



MADERA CANYON ROAD

Medium Wash Bridge Replacement

FEDERAL PROJECT NO. PPM - 0(274)D



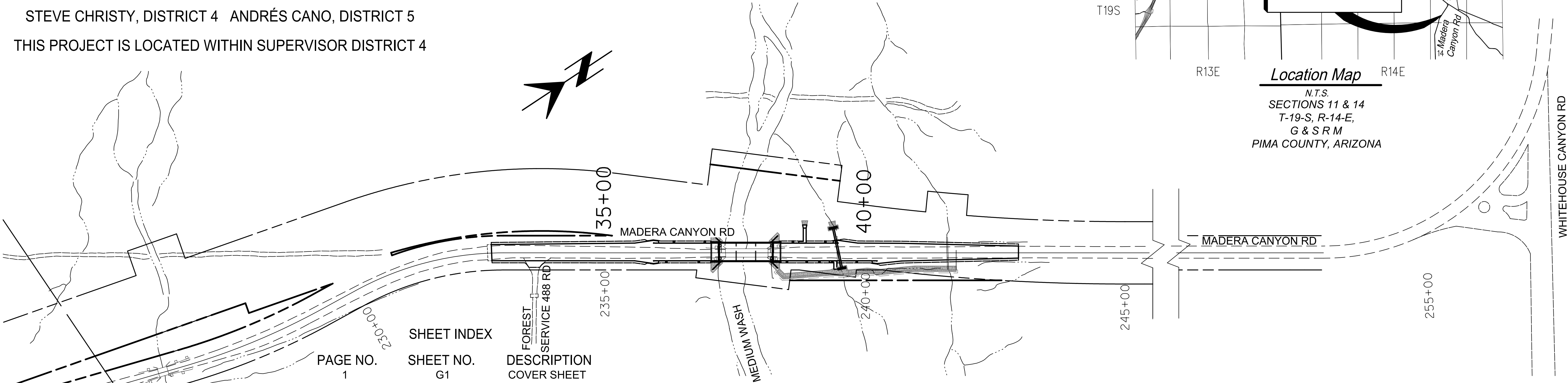
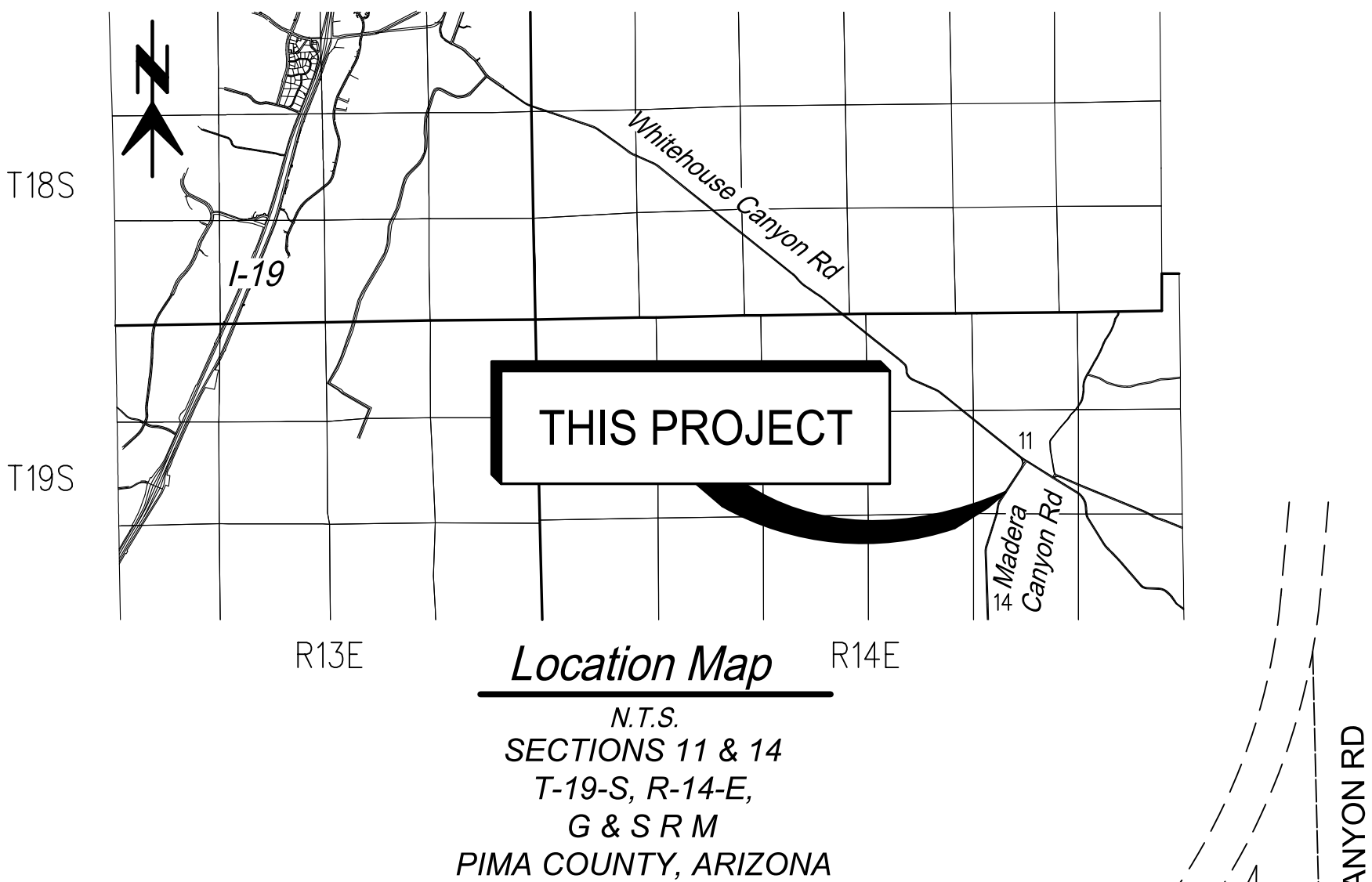
GENERAL DESCRIPTION OF PROJECT

The proposed scope of work for this project includes the removal of existing concrete slab bridge, construction of a new bridge with bank protection, asphalt concrete surface roadway, and other incidental items.

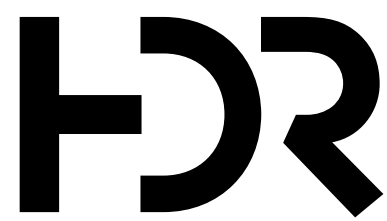
ADOT PROJECT NUMBER T0541
PIMA COUNTY PROJECT NUMBER 24043PJ

PIMA COUNTY BOARD OF SUPERVISORS
JENNIFER ALLEN, CHAIR, DISTRICT 3
DR. MATT HEINZ, VICE CHAIR DISTRICT 2
REX SCOTT, DISTRICT 1

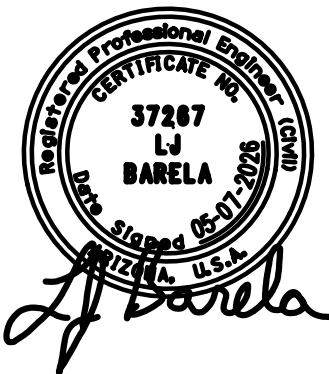
STEVE CHRISTY, DISTRICT 4 ANDRÉS CANO, DISTRICT 5
THIS PROJECT IS LOCATED WITHIN SUPERVISOR DISTRICT 4



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57 - 63	RW1 - RW7	RIGHT-OF-WAY PLAN SHEETS



No.	Revisions	Engineer	Date
No.	As Built	Engineer	Date



Pima County
Department of Transportation
201 N. Stone Ave. 4th Floor
Tucson, Arizona 85701
Phone Number: 520-724-6410
Kathryn Skinner, P.E., Director

Approved: _____ 20____
Kathryn Skinner, P.E.



GENERAL NOTES

1. Construction shall be in accordance with PAG standards, Pima County Supplemental Specifications and Details listed in the special provisions.
2. Utility locations shown on plans were compiled based on the best information available to the Department, utility locations are not intended to be exact or complete. Prior to commencing construction, the Contractor shall verify the location of all utilities with the appropriate organizations. Contact "Blue Stake" at 1-800-782-5348, two full working days prior to beginning construction (Saturdays and Sundays are not considered working days).
3. Right-of-Way Encroachments shall be removed only by order of Pima County, unless noted.
4. Removal of all cacti and native plants shall be in accordance with the provisions of the "Arizona Native Plant Law" A.R.S. Chapter 7 and Pima County Native Plant Preservation Ordinance Title 18 Chapter 18.72.
5. The Basis of Bearing for this project was derived using the Arizona Coordinate System, North American Datum (NAD) 1983 (1992), Central Zone 0202, in International feet, and observed between Pima County Control Pt. #3663 (BM #2, a found 3-1/8" brass disk in concrete headwall at the northeast corner of the bridge over Medium Wash) to Pima County Control Pt. #3674 (BM#3, a found 3-1/8" brass disk in concrete headwall at the northeast corner of the bridge over Florida Canyon Wash). Said basis of bearing = South 19°53'16.3" West. Said bearing established on P.C.H.D. Projects 4MCAMW and 4MCAFW and recorded Survey Book 26 Page 10 (Seq. 20021010193) at the Pima County Recorder's Office.
6. The Basis of Elevation originated from Pima County bench mark P399 (A found 3-1/2" brass disk in 1" concrete cylinder). Said bench mark is located at the southwest corner of Madera Canyon Road and Whitehouse Canyon Road with an elevation of 3677.62 feet (NAVD-88) according to P.C.H.D. Projects 4MCAMW and 4MCAFW and recorded Survey Book 26 Page 10 (Seq. 20021010193) at the Pima County Recorder's Office.
7. The project surface coordinates are derived from state plane grid values by using the following formulas. A combined scale factor 0.999846886 was used to convert grid coordinates to project surface coordinates. Surface Northing and Easting coordinates are derived by dividing the grid coordinates by 0.999846886 and subtract 200,000 feet from project northings and subtract 1,000,000 feet from project eastings.

	Northing	Easting
"3663" Grid	288,136.2340	1,020,749.1990
Surface	88,180.3644	20,905.5139
 "3674" Grid	 285,998.5790	 1,019,975.8890
Surface	86,042.3761	20,132.0855
8. The Contractor shall maintain access to Forest Service Road 488 during construction. The Contractor will not restrict Emergency Vehicles, U.S. Postal Delivery, Solid Waste Collections, and/or access to the adjacent properties, except as approved by the Engineer.
9. Soils Information will be made available to prospective bidders in the geotechnical report. Soils Information so provided shall be for information purposes only. This information was developed as accurately as possible by the methods used. Pima County accepts no responsibility for any conditions encountered which vary from the information provided.
10. Existing topographic conditions shown on plan sheets reflect conditions as of August 10, 2000 and were generated by P.C.H.D. Projects 4MCAMW and 4MCAFW. Certain missing and match-in areas have been updated with recent verification and supplemental surveys.
11. Omissions or conflicts between various elements of the drawings, notes, and details shall be brought to the attention of the Engineer and resolved before proceeding with the work.
12. All stationing shown on the plans is based upon the centerline as noted, See Geometric Layout Sheets.
13. Existing utilities include, but may not be limited to, overhead and underground electric, communication, and irrigation, and shall be moved by others unless otherwise noted and shown in these plans.
14. The current regulatory posted speed limit is 45 MPH with 25 MPH advisory speeds throughout the length of the project. The design speed is: 45 MPH.
15. The horizontal control and right-of-way lines for this project are based upon information provided on this project Right of Way Plan Sheets.
16. The Basis of Stationing for the Existing R/W Centerline was determined from found centerline point of intersection monuments and their reference markers along with PCDOT alignment study and field notes performed by Walter Burg County Engineer in 1961 project number R-AD-16(4).

17. The Basis of Stationing for the Existing Survey Centerline was determined from found R/W markers established by and according to PCDOT project numbers 4MCAW and 4MCAFW and ADOT project numbers 0000 PM PPM SB405 OIC & 0000 PM PPM SB406 OIC which was filed as a Record of Survey at the Pitkin County Recorder's office at Book 26 Pg 10 also known as Sequence 20021010193.

TRAFFIC DATA

<i>Madera Canyon Road</i>	<i>2025 ADT</i> <i>537</i>	<i>2040 ADT</i> <i>740</i>
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LENGTH OF PROJECT

STA. 32+85.32 to STA 43+00.00 = 1014.68' = 0.192 miles

EARTHWORK NOTES

1. For estimating purposes, earthwork quantities assume that all on-site materials are not acceptable for use as pipe bedding, pipe backfill, and structure backfill.
2. For estimating purposes, earthwork quantities assume existing pavement, detour excavation, structural excavation, and pipe excavation are acceptable for use as roadway embankment. Additional testing and processing may be required to meet material specification requirements.
3. Roadway Embankment volume includes Riprap along bridge headwalls and roadway embankment fill slopes. For Net Embankment Demand, D50=6" Riprap volume of 132 CY is subtracted out of roadway embankment. D50=12" riprap volume of 32 CY is subtracted out of wash backfill.
4. If additional material is needed to meet the Net Embankment Demand, on-site material from the adjacent Florida Canyon Wash Bridge Replacement Project No. 24041PJ may be used upon the Engineer's approval.
5. Available waste material can be used to meet the required stockpile demand from the adjacent Florida Canyon Wash Bridge Replacement Project No. 24041PJ if it meets roadway embankment material specifications and approved by the Engineer. The work for relocation and placement is incidental to the Medium Wash Bid Item 2030300 Roadway Excavation or Structural Excavation from bridge construction as appropriate. The remaining waste shall be removed in accordance with Section 203-3.03(D) of the Standard Specifications.

EARTHWORK QUANTITIES

<i>Item No.</i>	<i>Item Description</i>	<i>Total</i>
EXCAVATION		
2020029	Removal of Bituminous Pavement	183 C.Y.
2030300	Roadway Excavation	1,372 C.Y.
	Riprap Excavation	88 C.Y.
	Pipe Excavation	70 C.Y.
	Structural Excavation	2,990 C.Y.
	Available Excavation (See Note 2)	4,703 C.Y.
	Shrink (10% Of Net Embankment Demand)	321 C.Y.
	Net Available Excavation	4,382 C.Y.
EMBANKMENT		
	Roadway Embankment (See Notes 2&3)	2,499 C.Y.
	Ground Compaction (0.1')	118 C.Y.
	Wash Backfill (See Detail R2)	404 C.Y.
9130015	Riprap (Dumped) (D₃₀=6") (See Note 3)	230 C.Y.
9130016	Riprap (Dumped) (D₃₀=12") (See Note 3)	32 C.Y.
	Net Embankment Demand (See Notes 3&4)	3,210 C.Y.
	Waste (See Note 5)	1,493 C.Y.

GENERAL NOTES

Scales	<i>Horiz. NTS</i>	Sheet G2 of G7	Page 2 of 63
	<i>Vert. NTS</i>		

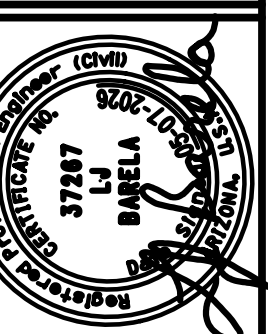
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0(274)D	2		

T054I OIC



Designed	JAR/TCC	4/2026
Drawn	JAR/TCC	4/2026
Checked	BJK	4/2026
Proj. Engr.	LJB	4/2026

No.	Revision Description	Engineer	Date



Pima County Department of Transportation

MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Kathryn Skinner, P.E., Director

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project ID: 10416569
Client Number: 4108

Project ID: 10416569
Client Number: 4108

CSP	- CORRUGATED STEEL PIPE
CAP	- CORRUGATED ALUMINUM PIPE
RCP	- REINFORCED CONCRETE PIPE
NRCPC	- NON-REINFORCED CONCRETE PIPE
NRCPCP	- NON-REINFORCED CAST-IN-PLACE CONCRETE PIPE
CHDPEPP	- CORRUGATED HIGH-DENSITY POLYETHYLENE PLASTIC PIPE

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D	4		
		T0541 OIC			

☑ PIPE CORRUGATION			
A	21x1/2	D	6x2
B	3x1	E	3x1 or 9x2 1/2
C	9x2 1/2		

PIPE SUMMARY

Scales	Horiz.: NTS	Sheet G4 of G7	Page 4 of 63
	Vert.: NTS		

**MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ**

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D	5		
		T0541 OIC			

THE ZEROS IN PARENTHESES (0.0) INDICATE THE DIMENSIONAL PRECISION FOR THAT COLUMN.

LENGTH IS FROM LENGTH OF NEED (LON) POINT TO LON POINT. ACTUAL SEGMENT LENGTH VARIES DEPENDING ON TERMINAL TYPE. SEE SPECIAL PROVISIONS.

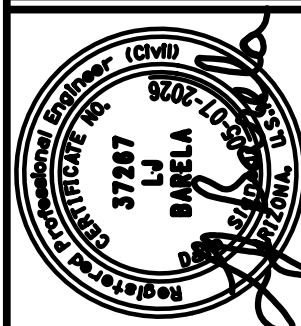
☒ ALLOWABLE END TREATMENT OPTIONS ARE INDICATED WITH THE NUMBER '1' IN THE SPACE. BLANK SPACES ARE NOT VIABLE ALTERNATIVES.

☒ ARRAY TYPE AND ANGLE IS NOTED UNDER 'REMARKS'.

Scales	Horiz.: NTS	Sheet G5 of G7	Page 5 of 63
	Vert.: NTS		

		Date
Designed	JAR/TCC	4/2026
Drawn	JAR/TCC	4/2026
Checked	BJK	4/2026
Proj. Engr.	LJB	4/2026

No.	Revision Description	Engineer	Date

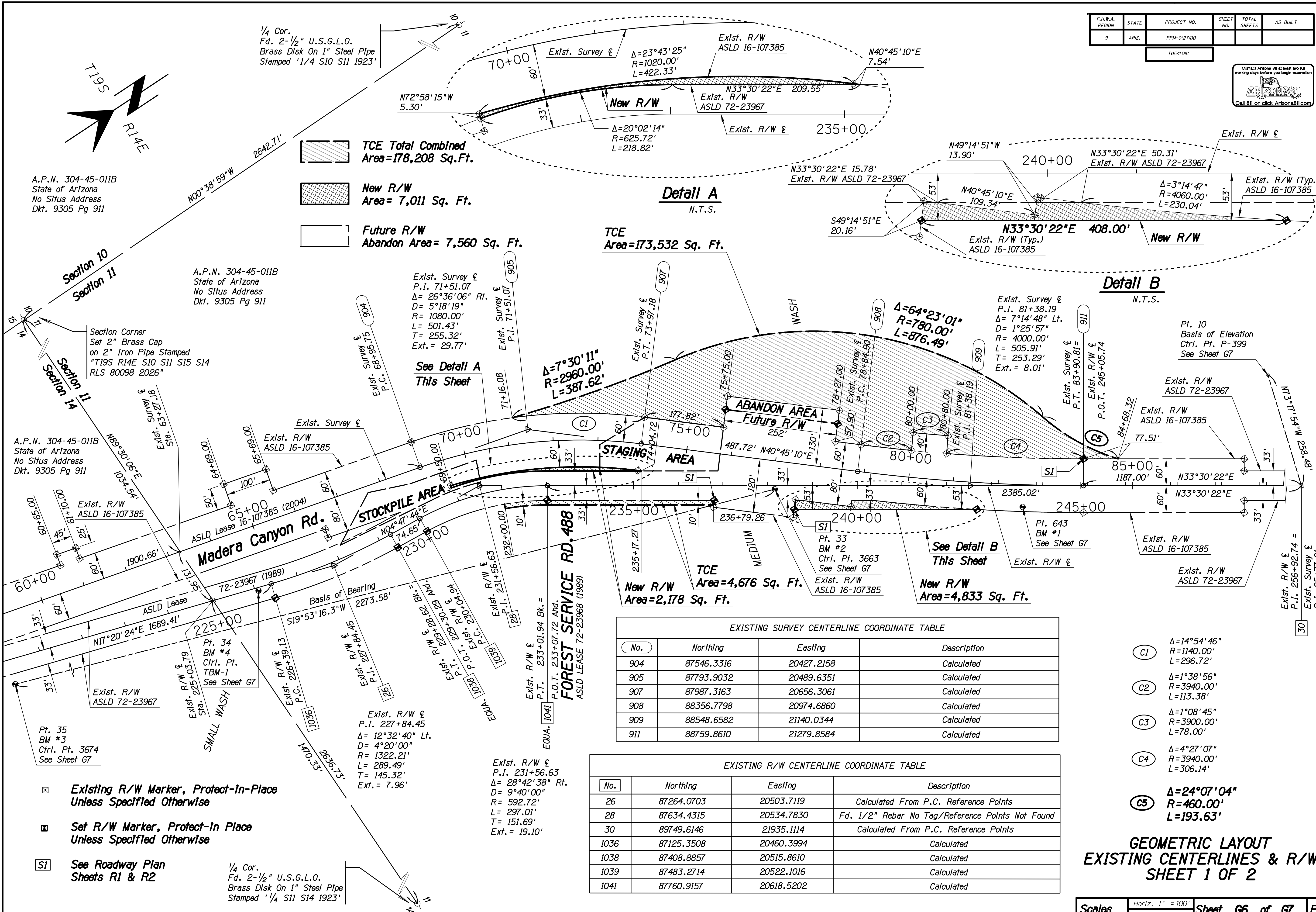


**MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ**

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

c:\pwworking\west01\40251671\00C-06.dgn

Project ID: 10416569
Client Number: 4106
Penplate: COTDMA-PL010RDR.TBL
Plotdriver: 10416569-104FULL-B&W_PDF.plt

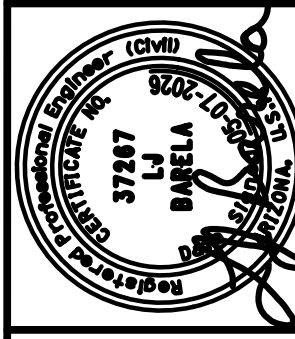


F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D			
T0541.DIC					



Date	Designed	Drawn	Checked	Proj. Engr.
4/20/26	JAR/TCC/ATS	JAR/TCC/ATS	B/K	LJB
4/20/26				
4/20/26				

No.	Revision	Description	Engineer	Date

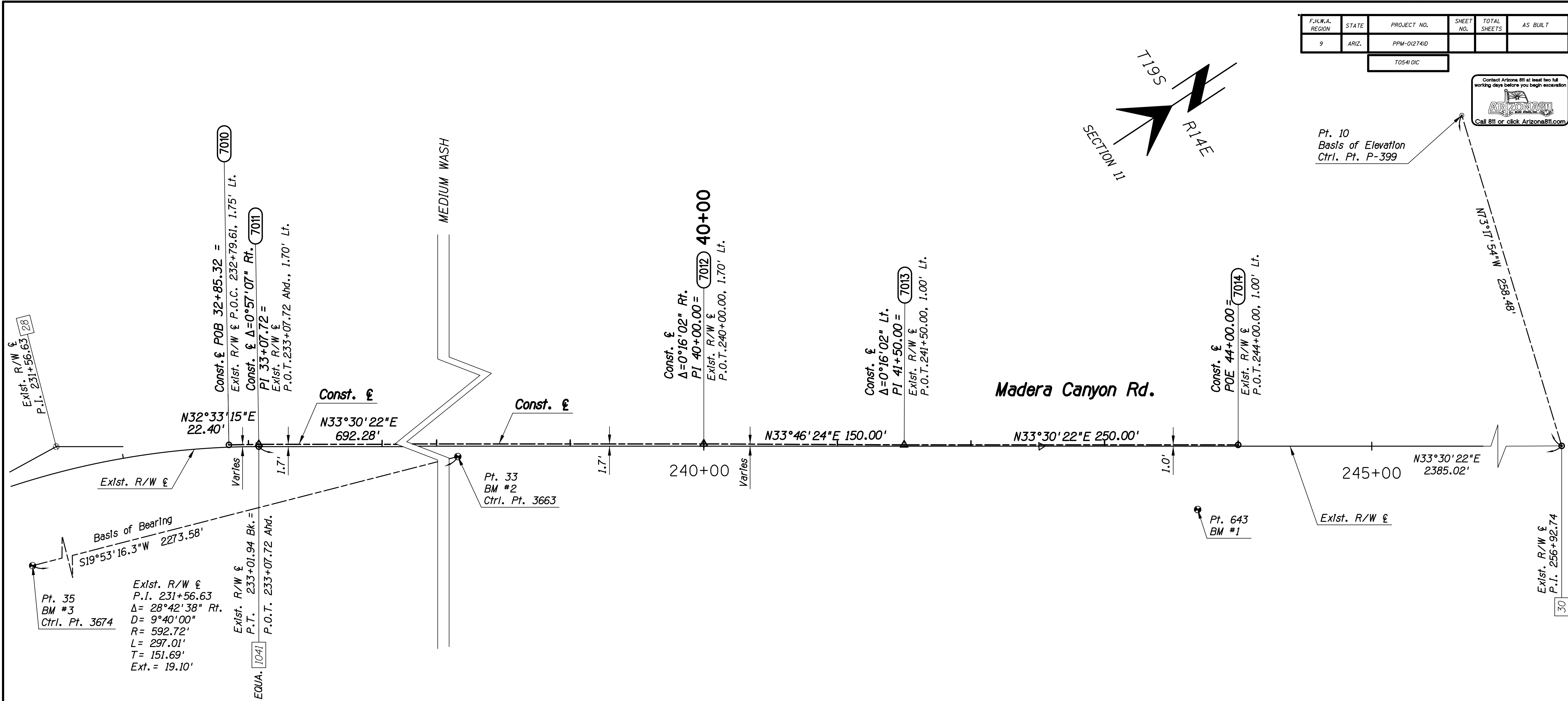


Plima County Department of Transportation

CDOT

MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Kathryn Skinner, P.E., Director



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D			
T0541.01C					

CONTACT ARIZONA 811 AT LEAST TWO FULL WORKING DAYS BEFORE YOU BEGIN EXCAVATION.
Call 811 or click Arizona811.com

CONSTRUCTION CENTERLINE COORDINATE TABLE		
No.	Northing	Easting
7010	87742.9721	20605.0484
7011	87761.8541	20617.1027
7012	88339.0965	20999.2582
7013	88463.7843	21082.6456
7014	88672.2413	21220.6517

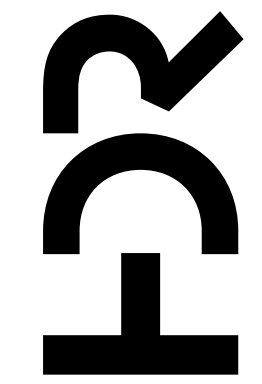
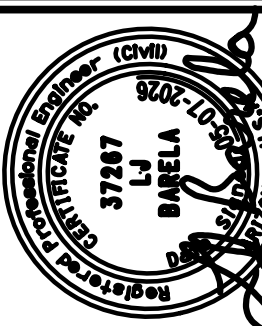
EXISTING R/W CENTERLINE COORDINATE TABLE			
No.	Northing	Easting	Description
28	87634.4315	20534.7830	Fd. 1/2" Rebar No Tag
30	89749.6146	21935.1114	Calculated From P.C. Reference Points
1041	87760.9157	20618.5202	Calculated

CONTROL POINTS AND CONSTRUCTION BENCHMARKS									
Pt.#	Ctrl. Name	BM#	Northing	Easting	Elev.	Centerline	Station	Offset	Description
10	P-399 B.O.E.	---	89823.8991	21687.5356	3677.620	Exlst. R/W & Exlst. Survey &	P.O.T. 256+18.02 P.O.T. 95+03.08	247.44' Lt. 247.44' Lt.	Fd. 3-1/2" Brass Cap In 1' Concrete Cylinder
33	3663	2	88180.3644	20905.5139	3665.560	Exlst. R/W & Exlst. Survey & Const. &	P.O.T. 238+15.90 P.O.T. 77+06.10 P.O.T. 38+15.90	7.76' Rt. 62.76' Rt. 9.46' Rt.	Fd. USDA FS 3-1/8" Brass Cap In Bridge Headwall
35	3674	3	86042.3761	20132.0855	3676.765	Exlst. R/W & Exlst. Survey &	P.O.T. 215+07.52 P.O.T. 53+65.28	9.38' Rt. 81.51' Rt.	Fd. USDA FS 3-1/8" Brass Cap In Bridge Headwall
643	---	1	88620.2351	21244.2669	3673.550	Exlst. R/W & Exlst. Survey & Const. &	P.O.T. 243+69.67 P.O.C. 82+56.38 P.O.T. 43+69.68	47.40' Rt. 49.69' Rt. 48.40' Rt.	Fd. 1/2' Rebar No Tag

Kathryn Skinner, P.E., Director

Date	4/2026
Designed	JAR/TCC
Drawn	JAR/TCC
Checked	BJK
Proj. Engr.	LIB

No.	Revision	Description	Engineer	Date

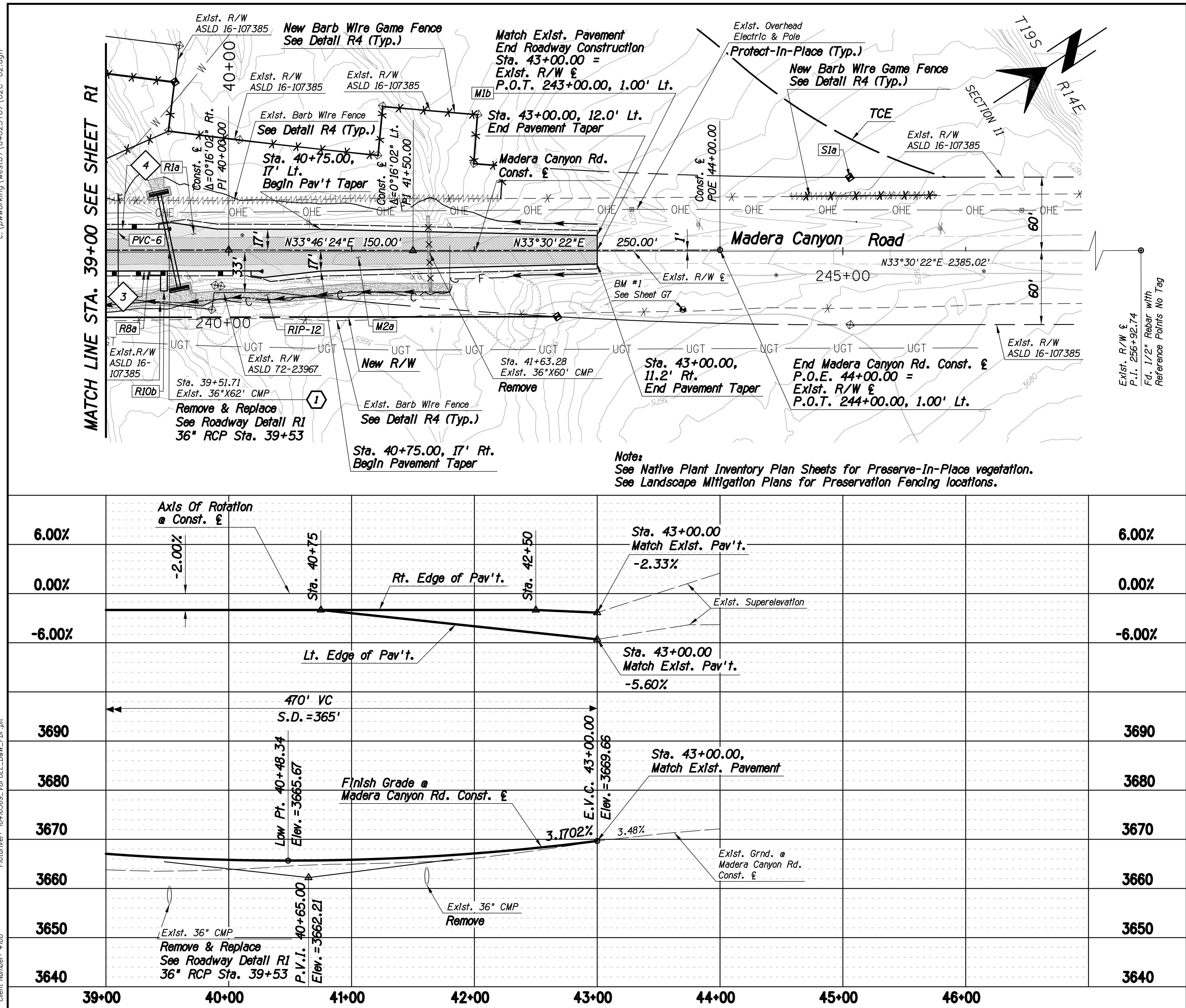


MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project ID: 10416569
Client Number: 4108



F.I.L.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-01274ID			
		T054/OIC			

Contact Arizona 811 at least two full working days before you begin excavation

ARIZONA811

Call 811 or click Arizona811.com

Item No.	Qty.	Unit	Description
M1	24	L.F.	Sawcut Pavement Incidental to Bid Item 2020029
b	24	L.F.	Sta. 43+00.00, 12.0' Lt. to Sta. 43+00.00, 11.2' Rt.
M2	970	S.Y.	Removal of Bituminous Pav't Bld Item 2020029
a	970	S.Y.	Sta. 39+00.00, to Sta. 43+00.00
R1	1412	S.Y.	Pav't Struct. Sec. No. 1, See Typical Section Sheet For Pavement Structural Section
a	1412	S.Y.	Sta. 39+00.00, to Sta. 43+00.00
R8	34	L.F.	Embankment Curb Bld Item 9160001 ADOT Std. C-05.10, 4 Inch
a	34	L.F.	Sta. 39+00.00, 17.0' Rt. to Sta. 39+64.79, 17.0' Rt.
R10	1	Ea.	Inlet (C-4.10) (Single) Bld Item 9170021 For Embankment Spillway ADOT Std. C-04.10
b	1	Ea.	Sta. 39+75.79, 17.0' to 33.2' Rt. Inlet Only
R10	14	L.F.	Embankment Spillway Bld Item 9170001 ADOT Std. C-04.10 & C-04.30
b	14	L.F.	Sta. 39+75.79, Rt.
S1	1	Ea.	Survey Monument Bld Item 9090002 Reset 1/2"x18" Rebar with RLS Tag
a	1	Ea.	Madera Canyon Rd. Ex1st. Survey & Sta. 83+90.81, 60.00' Lt.
PVC-6			Pipe, Polyvinyl Chloride (PVC), 6 Inch (Class 200) See Detail R3
RIP-6			Dumped Riprap (D₅₀=6In) See General Notes Sheet G2 and Detail R2 & R3
#			New Barrier See Summary Sheet G5
#			New Pipe Culvert See Summary Sheet G4 & Detail R1

ROADWAY PLAN & PROFILE

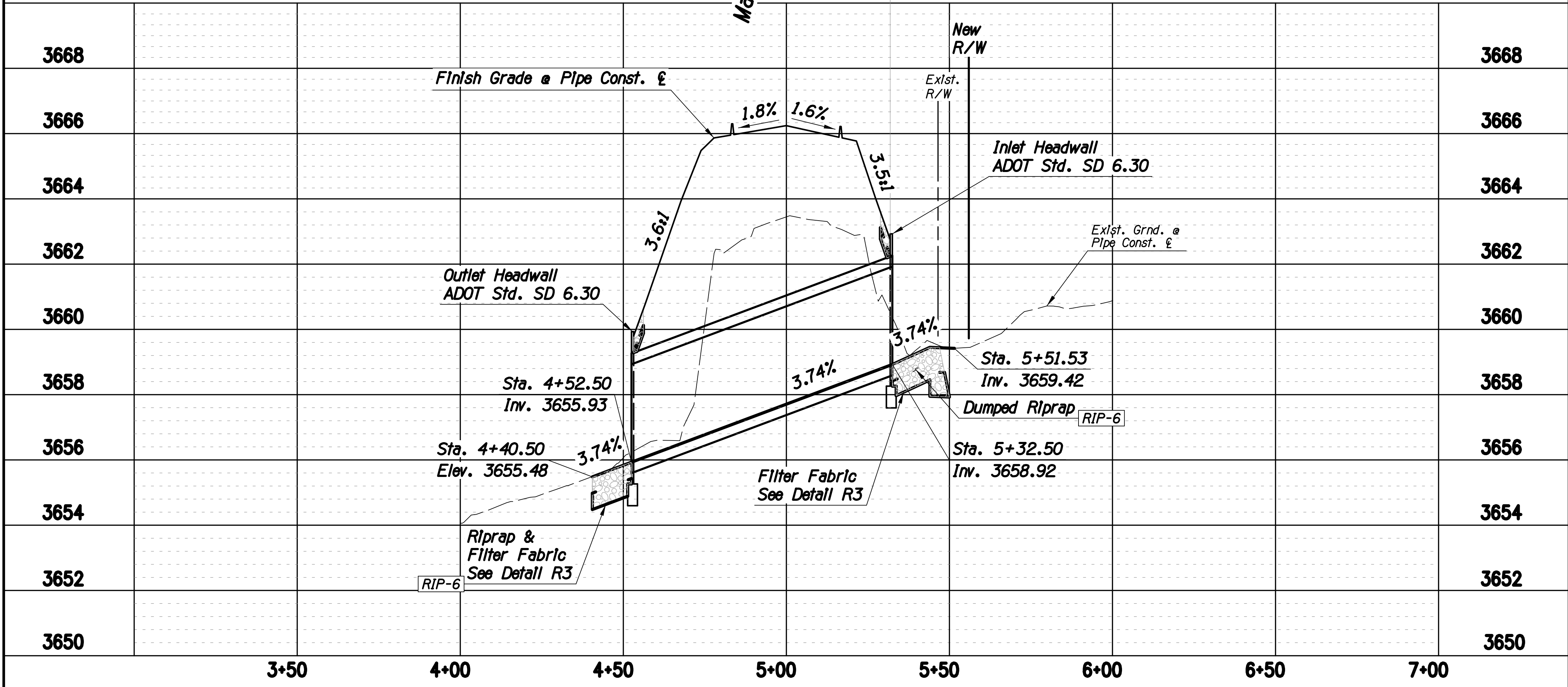
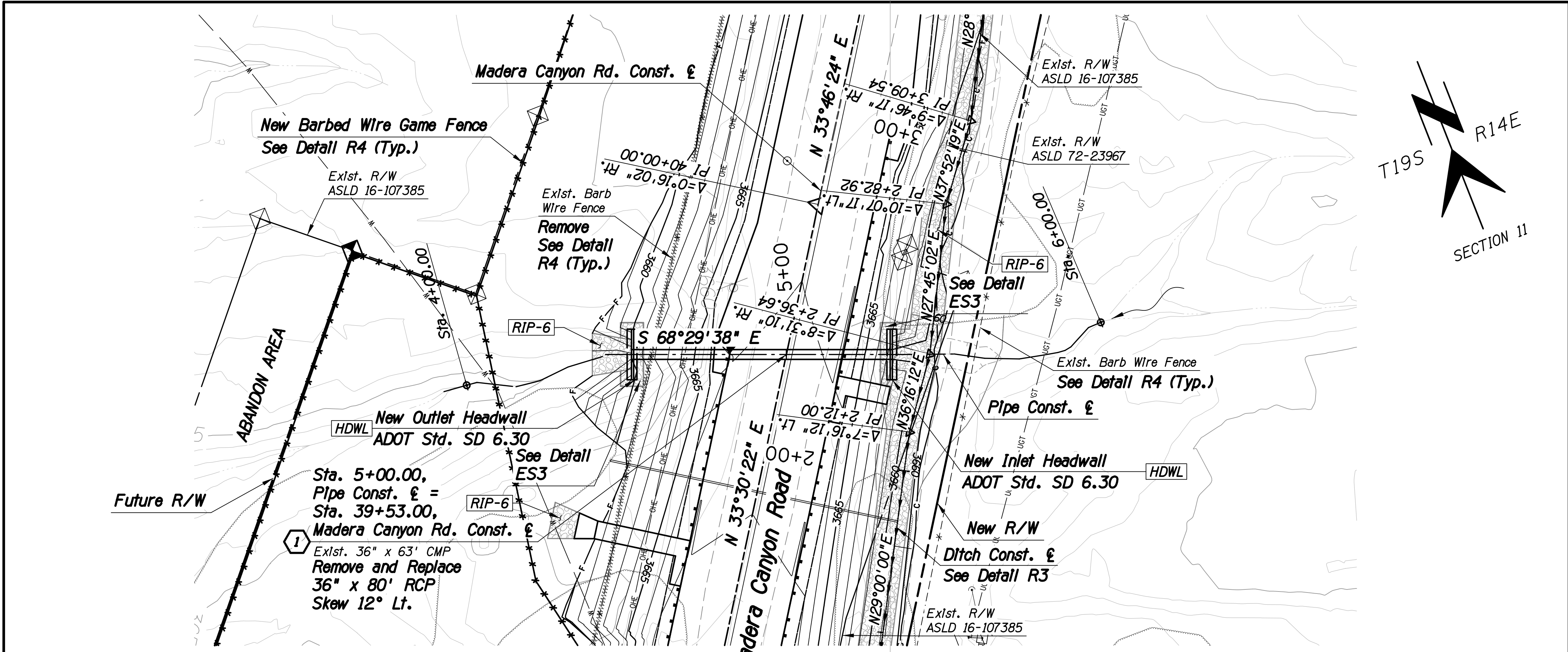
STA. 39+00 TO 43+00

Scales	Horiz. 1" = 40'	Sheet R2 of R2	Page 9 of 63
	Vert. 1" = 10'		

c:\pwworking\west01\4025167\09C-01.dgn

Pentable: COTPIA_PLOT09DR.TBL
PlotDriver: D:\6569-18FULL-B&W_PDF.plt

Project ID: 10416569
Client Number: 4106



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D	RD1	RD3	
T0541.01C					

CONTACT ARIZONA 811 AT LEAST TWO (2) WORKING DAYS BEFORE YOU BEGIN EXCAVATION
ARIZONA 811
Call 811 or click Arizona811.com

Item No.	Qty.	Unit	Description
1	80	L.F.	Pipe, Reinforced Concrete, Class III, 36" Bld Item 5011043
HDWL	2	EACH	Pipe Culvert Headwall Bld Item 6016087 Inlet & Outlet
RIP-6			Dumped Riprap (D ₅₀ =6In) See General Notes Sheet G2 & Detail R3

DETAIL R1

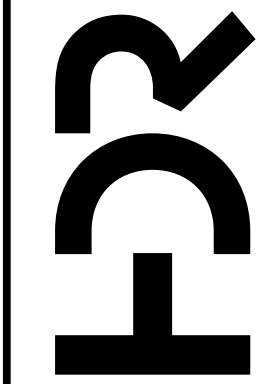
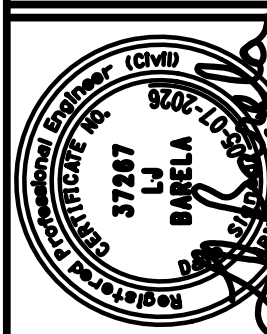
ROADWAY DETAIL
36" RCP STA 39+53

Scales	Horiz. 1" = 20'	Sheet RD1 of RD6	Page 10 of 63
	Vert. 1" = 2'		

Kathryn Skinner, P.E., Director

Date	4/2026
Designed	JAR/TCC
Drawn	JAR/TCC
Checked	BAK
Proj. Engr.	LIB

No.	Revision	Description	Engineer	Date

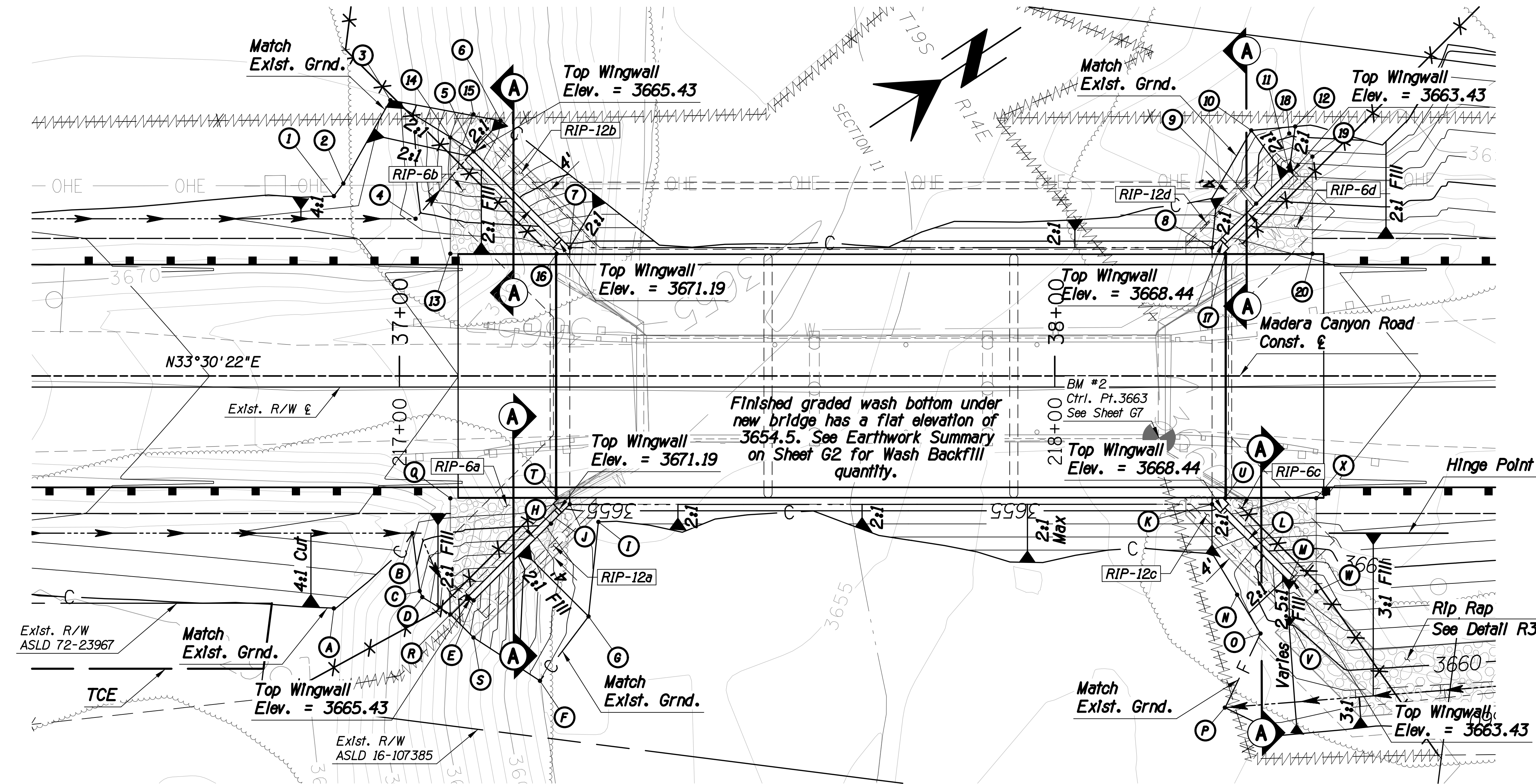


MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

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Project ID: 10416569
Client Number: 4106
PenTable: COTFMA_PLOT09DR.TBL
PlotDriver: T0416569_1x8FULL_B&W_PDF.plt



EAST POINT ELEVATIONS - FINISHED GRADE			
POINT	STATION	OFFSET	ELEV.
A	36+90	35.5' Rt.	3674.5
B	37+02	24.0' Rt.	3671.3
C	37+03	32.9' Rt.	3669.0
D	37+04	33.8' Rt.	3668.8
E	37+11	34.3' Rt.	3664.8
F	37+21	46.5' Rt.	3657.0
G	37+29	36.7' Rt.	3656.5
H	37+23	22.5' Rt.	3656.6
I	37+30	22.3' Rt.	3655.9
J	37+26	19.6' Rt.	3654.5
K	38+24	19.6' Rt.	3654.5
L	38+31	26.2' Rt.	3659.1
M	38+36	31.4' Rt.	3662.8
N	38+28	33.4' Rt.	3658.9
O	38+31	39.3' Rt.	3659.0
P	38+26	50.6' Rt.	3658.5

WEST POINT ELEVATIONS CONT. - FINISHED GRADE			
POINT	STATION	OFFSET	ELEV.
1	36+90	27.5' Lt.	3672.5
2	36+91	29.4' Lt.	3672.5
3	36+99	42.1' Lt.	3671.9
4	37+02	24.0' Lt.	3671.2
5	37+11	34.4' Lt.	3665.1
6	37+15	39.0' Lt.	3664.3
7	37+26	19.6' Lt.	3654.5
8	38+24	19.6' Lt.	3654.5
9	38+31	26.3' Lt.	3659.3
10	38+30	37.5' Lt.	3659.3
11	38+36	31.4' Lt.	3662.9
12	38+37	38.1' Lt.	3658.9

EAST POINT ELEVATIONS - RIPRAP			
POINT	STATION	OFFSET	ELEV.
Q	37+07.77	18.67' Rt.	3671.5
R	37+07.77	36.40' Rt.	3666.0
S	37+11.30	39.93' Rt.	3663.7
T	37+24.00	18.67' Rt.	3671.1
U	38+26.00	18.67' Rt.	3668.3
V	38+35.77	37.02' Rt.	3660.3
W	38+39.90	32.89' Rt.	3661.7
X	38+39.90	18.67' Rt.	3667.9
WEST POINT ELEVATIONS - RIPRAP			
13	37+07.77	18.67' Lt.	3671.5
14	37+07.77	36.40' Lt.	3667.0
15	37+11.30	39.93' Lt.	3666.1
16	37+24.00	18.67' Lt.	3671.1
17	38+26.00	18.67' Lt.	3668.3
18	38+35.77	37.02' Lt.	3659.7
19	38+39.31	33.48' Lt.	3661.4
20	38+39.31	18.67' Lt.	3667.9



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D			
T0541.01C					

Item No.	Qty.	Unit	Description
----------	------	------	-------------

RIP-6	24	C.Y.	Riprap (Dumped) (D50=6 Inch) Bld Item 9130015
a	6.0	C.Y.	Sta. 37+07.77 to Sta. 37+24.00
b	6.0	C.Y.	Sta. 37+07.77 to Sta. 37+24.00
c	6.0	C.Y.	Sta. 38+26.00 to Sta. 38+39.90
d	6.0	C.Y.	Sta. 38+26.00 to Sta. 38+39.31
RIP-12	32	C.Y.	Riprap (Dumped) (D50=12Inch) Bld Item 9130016
a	8.5	C.Y.	Sta. 37+07.77 to Sta. 37+30.00
b	8.5	C.Y.	Sta. 37+07.77 to Sta. 37+30.00
c	7.5	C.Y.	Sta. 38+20.00 to Sta. 38+39.31
d	7.5	C.Y.	Sta. 38+20.00 to Sta. 38+39.31

Note:
Riprap color shall be Coronado Brown unless otherwise directed by Pima County.

