62.47	0.4300	18731
64.47	0.5400	23522
65.97	0.7400	32234
67.47	2.0500	89298

Comment:

---

#### Node: JUSTICE\_EAST

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 65.47 ft  
 Warning Stage: 70.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
64.97	0.0000	0
65.47	1.6400	71438
69.47	1.9800	86249
69.97	2.9400	128066

Comment:

---

#### Node: JUSTICE\_WEST

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 65.97 ft  
 Warning Stage: 68.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
62.97	0.4500	19602
67.97	1.1000	47916
68.97	2.5000	108900

Comment:

## Node: KMART

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 61.97 ft  
 Warning Stage: 67.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
61.97	0.0000	0
63.97	1.0500	45738
67.97	1.5900	69260
68.97	3.4700	151153

Comment:

---

## Node: POND-A

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 57.50 ft  
 Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
57.50	4.4900	195584
58.50	4.7000	204732
59.50	4.8900	213008
60.50	5.1000	222156
61.50	5.3100	231304

Comment:

---

## Node: REM\_EAST

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.97 ft  
 Warning Stage: 66.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
40.97	3.8600	168142
64.97	13.6900	596336
66.97	23.5400	1025402

Comment:

## Node: REM\_NE

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 63.97 ft  
 Warning Stage: 68.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
49.97	1.4500	63162
66.97	4.1700	181645
67.27	8.0200	349351

Comment:

---

## Node: REM\_NORTH

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 60.81 ft  
 Warning Stage: 64.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
40.47	3.1300	136343
58.47	5.1500	224334
60.47	5.5700	242629
64.47	6.8700	299257
66.27	12.5800	547985

Comment:

---

## Node: REM\_POND\_22

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 61.97 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
48.97	0.1700	7405
61.97	0.7200	31363
64.97	0.9000	39204
66.97	1.9800	86249

Comment:

## Node: REM\_POND\_23A

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.97 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
45.97	1.1900	51836
61.97	2.6400	114998
64.97	2.9500	128502
66.97	5.5000	239580

Comment:

---

## Node: REM\_POND\_G

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 60.62 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
40.77	8.2600	359806
60.47	11.2800	491357
63.97	12.0000	522720
64.97	13.1100	571072
67.22	17.8000	775368

Comment:

---

## Node: REM\_POND\_P

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 72.97 ft  
 Warning Stage: 75.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
60.97	1.9500	84942
75.97	2.9900	130244
77.97	6.8700	299257

Comment:

## Node: REM\_TRACT\_1

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 72.22 ft  
 Warning Stage: 76.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
60.97	1.4300	62291
70.97	1.8000	78408
75.97	2.4600	107158
77.97	3.7200	162043

Comment:

---

## Node: SE\_ACADEMY

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 62.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.97	1.3600	59242
61.97	2.1100	91912
63.97	3.6100	157252

Comment:

---

## Node: SHADY\_192

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 58.97 ft  
 Warning Stage: 63.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
58.97	0.0500	2178
61.97	0.9500	41382
62.97	1.3000	56628

Comment:

## Node: TAIKWON

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 58.50 ft  
 Warning Stage: 61.00 ft

Stage [ft]	Area [ac]	Area [ft2]
58.00	0.0000	0
59.50	0.1200	5227
61.00	0.1800	7841

Comment:

---

## Node: TPIKE\_ACCESS

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 63.97 ft

Stage [ft]	Area [ac]	Area [ft2]
59.97	0.0500	2178
61.97	0.2500	10890
62.97	1.0000	43560

Comment:

---

## Node: TRANS\_FACILITY

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 72.97 ft  
 Warning Stage: 75.47 ft

Stage [ft]	Area [ac]	Area [ft2]
63.97	3.2600	142006
66.97	3.8300	166835
71.97	4.5200	196891
75.97	5.4000	235224
76.97	18.0500	786258

Comment:

## Node: WETPOND-1

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.50 ft  
 Warning Stage: 66.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
62.50	2.0200	87991
63.00	2.0800	90605
64.00	2.2100	96268
65.00	2.3400	101930
66.00	2.4700	107593

Comment:

---

## Node: WETPOND-2

Scenario: Existing  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.50 ft  
 Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.50	0.5100	22216
60.00	0.5400	23522
61.00	0.6100	26572
62.00	0.7900	34412

Comment:

---

## Node: ACADEMY\_APTS

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
55.97	0.5000	21780
59.97	1.1000	47916
65.97	2.5000	108900
67.97	3.8000	165528

Comment:

**Node: AERONAUTICAL\_E**

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 56.12 ft  
 Warning Stage: 61.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.12	0.0000	0
58.00	0.2000	8712
59.00	1.0000	43560
59.50	1.5000	65340
60.00	2.0000	87120

Comment:

---

**Node: AERONAUTICAL\_W**

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 56.20 ft  
 Warning Stage: 61.40 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.12	0.0000	0
58.00	0.2000	8712
59.00	1.0000	43560
59.50	1.5000	65340
60.00	2.0000	87120

Comment:

---

**Node: BORROW\_PIT**

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 50.97 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
50.97	10.3000	448668
65.97	14.6600	638590
68.07	18.8000	818928

Comment:

## Node: COBBLESTONE

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 57.22 ft  
 Warning Stage: 62.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
49.97	2.2700	98881
57.97	4.8000	209088
62.47	6.9000	300564
62.97	20.0000	871200

Comment:

---

## Node: FDOT\_POND\_4

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 63.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
49.97	0.7600	33106
60.47	1.6700	72745
62.47	1.7700	77101
63.97	2.4800	108029
64.47	9.2800	404237

Comment:

---

## Node: FENNEL\_192PSETS

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 56.10 ft  
 Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.10	0.4800	20909
56.50	0.5000	21780
57.00	0.5200	22651
58.00	0.6000	26136
59.00	0.6600	28750
60.00	0.7200	31363

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
61.00	0.7820	34064
62.00	0.9080	39552
54.50	0.1000	4356

Comment: Doubled storage

FEnnel192psetn same size

no elliptical pipe

#### Node: FENNEL\_192\_DS

Scenario: Proposed  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 56.71 ft  
Warning Stage: 62.50 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.71	0.1100	4792
58.00	0.2000	8712
59.00	0.2500	10890
60.00	0.3800	16553
61.00	0.4700	20473
62.00	0.5000	21780
62.50	0.5500	23958

Comment:

#### Node: FENNEL\_192\_US

Scenario: Proposed  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 56.98 ft  
Warning Stage: 63.00 ft

Comment:

#### Node: FENNEL\_APTS\_DS

Scenario: Proposed  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 59.19 ft

Warning Stage: 63.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
56.47	0.0000	0
59.47	0.0300	1307
60.97	0.1900	8276
62.97	0.7900	34412
63.97	1.0400	45302

Comment:

---

#### Node: FENNEL\_APTS\_US

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 59.19 ft  
 Warning Stage: 63.47 ft

Comment:

---

#### Node: FENNEL\_P4

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 59.19 ft  
 Warning Stage: 62.97 ft

Comment:

---

#### Node: FENNEL\_PSETFSHN

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.25 cfs  
 Initial Stage: 57.17 ft  
 Warning Stage: 59.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
58.00	1.8000	78408
59.00	2.1200	92347
60.00	2.4200	105415

Stage [ft]	Area [ac]	Area [ft2]
61.00	2.7200	118483

Comment:

#### Node: FENNEL\_PSETFSHS

Scenario: Proposed  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 55.97 ft  
Warning Stage: 59.00 ft

Comment:

#### Node: FENNEL\_PSETL\_DS

Scenario: Proposed  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 55.00 ft  
Warning Stage: 61.50 ft

Comment:

#### Node: FENNEL\_PSETL\_US

Scenario: Proposed  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 54.50 ft  
Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft2]
50.00	0.1000	4356
64.00	0.1000	4356

Comment:

#### Node: FENNEL\_SEACAD

Scenario: Proposed

Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 59.19 ft  
Warning Stage: 63.47 ft

Comment:

Node: FENNEL\_TPIKE\_DS

Scenario: Proposed  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 59.19 ft  
Warning Stage: 63.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
57.97	0.0300	1307
59.97	0.9200	40075
62.97	5.4600	237838
64.97	8.1000	352836

Comment:

Node: FENNEL\_TPIKE\_US

Scenario: Proposed  
Type: Stage/Area  
Base Flow: 0.25 cfs  
Initial Stage: 59.19 ft  
Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
57.97	0.0000	0
59.97	0.1500	6534
61.97	1.3000	56628
63.97	5.4000	235224
64.97	5.7000	248292

Comment:

Node: FENNEL\_WETLAND

Scenario: Proposed  
Type: Stage/Area

Base Flow: 0.50 cfs  
 Initial Stage: 61.77 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.97	4.2200	183823
63.97	61.5500	2681118
64.97	63.5300	2767367

Comment:

---

#### Node: FIRE\_STATION

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 64.97 ft  
 Warning Stage: 67.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
64.97	0.1900	8276
66.97	0.3200	13939
67.97	1.3500	58806

Comment:

---

#### Node: FISH\_LAKE

Scenario: Proposed  
 Type: Time/Stage  
 Base Flow: 0.00 cfs  
 Initial Stage: 53.50 ft  
 Warning Stage: 58.00 ft  
 Boundary Stage:

Year	Month	Day	Hour	Stage [ft]
0	0	0	0.0000	54.50
0	0	0	24.0000	58.00
0	0	0	72.0000	58.00
0	0	0	100.0000	58.00

Comment:

---

#### Node: HESS

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 66.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.97	0.0000	0
62.97	0.1400	6098
65.97	0.5000	21780
66.97	0.9000	39204

Comment:

---

#### Node: ICE\_RINK

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.47 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
52.47	0.2600	11326
62.47	0.4300	18731
64.47	0.5400	23522
65.97	0.7400	32234
67.47	2.0500	89298

Comment:

---

#### Node: JUSTICE\_EAST

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 65.47 ft  
 Warning Stage: 70.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
64.97	0.0000	0
65.47	1.6400	71438
69.47	1.9800	86249
69.97	2.9400	128066

Comment:

## Node: JUSTICE\_WEST

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 65.97 ft  
 Warning Stage: 68.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
62.97	0.4500	19602
67.97	1.1000	47916
68.97	2.5000	108900

Comment:

---

## Node: KMArt

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 61.97 ft  
 Warning Stage: 67.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
61.97	0.0000	0
63.97	1.0500	45738
67.97	1.5900	69260
68.97	3.4700	151153

Comment:

---

## Node: POND-A

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 57.50 ft  
 Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
57.50	4.4900	195584
58.50	4.7000	204732
59.50	4.8900	213008
60.50	5.1000	222156
61.50	5.3100	231304

Comment:

## Node: REM\_EAST

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.97 ft  
 Warning Stage: 66.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
40.97	3.8600	168142
64.97	13.6900	596336
66.97	23.5400	1025402

Comment:

---

## Node: REM\_NE

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 63.97 ft  
 Warning Stage: 68.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
49.97	1.4500	63162
66.97	4.1700	181645
67.27	8.0200	349351

Comment:

---

## Node: REM\_NORTH

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 60.81 ft  
 Warning Stage: 64.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
40.47	3.1300	136343
58.47	5.1500	224334
60.47	5.5700	242629
64.47	6.8700	299257
66.27	12.5800	547985

Comment:

## Node: REM\_POND\_22

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 61.97 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
48.97	0.1700	7405
61.97	0.7200	31363
64.97	0.9000	39204
66.97	1.9800	86249

Comment:

## Node: REM\_POND\_23A

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.97 ft  
 Warning Stage: 65.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
45.97	1.1900	51836
61.97	2.6400	114998
64.97	2.9500	128502
66.97	5.5000	239580

Comment:

## Node: REM\_POND\_G

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 60.62 ft  
 Warning Stage: 64.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
40.77	8.2600	359806
60.47	11.2800	491357
63.97	12.0000	522720
64.97	13.1100	571072
67.22	17.8000	775368

Comment:

## Node: REM\_POND\_P

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 72.97 ft  
 Warning Stage: 75.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
60.97	1.9500	84942
75.97	2.9900	130244
77.97	6.8700	299257

Comment:

---

## Node: REM\_TRACT\_1

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 72.22 ft  
 Warning Stage: 76.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
60.97	1.4300	62291
70.97	1.8000	78408
75.97	2.4600	107158
77.97	3.7200	162043

Comment:

---

## Node: SE\_ACADEMY

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 62.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.97	1.3600	59242
61.97	2.1100	91912
63.97	3.6100	157252

Comment:

## Node: SHADY\_192

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 58.97 ft  
 Warning Stage: 63.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
58.97	0.0500	2178
61.97	0.9500	41382
62.97	1.3000	56628

Comment:

---

## Node: TAIKWON

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 58.50 ft  
 Warning Stage: 61.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
58.00	0.0000	0
59.50	0.1200	5227
61.00	0.1800	7841

Comment:

---

## Node: TPIKE\_ACCESS

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.97 ft  
 Warning Stage: 63.97 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.97	0.0500	2178
61.97	0.2500	10890
62.97	1.0000	43560

Comment:

## Node: TRANS\_FACILITY

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 72.97 ft  
 Warning Stage: 75.47 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
63.97	3.2600	142006
66.97	3.8300	166835
71.97	4.5200	196891
75.97	5.4000	235224
76.97	18.0500	786258

Comment:

---

## Node: WETPOND-1

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 62.50 ft  
 Warning Stage: 66.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
62.50	2.0200	87991
63.00	2.0800	90605
64.00	2.2100	96268
65.00	2.3400	101930
66.00	2.4700	107593

Comment:

---

## Node: WETPOND-2

Scenario: Proposed  
 Type: Stage/Area  
 Base Flow: 0.00 cfs  
 Initial Stage: 59.50 ft  
 Warning Stage: 62.00 ft

Stage [ft]	Area [ac]	Area [ft <sup>2</sup> ]
59.50	0.5100	22216
60.00	0.5400	23522
61.00	0.6100	26572
62.00	0.7900	34412

---

Comment:

---

Channel Link: C_FEN_192PSETS1	Upstream	Downstream
Scenario: Existing	Invert: 54.55 ft	Invert: 54.50 ft
From Node: FENNEL_192PSETS	Manning's N: 0.0600	Manning's N: 0.0600
To Node: FENNEL_PSETL_US	Geometry: Irregular	Geometry: Irregular
Link Count: 1	Cross Section: X-0010C	Cross Section: X-0010C
Flow Direction: Both		
Damping: 0.0000 ft		
Length: 80.00 ft		
Contraction Coef: 0.10		
Expansion Coef: 0.30		
Entr Loss Coef: 0.00		
Exit Loss Coef: 0.00		
Bend Loss Coef: 0.00		
Bend Location: 0.00 dec		
Energy Switch: Energy		

Comment:

---

Channel Link: C_FEN_PSETFISH1	Upstream	Downstream
Scenario: Existing	Invert: 55.00 ft	Invert: 54.50 ft
From Node: FENNEL_PSETL_DS	Manning's N: 0.0000	Manning's N: 0.0000
To Node: FENNEL_PSETFSH	Geometry: Irregular	Geometry: Irregular
N	Cross Section: X-0020C	Cross Section: X-0020C
Link Count: 1		
Flow Direction: Both		
Damping: 0.0000 ft		
Length: 587.00 ft		
Contraction Coef: 0.10		
Expansion Coef: 0.30		
Entr Loss Coef: 0.00		
Exit Loss Coef: 0.00		
Bend Loss Coef: 0.00		
Bend Location: 0.00 dec		
Energy Switch: Energy		

Comment:

---

Channel Link: C_FEN_PSETFISH2	Upstream	Downstream
Scenario: Existing	Invert: 54.50 ft	Invert: 54.00 ft
From Node: FENNEL_PSETFSH	Manning's N: 0.0000	Manning's N: 0.0000
N	Geometry: Irregular	Geometry: Irregular
To Node: FENNEL_PSETFSHS	Cross Section: X_FEN_PSETFISH2	Cross Section: X_FEN_PSETFISH2

Link Count: 1  
 Flow Direction: Both  
 Damping: 0.0000 ft  
 Length: 563.00 ft  
 Contraction Coef: 0.10  
 Expansion Coef: 0.30  
 Entr Loss Coef: 0.00  
 Exit Loss Coef: 0.00  
 Bend Loss Coef: 0.00  
 Bend Location: 0.00 dec  
 Energy Switch: Energy

Comment:

---

Channel Link: C_FEN_PSETFISH3	Upstream	Downstream
Scenario: Existing	Invert: 54.00 ft	Invert: 53.50 ft
From Node: FENNEL_PSETFSHS	Manning's N: 0.0000	Manning's N: 0.0000
To Node: FISH_LAKE	Geometry: Irregular	Geometry: Irregular
Link Count: 1	Cross Section: X_FEN_PSETFISH3	Cross Section: X_FEN_PSETFISH3
Flow Direction: Both		
Damping: 0.0000 ft		
Length: 525.00 ft		
Contraction Coef: 0.10		
Expansion Coef: 0.30		
Entr Loss Coef: 0.00		
Exit Loss Coef: 0.00		
Bend Loss Coef: 0.00		
Bend Location: 0.00 dec		
Energy Switch: Energy		

Comment:

---

Channel Link: C_FEN_TP192-1	Upstream	Downstream
Scenario: Existing	Invert: 57.02 ft	Invert: 56.41 ft
From Node: FENNEL_TPIKE_DS	Manning's N: 0.0000	Manning's N: 0.0000
To Node: FENNEL_SEACAD	Geometry: Irregular	Geometry: Irregular
Link Count: 1	Cross Section: X_FEN_TP192-1	Cross Section: X_FEN_TP192-1
Flow Direction: Both		
Damping: 0.0000 ft		
Length: 385.00 ft		
Contraction Coef: 0.10		
Expansion Coef: 0.30		
Entr Loss Coef: 0.00		
Exit Loss Coef: 0.00		
Bend Loss Coef: 0.00		
Bend Location: 0.00 dec		
Energy Switch: Energy		

Comment:
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Channel Link: C_FEN_TP192-2	Upstream	Downstream
Scenario: Existing	Invert: 56.41 ft	Invert: 55.80 ft
From Node: FENNEL_SEACAD	Manning's N: 0.0000	Manning's N: 0.0000
To Node: FENNEL_APTS_US	Geometry: Irregular	Geometry: Irregular
Link Count: 1	Cross Section: X_FEN_TP192-2	Cross Section: X_FEN_TP192-2
Flow Direction: Both		
Damping: 0.0000 ft		
Length: 620.00 ft		
Contraction Coef: 0.10		
Expansion Coef: 0.30		
Entr Loss Coef: 0.00		
Exit Loss Coef: 0.00		
Bend Loss Coef: 0.00		
Bend Location: 0.00 dec		
Energy Switch: Energy		

Comment:
----------

Channel Link: C_FEN_TP192-3	Upstream	Downstream
Scenario: Existing	Invert: 56.77 ft	Invert: 56.47 ft
From Node: FENNEL_P4	Manning's N: 0.0000	Manning's N: 0.0000
To Node: FENNEL_192_US	Geometry: Irregular	Geometry: Irregular
Link Count: 1	Cross Section: X_FEN_TP192-3	Cross Section: X_FEN_TP192-3
Flow Direction: Both		
Damping: 0.0000 ft		
Length: 705.00 ft		
Contraction Coef: 0.10		
Expansion Coef: 0.30		
Entr Loss Coef: 0.00		
Exit Loss Coef: 0.00		
Bend Loss Coef: 0.00		
Bend Location: 0.00 dec		
Energy Switch: Energy		

Comment:
----------

Drop Structure Link: D-REM_EAST-G	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 59.97 ft	Invert: 59.47 ft
From Node: REM_EAST	Manning's N: 0.0130	Manning's N: 0.0130
To Node: REM_POND_G	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	

Solution:	Combine	Default:	0.00 ft	Default:	0.00 ft
Increments:	10	Op Table:		Op Table:	
Pipe Count:	1	Ref Node:		Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0130	Manning's N:	0.0130
Length:	560.00 ft	Top Clip			
FHWA Code:	1	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0130	Manning's N:	0.0130
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	62.97 ft	Ref Node:	
Control Elevation:	62.97 ft	Discharge Coefficients	
Max Depth:	1.00 ft	Weir Default:	3.200
Max Width:	2.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	63.97 ft	Ref Node:	
Control Elevation:	63.97 ft	Discharge Coefficients	
Max Depth:	1.92 ft	Weir Default:	3.200
Max Width:	3.08 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: DS-1	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 60.50 ft	Invert: 58.25 ft
From Node: WETPOND-1	Manning's N: 0.0130	Manning's N: 0.0130
To Node: AERONAUTICAL_W	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 365.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		
Pipe Comment:		

Weir Component	Bottom Clip
Weir: 1	Default: 0.00 ft
Weir Count: 1	Op Table:
Weir Flow Direction: Both	Ref Node:
Damping: 0.0000 ft	Top Clip
Weir Type: Sharp Crested Vertical	Default: 0.00 ft
Geometry Type: Circular	Op Table:
Invert: 62.50 ft	Ref Node:
Control Elevation: 62.50 ft	Discharge Coefficients
Max Depth: 0.25 ft	Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:
Weir Comment:	

Weir Component	Bottom Clip
Weir: 2	Default: 0.00 ft
Weir Count: 1	Op Table:
Weir Flow Direction: Both	Ref Node:
Damping: 0.0000 ft	Top Clip
Weir Type: Sharp Crested Vertical	Default: 0.00 ft
Geometry Type: Rectangular	Op Table:
Invert: 63.25 ft	Ref Node:
Control Elevation: 63.25 ft	Discharge Coefficients
Max Depth: 2.05 ft	Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:
Max Width: 0.50 ft	
Fillet: 0.00 ft	
Weir Comment:	

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	65.30 ft
Control Elevation:	65.30 ft
Max Depth:	2.00 ft
Max Width:	3.08 ft
Fillet:	0.00 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Discharge Coefficients	
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: DS-2	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 59.25 ft	Invert: 59.00 ft
From Node: WETPOND-2	Manning's N: 0.0130	Manning's N: 0.0130
To Node: AERONAUTICAL_W	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 72.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		
Pipe Comment:		

Weir Component	
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Circular
Invert:	59.50 ft
Control Elevation:	59.50 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:

Max Depth: 0.25 ft

## Discharge Coefficients

Weir Default: 3.200

Weir Table:

Orifice Default: 0.600

Orifice Table:

Weir Comment:

## Weir Component

Weir: 2

## Bottom Clip

Default: 0.00 ft

Weir Count: 1

Op Table:

Weir Flow Direction: Both

Ref Node:

Damping: 0.0000 ft

## Top Clip

Default: 0.00 ft

Weir Type: Sharp Crested Vertical

Op Table:

Geometry Type: Rectangular

Ref Node:

Invert: 60.25 ft

## Discharge Coefficients

Control Elevation: 60.25 ft

Weir Default: 3.200

Max Depth: 1.25 ft

Weir Table:

Max Width: 0.33 ft

Orifice Default: 0.600

Fillet: 0.00 ft

Orifice Table:

Weir Comment:

## Weir Component

Weir: 3

## Bottom Clip

Default: 0.00 ft

Weir Count: 1

Op Table:

Weir Flow Direction: Both

Ref Node:

Damping: 0.0000 ft

## Top Clip

Default: 0.00 ft

Weir Type: Horizontal

Op Table:

Geometry Type: Rectangular

Ref Node:

Invert: 61.50 ft

## Discharge Coefficients

Control Elevation: 61.50 ft

Weir Default: 3.200

Max Depth: 2.00 ft

Weir Table:

Max Width: 3.08 ft

Orifice Default: 0.600

Fillet: 0.00 ft

Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: DS_HS-192FEN_DS	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 59.97 ft	Invert: 59.78 ft
From Node: HESS	Manning's N: 0.0120	Manning's N: 0.0120
To Node: SHADY_192	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft

Flow Direction:	Both	Bottom Clip	
Solution:	Combine	Default:	0.00 ft
Increments:	10	Op Table:	
Pipe Count:	1	Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0120
Length:	461.00 ft	Top Clip	
FHWA Code:	1	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:	
Exit Loss Coef:	0.00	Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0120
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Circular	Op Table:	
Invert:	59.97 ft	Ref Node:	
Control Elevation:	59.97 ft	Discharge Coefficients	
Max Depth:	0.25 ft	Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	66.27 ft	Ref Node:	
Control Elevation:	66.27 ft	Discharge Coefficients	
Max Depth:	1.42 ft	Weir Default:	3.200
Max Width:	2.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	3	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both		

Damping:	0.0000 ft	
Weir Type:	Sharp Crested Vertical	Ref Node:
Geometry Type:	Rectangular	Top Clip
Invert:	63.07 ft	Default: 0.00 ft
Control Elevation:	63.07 ft	Op Table:
Max Depth:	3.17 ft	Ref Node:
Max Width:	0.33 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_ACADAPTS-FENN	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 58.75 ft	Invert: 58.60 ft
From Node: ACADEMY_APTS	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_P4	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both		Bottom Clip
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 66.00 ft		Top Clip
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 62.25 ft	Op Table:
Control Elevation: 62.25 ft	Ref Node:
Max Depth: 1.75 ft	Discharge Coefficients
Max Width: 2.17 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600

## Orifice Table:

Weir Comment:

## Weir Component

Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 59.00 ft	Op Table:
Control Elevation: 59.00 ft	Ref Node:
Max Depth: 0.33 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

## Weir Component

Weir: 3	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 64.00 ft	Op Table:
Control Elevation: 64.00 ft	Ref Node:
Max Depth: 2.08 ft	Discharge Coefficients
Max Width: 3.00 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_COBELSTN-FISH	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 57.22 ft	Invert: 56.97 ft
From Node: COBBLESTONE	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_PSETFSHS	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:

Damping:	0.0000 ft	Manning's N:	0.0130	Manning's N:	0.0130
Length:	30.00 ft	Top Clip			
FHWA Code:	1	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0130	Manning's N:	0.0130
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip			
Weir:	1	Default:	0.00 ft	Op Table:	
Weir Count:	1	Ref Node:		Top Clip	
Weir Flow Direction:	Both	Default:	0.00 ft	Op Table:	
Damping:	0.0000 ft	Ref Node:		Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft	Op Table:	
Geometry Type:	Rectangular	Ref Node:		Discharge Coefficients	
Invert:	58.37 ft	Weir Default:	3.200	Weir Table:	
Control Elevation:	58.37 ft	Orifice Default:	0.600	Orifice Table:	
Max Depth:	3.33 ft				
Max Width:	2.50 ft				
Fillet:	0.00 ft				

Weir Comment:

Weir Component		Bottom Clip			
Weir:	2	Default:	0.00 ft	Op Table:	
Weir Count:	1	Ref Node:		Top Clip	
Weir Flow Direction:	Both	Default:	0.00 ft	Op Table:	
Damping:	0.0000 ft	Ref Node:		Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft	Op Table:	
Geometry Type:	Circular	Ref Node:		Discharge Coefficients	
Invert:	57.19 ft	Weir Default:	3.200	Weir Table:	
Control Elevation:	57.19 ft	Orifice Default:	0.600	Orifice Table:	
Max Depth:	0.42 ft				

Weir Comment:

Weir Component		Bottom Clip			
Weir:	3	Default:	0.00 ft	Op Table:	
Weir Count:	1	Ref Node:		Top Clip	
Weir Flow Direction:	Both	Default:	0.00 ft	Op Table:	
Damping:	0.0000 ft	Ref Node:		Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft	Op Table:	
Geometry Type:	Rectangular	Op Table:			
Invert:	61.97 ft				

Control Elevation: 61.97 ft  
 Max Depth: 4.33 ft  
 Max Width: 6.00 ft  
 Fillet: 0.00 ft

Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_FS_192FENDS	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 61.97 ft	Invert: 61.47 ft
From Node: FIRE_STATION	Manning's N: 0.0120	Manning's N: 0.0120
To Node: SHADY_192	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 215.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 65.97 ft	Op Table:
Control Elevation: 65.97 ft	Ref Node:
Max Depth: 1.92 ft	Discharge Coefficients
Max Width: 3.08 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Weir Component

Weir:	2	
Weir Count:	1	Bottom Clip
Weir Flow Direction:	Both	Default: 0.00 ft
Damping:	0.0000 ft	Op Table:
Weir Type:	Sharp Crested Vertical	Ref Node:
Geometry Type:	Rectangular	Top Clip
Invert:	64.97 ft	Default: 0.00 ft
Control Elevation:	64.97 ft	Op Table:
Max Depth:	1.00 ft	Ref Node:
Max Width:	2.00 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_ICE-FENNEL	Upstream Pipe	Downstream Pipe
Scenario:	Existing	Invert: 59.97 ft
From Node:	ICE_RINK	Manning's N: 0.0130
To Node:	FENNEL_PSETL_US	Geometry: Circular
Link Count:	1	Max Depth: 1.25 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0130
Length:	745.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:
Exit Loss Coef:	1.00	Ref Node:
Bend Loss Coef:	0.00	Manning's N: 0.0130
Bend Location:	0.00 dec	
Energy Switch:	Energy	

Pipe Comment:

Weir Component	
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	63.37 ft
Control Elevation:	63.37 ft
Max Depth:	1.00 ft

Max Width: 1.42 ft  
Fillet: 0.00 ft

Weir Default: 3.200  
Weir Table:  
Orifice Default: 0.600  
Orifice Table:

Weir Comment:

Weir Component  
Weir: 2  
Weir Count: 1  
Weir Flow Direction: Both  
Damping: 0.0000 ft  
Weir Type: Sharp Crested Vertical  
Geometry Type: Circular  
Invert: 62.47 ft  
Control Elevation: 62.47 ft  
Max Depth: 0.25 ft

Bottom Clip  
Default: 0.00 ft  
Op Table:  
Ref Node:

Top Clip  
Default: 0.00 ft  
Op Table:  
Ref Node:  
Discharge Coefficients  
Weir Default: 3.200  
Weir Table:  
Orifice Default: 0.600  
Orifice Table:

Weir Comment:

Weir Component  
Weir: 3  
Weir Count: 1  
Weir Flow Direction: Both  
Damping: 0.0000 ft  
Weir Type: Horizontal  
Geometry Type: Rectangular  
Invert: 65.57 ft  
Control Elevation: 65.57 ft  
Max Depth: 1.42 ft  
Max Width: 2.00 ft  
Fillet: 0.00 ft

Bottom Clip  
Default: 0.00 ft  
Op Table:  
Ref Node:  
Top Clip  
Default: 0.00 ft  
Op Table:  
Ref Node:  
Discharge Coefficients  
Weir Default: 3.200  
Weir Table:  
Orifice Default: 0.600  
Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_JUSTICE_E-FEN	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 64.97 ft	Invert: 64.77 ft
From Node: JUSTICE_EAST	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both		Bottom Clip

Solution:	Combine	Default:	0.00 ft	Default:	0.00 ft
Increments:	10	Op Table:		Op Table:	
Pipe Count:	1	Ref Node:		Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0130	Manning's N:	0.0130
Length:	40.00 ft	Top Clip			
FHWA Code:	1	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0130	Manning's N:	0.0130
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	67.47 ft	Ref Node:	
Control Elevation:	67.47 ft	Discharge Coefficients	
Max Depth:	0.33 ft	Weir Default:	3.200
Max Width:	0.58 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Circular	Op Table:	
Invert:	65.47 ft	Ref Node:	
Control Elevation:	65.47 ft	Discharge Coefficients	
Max Depth:	0.25 ft	Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	3	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft		

Weir Type:	Horizontal	
Geometry Type:	Rectangular	Top Clip
Invert:	69.97 ft	Default: 0.00 ft
Control Elevation:	69.97 ft	Op Table:
Max Depth:	1.92 ft	Ref Node:
Max Width:	3.08 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D JUSTICE_W-FEN	Upstream Pipe	Downstream Pipe
Scenario:	Existing	Invert: 64.97 ft
From Node:	JUSTICE_WEST	Manning's N: 0.0130
To Node:	FENNEL_WETLAND	Geometry: Circular
Link Count:	1	Max Depth: 1.50 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0130
Length:	20.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:
Exit Loss Coef:	1.00	Ref Node:
Bend Loss Coef:	0.00	Manning's N: 0.0130
Bend Location:	0.00 dec	
Energy Switch:	Energy	

Pipe Comment:

Weir Component	Bottom Clip
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	66.97 ft
Control Elevation:	66.97 ft
Max Depth:	0.33 ft
Max Width:	1.50 ft
Fillet:	0.00 ft
Top Clip	Default: 0.00 ft
	Op Table:
	Ref Node:
Discharge Coefficients	Default: 0.00 ft
	Op Table:
	Ref Node:
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Weir Component		Bottom Clip
Weir:	2	Default: 0.00 ft
Weir Count:	1	Op Table:
Weir Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Horizontal	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	67.77 ft	Ref Node:
Control Elevation:	67.77 ft	Discharge Coefficients
Max Depth:	1.92 ft	Weir Default: 3.200
Max Width:	2.25 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Weir Component		Bottom Clip
Weir:	3	Default: 0.00 ft
Weir Count:	1	Op Table:
Weir Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Sharp Crested Vertical	Default: 0.00 ft
Geometry Type:	Circular	Op Table:
Invert:	65.97 ft	Ref Node:
Control Elevation:	65.97 ft	Discharge Coefficients
Max Depth:	0.25 ft	Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_KM-192FEN_DS	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 62.47 ft	Invert: 62.12 ft
From Node: KMARTR	Manning's N: 0.0120	Manning's N: 0.0120
To Node: SHADY_192	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.00000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 66.00 ft	Top Clip	

FHWA Code:	30	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0120	Manning's N:	0.0120
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component	
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	64.72 ft
Control Elevation:	64.72 ft
Max Depth:	2.83 ft
Max Width:	2.25 ft
Fillet:	0.00 ft

Bottom Clip	Default:	0.00 ft
Op Table:		
Ref Node:		
Top Clip	Default:	0.00 ft
Op Table:		
Ref Node:		
Discharge Coefficients	Weir Default:	3.200
	Weir Table:	
	Orifice Default:	0.600
	Orifice Table:	

Weir Comment:

Weir Component	
Weir:	2
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Circular
Invert:	62.57 ft
Control Elevation:	62.57 ft
Max Depth:	0.33 ft

Bottom Clip	Default:	0.00 ft
Op Table:		
Ref Node:		
Top Clip	Default:	0.00 ft
Op Table:		
Ref Node:		
Discharge Coefficients	Weir Default:	3.200
	Weir Table:	
	Orifice Default:	0.600
	Orifice Table:	

Weir Comment:

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	66.97 ft
Control Elevation:	66.97 ft
Max Depth:	1.92 ft

Bottom Clip	Default:	0.00 ft
Op Table:		
Ref Node:		
Top Clip	Default:	0.00 ft
Op Table:		
Ref Node:		
Discharge Coefficients		

Max Width: 3.08 ft  
Fillet: 0.00 ft

Weir Default: 3.200  
Weir Table:  
Orifice Default: 0.600  
Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_P4-FEN	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 57.50 ft	Invert: 57.09 ft
From Node: FDOT_POND_4	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_P4	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 2	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 111.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	Bottom Clip	
Weir: 1	Default: 0.00 ft	
Weir Count: 2	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical	Default: 0.00 ft	
Geometry Type: Rectangular	Op Table:	
Invert: 59.53 ft	Ref Node:	
Control Elevation: 59.53 ft	Discharge Coefficients	
Max Depth: 2.00 ft	Weir Default: 3.200	
Max Width: 2.00 ft	Weir Table:	
Fillet: 0.00 ft	Orifice Default: 0.600	
	Orifice Table:	

Weir Comment:

Weir Component	Bottom Clip
Weir: 2	Default: 0.00 ft
Weir Count: 1	

Weir Flow Direction:	Both	
Damping:	0.0000 ft	Op Table:
Weir Type:	Sharp Crested Vertical	Ref Node:
Geometry Type:	Circular	Top Clip
Invert:	59.00 ft	Default: 0.00 ft
Control Elevation:	59.00 ft	Op Table:
Max Depth:	0.33 ft	Ref Node:
		Discharge Coefficients
		Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	61.50 ft
Control Elevation:	61.50 ft
Max Depth:	3.17 ft
Max Width:	3.00 ft
Fillet:	0.00 ft
	Bottom Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Top Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_NE-REM_N	Upstream Pipe	Downstream Pipe
Scenario:	Existing	Invert: 62.47 ft
From Node:	REM_NE	Manning's N: 0.0130
To Node:	REM_NORTH	Geometry: Circular
Link Count:	1	Max Depth: 2.00 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0130
Length:	965.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:
Exit Loss Coef:	0.00	Ref Node:
Bend Loss Coef:	0.00	Manning's N: 0.0130

Bend Location: 0.00 dec

Energy Switch: Energy

Pipe Comment:

**Weir Component**

Weir:	1	Bottom Clip	
Weir Count:	1	Default:	0.00 ft
Weir Flow Direction:	Both	Op Table:	
Damping:	0.0000 ft	Ref Node:	
Weir Type:	Sharp Crested Vertical	Top Clip	
Geometry Type:	Rectangular	Default:	0.00 ft
Invert:	63.97 ft	Op Table:	
Control Elevation:	63.97 ft	Ref Node:	
Max Depth:	1.00 ft	Discharge Coefficients	
Max Width:	2.00 ft	Weir Default:	3.200
Fillet:	0.00 ft	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

**Weir Component**

Weir:	2	Bottom Clip	
Weir Count:	1	Default:	0.00 ft
Weir Flow Direction:	Both	Op Table:	
Damping:	0.0000 ft	Ref Node:	
Weir Type:	Horizontal	Top Clip	
Geometry Type:	Rectangular	Default:	0.00 ft
Invert:	64.97 ft	Op Table:	
Control Elevation:	64.97 ft	Ref Node:	
Max Depth:	1.92 ft	Discharge Coefficients	
Max Width:	3.08 ft	Weir Default:	3.200
Fillet:	0.00 ft	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

**Drop Structure Link: D\_Rem\_P-G**

Scenario:	Existing	Upstream Pipe	Downstream Pipe
From Node:	REM_POND_P	Invert: 60.97 ft	Invert: 60.47 ft
To Node:	REM_POND_G	Manning's N: 0.0130	Manning's N: 0.0130
Link Count:	1	Geometry: Circular	Geometry: Circular
Flow Direction:	Both	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Solution:	Combine	Bottom Clip	
Increments:	10	Default:	0.00 ft
Pipe Count:	1	Op Table:	Op Table:
		Ref Node:	Ref Node:

Damping:	0.0000 ft	Manning's N:	0.0130	Manning's N:	0.0130
Length:	1565.00 ft			Top Clip	
FHWA Code:	1	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0130	Manning's N:	0.0130
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	72.97 ft	Ref Node:	
Control Elevation:	72.97 ft	Discharge Coefficients	
Max Depth:	1.00 ft	Weir Default:	3.200
Max Width:	2.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	73.97 ft	Ref Node:	
Control Elevation:	73.97 ft	Discharge Coefficients	
Max Depth:	1.92 ft	Weir Default:	3.200
Max Width:	3.08 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

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Drop Structure Link: D_Rem_P22-FEN	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 60.70 ft	Invert: 59.97 ft
From Node: REM_POND_22	Manning's N: 0.0120	Manning's N: 0.0120

To Node:	FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip
Solution:	Combine	Default:	0.00 ft
Increments:	10	Op Table:	
Pipe Count:	1	Ref Node:	
Damping:	0.0000 ft	Manning's N:	0.0120
Length:	843.00 ft		Top Clip
FHWA Code:	1	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:	
Exit Loss Coef:	1.00	Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0120
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component		
Weir:	1	
Weir Count:	1	
Weir Flow Direction:	Both	
Damping:	0.0000 ft	
Weir Type:	Sharp Crested Vertical	
Geometry Type:	Rectangular	
Invert:	61.97 ft	
Control Elevation:	61.97 ft	
Max Depth:	1.00 ft	
Max Width:	2.00 ft	
Fillet:	0.00 ft	
	Bottom Clip	
	Default:	0.00 ft
	Op Table:	
	Ref Node:	
	Top Clip	
	Default:	0.00 ft
	Op Table:	
	Ref Node:	
	Discharge Coefficients	
	Weir Default:	3.200
	Weir Table:	
	Orifice Default:	0.600
	Orifice Table:	

Weir Comment:

Weir Component		
Weir:	2	
Weir Count:	1	
Weir Flow Direction:	Both	
Damping:	0.0000 ft	
Weir Type:	Horizontal	
Geometry Type:	Rectangular	
Invert:	62.97 ft	
Control Elevation:	62.97 ft	
Max Depth:	1.92 ft	
Max Width:	3.08 ft	
Fillet:	0.00 ft	
	Bottom Clip	
	Default:	0.00 ft
	Op Table:	
	Ref Node:	
	Top Clip	
	Default:	0.00 ft
	Op Table:	
	Ref Node:	
	Discharge Coefficients	
	Weir Default:	3.200
	Weir Table:	
	Orifice Default:	0.600
	Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_P23-FEN	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 57.97 ft	Invert: 56.97 ft
From Node: REM_POND_23A	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 682.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		
Pipe Comment:		

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 63.77 ft	Op Table:
Control Elevation: 63.77 ft	Ref Node:
Max Depth: 2.08 ft	Discharge Coefficients
Max Width: 4.00 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 62.97 ft	Op Table:
Control Elevation: 62.97 ft	Ref Node:
Max Depth: 0.80 ft	Discharge Coefficients
Max Width: 2.42 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	65.87 ft
Control Elevation:	65.87 ft
Max Depth:	3.17 ft
Max Width:	3.00 ft
Fillet:	0.00 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Discharge Coefficients	
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_TRACT-G	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 68.72 ft	Invert: 67.97 ft
From Node: REM_TRACT_1	Manning's N: 0.0130	Manning's N: 0.0130
To Node: REM_POND_G	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 2278.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		
Pipe Comment:		

Weir Component	
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	73.42 ft
Control Elevation:	73.42 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:

Max Depth: 2.58 ft  
 Max Width: 3.00 ft  
 Fillet: 0.00 ft

Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Weir Component  
 Weir: 2  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Sharp Crested Vertical  
 Geometry Type: Circular  
 Invert: 72.22 ft  
 Control Elevation: 72.22 ft  
 Max Depth: 0.25 ft

Bottom Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Top Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Weir Component  
 Weir: 3  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Horizontal  
 Geometry Type: Rectangular  
 Invert: 75.97 ft  
 Control Elevation: 75.97 ft  
 Max Depth: 2.08 ft  
 Max Width: 3.00 ft  
 Fillet: 0.00 ft

Bottom Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Top Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_SEACAD-FENN	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 56.97 ft	Invert: 56.47 ft
From Node: SE_ACADEMY	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_SEACAD	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft

Flow Direction:	Both	Bottom Clip	
Solution:	Combine	Default:	0.00 ft
Increments:	10	Op Table:	Op Table:
Pipe Count:	1	Ref Node:	Ref Node:
Damping:	0.0000 ft	Manning's N:	0.0130
Length:	70.00 ft	Top Clip	
FHWA Code:	1	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:	Op Table:
Exit Loss Coef:	1.00	Ref Node:	Ref Node:
Bend Loss Coef:	0.00	Manning's N:	0.0130
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component	Bottom Clip		
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	59.97 ft	Ref Node:	
Control Elevation:	59.97 ft	Discharge Coefficients	
Max Depth:	1.00 ft	Weir Default:	3.200
Max Width:	2.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component	Bottom Clip		
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	60.97 ft	Ref Node:	
Control Elevation:	60.97 ft	Discharge Coefficients	
Max Depth:	1.92 ft	Weir Default:	3.200
Max Width:	3.08 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link:	Upstream Pipe	Downstream Pipe
D_TAIKWN-AERO_W		
Scenario: Existing	Invert: 58.50 ft	Invert: 58.40 ft
From Node: TAIKWON	Manning's N: 0.0130	Manning's N: 0.0130
To Node: AERONAUTICAL_W	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both		Bottom Clip
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 34.00 ft		Top Clip
FHWA Code: 30	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 60.13 ft	Op Table:
Control Elevation: 60.13 ft	Ref Node:
Max Depth: 1.17 ft	Discharge Coefficients
Max Width: 3.33 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 58.50 ft	Op Table:
Control Elevation: 58.50 ft	Ref Node:
Max Depth: 0.25 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Weir Component		Bottom Clip
Weir:	3	Default: 0.00 ft
Weir Count:	1	Op Table:
Weir Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Horizontal	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	61.50 ft	Ref Node:
Control Elevation:	61.50 ft	Discharge Coefficients
Max Depth:	1.42 ft	Weir Default: 3.200
Max Width:	2.00 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_TRANS-FENNEL	Upstream Pipe	Downstream Pipe
Scenario: Existing	Invert: 65.97 ft	Invert: 64.97 ft
From Node: TRANS_FACILITY	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 50.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component		Bottom Clip
Weir:	1	Default: 0.00 ft
Weir Count:	1	Op Table:
Weir Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Sharp Crested Vertical	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	72.97 ft	

Control Elevation: 72.97 ft  
 Max Depth: 1.00 ft  
 Max Width: 2.00 ft  
 Fillet: 0.00 ft

Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Weir Component  
 Weir: 2  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Horizontal  
 Geometry Type: Rectangular  
 Invert: 73.97 ft  
 Control Elevation: 73.97 ft  
 Max Depth: 1.92 ft  
 Max Width: 3.08 ft  
 Fillet: 0.00 ft

Bottom Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Top Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Drop Structure Comment:

Pipe Link: P\_FEN-TPIKE-R10

	Upstream	Downstream
Scenario: Existing	Invert: 58.09 ft	Invert: 57.99 ft
From Node: FENNEL_TPIKE_US	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_TPIKE_DS	Geometry: Rectangular	Geometry: Rectangular
Link Count: 2	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 9.00 ft	Max Width: 9.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 140.00 ft	Bottom Clip	
FHWA Code: 9	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Energy	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0120	Manning's N: 0.0120

Comment:

Pipe Link: P_FEN_APTS-P4	Upstream	Downstream
Scenario: Existing	Invert: 56.89 ft	Invert: 56.77 ft
From Node: FENNEL_APTS_DS	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_P4	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 226.00 ft	Op Table:	Op Table:
FHWA Code: 30	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0120	Manning's N: 0.0120
Exit Loss Coef: 0.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Energy	Ref Node:	Ref Node:
	Manning's N: 0.0120	Manning's N: 0.0120

Comment:

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Pipe Link: P_FEN_APT_US-DS	Upstream	Downstream
Scenario: Existing	Invert: 56.82 ft	Invert: 56.49 ft
From Node: FENNEL_APTS_US	Manning's N: 0.0240	Manning's N: 0.0240
To Node: FENNEL_APTS_DS	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 3	Max Depth: 3.67 ft	Max Depth: 3.67 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 50.00 ft	Op Table:	Op Table:
FHWA Code: 30	Ref Node:	Ref Node:
Entr Loss Coef: 0.70	Manning's N: 0.0240	Manning's N: 0.0240
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Energy	Ref Node:	Ref Node:
	Manning's N: 0.0240	Manning's N: 0.0240

Comment:

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Pipe Link: P_SHADY192_FEN	Upstream	Downstream
Scenario: Existing	Invert: 58.97 ft	Invert: 57.97 ft
From Node: SHADY_192	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_192_DS	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 240.00 ft	Op Table:	Op Table:
FHWA Code: 30	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0120	Manning's N: 0.0120
Exit Loss Coef: 0.00	Top Clip	

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0120	Manning's N:	0.0120

Comment:
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Pipe Link: P_TPAX_SHADY		Upstream	Downstream
Scenario:	Existing	Invert:	59.97 ft
From Node:	TPIKE_ACCESS	Manning's N:	0.0120
To Node:	SHADY_192	Geometry:	Horizontal Ellipse
Link Count:	3	Max Depth:	1.75 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Length:	200.00 ft	Op Table:	
FHWA Code:	30	Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0120
Exit Loss Coef:	0.00	Top Clip	
Bend Loss Coef:	0.00	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:	
Energy Switch:	Energy	Ref Node:	
		Manning's N:	0.0120

Comment:
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Weir Link: Pond Notch		Bottom Clip	
Scenario:	Existing	Default:	0.00 ft
From Node:	POND-A	Op Table:	
To Node:	FENNEL_PSETL_US	Ref Node:	
Link Count:	1	Top Clip	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Sharp Crested Vertical	Ref Node:	
Geometry Type:	Trapezoidal	Discharge Coefficients	
Invert:	56.75 ft	Weir Default:	3.200
Control Elevation:	56.75 ft	Weir Table:	
Max Depth:	1.60 ft	Orifice Default:	0.600
Extrapolation Method:	Normal Projection	Orifice Table:	
Bottom Width:	0.30 ft		
Left Slope:	1.600 (h:v)		
Right Slope:	1.600 (h:v)		

Comment:
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Pipe Link: R1	Upstream	Downstream
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Scenario:	Existing	Invert:	55.17 ft	Invert:	55.14 ft
From Node:	FENNEL_PSETL_US	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	FENNEL_PSETL_DS	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	2	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	11.00 ft	Max Width:	11.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	38.00 ft			Bottom Clip	
FHWA Code:	14	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0120	Manning's N:	0.0120
Bend Location:	0.00 dec			Top Clip	
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0120	Manning's N:	0.0120

Comment:

