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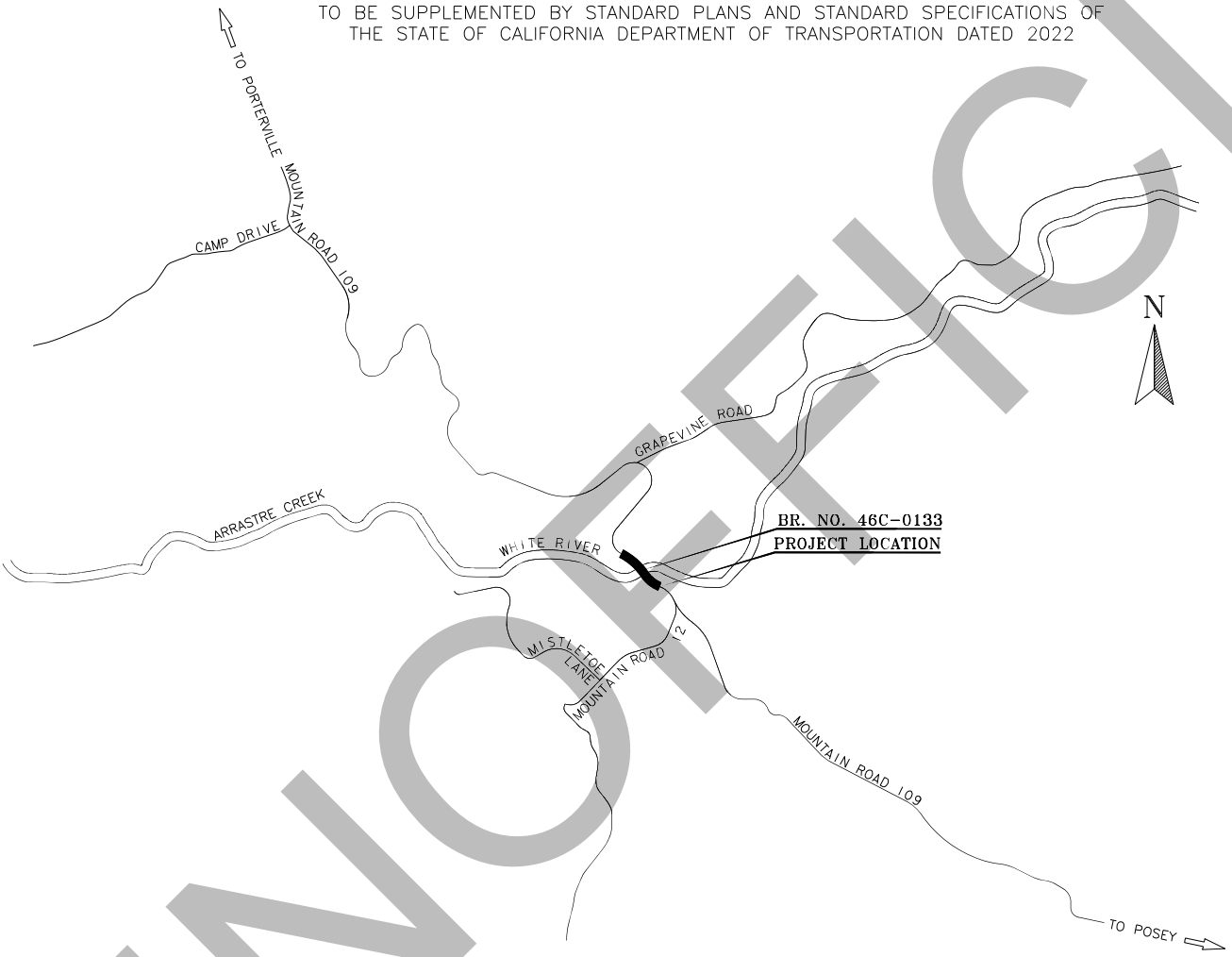
SHEET NO.	PAGE NO.	DESCRIPTION
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STATE OF CALIFORNIA  
COUNTY OF TULARE

PROJECT PLANS FOR CONSTRUCTION OF  
MOUNTAIN ROAD 109 (M109) OVER  
WHITE RIVER BRIDGE REPLACEMENT

FEDERAL PROJECT NO. BRLS-5946(170)  
BRIDGE NO. 46C-0487  
OLD BRIDGE NO. 46C-0133  
HIGHWAY BRIDGE PROGRAM (HBP)

TO BE SUPPLEMENTED BY STANDARD PLANS AND STANDARD SPECIFICATIONS OF  
THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DATED 2022



VICINITY MAP

BASIS OF BEARING AND COORDINATES

HORIZONTAL DATUM: NAD 83 CALIFORNIA ZONE 4 AS ADJUSTED TO NGS PID DH6642.

BENCHMARK

VERTICAL DATUM: NAVD 88 AS ADJUSTED TO NGS PID DH6642 ELEVATION = 276.2 FEET.

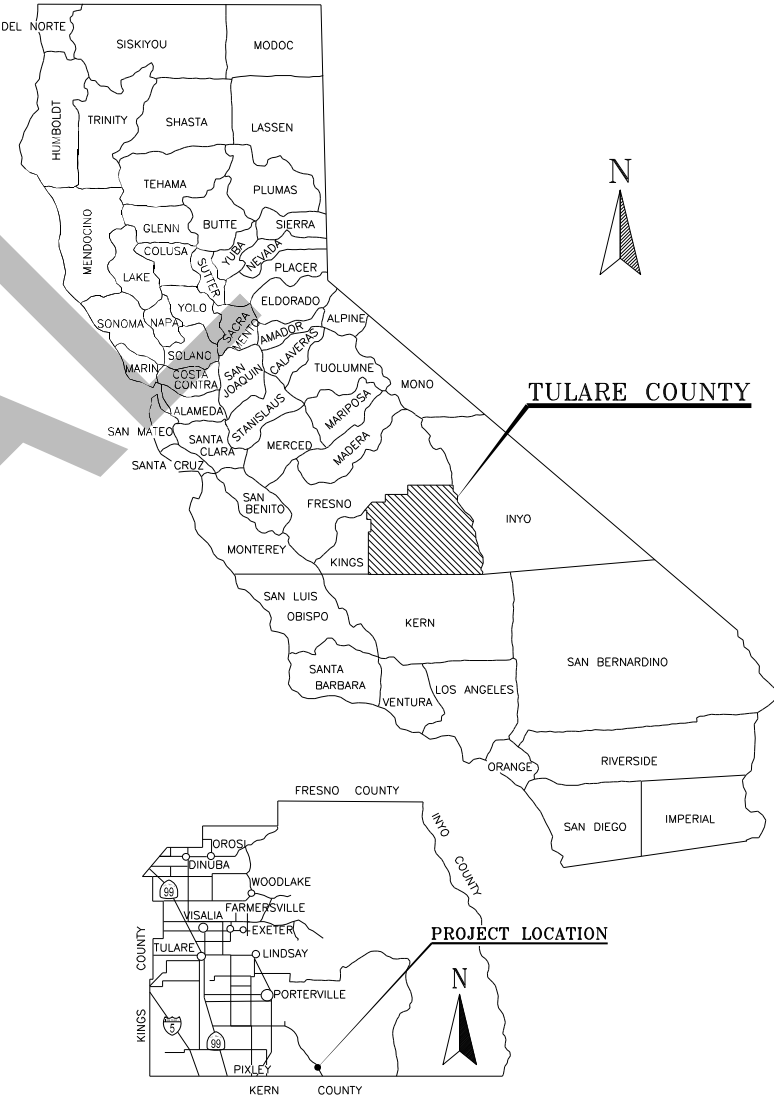
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
1	1091.04	1814949.04	6607729.95	60D
2	1082.35	1815078.32	6607501.39	60D
4	1079.23	1815185.43	6607446.75	MAG
7	1086.62	1815372.15	6607182.16	60D/IN TURNOUT



Contractor shall call  
Underground Service Alert at  
811 two working days prior  
to excavation

UTILITY CONTACTS

LEWIS EDROZO FRONTIER COMMUNICATIONS (760) 375-6616



LOCATION MAP

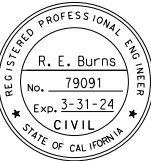
APPROVED BY: DATE:

DENNIS TOWNSEND, CHAIR  
TULARE COUNTY BOARD OF SUPERVISORS

APPROVED BY: DATE:  
9/11/23

DEED SCHENKE, P.E., DIRECTOR  
TULARE COUNTY RESOURCE MANAGEMENT AGENCY

SIGNED BY: DATE:  
ROBERT BURNS, P.E., PROJECT MANAGER  
DOKKEN ENGINEERING



REVISIONS

No.	DATE	DESCRIPTION

COUNTY OF TULARE  
RESOURCE MANAGEMENT AGENCY  
5961 SOUTH MOONEY BLVD.  
VISALIA, CA 93277  
(559)624-7000  
WWW.TULARECOUNTY.CA.GOV/RMA

DEEDOKKEN  
ENGINEERING  
110 BLUE HAVINE ROAD SUITE 200, FOLSOM CA. 916-658-0642

MOUNTAIN ROAD 109 (M109)  
OVER WHITE RIVER BRIDGE  
REPLACEMENT  
TITLE SHEET

SCALE AS SHOWN

DIVISION	
JOB NO.	
DESIGNED	KK
DRAWN	AR
CHECKED	KK
FILE	
DATE	\$DATE\$
SHEET No.	

T1

1 of 27



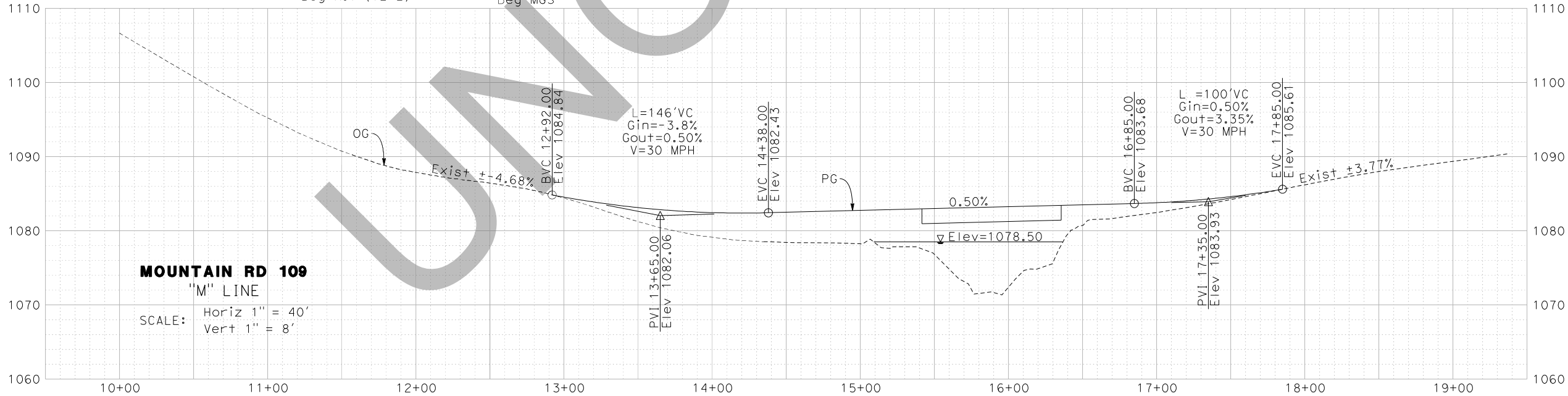
NOTE:  
1. FOR ALL FENCE INFORMATION, SEE CONSTRUCTION DETAILS.

LEGEND:

- RIGHT OF WAY
- PROPERTY LINE
- TEMPORARY CONSTRUCTION EASEMENT
- F-----F/C-----C GRADING LIMITS
- xx-xx- THVF- TEMPORARY HIGH VISIBILITY FENCE
- x-x-x- CHAIN LINK FENCE (TYPE CL-5)
- FENCE (TYPE BW, 4-STRAND, METAL POST)
- Obir Surf
- EXISTING STRUCTURE
- EXISTING OVERHEAD COMMUNICATION
- x-x-x- EXISTING CHAIN LINK FENCE
- EXISTING FENCE (TYPE BW)
- (X) TREES TO BE REMOVED (57 TOTAL)
- (A) 60" DIA CALIFORNIA SYCAMORE (PROTECT IN PLACE)
- (B) 36" VALLEY OAK (PROTECT IN PLACE)

TANGENT DATA		
No	Δ	L
1	S45°22'52"E	300.51'
2	S63°56'32"E	80.00'

CURVE DATA				
No	R	Δ	T	L
1	1,305'	05°07'20"	58.37'	116.66'
2	185'	23°51'24"	39.08'	77.03'
3	115'	70°43'28"	81.61'	141.95'
4	375'	15°24'12"	50.71'	100.81'
5	375'	18°33'39"	61.28'	121.48'



REVISIONS

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COUNTY OF TULARE  
RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD.  
VISALIA, CA 93277  
(559) 624-7000  
WWW.TULARECOUNTY.CA.GOV/RMA

REGISTERED PROFESSIONAL ENGINEER  
K. KOFOD  
No. 16736  
Exp. 12/31/24  
CIVIL  
STATE OF CALIF.

**DEDOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 95688-0642  
Kris Kofod, PROJECT ENGINEER  
7/17/23  
DATE

**MOUNTAIN ROAD 109 (M109)  
OVER WHITE RIVER BRIDGE  
REPLACEMENT  
PLAN, PROFILE, AND  
TYPICAL SECTION**

SCALE AS SHOWN

DIVISION

JOB NO.

DESIGNED KK

DRAWN AR

CHECKED KK

FILE

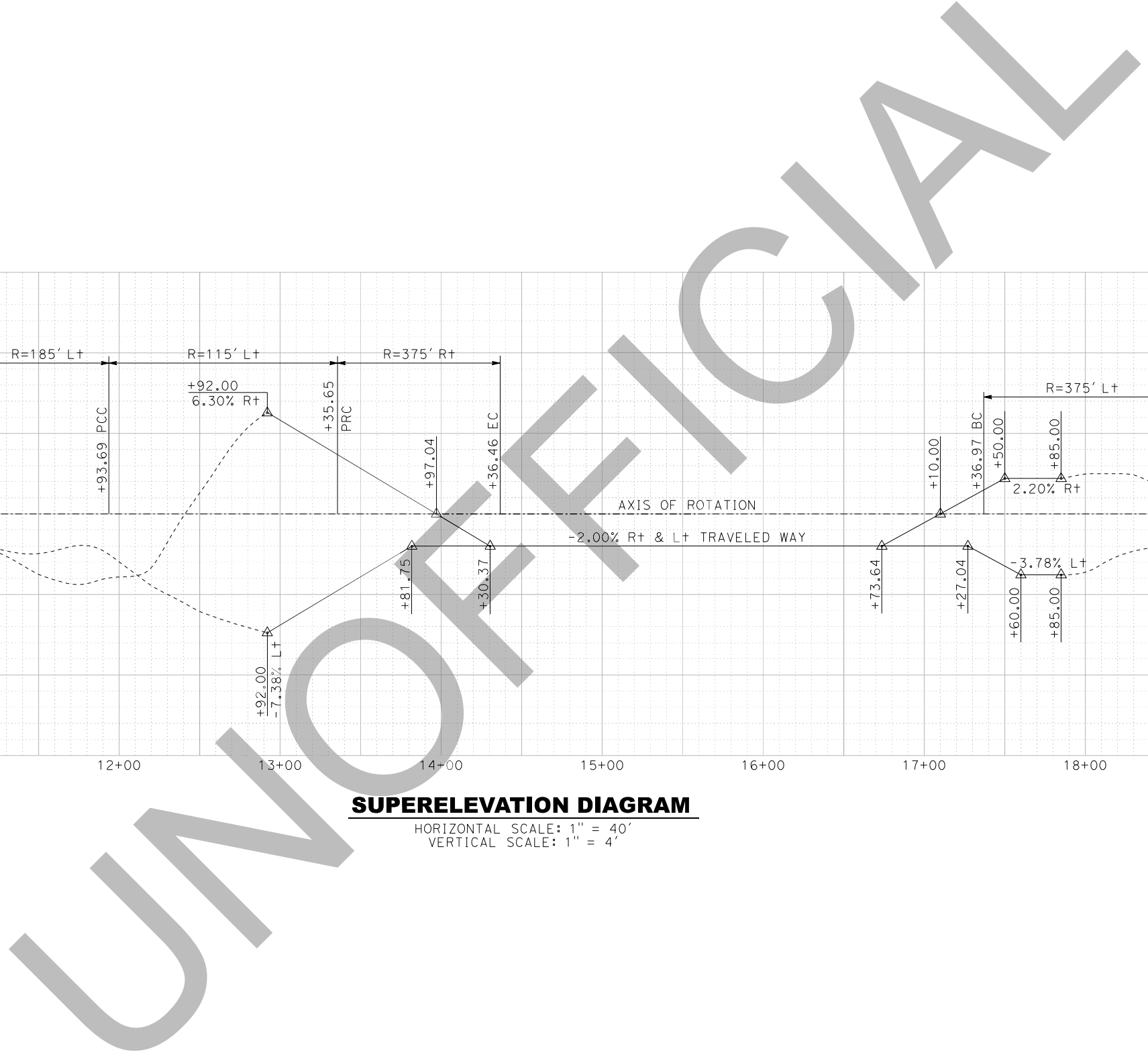
DATE \$DATE\$

SHEET No.

L1

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## SUPERELEVATION DIAGRAM

HORIZONTAL SCALE: 1" = 40'  
VERTICAL SCALE: 1" = 4'

[illegible]

**COUNTY OF TULARE**  
**RESOURCE MANAGEMENT AGENCY**  
5961 SOUTH MOONEY BLVD.  
VISALIA, CA 93277  
(559)624-7000  
[WWW.TULARECOUNTY.CA.GOV/RMA](http://WWW.TULARECOUNTY.CA.GOV/RMA)



**DE**  
**DOKKEN**  
**E N G I N E E R I N G**  
1110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

*Kris Kofoed*  
KRIS KOFOED, PROJECT ENGINEER

**MOUNTAIN ROAD 109 (M109)  
OVER WHITE RIVER BRIDGE  
REPLACEMENT  
SUPERELEVATION DIAGRAM**

## SUPERELEVATION DIAGRAM

SCALE	AS SHOWN
DIVISION	
JOB NO.	
DESIGNED	KK
DRAWN	AR
CHECKED	KK
FILE	
DATE	\$DATE\$

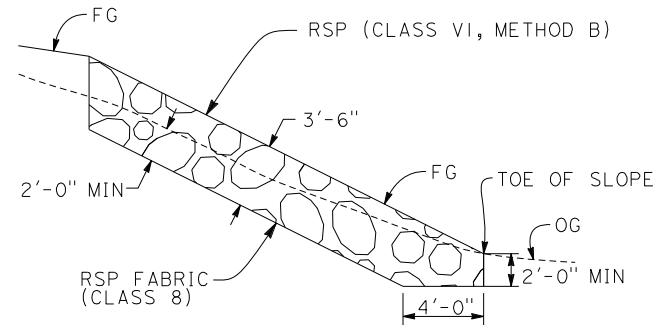
51

OF 27

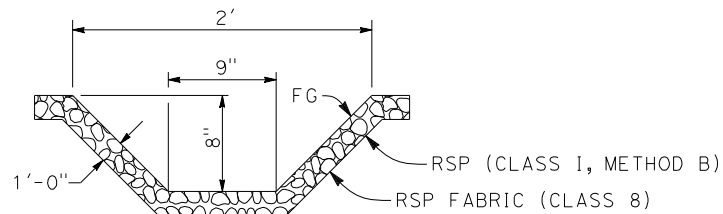


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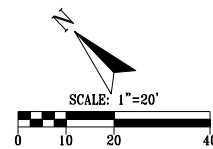
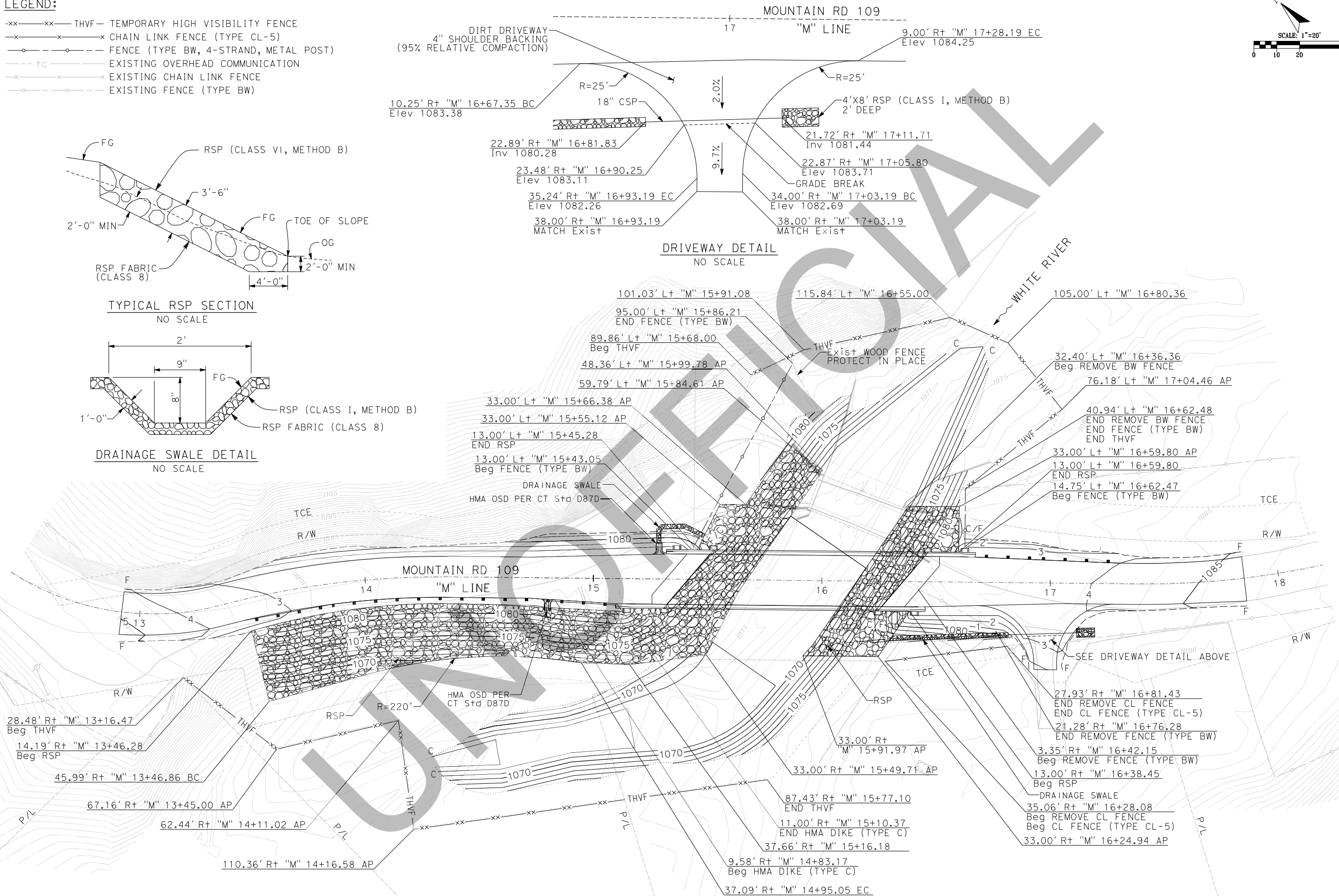
- x-x-x- THVF- TEMPORARY HIGH VISIBILITY FENCE
- x-x-x- CHAIN LINK FENCE (TYPE CL-5)
- o-o-o- FENCE (TYPE BW, 4-STRAND, METAL POST)
- - - +c - - - EXISTING OVERHEAD COMMUNICATION
- x-x-x- EXISTING CHAIN LINK FENCE
- o-o-o- EXISTING FENCE (TYPE BW)



TYPICAL RSP SECTION  
NO SCALE



DRAINAGE SWALE DETAIL  
NO SCALE



REVISIONS	
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VISALIA, CA 93277  
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REGISTERED PROFESSIONAL ENGINEER  
K. KOFOD  
No. 16736  
Exp. 12/31/24  
STATE OF CALIF.

**DEDOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA, 916-858-0642

Kris Kofod, PROJECT ENGINEER  
7/17/23  
DATE

**MOUNTAIN ROAD 109 (M109)  
OVER WHITE RIVER BRIDGE  
REPLACEMENT  
CONSTRUCTION DETAILS**

SCALE AS SHOWN

DIVISION	
JOB NO.	
DESIGNED	KK
DRAWN	AR
CHECKED	KK
FILE	
DATE	\$DATE\$
SHEET No.	

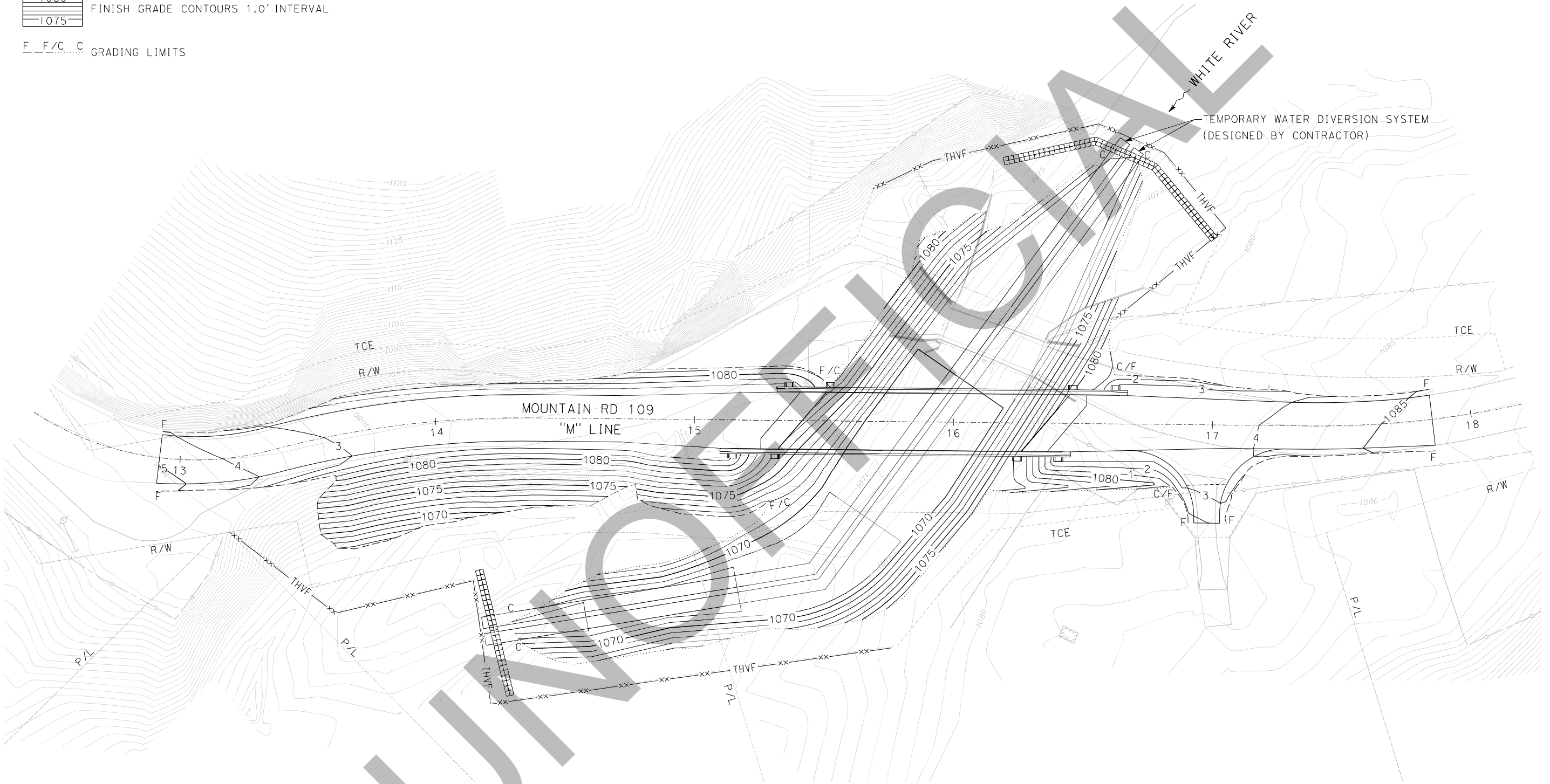
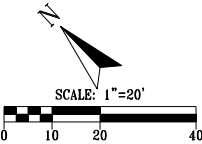
C1  
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LEGEND:

1080  
1075  
FINISH GRADE CONTOURS 1.0' INTERVAL

F F/C C GRADING LIMITS



REVISIONS	
DATE	BY

COUNTY OF TULARE  
RESOURCE MANAGEMENT AGENCY  
5961 SOUTH MOONEY BLVD.  
VISALIA, CA 93277  
(559) 624-7000  
WWW.TULARECOUNTY.CA.GOV/RMA



**DE DOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 95688-0642  
Kris Kofod, PROJECT ENGINEER 7/17/23 DATE

**MOUNTAIN ROAD 109 (M109)  
OVER WHITE RIVER BRIDGE  
REPLACEMENT  
CONTOUR GRADING PLAN**

SCALE	AS SHOWN
DIVISION	
JOB NO.	
DESIGNED	KK
DRAWN	AR
CHECKED	KK
FILE	
DATE	\$DATE\$
SHEET No.	

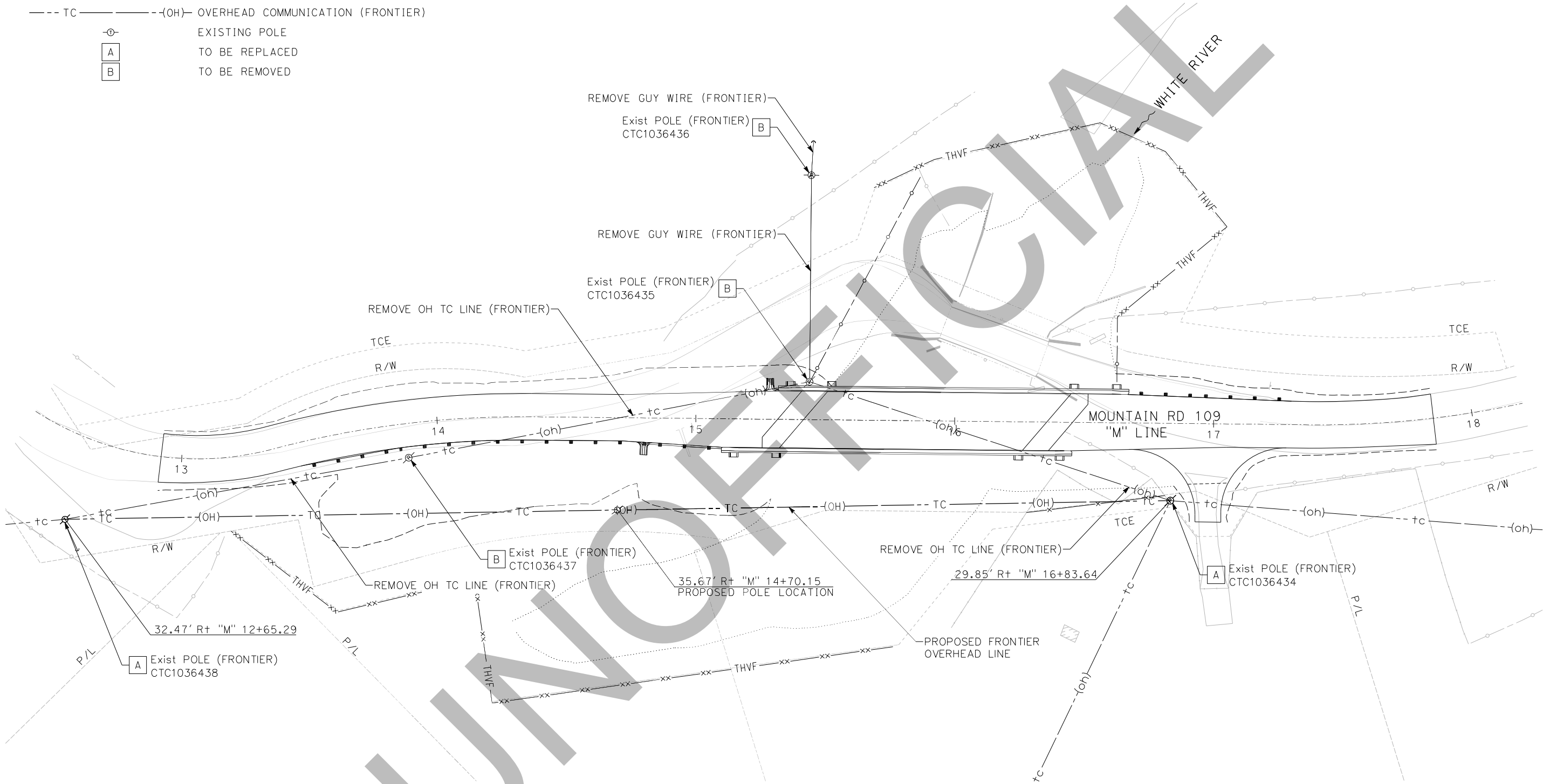
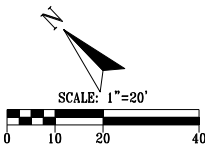
G1  
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NOTE:  
1. FRONTIER RELOCATION TO BE DONE CONCURRENTLY WITH CONSTRUCTION.

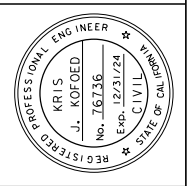
- LEGEND:
- tc---(oh) EXISTING OVERHEAD COMMUNICATION (FRONTIER)
  - TC---(OH) OVERHEAD COMMUNICATION (FRONTIER)
  - ⊙ EXISTING POLE
  - A TO BE REPLACED
  - B TO BE REMOVED

UTILITY CONTACT  
LEWIS EDROZO FRONTIER COMMUNICATIONS (760) 375-6616



REVISIONS	
No.	DESCRIPTION

COUNTY OF TULARE  
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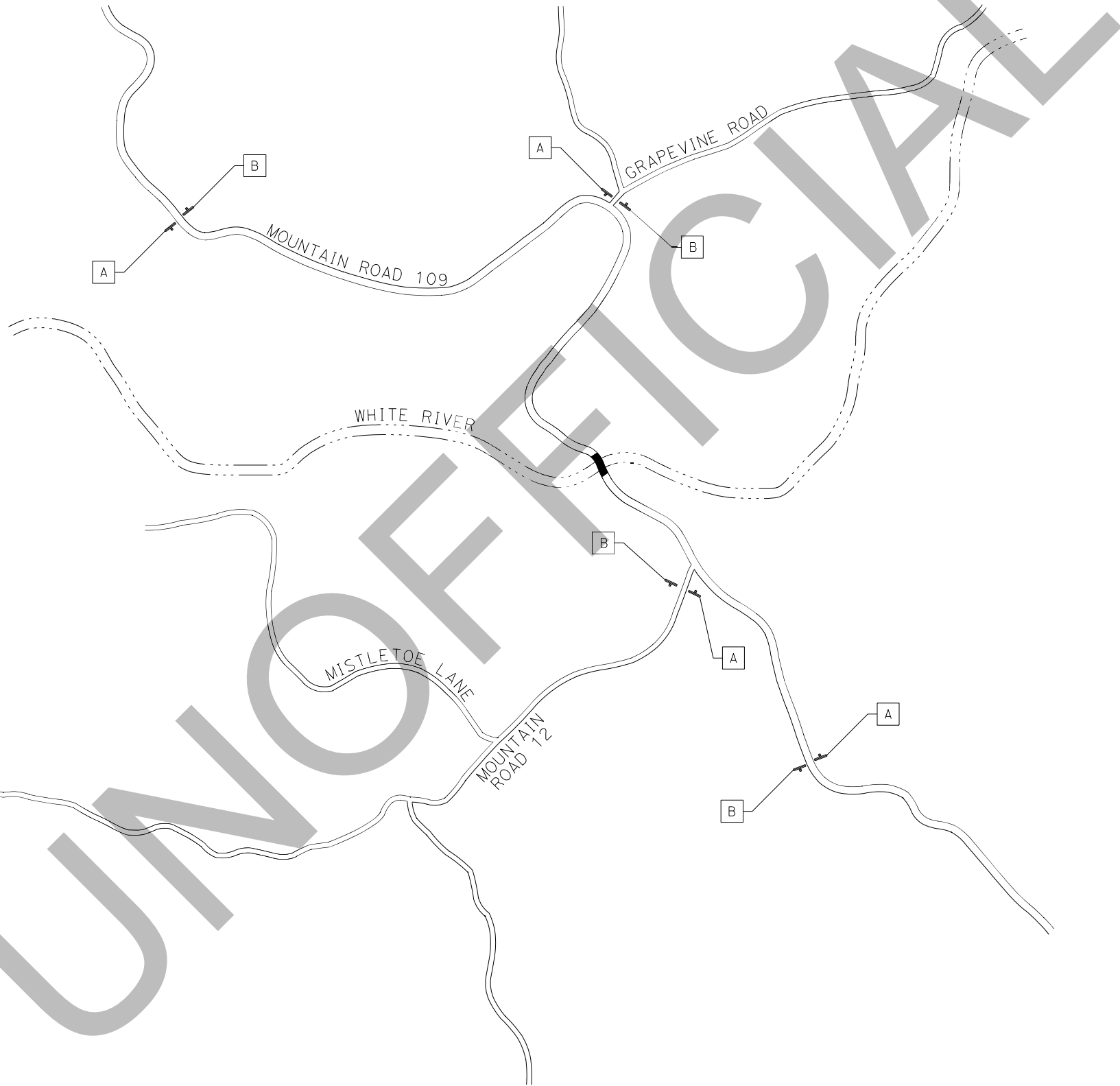
**DE DOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 95630  
916-858-0642  
Kris Koford, PROJECT ENGINEER  
7/17/23  
DATE

**MOUNTAIN ROAD 109 (M109)  
OVER WHITE RIVER BRIDGE  
REPLACEMENT  
UTILITY PLAN**

SCALE	AS SHOWN
DIVISION	
JOB NO.	
DESIGNED	KK
DRAWN	AR
CHECKED	KK
FILE	
DATE	\$DATE\$
SHEET No.	

U1  
6 of 27



[illegible]

**COUNTY OF TULARE**  
**RESOURCE MANAGEMENT AGENCY**  
5961 SOUTH MOONEY BLVD.  
VISALIA, CA 93277  
(559) 624-7000  
[WWW.TULARECOUNTY.CA.GOV/RMA](http://WWW.TULARECOUNTY.CA.GOV/RMA)



**DE** **DOKKEN**  
**ENGINEERING**  
110 BLUE HAVINE ROAD SUITE 200, FOLSOM CA. 916-859-0642  
7/7/23  
DATE  
*Kris Koford*  
KRIS KOFORD, PROJECT ENGINEER

**MOUNTAIN ROAD 109 (M109)  
OVER WHITE RIVER BRIDGE  
REPLACEMENT  
CONSTRUCTION AREA SIGNS**

SCALE	AS SHOWN
DIVISION	
JOB NO.	
DESIGNED	KK
DRAWN	AR
CHECKED	KK
TITLE	
DATE	\$DATE\$
SHEET No.	

CS1  
7 OF 27



NOTE:  
1. FOR ADDITIONAL CONSTRUCTION AREA SIGNS, REFER TO SHEET CS1.

LEGEND:

CONSTRUCT THIS STAGE

TEMPORARY PAVEMENT (2" HMA/4" CLASS 2 AB)

TLL

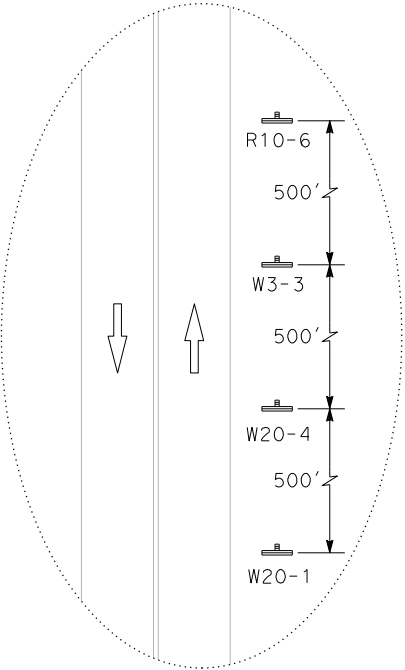
TEMPORARY LIMIT LINE

TEMPORARY PORTABLE TRAFFIC CONTROL SIGNAL

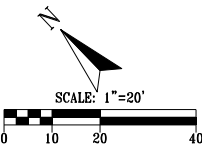
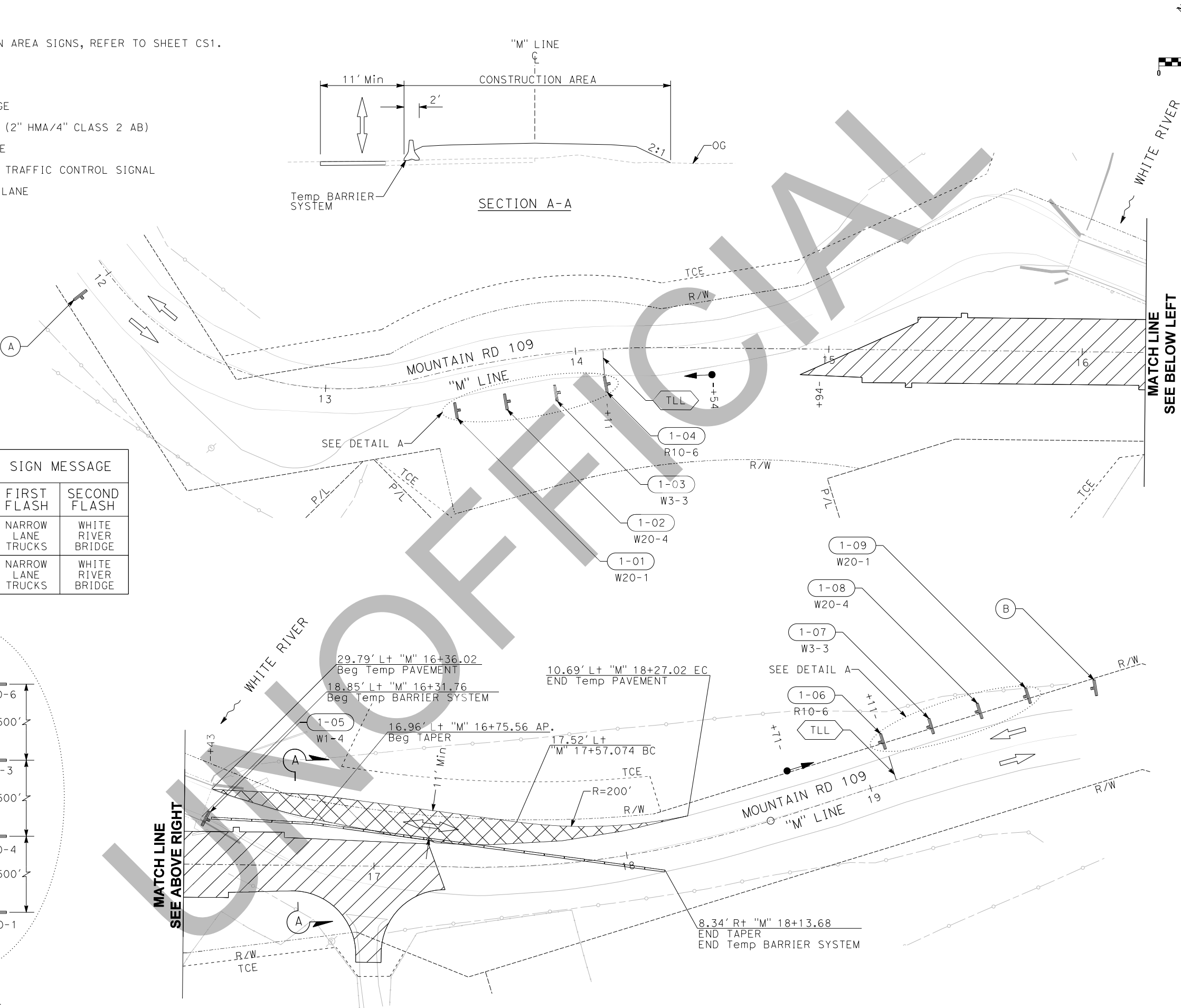
REVERSIBLE TRAFFIC LANE

PCMS

SIGN No. (X)	LOCATION	SIGN MESSAGE	
		FIRST FLASH	SECOND FLASH
A	MOUNTAIN ROAD 109/ HOT SPRINGS ROAD INTERSECTION	NARROW LANE TRUCKS	WHITE RIVER BRIDGE
B	MOUNTAIN ROAD 109/ JACK RANCH ROAD INTERSECTION	NARROW LANE TRUCKS	WHITE RIVER BRIDGE



DETAIL "A"  
NTS



REVISIONS

No.	DESCRIPTION	DATE	BY

COUNTY OF TULARE  
RESOURCE MANAGEMENT AGENCY  
5961 SOUTH MOONEY BLVD.  
VISALIA, CA 93277  
(559) 624-7000  
WWW.TULARECOUNTY.CA.GOV/RMA

KRIS KOFOD  
No. 16736  
Exp. 12/31/24  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF CALIFORNIA

DEDOKKEN  
ENGINEERING  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 95688-0642  
Kris Kofod, PROJECT ENGINEER  
7/17/23  
DATE

MOUNTAIN ROAD 109 (M109)  
OVER WHITE RIVER BRIDGE  
REPLACEMENT  
TRAFFIC HANDLING PLAN  
STAGE 1

SCALE AS SHOWN

DIVISION

JOB NO.

DESIGNED KK

DRAWN AR

CHECKED KK

FILE

DATE \$DATE\$

SHEET No.