DETAIL R2

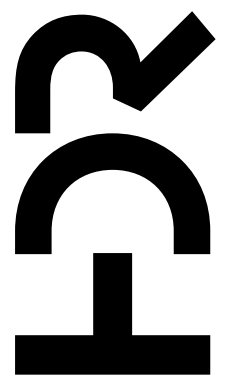
Sheet 1 of 2
ROADWAY DETAIL
BRIDGE GRADING &
EMBANKMENT PROTECTION

Scales	Horiz. 1" = 10'	Sheet RD2 of RD6	Page 11 of 63
	Vert. 1" = NA		

Kathryn Skinner, P.E., Director

Date	4/2026
Designed	JAR/TCC
Drawn	JAR/TCC
Checked	BAK
Proj. Engr.	LIB

No.	Revision	Description	Date



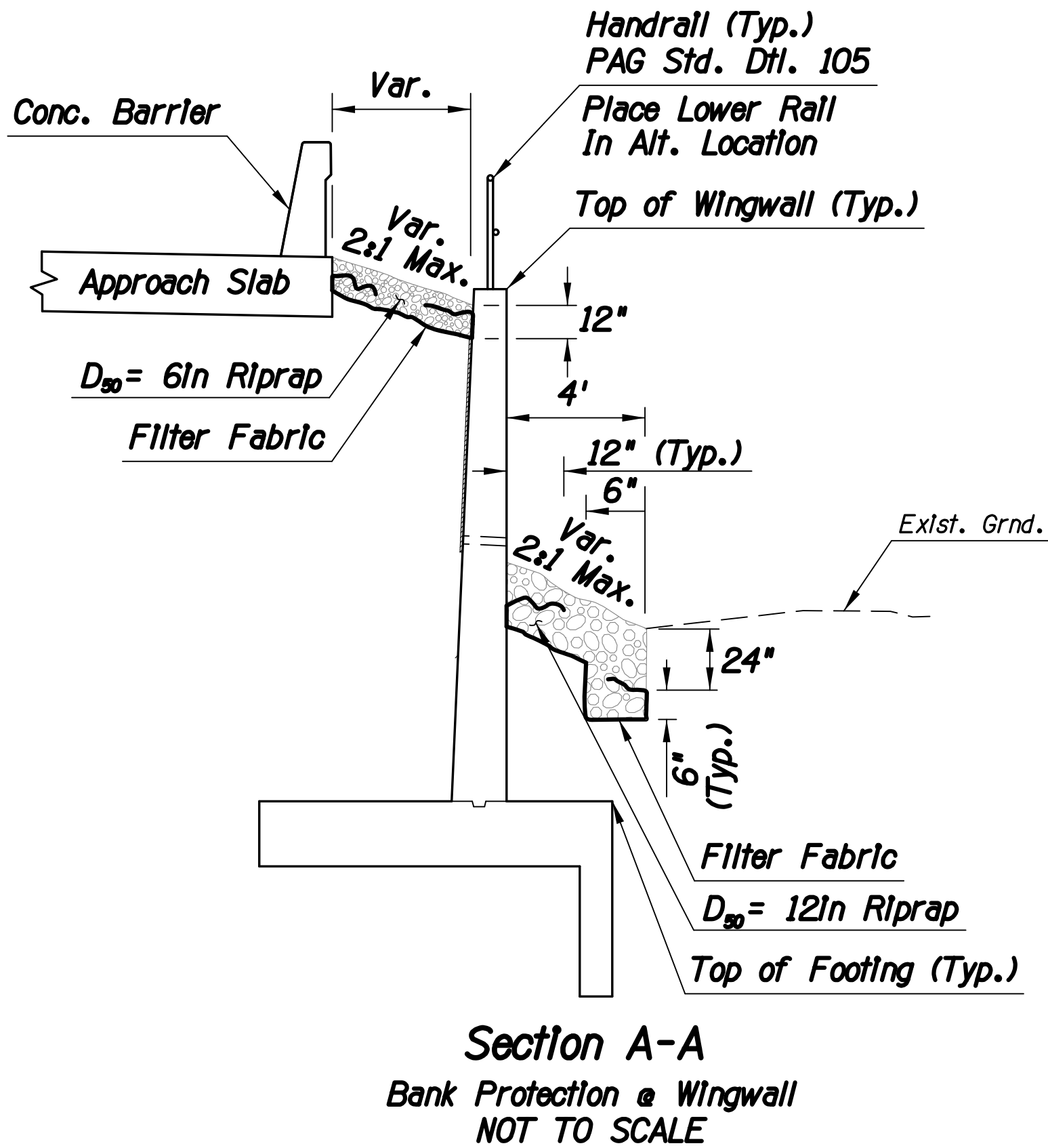
MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

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Pentable: COTIMA_PLOT09DR.TBL
PlotDriver: 10416569-10FULL-B&W_PDF.plt

Project ID: 10416569
Client Number: 4106



Note:
Riprap color shall be Coronado Brown
unless otherwise directed by Pima
County.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D			
T0541.01C					

CONTACT ARIZONA 811 AT LEAST TWO (2) WORKING DAYS BEFORE YOU BEGIN EXCAVATION

Call 811 or click Arizona811.com

DETAIL R2

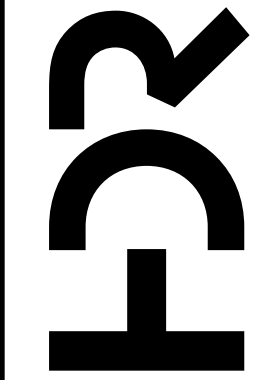
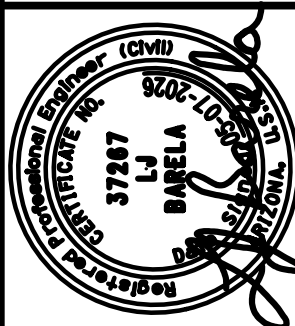
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ROADWAY DETAIL
RIPRAP DETAILS

Scales	Horiz.: NTS	Sheet RD3 of RD6	Page 12 of 63
	Vert.: NTS		

No.	Revision	Description	Engineer	Date

Designed	JAR/TCC	Date	4/2026
Drawn	JAR/TCC		4/2026
Checked	BJK		4/2026
Proj. Engr.	LJB		4/2026

Kathryn Skinner, P.E., Director



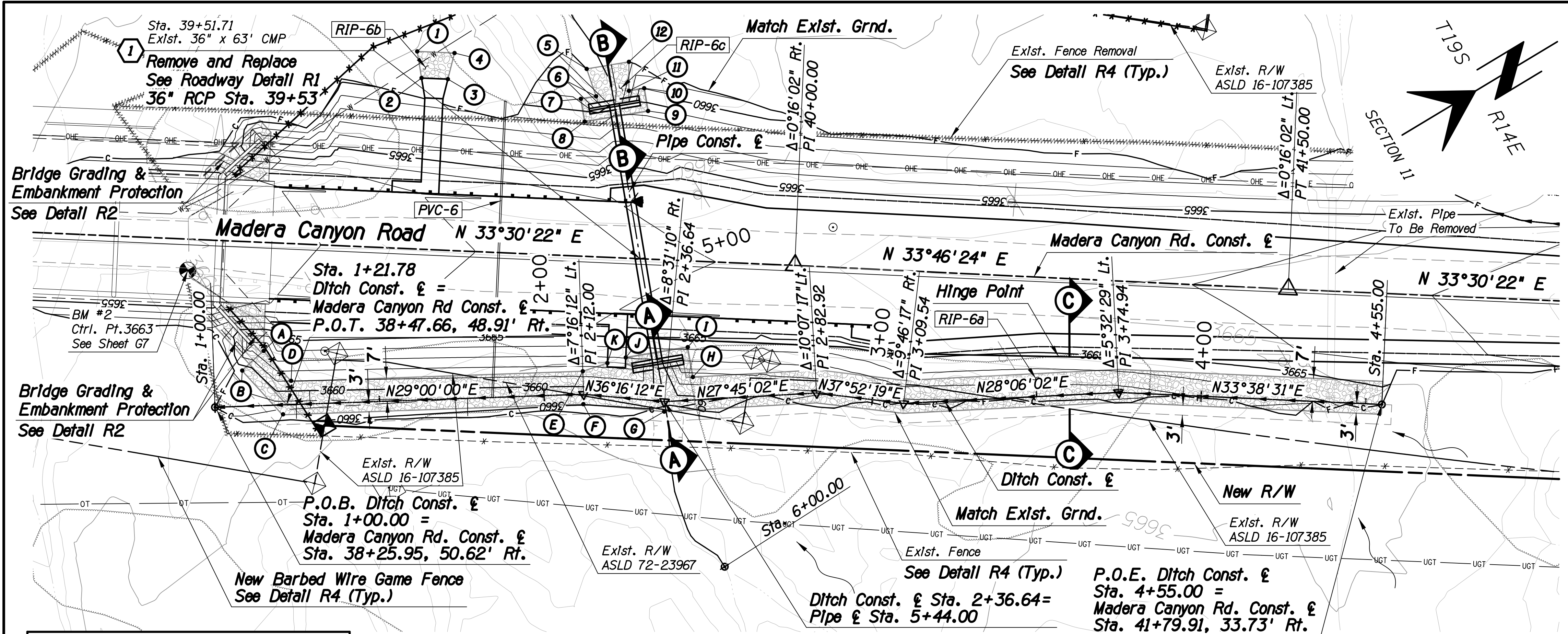
MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

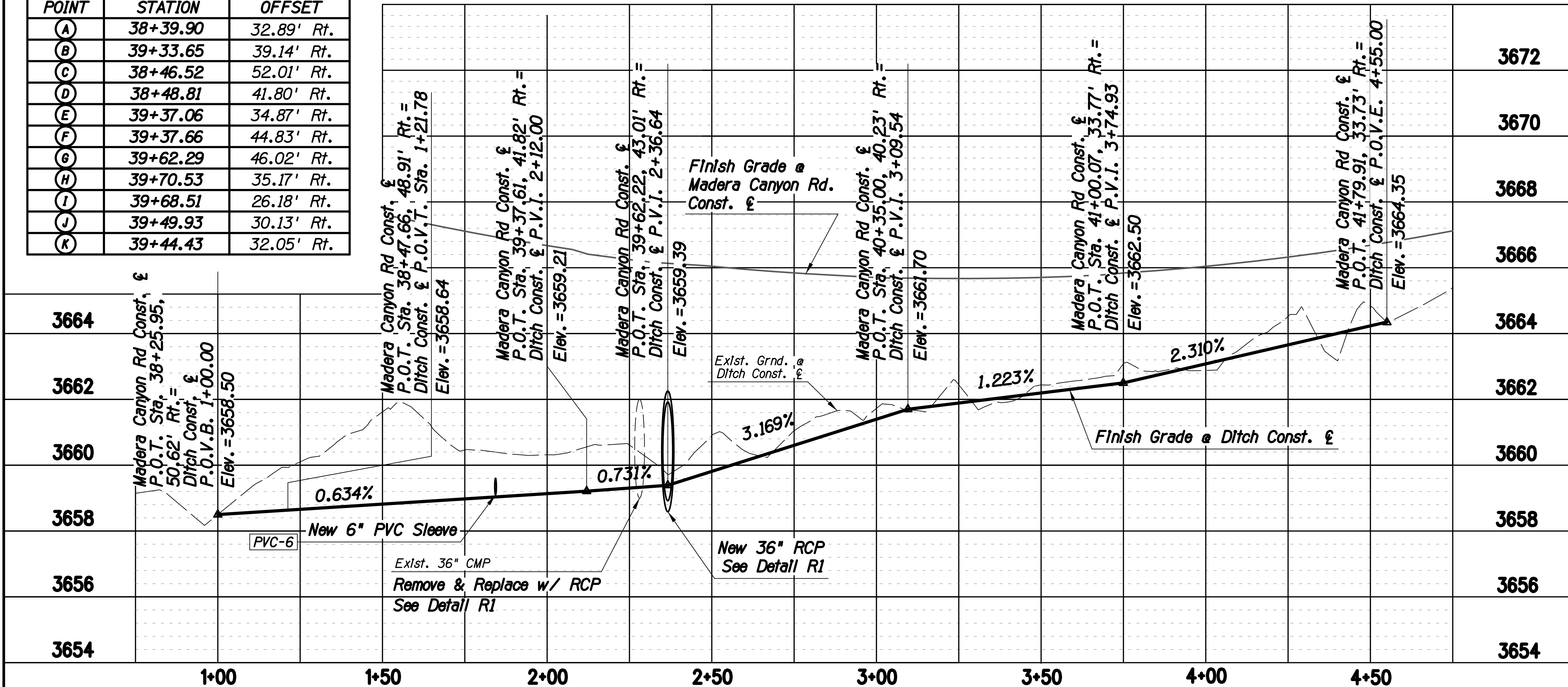
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Pentable: COTPA_PL0109DR.TBL
PlotDriver: T0416569-1xFull-B&W_PDF.plt

Project ID: 10416569
Client Number: 4106



EAST POINT LOCATIONS - RIPRAP		
POINT	STATION	OFFSET
(A)	38+39.90	32.89' Rt.
(B)	39+33.65	39.14' Rt.
(C)	38+46.52	52.01' Rt.
(D)	38+48.81	41.80' Rt.
(E)	39+37.06	34.87' Rt.
(F)	39+37.66	44.83' Rt.
(G)	39+62.29	46.02' Rt.
(H)	39+70.53	35.17' Rt.
(I)	39+68.51	26.18' Rt.
(J)	39+49.93	30.13' Rt.
(K)	39+44.43	32.05' Rt.



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D	RD1	RD3	
T054101C					
Contact Arizona 811 at least two full working days before you begin excavation. Call 811 or click Arizona811.com					

Item No.	Qty.	Unit	Description
----------	------	------	-------------

RIP-6	200	C.Y.	Riprap (Dumped) (D50=6 Inch) Bld Item 9130015
a	189.0	C.Y.	Sta. 38+33.65 to Sta. 41+79.91
b	3.0	C.Y.	Sta. 38+82.62 to Sta. 38+93.96
c	8.0	C.Y.	Sta. 39+32.90 to Sta. 39+53.42

PVC-6	90	L.F.	Pipe, Polyvinyl Chloride (PVC), 6" (Class 200) Bld Item 8101106
Sta. 39+10.00, 44.0' Rt. (Inv. Elev. = 3659.10) to Sta. 39+10.00, 46.0' Lt. (Inv. Elev. = 3661.10)			

RIP-6	Dumped Riprap (D ₅₀ =6in) See General Notes Sheet G2 and Detail R3 Sheet 2 of 2		
1	New Pipe Culvert See Summary Sheet G4 and Detail R1		

Notes:
Riprap color shall be Coronado Brown unless otherwise directed by Pima County.

WEST POINT LOCATIONS - RIPRAP		
POINT	STATION	OFFSET
(1)	38+82.62	59.92' Lt.
(2)	38+84.29	51.92' Lt.
(3)	38+92.29	51.92' Lt.
(4)	38+93.96	59.92' Lt.
(5)	39+34.27	56.85' Lt.
(6)	39+37.49	48.67' Lt.
(7)	39+32.90	47.70' Lt.
(8)	39+34.35	40.85' Lt.
(9)	39+53.42	44.90' Lt.
(10)	39+51.97	51.75' Lt.
(11)	39+47.38	50.77' Lt.
(12)	39+46.99	59.55' Lt.

DETAIL R3

Sheet 1 of 2
ROADWAY DETAIL
BRIDGE GRADING &
EMBANKMENT PROTECTION

Scales	Horiz. 1" = 20'	Sheet RD4 of RD6	Page 13 of 63
	Vert. 1" = 2'		

Kathryn Skinner, P.E., Director

Designated

Drawn

Checked

Proj. Engr.

Date

4/2026

4/2026

4/2026

4/2026

Pima County Department of Transportation

MADERA CANYON ROAD

MEDIUM WASH

BRIDGE REPLACEMENT

PROJECT NO. 24043PJ

STAY

BARRELA

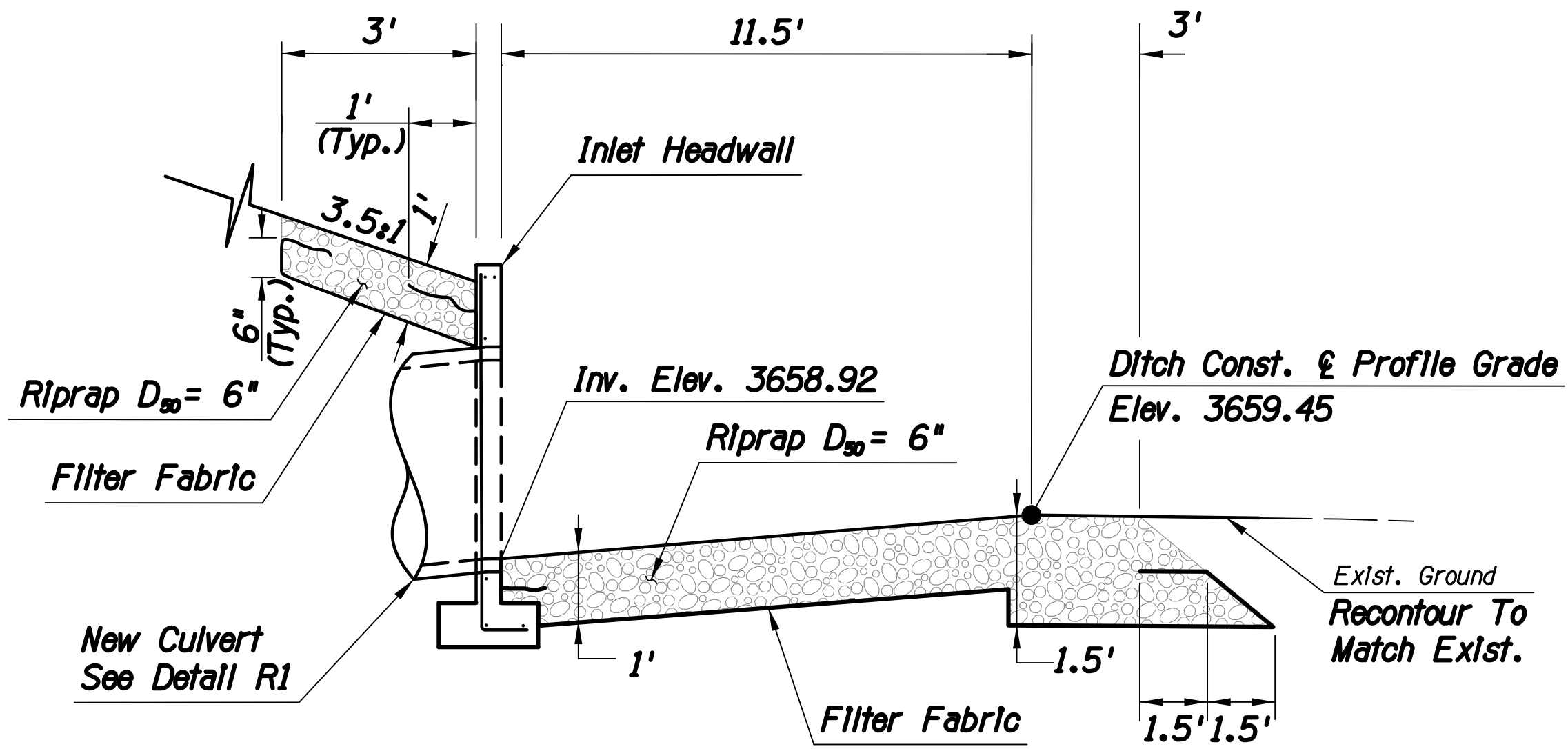
Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

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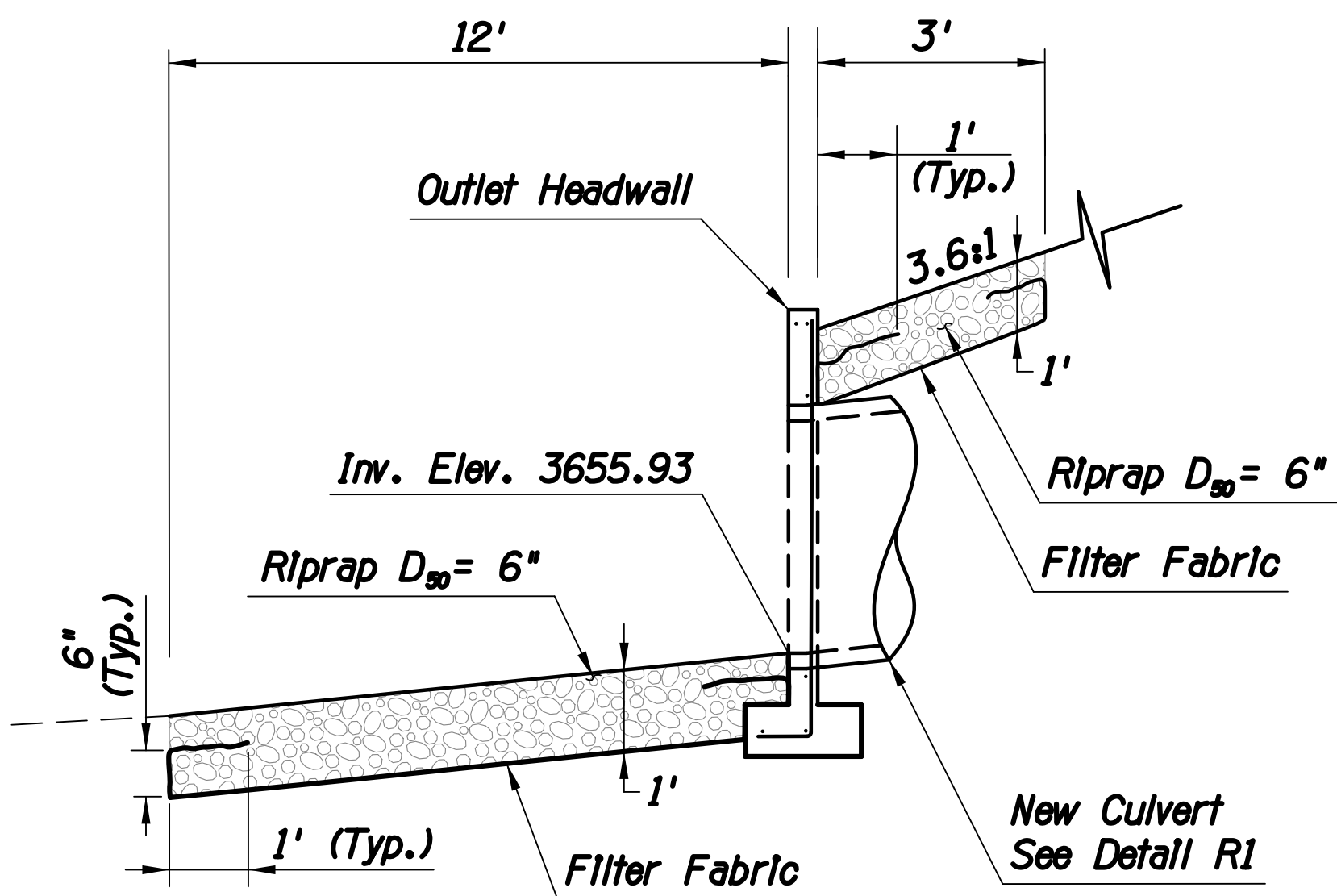
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PlotDriver: 10416569-10FULL-B&W_PDF.plt

Project ID: 10416569
Client Number: 4106

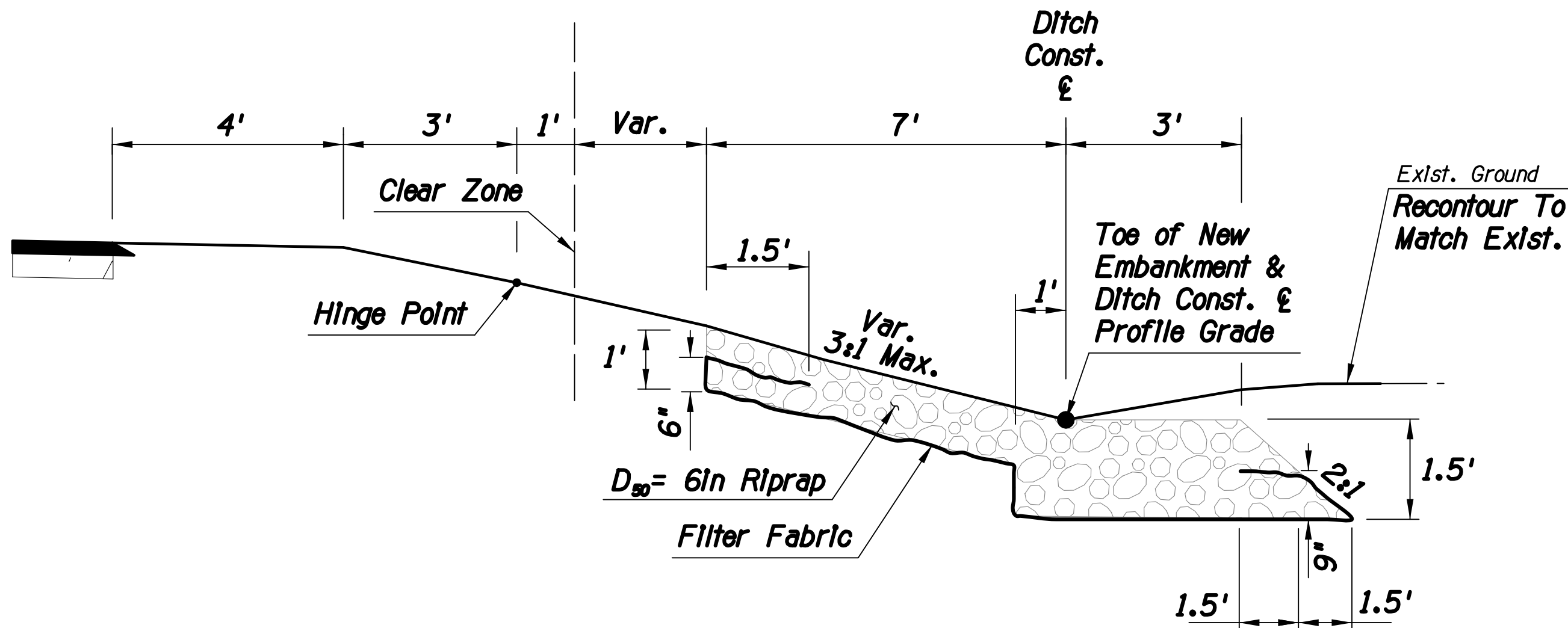
Notes:
Riprap color shall be Coronado Brown
unless otherwise directed by Pima
County.



Section A-A
Pipe Culvert Inlet Detail
NOT TO SCALE



Section B-B
Pipe Culvert Outlet Detail
NOT TO SCALE



Section C-C
Embankment Erosion Protection
Ditch Const. & Sta. 1+21.78 to Sta. 4+55
See Detail R3 Sheet 1 of 2 for
Drainage Ditch Plan & Profile
NOT TO SCALE

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D			

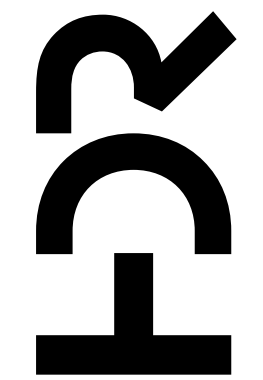
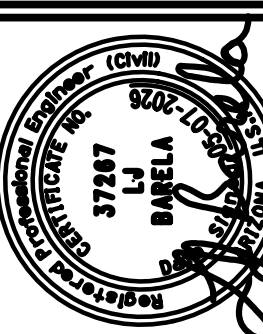
T0541/01C



Kathryn Skinner, P.E., Director

Date	Designed	Drawn	Checked	Proj. Engr.
4/2026	JAR/TCC	JAR/TCC	BAK	LJB

No.	Revision	Description	Engineer	Date



MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

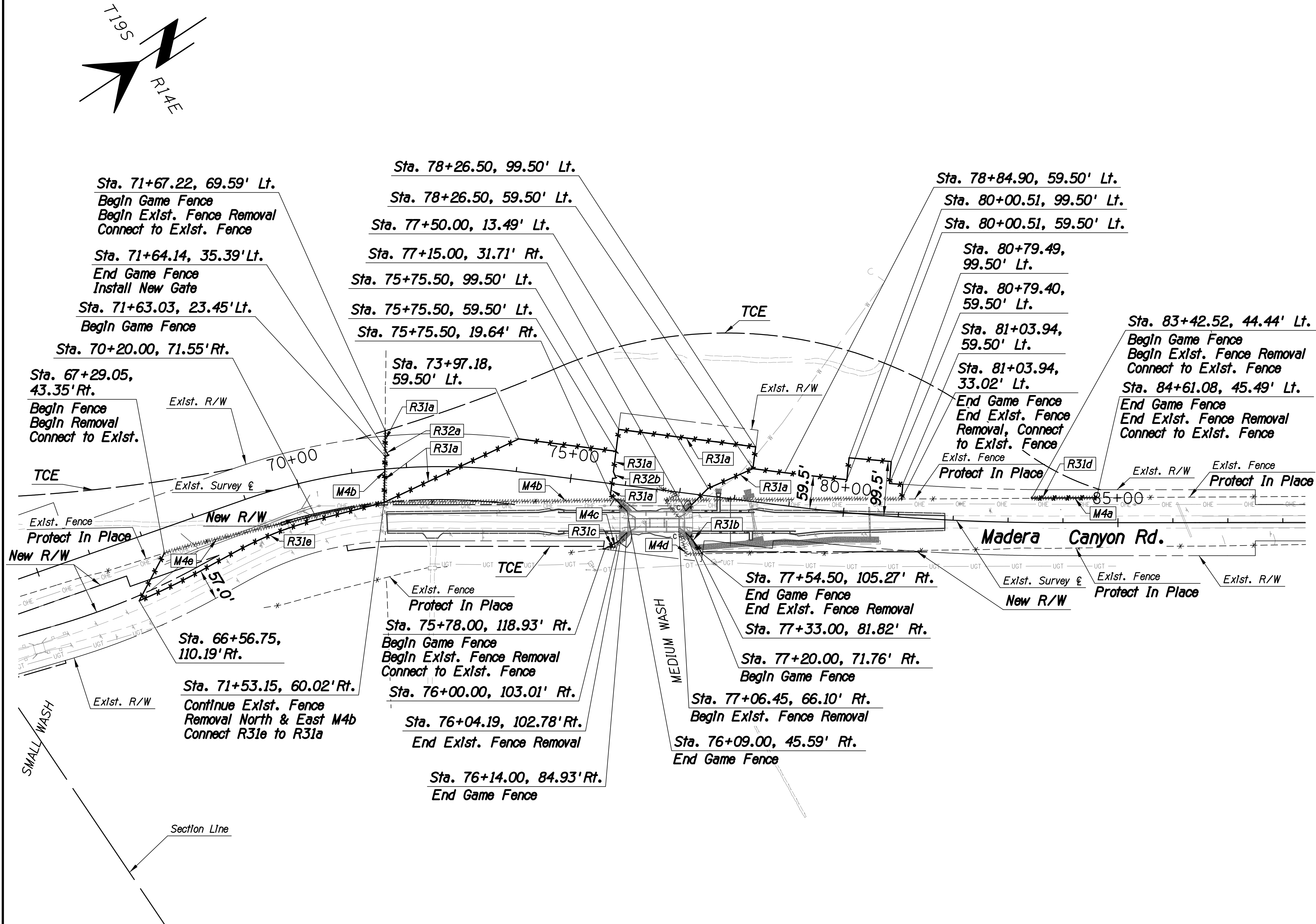
Pima County Department of Transportation

DETAIL R3

Sheet 2 of 2
ROADWAY DETAIL
RIPRAP DETAILS

Scales	Horiz.: NTS	Sheet RD5 of RD6	Page 14 of 63
	Vert.: NTS		

Project ID: 10416569
Client Number: 4108



DETAIL R4

*ROADWAY DETAIL
FENCING PLAN*

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D			
		T054/OIC			

Contact Arizona 811 at least two full working days before you begin excavation


ARIZONA 811

Call 811 or click Arizona811.com

<i>Item No.</i>	<i>Qty.</i>	<i>Unit</i>	<i>Description</i>
M4	1710	L.F.	Removal of Fence Bld Item 2020101 <i>Barbed Wire</i>
a		L.F.	<i>See Detour Plan Sheet TC8</i>
b	1175	L.F.	<i>Sta. 71+67.22, 69.59' Lt. to Sta. 81+03.94, 33.02' Lt.</i>
c	35	L.F.	<i>Sta. 75+78.00, 118.93' Rt. to Sta. 76+09.19, 102.78' Rt.</i>
d	80	L.F.	<i>Sta. 77+06.48, 66.10' Rt. to Sta. 77+54.50, 105.27' Rt.</i>
e	420	L.F.	<i>Sta. 67+29.05, 43.35' Rt. to Sta. 71+53.15, 60.02' Rt.</i>
R31	2360	L.F.	Barbed Wire Game Fence Bld Item 9030303 <i>ADOT Std. C-12.10</i>
a	1550	L.F.	<i>Sta. 71+67.22, 69.59' Lt. to Sta. 81+03.94, 33.02' Lt.</i>
b	50	L.F.	<i>Sta. 77+20.00, 71.76' Rt. to Sta. 77+54.50, 105.27' Rt.</i>
c	50	L.F.	<i>Sta. 75+78.00, 118.93' Rt. to Sta. 76+14.00, 84.93' Rt.</i>
d	120	L.F.	<i>Sta. 83+42.52, 44.44' Lt. to Sta. 84+61.08, 45.49' Lt.</i>
e	590	L.F.	<i>Sta. 67+29.05, 43.35' Rt. to Sta. 71+53.15, 60.02' Rt.</i>
R32	2	Each	Fence Gate, Type 1, Single Bld Item 9030101 <i>ADOT Std. C-12.10, 12'</i>
a	1	Each	<i>Sta. 71+64.14, 35.19' Lt.</i>
b	1	Each	<i>Sta. 75+75.50, 22.00' Lt.</i>

Note:
All stationing on this Sheet is based on
the Exlst. Survey &. See Sheet G6 for
centerline geometry.

Scales	Horiz. 1" = 100'	Sheet RD6 of RD6	Page 15 of 63
	Vert. 1" = NA		

PAVEMENT MARKING GENERAL NOTES

1. All equipment /materials and construction shall meet or exceed the requirements contained in the current Pima Association of Governments (PAG) Standard Specifications and Standard Details for Public Improvements, the special provisions, the supplemental specifications and the approved plans. All pavement markings shall be installed in compliance with the latest edition of the Manual on Uniform Traffic Control Devices and the Pima County/City of Tucson (PC/COT) Signing & Pavement Marking Design Manual and applicable amendments.
2. The pavement marking contractor shall contact the Pima County pavement marking supervisor (520-724-2356) at least 3 working days in advance of any pavement marking layout and installation to schedule inspection and approval of pavement markings. Pavement marking shop hours are Monday through Thursday 6:00 am to 3:30 pm, state holidays excluded.
3. Upon approval of the pavement marking layout, the Pima County pavement marking supervisor will issue written authorization to the contractor to proceed with installing all pavement markings and associated reflective raised pavement markers.
4. The permanent pavement markings may be modified as directed and approved by the County Engineer or designee.
5. The design speed for Madera Canyon Road is 45 mph. The design vehicle is WB-62. The posted speed limit is 45 mph.
6. All lane dimensions are measured from the center of lane line, center of double lane line, edge of pavement, or curb face unless otherwise noted.
7. The pavement marking drawings are schematic only. The contractor shall follow all dimensions, applicable marking details, and specified Pima County standards when installing pavement striping, symbols, legends, and markers.
8. Painted layout striping shall be 15 mil (0.015') thick, water based paint placed on the final pavement surface with 8 pounds per gallon of AASHTO M 247-13 Type I glass beads with adhesion/moisture proof coating. Painted layout striping shall be installed within five (5) working days of the final pavement surface being completed.
9. The final longitudinal striping shall be 90 mil (0.090') thick ribbon extruded thermoplastic reflectorized striping placed over the painted layout striping with a single drop of 10 pounds per 100 square feet of AASHTO M 247-13 glass beads. The final longitudinal striping shall be placed within 21 to 30 calendar days of the final pavement surface being completed. All previously exempted longline markings shall be applied during the final longitudinal striping.
10. The contractor shall be responsible for the layout and installation of pavement markings on the final surface course following one control line per direction of travel consisting of control points that have been set to no more than 50 feet apart on curve sections and 200 feet in tangent sections where the pavement marking pattern does not change.
11. It is the contractor's responsibility to ensure that the final surface course is placed so that the construction joint is no more than one foot offset from the final striping.
12. All retroreflective raised pavement markers shall be installed so that the reflective face of each marker is facing the direction of traffic and is perpendicular to the direction of traffic flow.
13. All retroreflective raised pavement markers shall be installed per the current edition of the PAG Standard Specifications, the PC/COT Pavement Marking Manual and applicable amendments.
14. All removal of existing pavement markings shall be accomplished in accordance with Section 701 of the PAG Standard Specifications. Painting over existing striping does not constitute approved striping obliteration.
15. Unless otherwise noted, all pavement markings shall be installed by the contractor.
16. Upon final inspection by Pima County, a written acceptance or itemized punchlist of missing or unacceptable pavement markings shall be submitted to the contractor.
17. The contractor shall be responsible for maintaining all striping until project is approved for 'Construction Acceptance' by Pima County (fully open to traffic, all punchlist items are completed, and the one year warranties begin). If the pavement marking material manufacturer offers a longer warranty, the contractor shall transfer that warranty to Pima County.
18. The PC/COT Signing & Pavement Marking Manual is available online.

PAVEMENT MARKING CODES



WHITE SOLID 6"



YELLOW DOUBLE SOLID 4"
w/ TYPE D RPM AT 40' (**)

Note:

** Spacing between double markings shall be per PCDOT/COT Signing and Marking Standards Sheet No. 3.1.1, dated December 2020. Layout RPMs per YDS series lines - yellow double solid series lines per PCDOT/COT Signing and Marking Standards Sheet No. 3.1.1a.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	PPM-0(274)D			

T054I 01C

SIGNING GENERAL NOTES

1. All equipment / materials and construction shall meet or exceed the requirements contained in the current Pima Association of Governments (PAG) Standard Specifications and the Standard Details for Public Improvements, Pima County Supplemental Specifications and Details, the special provisions and the approved plans. All signing shall be installed in accordance with the PC/COT Signing & Pavement Marking Design Manual and applicable amendments.
2. All signs shall be in compliance with the latest edition of the Manual on Uniform Traffic Control Devices, the latest edition of the Pima County/City of Tucson Signing & Pavement Marking Design Manual, the PAG Standard Specifications, the Pima County Supplemental Specifications, any required special provisions, and these plans.
3. Signs may be modified, and locations adjusted, to fit conditions at the discretion of the County engineer.
4. The design speed for Madera Canyon Road is 45 mph. The posted speed limit is 45 mph. Sign placement shall be based on the posted speed limit.
5. Post lengths indicated on sign summary sheets are approximate. The contractor shall verify actual post lengths.
6. All perforated posts shall be installed in a concrete foundation, unless otherwise directed by the County engineer.
7. All sign station locations are approximate, the contractor shall verify actual sign locations with the County engineer prior to the installation of any sign, posts, and/or foundations.
8. The contractor shall be responsible for coordinating all work with Arizona 811 for installing all traffic signs in the field and for maintaining all signing until project is approved for "Construction Acceptance" by Pima County (fully open to traffic, all punch list items are completed, and one year warranties begin).
9. All signs shall have Type XI sheeting or an equivalent. All warning signs having yellow backgrounds shall use fluorescent yellow sheeting. All school signs shall use fluorescent yellow/green sheeting. All ground mounted signs shall have an anti-graffiti coating applied to sign face, 3M #1160 film or equivalent.
10. A 3"x2" pressure sensitive, UV resistant label indicating the sign manufacturer's name and date of manufacture shall be placed in the upper right corner of the back of all signs, except for street name signs, at the time of installation. Street name signs shall include a sign identification decal as described within Pima County Signing and Marking Standards Detail 6.1.1.
11. All new signs shall have 0.080 gauge, radius corner, aluminum backing unless otherwise noted.
12. Prior to disturbing any traffic signs, a sign condition inventory of all existing signing shall be conducted by the contractor and provided to the Pima County sign shop supervisor (520) 724-2630. Inventory shall indicate current sign location and condition, including any existing damage or deficiencies.
13. Any signs and posts being re-used on this project shall be stockpiled in a manner to avoid damage and maintain the integrity of the signs. Safe storage of stockpile and payment of damage to the stockpile shall be the responsibility of the contractor.
14. All signs and posts not being re-used on this project shall be dismantled, stacked and delivered to the owner (City, County, Federal, or town) by the contractor. The contractor is responsible for the safe storage at the construction site until delivery and the safe unloading of the salvaged material. Notification of delivery shall be made at least 2 working days prior to delivery. Pima County sign shop 1313 S. Mission Road (520) 724-2630, no Friday deliveries.

MEDIUM WASH
PAVEMENT MARKING &
SIGNING GENERAL NOTES

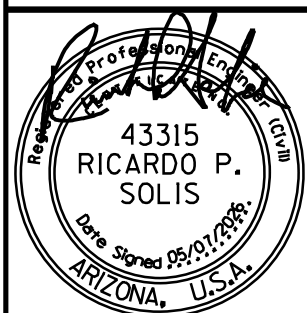


Scales	Horiz. N/A Vert. N/A	Sheet SM1 of SM6	Page 16 of 63
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Kathryn Skinner, P.E., Director

Date	05/2026
Designed	R. Solis
Drawn	J. Daria, B. Hosack
Checked	M. Chamberlain, R. Solis
Proj. Engr.	R. Solis

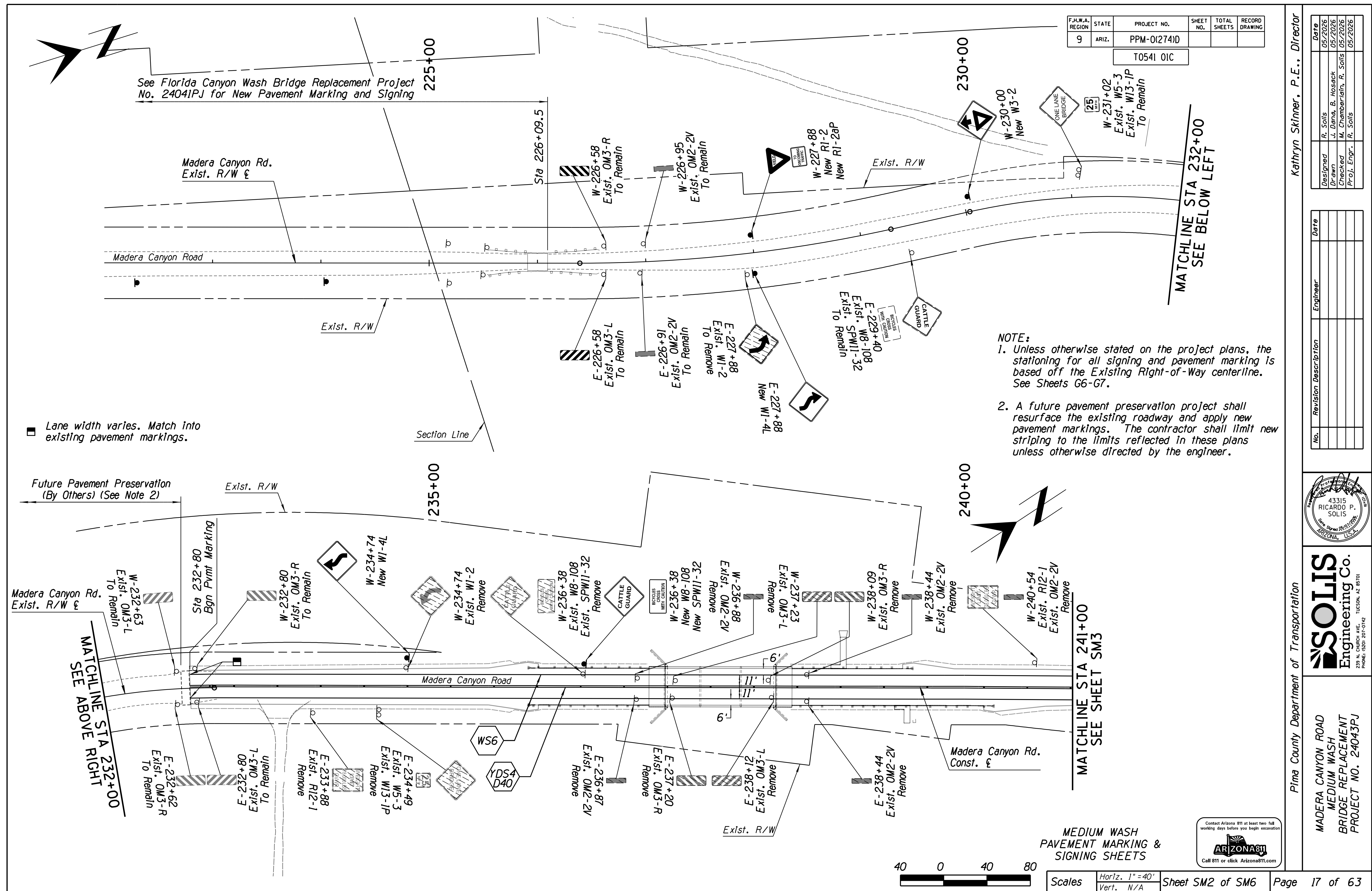
Date	05/2026
Engineer	
Revision Description	
No.	



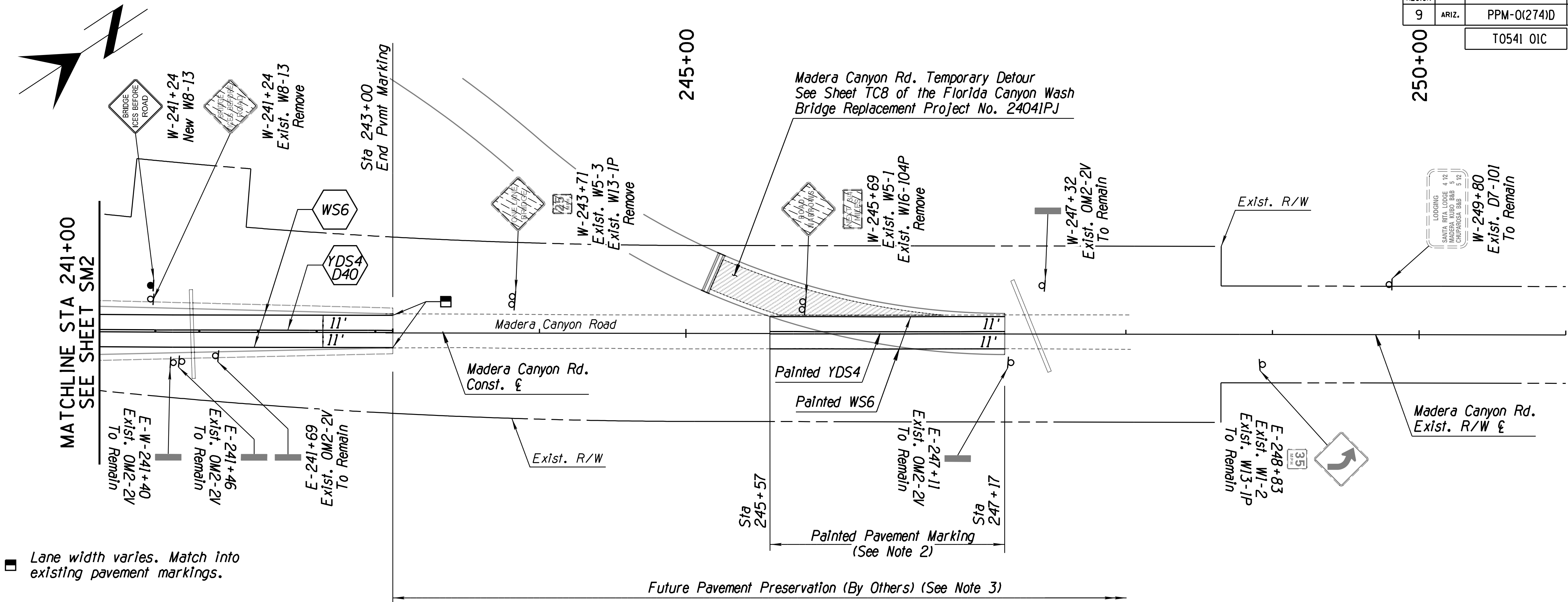
MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	PPM-0(274)D			
T054I 01C					



- NOTE:
1. Unless otherwise stated on the project plans, the stationing for all signing and pavement marking is based off the Existing Right-of-Way centerline. See Sheets G6-G7.
 2. From station 245+57 to 247+17, the existing pavement markings will be obliterated as part of the detour construction. The contractor shall apply temporary painted pavement markings once the detour has been removed.
 3. A future pavement preservation project shall resurface the existing roadway and apply new pavement markings. The contractor shall limit new striping to the limits reflected in these plans unless otherwise directed by the engineer.



