THE CONTRACTOR MUST POSSESS THE CLASS (OR CLASSES) OF LICENSES AS SPECIFIED IN THE "NOTICE TO BIDDERS."

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL CALL "UNDERGROUND SERVICE ALERT" (USA) AT 811 AT LEAST 2 WORKING DAYS PRIOR TO PERFORMING ANY EXCAVATION

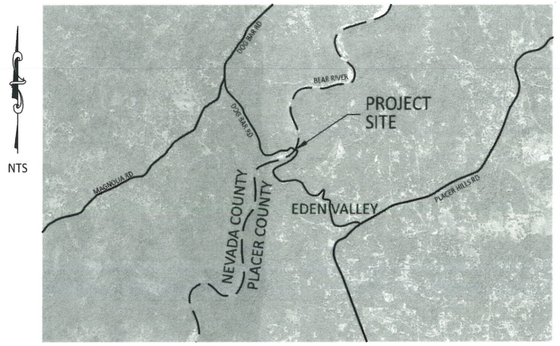
NEVADA COUNTY Department of Public Works Project Plans

for

Dog Bar Road over Bear River Bridge Replacement Project

Federal Project No. BRLO-5917 (084)

To be supplemented by the Nevada County Standards and Standard Road Drawings and the California Department of Transportation Standard Plans and Specifications dated 2023.



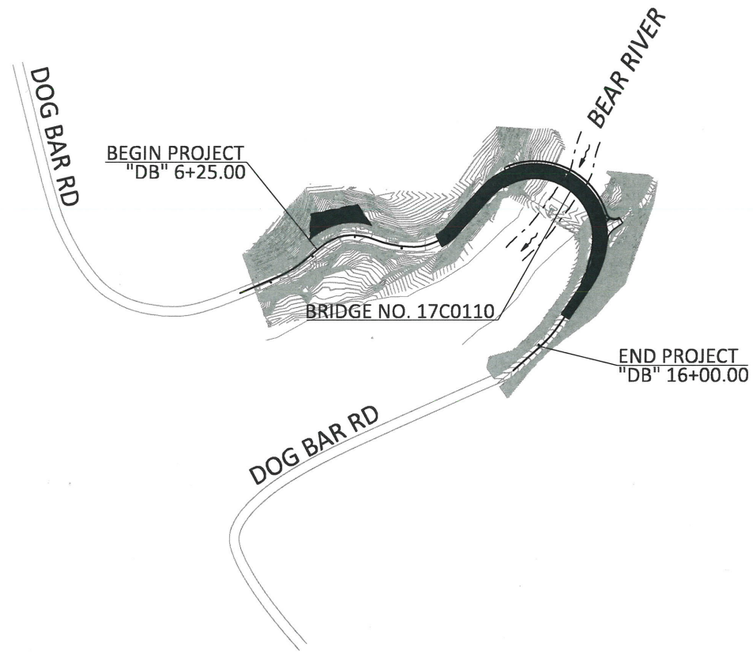
VICINITY MAP

SHEET INDEX

INDEX MAP

0 5 10 20

Scale in miles



PROJECT LOCATION

NO SCALE

PLANS REVIEWED BY:

Patrick Perkins, R.C.E. 52684
Principal Engineer, Department of Public Works — Date: 4/8/24

George Schureck
Interim Director, Department of Public Works — Date: 4/29/24

Chairperson
Board of Supervisors — Date:

Placer County
Matt Randall, Deputy Director, Department of Public Works — Date: 4/2/2024

Nevada Irrigation District — Date: 4/5/2024

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER THE BEAR RIVER (REPLACEMENT)

COVER SHEET

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET 1 OF 49 SHEETS

2108_ab01.dgn

THE CONTRACTOR MUST POSSESS THE CLASS (OR CLASSES) OF LICENSES AS SPECIFIED IN THE "NOTICE TO BIDDERS."

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL CALL "UNDERGROUND SERVICE ALERT" (USA) AT 800-227-2600 AT LEAST 2 WORKING DAYS PRIOR TO PERFORMING ANY EXCAVATION

PRIOR TO WORKING IN THE UNION PACIFIC RAILROAD (UPRR) RIGHT OF WAY, CONTRACTOR IS REQUIRED TO ENTER INTO A CONTRACTOR'S RIGHT OF ENTRY AGREEMENT, AS REQUIRED BY THE PUBLIC HIGHWAY OVERPASS AGREEMENT DATED 2/7/2023.

SHEET INDEX

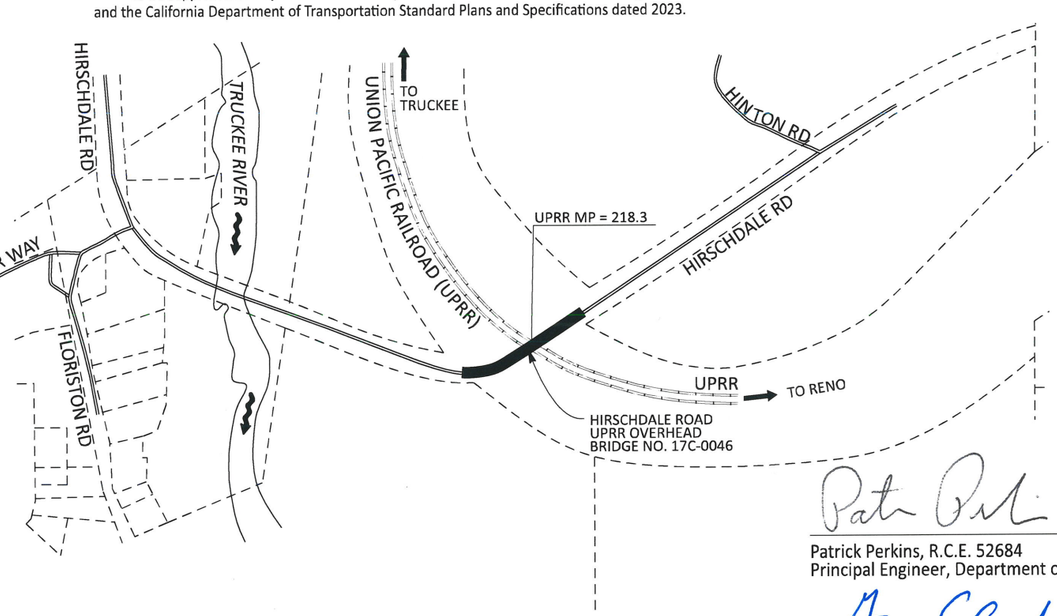
NEVADA COUNTY Department of Public Works Project Plans

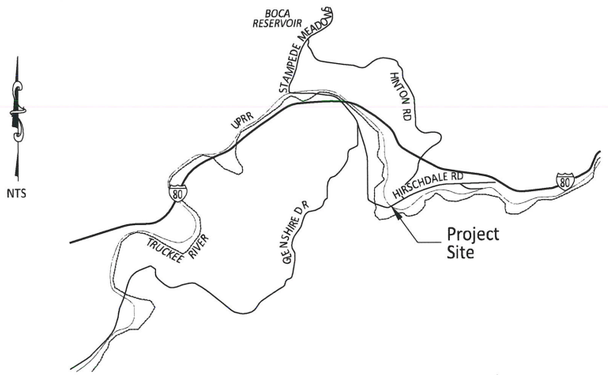
for

Hirschdale Road at Hinton (UPRR) Overhead Rehabilitation Project

Federal Project No. BRLO-5917 (097)

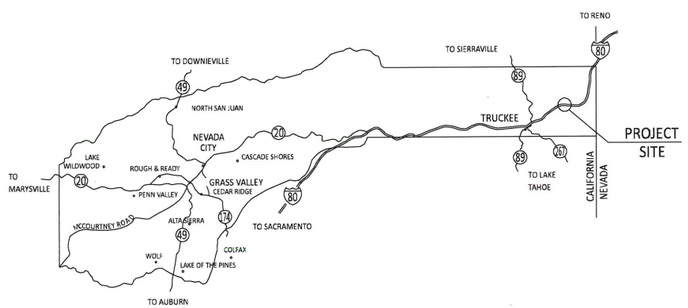
To be supplemented by the Nevada County Standards and Standard Road Drawings and the California Department of Transportation Standard Plans and Specifications dated 2023.





NTS

VICINITY MAP



INDEX MAP

0 5 10 20
Scale in miles

UPRR CONTACTS

Railroad Project Representative: Trevor Taylor, ttaylor@benesch.com, 916-245-2517
Rail Flagging Services: Michael Upton, mupton@up.com, 402-501-1237
Telephone UPRR at 1-800-336-9193 for information on buried fiber optic cables.

UTILITY CONTACTS

LUMEN: Marlo Shelton, Marlo.Shelton@lumen.com, 510-708-8210
Zayo: Monica Pino, monica.pino@zayo.com, 916-804-0573
AT&T: Lee Nieto, LN1985@att.com, 916-505-7308
AT&T Legacy/Shasta Consulting Group (AT&T Corp): Jake Carnes, jakecarnes@shastagroup.net, 530-643-6756

Patrick Perkins, R.C.E. 52684
Principal Engineer, Department of Public Works

6/27/24
Date

George Schureck
Interim Director, Department of Public Works

6/27/24
Date

Chairperson
Board of Supervisors

Date

REVISIONS

NO.	DESCRIPTION	BY	DATE

PROFESSIONAL ENGINEER * REGISTERED * NEVADA * PATRICK PERKINS * No. 12684 * EXP. 6/30/25 * CIVIL * STATE OF CALIFORNIA

DESIGNED BY DOKKEN ENGINEERING

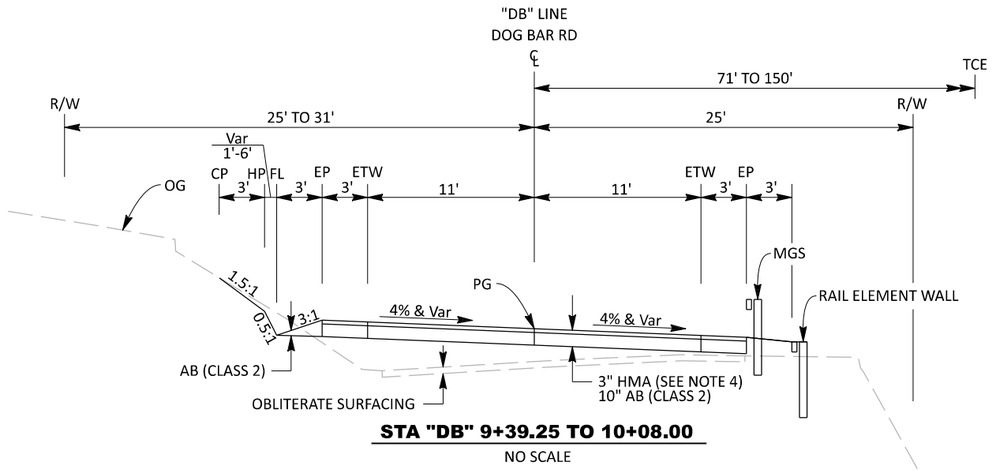
FOR
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

COUNTY OF NEVADA * STATE OF CALIFORNIA

HIRSCHDALE ROAD OVERHEAD (REHABILITATION)
COVER SHEET

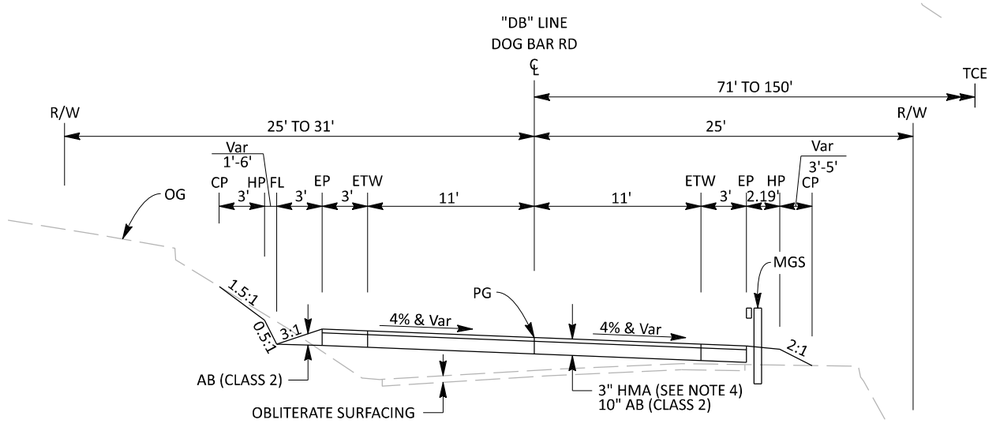
BRIDGE No.	17C-0046
DESIGNED:	K. MOE
DRAWN:	K. MOE
CHECKED:	R. SANDERS
JOB NO:	2250
DATE:	MARCH 2024

SHEET 1 OF 39 SHEETS



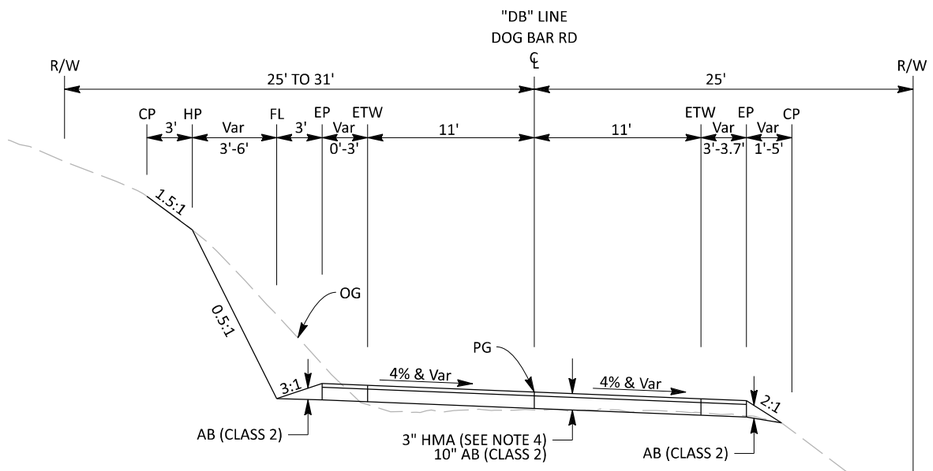
STA "DB" 9+39.25 TO 10+08.00

NO SCALE



STA "DB" 9+15.00 TO 9+39.25
STA "DB" 10+08.00 TO 10+49.25

NO SCALE



STA "DB" 8+77.00 TO 9+15.00

NO SCALE

NOTES:

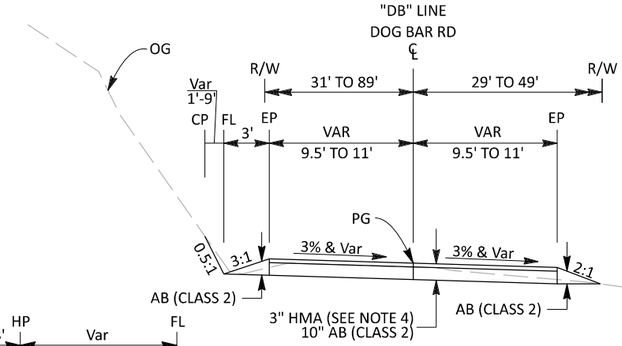
1. SUPERELEVATIONS ARE SHOWN ON SUPERELEVATION DIAGRAM
2. FOR BRIDGE TYPICAL SECTIONS, SEE STRUCTURE PLANS

ABBREVIATIONS:

SEE CALTRANS STANDARD PLANS FOR ABBREVIATIONS NOT LISTED

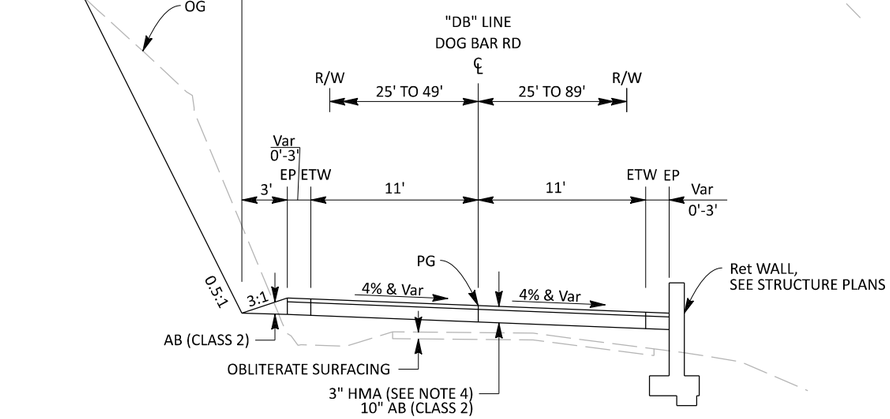
GENERAL NOTES:

1. THE CONTRACTOR MUST FIELD VERIFY ALL ELEVATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR MUST CONTACT UNDERGROUND SERVICE ALERT (1-800-227-2600) TWO WORKING DAYS PRIOR TO WORK COMMENCEMENT.
3. APPLY HYDROSEED TO ALL DISTURBED OR NEWLY FORMED SLOPES PER REQUIREMENTS IN SPECIAL PROVISIONS, SEE EROSION CONTROL SHEET.
4. HMA WILL BE TYPE A, FIBER REINFORCED.



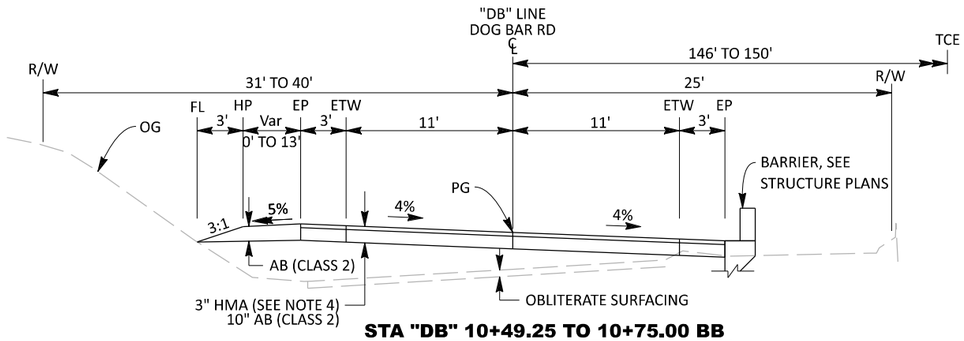
STA "DB" 14+20.00 TO 15+21.00

NO SCALE



STA "DB" 13+18.00 EB TO 14+20.00

NO SCALE



STA "DB" 10+49.25 TO 10+75.00 BB

NO SCALE

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER
THE BEAR RIVER (REPLACEMENT)

TYPICAL SECTIONS
& GENERAL NOTES

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

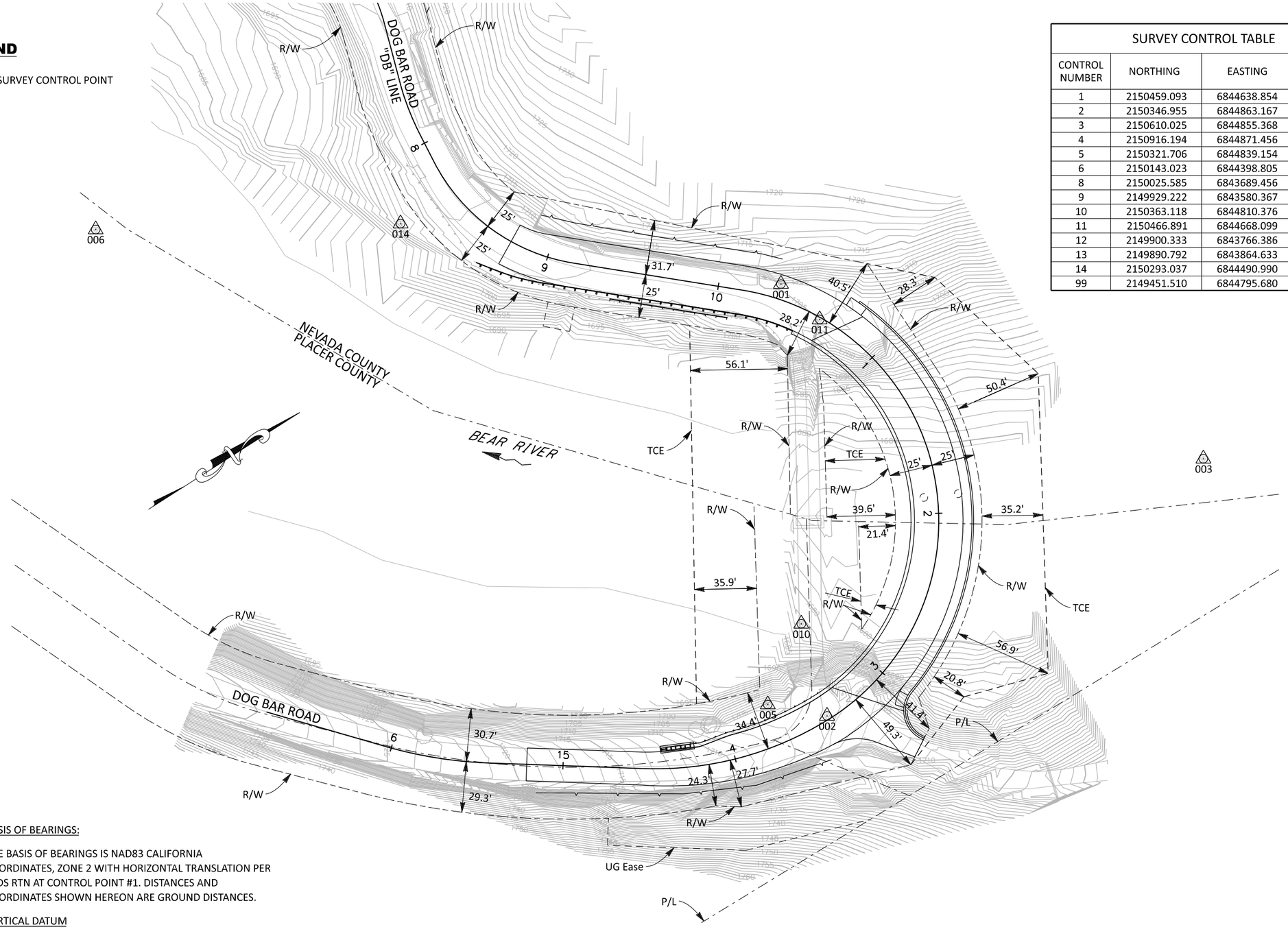
SHEET
2
OF 49 SHEETS

2108_ca01.dgn

LEGEND

000 SURVEY CONTROL POINT

SURVEY CONTROL TABLE			
CONTROL NUMBER	NORTHING	EASTING	ELEVATION
1	2150459.093	6844638.854	1704.85
2	2150346.955	6844863.167	1705.91
3	2150610.025	6844855.368	1679.52
4	2150916.194	6844871.456	1680.29
5	2150321.706	6844839.154	1705.56
6	2150143.023	6844398.805	1676.79
8	2150025.585	6843689.456	1682.97
9	2149929.222	6843580.367	1679.38
10	2150363.118	6844810.376	1706.44
11	2150466.891	6844668.099	1704.58
12	2149900.333	6843766.386	1673.99
13	2149890.792	6843864.633	1678.50
14	2150293.037	6844490.990	1701.90
99	2149451.510	6844795.680	1000.00



BASIS OF BEARINGS:

THE BASIS OF BEARINGS IS NAD83 CALIFORNIA COORDINATES, ZONE 2 WITH HORIZONTAL TRANSLATION PER CSDS RTN AT CONTROL POINT #1. DISTANCES AND COORDINATES SHOWN HEREON ARE GROUND DISTANCES.

VERTICAL DATUM

VERTICAL DATUM IS NAVD 88, GEOID 12B FROM CSDS RTN.

PLAN

SCALE 1"=30'

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER
THE BEAR RIVER (REPLACEMENT)

PROJECT CONTROL

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET
3
OF 49 SHEETS

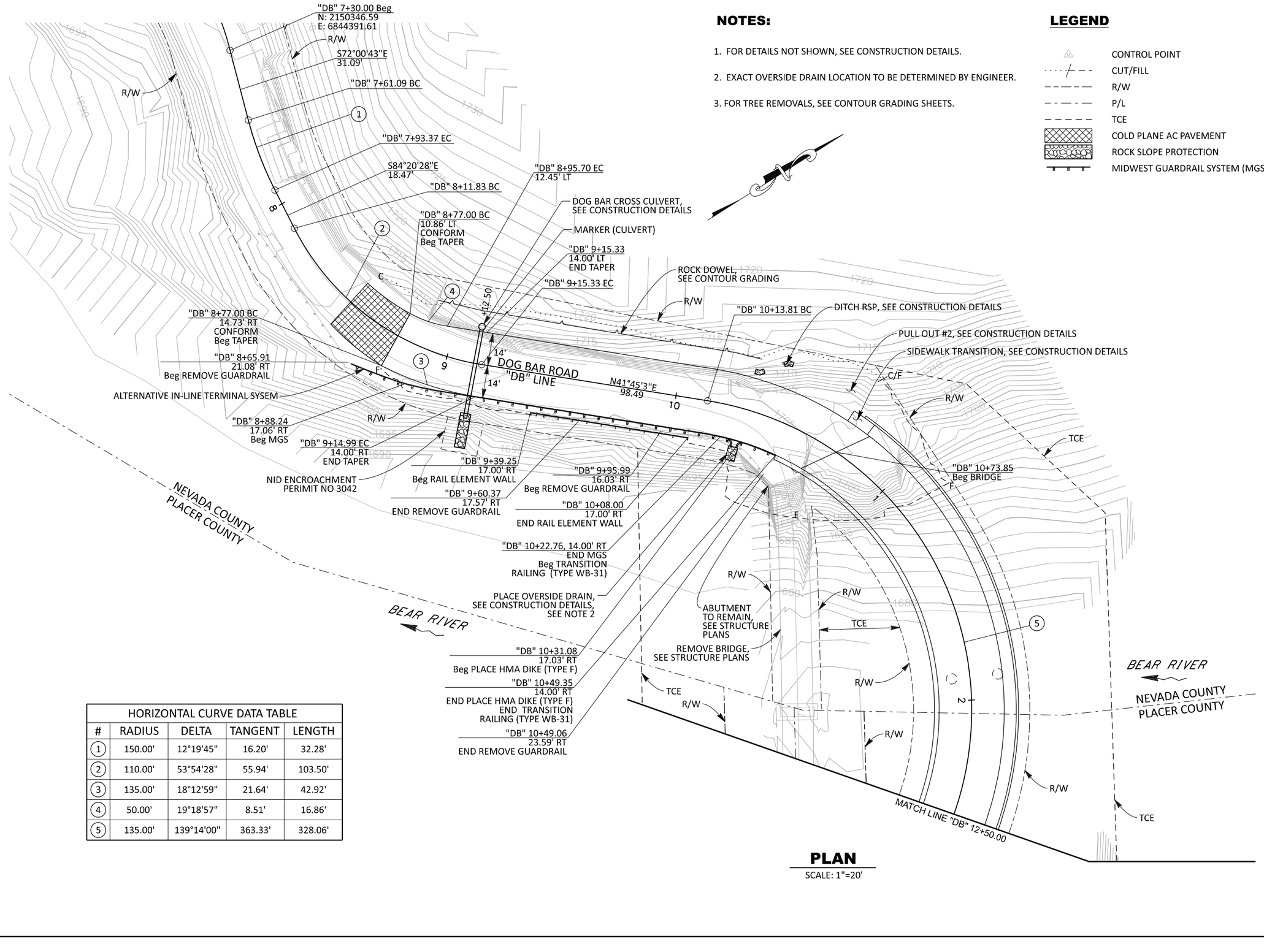
2108_do01.dgn

NOTES:

1. FOR DETAILS NOT SHOWN, SEE CONSTRUCTION DETAILS.
2. EXACT OVERSIDE DRAIN LOCATION TO BE DETERMINED BY ENGINEER.
3. FOR TREE REMOVALS, SEE CONTOUR GRADING SHEETS.

LEGEND

- CONTROL POINT
- CUT/FILL
- R/W
- P/L
- TCE
- COLD PLANE AC PAVEMENT
- ROCK SLOPE PROTECTION
- MIDWEST GUARDRAIL SYSTEM (MGS)



HORIZONTAL CURVE DATA TABLE				
#	RADIUS	DELTA	TANGENT	LENGTH
1	150.00'	12°19'45"	16.20'	32.28'
2	110.00'	53°54'28"	55.94'	103.50'
3	135.00'	18°12'59"	21.64'	42.92'
4	50.00'	19°18'57"	8.51'	16.86'
5	135.00'	139°14'00"	363.33'	328.06'

PLAN

SCALE: 1"=20'

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER
THE BEAR RIVER (REPLACEMENT)

LAYOUT PLAN 1

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET
4
OF 49 SHEETS

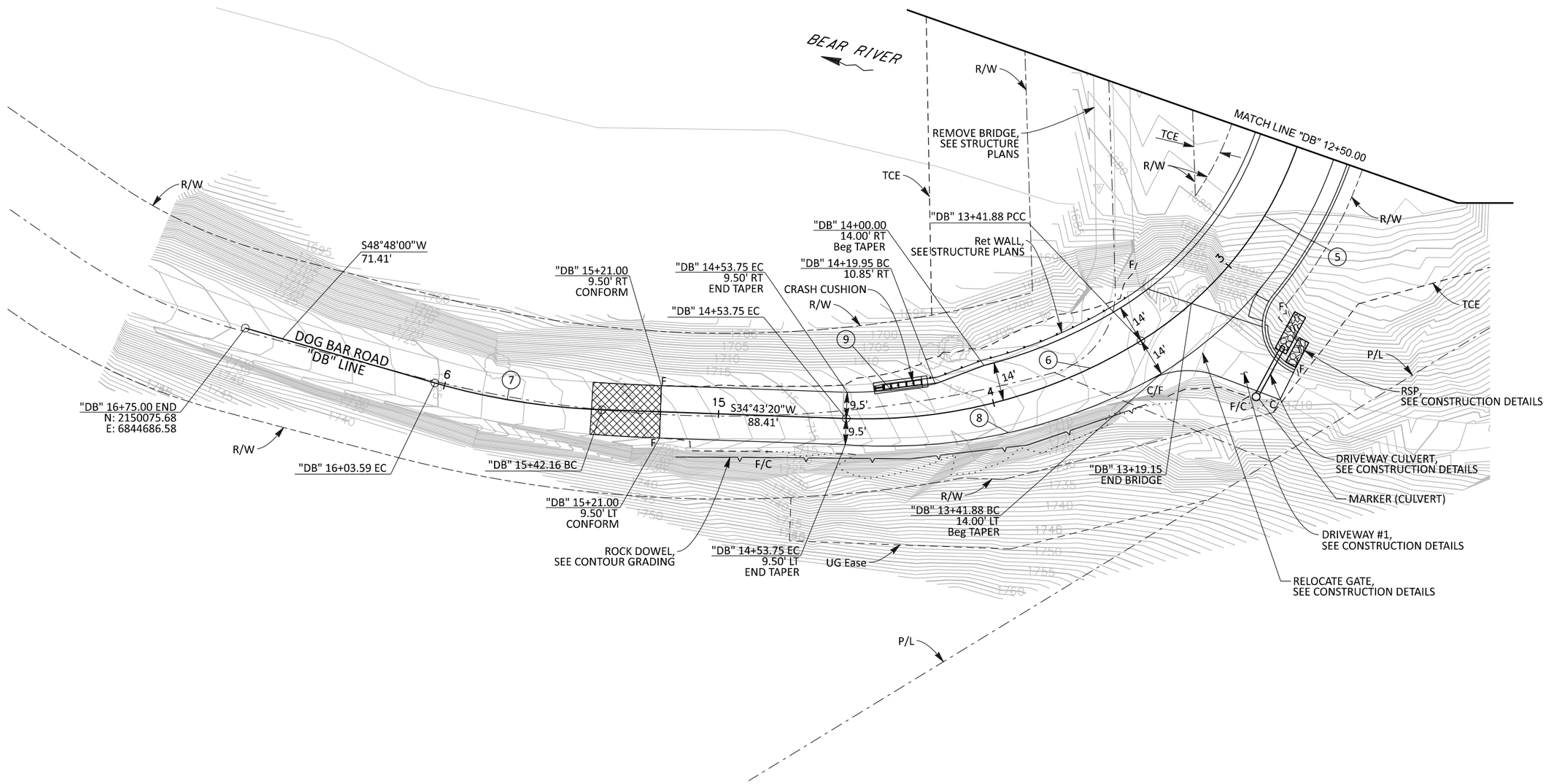
2108_ca01.dgn

NOTES:

1. FOR DETAILS NOT SHOWN, SEE CONSTRUCTION DETAILS.

2. FOR TREE REMOVALS, SEE CONTOUR GRADING SHEETS.

HORIZONTAL CURVE DATA TABLE				
#	RADIUS	DELTA	TANGENT	LENGTH
⑤	135.00'	139°14'00"	363.33'	328.06'
⑥	190.00'	33°44'17"	57.61'	111.87'
⑦	250.00'	14°04'41"	30.87'	61.43
⑧	201.59'	33°47'36"	61.23'	118.90
⑨	178.08'	10°18'04"	16.05'	32.02



PLAN

SCALE 1"=20'

REVISIONS			
NO.	DESCRIPTION	BY	DATE

RICHARD SANDERS — PROFESSIONAL ENGINEER — STATE OF CALIFORNIA — No. C68561 — EXP. 09/30/25

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY

DEPARTMENT OF PUBLIC WORKS

ENGINEERING DIVISION

COUNTY of NEVADA

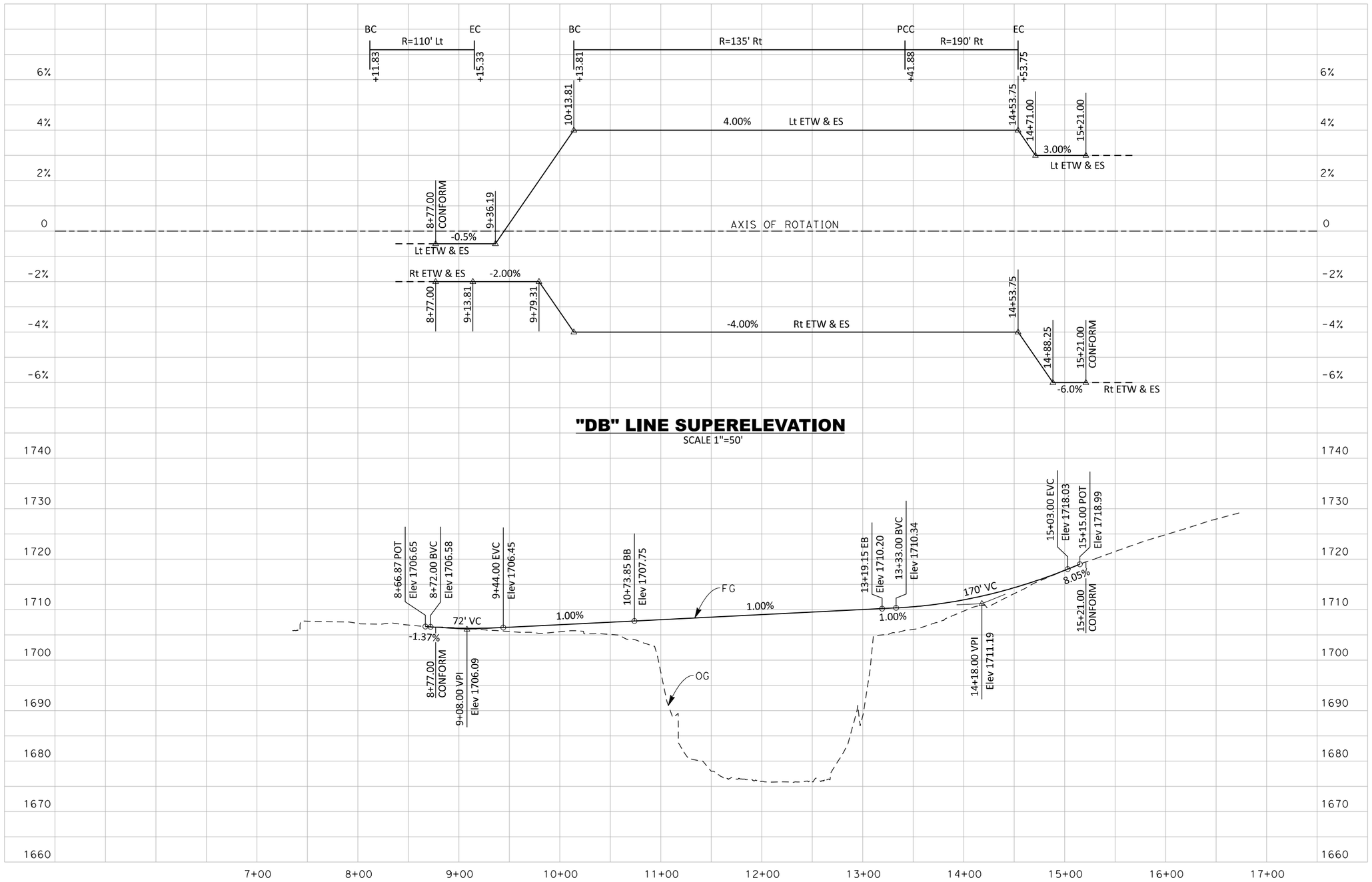
DOG BAR ROAD BRIDGE OVER THE BEAR RIVER (REPLACEMENT)

LAYOUT PLAN 2

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET 5 OF 49 SHEETS

2108_ca02.dgn



"DB" LINE SUPERELEVATION

SCALE 1"=50'

"DB" LINE PROFILE

HOR. SCALE 1"=50'
VERT. SCALE 1"=10'

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY

DEPARTMENT OF PUBLIC WORKS

ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER THE BEAR RIVER (REPLACEMENT)

PROFILE & SUPERELEVATION

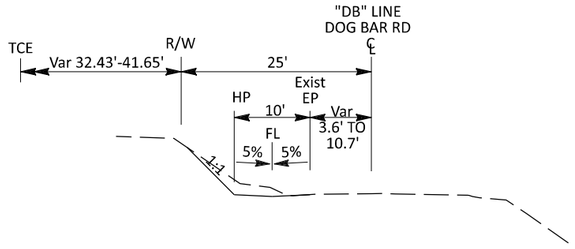
BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET 6 OF 49 SHEETS

2108_fa01.dgn

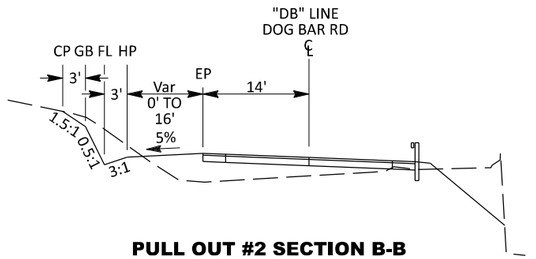
LEGEND:

FLOWLINE DIRECTION



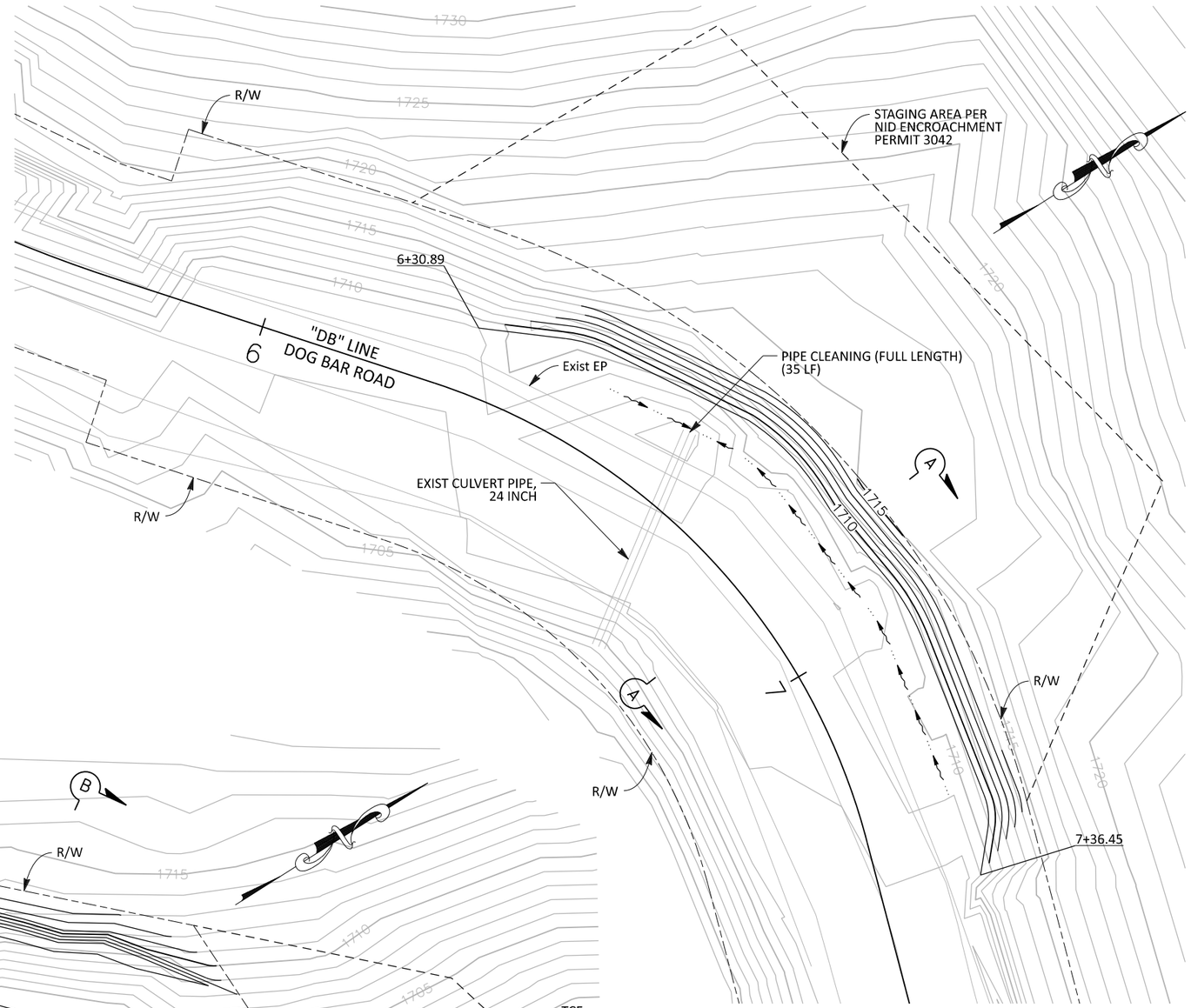
PULL OUT #1 SECTION A-A

NO SCALE



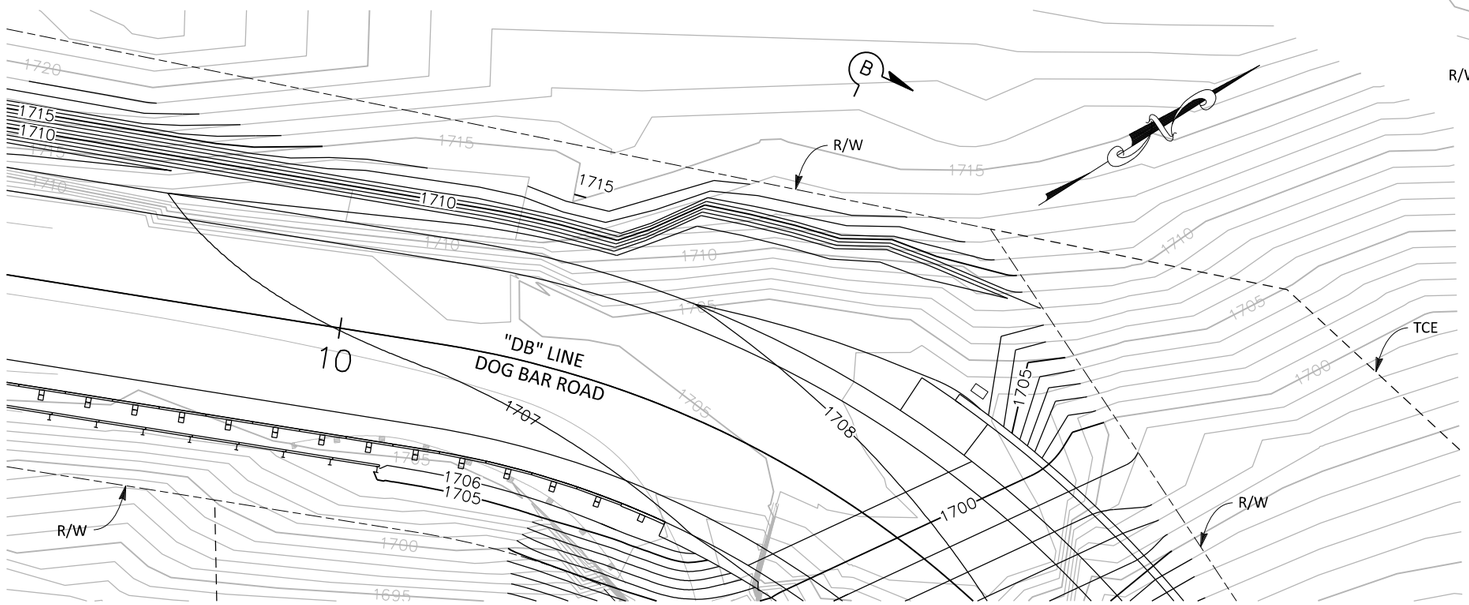
PULL OUT #2 SECTION B-B

NO SCALE



PULL OUT #1

SCALE 1"=10'



PULL OUT #2

SCALE 1"=10'

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY

DEPARTMENT OF PUBLIC WORKS

ENGINEERING DIVISION

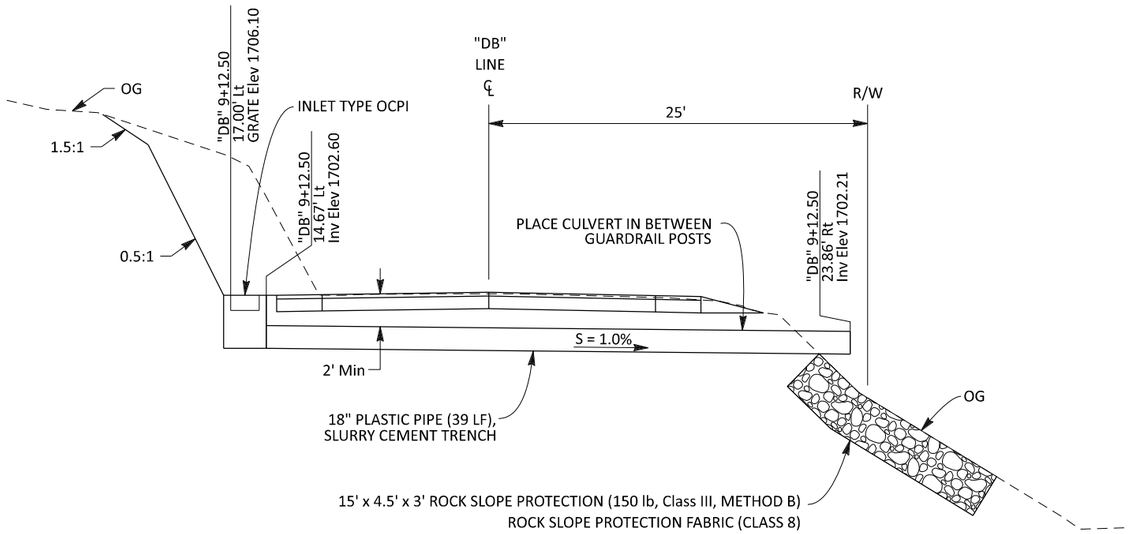
DOG BAR ROAD BRIDGE OVER THE BEAR RIVER (REPLACEMENT)

CONSTRUCTION DETAILS 1

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

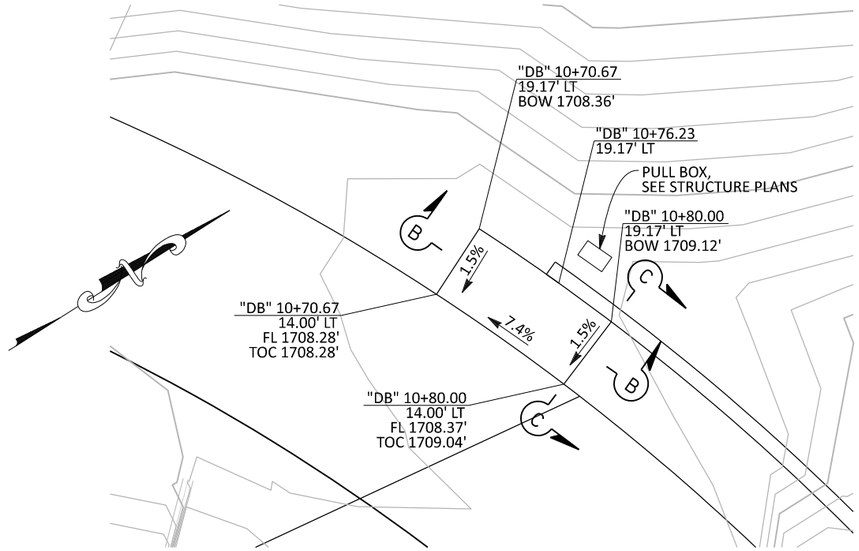
SHEET 7 OF 49 SHEETS

2108_ga01.dgn



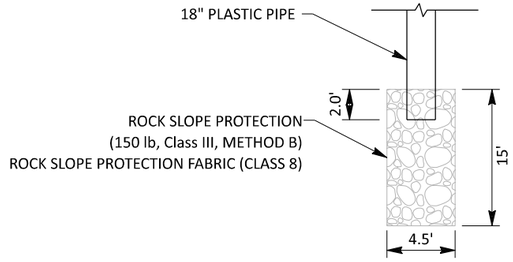
DOG BAR CROSSING PROFILE

NO SCALE



SIDEWALK TRANSITION

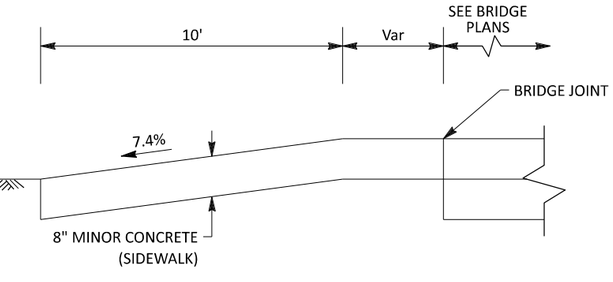
SCALE 1"=5'



PLAN

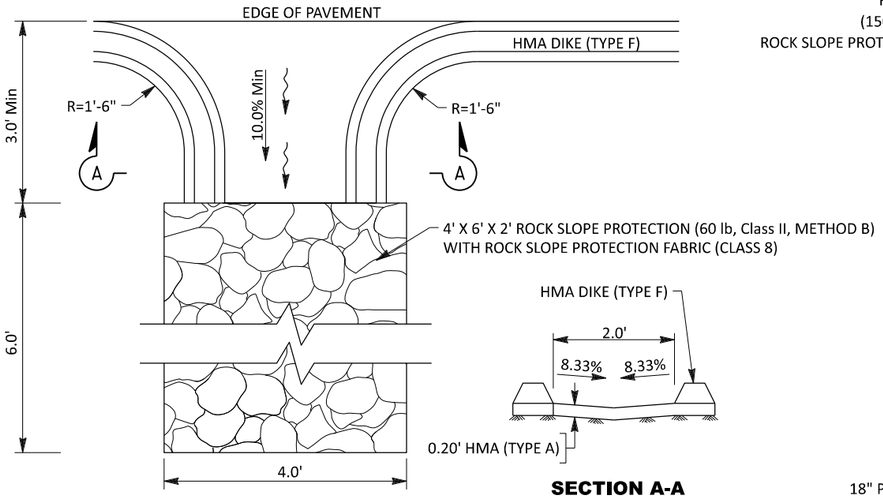
OUTLET DETAIL

NO SCALE



SIDEWALK TRANSITION SECTION B-B

NO SCALE

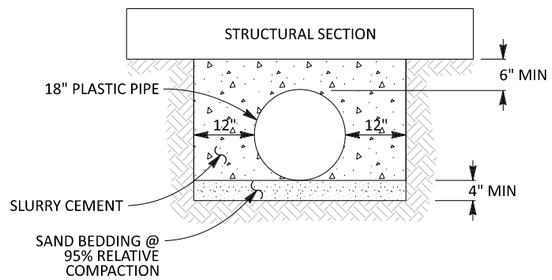


OVERSIDE DRAIN DETAIL

NO SCALE

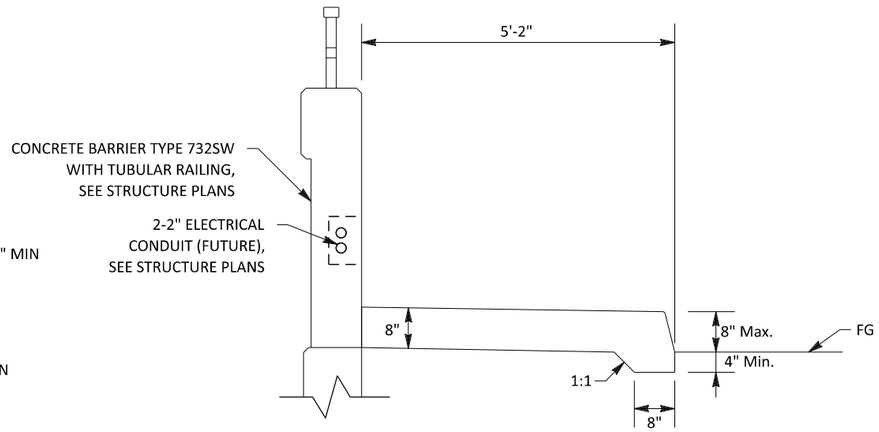
SECTION A-A

NO SCALE



SLURRY CEMENT TRENCH DETAIL

NO SCALE



SIDEWALK TRANSITION SECTION C-C

NO SCALE

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY

DEPARTMENT OF PUBLIC WORKS

ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER THE BEAR RIVER (REPLACEMENT)

CONSTRUCTION DETAILS 2

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET

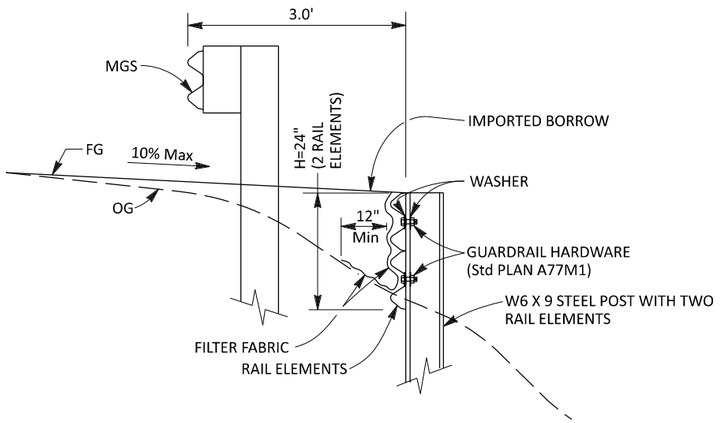
8

OF 49 SHEETS

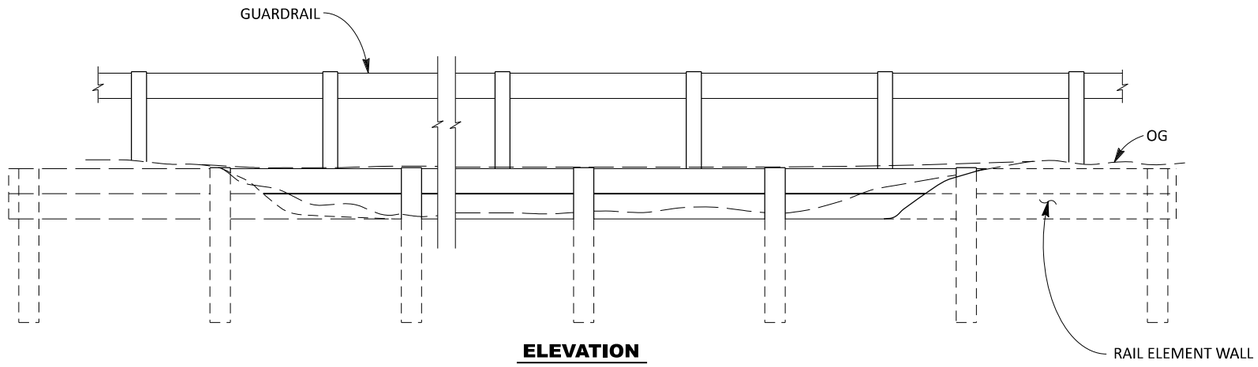
2108_ga02.dgn

NOTES:

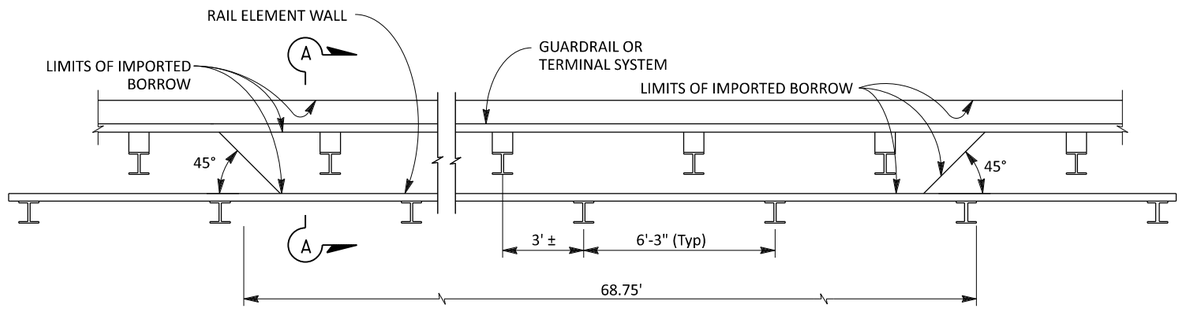
1. POST FOR RAIL ELEMENT WALL MUST BE STEEL UNLESS AUTHORIZED.
2. RAIL ELEMENTS AND GUARDRAIL HARDWARE SHALL BE TREATED WITH A COAT OF IRON OXIDE PAINT.



SECTION A-A



ELEVATION



PLAN

RAIL ELEMENT WALL
NO SCALE

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

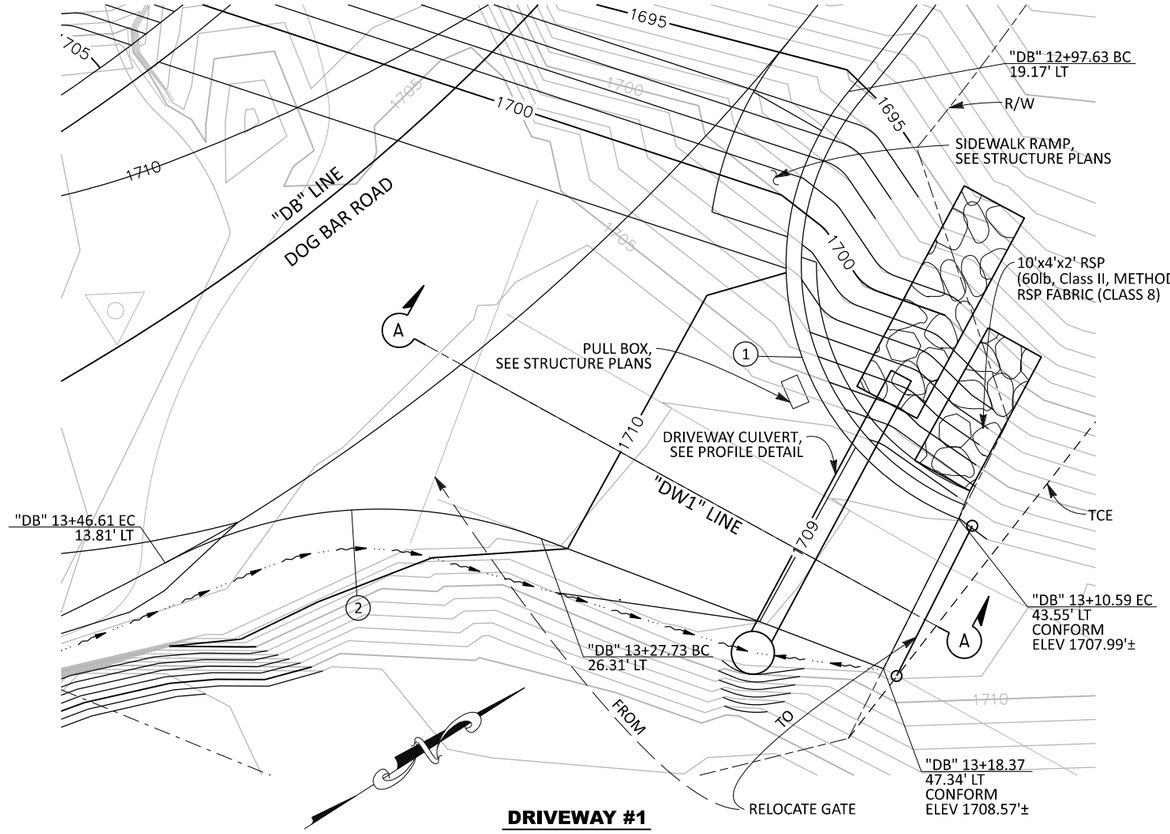
FOR
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER
THE BEAR RIVER (REPLACEMENT)
CONSTRUCTION DETAILS 3

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

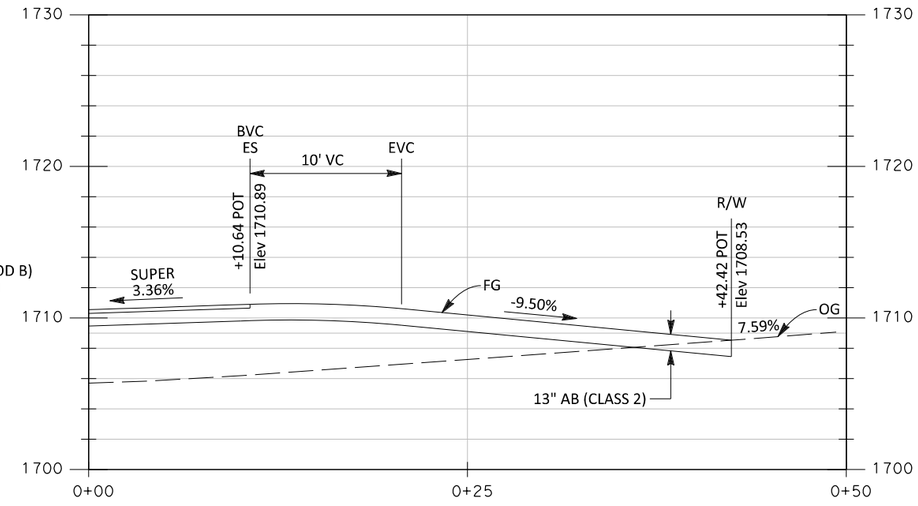
SHEET
9
OF 49 SHEETS

2108_gn03.dgn



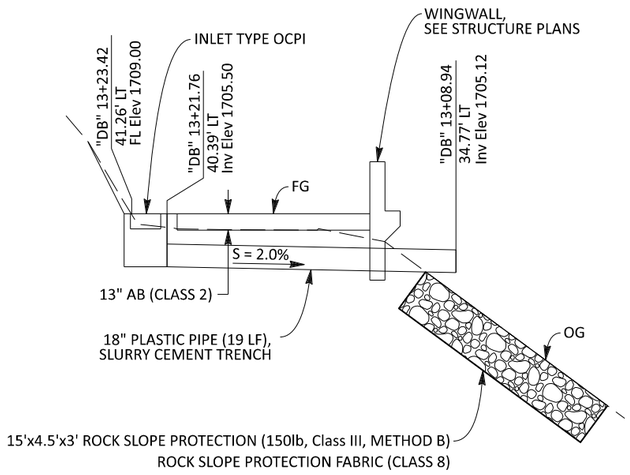
DRIVEWAY #1

SCALE 1"=5'



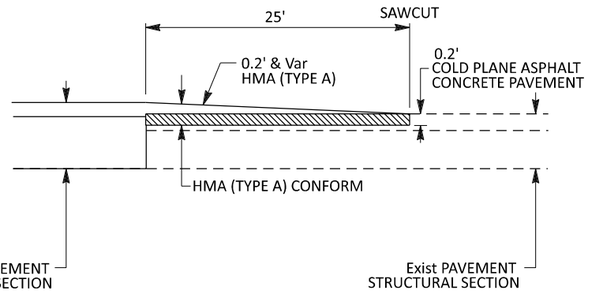
DRIVEWAY "DW1"
SECTION A-A

HORIZONTAL CURVE DATA TABLE				
#	RADIUS	DELTA	TANGENT	LENGTH
1	18.00'	107°59'54"	24.77'	33.93'
2	30.00'	48°57'01"	13.66'	25.63'



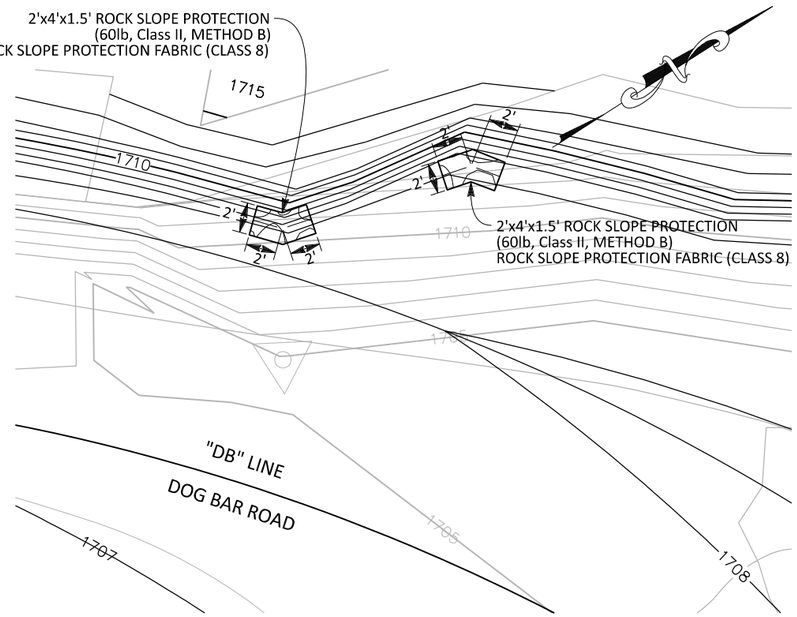
DRIVEWAY CULVERT PROFILE

NO SCALE



LONGITUDINAL CONFORM DETAIL

NO SCALE



DITCH RSP DETAIL

SCALE 1"=5'

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER
THE BEAR RIVER (REPLACEMENT)

CONSTRUCTION DETAILS 4

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET
10
OF 49 SHEETS

2108_gad04.dgn

"DB" 6+15.79
25.00' LT
Beg Temp HIGH-VISIBILITY FENCE

"DB" 6+41.87 AP
66.65' LT

STAGING AREA

"DB" 7+01.39 AP
62.68' LT

EP

"DB" 7+27.34
25.00' LT
END Temp HIGH-VISIBILITY FENCE

R/W

"DB" LINE

DOG BAR ROAD

LEGEND

—FR—FR—	FIBER ROLLS
	HYDROSEED
	ROLLED EROSION CONTROL PRODUCT (RECP) (JUTE MESH)
-xx—xx— THVF —xx—	TEMPORARY HIGH VISIBILITY FENCE
xx—xx— TSF —xx—	TEMPORARY SILT FENCE

NOTES

1. THE FENCE ENDPOINTS WILL HAVE AT LEAST A 90 DEGREE TURN AWAY, FACING TOWARDS THE OUTSIDE, FROM THE CONSTRUCTION AREAS WITH A RADIUS OF APPROXIMATELY 2 FEET. THIS IS IN ADDITION TO THE TOP FEW INCHES BEING CURVED AWAY TO PROHIBIT FROGS FROM CLIMBING OVER THE FENCES.

2. FOR ADDITIONAL HYDROSEED AREAS AND PLANTING, SEE PLANTING PLAN SHEETS.

3. STAGING AREAS AND ANY OTHER AREAS NOT SHOWN, DISTURBED BY THE CONTRACTOR SHALL RECEIVE EROSION CONTROL AT THE CONTRACTORS EXPENSE.

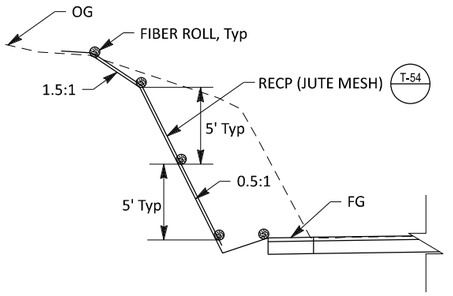
4. FOR WINTERIZATION, TEMPORARY SILT FENCE MUST BE REMOVED UP TO THE HIGH WATER SURFACE ELEVATION.

HYDROSEED MIX

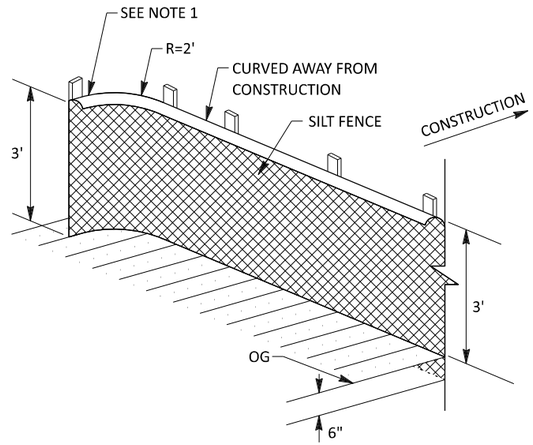
Common Name	Botanical Name	%Purity	%Germ	PLS LB/acre
Annual hairgrass	*Deschampsia danthoniodes*	90	80	0.54
Blue wild rye	*Elymus glaucus*	90	80	9.74
California brome	*Bromus carinatus*	95	80	12.18
Deergrass	*Muhlenbergia rigens*	70	45	0.17
Field sedge	*Carex praegracilis*	95	80	0.75
Miner's lettuce	*Claytonia perfoliata*	25	55	0.40
Mugwort	*Artemisia douglasiana*	30	60	0.47
Spike bentgrass	*Agrostis exarata*	95	85	0.19
Tall flatsedge	*Cyperus eragrostis*	80	75	0.17
			TOTAL	24.61

EROSION CONTROL APPLICATION

SEQUENCE	ITEM	MATERIAL DESCRIPTION	MATERIAL TYPE	APPLICATION RATE
STEP 1	HYDROSEED	SEED	PURE LIVE SEED	24.61 LB/acre
		BONDED FIBER MATRIX	WOOD	2000 LB/acre
		TACKIFIER	-	PER MANU. INST
STEP 2	ROLLED EROSION CONTROL PRODUCT	JUTE MESH	-	-
STEP 3	FIBER ROLL	FIBER ROLL	8" TO 10" Dia	-



TYPICAL FIBER ROLL PLACEMENT DETAIL
NO SCALE



TEMPORARY SILT FENCE DETAIL
NO SCALE

"DB" 8+71.84
15.34' RT
Beg Temp SILT FENCE

"DB" 8+74.39 AP
25.00' RT

"DB" 9+06.44 AP
25.00' RT

"DB" 9+06.75 AP
39.14' RT

"DB" 9+19.40 AP
39.38' RT

"DB" 9+20.00 AP
25.00' RT

"DB" 9+87.25 AP
25.00' RT

"DB" 9+95.14 AP
69.10' RT

"DB" 10+99.81
58.53' LT
END Temp SILT FENCE

SEE NOTE 2

TCE

"DB" 11+48.26 AP
75.44' LT

"DB" 11+08.34 AP
48.47' RT

"DB" 11+65.92 AP
66.56' LT

"DB" 11+58.59 AP
26.22' LT

"DB" 13+90.71 AP
112.46' RT

"DB" 12+45.89 AP
21.14' LT

"DB" 12+41.46 AP
69.75' LT

"DB" 12+60.89 AP
81.86' LT

"DB" 12+85.03 AP
45.77' LT

"DB" 15+53.99
12.11' RT
END Temp SILT FENCE

"DB" 14+17.20 AP
35.65' RT

"DB" 14+53.38 AP
20.91' RT

"DB" 13+06.66
46.17' LT
Beg Temp SILT FENCE

NEVADA COUNTY
PLACER COUNTY

BEAR RIVER

DOG BAR ROAD

UG Ease

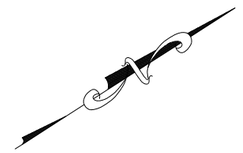
P/L

R/W

TSF

THVF

PLAN
SCALE 1"=30'



REVISIONS

NO.	DESCRIPTION	BY	DATE

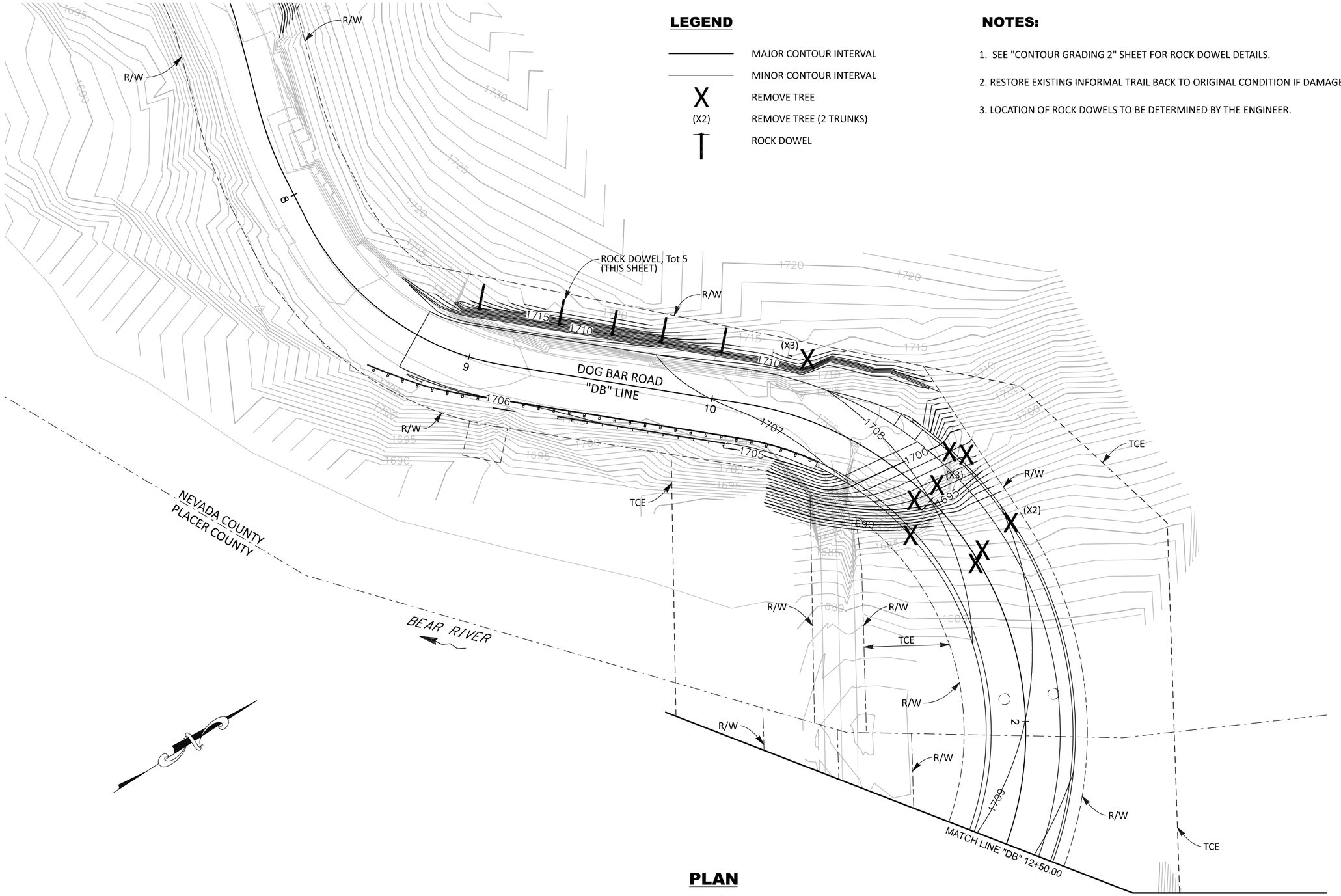
DESIGNED BY DOKKEN ENGINEERING
FOR
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER
THE BEAR RIVER (REPLACEMENT)
EROSION CONTROL PLAN

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET
11
OF 49 SHEETS

2108_sp01.dgn



PLAN

SCALE 1"=20'

LEGEND

———	MAJOR CONTOUR INTERVAL
———	MINOR CONTOUR INTERVAL
X	REMOVE TREE
(X2)	REMOVE TREE (2 TRUNKS)
T	ROCK DOWEL

NOTES:

1. SEE "CONTOUR GRADING 2" SHEET FOR ROCK DOWEL DETAILS.
2. RESTORE EXISTING INFORMAL TRAIL BACK TO ORIGINAL CONDITION IF DAMAGED.
3. LOCATION OF ROCK DOWELS TO BE DETERMINED BY THE ENGINEER.