SC1

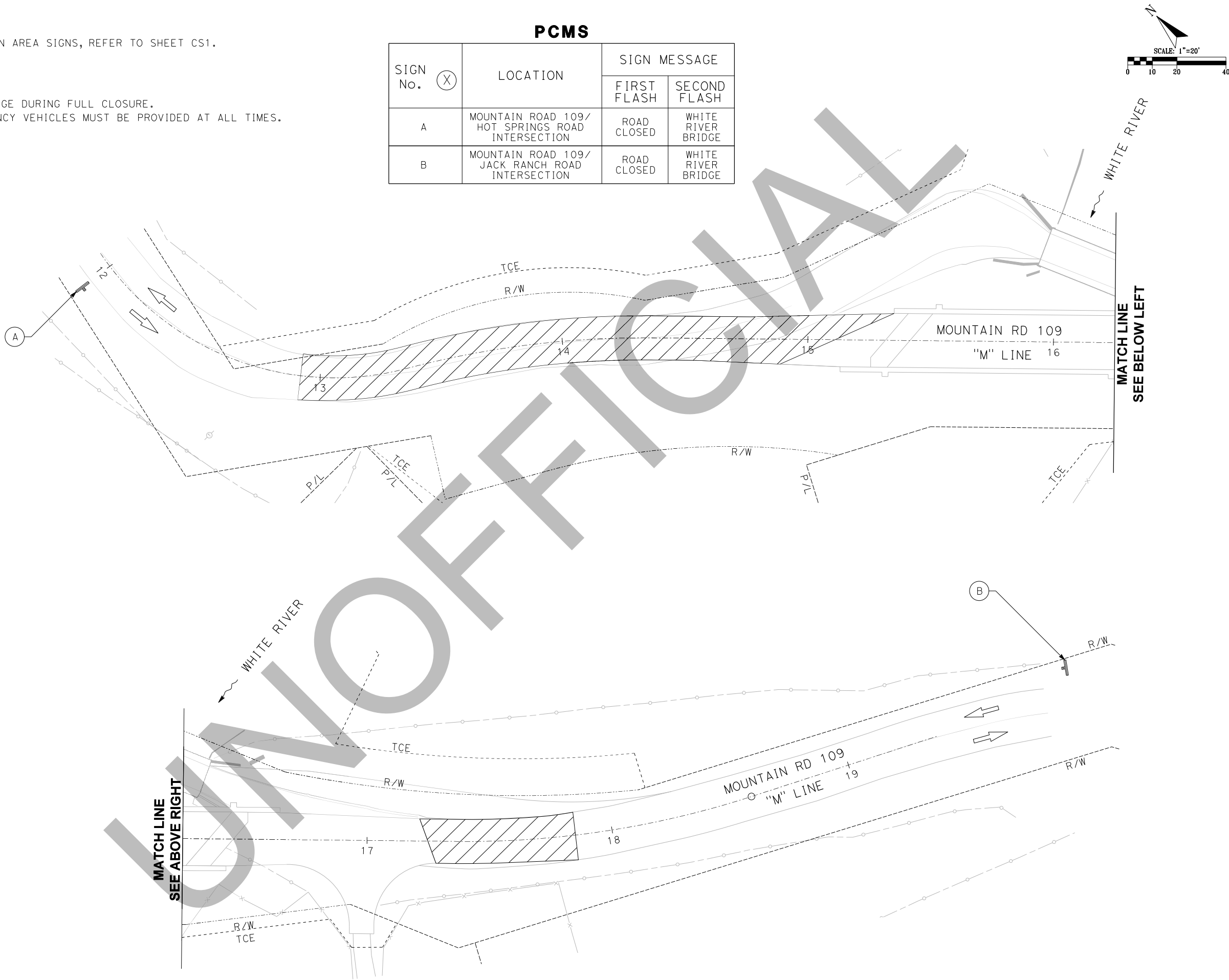
8 of 27



NOTE:  
1. FOR ADDITIONAL CONSTRUCTION AREA SIGNS, REFER TO SHEET CS1.

LEGEND:  
 CONSTRUCT THIS STAGE DURING FULL CLOSURE.  
ACCESS FOR EMERGENCY VEHICLES MUST BE PROVIDED AT ALL TIMES.


PCMS			
SIGN No.	LOCATION	SIGN MESSAGE	
		FIRST FLASH	SECOND FLASH
A	MOUNTAIN ROAD 109/ HOT SPRINGS ROAD INTERSECTION	ROAD CLOSED	WHITE RIVER BRIDGE
B	MOUNTAIN ROAD 109/ JACK RANCH ROAD INTERSECTION	ROAD CLOSED	WHITE RIVER BRIDGE



REVISIONS

No.	DESCRIPTION	DATE	BY

COUNTY OF TULARE  
RESOURCE MANAGEMENT AGENCY  
5961 SOUTH MOONEY BLVD.  
VISALIA, CA 93277  
(559)624-7000  
WWW.TULARECOUNTY.CA.GOV/RMA



**DEDOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 95630  
916-858-0642  
Kris Kofod, PROJECT ENGINEER  
7/17/23  
DATE

**MOUNTAIN ROAD 109 (M109)  
OVER WHITE RIVER BRIDGE  
REPLACEMENT  
TRAFFIC HANDLING PLAN  
STAGE 2**

SCALE	AS SHOWN
DIVISION	
JOB NO.	
DESIGNED	KK
DRAWN	AR
CHECKED	KK
FILE	
DATE	\$DATE\$
SHEET No.	

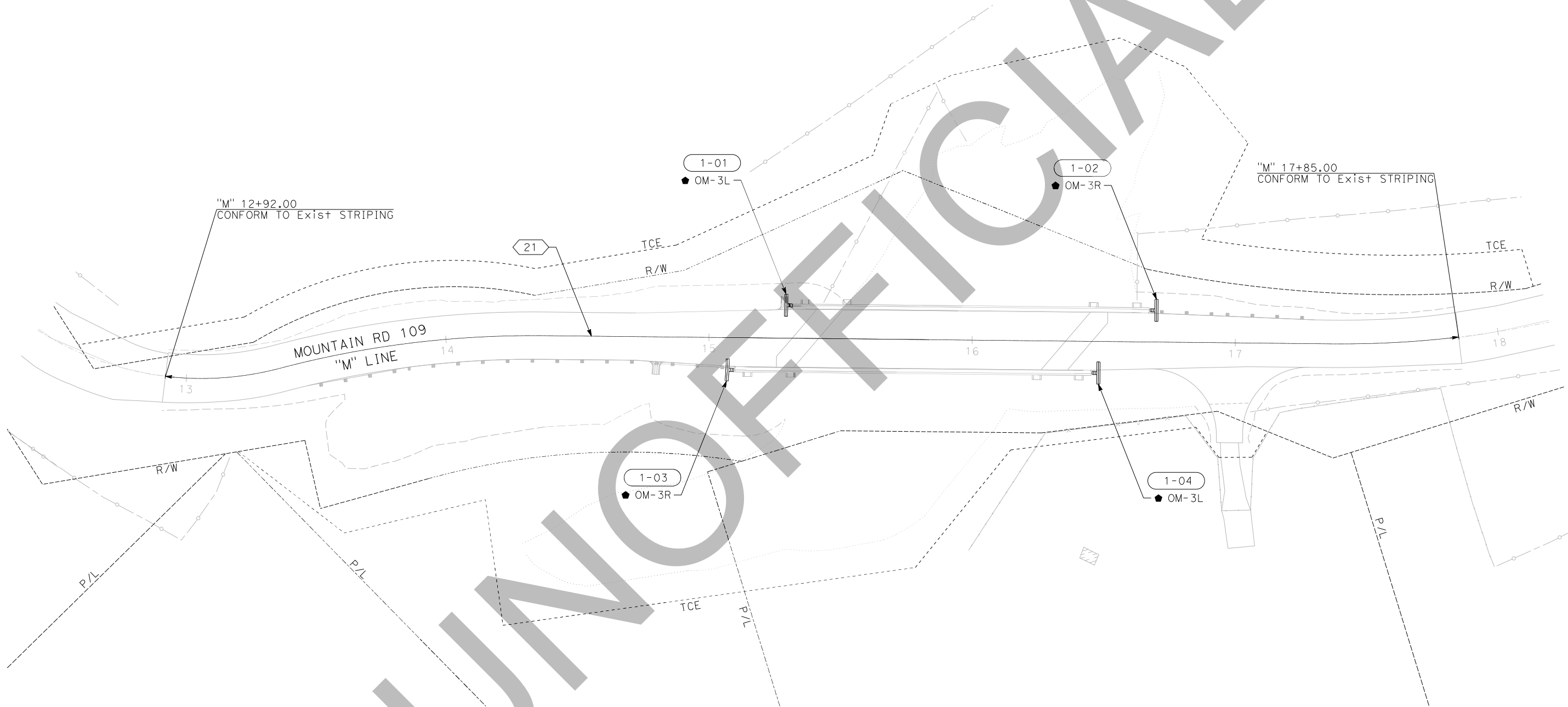
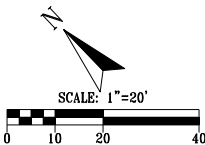
SC2

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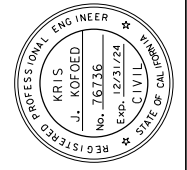
LEGEND:

- BEGIN/END OF TRAFFIC STRIPE DETAIL
- PAVEMENT DELINEATION DETAIL NUMBER
- OBJECT MARKER NUMBER
- OBJECT MARKER LOCATION
- OBJECT MARKER SIGN



REVISIONS	
DATE	BY

COUNTY OF TULARE  
RESOURCE MANAGEMENT AGENCY  
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**DE DOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642  
Kris Kofod, PROJECT ENGINEER 7/17/23 DATE

MOUNTAIN ROAD 109 (M109)  
OVER WHITE RIVER BRIDGE  
REPLACEMENT  
SIGNING AND STRIPING PLAN

SCALE	AS SHOWN
DIVISION	
JOB NO.	
DESIGNED	KK
DRAWN	AR
CHECKED	KK
FILE	
DATE	\$DATE\$
SHEET No.	



LEGEND:

1080  
1075  
FINISH GRADE CONTOURS 1.0' INTERVAL

EROSION CONTROL

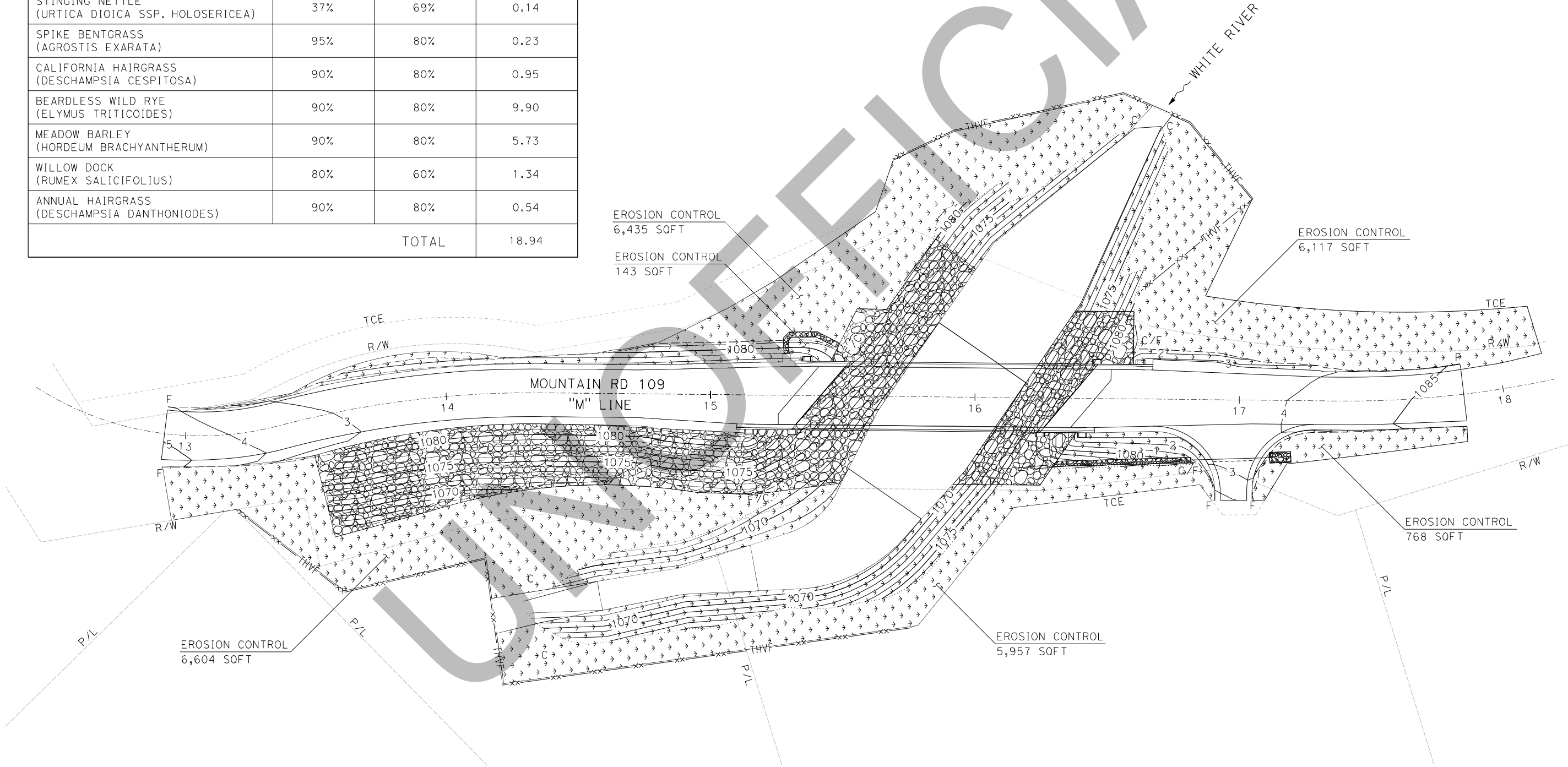
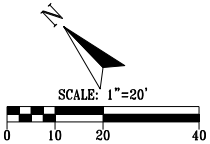
ROCK SLOPE PROTECTION (SEE SHEET C1)

SEED MIX

BOTANICAL NAME (COMMON NAME)	PERCENT PURITY (MINIMUM)	PERCENT GERMINATION (MINIMUM)	POUNDS PER ACRE
CALIFORNIA MUGWORT (ARTEMISIA DOUGLASIANA)	15%	40%	0.11
STINGING NETTLE (URTICA DIOICA SSP. HOLOSERICEA)	37%	69%	0.14
SPIKE BENTGRASS (AGROSTIS EXARATA)	95%	80%	0.23
CALIFORNIA HAIRGRASS (DESCHAMPSIA CESPITOSA)	90%	80%	0.95
BEARDLESS WILD RYE (ELYMUS TRITICOIDES)	90%	80%	9.90
MEADOW BARLEY (HORDEUM BRACHYANTHERUM)	90%	80%	5.73
WILLOW DOCK (RUMEX SALICIFOLIUS)	80%	60%	1.34
ANNUAL HAIRGRASS (DESCHAMPSIA DANTHONIOIDES)	90%	80%	0.54
TOTAL			18.94

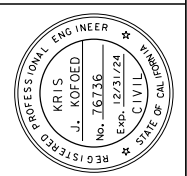
EROSION CONTROL

ITEM	MATERIAL TYPE	APPLICATION RATE	REMARKS
BONDED FIBER MATRIX	BONDED FIBER AND TACKIFIER	2500 LB/ACRE	APPLICATION RATE IS FOR FIBER AND TACKIFIER COMBINED
	SEED MIX	18.94 LB/ACRE	



REVISIONS	
DESCRIPTION	DATE BY

COUNTY OF TULARE  
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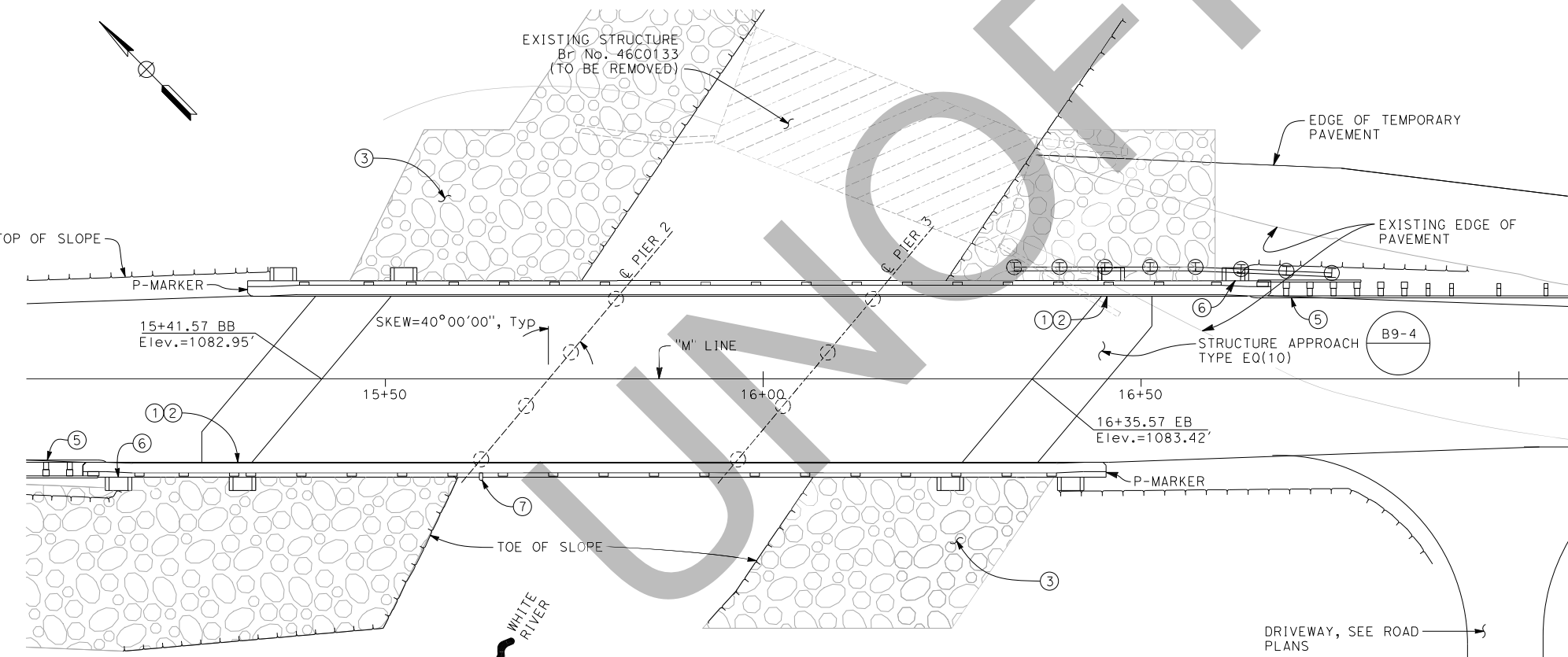
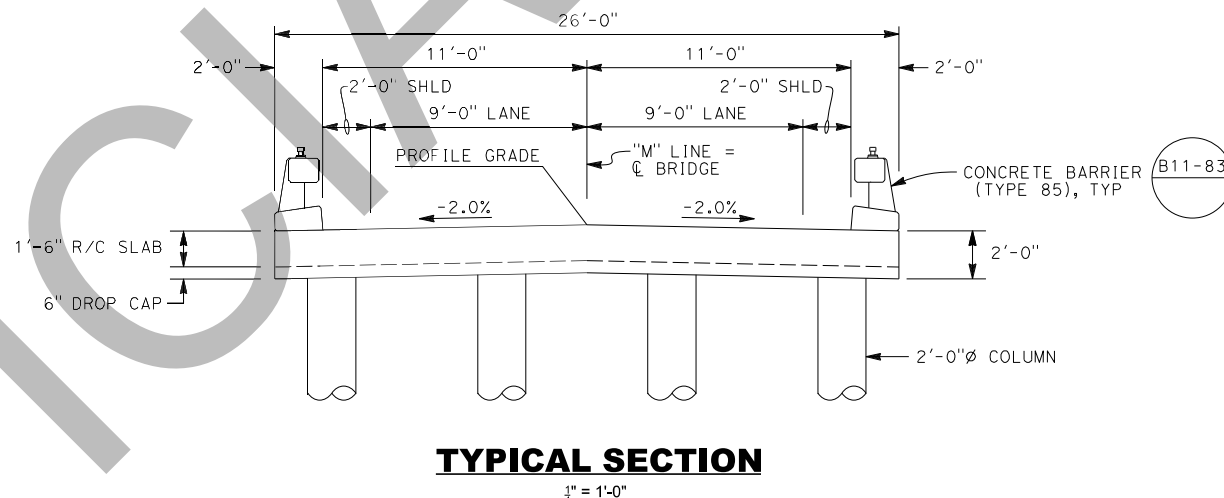
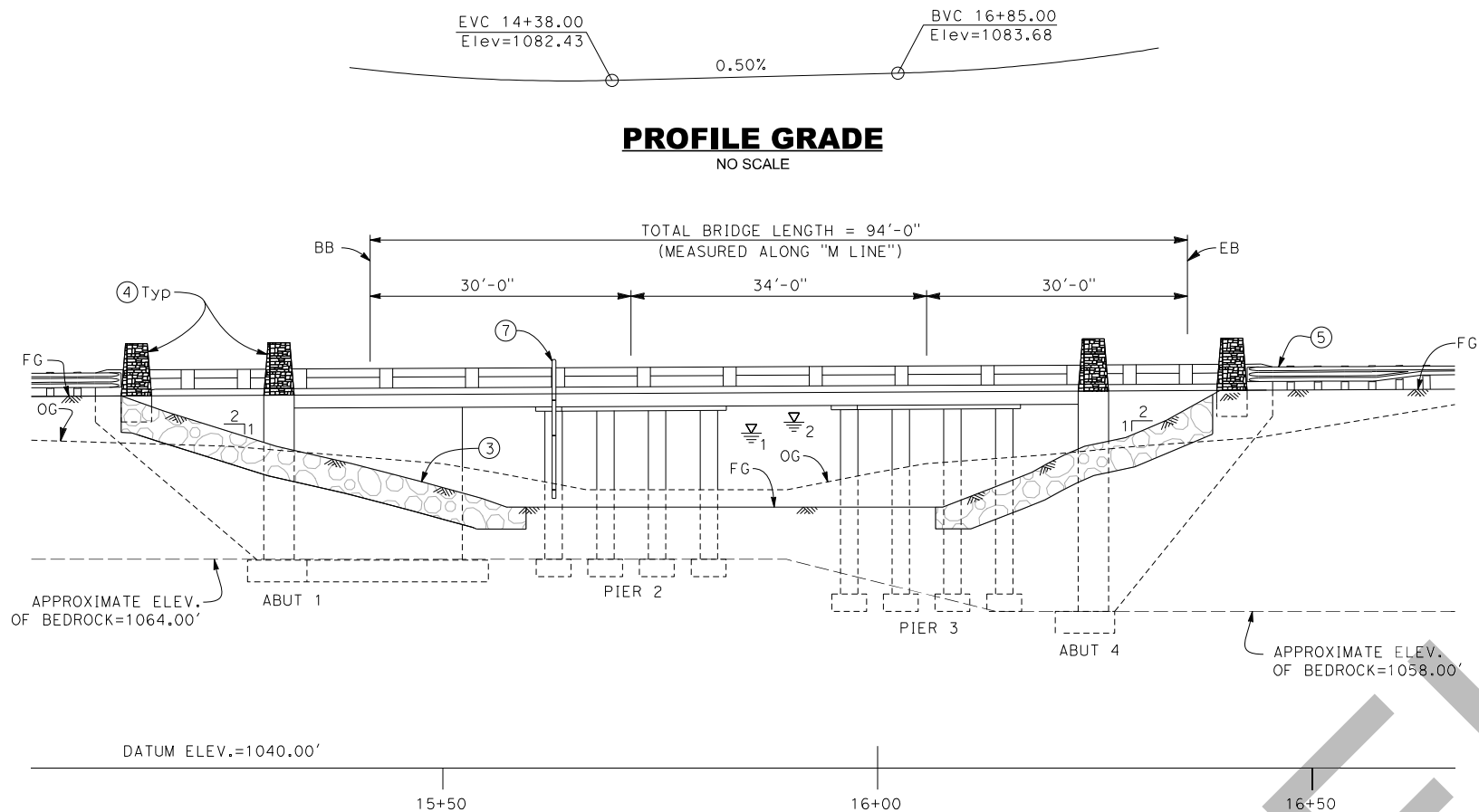


**DE DOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-888-0642  
Kris Kofod, PROJECT ENGINEER  
7/17/23 DATE

**MOUNTAIN ROAD 109 (M109)  
OVER WHITE RIVER BRIDGE  
REPLACEMENT  
EROSION CONTROL PLAN**

SCALE	AS SHOWN
DIVISION	
JOB NO.	
DESIGNED	KK
DRAWN	AR
CHECKED	KK
FILE	
DATE	\$DATE\$
SHEET No.	





- LEGEND:**
- ① Paint "Br No. 46C0487"
  - ② Place Date Stamp (Provided by County)
  - ③ Rock Slope Protection, see Road Plans
  - ④ Concrete Surface Texture, see "ARCHITECTURAL DETAILS" sheet
  - ⑤ MGS, see Road Plans
  - ⑥ Plaque tile, see "ARCHITECTURAL DETAILS" sheet
  - ⑦ Dry hydrant. See "DRY HYDRANT DETAILS" on "PIER DETAILS" sheet
  - Existing structure
  - ⊕ ⊕ Indicates anticipated temporary shoring as required for bridge construction and removal. Actual shoring locations and designs are the responsibility of the contractor
- NOTES:**
1. For General Notes and Quantities, see "INDEX TO PLANS" sheet
  2. For Hydrologic Summary, Scour Data Table, and Spread Footing Data Table, see "FOUNDATION PLAN" sheet.

