



A STORMWATER MANAGEMENT ANALYSIS

OF THE DEVELOPMENT OF

PROGRESS WEST LOT 2

IN

CITY OF O'FALLON, MISSOURI

FOR

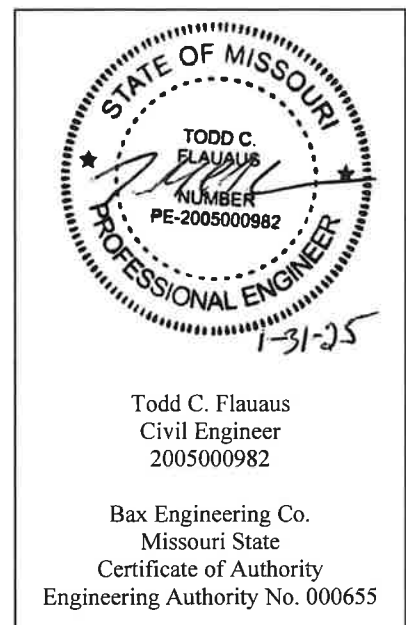
**DAVIS FAMILY TRUST
2209 DROSTE ROAD
ST. CHARLES, MO 63301**

BAX PROJECT NO. 21-18493

February 11, 2022

Revised: January 31, 2025

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INTRODUCTION:

The currently undeveloped site is located in the City of O'Fallon, Missouri and is comprised of 3.47 acres of land. The site shall be analyzed for the construction of the proposed building disturbing approximately 1.49 acres of land. An existing dry detention basin shall be modified into a shallow wetland to provide the Stormwater Attenuation and water quality treatment required by the City of O'Fallon Design Standards for the proposed development and the existing improvements. The storage volume and outflow rates shall be proportioned to ensure that the peak rate of runoff leaving the tract under Postdeveloped conditions is less than or equal to the peak rate of runoff under Predeveloped conditions for the 2, 15, 25, and 100 Year 20 Minute Design Storms. The safe passage of the 100 Year 20 Minute Design Storm will also be analyzed assuming the low flow slot is blocked.

GENERAL SITE DATA AND RUNOFF CALCULATIONS

The Predeveloped Runoff Factors used for the analysis are:

Land Use	Percent Impervious	PI Factors (cfs/ac)			
		2 year	15 year	25 year	100 year
Greenspace	0-5%	1.15	1.70	2.00	2.29

The Postdeveloped Runoff Factors used for the analysis are:

Land Use	Percent Impervious	PI Factors (cfs/ac)			
		2 year	15 year	25 year	100 year
Greenspace	0-5%	1.15	1.70	2.00	2.29
Building/Pavement	100%	2.39	3.54	4.16	4.77
Water Surface	100%	2.39	3.54	4.16	4.77

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DETENTION CALCULATIONS

PREDEVELOPED CONDITIONS:

The Predeveloped site has three separate discharge points to be analyzed for the total runoff from the watershed. Using the rational method the Predeveloped Peak Runoff rate can be determined for each watershed. For this analysis, the Predeveloped Runoff for the 2, 15, 25, and 100 year 20 minute design storms will be calculated for comparison to the Postdeveloped Runoff to determine the quantity of detention that will be required.

The predeveloped site was analyzed assuming 100% Greenspace to ensure detention is provided for the existing improvements and the proposed development.

Watershed A

Stormwater Runoff in Watershed A is comprised of the northern portion of the site, flowing into the existing detention basin.

2 Year

$$\begin{array}{r} \text{Greenspace} \\ \text{Total} \end{array} \quad \frac{2.84 \text{ ac}}{2.84 \text{ ac}} \times 1.15 \text{ cfs/ac} = \frac{3.27 \text{ cfs}}{3.27 \text{ cfs}}$$

15 Year

$$\begin{array}{r} \text{Greenspace} \\ \text{Total} \end{array} \quad \frac{2.84 \text{ ac}}{2.84 \text{ ac}} \times 1.70 \text{ cfs/ac} = \frac{4.83 \text{ cfs}}{4.83 \text{ cfs}}$$

25 Year

$$\begin{array}{r} \text{Greenspace} \\ \text{Total} \end{array} \quad \frac{2.84 \text{ ac}}{2.84 \text{ ac}} \times 2.00 \text{ cfs/ac} = \frac{5.68 \text{ cfs}}{5.68 \text{ cfs}}$$

100 Year

$$\begin{array}{r} \text{Greenspace} \\ \text{Total} \end{array} \quad \frac{2.84 \text{ ac}}{2.84 \text{ ac}} \times 2.29 \text{ cfs/ac} = \frac{6.50 \text{ cfs}}{6.50 \text{ cfs}}$$

2 year-20 minute storm:	3.27 cfs
15 year-20 minute storm:	4.83 cfs
25 year-20 minute storm:	5.68 cfs
100 year-20 minute storm:	6.50 cfs



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Watershed B

Watershed B discharges to the existing Area Inlet near the intersection of Hoff Road and Progress West Lane.

2 Year

$$\begin{array}{r} \text{Greenspace} \\ \text{Total} \end{array} \quad \frac{0.50 \text{ ac}}{0.50 \text{ ac}} \times 1.15 \text{ cfs/ac} = \frac{0.58 \text{ cfs}}{0.58 \text{ cfs}}$$

15 Year

$$\begin{array}{r} \text{Greenspace} \\ \text{Total} \end{array} \quad \frac{0.50 \text{ ac}}{0.50 \text{ ac}} \times 1.70 \text{ cfs/ac} = \frac{0.85 \text{ cfs}}{0.85 \text{ cfs}}$$

25 Year

$$\begin{array}{r} \text{Greenspace} \\ \text{Total} \end{array} \quad \frac{0.50 \text{ ac}}{0.50 \text{ ac}} \times 2.00 \text{ cfs/ac} = \frac{1.00 \text{ cfs}}{1.00 \text{ cfs}}$$

100 Year

$$\begin{array}{r} \text{Greenspace} \\ \text{Total} \end{array} \quad \frac{0.50 \text{ ac}}{0.50 \text{ ac}} \times 2.29 \text{ cfs/ac} = \frac{1.15 \text{ cfs}}{1.15 \text{ cfs}}$$

2 year-20 minute storm: 0.58 cfs
15 year-20 minute storm: 0.85 cfs
25 year-20 minute storm: 1.00 cfs
100 year-20 minute storm: 1.15 cfs



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Watershed C

Stormwater Runoff in Watershed C drains offsite to the south of the site.

2 Year

$$\begin{array}{r} \text{Greenspace} \\ \text{Total} \end{array} \quad \frac{1.14 \text{ ac}}{1.14 \text{ ac}} \times 1.15 \text{ cfs/ac} = \frac{1.31 \text{ cfs}}{1.31 \text{ cfs}}$$

15 Year

$$\begin{array}{r} \text{Greenspace} \\ \text{Total} \end{array} \quad \frac{1.14 \text{ ac}}{1.14 \text{ ac}} \times 1.70 \text{ cfs/ac} = \frac{1.94 \text{ cfs}}{1.94 \text{ cfs}}$$

25 Year

$$\begin{array}{r} \text{Greenspace} \\ \text{Total} \end{array} \quad \frac{1.14 \text{ ac}}{1.14 \text{ ac}} \times 2.00 \text{ cfs/ac} = \frac{2.28 \text{ cfs}}{2.28 \text{ cfs}}$$

100 Year

$$\begin{array}{r} \text{Greenspace} \\ \text{Total} \end{array} \quad \frac{1.14 \text{ ac}}{1.14 \text{ ac}} \times 2.29 \text{ cfs/ac} = \frac{2.61 \text{ cfs}}{2.61 \text{ cfs}}$$

2 year-20 minute storm: 1.31 cfs
15 year-20 minute storm: 1.94 cfs
25 year-20 minute storm: 2.28 cfs
100 year-20 minute storm: 2.61 cfs

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POSTDEVELOPED CONDITIONS:

The Postdeveloped site maintains the same three discharge points. The Postdeveloped site was analyzed including the existing building, the existing parking lot and the proposed improvements to determine the differential runoff for the watersheds. The total runoff from the watersheds will be calculated using the rational method to determine the Postdeveloped Peak Runoff rates for each watershed. For this analysis, the Postdeveloped runoff for the 2, 15, 25, and 100 year 20 minute design storms will be calculated for comparison to the previously calculated Predeveloped Runoff to determine the quantity of detention that will be required.

Watershed A

2 Year

Greenspace	1.39 ac	x	1.15 cfs/ac	=	1.60 cfs
Pavement/Building	1.86 ac	x	2.39 cfs/ac	=	4.45 cfs
Water Surface	0.11 ac	x	2.39 cfs/ac	=	0.26 cfs
Total	3.36 ac				6.31 cfs

15 Year

Greenspace	1.39 ac	x	1.70 cfs/ac	=	2.36 cfs
Pavement/Building	1.86 ac	x	3.54 cfs/ac	=	6.58 cfs
Water Surface	0.11 ac	x	3.54 cfs/ac	=	0.39 cfs
Total	3.36 ac				9.33 cfs

25 Year

Greenspace	1.39 ac	x	2.00 cfs/ac	=	2.78 cfs
Pavement/Building	1.86 ac	x	4.16 cfs/ac	=	7.74 cfs
Water Surface	0.11 ac	x	4.16 cfs/ac	=	0.46 cfs
Total	3.36 ac				10.98 cfs

100 Year

Greenspace	1.39 ac	x	2.29 cfs/ac	=	3.18 cfs
Pavement/Building	1.86 ac	x	4.77 cfs/ac	=	8.87 cfs
Water Surface	0.11 ac	x	4.77 cfs/ac	=	0.52 cfs
Total	3.36 ac				12.57 cfs

2 year-20 minute storm:	6.31 cfs
15 year-20 minute storm:	9.33 cfs
25 year-20 minute storm:	10.98 cfs
100 year-20 minute storm:	12.57 cfs



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Watershed B

2 Year

Greenspace	0.41 ac	x	1.15 cfs/ac =	0.47 cfs
Pavement/Building	<u>0.04 ac</u>	x	2.39 cfs/ac =	<u>0.10 cfs</u>
Total	0.45 ac			0.57 cfs

15 Year

Greenspace	0.41 ac	x	1.70 cfs/ac =	0.70 cfs
Pavement/Building	<u>0.04 ac</u>	x	3.54 cfs/ac =	<u>0.14 cfs</u>
Total	0.45 ac			0.84 cfs

25 Year

Greenspace	0.41 ac	x	2.00 cfs/ac =	0.82 cfs
Pavement/Building	<u>0.04 ac</u>	x	4.16 cfs/ac =	<u>0.17 cfs</u>
Total	0.45 ac			0.99 cfs

100 Year

Greenspace	0.41 ac	x	2.29 cfs/ac =	0.94 cfs
Pavement/Building	<u>0.04 ac</u>	x	4.77 cfs/ac =	<u>0.19 cfs</u>
Total	0.45 ac			1.13 cfs

2 year-20 minute storm: 0.57 cfs
 15 year-20 minute storm: 0.84 cfs
 25 year-20 minute storm: 0.99 cfs
 100 year-20 minute storm: 1.13 cfs

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Watershed C

2 Year

Greenspace	0.30 ac	x	1.15 cfs/ac	=	0.35 cfs
Pavement/Building	<u>0.36 ac</u>	x	2.39 cfs/ac	=	<u>0.86 cfs</u>
Total	0.66 ac				1.21 cfs

15 Year

Greenspace	0.30 ac	x	1.70 cfs/ac	=	0.51 cfs
Pavement/Building	<u>0.36 ac</u>	x	3.54 cfs/ac	=	<u>1.27 cfs</u>
Total	0.66 ac				1.78 cfs

25 Year

Greenspace	0.30 ac	x	2.00 cfs/ac	=	0.60 cfs
Pavement/Building	<u>0.36 ac</u>	x	4.16 cfs/ac	=	<u>1.50 cfs</u>
Total	0.66 ac				2.10 cfs

100 Year

Greenspace	0.30 ac	x	2.29 cfs/ac	=	0.69 cfs
Pavement/Building	<u>0.36 ac</u>	x	4.77 cfs/ac	=	<u>1.72 cfs</u>
Total	0.66 ac				2.41 cfs

2 year-20 minute storm:	1.21 cfs
15 year-20 minute storm:	1.78 cfs
25 year-20 minute storm:	2.10 cfs
100 year-20 minute storm:	2.41 cfs

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DIFFERENTIAL RUNOFF

The differential runoff for each discharge point is determined by subtracting the Predeveloped Runoff rate from the Postdeveloped Runoff rate. A differential runoff greater than 0 cfs requires stormwater detention within that watershed.

Watershed A

Design Storm	Postdeveloped Runoff (cfs)	Predeveloped Runoff (cfs)	Differential Runoff (cfs)
2 Year 20 minute	6.31	3.27	3.04
15 Year 20 minute	9.33	4.83	4.50
25 Year 20 minute	10.98	5.68	5.30
100 Year 20 minute	12.57	6.50	6.07

Detention is required in Watershed A.

Watershed B

Design Storm	Postdeveloped Runoff (cfs)	Predeveloped Runoff (cfs)	Differential Runoff (cfs)
2 Year 20 minute	0.57	0.58	-0.01
15 Year 20 minute	0.84	0.85	-0.01
25 Year 20 minute	0.99	1.00	-0.01
100 Year 20 minute	1.13	1.15	-0.02

Detention is not required in Watershed B.

Watershed C

Design Storm	Postdeveloped Runoff (cfs)	Predeveloped Runoff (cfs)	Differential Runoff (cfs)
2 Year 20 minute	1.21	1.31	-0.10
15 Year 20 minute	1.78	1.94	-0.16
25 Year 20 minute	2.10	2.28	-0.18
100 Year 20 minute	2.41	2.61	-0.20

Detention is not required in Watershed C.



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DISCHARGE POINT A – BASIN ROUTING

TIME OF CONCENTRATION:

Time of concentration is defined as the time needed for stormwater to flow from the most remote point in the watershed to the proposed detention basin. The most remote point of the site tributary to the detention basin lies near the southeast corner of the watershed. Flow travels overland for 258.21 feet until it reaches the basin. Time of Concentration is calculated as follows:

Watershed A

T_{overland} :	$L = 258.21$ feet Elevation difference = 11.35 feet Surface Coefficient = 2.0 (greenspace) $T_{\text{overland}} = 1.8 \text{ min} * 2.0 = 3.60$ minutes
$T_{\text{storm sewer}}$:	$L = 0.00$ feet Average Velocity = 7 ft/s $T_{\text{storm sewer}} = 0.00 \text{ feet} / 7 \text{ ft/s} / 60 \text{ sec/min} = 0$ min

Total time = $3.60 + 0.00 = 3.60 \text{ min} \Rightarrow$ **use 3 minutes**

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Basin Peak Inflow

Watershed A

2 Year

Greenspace	0.70 ac	x	1.15 cfs/ac	=	0.81 cfs
Pavement/Building	1.21 ac	x	2.39 cfs/ac	=	2.89 cfs
Water Surface	0.11 ac	x	2.39 cfs/ac	=	0.26 cfs
Total	2.02 ac				3.96 cfs

15 Year

Greenspace	0.70 ac	x	1.70 cfs/ac	=	1.19 cfs
Pavement/Building	1.21 ac	x	3.54 cfs/ac	=	4.28 cfs
Water Surface	0.11 ac	x	3.54 cfs/ac	=	0.39 cfs
Total	2.02 ac				5.86 cfs

25 Year

Greenspace	0.70 ac	x	2.00 cfs/ac	=	1.40 cfs
Pavement/Building	1.21 ac	x	4.16 cfs/ac	=	5.03 cfs
Water Surface	0.11 ac	x	4.16 cfs/ac	=	0.46 cfs
Total	2.02 ac				6.89 cfs

100 Year

Greenspace	0.70 ac	x	2.29 cfs/ac	=	1.60 cfs
Pavement/Building	1.21 ac	x	4.77 cfs/ac	=	5.77 cfs
Water Surface	0.11 ac	x	4.77 cfs/ac	=	0.52 cfs
Total	2.02 ac				7.89 cfs

2 year-20 minute storm:	3.96 cfs
15 year-20 minute storm:	5.86 cfs
25 year-20 minute storm:	6.89 cfs
100 year-20 minute storm:	7.89 cfs



ALLOWABLE RELEASE RATE

The Allowable Release Rate is defined as the maximum amount of stormwater that can be released from the proposed basin for each design storm and is determined by subtracting the Differential Runoff Rate from the Basin Inflow. The following table shows the calculated Allowable Release Rate for the basin:

STORM FREQUENCY (20 MINUTE DURATION)	BASIN INFLOW (cfs)	DIFFERENTIAL RUNOFF RATE (cfs)	ALLOWABLE RELEASE RATE (cfs)
2 YEAR	3.96	3.04	0.92
15 YEAR	5.86	4.50	1.36
25 YEAR	6.89	5.30	1.59
100 YEAR	7.89	6.07	1.82

STORM ROUTING CALCULATIONS AND RESULTS

The computer program PONDPACK was used in routing the 2, 15, 25 and 100 year storms through the shallow wetland. The routing calculations can be found in Appendix B for the 2, 15, 25 and 100 year storms for the watershed and also the calculations for safe passage of the 100 year storms with the low flow blocked (LFB) and the basin ponded full to the top of the outfall structure. As found in the routing calculations, the results are as follows:

STORM FREQUENCY (20 MINUTE DURATION)	PEAK INFLOW (cfs)	ALLOWABLE RELEASE RATE (cfs)	CALCULATED RELEASE RATE (cfs)	PEAK ELEVATION (ft)
2 Year	3.96	0.92	0.74	558.81
15 Year	5.86	1.36	0.92	559.26
25 Year	6.89	1.59	1.17	559.49
100 Year	7.89	1.82	1.75	559.68
100 Year LFB	7.89	N/A	7.89	559.95



STORMWATER COLLECTION TRENCH

A rock collection trench is proposed at the southern edge of the rear parking lot of the site to direct water into the wetland facility. The system consists of a gravel lens that collects water in the underdrain connected to an outlet pipe that directly outfalls in the wetland facility. To ensure the underdrain functions properly it was designed to handle the 15 and 100-Year 20-Minute storm events:

Redirection Inflow

Cover	Area (acres)	Q (cfs)	
		15yr 20min	100yr 20min
Greenspace	0.09	0.15	0.21
Building/Pavement	0.40	1.42	1.91
Total =	0.49	1.57	2.12

Outlet Pipe Sizing

The underdrain system including the outlet pipe leading to the wetland were analyzed for the 15 and 100-Year 20-Minute storm events. By analyzing the outlet pipe in Hydraflow Express the size of the outlet pipe can be determined along with the high water at the upstream extent of the outlet pipe. The Hydraflow analysis can be found in Appendix A.

Underdrain Sizing

By utilizing the orifice equation the size of the underdrain can be determined:

$$Q = C \times A \times \sqrt{2gh}$$

Q = Calculated flow rates

C = 0.60

A = Flow Area

g = 32.17 ft/s²

h = Orifice head

An 8" pipe size was chosen for the underdrain, resulting in the orifice head values of:

$$h_{15} = 0.87 \text{ ft}$$

$$h_{100} = 1.59 \text{ ft}$$



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The orifice head is the difference between the water surface elevation (high water) and the greater of the center elevation of the orifice or the controlling tailwater elevation. Given the results of the outlet pipe analysis the upstream high water results will be used to determine the high water elevation of the underdrain.

High Water = h + tailwater

$$\text{High Water}_{15} = 0.87 \text{ ft} + 562.67 = 563.54$$

$$\text{High Water}_{100} = 1.59 \text{ ft} + 562.88 = 564.47$$

The surface elevation of the underdrain system is 565.00, resulting in freeboards of:

$$\text{Freeboard}_{15} = 1.46 \text{ ft}$$

$$\text{Freeboard}_{100} = 0.53 \text{ ft}$$



WATER QUALITY

To ensure that sedimentation and pollution in receiving streams due to development of this site is minimized, our design will consider the Water Quality Volume requirement as described in “Georgia Stormwater Management Manual Volumes 1, 2 and 3”. Water quality volume is defined as “The storage needed to capture and treat the runoff from 90% of the recorded daily rainfall events.” Water Quality treatment will be provided by a shallow wetland.

SHALLOW WETLAND

Water Quality treatment is provided by utilizing a Shallow Wetland and incorporating wetland vegetation for both the proposed development and the existing development.

Area Treated

		Impervious Area	Pervious Area
Greenspace	0% Impervious	-	0.70 ac
Water Surface	0% Impervious	-	0.11 ac
Pavement/Building	100% Impervious	1.21 ac	-
Total	2.02	1.21 ac	0.81 ac

WATER QUALITY VOLUME

$$WQ_v = PR_vA/12$$

$$\text{Where: } P = 1.14''$$

$$R_v = 0.05 + 0.009(I)$$

$$I = \% \text{ Impervious}$$

$$A = \text{Watershed Area} = 2.02 \text{ ac}$$

$$A_I = \text{Impervious Area} = 1.21 \text{ ac}$$

$$I = A_I/A$$

$$I = 1.21 \text{ ac} / 2.02 \text{ ac} = 0.5990 = 59.90\%$$

$$R_v = 0.05 + 0.009*(59.90) = 0.5891$$

$$WQ_v = 1.14*(0.5891)*(2.02)/12 = 0.1130 \text{ ac-ft} = 4,922 \text{ ft}^3$$

The total water quality volume for this watershed is 4,922 ft³.



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Water Quality Treatment

A shallow wetland is used to treat the runoff going into the basin for this watershed. Following the City of O'Fallon Design Standards and the Georgia Stormwater Management Manual a shallow wetland needs to be 3% to 5% of the runoff. The shallow wetland is then divided into 2 zones since it is a level 1 wetland: Deep Pools, High Marsh, Low Marsh, and Low Land Each zone has different requirements for depth and certain plant species that go along with it.

Runoff Area = 2.02 ac or 87,991 ft²

Since the Design Requirements requires that the shallow wetland area has to be between 3-5% of the runoff. Each percent was analyzed for the calculations.

The Shallow Wetland Area @ 3% Runoff Area = $(82,328 \text{ ft}^2) \cdot (0.03 \text{ ft/ft}) = 2,640 \text{ ft}^2$

The Shallow Wetland Area @ 4% Runoff Area = $(82,328 \text{ ft}^2) \cdot (0.04 \text{ ft/ft}) = 3,520 \text{ ft}^2$

The Shallow Wetland Area @ 5% Runoff Area = $(82,328 \text{ ft}^2) \cdot (0.05 \text{ ft/ft}) = 4,400 \text{ ft}^2$

Shallow Wetland Area Provided = $2,882 \text{ ft}^2 = 3.28\%$



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Basin Storage Volume

Contour Elevation (Ft)	Contour Area (Ft ²)	Incremental Volume (Ft ³)	Total Volume (Ft ³)
553.00	213	0.00	0.00
554.00	465	331	331
555.00	795	622	953
556.00	1,185	983	1,937
556.15	1,249	183	2,119
556.65	1,718	739	2,858
557.00	2,088	665	3,523
557.15	2,258	326	3,849
557.65	2,882	1,282	5,131
558.00	3,428	1,103	6,233
559.00	4,500	3,952	10,185
560.00	5,964	5,215	15,400
561.00	7,571	6,752	22,152



Water Quality treatment

The water quality volume will be treated by providing the equivalent volume or more in the shallow wetland.

$$\begin{aligned} \text{Total Water Quality Volume} &= \text{Basin storage volume at 557.65} \\ &= 5,131 \text{ ft}^3 \end{aligned}$$

$$\text{Water Quality Volume needed} = 4,922 \text{ ft}^3$$

$$\text{Volume Provided} = 5,131 \text{ ft}^3 > 4,922 \text{ ft}^3 \checkmark$$

Pretreatment Forebay

The forebay shall be sized to contain a runoff volume of 0.1 inches per impervious acre in the watershed.

