U.S. DEPARTMENT OF HOMELAND SECURITY
FEDERAL EMERGENCY MANAGEMENT AGENCY
National Flood Insurance Program

ELEVATION CERTIFICATE

Important: Read the instructions on pages 1–9.

OMB No. 1660-0008
Expiration Date: July 31, 2015

SECTION A – PROPERTY INFORMATION

FOR INSURANCE COMPANY USE

A1. Building Owner's Name Ryland Hutchins and Keri Hatley — Policy Number:

A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.
108 County Road 2350 — Company NAIC Number:

City Aztec State NM ZIP Code 87410

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
Lot 1 Duke Family Subdivision, NE,NE S4 T31 R10

A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) RESIDENTIAL

A5. Latitude/Longitude: Lat. 36.9330 Long. 107.8793 Horizontal Datum: ☐ NAD 1927 ☒ NAD 1983

A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.

A7. Building Diagram Number 1B

A8. For a building with a crawlspace or enclosure(s):
- a) Square footage of crawlspace or enclosure(s) _____ sq ft
- b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____
- c) Total net area of flood openings in A8.b _____ sq in
- d) Engineered flood openings? ☐ Yes ☐ No

A9. For a building with an attached garage:
- a) Square footage of attached garage _____ sq ft
- b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____
- c) Total net area of flood openings in A9.b _____ sq in
- d) Engineered flood openings? ☐ Yes ☐ No

SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION

B1. NFIP Community Name & Community Number	B2. County Name	B3. State
SAN JUAN 350064	SAN JUAN	NM

B4. Map/Panel Number	B5. Suffix	B6. FIRM Index Date	B7. FIRM Panel Effective/Revised Date	B8. Flood Zone(s)	B9. Base Flood Elevation(s) (Zone AO, use base flood depth)
35045C0395	F	8-5-2010	8-5-2010	A	5839.43

B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9.
☐ FIS Profile ☐ FIRM ☐ Community Determined ☒ Other/Source: HEC-RAS ANALYSIS ATTACHED

B11. Indicate elevation datum used for BFE in Item B9: ☐ NGVD 1929 ☒ NAVD 1988 ☐ Other/Source: _____

B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? ☐ Yes ☒ No
Designation Date: _____ ☐ CBRS ☐ OPA

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: ☐ Construction Drawings* ☐ Building Under Construction* ☒ Finished Construction
*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: Basin Surveying BM Vertical Datum: GPS Observation

Indicate elevation datum used for the elevations in items a) through h) below. ☐ NGVD 1929 ☐ NAVD 1988 ☒ Other/Source: Site Benchmark
Datum used for building elevations must be the same as that used for the BFE.

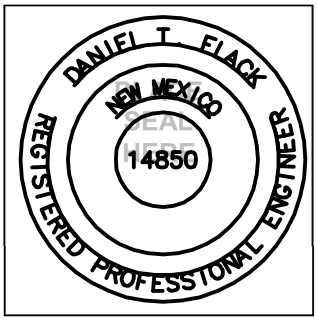
		Check the measurement used.	
a) Top of bottom floor (including basement, crawlspace, or enclosure floor)	5847.57	☒ feet	☐ meters
b) Top of the next higher floor	_____._____	☐ feet	☐ meters
c) Bottom of the lowest horizontal structural member (V Zones only)	_____._____	☐ feet	☐ meters
d) Attached garage (top of slab)	_____._____	☐ feet	☐ meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	_____._____	☐ feet	☐ meters
f) Lowest adjacent (finished) grade next to building (LAG)	5846.90	☒ feet	☐ meters
g) Highest adjacent (finished) grade next to building (HAG)	5846.90	☒ feet	☐ meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	_____._____	☐ feet	☐ meters

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. *I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.*

☐ Check here if comments are provided on back of form.
☐ Check here if attachments.