**NOTE:**  
The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

**PLAN**  
1" = 10'

REVISIONS	
No.	DATE
COUNTY OF TULARE RESOURCE MANAGEMENT AGENCY 5961 SOUTH MOONEY BLVD. VISALIA, CA 93277 (559) 624-7000 WWW.TULARECOUNTY.CA.GOV/RMA	
<b>DEDOKKEN</b> ENGINEERING 110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 95688-0642 JEREMY NOTTNAGEL, PROJECT ENGINEER	
<b>MOUNTAIN ROAD 109 OVER WHITE RIVER BRIDGE GENERAL PLAN</b>	
SCALE	AS SHOWN
DIVISION	STRUCTURES
JOB NO.	#2599
DESIGNED	JN
DRAWN	MD
CHECKED	TP
FILE	
DATE	7/7/23
SHEET No.	
S1	
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INDEX TO PLANS

SHEET NO.	TITLE
S1	GENERAL PLAN
S2	INDEX TO PLANS
S3	STAGED CONSTRUCTION
S4	DECK CONTOURS
S5	FOUNDATION PLAN
S6	ABUTMENT LAYOUT
S7	ABUTMENT DETAILS
S8	PIER LAYOUT
S9	PIER DETAILS
S10	SLAB REINFORCEMENT DETAILS No. 1
S11	SLAB REINFORCEMENT DETAILS No. 2
S12	ARCHITECTURAL TREATMENT DETAILS
S13	LOG OF TEST BORINGS NO. 1
S14	LOG OF TEST BORINGS NO. 2
S15	LOG OF TEST BORINGS NO. 3
S16	LOG OF TEST BORINGS NO. 4

GENERAL NOTES  
LOAD AND RESISTANCE FACTOR DESIGN

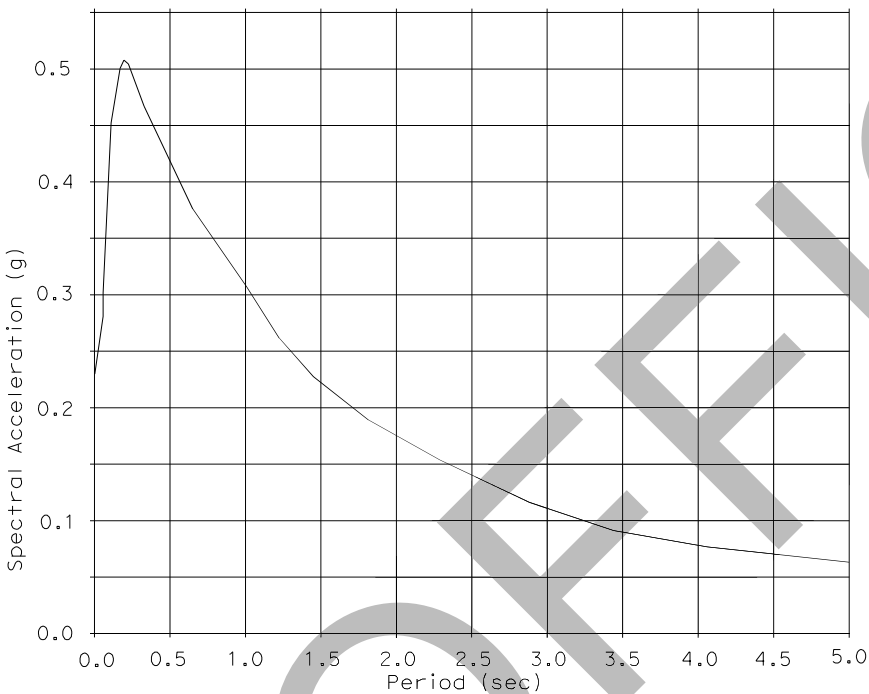
DESIGN: AASHTO LRFD Bridge Design Specifications, 8th Edition with California Amendments, preface dated November 2019

SEISMIC DESIGN: CALTRANS SEISMIC DESIGN CRITERIA (SDC) Version 2.0, April 2019 with October 2019 Revisions

ADDED DEAD LOAD: Includes 35 psf for future wearing surface

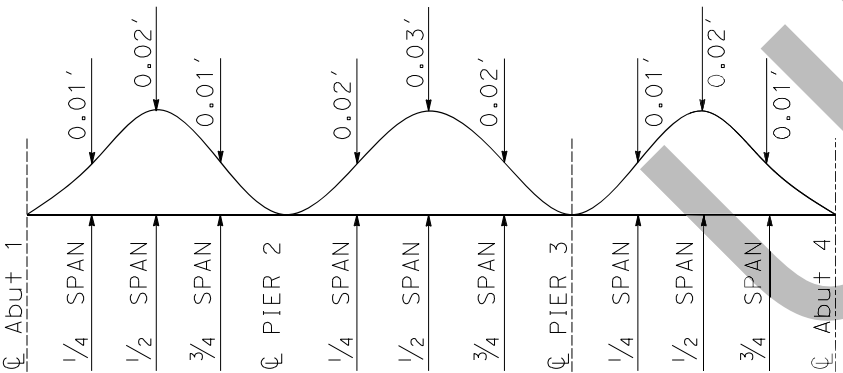
LIVE LOAD: HL93 Design Load  
P15 Permit Load

SEISMIC LOAD: Soil profile :  $V_{S30} = 2493$  ft/s  
Moment Magnitude : 6.16  
Peak Ground Acceleration = 0.23g  
5% Damping



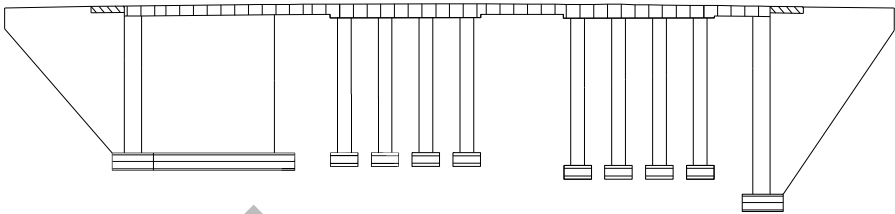
ARS CURVE

REINFORCED CONCRETE:  $f_y = 60$  ksi  
 $f'_c = 3.6$  ksi  
 $n = 8$



CAMBER DIAGRAM

NO SCALE



CONCRETE STRENGTH AND TYPE LIMITS

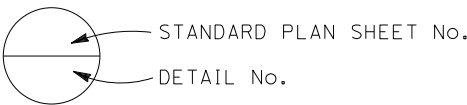
- STRUCTURAL CONCRETE, (POLYMER FIBER) ( $f'_c = 4.0$  ksi)
- STRUCTURAL CONCRETE, BRIDGE ( $f'_c = 3.6$  ksi)
- STRUCTURAL CONCRETE, BRIDGE FOOTING ( $f'_c = 3.6$  ksi)
- STRUCTURAL CONCRETE, APPROACH SLAB ( $f'_c = 3.6$  ksi)

QUANTITIES		
ITEM	UNIT	QUANTITY
BRIDGE REMOVAL	LS	1
STRUCTURE EXCAVATION (ROCK)*	CY	80
STRUCTURE EXCAVATION (TYPE D)*	CY	570
STRUCTURE BACKFILL (BRIDGE)	CY	450
TEMPORARY SHORING	LS	1
STRUCTURAL CONCRETE, BRIDGE FOOTING	CY	35
STRUCTURAL CONCRETE, BRIDGE	CY	230
STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	CY	140
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE EQ)	CY	22
CONCRETE SURFACE TEXTURE (DRY STACK)	SQFT	420
DRILL AND BOND DOWEL	LF	120
JOINT SEAL (MR 1/2")	LF	63
BAR REINFORCING STEEL (BRIDGE)	LB	90000
BAR REINFORCING STEEL (GALVANIZED)	LB	2000
PREPARE AND STAIN CONCRETE	SQFT	500
CONCRETE BARRIER (TYPE 85)	LF	271
MISCELLANEOUS METAL (DRY HYDRANT)	LB	190
WORK AREA MONITORING (BRIDGE)	LS	1

\*FOR PAY LIMITS OF EXCAVATION, SEE "DECK CONTOURS" SHEET

STANDARD PLANS DATED 2022

- A3A Abbreviations (Sheet 1 of 3)
- A3B Abbreviations (Sheet 1 of 3)
- A3C Abbreviations (Sheet 1 of 3)
- A10A Legend - Lines and Symbols (Sheet 1 of 5)
- A10B Legend - Lines and Symbols (Sheet 1 of 5)
- A10C Legend - Lines and Symbols (Sheet 1 of 5)
- A10D Legend - Lines and Symbols (Sheet 1 of 5)
- A10E Legend - Lines and Symbols (Sheet 1 of 5)
- RSP A10F Legend - Soil (Sheet 1 of 2)
- RSP A10G Legend - Soil (Sheet 1 of 2)
- A62C Limits of Payment for Excavation and Backfill - Bridge
- RSP A77U3A Midwest Guardrail System - Connections to Abutments and Walls
- RSP A77U3B Midwest Guardrail System - Connections to Abutments and Walls
- B0-1 Bridge Details
- B0-3 Bridge Details
- B0-5 Bridge Details
- B0-13 Bridge Details
- B6-21 Joint Seals (Maximum Movement Rating = 2")
- B9-4 Structure Approach Type EQ (10)
- B9-5 Structure Approach - Slab Details
- B9-6 Structure Approach - Drainage Details
- B11-83 Concrete Barrier Type 85 (Sheet 1 of 3)
- B11-84 Concrete Barrier Type 85 (Sheet 1 of 3)
- B11-85 Concrete Barrier Type 85 (Sheet 1 of 3)



REVISIONS

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COUNTY OF TULARE  
RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD.  
VISALIA, CA 93277  
(559)624-7000  
WWW.TULARECOUNTY.CA.GOV/RMA

REGISTERED PROFESSIONAL ENGINEER  
JERRY R. NOTTMAGEL  
No. 93270  
Exp. 03/31/24  
CIVIL  
STATE OF CALIF.

DEDOKKEN  
ENGINEERING

110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 95630  
916-858-0642  
JERRY R. NOTTMAGEL  
JERRY R. NOTTMAGEL, PROJECT ENGINEER

DATE

MOUNTAIN ROAD 109  
OVER WHITE RIVER  
BRIDGE

INDEX TO PLANS

SCALE AS SHOWN

DIVISION STRUCTURES

JOB NO. #2599

DESIGNED JN

DRAWN MD

CHECKED TP

FILE

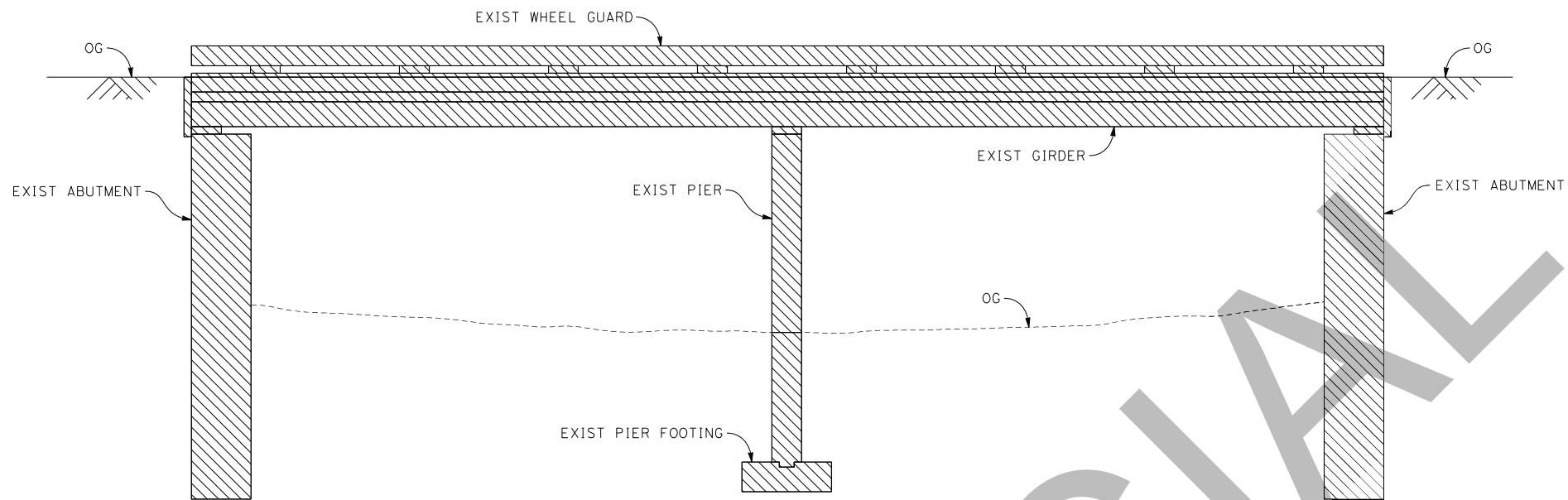
DATE 7/7/23

SHEET No.

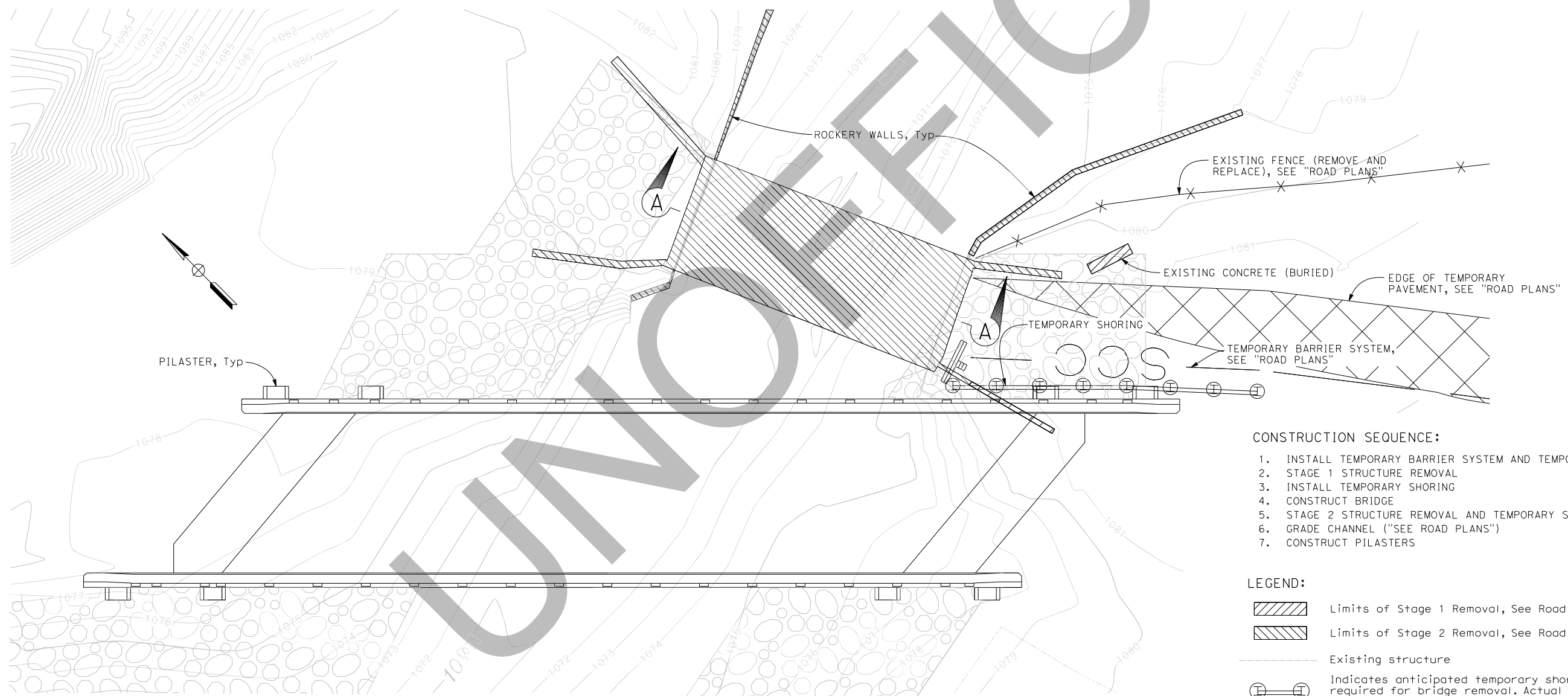
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**SECTION A-A**  
3/8" = 1'-0"



**PLAN**  
1/8" = 1'-0"

- CONSTRUCTION SEQUENCE:**
1. INSTALL TEMPORARY BARRIER SYSTEM AND TEMPORARY PAVEMENT
  2. STAGE 1 STRUCTURE REMOVAL
  3. INSTALL TEMPORARY SHORING
  4. CONSTRUCT BRIDGE
  5. STAGE 2 STRUCTURE REMOVAL AND TEMPORARY SHORING REMOVAL
  6. GRADE CHANNEL ("SEE ROAD PLANS")
  7. CONSTRUCT PILASTERS

- LEGEND:**
- Limits of Stage 1 Removal, See Road Plans
  - Limits of Stage 2 Removal, See Road Plans
  - Existing structure
  - Indicates anticipated temporary shoring as required for bridge removal. Actual shoring location and design are the responsibility of the contractor

- NOTES:**
1. For all traffic control staging and details, see "Road Plans"

REVISIONS	
No.	DESCRIPTION

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**REGISTERED PROFESSIONAL ENGINEER**  
Jeremy R. Nottnagel  
No. 93270  
Exp. 03/31/24  
STATE OF CALIF. CIVIL

**DEDOKKEN ENGINEERING**  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642  
Jeremy Nottnagel, PROJECT ENGINEER

**MOUNTAIN ROAD 109 OVER WHITE RIVER BRIDGE**  
**STAGED CONSTRUCTION**

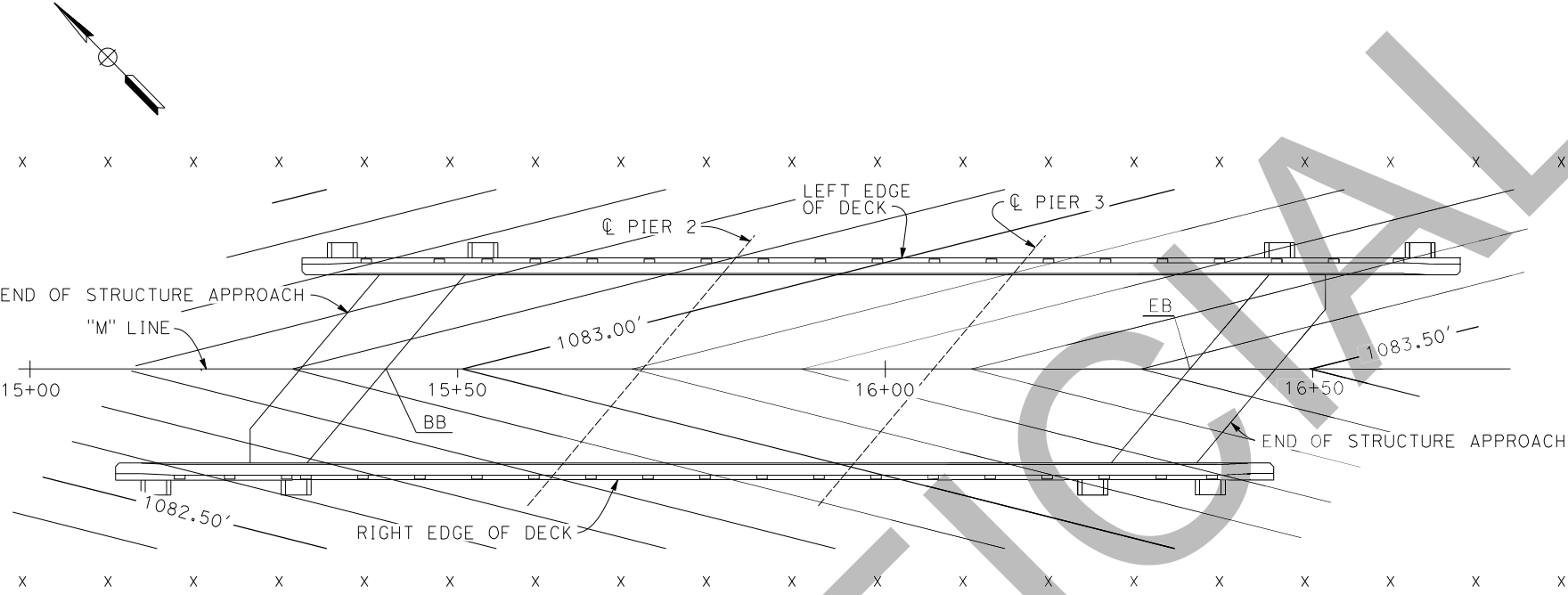
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DIVISION: STRUCTURES  
JOB NO.: #2599  
DESIGNED: JN  
DRAWN: MD  
CHECKED: TP  
FILE  
DATE: 7/7/23  
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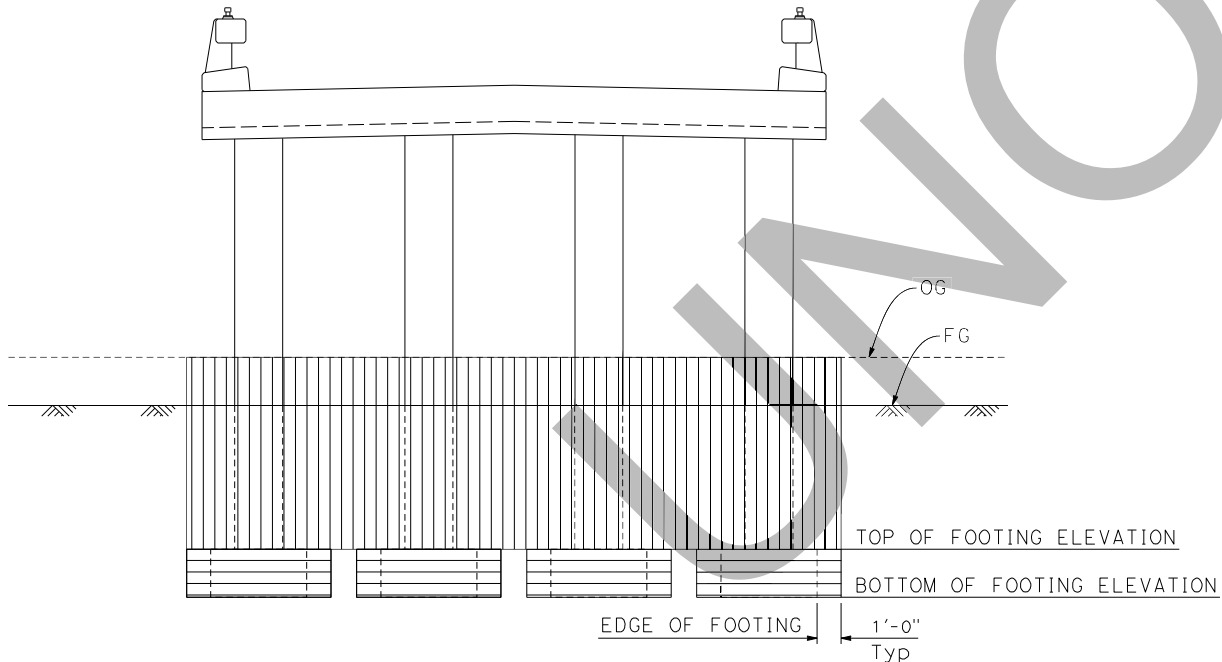


NOTES:  
Contours do not include camber, falsework settlement,  
or allowance for deck grinding and grooving.  
Contour interval is 0.10'  
x Denotes 10' interval along "M" LINE