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Pipe Link: R10		Upstream	Downstream
Scenario:	Existing	Invert:	57.43 ft
From Node:	AERONAUTICAL_E	Manning's N:	0.0120
To Node:	FENNEL_192PSETS	Geometry:	Circular
Link Count:	2	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip
Damping:	0.0000 ft	Default:	0.00 ft
Length:	54.00 ft	Op Table:	
FHWA Code:	1	Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0120
Exit Loss Coef:	1.00		Top Clip
Bend Loss Coef:	0.00	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:	
Energy Switch:	Energy	Ref Node:	
		Manning's N:	0.0120
			Manning's N:

Comment: 3-29x45

54 lf

56.12-56.08

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Pipe Link: R3		Upstream	Downstream
Scenario:	Existing	Invert:	56.33 ft
From Node:	FENNEL_192_DS	Manning's N:	0.0110
To Node:	FENNEL_192PSETS	Geometry:	Rectangular
Link Count:	2	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft
Length:	63.00 ft		Bottom Clip

FHWA Code:	9	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0110	Manning's N:	0.0110
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0110	Manning's N:	0.0110

Comment:

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Pipe Link: R4		Upstream	Downstream
Scenario:	Existing	Invert:	56.98 ft
From Node:	FENNEL_192_US	Manning's N:	0.0110
To Node:	FENNEL_192_DS	Geometry:	Rectangular
Link Count:	2	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft
Length:	134.00 ft	Bottom Clip	
FHWA Code:	9	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:	
Exit Loss Coef:	0.00	Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0110
Bend Location:	0.00 dec	Top Clip	
Energy Switch:	Energy	Default:	0.00 ft
		Op Table:	
		Ref Node:	
		Manning's N:	0.0110
Comment:		Manning's N:	

Pipe Link: R9		Upstream	Downstream
Scenario:	Existing	Invert:	57.56 ft
From Node:	AERONAUTICAL_W	Manning's N:	0.0170
To Node:	AERONAUTICAL_E	Geometry:	Circular
Link Count:	2	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Length:	56.00 ft	Op Table:	
FHWA Code:	1	Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0170
Exit Loss Coef:	0.00	Top Clip	
Bend Loss Coef:	0.00	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:	
Energy Switch:	Energy	Ref Node:	
		Manning's N:	0.0170

Comment: 2-38\*24

56.2

56.12

#### Weir Link: W\_BORROW-FENNEL

Scenario:	Existing	Bottom Clip
From Node:	BORROW_PIT	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	65.97 ft	Discharge Coefficients
Control Elevation:	65.97 ft	Weir Default: 3.200
Max Depth:	833333.25 ft	Weir Table:
Max Width:	670.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

#### Weir Link: W\_COBL\_FISH

Scenario:	Existing	Bottom Clip
From Node:	COBBLESTONE	Default: 0.00 ft
To Node:	FISH_LAKE	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	62.47 ft	Discharge Coefficients
Control Elevation:	62.47 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	100.00 ft	Orifice Table:
Left Slope:	10.000 (h:v)	
Right Slope:	10.000 (h:v)	

Comment:

#### Weir Link: W\_FENO4-TPIKE

Scenario:	Existing	Bottom Clip
From Node:	FENNEL_WETLAND	Default: 0.00 ft
To Node:	FENNEL_TPIKE_US	Op Table:

Link Count:	1	
Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Sharp Crested Vertical	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	64.96 ft	Ref Node:
Control Elevation:	64.96 ft	Discharge Coefficients
Max Depth:	8333.25 ft	Weir Default: 3.200
Max Width:	62.67 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Comment:

---

#### Weir Link: W\_FENNEL\_192

Scenario:	Existing	Bottom Clip
From Node:	FENNEL_192_US	Default: 0.00 ft
To Node:	FENNEL_192_DS	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	63.47 ft	Discharge Coefficients
Control Elevation:	63.47 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	100.00 ft	Orifice Table:
Left Slope:	100.000 (h:v)	
Right Slope:	100.000 (h:v)	

Comment:

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#### Weir Link: W\_FEN\_TPIKE

Scenario:	Existing	Bottom Clip
From Node:	FENNEL_TPIKE_US	Default: 0.00 ft
To Node:	FENNEL_TPIKE_DS	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	68.44 ft	Discharge Coefficients
Control Elevation:	68.44 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	100.00 ft	Orifice Table:

Left Slope: 100.000 (h:v)  
 Right Slope: 100.000 (h:v)

Comment:

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#### Weir Link: W\_Rem\_G01-FEN

Scenario:	Existing	Bottom Clip
From Node:	REM_POND_G	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	60.47 ft	Discharge Coefficients
Control Elevation:	60.47 ft	Weir Default: 3.200
Max Depth:	0.92 ft	Weir Table:
Max Width:	10.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

---

#### Weir Link: W\_Rem\_G02-FEN

Scenario:	Existing	Bottom Clip
From Node:	REM_POND_G	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	61.37 ft	Discharge Coefficients
Control Elevation:	61.37 ft	Weir Default: 3.200
Max Depth:	3.58 ft	Weir Table:
Max Width:	20.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

---

#### Weir Link: W\_Rem\_G03-FEN

Scenario:	Existing	Bottom Clip
From Node:	REM_POND_G	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip

Damping:	0.0000 ft	
Weir Type:	Paved Road Vertical	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	64.97 ft	Ref Node:
Control Elevation:	64.97 ft	Discharge Coefficients
Max Depth:	833.25 ft	Weir Default: 3.200
Max Width:	44.00 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Comment:

---

#### Weir Link: W\_Rem\_N01-FEN

Scenario:	Existing	Bottom Clip
From Node:	REM_NORTH	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	60.81 ft	Discharge Coefficients
Control Elevation:	60.81 ft	Weir Default: 3.200
Max Depth:	1.17 ft	Weir Table:
Max Width:	10.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

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#### Weir Link: W\_Rem\_N02-FEN

Scenario:	Existing	Bottom Clip
From Node:	REM_NORTH	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	62.01 ft	Discharge Coefficients
Control Elevation:	62.01 ft	Weir Default: 3.200
Max Depth:	2.25 ft	Weir Table:
Max Width:	20.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

**Weir Link: W\_Rem\_N03-FEN**

Scenario:	Existing	Bottom Clip
From Node:	REM_NORTH	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	64.23 ft	Discharge Coefficients
Control Elevation:	64.23 ft	Weir Default: 3.200
Max Depth:	833.25 ft	Weir Table:
Max Width:	42.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

**Weir Link: W\_SHADY\_FEN**

Scenario:	Existing	Bottom Clip
From Node:	SHADY_192	Default: 0.00 ft
To Node:	FENNEL_192_DS	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	63.47 ft	Discharge Coefficients
Control Elevation:	63.47 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	10.00 ft	Orifice Table:
Left Slope:	20.000 (h:v)	
Right Slope:	10.000 (h:v)	

Comment:

**Weir Link: W\_TPACCESS\_FEN**

Scenario:	Existing	Bottom Clip
From Node:	TPIKE_ACCESS	Default: 0.00 ft
To Node:	FENNEL_192_US	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	63.47 ft	Discharge Coefficients
Control Elevation:	63.47 ft	Weir Default: 2.800

Max Depth:	9999.00 ft	
Extrapolation Method:	Normal Projection	Weir Table:
Bottom Width:	20.00 ft	Orifice Default: 0.600
Left Slope:	10.000 (h:v)	Orifice Table:
Right Slope:	10.000 (h:v)	

Comment:

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#### Weir Link: pond-weir

Scenario:	Existing	Bottom Clip
From Node:	POND-A	Default: 0.00 ft
To Node:	FENNEL_PSETL_US	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	59.35 ft	Discharge Coefficients
Control Elevation:	59.36 ft	Weir Default: 3.200
Max Depth:	1.30 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	10.00 ft	Orifice Table:
Left Slope:	5.000 (h:v)	
Right Slope:	5.000 (h:v)	

Comment:

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#### Weir Link: pond-weir top

Scenario:	Existing	Bottom Clip
From Node:	POND-A	Default: 0.00 ft
To Node:	FENNEL_PSETL_US	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	60.65 ft	Discharge Coefficients
Control Elevation:	60.65 ft	Weir Default: 3.200
Max Depth:	999.00 ft	Weir Table:
Max Width:	34.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

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#### Weir Link: w\_AERO\_US\_DS-R7

Scenario:	Existing	
From Node:	AERONAUTICAL_W	Bottom Clip
To Node:	AERONAUTICAL_E	Default: 0.00 ft
Link Count:	1	Op Table:
Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Paved Road Vertical	Default: 0.00 ft
Geometry Type:	Trapezoidal	Op Table:
Invert:	59.75 ft	Ref Node:
Control Elevation:	59.75 ft	Discharge Coefficients
Max Depth:	9999.00 ft	Weir Default: 3.200
Extrapolation Method:	Normal Projection	Weir Table:
Bottom Width:	400.00 ft	Orifice Default: 0.600
Left Slope:	100.000 (h:v)	Orifice Table:
Right Slope:	100.000 (h:v)	

Comment: change from 60.5 to 59.75

Channel Link: C_FEN_192PSETS1	Upstream	Downstream
Scenario:	Proposed	Invert: 54.55 ft
From Node:	FENNEL_192PSETS	Manning's N: 0.0600
To Node:	FENNEL_PSETL_US	Geometry: Irregular
Link Count:	1	Cross Section: X-0010C
Flow Direction:	Both	Cross Section: X-0010C
Damping:	0.0000 ft	
Length:	80.00 ft	
Contraction Coef:	0.10	
Expansion Coef:	0.30	
Entr Loss Coef:	0.00	
Exit Loss Coef:	0.00	
Bend Loss Coef:	0.00	
Bend Location:	0.00 dec	
Energy Switch:	Energy	

Comment:

Channel Link: C_FEN_PSETFISH1	Upstream	Downstream
Scenario:	Proposed	Invert: 55.00 ft
From Node:	FENNEL_PSETL_DS	Manning's N: 0.0000
To Node:	FENNEL_PSETFSH	Geometry: Irregular
N	Cross Section: X-0020C	Cross Section: X-0020C
Link Count:	1	
Flow Direction:	Both	
Damping:	0.0000 ft	
Length:	531.00 ft	
Contraction Coef:	0.10	
Expansion Coef:	0.30	

Entr Loss Coef: 0.00  
 Exit Loss Coef: 0.00  
 Bend Loss Coef: 0.00  
 Bend Location: 0.00 dec  
 Energy Switch: Energy

Comment:

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Channel Link: C_FEN_PSETFISH2		Upstream	Downstream
Scenario:	Proposed	Invert: 54.50 ft	Invert: 54.00 ft
From Node:	FENNEL_PSETFSH	Manning's N: 0.0000	Manning's N: 0.0000
	N	Geometry: Irregular	Geometry: Irregular
To Node:	FENNEL_PSETFSHS	Cross Section: X_FEN_PSETFISH2	Cross Section: X_FEN_PSETFISH2
Link Count:	1		
Flow Direction:	Both		
Damping:	0.0000 ft		
Length:	563.00 ft		
Contraction Coef:	0.10		
Expansion Coef:	0.30		
Entr Loss Coef:	0.00		
Exit Loss Coef:	0.00		
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Comment:

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Channel Link: C_FEN_PSETFISH3		Upstream	Downstream
Scenario:	Proposed	Invert: 54.00 ft	Invert: 53.50 ft
From Node:	FENNEL_PSETFSHS	Manning's N: 0.0000	Manning's N: 0.0000
	To Node: FISH_LAKE	Geometry: Irregular	Geometry: Irregular
Link Count:	1	Cross Section: X_FEN_PSETFISH3	Cross Section: X_FEN_PSETFISH3
Flow Direction:	Both		
Damping:	0.0000 ft		
Length:	525.00 ft		
Contraction Coef:	0.10		
Expansion Coef:	0.30		
Entr Loss Coef:	0.00		
Exit Loss Coef:	0.00		
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Comment:

Channel Link: C_FEN_TP192-1		Upstream	Downstream
Scenario:	Proposed	Invert: 57.02 ft	Invert: 56.41 ft
From Node:	FENNEL_TPIKE_DS	Manning's N: 0.0000	Manning's N: 0.0000
To Node:	FENNEL_SEACAD	Geometry: Irregular	Geometry: Irregular
Link Count:	1	Cross Section: X_FEN_TP192-1	Cross Section: X_FEN_TP192-1
Flow Direction:	Both		
Damping:	0.0000 ft		
Length:	385.00 ft		
Contraction Coef:	0.10		
Expansion Coef:	0.30		
Entr Loss Coef:	0.00		
Exit Loss Coef:	0.00		
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		
Comment:			

Channel Link: C_FEN_TP192-2		Upstream	Downstream
Scenario:	Proposed	Invert: 56.41 ft	Invert: 55.80 ft
From Node:	FENNEL_SEACAD	Manning's N: 0.0000	Manning's N: 0.0000
To Node:	FENNEL_APts_US	Geometry: Irregular	Geometry: Irregular
Link Count:	1	Cross Section: X_FEN_TP192-2	Cross Section: X_FEN_TP192-2
Flow Direction:	Both		
Damping:	0.0000 ft		
Length:	620.00 ft		
Contraction Coef:	0.10		
Expansion Coef:	0.30		
Entr Loss Coef:	0.00		
Exit Loss Coef:	0.00		
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		
Comment:			

Channel Link: C_FEN_TP192-3		Upstream	Downstream
Scenario:	Proposed	Invert: 56.77 ft	Invert: 56.47 ft
From Node:	FENNEL_P4	Manning's N: 0.0000	Manning's N: 0.0000
To Node:	FENNEL_192_US	Geometry: Irregular	Geometry: Irregular
Link Count:	1	Cross Section: X_FEN_TP192-3	Cross Section: X_FEN_TP192-3
Flow Direction:	Both		
Damping:	0.0000 ft		
Length:	705.00 ft		
Contraction Coef:	0.10		
Expansion Coef:	0.30		
Entr Loss Coef:	0.00		

Exit Loss Coef: 0.00  
 Bend Loss Coef: 0.00  
 Bend Location: 0.00 dec  
 Energy Switch: Energy

Comment:

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Drop Structure Link: D-REM_EAST-G	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 59.97 ft	Invert: 59.47 ft
From Node: REM_EAST	Manning's N: 0.0130	Manning's N: 0.0130
To Node: REM_POND_G	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 560.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

---

Weir Component	Bottom Clip	
Weir: 1	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical	Default: 0.00 ft	
Geometry Type: Rectangular	Op Table:	
Invert: 62.97 ft	Ref Node:	
Control Elevation: 62.97 ft	Discharge Coefficients	
Max Depth: 1.00 ft	Weir Default: 3.200	
Max Width: 2.00 ft	Weir Table:	
Fillet: 0.00 ft	Orifice Default: 0.600	
	Orifice Table:	

Weir Comment:

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Weir Component	Bottom Clip	
Weir: 2	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Horizontal		

Geometry Type:	Rectangular	
Invert:	63.97 ft	Default: 0.00 ft
Control Elevation:	63.97 ft	Op Table:
Max Depth:	1.92 ft	Ref Node:
Max Width:	3.08 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: DS-1	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 60.50 ft	Invert: 58.25 ft
From Node: WETPOND-1	Manning's N: 0.0130	Manning's N: 0.0130
To Node: AERONAUTICAL_W	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both		Bottom Clip
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 365.00 ft		Top Clip
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 62.50 ft	Op Table:
Control Elevation: 62.50 ft	Ref Node:
Max Depth: 0.25 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Weir Component	
Weir:	2
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	63.25 ft
Control Elevation:	63.25 ft
Max Depth:	2.05 ft
Max Width:	0.50 ft
Fillet:	0.00 ft
Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	65.30 ft
Control Elevation:	65.30 ft
Max Depth:	2.00 ft
Max Width:	3.08 ft
Fillet:	0.00 ft
Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: DS-2	Upstream Pipe	Downstream Pipe
Scenario:	Proposed	Invert: 59.25 ft
From Node:	WETPOND-2	Manning's N: 0.0130
To Node:	AERONAUTICAL_W	Geometry: Circular
Link Count:	1	Max Depth: 2.00 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0130
Length:	72.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft

Entr Loss Coef: 0.50  
 Exit Loss Coef: 1.00  
 Bend Loss Coef: 0.00  
 Bend Location: 0.00 dec  
 Energy Switch: Energy

Op Table:  
 Ref Node:  
 Manning's N: 0.0130

Op Table:  
 Ref Node:  
 Manning's N: 0.0130

Pipe Comment:

Weir Component  
 Weir: 1  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Sharp Crested Vertical  
 Geometry Type: Circular  
 Invert: 59.50 ft  
 Control Elevation: 59.50 ft  
 Max Depth: 0.25 ft

Bottom Clip

Default: 0.00 ft

Op Table:

Ref Node:

Top Clip

Default: 0.00 ft

Op Table:

Ref Node:

Discharge Coefficients

Weir Default: 3.200

Weir Table:

Orifice Default: 0.600

Orifice Table:

Weir Comment:

Weir Component  
 Weir: 2  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Sharp Crested Vertical  
 Geometry Type: Rectangular  
 Invert: 60.25 ft  
 Control Elevation: 60.25 ft  
 Max Depth: 1.25 ft  
 Max Width: 0.33 ft  
 Fillet: 0.00 ft

Bottom Clip

Default: 0.00 ft

Op Table:

Ref Node:

Top Clip

Default: 0.00 ft

Op Table:

Ref Node:

Discharge Coefficients

Weir Default: 3.200

Weir Table:

Orifice Default: 0.600

Orifice Table:

Weir Comment:

Weir Component  
 Weir: 3  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Horizontal  
 Geometry Type: Rectangular  
 Invert: 61.50 ft  
 Control Elevation: 61.50 ft  
 Max Depth: 2.00 ft  
 Max Width: 3.08 ft

Bottom Clip

Default: 0.00 ft

Op Table:

Ref Node:

Top Clip

Default: 0.00 ft

Op Table:

Ref Node:

Discharge Coefficients

Weir Default: 3.200

Fillet: 0.00 ft

Weir Table:

Orifice Default: 0.600

Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: DS_HS-192FEN_DS	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 59.97 ft	Invert: 59.78 ft
From Node: HESS	Manning's N: 0.0120	Manning's N: 0.0120
To Node: SHADY_192	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 461.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	Bottom Clip	
Weir: 1	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical	Default: 0.00 ft	
Geometry Type: Circular	Op Table:	
Invert: 59.97 ft	Ref Node:	
Control Elevation: 59.97 ft	Discharge Coefficients	
Max Depth: 0.25 ft	Weir Default: 3.200	
	Weir Table:	
	Orifice Default: 0.600	
	Orifice Table:	

Weir Comment:

Weir Component	Bottom Clip
Weir: 2	Default: 0.00 ft
Weir Count: 1	Op Table:
Weir Flow Direction: Both	

Damping:	0.0000 ft	
Weir Type:	Horizontal	Ref Node:
Geometry Type:	Rectangular	Top Clip
Invert:	66.27 ft	Default: 0.00 ft
Control Elevation:	66.27 ft	Op Table:
Max Depth:	1.42 ft	Ref Node:
Max Width:	2.00 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	63.07 ft
Control Elevation:	63.07 ft
Max Depth:	3.17 ft
Max Width:	0.33 ft
Fillet:	0.00 ft
	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_ACADAPTS-FENN	Upstream Pipe	Downstream Pipe
Scenario:	Proposed	Invert: 58.75 ft
From Node:	ACADEMY_APTS	Manning's N: 0.0120
To Node:	FENNEL_P4	Geometry: Circular
Link Count:	1	Max Depth: 3.00 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0120
Length:	66.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:
Exit Loss Coef:	1.00	Ref Node:
Bend Loss Coef:	0.00	Manning's N: 0.0120
Bend Location:	0.00 dec	

Energy Switch: Energy

Pipe Comment:

Weir Component	
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	62.25 ft
Control Elevation:	62.25 ft
Max Depth:	1.75 ft
Max Width:	2.17 ft
Fillet:	0.00 ft
Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Weir Component	
Weir:	2
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Circular
Invert:	59.00 ft
Control Elevation:	59.00 ft
Max Depth:	0.33 ft
Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	64.00 ft
Control Elevation:	64.00 ft
Max Depth:	2.08 ft
Max Width:	3.00 ft
Fillet:	0.00 ft
Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Weir Comment:

Drop Structure Comment:

---

Drop Structure Link: D_COBELSTN-FISH	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 57.22 ft	Invert: 56.97 ft
From Node: COBBLESTONE	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_PSETFSHS	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 30.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

---

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 58.37 ft	Op Table:
Control Elevation: 58.37 ft	Ref Node:
Max Depth: 3.33 ft	Discharge Coefficients
Max Width: 2.50 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

---

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 57.19 ft	Op Table:
Control Elevation: 57.19 ft	Ref Node:

Max Depth: 0.42 ft

## Discharge Coefficients

Weir Default: 3.200

Weir Table:

Orifice Default: 0.600

Orifice Table:

Weir Comment:

## Weir Component

Weir: 3

## Bottom Clip

Default: 0.00 ft

Weir Count: 1

Op Table:

Weir Flow Direction: Both

Ref Node:

Damping: 0.0000 ft

## Top Clip

Default: 0.00 ft

Weir Type: Horizontal

Op Table:

Geometry Type: Rectangular

Ref Node:

Invert: 61.97 ft

## Discharge Coefficients

Control Elevation: 61.97 ft

Weir Default: 3.200

Max Depth: 4.33 ft

Weir Table:

Max Width: 6.00 ft

Orifice Default: 0.600

Fillet: 0.00 ft

Orifice Table:

Weir Comment:

Drop Structure Comment:

## Drop Structure Link: D\_FS\_192FENDS

## Upstream Pipe

## Downstream Pipe

Scenario: Proposed

Invert: 61.97 ft

Invert: 61.47 ft

From Node: FIRE\_STATION

Manning's N: 0.0120

Manning's N: 0.0120

To Node: SHADY\_192

Geometry: Circular

Geometry: Circular

Link Count: 1

Max Depth: 2.00 ft

Max Depth: 2.00 ft

Flow Direction: Both

## Bottom Clip

Solution: Combine

Default: 0.00 ft

Default: 0.00 ft

Increments: 10

Op Table:

Op Table:

Pipe Count: 1

Ref Node:

Ref Node:

Damping: 0.00000 ft

Manning's N: 0.0120

Manning's N: 0.0120

Length: 215.00 ft

## Top Clip

FHWA Code: 1

Default: 0.00 ft

Default: 0.00 ft

Entr Loss Coef: 0.50

Op Table:

Op Table:

Exit Loss Coef: 0.00

Ref Node:

Ref Node:

Bend Loss Coef: 0.00

Manning's N: 0.0120

Manning's N: 0.0120

Bend Location: 0.00 dec

Energy Switch: Energy

Pipe Comment:

## Weir Component

Weir: 1

## Bottom Clip

Weir Count:	1	
Weir Flow Direction:	Both	Default: 0.00 ft
Damping:	0.0000 ft	Op Table:
Weir Type:	Horizontal	Ref Node:
Geometry Type:	Rectangular	Top Clip
Invert:	65.97 ft	Default: 0.00 ft
Control Elevation:	65.97 ft	Op Table:
Max Depth:	1.92 ft	Ref Node:
Max Width:	3.08 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:

Weir Comment:

Weir Component		
Weir:	2	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Sharp Crested Vertical	Top Clip
Geometry Type:	Rectangular	Default: 0.00 ft
Invert:	64.97 ft	Op Table:
Control Elevation:	64.97 ft	Ref Node:
Max Depth:	1.00 ft	Discharge Coefficients
Max Width:	2.00 ft	Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:
Fillet:	0.00 ft	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_ICE-FENNEL	Upstream Pipe	Downstream Pipe
Scenario:	Proposed	Invert: 59.47 ft
From Node:	ICE_RINK	Manning's N: 0.0130
To Node:	FENNEL_PSETL_US	Geometry: Circular
Link Count:	1	Max Depth: 1.25 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0130
Length:	745.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:
Exit Loss Coef:	1.00	Ref Node:

Bend Loss Coef: 0.00

Manning's N: 0.0130

Manning's N: 0.0130

Bend Location: 0.00 dec

Energy Switch: Energy

Pipe Comment:

**Weir Component**

Weir: 1

**Bottom Clip**

Default: 0.00 ft

Weir Count: 1

Op Table:

Weir Flow Direction: Both

Ref Node:

Damping: 0.0000 ft

**Top Clip**

Default: 0.00 ft

Weir Type: Sharp Crested Vertical

Op Table:

Geometry Type: Rectangular

Ref Node:

Invert: 63.37 ft

**Discharge Coefficients**

Weir Default: 3.200

Control Elevation: 63.37 ft

Weir Table:

Max Depth: 1.00 ft

Orifice Default: 0.600

Max Width: 1.42 ft

Orifice Table:

Fillet: 0.00 ft

Weir Comment:

**Weir Component**

Weir: 2

**Bottom Clip**

Default: 0.00 ft

Weir Count: 1

Op Table:

Weir Flow Direction: Both

Ref Node:

Damping: 0.0000 ft

**Top Clip**

Default: 0.00 ft

Weir Type: Sharp Crested Vertical

Op Table:

Geometry Type: Circular

Ref Node:

Invert: 62.47 ft

**Discharge Coefficients**

Weir Default: 3.200

Control Elevation: 62.47 ft

Weir Table:

Max Depth: 0.25 ft

Orifice Default: 0.600

Weir Comment:

**Weir Component**

Weir: 3

**Bottom Clip**

Default: 0.00 ft

Weir Count: 1

Op Table:

Weir Flow Direction: Both

Ref Node:

Damping: 0.0000 ft

**Top Clip**

Default: 0.00 ft

Weir Type: Horizontal

Op Table:

Geometry Type: Rectangular

Ref Node:

Invert: 65.57 ft

**Discharge Coefficients**

Weir Default: 3.200

Control Elevation: 65.57 ft

Weir Table:

Max Depth: 1.42 ft

Orifice Default: 0.600

Max Width: 2.00 ft

Fillet: 0.00 ft

## Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D JUSTICE_E-FEN	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 64.97 ft	Invert: 64.77 ft
From Node: JUSTICE_EAST	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 40.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	Bottom Clip	
Weir: 1	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical	Default: 0.00 ft	
Geometry Type: Rectangular	Op Table:	
Invert: 67.47 ft	Ref Node:	
Control Elevation: 67.47 ft	Discharge Coefficients	
Max Depth: 0.33 ft	Weir Default: 3.200	
Max Width: 0.58 ft	Weir Table:	
Fillet: 0.00 ft	Orifice Default: 0.600	
	Orifice Table:	

Weir Comment:

Weir Component	Bottom Clip	
Weir: 2	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical		

Geometry Type:	Circular	
Invert:	65.47 ft	Default: 0.00 ft
Control Elevation:	65.47 ft	Op Table:
Max Depth:	0.25 ft	Ref Node:
		Discharge Coefficients
		Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	69.97 ft
Control Elevation:	69.97 ft
Max Depth:	1.92 ft
Max Width:	3.08 ft
Fillet:	0.00 ft
	Bottom Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Top Clip
	Default: 0.00 ft
	Op Table:
	Ref Node:
	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D JUSTICE_W-FEN	Upstream Pipe	Downstream Pipe
Scenario:	Proposed	Invert: 64.97 ft
From Node:	JUSTICE_WEST	Manning's N: 0.0130
To Node:	FENNEL_WETLAND	Geometry: Circular
Link Count:	1	Max Depth: 1.50 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0130
Length:	20.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:
Exit Loss Coef:	1.00	Ref Node:
Bend Loss Coef:	0.00	Manning's N: 0.0130
Bend Location:	0.00 dec	
Energy Switch:	Energy	

Pipe Comment:

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 66.97 ft	Op Table:
Control Elevation: 66.97 ft	Ref Node:
Max Depth: 0.33 ft	Discharge Coefficients
Max Width: 1.50 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 67.77 ft	Op Table:
Control Elevation: 67.77 ft	Ref Node:
Max Depth: 1.92 ft	Discharge Coefficients
Max Width: 2.25 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Weir Component	
Weir: 3	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 65.97 ft	Op Table:
Control Elevation: 65.97 ft	Ref Node:
Max Depth: 0.25 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_KM-192FEN_DS	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 62.47 ft	Invert: 62.12 ft
From Node: KMAR	Manning's N: 0.0120	Manning's N: 0.0120
To Node: SHADY_192	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 66.00 ft	Top Clip	
FHWA Code: 30	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		
Pipe Comment:		

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 64.72 ft	Op Table:
Control Elevation: 64.72 ft	Ref Node:
Max Depth: 2.83 ft	Discharge Coefficients
Max Width: 2.25 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Circular	Default: 0.00 ft
Invert: 62.57 ft	Op Table:
Control Elevation: 62.57 ft	Ref Node:
Max Depth: 0.33 ft	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Weir Component	
Weir:	3
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Horizontal
Geometry Type:	Rectangular
Invert:	66.97 ft
Control Elevation:	66.97 ft
Max Depth:	1.92 ft
Max Width:	3.08 ft
Fillet:	0.00 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Discharge Coefficients	
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_P4-FEN	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 57.50 ft	Invert: 57.09 ft
From Node: FDOT_POND_4	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_P4	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 2	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 111.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	
Weir:	1
Weir Count:	2
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	59.53 ft
Control Elevation:	59.53 ft
Bottom Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:
Top Clip	
	Default: 0.00 ft
	Op Table:
	Ref Node:

Max Depth: 2.00 ft  
 Max Width: 2.00 ft  
 Fillet: 0.00 ft

Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Weir Component  
 Weir: 2  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Sharp Crested Vertical  
 Geometry Type: Circular  
 Invert: 59.00 ft  
 Control Elevation: 59.00 ft  
 Max Depth: 0.33 ft

Bottom Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Top Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Weir Component  
 Weir: 3  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Horizontal  
 Geometry Type: Rectangular  
 Invert: 61.50 ft  
 Control Elevation: 61.50 ft  
 Max Depth: 3.17 ft  
 Max Width: 3.00 ft  
 Fillet: 0.00 ft

Bottom Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Top Clip  
 Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_NE-REM_N	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 62.97 ft	Invert: 62.47 ft
From Node: REM_NE	Manning's N: 0.0130	Manning's N: 0.0130
To Node: REM_NORTH	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft

Flow Direction:	Both	Bottom Clip	
Solution:	Combine	Default:	0.00 ft
Increments:	10	Op Table:	Op Table:
Pipe Count:	1	Ref Node:	Ref Node:
Damping:	0.0000 ft	Manning's N:	0.0130
Length:	965.00 ft	Top Clip	
FHWA Code:	1	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:	Op Table:
Exit Loss Coef:	0.00	Ref Node:	Ref Node:
Bend Loss Coef:	0.00	Manning's N:	0.0130
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component	Bottom Clip		
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	63.97 ft	Ref Node:	
Control Elevation:	63.97 ft	Discharge Coefficients	
Max Depth:	1.00 ft	Weir Default:	3.200
Max Width:	2.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component	Bottom Clip		
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	64.97 ft	Ref Node:	
Control Elevation:	64.97 ft	Discharge Coefficients	
Max Depth:	1.92 ft	Weir Default:	3.200
Max Width:	3.08 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_P-G	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 60.97 ft	Invert: 60.47 ft
From Node: REM_POND_P	Manning's N: 0.0130	Manning's N: 0.0130
To Node: REM_POND_G	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 1565.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		
Pipe Comment:		

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 72.97 ft	Op Table:
Control Elevation: 72.97 ft	Ref Node:
Max Depth: 1.00 ft	Discharge Coefficients
Max Width: 2.00 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 73.97 ft	Op Table:
Control Elevation: 73.97 ft	Ref Node:
Max Depth: 1.92 ft	Discharge Coefficients
Max Width: 3.08 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:
Weir Comment:	

Drop Structure Comment:

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Drop Structure Link: D_Rem_P22-FEN	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 60.70 ft	Invert: 59.97 ft
From Node: REM_POND_22	Manning's N: 0.0120	Manning's N: 0.0120
To Node: FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length: 843.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0120	Manning's N: 0.0120
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

---

Weir Component	
Weir: 1	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Sharp Crested Vertical	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 61.97 ft	Op Table:
Control Elevation: 61.97 ft	Ref Node:
Max Depth: 1.00 ft	Discharge Coefficients
Max Width: 2.00 ft	Weir Default: 3.200
Fillet: 0.00 ft	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

---

Weir Component	
Weir: 2	Bottom Clip
Weir Count: 1	Default: 0.00 ft
Weir Flow Direction: Both	Op Table:
Damping: 0.0000 ft	Ref Node:
Weir Type: Horizontal	Top Clip
Geometry Type: Rectangular	Default: 0.00 ft
Invert: 62.97 ft	Op Table:
Control Elevation: 62.97 ft	Ref Node:

Max Depth: 1.92 ft  
 Max Width: 3.08 ft  
 Fillet: 0.00 ft

Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

Drop Structure Comment:

#### Drop Structure Link: D\_Rem\_P23-FEN

Scenario: Proposed  
 From Node: REM\_POND\_23A  
 To Node: FENNEL\_WETLAND  
 Link Count: 1  
 Flow Direction: Both  
 Solution: Combine  
 Increments: 10  
 Pipe Count: 1  
 Damping: 0.0000 ft  
 Length: 682.00 ft  
 FHWA Code: 1  
 Entr Loss Coef: 0.50  
 Exit Loss Coef: 0.00  
 Bend Loss Coef: 0.00  
 Bend Location: 0.00 dec  
 Energy Switch: Energy

Upstream Pipe  
 Invert: 57.97 ft  
 Manning's N: 0.0120  
 Geometry: Circular  
 Max Depth: 4.00 ft

Downstream Pipe  
 Invert: 56.97 ft  
 Manning's N: 0.0120  
 Geometry: Circular  
 Max Depth: 4.00 ft

#### Bottom Clip

Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Manning's N: 0.0120

#### Top Clip

Default: 0.00 ft  
 Op Table:  
 Ref Node:  
 Manning's N: 0.0120

Pipe Comment:

#### Weir Component

Weir: 1  
 Weir Count: 1  
 Weir Flow Direction: Both  
 Damping: 0.0000 ft  
 Weir Type: Horizontal  
 Geometry Type: Rectangular  
 Invert: 63.77 ft  
 Control Elevation: 63.77 ft  
 Max Depth: 2.08 ft  
 Max Width: 4.00 ft  
 Fillet: 0.00 ft

#### Bottom Clip

Default: 0.00 ft  
 Op Table:  
 Ref Node:

#### Top Clip

Default: 0.00 ft  
 Op Table:  
 Ref Node:

Discharge Coefficients  
 Weir Default: 3.200  
 Weir Table:  
 Orifice Default: 0.600  
 Orifice Table:

Weir Comment:

#### Weir Component

Weir: 2

#### Bottom Clip

Weir Count:	1	
Weir Flow Direction:	Both	Default: 0.00 ft
Damping:	0.0000 ft	Op Table:
Weir Type:	Sharp Crested Vertical	Ref Node:
Geometry Type:	Rectangular	Top Clip
Invert:	62.97 ft	Default: 0.00 ft
Control Elevation:	62.97 ft	Op Table:
Max Depth:	0.80 ft	Ref Node:
Max Width:	2.42 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:

Weir Comment:

Weir Component		
Weir:	3	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Horizontal	Top Clip
Geometry Type:	Rectangular	Default: 0.00 ft
Invert:	65.87 ft	Op Table:
Control Elevation:	65.87 ft	Ref Node:
Max Depth:	3.17 ft	Discharge Coefficients
Max Width:	3.00 ft	Weir Default: 3.200 Weir Table: Orifice Default: 0.600 Orifice Table:
Fillet:	0.00 ft	

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_Rem_TRACT-G	Upstream Pipe	Downstream Pipe
Scenario:	Proposed	Invert: 68.72 ft
From Node:	REM_TRACT_1	Manning's N: 0.0130
To Node:	REM_POND_G	Geometry: Circular
Link Count:	1	Max Depth: 2.50 ft
Flow Direction:	Both	Bottom Clip
Solution:	Combine	Default: 0.00 ft
Increments:	10	Op Table:
Pipe Count:	1	Ref Node:
Damping:	0.0000 ft	Manning's N: 0.0130
Length:	2278.00 ft	Top Clip
FHWA Code:	1	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:
Exit Loss Coef:	1.00	Ref Node:

Bend Loss Coef: 0.00

Manning's N: 0.0130

Manning's N: 0.0130

Bend Location: 0.00 dec

Energy Switch: Energy

Pipe Comment:

**Weir Component**

Weir: 1

**Bottom Clip**

Default: 0.00 ft

Weir Count: 1

Op Table:

Weir Flow Direction: Both

Ref Node:

Damping: 0.0000 ft

**Top Clip**

Default: 0.00 ft

Weir Type: Sharp Crested Vertical

Op Table:

Geometry Type: Rectangular

Ref Node:

Invert: 73.42 ft

Discharge Coefficients

Control Elevation: 73.42 ft

Weir Default: 3.200

Max Depth: 2.58 ft

Weir Table:

Max Width: 3.00 ft

Orifice Default: 0.600

Fillet: 0.00 ft

Orifice Table:

Weir Comment:

**Weir Component**

Weir: 2

**Bottom Clip**

Default: 0.00 ft

Weir Count: 1

Op Table:

Weir Flow Direction: Both

Ref Node:

Damping: 0.0000 ft

**Top Clip**

Default: 0.00 ft

Weir Type: Sharp Crested Vertical

Op Table:

Geometry Type: Circular

Ref Node:

Invert: 72.22 ft

Discharge Coefficients

Control Elevation: 72.22 ft

Weir Default: 3.200

Max Depth: 0.25 ft

Weir Table:

Orifice Default: 0.600

Orifice Table:

Weir Comment:

**Weir Component**

Weir: 3

**Bottom Clip**

Default: 0.00 ft

Weir Count: 1

Op Table:

Weir Flow Direction: Both

Ref Node:

Damping: 0.0000 ft

**Top Clip**

Default: 0.00 ft

Weir Type: Horizontal

Op Table:

Geometry Type: Rectangular

Ref Node:

Invert: 75.97 ft

Discharge Coefficients

Control Elevation: 75.97 ft

Weir Default: 3.200

Max Depth: 2.08 ft

Weir Table:

Max Width: 3.00 ft

Orifice Default: 0.600

Fillet: 0.00 ft

## Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_SEACAD-FENN	Upstream Pipe	Downstream Pipe
Scenario: Proposed	Invert: 56.97 ft	Invert: 56.47 ft
From Node: SE_ACADEMY	Manning's N: 0.0130	Manning's N: 0.0130
To Node: FENNEL_SEACAD	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Solution: Combine	Default: 0.00 ft	Default: 0.00 ft
Increments: 10	Op Table:	Op Table:
Pipe Count: 1	Ref Node:	Ref Node:
Damping: 0.0000 ft	Manning's N: 0.0130	Manning's N: 0.0130
Length: 70.00 ft	Top Clip	
FHWA Code: 1	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 1.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0130	Manning's N: 0.0130
Bend Location: 0.00 dec		
Energy Switch: Energy		

Pipe Comment:

Weir Component	Bottom Clip	
Weir: 1	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Sharp Crested Vertical	Default: 0.00 ft	
Geometry Type: Rectangular	Op Table:	
Invert: 59.97 ft	Ref Node:	
Control Elevation: 59.97 ft	Discharge Coefficients	
Max Depth: 1.00 ft	Weir Default: 3.200	
Max Width: 2.00 ft	Weir Table:	
Fillet: 0.00 ft	Orifice Default: 0.600	
	Orifice Table:	

Weir Comment:

Weir Component	Bottom Clip	
Weir: 2	Default: 0.00 ft	
Weir Count: 1	Op Table:	
Weir Flow Direction: Both	Ref Node:	
Damping: 0.0000 ft	Top Clip	
Weir Type: Horizontal		

Geometry Type:	Rectangular	
Invert:	60.97 ft	Default: 0.00 ft
Control Elevation:	60.97 ft	Op Table:
Max Depth:	1.92 ft	Ref Node:
Max Width:	3.08 ft	Discharge Coefficients
Fillet:	0.00 ft	Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

Drop Structure Link: D_TAIKWN-AERO_W	Upstream Pipe		Downstream Pipe
	Invert:	Manning's N:	Invert:
Scenario:	Proposed	58.50 ft	58.40 ft
From Node:	TAIKWON	0.0130	0.0130
To Node:	AERONAUTICAL_W	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count:	1	Max Depth:	1.00 ft
Flow Direction:	Both	Default:	0.00 ft
Solution:	Combine	Op Table:	
Increments:	10	Ref Node:	
Pipe Count:	1	Manning's N:	0.0130
Damping:	0.0000 ft	Top Clip	
Length:	34.00 ft	Default:	0.00 ft
FHWA Code:	30	Op Table:	
Entr Loss Coef:	0.00	Ref Node:	
Exit Loss Coef:	0.00	Manning's N:	0.0130
Bend Loss Coef:	0.00		
Bend Location:	0.00 dec		
Energy Switch:	Energy		

Pipe Comment:

Weir Component	Bottom Clip
Weir:	1
Weir Count:	1
Weir Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	60.13 ft
Control Elevation:	60.13 ft
Max Depth:	1.17 ft
Max Width:	3.33 ft
Fillet:	0.00 ft
	Discharge Coefficients
	Weir Default: 3.200
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Weir Comment:

Weir Component		
Weir:	2	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Sharp Crested Vertical	Top Clip
Geometry Type:	Circular	Default: 0.00 ft
Invert:	58.50 ft	Op Table:
Control Elevation:	58.50 ft	Ref Node:
Max Depth:	0.25 ft	Discharge Coefficients
		Weir Default: 3.200
		Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Weir Component		
Weir:	3	Bottom Clip
Weir Count:	1	Default: 0.00 ft
Weir Flow Direction:	Both	Op Table:
Damping:	0.0000 ft	Ref Node:
Weir Type:	Horizontal	Top Clip
Geometry Type:	Rectangular	Default: 0.00 ft
Invert:	61.50 ft	Op Table:
Control Elevation:	61.50 ft	Ref Node:
Max Depth:	1.42 ft	Discharge Coefficients
Max Width:	2.00 ft	Weir Default: 3.200
Fillet:	0.00 ft	Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Weir Comment:

Drop Structure Comment:

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Drop Structure Link: D_TRANS-FENNEL		Upstream Pipe	Downstream Pipe
Scenario:	Proposed	Invert: 65.97 ft	Invert: 64.97 ft
From Node:	TRANS_FACILITY	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	FENNEL_WETLAND	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction:	Both	Bottom Clip	
Solution:	Combine	Default: 0.00 ft	Default: 0.00 ft
Increments:	10	Op Table:	Op Table:
Pipe Count:	1	Ref Node:	Ref Node:
Damping:	0.00000 ft	Manning's N: 0.0120	Manning's N: 0.0120
Length:	50.00 ft	Top Clip	

FHWA Code:	1	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0120	Manning's N:	0.0120
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	72.97 ft	Ref Node:	
Control Elevation:	72.97 ft	Discharge Coefficients	
Max Depth:	1.00 ft	Weir Default:	3.200
Max Width:	2.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	73.97 ft	Ref Node:	
Control Elevation:	73.97 ft	Discharge Coefficients	
Max Depth:	1.92 ft	Weir Default:	3.200
Max Width:	3.08 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment:

Pipe Link: P_FEN-TPIKE-R10		Upstream	Downstream
Scenario:	Proposed	Invert:	58.09 ft
From Node:	FENNEL_TPIKE_US	Manning's N:	0.0120
To Node:	FENNEL_TPIKE_DS	Geometry:	Rectangular
Link Count:	2	Max Depth:	5.00 ft
			Max Depth: 5.00 ft

Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	140.00 ft			Bottom Clip	
FHWA Code:	9		Default: 0.00 ft		Default: 0.00 ft
Entr Loss Coef:	0.50		Op Table:		Op Table:
Exit Loss Coef:	1.00		Ref Node:		Ref Node:
Bend Loss Coef:	0.00	Manning's N:	0.0120	Manning's N:	0.0120
Bend Location:	0.00 dec			Top Clip	
Energy Switch:	Energy		Default: 0.00 ft		Default: 0.00 ft
			Op Table:		Op Table:
			Ref Node:		Ref Node:
		Manning's N:	0.0120	Manning's N:	0.0120

Comment:

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Pipe Link: P_FEN_APTS-P4		Upstream	Downstream
Scenario:	Proposed	Invert: 56.89 ft	Invert: 56.77 ft
From Node:	FENNEL_APTS_DS	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	FENNEL_P4	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count:	1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction:	Both		Bottom Clip
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	226.00 ft	Op Table:	Op Table:
FHWA Code:	30	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0120	Manning's N: 0.0120
Exit Loss Coef:	0.00		Top Clip
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:
		Manning's N: 0.0120	Manning's N: 0.0120

Comment:

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Pipe Link: P_FEN_APT_US-DS		Upstream	Downstream
Scenario:	Proposed	Invert: 56.82 ft	Invert: 56.49 ft
From Node:	FENNEL_APTS_US	Manning's N: 0.0240	Manning's N: 0.0240
To Node:	FENNEL_APTS_DS	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count:	3	Max Depth: 3.67 ft	Max Depth: 3.67 ft
Flow Direction:	Both		Bottom Clip
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	50.00 ft	Op Table:	Op Table:
FHWA Code:	30	Ref Node:	Ref Node:
Entr Loss Coef:	0.70	Manning's N: 0.0240	Manning's N: 0.0240
Exit Loss Coef:	1.00		Top Clip
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Energy	Ref Node:	Ref Node:

Manning's N: 0.0240

Manning's N: 0.0240

Comment:

**Pipe Link: P\_SHADY192\_FEN**

	Upstream	Downstream
Scenario:	Proposed	Invert: 58.97 ft
From Node:	SHADY_192	Manning's N: 0.0120
To Node:	FENNEL_192_DS	Geometry: Horizontal Ellipse
Link Count:	1	Max Depth: 3.50 ft
Flow Direction:	Both	Bottom Clip
Damping:	0.0000 ft	Default: 0.00 ft
Length:	240.00 ft	Op Table:
FHWA Code:	30	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0120
Exit Loss Coef:	0.00	Top Clip
Bend Loss Coef:	0.00	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:
Energy Switch:	Energy	Ref Node:
		Manning's N: 0.0120

Comment:

**Pipe Link: P\_TPAX\_SHADY**

	Upstream	Downstream
Scenario:	Proposed	Invert: 59.97 ft
From Node:	TPIKE_ACCESS	Manning's N: 0.0120
To Node:	SHADY_192	Geometry: Horizontal Ellipse
Link Count:	3	Max Depth: 1.75 ft
Flow Direction:	Both	Bottom Clip
Damping:	0.0000 ft	Default: 0.00 ft
Length:	200.00 ft	Op Table:
FHWA Code:	30	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0120
Exit Loss Coef:	0.00	Top Clip
Bend Loss Coef:	0.00	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:
Energy Switch:	Energy	Ref Node:
		Manning's N: 0.0120

Comment:

**Weir Link: Pond Notch**

	Bottom Clip
Scenario:	Proposed
From Node:	POND-A
To Node:	FENNEL_PSETL_US
Link Count:	1
	Default: 0.00 ft
	Op Table:
	Ref Node:

Flow Direction:	Both	
Damping:	0.0000 ft	Top Clip
Weir Type:	Sharp Crested Vertical	Default: 0.00 ft
Geometry Type:	Trapezoidal	Op Table:
Invert:	56.75 ft	Ref Node:
Control Elevation:	56.75 ft	Discharge Coefficients
Max Depth:	1.60 ft	Weir Default: 3.200
Extrapolation Method:	Normal Projection	Weir Table:
Bottom Width:	0.30 ft	Orifice Default: 0.600
Left Slope:	1.600 (h:v)	Orifice Table:
Right Slope:	1.600 (h:v)	

Comment:

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Pipe Link: R1				
			Upstream	Downstream
Scenario:	Proposed		Invert: 55.17 ft	Invert: 55.00 ft
From Node:	FENNEL_PSETL_US	Manning's N:	0.0120	Manning's N: 0.0120
To Node:	FENNEL_PSETL_DS	Geometry:	Rectangular	Geometry: Rectangular
Link Count:	2	Max Depth:	5.00 ft	Max Depth: 5.00 ft
Flow Direction:	Both	Max Width:	11.00 ft	Max Width: 11.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet: 0.00 ft
Length:	94.00 ft		Bottom Clip	
FHWA Code:	14	Default:	0.00 ft	Default: 0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:
Exit Loss Coef:	0.00	Ref Node:		Ref Node:
Bend Loss Coef:	0.00	Manning's N:	0.0120	Manning's N: 0.0120
Bend Location:	0.00 dec		Top Clip	
Energy Switch:	Energy	Default:	0.00 ft	Default: 0.00 ft
		Op Table:		Op Table:
		Ref Node:		Ref Node:
		Manning's N:	0.0120	Manning's N: 0.0120

Comment:

---

Pipe Link: R10				
			Upstream	Downstream
Scenario:	Proposed		Invert: 57.43 ft	Invert: 57.38 ft
From Node:	AERONAUTICAL_E	Manning's N:	0.0120	Manning's N: 0.0120
To Node:	FENNEL_192PSETS	Geometry:	Circular	Geometry: Circular
Link Count:	2	Max Depth:	2.00 ft	Max Depth: 2.00 ft
Flow Direction:	Both		Bottom Clip	
Damping:	0.0000 ft	Default:	0.00 ft	Default: 0.00 ft
Length:	54.00 ft	Op Table:		Op Table:
FHWA Code:	1	Ref Node:		Ref Node:
Entr Loss Coef:	0.50	Manning's N:	0.0120	Manning's N: 0.0120
Exit Loss Coef:	1.00		Top Clip	
Bend Loss Coef:	0.00	Default:	0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:

Energy Switch: Energy	Ref Node: Manning's N: 0.0120	Ref Node: Manning's N: 0.0120
Comment: 3-29x45		
54 lf		
56.12-56.08		

Pipe Link: R3	Upstream	Downstream
Scenario: Proposed	Invert: 56.33 ft	Invert: 56.30 ft
From Node: FENNEL_192_DS	Manning's N: 0.0110	Manning's N: 0.0110
To Node: FENNEL_192PSETS	Geometry: Rectangular	Geometry: Rectangular
Link Count: 2	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 63.00 ft	Bottom Clip	
FHWA Code: 9	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0110	Manning's N: 0.0110
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Energy	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0110	Manning's N: 0.0110

Comment:
----------

Pipe Link: R4	Upstream	Downstream
Scenario: Proposed	Invert: 56.98 ft	Invert: 56.68 ft
From Node: FENNEL_192_US	Manning's N: 0.0110	Manning's N: 0.0110
To Node: FENNEL_192_DS	Geometry: Rectangular	Geometry: Rectangular
Link Count: 2	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 134.00 ft	Bottom Clip	
FHWA Code: 9	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.50	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0110	Manning's N: 0.0110
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Energy	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0110	Manning's N: 0.0110

Comment:
----------

Pipe Link: R9	Upstream	Downstream
Scenario: Proposed	Invert: 57.56 ft	Invert: 57.43 ft
From Node: AERONAUTICAL_W	Manning's N: 0.0170	Manning's N: 0.0170
To Node: AERONAUTICAL_E	Geometry: Circular	Geometry: Circular
Link Count: 2	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both		Bottom Clip
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 56.00 ft	Op Table:	Op Table:
FHWA Code: 1	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0170	Manning's N: 0.0170
Exit Loss Coef: 0.00		Top Clip
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Energy	Ref Node:	Ref Node:
	Manning's N: 0.0170	Manning's N: 0.0170

Comment: 2-38\*24

56.2

56.12

Weir Link: W_BORROW-FENNEL	Bottom Clip
Scenario: Proposed	Default: 0.00 ft
From Node: BORROW_PIT	Op Table:
To Node: FENNEL_WETLAND	Ref Node:
Link Count: 1	
Flow Direction: Both	Top Clip
Damping: 0.0000 ft	Default: 0.00 ft
Weir Type: Sharp Crested Vertical	Op Table:
Geometry Type: Rectangular	Ref Node:
Invert: 65.97 ft	Discharge Coefficients
Control Elevation: 65.97 ft	Weir Default: 3.200
Max Depth: 833333.25 ft	Weir Table:
Max Width: 670.00 ft	Orifice Default: 0.600
Fillet: 0.00 ft	Orifice Table:
Comment:	

Weir Link: W_COBL_FISH	Bottom Clip
Scenario: Proposed	Default: 0.00 ft
From Node: COBBLESTONE	Op Table:
To Node: FISH_LAKE	Ref Node:
Link Count: 1	
Flow Direction: Both	Top Clip
Damping: 0.0000 ft	Default: 0.00 ft
Weir Type: Broad Crested Vertical	Op Table:
Geometry Type: Trapezoidal	Ref Node:
Invert: 62.47 ft	Discharge Coefficients

Control Elevation:	62.47 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Extrapolation Method:	Normal Projection	Orifice Default:	0.600
Bottom Width:	100.00 ft	Orifice Table:	
Left Slope:	10.000 (h:v)		
Right Slope:	10.000 (h:v)		

Comment:

---

#### Weir Link: W\_FEN04-TPIKE

Scenario:	Proposed	Bottom Clip	
From Node:	FENNEL_WETLAND	Default:	0.00 ft
To Node:	FENNEL_TPIKE_US	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	64.96 ft	Discharge Coefficients	
Control Elevation:	64.96 ft	Weir Default:	3.200
Max Depth:	8333.25 ft	Weir Table:	
Max Width:	62.67 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

---

#### Weir Link: W\_FENNEL\_192

Scenario:	Proposed	Bottom Clip	
From Node:	FENNEL_192_US	Default:	0.00 ft
To Node:	FENNEL_192_DS	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Trapezoidal	Ref Node:	
Invert:	63.47 ft	Discharge Coefficients	
Control Elevation:	63.47 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Extrapolation Method:	Normal Projection	Orifice Default:	0.600
Bottom Width:	100.00 ft	Orifice Table:	
Left Slope:	100.000 (h:v)		
Right Slope:	100.000 (h:v)		

Comment:

## Weir Link: W\_FEN\_TPIKE

Scenario:	Proposed	Bottom Clip
From Node:	FENNEL_TPIKE_US	Default: 0.00 ft
To Node:	FENNEL_TPIKE_DS	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	68.44 ft	Discharge Coefficients
Control Elevation:	68.44 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	100.00 ft	Orifice Table:
Left Slope:	100.000 (h:v)	
Right Slope:	100.000 (h:v)	

Comment:

## Weir Link: W\_Rem\_G01-FEN

Scenario:	Proposed	Bottom Clip
From Node:	REM_POND_G	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	60.47 ft	Discharge Coefficients
Control Elevation:	60.47 ft	Weir Default: 3.200
Max Depth:	0.92 ft	Weir Table:
Max Width:	10.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

## Weir Link: W\_Rem\_G02-FEN

Scenario:	Proposed	Bottom Clip
From Node:	REM_POND_G	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	61.37 ft	Discharge Coefficients
Control Elevation:	61.37 ft	Weir Default: 3.200

Max Depth:	3.58 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

---

#### Weir Link: W\_Rem\_G03-FEN

Scenario:	Proposed	Bottom Clip	
From Node:	REM_POND_G	Default:	0.00 ft
To Node:	FENNEL_WETLAND	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	64.97 ft	Discharge Coefficients	
Control Elevation:	64.97 ft	Weir Default:	3.200
Max Depth:	833.25 ft	Weir Table:	
Max Width:	44.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

---

#### Weir Link: W\_Rem\_N01-FEN

Scenario:	Proposed	Bottom Clip	
From Node:	REM_NORTH	Default:	0.00 ft
To Node:	FENNEL_WETLAND	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	60.81 ft	Discharge Coefficients	
Control Elevation:	60.81 ft	Weir Default:	3.200
Max Depth:	1.17 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

---

#### Weir Link: W\_Rem\_N02-FEN

Scenario:	Proposed	Bottom Clip	
From Node:	REM_NORTH	Default:	0.00 ft
To Node:	FENNEL_WETLAND	Op Table:	

Link Count:	1	
Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Sharp Crested Vertical	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	62.01 ft	Ref Node:
Control Elevation:	62.01 ft	Discharge Coefficients
Max Depth:	2.25 ft	Weir Default: 3.200
Max Width:	20.00 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Comment:

---

#### Weir Link: W\_Rem\_N03-FEN

Scenario:	Proposed	Bottom Clip
From Node:	REM_NORTH	Default: 0.00 ft
To Node:	FENNEL_WETLAND	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	64.23 ft	Discharge Coefficients
Control Elevation:	64.23 ft	Weir Default: 3.200
Max Depth:	833.25 ft	Weir Table:
Max Width:	42.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment:

---

#### Weir Link: W\_SHADY\_FEN

Scenario:	Proposed	Bottom Clip
From Node:	SHADY_192	Default: 0.00 ft
To Node:	FENNEL_192_DS	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	63.47 ft	Discharge Coefficients
Control Elevation:	63.47 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	10.00 ft	Orifice Table:
Left Slope:	20.000 (h:v)	
Right Slope:	10.000 (h:v)	

Comment:

---

#### Weir Link: W\_TPACCESS\_FEN

Scenario:	Proposed	Bottom Clip
From Node:	TPIKE_ACCESS	Default: 0.00 ft
To Node:	FENNEL_192_US	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	63.47 ft	Discharge Coefficients
Control Elevation:	63.47 ft	Weir Default: 2.800
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	20.00 ft	Orifice Table:
Left Slope:	10.000 (h:v)	
Right Slope:	10.000 (h:v)	

Comment:

---

#### Weir Link: pond-weir

Scenario:	Proposed	Bottom Clip
From Node:	POND-A	Default: 0.00 ft
To Node:	FENNEL_PSETL_US	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	59.35 ft	Discharge Coefficients
Control Elevation:	59.36 ft	Weir Default: 3.200
Max Depth:	1.30 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	10.00 ft	Orifice Table:
Left Slope:	5.000 (h:v)	
Right Slope:	5.000 (h:v)	

Comment:

---

#### Weir Link: pond-weir top

Scenario:	Proposed	Bottom Clip
From Node:	POND-A	Default: 0.00 ft
To Node:	FENNEL_PSETL_US	Op Table:

Link Count:	1	
Flow Direction:	Both	Ref Node:
Damping:	0.0000 ft	Top Clip
Weir Type:	Sharp Crested Vertical	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	60.65 ft	Ref Node:
Control Elevation:	60.65 ft	Discharge Coefficients
Max Depth:	999.00 ft	Weir Default: 3.200
Max Width:	34.00 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Comment:

---

Weir Link: w_AERO_US_DS-R7		
Scenario:	Proposed	Bottom Clip
From Node:	AERONAUTICAL_W	Default: 0.00 ft
To Node:	AERONAUTICAL_E	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Trapezoidal	Ref Node:
Invert:	59.75 ft	Discharge Coefficients
Control Elevation:	59.75 ft	Weir Default: 3.200
Max Depth:	9999.00 ft	Weir Table:
Extrapolation Method:	Normal Projection	Orifice Default: 0.600
Bottom Width:	400.00 ft	Orifice Table:
Left Slope:	100.000 (h:v)	
Right Slope:	100.000 (h:v)	

Comment: change from 60.5 to 59.75

---

Simulation: 100yr-24hr	
Scenario:	Proposed
Run Date/Time:	10/27/2020 2:37:02 PM
Program Version:	ICPR4 4.07.01

General				
Run Mode:	Normal			
Start Time:	Year 0	Month 0	Day 0	Hour [hr] 0.0000
End Time:	0	0	0	24.0000
	Hydrology [sec]	Surface Hydraulics	Groundwater [sec]	
		[sec]		

Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		30.0000	

### Output Time Increments

#### Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

#### Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	15.0000

#### Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	60.0000

#### Restart File

Save Restart: False

### Resources & Lookup Tables

#### Resources

Rainfall Folder:  
Reference ET Folder:  
Unit Hydrograph  
Folder:

#### Lookup Tables

Boundary Stage Set:  
Extern Hydrograph Set:  
Curve Number Set:  
  
Green-Ampt Set:  
Vertical Layers Set:  
Impervious Set:  
Roughness Set:  
Crop Coef Set:  
Fillable Porosity Set:  
Conductivity Set:  
Leakage Set:

### Tolerances & Options

Time Marching: SAOR  
Max Iterations: 6  
Over-Relax Weight: 0.5 dec  
Fact:  
dZ Tolerance: 0.0010 ft  
  
Max dZ: 1.0000 ft  
Link Optimizer Tol: 0.0001 ft

IA Recovery Time: 24.0000 hr  
ET for Manual Basins: False  
  
Smp/Man Basin Rain Opt:  
OF Region Rain Opt: Global  
Rainfall Name: ~FLMOD  
Rainfall Amount: 10.56 in

Edge Length Option: Automatic

Storm Duration: 24.0000 hr

Dflt Damping (2D): 0.0050 ft

Min Node Srf Area 100 ft<sup>2</sup>

(2D):

Energy Switch (2D): Energy

Dflt Damping (1D): 0.0050 ft

Min Node Srf Area 100 ft<sup>2</sup>

(1D):

Energy Switch (1D): Energy

Comment:

Simulation: 100yr-72hr

Scenario: Proposed

Run Date/Time: 10/27/2020 2:38:10 PM

Program Version: ICPR4 4.07.01

**General**

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

Hydrology [sec]

Surface Hydraulics

Groundwater [sec]

[sec]

Min Calculation Time: 60.0000 0.1000 900.0000

Max Calculation Time: 60.0000

**Output Time Increments****Hydrology**

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

**Surface Hydraulics**

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

**Groundwater**

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

**Restart File**

Save Restart: False

**Resources & Lookup Tables**

Resources		Lookup Tables	
Rainfall Folder:	ICPR3	Boundary Stage Set:	
Reference ET Folder:		Extern Hydrograph Set:	
Unit Hydrograph	ICPR3	Curve Number Set:	
Folder:		Green-Ampt Set:	
		Vertical Layers Set:	
		Impervious Set:	
		Roughness Set:	
		Crop Coef Set:	
		Fillable Porosity Set:	
		Conductivity Set:	
		Leakage Set:	
Tolerances & Options			
Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.5 dec	Smp/Man Basin Rain Opt:	Global
Fact:		OF Region Rain Opt:	Global
dZ Tolerance:	0.0010 ft	Rainfall Name:	Sfwmd72
Max dZ:	1.0000 ft	Rainfall Amount:	11.20 in
Link Optimizer Tol:	0.0001 ft	Storm Duration:	72.0000 hr
Edge Length Option:	Automatic	Dflt Damping (1D):	0.0050 ft
Dflt Damping (2D):	0.0050 ft	Min Node Srf Area (1D):	113 ft <sup>2</sup>
Min Node Srf Area (2D):	1 ft <sup>2</sup>	Energy Switch (1D):	Energy
Energy Switch (2D):	Energy		
Comment: PARTIN SETTLEMENT PROMENADE (PSP)			
PARTIN SETTLEMENT PROMENADE (PSP)			
<hr/>			
Simulation: 10yr-24hr			
Scenario:	Proposed		
Run Date/Time:	10/27/2020 2:40:45 PM		
Program Version:	ICPR4 4.07.01		
General			
Run Mode:	Normal		
Start Time:	0	Year	Month
		0	Day
			Hour [hr]
			0.0000

End Time:	0	0	0	24.0000
-----------	---	---	---	---------

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

#### Output Time Increments

##### Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

##### Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

##### Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

##### Restart File

Save Restart: False

#### Resources & Lookup Tables

##### Resources

Rainfall Folder: ICPR3  
 Reference ET Folder:  
 Unit Hydrograph ICPR3  
 Folder:

##### Lookup Tables

Boundary Stage Set:  
 Extern Hydrograph Set:  
 Curve Number Set:  
 Green-Ampt Set:  
 Vertical Layers Set:  
 Impervious Set:  
 Roughness Set:  
 Crop Coef Set:  
 Fillable Porosity Set:  
 Conductivity Set:  
 Leakage Set:

#### Tolerances & Options

Time Marching: SAOR  
 Max Iterations: 6  
 Over-Relax Weight 0.5 dec  
 Fact:  
 dZ Tolerance: 0.0010 ft

IA Recovery Time: 24.0000 hr  
 ET for Manual Basins: False  
 Smp/Man Basin Rain Global

Max dZ: 1.0000 ft  
 Link Optimizer Tol: 0.0001 ft  
 Edge Length Option: Automatic  
 Dflt Damping (2D): 0.0050 ft  
 Min Node Srf Area 1 ft<sup>2</sup>  
 (2D):  
 Energy Switch (2D): Energy

Opt:  
 OF Region Rain Opt: Global  
 Rainfall Name: Flmod  
 Rainfall Amount: 5.20 in  
 Storm Duration: 24.0000 hr  
 Dflt Damping (1D): 0.0050 ft  
 Min Node Srf Area 113 ft<sup>2</sup>  
 (1D):  
 Energy Switch (1D): Energy

Comment: PARTIN SETTLEMENT PROMENADE (PSP)

PARTIN SETTLEMENT PROMENADE (PSP)

Simulation: 10yr72hr

Scenario: Proposed  
 Run Date/Time: 10/27/2020 2:41:19 PM  
 Program Version: ICPR4 4.07.01

#### General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	72.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	60.0000	0.1000	900.0000
Max Calculation Time:		60.0000	

#### Output Time Increments

##### Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

##### Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

##### Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

**Restart File**

Save Restart: False

**Resources & Lookup Tables****Resources**

Rainfall Folder: ICPR3  
 Reference ET Folder:  
 Unit Hydrograph ICPR3  
 Folder:

**Lookup Tables**

Boundary Stage Set:  
 Extern Hydrograph Set:  
 Curve Number Set:  
 Green-Ampt Set:  
 Vertical Layers Set:  
 Impervious Set:  
 Roughness Set:  
 Crop Coef Set:  
 Fillable Porosity Set:  
 Conductivity Set:  
 Leakage Set:

**Tolerances & Options**

Time Marching: SAOR  
 Max Iterations: 6  
 Over-Relax Weight: 0.5 dec  
 Fact:  
 dZ Tolerance: 0.0010 ft  
 Max dZ: 1.0000 ft  
 Link Optimizer Tol: 0.0001 ft  
 Edge Length Option: Automatic  
 Dflt Damping (2D): 0.0050 ft  
 Min Node Srf Area (2D): 1 ft<sup>2</sup>  
 Energy Switch (2D): Energy

IA Recovery Time: 24.0000 hr  
 ET for Manual Basins: False  
 Smp/Man Basin Rain Opt:  
 OF Region Rain Opt: Global  
 Rainfall Name: Sfwmd72  
 Rainfall Amount: 7.50 in  
 Storm Duration: 72.0000 hr  
 Dflt Damping (1D): 0.0050 ft  
 Min Node Srf Area (1D): 113 ft<sup>2</sup>  
 Energy Switch (1D): Energy

Comment: PARTIN SETTLEMENT PROMENADE (PSP)

PARTIN SETTLEMENT PROMENADE (PSP)

Simulation: 50yr-24hr

Scenario: Proposed  
 Run Date/Time: 10/27/2020 2:43:30 PM

Program Version: ICPR4 4.07.01

### General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	24.0000
	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]	
Min Calculation Time:	60.0000	0.1000	900.0000	
Max Calculation Time:		60.0000		

### Output Time Increments

#### Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

#### Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	5.0000

#### Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	360.0000

### Restart File

Save Restart: False

### Resources & Lookup Tables

#### Resources

Rainfall Folder: ICPR3  
 Reference ET Folder:  
 Unit Hydrograph: ICPR3  
 Folder:

#### Lookup Tables

Boundary Stage Set:  
 Extern Hydrograph Set:  
 Curve Number Set:  
 Green-Ampt Set:  
 Vertical Layers Set:  
 Impervious Set:  
 Roughness Set:  
 Crop Coef Set:  
 Fillable Porosity Set:  
 Conductivity Set:  
 Leakage Set:

## Tolerances &amp; Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.5 dec	Smp/Man Basin Rain Opt:	Global
Fact:		OF Region Rain Opt:	Global
dZ Tolerance:	0.0010 ft	Rainfall Name:	Flmod
Max dZ:	1.0000 ft	Rainfall Amount:	9.84 in
Link Optimizer Tol:	0.0001 ft	Storm Duration:	24.0000 hr
Edge Length Option:	Automatic	Dflt Damping (1D):	0.0050 ft
Dflt Damping (2D):	0.0050 ft	Min Node Srf Area (1D):	113 ft <sup>2</sup>
Min Node Srf Area (2D):	1 ft <sup>2</sup>	Energy Switch (1D):	Energy
Energy Switch (2D):	Energy		

Comment: PARTIN SETTLEMENT PROMENADE (PSP)

PARTIN SETTLEMENT PROMENADE (PSP)

## Simple Basin Runoff Summary [Proposed]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
192-FENN_EL_NE	100yr-24hr	23.96	12.5167	10.56	9.35	8.4700	91.4	6.80	6.80
192_FENN_EL_SE	100yr-24hr	18.97	12.1000	10.56	9.69	3.6900	93.3	0.00	0.00
192_PART_IN_SE	100yr-24hr	19.61	12.2333	10.56	9.72	4.9700	93.9	28.10	28.10
192_POND_4	100yr-24hr	92.53	12.1000	10.56	9.82	17.4900	94.3	25.40	25.40
192_TPIK_E_NW	100yr-24hr	39.10	12.1333	10.56	9.83	8.2000	94.4	67.90	67.90
ACADEMY_APTS	100yr-24hr	164.47	12.1167	10.56	9.43	34.4000	91.2	50.00	50.00
ACADEMY_NE	100yr-24hr	48.61	12.6667	10.56	8.10	21.5000	81.9	0.60	0.60
AERONAUTICAL_E	100yr-24hr	4.21	12.1833	10.56	8.91	1.0000	87.2	0.00	0.00
AERONAUTICAL_N	100yr-24hr	14.06	12.1667	10.56	9.26	3.2000	89.9	12.10	12.10
BORROW_PIT	100yr-24hr	92.95	12.0500	10.56	10.17	14.7400	97.1	0.20	0.20
COBBLESTONE	100yr-24hr	168.87	12.5000	10.56	9.43	59.3300	92.0	51.30	51.30
FDOT_PO_ND_4	100yr-24hr	41.63	12.2667	10.56	8.38	11.7500	83.2	0.00	0.00
FENNEL_SE	100yr-24hr	105.35	12.8167	10.56	8.20	52.3800	83.1	5.00	5.00
FENNEL_SLOUGH	100yr-24hr	162.44	12.8833	10.56	9.81	77.0900	96.3	0.30	0.30
FIRE_STATION	100yr-24hr	14.70	12.0500	10.56	9.69	2.4100	93.2	59.60	59.60
HESS	100yr-24hr	19.51	12.0500	10.56	9.83	3.1800	94.3	66.70	66.70
ICE_PALACE	100yr-24hr	32.54	12.0500	10.56	9.83	5.4500	94.3	67.40	67.40
JUSTICE_EAST	100yr-24hr	73.30	12.4167	10.56	8.88	24.2400	87.4	23.30	23.30
JUSTICE_WEST	100yr-24hr	29.87	12.0833	10.56	9.48	5.7300	91.6	50.00	50.00
KMART	100yr-24hr	127.50	12.0500	10.56	9.85	20.7700	94.4	67.90	67.90
PARTIN_AERO_N	100yr-24hr	5.39	12.1500	10.56	8.74	1.2300	85.8	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
PARTIN_A_ERO_S	100yr-24hr	15.73	12.2667	10.56	9.20	4.2600	89.7	0.00	0.00
PARTIN_F_ENNEL_N	100yr-24hr	12.19	12.1667	10.56	8.65	2.9300	85.1	0.00	0.00
PARTIN_F_ENNEL_S	100yr-24hr	29.58	12.6500	10.56	8.94	12.3300	88.5	20.10	20.10
POST-1	100yr-24hr	195.32	12.0500	10.56	9.79	31.2900	94.0	0.00	0.00
POST-1-SL-APTS	100yr-24hr	114.82	12.0000	10.56	9.48	16.7500	91.3	0.00	0.00
POST-2-SL-APTS	100yr-24hr	30.59	12.0000	10.56	9.44	4.4700	91.0	0.00	0.00
REMIGTON_GOLF	100yr-24hr	25.87	12.4833	10.56	9.12	9.0200	89.5	1.20	1.20
REMINGTON_E	100yr-24hr	325.11	12.2167	10.56	9.10	83.0500	88.8	20.00	20.00
REMINGTTON_NE	100yr-24hr	127.82	12.1500	10.56	9.25	28.1000	89.8	5.10	5.10
REMINGTTON_NWE	100yr-24hr	48.95	12.2500	10.56	8.85	13.2800	86.8	20.80	20.80
REMINGTTON_NWN	100yr-24hr	140.06	12.5167	10.56	8.78	51.7600	86.9	20.20	20.20
REMINGTTON_NWW	100yr-24hr	254.10	12.1667	10.56	8.97	60.0600	87.6	19.00	19.00
REMINGTTON_P	100yr-24hr	100.61	12.1000	10.56	8.86	20.6200	86.7	22.10	22.10
REMINGTTON_POND	100yr-24hr	55.42	12.4167	10.56	9.65	17.4900	93.7	2.90	2.90
REMINGTTON_SW	100yr-24hr	85.63	12.3000	10.56	8.49	25.4400	84.1	20.00	20.00
REMINGTTON_W	100yr-24hr	58.83	12.6167	10.56	8.71	24.0300	86.6	20.00	20.00
SE_ACADM	100yr-24hr	65.04	12.6500	10.56	8.66	27.3500	86.3	10.00	10.00
SHADY_SW	100yr-24hr	56.64	12.4500	10.56	9.37	19.0600	91.5	39.50	39.50
TAI_KWN_DO	100yr-24hr	7.91	12.0500	10.56	9.83	1.2900	94.3	67.40	67.40
TPIKE_ACCESS	100yr-24hr	52.25	12.2500	10.56	9.67	13.5700	93.4	41.70	41.70
TPIKE_FE_NNEL_NE	100yr-24hr	43.82	12.8667	10.56	9.62	20.6300	94.6	11.00	11.00
TPIKE_FE_NNEL_S	100yr-24hr	61.02	12.7500	10.56	9.55	26.2400	93.7	11.40	11.40
TPIKE_RA_MP_N	100yr-24hr	55.15	12.4000	10.56	9.20	17.4200	90.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
TPIKE_RA MP_S	100yr-24hr	47.18	12.3667	10.56	9.33	14.2800	90.9	9.70	9.70
TRANS_FA CILTY	100yr-24hr	128.73	12.2167	10.56	9.35	33.1600	90.8	54.80	54.80
192-FENN EL_NE	100yr-72hr	19.16	60.4000	11.20	10.01	8.4700	91.4	6.80	6.80
192_FENN EL_SE	100yr-72hr	15.33	60.0667	11.20	10.34	3.6900	93.3	0.00	0.00
192_PART IN_SE	100yr-72hr	15.87	60.1667	11.20	10.37	4.9700	93.9	28.10	28.10
192_POND 4	100yr-72hr	74.57	60.0500	11.20	10.46	17.4900	94.3	25.40	25.40
192_TPIK E_NW	100yr-72hr	31.84	60.0833	11.20	10.47	8.2000	94.4	67.90	67.90
ACADEMY _APTS	100yr-72hr	135.03	60.0833	11.20	10.07	34.4000	91.2	50.00	50.00
ACADEMY _NE	100yr-72hr	40.42	60.5333	11.20	8.77	21.5000	81.9	0.60	0.60
AERONAU TICAL_E	100yr-72hr	3.48	60.1167	11.20	9.55	1.0000	87.2	0.00	0.00
AERONAU TICAL_N	100yr-72hr	11.53	60.1167	11.20	9.90	3.2000	89.9	12.10	12.10
BORROW_ PIT	100yr-72hr	72.90	60.0167	11.20	10.81	14.7400	97.1	0.20	0.20
COBBLEST ONE	100yr-72hr	135.90	60.3833	11.20	10.09	59.3300	92.0	51.30	51.30
FDOT_PO ND_4	100yr-72hr	35.01	60.1833	11.20	9.02	11.7500	83.2	0.00	0.00
FENNEL_S E	100yr-72hr	87.16	60.6833	11.20	8.88	52.3800	83.1	5.00	5.00
FENNEL_S LOUGH	100yr-72hr	126.85	60.8000	11.20	10.52	77.0900	96.3	0.30	0.30
FIRE_STA TION	100yr-72hr	11.69	60.0167	11.20	10.32	2.4100	93.1	59.60	59.60
HESS	100yr-72hr	15.48	60.0167	11.20	10.47	3.1800	94.3	66.70	66.70
ICE_PALA CE	100yr-72hr	25.91	60.0167	11.20	10.47	5.4500	94.3	67.40	67.40
JUSTICE_ EAST	100yr-72hr	60.24	60.3167	11.20	9.53	24.2400	87.4	23.30	23.30
JUSTICE_ WEST	100yr-72hr	24.37	60.0500	11.20	10.12	5.7300	91.5	50.00	50.00
KMART	100yr-72hr	101.13	60.0167	11.20	10.48	20.7700	94.4	67.90	67.90
PARTIN_A ERO_N	100yr-72hr	4.49	60.1000	11.20	9.38	1.2300	85.8	0.00	0.00
PARTIN_A	100yr-72hr	12.86	60.2000	11.20	9.85	4.2600	89.7	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
ERO_S	r								
PARTIN_F ENNEL_N	100yr-72h r	10.19	60.1167	11.20	9.28	2.9300	85.1	0.00	0.00
PARTIN_F ENNEL_S	100yr-72h r	23.89	60.5333	11.20	9.61	12.3300	88.5	20.10	20.10
POST-1	100yr-72h r	153.93	60.0167	11.20	10.43	31.2900	94.0	0.00	0.00
POST-1-SL -APTS	100yr-72h r	88.19	60.0000	11.20	10.12	16.7500	91.3	0.00	0.00
POST-2-SL -APTS	100yr-72h r	23.51	60.0000	11.20	10.08	4.4700	91.0	0.00	0.00
REMIGTO N_GOLF	100yr-72h r	20.86	60.3833	11.20	9.78	9.0200	89.5	1.20	1.20
REMINGT ON_E	100yr-72h r	267.99	60.1500	11.20	9.75	83.0500	88.8	20.00	20.00
REMINGT ON_NE	100yr-72h r	104.78	60.1000	11.20	9.89	28.1000	89.8	5.10	5.10
REMINGT ON_NWE	100yr-72h r	40.68	60.1833	11.20	9.49	13.2800	86.8	20.80	20.80
REMINGT ON_NWN	100yr-72h r	114.51	60.4000	11.20	9.44	51.7600	86.9	20.20	20.20
REMINGT ON_NWW	100yr-72h r	210.84	60.1167	11.20	9.60	60.0600	87.6	19.00	19.00
REMINGT ON_P	100yr-72h r	83.46	60.0667	11.20	9.49	20.6200	86.6	22.10	22.10
REMINGT ON_POND G	100yr-72h r	44.27	60.3167	11.20	10.32	17.4900	93.7	2.90	2.90
REMINGT ON_SW	100yr-72h r	71.98	60.2167	11.20	9.13	25.4400	84.1	20.00	20.00
REMINGT ON_W	100yr-72h r	48.01	60.4833	11.20	9.37	24.0300	86.5	20.00	20.00
SE_ACAD E_MY	100yr-72h r	52.99	60.5167	11.20	9.33	27.3500	86.3	10.00	10.00
SHADY_S W	100yr-72h r	45.71	60.3500	11.20	10.03	19.0600	91.5	39.50	39.50
TAI_KWO N_DO	100yr-72h r	6.28	60.0167	11.20	10.47	1.2900	94.3	67.40	67.40
TPIKE_AC CESS	100yr-72h r	42.42	60.1833	11.20	10.32	13.5700	93.4	41.70	41.70
TPIKE_FE NNEL_NE	100yr-72h r	34.40	60.7667	11.20	10.33	20.6300	94.6	11.00	11.00
TPIKE_FE NNEL_S	100yr-72h r	48.09	60.6333	11.20	10.24	26.2400	93.7	11.40	11.40
TPIKE_RA MP_N	100yr-72h r	44.66	60.3000	11.20	9.86	17.4200	90.0	0.00	0.00
TPIKE_RA	100yr-72h	38.22	60.2667	11.20	9.99	14.2800	90.9	9.70	9.70

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
MP_S	r								
TRANS_FA_CILTY	100yr-72hr	106.08	60.1667	11.20	9.99	33.1600	90.7	54.80	54.80
192_FENN_EL_NE	10yr-24hr	10.95	12.5167	5.20	4.15	8.4700	91.5	6.80	6.80
192_FENN_EL_SE	10yr-24hr	8.94	12.1000	5.20	4.40	3.6900	93.3	0.00	0.00
192_PART_IN_SE	10yr-24hr	9.21	12.2500	5.20	4.46	4.9700	94.0	28.10	28.10
192_POND_4	10yr-24hr	43.83	12.1000	5.20	4.53	17.4900	94.4	25.40	25.40
192_TPIK_E_NW	10yr-24hr	18.26	12.1333	5.20	4.58	8.2000	94.9	67.90	67.90
ACADEMY_APTS	10yr-24hr	74.18	12.1167	5.20	4.24	34.4000	91.9	50.00	50.00
ACADEMY_NE	10yr-24hr	19.16	12.7000	5.20	3.16	21.5000	81.9	0.60	0.60
AERONAUTICAL_E	10yr-24hr	1.83	12.1833	5.20	3.74	1.0000	87.2	0.00	0.00
AERONAUTICAL_N	10yr-24hr	6.32	12.1667	5.20	4.04	3.2000	90.1	12.10	12.10
BORROW_PIT	10yr-24hr	45.36	12.0500	5.20	4.84	14.7400	97.1	0.20	0.20
COBBLESTONE	10yr-24hr	76.65	12.5000	5.20	4.27	59.3300	92.5	51.30	51.30
FDOT_POND_4	10yr-24hr	16.92	12.2833	5.20	3.33	11.7500	83.2	0.00	0.00
FENNEL_SE	10yr-24hr	42.17	12.8500	5.20	3.26	52.3800	83.2	5.00	5.00
FENNEL_SLOUGH	10yr-24hr	78.40	12.9000	5.20	4.62	77.0900	96.3	0.30	0.30
FIRE_STATION	10yr-24hr	6.80	12.0500	5.20	4.45	2.4100	93.7	59.60	59.60
HESS	10yr-24hr	9.12	12.0500	5.20	4.58	3.1800	94.8	66.70	66.70
ICE_PALACE	10yr-24hr	15.21	12.0500	5.20	4.58	5.4500	94.8	67.40	67.40
JUSTICE_EAST	10yr-24hr	31.49	12.4333	5.20	3.78	24.2400	87.8	23.30	23.30
JUSTICE_WEST	10yr-24hr	13.54	12.0833	5.20	4.27	5.7300	92.1	50.00	50.00
KMART	10yr-24hr	59.70	12.0500	5.20	4.59	20.7700	94.9	67.90	67.90
PARTIN_AERO_N	10yr-24hr	2.29	12.1500	5.20	3.60	1.2300	85.8	0.00	0.00
PARTIN_AERO_S	10yr-24hr	7.07	12.2833	5.20	3.99	4.2600	89.7	0.00	0.00
PARTIN_FENNEL_N	10yr-24hr	5.12	12.1833	5.20	3.53	2.9300	85.1	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
PARTIN_F ENNEL_S	10yr-24hr	12.88	12.6667	5.20	3.84	12.3300	88.8	20.10	20.10
POST-1	10yr-24hr	93.05	12.0500	5.20	4.49	31.2900	94.0	0.00	0.00
POST-1-SL -APTS	10yr-24hr	53.30	12.0000	5.20	4.20	16.7500	91.3	0.00	0.00
POST-2-SL -APTS	10yr-24hr	14.15	12.0000	5.20	4.17	4.4700	91.0	0.00	0.00
REMIGTO N_GOLF	10yr-24hr	11.55	12.5000	5.20	3.95	9.0200	89.5	1.20	1.20
REMINGT ON_E	10yr-24hr	143.10	12.2333	5.20	3.93	83.0500	89.1	20.00	20.00
REMINGT ON_NE	10yr-24hr	57.55	12.1500	5.20	4.03	28.1000	89.9	5.10	5.10
REMINGT ON_NWE	10yr-24hr	20.92	12.2667	5.20	3.74	13.2800	87.2	20.80	20.80
REMINGT ON_NWN	10yr-24hr	59.70	12.5333	5.20	3.71	51.7600	87.3	20.20	20.20
REMINGT ON_NWW	10yr-24hr	110.07	12.1833	5.20	3.82	60.0600	87.9	19.00	19.00
REMINGT ON_P	10yr-24hr	43.02	12.1000	5.20	3.74	20.6200	87.1	22.10	22.10
REMINGT ON_POND G	10yr-24hr	26.12	12.4333	5.20	4.40	17.4900	93.7	2.90	2.90
REMINGT ON_SW	10yr-24hr	35.09	12.3167	5.20	3.47	25.4400	84.6	20.00	20.00
REMINGT ON_W	10yr-24hr	24.91	12.6333	5.20	3.66	24.0300	86.9	20.00	20.00
SE_ACADE MY	10yr-24hr	27.48	12.6667	5.20	3.60	27.3500	86.5	10.00	10.00
SHADY_S W	10yr-24hr	25.63	12.4667	5.20	4.20	19.0600	91.9	39.50	39.50
TAI_KWO N_DO	10yr-24hr	3.70	12.0500	5.20	4.58	1.2900	94.8	67.40	67.40
TPIKE_AC CESS	10yr-24hr	24.27	12.2667	5.20	4.42	13.5700	93.7	41.70	41.70
TPIKE_FE NNEL_NE	10yr-24hr	20.74	12.8667	5.20	4.44	20.6300	94.7	11.00	11.00
TPIKE_FE NNEL_S	10yr-24hr	28.60	12.7500	5.20	4.36	26.2400	93.7	11.40	11.40
TPIKE_RA MP_N	10yr-24hr	24.83	12.4167	5.20	4.01	17.4200	90.0	0.00	0.00
TPIKE_RA MP_S	10yr-24hr	21.45	12.3833	5.20	4.12	14.2800	91.0	9.70	9.70
TRANS_FA CILTY	10yr-24hr	57.57	12.2333	5.20	4.20	33.1600	91.6	54.80	54.80
192-FENN	10yr72hr	12.60	60.4000	7.50	6.39	8.4700	91.4	6.80	6.80

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
EL_NE									
192_FENN	10yr72hr	10.16	60.0667	7.50	6.67	3.6900	93.3	0.00	0.00
EL_SE									
192_PART	10yr72hr	10.51	60.1667	7.50	6.72	4.9700	93.9	28.10	28.10
IN_SE									
192_POND	10yr72hr	49.48	60.0667	7.50	6.80	17.4900	94.3	25.40	25.40
4									
192_TPIK	10yr72hr	20.98	60.0833	7.50	6.83	8.2000	94.6	67.90	67.90
E_NW									
ACADEMY	10yr72hr	88.11	60.0833	7.50	6.46	34.4000	91.5	50.00	50.00
_APTS									
ACADEMY	10yr72hr	25.40	60.5333	7.50	5.27	21.5000	81.9	0.60	0.60
_NE									
AERONAU	10yr72hr	2.25	60.1167	7.50	5.95	1.0000	87.2	0.00	0.00
TICAL_E									
AERONAU	10yr72hr	7.55	60.1167	7.50	6.27	3.2000	90.0	12.10	12.10
TICAL_N									
BORROW_	10yr72hr	48.73	60.0167	7.50	7.13	14.7400	97.1	0.20	0.20
PIT									
COBBLEST	10yr72hr	88.85	60.3833	7.50	6.49	59.3300	92.2	51.30	51.30
ONE									
FDOT_PO	10yr72hr	22.22	60.1833	7.50	5.47	11.7500	83.2	0.00	0.00
ND_4									
FENNEL_S	10yr72hr	55.04	60.7000	7.50	5.39	52.3800	83.1	5.00	5.00
E									
FENNEL_S	10yr72hr	84.63	60.8000	7.50	6.90	77.0900	96.3	0.30	0.30
LOUGH									
FIRE_STA	10yr72hr	7.68	60.0167	7.50	6.69	2.4100	93.4	59.60	59.60
TION									
HESS	10yr72hr	10.21	60.0167	7.50	6.82	3.1800	94.5	66.70	66.70
ICE_PALA	10yr72hr	17.08	60.0167	7.50	6.82	5.4500	94.5	67.40	67.40
CE									
JUSTICE_	10yr72hr	38.79	60.3167	7.50	5.96	24.2400	87.6	23.30	23.30
EAST									
JUSTICE_	10yr72hr	15.93	60.0500	7.50	6.49	5.7300	91.8	50.00	50.00
WEST									
KMART	10yr72hr	66.69	60.0167	7.50	6.84	20.7700	94.6	67.90	67.90
PARTIN_A	10yr72hr	2.89	60.1000	7.50	5.79	1.2300	85.8	0.00	0.00
ERO_N									
PARTIN_A	10yr72hr	8.42	60.2000	7.50	6.22	4.2600	89.7	0.00	0.00
ERO_S									
PARTIN_F	10yr72hr	6.54	60.1167	7.50	5.70	2.9300	85.1	0.00	0.00
ENNEL_N									
PARTIN_F	10yr72hr	15.47	60.5333	7.50	6.04	12.3300	88.6	20.10	20.10
ENNEL_S									
POST-1	10yr72hr	102.30	60.0167	7.50	6.76	31.2900	94.0	0.00	0.00
POST-1-SL	10yr72hr	58.22	60.0000	7.50	6.46	16.7500	91.3	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
-APTS									
POST-2-SL	10yr72hr	15.51	60.0000	7.50	6.42	4.4700	91.0	0.00	0.00
-APTS									
REMIGTON_GOLF	10yr72hr	13.63	60.3833	7.50	6.18	9.0200	89.5	1.20	1.20
REMINGTON_E	10yr72hr	174.09	60.1667	7.50	6.14	83.0500	88.9	20.00	20.00
REMINGTON_NE	10yr72hr	68.61	60.1000	7.50	6.26	28.1000	89.8	5.10	5.10
REMINGTON_NWE	10yr72hr	26.16	60.1833	7.50	5.91	13.2800	87.0	20.80	20.80
REMINGTON_NWN	10yr72hr	73.59	60.4000	7.50	5.88	51.7600	87.0	20.20	20.20
REMINGTON_NWW	10yr72hr	136.27	60.1167	7.50	6.01	60.0600	87.7	19.00	19.00
REMINGTON_P	10yr72hr	53.69	60.0667	7.50	5.91	20.6200	86.8	22.10	22.10
REMINGTON_POND	10yr72hr	29.35	60.3167	7.50	6.67	17.4900	93.7	2.90	2.90
REMINGTON_SW	10yr72hr	45.61	60.2167	7.50	5.60	25.4400	84.3	20.00	20.00
REMINGTON_W	10yr72hr	30.78	60.4833	7.50	5.83	24.0300	86.7	20.00	20.00
SE_ACADEMY	10yr72hr	34.02	60.5167	7.50	5.78	27.3500	86.3	10.00	10.00
SHADY_SW	10yr72hr	29.90	60.3500	7.50	6.43	19.0600	91.6	39.50	39.50
TAI_KWON_DO	10yr72hr	4.14	60.0167	7.50	6.82	1.2900	94.5	67.40	67.40
TPIKE_ACCESS	10yr72hr	27.98	60.1833	7.50	6.67	13.5700	93.5	41.70	41.70
TPIKE_FENNEL_NE	10yr72hr	22.85	60.7667	7.50	6.71	20.6300	94.7	11.00	11.00
TPIKE_FENNEL_S	10yr72hr	31.85	60.6333	7.50	6.62	26.2400	93.7	11.40	11.40
TPIKE_RAMP_N	10yr72hr	29.26	60.3000	7.50	6.24	17.4200	90.0	0.00	0.00
TPIKE_RAMP_S	10yr72hr	25.09	60.2667	7.50	6.36	14.2800	91.0	9.70	9.70
TRANS_FAILITY	10yr72hr	68.91	60.1667	7.50	6.39	33.1600	91.1	54.80	54.80
192-FENNEL_NE	50yr-24hr	22.22	12.5167	9.84	8.64	8.4700	91.4	6.80	6.80
192-FENNEL_SE	50yr-24hr	17.63	12.1000	9.84	8.98	3.6900	93.3	0.00	0.00
192_PART	50yr-24hr	18.22	12.2333	9.84	9.01	4.9700	93.9	28.10	28.10

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
IN_SE									
192_POND_4	50yr-24hr	86.03	12.1000	9.84	9.11	17.4900	94.3	25.40	25.40
192_TPIK_E_NW	50yr-24hr	36.31	12.1333	9.84	9.12	8.2000	94.5	67.90	67.90
ACADEMY_APTS	50yr-24hr	152.36	12.1167	9.84	8.73	34.4000	91.3	50.00	50.00
ACADEMY_NE	50yr-24hr	44.63	12.6667	9.84	7.42	21.5000	81.9	0.60	0.60
AERONAUTICAL_E	50yr-24hr	3.89	12.1833	9.84	8.21	1.0000	87.2	0.00	0.00
AERONAUTICAL_N	50yr-24hr	13.03	12.1667	9.84	8.55	3.2000	90.0	12.10	12.10
BORROW_PIT	50yr-24hr	86.57	12.0500	9.84	9.46	14.7400	97.1	0.20	0.20
COBBLESTONE	50yr-24hr	156.49	12.5000	9.84	8.73	59.3300	92.1	51.30	51.30
FDOT_POND_4	50yr-24hr	38.32	12.2667	9.84	7.69	11.7500	83.2	0.00	0.00
FENNEL_SE	50yr-24hr	96.82	12.8167	9.84	7.52	52.3800	83.1	5.00	5.00
FENNEL_SLOUGH	50yr-24hr	151.20	12.8833	9.84	9.12	77.0900	96.3	0.30	0.30
FIRE_STATION	50yr-24hr	13.64	12.0500	9.84	8.98	2.4100	93.2	59.60	59.60
HESS	50yr-24hr	18.12	12.0500	9.84	9.12	3.1800	94.3	66.70	66.70
ICE_PALACE	50yr-24hr	30.22	12.0500	9.84	9.12	5.4500	94.4	67.40	67.40
JUSTICE_EAST	50yr-24hr	67.69	12.4167	9.84	8.18	24.2400	87.4	23.30	23.30
JUSTICE_WEST	50yr-24hr	27.68	12.0833	9.84	8.77	5.7300	91.6	50.00	50.00
KMART	50yr-24hr	118.41	12.0500	9.84	9.14	20.7700	94.5	67.90	67.90
PARTIN_AERO_N	50yr-24hr	4.98	12.1500	9.84	8.04	1.2300	85.8	0.00	0.00
PARTIN_AERO_S	50yr-24hr	14.58	12.2667	9.84	8.50	4.2600	89.7	0.00	0.00
PARTIN_FENNEL_N	50yr-24hr	11.25	12.1667	9.84	7.95	2.9300	85.1	0.00	0.00
PARTIN_FENNEL_S	50yr-24hr	27.34	12.6667	9.84	8.25	12.3300	88.5	20.10	20.10
POST-1	50yr-24hr	181.67	12.0500	9.84	9.08	31.2900	94.0	0.00	0.00
POST-1-SL-APTS	50yr-24hr	106.63	12.0000	9.84	8.77	16.7500	91.3	0.00	0.00
POST-2-SL-APTS	50yr-24hr	28.40	12.0000	9.84	8.73	4.4700	91.0	0.00	0.00
REMIGTO	50yr-24hr	23.96	12.5000	9.84	8.42	9.0200	89.5	1.20	1.20

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
N_GOLF									
REMINGT ON_E	50yr-24hr	300.78	12.2167	9.84	8.40	83.0500	88.8	20.00	20.00
REMINGT ON_NE	50yr-24hr	118.46	12.1500	9.84	8.54	28.1000	89.8	5.10	5.10
REMINGT ON_NWE	50yr-24hr	45.19	12.2500	9.84	8.15	13.2800	86.9	20.80	20.80
REMINGT ON_NWN	50yr-24hr	129.28	12.5167	9.84	8.09	51.7600	86.9	20.20	20.20
REMINGT ON_NWW	50yr-24hr	234.83	12.1667	9.84	8.26	60.0600	87.6	19.00	19.00
REMINGT ON_P	50yr-24hr	92.89	12.1000	9.84	8.16	20.6200	86.7	22.10	22.10
REMINGT ON_POND G	50yr-24hr	51.51	12.4167	9.84	8.95	17.4900	93.7	2.90	2.90
REMINGT ON_SW	50yr-24hr	78.81	12.3000	9.84	7.80	25.4400	84.1	20.00	20.00
REMINGT ON_W	50yr-24hr	54.27	12.6167	9.84	8.02	24.0300	86.6	20.00	20.00
SE_ACADE MY	50yr-24hr	60.01	12.6500	9.84	7.97	27.3500	86.3	10.00	10.00
SHADY_S W	50yr-24hr	52.49	12.4500	9.84	8.67	19.0600	91.5	39.50	39.50
TAI_KWO N_DO	50yr-24hr	7.35	12.0500	9.84	9.12	1.2900	94.4	67.40	67.40
TPIKE_AC CESS	50yr-24hr	48.51	12.2500	9.84	8.96	13.5700	93.4	41.70	41.70
TPIKE_FE NNEL_NE	50yr-24hr	40.74	12.8667	9.84	8.92	20.6300	94.7	11.00	11.00
TPIKE_FE NNEL_S	50yr-24hr	56.69	12.7500	9.84	8.85	26.2400	93.7	11.40	11.40
TPIKE_RA MP_N	50yr-24hr	51.11	12.4000	9.84	8.50	17.4200	90.0	0.00	0.00
TPIKE_RA MP_S	50yr-24hr	43.75	12.3667	9.84	8.63	14.2800	91.0	9.70	9.70
TRANS_FA CILTY	50yr-24hr	119.14	12.2167	9.84	8.65	33.1600	90.8	54.80	54.80

