



April 6, 2021

Keith Curtis
Pikes Peak Regional Building Department
2800 International Circle
Colorado Springs, Colorado 80910

RE: Pike Solar Project – Floodplain Use Permit

Dear Mr. Curtis:

This letter has been prepared to provide information in support of the issuance of a Floodplain Use Permit for the Pike Solar Project (the "Project"). The Project is currently a vacant site located on approximately 1,240 acres southeast of City of Fountain in El Paso County, Colorado and is bound by Squirrel Creek Road to the north, Hammer Road to the east, Hanover Road to the south, and Old Pueblo Road to the west. The proposed improvements to the site consist of 175 megawatt (MW) photovoltaic solar facility and up to 50 MW battery energy storage system consisting of photovoltaic modules aligned in arrays and affixed to a single-axis tracking system. The project is tributary to Williams Creek with portions of the site falling within Zone A on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panels 08041C0967G, 08041C0970G, 08041C1000G, 08041C1160G, and 08041C1180G.

Construction activities that would occur in the mapped floodplain consist of three separate access road crossings within the floodplain boundary. The access road crossings will be cut into the existing topography, guaranteeing that no fill will be placed within the mapped floodplain. In accordance with Pikes Peak Regional Building Department (PPRBD) guidelines for solar array projects within a mapped Zone A, the following basic design requirements have been met.

1. The mapped floodplain within the project boundary have been determined and are represented in the Preliminary Drainage Report and Wind/Solar Energy Generation Overlay (WSE-O) Plan.
2. Grading along site boundaries will be constructed at or below grades and will be compatible with upstream and downstream conditions.
3. Access drives across the mapped floodplain will be constructed at or below existing grades.
4. All electrical service equipment will be buried under the floodplain. There will be no permanent vertical structures, but there will be concrete low water crossings within the floodplain.
5. Access drives across the mapped floodplain will be constructed at or below existing grades.
6. There are no Regulated Riparian Habitats present on site.

I certify that I am a duly qualified registered Professional Engineer licensed in the state of Colorado. Using standard Engineering practice, I have evaluated the unstudied A zone

floodplain in the area of the proposed project, and I have determined pre-project 100-year flood depths. I certify that the cumulative effects of the proposed project Pike Solar as detailed on construction drawing sheets 49-51 will result in less than one foot rise in the 100-year flood elevations that I have determined for Williams Creek and Unnamed Tributary, which is shown on FEMA map 08041C0967G, 08041C1000G, and 08041C1180G. This certification is intended as proof of meeting the requirements set forth in the Federal Code 44CFR Chp. 1, 60.3.c.10.

I offer the following documentation in accordance with standard Engineering practice to support my findings:

- a) Cross Section 1 – 5 year – Existing
- b) Cross Section 1 – 5 year – Proposed
- c) Cross Section 1 – 100 year – Existing
- d) Cross Section 1 – 100 year – Proposed
- e) Cross Section 2 – 5 year – Existing
- f) Cross Section 2 – 5 year – Proposed
- g) Cross Section 2 – 100 year – Existing
- h) Cross Section 2 – 100 year – Proposed
- i) Cross Section 3 – 5 year – Existing
- j) Cross Section 3 – 5 year – Proposed
- k) Cross Section 3 – 100 year – Existing
- l) Cross Section 3 – 100 year – Proposed
- m) Pike Solar Construction Documents

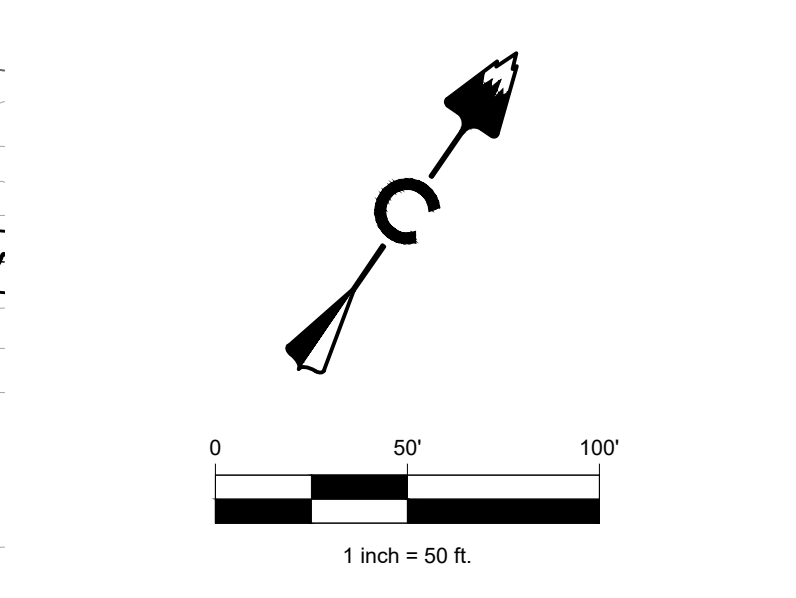
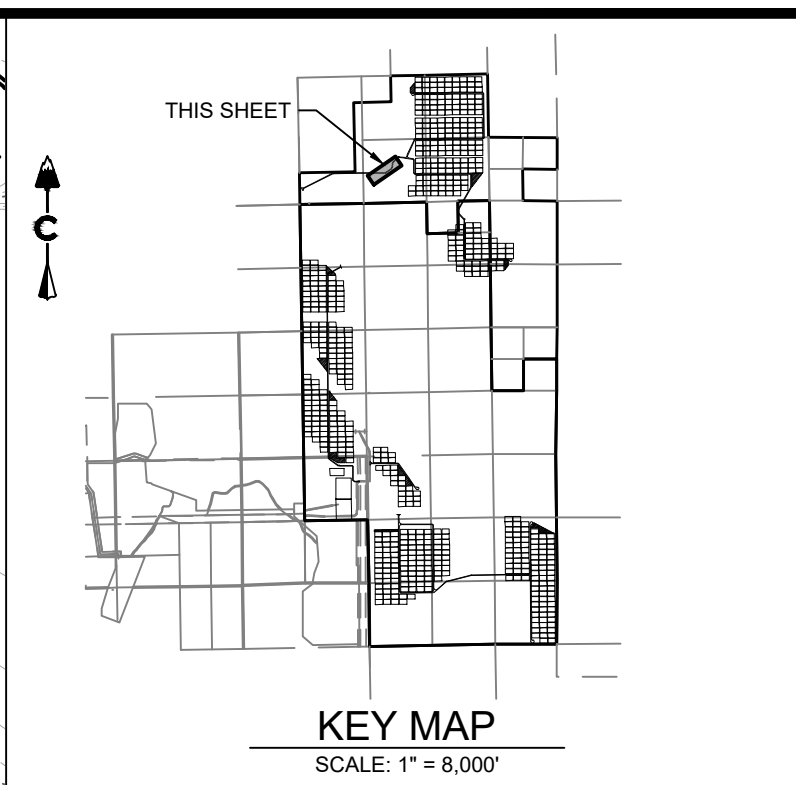
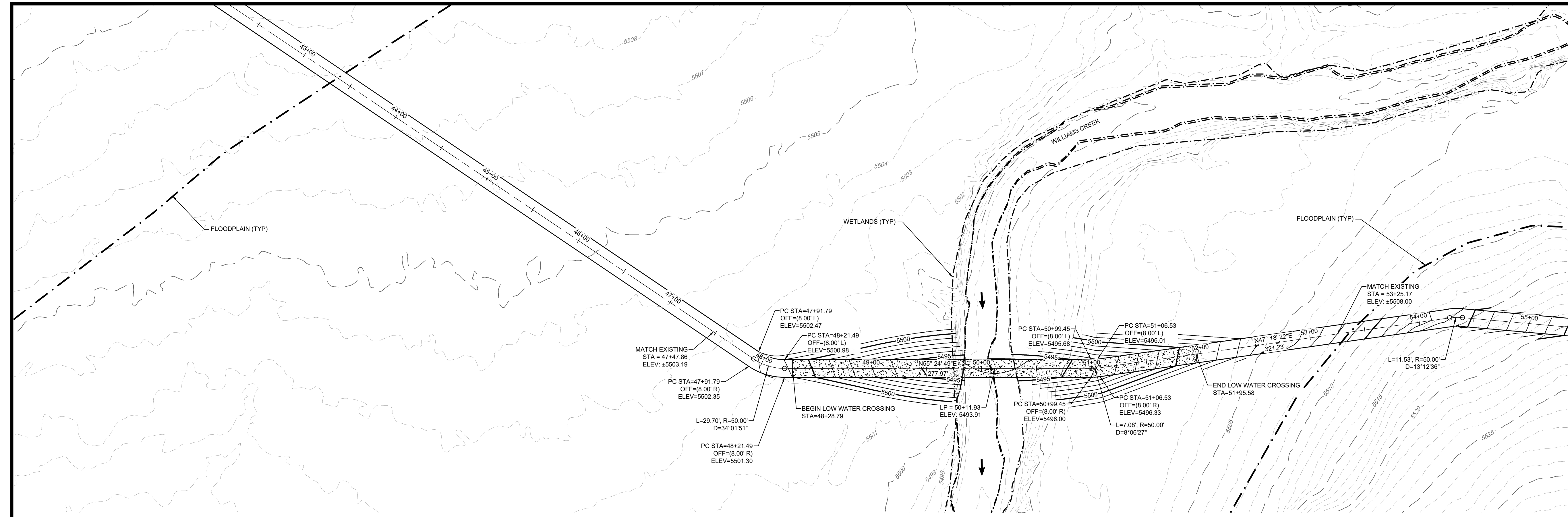
CORE consultants believes that the proposed Pike Solar Project meets PPRBD's basic design requirements for Solar Array Projects and respectfully requests the issuance of a Floodplain Use Permit. All required WSE-O submittal documents and exhibits are being submitted along with this letter to El Paso County Development Services Department.

If you have any questions, please do not hesitate to call me at 303.730.5974.

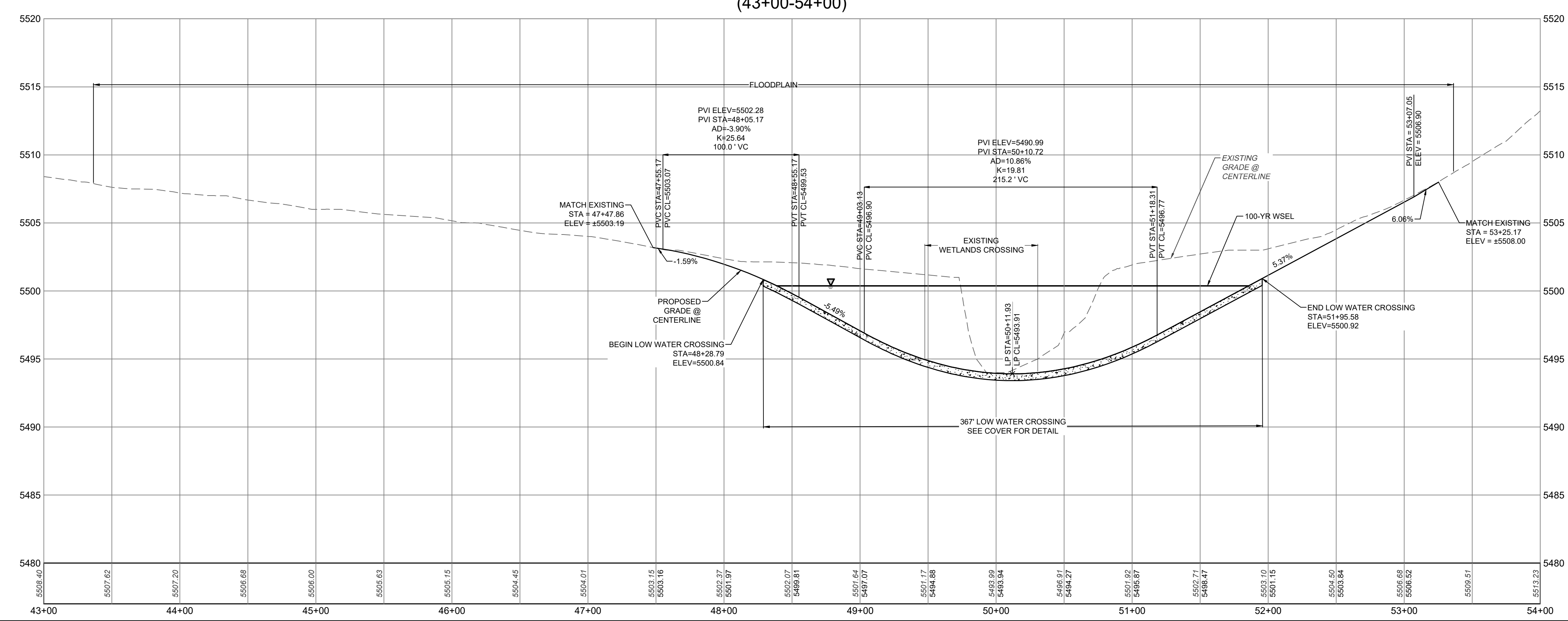
Sincerely,
CORE Consultants, Inc.



