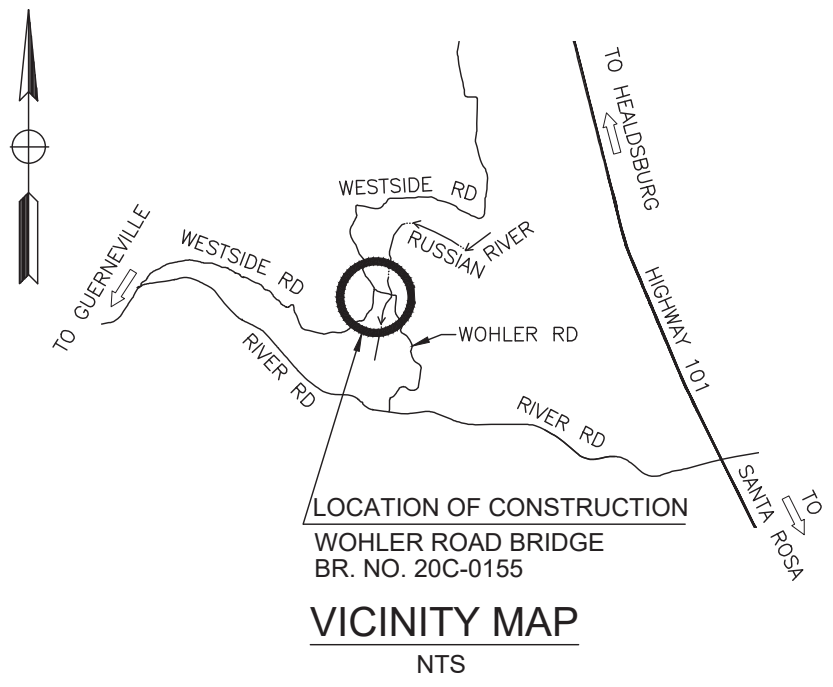


SONOMA COUNTY PUBLIC INFRASTRUCTURE PROJECT PLANS FOR CONSTRUCTION OF THE WOHLER ROAD OVER THE RUSSIAN RIVER EARTHQUAKE RETROFIT PROJECT

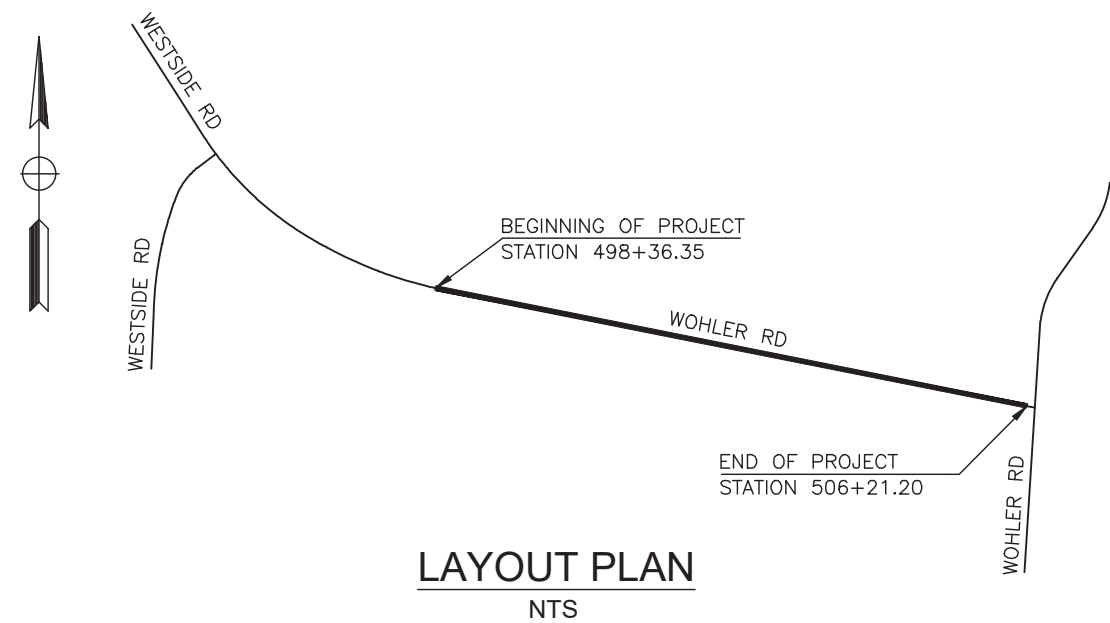
FEDERAL AID PROJECT STPLZ-5920(137)
 BRIDGE NO. 20C-0155
 CONTRACT NO. C01136

TO BE SUPPLEMENTED BY STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
 STANDARD PLANS, STANDARD SPECIFICATIONS, AND REVISED STANDARD SPECIFICATIONS DATED 2023



INDEX OF SHEETS

SHEET NO.	DRAWING	TITLE
1	T-1	TITLE SHEET
2	RE-1	TREE REMOVAL PLAN
3	C-1	CONSTRUCTION DETAILS
4-8	WPC-1 TO WPC-5	TEMPORARY WATER POLLUTION CONTROL
9	U-1	UTILITY RELOCATION PLAN
10	TH-1	PORTAGE AND TRAFFIC HANDLING PLAN
11-12	DE-1 TO DE-2	DETOUR SIGN PLAN
13-15	EC-1 TO EC-3	EROSION CONTROL PLAN
16-17	SA-1 TO SA-2	STAGING AREAS
18-24	E-1 TO E-7	ELECTRICAL PLANS
25-82	ST-1 TO ST-58	BRIDGE PLANS



CALTRANS STANDARD PLANS DATED 2023

- STANDARD DETAIL SHEET NO.
- DETAIL NO.

THE STANDARD PLANS LIST FOR THIS PROJECT IS INCLUDED IN THE SPECIAL PROVISIONS BOOK.

VERTICAL DATUM:


USC&GS BRASS DISC STAMPED "A 239 1935" (CP#37) LOCATED ON TOP OF CURB ON WEST END OF BRIDGE, SOUTH SIDE. ALSO KNOWN AS NGS PID JT1162 ELEV=82.0 (NAVD 88)

BASIS OF BEARINGS:

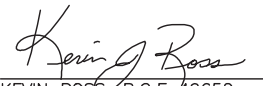
N 73°58'26" W 1047.36 FT BETWEEN FOUND SCWA MAG AND WASHER (CP#1) AND FOUND MAG AND WASHER IN AERIAL PANEL (CP#49). BEARING BASED ON OPUS STATIC SOLUTIONS.


NOTE:

THE CONTRACTOR SHALL POSSESS A CLASS A LICENSE AND A HAZARDOUS MATERIALS CERTIFICATE AT THE TIME OF AWARD.

APPROVED FOR CONSTRUCTION BY:

 JOHANNES J. HOEVER, R.C.E. 67468 DIRECTOR DATE 09-11-2023
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS

	COMPANY	CONTACT	PHONE	LEAD TIME
OVERHEAD ELECTRIC	PG&E	MICHAEL MILLER	(707) 579-6478	TWO WEEK NOTICE
12kv OVERHEAD ELECTRIC SHUTOFF	SCWA	BILLY DIXON	(707) 521-1832	
WATER (CONNECTION OR OTHER SERVICE MATTERS)	SCWA			
FIBER OPTIC RELATED ISSUES	SCWA			
GATE CODES OR ACCESS ISSUES	SCWA			
TEMPORARY CONSTRUCTION AREA ISSUES	SCWA			
ISSUES RELATED TO DAM RAISING/LOWERING	SCWA			
REVOCABLE LICENSE ISSUES	SCWA			

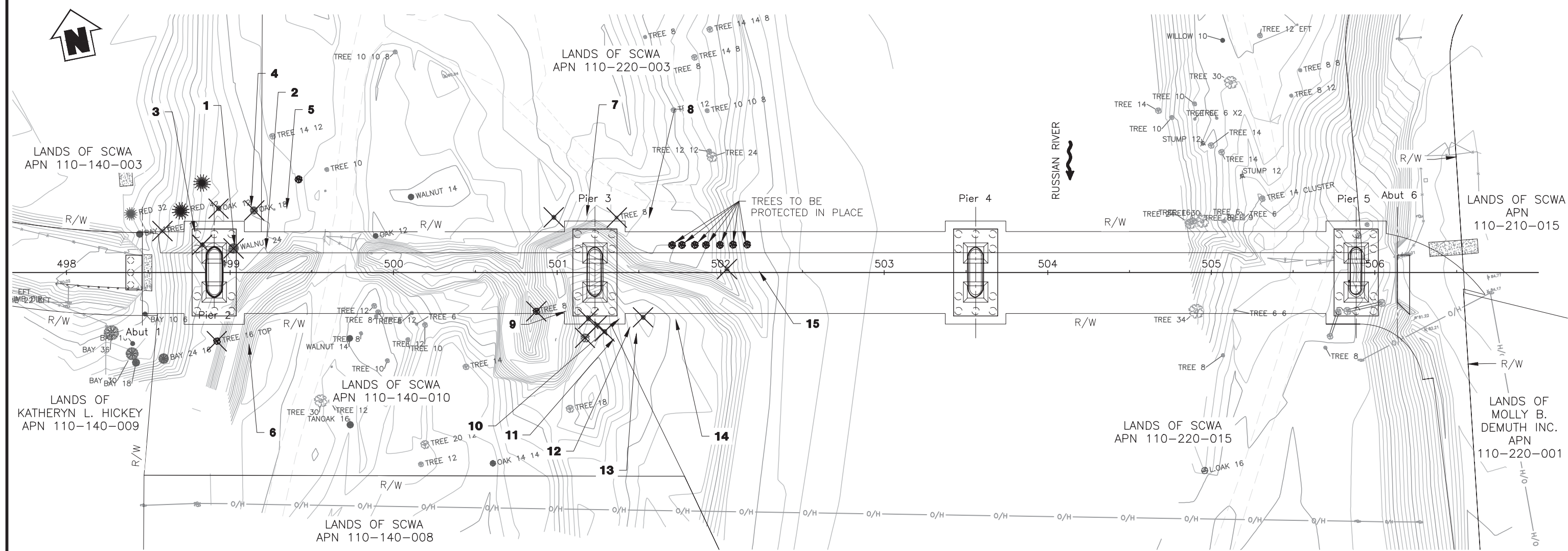

 KEVIN ROSS, R.C.E. 49652 PROJECT ENGINEER DATE 09-11-2023
 DEWBERRY ENGINEERS INC.



DESIGN BY	KR	"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION	DATE	REVISION	BY	APPROVED	ROAD NUMBER	8901	
DRAWING BY	KD		CONSTRUCTION COMPLETED:					BUDGET NUMBER	C01136
CHECKED BY	KD		RESIDENT ENGINEER AS BUILT DRAWINGS BY:					FISCAL YEAR	2022-23
							SHEET NUMBER	1	
							TOTAL SHEETS	82	

LEGEND:

✕ Remove Tree



PLAN
1" = 30'

TREE REMOVAL TABLE

TREE ID NUMBER	SPECIES	DIAMETER AT BREAST HEIGHT (INCHES)
1	CALIFORNIA BAY	10
2	CALIFORNIA BLACK WALNUT	24
3	TREE	10
4	OAK	12
5	OAK	18
6	TREE	16
7	ASH	8
8	BOX ELDER	8

TREE REMOVAL TABLE

TREE ID NUMBER	SPECIES	DIAMETER AT BREAST HEIGHT (INCHES)
9	TREE	8
10	ASH	8
11	CALIFORNIA BLACK WALNUT	22
12	WILLOW	10
13	WILLOW	10
14	WILLOW	9
15	WILLOW	9

THIS PLAN ACCURATE FOR TREE REMOVAL WORK ONLY

DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
REGISTERED CIVIL ENGINEER
No. 49652
Exp. 09/30/24
09/11/2023
PLANS APPROVAL DATE

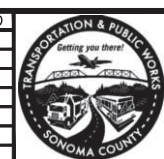


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

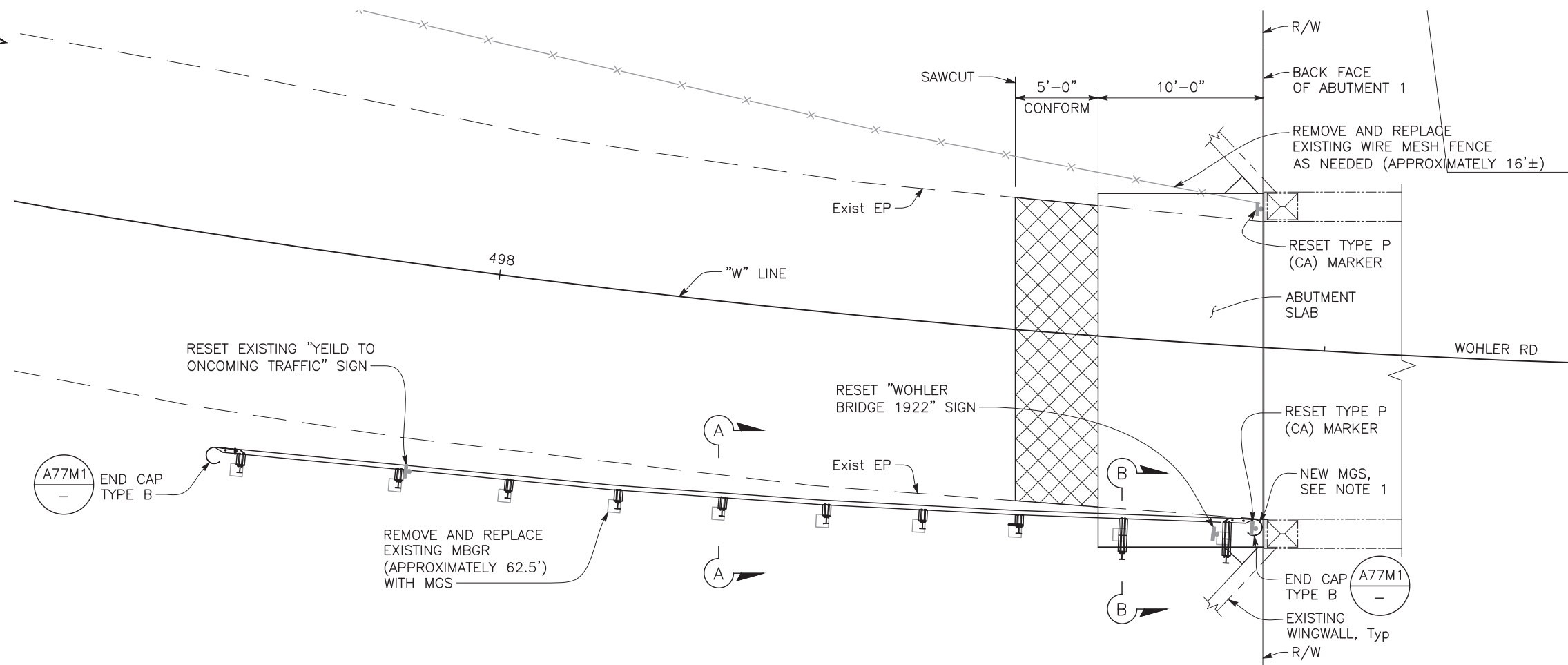


COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

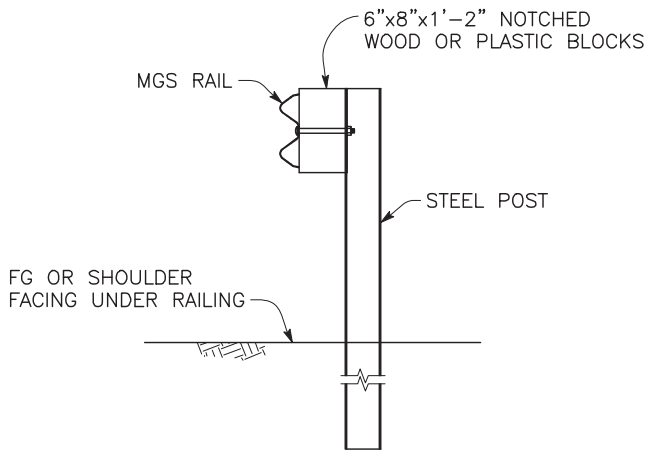
TREE REMOVAL PLAN WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
	FISCAL YEAR	2022-23
	SHEET NUMBER	2
	TOTAL SHEETS	82

RE-1

File: 111620-000-001-01-001.dwg - 111620-000-001-001.dwg
 Plot: 111620-000-001-001.dwg - 111620-000-001-001.dwg
 Plot Date: Sep 11, 2023 at 10:44



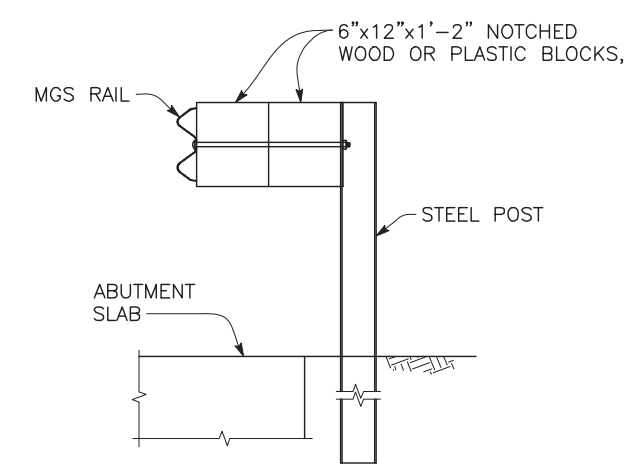
ABUTMENT 1 - MBGR REPLACEMENT
 $\frac{1}{4}'' = 1'-0''$
 FOR DETAILS NOT SHOWN, SEE "ABUTMENT CONFORM DETAILS NO. 1" SHEET



SECTION A-A (A77L2)
 NO SCALE

NOTE:

- Align new MGS to be flush with inside face of existing barrier with a 1" gap. The final location will be determined by the field Engineer.



**SECTION B-B
 (OVER ABUTMENT SLAB)**
 NO SCALE
 FOR DETAILS NOT SHOWN, SEE "SECTION A-A"

Title: MBGR - MGS Project - 2022-23; Date: 09/11/2023; 11:00 AM; Project: MBGR - MGS Project - 2022-23; Drawing: MBGR - MGS Project - 2022-23; Rev: 1; Date: Sep 11, 2023 at 11:44 AM

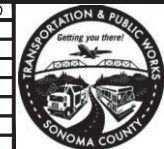
DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION			
DATE	REVISION	BY	APPROVED

CONSTRUCTION COMPLETED: _____
 RESIDENT ENGINEER _____
 AS BUILT DRAWINGS BY: _____

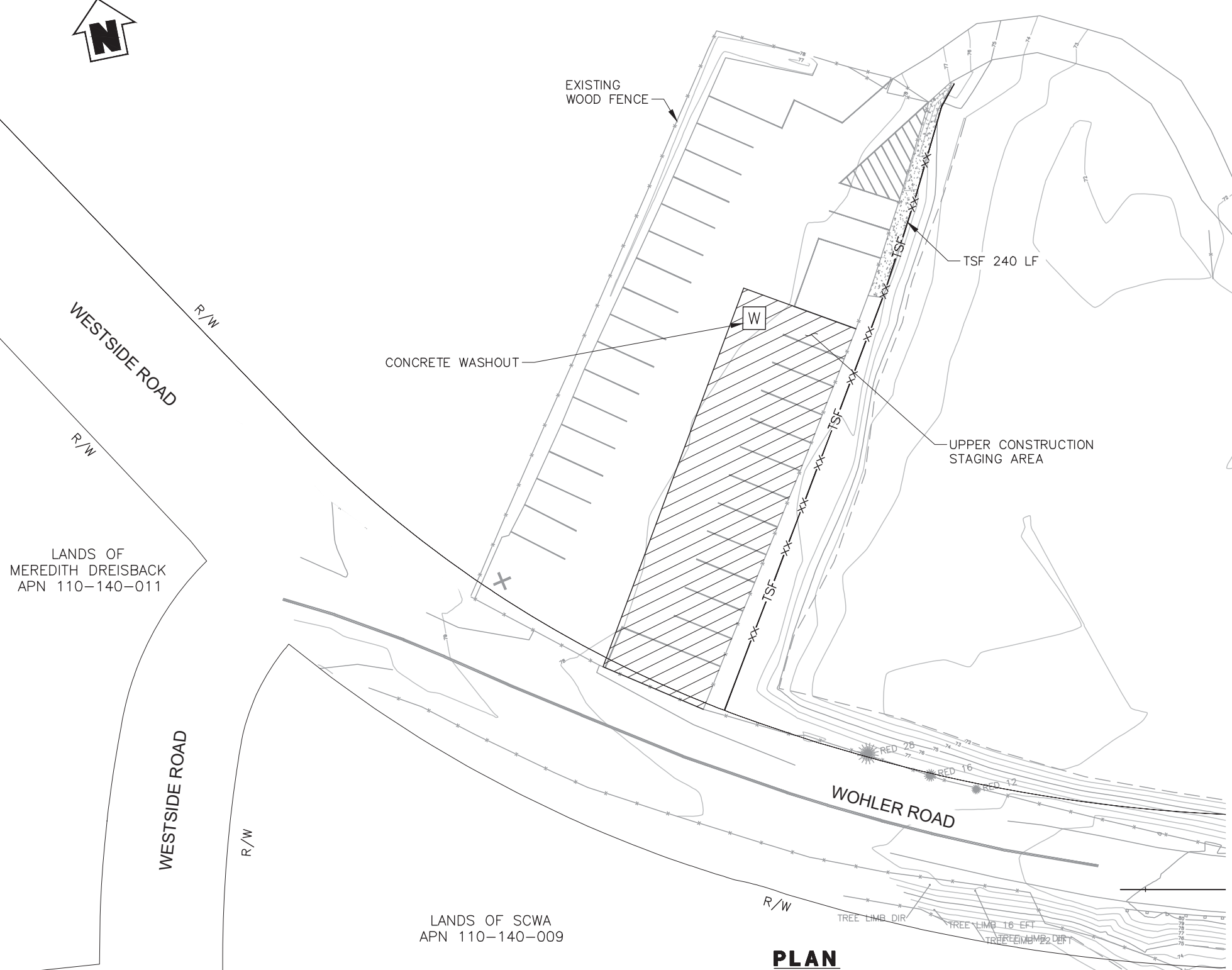


COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

CONSTRUCTION DETAILS	
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	3
TOTAL SHEETS	82

LANDS OF SCWA
APN 110-140-003



LANDS OF MEREDITH DREISBACK
APN 110-140-011

LANDS OF SCWA
APN 110-140-009

PLAN
1" = 20'

LEGEND:

- FIBER ROLL (FR)
- STABILIZED CONSTRUCTION ENTRANCE/EXIT
- Temp SILT FENCE
- Temp HIGH-VISIBILITY FENCE
- COUNTY RIGHT OF WAY
- ACCESS ROADS
- CONSTRUCTION STAGING AREA
- CONCRETE WASHOUT
- REMOVE TREE

EROSION CONTROL QUANTITIES

ITEM	QUANTITY	UNIT
TEMPORARY SILT FENCE	240	LF

THIS PLAN ACCURATE FOR TEMPORARY WATER POLLUTION CONTROL WORK ONLY

DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
REGISTERED CIVIL ENGINEER

09/11/2023
PLANS APPROVAL DATE



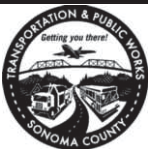
"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED:

RESIDENT ENGINEER _____

AS BUILT DRAWINGS BY:

DATE	REVISION	BY	APPROVED



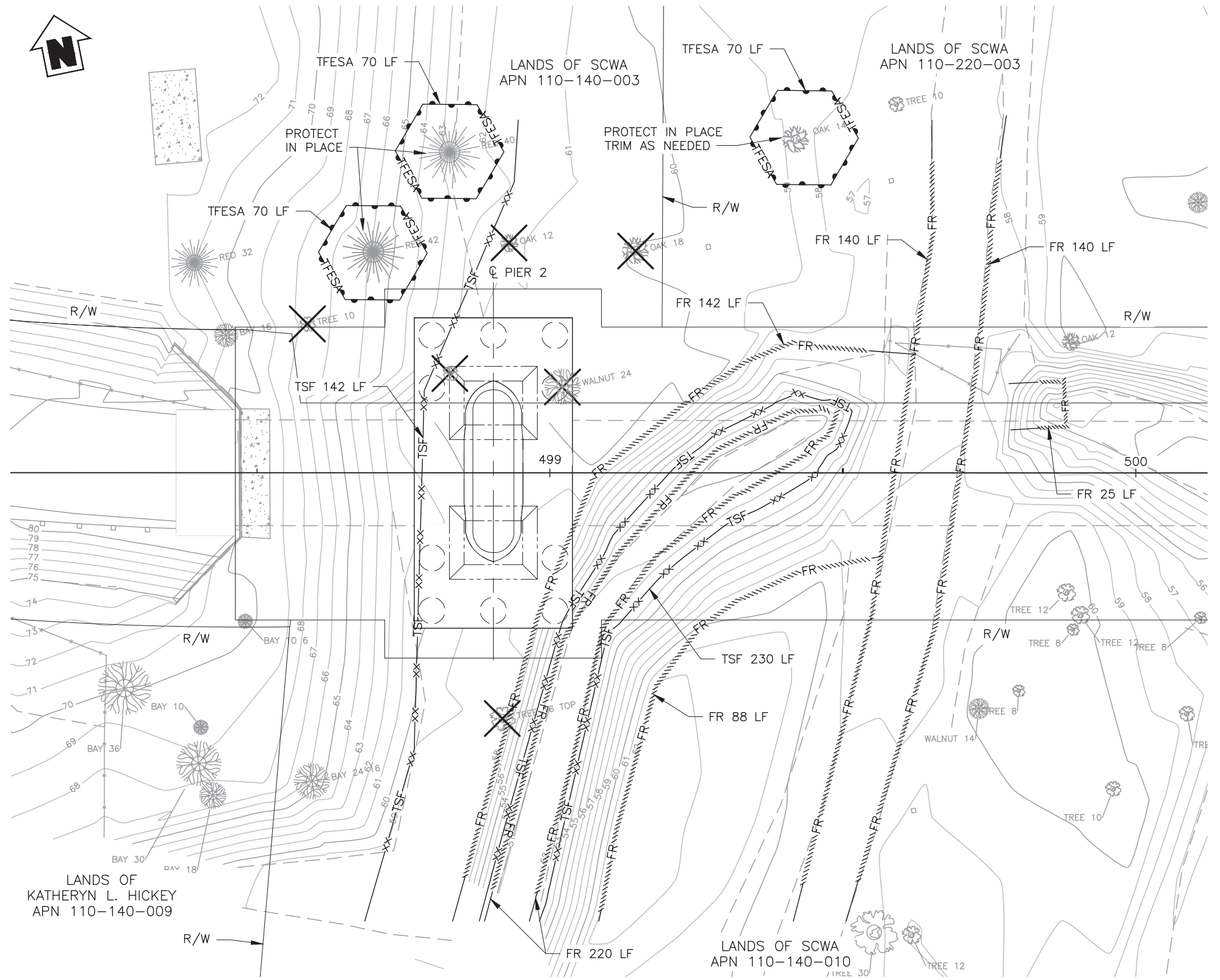
COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

TEMPORARY WATER POLLUTION CONTROL

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	4
TOTAL SHEETS	82

WPC-1



LEGEND:

- FIBER ROLL (FR)
- STABILIZED CONSTRUCTION ENTRANCE/EXIT
- Temp SILT FENCE
- Temp HIGH-VISIBILITY FENCE
- COUNTY RIGHT OF WAY
- ACCESS ROADS
- CONSTRUCTION STAGING AREA
- CONCRETE WASHOUT
- REMOVE TREE

EROSION CONTROL QUANTITIES

ITEM	QUANTITY	UNIT
BIODEGRADABLE FIBER ROLL	755	LF
TEMPORARY SILT FENCE	372	LF
TEMPORARY HIGH-VISIBILITY-FENCE	210	LF

PLAN
 1" = 10'

THIS PLAN ACCURATE FOR TEMPORARY WATER POLLUTION CONTROL WORK ONLY

WPC-2

Title: 2022-23 Wöhler Road Bridge Over Russian River; Date: 09/11/2023; Project: Wöhler Road Bridge Over Russian River; Scale: 1" = 10'; Sheet: 5 of 5; Drawn by: KD; Checked by: KD; Design by: KR; Approved by: Kevin J. Ross; Date: 09/11/2023; State of California; Professional Engineer No. 49652; Exp. 09/30/24

DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE

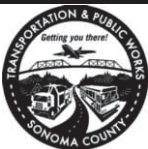


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

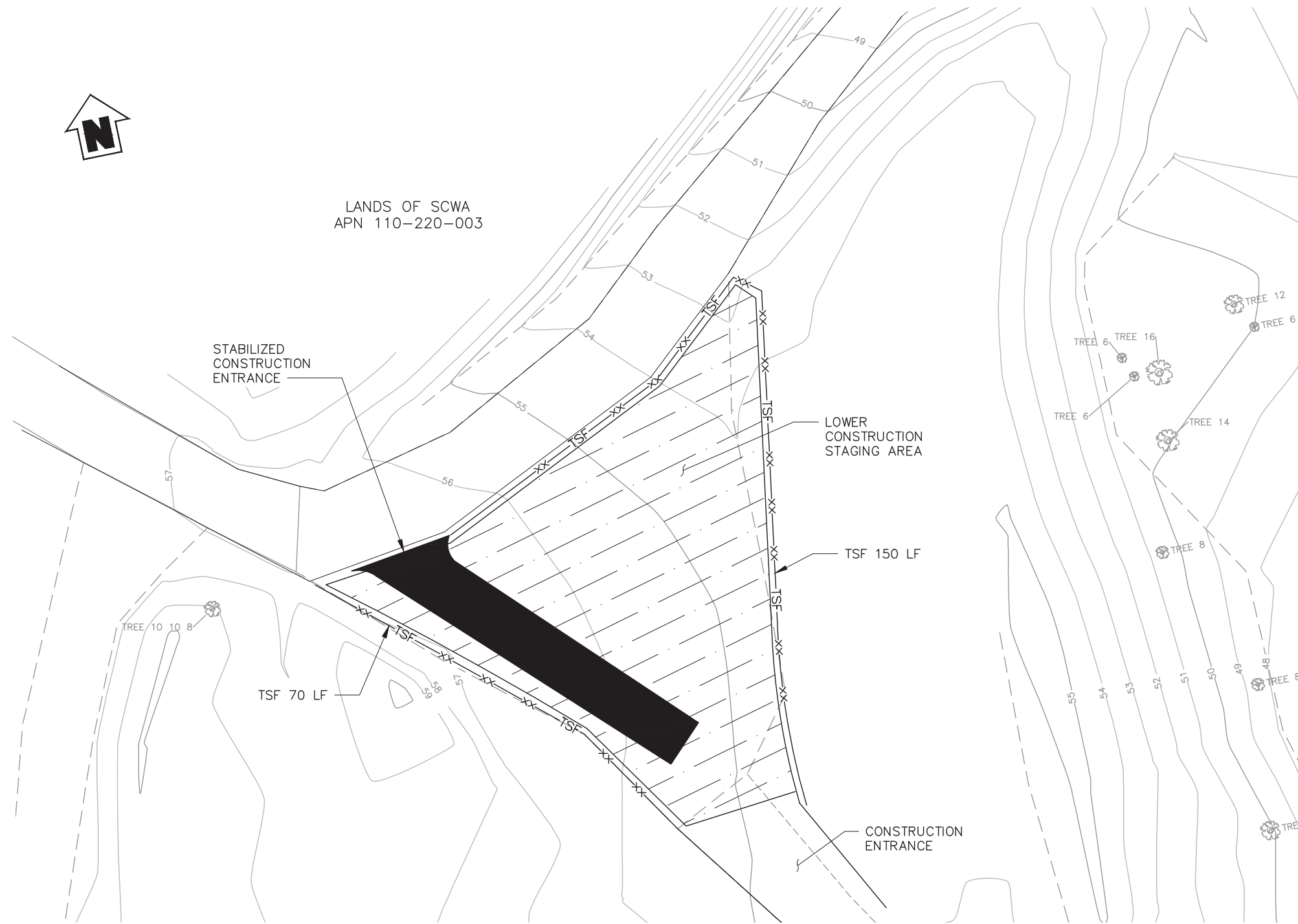
TEMPORARY WATER POLLUTION CONTROL

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	5
TOTAL SHEETS	82



LANDS OF SCWA
 APN 110-220-003



LEGEND:

- FIBER ROLL (FR)
- STABILIZED CONSTRUCTION ENTRANCE/EXIT
- Temp SILT FENCE
- Temp HIGH-VISIBILITY FENCE
- COUNTY RIGHT OF WAY
- ACCESS ROADS
- CONSTRUCTION STAGING AREA
- CONCRETE WASHOUT
- REMOVE TREE

EROSION CONTROL QUANTITIES

ITEM	QUANTITY	UNIT
TEMPORARY SILT FENCE	220	LF

PLAN

1" = 10'

THIS PLAN ACCURATE FOR TEMPORARY WATER POLLUTION CONTROL WORK ONLY

WPC-3

DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE

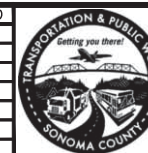


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

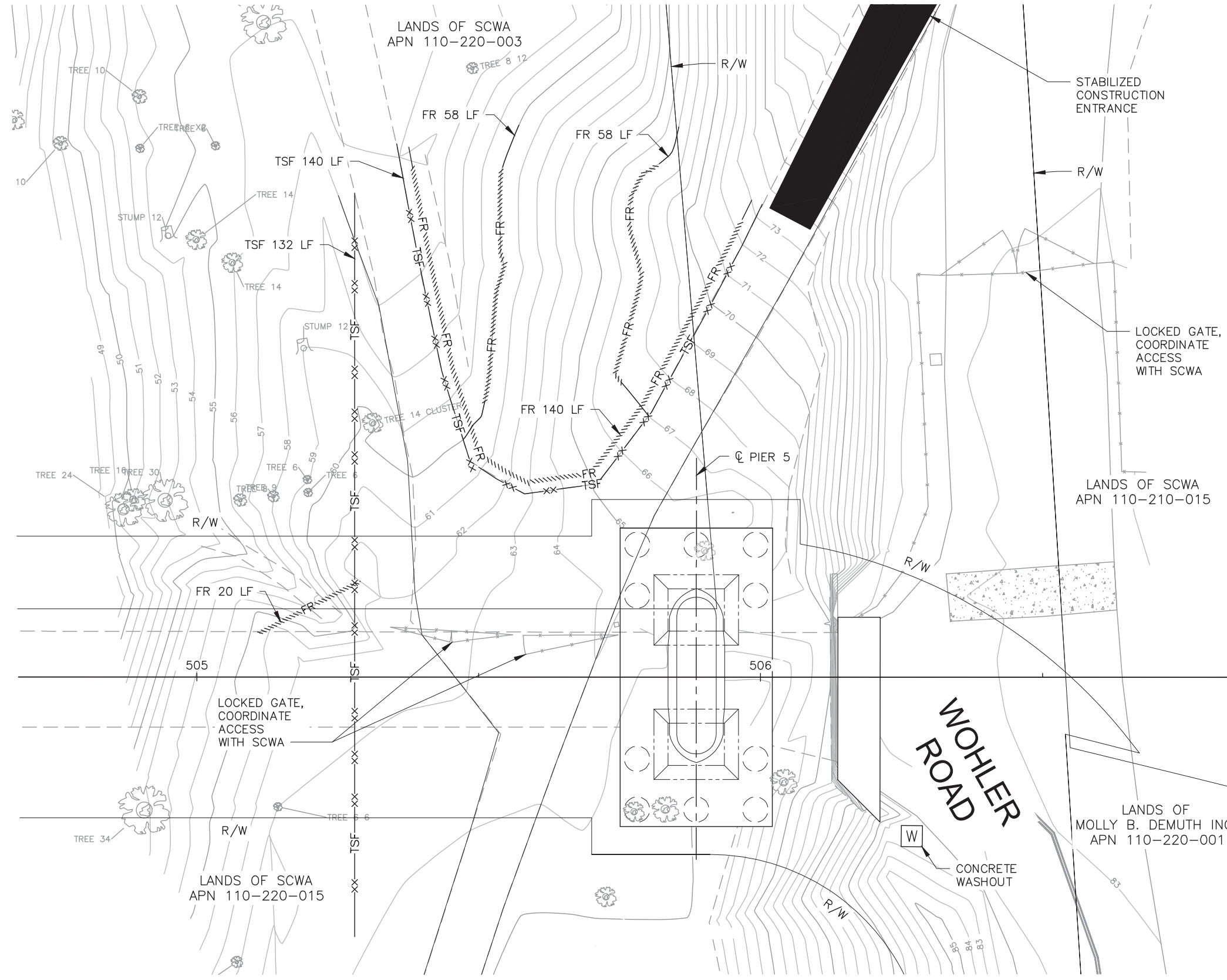
DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

TEMPORARY WATER POLLUTION CONTROL		ROAD NUMBER	8901
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER		BUDGET NUMBER	C01136
		FISCAL YEAR	2022-23
		SHEET NUMBER	6
		TOTAL SHEETS	82

Title: WPC-3 - WPC-3 (11/14/23) - 2023-09-11 11:14:00 AM - 11/14/23 11:14:00 AM - 11/14/23 11:14:00 AM - 11/14/23 11:14:00 AM
 Plot: US (24x36) - 11/14/23 11:14:00 AM - 11/14/23 11:14:00 AM - 11/14/23 11:14:00 AM - 11/14/23 11:14:00 AM
 Plot Date: Sep 11, 2023 at 10:44



LEGEND:

- FIBER ROLL (FR)
- STABILIZED CONSTRUCTION ENTRANCE/EXIT
- Temp SILT FENCE
- Temp HIGH-VISIBILITY FENCE
- COUNTY RIGHT OF WAY
- ACCESS ROADS
- CONSTRUCTION STAGING AREA
- CONCRETE WASHOUT
- REMOVE TREE

EROSION CONTROL QUANTITIES

ITEM	QUANTITY	UNIT
BIODEGRADABLE FIBER ROLL	276	LF
TEMPORARY SILT FENCE	272	LF

PLAN
 1" = 10'
 THIS PLAN ACCURATE FOR TEMPORARY WATER POLLUTION CONTROL WORK ONLY

DATE: 09/11/2023 11:44:00 AM; USER: KEVIN.J.ROSS; PROJECT: WPC-5; SHEET: 8 OF 8; DRAWING: WPC-5-8; SCALE: 1"=10';

DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA
 09/11/2023
 PLANS APPROVAL DATE

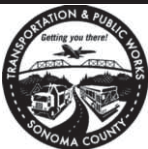


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED











COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

TEMPORARY WATER POLLUTION CONTROL	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
	FISCAL YEAR	2022-23
	SHEET NUMBER	8
	TOTAL SHEETS	82

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

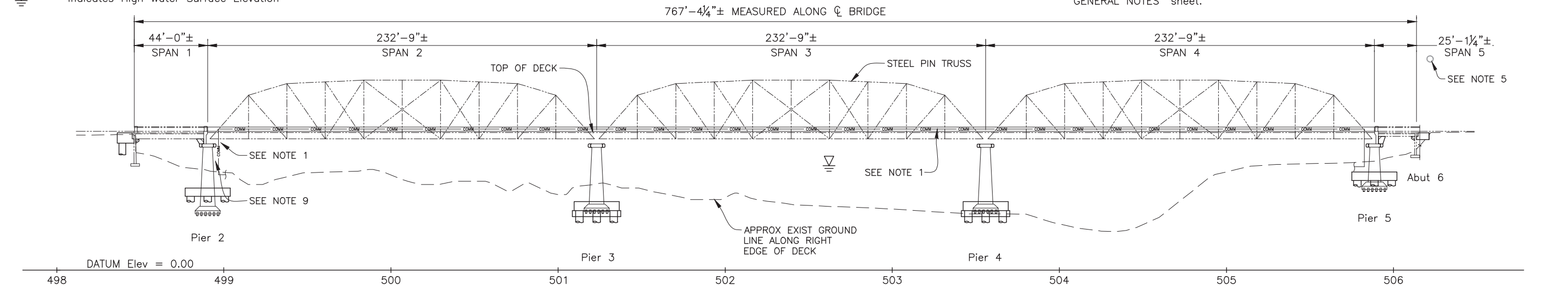
WPC-5

LEGEND:

-  Indicates Direction of Water Flow
-  Indicates Direction of traffic
-  Indicates Existing Structure
-  Indicates New Structure
-  Indicates Existing Overhead Electric
-  Indicates Existing Sonoma County Water Agency (SCWA) Fiber Optic Cable
-  Indicates Existing Sonoma County Water Agency (SCWA) Waterline
-  Indicates High Water Surface Elevation

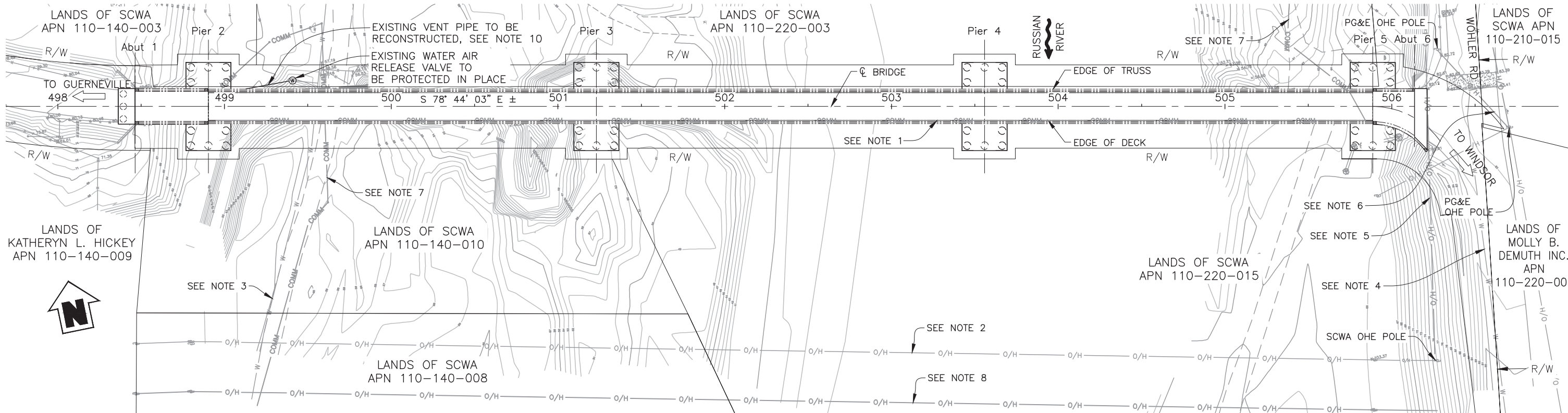
NOTES:

1. Place new conduit and fiber optic cable in temporary location. Once installed remove existing conduit and cable. Place new conduit and cable in final location after bridge deck has been reconstructed. Fiber optic cable must remain in service throughout construction.
2. Sonoma County Water Agency (SCWA) Overhead Electric Line.
3. Sonoma County Water Agency (SCWA) 23"Ø Aqueduct to remain.
4. Sonoma County Water Agency (SCWA) 54"Ø Waterline to remain.
5. Sonoma County Water Agency (SCWA) Overhead Electric Line cannot be de-energized during construction. Approximate overhead clearance is 41ft.
6. PG&E Overhead Electric Line cannot be de-energized during construction.
7. Sonoma County Water Agency (SCWA) Underground Fiber Optic Line to be relocated by Contractor as authorized by the Engineer.
8. PG&E Overhead Electric Lines.
9. Reconstruct existing 6"Ø SCWA Vent Pipe. Temporarily relocate as required to complete work then reconnect to back of existing pier wall.
10. For Vent Pipe attachment details, see "VENT PIPE SUPPORT DETAIL" on "GENERAL NOTES" sheet.



ELEVATION

1" = 30'-0"



PLAN

1" = 30'-0"

THIS PLAN ACCURATE FOR UTILITY RELOCATION WORK ONLY

U-1

DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA

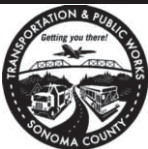


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

UTILITY RELOCATION PLAN	
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	9
TOTAL SHEETS	82

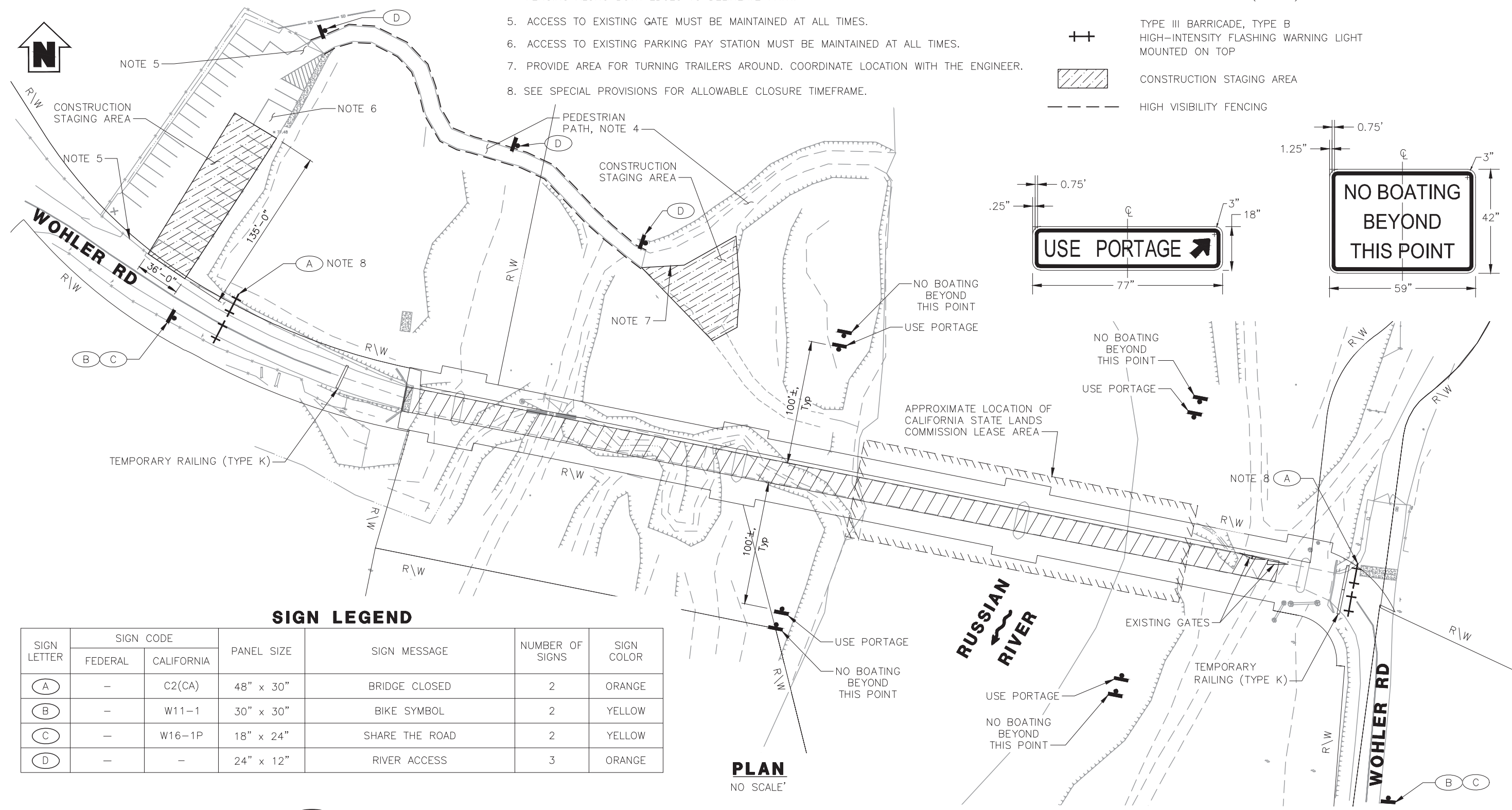
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	9
TOTAL SHEETS	82

NOTES:

1. EXACT LOCATION OF SIGNS TO BE DETERMINED BY THE ENGINEER.
2. FOR SIGN DETAILS REFER TO 2014 CA MUTCD, REVISION 7.
3. SEE DE-1 FOR ADDITIONAL DETOUR SIGN PLAN.
4. CONTRACTOR MUST MAINTAIN PEDESTRIAN ACCESS THROUGH GATE AND ALONG PATH AT ALL TIMES. PROVIDE TEMPORARY SIGNAGE AND HIGH VISIBILITY FENCING ALONG BOTH EDGES TO DELINEATE PATH.
5. ACCESS TO EXISTING GATE MUST BE MAINTAINED AT ALL TIMES.
6. ACCESS TO EXISTING PARKING PAY STATION MUST BE MAINTAINED AT ALL TIMES.
7. PROVIDE AREA FOR TURNING TRAILERS AROUND. COORDINATE LOCATION WITH THE ENGINEER.
8. SEE SPECIAL PROVISIONS FOR ALLOWABLE CLOSURE TIMEFRAME.

LEGEND:

- (X) SIGN LETTER
- ┆ SIGN-SINGLE POST
- ▨ CONSTRUCTION WORK
- TEMPORARY RAILING (TYPE K)
- ⊕ TYPE III BARRICADE, TYPE B HIGH-INTENSITY FLASHING WARNING LIGHT MOUNTED ON TOP
- ▨ CONSTRUCTION STAGING AREA
- - - - HIGH VISIBILITY FENCING



SIGN LEGEND

SIGN LETTER	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF SIGNS	SIGN COLOR
	FEDERAL	CALIFORNIA				
(A)	-	C2(CA)	48" x 30"	BRIDGE CLOSED	2	ORANGE
(B)	-	W11-1	30" x 30"	BIKE SYMBOL	2	YELLOW
(C)	-	W16-1P	18" x 24"	SHARE THE ROAD	2	YELLOW
(D)	-	-	24" x 12"	RIVER ACCESS	3	ORANGE

PLAN
NO SCALE

THIS PLAN ACCURATE FOR PORTAGE AND TRAFFIC HANDLING WORK ONLY

TH-1

Title: Wöhler Rd Bridge Construction - 2022-23; Date: 09/11/2023; Project: Wöhler Rd Bridge; Designer: Kevin J. Ross; Engineer: Kevin J. Ross; State: CA; Sheet: TH-1 of 12.

DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
REGISTERED CIVIL ENGINEER
09/11/2023
PLANS APPROVAL DATE

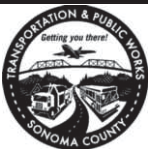


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

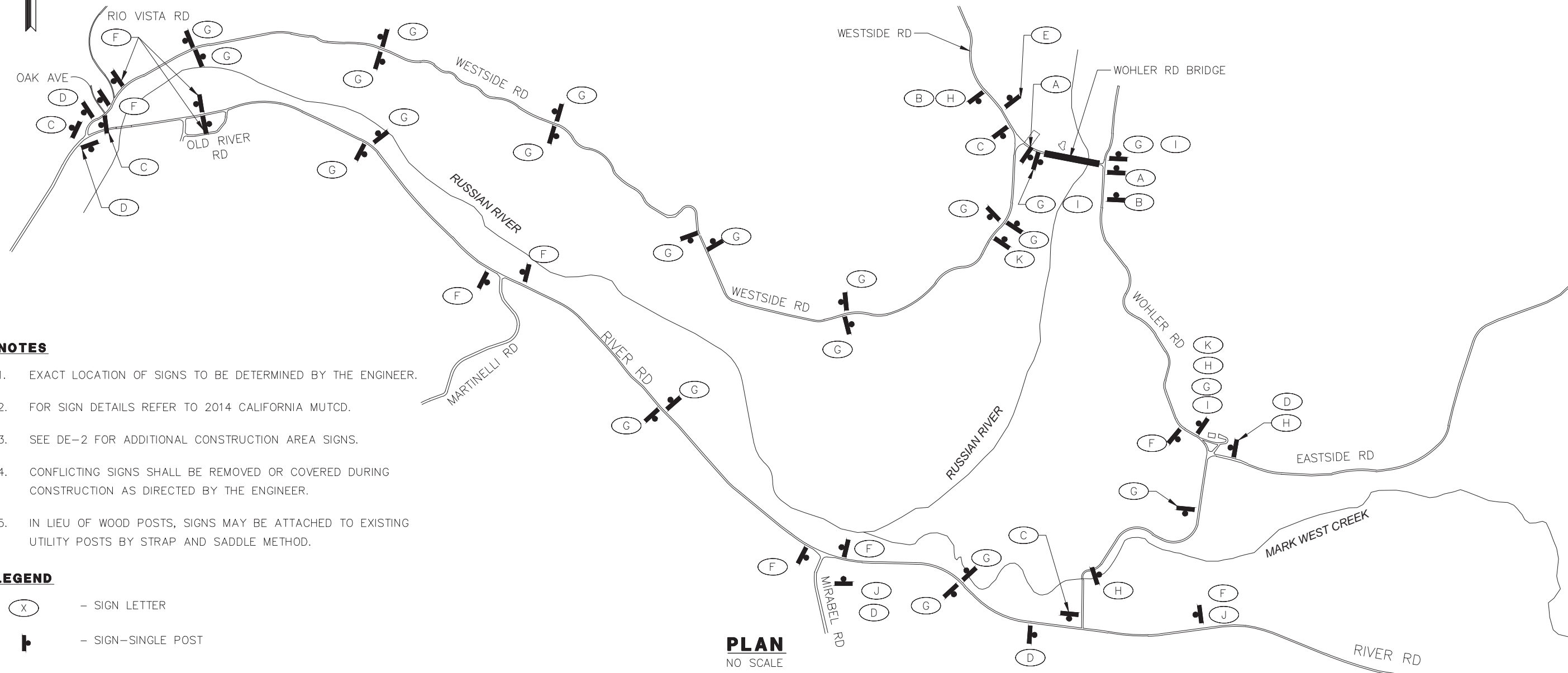
PORTAGE AND TRAFFIC HANDLING PLAN

WÖHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	10
TOTAL SHEETS	82

SIGN LEGEND

SIGN LETTER	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA			
(A)	-	C2(CA)	36" x 24"	BRIDGE CLOSED	2
(B)	-	C19MOD	48" x 48"	BRIDGE CONSTRUCTION AHEAD	2
(C)	-	M4-9R	30" x 24"	DETOUR (RIGHT ARROW)	4
(D)	-	M4-9L	30" x 24"	DETOUR (LEFT ARROW)	5
(E)	-	M4-8a	24" x 18"	END DETOUR	1
(F)	-	SC9(CA)	48" x 48"	DETOUR (UP ARROW)	10
(G)	-	M4-8	24" x 12"	DETOUR	22
(H)	-	R11-3b	60" x 30"	BRIDGE CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY	4
(I)	-	W4-10MOD	48" x 48"	U-TURN	3
(J)	-	-	60" x 30"	WOHLER RD BRIDGE OVER RUSSIAN RIVER CLOSED	2
(K)	-	TYPE 1	60" x 90"	CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGN	2



NOTES

1. EXACT LOCATION OF SIGNS TO BE DETERMINED BY THE ENGINEER.
2. FOR SIGN DETAILS REFER TO 2014 CALIFORNIA MUTCD.
3. SEE DE-2 FOR ADDITIONAL CONSTRUCTION AREA SIGNS.
4. CONFLICTING SIGNS SHALL BE REMOVED OR COVERED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER.
5. IN LIEU OF WOOD POSTS, SIGNS MAY BE ATTACHED TO EXISTING UTILITY POSTS BY STRAP AND SADDLE METHOD.

LEGEND

- (X) - SIGN LETTER
- ┆ - SIGN-SINGLE POST

PLAN
NO SCALE

THIS PLAN ACCURATE FOR DETOUR SIGN WORK ONLY

DE-1

Title: 100-0-000-000 - Sonoma Co/100 Project: Design Plan/05 Roadway & Civil/Submitted Final/Plan/100-0-000-000 - 09/11/2023 at 10:46 AM
 Print: US (24x36) - Mirror: Road Bridge - Source: Co/100 Project: Design Plan/05 Roadway & Civil/Submitted Final/Plan/100-0-000-000 - 09/11/2023 at 10:46 AM

DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA
 09/11/2023
 PLANS APPROVAL DATE



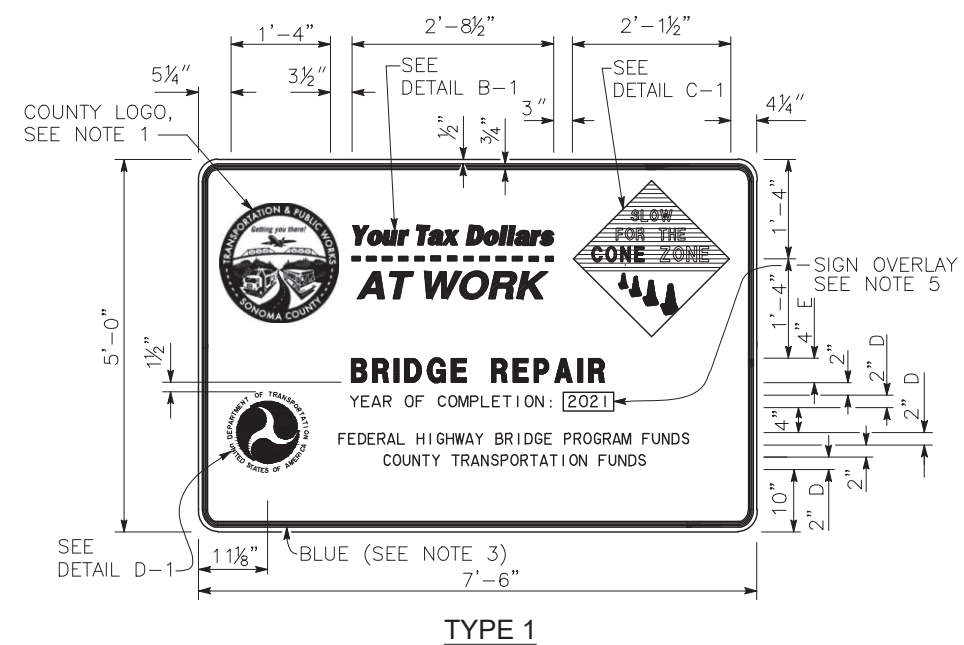
"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION	
CONSTRUCTION COMPLETED:	
RESIDENT ENGINEER AS BUILT DRAWINGS BY:	

DATE	REVISION	BY	APPROVED

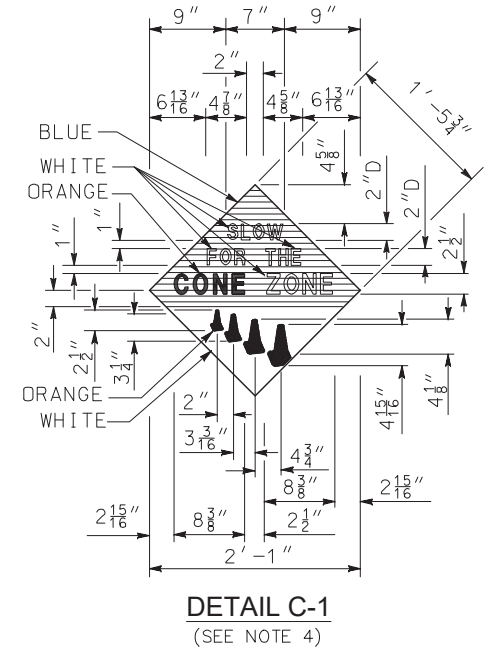

COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

DETOUR SIGN PLAN	
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	

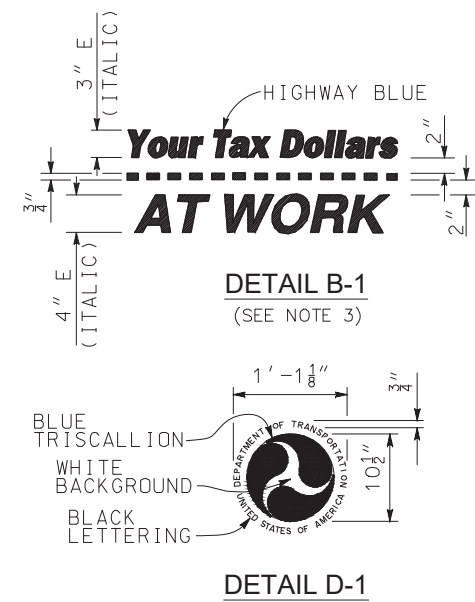
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	11
TOTAL SHEETS	82



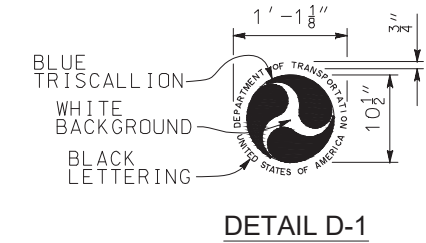
TYPE 1



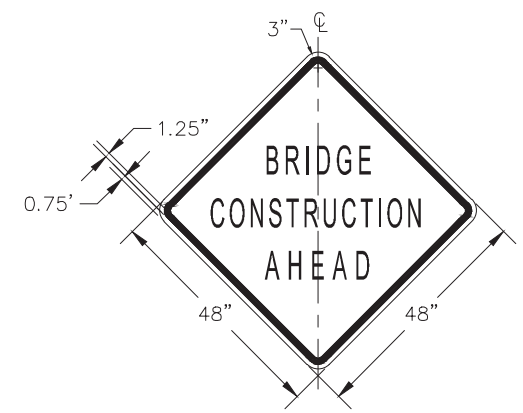
DETAIL C-1
(SEE NOTE 4)



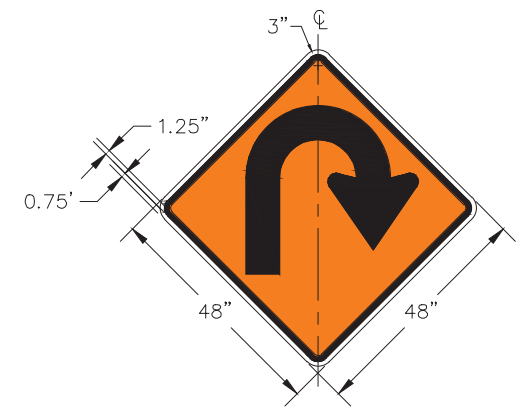
DETAIL B-1
(SEE NOTE 3)



DETAIL D-1



C19 (MOD)
NO SCALE



W4-10 (MOD)
NO SCALE

CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGN

NO SCALE

CONSTRUCTION FUNDING SIGN NOTES:

- COUNTY LOGO (IN COLOR) TO BE PROVIDED BY THE COUNTY.
- EXCEPT AS OTHERWISE SHOWN, THE LEGEND OF SIGN MUST BE BLACK ON A WHITE BACKGROUND (NON-REFLECTIVE).
- THE BORDER OF THE SIGNS AND DETAILS "B-1" MUST BE BLUE (NON-REFLECTIVE).
- THE DIAMOND IN DETAIL "C-1" MUST BE BLUE FOR THE BACKGROUND OF MESSAGE, "SLOW FOR THE CONE ZONE", AND WHITE BACKGROUND FOR ORANGE CONES. THE COLOR AND TYPE OF FONT FOR THE "SLOW FOR THE CONE ZONE" MESSAGE MUST BE: "SLOW" WHITE D; "FOR THE" WHITE D; "ZONE" ORANGE ARIAL FONT; "ZONE" WHITE ARIAL FONT.
- YEAR OF COMPLETION OF PROJECT CONSTRUCTION SHOWN ON THE OVERLAY IS AN EXAMPLE ONLY. SEE SPECIAL PROVISIONS.

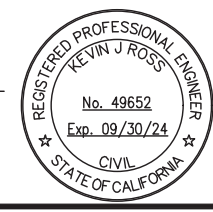
THIS PLAN ACCURATE FOR DETOUR SIGN WORK ONLY

DE-2

Title: W4-10 (MOD) - Detour Sign Plan; Date: 09/11/2023; Project: W4-10 (MOD) - Detour Sign Plan; Designer: Kevin J. Ross; Checker: Kevin J. Ross; State: CA; County: Sonoma; Sheet: DE-2 of 12.