Existing West Forebay

$$A_I = \text{Impervious Area} = 0.17 \text{ acres} \rightarrow 7,405 \text{ ft}^2$$

$$V_{\text{forebay}} = A_I * 0.1 \text{ in} / 12 \text{ in/foot} = 7,405 \text{ ft}^2 * 0.1 / 12 = 62 \text{ ft}^3$$

Elev.	Area ft ²	Incremental Volume ft ³	Total Volume ft ³
558.20	38	0	0
559.00	123	61	61
559.26	166	37	98

$$V_{\text{forebay}} = 98 \text{ ft}^3 > 62 \text{ ft}^3 \checkmark$$

East Forebay

$$A_I = \text{Impervious Area} = 0.56 \text{ acres} \rightarrow 24,394 \text{ ft}^2$$

$$V_{\text{forebay}} = A_I * 0.1 \text{ in} / 12 \text{ in/foot} = 24,394 \text{ ft}^2 * 0.1 / 12 = 203 \text{ ft}^3$$

Elev.	Area ft ²	Incremental Volume ft ³	Total Volume ft ³
557.65	64	0	0
558.00	85	26	26
559.00	201	139	165
559.50	279	120	284

$$V_{\text{forebay}} = 284 \text{ ft}^3 > 203 \text{ ft}^3 \checkmark$$



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South Forebay

$$A_I = \text{Impervious Area} = 0.62 \text{ acres} \rightarrow 27,007 \text{ ft}^2$$

$$V_{\text{forebay}} = A_I * 0.1 \text{ in}^*/12 \text{ in/foot} = 27,007 \text{ ft}^2 * 0.1/12 = 225 \text{ ft}^3$$

Elev.	Area ft ²	Incremental Volume ft ³	Total Volume ft ³
557.65	0	0	0
558.00	53	6	6
559.00	175	108	114
559.50	272	144	259

$$V_{\text{forebay}} = 259 \text{ ft}^3 > 225 \text{ ft}^3 \quad \checkmark$$



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SUMMARY

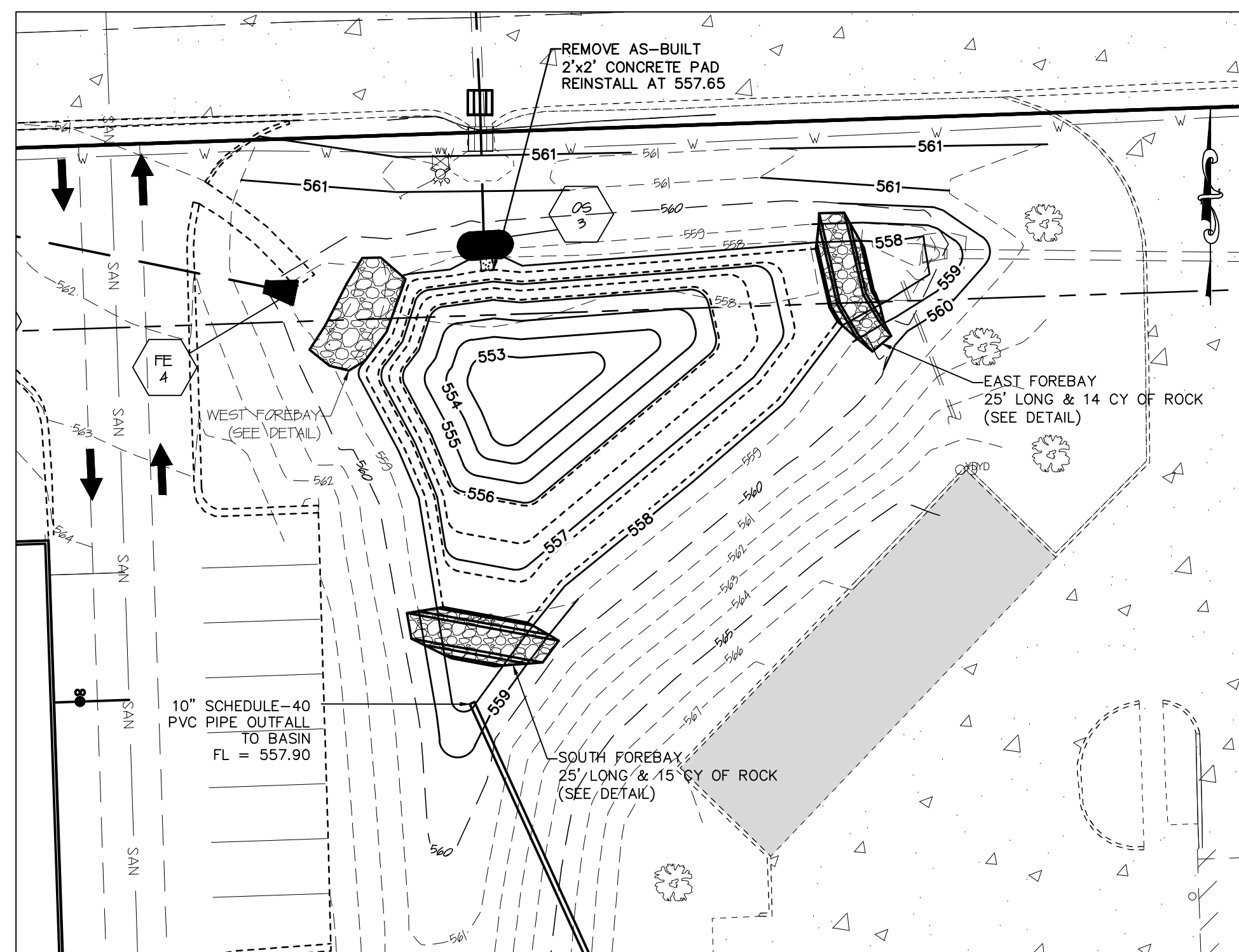
Shallow Wetland

	Flow Rate	High Water
2 Year 20 Minute	0.74 cfs	558.81
15 Year 20 Minute	0.92 cfs	559.26
25 Year 20 Minute	1.17 cfs	559.49
100 Year 20 Minute	1.75 cfs	559.68
100 Year 20 Minute LFB	7.89 cfs	559.95
Low Flow Slot		3" W x 8" H
Flow Line		557.65
Upper Flow Slot		12" W x 4.08" H
Flow Line		559.34
Type of Structure	Double Untrapped Street Inlet Base	
Top of Structure		559.68
Top of Berm		561.00
Freeboard		1.05 ft

Appendix A

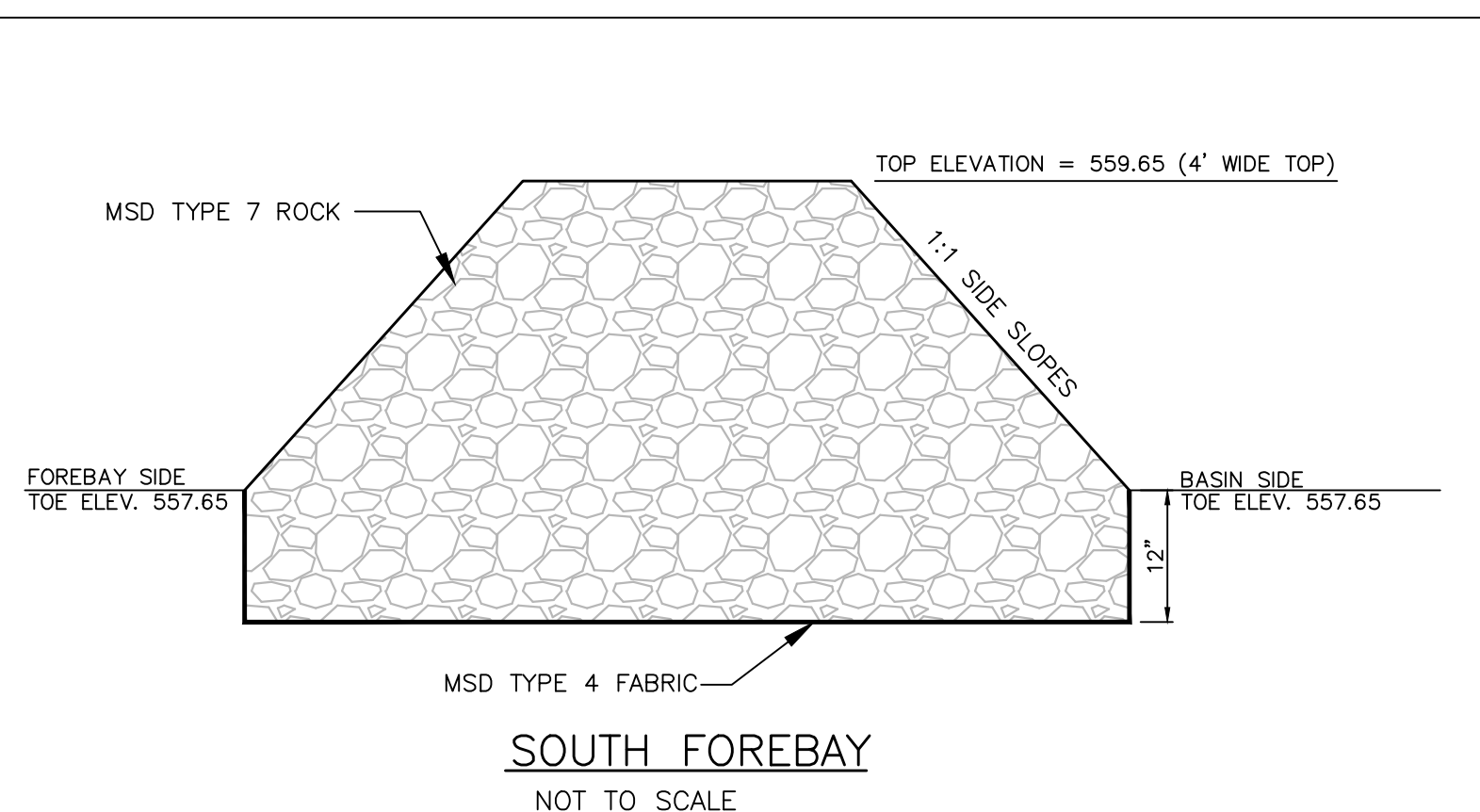
- Structure Details
- Time of Concentration
- Hydraflow Express Results

A SET OF CONSTRUCTION PLANS FOR PROGRESS WEST LOT 2

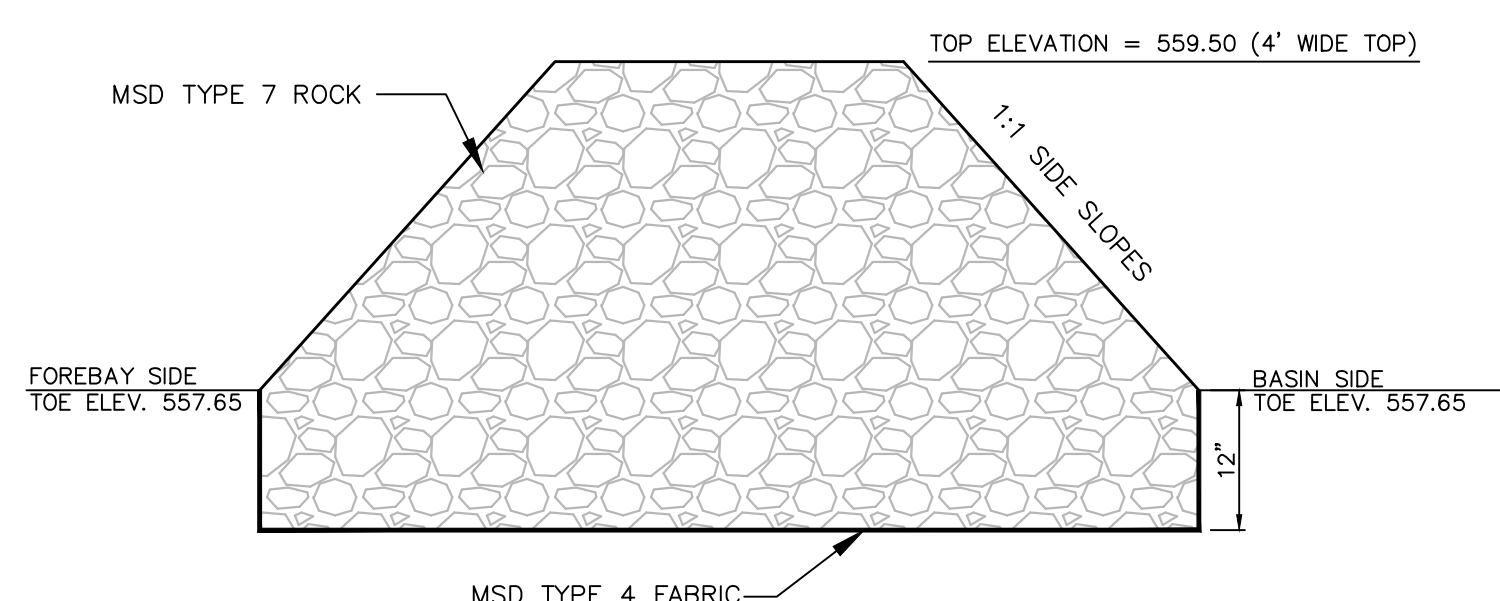


SHALLOW WETLAND PLAN

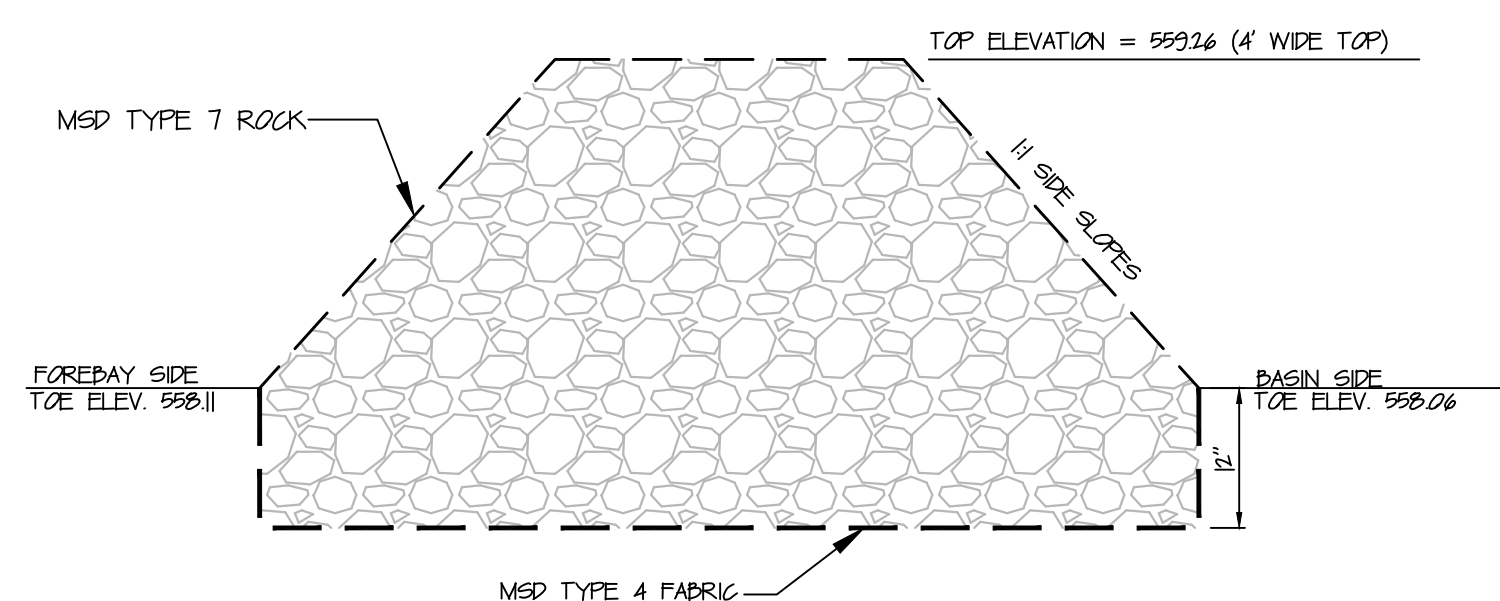
SCALE: 1" = 20'



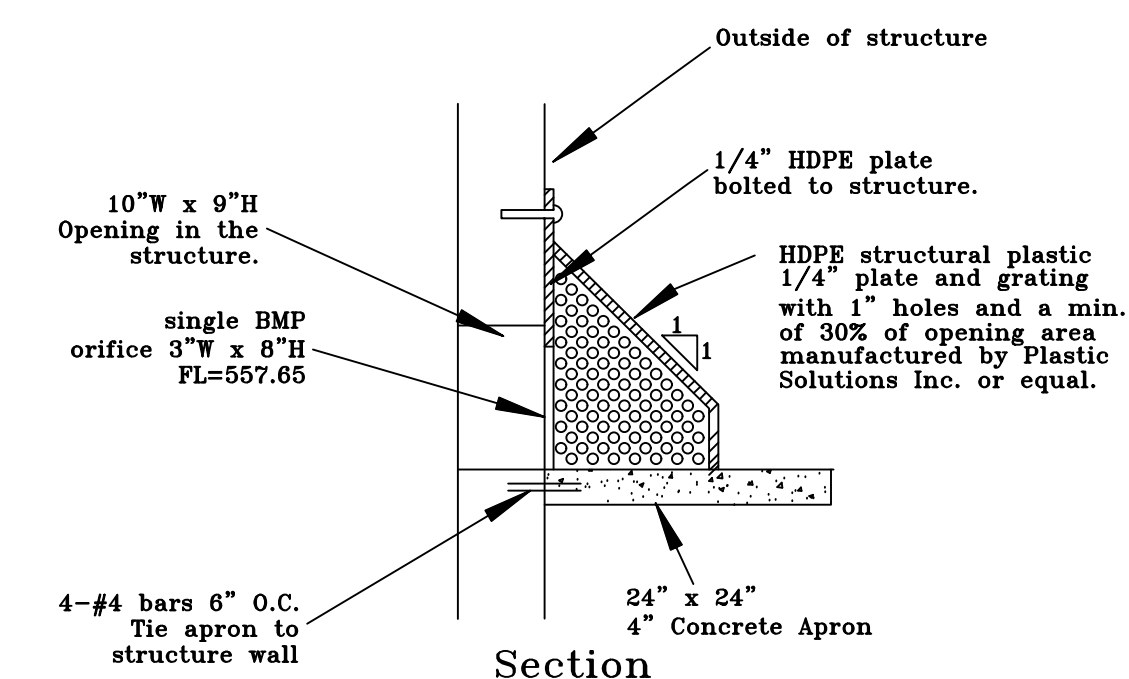
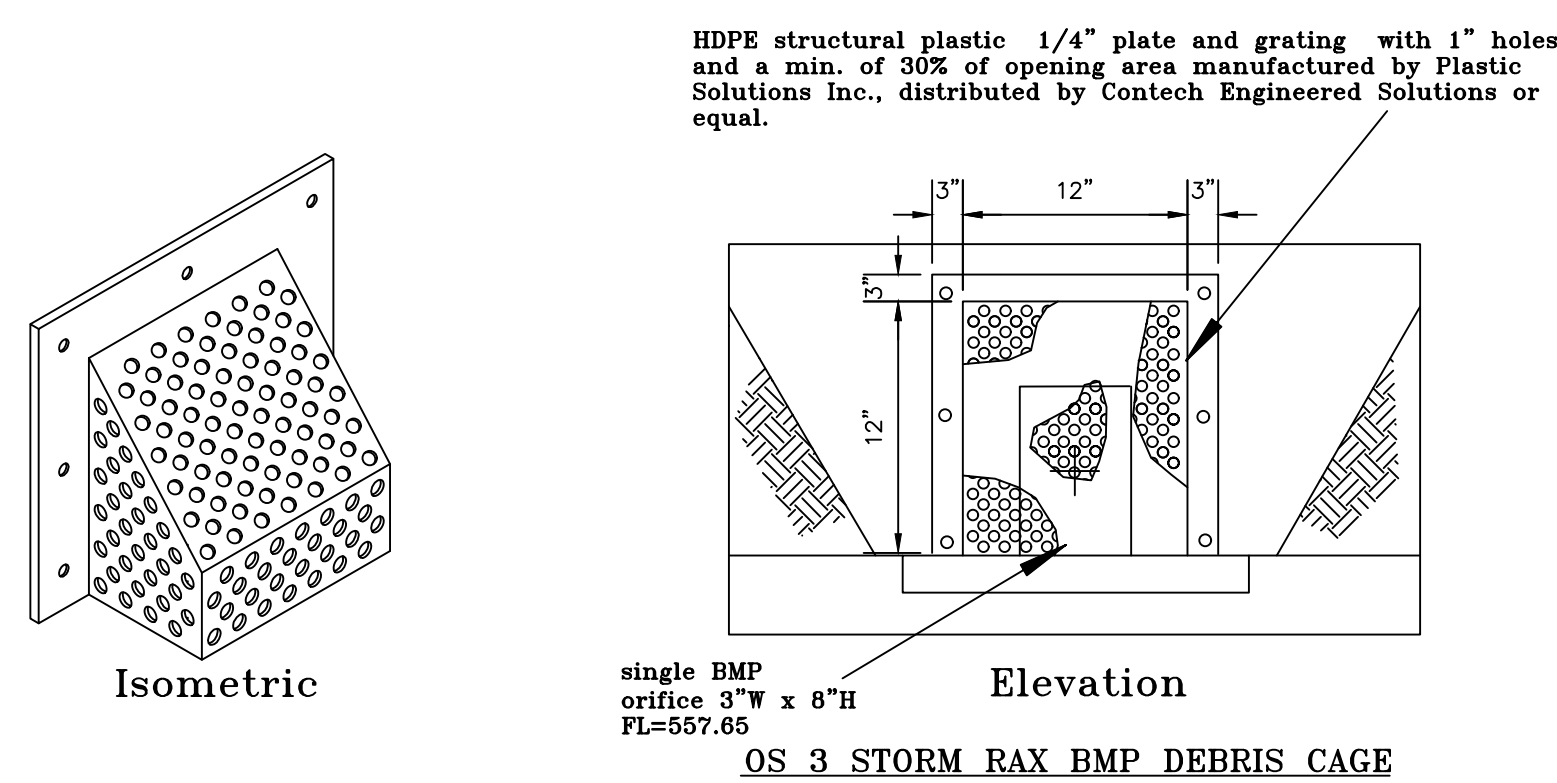
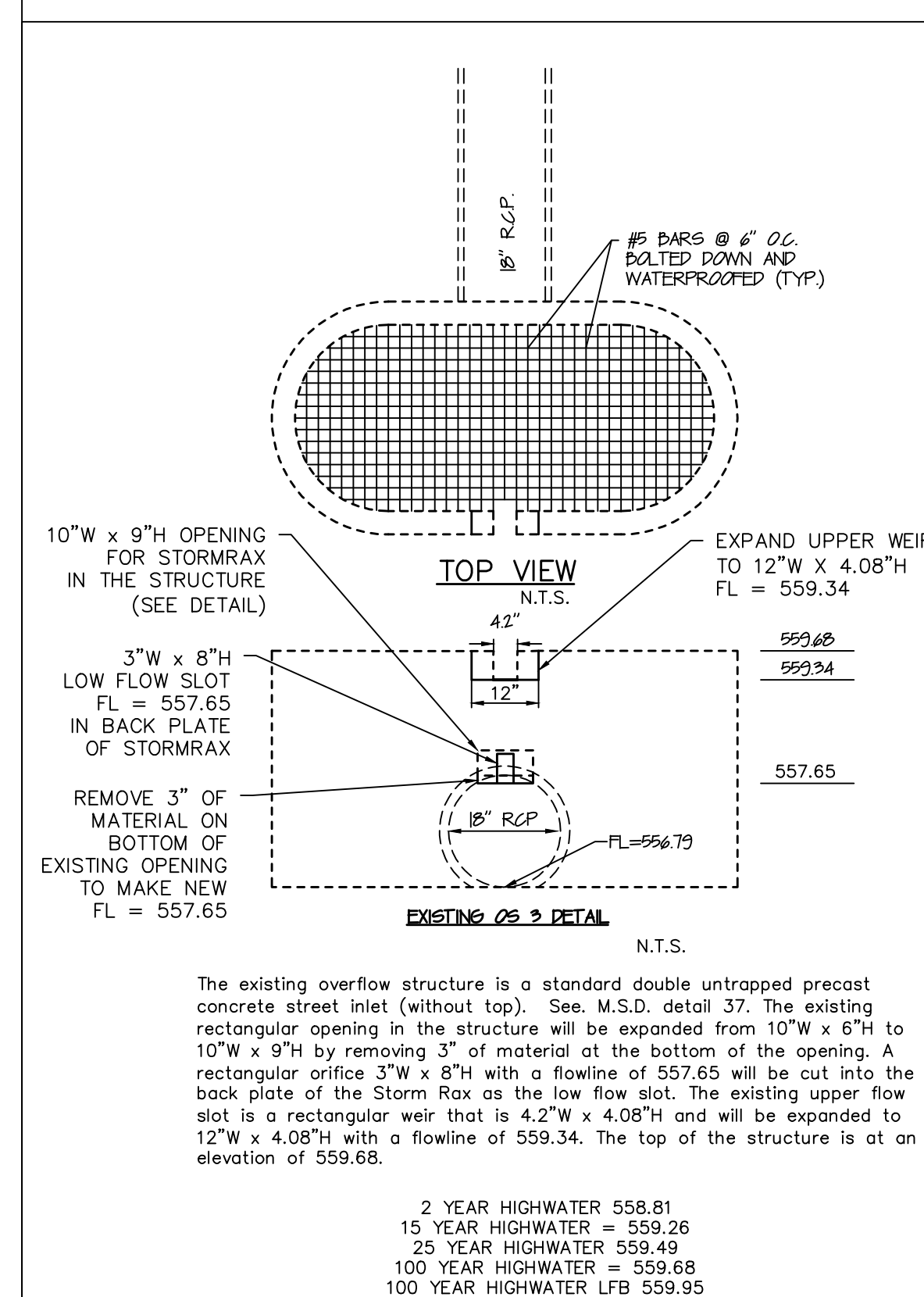
SOUTH FOREBAY
NOT TO SCALE



