U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB No. 1660-0008
Expiration Date: November 30, 2018

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1–9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION

FOR INSURANCE COMPANY USE

A1. Building Owner's Name
Kendal D. and Dennis Johnson

Policy Number:

A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No.
18 Road 4265

Company NAIC Number:

City	State	ZIP Code
Navajo Dam	New Mexico	87419

A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.)
Parcel #2-047-176-215-481 Account R0071283

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

A5. Latitude/Longitude: Lat. 36° 48' 09.16098" N Long. 107° 41' 50.518" W 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 8

A8. For a building with a crawlspace or enclosure(s):

a) Square footage of crawlspace or enclosure(s) 1750.00 sq ft

b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade 0

c) Total net area of flood openings in A8.b 0.00 sq in

d) Engineered flood openings? ☐ Yes ☒ No

A9. For a building with an attached garage:

a) Square footage of attached garage N/A sq ft

b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade N/A

c) Total net area of flood openings in A9.b N/A 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 County/350064	San Juan	New Mexico

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)
35045C0800	F	08-05-2010	08-05-2010	A	5668.00

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

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

ELEVATION CERTIFICATE

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IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 18 Road 4265			Policy Number:
City Navajo Dam	State New Mexico	ZIP Code 87419	Company NAIC Number

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: Opus Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below.

☐ NGVD 1929 ☒ NAVD 1988 ☐ Other/Source:

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)	5673.04	☒ feet	☐ meters
b) Top of the next higher floor	5676.41	☒ feet	☐ meters
c) Bottom of the lowest horizontal structural member (V Zones only)	N/A	☐ feet	☐ meters
d) Attached garage (top of slab)	N/A	☐ feet	☐ meters
e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments)	5674.34	☒ feet	☐ meters
f) Lowest adjacent (finished) grade next to building (LAG)	5672.81	☒ feet	☐ meters
g) Highest adjacent (finished) grade next to building (HAG)	5673.04	☒ feet	☐ meters
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support	N/A	☐ 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.*

Were latitude and longitude in Section A provided by a licensed land surveyor? ☒ Yes ☐ No ☐ Check here if attachments.

Certifier's Name Scott A. Martin	License Number 24570	
Title Engineer		
Company Name Sakura Engineering and Surveying		
Address 125 West Main St.		
City Farmington	State New Mexico	ZIP Code 87401

Signature	Date	Telephone	Ext.
Scott A Martin	07-22-2018	(505) 564-2139	2

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)
Machinery is propane tank

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 18 Road 4265			Policy Number:
City Navajo Dam	State New Mexico	ZIP Code 87419	Company NAIC Number

SECTION E – BUILDING ELEVATION INFORMATION (SURVEY NOT REQUIRED) FOR ZONE AO AND ZONE A (WITHOUT BFE)

For Zones AO and A (without BFE), complete Items E1–E5. If the Certificate is intended to support a LOMA or LOMR-F request, complete Sections A, B,and C. For Items E1–E4, use natural grade, if available. Check the measurement used. In Puerto Rico only, enter meters.

E1. Provide elevation information for the following and check the appropriate boxes to show whether the elevation is above or below the highest adjacent grade (HAG) and the lowest adjacent grade (LAG).

a) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

b) Top of bottom floor (including basement, crawlspace, or enclosure) is _____ ☐ feet ☐ meters ☐ above or ☐ below the LAG.

E2. For Building Diagrams 6–9 with permanent flood openings provided in Section A Items 8 and/or 9 (see pages 1–2 of Instructions), the next higher floor (elevation C2.b in the diagrams) of the building is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E3. Attached garage (top of slab) is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E4. Top of platform of machinery and/or equipment servicing the building is _____ ☐ feet ☐ meters ☐ above or ☐ below the HAG.

E5. Zone AO only: If no flood depth number is available, is the top of the bottom floor elevated in accordance with the community's floodplain management ordinance? ☐ Yes ☐ No ☐ Unknown. The local official must certify this information in Section G.

SECTION F – PROPERTY OWNER (OR OWNER'S REPRESENTATIVE) CERTIFICATION

The property owner or owner's authorized representative who completes Sections A, B, and E for Zone A (without a FEMA-issued or community-issued BFE) or Zone AO must sign here. The statements in Sections A, B, and E are correct to the best of my knowledge.