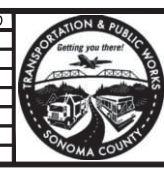
DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA



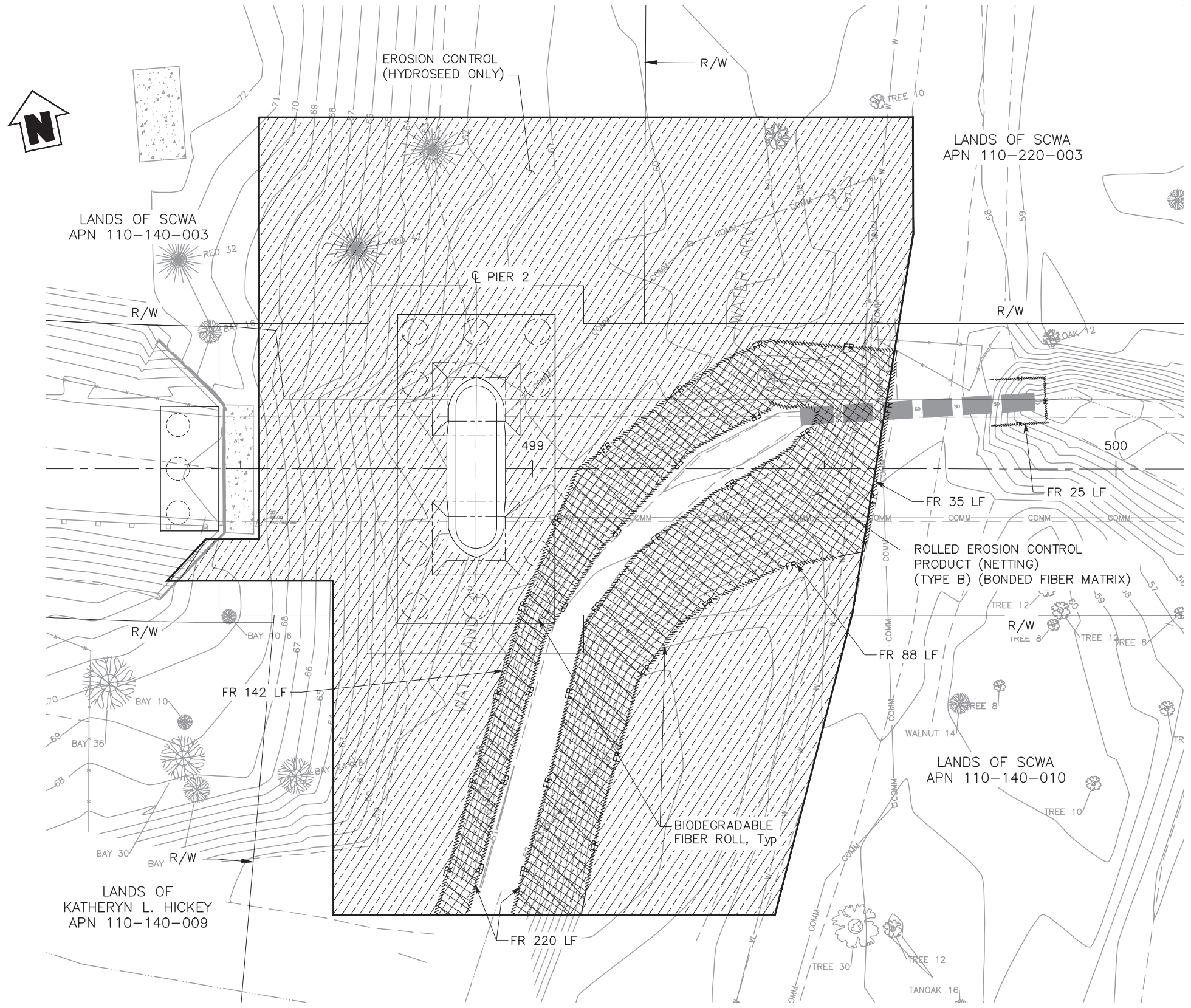
"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION	
CONSTRUCTION COMPLETED:	
RESIDENT ENGINEER AS BUILT DRAWINGS BY:	

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

DETOUR SIGN PLAN		ROAD NUMBER	8901
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER		BUDGET NUMBER	C01136
		FISCAL YEAR	2022-23
		SHEET NUMBER	12
		TOTAL SHEETS	82



LEGEND:

- FIBER ROLLS (FR)
- ROLLED EROSION CONTROL PRODUCT (NETTING) (TYPE B) (WITH BONDED FIBER MATRIX)
- EROSION CONTROL (HYDROSEED ONLY)
- AREA OF VEGETATION REMOVAL AND PRUNING, AREA TO MATCH LIMIT OF TEMPORARY SILT FENCE
- ACCESS ROAD
- PIER
- COUNTY RIGHT OF WAY

EROSION CONTROL NOTES:

- REFER TO CALTRANS STANDARD PLAN H51 FOR FIBER ROLL STAKING AND LAYOUT DETAILS.
- ROLLED EROSION CONTROL (NETTING) (TYPE B) (WITH BONDED FIBER MATRIX) OR EQUIVALENT MATTING INSTALLED PER MANUFACTURER'S INSTRUCTIONS. TEMPORARY OR PERMANENT EROSION CONTROL DEVICES CONTAINING PLASTIC NETTING INCLUDING PHOTO/OR BIODEGRADABLE PLASTIC NETTING MUST NOT BE USED.

EROSION CONTROL QUANTITIES

ITEM	QUANTITY	UNIT
ROLLED EROSION CONTROL PRODUCT (NETTING) (TYPE B) (WITH BONDED FIBER MATRIX)	2,510	SQFT
EROSION CONTROL (HYDROSEED ONLY)	12,490	SQFT
BIODEGRADABLE FIBER ROLL	510	LF

PLAN
 1" = 10'

DATE PLOTTED: 09/11/2023 11:41 AM; PLOT BY: KEVIN J ROSS; PROJECT: WOHLEH ROAD BRIDGE OVER RUSSIAN RIVER; SHEET: EC-1 OF 2; SCALE: 1"=10'; STATUS: FOR CONSTRUCTION; DRAWING NO: 23-000-000-001; REVISION: 0; USER: KEVIN J ROSS; CADD: KEVIN J ROSS; CHECKED BY: KEVIN J ROSS; DESIGNED BY: KEVIN J ROSS; DATE: 09/11/2023; TIME: 11:41 AM; PLOT: SUCCESS

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY

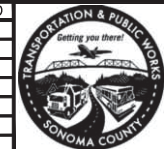
EC-1

DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA
 09/11/2023
 PLANS APPROVAL DATE

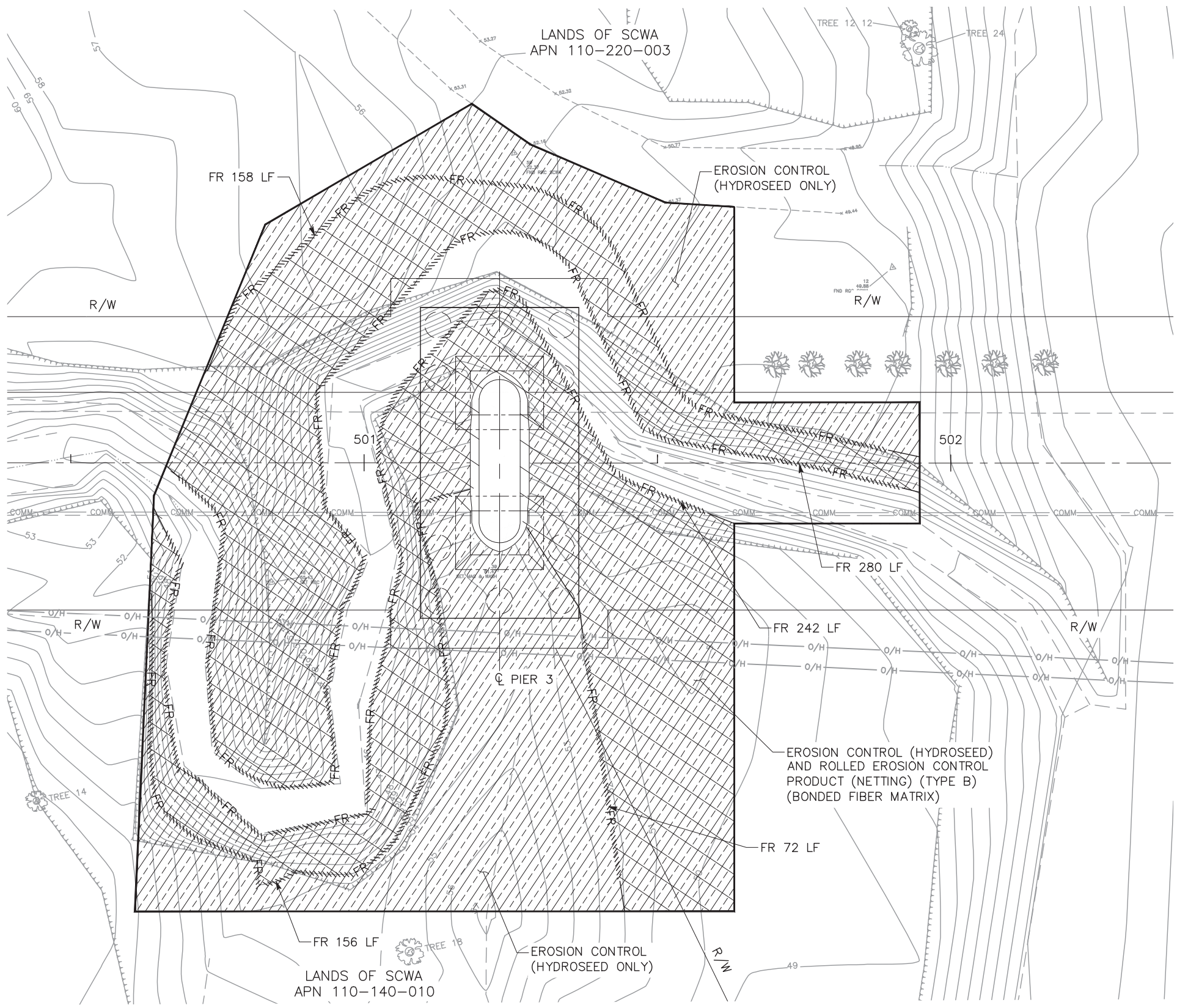


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION			
DATE	REVISION	BY	APPROVED
CONSTRUCTION COMPLETED:			
RESIDENT ENGINEER AS BUILT DRAWINGS BY:			



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

EROSION CONTROL PLAN		
ROAD NUMBER	8901	
BUDGET NUMBER	C01136	
FISCAL YEAR	2022-23	
SHEET NUMBER	13	
TOTAL SHEETS	82	
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER		



LEGEND:

- FR FIBER ROLLS (FR)
- ROLLED EROSION CONTROL PRODUCT (NETTING) (TYPE B) (WITH BONDED FIBER MATRIX)
- EROSION CONTROL (HYDROSEED ONLY)
- AREA OF VEGETATION REMOVAL AND PRUNING, AREA TO MATCH LIMIT OF TEMPORARY SILT FENCE
- ACCESS ROAD
- PIER
- COUNTY RIGHT OF WAY

EROSION CONTROL NOTES:

1. REFER TO CALTRANS STANDARD PLAN H51 FOR FIBER ROLL STAKING AND LAYOUT DETAILS.
2. ROLLED EROSION CONTROL (NETTING) (TYPE B) (WITH BONDED FIBER MATRIX) OR EQUIVALENT MATTING INSTALLED PER MANUFACTURER'S INSTRUCTIONS. TEMPORARY OR PERMANENT EROSION CONTROL DEVICES CONTAINING PLASTIC NETTING INCLUDING PHOTO/OR BIODEGRADABLE PLASTIC NETTING MUST NOT BE USED.

EROSION CONTROL QUANTITIES

ITEM	QUANTITY	UNIT
ROLLED EROSION CONTROL PRODUCT (NETTING) (TYPE B) (WITH BONDED FIBER MATRIX)	6,440	SQFT
EROSION CONTROL (HYDROSEED ONLY)	9,901	SQFT
BIODEGRADABLE FIBER ROLL	908	LF

PLAN
1" = 10'

Title: 11/16/23 - EROSION CONTROL PLAN - WOLLER ROAD BRIDGE OVER RUSSIAN RIVER, COUNTY OF SONOMA, CALIFORNIA
 Date: 09/11/2023
 Project: WOLLER ROAD BRIDGE OVER RUSSIAN RIVER, COUNTY OF SONOMA, CALIFORNIA
 Drawing No: EC-2
 Scale: 1" = 10'
 Author: KEVIN J. ROSS
 Checker: KEVIN J. ROSS
 Date: 09/11/2023
 Project: WOLLER ROAD BRIDGE OVER RUSSIAN RIVER, COUNTY OF SONOMA, CALIFORNIA
 Drawing No: EC-2
 Scale: 1" = 10'
 Author: KEVIN J. ROSS
 Checker: KEVIN J. ROSS
 Date: 09/11/2023

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY

EC-2

DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
REGISTERED CIVIL ENGINEER
No. 49652
Exp. 09/30/24
09/11/2023
PLANS APPROVAL DATE

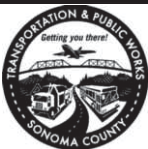


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

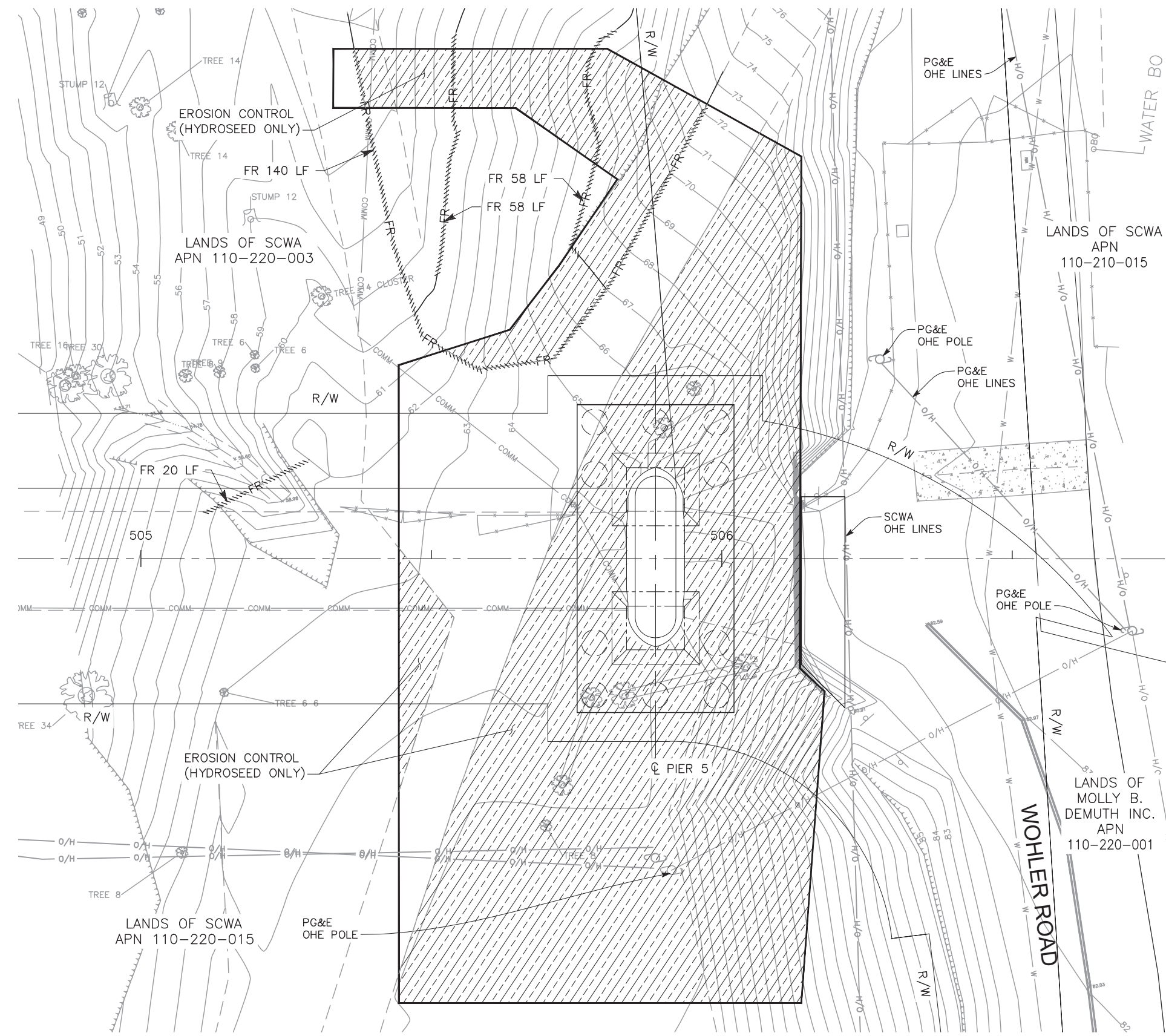


COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

EROSION CONTROL PLAN

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	14
TOTAL SHEETS	82



LEGEND:

- FR FIBER ROLLS (FR)
- EROSION CONTROL (HYDROSEED ONLY)
- AREA OF VEGETATION REMOVAL AND PRUNING, AREA TO MATCH LIMIT OF TEMPORARY SILT FENCE
- ACCESS ROAD
- PIER
- COUNTY RIGHT OF WAY

EROSION CONTROL NOTES:

1. REFER TO CALTRANS STANDARD PLAN H51 FOR FIBER ROLL STAKING AND LAYOUT DETAILS.
2. CONTRACTOR IS RESPONSIBLE FOR PROTECTING AREAS AROUND OVERHEAD ELECTRIC POWER POLE FROM ERODING AS AUTHORIZED BY ENGINEER.

EROSION CONTROL QUANTITIES

ITEM	QUANTITY	UNIT
EROSION CONTROL (HYDROSEED ONLY)	7590	SQFT
BIODEGRADABLE FIBER ROLL	276	LF

PLAN
 1" = 10'

THIS PLAN ACCURATE FOR EROSION CONTROL WORK ONLY

EC-3

11/16/2023 09:52:00 AM Project: Wohler Road Bridge - Erosion Control Plan (11/16/2023) 11/16/2023 09:52:00 AM Project: Wohler Road Bridge - Erosion Control Plan (11/16/2023) 11/16/2023 09:52:00 AM Project: Wohler Road Bridge - Erosion Control Plan (11/16/2023)

DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA

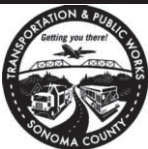


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

EROSION CONTROL PLAN	
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	15
TOTAL SHEETS	82



NOTES:

1. SEE PROJECT SPECIAL PROVISIONS WITH SONOMA COUNTY WATER AGENCY FOR STAGING AREAS AND ACCESS TO THE PROJECT SITE FROM THEIR RIGHT OF WAY.
2. PROPOSED STAGING AREAS SHOWN ARE LOCATED IN THE SONOMA COUNTY WATER AGENCY RIGHT OF WAY. SEE SHEET "SA-2" FOR BLOW UP OF THE STAGING AREAS PROPOSED.

WOHLER RD. BRIDGE SEISMIC RETROFIT, STPLZ-5920(137)

SUPPLEMENTAL RIGHT OF WAY EXHIBIT: ADDITIONAL PROPOSED STAGING AREAS

SA-1

File: \\ms-6-002-049 - Sonoma Co\GIS\Project\Design\Plan\GIS\Roadway & Civil\Submittal\Plan\Wohl-5-Stage_Area_1.dwg Plot Date: Sep 11, 2023 at 10:40 AM in US (1061) - Plotter: Rollup Bridge - Source: C:\Users\jross\OneDrive\Documents\Drawings\Wohl-5-Stage_Area_1.dwg

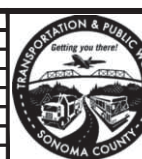
DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION			
DATE	REVISION	BY	APPROVED
CONSTRUCTION COMPLETED:			
RESIDENT ENGINEER _____			
AS BUILT DRAWINGS BY: _____			

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

STAGING AREAS NO. 1	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	FISCAL YEAR	2022-23
	SHEET NUMBER	16
	TOTAL SHEETS	82

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	16
TOTAL SHEETS	82



MIRABEL PROPOSED STAGING AREAS

APN 110-280-007



WOHLER STAGING AREAS

APN 110-220-015 (SOUTH OF BRIDGE)
APN 110-220-003 (NORTH OF BRIDGE)

NOTES:

1. SEE PROJECT SPECIAL PROVISIONS FOR SONOMA COUNTY WATER AGENCY EASEMENT AND REVOCABLE LICENSE INFORMATION.
2. PROPOSED STAGING AREAS SHOWN ARE LOCATED IN THE SONOMA COUNTY WATER AGENCY RIGHT OF WAY.

File: \\s01-000\proj\110-280-007\110-280-007.dwg
 Plot: 110-280-007.dwg - Mirabel Road Bridge - Sonoma Co\GIS\Project\Design\Plan\110-280-007.dwg
 Plot Date: Sep 11, 2023 at 11:19

DESIGN BY	KR
DRAWING BY	KD
CHECKED BY	KD

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION			
CONSTRUCTION COMPLETED:	DATE	REVISION	BY
RESIDENT ENGINEER AS BUILT DRAWINGS BY:			

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

STAGING AREAS NO. 2	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	FISCAL YEAR	2022-23
	SHEET NUMBER	17
	TOTAL SHEETS	82

GENERAL NOTES:

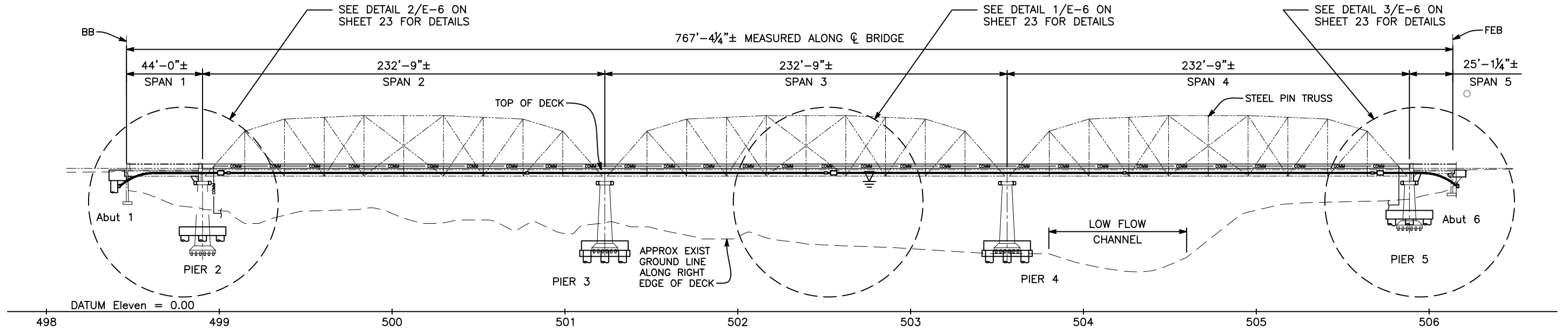
1. Sonoma County Water Agency (SCWA) Overhead Electric Line cannot be de-energized during construction. Approximate overhead clearance is 41ft.
2. PG&E Overhead Electric Lines (12KV).
3. All exposed conduits shall be rigid galvanized steel. All underground conduits shall be PVC Schedule 80.
4. All spare conduits shall be provided with a heavy duty pull rope.
5. All work shall be performed by appropriate licensed professionals and shall conform to all applicable codes and regulations.

LEGEND:

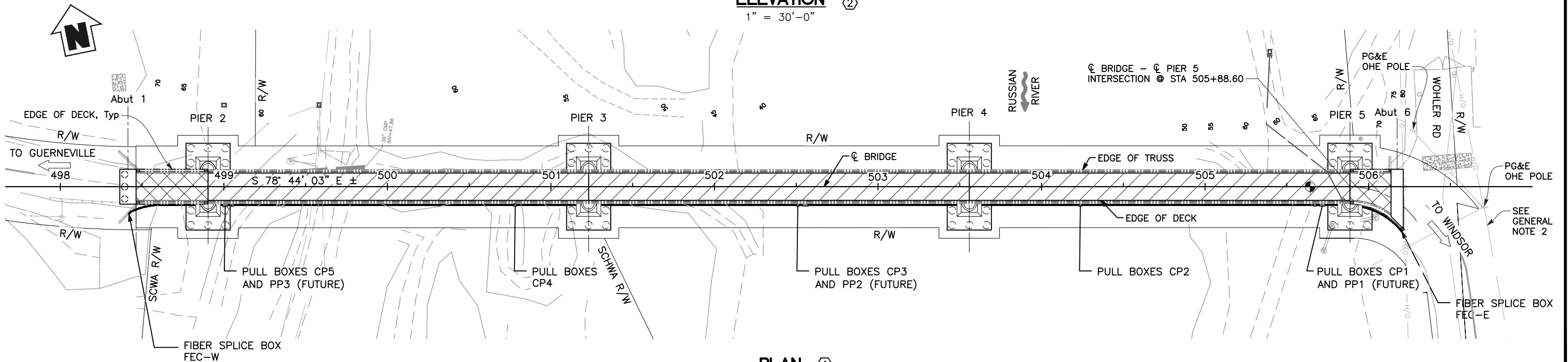
- EXPOSED CONDUIT
- UNDERGROUND CONDUIT UON
- ① SHEET NOTE DESIGNATION
- (E) EXISTING
- RGS RIGID GALVANIZED STEEL
- UON UNLESS OTHERWISE NOTED

SHEET NOTES:

- ① SEE CONDUIT DIAGRAM SHOWN ON E-2 FOR DETAILS REGARDING NEW CONDUITS REQUIRED FOR FIBER SYSTEM AND SEE DRAWING E-7 FOR CONDUIT SUPPORT DETAILS.
- ② FOR CONDUIT SUPPORTS, SEE DETAILS ON DRAWING E-7 (SHEET 24).



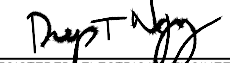
ELEVATION ②
1" = 30'-0"



PLAN ①
1" = 30'-0"

Date: 09/11/2023, 11:46:00 AM, User: dnguyen, Project: SCWA - RIVER BRIDGE IMPROVEMENTS, Drawing: E-1, Scale: 1" = 30'-0", Plot Date: 09/11/2023, 11:30:30 AM

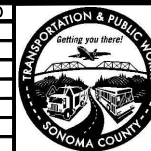
DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR


 REGISTERED ELECTRICAL ENGINEER
 No. E-10687
 Exp. 5/31/25
 09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION
 CONSTRUCTION COMPLETED: _____
 RESIDENT ENGINEER _____
 AS BUILT DRAWINGS BY: _____

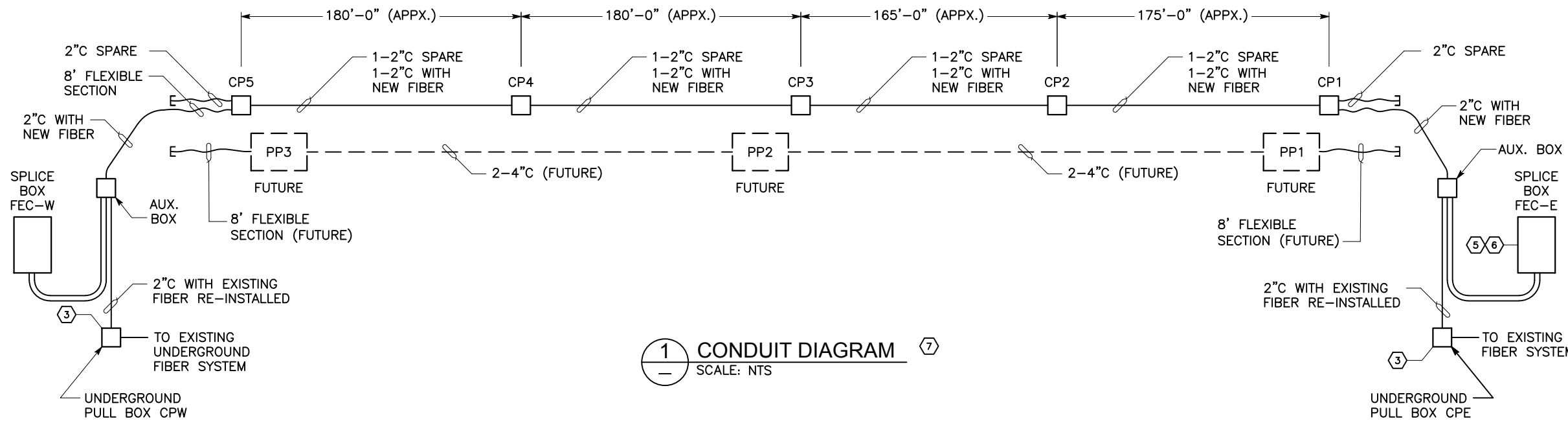
DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

LEGEND, NOTES AND BRIDGE ELEVATION AND PLAN	
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	

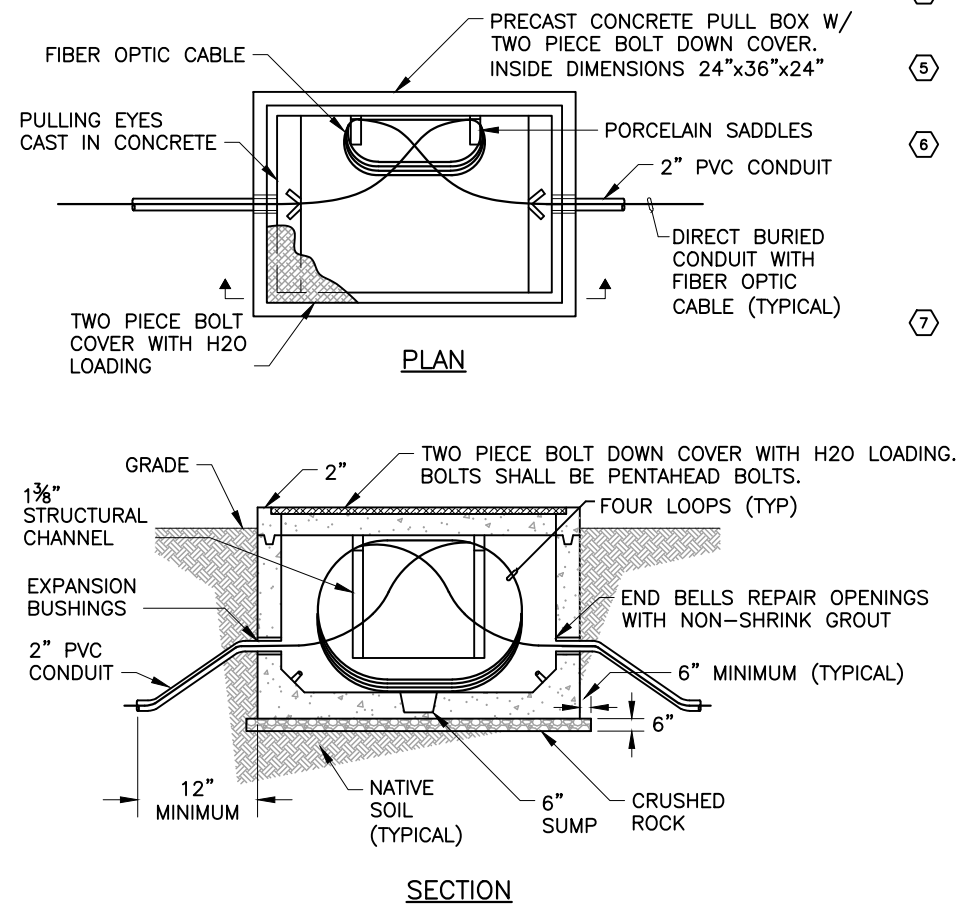
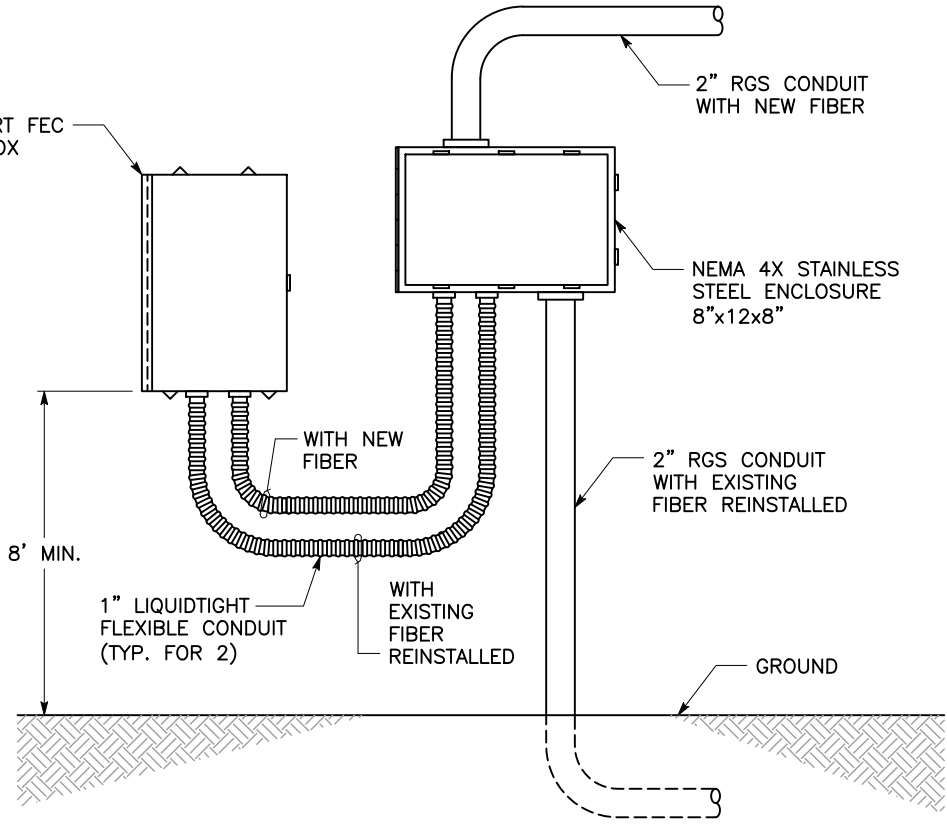
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	18
TOTAL SHEETS	82



- LEGEND**
- FEC FIBER ENTRANCE CABINET (SPLICE BOX)
 - CP COMMUNICATION PULL BOX
 - PP POWER PULL BOX

- SHEET NOTES:**
- ① CP'S 12"x18"x8" DEEP
PP'S 24"x36"x12" DEEP
 - ② ALL BOXES ARE 316SS PAINTED TO MATCH BRIDGE COLOR. COVERS FOR THE BOXES SHALL BE HINGED ALONG TOP SIDE OF THE BOX.
 - ③ UNDERGROUND PULL BOXES CPW AND CPE SHALL BE H2O RATED WITH INTERNAL DIMENSION 24"x36"x24". COVERS SHALL BE SOLID GALVANIZED STEEL WITH ENGRAVED PULL BOX IDENTIFICATION AS NOTED ON THE DRAWINGS.
 - ④ SEE NOTE NO.3 ON DRAWING E-5 FOR DETAIL.
 - ⑤ SEE NOTE NO.3 ON DRAWING E-4 FOR DETAIL.
 - ⑥ THE EXISTING FIBER CABLE IS 6-STRAND MULTIMODE FIBER CABLE. NEW FIBER CABLE SHALL BE 6-STRAND, MULTIMODE TO MATCH EXISTING CABLES. REFER TO CONSTRUCTION SPECIFICATIONS FOR DETAILS.
 - ⑦ ALL CONDUITS SHALL BE PAINTED ANSI GRAY AS PER CALTRANS STANDARD.

- NOTES:**
1. CONDUITS AND BOXES SHALL BE SUPPORTED BY UNISTRUT CHANNELS AS PER TYPICAL DETAILS.
 2. THIS DETAIL IS TYPICAL FOR TWO LOCATIONS (EAST END & WEST END). SEE DRAWINGS E-4 AND E-5 FOR LOCATIONS.
 3. FOR SECURITY REASONS, PANEL SHALL BE MOUNTED AT LEAST 8' ABOVE GRADE AS SHOWN.
 4. CONDUIT SUPPORTS FOR ALL CONDUITS SHALL BE SIMILAR TO DETAIL 7 SHOWN ON DRAWING E-7.



DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

REGISTERED ELECTRICAL ENGINEER
09/11/2023
PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

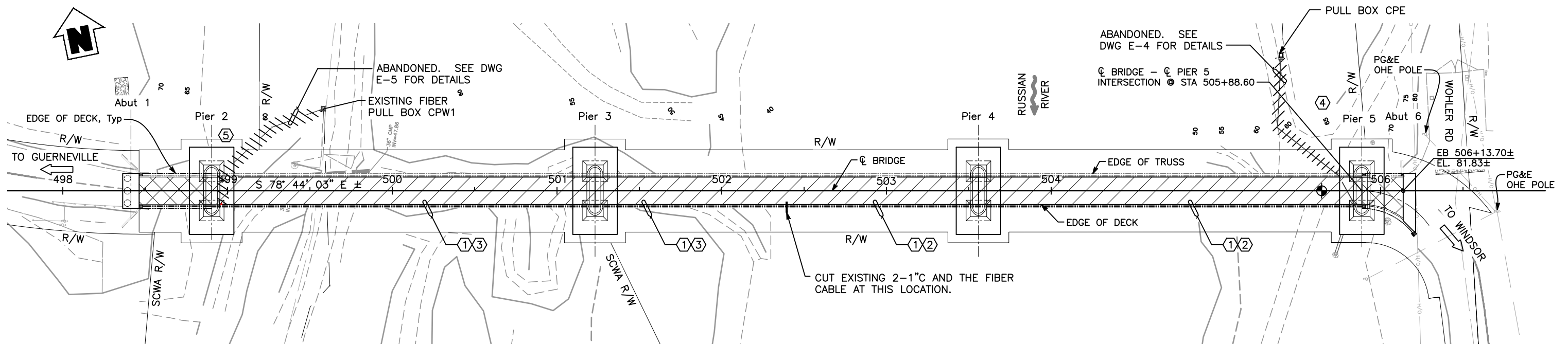
E205 TYP SCALE: NTS

COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTZ, P.E., DIRECTOR

LEGEND, NOTES AND BRIDGE ELEVATION AND PLAN	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
	FISCAL YEAR	2022-23
	SHEET NUMBER	19
	TOTAL SHEETS	82

SHEET NOTES:

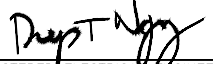
- ① REMOVE 2-1" C FOR THE EXISTING FIBER SYSTEM. PROTECT EXISTING FIBER CABLE IN ONE CONDUIT.
- ② PULL EXISTING FIBER CABLE ALL THE WAY BACK TO EXISTING UNDERGROUND PULL BOX CPE AND RE-PULL EXISTING CABLE TO NEW SPLICE BOX FEC-E VIA UNDERGROUND PULL BOX CPE1.
- ③ PULL EXISTING FIBER CABLE ALL THE WAY BACK TO EXISTING UNDERGROUND PULL BOX CPW1 AND RE-PULL EXISTING CABLE TO NEW SPLICE BOX FEC-W VIA EXISTING PULL BOX CPW2 AND NEW UNDERGROUND PULL BOX CPW3.
- ④ SEE DRAWING E-4 (SHEET 21) FOR ENLARGED PLAN AND DETAILS.
- ⑤ SEE DRAWING E-5 (SHEET 22) FOR ENLARGED PLAN AND DETAILS.

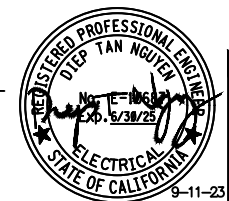


PLAN
1" = 30'-0"

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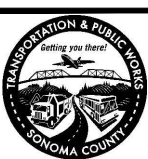
DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR


 REGISTERED ELECTRICAL ENGINEER
 09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION
 CONSTRUCTION COMPLETED: _____
 RESIDENT ENGINEER _____
 AS BUILT DRAWINGS BY: _____

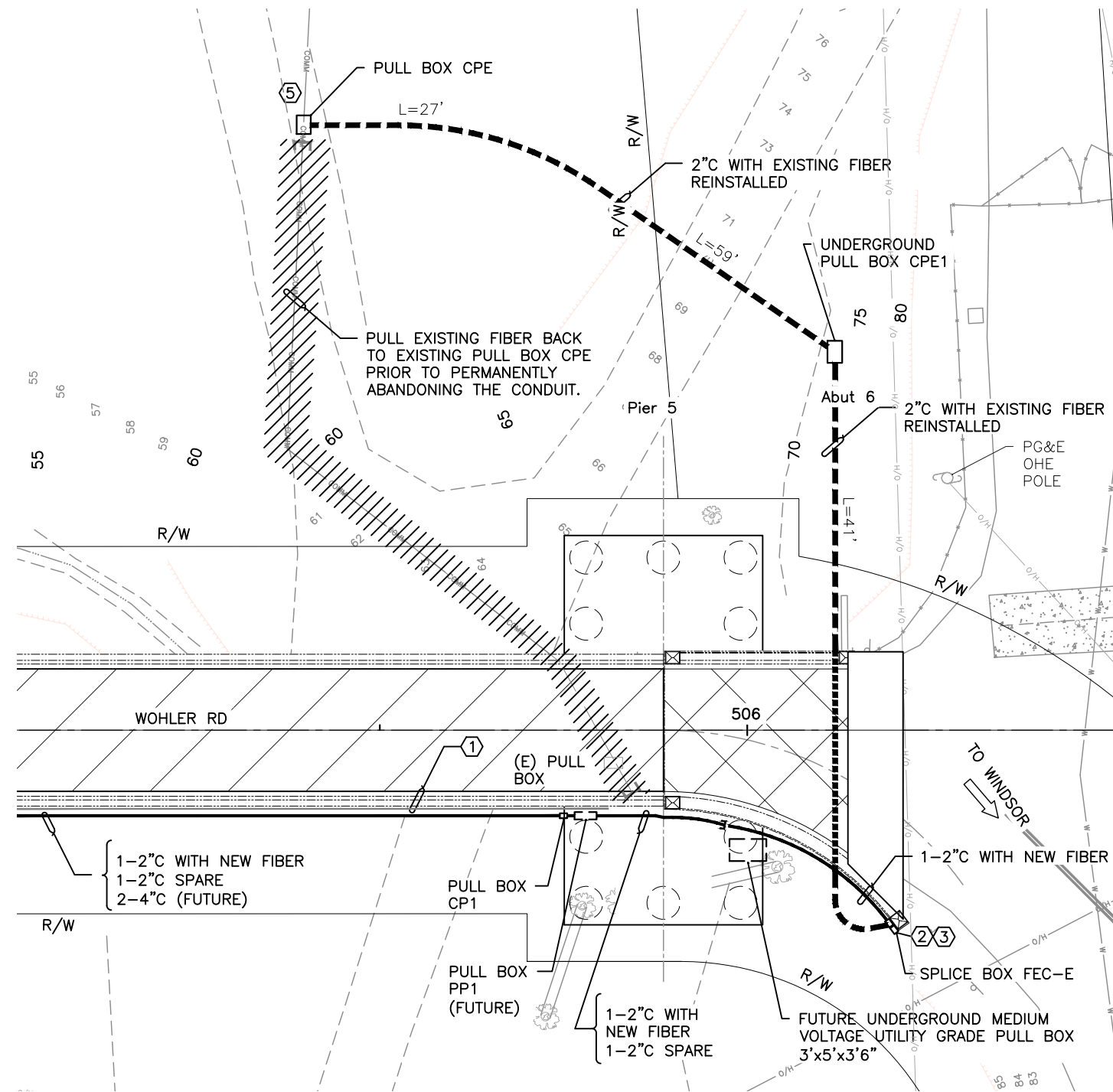
DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

FIBER SYSTEM CONDUIT DEMILITION PLAN
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	20
TOTAL SHEETS	82

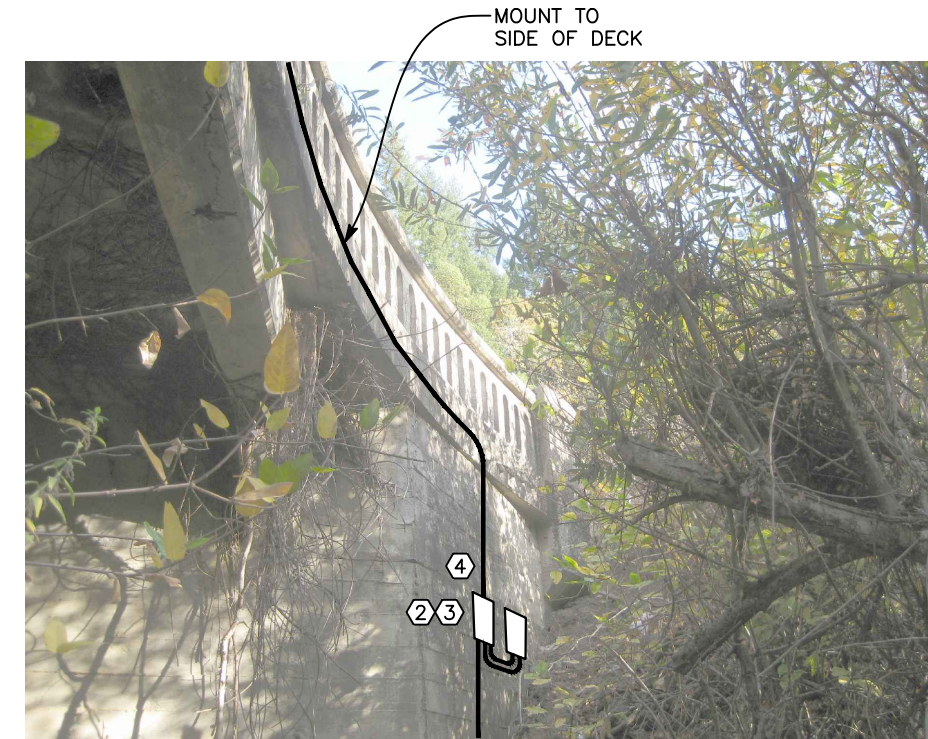


PARTIAL PLAN (EAST END)

1" = 10'

SHEET NOTES:

- ① SEE NOTES 1 AND 2 ON DRAWING E-3 (SHEET 20) FOR REMOVAL OF TWO EXISTING 1" C FOR THE EXISTING FIBER SYSTEM.
- ② THIS SPLICE BOX SHALL BE USED FOR CONNECTING EXISTING FIBER CABLE AND NEW FIBER CABLE.
- ③ FURNISH AND INSTALL AT THIS LOCATION A SPLICE BOX, WALL MOUNTED, NEMA 4 RATED WITH FIBERGLASS, HIGH IMPACT RETARDANT ENCLOSURE WITH SEAL GASKET AND PADLOCKABLE DOOR. SPLICE BOX SHALL HAVE ROOM FOR UP TO 5' OF CABLE AND WITH SPLICE TRAY FOR A MINIMUM OF 24 SPLICES AND UP TO 96 SPLICES. AFTER COMPLETION OF CABLE SPLICES, OTDR TESTS SHALL BE PERFORMED IN ACCORDANCE WITH THE CONSTRUCTION SPECIFICATIONS. PROVIDE NAME TAG. SEE SPECS FOR DETAILS.
- ④ SEE DETAIL 2/E-2 (SHEET 19) FOR DETAILS.
- ⑤ INTERCEPT EXISTING CONDUIT AND PROTECT EXISTING CABLE. FURNISH AND INSTALL NEW PULL BOX AS SHOWN.



MOUNT TO SIDE OF DECK

CONDUIT CONTINUED TO UNDERGROUND PULL BOX. SEE PLAN AT LEFT FOR CONTINUATION.

ABUTMENT 6 - WINGWALL ELEVATION

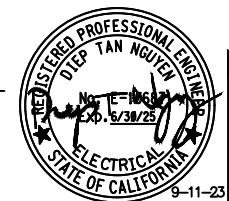
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E-5

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DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

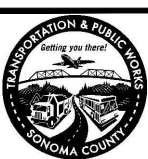
REGISTERED ELECTRICAL ENGINEER
 09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION			
DATE	REVISION	BY	APPROVED

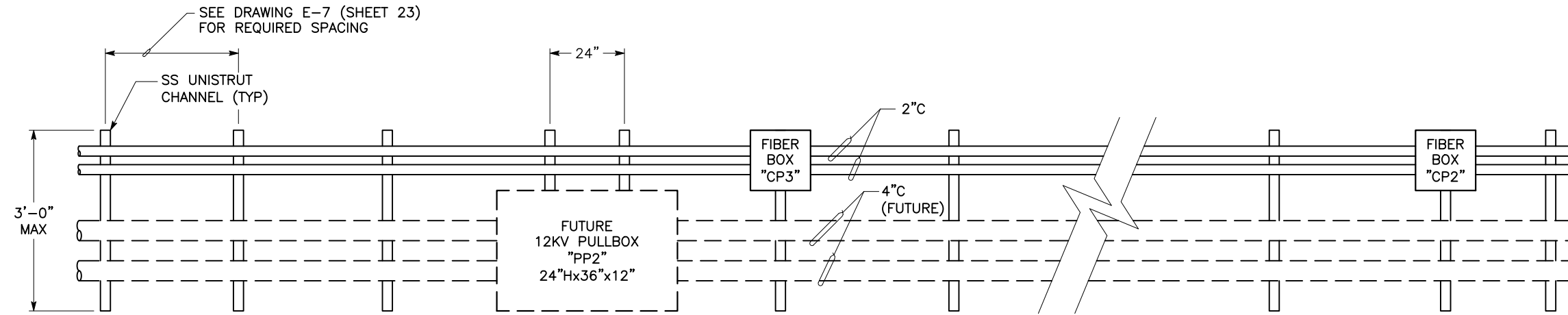
CONSTRUCTION COMPLETED:
 RESIDENT ENGINEER _____
 AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

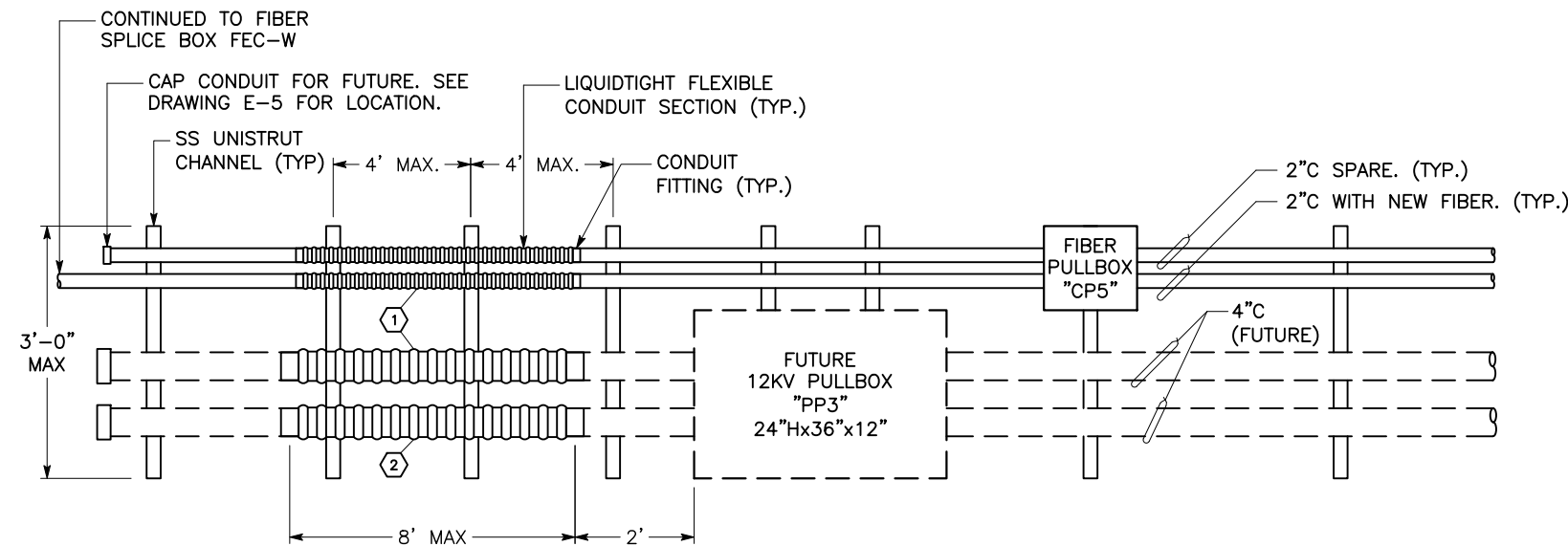


COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

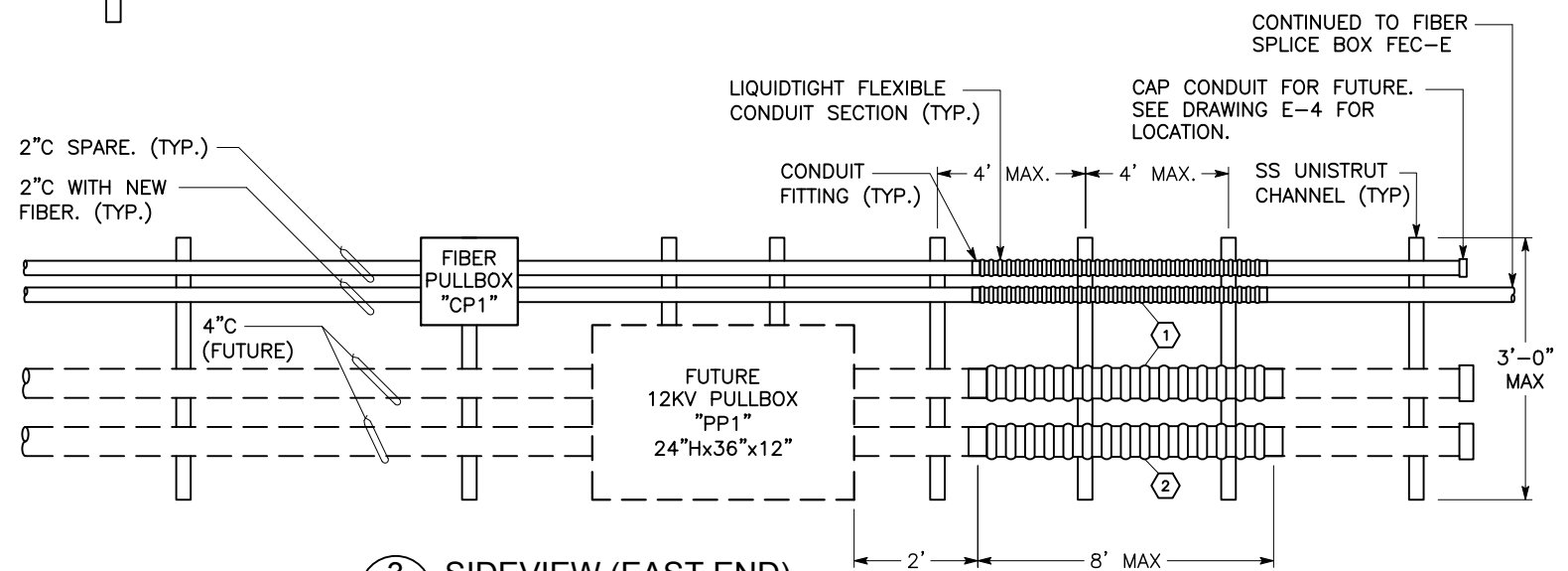
ENLARGED PLAN (EAST END) AND DETAILS	
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	22
TOTAL SHEETS	82



1 SIDEVIEW (MID SPAN)
SCALE: NTS



2 SIDEVIEW (WEST END)
SCALE: NTS



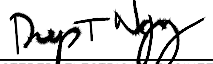
3 SIDEVIEW (EAST END)
SCALE: NTS

SHEET NOTES:

- ① THESE FLEXIBLE CONDUIT SECTIONS SHALL BE LIQUIDTIGHT FLEXIBLE METAL CONDUITS NOT TO EXCEED 8' IN LENGTH. CONDUIT SUPPORTS SHALL NOT EXCEED 4' SPACING.
- ② THESE FUTURE FLEXIBLE CONDUIT SECTIONS SHALL BE LIQUIDTIGHT FLEXIBLE METAL CONDUITS NOT TO EXCEED 8' IN LENGTH. CONDUIT SUPPORTS SHALL NOT EXCEED 4' SPACING. CONDUIT FITTINGS SHALL HAVE EXTERNAL LUGS TO ACCOMMODATE A BARE COPPER GROUNDING CONDUCTOR #4/0 MOUNTED ON THE OUTSIDE OF THE CONDUIT. SECURE BARE COPPER CONDUCTOR WITH STAINLESS STEEL CABLE TIES.

Date: 09/11/2023
 File: V:\2023\09\11\Wohler Bridge Fiberoptic\Wohler Bridge Fiberoptic.dwg
 Plot Date: 09/11/2023 at 13:31

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR


 REGISTERED ELECTRICAL ENGINEER
 09/11/2023
 PLANS APPROVAL DATE



DATE	REVISION	BY	APPROVED

"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION
 CONSTRUCTION COMPLETED: _____
 RESIDENT ENGINEER _____
 AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



CONDUIT SYSTEM CONSTRUCTION DETAILS	
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	23
TOTAL SHEETS	82

NOTES:

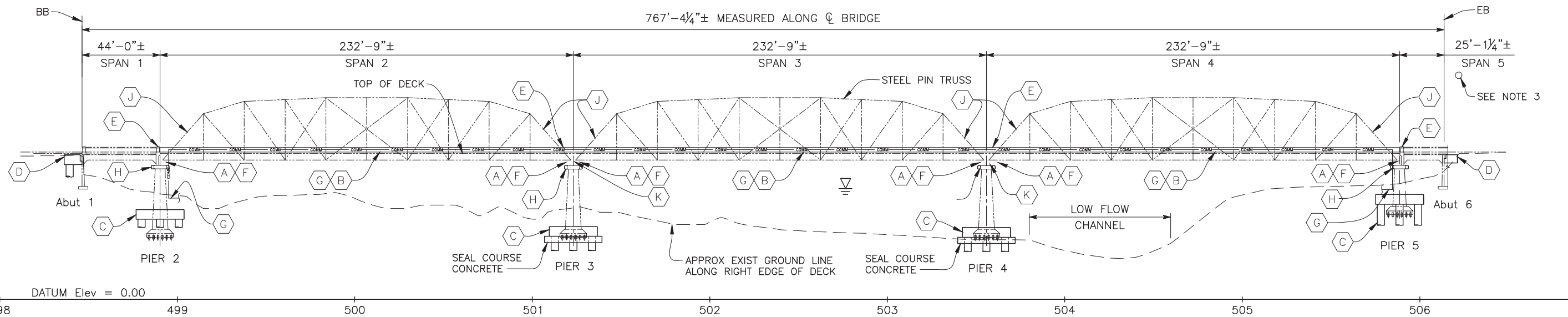
- For "General Notes" see "General Notes" sheet.
- For "Pile Data Table" and "Hydraulic Summary" see "Foundation Plan" sheet.
- Sonoma County Water Agency (SCWA) Overhead Electric Line cannot be de-energized during construction. Approximate overhead clearance is 41ft.
- PG&E Overhead Electric Lines (12KV) cannot be de-energized during construction.

LEGEND:

- Indicates Direction of Water Flow
- Indicates direction of traffic
- Indicates Existing Structure
- Indicates New Structure
- Indicates Seal Course
- Indicates Existing Overhead Electric
- Indicates Existing Communication SCWA Fiber Optic Cable
- Indicates Existing Water Line
- Indicates High Water Surface Elevation
- Indicates Point of Minimum Vertical Clearance
- Indicates limits of remove existing deck and place new lightweight Fiber Reinforced Concrete Deck
- Indicates limits of remove existing 1 1/2"± AC overlay, repair deck, and place new Polyester Concrete overlay

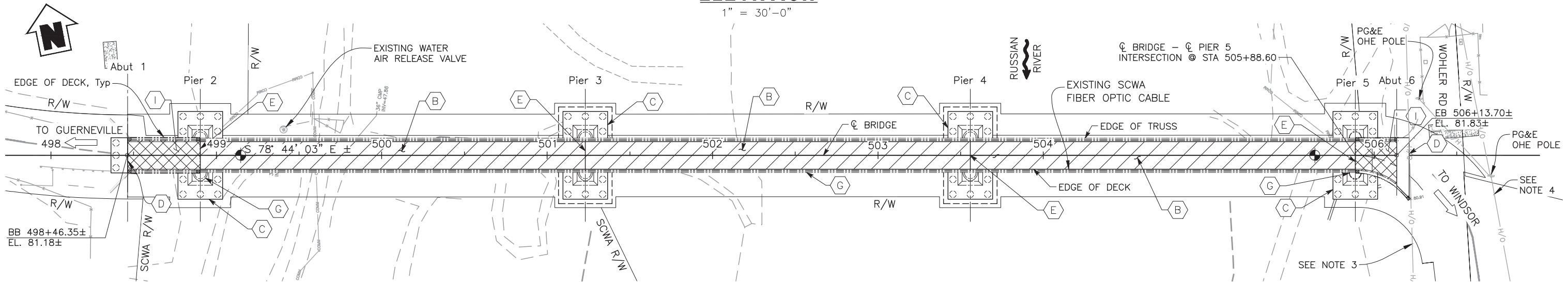
RETROFIT LEGEND:

- Bearing Replacement/Lead Rubber Isolation Bearing
- Deck Replacement
- Footing Retrofit
- Abutment Retrofit
- Expansion Joint Retrofit
- Remove Existing Cable Restrainers
- Relocate SCWA FiberOptic Cable Conduit. See SCWA Fiber Optic System Modifications sheets for details not shown.
- Strengthen Pier Top
- Remove existing AC overlay and place Polyester Concrete overlay. For limits, see "POLYESTER CONCRETE OVERLAY DETAILS" sheet
- Strengthen Portal Frame Connection
- Install Continuity Plate



ELEVATION

1" = 30'-0"



PLAN

1" = 30'-0"

ST-1

Note: See also sheets ST-1 through ST-10 for bridge details. See also sheets ST-11 through ST-15 for abutment and pier details. See also sheets ST-16 through ST-20 for foundation details. See also sheets ST-21 through ST-25 for utility details. See also sheets ST-26 through ST-30 for miscellaneous details.