EAST FOREBAY
NOT TO SCALE

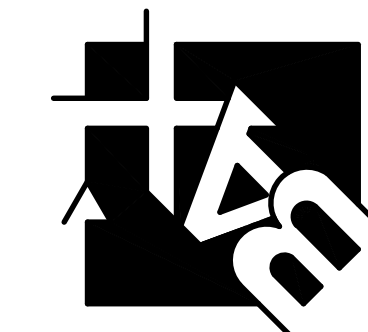


EXISTING WEST FOREBAY
NOT TO SCALE



PROJECT TITLE:
AS-BUILT PLANS FOR:
PROGRESS WEST LOT 2

**ENGINEERING
PLANNING
SURVEYING**
221 Point View Blvd.
St. Charles, MO 63301
636-928-5662
FAX 636-928-1718



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REVISIONS

NO.	DESCRIPTION

Developer / Owner:
Davis Family Trust
2209 Droste Rd.
St. Charles, MO 63301

POND DETAILS

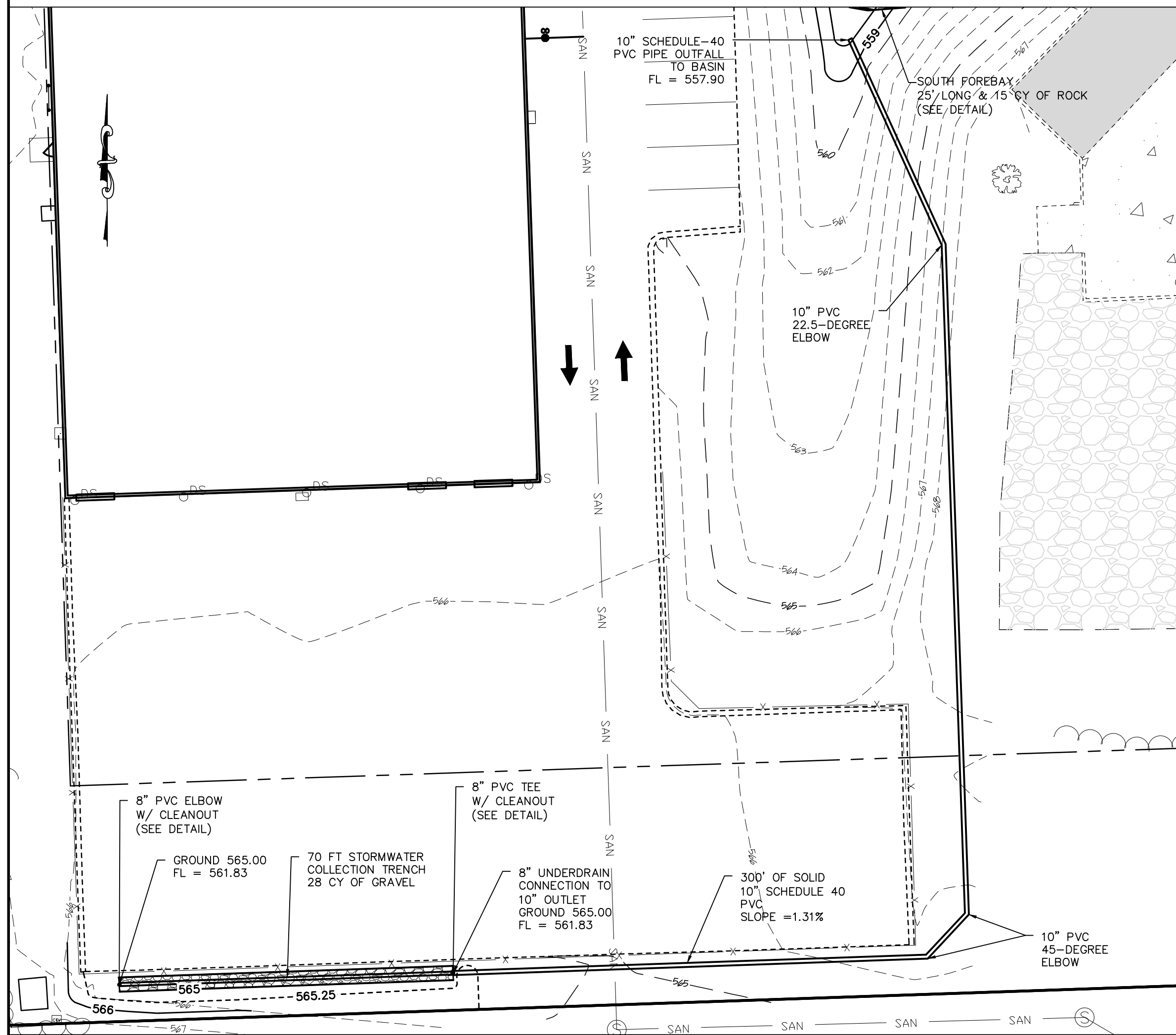
P+Z No. #21-009309

Approval Date: 11/04/21

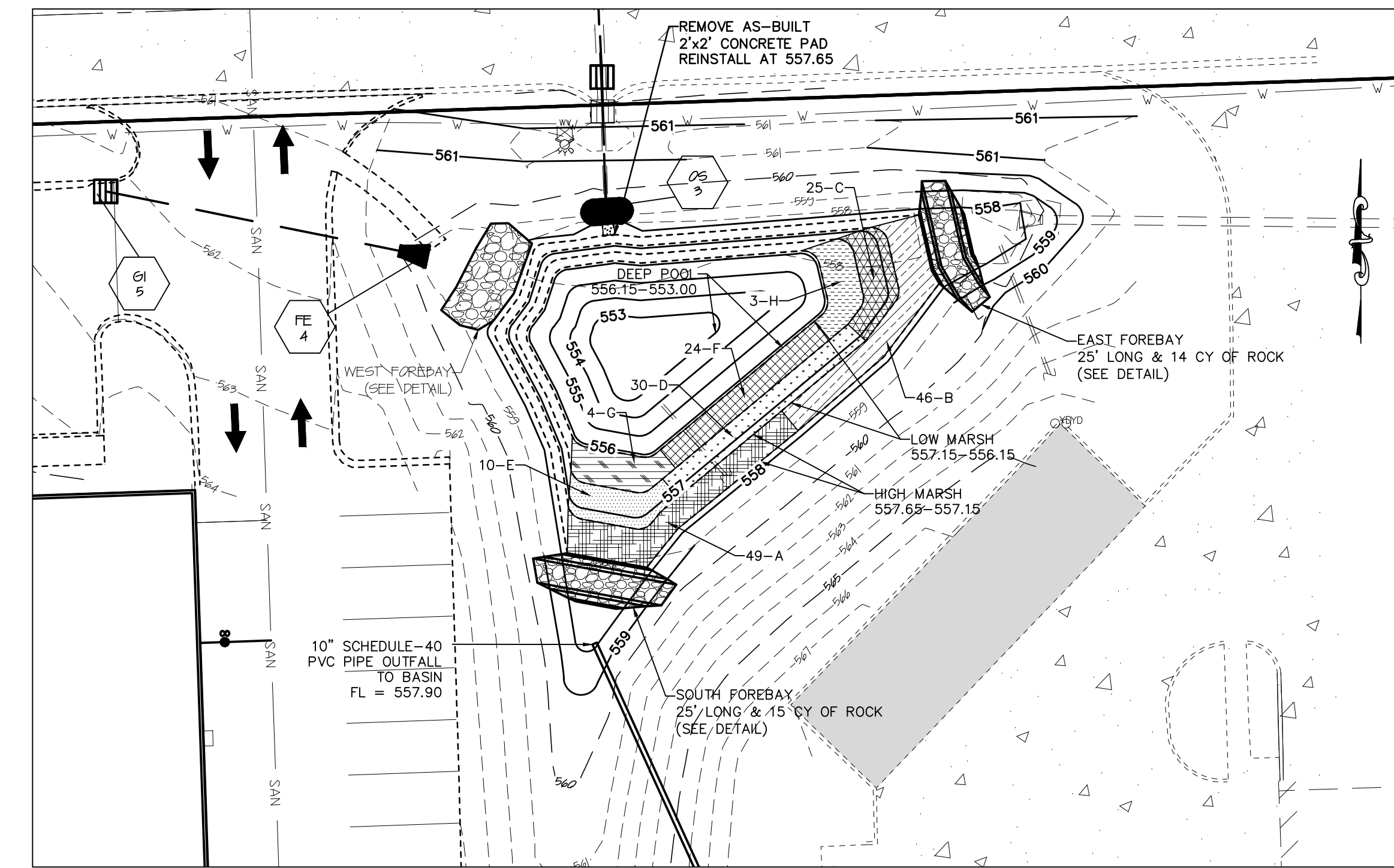
City No. #

Page No.

A SET OF CONSTRUCTION PLANS FOR PROGRESS WEST LOT 2



STORMWATER COLLECTION TRENCH PLAN
SCALE: 1" = 20'

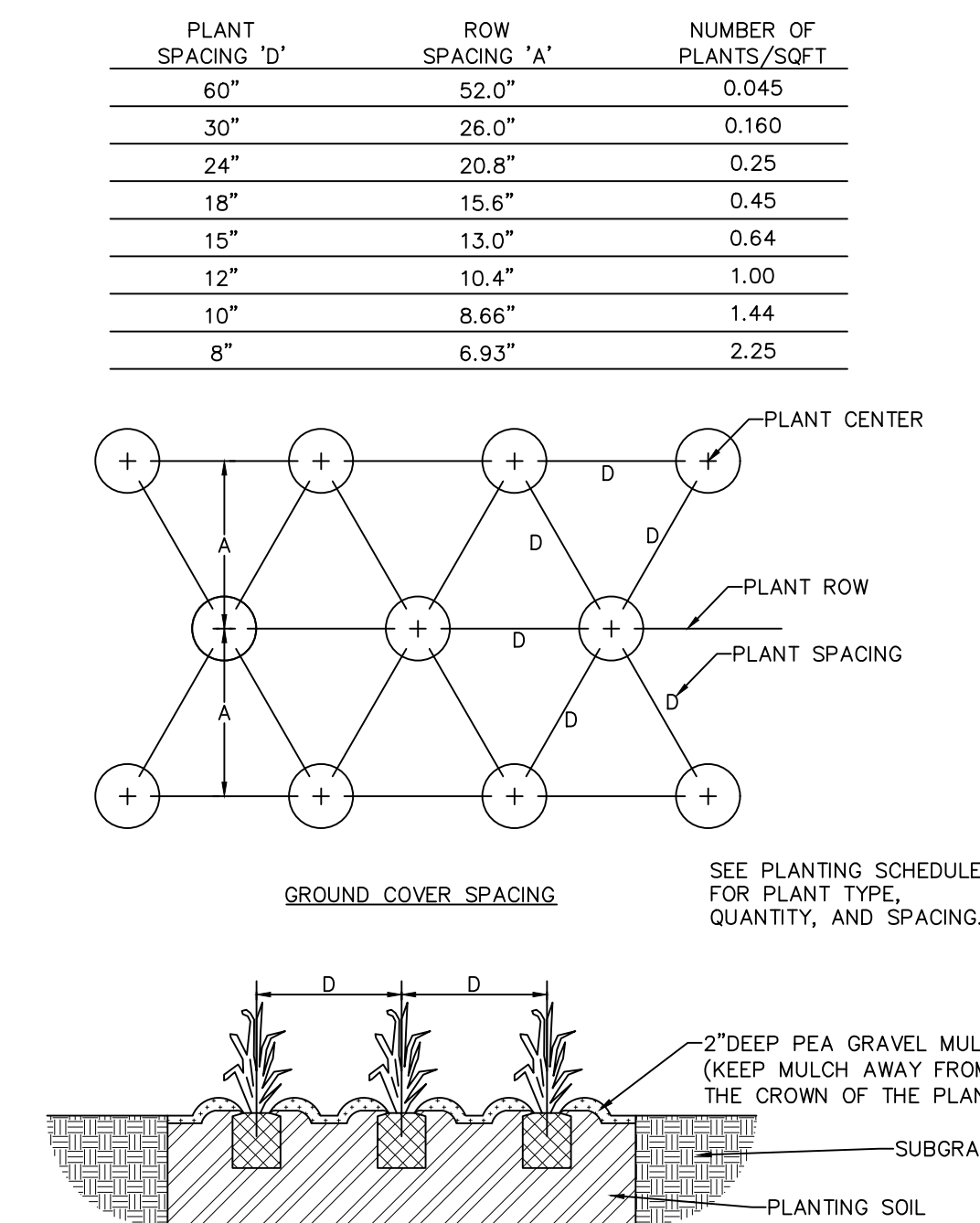


SHALLOW WETLAND PLANTING PLAN
SCALE: 1" = 20'

ITEM	LATIN NAME	COMMON NAME	ZONE	TOTAL NUMBER	SPACING	HATCH
A	Carex Grayi	Bur Sedge	High Marsh	49	18"	[Hatch]
B	Carex Vulpinoidea	Fox Sedge	High Marsh	46	18"	[Hatch]
C	Scirpus Cyperinus	Great Green BullRushes	Low Marsh	25	18"	[Hatch]
D	Lobelia Cardinalis	Cardinal Flower	Low Marsh	30	18"	[Hatch]
E	Helenium Autumnale	Sneezeweed	Low Marsh	10	24"	[Hatch]
F	Pontedaria Cordata	Pickeral Weed	Low Marsh	24	18"	[Hatch]
G	Sagittaria Latifolia	Arrowleaf	Low Marsh	4	30"	[Hatch]
H	Saururus Cernuus	Lizard Tail	Low Marsh	3	30"	[Hatch]

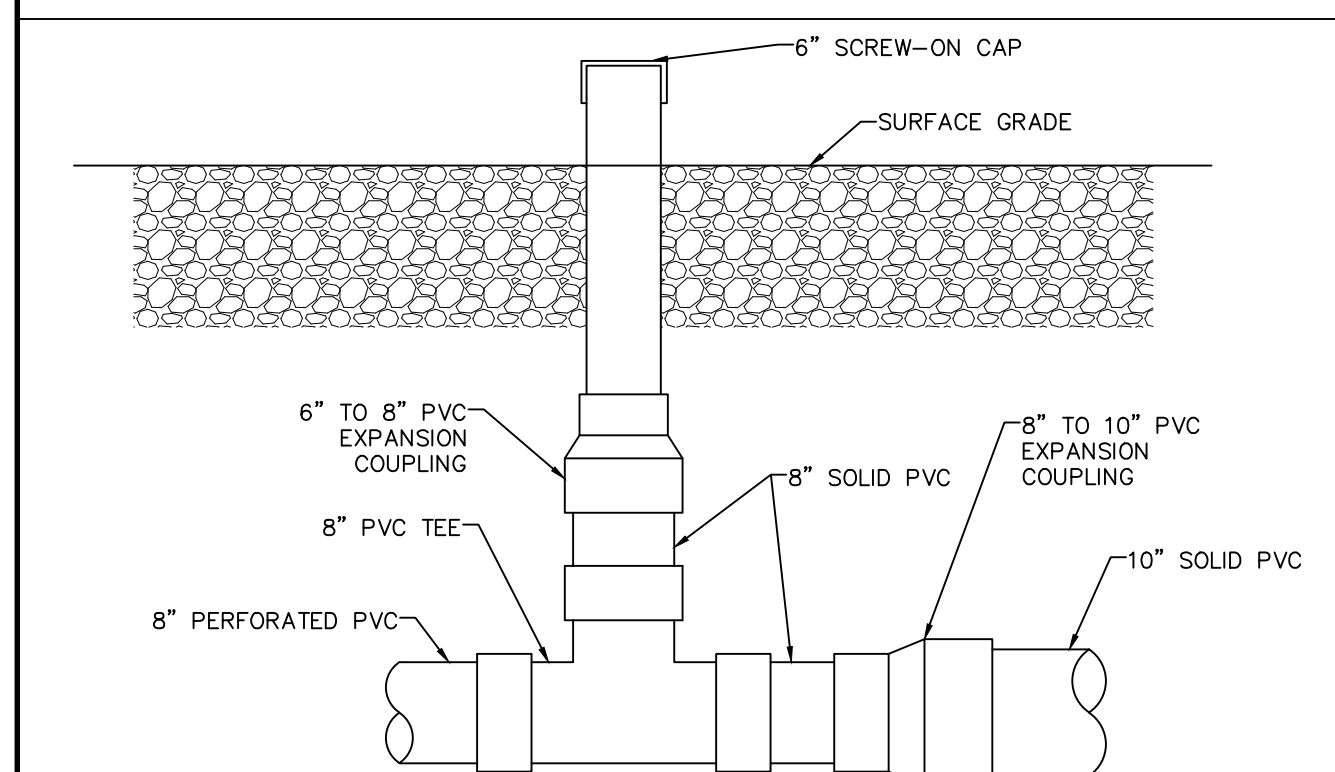
WETLAND PLANTING SCHEDULE #1

ITEM	WETLAND ZONE	DESCRIPTION
1	LOW LAND ZONE	The low land zone stays above the normal pool elevation of 557.65.
2	HIGH MARSH ZONE	The high marsh zone can start at the normal pool elevation or 6" below the normal pool. The high marsh zone starts at a 557.65.
3	LOW MARSH ZONE	The low marsh zone can be 6" below the normal pool elevation and can go down to 18" below normal pool. Low Marsh zone starts at a 557.15.
4	DEEP POOL ZONE	The deep pool zone can start at 18" below the normal pool and can get as deep as 72" below normal pool. The deep pool zone starts at 556.15 and will go to a bottom elevation of 553.00.

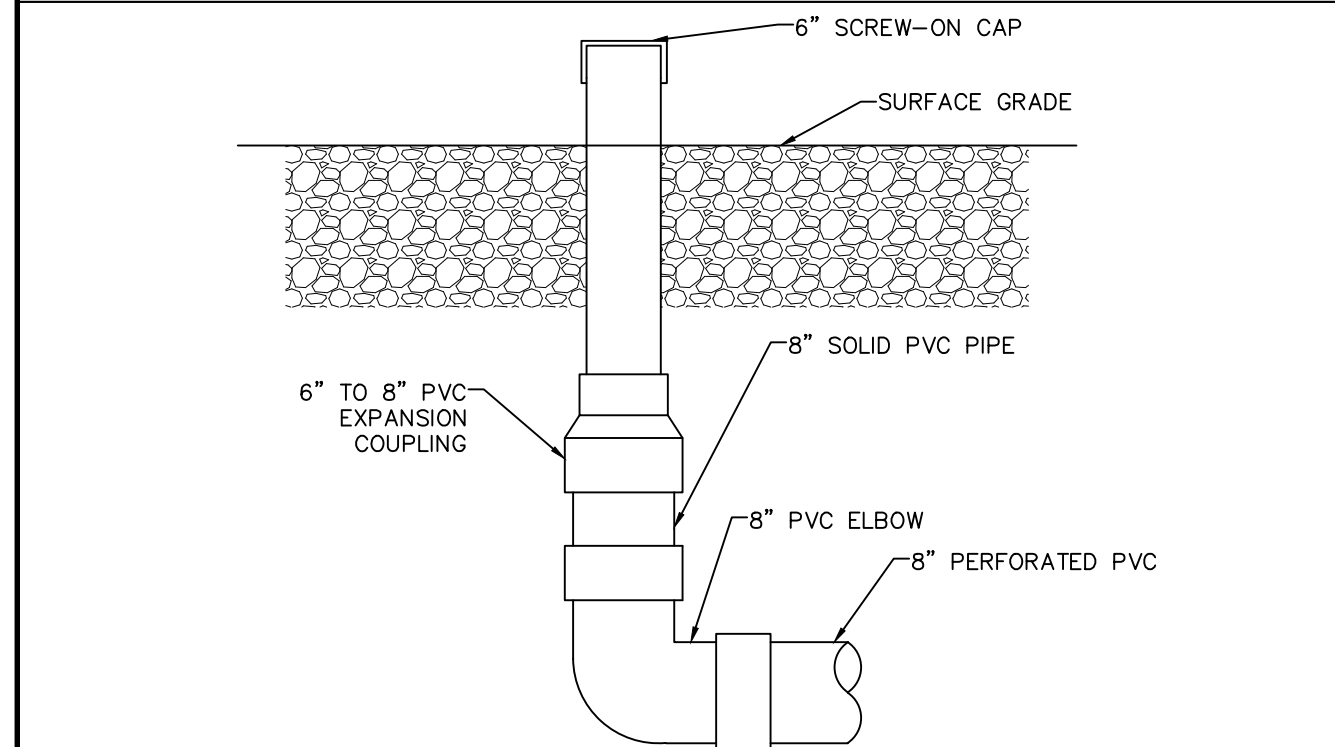


PLANT SPACING GUIDE
NOT TO SCALE

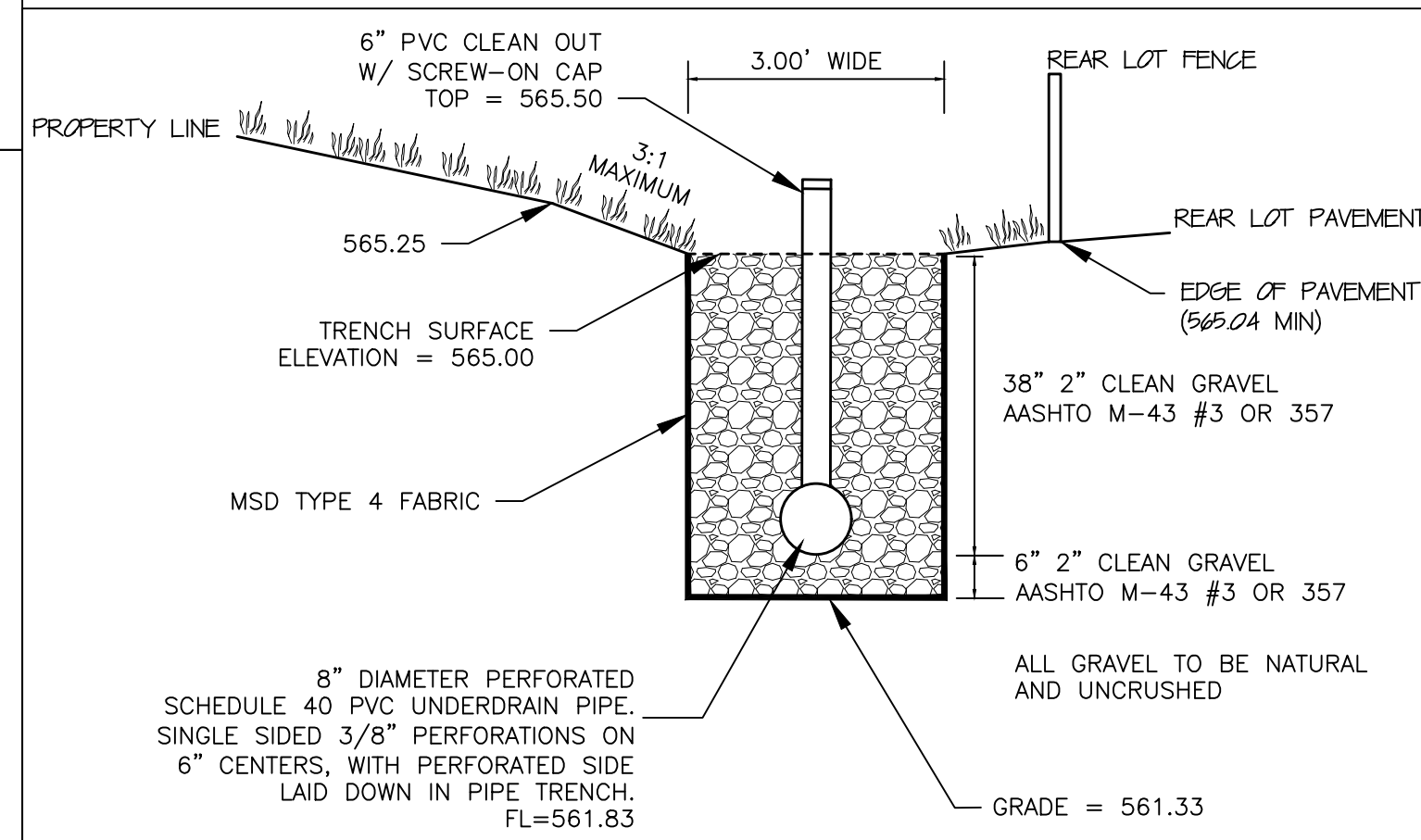
- MAINTENANCE SCHEDULE:**
- THE PROPERTY OWNER WILL MAINTAIN THE BIORETENTION IN GOOD WORKING ORDER AND WILL BE INSPECTED EVERY 6 MONTHS FOR THE FOLLOWING:
 - SAID AREA SHALL BE CLEANED SHORTLY AFTER THE PROJECT IS COMPLETED AND EROSION CONTROL HAS BEEN REMOVED AND VEGETATION HAS BEEN ESTABLISHED.
 - AREA SHALL BE CLEANED OF ANY WEEDS, UNDERBRUSH, WILD GROWTH, DEBRIS OR LITTER.
 - PLANTINGS WILL BE EVALUATED AND ANY DEAD PLANT SHALL BE REPLACED.
 - IF ACCUMULATED SEDIMENT HAS CLOGGED THE SURFACE PORES OF THE RAIN GARDEN, THEN DRILLING OR PUNCHING SMALL HOLES INTO THE SURFACE LAYER SHALL BE DONE TO RESTORE INFILTRATION CAPACITY OF THE SOIL.