Were latitude and longitude in Section A provided by a licensed land surveyor? ☐ Yes ☒ No



Certifier's Name Daniel T Flack License Number 14850

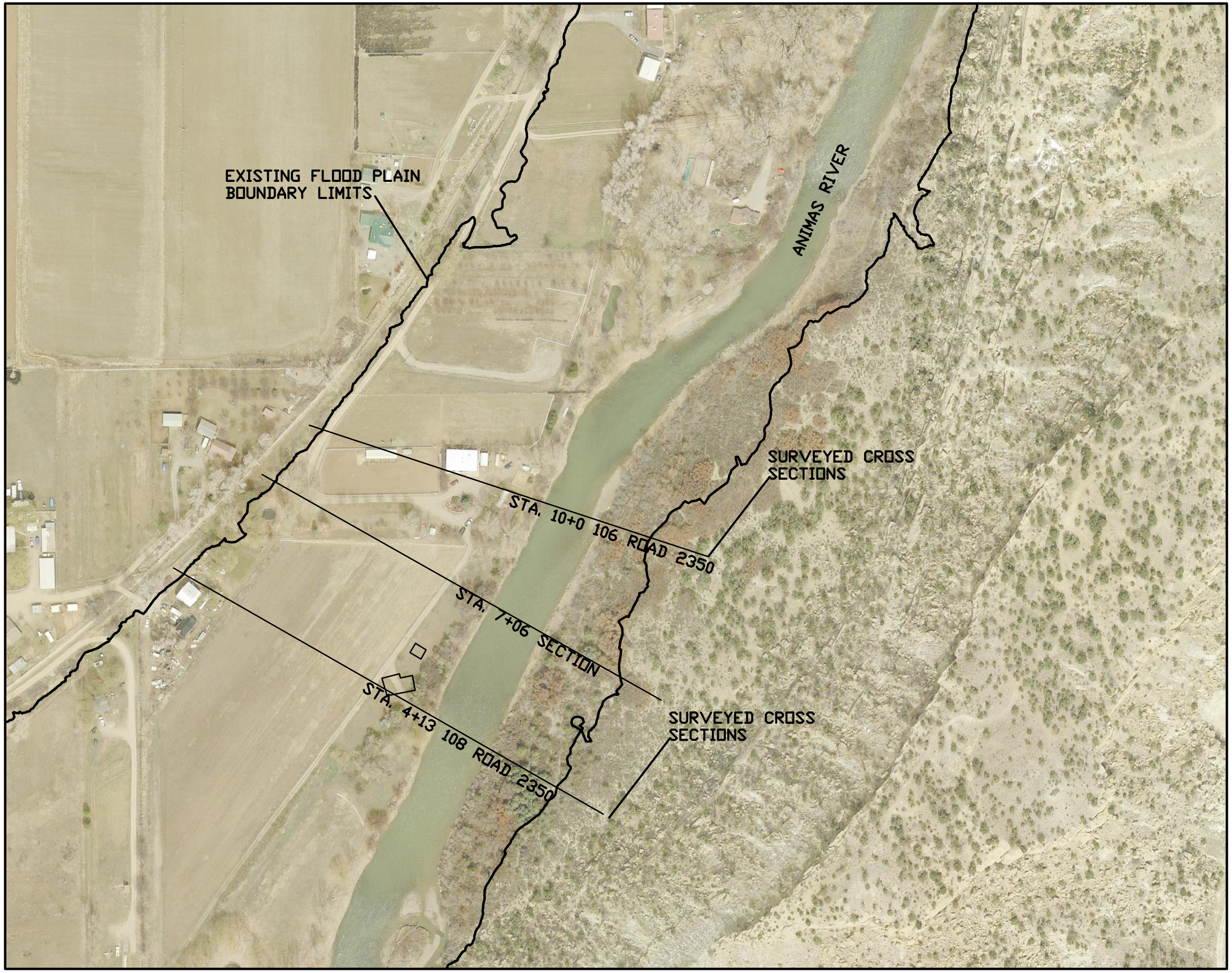
Title Engineer Company Name DTF Engineering

Address PO Box 1063 City Kirtland State NM ZIP Code 87417

Signature Daniel T Flack Date 3-26-15 Telephone 505-598-5163

HEC-RAS Plan: Plan 01 River: Animas Reach: 1 Profile: PF 1

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	1000	PF 1	18700.00	5830.66	5844.05		5845.86	0.002479	10.82	1752.08	181.34	0.57
1	706.5*	PF 1	18700.00	5830.10	5842.74	5840.30	5844.96	0.003335	12.03	1600.01	186.64	0.66
1	413	PF 1	18700.00	5829.55	5839.43	5839.43	5843.34	0.007751	15.93	1198.29	166.36	0.97