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
REGISTERED CIVIL ENGINEER
No. 49652
Exp. 09/30/24
09/11/2023
PLANS APPROVAL DATE

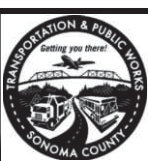


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

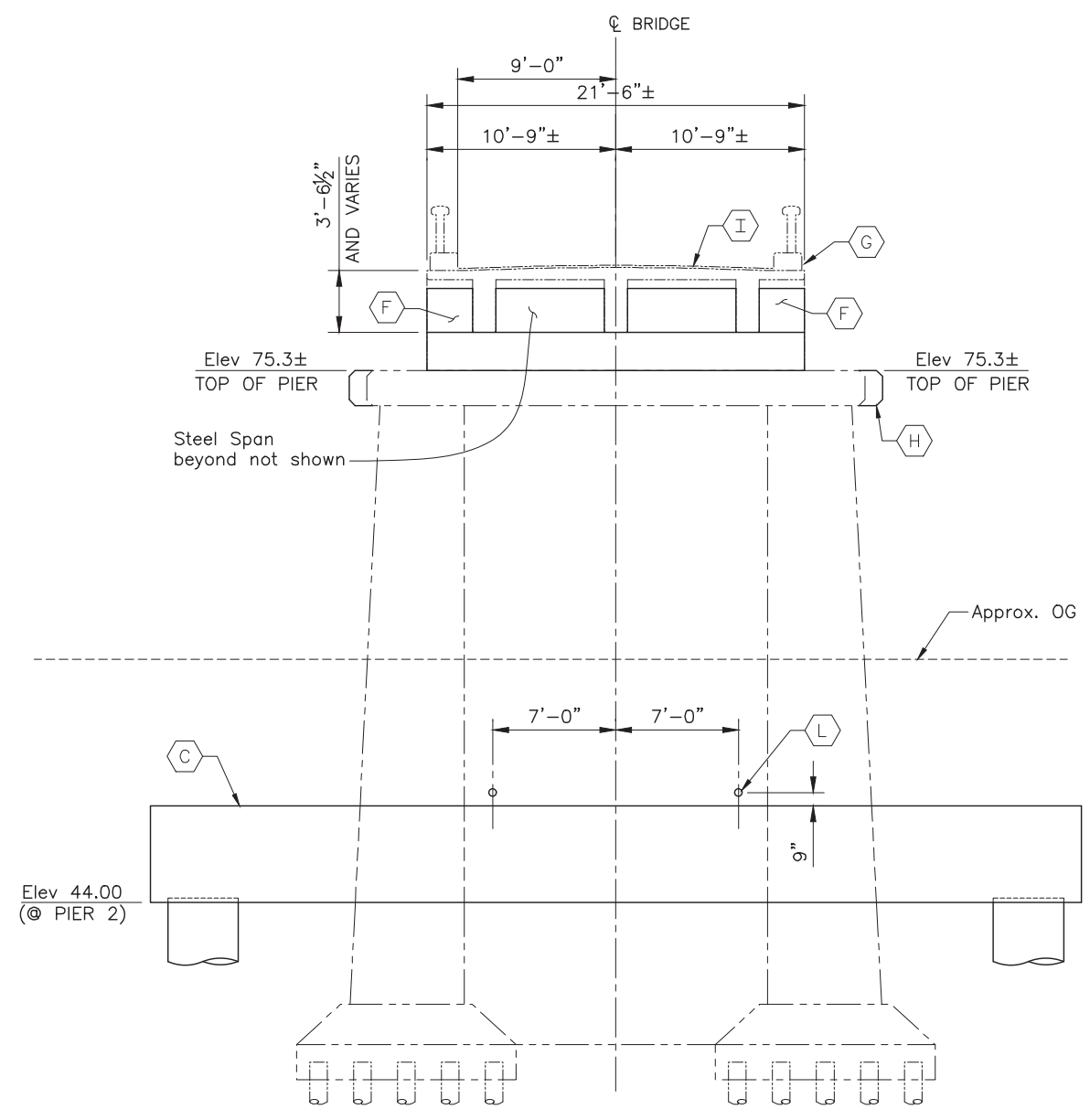
GENERAL PLAN NO. 1

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	25
TOTAL SHEETS	82

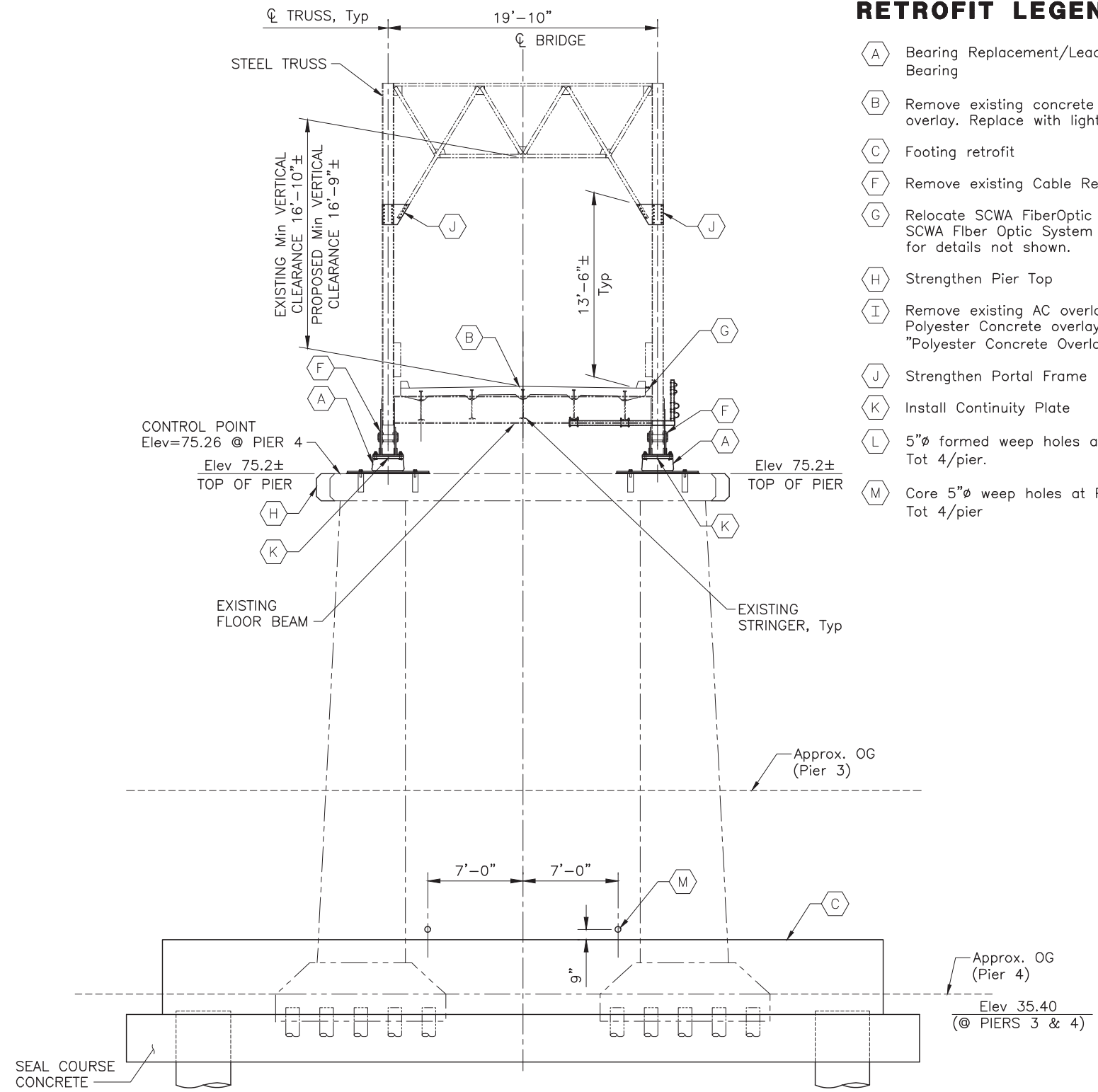
RETROFIT LEGEND:

- (A) Bearing Replacement/Lead Rubber Isolation Bearing
- (B) Remove existing concrete deck and AC overlay. Replace with lightweight concrete deck
- (C) Footing retrofit
- (F) Remove existing Cable Restrainers
- (G) Relocate SCWA FiberOptic Cable Conduit. See SCWA Fiber Optic System Modifications sheets for details not shown.
- (H) Strengthen Pier Top
- (I) Remove existing AC overlay and place Polyester Concrete overlay. For limits, see "Polyester Concrete Overlay Details" sheet.
- (J) Strengthen Portal Frame Bracing Connection
- (K) Install Continuity Plate
- (L) 5"Ø formed weep holes at Piers 2 and 5, Tot 4/pier.
- (M) Core 5"Ø weep holes at Piers 3 and 4, Tot 4/pier



TYPICAL PIER ELEVATION SPAN 1 (AT PIER 2)

1" = 5'-0"



TYPICAL PIER ELEVATION SPANS 2 THRU 4 (AT PIERS 3 AND 4)

1" = 5'-0"

Date: 09/11/2023
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 Project: Woller Road Bridge - Sonoma County Project Design
 File: 2/Plan/MS-03/0301A.Plan_2-5.dwg
 Plot Date: Sep 11, 2023 at 10:38 AM
 Plot: US DIME - Woller Road Bridge - Sonoma County Project Design

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA

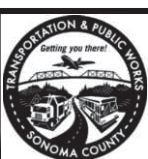


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

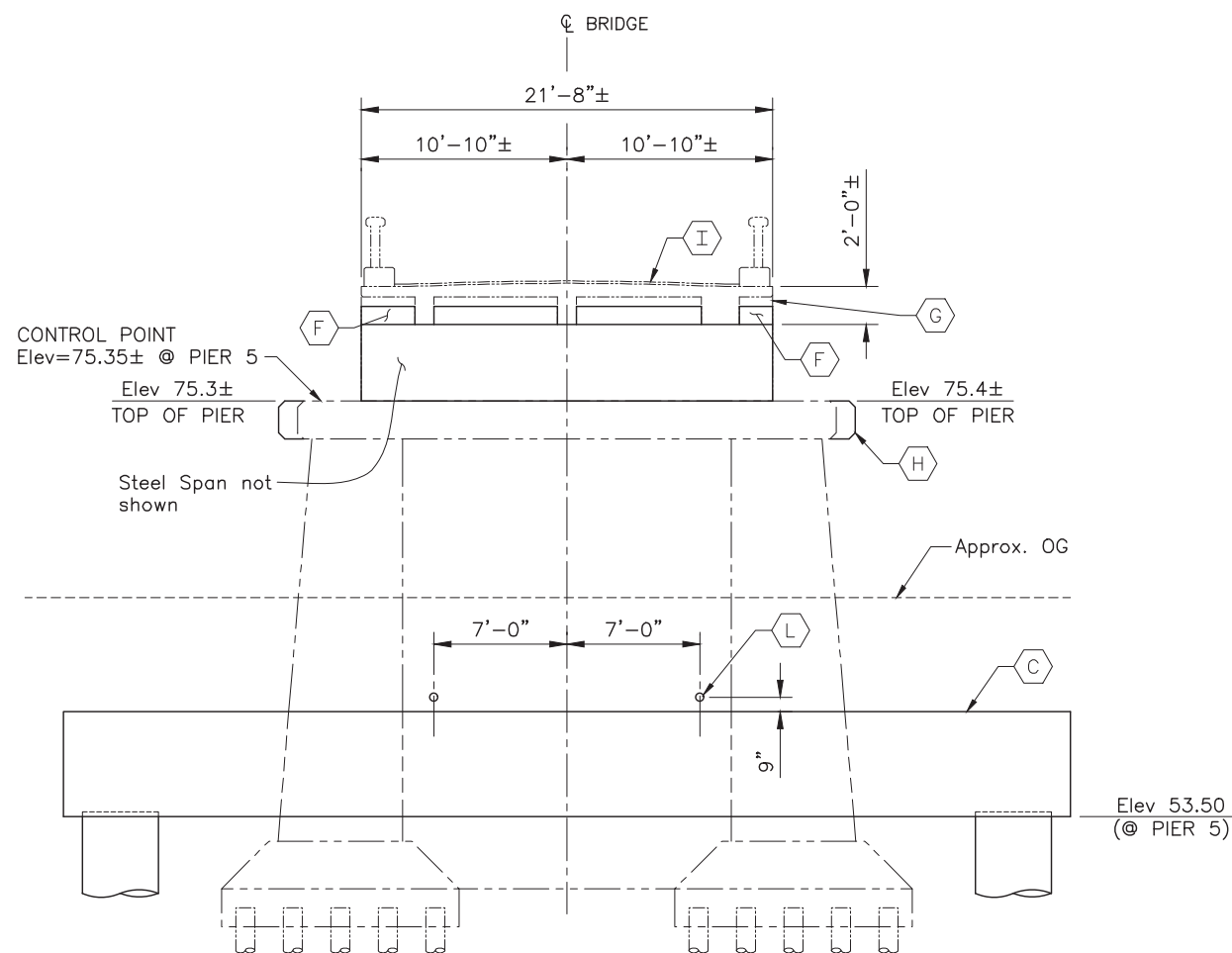


COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

GENERAL PLAN NO. 2

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	26
TOTAL SHEETS	82



TYPICAL PIER ELEVATION SPAN 5 (AT PIER 5)

1" = 5'-0"

RETROFIT LEGEND:

- (C) Footing Retrofit
- (F) Remove existing Cable Restainers
- (G) Relocate SCWA Fiber Optic Cable Conduit. See SCWA Fiber Optic System Modifications sheets for details not shown.
- (H) Strengthen Pier Top
- (I) Remove existing AC overlay and place Polyester Concrete overlay. For limits, see "Polyester Concrete Overlay Details" sheet.
- (L) 5"Ø formed weep holes at Piers 2 and 5, Tot 4/pier.

QUANTITIES		
STRUCTURE EXCAVATION (BRIDGE)	CY	1,656
STRUCTURE EXCAVATION (TYPE A)	CY	1,092
STRUCTURE BACKFILL (BRIDGE)	CY	1,134
STRUCTURE BACKFILL (BRIDGE)(BRIDGE SUPPORT)	CY	566
TEMPORARY SUPPORT	LS	1
JACKING SUPERSTRUCTURE	LS	1
TEMPORARY SHORING	LS	1
PIER 4 WORK PAD	LS	1
48" PERMANENT STEEL CASING (1/4" THICK)	LF	175
48" PERMANENT STEEL CASING (3/8" THICK)	LF	1,242
48" PERMANENT STEEL CASING (3/4" THICK)	LF	1,039
48" CAST-IN-DRILLED HOLE CONCRETE PILING	LF	2,132
36" CAST-IN-DRILLED HOLE CONCRETE PILING (ROCK SOCKET)	LF	783
48" CAST-IN-DRILLED HOLE CONCRETE PILING (ROCK SOCKET)	LF	108
SEAL COURSE CONCRETE	CY	414
STRUCTURAL CONCRETE, BRIDGE FOOTING	CY	1,093
STRUCTURAL CONCRETE, BRIDGE	CY	55
STRUCTURAL CONCRETE, BRIDGE (LIGHTWEIGHT)(POLYMER FIBER)	CY	347
DRILL AND BOND DOWEL	LF	639
DRILL AND BOND DOWEL (CHEMICAL ADHESIVE)(LF)	LF	7
SEISMIC ISOLATION BEARING (TYPE A)	EA	4
SEISMIC ISOLATION BEARING (TYPE B)	EA	8
JOINT SEAL (TYPE B)(MR=2")	LF	36
EXPANSION JOINT ASSEMBLY	EA	2
BAR REINFORCING STEEL (BRIDGE)	LB	602,864
HEADED BAR REINFORCEMENT	EA	2,566
STRUCTURAL STEEL (BRIDGE)	LB	13,430
STRUCTURAL STEEL (BRIDGE)(SHAPED PLATE)	LB	870
CLEAN AND PAINT STRUCTURAL STEEL	LS	1
SPOT BLAST CLEAN AND PAINT UNDERCOAT	SQFT	4,190
SPOT BLAST CLEAN AND PAINT UNDERCOAT (SHAPED PLATE)	SQFT	50
REMOVE PACK RUST AND PAINT UNDERCOAT	LF	100
CORE AND PRESSURE GROUT DOWEL	LF	148
DRILL AND PRESSURE GROUT DOWEL	LF	70
REMOVE ASPHALT CONCRETE SURFACING	SQFT	12,936
REMOVE CONCRETE DECK SURFACE	SQFT	455
REMOVE UNSOUND CONCRETE	CF	61
FURNISH POLYESTER CONCRETE OVERLAY	CF	123
PLACE POLYESTER CONCRETE OVERLAY	LF	1,273
CORE CONCRETE (5")	LF	44
BRIDGE REMOVAL (PORTION)	LS	1
MISCELLANEOUS METAL (BRIDGE)	LB	3,460

Note: 1. This drawing was prepared under contract to the County of Sonoma, California, for the purpose of providing design services for the construction of the Wohler Road Bridge. It is to be used for the construction of the Wohler Road Bridge only. 2. The design of this project is based on the information provided to the Designer. The Designer is not responsible for the accuracy of the information provided. 3. The Designer is not responsible for the construction of the project. 4. The Designer is not responsible for the safety of the project. 5. The Designer is not responsible for the liability of the project. 6. The Designer is not responsible for the cost of the project. 7. The Designer is not responsible for the time of the project. 8. The Designer is not responsible for the quality of the project. 9. The Designer is not responsible for the quantity of the project. 10. The Designer is not responsible for the location of the project. 11. The Designer is not responsible for the orientation of the project. 12. The Designer is not responsible for the color of the project. 13. The Designer is not responsible for the texture of the project. 14. The Designer is not responsible for the taste of the project. 15. The Designer is not responsible for the smell of the project. 16. The Designer is not responsible for the sound of the project. 17. The Designer is not responsible for the sight of the project. 18. The Designer is not responsible for the touch of the project. 19. The Designer is not responsible for the feel of the project. 20. The Designer is not responsible for the look of the project. 21. The Designer is not responsible for the sound of the project. 22. The Designer is not responsible for the sight of the project. 23. The Designer is not responsible for the touch of the project. 24. The Designer is not responsible for the feel of the project. 25. The Designer is not responsible for the look of the project.

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
REGISTERED CIVIL ENGINEER
No. 49652
Exp. 09/30/24
09/11/2023
PLANS APPROVAL DATE

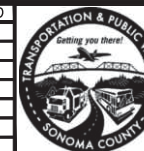


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION			
DATE	REVISION	BY	APPROVED

CONSTRUCTION COMPLETED:

RESIDENT ENGINEER _____

AS BUILT DRAWINGS BY: _____

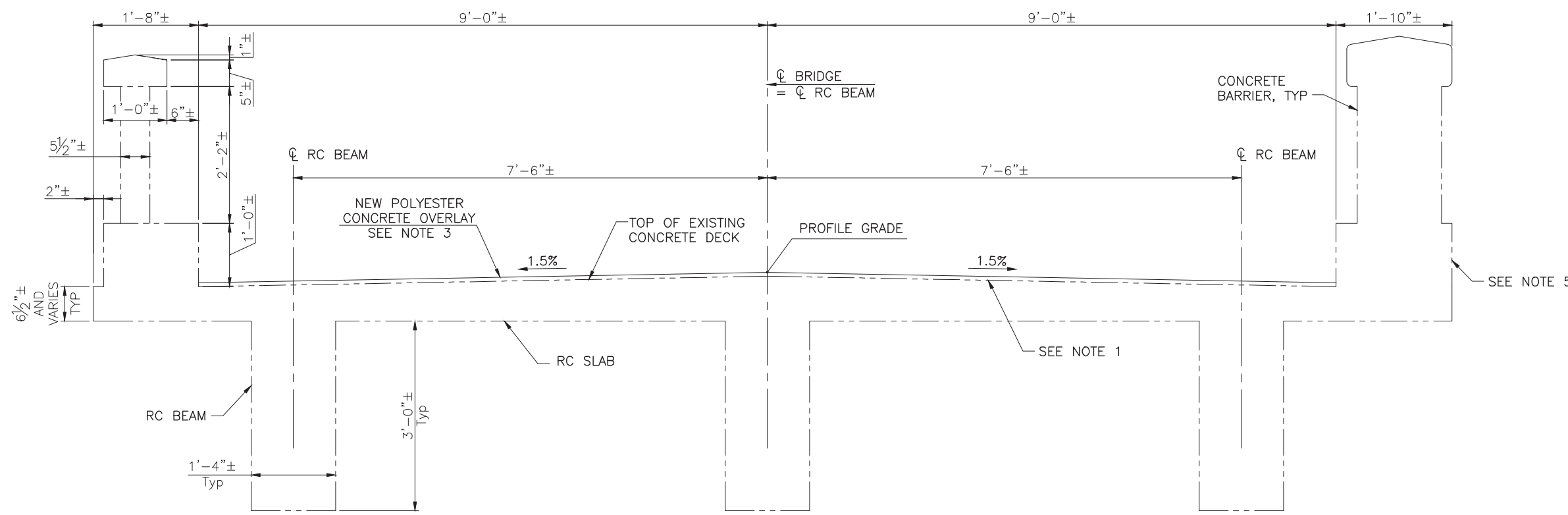


COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

GENERAL PLAN NO. 3

**WOHLER ROAD BRIDGE
OVER RUSSIAN RIVER**

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	27
TOTAL SHEETS	82

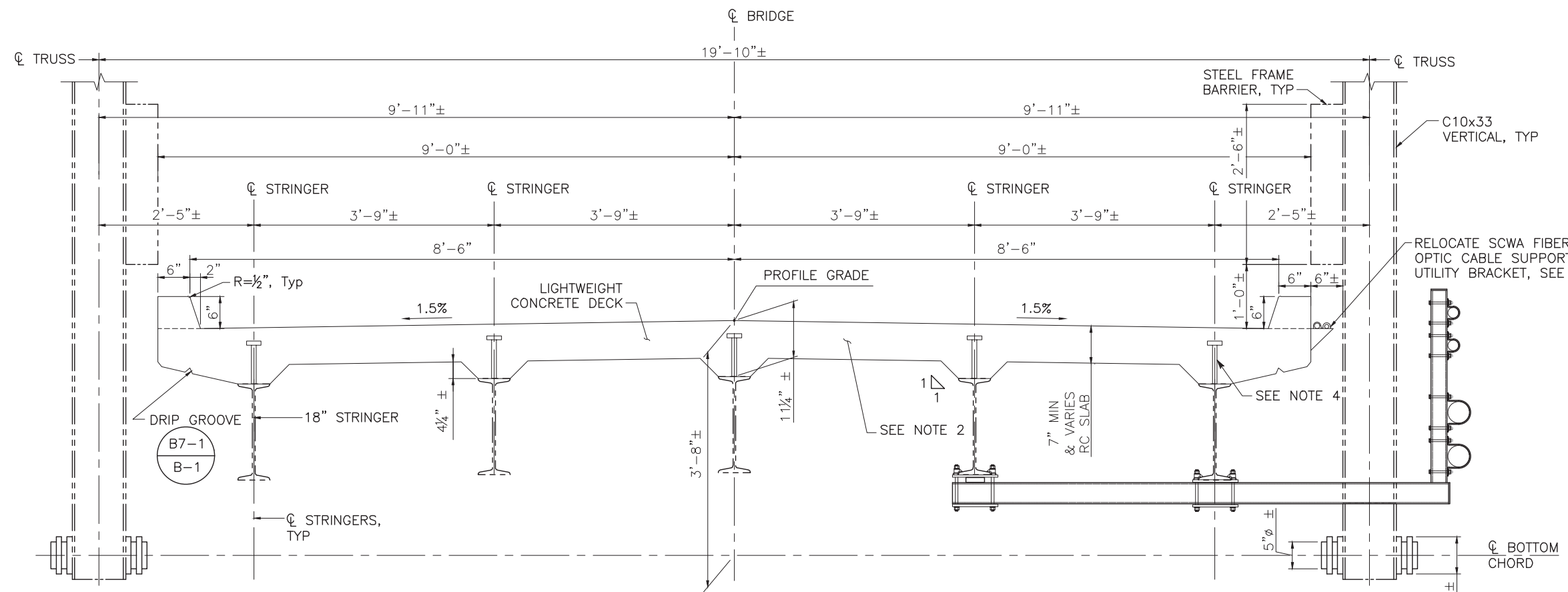


TYPICAL SECTION - SPAN 1

1" = 1'-0"

- NOTES:**
1. Remove existing 1.5"± ac overlay and grind 1" of existing deck. For limits of polyester concrete overlay, see "Polyester Concrete Overlay Details" sheet.
 2. Existing concrete deck and AC overlay not shown.
 3. For limits of polyester concrete overlay, see "Polyester Concrete Overlay Details" sheet.
 4. New welded studs, see Deck Replacement Detail Sheets.
 5. For SCWA Support details, see SCWA Fiber Optic Modifications sheets.

- LEGEND:**
- Indicates Existing Structure
 - Indicates New Structure



TYPICAL SECTION - SPANS 2 THRU 4

1" = 1'-0"

11/16/22
 Kevin J. Ross
 09/11/2023
 PLANS APPROVAL DATE
 09/11/2023
 PLANS APPROVAL DATE
 09/11/2023
 PLANS APPROVAL DATE
 09/11/2023
 PLANS APPROVAL DATE

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA



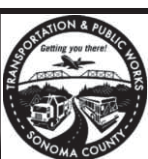
"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER _____

AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

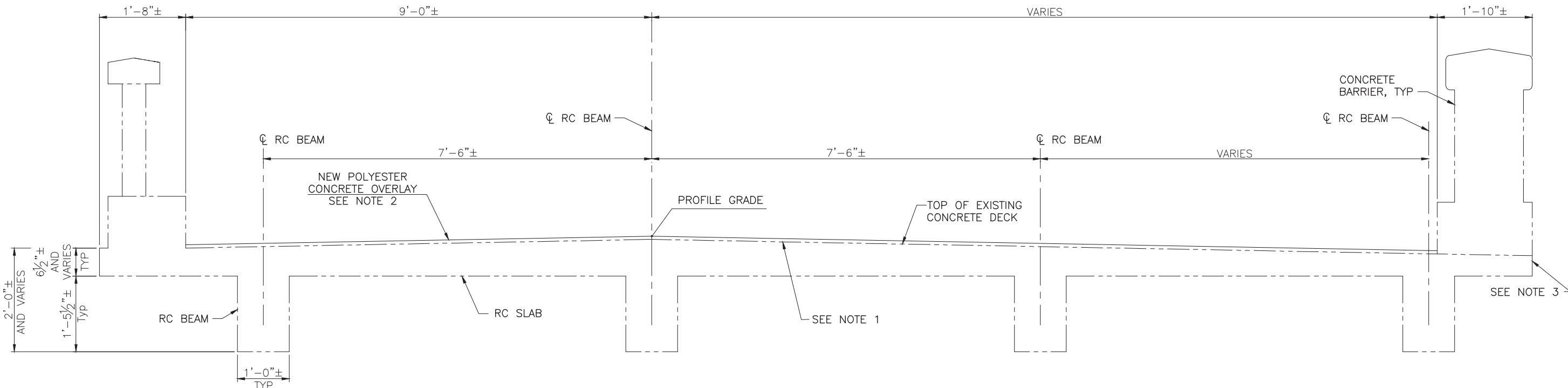


COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

GENERAL PLAN NO. 4

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	28
TOTAL SHEETS	82



TYPICAL SECTION - SPAN 5
 1" = 1'-0"

LEGEND:

- Indicates Existing Structure
- Indicates New Structure

NOTE:

1. Remove existing 1.5"± AC overlay and grind 1" of existing Deck. For limits of polyester concrete overlay, see "Polyester Concrete Overlay Details" sheet.
2. For limits of polyester concrete overlay, see "Polyester Concrete Overlay Details" sheet.
3. For SCWA Support details, see SCWA Fiber Optic Modification Sheets.

Note: 1. This drawing was prepared by Kevin J. Ross, P.E., on 09/11/2023 at 10:38 AM. 2. This drawing was prepared by Kevin J. Ross, P.E., on 09/11/2023 at 10:38 AM. 3. This drawing was prepared by Kevin J. Ross, P.E., on 09/11/2023 at 10:38 AM. 4. This drawing was prepared by Kevin J. Ross, P.E., on 09/11/2023 at 10:38 AM. 5. This drawing was prepared by Kevin J. Ross, P.E., on 09/11/2023 at 10:38 AM. 6. This drawing was prepared by Kevin J. Ross, P.E., on 09/11/2023 at 10:38 AM. 7. This drawing was prepared by Kevin J. Ross, P.E., on 09/11/2023 at 10:38 AM. 8. This drawing was prepared by Kevin J. Ross, P.E., on 09/11/2023 at 10:38 AM. 9. This drawing was prepared by Kevin J. Ross, P.E., on 09/11/2023 at 10:38 AM. 10. This drawing was prepared by Kevin J. Ross, P.E., on 09/11/2023 at 10:38 AM. 11. This drawing was prepared by Kevin J. Ross, P.E., on 09/11/2023 at 10:38 AM. 12. This drawing was prepared by Kevin J. Ross, P.E., on 09/11/2023 at 10:38 AM. 13. 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Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



GENERAL PLAN NO. 5		ROAD NUMBER	8901
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER		BUDGET NUMBER	C01136
		FISCAL YEAR	2022-23
		SHEET NUMBER	29
		TOTAL SHEETS	82

**GENERAL NOTES
 LOAD RESISTANCE FACTOR DESIGN**

DESIGN: AASHTO LRFD Bridge Design Specifications, Sixth Edition, 2012 and the California Amendments, (AASHTO-CA BDS-6)

SEISMIC DESIGN: CalTrans Memo to Designers 20-4.

DECK DESIGN LIVE LOAD: HL-93, Design Tandem

DEAD LOAD: No allowance for future overlay or utilities included.

SEISMIC LOADING: Soil Profile: $V_{S30} = 296$ m/s
 Moment Magnitude = 7.3
 Peak Ground Acceleration = 0.60g

NEW REINFORCED CONCRETE: $f_y = 60$ ksi
 $f'_c =$ see "Concrete Strength and Type Limits"

EXISTING REINFORCED CONCRETE: $f_y = 35$ ksi
 $f'_c = 5.0$ ksi

EXISTING STRUCTURAL STEEL (ASSUMED FOR EVALUATION OF EXIST STRUCTURE): $F_y = 33$ ksi
 $F_u = 60$ ksi

STEEL PLATE: ASTM A572 GRADE 50

PERMANENT STEEL CASINGS: ASTM A252, GRADE 2, $F_y = 35$ ksi

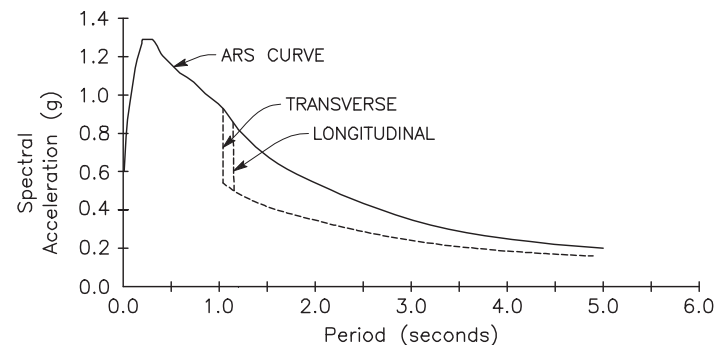
WELDED STUDS: ASTM A29,A108, $F_u = 65$ ksi

BOLTS: ASTM F3125 GRADE

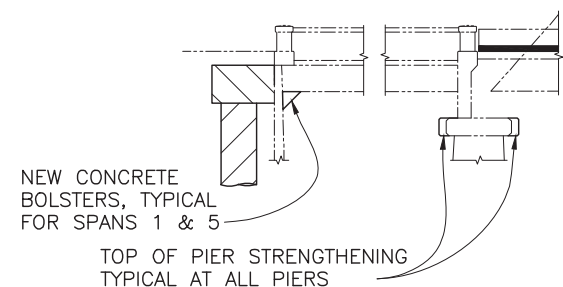
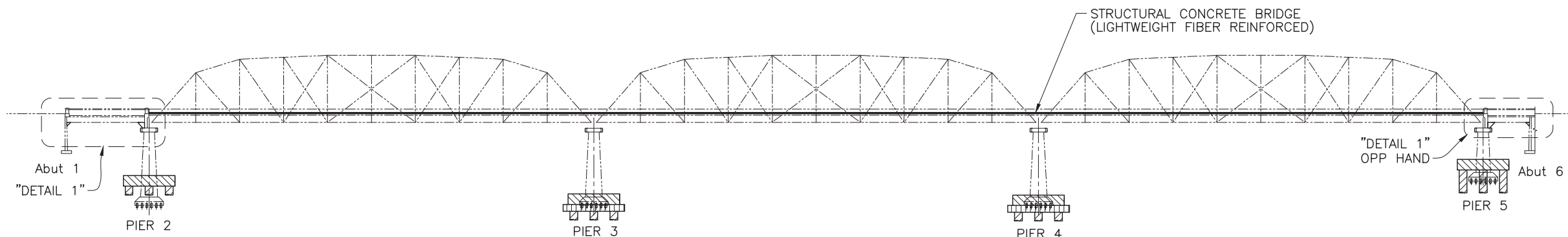
DRAIN PIPE: ASTM A53 GRADE B

SHEAR LUG ROUND BAR: 1045 CARBON STEEL

ANCHOR RODS: F1554 GRADE 105



**ACCELERATION RESPONSE SPECTRUM
 (LEAD RUBBER)**



DETAIL 1
 NOT TO SCALE
 SPAN 1 SHOWN, SPAN 5 SIMILAR

LEGEND:

- Structural Concrete Bridge (Lightweight Fiber Reinforced), ($f'_c = 4000$ psi)
- Structural Concrete, Bridge ($f'_c = 4.0$ ksi @ 28 days)
- Structural Concrete, Bridge Footing ($f'_c = 4.0$ ksi @ 28 days)
- CIDH Concrete Pile ($f'_c = 4.0$ ksi @ 28 days)
- Seal Course Concrete
- Indicates existing structure
- Indicates new construction

CONCRETE STRENGTH AND TYPE LIMITS

NOT TO SCALE

ST-6

Info: WBS-5-2023-046
 Path: U:\DRAFT - Info - Road Bridge - Sonoma Co\02 Project Design\Plan\ASB Bolster & Structure\Submittal\Plan\2\Plan\WBS-5-2023-046\NOTES.dwg Plot Date: Sep 11, 2023 at 10:29

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA

09/11/2023
 PLANS APPROVAL DATE



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CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER _____
 AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

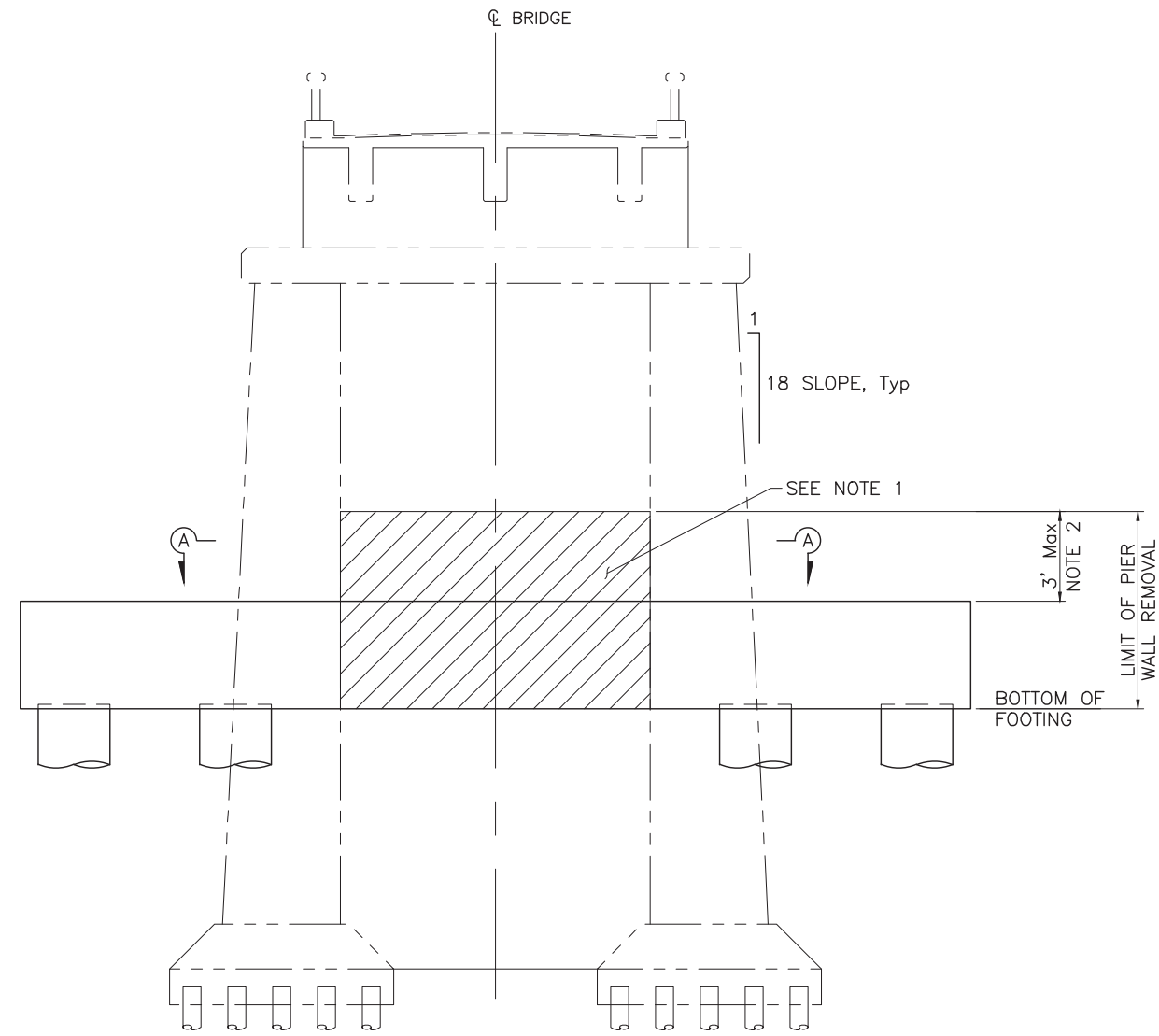
GENERAL NOTES

**WOHLER ROAD BRIDGE
 OVER RUSSIAN RIVER**

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	30
TOTAL SHEETS	82

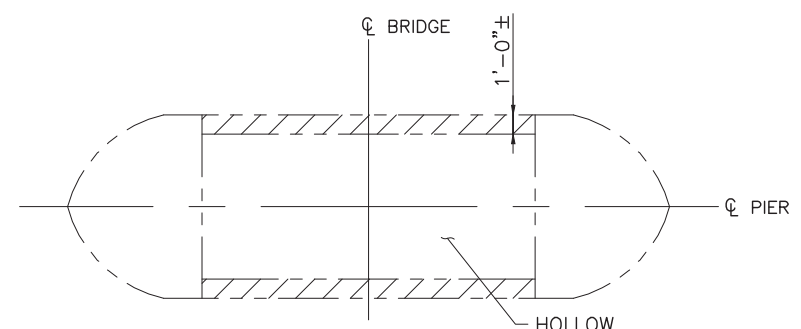
INDEX TO PLANS

No.	Title
25	GENERAL PLAN NO. 1
26	GENERAL PLAN NO. 2
27	GENERAL PLAN NO. 3
28	GENERAL PLAN NO. 4
29	GENERAL PLAN NO. 5
30	GENERAL NOTES
31	INDEX TO BRIDGE PLANS
32	EXISTING TRUSS GEOMETRY
33	EXISTING DECK GRADES NO. 1
34	EXISTING DECK GRADES NO. 2
35	BRIDGE REMOVAL DETAILS NO. 1
36	DECK REMOVAL DETAILS NO. 1
37	DECK REMOVAL DETAILS NO. 2
38	BEARING REMOVAL DETAILS
39	SPOT BLAST & CLEAN DETAILS
40	FOUNDATION PLAN
41	POLYESTER CONCRETE OVERLAY DETAILS
42	ABUTMENT RETROFIT DETAILS NO. 1
43	ABUTMENT RETROFIT DETAILS NO. 2
44	ABUTMENT RETROFIT DETAILS NO. 3
45	ABUTMENT RETROFIT DETAILS NO. 4
46	ABUTMENT RETROFIT DETAILS NO. 5
47	EXPANSION JOINT DETAILS NO. 1
48	EXPANSION JOINT DETAILS NO. 2
49	EXPANSION JOINT DETAILS NO. 3
50	EXPANSION JOINT DETAILS NO. 4
51	PIER FOOTING RETROFIT DETAILS NO. 1
52	PIER FOOTING RETROFIT DETAILS NO. 2
53	PIER FOOTING RETROFIT DETAILS NO. 3
54	PIER FOOTING RETROFIT DETAILS NO. 4
55	PIER FOOTING RETROFIT DETAILS NO. 5
56	PIER FOOTING RETROFIT DETAILS NO. 6
57	PIER FOOTING RETROFIT DETAILS NO. 7
58	PIER FOOTING RETROFIT DETAILS NO. 8
59	PIER FOOTING RETROFIT DETAILS NO. 9
60	PIER FOOTING RETROFIT DETAILS NO. 10
61	DECK REPLACEMENT DETAILS NO. 1
62	DECK REPLACEMENT DETAILS NO. 2
63	BEARING REPLACEMENT DETAILS NO. 1
64	BEARING REPLACEMENT DETAILS NO. 2
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67	BEARING REPLACEMENT DETAILS NO. 5
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70	SEISMIC ISOLATION BEARING DETAILS
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72	TEMPORARY SUPPORT DETAILS
73	CONSTRUCTION SEQUENCE
74	PAY LIMITS FOR EXCAVATION AND BACKFILL NO. 1
75	PAY LIMITS FOR EXCAVATION AND BACKFILL NO. 2
76	PAY LIMITS FOR EXCAVATION AND BACKFILL NO. 3
77	ABUTMENT APPROACH CONFORM DETAILS
78	LOG OF TEST BORINGS NO. 1
79	LOG OF TEST BORINGS NO. 2
80	LOG OF TEST BORINGS NO. 3
81	LOG OF TEST BORINGS NO. 4
82	LOG OF TEST BORINGS NO. 5



PIERS 2 & 5 PIER WALL REMOVAL

1" = 5'-0"
Pier 2 shown, Pier 5 removal limits similar



SECTION A-A

NO SCALE

LEGEND:

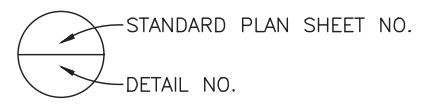
Indicates Limits of Concrete Removal

NOTES:

- Existing #4 horizontal and vertical bars @ 12"± may be cut as needed to construct new footings. However, a minimum of 1'-8" of the existing horizontal and vertical bars must be left to splice onto new #4 horizontal and vertical bars
- Only remove as much of the existing walls as needed to construct the new footings up to 3' maximum.

STANDARD PLANS DATED 2023

- A10A ABBREVIATIONS (SHEET 1 OF 2)
- A10B ABBREVIATIONS (SHEET 2 OF 2)
- A10C LINES AND SYMBOLS (SHEET 1 OF 3)
- A10D LINES AND SYMBOLS (SHEET 2 OF 3)
- A10E LINES AND SYMBOLS (SHEET 3 OF 3)
- BO-1 BRIDGE DETAILS
- BO-5 BRIDGE DETAILS
- B6-21 JOINT SEALS (MAXIMUM RATING = 2")



Title: WBS-5-0000-04e
 Path: U:\DDE\1 - Bldg - Road Bridge - Sonoma Co\02 Project Design\Plan\ASB\Bldg & Structure\Submittal\Plan\2\Plan\WBS-5-INDEX TO BRIDGE PLANS.dwg
 Plot Date: Sep 11, 2023 at 10:39 AM

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
REGISTERED CIVIL ENGINEER
09/11/2023
PLANS APPROVAL DATE



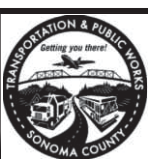
"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER _____

AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

INDEX TO BRIDGE PLANS	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
	FISCAL YEAR	2022-23
	SHEET NUMBER	31
	TOTAL SHEETS	82

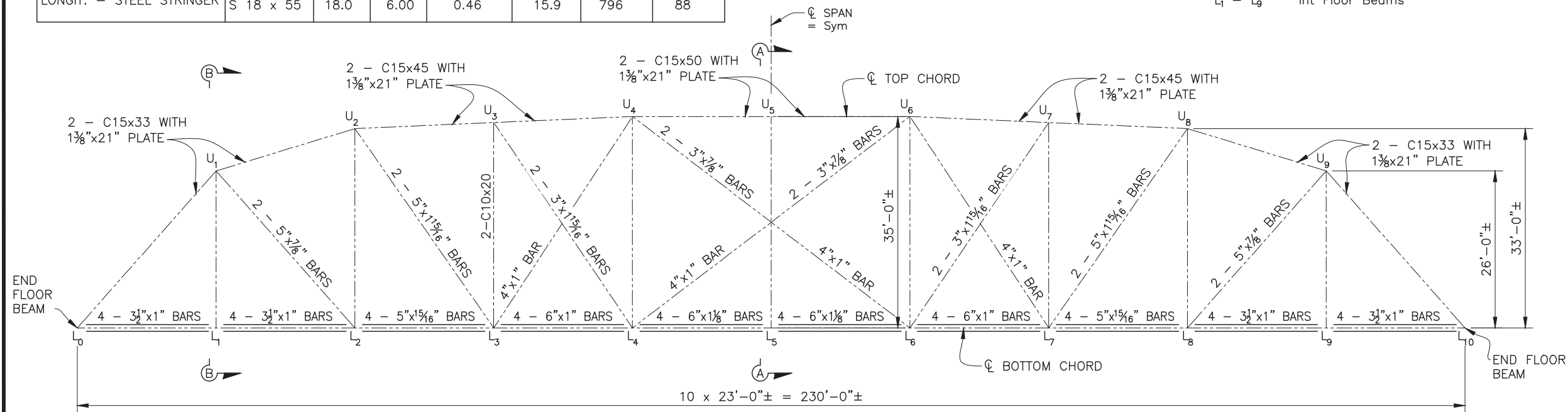
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ASSUMED SECTION PROPERTIES FOR I BEAMS

LOCATION	SECTION	DEPTH [in]	FLANGE WIDTH [in]	WEB THICKNESS [in]	SECTION AREA [in ²]	I _{xx} [in ⁴]	S _{xx} [in ³]
TRANSVERSE-FLOOR BEAM	S 24 x 100	24.0	7.25	0.75	29.3	2372	198
LONGIT. - STEEL STRINGER	S 18 x 55	18.0	6.00	0.46	15.9	796	88

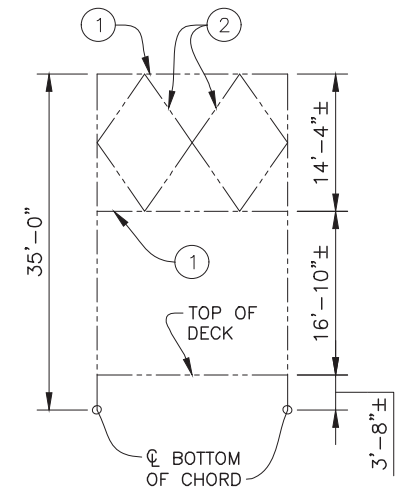
LEGEND:

- Indicates Existing Structure (Centerline of Structural Members)
- ===== Indicates Fracture Critical Member
- L₀, L₁₀ End Floor Beams
- L₁ - L₉ Int Floor Beams



ELEVATION - SPANS 2 THRU 4

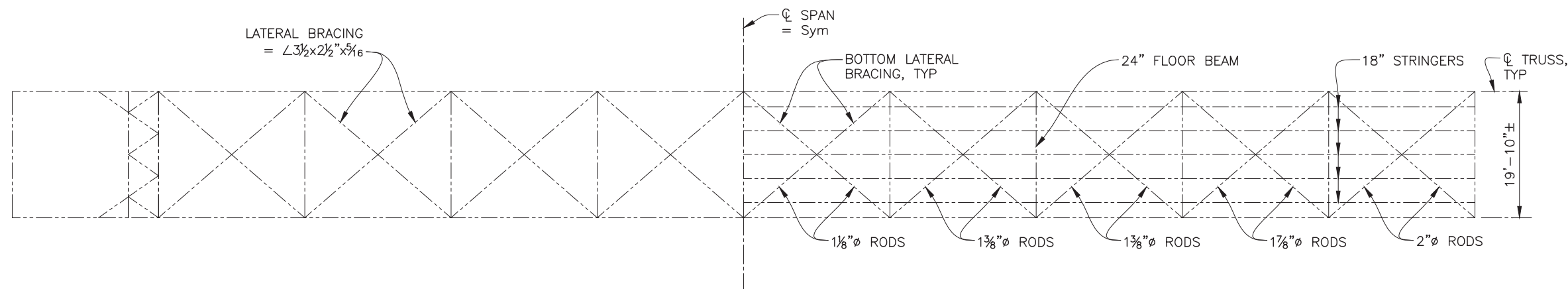
1" = 10'-0"



SECTION A-A

1" = 10'-0"

- ① 2 L2 1/2 x 3 1/2 x 1/4 SLBB (Short Legs Back to Back)
- ② 1 L3 1/2 x 2 1/2 x 1/4
- ③ 2 L3 x 3 x 5/16
- ④ 2 L3 1/2 x 2 1/2 x 1/4 LLBB (Long Legs Back to Back)

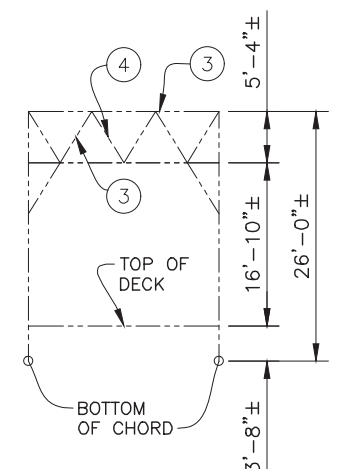


HALF TOP PLAN

HALF BOTTOM PLAN

GEOMETRY-TRUSS SPAN

1" = 10'-0"



SECTION B-B

1" = 10'-0"

ST-8

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
REGISTERED CIVIL ENGINEER
No. 49652
Exp. 09/30/24
09/11/2023
PLANS APPROVAL DATE



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CONSTRUCTION COMPLETED: _____
RESIDENT ENGINEER _____
AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

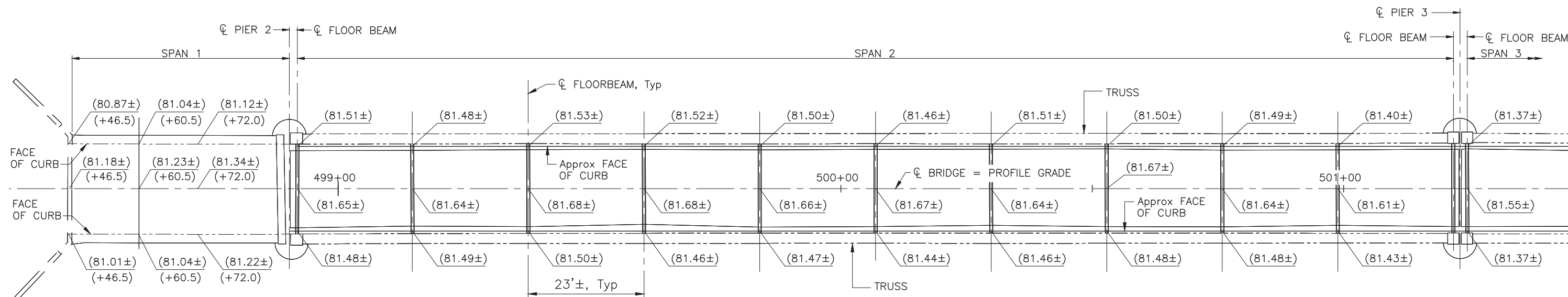
EXISTING TRUSS GEOMETRY

**WOHLER ROAD BRIDGE
OVER RUSSIAN RIVER**

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	32
TOTAL SHEETS	82

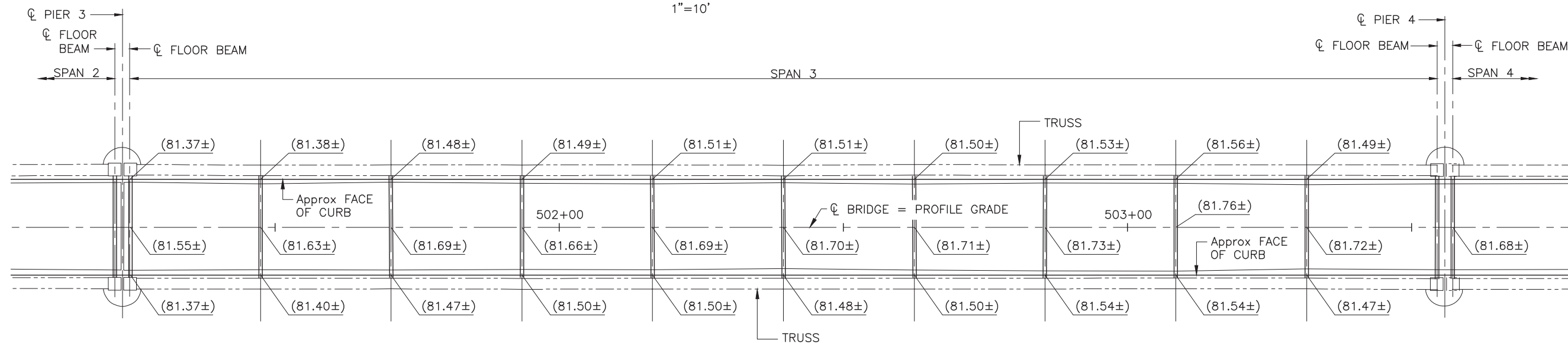
NOTES:

- (ELEV±) Indicates top of existing deck spot elevation at Span 1.
(STA) at Span 1.
- (ELEV±) Indicates top of existing deck spot elevation at Existing Floor Beams.
- After bridge deck has been removed and top of steel stringer and floorbeam elevations are surveyed, a large scale (1/4" = 1'-0") Deck Contours sheet will be provided by the Engineer for construction of the new deck. Deck grades shown are for reference purposes only.
- Anticipated truss member deflections due to deck placement are as follows:
 Stringers - 0.00'
 Floor Beams - 0.01'
 Mid Span Truss - 0.17'



EXISTING GRADES

1"=10'



EXISTING GRADES

1"=10'

Title: W-9 - Existing Deck Grades - 2022 - 09/11/2023
 Plan: W-9 - Existing Deck Grades - 2022 - 09/11/2023
 Project: W-9 - Existing Deck Grades - 2022 - 09/11/2023
 Date: 09/11/2023

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE



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CONSTRUCTION COMPLETED: _____

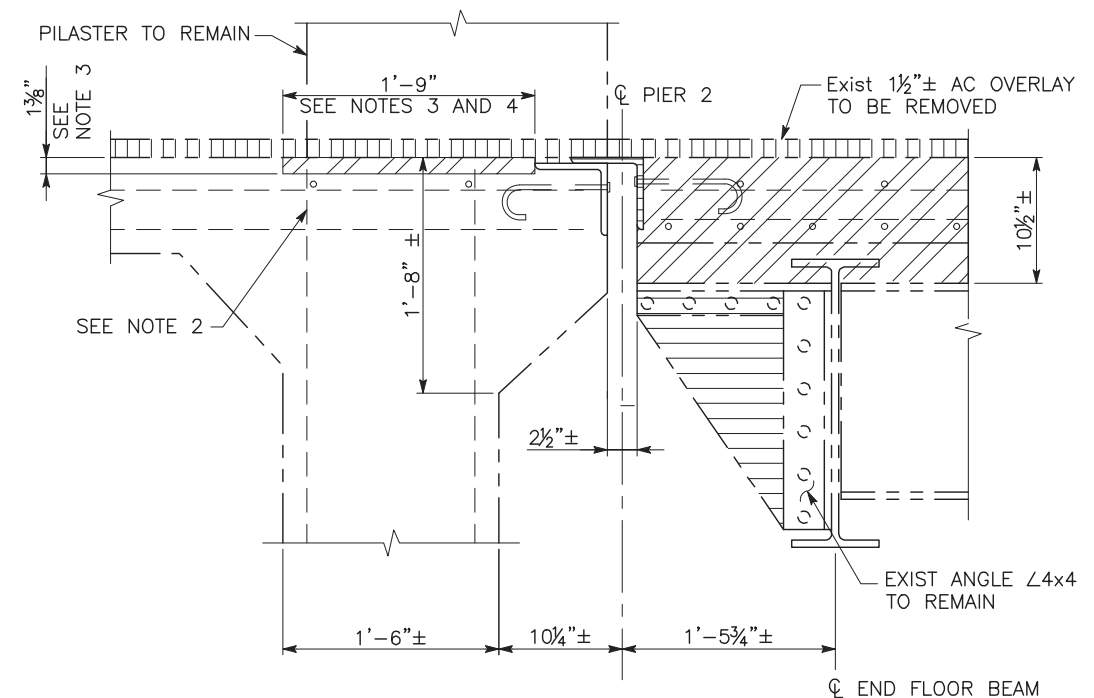
RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

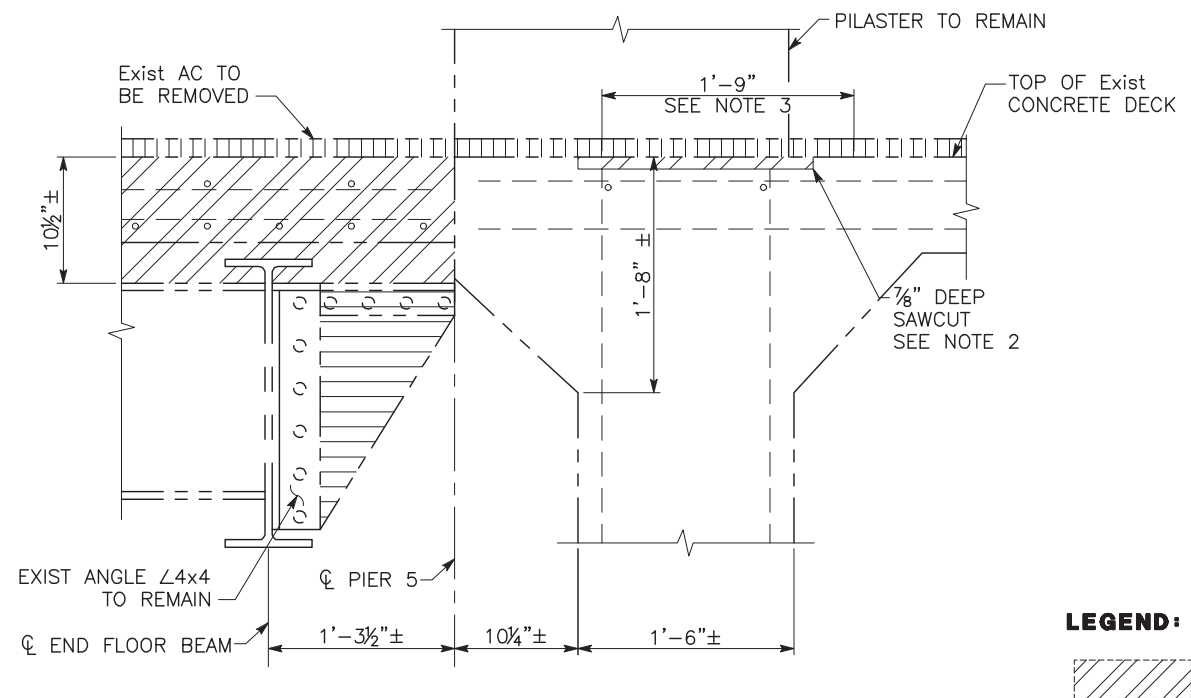


COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

EXISTING DECK GRADES NO. 1		ROAD NUMBER	8901
		BUDGET NUMBER	C01136
		FISCAL YEAR	2022-23
		SHEET NUMBER	33
		TOTAL SHEETS	82

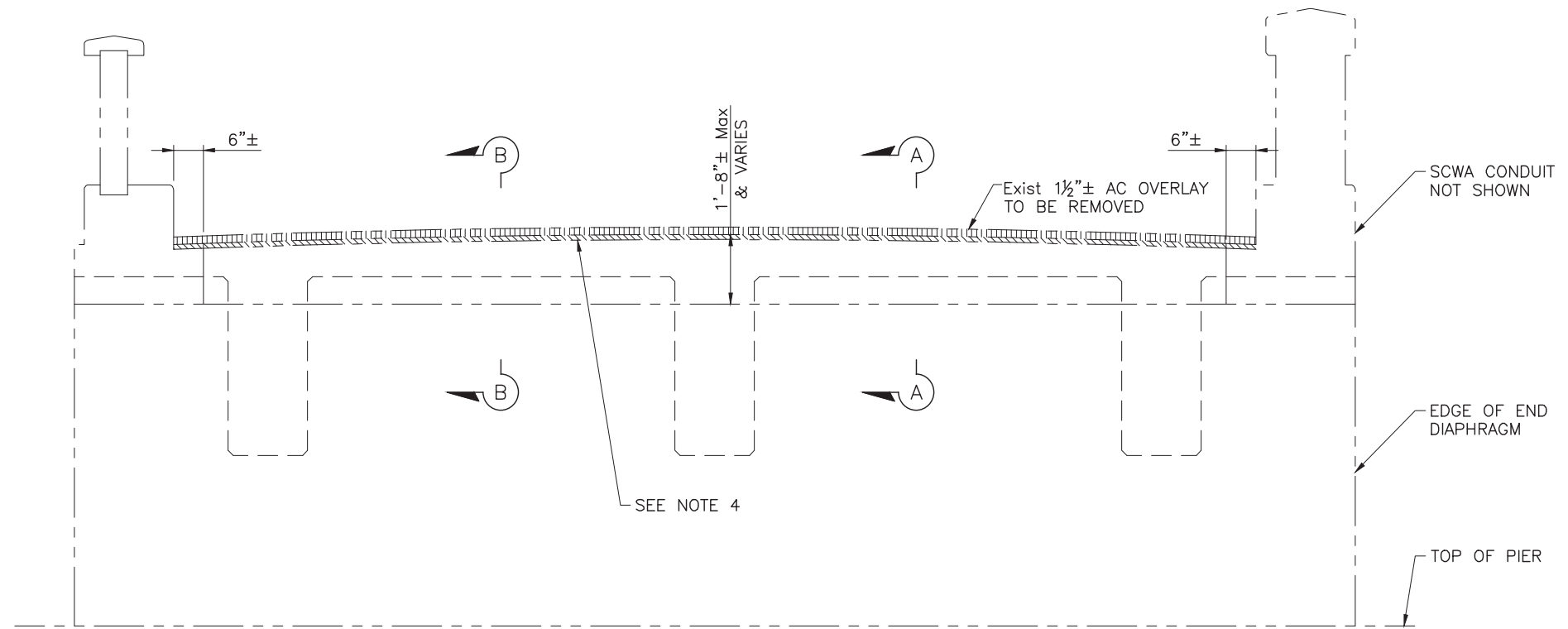


SECTION A-A
 1/2" = 1'-0"
 Expansion end at Pier 2 shown



SECTION B-B
 1/2" = 1'-0"
 Fixed end at Pier 5 shown

- LEGEND:**
- Indicates limits of concrete removal
 - Indicates limits of structural steel removal
 - Indicates limits of 1 1/2"± AC Overlay Removal
 - Indicates limits of Existing Deck Removal



ELEVATION
CONCRETE END DIAPHRAGM AT PIERS 2 AND 5
(PIER 2 SHOWN, PIER 5 SIMILAR)
 3/4" = 1'-0"

- NOTES:**
1. The Contractor must contain all debris resulting from the removal such that no debris will fall into any waterway.
 2. Bar reinforcing to remain in place must be protected from damage. Bar reinforcing that is cut must be removed 1" below the concrete surface and cut ends must be cleaned and painted with organic zinc rich primer.
 3. Remove unsound concrete and patch holes after zinc rich primer has been applied as authorized by the Engineer.
 4. For limits of removal needed for expansion joint assembly, see "Expansion Joint Details" sheets.

Notes: 4/14/2023 - Revise: Road Bridge - Sonoma Co, US, Project: Design: Plans, US, Bridge: 5-880000: REMOVAL: DETAIL: 35.dwg: Rev: 11, 2023 at 10:30 AM: 10/11/2023 - Revise:

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE



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CONSTRUCTION COMPLETED: _____

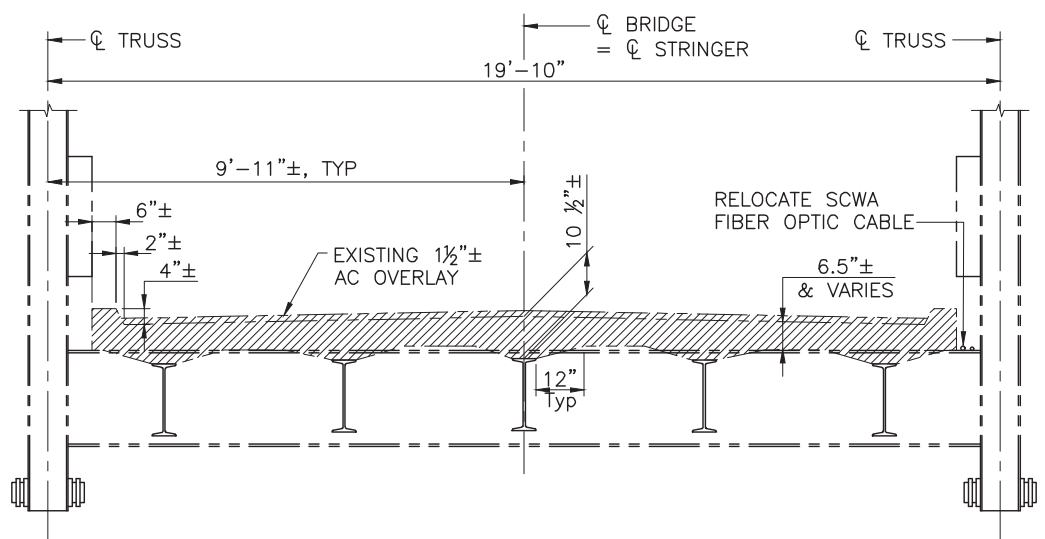
RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

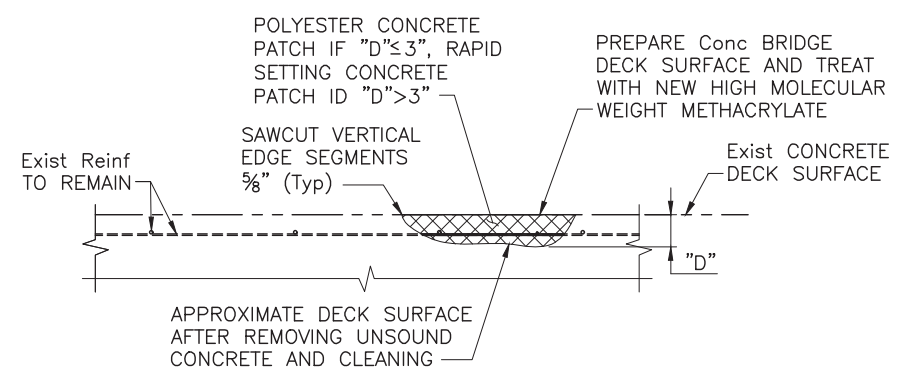
BRIDGE REMOVAL DETAILS NO. 1 WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
	FISCAL YEAR	2022-23
	SHEET NUMBER	35
	TOTAL SHEETS	82



DECK REMOVAL DETAIL
1/2" = 1'-0"

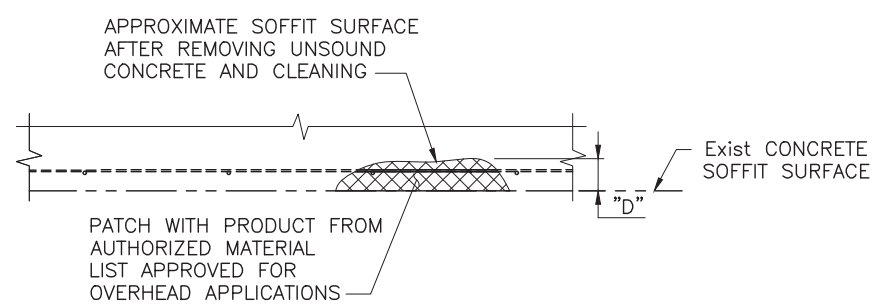
DECK REMOVAL SEQUENCE:

- Existing bridge deck to be removed consists of the concrete deck and AC overlay.
- Remove deck segments beginning with the deck segments nearest the center of the truss span in accordance with the deck removal/rehabilitation limit diagram. Submit removal plan for authorization if different than what is shown.
- Remove deck segments in pairs symmetric about the center of the span before proceeding with the adjacent segments.



DECK REPAIR DETAIL
NO SCALE

LOCATIONS TO BE DETERMINED BY THE ENGINEER. REINFORCEMENT MAY BE ENCOUNTERED DURING DECK CONCRETE REMOVAL.



SOFFIT REPAIR DETAIL
NO SCALE

LOCATIONS TO BE DETERMINED BY THE ENGINEER. REINFORCEMENT MAY BE ENCOUNTERED DURING SOFFIT CONCRETE REMOVAL.

SPAN 1 AND SPAN 5 DECK REPAIR TABLE

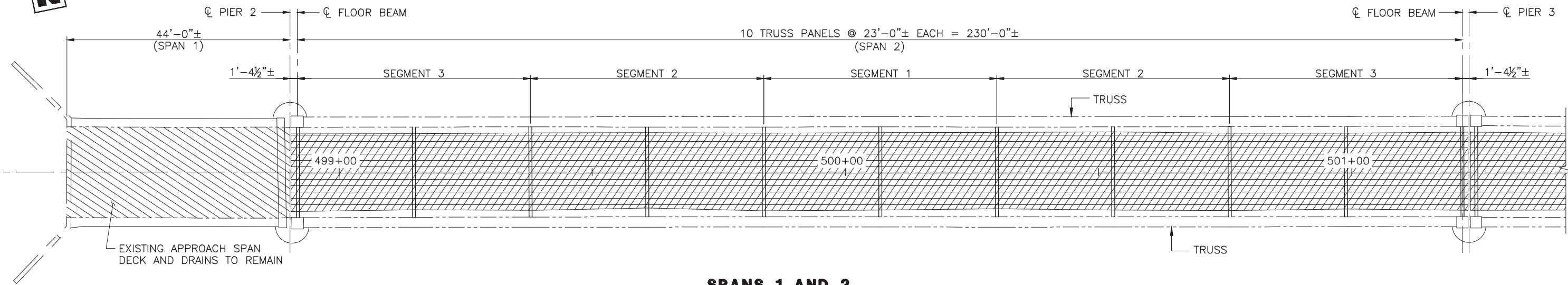
REMOVE UNSOUND CONCRETE AND PATCH	
APPROXIMATE DECK AREA DAMAGED (PERCENT)	APPROXIMATE DEPTH "D" (INCHES)
10%	2 1/2"

SPAN 1 AND SPAN 5 SOFFIT REPAIR TABLE

REMOVE UNSOUND CONCRETE AND PATCH	
APPROXIMATE DECK AREA DAMAGED (PERCENT)	APPROXIMATE DEPTH "D" (INCHES)
10%	2 1/2"

LEGEND:

- Indicates new construction
- - - Indicates existing structure
- ▨ Indicates deck removal including steel expansion joint assembly and attachments.
- ▩ Indicates limits of removing unsound concrete and patch deck spalls. See "Deck Repair Detail" this sheet.
- ▧ Indicates limits of removing existing 1 1/2"± AC overlay on top of concrete deck to be removed.