UNDERDRAIN 8" TEE CLEANOUT CONNECTION DETAIL
NOT TO SCALE



UNDERDRAIN 8" ELBOW CLEANOUT CONNECTION DETAIL
NOT TO SCALE



STORMWATER COLLECTION TRENCH CROSS-SECTION
NOT TO SCALE

PROJECT TITLE:
AS-BUILT PLANS FOR:
PROGRESS WEST LOT 2

ENGINEERING PLANNING SURVEYING

221 Point View Blvd.
St. Charles, MO 63301
636-928-5662
FAX 928-1718

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REVISIONS

NO.	DATE	DESCRIPTION

Developer / Owner:
Davis Family Trust
2209 Droste Rd.
St. Charles, MO 63301

P+Z No. #21-009309
Approval Date: 11/04/21
City No. #

Page No. C14

Box Project # 21-8493 Issue Date: 03/16/2022

POND DETAILS



BAX ENGINEERING

Engineering - Planning - Surveying

221 Point West Blvd.

St. Charles, MO 63301

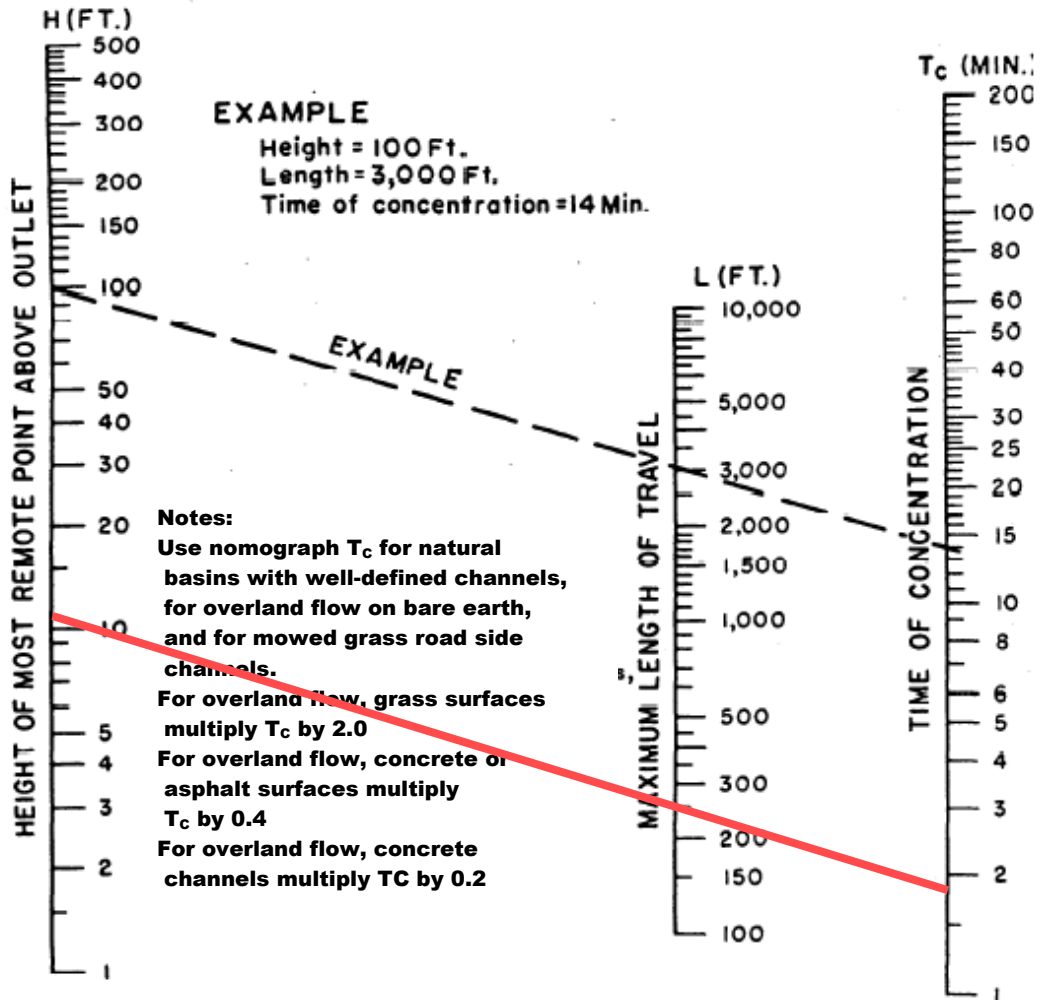
636 928-5552 FAX 636 928-1718

Project: Progress West Lot 2

Date: 01/08/2025 Project No: 21-18493

Designer: JRP Checked:

TIME OF CONCENTRATION FOR SMALL DRAINAGE BASINS



OVERLAND FLOW

Δ Height = 11.35'

Length = 258.21'

$T_{\text{Overland}} =$ 3.60 min

STORM SEWER TRAVEL TIME

$T_{\text{storm}} = \text{Pipe Length (L)} * \text{Assumed Velocity (V)}$

$L = 0.00 \text{ ft}$

$V = 7.00 \text{ ft/s}$

$T_{\text{storm}} = 0.00 \text{ ft} / 7 \text{ ft/s} / 60 \text{ sec/min} = 0.00 \text{ min}$

Total Time of Concentration = $T_{\text{Overland}} + T_{\text{storm}} = 3.60 + 0.00 = 3.60 \rightarrow \text{USE } 3.00 \text{ min.}$

Culvert Report

18493 Stormwater Collection Trench Outflow 15 Year

Invert Elev Dn (ft)	= 557.90
Pipe Length (ft)	= 300.00
Slope (%)	= 1.31
Invert Elev Up (ft)	= 561.83
Rise (in)	= 10.0
Shape	= Circular
Span (in)	= 10.0
No. Barrels	= 1
n-Value	= 0.010
Culvert Type	= Circular Concrete
Culvert Entrance	= Groove end projecting (C)
Coeff. K,M,c,Y,k	= 0.0045, 2, 0.0317, 0.69, 0.2

Embankment

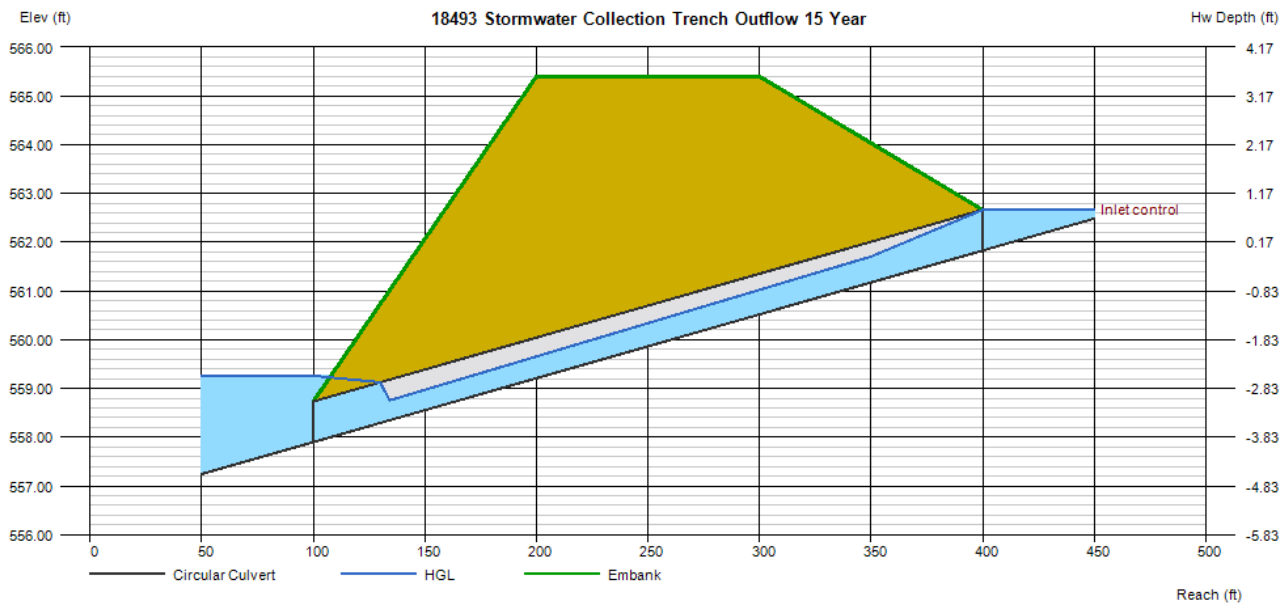
Top Elevation (ft)	= 565.40
Top Width (ft)	= 100.00
Crest Width (ft)	= 10.00

Calculations

Qmin (cfs)	= 1.57
Qmax (cfs)	= 1.57
Tailwater Elev (ft)	= 559.26

Highlighted

Qtotal (cfs)	= 1.57
Qpipe (cfs)	= 1.57
Qovertop (cfs)	= 0.00
Veloc Dn (ft/s)	= 2.88
Veloc Up (ft/s)	= 4.02
HGL Dn (ft)	= 559.26
HGL Up (ft)	= 562.39
Hw Elev (ft)	= 562.67
Hw/D (ft)	= 1.01
Flow Regime	= Inlet Control



Culvert Report

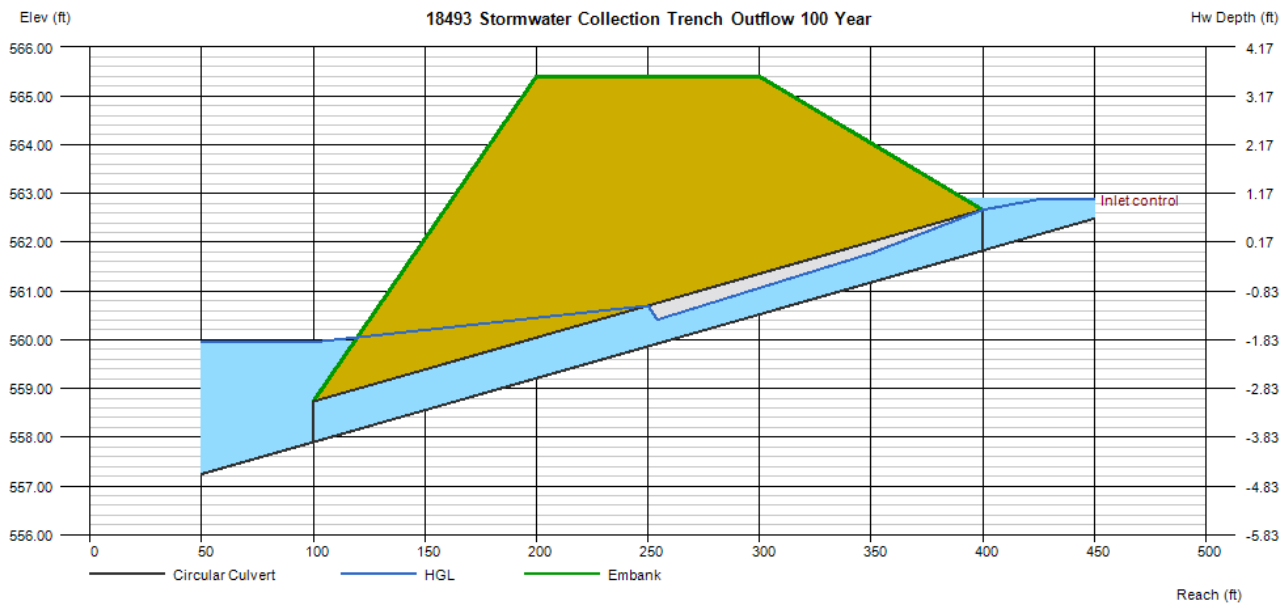
18493 Stormwater Collection Trench Outflow 100 Year

Invert Elev Dn (ft)	= 557.90
Pipe Length (ft)	= 300.00
Slope (%)	= 1.31
Invert Elev Up (ft)	= 561.83
Rise (in)	= 10.0
Shape	= Circular
Span (in)	= 10.0
No. Barrels	= 1
n-Value	= 0.010
Culvert Type	= Circular Concrete
Culvert Entrance	= Groove end projecting (C)
Coeff. K,M,c,Y,k	= 0.0045, 2, 0.0317, 0.69, 0.2

Embankment	
Top Elevation (ft)	= 565.40
Top Width (ft)	= 100.00
Crest Width (ft)	= 10.00

Calculations	
Qmin (cfs)	= 2.12
Qmax (cfs)	= 2.12
Tailwater Elev (ft)	= 559.95

Highlighted	
Qtotal (cfs)	= 2.12
Qpipe (cfs)	= 2.12
Qovertop (cfs)	= 0.00
Veloc Dn (ft/s)	= 3.89
Veloc Up (ft/s)	= 4.63
HGL Dn (ft)	= 559.95
HGL Up (ft)	= 562.48
Hw Elev (ft)	= 562.88
Hw/D (ft)	= 1.26
Flow Regime	= Inlet Control



Appendix B

Basin Routing

- 2 year Detention Routing
- 15 year Detention Routing
- 25 year Detention Routing
- 100 year Detention Routing LFB

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Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (min)	Peak Flow (ft ³ /s)
WATERSHED A BASIN INFLOW	Post-Development 100 Year	0	0.217	3.000	7.89
WATERSHED A BASIN INFLOW	Post-Development 2 year	0	0.109	3.000	3.96
WATERSHED A BASIN INFLOW	Post-Development 15 Year	0	0.161	3.000	5.86
WATERSHED A BASIN INFLOW	100 Year LFB	0	0.217	3.000	7.89
WATERSHED A BASIN INFLOW	Post-Development 25 Year	0	0.190	3.000	6.89

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (min)	Peak Flow (ft ³ /s)
POSTDEVELOPED OUTFALL	Post-Development 100 Year	0	0.217	22.000	1.75
POSTDEVELOPED OUTFALL	Post-Development 2 year	0	0.109	22.000	0.74
POSTDEVELOPED OUTFALL	Post-Development 15 Year	0	0.161	23.000	0.92
POSTDEVELOPED OUTFALL	100 Year LFB	0	0.217	20.000	7.89
POSTDEVELOPED OUTFALL	Post-Development 25 Year	0	0.190	22.000	1.17

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (min)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
SHALLOW WETLAND (IN)	Post-Development 100 Year	0	0.217	3.000	7.89	(N/A)	(N/A)
SHALLOW WETLAND (OUT)	Post-Development 100 Year	0	0.217	22.000	1.75	559.68	0.312
SHALLOW WETLAND (IN)	Post-Development 2 year	0	0.109	3.000	3.96	(N/A)	(N/A)
SHALLOW WETLAND (OUT)	Post-Development 2 year	0	0.109	22.000	0.74	558.81	0.214

Subsection: Master Network Summary

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (min)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
SHALLOW WETLAND (IN)	Post-Development 15 Year	0	0.161	3.000	5.86	(N/A)	(N/A)
SHALLOW WETLAND (OUT)	Post-Development 15 Year	0	0.161	23.000	0.92	559.26	0.262
SHALLOW WETLAND (IN)	100 Year LFB	0	0.217	3.000	7.89	(N/A)	(N/A)
SHALLOW WETLAND (OUT)	100 Year LFB	0	0.217	20.000	7.89	559.95	0.338
SHALLOW WETLAND (IN)	Post-Development 25 Year	0	0.190	3.000	6.89	(N/A)	(N/A)
SHALLOW WETLAND (OUT)	Post-Development 25 Year	0	0.190	22.000	1.17	559.49	0.288

Subsection: Read Hydrograph
 Label: WATERSHED A BASIN INFLOW

Scenario: Post-Development 2 year

Peak Discharge	3.96 ft ³ /s
Time to Peak	13.000 min
Hydrograph Volume	0.109 ac-ft

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 1.000 min

Time on left represents time for first value in each row.

Time (min)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
0.000	0.00	1.32	2.64	3.96	3.96
5.000	3.96	3.96	3.96	3.96	3.96
10.000	3.96	3.96	3.96	3.96	3.96
15.000	3.96	3.96	3.96	3.96	3.96
20.000	3.96	2.64	1.32	0.00	0.00
25.000	0.00	0.00	0.00	0.00	0.00
30.000	0.00	0.00	0.00	0.00	0.00
35.000	0.00	0.00	0.00	0.00	0.00
40.000	0.00	0.00	0.00	0.00	0.00
45.000	0.00	0.00	0.00	0.00	0.00
50.000	0.00	0.00	0.00	0.00	0.00
55.000	0.00	0.00	0.00	0.00	0.00
60.000	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Read Hydrograph
 Label: WATERSHED A BASIN INFLOW

Scenario: Post-Development 15 Year

Peak Discharge	5.86 ft ³ /s
Time to Peak	13.000 min
Hydrograph Volume	0.161 ac-ft

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 1.000 min

Time on left represents time for first value in each row.

Time (min)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
0.000	0.00	1.95	3.91	5.86	5.86
5.000	5.86	5.86	5.86	5.86	5.86
10.000	5.86	5.86	5.86	5.86	5.86
15.000	5.86	5.86	5.86	5.86	5.86
20.000	5.86	3.91	1.95	0.00	0.00
25.000	0.00	0.00	0.00	0.00	0.00
30.000	0.00	0.00	0.00	0.00	0.00
35.000	0.00	0.00	0.00	0.00	0.00
40.000	0.00	0.00	0.00	0.00	0.00
45.000	0.00	0.00	0.00	0.00	0.00
50.000	0.00	0.00	0.00	0.00	0.00
55.000	0.00	0.00	0.00	0.00	0.00
60.000	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Read Hydrograph
 Label: WATERSHED A BASIN INFLOW

Scenario: Post-Development 25 Year

Peak Discharge	6.89 ft ³ /s
Time to Peak	13.000 min
Hydrograph Volume	0.190 ac-ft

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 1.000 min

Time on left represents time for first value in each row.

Time (min)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
0.000	0.00	2.30	4.59	6.89	6.89
5.000	6.89	6.89	6.89	6.89	6.89
10.000	6.89	6.89	6.89	6.89	6.89
15.000	6.89	6.89	6.89	6.89	6.89
20.000	6.89	4.59	2.30	0.00	0.00
25.000	0.00	0.00	0.00	0.00	0.00
30.000	0.00	0.00	0.00	0.00	0.00
35.000	0.00	0.00	0.00	0.00	0.00
40.000	0.00	0.00	0.00	0.00	0.00
45.000	0.00	0.00	0.00	0.00	0.00
50.000	0.00	0.00	0.00	0.00	0.00
55.000	0.00	0.00	0.00	0.00	0.00
60.000	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Read Hydrograph
 Label: WATERSHED A BASIN INFLOW

Scenario: Post-Development 100 Year

Peak Discharge	7.89 ft ³ /s
Time to Peak	13.000 min
Hydrograph Volume	0.217 ac-ft

HYDROGRAPH ORDINATES (ft³/s)

Output Time Increment = 1.000 min

Time on left represents time for first value in each row.

Time (min)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)	Flow (ft ³ /s)
0.000	0.00	2.63	5.26	7.89	7.89
5.000	7.89	7.89	7.89	7.89	7.89
10.000	7.89	7.89	7.89	7.89	7.89
15.000	7.89	7.89	7.89	7.89	7.89
20.000	7.89	5.26	2.63	0.00	0.00
25.000	0.00	0.00	0.00	0.00	0.00
30.000	0.00	0.00	0.00	0.00	0.00
35.000	0.00	0.00	0.00	0.00	0.00
40.000	0.00	0.00	0.00	0.00	0.00
45.000	0.00	0.00	0.00	0.00	0.00
50.000	0.00	0.00	0.00	0.00	0.00
55.000	0.00	0.00	0.00	0.00	0.00
60.000	0.00	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Elevation-Area Volume Curve
 Label: SHALLOW WETLAND

Scenario: Post-Development 2 year

Elevation (ft)	Planimeter (ft ²)	Area (ft ²)	A1+A2+sqr (A1*A2) (ft ²)	Volume (ac-ft)	Volume (Total) (ac-ft)
553.00	0.00	213.000	0.000	0.000	0.000
554.00	0.00	465.000	992.714	0.008	0.008
555.00	0.00	795.000	1,868.009	0.014	0.022
556.00	0.00	1,185.000	2,950.605	0.023	0.044
556.15	0.00	1,249.000	3,650.579	0.004	0.049
556.65	0.00	1,718.000	4,431.849	0.017	0.066
557.00	0.00	2,088.000	5,699.986	0.015	0.081
557.15	0.00	2,258.000	6,517.337	0.007	0.088
557.65	0.00	2,882.000	7,690.991	0.029	0.118
558.00	0.00	3,428.000	9,453.167	0.025	0.143
559.00	0.00	4,500.000	11,855.595	0.091	0.234
560.00	0.00	5,964.000	15,644.541	0.120	0.354
561.00	0.00	7,571.000	20,254.631	0.155	0.509

Pond Volume Equations

*** Incremental volume computed by the Conic Method for Reservoir Volumes.**

$$\text{Volume} = (1/3) * (\text{EL2} - \text{EL1}) * (\text{Area1} + \text{Area2} + \text{sqr}(\text{Area1} * \text{Area2}))$$

where: EL1, EL2 Lower and upper elevations of the increment
 Area1, Area2 Areas computed for EL1, EL2, respectively
 Volume Incremental volume between EL1 and EL2

Subsection: Outlet Input Data
 Label: OS 3

Scenario: Post-Development 2 year

Requested Pond Water Surface Elevations	
Minimum (Headwater)	552.00 ft
Increment (Headwater)	0.05 ft
Maximum (Headwater)	561.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Rectangular Weir	LOW FLOW WEIR	Forward	OUTFALL	557.65	558.32
Orifice-Area	UPPER FLOW ORIFICE	Forward	OUTFALL	559.68	561.00
Rectangular Weir	UPPER FLOW WEIR	Forward	OUTFALL	559.34	559.68
Inlet Box	RISER	Forward	OUTFALL	559.68	561.00
Orifice-Area	LOW FLOW ORIFICE	Forward	OUTFALL	558.32	561.00
Culvert-Circular	OUTFALL	Forward	TW	556.79	561.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Subsection: Outlet Input Data
Label: OS 3

Scenario: Post-Development 2 year

Structure ID: RISER	
Structure Type: Inlet Box	
<hr/>	
Number of Openings	1
Elevation	559.68 ft
Orifice Area	21.07 ft ²
Orifice Coefficient	0.600
Weir Length	18.76 ft
Weir Coefficient	3.00 (ft ^{0.5})/s
K Reverse	1.000
Manning's n	0.000
Ke _v , Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False

Subsection: Outlet Input Data
 Label: OS 3

Scenario: Post-Development 2 year

Structure ID: OUTFALL	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	18.00 in
Length	21.76 ft
Length (Computed Barrel)	21.76 ft
Slope (Computed)	0.017 ft/ft
Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.018
Kr	0.000
Convergence Tolerance	0.00 ft
Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.087
T2 ratio (HW/D)	1.189
Slope Correction Factor	-0.500

Use unsubmerged inlet control 0 equation below T1 elevation.

Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...

T1 Elevation	558.42 ft	T1 Flow	7.58 ft ³ /s
T2 Elevation	558.57 ft	T2 Flow	8.66 ft ³ /s

Subsection: Outlet Input Data
 Label: OS 3

Scenario: Post-Development 2 year

Structure ID: LOW FLOW WEIR
 Structure Type: Rectangular Weir

Number of Openings	1
Elevation	557.65 ft
Weir Length	0.25 ft
Weir Coefficient	3.00 (ft ^{0.5})/s

Structure ID: LOW FLOW ORIFICE
 Structure Type: Orifice-Area

Number of Openings	1
Elevation	557.65 ft
Orifice Area	0.17 ft ²
Top Elevation	558.32 ft
Datum Elevation	557.99 ft
Orifice Coefficient	0.600

Structure ID: UPPER FLOW WEIR
 Structure Type: Rectangular Weir

Number of Openings	1
Elevation	559.34 ft
Weir Length	1.00 ft
Weir Coefficient	3.00 (ft ^{0.5})/s

Structure ID: UPPER FLOW ORIFICE
 Structure Type: Orifice-Area

Number of Openings	1
Elevation	559.34 ft
Orifice Area	0.34 ft ²
Top Elevation	559.68 ft
Datum Elevation	559.51 ft
Orifice Coefficient	0.600

Structure ID: TW
 Structure Type: TW Setup, DS Channel

Tailwater Type	Free Outfall
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Convergence Tolerances

Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft

Subsection: Outlet Input Data
Label: OS 3

Scenario: Post-Development 2 year

Convergence Tolerances	
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft ³ /s
Flow Tolerance (Maximum)	10.000 ft ³ /s

Subsection: Composite Rating Curve
 Label: OS 3

Scenario: Post-Development 2 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
553.00	0.00	(N/A)	0.00
553.05	0.00	(N/A)	0.00
553.10	0.00	(N/A)	0.00
553.15	0.00	(N/A)	0.00
553.20	0.00	(N/A)	0.00
553.25	0.00	(N/A)	0.00
553.30	0.00	(N/A)	0.00
553.35	0.00	(N/A)	0.00
553.40	0.00	(N/A)	0.00
553.45	0.00	(N/A)	0.00
553.50	0.00	(N/A)	0.00
553.55	0.00	(N/A)	0.00
553.60	0.00	(N/A)	0.00
553.65	0.00	(N/A)	0.00
553.70	0.00	(N/A)	0.00
553.75	0.00	(N/A)	0.00
553.80	0.00	(N/A)	0.00
553.85	0.00	(N/A)	0.00
553.90	0.00	(N/A)	0.00
553.95	0.00	(N/A)	0.00
554.00	0.00	(N/A)	0.00
554.05	0.00	(N/A)	0.00
554.10	0.00	(N/A)	0.00
554.15	0.00	(N/A)	0.00
554.20	0.00	(N/A)	0.00
554.25	0.00	(N/A)	0.00
554.30	0.00	(N/A)	0.00
554.35	0.00	(N/A)	0.00
554.40	0.00	(N/A)	0.00
554.45	0.00	(N/A)	0.00
554.50	0.00	(N/A)	0.00
554.55	0.00	(N/A)	0.00
554.60	0.00	(N/A)	0.00
554.65	0.00	(N/A)	0.00
554.70	0.00	(N/A)	0.00
554.75	0.00	(N/A)	0.00
554.80	0.00	(N/A)	0.00
554.85	0.00	(N/A)	0.00
554.90	0.00	(N/A)	0.00
554.95	0.00	(N/A)	0.00
555.00	0.00	(N/A)	0.00
555.05	0.00	(N/A)	0.00
555.10	0.00	(N/A)	0.00
555.15	0.00	(N/A)	0.00

Subsection: Composite Rating Curve
 Label: OS 3

Scenario: Post-Development 2 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
555.20	0.00	(N/A)	0.00
555.25	0.00	(N/A)	0.00
555.30	0.00	(N/A)	0.00
555.35	0.00	(N/A)	0.00
555.40	0.00	(N/A)	0.00
555.45	0.00	(N/A)	0.00
555.50	0.00	(N/A)	0.00
555.55	0.00	(N/A)	0.00
555.60	0.00	(N/A)	0.00
555.65	0.00	(N/A)	0.00
555.70	0.00	(N/A)	0.00
555.75	0.00	(N/A)	0.00
555.80	0.00	(N/A)	0.00
555.85	0.00	(N/A)	0.00
555.90	0.00	(N/A)	0.00
555.95	0.00	(N/A)	0.00
556.00	0.00	(N/A)	0.00
556.05	0.00	(N/A)	0.00
556.10	0.00	(N/A)	0.00
556.15	0.00	(N/A)	0.00
556.20	0.00	(N/A)	0.00
556.25	0.00	(N/A)	0.00
556.30	0.00	(N/A)	0.00
556.35	0.00	(N/A)	0.00
556.40	0.00	(N/A)	0.00
556.45	0.00	(N/A)	0.00
556.50	0.00	(N/A)	0.00
556.55	0.00	(N/A)	0.00
556.60	0.00	(N/A)	0.00
556.65	0.00	(N/A)	0.00
556.70	0.00	(N/A)	0.00
556.75	0.00	(N/A)	0.00
556.79	0.00	(N/A)	0.00
556.80	0.00	(N/A)	0.00
556.85	0.00	(N/A)	0.00
556.90	0.00	(N/A)	0.00
556.95	0.00	(N/A)	0.00
557.00	0.00	(N/A)	0.00
557.05	0.00	(N/A)	0.00
557.10	0.00	(N/A)	0.00
557.15	0.00	(N/A)	0.00
557.20	0.00	(N/A)	0.00
557.25	0.00	(N/A)	0.00
557.30	0.00	(N/A)	0.00

Subsection: Composite Rating Curve
 Label: OS 3

Scenario: Post-Development 2 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
557.35	0.00	(N/A)	0.00
557.40	0.00	(N/A)	0.00
557.45	0.00	(N/A)	0.00
557.50	0.00	(N/A)	0.00
557.55	0.00	(N/A)	0.00
557.60	0.00	(N/A)	0.00
557.65	0.00	(N/A)	0.00
557.70	0.01	(N/A)	0.00
557.75	0.02	(N/A)	0.00
557.80	0.04	(N/A)	0.00
557.85	0.07	(N/A)	0.00
557.90	0.09	(N/A)	0.00
557.95	0.12	(N/A)	0.00
558.00	0.16	(N/A)	0.00
558.05	0.19	(N/A)	0.00
558.10	0.23	(N/A)	0.00
558.15	0.27	(N/A)	0.00
558.20	0.31	(N/A)	0.00
558.25	0.35	(N/A)	0.00
558.30	0.39	(N/A)	0.00
558.35	0.49	(N/A)	0.00
558.40	0.52	(N/A)	0.00
558.45	0.55	(N/A)	0.00
558.50	0.58	(N/A)	0.00
558.55	0.61	(N/A)	0.00
558.60	0.64	(N/A)	0.00
558.65	0.66	(N/A)	0.00
558.70	0.69	(N/A)	0.00
558.75	0.71	(N/A)	0.00
558.80	0.74	(N/A)	0.00
558.85	0.76	(N/A)	0.00
558.90	0.78	(N/A)	0.00
558.95	0.80	(N/A)	0.00
559.00	0.82	(N/A)	0.00
559.05	0.84	(N/A)	0.00
559.10	0.86	(N/A)	0.00
559.15	0.88	(N/A)	0.00
559.20	0.90	(N/A)	0.00
559.25	0.92	(N/A)	0.00
559.30	0.94	(N/A)	0.00
559.34	0.95	(N/A)	0.00
559.35	0.96	(N/A)	0.00
559.40	1.02	(N/A)	0.00
559.45	1.10	(N/A)	0.00