Property Owner or Owner's Authorized Representative's Name			
Address	City	State	ZIP Code
Signature	Date	Telephone	

Comments

☐ Check here if attachments.

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 18 Road 4265			Policy Number:
City Navajo Dam	State New Mexico	ZIP Code 87419	Company NAIC Number

SECTION G – COMMUNITY INFORMATION (OPTIONAL)

The local official who is authorized by law or ordinance to administer the community's floodplain management ordinance can complete Sections A, B, C (or E), and G of this Elevation Certificate. Complete the applicable item(s) and sign below. Check the measurement used in Items G8–G10. In Puerto Rico only, enter meters.

G1. ☐ The information in Section C was taken from other documentation that has been signed and sealed by a licensed surveyor, engineer, or architect who is authorized by law to certify elevation information. (Indicate the source and date of the elevation data in the Comments area below.)

G2. ☐ A community official completed Section E for a building located in Zone A (without a FEMA-issued or community-issued BFE) or Zone AO.

G3. ☐ The following information (Items G4–G10) is provided for community floodplain management purposes.

G4. Permit Number	G5. Date Permit Issued	G6. Date Certificate of Compliance/Occupancy Issued

G7. This permit has been issued for: ☐ New Construction ☐ Substantial Improvement

G8. Elevation of as-built lowest floor (including basement) of the building: _____ ☐ feet ☐ meters Datum _____

G9. BFE or (in Zone AO) depth of flooding at the building site: _____ ☐ feet ☐ meters Datum _____

G10. Community's design flood elevation: _____ ☐ feet ☐ meters Datum _____

Local Official's Name	Title
Community Name	Telephone
Signature	Date

Comments (including type of equipment and location, per C2(e), if applicable)

☐ Check here if attachments.

ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS

See Instructions for Item A6.

OMB No. 1660-0008
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Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 18 Road 4265			Policy Number:
City Navajo Dam	State New Mexico	ZIP Code 87419	Company NAIC Number

If using the Elevation Certificate to obtain NFIP flood insurance, affix at least 2 building photographs below according to the instructions for Item A6. Identify all photographs with date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8. If submitting more photographs than will fit on this page, use the Continuation Page.

Photo One

Photo One Caption South Side (Date Taken 7-17-2020) Clear Photo One

Photo Two

Photo Two Caption West Side (Date Taken 7-17-2020) Clear Photo Two

ELEVATION CERTIFICATE

BUILDING PHOTOGRAPHS
Continuation Page

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 18 Road 4265			Policy Number:
City Navajo Dam	State New Mexico	ZIP Code 87419	Company NAIC Number

If submitting more photographs than will fit on the preceding page, affix the additional photographs below. Identify all photographs with: date taken; "Front View" and "Rear View"; and, if required, "Right Side View" and "Left Side View." When applicable, photographs must show the foundation with representative examples of the flood openings or vents, as indicated in Section A8.