SPANS 1 AND 2

DECK REMOVAL/REHABILITATION LIMITS

SCWA FIBER OPTIC CABLE AND SUPPORTS NOT SHOWN

Title: WBS-5-2022-Deck Removal/Rehabilitation Limits; Date: 09/11/2023; 10:39 AM
 Path: U:\Projects\2022\WBS-5-2022-Deck Removal/Rehabilitation Limits\Drawings\ST-12.dwg
 Plot Date: Sep 11, 2023 at 10:39 AM

DESIGN BY	BR
DRAWING BY	KD
CHECKED BY	KB

Kevin J. Ross
REGISTERED CIVIL ENGINEER
09/11/2023
PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED:	DATE	REVISION	BY	APPROVED
RESIDENT ENGINEER AS BUILT DRAWINGS BY:				

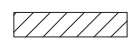
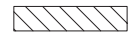

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

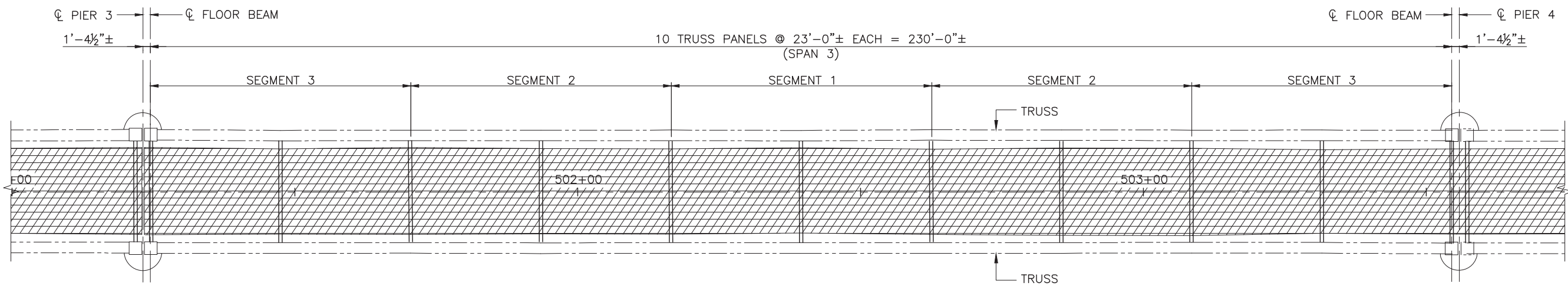
DECK REMOVAL DETAILS NO. 1 WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
	FISCAL YEAR	2022-23
	SHEET NUMBER	36
	TOTAL SHEETS	82

LEGEND:

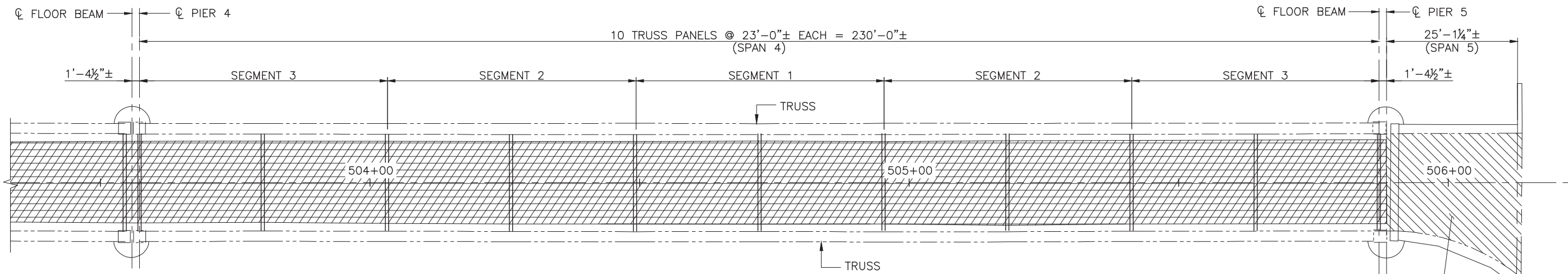
- Indicates new construction
- - - - - Indicates existing structure
-  Indicates deck removal including steel expansion joint assembly and attachments.
-  Indicates limits of removing unsound concrete and patching deck spalls. See "Deck Repair Detail" on "Deck Removal Details No. 1" sheet.
-  Indicates limits of removing existing 1 1/2"± AC overlay on top of concrete deck to be removed.

DECK REMOVAL SEQUENCE:

1. Existing bridge deck to be removed consist of the concrete deck and AC overlay.
2. Remove concrete deck segments beginning with the deck segments nearest the center of the truss span in accordance with the deck removal/rehabilitation limit diagram. Submit removal plan for authorization if different than what is shown
3. Remove deck segments in pairs symmetric about the center of the span before proceeding with the adjacent segments.



SPAN 3



SPANS 4 AND 5

DECK REMOVAL/REHABILITATION LIMITS

SCWA FIBER OPTIC CABLE AND SUPPORTS NOT SHOWN

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 Path: U:\DRA\ - WBS-5-2022-Deck Removal/Rehabilitation Details No. 2 (Rev. 09/11/2023) - 10/11/2023 at 10:39 AM

DESIGN BY	BR
DRAWING BY	KD
CHECKED BY	KB

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE

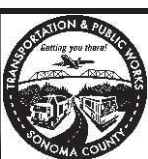


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

DECK REMOVAL DETAILS NO. 2

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

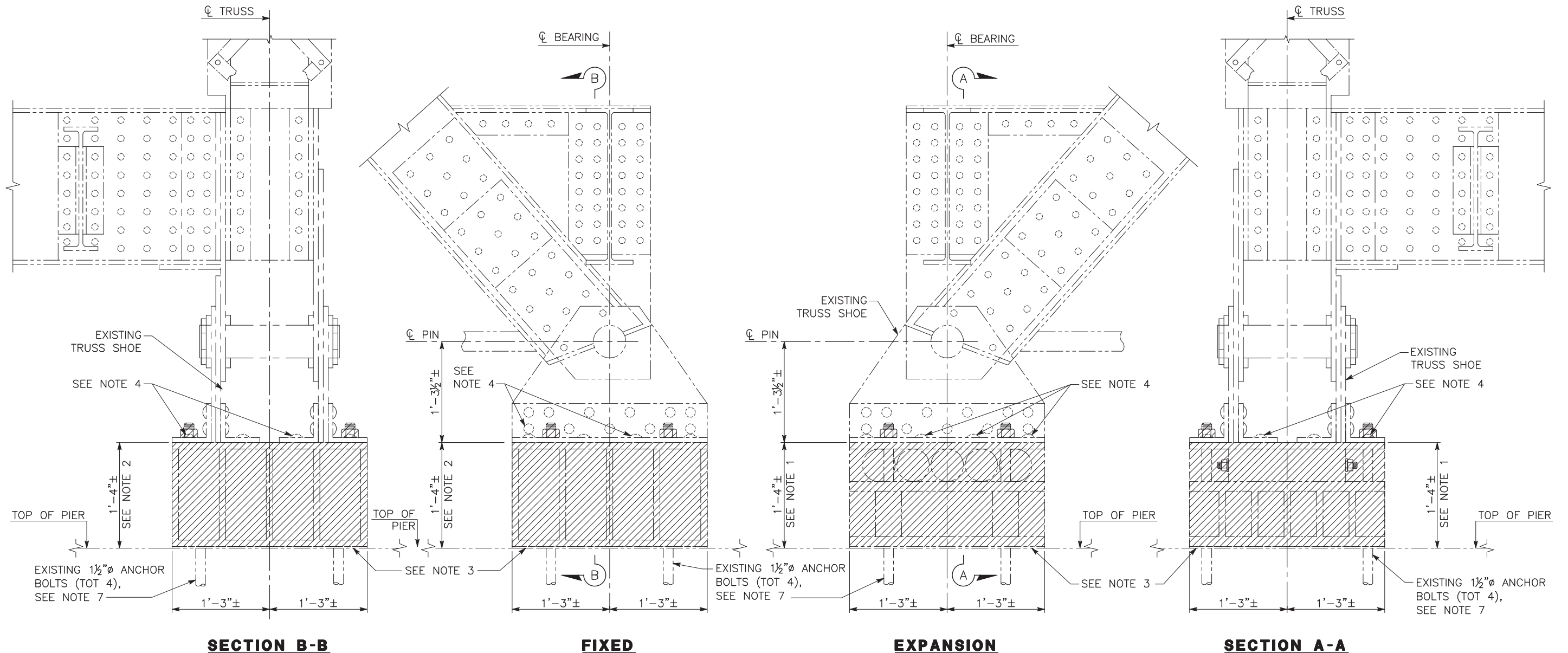
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	37
TOTAL SHEETS	82

NOTES:

1. Remove existing rollers, top plate and cast steel support at expansion end of spans 2, 3, and 4.
2. Remove existing top plate and cast steel support at fixed end of spans 2, 3, and 4.
3. Remove 1/4" thick lead sheet.
4. Remove rivets as necessary to remove existing bearing top plate.
5. Prior to removing the steel rocker bearings, install a temporary support system. For temporary support details, see "Temporary Support Details" sheet.
6. Prior to removing the any rivets, submit procedure and demonstrate the procedure. Procedures that damage the existing steel members will not be authorized.
7. Remove 1/2"Ø anchor bolts in conflict with placement of shear lug. 1/2"Ø anchor bolts not in conflict must be cut off 1" below top of concrete and patched.

LEGEND:

- Indicates existing structure
- Indicates approximate location of existing rivets
- ▨ Indicates limits of bearing removal



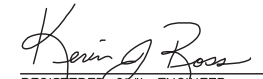
BEARING REMOVAL DETAIL

1/2" = 1'-0"

ST-14

Title: WB-5-2023-04a
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 Plot Date: Sep 11, 2023 at 13:39

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

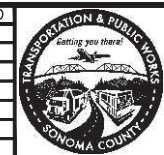

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 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA
 09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION			
DATE	REVISION	BY	APPROVED

CONSTRUCTION COMPLETED: _____
 RESIDENT ENGINEER _____
 AS BUILT DRAWINGS BY: _____

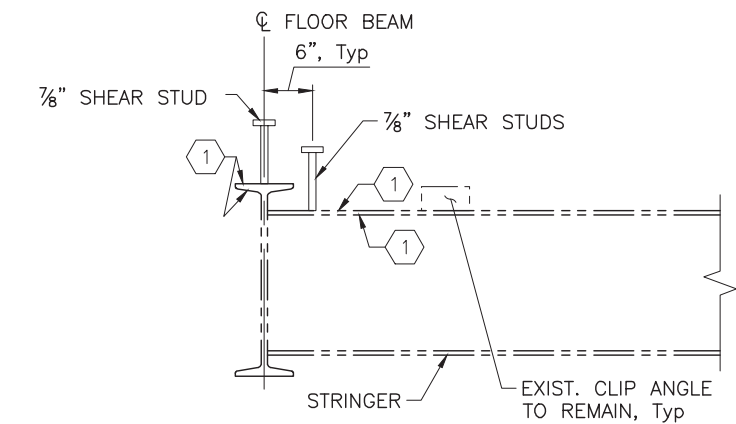
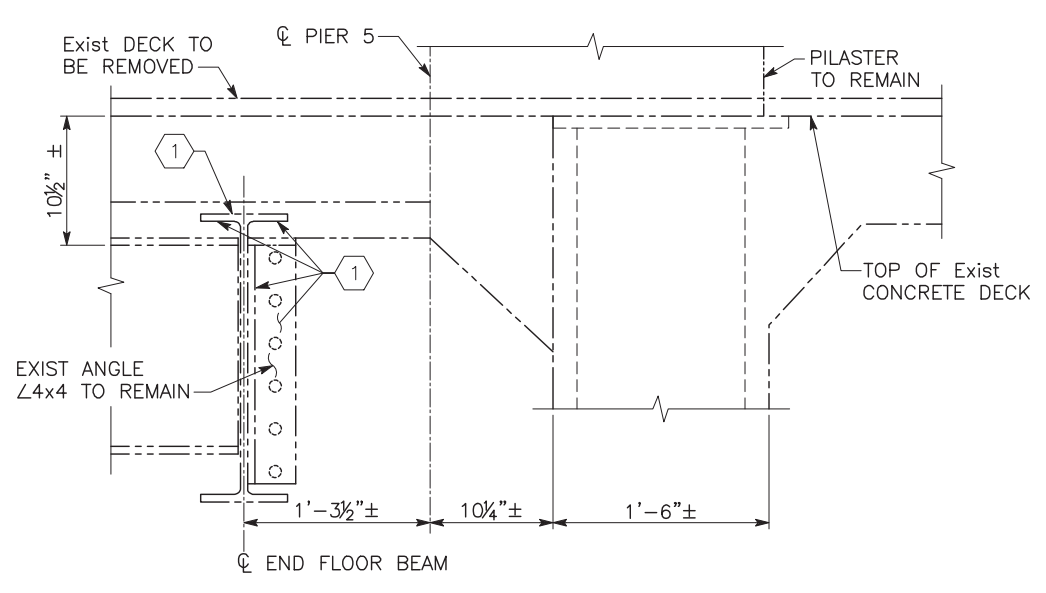
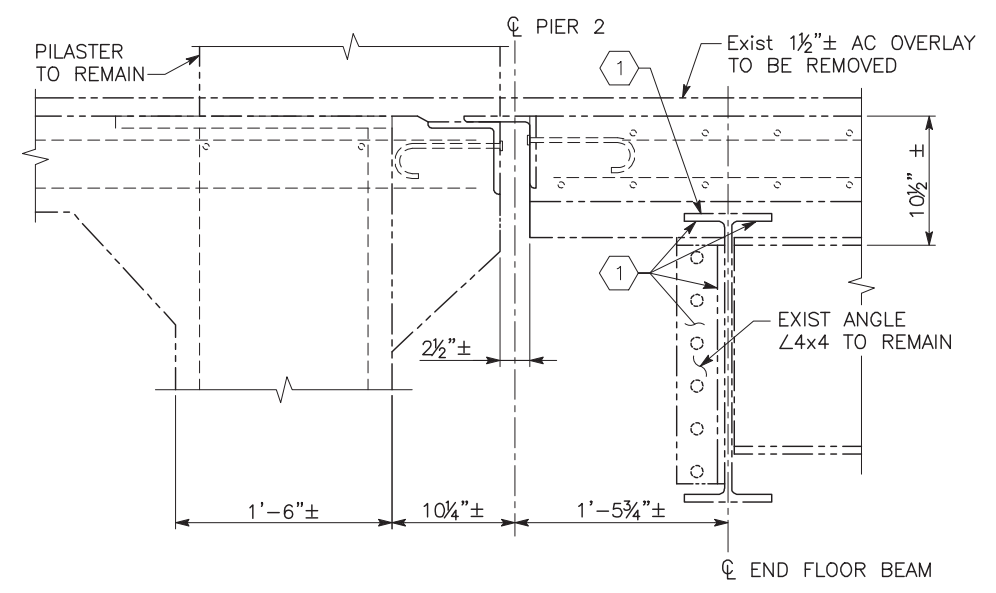
DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

BEARING REMOVAL DETAILS	
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	38
TOTAL SHEETS	82

**WOHLER ROAD BRIDGE
 OVER RUSSIAN RIVER**



EXPANSION END AT PIER 2

FIXED END AT PIER 5

SPOT BLAST CLEAN AND PAINT AT PIERS 2 & 5

1/2" = 1'-0"

**FLOORBEAM AND STRINGER
 SPOT BLAST CLEAN AND PAINT**

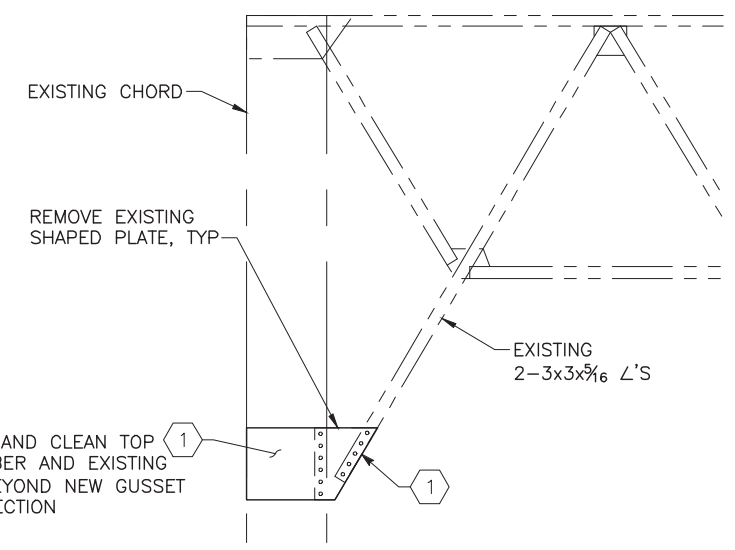
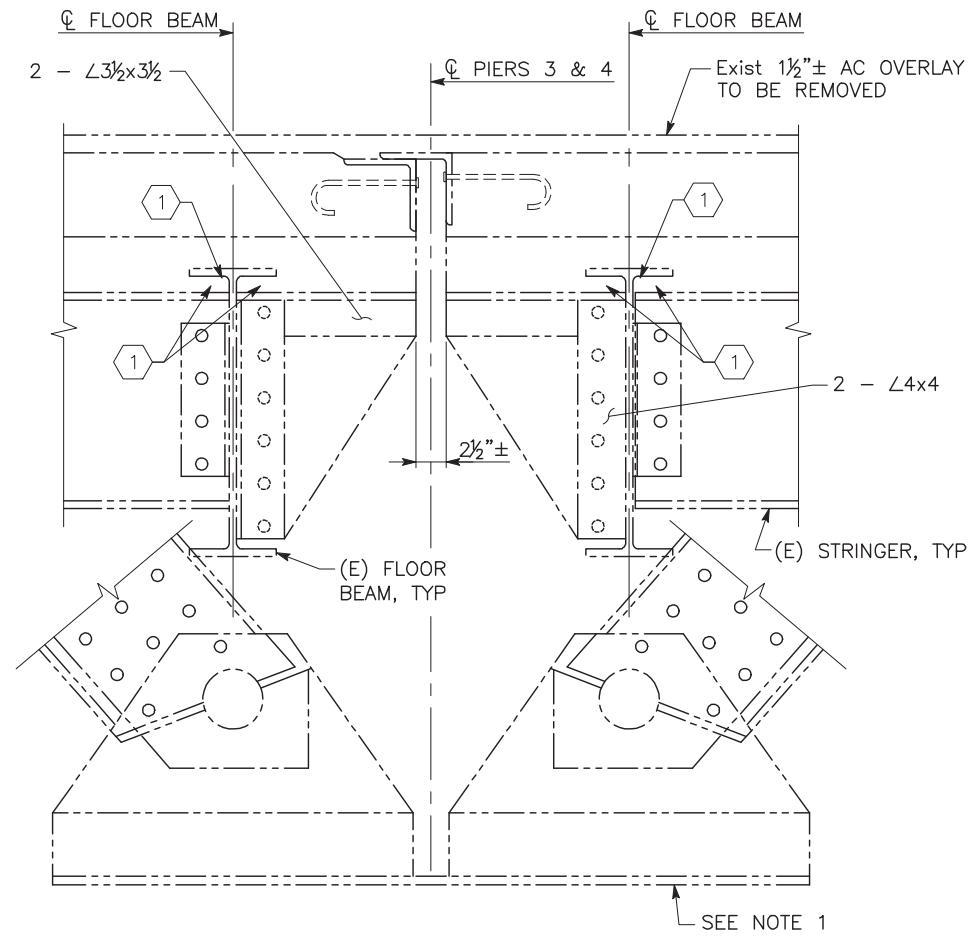
3/4" = 1'-0"

LEGEND (AT FLOORBEAM AND STRINGER):

- 1 Spot Blast and Clean and paint undercoat at top and bottom of top flange.

LEGEND (AT PIERS):

- 1 Spot Blast and Clean and paint undercoat.



SPOT BLAST CLEAN AT EXISTING PORTAL FRAME

NO SCALE

SPOT BLAST CLEAN AND PAINT AT PIERS 3 & 4

1/2" = 1'-0"

ST-15

Title: WBS-5-0000-04e
 Path: U:\DTP\1 - Bldg - Road Bldg - Sonoma Co\GIS Project Design Plans\GIS-Bldg-5-SPOT BLAST & CLEAN DETAILS.dwg Plot Date: Sep 11, 2023 at 10:39

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE



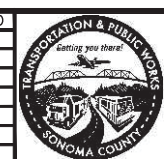
"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER _____

AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

SPOT BLAST & CLEAN DETAILS

**WOHLER ROAD BRIDGE
 OVER RUSSIAN RIVER**

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	39
TOTAL SHEETS	82

LEGEND:

- - - - - Indicates existing footing
- — — — Indicates new footing
- ➔ Indicates direction of flow
- XX.XX Indicates bottom of new footing elevation
- XX.XX Indicates bottom of existing footing elevation ±
- Indicates CIDH Piles
- * Fiber Optic Line and appurtenances and 4" water stand to be relocated prior to construction

**SCOUR DATA TABLE
(SERVICE AND STRENGTH LOAD CASES)**

SUPPORT NO.	LONG TERM (DEGRADATION AND CONTRACTION) SCOUR DEPTH (FT)	SHORT TERM (LOCAL) SCOUR ELEVATION (FT) **
Abut 1	N/A	N/A (Elevation 25.5)
PIER 2	3.0	25.0 (Elevation 15.0)
PIER 3	3.0	35.0 (Elevation -5.0)
PIER 4	3.0	35.0 (Elevation -5.0)
PIER 5	3.0	25.0 (Elevation 32.0)
Abut 6	N/A	N/A (Elevation 74.0)

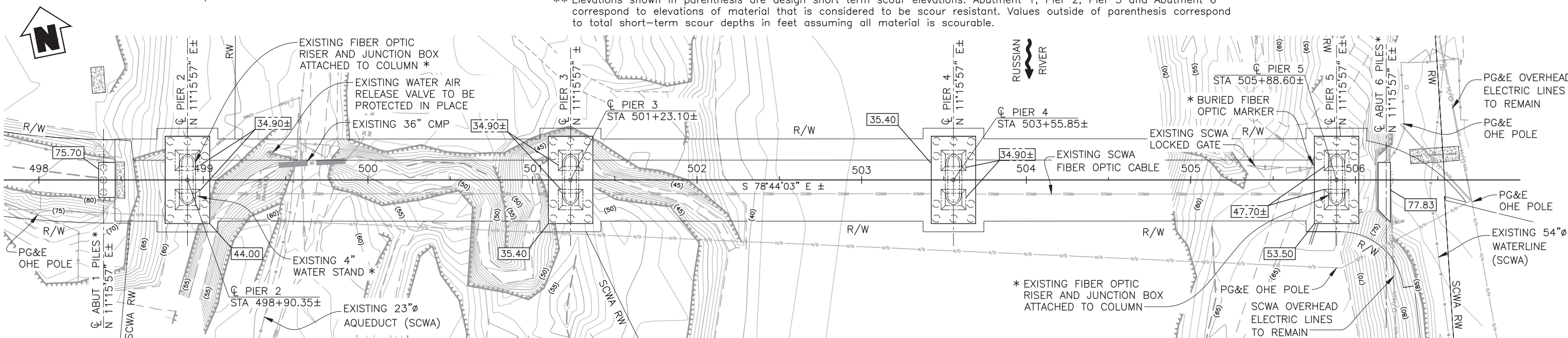
**SCOUR DATA TABLE
(SIEMIC LOAD CASES)**

SUPPORT NO.	LONG TERM (DEGRADATION AND CONTRACTION) SCOUR DEPTH (FT)	SHORT TERM (LOCAL) SCOUR ELEVATION (FT) **
Abut 1	N/A	N/A
PIER 2	N/A	0.0 (Elevation 51.0)
PIER 3	3.0	3.0 (Elevation 30.0)
PIER 4	3.0	3.0 (Elevation 30.0)
PIER 5	N/A	0.0 (Elevation 64.0)
Abut 6	N/A	N/A

** Elevations shown in parenthesis are design short term scour elevations. Abutment 1, Pier 2, Pier 5 and Abutment 6 correspond to elevations of material that is considered to be scour resistant. Values outside of parenthesis correspond to total short-term scour depths in feet assuming all material is scourable.



11060 White Rock Road, Suite 200
Rancho Cordova, CA 95670



FOUNDATION PLAN
1" = 30'-0"

PILE DATA TABLE

LOCATION	PILE TYPE	CUT-OFF ELEVATION (FEET)	NOMINAL RESISTANCE		DESIGN TIP ELEVATION (FEET)	SPECIFIED TIP ELEVATION (FEET)	ESTIMATED ROCK ELEVATION (FEET)	STEEL CASING SPECIFIED TIP ELEVATION (FEET) (SEE NOTE 4)
			COMPRESSION	TENSION				
ABUT 1	48"Ø PERMANENT CASING WITH 36"Ø ROCK SOCKET	76.11	160	0	12(a-II), 12(d)	12	25.5	23
PIER 2	48"Ø PERMANENT CASING WITH 36"Ø ROCK SOCKET	44.42	450	0	-12(a-II), -12(d)	-12	15	13
PIER 3	48"Ø PERMANENT CASING WITH 36"Ø ROCK SOCKET	35.82	520	0	-32(a-II), -32(d)	-32	-15	-18
PIER 4	48"Ø PERMANENT CASING WITH 36"Ø ROCK SOCKET	35.82	490	0	-82(a-II), -82(d)	-82	-60	-63
PIER 5	48"Ø PERMANENT CASING WITH 36"Ø ROCK SOCKET	53.92	380	0	13(a-II), 13(d)	13	32	30

NOTES:

- Design tip elevations are controlled by: (a-I) Compression (Strength Limit), (b-I) Tension (Strength Limit), (a-II) Compression (Extreme Event), (b-II) Tension (Extreme Event), (c) Settlement, (d) Lateral Load
- The CIDH specified tip elevation shall not be raised.
- For allowable permanent casing O.D. & I.D. dimensions, see Pile Details on Abutment and Pier Retrofit Detail sheets.
- Due to possibility of variability in rock elevation, provide 5' extra casing length per pile.
- Pile tip elevations were based on dead load only.

HYDROLOGIC SUMMARY

DRAINAGE AREA: 1,041 SQUARE MILES

FREQUENCY (YEARS)	DESIGN FLOOD	BASE FLOOD
		50
DISCHARGE (CUBIC FEET PER SECOND)	88,000	103,000
WATER SURFACE ELEVATION, FT. NAVD 88 VERTICAL DATUM (IMMEDIATELY UPSTREAM OF BRIDGE)	76.10	77.20

FLOOD PLAIN DATA ARE BASED ON INFORMATION AVAILABLE WHEN THE PLANS WERE PREPARED AND ARE SHOWN TO MEET FEDERAL REQUIREMENTS. THE ACCURACY OF SAID INFORMATION IS NOT WARRANTED BY THE COUNTY AND INTERESTED OR AFFECTED PARTIES SHOULD MAKE THEIR OWN INVESTIGATION.

* For Abutment Layout and Pile Locations, see "Abutment Retrofit Details" sheets

BASIS OF BEARINGS:

N 73°58'26" W 1047.36 ft between found SCWA MAG and washer (CP#1) and found MAG and washer in aerial panel (CP#49). Bearing based on OPUS static solutions.

BENCHMARK DATA:

USC&GS brass disc stamped "A 239 1935" (CP#37) located on top of curb on west end of bridge, south side. also known as NGS PID JT1162
Elev=82.0 (NAVD 88)

Title: W-1162-116200 - W-1162-116200 - FOUNDATION PLAN - 09/11/2023
 File: W-1162-116200 - W-1162-116200 - FOUNDATION PLAN - 09/11/2023.dwg
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 Plot Date: 09/11/2023 10:54:08 AM
 PLOT: W-1162-116200 - W-1162-116200 - FOUNDATION PLAN - 09/11/2023.dwg
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 Plot: W-1162-116200 - W-1162-116200 - FOUNDATION PLAN - 09/11/2023.dwg

DESIGN BY: GX
DRAWING BY: KD
CHECKED BY: KR

Kevin J. Ross
REGISTERED CIVIL ENGINEER
No. 49652
Exp. 09/30/24
09/11/2023
PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

DATE	REVISION	BY	APPROVED

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER: _____

AS BUILT DRAWINGS BY: _____

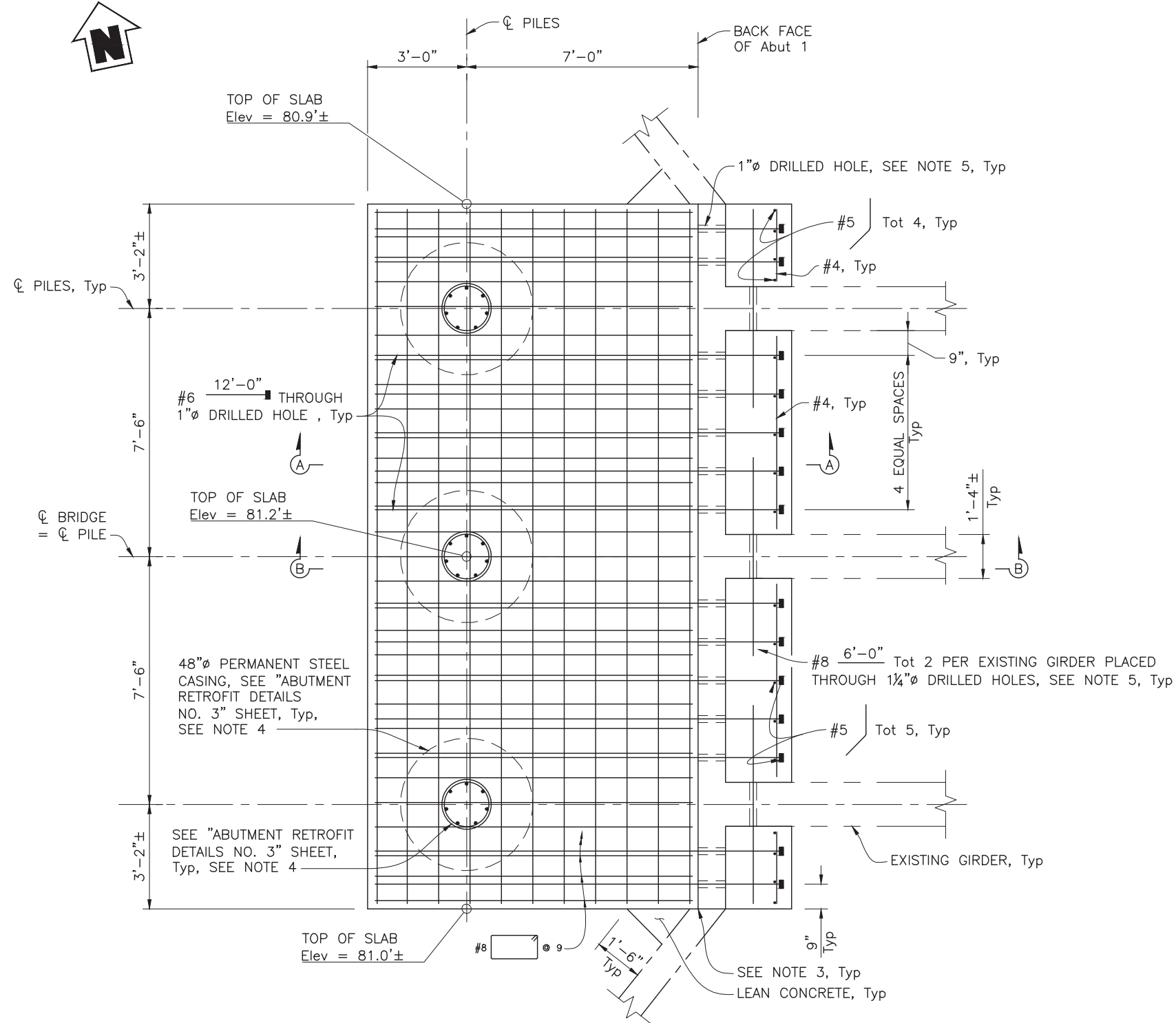
COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

ST-16

FOUNDATION PLAN

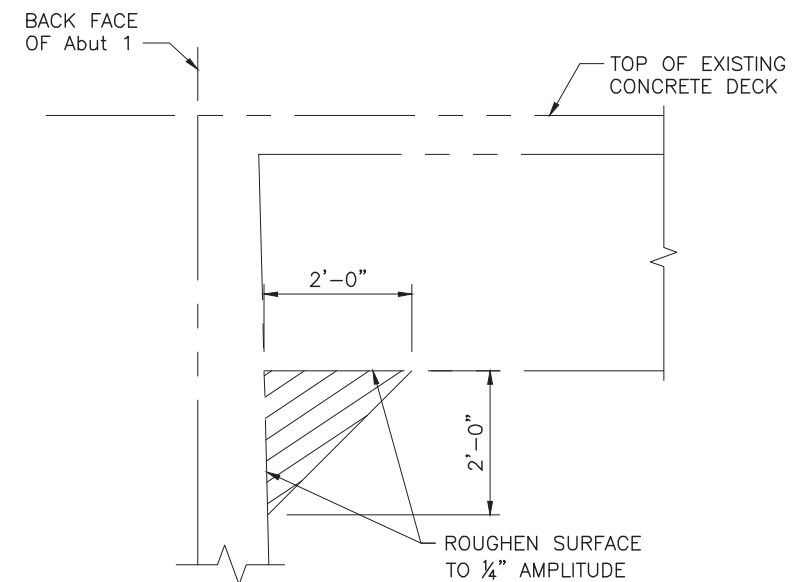
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	40
TOTAL SHEETS	82



ABUTMENT 1 RETROFIT - PLAN

$\frac{1}{2}'' = 1'-0''$



ABUTMENT 1 REMOVAL DETAIL

$\frac{3}{4}'' = 1'-0''$

INDICATES PORTION OF EXISTING GIRDER TO BE REMOVED, SEE NOTE 6

NOTES:

1. Locate existing reinforcement in girder & abutment stem using Electronic Rebar Scanner and adjust hole locations as needed to clear existing reinforcement.
2. For "Section A-A" and "Section B-B", see "Abutment Details No. 2" sheet.
3. Place lean concrete in acute corners as shown.
4. For Pile Details, see "ABUTMENT DETAILS NO. 3" sheet.
5. Pressure grout dowels hole prior to pouring concrete bolster. Grout must conform to section 60-4.05 "Coring and Pressure Grouting Dowels" in the Standard Specifications.
6. Prior to removing concrete haunches at abutments, temporary supports must be installed, see "Temporary Support Details" sheet.

Info: 09/11/2023 09:54:03 AM - 11/14/2023 09:54:03 AM - 09/11/2023 09:54:03 AM - 09/11/2023 09:54:03 AM
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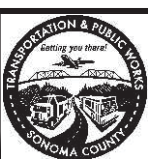
DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA
 09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION
 CONSTRUCTION COMPLETED: _____
 RESIDENT ENGINEER _____
 AS BUILT DRAWINGS BY: _____

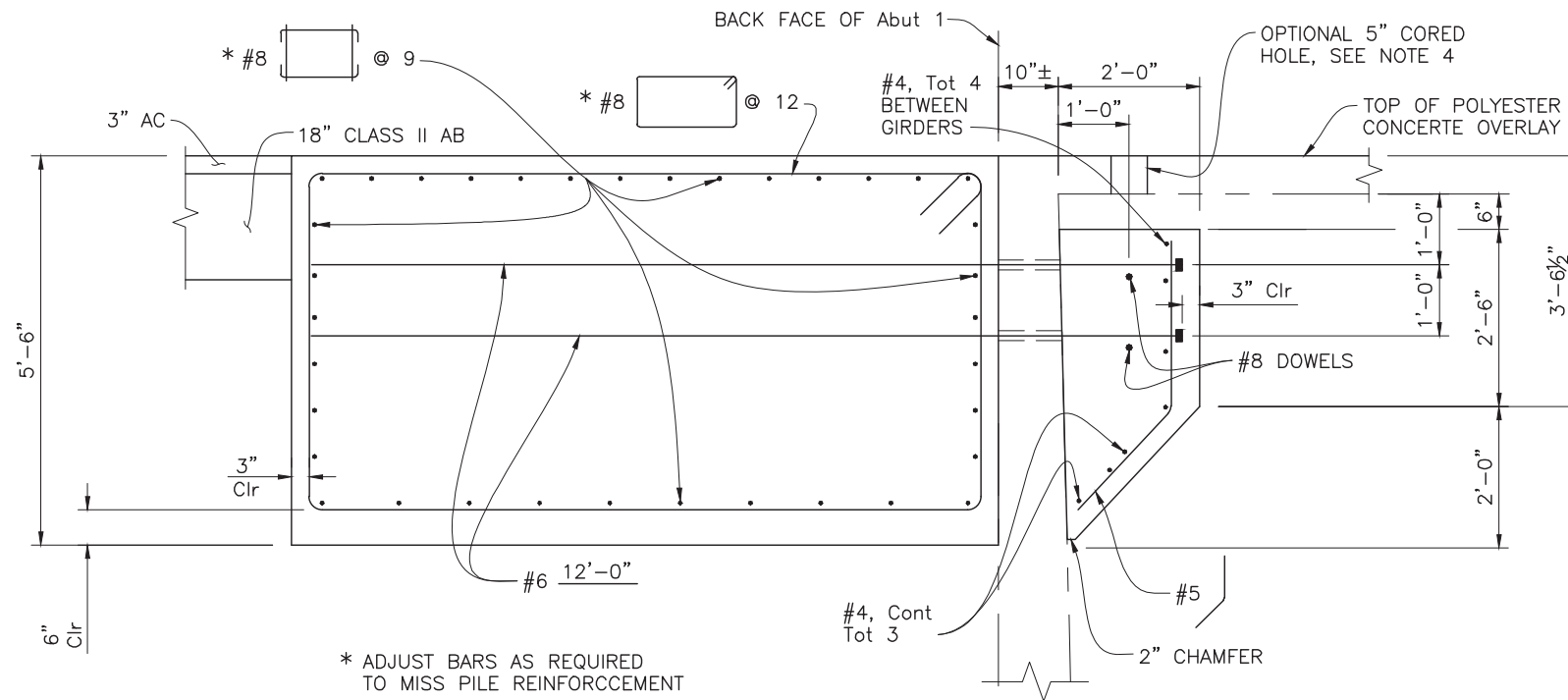
DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

ABUTMENT RETROFIT DETAILS NO. 1	
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	

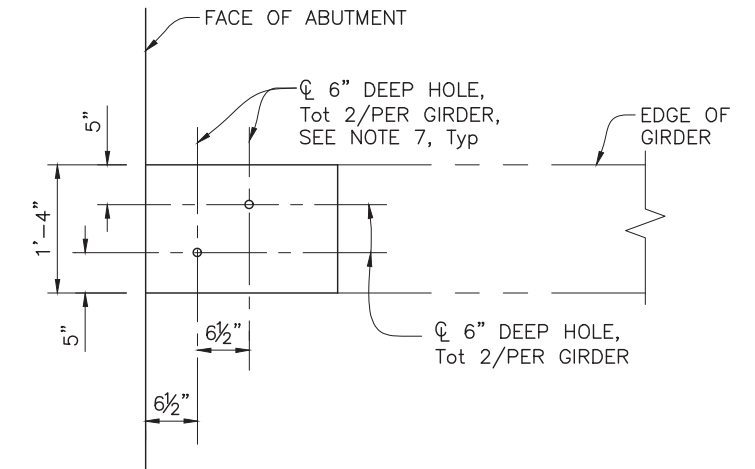
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	42
TOTAL SHEETS	82



* ADJUST BARS AS REQUIRED TO MISS PILE REINFORCEMENT

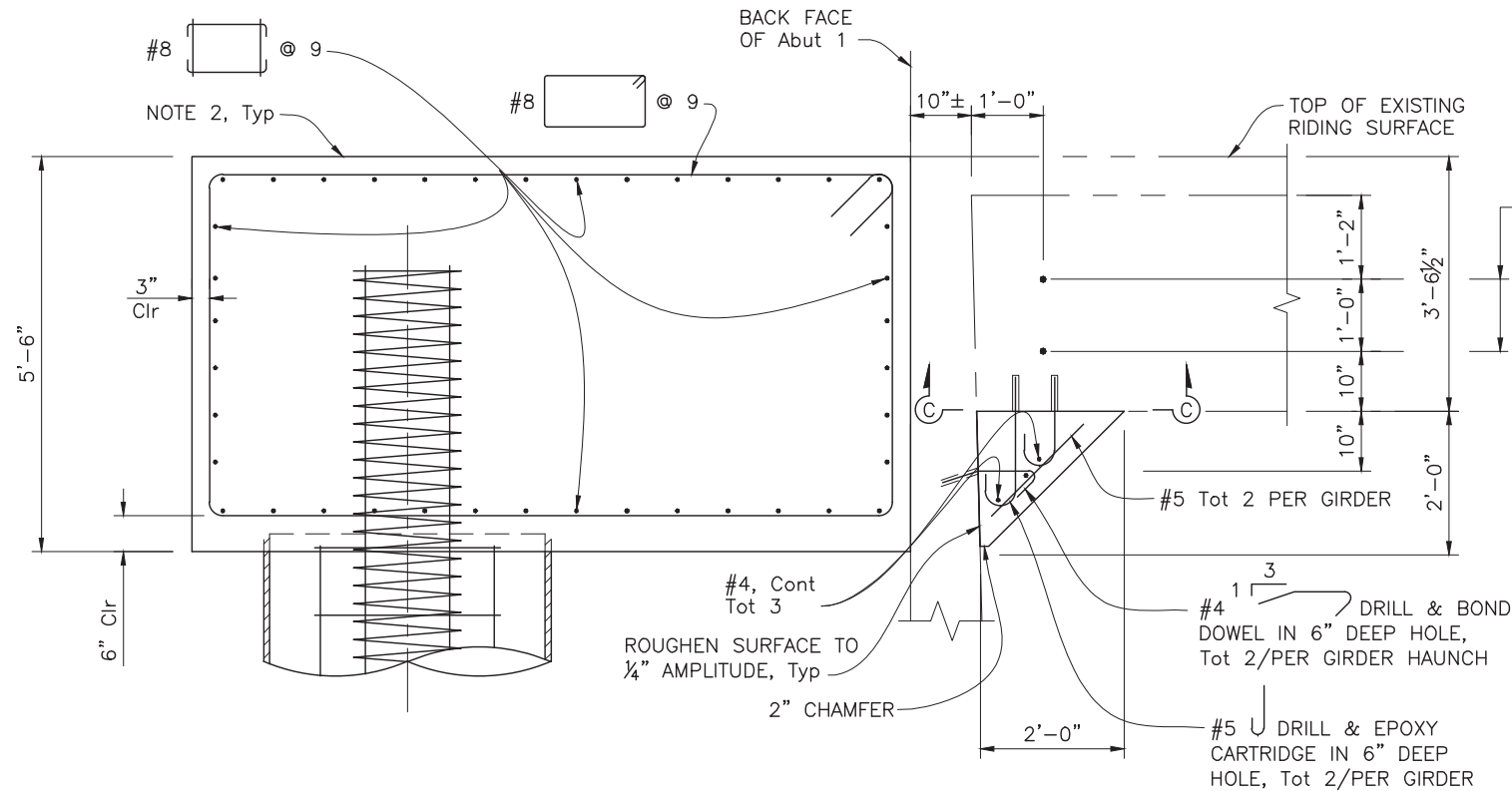
SECTION A-A

$\frac{3}{4}'' = 1'-0''$



SECTION C-C

$\frac{3}{4}'' = 1'-0''$



#8 6'-0" Tot 2 PER EXISTING GIRDER PLACED THROUGH 1 1/4" DRILLED HOLES, SEE NOTE 3

SECTION B-B

$\frac{3}{4}'' = 1'-0''$

NOTES:

1. Locate existing reinforcement in girder & abutment stem using Electronic Rebar Scanner and adjust hole locations as needed to clear existing reinforcement.
2. Top of Footing must match longitudinal and transverse slope of existing roadway, see "ABUTMENT CONFORM APPROACH DETAILS" sheet.
3. Pressure grout dowels in 1 1/4" hole prior to pouring concrete bolster.
4. One 5" cored hole per bay is allowed for ease of placing concrete.
5. Roughen all interfaces between new and existing concrete to 1/4" amplitude.
6. For pile details, see "ABUTMENT 1 RETROFIT PILE DETAIL" on "ABUTMENT RETROFIT DETAILS NO. 3" sheet.
7. Hole diameter per manufactures recommendation.

Title: 11/14/2021 11:45:00 AM 11/14/2021 11:45:00 AM 11/14/2021 11:45:00 AM 11/14/2021 11:45:00 AM 11/14/2021 11:45:00 AM
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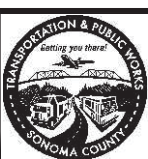
DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

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 CIVIL
 STATE OF CALIFORNIA



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION	
CONSTRUCTION COMPLETED:	
RESIDENT ENGINEER AS BUILT DRAWINGS BY:	

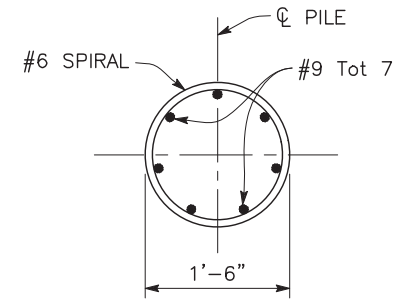
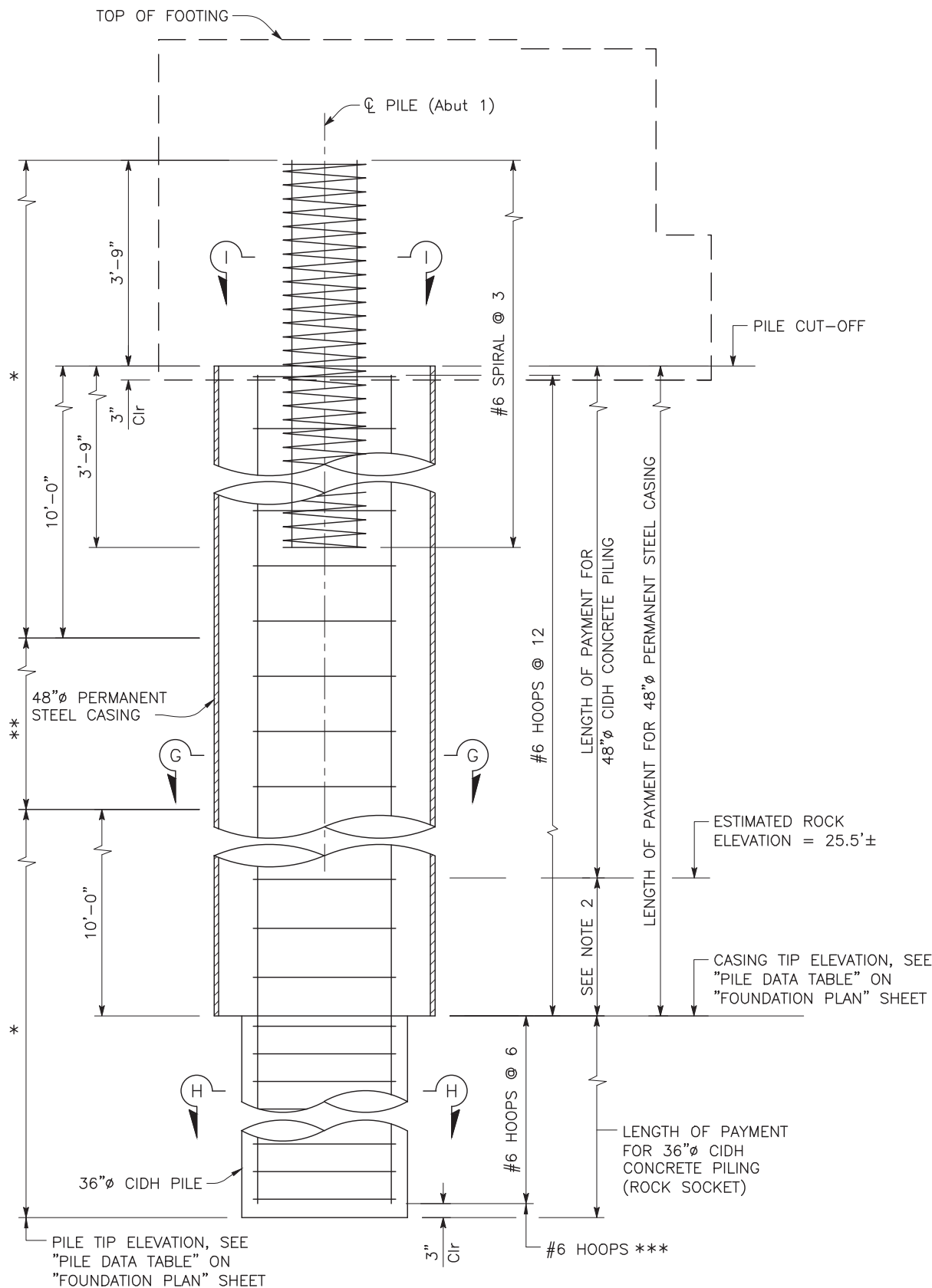
DATE	REVISION	BY	APPROVED



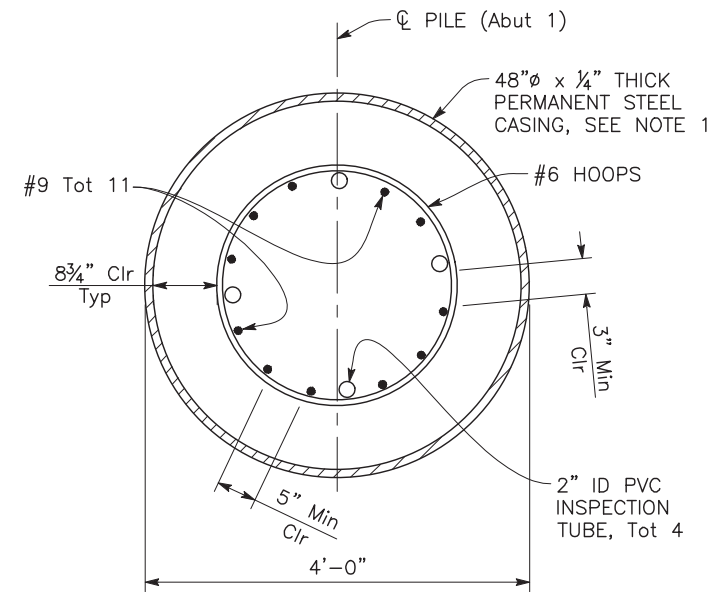
COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

ABUTMENT RETROFIT DETAILS NO. 2	
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	

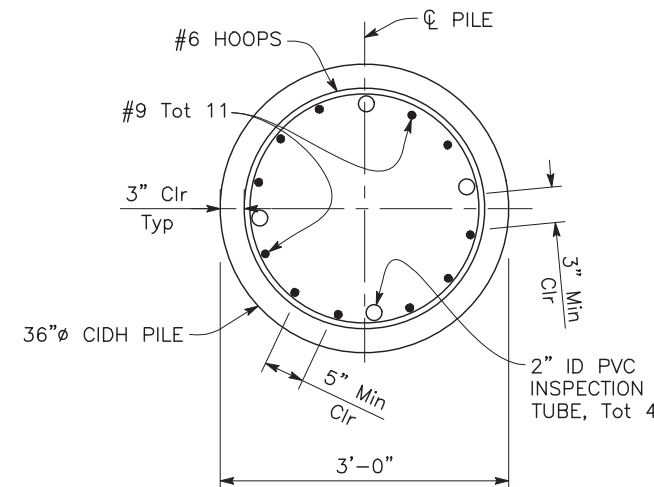
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	43
TOTAL SHEETS	82



SECTION I-I
 1" = 1'-0"



SECTION G-G
 1" = 1'-0"



SECTION H-H
 1" = 1'-0"

- * NO SPLICE ALLOWED IN MAIN REINFORCEMENT
- ** STAGGERED "ULTIMATE" BUTT SPLICE ALLOWED IN MAIN REINFORCEMENT
- *** ALL HOOPS ARE "ULTIMATE" BUTT SPLICE CONTINUOUS

NOTES:

1. Pile cage to be centered inside permanent casing. Contractor to provide centralizers as required to ensure pile cage is centered inside of permanent casing.
2. Length of payment for 48" CIDH Concrete Piling (Rock Socket).

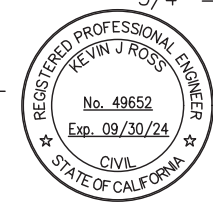
ABUTMENT 1 RETROFIT PILE DETAIL

3/4" = 1'-0"

FILED: 09/11/2023 09:11 AM AT THE COUNTY CLERK'S OFFICE, COUNTY OF SONOMA, CALIFORNIA. DRAWING NO. ST-20. PROJECT: WOLLER ROAD BRIDGE OVER RUSSIAN RIVER.

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE



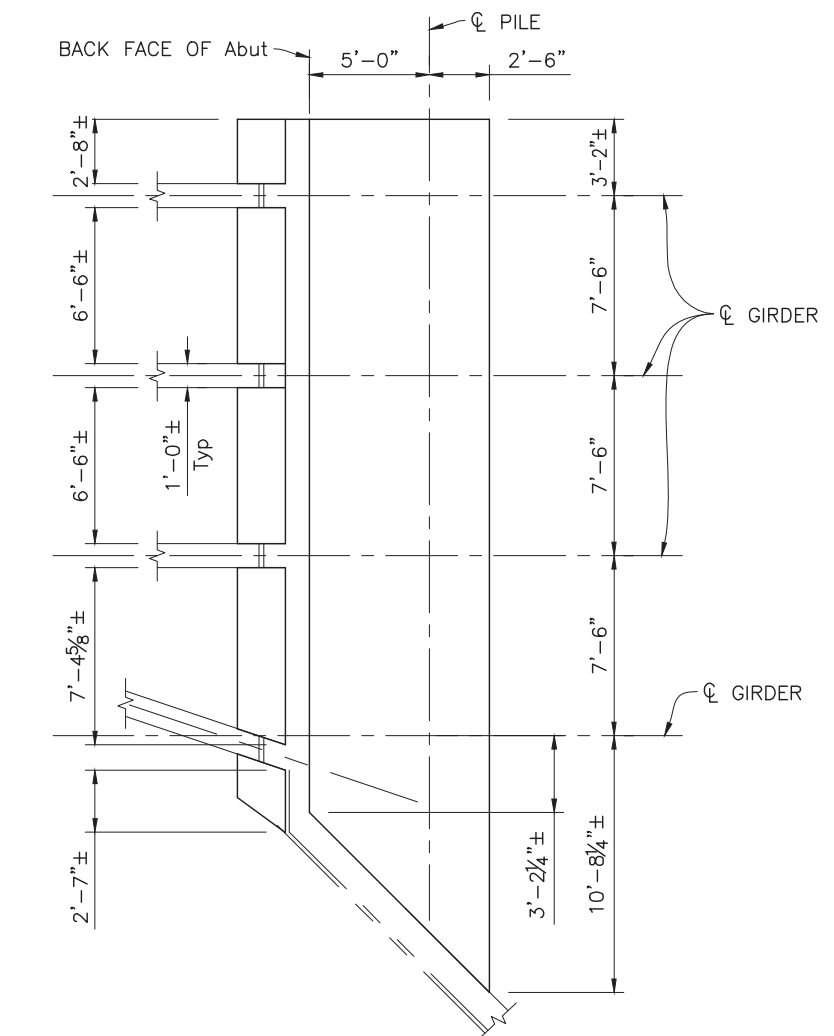
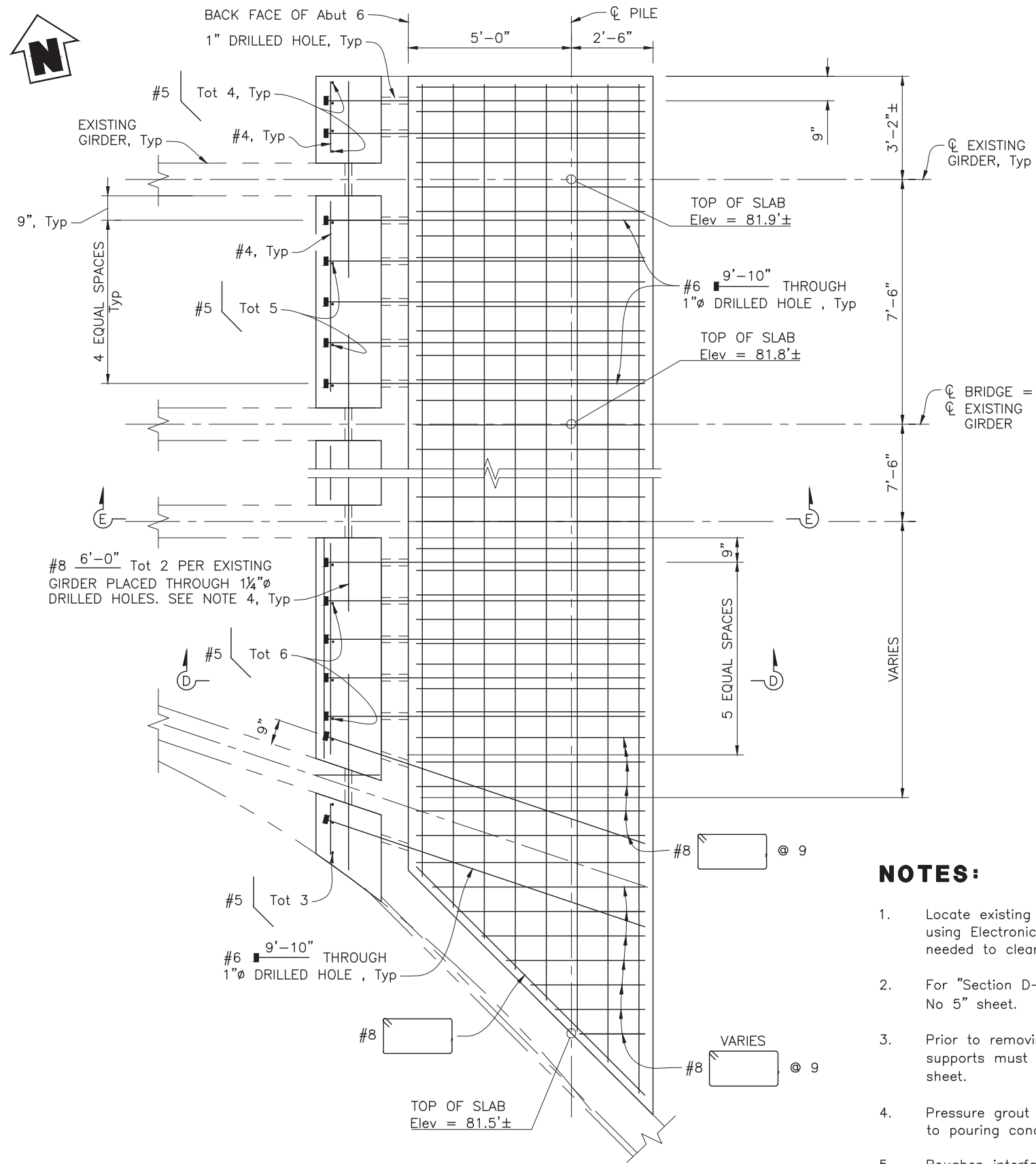
"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION CONSTRUCTION COMPLETED: _____ RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____
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DATE	REVISION	BY	APPROVED

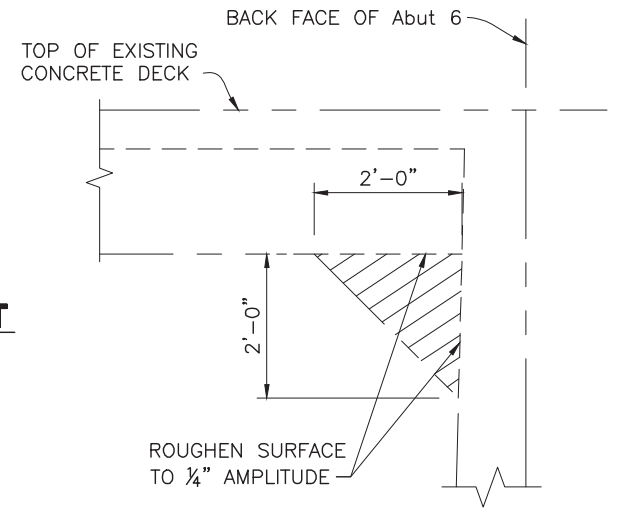
COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

ABUTMENT RETROFIT DETAILS NO. 3	
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	44
TOTAL SHEETS	82



ABUTMENT 6 APPROACH SLAB LAYOUT
1/4" = 1'-0"



ABUTMENT 6 REMOVAL DETAIL
3/4" = 1'-0"

NOTES:

1. Locate existing reinforcement in girder & abutment stem using Electronic Rebar Scanner and adjust hole locations as needed to clear existing reinforcement.
2. For "Section D-D" and "Section E-E", see "Abutment Details No 5" sheet.
3. Prior to removing concrete haunches at abutments, temporary supports must be installed. See "Temporary Support Details" sheet.
4. Pressure grout dowels in 1 1/4" diameter hole prior to pouring concrete bolster.
5. Roughen interfaces between all existing and new concrete faces to 1/4" amplitude.

ABUTMENT 6 RETROFIT - PLAN
1/2" = 1'-0"

Info: 09/11/2023 11:54:43 AM - Project: 2022-23 WOLLER ROAD BRIDGE - ABUTMENT RETROFIT DETAILS 1-4.dwg - Plot Date: Sep 11, 2023 at 11:50
 Path: U:\3041 - Woller Road Bridge - Sonoma Co\2022-23 WOLLER ROAD BRIDGE - ABUTMENT RETROFIT DETAILS 1-4.dwg
 User: JROSS

Kevin J. Ross
REGISTERED CIVIL ENGINEER
09/11/2023
PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION
CONSTRUCTION COMPLETED:
RESIDENT ENGINEER AS BUILT DRAWINGS BY:

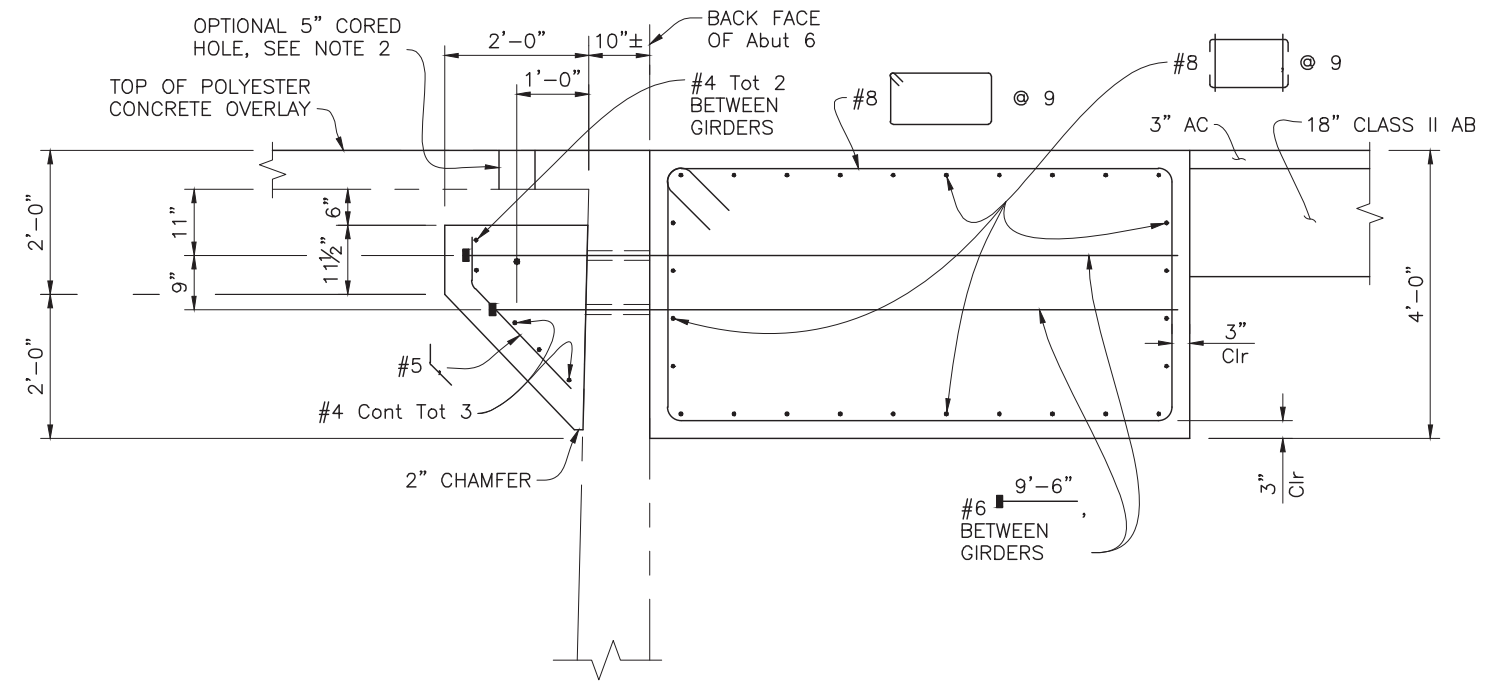
DATE	REVISION	BY	APPROVED



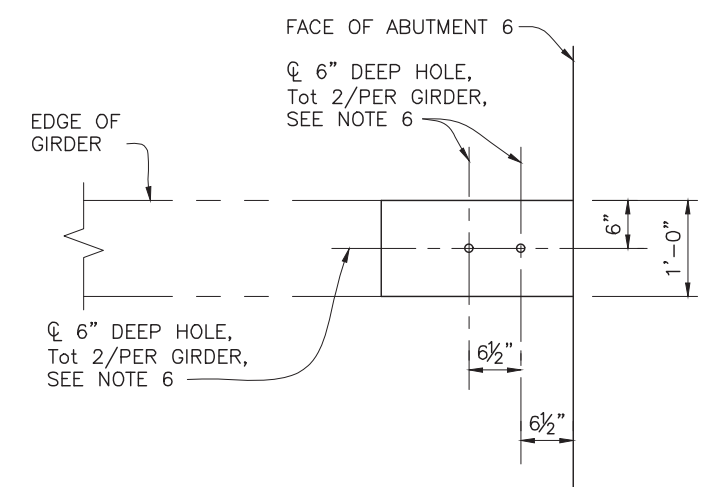
COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

ABUTMENT RETROFIT DETAILS NO. 4
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

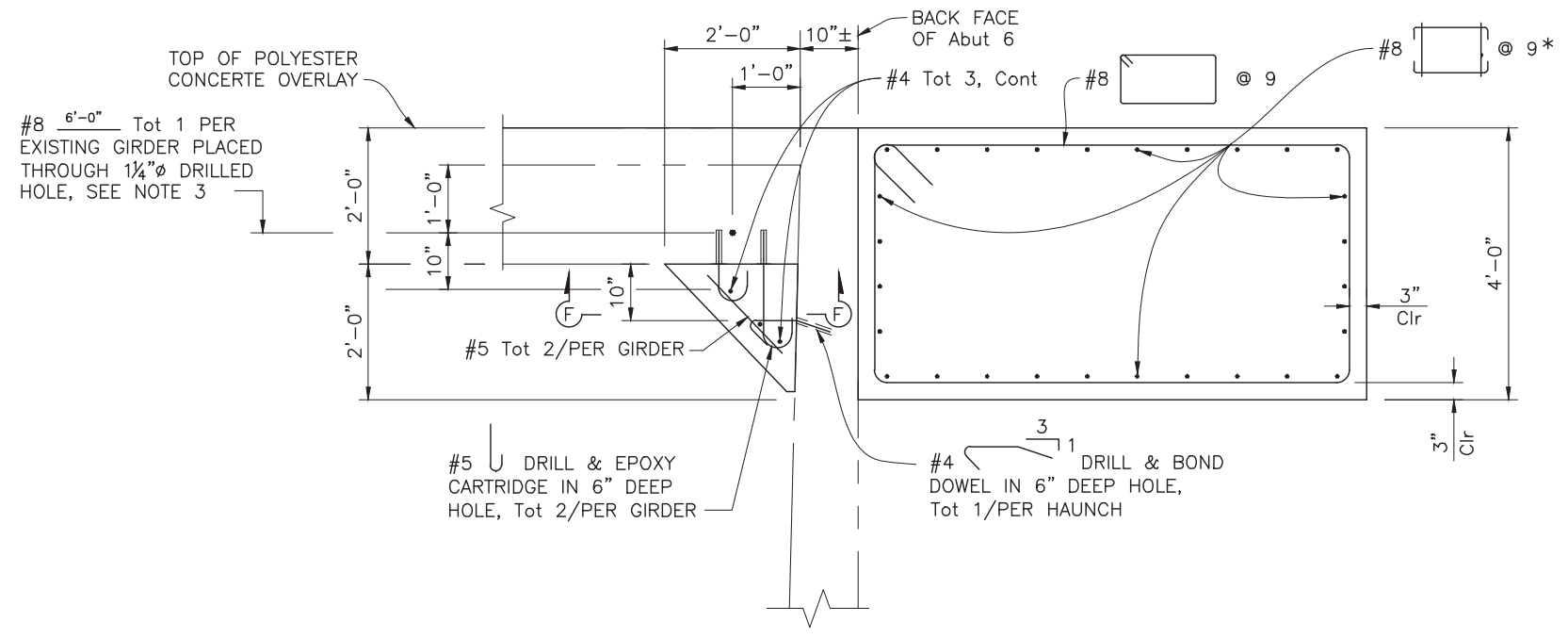
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	45
TOTAL SHEETS	82



SECTION D-D
 $\frac{3}{4}'' = 1'-0''$



SECTION F-F
 $1'' = 1'-0''$



SECTION E-E
 $\frac{3}{4}'' = 1'-0''$

NOTES:

1. Locate existing reinforcement in girder & abutment stem using Electronic Rebar Scanner and adjust hole locations as needed to clear existing reinforcement.
2. One 5" cored hole per bay is allowed for ease of placing concrete.
3. Pressure grout dowels in 1 1/4" hole prior to pouring concrete bolster.
4. Top of approach slab must match longitudinal and transverse slope of existing roadway, see "ABUTMENT APPROACH CONFORM DETAILS" sheet.
5. Roughen all interfaces between new and existing concrete to 1/4" amplitude.
6. Hole diameter per manufacturer's recommendation.