Subsection: Composite Rating Curve
 Label: OS 3

Scenario: Post-Development 2 year

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
559.50	1.20	(N/A)	0.00
559.55	1.31	(N/A)	0.00
559.60	1.44	(N/A)	0.00
559.65	1.57	(N/A)	0.00
559.68	1.74	(N/A)	0.00
559.70	1.94	(N/A)	0.00
559.75	2.93	(N/A)	0.00
559.80	4.32	(N/A)	0.00
559.85	5.94	(N/A)	0.00
559.90	7.80	(N/A)	0.00
559.95	9.85	(N/A)	0.00
560.00	12.02	(N/A)	0.00
560.05	13.94	(N/A)	0.00
560.10	15.01	(N/A)	0.00
560.15	15.18	(N/A)	0.00
560.20	15.34	(N/A)	0.00
560.25	15.50	(N/A)	0.00
560.30	15.65	(N/A)	0.00
560.35	15.81	(N/A)	0.00
560.40	15.97	(N/A)	0.00
560.45	16.12	(N/A)	0.00
560.50	16.27	(N/A)	0.00
560.55	16.42	(N/A)	0.00
560.60	16.57	(N/A)	0.00
560.65	16.72	(N/A)	0.00
560.70	16.87	(N/A)	0.00
560.75	17.01	(N/A)	0.00
560.80	17.15	(N/A)	0.00
560.85	17.30	(N/A)	0.00
560.90	17.44	(N/A)	0.00
560.95	17.58	(N/A)	0.00
561.00	17.72	(N/A)	0.00

Contributing Structures

(no Q: LOW FLOW
 WEIR,UPPER FLOW
 ORIFICE,UPPER FLOW
 WEIR,RISER,LOW FLOW
 ORIFICE,OUTFALL)
 (no Q: LOW FLOW
 WEIR,UPPER FLOW
 ORIFICE,UPPER FLOW
 WEIR,RISER,LOW FLOW
 ORIFICE,OUTFALL)

Composite Outflow Summary

Contributing Structures
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)

Composite Outflow Summary

Contributing Structures
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
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(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)

Composite Outflow Summary

Contributing Structures
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)

Composite Outflow Summary

Contributing Structures
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)

Composite Outflow Summary

Contributing Structures

(no Q: LOW FLOW
WEIR,UPPER FLOW
ORIFICE,UPPER FLOW
WEIR,RISER,LOW FLOW
ORIFICE,OUTFALL)

(no Q: LOW FLOW
WEIR,UPPER FLOW
ORIFICE,UPPER FLOW
WEIR,RISER,LOW FLOW
ORIFICE,OUTFALL)

(no Q: LOW FLOW
WEIR,UPPER FLOW
ORIFICE,UPPER FLOW
WEIR,RISER,LOW FLOW
ORIFICE,OUTFALL)

(no Q: LOW FLOW
WEIR,UPPER FLOW
ORIFICE,UPPER FLOW
WEIR,RISER,LOW FLOW
ORIFICE,OUTFALL)

(no Q: LOW FLOW
WEIR,UPPER FLOW
ORIFICE,UPPER FLOW
WEIR,RISER,LOW FLOW
ORIFICE,OUTFALL)

(no Q: LOW FLOW
WEIR,UPPER FLOW
ORIFICE,UPPER FLOW
WEIR,RISER,LOW FLOW
ORIFICE,OUTFALL)

(no Q: LOW FLOW
WEIR,UPPER FLOW
ORIFICE,UPPER FLOW
WEIR,RISER,LOW FLOW
ORIFICE,OUTFALL)

(no Q: LOW FLOW
WEIR,UPPER FLOW
ORIFICE,UPPER FLOW
WEIR,RISER,LOW FLOW
ORIFICE,OUTFALL)

(no Q: LOW FLOW
WEIR,UPPER FLOW
ORIFICE,UPPER FLOW
WEIR,RISER,LOW FLOW
ORIFICE,OUTFALL)

(no Q: LOW FLOW
WEIR,UPPER FLOW
ORIFICE,UPPER FLOW
WEIR,RISER,LOW FLOW
ORIFICE,OUTFALL)

Composite Outflow Summary

Contributing Structures
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)

Composite Outflow Summary

Contributing Structures
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)

Composite Outflow Summary

Contributing Structures
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)

Composite Outflow Summary

Contributing Structures
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)

Composite Outflow Summary

Contributing Structures
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
(no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE,OUTFALL)
LOW FLOW WEIR,OUTFALL (no Q: UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE)
LOW FLOW WEIR,OUTFALL (no Q: UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE)
LOW FLOW WEIR,OUTFALL (no Q: UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE)
LOW FLOW WEIR,OUTFALL (no Q: UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE)
LOW FLOW WEIR,OUTFALL (no Q: UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE)

Composite Outflow Summary

Contributing Structures
LOW FLOW WEIR,OUTFALL (no Q: UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE)
LOW FLOW WEIR,OUTFALL (no Q: UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE)
LOW FLOW WEIR,OUTFALL (no Q: UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE)
LOW FLOW WEIR,OUTFALL (no Q: UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE)
LOW FLOW WEIR,OUTFALL (no Q: UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE)
LOW FLOW WEIR,OUTFALL (no Q: UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE)
LOW FLOW WEIR,OUTFALL (no Q: UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER,LOW FLOW ORIFICE)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)

Subsection: Composite Rating Curve
Label: OS 3

Scenario: Post-Development 2 year

Composite Outflow Summary

Contributing Structures
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)

Composite Outflow Summary

Contributing Structures
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)
LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,RISER)

Subsection: Composite Rating Curve
Label: OS 3

Scenario: Post-Development 2 year

Composite Outflow Summary

Contributing Structures
UPPER FLOW WEIR,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,RISER)
UPPER FLOW WEIR,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,RISER)
UPPER FLOW WEIR,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,RISER)
UPPER FLOW WEIR,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,RISER)
UPPER FLOW WEIR,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,RISER)
UPPER FLOW WEIR,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,RISER)
UPPER FLOW WEIR,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,RISER)
UPPER FLOW WEIR,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,RISER)
UPPER FLOW WEIR,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,RISER)
UPPER FLOW ORIFICE,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW WEIR,RISER)
UPPER FLOW ORIFICE,RISER,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW WEIR)

Composite Outflow Summary

Contributing Structures
UPPER FLOW ORIFICE,RISER,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW WEIR)
UPPER FLOW ORIFICE,RISER,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW WEIR)
UPPER FLOW ORIFICE,RISER,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW WEIR)
UPPER FLOW ORIFICE,RISER,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW WEIR)
UPPER FLOW ORIFICE,RISER,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW WEIR)
UPPER FLOW ORIFICE,RISER,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW WEIR)
UPPER FLOW ORIFICE,RISER,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW WEIR)
UPPER FLOW ORIFICE,RISER,LOW FLOW ORIFICE,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW WEIR)
RISER,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,LOW FLOW ORIFICE)

Composite Outflow Summary

Contributing Structures

RISER,OUTFALL (no Q:
LOW FLOW WEIR,UPPER
FLOW ORIFICE,UPPER
FLOW WEIR,LOW FLOW
ORIFICE)

RISER,OUTFALL (no Q:
LOW FLOW WEIR,UPPER
FLOW ORIFICE,UPPER
FLOW WEIR,LOW FLOW
ORIFICE)

RISER,OUTFALL (no Q:
LOW FLOW WEIR,UPPER
FLOW ORIFICE,UPPER
FLOW WEIR,LOW FLOW
ORIFICE)

RISER,OUTFALL (no Q:
LOW FLOW WEIR,UPPER
FLOW ORIFICE,UPPER
FLOW WEIR,LOW FLOW
ORIFICE)

RISER,OUTFALL (no Q:
LOW FLOW WEIR,UPPER
FLOW ORIFICE,UPPER
FLOW WEIR,LOW FLOW
ORIFICE)

RISER,OUTFALL (no Q:
LOW FLOW WEIR,UPPER
FLOW ORIFICE,UPPER
FLOW WEIR,LOW FLOW
ORIFICE)

RISER,OUTFALL (no Q:
LOW FLOW WEIR,UPPER
FLOW ORIFICE,UPPER
FLOW WEIR,LOW FLOW
ORIFICE)

RISER,OUTFALL (no Q:
LOW FLOW WEIR,UPPER
FLOW ORIFICE,UPPER
FLOW WEIR,LOW FLOW
ORIFICE)

RISER,OUTFALL (no Q:
LOW FLOW WEIR,UPPER
FLOW ORIFICE,UPPER
FLOW WEIR,LOW FLOW
ORIFICE)

RISER,OUTFALL (no Q:
LOW FLOW WEIR,UPPER
FLOW ORIFICE,UPPER
FLOW WEIR,LOW FLOW
ORIFICE)

Composite Outflow Summary

Contributing Structures
RISER,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,LOW FLOW ORIFICE)
RISER,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,LOW FLOW ORIFICE)
RISER,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,LOW FLOW ORIFICE)
RISER,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,LOW FLOW ORIFICE)
RISER,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,LOW FLOW ORIFICE)
RISER,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,LOW FLOW ORIFICE)
RISER,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,LOW FLOW ORIFICE)
RISER,OUTFALL (no Q: LOW FLOW WEIR,UPPER FLOW ORIFICE,UPPER FLOW WEIR,LOW FLOW ORIFICE)

Subsection: Outlet Input Data
 Label: OS 3 LFB

Scenario: 100 Year LFB

Requested Pond Water Surface Elevations	
Minimum (Headwater)	552.00 ft
Increment (Headwater)	0.05 ft
Maximum (Headwater)	561.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Inlet Box	RISER	Forward	OUTFALL	559.68	561.00
Culvert-Circular	OUTFALL	Forward	TW	556.79	561.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Subsection: Outlet Input Data
 Label: OS 3 LFB

Scenario: 100 Year LFB

Structure ID: RISER	
Structure Type: Inlet Box	
Number of Openings	1
Elevation	559.68 ft
Orifice Area	21.07 ft ²
Orifice Coefficient	0.600
Weir Length	18.76 ft
Weir Coefficient	3.00 (ft ^{0.5})/s
K Reverse	1.000
Manning's n	0.000
Kev, Charged Riser	0.000
Weir Submergence	False
Orifice H to crest	False
Structure ID: OUTFALL	
Structure Type: Culvert-Circular	
Number of Barrels	1
Diameter	18.00 in
Length	21.76 ft
Length (Computed Barrel)	21.76 ft
Slope (Computed)	0.017 ft/ft
Outlet Control Data	
Manning's n	0.013
Ke	0.200
Kb	0.018
Kr	0.000
Convergence Tolerance	0.00 ft
Inlet Control Data	
Equation Form	Form 1
K	0.0045
M	2.0000
C	0.0317
Y	0.6900
T1 ratio (HW/D)	1.087
T2 ratio (HW/D)	1.189
Slope Correction Factor	-0.500

Subsection: Outlet Input Data
Label: OS 3 LFB

Scenario: 100 Year LFB

Use unsubmerged inlet control 0 equation below T1 elevation.

Use submerged inlet control 0 equation above T2 elevation

In transition zone between unsubmerged and submerged inlet control, interpolate between flows at T1 & T2...

T1 Elevation	558.42 ft	T1 Flow	7.58 ft ³ /s
T2 Elevation	558.57 ft	T2 Flow	8.66 ft ³ /s

Subsection: Outlet Input Data
Label: OS 3 LFB

Scenario: 100 Year LFB

Structure ID: TW	
Structure Type: TW Setup, DS Channel	
Tailwater Type	Free Outfall
Convergence Tolerances	
Maximum Iterations	30
Tailwater Tolerance (Minimum)	0.01 ft
Tailwater Tolerance (Maximum)	0.50 ft
Headwater Tolerance (Minimum)	0.01 ft
Headwater Tolerance (Maximum)	0.50 ft
Flow Tolerance (Minimum)	0.001 ft ³ /s
Flow Tolerance (Maximum)	10.000 ft ³ /s

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
553.00	0.00	(N/A)	0.00
553.05	0.00	(N/A)	0.00
553.10	0.00	(N/A)	0.00
553.15	0.00	(N/A)	0.00
553.20	0.00	(N/A)	0.00
553.25	0.00	(N/A)	0.00
553.30	0.00	(N/A)	0.00
553.35	0.00	(N/A)	0.00
553.40	0.00	(N/A)	0.00
553.45	0.00	(N/A)	0.00
553.50	0.00	(N/A)	0.00
553.55	0.00	(N/A)	0.00
553.60	0.00	(N/A)	0.00
553.65	0.00	(N/A)	0.00
553.70	0.00	(N/A)	0.00
553.75	0.00	(N/A)	0.00
553.80	0.00	(N/A)	0.00
553.85	0.00	(N/A)	0.00
553.90	0.00	(N/A)	0.00
553.95	0.00	(N/A)	0.00
554.00	0.00	(N/A)	0.00
554.05	0.00	(N/A)	0.00
554.10	0.00	(N/A)	0.00
554.15	0.00	(N/A)	0.00
554.20	0.00	(N/A)	0.00
554.25	0.00	(N/A)	0.00
554.30	0.00	(N/A)	0.00
554.35	0.00	(N/A)	0.00
554.40	0.00	(N/A)	0.00
554.45	0.00	(N/A)	0.00
554.50	0.00	(N/A)	0.00
554.55	0.00	(N/A)	0.00
554.60	0.00	(N/A)	0.00
554.65	0.00	(N/A)	0.00
554.70	0.00	(N/A)	0.00
554.75	0.00	(N/A)	0.00
554.80	0.00	(N/A)	0.00
554.85	0.00	(N/A)	0.00
554.90	0.00	(N/A)	0.00
554.95	0.00	(N/A)	0.00
555.00	0.00	(N/A)	0.00
555.05	0.00	(N/A)	0.00
555.10	0.00	(N/A)	0.00
555.15	0.00	(N/A)	0.00

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
555.20	0.00	(N/A)	0.00
555.25	0.00	(N/A)	0.00
555.30	0.00	(N/A)	0.00
555.35	0.00	(N/A)	0.00
555.40	0.00	(N/A)	0.00
555.45	0.00	(N/A)	0.00
555.50	0.00	(N/A)	0.00
555.55	0.00	(N/A)	0.00
555.60	0.00	(N/A)	0.00
555.65	0.00	(N/A)	0.00
555.70	0.00	(N/A)	0.00
555.75	0.00	(N/A)	0.00
555.80	0.00	(N/A)	0.00
555.85	0.00	(N/A)	0.00
555.90	0.00	(N/A)	0.00
555.95	0.00	(N/A)	0.00
556.00	0.00	(N/A)	0.00
556.05	0.00	(N/A)	0.00
556.10	0.00	(N/A)	0.00
556.15	0.00	(N/A)	0.00
556.20	0.00	(N/A)	0.00
556.25	0.00	(N/A)	0.00
556.30	0.00	(N/A)	0.00
556.35	0.00	(N/A)	0.00
556.40	0.00	(N/A)	0.00
556.45	0.00	(N/A)	0.00
556.50	0.00	(N/A)	0.00
556.55	0.00	(N/A)	0.00
556.60	0.00	(N/A)	0.00
556.65	0.00	(N/A)	0.00
556.70	0.00	(N/A)	0.00
556.75	0.00	(N/A)	0.00
556.79	0.00	(N/A)	0.00
556.80	0.00	(N/A)	0.00
556.85	0.00	(N/A)	0.00
556.90	0.00	(N/A)	0.00
556.95	0.00	(N/A)	0.00
557.00	0.00	(N/A)	0.00
557.05	0.00	(N/A)	0.00
557.10	0.00	(N/A)	0.00
557.15	0.00	(N/A)	0.00
557.20	0.00	(N/A)	0.00
557.25	0.00	(N/A)	0.00
557.30	0.00	(N/A)	0.00

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
557.35	0.00	(N/A)	0.00
557.40	0.00	(N/A)	0.00
557.45	0.00	(N/A)	0.00
557.50	0.00	(N/A)	0.00
557.55	0.00	(N/A)	0.00
557.60	0.00	(N/A)	0.00
557.65	0.00	(N/A)	0.00
557.70	0.00	(N/A)	0.00
557.75	0.00	(N/A)	0.00
557.80	0.00	(N/A)	0.00
557.85	0.00	(N/A)	0.00
557.90	0.00	(N/A)	0.00
557.95	0.00	(N/A)	0.00
558.00	0.00	(N/A)	0.00
558.05	0.00	(N/A)	0.00
558.10	0.00	(N/A)	0.00
558.15	0.00	(N/A)	0.00
558.20	0.00	(N/A)	0.00
558.25	0.00	(N/A)	0.00
558.30	0.00	(N/A)	0.00
558.35	0.00	(N/A)	0.00
558.40	0.00	(N/A)	0.00
558.45	0.00	(N/A)	0.00
558.50	0.00	(N/A)	0.00
558.55	0.00	(N/A)	0.00
558.60	0.00	(N/A)	0.00
558.65	0.00	(N/A)	0.00
558.70	0.00	(N/A)	0.00
558.75	0.00	(N/A)	0.00
558.80	0.00	(N/A)	0.00
558.85	0.00	(N/A)	0.00
558.90	0.00	(N/A)	0.00
558.95	0.00	(N/A)	0.00
559.00	0.00	(N/A)	0.00
559.05	0.00	(N/A)	0.00
559.10	0.00	(N/A)	0.00
559.15	0.00	(N/A)	0.00
559.20	0.00	(N/A)	0.00
559.25	0.00	(N/A)	0.00
559.30	0.00	(N/A)	0.00
559.35	0.00	(N/A)	0.00
559.40	0.00	(N/A)	0.00
559.45	0.00	(N/A)	0.00
559.50	0.00	(N/A)	0.00

Composite Outflow Summary

Water Surface Elevation (ft)	Flow (ft ³ /s)	Tailwater Elevation (ft)	Convergence Error (ft)
559.55	0.00	(N/A)	0.00
559.60	0.00	(N/A)	0.00
559.65	0.00	(N/A)	0.00
559.68	0.00	(N/A)	0.00
559.70	0.16	(N/A)	0.00
559.75	1.04	(N/A)	0.00
559.80	2.34	(N/A)	0.00
559.85	3.94	(N/A)	0.00
559.90	5.81	(N/A)	0.00
559.95	7.89	(N/A)	0.00
560.00	10.19	(N/A)	0.00
560.05	12.67	(N/A)	0.00
560.10	15.01	(N/A)	0.00
560.15	15.18	(N/A)	0.00
560.20	15.33	(N/A)	0.00
560.25	15.49	(N/A)	0.00
560.30	15.65	(N/A)	0.00
560.35	15.81	(N/A)	0.00
560.40	15.97	(N/A)	0.00
560.45	16.12	(N/A)	0.00
560.50	16.27	(N/A)	0.00
560.55	16.42	(N/A)	0.00
560.60	16.57	(N/A)	0.00
560.65	16.72	(N/A)	0.00
560.70	16.87	(N/A)	0.00
560.75	17.01	(N/A)	0.00
560.80	17.15	(N/A)	0.00
560.85	17.30	(N/A)	0.00
560.90	17.44	(N/A)	0.00
560.95	17.58	(N/A)	0.00
561.00	17.72	(N/A)	0.00

Contributing Structures

(no Q: RISER,OUTFALL)
(no Q: RISER,OUTFALL)
(no Q: RISER,OUTFALL)
(no Q: RISER,OUTFALL)
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(no Q: RISER,OUTFALL)
(no Q: RISER,OUTFALL)
(no Q: RISER,OUTFALL)
(no Q: RISER,OUTFALL)

Subsection: Composite Rating Curve
Label: OS 3 LFB

Scenario: 100 Year LFB

Composite Outflow Summary

Contributing Structures
RISER,OUTFALL
RISER,OUTFALL
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RISER,OUTFALL
RISER,OUTFALL
RISER,OUTFALL
RISER,OUTFALL

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 2 year

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	557.65 ft
Volume (Initial)	0.118 ac-ft
Flow (Initial Outlet)	0.00 ft ³ /s
Flow (Initial Infiltration)	0.00 ft ³ /s
Flow (Initial, Total)	0.00 ft ³ /s
Time Increment	1.000 min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
553.00	0.00	0.000	213.000	0.00	0.00	0.00
553.05	0.00	0.000	223.293	0.00	0.00	0.36
553.10	0.00	0.001	233.829	0.00	0.00	0.74
553.15	0.00	0.001	244.607	0.00	0.00	1.14
553.20	0.00	0.001	255.629	0.00	0.00	1.56
553.25	0.00	0.001	266.893	0.00	0.00	2.00
553.30	0.00	0.002	278.400	0.00	0.00	2.45
553.35	0.00	0.002	290.150	0.00	0.00	2.92
553.40	0.00	0.002	302.143	0.00	0.00	3.42
553.45	0.00	0.003	314.379	0.00	0.00	3.93
553.50	0.00	0.003	326.857	0.00	0.00	4.47
553.55	0.00	0.003	339.579	0.00	0.00	5.02
553.60	0.00	0.004	352.543	0.00	0.00	5.60
553.65	0.00	0.004	365.750	0.00	0.00	6.20
553.70	0.00	0.005	379.200	0.00	0.00	6.82
553.75	0.00	0.005	392.893	0.00	0.00	7.46
553.80	0.00	0.006	406.829	0.00	0.00	8.13
553.85	0.00	0.006	421.007	0.00	0.00	8.82
553.90	0.00	0.007	435.429	0.00	0.00	9.53
553.95	0.00	0.007	450.093	0.00	0.00	10.27
554.00	0.00	0.008	465.000	0.00	0.00	11.03
554.05	0.00	0.008	479.411	0.00	0.00	11.82
554.10	0.00	0.009	494.042	0.00	0.00	12.63
554.15	0.00	0.009	508.892	0.00	0.00	13.46
554.20	0.00	0.010	523.963	0.00	0.00	14.32
554.25	0.00	0.010	539.253	0.00	0.00	15.21
554.30	0.00	0.011	554.764	0.00	0.00	16.12
554.35	0.00	0.012	570.494	0.00	0.00	17.06
554.40	0.00	0.012	586.444	0.00	0.00	18.02
554.45	0.00	0.013	602.614	0.00	0.00	19.02
554.50	0.00	0.014	619.005	0.00	0.00	20.03

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 2 year

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
554.55	0.00	0.015	635.614	0.00	0.00	21.08
554.60	0.00	0.015	652.444	0.00	0.00	22.15
554.65	0.00	0.016	669.494	0.00	0.00	23.25
554.70	0.00	0.017	686.764	0.00	0.00	24.38
554.75	0.00	0.018	704.253	0.00	0.00	25.54
554.80	0.00	0.018	721.963	0.00	0.00	26.73
554.85	0.00	0.019	739.892	0.00	0.00	27.95
554.90	0.00	0.020	758.042	0.00	0.00	29.20
554.95	0.00	0.021	776.411	0.00	0.00	30.48
555.00	0.00	0.022	795.000	0.00	0.00	31.79
555.05	0.00	0.023	812.658	0.00	0.00	33.13
555.10	0.00	0.024	830.509	0.00	0.00	34.49
555.15	0.00	0.025	848.554	0.00	0.00	35.89
555.20	0.00	0.026	866.794	0.00	0.00	37.32
555.25	0.00	0.027	885.227	0.00	0.00	38.78
555.30	0.00	0.028	903.854	0.00	0.00	40.27
555.35	0.00	0.029	922.675	0.00	0.00	41.80
555.40	0.00	0.030	941.691	0.00	0.00	43.35
555.45	0.00	0.031	960.900	0.00	0.00	44.94
555.50	0.00	0.032	980.303	0.00	0.00	46.55
555.55	0.00	0.033	999.900	0.00	0.00	48.20
555.60	0.00	0.034	1,019.691	0.00	0.00	49.89
555.65	0.00	0.036	1,039.675	0.00	0.00	51.60
555.70	0.00	0.037	1,059.854	0.00	0.00	53.35
555.75	0.00	0.038	1,080.227	0.00	0.00	55.14
555.80	0.00	0.039	1,100.794	0.00	0.00	56.95
555.85	0.00	0.040	1,121.554	0.00	0.00	58.80
555.90	0.00	0.042	1,142.509	0.00	0.00	60.69
555.95	0.00	0.043	1,163.658	0.00	0.00	62.61
556.00	0.00	0.044	1,185.000	0.00	0.00	64.57
556.05	0.00	0.046	1,206.146	0.00	0.00	66.56
556.10	0.00	0.047	1,227.480	0.00	0.00	68.59
556.15	0.00	0.049	1,249.000	0.00	0.00	70.65
556.20	0.00	0.050	1,292.543	0.00	0.00	72.77
556.25	0.00	0.052	1,336.832	0.00	0.00	74.96
556.30	0.00	0.053	1,381.866	0.00	0.00	77.23
556.35	0.00	0.055	1,427.647	0.00	0.00	79.57
556.40	0.00	0.056	1,474.174	0.00	0.00	81.99
556.45	0.00	0.058	1,521.447	0.00	0.00	84.48
556.50	0.00	0.060	1,569.466	0.00	0.00	87.06
556.55	0.00	0.062	1,618.232	0.00	0.00	89.72
556.60	0.00	0.064	1,667.743	0.00	0.00	92.45
556.65	0.00	0.066	1,718.000	0.00	0.00	95.28
556.70	0.00	0.068	1,768.650	0.00	0.00	98.18
556.75	0.00	0.070	1,820.035	0.00	0.00	101.17

