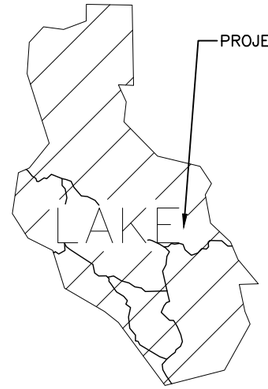
COUNTY OF LAKE
DEPARTMENT OF PUBLIC WORKS

CHALK MOUNTAIN ROAD OVER NORTH FORK OF CACHE CREEK BRIDGE REPLACEMENT PROJECT

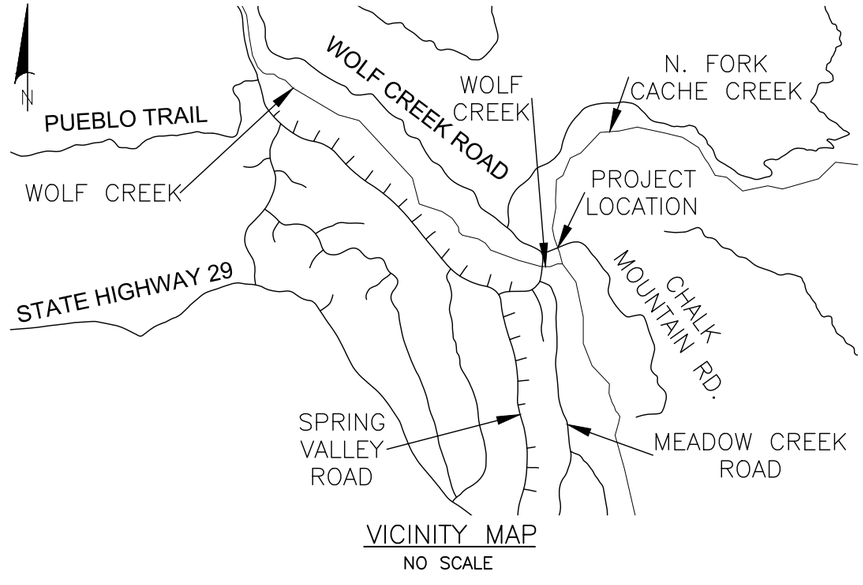
IN LAKE COUNTY, CALIFORNIA
STATE PROJECT NO. BRLO - 5914(094)
BID NO. 23-01

TO BE SUPPLEMENTED BY CALTRANS STANDARD PLANS AND SPECIFICATIONS DATED 2022
AND LAKE COUNTY ROAD DESIGN AND CONSTRUCTION STANDARDS DATED JUNE 2004



LOCATION MAP

SHEET INDEX



VICINITY MAP
NO SCALE

APPROVED:

SCOTT DE LEON — DATE
LAKE COUNTY DIRECTOR OF PUBLIC WORKS

DATE
SCOTT HARTER
LAKE COUNTY DIRECTOR OF SPECIAL DISTRICTS

CERTIFICATION
I CERTIFY THAT THIS PROJECT WAS DESIGNED BY ME OR UNDER MY DIRECTION IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES.

Levi Kennberg — 06/30/24 Exp. — 04/07/23 Date

BID SET

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER — LEVI KENNBERG — No. 75876 — Exp. 06/30/24 — CIVIL — STATE OF CALIFORNIA

COUNTY OF LAKE PUBLIC WORKS DEPARTMENT
COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD OVER NORTH FORK OF CACHE CREEK BRIDGE REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
TITLE SHEET

TYPE:
STATE: CA
DATE: 04/07/2023
SCALE:
DESIGN BY: PSB
CO. JOB: 5914(094)
BID: 23-01
FILE:

SHEET: T-1
1 OF 39 SHEETS

U:\16024 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMB-R-T.dwg

LAKE COUNTY STANDARDS

100A	IMPROVEMENT PLAN STANDARD NOTES – GENERAL
100B	IMPROVEMENT PLAN STANDARD NOTES NOTIFICATION FOR INSPECTIONS
100C	IMPROVEMENT PLAN STANDARD NOTES – GRADING
100D	IMPROVEMENT PLAN STANDARD NOTES UNDERGROUND CONSTRUCTION
100E	IMPROVEMENT PLAN STANDARD NOTES – DRAINAGE
100F	IMPROVEMENT PLAN STANDARD NOTES – SIGNING, STRIPING & MARKINGS
100G	IMPROVEMENT PLAN STANDARD NOTES – SIGNING, STRIPING, & MARKINGS (CONTINUED)
100H	IMPROVEMENT PLAN STANDARD NOTES – PRESERVATION OF SURVEY MONUMENTS
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231–B	RESIDENTIAL AND COMMERCIAL DRIVEWAY – NOTES
231–C	RESIDENTIAL ANGLED DRIVEWAY LAYOUT
313	STANDARD TRENCH DETAILS
401	ROADSIDE SIGN LOCATIONS RURAL AREAS

CALTRANS STANDARD PLANS DATED 2022

No.	Title
A3A	ABBREVIATIONS (SHEET 1 OF 3)
A3B	ABBREVIATIONS (SHEET 2 OF 3)
A3C	ABBREVIATIONS (SHEET 3 OF 3)
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A10B	LEGENDS LINES AND SYMBOLS (SHEET 2 OF 5)
A10C	LEGENDS LINES AND SYMBOLS (SHEET 3 OF 5)
A10D	LEGENDS LINES AND SYMBOLS (SHEET 4 OF 5)
A10E	LEGENDS LINES AND SYMBOLS (SHEET 5 OF 5)
A73B	MARKERS
A77L1	MIDWEST GUARDRAIL SYSTEM–STANDARD RAILING SECTION (WOOD POST WITH WOOD BLOCK)
A77M1	MIDWEST GUARDRAIL SYSTEM–STANDARD HARDWARE
A77N1	MIDWEST GUARDRAIL SYSTEM–WOOD POST AND WOOD BLOCK DETAILS
A77N3	MIDWEST GUARDRAIL SYSTEM–TYPICAL LINE POST EMBEDMENT AND HINGE POINT OFFSET DETAILS
A77N4	MIDWEST GUARDRAIL SYSTEM–TYPICAL RAILING DELINEATION AND DIKE POSITIONING DETAILS
A77Q1	MIDWEST GUARDRAIL SYSTEM–TYPICAL LAYOUTS FOR STRUCTURE APPROACH
A77Q4	MIDWEST GUARDRAIL SYSTEM–TYPICAL LAYOUTS FOR STRUCTURE DEPARTURE
A77U1	MIDWEST GUARDRAIL SYSTEM–CONNECTIONS TO BRIDGE RAILINGS WITHOUT SIDEWALKS DETAILS NO. 1
A77U2	MIDWEST GUARDRAIL SYSTEM–CONNECTIONS TO BRIDGE RAILINGS WITHOUT SIDEWALKS DETAILS NO. 2
A77U4	MIDWEST GUARDRAIL SYSTEM–TRANSITION RAILING (TYPE WB–31)
A85	CHAIN LINK FENCE
A85B	CHAIN LINK FENCE DETAILS
A87B	HOT MIX ASPHALT DIKES
D87D	OVERSIDE DRAINS
H51	EROSION CONTROL DETAILS–FIBER ROLL AND COMPOST SOCK
T13	TRAFFIC CONTROL SYSTEM WITH REVERSIBLE CONTROL ON TWO LANE CONVENTIONAL HIGHWAYS
T51	TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY SILT FENCE)
T57	TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY CHECK DAM)
T58	TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY CONSTRUCTION ENTRANCE)
T59	TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY CONCRETE WASHOUT FACILITY)
RS1	ROADSIDE SIGNS – TYPICAL INSTALLATION DETAILS No. 1
RS2	ROADSIDE SIGNS – WOOD POST – TYPICAL INSTALLATION DETAILS No. 2

ABBREVIATIONS

Abut	ABUTMENT
Alt	ALTERNATE, ALTERNATIVE
APN	ASSESSOR's PARCEL NUMBER
Approx	APPROXIMATE
BB	BEGINNING OF BRIDGE
BC	BEGINNING HORIZONTAL CURVE
BR	BRIDGE
Brg	BEARING
BVC	BEGIN VERTICAL CURVE
CAWF	CALIFORNIA WIDE FLANGE
CFS	CUBIC FEET PER SECOND
CIDH	CAST–IN–DRILLED–HOLE
℄	CENTER LINE
Clr	CLEAR, CLEARANCE
Conc	CONCRETE
Const	CONSTRUCT, CONSTRUCTION
Cont	CONTINUOUS
CSP	CORRUGATED STEEL PIPE
CY	CUBIC YARDS
DWY	DRIVEWAY
E	EAST
EA	EACH
EB	END OF BRIDGE
EC	END HORIZONTAL CURVE
Elev	ELEVATION
Embed	EMBEDMENT
EP	EDGE OF PAYMENT
EVC	END VERTICAL CURVE
Exist	EXISTING
Exp	EXPANSION
FES	FLARED END SECTION
FG	FINISH GRADE
FL	FLOW LINE
ft	FEET
GB	GRADE BREAK
HMA	HOT MIX ASPHALT
HP	HINGE POINT
Jt	JOINT
k	KIPS
ksi	KIPS PER SQUARE INCH
L	LENGTH
LB	POUNDS
LF	LINEAR FEET
LRFD	LOAD AND RESISTANCE FACTOR DESIGN
LS	LUMP SUM
Lt	LEFT
m/s	METERS PER SECOND
Max	MAXIMUM
MGS	MIDWEST GUARDRAIL SYSTEM
Min	MINIMUM
Misc	MISCELLANEOUS
MR	MOVEMENT RATING
Mt	MOUNTAIN
N	NORTH
NO.	NUMBER
OG	ORIGINAL GRADE
OH	OVERHEAD
OSD	OVERSIDE DRAIN
P/L	PROPERTY LINE
PC	POINT OF CURVATURE, PRECAST
PC/PS	PRECAST/PRESTRESSED
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE
PG	PROFILE GRADE
PRC	POINT OF REVERSE CURVE
PRVC	POINT OF REVERSE VERTICAL CURVE
psf	POUNDS PER SQUARE FOOT
R	RADIUS
R/C	RATE OF CHANGE
R/W	RIGHT OF WAY
RCP	REINFORCED CONCRETE PIPE
Reinf	REINFORCED, REINFORCEMENT, REINFORCING
RSP	ROCK SLOPE PROTECTION
Rt	RIGHT
S	SOUTH, SLOPE
S/C	SAW CUT LINE
Sec	SECOND, SECTION
SHT	SHEET
SQFT	SQUARE FEET
STA	STATION
T	TON
TCE	TEMPORARY CONSTRUCTION EASEMENT
Temp	TEMPORARY
Tot	TOTAL
Typ	TYPICAL
UON	UNLESS OTHERWISE NOTED
Var	VARIES
VC	VERTICAL CURVE
VPI	VERTICAL POINT OF INFLECTION
W	WEST
WWLOL	WINGWALL LAYOUT LINE
WWR	WELDED WIRE REINFORCEMENT
YR	YEAR

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER
LEVI KINNEBREW
No. 75876
Exp. 06/30/24
CIVIL
STATE OF CALIFORNIA

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT
COURTHOUSE – 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263–2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
GENERAL NOTES

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23–01
FILE:	
SHEET:	GN–1
	2 OF 39 SHEETS

U:\16004 – N. Fork Cache Creek at Chalk Mt. Road – Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMB–R–T.dwg

NOTES:

1. HORIZONTAL DATUM: CCS83 ZONE 2 BASED UPON GPS OBSERVATIONS, PROCESSED BY NGS OPUS WITH CORS STATIONS P270, P192, & HP190, REFERENCE EPOCH 2010.00 AT CONTROL POINT #2

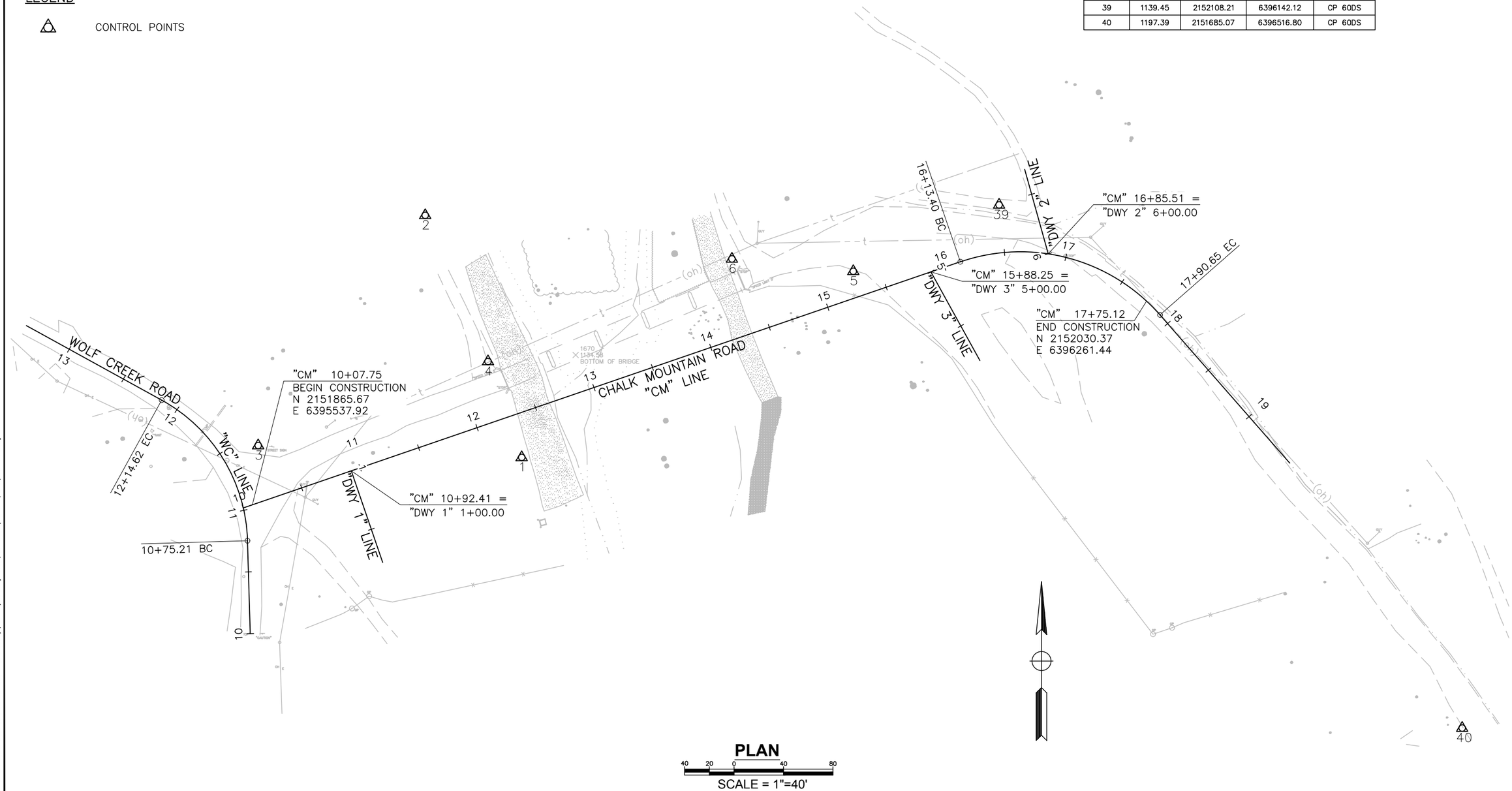
2. VERTICAL DATUM: NAVD 88 BASED UPON GPS OBSERVATIONS, PROCESSED BY NGS OPUS WITH CORS STATIONS P270, P192, & HP190, REFERENCE EPOCH 2010.00 AT CONTROL POINT #2

LEGEND

△ CONTROL POINTS

CONTROL FOR DESIGN AND CONSTRUCTION

Point #	Elevation	Northing	Easting	Description
1	1134.32	2151904.01	6395755.88	CP 60DS
2	1134.05	2152099.81	6395677.84	CP 60 DS
3	1134.38	2151913.58	6395542.68	CP 60DS
4	1136.28	2151981.56	6395728.64	CP 60DS
5	1133.41	2152054.53	6396024.18	CP 60DS
6	1133.80	2152064.52	6395925.98	CP 60DS
39	1139.45	2152108.21	6396142.12	CP 60DS
40	1197.39	2151685.07	6396516.80	CP 60DS



PLAN

40 20 0 40 80

SCALE = 1"=40'

Revision	Date	By

PROFESSIONAL ENGINEER REGISTERED PAUL BRADBURY No. 76653 Exp. 12/31/24 CIVIL STATE OF CALIFORNIA

COUNTY OF LAKE PUBLIC WORKS DEPARTMENT
COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
PROJECT CONTROL

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	PC-1

3 OF 39 SHEETS

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NOTES:

1. FOR ACCURATE RIGHT–OF–WAY DATA, SEE RIGHT–OF–WAY RECORD MAPS AT THE COUNTY OFFICE
2. DIMENSIONS OF STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
3. SEE SUPERELEVATION FOR CROSS SLOPES
4. FOR EXACT LOCATION OF PAVEMENT TRANSITIONS, HP, MGS AND DIKE, SEE LAYOUTS