Info: 11/16/2023 10:00 AM 11/16/2023 10:00 AM 11/16/2023 10:00 AM 11/16/2023 10:00 AM 11/16/2023 10:00 AM 11/16/2023 10:00 AM
 Path: U:\2024 - Water Road Bridge - Sonoma Co\2024\11-16-2023\11-16-2023.dwg Plot Date: Sep 11, 2023 at 12:40

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA



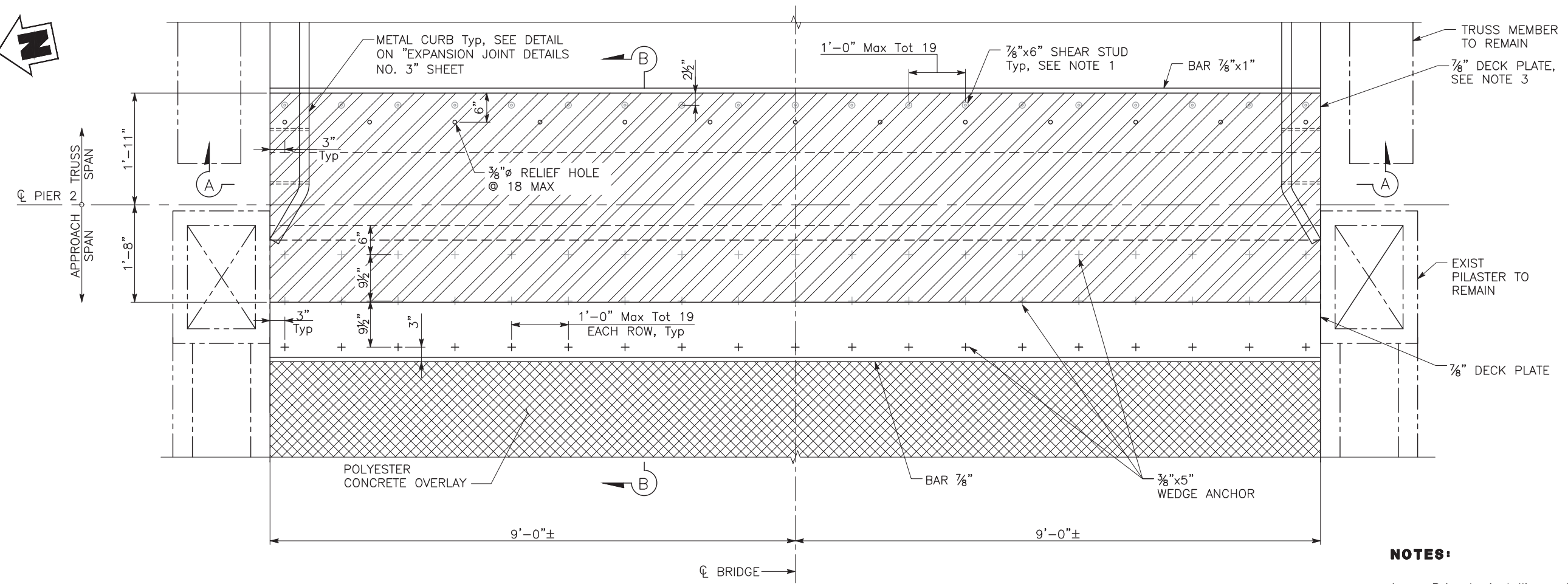
DATE	REVISION	BY	APPROVED

"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION			
CONSTRUCTION COMPLETED:			
RESIDENT ENGINEER _____			
AS BUILT DRAWINGS BY: _____			

COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

ABUTMENT RETROFIT DETAILS NO. 5	
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	46
TOTAL SHEETS	82

ST-22	
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	46
TOTAL SHEETS	82



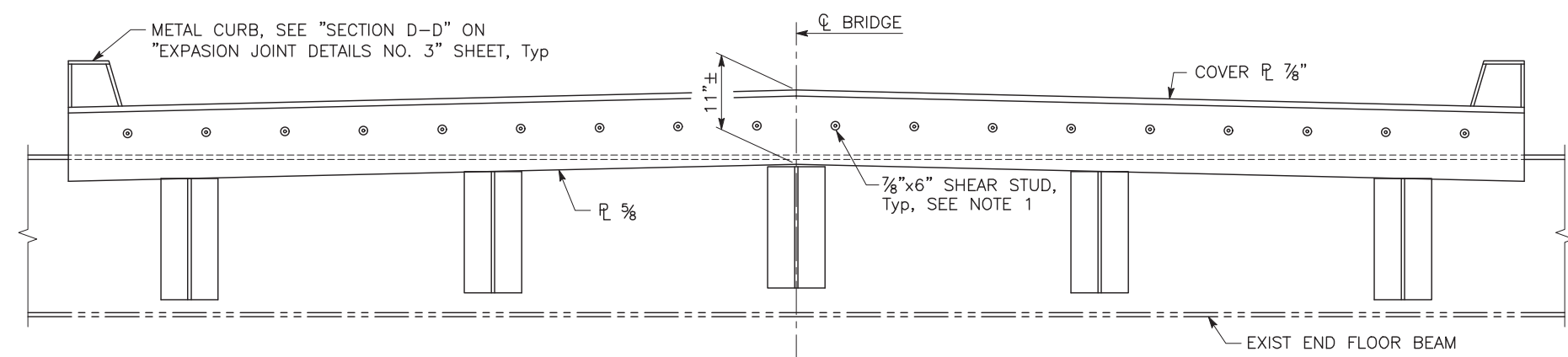
PLAN
 1" = 1'-0"

NOTES:

1. Prior to installing welded studs, adjust spacing to miss welded studs on floor beam.
2. For "SECTION B-B", see "EXPANSION JOINT DETAILS NO. 3" SHEET.
3. Steel plate must have a non-skid surface static coefficient of 0.35 or greater per California test 342.

LEGEND:

- Indicates Polyester Concrete Overlay
- Indicates multilayer polymer fiber



SECTION A-A
 1" = 1'-0"

File: WBS-5-0000.dwg
 Path: U:\DTP\ - Bldg - Road Bldg - Sonoma Co\GIS Project Design\Plan\ASB\Bldg & Structure\Submittal\Plan\2\Plan\WBS-5-EXPANSION_JOINT_DETAILS-1.dwg
 Plot Date: Sep 11, 2023 at 10:40

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA

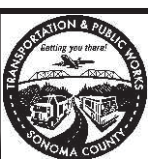


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

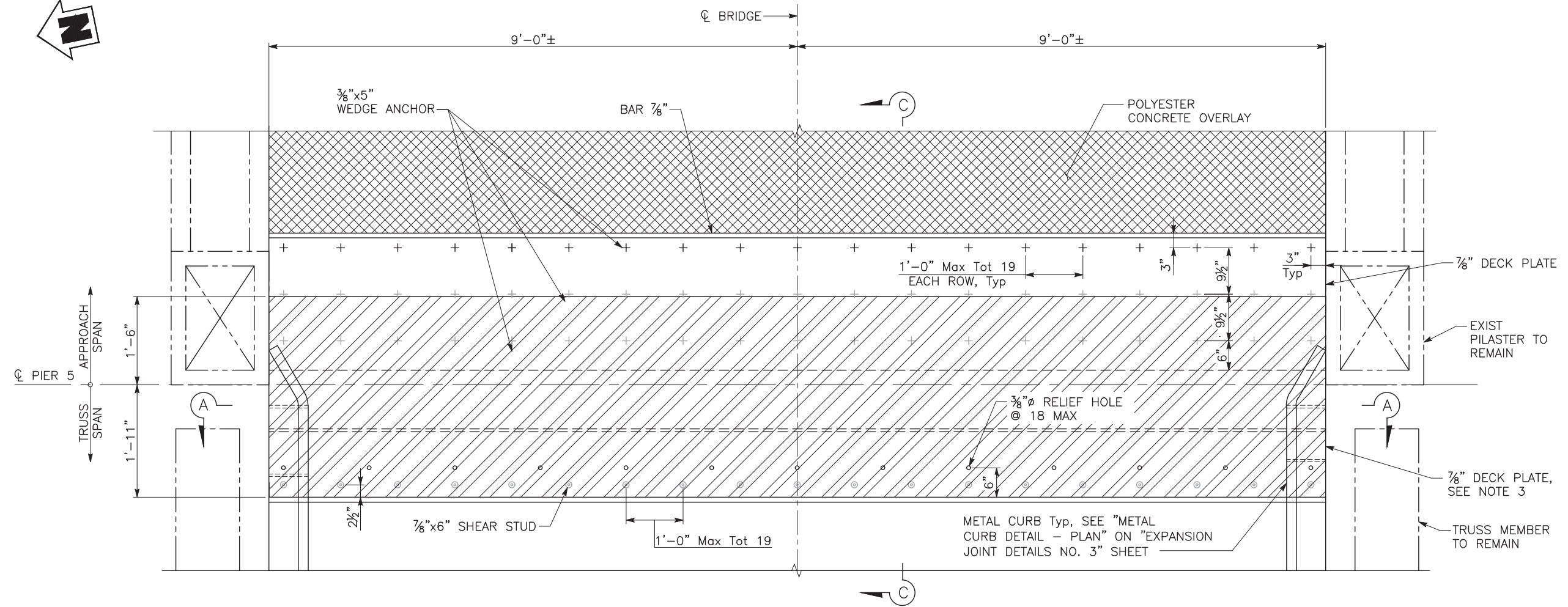


COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

EXPANSION JOINT DETAILS NO. 1

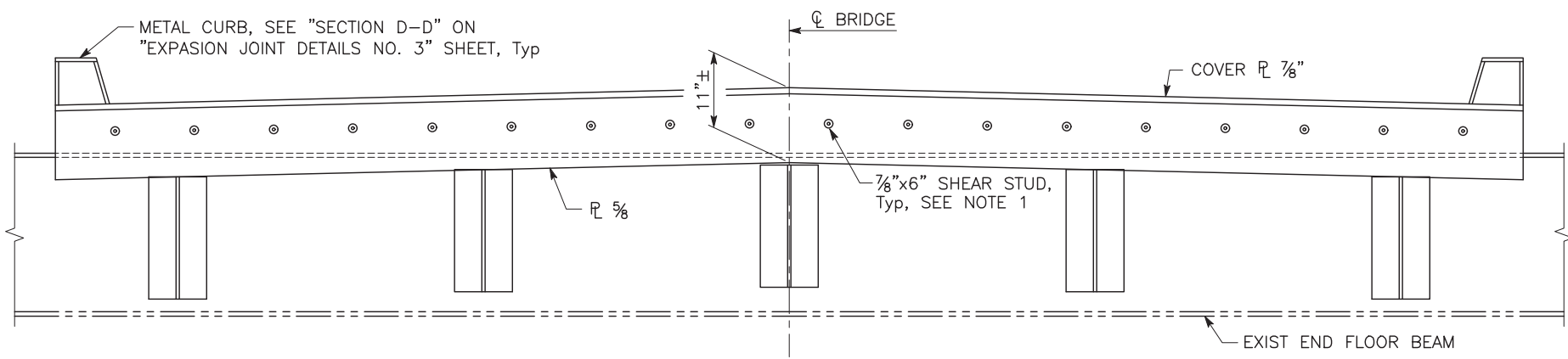
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	47
TOTAL SHEETS	82



PLAN

1" = 1'-0"



SECTION A-A - MIRRORED

1" = 1'-0"

NOTES:

1. Prior to installing welded studs, adjust spacing to miss welded studs on floor beam.
2. For "SECTION C-C", see "EXPANSION JOINT DETAILS NO. 3" SHEET.
3. Steel plate must have a non-skid surface static coefficient of 0.35 or greater per California test 342.

LEGEND:

- Indicates Polyester Concrete Overlay
- Indicates multilayer polymer fiber

Title: WBS-5-0000-04e
 Path: U:\DRAFT - Mirror Road Bridge - Sonoma Co\05 Project Design\Plan\ASB\Bridges & Structures\Submittal\Plan\2\Plan\WBS-5-EXPANSION JOINT DETAILS 1-4.dwg
 Plot Date: Sep 11, 2023 at 10:40

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER _____

AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

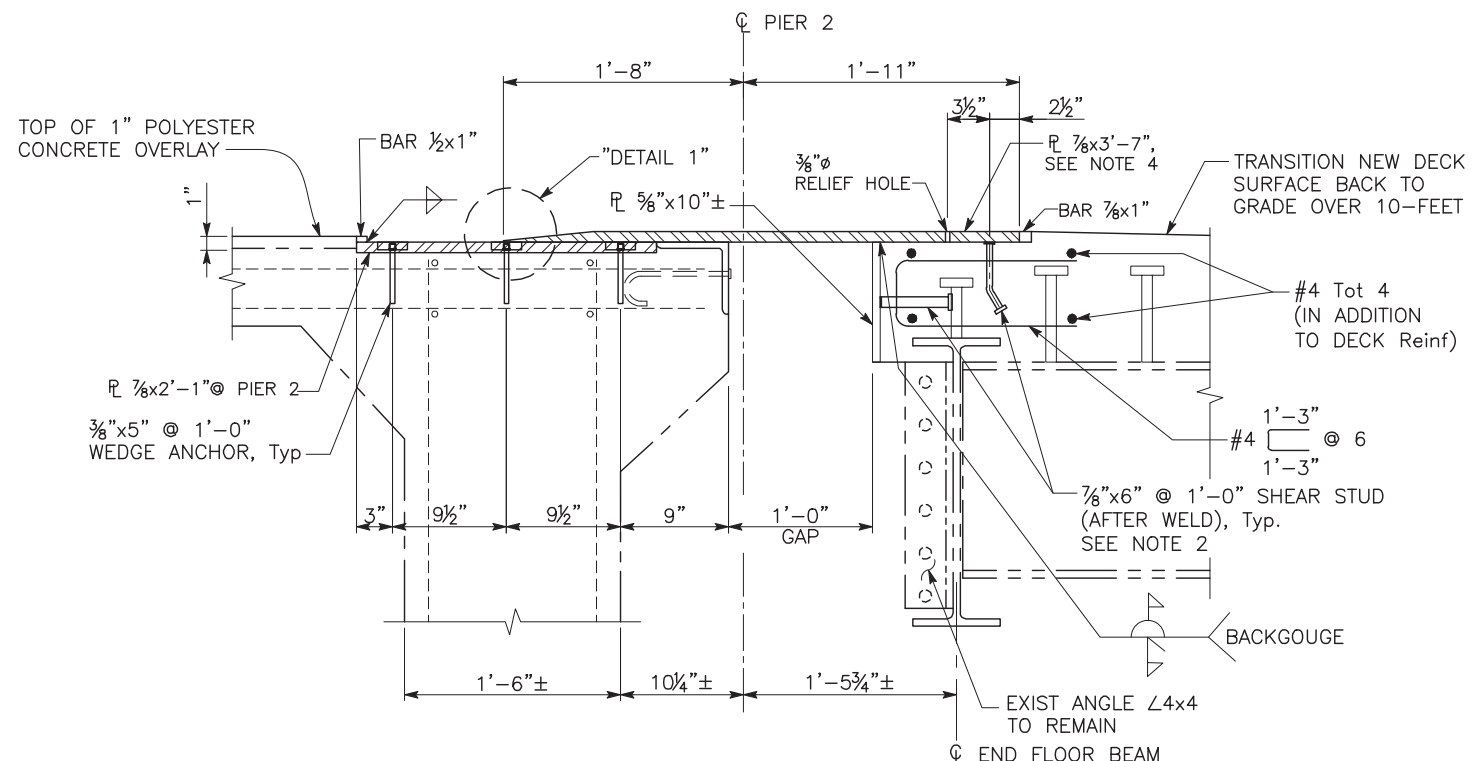


COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

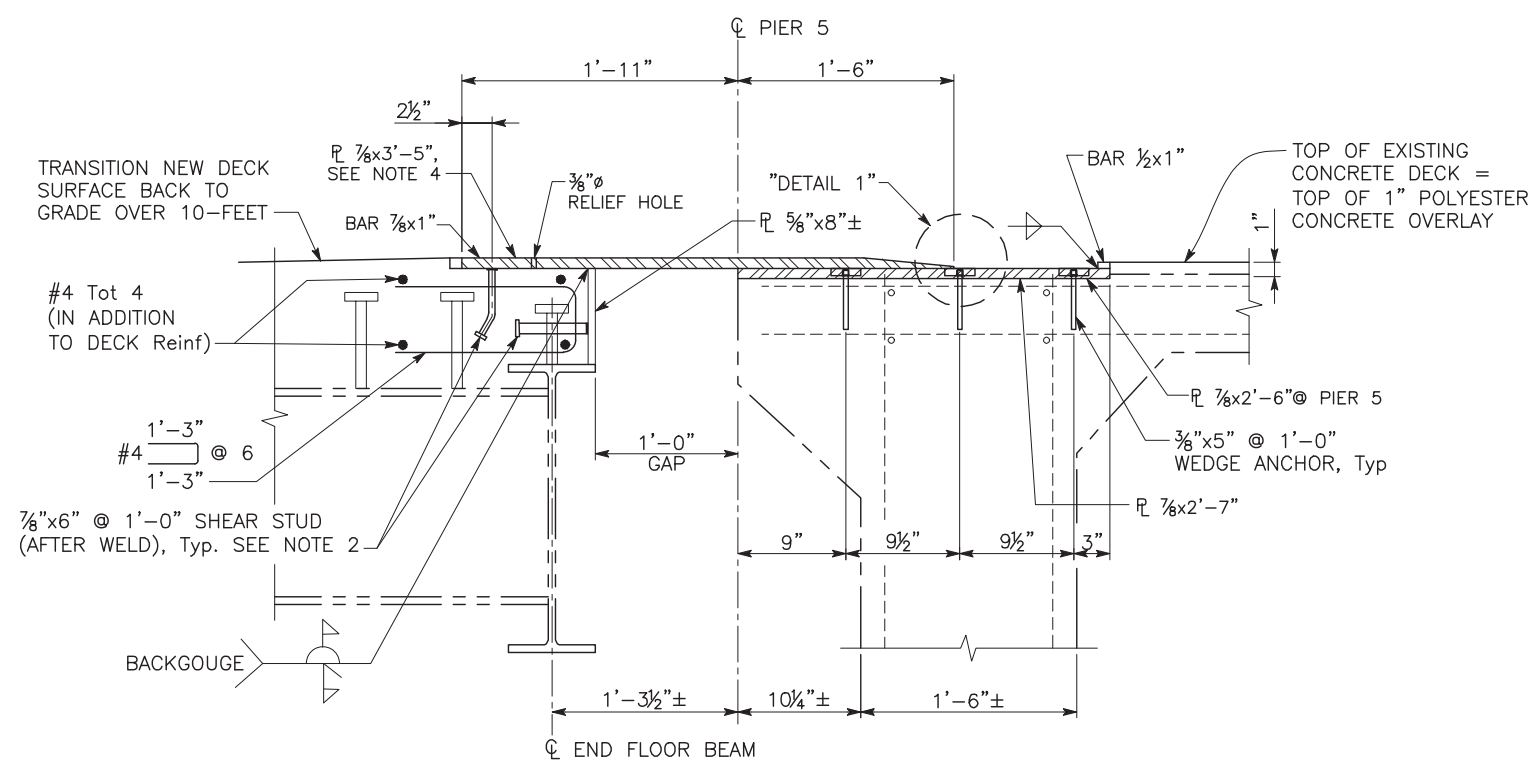
EXPANSION JOINT DETAILS NO. 2

**WOHLER ROAD BRIDGE
 OVER RUSSIAN RIVER**

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	48
TOTAL SHEETS	82



SECTION B-B
1/2" = 1'-0"



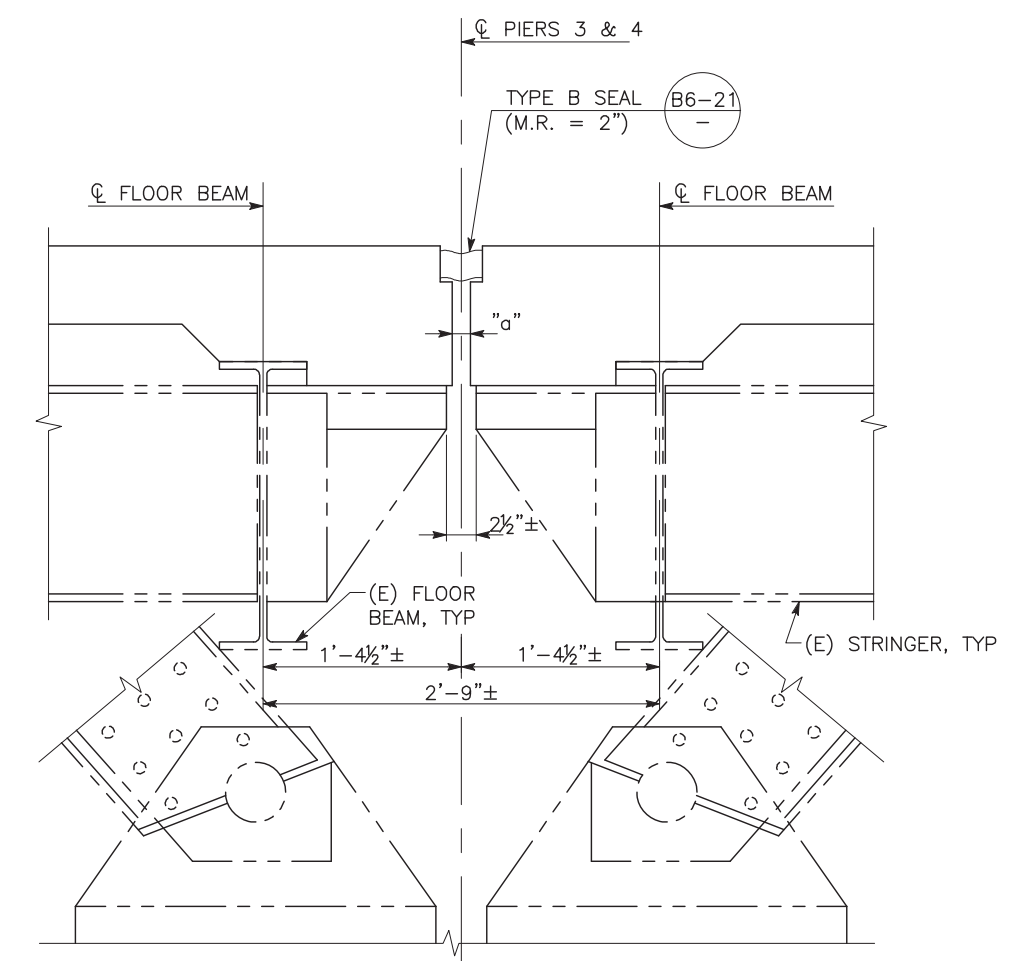
SECTION C-C
1/2" = 1'-0"

NOTES:

1. For "DETAIL 1", see "EXPANSION JOINT DETAILS NO. 4" Sheet.
2. Stagger shear studs on cover plate and vertical plate by 1/2" space.
3. New 1" polyester concrete overlay. See "POLYESTER CONCRETE OVERLAY" sheet for limits of overlay.
4. Steel plate must have a non-skid surface static coefficient of 0.35 or greater per California test 342.

LEGEND:

Indicates removal portion



JOINT SEAL DETAIL AT PIERS 3 AND 4
1/2" = 1'-0"

Title: WBS-5-0000-04e
 Date: 09/11/2023
 File: ST-25.dwg
 Plot: 09/11/2023 11:49 AM
 PLOT: 09/11/2023 11:49 AM
 User: Kevin J. Ross
 Job: WBS-5-0000-04e

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
REGISTERED CIVIL ENGINEER
No. 49652
Exp. 09/30/24
09/11/2023
PLANS APPROVAL DATE

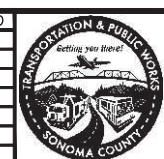


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

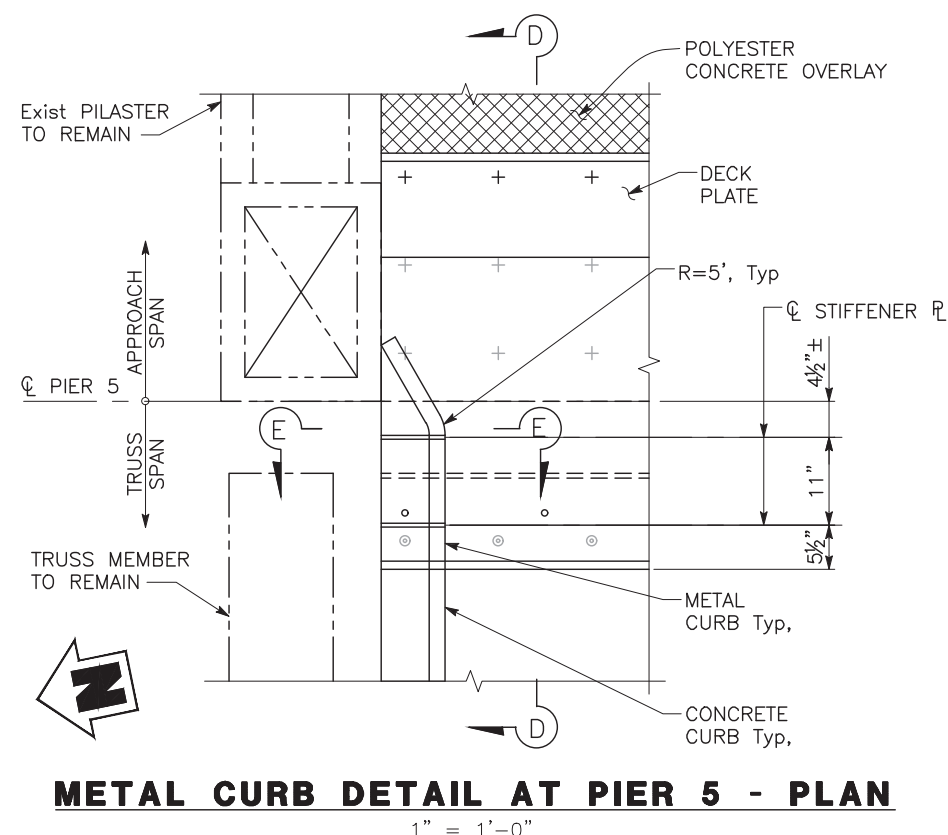


COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

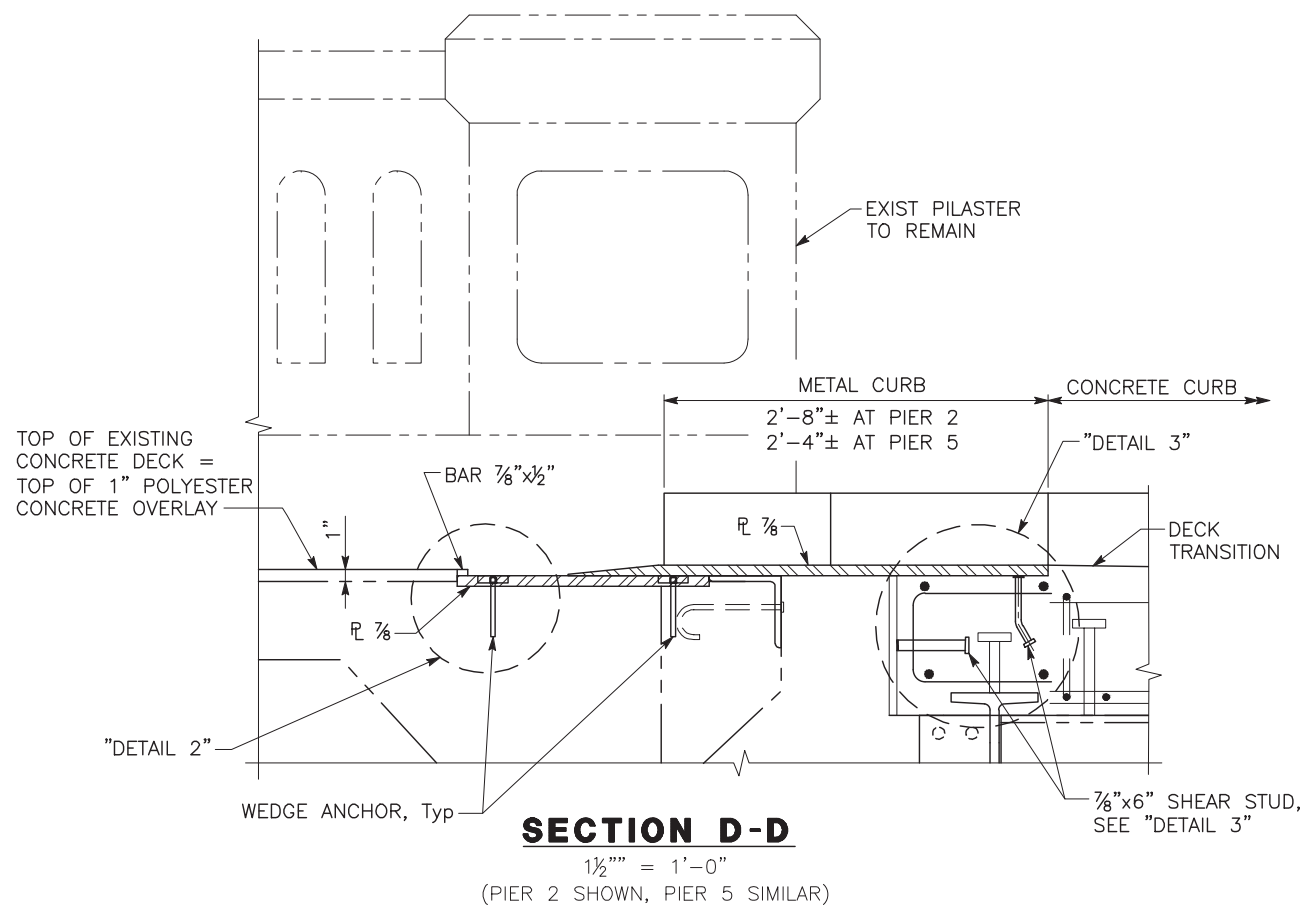
EXPANSION JOINT DETAILS NO. 3

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

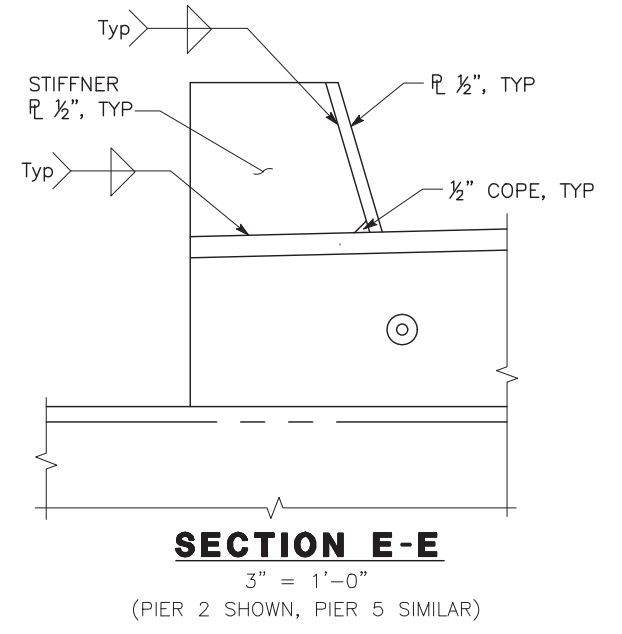
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	49
TOTAL SHEETS	82



METAL CURB DETAIL AT PIER 5 - PLAN
1" = 1'-0"

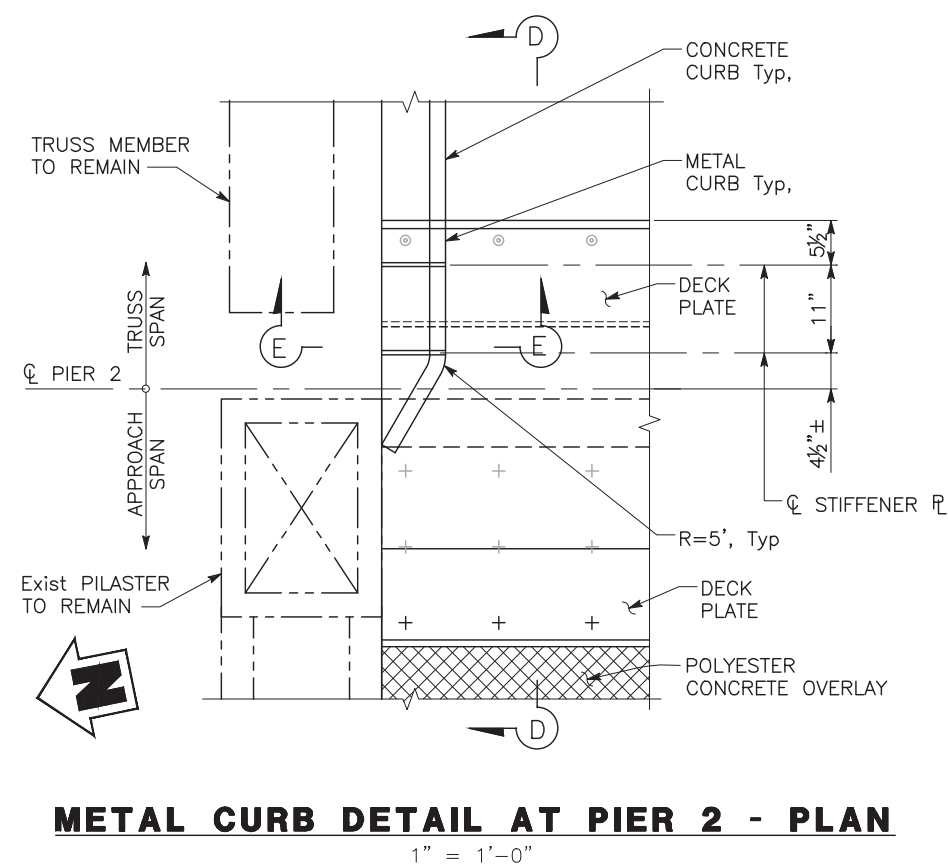


SECTION D-D
1 1/2" = 1'-0"
(PIER 2 SHOWN, PIER 5 SIMILAR)

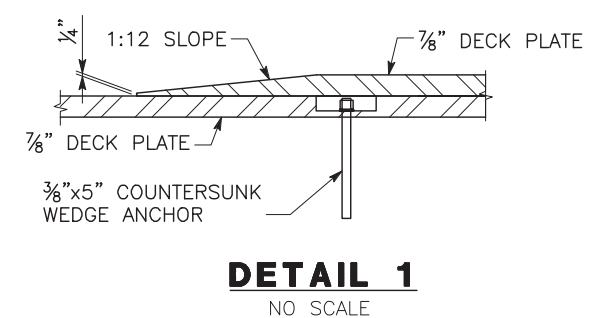


SECTION E-E
3" = 1'-0"
(PIER 2 SHOWN, PIER 5 SIMILAR)

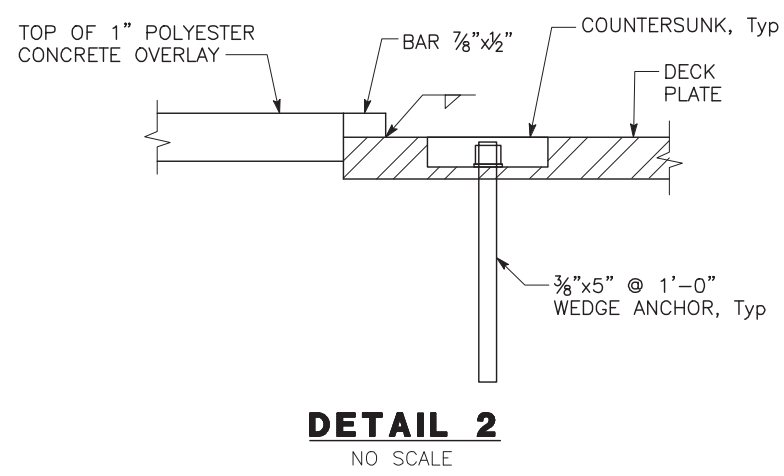
- NOTES:**
1. Fill rest of the recess with silicone seal after installation of bolted connection.
 2. Apply a 3/8" of Multilayer Polymer concrete Overlay to deck plate at shop.



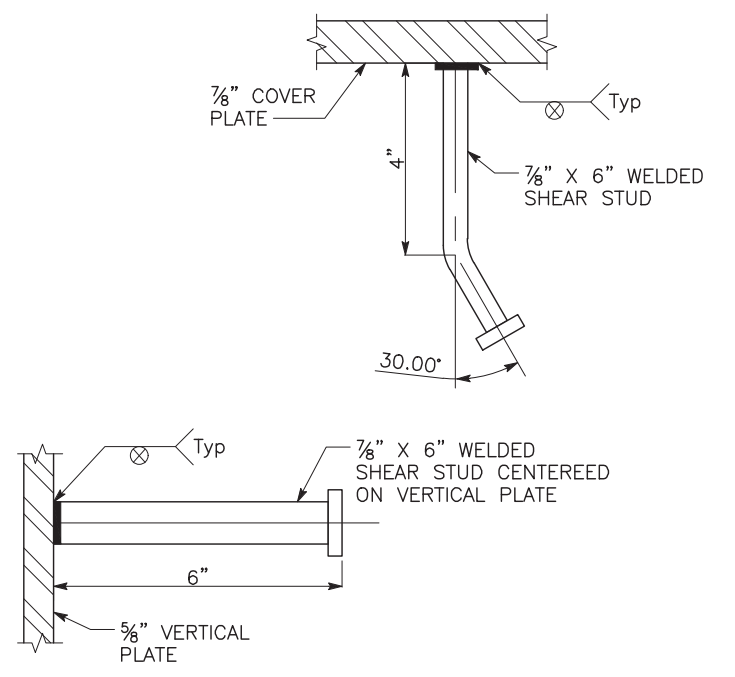
METAL CURB DETAIL AT PIER 2 - PLAN
1" = 1'-0"



DETAIL 1
NO SCALE



DETAIL 2
NO SCALE



DETAIL 3
NO SCALE

File: WBS-2022-046
 Path: U:\2022-23\WBS-2022-046\Project Design\Plan\ASB\Bldg & Structure\Submittal\Plan\2\Plan\WBS-5-EXPANSION_JOINT_DETAILS-4.dwg Plot Date: 09/11/2023 at 10:40

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
REGISTERED CIVIL ENGINEER
No. 49652
Exp. 09/30/24
09/11/2023
PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

EXPANSION JOINT DETAILS NO. 4

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

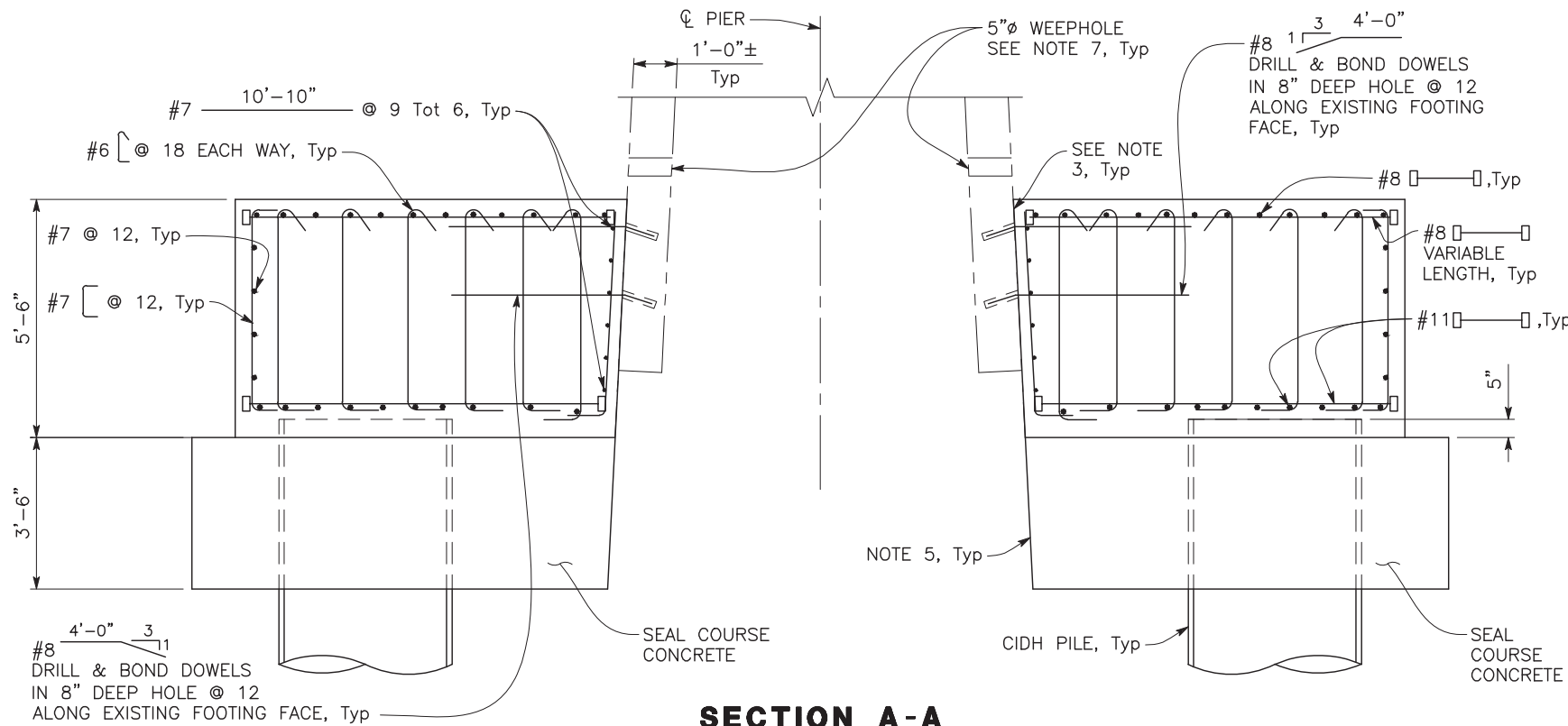
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	50
TOTAL SHEETS	82

LEGEND:

- Indicates existing structure
- Indicates full size headed reinforcement

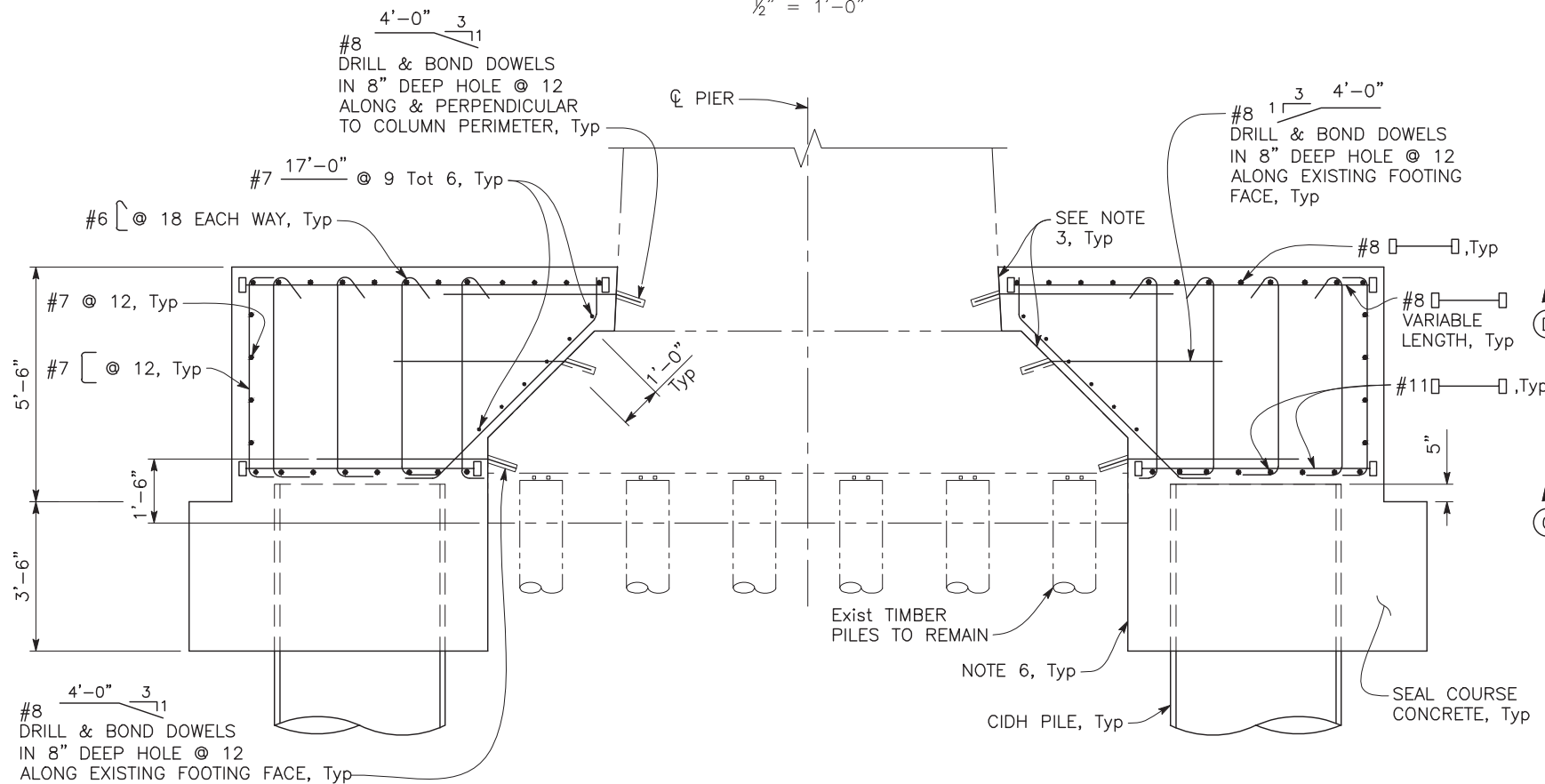
NOTES:

1. For "Section C-C", see "Pier Footing Retrofit Details No. 2" sheet.
2. For "Section D-D", see "Pier Footing Retrofit Details No. 3" sheet.
3. Roughen existing concrete to 1/4" amplitude wherever new concrete is poured up against existing concrete.
4. For CIDH Pile details, see "Pier Retrofit Pile Detail" on "Pier Footing Retrofit Details No. 2" sheet.
5. Seal gap between bottom of infill wall and bottom of excavation. Form must be 1" thick or less and not extend more than 2" above the bottom of the existing infill wall. Forms may remain in place.
6. Seal gap between bottom of existing footing and bottom of excavation. Form must be 1" thick or less and not extend more than 2" above the bottom of the existing infill wall. Forms may remain in place.
7. Core 5"Ø holes through existing infill wall, total 4 per pier. See Weephole detail on "PIER FOOTING RETROFIT DETAILS NO. 3" sheet.



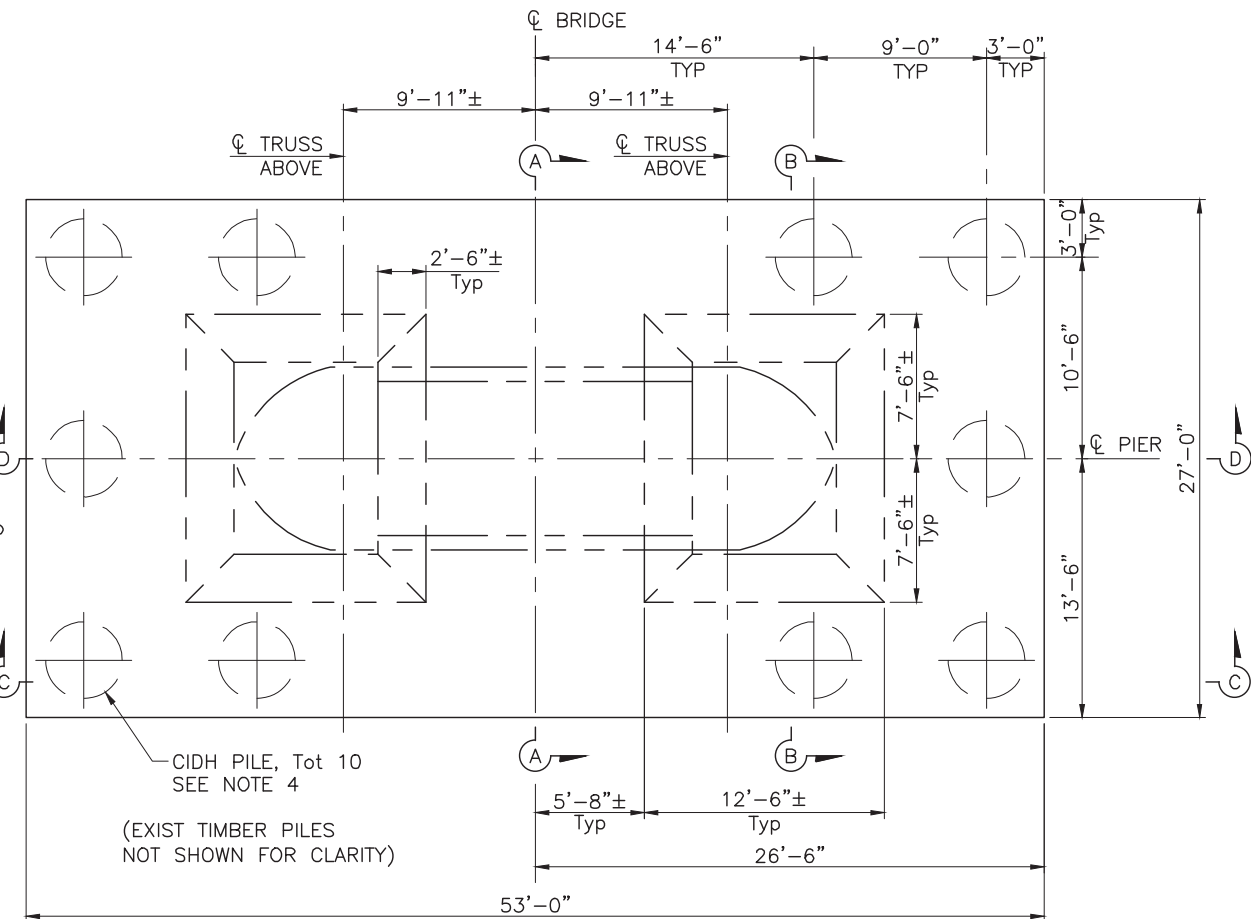
SECTION A-A

1/2" = 1'-0"



SECTION B-B

1/2" = 1'-0"



FOUNDATION RETROFIT PLAN (PIERS 3 AND 4)

1" = 5'-0"

ST-27

Title: WBS-20-0471 - COUNTY OF SONOMA - BRIDGE - CIVIL - RETROFIT DETAILS 1-3.dwg
 Date: 09/11/2023 11:35:40 AM
 User: KJROSS
 Plot: 09/11/2023 11:35:40 AM
 Plot Device: HPGL
 Plot Path: C:\Users\KJROSS\AppData\Local\Autodesk\LT\2023\US\ISOcal\bin\ltpplotter.ctb
 Plot Style: Color
 Scale: 1:1
 Sheet: 1 of 1

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
REGISTERED CIVIL ENGINEER
No. 49652
Exp. 09/30/24
09/11/2023
PLANS APPROVAL DATE

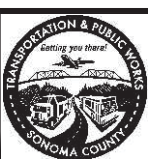


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

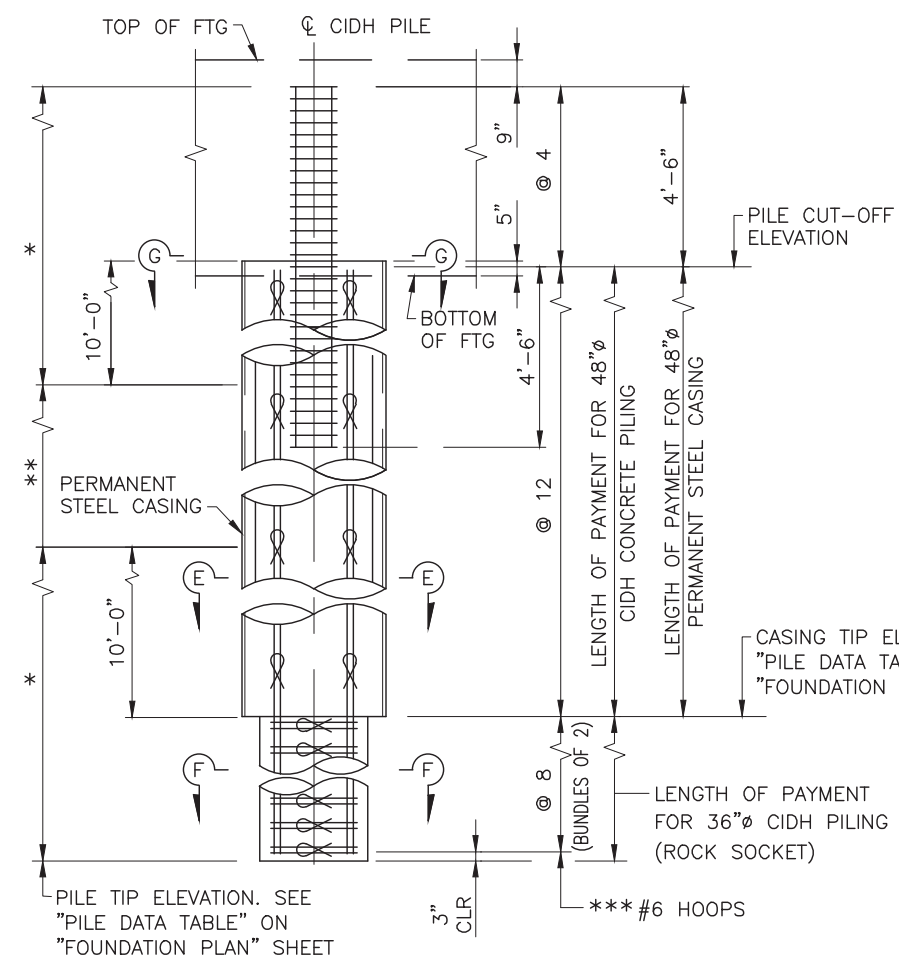


COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

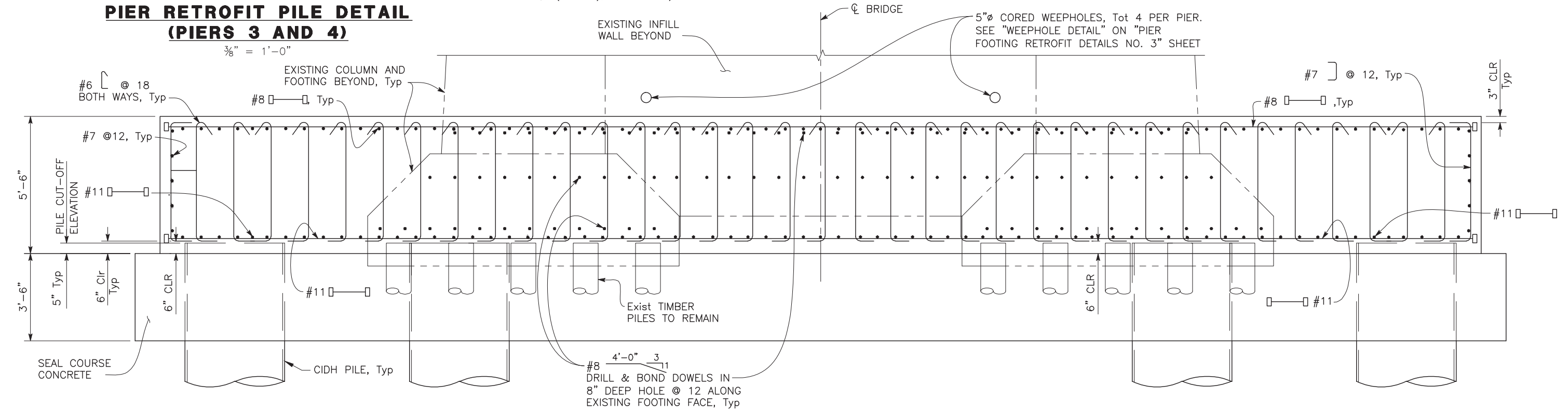
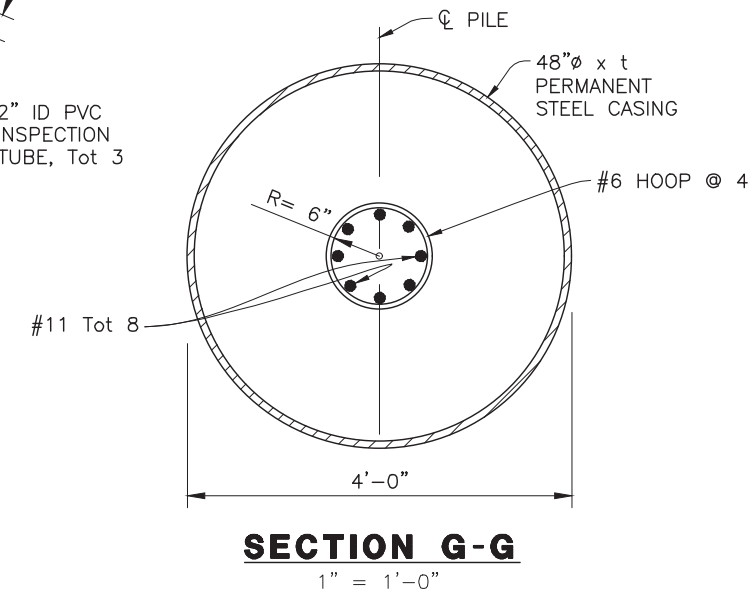
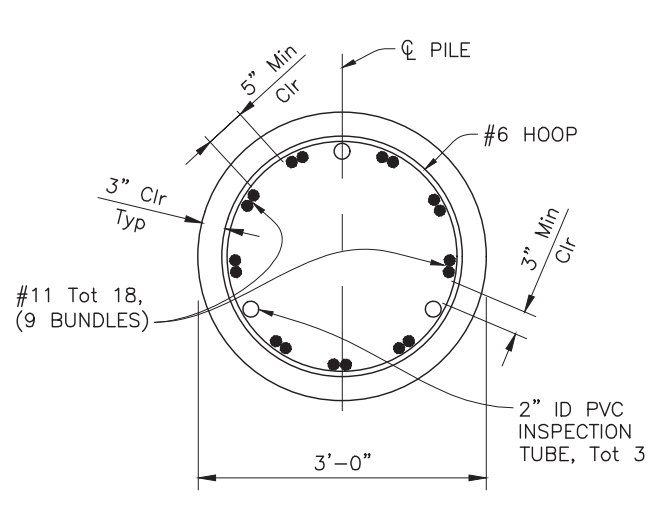
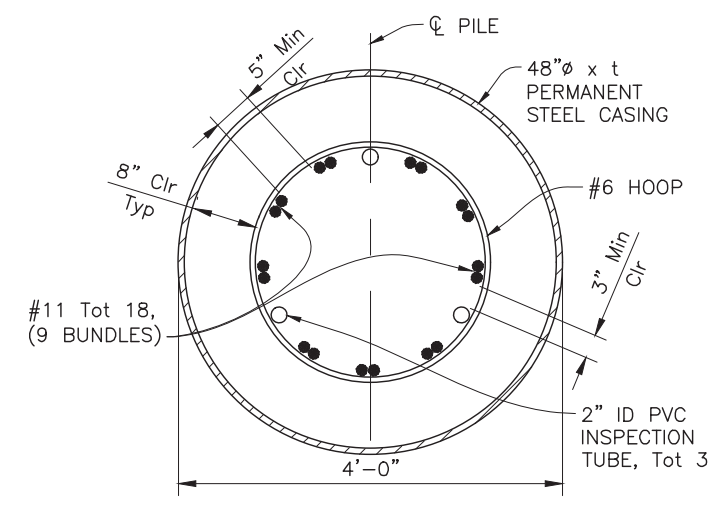
PIER FOOTING RETROFIT DETAILS NO. 1

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	51
TOTAL SHEETS	82



- LEGEND:**
- Indicates existing structure
 - ∞ Indicates bundled bars
 - Indicates full size headed reinforcement
- * NO SPLICE ALLOWED IN MAIN REINFORCEMENT
 - ** STAGGERED "ULTIMATE" BUTT SPLICE ALLOWED IN MAIN REINFORCEMENT
 - *** ALL HOOPS ARE "ULTIMATE" BUTT SPLICE CONTINUOUS
- t = $\frac{3}{8}"$ (PIER 3), $\frac{3}{4}"$ (PIER 4)



Title: WBS-20-2471 (02/2022) - BRIDGE RETROFIT - CIVIL ENGINEERING RETROFIT DETAILS 1-1.dwg Plot Date: Sep 11, 2023 at 15:46
 Path: U:\DRAWS - Interloc Brief - Sonoma Co\WBS Project\Bridges\Structure\Submittal\Draw\2\Draw\WBS-5-PIER FOOTING RETROFIT DETAILS 1-1.dwg Plot Date: Sep 11, 2023 at 15:46

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA

09/11/2023
 PLANS APPROVAL DATE



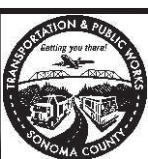
"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER _____

AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

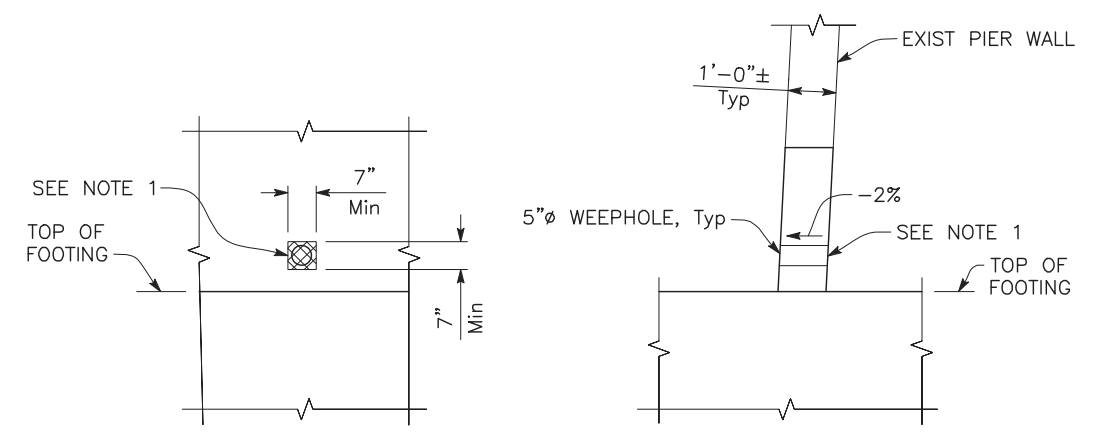


COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

PIER FOOTING RETROFIT DETAILS NO. 2

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	52
TOTAL SHEETS	82



ELEVATION **SECTION**

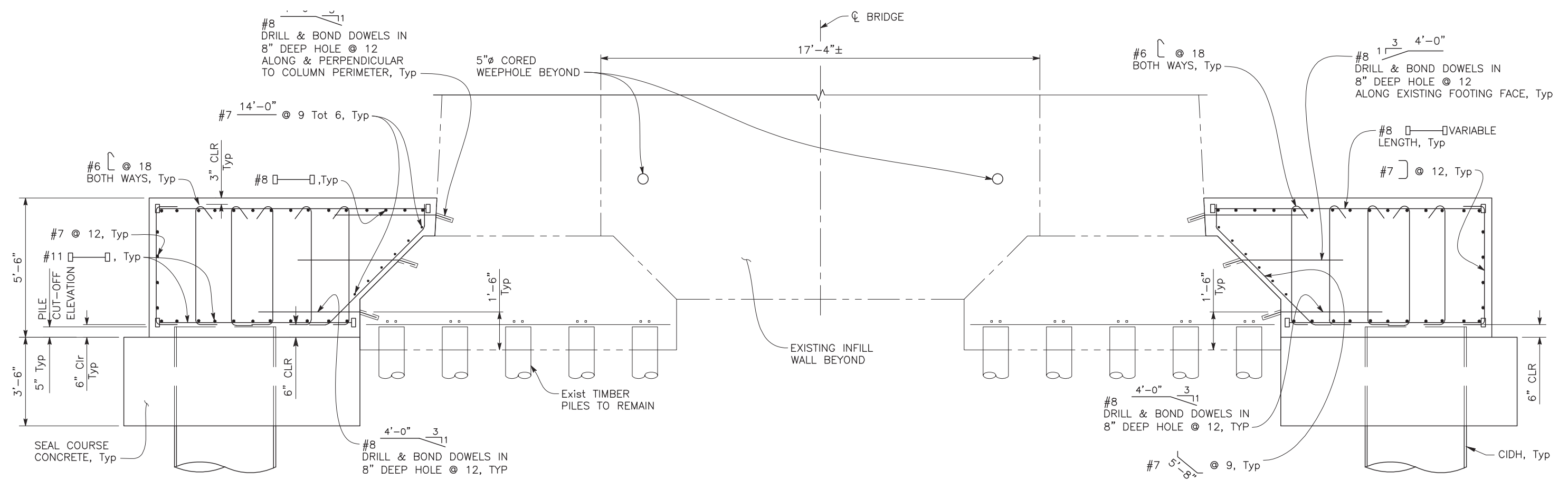
WEEPHOLE DETAIL
 NO SCALE

NOTE:

- 7" square aluminum or galvanized steel wire 1/4" mesh hardware cloth, minimum wire diameter 0.0625". Anchor firmly to backface.