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 2 year

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
556.79	0.00	0.071	1,861.673	0.00	0.00	103.63
556.80	0.00	0.072	1,872.157	0.00	0.00	104.25
556.85	0.00	0.074	1,925.014	0.00	0.00	107.41
556.90	0.00	0.076	1,978.607	0.00	0.00	110.67
556.95	0.00	0.079	2,032.935	0.00	0.00	114.01
557.00	0.00	0.081	2,088.000	0.00	0.00	117.44
557.05	0.00	0.083	2,143.928	0.00	0.00	120.97
557.10	0.00	0.086	2,200.594	0.00	0.00	124.59
557.15	0.00	0.088	2,258.000	0.00	0.00	128.30
557.20	0.00	0.091	2,316.978	0.00	0.00	132.12
557.25	0.00	0.094	2,376.717	0.00	0.00	136.03
557.30	0.00	0.096	2,437.216	0.00	0.00	140.04
557.35	0.00	0.099	2,498.476	0.00	0.00	144.15
557.40	0.00	0.102	2,560.496	0.00	0.00	148.37
557.45	0.00	0.105	2,623.276	0.00	0.00	152.69
557.50	0.00	0.108	2,686.816	0.00	0.00	157.11
557.55	0.00	0.111	2,751.117	0.00	0.00	161.64
557.60	0.00	0.115	2,816.178	0.00	0.00	166.28
557.65	0.00	0.118	2,882.000	0.00	0.00	171.03
557.70	0.01	0.121	2,957.102	0.00	0.01	175.91
557.75	0.02	0.125	3,033.170	0.00	0.02	180.91
557.80	0.04	0.128	3,110.204	0.00	0.04	186.05
557.85	0.07	0.132	3,188.204	0.00	0.07	191.33
557.90	0.09	0.135	3,267.170	0.00	0.09	196.73
557.95	0.12	0.139	3,347.102	0.00	0.12	202.27
558.00	0.16	0.143	3,428.000	0.00	0.16	207.95
558.05	0.19	0.147	3,478.141	0.00	0.19	213.74
558.10	0.23	0.151	3,528.647	0.00	0.23	219.61
558.15	0.27	0.155	3,579.517	0.00	0.27	225.58
558.20	0.31	0.159	3,630.750	0.00	0.31	231.63
558.25	0.35	0.164	3,682.348	0.00	0.35	237.76
558.30	0.39	0.168	3,734.310	0.00	0.39	243.99
558.35	0.49	0.172	3,786.636	0.00	0.49	250.35
558.40	0.52	0.176	3,839.325	0.00	0.52	256.74
558.45	0.55	0.181	3,892.379	0.00	0.55	263.22
558.50	0.58	0.185	3,945.797	0.00	0.58	269.78
558.55	0.61	0.190	3,999.579	0.00	0.61	276.43
558.60	0.64	0.195	4,053.725	0.00	0.64	283.16
558.65	0.66	0.199	4,108.236	0.00	0.66	289.99
558.70	0.69	0.204	4,163.110	0.00	0.69	296.91
558.75	0.71	0.209	4,218.348	0.00	0.71	303.92
558.80	0.74	0.214	4,273.950	0.00	0.74	311.02
558.85	0.76	0.219	4,329.917	0.00	0.76	318.21
558.90	0.78	0.224	4,386.247	0.00	0.78	325.49
558.95	0.80	0.229	4,442.941	0.00	0.80	332.87

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 2 year

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
559.00	0.82	0.234	4,500.000	0.00	0.82	340.35
559.05	0.84	0.239	4,568.311	0.00	0.84	347.92
559.10	0.86	0.244	4,637.137	0.00	0.86	355.61
559.15	0.88	0.250	4,706.478	0.00	0.88	363.42
559.20	0.90	0.255	4,776.333	0.00	0.90	371.34
559.25	0.92	0.261	4,846.703	0.00	0.92	379.38
559.30	0.94	0.266	4,917.587	0.00	0.94	387.53
559.34	0.95	0.271	4,974.665	0.00	0.95	394.14
559.35	0.96	0.272	4,988.986	0.00	0.96	395.81
559.40	1.02	0.278	5,060.899	0.00	1.02	404.24
559.45	1.10	0.284	5,133.328	0.00	1.10	412.82
559.50	1.20	0.289	5,206.270	0.00	1.20	421.54
559.55	1.31	0.296	5,279.728	0.00	1.31	430.39
559.60	1.44	0.302	5,353.699	0.00	1.44	439.37
559.65	1.57	0.308	5,428.186	0.00	1.57	448.49
559.68	1.74	0.312	5,473.125	0.00	1.74	454.11
559.70	1.94	0.314	5,503.187	0.00	1.94	457.97
559.75	2.93	0.320	5,578.703	0.00	2.93	468.20
559.80	4.32	0.327	5,654.733	0.00	4.32	478.95
559.85	5.94	0.333	5,731.278	0.00	5.94	490.06
559.90	7.80	0.340	5,808.337	0.00	7.80	501.53
559.95	9.85	0.347	5,885.911	0.00	9.85	513.33
560.00	12.02	0.354	5,964.000	0.00	12.02	525.37
560.05	13.94	0.360	6,039.802	0.00	13.94	537.30
560.10	15.01	0.367	6,116.084	0.00	15.01	548.49
560.15	15.18	0.374	6,192.843	0.00	15.18	558.92
560.20	15.34	0.382	6,270.082	0.00	15.34	569.46
560.25	15.50	0.389	6,347.799	0.00	15.50	580.14
560.30	15.65	0.396	6,425.995	0.00	15.65	590.94
560.35	15.81	0.404	6,504.670	0.00	15.81	601.87
560.40	15.97	0.411	6,583.823	0.00	15.97	612.94
560.45	16.12	0.419	6,663.455	0.00	16.12	624.13
560.50	16.27	0.426	6,743.566	0.00	16.27	635.45
560.55	16.42	0.434	6,824.155	0.00	16.42	646.91
560.60	16.57	0.442	6,905.223	0.00	16.57	658.50
560.65	16.72	0.450	6,986.770	0.00	16.72	670.22
560.70	16.87	0.458	7,068.795	0.00	16.87	682.09
560.75	17.01	0.466	7,151.299	0.00	17.01	694.08
560.80	17.15	0.475	7,234.282	0.00	17.15	706.21
560.85	17.30	0.483	7,317.743	0.00	17.30	718.48
560.90	17.44	0.491	7,401.684	0.00	17.44	730.89
560.95	17.58	0.500	7,486.102	0.00	17.58	743.44
561.00	17.72	0.509	7,571.000	0.00	17.72	756.12

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 15 Year

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	557.65 ft
Volume (Initial)	0.118 ac-ft
Flow (Initial Outlet)	0.00 ft ³ /s
Flow (Initial Infiltration)	0.00 ft ³ /s
Flow (Initial, Total)	0.00 ft ³ /s
Time Increment	1.000 min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
553.00	0.00	0.000	213.000	0.00	0.00	0.00
553.05	0.00	0.000	223.293	0.00	0.00	0.36
553.10	0.00	0.001	233.829	0.00	0.00	0.74
553.15	0.00	0.001	244.607	0.00	0.00	1.14
553.20	0.00	0.001	255.629	0.00	0.00	1.56
553.25	0.00	0.001	266.893	0.00	0.00	2.00
553.30	0.00	0.002	278.400	0.00	0.00	2.45
553.35	0.00	0.002	290.150	0.00	0.00	2.92
553.40	0.00	0.002	302.143	0.00	0.00	3.42
553.45	0.00	0.003	314.379	0.00	0.00	3.93
553.50	0.00	0.003	326.857	0.00	0.00	4.47
553.55	0.00	0.003	339.579	0.00	0.00	5.02
553.60	0.00	0.004	352.543	0.00	0.00	5.60
553.65	0.00	0.004	365.750	0.00	0.00	6.20
553.70	0.00	0.005	379.200	0.00	0.00	6.82
553.75	0.00	0.005	392.893	0.00	0.00	7.46
553.80	0.00	0.006	406.829	0.00	0.00	8.13
553.85	0.00	0.006	421.007	0.00	0.00	8.82
553.90	0.00	0.007	435.429	0.00	0.00	9.53
553.95	0.00	0.007	450.093	0.00	0.00	10.27
554.00	0.00	0.008	465.000	0.00	0.00	11.03
554.05	0.00	0.008	479.411	0.00	0.00	11.82
554.10	0.00	0.009	494.042	0.00	0.00	12.63
554.15	0.00	0.009	508.892	0.00	0.00	13.46
554.20	0.00	0.010	523.963	0.00	0.00	14.32
554.25	0.00	0.010	539.253	0.00	0.00	15.21
554.30	0.00	0.011	554.764	0.00	0.00	16.12
554.35	0.00	0.012	570.494	0.00	0.00	17.06
554.40	0.00	0.012	586.444	0.00	0.00	18.02
554.45	0.00	0.013	602.614	0.00	0.00	19.02
554.50	0.00	0.014	619.005	0.00	0.00	20.03

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 15 Year

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
554.55	0.00	0.015	635.614	0.00	0.00	21.08
554.60	0.00	0.015	652.444	0.00	0.00	22.15
554.65	0.00	0.016	669.494	0.00	0.00	23.25
554.70	0.00	0.017	686.764	0.00	0.00	24.38
554.75	0.00	0.018	704.253	0.00	0.00	25.54
554.80	0.00	0.018	721.963	0.00	0.00	26.73
554.85	0.00	0.019	739.892	0.00	0.00	27.95
554.90	0.00	0.020	758.042	0.00	0.00	29.20
554.95	0.00	0.021	776.411	0.00	0.00	30.48
555.00	0.00	0.022	795.000	0.00	0.00	31.79
555.05	0.00	0.023	812.658	0.00	0.00	33.13
555.10	0.00	0.024	830.509	0.00	0.00	34.49
555.15	0.00	0.025	848.554	0.00	0.00	35.89
555.20	0.00	0.026	866.794	0.00	0.00	37.32
555.25	0.00	0.027	885.227	0.00	0.00	38.78
555.30	0.00	0.028	903.854	0.00	0.00	40.27
555.35	0.00	0.029	922.675	0.00	0.00	41.80
555.40	0.00	0.030	941.691	0.00	0.00	43.35
555.45	0.00	0.031	960.900	0.00	0.00	44.94
555.50	0.00	0.032	980.303	0.00	0.00	46.55
555.55	0.00	0.033	999.900	0.00	0.00	48.20
555.60	0.00	0.034	1,019.691	0.00	0.00	49.89
555.65	0.00	0.036	1,039.675	0.00	0.00	51.60
555.70	0.00	0.037	1,059.854	0.00	0.00	53.35
555.75	0.00	0.038	1,080.227	0.00	0.00	55.14
555.80	0.00	0.039	1,100.794	0.00	0.00	56.95
555.85	0.00	0.040	1,121.554	0.00	0.00	58.80
555.90	0.00	0.042	1,142.509	0.00	0.00	60.69
555.95	0.00	0.043	1,163.658	0.00	0.00	62.61
556.00	0.00	0.044	1,185.000	0.00	0.00	64.57
556.05	0.00	0.046	1,206.146	0.00	0.00	66.56
556.10	0.00	0.047	1,227.480	0.00	0.00	68.59
556.15	0.00	0.049	1,249.000	0.00	0.00	70.65
556.20	0.00	0.050	1,292.543	0.00	0.00	72.77
556.25	0.00	0.052	1,336.832	0.00	0.00	74.96
556.30	0.00	0.053	1,381.866	0.00	0.00	77.23
556.35	0.00	0.055	1,427.647	0.00	0.00	79.57
556.40	0.00	0.056	1,474.174	0.00	0.00	81.99
556.45	0.00	0.058	1,521.447	0.00	0.00	84.48
556.50	0.00	0.060	1,569.466	0.00	0.00	87.06
556.55	0.00	0.062	1,618.232	0.00	0.00	89.72
556.60	0.00	0.064	1,667.743	0.00	0.00	92.45
556.65	0.00	0.066	1,718.000	0.00	0.00	95.28
556.70	0.00	0.068	1,768.650	0.00	0.00	98.18
556.75	0.00	0.070	1,820.035	0.00	0.00	101.17

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 15 Year

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
556.79	0.00	0.071	1,861.673	0.00	0.00	103.63
556.80	0.00	0.072	1,872.157	0.00	0.00	104.25
556.85	0.00	0.074	1,925.014	0.00	0.00	107.41
556.90	0.00	0.076	1,978.607	0.00	0.00	110.67
556.95	0.00	0.079	2,032.935	0.00	0.00	114.01
557.00	0.00	0.081	2,088.000	0.00	0.00	117.44
557.05	0.00	0.083	2,143.928	0.00	0.00	120.97
557.10	0.00	0.086	2,200.594	0.00	0.00	124.59
557.15	0.00	0.088	2,258.000	0.00	0.00	128.30
557.20	0.00	0.091	2,316.978	0.00	0.00	132.12
557.25	0.00	0.094	2,376.717	0.00	0.00	136.03
557.30	0.00	0.096	2,437.216	0.00	0.00	140.04
557.35	0.00	0.099	2,498.476	0.00	0.00	144.15
557.40	0.00	0.102	2,560.496	0.00	0.00	148.37
557.45	0.00	0.105	2,623.276	0.00	0.00	152.69
557.50	0.00	0.108	2,686.816	0.00	0.00	157.11
557.55	0.00	0.111	2,751.117	0.00	0.00	161.64
557.60	0.00	0.115	2,816.178	0.00	0.00	166.28
557.65	0.00	0.118	2,882.000	0.00	0.00	171.03
557.70	0.01	0.121	2,957.102	0.00	0.01	175.91
557.75	0.02	0.125	3,033.170	0.00	0.02	180.91
557.80	0.04	0.128	3,110.204	0.00	0.04	186.05
557.85	0.07	0.132	3,188.204	0.00	0.07	191.33
557.90	0.09	0.135	3,267.170	0.00	0.09	196.73
557.95	0.12	0.139	3,347.102	0.00	0.12	202.27
558.00	0.16	0.143	3,428.000	0.00	0.16	207.95
558.05	0.19	0.147	3,478.141	0.00	0.19	213.74
558.10	0.23	0.151	3,528.647	0.00	0.23	219.61
558.15	0.27	0.155	3,579.517	0.00	0.27	225.58
558.20	0.31	0.159	3,630.750	0.00	0.31	231.63
558.25	0.35	0.164	3,682.348	0.00	0.35	237.76
558.30	0.39	0.168	3,734.310	0.00	0.39	243.99
558.35	0.49	0.172	3,786.636	0.00	0.49	250.35
558.40	0.52	0.176	3,839.325	0.00	0.52	256.74
558.45	0.55	0.181	3,892.379	0.00	0.55	263.22
558.50	0.58	0.185	3,945.797	0.00	0.58	269.78
558.55	0.61	0.190	3,999.579	0.00	0.61	276.43
558.60	0.64	0.195	4,053.725	0.00	0.64	283.16
558.65	0.66	0.199	4,108.236	0.00	0.66	289.99
558.70	0.69	0.204	4,163.110	0.00	0.69	296.91
558.75	0.71	0.209	4,218.348	0.00	0.71	303.92
558.80	0.74	0.214	4,273.950	0.00	0.74	311.02
558.85	0.76	0.219	4,329.917	0.00	0.76	318.21
558.90	0.78	0.224	4,386.247	0.00	0.78	325.49
558.95	0.80	0.229	4,442.941	0.00	0.80	332.87

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 15 Year

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
559.00	0.82	0.234	4,500.000	0.00	0.82	340.35
559.05	0.84	0.239	4,568.311	0.00	0.84	347.92
559.10	0.86	0.244	4,637.137	0.00	0.86	355.61
559.15	0.88	0.250	4,706.478	0.00	0.88	363.42
559.20	0.90	0.255	4,776.333	0.00	0.90	371.34
559.25	0.92	0.261	4,846.703	0.00	0.92	379.38
559.30	0.94	0.266	4,917.587	0.00	0.94	387.53
559.34	0.95	0.271	4,974.665	0.00	0.95	394.14
559.35	0.96	0.272	4,988.986	0.00	0.96	395.81
559.40	1.02	0.278	5,060.899	0.00	1.02	404.24
559.45	1.10	0.284	5,133.328	0.00	1.10	412.82
559.50	1.20	0.289	5,206.270	0.00	1.20	421.54
559.55	1.31	0.296	5,279.728	0.00	1.31	430.39
559.60	1.44	0.302	5,353.699	0.00	1.44	439.37
559.65	1.57	0.308	5,428.186	0.00	1.57	448.49
559.68	1.74	0.312	5,473.125	0.00	1.74	454.11
559.70	1.94	0.314	5,503.187	0.00	1.94	457.97
559.75	2.93	0.320	5,578.703	0.00	2.93	468.20
559.80	4.32	0.327	5,654.733	0.00	4.32	478.95
559.85	5.94	0.333	5,731.278	0.00	5.94	490.06
559.90	7.80	0.340	5,808.337	0.00	7.80	501.53
559.95	9.85	0.347	5,885.911	0.00	9.85	513.33
560.00	12.02	0.354	5,964.000	0.00	12.02	525.37
560.05	13.94	0.360	6,039.802	0.00	13.94	537.30
560.10	15.01	0.367	6,116.084	0.00	15.01	548.49
560.15	15.18	0.374	6,192.843	0.00	15.18	558.92
560.20	15.34	0.382	6,270.082	0.00	15.34	569.46
560.25	15.50	0.389	6,347.799	0.00	15.50	580.14
560.30	15.65	0.396	6,425.995	0.00	15.65	590.94
560.35	15.81	0.404	6,504.670	0.00	15.81	601.87
560.40	15.97	0.411	6,583.823	0.00	15.97	612.94
560.45	16.12	0.419	6,663.455	0.00	16.12	624.13
560.50	16.27	0.426	6,743.566	0.00	16.27	635.45
560.55	16.42	0.434	6,824.155	0.00	16.42	646.91
560.60	16.57	0.442	6,905.223	0.00	16.57	658.50
560.65	16.72	0.450	6,986.770	0.00	16.72	670.22
560.70	16.87	0.458	7,068.795	0.00	16.87	682.09
560.75	17.01	0.466	7,151.299	0.00	17.01	694.08
560.80	17.15	0.475	7,234.282	0.00	17.15	706.21
560.85	17.30	0.483	7,317.743	0.00	17.30	718.48
560.90	17.44	0.491	7,401.684	0.00	17.44	730.89
560.95	17.58	0.500	7,486.102	0.00	17.58	743.44
561.00	17.72	0.509	7,571.000	0.00	17.72	756.12

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 25 Year

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	557.65 ft
Volume (Initial)	0.118 ac-ft
Flow (Initial Outlet)	0.00 ft ³ /s
Flow (Initial Infiltration)	0.00 ft ³ /s
Flow (Initial, Total)	0.00 ft ³ /s
Time Increment	1.000 min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
553.00	0.00	0.000	213.000	0.00	0.00	0.00
553.05	0.00	0.000	223.293	0.00	0.00	0.36
553.10	0.00	0.001	233.829	0.00	0.00	0.74
553.15	0.00	0.001	244.607	0.00	0.00	1.14
553.20	0.00	0.001	255.629	0.00	0.00	1.56
553.25	0.00	0.001	266.893	0.00	0.00	2.00
553.30	0.00	0.002	278.400	0.00	0.00	2.45
553.35	0.00	0.002	290.150	0.00	0.00	2.92
553.40	0.00	0.002	302.143	0.00	0.00	3.42
553.45	0.00	0.003	314.379	0.00	0.00	3.93
553.50	0.00	0.003	326.857	0.00	0.00	4.47
553.55	0.00	0.003	339.579	0.00	0.00	5.02
553.60	0.00	0.004	352.543	0.00	0.00	5.60
553.65	0.00	0.004	365.750	0.00	0.00	6.20
553.70	0.00	0.005	379.200	0.00	0.00	6.82
553.75	0.00	0.005	392.893	0.00	0.00	7.46
553.80	0.00	0.006	406.829	0.00	0.00	8.13
553.85	0.00	0.006	421.007	0.00	0.00	8.82
553.90	0.00	0.007	435.429	0.00	0.00	9.53
553.95	0.00	0.007	450.093	0.00	0.00	10.27
554.00	0.00	0.008	465.000	0.00	0.00	11.03
554.05	0.00	0.008	479.411	0.00	0.00	11.82
554.10	0.00	0.009	494.042	0.00	0.00	12.63
554.15	0.00	0.009	508.892	0.00	0.00	13.46
554.20	0.00	0.010	523.963	0.00	0.00	14.32
554.25	0.00	0.010	539.253	0.00	0.00	15.21
554.30	0.00	0.011	554.764	0.00	0.00	16.12
554.35	0.00	0.012	570.494	0.00	0.00	17.06
554.40	0.00	0.012	586.444	0.00	0.00	18.02
554.45	0.00	0.013	602.614	0.00	0.00	19.02
554.50	0.00	0.014	619.005	0.00	0.00	20.03

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 25 Year

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
554.55	0.00	0.015	635.614	0.00	0.00	21.08
554.60	0.00	0.015	652.444	0.00	0.00	22.15
554.65	0.00	0.016	669.494	0.00	0.00	23.25
554.70	0.00	0.017	686.764	0.00	0.00	24.38
554.75	0.00	0.018	704.253	0.00	0.00	25.54
554.80	0.00	0.018	721.963	0.00	0.00	26.73
554.85	0.00	0.019	739.892	0.00	0.00	27.95
554.90	0.00	0.020	758.042	0.00	0.00	29.20
554.95	0.00	0.021	776.411	0.00	0.00	30.48
555.00	0.00	0.022	795.000	0.00	0.00	31.79
555.05	0.00	0.023	812.658	0.00	0.00	33.13
555.10	0.00	0.024	830.509	0.00	0.00	34.49
555.15	0.00	0.025	848.554	0.00	0.00	35.89
555.20	0.00	0.026	866.794	0.00	0.00	37.32
555.25	0.00	0.027	885.227	0.00	0.00	38.78
555.30	0.00	0.028	903.854	0.00	0.00	40.27
555.35	0.00	0.029	922.675	0.00	0.00	41.80
555.40	0.00	0.030	941.691	0.00	0.00	43.35
555.45	0.00	0.031	960.900	0.00	0.00	44.94
555.50	0.00	0.032	980.303	0.00	0.00	46.55
555.55	0.00	0.033	999.900	0.00	0.00	48.20
555.60	0.00	0.034	1,019.691	0.00	0.00	49.89
555.65	0.00	0.036	1,039.675	0.00	0.00	51.60
555.70	0.00	0.037	1,059.854	0.00	0.00	53.35
555.75	0.00	0.038	1,080.227	0.00	0.00	55.14
555.80	0.00	0.039	1,100.794	0.00	0.00	56.95
555.85	0.00	0.040	1,121.554	0.00	0.00	58.80
555.90	0.00	0.042	1,142.509	0.00	0.00	60.69
555.95	0.00	0.043	1,163.658	0.00	0.00	62.61
556.00	0.00	0.044	1,185.000	0.00	0.00	64.57
556.05	0.00	0.046	1,206.146	0.00	0.00	66.56
556.10	0.00	0.047	1,227.480	0.00	0.00	68.59
556.15	0.00	0.049	1,249.000	0.00	0.00	70.65
556.20	0.00	0.050	1,292.543	0.00	0.00	72.77
556.25	0.00	0.052	1,336.832	0.00	0.00	74.96
556.30	0.00	0.053	1,381.866	0.00	0.00	77.23
556.35	0.00	0.055	1,427.647	0.00	0.00	79.57
556.40	0.00	0.056	1,474.174	0.00	0.00	81.99
556.45	0.00	0.058	1,521.447	0.00	0.00	84.48
556.50	0.00	0.060	1,569.466	0.00	0.00	87.06
556.55	0.00	0.062	1,618.232	0.00	0.00	89.72
556.60	0.00	0.064	1,667.743	0.00	0.00	92.45
556.65	0.00	0.066	1,718.000	0.00	0.00	95.28
556.70	0.00	0.068	1,768.650	0.00	0.00	98.18
556.75	0.00	0.070	1,820.035	0.00	0.00	101.17

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 25 Year

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
556.79	0.00	0.071	1,861.673	0.00	0.00	103.63
556.80	0.00	0.072	1,872.157	0.00	0.00	104.25
556.85	0.00	0.074	1,925.014	0.00	0.00	107.41
556.90	0.00	0.076	1,978.607	0.00	0.00	110.67
556.95	0.00	0.079	2,032.935	0.00	0.00	114.01
557.00	0.00	0.081	2,088.000	0.00	0.00	117.44
557.05	0.00	0.083	2,143.928	0.00	0.00	120.97
557.10	0.00	0.086	2,200.594	0.00	0.00	124.59
557.15	0.00	0.088	2,258.000	0.00	0.00	128.30
557.20	0.00	0.091	2,316.978	0.00	0.00	132.12
557.25	0.00	0.094	2,376.717	0.00	0.00	136.03
557.30	0.00	0.096	2,437.216	0.00	0.00	140.04
557.35	0.00	0.099	2,498.476	0.00	0.00	144.15
557.40	0.00	0.102	2,560.496	0.00	0.00	148.37
557.45	0.00	0.105	2,623.276	0.00	0.00	152.69
557.50	0.00	0.108	2,686.816	0.00	0.00	157.11
557.55	0.00	0.111	2,751.117	0.00	0.00	161.64
557.60	0.00	0.115	2,816.178	0.00	0.00	166.28
557.65	0.00	0.118	2,882.000	0.00	0.00	171.03
557.70	0.01	0.121	2,957.102	0.00	0.01	175.91
557.75	0.02	0.125	3,033.170	0.00	0.02	180.91
557.80	0.04	0.128	3,110.204	0.00	0.04	186.05
557.85	0.07	0.132	3,188.204	0.00	0.07	191.33
557.90	0.09	0.135	3,267.170	0.00	0.09	196.73
557.95	0.12	0.139	3,347.102	0.00	0.12	202.27
558.00	0.16	0.143	3,428.000	0.00	0.16	207.95
558.05	0.19	0.147	3,478.141	0.00	0.19	213.74
558.10	0.23	0.151	3,528.647	0.00	0.23	219.61
558.15	0.27	0.155	3,579.517	0.00	0.27	225.58
558.20	0.31	0.159	3,630.750	0.00	0.31	231.63
558.25	0.35	0.164	3,682.348	0.00	0.35	237.76
558.30	0.39	0.168	3,734.310	0.00	0.39	243.99
558.35	0.49	0.172	3,786.636	0.00	0.49	250.35
558.40	0.52	0.176	3,839.325	0.00	0.52	256.74
558.45	0.55	0.181	3,892.379	0.00	0.55	263.22
558.50	0.58	0.185	3,945.797	0.00	0.58	269.78
558.55	0.61	0.190	3,999.579	0.00	0.61	276.43
558.60	0.64	0.195	4,053.725	0.00	0.64	283.16
558.65	0.66	0.199	4,108.236	0.00	0.66	289.99
558.70	0.69	0.204	4,163.110	0.00	0.69	296.91
558.75	0.71	0.209	4,218.348	0.00	0.71	303.92
558.80	0.74	0.214	4,273.950	0.00	0.74	311.02
558.85	0.76	0.219	4,329.917	0.00	0.76	318.21
558.90	0.78	0.224	4,386.247	0.00	0.78	325.49
558.95	0.80	0.229	4,442.941	0.00	0.80	332.87