David Bacci
Senior Project Engineer



FLOODPLAIN CROSSING #1 (43+00-54+00)



LEGEND

	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROJECT BOUNDARY
	CENTERLINE
	PROPOSED SOLAR TRACKER
	PROPOSED INVERTER
	PROPOSED FENCE
	EXISTING FENCE
	POWER POLES
	GUY WIRE
	WATER VALVES
	FIRE HYDRANTS
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	FLOODPLAIN
	JURISDICTIONAL WATER FEATURES
	WILLIAMS CREEK RES. EXPANSION
	EXISTING STORM
	EXISTING WATER
	EXISTING ELECTRIC
	EXISTING TELEPHONE
	EXISTING FIBER OPTIC
	EXISTING GAS
	EXISTING OVER HEAD ELECTRIC

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 303.703.4444
 LIVE@CORE.COM

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#	REVISION DESCRIPTION	DATE	BY
1	1ST SUBMITTAL	07/15/21	DB

PIKE SOLAR
 EL PASO COUNTY, COLORADO
 CONSTRUCTION DOCUMENTS
 FLOOD PLAN CROSSINGS #1 P&P

DESIGNED BY: BB
 DRAWN BY: TP
 CHECKED BY: DB

JOB NO.
 20-194
 SHEET
 FP-1 OF 55

NOT FOR CONSTRUCTION

2/8/2021 12:45 PM X:\20-194 PIKE SOLAR\CIVIL\CAD\PLANS\FILING\1CDS\FLOOD PLAN CROSSINGS.DWG

Channel Report

Cross Section 1 - 5 year - Existing

User-defined

Invert Elev (ft) = 5494.00
 Slope (%) = 0.10
 N-Value = 0.030

Highlighted

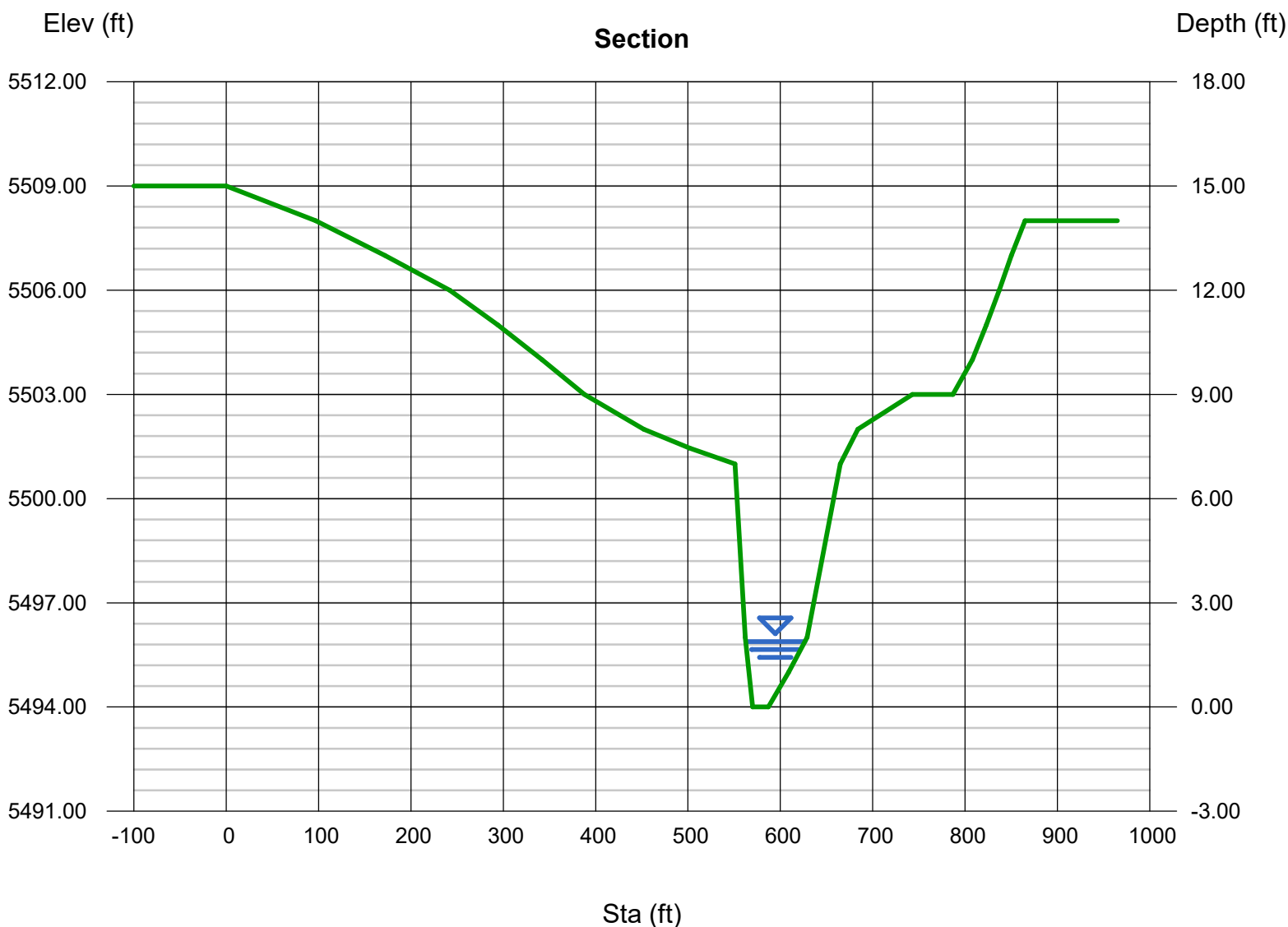
Depth (ft) = 1.88
 Q (cfs) = 135.30
 Area (sqft) = 77.13
 Velocity (ft/s) = 1.75
 Wetted Perim (ft) = 64.39
 Crit Depth, Yc (ft) = 0.98
 Top Width (ft) = 64.12
 EGL (ft) = 1.93

Calculations

Compute by: Known Q
 Known Q (cfs) = 135.30

(Sta, El, n)-(Sta, El, n)...

(0.00, 5509.00, 0.030)-(97.00, 5508.00, 0.030)-(172.00, 5507.00, 0.030)-(242.00, 5506.00, 0.030)-(294.00, 5505.00, 0.030)-(342.00, 5504.00, 0.030)-(388.00, 5503.00, 0.030)
 -(452.00, 5502.00, 0.030)-(502.00, 5501.45, 0.030)-(551.00, 5501.00, 0.030)-(562.00, 5496.00, 0.030)-(570.00, 5494.00, 0.030)-(587.00, 5494.00, 0.030)-(609.00, 5494.00, 0.030)
 -(629.00, 5496.00, 0.030)-(665.00, 5501.00, 0.030)-(684.00, 5502.00, 0.030)-(743.00, 5503.00, 0.030)-(787.00, 5503.00, 0.030)-(808.00, 5504.00, 0.030)-(823.00, 5504.00, 0.030)
 -(837.00, 5506.00, 0.030)-(850.00, 5507.00, 0.030)-(865.00, 5508.00, 0.030)



Channel Report

Cross Section 1 - 5 year - Proposed

User-defined

Invert Elev (ft) = 5493.81
 Slope (%) = 0.10
 N-Value = 0.030

Highlighted

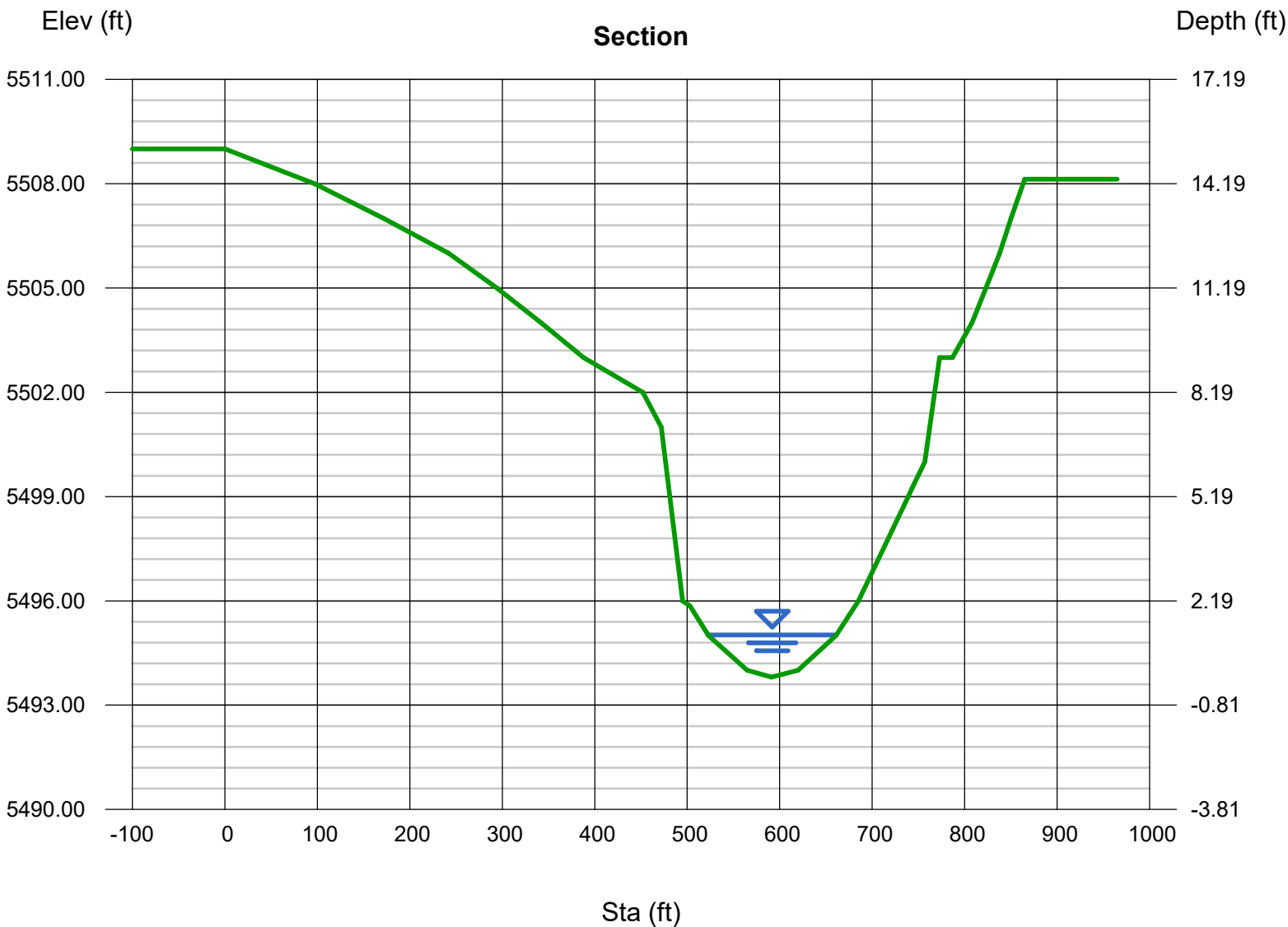
Depth (ft) = 1.21
 Q (cfs) = 135.30
 Area (sqft) = 104.50
 Velocity (ft/s) = 1.29
 Wetted Perim (ft) = 138.98
 Crit Depth, Yc (ft) = 0.63
 Top Width (ft) = 138.95
 EGL (ft) = 1.24

Calculations

Compute by: Known Q
 Known Q (cfs) = 135.30

(Sta, El, n)-(Sta, El, n)...