LEGEND:

- Indicates existing structure
- Indicates full size headed reinforcement



SECTION D-D
 1/2" = 1'-0"

Title: WBS-20-21-471 - CIVIL ENGINE REPORT - CIVIL ENGINE RETROFIT DETAILS 1-3.dwg Plot Date: Sep 11, 2023 at 15:40
 Path: U:\DRA - Inher Inher Inher - Sonoma Co\GIS Project\Bldg - Plans\GIS\Bldg - Structures\Submittal - Plan 2\Plan\WBS-5-PIER FOOTING RETROFIT DETAILS 1-3.dwg Plot Date: Sep 11, 2023 at 15:40

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA



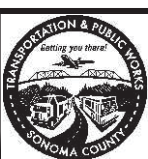
"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER _____

AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

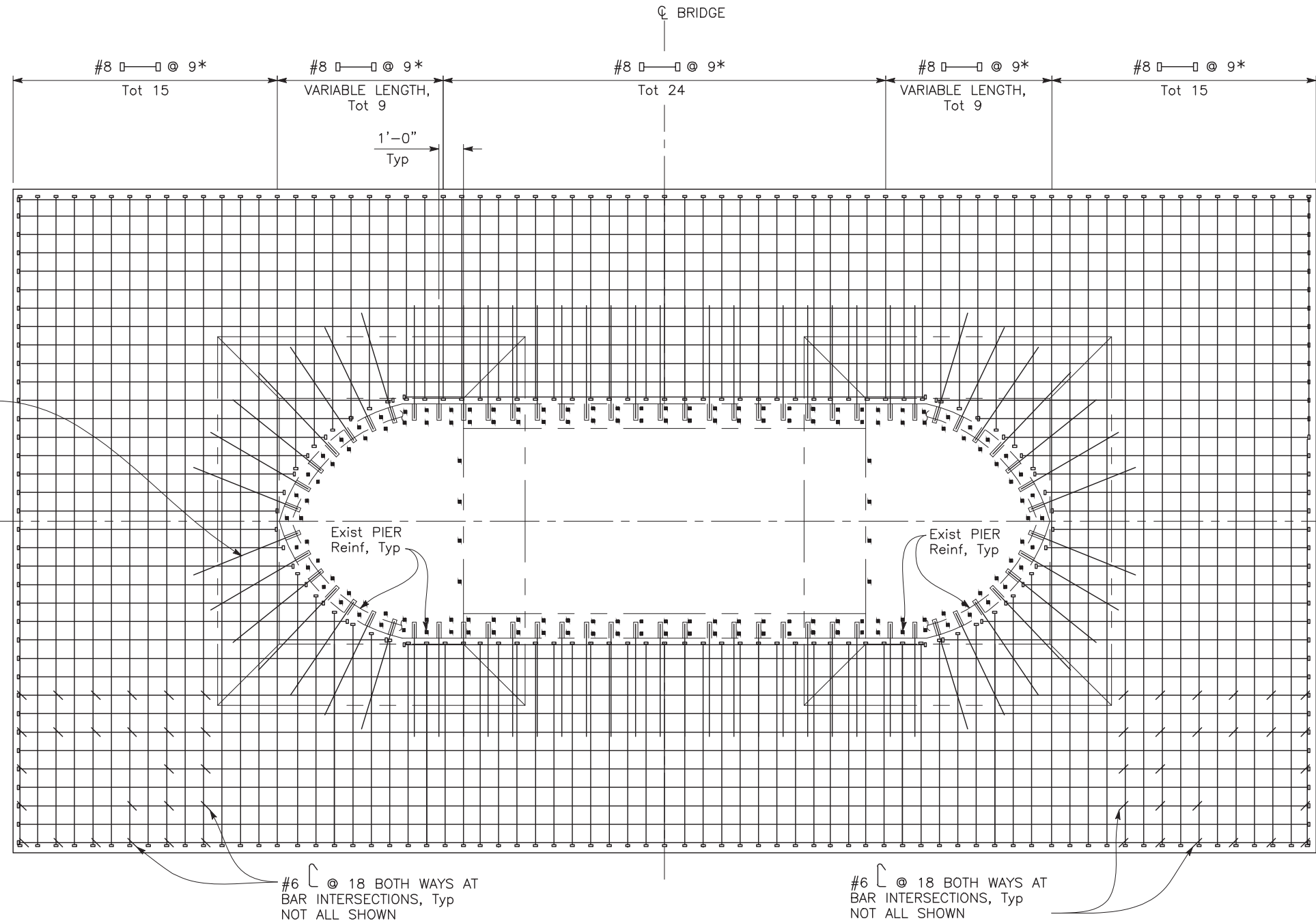


COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

PIER FOOTING RETROFIT DETAILS NO. 3

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	53
TOTAL SHEETS	82



NOTE:

- Adjust drilled hole locations as required to miss existing column reinforcement as authorized by the Engineer.

LEGEND:

- Indicates existing reinf
- Indicates full size headed reinforcement
- * Adjust spacing as required to line up with bottom reinforcement as authorized by the engineer.

TOP MAT REINFORCEMENT (PIERS 3 AND 4)

3/8" = 1'-0"

11/11/2023 11:41 AM C:\Users\kross\OneDrive\Documents\Projects\2022\PIER 3 AND 4\PIER 3 AND 4.dwg
 Plot: 11/11/2023 11:41 AM
 Plot Date: Sep 11, 2023 at 15:41

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

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 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA

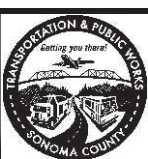


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CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

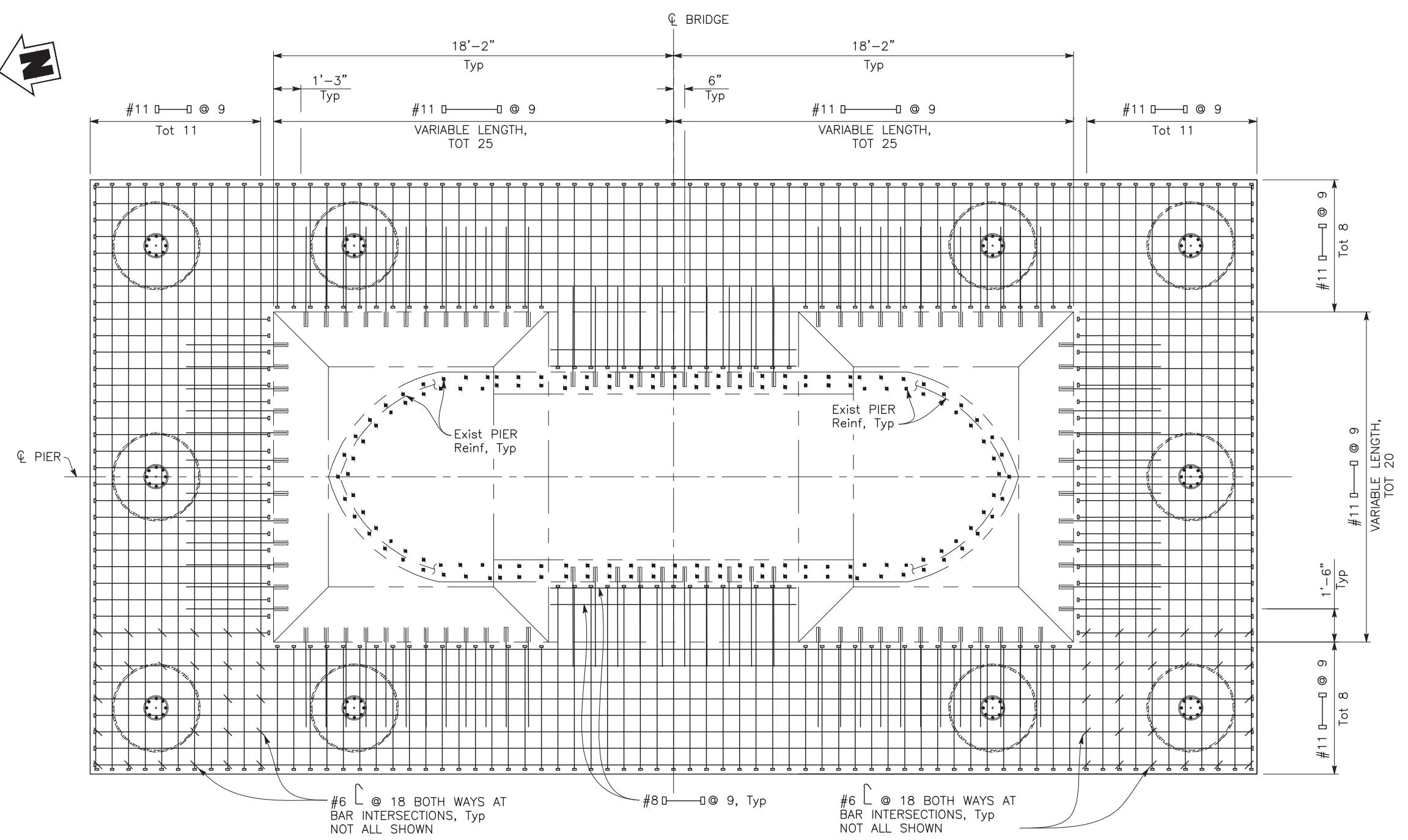


COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

PIER FOOTING RETROFIT DETAILS NO. 4

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	54
TOTAL SHEETS	82



NOTES:

- Adjust drilled hole locations as required to miss existing footing reinforcement and new pile reinforcement as authorized by the Engineer.
- Adjust reinforcement as required to fit through pile reinforcement as authorized by the Engineer.

LEGEND:

- Indicates existing vertical reinf
- ▣▣ Indicates full size headed reinforcement

BOTTOM MAT REINFORCEMENT (PIERS 3 AND 4)

3/8" = 1'-0"

Info: www.dewberry.com, No. 20230279, In the State of California, Kevin J. Ross, No. 49652, Registered Professional Engineer, Civil, State of California, Exp. 09/30/24. Plan: 15-103154 - Woller Road Bridge - Sonoma County, Project: Design & Construction, Submittal: Final 2/Plan, No. 5-REIN FOOTING RETROFIT DETAILS 4-5, Rev. Date: Sep 11, 2023 at 10:41 AM

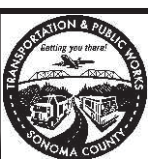
DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
REGISTERED CIVIL ENGINEER
09/11/2023
PLANS APPROVAL DATE



DATE	REVISION	BY	APPROVED

RESIDENT ENGINEER
AS BUILT DRAWINGS BY:



COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

PIER FOOTING RETROFIT DETAILS NO. 5	
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	

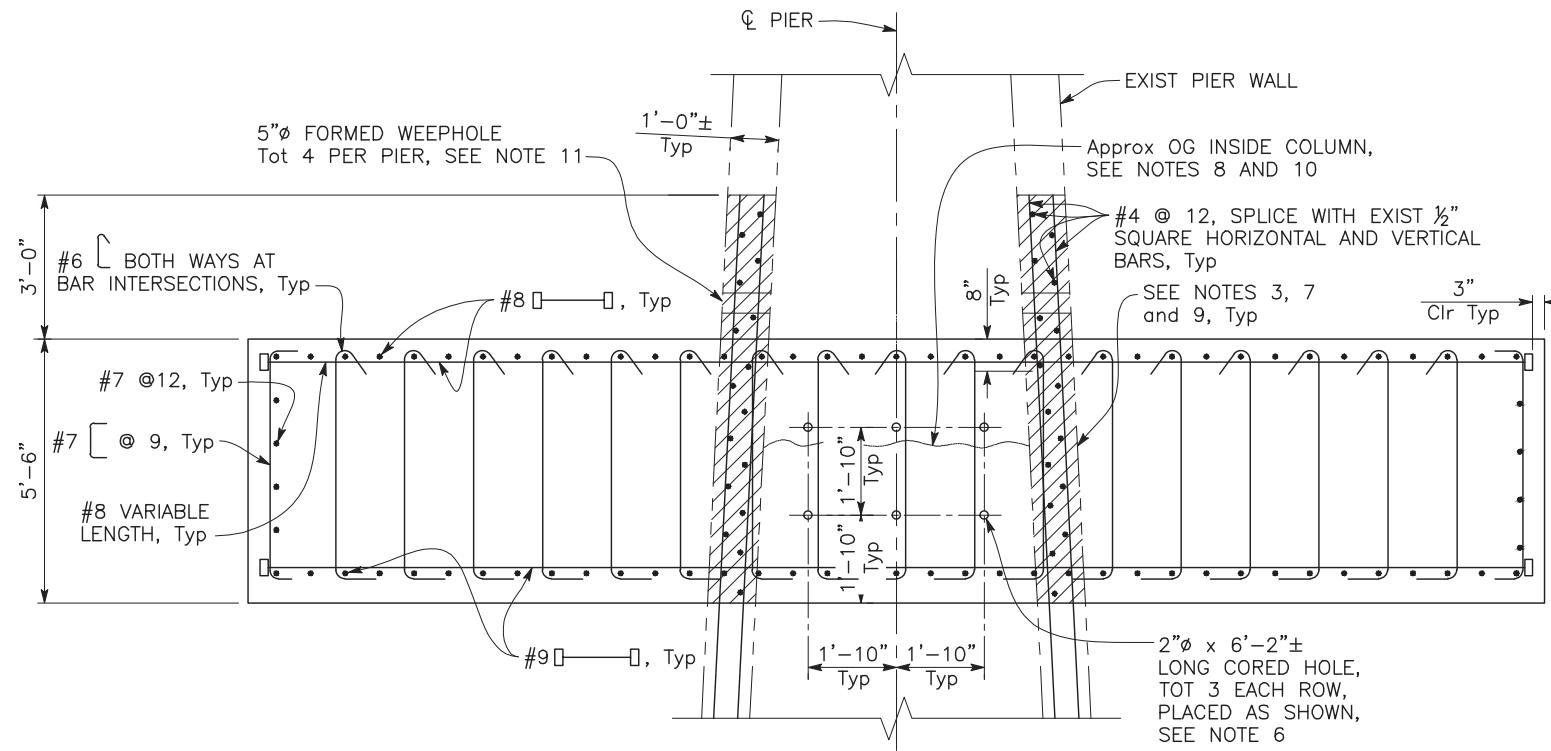
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	55
TOTAL SHEETS	82

LEGEND:

- Indicates existing structure
- Indicates full size headed reinforcement
- ▨ Indicates concrete removal (portion including existing reinforcement to remain)

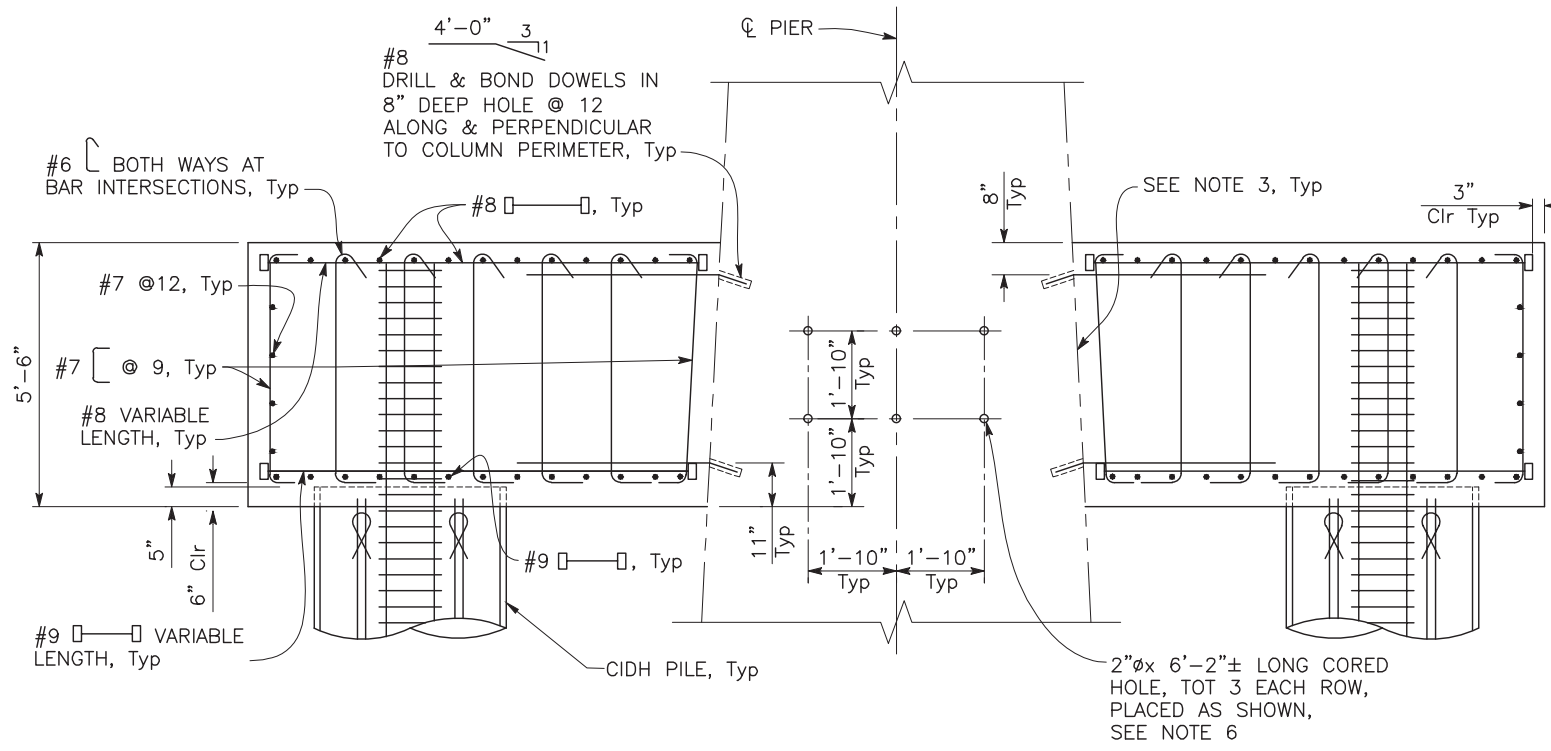
NOTES:

1. For "Section J-J", see "Pier Footing Retrofit Details No. 7" sheet.
2. For "Section K-K", see "Pier Footing Retrofit Details No. 8" sheet.
3. Roughen existing concrete to 1/4" amplitude wherever new concrete is poured up against existing concrete.
4. Distance varies from 3'-9"± at Pier 2 to 3'-6" at Pier 5.
5. For CIDH Pile details, see "Pier Retrofit Pile Detail" on "Pier Footing Retrofit Details No. 7" sheet.
6. Core 2"Ø max hole. Pressure grout #10 bars in cored hole using non-shrink grout per Section 60 of the Standard Specifications. Locate all longitudinal and horizontal bar reinforcing in the column prior to coring holes. Adjust locations as authorized by the Engineer to miss the existing column reinforcement as needed.
7. Existing horizontal and vertical bars in the infill walls may be cut. 1'-8" at each end of bar must remain. Bend existing remaining reinforcement as needed to provide access for placing concrete and reinforcing steel.
8. Existing column at Pier 2 is backfilled to elevation 45.5± inside void. Excavate as needed to provide a working platform.
9. Place concrete under pressure to reconstruct wall sections shown. Inside forms may be left in place.
10. Soil elevation inside Pier 5 void is unknown. Fill void as needed to create working platform. Concrete backfill is not allowed.
11. Form 5"Ø holes through reconstructed infill wall, Tot 4 per pier. See "WEEPHOLE DETAIL" on "PIER RETROFIT DETAILS NO. 3" sheet.



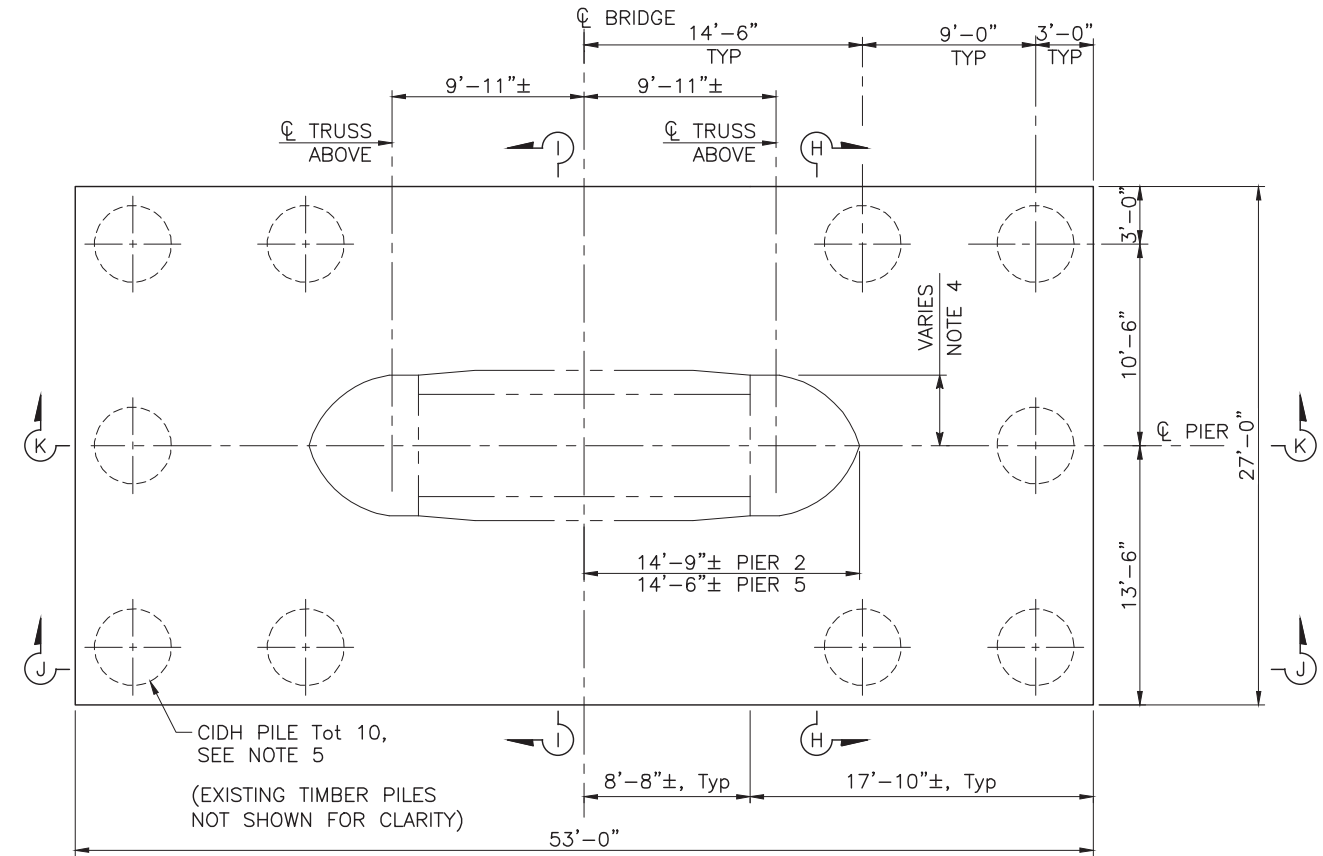
SECTION I-I

1/2" = 1'-0"
PIER 2 SHOWN, PIER 5 SIMILAR



SECTION H-H

1/2" = 1'-0"
PIER 2 SHOWN, PIER 5 SIMILAR



FOUNDATION RETROFIT PLAN (PIERS 2 AND 5)

1" = 5'-0"

ST-32

Title: WBS-5-000 (2022) - PIER FOOTING RETROFIT DETAILS - 2022-11-13.dwg
 Date: 11/13/2022 11:13:41 AM
 User: KJROSS
 Plot: 11/13/2022 11:13:41 AM
 Plot Device: AutoCAD
 Plot Style: Standard.ctb
 Scale: 1:1
 Sheet: 1 of 1

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
REGISTERED CIVIL ENGINEER
No. 49652
Exp. 09/30/24
09/11/2023
PLANS APPROVAL DATE

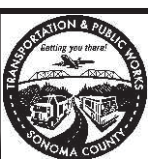


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CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

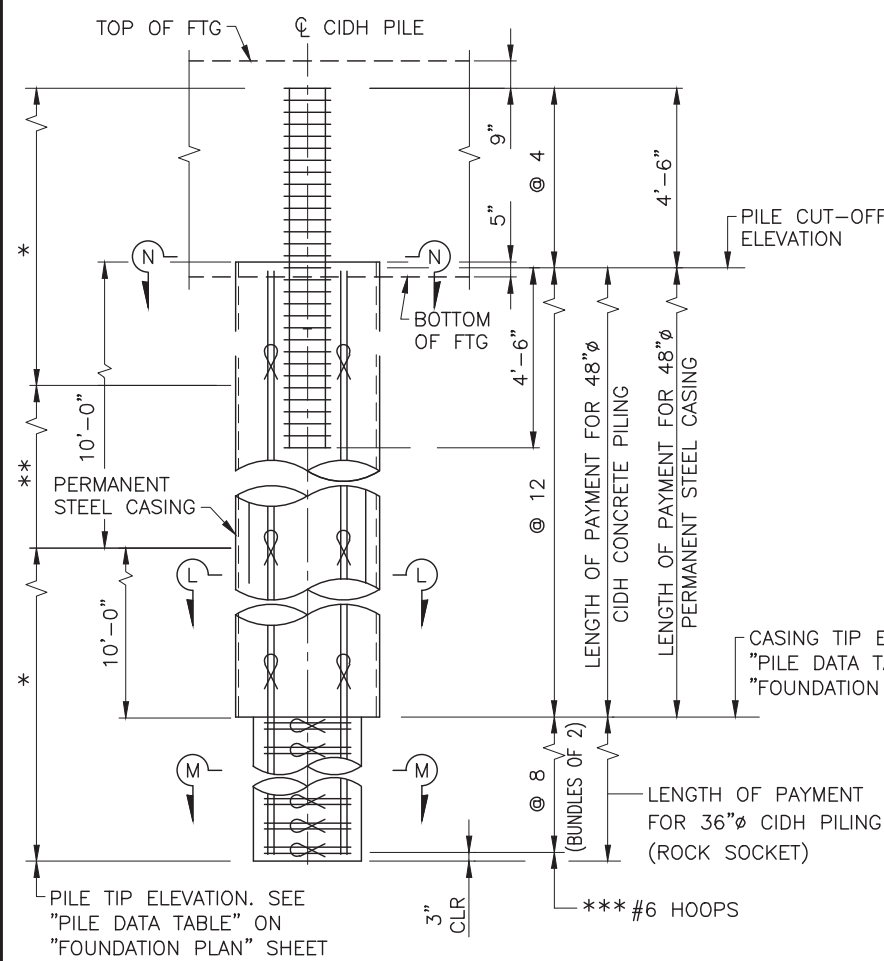


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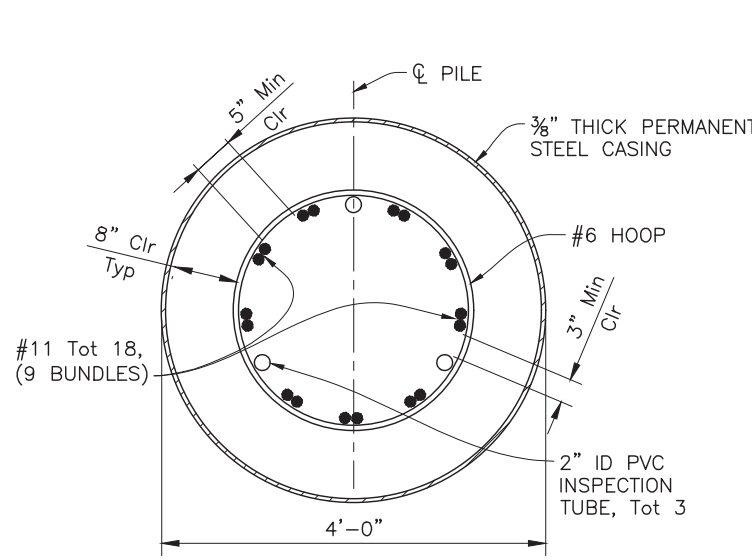
PIER FOOTING RETROFIT DETAILS NO. 6

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

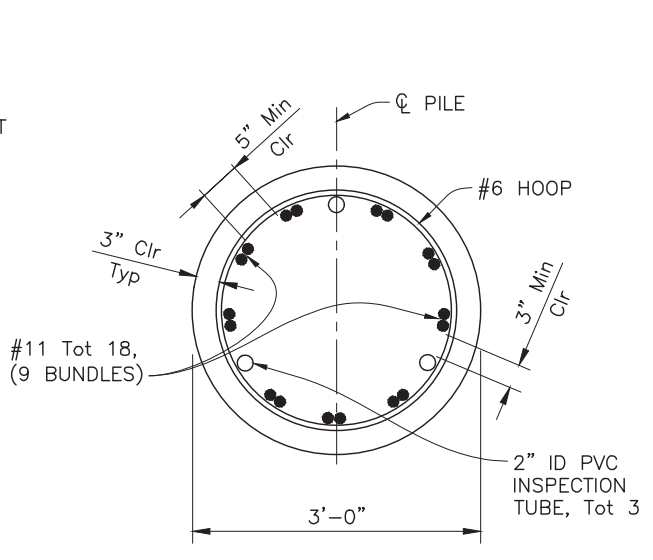
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	56
TOTAL SHEETS	82



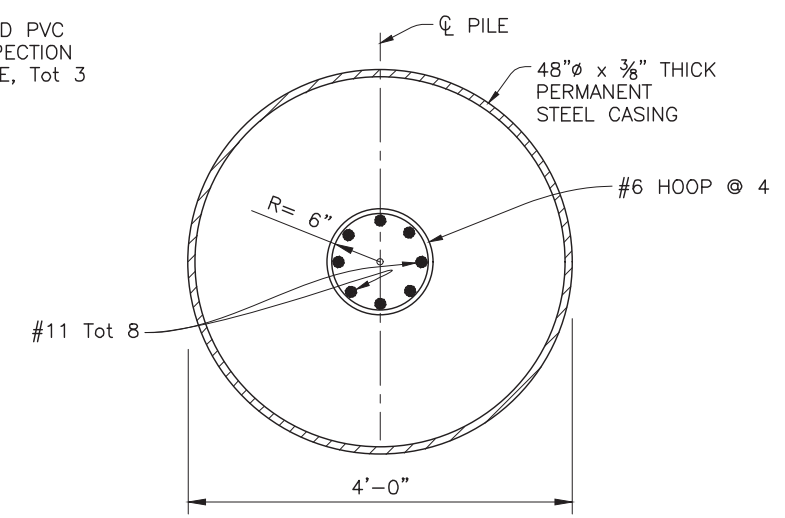
PIER RETROFIT PILE DETAIL
(PIERS 2 AND 5)
 3/8" = 1'-0"



SECTION L-L
 1" = 1'-0"



SECTION M-M
 1" = 1'-0"

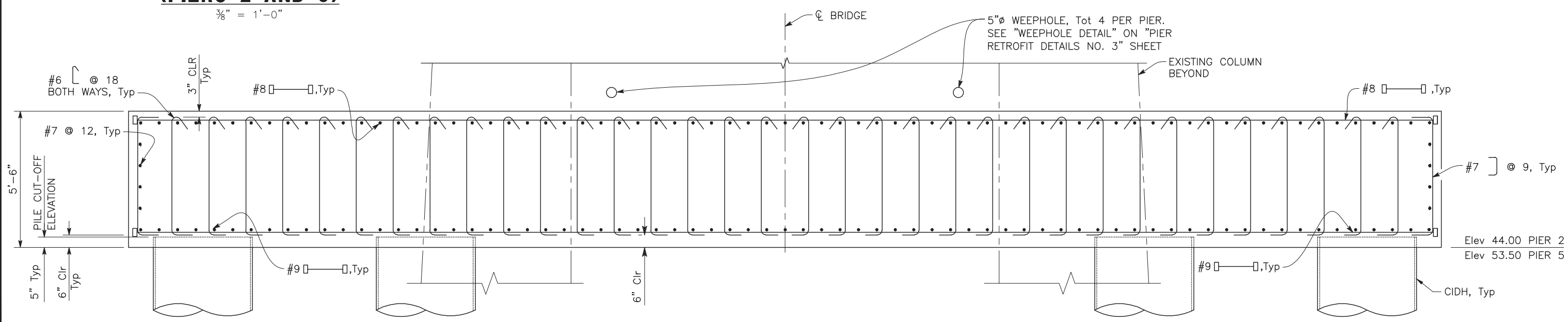


SECTION N-N
 1" = 1'-0"

LEGEND:

- Indicates existing structure
- Indicates bundled bars
- Indicates full size headed reinforcement

- * NO SPLICE ALLOWED IN MAIN REINFORCEMENT
- ** STAGGERED "ULTIMATE" BUTT SPLICE ALLOWED IN MAIN REINFORCEMENT
- *** ALL HOOPS ARE "ULTIMATE" BUTT SPLICE CONTINUOUS



SECTION J-J
 1/2" = 1'-0"
 PIER 2 SHOWN, PIER 5 SIMILAR

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DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE



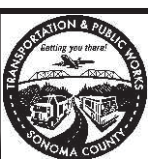
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CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER: _____

AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
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PIER FOOTING RETROFIT DETAILS NO. 7

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

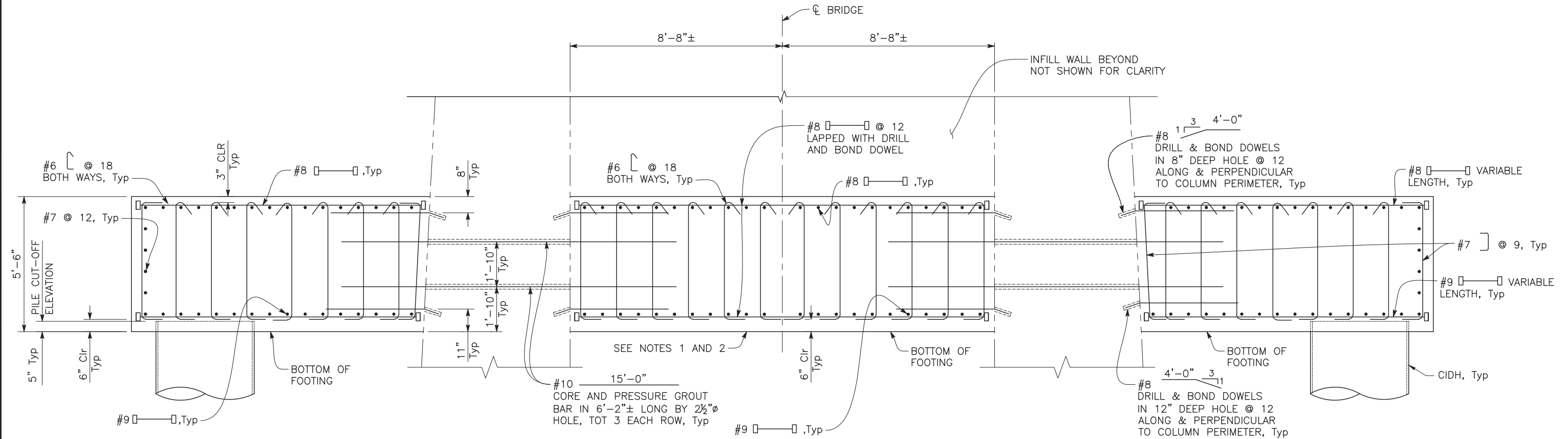
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	57
TOTAL SHEETS	82

LEGEND:

- Indicates existing structure
- Indicates full size headed reinforcement

NOTES:

- Existing column at Pier 2 is backfilled to Elevation 45.5± inside void. Excavate as needed to provide a working platform.
- Soil elevation inside Pier 5 void is unknown. Fill void as needed to create working platform. Concrete backfill is not allowed.



SECTION K-K
 1/2" = 1'-0"
 PIER 2 SHOWN, PIER 5 SIMILAR

PIER 2 SHOWN, PIER 5 SIMILAR. DATE: 09/11/2023. DRAWN BY: KR. CHECKED BY: KR. DESIGN BY: GX. PROJECT: WOLLER ROAD BRIDGE RETROFIT. SHEET: ST-34 OF 34.

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE



DATE	REVISION	BY	APPROVED

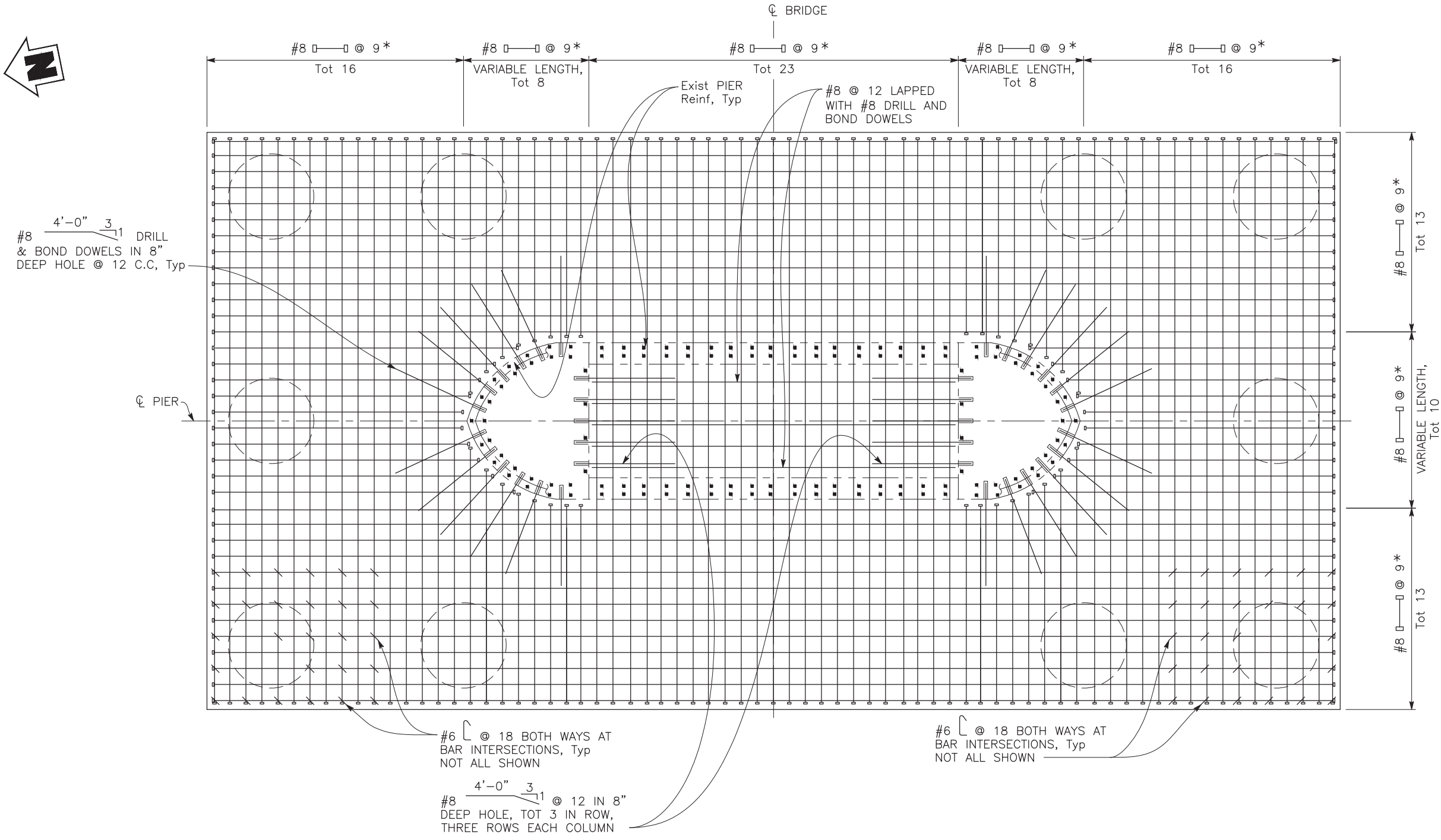
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CONSTRUCTION COMPLETED:			
RESIDENT ENGINEER AS BUILT DRAWINGS BY:			

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PIER FOOTING RETROFIT DETAILS NO. 8 WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
	FISCAL YEAR	2022-23
	SHEET NUMBER	58
	TOTAL SHEETS	82

LEGEND:

- Indicates existing reinf
- Indicates full size headed reinforcement
- * Adjust spacing as required to line up with bottom reinforcement as authorized by the engineer.



TOP MAT REINFORCEMENT (PIERS 2 AND 5)

3/8" = 1'-0"

Note: Refer to the project files for the project files. The files are located in the project files folder. The files are located in the project files folder. The files are located in the project files folder.

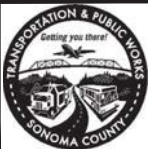
DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

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REGISTERED CIVIL ENGINEER
No. 49652
Exp. 09/30/24
09/11/2023
PLANS APPROVAL DATE



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CONSTRUCTION COMPLETED: _____
RESIDENT ENGINEER _____
AS BUILT DRAWINGS BY: _____

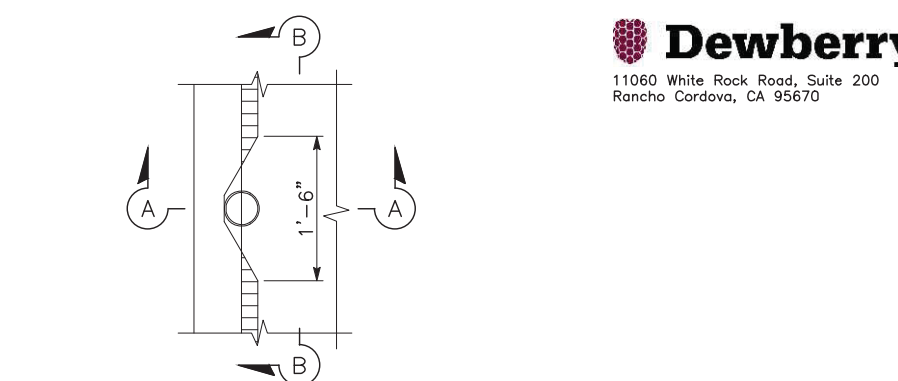
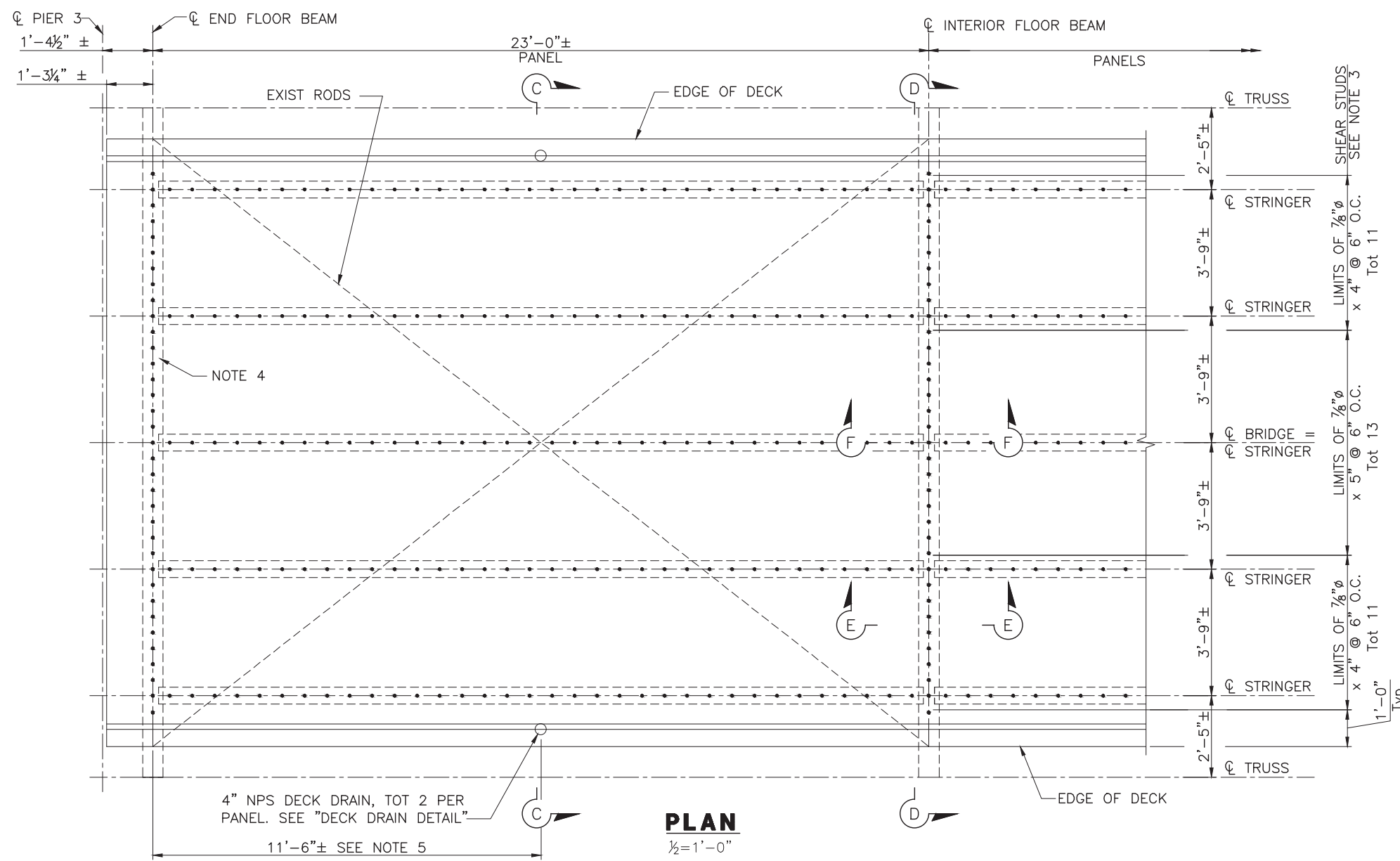
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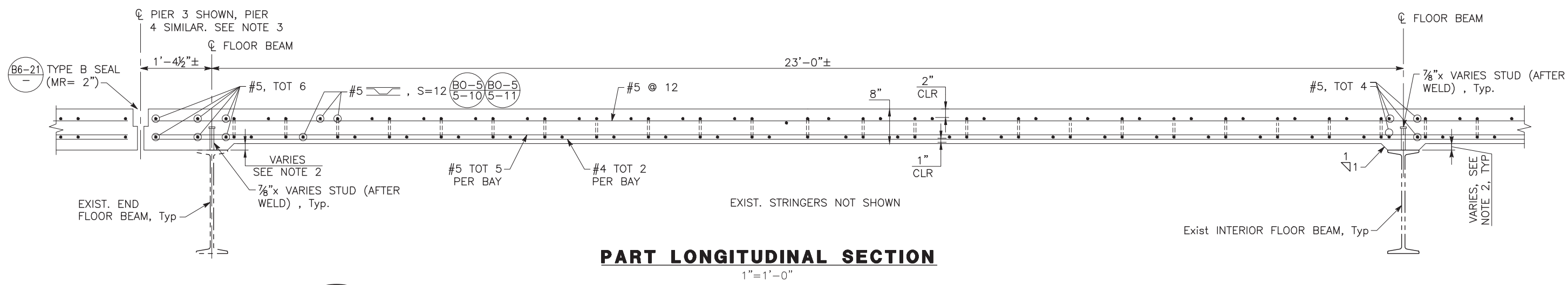
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PIER FOOTING RETROFIT DETAILS NO. 9
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	59
TOTAL SHEETS	82



- NOTES:**
- For "Section C-C", "Section D-D", "Section E-E" and "Section F-F" see "Deck Replacement Details No. 2" sheet.
 - Provide haunch such that top of deck will match deck elevations provided by the Engineer.
 - Shear Stud length after weld.
 - For Existing Trusses, Rods and Stringer properties, see "Existing Truss Geometry" sheet.
 - Place 4" NPS Deck Drain Tot 2 at midspan in each panel as shown.
 - For limits of lightweight concrete deck at Piers 2 and 5, see "EXPANSION JOINT DETAILS" sheets.



Title: WB-5-2023-04
 Part: 10/2024 - Bridge Road Bridge - Sonoma Co/ADP Project Design Phase/ASB Bridges & Structures/Submitted Final 2/Plan/WB-5-DECK REPLACEMENT DETAILS 1-2.dwg
 Print Date: Sep 11, 2023 at 15:41

DESIGN BY	GX
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 Exp. 09/30/24
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 STATE OF CALIFORNIA
 09/11/2023
 PLANS APPROVAL DATE



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DATE	REVISION	BY	APPROVED
CONSTRUCTION COMPLETED:			
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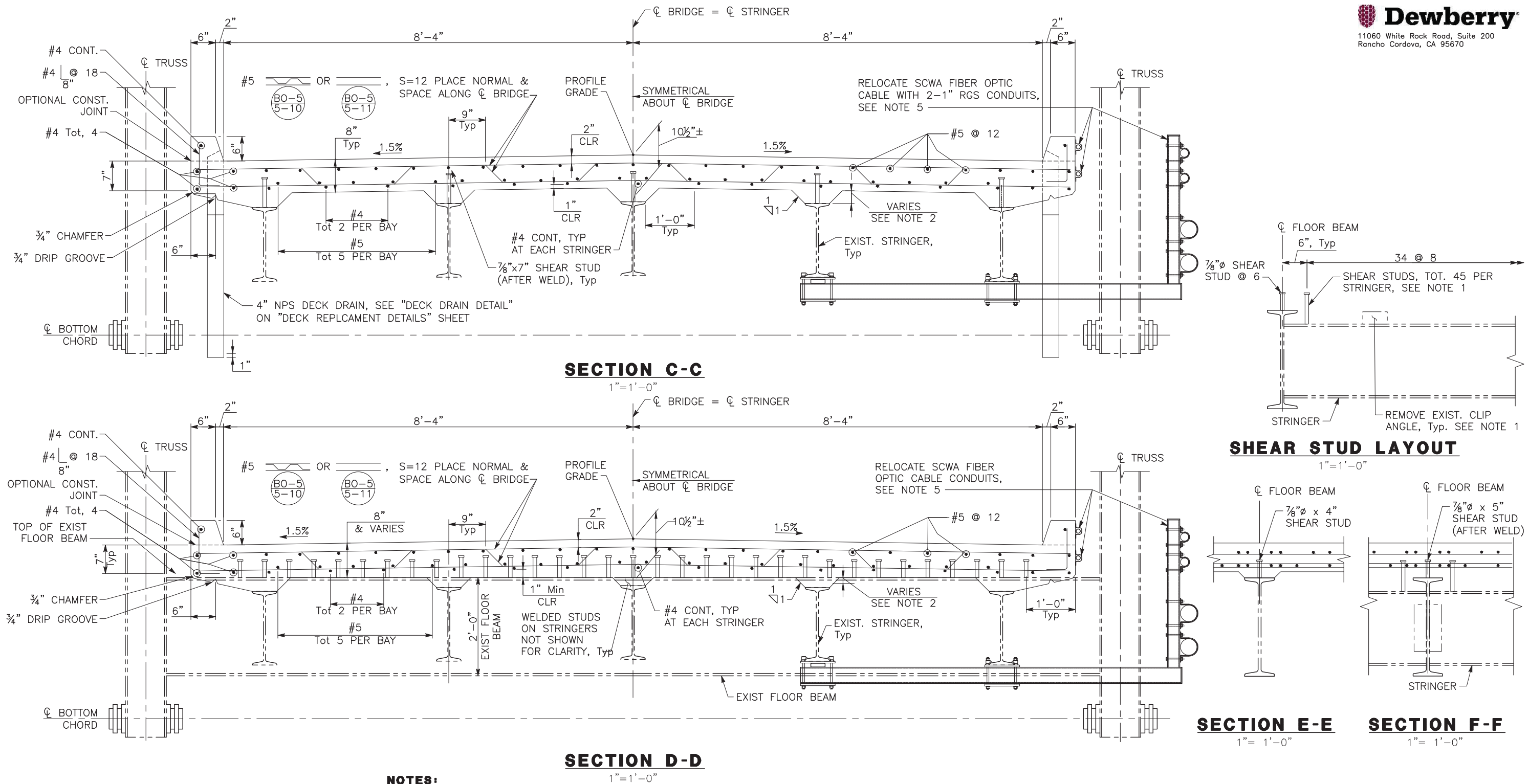
DATE	REVISION	BY	APPROVED



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DECK REPLACEMENT DETAILS NO. 1	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
	FISCAL YEAR	2022-23
	SHEET NUMBER	61
	TOTAL SHEETS	82

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER



- NOTES:**
- Remove existing clip angles on existing stringers. There are 4 clip angles/stringer and 4 rivets per clip angle. Remove existing rivets and attach bolts with round heads in holes in flange to mimic existing rivets removed. Place round heads on exposed face of flange and nuts on concrete side.
 - Provide haunch such that top of deck will match deck elevations provided by the Engineer. Elevations provided will be similar to what are shown on the "Existing Deck Grades" sheets.
 - For deck details at Piers 2 and 5, see "Expansion Joint Details No. 1, No. 2, and No. 3" sheets.
 - Concrete deck and curbs must be lightweight fiber reinforced concrete.
 - See "SCWA FIBER OPTIC system modifications" sheets for support details not shown.

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
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 No. 49652
 Exp. 09/30/24
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DATE	REVISION	BY	APPROVED

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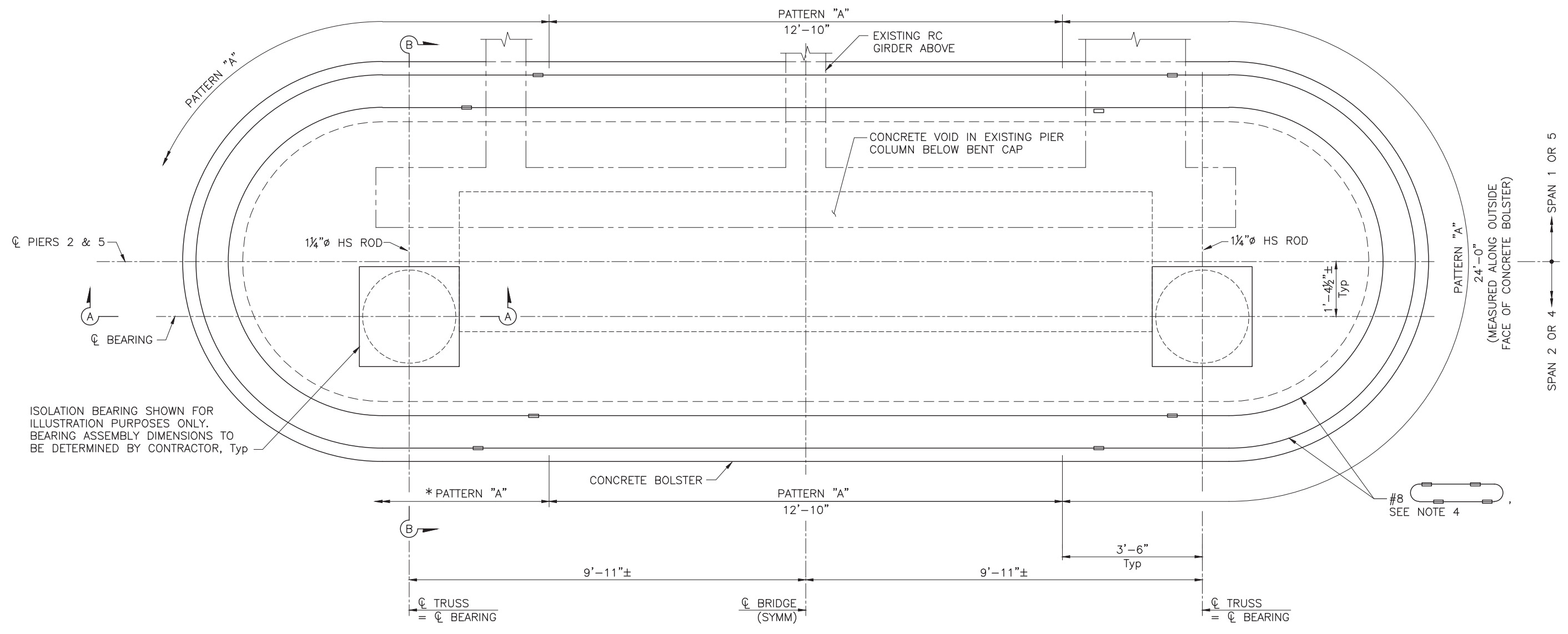
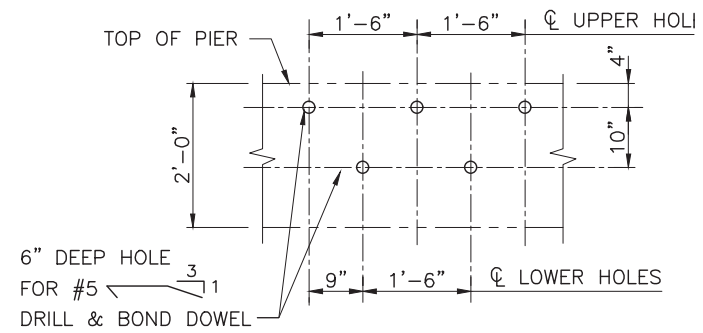
DECK REPLACEMENT DETAILS NO. 2

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	62
TOTAL SHEETS	82

NOTES:

1. For "Section A-A", see "Bearing Replacement Details No. 3" sheet.
2. For "Section B-B", see "Bearing Replacement Details No. 4" sheet.
3. All three existing reinforced girders in Span 1 are 1'-4" wide as opposed to what is shown for Span 5, all other details are similar.
4. #8 Hoops must be ultimate butt spliced.



ISOLATION BEARING SHOWN FOR ILLUSTRATION PURPOSES ONLY. BEARING ASSEMBLY DIMENSIONS TO BE DETERMINED BY CONTRACTOR, Typ



Notes: 1. See 30-101-103-029 - Sonoma Co AGV Project Design Plans AGV Bolster & Structure Submittal Part 2 (Plan) 08-5-BEARING REPLACEMENT DETAILS - 4.dwg - Proj. Date: Sep 11, 2023 at 15:41:00
 2. See 30-101-103-029 - Sonoma Co AGV Project Design Plans AGV Bolster & Structure Submittal Part 2 (Plan) 08-5-BEARING REPLACEMENT DETAILS - 4.dwg - Proj. Date: Sep 11, 2023 at 15:41:00
 3. See 30-101-103-029 - Sonoma Co AGV Project Design Plans AGV Bolster & Structure Submittal Part 2 (Plan) 08-5-BEARING REPLACEMENT DETAILS - 4.dwg - Proj. Date: Sep 11, 2023 at 15:41:00

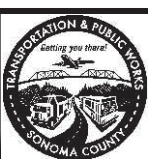
DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

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 No. 49652
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CONSTRUCTION COMPLETED:			
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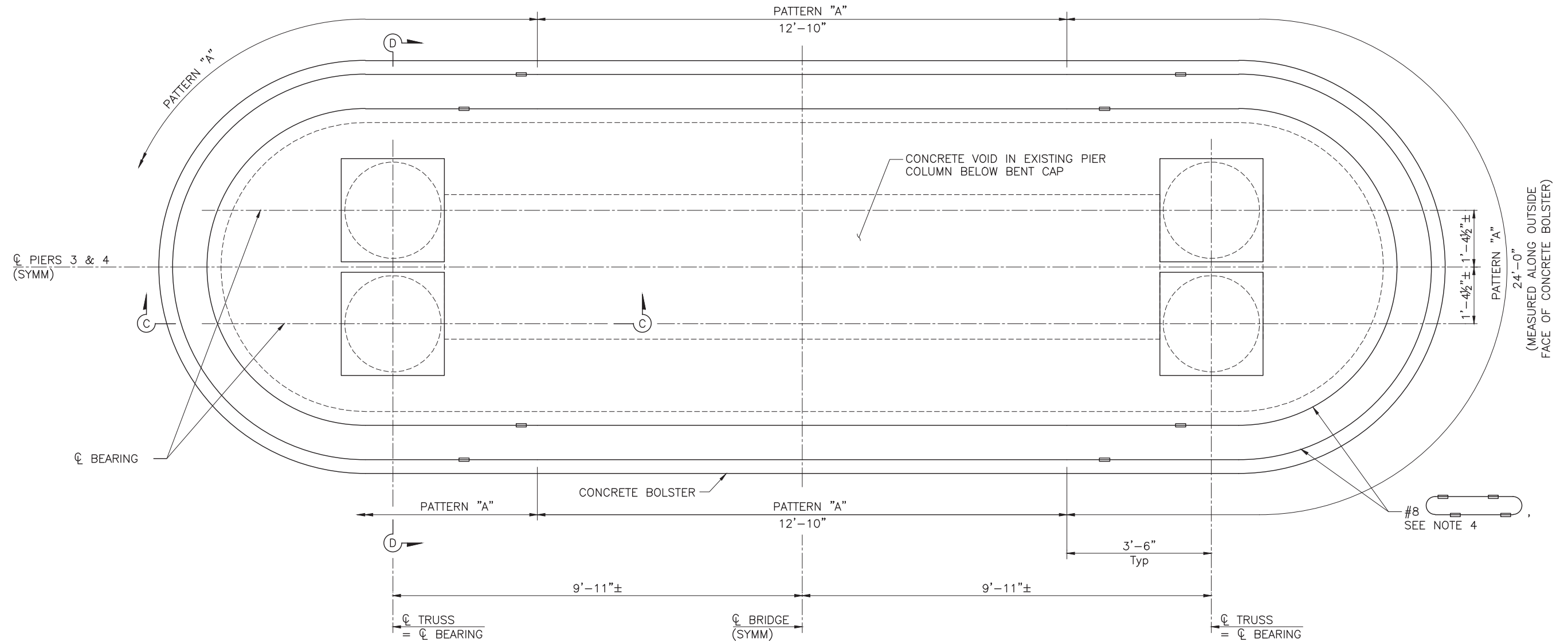
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BEARING REPLACEMENT DETAILS NO. 1 WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
	FISCAL YEAR	2022-23
	SHEET NUMBER	63
	TOTAL SHEETS	82

ST-39

NOTES:

1. For "Section C-C", see "Bearing Replacement Details No. 5" sheet.
2. For "Section D-D", see "Bearing Replacement Details No. 6" sheet.
3. For "Pattern A" details, see "Bearing Replacement Details No. 1" sheet.
4. #8 Hoops must be ultimate butt spliced.



BEARINGS AT PIERS 3 AND 4 - PLAN

3/4" = 1'-0"

Title: ST-40-1000.dwg
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 Plt Date: Sep 11, 2023 at 15:41

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

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DATE	REVISION	BY	APPROVED



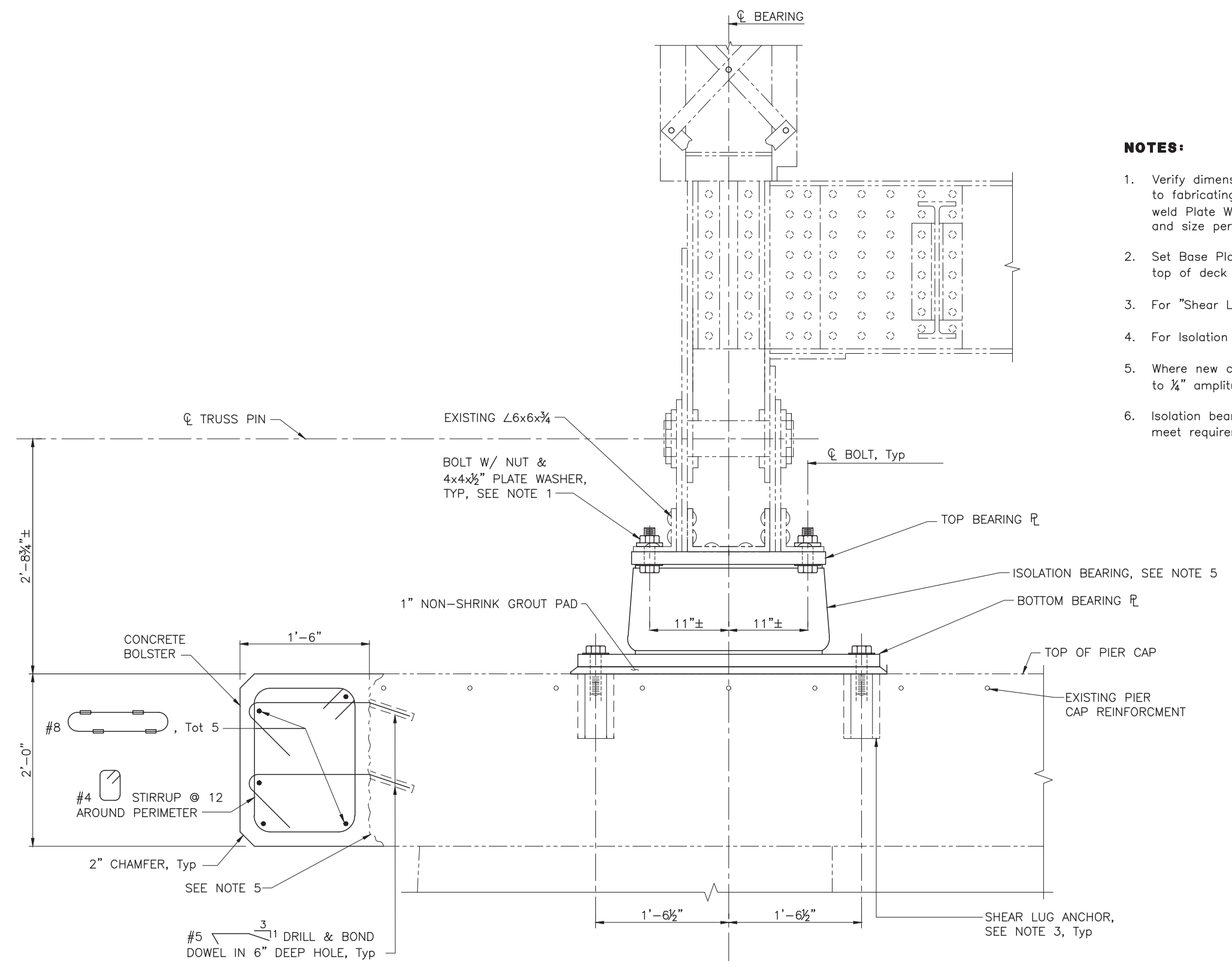
COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

BEARING REPLACEMENT DETAILS NO. 2 WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
	FISCAL YEAR	2022-23
	SHEET NUMBER	64
	TOTAL SHEETS	82

ST-40

NOTES:

1. Verify dimension and size of bolt holes in Existing Steel Angles prior to fabricating bearings. Adjust bolt hole dimensions as needed. Tack weld Plate Washer to Existing $\angle 6 \times 6 \times \frac{3}{4}$. Number of bolts and size per bearing to be determined by the manufacturer.
2. Set Base Plate Elevation & provide grout pad thickness such that top of deck will match Elevations as shown on "Deck Elevations" sheet.
3. For "Shear Lug Detail", see "Seismic Isolation Bearing Details No. 1" sheet.
4. For Isolation Bearing details, see "Seismic Isolation Bearing Details No. 1" sheet.
5. Where new concrete is placed against existing concrete, roughen existing concrete to $\frac{1}{4}$ " amplitude.
6. Isolation bearing shown for illustration purposes only. Contractor to size bearing to meet requirements shown on "Seismic Isolation Bearing Details No. 2" sheet.