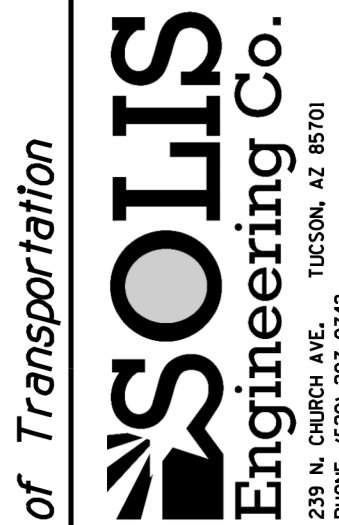
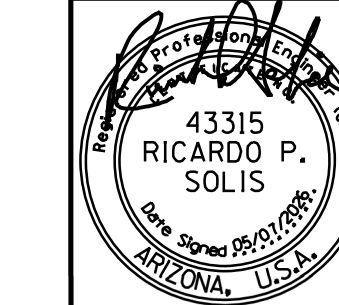
MEDIUM WASH
PAVEMENT MARKING &
SIGNING SHEETS



No.	Revision	Description	Engineer	Date

Date	Designed	Drawn	Checked	Proj. Engr.
05/2026	R. Solis	J. Dana, B. Hosack	M. Chamberlain, R. Solis	R. Solis
05/2026				
05/2026				

No.	Revision	Description	Engineer	Date



MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Kathryn Skinner, P.E., Director

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

T0541 01C

OVERHEAD

Kathryn Skinner, P.E., Director

MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

T0541 01C

PLAN SHEET NUMBER	SIGN NUMBER	SIGN CODE	NEW	WORK					OFFSET* (FT)	MOUNTING HEIGHT	PANEL							GROUND MOUNTED						OVERHEAD		REMARKS		
				EXISTING							BACKGROUND COLOR	LEGEND	WIDTH (IN)	HEIGHT (IN)	AREA (SQ FT)	TYPE	MIN. SHEETING TYPE	BID ITEM NUMBER	FOUNDATIONS	POSTS		NEW SLIPBASES	STRINGER**		STRUCTURE TYPE		NUMBER OF LIGHTS	
				REPLACE PANEL	RELOCATE PANEL	MODIFY LEGEND	REMOVE EXISTING	EXST TO REMAIN												TYPE	TOTAL LENGTH (FT)		TYPE	TOTAL LENGTH (FT)				
SM2	W-234+74	W1-4L	X						12		YL	Left Reverse Curve Symbol	36	36	9.0	RWM	XI	6080014	1	S2	12							
SM2	W-236+38	W8-108					X					Cattle Guard						2020001										
		SPW11-32					X					Bicycles Cross With Caution						2020001										
SM2	W-236+38	W8-108	X					12		YL	Cattle Guard	36	36	9.0	RWM	XI	6080014	1	S2	14								
		SPW11-32	X						5	YL	Bicycles Cross With Caution	24	36	6.0	RWM	XI	6080014											
SM2	E-236+87	OM2-2V					X					Type 2 Object Marker (Vertical)						2020001										
SM2	W-236+88	OM2-2V					X					Type 2 Object Marker (Vertical)						2020001										
SM2	E-237+20	OM3-R					X					Type 3 Object Marker						2020001										
SM2	W-237+23	OM3-L					X					Type 3 Object Marker						2020001										
SM2	W-238+09	OM3-R					X					Type 3 Object Marker						2020001										
SM2	E-238+12	OM3-L					X					Type 3 Object Marker						2020001										
SM2	E-238+44	OM2-2V					X					Type 2 Object Marker (Vertical)						2020001										
SM2	W-238+44	OM2-2V					X					Type 2 Object Marker (Vertical)						2020001										
SM2	W-240+54	R12-1					X					WEIGHT LIMIT 10 TONS						2020001										
		OM2-2V					X					Type 2 Object Marker (Vertical)						2020001										
SM3	W-241+24	W8-13					X					BRIDGE ICES BEFORE ROAD						2020001										
SM3	W-241+24	W8-13	X					12	5	YL	BRIDGE ICES BEFORE ROAD	36	36	9.0	RWM	XI	6080014	1	S2	12								
SM3	E-241+40	OM2-2V										Type 2 Object Marker (Vertical)																
SM3	E-241+46	OM2-2V										Type 2 Object Marker (Vertical)																
SM3	E-241+69	OM2-2V										Type 2 Object Marker (Vertical)																
SM3	W-243+71	W5-3					X					ONE LANE BRIDGE						2020001										
		W13-1P					X					Advisory Speed (25)						2020001										

Kathryn Skinner, P.E., Director

		<i>Date</i>
<i>Designed</i>	<i>R. Solis</i>	<i>05/2026</i>
<i>Drawn</i>	<i>J. Dana, B. Hosack</i>	<i>05/2026</i>
<i>Checked</i>	<i>M. Chamberlain, R. Solis</i>	<i>05/2026</i>
<i>Proj. Engr.</i>	<i>R. Solis</i>	<i>05/2026</i>

No.	Revision Description	Engineer	Date



Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Pima County Department of Transportation

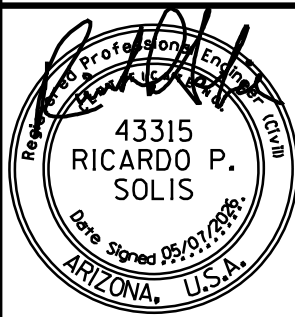
MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Scales	Horiz. NA	Sheet SM5 of SM6	Page 20 of 63
	Vert. NA		

T0541 01C[illegible]

Kathryn Skinner, P.E., Director

No.	Revision Description	Engineer	Date

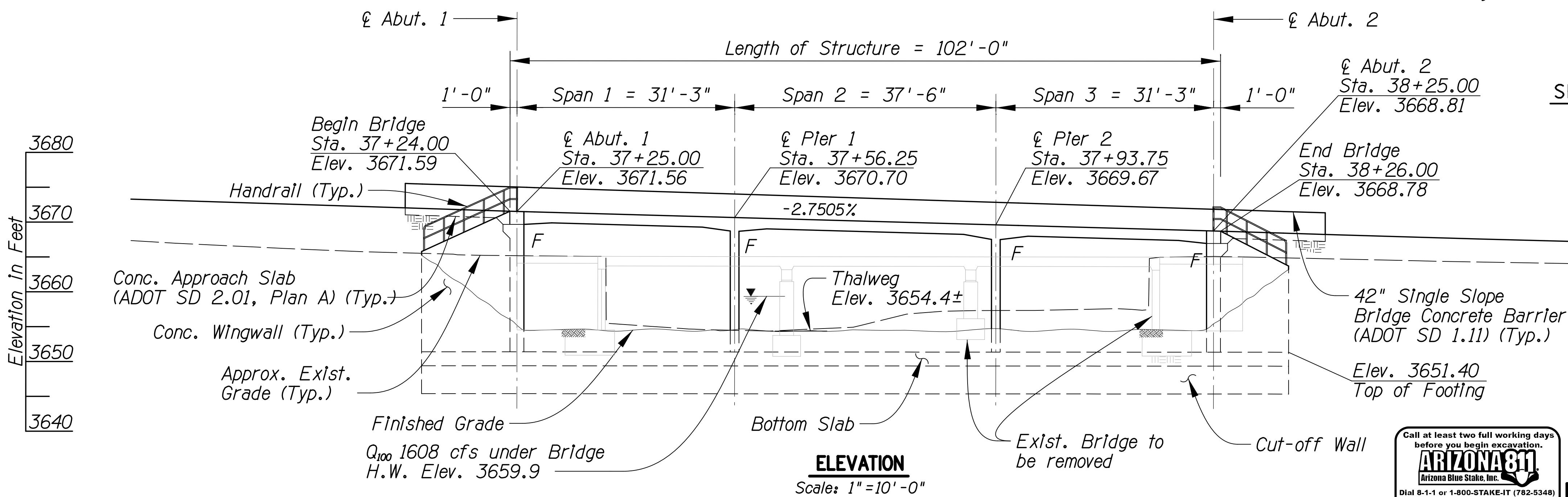
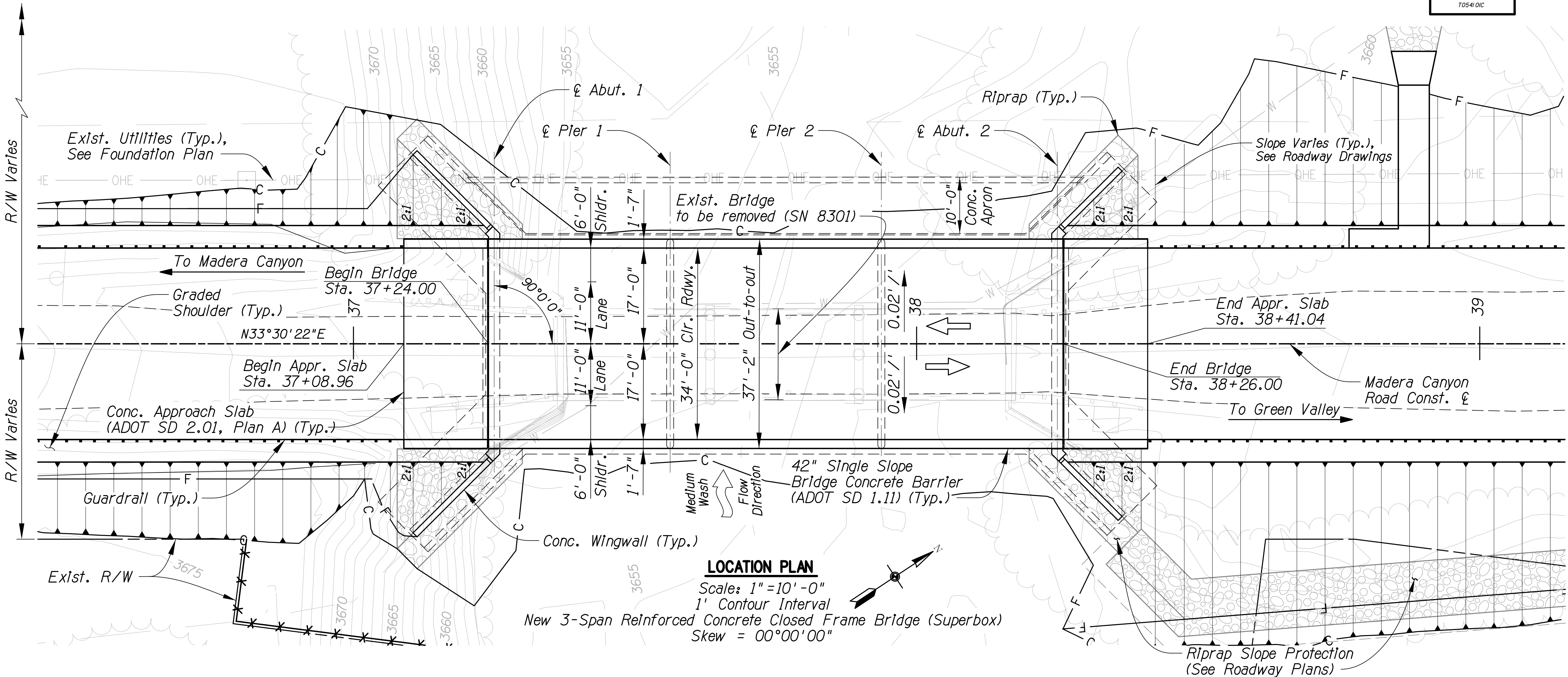


MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Scales	Horiz. NA	Sheet SM6 of SM6	Page 21 of 63
	Vert. NA		

Project ID: 10416569
Client Number: 4108
Penetible: C:\PMA\PLOT\ORDR.TBL
Plot Driver: 10416569_V8FULL-B&W_PDF.plt



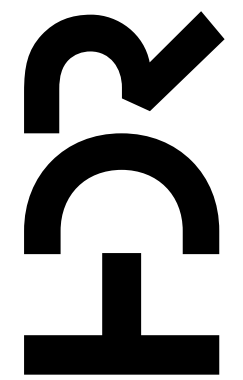
SHEET INDEX	
SHEET NO.	TITLE
B1	Plan & Elevation
B2	Typical Section & Quantities
B3	General Notes
B4	Excavation & Backfill
B5	Foundation Plan & Notes
B6	Abutment Footing Details
B7	Abutment 1 Plan & Elevation
B8	Abutment 2 Plan & Elevation
B9	Abutment & Wingwall Details
B10	Bottom Slab Details
B11	Pier Details
B12	Deck Slab Details
B13	Camber & Screed Elevations
B14-B18	Foundation Data Sheets



Kathryn Skinner, P.E., Director

Date	Designed	Drawn	Checked	Proj. Engr.
04/2026	GWS	TRK	DL	TWB
04/2026				
04/2026				

No.	Revision	Description	Engineer	Date

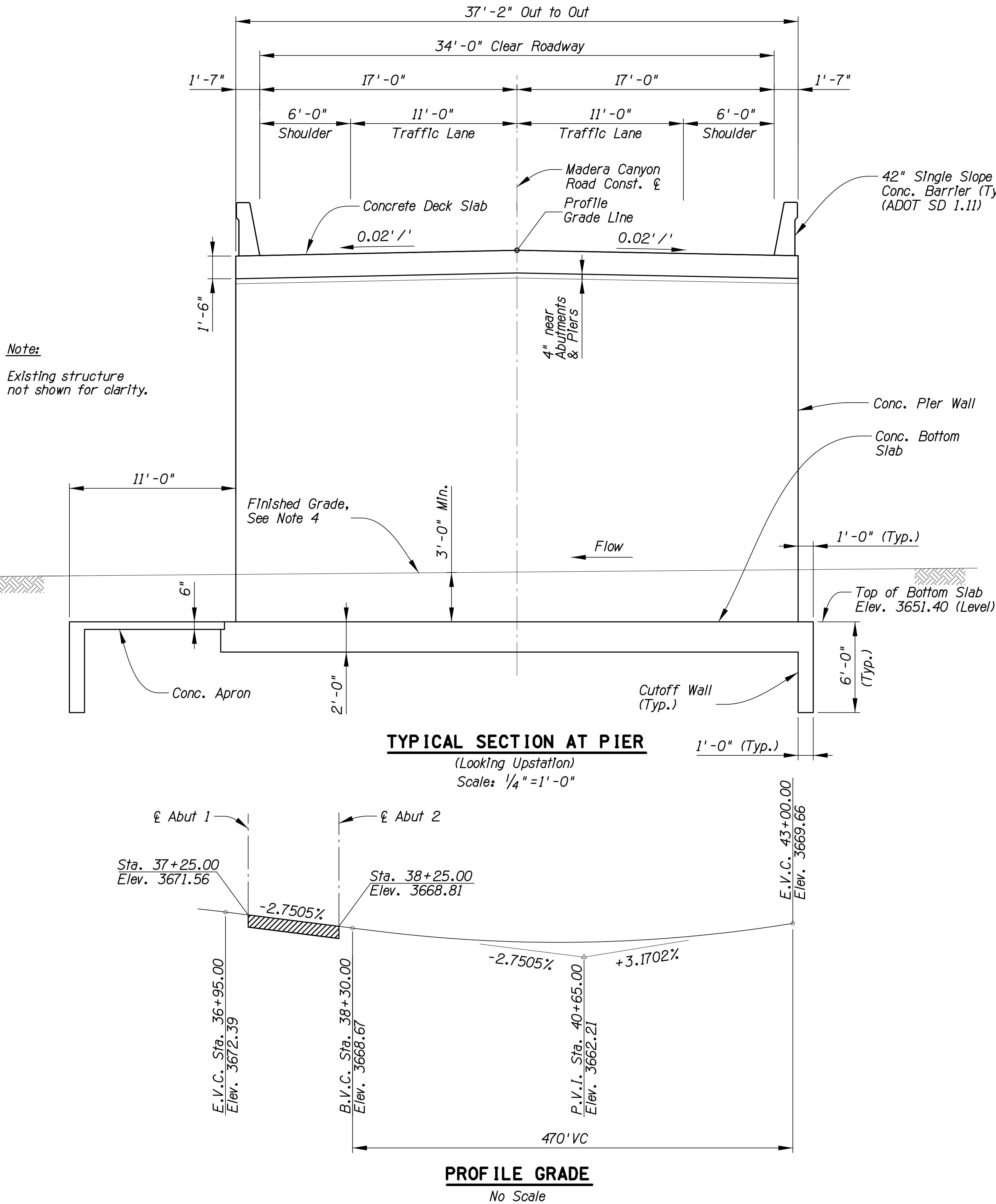


MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project ID: 10416569
Client Number: 4108
Pentable: C:\PMA\PROJECTS\TBL
Plotdriver: 10416569_V8FULL_B&W_PDF.plt



Approximate Quantities					
Item	Structural Excavation	Structure Backfill	Class 'S' Concrete	Class 'X' Concrete	Reinforcing Steel
			f'c=3,500 psi	f'c=4,500 psi	
	C.Y.	C.Y.	C.Y.	C.Y.	LB.
Abutment 1	-	155	92	-	32,235
Pier 1	-	-	30	-	10,955
Pier 2	-	-	28	-	10,560
Abutment 2	-	125	72	-	27,315
Bottom Slab, Wingwall Ftg., & Upstream Cutoff Wall	2,510	-	394	-	67,355
Concrete Apron & Downstream Cutoff Wall	385	-	45	-	4,790
Superstructure	-	-	-	220	62,020
Total	2,895	280	661	220	215,230
As Built Total					

Remove Bridge.....1 L.S.
42" Single Slope Bridge Concrete Barrier and Transition (ADOT SD 1.11).....265 L.F.
Approach Slab (ADOT SD 2.01).....1,119 S.F.

- Notes:
- Wingwall quantities are Included in abutment quantities. Wingwall footing quantities are Included in bottom slab quantities.
 - Single slope bridge barrier quantities Include concrete barrier transition on top of approach slab.
 - Quantities for structural excavation and structure backfill are provided for Information only. These are not direct pay items in this contract and shall be considered incidental to the bridge construction.
 - A portion of the excavated material shall be placed back over the new bottom slab and channel shall be graded to the approximate thalweg elevation shown on the plans or as directed by the Engineer. Cost shall be incidental to other contract items. Excess excavated material may be used elsewhere on the project at contractor's option, provided it meets the material specification requirements.
 - Aggregate base is paid for under item 3030003 and handrail (PAG Std. Dtl. 105) is paid for under item 9330009. Both of these items are not considered part of the bridge lump sum item.

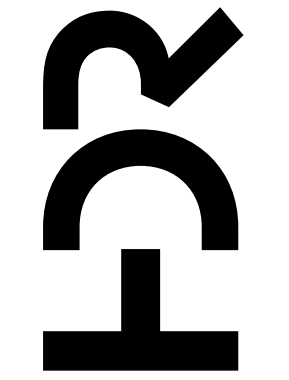


TYPICAL SECTION & QUANTITIES

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0127410			
T054101C					

Date	04/2026
Designed	GWS
Drawn	TRK
Checked	DL
Proj. Engr.	TWB

No.	Revision	Description	Engineer	Date



MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

Kathryn Skinner, P.E., Director

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project ID: 10416569
Client Number: 4108
Pentable: C:\PMA_PLOT\ORDR.TBL
Plotdriver: 10416569-V8FULL-B&W-PDF.plt

GENERAL NOTES:

Design Specifications

AASHTO LRFD Bridge Design Specifications, 9th Edition 2020 except as superseded by ADOT Bridge Design Guidelines.

Construction Specifications

Pima Association of Governments (PAG) Standard Specifications for Public Improvements 2015 Edition and the Special Provisions.

Design Loadings

Dead Load - Dead Load Includes allowance of 25 pounds per square foot (psf) for future wearing surface.

Live Load - AASHTO HL-93.

Hydraulic Design Criteria

Final Drainage Report provided by HDR Engineering, Inc. for Pima County Department of Transportation Project No. 24041PJ (HDR Project No. 10416569), March 2026.

Q₁₀₀ is based on the 100-yr precipitation levels increased by 15% in accordance with Pima County Flood Control Technical Policy, TECH-010.

Q₁₀₀ = 1608 cfs, V₁₀₀ = 10.4 fps, H.W. Elevation = 3659.9
Q₅₀₀ = 1424 cfs, V₅₀₀ = 9.7 fps, H.W. Elevation = 3659.6

Concrete and Reinforcement Strengths

Superstructure except Barriers (Class X) f'c = 4500 psi
Abutments, Pier Walls, Bottom Slab, Wingwalls, f'c = 3500 psi
Concrete Apron, and Cutoff Walls (Class S)
Approach Slabs and Barriers (Class S) f'c = 4000 psi
Grade 60 Reinforcing Steel fy = 60,000 psi
Grade 60 Longitudinal Deck Reinforcing Steel fs = 28,000 psi

Reinforcing steel shall conform to ASTM A615. All reinforcing shall be furnished as Grade 60.

All Mechanical splices of reinforcing steel shall develop 125% of the yield strength of the reinforcing bar and shall conform to the requirements for mechanical connections in Section 605-3.02 of the Standard Specifications.

All bends/hooks shall meet the requirements of AASHTO LRFD, Article 5.10.2.
All bend dimensions for reinforcing steel shall be out-to-out of bars.
All placement dimensions for reinforcing steel shall be to center of bars, unless noted otherwise.

All reinforcing shall have 2 inch clear cover, unless noted otherwise.

Concrete Barriers & Parapets

Concrete barriers shall be constructed after concrete deck falsework has been removed.

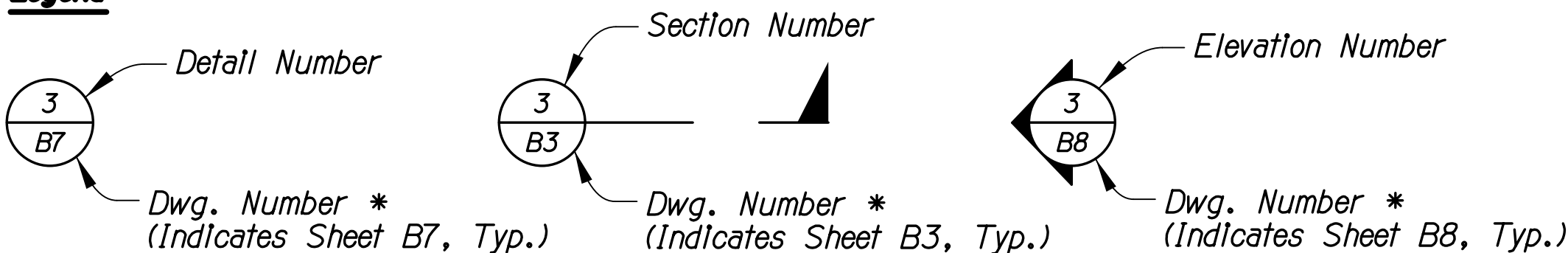
Concrete barriers shall not be slip formed.

Dimensions

Dimensions shall not be scaled from drawings. All dimensions are in feet and inches and all stations and elevations are in feet.

Vertical dimensions are measured plumb, unless noted otherwise.

Legend



* "-" Indicates Section or Detail is located on same drawing.

Construction Joints

All roughened construction joints to be roughened to 1/4" minimum amplitude.

Coordination

Contractor shall coordinate all existing conditions during construction of project. Utility information shown on the plans may not be complete or accurately depict the location of the facilities shown. The contractor shall coordinate the location of all existing, new, relocated, and abandoned utilities with the project plans and notify respective owners before commencing the work of excavation. Conflicts shall be brought to the attention of the Engineer and resolved prior to proceeding with the work.

Chamfer

All exposed corners shall be chamfered 3/4" unless noted otherwise. See Chamfer Detail this Sheet.

Standard Drawing List

ADOT Bridge Group SD Drawings - SD 1.11 and SD 2.01.
PAG Standard Detail Drawings - Std. Dtl. 105.

Inventory and Operating Rating

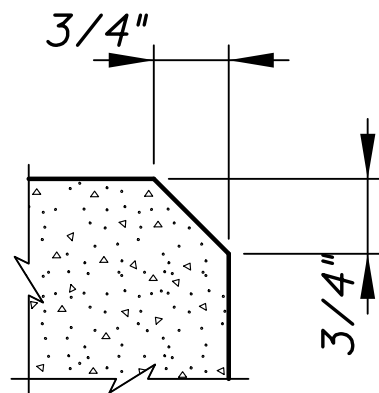
Inventory and operating ratings for HL-93 are in accordance with AASHTO Manual for Bridge Evaluation, 3rd Edition 2018 with Interim Revisions through 2019 and with the Load and Resistance Factor Rating Method.
Inventory Load Rating Factor: 1.65
Operating Load Rating Factor: 2.14

Existing Bridge Removal

The existing Madera Canyon Road Bridge at Medium Wash (Structure No. 8301) is a three-span cast-in-place slab bridge constructed in 1935. The Contractor shall remove the existing bridge. See Special Provisions.

Seismic

The bridge site is Site Class C with peak ground acceleration (PGA) = 0.069g and horizontal response spectral acceleration coefficient at 0.2 sec return period (S_s) of 0.158g, and horizontal response spectral acceleration coefficient at 1.0 sec return period (S₁) of 0.046g. The bridge site is classified as Seismic Zone 1.

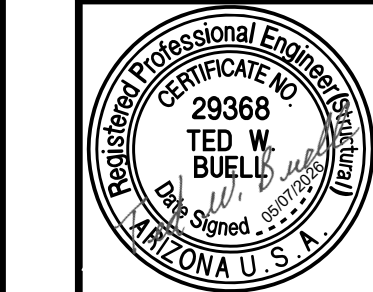


Chamfer all exposed corners thus unless otherwise noted.
This note applicable to all sheets pertaining to the structure.

CHAMFER DETAIL
No Scale



GENERAL NOTES



HDR

MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Kathryn Skinner, P.E., Director

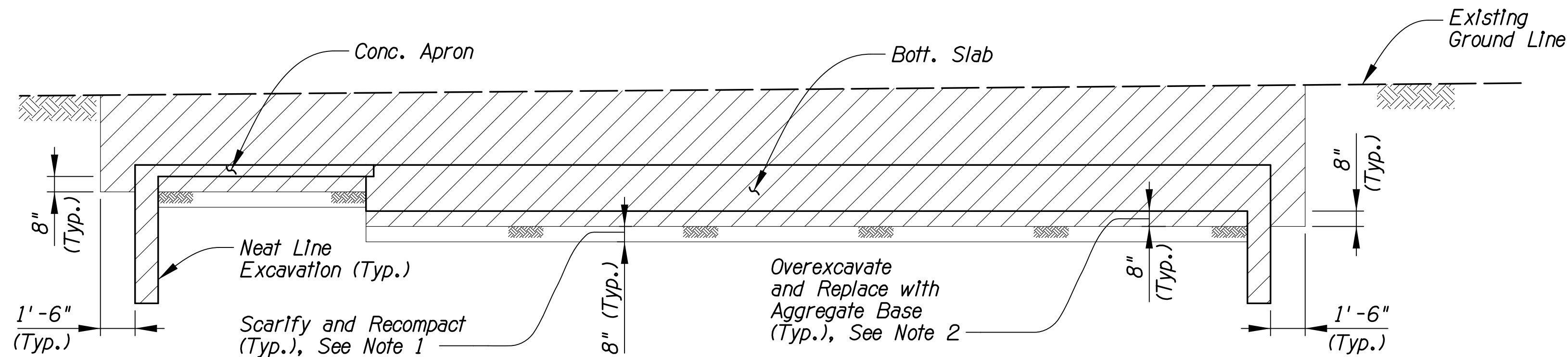
Date	Designed	Drawn	Checked	Proj. Engr.
04/2026	GWS	TRK	DL	TWB
04/2026				
04/2026				

No.	Revision Description	Engineer	Date

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project ID: 10416569
Client Number: 4108
Pentable: COTPMAL_PLOT000R.TBL
PlotDriver: 10416569_V8FULL_B&W_PDF.plt



TYPICAL TRANSVERSE SECTION

STRUCTURAL EXCAVATION LIMITS

Scale: 1/4"=1'-0"

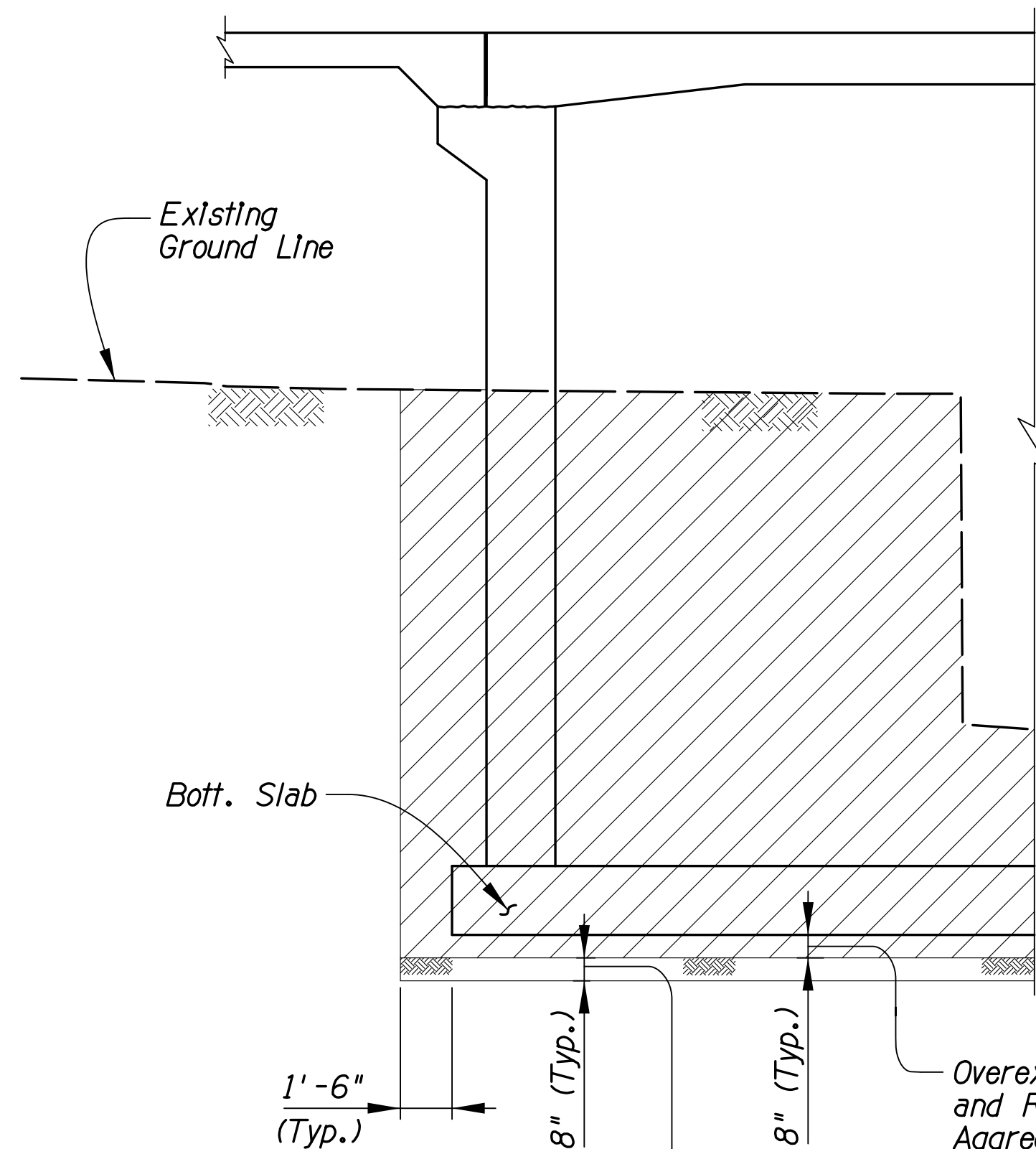
1

LEGEND:

- Structural Excavation
- Structure Backfill

Notes:

- The top 8" of the soil at the bottom of the excavation shall be moisture-conditioned and compacted to a density of not less than 100% and within $\pm 2\%$ optimum moisture content of the maximum dry density as determined in accordance with the requirements of Arizona Test Method 225.
- Aggregate Base shall conform to Section 303 of the PAG Standard Specifications and shall be compacted to a density of not less than 100% and within $\pm 2\%$ optimum moisture content of the maximum dry density as determined in accordance with the requirements of Arizona Test Method 225.
- Structural excavation, overexcavation, structure backfill, scarification, moisture conditioning, and recompaction are not direct pay items in this contract and shall be considered incidental to the bridge construction. Aggregate Base Course shall be paid for by the cubic yard under Item 3030003.
- Excavated material shall be placed back over the new bottom slab. See Note 4 on Sheet B2.

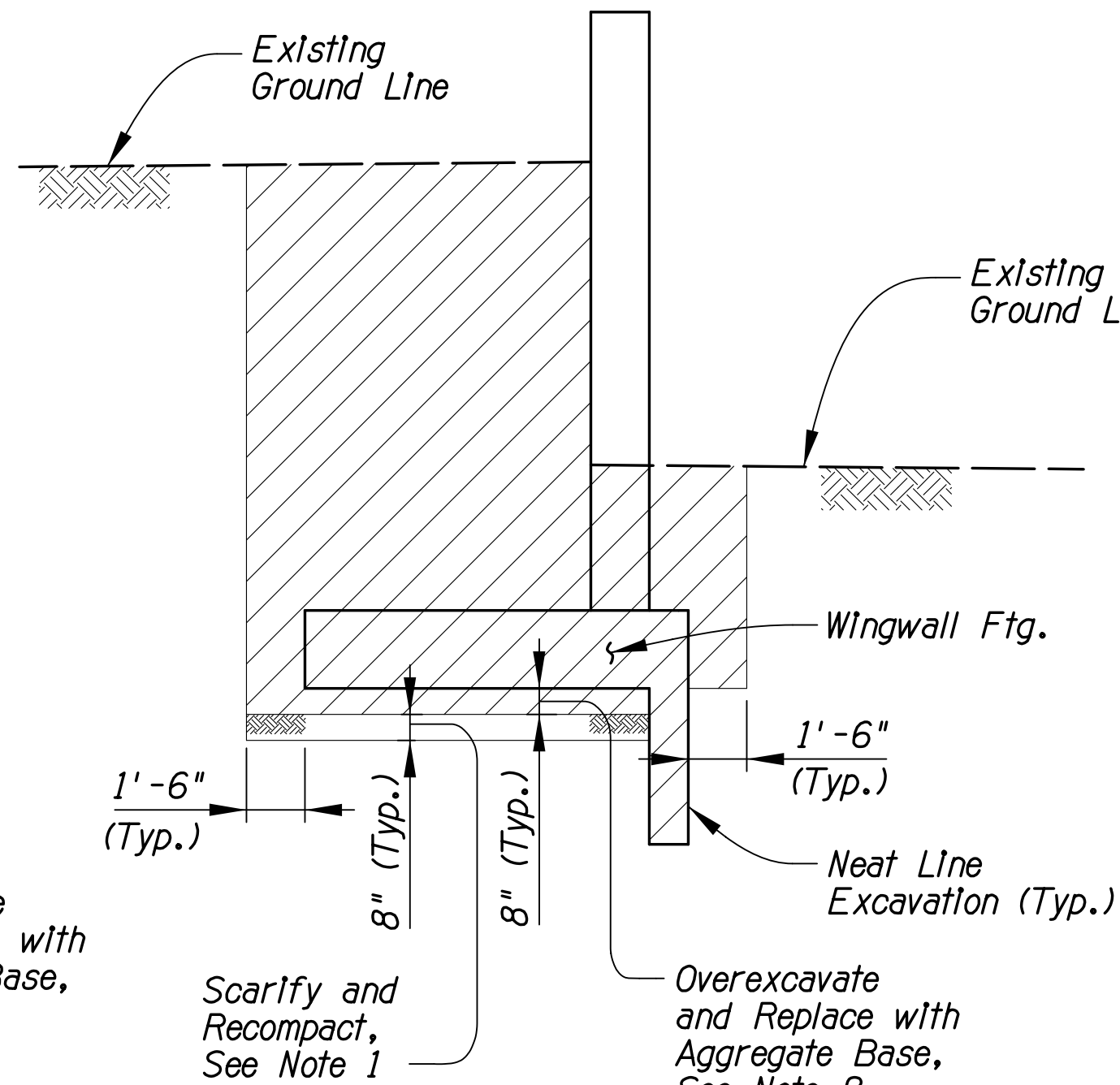


STRUCTURAL EXCAVATION - ABUTMENT

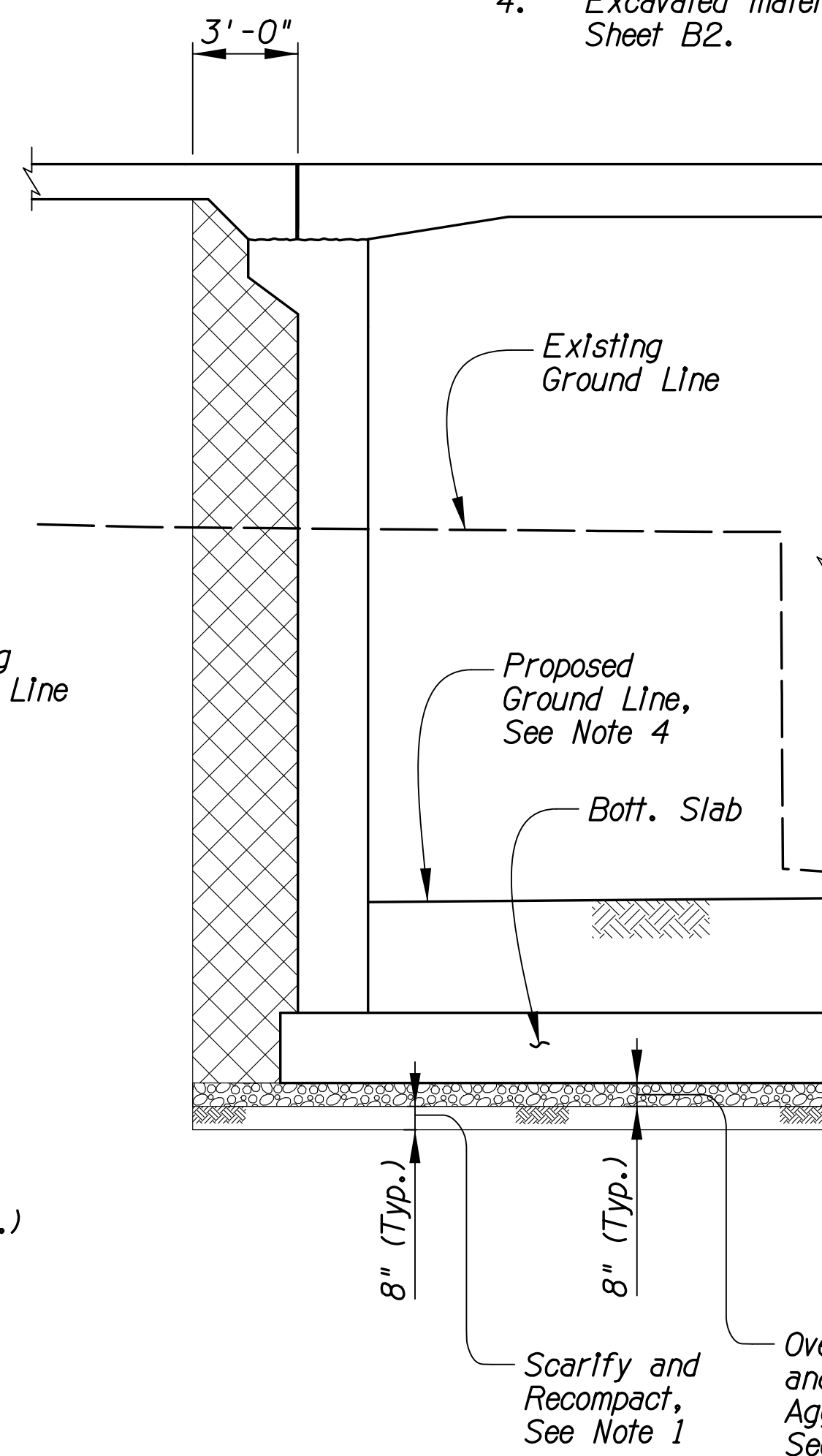
STRUCTURAL EXCAVATION LIMITS

Scale: 1/4"=1'-0"

2



STRUCTURAL EXCAVATION - WINGWALL

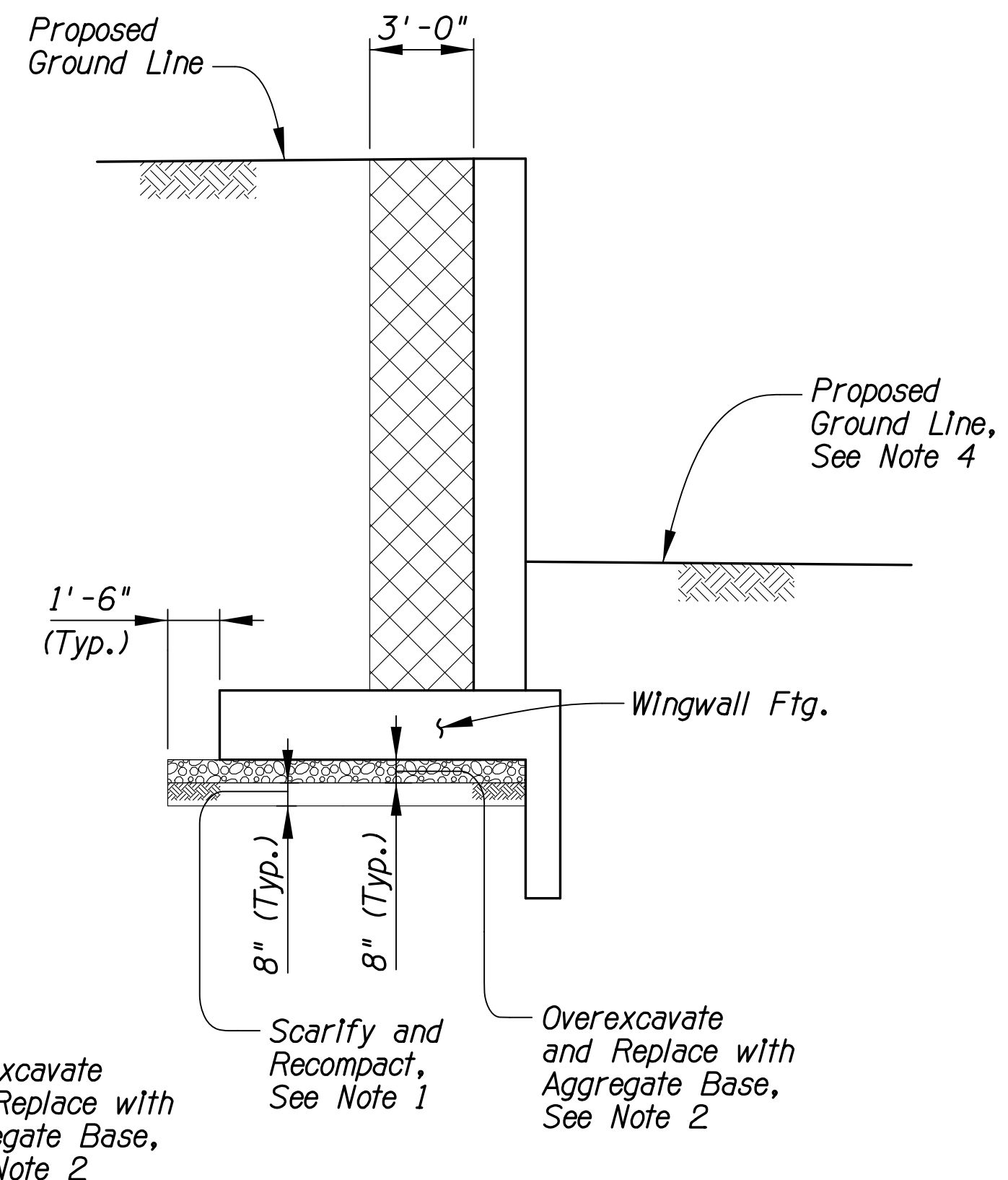


STRUCTURE BACKFILL - ABUTMENT

STRUCTURE BACKFILL LIMITS

Scale: 1/4"=1'-0"

3



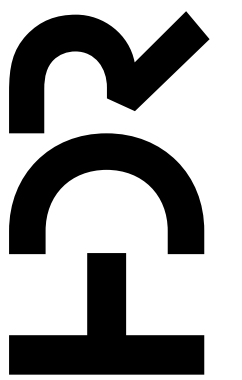
STRUCTURE BACKFILL - WINGWALL

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D			
T0541.01C					

Kathryn Skinner, P.E., Director

Date	Drawn	Checked	Proj. Engr.
04/2026	GWS	TRK	DL
04/2026			
04/2026			

No.	Revision	Description	Engineer	Date



MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

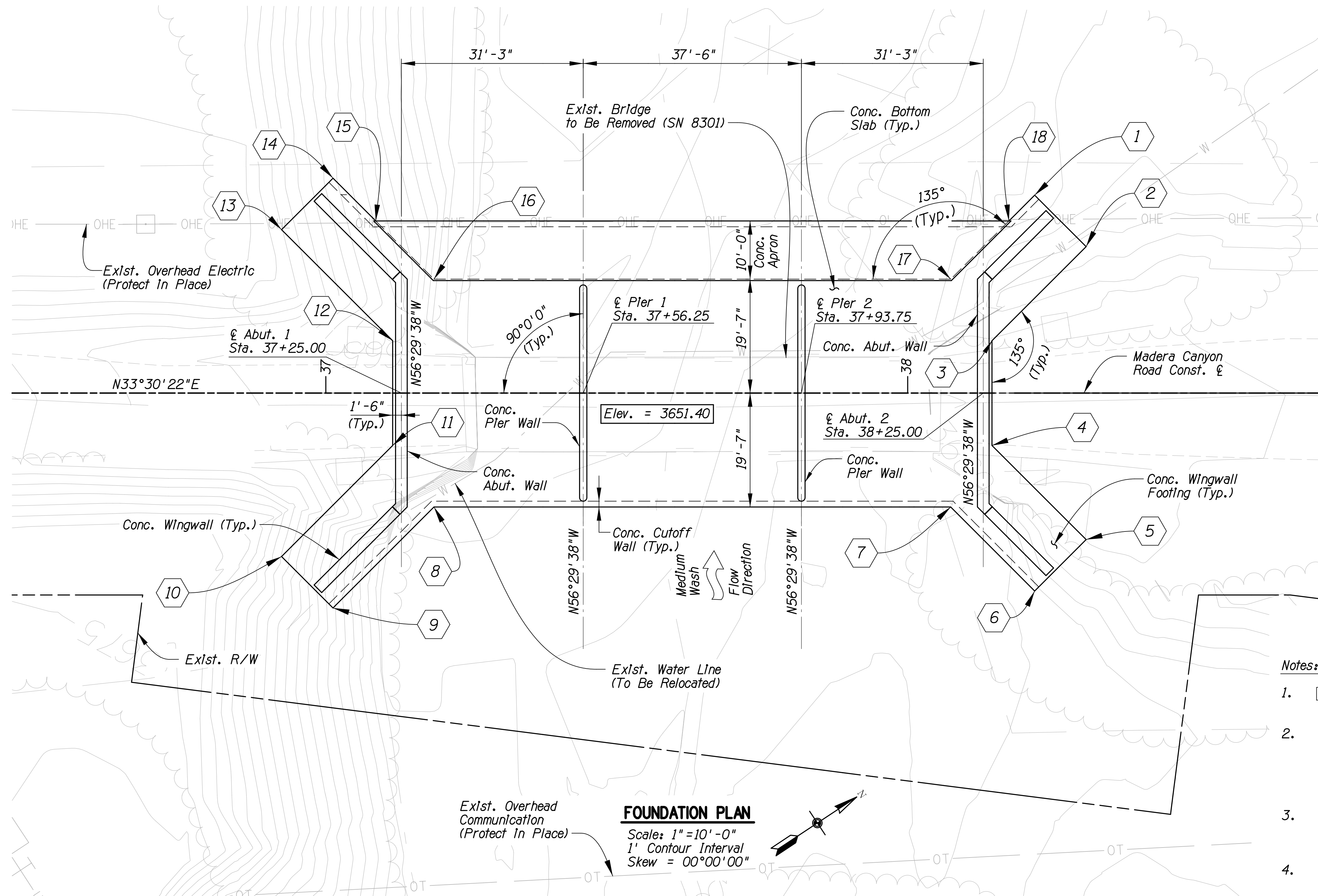
Pima County Department of Transportation



EXCAVATION & BACKFILL

Scales	Horiz.	Sheet B4 of B18	Page 25 of 63
	Vert.		

Project ID: 10416569
Client Number: 4108
Pentable: C:\PMA\PROJECTS\TBL
Plot Driver: 10416569_V8FULL_B&W_PDF.plt



BRIDGE REMOVAL NOTES:

- Removal of bridge Includes all approach slabs, retaining walls, wingwalls, cutoff walls, concrete barriers, concrete barrier footings, scour protection and related works. It is unknown whether existing foundations are supported on driven piles. If piles are encountered, they shall be removed to a minimum depth of 4 feet below the bottom of the bridge bottom slab. See Special Provisions for additional information.
- It is the contractor's responsibility to obtain all permits required for the bridge removal operation and to ensure that all the removal operation and transportation of the removed material satisfy all environmental regulations. See Environmental Mitigation Measures in Special Provisions for details.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D			
T0541/01C					

FOOTING CONSTRUCTION REFERENCE POINT		
PT	STATION	OFFSET
1	38+33.83	34.02' LT
2	38+42.67	25.18' LT
3	38+26.50	9.00' LT
4	38+26.50	9.00' RT
5	38+42.67	25.18' RT
6	38+33.83	34.02' RT
7	38+19.40	19.58' RT
8	37+30.59	19.58' RT
9	37+13.24	36.93' RT
10	37+04.40	28.09' RT
11	37+23.50	9.00' RT
12	37+23.50	9.00' LT
13	37+04.40	28.09' LT
14	37+13.24	36.93' LT
15	37+20.59	29.58' LT
16	37+30.59	19.58' LT
17	38+19.40	19.58' LT
18	38+29.40	29.58' LT

Notes:

- Denotes top of bottom slab and top of wingwall footing elevation.
- Geotechnical Foundation Report provided by HDR Engineering, Inc. for Pima County Department of Transportation Project No. 24043PJ and 24041PJ (HDR Project No. 10416569), dated March 2026.
- It is the responsibility of the prospective bidders to review the Geotechnical Foundation Report.
- See Drawings B14 to B18 for foundation data information.



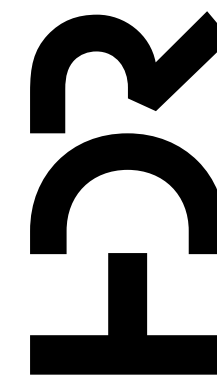
FOUNDATION PLAN & NOTES

Scales	Horiz.	Sheet B5 of B18	Page 26 of 63
	Vert.		

Kathryn Skinner, P.E., Director

Date	04/2026
Designed	GWS
Drawn	TRK
Checked	DL
Proj. Engr.	TWB

No.	Revision Description	Engineer	Date

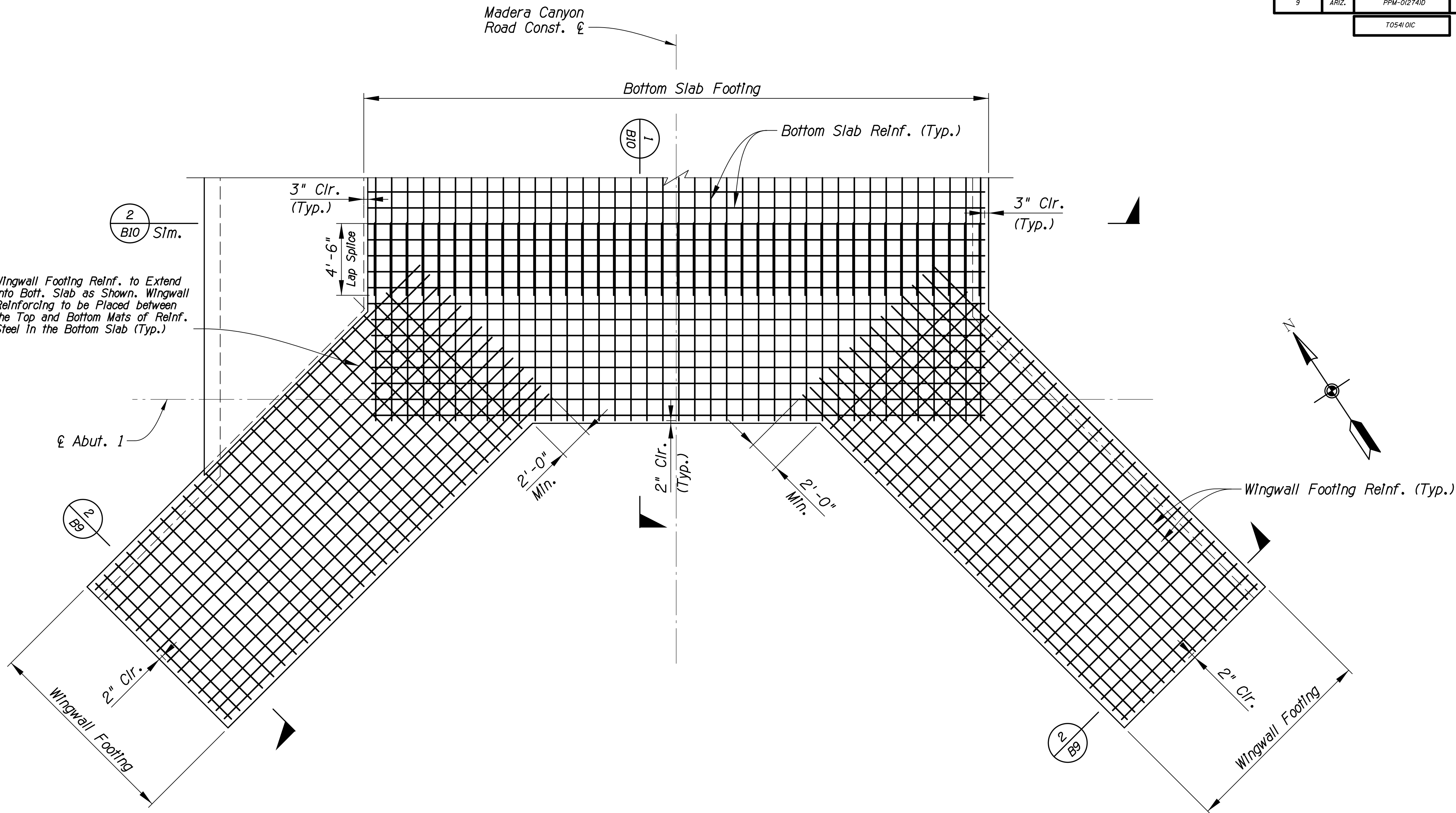


MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project ID: 10416569
Client Number: 4108
Pentable: C:\PWA_PLOT\ORDR.TBL
Plot Driver: 10416569_V8FULL_B&W_PDF.plt



ABUTMENT AND WINGWALL FOOTING REINFORCEMENT PLAN

(Abut. 1 shown, Abut. 2 similar)
Scale: 1/4" = 1' - 0"

Notes:

- For additional information not shown, see sheets B9 and B10.
- Vertical dowels at abutment walls and wingwalls not shown. Cutoff wall reinforcing, additional footing reinforcing near piers, and concrete apron reinforcing not shown.
- Bottom Slab transverse bars shall be placed parallel to abutment and pier centerlines. Spacing of transverse bars is measured along Const. CL.
- Bottom Slab longitudinal bars shall be placed parallel to Const. CL. Spacing of longitudinal bars is measured perpendicular to Const. CL.