## Node Max Conditions [Proposed]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
ACADEMY_AP_TS	100yr-24hr	65.97	66.29	0.0010	164.47	65.75	117956
AERONAUTIC_AL_E	100yr-24hr	61.00	60.86	0.0010	62.21	30.82	87124
AERONAUTIC_AL_W	100yr-24hr	61.40	60.86	0.0010	54.14	61.93	87122
BORROW_PIT	100yr-24hr	65.97	52.16	0.0002	92.95	0.00	463771
COBBLESTON_E	100yr-24hr	62.47	62.17	0.0010	168.87	39.06	294404
FDOT_POND_4	100yr-24hr	63.97	63.56	0.0009	129.43	55.04	99653
FENNEL_192P_SETS	100yr-24hr	62.00	60.68	0.0009	456.11	454.42	35658
FENNEL_192_DS	100yr-24hr	62.50	60.98	0.0010	457.19	455.12	21090
FENNEL_192_US	100yr-24hr	63.00	61.18	0.0010	328.86	319.46	99395
FENNEL_APT_S_DS	100yr-24hr	63.47	62.68	0.0010	128.66	130.03	30683
FENNEL_APT_S_US	100yr-24hr	63.47	62.90	0.0009	123.18	128.41	150390
FENNEL_P4	100yr-24hr	62.97	62.06	0.0007	215.11	216.11	111221
FENNEL_PSE_TFSHN	100yr-24hr	59.00	59.12	0.0010	511.96	507.89	136279
FENNEL_PSE_TFSHS	100yr-24hr	59.00	58.65	0.0010	541.62	540.97	64752
FENNEL_PSE_TL_DS	100yr-24hr	61.50	60.40	0.0014	511.97	511.71	15713
FENNEL_PSE_TL_US	100yr-24hr	62.00	60.60	0.0010	477.52	477.49	7771
FENNEL_SEA_CAD	100yr-24hr	63.47	62.91	0.0009	148.35	122.93	172780
FENNEL_TPIK_E_DS	100yr-24hr	63.47	62.91	0.0009	170.40	92.53	286161
FENNEL_TPIK_E_US	100yr-24hr	64.97	62.92	0.0009	92.55	67.37	142313
FENNEL_WET_LAND	100yr-24hr	64.97	65.18	0.0006	492.65	86.74	2767367
FIRE_STATION	100yr-24hr	67.97	66.22	0.0005	14.70	12.38	11820
FISH_LAKE	100yr-24hr	58.00	58.00	0.0004	540.97	0.00	0
HESS	100yr-24hr	66.47	65.98	0.0009	19.51	4.80	21898
ICE_RINK	100yr-24hr	65.97	66.23	0.0010	32.54	8.52	42294
JUSTICE_EAST	100yr-24hr	70.47	70.79	0.0010	73.30	20.15	128066
JUSTICE_WEST	100yr-24hr	68.97	68.28	0.0005	29.87	11.67	66660

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
ST							
KMART	100yr-24hr	67.97	68.43	0.0010	127.50	50.78	106862
POND-A	100yr-24hr	62.00	60.63	0.0026	195.32	36.18	223368
REM_EAST	100yr-24hr	66.97	66.28	0.0006	325.11	16.36	878320
REM_NE	100yr-24hr	68.47	68.54	0.0009	140.06	19.09	349351
REM_NORTH	100yr-24hr	64.47	65.19	0.0005	265.11	152.61	398397
REM_POND_2	100yr-24hr	64.97	65.19	0.0007	25.87	10.56	44409
REM_POND_2	100yr-24hr	65.97	65.46	0.0005	127.82	61.07	155596
3A							
REM_POND_G	100yr-24hr	64.97	65.19	0.0006	173.81	57.36	590740
REM_POND_P	100yr-24hr	75.97	75.57	0.0009	58.83	19.37	129047
REM_TRACT_1	100yr-24hr	76.97	76.41	0.0009	85.63	25.95	119203
SE_ACADEMY	100yr-24hr	62.97	64.07	0.0010	65.04	20.89	157252
SHADY_192	100yr-24hr	63.97	63.69	0.0010	141.15	124.17	56657
TAIKWON	100yr-24hr	61.00	60.88	0.0007	7.91	6.37	7628
TPIKE_ACCESS	100yr-24hr	63.97	63.80	0.0010	52.25	31.15	43576
TRANS_FACILITY	100yr-24hr	75.47	75.38	0.0005	128.73	41.42	229528
WETPOND-1	100yr-24hr	66.00	66.02	0.0010	114.82	23.88	107593
WETPOND-2	100yr-24hr	62.00	62.11	0.0009	30.59	14.58	34412
ACADEMY_AP_TS	100yr-72hr	65.97	65.66	0.0010	135.02	62.52	105738
AERONAUTIC_AL_E	100yr-72hr	61.00	60.63	0.0010	56.78	27.66	87124
AERONAUTIC_AL_W	100yr-72hr	61.40	60.63	0.0010	51.53	56.53	87122
BORROW_PIT	100yr-72hr	65.97	52.24	0.0002	72.90	0.00	464706
COBBLESTON_E	100yr-72hr	62.47	61.89	0.0009	135.90	35.80	288775
FDOT_POND_4	100yr-72hr	63.97	63.02	0.0009	107.38	47.74	88465
FENNEL_192SETS	100yr-72hr	62.00	60.44	0.0007	397.76	396.69	35018
FENNEL_192_DS	100yr-72hr	62.50	60.67	0.0010	390.24	388.86	20798
FENNEL_192_US	100yr-72hr	63.00	60.78	0.0010	278.51	275.48	87170
FENNEL_APT_S_DS	100yr-72hr	63.47	62.41	0.0010	114.80	116.01	27052
FENNEL_APT_S_US	100yr-72hr	63.47	62.58	0.0007	110.85	114.55	110132
FENNEL_P4	100yr-72hr	62.97	61.92	0.0007	189.96	189.91	102902
FENNEL_PSE	100yr-72hr	59.00	59.18	0.0010	445.68	443.09	137206

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
TFSHN							
FENNEL_PSE_TFSHS	100yr-72hr	59.00	58.85	0.0010	475.49	475.29	68428
FENNEL_PSE_TL_DS	100yr-72hr	61.50	60.21	0.0018	445.66	445.43	15713
FENNEL_PSE_TL_US	100yr-72hr	62.00	60.37	0.0010	416.21	416.20	7769
FENNEL_SEA_CAD	100yr-72hr	63.47	62.59	0.0007	123.05	110.60	149804
FENNEL_TPIK_E_DS	100yr-72hr	63.47	62.59	0.0007	134.62	76.65	254520
FENNEL_TPIK_E_US	100yr-72hr	64.97	62.60	0.0010	72.81	56.73	113724
FENNEL_WET_LAND	100yr-72hr	64.97	65.37	0.0005	432.51	86.74	2767367
FIRE_STATION	100yr-72hr	67.97	66.12	0.0006	11.69	9.63	11546
FISH_LAKE	100yr-72hr	58.00	58.00	0.0002	475.29	0.00	0
HESS	100yr-72hr	66.47	65.51	0.0010	15.48	4.10	19371
ICE_RINK	100yr-72hr	65.97	65.83	0.0010	25.91	6.15	31407
JUSTICE_EAST	100yr-72hr	70.47	70.93	0.0008	60.24	20.25	128066
JUSTICE_WEST	100yr-72hr	68.97	68.23	0.0004	24.37	10.63	63597
KMART	100yr-72hr	67.97	67.83	0.0010	101.13	48.79	68454
POND-A	100yr-72hr	62.00	60.40	0.0023	153.93	30.32	221229
REM_EAST	100yr-72hr	66.97	66.21	0.0006	267.99	13.48	862492
REM_NE	100yr-72hr	68.47	68.13	0.0010	114.51	17.12	349351
REM_NORTH	100yr-72hr	64.47	65.37	0.0004	223.16	144.92	424065
REM_POND_22	100yr-72hr	64.97	65.38	0.0007	20.86	8.26	48883
REM_POND_23A	100yr-72hr	65.97	65.38	0.0005	104.78	44.05	151161
REM_POND_G	100yr-72hr	64.97	65.37	0.0005	152.37	72.00	607572
REM_POND_P	100yr-72hr	75.97	75.16	0.0009	48.01	18.52	127803
REM_TRACT_1	100yr-72hr	76.97	76.27	0.0010	71.98	24.29	115379
SE_ACADEMY	100yr-72hr	62.97	63.55	0.0010	52.99	19.14	143409
SHADY_192	100yr-72hr	63.97	63.19	0.0010	123.80	105.84	56657
TAIKWON	100yr-72hr	61.00	60.72	0.0008	6.28	5.03	7349
TPIKE_ACCES_S	100yr-72hr	63.97	63.34	0.0010	42.42	26.59	43576
TRANS_FACILITY	100yr-72hr	75.47	75.06	0.0005	106.08	40.31	226456
WETPOND-1	100yr-72hr	66.00	66.03	0.0010	88.19	24.04	107593
WETPOND-2	100yr-72hr	62.00	62.02	0.0009	23.51	13.20	34412

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
ACADEMY_AP_TS	10yr-24hr	65.97	64.14	0.0010	74.18	20.05	90281
AERONAUTIC_AL_E	10yr-24hr	61.00	58.97	0.0010	8.57	8.78	42733
AERONAUTIC_AL_W	10yr-24hr	61.40	58.99	0.0006	9.53	6.54	43455
BORROW_PIT	10yr-24hr	65.97	51.54	0.0001	45.36	0.00	455916
COBBLESTONE	10yr-24hr	62.47	59.94	0.0008	76.65	14.22	249160
FDOT_POND_4	10yr-24hr	63.97	61.55	0.0006	58.45	22.61	75103
FENNEL_192P_SETS	10yr-24hr	62.00	58.95	0.0008	190.31	189.55	31475
FENNEL_192_DS	10yr-24hr	62.50	59.07	0.0009	188.24	187.65	13852
FENNEL_192_US	10yr-24hr	63.00	59.14	0.0009	127.51	127.71	9826
FENNEL_APT_S_DS	10yr-24hr	63.47	61.44	0.0010	64.82	65.05	14457
FENNEL_APT_S_US	10yr-24hr	63.47	61.50	0.0010	64.22	64.57	60105
FENNEL_P4	10yr-24hr	62.97	61.25	0.0009	90.95	91.02	47542
FENNEL_PSE_TFSHN	10yr-24hr	59.00	58.01	0.0010	213.95	270.65	118614
FENNEL_PSE_TFSHS	10yr-24hr	59.00	58.01	0.0010	222.48	221.47	64510
FENNEL_PSE_TL_DS	10yr-24hr	61.50	58.84	0.0018	213.89	213.70	15713
FENNEL_PSE_TL_US	10yr-24hr	62.00	58.89	0.0010	197.73	197.81	7539
FENNEL_SEA_CAD	10yr-24hr	63.47	61.51	0.0010	66.07	63.97	81908
FENNEL_TPIK_E_DS	10yr-24hr	63.47	61.51	0.0010	79.98	44.70	170986
FENNEL_TPIK_E_US	10yr-24hr	64.97	61.52	0.0010	42.79	32.16	46535
FENNEL_WET_LAND	10yr-24hr	64.97	63.42	0.0005	190.05	86.74	2337432
FIRE_STATION	10yr-24hr	67.97	65.77	0.0005	6.79	4.59	10545
FISH_LAKE	10yr-24hr	58.00	58.00	0.0005	221.47	0.00	0
HESS	10yr-24hr	66.47	64.44	0.0010	9.12	2.07	13773
ICE_RINK	10yr-24hr	65.97	64.66	0.0006	15.21	3.92	24610
JUSTICE_EAST	10yr-24hr	70.47	68.99	0.0010	31.49	1.52	84475
JUSTICE_WEST	10yr-24hr	68.97	67.40	0.0004	13.54	1.51	44697

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
KMART	10yr-24hr	67.97	66.55	0.0010	59.70	18.45	60909
POND-A	10yr-24hr	62.00	58.93	0.0023	93.05	14.07	208308
REM_EAST	10yr-24hr	66.97	64.41	0.0004	143.10	11.87	586319
REM_NE	10yr-24hr	68.47	66.26	0.0008	59.70	12.67	176671
REM_NORTH	10yr-24hr	64.47	63.43	0.0005	113.36	55.25	284470
REM_POND_22	10yr-24hr	64.97	63.42	0.0005	11.55	6.12	35161
REM_POND_23A	10yr-24hr	65.97	64.35	0.0004	57.55	26.33	125704
REM_POND_G	10yr-24hr	64.97	63.42	0.0005	67.73	18.18	517808
REM_POND_P	10yr-24hr	75.97	74.13	0.0005	24.91	9.85	124697
REM_TRACT_1	10yr-24hr	76.97	74.29	0.0008	35.09	8.10	97490
SE_ACADEMY	10yr-24hr	62.97	61.91	0.0009	27.48	11.79	90917
SHADY_192	10yr-24hr	63.97	61.81	0.0010	67.86	60.86	39856
TAIKWON	10yr-24hr	61.00	60.37	0.0006	3.70	1.56	6751
TPIKE_ACCES_S	10yr-24hr	63.97	61.88	0.0010	24.27	20.68	10507
TRANS_FACILITY	10yr-24hr	75.47	74.29	0.0004	57.57	14.52	219128
WETPOND-1	10yr-24hr	66.00	64.45	0.0006	53.29	2.43	98826
WETPOND-2	10yr-24hr	62.00	61.21	0.0006	14.15	1.28	28179
ACADEMY_AP_TS	10yr72hr	65.97	64.71	0.0009	88.11	43.12	96108
AERONAUTIC_AL_E	10yr72hr	61.00	59.62	0.0009	13.78	16.15	70567
AERONAUTIC_AL_W	10yr72hr	61.40	59.67	0.0007	15.94	11.96	72706
BORROW_PIT	10yr72hr	65.97	51.81	0.0001	48.72	0.00	459305
COBBLESTON_E	10yr72hr	62.47	60.78	0.0007	88.85	23.72	266148
FDOT_POND_4	10yr72hr	63.97	61.94	0.0008	70.24	29.17	75952
FENNEL_192P_SETS	10yr72hr	62.00	59.59	0.0007	256.52	255.51	33202
FENNEL_192_DS	10yr72hr	62.50	59.73	0.0010	257.20	256.27	17554
FENNEL_192_US	10yr72hr	63.00	59.81	0.0010	177.94	177.61	13857
FENNEL_APT_S_DS	10yr72hr	63.47	61.77	0.0010	82.24	82.65	18710
FENNEL_APT_S_US	10yr72hr	63.47	61.86	0.0009	80.85	81.99	77799
FENNEL_P4	10yr72hr	62.97	61.50	0.0009	122.09	122.20	55368
FENNEL_PSE_TFSHN	10yr72hr	59.00	58.63	0.0010	287.42	285.37	128781

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
FENNEL_PSE_TFSHS	10yr72hr	59.00	58.42	0.0010	305.91	305.77	66463
FENNEL_PSE_TL_DS	10yr72hr	61.50	59.46	0.0018	287.46	287.17	15713
FENNEL_PSE_TL_US	10yr72hr	62.00	59.53	0.0010	267.22	267.27	7676
FENNEL_SEA_CAD	10yr72hr	63.47	61.87	0.0009	81.55	80.60	94973
FENNEL_TPIK_E_DS	10yr72hr	63.47	61.87	0.0009	87.95	54.58	196623
FENNEL_TPIK_E_US	10yr72hr	64.97	61.88	0.0009	48.08	34.55	55542
FENNEL_WET_LAND	10yr72hr	64.97	64.34	0.0004	263.86	86.74	2713378
FIRE_STATION	10yr72hr	67.97	65.86	0.0005	7.68	5.37	10796
FISH_LAKE	10yr72hr	58.00	58.00	0.0002	305.77	6.35	0
HESS	10yr72hr	66.47	64.69	0.0010	10.21	2.56	15106
ICE_RINK	10yr72hr	65.97	65.02	0.0009	17.08	4.15	26714
JUSTICE_EAST	10yr72hr	70.47	70.16	0.0010	38.79	4.69	128066
JUSTICE_WEST	10yr72hr	68.97	67.86	0.0004	15.93	3.06	47285
KMART	10yr72hr	67.97	67.05	0.0010	66.69	26.67	63860
POND-A	10yr72hr	62.00	59.57	0.0023	102.30	14.85	213665
REM_EAST	10yr72hr	66.97	65.12	0.0005	174.09	13.41	629467
REM_NE	10yr72hr	68.47	67.08	0.0009	73.59	15.30	243555
REM_NORTH	10yr72hr	64.47	64.35	0.0004	143.70	85.87	297517
REM_POND_22	10yr72hr	64.97	64.35	0.0006	13.63	5.98	37577
REM_POND_23A	10yr72hr	65.97	64.55	0.0005	68.61	36.52	126592
REM_POND_G	10yr72hr	64.97	64.35	0.0004	98.90	41.42	540915
REM_POND_P	10yr72hr	75.97	74.35	0.0005	30.78	16.52	125351
REM_TRACT_1	10yr72hr	76.97	75.12	0.0008	45.61	14.76	102262
SE_ACADEMY	10yr72hr	62.97	62.43	0.0009	34.02	14.47	107042
SHADY_192	10yr72hr	63.97	62.18	0.0010	83.73	73.05	45076
TAIKWON	10yr72hr	61.00	60.45	0.0007	4.14	2.17	6879
TPIKE_ACCES_S	10yr72hr	63.97	62.27	0.0010	27.98	20.84	20652
TRANS_FACILITY	10yr72hr	75.47	74.53	0.0004	68.91	23.19	221393
WETPOND-1	10yr72hr	66.00	65.28	0.0007	58.22	5.01	103510
WETPOND-2	10yr72hr	62.00	61.64	0.0006	15.51	3.71	31597
ACADEMY_AP	50yr-24hr	65.97	65.97	0.0010	152.35	64.36	108866

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
TS							
AERONAUTIC_AL_E	50yr-24hr	61.00	60.64	0.0010	60.39	27.97	87124
AERONAUTIC_AL_W	50yr-24hr	61.40	60.64	0.0010	45.42	60.09	87122
BORROW_PIT	50yr-24hr	65.97	52.08	0.0002	86.57	0.00	462723
COBBLESTON_E	50yr-24hr	62.47	61.88	0.0008	156.49	35.80	288630
FDOT_POND_4	50yr-24hr	63.97	63.29	0.0009	119.94	51.77	94098
FENNEL_192P_SETS	50yr-24hr	62.00	60.50	0.0009	426.69	424.47	35144
FENNEL_192_DS	50yr-24hr	62.50	60.76	0.0010	430.75	426.44	20915
FENNEL_192_US	50yr-24hr	63.00	60.92	0.0010	305.85	298.12	91696
FENNEL_APT_S_DS	50yr-24hr	63.47	62.55	0.0010	122.63	123.90	28966
FENNEL_APT_S_US	50yr-24hr	63.47	62.75	0.0008	118.51	122.38	116384
FENNEL_P4	50yr-24hr	62.97	61.98	0.0007	204.56	204.70	106201
FENNEL_PSE_TFSHN	50yr-24hr	59.00	58.98	0.0010	476.37	472.31	134164
FENNEL_PSE_TFSHS	50yr-24hr	59.00	58.52	0.0010	503.53	502.86	64684
FENNEL_PSE_TL_DS	50yr-24hr	61.50	60.24	0.0018	476.37	476.12	15713
FENNEL_PSE_TL_US	50yr-24hr	62.00	60.42	0.0010	444.66	444.65	7771
FENNEL_SEA_CAD	50yr-24hr	63.47	62.76	0.0008	137.82	118.26	163947
FENNEL_TPIK_E_DS	50yr-24hr	63.47	62.76	0.0008	158.42	86.87	273302
FENNEL_TPIK_E_US	50yr-24hr	64.97	62.77	0.0009	85.91	63.13	129019
FENNEL_WET_LAND	50yr-24hr	64.97	64.99	0.0005	455.00	86.74	2767367
FIRE_STATION	50yr-24hr	67.97	66.18	0.0005	13.64	11.25	11708
FISH_LAKE	50yr-24hr	58.00	58.00	0.0004	502.86	0.00	0
HESS	50yr-24hr	66.47	65.80	0.0010	18.12	4.55	20899
ICE_RINK	50yr-24hr	65.97	66.08	0.0010	30.21	8.14	36467
JUSTICE_EAST	50yr-24hr	70.47	70.63	0.0010	67.69	18.11	128066
JUSTICE_WEST	50yr-24hr	68.97	68.20	0.0005	27.68	10.17	62222
KMART	50yr-24hr	67.97	68.22	0.0010	118.41	49.65	90126

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft <sup>2</sup> ]
POND-A	50yr-24hr	62.00	60.45	0.0023	181.67	32.62	221709
REM_EAST	50yr-24hr	66.97	66.05	0.0006	300.78	16.15	828799
REM_NE	50yr-24hr	68.47	68.28	0.0009	129.28	18.56	349351
REM_NORTH	50yr-24hr	64.47	64.99	0.0005	245.10	139.37	371198
REM_POND_22	50yr-24hr	64.97	64.99	0.0006	23.96	10.23	39739
REM_POND_23A	50yr-24hr	65.97	65.29	0.0006	118.46	60.12	146025
REM_POND_G	50yr-24hr	64.97	64.99	0.0005	159.65	50.38	572898
REM_POND_P	50yr-24hr	75.97	75.30	0.0009	54.27	19.37	128222
REM_TRACT_1	50yr-24hr	76.97	76.25	0.0009	78.81	18.66	114819
SE_ACADEMY	50yr-24hr	62.97	63.82	0.0010	60.01	20.09	152247
SHADY_192	50yr-24hr	63.97	63.56	0.0010	133.85	117.63	56657
TAIKWON	50yr-24hr	61.00	60.78	0.0007	7.35	5.81	7459
TPIKE_ACCES_S	50yr-24hr	63.97	63.68	0.0010	48.51	28.41	43576
TRANS_FACILITY	50yr-24hr	75.47	75.19	0.0005	119.14	41.42	227708
WETPOND-1	50yr-24hr	66.00	65.85	0.0010	106.63	19.71	106731
WETPOND-2	50yr-24hr	62.00	62.02	0.0009	28.40	13.18	34412

## Link Min/Max Conditions [Proposed]

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
C_FEN_192PS ETS1	100yr-24hr	454.42	-2.59	8.46	1.73	3.70	2.45
C_FEN_PSETF ISH1	100yr-24hr	511.71	-73.65	0.39	2.26	-4.41	-2.66
C_FEN_PSETF ISH2	100yr-24hr	507.89	0.00	-0.32	1.52	2.01	1.64
C_FEN_PSETF ISH3	100yr-24hr	540.97	0.00	-0.23	2.24	4.25	3.24
C_FEN_TP192 -1	100yr-24hr	92.53	0.00	-1.72	0.21	0.17	0.19
C_FEN_TP192 -2	100yr-24hr	122.93	0.00	-2.17	0.20	0.15	0.18
C_FEN_TP192 -3	100yr-24hr	216.11	0.00	-0.14	0.87	5.32	3.01
D-REM_EAST-G - Pipe	100yr-24hr	16.36	0.00	0.01	0.00	0.00	0.00
D-REM_EAST-G - Weir: 1	100yr-24hr	7.87	0.00	-0.01	3.94	3.94	3.94
D-REM_EAST-G - Weir: 2	100yr-24hr	12.23	0.00	0.01	2.07	2.07	2.07
DS-1 - Pipe	100yr-24hr	23.88	0.00	0.03	0.00	0.00	0.00
DS-1 - Weir: 1	100yr-24hr	0.41	0.00	0.00	0.00	0.00	0.00
DS-1 - Weir: 2	100yr-24hr	6.23	0.00	0.02	6.08	6.08	6.08
DS-1 - Weir: 3	100yr-24hr	19.60	0.00	0.02	2.70	2.70	2.70
DS-2 - Pipe	100yr-24hr	14.58	0.00	0.02	0.00	0.00	0.00
DS-2 - Weir: 1	100yr-24hr	0.30	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 2	100yr-24hr	1.97	0.00	0.01	4.74	4.74	4.74
DS-2 - Weir: 3	100yr-24hr	13.29	0.00	0.04	2.23	2.23	2.23
DS_HS-192FE N_DS - Pipe	100yr-24hr	4.80	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 1	100yr-24hr	0.44	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 2	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 3	100yr-24hr	4.49	0.00	0.00	4.95	4.95	4.95
D_ACADAPTS	100yr-24hr	65.75	0.00	0.37	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
-FENN - Pipe							
D_ACADAPTS	100yr-24hr	24.61	0.00	-0.01	6.49	6.49	6.49
-FENN - Weir: 1							
D_ACADAPTS	100yr-24hr	0.73	0.00	-0.01	8.32	8.32	8.32
-FENN - Weir: 2							
D_ACADAPTS	100yr-24hr	40.57	0.00	0.04	6.49	6.49	6.49
-FENN - Weir: 3							
D_COBELSTN	100yr-24hr	39.06	0.00	0.02	0.00	0.00	0.00
-FISH - Pipe							
D_COBELSTN	100yr-24hr	35.90	0.00	0.01	4.31	4.31	4.31
-FISH - Weir: 1							
D_COBELSTN	100yr-24hr	0.64	0.00	-0.01	4.71	4.71	4.71
-FISH - Weir: 2							
D_COBELSTN	100yr-24hr	5.78	0.00	-0.01	1.42	1.42	1.42
-FISH - Weir: 3							
D_FS_192FEN	100yr-24hr	12.38	0.00	0.01	0.00	0.00	0.00
DS - Pipe							
D_FS_192FEN	100yr-24hr	4.04	0.00	0.01	1.60	1.60	1.60
DS - Weir: 1							
D_FS_192FEN	100yr-24hr	8.34	0.00	0.00	4.17	4.17	4.17
DS - Weir: 2							
D_ICE-FENNE	100yr-24hr	8.52	0.00	0.01	0.00	0.00	0.00
L - Pipe							
D_ICE-FENNE	100yr-24hr	4.31	0.00	0.02	3.04	3.04	3.04
L - Weir: 1							
D_ICE-FENNE	100yr-24hr	0.28	0.00	0.00	0.00	0.00	0.00
L - Weir: 2							
D_ICE-FENNE	100yr-24hr	5.62	0.00	0.01	1.98	1.98	1.98
L - Weir: 3							
D JUSTICE_E	100yr-24hr	20.14	0.00	0.02	0.00	0.00	0.00
-FEN - Pipe							
D JUSTICE_E	100yr-24hr	1.56	0.00	0.00	8.02	8.02	8.02
-FEN - Weir: 1							
D JUSTICE_E	100yr-24hr	0.49	0.00	0.00	0.00	0.00	0.00
-FEN - Weir: 2							
D JUSTICE_E	100yr-24hr	19.35	0.00	0.02	3.27	3.27	3.27
-FEN - Weir: 3							
D JUSTICE_	100yr-24hr	11.67	0.00	0.01	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
W-FEN - Pipe							
D JUSTICE_ W-FEN - Weir: 1	100yr-24hr	2.45	0.00	0.00	4.90	4.90	4.90
D JUSTICE_ W-FEN - Weir: 2	100yr-24hr	9.64	0.00	0.01	2.28	2.28	2.28
D JUSTICE_ W-FEN - Weir: 3	100yr-24hr	0.32	0.00	0.00	0.00	0.00	0.00
D_KM-192FE N_DS - Pipe	100yr-24hr	50.78	0.00	0.46	0.00	0.00	0.00
D_KM-192FE N_DS - Weir: 1	100yr-24hr	27.28	0.00	0.51	4.83	4.83	4.83
D_KM-192FE N_DS - Weir: 2	100yr-24hr	0.63	0.00	0.01	7.17	7.17	7.17
D_KM-192FE N_DS - Weir: 3	100yr-24hr	24.26	0.00	0.42	4.10	4.10	4.10
D_P4-FEN - Pipe	100yr-24hr	55.04	0.00	4.10	0.00	0.00	0.00
D_P4-FEN - Weir: 1	100yr-24hr	25.04	0.00	-3.94	3.13	3.13	3.13
D_P4-FEN - Weir: 2	100yr-24hr	0.37	0.00	0.02	4.22	4.22	4.22
D_P4-FEN - Weir: 3	100yr-24hr	29.73	0.00	0.12	3.13	3.13	3.13
D_Rem_NE-R EM_N - Pipe	100yr-24hr	19.09	0.00	0.07	0.00	0.00	0.00
D_Rem_NE-R EM_N - Weir: 1	100yr-24hr	5.30	0.00	0.14	2.65	2.65	2.65
D_Rem_NE-R EM_N - Weir: 2	100yr-24hr	14.26	0.00	0.02	2.41	2.41	2.41
D_Rem_P-G - Pipe	100yr-24hr	19.37	0.00	-0.03	0.00	0.00	0.00
D_Rem_P-G - Weir: 1	100yr-24hr	9.28	0.00	0.04	4.64	4.64	4.64
D_Rem_P-G - Weir: 2	100yr-24hr	14.47	0.00	-0.02	2.45	2.45	2.45
D_Rem_P22-FEN - Pipe	100yr-24hr	10.56	0.00	0.16	0.00	0.00	0.00
D_Rem_P22-FEN - Weir: 1	100yr-24hr	4.82	0.00	0.32	2.41	2.41	2.41

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_Rem_P22-FEN - Weir: 2	100yr-24hr	7.89	0.00	0.01	1.34	1.34	1.34
D_Rem_P23-FEN - Pipe	100yr-24hr	61.07	0.00	0.04	0.00	0.00	0.00
D_Rem_P23-FEN - Weir: 1	100yr-24hr	49.57	0.00	0.03	5.95	5.95	5.95
D_Rem_P23-FEN - Weir: 2	100yr-24hr	11.75	0.00	-0.01	6.08	6.08	6.08
D_Rem_P23-FEN - Weir: 3	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Pipe	100yr-24hr	25.95	0.00	-2.77	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 1	100yr-24hr	19.00	0.00	-5.53	3.46	3.46	3.46
D_Rem_TRAC_T-G - Weir: 2	100yr-24hr	0.34	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 3	100yr-24hr	8.00	0.00	0.01	1.79	1.79	1.79
D_SEACAD-FENN - Pipe	100yr-24hr	20.89	0.00	0.09	0.00	0.00	0.00
D_SEACAD-FENN - Weir: 1	100yr-24hr	5.28	0.00	0.18	2.64	2.64	2.64
D_SEACAD-FENN - Weir: 2	100yr-24hr	15.61	0.00	-0.01	2.64	2.64	2.64
D_TAIKWN-AERO_W - Pipe	100yr-24hr	6.37	-0.54	-0.02	0.00	0.00	0.00
D_TAIKWN-AERO_W - Weir: 1	100yr-24hr	6.18	-0.51	0.02	2.66	2.66	2.66
D_TAIKWN-AERO_W - Weir: 2	100yr-24hr	0.28	-0.03	0.00	0.00	0.00	0.00
D_TAIKWN-AERO_W - Weir: 3	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_TRANS-FE_NNEL - Pipe	100yr-24hr	41.42	0.00	0.03	0.00	0.00	0.00
D_TRANS-FE_NNEL - Weir: 1	100yr-24hr	11.60	0.00	0.00	5.80	5.80	5.80
D_TRANS-FE_NNEL - Weir: 2	100yr-24hr	30.95	0.00	0.02	5.24	5.24	5.24
P_FEN-TPIKE-R10	100yr-24hr	67.37	0.00	-1.79	0.97	0.95	0.96
P_FEN_APTS-P4	100yr-24hr	130.03	-7.48	2.99	6.43	6.43	6.43

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
P_FEN_APT_US-DS	100yr-24hr	128.41	-3.53	10.34	2.52	2.52	2.52
P_SHADY192_FEN	100yr-24hr	119.93	0.00	0.05	7.74	8.22	7.98
P_TPAX_SHA DY	100yr-24hr	28.06	0.00	-0.08	2.41	2.41	2.41
Pond Notch	100yr-24hr	16.62	-0.39	0.97	3.63	3.63	3.63
R1	100yr-24hr	477.49	-16.32	14.64	4.34	4.34	4.34
R10	100yr-24hr	29.65	-21.56	0.20	4.72	4.72	4.72
R3	100yr-24hr	455.12	0.00	-6.36	5.69	5.69	5.69
R4	100yr-24hr	319.46	0.00	-7.92	3.99	3.99	3.99
R9	100yr-24hr	14.60	0.00	-0.58	2.32	2.32	2.32
W_BORROW-FENNEL	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_COBL_FISH	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN04-TPI KE	100yr-24hr	21.23	0.00	0.02	1.51	1.51	1.51
W_FENNEL_192	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN_TPIKE	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_G01-FEN	100yr-24hr	8.72	-40.47	-0.54	-4.41	-4.41	-4.41
W_Rem_G02-FEN	100yr-24hr	49.46	-16.19	11.23	2.37	2.37	2.37
W_Rem_G03-FEN	100yr-24hr	4.56	0.00	0.01	0.53	0.53	0.53
W_Rem_N01-FEN	100yr-24hr	52.08	-30.08	2.21	4.46	4.46	4.46
W_Rem_N02-FEN	100yr-24hr	102.31	0.00	11.95	3.38	3.38	3.38
W_Rem_N03-FEN	100yr-24hr	2.61	0.00	-0.02	0.48	0.48	0.48
W_SHADY_FENN	100yr-24hr	4.24	0.00	0.01	1.43	1.43	1.43
W_TPACCESS_FEN	100yr-24hr	11.81	0.00	0.02	1.55	1.55	1.55
pond-weir	100yr-24hr	26.55	-0.30	-0.16	2.02	2.02	2.02
pond-weir top	100yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
w_AERO_US_DS-R7	100yr-24hr	61.38	-1.37	-59.85	0.93	0.93	0.93
C_FEN_192PS ETS1	100yr-72hr	396.69	-2.60	23.34	1.60	3.70	2.45
C_FEN_PSETF ISH1	100yr-72hr	445.43	-73.65	2.13	2.06	-4.41	-2.66
C_FEN_PSETF	100yr-72hr	443.09	0.00	-2.31	1.31	2.01	1.64

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
ISH2							
C_FEN_PSETF	100yr-72hr	475.29	0.00	1.45	1.84	3.32	2.22
ISH3							
C_FEN_TP192 -1	100yr-72hr	76.65	0.00	7.01	0.20	0.16	0.18
C_FEN_TP192 -2	100yr-72hr	110.60	0.00	-6.01	0.18	0.14	0.16
C_FEN_TP192 -3	100yr-72hr	189.91	0.00	-0.16	0.85	5.48	3.12
D-REM_EAST-G - Pipe	100yr-72hr	13.48	0.00	0.00	0.00	0.00	0.00
D-REM_EAST-G - Weir: 1	100yr-72hr	6.01	0.00	0.00	3.01	3.01	3.01
D-REM_EAST-G - Weir: 2	100yr-72hr	10.07	0.00	0.01	1.70	1.70	1.70
DS-1 - Pipe	100yr-72hr	24.04	0.00	0.03	0.00	0.00	0.00
DS-1 - Weir: 1	100yr-72hr	0.41	0.00	0.00	0.00	0.00	0.00
DS-1 - Weir: 2	100yr-72hr	6.23	0.00	0.02	6.08	6.08	6.08
DS-1 - Weir: 3	100yr-72hr	19.87	0.00	0.02	2.70	2.70	2.70
DS-2 - Pipe	100yr-72hr	13.20	0.00	0.02	0.00	0.00	0.00
DS-2 - Weir: 1	100yr-72hr	0.30	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 2	100yr-72hr	1.97	0.00	0.01	4.72	4.72	4.72
DS-2 - Weir: 3	100yr-72hr	11.74	0.00	0.02	2.23	2.23	2.23
DS_HS-192FE N_DS - Pipe	100yr-72hr	4.10	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 1	100yr-72hr	0.43	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 2	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 3	100yr-72hr	3.78	0.00	0.00	4.80	4.80	4.80
D_ACADAPTS -FENN - Pipe	100yr-72hr	62.52	0.00	0.37	0.00	0.00	0.00
D_ACADAPTS -FENN - Weir: 1	100yr-72hr	24.33	0.00	0.01	6.42	6.42	6.42
D_ACADAPTS -FENN - Weir:	100yr-72hr	0.74	0.00	-0.01	8.44	8.44	8.44

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
2							
D_ACADAPTS -FENN - Weir: 3	100yr-72hr	38.58	0.00	-0.05	6.17	6.17	6.17
D_COBELSTN -FISH - Pipe	100yr-72hr	35.80	-0.21	0.02	0.00	0.00	0.00
D_COBELSTN -FISH - Weir: 1	100yr-72hr	35.17	0.00	0.01	4.22	4.22	4.22
D_COBELSTN -FISH - Weir: 2	100yr-72hr	0.64	-0.21	-0.01	4.71	4.71	4.71
D_COBELSTN -FISH - Weir: 3	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Pipe	100yr-72hr	9.63	0.00	0.01	0.00	0.00	0.00
D_FS_192FEN DS - Weir: 1	100yr-72hr	1.95	0.00	0.00	1.26	1.26	1.26
D_FS_192FEN DS - Weir: 2	100yr-72hr	7.68	0.00	0.00	3.84	3.84	3.84
D_ICE-FENNE L - Pipe	100yr-72hr	6.15	0.00	0.01	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 1	100yr-72hr	4.31	0.00	-0.02	3.04	3.04	3.04
D_ICE-FENNE L - Weir: 2	100yr-72hr	0.28	0.00	0.00	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 3	100yr-72hr	2.80	0.00	0.00	1.59	1.59	1.59
D_JUSTICE_E -FEN - Pipe	100yr-72hr	20.25	0.00	0.03	0.00	0.00	0.00
D_JUSTICE_E -FEN - Weir: 1	100yr-72hr	1.56	0.00	0.00	8.02	8.02	8.02
D_JUSTICE_E -FEN - Weir: 2	100yr-72hr	0.49	0.00	0.00	0.00	0.00	0.00
D_JUSTICE_E -FEN - Weir: 3	100yr-72hr	19.45	0.00	0.02	3.29	3.29	3.29
D_JUSTICE_W-FEN - Pipe	100yr-72hr	10.63	0.00	-0.01	0.00	0.00	0.00
D_JUSTICE_W-FEN - Weir: 1	100yr-72hr	2.45	0.00	0.00	4.90	4.90	4.90
D_JUSTICE_W-FEN -	100yr-72hr	8.24	0.00	-0.01	2.16	2.16	2.16

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
Weir: 2							
D_JUSTICE_W-FEN - Weir: 3	100yr-72hr	0.32	0.00	0.00	0.00	0.00	0.00
D_KM-192FE_N_DS - Pipe	100yr-72hr	48.78	0.00	-0.04	0.00	0.00	0.00
D_KM-192FE_N_DS - Weir: 1	100yr-72hr	27.29	0.00	0.02	4.83	4.83	4.83
D_KM-192FE_N_DS - Weir: 2	100yr-72hr	0.63	0.00	0.00	7.17	7.17	7.17
D_KM-192FE_N_DS - Weir: 3	100yr-72hr	24.08	0.00	-0.03	4.07	4.07	4.07
D_P4-FEN - Pipe	100yr-72hr	47.74	0.00	4.10	0.00	0.00	0.00
D_P4-FEN - Weir: 1	100yr-72hr	23.29	0.00	-3.96	2.91	2.91	2.91
D_P4-FEN - Weir: 2	100yr-72hr	0.37	0.00	0.02	4.21	4.21	4.21
D_P4-FEN - Weir: 3	100yr-72hr	25.79	0.00	0.12	2.71	2.71	2.71
D_Rem_NE-R_EM_N - Pipe	100yr-72hr	17.12	0.00	0.07	0.00	0.00	0.00
D_Rem_NE-R_EM_N - Weir: 1	100yr-72hr	5.30	0.00	0.14	2.65	2.65	2.65
D_Rem_NE-R_EM_N - Weir: 2	100yr-72hr	12.79	0.00	0.01	2.16	2.16	2.16
D_Rem_P-G - Pipe	100yr-72hr	18.52	0.00	-0.03	0.00	0.00	0.00
D_Rem_P-G - Weir: 1	100yr-72hr	9.15	0.00	0.04	4.58	4.58	4.58
D_Rem_P-G - Weir: 2	100yr-72hr	13.84	0.00	-0.03	2.34	2.34	2.34
D_Rem_P22-FEN - Pipe	100yr-72hr	8.26	0.00	0.22	0.00	0.00	0.00
D_Rem_P22-FEN - Weir: 1	100yr-72hr	2.09	0.00	0.47	1.39	1.39	1.39
D_Rem_P22-FEN - Weir: 2	100yr-72hr	6.17	0.00	-0.02	1.04	1.04	1.04
D_Rem_P23-FEN - Pipe	100yr-72hr	44.05	-0.16	-0.04	0.00	0.00	0.00
D_Rem_P23-FEN - Weir: 1	100yr-72hr	35.76	-0.08	-0.03	4.29	4.29	4.29

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_Rem_P23-FEN - Weir: 2	100yr-72hr	8.30	-0.07	-0.01	4.29	4.29	4.29
D_Rem_P23-FEN - Weir: 3	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Pipe	100yr-72hr	24.29	0.00	3.69	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 1	100yr-72hr	19.01	0.00	5.53	3.46	3.46	3.46
D_Rem_TRAC_T-G - Weir: 2	100yr-72hr	0.34	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 3	100yr-72hr	5.21	0.00	0.01	1.71	1.71	1.71
D_SEACAD-FENN - Pipe	100yr-72hr	19.14	0.00	0.04	0.00	0.00	0.00
D_SEACAD-FENN - Weir: 1	100yr-72hr	4.94	0.00	0.07	2.58	2.58	2.58
D_TAIKWN-AERO_W - Pipe	100yr-72hr	14.30	0.00	-0.01	2.42	2.42	2.42
D_TAIKWN-AERO_W - Weir: 1	100yr-72hr	5.03	0.00	-0.01	0.00	0.00	0.00
D_TAIKWN-AERO_W - Weir: 2	100yr-72hr	4.80	0.00	0.01	2.45	2.45	2.45
D_TAIKWN-AERO_W - Weir: 3	100yr-72hr	0.28	0.00	0.00	0.00	0.00	0.00
D_TRANS-FE_NNEL - Pipe	100yr-72hr	40.31	0.00	0.03	0.00	0.00	0.00
D_TRANS-FE_NNEL - Weir: 1	100yr-72hr	11.60	0.00	0.00	5.80	5.80	5.80
D_TRANS-FE_NNEL - Weir: 2	100yr-72hr	29.62	0.00	0.02	5.01	5.01	5.01
P_FEN-TPIKE-R10	100yr-72hr	56.73	0.00	-8.93	0.94	0.92	0.93
P_FEN_APts-P4	100yr-72hr	116.01	0.00	2.61	5.73	5.73	5.73
P_FEN_APt_US-DS	100yr-72hr	114.55	0.00	11.20	2.25	2.25	2.25
P_SHADY192_FEN	100yr-72hr	105.84	0.00	0.05	6.83	7.51	7.16
P_TPAX_SHA_DY	100yr-72hr	26.59	0.00	-0.08	2.29	2.29	2.29

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
Pond Notch	100yr-72hr	15.13	-5.61	-1.43	3.31	3.31	3.31
R1	100yr-72hr	416.20	-16.32	36.95	3.78	3.78	3.78
R10	100yr-72hr	27.66	-16.84	0.26	4.40	4.40	4.40
R3	100yr-72hr	388.86	0.00	-16.76	4.86	4.86	4.86
R4	100yr-72hr	275.48	0.00	14.51	3.62	3.45	3.54
R9	100yr-72hr	14.19	0.00	-0.66	2.26	2.26	2.26
W_BORROW-FENNEL	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_COBL_FISH	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FENO4-TPIKE	100yr-72hr	52.52	0.00	0.04	2.05	2.05	2.05
W_FENNEL_192	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN_TPIKE	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_G01-FEN	100yr-72hr	4.22	-40.47	-0.39	-4.41	-4.41	-4.41
W_Rem_G02-FEN	100yr-72hr	67.78	-16.19	11.56	1.62	1.62	1.62
W_Rem_G03-FEN	100yr-72hr	8.40	0.00	0.01	0.84	0.84	0.84
W_Rem_N01-FEN	100yr-72hr	35.75	-30.08	4.06	-3.07	-3.07	-3.07
W_Rem_N02-FEN	100yr-72hr	109.41	0.00	15.92	2.74	2.74	2.74
W_Rem_N03-FEN	100yr-72hr	3.12	0.00	-0.03	0.79	0.79	0.79
W_SHADY_FEN	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_TPACCESS_FEN	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
pond-weir	100yr-72hr	21.61	0.00	-0.18	1.95	1.95	1.95
pond-weir top	100yr-72hr	0.00	0.00	0.00	0.00	0.00	0.00
w_AERO_US_DS-R7	100yr-72hr	55.82	0.00	-52.57	0.92	0.92	0.92
C_FEN_192PS_ETS1	10yr-24hr	189.55	-2.60	-18.50	1.20	3.70	2.45
C_FEN_PSETF_ISH1	10yr-24hr	213.70	-73.65	-0.55	1.52	-4.41	-2.66
C_FEN_PSETF_ISH2	10yr-24hr	212.98	0.00	-0.24	1.27	2.01	1.64
C_FEN_PSETF_ISH3	10yr-24hr	221.47	0.00	-0.14	1.46	3.32	2.22
C_FEN_TP192-1	10yr-24hr	44.70	0.00	7.50	0.20	0.16	0.18
C_FEN_TP192	10yr-24hr	63.97	0.00	-4.21	0.16	0.12	0.14

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
-2							
C_FEN_TP192	10yr-24hr	91.02	0.00	0.10	0.87	5.70	3.24
-3							
D-REM_EAST-G - Pipe	10yr-24hr	11.87	0.00	0.02	0.00	0.00	0.00
D-REM_EAST-G - Weir: 1	10yr-24hr	7.96	0.00	-0.01	3.98	3.98	3.98
D-REM_EAST-G - Weir: 2	10yr-24hr	7.30	0.00	0.01	1.86	1.86	1.86
DS-1 - Pipe	10yr-24hr	2.43	0.00	0.00	0.00	0.00	0.00
DS-1 - Weir: 1	10yr-24hr	0.32	0.00	0.00	0.00	0.00	0.00
DS-1 - Weir: 2	10yr-24hr	2.11	0.00	0.00	3.51	3.51	3.51
DS-1 - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
DS-2 - Pipe	10yr-24hr	1.28	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 1	10yr-24hr	0.28	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 2	10yr-24hr	1.00	0.00	0.00	3.13	3.13	3.13
DS-2 - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Pipe	10yr-24hr	2.07	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 1	10yr-24hr	0.42	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 2	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 3	10yr-24hr	1.71	0.00	0.00	3.74	3.74	3.74
D_ACADAPTS -FENN - Pipe	10yr-24hr	20.05	0.00	0.37	0.00	0.00	0.00
D_ACADAPTS -FENN - Weir: 1	10yr-24hr	17.69	0.00	0.01	4.66	4.66	4.66
D_ACADAPTS -FENN - Weir: 2	10yr-24hr	0.72	0.00	-0.01	8.21	8.21	8.21
D_ACADAPTS -FENN - Weir: 3	10yr-24hr	1.67	0.00	0.01	1.19	1.19	1.19
D_COBELSTN -FISH - Pipe	10yr-24hr	14.22	0.00	0.01	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_COBELSTN -FISH - Weir: 1	10yr-24hr	13.60	0.00	0.01	3.46	3.46	3.46
D_COBELSTN -FISH - Weir: 2	10yr-24hr	0.61	0.00	-0.01	4.50	4.50	4.50
D_COBELSTN -FISH - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Pipe	10yr-24hr	4.59	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Weir: 1	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Weir: 2	10yr-24hr	4.59	0.00	0.00	2.86	2.86	2.86
D_ICE-FENNE L - Pipe	10yr-24hr	3.92	0.00	-0.01	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 1	10yr-24hr	3.79	0.00	-0.01	2.80	2.80	2.80
D_ICE-FENNE L - Weir: 2	10yr-24hr	0.28	0.00	0.00	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D JUSTICE_E -FEN - Pipe	10yr-24hr	1.52	0.00	0.00	0.00	0.00	0.00
D JUSTICE_E -FEN - Weir: 1	10yr-24hr	1.09	0.00	0.00	5.60	5.60	5.60
D JUSTICE_E -FEN - Weir: 2	10yr-24hr	0.44	0.00	0.00	0.00	0.00	0.00
D JUSTICE_E -FEN - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D JUSTICE_W-FEN - Pipe	10yr-24hr	1.51	0.00	0.00	0.00	0.00	0.00
D JUSTICE_W-FEN - Weir: 1	10yr-24hr	1.24	0.00	0.00	2.48	2.48	2.48
D JUSTICE_W-FEN - Weir: 2	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D JUSTICE_W-FEN - Weir: 3	10yr-24hr	0.27	0.00	0.00	0.00	0.00	0.00
D_KM-192FE N_DS - Pipe	10yr-24hr	18.45	0.00	0.02	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_KM-192FE N_DS - Weir: 1	10yr-24hr	17.82	0.00	0.01	4.33	4.33	4.33
D_KM-192FE N_DS - Weir: 2	10yr-24hr	0.63	0.00	0.00	7.17	7.17	7.17
D_KM-192FE N_DS - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_P4-FEN - Pipe	10yr-24hr	22.61	0.00	4.10	0.00	0.00	0.00
D_P4-FEN - Weir: 1	10yr-24hr	22.30	0.00	-0.01	3.24	3.24	3.24
D_P4-FEN - Weir: 2	10yr-24hr	0.37	0.00	-0.01	4.25	4.25	4.25
D_P4-FEN - Weir: 3	10yr-24hr	0.47	0.00	0.00	0.73	0.73	0.73
D_Rem_NE-R EM_N - Pipe	10yr-24hr	12.67	0.00	0.07	0.00	0.00	0.00
D_Rem_NE-R EM_N - Weir: 1	10yr-24hr	5.30	0.00	0.13	2.65	2.65	2.65
D_Rem_NE-R EM_N - Weir: 2	10yr-24hr	9.47	0.00	0.01	1.60	1.60	1.60
D_Rem_P-G - Pipe	10yr-24hr	9.85	0.00	0.01	0.00	0.00	0.00
D_Rem_P-G - Weir: 1	10yr-24hr	7.75	0.00	0.00	3.87	3.87	3.87
D_Rem_P-G - Weir: 2	10yr-24hr	2.11	0.00	0.00	1.29	1.29	1.29
D_Rem_P22-FEN - Pipe	10yr-24hr	6.12	0.00	0.23	0.00	0.00	0.00
D_Rem_P22-FEN - Weir: 1	10yr-24hr	5.46	0.00	0.47	2.73	2.73	2.73
D_Rem_P22-FEN - Weir: 2	10yr-24hr	1.73	0.00	-0.01	1.21	1.21	1.21
D_Rem_P23-FEN - Pipe	10yr-24hr	26.33	0.00	0.03	0.00	0.00	0.00
D_Rem_P23-FEN - Weir: 1	10yr-24hr	17.12	0.00	0.02	2.43	2.43	2.43
D_Rem_P23-FEN - Weir: 2	10yr-24hr	9.20	0.00	0.00	4.76	4.76	4.76
D_Rem_P23-FEN - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_Rem_Trac_T-G - Pipe	10yr-24hr	8.10	0.00	0.01	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_Rem_Trac T-G - Weir: 1	10yr-24hr	7.77	0.00	0.01	2.98	2.98	2.98
D_Rem_Trac T-G - Weir: 2	10yr-24hr	0.33	0.00	0.00	0.00	0.00	0.00
D_Rem_Trac T-G - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_SEACAD-F ENN - Pipe	10yr-24hr	11.79	0.00	0.26	0.00	0.00	0.00
D_SEACAD-F ENN - Weir: 1	10yr-24hr	4.91	0.00	0.51	2.61	2.61	2.61
D_SEACAD-F ENN - Weir: 2	10yr-24hr	8.81	0.00	0.01	1.49	1.49	1.49
D_TAIKWN-A ERO_W - Pipe	10yr-24hr	1.56	0.00	0.00	0.00	0.00	0.00
D_TAIKWN-A ERO_W - Weir: 1	10yr-24hr	1.29	0.00	0.00	1.58	1.58	1.58
D_TAIKWN-A ERO_W - Weir: 2	10yr-24hr	0.28	0.00	0.00	0.00	0.00	0.00
D_TAIKWN-A ERO_W - Weir: 3	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_TRANS-FE NNEL - Pipe	10yr-24hr	14.52	0.00	0.01	0.00	0.00	0.00
D_TRANS-FE NNEL - Weir: 1	10yr-24hr	8.72	0.00	0.00	4.36	4.36	4.36
D_TRANS-FE NNEL - Weir: 2	10yr-24hr	5.80	0.00	0.01	1.81	1.81	1.81
P_FEN-TPIKE-R10	10yr-24hr	32.16	0.00	-5.08	0.81	0.78	0.80
P_FEN_APTS-P4	10yr-24hr	65.05	0.00	2.66	3.21	3.21	3.21
P_FEN_APT_US-DS	10yr-24hr	64.57	0.00	10.01	1.27	1.27	1.27
P_SHADY192_FEN	10yr-24hr	60.86	0.00	-0.04	4.55	8.22	6.38
P_TPAX_SHA-DY	10yr-24hr	20.68	0.00	-0.08	2.80	1.78	2.29
Pond Notch	10yr-24hr	14.07	-2.05	1.34	3.07	3.07	3.07
R1	10yr-24hr	197.81	-16.32	37.68	2.42	-2.85	2.38
R10	10yr-24hr	8.78	-4.97	-0.09	2.03	3.33	2.49
R3	10yr-24hr	187.65	0.00	-0.86	3.46	3.59	3.52
R4	10yr-24hr	127.71	0.00	-0.15	3.03	2.73	2.88
R9	10yr-24hr	6.54	0.00	0.03	2.12	2.41	2.16