REVISIONS

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FOR

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER
THE BEAR RIVER (REPLACEMENT)

CONTOUR GRADING 1

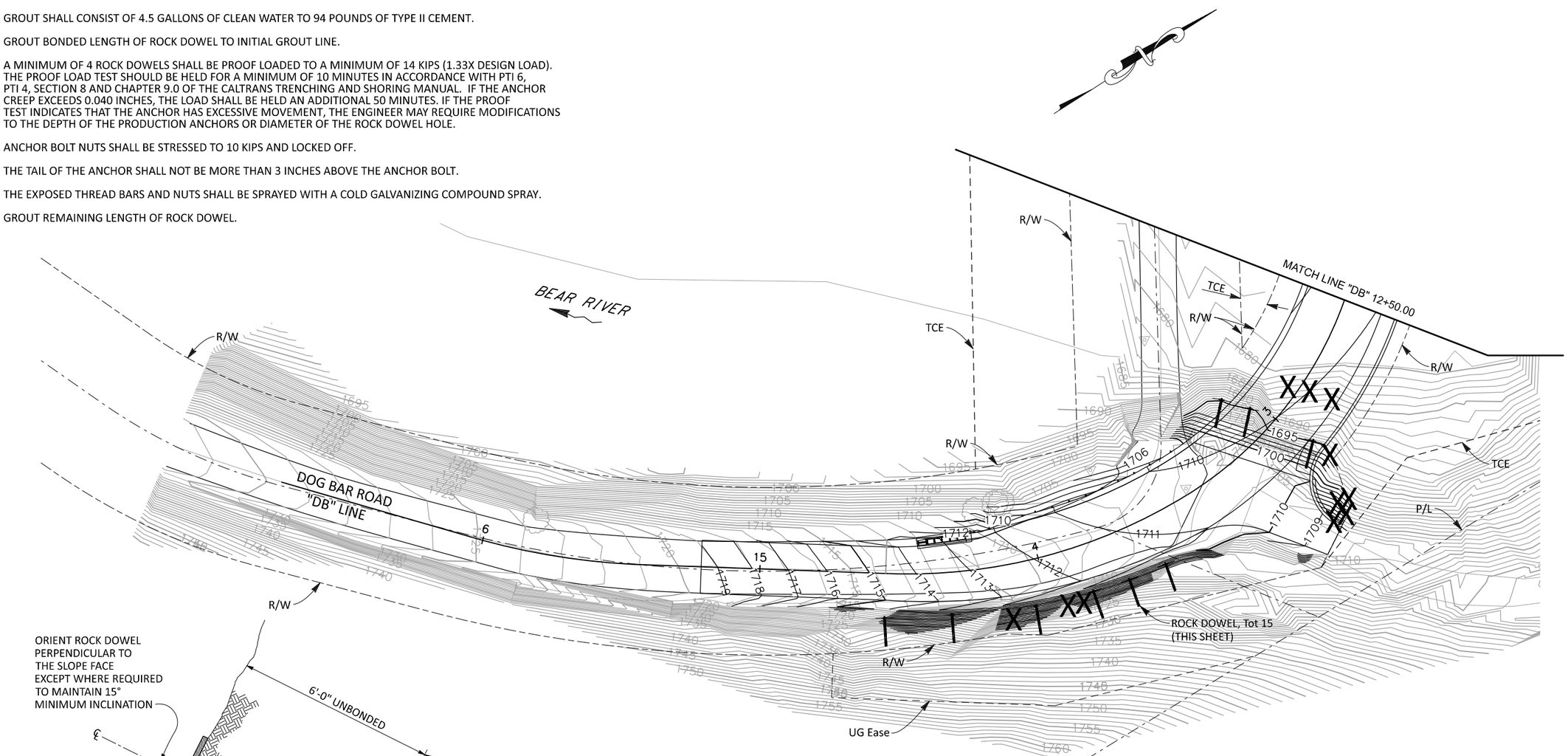
BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET
12
OF 49 SHEETS

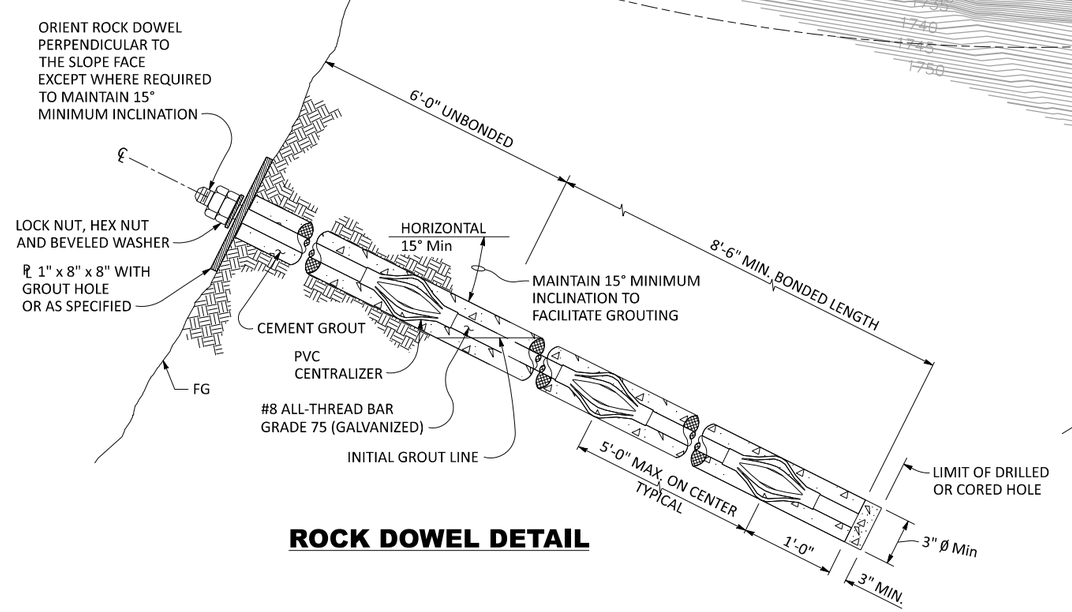
2108_ha01.dgn

ROCK DOWEL INSTALLATION NOTES:

1. CORED HOLES SHALL BE BRUSHED WITH A STEEL BRISTLE AND CLEANED WITH OIL FREE COMPRESSED AIR.
2. GROUT CAN BE PUMPED OR PLACED UNDER A GRAVITY HEAD AND THE ANCHOR BOLTS SET IN FRESH GROUT.
3. GROUT SHALL CONSIST OF 4.5 GALLONS OF CLEAN WATER TO 94 POUNDS OF TYPE II CEMENT.
4. GROUT BONDED LENGTH OF ROCK DOWEL TO INITIAL GROUT LINE.
5. A MINIMUM OF 4 ROCK DOWELS SHALL BE PROOF LOADED TO A MINIMUM OF 14 KIPS (1.33X DESIGN LOAD). THE PROOF LOAD TEST SHOULD BE HELD FOR A MINIMUM OF 10 MINUTES IN ACCORDANCE WITH PTI 6, PTI 4, SECTION 8 AND CHAPTER 9.0 OF THE CALTRANS TRENCHING AND SHORING MANUAL. IF THE ANCHOR CREEP EXCEEDS 0.040 INCHES, THE LOAD SHALL BE HELD AN ADDITIONAL 50 MINUTES. IF THE PROOF TEST INDICATES THAT THE ANCHOR HAS EXCESSIVE MOVEMENT, THE ENGINEER MAY REQUIRE MODIFICATIONS TO THE DEPTH OF THE PRODUCTION ANCHORS OR DIAMETER OF THE ROCK DOWEL HOLE.
6. ANCHOR BOLT NUTS SHALL BE STRESSED TO 10 KIPS AND LOCKED OFF.
7. THE TAIL OF THE ANCHOR SHALL NOT BE MORE THAN 3 INCHES ABOVE THE ANCHOR BOLT.
8. THE EXPOSED THREAD BARS AND NUTS SHALL BE SPRAYED WITH A COLD GALVANIZING COMPOUND SPRAY.
9. GROUT REMAINING LENGTH OF ROCK DOWEL.



PLAN
SCALE 1"=20'



ROCK DOWEL DETAIL

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER
THE BEAR RIVER (REPLACEMENT)
CONTOUR GRADING 2

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET
13
OF 49 SHEETS

2108_ha02.dgn

LEGEND

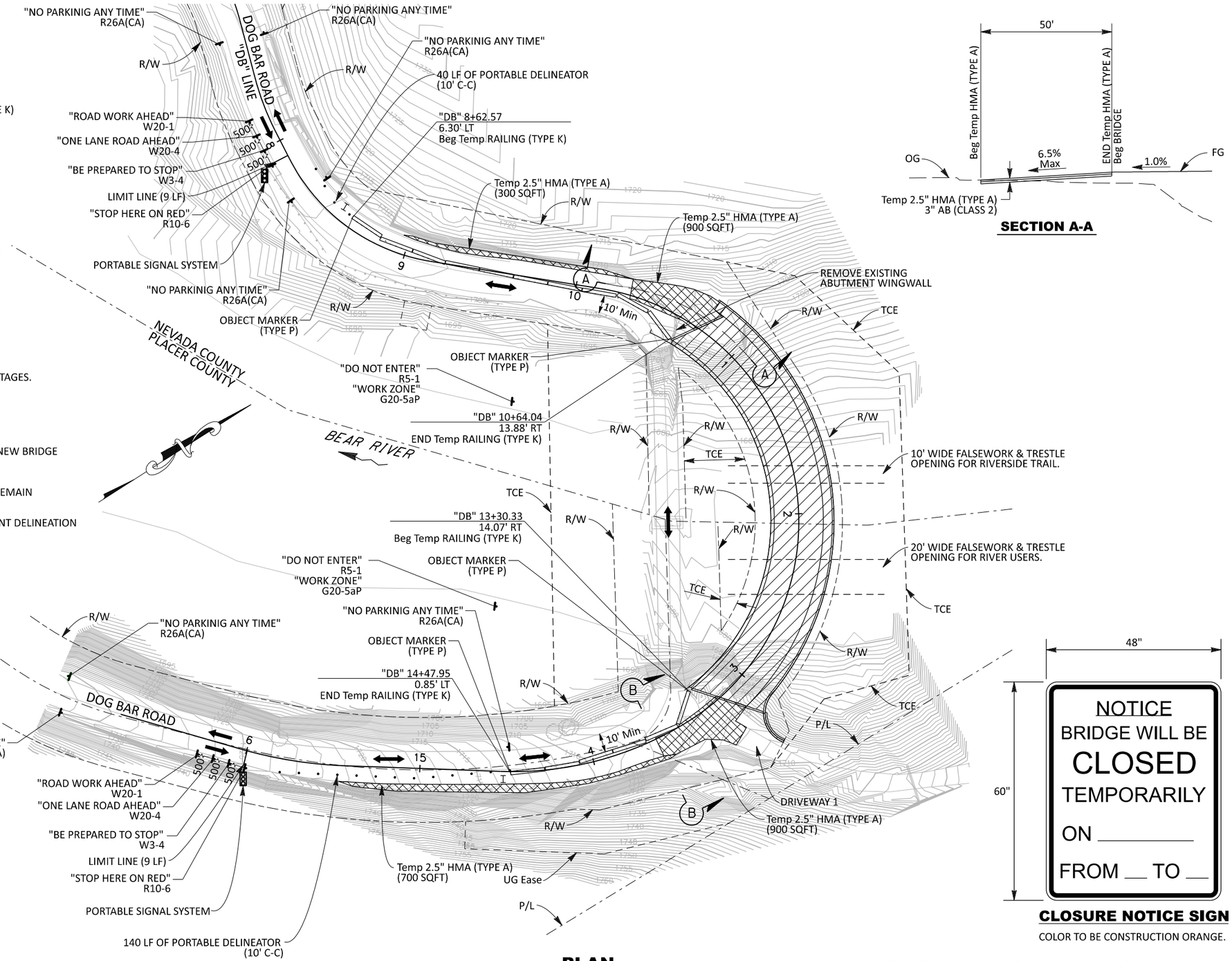
- PORTABLE DELINEATOR
- TEMPORARY RAILING (TYPE K)
- TEMPORARY SIGN
- TYPE III BARRICADE
- PORTABLE SIGNAL SYSTEM
- WORK THIS STAGE
- TEMPORARY HMA (TYPE A)
- DIRECTION OF TRAFFIC
- ONE WAY TRAFFIC

NOTES

1. MAINTAIN ACCESS TO DRIVEWAY 1 IN ALL STAGES.

STAGE 1 CONSTRUCTION

1. CONSTRUCT TEMPORARY APPROACHES TO NEW BRIDGE
2. CONSTRUCT PROPOSED BRIDGE
3. NO PARKING SIGNS PLACED IN STAGE 1 TO REMAIN UNTIL CONSTRUCTION IS COMPLETE
4. FOR ADDITIONAL RIVER SIGNS, SEE PAVEMENT DELINEATION AND SIGN PLAN SHEET.



PLAN

SCALE 1"=30'

SECTION A-A

CLOSURE NOTICE SIGN

COLOR TO BE CONSTRUCTION ORANGE.

CLOSURE NOTICE LOCATIONS

1. CLOSURE NOTICE SIGNS TO BE PLACED AT INTERSECTION OF DOG BAR ROAD AND MAGNOLIA ROAD IN NEVADA COUNTY AND AT DOG BAR ROAD AND PLACER HILLS ROAD IN PLACER COUNTY.

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER
THE BEAR RIVER (REPLACEMENT)

STAGE CONSTRUCTION
& TRAFFIC HANDLING 1

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET
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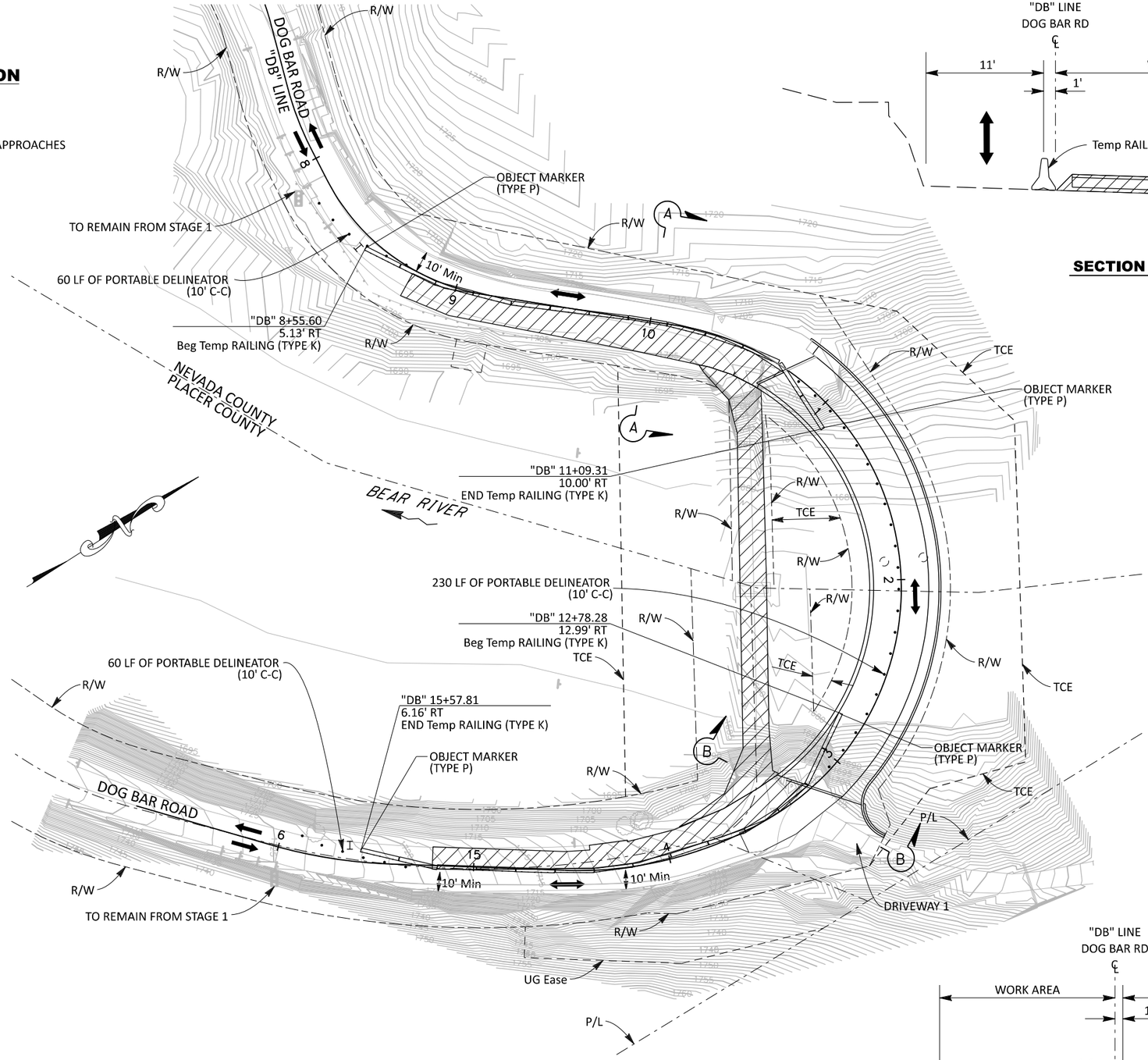
OF 49 SHEETS

2108_std01.dgn

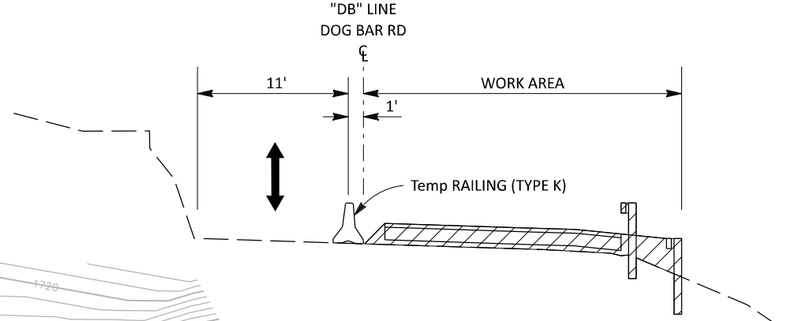
STAGE 2 CONSTRUCTION

1. DEMOLISH EXISTING BRIDGE
2. CONSTRUCT WALLS
3. CONSTRUCT SOUTHBOUND BRIDGE APPROACHES

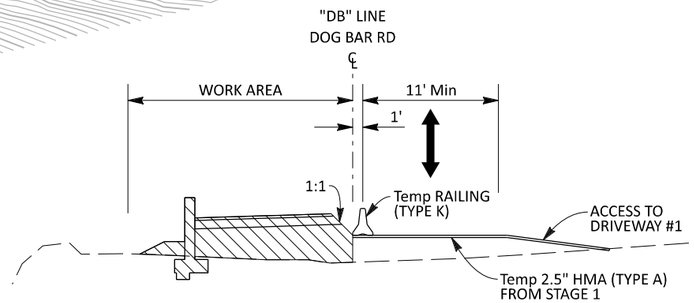


PLAN

SCALE 1"=30'



SECTION A-A



SECTION B-B

REVISIONS			
NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER
THE BEAR RIVER (REPLACEMENT)

STAGE CONSTRUCTION
& TRAFFIC HANDLING 2

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET
15
OF 49 SHEETS

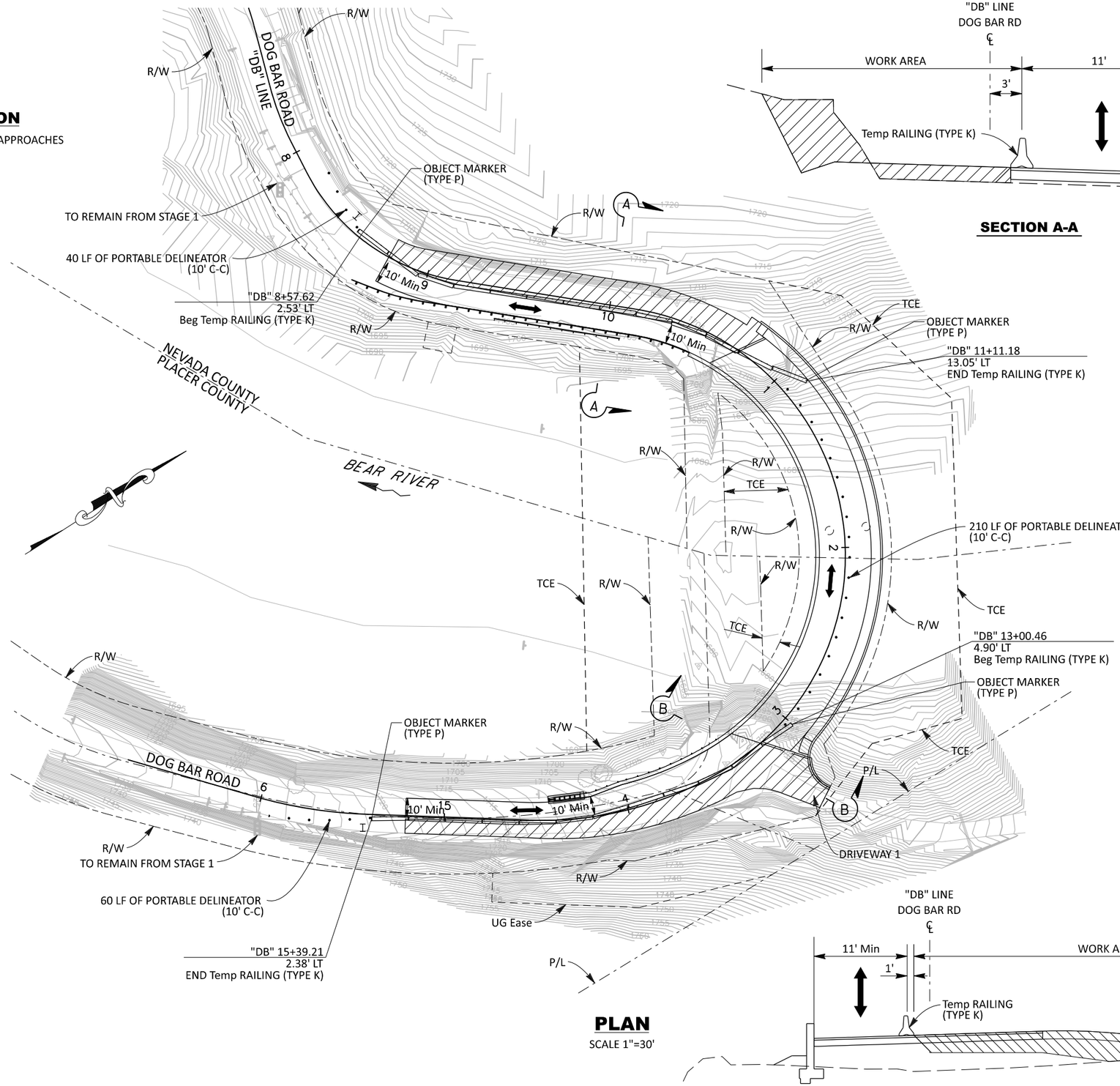
2108_mdl02.dgn

NOTES

1. MAINTAIN ACCESS TO DRIVEWAY 1.

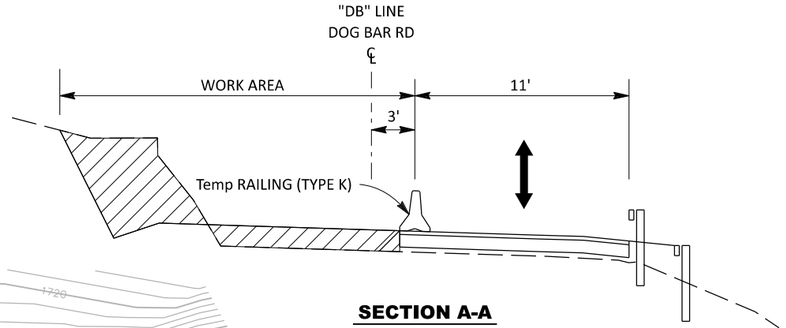
STAGE 3 CONSTRUCTION

1. CONSTRUCT NORTHBOUND BRIDGE APPROACHES

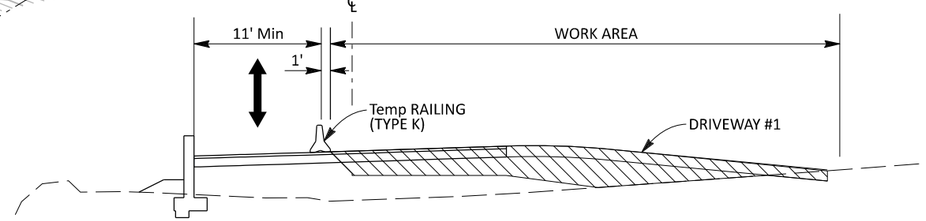


PLAN

SCALE 1"=30'



SECTION A-A



SECTION B-B

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY

DEPARTMENT OF PUBLIC WORKS

ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER THE BEAR RIVER (REPLACEMENT)

STAGE CONSTRUCTION & TRAFFIC HANDLING 3

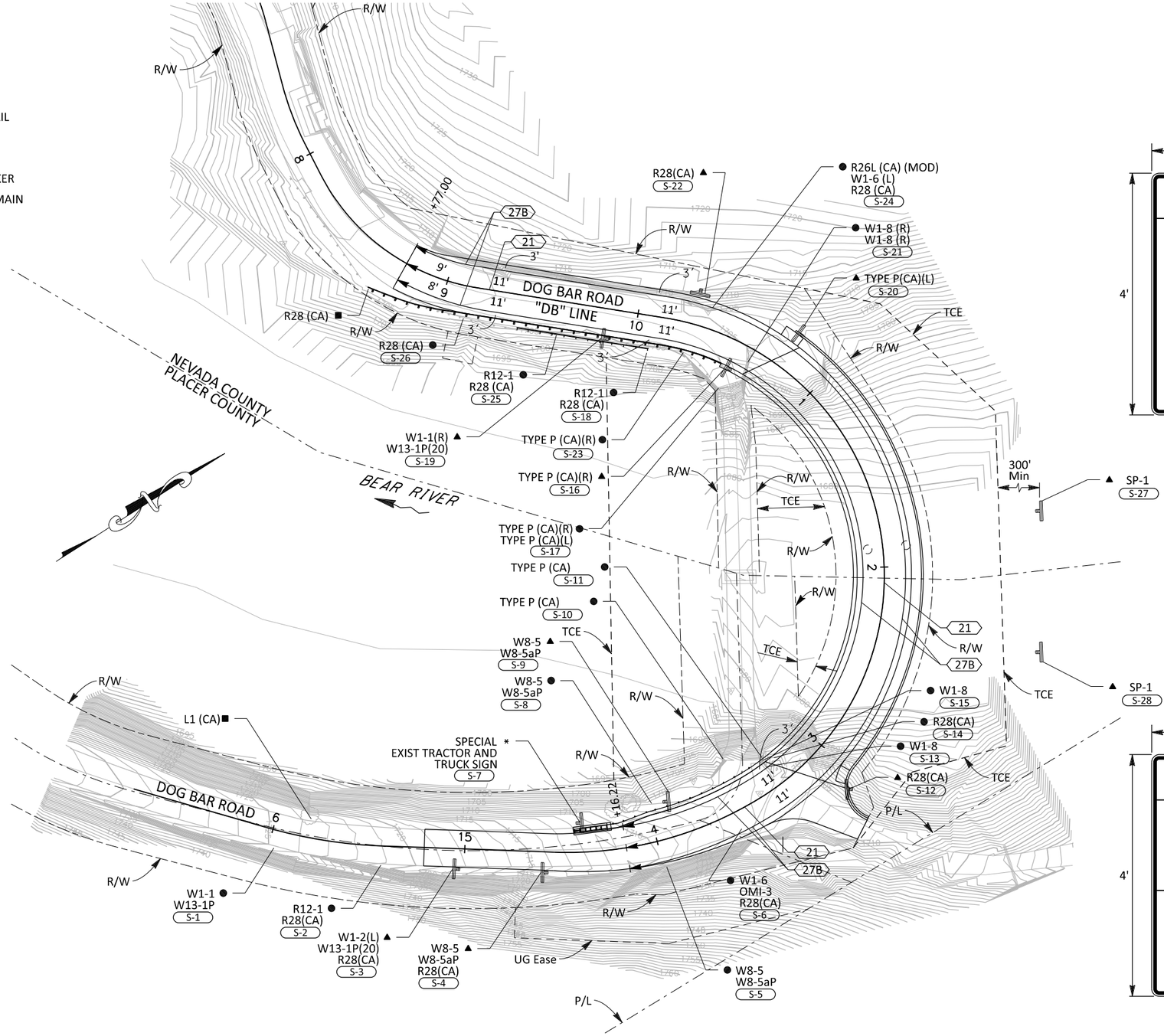
BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET 16 OF 49 SHEETS

2108_md03.dgn

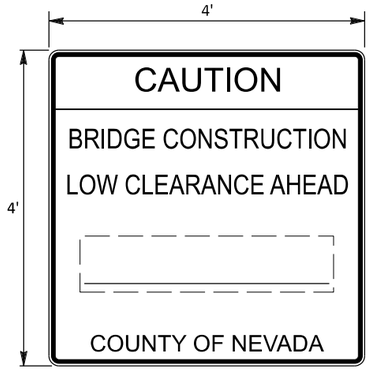
LEGEND

- ROADSIDE SIGN (ONE POST)
- EXISTING SIGN
- BEGIN/END TRAFFIC STRIPE DETAIL
- (#) STRIPE DETAIL NUMBER
- (S-#) ROADSIDE SIGN NUMBER
- ● REMOVE ROADSIDE SIGN / MARKER
- ■ EXISTING ROADSIDE SIGN TO REMAIN
- ▲ NEW ROADSIDE SIGN
- * RESET ROADSIDE SIGN

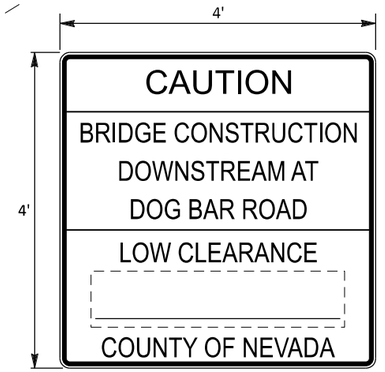


PLAN

SCALE 1"=30'



DETAIL SP-1



DETAIL SP-2

NOTE

SIGN SP-2 TO BE PLACED UPSTREEM AT BEAR RIVER PARK. LOCATION TO BE DETERMINED BY THE ENGINEER.

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER
THE BEAR RIVER (REPLACEMENT)
PAVEMENT DELINEATION
& SIGN PLAN

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET
17
OF 49 SHEETS

2108_oa01.dgn

ROADSIDE SIGN QUANTITIES

SIGN No.	CODE	PANEL SIZE Horiz (in)	PANEL SIZE Vert (in)	C (ft)	MINIMUM POST LENGTH (ft)	POST SIZE 4x4 (in x in)	POST SIZE 4x6 (in x in)	ROADSIDE SIGN ONE POST (EA)	REMOVE ROADSIDE SIGN (EA)	RESET ROADSIDE SIGN (EA)	FURNISH SINGLE SHEET ALUMINUM SIGN UNFRAMED (in) 0.063 (SQFT)	BACKGROUND SHEETING COLOR	BACKGROUND RETRO-REFLECTIVE ASTM TYPE	LEGEND LEGEND COLOR	LEGEND REFLECTIVE ASTM TYPE	LEGEND BLACK (NON-REFLECTIVE)	PREMIUM FILM OVERLAY
S-1	W1-1 (L)			7.0													
	W13-1P			6.0					1								
S-2	R12-1			7.0													
	R28 (CA)			6.0					1								
S-3	W1-2	36	36	7.0							9.00	YELLOW	XI	BLACK	XI	X	X
	W13-1P (20)	36	36	7.0							9.00	YELLOW	XI	BLACK	XI	X	X
	R28 (CA)	12	18	7.0	12.0	X		1			1.50	WHITE	IX	RED	XI	X	X
S-4	W8-5	36	36	7.0							9.00	YELLOW	XI	BLACK	XI	X	X
	W8-5aP	24	12	7.0							2.00	YELLOW	XI	BLACK	XI	X	X
	R28 (CA)	12	18	7.0	10.5	X		1			1.50	WHITE	IX	RED	XI	X	X
S-5	W8-5			7.0													
	W8-5aP			6.0					1								
S-6	W1-6 (L)			7.0													
	OM1-3			6.0													
	R28 (CA)			6.0					1								
S-7	SPECIAL			7.0						1							X
S-8	W8-5			7.0													
	W8-5aP			7.0					1								
S-9	W8-5	36	36	7.0							9.00	YELLOW	XI	BLACK	XI	X	X
	W8-5aP	24	12	7.0	11.5	X		1			2.00	YELLOW	XI	BLACK	XI	X	X
S-10	TYPE P (CA) (L)			7.0					1								
S-11	TYPE P (CA) (R)			7.0					1								
S-12	R28 (CA)	12	18	7.0	12.0	X		1			1.50	WHITE	IX	RED	XI	X	X
S-13	W1-8 (L)			7.0					1								
S-14	R28 (CA)			7.0					1								
S-15	W1-8 (L)			7.0					1								
S-16	TYPE P (CA) (R)	12	36	5.0	11.5	X		1			3.00	YELLOW	XI	BLACK	XI	X	X
S-17	TYPE P (CA) (L)			7.0													
	TYPE P (CA) (R)			7.0					1								
S-18	R12-1			7.0													
	R28 (CA)			7.0					1								
S-19	W1-1 (R)	36	36	7.0							9.00	YELLOW	XI	BLACK	XI	X	X
	W13-1P (20)	36	36	7.0	14.5		X	1			9.00	YELLOW	XI	BLACK	XI	X	X
S-20	TYPE P (CA) (L)	12	36	5.0				1			3.00	YELLOW	XI	BLACK	XI	X	X
S-21	W1-8 (R)			7.0													
	W1-8 (R)			7.0					1								
S-22	R28(CA)	12	18	7.0	12.0	X		1			1.50	WHITE	IX	BLACK	-	X	X
S-23	TYPE P (CA) (R)			5.0					1								
S-24	SPECIAL																
	W1-6 (L)																
	R26(CA)			7.0					1								
S-25	R12-1			5.0													
	R28 (CA)								1								
S-26	R28 (CA)			5.0					1								
S-27	SP-1	48	48	7.0	12.0		X	1	1		16.00	ORANGE	XI	BLACK	XI	X	X
S-28	SP-1	48	48	7.0	12.0		X	1	1		16.00	ORANGE	XI	BLACK	XI	X	X
-	SP-2	48	48	7.0	12.0		X	1	1		16.00	ORANGE	XI	BLACK	XI	X	X
TOTAL S-1								11	17	1	118	-	-	-	-	-	-

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY

DEPARTMENT OF PUBLIC WORKS

ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER THE BEAR RIVER (REPLACEMENT)

SIGN QUANTITIES

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET 18 OF 49 SHEETS

2108_sd01.dgn

ROADWAY QUANTITIES

LOCATION	EARTHWORK		AGGREGATE BASE (CLASS 2)	HOT MIX ASPHALT (TYPE A, FIBER REINFORCED)	MINOR CONCRETE (SIDEWALK)	PLACE HMA DIKE (TYPE F)	COLD PLANE ASPHALT CONCRETE PAVEMENT	REMOVE ASPHALT CONCRETE PAVEMENT (SQFT)
	ROADWAY EXCAVATION	IMPORTED BORROW						
	CY	CY	CY	TON	CY	LF	SQFT	SQFT
"DB" LINE	500	500	395	245	2	24	123	2800
	-	-	-	-	-	-	-	-
TOTAL	500	500	395	245	2	24	123	2800

PAVEMENT STRIPING

DETAIL No.	FROM	TO	* PAINT TRAFFIC STRIPE (2-COAT)
			LF
27B	8+77.00	14+16.22	1081
21	8+77.00	14+16.22	540
		TOTAL	1621

* DOUBLE STRIPE DETAILS ARE QUANTIFIED AS A SINGLE STRIPE

DRAINAGE QUANTITIES

LOCATION	18" PLASTIC PIPE	ROCK SLOPE PROTECTION (60 lb, Class II, METHOD B) (CY)	ROCK SLOPE PROTECTION (150 lb, Class III, METHOD B) (CY)	ROCK SLOPE PROTECTION FABRIC (CLASS 8)	36" REINFORCED CONCRETE PIPE	MISCELLANEOUS IRON AND STEEL	MARKER (CULVERT)	FRAME AND GRATE
	LF	CY	CY	SQYD	LF	LB	EA	EA
"DB" LINE	58	6	15	65	7	224	2	2
TOTAL	58	6	15	65	7	224	2	2

HABITAT RESTORATION (LS)

ITEM	UNIT	QUANTITY
CLUSTER OF 3 LARGE BOULDERS (N)	EA	6
PLANT (GROUP H) (N)	EA	20
PLANT (GROUP P) (N)	EA	100
PLANT (GROUP A) (N)	EA	141
PLANT ESTABLISHMENT WORK (5-YEAR) (N)	LS	1
WOODY DEBRIS (N)	SQFT	100

(N) - NOT A PAY ITEM, FOR INFORMATION ONLY

FENCE QUANTITIES

STAGE	TEMPORARY HIGH-VISIBILITY FENCE	TEMPORARY SILT FENCE
	LF	LF
ALL SEASONS	203	-
SEASON 1	-	1045
SEASON 2	-	745
TOTAL	203	1790

TEMPORARY ROADSIDE SIGN QUANTITES

SIGN CODE	SIGN MESSAGE	SIGN QUANTITY
		EA
W20-4	ONE LANE ROAD AHEAD	2
W3-4	BE PREPARED TO STOP	2
W20-1	ROAD WORK AHEAD	2
R10-6	STOP HERE ON RED	2
R26A(CA)	NO PARKING ANYTIME	7
SPECIAL	CLOSURE NOTICE	2
R5-1	DO NOT ENTER	2
G20-5aP	WORK ZONE	2
OBJECT MARKER (TYPE P)	-	4

EROSION CONTROL

STATION	FIBER ROLL	HYDROSEED	ROLLED EROSION CONTROL PRODUCT (JUTE MESH)	BONDED FIBER MATRIX
	LF	SQFT	SQFT	SQFT
"DB" LINE	2145	100000	34025	100000
	-	-	-	-
TOTAL	2145	100000	34025	100000

TRAFFIC HANDLING

STAGE	TEMPORARY RAILING (TYPE K)	TYPE III BARRICADE	PORTABLE DELINEATOR	TEMPORARY PAVEMENT MARKING (PAINT)
	LF	EA	EA	LF
1	320	2	18	18
2	540	2	35	-
3	500	2	31	-
TOTAL	1360	6	84	18

GUARDRAIL

STATION	RAIL ELEMENT WALL	MIDWEST GUARDRAIL SYSTEM	TRANSITION RAILING (TYPE WB-31)	ALTERNATIVE IN-LINE TERMINAL SYSTEM	CRASH CUSHION	REMOVE GUARDRAIL
	LF	LF	EA	EA	EA	LF
"DB" LINE	69	138	1	1	1	154
TOTAL	69	138	1	1	1	154

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR

NEVADA COUNTY

DEPARTMENT OF PUBLIC WORKS

ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER THE BEAR RIVER (REPLACEMENT)

SUMMARY OF QUANTITIES

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	JUNE 2024

SHEET 19 OF 49 SHEETS

2108_su01.dgn

HYDROSEED MIX

Common Name	Botanical Name	%Purity	%Germ	PLS LB/acre
Annual hairgrass	*Deschampsia danthoniodes*	90	80	0.54
Blue wild rye	*Elymus glaucus*	90	80	9.74
California brome	*Bromus carinatus*	95	80	12.18
Deergrass	*Muhlenbergia rigens*	70	45	0.17
Field sedge	*Carex praegracilis*	95	80	0.75
Miner's lettuce	*Claytonia perfoliata*	25	55	0.40
Mugwort	*Artemisia douglasiana*	30	60	0.47
Spike bentgrass	*Agrostis exrata*	95	85	0.19
Tall flatsedge	*Cyperus eragrostis*	80	75	0.17
			TOTAL	24.61

TREES AND SHRUBS

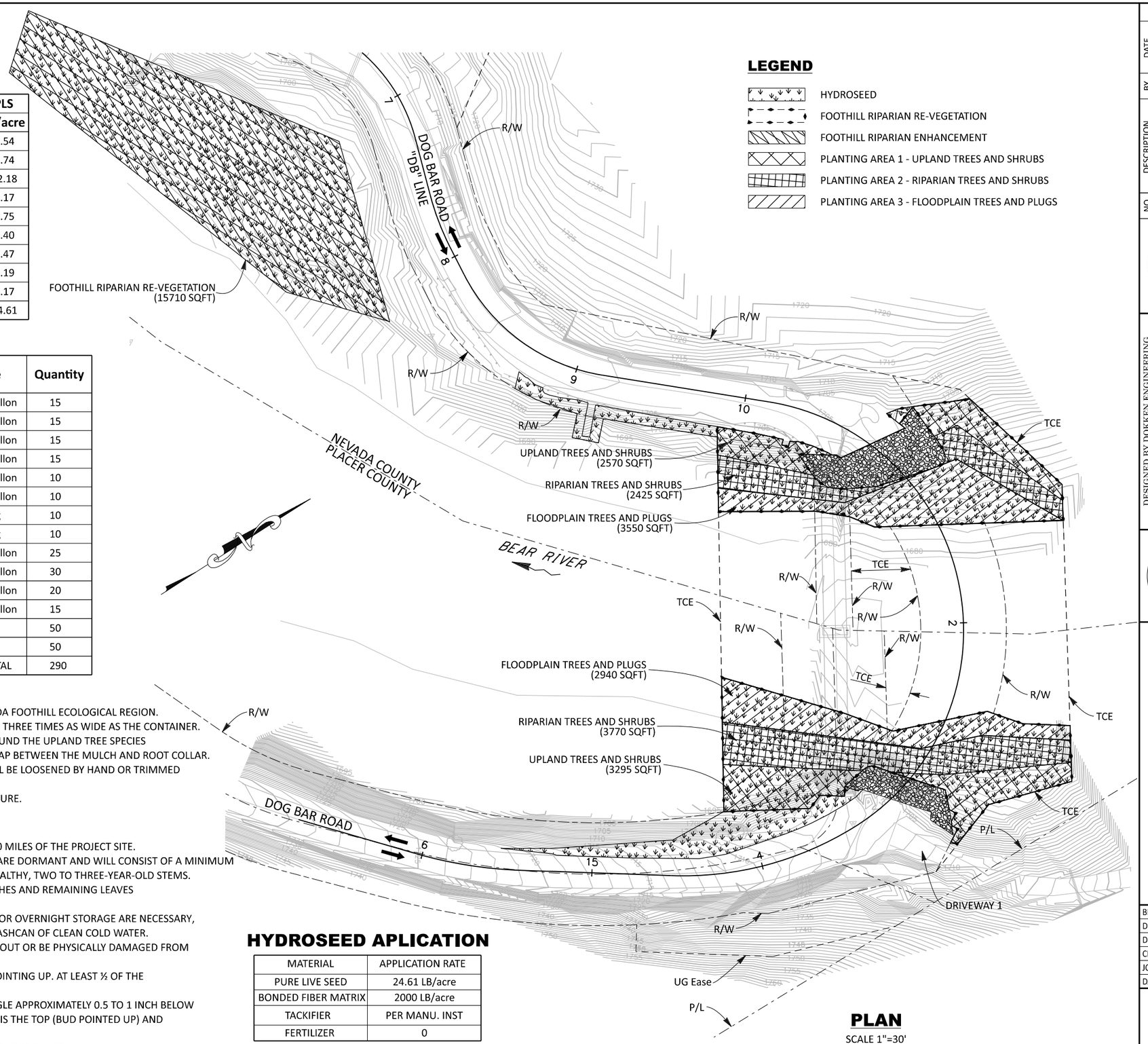
Location	Common Name	Botanical Name	Size	Quantity
Planting Area 1 Upland Trees	Valley oak	*Quercus lobata*	One gallon	15
	California bay laurel	*Umbellularia californica*	One gallon	15
	Black oak	*Quercus kelloggii*	One gallon	15
Planting Area 2 Riparian Trees	California buckeye	*Aesculus californica*	One gallon	15
	Oregon ash	*Fraxinus latifolia*	One gallon	10
	White alder	*Alnus rhombifolia*	One gallon	10
Planting Area 3 Floodplain Trees	Arroyo willow	*Salix lasiolepis*	Cutting	10
	Pacific willow	*Salix lasiandra*	Cutting	10
Planting Area 1 Upland Shrubs	Silver bush lupine	*Lupinus albifrons*	One gallon	25
	California rose	*Rosa californica*	One gallon	30
Planting Area 2 Riparian Shrubs	Western redbud	*Cercis occidentalis*	One gallon	20
	Black elderberry	*Sambucus nigra*	One gallon	15
Planting Area 1 Floodplain Shrubs	Baltic rush	*Juncus balticus*	Plug	50
	Common spikerush	*Eleocharis macrostachys*	Plug	50
			TOTAL	290

NOTES

1. PLANT MATERIAL WILL BE SOURCED FROM THE NORTHERN SIERRA NEVADA FOOTHILL ECOLOGICAL REGION.
2. HOLES FOR CONTAINER PLANTS WILL BE AS DEEP AS THE CONTAINER AND THREE TIMES AS WIDE AS THE CONTAINER.
3. A 2-INCH-THICK LAYER OF MULCH OR WOOD CHIPS WILL BE APPLIED AROUND THE UPLAND TREE SPECIES (BLACK OAK, VALLEY OAK AND CALIFORNIA BAY). THERE WILL BE A 6-INCH GAP BETWEEN THE MULCH AND ROOT COLLAR.
4. IF THE PLANT WAS ROOT BOUND IN THE CONTAINER, THE ROOT BALL WILL BE LOOSENED BY HAND OR TRIMMED TO ENCOURAGE ROOTS TO GROW LATERALLY AWAY FROM THE ROOT BALL.
5. ONLY SHRUBS/HERBS WILL BE PLANTED UNDER THE NEW BRIDGE STRUCTURE.