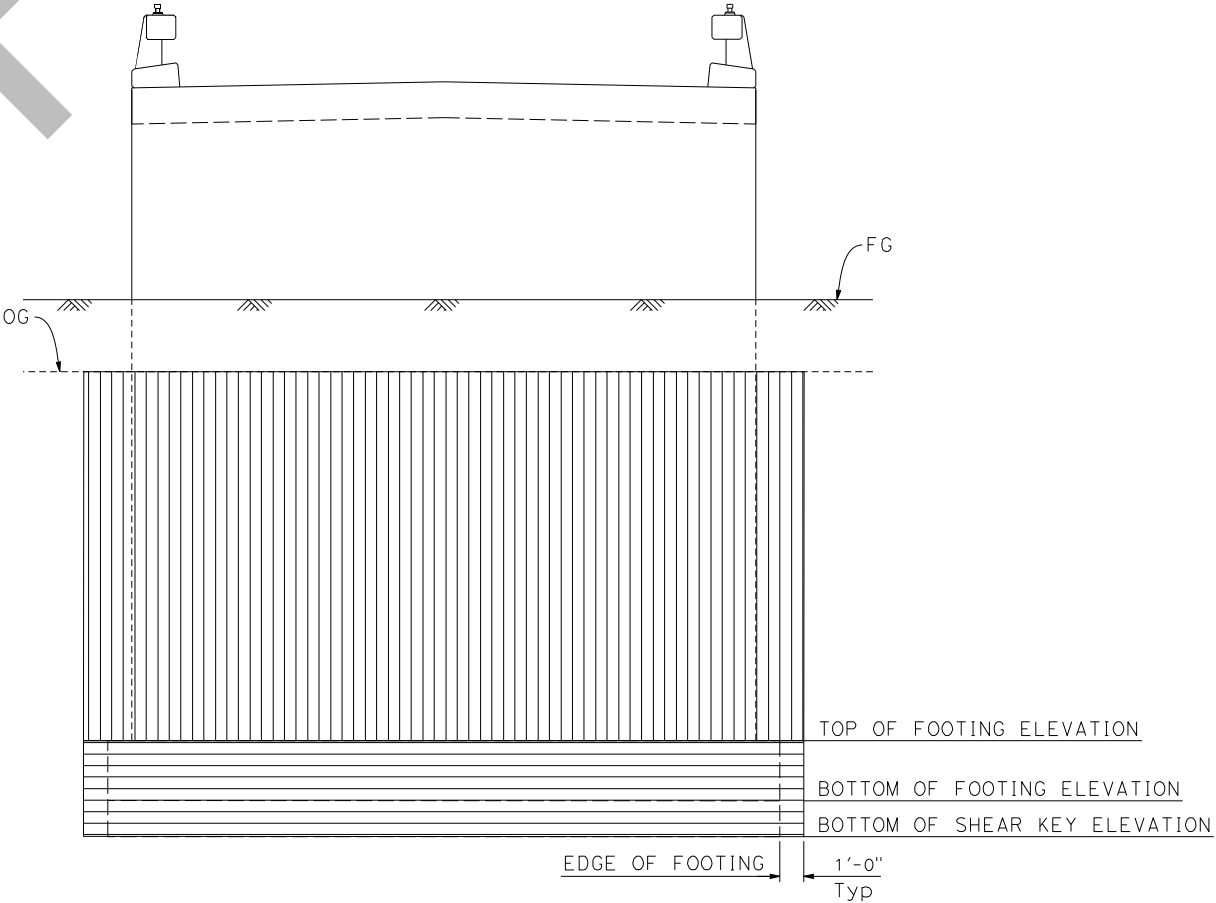


PLAN  
1" = 10'

- LEGEND:
- STRUCTURE EXCAVATION (TYPE D)
  - STRUCTURE EXCAVATION (ROCK)



LIMITS OF PAYMENT FOR STRUCTURE EXCAVATION (AT PIERS)  
NO SCALE



LIMITS OF PAYMENT FOR STRUCTURE EXCAVATION (AT ABUTMENTS)  
NO SCALE

REVISIONS	
No.	DESCRIPTION

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STATE OF CALIFORNIA  
CIVIL

**DEDOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642  
JEREMY NOTTMAGEL, PROJECT ENGINEER

MOUNTAIN ROAD 109  
OVER WHITE RIVER  
BRIDGE  
DECK CONTOURS

SCALE AS SHOWN  
DIVISION STRUCTURES  
JOB NO. #2599  
DESIGNED JN  
DRAWN MD  
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FILE  
DATE 7/7/23  
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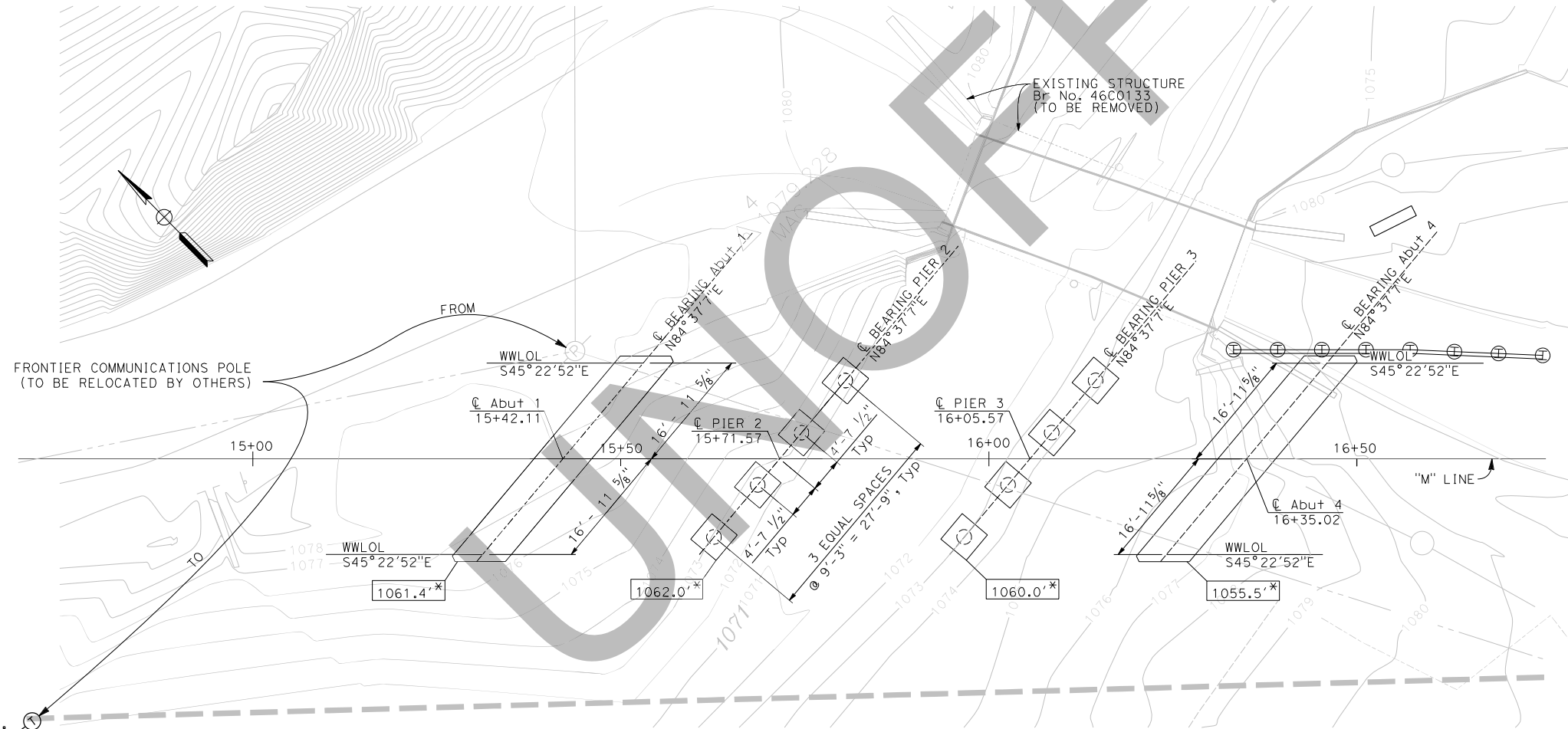


Scour Data Table			
Support Location	Long Term (Deg And Contraction) Scour Elev (ft)	Short Term Scour (Local) Depth (ft)	Total Scour * Elevation (ft)
ABUT 1	1065.60'	4.50'	1061.10'
PIER 2	1065.60'	5.60'	1059.90'
PIER 3	1065.60'	4.60'	1061.00'
ABUT 4	1065.60'	5.90'	1059.70'

Hydraulic / Hydrology Data		
Drainage Area = 57.4 Sq Mi.	DESIGN FLOOD	BASE FLOOD
Frequency	50 YEAR	100 YEAR
Discharge	3570 CFS	4650 CFS
Proposed Water Surface Elevation at Face of Bridge	1078.5	1079.8

Spread Footing Data Table			
Support Location	Load and Resistance Factor Design (LRFD)		
	Service Permissible Net Contact Stress (Settlement) (ksf)	Strength/Construction Factored Gross Nominal Bearing Resistance $\phi_c = 0.45$ (ksf)	Extreme Event Factored Gross Nominal Bearing Resistance $\phi_c = 1.00$ (ksf)
ABUT 1	35.3	222.4	N/A
PIER 2	52.7	162.6	361.3
PIER 3	52.7	162.6	361.3
ABUT 4	37.1	249.5	N/A

\* Top of footing elevations are to be placed below bedrock as determined by engineer. Bedrock must be non-scourable. Footing elevations may be adjusted by the engineer based on field conditions encountered during construction.



NOTE: The contractor shall verify all controlling field dimensions before ordering or fabricating any material.

PLAN  
1" = 10'

LEGEND:

XXXX.XX' Indicates bottom of footing elevation

NOTES:

⊕—⊕ Indicates anticipated temporary shoring as required for bridge removal. Actual shoring locations and designs are the responsibility of the contractor

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CIVIL  
STATE OF CALIFORNIA

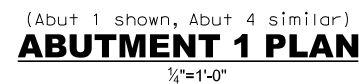
DEDOKKEN  
ENGINEERING  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642  
Jeremy Nottnagel  
JEREMY NOTTNAGEL, PROJECT ENGINEER

MOUNTAIN ROAD 109  
OVER WHITE RIVER  
BRIDGE  
FOUNDATION PLAN

SCALE AS SHOWN  
DIVISION STRUCTURES  
JOB NO. #2599  
DESIGNED JN  
DRAWN MD  
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**DE** **DOKKEN**  
**E N G I N E E R I N G**  
10 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642

EREMY WOTTNAGEL, PROJECT ENGINEER

DATE

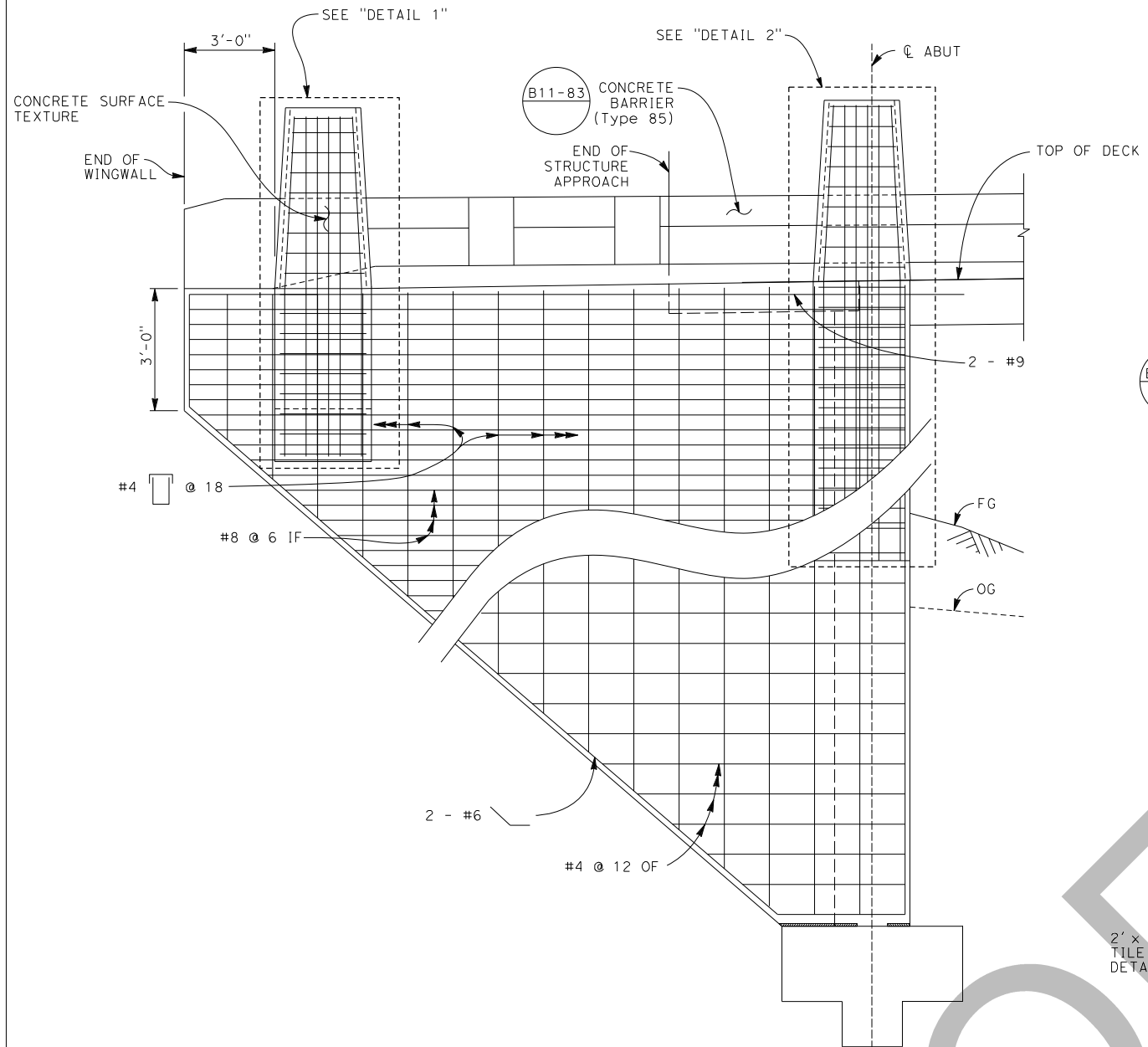
**MOUNTAIN ROAD 109  
OVER WHITE RIVER  
BRIDGE  
ABUTMENT LAYOUT**

DATE 7/7/23  
SHEET No.

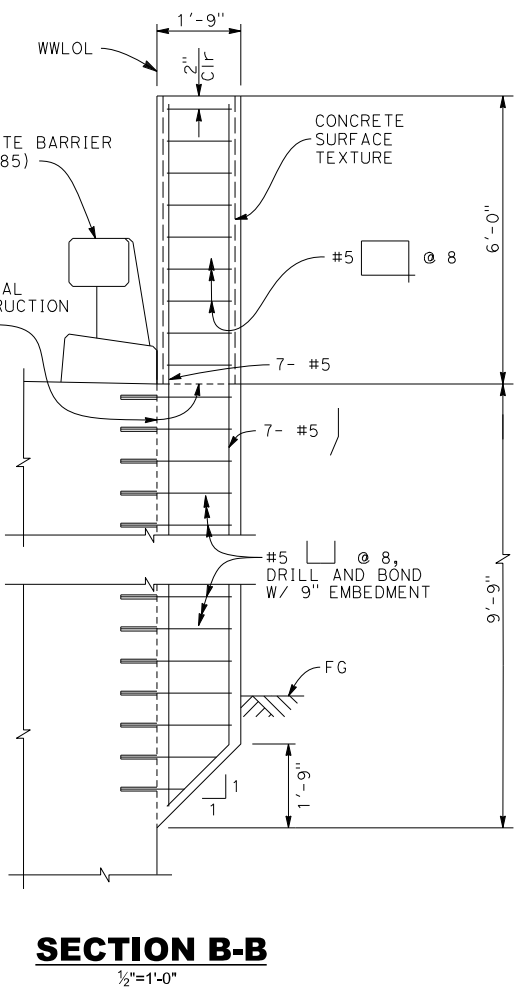
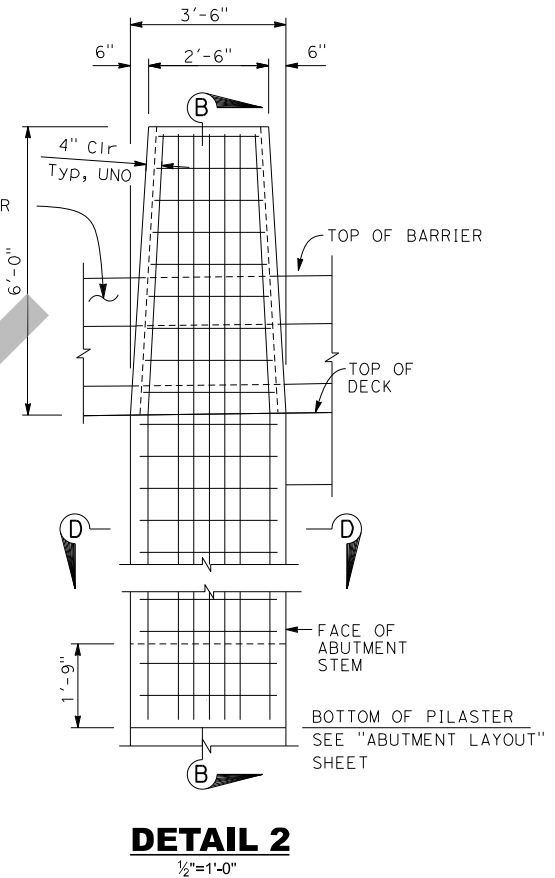
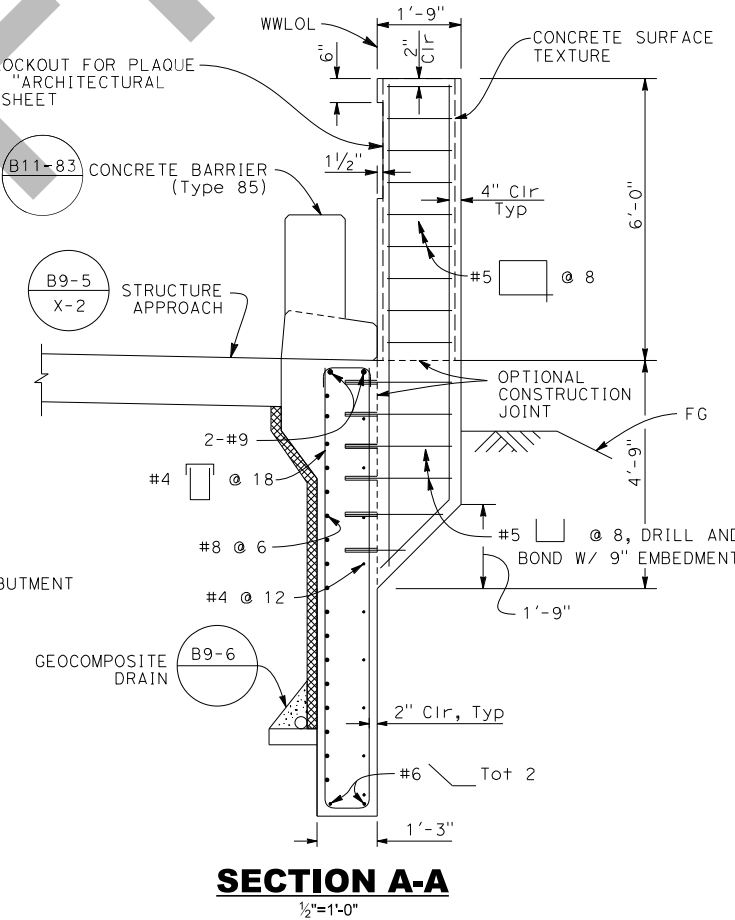
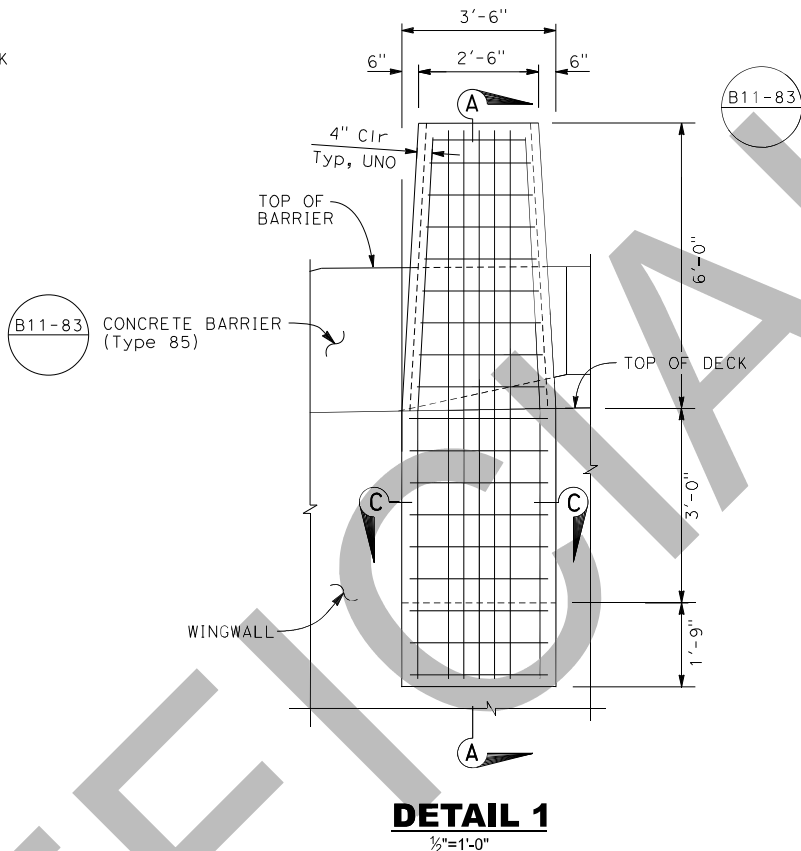
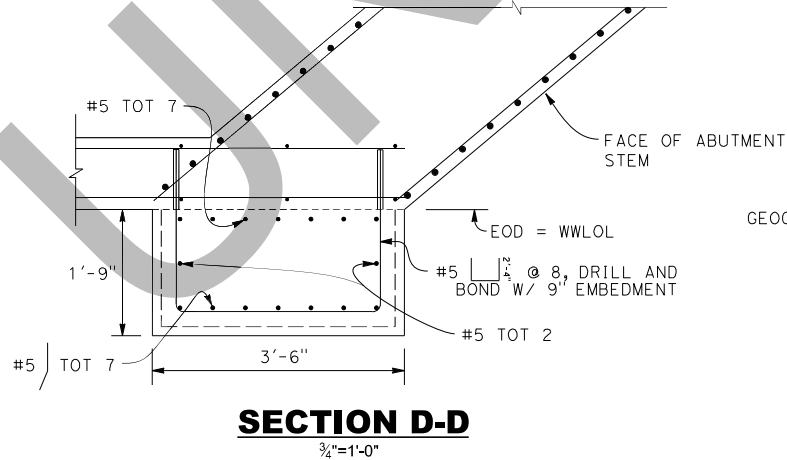
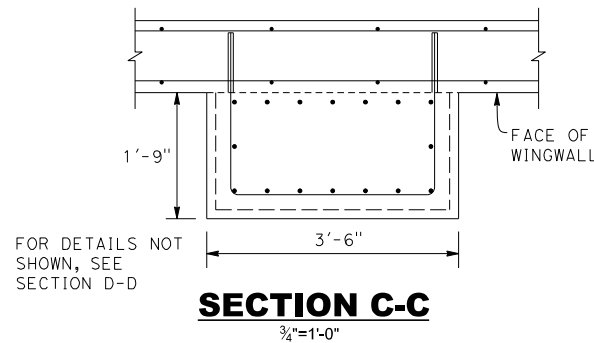
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(Abut 1 wingwall shown,  
Abut 4 wingwall similar)  
**ABUTMENT WINGWALL ELEVATION**  
3/8"=1'-0"