DTF ENGINEERING
PO BOX 1063
KIRTLAND NM 87417
505.598.5163

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED, AND DATED BELOW

DANIEL T. FLACK
NEW MEXICO
14850
REGISTERED PROFESSIONAL ENGINEER
3-26-15

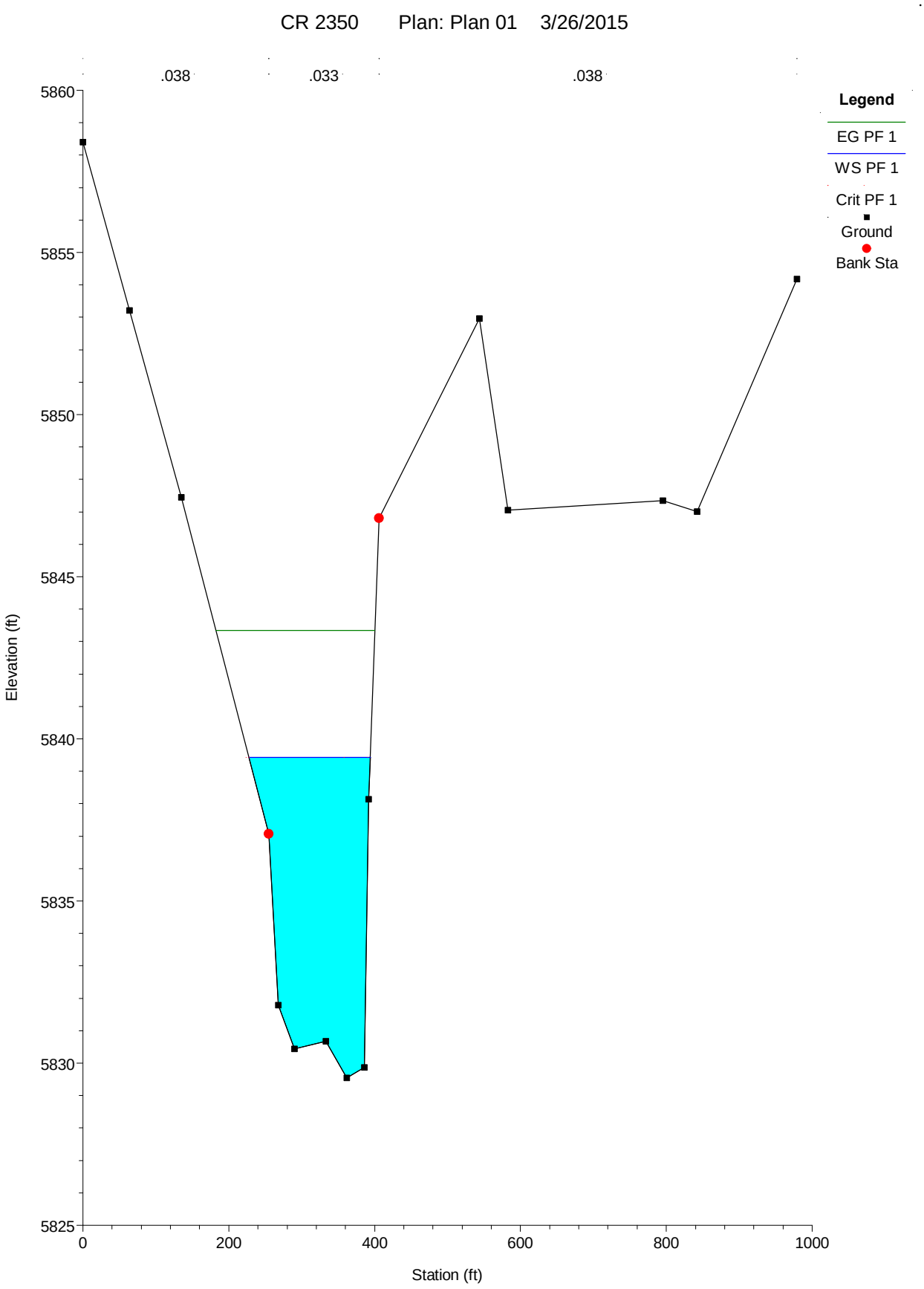
MARK	DATE	DESCRIPTION
ISSUED		

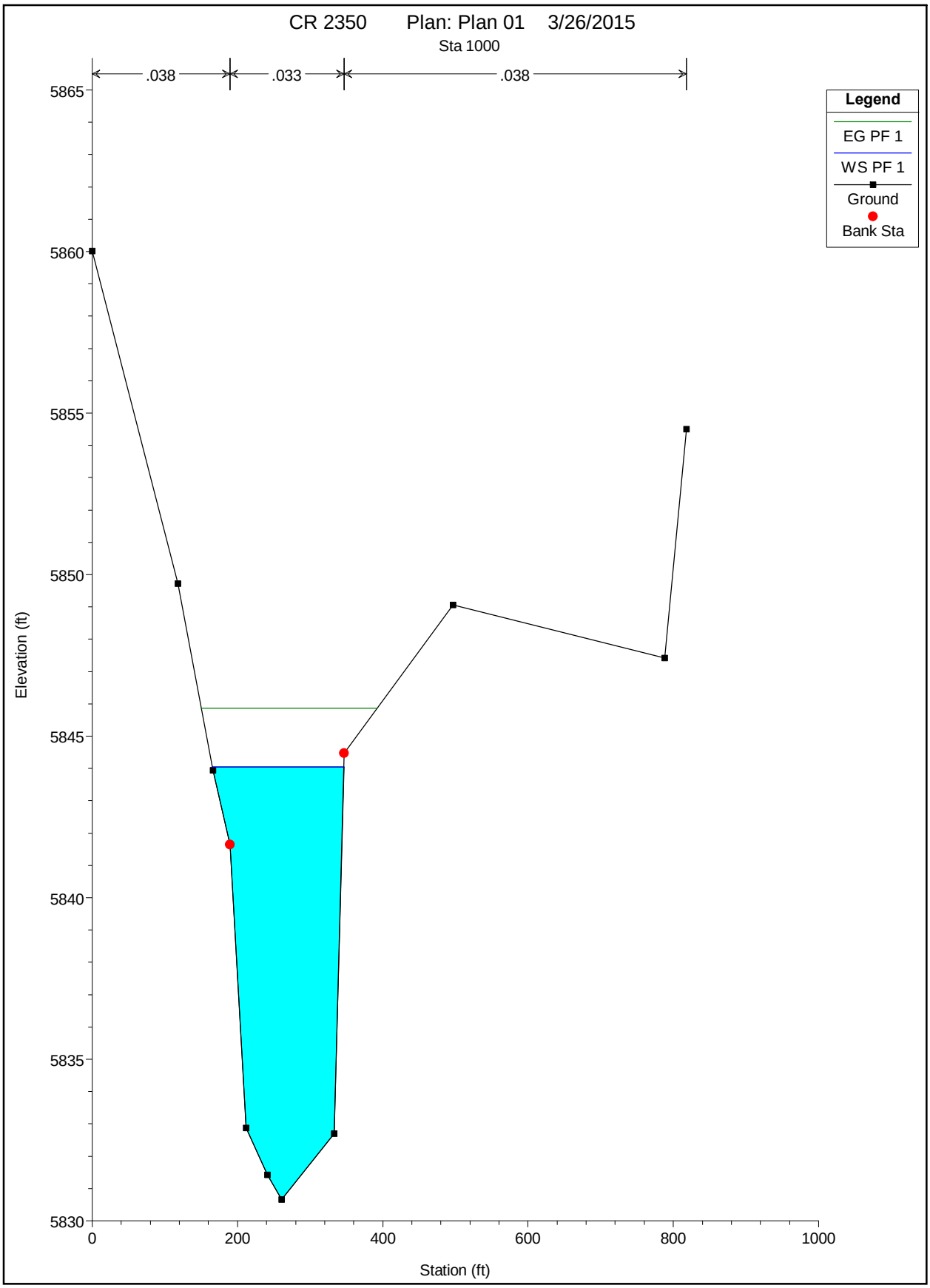
PROJECT NO
CAD DWG FILE
DRAWN BY
CHECKED BY