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 -(620.00, 5494.00, 0.030)-(661.00, 5495.00, 0.030)-(685.00, 5496.00, 0.030)-(703.00, 5497.00, 0.030)-(721.00, 5498.00, 0.030)-(739.00, 5499.00, 0.030)-(743.00, 5500.00, 0.030)
 -(757.00, 5500.00, 0.030)-(773.00, 5503.00, 0.030)-(787.00, 5503.00, 0.030)-(808.00, 5504.00, 0.030)-(823.00, 5505.00, 0.030)-(838.00, 5506.00, 0.030)-(850.00, 5507.00, 0.030)
 -(865.00, 5508.13, 0.030)



Channel Report

Cross Section 1 - 100 year - Existing

User-defined

Invert Elev (ft) = 5494.00
 Slope (%) = 0.10
 N-Value = 0.030

Highlighted

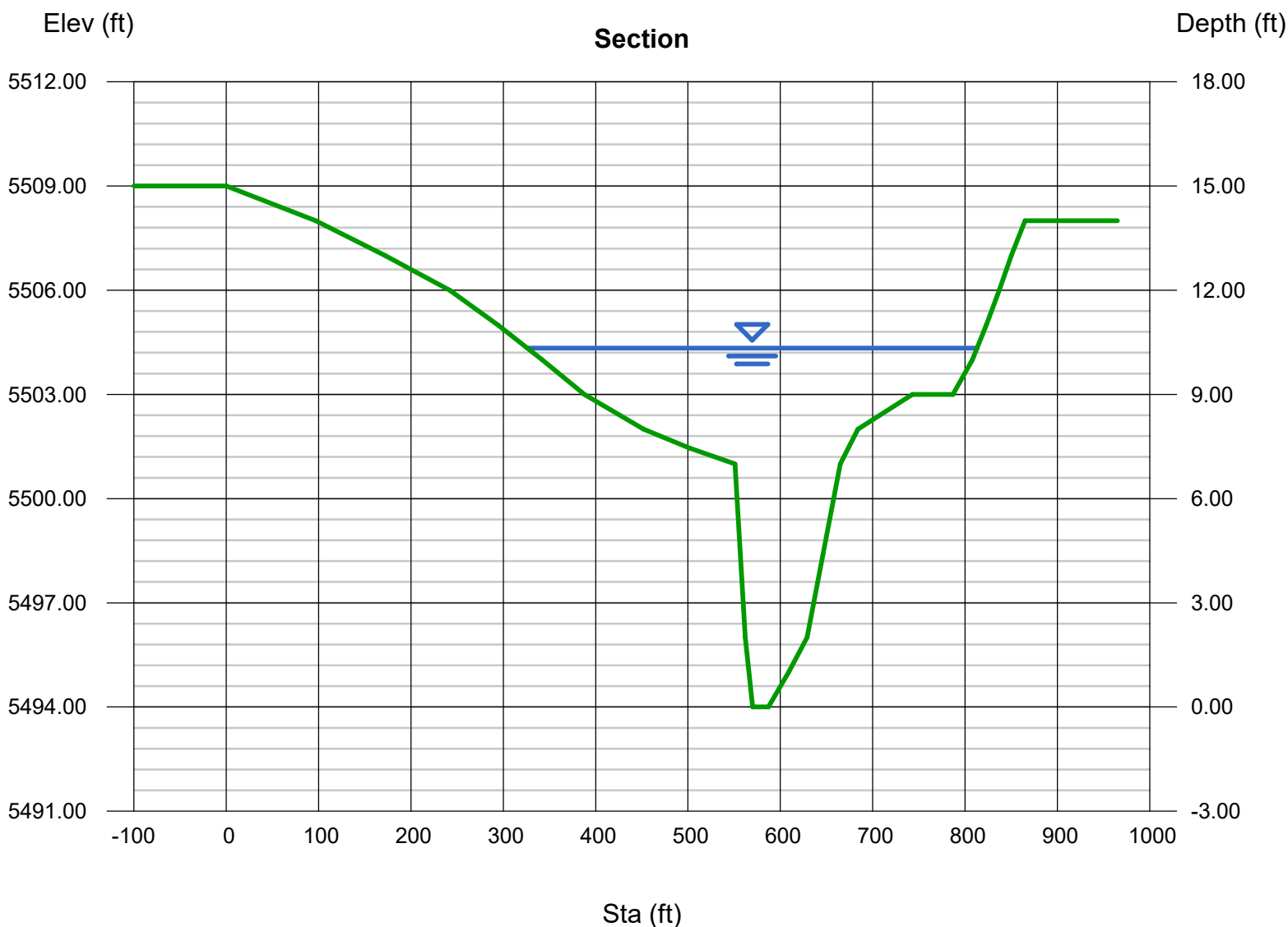
Depth (ft) = 10.33
 Q (cfs) = 5,503
 Area (sqft) = 1595.96
 Velocity (ft/s) = 3.45
 Wetted Perim (ft) = 488.61
 Crit Depth, Yc (ft) = 6.37
 Top Width (ft) = 486.79
 EGL (ft) = 10.52

Calculations

Compute by: Known Q
 Known Q (cfs) = 5503.46

(Sta, El, n)-(Sta, El, n)...

(0.00, 5509.00)-(97.00, 5508.00, 0.030)-(172.00, 5507.00, 0.030)-(242.00, 5506.00, 0.030)-(294.00, 5505.00, 0.030)-(342.00, 5504.00, 0.030)-(388.00, 5503.00, 0.030)
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 -(629.00, 5496.00, 0.030)-(665.00, 5501.00, 0.030)-(684.00, 5502.00, 0.030)-(743.00, 5503.00, 0.030)-(787.00, 5503.00, 0.030)-(808.00, 5504.00, 0.030)-(823.00, 5504.00, 0.030)
 -(837.00, 5506.00, 0.030)-(850.00, 5507.00, 0.030)-(865.00, 5508.00, 0.030)



Channel Report

Cross Section 1 - 100 year - Proposed

User-defined

Invert Elev (ft) = 5493.81
 Slope (%) = 0.10
 N-Value = 0.030

Highlighted

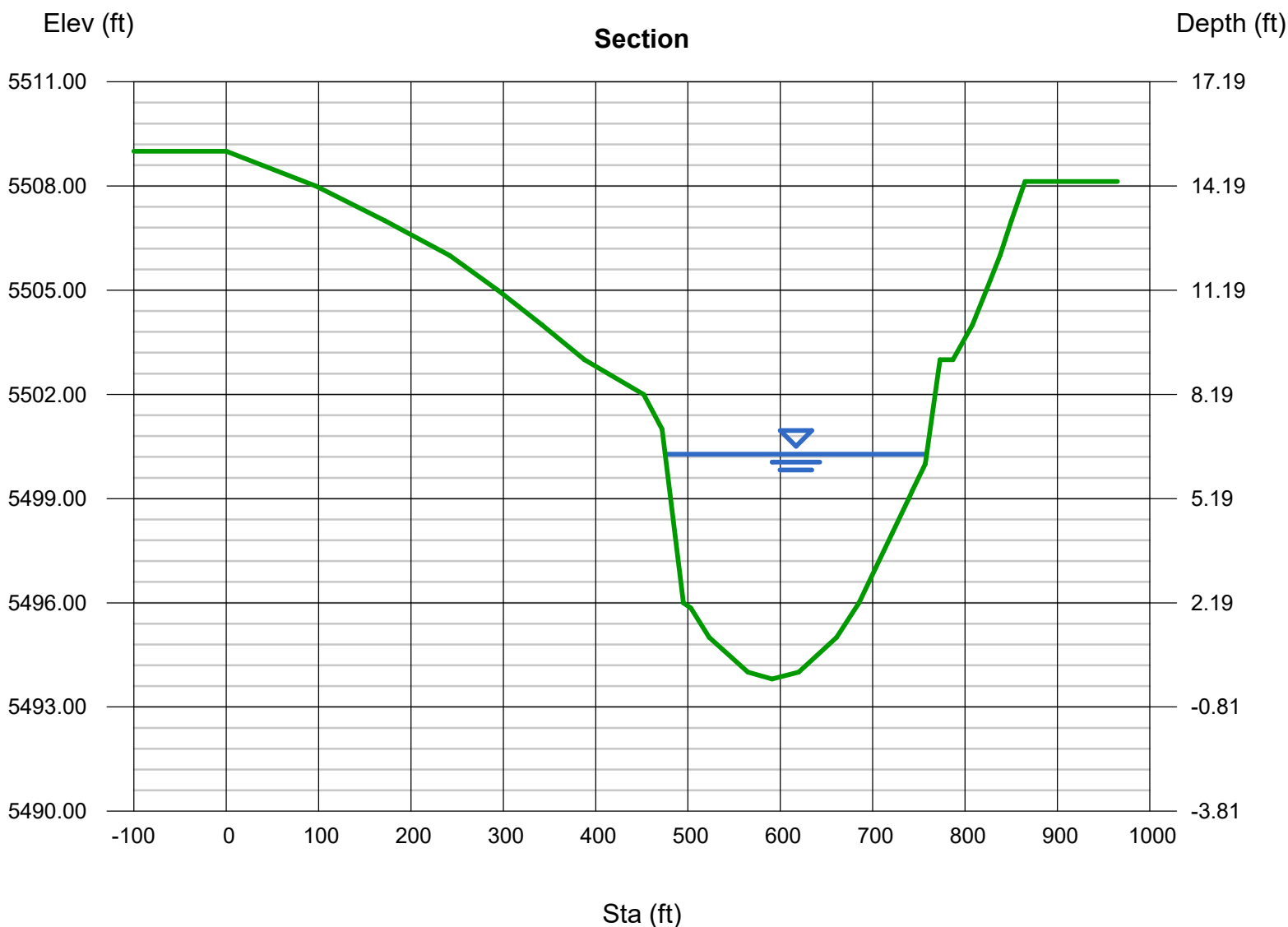
Depth (ft) = 6.47
 Q (cfs) = 5,503
 Area (sqft) = 1283.53
 Velocity (ft/s) = 4.29
 Wetted Perim (ft) = 283.85
 Crit Depth, Yc (ft) = 3.80
 Top Width (ft) = 283.18
 EGL (ft) = 6.76