REVISIONS	
DATE	DESCRIPTION

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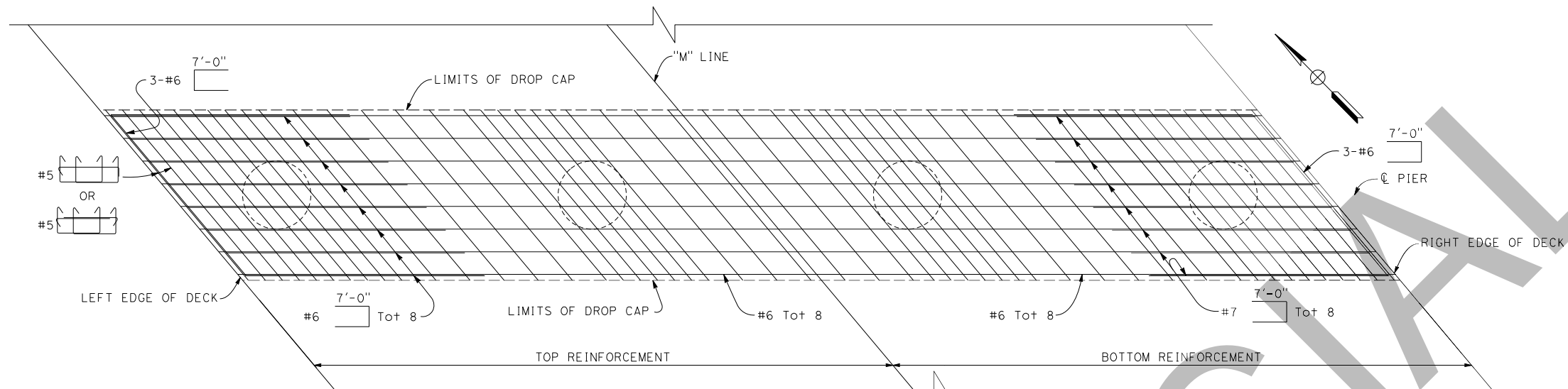
**DE DOKKEN ENGINEERING**  
110 BLUE BAYVIEW ROAD SUITE 200, FOLSOM CA, 916-858-0642  
JEREMY NOTTINGER, PROJECT ENGINEER

**MOUNTAIN ROAD 109 OVER WHITE RIVER BRIDGE ABUTMENT DETAILS**

SCALE AS SHOWN  
DIVISION STRUCTURES  
JOB NO. #2599  
DESIGNED JN  
DRAWN MD  
CHECKED TP  
FILE  
DATE 7/7/23  
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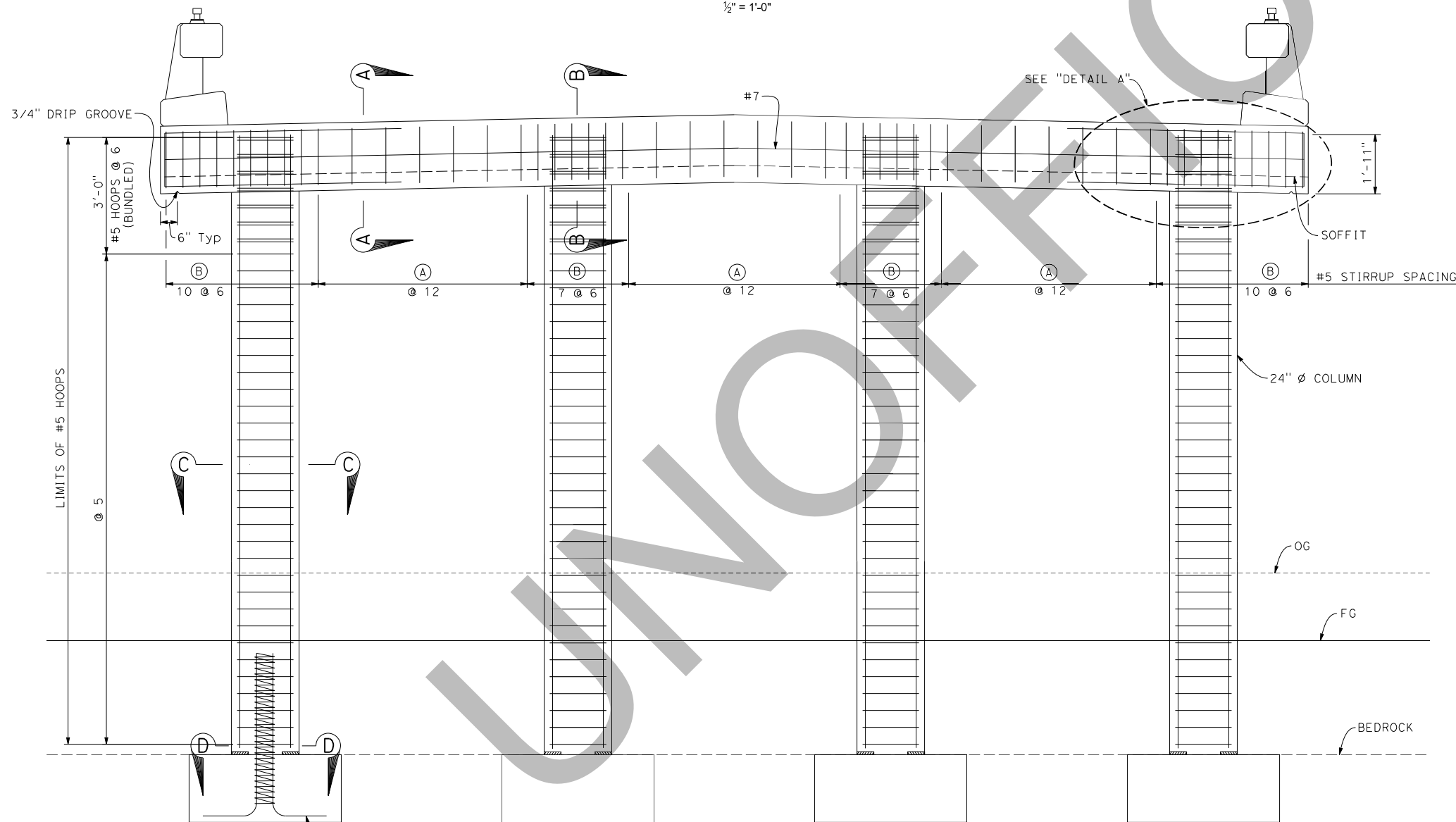
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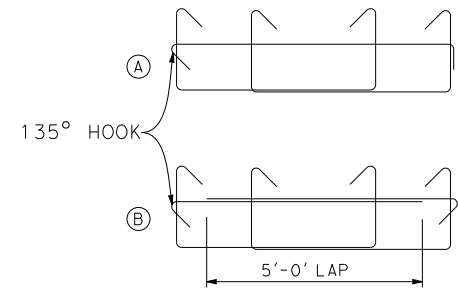
**TYPICAL SECTION**

1/2" = 1'-0"



**ELEVATION VIEW**

1/2" = 1'-0"



**STIRRUP CONFIGURATION**

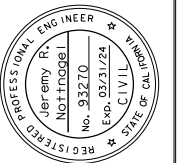
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**NOTES:**

1. For sections A-A, B-B, C-C, & D-D, see "PIER DETAILS" sheet.
2. For "Detail A", see "PIER DETAILS" sheet.
3. No splices allowed in main column reinforcement.
4. All hoops are ultimate butt splice.
5. Place stirrups parallel to "M" line.
6. Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

REVISIONS	
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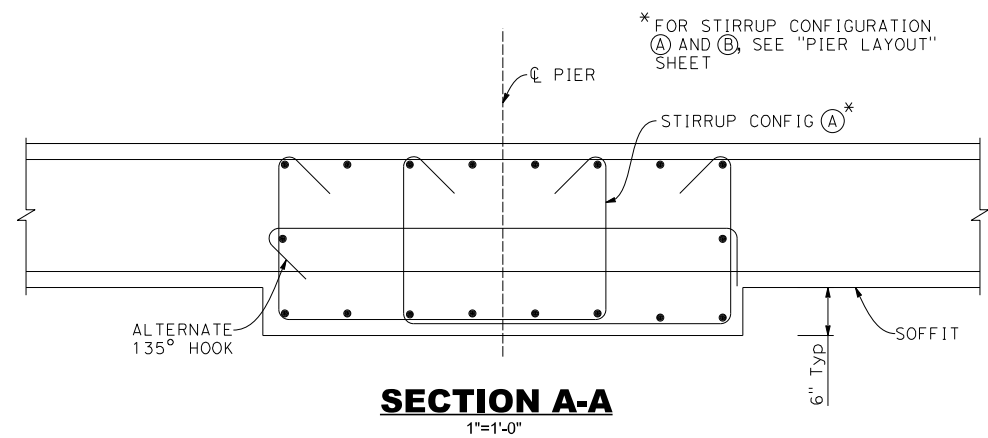
**DOKKEN**  
ENGINEERING  
110 BLUE BAYVIEW ROAD SUITE 200, FOLSOM CA, 916-858-0642  
JEREMY NOTTNAGEL, PROJECT ENGINEER

**MOUNTAIN ROAD 109  
OVER WHITE RIVER  
BRIDGE  
PIER LAYOUT**

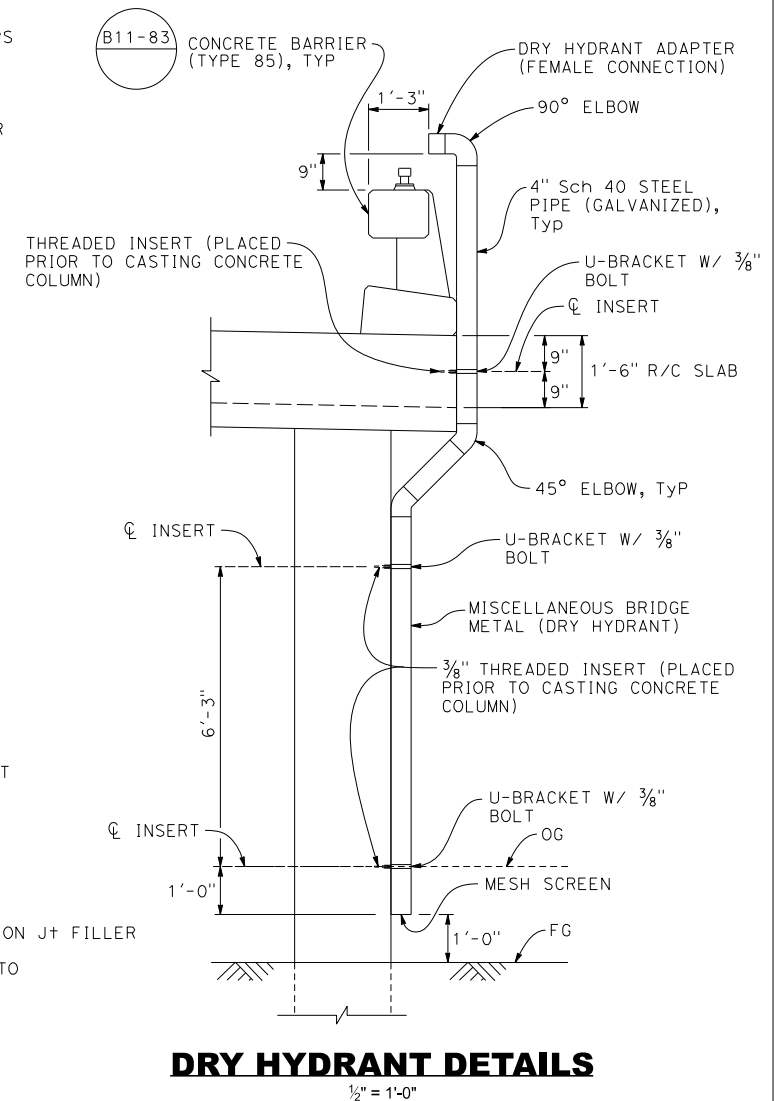
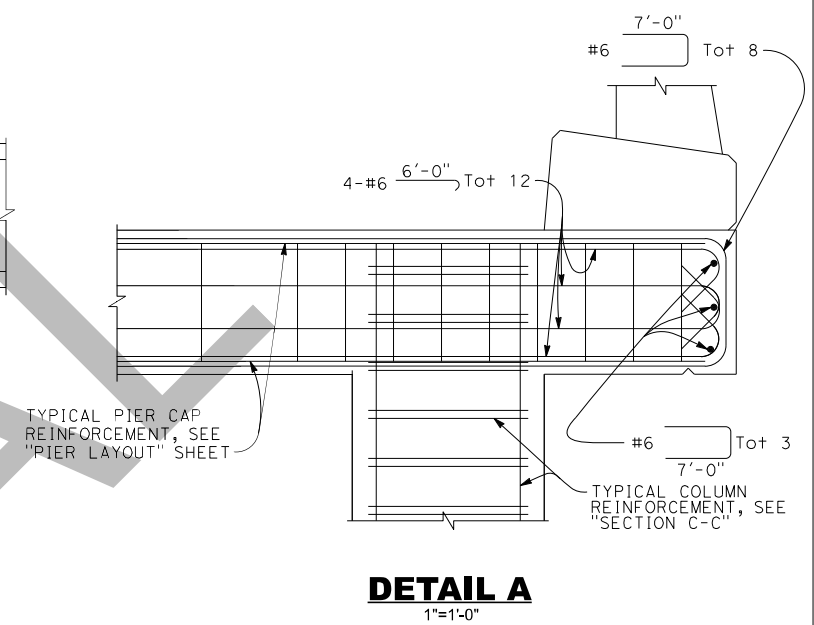
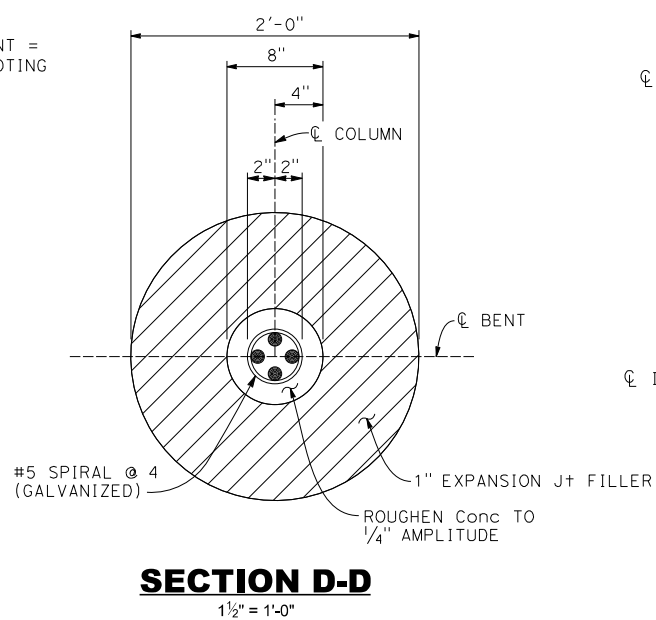
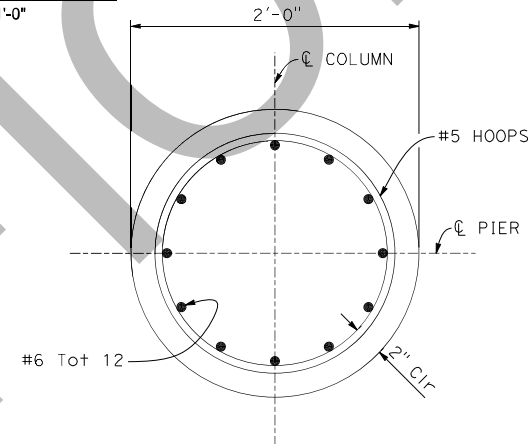
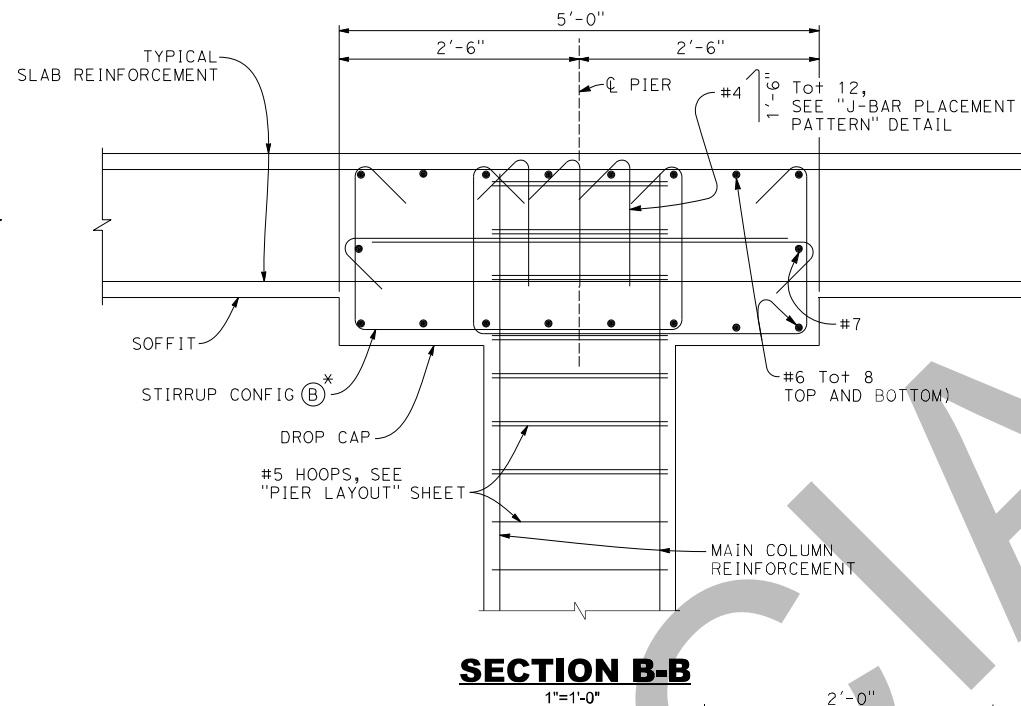
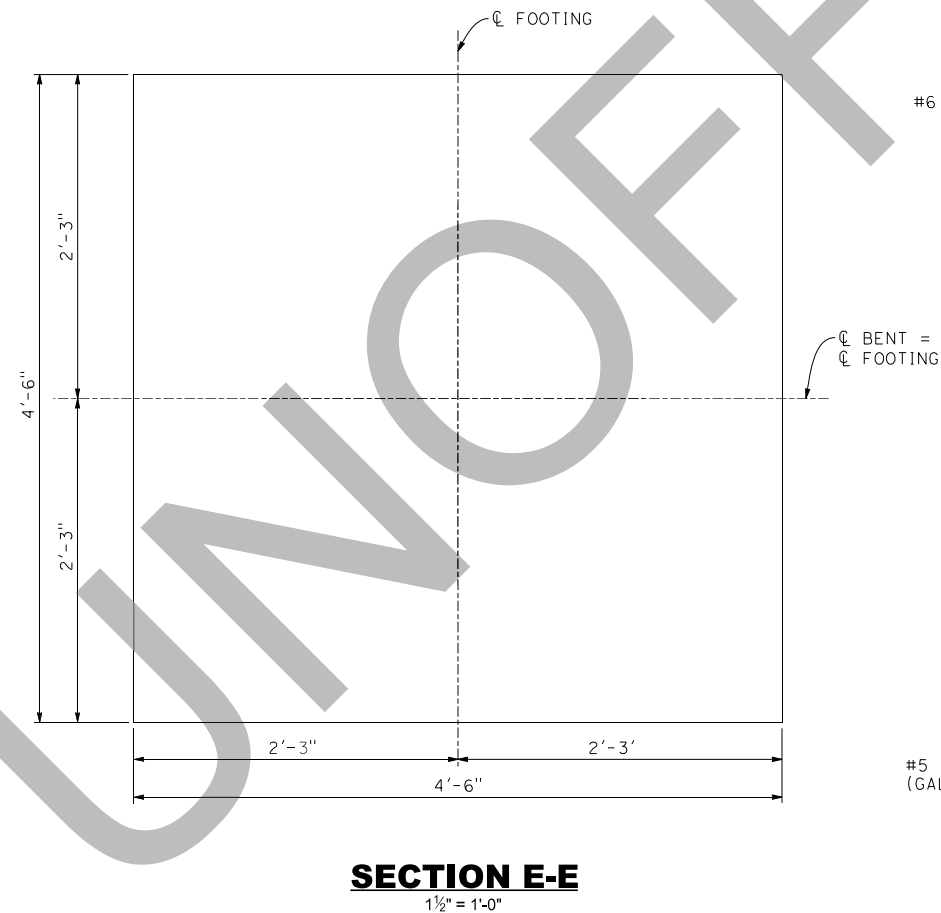
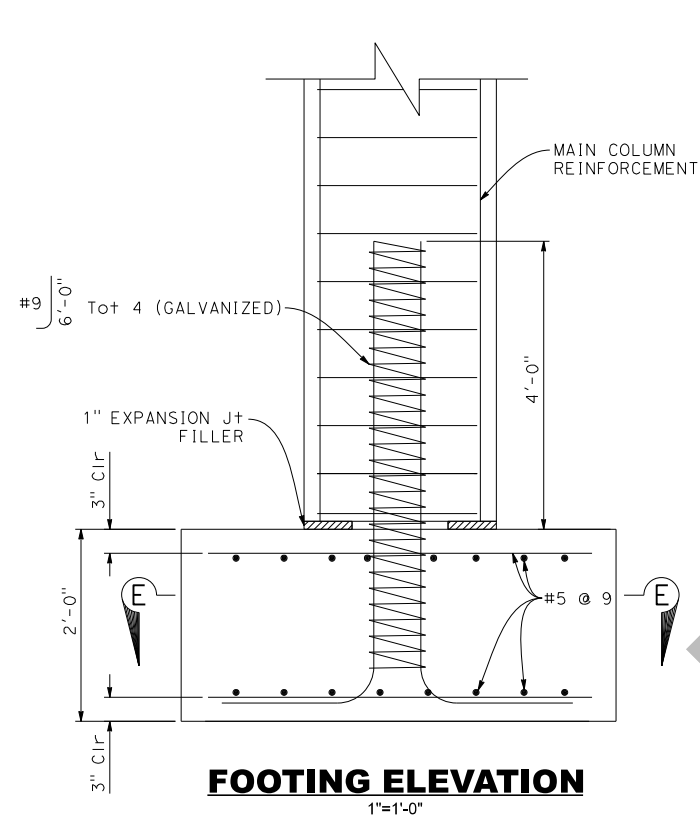
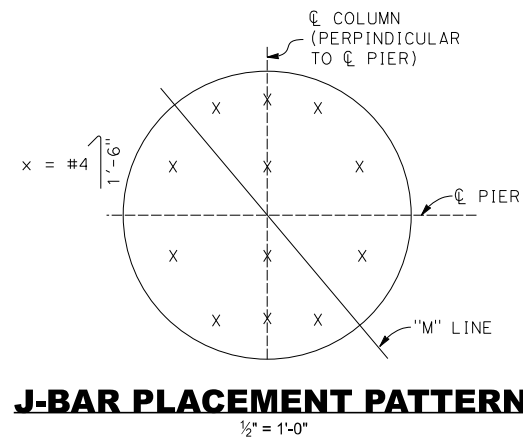
SCALE	AS SHOWN
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JOB NO.	#2599
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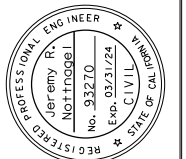
\* For details not shown, see "SECTION B-B"



\* 4" Sch 40 Steel Pipe (Galvanized)  
to be painted red

[illegible]

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**DE DOKKEN**  
**ENGINEERING**  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-958-0642