SECTION A-A

1/2" = 1'-0"

Notes: See also ST-40, ST-41, ST-42, ST-43, ST-44, ST-45, ST-46, ST-47, ST-48, ST-49, ST-50, ST-51, ST-52, ST-53, ST-54, ST-55, ST-56, ST-57, ST-58, ST-59, ST-60, ST-61, ST-62, ST-63, ST-64, ST-65, ST-66, ST-67, ST-68, ST-69, ST-70, ST-71, ST-72, ST-73, ST-74, ST-75, ST-76, ST-77, ST-78, ST-79, ST-80, ST-81, ST-82, ST-83, ST-84, ST-85, ST-86, ST-87, ST-88, ST-89, ST-90, ST-91, ST-92, ST-93, ST-94, ST-95, ST-96, ST-97, ST-98, ST-99, ST-100. Part of ST-101 - 1000. Project: Wöhler Road Bridge - Seismic Upgrade. Project Design: Final VPI/VISS - Seismic Replacement Details 1-4.wpd. Plot Date: Sep 11, 2023 at 15:41.

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
REGISTERED CIVIL ENGINEER
09/11/2023
PLANS APPROVAL DATE

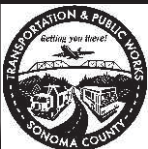


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

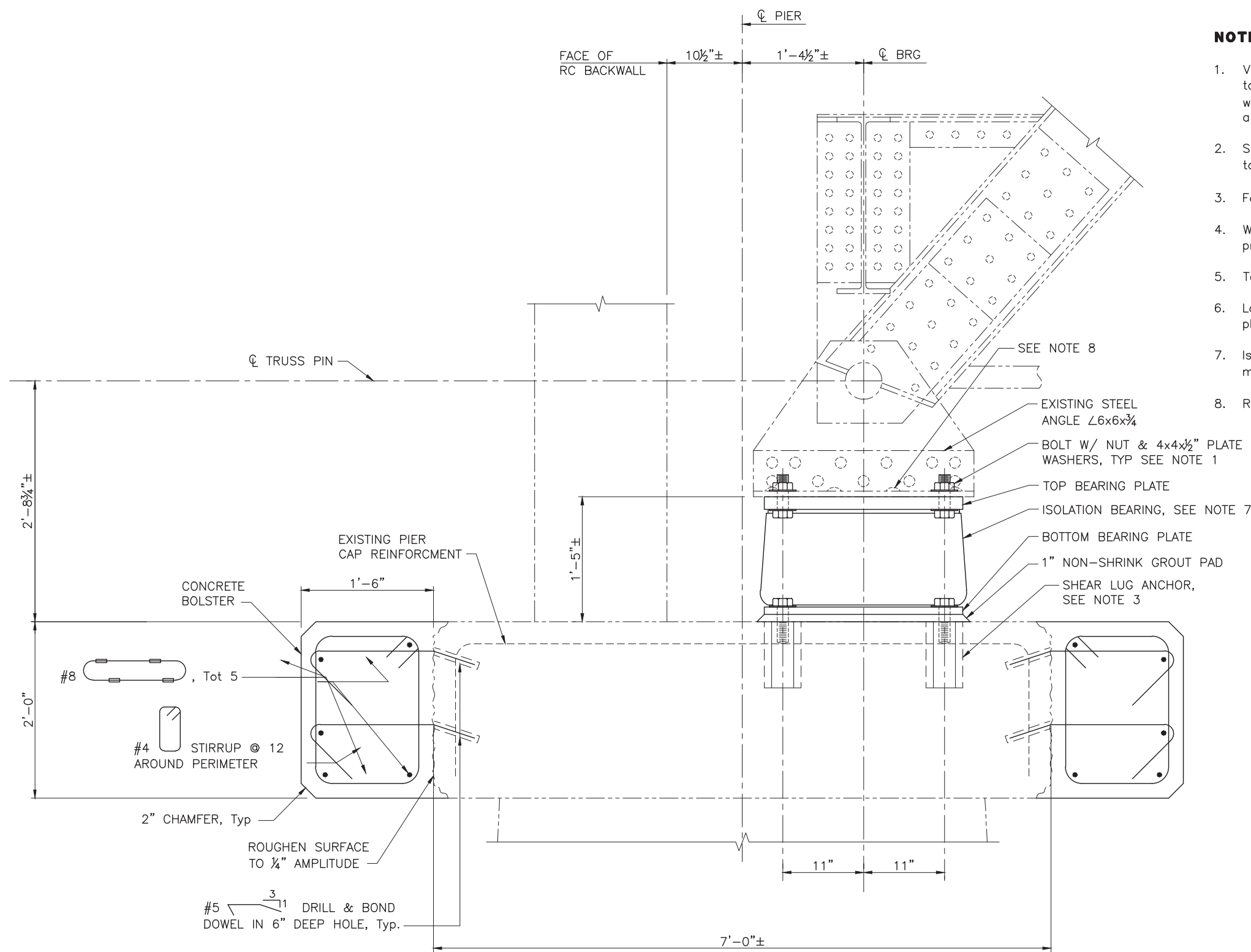
BEARING REPLACEMENT DETAILS NO. 3

**WOHLER ROAD BRIDGE
OVER RUSSIAN RIVER**

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	65
TOTAL SHEETS	82

NOTES:

1. Verify dimension and size of bolt holes in Existing Steel Angles prior to fabricating bearings. Adjust bolt hole dimensions as needed. Tack weld Plate Washer to Existing $\angle 6 \times 6 \times \frac{3}{4}$. Number of bolts and size per bearing to be determined by the manufacturer.
2. Set Base Plate Elevation & provide grout pad thickness such that top of deck will match Elevations as shown on "Deck Elevations" sheet.
3. For "Shear Lug Detail", see "Seismic Isolation Bearing Details No. 1" sheet.
4. Where new concrete is placed against existing concrete to $\frac{1}{4}$ " amplitude except under prestress anchor plates.
5. Top & Bottom bearing plate sizes to be determined by the bearing manufacturer.
6. Location of Shear lugs may be adjusted to accommodate bolt locations in bottom plate.
7. Isolation bearing shown for illustration purposes only. Contractor to size bearing to meet requirements shown on "Seismic Isolation Bearing Details" sheet.
8. Remove existing rivets attaching existing steel angles to bearing top plates.



SECTION B-B
 $1\frac{1}{2}" = 1'-0"$

Notes: Refer to the following sheets for project information: ST-42, ST-43, ST-44, ST-45, ST-46, ST-47, ST-48, ST-49, ST-50, ST-51, ST-52, ST-53, ST-54, ST-55, ST-56, ST-57, ST-58, ST-59, ST-60, ST-61, ST-62, ST-63, ST-64, ST-65, ST-66, ST-67, ST-68, ST-69, ST-70, ST-71, ST-72, ST-73, ST-74, ST-75, ST-76, ST-77, ST-78, ST-79, ST-80, ST-81, ST-82, ST-83, ST-84, ST-85, ST-86, ST-87, ST-88, ST-89, ST-90, ST-91, ST-92, ST-93, ST-94, ST-95, ST-96, ST-97, ST-98, ST-99, ST-100.

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA

09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

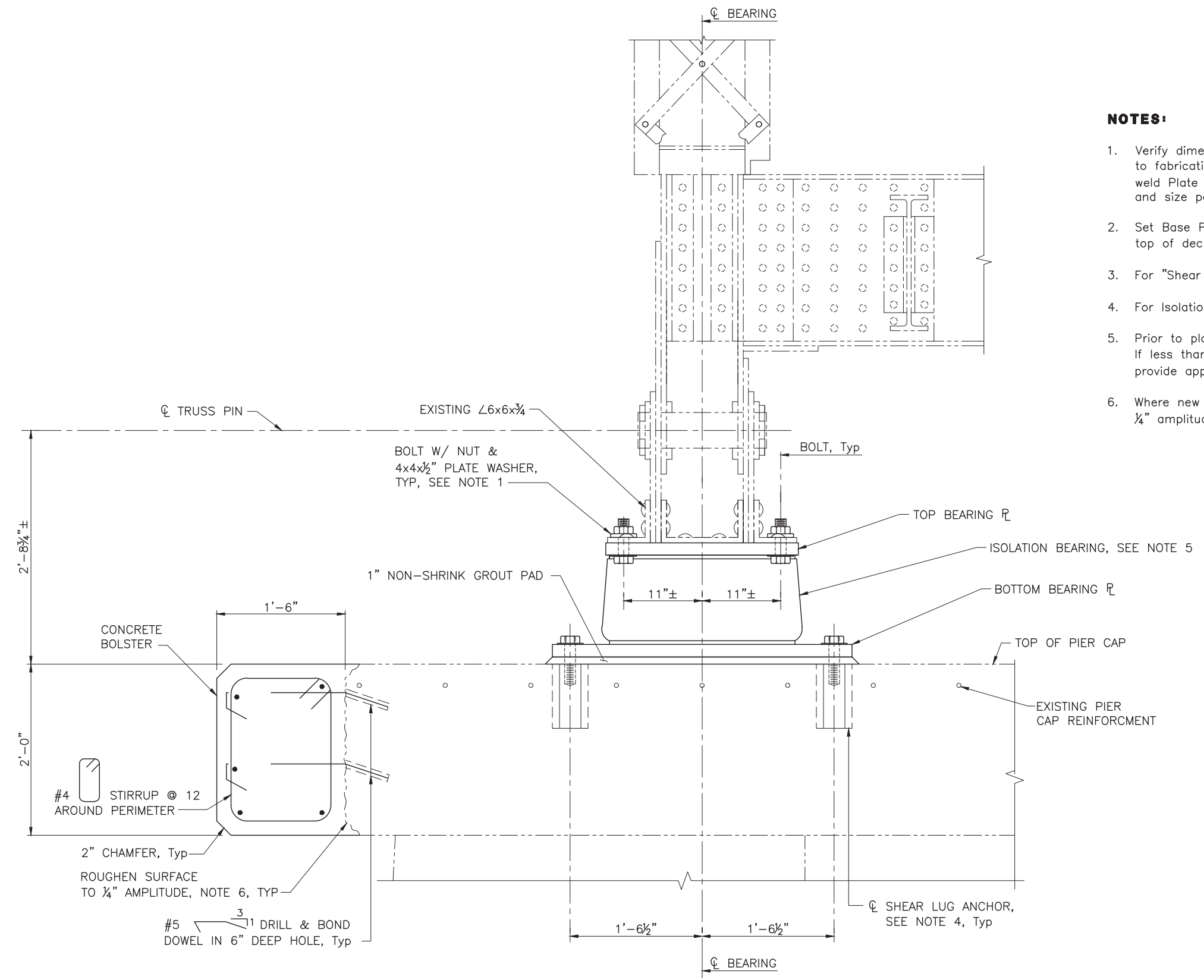
BEARING REPLACEMENT DETAILS NO. 4

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	66
TOTAL SHEETS	82

NOTES:

1. Verify dimension and size of bolt holes in Existing Steel Angles prior to fabricating bearings. Adjust bolt hole dimensions as needed. Tack weld Plate Washer to Existing $\angle 6 \times 6 \times \frac{3}{4}$. Number of bolts and size per bearing to be determined by the manufacturer.
2. Set Base Plate Elevation & provide grout pad thickness such that top of deck will match Elevations as shown on "Deck Elevations" sheet.
3. For "Shear Lug Detail", see "Seismic Isolation Bearing Details No. 1" sheet.
4. For Isolation Bearing details, see "Seismic Isolation Bearing Details No. 1" sheet.
5. Prior to placing bearings, measure the gap between bearings. If less than 3", you will need to jack the superstructure apart longitudinally to provide approximately 3" gap between bearings at piers 3 and 4.
6. Where new concrete is placed against existing concrete, roughen existing concrete to $\frac{1}{4}$ " amplitude.



SECTION C-C
 $\frac{1}{2}'' = 1'-0''$

Notes: Refer to Plans for Bridge - Sonoma Co/ADOT Project Design Plans/ADOT BEARING REPLACEMENT DETAILS 1-4.dwg Plot Date: Sep 11, 2023 at 15:41
 Print: US 120x84 - 1/8" = 1'-0"

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA
 09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

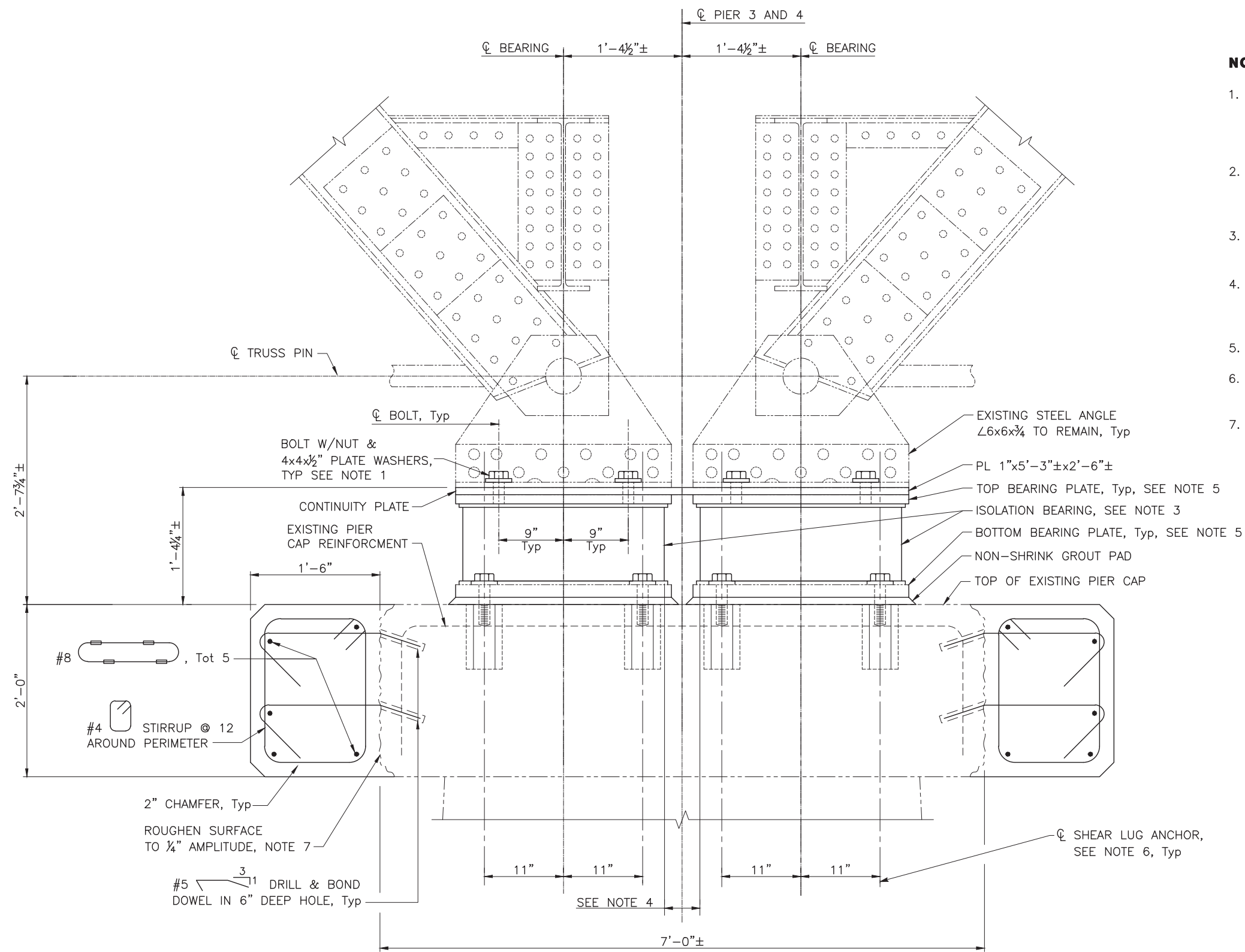
BEARING REPLACEMENT DETAILS NO. 5

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	67
TOTAL SHEETS	82

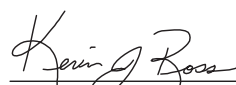
NOTES:

1. Verify dimension and size of bolt holes in Existing Steel Angles prior to fabricating bearings. Adjust bolt hole dimensions as needed. Tack weld Plate Washer to Existing $\angle 6x6x\frac{3}{4}$. Number of bolts and size per bearing to be determined by the manufacturer.
2. Set Base Plate Elevation & provide grout pad thickness such that top of deck will match elevations provided by the Engineer. Elevations provided will be similar to what are shown on the "Existing Deck Grades" sheets.
3. Isolation Bearing shown for illustration purposes only. Contractor to size bearing to meet requirements shown on "Seismic Isolation Bearing Details" sheet.
4. Prior to placing bearings, measure the gap between bearings. If less than 3", you will need to jack the superstructure apart longitudinally to provide approximately 3" gap between bearings at piers 3 and 4.
5. Top and bottom bearing plate to be determined by the Bearing Manufacturer.
6. Location of Shear Lugs may be adjusted to accommodate bolt locations in bottom plate.
7. Where new concrete is placed against existing concrete, roughen existing concrete to $\frac{1}{4}$ " amplitude.



SECTION D-D
1/2" = 1'-0"

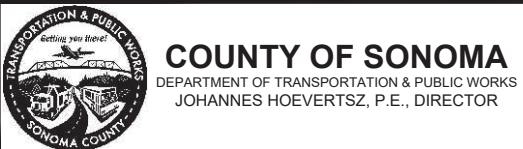
Notes: 1. Refer to 2023-2024 Project Design Plan (PDP) for project details. 2. Verify dimensions of existing steel angles prior to fabricating bearings. 3. Tack weld plate washers to existing steel angles. 4. Number of bolts and size per bearing to be determined by the manufacturer. 5. Set base plate elevation & provide grout pad thickness such that top of deck will match elevations provided by the Engineer. 6. Elevations provided will be similar to what are shown on the "Existing Deck Grades" sheets. 7. Isolation bearing shown for illustration purposes only. Contractor to size bearing to meet requirements shown on "Seismic Isolation Bearing Details" sheet. 8. Prior to placing bearings, measure the gap between bearings. If less than 3", you will need to jack the superstructure apart longitudinally to provide approximately 3" gap between bearings at piers 3 and 4. 9. Top and bottom bearing plate to be determined by the bearing manufacturer. 10. Location of shear lugs may be adjusted to accommodate bolt locations in bottom plate. 11. Where new concrete is placed against existing concrete, roughen existing concrete to 1/4" amplitude. 12. Scale: 1/2" = 1'-0". 13. Date: 09/11/2023. 14. Drawn by: KD. 15. Checked by: KR. 16. Design by: GX. 17. Project: Wöhler Road Bridge - Seismic Upgrade. 18. Project No.: 2022-23-001. 19. Drawing No.: ST-44. 20. Revision: 1. 21. Date: 09/11/2023. 22. Scale: 1/2" = 1'-0". 23. Sheet: 68 of 82. 24. County of Sonoma, Department of Transportation & Public Works, Johannes Hoevertz, P.E., Director. 25. Project Location: Wöhler Road, Sonoma, CA. 26. Project Status: Construction. 27. Drawing Type: Structural Details. 28. Drawing Title: Bearing Replacement Details No. 6. 29. Drawing Subtitle: SECTION D-D. 30. Drawing Author: Kevin J. Ross. 31. Drawing Date: 09/11/2023. 32. Drawing Scale: 1/2" = 1'-0". 33. Drawing Status: Final. 34. Drawing Version: 1. 35. Drawing File: ST-44.dwg. 36. Drawing Path: C:\Users\kdavis\OneDrive\Documents\Projects\Wöhler Road Bridge - Seismic Upgrade\Drawings\Structural Details\ST-44.dwg. 37. Drawing Size: 11.00 x 17.00 inches. 38. Drawing Orientation: Portrait. 39. Drawing Units: Feet. 40. Drawing Font: Arial. 41. Drawing Color: Black. 42. Drawing Plot: Yes. 43. Drawing Plot Scale: 1/2" = 1'-0". 44. Drawing Plot Date: 09/11/2023. 45. Drawing Plot Time: 15:41. 46. Drawing Plot User: kdavis. 47. Drawing Plot Device: HP DesignJet T1100. 48. Drawing Plot Size: 11.00 x 17.00 inches. 49. Drawing Plot Orientation: Portrait. 50. Drawing Plot Color: Black. 51. Drawing Plot Font: Arial. 52. Drawing Plot Size: 11.00 x 17.00 inches. 53. Drawing Plot Orientation: Portrait. 54. Drawing Plot Color: Black. 55. Drawing Plot Font: Arial. 56. Drawing Plot Size: 11.00 x 17.00 inches. 57. Drawing Plot Orientation: Portrait. 58. Drawing Plot Color: Black. 59. Drawing Plot Font: Arial. 60. Drawing Plot Size: 11.00 x 17.00 inches. 61. Drawing Plot Orientation: Portrait. 62. Drawing Plot Color: Black. 63. Drawing Plot Font: Arial. 64. Drawing Plot Size: 11.00 x 17.00 inches. 65. Drawing Plot Orientation: Portrait. 66. Drawing Plot Color: Black. 67. Drawing Plot Font: Arial. 68. Drawing Plot Size: 11.00 x 17.00 inches. 69. Drawing Plot Orientation: Portrait. 70. Drawing Plot Color: Black. 71. Drawing Plot Font: Arial. 72. Drawing Plot Size: 11.00 x 17.00 inches. 73. Drawing Plot Orientation: Portrait. 74. Drawing Plot Color: Black. 75. Drawing Plot Font: Arial. 76. Drawing Plot Size: 11.00 x 17.00 inches. 77. Drawing Plot Orientation: Portrait. 78. Drawing Plot Color: Black. 79. Drawing Plot Font: Arial. 80. Drawing Plot Size: 11.00 x 17.00 inches. 81. Drawing Plot Orientation: Portrait. 82. Drawing Plot Color: Black. 83. Drawing Plot Font: Arial. 84. Drawing Plot Size: 11.00 x 17.00 inches. 85. Drawing Plot Orientation: Portrait. 86. Drawing Plot Color: Black. 87. Drawing Plot Font: Arial. 88. Drawing Plot Size: 11.00 x 17.00 inches. 89. Drawing Plot Orientation: Portrait. 90. Drawing Plot Color: Black. 91. Drawing Plot Font: Arial. 92. Drawing Plot Size: 11.00 x 17.00 inches. 93. Drawing Plot Orientation: Portrait. 94. Drawing Plot Color: Black. 95. Drawing Plot Font: Arial. 96. Drawing Plot Size: 11.00 x 17.00 inches. 97. Drawing Plot Orientation: Portrait. 98. Drawing Plot Color: Black. 99. Drawing Plot Font: Arial. 100. Drawing Plot Size: 11.00 x 17.00 inches.


 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION	
CONSTRUCTION COMPLETED:	
RESIDENT ENGINEER AS BUILT DRAWINGS BY:	

DATE	REVISION	BY	APPROVED

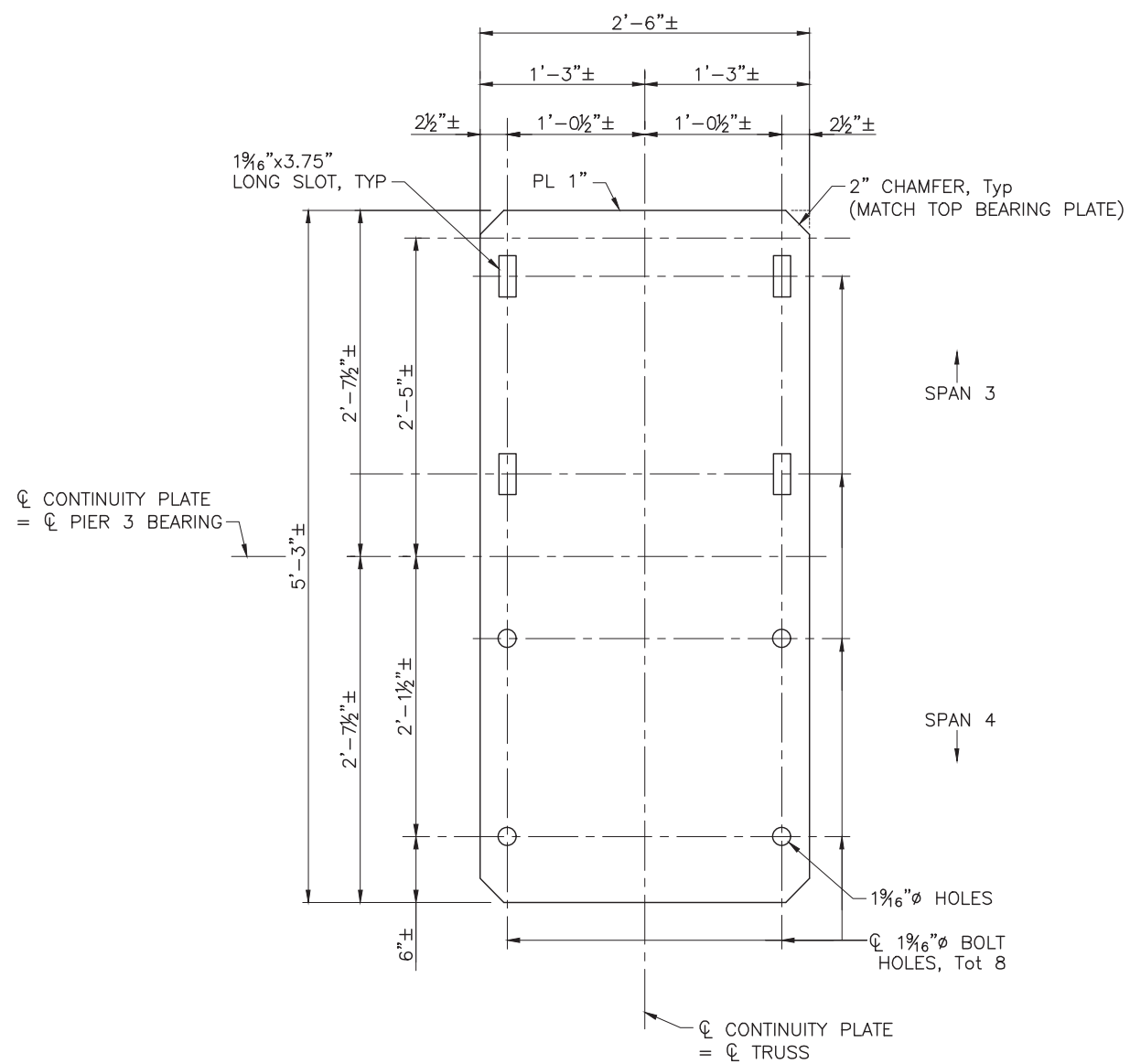


BEARING REPLACEMENT DETAILS NO. 6	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
	FISCAL YEAR	2022-23
	SHEET NUMBER	68
	TOTAL SHEETS	82

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

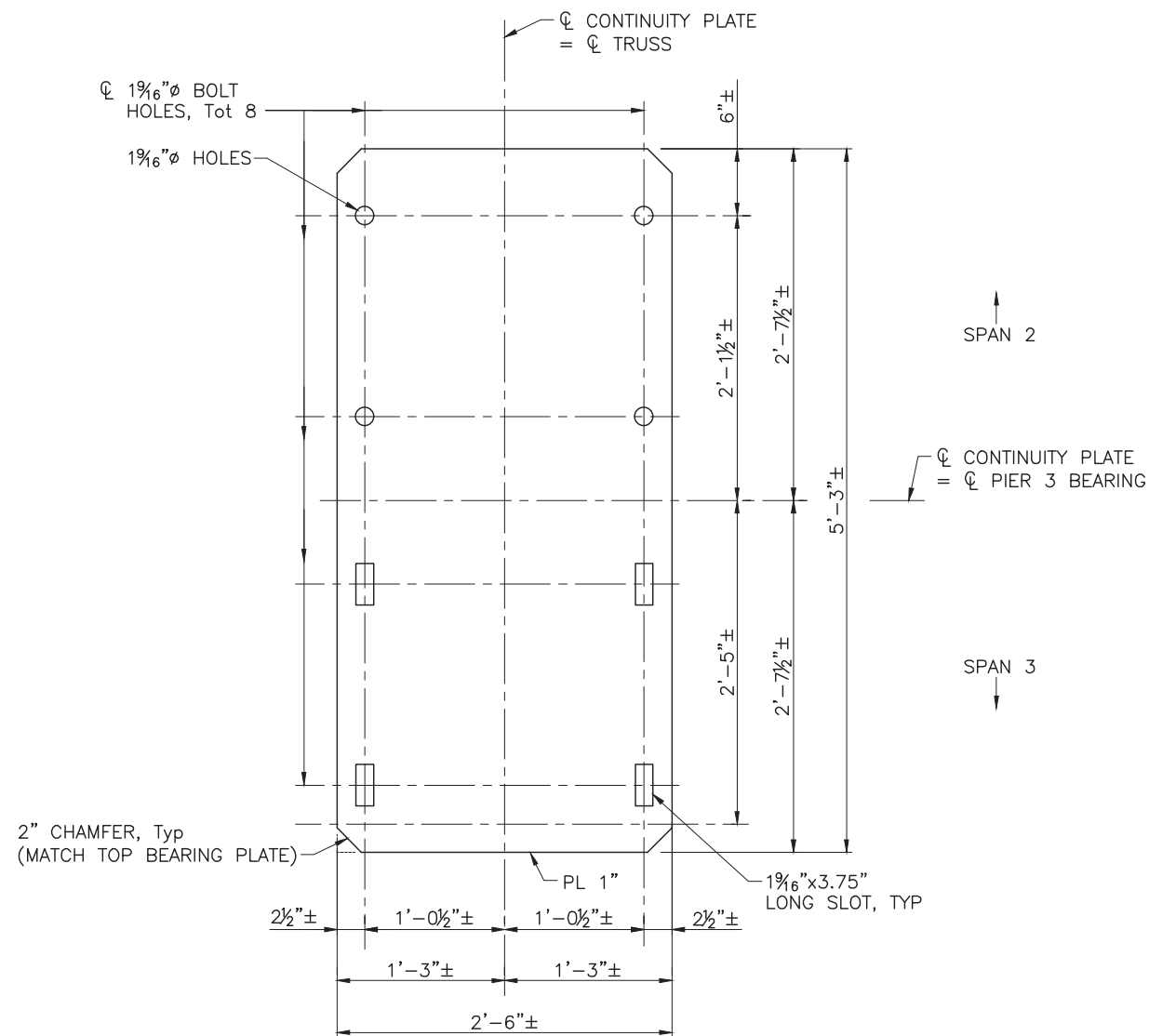
NOTE:

1. PRIOR TO FABRICATING THE CONTINUITY PLATE, VERIFY EXISTING BEARING DIMENSIONS AND SEPARATION.



CONTINUITY PLATE PIER 4

1/2" = 1'-0"

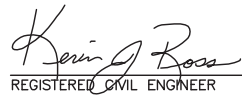


CONTINUITY PLATE PIER 3

1/2" = 1'-0"

Title Block
 Part of 2024 - Miller Road Bridge - Sonoma County Project Design Plans (09) - BEARING REPLACEMENT DETAILS - 4.dwg
 File Date: Sep 11, 2023 at 15:41

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR


 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION			
DATE	REVISION	BY	APPROVED
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RESIDENT ENGINEER AS BUILT DRAWINGS BY:			

DATE	REVISION	BY	APPROVED



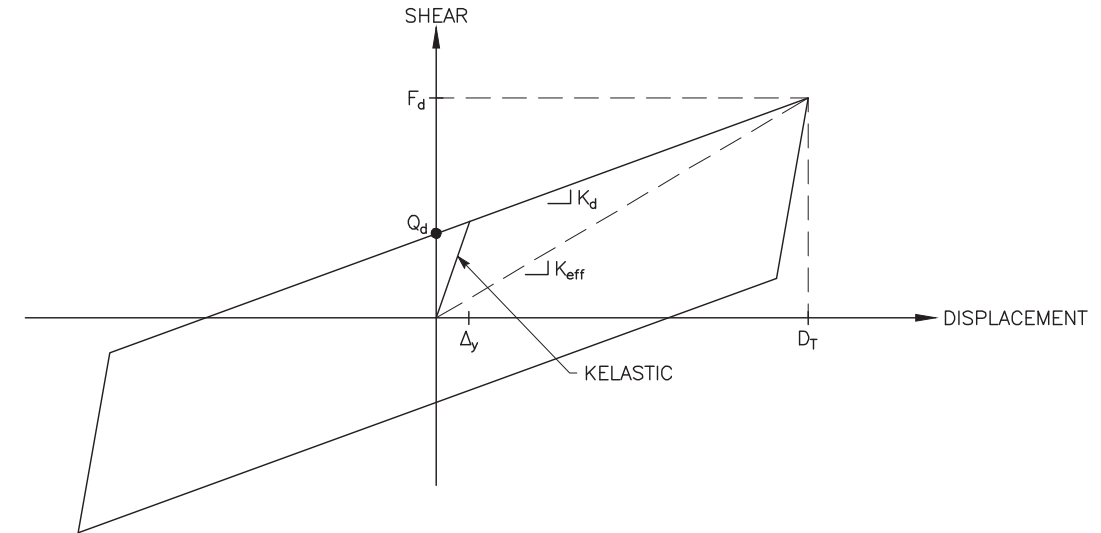
COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

BEARING REPLACEMENT DETAILS NO. 7 WOHLER ROAD BRIDGE OVER RUSSIAN RIVER	ROAD NUMBER	8901
	BUDGET NUMBER	C01136
	FISCAL YEAR	2022-23
	SHEET NUMBER	69
	TOTAL SHEETS	82

ST-45

NOTES:

1. The contractor shall verify all controlling field dimensions before ordering or fabricating any materials.
2. The number of bearings shown do not include prototype bearings.
3. The force displacement loop shown is for illustration purposes only. Isolation bearings must meet the requirements shown in the Isolation Bearing Performance Criteria Table. Bearings must have a displacement capacity of $1.5 D_T + .5t$.
4. Bearing installation must be per manufacture recommendations or as authorized by the Engineer.
5. EDC – The Energy Dissipated per Cycle under vertical dead load (DL) condition and design seismic lateral displacement D_T . EDC is equal to the area within the corresponding hysteresis loop.
6. Live Load values shown do not include Dynamic Load Allowance.
7. The maximum thermal longitudinal force and displacement are transferred through the isolation bearing under dead load condition.



**NORMALIZED FORCE DISPLACEMENT LOOP
 LEAD RUBBER BEARING**

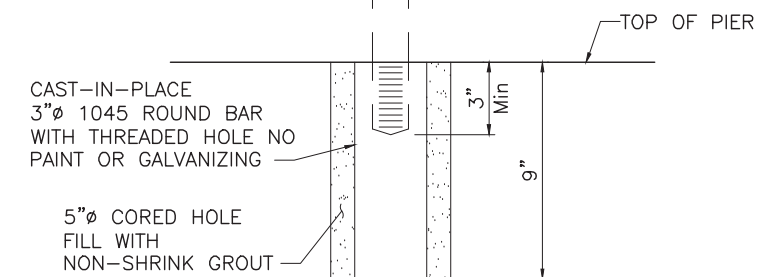
NO SCALE

LEGEND:

- D_T = Seismic Displacement
- Q_d = Yield Force/Characteristic Strength
- F_d = Maximum Force
- K_{eff} = F_d/D_T
- K_D = Post-Elastic Stiffness
- * = Nominal Properties

ISOLATION BEARING PERFORMANCE CRITERIA		
	Pier 2/Pier 5	Pier 3/Pier 4
Bearing Type	Type A	Type B
Number of Bearings (Note 2)	4	8
Characteristic Strength Q_d^*	51.9 kips	51.9 kips
Restoring Stiffness K_d^*	7.9 (kips/in)	8.5 (kips/in)
Design Seismic Lateral Force F_d^*	131.1 kips	98.9 kips
Design Seismic Lateral Displacement D_T	10.5"	7.5"
Energy Dissipation per Cycle, EDC (See Note 5)	1935 (kips/in)	1004 (kips/in)
Effective Stiffness at D_T , K_{eff}^*	13.0 (kips/in)	17.9 (kips/in)
Rotation Capacity (Degree) Minimum	0'-0.30"	0'-0.30"
Non-Seismic Lateral Force, $F_{Non-Seismic}$	30 kips	31.5 kips
Maximum Non-Seismic Lateral Displacement, $D_{Non Seismic}$.40"	.40"
Average Design Dead Load on Bearings (DL)(Unfactored)	181 kips	181 kips
Average Design Dead Load on Bearings	71 kips	71 kips
Overturing Compressive Vertical Load Due to Seismic (OT)	62 kips	75 kips
Maximum Vertical Load due to Seismic (1.2DL+OT)	279 kips	293 kips
Maximum Vertical Load due to Seismic (0.8DL-OT)	82 kips	70 kips
Thermal Load Displacement, D_{TH} (See Note 7)	2.45"	0.81"
Maximum Thermal Force, F_{TH} (See Note 7)	36.1 kips	30.2 kips
Effective Period of Bearing, T	1.18 seconds	1.01 seconds

BOLT SIZE, TYPE, EMBEDMENT AND LENGTH PER ISOLATION BEARING MANUFACTURER RECOMMENDATION



SHEAR LUG DETAIL

NO SCALE

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 Plot Date: Sep 11, 2023 at 15:41

DESIGN BY	VGM/e
DRAWING BY	KD
CHECKED BY	VGM/e

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION			
CONSTRUCTION COMPLETED:	DATE	REVISION	BY
RESIDENT ENGINEER AS BUILT DRAWINGS BY:			

DATE	REVISION	BY	APPROVED

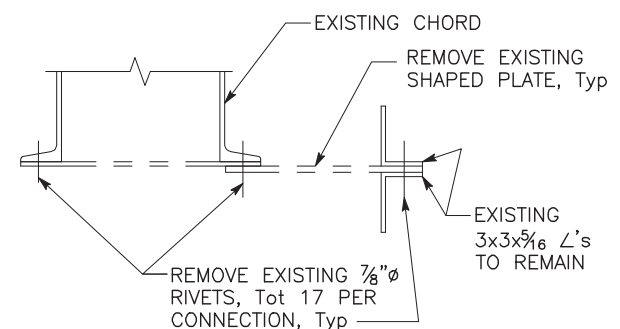
COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

SEISMIC ISOLATION BEARING DETAILS
**WOHLER ROAD BRIDGE
 OVER RUSSIAN RIVER**

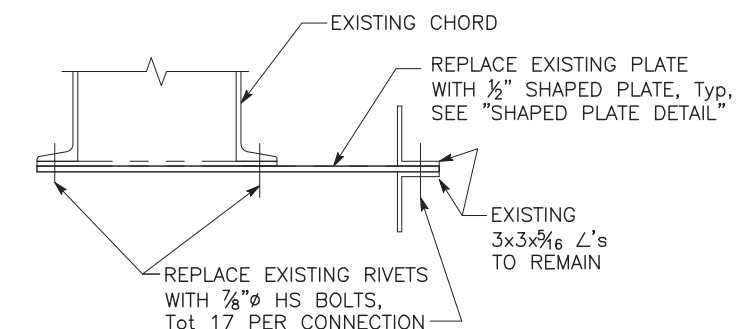
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BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	70
TOTAL SHEETS	82

NOTES:

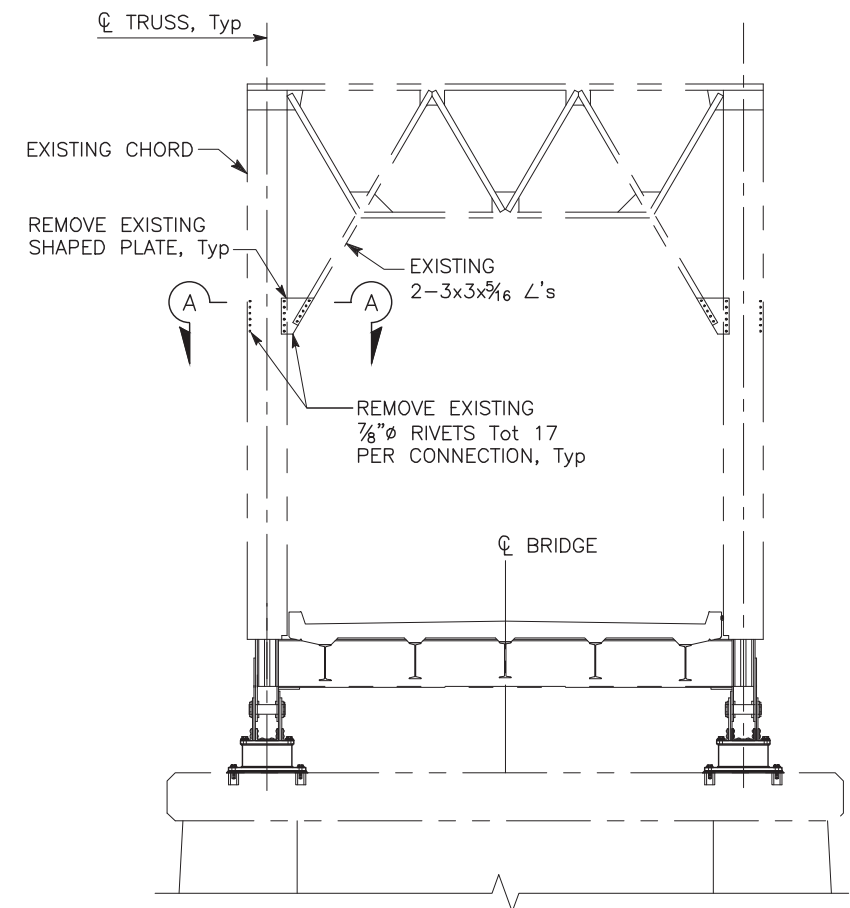
1. Removal of existing gusset plates and rivets must occur after existing concrete deck is removed entirely and prior to new deck being placed.
2. Heat straighten members as necessary.
3. Remove only one gusset plate and rivets per span at a time. Work on adjacent connections must not occur until new connection plates are placed and tightened.
4. High strength new bolts must have round heads to mimic existing rivets.
5. Field measure existing rivet holes prior to fabricating shaped plate.
6. Field measure brace angle prior to fabricating shaped plate.



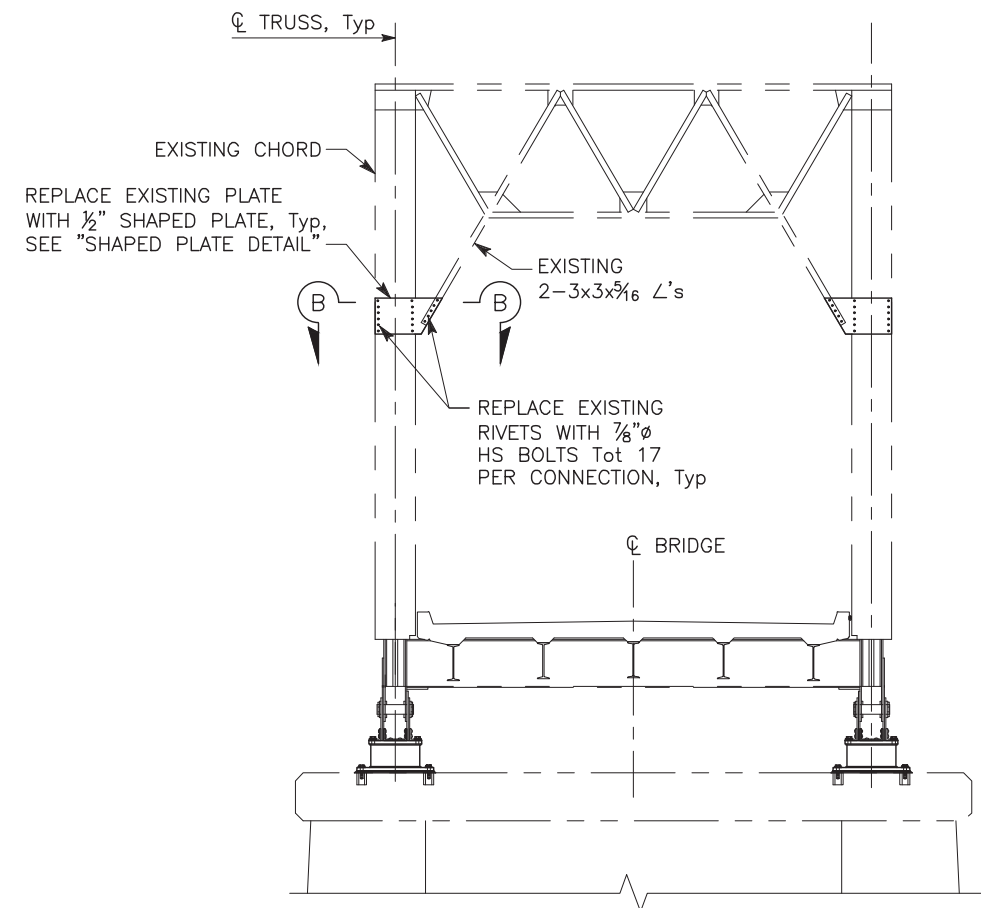
SECTION A-A
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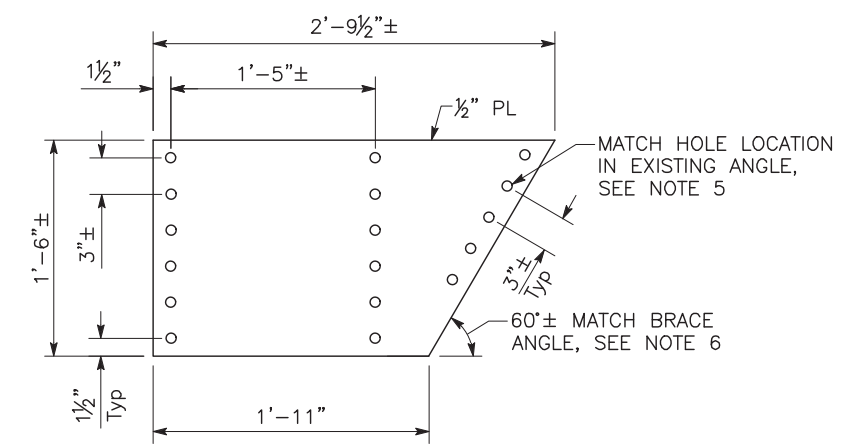
SECTION B-B
NO SCALE



EXISTING PORTAL FRAME REMOVAL
1/4" = 1'-0"



PORTAL FRAME RETROFIT
1/4" = 1'-0"



SHAPED PLATE DETAIL
1 1/2" = 1'-0"

Info: WBS-5-00000-000 - Sonoma Co/ASD Project Design Plans/ASD Bridge & Structures/Structural Final 2/Plan/WBS-5-00000-000-000.dwg Plot Date: Sep 11, 2023 at 15:41
 Path: U:\DTP\ASD - Bridge - Sonoma Co\ASD Project Design Plans\ASD Bridge & Structures\Structural Final 2/Plan/WBS-5-00000-000-000.dwg

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA
 09/11/2023
 PLANS APPROVAL DATE



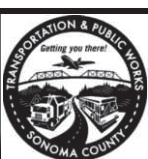
"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER _____

AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

PORTAL FRAME DETAILS

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	71
TOTAL SHEETS	82





PIER TEMPORARY SUPPORT LOADS (UNFACTORED)	
JACKING LOAD* (KIPS)	LIVE LOAD + IMPACT
80	0

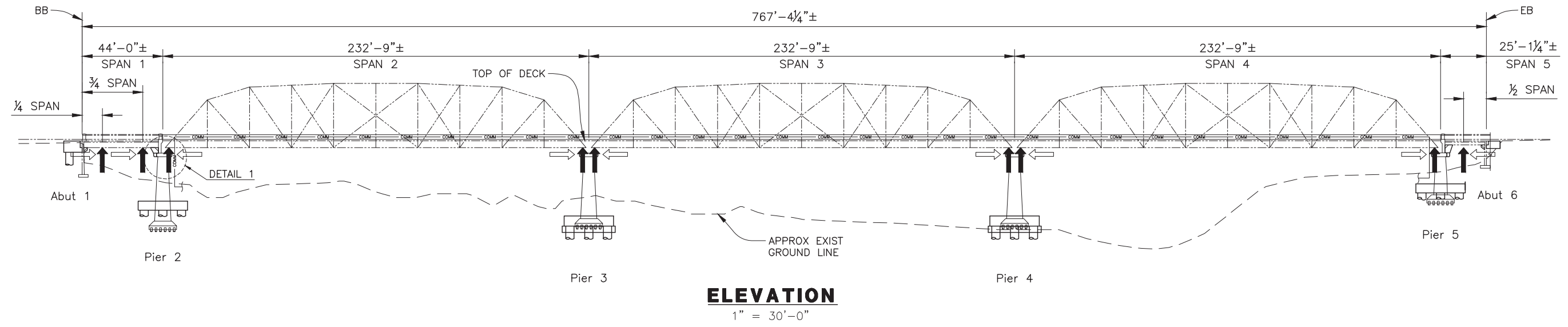
* Jacking loads is for each jacking point and does not include weight of concrete deck. Assumes two jacking points per end of truss.

TEMPORARY SUPPORT LOADS (UNFACTORED)		
LOCATION	SUPPORT LOAD (kips)	LIVE LOAD + IMPACT (kips)
SPAN 1	150	60
SPAN 5	90	45

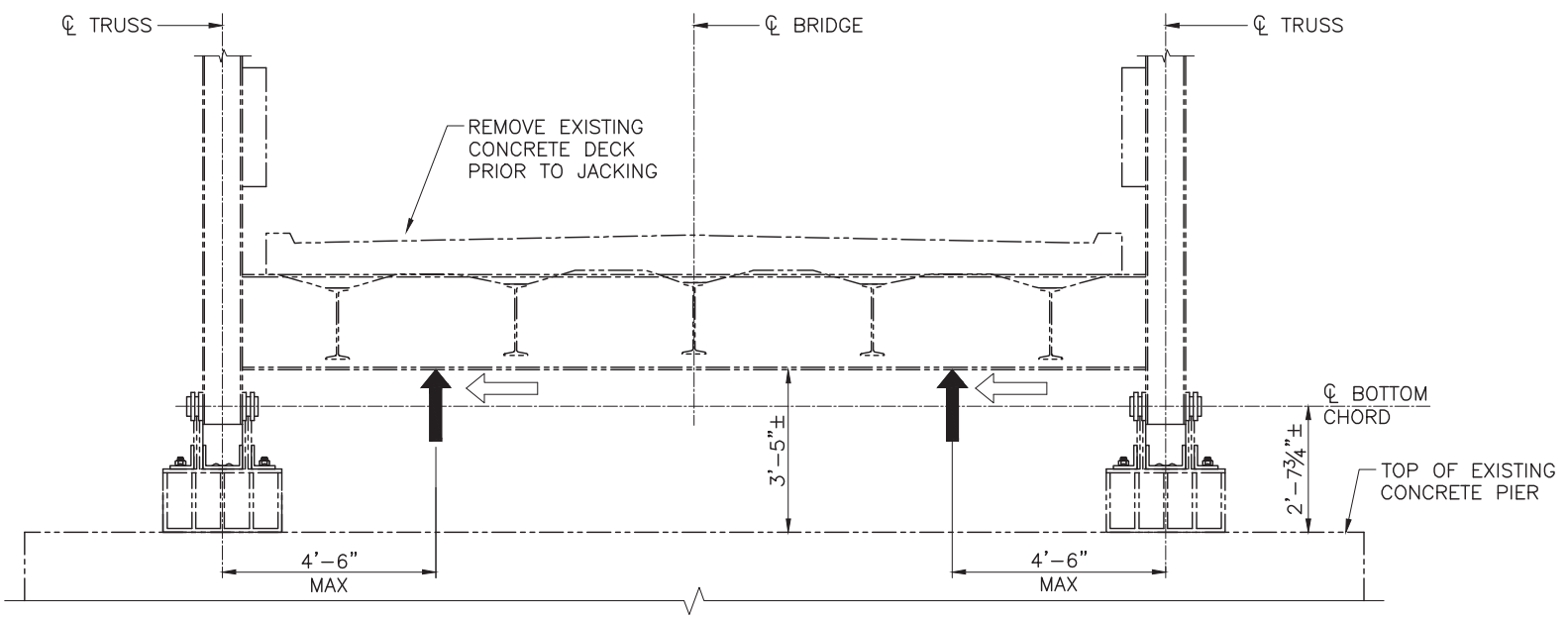
* Support load is total load per location. Load must be distributed equally to all girders. For example, each girder in Span 1 must resist 150 kips/3 girders + 60 = 110.0 kips

LEGEND:

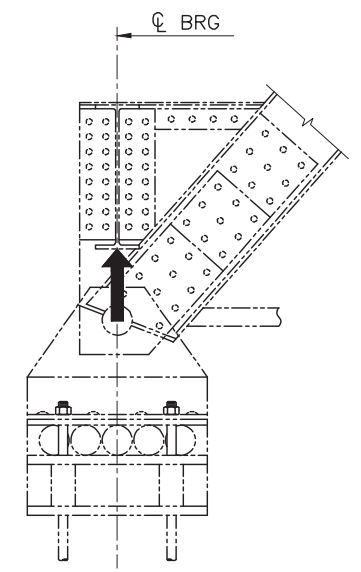
-  Indicates location of vertical Temporary Support
-  Indicates location of horizontal Temporary Support
-  Indicates New Structure
-  Indicates Existing Structure



ELEVATION
1" = 30'-0"



TYPICAL SECTION - SPANS 2 THRU 4
1/2" = 1'-0"



DETAIL 1
No Scale

NOTES:

- Temporary support locations may be altered by the Contractor based on site conditions and are subject to the authorization of the Engineer.
- Jacking load is the vertical force to be applied to the structure at the jacking points to achieve the displacement needed to free and remove the existing bearings. Jacking load is dead load reaction. The Jacking load given in the "Temporary Support Table" does not include the weight of temporary support, jacks, construction dead or live load.
- The Vertical Temporary Support Design Load (VTSDL) must be 1.5 times initial Jacking Loads plus 1.0 times Live Load with impact plus 1.5 times Construction Loads..
- The Lateral Temporary Support Design Load (LTSDL) is 15% of the magnitude of the Vertical Temporary Support Design Load (VTSDL).
- The LTSDL are horizontal forces acting in any plan direction at the top of the temporary supports.
- Temporary supports must be designed for a maximum lateral displacement of 2" at the lateral load specified in Note 4 above or the distance needed to provide the required gap between bearings shown on 'BEARING REPLACEMENT DETAILS NO. 5' sheet.
- The contractor must jack all jacking points of the same span simultaneously.
- After required construction, release all jacks of the same span simultaneously.
- The temporary support must bear fully on the bottom flange and distribute the load evenly across bottom flange and be a minimum of 18" long.
- Temporary supports in Spans 1 & 5 must be in place prior to removing concrete girder haunches and cannot be removed until diaphragm strengthening has been completed and concrete has reached strength.

Title: WBL-5-2022-0001-01-CONSTRUCTION OF BRIDGE
 Plan: WBL-5-2022-0001-01-CONSTRUCTION OF BRIDGE
 Project: WBL-5-2022-0001-01-CONSTRUCTION OF BRIDGE
 Date: Sep 11, 2023 at 10:41

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
REGISTERED CIVIL ENGINEER
No. 49652
Exp. 09/30/24
09/11/2023
PLANS APPROVAL DATE



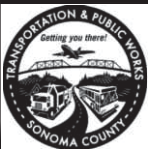
"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER _____

AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED



COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

TEMPORARY SUPPORT DETAILS

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

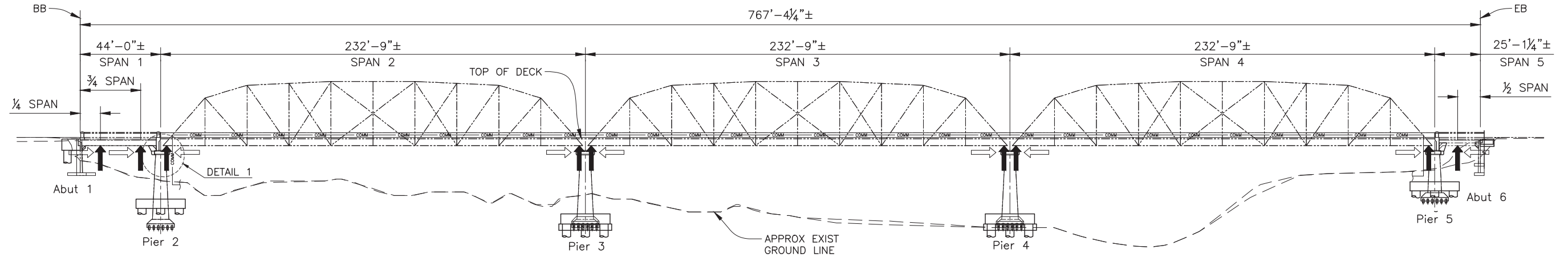
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	72
TOTAL SHEETS	82

CONSTRUCTION SEQUENCE (BRIDGE)

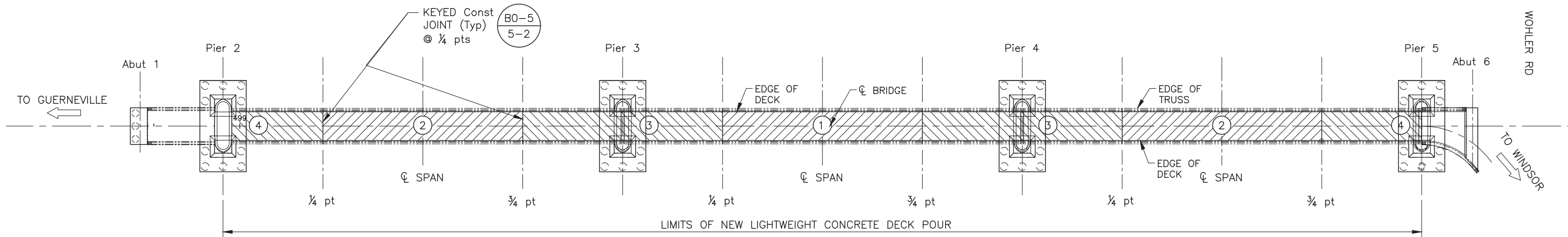
- STAGE 1-**
- Complete Piers 2 thru 5 footing retrofit
 - Strengthen top of Piers 2 thru 5
- STAGE 2-**
- Detour traffic
 - Remove concrete deck and AC overlay (spans 2 thru 4)
 - Remove existing AC overlay in spans 1 and 5
 - Install temporary supports
 - Remove existing bearings
 - Install isolation bearings at Piers 2 thru 5
 - Install transverse shear Plate Assembly at Piers 2 thru 5
- STAGE 3-**
- Remove temporary supports at Piers 2 thru 4
 - Install Shear studs
 - Install abutment CIDH piles and pile cap
 - Install abutment and pier strengthening details
 - Remove Temporary Supports Spans 1 & 5
- STAGE 4-**
- Place and cure concrete deck
 - Install anti-rotation plates for bearings at Piers 2 and 5
 - Install joint seal assembly
 - Open bridge to traffic

PLACING NEW DECK SEGMENT NOTES:

1. Cast new deck panels beginning with the panels nearest the ends of the truss as shown.
2. Place new concrete deck panels in pairs symmetric about the center of the span before proceeding to adjacent segments.
3. Use lightweight concrete for deck and curbs.



ELEVATION
1" = 30'-0"



PLAN
1" = 30'

LEGEND:

- ↑ Indicates location of vertical Temporary Support
- ← Indicates location of horizontal Temporary Support
- Indicates New Structure
- - - - Indicates Existing Structure
- [Hatched Box] Indicates 1st Deck Pour
- [Hatched Box] Indicates 2nd Deck Pour

Info: s:\a\10454\10454.dwg (2/28/23) 11:52 AM
 Plot: s:\a\10454\10454.dwg (2/28/23) 11:52 AM
 Plot Date: 09/11/2023 11:52 AM
 Plot Scale: 1/8" = 1'-0"
 Project: 10454 - WOHLE R RD BRIDGE - SONOMA CO
 Project Designer: Kevin J. Ross
 Project Engineer: Kevin J. Ross
 Project Manager: Kevin J. Ross
 Project Number: 10454

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
REGISTERED CIVIL ENGINEER
No. 49652
Exp. 09/30/24
09/11/2023
PLANS APPROVAL DATE

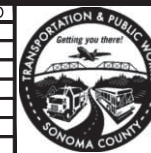


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

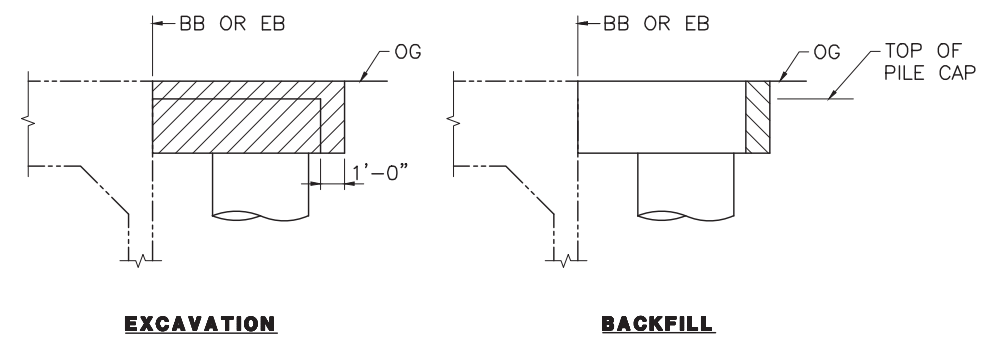


COUNTY OF SONOMA
DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
JOHANNES HOEVERTSZ, P.E., DIRECTOR

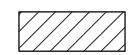
CONSTRUCTION SEQUENCE

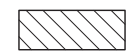
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	73
TOTAL SHEETS	82



LEGEND:

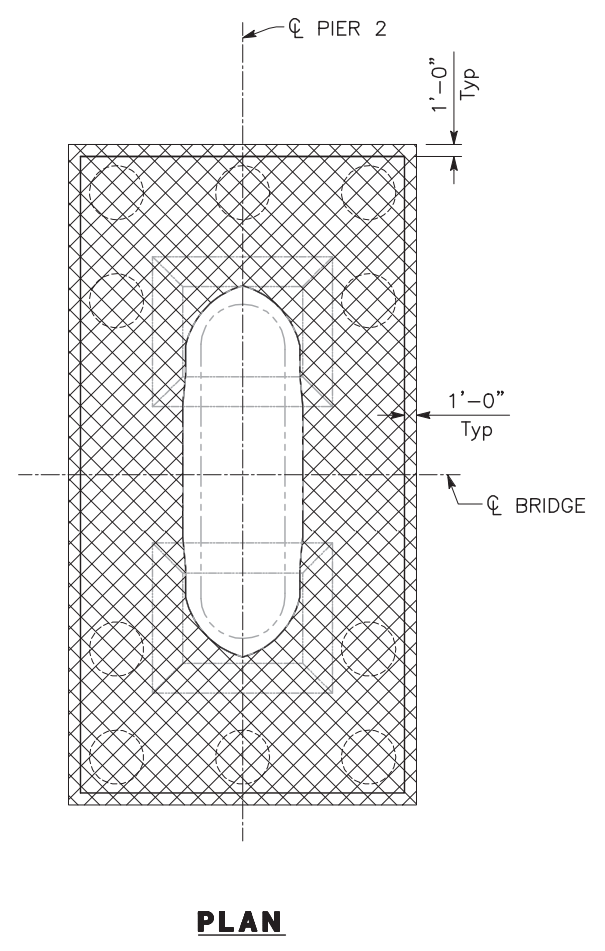
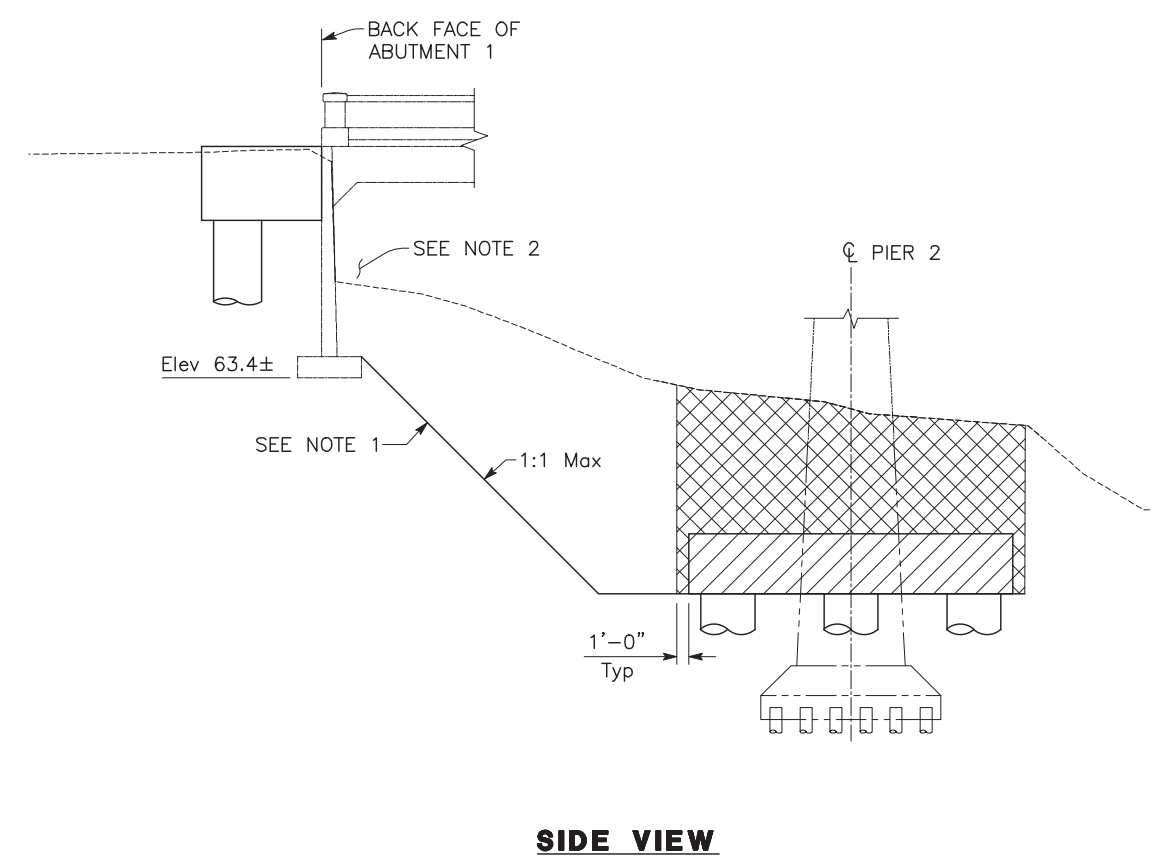
 Indicates Structure Excavation (Bridge)

 Indicates Structure Backfill (Bridge)

NOTES:

- Any excavation below 1:1 line from edge of abutment footing must be shored.
- Existing wooden path structure not shown. Wooden structure must be protected in place.