WILLOW CUTTINGS NOTES

1. WILLOW CUTTINGS WILL BE SOURCED FROM NATIVE WILLOWS WITHIN 10 MILES OF THE PROJECT SITE.
2. WILLOW CUTTINGS WILL BE GATHERED IN THE WINTER WHEN WILLOWS ARE DORMANT AND WILL CONSIST OF A MINIMUM DIAMETER OF 0.5 INCH AND A MAXIMUM DIAMETER OF 3 INCHES FROM HEALTHY, TWO TO THREE-YEAR-OLD STEMS.
3. WILLOW CUTTINGS WILL BE 3 FEET TO 5 FEET LONG. ALL LATERAL BRANCHES AND REMAINING LEAVES WILL BE REMOVED.
4. CUTTINGS WILL BE USED IMMEDIATELY IF POSSIBLE. IF TRANSPORTATION OR OVERNIGHT STORAGE ARE NECESSARY, CUTTINGS WILL BE STORED A MAXIMUM OF 24 HOURS IN A BUCKET OR TRASHCAN OF CLEAN COLD WATER. CUTTINGS WILL NOT BE ALLOWED TO MOLD, PREMATURELY LEAF-OUT, DRY OUT OR BE PHYSICALLY DAMAGED FROM THE TIME OF CUTTING UNTIL THE TIME OF PLANTING.
5. CUTTINGS WILL BE DRIVEN A MINIMUM OF 2 FEET DOWN, WITH BUDS POINTING UP. AT LEAST ⅓ OF THE CUTTING WILL BE UNDER SOIL.
6. THE BOTTOM OF THE CUTTING WILL BE SHARPENED TO A 45-DEGREE ANGLE APPROXIMATELY 0.5 TO 1 INCH BELOW A LATERAL BUD. EACH CUTTING WILL BE MARKED TO IDENTIFY WHICH END IS THE TOP (BUD POINTED UP) AND WHICH END IS TO BE PLANTED (WIDER END).
7. NO MORE THAN 4 CUTTINGS WILL BE SOURCED FROM ANY INDIVIDUAL SOURCE PLANT.



HYDROSEED APLICATION

MATERIAL	APPLICATION RATE
PURE LIVE SEED	24.61 LB/acre
BONDED FIBER MATRIX	2000 LB/acre
TACKIFIER	PER MANU. INST
FERTILIZER	0

PLAN
SCALE 1"=30'

REVISIONS

NO.	DESCRIPTION	BY	DATE

DESIGNED BY DOKKEN ENGINEERING

FOR
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

DOG BAR ROAD BRIDGE OVER THE BEAR RIVER (REPLACEMENT)
PLANTING PLAN 1

BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET
20
OF 49 SHEETS

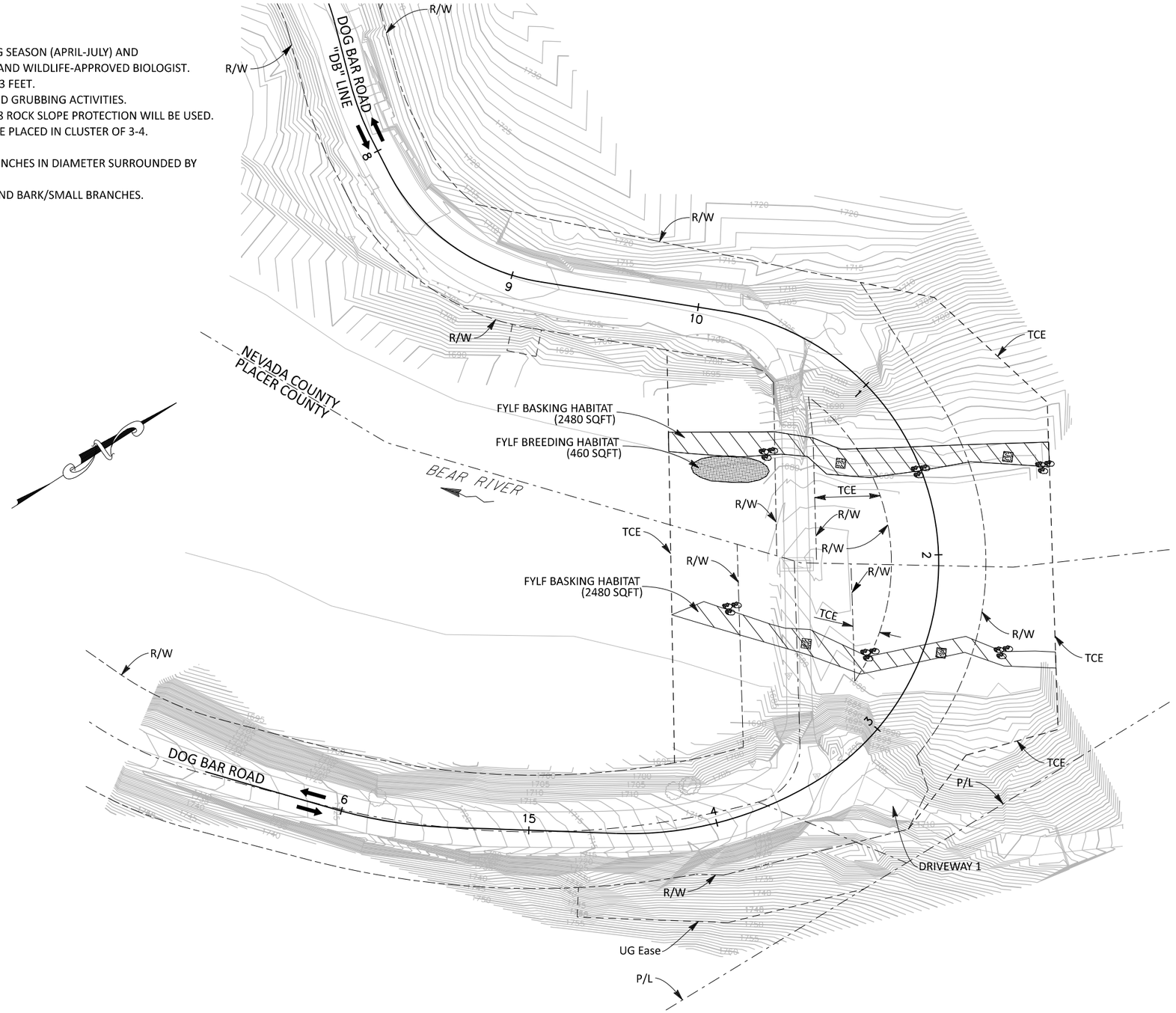
2108_su01.dgn

NOTES

1. BREEDING HABITAT ENHANCEMENTS WILL OCCUR OUTSIDE OF THE BREEDING SEASON (APRIL-JULY) AND UNDER THE DIRECTION OF THE PROJECT/CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-APPROVED BIOLOGIST.
2. EXCAVATION FOR BREEDING HABITAT ENHANCEMENT WILL BE LIMITED TO 2-3 FEET.
3. ALL WOODY DEBRIS WILL BE SOURCED ONSITE DURING INITIAL CLEARING AND GRUBBING ACTIVITIES.
4. BOULDERS WILL BE SOURCED ONSITE (IF FEASIBLE), OTHERWISE CLASS 7 OR 8 ROCK SLOPE PROTECTION WILL BE USED.
5. BOULDERS WILL BE APPROXIMATELY 20-35 INCHES IN DIAMETER AND WILL BE PLACED IN CLUSTER OF 3-4.
6. WOOD DEBRIS PILES WILL BE APPROXIMATELY 5 FEET BY 5 FEET.
7. TWO WOODY DEBRIS PILES WILL CONSIST OF TREE TRUNKS BETWEEN 20-30 INCHES IN DIAMETER SURROUNDED BY SMALLER BRUSH AND BRANCHES.
8. TWO WOODY DEBRIS PILES WILL CONSIST OF LEAF LITTER (FALLEN LEAVES) AND BARK/SMALL BRANCHES.

LEGEND

- FOOTHILL YELLOW-LEGGED FROG (FYLF) BREEDING HABITAT
- FOOTHILL YELLOW-LEGGED FROG (FYLF) BASKING HABITAT
- CLUSTER OF 3 LARGE BOULDERS
- WOODY DEBRIS - 25 SQFT EACH



PLAN
SCALE 1"=30'

REVISIONS

NO.	DESCRIPTION	BY	DATE

PROFESSIONAL ENGINEER – RICHARD SANDERS – No. C68561 – EXP. 09-30-25 – STATE OF CALIFORNIA

DESIGNED BY DOKKEN ENGINEERING

FOR
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

COUNTY of NEVADA – STATE of CALIFORNIA

DOG BAR ROAD BRIDGE OVER
THE BEAR RIVER (REPLACEMENT)

PLANTING PLAN 2

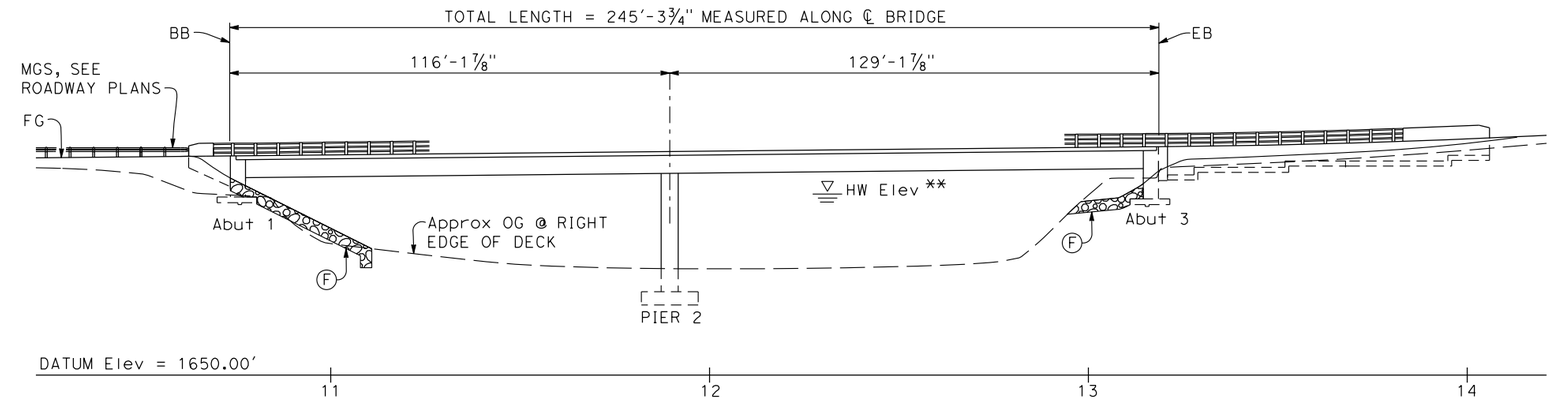
BRIDGE No.	17C0110
DESIGNED:	R. SANDERS
DRAWN:	K. MOE
CHECKED:	M. GRIGGS
JOB NO:	2108
DATE:	MARCH 2024

SHEET
21
OF 49 SHEETS

2108_sht02.dgn

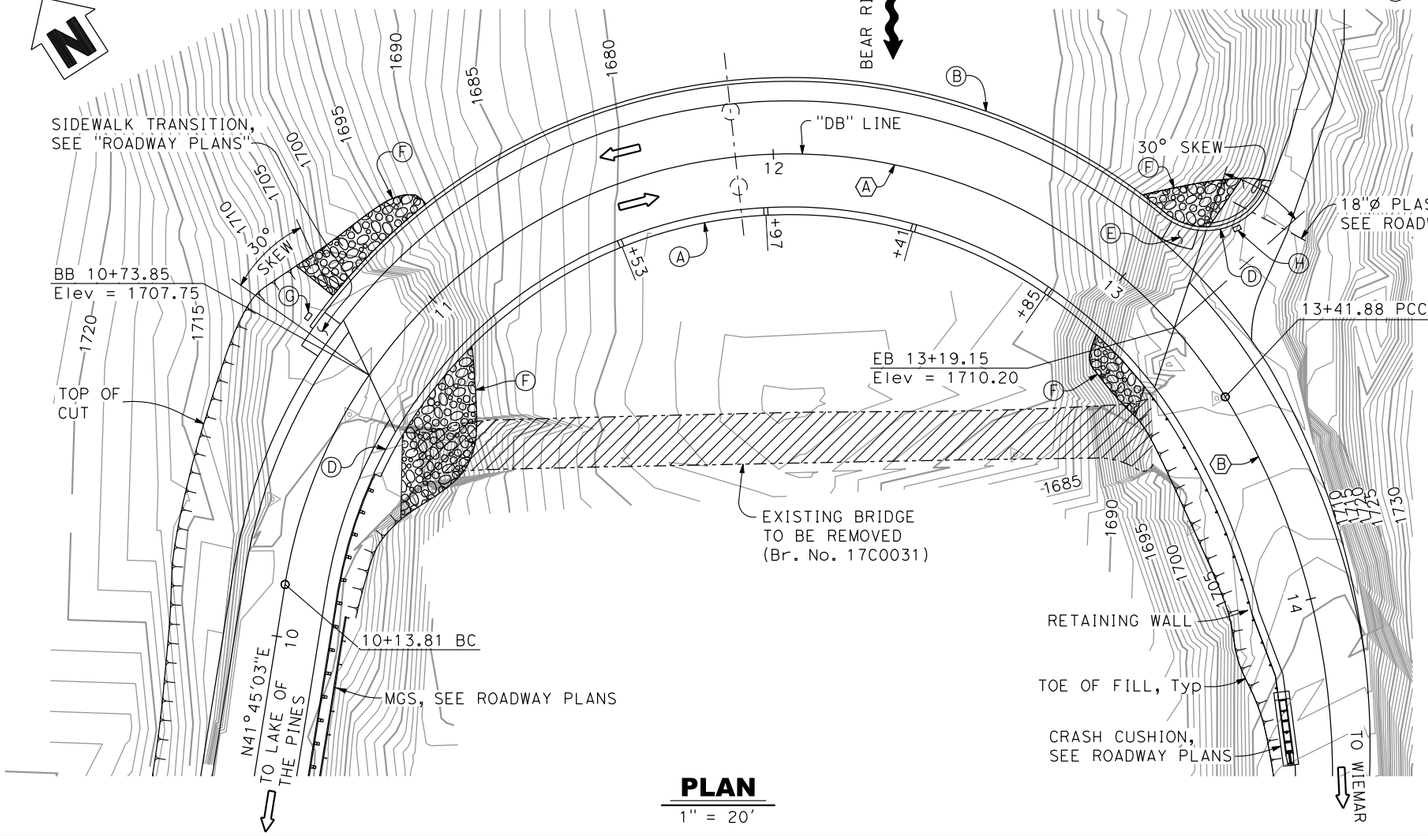
PROFILE GRADE

NO SCALE



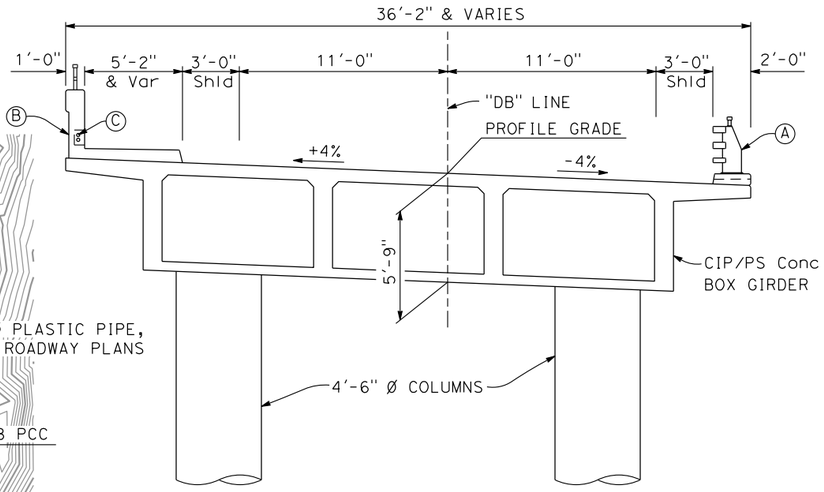
DEVELOPED ELEVATION

1" = 20'



PLAN

1" = 20'



TYPICAL SECTION

¼" = 1'-0"

CURVE DATA

Ⓐ	Ⓑ
R = 135.00'	R = 189.99'
△ = 139°14'00"	△ = 33°44'17"
T = 363.26'	T = 57.61'
L = 328.06'	L = 111.87'

LEGEND:

- Ⓐ California ST-75 bridge rail with Tubular Bicycle Railing
- Ⓑ Concrete Barrier Type 732SW with Tubular Handrailing
- Ⓒ 2-2" Ø electrical conduit (future)
- Ⓓ Paint "Bridge No. 17C0110" and Year Constructed
- Ⓔ Sidewalk Ramp, see "GIRDER DETAILS" sheet
- Ⓕ For "ROCK SLOPE PROTECTION", see "ROCK SLOPE PROTECTION" sheet
- Ⓖ 2-2" conduits to sweep from barrier to Type 5 Pull Box. 22' left "DB" Line, Sta 10+77.00
- Ⓗ 2-2" conduits to sweep from barrier to Type 5 Pull Box. 30' left "DB" Line, Sta 13+12.00
- Denotes limits of bridge removal
- Denotes curb scupper
- Existing Structure

NOTES:

1. ** For high water surface elevation, see "Hydrologic Summary" on "Foundation Plan" sheet.
2. For falsework and trestle opening requirements, see Special Provisions.

REVISIONS			
NO.	DESCRIPTION	BY	DATE

COUNTY of NEVADA
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

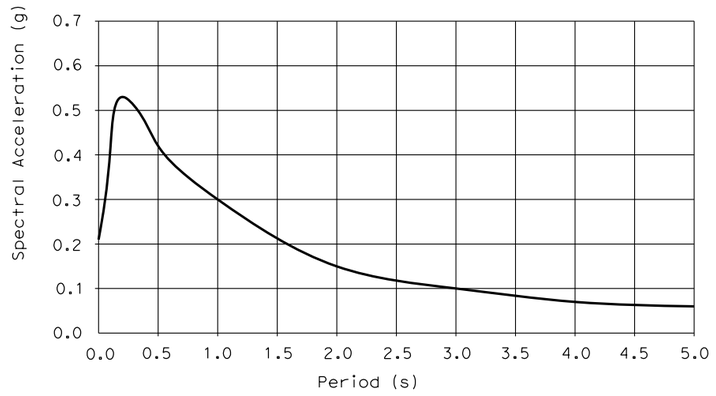
DOG BAR ROAD BRIDGE OVER BEAR RIVER
GENERAL PLAN

BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET 22 OF 49 SHEETS

GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:	AASHTO LRFD Bridge Design Specifications, 8th Edition with California Amendments
SEISMIC DESIGN:	CALTRANS SEISMIC DESIGN CRITERIA (SDC) Version 2.0, April 2019
DEAD LOAD:	Includes 0.035 ksf for future wearing surface
LIVE LOAD:	HL-93, Caltrans' "Low Boy", and CA P-15 design vehicular loads.
SEISMIC LOAD:	ARS Online Version 3.0.2 with V_{S30} = 1,181 ft/s with near fault adjustments Moment Magnitude = 6.34 Peak Rock Acceleration = 0.21 g

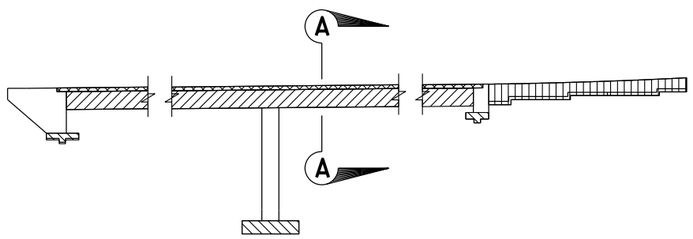


REINFORCED CONCRETE:

f_y = 60 ksi
f'_c = See "CONCRETE STRENGTH AND TYPE LIMITS"
n = 8

PRESTRESSED CONCRETE: See "PRESTRESSING NOTES" on "GIRDER DETAILS" sheet.

STRUCTURAL STEEL FOR BARRIER RAILING: ASTM A36

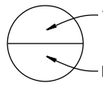


- STRUCTURAL CONCRETE, BRIDGE (f'_c = 3600 psi)
- STRUCTURAL CONCRETE, BRIDGE FOOTING (f'_c = 3600 PSI)
- STRUCTURAL CONCRETE, RETAINING WALL (f'_c = 3600 PSI)
- STRUCTURAL CONCRETE, BRIDGE (f'_c = 5000 PSI).
- STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER) (f'_c = 5000 PSI).

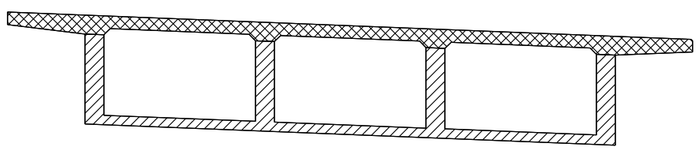
CONCRETE STRENGTH AND TYPE LIMITS
NO SCALE

STANDARD PLANS DATED 2023

Sheet No.	Title
A3A	ABBREVIATIONS (SHEET 1 OF 3)
A3B	ABBREVIATIONS (SHEET 2 OF 3)
A3C	ABBREVIATIONS (SHEET 3 OF 3)
A10A	LEGEND - LINES AND SYMBOLS (SHEET 1 OF 5)
A10B	LEGEND - LINES AND SYMBOLS (SHEET 2 OF 5)
A10C	LEGEND - LINES AND SYMBOLS (SHEET 3 OF 5)
A10D	LEGEND - LINES AND SYMBOLS (SHEET 4 OF 5)
A10E	LEGEND - LINES AND SYMBOLS (SHEET 5 OF 5)
A10F	LEGEND - SOIL (SHEET 1 OF 2)
A10G	LEGEND - SOIL (SHEET 2 OF 2)
A10H	LEGEND - ROCK
A62B	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE SURCHARGE AND WALL
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B3-1A	RETAINING WALL TYPE 1 (CASE 1)
B3-5	RETAINING WALL DETAILS No. 1
B3-6	RETAINING WALL DETAILS No. 2
B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
B7-1	BOX GIRDER DETAILS
B7-8	DECK DRAINAGE DETAILS
B8-5	CAST-IN-PLACE POST-TENSIONED GIRDER DETAILS
B9-6	STRUCTURE APPROACH DRAINAGE DETAILS
B11-51	TUBULAR HANDRAILING
B11-58	CONCRETE BARRIER TYPE 732SW (SHEET 1 OF 2)
B11-59	CONCRETE BARRIER TYPE 732SW (SHEET 2 OF 2)
B11-81	CONCRETE BARRIER TYPE 842 DETAILS No. 1
B11-82	CONCRETE BARRIER TYPE 842 DETAILS No. 2
ES-9D	ELECTRICAL SYSTEMS (STRUCTURE PULL BOX INSTALLATIONS)



INDEX TO PLANS



SECTION A-A
NO SCALE

QUANTITIES

ITEM	UNIT	QUANTITY
STRUCTURE EXCAVATION (BRIDGE)	CY	344
STRUCTURE EXCAVATION (ROCK)	CY	131
STRUCTURE EXCAVATION (RETAINING WALL)	CY	89
STRUCTURE BACKFILL (BRIDGE)	CY	296
STRUCTURE BACKFILL (RETAINING WALL)	CY	106
TEMPORARY TRESTLE	LS	1
PRESTRESSING CAST-IN-PLACE CONCRETE	LS	1
STRUCTURAL CONCRETE, BRIDGE FOOTING	CY	96
STRUCTURAL CONCRETE, BRIDGE	CY	681
STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	CY	245
STRUCTURAL CONCRETE, RETAINING WALL	CY	50
JOINT SEAL (MR 1½")	LF	83
BAR REINFORCING STEEL	LB	105299
BAR REINFORCING STEEL (RETAINING WALL)	LB	7150
BAR REINFORCING STEEL (EPOXY COATED)(BRIDGE)	LB	92207
BAR REINFORCING STEEL (GALVANIZED)	LB	839
BRIDGE REMOVAL	LS	1
ROCK SLOPE PROTECTION (1T, CLASS VIII, METHOD B)	CY	95
ROCK SLOPE PROTECTION (½T, CLASS VII, METHOD B)	CY	312
ROCK SLOPE PROTECTION FABRIC (CLASS 8)	SQYD	461
MISCELLANEOUS METAL (BRIDGE)	LB	187
TUBULAR HANDRAILING	LF	266
TUBULAR BICYCLE RAILING	LF	298
CONCRETE BARRIER (TYPE 732SW)	LF	266
CALIFORNIA ST-75 BRIDGE RAIL	LF	326
CONCRETE BARRIER (TYPE 842 MODIFIED)	LF	24

REVISIONS

NO.	DESCRIPTION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER — MARTIN MUEHLEIB — No. C061705 — EXP. 3/31/25 — CIVIL — STATE OF CALIFORNIA

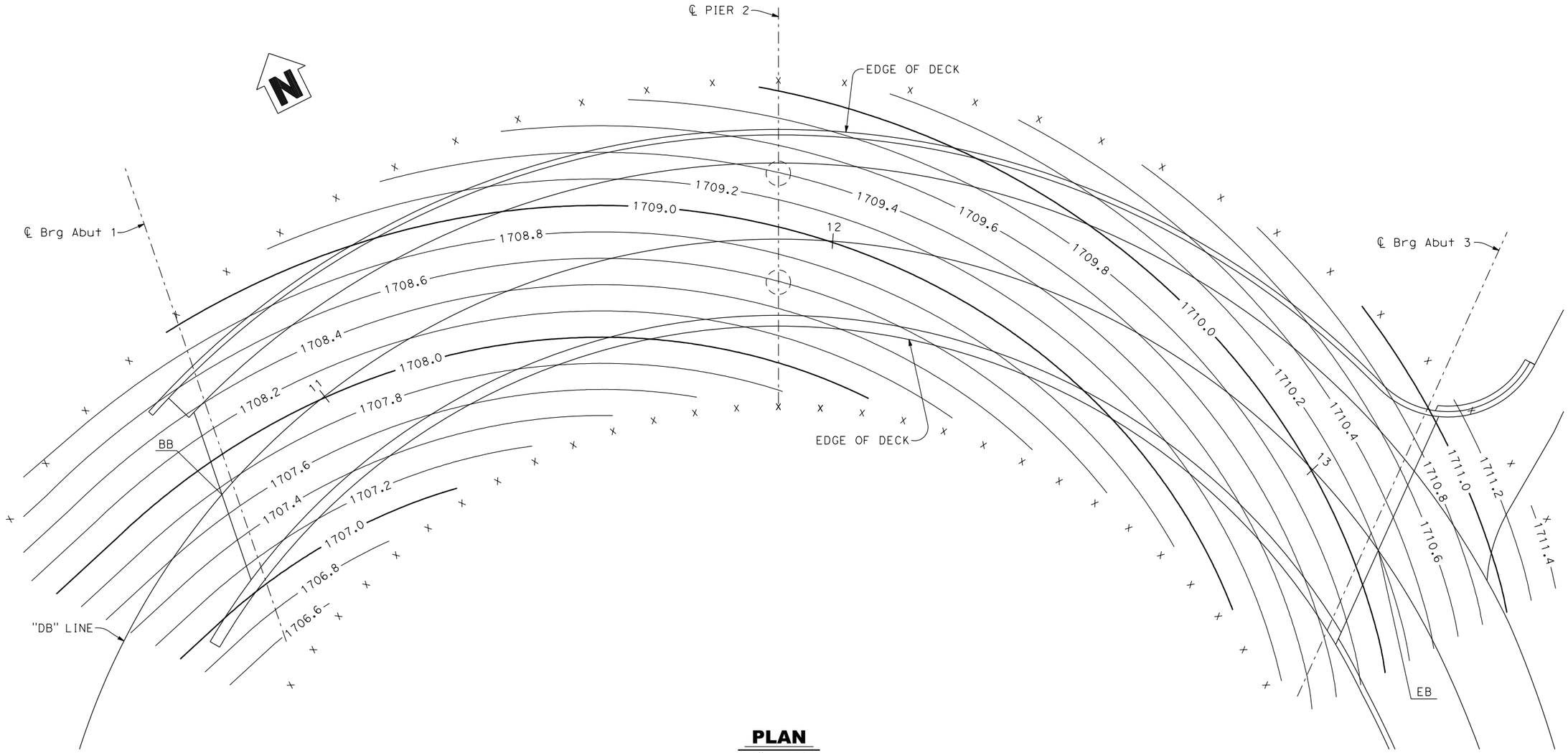
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

COUNTY of NEVADA ★ STATE OF CALIFORNIA ★ FOUNDED 1851

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
INDEX TO PLANS

BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET
23
OF 49 SHEETS



PLAN
1" = 10'

NOTES:

Contours do not include camber, falsework settlement, or allowance for deck grinding and grooving.

Contour interval is 0.20'

X Denotes 10' interval along "DB" LINE

REVISIONS			
NO.	DESCRIPTION	BY	DATE

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
DECK CONTOURS

BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET
24
OF 49 SHEETS

SPREAD FOOTING DATA TABLE

Support Location	Working Stress Design (WSD)		Load And Resistance Factor Design (LRFD)		
	Permissible Gross Contact Stress (Settlement) (ksf)	Allowable Gross Bearing Capacity (ksf)	Service Permissible Net Contact Stress (Settlement) (ksf)	Strength Factored Gross Nominal Bearing Resistance φ_b = 0.45 (ksf)	Extreme Event Factored Gross Nominal Bearing Resistance φ_b = 1.00 (ksf)
Abut 1	-	-	4.7	10.5	23.0
Pier 2	-	-	4.2	12.0	26.0
Abut 3	-	-	4.7	10.5	23.0

HYDROLOGIC SUMMARY

DRAINAGE AREA: 117 square miles

	DESIGN FLOOD (USACE)	BASE FLOOD (USACE)
FREQUENCY (Years)	50	100
DISCHARGE (Cubic feet per second)	30,800	40,000
WATER SURFACE (Elevation at Pier 2)	1696.1	1699.2
WATER SURFACE (Elevation at Abutments)	1696.1	1698.5

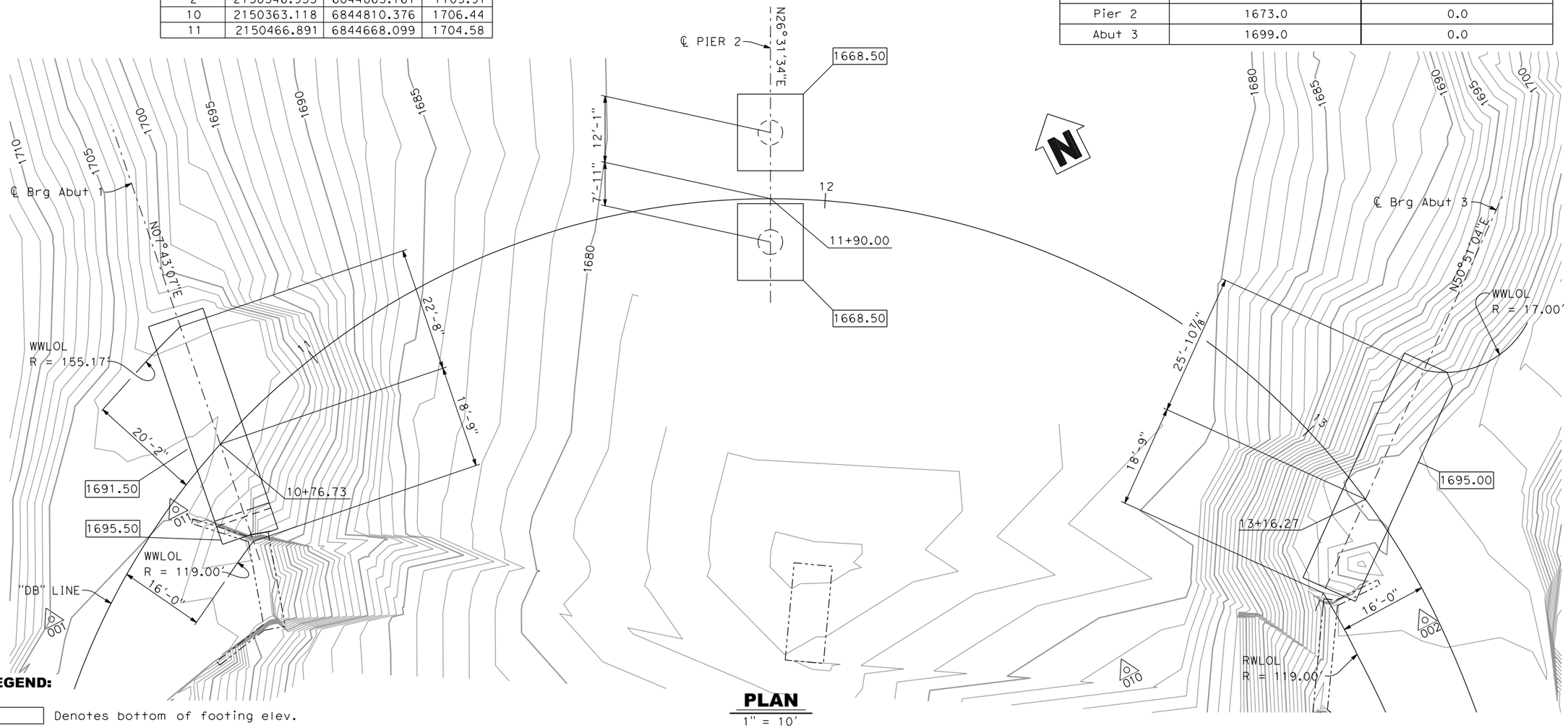
Flood plain data are based upon information available when the plans were prepared and are shown to meet Federal requirements. The accuracy of said information is not warranted by the State, City, or consultants and interested or affected parties should make their own investigations.