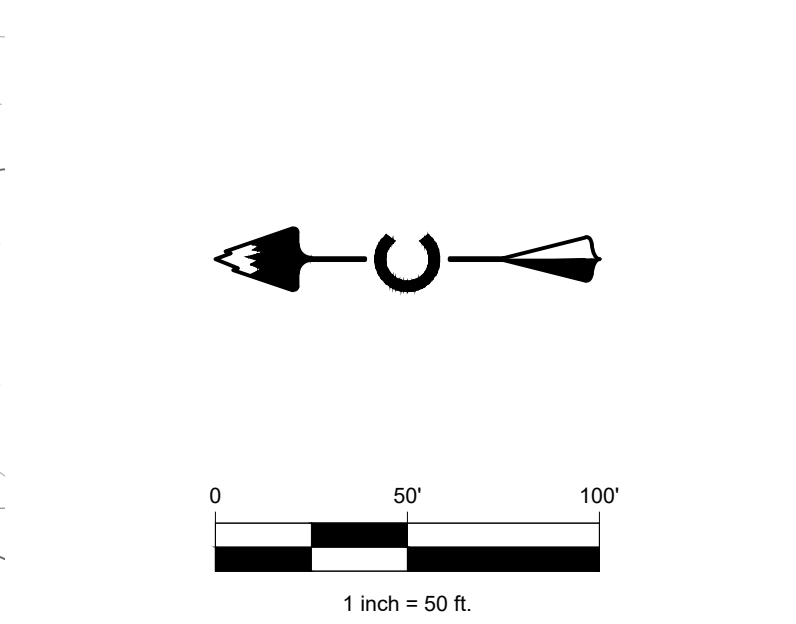
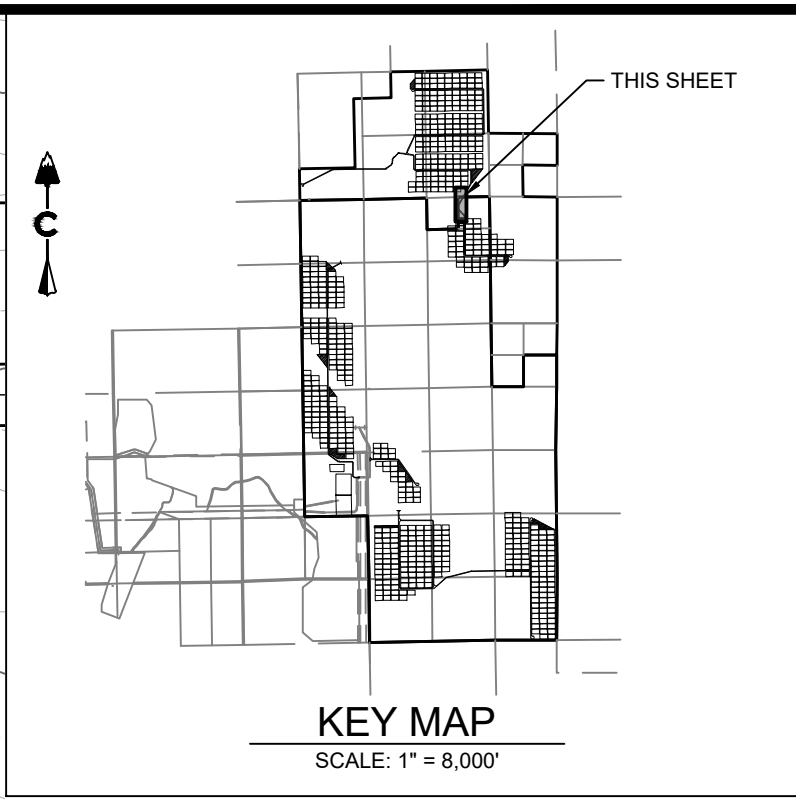
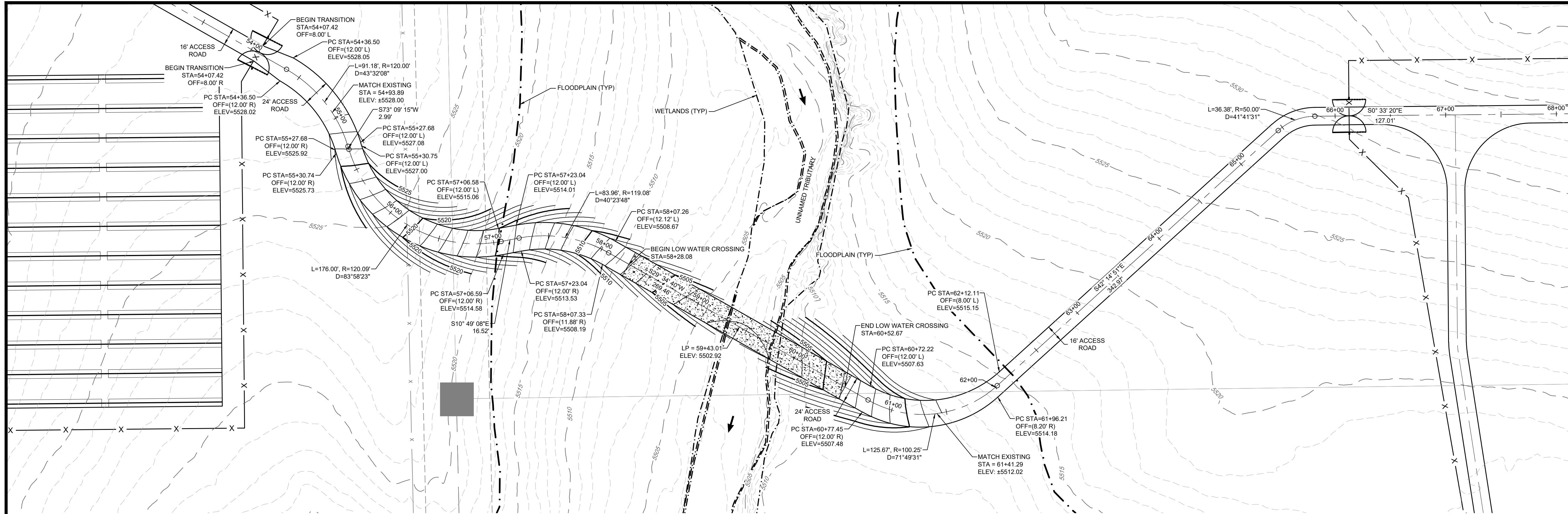
Calculations

Compute by: Known Q
 Known Q (cfs) = 5503.46

(Sta, El, n)-(Sta, El, n)...

(0.00, 5509.00)-(97.00, 5508.00, 0.030)-(172.00, 5507.00, 0.030)-(242.00, 5506.00, 0.030)-(294.00, 5505.00, 0.030)-(342.00, 5504.00, 0.030)-(388.00, 5503.00, 0.030)
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 -(757.00, 5500.00, 0.030)-(773.00, 5503.00, 0.030)-(787.00, 5503.00, 0.030)-(808.00, 5504.00, 0.030)-(823.00, 5505.00, 0.030)-(838.00, 5506.00, 0.030)-(850.00, 5507.00, 0.030)
 -(865.00, 5508.13, 0.030)

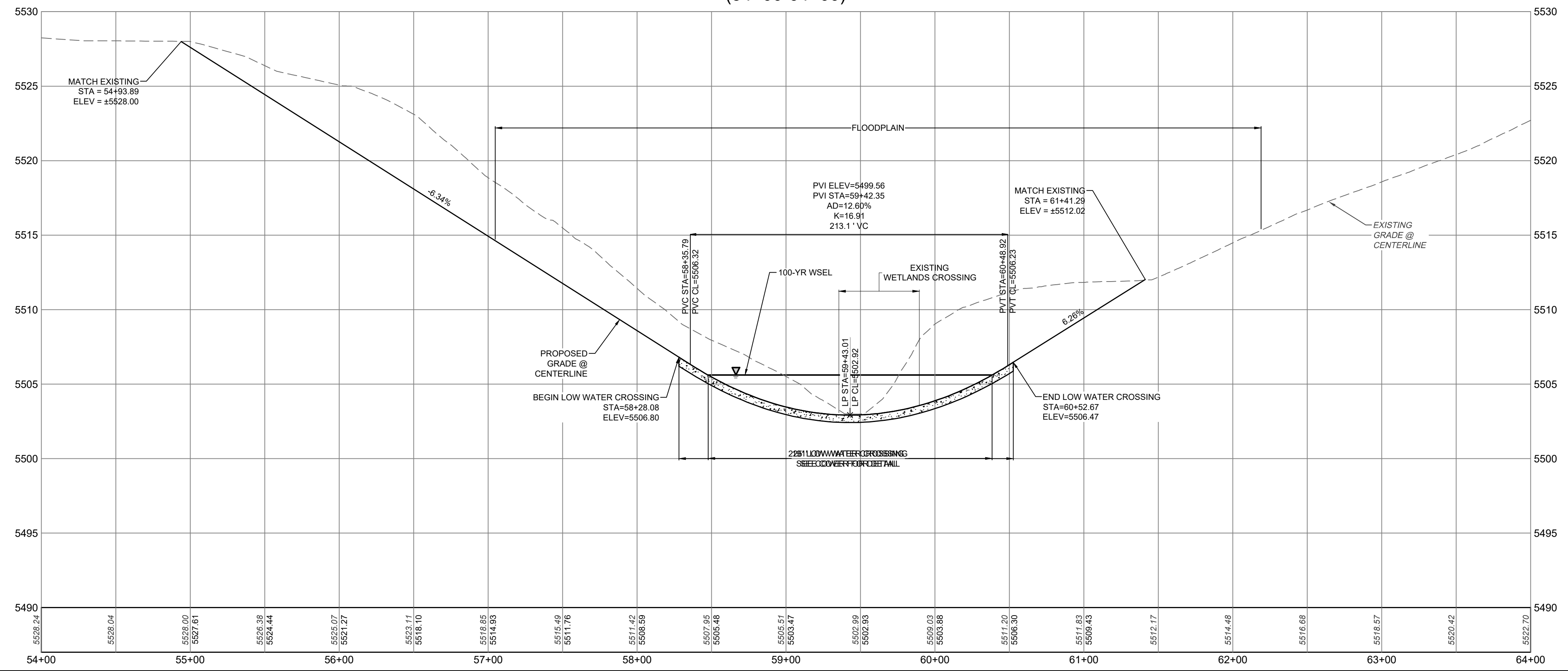




LEGEND

	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROJECT BOUNDARY
	CENTERLINE
	PROPOSED SOLAR TRACKER
	PROPOSED INVERTER
	PROPOSED FENCE
	EXISTING FENCE
	POWER POLES
	GUY WIRE
	WATER VALVES
	FIRE HYDRANTS
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	EXISTING STORM & STUB OUT
	FLOODPLAIN
	JURISDICTIONAL WATER FEATURES
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	EXISTING WATER
	EXISTING ELECTRIC
	EXISTING TELEPHONE
	EXISTING FIBER OPTIC
	EXISTING GAS
	EXISTING OVER HEAD ELECTRIC

FLOODPLAIN CROSSING #2
(54+00-64+00)



2/8/2021 12:45 PM X:\03-16 PIKE SOLAR\CIVIL\CAD\PLANS\FILING 1\CDS\FLOOD PLAN CROSSINGS.DWG

PIKE SOLAR
EL PASO COUNTY, COLORADO
CONSTRUCTION DOCUMENTS
FLOOD PLAN CROSSINGS #2 P&P

DESIGNED BY: BB DRAWN BY: TP CHECKED BY: DB	DATE: 02/15/21	BY: DB	
	# REVISION DESCRIPTION	DATE	BY
	1	1ST SUBMITTAL	DB

JOB NO. 20-194
SHEET FP-2 OF 55

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NOT FOR CONSTRUCTION

Channel Report

Cross Section 2 - 5 year - Existing

User-defined

Invert Elev (ft) = 5503.00
 Slope (%) = 0.50
 N-Value = 0.030

Highlighted

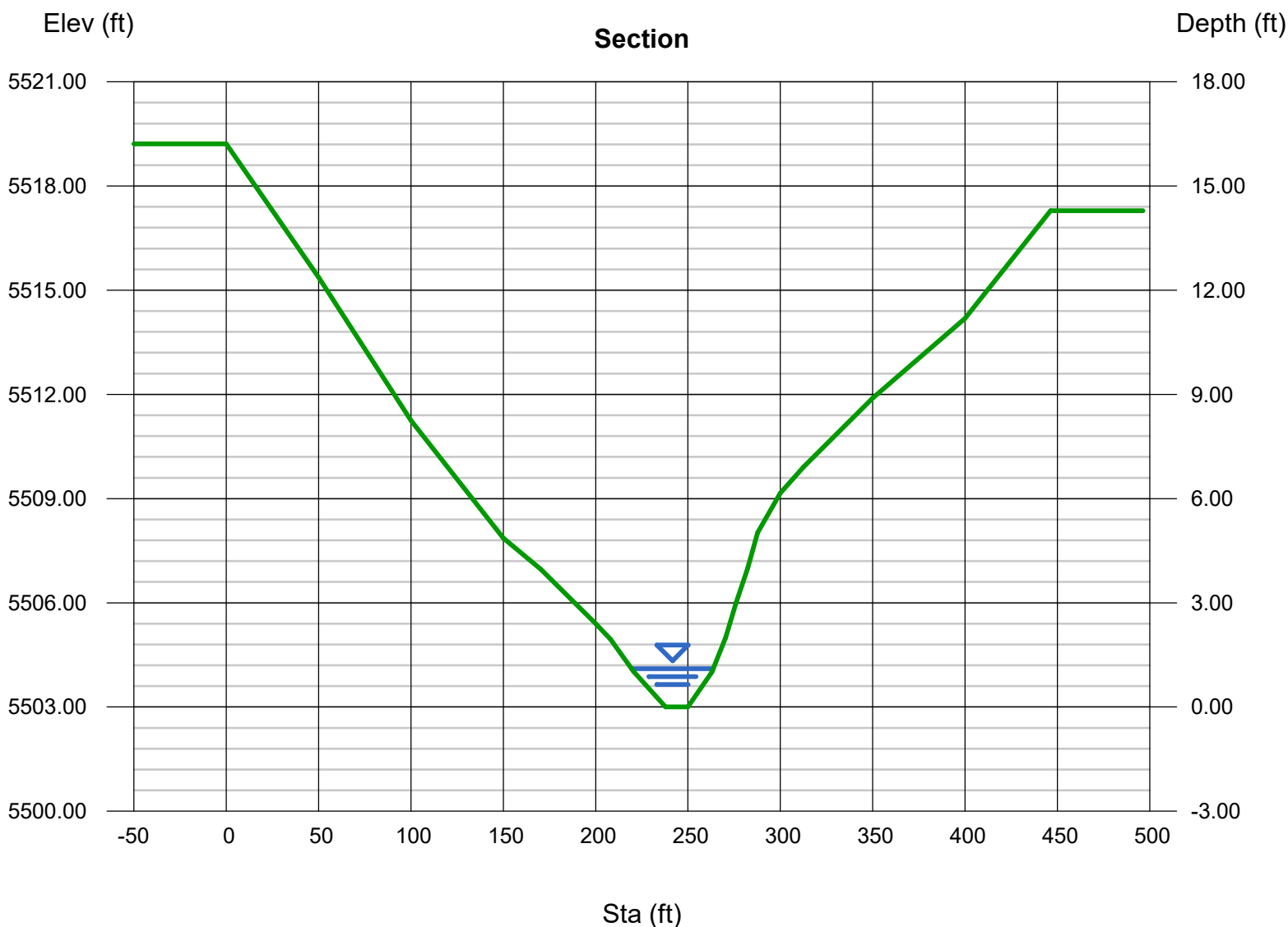
Depth (ft) = 1.10
 Q (cfs) = 87.09
 Area (sqft) = 31.44
 Velocity (ft/s) = 2.77
 Wetted Perim (ft) = 44.28
 Crit Depth, Yc (ft) = 0.84
 Top Width (ft) = 44.20
 EGL (ft) = 1.22