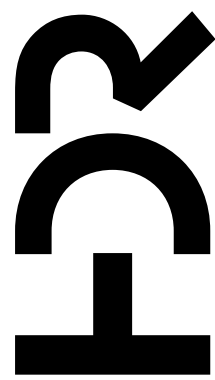
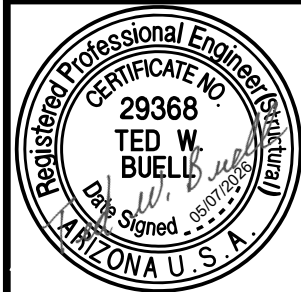
ABUTMENT FOOTING DETAILS

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D			
T054101C					

Kathryn Skinner, P.E., Director

Date	04/2026
Designed	GWS
Drawn	TRK
Checked	DL
Proj. Engr.	TWB
Date	04/2026

No.	Revision	Description	Engineer	Date

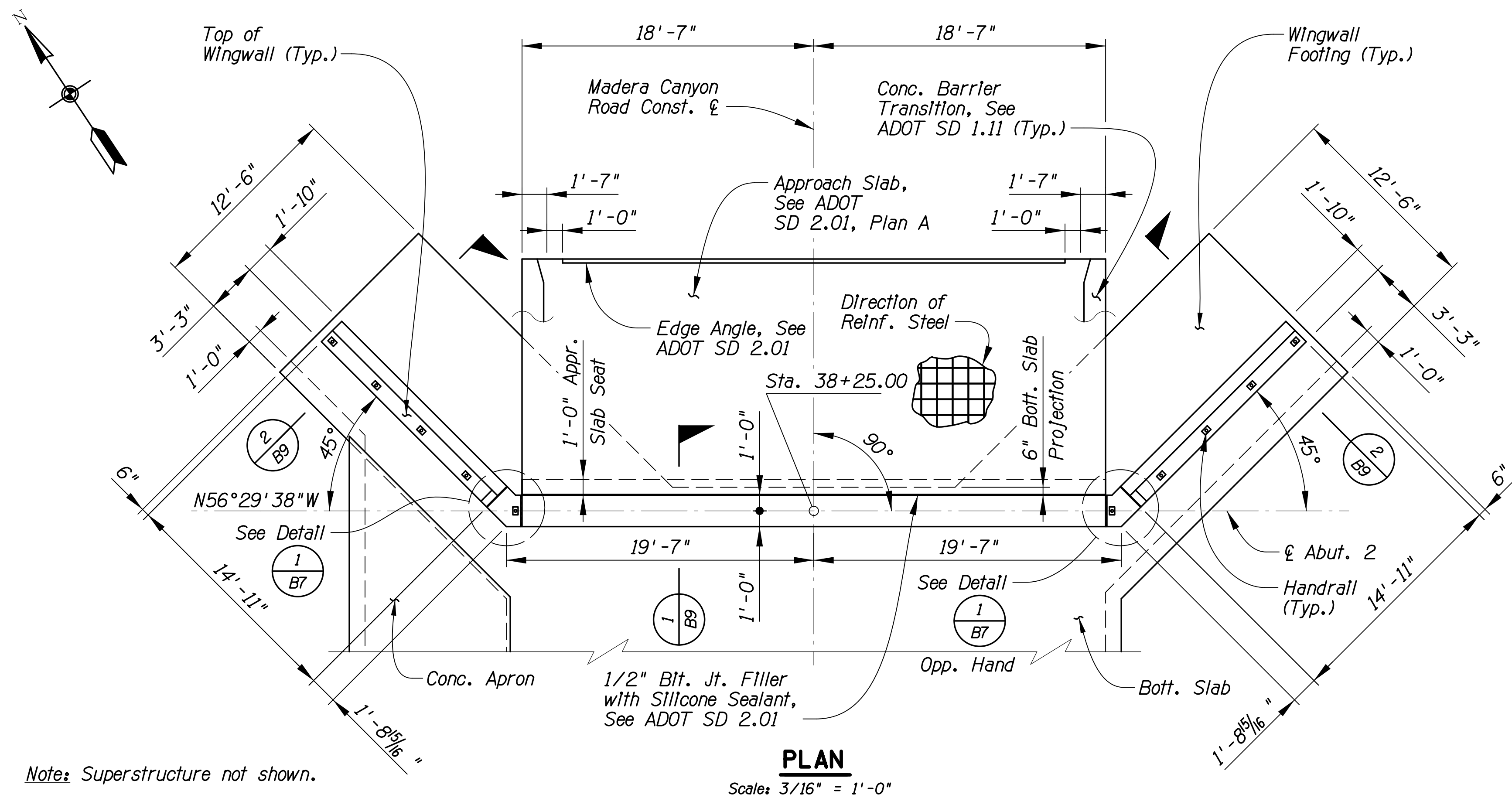


MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

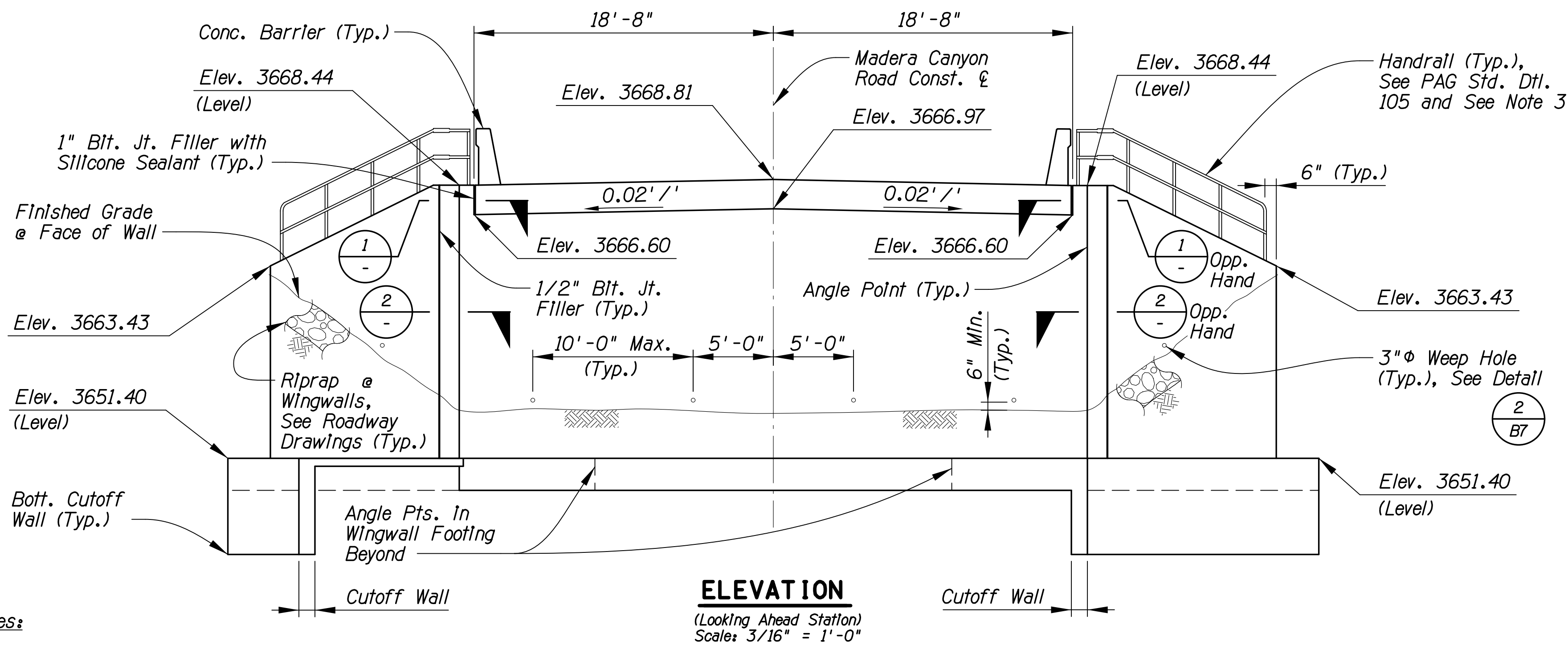
Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

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Client Number: 4108
PenTable: COTPMA_PLOTORDR.TBL
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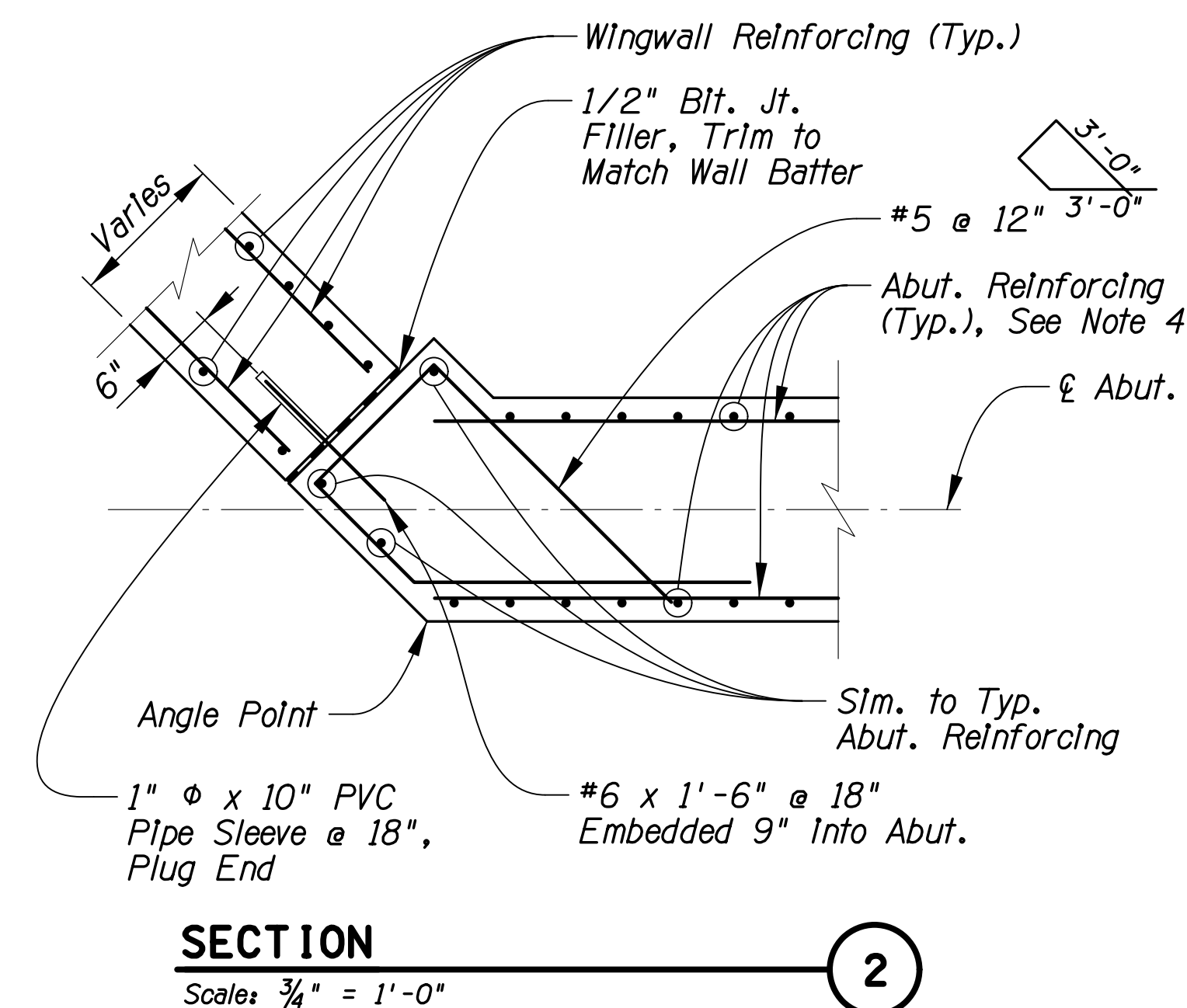
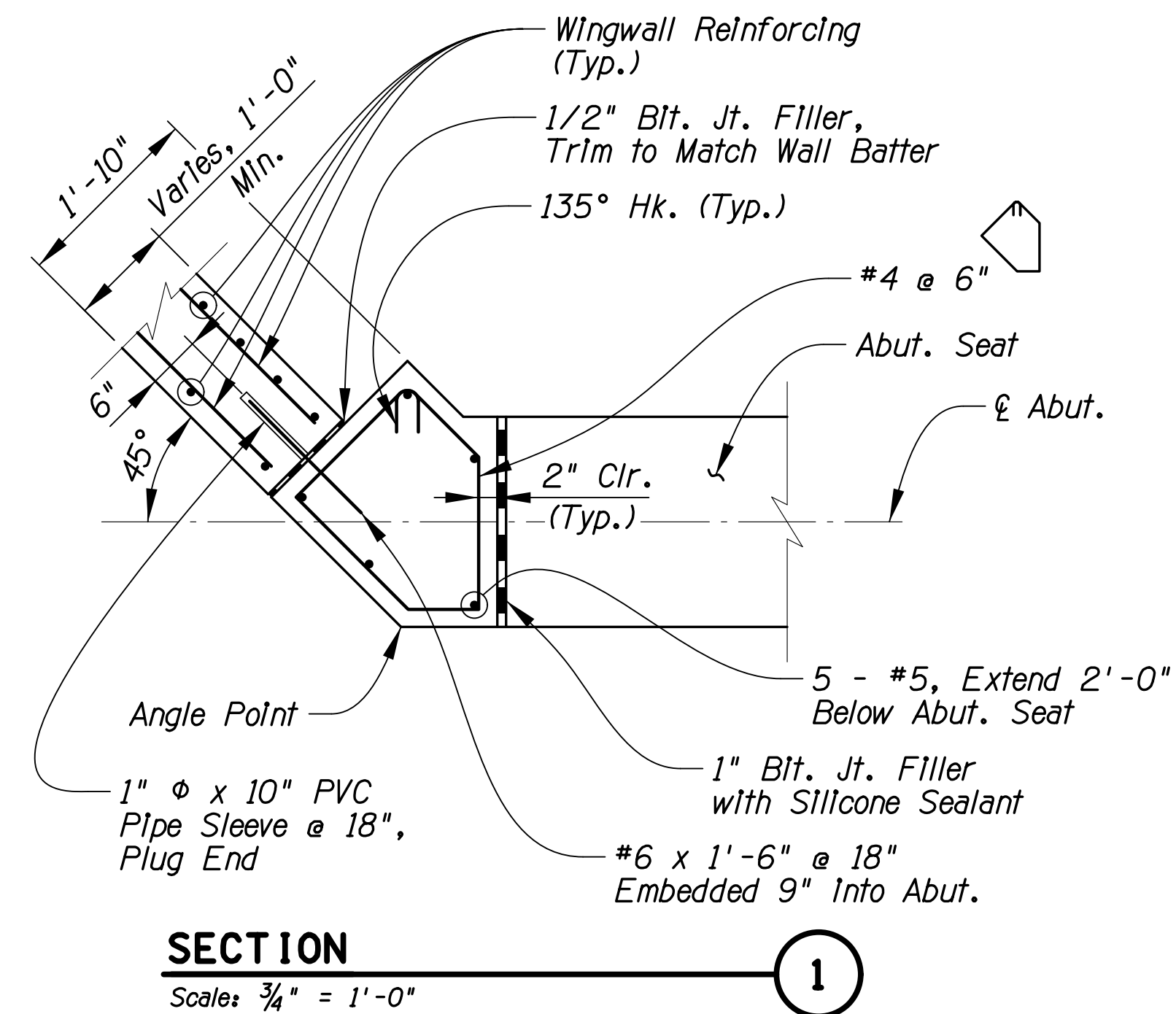
Note: Superstructure not shown.



Notes:

- Existing abutment not shown for clarity.
- Elevations are provided at abutment centerline and front face of wingwall.
- For PAG Std. Dtl. 105, place lower rail in Alternate Location and use End Treatment A at end of wall and End Treatment B adjacent to concrete bridge barrier. Provide angle point in handrail at top of wall near joint between wingwall and abutment wall, to match into end post on abutment.
- Typical vertical abutment reinforcing to hook into deck slab, except beyond edge of deck where it terminates with no hook at abutment seat.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D			
T054101C					



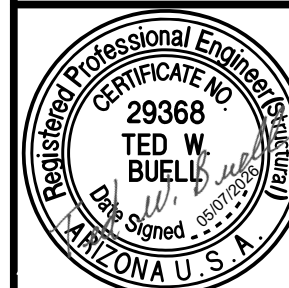
ABUTMENT 2 PLAN & ELEVATION

Scales	Horiz.	Vert.	Sheet	Page
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Pima County Department of Transportation

MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

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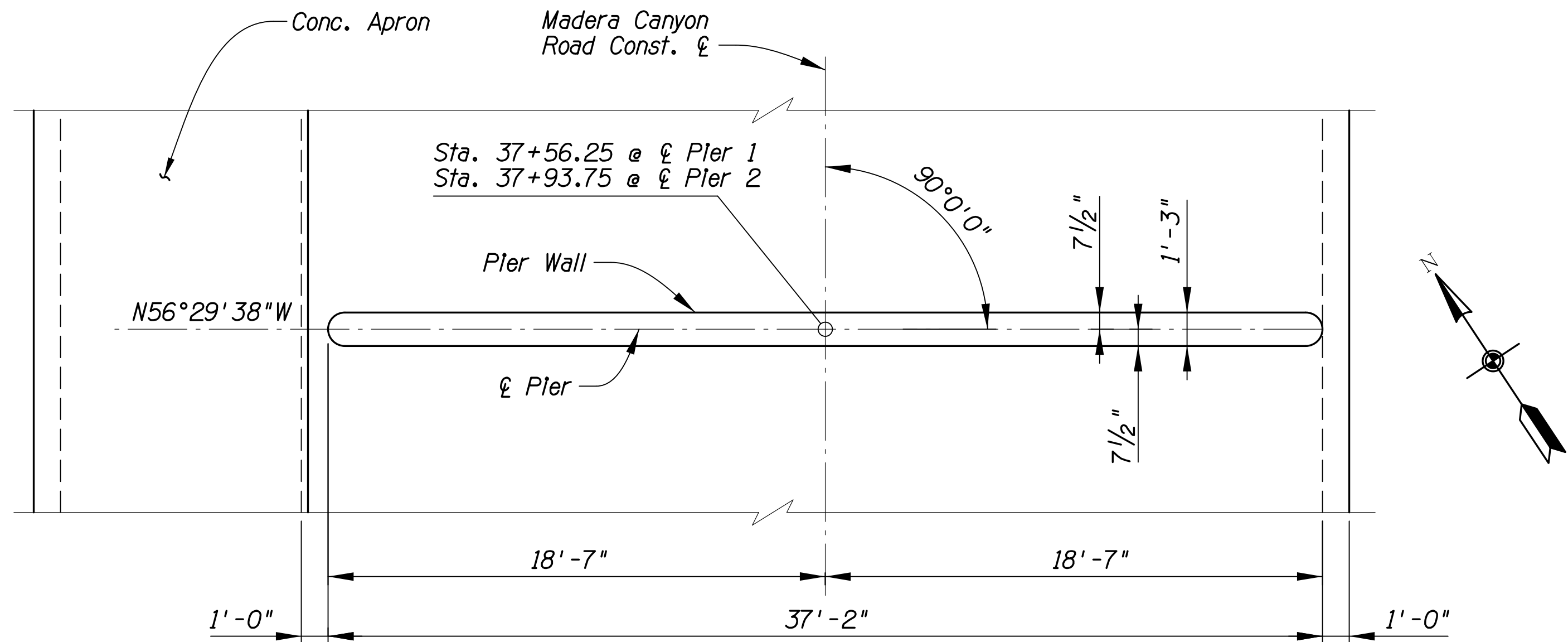
Kathryn Skinner, P.E., Director

No.	Revision	Description	Engineer	Date

Date	Designed	Drawn	Checked	Proj. Engr.
04/2026	GWS	GWS	DL	TWB
04/2026				
04/2026				

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

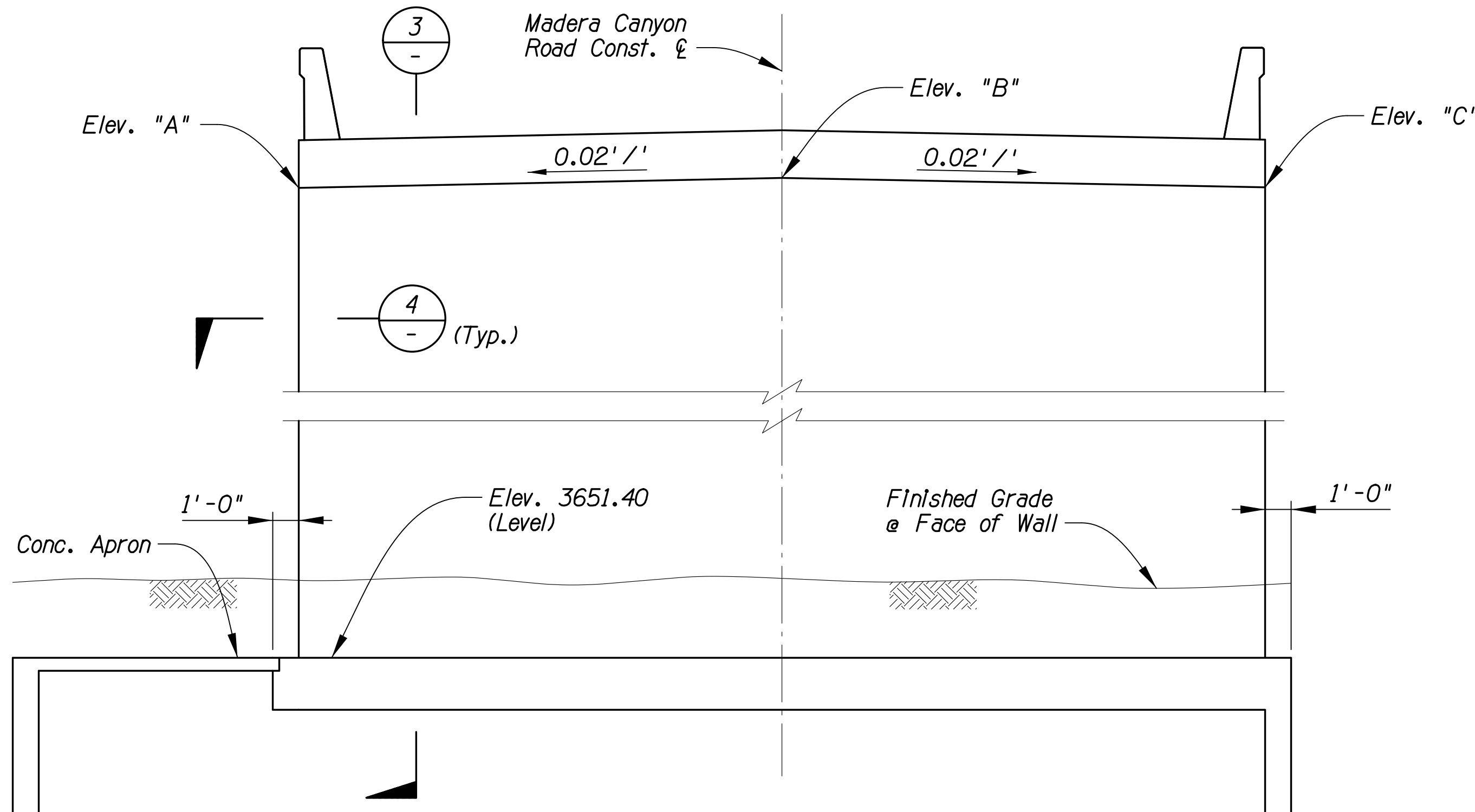
Project ID: 10416569
Client Number: 4108
Pentable: COTPMAL_PLOTORDR.TBL
Plotdriver: 10416569_V8FULL_B&W_PDF.plt



TYPICAL PIER PLAN

Scale: 1/4" = 1'-0"

1



TYPICAL PIER ELEVATION

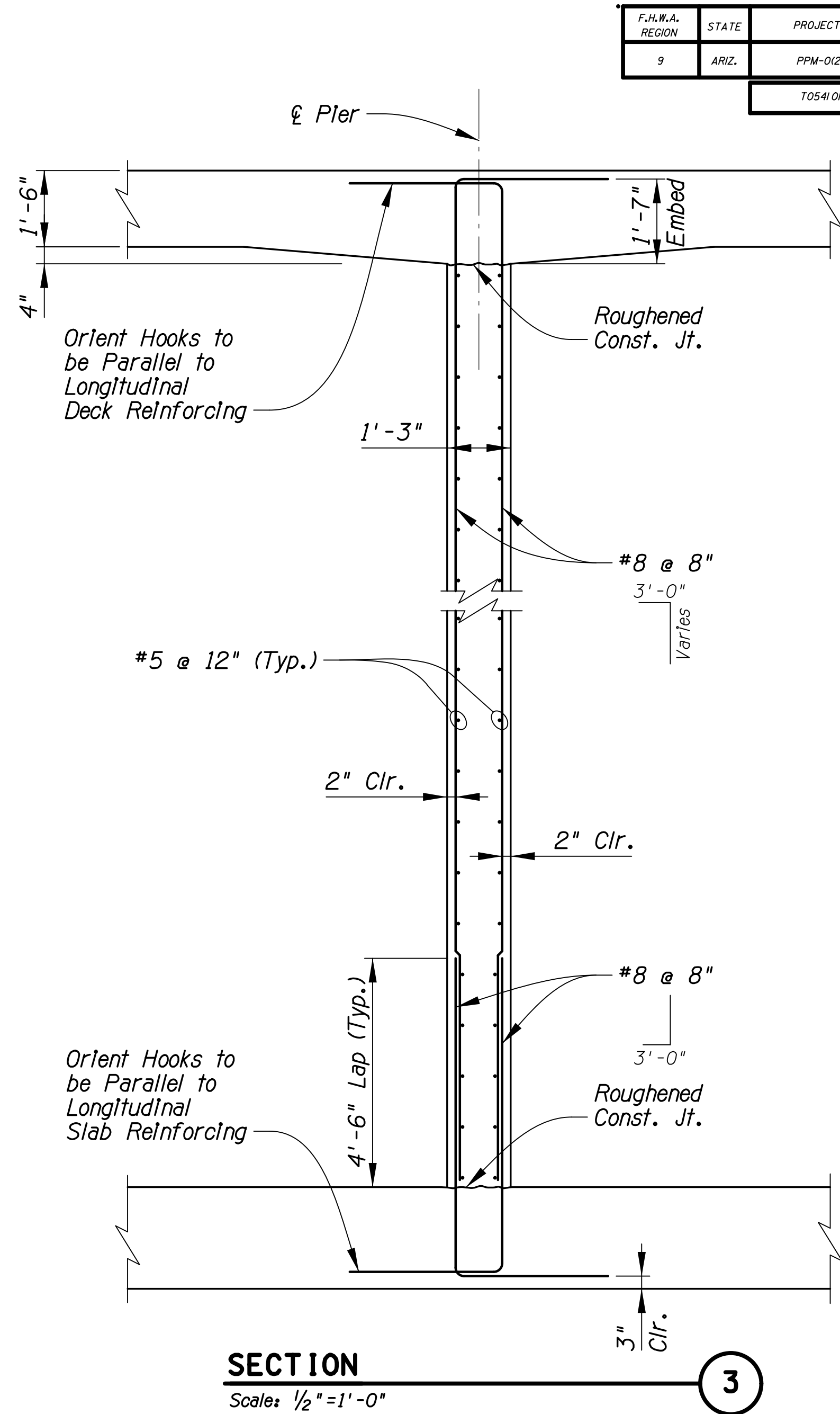
(Looking Ahead Station)

Scale: 1/4" = 1'-0"

2

TABLE OF ELEVATIONS*			
	Elev. "A"	Elev. "B"	Elev. "C"
Pier 1	3668.49	3668.86	3668.49
Pier 2	3667.46	3667.83	3667.46

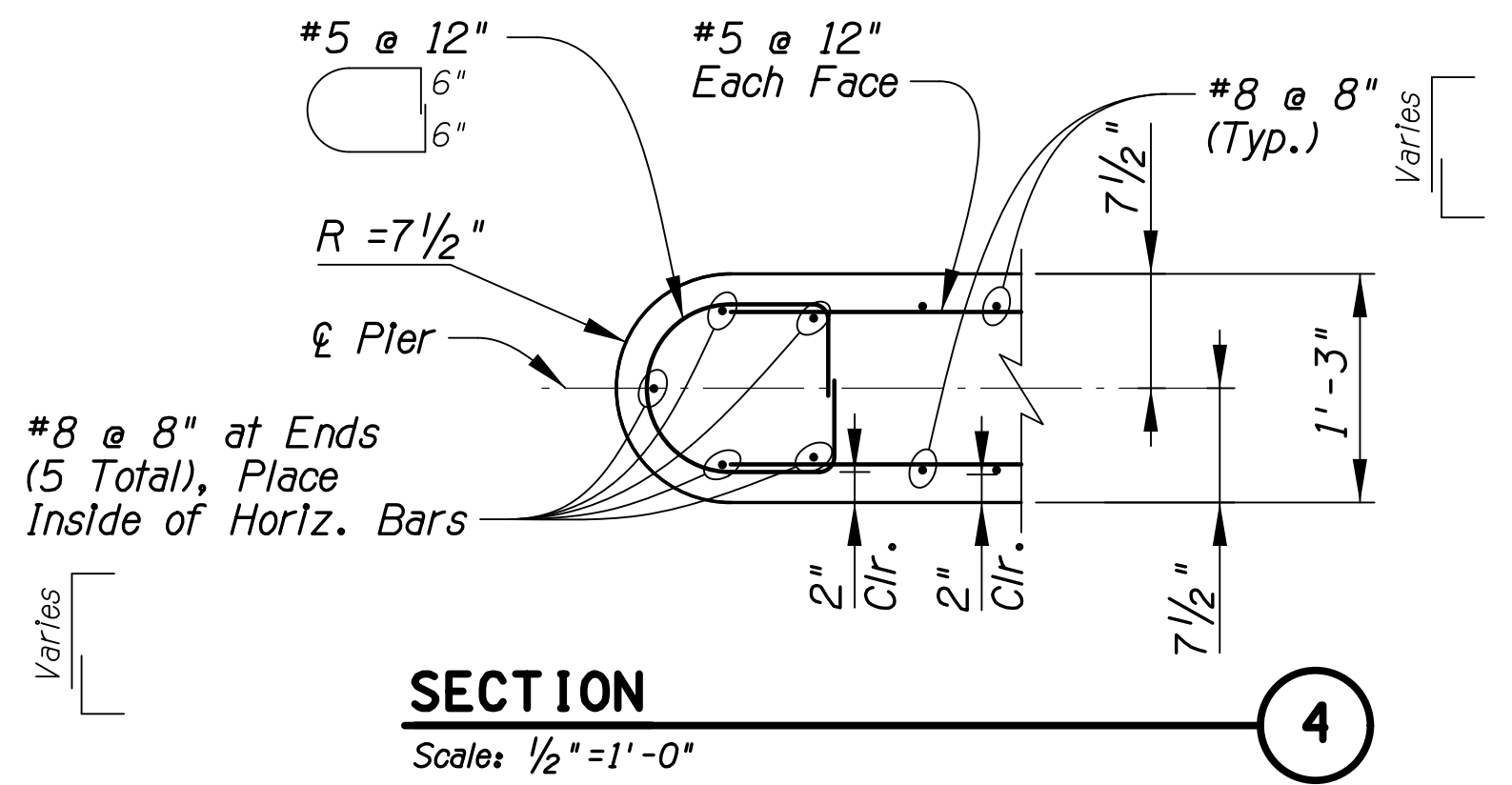
*Elevations shown are at ℓ pier at bottom of deck.



SECTION

Scale: 1/2" = 1'-0"

3



SECTION

Scale: 1/2" = 1'-0"

4

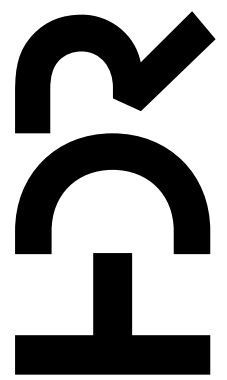


PIER DETAILS

Kathryn Skinner, P.E., Director

Date	Designed	Drawn	Checked	Proj. Engr.
04/2026	GWS	TRK	DL	TWB
04/2026				
04/2026				

No.	Revision	Description	Engineer	Date

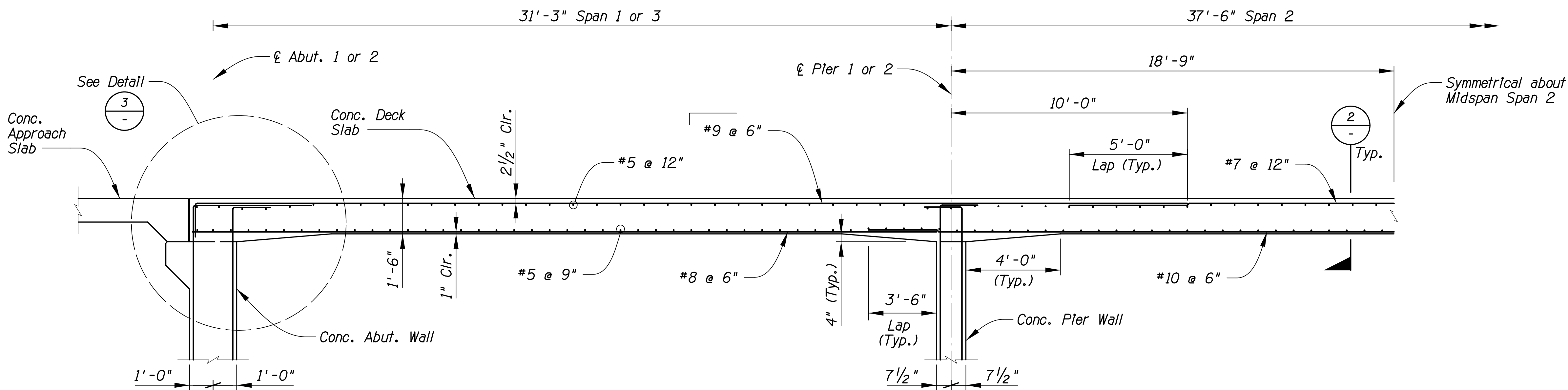


MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

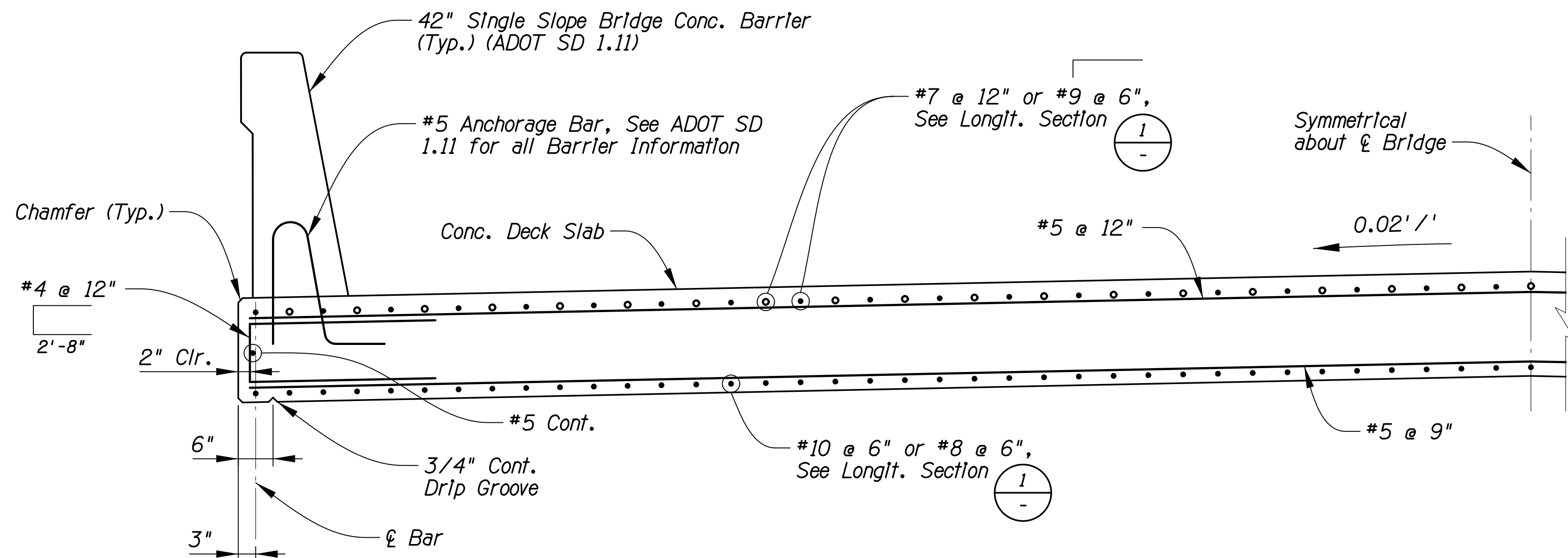
Project ID: 10416569
Client Number: 4108
Pentable: C:\PMA_PLOT\ORDR.TBL
Plot Driver: 10416569_V8FULL-8&W_PDF.plt



DECK SLAB LONGITUDINAL SECTION

Scale: 3/8" = 1'-0"

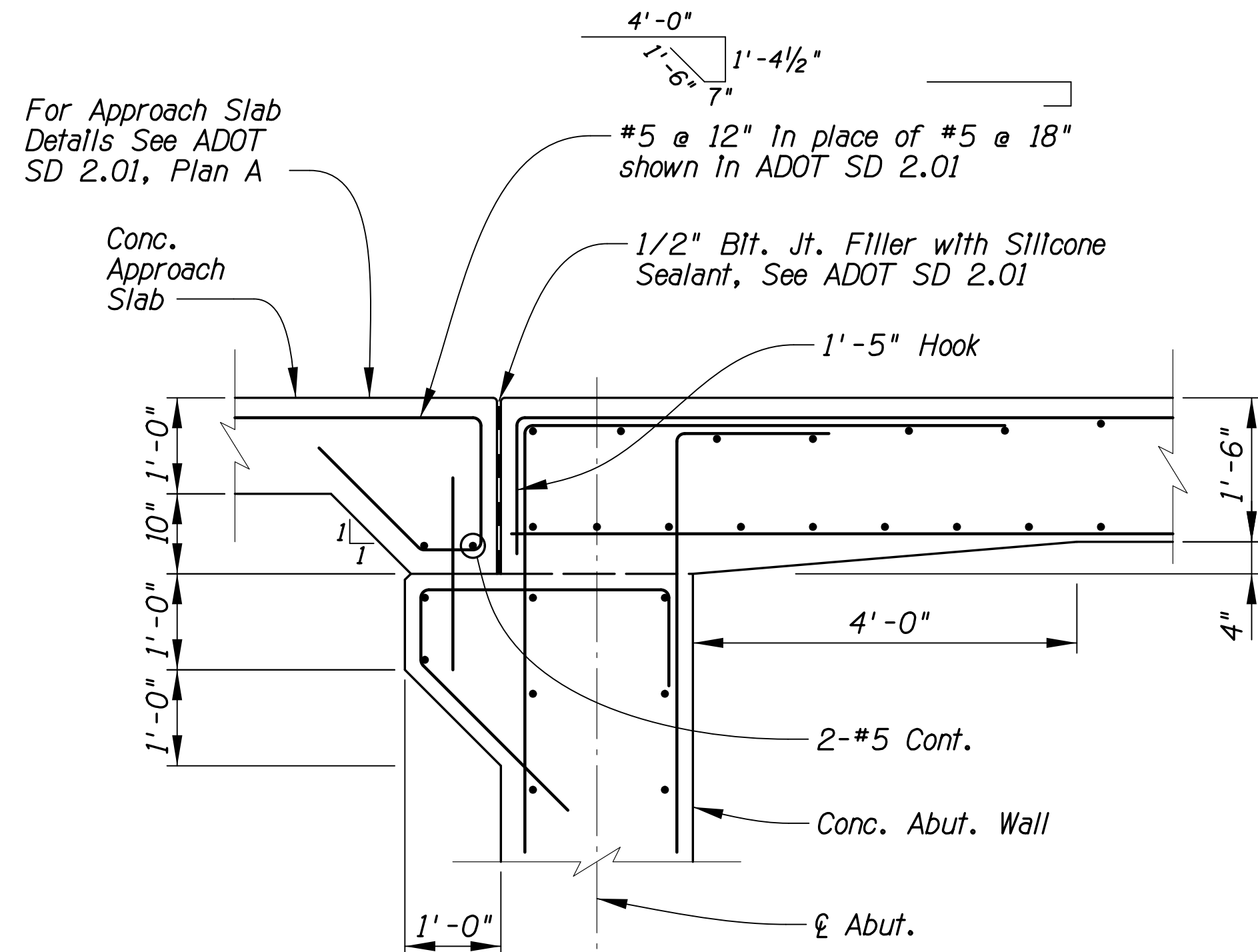
1



DECK SLAB TYPICAL TRANSVERSE SECTION

Scale: 3/4" = 1'-0"

2



DETAIL

Scale: 3/4" = 1'-0"

3

Notes:

- Deck slab transverse bars shall be placed parallel to abutment and pier centerlines. Spacing of transverse bars is measured along Const. CL.
- Deck slab longitudinal bars shall be placed parallel to Const. CL. Spacing of longitudinal bars is measured perpendicular to Const. CL.



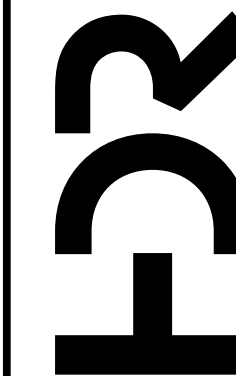
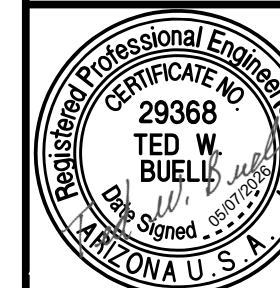
DECK SLAB DETAILS

Scales Horiz. Vert. Sheet B12 of B18 Page 33 of 63

Kathryn Skinner, P.E., Director

Date	Drawn	Checked	Proj. Engr.
04/2026	TRK	DL	04/2026

No.	Revision	Description	Engineer	Date

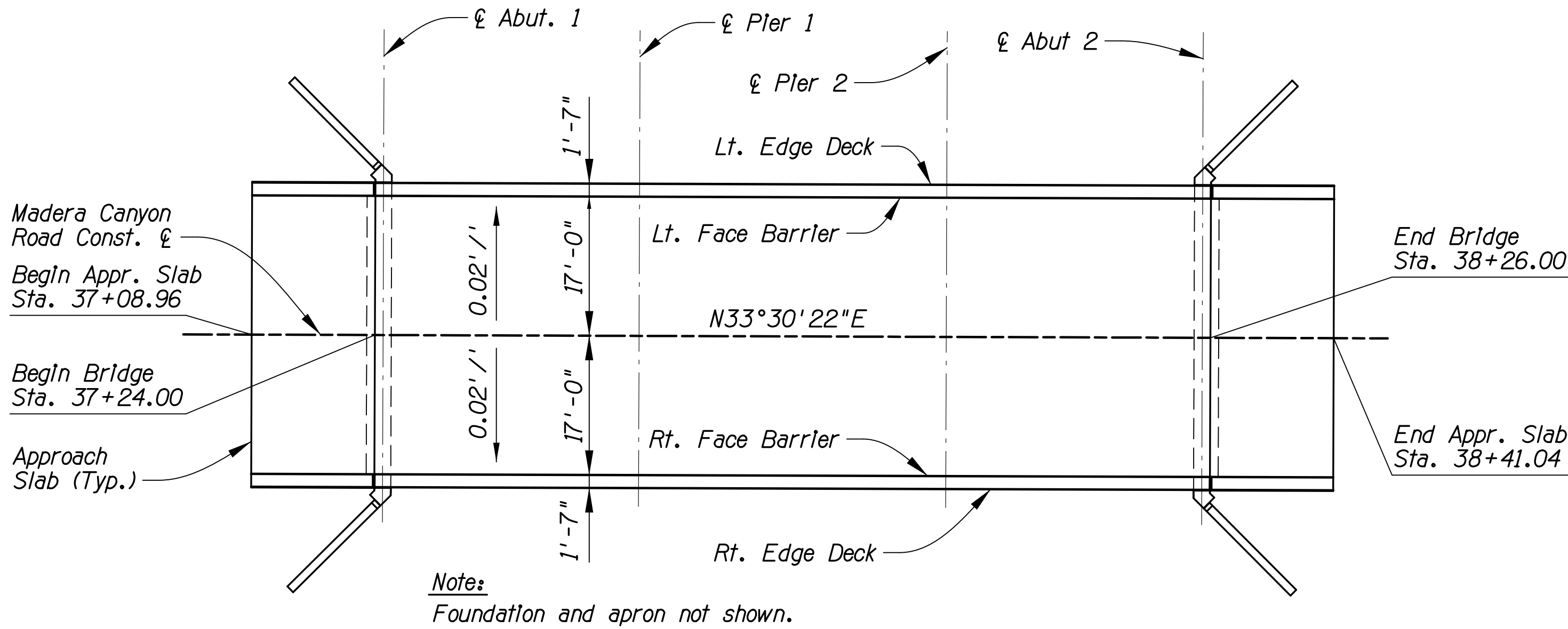


MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project ID: 10416569
Client Number: 4108
Pentable: COTPMALPLOTORDR.TBL
Plotdriver: 10416569_V8FULL_8&W_PDF.plt

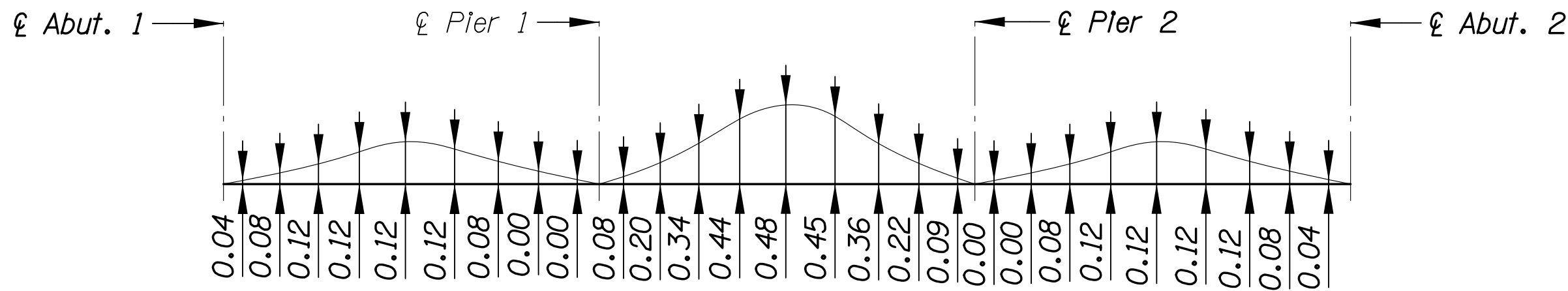


DECK SCREED ELEVATION PLAN
No Scale

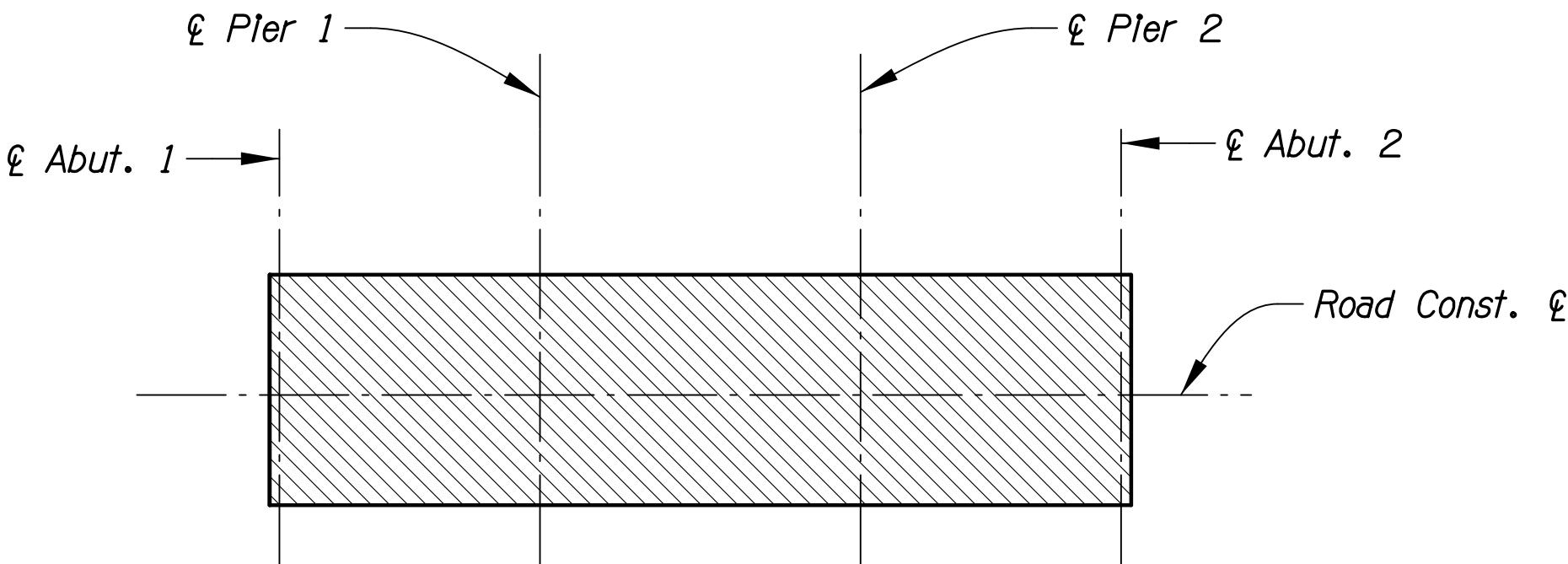
BRIDGE SCREED ELEVATIONS

Location	℄ Abut. 1	0.1 pt.	0.2 pt.	0.3 pt.	0.4 pt.	0.5 pt.	0.6 pt.	0.7 pt.	0.8 pt.	0.9 pt.	℄ Pier 1	0.1 pt.	0.2 pt.	0.3 pt.	0.4 pt.	0.5 pt.	0.6 pt.	0.7 pt.	0.8 pt.	0.9 pt.	℄ Pier 2
Lt. Edge Deck	3671.19	3671.10	3671.02	3670.94	3670.85	3670.77	3670.68	3670.59	3670.50	3670.41	3670.33	3670.23	3670.14	3670.05	3669.95	3669.85	3669.75	3669.63	3669.52	3669.41	3669.29
Lt. Face Barrier	3671.22	3671.13	3671.06	3670.97	3670.88	3670.80	3670.71	3670.63	3670.53	3670.44	3670.36	3670.26	3670.17	3670.08	3669.99	3669.88	3669.78	3669.67	3669.55	3669.44	3669.33
Const. ℄	3671.56	3671.47	3671.40	3671.31	3671.22	3671.14	3671.05	3670.97	3670.87	3670.78	3670.70	3670.60	3670.51	3670.42	3670.33	3670.22	3670.12	3670.01	3669.89	3669.78	3669.67
Rt. Face Barrier	3671.22	3671.13	3671.06	3670.97	3670.88	3670.80	3670.71	3670.63	3670.53	3670.44	3670.36	3670.26	3670.17	3670.08	3669.99	3669.88	3669.78	3669.67	3669.55	3669.44	3669.33
Rt. Edge Deck	3671.19	3671.10	3671.02	3670.94	3670.85	3670.77	3670.68	3670.59	3670.50	3670.41	3670.33	3670.23	3670.14	3670.05	3669.95	3669.85	3669.75	3669.63	3669.52	3669.41	3669.29

	℄ Pier 2	0.1 pt.	0.2 pt.	0.3 pt.	0.4 pt.	0.5 pt.	0.6 pt.	0.7 pt.	0.8 pt.	0.9 pt.	℄ Abut. 2
Lt. Edge Deck	3669.29	3669.21	3669.12	3669.05	3668.96	3668.87	3668.79	3668.70	3668.62	3668.52	3668.44
Lt. Face Barrier	3669.33	3669.24	3669.15	3669.08	3668.99	3668.91	3668.82	3668.73	3668.65	3668.55	3668.47
Const. ℄	3669.67	3669.58	3669.49	3669.42	3669.33	3669.25	3669.16	3669.07	3668.99	3668.89	3668.81
Rt. Face Barrier	3669.33	3669.24	3669.15	3669.08	3668.99	3668.91	3668.82	3668.73	3668.65	3668.55	3668.47
Rt. Edge Deck	3669.29	3669.21	3669.12	3669.05	3668.96	3668.87	3668.79	3668.70	3668.62	3668.52	3668.44



DEAD LOAD CAMBER DIAGRAM (IN)
No Scale



DECK POUR DIAGRAM
No Scale

POUR NOTES:

- Transverse and longitudinal construction joints are not allowed in the bridge deck. The entire deck shall be placed at one time.
- Alternative pouring sequences will require a no cost supplemental agreement detailing joint locations and conditions and shall be subject to approval of the Engineer.
- Contractor shall submit complete falsework drawings and structural calculations for review and approval by the Engineer prior to construction. See Standard Specifications.

APPROACH SLAB FINISH GRADE ELEVATIONS

Location	ABUTMENT 1		ABUTMENT 2	
	Begin	End	Begin	End
Lt. Edge	3671.63	3671.21	3668.41	3668.00
Const. ℄	3672.00	3671.58	3668.78	3668.37
Rt. Edge	3671.63	3671.21	3668.41	3668.00

SCREED ELEVATION NOTES:

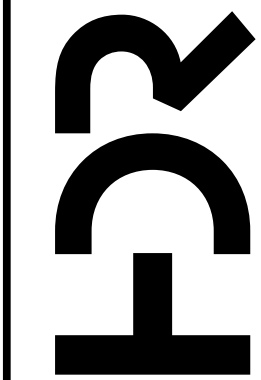
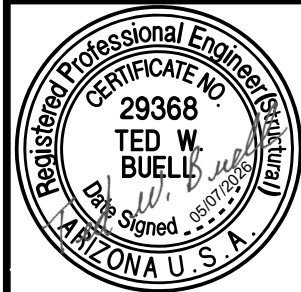
- Bridge screed elevations are taken along lines parallel to Abutment and Pier ℄.
- The Screed Elevation Includes an allowance for deflection due to the dead load of the concrete deck slab and shall be used in setting screeds. (DO NOT USE FINISHED GRADE ELEVATIONS FOR SETTING SCREEDS)
- Forms for new construction shall be cambered for dead load deflections, vertical profile, form deflections and falsework settlement. The dead load camber diagram is for dead load only and does not include 25 psf for future wearing surface.
- Screed elevations may have to be adjusted to accommodate as-built conditions. Adjustments to the screed elevations will require approval of the Engineer.