SURVEY CONTROL TABLE

CONTROL NUMBER	NORTHING	EASTING	ELEVATION
1	2150459.093	6844638.854	1704.85
2	2150346.955	6844863.167	1705.91
10	2150363.118	6844810.376	1706.44
11	2150466.891	6844668.099	1704.58

SCOUR DATA TABLE

Support Location	Long Term (Degradation and Contraction) Scour Elevation (ft)	Short Term (Local) Scour Depth (ft)
Abut 1	1693.0	0.0
Pier 2	1673.0	0.0
Abut 3	1699.0	0.0



LEGEND:

- Denotes bottom of footing elev.
- Survey Control Point
- Exist CONCRETE

PLAN

1" = 10'

REVISIONS

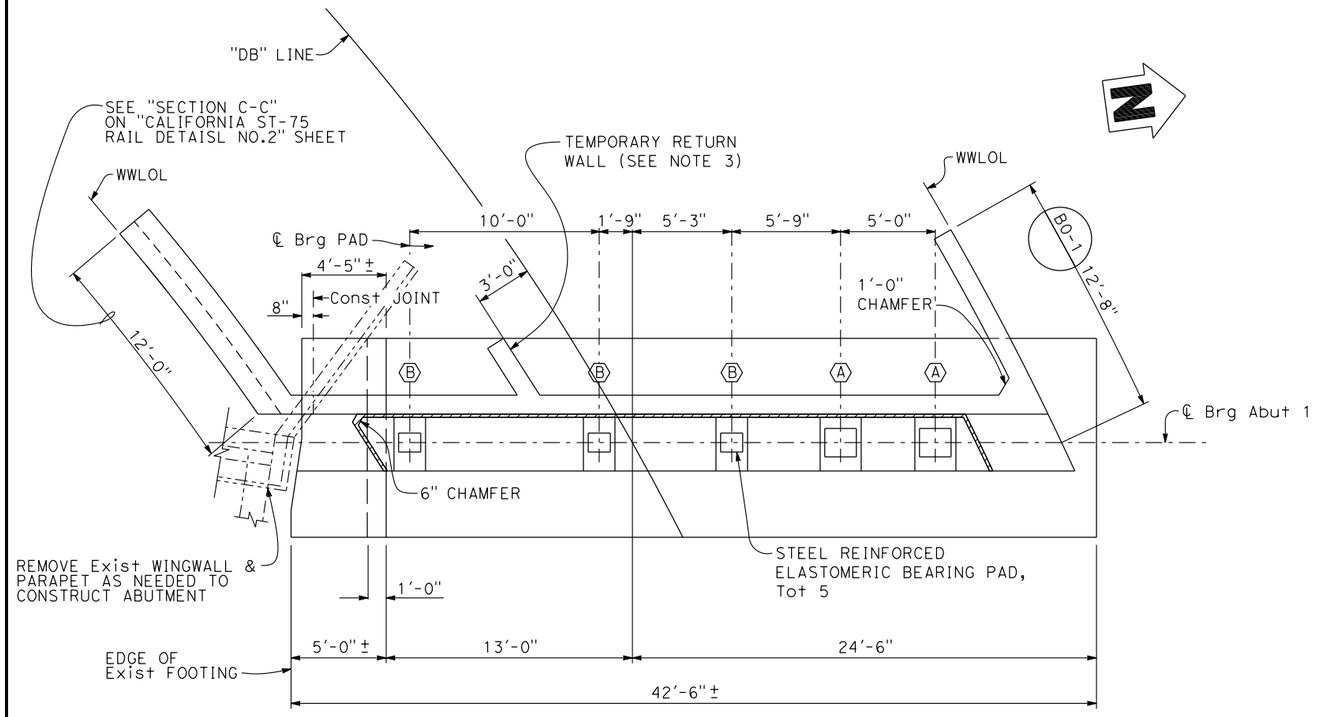
NO.	DESCRIPTION	BY	DATE

COUNTY of NEVADA
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE OVER BEAR RIVER
FOUNDATION PLAN

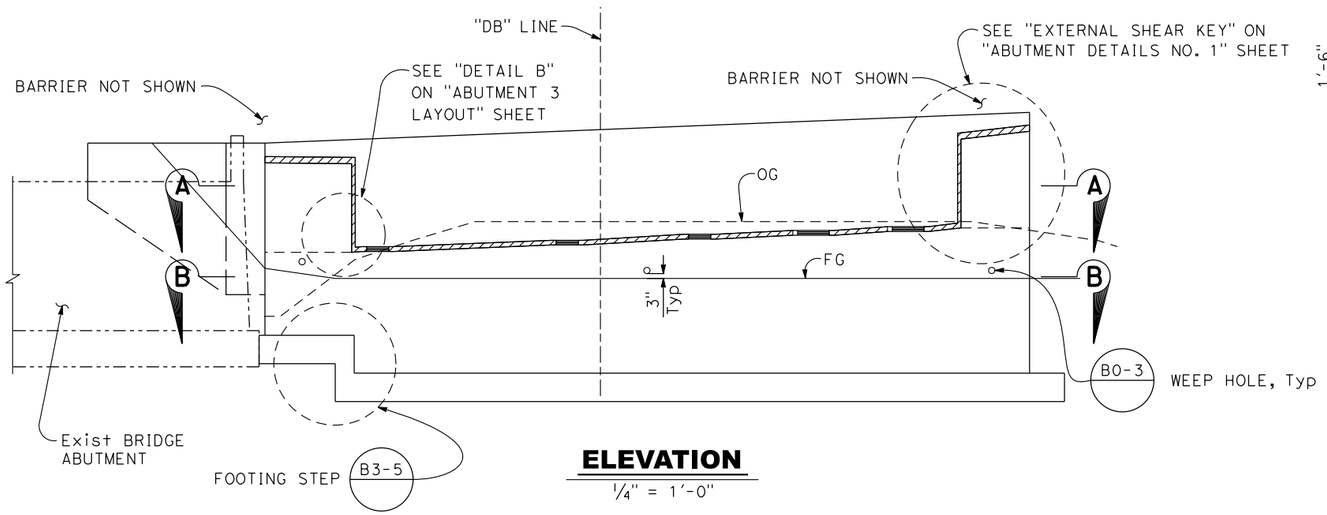
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET 25 OF 49 SHEETS



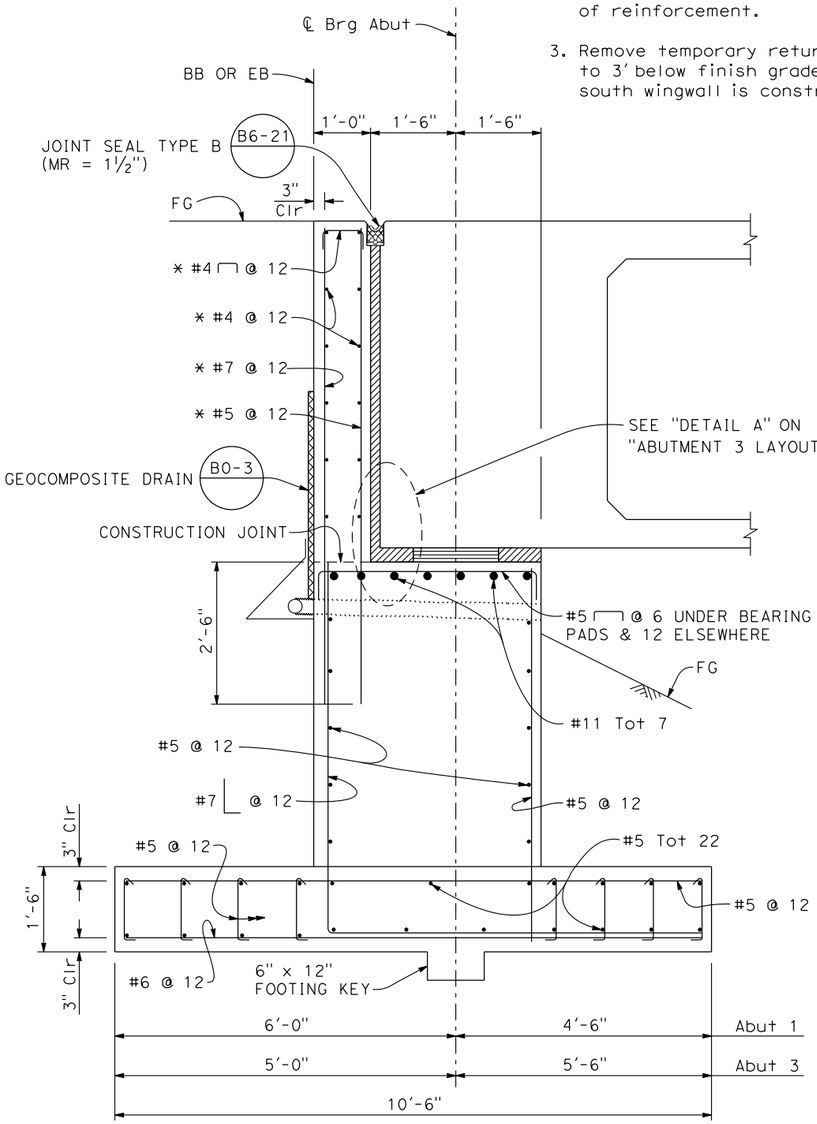
PLAN

1/4" = 1'-0"



ELEVATION

1/4" = 1'-0"



ABUTMENT TYPICAL SECTION

3/4" = 1'-0"

NOTES:

1. For "SECTIONS A-A & B-B", see "ABUTMENT DETAILS NO. 1" sheet.
2. Geotechnical Engineer to review the completed abutment excavation prior to placement of reinforcement.
3. Remove temporary return wall to 3' below finish grade after south wingwall is constructed.

LEGEND:

Ⓐ & Ⓑ Bearing Pad Type, see "STEEL REINFORCED ELASTOMERIC BEARING" Sheet

-·---·- Exist CONCRETE

* Epoxy coated reinf

REVISIONS

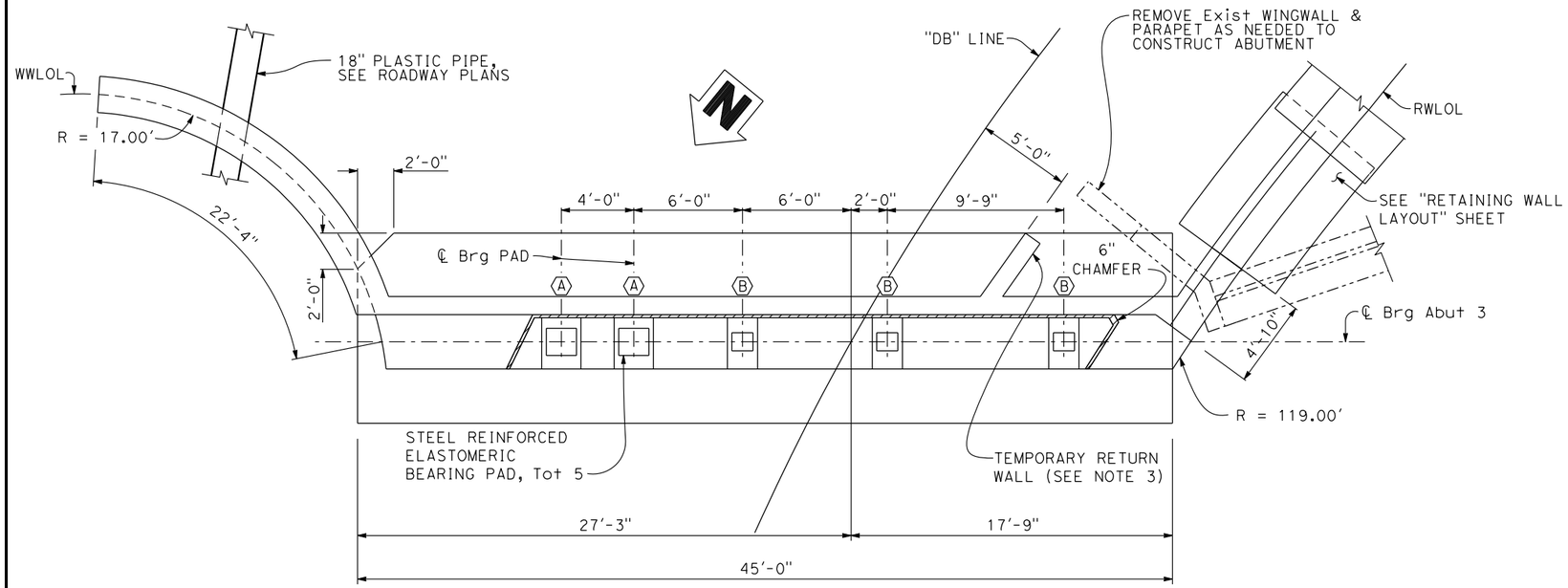
NO.	DESCRIPTION	BY	DATE

COUNTY of NEVADA
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
ABUTMENT 1 LAYOUT

BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET 26 OF 49 SHEETS

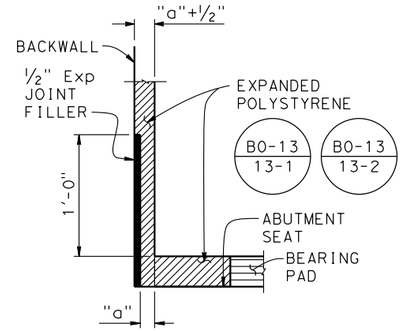


PLAN

1/4" = 1'-0"

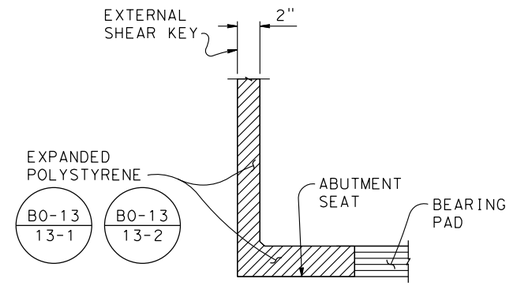
NOTES:

1. For "SECTIONS A-A & B-B", see "ABUTMENT DETAILS NO. 1" sheet.
2. For "ABUTMENT TYPICAL SECTION", see "ABUTMENT 1 LAYOUT" sheet.
3. Remove temporary return wall to 3' below finish grade after west return wall and retaining wall is constructed.



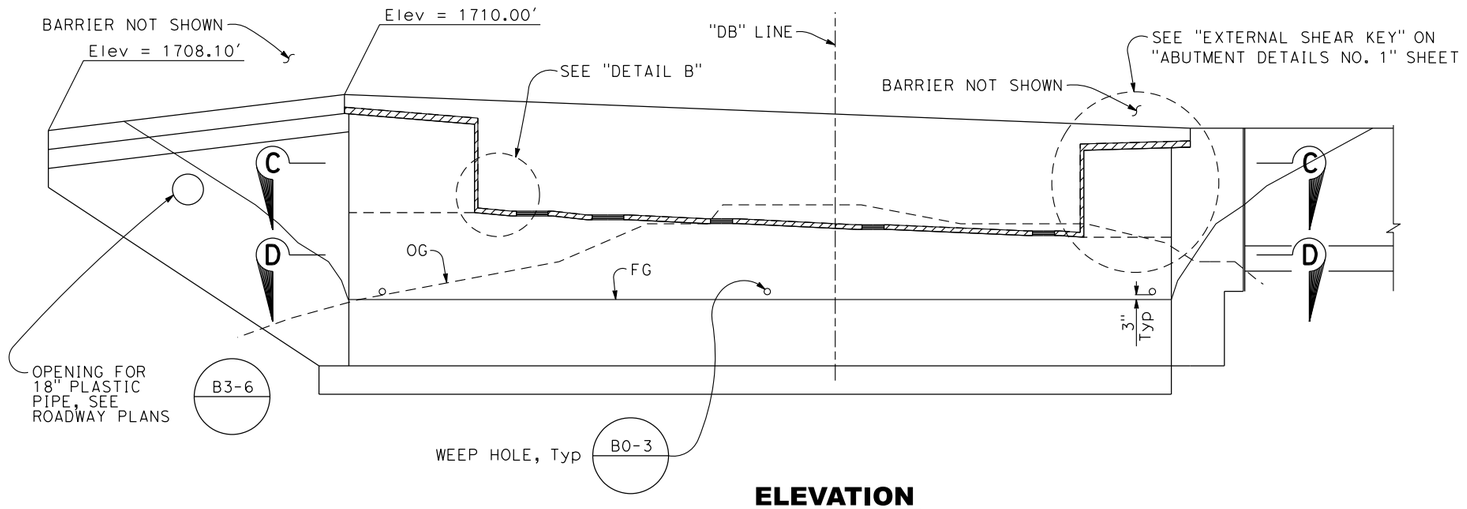
DETAIL A

NO SCALE



DETAIL B

NO SCALE



ELEVATION

1/4" = 1'-0"

LEGEND:

Ⓐ & Ⓑ Bearing Pad Type. see "STEEL REINFORCED ELASTOMERIC BEARING" Sheet

----- Exist CONCRETE

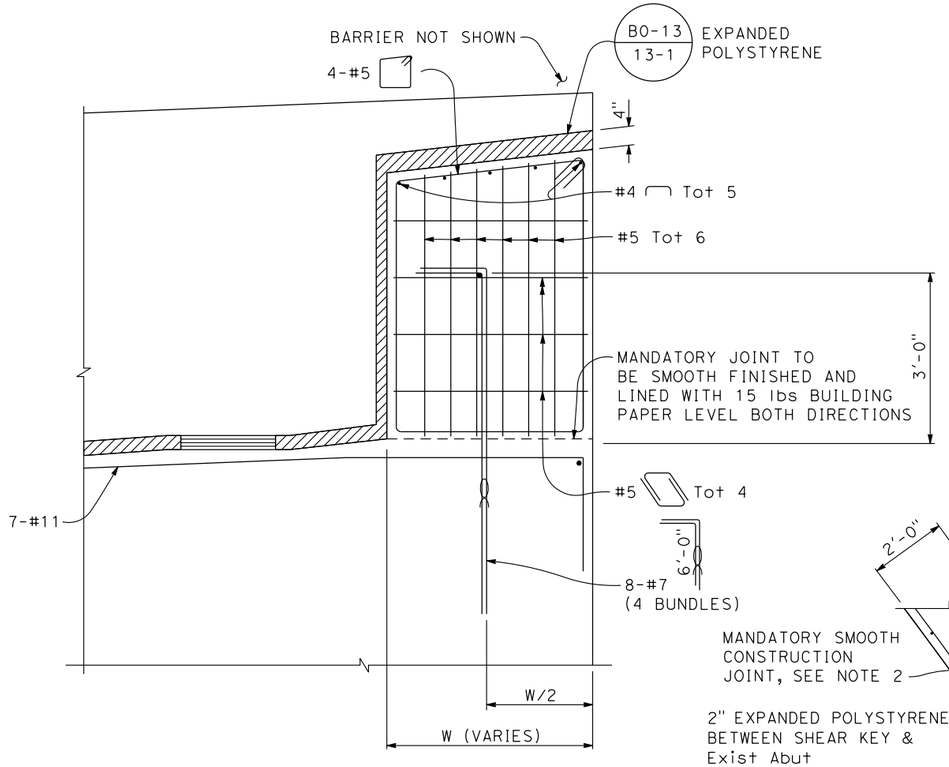
REVISIONS			
NO.	DESCRIPTION	BY	DATE

COUNTY of NEVADA
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
ABUTMENT 3 LAYOUT

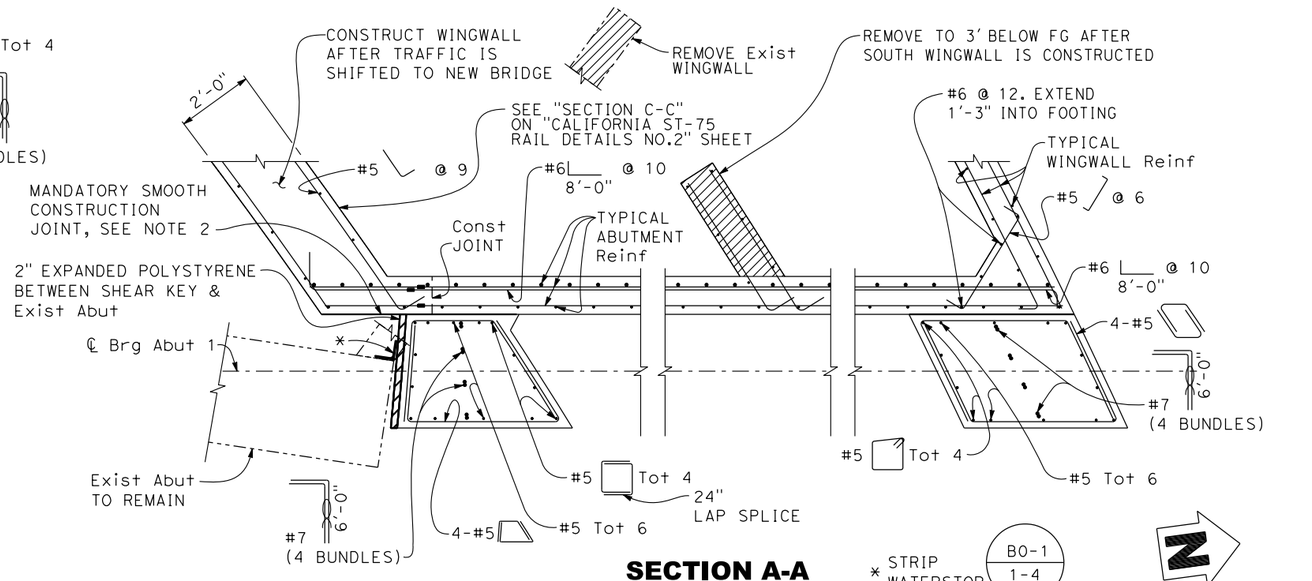
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET 27 OF 49 SHEETS



EXTERNAL SHEAR KEY

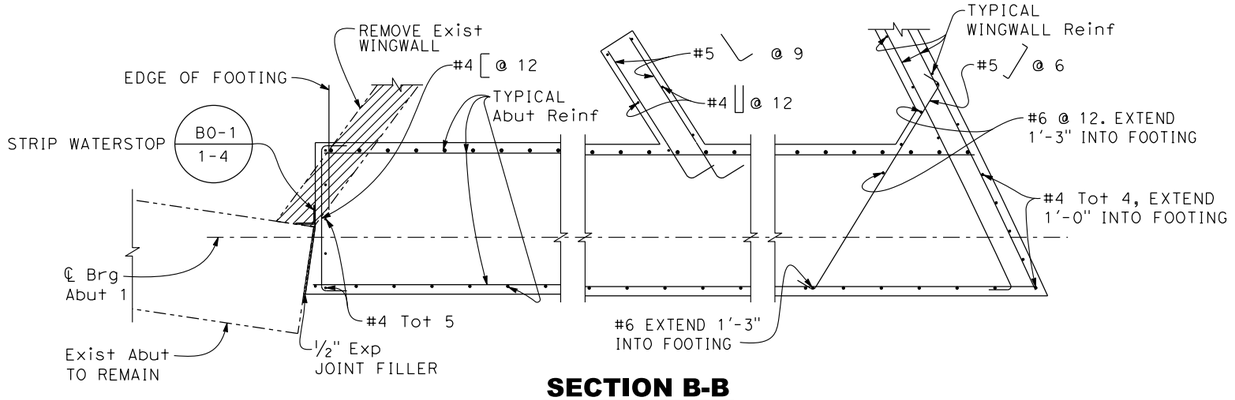
¾" = 1'-0"



SECTION A-A

½" = 1'-0"

* STRIP WATERSTOP B0-1 / 1-4



SECTION B-B

½" = 1'-0"

LEGEND:

- Denotes bundled reinf
- Exist concrete
- Mechanical coupler
- Bridge removal (portion)

NOTES:

1. For location of "SECTION A-A" and "SECTION B-B", see "ABUTMENT 1 LAYOUT" sheet.

REVISIONS

NO.	DESCRIPTION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER — KEVIN MAMEHLER — No. C060705 — EXP. 3/31/25 — CIVIL — STATE OF CALIFORNIA

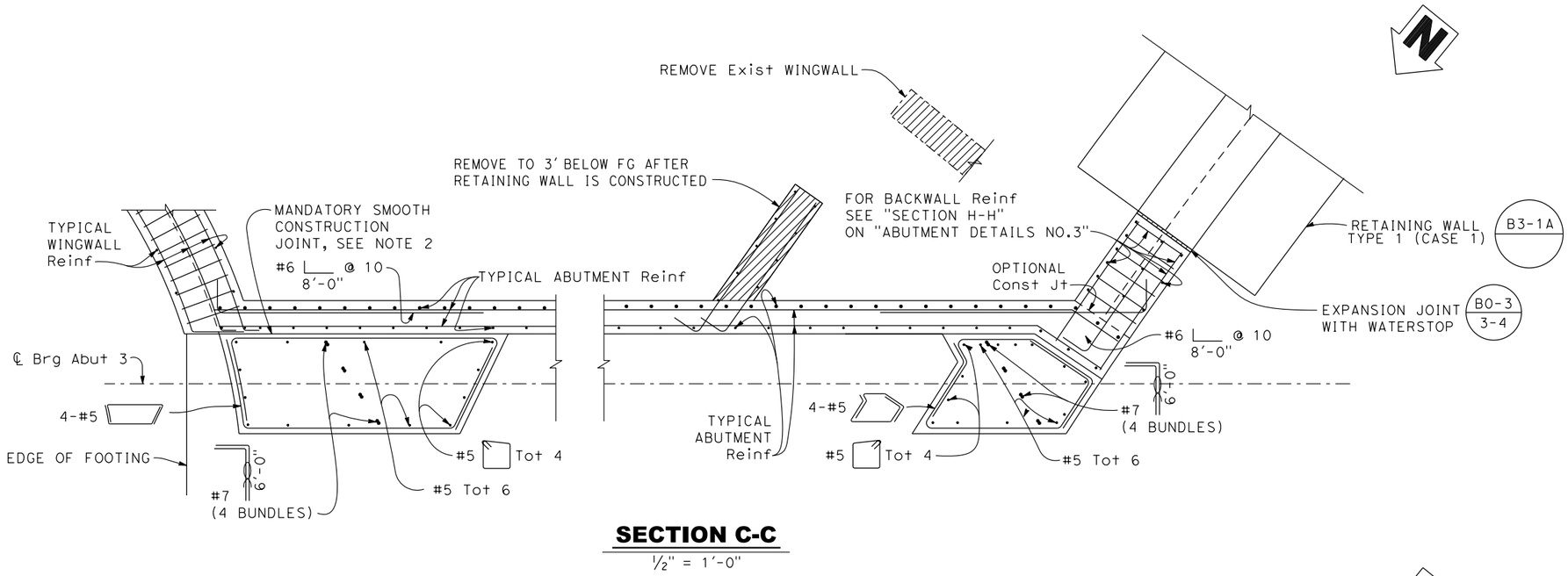
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

COUNTY of NEVADA ★ INCORPORATED ★ STATE OF CALIFORNIA

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
ABUTMENT DETAILS NO. 1

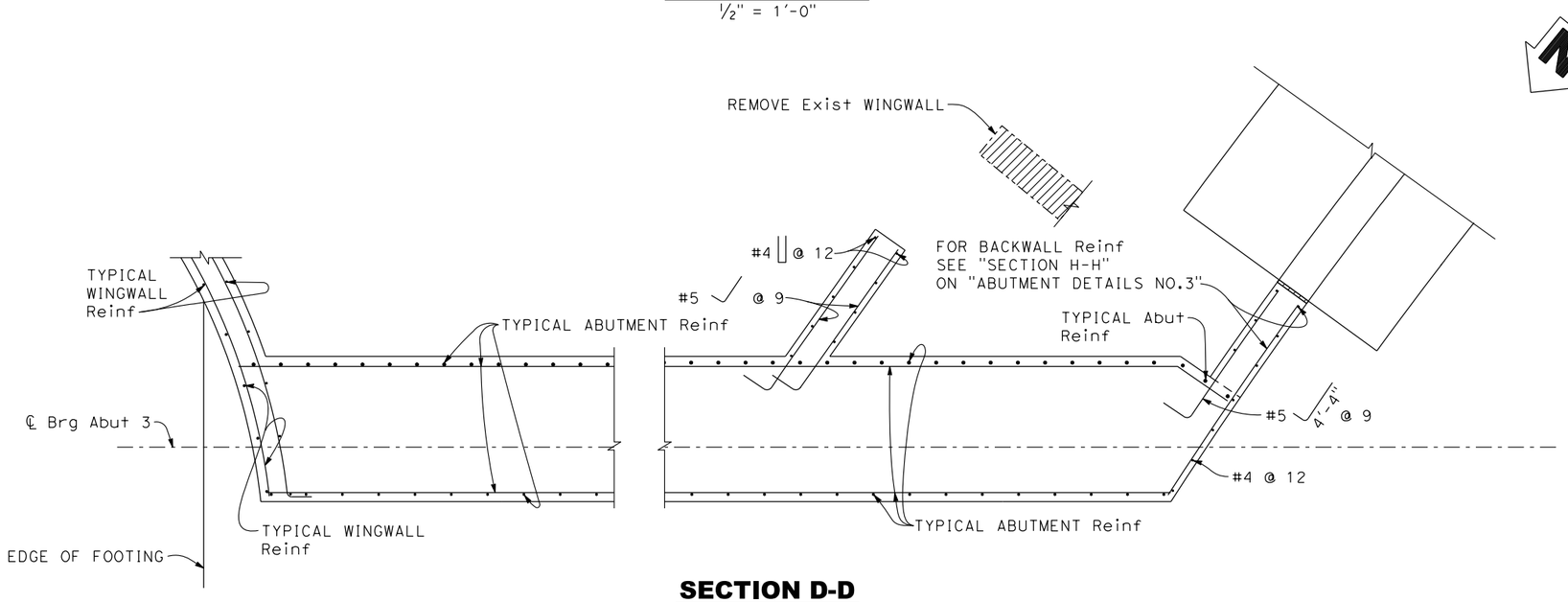
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET 28 OF 49 SHEETS



SECTION C-C

½" = 1'-0"



SECTION D-D

½" = 1'-0"

LEGEND:

-·---·- Exist concrete

▨ Bridge removal (portion)

NOTES:

1. For location of "SECTION C-C" and "SECTION D-D" see "ABUTMENT 3 LAYOUT" sheet.
2. For wingwall construction staging, see "ABUTMENT DETAILS NO.1" sheet.

REVISIONS

NO.	DESCRIPTION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER — KEVIN MAECHLER — NO. C060 — EXP. 6/30/25 — STATE OF CALIFORNIA

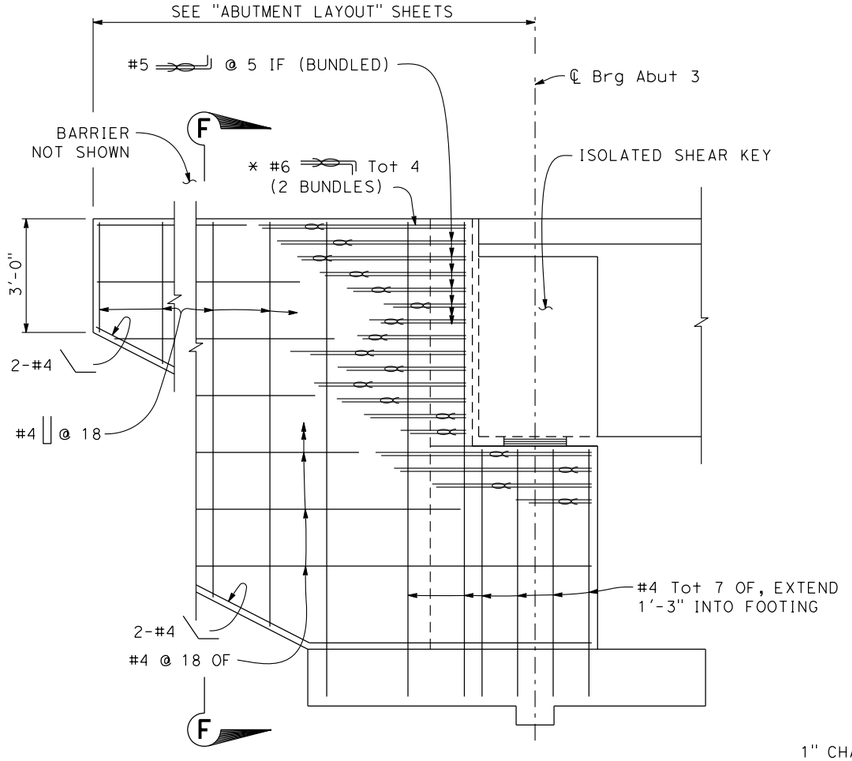
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

COUNTY of NEVADA — STATE of CALIFORNIA

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
ABUTMENT DETAILS NO. 2

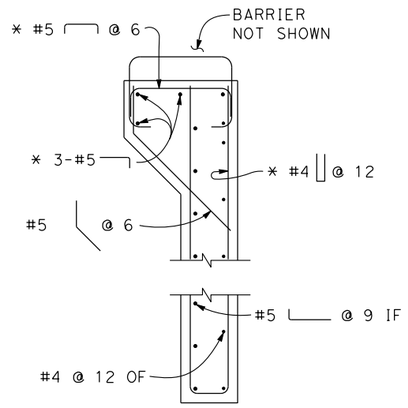
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET
29
OF 49 SHEETS



ABUTMENT 3 LEFT WINGWALL ELEVATION

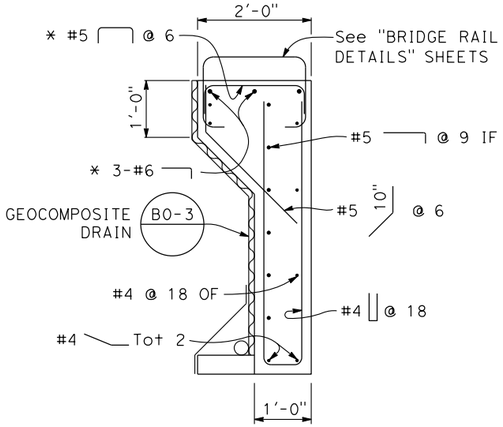
1/2" = 1'-0"



FOR DETAILS NOT SHOWN, SEE "SECTION G-G"

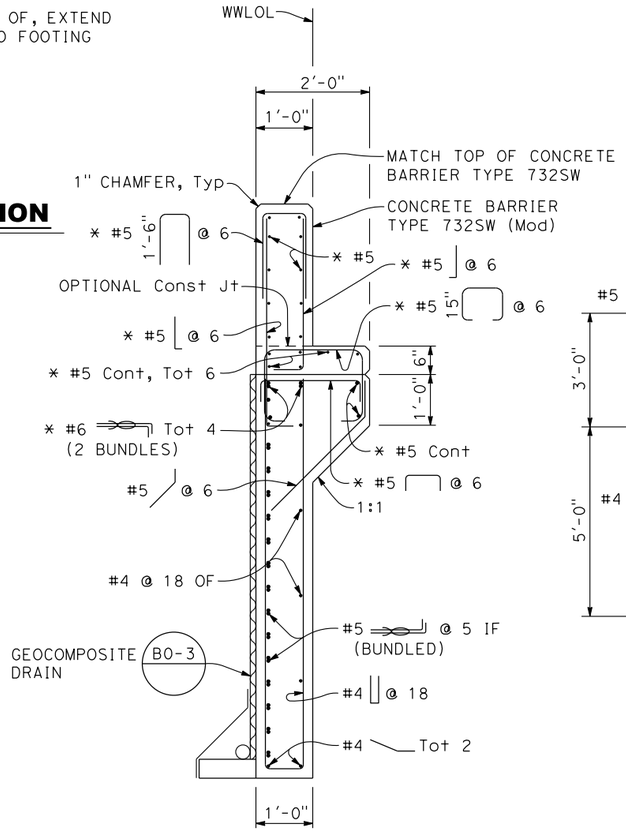
SECTION H-H

3/4" = 1'-0"



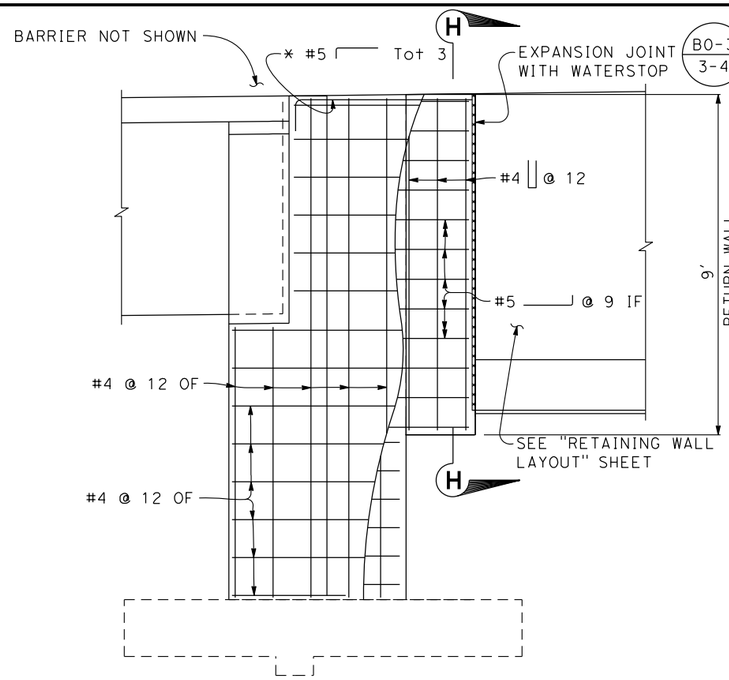
SECTION G-G

3/4" = 1'-0"



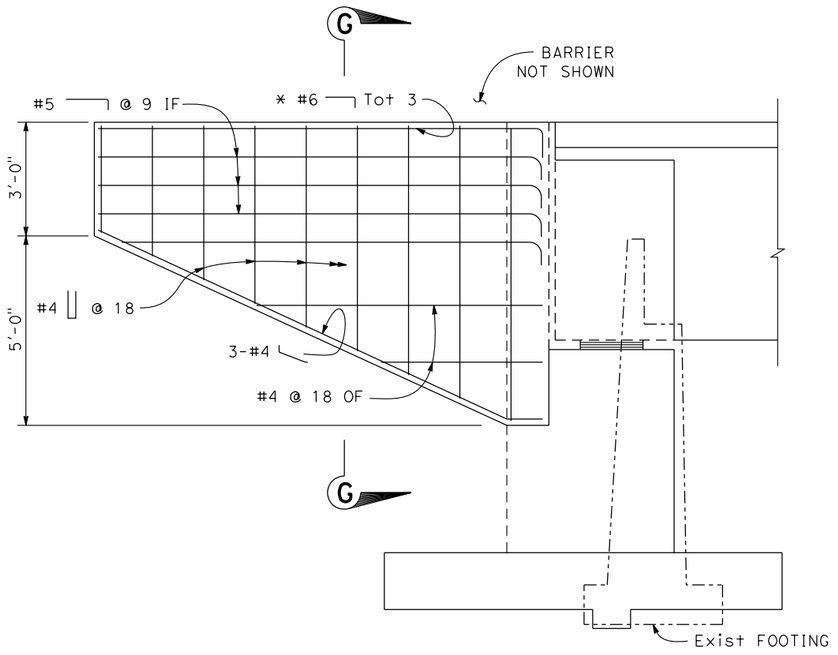
SECTION F-F

3/4" = 1'-0"



ABUTMENT 3 RIGHT RETURN WALL ELEVATION

1/2" = 1'-0"



ABUTMENT 1 RIGHT WINGWALL ELEVATION

1/2" = 1'-0"

LEGEND:

Denotes bundled reinf

* Epoxy coated reinf

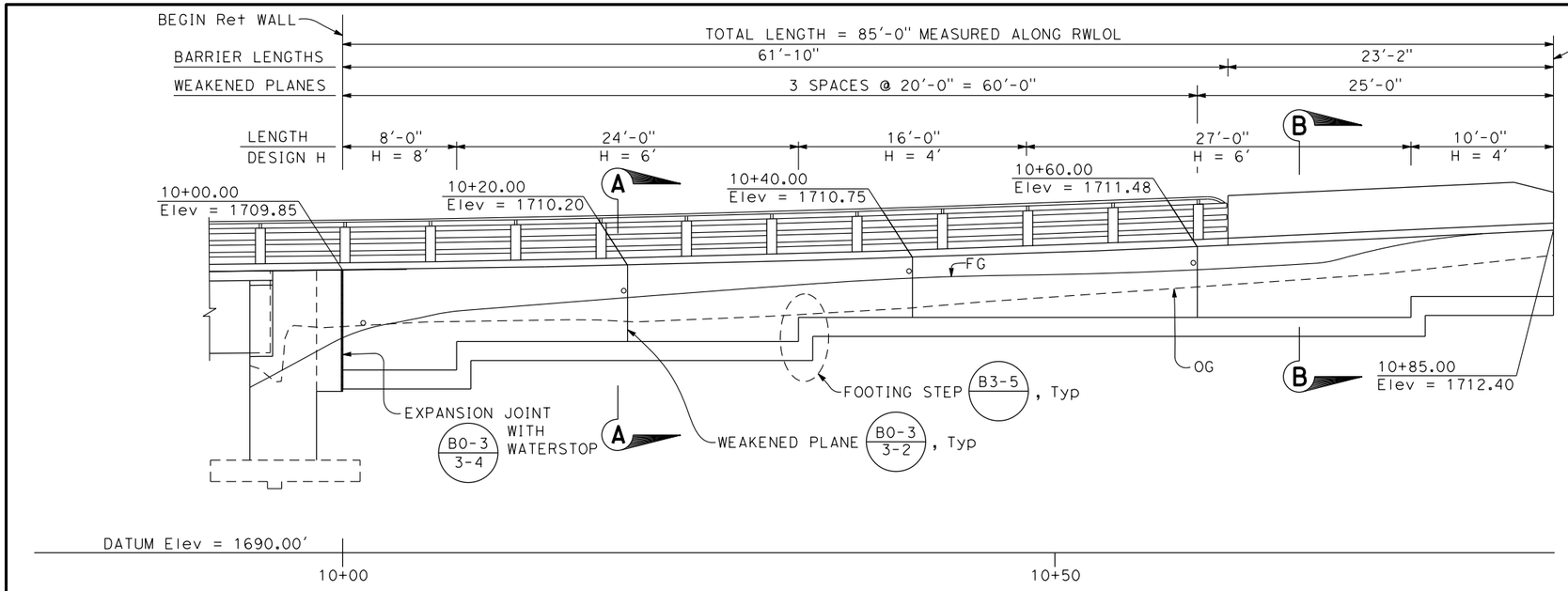
REVISIONS			
NO.	DESCRIPTION	BY	DATE

COUNTY of NEVADA
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
ABUTMENT DETAILS NO. 3

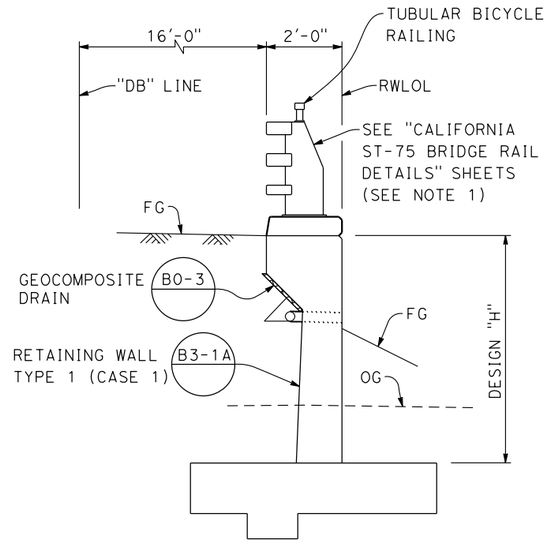
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET 30 OF 49 SHEETS



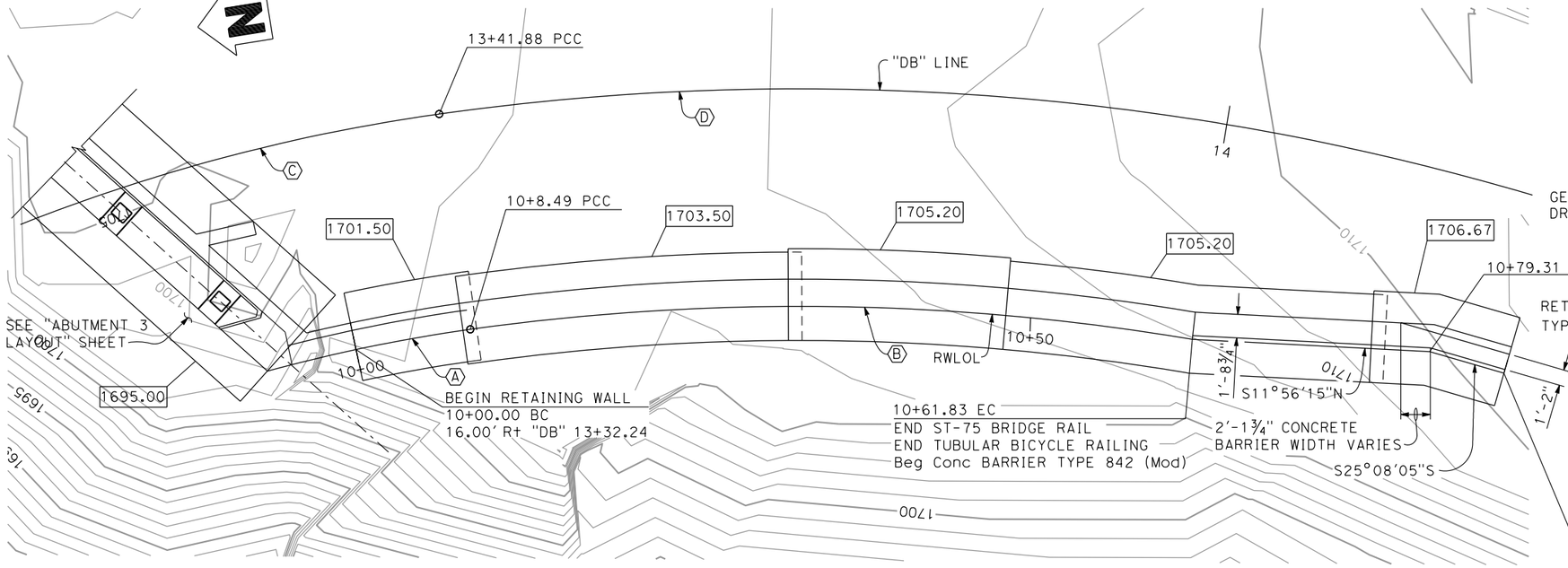
DEVELOPED ELEVATION

1" = 5'



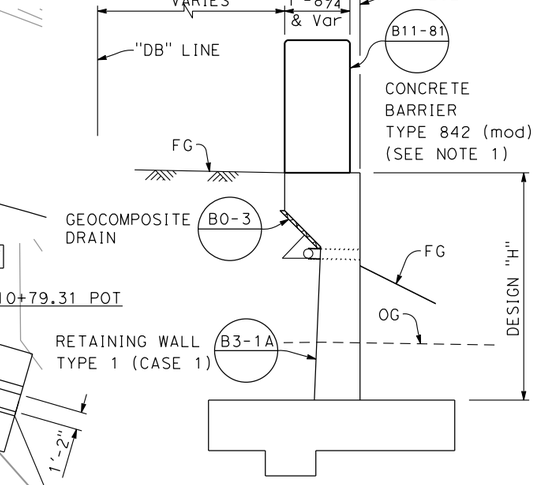
SECTION A-A

1/2" = 1'-0"



PLAN

1" = 5'



SECTION B-B

1/2" = 1'-0"

NOTE:

1. All barrier reinforcement to be epoxy coated

LEGEND

Denotes bottom of footing elev.

CURVE DATA

Ⓐ	Ⓑ	Ⓒ	Ⓓ
R = 119.00'	R = 173.99'	R = 135.00'	R = 190.00'
△ = 04°05'17"	△ = 17°33'56"	△ = 139°14'00"	△ = 33°44'17"
T = 4.25'	T = 26.88'	T = 363.26'	T = 57.61'
L = 8.49'	L = 53.34'	L = 328.06'	L = 111.87'

REVISIONS

NO.	DESCRIPTION	BY	DATE

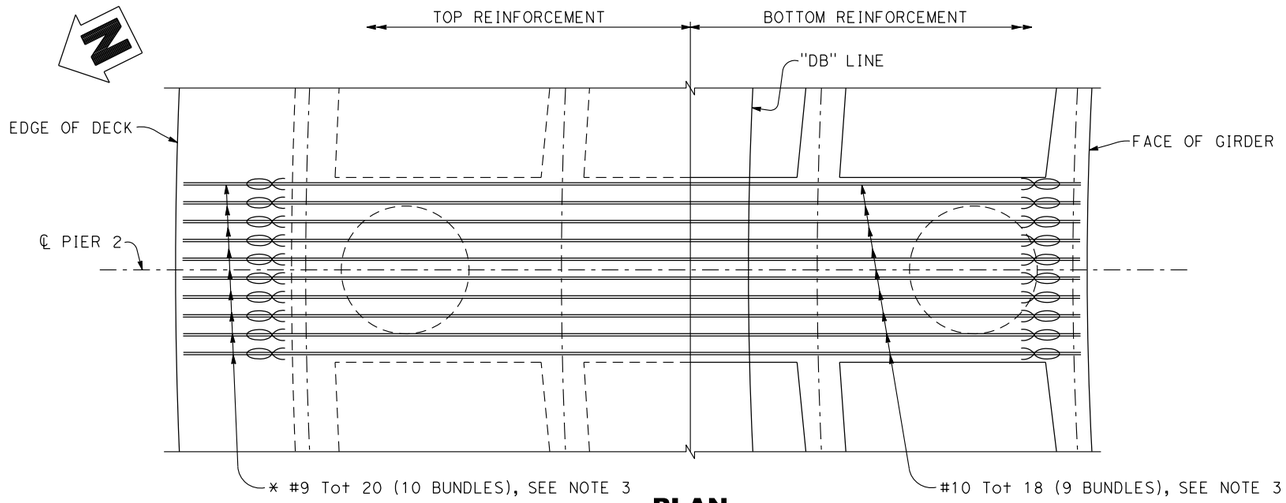
REGISTERED PROFESSIONAL ENGINEER — KEITH MAEHLER — NO. C060195 — EXP. 12/31/2025 — STATE OF CALIFORNIA

COUNTY of NEVADA
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE OVER BEAR RIVER
RETAINING WALL LAYOUT

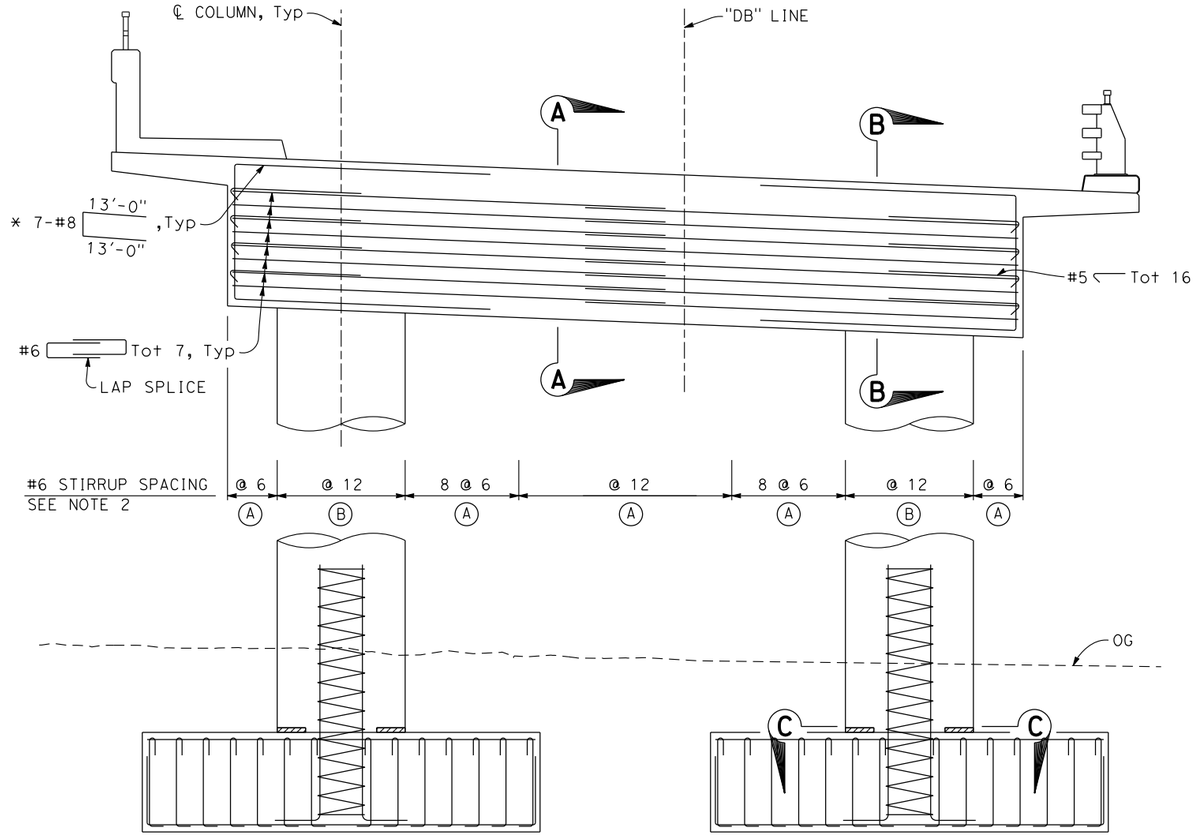
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET 31 OF 49 SHEETS



PLAN

3/8" = 1'-0"



ELEVATION

3/8" = 1'-0"

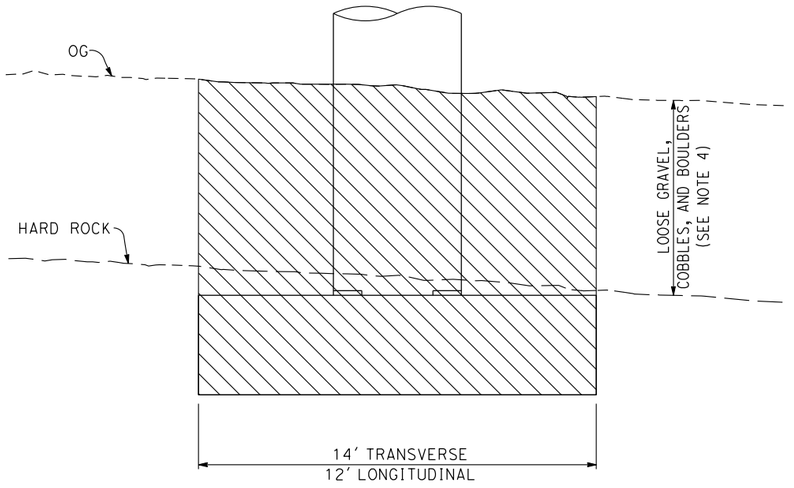
LEGEND:

Denotes bundled reinf

* Epoxy coated reinf

NOTES:

1. For "SECTIONS A-A, B-B & C-C", see "PIER DETAILS NO. 1" sheet.
2. Place stirrups normal to ℄ Pier and space along ℄ Pier.
3. Main Pier cap reinf shall not be spliced.
4. Top of footing to be below scourable material.
5. Sides of footing to be cast against clean undisturbed bedrock. Disturbed bedrock to be removed.
6. Foundation excavation shall be observed and approved by the County's Geotechnical Engineer or Geologist prior to placement of footing reinforcement.

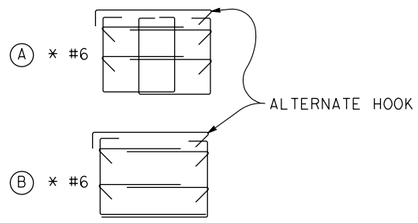


PIER EXCAVATION

NO SCALE

Denotes limit of Payment for Structure Excavation (Rock)

STIRRUP CONFIGURATIONS



REVISIONS			
NO.	DESCRIPTION	BY	DATE

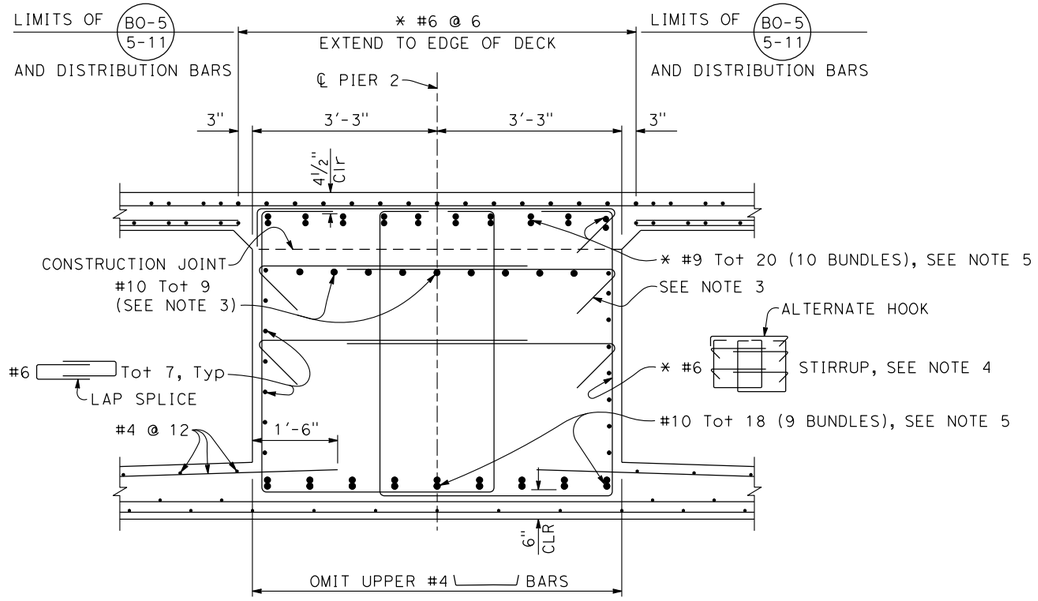
REGISTERED PROFESSIONAL ENGINEER KEVIN MAMEDELER NO C68 EXP 3/31/25 CIVIL STATE OF CALIFORNIA

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
PIER LAYOUT

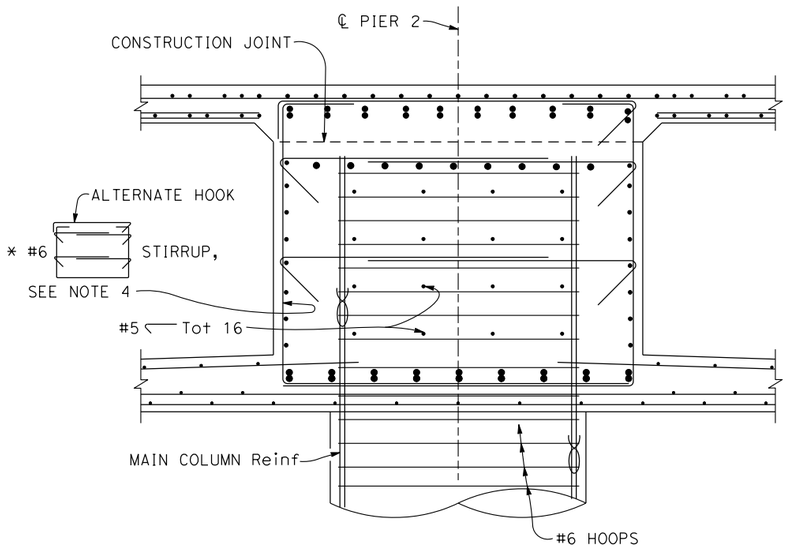
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET 32 OF 49 SHEETS



SECTION A-A

¾" = 1'-0"



SECTION B-B

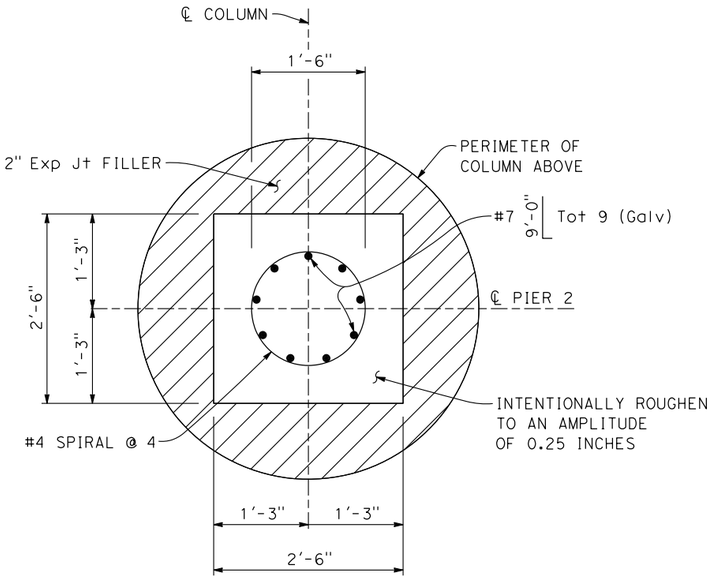
¾" = 1'-0"

FOR DETAILS NOT CALLED OUT, SEE "SECTION A-A" SHEET.

LEGEND:

Denotes bundled reinf

* Epoxy coated reinf



SECTION C-C

1" = 1'-0"

NOTES:

1. No splices allowed in main longitudinal column reinf.
2. All hoops are ultimate butt spliced continuous.
3. Place reinf as high as P/S ducts will allow.
4. Place stirrups normal to ℄ Pier and space along ℄ Pier.
5. Main pier cap reinf shall not be spliced.
6. At locations of conflicts between main column reinf and main bent cap reinf, spacing of main bent cap reinf shall be adjusted.
7. For location of "SECTIONS A-A, B-B & C-C" see "PIER LAYOUT" sheet.

REVISIONS

NO.	DESCRIPTION	BY	DATE

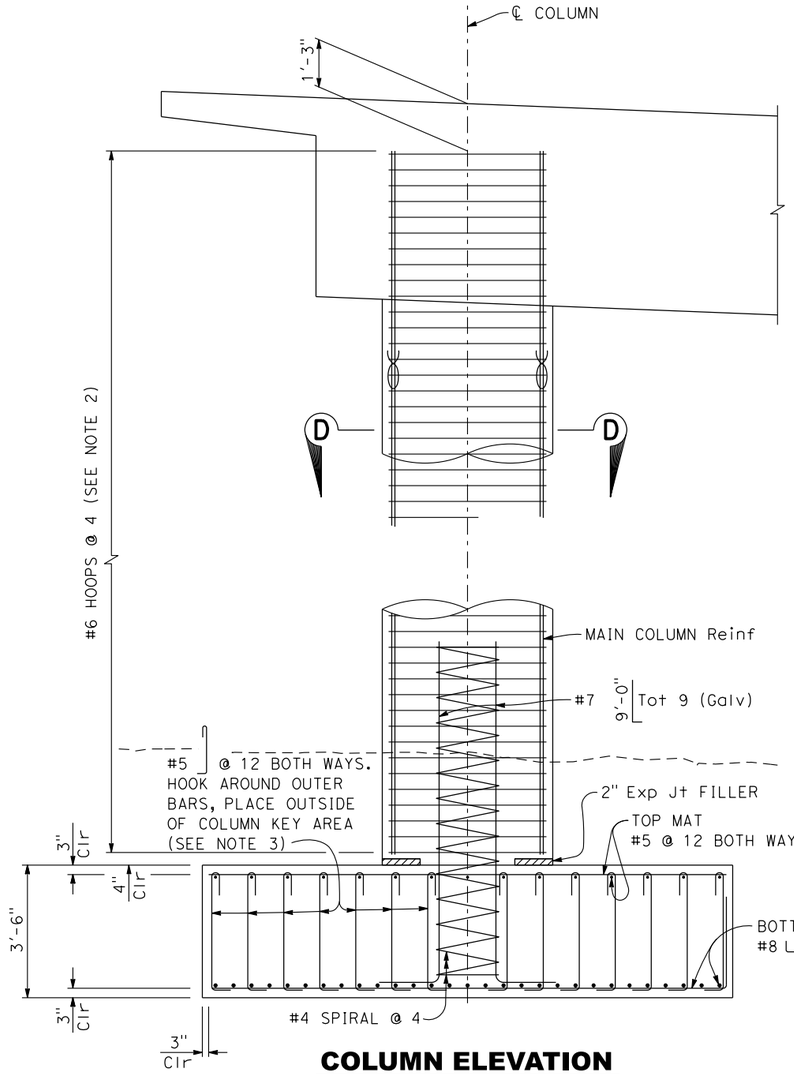
REGISTERED PROFESSIONAL ENGINEER — KEVIN MAMELHER — NO C68 — EXP 3/31/25 — STATE OF CALIFORNIA — CIVIL

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
PIER DETAILS NO. 1

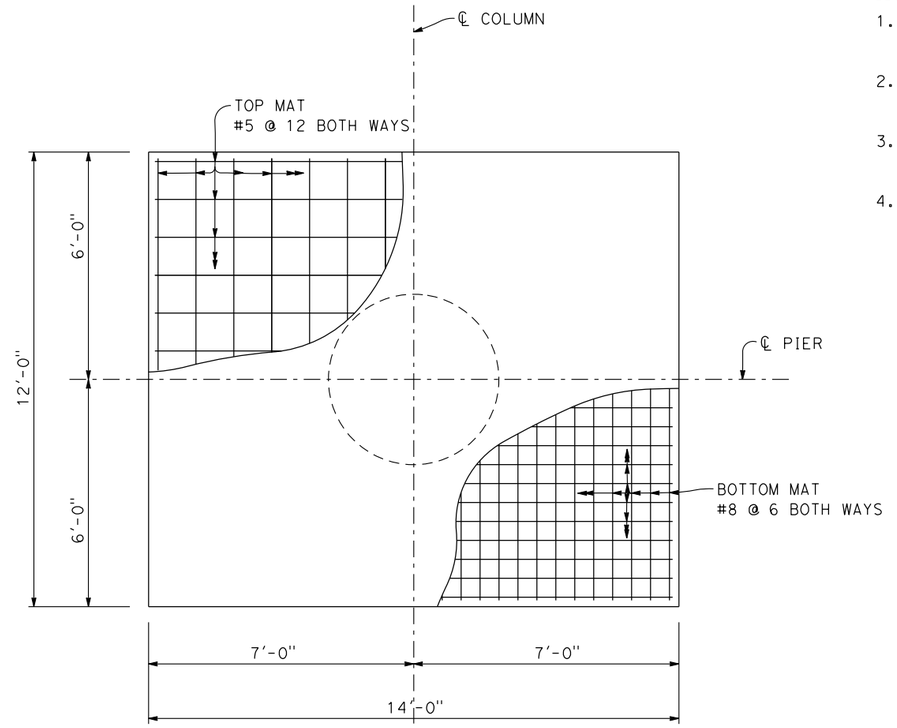
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET 33 OF 49 SHEETS



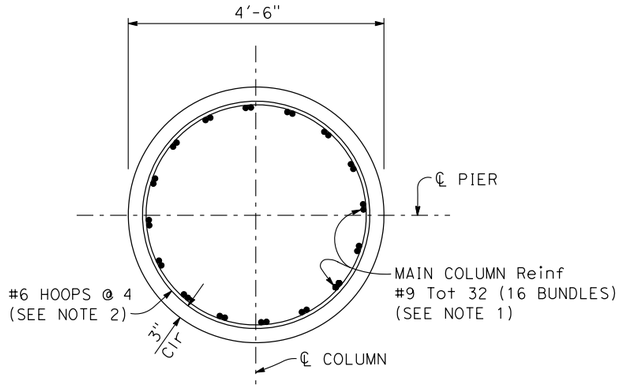
COLUMN ELEVATION

½" = 1'-0"



FOOTING PLAN

½" = 1'-0"



SECTION D-D

¾" = 1'-0"

NOTES:

1. No splices allowed in main longitudinal column reinf.
2. All hoops are ultimate butt spliced continuous.
3. Place stirrups normal to ℄ Pier and space along ℄ Pier.
4. Geotechnical Engineer to review the completed and dewatered footing excavation prior to placement of reinforcing steel.

LEGEND:

Denotes bundled reinf

REVISIONS

NO.	DESCRIPTION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER — MARK MUELLER — NO. C 058705 — EXP. 6/30/25 — CIVIL — STATE OF CALIFORNIA

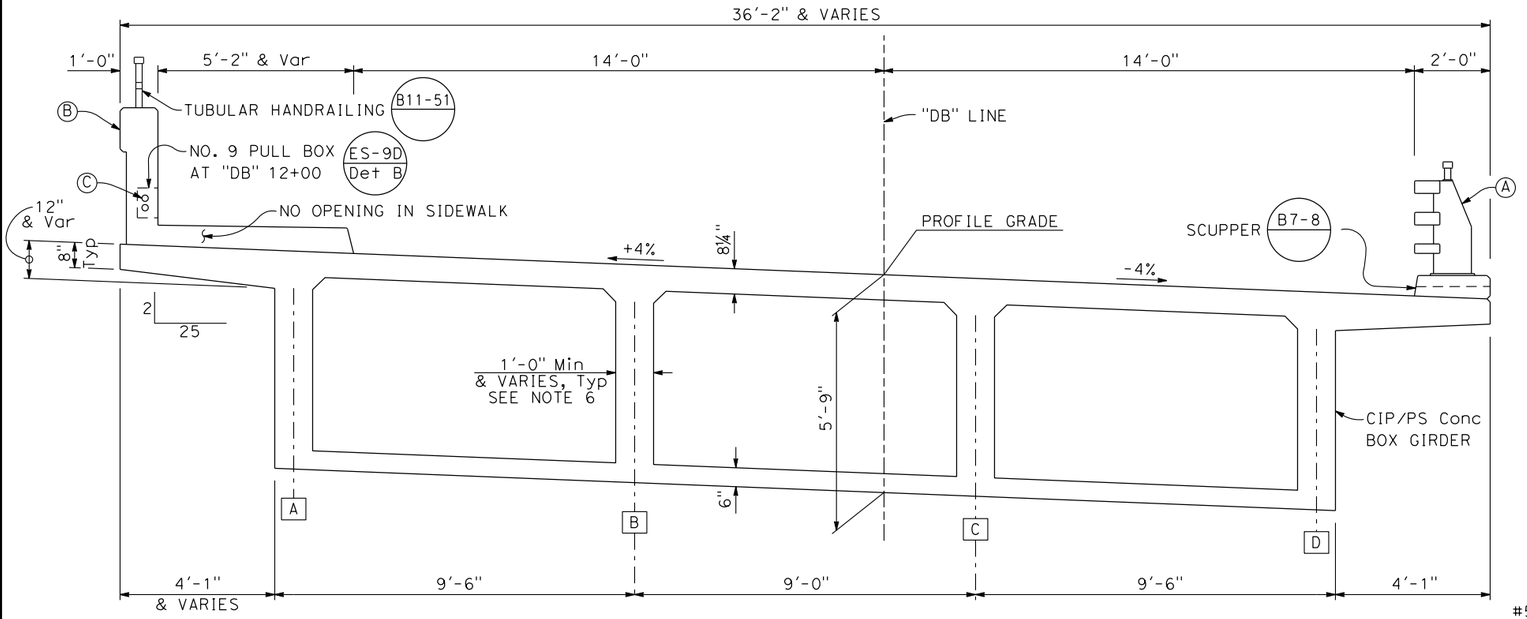
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

COUNTY of NEVADA — STATE of CALIFORNIA

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
PIER DETAILS NO. 2

BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET
34
OF 49 SHEETS



TYPICAL SECTION

½" = 1'-0"

LEGEND:

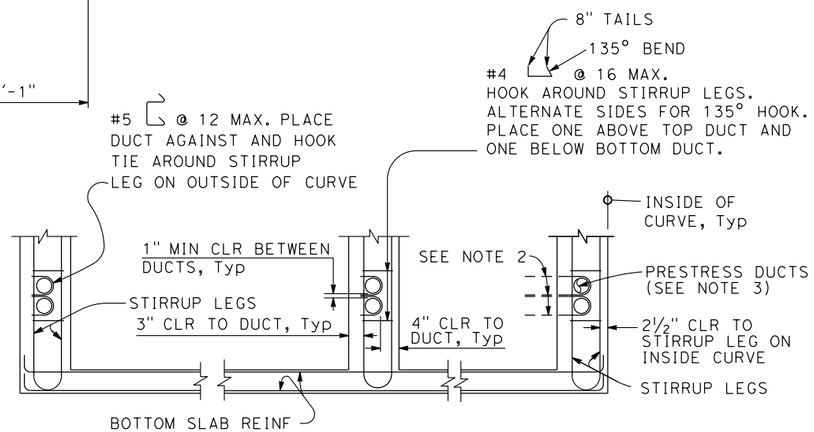
Ⓐ California ST-75 bridge rail

Ⓑ Concrete Barrier Type 732SW with Tubular Handrailing

Ⓒ 2-2" Ø electrical conduit (future)

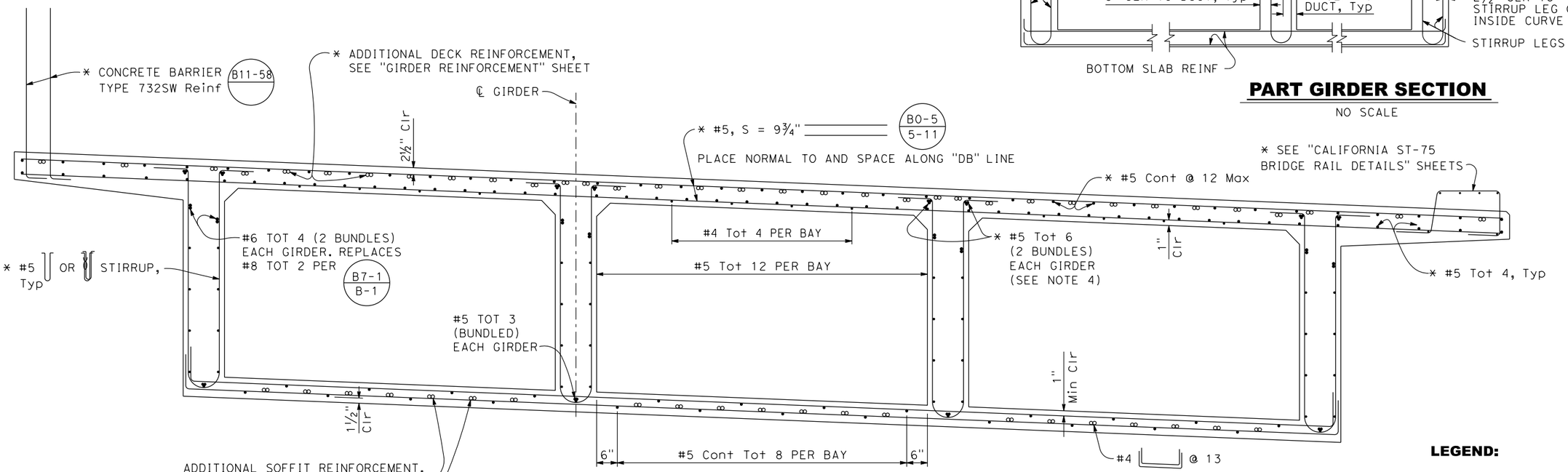
NOTES:

1. Details shown are for a curve to the right with the section taken looking ahead on station. These details supersede duct ties shown in Standard Plan B8-5.
2. For Girder [D], at locations of bent cap and intermediate diaphragms, replace #5 ⌐ @ 12 with #5 ⌐ 3' tot 2 per intermediate diaphragm, tot 8 at bent cap.
3. 4½" maximum outer diameter of prestressing ducts.
4. For longitudinal reinforcement no splice zones, see "GIRDER REINFORCEMENT" sheets.
5. All barrier reinforcement to be epoxy coated.
6. For girder flare width, see "GIRDER LAYOUT" sheet.