Calculations

Compute by: Known Q
 Known Q (cfs) = 87.09

(Sta, El, n)-(Sta, El, n)...

(0.00, 5519.21)-(50.00, 5515.37, 0.030)-(100.00, 5511.25, 0.030)-(150.00, 5507.86, 0.030)-(170.32, 5506.97, 0.030)-(200.00, 5505.40, 0.030)-(208.04, 5504.95, 0.030)
 -(220.59, 5504.02, 0.030)-(237.78, 5503.00, 0.030)-(250.00, 5503.00, 0.030)-(262.96, 5504.00, 0.030)-(270.36, 5504.99, 0.030)-(275.97, 5506.00, 0.030)-(282.27, 5507.00, 0.030)
 -(287.77, 5508.02, 0.030)-(300.00, 5509.16, 0.030)-(312.55, 5509.91, 0.030)-(350.00, 5511.89, 0.030)-(400.00, 5514.19, 0.030)-(446.31, 5517.29, 0.030)



Channel Report

Cross Section 2 - 5 year - Proposed

User-defined

Invert Elev (ft) = 5503.00
 Slope (%) = 0.50
 N-Value = 0.030

Highlighted

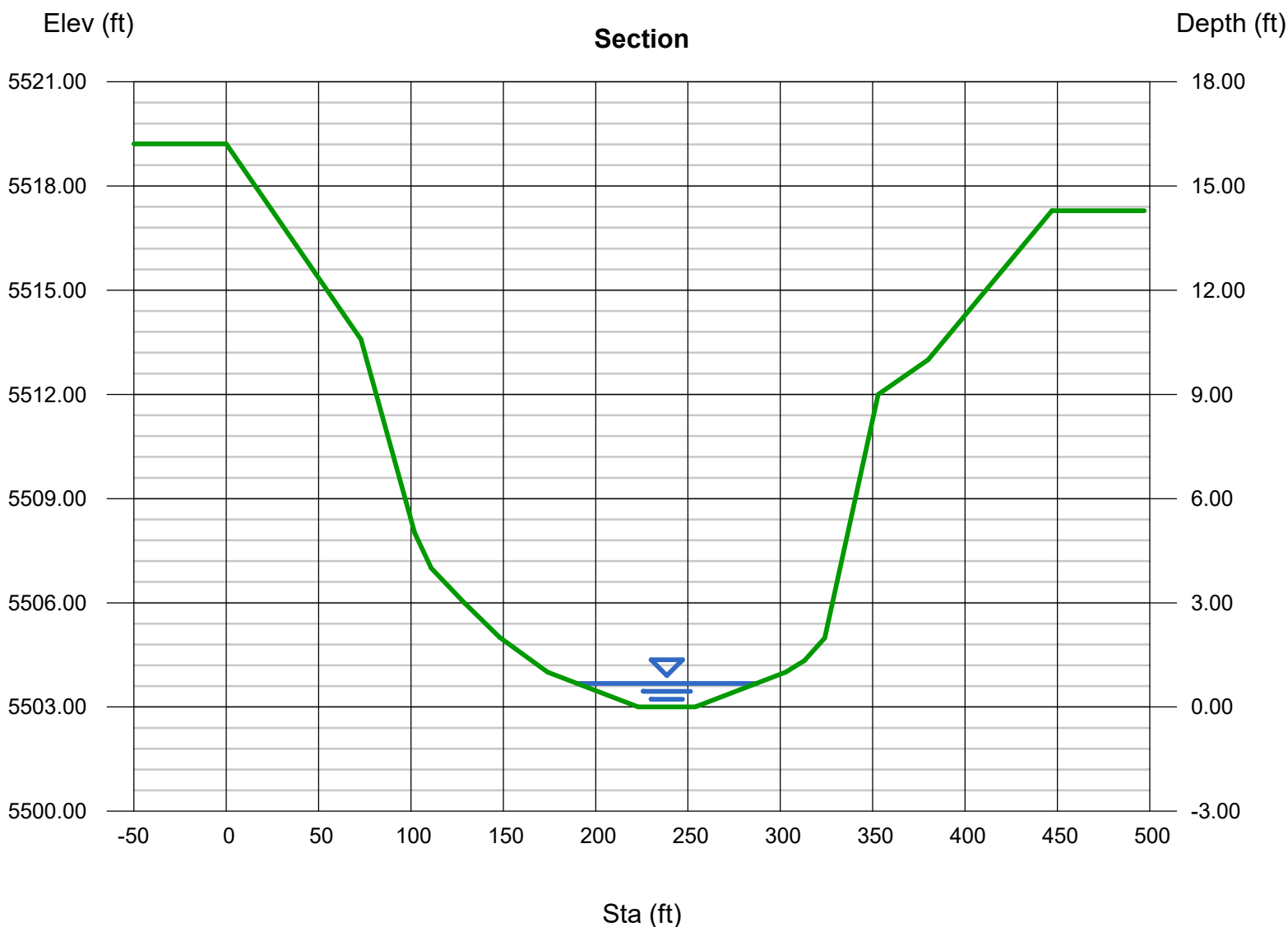
Depth (ft) = 0.68
 Q (cfs) = 87.09
 Area (sqft) = 43.75
 Velocity (ft/s) = 1.99
 Wetted Perim (ft) = 97.67
 Crit Depth, Yc (ft) = 0.49
 Top Width (ft) = 97.66
 EGL (ft) = 0.74

Calculations

Compute by: Known Q
 Known Q (cfs) = 87.09

(Sta, El, n)-(Sta, El, n)...

(0.00, 5519.21)-(73.00, 5513.58, 0.030)-(102.00, 5508.01, 0.030)-(111.00, 5507.00, 0.030)-(129.00, 5506.00, 0.030)-(148.00, 5505.00, 0.030)-(174.00, 5504.00, 0.030)
 -(223.00, 5503.00, 0.030)-(254.00, 5503.00, 0.030)-(303.00, 5504.00, 0.030)-(313.00, 5504.34, 0.030)-(324.00, 5504.99, 0.030)-(353.00, 5512.00, 0.030)-(380.00, 5517.29, 0.030)
 -(447.00, 5517.29, 0.030)



Channel Report

Cross Section 2 - 100 year - Existing

User-defined

Invert Elev (ft) = 5503.00
Slope (%) = 0.50
N-Value = 0.030

Highlighted

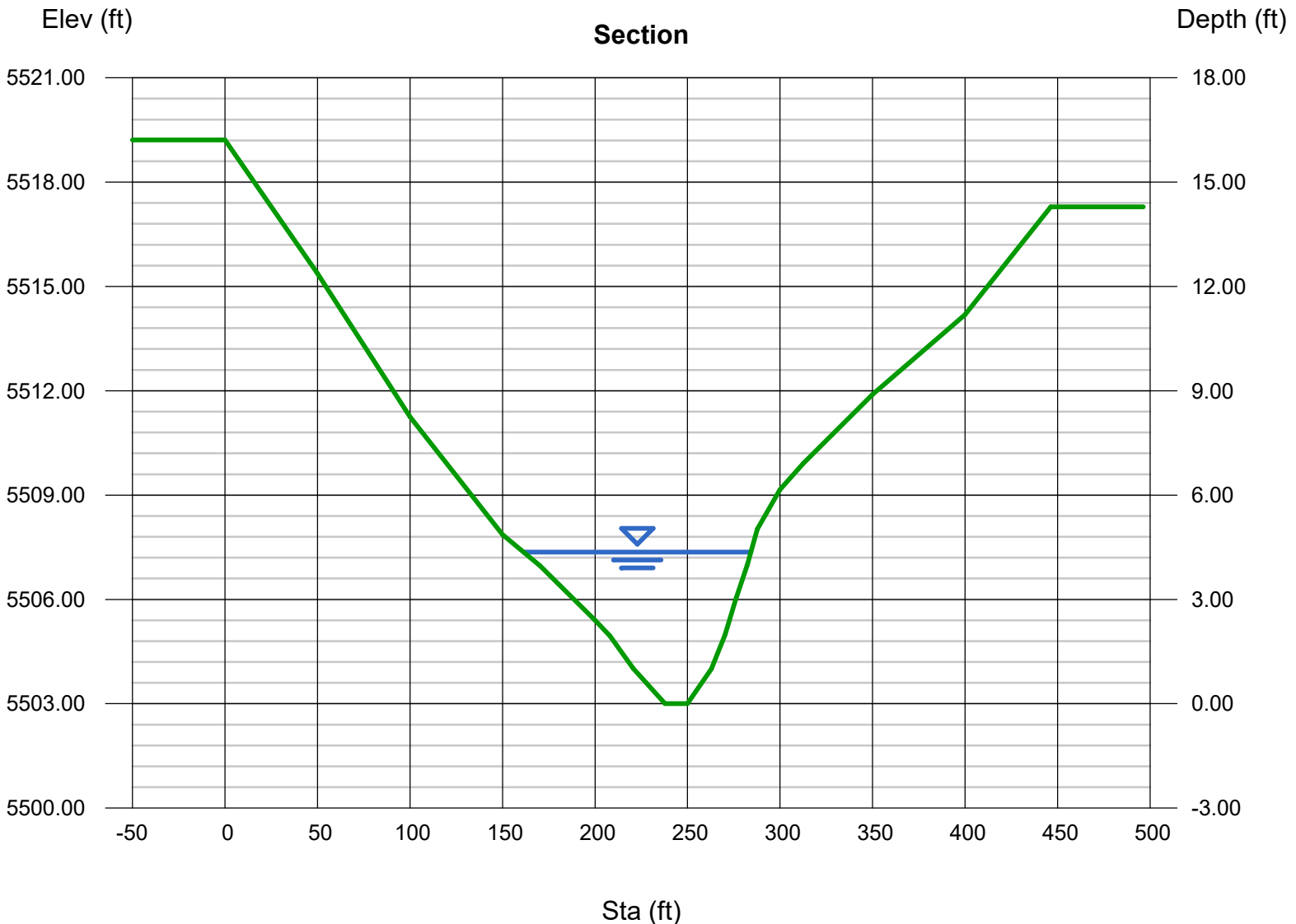
Depth (ft) = 4.36
Q (cfs) = 1,869
Area (sqft) = 297.20
Velocity (ft/s) = 6.29
Wetted Perim (ft) = 123.26
Crit Depth, Yc (ft) = 3.74
Top Width (ft) = 122.82
EGL (ft) = 4.97

Calculations

Compute by: Known Q
Known Q (cfs) = 1868.62

(Sta, El, n)-(Sta, El, n)...