CAMBER & SCREED ELEVATIONS

Kathryn Skinner, P.E., Director

No.	Revision	Description	Engineer	Date

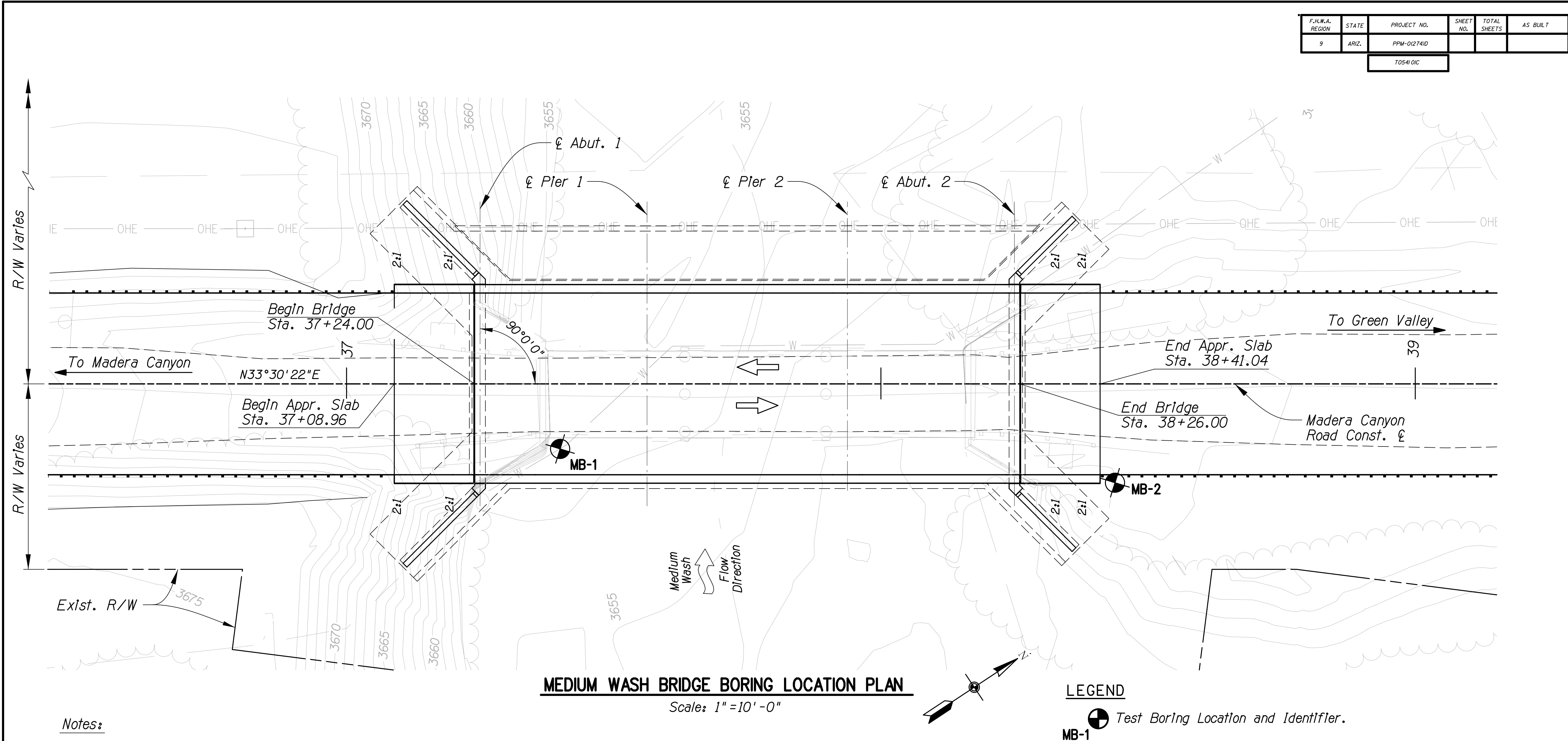


MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project ID: 10416569
Client Number: 4108
Pentable: C:\PMA_PLOT\ORDR.TBL
Plotdriver: 10416569_V8FULL-B&W_PDF.plt



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-O(274)D			
T0541 OIC					

Pima County Department of Transportation

**MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ**

HDR

Arizona Blue Stake, Inc.
62779
LOUIS D. BRAUN
05/08/2026
ARIZONA, U.S.A.

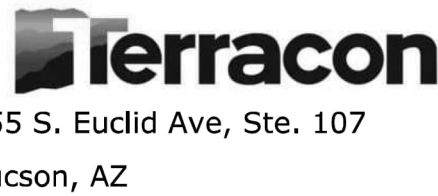
Kathryn Skinner, P.E., Director

Date	04/2026
Designed	GWS
Drawn	TRK
Checked	DL
Proj. Engr.	TWB

Date	
Engineer	
Revision Description	
No.	



Project ID: 10416569
Client Number: 4108
PenTable: COTPM_A_PLO.TORDR.TBL
PlotDriver: 10416569_V8FULL_E&W_PDF.plt



General Notes

Sampling	Water Level	Field Tests
Auger Cuttings Rock Core Ring Sampler Standard Penetration Test	Water Initially Encountered Water Level After a Specified Period of Time Water Level After a Specified Period of Time Cave In Encountered Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.	NStandard Penetration Test Resistance (Blows/Ft.) (HP)Hand Penetrometer (T)Torvane (DCP)Dynamic Cone Penetrometer UCUnconfined Compressive Strength (PID)Photo-Ionization Detector (OVA)Organic Vapor Analyzer

Descriptive Soil Classification
Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

Location And Elevation Notes
Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See Exploration and Testing Procedures in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

Strength Terms									
Relative Density of Coarse-Grained Soils (More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance			Consistency of Fine-Grained Soils (50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance				Bedrock		
Relative Density	Standard Penetration or N-Value (Blows/Ft.)	Ring Sampler (Blows/Ft.)	Consistency	Unconfined Compressive Strength Qu (psf)	Standard Penetration or N-Value (Blows/Ft.)	Ring Sampler (Blows/Ft.)	Ring Sampler (Blows/Ft.)	Standard Penetration or N-Value (Blows/Ft.)	Consistency
Very Loose	0 - 3	0 - 5	Very Soft	less than 500	0 - 1	< 3	< 30	< 20	Weathered
Loose	4 - 9	6 - 14	Soft	500 to 1,000	2 - 4	3 - 6	30 - 43	20 - 29	Firm
Medium Dense	10 - 29	15 - 44	Medium Stiff	1,000 to 2,000	4 - 8	7 - 12	44 - 73	30 - 49	Medium Hard
Dense	30 - 50	45 - 75	Stiff	2,000 to 4,000	8 - 15	13 - 23	74 - 118	50 - 79	Hard
Very Dense	> 50	> 75	Very Stiff	4,000 to 8,000	15 - 30	24 - 45	> 118	>79	Very Hard
			Hard	> 8,000	> 30	> 45			

Relevance of Exploration and Laboratory Test Results
Exploration/field results and/or laboratory test data contained within this document are intended for application to the project as described in this document. Use of such exploration/field results and/or laboratory test data should not be used independently of this document.

Facilities | Environmental | Geotechnical | Materials

Geotechnical Data Report

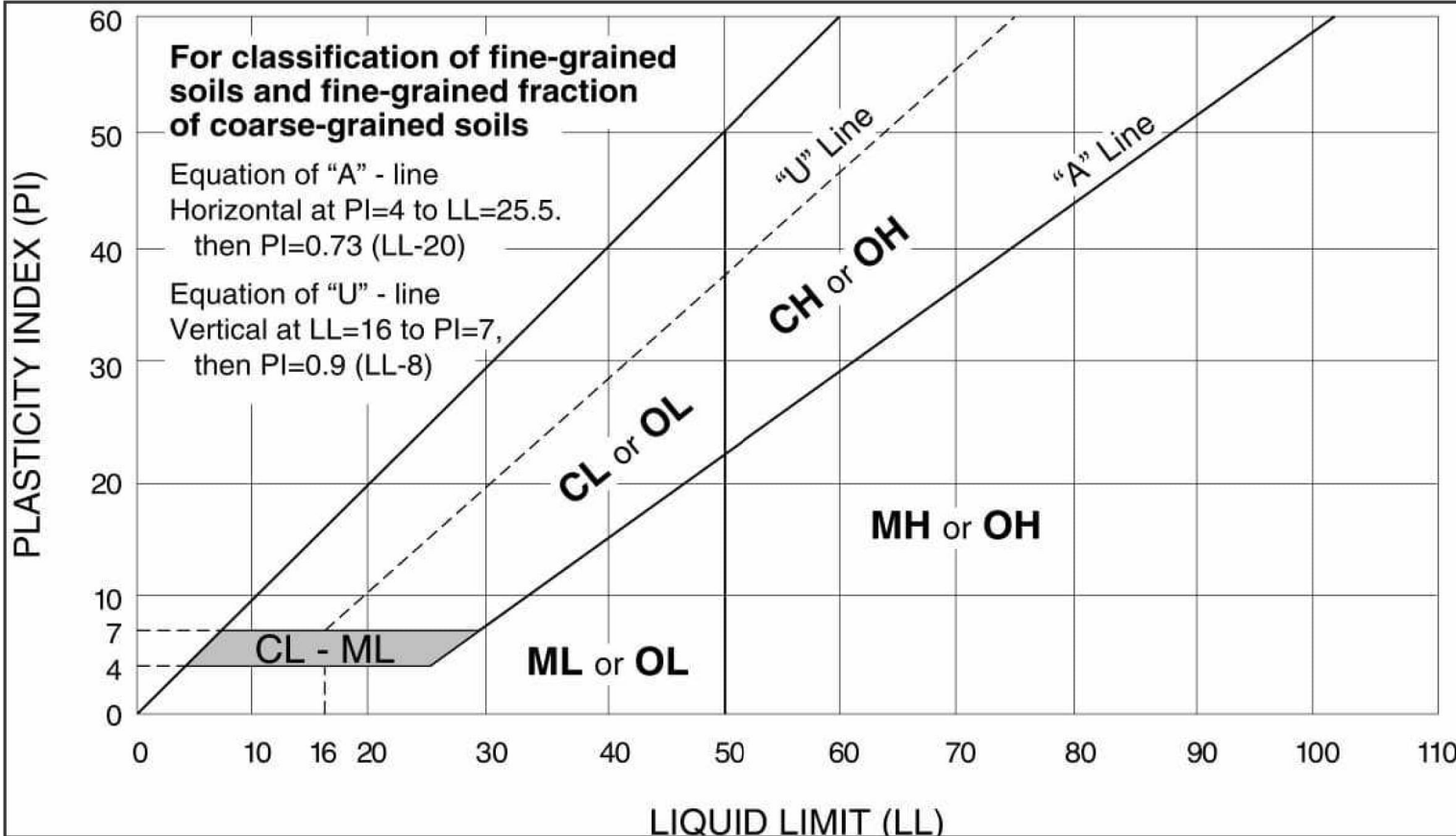
Madera Canyon Road, Florida Canyon Wash and Medium Wash Bridges | Pima County, Arizona
November 18, 2025 | Terracon Project No. 63245064



Unified Soil Classification System

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests ^A				Soil Classification	
				Group Symbol	Group Name ^B
Coarse-Grained Soils: More than 50% retained on No. 200 sieve	Gravels: More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels: Less than 5% fines ^C	Cu≥4 and 1≤Cc≤3 ^E	GW	Well-graded gravel ^F
			Cu<4 and/or [Cc<1 or Cc>3.0] ^E	GP	Poorly graded gravel ^F
		Gravels with Fines: More than 12% fines ^C	Fines classify as ML or MH	GM	Silty gravel ^{F, G, H}
	Sands: 50% or more of coarse fraction passes No. 4 sieve		Fines classify as CL or CH	GC	Clayey gravel ^{F, G, H}
		Clean Sands: Less than 5% fines ^D	Cu≥6 and 1≤Cc≤3 ^E	SW	Well-graded sand ^I
			Cu<6 and/or [Cc<1 or Cc>3.0] ^E	SP	Poorly graded sand ^I
Fine-Grained Soils: 50% or more passes the No. 200 sieve	Sands with Fines: More than 12% fines ^D		Fines classify as ML or MH	SM	Silty sand ^{G, H, I}
			Fines classify as CL or CH	SC	Clayey sand ^{G, H, I}
		Silts and Clays: Liquid limit less than 50	Inorganic:	PI > 7 and plots above “A” line ^J PI < 4 or plots below “A” line ^J	CL
				ML	Silt ^{K, L, M}
	Organic:		$\frac{LL\ oven\ dried}{LL\ not\ dried} < 0.75$	OL	Organic clay ^{K, L, M, N} Organic silt ^{K, L, M, O}
	Silts and Clays: Liquid limit 50 or more	Inorganic:	PI plots on or above “A” line	CH	Fat clay ^{K, L, M}
PI plots below “A” line			MH	Elastic silt ^{K, L, M}	
Organic:		$\frac{LL\ oven\ dried}{LL\ not\ dried} < 0.75$	OH	Organic clay ^{K, L, M, P} Organic silt ^{K, L, M, Q}	
Highly organic soils:	Primarily organic matter, dark in color, and organic odor			PT	Peat

- ^A Based on the material passing the 3-inch (75-mm) sieve.
^B If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
^C Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.
^D Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.
^E $Cu = D_{60}/D_{10}$ $Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
^F If soil contains ≥ 15% sand, add "with sand" to group name.
^G If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.
^H If fines are organic, add "with organic fines" to group name.
^I If soil contains ≥ 15% gravel, add "with gravel" to group name.
^J If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.
^K If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.
^L If soil contains ≥ 30% plus No. 200 predominantly sand, add "sandy" to group name.
^M If soil contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name.
^N PI ≥ 4 and plots on or above "A" line.
^O PI < 4 or plots below "A" line.
^P PI plots on or above "A" line.
^Q PI plots below "A" line.



Facilities | Environmental | Geotechnical | Materials



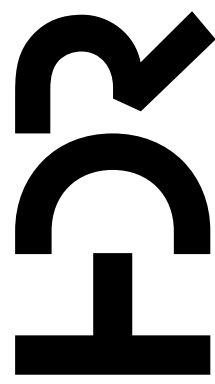
FOUNDATION DATA (SHEET 2 OF 5)

Scales	Horiz.	Sheet B15 of B18	Page 36 of 63
	Vert.		

Kathryn Skinner, P.E., Director

Date	04/2026
GWS	
Drawn	TRK
Checked	DL
Proj. Engr.	TWB

No.	Revision	Description	Engineer	Date



MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project ID: 10416569
Client Number: 4108
Pentable: C:\PMA-PL\OTDR.TBL
Plotdriver: 10416569_V8FULL_8&W_PDF.plt

Madera Canyon Bridge Project
Madera Canyon Road | Pima County, Arizona
Terracon Project No. 63245064

Terracon
355 S Euclid Ave, Ste 107
Tucson, AZ

Boring Log No. MB1

Graphic Log	Location: See Exploration Plan Latitude: 31.78781° Longitude: -110.88446°	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits	Percent Fines
								LL-PL-PI	
	Depth (Ft.) Approximate Elevation: 3656 (Ft.)								
	WELL GRADED GRAVEL WITH SILT AND SAND (GW-GM) , fine to coarse grained, angular, nonplastic, dark brown							NP	8.2
	2.5 3653.5				5-50/1"			24-18-6	20.9
	5.0 3651				8-31	1.0	128	NP	13.2
	7.5 3648.5				3-5-15 N=20	13.2		25-16-9	27.6
	10.0 3646				18-33	8.3	131	NP	11.2
	19.0 3637				21-50/3"			25-19-6	38.3
	29.0 3627				23-50/2"	7.2		23-17-6	48.0

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations provided by HDR Engineering, Inc.

Water Level Observations
Groundwater not encountered

Drill Rig
Terra Sonic

Hammer Type
Automatic

Driller
GSI

Logged by
A. Smith/ B. Thomas

Boring Started
09-09-2025

Boring Completed
09-09-2025

Advancement Method
4 Inch Casing

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Facilities | Environmental | Geotechnical | Materials

Notes

Madera Canyon Bridge Project
Madera Canyon Road | Pima County, Arizona
Terracon Project No. 63245064

Terracon
355 S Euclid Ave, Ste 107
Tucson, AZ

Boring Log No. MB1

Graphic Log	Location: See Exploration Plan Latitude: 31.78781° Longitude: -110.88446°	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits	Percent Fines
								LL-PL-PI	
	Depth (Ft.) Approximate Elevation: 3656 (Ft.)								
	SILTY CLAYEY SAND (SC-SM) , fine to coarse grained, low plasticity, brown, very dense (<i>continued</i>)								
	35.0 3617				50/5"				
	40.0 3617				50/4"	3.4			
	45.0 3617				13-50/4"	12.6			
	50.0 3617				22-50/3"				
	55.0 3617				16-30-35 N=65	12.4			
	60.5 3595.5				50/5"	8.1			

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations provided by HDR Engineering, Inc.

Water Level Observations
Groundwater not encountered

Drill Rig
Terra Sonic

Hammer Type
Automatic

Driller
GSI

Logged by
A. Smith/ B. Thomas

Boring Started
09-09-2025

Boring Completed
09-09-2025

Advancement Method
4 Inch Casing

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Facilities | Environmental | Geotechnical | Materials

Notes

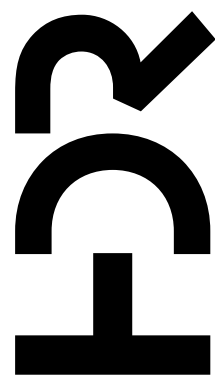
FOUNDATION DATA (SHEET 3 OF 5)

Scales Horiz. Ver. Sheet B16 of B18 Page 37 of 63



Date	GWS	TRK	DL	TWB
04/2026				
04/2026				
04/2026				

No.	Revision	Description	Engineer	Date



MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Kathryn Skinner, P.E., Director

Pima County Department of Transportation

Madera Canyon Bridge Project
Madera Canyon Road | Pima County, Arizona
Terracon Project No. 63245064

Terracon
355 S Euclid Ave, Ste 107
Tucson, AZ

Boring Log No. MB2

Graphic Log	Location: See Exploration Plan Latitude: 31.78802° Longitude: -110.88425°	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits	
								LL-PL-PI	Percent Fines
	Depth (Ft.) Approximate Elevation: 3662 (Ft.) WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM) , fine to coarse grained, angular, low plasticity, brown							NP	9.0
		2.5 3659.5			7-15			NP	7.2
	SILTY CLAYEY SAND WITH GRAVEL (SC-SM) , fine to coarse grained, angular, low plasticity, brown, medium dense, lens of non-plastic poorly graded gravel with silt and sand	5.0 3657			3-4-4 N=8	1.6		NP	16.9
		7.5 3654.5			8-25			NP	7.4
	SILTY GRAVEL WITH SAND (GM) , fine to coarse grained, angular, nonplastic, brown, loose				2-15-14 N=29	2.2			
					12-50/4"			24-20-4	33.6
	SILTY CLAYEY SAND WITH GRAVEL (SC-SM) , fine to coarse grained, angular, low plasticity, brown, medium dense, lens of poorly graded gravel with silt and sand				19-21-50/1"			24-19-5	29.6
		17.0 3645			39-50/3"			31-22-9	40.8
	SANDY LEAN CLAY (CL) , fine to medium grained, low plasticity, light brown, hard, lens of low plasticity clayey sand				13-15-20 N=35	8.9		25-17-8	51.8
					2-50/5"				
	SILTY CLAYEY SAND (SC-SM) , fine to coarse grained, low plasticity, light brown, very dense	29.0 3633			22-28-37 N=65	6.4			
								22-17-5	44.3

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations provided by HDR Engineering, Inc.

Notes

Water Level Observations
Groundwater not encountered

Drill Rig
Terra Sonic

Hammer Type
Automatic

Driller
GSI

Logged by
A. Smith/ B. Thomas

Boring Started
09-08-2025

Boring Completed
09-09-2025

Advancement Method
4 Inch Casing

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Facilities | Environmental | Geotechnical | Materials

Madera Canyon Bridge Project
Madera Canyon Road | Pima County, Arizona
Terracon Project No. 63245064

Terracon
355 S Euclid Ave, Ste 107
Tucson, AZ

Boring Log No. MB2

Graphic Log	Location: See Exploration Plan Latitude: 31.78802° Longitude: -110.88425°	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits	
								LL-PL-PI	Percent Fines
	Depth (Ft.) Approximate Elevation: 3662 (Ft.) SILTY CLAYEY SAND (SC-SM) , fine to coarse grained, low plasticity, light brown, very dense (continued)	35.0 3627							
					25-50/5"				
	CLAYEY GRAVEL WITH SAND (GC) , trace cobbles, fine to coarse grained, angular, low plasticity, brown, very dense								
		40.0 3622			17-26-24 N=50	7.7			
	CLAYEY SAND WITH GRAVEL (SC) , trace cobbles, fine to coarse grained, angular, medium plasticity, light brown, dense								
					21-50/5"	7.8			
	low plasticity, very dense lens of silty clayey sand								
					50/5"				
	medium plasticity								
					50/3"				
	lens of clayey gravel with sand				18-37-50/1"	11.9			
					50/5"				

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations provided by HDR Engineering, Inc.

Notes

Water Level Observations
Groundwater not encountered

Drill Rig
Terra Sonic

Hammer Type
Automatic

Driller
GSI

Logged by
A. Smith/ B. Thomas

Boring Started
09-08-2025

Boring Completed
09-09-2025

Advancement Method
4 Inch Casing

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Facilities | Environmental | Geotechnical | Materials



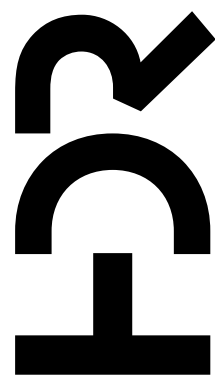
FOUNDATION DATA (SHEET 4 OF 5)

Scales Horiz. Sheet B17 of B18 Page 38 of 63

Kathryn Skinner, P.E., Director

Date	GWS	TRK	DL	TWB
04/2026				
04/2026				
04/2026				

No.	Revision	Description	Engineer	Date



MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

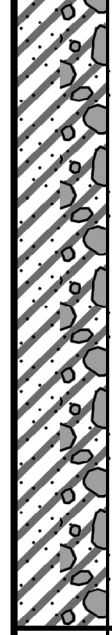
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Client Number: 4108
Pentable: COTPMALPLOTORDR.TBL
Plotdriver: 10416569_V8FULL-8&W_PDF.plt

Project ID: 10416569
Client Number: 4108
Pentable: COTPMALPLOTORDR.TBL
Plotdriver: 10416569_V8FULL_B&W_PDF.plt

Madera Canyon Bridge Project
Madera Canyon Road | Pima County, Arizona
Terracon Project No. 63245064

Terracon
355 S Euclid Ave, Ste 107
Tucson, AZ

Boring Log No. MB2

Graphic Log	Location: See Exploration Plan Latitude: 31.78802° Longitude: -110.88425°	Depth (Ft.)	Water Level Observations	Sample Type	Field Test Results	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits	Percent Fines
								LL-PL-PI	
	Depth (Ft.) Approximate Elevation: 3662 (Ft.) CLAYEY SAND WITH GRAVEL (SC) , trace cobbles, fine to coarse grained, angular, medium plasticity, light brown, dense (<i>continued</i>)								
	trace cobbles	70			20-50/3"	12.4			
	76.0 3586 Boring Terminated at 76 Feet	75			10-50/5"	10.5			

See Exploration and Testing Procedures for a description of field and laboratory procedures used and additional data (if any).
See Supporting Information for explanation of symbols and abbreviations.
Elevation Reference: Elevations provided by HDR Engineering, Inc.

Notes

Water Level Observations
Groundwater not encountered

Drill Rig
Terra Sonic

Hammer Type
Automatic

Driller
GSI

Logged by
A. Smith/ B. Thomas

Boring Started
09-08-2025

Boring Completed
09-09-2025

Advancement Method
4 Inch Casing

Abandonment Method
Boring backfilled with auger cuttings upon completion.

Facilities | Environmental | **Geotechnical** | Materials

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0127410			
T0541.01C					

Kathryn Skinner, P.E., Director

Date	GWS	TRK	DL	TWB
04/2026				
04/2026				
04/2026				
04/2026				

No.	Revision	Description	Engineer	Date



HDR

MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation



FOUNDATION DATA (SHEET 5 OF 5)

Scales	Horiz.	Sheet B18 of B18	Page 39 of 63
	Vert.		

Project: 24043PJ
Client: Madera Client
Pentable2-FULL.tbl
Plot: 1/4"=1'-0" F, 1/8"=1'-0" G

EROSION AND POLLUTION CONTROL BMP
SUMMARY OF QUANTITIES

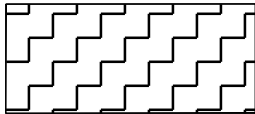
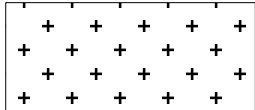
SYMBOL	BMP	UNIT	QTY.	REFERENCE	BID ITEM NO.	NOTES
	9" Dia. Sediment Wattle	L.F.	3,451	Detail ES1	8100001	
	20" Dia. Sediment Wattle	L.F.	390	Detail ES1	8100001	
	20" Dia. Sediment Log in Ditch/Channel	L.F.	40	Detail ES2	8100001	
	Inlet, Outlet and Headwall Protection	C.Y.	2	Detail ES3	8100001	
	Stabilized Construction Entrance/Exit Gravel Pad	S.Y.	170	Detail ES4	8100001	One Stabilized Construction Pad requires 170 S.Y. of Gradation C Rock Mulch. Not shown on plans.
	Seeding (Class II) Desert Scrub (Low Growing)	AC	.30	N/A	8050004	Staging area to receive Seed Mix after construction is complete.
	Seeding (Class II) Xeroriparian	AC	.25	N/A	8050004	Staging area to receive Seed Mix after construction is complete.

GENERAL NOTES:

- Areas outside of the Project Disturbance Limits or Right of Way shall remain undisturbed. Should additional area require disturbance, the Engineer, Owner and appropriate parties must be notified.
- No existing storm drain inlets or drywells existing within 1/4 mile of the project limits.
- All disturbed soils shall be stabilized. Apply seed mix and/or granite mulch to disturbed soils, including all Temporary Construction Easements and Staging Area.
- Seeding limits shown on plans are estimated on anticipated limits of soil disturbance. Seeding shall be field adjusted to match limits of soil disturbance. Seeding limits shall extend to existing Right of Way unless otherwise shown on Project Plans.
- No erosion control measures shall be installed inside the preservation fencing areas for existing preserve in place plant material.
- Refer to Drainage Plans and Details for permanent erosion control structures.
- All Erosion Control Measures shall be installed within 14 days of establishing rough grade. Disturbed areas where construction is delayed for more than 14 days require Temporary Erosion Control Measures.
- Contractor shall determine final location of Stabilized Construction Entrance/Exit Gravel Pad according to site conditions and/or construction sequencing, with approval from the Engineer. All Ingress/egress and laydown yards shall be approved by the Engineer.
- Sweeping and/or vacuuming may be required as a secondary measure if trackout is visible.
- Containment Areas shall be identified on Contractor's Stormwater Pollution Prevention Plan.
- Spill response equipment shall be accessible in case of a spill, and located within/near the Containment Area.
- Quantities shown in Summary of Quantities are for Contractor convenience. Contractor to verify all quantities.
- All work and materials relating to the BMPs detailed within these Plans (including all materials used for BMPs, all ground preparation, furnishing, installing, maintenance, final removal, and disposal of temporary BMPs, as well as returning the area to an acceptable condition as approved by the Engineer) shall be paid for under Bid Item Number 8100001.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D			
T0541.DIC					



SEED MIX SCHEDULE					
SYM./KEY	BOTANICAL NAME	COMMON NAME	PLS RATE	QTY	
SEED MIX (CLASS II)					
	Seed Mix - Desert Scrub (Low Growing)	<i>Ambrosia deltoidea</i>	Triangle Leaf Bursage	3.0 lbs./ac.	.30 AC
	<i>Aristida purpurea</i>	Purple Threeawn	1.5 lbs./ac.		
	<i>Bailey multiradiata</i>	Desert Marigold	2.0 lbs./ac.		
	<i>Bouteloua aristidoides</i>	Needle Grama	1.0 lbs./ac.		
	<i>Bouteloua curtipendula</i>	Sideoats Grama	1.0 lbs./ac.		
	<i>Bouteloua rothrockii</i>	Rothrock Grama	2.0 lbs./ac.		
	<i>Dyssodia pentachaeta</i>	Golden Dyssodia	1.0 lbs./ac.		
	<i>Encelia farinosa</i>	Brittlebush	2.0 lbs./ac.		
	<i>Escholtzia mexicana</i>	Desert Poppy	2.0 lbs./ac.		
	<i>Isocoma tenuisecta</i>	Burrowweed	1.0 lbs./ac.		
	<i>Lesquerella gordonii</i>	Bladderpod	1.0 lbs./ac.		
	<i>Lupinus sparsiflorus</i>	Lupine	1.0 lbs./ac.		
	<i>Plantago insularis</i>	Desert Indian Wheat	3.0 lbs./ac.		
	<i>Senna covesii</i>	Desert Senna	2.0 lbs./ac.		
	<i>Sphaeralcea ambigua</i>	Desert Globemallow	1.0 lbs./ac.		
	<i>Zinnia acerosa</i>	Desert Zinnia	0.5 lbs./ac.		
	TOTAL PLS RATE:		25 PLS/ACRE		
	Seed Mix - Xeroriparian	<i>Acacia constricta</i>	Whitethorn Acacia	1.5 lbs./ac.	0.25 AC
	<i>Acacia greggii</i>	Catclaw Acacia	1.5 lbs./ac.		
	<i>Aristida purpurea</i>	Purple Threeawn	0.5 lbs./ac.		
	<i>Atriplex polycarpa</i>	Cattle Saltbush	0.5 lbs./ac.		
	<i>Bailey multiradiata</i>	Desert Marigold	1.0 lbs./ac.		
	<i>Bouteloua aristidoides</i>	Needle Grama	1.0 lbs./ac.		
	<i>Bouteloua curtipendula</i>	Sideoats Grama	1.5 lbs./ac.		
	<i>Bouteloua rothrockii</i>	Rothrock Grama	1.0 lbs./ac.		
	<i>Calliandra eriophylla</i>	Fairy Duster	1.0 lbs./ac.		
	<i>Digitaria californica</i>	Arizona Cottontop	1.0 lbs./ac.		
	<i>Escholtzia mexicana</i>	Desert Poppy	1.0 lbs./ac.		
	<i>Isocoma tenuisecta</i>	Burrowweed	1.0 lbs./ac.		
	<i>Larrea tridentata</i>	Creosote	2.0 lbs./ac.		
	<i>Lesquerella gordonii</i>	Bladderpod	1.0 lbs./ac.		
	<i>Lupinus sparsiflorus</i>	Lupine	1.0 lbs./ac.		
	<i>Celtis pallida</i>	Desert Hackberry	2.0 lbs./ac.		
	<i>Celtis reticulata</i>	Netleaf Hackberry	1.5 lbs./ac.		
	<i>Prosopis velutina</i>	Velvet Mesquite	1.0 lbs./ac.		
	<i>Psilostrophe cooperi</i>	Paperflower	1.0 lbs./ac.		
	<i>Senna covesii</i>	Desert Senna	1.0 lbs./ac.		
	<i>Sphaeralcea ambigua</i>	Desert Globemallow	0.5 lbs./ac.		
	<i>Sporobolus cryptandrus</i>	Sand Dropseed	1.0 lbs./ac.		
	<i>Zinnia acerosa</i>	Desert Zinnia	0.5 lbs./ac.		
	TOTAL PLS RATE:		25 PLS/ACRE		

Note: Seeding information for reference only. See Landscape Plans.

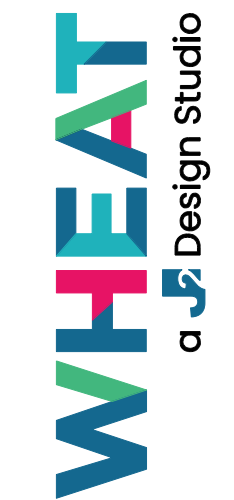
EROSION CONTROL NOTES

Scales	N/A	Sheet	ECN1 of ECN1	Page	40 of 63
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Kathryn Skinner, P.E., Director

Date	03/2026	03/2026	03/2026	03/2026
Designed	JM/PV	JM/PV	LM	Proj. Engr.
Drawn				
Checked				
Proj. Engr.				

No.	Revision	Description	Engineer	Date

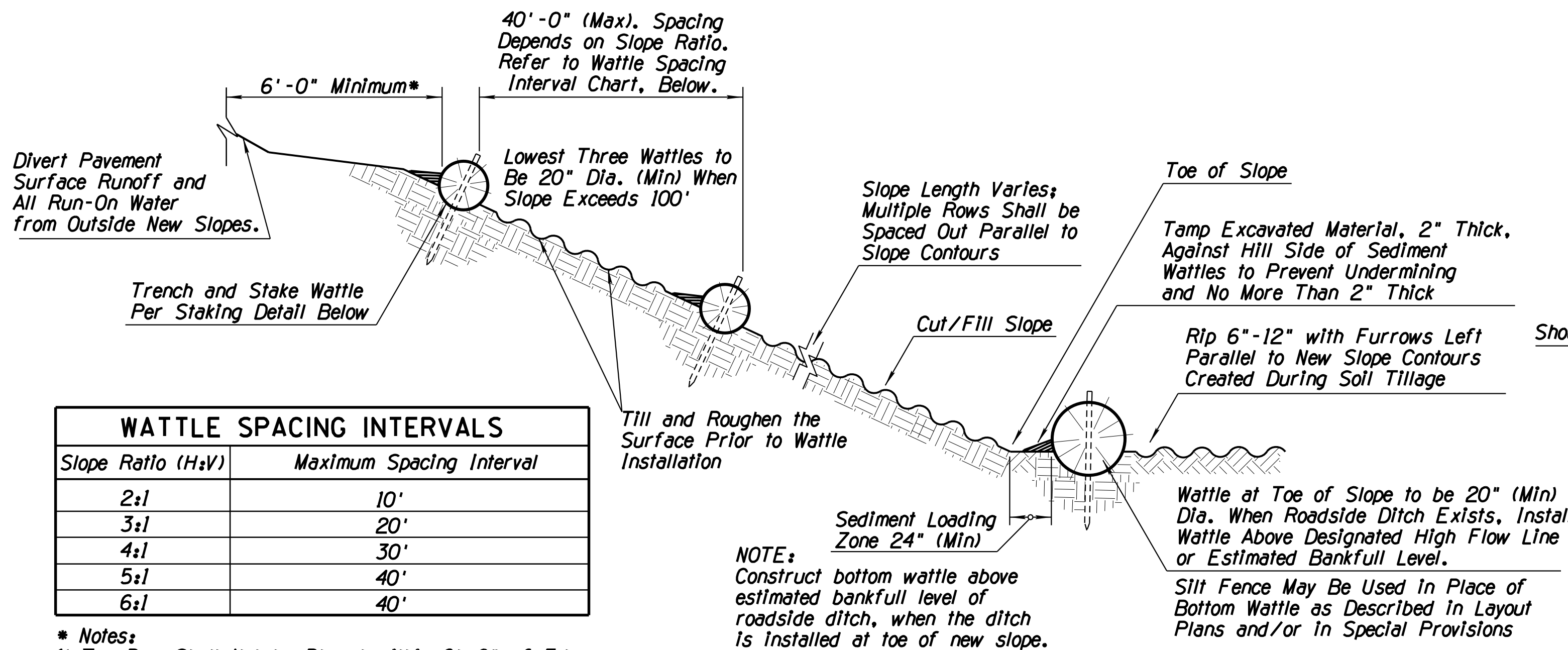


MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

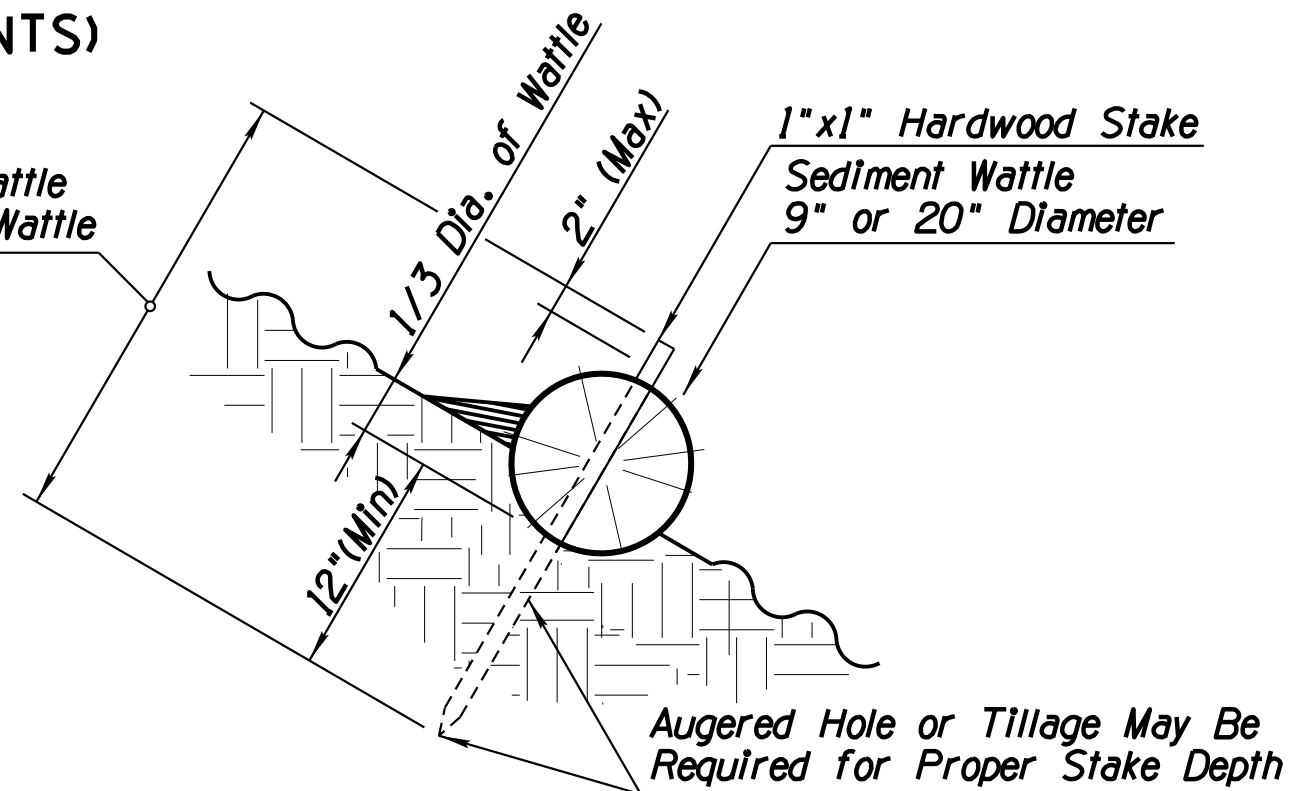
Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-012741D			
T0541.DIC					

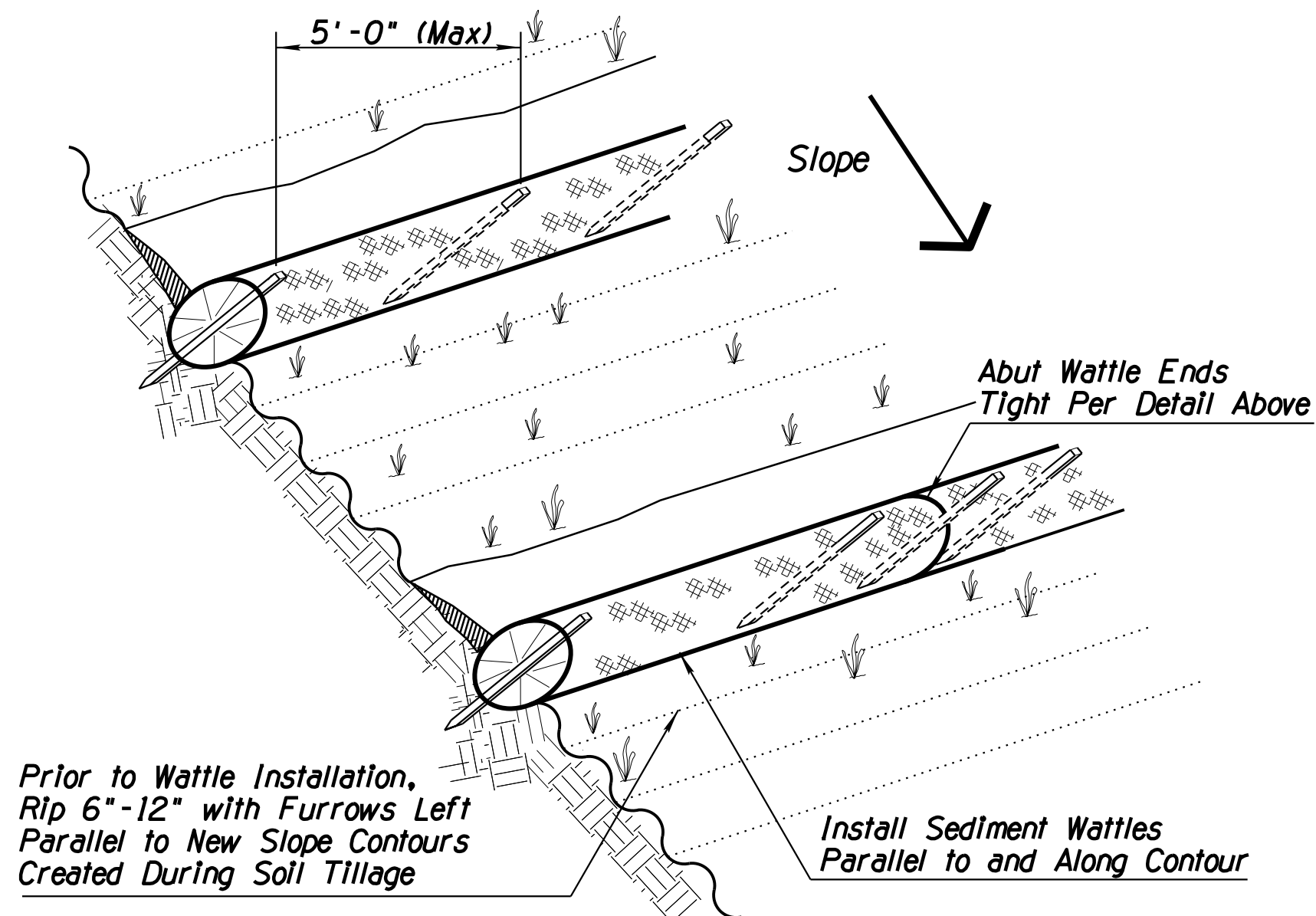


SECTION (NTS)

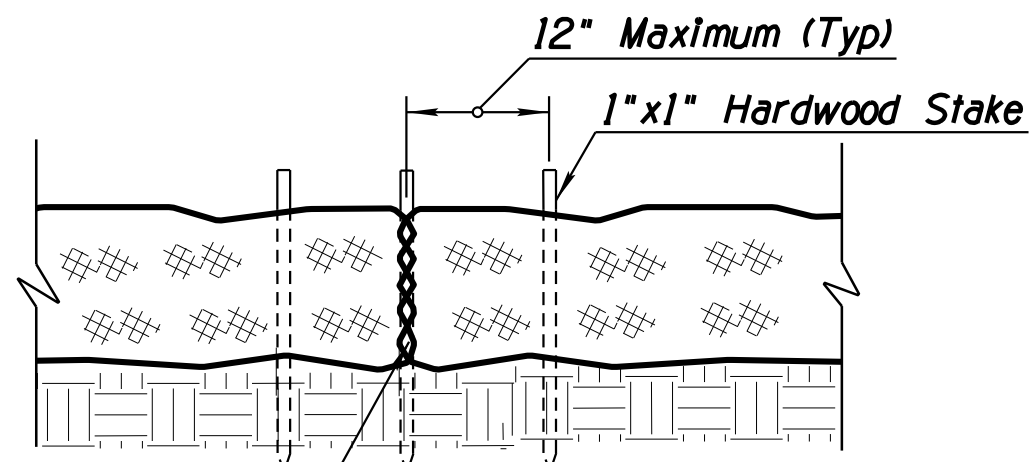
Stake Length:
24" for 9" Dia. Wattle
33" for 20" Dia. Wattle



SEDIMENT WATTLE STAKING DETAIL (NTS)

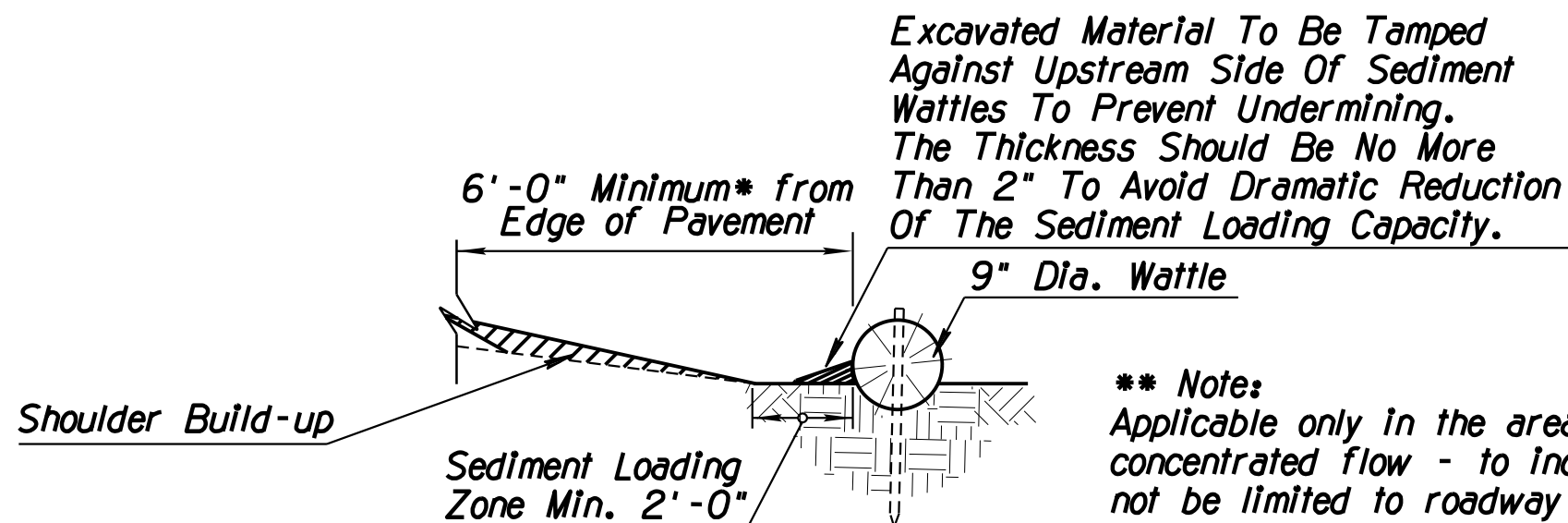


SEDIMENT WATTLE LAYOUT (NTS)



SEDIMENT WATTLE OVERLAP (NTS)

Abut Wattle Ends Tight. No Gaps. Wood Stake to Penetrate Netting Only.



NEW SHOULDER BUILDUP ** PROTECTION SECTION (NTS)

NOTES:

1. Install Sediment Wattles as slopes are constructed to grade or as directed by the Engineer. Select, install and maintain in conformance with manufacturers' specifications to meet site conditions for slope protection and in accordance with good engineering practices. No Sediment Wattles shall be installed in urban freeway medians, nor where cable barrier systems are employed.
2. Sediment Wattles shall be in continuous contact with trench bottom and sides. Do not overlap wattle ends on top of each other. A 20" Dia. wattle may be made from 2-3 rolled excelsior or straw blankets.
3. Butt adjoining wattles tightly against each other. Drive the first end stake of the second wattle at an angle toward the first wattle to help abut them tightly.
4. Repair any rills or gullies promptly. Make field adjustments and corrections of Wattle BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
5. Construction of cut slopes 2:1 and steeper in soil and rock materials that can be ripped shall be constructed, whenever possible, by Minibenching. Refer to Slope Minibenching BMP Detail.
6. Loosening surface soil is not required where Minibenching are used. For seeded areas, tillage shall be performed to form minor ridges and furrows parallel to new slope contours and as specified in Section 805 of the Specifications.
7. Divert and direct run-on water from outside of the slopes to the spillways and/or rock riprap/rock mulch. Diversion dikes and/or ditches are necessary on natural undisturbed slopes beyond the top limits of new slopes to divert run-on water.
8. Installation and maintenance of Sediment Wattle BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities.
9. Install and maintain Sediment Wattle BMPs to carry the stormwater of at least 2-year, 24-hour events.
10. Refer to Subsection 810-2.04(C) of the PAG Standard Specifications for Sediment Wattle material specifications.
11. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DETAIL ES1
SEDIMENT WATTLE

Kathryn Skinner, P.E., Director

Date	03/2026	03/2026	03/2026	03/2026
Designed	JM/PV	JM/PV	LM	Proj. Engr.
Drawn				
Checked				
Proj. Engr.				