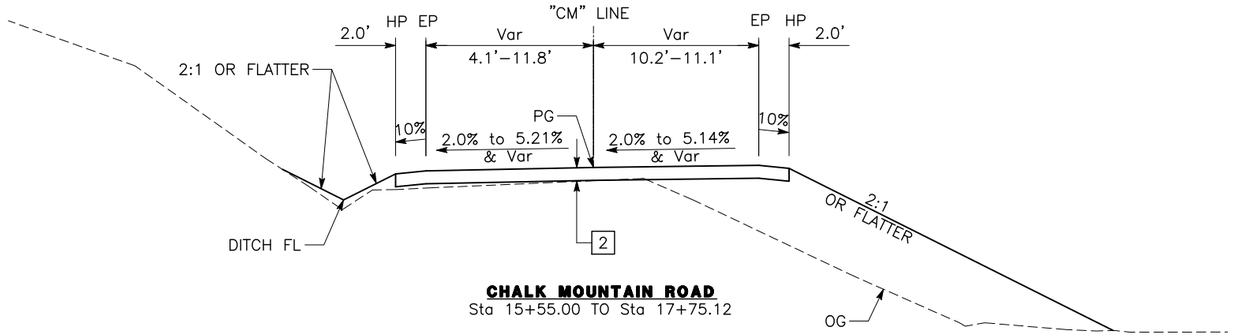
CHALK MOUNTAIN ROAD DESIGN DESIGNATION

ROADWAY CLASSIFICATION: MINOR ROAD, RURAL
LOCAL RURAL ROAD
DESIGN SPEED: 20 MPH

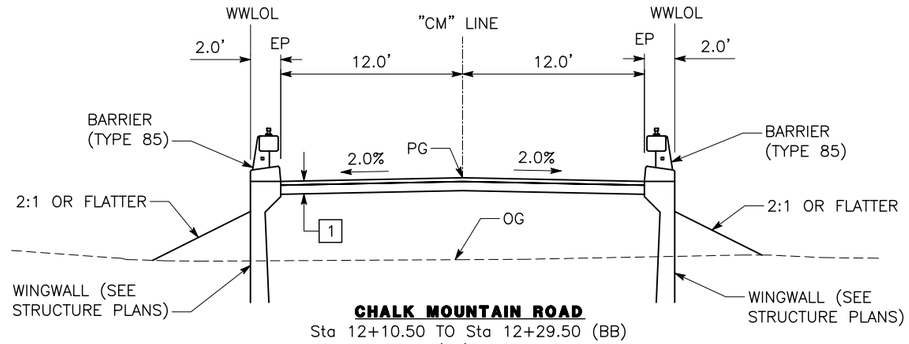
ADT 2006 : 15 TI=5
ADT 2036 : 27

1 — 0.25' HMA (TYPE A)
0.60' CLASS 2 AGGREGATE BASE

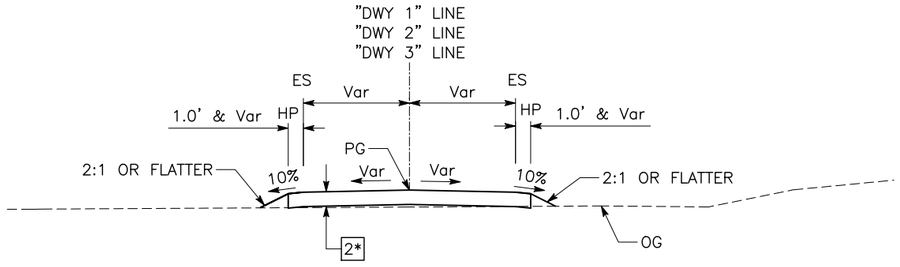
2 — 0.85' CLASS 2 AGGREGATE BASE



CHALK MOUNTAIN ROAD
Sta 15+55.00 TO Sta 17+75.12

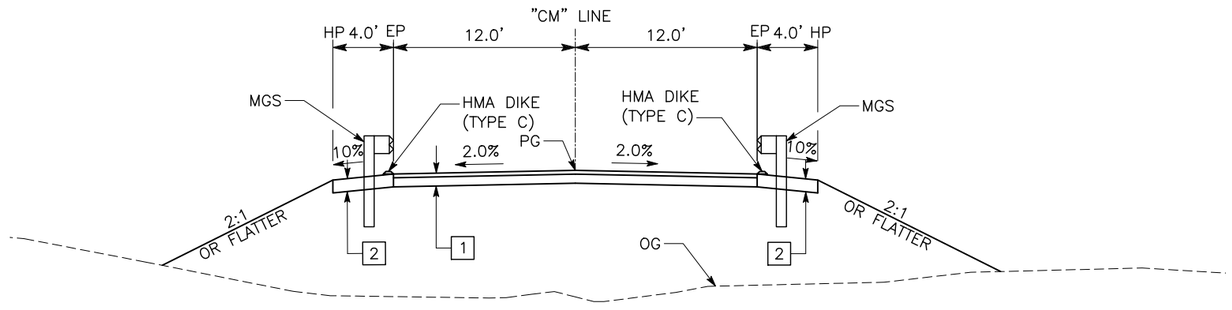


CHALK MOUNTAIN ROAD
Sta 12+10.50 TO Sta 12+29.50 (BB)
Sta 14+48.83 (EB) TO Sta 14+67.08

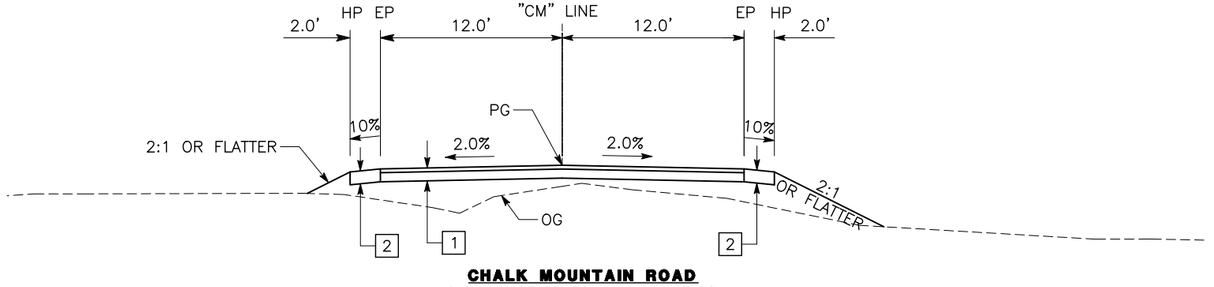


DRIVEWAY
"DWY 1" LINE Sta 1+12.00 TO Sta 1+54.00
"DWY 2" LINE Sta 6+13.06 TO Sta 6+45.91
"DWY 3" LINE Sta 5+12.19 TO Sta 5+54.19

* STRUCTURAL SECTION CHANGES TO 1 FROM:
"DWY 1" LINE STA 1+12.00 TO STA 1+32.00
"DWY 3" LINE STA 5+12.19 TO STA 5+33.55



CHALK MOUNTAIN ROAD
Sta 11+27.08 TO Sta 12+10.50
Sta 14+67.08 TO Sta 15+55.00



CHALK MOUNTAIN ROAD
Sta 10+07.75 TO Sta 11+27.08

Revision	Date	By

PROFESSIONAL ENGINEER
PAUL BRADBURY
No. 76653
Exp. 12/31/24
CIVIL
STATE OF CALIFORNIA

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT
COURTHOUSE – 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263–2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
TYPICAL SECTIONS

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23–01
FILE:	
SHEET:	X–1
	4 OF 39 SHEETS

U:\16004 – N. Fork Cache Creek at Chalk Mt. Road – Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMR–R–X.dwg

NOTES:

1. FOR ACCURATE RIGHT–OF–WAY DATA, SEE RIGHT–OF–WAY RECORD MAPS AT THE COUNTY OFFICE
2. FOR DETAILS NOT SHOWN, REFER TO CONSTRUCTION DETAIL SHEETS
3. ALL STATION/OFFSET CALLOUTS ARE TO EP/ES UNLESS OTHERWISE NOTED
4. FOR DRAINAGE DETAILS NOT SHOWN, REFER TO DRAINAGE SHEETS
5. EXACT SIGN LOCATION TO BE DETERMINED BY ENGINEER
6. UNLESS OTHERWISE SHOWN PROTECT IN PLACE ALL EXISTING TREES AND PROPERTY OWNER IMPROVEMENTS

LEGEND

- EXISTING RIGHT OF WAY
- APPROXIMATE GRADING LIMITS
- REMOVE TREE
- ROCK SLOPE PROTECTION
- EXISTING SIGN TO REMAIN (PROTECT IN PLACE)
- FURNISH ROADSIDE SIGN
- SALVAGE ROADSIDE SIGN
- ROADSIDE SIGN ONE POST
- OBJECT MARKER TYPE P (CA)
- 0.85' CLASS 2 AGGREGATE BASE

APN: 062–471–01

61.95' Lt "CM" 10+01.55, S/C
17.99' Lt "CM" 11+32.47, HP
OVERHEAD ELECTRIC AND PHONE (PG&E AND AT&T)
TOE OF FILL
UTILITY POLE TO BE PROTECTED IN PLACE
14.00' Lt "CM" 11+08.50, HP
D3–1
Exist R/W
HMA OVERSIDE DRAIN
12.00' Lt "CM" 11+45.83
BEGIN HMA DIKE (TYPE C)
17.99' Lt "CM" 11+47.47, HP
OBJECT MARKER (TYPE P)
OVERHEAD PHONE AT&T
ALTERNATIVE IN–LINE TERMINAL SYSTEM
16.00' Lt "CM" 11+85.60, HP
TRANSITION RAILING (TYPE WB–31)
12.00' Lt "CM" 12+10.50
END HMA DIKE (TYPE C)
BEGIN BARRIER (TYPE 85)
BEGIN WINGWALL (SEE STRUCTURE PLANS)
R1–1 SPECIAL
PROPOSED R/W
16.00' Lt "CM" 12+18.00, HP
EXISTING BRIDGE (BR NO. 14C0048)
R12–5 SPECIAL
HMA DIKE (TYPE C)
EXIST R/W
EP
HP
SAWCUT
"WC" 11+02.01 = "CM" 10+00.00
"CM" 10+07.75 BEGIN CONSTRUCTION
10+75.21 BC
UTILITY POLE TO BE RELOCATED (BY OTHERS)
"CM" 10+92.41 = "DWY 1" 1+00.00
MGS
"CM" 12+29.50 BB Elev 1138.47
"CM" LINE
CHALK MOUNTAIN ROAD
N 71°03'36" E 613.40'
STA 13+90.00 MATCH LINE (L–2)
PROPOSED R/W
NORTH FORK CACHE CREEK
P/L
APN: 062–481–03
16.00' Rt "CM" 12+18.00, HP
12.00' Rt "CM" 12+10.50
END HMA DIKE (TYPE C)
BEGIN BARRIER (TYPE 85)
BEGIN WINGWALL (SEE STRUCTURE PLANS)
R4–11
TRANSITION RAILING (TYPE WB–31)
16.00' Rt "CM" 11+65.38, HP
ALTERNATIVE IN–LINE TERMINAL SYSTEM
12.00' Rt "CM" 11+27.08
BEGIN HMA DIKE (TYPE C)
18.00' Rt "CM" 11+27.19, HP
OBJECT MARKER (TYPE P)
HMA OVERSIDE DRAIN
TOE OF FILL
W14–2
NO OUTLET
PROTECT IN PLACE EXISTING BUILDING
APN: 062–481–05
P/L
OVERHEAD ELECTRIC AND PHONE (PG&E AND AT&T)
9.60' Rt "WC" 10+59.16, S/C
"WC" LINE
"DWY 1" LINE
WOLF CREEK ROAD
124.95' N 61°09'44.50" W
12+14.62 EC
N 1°40'55.28" W 75.21'
"CAUTION"
STREET SIGN
"SPEED LIMIT 5"
STOP

PLAN
SCALE = 1"=20'

CURVE DATA

No.	R	Δ	T	L
1	150.00'	67°42'10"	100.61'	177.25'
2	134.29'	59°28'49"	76.72'	139.41'

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER PAUL BRADBURY No. 76653 Exp. 12/31/24 CIVIL STATE OF CALIFORNIA

COUNTY OF LAKE STATE OF CALIFORNIA

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT
COURTHOUSE – 255 N. FORBES ST.
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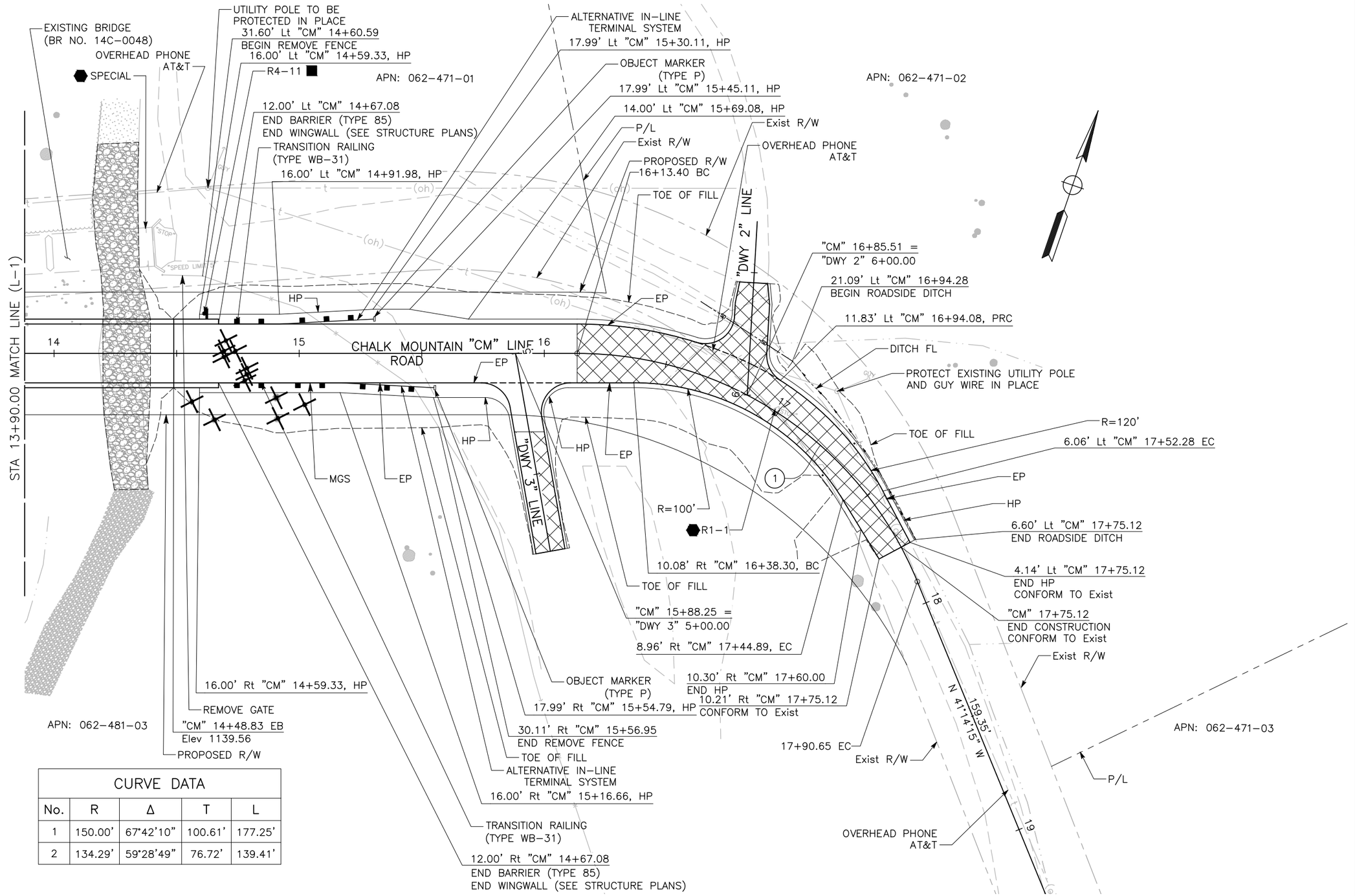
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
LAYOUT

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23–01
FILE:	
SHEET:	L–1
	5 OF 39 SHEETS

U:\16004 – N. Fork Cache Creek at Chalk Mt. Road – Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMB–R–L.dwg



CURVE DATA				
No.	R	Δ	T	L
1	150.00'	67°42'10"	100.61'	177.25'
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Revision	Date	By

PROFESSIONAL ENGINEER
PAUL BRADBURY
No. 76653
Exp. 12/31/24
CIVIL
STATE OF CALIFORNIA

COUNTY OF LAKE
PUBLIC WORKS
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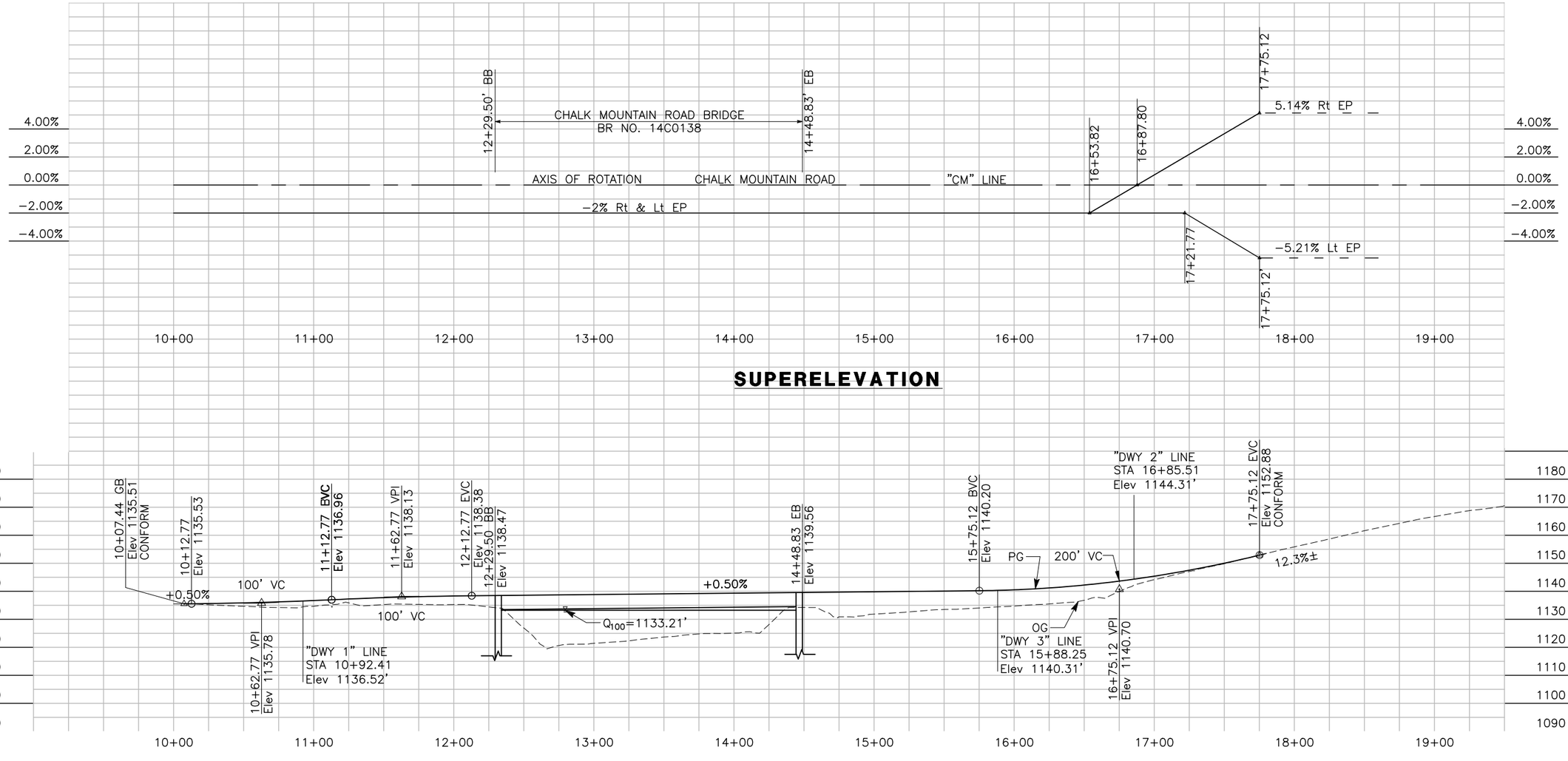
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
LAYOUT