(0.00, 5519.21)-(50.00, 5515.37, 0.030)-(100.00, 5511.25, 0.030)-(150.00, 5507.86, 0.030)-(170.32, 5506.97, 0.030)-(200.00, 5505.40, 0.030)-(208.04, 5504.95, 0.030)
-(220.59, 5504.02, 0.030)-(237.78, 5503.00, 0.030)-(250.00, 5503.00, 0.030)-(262.96, 5504.00, 0.030)-(270.36, 5504.99, 0.030)-(275.97, 5506.00, 0.030)-(282.27, 5507.00, 0.030)
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Channel Report

Cross Section 2 - 100 year - Proposed

User-defined

Invert Elev (ft) = 5503.00
Slope (%) = 0.50
N-Value = 0.030

Highlighted

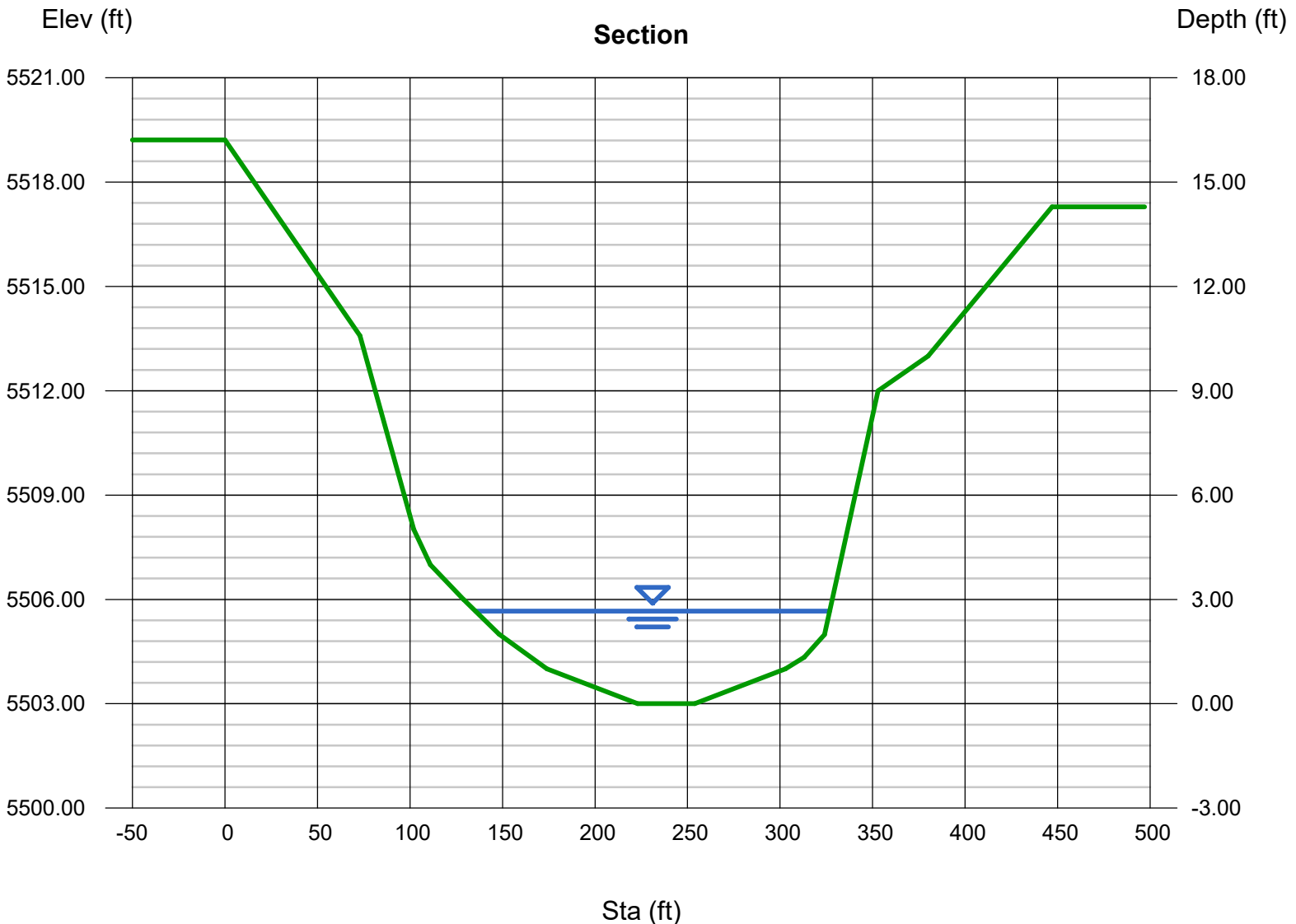
Depth (ft) = 2.66
Q (cfs) = 1,869
Area (sqft) = 355.24
Velocity (ft/s) = 5.26
Wetted Perim (ft) = 191.48
Crit Depth, Yc (ft) = 2.21
Top Width (ft) = 191.31
EGL (ft) = 3.09

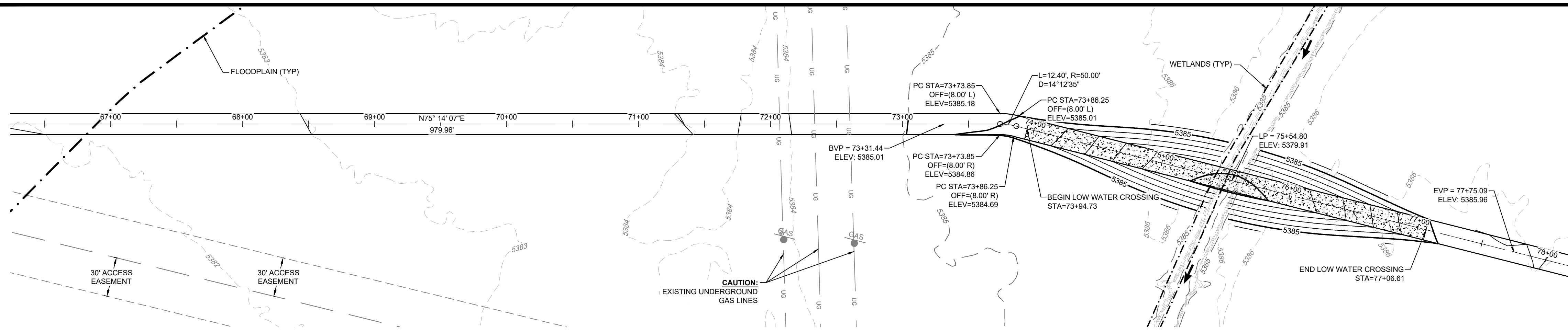
Calculations

Compute by: Known Q
Known Q (cfs) = 1868.62

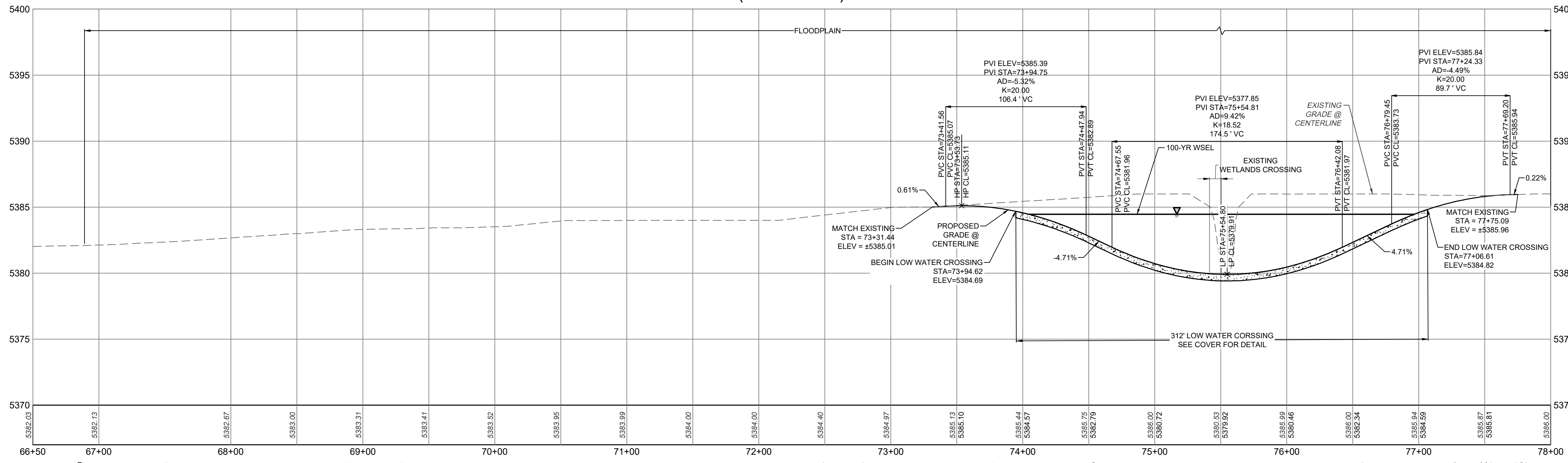
(Sta, El, n)-(Sta, El, n)...

(0.00, 5519.21)-(73.00, 5513.58, 0.030)-(102.00, 5508.01, 0.030)-(111.00, 5507.00, 0.030)-(129.00, 5506.00, 0.030)-(148.00, 5505.00, 0.030)-(174.00, 5504.00, 0.030)
-(223.00, 5503.00, 0.030)-(254.00, 5503.00, 0.030)-(303.00, 5504.00, 0.030)-(313.00, 5504.34, 0.030)-(324.00, 5504.99, 0.030)-(353.00, 5512.00, 0.030)-(380.00, 5517.29, 0.030)
-(447.00, 5517.29, 0.030)