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
W_BORROW-FENNEL	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_COBL_FISH	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FENO4-TPIKE	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FENNEL_192	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN_TPIKE	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_G01-FEN	10yr-24hr	6.08	-40.47	0.29	-4.41	-4.41	-4.41
W_Rem_G02-FEN	10yr-24hr	12.47	-16.19	-0.09	1.57	1.57	1.57
W_Rem_G03-FEN	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_N01-FEN	10yr-24hr	38.86	-30.08	-0.03	3.33	3.33	3.33
W_Rem_N02-FEN	10yr-24hr	18.81	0.00	-0.02	2.11	2.11	2.11
W_Rem_N03-FEN	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_SHADY_FENN	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_TPACCESS_FEN	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
pond-weir	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
pond-weir top	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
w_AERO_US_DS-R7	10yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
C_FEN_192SETS1	10yr72hr	255.51	-2.60	23.67	1.29	3.70	2.45
C_FEN_PSETFISH1	10yr72hr	287.17	-73.65	2.05	1.64	-4.41	-2.66
C_FEN_PSETFISH2	10yr72hr	285.37	-3.77	2.79	1.27	2.01	1.64
C_FEN_PSETFISH3	10yr72hr	305.77	-6.35	-2.11	1.36	3.32	2.22
C_FEN_TP192-1	10yr72hr	54.58	0.00	-4.63	0.15	0.12	0.13
C_FEN_TP192-2	10yr72hr	80.60	0.00	5.12	0.17	0.13	0.15
C_FEN_TP192-3	10yr72hr	122.20	0.00	0.12	0.86	4.46	2.61
D-REM_EAST-G - Pipe	10yr72hr	13.41	0.00	0.01	0.00	0.00	0.00
D-REM_EAST-	10yr72hr	6.93	0.00	0.00	3.47	3.47	3.47

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
G - Weir: 1							
D-REM_EAST-G - Weir: 2	10yr72hr	10.02	0.00	0.01	1.74	1.74	1.74
DS-1 - Pipe	10yr72hr	5.01	0.00	0.00	0.00	0.00	0.00
DS-1 - Weir: 1	10yr72hr	0.38	0.00	0.00	0.00	0.00	0.00
DS-1 - Weir: 2	10yr72hr	4.62	0.00	0.00	4.56	4.56	4.56
DS-1 - Weir: 3	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
DS-2 - Pipe	10yr72hr	3.71	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 1	10yr72hr	0.30	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 2	10yr72hr	1.71	0.00	0.00	4.10	4.10	4.10
DS-2 - Weir: 3	10yr72hr	1.72	0.00	0.00	1.20	1.20	1.20
DS_HS-192FE_N_DS - Pipe	10yr72hr	2.56	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE_N_DS - Weir: 1	10yr72hr	0.42	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE_N_DS - Weir: 2	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE_N_DS - Weir: 3	10yr72hr	2.21	0.00	0.00	4.08	4.08	4.08
D_ACADAPTS -FENN - Pipe	10yr72hr	43.12	0.00	0.37	0.00	0.00	0.00
D_ACADAPTS -FENN - Weir: 1	10yr72hr	22.98	0.00	0.01	6.06	6.06	6.06
D_ACADAPTS -FENN - Weir: 2	10yr72hr	0.74	0.00	-0.01	8.51	8.51	8.51
D_ACADAPTS -FENN - Weir: 3	10yr72hr	19.52	0.00	0.02	2.70	2.70	2.70
D_COBELSTN -FISH - Pipe	10yr72hr	23.72	-0.38	0.01	0.00	0.00	0.00
D_COBELSTN -FISH - Weir: 1	10yr72hr	23.08	0.00	0.01	3.84	3.84	3.84
D_COBELSTN -FISH - Weir: 2	10yr72hr	0.64	-0.38	-0.01	4.68	4.68	4.68

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_COBELSTN -FISH - Weir: 3	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Pipe	10yr72hr	5.37	0.00	-0.01	0.00	0.00	0.00
D_FS_192FEN DS - Weir: 1	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Weir: 2	10yr72hr	5.37	0.00	0.00	3.02	3.02	3.02
D_ICE-FENNE L - Pipe	10yr72hr	4.15	0.00	-0.01	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 1	10yr72hr	4.01	0.00	-0.01	2.83	2.83	2.83
D_ICE-FENNE L - Weir: 2	10yr72hr	0.28	0.00	0.00	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 3	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
D JUSTICE_E -FEN - Pipe	10yr72hr	4.69	0.00	0.01	0.00	0.00	0.00
D JUSTICE_E -FEN - Weir: 1	10yr72hr	1.49	0.00	0.00	7.65	7.65	7.65
D JUSTICE_E -FEN - Weir: 2	10yr72hr	0.49	0.00	0.00	0.00	0.00	0.00
D JUSTICE_E -FEN - Weir: 3	10yr72hr	2.73	0.00	0.00	1.41	1.41	1.41
D JUSTICE_W-FEN - Pipe	10yr72hr	3.06	0.00	0.00	0.00	0.00	0.00
D JUSTICE_W-FEN - Weir: 1	10yr72hr	2.04	0.00	0.00	4.09	4.09	4.09
D JUSTICE_W-FEN - Weir: 2	10yr72hr	0.70	0.00	0.00	0.95	0.95	0.95
D JUSTICE_W-FEN - Weir: 3	10yr72hr	0.31	0.00	0.00	0.00	0.00	0.00
D_KM-192FE N_DS - Pipe	10yr72hr	26.67	0.00	0.02	0.00	0.00	0.00
D_KM-192FE N_DS - Weir: 1	10yr72hr	25.31	0.00	0.01	4.82	4.82	4.82
D_KM-192FE N_DS - Weir: 2	10yr72hr	0.63	0.00	0.00	7.17	7.17	7.17

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_KM-192FE N_DS - Weir: 3	10yr72hr	0.75	0.00	0.00	0.91	0.91	0.91
D_P4-FEN - Pipe	10yr72hr	29.15	0.00	4.10	0.00	0.00	0.00
D_P4-FEN - Weir: 1	10yr72hr	23.71	0.00	-3.64	2.96	2.96	2.96
D_P4-FEN - Weir: 2	10yr72hr	0.37	0.00	0.02	4.21	4.21	4.21
D_P4-FEN - Weir: 3	10yr72hr	9.58	0.00	0.23	1.88	1.88	1.88
D_Rem_NE-R EM_N - Pipe	10yr72hr	15.30	0.00	0.07	0.00	0.00	0.00
D_Rem_NE-R EM_N - Weir: 1	10yr72hr	5.30	0.00	0.14	2.65	2.65	2.65
D_Rem_NE-R EM_N - Weir: 2	10yr72hr	11.43	0.00	0.01	1.93	1.93	1.93
D_Rem_P-G - Pipe	10yr72hr	16.52	0.00	0.02	0.00	0.00	0.00
D_Rem_P-G - Weir: 1	10yr72hr	9.03	0.00	0.00	4.51	4.51	4.51
D_Rem_P-G - Weir: 2	10yr72hr	7.49	0.00	0.01	1.97	1.97	1.97
D_Rem_P22-FEN - Pipe	10yr72hr	5.98	0.00	0.14	0.00	0.00	0.00
D_Rem_P22-FEN - Weir: 1	10yr72hr	2.69	0.00	0.28	1.35	1.35	1.35
D_Rem_P22-FEN - Weir: 2	10yr72hr	4.28	0.00	0.01	0.97	0.97	0.97
D_Rem_P23-FEN - Pipe	10yr72hr	36.52	-0.01	0.03	0.00	0.00	0.00
D_Rem_P23-FEN - Weir: 1	10yr72hr	26.60	0.00	0.02	2.82	2.82	2.82
D_Rem_P23-FEN - Weir: 2	10yr72hr	10.07	-0.01	0.04	5.21	5.21	5.21
D_Rem_P23-FEN - Weir: 3	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Pipe	10yr72hr	14.76	0.00	-0.02	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 1	10yr72hr	14.60	0.00	0.02	3.46	3.46	3.46
D_Rem_TRAC_T-G - Weir: 2	10yr72hr	0.34	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 3	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_SEACAD-F ENN - Pipe	10yr72hr	14.47	0.00	0.22	0.00	0.00	0.00
D_SEACAD-F ENN - Weir: 1	10yr72hr	5.04	0.00	0.42	2.62	2.62	2.62
D_SEACAD-F ENN - Weir: 2	10yr72hr	10.81	0.00	0.01	1.83	1.83	1.83
D_TAIKWN-A ERO_W - Pipe	10yr72hr	2.17	0.00	0.01	0.00	0.00	0.00
D_TAIKWN-A ERO_W - Weir: 1	10yr72hr	1.91	0.00	0.00	1.80	1.80	1.80
D_TAIKWN-A ERO_W - Weir: 2	10yr72hr	0.28	0.00	0.00	0.00	0.00	0.00
D_TAIKWN-A ERO_W - Weir: 3	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
D_TRANS-FE NNEL - Pipe	10yr72hr	23.19	0.00	0.02	0.00	0.00	0.00
D_TRANS-FE NNEL - Weir: 1	10yr72hr	9.89	0.00	0.00	4.95	4.95	4.95
D_TRANS-FE NNEL - Weir: 2	10yr72hr	13.29	0.00	0.01	2.39	2.39	2.39
P_FEN-TPIKE-R10	10yr72hr	34.55	0.00	-5.80	0.63	0.61	0.62
P_FEN_APTS-P4	10yr72hr	82.65	-4.57	2.71	4.08	4.08	4.08
P_FEN_APT_US-DS	10yr72hr	81.99	-1.20	10.49	1.61	1.61	1.61
P_SHADY192_FEN	10yr72hr	73.05	0.00	0.05	4.91	7.68	5.95
P_TPAX_SHA_DY	10yr72hr	20.84	0.00	-0.08	2.62	1.79	2.03
Pond Notch	10yr72hr	14.85	-5.77	1.35	3.24	3.24	3.24
R1	10yr72hr	267.27	-16.32	43.71	2.79	-2.85	2.76
R10	10yr72hr	16.15	-10.90	0.15	2.59	2.80	2.69
R3	10yr72hr	256.27	0.00	-17.04	3.80	3.94	3.87
R4	10yr72hr	177.61	0.00	13.99	3.14	2.92	3.03
R9	10yr72hr	11.96	-0.94	0.03	1.93	-2.05	1.92
W_BORROW-FENNEL	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_COBL_FISH	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN04-TPIKE	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
W_FENNEL_192	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN_TPIKE	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_G01-FEN	10yr72hr	3.52	-40.47	0.24	-4.41	-4.41	-4.41
W_Rem_G02-FEN	10yr72hr	37.90	-16.19	-0.33	1.40	1.40	1.40
W_Rem_G03-FEN	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_N01-FEN	10yr72hr	31.73	-30.08	3.53	-3.07	-3.07	-3.07
W_Rem_N02-FEN	10yr72hr	54.59	0.00	14.82	2.35	2.35	2.35
W_Rem_N03-FEN	10yr72hr	0.80	0.00	-0.02	0.16	0.16	0.16
W_SHADY_FENN	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
W_TPACCESS_FEN	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
pond-weir	10yr72hr	3.19	0.00	0.01	1.40	1.40	1.40
pond-weir top	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
w_AERO_US_DS-R7	10yr72hr	0.00	0.00	0.00	0.00	0.00	0.00
C_FEN_192PS_ETS1	50yr-24hr	424.47	-2.60	8.83	1.69	3.70	2.45
C_FEN_PSETF_ISH1	50yr-24hr	476.12	-73.65	-0.55	2.19	-4.41	-2.66
C_FEN_PSETF_ISH2	50yr-24hr	472.31	0.00	-0.33	1.48	2.01	1.64
C_FEN_PSETF_ISH3	50yr-24hr	502.86	0.00	0.22	2.17	3.94	3.05
C_FEN_TP192-1	50yr-24hr	86.87	0.00	1.65	0.20	0.16	0.18
C_FEN_TP192-2	50yr-24hr	118.26	0.00	2.11	0.19	0.15	0.17
C_FEN_TP192-3	50yr-24hr	204.70	0.00	-0.15	0.87	5.34	3.03
D-REM_EAST-G - Pipe	50yr-24hr	16.15	0.00	0.02	0.00	0.00	0.00
D-REM_EAST-G - Weir: 1	50yr-24hr	7.91	0.00	-0.01	3.96	3.96	3.96
D-REM_EAST-G - Weir: 2	50yr-24hr	12.07	0.00	0.01	2.04	2.04	2.04
DS-1 - Pipe	50yr-24hr	19.71	0.00	0.02	0.00	0.00	0.00
DS-1 - Weir: 1	50yr-24hr	0.41	0.00	0.00	0.00	0.00	0.00

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
DS-1 - Weir: 2	50yr-24hr	6.19	0.00	0.00	6.03	6.03	6.03
DS-1 - Weir: 3	50yr-24hr	13.19	0.00	0.01	2.37	2.37	2.37
DS-2 - Pipe	50yr-24hr	13.18	0.00	0.02	0.00	0.00	0.00
DS-2 - Weir: 1	50yr-24hr	0.30	0.00	0.00	0.00	0.00	0.00
DS-2 - Weir: 2	50yr-24hr	1.96	0.00	0.01	4.70	4.70	4.70
DS-2 - Weir: 3	50yr-24hr	11.71	0.00	0.01	2.23	2.23	2.23
DS_HS-192FE N_DS - Pipe	50yr-24hr	4.55	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 1	50yr-24hr	0.44	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 2	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
DS_HS-192FE N_DS - Weir: 3	50yr-24hr	4.24	0.00	0.00	4.89	4.89	4.89
D_ACADAPTS -FENN - Pipe	50yr-24hr	64.36	0.00	0.37	0.00	0.00	0.00
D_ACADAPTS -FENN - Weir: 1	50yr-24hr	24.23	0.00	0.01	6.39	6.39	6.39
D_ACADAPTS -FENN - Weir: 2	50yr-24hr	0.73	0.00	-0.01	8.38	8.38	8.38
D_ACADAPTS -FENN - Weir: 3	50yr-24hr	39.71	0.00	-0.04	6.35	6.35	6.35
D_COBELSTN -FISH - Pipe	50yr-24hr	35.80	0.00	0.01	0.00	0.00	0.00
D_COBELSTN -FISH - Weir: 1	50yr-24hr	35.18	0.00	0.01	4.22	4.22	4.22
D_COBELSTN -FISH - Weir: 2	50yr-24hr	0.64	0.00	-0.01	4.71	4.71	4.71
D_COBELSTN -FISH - Weir: 3	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_FS_192FEN DS - Pipe	50yr-24hr	11.25	0.00	0.01	0.00	0.00	0.00
D_FS_192FEN	50yr-24hr	3.13	0.00	0.01	1.47	1.47	1.47

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
DS - Weir: 1							
D_FS_192FEN	50yr-24hr	8.12	0.00	0.00	4.06	4.06	4.06
DS - Weir: 2							
D_ICE-FENNE L - Pipe	50yr-24hr	8.14	0.00	0.01	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 1	50yr-24hr	4.31	0.00	0.02	3.04	3.04	3.04
D_ICE-FENNE L - Weir: 2	50yr-24hr	0.28	0.00	0.00	0.00	0.00	0.00
D_ICE-FENNE L - Weir: 3	50yr-24hr	5.37	0.00	0.01	1.89	1.89	1.89
D_JUSTICE_E -FEN - Pipe	50yr-24hr	18.11	0.00	0.03	0.00	0.00	0.00
D_JUSTICE_E -FEN - Weir: 1	50yr-24hr	1.56	0.00	0.00	8.02	8.02	8.02
D_JUSTICE_E -FEN - Weir: 2	50yr-24hr	0.49	0.00	0.00	0.00	0.00	0.00
D_JUSTICE_E -FEN - Weir: 3	50yr-24hr	17.12	0.00	0.02	2.60	2.60	2.60
D_JUSTICE_W-FEN - Pipe	50yr-24hr	10.17	0.00	0.01	0.00	0.00	0.00
D_JUSTICE_W-FEN - Weir: 1	50yr-24hr	2.45	0.00	0.00	4.90	4.90	4.90
D_JUSTICE_W-FEN - Weir: 2	50yr-24hr	7.64	0.00	0.01	2.11	2.11	2.11
D_JUSTICE_W-FEN - Weir: 3	50yr-24hr	0.32	0.00	0.00	0.00	0.00	0.00
D_KM-192FE N_DS - Pipe	50yr-24hr	49.65	0.00	0.47	0.00	0.00	0.00
D_KM-192FE N_DS - Weir: 1	50yr-24hr	27.28	0.00	0.52	4.83	4.83	4.83
D_KM-192FE N_DS - Weir: 2	50yr-24hr	0.63	0.00	0.01	7.17	7.17	7.17
D_KM-192FE N_DS - Weir: 3	50yr-24hr	24.08	0.00	0.42	4.07	4.07	4.07
D_P4-FEN - Pipe	50yr-24hr	51.77	0.00	4.10	0.00	0.00	0.00
D_P4-FEN -	50yr-24hr	25.57	0.00	-3.94	3.20	3.20	3.20

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
Weir: 1							
D_P4-FEN - Weir: 2	50yr-24hr	0.37	0.00	0.02	4.22	4.22	4.22
D_P4-FEN - Weir: 3	50yr-24hr	27.96	0.00	0.12	2.94	2.94	2.94
D_Rem_NE-R EM_N - Pipe	50yr-24hr	18.56	0.00	0.07	0.00	0.00	0.00
D_Rem_NE-R EM_N - Weir: 1	50yr-24hr	5.30	0.00	0.14	2.65	2.65	2.65
D_Rem_NE-R EM_N - Weir: 2	50yr-24hr	13.87	0.00	0.02	2.35	2.35	2.35
D_Rem_P-G - Pipe	50yr-24hr	19.37	0.00	-0.04	0.00	0.00	0.00
D_Rem_P-G - Weir: 1	50yr-24hr	9.28	0.00	0.03	4.64	4.64	4.64
D_Rem_P-G - Weir: 2	50yr-24hr	14.47	0.00	-0.03	2.45	2.45	2.45
D_Rem_P22-FEN - Pipe	50yr-24hr	10.23	0.00	0.14	0.00	0.00	0.00
D_Rem_P22-FEN - Weir: 1	50yr-24hr	4.94	0.00	0.27	2.47	2.47	2.47
D_Rem_P22-FEN - Weir: 2	50yr-24hr	7.64	0.00	0.01	1.36	1.36	1.36
D_Rem_P23-FEN - Pipe	50yr-24hr	60.12	0.00	0.04	0.00	0.00	0.00
D_Rem_P23-FEN - Weir: 1	50yr-24hr	48.80	0.00	0.03	5.86	5.86	5.86
D_Rem_P23-FEN - Weir: 2	50yr-24hr	11.82	0.00	-0.01	6.12	6.12	6.12
D_Rem_P23-FEN - Weir: 3	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Pipe	50yr-24hr	18.66	0.00	0.03	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 1	50yr-24hr	17.91	0.00	-0.06	3.46	3.46	3.46
D_Rem_TRAC_T-G - Weir: 2	50yr-24hr	0.34	0.00	0.00	0.00	0.00	0.00
D_Rem_TRAC_T-G - Weir: 3	50yr-24hr	4.76	0.00	0.01	1.68	1.68	1.68
D_SEACAD-F ENN - Pipe	50yr-24hr	20.09	0.00	0.19	0.00	0.00	0.00
D_SEACAD-F ENN - Weir: 1	50yr-24hr	5.08	0.00	0.38	2.55	2.55	2.55
D_SEACAD-F ENN - Weir: 2	50yr-24hr	15.01	0.00	-0.01	2.54	2.54	2.54

Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
D_TAIKWN-A ERO_W - Pipe	50yr-24hr	5.81	-0.19	-0.01	0.00	0.00	0.00
D_TAIKWN-A ERO_W - Weir: 1	50yr-24hr	5.60	-0.17	-0.01	2.58	2.58	2.58
D_TAIKWN-A ERO_W - Weir: 2	50yr-24hr	0.28	-0.02	0.00	0.00	0.00	0.00
D_TAIKWN-A ERO_W - Weir: 3	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
D_TRANS-FE NNEL - Pipe	50yr-24hr	41.42	0.00	0.03	0.00	0.00	0.00
D_TRANS-FE NNEL - Weir: 1	50yr-24hr	11.60	0.00	0.00	5.80	5.80	5.80
D_TRANS-FE NNEL - Weir: 2	50yr-24hr	30.95	0.00	0.02	5.24	5.24	5.24
P_FEN-TPIKE-R10	50yr-24hr	63.13	0.00	-3.73	0.92	0.90	0.91
P_FEN_APTS-P4	50yr-24hr	123.90	-14.93	2.71	6.12	6.12	6.12
P_FEN_APT_US-DS	50yr-24hr	122.38	-10.51	10.11	2.40	2.40	2.40
P_SHADY192_FEN	50yr-24hr	116.63	0.00	0.05	7.53	8.08	7.80
P_TPAX_SHA_DY	50yr-24hr	28.41	0.00	-0.08	2.44	2.44	2.44
Pond Notch	50yr-24hr	16.80	-2.32	0.86	3.67	3.67	3.67
R1	50yr-24hr	444.65	-16.32	-26.45	4.04	4.04	4.04
R10	50yr-24hr	27.97	-20.78	0.23	4.45	4.45	4.45
R3	50yr-24hr	426.44	0.00	7.13	5.33	5.33	5.33
R4	50yr-24hr	298.12	0.00	7.80	3.85	3.73	3.77
R9	50yr-24hr	14.56	0.00	-0.83	2.32	2.32	2.32
W_BORROW-FENNEL	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_COBL_FISH	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN04-TPIKE	50yr-24hr	0.90	0.00	0.01	0.00	0.00	0.00
W_FENNEL_192	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_FEN_TPIKE	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
W_Rem_G01-FEN	50yr-24hr	8.26	-40.47	0.34	-4.41	-4.41	-4.41

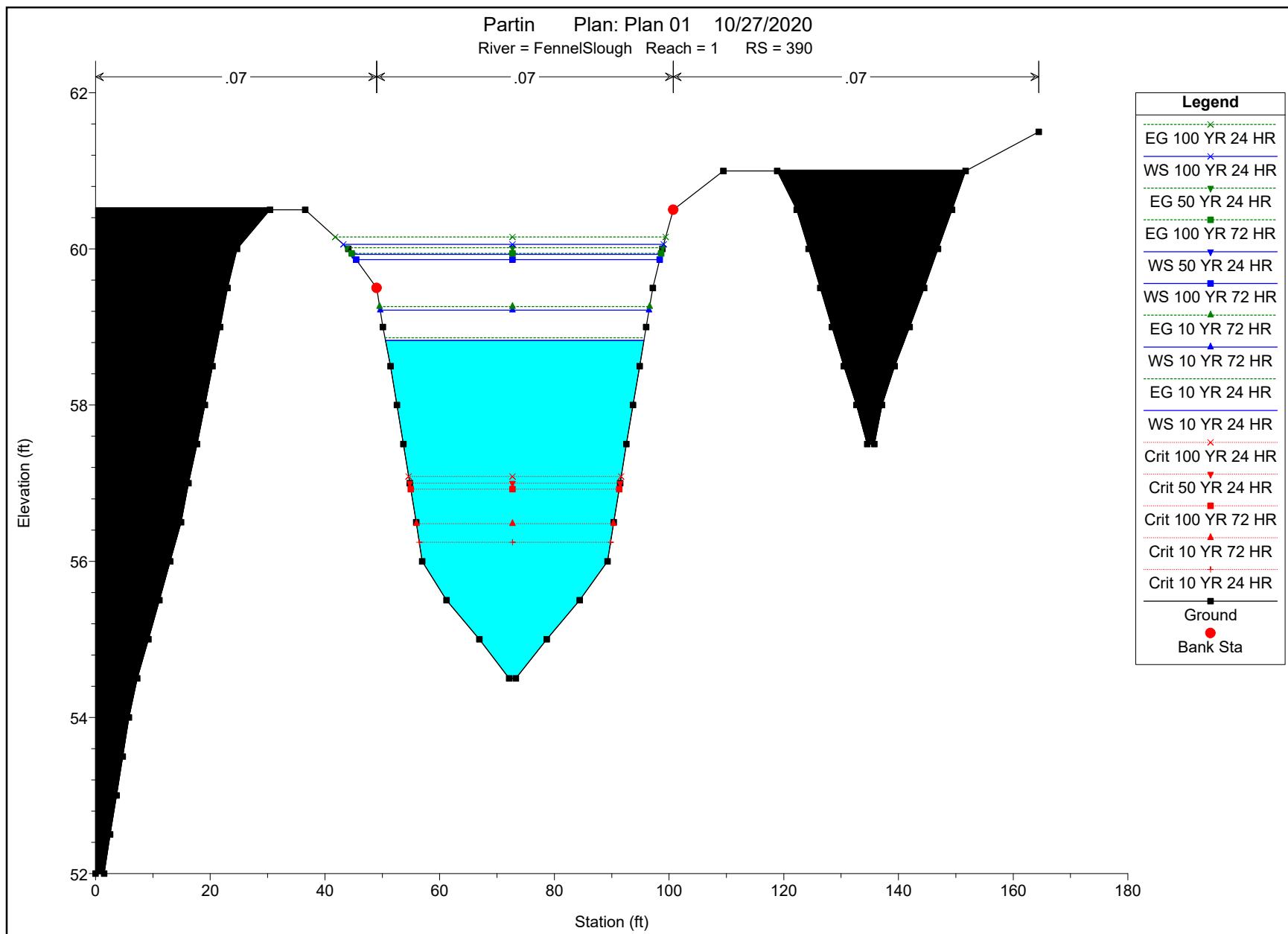
Link Name	Sim Name	Max Flow [cfs]	Min Flow [cfs]	Min/Max Delta Flow [cfs]	Max Us Velocity [fps]	Max Ds Velocity [fps]	Max Avg Velocity [fps]
W_Rem_G02-FEN	50yr-24hr	42.85	-16.19	13.16	2.26	2.26	2.26
W_Rem_G03-FEN	50yr-24hr	0.25	0.00	0.00	0.00	0.00	0.00
W_Rem_N01-FEN	50yr-24hr	50.87	-30.08	1.53	4.36	4.36	4.36
W_Rem_N02-FEN	50yr-24hr	90.29	0.00	12.04	3.28	3.28	3.28
W_Rem_N03-FEN	50yr-24hr	2.17	0.00	-0.03	0.55	0.55	0.55
W_Shady_FEN	50yr-24hr	1.00	0.00	0.00	0.95	0.95	0.95
W_Tpaccess_FEN	50yr-24hr	6.04	0.00	-0.01	1.27	1.27	1.27
pond-weir	50yr-24hr	23.48	-3.07	-0.18	2.02	2.02	2.02
pond-weir top	50yr-24hr	0.00	0.00	0.00	0.00	0.00	0.00
w_Aero_us_DS-R7	50yr-24hr	59.53	0.00	-58.78	0.83	0.83	0.83

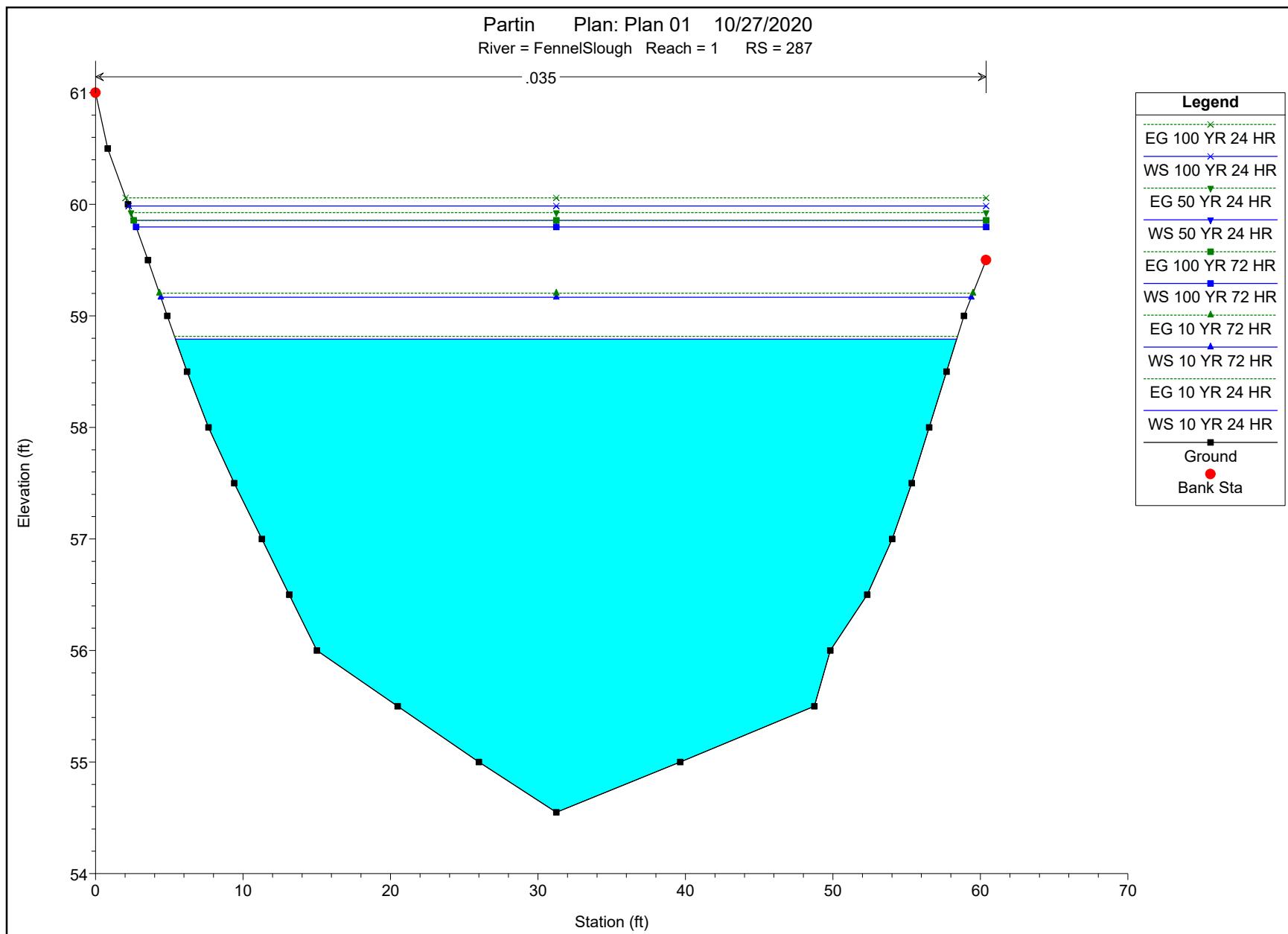


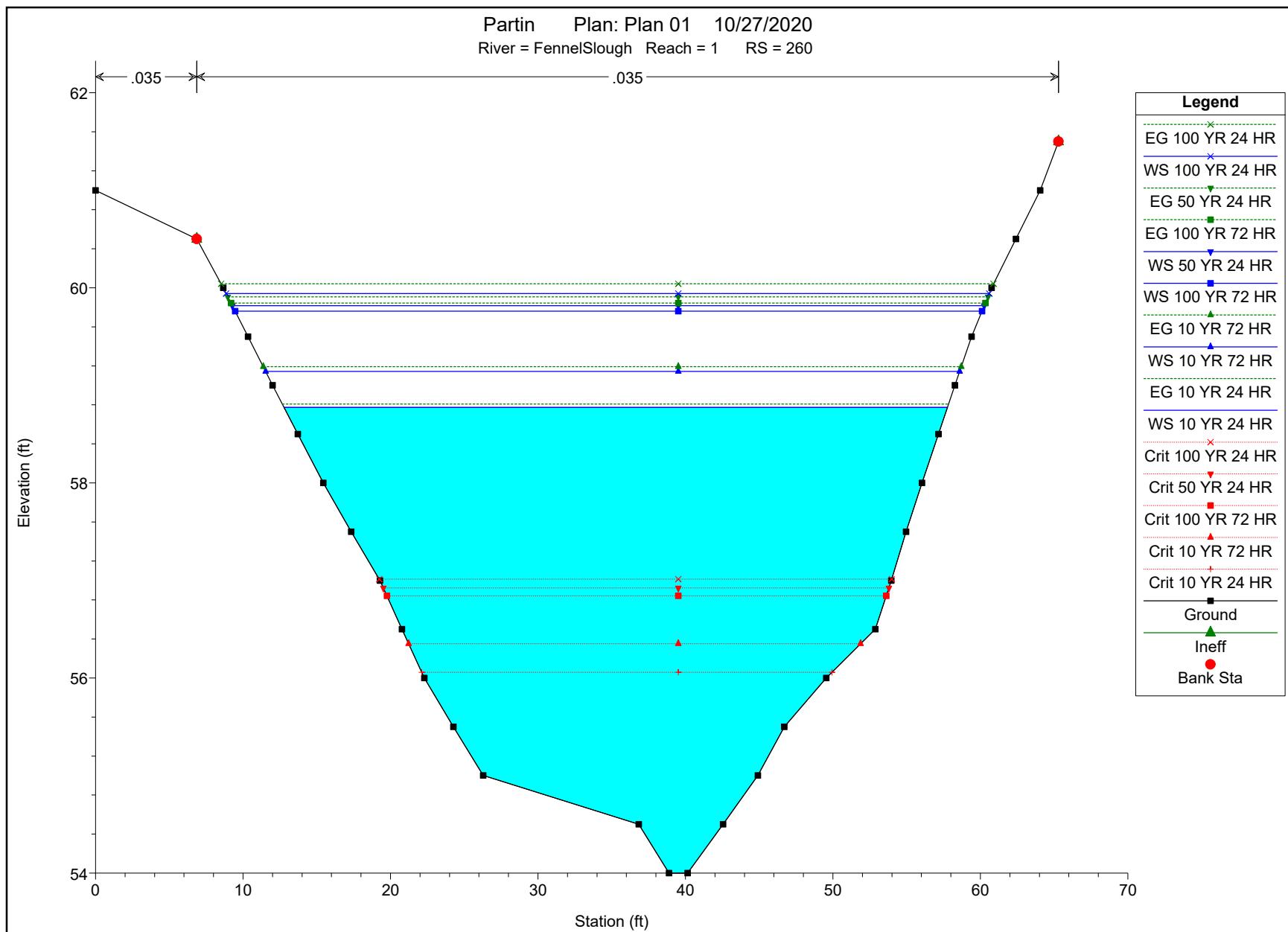
## APPENDIX E: HEC-RAS COMPUTATIONS

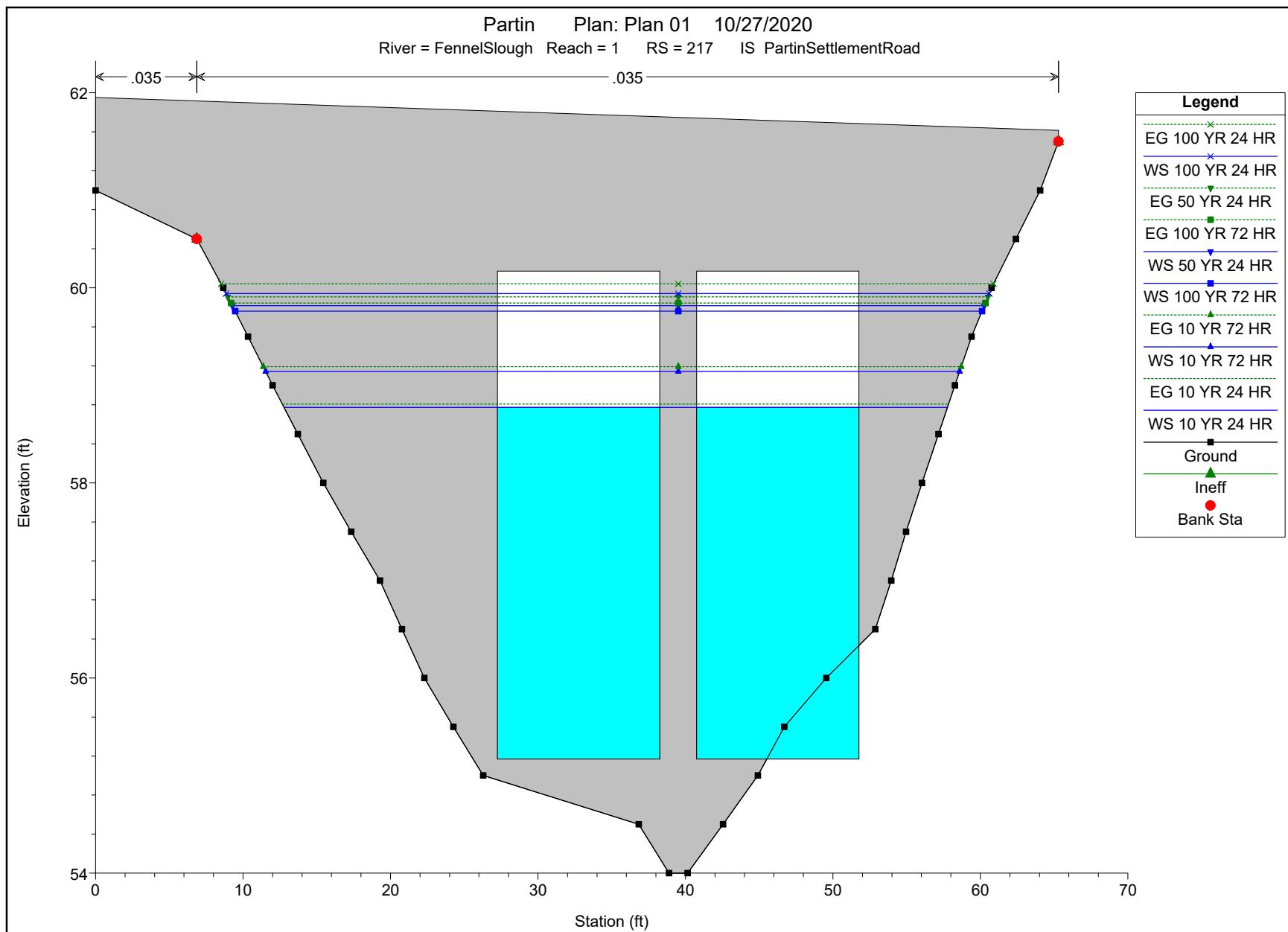
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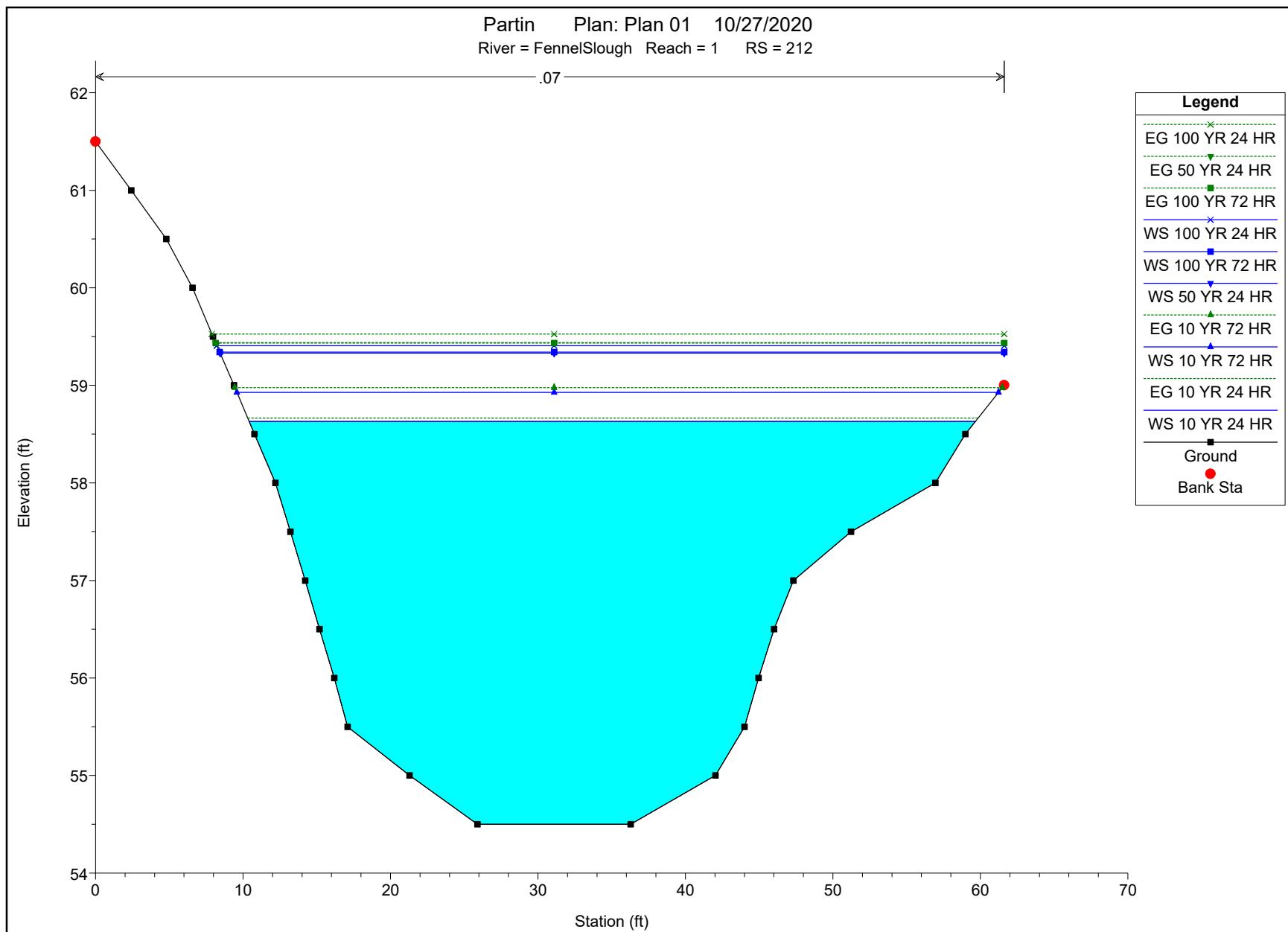
Partin Settlement Road Existing Bridge-culvert													
Reach		River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
1	100 feet upstream of bridge-culvert	390	10 YR 24 H	196.23	54.5	58.83	56.24	58.86	0.001129	1.45	135.02	45.09	0.15
1	100 feet upstream of bridge-culvert	390	10 YR 72 H	265.2	54.5	59.21	56.48	59.26	0.001445	1.74	152.74	46.88	0.17
1	100 feet upstream of bridge-culvert	390	50 YR 24 H	443.34	54.5	59.93	57	60.02	0.002207	2.37	188.18	53.81	0.21
1	100 feet upstream of bridge-culvert	390	100 YR 24	475.78	54.5	60.06	57.09	60.15	0.002294	2.45	195.33	55.87	0.22
1	100 feet upstream of bridge-culvert	390	100 YR 72	414.85	54.5	59.86	56.92	59.94	0.002038	2.25	184.65	52.94	0.21
1	Pedestrian Bridge	287	10 YR 24 H	196.23	54.55	58.79		58.82	0.000221	1.27	154.5	52.97	0.13
1	Pedestrian Bridge	287	10 YR 72 H	265.2	54.55	59.17		59.2	0.000281	1.52	174.74	54.96	0.15
1	Pedestrian Bridge	287	50 YR 24 H	443.34	54.55	59.86		59.92	0.000433	2.07	213.89	57.81	0.19
1	Pedestrian Bridge	287	100 YR 24	475.78	54.55	59.99		60.06	0.00045	2.15	221.32	58.15	0.19
1	Pedestrian Bridge	287	100 YR 72	414.85	54.55	59.8		59.86	0.000399	1.97	210.39	57.64	0.18
1	5 feet upstream of bridge-culvert	260	10 YR 24 H	196.23	54	58.77	56.06	58.81	0.000297	1.48	132.85	44.99	0.15
1	5 feet upstream of bridge-culvert	260	10 YR 72 H	265.2	54	59.14	56.35	59.19	0.000387	1.77	149.82	47.07	0.17
1	5 feet upstream of bridge-culvert	260	50 YR 24 H	443.34	54	59.82	56.92	59.91	0.000622	2.43	182.81	50.99	0.23
1	5 feet upstream of bridge-culvert	260	100 YR 24	475.78	54	59.94	57.01	60.04	0.000651	2.51	189.26	51.75	0.23
1	5 feet upstream of bridge-culvert	260	100 YR 72	414.85	54	59.76	56.84	59.84	0.000569	2.31	179.92	50.65	0.22
1	Partin Settlement Road bridge-culvert	217	Inl Struct										
1	5 feet downstream of existing bridge-culvert	212	10 YR 24 H	196.23	54.5	58.63		58.66	0.001347	1.48	132.49	49.24	0.16
1	5 feet downstream of existing bridge-culvert	212	10 YR 72 H	265.2	54.5	58.93		58.98	0.001832	1.8	147.55	51.65	0.19
1	5 feet downstream of existing bridge-culvert	212	50 YR 24 H	443.34	54.5	59.33		59.44	0.003436	2.63	168.7	53.17	0.26
1	5 feet downstream of existing bridge-culvert	212	100 YR 24	475.78	54.5	59.41		59.53	0.003678	2.75	172.82	53.39	0.27
1	5 feet downstream of existing bridge-culvert	212	100 YR 72	414.85	54.5	59.34		59.43	0.002979	2.45	169.24	53.2	0.24
1	65 feet downstream of existing bridge-culvert	139	10 YR 24 H	196.23	55.5	58.53	57.03	58.56	0.001484	1.39	179.1	139.15	0.16
1	65 feet downstream of existing bridge-culvert	139	10 YR 72 H	265.2	55.5	58.82	57.32	58.85	0.001501	1.52	219.97	143.21	0.17
1	65 feet downstream of existing bridge-culvert	139	50 YR 24 H	443.34	55.5	59.17	57.8	59.22	0.002285	2.04	274.95	174.6	0.21
1	65 feet downstream of existing bridge-culvert	139	100 YR 24	475.78	55.5	59.24	57.87	59.29	0.00232	2.09	288.09	174.99	0.21
1	65 feet downstream of existing bridge-culvert	139	100 YR 72	414.85	55.5	59.21	57.73	59.25	0.001876	1.86	281.61	174.8	0.19