Photo Three

Photo Three Caption North Side (Date Taken 7-17-2020) Clear Photo Three

Photo Four

Photo Four Caption Clear Photo Four

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

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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
```

PROJECT DATA
Project Title: 2018-108
Project File : 2018-108.prj
Run Date and Time: 1/23/2018 4:45:50 PM

Project in English units

PLAN DATA

Plan Title: Plan 01
Plan File : C:\Users\Scott\Documents\2018-108.p01

Geometry Title: Geom 01
Geometry File : C:\Users\Scott\Documents\2018-108.g01

Flow Title : Flow 02
Flow File : C:\Users\Scott\Documents\2018-108.f02

Plan Summary Information:

Number of:	Cross Sections	= 4	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 02
Flow File : C:\Users\Scott\Documents\2018-108.f02

Flow Data (cfs)

River	Reach	RS	PF 1
SAN JUAN RIVER	SAN JUAN RIVER	400	18908

Boundary Conditions

River	Reach	Profile	Upstream	Downstream
SAN JUAN RIVER	SAN JUAN RIVER	PF 1	Critical	Critical

GEOMETRY DATA

Geometry Title: Geom 01
Geometry File : C:\Users\Scott\Documents\2018-108.g01

CROSS SECTION

RIVER: SAN JUAN RIVER
REACH: SAN JUAN RIVER RS: 400

INPUT
Description:
Station Elevation Data num= 100

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5714.37	6.849976	5710.91	5.65997	5706.04	21.67999	5702.47	32.62	5695.59
41.67999	5690.35	51.23999	5685.61	57.98999	5682.46	2.84998	5680.38	67.35999	5679.13
72.83002	5677.91	90.82001	5674.46	102.08	5672.15	111.5	5669.96	115.62	5670.49
120.26	5670.83	124.73	5670.95	127.84	5670.7	136.45	5669.52	143.56	5668.17
152.19	5666.32	153.75	5666.16	158.85	5664.21	167.69	5662.22	170.44	5661.9
179.18	5661.36	186.51	5660.79	205	5659.13	212.39	5658.88	223.07	5659.13
236.26	5659.35	246.57	5659.26	268.72	5659.18	272.59	5658.86	288.44	5657.9
296.29	5657.3	303.5	5657.52	311.01	5657.62	328.02	5657.58	332.74	5657.45
342.93	5656.95	352.22	5656.98	359.41	5657.24	362.71	5657.62	369	5658.79
373.72	5659.41	379.99	5661.59	391.22	5665.44	409.73	5669.48	416.11	5670.78
420.04	5671.4	428.16	5671.91	441.28	5672.4	454.57	5672.5	468.75	5672.51
484.46	5672.36	499.1	5672.33	509.07	5672.42	554.85	5672.38	578.67	5672.41
608.98	5672.5	618.67	5672.38	626.05	5672.39	638.43	5672.62	651.88	5672.62
657.26	5672.55	664.04	5672.22	675.38	5672.38	692.28	5672.35	698.3	5672.5
706.93	5672.5	720.63	5672.36	725.27	5672.5	732.29	5672.55	738.7	5672.54
746.08	5672.69	751.01	5672.58	753.62	5672.29	754.81	5672.54	767.36	5672.77
792.39	5672.71	802.56	5672.57	809.39	5672.57	821.82	5672.78	827.31	5672.74
834.48	5672.88	844.34	5672.81	851.53	5672.95	859.39	5672.9	873.02	5673.11