TYPE:
STATE: CA
DATE: 04/07/2023
SCALE:
DESIGN BY: PSB
CO. JOB: 5914(094)
BID: 23-01
FILE:

SHEET: L-2
6 OF 39 SHEETS

U:\16004 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMB-R-L.dwg



U:\16004 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMB-R-P.dwg

Revision	Date	By

Professional Engineer — Paul Bradbury — No. 76653 — Exp. 12/31/24 — Civil — State of California — Registered

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT

COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
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PHONE: (707)263-2341

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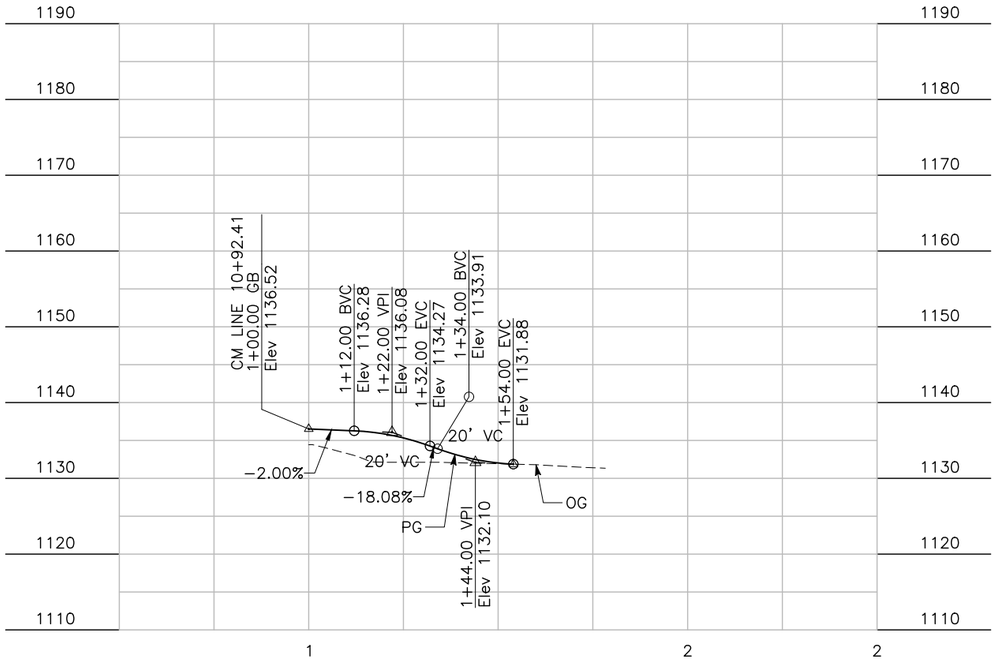
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

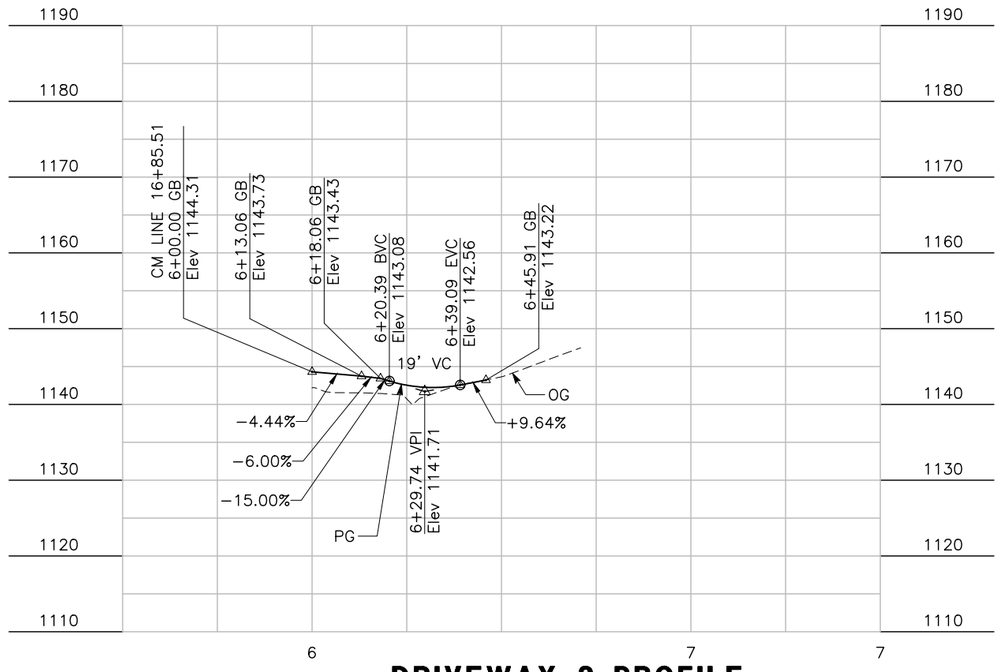
SHEET DESCRIPTION:
PROFILE AND
SUPERELEVATION

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	P-1

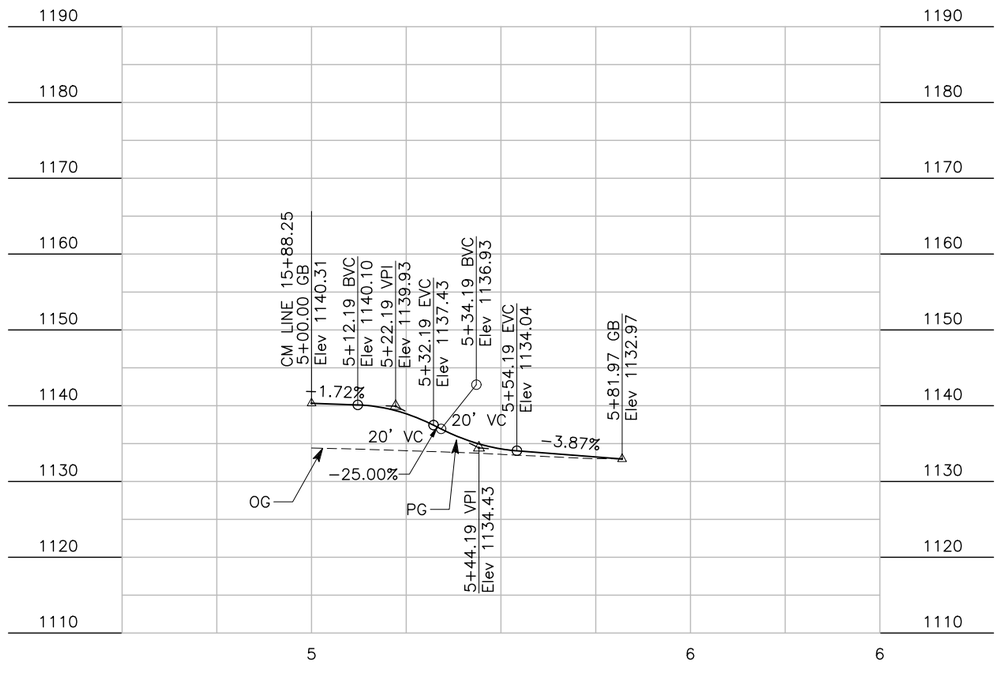
7 OF 39 SHEETS



DRIVEWAY 1 PROFILE
"DWY 1" LINE



DRIVEWAY 2 PROFILE
"DWY 2" LINE



DRIVEWAY 3 PROFILE
"DWY 3" LINE

20 10 0 20 40
SCALE: HORIZ 1"=20'

VERT 1"=20'

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER
PAUL BRADBURY
No. 76653
Exp. 12/31/24
CIVIL
STATE OF CALIFORNIA

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT

COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
PROFILE

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	P-2

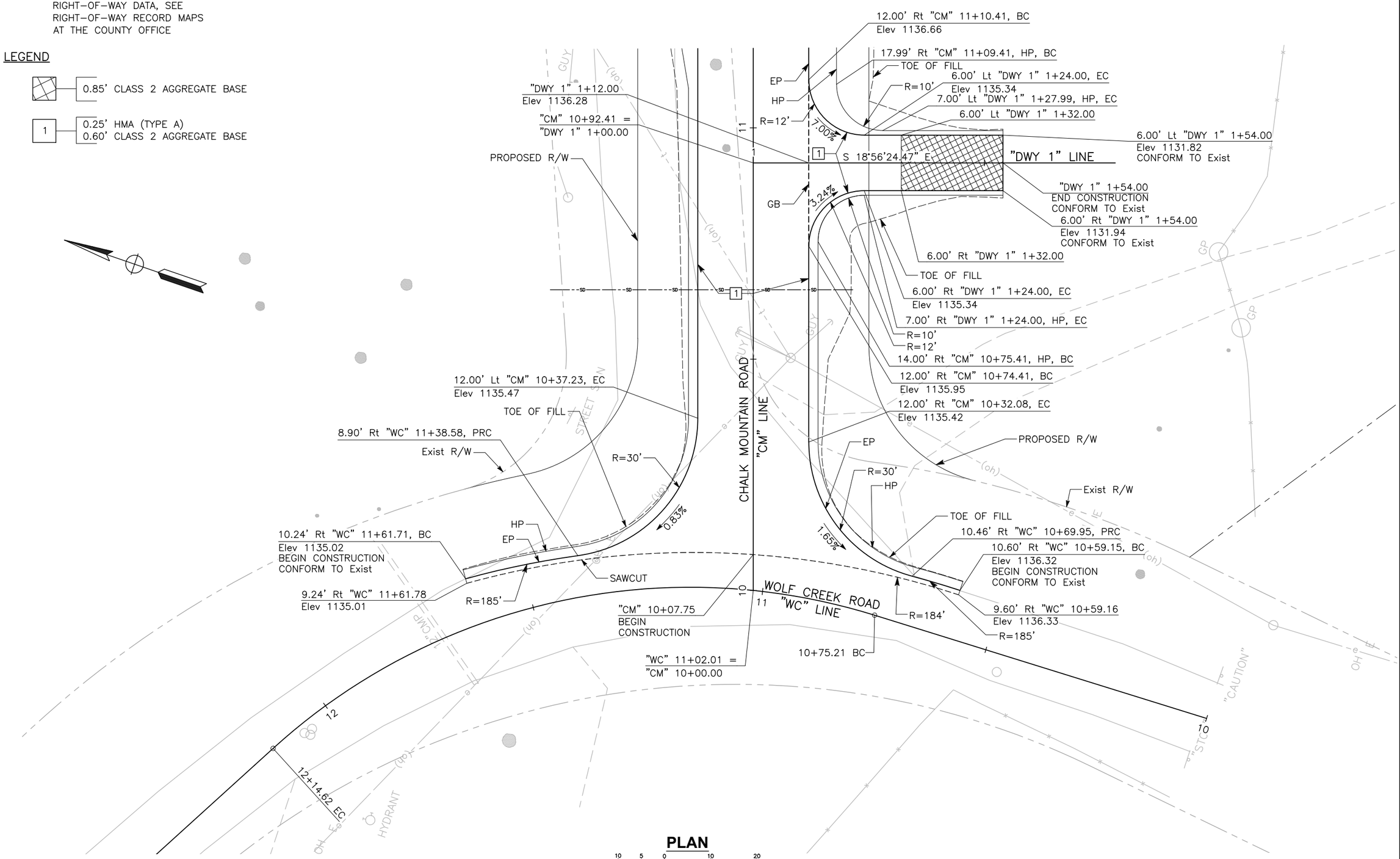
8 OF 39 SHEETS

NOTES:

1. FOR ACCURATE RIGHT-OF-WAY DATA, SEE RIGHT-OF-WAY RECORD MAPS AT THE COUNTY OFFICE

LEGEND

- 0.85' CLASS 2 AGGREGATE BASE
- 1 — 0.25' HMA (TYPE A); 0.60' CLASS 2 AGGREGATE BASE



PLAN

10 5 0 10 20

SCALE = 1"=10'

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER
PAUL BRADBURY
No. 76653
Exp. 12/31/24
CIVIL
STATE OF CALIFORNIA

COUNTY OF LAKE
STATE OF CALIFORNIA

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT
COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
CONSTRUCTION
DETAILS

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	C-1
	9 OF 39 SHEETS

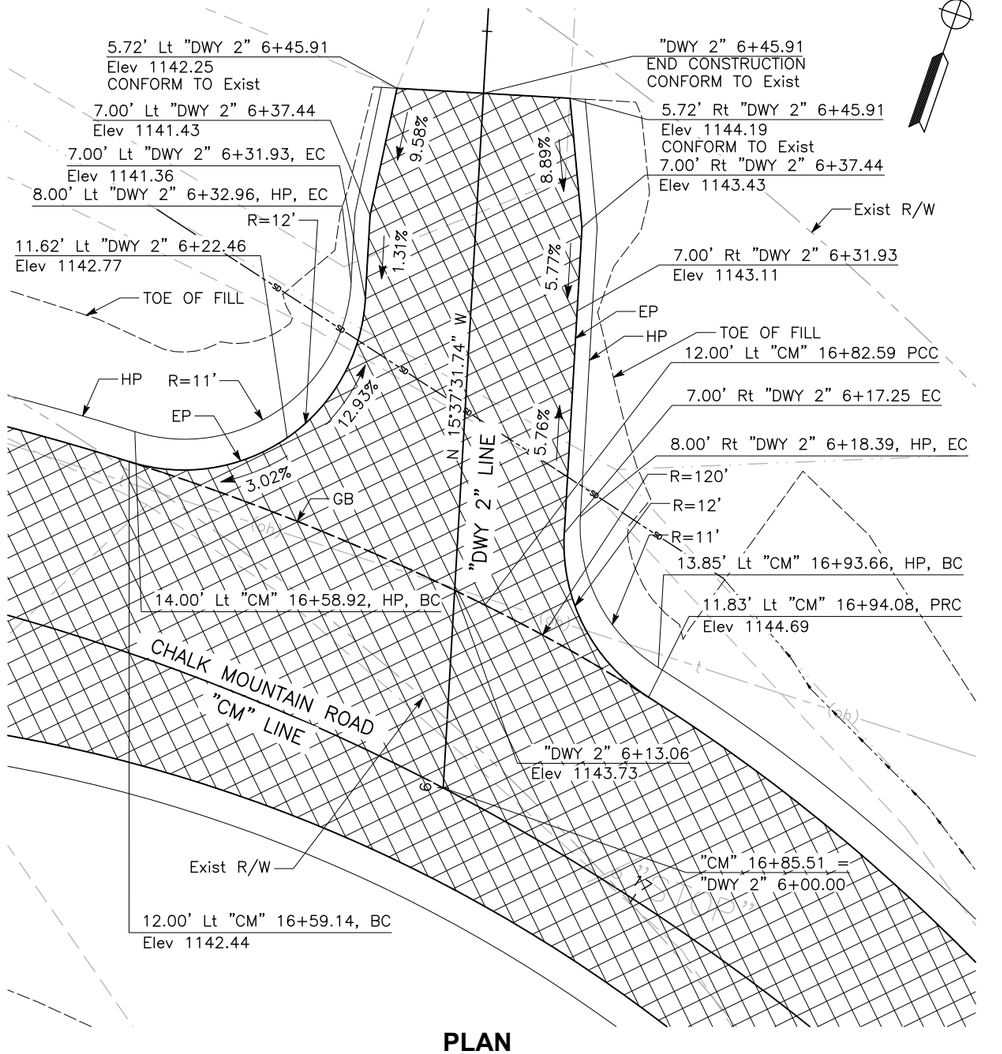
U:\16604 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMB-R-C.dwg

NOTES:

1. FOR ACCURATE RIGHT-OF-WAY DATA, SEE RIGHT-OF-WAY RECORD MAPS AT THE COUNTY OFFICE

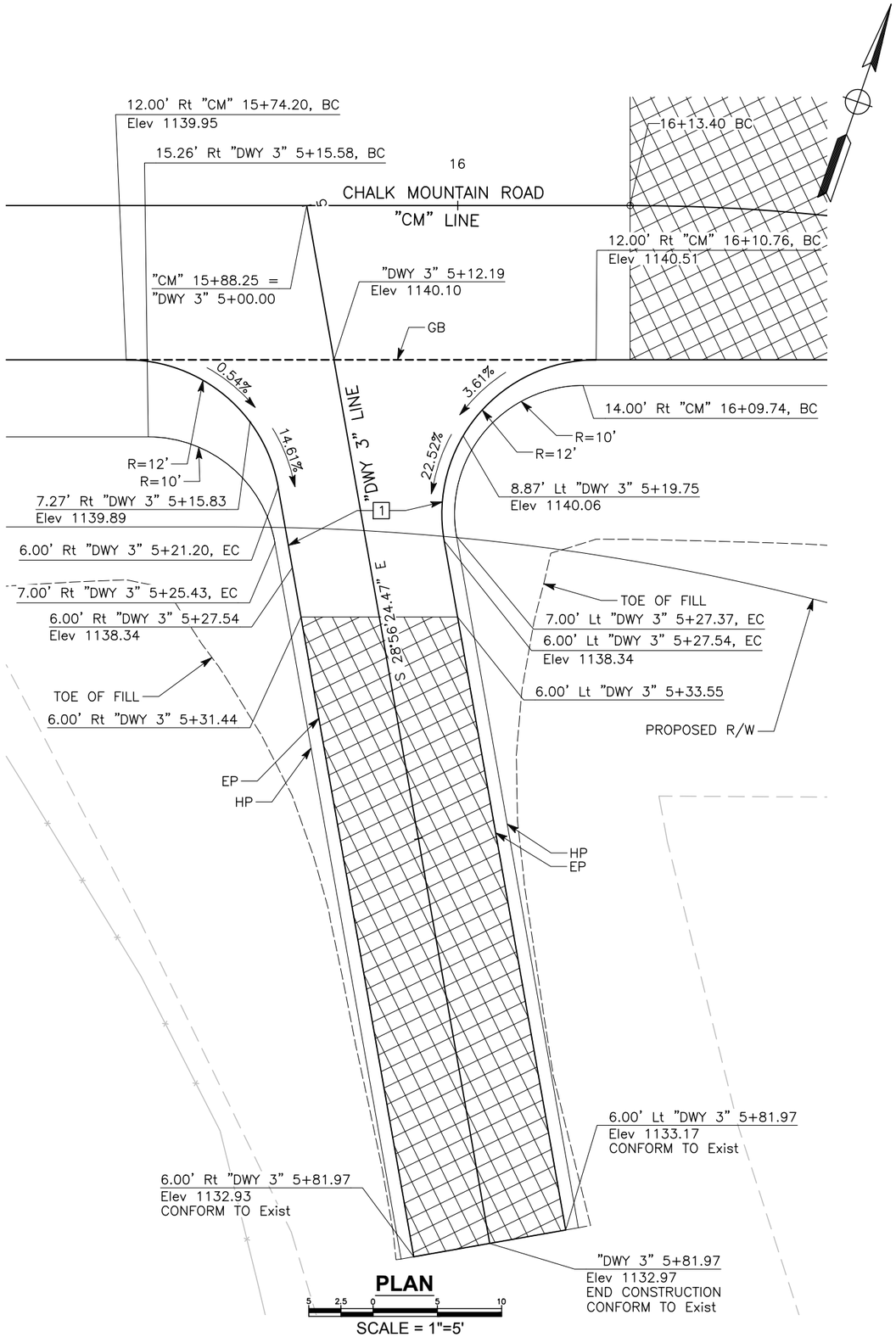
LEGEND

- 0.85' CLASS 2 AGGREGATE BASE
- 1 — 0.25' HMA (TYPE A); 0.60' CLASS 2 AGGREGATE BASE



PLAN

SCALE = 1"=5'



PLAN

SCALE = 1"=5'

Revision	Date	By

Professional Engineer — PAUL BRADBURY — No. 76653 — Exp. 12/31/24 — CIVIL — STATE OF CALIFORNIA — REGISTERED

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT

COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
CONSTRUCTION
DETAILS

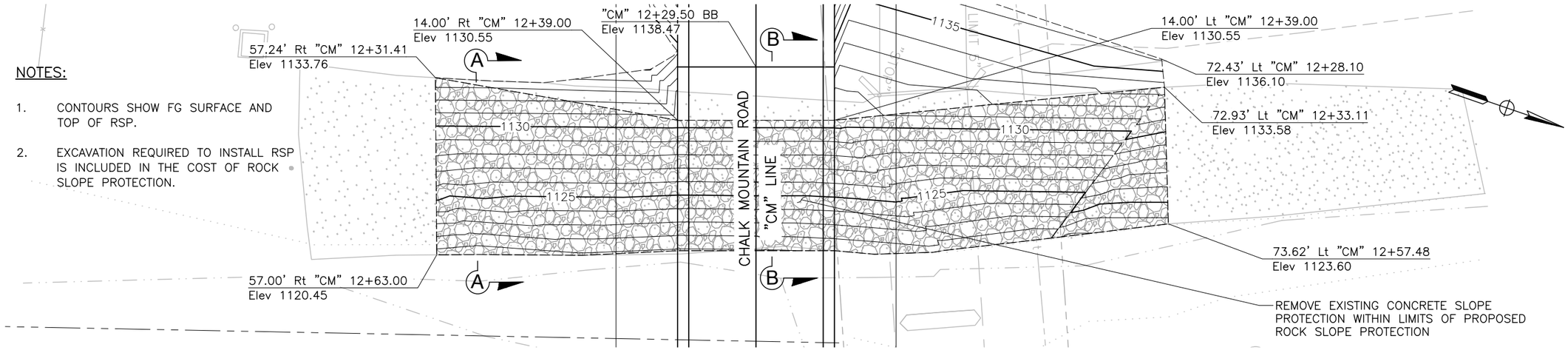
TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	C-2

10 OF 39 SHEETS

U:\16604 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMB-R-C.dwg

NOTES:

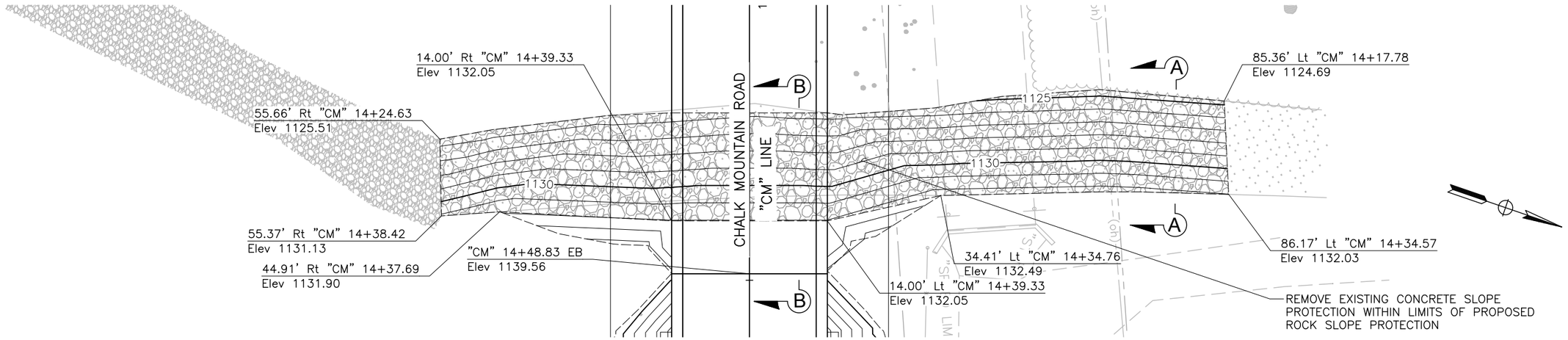
1. CONTOURS SHOW FG SURFACE AND TOP OF RSP.
2. EXCAVATION REQUIRED TO INSTALL RSP IS INCLUDED IN THE COST OF ROCK SLOPE PROTECTION.



PLAN

10 5 0 10 20

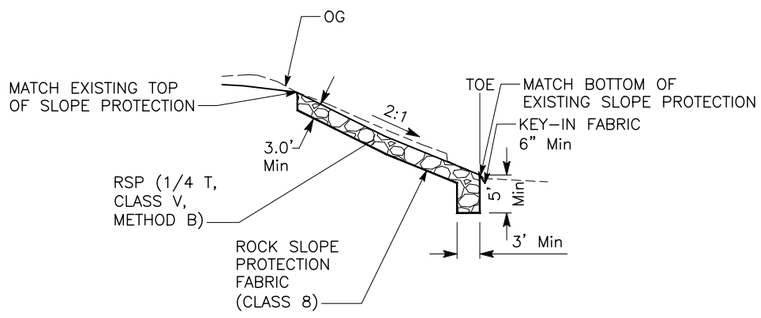
SCALE = 1"=10'



PLAN

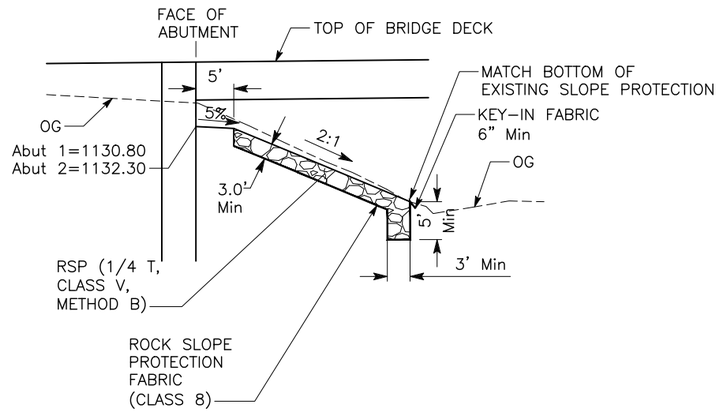
10 5 0 10 20

SCALE = 1"=10'



SECTION A-A

NO SCALE



SECTION B-B

NO SCALE

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER
PAUL BRADBURY
No. 76653
Exp. 12/31/24
CIVIL
STATE OF CALIFORNIA

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT

COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
CONSTRUCTION
DETAILS

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	C-3

11 OF 39 SHEETS

U:\16004 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMB-R-C.dwg

NOTES:

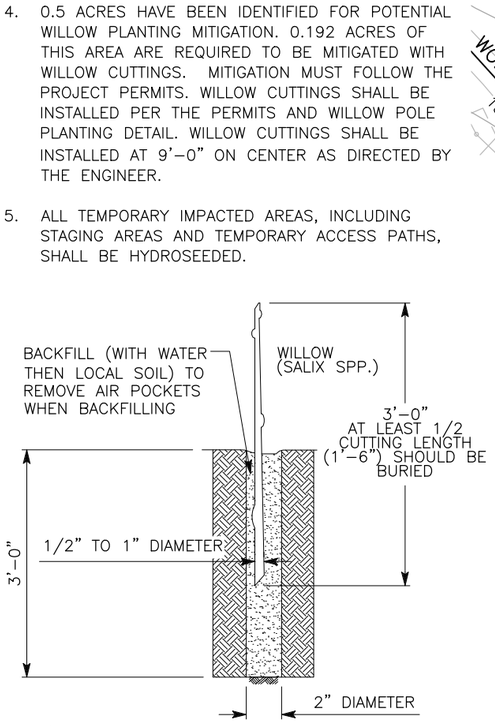
1. FOR ACCURATE RIGHT-OF-WAY DATA, SEE RIGHT-OF-WAY RECORD MAPS AT THE COUNTY OFFICE.
2. DEPLOY LINEAR SEDIMENT CONTROLS (FIBER ROLLS) ON DISTURBED SLOPES. APPLY LINEAR SEDIMENT CONTROLS ALONG THE TOE OF THE SLOPE AND AT THE GRADE BREAKS OF THE SLOPE. ADDITIONALLY, USE LINEAR SEDIMENT CONTROLS AS A PERIMETER CONTROL TO CONTAIN SEDIMENT WITHIN THE PROJECT AREA. PLACE FIBER ROLLS 5 FEET ABOVE THE TOE OF SLOPE AND 6.5 FEET BELOW GRADING CONFORM.
3. ROCK SLOPE PROTECTION SHOWN ON EROSION CONTROL PLANS IS FOR REFERENCE ONLY. SEE CONSTRUCTION DETAIL SHEETS AND DRAINAGE PLANS FOR FURTHER INFORMATION.
4. 0.5 ACRES HAVE BEEN IDENTIFIED FOR POTENTIAL WILLOW PLANTING MITIGATION. 0.192 ACRES OF THIS AREA ARE REQUIRED TO BE MITIGATED WITH WILLOW CUTTINGS. MITIGATION MUST FOLLOW THE PROJECT PERMITS. WILLOW CUTTINGS SHALL BE INSTALLED PER THE PERMITS AND WILLOW POLE PLANTING DETAIL. WILLOW CUTTINGS SHALL BE INSTALLED AT 9'-0" ON CENTER AS DIRECTED BY THE ENGINEER.
5. ALL TEMPORARY IMPACTED AREAS, INCLUDING STAGING AREAS AND TEMPORARY ACCESS PATHS, SHALL BE HYDROSEEDED.

LEGEND

- FR — SC-5: FIBER ROLLS
- HYDROSEED
- ROCK SLOPE PROTECTION
- WILLOW PLANTING MITIGATION AREA, SEE NOTE 4
- xx—TSF—xx—xx— SC-1: TEMPORARY SILT FENCE
- SC-4: TEMPORARY CHECK DAM

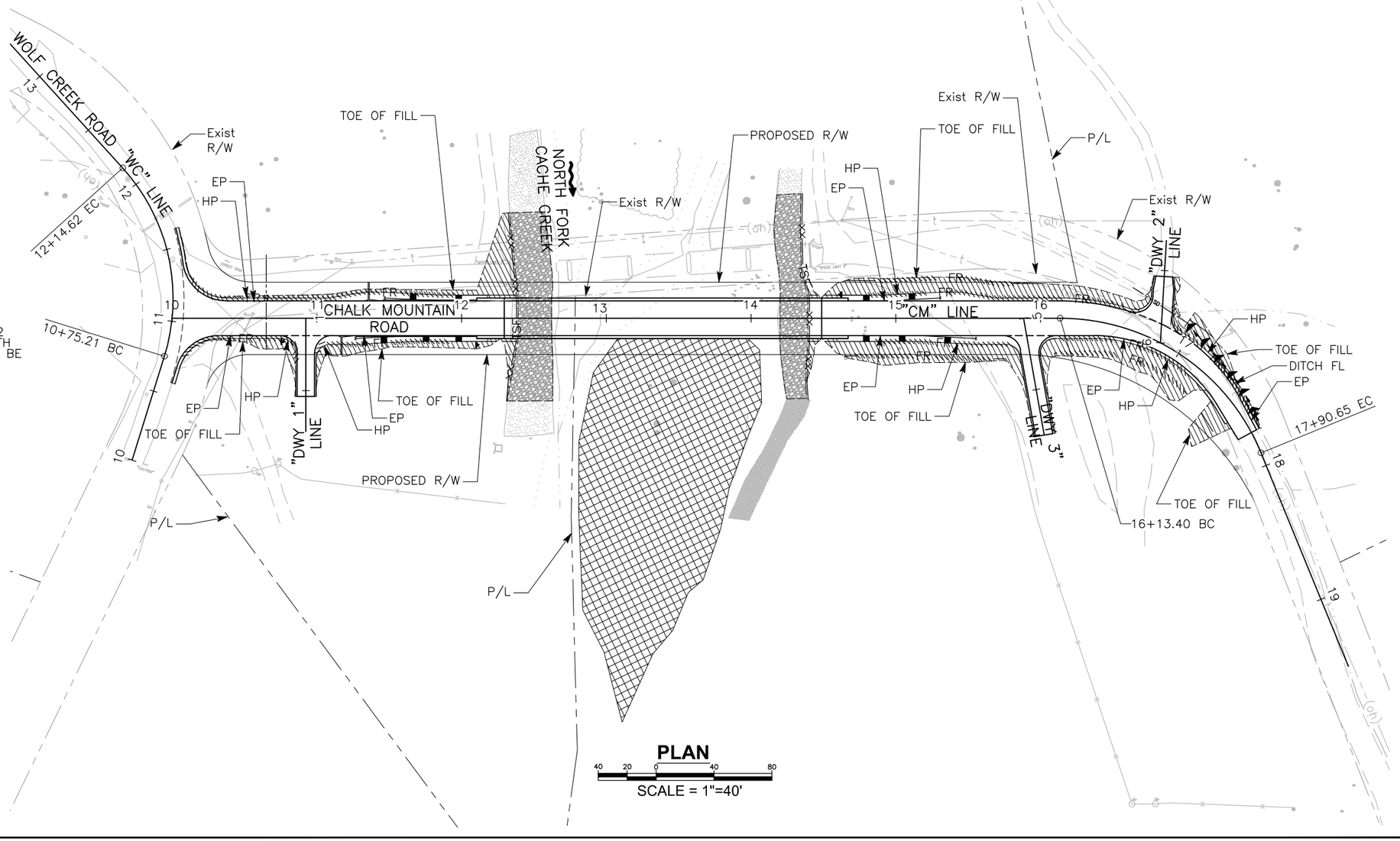
FIBER ROLL PLACEMENT INTERVALS	
SLOPE	SPACING
4:1 OR FLATTER	20'
2:1 TO 4:1	15'
2:1 OR STEEPER	10'

EROSION CONTROL QUANTITIES	
HYDROSEED	FIBER ROLL
SQFT	LF
10,690	1,696



NOTE:
PLANT WILLOW CUTTINGS AS DIRECTED BY ENGINEER.