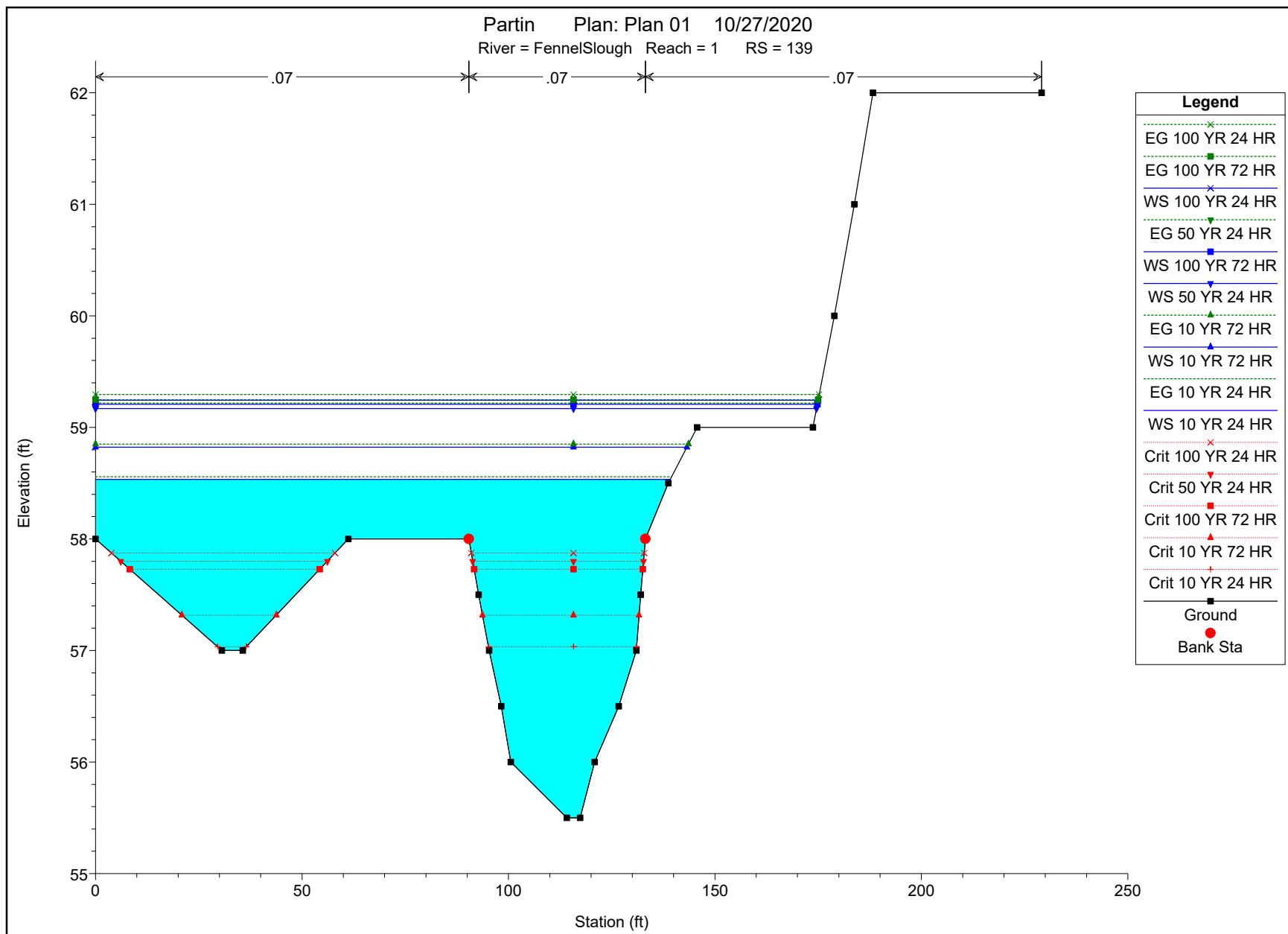


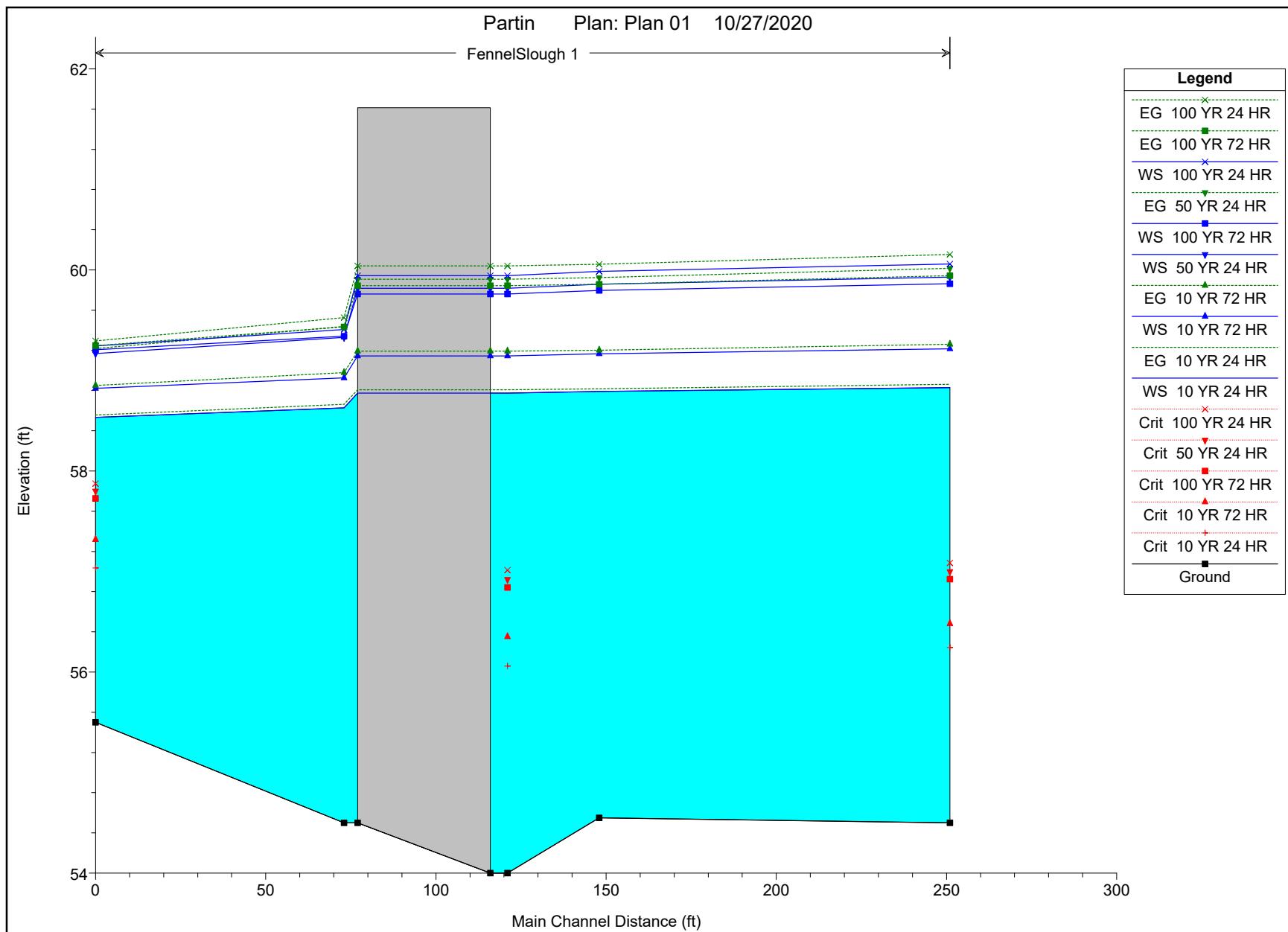












HEC-RAS HEC-RAS 5.0.7 March 2019  
U.S. Army Corps of Engineers  
Hydrologic Engineering Center  
609 Second Street  
Davis, California

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Project in English units

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Geometry File : C:\Users\sdcollins\Johnson, Mirmiran Thompson\20-00219-001 - Partin Settlement Road - Bridge Hydraulic Study\HECRAS\Partin\Partin.g03

Flow Title : Flow 01  
Flow File : C:\Users\sdcollins\Johnson, Mirmiran Thompson\20-00219-001 - Partin Settlement Road - Bridge Hydraulic Study\HECRAS\Partin\Partin.f01

Plan Summary Information:

Number of: Cross Sections = 5    Multiple Openings = 0  
             Culverts = 0    Inline Structures = 1  
             Bridges = 0    Lateral Structures = 0

Computational Information

Water surface calculation tolerance = 0.01  
 Critical depth calculation tolerance = 0.01  
 Maximum number of iterations = 20  
 Maximum difference tolerance = 0.3  
 Flow tolerance factor = 0.001

#### Computation Options

Critical depth computed only where necessary  
 Conveyance Calculation Method: At breaks in n values only  
 Friction Slope Method: Average Conveyance  
 Computational Flow Regime: Mixed Flow

#### FLOW DATA

Flow Title: Flow 01

Flow File : C:\Users\sdcollins\Johnson, Mirmiran Thompson\20-00219-001 - Partin Settlement Road - Bridge Hydraulic Study\HECRAS\Partin\Partin.f01

#### Flow Data (cfs)

River YR 24 HR	Reach 100 YR 24 HR	RS 100 YR 72 HR	10 YR 24 HR	10 YR 72 HR	50
FennelSlough 443.34	1 475.78	390 414.85	196.23	265.2	

#### Boundary Conditions

River Downstream	Reach	Profile	Upstream
FennelSlough Normal S = 0.000722	1	10 YR 24 HR	Normal S = 0.000722
FennelSlough Normal S = 0.000722	1	10 YR 72 HR	Normal S = 0.000722
FennelSlough Normal S = 0.000722	1	50 YR 24 HR	Normal S = 0.000722
FennelSlough Normal S = 0.000722	1	100 YR 24 HR	Normal S = 0.000722
FennelSlough Normal S = 0.000722	1	100 YR 72 HR	Normal S = 0.000722

## GEOMETRY DATA

Geometry Title: FennelSlough

Geometry File : C:\Users\sdcollins\Johnson, Mirmiran Thompson\20-00219-001 - Partin Settlement Road - Bridge Hydraulic Study\HECRAS\Partin\Partin.g03

## CROSS SECTION

RIVER: FennelSlough

REACH: 1 RS: 390

### INPUT

#### Description:

Station	Elevation	Data	num=	63	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	52	1.48			2.52	52.5	3.66	53	4.75	53.5		
5.8	54	7.26			9.24	55	11.13	55.5	13	56		
14.9	56.5	16.22			17.68	57.5	19.06	58	20.39	58.5		
21.72	59	23			24.68	60	30.41	60.5	36.55	60.5		
44.09	60	49.03			50.09	59	51.43	58.5	52.54	58		
53.66	57.5	54.79			55.9	56.5	56.96	56	61.2	55.5		
66.91	55	72.11			73.28	54.5	78.67	55	84.43	55.5		
89.29	56	90.36			91.46	57	92.57	57.5	93.73	58		
94.88	58.5	96.02			97.17	59.5	98.83	60	100.72	60.5		
109.48	61	118.83			122.25	60.5	124.32	60	126.36	59.5		
128.4	59	130.48			132.68	58	134.57	57.5	135.78	57.5		
137.13	58	139.34			141.95	59	144.47	59.5	146.9	60		
149.33	60.5	151.72			164.48	61.5						

Manning's n Values num= 3

Sta	n	Val	Sta	n	Val	Sta	n	Val
0	.07	49.03		.07	100.72		.07	

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	49.03	100.72		103		103		.1	.3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
0	30.5	60.53	118.59	164.48	61.01

## CROSS SECTION OUTPUT Profile #10 YR 24 HR

E.G. Elev (ft)	59.13	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.		0.070

W.S. Elev (ft)	59.10	Reach Len. (ft)	103.00	103.00
103.00				
Crit W.S. (ft)	56.24	Flow Area (sq ft)		147.53
E.G. Slope (ft/ft)	0.000875	Area (sq ft)		147.53
Q Total (cfs)	196.23	Flow (cfs)		196.23
Top Width (ft)	46.39	Top Width (ft)		46.39
Vel Total (ft/s)	1.33	Avg. Vel. (ft/s)		1.33
Max Chl Dpth (ft)	4.60	Hydr. Depth (ft)		3.18
Conv. Total (cfs)	6634.8	Conv. (cfs)		6634.8
Length Wtd. (ft)	103.00	Wetted Per. (ft)		47.84
Min Ch El (ft)	54.50	Shear (lb/sq ft)		0.17
Alpha	1.00	Stream Power (lb/ft s)		0.22
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	0.10	0.71
0.00				
C & E Loss (ft)	0.00	Cum SA (acres)	0.08	0.28
0.01				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

#### CROSS SECTION OUTPUT Profile #10 YR 72 HR

E.G. Elev (ft)	59.57	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.04	Wt. n-Val.	0.000	0.070
W.S. Elev (ft)	59.53	Reach Len. (ft)	103.00	103.00
103.00				
Crit W.S. (ft)	56.48	Flow Area (sq ft)	0.00	167.80
E.G. Slope (ft/ft)	0.001100	Area (sq ft)	0.00	167.80
Q Total (cfs)	265.20	Flow (cfs)	0.00	265.20
Top Width (ft)	48.55	Top Width (ft)	0.31	48.24

Vel Total (ft/s)	1.58	Avg. Vel. (ft/s)	0.04	1.58
Max Chl Dpth (ft)	5.03	Hydr. Depth (ft)	0.02	3.48
Conv. Total (cfs)	7997.2	Conv. (cfs)	0.0	7997.2
Length Wtd. (ft)	103.00	Wetted Per. (ft)	0.31	49.88
Min Ch El (ft)	54.50	Shear (lb/sq ft)		0.23
Alpha	1.00	Stream Power (lb/ft s)		0.37
Frcnt Loss (ft) 0.01	0.04	Cum Volume (acre-ft)	0.12	0.80
C & E Loss (ft) 0.04	0.00	Cum SA (acres)	0.08	0.29

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

#### CROSS SECTION OUTPUT Profile #50 YR 24 HR

E.G. Elev (ft) Right OB	60.52	Element	Left OB	Channel
Vel Head (ft)	0.07	Wt. n-Val.	0.070	0.070
W.S. Elev (ft) 103.00	60.45	Reach Len. (ft)	103.00	103.00
Crit W.S. (ft)	57.00	Flow Area (sq ft)	5.03	213.76
E.G. Slope (ft/ft)	0.001482	Area (sq ft)	5.03	213.76
Q Total (cfs)	443.34	Flow (cfs)	2.32	441.02
Top Width (ft)	63.30	Top Width (ft)	11.78	51.52
Vel Total (ft/s)	2.03	Avg. Vel. (ft/s)	0.46	2.06
Max Chl Dpth (ft)	5.95	Hydr. Depth (ft)	0.43	4.15
Conv. Total (cfs)	11517.8	Conv. (cfs)	60.4	11457.4
Length Wtd. (ft)	103.00	Wetted Per. (ft)	11.82	53.28
Min Ch El (ft)	54.50	Shear (lb/sq ft)	0.04	0.37

Alpha	1.03	Stream Power (lb/ft s)	0.02	0.77
Frctn Loss (ft) 0.04	0.06	Cum Volume (acre-ft)	0.18	1.01
C & E Loss (ft) 0.04	0.00	Cum SA (acres)	0.09	0.31

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

#### CROSS SECTION OUTPUT Profile #100 YR 24 HR

		Element	Left OB	Channel
E.G. Elev (ft) Right OB	60.67			
Vel Head (ft) 0.070	0.07	Wt. n-Val.	0.070	0.070
W.S. Elev (ft) 103.00	60.60	Reach Len. (ft)	103.00	103.00
Crit W.S. (ft) 0.09	57.09	Flow Area (sq ft)	9.74	221.48
E.G. Slope (ft/ft) 0.09	0.001521	Area (sq ft)	9.74	221.48
Q Total (cfs) 0.01	475.78	Flow (cfs)	2.74	473.03
Top Width (ft) 1.81	102.53	Top Width (ft)	49.03	51.69
Vel Total (ft/s) 0.11	2.06	Avg. Vel. (ft/s)	0.28	2.14
Max Chl Dpth (ft) 0.05	6.10	Hydr. Depth (ft)	0.20	4.28
Conv. Total (cfs) 0.3	12198.6	Conv. (cfs)	70.2	12128.1
Length Wtd. (ft) 1.81	103.00	Wetted Per. (ft)	49.18	53.46
Min Ch El (ft) 0.00	54.50	Shear (lb/sq ft)	0.02	0.39
Alpha 0.00	1.07	Stream Power (lb/ft s)	0.01	0.84
Frctn Loss (ft) 0.04	0.06	Cum Volume (acre-ft)	0.20	1.05
C & E Loss (ft) 0.04	0.00	Cum SA (acres)	0.13	0.31

Warning: The cross-section end points had to be extended vertically for the computed

water surface.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100 YR 72 HR

E.G. Elev (ft)	60.37	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.06	Wt. n-Val.	0.070	0.070
W.S. Elev (ft) 103.00	60.31	Reach Len. (ft)	103.00	103.00
Crit W.S. (ft)	56.92	Flow Area (sq ft)	3.50	206.44
E.G. Slope (ft/ft)	0.001442	Area (sq ft)	3.50	206.44
Q Total (cfs)	414.85	Flow (cfs)	1.43	413.42
Top Width (ft)	60.60	Top Width (ft)	9.63	50.98
Vel Total (ft/s)	1.98	Avg. Vel. (ft/s)	0.41	2.00
Max Chl Dpth (ft)	5.81	Hydr. Depth (ft)	0.36	4.05
Conv. Total (cfs)	10925.1	Conv. (cfs)	37.7	10887.4
Length Wtd. (ft)	103.00	Wetted Per. (ft)	9.66	52.72
Min Ch El (ft)	54.50	Shear (lb/sq ft)	0.03	0.35
Alpha	1.02	Stream Power (lb/ft s)	0.01	0.71
Frctn Loss (ft) 0.04	0.06	Cum Volume (acre-ft)	0.17	0.98
C & E Loss (ft) 0.04	0.00	Cum SA (acres)	0.09	0.31

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: FennelSlough

REACH: 1

RS: 287

## INPUT

## Description:

Station	Elevation	Data	num=	24					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	61	.82	60.5	2.2	60	3.55	59.5	4.86	59
6.2	58.5	7.66	58	9.41	57.5	11.27	57	13.13	56.5
15.01	56	20.48	55.5	25.99	55	31.24	54.55	39.65	55
48.74	55.5	49.82	56	52.33	56.5	54.03	57	55.34	57.5
56.53	58	57.71	58.5	58.88	59	60.39	59.5		

Manning's n Values	num=	3			
Sta	n Val	Sta	n Val	Sta	n Val
0	.035	0	.035	60.39	.035

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	0	60.39		27	27	27		.1	.3

## CROSS SECTION OUTPUT Profile #10 YR 24 HR

E.G. Elev (ft)	59.10	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.		0.035
W.S. Elev (ft)	59.07	Reach Len. (ft)	27.00	27.00
27.00				
Crit W.S. (ft)		Flow Area (sq ft)		169.70
E.G. Slope (ft/ft)	0.000168	Area (sq ft)		169.70
Q Total (cfs)	196.23	Flow (cfs)		196.23
Top Width (ft)	54.44	Top Width (ft)		54.44
Vel Total (ft/s)	1.16	Avg. Vel. (ft/s)		1.16
Max Chl Dpth (ft)	4.52	Hydr. Depth (ft)		3.12
Conv. Total (cfs)	15154.4	Conv. (cfs)		15154.4
Length Wtd. (ft)	27.00	Wetted Per. (ft)		55.62
Min Ch El (ft)	54.55	Shear (lb/sq ft)		0.03
Alpha	1.00	Stream Power (lb/ft s)		0.04
Frctn Loss (ft)	0.01	Cum Volume (acre-ft)	0.10	0.33
0.00				
C & E Loss (ft)	0.00	Cum SA (acres)	0.08	0.16

0.01

CROSS SECTION OUTPUT Profile #10 YR 72 HR

E.G. Elev (ft)	59.53	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.		0.035
W.S. Elev (ft) 27.00	59.50	Reach Len. (ft)	27.00	27.00
Crit W.S. (ft)		Flow Area (sq ft)		193.15
E.G. Slope (ft/ft)	0.000211	Area (sq ft)		193.15
Q Total (cfs)	265.20	Flow (cfs)		265.20
Top Width (ft)	56.82	Top Width (ft)		56.82
Vel Total (ft/s)	1.37	Avg. Vel. (ft/s)		1.37
Max Chl Dpth (ft)	4.95	Hydr. Depth (ft)		3.40
Conv. Total (cfs)	18255.0	Conv. (cfs)		18255.0
Length Wtd. (ft)	27.00	Wetted Per. (ft)		58.15
Min Ch El (ft)	54.55	Shear (lb/sq ft)		0.04
Alpha	1.00	Stream Power (lb/ft s)		0.06
Frctn Loss (ft) 0.01	0.01	Cum Volume (acre-ft)	0.12	0.37
C & E Loss (ft) 0.04	0.00	Cum SA (acres)	0.08	0.17

CROSS SECTION OUTPUT Profile #50 YR 24 HR

E.G. Elev (ft)	60.46	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.035
W.S. Elev (ft) 27.00	60.41	Reach Len. (ft)	27.00	27.00
Crit W.S. (ft)		Flow Area (sq ft)		246.10

E.G. Slope (ft/ft)	0.000285	Area (sq ft)	246.10
Q Total (cfs)	443.34	Flow (cfs)	443.34
Top Width (ft)	59.32	Top Width (ft)	59.32
Vel Total (ft/s)	1.80	Avg. Vel. (ft/s)	1.80
Max Chl Dpth (ft)	5.86	Hydr. Depth (ft)	4.15
Conv. Total (cfs)	26272.4	Conv. (cfs)	26272.4
Length Wtd. (ft)	27.00	Wetted Per. (ft)	61.72
Min Ch El (ft)	54.55	Shear (lb/sq ft)	0.07
Alpha	1.00	Stream Power (lb/ft s)	0.13
Frctn Loss (ft) 0.04	0.01	Cum Volume (acre-ft)	0.18
C & E Loss (ft) 0.04	0.00	Cum SA (acres)	0.08
			0.18

Warning: The cross-section end points had to be extended vertically for the computed water surface.

#### CROSS SECTION OUTPUT Profile #100 YR 24 HR

E.G. Elev (ft)	60.61	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.035
W.S. Elev (ft) 27.00	60.56	Reach Len. (ft)	27.00	27.00
Crit W.S. (ft)		Flow Area (sq ft)		254.92
E.G. Slope (ft/ft)	0.000295	Area (sq ft)		254.92
Q Total (cfs)	475.78	Flow (cfs)		475.78
Top Width (ft)	59.66	Top Width (ft)		59.66
Vel Total (ft/s)	1.87	Avg. Vel. (ft/s)		1.87
Max Chl Dpth (ft)	6.01	Hydr. Depth (ft)		4.27

Conv. Total (cfs)	27704.0	Conv. (cfs)		27704.0
Length Wtd. (ft)	27.00	Wetted Per. (ft)		62.24
Min Ch El (ft)	54.55	Shear (lb/sq ft)		0.08
Alpha	1.00	Stream Power (lb/ft s)		0.14
Frctn Loss (ft) 0.04	0.01	Cum Volume (acre-ft)	0.18	0.48
C & E Loss (ft) 0.04	0.00	Cum SA (acres)	0.08	0.18

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #100 YR 72 HR

E.G. Elev (ft)	60.31	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.035
W.S. Elev (ft) 27.00	60.27	Reach Len. (ft)	27.00	27.00
Crit W.S. (ft)		Flow Area (sq ft)		237.73
E.G. Slope (ft/ft)	0.000276	Area (sq ft)		237.73
Q Total (cfs)	414.85	Flow (cfs)		414.85
Top Width (ft)	58.92	Top Width (ft)		58.92
Vel Total (ft/s)	1.75	Avg. Vel. (ft/s)		1.75
Max Chl Dpth (ft)	5.72	Hydr. Depth (ft)		4.03
Conv. Total (cfs)	24950.3	Conv. (cfs)		24950.3
Length Wtd. (ft)	27.00	Wetted Per. (ft)		61.16
Min Ch El (ft)	54.55	Shear (lb/sq ft)		0.07
Alpha	1.00	Stream Power (lb/ft s)		0.12
Frctn Loss (ft) 0.04	0.01	Cum Volume (acre-ft)	0.17	0.45
C & E Loss (ft)	0.00	Cum SA (acres)	0.08	0.18

0.04

Warning: The cross-section end points had to be extended vertically for the computed water surface.

## CROSS SECTION

RIVER: FennelSlough

REACH: 1

RS: 260

### INPUT

#### Description:

Station	Elevation	Data	num=	31	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	61	6.86			60.5	8.66	60	10.34	59.5	12.01		59
13.71	58.5	15.44			58	17.33	57.5	19.29	57	20.78		56.5
22.3	56	24.26			55.5	26.28	55	36.84	54.5	38.88		54
40.14	54	42.56			54.5	44.91	55	46.71	55.5	49.54		56
52.88	56.5	53.96			57	54.96	57.5	56.05	58	57.15		58.5
58.27	59	59.41			59.5	60.76	60	62.4	60.5	64.05		61
65.3	61.5											

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	6.86	.035	65.3	.035

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	6.86	65.3		48	48	48		.1	.3

Ineffective Flow	num=	2	
Sta L	Sta R	Elev	Permanent

0	6.86	60.5	F
65.3	65.3	61.5	F

## CROSS SECTION OUTPUT Profile #10 YR 24 HR

E.G. Elev (ft)	59.09	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.		0.035
W.S. Elev (ft)	59.06	Reach Len. (ft)	48.00	48.00
48.00				
Crit W.S. (ft)	56.06	Flow Area (sq ft)		145.96
E.G. Slope (ft/ft)	0.000228	Area (sq ft)		145.96
Q Total (cfs)	196.23	Flow (cfs)		196.23

Top Width (ft)	46.60	Top Width (ft)	46.60
Vel Total (ft/s)	1.34	Avg. Vel. (ft/s)	1.34
Max Chl Dpth (ft)	5.06	Hydr. Depth (ft)	3.13
Conv. Total (cfs)	12996.0	Conv. (cfs)	12996.0
Length Wtd. (ft)	48.00	Wetted Per. (ft)	48.06
Min Ch El (ft)	54.00	Shear (lb/sq ft)	0.04
Alpha	1.00	Stream Power (lb/ft s)	0.06
Frctn Loss (ft) 0.00		Cum Volume (acre-ft)	0.10
C & E Loss (ft) 0.01		Cum SA (acres)	0.08
			0.13

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

#### CROSS SECTION OUTPUT Profile #10 YR 72 HR

E.G. Elev (ft)	59.52	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.04	Wt. n-Val.		0.035
W.S. Elev (ft) 48.00	59.48	Reach Len. (ft)	48.00	48.00
Crit W.S. (ft)	56.35	Flow Area (sq ft)		165.87
E.G. Slope (ft/ft)	0.000291	Area (sq ft)		165.87
Q Total (cfs)	265.20	Flow (cfs)		265.20
Top Width (ft)	48.95	Top Width (ft)		48.95
Vel Total (ft/s)	1.60	Avg. Vel. (ft/s)		1.60
Max Chl Dpth (ft)	5.48	Hydr. Depth (ft)		3.39
Conv. Total (cfs)	15550.0	Conv. (cfs)		15550.0
Length Wtd. (ft)	48.00	Wetted Per. (ft)		50.55

Min Ch El (ft)	54.00	Shear (lb/sq ft)	0.06
Alpha	1.00	Stream Power (lb/ft s)	0.10
Frctn Loss (ft) 0.01		Cum Volume (acre-ft)	0.12
C & E Loss (ft) 0.04		Cum SA (acres)	0.08

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

#### CROSS SECTION OUTPUT Profile #50 YR 24 HR

E.G. Elev (ft)	60.45	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.		0.035
W.S. Elev (ft) 48.00	60.38	Reach Len. (ft)	48.00	48.00
Crit W.S. (ft)	56.92	Flow Area (sq ft)		212.53
E.G. Slope (ft/ft)	0.000414	Area (sq ft)		212.53
Q Total (cfs)	443.34	Flow (cfs)		443.34
Top Width (ft)	54.71	Top Width (ft)		54.71
Vel Total (ft/s)	2.09	Avg. Vel. (ft/s)		2.09
Max Chl Dpth (ft)	6.38	Hydr. Depth (ft)		3.88
Conv. Total (cfs)	21799.2	Conv. (cfs)		21799.2
Length Wtd. (ft)	48.00	Wetted Per. (ft)		56.59
Min Ch El (ft)	54.00	Shear (lb/sq ft)		0.10
Alpha	1.00	Stream Power (lb/ft s)		0.20
Frctn Loss (ft) 0.04		Cum Volume (acre-ft)	0.18	0.33
C & E Loss (ft) 0.04		Cum SA (acres)	0.08	0.14

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

CROSS SECTION OUTPUT Profile #100 YR 24 HR

		Element	Left OB	Channel
E.G. Elev (ft)	60.60			
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.	0.035	0.035
W.S. Elev (ft)	60.53	Reach Len. (ft)	48.00	48.00
48.00				
Crit W.S. (ft)	57.01	Flow Area (sq ft)	0.00	220.64
E.G. Slope (ft/ft)	0.000430	Area (sq ft)	0.00	220.64
Q Total (cfs)	475.78	Flow (cfs)	0.00	475.78
Top Width (ft)	55.99	Top Width (ft)	0.37	55.63
Vel Total (ft/s)	2.16	Avg. Vel. (ft/s)	0.05	2.16
Max Chl Dpth (ft)	6.53	Hydr. Depth (ft)	0.01	3.97
Conv. Total (cfs)	22946.4	Conv. (cfs)	0.0	22946.4
Length Wtd. (ft)	48.00	Wetted Per. (ft)	0.37	57.55
Min Ch El (ft)	54.00	Shear (lb/sq ft)	0.00	0.10
Alpha	1.00	Stream Power (lb/ft s)	0.00	0.22
Frctn Loss (ft)		Cum Volume (acre-ft)	0.18	0.33
0.04				
C & E Loss (ft)		Cum SA (acres)	0.08	0.14
0.04				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

CROSS SECTION OUTPUT Profile #100 YR 72 HR

		Element	Left OB	Channel
E.G. Elev (ft)	60.30			
Right OB				
Vel Head (ft)	0.06	Wt. n-Val.	0.035	
W.S. Elev (ft)	60.24	Reach Len. (ft)	48.00	48.00

48.00			
Crit W.S. (ft)	56.84	Flow Area (sq ft)	204.92
E.G. Slope (ft/ft)	0.000399	Area (sq ft)	204.92
Q Total (cfs)	414.85	Flow (cfs)	414.85
Top Width (ft)	53.75	Top Width (ft)	53.75
Vel Total (ft/s)	2.02	Avg. Vel. (ft/s)	2.02
Max Chl Dpth (ft)	6.24	Hydr. Depth (ft)	3.81
Conv. Total (cfs)	20760.0	Conv. (cfs)	20760.0
Length Wtd. (ft)	48.00	Wetted Per. (ft)	55.59
Min Ch El (ft)	54.00	Shear (lb/sq ft)	0.09
Alpha	1.00	Stream Power (lb/ft s)	0.19
Frcnt Loss (ft) 0.04		Cum Volume (acre-ft)	0.17
C & E Loss (ft) 0.04		Cum SA (acres)	0.08
			0.14

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

#### INLINE STRUCTURE

RIVER: FennelSlough

REACH: 1 RS: 217

#### INPUT

Description: PartinSettlementRoad

Distance from Upstream XS = 5

Deck/Roadway Width = 39

Weir Coefficient = 2.6

Weir Embankment Coordinates num = 2

Sta	Elev	Sta	Elev
0	61.95	70	61.59

Upstream Embankment side slope = 0 horiz. to 1.0 vertical

Downstream Embankment side slope = 0 horiz. to 1.0 vertical

Maximum allowable submergence for weir flow = .98

Elevation at which weir flow begins =

Weir crest shape = Broad Crested

INLINE STRUCTURE OUTPUT Profile #10 YR 24 HR Culv Group: Culvert #1

E.G. Elev (ft)	59.09	Weir Sta Lft (ft)	
W.S. Elev (ft)	59.06	Weir Sta Rgt (ft)	
Q Total (cfs)	196.23	Min El Weir Flow (ft)	61.62
Q Weir (cfs)		Wr Top Wdth (ft)	
Q Gates (cfs)		Weir Max Depth (ft)	
Q Culv (cfs)	196.23	Weir Avg Depth (ft)	
Q Inline RC (cfs)		Weir Flow Area (sq ft)	
Q Outlet TS (cfs)		Weir Coef (ft <sup>1/2</sup> )	
Q Breach (cfs)		Weir Submerg	
Breach Avg Velocity (ft/s)			
Breach Flow Area (sq ft)		Q Culv Group (cfs)	196.23
Breach WD (ft)		# Barrels	2
Breach Top El (ft)		Culv Length (ft)	38.00
Breach Bottom El (ft)		Culv Depth Blocked (ft)	0.00
Breach SSL (ft)		Culv Inv El Up (ft)	55.17
Breach SSR (ft)		Culv Inv El Dn (ft)	55.14

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

INLINE STRUCTURE OUTPUT Profile #10 YR 72 HR Culv Group: Culvert #1

E.G. Elev (ft)	59.52	Weir Sta Lft (ft)	
W.S. Elev (ft)	59.48	Weir Sta Rgt (ft)	
Q Total (cfs)	265.20	Min El Weir Flow (ft)	61.62
Q Weir (cfs)		Wr Top Wdth (ft)	
Q Gates (cfs)		Weir Max Depth (ft)	
Q Culv (cfs)	265.20	Weir Avg Depth (ft)	
Q Inline RC (cfs)		Weir Flow Area (sq ft)	
Q Outlet TS (cfs)		Weir Coef (ft <sup>1/2</sup> )	
Q Breach (cfs)		Weir Submerg	
Breach Avg Velocity (ft/s)			
Breach Flow Area (sq ft)		Q Culv Group (cfs)	265.20
Breach WD (ft)		# Barrels	2
Breach Top El (ft)		Culv Length (ft)	38.00
Breach Bottom El (ft)		Culv Depth Blocked (ft)	0.00
Breach SSL (ft)		Culv Inv El Up (ft)	55.17
Breach SSR (ft)		Culv Inv El Dn (ft)	55.14

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

INLINE STRUCTURE OUTPUT Profile #50 YR 24 HR Culv Group: Culvert #1

E.G. Elev (ft)	60.45	Weir Sta Lft (ft)
W.S. Elev (ft)	60.38	Weir Sta Rgt (ft)
Q Total (cfs)	443.34	Min El Weir Flow (ft) 61.62
Q Weir (cfs)		Wr Top Wdth (ft)
Q Gates (cfs)		Weir Max Depth (ft)
Q Culv (cfs)	443.34	Weir Avg Depth (ft)
Q Inline RC (cfs)		Weir Flow Area (sq ft)
Q Outlet TS (cfs)		Weir Coef (ft <sup>1/2</sup> )
Q Breach (cfs)		Weir Submerg
Breach Avg Velocity (ft/s)		
Breach Flow Area (sq ft)		Q Culv Group (cfs) 443.34
Breach WD (ft)		# Barrels 2
Breach Top El (ft)		Culv Length (ft) 38.00
Breach Bottom El (ft)		Culv Depth Blocked (ft) 0.00
Breach SSL (ft)		Culv Inv El Up (ft) 55.17
Breach SSR (ft)		Culv Inv El Dn (ft) 55.14

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

INLINE STRUCTURE OUTPUT Profile #100 YR 24 HR Culv Group: Culvert #1

E.G. Elev (ft)	60.60	Weir Sta Lft (ft)
W.S. Elev (ft)	60.53	Weir Sta Rgt (ft)
Q Total (cfs)	475.78	Min El Weir Flow (ft) 61.62
Q Weir (cfs)		Wr Top Wdth (ft)
Q Gates (cfs)		Weir Max Depth (ft)
Q Culv (cfs)	475.78	Weir Avg Depth (ft)
Q Inline RC (cfs)		Weir Flow Area (sq ft)
Q Outlet TS (cfs)		Weir Coef (ft <sup>1/2</sup> )
Q Breach (cfs)		Weir Submerg
Breach Avg Velocity (ft/s)		
Breach Flow Area (sq ft)		Q Culv Group (cfs) 475.78
Breach WD (ft)		# Barrels 2
Breach Top El (ft)		Culv Length (ft) 38.00
Breach Bottom El (ft)		Culv Depth Blocked (ft) 0.00
Breach SSL (ft)		Culv Inv El Up (ft) 55.17
Breach SSR (ft)		Culv Inv El Dn (ft) 55.14

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

INLINE STRUCTURE OUTPUT Profile #100 YR 72 HR Culv Group: Culvert #1

E.G. Elev (ft)	60.30	Weir Sta Lft (ft)
W.S. Elev (ft)	60.24	Weir Sta Rgt (ft)
Q Total (cfs)	414.85	Min El Weir Flow (ft) 61.62

Q Weir (cfs)		Wr Top Wdth (ft)
Q Gates (cfs)		Weir Max Depth (ft)
Q Culv (cfs)	414.85	Weir Avg Depth (ft)
Q Inline RC (cfs)		Weir Flow Area (sq ft)
Q Outlet TS (cfs)		Weir Coef (ft <sup>1/2</sup> )
Q Breach (cfs)		Weir Submerg
Breach Avg Velocity (ft/s)		
Breach Flow Area (sq ft)		Q Culv Group (cfs) 414.85
Breach WD (ft)		# Barrels 2
Breach Top El (ft)		Culv Length (ft) 38.00
Breach Bottom El (ft)		Culv Depth Blocked (ft) 0.00
Breach SSL (ft)		Culv Inv El Up (ft) 55.17
Breach SSR (ft)		Culv Inv El Dn (ft) 55.14

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

#### CROSS SECTION

RIVER: FennelSlough

REACH: 1 RS: 212

#### INPUT

##### Description:

Station	Elevation	Data	num=	25					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	61.5	2.42	61	4.8	60.5	6.58	60	7.96	59.5
9.38	59	10.78	58.5	12.19	58	13.22	57.5	14.22	57
15.19	56.5	16.18	56	17.09	55.5	21.3	55	25.9	54.5
36.29	54.5	42.04	55	44.01	55.5	44.96	56	46.01	56.5
47.32	57	51.22	57.5	56.94	58	58.98	58.5	61.61	59

Manning's n Values	num=	3			
Sta	n Val	Sta	n Val	Sta	n Val
0	.07	0	.07	61.61	.07

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
0	61.61			73	73	73	.1	.3	

#### CROSS SECTION OUTPUT Profile #10 YR 24 HR

E.G. Elev (ft)	58.97	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.		0.070
W.S. Elev (ft)	58.94	Reach Len. (ft)	73.00	73.00
73.00				

Crit W.S. (ft)		Flow Area (sq ft)		148.39
E.G. Slope (ft/ft)	0.000988	Area (sq ft)		148.39
Q Total (cfs)	196.23	Flow (cfs)		196.23
Top Width (ft)	51.78	Top Width (ft)		51.78
Vel Total (ft/s)	1.32	Avg. Vel. (ft/s)		1.32
Max Chl Dpth (ft)	4.44	Hydr. Depth (ft)		2.87
Conv. Total (cfs)	6244.0	Conv. (cfs)		6244.0
Length Wtd. (ft)	73.00	Wetted Per. (ft)		53.17
Min Ch El (ft)	54.50	Shear (lb/sq ft)		0.17
Alpha	1.00	Stream Power (lb/ft s)		0.23
Frcnt Loss (ft) 0.00	0.06	Cum Volume (acre-ft)	0.10	0.22
C & E Loss (ft) 0.01	0.00	Cum SA (acres)	0.08	0.08

CROSS SECTION OUTPUT Profile #10 YR 72 HR

E.G. Elev (ft) Right OB	59.33	Element	Left OB	Channel
Vel Head (ft)	0.04	Wt. n-Val.		0.070
W.S. Elev (ft) 73.00	59.29	Reach Len. (ft)	73.00	73.00
Crit W.S. (ft)		Flow Area (sq ft)		166.83
E.G. Slope (ft/ft)	0.001271	Area (sq ft)		166.83
Q Total (cfs)	265.20	Flow (cfs)		265.20
Top Width (ft)	53.07	Top Width (ft)		53.07
Vel Total (ft/s)	1.59	Avg. Vel. (ft/s)		1.59
Max Chl Dpth (ft)	4.79	Hydr. Depth (ft)		3.14
Conv. Total (cfs)	7437.5	Conv. (cfs)		7437.5

Length Wtd. (ft)	73.00	Wetted Per. (ft)		54.82
Min Ch El (ft)	54.50	Shear (lb/sq ft)		0.24
Alpha	1.00	Stream Power (lb/ft s)		0.38
Frcnt Loss (ft) 0.01	0.07	Cum Volume (acre-ft)	0.12	0.25
C & E Loss (ft) 0.04	0.01	Cum SA (acres)	0.08	0.08

Warning: The cross-section end points had to be extended vertically for the computed water surface.