No.	Revision	Description	Engineer	Date



MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

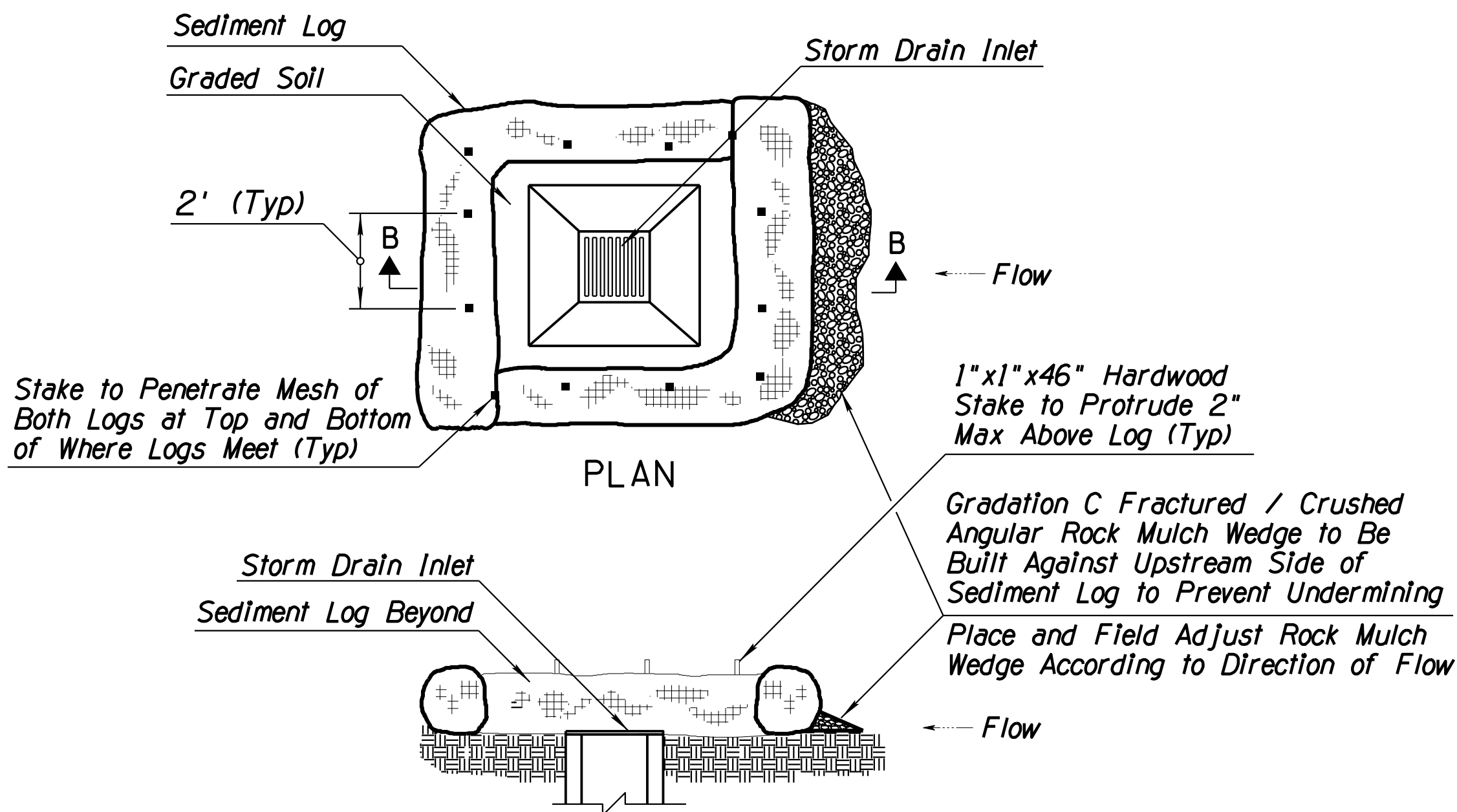
Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project: \\P\PROJECTS\24043PJ\Drawings\24043PJ.dwg
Client: Madera Canyon Road Wash Bridge Replacement

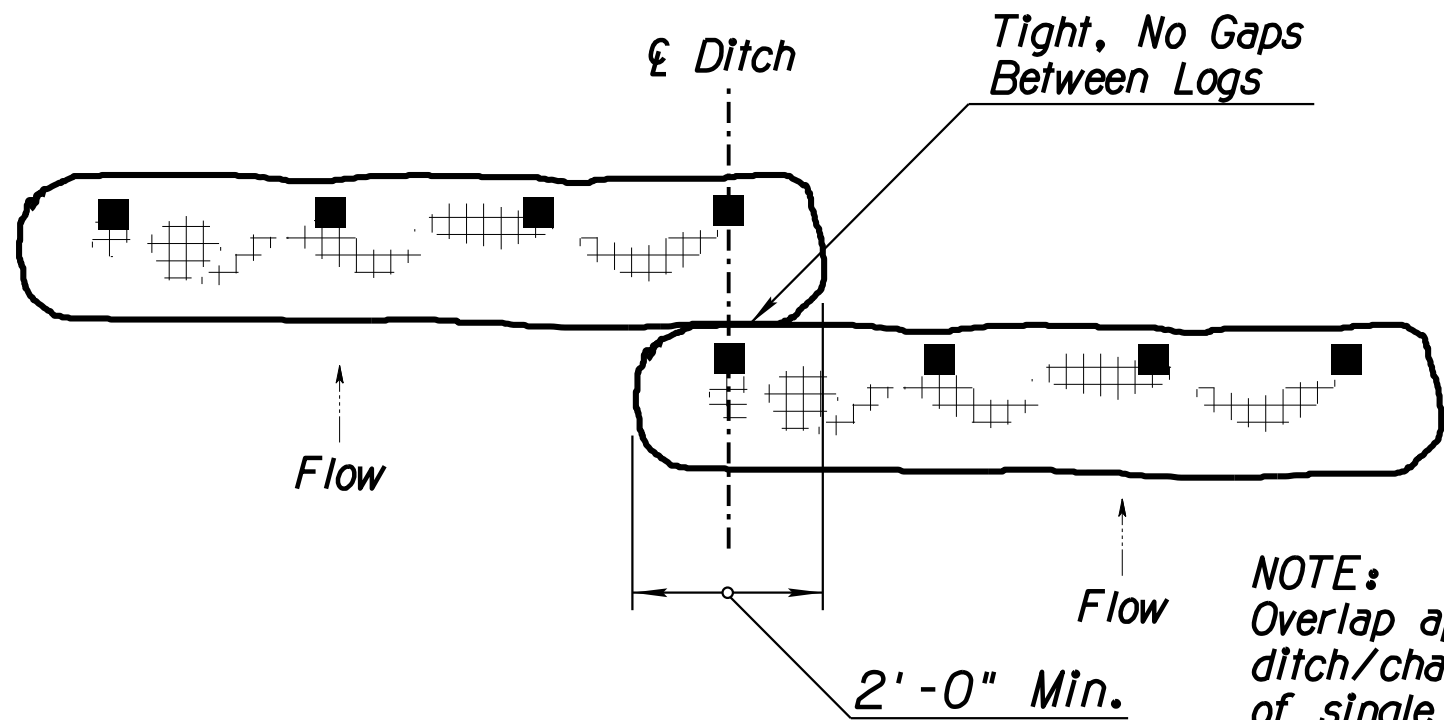
Penetration: FULL.tbl
Plotter: HP DesignJet 500

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0127410			

T0541.DIC



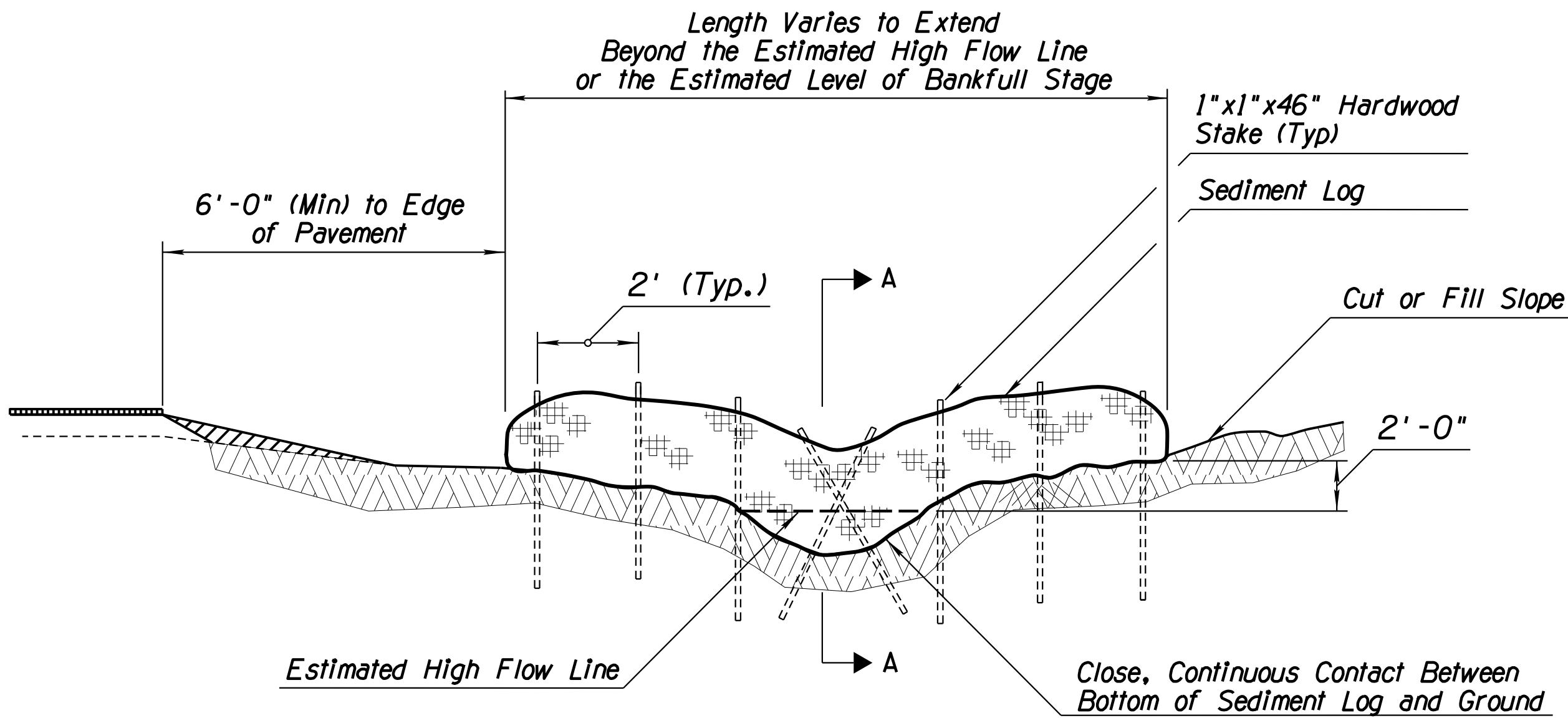
SEDIMENT LOG AT STORM DRAIN
SECTION B-B (NTS)



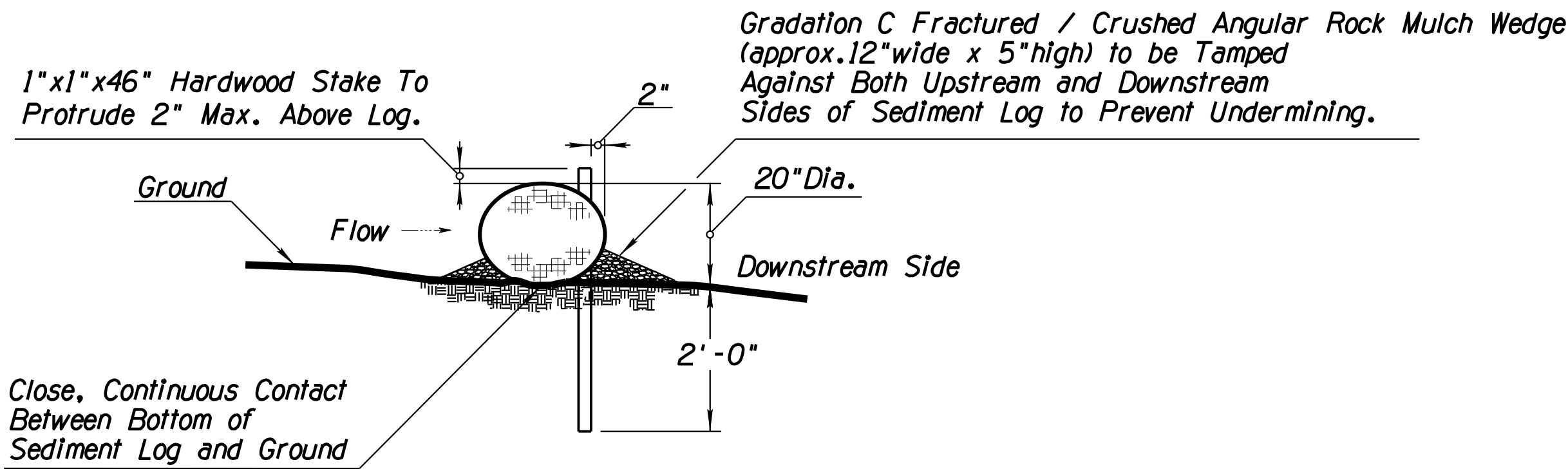
TYPICAL OVERLAP
PLAN (NTS)

NOTES:

1. Sediment Logs shall not be installed in the urban freeway medians, nor where cable barrier systems are employed.
2. Locate Sediment Logs as indicated in plans, SWPPP or as directed by the Engineer.
3. Select, install and maintain Logs per manufacturers' specifications and good engineering practices.
4. Lay Sediment Log across prepared roadside ditch or channel. Trenching or burial of Sediment Logs is not required. The close, continuous contact between the bottom of the Log and the ground is mandatory. The Logs shall be installed in the roadside ditch, swale or channel bottom perpendicular to the flow of water as shown on detail this sheet.
5. Stake Log as shown. Stakes shall be placed through downstream side only as shown.
6. DO NOT drive stakes through center of the Log. Stakes must be driven into the ground as shown.
7. Ensure that no gaps exist between soil and bottom of Sediment Log. Repair any rills or undercuts promptly.
8. Placement of Sediment Logs shall be evaluated by the Engineer in rocky soil conditions.
9. Remove Sediment Log BMPs within the ditches/channels and around the storm drain inlets as per the direction of the Engineer or as soon as practicable upon stabilization of the construction disturbed area.
10. Dispose of Sediment Logs and trapped sediment material and fill trench created by Sediment Log.
11. The installation and maintenance of Sediment Log BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities. Sediment Logs shall be installed and maintained to carry the stormwater of at least 2-year, 24-hour events.
12. Make field adjustments and corrections of Sediment Log BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
13. Rock mulch/riprap may be required for channel/ditch lining or rock check dams for longitudinal ditch slopes that exceed 5% and/or for soil conditions not suitable for Log installation.
14. The Sediment Log BMP's pay/bid item shall include all materials used for this BMP: all ground preparation, furnishing, installing, maintenance, final removal, and disposal, as well as returning the area to an acceptable condition as approved by the Engineer.
15. Refer to Standard PAG Standard Specification Section 810-2.04(B) for Sediment Log material specifications.
16. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.
17. Construct Rock Wedge with angular-shaped Gradation C Rock Mulch. Natural river-run materials such as rounded river rocks/cobblestones and pebbles are NOT acceptable.



SEDIMENT LOG IN DITCH/CHANNEL
SECTIONAL ELEVATION (NTS)



SECTION A-A (NTS)

DETAIL ES2
SEDIMENT LOG

Kathryn Skinner, P.E., Director

Date	3/7/2026
Designed	JM/PV
Drawn	JM/PV
Checked	LM
Proj. Engr.	

No.	Revision	Description	Engineer	Date



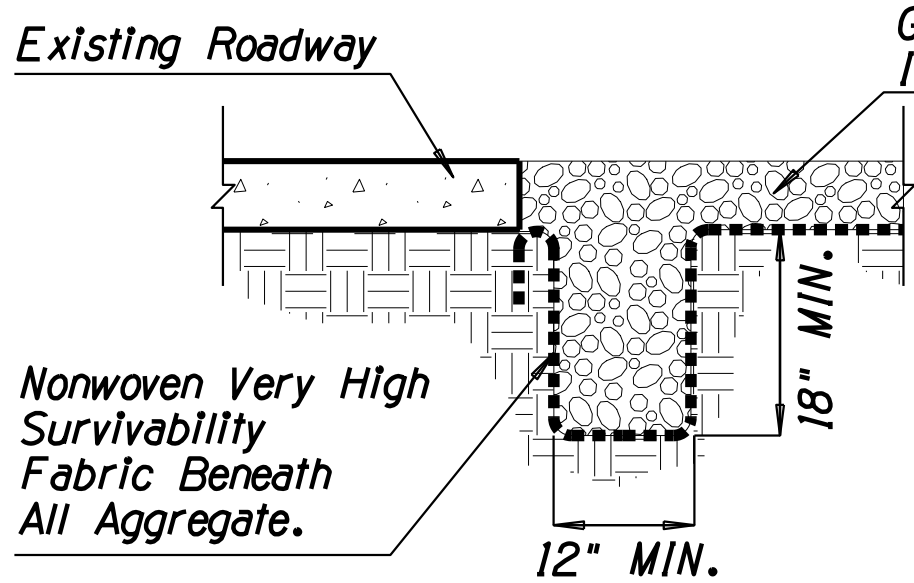
MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project: Madera Canyon Road Medium Wash Bridge Replacement
Client: Madera Canyon Road Medium Wash Bridge Replacement
File Path: \\P:\Projects\24043PJ\Drawings\ES4.dwg
Plot File: \\P:\Projects\24043PJ\Drawings\ES4.plt

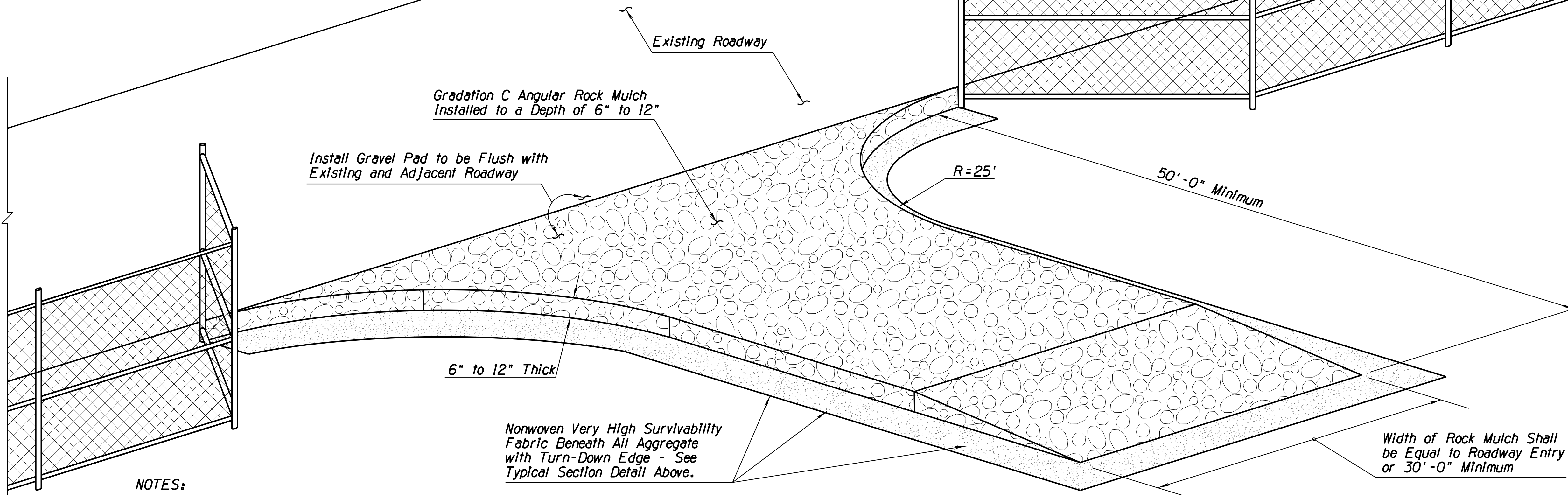
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0127410			
T0541.DIC					



EDGE TREATMENT TRENCHING
TYPICAL SECTION (NTS)

NOTES II:

1. Install nonwoven fabric when water is applied for construction vehicle/equipment cleaning on Gravel Pad.
2. Edge treatment trenching and nonwoven fabric shall not be required if NO wash water is used for vehicle/equipment cleaning.
3. The depth of Gravel Pad varies from 6" to 12" based on the necessities of construction vehicle/equipment as per the approval of the Engineer.



BIRD'S EYE VIEW (NTS)

NOTES:

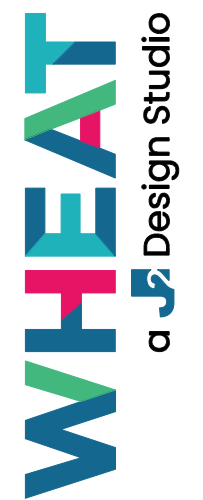
1. Install Stabilized Construction Entrance/Exit Gravel Pad BMP for traffic entering or exiting a construction site where sedimentation, clay, silt or other pollutants can be tracked onto public roads and/or adjacent water bodies, as approved by the Engineer. It may also be applied for construction entrance/exit wind erosion/dust control, as approved by the Engineer.
2. Locate new Construction Entrance(s)/Exit(s) at appropriate project entrance/exit points as determined in field with the approval of the Engineer. Relocate Stabilized Construction Entrance/Exit Gravel Pad BMP as needed as project progresses. Replace Rock Mulch materials in drive paths when dirt or mud accumulates.
3. Nonwoven Very High Survivability Fabric shall conform to the standards of the PAG Standard Specifications.
4. Rock Mulch materials shall be fractured/crushed rocks in angular shape. Natural river-run materials, especially rounded natural river rocks are not acceptable.
5. Make field adjustments and corrections of Construction Entrance/Exit Gravel Pad BMP immediately if it is causing flooding and/or affecting roadway safety.
6. When paid separately, the Stabilized Construction Entrance/Exit Gravel Pad BMP's pay/bid item shall include all materials used for this BMP: all ground preparation, furnishing, installing, final removal, and disposal of this temporary BMP, as well as returning the area to an acceptable condition as approved by the Engineer.
7. * Fence/barricade pay/bid item shall not be included as a component of the Stabilized Construction Entrance/Exit Gravel Pad BMP pay/bid item.
8. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DETAIL ES4
STABILIZED CONSTRUCTION
ENTRANCE/EXIT GRAVEL PAD

Kathryn Skinner, P.E., Director

No.	Revision	Description	Engineer	Date

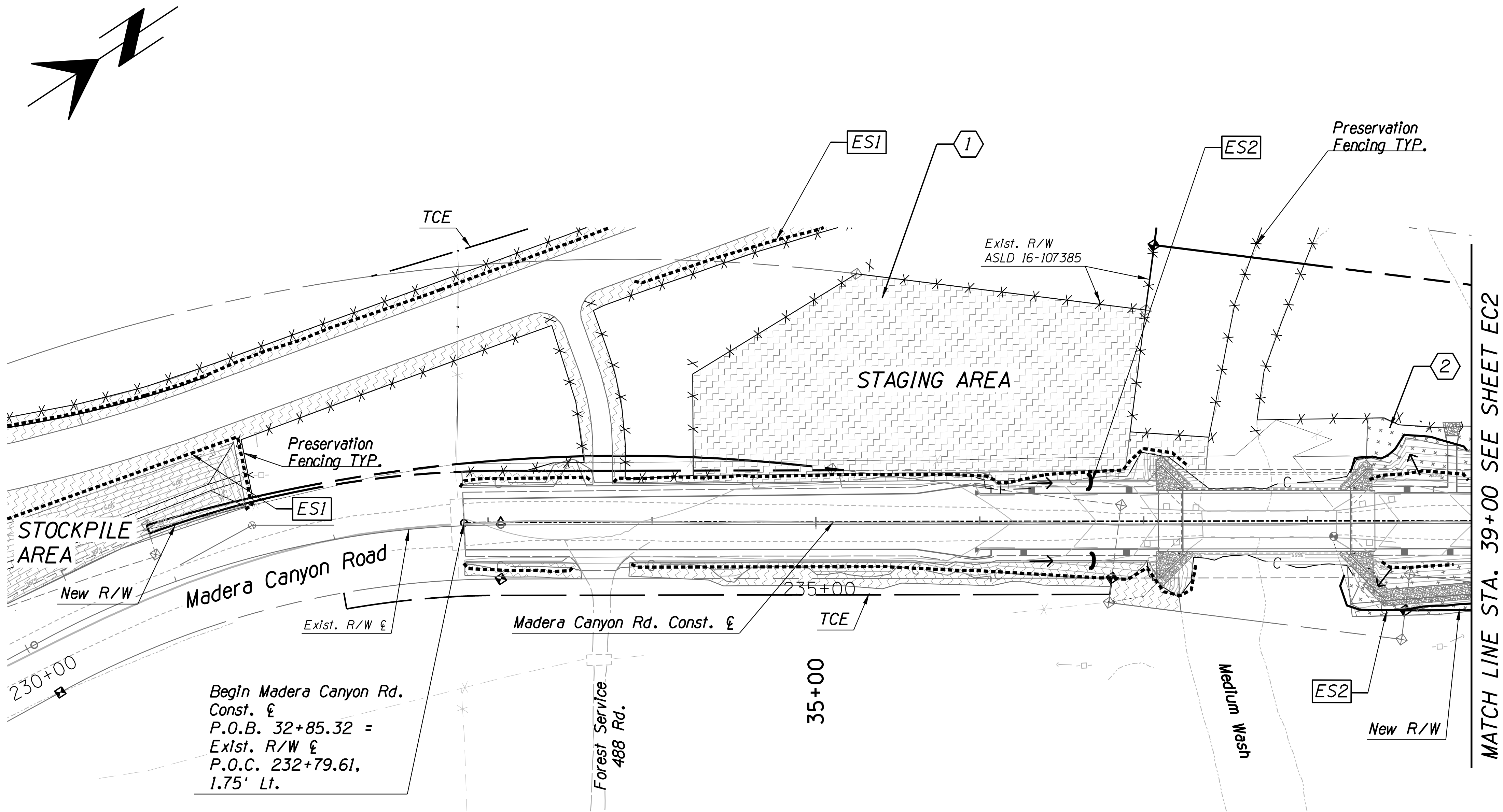
No.	Revision	Description	Engineer	Date



MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0127410			
T0541.DIC					

Call 811 or click Arizona811.com

EROSION AND POLLUTION CONTROL BMP SCHEDULE

KEYNOTE	BMP	SYMBOL
ES1	9" Dia. Sediment Wattle	---
ES1	20" Dia. Sediment Wattle	---
ES2	20" Dia. Sediment Log	---
ES3	Headwall Protection	
1	Seeding (Class II) Desert Scrub	---
2	Seeding (Class II) Xeroriparian	---
	Flow Arrow	→

- NOTES:
- Refer to Summary of Quantities & Notes Sheet, ECN1, for quantities and General Notes.
 - Refer to Project Specifications for additional information.
 - Refer to Drainage Plans and Details for Riprap locations and permanent erosion control structures.

Kathryn Skinner, P.E., Director

Date	JM/PV	JM/PV	JM	JM
03/2026				
03/2026				
03/2026				
03/2026				

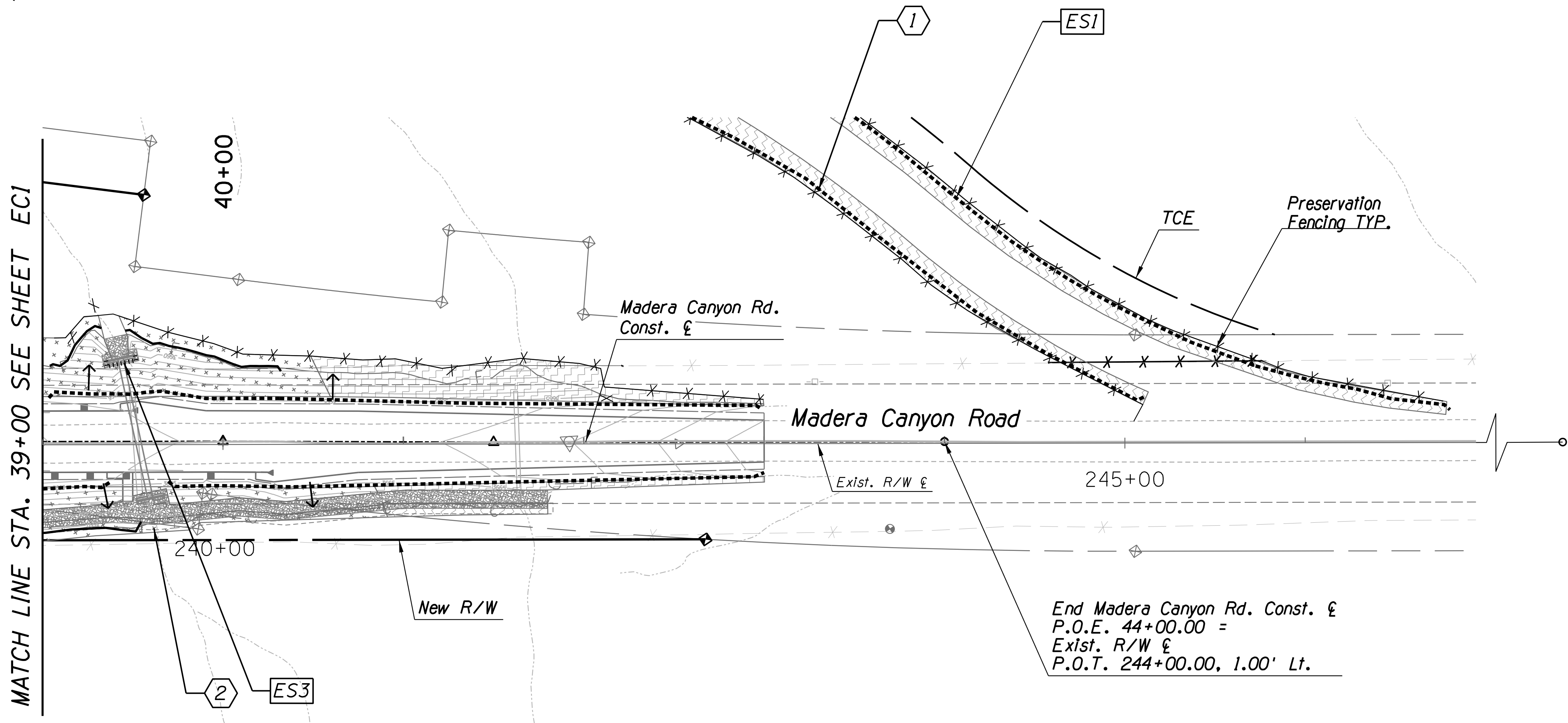
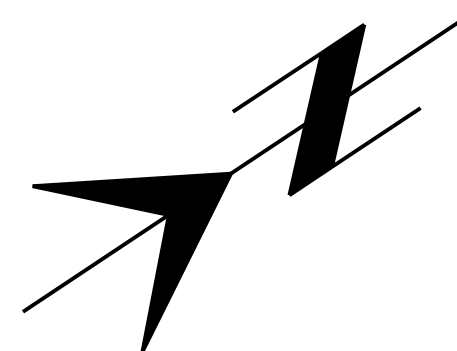
No.	Revision	Description	Engineer	Date



MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project: Madera Canyon Road
Client: Madera Canyon Road
File: Madera Canyon Road - Erosion Control Plan - EC2.dwg
Plot: Madera Canyon Road - Erosion Control Plan - EC2.dwg



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0127410			
T0541 DIC					

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EROSION AND POLLUTION CONTROL BMP SCHEDULE

KEYNOTE	BMP	SYMBOL
ES1	9" Dia. Sediment Wattle	---
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	Flow Arrow	→

- NOTES:
1. Refer to Summary of Quantities & Notes Sheet, ECN1, for quantities and General Notes.
 2. Refer to Project Specifications for additional information.
 3. Refer to Drainage Plans and Details for Riprap locations and permanent erosion control structures.

EROSION CONTROL PLAN
STA. 39+00 TO 43+00

Scales	Horiz. 1" = 40'	Sheet EC2 of EC2	Page 46 of 63
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Kathryn Skinner, P.E., Director

Date	JM/PV	JM/PV	JM	JM
03/20/2026				
03/20/2026				
03/20/2026				
03/20/2026				

No.	Revision	Description	Engineer	Date



MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

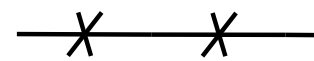
Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project: \\P\PROJECT\ID\h
Client: Number\CLIENT\h
Pentable2.FULL.tbl
Plot: 1\vpaf-b1rctg

PLANT MATERIALS SCHEDULE

SYMBOL	COMMON NAME	UNIT	QTY.	REFERENCE	BID ITEM NO.
TRANSPLANTED					
	Transplanted Ocotillo	E.A.	10	Detail 1, Sheet LPD1	8090049
	Transplanted Cactus	E.A.	9	Detail 2, Sheet LPD1	8090046
EXISTING					
	Preserve-in-Place Vegetation, Refer to NPI Sheets for locations				

MATERIALS SCHEDULE

SYMBOL	NAME	UNIT	QTY.	REFERENCE	BID ITEM NO.
	Preservation Fencing	L.F.	1,502	Detail 3, Sheet LPD1	2010004

LANDSCAPE APPROACH:

Before construction begins, Contractor to salvage specified plants on the NPI plans (10 Ocotillo and 9 Barrel Cacti). Salvaged plants will be placed in a Temporary Nursery located on the Landscape Plans, Bid Item No. 8090001. Prior to the start of construction, Contractor to install Preservation Fencing (Type A), Bid Item No. 2010004, as shown on the Landscape Plans. Preservation Fencing is used to protect natural areas on both sides of the Detour and protect existing vegetation in the project area.

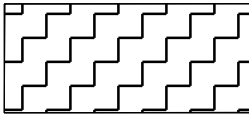
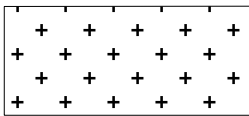
After roadway construction is complete, salvaged plants will be transplanted to their designated locations shown on the Landscape Plans. Preservation Fencing will be removed and seeding operations will be performed.

There will be a 1-year Landscape Establishment Period which includes hand-watering of salvaged plant material.

LANDSCAPE GENERAL NOTES:

- This Landscape Plan is in conformance with the Pima County Roadway Design Manual and Environmentally Sensitive Roadways (ESR) Design Guidelines.
- The Contractor shall be responsible for locating and protecting all underground utilities, pipes and structures prior to starting work. Contractor shall take sole responsibility for any cost incurred due to damage of these utilities during the installation of plants or water harvesting basins.
- Refer to Special Provisions for additional information.
- All disturbed areas to receive seed mix. Seed mix shall be installed to 10' from cut/fill line, Right-of-Way line, or limits of disturbance, whichever is greater.
- Tillage shall be performed in seeded areas to form minor ridges and furrows parallel to new slope contours and as specified in Section 805 of the Project Specifications.

SEED MIX SCHEDULE

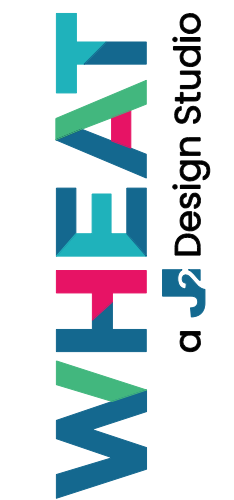
SYM./KEY	BOTANICAL NAME	COMMON NAME	PLS RATE	QTY
SEED MIX (CLASS II)				
	Seed Mix - Desert Scrub (Low Growing)	Ambrosia deltoidea	Triangle Leaf Bursage	3.0 lbs./ac.
		Aristida purpurea	Purple Threeawn	1.5 lbs./ac.
		Bailey multiradiata	Desert Marigold	2.0 lbs./ac.
		Bouteloua aristidilodes	Needle Grama	1.0 lbs./ac.
		Bouteloua curtipendula	Sideoats Grama	1.0 lbs./ac.
		Bouteloua rothrockii	Rothrock Grama	2.0 lbs./ac.
		Dyssodia pentachaeta	Golden Dyssodia	1.0 lbs./ac.
		Encelia farinosa	Brittlebush	2.0 lbs./ac.
		Escholtzia mexicana	Desert Poppy	2.0 lbs./ac.
		Isocoma tenuisecta	Burrowweed	1.0 lbs./ac.
		Lesquerella gordonii	Bladderpod	1.0 lbs./ac.
		Lupinus sparsiflorus	Lupine	1.0 lbs./ac.
		Plantago insularis	Desert Indian Wheat	3.0 lbs./ac.
		Senna covesii	Desert Senna	2.0 lbs./ac.
		Sphaeralcea ambigua	Desert Globemallow	1.0 lbs./ac.
		Zinnia acerosa	Desert Zinnia	0.5 lbs./ac.
		TOTAL PLS RATE:	25 PLS/ACRE	
	Seed Mix - Xerophilic	Acacia constricta	Whitethorn Acacia	1.5 lbs./ac.
		Acacia greggii	Catclaw Acacia	1.5 lbs./ac.
		Aristida purpurea	Purple Threeawn	0.5 lbs./ac.
		Atriplex polycarpa	Cattle Saltbush	0.5 lbs./ac.
		Bailey multiradiata	Desert Marigold	1.0 lbs./ac.
		Bouteloua aristidilodes	Needle Grama	1.0 lbs./ac.
		Bouteloua curtipendula	Sideoats Grama	1.5 lbs./ac.
		Bouteloua rothrockii	Rothrock Grama	1.0 lbs./ac.
		Calliandra eriophylla	Fairy Duster	1.0 lbs./ac.
		Digitaria californica	Arizona Cottontop	1.0 lbs./ac.
		Escholtzia mexicana	Desert Poppy	1.0 lbs./ac.
		Isocoma tenuisecta	Burrowweed	1.0 lbs./ac.
		Larrea tridentata	Creosote	2.0 lbs./ac.
		Lesquerella gordonii	Bladderpod	1.0 lbs./ac.
		Lupinus sparsiflorus	Lupine	1.0 lbs./ac.
		Celtis pallida	Desert Hackberry	2.0 lbs./ac.
		Celtis reticulata	Netleaf Hackberry	1.5 lbs./ac.
		Prosopis velutina	Velvet Mesquite	1.0 lbs./ac.
		Psilostrophe cooperi	Paperflower	1.0 lbs./ac.
		Senna covesii	Desert Senna	1.0 lbs./ac.
		Sphaeralcea ambigua	Desert Globemallow	0.5 lbs./ac.
		Sporobolus cryptandrus	Sand Dropseed	1.0 lbs./ac.
		Zinnia acerosa	Desert Zinnia	0.5 lbs./ac.
		TOTAL PLS RATE:	25 PLS/ACRE	

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0127410			
T0541.DIC					
Contact Arizona 811 at least two full working days before you begin excavation  Call 811 or click Arizona811.com					

Kathryn Skinner, P.E., Director

Date	03/2026
Designed	JM/PV
Drawn	JM/PV
Checked	LM
Proj. Engr.	

No.	Revision	Description	Engineer	Date

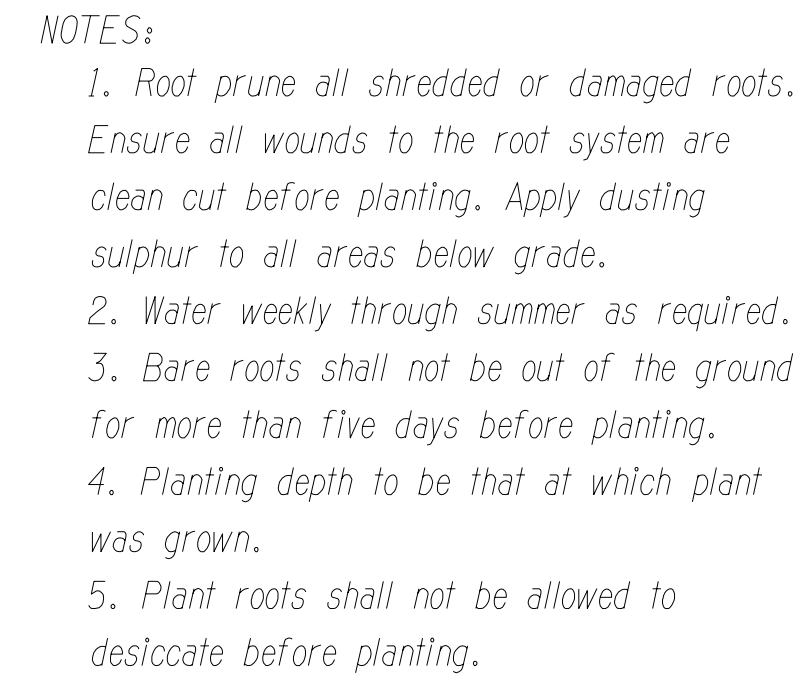


MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

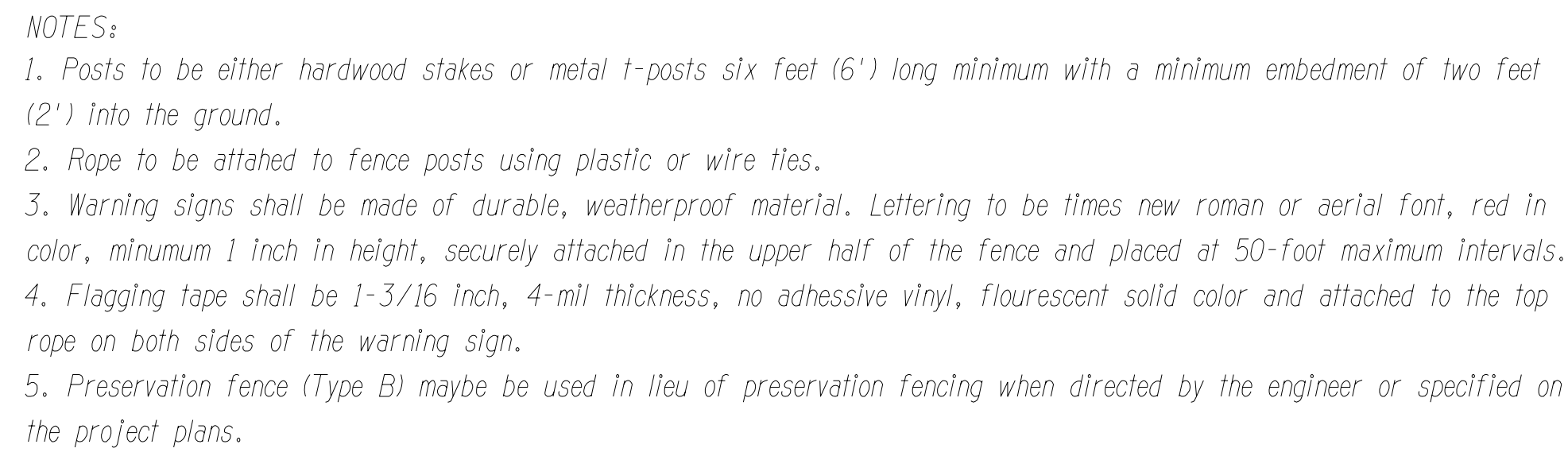
Pima County Department of Transportation

LANDSCAPE MITIGATION NOTES

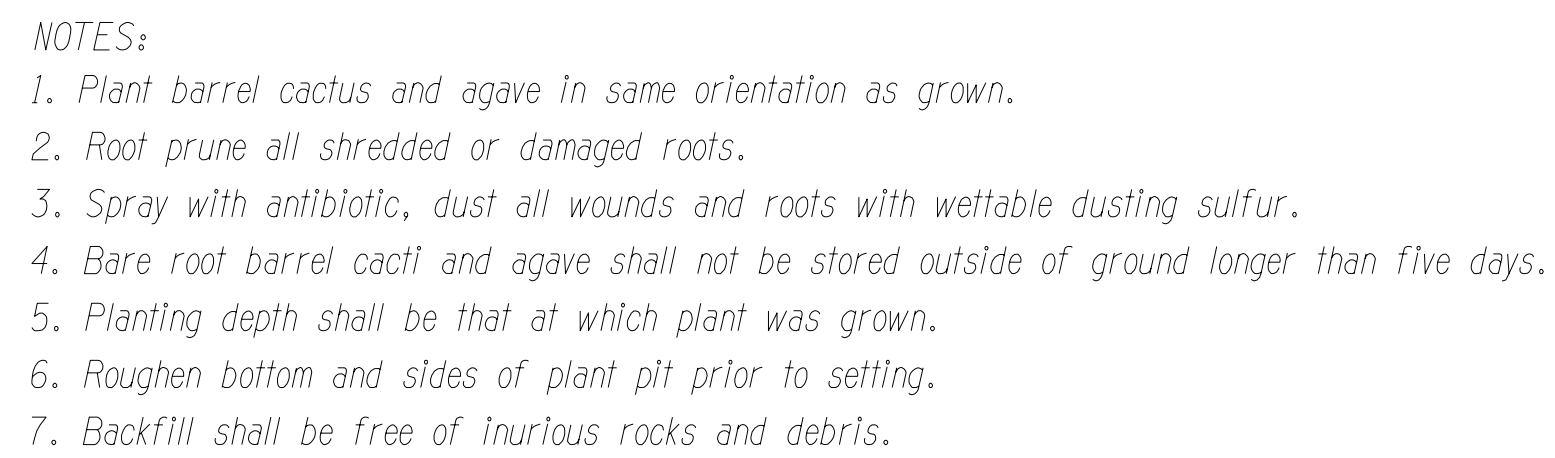
Scales	N/A	Sheet LPN1 of LPN1	Page 47 of 63
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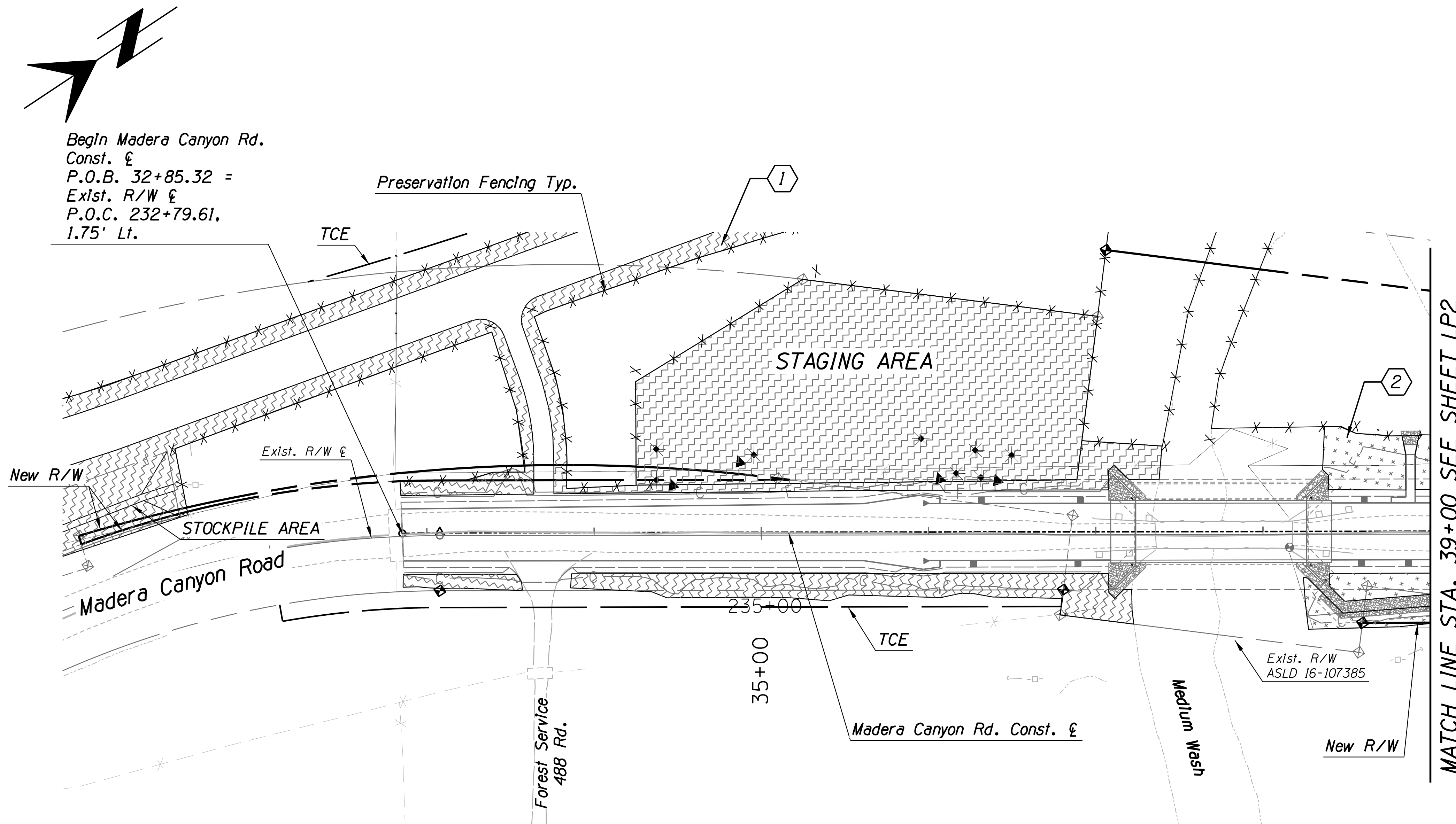
MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Pima County Department of Transportation

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project: 24043PJ
Client: MCDOT

Penet: 24043PJ
Plot: 24043PJ



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0127410			
T0541 DIC					

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ARIZONA 811
Call 811 or click Arizona811.com

PLANT MATERIALS SCHEDULE

SYMBOL	COMMON NAME
TRANSPLANTED	
	Transplanted Ocotillo
	Transplanted Cactus
EXISTING	
	Preserve-in-Place Vegetation, Refer to NPI Sheets for locations

SEED MIX CLASS II

SYMBOL	HATCH	NAME
		Seeding (Class II) Desert Scrub
		Seeding (Class II) Xeroriparian

MATERIALS SCHEDULE

SYMBOL	NAME
	Preservation Fencing

LANDSCAPE MITIGATION PLAN
STA. 32+85.32 TO 39+00

Kathryn Skinner, P.E., Director

Date	JM/PV	JM/PV	JM	JM
03/2026				
03/2026				
03/2026				
03/2026				

No.	Revision	Description	Engineer	Date

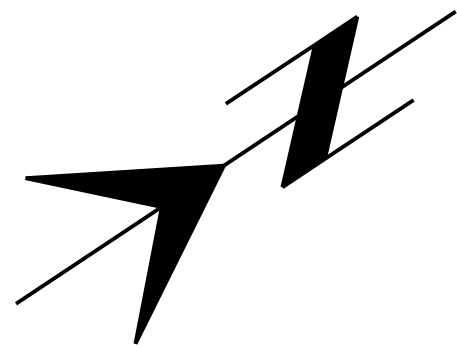


MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

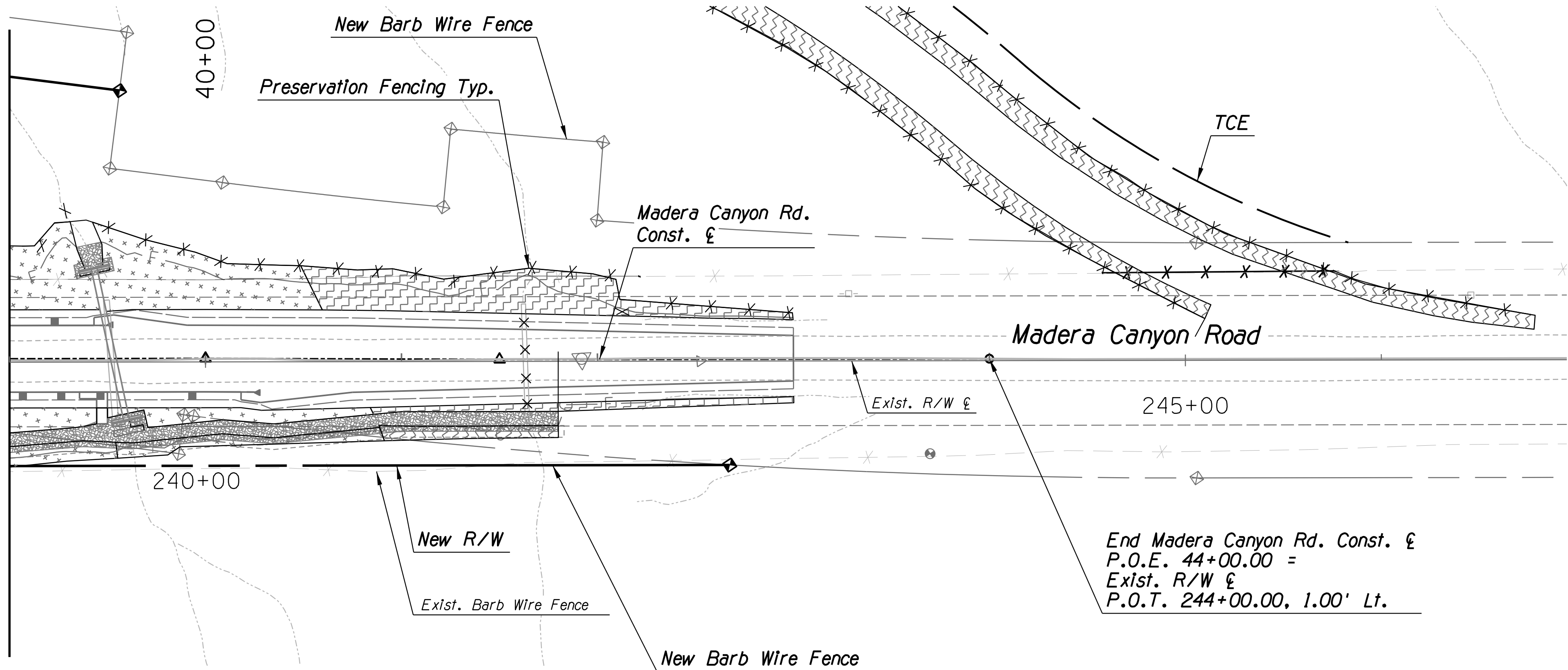
Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project: 24043PJ
Client: MWD

Plot: 24043PJ-LP2.tbl
Plot: 24043PJ-LP2.tbl



MATCH LINE STA. 39+00 SEE SHEET LP1



End Madera Canyon Rd. Const. E
P.O.E. 44+00.00 =
Exist. R/W E
P.O.T. 244+00.00, 1.00' Lt.

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0127410			

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PLANT MATERIALS SCHEDULE

SYMBOL	COMMON NAME
TRANSPLANTED	
	Transplanted Ocotillo
	Transplanted Cactus
EXISTING	
	Preserve-In-Place Vegetation, Refer to NPI Sheets for locations

SEED MIX CLASS II

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MATERIALS SCHEDULE

SYMBOL	NAME
	Preservation Fencing

LANDSCAPE MITIGATION PLAN
STA. 39+00 TO 43+00

Pima County Department of Transportation

Kathryn Skinner, P.E., Director

MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ



No.	Revision Description	Engineer	Date

Date	JM/PV	JM/PV	LM	Proj. Engr.
03/2026				
03/2026				
03/2026				

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project: \\P\PROJECT\DWG Client Number\CLIENT\h Pentable2.FULL.tbl Plot: \\P\dwg\Fabric.dwg

NATIVE PLANT INVENTORY NOTES:

1. The Native Plant Inventory was conducted in conformance with the PCDOT Memorandum of July 2015 Update to Appendix 4D of the Environmentally Sensitive Roadway Design Guidelines, Pima County DOT Roadway Design Manual and Arizona State Land Department Native Plant Protocol Amended August 2020.
2. All protected native plants listed in the Update to Appendix 4D of the Environmentally Sensitive Roadway Design Guidelines (Pima County DOT Roadway Design Manual) and the Arizona State Land Department Native Plant Protocol Amended August 2020 within the project area (Right-of-Way to Right-of-Way and all easements) have been inventoried. All protected trees with a minimum caliper of three (3) inches (Acacias - eight (8) inches), or protected multiple trunk plants with a three (3) inch combined caliper measurement of the three (3) largest trunks were included in the native plant inventory. All caliper measurements were taken twenty-four (24) inches from ground level.
3. All inventoried plants were assigned a number, located and caliper/height documented. These plant numbers correspond to the numbers listed in the Native Plant Inventory provided to the Pima County Project Manager.
4. Proposed mitigation numbers of protected native plants is consistent with the standards and tables in the July 2015 Update to Appendix 4D of the Environmentally Sensitive Roadway Design Guidelines, Pima County DOT Roadway Design Manual.
5. In no case may native understory plants be removed, destroyed, or relocated from an existing stand of native plants which is to be preserved in place. The perimeter of the area preserved in place shall be designated in accordance with standards set forth in the Pima County Environmentally Sensitive Roadway Design Guidelines Native Plant Preservation, Salvage, and Mitigation, subsection B.7.c.11.
6. Protected native plants shall not be destroyed, mutilated, removed from the premises or relocated on the premises except in accordance with an approved Native Plant Preservation, Salvage and Mitigation plan and all Arizona Department of Agriculture and Horticulture requirements.

LANDSCAPE DEMOLITION NOTES:

1. Site shall be treated for buffelgrass and other invasive species prior to initiation of work. See Special Provisions 201-3.04, Bid Item 2010010.
2. Contractor is responsible for the preservation of existing plant materials according to Special Provisions Section 201-3.02. Overhanging branches within the right-of-way that may impact construction shall be pruned in accordance with Special Provisions Section 201-3.05.
3. Existing trees on adjacent property may have overhanging branches that will require pruning. See Special Provisions 201-3.05. No pruning shall be performed without the notification of Pima County Community Relations.
4. Where construction impacts existing landscape or irrigation encroachments within right-of-way, contractor shall coordinate required adjustments with Project Engineer and adjacent property owners. See also Special Provisions.
5. Contractor is to install Preservation Fencing as directed by Project Engineer prior to clearing. Locations shown on plans shall be adjusted in the field as required. Preservation Fencing is to remain during duration of project. See Item #2010004.
6. Removal of all cacti and native plants shall be in accordance with the provisions of the "Arizona Native Plant Law", A.R.S. Chapter 7. Cacti under the protection of native plant laws will have been removed prior to construction. If, during construction, additional saguaro or barrel cacti will be impacted, contractor is to contact PCDOT Project Manager or Pima County Plant Nursery Manager (520)-488-8022.