890.89	5673.18	898.53	5673.05	908.46	5673.53	913.48	5673.64	926.41	5673.6
940.67	5673.76	962.12	5673.76	966.06	5673.91	986.99	5673.87	1000	5673.66

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	205	.03	379.99	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
205	379.99	100.01	100	100.61	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	5669.16	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.85	Wt. n-Val.	0.060	0.030	0.060
W.S. Elev (ft)	5667.31	Reach Len. (ft)	100.01	100.00	100.61
Crit W.S. (ft)		Flow Area (sq ft)	296.37	1566.87	50.53
E.G. Slope (ft/ft)	0.002792	Area (sq ft)	296.37	1566.87	50.53
Q Total (cfs)	18908.00	Flow (cfs)	1147.58	17640.24	120.19
Top Width (ft)	252.17	Top Width (ft)	57.40	174.99	

19.77				
Vel Total (ft/s)	9.88	Avg. Vel. (ft/s)	3.87	11.26
2.38				
Max Chl Dpth (ft)	10.35	Hydr. Depth (ft)	5.16	8.95
2.56				
Conv. Total (cfs)	357830.7	Conv. (cfs)	21717.7	333838.5
2274.5				
Length Wtd. (ft)	100.01	Wetted Per. (ft)	58.23	175.63
20.62				
Min Ch El (ft)	5656.95	Shear (lb/sq ft)	0.89	1.56
0.43				
Alpha	1.22	Stream Power (lb/ft s)	1000.00	0.00
0.00				
Frctn Loss (ft)	0.27	Cum Volume (acre-ft)	1.44	11.15
0.69				
C & E Loss (ft)	0.02	Cum SA (acres)	0.33	1.29
0.24				

CROSS SECTION

RIVER: SAN JUAN RIVER
REACH: SAN JUAN RIVER RS: 300

INPUT
Description:
Station Elevation Data num= 100

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5725.59	10.16992	5723.87	23.09998	5721.43	28.77997	5720.19	35.90997	5718.43
38.12	5717.74	50.23999	5713.44	55.38995	5711.47	62.22998	5708.56	67.09998	5706.21
76.12	5701.24	82.60999	5697.25	88.53998	5693.49	8.24994	5687.52	103.33	5684.73
107.15	5682.87	114.95	5679.32	122.7	5676.65	124.48	5676.22	132.2	5673.53
149.47	5667.81	55.2599	5666.6	162.34	5665.36	175.2	5663.38	179.6299	5663.08
188.27	5662.02	202.45	5660.07	206.4	5659.38	210.17	5659.28	224.6	5658.99
230.41	5659.05	245.2	5658.69	256.28	5658.18	267.6	5657.38	272.5599	5657.15
276.8099	5657.21	287.73	5657.69	295.11	5657.65	310.58	5657.76	316.93	5658.08
328.36	5658.16	346.66	5658.02	361.8	5657.74	365.7	5657.49	372.96	5657.74
386.27	5659.42	393.02	5660.95	403.3099	5663.24	419.28	5666.6	429.77	5668.33
439.87	5669.68	449.2499	5670.65	464.28	5671.87	485.08	5672.2	497.83	5672.24
513.9	5672.08	518.52	5672.4	524.15	5672.65	32.0599	5672.75	41.4399	5672.68
548.49	5672.54	550.89	5672.64	566.6899	5672.84	582.22	5672.98	600.2999	5672.86
609.02	5672.29	615.24	5672.5	625.8199	5672.5	640	5672.19	641.85	5672.39
652.35	5672.62	663.79	5672.67	671.5599	5672.58	675.5699	5672.28	680.48	5672.39
708.9299	5672.65	743.58	5672.78	778.16	5672.79	797.21	5672.99	830.48	5673