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 25 Year

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
559.00	0.82	0.234	4,500.000	0.00	0.82	340.35
559.05	0.84	0.239	4,568.311	0.00	0.84	347.92
559.10	0.86	0.244	4,637.137	0.00	0.86	355.61
559.15	0.88	0.250	4,706.478	0.00	0.88	363.42
559.20	0.90	0.255	4,776.333	0.00	0.90	371.34
559.25	0.92	0.261	4,846.703	0.00	0.92	379.38
559.30	0.94	0.266	4,917.587	0.00	0.94	387.53
559.34	0.95	0.271	4,974.665	0.00	0.95	394.14
559.35	0.96	0.272	4,988.986	0.00	0.96	395.81
559.40	1.02	0.278	5,060.899	0.00	1.02	404.24
559.45	1.10	0.284	5,133.328	0.00	1.10	412.82
559.50	1.20	0.289	5,206.270	0.00	1.20	421.54
559.55	1.31	0.296	5,279.728	0.00	1.31	430.39
559.60	1.44	0.302	5,353.699	0.00	1.44	439.37
559.65	1.57	0.308	5,428.186	0.00	1.57	448.49
559.68	1.74	0.312	5,473.125	0.00	1.74	454.11
559.70	1.94	0.314	5,503.187	0.00	1.94	457.97
559.75	2.93	0.320	5,578.703	0.00	2.93	468.20
559.80	4.32	0.327	5,654.733	0.00	4.32	478.95
559.85	5.94	0.333	5,731.278	0.00	5.94	490.06
559.90	7.80	0.340	5,808.337	0.00	7.80	501.53
559.95	9.85	0.347	5,885.911	0.00	9.85	513.33
560.00	12.02	0.354	5,964.000	0.00	12.02	525.37
560.05	13.94	0.360	6,039.802	0.00	13.94	537.30
560.10	15.01	0.367	6,116.084	0.00	15.01	548.49
560.15	15.18	0.374	6,192.843	0.00	15.18	558.92
560.20	15.34	0.382	6,270.082	0.00	15.34	569.46
560.25	15.50	0.389	6,347.799	0.00	15.50	580.14
560.30	15.65	0.396	6,425.995	0.00	15.65	590.94
560.35	15.81	0.404	6,504.670	0.00	15.81	601.87
560.40	15.97	0.411	6,583.823	0.00	15.97	612.94
560.45	16.12	0.419	6,663.455	0.00	16.12	624.13
560.50	16.27	0.426	6,743.566	0.00	16.27	635.45
560.55	16.42	0.434	6,824.155	0.00	16.42	646.91
560.60	16.57	0.442	6,905.223	0.00	16.57	658.50
560.65	16.72	0.450	6,986.770	0.00	16.72	670.22
560.70	16.87	0.458	7,068.795	0.00	16.87	682.09
560.75	17.01	0.466	7,151.299	0.00	17.01	694.08
560.80	17.15	0.475	7,234.282	0.00	17.15	706.21
560.85	17.30	0.483	7,317.743	0.00	17.30	718.48
560.90	17.44	0.491	7,401.684	0.00	17.44	730.89
560.95	17.58	0.500	7,486.102	0.00	17.58	743.44
561.00	17.72	0.509	7,571.000	0.00	17.72	756.12

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: 100 Year LFB

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	559.68 ft
Volume (Initial)	0.303 ac-ft
Flow (Initial Outlet)	0.00 ft ³ /s
Flow (Initial Infiltration)	0.00 ft ³ /s
Flow (Initial, Total)	0.00 ft ³ /s
Time Increment	1.000 min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
553.00	0.00	0.000	156.000	0.00	0.00	0.00
553.05	0.00	0.000	165.034	0.00	0.00	0.27
553.10	0.00	0.000	174.323	0.00	0.00	0.55
553.15	0.00	0.001	183.866	0.00	0.00	0.85
553.20	0.00	0.001	193.663	0.00	0.00	1.16
553.25	0.00	0.001	203.714	0.00	0.00	1.49
553.30	0.00	0.001	214.020	0.00	0.00	1.84
553.35	0.00	0.002	224.580	0.00	0.00	2.21
553.40	0.00	0.002	235.394	0.00	0.00	2.59
553.45	0.00	0.002	246.463	0.00	0.00	2.99
553.50	0.00	0.002	257.786	0.00	0.00	3.41
553.55	0.00	0.003	269.363	0.00	0.00	3.85
553.60	0.00	0.003	281.194	0.00	0.00	4.31
553.65	0.00	0.003	293.280	0.00	0.00	4.79
553.70	0.00	0.004	305.620	0.00	0.00	5.29
553.75	0.00	0.004	318.214	0.00	0.00	5.81
553.80	0.00	0.004	331.063	0.00	0.00	6.35
553.85	0.00	0.005	344.166	0.00	0.00	6.91
553.90	0.00	0.005	357.523	0.00	0.00	7.50
553.95	0.00	0.006	371.134	0.00	0.00	8.10
554.00	0.00	0.006	385.000	0.00	0.00	8.73
554.05	0.00	0.006	398.341	0.00	0.00	9.39
554.10	0.00	0.007	411.910	0.00	0.00	10.06
554.15	0.00	0.007	425.706	0.00	0.00	10.76
554.20	0.00	0.008	439.728	0.00	0.00	11.48
554.25	0.00	0.008	453.979	0.00	0.00	12.23
554.30	0.00	0.009	468.456	0.00	0.00	12.99
554.35	0.00	0.009	483.161	0.00	0.00	13.79
554.40	0.00	0.010	498.093	0.00	0.00	14.61
554.45	0.00	0.011	513.252	0.00	0.00	15.45
554.50	0.00	0.011	528.638	0.00	0.00	16.32

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: 100 Year LFB

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
554.55	0.00	0.012	544.252	0.00	0.00	17.21
554.60	0.00	0.012	560.093	0.00	0.00	18.13
554.65	0.00	0.013	576.161	0.00	0.00	19.08
554.70	0.00	0.014	592.456	0.00	0.00	20.05
554.75	0.00	0.014	608.979	0.00	0.00	21.05
554.80	0.00	0.015	625.728	0.00	0.00	22.08
554.85	0.00	0.016	642.706	0.00	0.00	23.14
554.90	0.00	0.017	659.910	0.00	0.00	24.22
554.95	0.00	0.017	677.341	0.00	0.00	25.34
555.00	0.00	0.018	695.000	0.00	0.00	26.48
555.05	0.00	0.019	712.486	0.00	0.00	27.65
555.10	0.00	0.020	730.189	0.00	0.00	28.86
555.15	0.00	0.021	748.110	0.00	0.00	30.09
555.20	0.00	0.022	766.248	0.00	0.00	31.35
555.25	0.00	0.022	784.603	0.00	0.00	32.64
555.30	0.00	0.023	803.175	0.00	0.00	33.97
555.35	0.00	0.024	821.965	0.00	0.00	35.32
555.40	0.00	0.025	840.972	0.00	0.00	36.71
555.45	0.00	0.026	860.196	0.00	0.00	38.12
555.50	0.00	0.027	879.637	0.00	0.00	39.57
555.55	0.00	0.028	899.296	0.00	0.00	41.06
555.60	0.00	0.029	919.172	0.00	0.00	42.57
555.65	0.00	0.030	939.265	0.00	0.00	44.12
555.70	0.00	0.031	959.575	0.00	0.00	45.70
555.75	0.00	0.033	980.103	0.00	0.00	47.32
555.80	0.00	0.034	1,000.848	0.00	0.00	48.97
555.85	0.00	0.035	1,021.810	0.00	0.00	50.65
555.90	0.00	0.036	1,042.989	0.00	0.00	52.38
555.95	0.00	0.037	1,064.386	0.00	0.00	54.13
556.00	0.00	0.039	1,086.000	0.00	0.00	55.92
556.05	0.00	0.040	1,106.148	0.00	0.00	57.75
556.10	0.00	0.041	1,126.481	0.00	0.00	59.61
556.15	0.00	0.042	1,147.000	0.00	0.00	61.51
556.20	0.00	0.044	1,192.089	0.00	0.00	63.45
556.25	0.00	0.045	1,238.046	0.00	0.00	65.48
556.30	0.00	0.047	1,284.873	0.00	0.00	67.58
556.35	0.00	0.048	1,332.569	0.00	0.00	69.76
556.40	0.00	0.050	1,381.135	0.00	0.00	72.02
556.45	0.00	0.051	1,430.569	0.00	0.00	74.37
556.50	0.00	0.053	1,480.873	0.00	0.00	76.79
556.55	0.00	0.055	1,532.046	0.00	0.00	79.30
556.60	0.00	0.056	1,584.089	0.00	0.00	81.90
556.65	0.00	0.058	1,637.000	0.00	0.00	84.58
556.70	0.00	0.060	1,690.687	0.00	0.00	87.36
556.75	0.00	0.062	1,745.240	0.00	0.00	90.22

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: 100 Year LFB

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
556.79	0.00	0.064	1,789.507	0.00	0.00	92.58
556.80	0.00	0.064	1,800.660	0.00	0.00	93.18
556.85	0.00	0.066	1,856.946	0.00	0.00	96.22
556.90	0.00	0.068	1,914.098	0.00	0.00	99.37
556.95	0.00	0.071	1,972.116	0.00	0.00	102.60
557.00	0.00	0.073	2,031.000	0.00	0.00	105.94
557.05	0.00	0.075	2,090.799	0.00	0.00	109.37
557.10	0.00	0.078	2,151.466	0.00	0.00	112.91
557.15	0.00	0.080	2,213.000	0.00	0.00	116.55
557.20	0.00	0.083	2,275.930	0.00	0.00	120.29
557.25	0.00	0.085	2,339.742	0.00	0.00	124.13
557.30	0.00	0.088	2,404.436	0.00	0.00	128.09
557.35	0.00	0.091	2,470.013	0.00	0.00	132.15
557.40	0.00	0.094	2,536.472	0.00	0.00	136.32
557.45	0.00	0.097	2,603.813	0.00	0.00	140.60
557.50	0.00	0.100	2,672.036	0.00	0.00	145.00
557.55	0.00	0.103	2,741.142	0.00	0.00	149.51
557.60	0.00	0.106	2,811.130	0.00	0.00	154.14
557.65	0.00	0.109	2,882.000	0.00	0.00	158.88
557.70	0.00	0.113	2,957.102	0.00	0.00	163.75
557.75	0.00	0.116	3,033.170	0.00	0.00	168.74
557.80	0.00	0.120	3,110.204	0.00	0.00	173.86
557.85	0.00	0.123	3,188.204	0.00	0.00	179.11
557.90	0.00	0.127	3,267.170	0.00	0.00	184.49
557.95	0.00	0.131	3,347.102	0.00	0.00	190.00
558.00	0.00	0.135	3,428.000	0.00	0.00	195.64
558.05	0.00	0.139	3,478.141	0.00	0.00	201.40
558.10	0.00	0.143	3,528.647	0.00	0.00	207.24
558.15	0.00	0.147	3,579.517	0.00	0.00	213.16
558.20	0.00	0.151	3,630.750	0.00	0.00	219.17
558.25	0.00	0.155	3,682.348	0.00	0.00	225.27
558.30	0.00	0.159	3,734.310	0.00	0.00	231.45
558.35	0.00	0.164	3,786.636	0.00	0.00	237.71
558.40	0.00	0.168	3,839.325	0.00	0.00	244.07
558.45	0.00	0.173	3,892.379	0.00	0.00	250.51
558.50	0.00	0.177	3,945.797	0.00	0.00	257.04
558.55	0.00	0.182	3,999.579	0.00	0.00	263.66
558.60	0.00	0.186	4,053.725	0.00	0.00	270.37
558.65	0.00	0.191	4,108.236	0.00	0.00	277.18
558.70	0.00	0.196	4,163.110	0.00	0.00	284.07
558.75	0.00	0.200	4,218.348	0.00	0.00	291.05
558.80	0.00	0.205	4,273.950	0.00	0.00	298.13
558.85	0.00	0.210	4,329.917	0.00	0.00	305.30
558.90	0.00	0.215	4,386.247	0.00	0.00	312.56
558.95	0.00	0.220	4,442.941	0.00	0.00	319.92

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: 100 Year LFB

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
559.00	0.00	0.225	4,500.000	0.00	0.00	327.37
559.05	0.00	0.231	4,568.311	0.00	0.00	334.93
559.10	0.00	0.236	4,637.137	0.00	0.00	342.60
559.15	0.00	0.241	4,706.478	0.00	0.00	350.39
559.20	0.00	0.247	4,776.333	0.00	0.00	358.29
559.25	0.00	0.252	4,846.703	0.00	0.00	366.31
559.30	0.00	0.258	4,917.587	0.00	0.00	374.45
559.35	0.00	0.264	4,988.986	0.00	0.00	382.70
559.40	0.00	0.269	5,060.899	0.00	0.00	391.08
559.45	0.00	0.275	5,133.328	0.00	0.00	399.57
559.50	0.00	0.281	5,206.270	0.00	0.00	408.19
559.55	0.00	0.287	5,279.728	0.00	0.00	416.93
559.60	0.00	0.293	5,353.699	0.00	0.00	425.79
559.65	0.00	0.299	5,428.186	0.00	0.00	434.77
559.68	0.00	0.303	5,473.125	0.00	0.00	440.22
559.70	0.16	0.306	5,503.187	0.00	0.16	444.04
559.75	1.04	0.312	5,578.703	0.00	1.04	454.16
559.80	2.34	0.319	5,654.733	0.00	2.34	464.82
559.85	3.94	0.325	5,731.278	0.00	3.94	475.91
559.90	5.81	0.332	5,808.337	0.00	5.81	487.39
559.95	7.89	0.338	5,885.911	0.00	7.89	499.22
560.00	10.19	0.345	5,964.000	0.00	10.19	511.39
560.05	12.67	0.352	6,039.802	0.00	12.67	523.87
560.10	15.01	0.359	6,116.084	0.00	15.01	536.34
560.15	15.18	0.366	6,192.843	0.00	15.18	546.77
560.20	15.33	0.373	6,270.082	0.00	15.33	557.31
560.25	15.49	0.381	6,347.799	0.00	15.49	567.98
560.30	15.65	0.388	6,425.995	0.00	15.65	578.79
560.35	15.81	0.395	6,504.670	0.00	15.81	589.72
560.40	15.97	0.403	6,583.823	0.00	15.97	600.79
560.45	16.12	0.410	6,663.455	0.00	16.12	611.98
560.50	16.27	0.418	6,743.566	0.00	16.27	623.30
560.55	16.42	0.426	6,824.155	0.00	16.42	634.76
560.60	16.57	0.434	6,905.223	0.00	16.57	646.35
560.65	16.72	0.442	6,986.770	0.00	16.72	658.08
560.70	16.87	0.450	7,068.795	0.00	16.87	669.94
560.75	17.01	0.458	7,151.299	0.00	17.01	681.93
560.80	17.15	0.466	7,234.282	0.00	17.15	694.06
560.85	17.30	0.475	7,317.743	0.00	17.30	706.33
560.90	17.44	0.483	7,401.684	0.00	17.44	718.74
560.95	17.58	0.492	7,486.102	0.00	17.58	731.29
561.00	17.72	0.500	7,571.000	0.00	17.72	743.97

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 100 Year

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	557.65 ft
Volume (Initial)	0.118 ac-ft
Flow (Initial Outlet)	0.00 ft ³ /s
Flow (Initial Infiltration)	0.00 ft ³ /s
Flow (Initial, Total)	0.00 ft ³ /s
Time Increment	1.000 min

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
553.00	0.00	0.000	213.000	0.00	0.00	0.00
553.05	0.00	0.000	223.293	0.00	0.00	0.36
553.10	0.00	0.001	233.829	0.00	0.00	0.74
553.15	0.00	0.001	244.607	0.00	0.00	1.14
553.20	0.00	0.001	255.629	0.00	0.00	1.56
553.25	0.00	0.001	266.893	0.00	0.00	2.00
553.30	0.00	0.002	278.400	0.00	0.00	2.45
553.35	0.00	0.002	290.150	0.00	0.00	2.92
553.40	0.00	0.002	302.143	0.00	0.00	3.42
553.45	0.00	0.003	314.379	0.00	0.00	3.93
553.50	0.00	0.003	326.857	0.00	0.00	4.47
553.55	0.00	0.003	339.579	0.00	0.00	5.02
553.60	0.00	0.004	352.543	0.00	0.00	5.60
553.65	0.00	0.004	365.750	0.00	0.00	6.20
553.70	0.00	0.005	379.200	0.00	0.00	6.82
553.75	0.00	0.005	392.893	0.00	0.00	7.46
553.80	0.00	0.006	406.829	0.00	0.00	8.13
553.85	0.00	0.006	421.007	0.00	0.00	8.82
553.90	0.00	0.007	435.429	0.00	0.00	9.53
553.95	0.00	0.007	450.093	0.00	0.00	10.27
554.00	0.00	0.008	465.000	0.00	0.00	11.03
554.05	0.00	0.008	479.411	0.00	0.00	11.82
554.10	0.00	0.009	494.042	0.00	0.00	12.63
554.15	0.00	0.009	508.892	0.00	0.00	13.46
554.20	0.00	0.010	523.963	0.00	0.00	14.32
554.25	0.00	0.010	539.253	0.00	0.00	15.21
554.30	0.00	0.011	554.764	0.00	0.00	16.12
554.35	0.00	0.012	570.494	0.00	0.00	17.06
554.40	0.00	0.012	586.444	0.00	0.00	18.02
554.45	0.00	0.013	602.614	0.00	0.00	19.02
554.50	0.00	0.014	619.005	0.00	0.00	20.03

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 100 Year

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
554.55	0.00	0.015	635.614	0.00	0.00	21.08
554.60	0.00	0.015	652.444	0.00	0.00	22.15
554.65	0.00	0.016	669.494	0.00	0.00	23.25
554.70	0.00	0.017	686.764	0.00	0.00	24.38
554.75	0.00	0.018	704.253	0.00	0.00	25.54
554.80	0.00	0.018	721.963	0.00	0.00	26.73
554.85	0.00	0.019	739.892	0.00	0.00	27.95
554.90	0.00	0.020	758.042	0.00	0.00	29.20
554.95	0.00	0.021	776.411	0.00	0.00	30.48
555.00	0.00	0.022	795.000	0.00	0.00	31.79
555.05	0.00	0.023	812.658	0.00	0.00	33.13
555.10	0.00	0.024	830.509	0.00	0.00	34.49
555.15	0.00	0.025	848.554	0.00	0.00	35.89
555.20	0.00	0.026	866.794	0.00	0.00	37.32
555.25	0.00	0.027	885.227	0.00	0.00	38.78
555.30	0.00	0.028	903.854	0.00	0.00	40.27
555.35	0.00	0.029	922.675	0.00	0.00	41.80
555.40	0.00	0.030	941.691	0.00	0.00	43.35
555.45	0.00	0.031	960.900	0.00	0.00	44.94
555.50	0.00	0.032	980.303	0.00	0.00	46.55
555.55	0.00	0.033	999.900	0.00	0.00	48.20
555.60	0.00	0.034	1,019.691	0.00	0.00	49.89
555.65	0.00	0.036	1,039.675	0.00	0.00	51.60
555.70	0.00	0.037	1,059.854	0.00	0.00	53.35
555.75	0.00	0.038	1,080.227	0.00	0.00	55.14
555.80	0.00	0.039	1,100.794	0.00	0.00	56.95
555.85	0.00	0.040	1,121.554	0.00	0.00	58.80
555.90	0.00	0.042	1,142.509	0.00	0.00	60.69
555.95	0.00	0.043	1,163.658	0.00	0.00	62.61
556.00	0.00	0.044	1,185.000	0.00	0.00	64.57
556.05	0.00	0.046	1,206.146	0.00	0.00	66.56
556.10	0.00	0.047	1,227.480	0.00	0.00	68.59
556.15	0.00	0.049	1,249.000	0.00	0.00	70.65
556.20	0.00	0.050	1,292.543	0.00	0.00	72.77
556.25	0.00	0.052	1,336.832	0.00	0.00	74.96
556.30	0.00	0.053	1,381.866	0.00	0.00	77.23
556.35	0.00	0.055	1,427.647	0.00	0.00	79.57
556.40	0.00	0.056	1,474.174	0.00	0.00	81.99
556.45	0.00	0.058	1,521.447	0.00	0.00	84.48
556.50	0.00	0.060	1,569.466	0.00	0.00	87.06
556.55	0.00	0.062	1,618.232	0.00	0.00	89.72
556.60	0.00	0.064	1,667.743	0.00	0.00	92.45
556.65	0.00	0.066	1,718.000	0.00	0.00	95.28
556.70	0.00	0.068	1,768.650	0.00	0.00	98.18
556.75	0.00	0.070	1,820.035	0.00	0.00	101.17

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 100 Year

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
556.79	0.00	0.071	1,861.673	0.00	0.00	103.63
556.80	0.00	0.072	1,872.157	0.00	0.00	104.25
556.85	0.00	0.074	1,925.014	0.00	0.00	107.41
556.90	0.00	0.076	1,978.607	0.00	0.00	110.67
556.95	0.00	0.079	2,032.935	0.00	0.00	114.01
557.00	0.00	0.081	2,088.000	0.00	0.00	117.44
557.05	0.00	0.083	2,143.928	0.00	0.00	120.97
557.10	0.00	0.086	2,200.594	0.00	0.00	124.59
557.15	0.00	0.088	2,258.000	0.00	0.00	128.30
557.20	0.00	0.091	2,316.978	0.00	0.00	132.12
557.25	0.00	0.094	2,376.717	0.00	0.00	136.03
557.30	0.00	0.096	2,437.216	0.00	0.00	140.04
557.35	0.00	0.099	2,498.476	0.00	0.00	144.15
557.40	0.00	0.102	2,560.496	0.00	0.00	148.37
557.45	0.00	0.105	2,623.276	0.00	0.00	152.69
557.50	0.00	0.108	2,686.816	0.00	0.00	157.11
557.55	0.00	0.111	2,751.117	0.00	0.00	161.64
557.60	0.00	0.115	2,816.178	0.00	0.00	166.28
557.65	0.00	0.118	2,882.000	0.00	0.00	171.03
557.70	0.01	0.121	2,957.102	0.00	0.01	175.91
557.75	0.02	0.125	3,033.170	0.00	0.02	180.91
557.80	0.04	0.128	3,110.204	0.00	0.04	186.05
557.85	0.07	0.132	3,188.204	0.00	0.07	191.33
557.90	0.09	0.135	3,267.170	0.00	0.09	196.73
557.95	0.12	0.139	3,347.102	0.00	0.12	202.27
558.00	0.16	0.143	3,428.000	0.00	0.16	207.95
558.05	0.19	0.147	3,478.141	0.00	0.19	213.74
558.10	0.23	0.151	3,528.647	0.00	0.23	219.61
558.15	0.27	0.155	3,579.517	0.00	0.27	225.58
558.20	0.31	0.159	3,630.750	0.00	0.31	231.63
558.25	0.35	0.164	3,682.348	0.00	0.35	237.76
558.30	0.39	0.168	3,734.310	0.00	0.39	243.99
558.35	0.49	0.172	3,786.636	0.00	0.49	250.35
558.40	0.52	0.176	3,839.325	0.00	0.52	256.74
558.45	0.55	0.181	3,892.379	0.00	0.55	263.22
558.50	0.58	0.185	3,945.797	0.00	0.58	269.78
558.55	0.61	0.190	3,999.579	0.00	0.61	276.43
558.60	0.64	0.195	4,053.725	0.00	0.64	283.16
558.65	0.66	0.199	4,108.236	0.00	0.66	289.99
558.70	0.69	0.204	4,163.110	0.00	0.69	296.91
558.75	0.71	0.209	4,218.348	0.00	0.71	303.92
558.80	0.74	0.214	4,273.950	0.00	0.74	311.02
558.85	0.76	0.219	4,329.917	0.00	0.76	318.21
558.90	0.78	0.224	4,386.247	0.00	0.78	325.49
558.95	0.80	0.229	4,442.941	0.00	0.80	332.87

Subsection: Elevation-Volume-Flow Table (Pond)
 Label: SHALLOW WETLAND

Scenario: Post-Development 100 Year

Elevation (ft)	Outflow (ft ³ /s)	Storage (ac-ft)	Area (ft ²)	Infiltration (ft ³ /s)	Flow (Total) (ft ³ /s)	2S/t + O (ft ³ /s)
559.00	0.82	0.234	4,500.000	0.00	0.82	340.35
559.05	0.84	0.239	4,568.311	0.00	0.84	347.92
559.10	0.86	0.244	4,637.137	0.00	0.86	355.61
559.15	0.88	0.250	4,706.478	0.00	0.88	363.42
559.20	0.90	0.255	4,776.333	0.00	0.90	371.34
559.25	0.92	0.261	4,846.703	0.00	0.92	379.38
559.30	0.94	0.266	4,917.587	0.00	0.94	387.53
559.34	0.95	0.271	4,974.665	0.00	0.95	394.14
559.35	0.96	0.272	4,988.986	0.00	0.96	395.81
559.40	1.02	0.278	5,060.899	0.00	1.02	404.24
559.45	1.10	0.284	5,133.328	0.00	1.10	412.82
559.50	1.20	0.289	5,206.270	0.00	1.20	421.54
559.55	1.31	0.296	5,279.728	0.00	1.31	430.39
559.60	1.44	0.302	5,353.699	0.00	1.44	439.37
559.65	1.57	0.308	5,428.186	0.00	1.57	448.49
559.68	1.74	0.312	5,473.125	0.00	1.74	454.11
559.70	1.94	0.314	5,503.187	0.00	1.94	457.97
559.75	2.93	0.320	5,578.703	0.00	2.93	468.20
559.80	4.32	0.327	5,654.733	0.00	4.32	478.95
559.85	5.94	0.333	5,731.278	0.00	5.94	490.06
559.90	7.80	0.340	5,808.337	0.00	7.80	501.53
559.95	9.85	0.347	5,885.911	0.00	9.85	513.33
560.00	12.02	0.354	5,964.000	0.00	12.02	525.37
560.05	13.94	0.360	6,039.802	0.00	13.94	537.30
560.10	15.01	0.367	6,116.084	0.00	15.01	548.49
560.15	15.18	0.374	6,192.843	0.00	15.18	558.92
560.20	15.34	0.382	6,270.082	0.00	15.34	569.46
560.25	15.50	0.389	6,347.799	0.00	15.50	580.14
560.30	15.65	0.396	6,425.995	0.00	15.65	590.94
560.35	15.81	0.404	6,504.670	0.00	15.81	601.87
560.40	15.97	0.411	6,583.823	0.00	15.97	612.94
560.45	16.12	0.419	6,663.455	0.00	16.12	624.13
560.50	16.27	0.426	6,743.566	0.00	16.27	635.45
560.55	16.42	0.434	6,824.155	0.00	16.42	646.91
560.60	16.57	0.442	6,905.223	0.00	16.57	658.50
560.65	16.72	0.450	6,986.770	0.00	16.72	670.22
560.70	16.87	0.458	7,068.795	0.00	16.87	682.09
560.75	17.01	0.466	7,151.299	0.00	17.01	694.08
560.80	17.15	0.475	7,234.282	0.00	17.15	706.21
560.85	17.30	0.483	7,317.743	0.00	17.30	718.48
560.90	17.44	0.491	7,401.684	0.00	17.44	730.89
560.95	17.58	0.500	7,486.102	0.00	17.58	743.44
561.00	17.72	0.509	7,571.000	0.00	17.72	756.12