Plant Inventory Quantity Summary

BOTANICAL NAME	QTY	TR	RFS	PIP
Acacia greggii Catclaw Acacia	48	0	16	32
Celtis reticulata Desert Hackberry	24	0	11	13
Ferocactus wislizeni Fishhook Barrel	24	9	0	15
Fouquieria splendens Ocotillo	16	10	0	6
Parkinsonia florida Blue Palo Verde	24	0	5	19
Prosopis velutina Velvet Mesquite	460	0	129	331

TR = Transplant
RFS = Remove from Site
PIP = Preserve in Place

NPI Symbols

Symbol	Description
	RFS
	PIP
	TR

Symbol	Description
	Preserve-in-Place Vegetation

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0127410			
T0541.DIC					
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NATIVE PLANT INVENTORY SUMMARY

Pima County Department of Transportation

Kathryn Skinner, P.E., Director

MADERA CANYON ROAD MEDIUM WASH BRIDGE REPLACEMENT PROJECT NO. 24043PJ				<table><tr><td>No.</td><td>Revision</td><td>Description</td><td>Engineer</td><td>Date</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>	No.	Revision	Description	Engineer	Date																					<table><tr><td>Date</td><td>03/2026</td></tr><tr><td>JM/PV</td><td></td></tr><tr><td>Drawn</td><td>03/2026</td></tr><tr><td>JM/PV</td><td></td></tr><tr><td>Checked</td><td>03/2026</td></tr><tr><td>LM</td><td></td></tr><tr><td>Proj. Engr.</td><td>03/2026</td></tr></table>	Date	03/2026	JM/PV		Drawn	03/2026	JM/PV		Checked	03/2026	LM		Proj. Engr.	03/2026
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Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project: \\P:\PROJECTS\24043PJ\Drawings\24043PJ.dwg
Client: N/A
Date: 5/7/2026
Time: 3:58:48 PM
Printed By: JMoscat

ENVIRONMENTALLY SENSITIVE ROADWAY CALCULATIONS

Native Plant Mitigation Calculations								
Calculations are in conformance with the PCDOT Memorandum of July 2015 - Update to Appendix 4D of the Environmentally Sensitive Roadway Design Guidelines, Pima County DOT Roadway Design Manual.								
Disturbed Area (acres)	1.51							
Plantable Area (acres)	0.55							
ESR Multiplier (Plantable Area/Disturbed Area)	36.4%							
Replacement Diameter: (total diameter) * 125% * ESR Multiplier								
	Total Diameter	Replacement Diameter						
Whitethorn Acacia	0	0.0						
Acacia constricta		(0 * 125% * 36.4%)						
Catclaw Acacia	328	149.3						
Acacia greggii		(328 * 125% * 36.4%)						
Desert Hackberry	128	58.3						
Celtis reticulata		(128 * 125% * 36.4%)						
Chilopsis linearis	9	4.1						
Desert Willow		(9 * 125% * 36.4%)						
Ironwood	0	0.0						
Olneya tesota		(0 * 125% * 36.4%)						
Blue Palo Verde	89	40.5						
Parkinsonia floridum		(89 * 125% * 36.4%)						
Foothills Palo Verde	0	0.0						
Parkinsonia microphyllum		(0 * 125% * 36.4%)						
Velvet Mesquite	4025	1832.6						
Prosopis velutina		(4025 * 125% * 36.4%)						
TOTAL	4579	2026.5						
Distribution of Tree Sizes								
Scientific Name	Size Range (inches)	No. of Trees	Percentage as Total No. of Trees	Replacement Diameter per Size Range (inches)	Replacement Container Size	Diameter per Container (inches)	Diameter per Container (inches)	No. of Trees per Container*
Acacia greggii	>12	4	# trees / # trees = 8.33%	12.4	48 inch box	6	0.9/6 = 2.1	2
	8-11.9	6	# trees / # trees = 12.50%	18.7	36 inch box	4	6.8/4 = 4.7	5
	6-7.9	7	# trees / # trees = 14.58%	21.8	24 inch box	2.5	0.9/2.5 = 8.7	9
	<6	31	# trees / # trees = 64.58%	96.4	15 gallon container	1	0.0/1 = 96.4	96
Celtis reticulata	>12	1	# trees / # trees = 4.17%	2.4	48 inch box	6	1.5/6 = 0.4	0
	8-11.9	5	# trees / # trees = 20.83%	12.1	36 inch box	4	0.0/4 = 3.0	3
	6-7.9	3	# trees / # trees = 12.50%	7.3	24 inch box	2.5	0.0/2.5 = 2.9	3
	<6	15	# trees / # trees = 62.50%	36.4	15 gallon container	1	0.0/1 = 36.4	36
Chilopsis linearis	>12	0	# trees / # trees = 0.00%	0.0	48 inch box	6	1.5/6 = 0.0	0
	8-11.9	1	# trees / # trees = 100.00%	4.1	36 inch box	4	0.0/4 = 1.0	1
	6-7.9	0	# trees / # trees = 0.00%	0.0	24 inch box	2.5	0.0/2.5 = 0.0	0
	<6	0	# trees / # trees = 0.00%	0.0	15 gallon container	1	0.0/1 = 0.0	0
Parkinsonia floridum	>12	0	# trees / # trees = 0.00%	0.0	48 inch box	6	12.2/6 = 0.0	0
	8-11.9	5	# trees / # trees = 20.83%	8.4	36 inch box	4	5.6/4 = 2.1	2
	6-7.9	6	# trees / # trees = 25.00%	10.1	24 inch box	2.5	2.2/2.5 = 4.1	4
	<6	13	# trees / # trees = 54.17%	21.9	15 gallon container	1	7.8/1 = 21.9	22
Prosopis velutina	>12	111	# trees / # trees = 24.13%	442.2	48 inch box	6	6.7/6 = 73.7	74
	8-11.9	121	# trees / # trees = 26.30%	482.0	36 inch box	4	10.4/4 = 120.5	121
	6-7.9	64	# trees / # trees = 13.91%	255.0	24 inch box	2.5	7.4/2.5 = 102.0	102
	<6	164	# trees / # trees = 35.65%	653.4	15 gallon container	1	20.8/1 = 653.4	653

NATIVE PLANT INVENTORY SUMMARY

F.H.W.A. REGION

STATE

PROJECT NO.

SHEET NO.

TOTAL SHEETS

AS BUILT

9

ARIZ.

PPM-0127410

T0541/DIC

Contact Arizona 811 at least two full working days before you begin excavation



Call 811 or click Arizona811.com

Kathryn Skinner, P.E., Director

Revision

Description

Date

Engineer

Date

Designed

Drawn

Checked

Proj. Engr.

JM/PV

JM/PV

LM

03/2026

03/2026

03/2026

03/2026





MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

NUMBER	BOTANICAL NAME	CALIPER	HEIGHT	ABBREVIATION	DISPOSITION
1	Prosopis velutina	6	8	PV	TREE_PIP
2	Prosopis velutina	4	7	PV	TREE_PIP
3	Prosopis velutina	3	8	PV	TREE_PIP
4	Prosopis velutina	10	10	PV	TREE_PIP
5	Prosopis velutina	12	15	PV	TREE_PIP
6	Prosopis velutina	10	15	PV	TREE_PIP
7	Prosopis velutina	7	8	PV	TREE_PIP
8	Prosopis velutina	8	15	PV	TREE_PIP
9	Prosopis velutina	10	15	PV	TREE_PIP
10	Prosopis velutina	5	7	PV	TREE_PIP
11	Prosopis velutina	4	10	PV	TREE_PIP
12	Prosopis velutina	10	15	PV	TREE_PIP
13	Prosopis velutina	4	8	PV	TREE_PIP
14	Prosopis velutina	5	12	PV	TREE_PIP
15	Prosopis velutina	7	18	PV	TREE_PIP
16	Prosopis velutina	4	12	PV	TREE_PIP
17	Prosopis velutina	5	8	PV	TREE_PIP
18	Prosopis velutina	11	15	PV	TREE_PIP
19	Prosopis velutina	3	7	PV	TREE_PIP
20	Prosopis velutina	3	12	PV	TREE_PIP
21	Prosopis velutina	7	18	PV	TREE_PIP
22	Prosopis velutina	6	10	PV	TREE_PIP
23	Prosopis velutina	11	18	PV	TREE_PIP
24	Prosopis velutina	6	8	PV	TREE_PIP
25	Prosopis velutina	10	18	PV	TREE_PIP
26	Prosopis velutina	19	20	PV	TREE_PIP
27	Prosopis velutina	5	8	PV	TREE_PIP
28	Cylindropuntia spp.	0	0	CY	CACT_PIP
29	Prosopis velutina	5	7	PV	TREE_PIP
30	Parkinsonia florida	3	7	PF	TREE_PIP
31	Acacia greggii	3	4	AG	TREE_PIP
32	Prosopis velutina	10	15	PV	TREE_PIP
33	Prosopis velutina	5	8	PV	TREE_PIP
34	Prosopis velutina	9	15	PV	TREE_PIP
35	Parkinsonia florida	3	7	PF	TREE_PIP
36	Prosopis velutina	21	22	PV	TREE_PIP
37	Prosopis velutina	3	8	PV	TREE_PIP
38	Prosopis velutina	6	10	PV	TREE_PIP
39	Acacia greggii	4	4	AG	TREE_PIP
40	Acacia greggii	20	20	AG	TREE_PIP
41	Acacia greggii	4	7	AG	TREE_PIP
42	Acacia greggii	3	7	AG	TREE_PIP
43	Prosopis velutina	8	20	PV	TREE_PIP
44	Prosopis velutina	13	23	PV	TREE_PIP
45	Prosopis velutina	11	18	PV	TREE_PIP
46	Acacia greggii	4	7	AG	TREE_PIP
47	Acacia greggii	4	6	AG	TREE_PIP
48	Prosopis velutina	11	20	PV	TREE_PIP
49	Prosopis velutina	7	15	PV	TREE_PIP
50	Prosopis velutina	15	25	PV	TREE_PIP
51	Prosopis velutina	10	20	PV	TREE_PIP
52	Prosopis velutina	12	25	PV	TREE_PIP
53	Acacia greggii	7	10	AG	TREE_PIP
54	Parkinsonia florida	9	18	PF	TREE_PIP
55	Acacia greggii	3	7	AG	TREE_PIP
56	Prosopis velutina	3	7	PV	TREE_PIP
57	Prosopis velutina	4	7	PV	TREE_PIP
58	Acacia greggii	6	7	AG	TREE_PIP
59	Prosopis velutina	7	10	PV	TREE_PIP
60	Parkinsonia florida	5	8	PF	TREE_PIP
61	Acacia greggii	18	20	AG	TREE_PIP
62	Prosopis velutina	16	20	PV	TREE_PIP
63	Parkinsonia florida	3	15	PF	TREE_PIP
64	Parkinsonia florida	7	15	PF	TREE_PIP
65	Parkinsonia florida	8	18	PF	TREE_PIP
66	Prosopis velutina	25	25	PV	TREE_PIP
67	Prosopis velutina	25	25	PV	TREE_PIP
68	Prosopis velutina	9	10	PV	TREE_PIP
69	Prosopis velutina	15	25	PV	TREE_PIP
70	Prosopis velutina	15	25	PV	TREE_PIP
71	Acacia greggii	3	6	AG	TREE_PIP
72	Acacia greggii	3	6	AG	TREE_PIP
73	Prosopis velutina	22	25	PV	TREE_PIP
74	Prosopis velutina	11	20	PV	TREE_PIP
75	Parkinsonia florida	4	8	PF	TREE_PIP
76	Prosopis velutina	22	20	PV	TREE_PIP
77	Prosopis velutina	20	25	PV	TREE_PIP
78	Prosopis velutina	18	25	PV	TREE_PIP
79	Prosopis velutina	4	8	PV	TREE_PIP
80	Acacia greggii	15	12	AG	TREE_PIP
81	Prosopis velutina	10	15	PV	TREE_PIP
82	Prosopis velutina	15	20	PV	TREE_PIP
83	Prosopis velutina	18	22	PV	TREE_PIP
84	Cylindropuntia spp.	0	0	CY	CACT_PIP
85	Prosopis velutina	9	18	PV	TREE_PIP
86	Acacia greggii	4	8	AG	TREE_PIP
87	Prosopis velutina	9	15	PV	TREE_PIP
88	Prosopis velutina	3	15	PV	TREE_PIP
89	Acacia greggii	4	7	AG	TREE_PIP
90	Acacia greggii	4	7	AG	TREE_PIP
91	Prosopis velutina	18	22	PV	TREE_PIP
92	Prosopis velutina	21	25	PV	TREE_PIP
93	Acacia greggii	10	10	AG	TREE_PIP
94	Prosopis velutina	18	20	PV	TREE_PIP
95	Prosopis velutina	11	18	PV	TREE_PIP
96	Celtis reticulata	3	8	CR	TREE_PIP
97	Celtis reticulata	3	8	CR	TREE_PIP
98	Celtis reticulata	3	8	CR	TREE_PIP
99	Prosopis velutina	18	25	PV	TREE_PIP
100	Celtis reticulata	3	8	CR	TREE_PIP

NUMBER	BOTANICAL NAME	CALIPER	HEIGHT	ABBREVIATION	DISPOSITION
101	Prosopis velutina	10	18	PV	TREE_PIP
102	Acacia greggii	10	10	AG	TREE_PIP
103	Celtis reticulata	3	9	CR	TREE_PIP
104	Chilopsis linearis	9	8	CL	TREE_PIP
105	Celtis reticulata	6	9	CR	TREE_PIP
106	Acacia greggii	10	15	AG	TREE_PIP
107	Prosopis velutina	13	18	PV	TREE_PIP
108	Prosopis velutina	9	14	PV	TREE_PIP
109	Prosopis velutina	9	16	PV	TREE_PIP
110	Acacia greggii	6	14	AG	TREE_PIP
111	Cylindropuntia spp.	0	0	CY	CACT_PIP
112	Cylindropuntia spp.	0	0	CY	CACT_PIP
113	Cylindropuntia spp.	0	0	CY	CACT_PIP
114	Acacia greggii	50	14	AG	TREE_PIP
115	Prosopis velutina	12	16	PV	TREE_PIP
116	Prosopis velutina	24	18	PV	TREE_PIP
117	Celtis reticulata	4	11	CR	TREE_PIP
118	Celtis reticulata	4	10	CR	TREE_PIP
119	Celtis reticulata	8	10	CR	TREE_PIP
120	Prosopis velutina	10	12	PV	TREE_PIP
121	Acacia greggii	4	8	AG	TREE_PIP
122	Acacia greggii	7	8	AG	TREE_PIP
123	Prosopis velutina	7	12	PV	TREE_PIP
124	Prosopis velutina	18	18	PV	TREE_PIP
125	Celtis reticulata	6	8	CR	TREE_PIP
126	Prosopis velutina	16	10	PV	TREE_PIP
127	Prosopis velutina	8	10	PV	TREE_PIP
128	Prosopis velutina	7	7	PV	TREE_PIP
129	Prosopis velutina	14	16	PV	TREE_PIP
130	Prosopis velutina	7	8	PV	TREE_PIP
131	Prosopis velutina	15	18	PV	TREE_PIP
132	Prosopis velutina	18	18	PV	TREE_PIP
133	Prosopis velutina	16	22	PV	TREE_PIP
134	Prosopis velutina	4	9	PV	TREE_PIP
135	Prosopis velutina	3	8	PV	TREE_PIP
136	Acacia greggii	3	5	AG	TREE_PIP
137	Acacia greggii	4	6	AG	TREE_PIP
138	Prosopis velutina	12	15	PV	TREE_PIP
139	Prosopis velutina	19	20	PV	TREE_PIP
140	Prosopis velutina	3	7	PV	TREE_PIP
141	Prosopis velutina	9	10	PV	TREE_PIP
142	Acacia greggii	3	3	AG	TREE_PIP
143	Prosopis velutina	7	9	PV	TREE_PIP
144	Prosopis velutina	3	7	PV	TREE_PIP
145	Prosopis velutina	7	8	PV	TREE_PIP
146	Prosopis velutina	17	14	PV	TREE_PIP
147	Acacia greggii	10	7	AG	TREE_PIP
148	Prosopis velutina	12	18	PV	TREE_PIP
149	Acacia greggii	8	7	AG	TREE_PIP
150	Acacia greggii	6	14	AG	TREE_PIP
151	Celtis reticulata	6	9	CR	TREE_PIP
152	Prosopis velutina	40	15	PV	TREE_PIP
153	Prosopis velutina	18	18	PV	TREE_PIP
154	Acacia greggii	10	8	AG	TREE_PIP
155	Acacia greggii	4	5	AG	TREE_PIP
156	Acacia greggii	7	14	AG	TREE_PIP
157	Celtis reticulata	3	7	CR	TREE_PIP
158	Prosopis velutina	21	18	PV	TREE_PIP
159	Celtis reticulata	3	8	CR	TREE_PIP
160	Prosopis velutina	4	6	PV	TREE_PIP
161	Prosopis velutina	7	12	PV	TREE_PIP
162	Acacia greggii	3	5	AG	TREE_PIP
163	Celtis reticulata	4	9	CR	TREE_PIP
164	Prosopis velutina	8	8	PV	TREE_PIP
165	Prosopis velutina	6	7	PV	TREE_PIP
166	Prosopis velutina	18	13	PV	TREE_PIP
167	Prosopis velutina	4	6	PV	TREE_PIP
168	Celtis reticulata	9	8	CR	TREE_PIP
169	Prosopis velutina	12	15	PV	TREE_PIP
170	Prosopis velutina	14	16	PV	TREE_PIP
171	Cylindropuntia spp.	0	0	CY	CACT_PIP
172	Celtis reticulata	4	8	CR	TREE_PIP
173	Celtis reticulata	3	8	CR	TREE_PIP
174	Prosopis velutina	13	20	PV	TREE_PIP
175	Acacia greggii	4	6	AG	TREE_PIP
176	Prosopis velutina	4	8	PV	TREE_PIP
177	Celtis reticulata	5	8	CR	TREE_PIP
178	Acacia greggii	5	8	AG	TREE_PIP
179	Acacia greggii	5	7	AG	TREE_PIP
180	Prosopis velutina	7	8	PV	TREE_PIP
181	Prosopis velutina	14	20	PV	TREE_PIP
182	Prosopis velutina	10	20	PV	TREE_PIP
183	Prosopis velutina	15	20	PV	TREE_PIP
184	Acacia greggii	5	8	AG	TREE_PIP
185	Prosopis velutina	14	20	PV	TREE_PIP
186	Acacia greggii	4	8	AG	TREE_PIP
187	Prosopis velutina	9	12	PV	TREE_PIP
188	Prosopis velutina	7	15	PV	TREE_PIP
189	Celtis reticulata	8	12	CR	TREE_PIP
190	Parkinsonia florida	6	10	PF	TREE_PIP
191	Prosopis velutina	15	20	PV	TREE_PIP
192	Acacia greggii	5	6	AG	TREE_PIP
193	Acacia greggii	5	7	AG	TREE_PIP
194	Prosopis velutina	10	18	PV	TREE_PIP
195	Prosopis velutina	8	10	PV	TREE_PIP
196	Acacia greggii	5	7	AG	TREE_PIP
197	Acacia greggii	4	3	AG	TREE_PIP
198	Prosopis velutina	7	12	PV	TREE_PIP
199	Prosopis velutina	14	20	PV	TREE_PIP
200	Acacia greggii	4	4	AG	TREE_PIP

NUMBER	BOTANICAL NAME	CALIPER	HEIGHT	ABBREVIATION	DISPOSITION
201	Prosopis velutina	5	8	PV	TREE_PIP
202	Prosopis velutina	4	10	PV	TREE_PIP
203	Prosopis velutina	8	10	PV	TREE_PIP
204	Prosopis velutina	9	12	PV	TREE_PIP
205	Acacia greggii	4	6	AG	TREE_PIP
206	Prosopis velutina	6	8	PV	TREE_RFS
207	Prosopis velutina	10	15	PV	TREE_RFS
208	Prosopis velutina	12	15	PV	TREE_PIP
209	Prosopis velutina	10	15	PV	TREE_PIP
210	Prosopis velutina	12	15	PV	TREE_PIP
211	Prosopis velutina	14	20	PV	TREE_PIP
212	Prosopis velutina	8	12	PV	TREE_PIP
213	Prosopis velutina	9	10	PV	TREE_PIP
214	Prosopis velutina	14	16	PV	TREE_PIP
215	Prosopis velutina	15	15	PV	TREE_PIP
216	Cylindropuntia spp.	0	0	CY	CACT_PIP
217	Cylindropuntia spp.	0	0	CY	CACT_PIP
218	Prosopis velutina	12	20	PV	TREE_PIP
219	Cylindropuntia spp.	0	0	CY	CACT_PIP
220	Prosopis velutina	14	18	PV	TREE_PIP
221	Prosopis velutina	8	14	PV	TREE_PIP
222	Prosopis velutina	25	25	PV	TREE_PIP
223	Cylindropuntia spp.	0	0	CY	CACT_PIP
224	Prosopis velutina	8	12	PV	TREE_PIP
225	Prosopis velutina	5	10	PV	TREE_PIP
226	Prosopis velutina	5	7	PV	TREE_RFS
227	Prosopis velutina	4	6	PV	TREE_PIP
228	Prosopis velutina	10	8	PV	TREE_RFS
229	Celtis reticulata	4	8	CR	TREE_RFS
230	Acacia greggii	3	7	AG	TREE_PIP
231	Prosopis velutina	8	8	PV	TREE_PIP
232	Prosopis velutina	8	12	PV	TREE_PIP
233	Prosopis velutina	6	8	PV	TREE_PIP
234	Prosopis velutina	11	18	PV	TREE_PIP
235	Prosopis velutina	8	15	PV	TREE_PIP
236	Prosopis velutina	8	12	PV	TREE_PIP
237	Prosopis velutina	7	12	PV	TREE_PIP
238	Prosopis velutina	12	18	PV	TREE_PIP
239	Prosopis velutina	10	15	PV	TREE_PIP
240	Celtis reticulata	4	15	CR	TREE_PIP
241	Prosopis velutina	18	15	PV	TREE_PIP
242	Celtis reticulata	14	16	CR	TREE_PIP
243	Prosopis velutina	14	25	PV	TREE_PIP
244	Acacia greggii	6	12	AG	TREE_PIP
245	Prosopis velutina	11	18	PV	TREE_RFS
246	Prosopis velutina	12	20	PV	TREE_PIP
247	Cylindropuntia spp.	0	0	CY	CACT_PIP
248	Celtis reticulata	10	1	CR	TREE_PIP
249	Cylindropuntia spp.	0	0	CY	CACT_PIP
250	Prosopis velutina	4	7	PV	TREE_PIP
251	Acacia greggii	5	10	AG	TREE_PIP
252	Prosopis velutina	5	12	PV	TREE_PIP
253	Prosopis velutina	3	7	PV	TREE_PIP
254	Prosopis velutina	9	10	PV	TREE_PIP
255	Prosopis velutina	10	12	PV	TREE_PIP
256	Prosopis velutina	10	8	PV	TREE_PIP
257	Prosopis velutina	12	8	PV	TREE_PIP
258	Prosopis velutina	4	7	PV	TREE_PIP
259	Prosopis velutina	6	8	PV	TREE_PIP
260	Prosopis velutina	5	8	PV	TREE_PIP
261	Prosopis velutina	11	15	PV	TREE_PIP
262	Prosopis velutina	11	10	PV	TREE_PIP
263	Prosopis velutina	10	12	PV	TREE_PIP
264	Prosopis velutina	8	12	PV	TREE_PIP
265	Prosopis velutina	6	12	PV	TREE_PIP
266	Prosopis velutina	8	10	PV	TREE_PIP
267	Prosopis velutina	9	10	PV	TREE_PIP
268	Prosopis velutina	10	12	PV	TREE_PIP
269	Prosopis velutina	5	6	PV	TREE_PIP
270	Prosopis velutina	4	5	PV	TREE_PIP
271	Ferocactus wislizeni	0	4	FW	CACT_PIP
272	Prosopis velutina	10	12	PV	TREE_PIP
273	Prosopis velutina	6	12	PV	TREE_PIP
274	Prosopis velutina	12	10	PV	TREE_PIP
275	Cylindropuntia spp.	0	0	CY	CACT_PIP
276	Cylindropuntia spp.	0	0	CY	CACT_PIP
277	Prosopis velutina	9	15	PV	TREE_PIP
278	Prosopis velutina	6	12	PV	TREE_PIP
279	Prosopis velutina	7	10	PV	TREE_PIP
280	Prosopis velutina	5	7	PV	TREE_PIP
281	Prosopis velutina	8	12	PV	TREE_PIP
282	Prosopis velutina	8	8	PV	TREE_PIP
283	Prosopis velutina	4	6	PV	TREE_PIP
284	Prosopis velutina	8	15	PV	TREE_RFS
285	Ferocactus wislizeni	0	2	FW	CACT_PIP
286	Prosopis velutina	4	7	PV	TREE_PIP
287	Prosopis velutina	8	12	PV	TREE_PIP
288	Prosopis velutina	9	12	PV	TREE_PIP
289	Prosopis velutina	3	6	PV	TREE_PIP
290	Celtis reticulata	8	122	CR	TREE_PIP
291	Prosopis velutina	12	20	PV	TREE_RFS
292	Prosopis velutina	4	7	PV	TREE_RFS
293	Prosopis velutina	4	8	PV	TREE_RFS
294	Prosopis velutina	5	8	PV	TREE_RFS
295	Prosopis velutina	8	15	PV	TREE_RFS
296	Prosopis velutina	9	12	PV	TREE_RFS
297	Prosopis velutina	4	6	PV	TREE_PIP
298	Cylindropuntia spp.	0	0	CY	CACT_PIP
299	Prosopis velutina	5	8	PV	TREE_PIP
300	Prosopis velutina	8	12	PV	TREE_PIP

NUMBER	BOTANICAL NAME	CALIPER	HEIGHT	ABBREVIATION	DISPOSITION
401	Prosopis velutina	5	10	PV	TREE_PIP
402	Prosopis velutina	6	8	PV	TREE_PIP
403	Cylindropuntia spp.	0	0	CY	CACT_PIP
404	Cylindropuntia spp.	0	0	CY	CACT_PIP
405	Cylindropuntia spp.	0	0	CY	CACT_PIP
406	Ferocactus wislizeni	0	2	FW	CACT_PIP
407	Ferocactus wislizeni	0	1	FW	CACT_PIP
408	Prosopis velutina	18	15	PV	TREE_PIP
409	Ferocactus wislizeni	0	0.5	FW	CACT_PIP
410	Cylindropuntia spp.	0	0	CY	CACT_PIP
411	Prosopis velutina	10	15	PV	TREE_PIP
412	Prosopis velutina	4	6	PV	TREE_RFS
413	Parkinsonia florida	3	6	PF	TREE_PIP
414	Prosopis velutina	3	6	PV	TREE_RFS
415	Prosopis velutina	3	5	PV	TREE_RFS
416	Prosopis velutina	5	8	PV	TREE_RFS
417	Ferocactus wislizeni	0	1	FW	CACT_SAL
418	Prosopis velutina	3	8	PV	TREE_RFS
419	Parkinsonia florida	5	8	PF	TREE_RFS
420	Cylindropuntia spp.	0	0	CY	CACT_RFS
421	Cylindropuntia spp.	0	0	CY	CACT_RFS
422	Prosopis velutina	4	6	PV	TREE_PIP
423	Prosopis velutina	15	20	PV	TREE_PIP
424	Parkinsonia florida	3	6	PF	TREE_PIP
425	Prosopis velutina	3	7	PV	TREE_PIP
426	Prosopis velutina	5	7	PV	TREE_PIP
427	Prosopis velutina	5	9	PV	TREE_PIP
428	Prosopis velutina	12	12	PV	TREE_PIP
429	Prosopis velutina	5	8	PV	TREE_PIP
430	Prosopis velutina	4	8	PV	TREE_PIP
431	Prosopis velutina	8	11	PV	TREE_PIP
432	Prosopis velutina	4	8	PV	TREE_PIP
433	Prosopis velutina	6	8	PV	TREE_PIP
434	Prosopis velutina	8	12	PV	TREE_PIP
435	Cylindropuntia spp.	0	0	CY	CACT_PIP
436	Cylindropuntia spp.	0	0	CY	CACT_PIP
437	Prosopis velutina	6	10	PV	TREE_PIP
438	Cylindropuntia spp.	0	0	CY	CACT_PIP
439	Cylindropuntia spp.	0	0	CY	CACT_PIP
440	Prosopis velutina	3	5	PV	TREE_PIP
441	Cylindropuntia spp.	0	0	CY	CACT_PIP
442	Cylindropuntia spp.	0	0	CY	CACT_PIP
443	Prosopis velutina	5	8	PV	TREE_PIP
444	Prosopis velutina	4	7	PV	TREE_PIP
445	Cylindropuntia spp.	0	0	CY	CACT_PIP
446	Cylindropuntia spp.	0	0	CY	CACT_PIP
447	Cylindropuntia spp.	0	0	CY	CACT_PIP
448	Cylindropuntia spp.	0	0	CY	CACT_PIP
449	Cylindropuntia spp.	0	0	CY	CACT_PIP
450	Prosopis velutina	3	6	PV	TREE_PIP
451	Prosopis velutina	4	7	PV	TREE_PIP
452	Cylindropuntia spp.	0	0	CY	CACT_PIP
453	Prosopis velutina	3	8	PV	TREE_PIP
454	Cylindropuntia spp.	0	0	CY	CACT_PIP
455	Prosopis velutina	4	7	PV	TREE_PIP
456	Cylindropuntia spp.	0	0	CY	CACT_PIP
457	Cylindropuntia spp.	0	0	CY	CACT_PIP
458	Prosopis velutina	3	7	PV	TREE_PIP
459	Cylindropuntia spp.	0	0	CY	CACT_PIP
460	Prosopis velutina	5	7	PV	TREE_PIP
461	Ferocactus wislizeni	0	1	FW	CACT_PIP
462	Prosopis velutina	6	8	PV	TREE_PIP
463	Ferocactus wislizeni	0	1	FW	CACT_PIP
464	Cylindropuntia spp.	0	0	CY	CACT_PIP
465	Cylindropuntia spp.	0	0	CY	CACT_PIP
466	Prosopis velutina	22	25	PV	TREE_PIP
467	Prosopis velutina	8	9	PV	TREE_PIP
468	Ferocactus wislizeni	0	1	FW	CACT_PIP
469	Prosopis velutina	3	6	PV	TREE_PIP
470	Prosopis velutina	5	7	PV	TREE_PIP
471	Cylindropuntia spp.	0	0	CY	CACT_PIP
472	Ferocactus wislizeni	0	1	FW	CACT_PIP
473	Prosopis velutina	3	7	PV	TREE_PIP
474	Cylindropuntia spp.	0	0	CY	CACT_PIP
475	Prosopis velutina	3	7	PV	TREE_PIP
476	Prosopis velutina	3	7	PV	TREE_PIP
477	Cylindropuntia spp.	0	0	CY	CACT_PIP
478	Parkinsonia florida	7	10	PF	TREE_PIP
479	Cylindropuntia spp.	0	0	CY	CACT_PIP
480	Parkinsonia florida	3	6	PF	TREE_PIP
481	Cylindropuntia spp.	0	0	CY	CACT_PIP
482	Prosopis velutina	4	8	PV	TREE_PIP
483	Prosopis velutina	4	7	PV	TREE_PIP
484	Cylindropuntia spp.	0	0	CY	CACT_PIP
485	Prosopis velutina	3	6	PV	TREE_PIP
486	Prosopis velutina	3	6	PV	TREE_PIP
487	Cylindropuntia spp.	0	0	CY	CACT_PIP
488	Cylindropuntia spp.	0	0	CY	CACT_RFS
489	Cylindropuntia spp.	0	0	CY	CACT_RFS
490	Prosopis velutina	4	8	PV	TREE_PIP
491	Cylindropuntia spp.	0	0	CY	CACT_RFS
492	Cylindropuntia spp.	0	0	CY	CACT_RFS
493	Cylindropuntia spp.	0	0	CY	CACT_RFS
494	Cylindropuntia spp.	0	0	CY	CACT_PIP
495	Prosopis velutina	4	6	PV	TREE_RFS
496	Cylindropuntia spp.	0	0	CY	CACT_RFS
497	Cylindropuntia spp.	0	0	CY	CACT_RFS
498	Prosopis velutina	4	7	PV	TREE_RFS
499	Cylindropuntia spp.	0	0	CY	CACT_PIP
500	Cylindropuntia spp.	0	0	CY	CACT_PIP

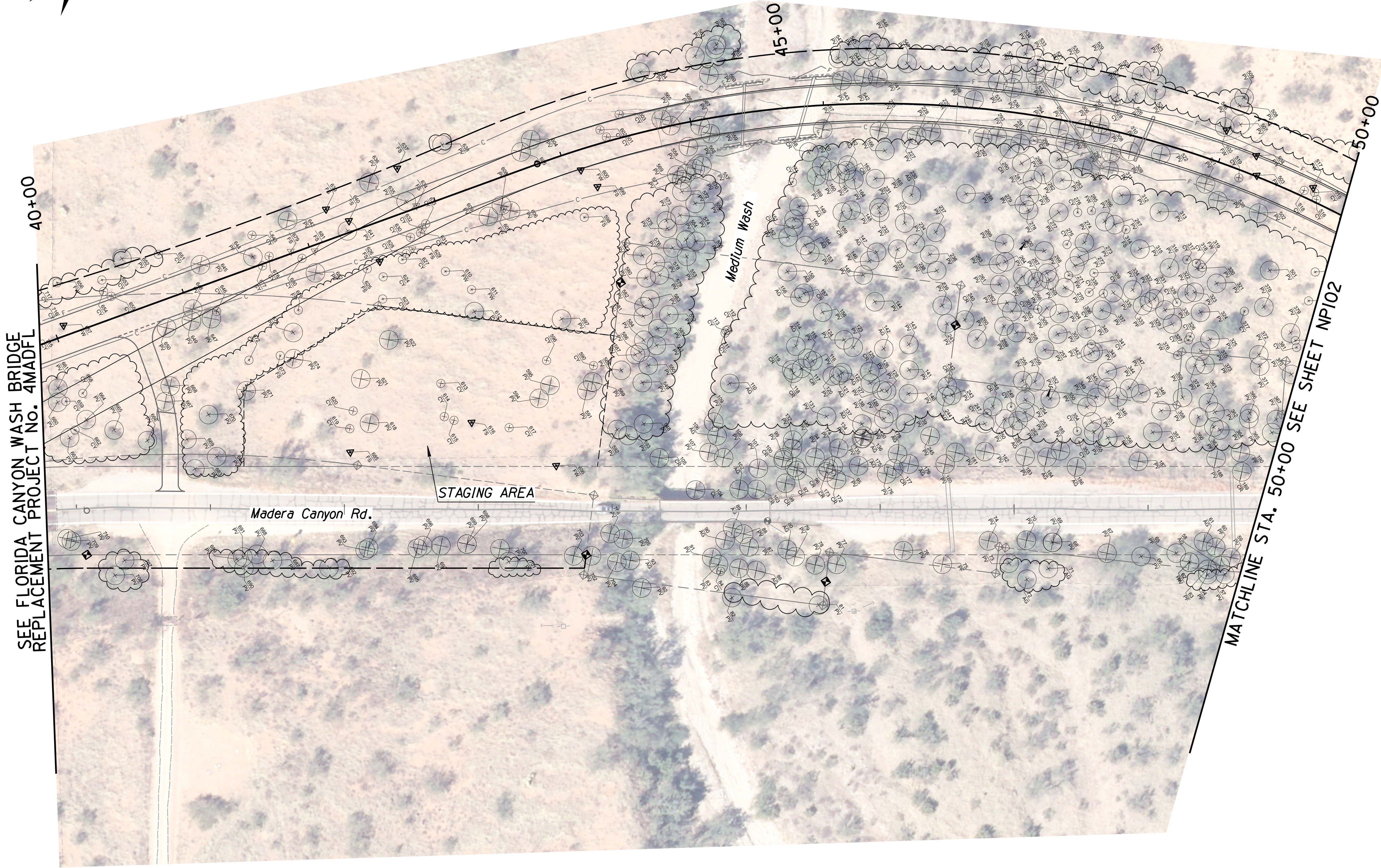
NUMBER	BOTANICAL NAME	CALIPER	HEIGHT	ABBREVIATION	DISPOSITION
501	Prosopis velutina	6	8	PV	TREE_PIP
502	Prosopis velutina	25	25	PV	TREE_RFS
503	Ferocactus wislizeni	0	2	FW	CACT_SAL
504	Ferocactus wislizeni	0	3	FW	CACT_SAL
505	Ferocactus wislizeni	0	2	FW	CACT_SAL
506	Prosopis velutina	4	7	PV	TREE_RFS
507	Prosopis velutina	4	7	PV	TREE_PIP
508	Prosopis velutina	3	8	PV	TREE_PIP
509	Prosopis velutina	4	8	PV	TREE_PIP
510	Prosopis velutina	3	7	PV	TREE_PIP
511	Prosopis velutina	3	6	PV	TREE_PIP
512	Prosopis velutina	3	6	PV	TREE_PIP
513	Prosopis velutina	9	10	PV	TREE_PIP
514	Cylindropuntia spp.	0	0	CY	CACT_PIP
515	Cylindropuntia spp.	0	0	CY	CACT_RFS
516	Cylindropuntia spp.	0	0	CY	CACT_RFS
517	Ferocactus wislizeni	0	1	FW	CACT_SAL
518	Cylindropuntia spp.	0	0	CY	CACT_RFS
519	Cylindropuntia spp.	0	0	CY	CACT_RFS
520	Prosopis velutina	25	25	PV	TREE_RFS
521	Prosopis velutina	20	20	PV	TREE_RFS
522	Prosopis velutina	20	20	PV	TREE_RFS
523	Prosopis velutina	3	8	PV	TREE_PIP
524	Prosopis velutina	6	10	PV	TREE_PIP
525	Prosopis velutina	8	10	PV	TREE_PIP
526	Prosopis velutina	4	8	PV	TREE_PIP
527	Prosopis velutina	4	7	PV	TREE_PIP
528	Cylindropuntia spp.	0	0	CY	CACT_RFS
529	Prosopis velutina	5	8	PV	TREE_PIP
530	Prosopis velutina	4	7	PV	TREE_PIP
531	Prosopis velutina	12	10	PV	TREE_RFS
532	Prosopis velutina	10	11	PV	TREE_RFS
533	Prosopis velutina	10	10	PV	TREE_PIP
534	Prosopis velutina	12	10	PV	TREE_PIP
535	Prosopis velutina	4	8	PV	TREE_RFS
536	Prosopis velutina	9	7	PV	TREE_RFS
537	Prosopis velutina	8	10	PV	TREE_RFS
538	Prosopis velutina	6	8	PV	TREE_PIP
539	Prosopis velutina	8	12	PV	TREE_RFS
540	Prosopis velutina	9	10	PV	TREE_PIP
541	Prosopis velutina	7	10	PV	TREE_RFS
542	Prosopis velutina	12	12	PV	TREE_RFS
543	Prosopis velutina	12	15	PV	TREE_RFS
544	Prosopis velutina	3	10	PV	TREE_PIP
545	Prosopis velutina	12	15	PV	TREE_PIP
546	Prosopis velutina	10	15	PV	TREE_PIP
547	Prosopis velutina	8	12	PV	TREE_PIP
548	Prosopis velutina	20	28	PV	TREE_PIP
549	Prosopis velutina	17	24	PV	TREE_PIP
550	Prosopis velutina	14	22	PV	TREE_PIP
551	Prosopis velutina	16	20	PV	TREE_PIP
552	Prosopis velutina	26	24	PV	TREE_PIP
553	Prosopis velutina	30	25	PV	TREE_PIP
554	Prosopis velutina	12	15	PV	TREE_PIP
555	Prosopis velutina	25	21	PV	TREE_PIP
556	Prosopis velutina	9	20	PV	TREE_PIP
557	Prosopis velutina	5	15	PV	TREE_RFS
558	Prosopis velutina	3	8	PV	TREE_RFS
559	Prosopis velutina	26	25	PV	TREE_RFS
560	Prosopis velutina	28	20	PV	TREE_RFS
561	Prosopis velutina	9	12	PV	TREE_PIP
562	Prosopis velutina	9	18	PV	TREE_PIP
563	Prosopis velutina	6	8	PV	TREE_PIP
564	Prosopis velutina	12	10	PV	TREE_PIP
565	Prosopis velutina	9	12	PV	TREE_RFS
566	Prosopis velutina	4	7	PV	TREE_RFS
567	Prosopis velutina	4	12	PV	TREE_RFS
568	Prosopis velutina	4	8	PV	TREE_RFS
569	Prosopis velutina	6	8	PV	TREE_RFS
570	Prosopis velutina	3	9	PV	TREE_RFS
571	Prosopis velutina	6	8	PV	TREE_RFS
572	Prosopis velutina	7	10	PV	TREE_PIP
573	Prosopis velutina	7	8	PV	TREE_PIP
574	Prosopis velutina	4	10	PV	TREE_PIP
575	Prosopis velutina	7	10	PV	TREE_PIP
576	Prosopis velutina	15	20	PV	TREE_PIP
577	Prosopis velutina	6	8	PV	TREE_PIP
578	Prosopis velutina	8	15	PV	TREE_PIP
579	Prosopis velutina	7	16	PV	TREE_PIP
580	Prosopis velutina	7	10	PV	TREE_PIP
581	Prosopis velutina	5	10	PV	TREE_PIP
582	Prosopis velutina	3	6	PV	TREE_PIP
583	Prosopis velutina	4	7	PV	TREE_PIP
584	Prosopis velutina	7	10	PV	TREE_PIP
585	Prosopis velutina	9	12	PV	TREE_PIP
586	Prosopis velutina	5	7	PV	TREE_PIP
587	Prosopis velutina	4	8	PV	TREE_PIP
588	Prosopis velutina	7	10	PV	TREE_PIP
589	Prosopis velutina	18	10	PV	TREE_RFS
590	Cylindropuntia spp.	0	0	CY	CACT_RFS
591	Prosopis velutina	3	8	PV	TREE_RFS
592	Prosopis velutina	11	12	PV	TREE_PIP
593	Prosopis velutina	14	25	PV	TREE_PIP
594	Prosopis velutina	3	5	PV	TREE_RFS
595	Prosopis velutina	3	6	PV	TREE_RFS
596	Cylindropuntia spp.	0	0	CY	CACT_RFS
597	Prosopis velutina	6	8	PV	TREE_PIP
598	Fouquieria splendens	0	12	FS	CACT_PIP
599	Fouquieria splendens	0	2	FS	CACT_SAL
600	Ferocactus wislizeni	0	1	FW	CACT_SAL

NUMBER	BOTANICAL NAME	CALIPER	HEIGHT	ABBREVIATION	DISPOSITION
601	Cylindropuntia spp.	0	0	CY	CACT_RFS
602	Cylindropuntia spp.	0	0	CY	CACT_RFS
603	Cylindropuntia spp.	0	0	CY	CACT_RFS
604	Prosopis velutina	15	10	PV	TREE_RFS
605	Prosopis velutina	3	6	PV	TREE_RFS
606	Prosopis velutina	3	6	PV	TREE_RFS
607	Ferocactus wislizeni	0	0.5	FW	CACT_SAL
608	Prosopis velutina	4	6	PV	TREE_RFS
609	Prosopis velutina	5	8	PV	TREE_RFS
610	Ferocactus wislizeni	0	2	FW	CACT_PIP
611	Ferocactus wislizeni	0	1	FW	CACT_PIP
612	Prosopis velutina	5	7	PV	TREE_PIP
613	Cylindropuntia spp.	0	0	CY	CACT_RFS
614	Cylindropuntia spp.	0	0	CY	CACT_RFS
615	Cylindropuntia spp.	0	0	CY	CACT_RFS
616	Fouquieria splendens	0	18	FS	CACT_SAL
617	Cylindropuntia spp.	0	0	CY	CACT_RFS
618	Prosopis velutina	4	10	PV	TREE_RFS
619	Cylindropuntia spp.	0	0	CY	CACT_RFS
620	Cylindropuntia spp.	0	0	CY	CACT_RFS
621	Prosopis velutina	6	6	PV	TREE_RFS
622	Prosopis velutina	8	9	PV	TREE_RFS
623	Cylindropuntia spp.	0	0	CY	CACT_PIP
624	Cylindropuntia spp.	0	0	CY	CACT_PIP
625	Fouquieria splendens	0	8	FS	CACT_PIP
626	Fouquieria splendens	0	10	FS	CACT_SAL
627	Cylindropuntia spp.	0	0	CY	CACT_PIP
628	Cylindropuntia spp.	0	0	CY	CACT_SAL
629	Fouquieria splendens	0	0.5	FS	CACT_SAL
630	Cylindropuntia spp.	0	0	CY	CACT_SAL
631	Cylindropuntia spp.	0	0	CY	CACT_SAL
632	Cylindropuntia spp.	0	0	CY	CACT_SAL
633	Cylindropuntia spp.	0	0	CY	CACT_RFS
634	Fouquieria splendens	0	16	FS	CACT_SAL
635	Prosopis velutina	5	8	PV	TREE_PIP
636	Prosopis velutina	18	12	PV	TREE_RFS
637	Fouquieria splendens	0	3	FS	CACT_SAL
638	Prosopis velutina	6	6	PV	TREE_PIP
639	Fouquieria splendens	0	3	FS	CACT_SAL
640	Fouquieria splendens	0	1	FS	CACT_SAL
641	Prosopis velutina	3	6	PV	TREE_PIP

Project: 24043PJ
Client: Madera Canyon Rd. Bridge Replacement

Project: 24043PJ
Client: Madera Canyon Rd. Bridge Replacement

Project: 24043PJ
Client: Madera Canyon Rd. Bridge Replacement



F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0127410			
T054101C					

Contact Arizona 811 at least two full working days before you begin excavation.
ARIZONA 811
Call 811 or click Arizona811.com

MEDIUM WASH
NATIVE PLANT INVENTORY
STA. 40+00 TO 50+00

Pima County Department of Transportation

Kathryn Skinner, P.E., Director

MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ



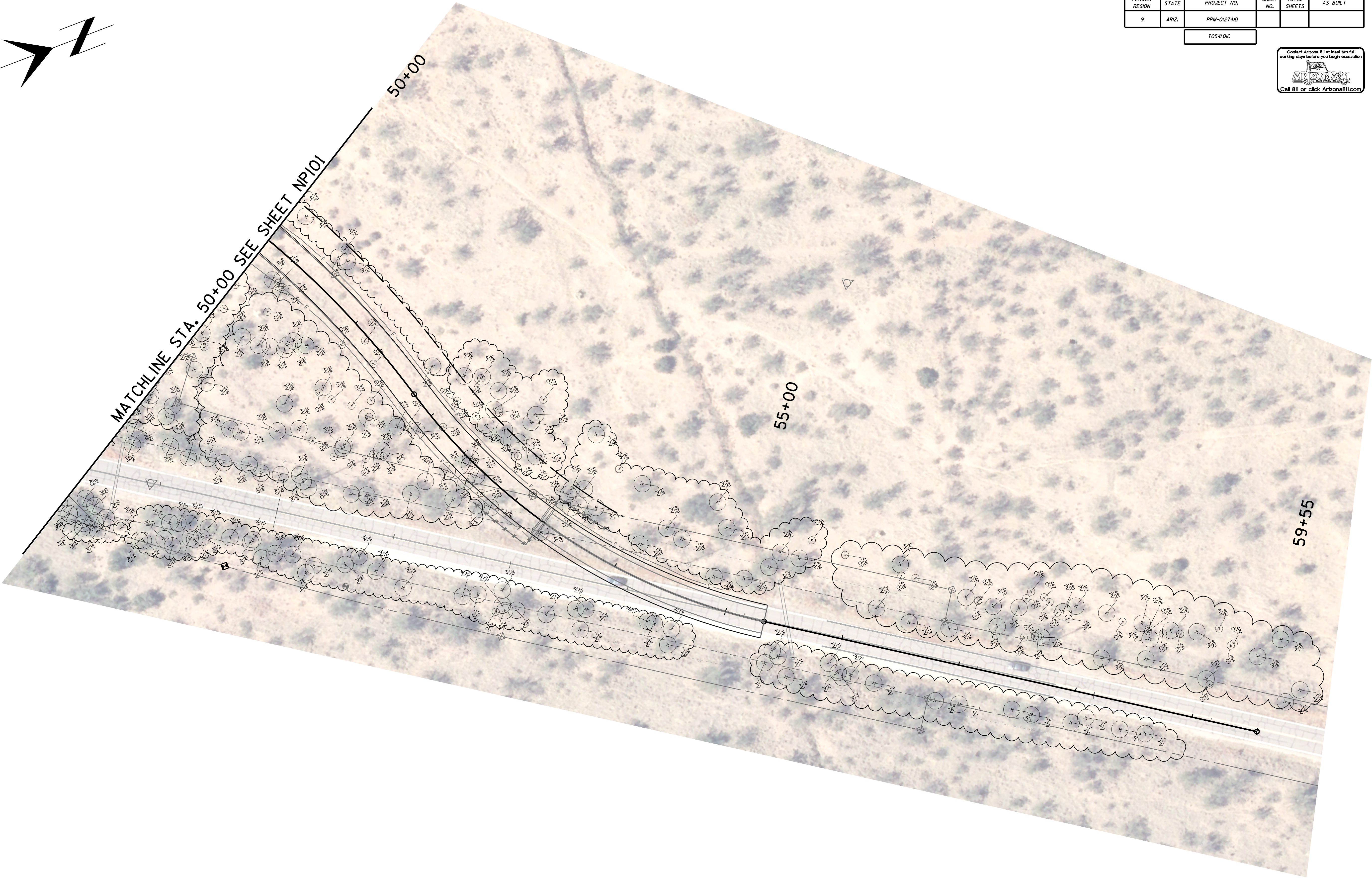
No.	Revision Description	Engineer	Date

Date	Designed	Drawn	Checked	Proj. Engr.
03/2026	JM/PV	JM/PV	JM	
03/2026				
03/2026				

Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Project: Madera Canyon Road
Client: Madera Canyon Road

Penetration: Full
Plot: 1/4" = 40'



MEDIUM WASH
NATIVE PLANT INVENTORY
STA. 49+00 TO 59+55

F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	AS BUILT
9	ARIZ.	PPM-0127410			
T0541 DIC					

Contact Arizona 811 at least two full working days before you begin excavation
Call 811 or click Arizona811.com

No.	Revision	Description	Engineer	Date

Designed	JM/PV	Date	03/2026
Drawn	JM/PV		
Checked	LM		
Proj. Engr.			

Pima County Department of Transportation



MADERA CANYON ROAD
MEDIUM WASH
BRIDGE REPLACEMENT
PROJECT NO. 24043PJ

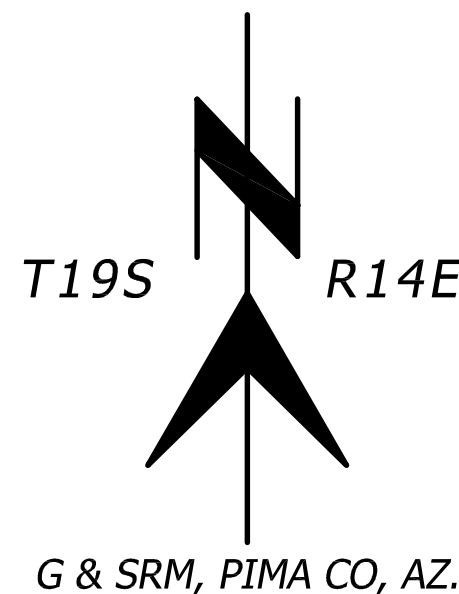


Madera Canyon Road, Medium Wash Bridge Replacement (24043PJ)

Kathryn Skinner, P.E., Director

MADERA CANYON ROAD
RECORD OF SURVEY & RIGHT OF WAY ACQUISITION

A.D.O.T. PROJECT NO. T0540 & T0541
PIMA COUNTY PROJECT NO. 24041PJ & 24043PJ
FEDERAL PROJECT NO. PPM-0(273)D & PPM-0(274)D

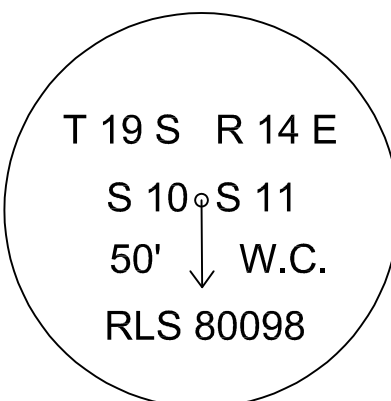
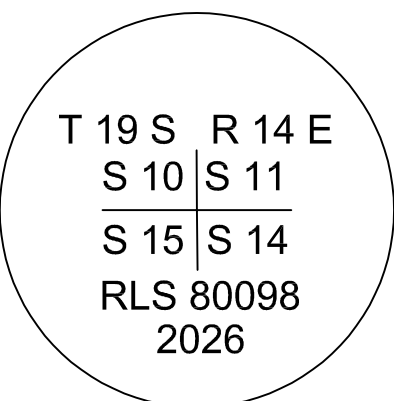


GENERAL NOTES

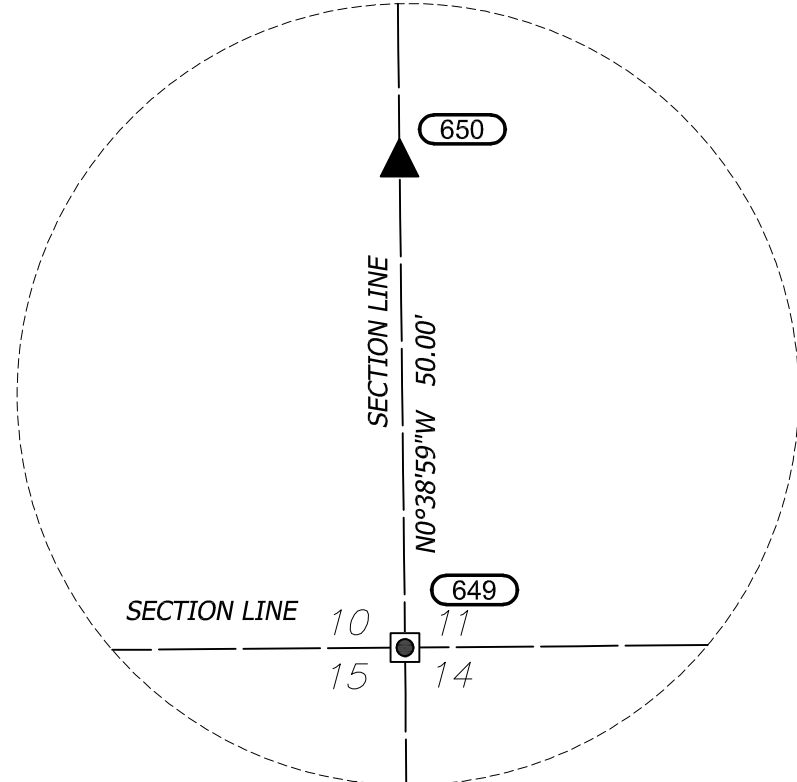
- The Basis of Bearing for this project is the Arizona Coordinate System, North American Datum (NAD) 1983 (1992), Central Zone 0202, in International Feet, and observed locally between Pima County Control Pt. #3663 (BM #2, a found 3-1/8" brass disk in concrete headwall at the northeast corner of the bridge over Medium Wash) to Pima County Control Pt. #3674 (BM #3, a found 3-1/8" brass disk in concrete headwall at the northeast corner of the bridge over Florida Canyon Wash). Said bearing being North 19°53'16.3" East. Said bearing established on P.C.H.D. Projects 4MCAMW and 4MCAFW and recorded as Survey Book 26 Page 10 (Seq. 20021010193) at the Pima County Recorder's Office.
- The project surface coordinates are derived from state plane grid values by using the following formulas. A combined scale factor 0.999846886 was used to convert grid coordinates to project surface coordinates. Surface Northing and Easting coordinates are derived by dividing the grid coordinates by 0.999846886 and subtract 200,000 feet from project northings and subtract 1,000,000 feet from project eastings.