850.04	5673.06	858.84	5673.15	874.5599	5673.19	894.02	5673.32	907.54	5673.53
916.65	5673.76	933.0099	5674.03	950.29	5673.99	969.42	5673.74	982.8199	5673.43

985.4 5673.25 991.61 5673.21 998.79 5673.45 1004.24 5673.42 1008.6 5673.22
1014.14 5673.49 1022.11 5673.67 1027.82 5673.94 1038.5 5674.29 1050.84 5674.38

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	210.17	.03	393.02	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
210.17	393.02	120.04	100	74.51	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	5668.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.79	Wt. n-Val.	0.060	0.030	0.060
W.S. Elev (ft)	5667.07	Reach Len. (ft)	120.04	100.00	74.51
Crit W.S. (ft)		Flow Area (sq ft)	242.82	1622.72	86.27
E.G. Slope (ft/ft)	0.002697	Area (sq ft)	242.82	1622.72	86.27
Q Total (cfs)	18908.00	Flow (cfs)	813.45	17868.98	225.57
Top Width (ft)	269.17	Top Width (ft)	57.19	182.85	29.13
Vel Total (ft/s)	9.69	Avg. Vel. (ft/s)	3.35	11.01	2.61
Max Chl Dpth (ft)	9.92	Hydr. Depth (ft)	4.25	8.87	2.96
Conv. Total (cfs)	364069.7	Conv. (cfs)	15662.8	344063.5	4343.3
Length Wtd. (ft)	100.28	Wetted Per. (ft)	57.77	183.22	29.77
Min Ch El (ft)	5657.15	Shear (lb/sq ft)	0.71	1.49	0.49
Alpha	1.23	Stream Power (lb/ft s)	1050.84	0.00	0.00
Frctn Loss (ft)	0.24	Cum Volume (acre-ft)	0.82	7.49	0.53
C & E Loss (ft)	0.10	Cum SA (acres)	0.20	0.88	0.18

CROSS SECTION

RIVER: SAN JUAN RIVER
REACH: SAN JUAN RIVER RS: 200

INPUT
Description:
Station Elevation Data num= 100

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5723.9	88.409973	5722.48	19.19995	5720.65	21.73999	5720.4	25.57001	5720.69
30.87	5720.76	37.79999	5720.67	40.66998	5720.86	42.02997	5720.59	52.02997	5716.72
56.12	5714.92	59.26996	5713.31	63.66998	5710.71	66.70996	5708.66	70.94	5705.5
76.17999	5701.19	88.82001	5690.18	90.46997	5689.08	102.27	5682.86	110.5	5678.4
118.61	5674.37	125.35	5671.4	129.69	5669.69	135.05	5667.82	142.13	5665.57
144.98	5664.8	153.09	5663.32	163.61	5661.16	169.96	5660.05	174.66	5659.58
182.46	5659.28	197.39	5658.91	208.38	5658.68	220.55	5658.53	230.19	5658.56
233.57	5658.48	247.46	5658.4	257.94	5658.27	269.49	5658	282.43	5657.58
291.29	5657.15	305.59	5656.9	310.06	5656.67	313.36	5656.37	333.25	5656.26
343.46	5656.67	346.8	5656.88	352.59	5657.44	361.38	5658.58	366.91	5659.5
375.48	5660.74	394.0099	5663.34	396.34	5663.5	406.49	5664.55	412.19	5665.3
420.6	5666.06	441.1	5668.06	451.15	5668.96	462.98	5669.91	466.62	5670.12
473.8	5670.83	482.43	5671.49	500.79	5672	508.97	5672.15	12.6899	5672.23
530.78	5672.61	550.05	5672.7	568.14	5672.74	583.1899	5672.83	607	5672.9
628.66	5672.88	652.63	5673.24	660.62	5673.25	668.23	5673.19	669.79	5673.04