#### CROSS SECTION OUTPUT Profile #50 YR 24 HR

E.G. Elev (ft)	60.06	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.		0.070
W.S. Elev (ft) 73.00	59.99	Reach Len. (ft)	73.00	73.00
Crit W.S. (ft)		Flow Area (sq ft)		204.46
E.G. Slope (ft/ft)	0.001926	Area (sq ft)		204.46
Q Total (cfs)	443.34	Flow (cfs)		443.34
Top Width (ft)	55.01	Top Width (ft)		55.01
Vel Total (ft/s)	2.17	Avg. Vel. (ft/s)		2.17
Max Chl Dpth (ft)	5.49	Hydr. Depth (ft)		3.72
Conv. Total (cfs)	10102.9	Conv. (cfs)		10102.9
Length Wtd. (ft)	73.00	Wetted Per. (ft)		57.57
Min Ch El (ft)	54.50	Shear (lb/sq ft)		0.43
Alpha	1.00	Stream Power (lb/ft s)		0.93
Frcnt Loss (ft) 0.04	0.08	Cum Volume (acre-ft)	0.18	0.30
C & E Loss (ft) 0.04	0.02	Cum SA (acres)	0.08	0.08

Warning: The cross-section end points had to be extended vertically for the computed water surface.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100 YR 24 HR

E.G. Elev (ft)	60.18	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.08	Wt. n-Val.		0.070
W.S. Elev (ft) 73.00	60.10	Reach Len. (ft)	73.00	73.00
Crit W.S. (ft)		Flow Area (sq ft)		210.51
E.G. Slope (ft/ft)	0.002036	Area (sq ft)		210.51
Q Total (cfs)	475.78	Flow (cfs)		475.78
Top Width (ft)	55.39	Top Width (ft)		55.39
Vel Total (ft/s)	2.26	Avg. Vel. (ft/s)		2.26
Max Chl Dpth (ft)	5.60	Hydr. Depth (ft)		3.80
Conv. Total (cfs)	10543.9	Conv. (cfs)		10543.9
Length Wtd. (ft)	73.00	Wetted Per. (ft)		58.08
Min Ch El (ft)	54.50	Shear (lb/sq ft)		0.46
Alpha	1.00	Stream Power (lb/ft s)		1.04
Frctn Loss (ft) 0.04	0.08	Cum Volume (acre-ft)	0.18	0.31
C & E Loss (ft) 0.04	0.02	Cum SA (acres)	0.08	0.08

Warning: The cross-section end points had to be extended vertically for the computed water surface.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

## CROSS SECTION OUTPUT Profile #100 YR 72 HR

E.G. Elev (ft)	59.96	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.		0.070
W.S. Elev (ft)	59.89	Reach Len. (ft)	73.00	73.00
73.00				
Crit W.S. (ft)		Flow Area (sq ft)		199.00
E.G. Slope (ft/ft)	0.001829	Area (sq ft)		199.00
Q Total (cfs)	414.85	Flow (cfs)		414.85
Top Width (ft)	54.73	Top Width (ft)		54.73
Vel Total (ft/s)	2.08	Avg. Vel. (ft/s)		2.08
Max Chl Dpth (ft)	5.39	Hydr. Depth (ft)		3.64
Conv. Total (cfs)	9701.1	Conv. (cfs)		9701.1
Length Wtd. (ft)	73.00	Wetted Per. (ft)		57.18
Min Ch El (ft)	54.50	Shear (lb/sq ft)		0.40
Alpha	1.00	Stream Power (lb/ft s)		0.83
Frctn Loss (ft)	0.08	Cum Volume (acre-ft)	0.17	0.29
0.04				
C & E Loss (ft)	0.01	Cum SA (acres)	0.08	0.08
0.04				

Warning: The cross-section end points had to be extended vertically for the computed water surface.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

## CROSS SECTION

RIVER: FennelSlough

REACH: 1

RS: 139

INPUT

Description:

Station Elevation Data num= 23			
Sta	Elev	Sta	Elev
0	58	30.58	57
92.78	57.5	95.31	57
117.37	55.5	120.89	56
133.15	58	138.68	58.5
183.78	61	188.24	62
			229.12
			62

Manning's n Values num= 3			
Sta	n Val	Sta	n Val
0	.07	90.41	.07
		133.15	.07

Bank Sta:	Left	Right	Coeff	Contr.	Expan.
	90.41	133.15		.1	.3

CROSS SECTION OUTPUT Profile #10 YR 24 HR

E.G. Elev (ft)	58.91	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.01	Wt. n-Val.	0.070	0.070
0.070				
W.S. Elev (ft)	58.89	Reach Len. (ft)		
Crit W.S. (ft)	57.03	Flow Area (sq ft)	113.81	111.47
4.63				
E.G. Slope (ft/ft)	0.000722	Area (sq ft)	113.81	111.47
4.63				
Q Total (cfs)	196.23	Flow (cfs)	75.19	119.56
1.48				
Top Width (ft)	144.18	Top Width (ft)	90.41	42.74
11.03				
Vel Total (ft/s)	0.85	Avg. Vel. (ft/s)	0.66	1.07
0.32				
Max Chl Dpth (ft)	3.39	Hydr. Depth (ft)	1.26	2.61
0.42				
Conv. Total (cfs)	7300.6	Conv. (cfs)	2797.3	4448.3
55.0				
Length Wtd. (ft)		Wetted Per. (ft)	91.34	43.25
11.07				
Min Ch El (ft)	55.50	Shear (lb/sq ft)	0.06	0.12
0.02				
Alpha	1.19	Stream Power (lb/ft s)	0.04	0.12
0.01				
Frcnt Loss (ft)		Cum Volume (acre-ft)		
C & E Loss (ft)		Cum SA (acres)		

## CROSS SECTION OUTPUT Profile #10 YR 72 HR

E.G. Elev (ft)	59.26	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.070	0.070
0.070				
W.S. Elev (ft)	59.24	Reach Len. (ft)		
Crit W.S. (ft)	57.32	Flow Area (sq ft)	145.50	126.46
15.90				
E.G. Slope (ft/ft)	0.000722	Area (sq ft)	145.50	126.46
15.90				
Q Total (cfs)	265.20	Flow (cfs)	112.93	147.51
4.75				
Top Width (ft)	174.98	Top Width (ft)	90.41	42.74
41.83				
Vel Total (ft/s)	0.92	Avg. Vel. (ft/s)	0.78	1.17
0.30				
Max Chl Dpth (ft)	3.74	Hydr. Depth (ft)	1.61	2.96
0.38				
Conv. Total (cfs)	9868.0	Conv. (cfs)	4202.2	5488.9
176.9				
Length Wtd. (ft)		Wetted Per. (ft)	91.69	43.25
41.90				
Min Ch El (ft)	55.50	Shear (lb/sq ft)	0.07	0.13
0.02				
Alpha	1.20	Stream Power (lb/ft s)	0.06	0.15
0.01				
Frcn Loss (ft)		Cum Volume (acre-ft)		
C & E Loss (ft)		Cum SA (acres)		

## CROSS SECTION OUTPUT Profile #50 YR 24 HR

E.G. Elev (ft)	59.97	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.070	0.070
0.070				
W.S. Elev (ft)	59.95	Reach Len. (ft)		
Crit W.S. (ft)	57.80	Flow Area (sq ft)	209.16	156.55
46.64				
E.G. Slope (ft/ft)	0.000722	Area (sq ft)	209.16	156.55
46.64				

Q Total (cfs)	443.34	Flow (cfs)	205.76	210.58
27.01				
Top Width (ft)	178.64	Top Width (ft)	90.41	42.74
45.49				
Vel Total (ft/s)	1.08	Avg. Vel. (ft/s)	0.98	1.35
0.58				
Max Chl Dpth (ft)	4.45	Hydr. Depth (ft)	2.31	3.66
1.03				
Conv. Total (cfs)	16494.0	Conv. (cfs)	7654.9	7834.3
1004.8				
Length Wtd. (ft)		Wetted Per. (ft)	92.39	43.25
45.62				
Min Ch El (ft)	55.50	Shear (lb/sq ft)	0.10	0.16
0.05				
Alpha	1.15	Stream Power (lb/ft s)	0.10	0.22
0.03				
Frctn Loss (ft)		Cum Volume (acre-ft)		
C & E Loss (ft)		Cum SA (acres)		

CROSS SECTION OUTPUT Profile #100 YR 24 HR

E.G. Elev (ft)	60.08	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.070	0.070
0.070				
W.S. Elev (ft)	60.06	Reach Len. (ft)		
Crit W.S. (ft)	57.87	Flow Area (sq ft)	219.25	161.32
51.75				
E.G. Slope (ft/ft)	0.000723	Area (sq ft)	219.25	161.32
51.75				
Q Total (cfs)	475.78	Flow (cfs)	222.46	221.46
31.86				
Top Width (ft)	179.20	Top Width (ft)	90.41	42.74
46.05				
Vel Total (ft/s)	1.10	Avg. Vel. (ft/s)	1.01	1.37
0.62				
Max Chl Dpth (ft)	4.56	Hydr. Depth (ft)	2.43	3.77
1.12				
Conv. Total (cfs)	17695.0	Conv. (cfs)	8273.7	8236.3
1185.0				
Length Wtd. (ft)		Wetted Per. (ft)	92.50	43.25
46.20				
Min Ch El (ft)	55.50	Shear (lb/sq ft)	0.11	0.17
0.05				

Alpha	1.14	Stream Power (lb/ft s)	0.11	0.23
0.03				
Frcn Loss (ft)		Cum Volume (acre-ft)		
C & E Loss (ft)		Cum SA (acres)		

CROSS SECTION OUTPUT Profile #100 YR 72 HR

E.G. Elev (ft)	59.87	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.070	0.070
0.070				
W.S. Elev (ft)	59.85	Reach Len. (ft)		
Crit W.S. (ft)	57.73	Flow Area (sq ft)	200.00	152.22
42.06				
E.G. Slope (ft/ft)	0.000722	Area (sq ft)	200.00	152.22
42.06				
Q Total (cfs)	414.85	Flow (cfs)	191.04	200.90
22.91				
Top Width (ft)	178.12	Top Width (ft)	90.41	42.74
44.97				
Vel Total (ft/s)	1.05	Avg. Vel. (ft/s)	0.96	1.32
0.54				
Max Chl Dpth (ft)	4.35	Hydr. Depth (ft)	2.21	3.56
0.94				
Conv. Total (cfs)	15438.8	Conv. (cfs)	7109.7	7476.6
852.5				
Length Wtd. (ft)		Wetted Per. (ft)	92.29	43.25
45.09				
Min Ch El (ft)	55.50	Shear (lb/sq ft)	0.10	0.16
0.04				
Alpha	1.16	Stream Power (lb/ft s)	0.09	0.21
0.02				
Frcn Loss (ft)		Cum Volume (acre-ft)		
C & E Loss (ft)		Cum SA (acres)		

SUMMARY OF MANNING'S N VALUES

River:FennelSlough

Reach	River Sta.	n1	n2	n3
1	390	.07	.07	.07
1	287	.035	.035	.035
1	260	.035	.035	.035
1	217	Inl Struct		
1	212	.07	.07	.07
1	139	.07	.07	.07

#### SUMMARY OF REACH LENGTHS

River: FennelSlough

Reach	River Sta.	Left	Channel	Right
1	390	103	103	103
1	287	27	27	27
1	260	48	48	48
1	217	Inl Struct		
1	212	73	73	73
1	139			

#### SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS

River: FennelSlough

Reach	River Sta.	Contr.	Expan.
1	390	.1	.3
1	287	.1	.3
1	260	.1	.3
1	217	Inl Struct	
1	212	.1	.3
1	139	.1	.3

#### Profile Output Table - Standard Table 1

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	
Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	

(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	390		10 YR 24 HR	196.23	54.50	59.10
56.24	59.13	0.000875	1.33	147.53	46.39	0.13
1	390		10 YR 72 HR	265.20	54.50	59.53
56.48	59.57	0.001100	1.58	167.80	48.55	0.15
1	390		50 YR 24 HR	443.34	54.50	60.45
57.00	60.52	0.001482	2.06	218.79	63.30	0.18
1	390		100 YR 24 HR	475.78	54.50	60.60
57.09	60.67	0.001521	2.14	231.31	102.53	0.18
1	390		100 YR 72 HR	414.85	54.50	60.31
56.92	60.37	0.001442	2.00	209.94	60.60	0.18

1	287		10 YR 24 HR	196.23	54.55	59.07
	59.10	0.000168	1.16	169.70	54.44	0.12
1	287		10 YR 72 HR	265.20	54.55	59.50
	59.53	0.000211	1.37	193.15	56.82	0.13
1	287		50 YR 24 HR	443.34	54.55	60.41
	60.46	0.000285	1.80	246.10	59.32	0.16
1	287		100 YR 24 HR	475.78	54.55	60.56
	60.61	0.000295	1.87	254.92	59.66	0.16
1	287		100 YR 72 HR	414.85	54.55	60.27
	60.31	0.000276	1.75	237.73	58.92	0.15

1	260		10 YR 24 HR	196.23	54.00	59.06
56.06	59.09	0.000228	1.34	145.96	46.60	0.13
1	260		10 YR 72 HR	265.20	54.00	59.48
56.35	59.52	0.000291	1.60	165.87	48.95	0.15
1	260		50 YR 24 HR	443.34	54.00	60.38
56.92	60.45	0.000414	2.09	212.53	54.71	0.19
1	260		100 YR 24 HR	475.78	54.00	60.53
57.01	60.60	0.000430	2.16	220.65	55.99	0.19
1	260		100 YR 72 HR	414.85	54.00	60.24
56.84	60.30	0.000399	2.02	204.92	53.75	0.18

1           217    Inl Struct

1	212		10 YR 24 HR	196.23	54.50	58.94
	58.97	0.000988	1.32	148.39	51.78	0.14
1	212		10 YR 72 HR	265.20	54.50	59.29
	59.33	0.001271	1.59	166.83	53.07	0.16
1	212		50 YR 24 HR	443.34	54.50	59.99
	60.06	0.001926	2.17	204.46	55.01	0.20
1	212		100 YR 24 HR	475.78	54.50	60.10

1	60.18 212 59.96	0.002036 100 YR 72 HR 0.001829 2.08	2.26	210.51 414.85 199.00	55.39 54.50 54.73	0.20 59.89 0.19
1	139	10 YR 24 HR	196.23	55.50	58.89	
57.03	58.91	0.000722 1.07	229.91	144.18	0.12	
1	139	10 YR 72 HR	265.20	55.50	59.24	
57.32	59.26	0.000722 1.17	287.86	174.98	0.12	
1	139	50 YR 24 HR	443.34	55.50	59.95	
57.80	59.97	0.000722 1.35	412.35	178.64	0.12	
1	139	100 YR 24 HR	475.78	55.50	60.06	
57.87	60.08	0.000723 1.37	432.33	179.20	0.12	
1	139	100 YR 72 HR	414.85	55.50	59.85	
57.73	59.87	0.000722 1.32	394.29	178.12	0.12	

#### Profile Output Table - Inline Structure

Reach Weir	River Sta Q Gates	Profile Q Culv	E.G. Elev Q Inline RC	W.S. Elev Q Outlet TS	Q Total Q Breach (ft)	Q (cfs)
1	217 196.23	10 YR 24 HR	59.09	59.06	196.23	
1	217 265.20	10 YR 72 HR	59.52	59.48	265.20	
1	217 443.34	50 YR 24 HR	60.45	60.38	443.34	
1	217 475.78	100 YR 24 HR	60.60	60.53	475.78	
1	217 414.85	100 YR 72 HR	60.30	60.24	414.85	

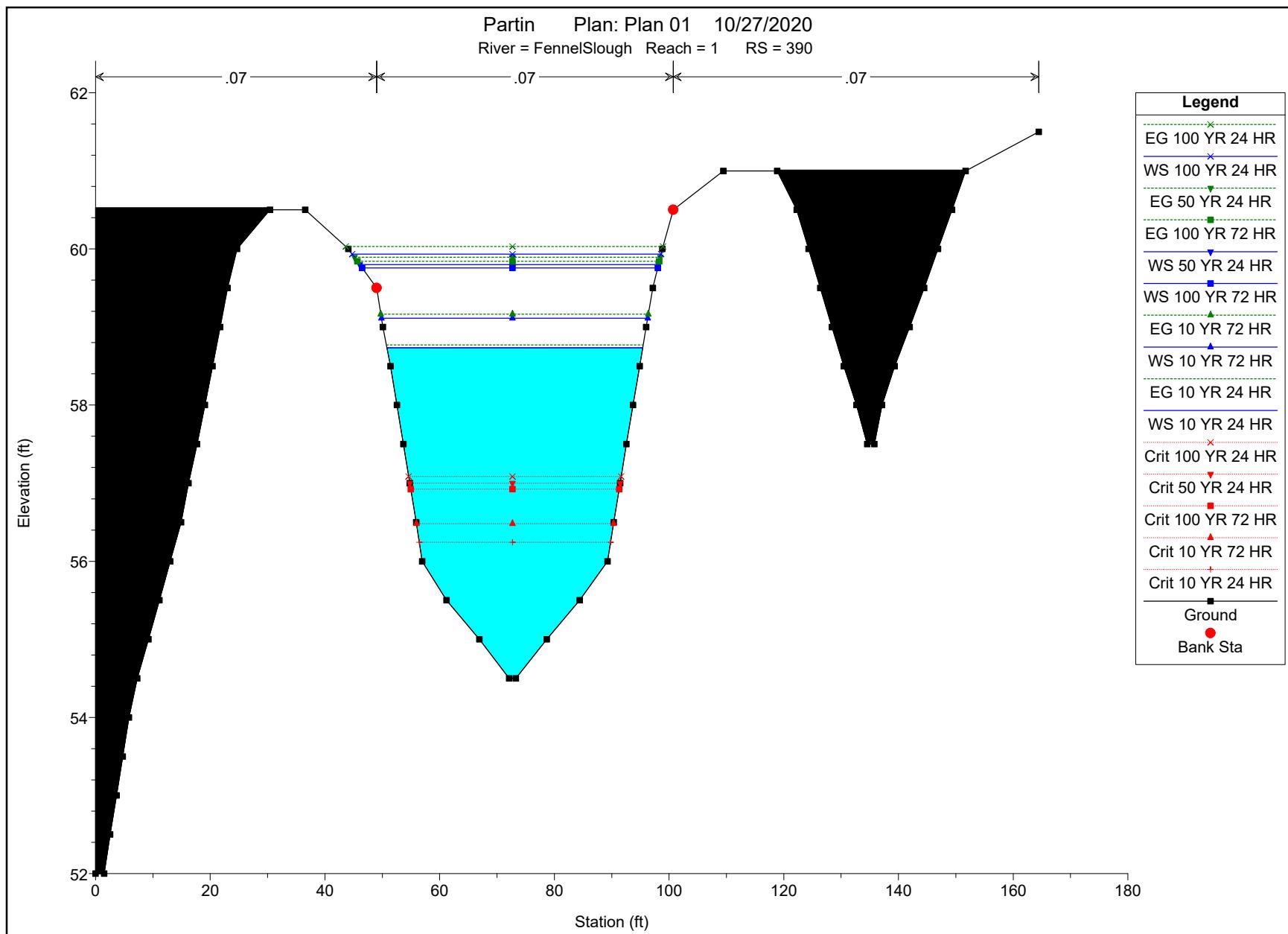


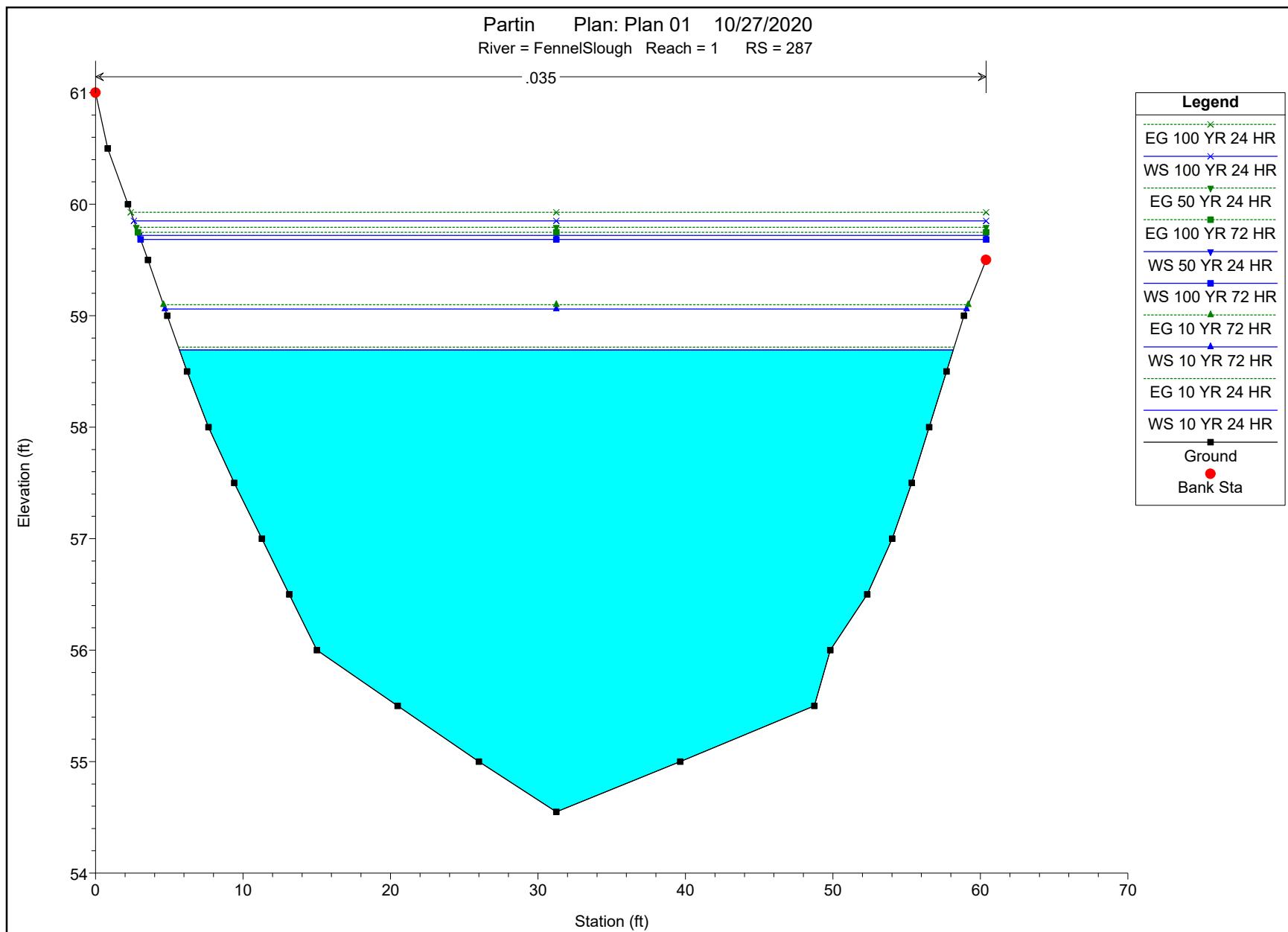
## APPENDIX E: HEC-RAS COMPUTATIONS

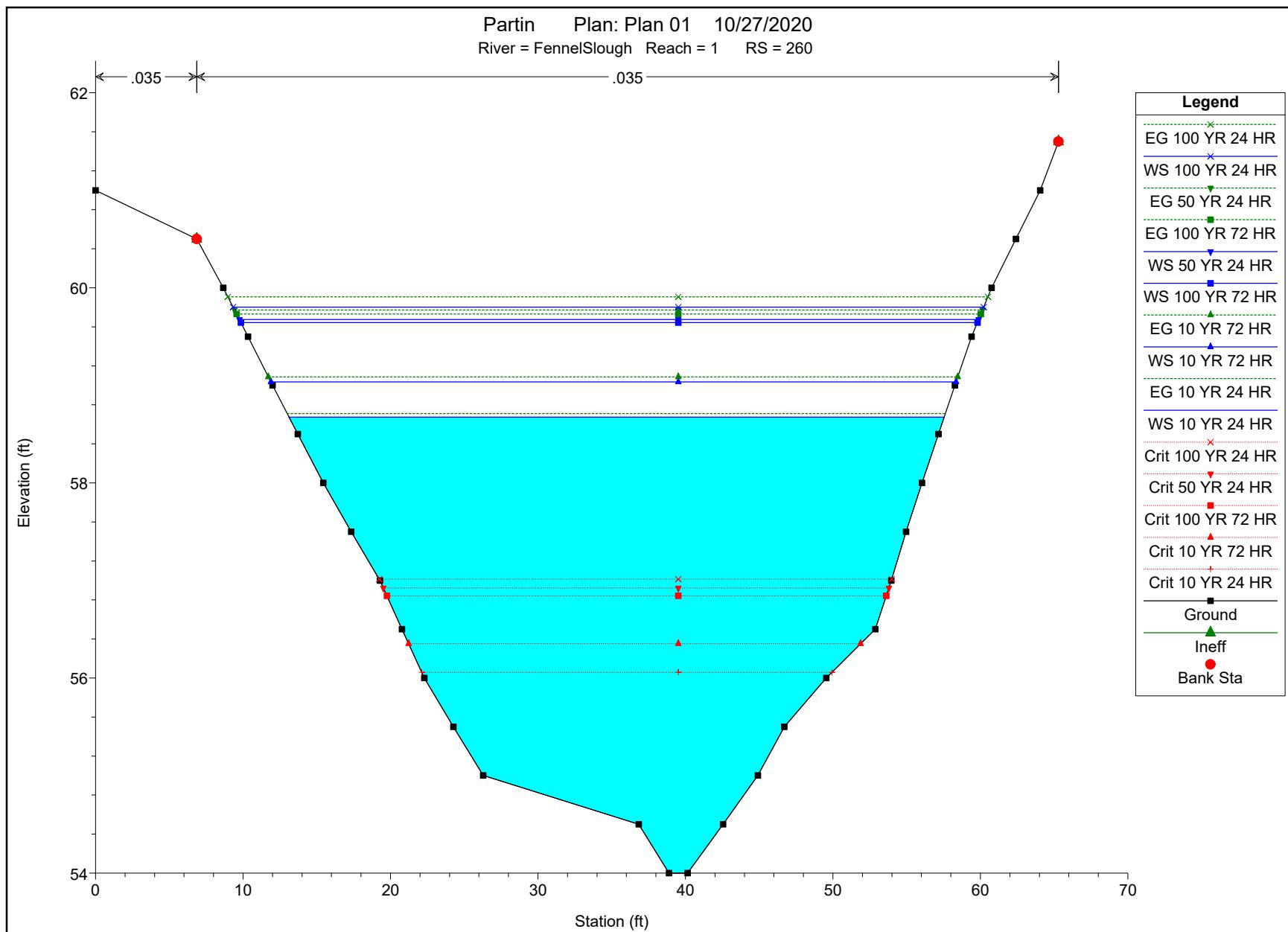
**PROPOSED**

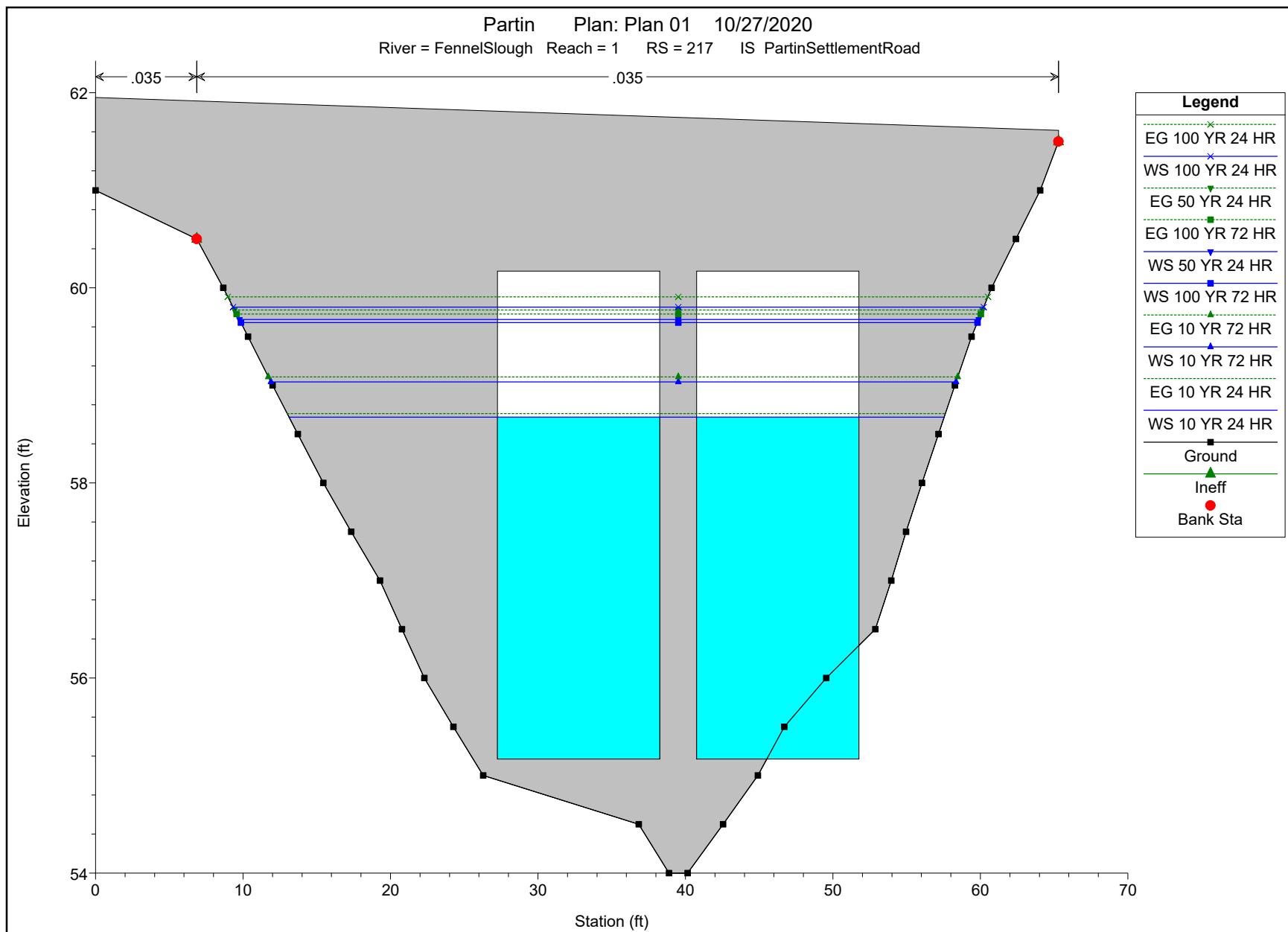
Partin Settlement Road Proposed Bridge-culvert													
Reach		River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
1	100 feet upstream of bridge-culvert	390	10 YR 24 H	196.23	54.5	58.73	56.24	58.77	0.001239	1.5	130.75	44.61	0.15
1	100 feet upstream of bridge-culvert	390	10 YR 72 H	265.2	54.5	59.11	56.48	59.16	0.001583	1.79	148.02	46.43	0.18
1	100 feet upstream of bridge-culvert	390	50 YR 24 H	443.34	54.5	59.8	57	59.89	0.00245	2.45	181.36	52.11	0.23
1	100 feet upstream of bridge-culvert	390	100 YR 24	475.78	54.5	59.93	57.09	60.03	0.002535	2.54	188.36	53.85	0.23
1	100 feet upstream of bridge-culvert	390	100 YR 72	414.85	54.5	59.76	56.92	59.84	0.002223	2.32	179.11	51.53	0.21
1	Pedestrian Bridge	287	10 YR 24 H	196.23	54.55	58.69		58.72	0.000244	1.31	149.25	52.47	0.14
1	Pedestrian Bridge	287	10 YR 72 H	265.2	54.55	59.06		59.1	0.00031	1.57	168.93	54.36	0.16
1	Pedestrian Bridge	287	50 YR 24 H	443.34	54.55	59.72		59.79	0.000486	2.15	205.93	57.43	0.2
1	Pedestrian Bridge	287	100 YR 24	475.78	54.55	59.85		59.93	0.000503	2.23	213.41	57.78	0.2
1	Pedestrian Bridge	287	100 YR 72	414.85	54.55	59.68		59.75	0.000438	2.03	203.89	57.34	0.19
1	5 feet upstream of bridge-culvert	260	10 YR 24 H	196.23	54	58.67	56.06	58.71	0.000328	1.53	128.33	44.42	0.16
1	5 feet upstream of bridge-culvert	260	10 YR 72 H	265.2	54	59.04	56.35	59.09	0.000426	1.83	144.76	46.46	0.18
1	5 feet upstream of bridge-culvert	260	50 YR 24 H	443.34	54	59.67	56.92	59.77	0.000694	2.52	175.61	50.13	0.24
1	5 feet upstream of bridge-culvert	260	100 YR 24	475.78	54	59.8	57.01	59.91	0.000724	2.61	182.03	50.9	0.24
1	5 feet upstream of bridge-culvert	260	100 YR 72	414.85	54	59.64	56.84	59.73	0.000623	2.38	174.08	49.94	0.23
1	Partin Settlement Road bridge-culvert	217	Inl Struct										
1	5 feet downstream of proposed bridge-culvert	156	10 YR 24 H	196.23	54.5	58.53		58.56	0.001497	1.54	127.49	48.41	0.17
1	5 feet downstream of proposed bridge-culvert	156	10 YR 72 H	265.2	54.5	58.81		58.87	0.002048	1.87	141.67	50.72	0.2
1	5 feet downstream of proposed bridge-culvert	156	50 YR 24 H	443.34	54.5	59.15		59.27	0.004101	2.79	159.12	52.65	0.28
1	5 feet downstream of proposed bridge-culvert	156	100 YR 24	475.78	54.5	59.22		59.35	0.00441	2.92	162.77	52.85	0.29
1	5 feet downstream of proposed bridge-culvert	156	100 YR 72	414.85	54.5	59.19		59.29	0.003459	2.58	161.09	52.76	0.26
1	17 feet downstream of proposed bridge-culvert	139	10 YR 24 H	196.23	55.5	58.51	57.03	58.53	0.001565	1.42	175.75	138.81	0.17
1	17 feet downstream of proposed bridge-culvert	139	10 YR 72 H	265.2	55.5	58.8	57.32	58.83	0.001565	1.54	216.84	142.91	0.17
1	17 feet downstream of proposed bridge-culvert	139	50 YR 24 H	443.34	55.5	59.15	57.8	59.2	0.002375	2.07	271	174.48	0.22
1	17 feet downstream of proposed bridge-culvert	139	100 YR 24	475.78	55.5	59.22	57.87	59.27	0.002413	2.12	283.92	174.86	0.22
1	17 feet downstream of proposed bridge-culvert	139	100 YR 72	414.85	55.5	59.19	57.73	59.23	0.001943	1.89	277.99	174.69	0.2

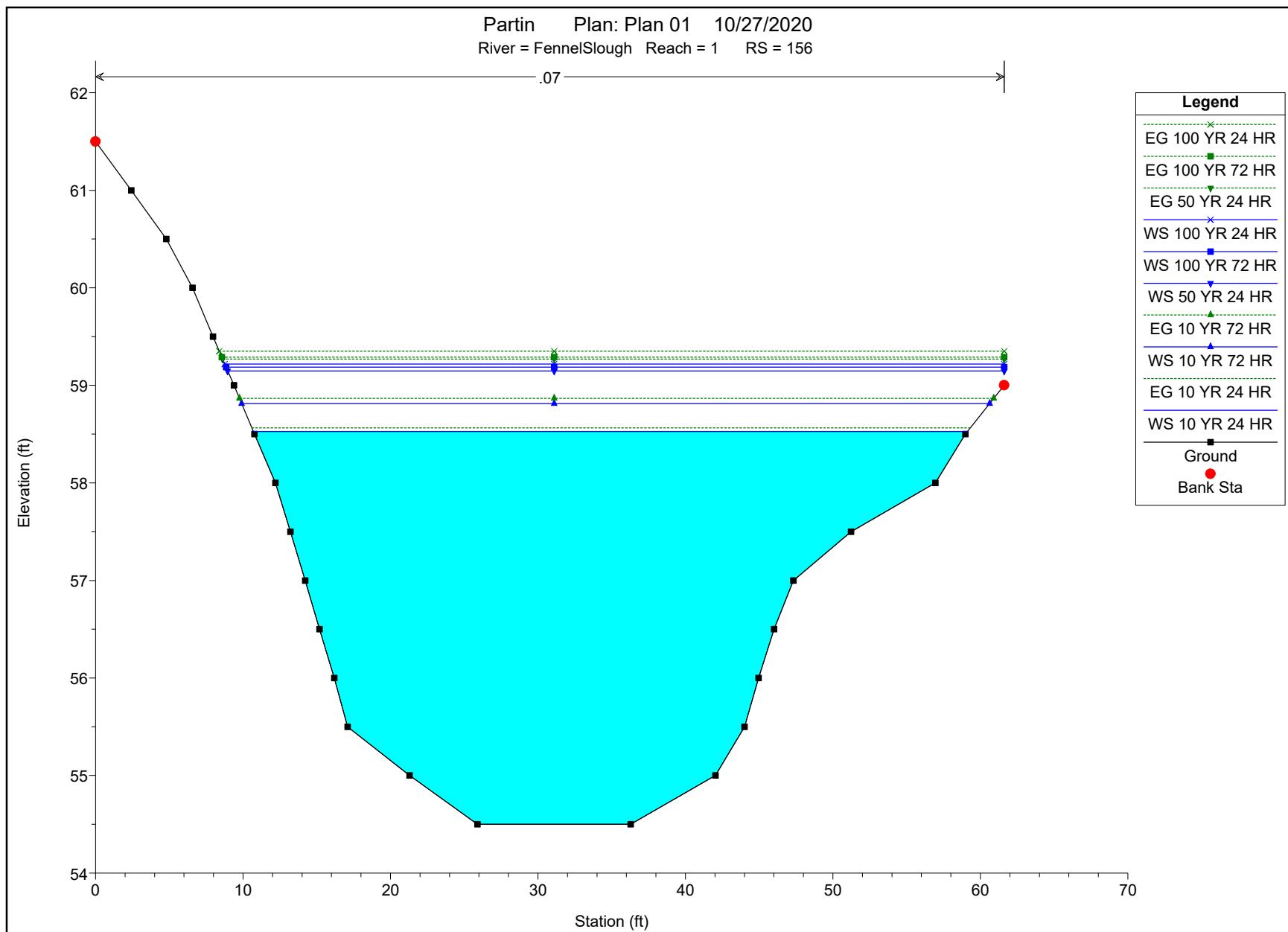
Partin Settlement Road Difference between Bridge-Culvert Extension and Existing													
Reach		River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
1	100 feet upstream of bridge-culvert	390	10 YR 24 H	0	0	-0.1	0	-0.09	0.00011	0.05	-4.27	-0.48	0
1	100 feet upstream of bridge-culvert	390	10 YR 72 H	0	0	-0.1	0	-0.1	0.000138	0.05	-4.72	-0.45	0.01
1	100 feet upstream of bridge-culvert	390	50 YR 24 H	0	0	-0.13	0	-0.13	0.000243	0.08	-6.82	-1.7	0.02
1	100 feet upstream of bridge-culvert	390	100 YR 24	0	0	-0.13	0	-0.12	0.000241	0.09	-6.97	-2.02	0.01
1	100 feet upstream of bridge-culvert	390	100 YR 72	0	0	-0.1	0	-0.1	0.000185	0.07	-5.54	-1.41	0
1	Pedestrian Bridge	287	10 YR 24 H	0	0	-0.1	0	-0.1	0.000023	0.04	-5.25	-0.5	0.01
1	Pedestrian Bridge	287	10 YR 72 H	0	0	-0.11	0	-0.1	0.000029	0.05	-5.81	-0.6	0.01
1	Pedestrian Bridge	287	50 YR 24 H	0	0	-0.14	0	-0.13	0.000053	0.08	-7.96	-0.38	0.01
1	Pedestrian Bridge	287	100 YR 24	0	0	-0.14	0	-0.13	0.000053	0.08	-7.91	-0.37	0.01
1	Pedestrian Bridge	287	100 YR 72	0	0	-0.12	0	-0.11	0.000039	0.06	-6.5	-0.3	0.01
1	5 feet upstream of bridge-culvert	260	10 YR 24 H	0	0	-0.1	0	-0.1	0.000031	0.05	-4.52	-0.57	0.01
1	5 feet upstream of bridge-culvert	260	10 YR 72 H	0	0	-0.1	0	-0.1	0.000039	0.06	-5.06	-0.61	0.01
1	5 feet upstream of bridge-culvert	260	50 YR 24 H	0	0	-0.15	0	-0.14	7.2E-05	0.09	-7.2	-0.86	0.01
1	5 feet upstream of bridge-culvert	260	100 YR 24	0	0	-0.14	0	-0.13	0.000073	0.1	-7.23	-0.85	0.01
1	5 feet upstream of bridge-culvert	260	100 YR 72	0	0	-0.12	0	-0.11	0.000054	0.07	-5.84	-0.71	0.01
1	Partin Settlement Road bridge-culvert	217											
1	5 feet downstream of existing/proposed bridge-culvert		10 YR 24 H	0	0	-0.1	0	-0.1	0.00015	0.06	-5	-0.83	0.01
1	5 feet downstream of existing/proposed bridge-culvert		10 YR 72 H	0	0	-0.12	0	-0.11	0.000216	0.07	-5.88	-0.93	0.01
1	5 feet downstream of existing/proposed bridge-culvert		50 YR 24 H	0	0	-0.18	0	-0.17	0.000665	0.16	-9.58	-0.52	0.02
1	5 feet downstream of existing/proposed bridge-culvert		100 YR 24	0	0	-0.19	0	-0.18	0.000732	0.17	-10.05	-0.54	0.02
1	5 feet downstream of existing/proposed bridge-culvert		100 YR 72	0	0	-0.15	0	-0.14	0.00048	0.13	-8.15	-0.44	0.02
1	65 feet downstream of existing bridge-culvert	139	10 YR 24 H	0	0	-0.02	0	-0.03	8.1E-05	0.03	-3.35	-0.34	0.01
1	65 feet downstream of existing bridge-culvert	139	10 YR 72 H	0	0	-0.02	0	-0.02	0.000064	0.02	-3.13	-0.3	0
1	65 feet downstream of existing bridge-culvert	139	50 YR 24 H	0	0	-0.02	0	-0.02	9E-05	0.03	-3.95	-0.12	0.01
1	65 feet downstream of existing bridge-culvert	139	100 YR 24	0	0	-0.02	0	-0.02	9.3E-05	0.03	-4.17	-0.13	0.01
1	65 feet downstream of existing bridge-culvert	139	100 YR 72	0	0	-0.02	0	-0.02	0.000067	0.03	-3.62	-0.11	0.01

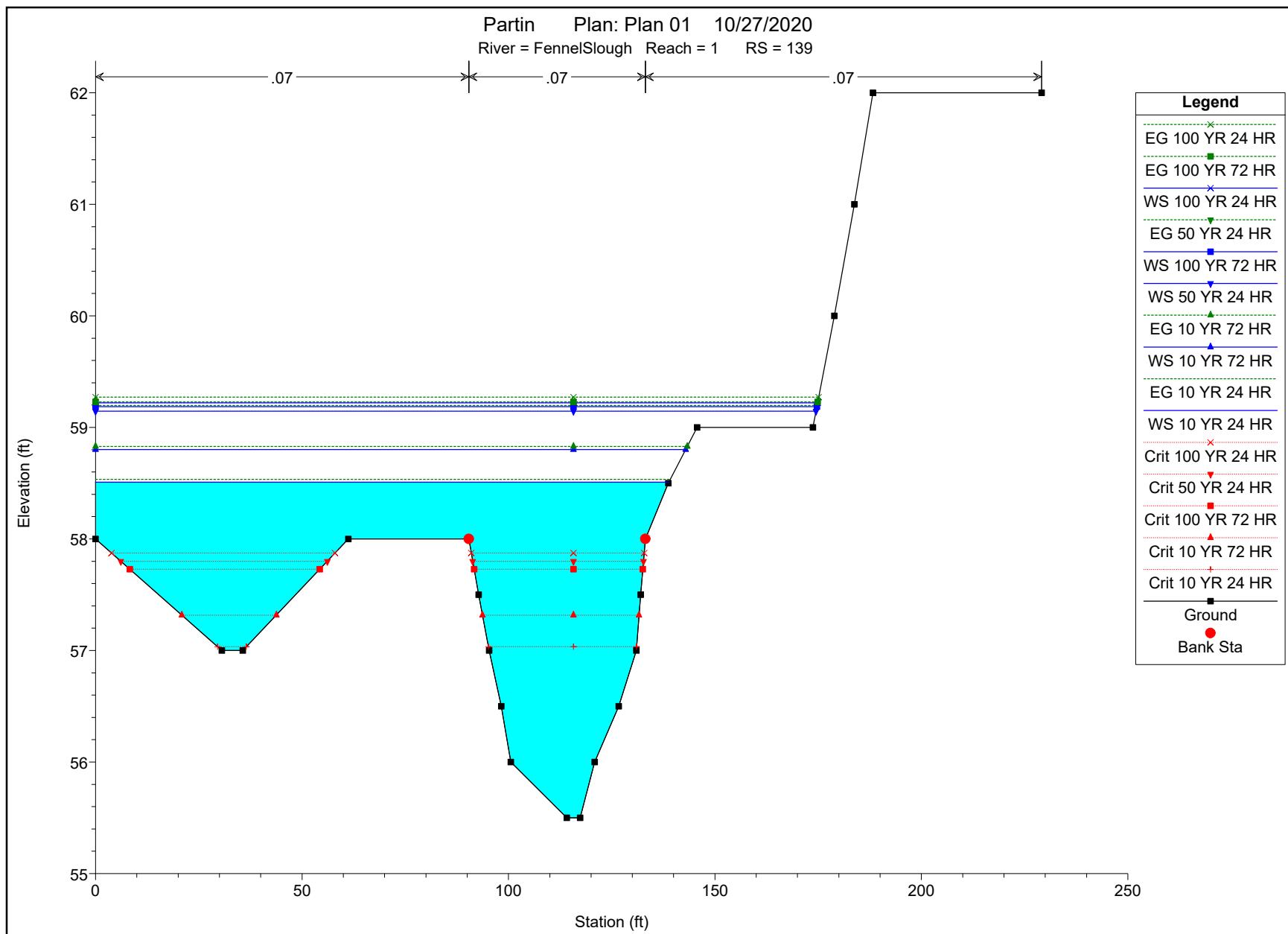


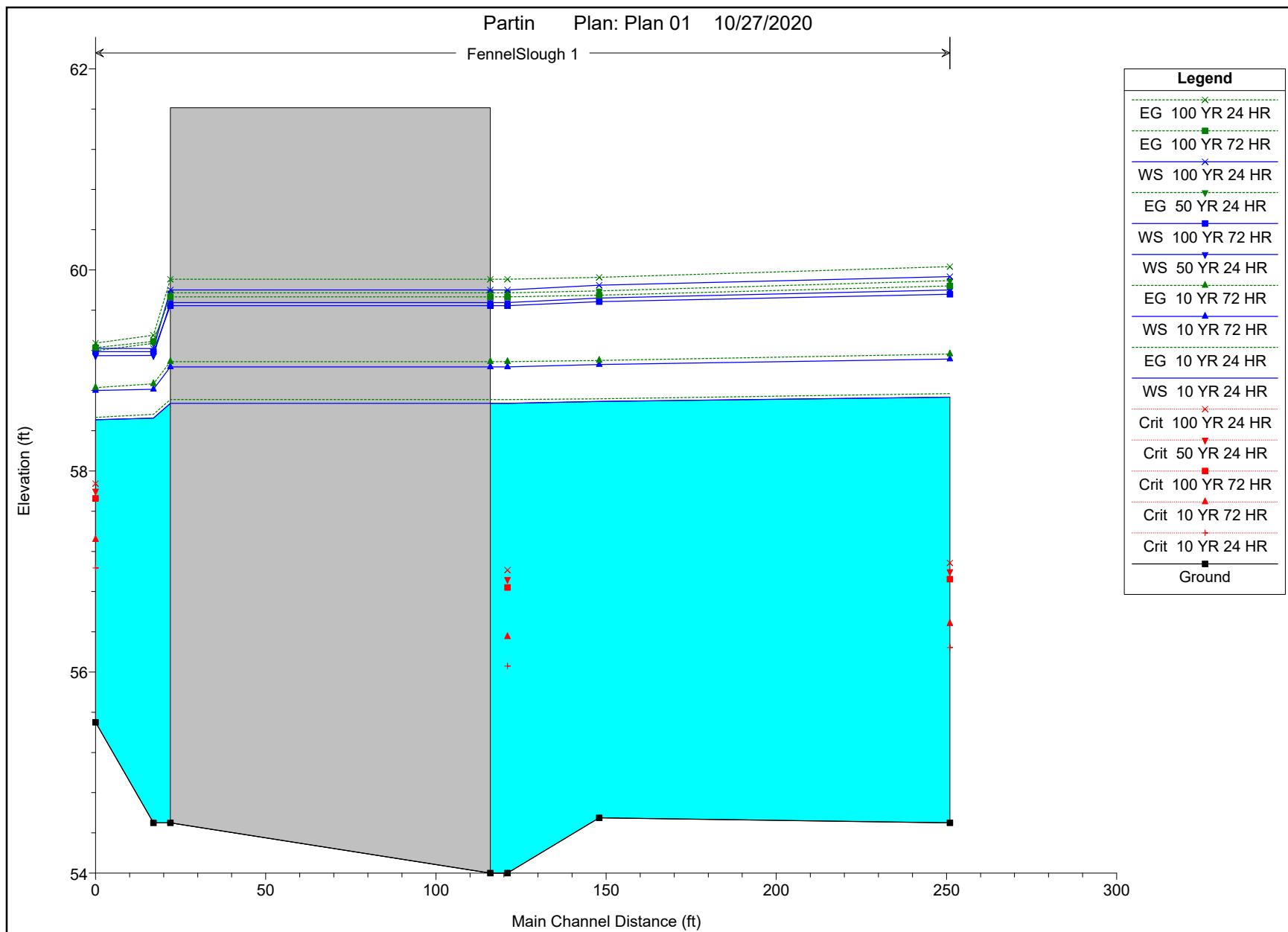












HEC-RAS HEC-RAS 5.0.7 March 2019  
U.S. Army Corps of Engineers  
Hydrologic Engineering Center  
609 Second Street  
Davis, California

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PROJECT DATA

Project Title: Partin  
Project File : Partin.prj  
Run Date and Time: 10/23/2020 5:41:45 PM

Project in English units

PLAN DATA

Plan Title: Plan 02  
Plan File : C:\Users\sdcollins\Johnson, Mirmiran Thompson\20-00219-001 - Partin Settlement Road - Bridge Hydraulic Study\HECRAS\Partin\Partin.p02

Geometry Title: BoxExtension  
Geometry File : C:\Users\sdcollins\Johnson, Mirmiran Thompson\20-00219-001 - Partin Settlement Road - Bridge Hydraulic Study\HECRAS\Partin\Partin.g04

Flow Title : Flow 01  
Flow File : C:\Users\sdcollins\Johnson, Mirmiran Thompson\20-00219-001 - Partin Settlement Road - Bridge Hydraulic Study\HECRAS\Partin\Partin.f01

Plan Summary Information:

Number of: Cross Sections = 5    Multiple Openings = 0  
             Culverts = 0    Inline Structures = 1  
             Bridges = 0    Lateral Structures = 0

Computational Information

Water surface calculation tolerance = 0.01  
 Critical depth calculation tolerance = 0.01  
 Maximum number of iterations = 20  
 Maximum difference tolerance = 0.3  
 Flow tolerance factor = 0.001

#### Computation Options

Critical depth computed only where necessary  
 Conveyance Calculation Method: At breaks in n values only  
 Friction Slope Method: Average Conveyance  
 Computational Flow Regime: Mixed Flow

#### FLOW DATA

Flow Title: Flow 01

Flow File : C:\Users\sdcollins\Johnson, Mirmiran Thompson\20-00219-001 - Partin Settlement Road - Bridge Hydraulic Study\HECRAS\Partin\Partin.f01

Flow Data (cfs)

River YR 24 HR	Reach 100 YR 24 HR	RS 100 YR 72 HR	10 YR 24 HR	10 YR 72 HR	50
FennelSlough 443.34	1 475.78	390 414.85	196.23	265.2	

#### Boundary Conditions

River Downstream	Reach	Profile	Upstream
FennelSlough Normal S = 0.000722	1	10 YR 24 HR	Normal S = 0.000722
FennelSlough Normal S = 0.000722	1	10 YR 72 HR	Normal S = 0.000722
FennelSlough Normal S = 0.000722	1	50 YR 24 HR	Normal S = 0.000722
FennelSlough Normal S = 0.000722	1	100 YR 24 HR	Normal S = 0.000722
FennelSlough Normal S = 0.000722	1	100 YR 72 HR	Normal S = 0.000722

## GEOMETRY DATA

Geometry Title: BoxExtension

Geometry File : C:\Users\sdcollins\Johnson, Mirmiran Thompson\20-00219-001 - Partin Settlement Road - Bridge Hydraulic Study\HECRAS\Partin\Partin.g04

## CROSS SECTION

RIVER: FennelSlough

REACH: 1 RS: 390

### INPUT

#### Description:

Station	Elevation	Data	num=	63	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	52	1.48			2.52	52.5	3.66	53	4.75	53.5		
5.8	54	7.26			9.24	55	11.13	55.5	13	56		
14.9	56.5	16.22			17.68	57.5	19.06	58	20.39	58.5		
21.72	59	23			24.68	60	30.41	60.5	36.55	60.5		
44.09	60	49.03			50.09	59	51.43	58.5	52.54	58		
53.66	57.5	54.79			55.9	56.5	56.96	56	61.2	55.5		
66.91	55	72.11			73.28	54.5	78.67	55	84.43	55.5		
89.29	56	90.36			91.46	57	92.57	57.5	93.73	58		
94.88	58.5	96.02			97.17	59.5	98.83	60	100.72	60.5		
109.48	61	118.83			122.25	60.5	124.32	60	126.36	59.5		
128.4	59	130.48			132.68	58	134.57	57.5	135.78	57.5		
137.13	58	139.34			141.95	59	144.47	59.5	146.9	60		
149.33	60.5	151.72			164.48	61.5						

Manning's n Values num= 3

Sta	n	Val	Sta	n	Val	Sta	n	Val
0	.07	49.03		.07	100.72		.07	

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.  
49.03 100.72 103 103 103 .1 .3

Blocked Obstructions num= 2

Sta L	Sta R	Elev	Sta L	Sta R	Elev
0	30.5	60.53	118.59	164.48	61.01

CROSS SECTION OUTPUT Profile #10 YR 24 HR

E.G. Elev (ft)	59.09	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.		0.070

W.S. Elev (ft)	59.06	Reach Len. (ft)	103.00	103.00
103.00				
Crit W.S. (ft)	56.24	Flow Area (sq ft)		145.51
E.G. Slope (ft/ft)	0.000911	Area (sq ft)		145.51
Q Total (cfs)	196.23	Flow (cfs)		196.23
Top Width (ft)	46.19	Top Width (ft)		46.19
Vel Total (ft/s)	1.35	Avg. Vel. (ft/s)		1.35
Max Chl Dpth (ft)	4.56	Hydr. Depth (ft)		3.15
Conv. Total (cfs)	6502.9	Conv. (cfs)		6502.9
Length Wtd. (ft)	103.00	Wetted Per. (ft)		47.63
Min Ch El (ft)	54.50	Shear (lb/sq ft)		0.17
Alpha	1.00	Stream Power (lb/ft s)		0.23
Frctn Loss (ft)	0.03	Cum Volume (acre-ft)	0.02	0.53
0.00				
C & E Loss (ft)	0.00	Cum SA (acres)	0.02	0.28
0.00				