*Jeff Kottmager*  
JEREMY KOTTMAGER, PROJECT ENGINEER

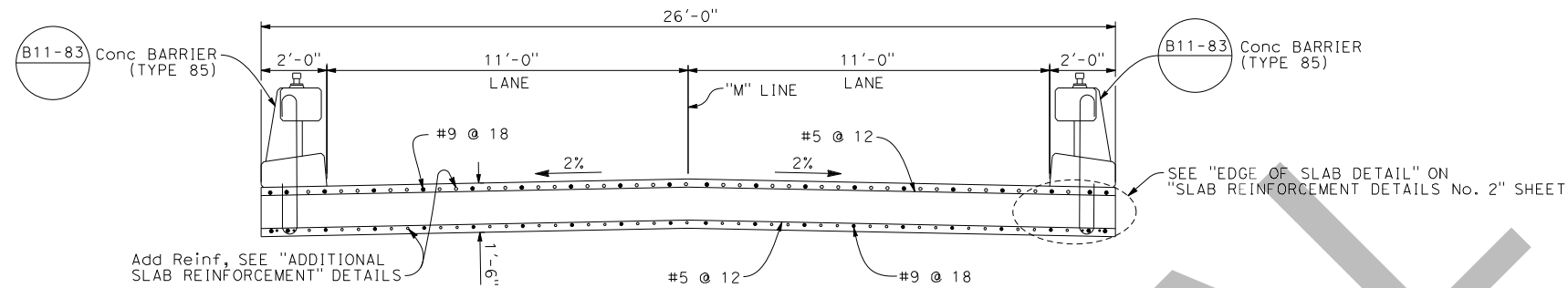
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**MOUNTAIN ROAD 109  
OVER WHITE RIVER  
BRIDGE  
PIER DETAILS**

SCALE	AS SHOWN
DIVISION	STRUCTURES
JOB NO.	#2599
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TITLE	
DATE	7/7/23
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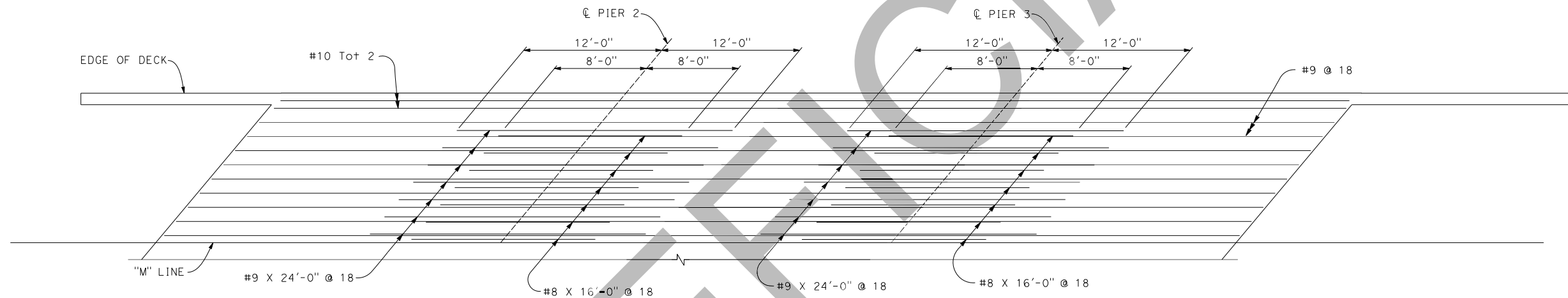
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### TYPICAL SECTION

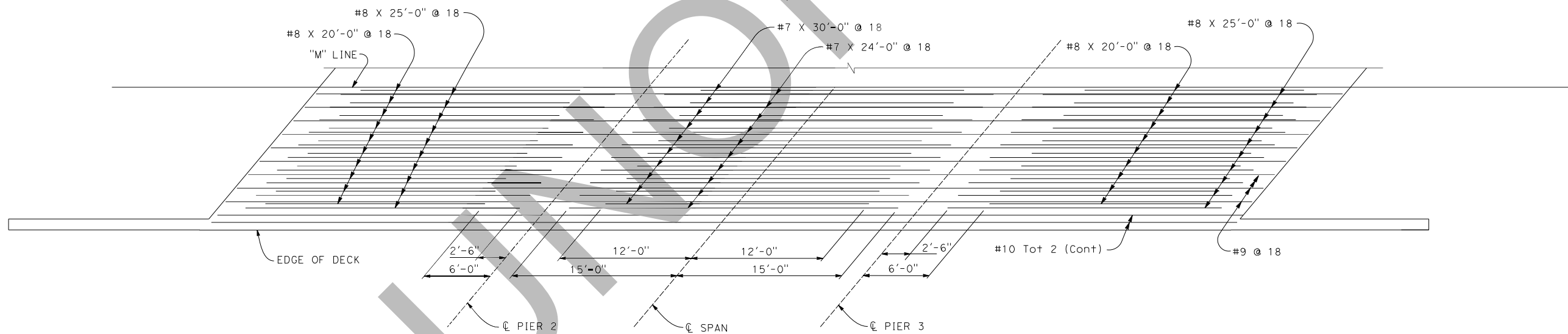
$\frac{3}{8}''=1'-0''$



### ADDITIONAL TOP SLAB REINFORCEMENT

$\frac{3}{8}''=1'-0''$

(Half of slab shown, mirror about "M" line)



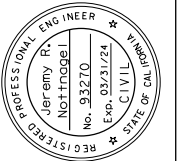
### ADDITIONAL BOTTOM SLAB REINFORCEMENT

$\frac{3}{8}''=1'-0''$

(Half of slab shown, mirror about "M" line)

REVISIONS	
DESCRIPTION	DATE
No.	

COUNTY OF TULARE  
RESOURCE MANAGEMENT AGENCY  
5961 SOUTH MOONEY BLVD.  
VISALIA, CA 93277  
(559) 624-7000  
WWW.TULARECOUNTY.CA.GOV/RMA



**DE DOKKEN**  
ENGINEERING  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA. 916-858-0642  
Jeremy R. Nottnagel  
REGISTERED PROFESSIONAL ENGINEER  
PROJECT ENGINEER

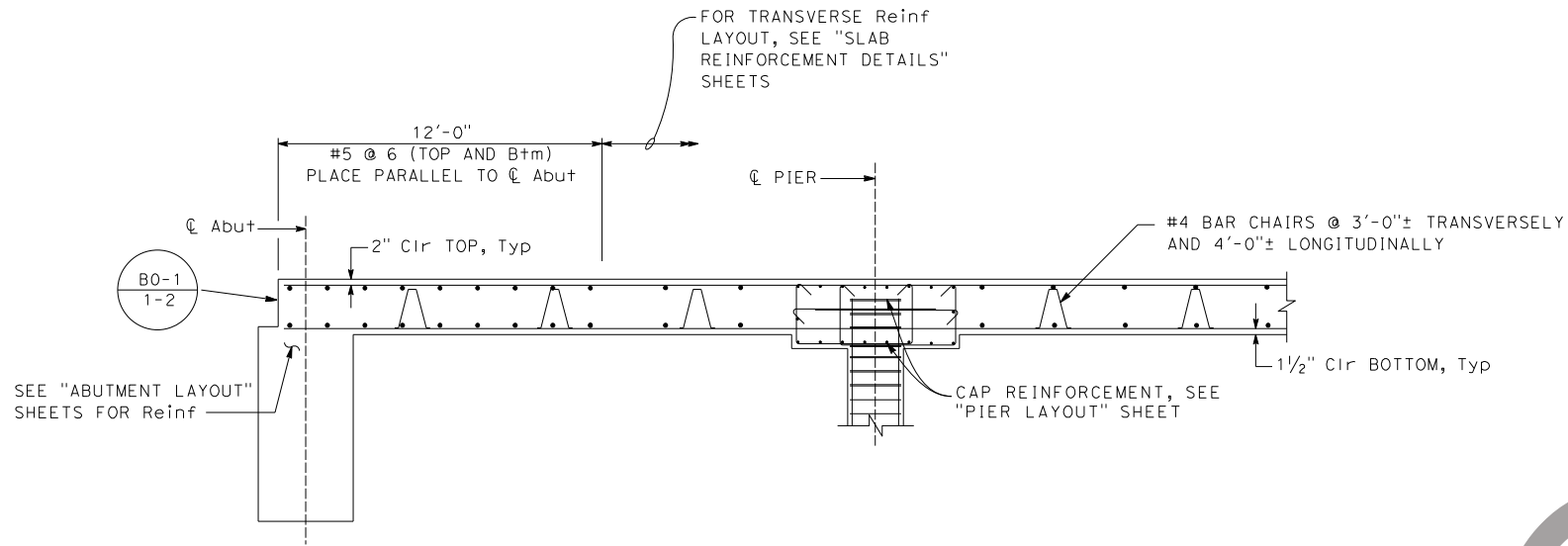
MOUNTAIN ROAD 109  
OVER WHITE RIVER  
BRIDGE  
SLAB REINFORCEMENT  
DETAILS No. 1

SCALE	AS SHOWN
DIVISION	STRUCTURES
JOB NO.	#2599
DESIGNED	JN
DRAWN	MD
CHECKED	TP
FILE	
DATE	7/7/23
SHEET No.	

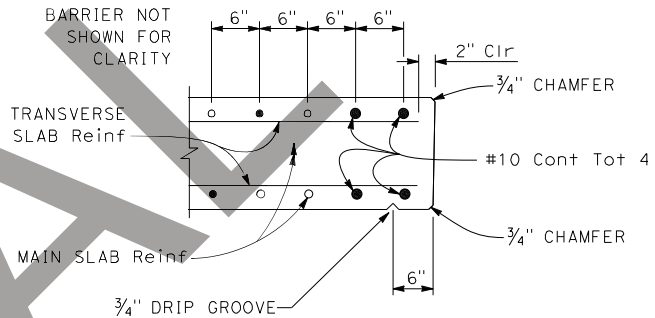
S10

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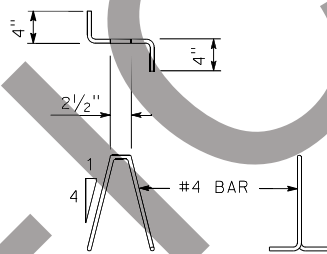




**LONGITUDINAL SECTION**  
NO SCALE



**EDGE OF SLAB DETAIL**  
NO SCALE



**BAR CHAIR DETAIL**  
NO SCALE

REINFORCEMENT LAP SPlice LENGTH								
Bar size	#4	#5	#6	#7	#8	#9	#10	#11
All bars, except top bars	23"	28"	34"	39"	45"	68"	76"	85"
Top bars	23"	28"	34"	53"	60"	77"	97"	120"

Reinforcement notes:

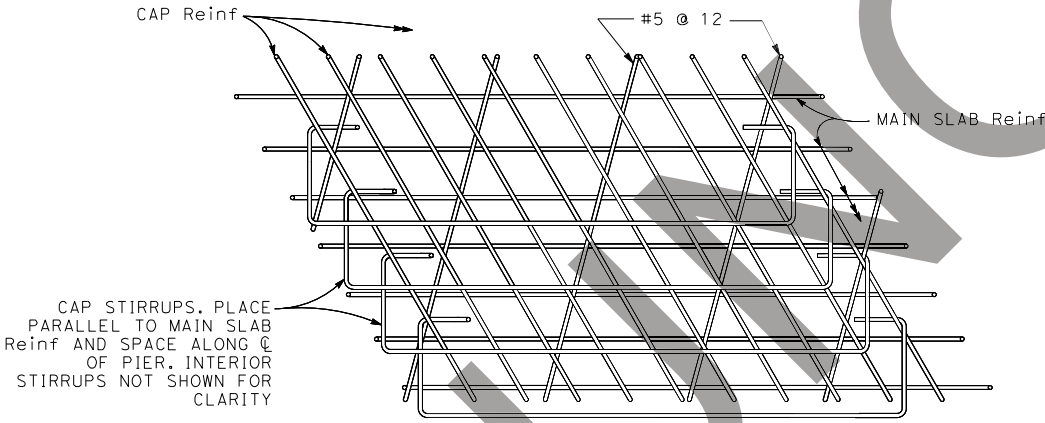
Splices in top main bars to be located near center of span.

Splices in bottom main bars to be located near piers.

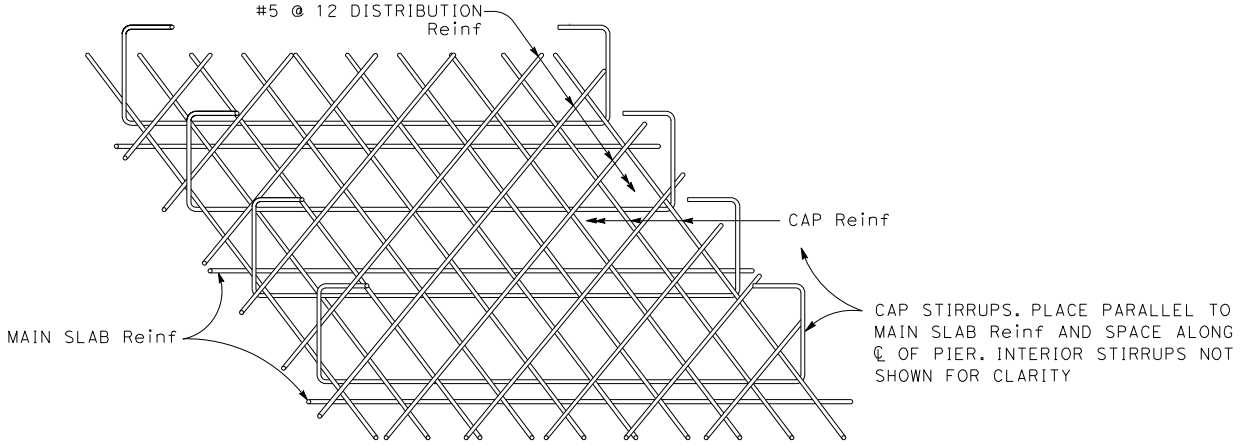
Spacing of all transverse bars is measured along "M" Line.

Place all transverse bars normal to 'M' Line

See details at right and below.



**TOP SLAB REINFORCEMENT AT PIER**  
NO SCALE



**BOTTOM SLAB REINFORCEMENT AT PIER**  
NO SCALE

REVISIONS

NO.	DESCRIPTION	DATE	BY

COUNTY OF TULARE

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD.

VISALIA, CA 93277

(559)624-7000

WWW.TULARECOUNTY.CA.GOV/RMA

REGISTERED PROFESSIONAL ENGINEER

Jeremy R. Nottnagel

No. 93270

Exp. 03/31/24

CIVIL

STATE OF CALIFORNIA

DOKKEN

ENGINEERING

110 BLUE BAYVIEW ROAD SUITE 200, FOLSOM CA, 95688-0642

916-958-0642

DATE

MOUNTAIN ROAD 109

OVER WHITE RIVER

BRIDGE

SLAB REINFORCEMENT

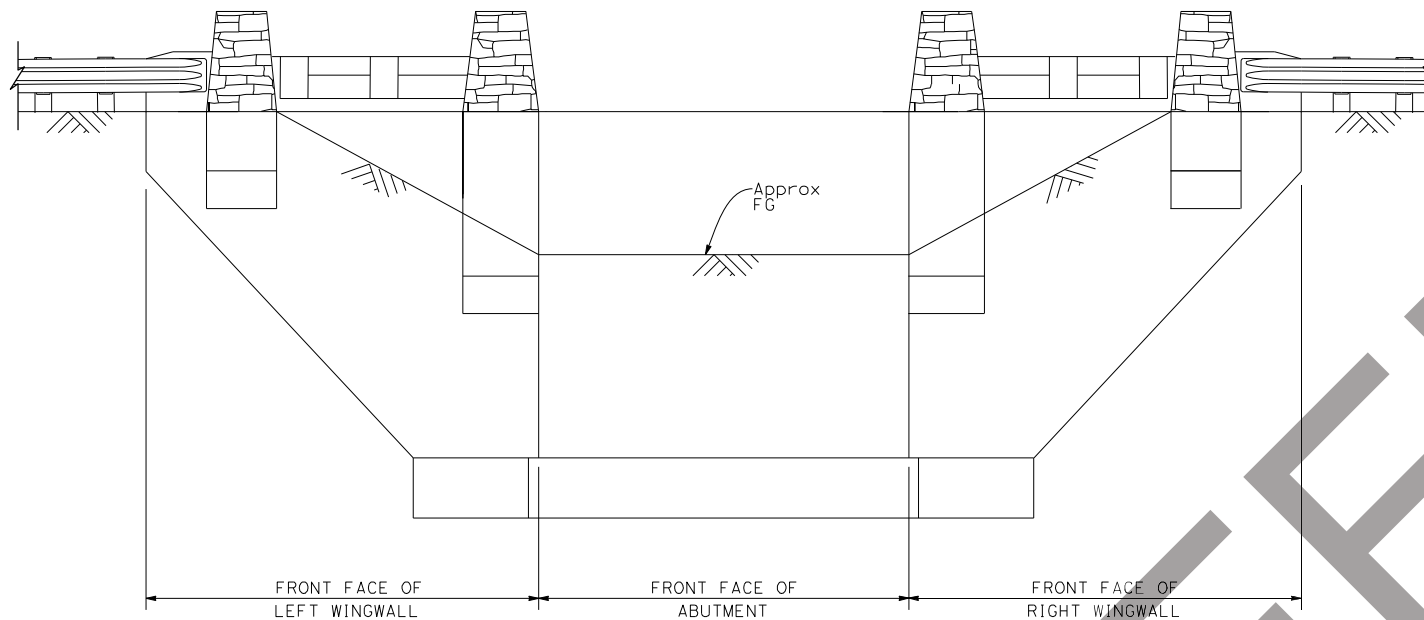
DETAILS No. 2

SCALE	AS SHOWN
DIVISION	STRUCTURES
JOB NO.	#2599
DESIGNED	JN
DRAWN	MD
CHECKED	TP
FILE	
DATE	7/7/23
SHEET No.	

S11

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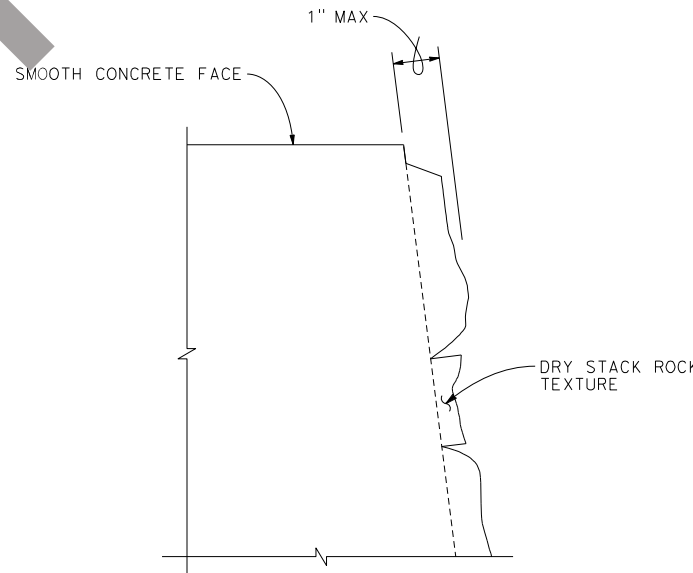




DENOTES CONCRETE SURFACE TEXTURE (DRY STACK)  
AND PREPARE AND STAIN CONCRETE LIMITS

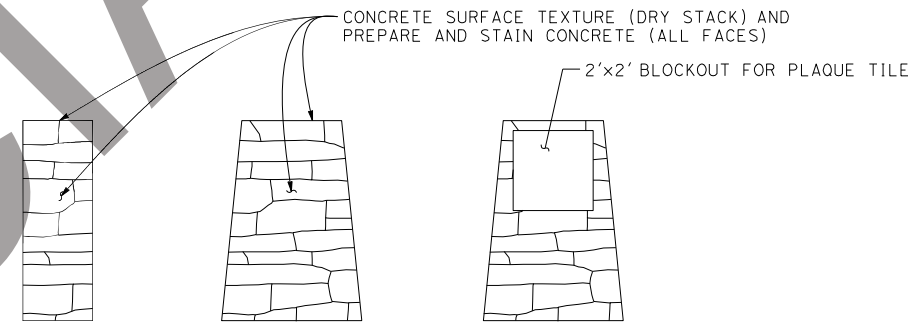
Note: Abutment 1 shown, Abutment 4 similar.

**DEVELOPED ELEVATION**  
NO SCALE



**SECTION VIEW**

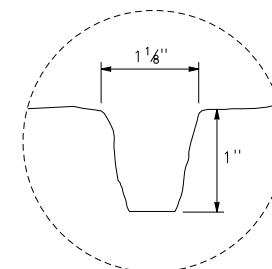
**DRY STACK ROCK TEXTURE DETAILS**  
NO SCALE



**PLAQUE BLOCKOUT**  
**PILASTER DETAILS**  
NO SCALE

**NOTES:**

1. For locations of plaque blockout, see "GENERAL PLAN" sheet.
2. Concrete surface texture (dry stack) shall be Fitzgerald No. 17911 San Diego Drystack or equal



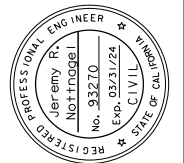
**GROOVE DETAILS**

**NOTE:**

The contractor shall verify all controlling  
field dimensions before ordering or  
fabricating any material.

REVISIONS	DESCRIPTION	DATE	BY

COUNTY OF TULARE  
RESOURCE MANAGEMENT AGENCY  
5961 SOUTH MOONEY BLVD.  
VISALIA, CA 93277  
(559) 624-7000  
WWW.TULARECOUNTY.CA.GOV/RMA



**DOKKEN**  
**ENGINEERING**  
110 BLUE BAYVIEW ROAD SUITE 200, FOLSOM CA, 916-958-0642  
JEREMY NOTTNAGEL, PROJECT ENGINEER

**MOUNTAIN ROAD 109  
OVER WHITE RIVER  
BRIDGE  
ARCHITECTURAL  
TREATMENT DETAILS**

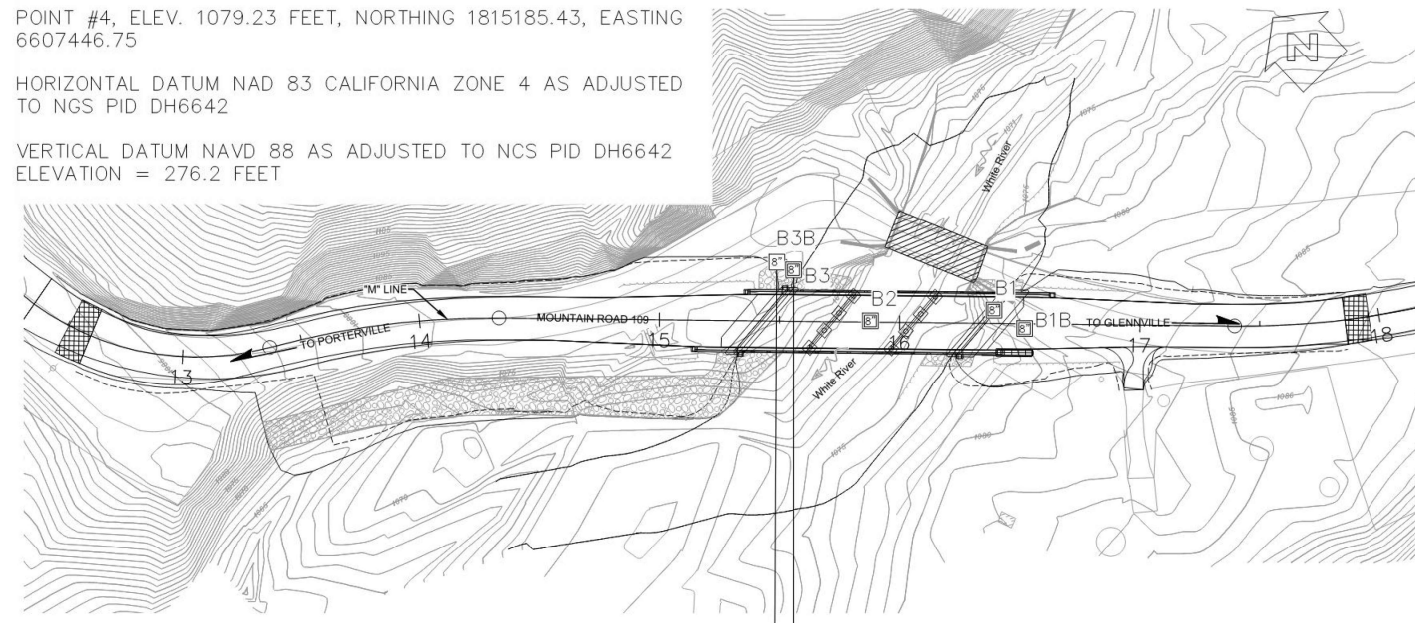
SCALE	AS SHOWN
DIVISION	STRUCTURES
JOB NO.	#2599
DESIGNED	JN
DRAWN	MD
CHECKED	TP
FILE	
DATE	7/7/23
SHEET No.	