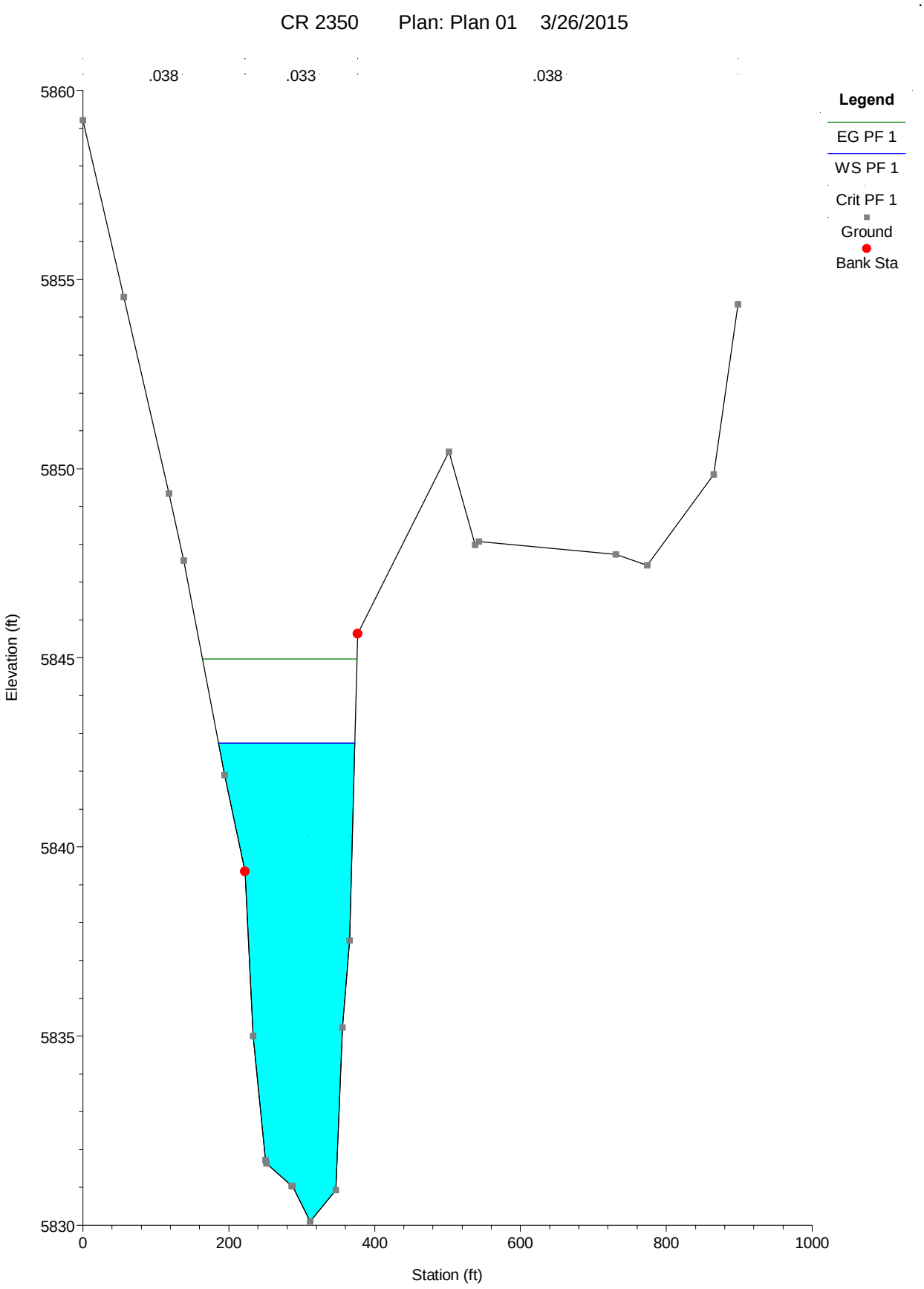
SHEET TITLE

106 & 108 ROAD 2350 CROSS-SECTIONS

DRAWING SHEET


CR 2350 Plan: Plan 01 3/26/2015
.038
.033
.038
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
5860
5855
5850
5845
5840
5835
5830
5825
Elevation (ft)
0
200
400
600
800
1000
Station (ft)