676.34	5673.06	693.11	5673.38	704.23	5673.5	711.67	5673.45	715.67	5673.56
731.4	5673.51	732.73	5673.62	757.3199	5673.98	760.02	5673.89	771.18	5674
800.6	5674	810.74	5673.85	816.15	5673.91	828.97	5673.94	831.37	5673.99
843.88	5674	854.15	5673.95	865.35	5673.55	869.77	5673.3	874.81	5672.88
884.87	5673.49	896.62	5673.77	913.84	5673.72	925.36	5673.75	934.04	5673.88

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	174.66	.03	375.48	.06

Bank Sta: Left	Right	Lengths: Left Channel	Right	Coeff Contr.	Expan.
174.66	375.48	100.98	100	102.43	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	5668.52	Element	Left OB	Channel	Right OB
Vel Head (ft)	1.46	Wt. n-Val.	0.060	0.030	0.060
W.S. Elev (ft)	5667.07	Reach Len. (ft)	100.98	100.00	102.43
Crit W.S. (ft)	5664.48	Flow Area (sq ft)	159.14	1825.56	161.54
E.G. Slope (ft/ft)	0.002109	Area (sq ft)	159.14	1825.56	

161.54				
Q Total (cfs)	18908.00	Flow (cfs)	469.82	18065.06
373.12				
Top Width (ft)	293.49	Top Width (ft)	37.24	200.82
55.43				
Vel Total (ft/s)	8.81	Avg. Vel. (ft/s)	2.95	9.90
2.31				
Max Chl Dpth (ft)	10.81	Hydr. Depth (ft)	4.27	9.09
2.91				
Conv. Total (cfs)	411764.1	Conv. (cfs)	10231.4	393407.2
8125.6				
Length Wtd. (ft)	100.07	Wetted Per. (ft)	38.04	201.16
55.80				
Min Ch El (ft)	5656.26	Shear (lb/sq ft)	0.55	1.19
0.38				
Alpha	1.21	Stream Power (lb/ft s)	934.04	0.00
0.00				
Frctn Loss (ft)	0.35	Cum Volume (acre-ft)	0.27	3.53
0.32				
C & E Loss (ft)	0.17	Cum SA (acres)	0.07	0.44
0.11				

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.

CROSS SECTION

RIVER: SAN JUAN RIVER
REACH: SAN JUAN RIVER RS: 100

INPUT
Description:
Station Elevation Data num= 100

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
0	5725.21	4.26001	5723.52	9.92999	5720.79	15.12	5717.79	18.69	5715.44
24.04999	5711.48	29.27002	5707.18	33.53003	5703.41	38.46997	5698.84	45.17999	5692.02
50.76001	5687.59	59.03998	5681.41	62.04999	5679.23	69.38	5674.25	71.48999	5673.1
80.67999	5667.91	84.73999	5666.52	100.26	5661.74	104.74	5660.43	108.38	5659.52
112	5658.93	119.37	5657.98	123.2	5657.64	125.48	5657.56	144.42	5657.53
149.83	5657.59	154.28	5657.75	158.68	5657.73	165.55	5657.85	178.81	5658.26
189.31	5658.45	198.86	5658.49	204.52	5658.44	214.92	5658.15	224.72	5657.63
233.34	5657.41	240.57	5657.66	248.62	5658.01	254.22	5657.92	262.42	5657.91

272.74	5658.33	279.16	5658.52	284.57	5658.86	296.8	5659.94	305.94	5660.76
308.3	5660.86	311.28	5661.18	319.15	5662.25	326.5	5663.32	333.26	5664.45
346.89	5666.54	355.22	5667.67	362.07	5668.48	368.87	5669.17	376.46	5669.74
384.15	5669.9	395.78	5669.98	401.56	5669.97	428.1	5670.62	438.68	5670.74
446.28	5670.79	456.12	5670.77	464.67	5671.06	472.4	5671.23	479.3	5671.32