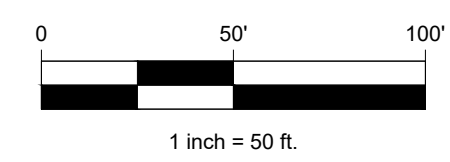
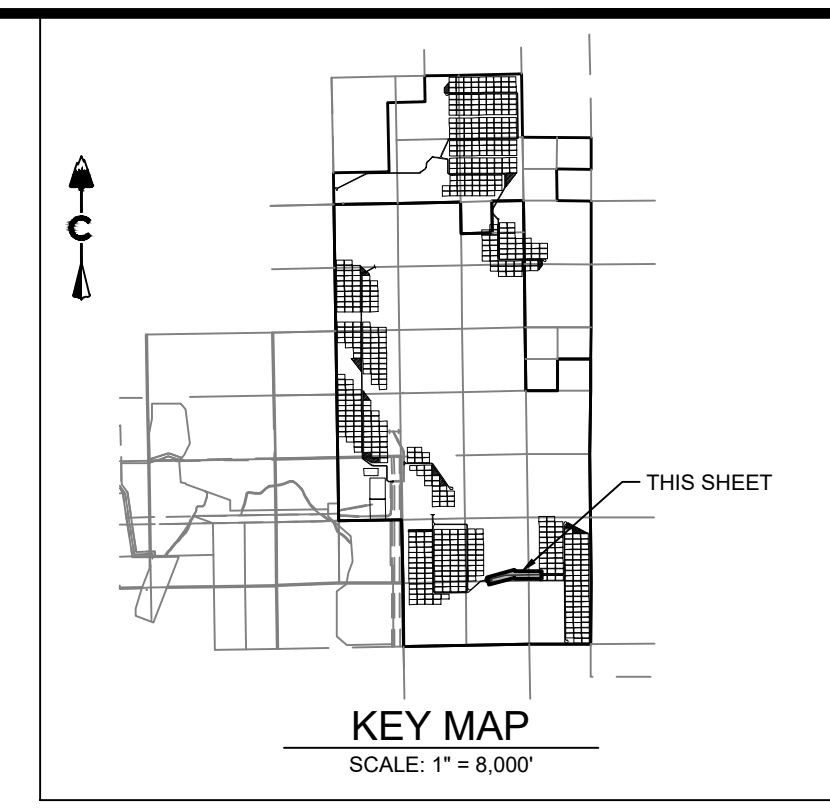
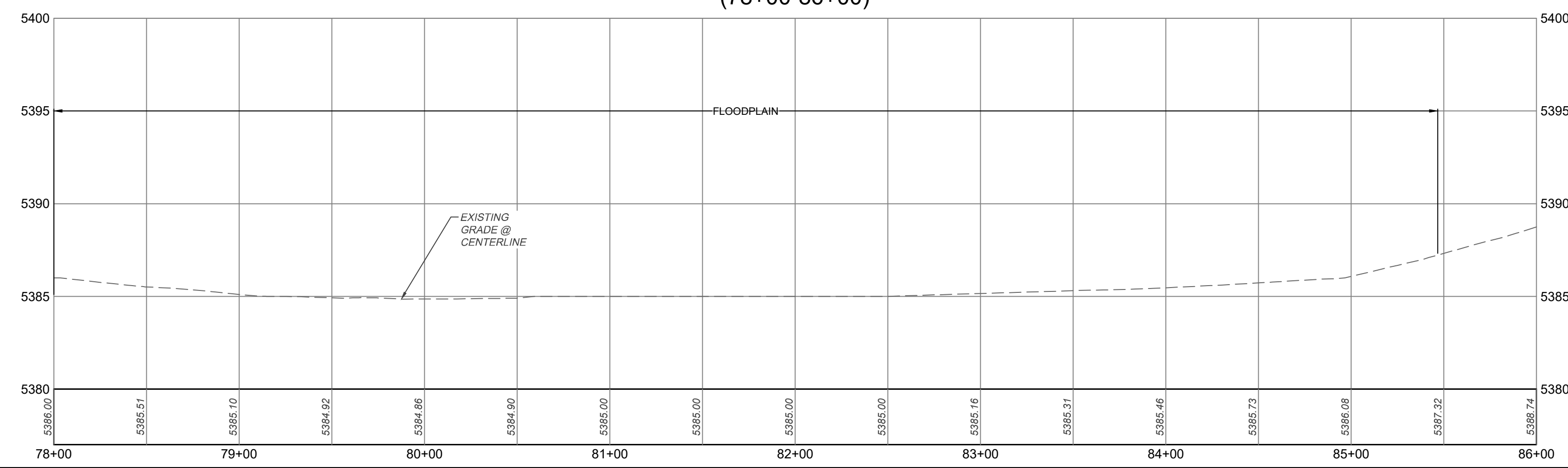




FLOODPLAIN CROSSING #3
(66+50-78+00)



FLOODPLAIN CROSSING #3
(78+00-86+00)



LEGEND

	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROJECT BOUNDARY
	CENTERLINE
	PROPOSED SOLAR TRACKER
	PROPOSED INVERTER
	PROPOSED FENCE
	EXISTING FENCE
	POWER POLES
	GUY WIRE
	WATER VALVES
	FIRE HYDRANTS
	EXISTING STORM MANHOLES
	EXISTING STORM & STUB OUT
	FLOODPLAIN
	JURISDICTIONAL WATER FEATURES
	WILLIAMS CREEK RES. EXPANSION
	EXISTING STORM
	EXISTING WATER
	EXISTING ELECTRIC
	EXISTING TELEPHONE
	EXISTING FIBER OPTIC
	EXISTING GAS
	EXISTING OVER HEAD ELECTRIC

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Know what's below.
Call before you dig.

#	REVISION DESCRIPTION	DATE	BY
1	1ST SUBMITTAL	07/15/21	DB

PIKE SOLAR
EL PASO COUNTY, COLORADO
CONSTRUCTION DOCUMENTS
FLOOD PLAIN CROSSINGS #3 P&P

DESIGNED BY: BB
DRAWN BY: TP
CHECKED BY: DB

JOB NO.
20-194

SHEET
FP-3 OF 55

NOT FOR CONSTRUCTION

2/8/2021 12:47 PM X:\20-194 PIKE SOLAR\CIVIL\CAD\PLANS\FILING_1\CD\FLOOD PLAN CROSSINGS.DWG

Channel Report

Existing Floodplain Crossing 3 - 5 year

User-defined

Invert Elev (ft) = 5380.00
 Slope (%) = 0.50
 N-Value = 0.030

Highlighted

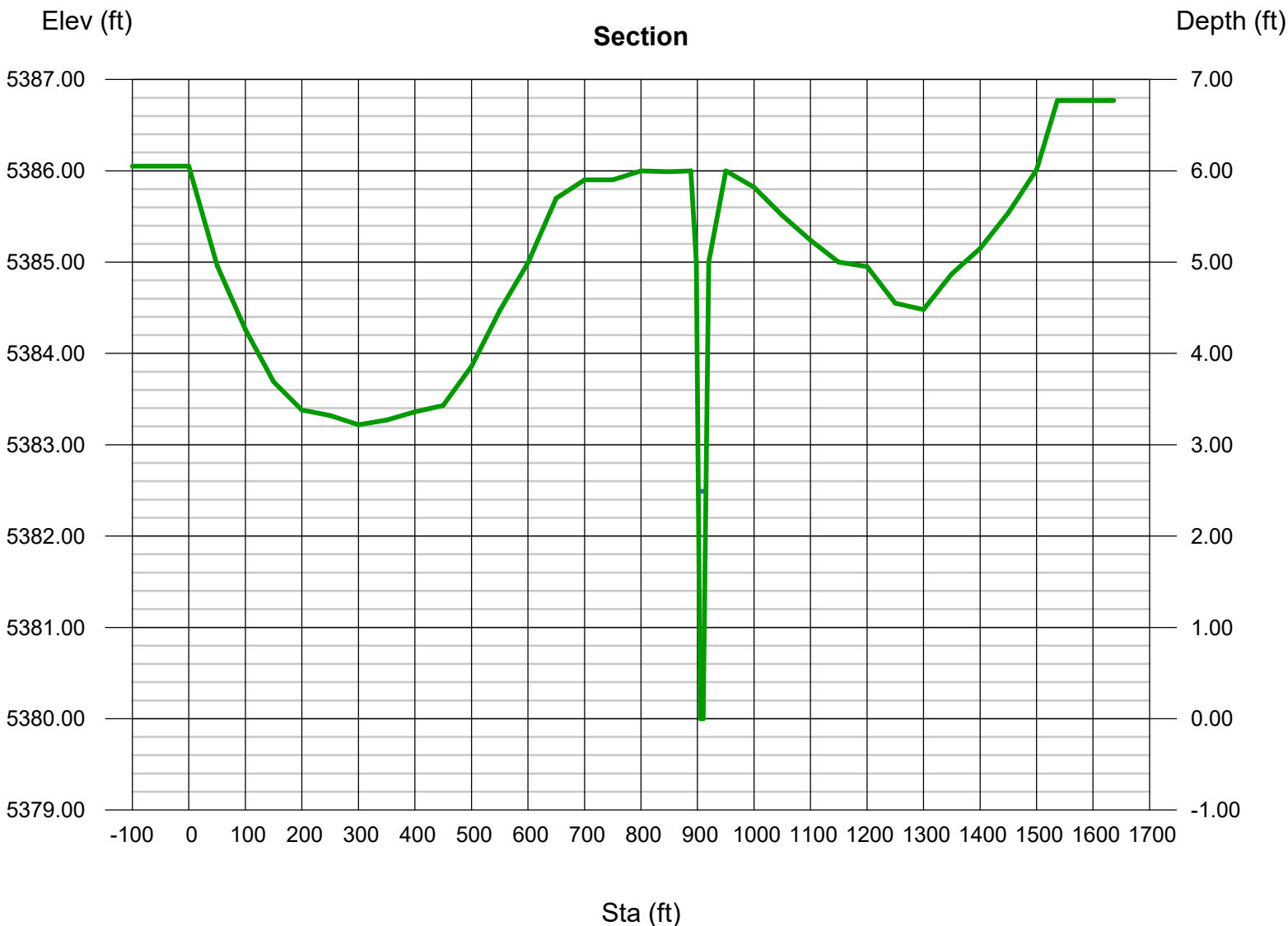
Depth (ft) = 2.49
 Q (cfs) = 107.79
 Area (sqft) = 22.99
 Velocity (ft/s) = 4.69
 Wetted Perim (ft) = 14.85
 Crit Depth, Yc (ft) = 1.95
 Top Width (ft) = 13.47
 EGL (ft) = 2.83

Calculations

Compute by: Known Q
 Known Q (cfs) = 107.79

(Sta, El, n)-(Sta, El, n)...

(0.00, 5386.05)-(50.00, 5384.96, 0.030)-(100.00, 5384.26, 0.030)-(150.00, 5383.69, 0.030)-(200.00, 5383.38, 0.030)-(250.00, 5383.32, 0.030)-(300.00, 5383.22, 0.030)
 -(350.00, 5383.27, 0.030)-(400.00, 5383.36, 0.030)-(450.00, 5383.43, 0.030)-(500.00, 5383.86, 0.030)-(550.00, 5384.47, 0.030)-(600.00, 5384.99, 0.030)-(650.00, 5385.50, 0.030)
 -(700.00, 5385.90, 0.030)-(750.00, 5385.90, 0.030)-(800.00, 5386.00, 0.030)-(850.00, 5385.99, 0.030)-(888.00, 5386.00, 0.030)-(898.00, 5385.00, 0.030)-(905.00, 5384.00, 0.030)
 -(910.00, 5380.00, 0.030)-(920.00, 5385.00, 0.030)-(950.00, 5386.00, 0.030)-(1000.00, 5385.82, 0.030)-(1050.00, 5385.51, 0.030)-(1100.00, 5385.24, 0.030)-(1150.00, 5385.00, 0.030)
 -(1200.00, 5384.95, 0.030)-(1250.00, 5384.55, 0.030)-(1300.00, 5384.48, 0.030)-(1350.00, 5384.87, 0.030)-(1400.00, 5385.15, 0.030)-(1450.00, 5385.54, 0.030)-(1500.00, 5386.00, 0.030)
 -(1536.76, 5386.77, 0.030)