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

#### CROSS SECTION OUTPUT Profile #10 YR 72 HR

E.G. Elev (ft)	59.52	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.04	Wt. n-Val.		0.070
W.S. Elev (ft)	59.48	Reach Len. (ft)	103.00	103.00
103.00				
Crit W.S. (ft)	56.48	Flow Area (sq ft)		165.50
E.G. Slope (ft/ft)	0.001146	Area (sq ft)		165.50
Q Total (cfs)	265.20	Flow (cfs)		265.20
Top Width (ft)	48.07	Top Width (ft)		48.07

Vel Total (ft/s)	1.60	Avg. Vel. (ft/s)	1.60	
Max Chl Dpth (ft)	4.98	Hydr. Depth (ft)	3.44	
Conv. Total (cfs)	7834.8	Conv. (cfs)	7834.8	
Length Wtd. (ft)	103.00	Wetted Per. (ft)	49.69	
Min Ch El (ft)	54.50	Shear (lb/sq ft)	0.24	
Alpha	1.00	Stream Power (lb/ft s)	0.38	
Frcnt Loss (ft) 0.00	0.04	Cum Volume (acre-ft)	0.03	0.61
C & E Loss (ft) 0.01	0.00	Cum SA (acres)	0.02	0.30

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

#### CROSS SECTION OUTPUT Profile #50 YR 24 HR

E.G. Elev (ft)	60.47	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.	0.070	0.070
W.S. Elev (ft) 103.00	60.40	Reach Len. (ft)	103.00	103.00
Crit W.S. (ft)	57.00	Flow Area (sq ft)	4.42	211.00
E.G. Slope (ft/ft)	0.001541	Area (sq ft)	4.42	211.00
Q Total (cfs)	443.34	Flow (cfs)	2.00	441.34
Top Width (ft)	62.28	Top Width (ft)	10.97	51.31
Vel Total (ft/s)	2.06	Avg. Vel. (ft/s)	0.45	2.09
Max Chl Dpth (ft)	5.90	Hydr. Depth (ft)	0.40	4.11
Conv. Total (cfs)	11292.0	Conv. (cfs)	51.0	11241.0
Length Wtd. (ft)	103.00	Wetted Per. (ft)	11.01	53.07
Min Ch El (ft)	54.50	Shear (lb/sq ft)	0.04	0.38

Alpha	1.03	Stream Power (lb/ft s)	0.02	0.80
Frctn Loss (ft) 0.01	0.06	Cum Volume (acre-ft)	0.05	0.77
C & E Loss (ft) 0.01	0.00	Cum SA (acres)	0.03	0.32

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

#### CROSS SECTION OUTPUT Profile #100 YR 24 HR

E.G. Elev (ft)	60.69	Element	Left OB	Channel
Right OB				
Vel Head (ft) 0.070	0.07	Wt. n-Val.	0.070	0.070
W.S. Elev (ft) 103.00	60.63	Reach Len. (ft)	103.00	103.00
Crit W.S. (ft) 0.14	57.09	Flow Area (sq ft)	10.82	222.63
E.G. Slope (ft/ft) 0.14	0.001492	Area (sq ft)	10.82	222.63
Q Total (cfs) 0.02	475.78	Flow (cfs)	3.23	472.53
Top Width (ft) 2.20	102.92	Top Width (ft)	49.03	51.69
Vel Total (ft/s) 0.13	2.04	Avg. Vel. (ft/s)	0.30	2.12
Max Chl Dpth (ft) 0.06	6.13	Hydr. Depth (ft)	0.22	4.31
Conv. Total (cfs) 0.5	12317.0	Conv. (cfs)	83.7	12232.8
Length Wtd. (ft) 2.20	103.00	Wetted Per. (ft)	49.20	53.46
Min Ch El (ft) 0.01	54.50	Shear (lb/sq ft)	0.02	0.39
Alpha 0.00	1.08	Stream Power (lb/ft s)	0.01	0.82
Frctn Loss (ft) 0.01	0.06	Cum Volume (acre-ft)	0.06	0.81
C & E Loss (ft) 0.01	0.00	Cum SA (acres)	0.08	0.32

Warning: The cross-section end points had to be extended vertically for the computed

water surface.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100 YR 72 HR

E.G. Elev (ft)	60.32	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.06	Wt. n-Val.	0.070	0.070
W.S. Elev (ft) 103.00	60.26	Reach Len. (ft)	103.00	103.00
Crit W.S. (ft)	56.92	Flow Area (sq ft)	3.00	203.68
E.G. Slope (ft/ft)	0.001502	Area (sq ft)	3.00	203.68
Q Total (cfs)	414.85	Flow (cfs)	1.20	413.65
Top Width (ft)	59.58	Top Width (ft)	8.81	50.77
Vel Total (ft/s)	2.01	Avg. Vel. (ft/s)	0.40	2.03
Max Chl Dpth (ft)	5.76	Hydr. Depth (ft)	0.34	4.01
Conv. Total (cfs)	10705.4	Conv. (cfs)	31.0	10674.5
Length Wtd. (ft)	103.00	Wetted Per. (ft)	8.84	52.51
Min Ch El (ft)	54.50	Shear (lb/sq ft)	0.03	0.36
Alpha	1.02	Stream Power (lb/ft s)	0.01	0.74
Frctn Loss (ft) 0.01	0.06	Cum Volume (acre-ft)	0.04	0.74
C & E Loss (ft) 0.01	0.00	Cum SA (acres)	0.03	0.31

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: FennelSlough

REACH: 1

RS: 287

## INPUT

## Description:

Station	Elevation	Data	num=	24					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	61	.82	60.5	2.2	60	3.55	59.5	4.86	59
6.2	58.5	7.66	58	9.41	57.5	11.27	57	13.13	56.5
15.01	56	20.48	55.5	25.99	55	31.24	54.55	39.65	55
48.74	55.5	49.82	56	52.33	56.5	54.03	57	55.34	57.5
56.53	58	57.71	58.5	58.88	59	60.39	59.5		

Manning's n Values	num=	3			
Sta	n Val	Sta	n Val	Sta	n Val
0	.035	0	.035	60.39	.035

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	0	60.39		27	27	27		.1	.3

## CROSS SECTION OUTPUT Profile #10 YR 24 HR

E.G. Elev (ft)	59.05	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.		0.035
W.S. Elev (ft)	59.03	Reach Len. (ft)	27.00	27.00
27.00				
Crit W.S. (ft)		Flow Area (sq ft)		167.25
E.G. Slope (ft/ft)	0.000175	Area (sq ft)		167.25
Q Total (cfs)	196.23	Flow (cfs)		196.23
Top Width (ft)	54.19	Top Width (ft)		54.19
Vel Total (ft/s)	1.17	Avg. Vel. (ft/s)		1.17
Max Chl Dpth (ft)	4.48	Hydr. Depth (ft)		3.09
Conv. Total (cfs)	14839.9	Conv. (cfs)		14839.9
Length Wtd. (ft)	27.00	Wetted Per. (ft)		55.36
Min Ch El (ft)	54.55	Shear (lb/sq ft)		0.03
Alpha	1.00	Stream Power (lb/ft s)		0.04
Frctn Loss (ft)	0.01	Cum Volume (acre-ft)	0.02	0.16
0.00				
C & E Loss (ft)	0.00	Cum SA (acres)	0.02	0.17

0.00

CROSS SECTION OUTPUT Profile #10 YR 72 HR

E.G. Elev (ft)	59.48	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.		0.035
W.S. Elev (ft)	59.45	Reach Len. (ft)	27.00	27.00
27.00				
Crit W.S. (ft)		Flow Area (sq ft)		190.34
E.G. Slope (ft/ft)	0.000220	Area (sq ft)		190.34
Q Total (cfs)	265.20	Flow (cfs)		265.20
Top Width (ft)	56.54	Top Width (ft)		56.54
Vel Total (ft/s)	1.39	Avg. Vel. (ft/s)		1.39
Max Chl Dpth (ft)	4.90	Hydr. Depth (ft)		3.37
Conv. Total (cfs)	17876.0	Conv. (cfs)		17876.0
Length Wtd. (ft)	27.00	Wetted Per. (ft)		57.85
Min Ch El (ft)	54.55	Shear (lb/sq ft)		0.05
Alpha	1.00	Stream Power (lb/ft s)		0.06
Frctn Loss (ft)	0.01	Cum Volume (acre-ft)	0.03	0.19
0.00				
C & E Loss (ft)	0.00	Cum SA (acres)	0.02	0.17
0.01				

CROSS SECTION OUTPUT Profile #50 YR 24 HR

E.G. Elev (ft)	60.40	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.035
W.S. Elev (ft)	60.35	Reach Len. (ft)	27.00	27.00
27.00				
Crit W.S. (ft)		Flow Area (sq ft)		242.79

E.G. Slope (ft/ft)	0.000296	Area (sq ft)	242.79	
Q Total (cfs)	443.34	Flow (cfs)	443.34	
Top Width (ft)	59.16	Top Width (ft)	59.16	
Vel Total (ft/s)	1.83	Avg. Vel. (ft/s)	1.83	
Max Chl Dpth (ft)	5.80	Hydr. Depth (ft)	4.10	
Conv. Total (cfs)	25748.5	Conv. (cfs)	25748.5	
Length Wtd. (ft)	27.00	Wetted Per. (ft)	61.50	
Min Ch El (ft)	54.55	Shear (lb/sq ft)	0.07	
Alpha	1.00	Stream Power (lb/ft s)	0.13	
Frctn Loss (ft) 0.01	0.01	Cum Volume (acre-ft)	0.04	0.23
C & E Loss (ft) 0.01	0.00	Cum SA (acres)	0.02	0.18

Warning: The cross-section end points had to be extended vertically for the computed water surface.

#### CROSS SECTION OUTPUT Profile #100 YR 24 HR

E.G. Elev (ft)	60.63	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.035
W.S. Elev (ft) 27.00	60.58	Reach Len. (ft)	27.00	27.00
Crit W.S. (ft)		Flow Area (sq ft)		256.29
E.G. Slope (ft/ft)	0.000290	Area (sq ft)		256.29
Q Total (cfs)	475.78	Flow (cfs)		475.78
Top Width (ft)	59.70	Top Width (ft)		59.70
Vel Total (ft/s)	1.86	Avg. Vel. (ft/s)		1.86
Max Chl Dpth (ft)	6.03	Hydr. Depth (ft)		4.29

Conv. Total (cfs)	27931.9	Conv. (cfs)		27931.9
Length Wtd. (ft)	27.00	Wetted Per. (ft)		62.31
Min Ch El (ft)	54.55	Shear (lb/sq ft)		0.07
Alpha	1.00	Stream Power (lb/ft s)		0.14
Frctn Loss (ft) 0.01	0.01	Cum Volume (acre-ft)	0.04	0.25
C & E Loss (ft) 0.01	0.00	Cum SA (acres)	0.02	0.19

Warning: The cross-section end points had to be extended vertically for the computed water surface.

CROSS SECTION OUTPUT Profile #100 YR 72 HR

E.G. Elev (ft)	60.26	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.05	Wt. n-Val.		0.035
W.S. Elev (ft) 27.00	60.21	Reach Len. (ft)	27.00	27.00
Crit W.S. (ft)		Flow Area (sq ft)		234.41
E.G. Slope (ft/ft)	0.000288	Area (sq ft)		234.41
Q Total (cfs)	414.85	Flow (cfs)		414.85
Top Width (ft)	58.77	Top Width (ft)		58.77
Vel Total (ft/s)	1.77	Avg. Vel. (ft/s)		1.77
Max Chl Dpth (ft)	5.66	Hydr. Depth (ft)		3.99
Conv. Total (cfs)	24432.7	Conv. (cfs)		24432.7
Length Wtd. (ft)	27.00	Wetted Per. (ft)		60.94
Min Ch El (ft)	54.55	Shear (lb/sq ft)		0.07
Alpha	1.00	Stream Power (lb/ft s)		0.12
Frctn Loss (ft) 0.01	0.01	Cum Volume (acre-ft)	0.04	0.23
C & E Loss (ft)	0.00	Cum SA (acres)	0.02	0.18

0.01

Warning: The cross-section end points had to be extended vertically for the computed water surface.

## CROSS SECTION

RIVER: FennelSlough

REACH: 1

RS: 260

### INPUT

#### Description:

Station	Elevation	Data	num=	31	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	61	6.86			60.5	58	17.33	57.5	10.34	59.5	12.01	59
13.71	58.5	15.44					26.28	55	19.29	57	20.78	56.5
22.3	56	24.26						36.84	54.5	38.88	54	
40.14	54	42.56						44.91	55	46.71	55.5	49.54
52.88	56.5	53.96						54.96	57.5	56.05	58	57.15
58.27	59	59.41						60.76	60	62.4	60.5	64.05
65.3	61.5											61

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.035	6.86	.035	65.3	.035

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	6.86	65.3		104	104	104		.1	.3

Ineffective Flow	num=	2	
Sta L	Sta R	Elev	Permanent

0	6.86	60.5	F
65.3	65.3	61.5	F

## CROSS SECTION OUTPUT Profile #10 YR 24 HR

E.G. Elev (ft)	59.04	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.		0.035
W.S. Elev (ft)	59.02	Reach Len. (ft)	104.00	104.00
104.00				
Crit W.S. (ft)	56.06	Flow Area (sq ft)		143.85
E.G. Slope (ft/ft)	0.000238	Area (sq ft)		143.85
Q Total (cfs)	196.23	Flow (cfs)		196.23

Top Width (ft)	46.35	Top Width (ft)	46.35
Vel Total (ft/s)	1.36	Avg. Vel. (ft/s)	1.36
Max Chl Dpth (ft)	5.02	Hydr. Depth (ft)	3.10
Conv. Total (cfs)	12731.7	Conv. (cfs)	12731.7
Length Wtd. (ft)	104.00	Wetted Per. (ft)	47.79
Min Ch El (ft)	54.00	Shear (lb/sq ft)	0.04
Alpha	1.00	Stream Power (lb/ft s)	0.06
Frctn Loss (ft) 0.00		Cum Volume (acre-ft)	0.02
C & E Loss (ft) 0.00		Cum SA (acres)	0.02
			0.14

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

#### CROSS SECTION OUTPUT Profile #10 YR 72 HR

E.G. Elev (ft)	59.47	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.04	Wt. n-Val.		0.035
W.S. Elev (ft) 104.00	59.43	Reach Len. (ft)	104.00	104.00
Crit W.S. (ft)	56.35	Flow Area (sq ft)		163.42
E.G. Slope (ft/ft)	0.000303	Area (sq ft)		163.42
Q Total (cfs)	265.20	Flow (cfs)		265.20
Top Width (ft)	48.66	Top Width (ft)		48.66
Vel Total (ft/s)	1.62	Avg. Vel. (ft/s)		1.62
Max Chl Dpth (ft)	5.43	Hydr. Depth (ft)		3.36
Conv. Total (cfs)	15229.7	Conv. (cfs)		15229.7
Length Wtd. (ft)	104.00	Wetted Per. (ft)		50.25

Min Ch El (ft)	54.00	Shear (lb/sq ft)	0.06
Alpha	1.00	Stream Power (lb/ft s)	0.10
Frctn Loss (ft) 0.00		Cum Volume (acre-ft)	0.03
C & E Loss (ft) 0.01		Cum SA (acres)	0.02

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

#### CROSS SECTION OUTPUT Profile #50 YR 24 HR

E.G. Elev (ft)	60.39	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.		0.035
W.S. Elev (ft) 104.00	60.32	Reach Len. (ft)	104.00	104.00
Crit W.S. (ft)	56.92	Flow Area (sq ft)		209.43
E.G. Slope (ft/ft)	0.000430	Area (sq ft)		209.43
Q Total (cfs)	443.34	Flow (cfs)		443.34
Top Width (ft)	54.32	Top Width (ft)		54.32
Vel Total (ft/s)	2.12	Avg. Vel. (ft/s)		2.12
Max Chl Dpth (ft)	6.32	Hydr. Depth (ft)		3.86
Conv. Total (cfs)	21374.9	Conv. (cfs)		21374.9
Length Wtd. (ft)	104.00	Wetted Per. (ft)		56.19
Min Ch El (ft)	54.00	Shear (lb/sq ft)		0.10
Alpha	1.00	Stream Power (lb/ft s)		0.21
Frctn Loss (ft) 0.01		Cum Volume (acre-ft)	0.04	0.09
C & E Loss (ft) 0.01		Cum SA (acres)	0.02	0.15

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

CROSS SECTION OUTPUT Profile #100 YR 24 HR

			Left OB	Channel
E.G. Elev (ft)	60.62	Element		
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.	0.035	0.035
W.S. Elev (ft)	60.55	Reach Len. (ft)	104.00	104.00
104.00				
Crit W.S. (ft)	57.01	Flow Area (sq ft)	0.02	221.94
E.G. Slope (ft/ft)	0.000422	Area (sq ft)	0.02	221.94
Q Total (cfs)	475.78	Flow (cfs)	0.00	475.78
Top Width (ft)	56.39	Top Width (ft)	0.69	55.70
Vel Total (ft/s)	2.14	Avg. Vel. (ft/s)	0.07	2.14
Max Chl Dpth (ft)	6.55	Hydr. Depth (ft)	0.02	3.98
Conv. Total (cfs)	23150.6	Conv. (cfs)	0.1	23150.6
Length Wtd. (ft)	104.00	Wetted Per. (ft)	0.69	57.63
Min Ch El (ft)	54.00	Shear (lb/sq ft)	0.00	0.10
Alpha	1.00	Stream Power (lb/ft s)	0.00	0.22
Frctn Loss (ft)		Cum Volume (acre-ft)	0.04	0.10
0.01				
C & E Loss (ft)		Cum SA (acres)	0.02	0.15
0.01				

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

CROSS SECTION OUTPUT Profile #100 YR 72 HR

			Left OB	Channel
E.G. Elev (ft)	60.25	Element		
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.	0.035	
W.S. Elev (ft)	60.18	Reach Len. (ft)	104.00	104.00

104.00			
Crit W.S. (ft)	56.84	Flow Area (sq ft)	201.85
E.G. Slope (ft/ft)	0.000416	Area (sq ft)	201.85
Q Total (cfs)	414.85	Flow (cfs)	414.85
Top Width (ft)	53.35	Top Width (ft)	53.35
Vel Total (ft/s)	2.06	Avg. Vel. (ft/s)	2.06
Max Chl Dpth (ft)	6.18	Hydr. Depth (ft)	3.78
Conv. Total (cfs)	20344.6	Conv. (cfs)	20344.6
Length Wtd. (ft)	104.00	Wetted Per. (ft)	55.18
Min Ch El (ft)	54.00	Shear (lb/sq ft)	0.09
Alpha	1.00	Stream Power (lb/ft s)	0.20
Frcnt Loss (ft) 0.01		Cum Volume (acre-ft)	0.04
C & E Loss (ft) 0.01		Cum SA (acres)	0.02
			0.15

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

#### INLINE STRUCTURE

RIVER: FennelSlough

REACH: 1 RS: 217

#### INPUT

Description: PartinSettlementRoad

Distance from Upstream XS = 5

Deck/Roadway Width = 94

Weir Coefficient = 2.6

Weir Embankment Coordinates num = 2

Sta	Elev	Sta	Elev
0	61.95	70	61.59

Upstream Embankment side slope = 0 horiz. to 1.0 vertical

Downstream Embankment side slope = 0 horiz. to 1.0 vertical

Maximum allowable submergence for weir flow = .98

Elevation at which weir flow begins =

Weir crest shape = Broad Crested

INLINE STRUCTURE OUTPUT Profile #10 YR 24 HR Culv Group: Culvert #1

E.G. Elev (ft)	59.04	Weir Sta Lft (ft)	
W.S. Elev (ft)	59.02	Weir Sta Rgt (ft)	
Q Total (cfs)	196.23	Min El Weir Flow (ft)	61.62
Q Weir (cfs)		Wr Top Wdth (ft)	
Q Gates (cfs)		Weir Max Depth (ft)	
Q Culv (cfs)	196.23	Weir Avg Depth (ft)	
Q Inline RC (cfs)		Weir Flow Area (sq ft)	
Q Outlet TS (cfs)		Weir Coef (ft <sup>1/2</sup> )	
Q Breach (cfs)		Weir Submerg	
Breach Avg Velocity (ft/s)			
Breach Flow Area (sq ft)		Q Culv Group (cfs)	196.23
Breach WD (ft)		# Barrels	2
Breach Top El (ft)		Culv Length (ft)	94.00
Breach Bottom El (ft)		Culv Depth Blocked (ft)	0.00
Breach SSL (ft)		Culv Inv El Up (ft)	55.17
Breach SSR (ft)		Culv Inv El Dn (ft)	55.00

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

INLINE STRUCTURE OUTPUT Profile #10 YR 72 HR Culv Group: Culvert #1

E.G. Elev (ft)	59.47	Weir Sta Lft (ft)	
W.S. Elev (ft)	59.43	Weir Sta Rgt (ft)	
Q Total (cfs)	265.20	Min El Weir Flow (ft)	61.62
Q Weir (cfs)		Wr Top Wdth (ft)	
Q Gates (cfs)		Weir Max Depth (ft)	
Q Culv (cfs)	265.20	Weir Avg Depth (ft)	
Q Inline RC (cfs)		Weir Flow Area (sq ft)	
Q Outlet TS (cfs)		Weir Coef (ft <sup>1/2</sup> )	
Q Breach (cfs)		Weir Submerg	
Breach Avg Velocity (ft/s)			
Breach Flow Area (sq ft)		Q Culv Group (cfs)	265.20
Breach WD (ft)		# Barrels	2
Breach Top El (ft)		Culv Length (ft)	94.00
Breach Bottom El (ft)		Culv Depth Blocked (ft)	0.00
Breach SSL (ft)		Culv Inv El Up (ft)	55.17
Breach SSR (ft)		Culv Inv El Dn (ft)	55.00

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

INLINE STRUCTURE OUTPUT Profile #50 YR 24 HR Culv Group: Culvert #1

E.G. Elev (ft)	60.39	Weir Sta Lft (ft)
W.S. Elev (ft)	60.32	Weir Sta Rgt (ft)
Q Total (cfs)	443.34	Min El Weir Flow (ft) 61.62
Q Weir (cfs)		Wr Top Wdth (ft)
Q Gates (cfs)		Weir Max Depth (ft)
Q Culv (cfs)	443.34	Weir Avg Depth (ft)
Q Inline RC (cfs)		Weir Flow Area (sq ft)
Q Outlet TS (cfs)		Weir Coef (ft <sup>1/2</sup> )
Q Breach (cfs)		Weir Submerg
Breach Avg Velocity (ft/s)		
Breach Flow Area (sq ft)		Q Culv Group (cfs) 443.34
Breach WD (ft)		# Barrels 2
Breach Top El (ft)		Culv Length (ft) 94.00
Breach Bottom El (ft)		Culv Depth Blocked (ft) 0.00
Breach SSL (ft)		Culv Inv El Up (ft) 55.17
Breach SSR (ft)		Culv Inv El Dn (ft) 55.00

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

INLINE STRUCTURE OUTPUT Profile #100 YR 24 HR Culv Group: Culvert #1

E.G. Elev (ft)	60.62	Weir Sta Lft (ft)
W.S. Elev (ft)	60.55	Weir Sta Rgt (ft)
Q Total (cfs)	475.78	Min El Weir Flow (ft) 61.62
Q Weir (cfs)		Wr Top Wdth (ft)
Q Gates (cfs)		Weir Max Depth (ft)
Q Culv (cfs)	475.78	Weir Avg Depth (ft)
Q Inline RC (cfs)		Weir Flow Area (sq ft)
Q Outlet TS (cfs)		Weir Coef (ft <sup>1/2</sup> )
Q Breach (cfs)		Weir Submerg
Breach Avg Velocity (ft/s)		
Breach Flow Area (sq ft)		Q Culv Group (cfs) 475.78
Breach WD (ft)		# Barrels 2
Breach Top El (ft)		Culv Length (ft) 94.00
Breach Bottom El (ft)		Culv Depth Blocked (ft) 0.00
Breach SSL (ft)		Culv Inv El Up (ft) 55.17
Breach SSR (ft)		Culv Inv El Dn (ft) 55.00

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

INLINE STRUCTURE OUTPUT Profile #100 YR 72 HR Culv Group: Culvert #1

E.G. Elev (ft)	60.25	Weir Sta Lft (ft)
W.S. Elev (ft)	60.18	Weir Sta Rgt (ft)
Q Total (cfs)	414.85	Min El Weir Flow (ft) 61.62

Q Weir (cfs)		Wr Top Wdth (ft)
Q Gates (cfs)		Weir Max Depth (ft)
Q Culv (cfs)	414.85	Weir Avg Depth (ft)
Q Inline RC (cfs)		Weir Flow Area (sq ft)
Q Outlet TS (cfs)		Weir Coef (ft <sup>1/2</sup> )
Q Breach (cfs)		Weir Submerg
Breach Avg Velocity (ft/s)		
Breach Flow Area (sq ft)		Q Culv Group (cfs) 414.85
Breach WD (ft)		# Barrels 2
Breach Top El (ft)		Culv Length (ft) 94.00
Breach Bottom El (ft)		Culv Depth Blocked (ft) 0.00
Breach SSL (ft)		Culv Inv El Up (ft) 55.17
Breach SSR (ft)		Culv Inv El Dn (ft) 55.00

Note: Multiple critical depths were found at this location. The critical depth with the lowest, valid, energy was used.

#### CROSS SECTION

RIVER: FennelSlough

REACH: 1 RS: 156

#### INPUT

##### Description:

Station	Elevation	Data	num=	25					
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	61.5	2.42	61	4.8	60.5	6.58	60	7.96	59.5
9.38	59	10.78	58.5	12.19	58	13.22	57.5	14.22	57
15.19	56.5	16.18	56	17.09	55.5	21.3	55	25.9	54.5
36.29	54.5	42.04	55	44.01	55.5	44.96	56	46.01	56.5
47.32	57	51.22	57.5	56.94	58	58.98	58.5	61.61	59

Manning's n Values	num=	3			
Sta	n Val	Sta	n Val	Sta	n Val
0	.07	0	.07	61.61	.07

Bank Sta:	Left	Right	Lengths:	Left	Channel	Right	Coeff	Contr.	Expan.
	0	61.61		17	17	17		.1	.3

#### CROSS SECTION OUTPUT Profile #10 YR 24 HR

E.G. Elev (ft)	58.92	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.03	Wt. n-Val.		0.070
W.S. Elev (ft)	58.90	Reach Len. (ft)	17.00	17.00
17.00				

Crit W.S. (ft)		Flow Area (sq ft)	145.94
E.G. Slope (ft/ft)	0.001034	Area (sq ft)	145.94
Q Total (cfs)	196.23	Flow (cfs)	196.23
Top Width (ft)	51.39	Top Width (ft)	51.39
Vel Total (ft/s)	1.34	Avg. Vel. (ft/s)	1.34
Max Chl Dpth (ft)	4.40	Hydr. Depth (ft)	2.84
Conv. Total (cfs)	6103.7	Conv. (cfs)	6103.7
Length Wtd. (ft)	17.00	Wetted Per. (ft)	52.77
Min Ch El (ft)	54.50	Shear (lb/sq ft)	0.18
Alpha	1.00	Stream Power (lb/ft s)	0.24
Frcnt Loss (ft) 0.00	0.01	Cum Volume (acre-ft)	0.02
C & E Loss (ft) 0.00	0.00	Cum SA (acres)	0.02

CROSS SECTION OUTPUT Profile #10 YR 72 HR

E.G. Elev (ft) Right OB	59.28	Element	Left OB	Channel
Vel Head (ft)	0.04	Wt. n-Val.		0.070
W.S. Elev (ft) 17.00	59.24	Reach Len. (ft)	17.00	17.00
Crit W.S. (ft)		Flow Area (sq ft)		164.01
E.G. Slope (ft/ft)	0.001339	Area (sq ft)		164.01
Q Total (cfs)	265.20	Flow (cfs)		265.20
Top Width (ft)	52.92	Top Width (ft)		52.92
Vel Total (ft/s)	1.62	Avg. Vel. (ft/s)		1.62
Max Chl Dpth (ft)	4.74	Hydr. Depth (ft)		3.10
Conv. Total (cfs)	7248.0	Conv. (cfs)		7248.0

Length Wtd. (ft)	17.00	Wetted Per. (ft)		54.60
Min Ch El (ft)	54.50	Shear (lb/sq ft)		0.25
Alpha	1.00	Stream Power (lb/ft s)		0.41
Frcnt Loss (ft) 0.00	0.02	Cum Volume (acre-ft)	0.03	0.06
C & E Loss (ft) 0.01	0.01	Cum SA (acres)	0.02	0.02

Warning: The cross-section end points had to be extended vertically for the computed water surface.

#### CROSS SECTION OUTPUT Profile #50 YR 24 HR

E.G. Elev (ft)	60.00	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.08	Wt. n-Val.		0.070
W.S. Elev (ft) 17.00	59.93	Reach Len. (ft)	17.00	17.00
Crit W.S. (ft)		Flow Area (sq ft)		200.98
E.G. Slope (ft/ft)	0.002027	Area (sq ft)		200.98
Q Total (cfs)	443.34	Flow (cfs)		443.34
Top Width (ft)	54.83	Top Width (ft)		54.83
Vel Total (ft/s)	2.21	Avg. Vel. (ft/s)		2.21
Max Chl Dpth (ft)	5.43	Hydr. Depth (ft)		3.67
Conv. Total (cfs)	9846.0	Conv. (cfs)		9846.0
Length Wtd. (ft)	17.00	Wetted Per. (ft)		57.32
Min Ch El (ft)	54.50	Shear (lb/sq ft)		0.44
Alpha	1.00	Stream Power (lb/ft s)		0.98
Frcnt Loss (ft) 0.01	0.02	Cum Volume (acre-ft)	0.04	0.07
C & E Loss (ft) 0.01	0.02	Cum SA (acres)	0.02	0.02

Warning: The cross-section end points had to be extended vertically for the computed water surface.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

CROSS SECTION OUTPUT Profile #100 YR 24 HR

E.G. Elev (ft)	60.12	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.08	Wt. n-Val.		0.070
W.S. Elev (ft) 17.00	60.04	Reach Len. (ft)	17.00	17.00
Crit W.S. (ft)		Flow Area (sq ft)		206.91
E.G. Slope (ft/ft)	0.002142	Area (sq ft)		206.91
Q Total (cfs)	475.78	Flow (cfs)		475.78
Top Width (ft)	55.16	Top Width (ft)		55.16
Vel Total (ft/s)	2.30	Avg. Vel. (ft/s)		2.30
Max Chl Dpth (ft)	5.54	Hydr. Depth (ft)		3.75
Conv. Total (cfs)	10281.1	Conv. (cfs)		10281.1
Length Wtd. (ft)	17.00	Wetted Per. (ft)		57.78
Min Ch El (ft)	54.50	Shear (lb/sq ft)		0.48
Alpha	1.00	Stream Power (lb/ft s)		1.10
Frctn Loss (ft) 0.01	0.02	Cum Volume (acre-ft)	0.04	0.07
C & E Loss (ft) 0.01	0.02	Cum SA (acres)	0.02	0.02

Warning: The cross-section end points had to be extended vertically for the computed water surface.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

## CROSS SECTION OUTPUT Profile #100 YR 72 HR

			Left OB	Channel
E.G. Elev (ft)	59.90	Element		
Right OB				
Vel Head (ft)	0.07	Wt. n-Val.		0.070
W.S. Elev (ft)	59.83	Reach Len. (ft)	17.00	17.00
17.00				
Crit W.S. (ft)		Flow Area (sq ft)		195.61
E.G. Slope (ft/ft)	0.001926	Area (sq ft)		195.61
Q Total (cfs)	414.85	Flow (cfs)		414.85
Top Width (ft)	54.56	Top Width (ft)		54.56
Vel Total (ft/s)	2.12	Avg. Vel. (ft/s)		2.12
Max Chl Dpth (ft)	5.33	Hydr. Depth (ft)		3.59
Conv. Total (cfs)	9453.9	Conv. (cfs)		9453.9
Length Wtd. (ft)	17.00	Wetted Per. (ft)		56.94
Min Ch El (ft)	54.50	Shear (lb/sq ft)		0.41
Alpha	1.00	Stream Power (lb/ft s)		0.88
Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	0.04	0.07
0.01				
C & E Loss (ft)	0.02	Cum SA (acres)	0.02	0.02
0.01				

Warning: The cross-section end points had to be extended vertically for the computed water surface.

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than

1.4. This may indicate the need for additional cross sections.

## CROSS SECTION

RIVER: FennelSlough

REACH: 1

RS: 139

INPUT

Description:

Station Elevation Data num= 23			
Sta	Elev	Sta	Elev
0	58	30.58	57
92.78	57.5	95.31	57
117.37	55.5	120.89	56
133.15	58	138.68	58.5
183.78	61	188.24	62
			229.12
			62

Manning's n Values num= 3			
Sta	n Val	Sta	n Val
0	.07	90.41	.07
		133.15	.07

Bank Sta:	Left	Right	Coeff	Contr.	Expan.
	90.41	133.15		.1	.3

CROSS SECTION OUTPUT Profile #10 YR 24 HR

E.G. Elev (ft)	58.91	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.01	Wt. n-Val.	0.070	0.070
0.070				
W.S. Elev (ft)	58.89	Reach Len. (ft)		
Crit W.S. (ft)	57.03	Flow Area (sq ft)	113.81	111.47
4.63				
E.G. Slope (ft/ft)	0.000722	Area (sq ft)	113.81	111.47
4.63				
Q Total (cfs)	196.23	Flow (cfs)	75.19	119.56
1.48				
Top Width (ft)	144.18	Top Width (ft)	90.41	42.74
11.03				
Vel Total (ft/s)	0.85	Avg. Vel. (ft/s)	0.66	1.07
0.32				
Max Chl Dpth (ft)	3.39	Hydr. Depth (ft)	1.26	2.61
0.42				
Conv. Total (cfs)	7300.6	Conv. (cfs)	2797.3	4448.3
55.0				
Length Wtd. (ft)		Wetted Per. (ft)	91.34	43.25
11.07				
Min Ch El (ft)	55.50	Shear (lb/sq ft)	0.06	0.12
0.02				
Alpha	1.19	Stream Power (lb/ft s)	0.04	0.12
0.01				
Frcnt Loss (ft)		Cum Volume (acre-ft)		
C & E Loss (ft)		Cum SA (acres)		

## CROSS SECTION OUTPUT Profile #10 YR 72 HR

E.G. Elev (ft)	59.26	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.070	0.070
0.070				
W.S. Elev (ft)	59.24	Reach Len. (ft)		
Crit W.S. (ft)	57.32	Flow Area (sq ft)	145.50	126.46
15.90				
E.G. Slope (ft/ft)	0.000722	Area (sq ft)	145.50	126.46
15.90				
Q Total (cfs)	265.20	Flow (cfs)	112.93	147.51
4.75				
Top Width (ft)	174.98	Top Width (ft)	90.41	42.74
41.83				
Vel Total (ft/s)	0.92	Avg. Vel. (ft/s)	0.78	1.17
0.30				
Max Chl Dpth (ft)	3.74	Hydr. Depth (ft)	1.61	2.96
0.38				
Conv. Total (cfs)	9868.0	Conv. (cfs)	4202.2	5488.9
176.9				
Length Wtd. (ft)		Wetted Per. (ft)	91.69	43.25
41.90				
Min Ch El (ft)	55.50	Shear (lb/sq ft)	0.07	0.13
0.02				
Alpha	1.20	Stream Power (lb/ft s)	0.06	0.15
0.01				
Frcn Loss (ft)		Cum Volume (acre-ft)		
C & E Loss (ft)		Cum SA (acres)		

## CROSS SECTION OUTPUT Profile #50 YR 24 HR

E.G. Elev (ft)	59.97	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.070	0.070
0.070				
W.S. Elev (ft)	59.95	Reach Len. (ft)		
Crit W.S. (ft)	57.80	Flow Area (sq ft)	209.16	156.55
46.64				
E.G. Slope (ft/ft)	0.000722	Area (sq ft)	209.16	156.55
46.64				

Q Total (cfs)	443.34	Flow (cfs)	205.76	210.58
27.01				
Top Width (ft)	178.64	Top Width (ft)	90.41	42.74
45.49				
Vel Total (ft/s)	1.08	Avg. Vel. (ft/s)	0.98	1.35
0.58				
Max Chl Dpth (ft)	4.45	Hydr. Depth (ft)	2.31	3.66
1.03				
Conv. Total (cfs)	16494.0	Conv. (cfs)	7654.9	7834.3
1004.8				
Length Wtd. (ft)		Wetted Per. (ft)	92.39	43.25
45.62				
Min Ch El (ft)	55.50	Shear (lb/sq ft)	0.10	0.16
0.05				
Alpha	1.15	Stream Power (lb/ft s)	0.10	0.22
0.03				
Frctn Loss (ft)		Cum Volume (acre-ft)		
C & E Loss (ft)		Cum SA (acres)		

CROSS SECTION OUTPUT Profile #100 YR 24 HR

E.G. Elev (ft)	60.08	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.070	0.070
0.070				
W.S. Elev (ft)	60.06	Reach Len. (ft)		
Crit W.S. (ft)	57.87	Flow Area (sq ft)	219.25	161.32
51.75				
E.G. Slope (ft/ft)	0.000723	Area (sq ft)	219.25	161.32
51.75				
Q Total (cfs)	475.78	Flow (cfs)	222.46	221.46
31.86				
Top Width (ft)	179.20	Top Width (ft)	90.41	42.74
46.05				
Vel Total (ft/s)	1.10	Avg. Vel. (ft/s)	1.01	1.37
0.62				
Max Chl Dpth (ft)	4.56	Hydr. Depth (ft)	2.43	3.77
1.12				
Conv. Total (cfs)	17695.0	Conv. (cfs)	8273.7	8236.3
1185.0				
Length Wtd. (ft)		Wetted Per. (ft)	92.50	43.25
46.20				
Min Ch El (ft)	55.50	Shear (lb/sq ft)	0.11	0.17
0.05				

Alpha	1.14	Stream Power (lb/ft s)	0.11	0.23
0.03				
Frctn Loss (ft)		Cum Volume (acre-ft)		

CROSS SECTION OUTPUT Profile #100 YR 72 HR

E.G. Elev (ft)	59.87	Element	Left OB	Channel
Right OB				
Vel Head (ft)	0.02	Wt. n-Val.	0.070	0.070
0.070				
W.S. Elev (ft)	59.85	Reach Len. (ft)		
Crit W.S. (ft)	57.73	Flow Area (sq ft)	200.00	152.22
42.06				
E.G. Slope (ft/ft)	0.000722	Area (sq ft)	200.00	152.22
42.06				
Q Total (cfs)	414.85	Flow (cfs)	191.04	200.90
22.91				
Top Width (ft)	178.12	Top Width (ft)	90.41	42.74
44.97				
Vel Total (ft/s)	1.05	Avg. Vel. (ft/s)	0.96	1.32
0.54				
Max Chl Dpth (ft)	4.35	Hydr. Depth (ft)	2.21	3.56
0.94				
Conv. Total (cfs)	15438.8	Conv. (cfs)	7109.7	7476.6
852.5				
Length Wtd. (ft)		Wetted Per. (ft)	92.29	43.25
45.09				
Min Ch El (ft)	55.50	Shear (lb/sq ft)	0.10	0.16
0.04				
Alpha	1.16	Stream Power (lb/ft s)	0.09	0.21
0.02				
Frctn Loss (ft)		Cum Volume (acre-ft)		
C & E Loss (ft)		Cum SA (acres)		

SUMMARY OF MANNING'S N VALUES

River:FennelSlough

Reach	River Sta.	n1	n2	n3
1	390	.07	.07	.07
1	287	.035	.035	.035
1	260	.035	.035	.035
1	217	Inl Struct		
1	156	.07	.07	.07
1	139	.07	.07	.07

#### SUMMARY OF REACH LENGTHS

River: FennelSlough

Reach	River Sta.	Left	Channel	Right
1	390	103	103	103
1	287	27	27	27
1	260	104	104	104
1	217	Inl Struct		
1	156	17	17	17
1	139			

#### SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS

River: FennelSlough

Reach	River Sta.	Contr.	Expan.
1	390	.1	.3
1	287	.1	.3
1	260	.1	.3
1	217	Inl Struct	
1	156	.1	.3
1	139	.1	.3

#### Profile Output Table - Standard Table 1

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	
Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	

(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)
1	390		10 YR 24 HR	196.23	54.50
56.24	59.09	0.000911	1.35	145.51	46.19
1	390		10 YR 72 HR	265.20	54.50
56.48	59.52	0.001146	1.60	165.50	48.07
1	390		50 YR 24 HR	443.34	54.50
57.00	60.47	0.001541	2.09	215.41	62.28
1	390		100 YR 24 HR	475.78	54.50
57.09	60.69	0.001492	2.12	233.59	102.92
1	390		100 YR 72 HR	414.85	54.50
56.92	60.32	0.001502	2.03	206.68	59.58
1	287		10 YR 24 HR	196.23	54.55
	59.05	0.000175	1.17	167.25	54.19
1	287		10 YR 72 HR	265.20	54.55
	59.48	0.000220	1.39	190.34	56.54
1	287		50 YR 24 HR	443.34	54.55
	60.40	0.000296	1.83	242.79	59.16
1	287		100 YR 24 HR	475.78	54.55
	60.63	0.000290	1.86	256.29	59.70
1	287		100 YR 72 HR	414.85	54.55
	60.26	0.000288	1.77	234.41	58.77
1	260		10 YR 24 HR	196.23	54.00
56.06	59.04	0.000238	1.36	143.85	46.35
1	260		10 YR 72 HR	265.20	54.00
56.35	59.47	0.000303	1.62	163.42	48.66
1	260		50 YR 24 HR	443.34	54.00
56.92	60.39	0.000430	2.12	209.43	54.32
1	260		100 YR 24 HR	475.78	54.00
57.01	60.62	0.000422	2.14	221.96	56.39
1	260		100 YR 72 HR	414.85	54.00
56.84	60.25	0.000416	2.06	201.85	53.35
1	217			Inl Struct	
1	156		10 YR 24 HR	196.23	54.50
	58.92	0.001034	1.34	145.94	51.39
1	156		10 YR 72 HR	265.20	54.50
	59.28	0.001339	1.62	164.01	52.92
1	156		50 YR 24 HR	443.34	54.50
	60.00	0.002027	2.21	200.98	54.83
1	156		100 YR 24 HR	475.78	54.50

1	60.12 156 59.90	0.002142 100 0.001926	2.30 YR 72 HR 2.12	206.91 414.85 195.61	55.16 54.50 54.56	0.21 59.83 0.20
1	139	10	YR 24 HR	196.23	55.50	58.89
57.03	58.91	0.000722	1.07	229.91	144.18	0.12
1	139	10	YR 72 HR	265.20	55.50	59.24
57.32	59.26	0.000722	1.17	287.86	174.98	0.12
1	139	50	YR 24 HR	443.34	55.50	59.95
57.80	59.97	0.000722	1.35	412.35	178.64	0.12
1	139	100	YR 24 HR	475.78	55.50	60.06
57.87	60.08	0.000723	1.37	432.33	179.20	0.12
1	139	100	YR 72 HR	414.85	55.50	59.85
57.73	59.87	0.000722	1.32	394.29	178.12	0.12

#### Profile Output Table - Inline Structure

Reach Weir	River Sta Q Gates	Profile Q Culv	E.G. Elev Q Inline RC	W.S. Elev Q Outlet TS	Q Total	Q
(cfs)	(cfs)	(cfs)	(cfs)	(ft) (cfs)	(cfs)	(cfs)
1	217	10	YR 24 HR	59.04	59.02	196.23
	196.23					
1	217	10	YR 72 HR	59.47	59.43	265.20
	265.20					
1	217	50	YR 24 HR	60.39	60.32	443.34
	443.34					
1	217	100	YR 24 HR	60.62	60.55	475.78
	475.78					
1	217	100	YR 72 HR	60.25	60.18	414.85
	414.85					

## APPENDIX F: SPREAD CALCULATIONS

According to the FDOT Drainage Design Guide, 2020 (for a Manning's n value of 0.016 for street and pavement gutters of concrete pavement, broom finish):

### Gutter Spread (T) Formula

$$Q = \frac{0.56}{0.016} Sx^{\frac{5}{3}} SL^{\frac{1}{2}} T^{\frac{8}{3}}$$

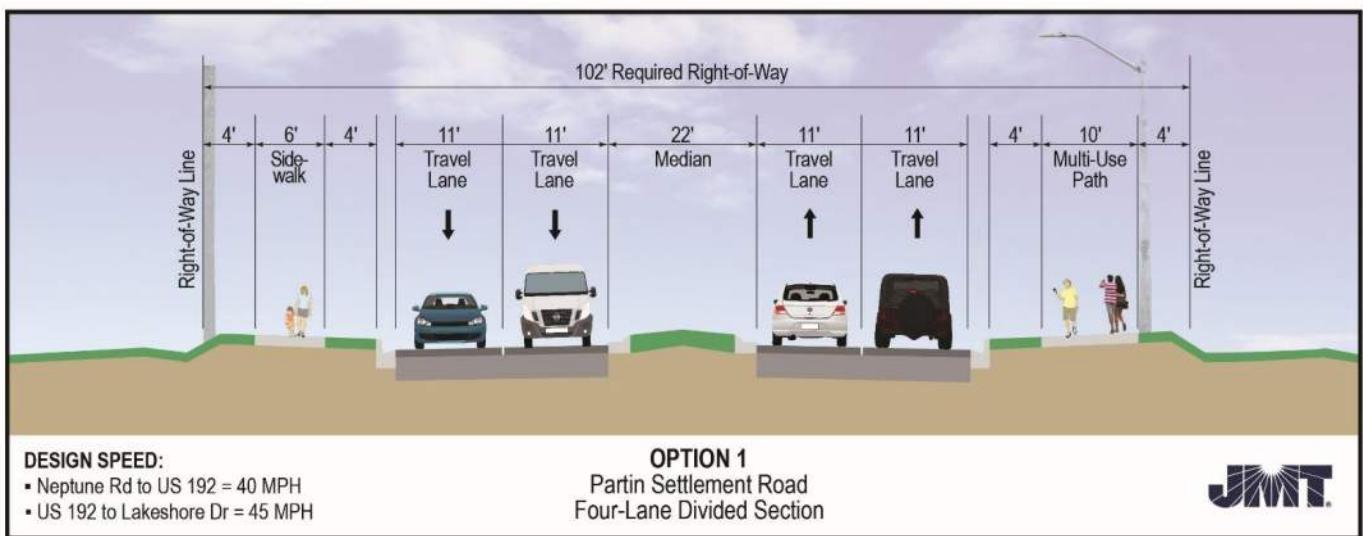
Where:

$Q$  = Gutter Flow Rate (CFS)

$Sx$  = Travel Lane Cross Slope (ft/ft)

$SL$  = Longitudinal Slope (ft/ft)

$T$  = Spread (ft)



Assuming the typical roadway section from Option 1, an assumed box culvert width of 50 feet, a C factor of 0.95 to be conservative.

North-east side:

$$A = 45 * 25 = 1125 \text{ ft}^2 = 0.026 \text{ acres}$$

$$Q = CiA = 0.95 * 4 * 0.026 = 0.099 \text{ cfs}$$

$$Sx = 0.02 \text{ ft/ft}$$

$$SL = 0.005 \text{ ft/ft}$$

$$T = 3.45 \text{ ft}$$

North-west side:

$$A = 45 * 25 = 1125 \text{ ft}^2 = 0.026 \text{ acres}$$

$$Q = CiA = 0.95 * 4 * 0.026 = 0.099 \text{ cfs}$$



$$Sx = 0.02 \text{ ft/ft}$$

$$SL = 0.005 \text{ ft/ft}$$

$$T = 3.45 \text{ ft}$$

South-east side:

$$A = 49 * 25 = 1125 \text{ ft}^2 = 0.028 \text{ acres}$$

$$Q = CiA = 0.95 * 4 * 0.026 = 0.107 \text{ cfs}$$

$$Sx = 0.02 \text{ ft/ft}$$

$$SL = 0.005 \text{ ft/ft}$$

$$T = 3.55 \text{ ft}$$

South-west side:

$$A = 49 * 25 = 1125 \text{ ft}^2 = 0.028 \text{ acres}$$

$$Q = CiA = 0.95 * 4 * 0.026 = 0.107 \text{ cfs}$$

$$Sx = 0.02 \text{ ft/ft}$$

$$SL = 0.005 \text{ ft/ft}$$

$$T = 3.55 \text{ ft}$$

## APPENDIX G: PHOTOS



Partin Settlement Road box culverts. Facing south.



Pedestrian Bridge and Fennel Slough Canal. Facing south from Partin Promenade stormwater pond.



## Partin Settlement Road Box Culvert Hydraulic Study



Pedestrian bridge. Facing north from Partin Settlement Road.



Existing rubble riprap slopes between Partin Settlement Road and Pedestrian bridge. Facing west.



## Partin Settlement Road Box Culvert Hydraulic Study



Weir connecting Partin Promenade stormwater pond to Fennel Slough canal. Facing north from Pedestrian Bridge.



Fennel Slough canal northwest of box culverts.



## Partin Settlement Road Box Culvert Hydraulic Study



Downstream (southern) end of existing box culverts.



Fennel slough downstream of Partin Settlement Road. Facing south.



Fennel Slough downstream of Partin Settlement Road. Facing south. Slough is within forested buffer in photo.