Subsection: Level Pool Pond Routing Summary
 Label: SHALLOW WETLAND (IN)

Scenario: Post-Development 2 year

Infiltration			
Infiltration Method (Computed)	No Infiltration		

Initial Conditions	
Elevation (Water Surface, Initial)	557.65 ft
Volume (Initial)	0.118 ac-ft
Flow (Initial Outlet)	0.00 ft ³ /s
Flow (Initial Infiltration)	0.00 ft ³ /s
Flow (Initial, Total)	0.00 ft ³ /s
Time Increment	1.000 min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	3.96 ft ³ /s	Time to Peak (Flow, In)	3.000 min
Flow (Peak Outlet)	0.74 ft ³ /s	Time to Peak (Flow, Outlet)	22.000 min

Elevation (Water Surface, Peak)	558.81 ft
Volume (Peak)	0.214 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.118 ac-ft
Volume (Total Inflow)	0.109 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	0.109 ac-ft
Volume (Retained)	0.118 ac-ft
Volume (Unrouted)	0.000 ac-ft
Error (Mass Balance)	0.0 %

Subsection: Level Pool Pond Routing Summary
 Label: SHALLOW WETLAND (IN)

Scenario: Post-Development 15 Year

Infiltration			
Infiltration Method (Computed)	No Infiltration		

Initial Conditions			
Elevation (Water Surface, Initial)	557.65 ft		
Volume (Initial)	0.118 ac-ft		
Flow (Initial Outlet)	0.00 ft ³ /s		
Flow (Initial Infiltration)	0.00 ft ³ /s		
Flow (Initial, Total)	0.00 ft ³ /s		
Time Increment	1.000 min		

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	5.86 ft ³ /s	Time to Peak (Flow, In)	3.000 min
Flow (Peak Outlet)	0.92 ft ³ /s	Time to Peak (Flow, Outlet)	23.000 min

Elevation (Water Surface, Peak)	559.26 ft		
Volume (Peak)	0.262 ac-ft		

Mass Balance (ac-ft)			
Volume (Initial)	0.118 ac-ft		
Volume (Total Inflow)	0.161 ac-ft		
Volume (Total Infiltration)	0.000 ac-ft		
Volume (Total Outlet Outflow)	0.161 ac-ft		
Volume (Retained)	0.118 ac-ft		
Volume (Unrouted)	0.000 ac-ft		
Error (Mass Balance)	0.0 %		

Subsection: Level Pool Pond Routing Summary
 Label: SHALLOW WETLAND (IN)

Scenario: Post-Development 25 Year

Infiltration	
Infiltration Method (Computed)	No Infiltration

Initial Conditions	
Elevation (Water Surface, Initial)	557.65 ft
Volume (Initial)	0.118 ac-ft
Flow (Initial Outlet)	0.00 ft ³ /s
Flow (Initial Infiltration)	0.00 ft ³ /s
Flow (Initial, Total)	0.00 ft ³ /s
Time Increment	1.000 min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	6.89 ft ³ /s	Time to Peak (Flow, In)	3.000 min
Flow (Peak Outlet)	1.17 ft ³ /s	Time to Peak (Flow, Outlet)	22.000 min

Elevation (Water Surface, Peak)	559.49 ft
Volume (Peak)	0.288 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.118 ac-ft
Volume (Total Inflow)	0.190 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	0.190 ac-ft
Volume (Retained)	0.118 ac-ft
Volume (Unrouted)	0.000 ac-ft
Error (Mass Balance)	0.0 %

Subsection: Level Pool Pond Routing Summary
 Label: SHALLOW WETLAND (IN)

Scenario: 100 Year LFB

Infiltration			
Infiltration Method (Computed)	No Infiltration		

Initial Conditions	
Elevation (Water Surface, Initial)	559.68 ft
Volume (Initial)	0.303 ac-ft
Flow (Initial Outlet)	0.00 ft ³ /s
Flow (Initial Infiltration)	0.00 ft ³ /s
Flow (Initial, Total)	0.00 ft ³ /s
Time Increment	1.000 min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	7.89 ft ³ /s	Time to Peak (Flow, In)	3.000 min
Flow (Peak Outlet)	7.89 ft ³ /s	Time to Peak (Flow, Outlet)	20.000 min

Elevation (Water Surface, Peak)	559.95 ft
Volume (Peak)	0.338 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.303 ac-ft
Volume (Total Inflow)	0.217 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	0.217 ac-ft
Volume (Retained)	0.303 ac-ft
Volume (Unrouted)	0.000 ac-ft
Error (Mass Balance)	0.0 %

Subsection: Level Pool Pond Routing Summary
 Label: SHALLOW WETLAND (IN)

Scenario: Post-Development 100 Year

Infiltration			
Infiltration Method (Computed)	No Infiltration		

Initial Conditions	
Elevation (Water Surface, Initial)	557.65 ft
Volume (Initial)	0.118 ac-ft
Flow (Initial Outlet)	0.00 ft ³ /s
Flow (Initial Infiltration)	0.00 ft ³ /s
Flow (Initial, Total)	0.00 ft ³ /s
Time Increment	1.000 min

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	7.89 ft ³ /s	Time to Peak (Flow, In)	3.000 min
Flow (Peak Outlet)	1.75 ft ³ /s	Time to Peak (Flow, Outlet)	22.000 min

Elevation (Water Surface, Peak)	559.68 ft
Volume (Peak)	0.312 ac-ft

Mass Balance (ac-ft)	
Volume (Initial)	0.118 ac-ft
Volume (Total Inflow)	0.217 ac-ft
Volume (Total Infiltration)	0.000 ac-ft
Volume (Total Outlet Outflow)	0.217 ac-ft
Volume (Retained)	0.118 ac-ft
Volume (Unrouted)	0.000 ac-ft
Error (Mass Balance)	0.0 %

Subsection: Pond Inflow Summary
Label: SHALLOW WETLAND (IN)

Scenario: Post-Development 2 year

Summary for Hydrograph Addition at 'SHALLOW WETLAND'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	WATERSHED A BASIN INFLOW

Node Inflows

Inflow Type	Element	Volume (ac-ft)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	WATERSHED A BASIN INFLOW	0.109	3.000	3.96
Flow (In)	SHALLOW WETLAND	0.109	3.000	3.96

Subsection: Pond Inflow Summary
Label: SHALLOW WETLAND (IN)

Scenario: Post-Development 15 Year

Summary for Hydrograph Addition at 'SHALLOW WETLAND'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	WATERSHED A BASIN INFLOW

Node Inflows

Inflow Type	Element	Volume (ac-ft)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	WATERSHED A BASIN INFLOW	0.161	3.000	5.86
Flow (In)	SHALLOW WETLAND	0.161	3.000	5.86

Subsection: Pond Inflow Summary
Label: SHALLOW WETLAND (IN)

Scenario: Post-Development 25 Year

Summary for Hydrograph Addition at 'SHALLOW WETLAND'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	WATERSHED A BASIN INFLOW

Node Inflows

Inflow Type	Element	Volume (ac-ft)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	WATERSHED A BASIN INFLOW	0.190	3.000	6.89
Flow (In)	SHALLOW WETLAND	0.190	3.000	6.89

Subsection: Pond Inflow Summary
Label: SHALLOW WETLAND (IN)

Scenario: 100 Year LFB

Summary for Hydrograph Addition at 'SHALLOW WETLAND'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	WATERSHED A BASIN INFLOW

Node Inflows

Inflow Type	Element	Volume (ac-ft)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	WATERSHED A BASIN INFLOW	0.217	3.000	7.89
Flow (In)	SHALLOW WETLAND	0.217	3.000	7.89

Subsection: Pond Inflow Summary
Label: SHALLOW WETLAND (IN)

Scenario: Post-Development 100 Year

Summary for Hydrograph Addition at 'SHALLOW WETLAND'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	WATERSHED A BASIN INFLOW

Node Inflows

Inflow Type	Element	Volume (ac-ft)	Time to Peak (min)	Flow (Peak) (ft ³ /s)
Flow (From)	WATERSHED A BASIN INFLOW	0.217	3.000	7.89
Flow (In)	SHALLOW WETLAND	0.217	3.000	7.89

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SHALLOW WETLAND (Elevation-Volume-Flow Table (Pond))...

SHALLOW WETLAND (IN) (Level Pool Pond Routing Summary)...

SHALLOW WETLAND (IN) (Pond Inflow Summary)...

SHALLOW WETLAND (Volume Equations)...

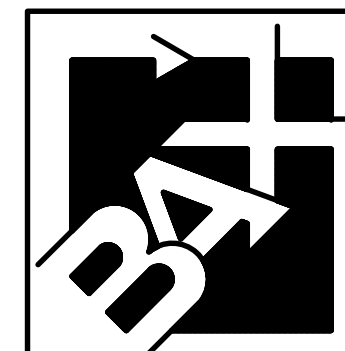
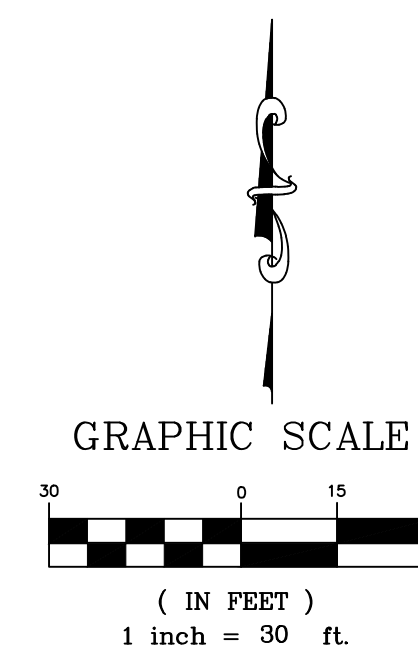
W

WATERSHED A BASIN INFLOW (Read Hydrograph)...

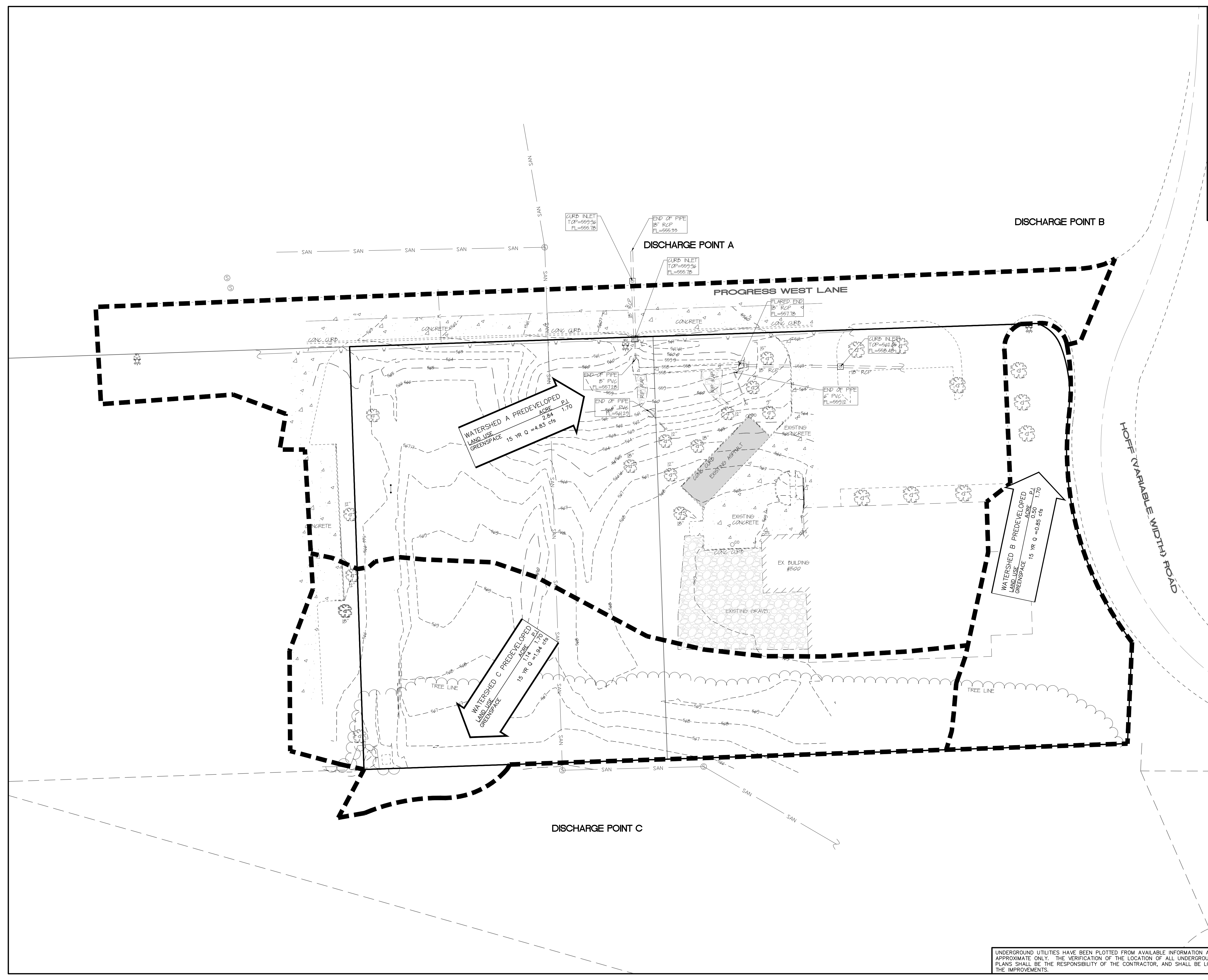
Appendix C

Drainage Maps

Exhibit A
Predeveloped Drainage Map
PROGRESS WEST LOT 2
21-18943



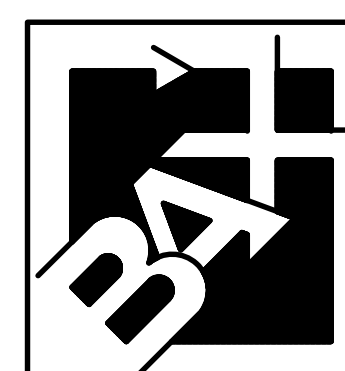
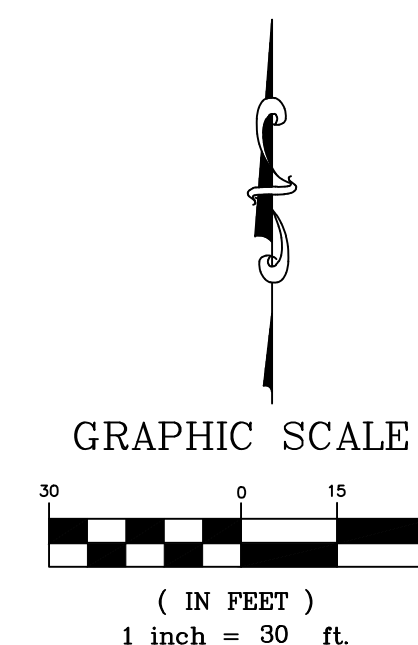
**ENGINEERING
PLANNING
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221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
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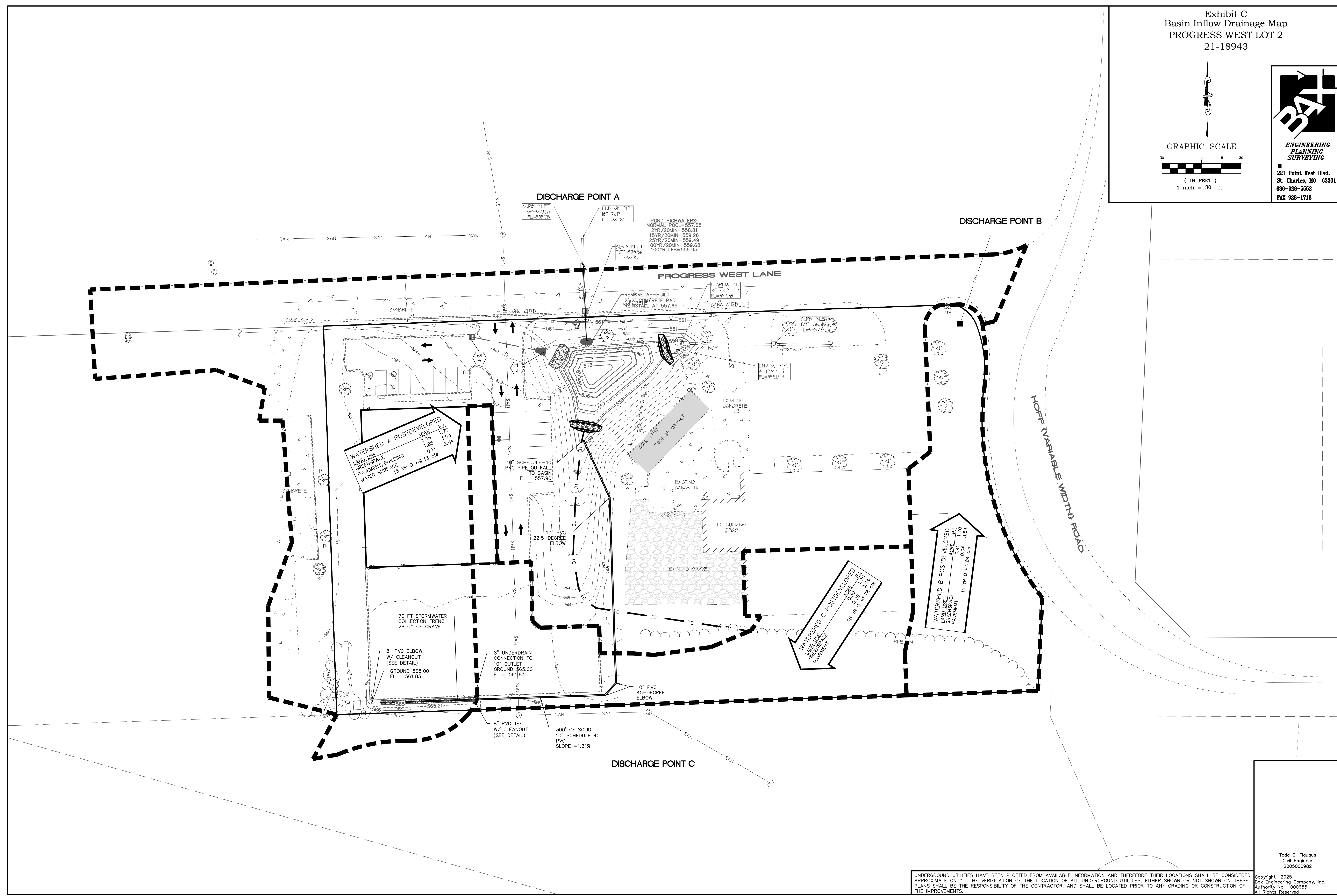
UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF THE IMPROVEMENTS.

Todd C. Flouros
Civil Engineer
2005000982
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Exhibit C
Basin Inflow Drainage Map
PROGRESS WEST LOT 2
21-18943



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POND HIGHWATERS:
NORMAL POOL=557.65
2YR/20MIN=558.81
15YR/20MIN=559.26
25YR/20MIN=559.49
100YR/20MIN=559.68
100YR LFB=559.95

WATERSHED A POSTDEVELOPED
LAND USE: P.A. 1.70
GREENSPACE: 1.39 3.54
PAVEMENT/BUILDING: 1.86 3.54
WATER SURFACE: 0.11 3.54
15 YR Q = 9.33 cfs

WATERSHED C POSTDEVELOPED
LAND USE: P.A. 1.70
GREENSPACE: 0.39 1.70
PAVEMENT: 0.08 1.70
15 YR Q = 7.78 cfs

WATERSHED B POSTDEVELOPED
LAND USE: P.A. 1.70
GREENSPACE: 0.41 3.54
PAVEMENT: 0.04 3.54
15 YR Q = 0.84 cfs

70 FT STORMWATER
COLLECTION TRENCH
28 CY OF GRAVEL
8" PVC ELBOW
W/ CLEANOUT
(SEE DETAIL)
GROUND 565.00
FL = 561.83

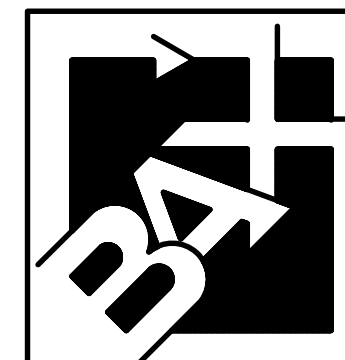
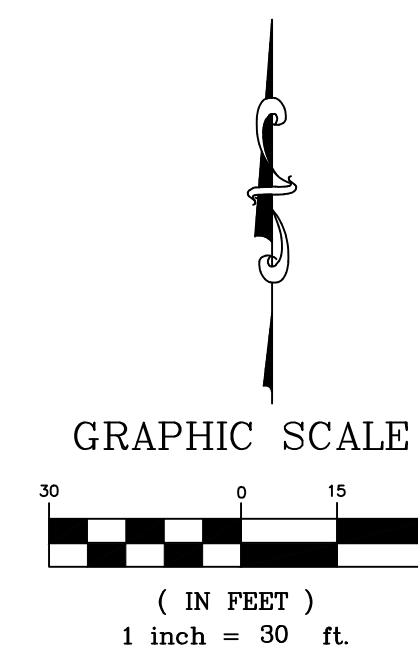
8" UNDERDRAIN
CONNECTION TO
10" OUTLET
GROUND 565.00
FL = 561.83

10" PVC
45-DEGREE
ELBOW

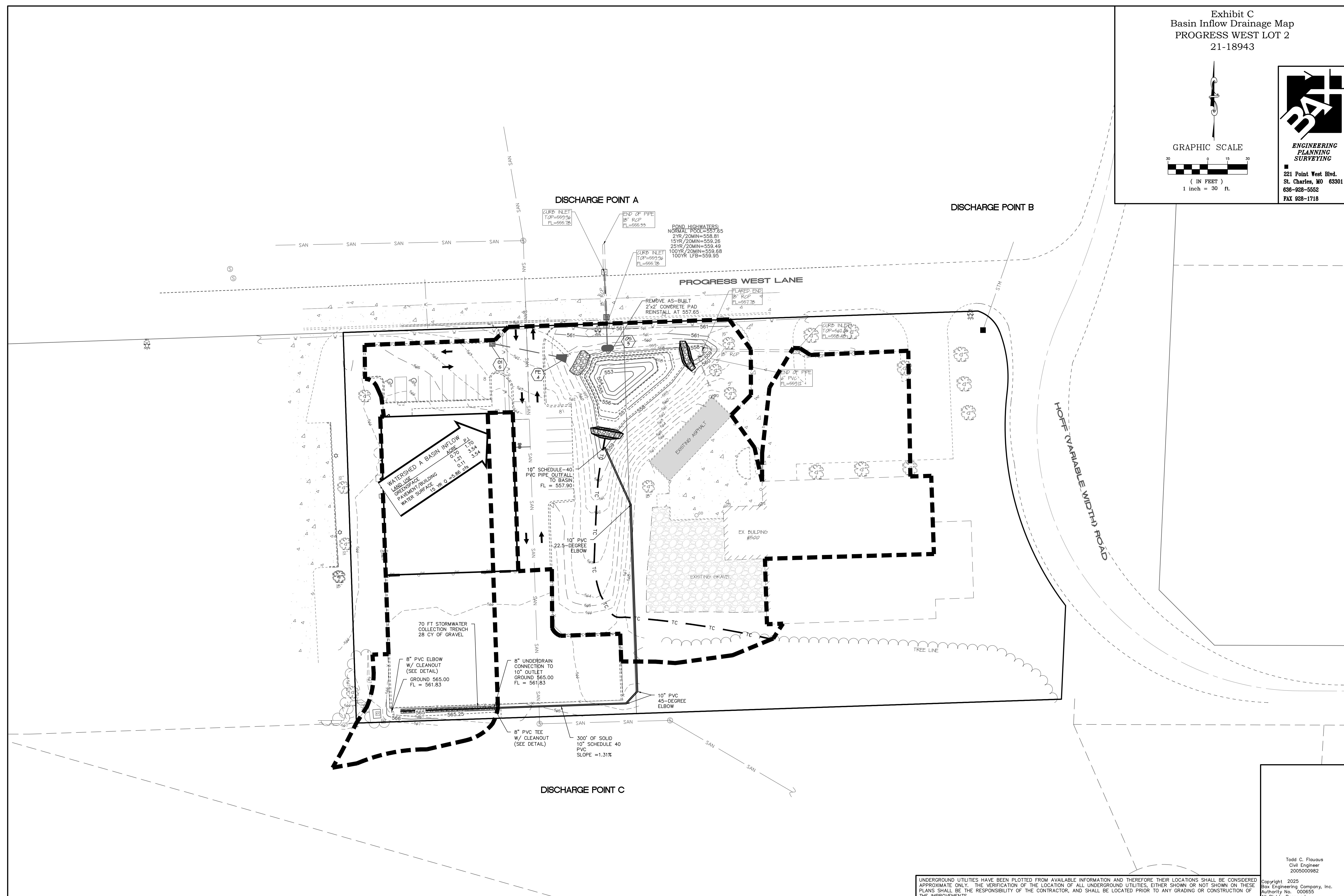
8" PVC TEE
W/ CLEANOUT
(SEE DETAIL)
300' OF SOLID
10" SCHEDULE 40
PVC
SLOPE = 1.31%

UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF THE IMPROVEMENTS.

Exhibit C
Basin Inflow Drainage Map
PROGRESS WEST LOT 2
21-18943



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