CR 2350 Plan: Plan 01 3/26/2015
Sta 1000
.038
.033
.038
Legend
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
5865
5860
5855
5850
5845
5840
5835
5830
0
200
400
600
800
1000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Bank Sta
5860
5855
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5845
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5835
5830
Elevation (ft)
0
200
400
600
800
1000
Station (ft)

HEC-RAS Version 4.1.0 Jan 2010
U.S. Army Corps of Engineers
Hydrologic Engineering Center
609 Second Street
Davis, California

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
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PROJECT DATA
Project Title: CR 2350
Project File : CR2350.prj
Run Date and Time: 3/26/2015 8:24:05 AM

Project in English units

PLAN DATA

Plan Title: Plan 01
Plan File : C:\Users\Dan\Documents\1 DTF Engineering\Flood Plain\CR 2350\CR2350.p01

Geometry Title: geom
Geometry File : C:\Users\Dan\Documents\1 DTF Engineering\Flood Plain\CR 2350\CR2350.g01

Flow Title : flow
Flow File : C:\Users\Dan\Documents\1 DTF Engineering\Flood Plain\CR 2350\CR2350.f01

Plan Summary Information:
Number of: Cross Sections = 3 Multiple Openings = 0
Culverts = 0 Inline Structures = 0
Bridges = 0 Lateral Structures = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculation tolerance = 0.01
Maximum number of iterations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

FLOW DATA

Flow Title: flow
Flow File : C:\Users\Dan\Documents\1 DTF Engineering\Flood Plain\CR 2350\CR2350.f01

Flow Data (cfs)

River	Reach	RS	PF 1
Animas	1	1000	18700

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
Animas	1	PF 1	Critical	Critical

GEOMETRY DATA

Geometry Title: geom
Geometry File : C:\Users\Dan\Documents\1 DTF Engineering\Flood Plain\CR 2350\CR2350.g01

CROSS SECTION

RIVER: Animas
REACH: 1 RS: 1000

INPUT
Description: Sta 1000
Station Elevation Data num= 12

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
05860.011		1185849.716		1665843.946		1905841.641		212 5832.88	
2415831.415		2615830.658		3335832.695		3475844.469		4975849.069	
7885847.412		8185854.494							

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.038	190	.033	347	.038

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
190	347	298.5	298.5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	5845.86	Element	Left OB	Channel Right OB
Vel Head (ft)	1.81	Wt. n-Val.	0.038	0.033
W.S. Elev (ft)	5844.05	Reach Len. (ft)	298.50	298.50 298.50
Crit W.S. (ft)		Flow Area (sq ft)	30.14	1721.95
E.G. Slope (ft/ft)	0.002479	Area (sq ft)	30.14	1721.95

Q Total (cfs)	18700.00	Flow (cfs)	66.53	18633.47
Top Width (ft)	181.34	Top Width (ft)	24.84	156.50
Vel Total (ft/s)	10.67	Avg. Vel. (ft/s)	2.21	10.82
Max Chl Dpth (ft)	13.39	Hydr. Depth (ft)	1.21	11.00
Conv. Total (cfs)	375555.3	Conv. (cfs)	1336.2	374219.1
Length Wtd. (ft)	298.50	Wetted Per. (ft)	24.96	162.40
Min Ch El (ft)	5830.66	Shear (lb/sq ft)	0.19	1.64
Alpha	1.02	Stream Power (lb/ft s)	818.00	0.00
0.00				
Frctn Loss (ft)	0.85	Cum Volume (acre-ft)	0.64	20.43
C & E Loss (ft)	0.04	Cum SA (acres)	0.43	2.04