484.49	5671.33	490.54	5671.53	498.26	5671.7	503.41	5671.88	519.01	5672.3
540.39	5672.69	548.64	5672.86	571.05	5673.16	580.48	5673.61	599.02	5673.85
612.33	5673.98	617.52	5673.9	628.27	5673.91	647.7	5674.17	654.13	5674.21
668.01	5674.19	677.97	5674.36	685.13	5674.35	687.71	5674.56	695.27	5675.5
699.36	5675.88	702.66	5676.06	705.96	5676.1	711.26	5675.86	716.72	5675.26
721.25	5674.58	723.74	5674.32	728.86	5673.96	735.92	5673.74	750.84	5673.69
762.33	5673.95	770.68	5674.06	787.34	5674.17	797.5	5674.12	800	5674.19

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
0	.06	112	.03	296.8	.06

Bank Sta: Left	Right	Coeff Contr.	Expan.
112	296.8	.1	.3

CROSS SECTION OUTPUT Profile #PF 1

E.G. Elev (ft)	5668.01	Element	Left OB	Channel
Right OB				
Vel Head (ft)	3.16	Wt. n-Val.	0.060	0.030
0.060				
W.S. Elev (ft)	5664.85	Reach Len. (ft)		
Crit W.S. (ft)	5664.85	Flow Area (sq ft)	70.63	1250.21
108.90				
E.G. Slope (ft/ft)	0.006735	Area (sq ft)	70.63	1250.21
108.90				
Q Total (cfs)	18908.00	Flow (cfs)	306.45	18165.52
436.03				
Top Width (ft)	245.69	Top Width (ft)	21.83	184.80
39.06				
Vel Total (ft/s)	13.22	Avg. Vel. (ft/s)	4.34	14.53
4.00				
Max Chl Dpth (ft)	7.44	Hydr. Depth (ft)	3.24	6.77
2.79				
Conv. Total (cfs)	230395.1	Conv. (cfs)	3734.1	221347.9
5313.1				
Length Wtd. (ft)		Wetted Per. (ft)	22.65	184.99
39.39				
Min Ch El (ft)	5657.41	Shear (lb/sq ft)	1.31	2.84
1.16				
Alpha	1.16	Stream Power (lb/ft s)	800.00	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:SAN JUAN RIVER

Reach	River Sta.	n1	n2	n3
SAN JUAN RIVER	400	.06	.03	.06
SAN JUAN RIVER	300	.06	.03	.06
SAN JUAN RIVER	200	.06	.03	.06
SAN JUAN RIVER	100	.06	.03	.06

SUMMARY OF REACH LENGTHS

River: SAN JUAN RIVER

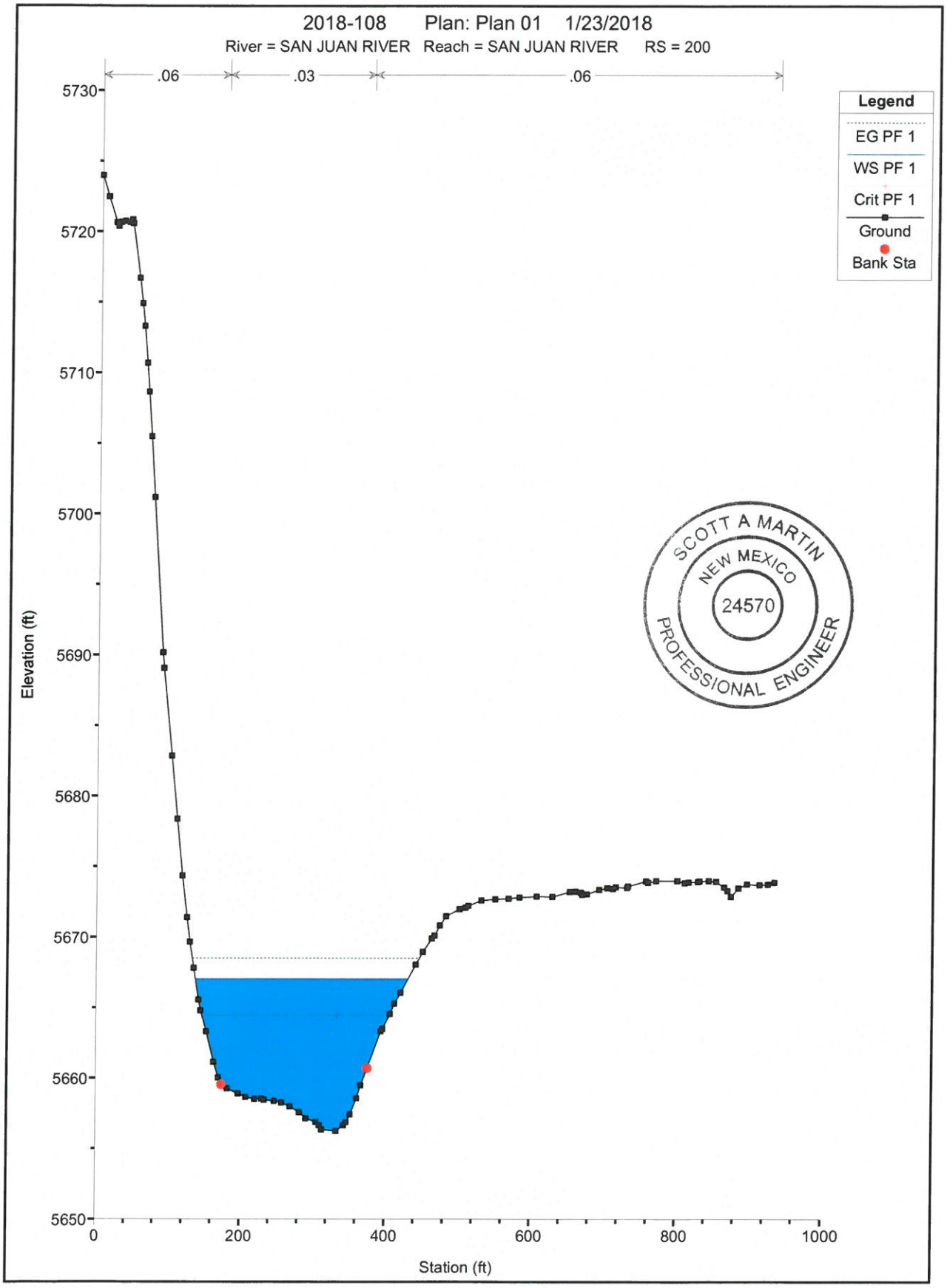
Reach	River Sta.	Left	Channel	Right
SAN JUAN RIVER	400	100.01	100	100.61
SAN JUAN RIVER	300	120.04	100	74.51
SAN JUAN RIVER	200	100.98	100	102.43
SAN JUAN RIVER	100			

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: SAN JUAN RIVER

Reach	River Sta.	Contr.	Expan.
SAN JUAN RIVER	400	.1	.3
SAN JUAN RIVER	300	.1	.3
SAN JUAN RIVER	200	.1	.3
SAN JUAN RIVER	100	.1	.3

ERRORS WARNINGS AND NOTES
Errors Warnings and Notes for Plan : Plan 01

River: SAN JUAN RIVER Reach: SAN JUAN RIVER RS: 200 Profile: PF 1
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.


2018-108 Plan: Plan 01 1/23/2018
River = SAN JUAN RIVER Reach = SAN JUAN RIVER RS = 200
.06
.03
.06
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (ft)
Station (ft)
5730
5720
5710
5700
5690
5680
5670
5660
5650
0
200
400
600
800
1000
SCOTT A MARTIN
NEW MEXICO
24570
PROFESSIONAL ENGINEER