Channel Report

Proposed Floodplain Crossing 3 - 5 year

User-defined

Invert Elev (ft) = 5379.91
 Slope (%) = 0.50
 N-Value = 0.030

Highlighted

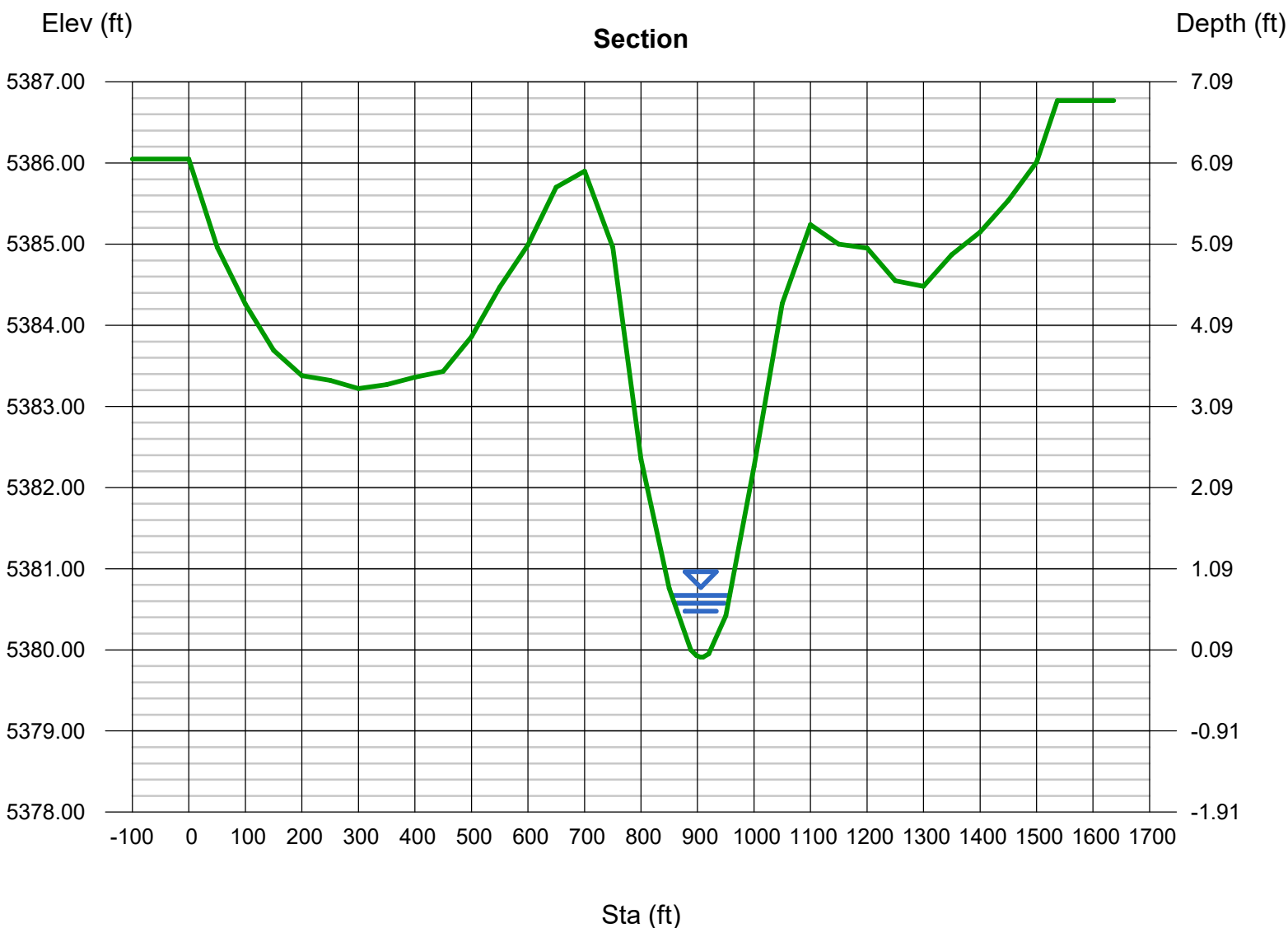
Depth (ft) = 0.76
 Q (cfs) = 107.79
 Area (sqft) = 50.11
 Velocity (ft/s) = 2.15
 Wetted Perim (ft) = 102.32
 Crit Depth, Yc (ft) = 0.57
 Top Width (ft) = 102.30
 EGL (ft) = 0.83

Calculations

Compute by: Known Q
 Known Q (cfs) = 107.79

(Sta, El, n)-(Sta, El, n)...

(0.00, 5386.05)-(50.00, 5384.96, 0.030)-(100.00, 5384.26, 0.030)-(150.00, 5383.69, 0.030)-(200.00, 5383.38, 0.030)-(250.00, 5383.32, 0.030)-(300.00, 5383.22, 0.030)-
 -(350.00, 5383.27, 0.030)-(400.00, 5383.36, 0.030)-(450.00, 5383.43, 0.030)-(500.00, 5383.86, 0.030)-(550.00, 5384.47, 0.030)-(600.00, 5384.99, 0.030)-(650.00, 5385.50, 0.030)-
 -(700.00, 5385.90, 0.030)-(750.00, 5384.96, 0.030)-(800.00, 5382.35, 0.030)-(850.00, 5380.76, 0.030)-(888.00, 5380.00, 0.030)-(898.00, 5379.93, 0.030)-(905.00, 5379.91, 0.030)-
 -(910.00, 5379.91, 0.030)-(920.00, 5379.95, 0.030)-(950.00, 5380.42, 0.030)-(1000.00, 5382.26, 0.030)-(1050.00, 5384.27, 0.030)-(1100.00, 5385.24, 0.030)-(1150.00, 5385.54, 0.030)-
 -(1200.00, 5384.95, 0.030)-(1250.00, 5384.55, 0.030)-(1300.00, 5384.48, 0.030)-(1350.00, 5384.87, 0.030)-(1400.00, 5385.15, 0.030)-(1450.00, 5385.54, 0.030)-(1500.00, 5386.05, 0.030)-
 -(1536.76, 5386.77, 0.030)



Channel Report

Existing Floodplain Crossing 3 - 100 year

User-defined

Invert Elev (ft) = 5380.00
 Slope (%) = 0.50
 N-Value = 0.030

Highlighted

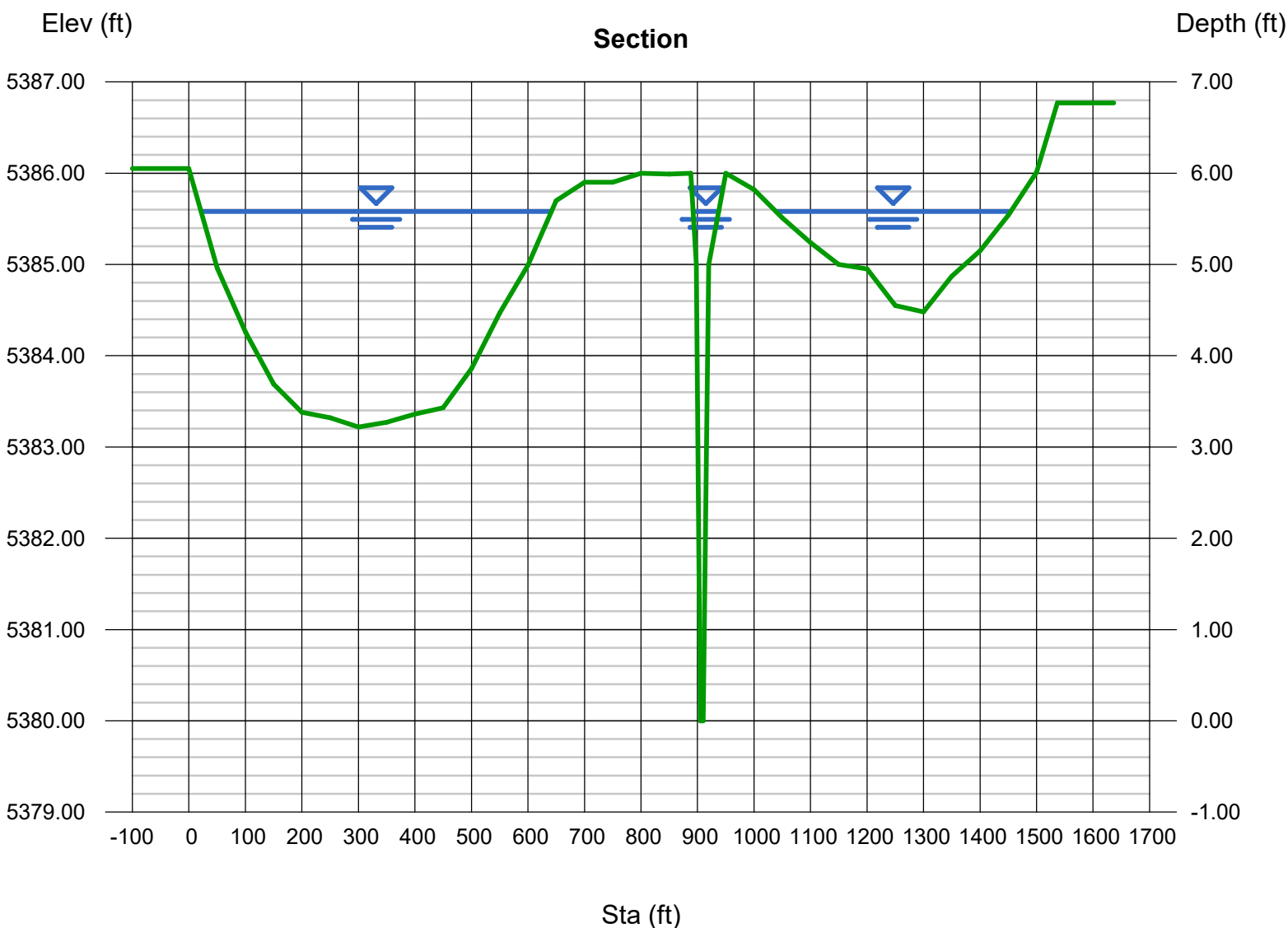
Depth (ft) = 5.58
 Q (cfs) = 5,541
 Area (sqft) = 1359.62
 Velocity (ft/s) = 4.08
 Wetted Perim (ft) = 1083.65
 Crit Depth, Yc (ft) = 5.16
 Top Width (ft) = 1080.79
 EGL (ft) = 5.84

Calculations

Compute by: Known Q
 Known Q (cfs) = 5540.82

(Sta, El, n)-(Sta, El, n)...

(0.00, 5386.05)-(50.00, 5384.96, 0.030)-(100.00, 5384.26, 0.030)-(150.00, 5383.69, 0.030)-(200.00, 5383.38, 0.030)-(250.00, 5383.32, 0.030)-(300.00, 5383.22, 0.030)-
 -(350.00, 5383.27, 0.030)-(400.00, 5383.36, 0.030)-(450.00, 5383.43, 0.030)-(500.00, 5383.86, 0.030)-(550.00, 5384.47, 0.030)-(600.00, 5384.99, 0.030)-(650.00, 5385.00, 0.030)-
 -(700.00, 5385.90, 0.030)-(750.00, 5385.90, 0.030)-(800.00, 5386.00, 0.030)-(850.00, 5385.99, 0.030)-(888.00, 5386.00, 0.030)-(898.00, 5385.00, 0.030)-(905.00, 5385.00, 0.030)-
 -(910.00, 5380.00, 0.030)-(920.00, 5385.00, 0.030)-(950.00, 5386.00, 0.030)-(1000.00, 5385.82, 0.030)-(1050.00, 5385.51, 0.030)-(1100.00, 5385.24, 0.030)-(1150.00, 5385.24, 0.030)-
 -(1200.00, 5384.95, 0.030)-(1250.00, 5384.55, 0.030)-(1300.00, 5384.48, 0.030)-(1350.00, 5384.87, 0.030)-(1400.00, 5385.15, 0.030)-(1450.00, 5385.54, 0.030)-(1500.00, 5386.00, 0.030)-
 -(1536.76, 5386.77, 0.030)



Channel Report

Proposed Floodplain Crossing 3 - 100 year

User-defined

Invert Elev (ft) = 5379.91
 Slope (%) = 0.50
 N-Value = 0.030

Highlighted

Depth (ft) = 4.45
 Q (cfs) = 5,541
 Area (sqft) = 1171.37
 Velocity (ft/s) = 4.73
 Wetted Perim (ft) = 741.53
 Crit Depth, Yc (ft) = 3.99
 Top Width (ft) = 741.35
 EGL (ft) = 4.80

Calculations

Compute by: Known Q
 Known Q (cfs) = 5540.82

(Sta, El, n)-(Sta, El, n)...

(0.00, 5386.05)-(50.00, 5384.96, 0.030)-(100.00, 5384.26, 0.030)-(150.00, 5383.69, 0.030)-(200.00, 5383.38, 0.030)-(250.00, 5383.32, 0.030)-(300.00, 5383.22, 0.030)-
 -(350.00, 5383.27, 0.030)-(400.00, 5383.36, 0.030)-(450.00, 5383.43, 0.030)-(500.00, 5383.86, 0.030)-(550.00, 5384.47, 0.030)-(600.00, 5384.99, 0.030)-(650.00, 5385.50, 0.030)-
 -(700.00, 5385.90, 0.030)-(750.00, 5384.96, 0.030)-(800.00, 5382.35, 0.030)-(850.00, 5380.76, 0.030)-(888.00, 5380.00, 0.030)-(898.00, 5379.93, 0.030)-(905.00, 5380.00, 0.030)-
 -(910.00, 5379.91, 0.030)-(920.00, 5379.95, 0.030)-(950.00, 5380.42, 0.030)-(1000.00, 5382.26, 0.030)-(1050.00, 5384.27, 0.030)-(1100.00, 5385.24, 0.030)-(1150.00, 5386.00, 0.030)-
 -(1200.00, 5384.95, 0.030)-(1250.00, 5384.55, 0.030)-(1300.00, 5384.48, 0.030)-(1350.00, 5384.87, 0.030)-(1400.00, 5385.15, 0.030)-(1450.00, 5385.54, 0.030)-(1500.00, 5386.00, 0.030)-
 -(1536.76, 5386.77, 0.030)