PART GIRDER SECTION

NO SCALE



TYPICAL SECTION REINFORCEMENT

¾" = 1'-0"

B0-5 B7-1 B8-5

LEGEND:

Denotes bundled reinf

* Epoxy coated reinf

REVISIONS

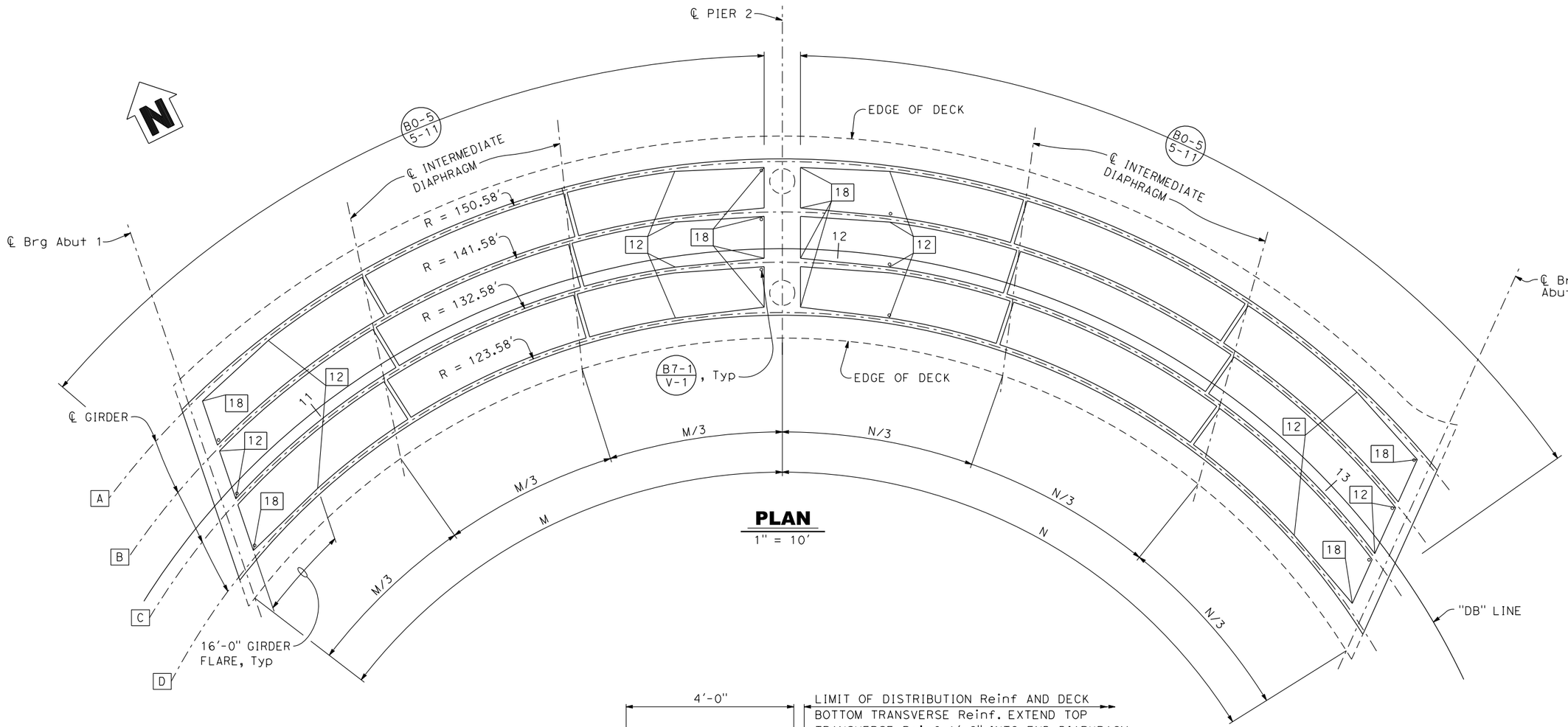
NO.	DESCRIPTION	BY	DATE

COUNTY of NEVADA
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

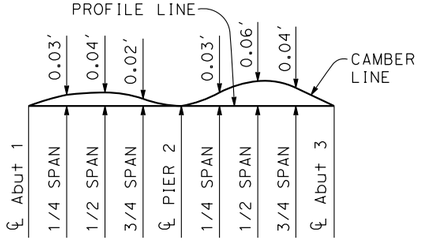
DOG BAR ROAD BRIDGE
OVER BEAR RIVER
TYPICAL SECTION

BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

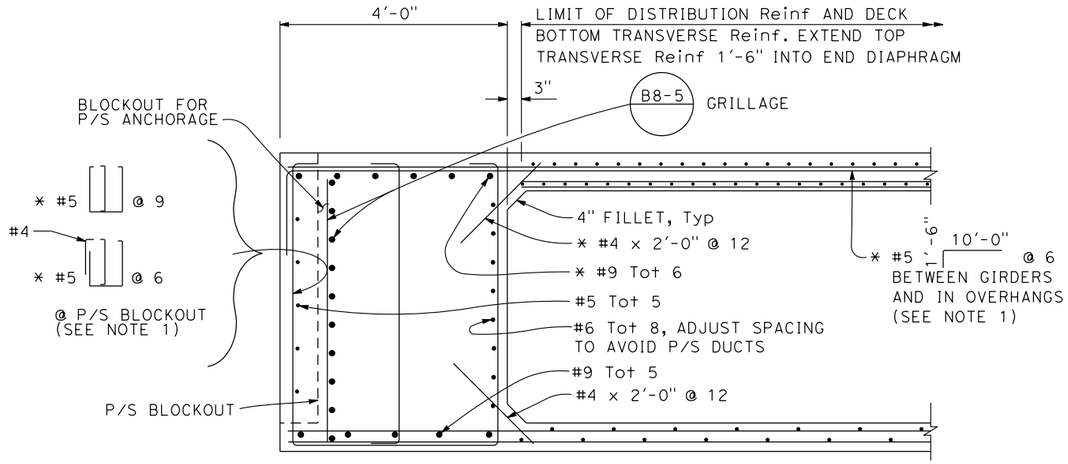
SHEET 35 OF 49 SHEETS



PLAN
1" = 10'



CAMBER DIAGRAM
NO SCALE
(SEE NOTE 2)



END DIAPHRAGM B8-5
3/4" = 1'-0"
(Abut 1 SHOWN, Abut 3 SIMILAR)

NOTES:

1. Place parallel to girders and space along ℄ Brg Abut.
2. Camber values do not include allowance for falsework settlement

LEGEND:

- ☐ Denotes girder stem width in inches.
- o Soffit access opening
- * Epoxy coated reinf

REVISIONS			
NO.	DESCRIPTION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER — JOHN MUEHLER — NO. C 20705 — EXP. 12/31/2025 — CIVIL — STATE OF CALIFORNIA

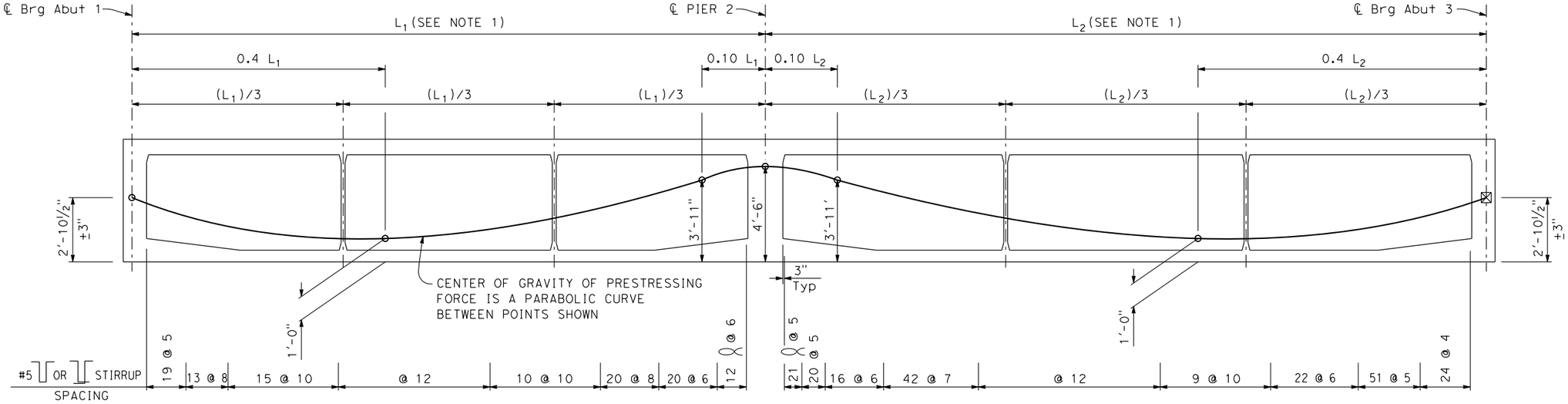
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

COUNTY of NEVADA — STATE OF CALIFORNIA — INCORPORATED

DOG BAR ROAD BRIDGE OVER BEAR RIVER
GIRDER LAYOUT

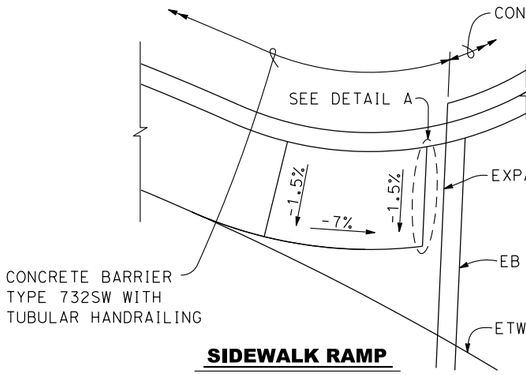
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET
36
OF 49 SHEETS



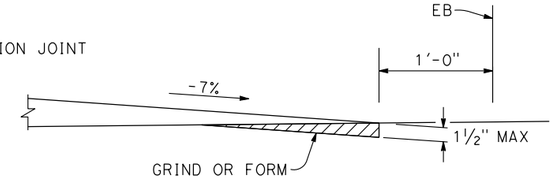
LONGITUDINAL SECTION

NO SCALE



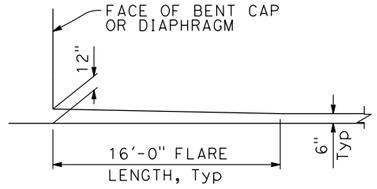
SIDEWALK RAMP

½" = 1'-0"



DETAIL A

1½" = 1'-0"



SOFFIT FLARE DETAIL

NO SCALE

PRESTRESSING NOTES

270 KSI Low Relaxation Strand:

P_{jack} = 6700 kips Total for brige. Distribution per girder will vary according to table.

Anchor Set = ⅜ in.

Assumed long term losses = 20 ksi

Concrete: f'c = 5.0 ksi @ 28 days

f'ci = 3.5 ksi @ time of stressing

Contractor shall submit elongation calculations based on initial stress at

☒ = (See Table) times jacking stress.

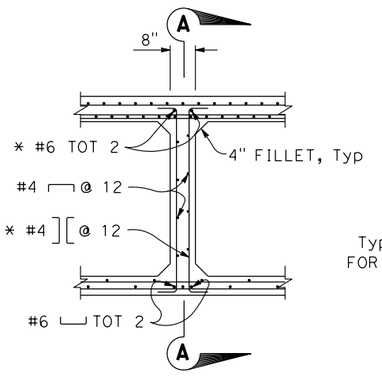
k = 0.0002 / ft μ = 0.15

One end stressing shall be performed from Abutment 3.

Girder	Pjack	Initial Stress At ☒
A	1850	0.713
B	1850	0.713
C	1500	0.714
D	1500	0.714

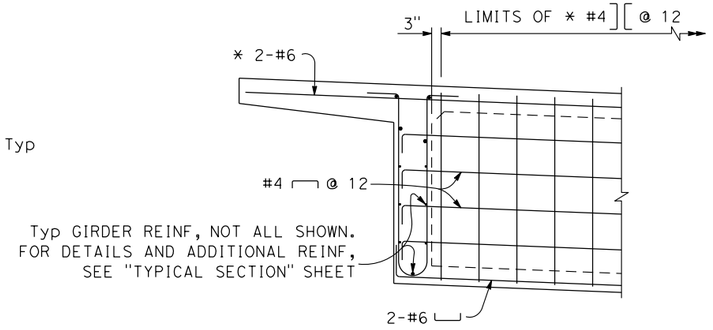
NOTES:

1. Distance measured along ℄ Girder.



INTERMEDIATE DIAPHRAGM

½" = 1'-0"



SECTION A-A

½" = 1'-0"

LEGEND:

☒ Denotes prestress point of no movement.

o Denotes prestress point of inflection.

) (Denotes two bundled stirrups

* Epoxy coated reinf

REVISIONS

NO.	DESCRIPTION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER — KEVIN MAECHLER — No. 20 CE 15008 — EXP. 2025 — STATE OF CALIFORNIA

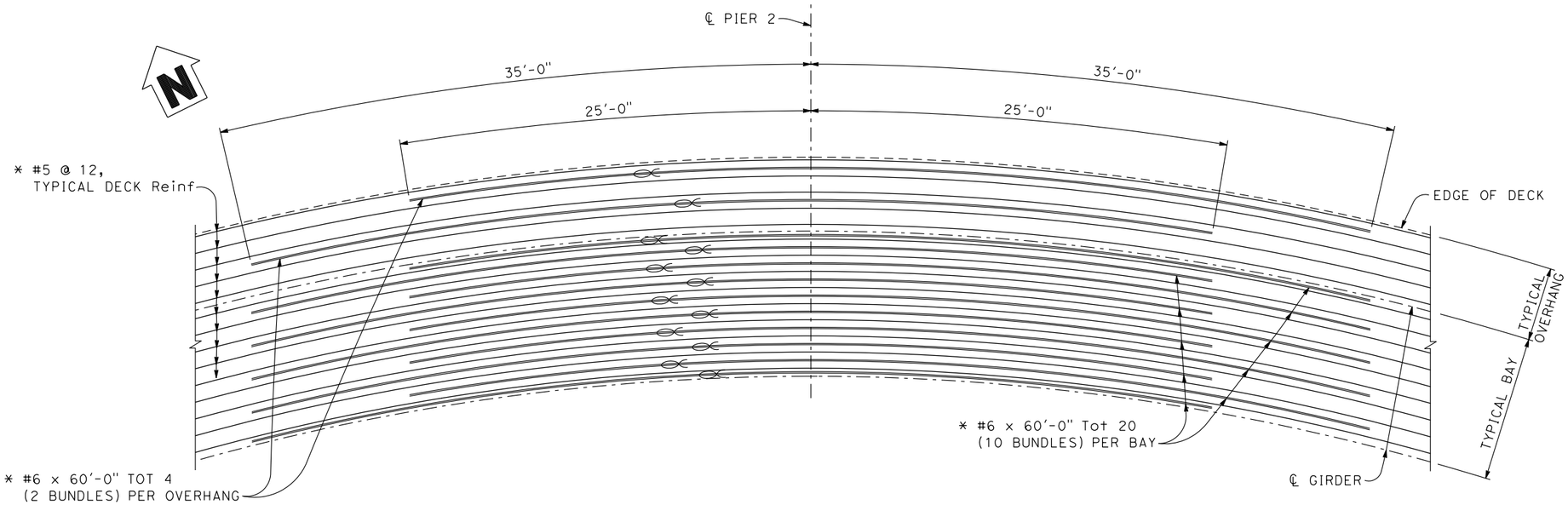
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

COUNTY of NEVADA ★ STATE OF CALIFORNIA ★ FOUNDED

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
GIRDER DETAILS

BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET 37 OF 49 SHEETS



ADDITIONAL TOP SLAB REINFORCEMENT

1/4" = 1'-0"

LEGEND:

Denotes bundled reinf

* Epoxy coated reinf

NOTE:

1. No splice allowed for top slab reinforcement within 15' of ℄ pier.
2. Additional reinforcement shall be ultimate splice.

REVISIONS			
NO.	DESCRIPTION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER — WILLIAM MUELLER — No. C 30 CIVIL — EXP. 3/31/25 — STATE OF CALIFORNIA

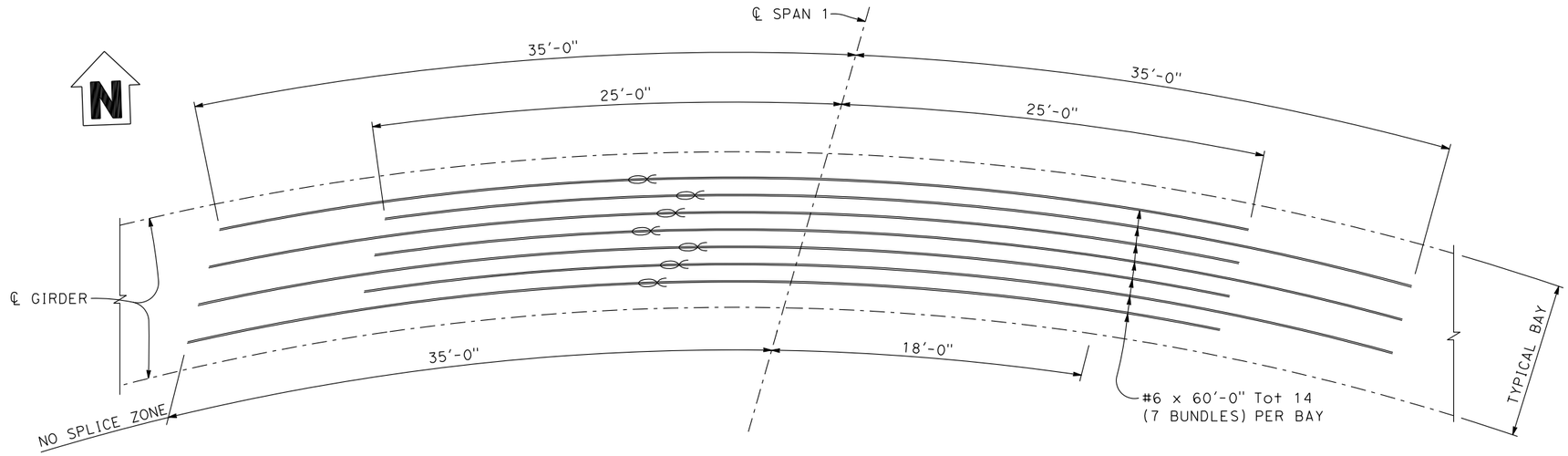
COUNTY of NEVADA — STATE OF CALIFORNIA

COUNTY OF NEVADA
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
GIRDER
REINFORCEMENT NO.1

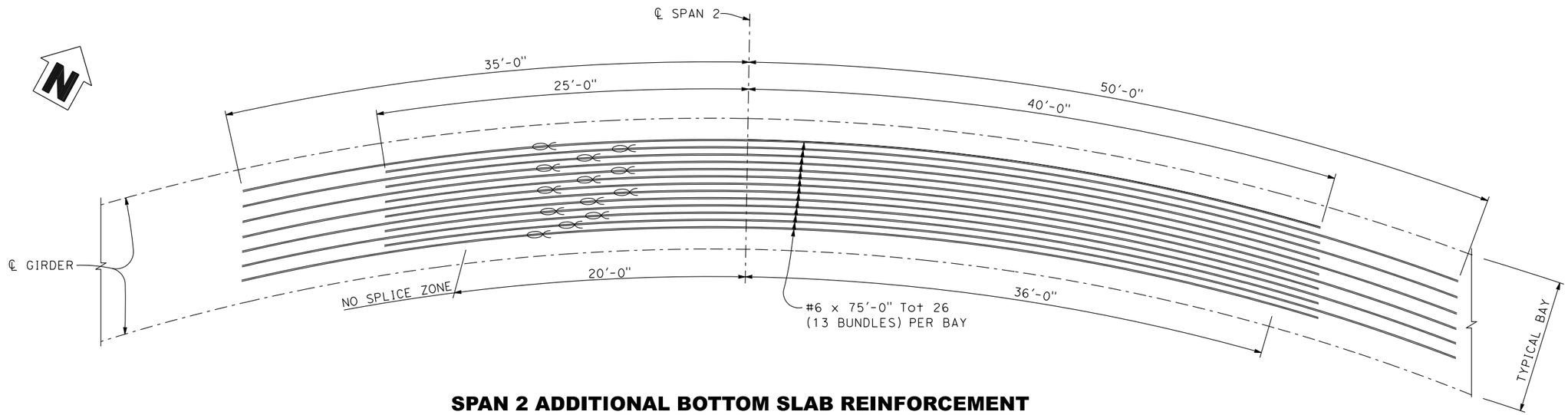
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET
38
OF 49 SHEETS



SPAN 1 ADDITIONAL BOTTOM SLAB REINFORCEMENT

1/4" = 1'-0"



SPAN 2 ADDITIONAL BOTTOM SLAB REINFORCEMENT

1/4" = 1'-0"

LEGEND:

Denotes bundled reinf

NOTE:

1. Additional reinforcement shall be ultimate spliced.

REVISIONS

NO.	DESCRIPTION	BY	DATE

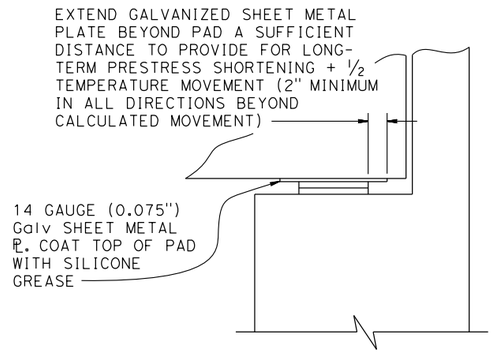
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
GIRDER
REINFORCEMENT NO.2

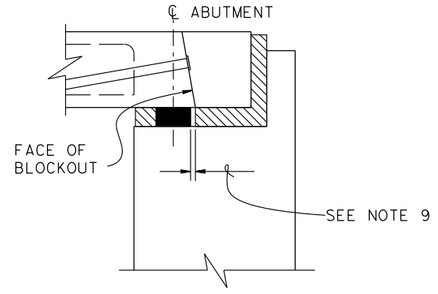
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET
39
OF 49 SHEETS

STEEL REINFORCED BEARING TABLE									
TYPE	LOCATION	MAXIMUM VERTICAL LOAD (kips) (SEE NOTE 7)	MINIMUM VERTICAL LOAD (kips) (SEE NOTE 8)	MAXIMUM HORIZONTAL DISPLACEMENT (in)	B(in)	L(in)	ELASTOMER ONLY THICKNESS T_r (in)	TOTAL BEARING THICKNESS (in)	SLIDING YES/NO
(A)	Abut 1	303.8	195.6	1.2	20	18	3	3.45	YES
(B)	Abut 1	126.3	60.8	1.2	14	12	3	3.45	YES
(A)	Abut 3	329.1	239.6	1.3	20	18	3	3.45	YES
(B)	Abut 3	119.4	66.2	1.3	14	12	3	3.45	YES



SLIDING BEARING DETAIL

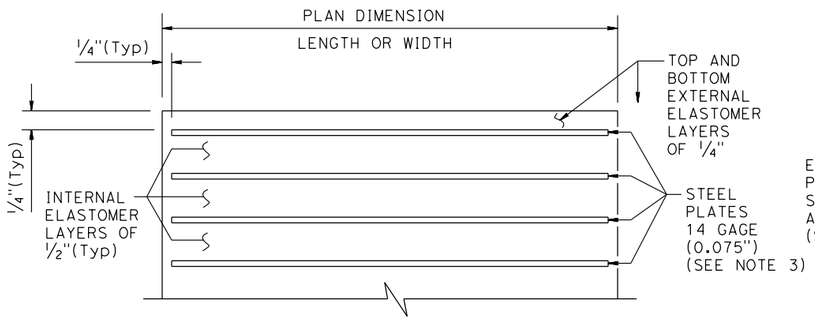


SECTION A-A

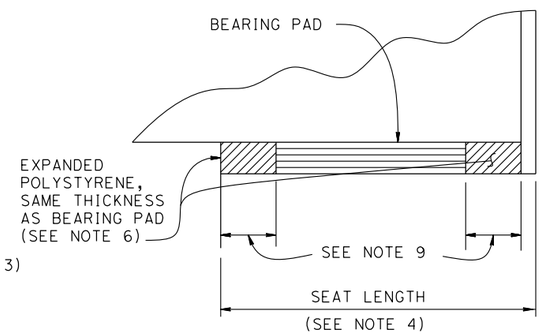
NOTES:

1. Bearing pads must be set level
2. No anchor rods through elastomeric bearings
3. All edges of the bearing steel plates must be ground or otherwise treated so that no sharp edges remain
4. Seat length normal to the center line of the bearing must not be less than 30 inches
5. Maximum horizontal bearing dimension is 30 inches
6. Remove expanded polystyrene from at least two bearing sides
7. Maximum unfactored vertical load per bearing
8. Minimum unfactored vertical load per bearing
9. Minimum edge distance must be equal to the actual bearing thickness or 3 inches whichever is greater
10. The sliding bearing detail must not be used in precast or steel girders
11. For bearing spacing and bearing type, see "ABUTMENT LAYOUT" sheet

DESIGN AND ACTUAL THICKNESS OF ELASTOMERIC BEARINGS			
DESIGN THICKNESS (in)	NUMBER OF ½" LAYERS	NUMBER OF STEEL PLATES (14 gauge)	ACTUAL THICKNESS (in)
1.0	2	2	1.15
1.5	3	3	1.73
2.0	4	4	2.30
2.5	5	5	2.88
3.0	6	6	3.45
3.5	7	7	4.03
4.0	8	8	4.60
4.5	9	9	5.18
5.0	10	10	5.75
5.5	11	11	6.33
6.0	12	12	6.90



ELASTOMERIC BEARING DETAIL



BEARING PLACEMENT DETAIL

NO SCALE

REVISIONS

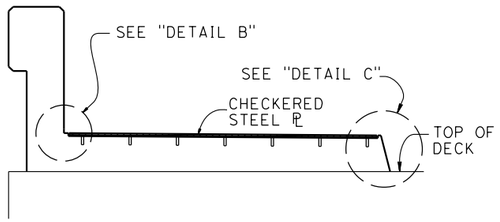
NO.	DESCRIPTION	BY	DATE

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

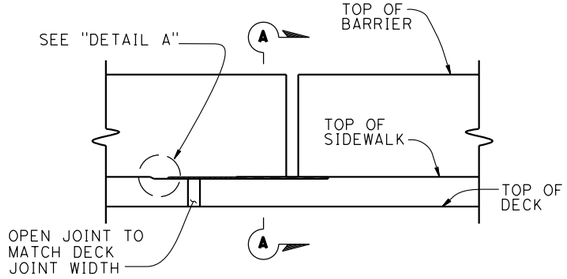
DOG BAR ROAD BRIDGE
OVER BEAR RIVER
STEEL REINFORCED
ELASTOMERIC BEARINGS

BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

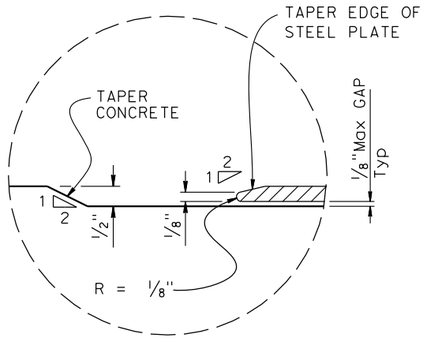
SHEET
40
OF 49 SHEETS



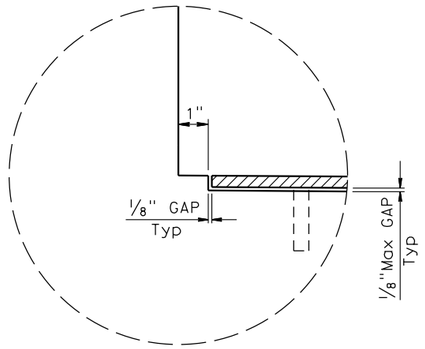
SECTION A-A
NO SCALE



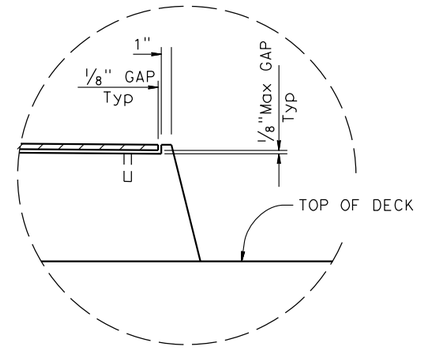
ELEVATION
NO SCALE



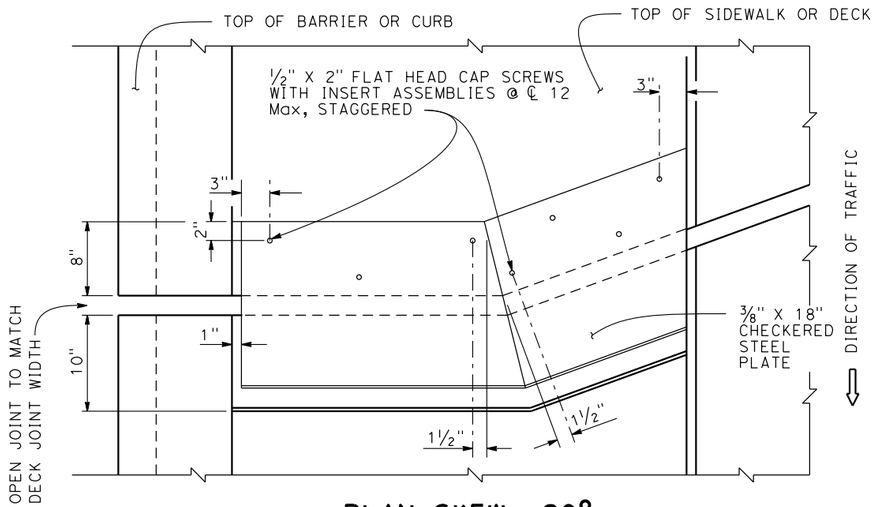
DETAIL A
NO SCALE



DETAIL B
NO SCALE



DETAIL C
NO SCALE



PLAN SKEW > 20°
NO SCALE

NOTES:

1. Utility openings and expansion joints not shown for clarity.
2. Recess concrete 1/2" for plates.
3. Plates to be galvanized.
4. Architectural treatment not shown

REVISIONS

NO.	DESCRIPTION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER — KEVIN MAUELER — NO C061 — EXP 3/31/25 — CIVIL — STATE OF CALIFORNIA

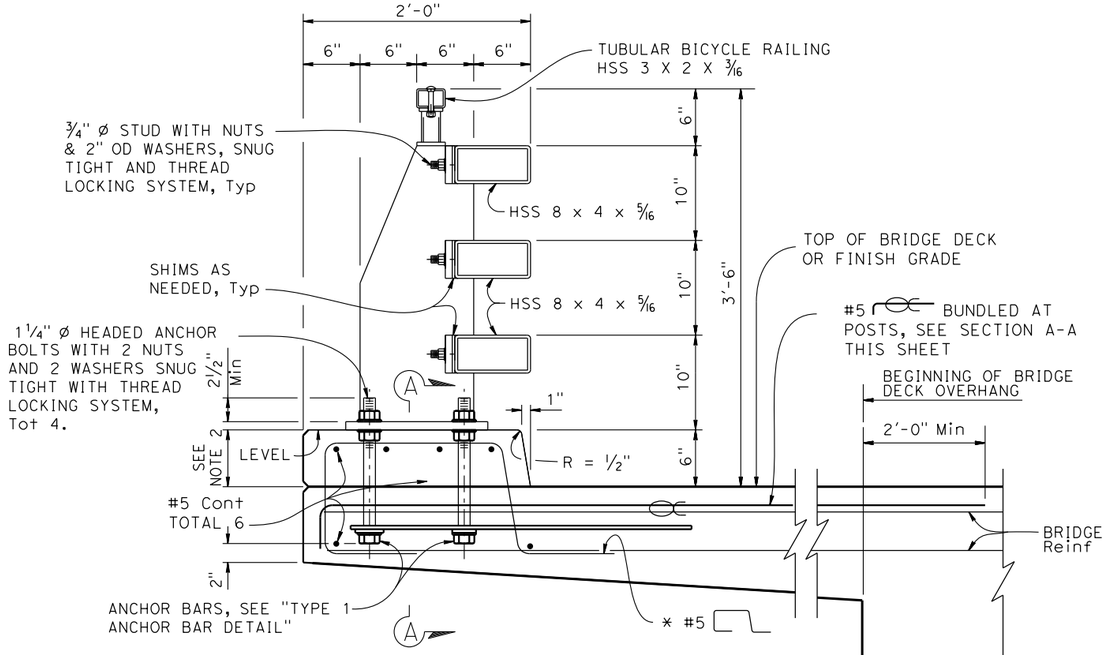
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

COUNTY of NEVADA ★ STATE OF CALIFORNIA

DOG BAR ROAD BRIDGE OVER BEAR RIVER
JOINT ARMOR FOR PEDESTRIAN WALKWAYS

BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

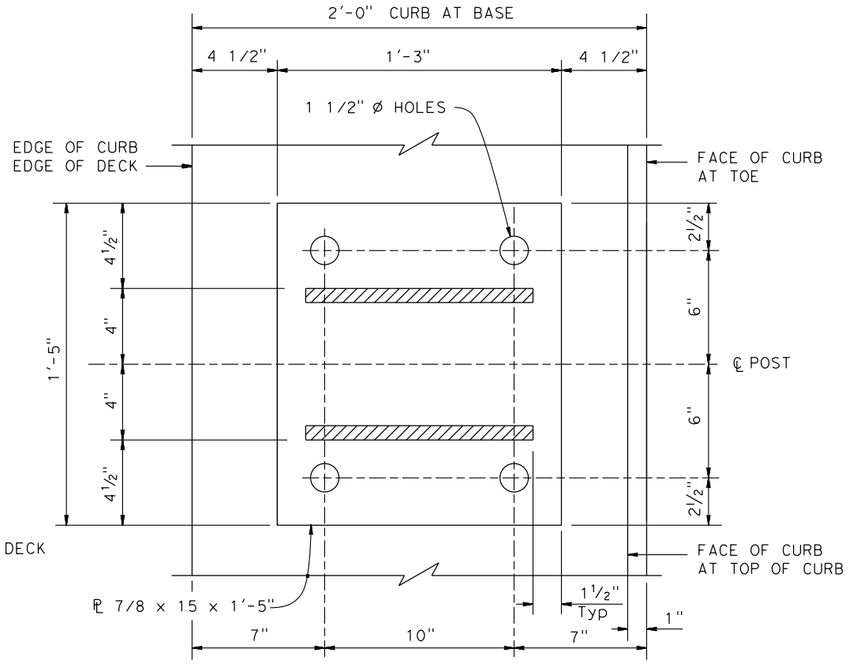
SHEET
41
OF 49 SHEETS



TYPICAL SECTION

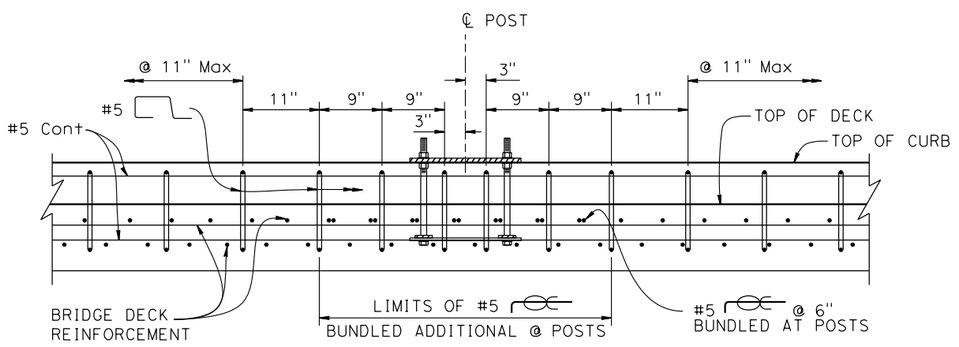
NO SCALE

#5 Bundled at posts to extend 2'-0" Min beyond beginning of bridge deck overhang.



BASE PLATE

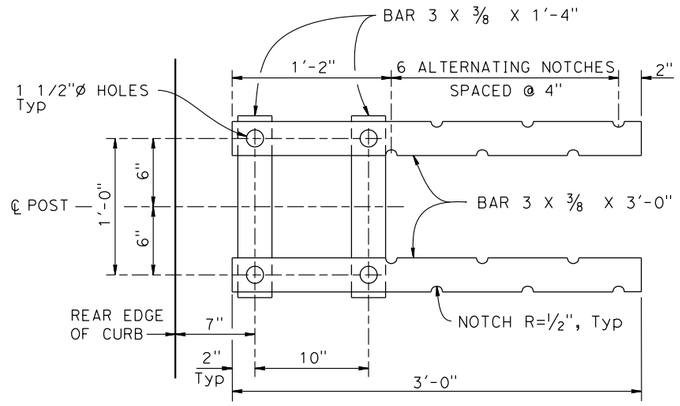
NO SCALE



SECTION A-A

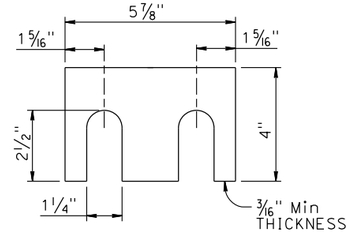
NO SCALE

NOTE:
POST NOT SHOWN FOR CLARITY



TYPE 1 ANCHOR BAR DETAIL

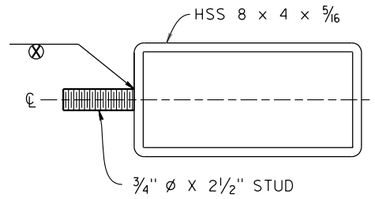
NO SCALE



SHIM DETAILS

NO SCALE

NOTE:
Shims as needed between posts and HSS rail tubes.



RAIL SECTION AT POST

NO SCALE

LEGEND:

Denotes bundled reinf

NOTES:

1. Anchor bolts may be tack welded to anchor bars.
2. Curb dimension at back side of rail will vary with bridge deck cross slope, and if overlay is placed on the bridge deck. For the same reasons, the anchor bolt lengths will vary.
3. Use extra thick washers for anchor bolts, with a min. thickness of 0.305" and a max thickness of 0.375".
4. All barrier reinforcement to be epoxy coated.

REVISIONS

NO.	DESCRIPTION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER — DENNIS MEUSCHKE — NO. C058705 — EXP. 3/31/25 — STATE OF CALIFORNIA

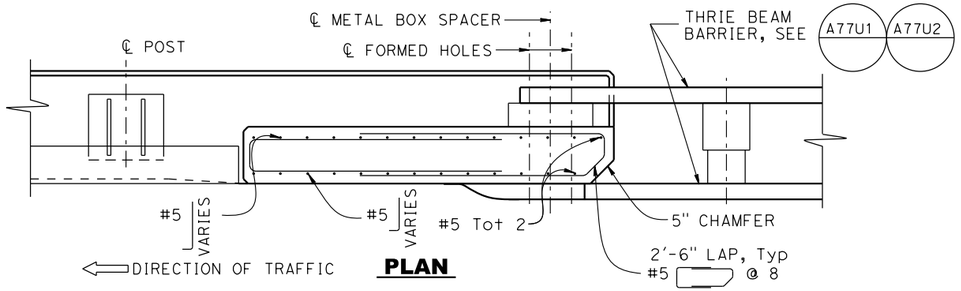
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

COUNTY of NEVADA

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
CALIFORNIA ST-75 BRIDGE
RAIL DETAILS NO. 1

BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET
42
OF 49 SHEETS

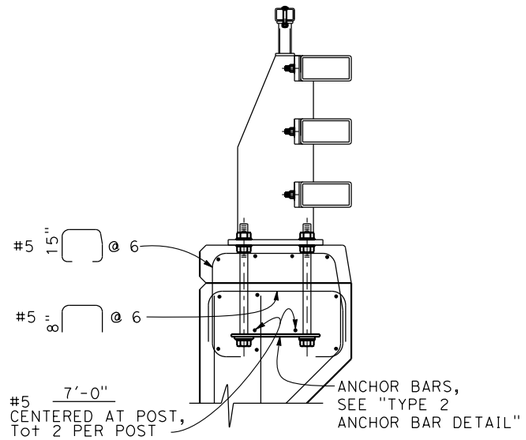


APPROACH TRANSITION END BLOCK DETAIL

NO SCALE

NOTES:

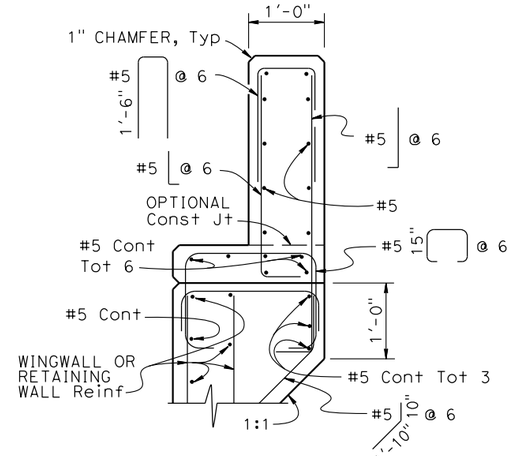
1. All horizontal members are parallel to longitudinal profile grade.
2. Posts are normal to profile grade of structure.
3. Posts are vertical to the transverse cross section.
4. If departure end block is within the Clear Recovery Zone (CRZ, 30 feet for expressways and freeways and 20 feet for conventional highways) of opposing traffic, then use the approach end block at the departure end.
5. Anchor bolts may be tack welded to anchor bars.
6. All barrier reinforcement to be epoxy coated.