WILLOW POLE PLANTING
NO SCALE



PLAN
40 20 0 40 80
SCALE = 1"=40'

Revision	Date	By

PROFESSIONAL ENGINEER — PAUL BRADBURY — No. 76653 — Exp. 12/31/24 — CIVIL — STATE OF CALIFORNIA — REGISTERED

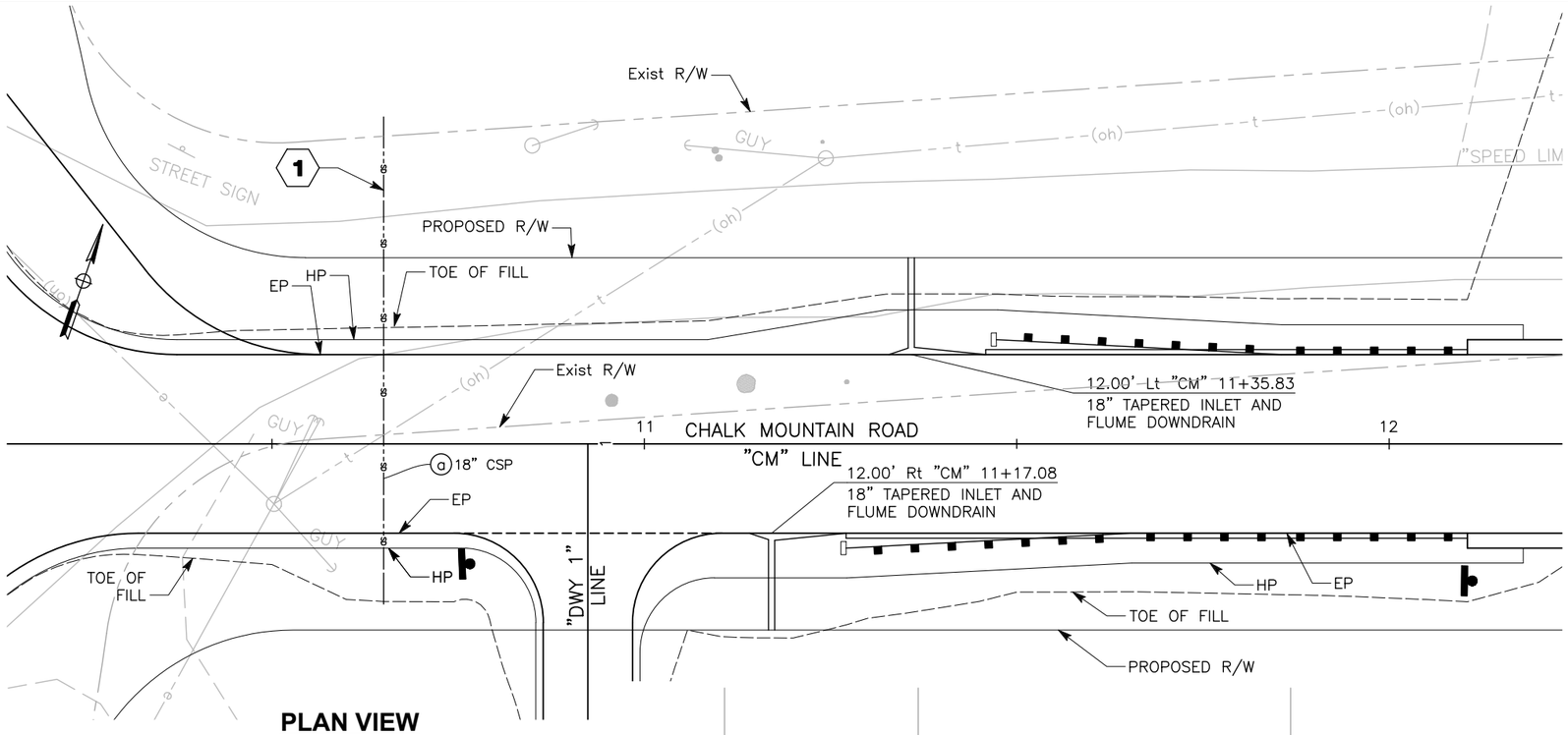
COUNTY OF LAKE PUBLIC WORKS DEPARTMENT
COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
EROSION CONTROL

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	EC-1
	12 OF 39 SHEETS

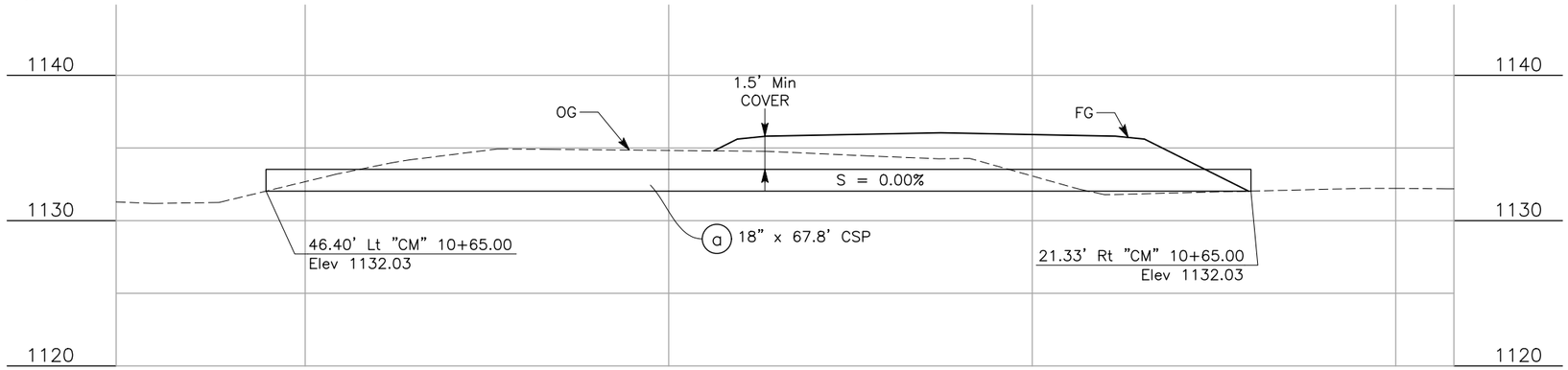
U:\16004 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMB-R-EC.dwg



PLAN VIEW

10 5 0 10 20

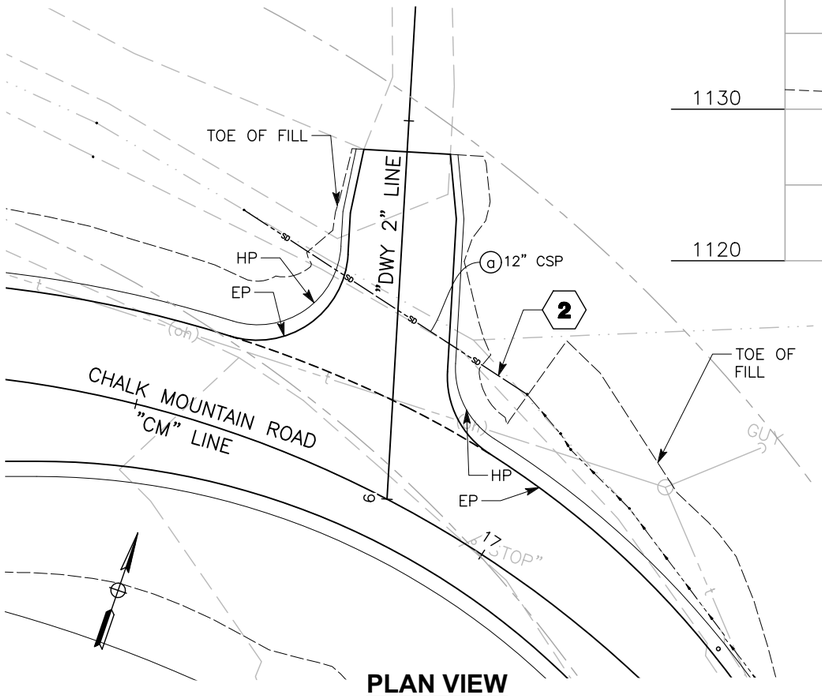
SCALE = 1"=10'



DRAINAGE SYSTEM No. 1

5 2.5 0 5 10

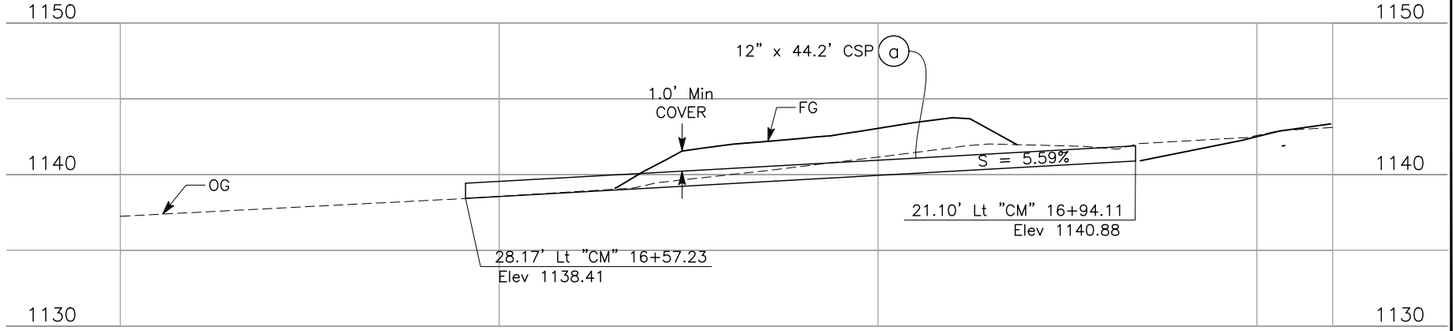
SCALE = 1"=5'



PLAN VIEW

10 5 0 10 20

SCALE = 1"=10'



DRAINAGE SYSTEM No. 2

5 2.5 0 5 10

SCALE = 1"=5'

Revision	Date	By

Professional Engineer PAUL BRADBURY No. 76653 Exp. 12/31/24 CIVIL STATE OF CALIFORNIA REGISTERED

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT

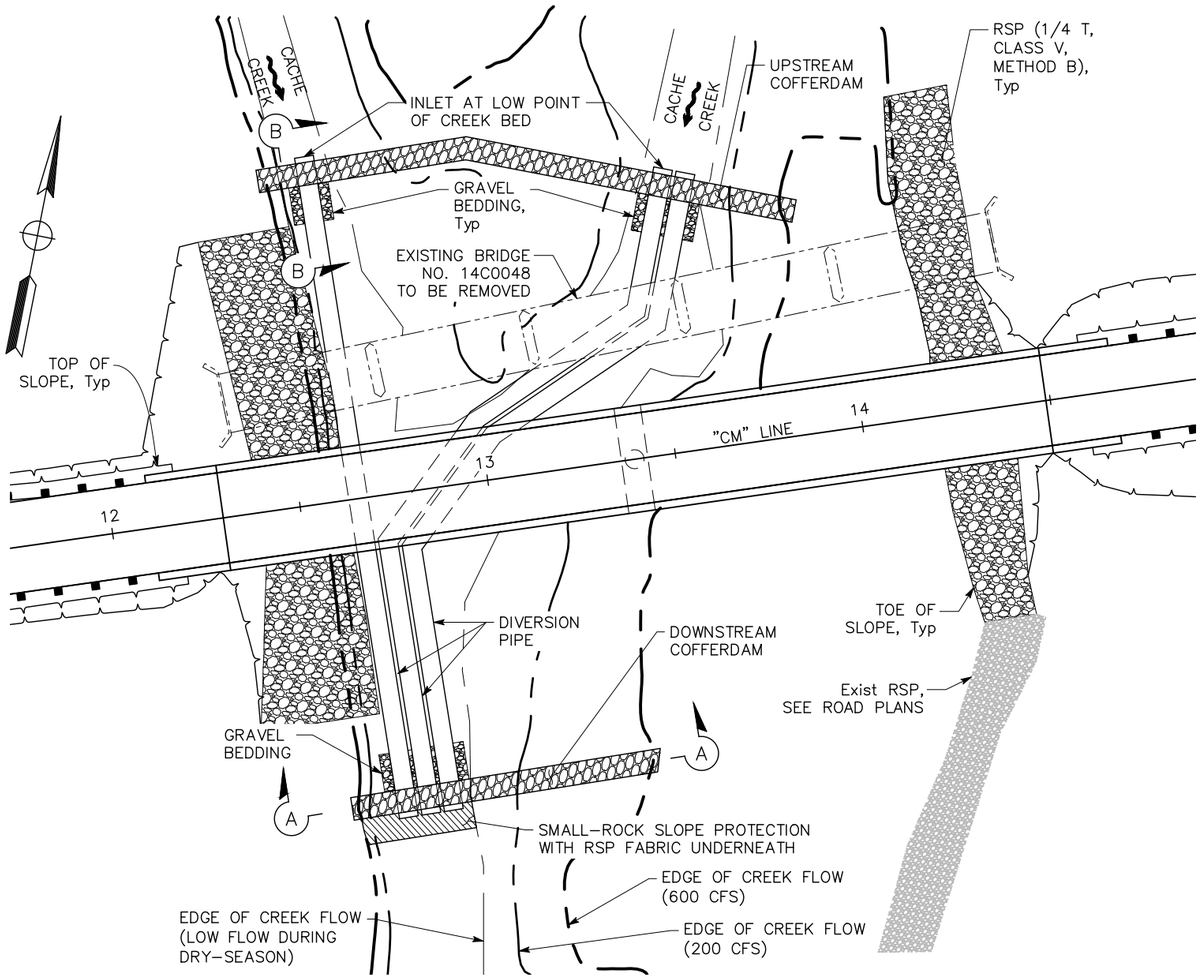
COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
DRAINAGE PLAN

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	D-1
	13 OF 39 SHEETS

U:\16004 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMB-R-D.dwg



PIPE AND COFFERDAM SCHEMATIC PLAN

NO SCALE

LEGEND:

EDGE OF CREEK FLOW (600 CFS)

EDGE OF CREEK FLOW (200 CFS)

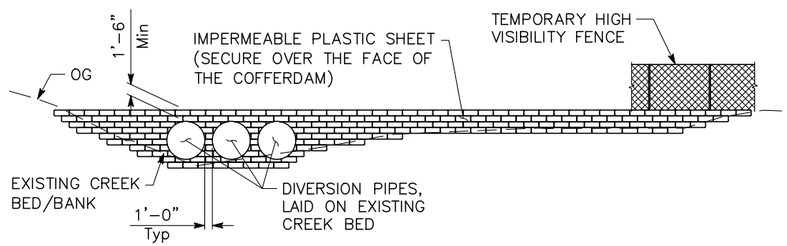
EDGE OF CREEK FLOW (LOW FLOW DURING DRY SEASON)

NOTE:

1. **The Temporary Creek Diversion Plan is for reference only**. The Contractor is responsible for the actual layout and design of the stream diversion based on the applicable flows listed in the "FLOW RATES" table.

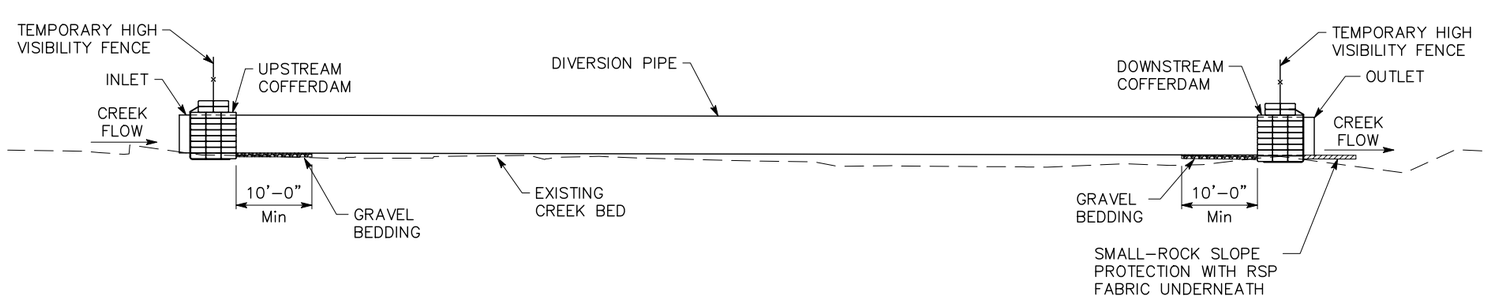
FLOW RATES FROM IVR IN NORTH FORK CACHE CREEK	
HIGH RELEASE (CLEAR LAKE) – Summer	200 CFS
LOW RELEASE (CLEAR LAKE) – Summer	600 CFS
MAX IVR RELEASE	10,000 CFS
50–YR FLOOD + Max IVR	11,483 CFS
100–YR FLOOD + Max IVR	11,768 CFS
200–YR FLOOD + Max IVR	12,076 CFS

Flows in Cache Creek depend on releases from the Indian Valley Reservoir (IVR) in conjunction with flow releases from Clear Lake. During Summer flows, when Clear Lake has low releases, the flows in Cache Creek will be higher. During Summer flows when Clear Lake has high releases, the flows in Cache Creek will be lower. In drought years there my be very little flow in Cache Creek. Typically, Summer demands can be determined by March of the construction year. The contractor shall coordinate with the Yolo County Flood Control and Water Conservation District on in–creek work. Typically flows in Cache Creek can be reduced for a prescheduled one month period during Summer delivery months.



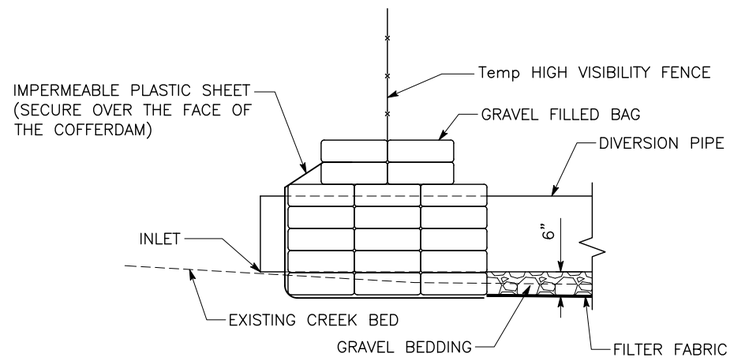
SECTION A-A COFFERDAM DETAIL

NO SCALE



PIPE AND COFFERDAM SCHEMATIC ELEVATION

NO SCALE



SECTION B-B COFFERDAM DETAIL

NO SCALE

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER LEVI KINNEBREW No. 75876 Exp. 06/30/24 CIVIL STATE OF CALIFORNIA

COUNTY OF LAKE STATE OF CALIFORNIA

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT

COURTHOUSE – 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
TEMPORARY CREEK
DIVERSION PLAN

TYPE:	
STATE: CA	
DATE: 04/07/2023	
SCALE: NO SCALE	
DESIGN BY: LLK	
CO. JOB: 5914(094)	
BID: 23–01	
FILE:	
SHEET: TCD–1	
14 OF 39 SHEETS	

U:\16004 – N. Fork Cache Creek at Chalk Mt. Road – Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMB–R–WFCD.dwg

STAGE 1 CONSTRUCTION NOTES:

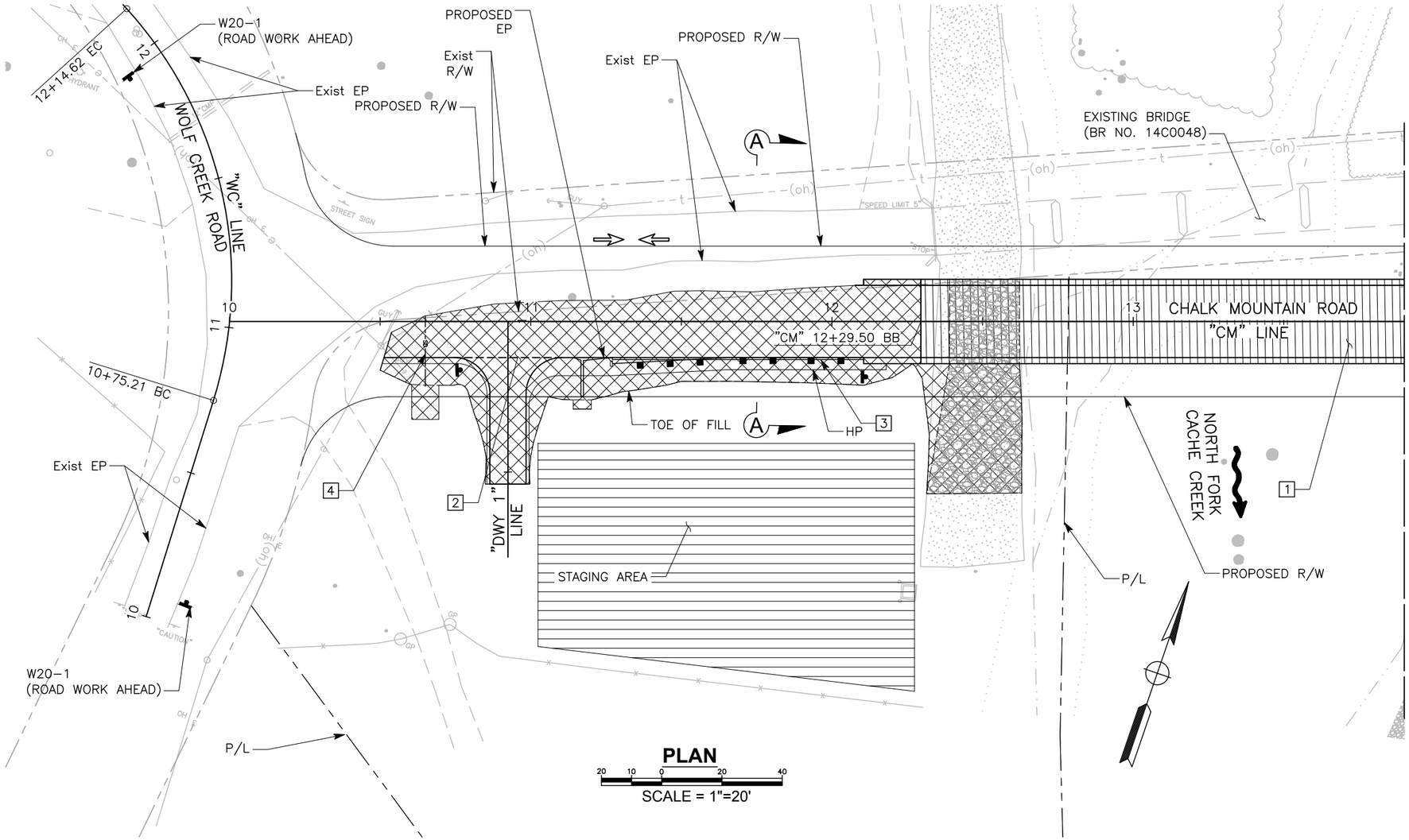
1. CONSTRUCT BRIDGE
2. CONSTRUCT ROADWAY
3. CONSTRUCT MGS
4. CONSTRUCT CULVERT

STAGE 1 TRAFFIC HANDLING NOTES:

1. MAINTAIN PRIVATE ACCESS AT ALL TIMES.
2. KEEP EXISTING ROAD AND BRIDGE OPERATIONAL DURING THIS STAGE

LEGEND

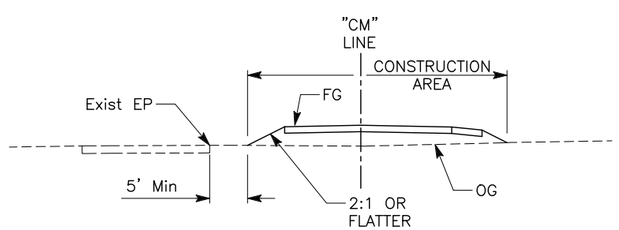
- ROADWAY CONSTRUCTION
- STRUCTURE WORK
- STAGING AREA
- DIRECTION OF TRAVEL
- CONSTRUCTION AREA SIGN



PLAN

20 10 0 20 40

SCALE = 1"=20'



SECTION A-A

NO SCALE

Revision	Date	By

PROFESSIONAL ENGINEER REGISTERED PAUL BRADBURY No. 79653 Exp. 12/31/24 CIVIL STATE OF CALIFORNIA

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT

COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
STAGE-1 STAGE
CONSTRUCTION AND
TRAFFIC HANDLING

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	SC-1

15 OF 39 SHEETS

U:\16604 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMB-R-SC-STAGE1.dwg

STAGE 1 CONSTRUCTION NOTES:

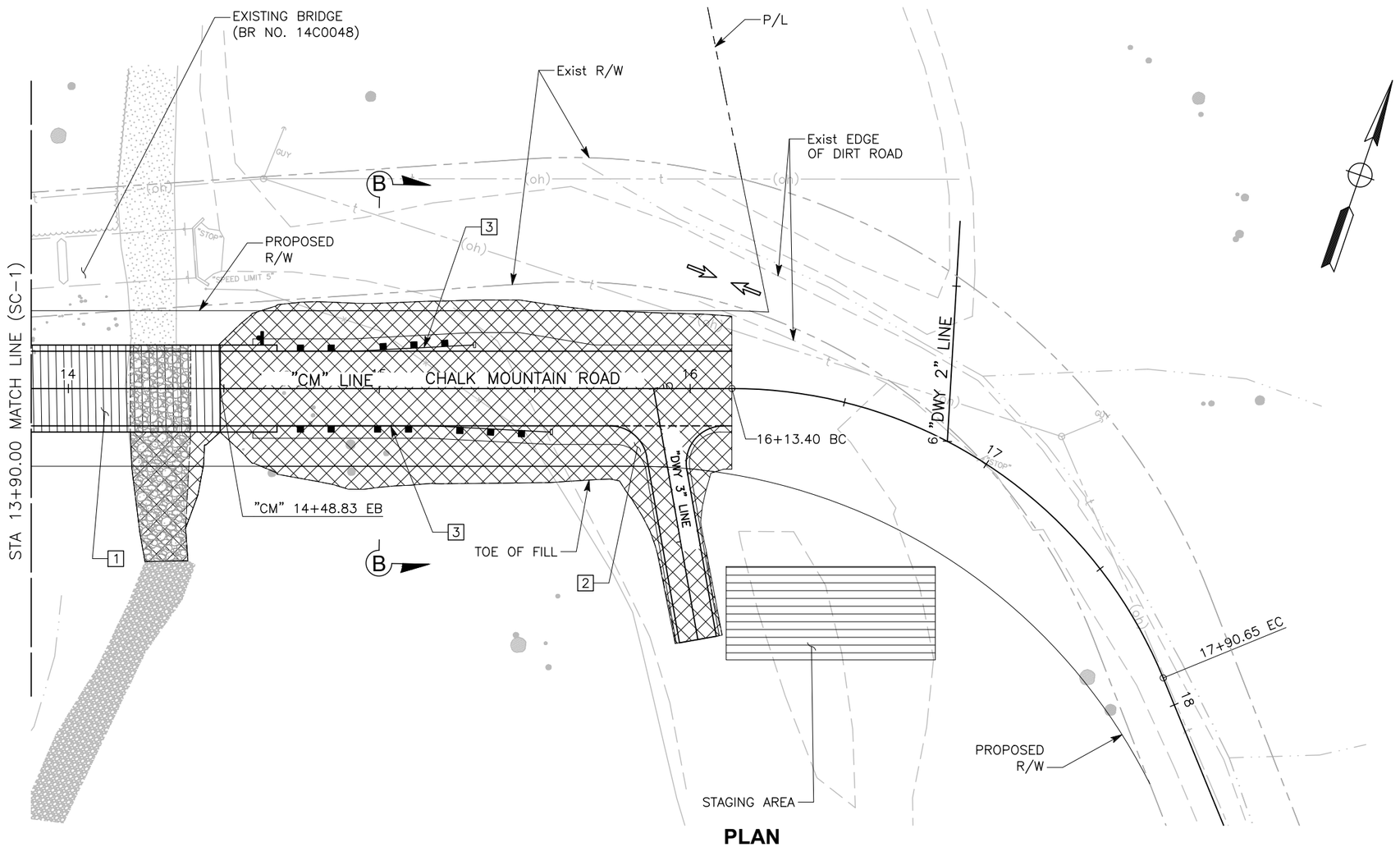
1. CONSTRUCT BRIDGE
2. CONSTRUCT ROADWAY
3. CONSTRUCT MGS
4. CONSTRUCT CULVERT

STAGE 1 TRAFFIC HANDLING NOTES:

1. MAINTAIN PRIVATE ACCESS AT ALL TIMES.
2. KEEP EXISTING ROAD AND BRIDGE OPERATIONAL DURING THIS STAGE

LEGEND

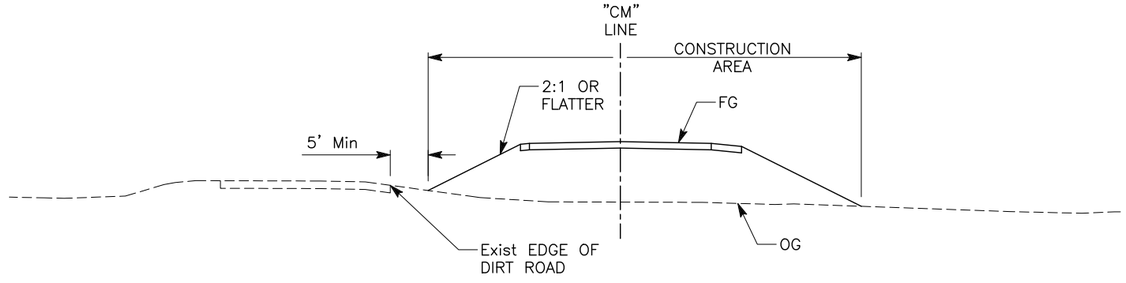
- ROADWAY CONSTRUCTION
- STRUCTURE WORK
- STAGING AREA
- DIRECTION OF TRAVEL
- CONSTRUCTION AREA SIGN



PLAN

20 10 0 20 40

SCALE = 1"=20'



SECTION B-B

NO SCALE

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER
PAUL BRADBURY
No. 76653
Exp. 12/31/24
CIVIL
STATE OF CALIFORNIA

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT

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PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
STAGE-1 STAGE
CONSTRUCTION AND
TRAFFIC HANDLING

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	SC-2

16 OF 39 SHEETS

U:\16004 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\420 Roadway & Civil\Plans\CMB-R-SC-STAGE1.dwg

STAGE 2 CONSTRUCTION NOTES:

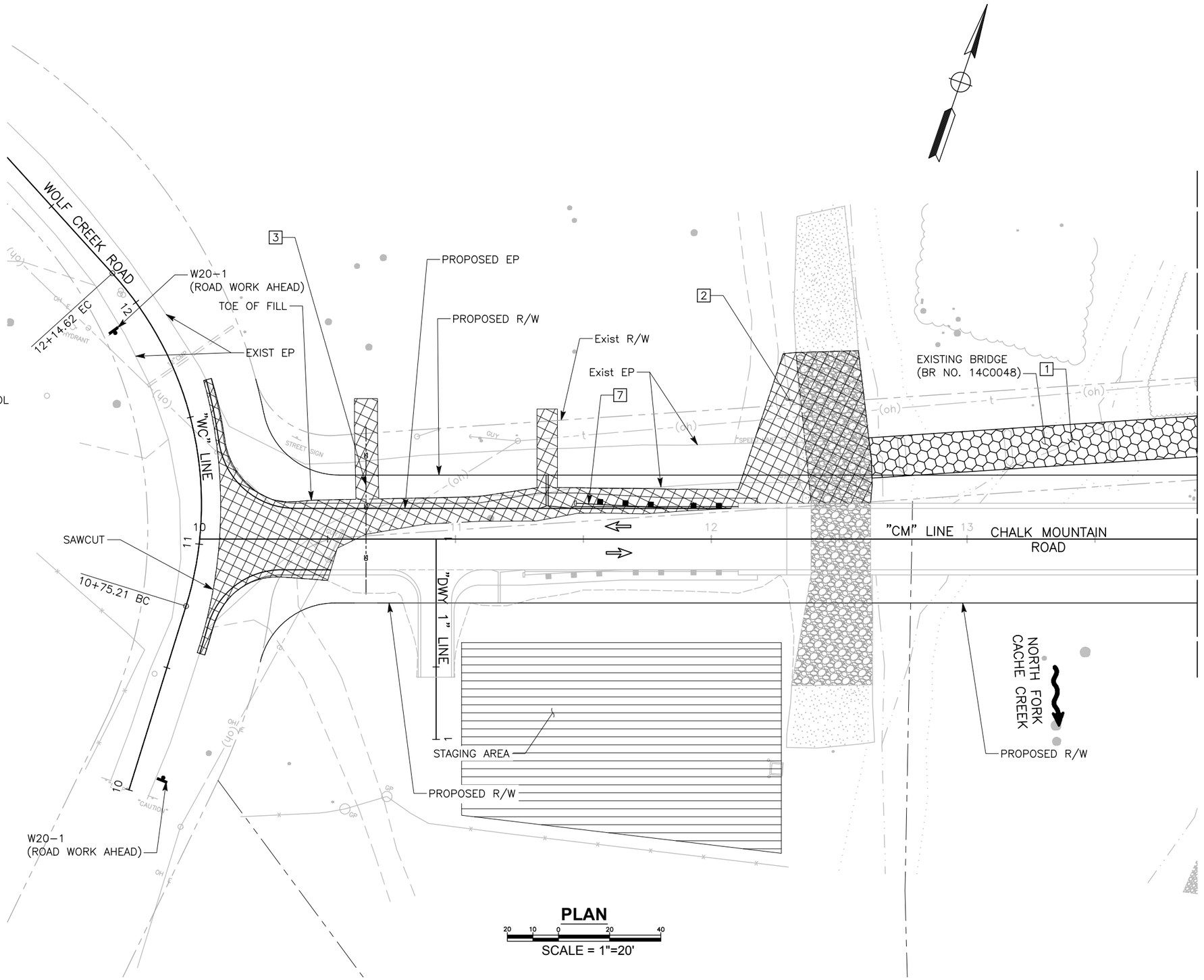
1. REMOVE EXISTING BRIDGE
2. CONSTRUCT ROADWAY
3. CONSTRUCT CULVERT
4. SALVAGE AND RELOCATE EXISTING SIGNS AND CONSTRUCT PROPOSED SIGNS (SEE LAYOUTS)
5. CONSTRUCT GATE
6. PLACE EROSION CONTROL
7. CONSTRUCT MGS

STAGE 2 TRAFFIC HANDLING NOTES:

1. MAINTAIN PRIVATE ACCESS AT ALL TIMES.
2. MAINTAIN ACCESS ACROSS THE RIVER AT ALL TIMES. CONSTRUCT INTERIM LIFTS AS NEEDED OF THE PROPOSED ROADWAY IMPROVEMENTS TO PROVIDE A DRIVABLE SURFACE AND/OR CONSTRUCT TIE-IN IMPROVEMENTS DURING OFF PEAK HOURS TO LIMIT IMPACT TO TRAVELING PUBLIC.
3. ROUTE TRAFFIC ACROSS NEW BRIDGE.
4. CLOSE WOLF CREEK ROAD DOWN TO ONE LANE AS NEEDED WITH ONE WAY REVERSIBLE TRAFFIC CONTROL PER CALTRANS STANDARD PLANS T13
5. BRIDGE TO BE REMOVED AFTER NEW BRIDGE IS IN SERVICE

LEGEND

- ROADWAY WORK
- EXISTING BRIDGE REMOVAL
- STAGING AREA
- DIRECTION OF TRAVEL
- CONSTRUCTION AREA SIGN



PLAN

SCALE = 1"=20'

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER
PAUL BRADBURY
No. 76653
Exp. 12/31/24
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STATE OF CALIFORNIA

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PUBLIC WORKS
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LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
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PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
STAGE-2 STAGE
CONSTRUCTION AND
TRAFFIC HANDLING

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	SC-3
	17 OF 39 SHEETS

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STAGE 2 CONSTRUCTION NOTES:

1. REMOVE EXISTING BRIDGE
2. CONSTRUCT ROADWAY
3. CONSTRUCT CULVERT
4. SALVAGE AND RELOCATE EXISTING SIGNS AND CONSTRUCT PROPOSED SIGNS (SEE LAYOUTS)
5. CONSTRUCT GATE
6. PLACE EROSION CONTROL
7. CONSTRUCT MGS

STAGE 2 TRAFFIC HANDLING NOTES:

1. MAINTAIN PRIVATE ACCESS AT ALL TIMES.
2. MAINTAIN ACCESS ACROSS THE RIVER AT ALL TIMES. CONSTRUCT INTERIM LIFTS AS NEEDED OF THE PROPOSED ROADWAY IMPROVEMENTS TO PROVIDE A DRIVABLE SURFACE AND/OR CONSTRUCT TIE-IN IMPROVEMENTS DURING OFF PEAK HOURS TO LIMIT IMPACT TO TRAVELING PUBLIC.
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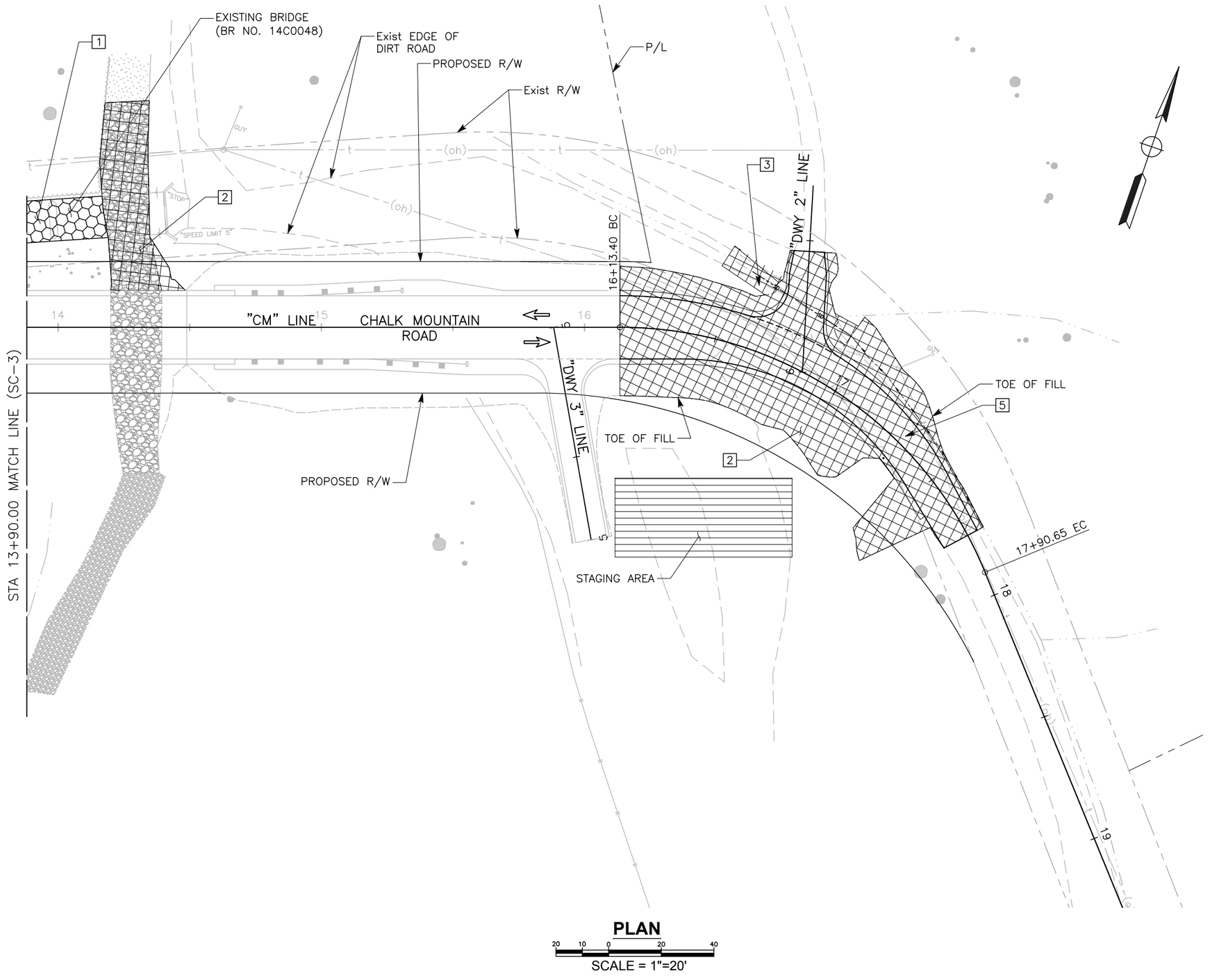
LEGEND

- ROADWAY WORK
- EXISTING BRIDGE REMOVAL
- STAGING AREA
- DIRECTION OF TRAVEL
- CONSTRUCTION AREA SIGN



PLAN

SCALE = 1"=20'

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Revision	Date	By

Professional Engineer — PAUL BRADBURY — No. 76653 — Exp. 12/31/24 — CIVIL — STATE OF CALIFORNIA — REGISTERED

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT

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LAKEPORT, CALIFORNIA 95453
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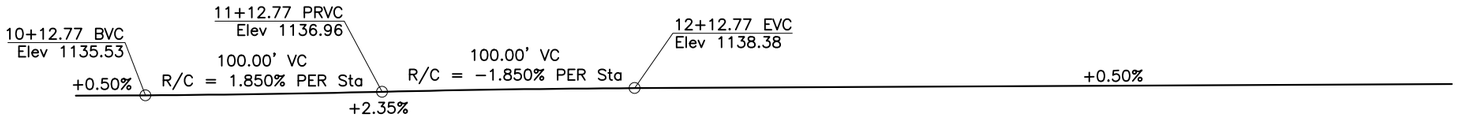
PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
STAGE-2 STAGE CONSTRUCTION AND TRAFFIC HANDLING

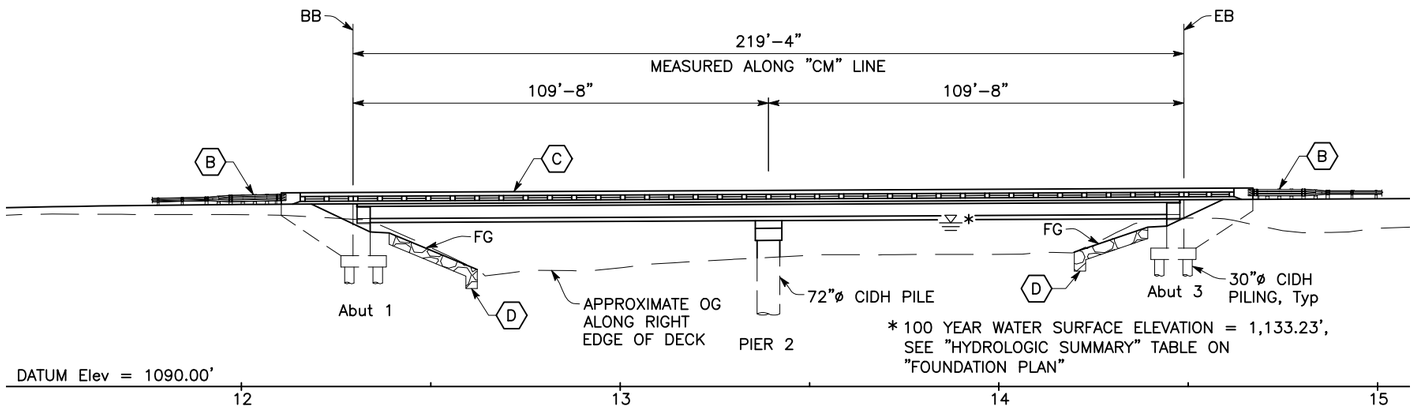
TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	PSB
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	SC-4

18 OF 39 SHEETS



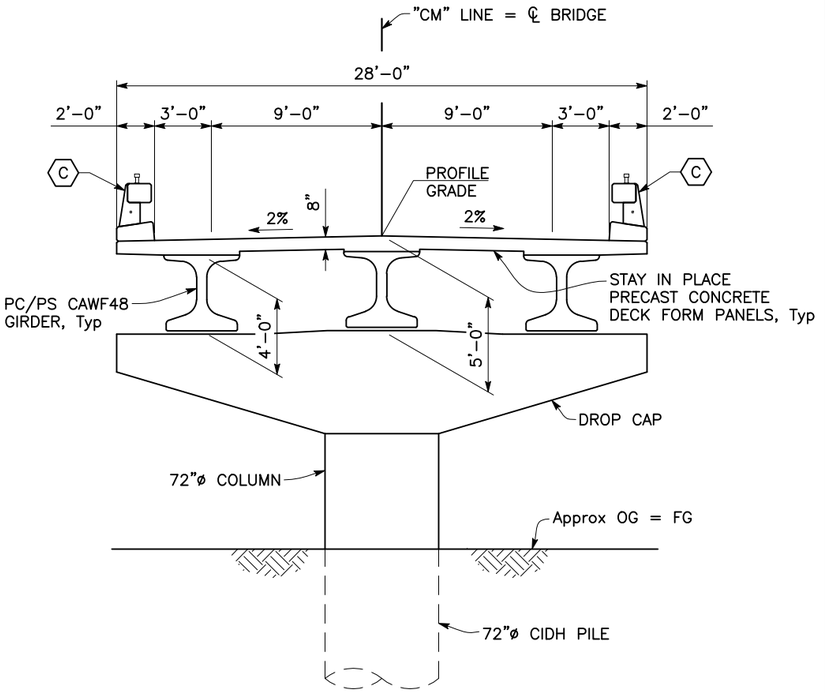
PROFILE GRADE

NO SCALE



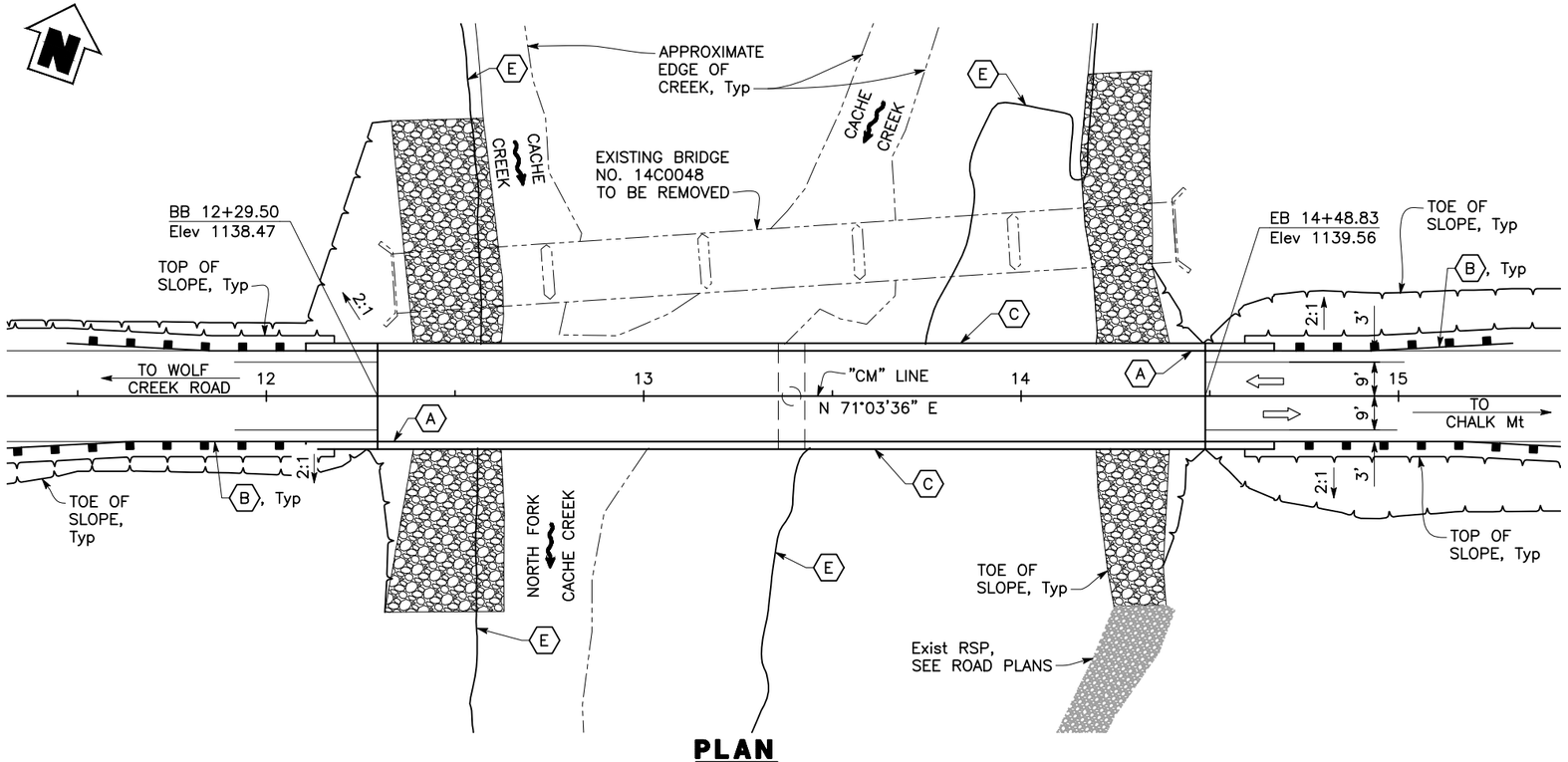
ELEVATION

1" = 20'



TYPICAL SECTION

¼" = 1'−0"



PLAN

1" = 20'

KEY NOTES:

- (A) Paint "Chalk Mountain Road Bridge" and "Bridge NO. 14C0138"
- (B) Midwest Guardrail System, see "Roadway Plans".
- (C) Concrete Barrier Type 85. B11−83 | B11−84 | B11−85
- (D) For Rock Slope Protection and grading details, see "Road Plans".
- (E) Limits of Assumed Low Flow Channel (600cfs).

1. For "INDEX TO PLANS", "STANDARD PLANS 2018", and "GENERAL NOTES", see "INDEX TO PLANS" sheet.
2. For "SCOUR DATA TABLE", "PILE DATA TABLE", and "HYDROLOGIC SUMMARY", see "FOUNDATION PLAN" sheet.

LEGEND:

- Direction of traffic
- Direction of flow
- Existing Bridge (To Be Removed)
- New Structure

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER — KYLE LUNDBLOM — No. 92686 — Exp. 09/30/23 — CIVIL — STATE OF CALIFORNIA

COUNTY OF LAKE
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PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
GENERAL PLAN

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	ST−1

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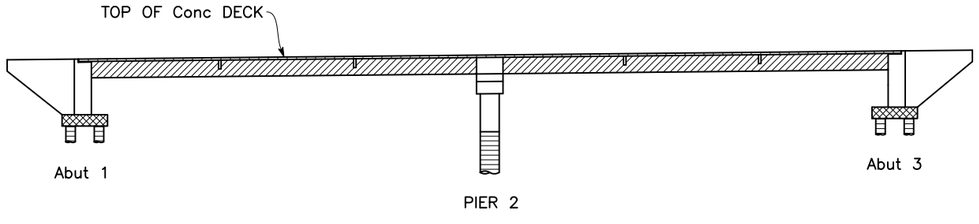
INDEX TO PLANS

CALTRANS STANDARD PLANS DATED 2022

A3A	ABBREVIATIONS (SHEET 1 OF 3)
A3B	ABBREVIATIONS (SHEET 2 OF 3)
A3C	ABBREVIATIONS (SHEET 3 OF 3)
A10A	LEGEND–LINES AND SYMBOLS (SHEET 1 OF 5)
A10B	LEGEND–LINES AND SYMBOLS (SHEET 2 OF 5)
A10C	LEGEND–LINES AND SYMBOLS (SHEET 3 OF 5)
A10D	LEGEND–LINES AND SYMBOLS (SHEET 4 OF 5)
A10E	LEGEND–LINES AND SYMBOLS (SHEET 5 OF 5)
A10F	LEGEND–SOIL (SHEET 1 OF 2)
A10G	LEGEND–SOIL (SHEET 2 OF 2)
A10H	LEGEND–ROCK
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL– BRIDGE
B0–1	BRIDGE DETAILS
B0–5	BRIDGE DETAILS
B0–13	BRIDGE DETAILS
B6–21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
B11–83	CONCRETE BARRIER TYPE 85 DETAILS NO. 1
B11–84	CONCRETE BARRIER TYPE 85 DETAILS NO. 2
B11–85	CONCRETE BARRIER TYPE 85 DETAILS NO. 3

STANDARD PLAN SHEET NO.

DETAIL NO.



CONCRETE STRENGTH AND TYPE LIMITS

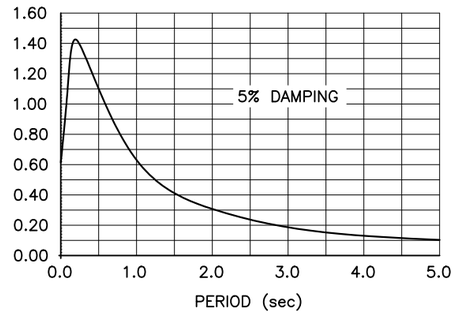
NO SCALE

LEGEND:

- Structural Concrete, Bridge (Polymer Fiber) (4.0 ksi @ 28 days)
- Structural Concrete, Bridge (4.0 ksi @ 28 days)
- PC/PS Concrete Wide Flange Girder, See "PC/PRETENSIONED WIDE FLANGE GIRDER (DEBONDED STRANDS)" sheet
- Structural Concrete, Bridge Footing (4.0 ksi @ 28 days)
- Cast–In–Drilled–Hole Concrete Pile (4.0 ksi @ 28 days)

GENERAL NOTES LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:	AASHTO LRFD Bridge Design Specifications, 8th Edition and Caltrans Amendments, preface dated January 2019
SEISMIC DESIGN:	Caltrans Seismic Design Criteria (SDC), Version 2.0, April 2019
DEAD LOAD:	Includes 35 psf for future wearing surface. Deck dead load between the girders has been increased by a factor of 10 percent for the use of steel deck forms.
LIVE LOADING:	HL 93 and permit design loading
SEISMIC LOADING:	Soil Profile: V_{S30} = 450 m/s Moment Magnitude: Mmax = 7.18 Peak Ground Acceleration = 0.61g



ARS CURVE

REINFORCED CONCRETE:	fy = 60 ksi f'c = see "CONCRETE STRENGTH AND TYPE LIMITS" this sheet.
PRESTRESSED CONCRETE:	See "PC/PRETENSIONED WIDE FLANGE GIRDER (DEBONDED STRANDS)" sheet

QUANTITIES

BID ITEM	UNIT	QTY
BRIDGE REMOVAL	LS	1
STRUCTURE EXCAVATION (BRIDGE)	CY	359
STRUCTURE BACKFILL (BRIDGE)	CY	235
30" CAST–IN–DRILLED–HOLE CONCRETE PILING	LF	805
72" CAST–IN–DRILLED–HOLE CONCRETE PILING	LF	38
STRUCTURAL CONCRETE, BRIDGE FOOTING	CY	68
STRUCTURAL CONCRETE, BRIDGE	CY	198
STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	CY	190
FURNISH PRECAST PRESTRESSED CONCRETE GIRDER (100'–110')	EA	6
ERECT PRECAST PRESTRESSED CONCRETE GIDER	EA	6
JOINT SEAL (MR = 1½")	LF	54
BAR REINFORCING STEEL (BRIDGE)	LB	171956
BAR REINFORCING STEEL (GALVANIZED)	LB	150
HEADED BAR REINFORCEMENT	EA	32
CONCRETE BARRIER TYPE 85	LF	514

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER — KYLE LUNDBLOM — No. 92686 — Exp. 09/30/23 — CIVIL — STATE OF CALIFORNIA

COUNTY OF LAKE — STATE OF CALIFORNIA

COUNTY OF LAKE
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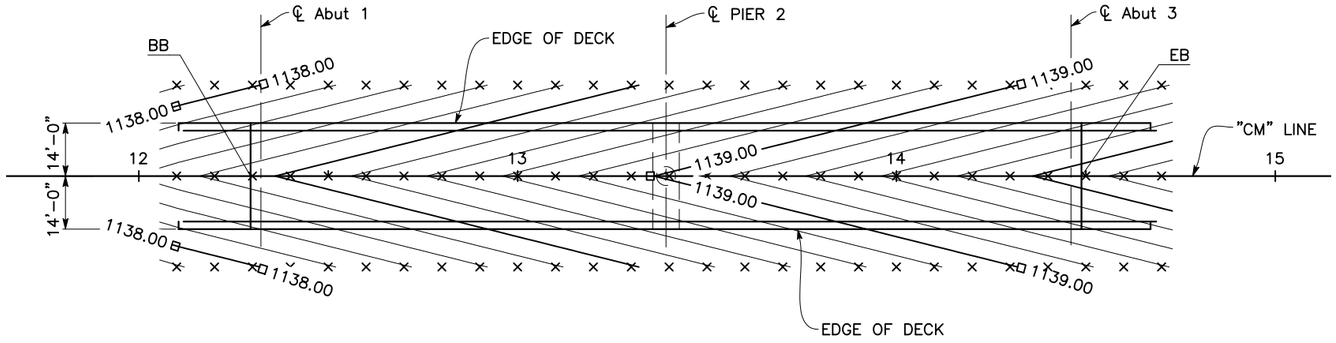
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263–2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
INDEX TO PLANS

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23–01
FILE:	
SHEET:	ST–2

20 OF 39 SHEETS



PLAN

1" = 20'

20 10 0 20 40

NOTES:

1. Contours do not include Camber or falsework settlement.
2. Contour Interval is 0.10'.
3. × = Indicates 10' increments along "CM" Line.
4. □ = Indicates whole foot contours.