CROSS SECTION

RIVER: Animas
REACH: 1 RS: 706.5*

INPUT
Description:
Station Elevation Data num= 23

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5859.21	55.84	5854.53	117.79	5849.34	138.18	5847.57	194.39	5841.9
222.5	5839.35	233.31	5835	250.08	5831.72	251.61	5831.63	286.43	5831.04
287.38	5831.03	311.5	5830.1	346.95	5830.93	355.82	5835.23	365.92	5837.53
376.5	5845.64	502.22	5850.45	537.75	5847.99	542.74	5848.07	730.88	5847.73
773.69	5847.45	865.25	5849.84	898.5	5854.34				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.038	222.5	.033	376.5	.038

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
222.5	376.5	298.5	298.5	298.5	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	5844.96	Element	Left OB	Channel
Right OB				
Vel Head (ft)	2.23	Wt. n-Val.	0.038	0.033
W.S. Elev (ft)	5842.74	Reach Len. (ft)	298.50	298.50
298.50				
Crit W.S. (ft)	5840.30	Flow Area (sq ft)	62.91	1537.11
E.G. Slope (ft/ft)	0.003335	Area (sq ft)	62.91	1537.11
Q Total (cfs)	18700.00	Flow (cfs)	203.90	18496.11
Top Width (ft)	186.64	Top Width (ft)	36.43	150.22

Vel Total (ft/s)	11.69	Avg. Vel. (ft/s)	3.24	12.03
Max Chl Dpth (ft)	12.64	Hydr. Depth (ft)	1.73	10.23
Conv. Total (cfs)	323798.0	Conv. (cfs)	3530.5	320267.5
Length Wtd. (ft)	298.50	Wetted Per. (ft)	36.58	154.42
Min Ch El (ft)	5830.10	Shear (lb/sq ft)	0.36	2.07
Alpha	1.05	Stream Power (lb/ft s)	898.50	0.00
0.00				
Frctn Loss (ft)	1.45	Cum Volume (acre-ft)	0.33	9.26
C & E Loss (ft)	0.17	Cum SA (acres)	0.22	0.99

Warning: The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4.
This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the
need for additional cross sections.

CROSS SECTION

RIVER: Animas
REACH: 1 RS: 413

INPUT
Description:
Station Elevation Data num= 16

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
05858.408		645853.217		1355847.449		2555837.068		2685831.795	
2905830.447		3335830.679		3625829.549		3865829.866		3925838.135	
4065846.809		5445852.959		5835847.056		7955847.353		842 5847.01	
9795854.184									

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.038	255	.033	406	.038

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
255	406	0	0	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	5843.34	Element	Left OB	Channel
Right OB				
Vel Head (ft)	3.92	Wt. n-Val.	0.038	0.033
W.S. Elev (ft)	5839.43	Reach Len. (ft)		
Crit W.S. (ft)	5839.43	Flow Area (sq ft)	32.17	1166.12
E.G. Slope (ft/ft)	0.007751	Area (sq ft)	32.17	1166.12

Q Total (cfs)	18700.00	Flow (cfs)	123.36	18576.64
Top Width (ft)	166.36	Top Width (ft)	27.27	139.09
Vel Total (ft/s)	15.61	Avg. Vel. (ft/s)	3.83	15.93
Max Chl Dpth (ft)	9.88	Hydr. Depth (ft)	1.18	8.38
Conv. Total (cfs)	212397.6	Conv. (cfs)	1401.1	210996.5
Length Wtd. (ft)		Wetted Per. (ft)	27.37	144.76
Min Ch El (ft)	5829.55	Shear (lb/sq ft)	0.57	3.90
Alpha	1.04	Stream Power (lb/ft s)	979.00	0.00
0.00				
Frctn Loss (ft)		Cum Volume (acre-ft)		
C & E Loss (ft)		Cum SA (acres)		

SUMMARY OF MANNING'S N VALUES

River:Animas

Reach	River Sta.	n1	n2	n3
1	1000	.038	.033	.038
1	706.5*	.038	.033	.038
1	413	.038	.033	.038

SUMMARY OF REACH LENGTHS

River: Animas

Reach	River Sta.	Left	Channel	Right
1	1000	298.5	298.5	298.5
1	706.5*	298.5	298.5	298.5
1	413	0	0	0