		Northing	Easting
"3663"	Grid	288,136.2340	1,020,749.1990
Pt. 33	Surface	88,180.3644	20,905.5139
"3674"	Grid	285,998.5790	1,019,975.8890
Pt. 35	Surface	86,042.3761	20,132.0855

- Monuments shown as "Set" were set on May 5th, 2026.
- At the Corner of Sections 10, 11, 14, and 15 (Point 649), found the remains of a mound of stone described as a "rock cairn" in the position shown on Record of Survey Book 26 Page 10 (Seq. 20021010193) lying within the Florida Canyon Wash. Although bearings and distances to quarter corners S10/S15, S10/S11, S15/S14 were not shown on said Record of Survey, the field notes and the results of that survey dated January 2002 were provided by HDR showing the descriptions and locations of those quarter corners. Those monument descriptions and locations were verified on this survey, and therefore the position of the remains of the mound of stone was accepted hereon. This corner was reset by Alta E&I in the same location, monumented as described: Set an iron post 3 feet long, 2 inches in diameter, 20 inches in the ground, with a brass cap marked as shown. A witness corner was also set on line 50' north of the section corner, monumented as described: Set a 1/2" rebar with a 3 1/4" aluminum cap marked as shown.



SECTION CORNER (PT 649) WITNESS CORNER (PT 650)

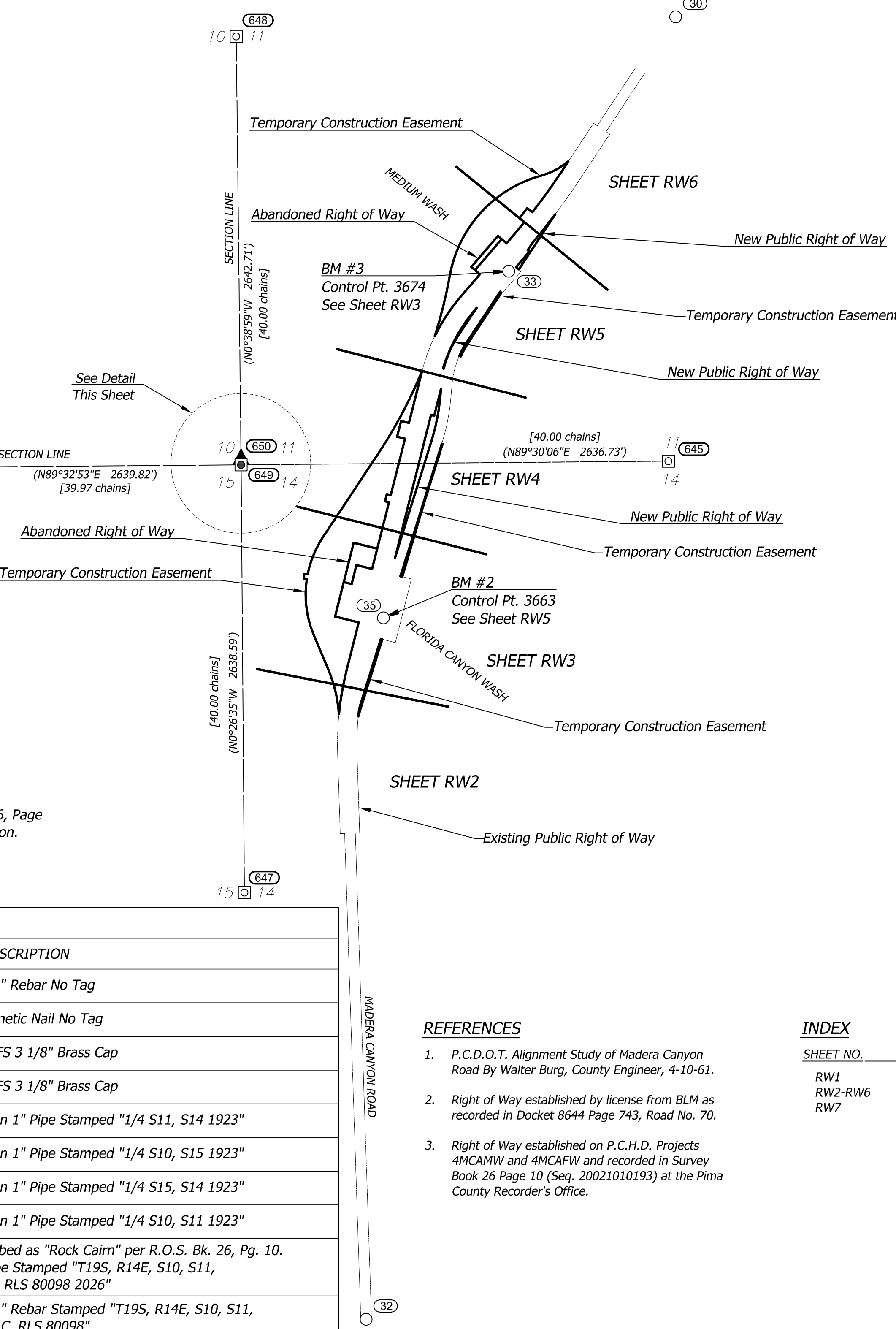


Detail
N.T.S.

LEGEND

- Fd. Monument as Noted
- Set Monument as Noted
- Fd. US GLO 2 1/2" Brass Cap On 1" Pipe (Stamped as Noted)
- Set 2" Brass Cap On 2" Pipe (Stamped as Noted)
- ▲ Set 3 1/4" Aluminum Cap On 1/2" Rebar (Stamped as Noted)
- US GLO US General Land Office
- USDA FS US Department of Agriculture Forestry Service
- ASLD Arizona State Land Department
- (Rad) Radial bearing from radius point
- (XXX.XX) Measured and record data per HDR Record of Survey filed in Book 26, Page 10, Sequence No. 2002-1010193. See Note 4 for additional information.
- [XXX.XX] Record per US GLO Field Notes (1923)

COORDINATE TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
30	89749.8471	21935.2654	Fd. 1/2" Rebar No Tag
32	81714.7098	20025.0655	Fd. Magnetic Nail No Tag
33	88180.3644	20905.5139	Fd. USDA FS 3 1/8" Brass Cap
35	86042.3761	20132.0855	Fd. USDA FS 3 1/8" Brass Cap
645	87008.9486	21890.3395	Fd. US GLO 2 1/2" Brass Cap On 1" Pipe Stamped "1/4 S11, S14 1923"
646	86965.1912	16613.9768	Fd. US GLO 2 1/2" Brass Cap On 1" Pipe Stamped "1/4 S10, S15 1923"
647	84347.5073	19274.1131	Fd. US GLO 2 1/2" Brass Cap On 1" Pipe Stamped "1/4 S15, S14 1923"
648	89628.5536	19223.7459	Fd. US GLO 2 1/2" Brass Cap On 1" Pipe Stamped "1/4 S10, S11 1923"
649	86986.0180	19253.7137	Fd. remains of Mound of Stone described as "Rock Cairn" per R.O.S. Bk. 26, Pg. 10. Set 2" Brass Cap On 2" Pipe Stamped "T19S, R14E, S10, S11, S15, S14, RLS 80098 2026"
650	87036.0250	19253.1740	Set 3 1/4" Aluminum Cap On 1/2" Rebar Stamped "T19S, R14E, S10, S11, 50' W.C. RLS 80098"



REFERENCES

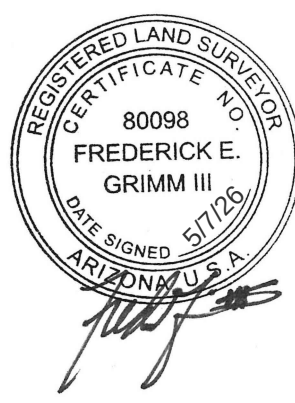
- P.C.D.O.T. Alignment Study of Madera Canyon Road By Walter Burg, County Engineer, 4-10-61.
- Right of Way established by license from BLM as recorded in Docket 8644 Page 743, Road No. 70.
- Right of Way established on P.C.H.D. Projects 4MCAMW and 4MCAFW and recorded in Survey Book 26 Page 10 (Seq. 20021010193) at the Pima County Recorder's Office.

INDEX

SHEET NO.	CONTENTS
RW1	Cover Sheet
RW2-RW6	Plan Sheets
RW7	Calculated Point Table

CERTIFICATION:

I HEREBY CERTIFY THIS PLAT REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION AND THAT THE SURVEY MONUMENTS EXIST AS SHOWN HEREON.



FREDERICK E. GRIMM III AZ RLS. # 80098

PROJECT NO:	241122	Date	Revision	Date
Survey By:	AT/CT	2/2026		
Drawn By:	MCS	5/2026		
Checked By:	EEG	5/2026		

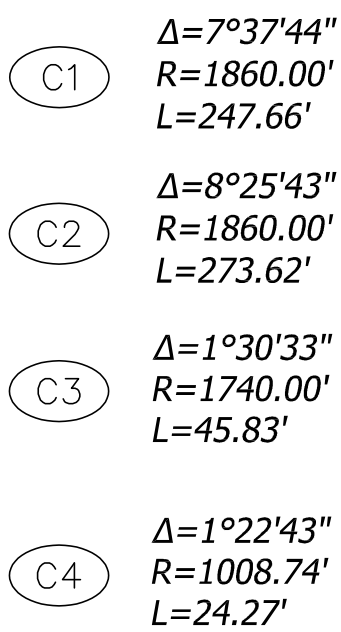
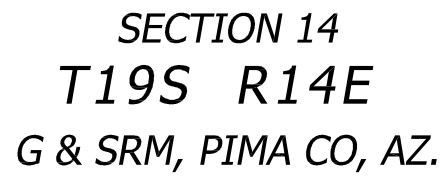


ALTA ENVIRONMENTAL & INFRASTRUCTURE
2025 W. RUTHRAUFF RD., #125
TUCSON, ARIZONA 85705
(520) 398-6651

Pima County Department of Transportation

LOCATED WITHIN SECTIONS 11 & 14, TOWNSHIP 19 SOUTH,
RANGE 14 EAST, G.&S.R.M., PIMA COUNTY, ARIZONA
PROJECT NO. 24041PJ & 24043PJ

	Temporary Construction Easement	○	Fd. Monument as Noted
	New R/W Area	●	Set Monument as Noted
	Future R/W Abandon Area	△	Calculated Point Shown on Sheet RW7
		US GLO	US General Land Office
		USDA FS	US Department of Agriculture Forestry Service
		ASLD	Arizona State Land Department
		(Rad)	Radial bearing from radius point



COORDINATE TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
22	85344.1130	19904.2427	Fd. 1/2" Rebar Tagged RLS 16555
32	81714.7098	20025.0655	Fd. Magnetic Nail No Tag
642	85336.0606	19963.7172	Fd. 1/2" Rebar No Tag "B.M. #7"
1011	85502.8834	19988.3868	Set 1/2" Rebar Tagged RLS 80098
2000	84715.0452	19985.2176	Fd. 1/2" Rebar Tagged RLS 16555
2001	84714.1468	19958.2325	Fd. 1/2" Rebar Tagged RLS 16555
2002	84711.9509	19892.2691	Fd. 1/2" Rebar Tagged RLS 16555
2003	84711.0526	19865.2840	Fd. 1/2" Rebar Tagged RLS 16555
2004	85201.4047	19848.9602	Fd. 1/2" Rebar Tagged RLS 16555
2005	85205.3973	19968.8938	Fd. 1/2" Rebar Tagged RLS 16555
7032	85479.6281	19981.4317	Set 1/2" Rebar Tagged RLS 80098

<u>AREA TABLE</u>		
PARCEL NO.	AREA	TYPE
	349,523 Sq. Ft.	Temporary Construction Easement
	4,277 Sq. Ft.	Temporary Construction Easement

A.P.N. 304-45-011B
State of Arizona
No Situs Address
Dkt. 9305 Pg 911

A.P.N. 304-45-011B
State of Arizona
No Situs Address
Dkt. 9305 Pg 911

Pima County Department of Transportation

LOCATED WITHIN SECTIONS 11 & 14, TOWNSHIP 19 SOUTH,
RANGE 14 EAST, G.&S.R.M., PIMA COUNTY, ARIZONA
PROJECT NO. 24041PJ & 24043PJ

PROJECT NO:	241122	Date	Revision	Date
Survey By:	AY/CT	2/2026		
Drawn By:	MCS	5/2026		
Checked By:	FEG	5/2026		



ALTA **ENVIRONMENTAL & INFRASTRUCTURE**

2025 W. RUTHRAUFF RD., #1
TUCSON, ARIZONA 85705
(520) 708-6651

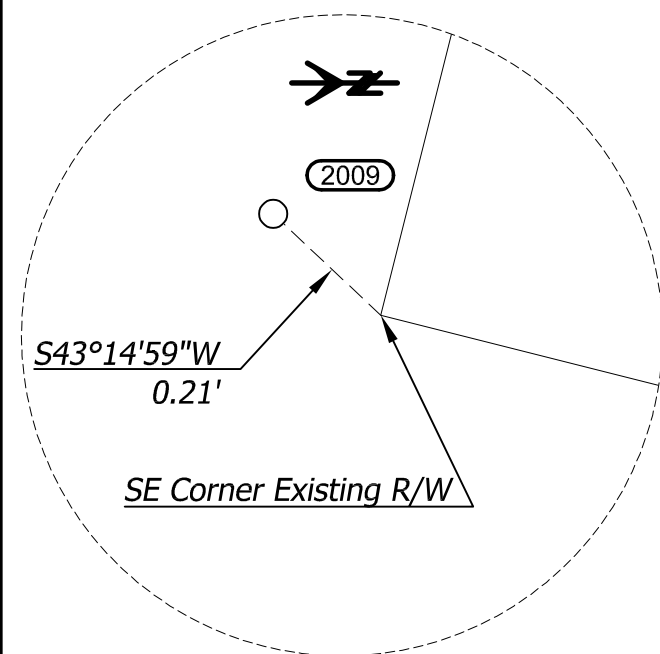
- Temporary Construction Easement
- New R/W Area
- Future R/W Abandon Area

LEGEND

- Fd. Monument as Noted
- Set Monument as Noted
- △ Calculated Point Shown on Sheet RW7
- US GLO US General Land Office
- USDA FS US Department of Agriculture Forestry Service
- ASLD Arizona State Land Department
- (Rad) Radial bearing from radius point

CURVE DATA

C2
 $\Delta=8^{\circ}25'43''$
 $R=1860.00'$
 $L=273.62'$

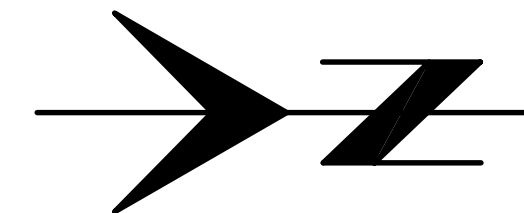


Detail A
N.T.S.

COORDINATE TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
35	86042.3761	20132.0855	Fd. USDA FS 3 1/8" Brass Cap
641	86482.4750	20303.3928	Fd. 1/2" Rebar Tagged RLS 16555 "B.M. #5"
2006	85718.0145	19904.3713	Fd. 1/2" Rebar Tagged RLS 16555
2007	85688.6774	20020.7299	Fd. 1/2" Rebar Tagged RLS 16555
2009	85889.3783	20205.2958	Fd. 1/2" Rebar Tagged RLS 16555 Bent SW
2010	86013.6764	19978.9154	Fd. 1/2" Rebar Tagged RLS 16555
2011	86050.3477	19833.4671	Fd. 1/2" Rebar Tagged RLS 16555
2012	86282.2403	20304.4510	Fd. 1/2" Rebar Tagged RLS 16555
2013	86314.0221	20178.3958	Fd. 1/2" Rebar Tagged RLS 16555
2014	86468.4448	20093.5745	Fd. 1/2" Rebar Tagged RLS 16555
2015	86505.1161	19948.1262	Fd. 1/2" Rebar Tagged RLS 16555

COORDINATE TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
7030	86299.2382	20237.0330	Set 1/2" Rebar Tagged RLS 80098
7031	85912.0445	20116.1393	Set 1/2" Rebar Tagged RLS 80098
7035	86262.7023	19887.0073	Set 1/2" Rebar Tagged RLS 80098
7036	86250.4785	19935.4901	Set 1/2" Rebar Tagged RLS 80098
7037	86367.8068	19965.0716	Set 1/2" Rebar Tagged RLS 80098
7038	86343.3592	20062.0372	Set 1/2" Rebar Tagged RLS 80098

PARCEL NO.	AREA	TYPE
2-A	349,523 Sq. Ft.	Temporary Construction Easement
2-B	4,277 Sq. Ft.	Temporary Construction Easement
3-A	25,400 Sq. Ft.	Future R/W Abandon Area
3-B	24,689 Sq. Ft.	New R/W Area
3-C	5,730 Sq. Ft.	Temporary Construction Easement



SECTION 14
T19S R14E
G & SRM, PIMA CO, AZ.

ALTA
ENVIRONMENTAL &
INFRASTRUCTURE

LOCATED WITHIN SECTIONS 11 & 14, TOWNSHIP 19 SOUTH,
RANGE 14 EAST, G.&S.R.M., PIMA COUNTY, ARIZONA
PROJECT NO. 24041PJ & 24043PJ

Pima County Department of Transportation

2025 W. RUTHRAUFF RD., #125
TUCSON, ARIZONA 85705
(520) 398-6651

REGISTERED PROFESSIONAL ENGINEER
NO. 8008
FREDERICK E. GRIMM III
DATE RENEWED: 05/2015
PIMA COUNTY, ARIZONA

PROJECT NO. 24041PJ & 24043PJ

Survey By: AY/CT
Drawn By: MCS
Checked By: FEG

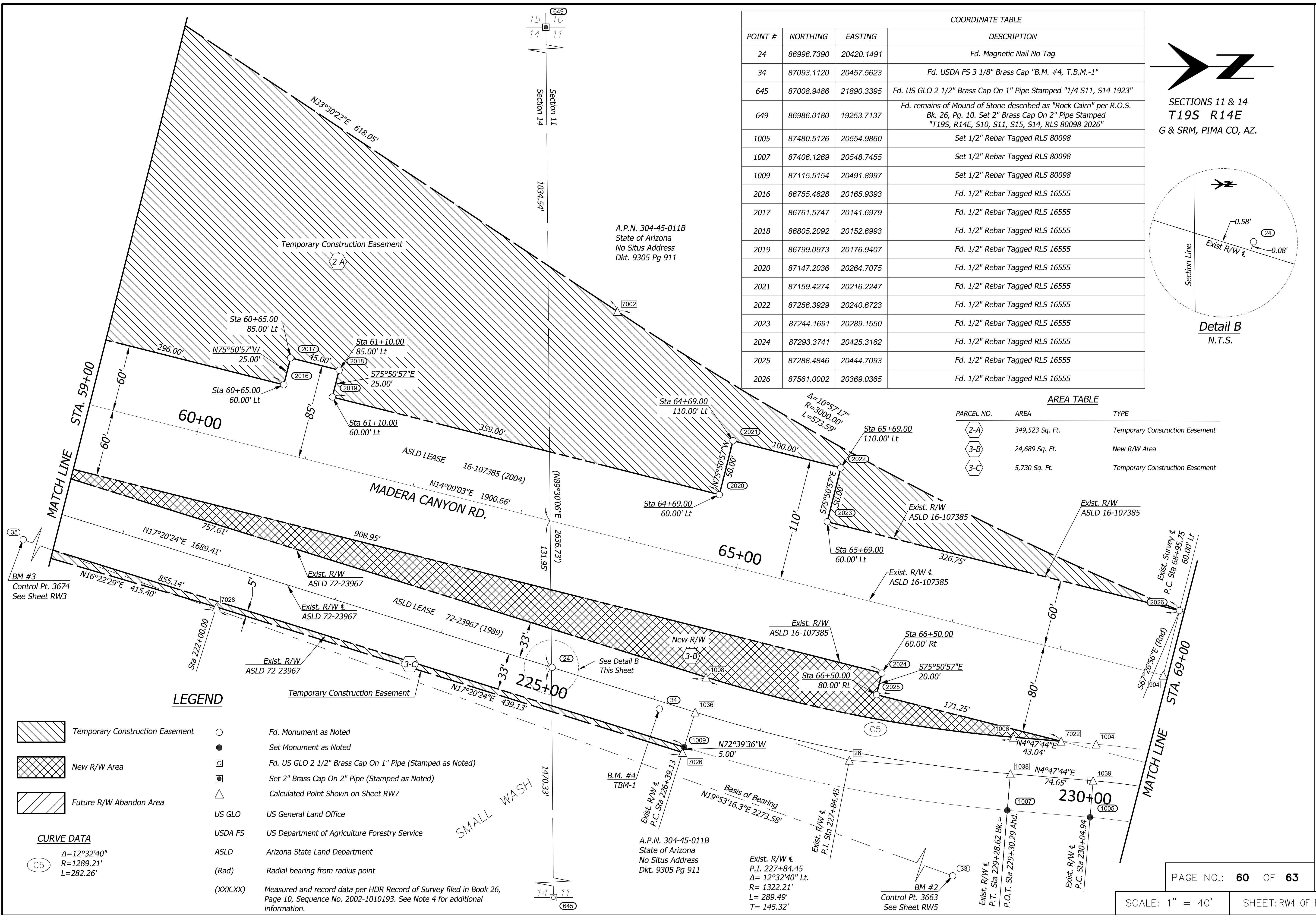
241122
2/2026
5/2026
5/2026

Date
Revision
Date
Date

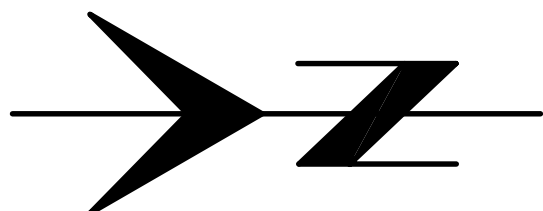
PAGE NO.: 59 OF 63

SCALE: 1" = 40'

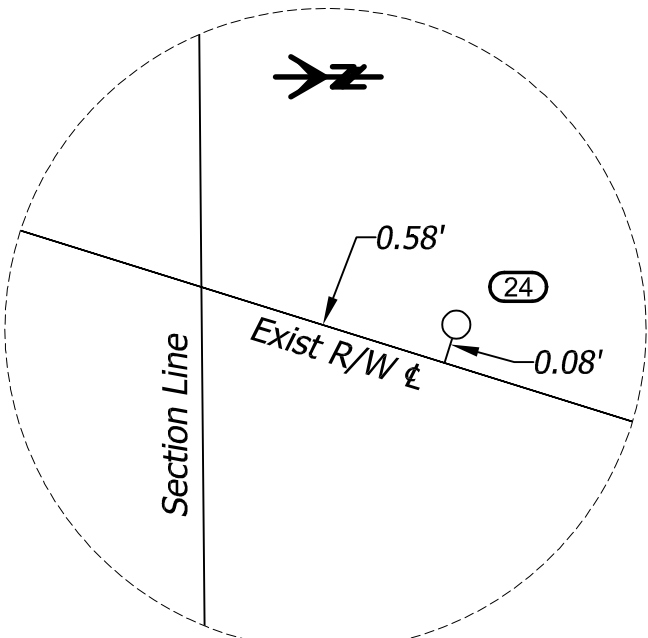
SHEET: RW3 OF RW7



COORDINATE TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
24	86996.7390	20420.1491	Fd. Magnetic Nail No Tag
34	87093.1120	20457.5623	Fd. USDA FS 3 1/8" Brass Cap "B.M. #4, T.B.M.-1"
645	87008.9486	21890.3395	Fd. US GLO 2 1/2" Brass Cap On 1" Pipe Stamped "1/4 S11, S14 1923"
649	86986.0180	19253.7137	Fd. remains of Mound of Stone described as "Rock Cairn" per R.O.S. Bk. 26, Pg. 10. Set 2" Brass Cap On 2" Pipe Stamped "T19S, R14E, S10, S11, S15, S14, RLS 80098 2026"
1005	87480.5126	20554.9860	Set 1/2" Rebar Tagged RLS 80098
1007	87406.1269	20548.7455	Set 1/2" Rebar Tagged RLS 80098
1009	87115.5154	20491.8997	Set 1/2" Rebar Tagged RLS 80098
2016	86755.4628	20165.9393	Fd. 1/2" Rebar Tagged RLS 16555
2017	86761.5747	20141.6979	Fd. 1/2" Rebar Tagged RLS 16555
2018	86805.2092	20152.6993	Fd. 1/2" Rebar Tagged RLS 16555
2019	86799.0973	20176.9407	Fd. 1/2" Rebar Tagged RLS 16555
2020	87147.2036	20264.7075	Fd. 1/2" Rebar Tagged RLS 16555
2021	87159.4274	20216.2247	Fd. 1/2" Rebar Tagged RLS 16555
2022	87256.3929	20240.6723	Fd. 1/2" Rebar Tagged RLS 16555
2023	87244.1691	20289.1550	Fd. 1/2" Rebar Tagged RLS 16555
2024	87293.3741	20425.3162	Fd. 1/2" Rebar Tagged RLS 16555
2025	87288.4846	20444.7093	Fd. 1/2" Rebar Tagged RLS 16555
2026	87561.0002	20369.0365	Fd. 1/2" Rebar Tagged RLS 16555



SECTIONS 11 & 14
T19S R14E
G & SRM, PIMA CO, AZ.



Detail B
N.T.S.

AREA TABLE		
PARCEL NO.	AREA	TYPE
2-A	349,523 Sq. Ft.	Temporary Construction Easement
3-B	24,689 Sq. Ft.	New R/W Area
3-C	5,730 Sq. Ft.	Temporary Construction Easement

LEGEND

- Temporary Construction Easement

New R/W Area

Future R/W Abandon Area
- US GLO

US General Land Office

USDA FS

US Department of Agriculture Forestry Service

ASLD

Arizona State Land Department

(Rad)

Radial bearing from radius point

(XXX.XX)

Measured and record data per HDR Record of Survey filed in Book 26, Page 10, Sequence No. 2002-1010193. See Note 4 for additional information.
- Fd. Monument as Noted

Set Monument as Noted

Fd. US GLO 2 1/2" Brass Cap On 1" Pipe (Stamped as Noted)

Set 2" Brass Cap On 2" Pipe (Stamped as Noted)

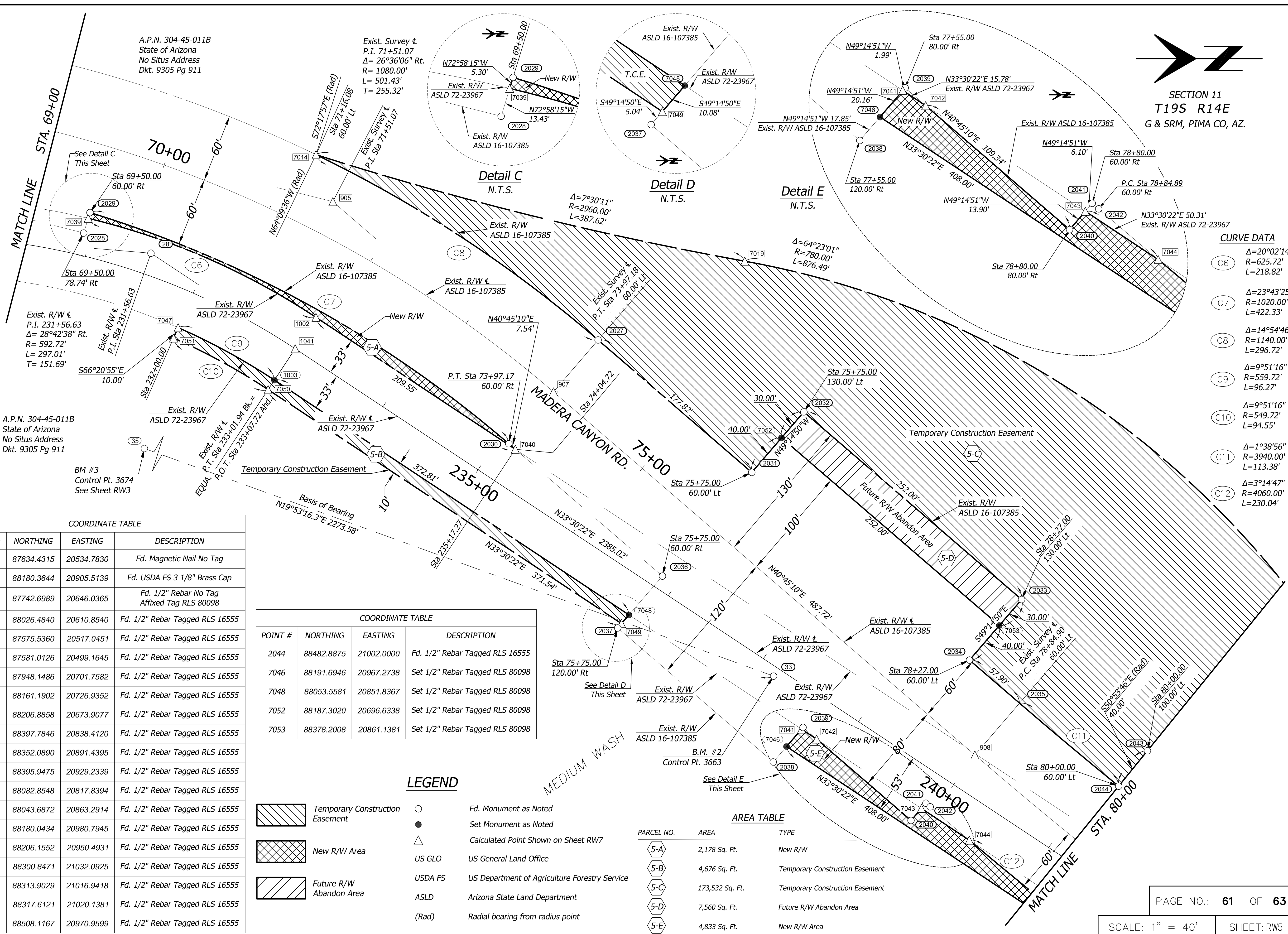
Calculated Point Shown on Sheet RW7

Pima County Department of Transportation



ALTA ENVIRONMENTAL & INFRASTRUCTURE
2025 W. RUTHRAUFF RD., #125
TUCSON, ARIZONA 85705
(520) 398-6651

LOCATED WITHIN SECTIONS 11 & 14, TOWNSHIP 19 SOUTH,
RANGE 14 EAST, G.&S.R.M., PIMA COUNTY, ARIZONA
PROJECT NO. 24041PJ & 24043PJ



SECTION 11
T19S R14E
G & SRM, PIMA CO, AZ.

CURVE DATA			
C6	$\Delta=20^{\circ}02'14''$ $R=625.72'$ $L=218.82'$		
C7	$\Delta=23^{\circ}43'25''$ $R=1020.00'$ $L=422.33'$		
C8	$\Delta=14^{\circ}54'46''$ $R=1140.00'$ $L=296.72'$		
C9	$\Delta=9^{\circ}51'16''$ $R=559.72'$ $L=96.27'$		
C10	$\Delta=9^{\circ}51'16''$ $R=549.72'$ $L=94.55'$		
C11	$\Delta=1^{\circ}38'56''$ $R=3940.00'$ $L=113.38'$		
C12	$\Delta=3^{\circ}14'47''$ $R=4060.00'$ $L=230.04'$		

COORDINATE TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
28	87634.4315	20534.7830	Fd. Magnetic Nail No Tag
33	88180.3644	20905.5139	Fd. USDA FS 3 1/8" Brass Cap
1003	87742.6989	20646.0365	Fd. 1/2" Rebar No Tag Affixed Tag RLS 80098
2027	88026.4840	20610.8540	Fd. 1/2" Rebar Tagged RLS 16555
2028	87575.5360	20517.0451	Fd. 1/2" Rebar Tagged RLS 16555
2029	87581.0126	20499.1645	Fd. 1/2" Rebar Tagged RLS 16555
2030	87948.1486	20701.7582	Fd. 1/2" Rebar Tagged RLS 16555
2031	88161.1902	20726.9352	Fd. 1/2" Rebar Tagged RLS 16555
2032	88206.8858	20673.9077	Fd. 1/2" Rebar Tagged RLS 16555
2033	88397.7846	20838.4120	Fd. 1/2" Rebar Tagged RLS 16555
2034	88352.0890	20891.4395	Fd. 1/2" Rebar Tagged RLS 16555
2035	88395.9475	20929.2339	Fd. 1/2" Rebar Tagged RLS 16555
2036	88082.8548	20817.8394	Fd. 1/2" Rebar Tagged RLS 16555
2037	88043.6872	20863.2914	Fd. 1/2" Rebar Tagged RLS 16555
2038	88180.0434	20980.7945	Fd. 1/2" Rebar Tagged RLS 16555
2039	88206.1552	20950.4931	Fd. 1/2" Rebar Tagged RLS 16555
2040	88300.8471	21032.0925	Fd. 1/2" Rebar Tagged RLS 16555
2041	88313.9029	21016.9418	Fd. 1/2" Rebar Tagged RLS 16555
2042	88317.6121	21020.1381	Fd. 1/2" Rebar Tagged RLS 16555
2043	88508.1167	20970.9599	Fd. 1/2" Rebar Tagged RLS 16555

COORDINATE TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
2044	88482.8875	21002.0000	Fd. 1/2" Rebar Tagged RLS 16555
7046	88191.6946	20967.2738	Set 1/2" Rebar Tagged RLS 80098
7048	88053.5581	20851.8367	Set 1/2" Rebar Tagged RLS 80098
7052	88187.3020	20696.6338	Set 1/2" Rebar Tagged RLS 80098
7053	88378.2008	20861.1381	Set 1/2" Rebar Tagged RLS 80098

LEGEND

- Temporary Construction Easement
- New R/W Area
- Future R/W Abandon Area
- Fd. Monument as Noted
- Set Monument as Noted
- Calculated Point Shown on Sheet RW7
- US General Land Office
- US Department of Agriculture Forestry Service
- Arizona State Land Department
- Radial bearing from radius point

AREA TABLE		
PARCEL NO.	AREA	TYPE
5-A	2,178 Sq. Ft.	New R/W
5-B	4,676 Sq. Ft.	Temporary Construction Easement
5-C	173,532 Sq. Ft.	Temporary Construction Easement
5-D	7,560 Sq. Ft.	Future R/W Abandon Area
5-E	4,833 Sq. Ft.	New R/W Area

Pima County Department of Transportation

PROJECT NO.	241122	Date	Revision	Date
Survey By:	AY/CT	2/2026		
Drawing By:	MCS	5/2026		
Checked By:	FEG	5/2026		



ALTA ENVIRONMENTAL & INFRASTRUCTURE
2025 W. RUTHRAUFF RD., #125
TUCSON, ARIZONA 85705
(520) 398-6651

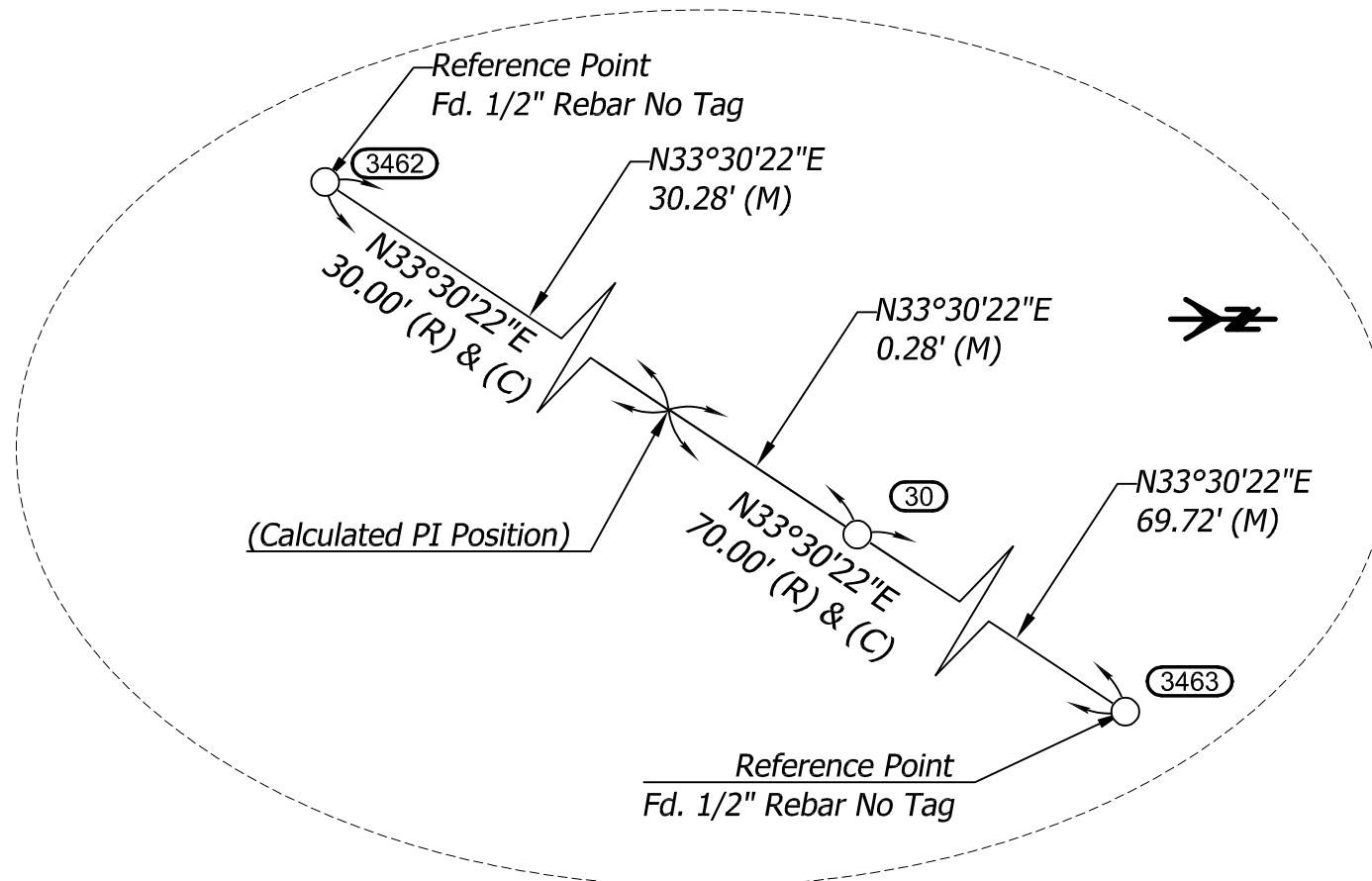
LOCATED WITHIN SECTIONS 11 & 14, TOWNSHIP 19 SOUTH,
RANGE 14 EAST, G.&S.R.M., PIMA COUNTY, ARIZONA
PROJECT NO. 24041PJ & 24043PJ

SECTION 11
T19S R14E
G & SRM, PIMA CO, AZ.

COORDINATE TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
30	89749.8471	21935.2654	Fd. 1/2" Rebar No Tag
2043	88508.1167	20970.9599	Fd. 1/2" Rebar Tagged RLS 16555
2044	88482.8875	21002.0000	Fd. 1/2" Rebar Tagged RLS 16555
2045	88569.1329	21019.5482	Fd. 1/2" Rebar Tagged RLS 16555
2046	88544.5295	21051.0867	Fd. 1/2" Rebar Tagged RLS 16555
2047	88792.9825	21229.8288	Fd. 1/2" Rebar Tagged RLS 16555
2048	88726.7396	21329.8881	Fd. 1/2" Rebar Tagged RLS 16555
2049	89092.4875	21428.1120	Fd. 1/2" Rebar Tagged RLS 16555
2050	89077.5829	21450.6254	Fd. 1/2" Rebar Tagged RLS 16555
2051	89041.1493	21505.6580	Fd. 1/2" Rebar Tagged RLS 16555
2052	89026.2446	21528.1714	Fd. 1/2" Rebar Tagged RLS 16555
3462	89724.5998	21918.5507	Fd. 1/2" Rebar No Tag
3463	89807.9826	21973.7531	Fd. 1/2" Rebar No Tag
7045	88531.8954	21192.4991	Set 1/2" Rebar Tagged RLS 80098

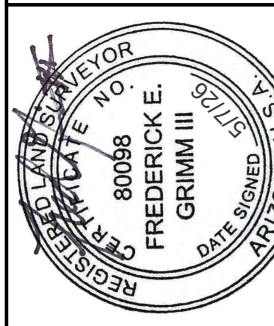
CURVE DATA

C10	$\Delta=3^{\circ}14'47''$ $R=4060.00'$ $L=230.04'$
C11	$\Delta=1^{\circ}08'45''$ $R=3900.00'$ $L=78.00'$
C12	$\Delta=4^{\circ}27'07''$ $R=3940.00'$ $L=306.14'$
C13	$\Delta=24^{\circ}07'04''$ $R=460.00'$ $L=193.63'$



Detail F
N.T.S.

PROJECT NO:	241122	Date	Revision	Date
Survey By:	AY/CT	2/2026		
Drawn By:	MCS	5/2026		
Checked By:	FEG	5/2026		



ALTA ENVIRONMENTAL & INFRASTRUCTURE
2025 W. RUTHRAUFF RD., #125
TUCSON, ARIZONA 85705
(520) 398-6651

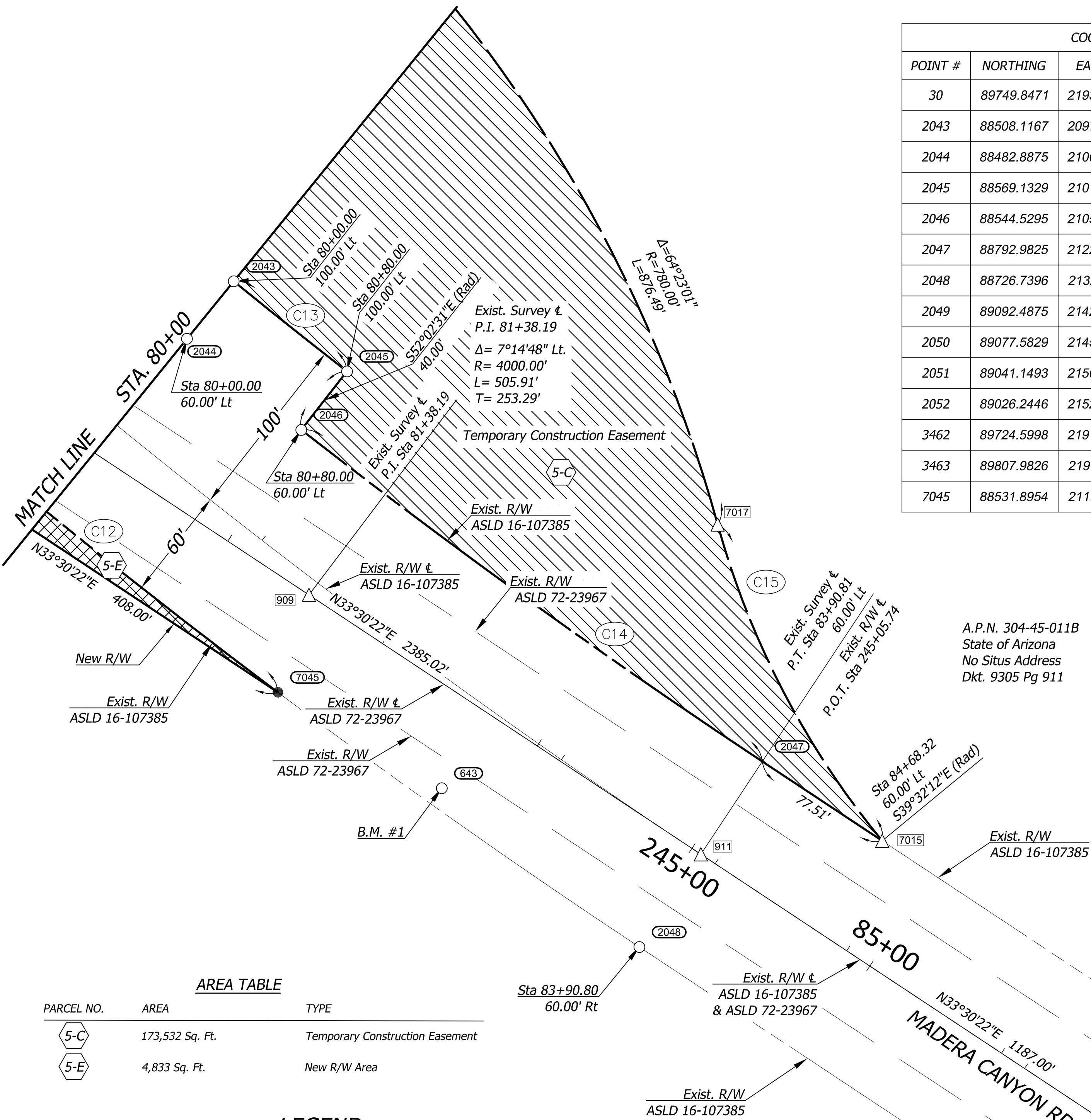
Pima County Department of Transportation

LOCATED WITHIN SECTIONS 11 & 14, TOWNSHIP 19 SOUTH,
RANGE 14 EAST, G.&S.R.M., PIMA COUNTY, ARIZONA
PROJECT NO. 24041PJ & 24043PJ

PAGE NO.: 62 OF 63

SCALE: 1" = 40'

SHEET: RW6 OF RW7



AREA TABLE

PARCEL NO.	AREA	TYPE
5-C	173,532 Sq. Ft.	Temporary Construction Easement
5-E	4,833 Sq. Ft.	New R/W Area

LEGEND

	Temporary Construction Easement		Fd. Monument as Noted
	New R/W Area		Set Monument as Noted
	Future R/W Abandon Area		Calculated Point Shown on Sheet RW7
		US GLO	US General Land Office
		USDA FS	US Department of Agriculture Forestry Service
		ASLD	Arizona State Land Department
		(Rad)	Radial bearing from radius point
		(R)	Record Bearing and Distance
		(C)	Calculated Bearing and Distance
		(M)	Measured Bearing and Distance

A.P.N. 304-45-011B
State of Arizona
No Situs Address
Dkt. 9305 Pg 911

A.P.N. 304-45-011B
State of Arizona
No Situs Address
Dkt. 9305 Pg 911

COORDINATE TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
26	87264.0704	20503.7119	Calculated Existing Centerline PI (ASLD 72-23967)
900	85203.4010	19908.9270	Calculated Existing Centerline PC (ASLD 16-107385)
901	85457.1554	19900.4795	Calculated Existing Centerline PI (ASLD 16-107385)
903	85703.3460	19962.5506	Calculated Existing Centerline PT (ASLD 16-107385)
904	87546.3316	20427.2158	Calculated Existing Centerline PC (ASLD 16-107385)
905	87793.9032	20489.6351	Calculated Existing Centerline PI (ASLD 16-107385)
907	87987.3163	20656.3061	Calculated Existing Centerline PT (ASLD 16-107385)
908	88356.7798	20974.6860	Calculated Existing Centerline PC (ASLD 16-107385)
909	88548.6582	21140.0344	Calculated Existing Centerline PI (ASLD 16-107385)
911	88759.8610	21279.8584	Calculated Existing Centerline PT (ASLD 16-107385)
1002	87779.1325	20591.0039	Calculated Existing R/W (ASLD 72-23967)
1004	87486.0302	20489.2171	Calculated Existing R/W (ASLD 72-23967)
1006	87411.6445	20482.9766	Calculated Existing R/W (ASLD 72-23967)
1008	87135.1861	20428.8992	Calculated Existing R/W (ASLD 72-23967)
1010	85522.5541	19925.3863	Calculated Existing R/W (ASLD 72-23967)
1012	85166.4797	19877.1378	Calculated Existing R/W (ASLD 72-23967)
1013	85168.6756	19943.1013	Calculated Existing R/W (ASLD 72-23967)
1033	85167.5776	19910.1195	Calculated Existing Centerline PC (ASLD 72-23967)
1035	85512.7188	19956.8865	Calculated Existing Centerline PT (ASLD 72-23967)
1036	87125.3508	20460.3994	Calculated Existing Centerline PC (ASLD 72-23967)
1038	87408.8857	20515.8610	Calculated Existing Centerline PT (ASLD 72-23967)
1039	87483.2714	20522.1016	Calculated Existing Centerline PC (ASLD 72-23967)
1041	87760.9157	20618.5202	Calculated Existing Centerline PT (ASLD 72-23967)
2008	85921.3117	20079.3832	Calculated Existing R/W (ASLD 16-107385)
7002	87055.4519	20099.9080	Calculated T.C.E.
7004	86540.1086	19758.7320	Calculated T.C.E.
7006	86312.6547	19664.6506	Calculated T.C.E.
7007	86311.4254	19641.3520	Calculated T.C.E.
7008	86281.4671	19642.9327	Calculated T.C.E.
7009	86282.3290	19659.2682	Calculated T.C.E.

COORDINATE TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
7010	85935.5161	19702.3224	Calculated T.C.E.
7011	85722.6703	19791.9924	Calculated T.C.E.
7013	85448.7434	19857.1989	Calculated T.C.E.
7014	87779.1760	20448.4260	Calculated T.C.E.
7015	88857.6137	21272.6170	Calculated T.C.E.
7017	88768.9306	21102.0966	Calculated T.C.E.
7019	88155.0988	20541.7999	Calculated T.C.E.
7022	87454.5340	20486.5747	Calculated New R/W
7024	86412.0034	20203.0995	Calculated New R/W
7026	87114.0252	20496.6724	Calculated T.C.E.
7028	86694.8520	20365.7938	Calculated T.C.E.
7029	86296.3003	20248.6854	Calculated T.C.E.
7033	85434.0796	19976.3326	Calculated T.C.E.
7034	85909.8408	20124.8798	Calculated T.C.E.
7039	87579.4594	20504.2358	Calculated New R/W
7040	87953.8598	20706.6797	Calculated New R/W
7041	88204.8557	20952.0011	Calculated Existing R/W Intersection
7042	88218.0148	20960.7130	Calculated Existing R/W Intersection
7043	88309.9234	21021.5598	Calculated Existing R/W Intersection
7044	88351.8700	21049.3300	Calculated Existing R/W Intersection
7047	87658.2638	20600.0417	Calculated T.C.E.
7049	88046.9776	20859.4730	Calculated T.C.E.
7050	87737.1786	20654.3748	Calculated T.C.E.
7051	87654.2521	20609.2017	Calculated T.C.E.