STRUCTURE EXCAVATION AND BACKFILL AT BRIDGE ABUTMENTS
 Abutment 6 shown, Abutment 1 similar.
 No Scale



STRUCTURE EXCAVATION AND BACKFILL AT PIER 2
 NO SCALE

ST-50

Note: This drawing was prepared by Kevin J. Ross, Registered Professional Engineer, No. 49652, State of California, on 09/11/2023. The drawing is the property of Dewberry & Davis LLP. All rights reserved. No part of this drawing may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Dewberry & Davis LLP.

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 09/11/2023
 PLANS APPROVAL DATE



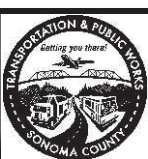
"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER _____

AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED

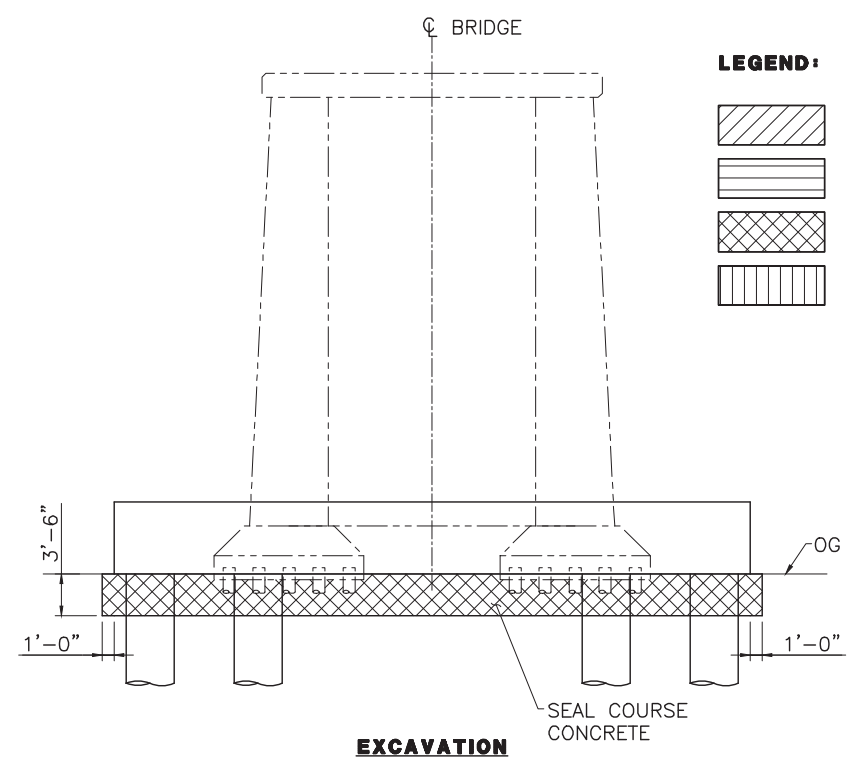
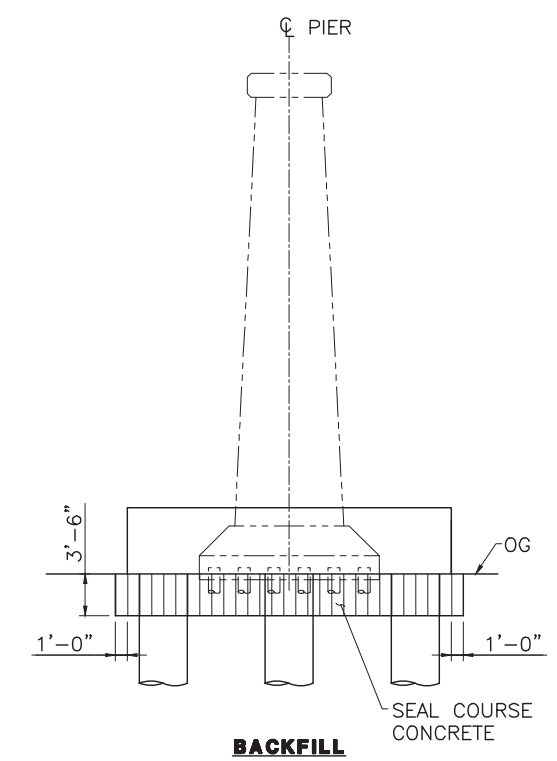
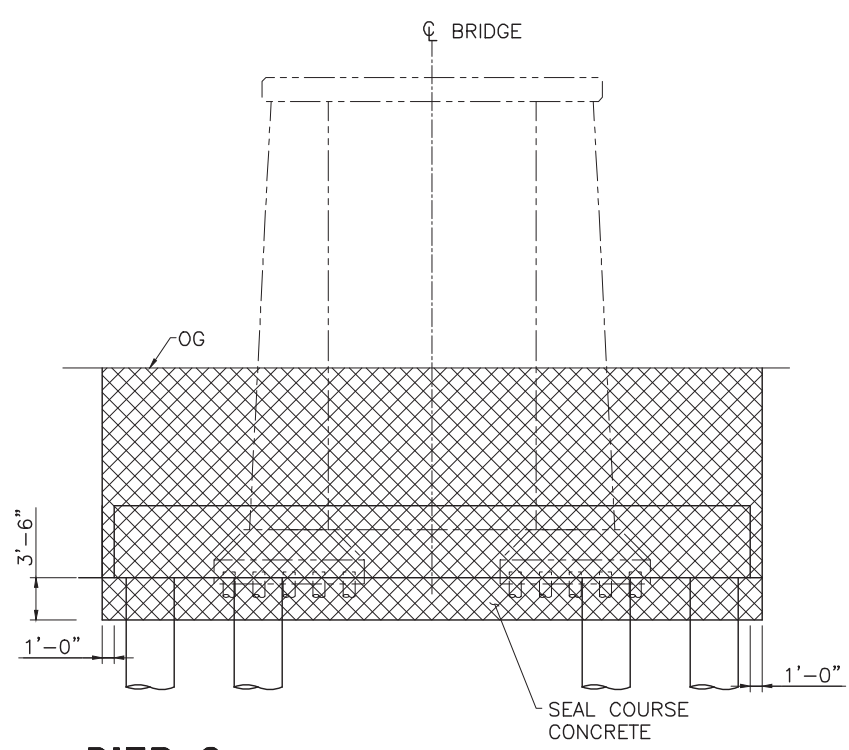
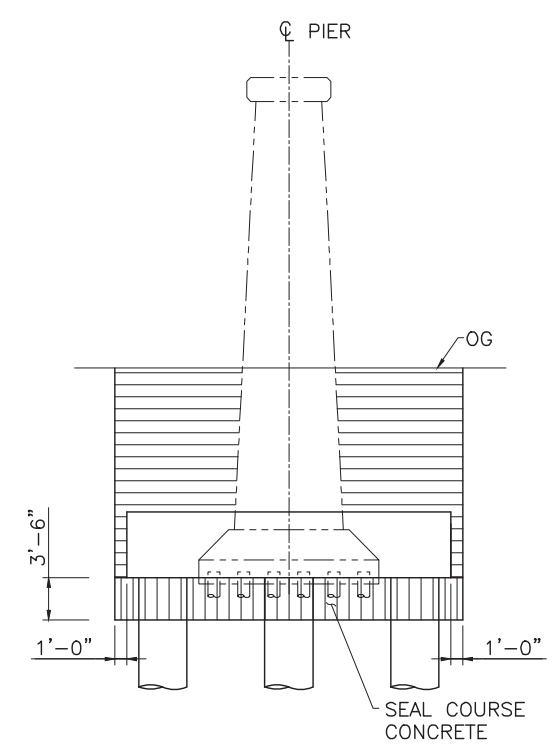
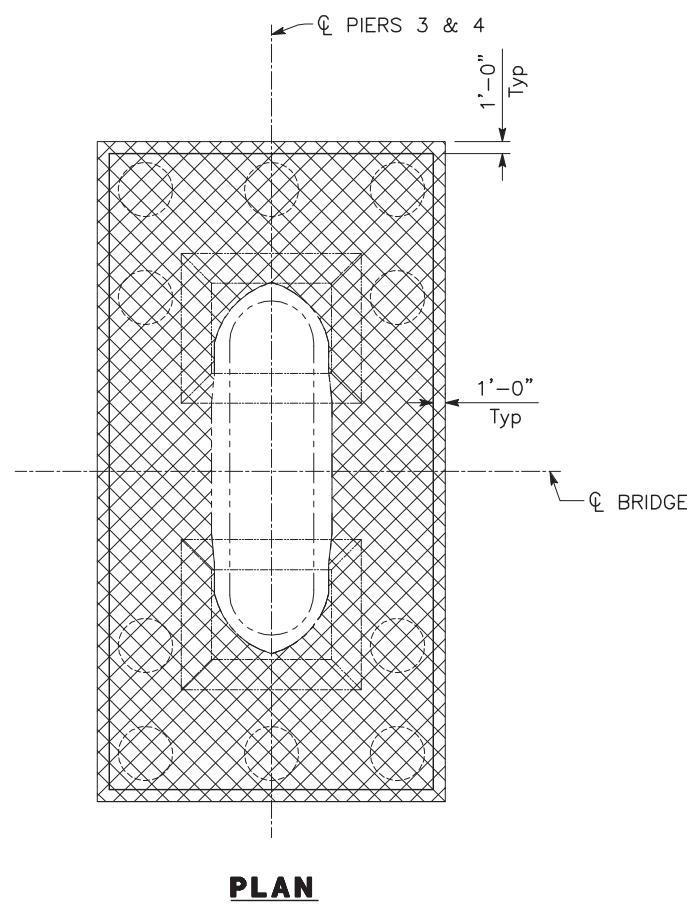


COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - NO. 1

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	74
TOTAL SHEETS	82



LEGEND:

	Structure Excavation (Bridge)
	Structure Backfill (Bridge Support)
	Structure Excavation (Type A)
	Seal Course Concrete

STRUCTURE EXCAVATION AND BACKFILL AT BRIDGE PIERS
 No Scale

ST-51

Note: This drawing is prepared in accordance with the California State Board of Professional Engineers, Registered Civil Engineers, and the State Board of Professional Surveyors, Registered Professional Surveyors. It is the responsibility of the engineer or surveyor to ensure that the drawing is accurate and complete. The engineer or surveyor is not responsible for any errors or omissions in this drawing.

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

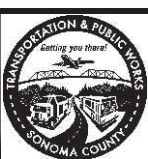
Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE



"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED:	DATE	REVISION	BY	APPROVED
RESIDENT ENGINEER				
AS BUILT DRAWINGS BY:				

DATE	REVISION	BY	APPROVED



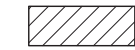
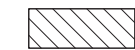
COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - NO. 2

ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	75
TOTAL SHEETS	82

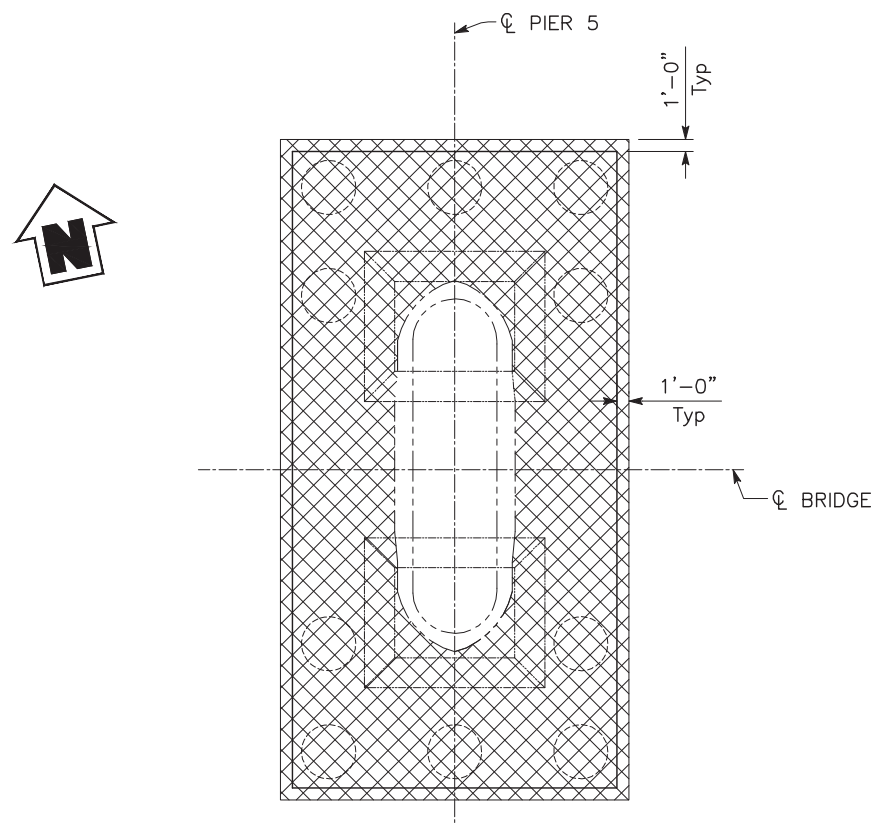
WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

LEGEND:

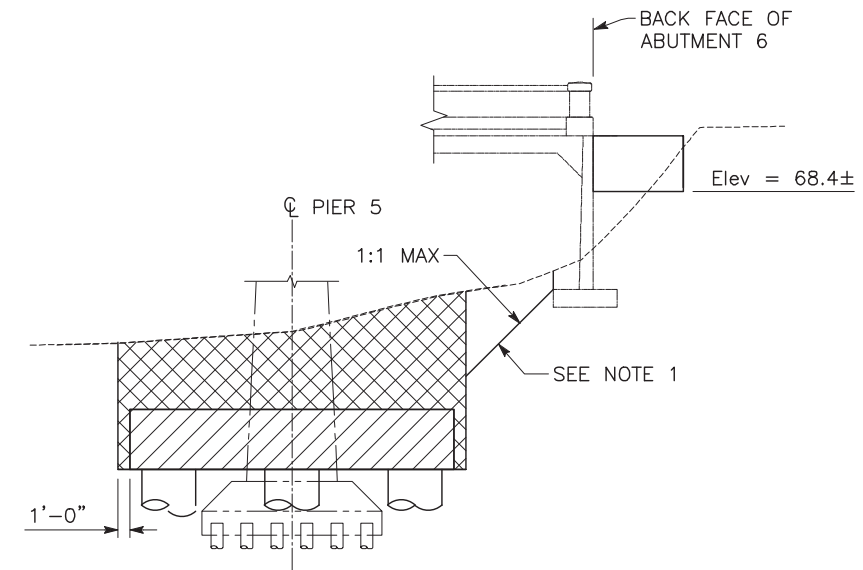
-  Indicates Structure Excavation (Bridge)
-  Indicates Structure Backfill (Bridge)

NOTE:

1. Any excavation below 1:1 line from edge of abutment footing must be shored.



PLAN



SIDE VIEW

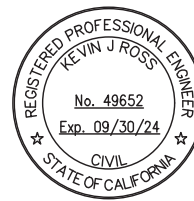
STRUCTURE EXCAVATION AND BACKFILL AT PIER 5

NO SCALE

Note: This drawing is the property of Dewberry & Davis LLP. It is to be used only for the project and location specified. It is not to be used for any other project or location without the written consent of Dewberry & Davis LLP.

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 09/11/2023
 PLANS APPROVAL DATE



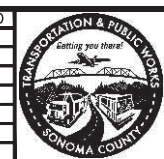
DATE	REVISION	BY	APPROVED

"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

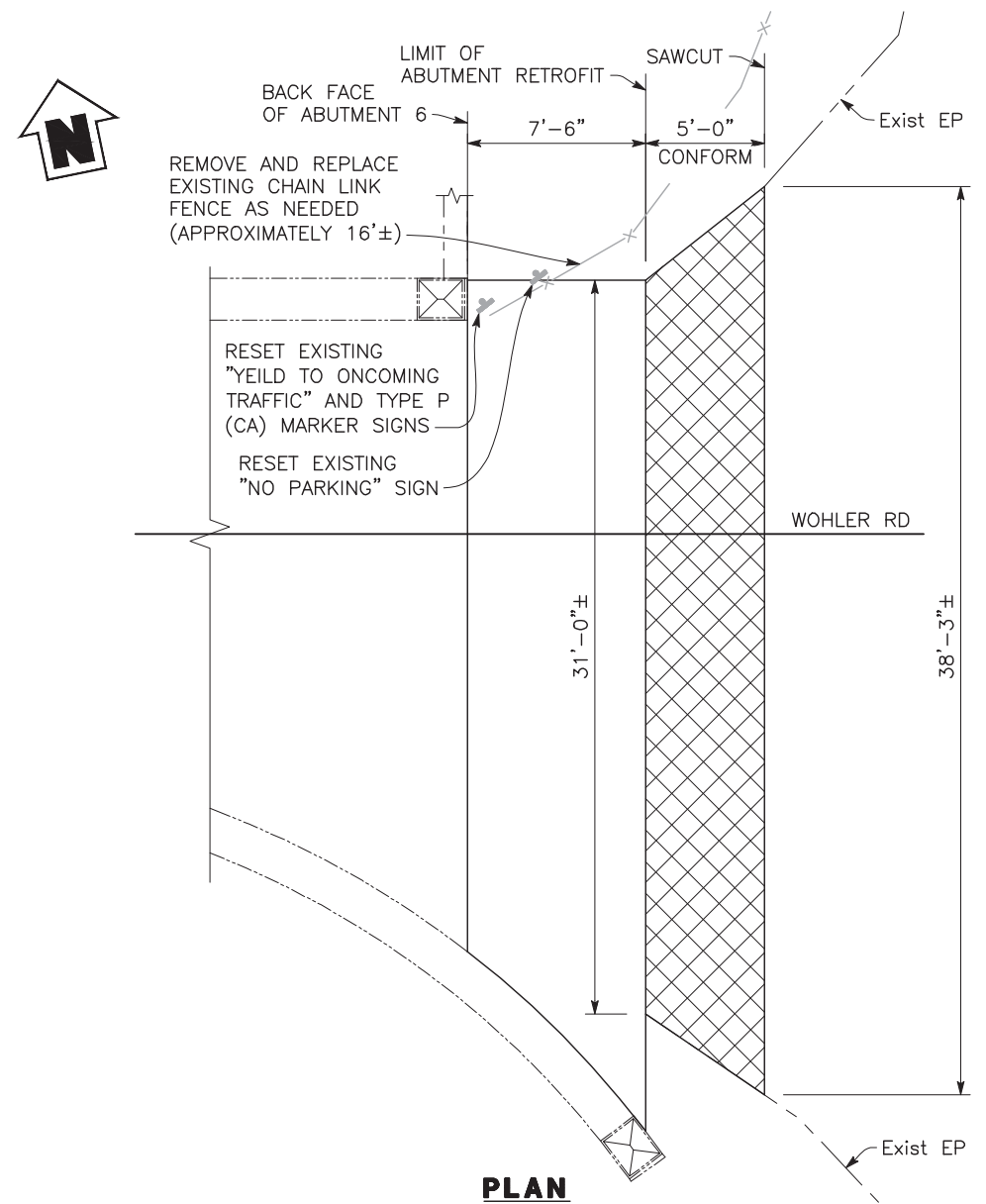
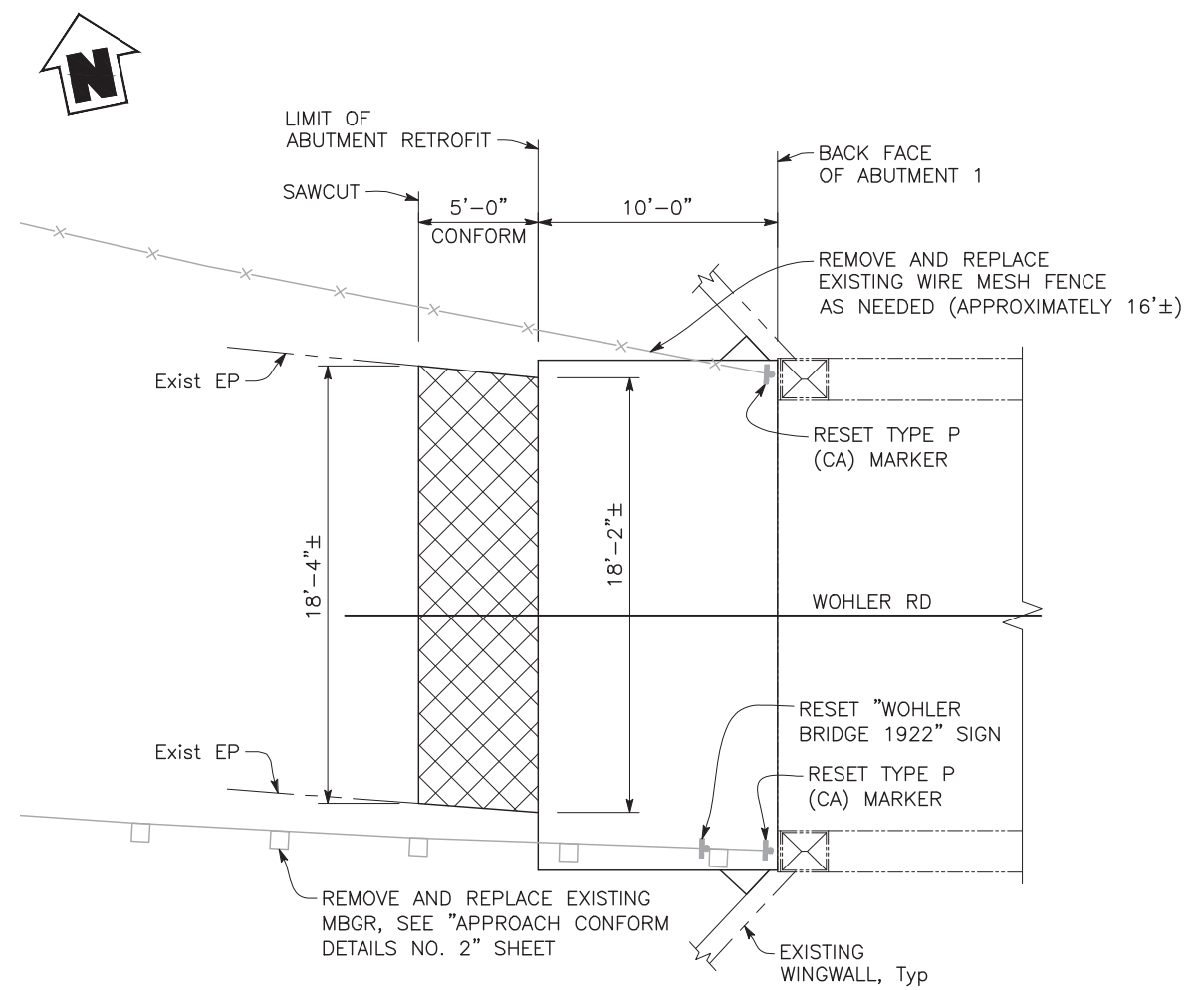
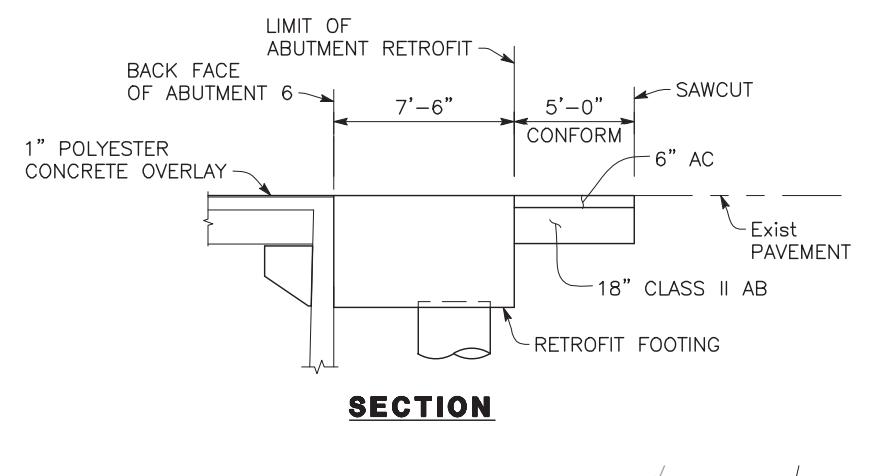
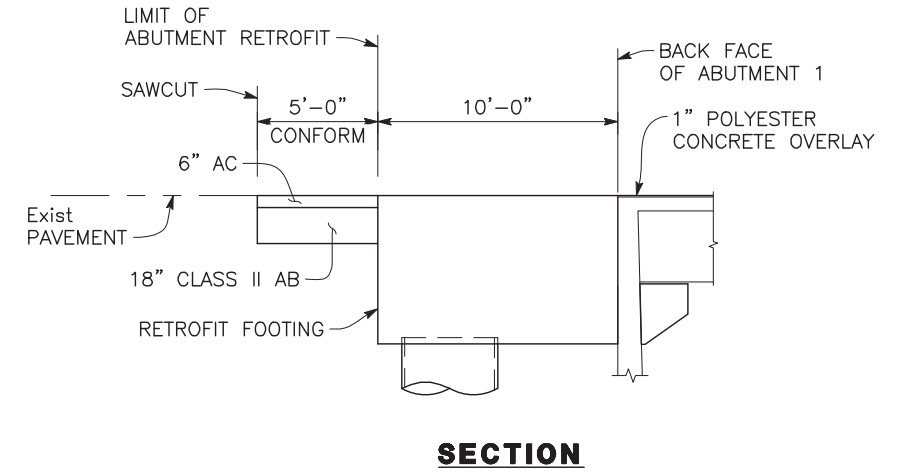
RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR



LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - NO. 3		ROAD NUMBER	8901
		BUDGET NUMBER	C01136
		FISCAL YEAR	2022-23
		SHEET NUMBER	76
		TOTAL SHEETS	82

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER



LEGEND:
 Indicates Pavement Conform

ABUTMENT 1 - APPROACH CONFORM

1/4" = 1'-0"
 FOR DETAILS NOT SHOWN, SEE "APPROACH CONFORM DETAILS NO. 2 SHEET"

ABUTMENT 6 - APPROACH CONFORM

1/4" = 1'-0"

ST-53

Info: 09/11/2023 09:00 AM, User: Kevin J. Ross, Project: 2022-23 WOHLER RD BRIDGE OVER RUSSIAN RIVER, Sheet: ST-53, Title: ABUTMENT APPROACH CONFORM DETAILS, Date: 09/11/2023 09:00 AM, Path: \\snp\proj\2022-23 WOHLER RD BRIDGE OVER RUSSIAN RIVER\Drawings\Structural\ST-53.dwg, Plot Date: Sep 11, 2023 at 12:42 PM, Plot Size: 11.00x17.00, Plot Scale: 1/4" = 1'-0", Plot Orientation: Landscape, Plot Color: Black, Plot Lineweight: 0.20, Plot Style: Default.ctb, Plot Device: HP DesignJet T1100, Plot Path: \\snp\proj\2022-23 WOHLER RD BRIDGE OVER RUSSIAN RIVER\Drawings\Structural\ST-53.dwg

DESIGN BY	GX
DRAWING BY	KD
CHECKED BY	KR

Kevin J. Ross
 REGISTERED CIVIL ENGINEER
 No. 49652
 Exp. 09/30/24
 CIVIL
 STATE OF CALIFORNIA

09/11/2023
 PLANS APPROVAL DATE

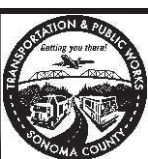


"RECORD DRAWING" INFORMATION TO BE COMPLETED AFTER CONSTRUCTION

CONSTRUCTION COMPLETED: _____

RESIDENT ENGINEER AS BUILT DRAWINGS BY: _____

DATE	REVISION	BY	APPROVED





COUNTY OF SONOMA
 DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS
 JOHANNES HOEVERTSZ, P.E., DIRECTOR

ABUTMENT APPROACH CONFORM DETAILS	
ROAD NUMBER	8901
BUDGET NUMBER	C01136
FISCAL YEAR	2022-23
SHEET NUMBER	77
TOTAL SHEETS	82

WOHLER ROAD BRIDGE OVER RUSSIAN RIVER

LEGEND:

-  B-6 APPROXIMATE LOCATION OF SOIL BORING
-  2IN BD SCWA #3 APPROXIMATE LOCATION OF BENCH MARK

ELEVATION REFERENCE:

Sonoma County Water Agency Survey Markers:
 2 inch survey brass cap "2IN BD SCWA #2" located 147' left, STA 505+61, elevation 81.74,
 2 inch survey brass cap "2IN BD SCWA #3" located 6' right, STA 506+44, elevation 83.11,
 2 inch survey brass cap "SET RRC #36" located 5' right, STA 497+87, elevation 79.74, and
 1/2 inch survey nails "MAG&W SCWA #51" located 76' left, STA 495+25, elevation 78.15.

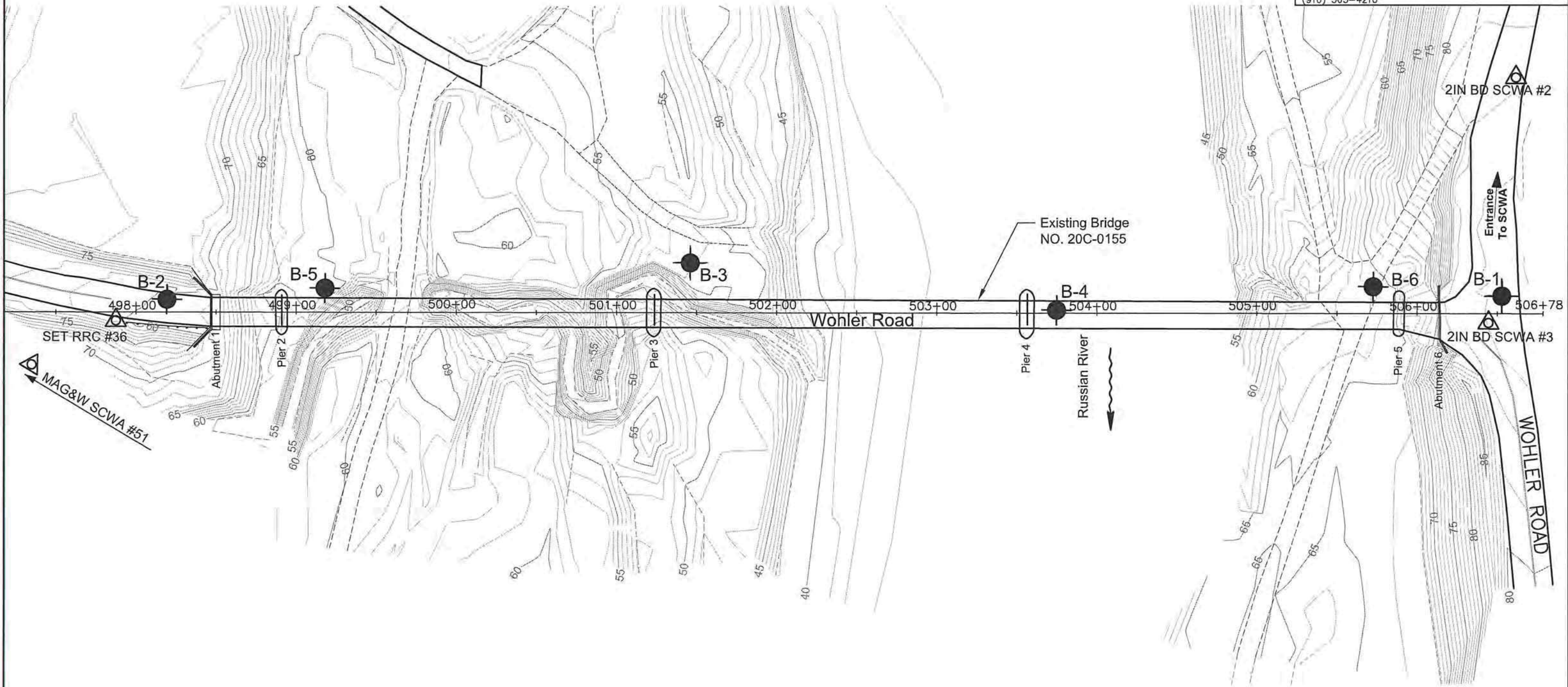
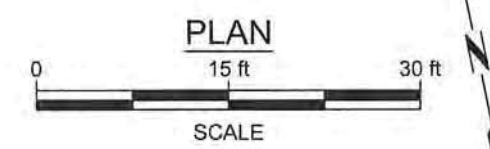
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
4	SON	C.R.		78	82

David A. Kitzmann
 CERTIFIED ENGINEERING GEOLOGIST
 1/26/2015
 PLANS APPROVAL DATE

REGISTERED GEOLOGIST
 DAVID A. KITZMANN
 No. 2412
 CERTIFIED ENGINEERING GEOLOGIST
 STATE OF CALIFORNIA

TABER CONSULTANTS
 3911 West Capital Avenue
 West Sacramento, CA 95691-2116
 (916) 371-1690
 JOB No. 2013-0082 LOCATION: 38122-EB-027N:023W

DRAKE HAGLAN AND ASSOCIATES, INC.
 11060 White Rock Road, Suite 200
 Rancho Cordova, CA 95670
 (916) 363-4210




NOTE: All locations are approximate and are referenced from existing site features.

ST-54

DESIGN OVERSIGHT	DRAWN BY X. Vang	E. Hilmer, P.C., A. Kahn, G.I.T. FIELD INVESTIGATOR	PREPARED FOR SONOMA COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS	BRIDGE NO. 20C-0155	Wohler Road Bridge Retrofit
SIGN OFF DATE	CHECKED BY D. Kitzmann/ A. Kahn	DATE Oct. 2013/Sept. 2014	PROJECT ENGINEER	POST MILE	
1/26/2015 2013-0082 Sheet 1 of 5.dwg			ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	CU E.A.	LOG OF TEST BORINGS
				DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)
					SHEET 78 OF 82

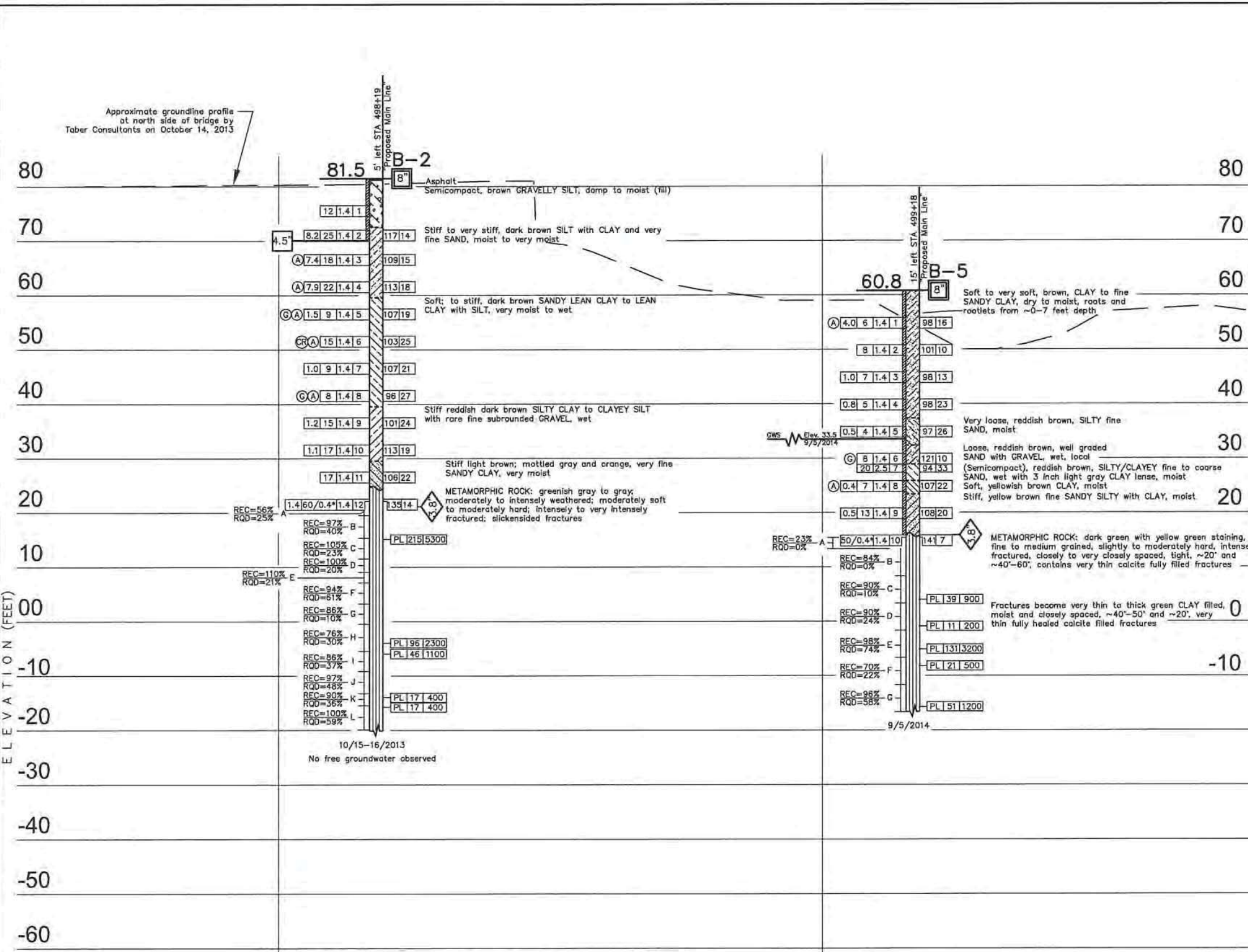
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
4	SON	C.R.		79	82


 CERTIFIED ENGINEERING GEOLOGIST
 1/26/2015
 PLANS APPROVAL DATE
 TABER CONSULTANTS
 3911 West Capitol Avenue
 West Sacramento, CA 95691-2116
 (916) 371-1690
 JOB No. 2013-0082 LOCATION: 38122-EB-027N:023W

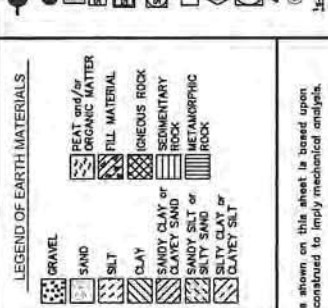
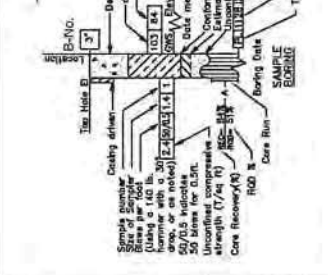
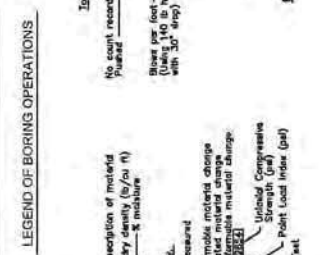
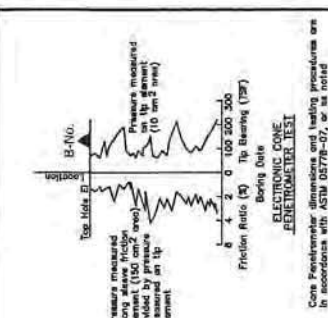


DRAKE HAGLAN AND ASSOCIATES, INC.
 11060 White Rock Road, Suite 200
 Rancho Cordova, CA 95670
 (916) 363-4210

- NOTES:
- Field classification of soils was in accordance with ASTM D 2488-10 "Description and Identification of Soils (Visual-Manual Procedure)".
 - Standard Penetration tests were performed in accordance with ASTM D 1586-10 using a hammer operated with an automated drop system. Drill rods were 1 5/8-inch diameter "A"-rods; sampler was driven with brass and stainless steel liners.
 - The length of each sampled interval is shown graphically on the boring log. Whole number blow counts ("N") represent the "standard penetration resistance" interval in accordance with ASTM D1586-11. Where less than 1 foot of penetration is achieved, the blow count shown is for that fraction of the "standard penetration resistance" interval actually penetrated. Where indicated by an asterisk (*) the number of blows shown is for only that fraction of the initial 0.5 ft "seating drive" interval penetration. Material characteristics shown in () where estimated.
 - Rock classification according to Bureau of Reclamation, U.S. Department of the Interior (USBR), "Engineering Geology Field Manual", and "Manual of Field Geology", (Compton, Robert R.). Rock Quality Designation (RQD), Weathering, Rock Hardness/Strength, Bedding, and Fracture Density, as shown on this sheet, were used to describe all rock core from borings. Descriptors were determined in the field. REC = Core Recovered (percent). RQD = Rock Quality Designation (percent).
 - SPT hammer energy measurements were not taken. Hammer energy ratio (ETR) measurements indicate an ETR = 89% on 5/27/2013 on boring B-1, B-2, B-3 and 87% on 8/18/2014 for B-4, B-5, and B-6.
 - Groundwater surface elevations in the borings indicated on the Log of Test Boring Sheets reflect the fluid level in the borings on the specified date.
 - Groundwater surface elevations are subject to seasonal fluctuations and may occur at higher or lower elevations depending on the conditions at any particular time.
 - Boring elevations were surveyed in the field by Taber personnel on 9/13/2013, 9/21/2013, 9/5/2014 and 9/8/2014 and tied into project data provided by Drake Haglan and Associates.
 - Electronic media for plan view provided by Drake Haglan and Associates, Inc. on December 12, 2013.



APPROXIMATE GROUNDLINE PROFILE AT NORTH SIDE OF BRIDGE BY TABER CONSULTANTS ON OCTOBER 14, 2013
 PROFILE
 HOR. 1"=10'
 VERT. 1"=10'
 498+00 499+00 500+00



CONSISTENCY CLASSIFICATION FOR SOILS
 According to the Standard Penetration Test

Standard Penetration Test "N"-Value	Consistency
0-5	Very loose
6-10	Loose
11-20	Semicompact
21-30	Compact
31-50	Very dense
>50	Very hard


NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

DESIGN OVERSIGHT	DRAWN BY X. Vang	E. Hilmer, P.G., A. Kahn, G.I.T. FIELD INVESTIGATOR
SIGN OFF DATE	CHECKED BY D. Kitzmann/ A. Kahn	DATE Oct. 2013/Sept. 2014

PREPARED FOR
SONOMA COUNTY
 DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
 PROJECT ENGINEER

BRIDGE NO.	20C-0155
POST MILE	
Wohler Road Bridge Retrofit	
LOG OF TEST BORINGS	

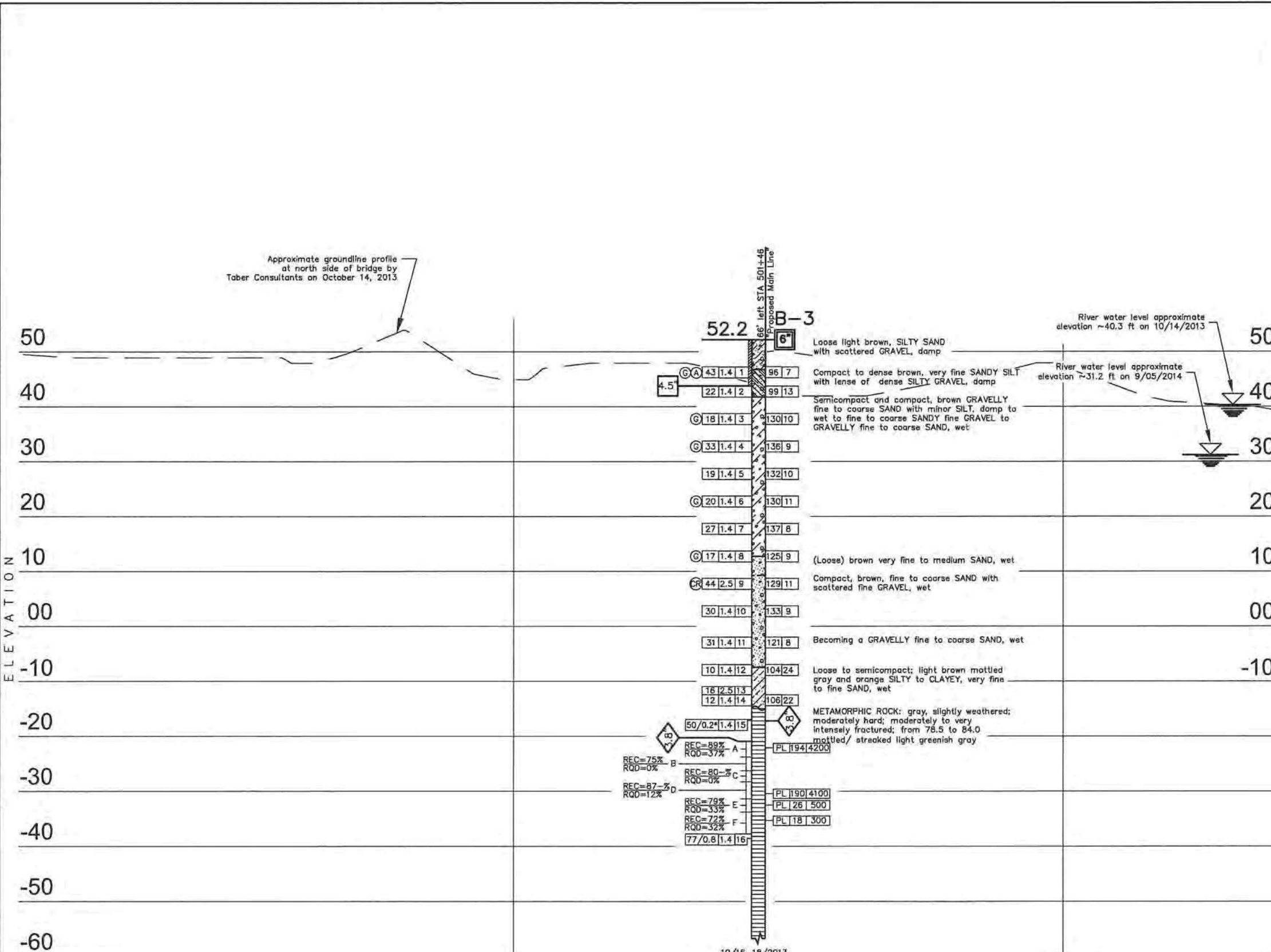
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
4	SON	C.R.		80	82



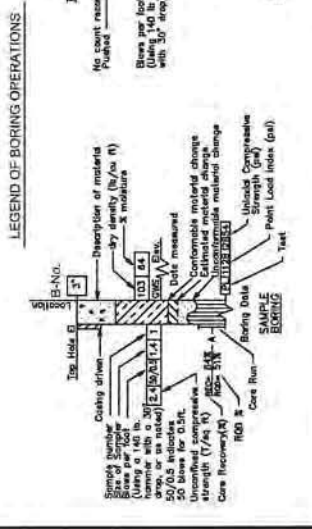
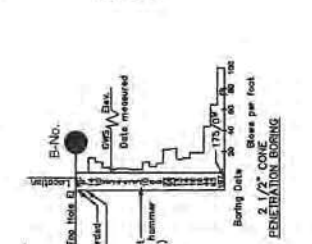
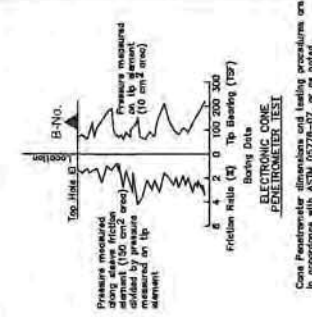
 CERTIFIED ENGINEERING GEOLOGIST
 1/26/2015
 PLANS APPROVAL DATE
 TABER CONSULTANTS
 3911 West Capitol Avenue
 West Sacramento, CA 95691-2116
 (916) 371-1690
 JOB No. 2013-0082 LOCATION: 38122-EB-027N-023W

DRAKE HAGLAN AND ASSOCIATES, INC.
 11060 White Rock Road, Suite 200
 Rancho Cordova, CA 95670
 (916) 363-4210

- NOTES:
- Field classification of soils was in accordance with ASTM D 2488-10 "Description and Identification of Soils (Visual-Manual Procedure)".
 - Standard Penetration tests were performed in accordance with ASTM D 1586-10 using a hammer operated with an automated drop system. Drill rods were 1 5/8-inch diameter "A"-rods; sampler was driven with brass and stainless steel liners.
 - The length of each sampled interval is shown graphically on the boring log. Whole number blow counts ("N") represent the "standard penetration resistance" interval in accordance with ASTM D1586-11. Where less than 1 foot of penetration is achieved, the blow count shown is for that fraction of the "standard penetration resistance" interval actually penetrated. Where indicated by an asterisk (*) the number of blows shown is for only that fraction of the initial 0.5 ft "seating drive" interval penetration. Material characteristics shown in () where estimated.
 - Rock classification according to Bureau of Reclamation, U.S. Department of the Interior (USBR), "Engineering Geology Field Manual", and "Manual of Field Geology", (Compton, Robert R.), Rock Quality Designation (RQD), Weathering, Rock hardness/strength, Bedding, and Fracture Density, as shown on this sheet, were used to describe all rock core from borings. Descriptors were determined in the field. REC = Core Recovered (percent), RQD = Rock Quality Designation (percent).
 - SPT hammer energy measurements were not taken. Hammer energy ratio (ETR) measurements indicate an ETR = 89% on 6/27/2013 on boring B-1, B-2, B-3 and 87% on 8/18/2014 for B-4, B-5, and B-6.
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 - Groundwater surface elevations are subject to seasonal fluctuations and may occur at higher or lower elevations depending on the conditions at any particular time.
 - Boring elevations were surveyed in the field by Taber personnel on 9/13/2013, 9/21/2013, 9/5/2014 and 9/6/2014 and tied into project data provided by Drake Haglan and Associates.
 - Electronic media for plan view provided by Drake Haglan and Associates, Inc. on December 12, 2013.



10/16-18/2013
 Bulk C: 0.0-5.0ft CR
 No free groundwater observed
PROFILE
 HOR. 1"=10'
 VERT. 1"=10'



- ATTENTION LIMITS**
 (A) CONSOLIDATION
 (B) COMPRESSION INDEX
 (C) EXPANSION INDEX
 (D) SHRINKAGE
 (E) MAXIMUM DRY DENSITY
 (F) PERMEABILITY
 (G) RECOMPRESSION VALUE
 (H) DIRECT SHEAR
 (I) SAND EQUIVALANT
 (J) SPECIFIC GRAVITY
 (K) TRAXIAL SHEAR

- PLAN OF ANY TESTS**
 1.5 INCH CONE PENETROMETER (ASTM D1586)
 30 INCH CONE PENETROMETER (ASTM D1586)
 UNSATURATED SWELL (ASTM D4945)
 TEST FIT
 SWELLING
 ELECTRONIC CONE PENETROMETER (ASTM D5600)

- LEGEND OF EARTH MATERIALS**
 GRAVEL
 SAND
 SILT
 CLAY
 SANDY CLAY or CLAYEY SAND
 SANDY SILT or SILTY SAND
 SILTY SAND or CLAYEY SILT
 GREAT and/or ORGANIC MATTER
 FULL MATERIAL
 CHALKY ROCK
 SEDIMENTARY ROCK
 METAMORPHIC ROCK

CONSISTENCY CLASSIFICATION FOR SOILS
 According to the Standard Penetration Test

Standard Penetration Test "N"-Value	Consistency
0-5	Very soft
6-10	Soft
11-20	Stiff
21-35	Very stiff
36-70	Hard
>70	Very hard


NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

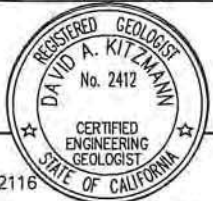
DESIGN OVERSIGHT	DRAWN BY	X. Vang	E. Hilmer, P.G. FIELD INVESTIGATOR
SIGN OFF DATE	CHECKED BY	D. Kitzmann	DATE October 2013

PREPARED FOR
SONOMA COUNTY
 DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
 PROJECT ENGINEER

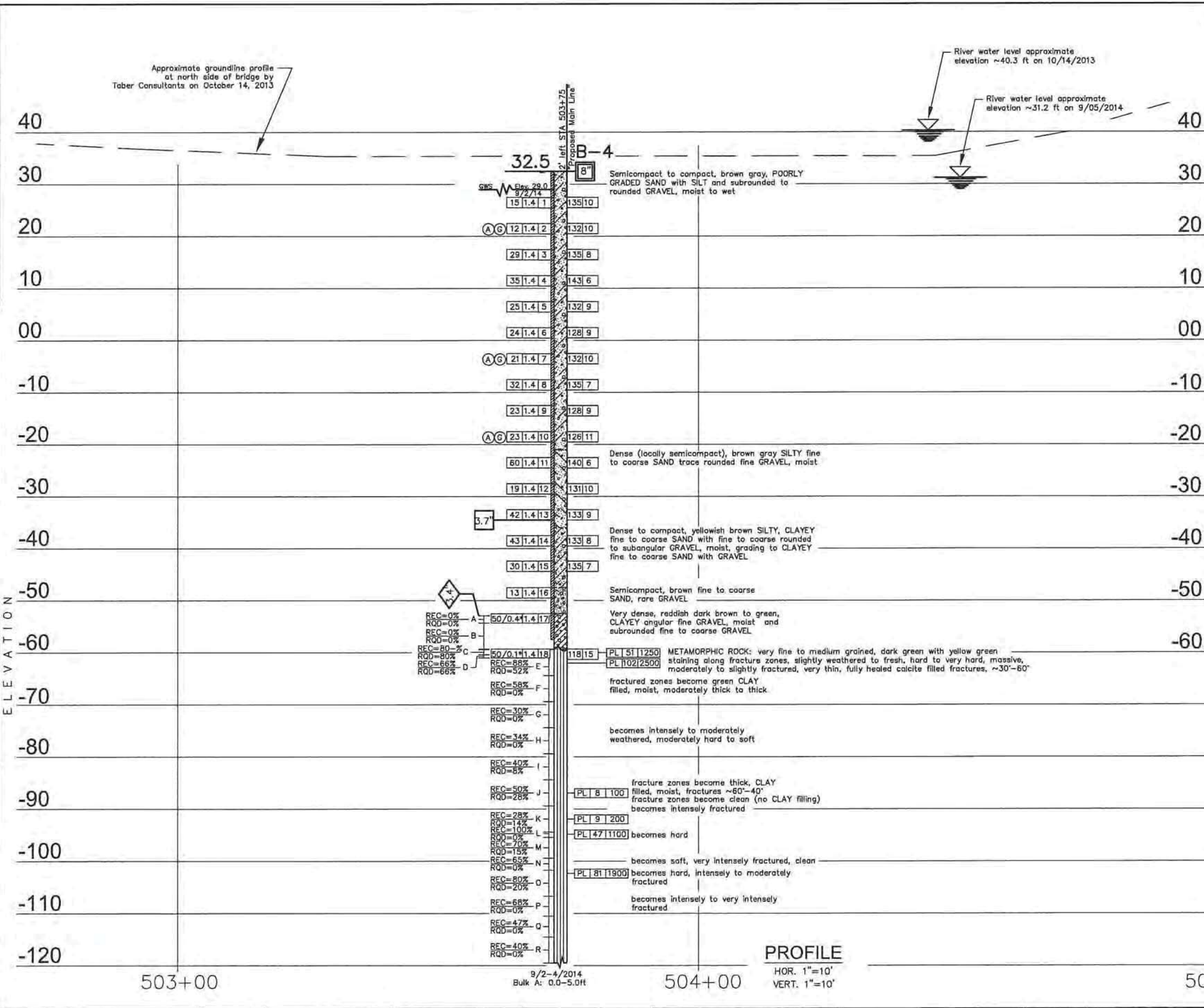
BRIDGE NO.	20C-0155	Wohler Road Bridge Retrofit LOG OF TEST BORINGS
POST MILE		

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
4	SON	C.R.		81	82


 CERTIFIED ENGINEERING GEOLOGIST
 1/26/2015
 PLANS APPROVAL DATE
 TABER CONSULTANTS
 3911 West Capitol Avenue
 West Sacramento, CA 95691-2116
 (916) 371-1690
 JOB No. 2013-0082 LOCATION: 38122-EB-027N-023W
 DRAKE HAGLAN AND ASSOCIATES, INC.
 11060 White Rock Road, Suite 200
 Rancho Cordova, CA 95670
 (916) 363-4210



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LEGEND OF BORING OPERATIONS

LEGEND OF EARTH MATERIALS

CONSISTENCY CLASSIFICATION FOR SOILS

PLAN OF ANY BORING

ATTENTION LIMITS

NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

DESIGN OVERSIGHT	DRAWN BY X. Vang	A. Kahn, G.I.T. FIELD INVESTIGATOR	BRIDGE NO. 20C-0155	Wohler Road Bridge Retrofit	
SIGN OFF DATE	CHECKED BY D. Kitzmann/ A. Kahn	DATE September, 2014	POST MILE	LOG OF TEST BORINGS	
1/26/2015	2013-0082 LOTB sheet 2 - 5.dwg		DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET 81 OF 82

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 CU EA

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
4	SON	C.R.		82	82

CERTIFIED ENGINEERING GEOLOGIST

 1/26/2015

 PLANS APPROVAL DATE

 TABER CONSULTANTS

 3911 West Capitol Avenue

 West Sacramento, CA 95691-2116

 (916) 371-1690

 JOB No. 2013-0082 LOCATION: 38122-ES-027N-023W

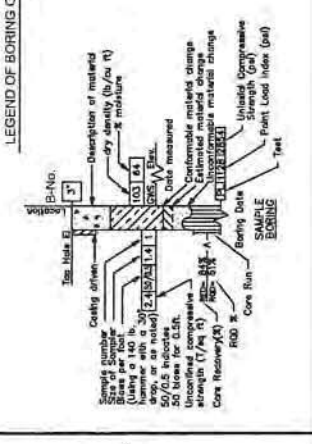
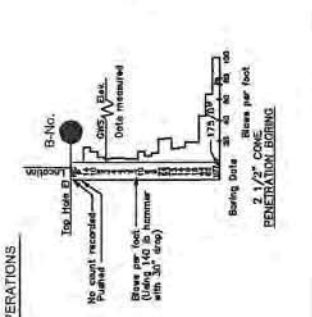
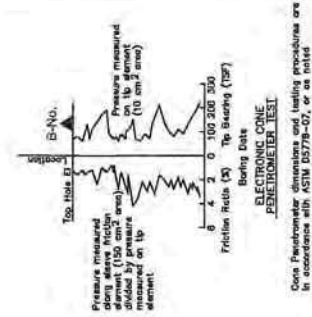
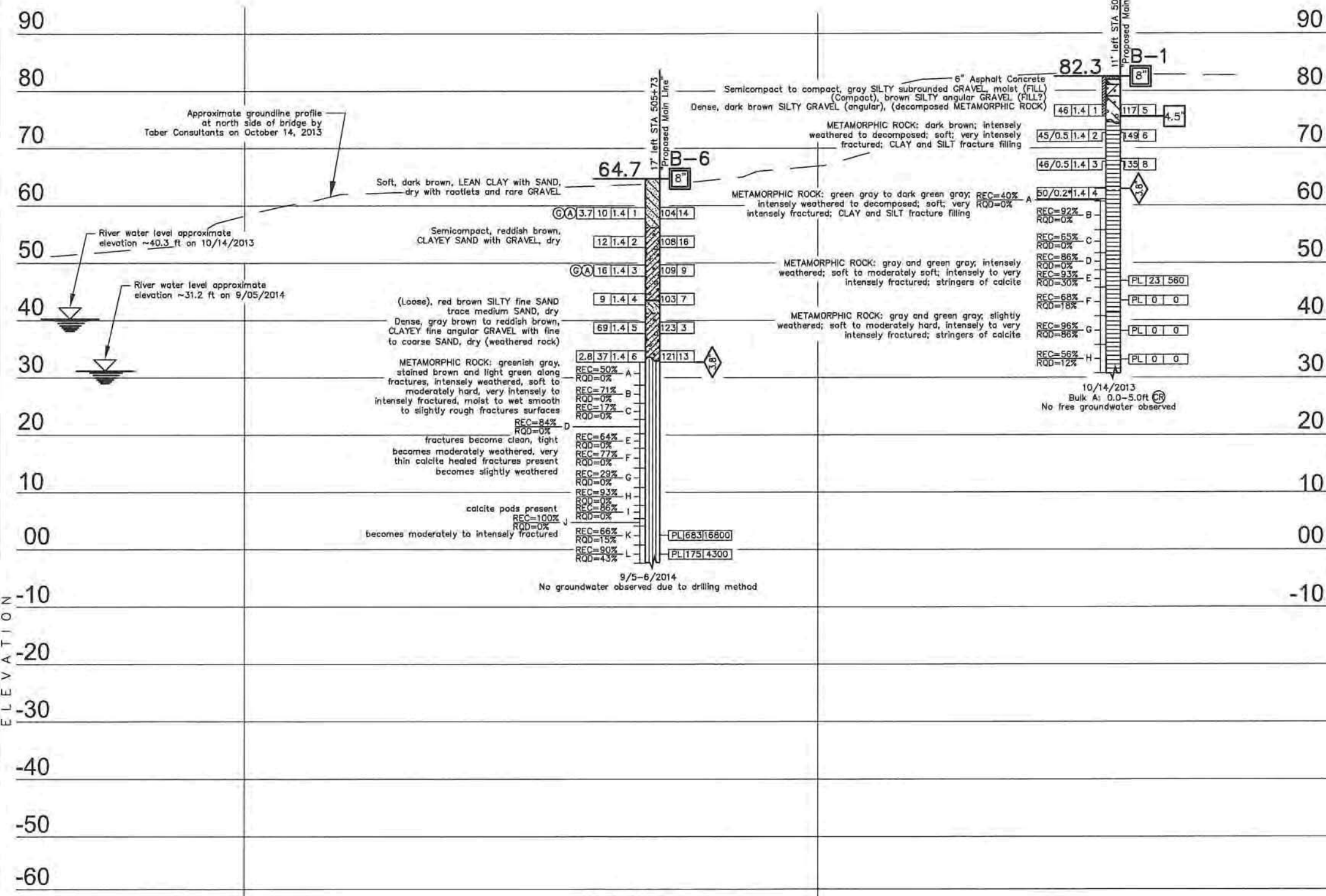
 DRAKE HAGLAN AND ASSOCIATES, INC.

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- LEGEND OF BORING OPERATIONS**
- 1. Description of material
 - 2. Blow counts
 - 3. Penetration test
 - 4. Soil sample
 - 5. Core run
 - 6. Sampler
 - 7. Test equipment

- LEGEND OF EARTH MATERIALS**
- GRAVEL
 - SAND
 - SILT
 - CLAY
 - SEDIMENTARY ROCK
 - IGNEOUS ROCK
 - METAMORPHIC ROCK

CONSISTENCY CLASSIFICATION FOR SOILS

Standard Penetration Test N-value	Consistency
0-5	Very soft
6-10	Soft
11-20	Medium
21-30	Stiff
31-50	Very stiff
>50	Very hard

APPROXIMATE GROUNDLINE PROFILE AT NORTH SIDE OF BRIDGE BY TABER CONSULTANTS ON OCTOBER 14, 2013.

 RIVER WATER LEVEL APPROXIMATE ELEVATION ~40.3 FT ON 10/14/2013.

 RIVER WATER LEVEL APPROXIMATE ELEVATION ~31.2 FT ON 9/05/2014.

PROFILE
 HOR. 1"=10'
 VERT. 1"=10'

DESIGN OVERSIGHT	DRAWN BY X. Vang	E. Hilmer, P.G., A. Kahn, G.I.T. FIELD INVESTIGATOR	BRIDGE NO. 20C-0155	Wohler Road Bridge Retrofit LOG OF TEST BORINGS
SIGN OFF DATE	CHECKED BY D. Kit Zmann/ A. Kahn	DATE Oct. 2013/Sept. 2014	POST MILE	
PREPARED FOR SONOMA COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS			PROJECT ENGINEER	SHEET 82 OF 82 REVISION DATES (PRELIMINARY STAGE ONLY)
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			CU EA.	