S12  
23 of 27



POINT #4, ELEV. 1079.23 FEET, NORTHING 1815185.43, EASTING 6607446.75

VERTICAL DATUM NAVD 88 AS ADJUSTED TO NCS PID DH6642  
ELEVATION = 276.2 FEET



**PLAN VIEW**  
SCALE : 1" = 40'

**B3B**

25.00' Lt Sta 15+49  
"M"-Line

1080 ft — 1079.0

8"

ASPHALT CONCRETE.

SILTY SAND (SM); brown; dry; coarse to fine SAND; (FILL).

SILTY SAND with GRAVEL (SM); medium dense; brown; dry; with cobbles and boulders; (COLLUVIUM).

SILTY GRAVEL with SAND (GM); very dense; yellow brown; dry; with cobbles and boulders; (ALLUVIUM).

GRANITIC ROCK, white and greenish black; medium crystalline; moderately weathered; strong; moderately fractured.  
— slightly weathered, gray and greenish black.  
— slightly fractured to unfractured.  
— slightly weathered; unfractured; very strong.

RFC=71%  
RQC=50%  
SEC=15%  
SQC=100%  
RQC=100%  
SEC=100%  
RQC=100%

12-15-20  
Terminated at Elev 1057.0'  
ERI = 81.8%

**B3**

21.00' Lt Sta 15+56  
"M"-Line

1080 ft — 1079.0

8"

CREEP AR

(M)

SILTY SAND (SM); dense; brown; dry; few GRAVEL; trace cobble and boulders; (FILL).

SILTY SAND with GRAVEL (SM); dense; brown; dry; with cobbles and boulders; (COLLUVIUM).

SILTY GRAVEL with SAND (GM); very dense; yellow brown; dry; with cobbles and boulders; (ALLUVIUM).

REF 1.4  
REF 1.4

12-07-20  
Terminated at Elev 1067.5'  
ERI = 80%

- 1) RELATIVELY UNDISTURBED SOIL SAMPLES WERE OBTAINED BY DRIVING A 3-INCH OUTSIDE DIAMETER, WITH A 2.4-INCH INSIDE DIAMETER (CALIFORNIA MODIFIED) SPLIT-SPOON SAMPLER FOR MODIFIED CALIFORNIA SAMPLING METHODS AND A 2-INCH OUTSIDE DIAMETER WITH A 1.4-INCH INSIDE DIAMETER SPLIT-SPOON SAMPLER FOR STANDARD PENETRATION TEST SAMPLING METHODS.
- 2) THE BORING LOGS AND RELATED INFORMATION REPRESENT THE OPINION OF THE PROFESSIONAL ENGINEER/GEOLOGIST AS TO THE CHARACTER OF THE MATERIAL AT THE LOCATIONS SHOWN. SOIL AND GROUNDWATER CONDITIONS BETWEEN ADJACENT TEST HOLES AND AT OTHER LOCATIONS MAY DIFFER FROM THOSE SHOWN. GROUNDWATER CONDITIONS MAY CHANGE WITH PASSAGE OF TIME.
- 3) TEST BORING LOCATIONS WERE DETERMINED IN THE FIELD BASED ON STAKING AND PACING FROM MAPPED SITE FEATURES. THE LOCATIONS OF THE EXPLORATIONS SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE MEASURING METHODS USED.
- 4) 140-POUND AUTOMATIC HAMMER FALLING 30 INCHES WAS USED TO DRIVE SAMPLERS.
- 5) VISUAL CLASSIFICATION OF EARTH MATERIALS WAS BASED ON FIELD INSPECTION AND WAS CONFIRMED OR REVISED WITH LABORATORY TEST RESULTS.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
06	TUL	M109			

*R. Lal* 02-18-22  
 GEOTECHNICAL PROFESSIONAL DATE

PLANS APPROVAL DATE \_\_\_\_\_

*The State of California or its officers or agents  
 shall not be responsible for the accuracy or  
 completeness of scanned copies of this plan sheet.*

GECON CONSULTANTS INC.  
 3760 GOLD VALLEY DR. STE. 800 – RANCHO CORDOVA, CA 95742  
 PHONE 916 852-9118 – FAX 916 852-9132  
 PROJECT NO. S1977-05-01

DOKKEN ENGINEERING  
 110 BLUE RAVINE ROAD, SUITE 200  
 FOLSOM, CA 95630

THIS LOTB SHEET WAS PREPARED IN ACCORDANCE WITH THE  
 CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND  
 PRESENTATION MANUAL (2010 EDITION). SEE 2018 STANDARD  
 PLANS A10F AND A10G FOR SOIL LEGEND, AND A10H FOR ROCK  
 LEGEND.

<b>MOUNTAIN ROAD 109 OVER WHITE RIVER BRIDGE</b>		<b>LOG OF TEST BORINGS No. 1</b>	
SCALE	AS SHOWN		
DIVISION	STRUCTURES		
JOB NO.	#2599		
DESIGNED	JN		
DRAWN	MD		
CHECKED	TP		
FILE			
DATE	7/7/23		
SHEET No.			
S13			
24		27	

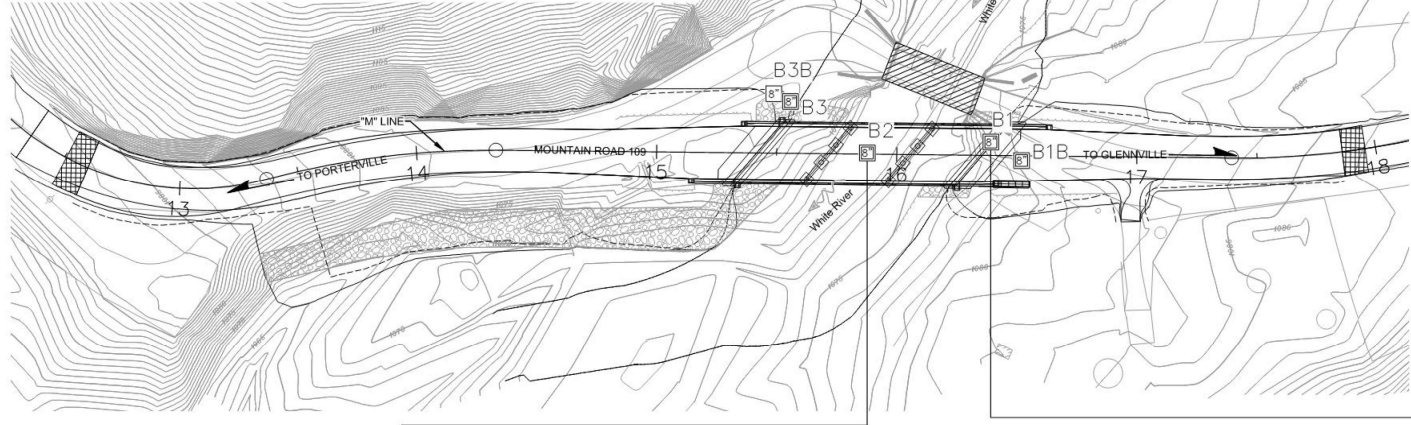


BENCHMARK

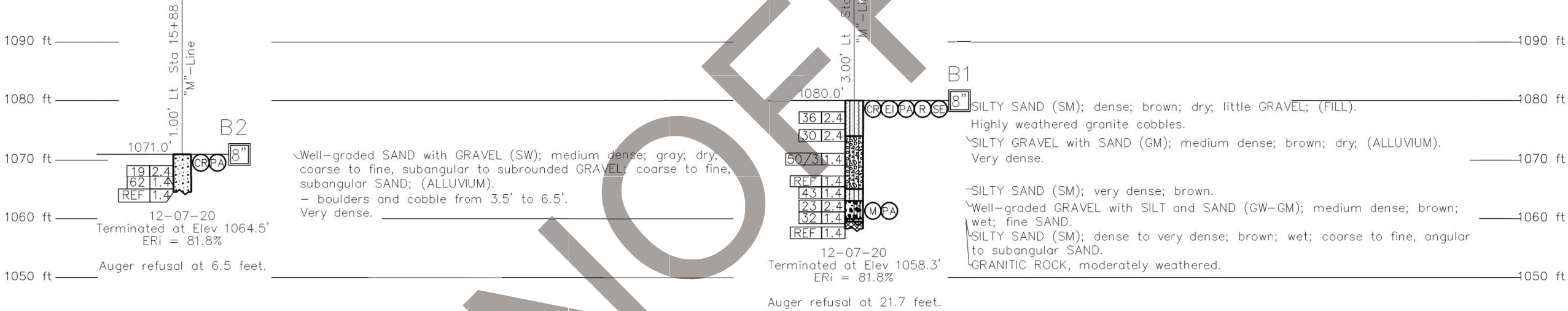
POINT #4, ELEV. 1079.23 FEET, NORTHING 1815185.43, EASTING 6607446.75

HORIZONTAL DATUM NAD 83 CALIFORNIA ZONE 4 AS ADJUSTED TO NGS PID DH6642

VERTICAL DATUM NAVD 88 AS ADJUSTED TO NCS PID DH6642  
ELEVATION = 276.2 FEET



PLAN VIEW  
SCALE : 1" = 40'



NOTES:

- 1) RELATIVELY UNDISTURBED SOIL SAMPLES WERE OBTAINED BY DRIVING A 3-INCH OUTSIDE DIAMETER, WITH A 2.4-INCH INSIDE DIAMETER (CALIFORNIA MODIFIED) SPLIT-SPOON SAMPLER FOR MODIFIED CALIFORNIA SAMPLING METHODS AND A 2-INCH OUTSIDE DIAMETER WITH A 1.4-INCH INSIDE DIAMETER SPLIT-SPOON SAMPLER FOR STANDARD PENETRATION TEST SAMPLING METHODS.
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- 4) 140-POUND AUTOMATIC HAMMER FALLING 30 INCHES WAS USED TO DRIVE SAMPLERS.
- 5) VISUAL CLASSIFICATION OF EARTH MATERIALS WAS BASED ON FIELD INSPECTION AND WAS CONFIRMED OR REVISED WITH LABORATORY TEST RESULTS.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
06	TUL	M109			

*R. L. L.* 02-18-22  
GEOTECHNICAL PROFESSIONAL DATE

PLANS APPROVAL DATE

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GEOCON CONSULTANTS INC.  
3160 GOLD VALLEY DR. STE. 800 - RANCHO CORDOVA, CA 95742  
PHONE 916 852-9118 - FAX 916 852-9132  
PROJECT NO. S1977-05-01

DOKKEN ENGINEERING  
110 BLUE RAVINE ROAD, SUITE 200  
FOLSOM, CA 95630

THIS LOTB SHEET WAS PREPARED IN ACCORDANCE WITH THE CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010 EDITION). SEE 2018 STANDARD PLANS A10F AND A10G FOR SOIL LEGEND, AND A10H FOR ROCK LEGEND.

REGISTERED PROFESSIONAL ENGINEER  
RONALD E. LOUTZENHISER  
No. 2865  
Exp. 09/30/22  
STATE OF CALIFORNIA

REVISIONS	DATE	DESCRIPTION
	No.	

COUNTY OF TULARE  
RESOURCE MANAGEMENT AGENCY  
5961 SOUTH MOONEY BLVD.  
VISALIA, CA 93277  
(559) 624-7000  
WWW.TULARECOUNTY.CA.GOV/RMA

REGISTERED PROFESSIONAL ENGINEER  
JEREMY R. NOTTINGER  
No. 93270  
Exp. 03/31/24  
STATE OF CALIFORNIA

**DOKKEN ENGINEERING**  
110 BLUE RAVINE ROAD SUITE 200, FOLSOM CA 916-858-0642

**MOUNTAIN ROAD 109 OVER WHITE RIVER BRIDGE**  
**LOG OF TEST BORINGS No. 2**

SCALE	AS SHOWN
DIVISION	STRUCTURES
JOB NO.	#2599
DESIGNED	JN
DRAWN	MD
CHECKED	TP
FILE	
DATE	7/7/23
SHEET No.	

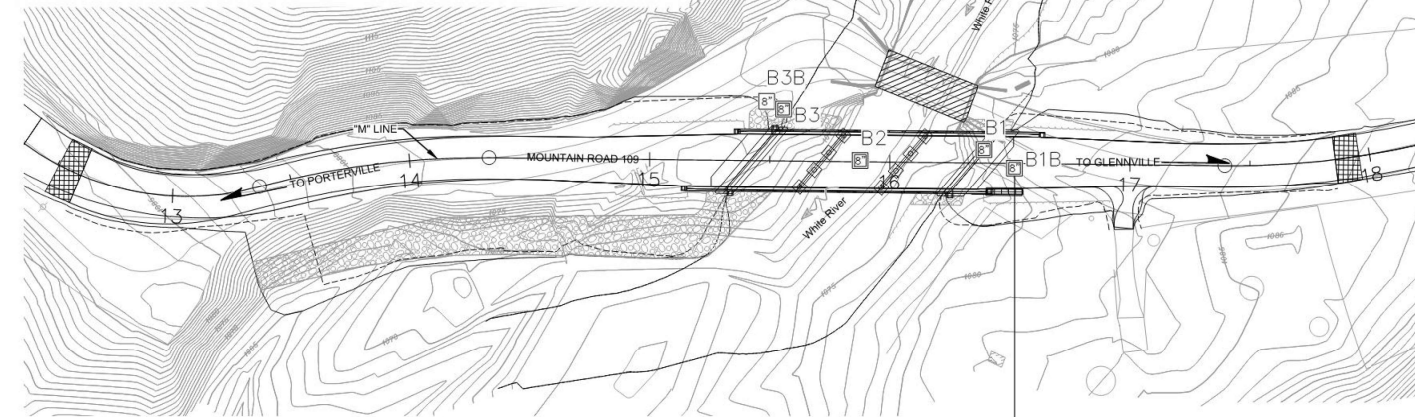
S14

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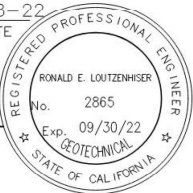
POINT #4, ELEV. 1079.23 FEET, NORTHING 1815185.43, EASTING 6607446.75

VERTICAL DATUM NAVD 88 AS ADJUSTED TO NCS PID DH6642  
ELEVATION = 276.2 FEET

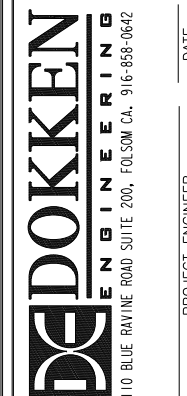
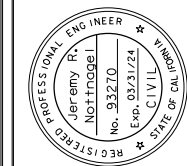
[illegible]

- NOTES:

- 1) RELATIVELY UNDISTURBED SOIL SAMPLES WERE OBTAINED BY DRIVING A 3-INCH OUTSIDE DIAMETER, WITH A 2.4-INCH INSIDE DIAMETER (CALIFORNIA MODIFIED) SPLIT-SPOON SAMPLER FOR MODIFIED CALIFORNIA SAMPLING METHODS AND A 2-INCH OUTSIDE DIAMETER WITH A 1.4-INCH INSIDE DIAMETER SPLIT-SPOON SAMPLER FOR STANDARD PENETRATION TEST SAMPLING METHODS.
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- 5) VISUAL CLASSIFICATION OF EARTH MATERIALS WAS BASED ON FIELD INSPECTION AND WAS CONFIRMED OR REVISED WITH LABORATORY TEST RESULTS.

POST 06	COUNTY TUL	ROUTE M109	POST MILE TOTAL PROJECT	SHEET NO	TOTAL SHEETS
 GEOTECHNICAL PROFESSIONAL			02-18-22 DATE		
PLANS APPROVAL DATE					
<p><i>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.</i></p>					
GEOCON CONSULTANTS INC. 3760 GOLD VALLEY DR. STE. 800 - RANCHO CORDOVA, CA 95742 PHONE 916 852-9118 - FAX 916 852-9132 PROJECT NO. S1977-05-01					
DOKKEN ENGINEERING 110 BLUE RAVINE ROAD, SUITE 200 FOLSOM, CA 95630					
THIS LOTB SHEET WAS PREPARED IN ACCORDANCE WITH THE CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010 EDITION). SEE 2018 STANDARD PLANS A10F AND A10G FOR SOIL LEGEND, AND A10H FOR ROCK LEGEND.					

COUNTY OF TULARE		REVISIONS	
RESOURCE MANAGEMENT AGENCY		DESCRIPTION	DATE BY
5961 SOUTH MOONEY BLVD.			
VISALIA, CA 93277			
(559) 624-7000			
WWW.TULARECOUNTY.CA.GOV/RMA			



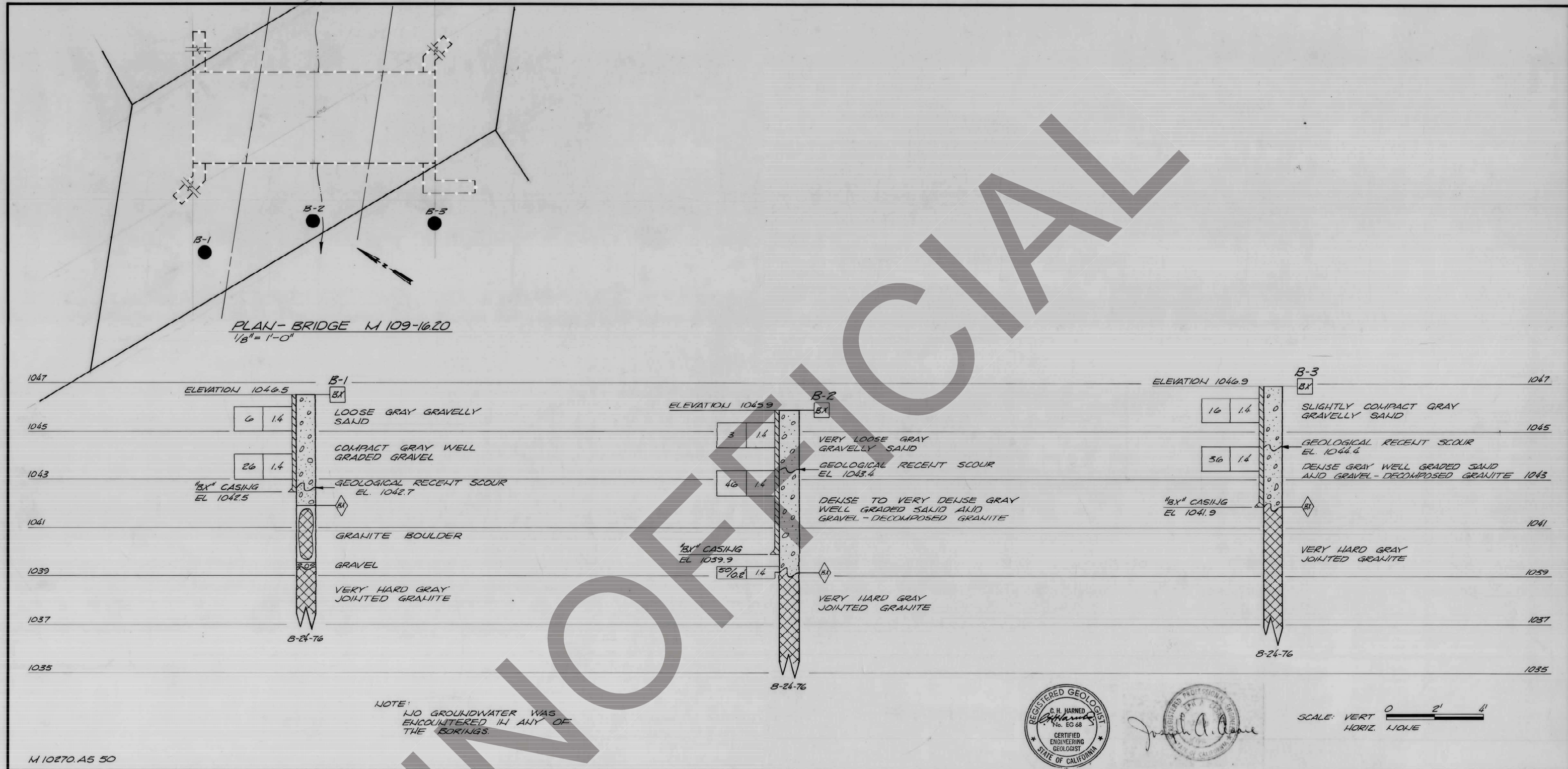
# MOUNTAIN ROAD 109 OVER WHITE RIVER BRIDGE

## LOG OF TEST BORINGS No. 3

SCALE	AS SHOWN
DIVISION	STRUCTURES
JOB NO.	#2599
DESIGNED	JN
DRAWN	MD
CHECKED	TP
FILE	
DATE	7/7/23
SHEET No.	

S15  
26 OF 27





LEGEND OF DRILLING, SAMPLING & TESTING OPERATIONS				THE UNIFIED SOIL CLASSIFICATION SYSTEM				ROCK CLASSIFICATION		SOIL CONSISTENCY CLASSIFICATION				
ROTARY BORING		PENETRATION BORING		MAJ. DIV.		LETTER SYMBOL		MAJ. DIV.		LETTER SYMBOL		CONSISTENCY		
PLAN OF ANY BORING		AUGER BORING (DRY)		WELL-GRADED GRAVEL OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES.		ML		INORGANIC SILT AND VERY FINE SAND, ROCK FLOUR, SILTY OR CLAYEY FINE SAND OR CLAYEY SILT WITH SLIGHT PLASTICITY		IGNEOUS ROCK		GRANULAR		
PENETROMETER (FLUSH-COUPLED)		JET BORING		POORLY-GRADED GRAVEL OR GRAVEL-SAND MIXTURES, LITTLE OR NO FINES.		GP		INORGANIC CLAY OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAY, SANDY CLAY, SILTY CLAY, LEAN CLAY.		SEDIMENTARY ROCK		COHESIVE		
2 1/4" CONE PENETROMETER		DIAMOND CORE BORING		SILTY GRAVEL, GRAVEL-SAND-SILT MIXTURES.		GM		ORGANIC SILT AND ORGANIC SILT-CLAY OF LOW PLASTICITY.				VERY LOOSE		
SAMPLER BORING (DRY)		TEST PIT		CLAYEY GRAVEL, GRAVEL-SAND-CLAY MIXTURES.		GC		INORGANIC SILT, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILT.				VERY SOFT		
ROTARY BORING (WET)				WELL-GRADED SAND OR GRAVELLY SAND, LITTLE OR NO FINES.		SW		ORGANIC CLAY OF HIGH PLASTICITY, FAT CLAY.				LOOSE		
BIT SIZES: (O.D.) "AX" = 1 1/16", "BX" = 2 9/32", "NX" = 2 29/32".				POORLY-GRADED SAND OR GRAVELLY SAND, LITTLE OR NO FINES.		SP		ORGANIC CLAY OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILT.				SLIGHTLY COMPACT		
CASING SIZES: (O.D.) "BX" = 2 7/8", "NX" = 3 1/2".				SILTY SAND, SAND-SILT MIXTURES.		SM		PEAT AND OTHER HIGHLY ORGANIC SOILS.				STIFF		
				CLAYEY SAND, SAND-SILT MIXTURES.		SC						10 TO 20		
												20 TO 35		
												35 TO 70		
												70		
												* STANDARD PENETRATION TEST		
												30" FREE-FALL BLOW USING A 2		
												O.D. x 1 1/2" I.D. SAMPLER).		
												SHEET		
												OF		
												DATE		
												DWG. NO.		