SECTION B-B

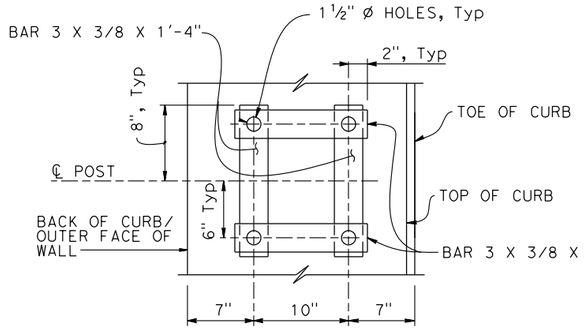
NO SCALE

NOTE:
For details not shown see "Section C-C"



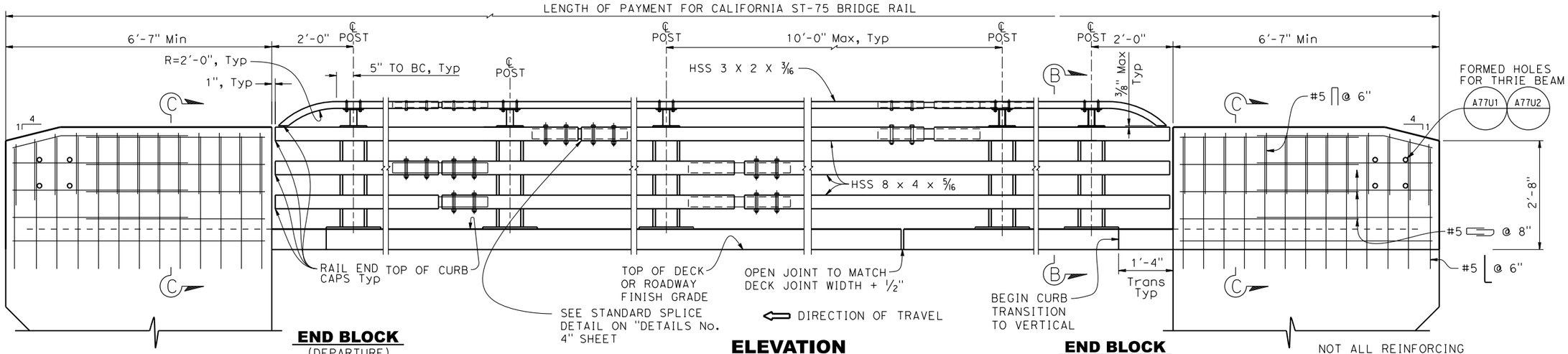
SECTION C-C

NO SCALE



TYPE 2 ANCHOR BAR DETAIL

NO SCALE



REVISIONS			
NO.	DESCRIPTION	BY	DATE

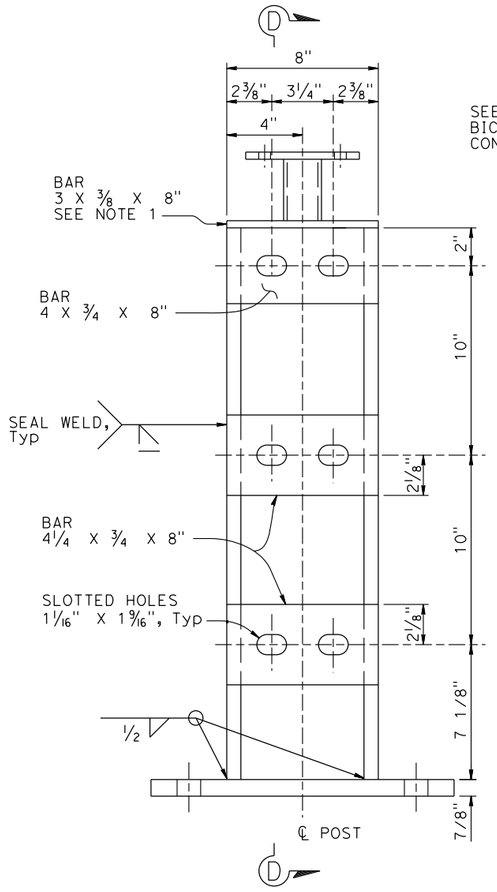
REGISTERED PROFESSIONAL ENGINEER — MARK A. HEMMERLER — No. C061 — EXP. 3/31/25 — CIVIL — STATE OF CALIFORNIA

COUNTY OF NEVADA
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
CALIFORNIA ST-75 BRIDGE
RAIL DETAILS NO. 2

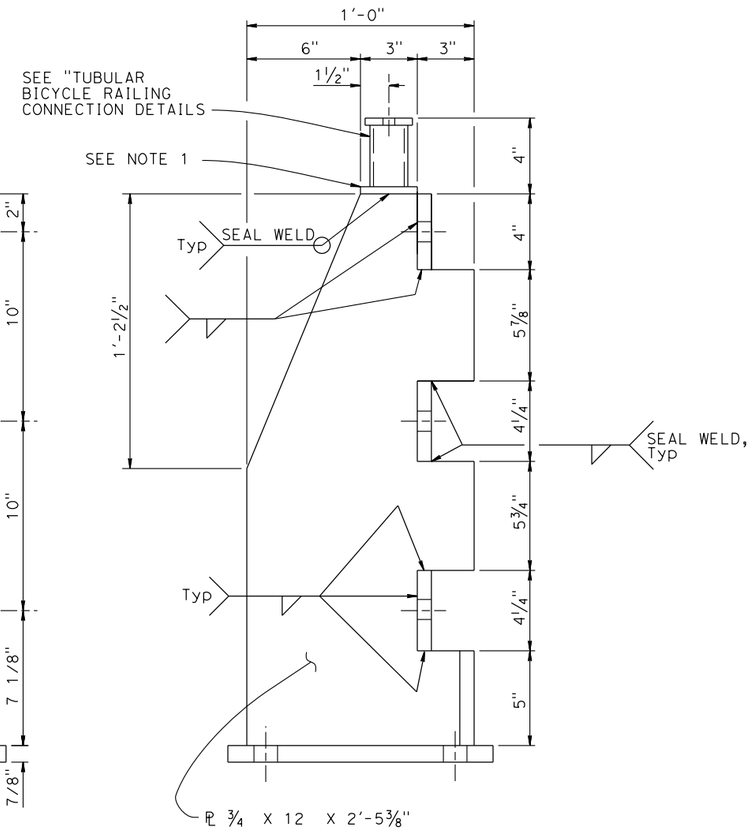
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET
43
OF 49 SHEETS



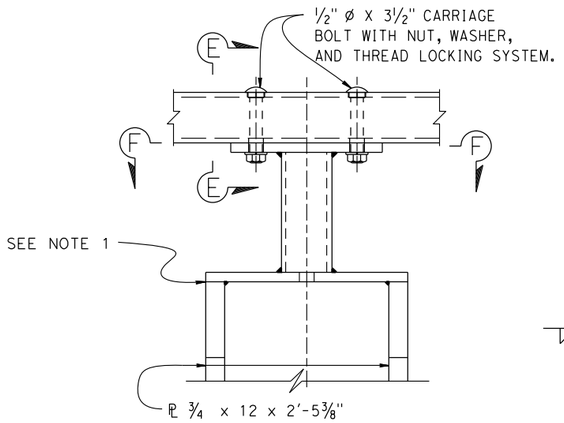
POST DETAIL

NO SCALE



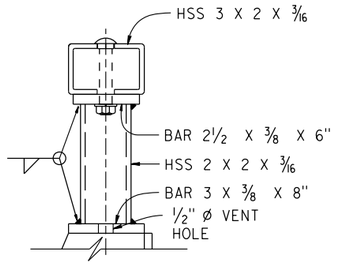
SECTION D-D

NO SCALE



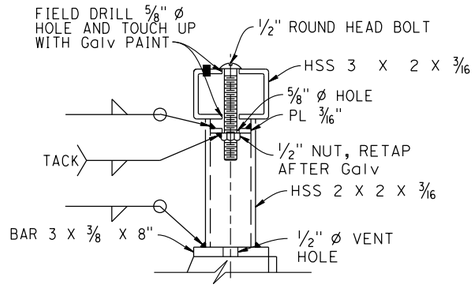
ELEVATION

NO SCALE



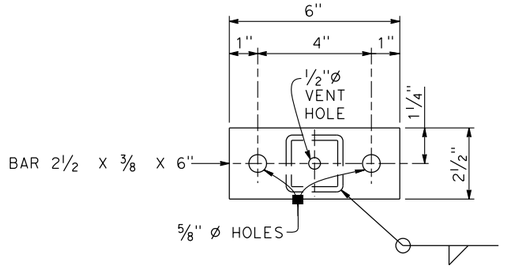
SECTION E-E

NO SCALE



SECTION E-E (ALTERNATIVE)

NO SCALE



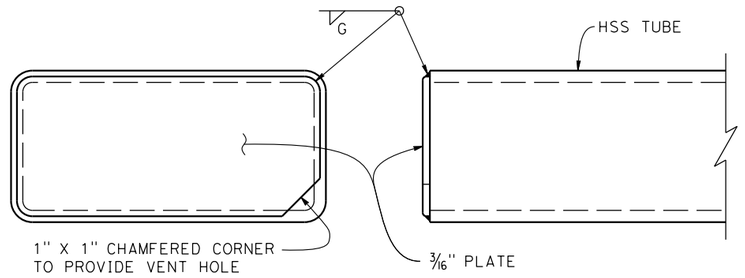
SECTION F-F

TUBULAR BICYCLE RAILING CONNECTION DETAILS

NO SCALE

NOTES:

1. For access controlled freeways and expressways where bicycle traffic is prohibited by signage on the on-ramps, the bicycle railing (includes bar 3 x 3/8 x 8" and above) may be omitted.



RAIL END CAP

NO SCALE
FOR VEHICLE RAIL TUBES
HSS 8 X 4 X 5/16" AND
FOR HSS 3 X 2 X 3/16" TUBES

REVISIONS			
NO.	DESCRIPTION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER — STEVEN MAECHLER — NO. C058705 — EXP. 3/31/25 — CIVIL — STATE OF CALIFORNIA

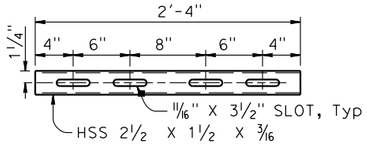
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

COUNTY of NEVADA ★ STATE OF CALIFORNIA

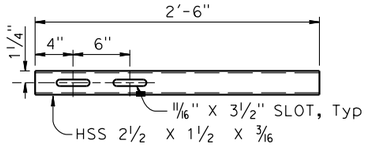
DOG BAR ROAD BRIDGE
OVER BEAR RIVER
CALIFORNIA ST-75 BRIDGE
RAIL DETAILS NO. 3

BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

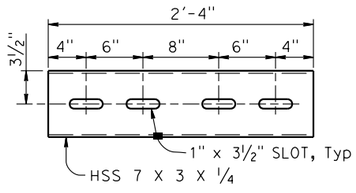
SHEET
44
OF 49 SHEETS



HSS 3 X 2 X 3/16 RAIL



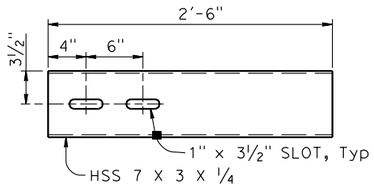
HSS 3 X 2 X 3/16 RAIL



HSS 8 X 4 X 5/16 RAIL

STANDARD SLEEVES DETAILS

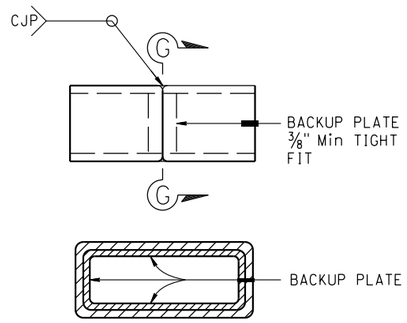
NO SCALE



HSS 8 X 4 X 5/16 RAIL

EXPANSION SLEEVES DETAILS

NO SCALE



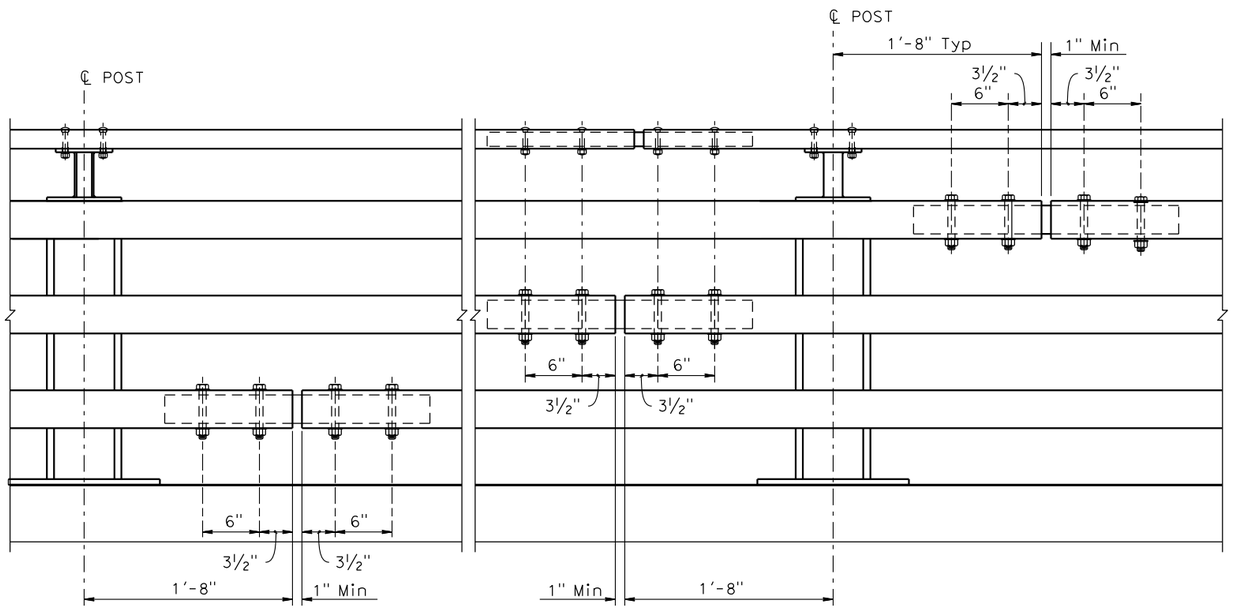
SECTION G-G

ALTERNATE TUBE WELDED STANDARD SPLICE

NO SCALE

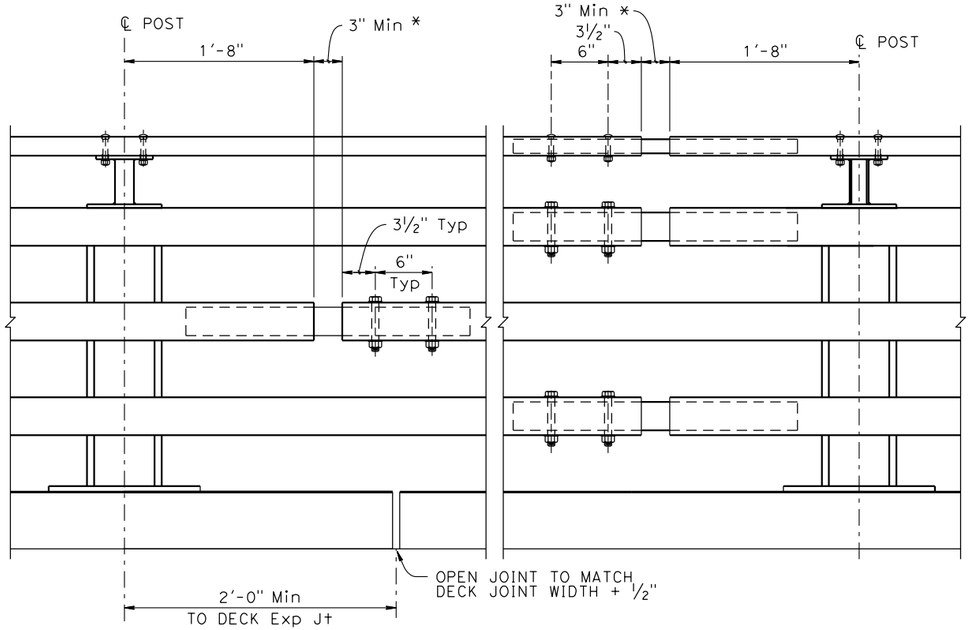
NOTES:

1. HS bolts with nut and washers, snug tightened, and thread locking system.
2. Use ½" ø X 3 5/16 BOLTS (HSS 3 X 2 X 3/16)
   Use ¾" ø X 5 5/16 BOLTS (HSS 8 X 4 X 5/16)
3. Each rail length must be continuous over a minimum of two posts.
4. The fabricator must check that the tubular sleeve splices conform to the dimensions indicated to assure proper clearance.
5. Except for expansion splices, not more than one splice permitted per same side of post.



STANDARD SPLICE

NO SCALE



EXPANSION SPLICE

NO SCALE

* MATCH DECK OR WALL JOINT

REVISIONS

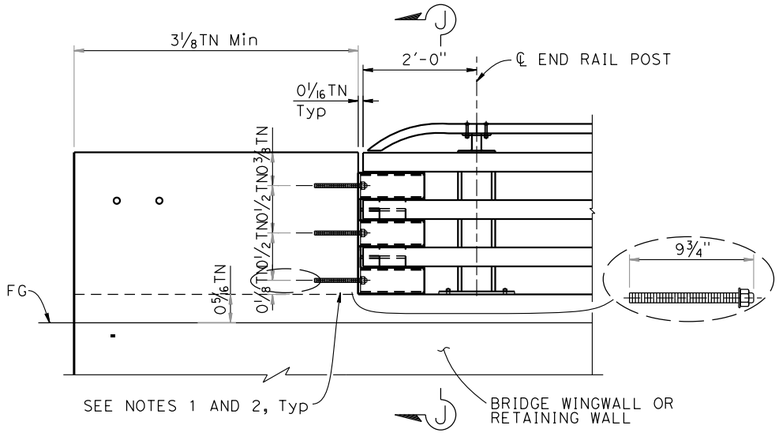
NO.	DESCRIPTION	BY	DATE

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
CALIFORNIA ST-75 BRIDGE
RAIL DETAILS NO. 4

BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

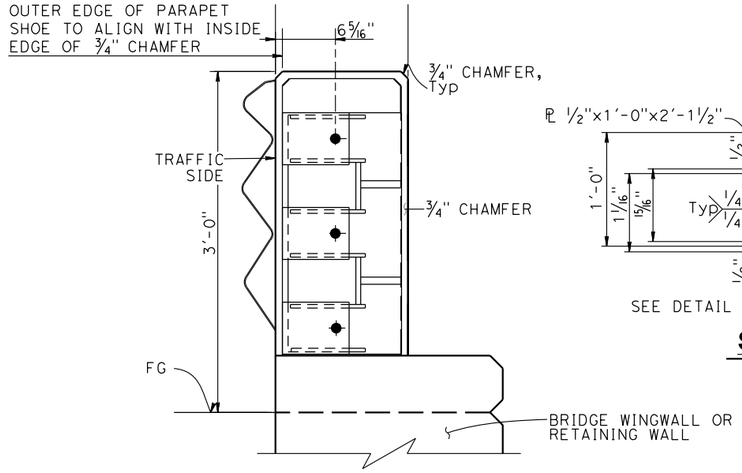
SHEET
45
OF 49 SHEETS



PARAPET SHOE AT DEPARTURE END BLOCK

¾" = 1'-0"

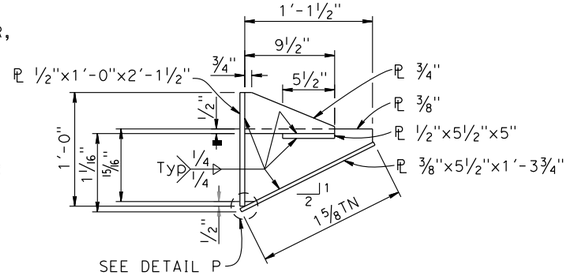
NOTE: Parapet shoe connection to approach end block is similar.



SECTION J-J

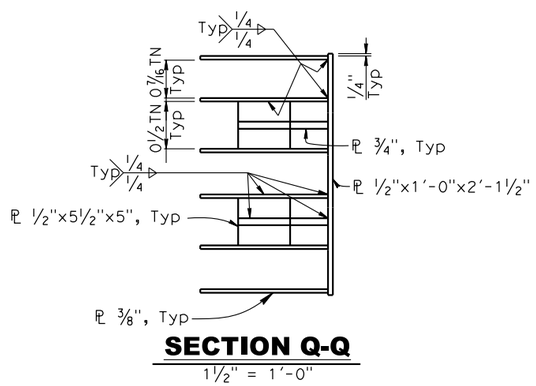
¾" = 1'-0"

NOTE: Bridge railing not shown clarity.



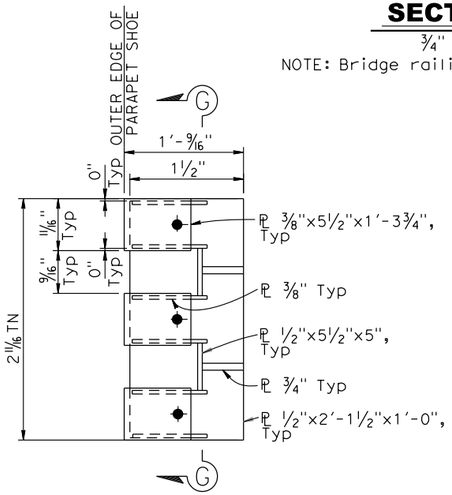
SECTION K-K

1½" = 1'-0"



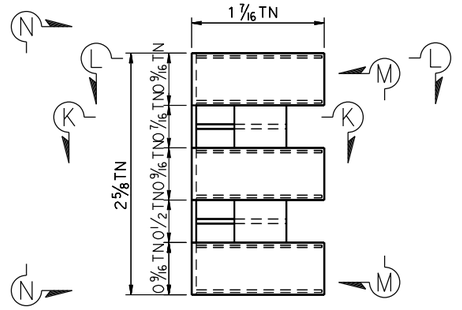
SECTION Q-Q

1½" = 1'-0"



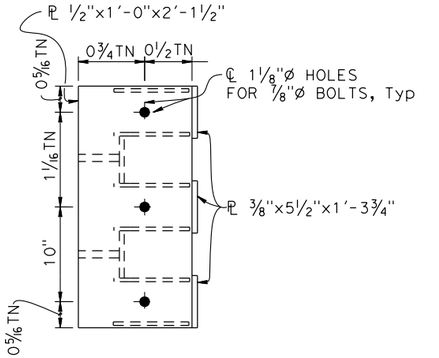
VIEW M-M

1½" = 1'-0"



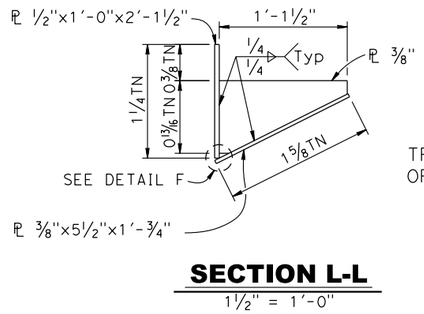
PARAPET SHOE ELEVATION

1½" = 1'-0"



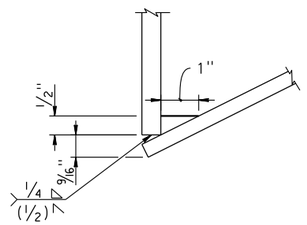
VIEW N-N

1½" = 1'-0"



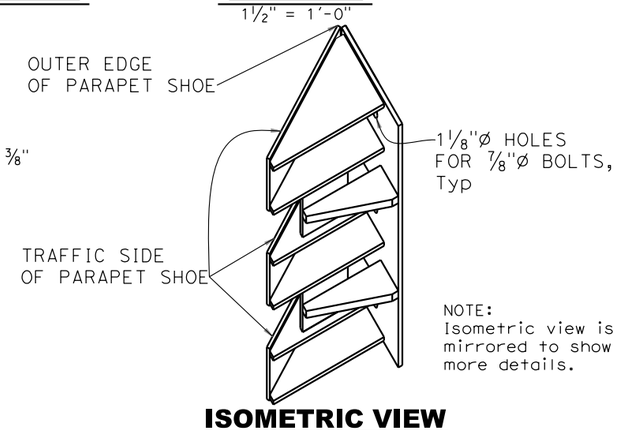
SECTION L-L

1½" = 1'-0"



DETAIL F

6" = 1'-0"



NOTE: Isometric view is mirrored to show more details.

ISOMETRIC VIEW

NOTES:

1. Anchor bolts must be ⅞" Dia and ASTM F1554 Grade 105 fully threaded rods with heavy hex nut and one hardened washer (1¾" OD) each. Embed threaded rods 8" into concrete anchor block with DRILL AND BOND (CHEMICAL ADHESIVE) anchorage system.
2. DRILL AND BOND (CHEMICAL ADHESIVE) anchorages is subjected to approval of Engineer. Installation procedure must comply with manufacture's instructions.

REVISIONS			
NO.	DESCRIPTION	BY	DATE

REGISTERED PROFESSIONAL ENGINEER — JOHN MAERTZ — NO. C63705 — EXP. 3/31/25 — CIVIL — STATE OF CALIFORNIA

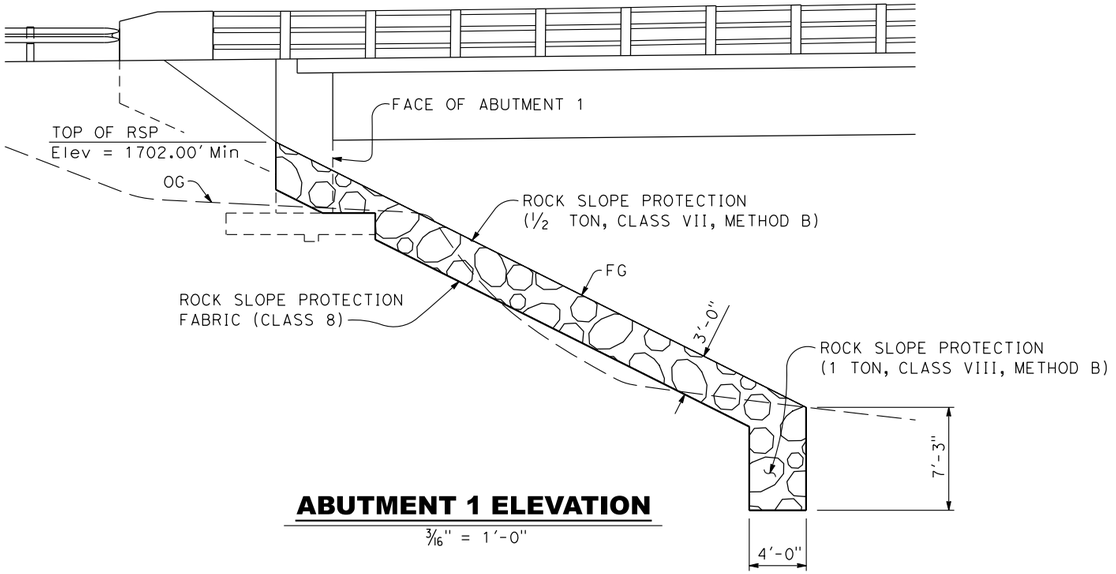
NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

COUNTY of NEVADA — INCORPORATED AUGUST 1, 1851

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
CALIFORNIA ST-75 BRIDGE
RAIL DETAILS NO. 5

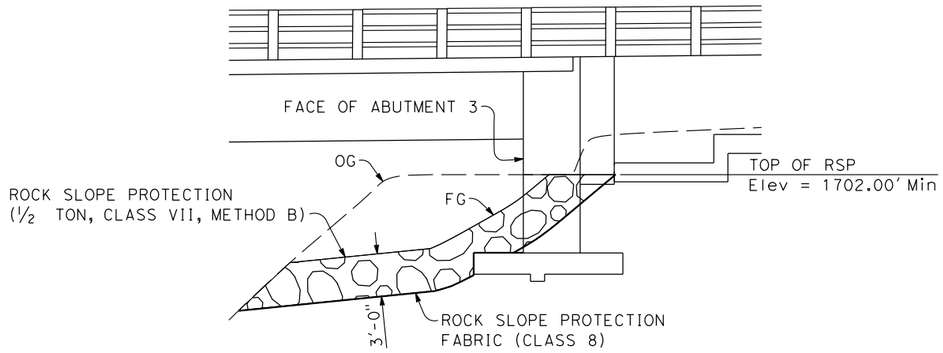
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET
46
OF 49 SHEETS



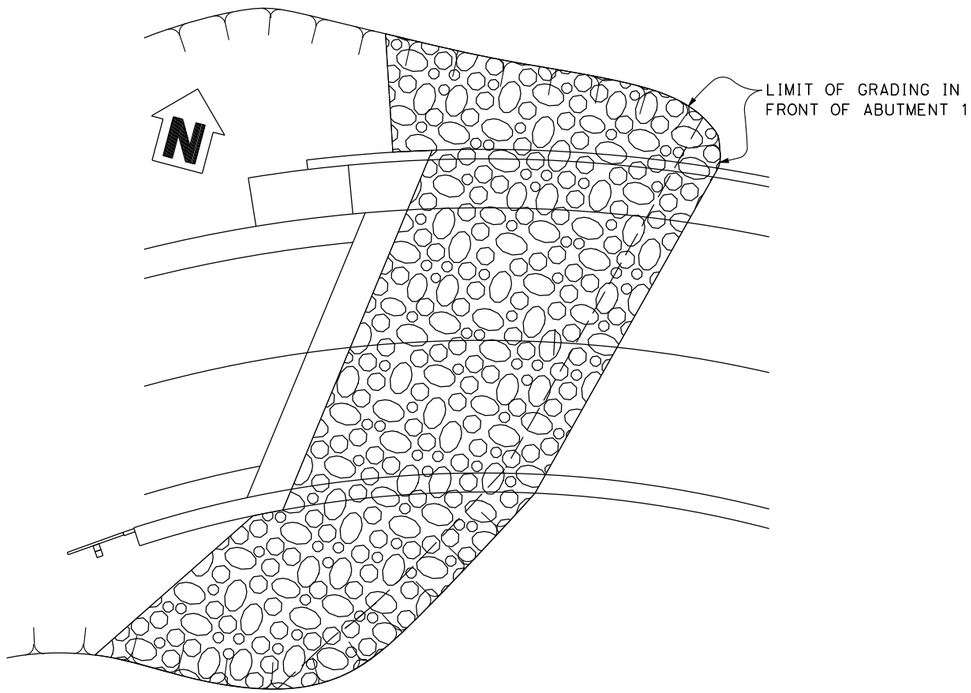
ABUTMENT 1 ELEVATION

3/16" = 1'-0"



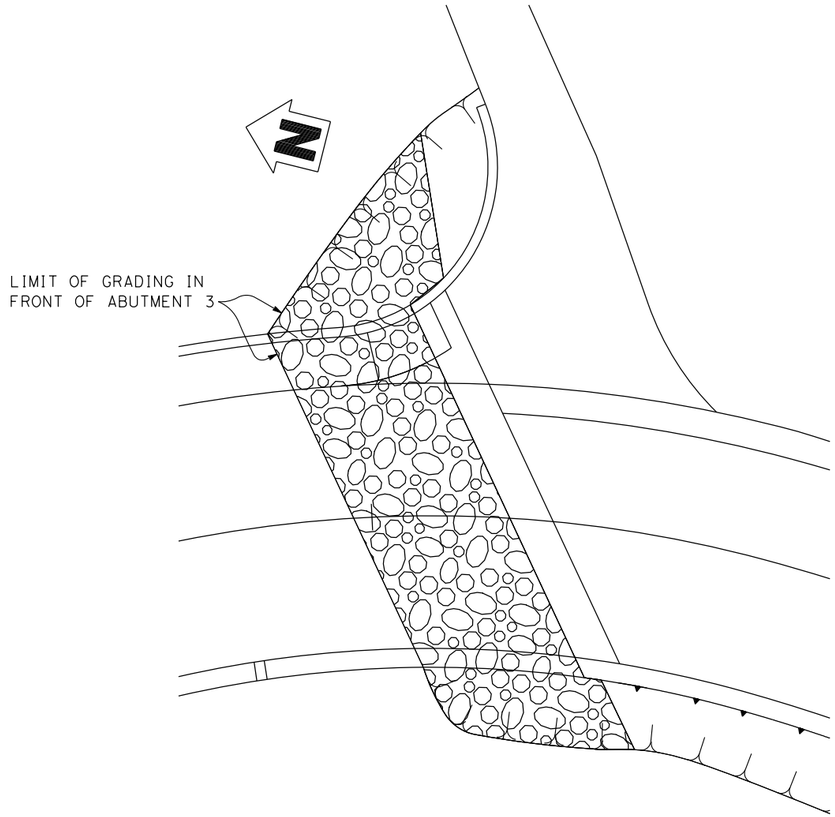
ABUTMENT 3 ELEVATION

3/16" = 1'-0"



ABUTMENT 1 PLAN

1/8" = 1'-0"



ABUTMENT 3 PLAN

1/8" = 1'-0"

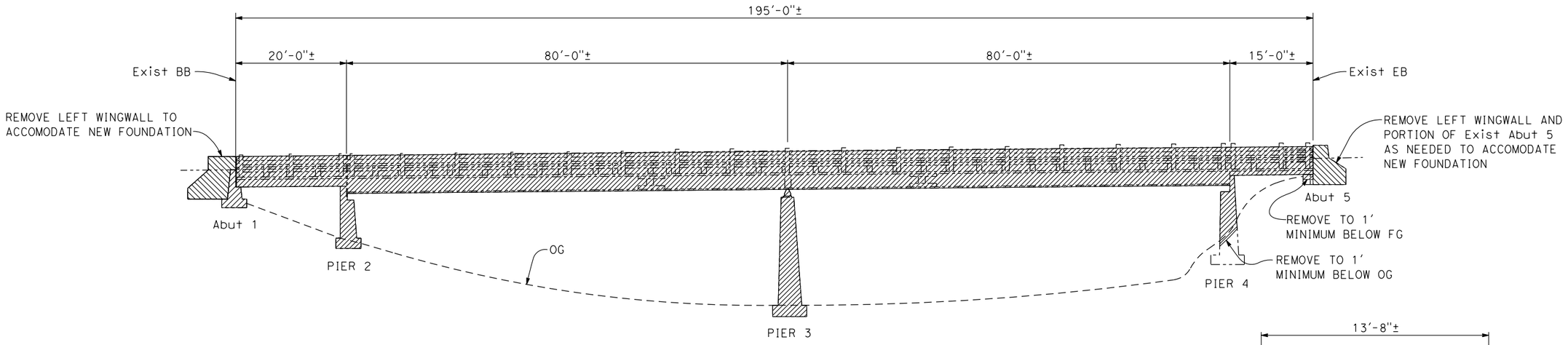
REVISIONS			
NO.	DESCRIPTION	BY	DATE

COUNTY of NEVADA
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE OVER BEAR RIVER ROCK SLOPE PROTECTION

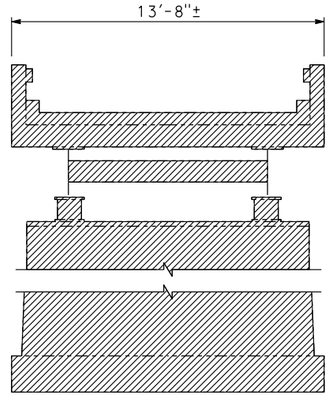
BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET
47
OF 49 SHEETS



ELEVATION

NO SCALE

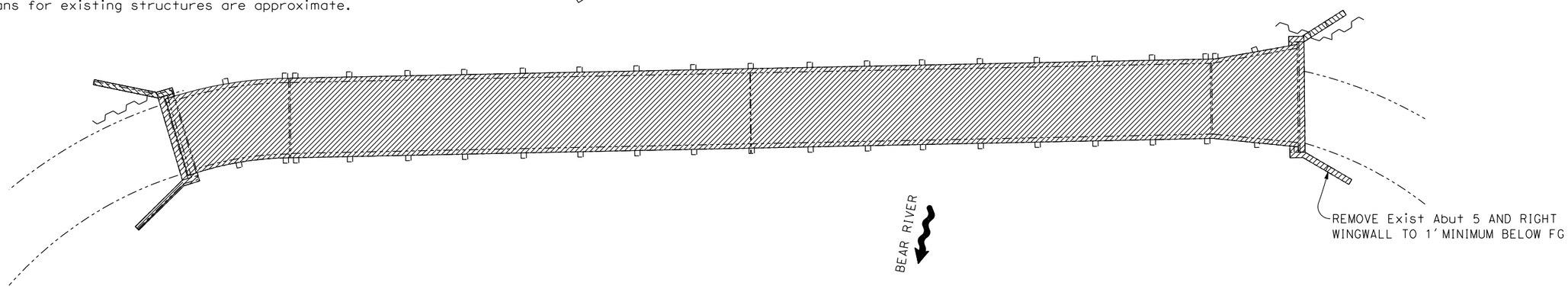


TYPICAL SECTION

NO SCALE

NOTES:

1. Structure must not be removed until it is no longer needed and as approved by the Engineer.
2. Unless otherwise shown, remove all concrete to 1 foot minimum below finished grade.
3. All drawings and dimensions provided in these plans for existing structures are approximate.



PLAN

NO SCALE

LEGEND:

- Existing structure
- Temporary Shoring
- Denotes concrete removal (Stage 1)
- Denotes concrete removal (Stage 2)

REVISIONS

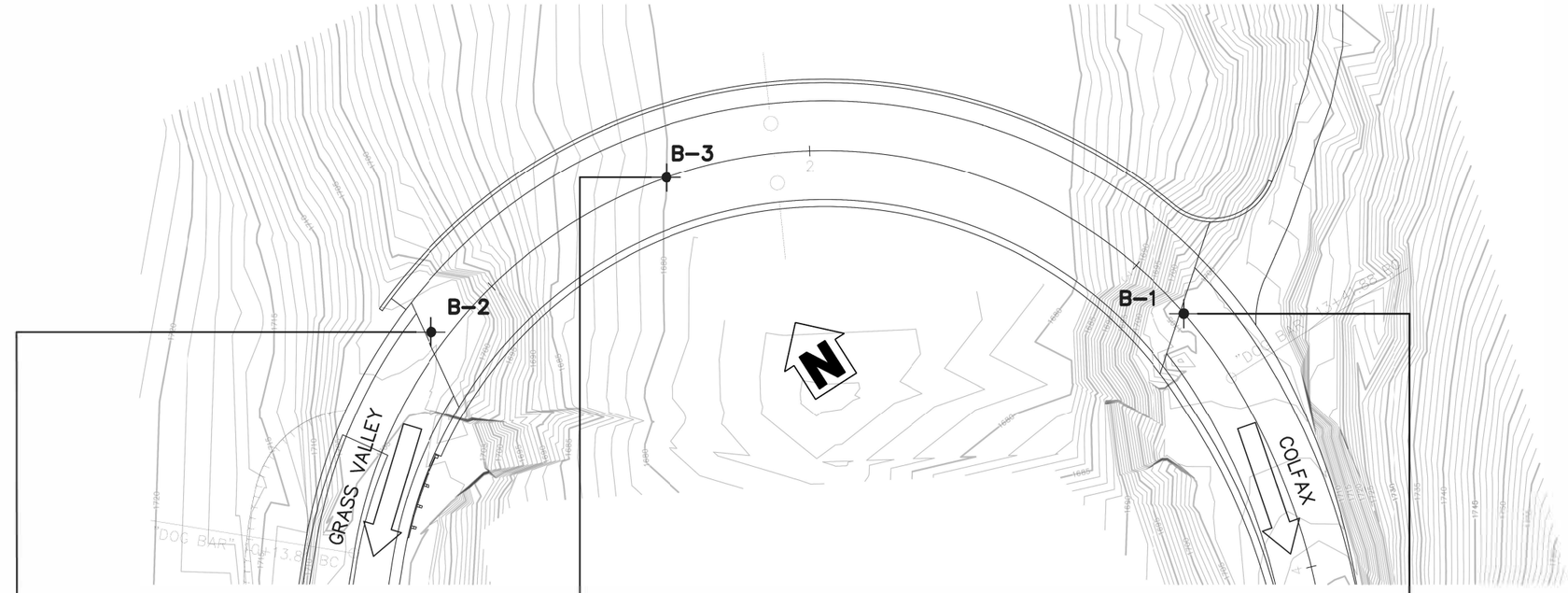
NO.	DESCRIPTION	BY	DATE

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

DOG BAR ROAD BRIDGE
OVER BEAR RIVER
BRIDGE REMOVAL

BRIDGE NO:	17C0110
DESIGNED:	D. YANG
DRAWN:	K. DANG
CHECKED:	E. GUTIERREZ
JOB NO:	2108
DATE:	DECEMBER, 2023

SHEET
48
OF 49 SHEETS



NO.	DESCRIPTION	BY	DATE

REVISIONS

REGISTERED PROFESSIONAL ENGINEER ★ VIRGINIA ★ CHARLES R. KULL ★ NO. 2359 ★ GEOTECHNICAL ENGINEER ★ STATE OF CALIFORNIA

NEVADA COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN/CONSTRUCTION DIVISION

COUNTY of NEVADA ★ INCORPORATED ★ STATE OF CALIFORNIA

DOG BAR ROAD BRIDGE OVER BEAR RIVER
LOG OF TEST BORINGS

BRIDGE NO:	17C0110
DESIGNED:	W. LAST
DRAWN:	W. LAST
CHECKED:	C. KULL
JOB NO:	2108
DATE:	APRIL 2022

SHEET
49
OF 49 SHEETS