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER
KYLE LUNDBLOM
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CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
DECK CONTOURS

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	ST-3
	21 OF 39 SHEETS

U:\16024 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\430 Bridges & Structures\Plans\CM-S-DC.dwg

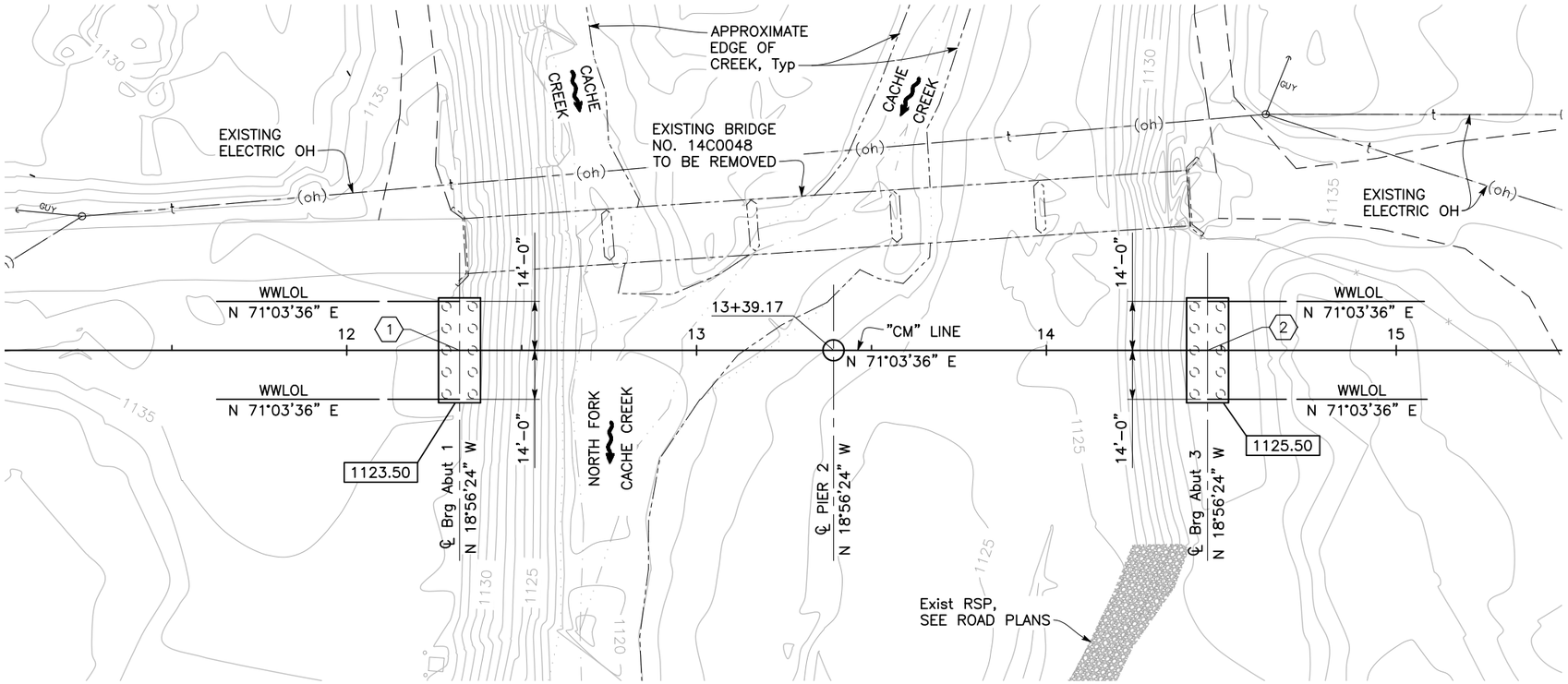
BENCHMARK:
See "Roadway Plans"

HYDROLOGIC SUMMARY		
Drainage Area: 124.90 Sq Miles		
	Design Flood	Base Flood
Frequency (Years)	50	100
Discharge (cubic feet per second)	11,483	11,768
Water Surface (elevation at bridge) (ft)	1,133.16	1,133.23

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

PILE DATA						
Location	Pile Type	Cut–off Elev (ft)	Nominal Resistance (k)		Design Tip Elev (ft)	Specified Tip Elev (ft)
			Compression	Tension		
Abut 1	30"ø CIDH	1123.75	380	N/A	1087.75 (a–I) 1108.75 (c) 1083.50 (d)	1083.50
Pier 2	72"ø CIDH	1121.12	4000	N/A	1083.12 (a–I) 1107.12 (a–II) 1094.12 (c) 1083.67 (d)	1083.12
Abut 3	30"ø CIDH	1125.75	370	N/A	1091.75 (a–I) 1110.75 (c) 1085.50 (d)	1085.50

1. Design Tip Elevations are controlled by: (a–I) Compression (Strength Limit), (a–II) Compression (Extreme Event), (c) Settlement, and (d) Lateral Load.
2. The Specified Tip Elevation shall not be raised above the design tip elevation.



PLAN
1" = 20'

SCOUR DATA TABLE		
Support Number	Elevation of Scour Resistant Layer with Geotechnical considerations (ft)	Short Term (Local) Scour Depth (ft)
Abutment 1	1,115.00	–
Pier 2	1,115.00	–
Abutment 3	1,115.00	–

Long term (Degradation and Contraction) scour elevations and short term (Local) scour depth determined in the Hydraulic Analysis were based on assuming lateral channel migration and channel bed material that is erodible. The Foundation Report determined that a scour resistant layer is present and these are the elevations shown.

	NORTHING	EASTING
(1) ℄ Brg Abut 1 Sta 12+32.25	2151938.5356	6395750.2653
(2) ℄ Brg Abut 3 Sta 14+46.08	2152007.9405	6395952.5181

LEGEND:
- XXXX.XX — Indicates Bottom of Abutment Footing
- Indicates Existing Structure to be removed
- Indicates New Structure
- Indicates Direction of Water Flow
- Indicates 72"ø CIDH Concrete Pile
- Indicates 30"ø CIDH Concrete Pile

Revision	Date	By

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT
COURTHOUSE – 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
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CHALK MOUNTAIN ROAD
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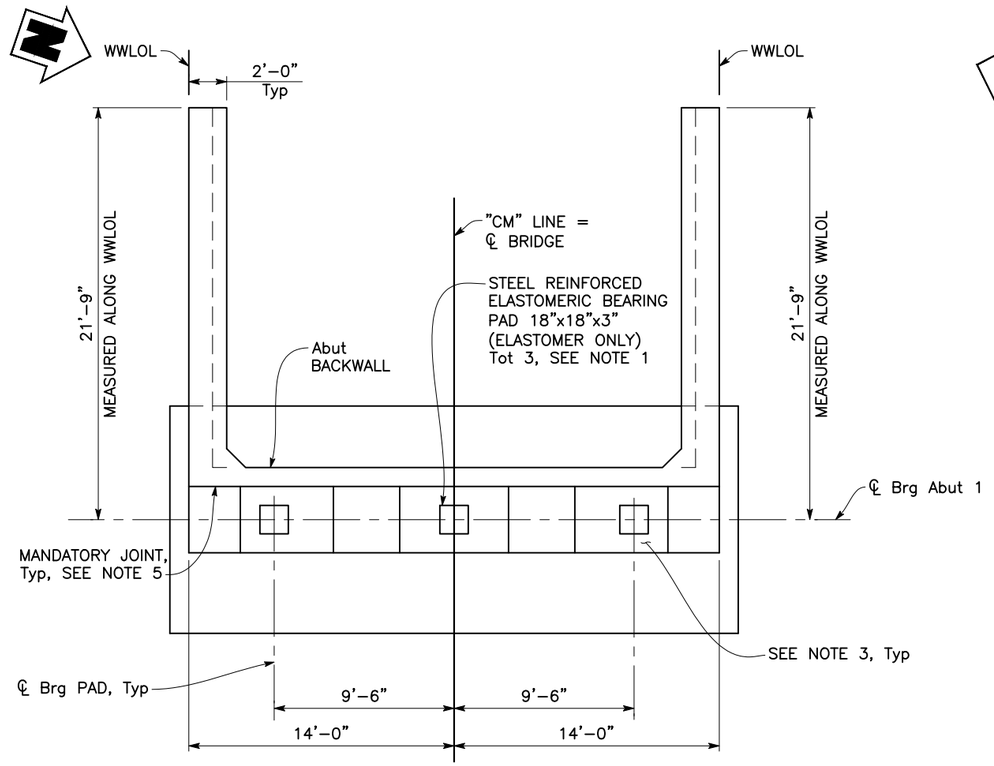
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
FOUNDATION PLAN

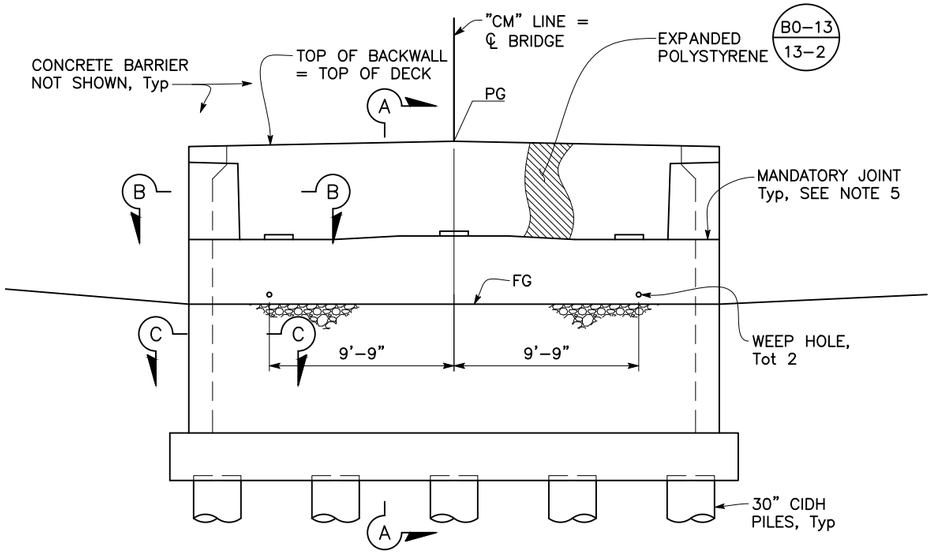
TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23–01
FILE:	
SHEET:	ST–4
	22 OF 39 SHEETS

U:\16004 – N. Fork Cache Creek at Chalk Mt. Road – Lake County\400 Project Design Files\430 Bridges & Structures\Plans\CM-S-FP.dwg



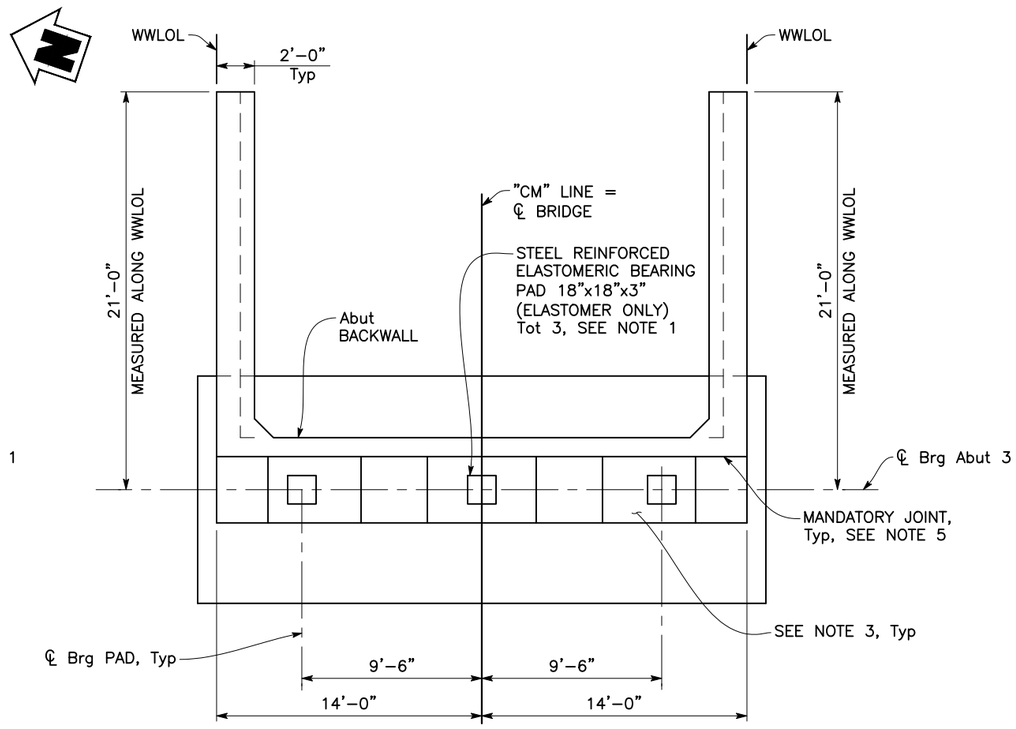
PLAN

¼" = 1'–0"



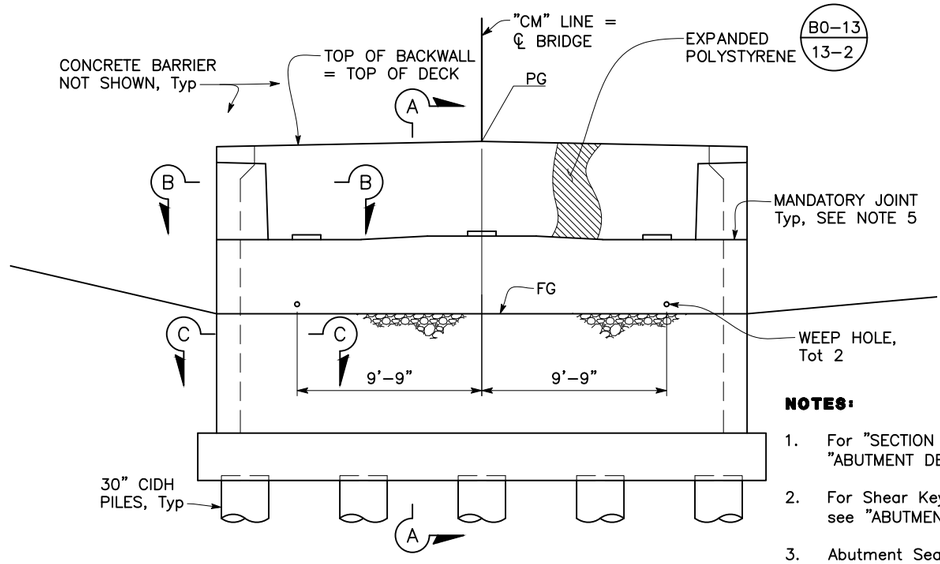
ELEVATION

¼" = 1'–0"



PLAN

¼" = 1'–0"



ELEVATION

¼" = 1'–0"

NOTES:

1. For "SECTION A–A" and Bearing Pad details, see "ABUTMENT DETAILS NO. 2" sheet.
2. For Shear Key details, "SECTION B–B" & "SECTION C–C", see "ABUTMENT DETAILS NO. 3" sheet.
3. Abutment Seats are to be level below the girder 2'–0" Min from girder ℄.
4. For weep hole details, see "ABUTMENT DETAILS NO. 5" sheet.
5. Mandatory joint must be smooth finished and lined with 15lb construction paper.

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER
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CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
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CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
ABUTMENT LAYOUT

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23–01
FILE:	
SHEET:	ST–5

23 OF 39 SHEETS

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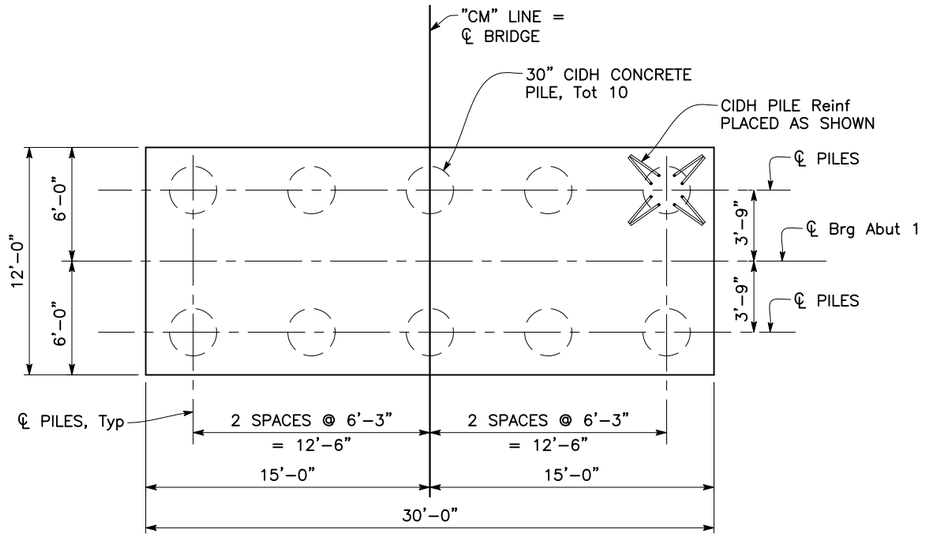
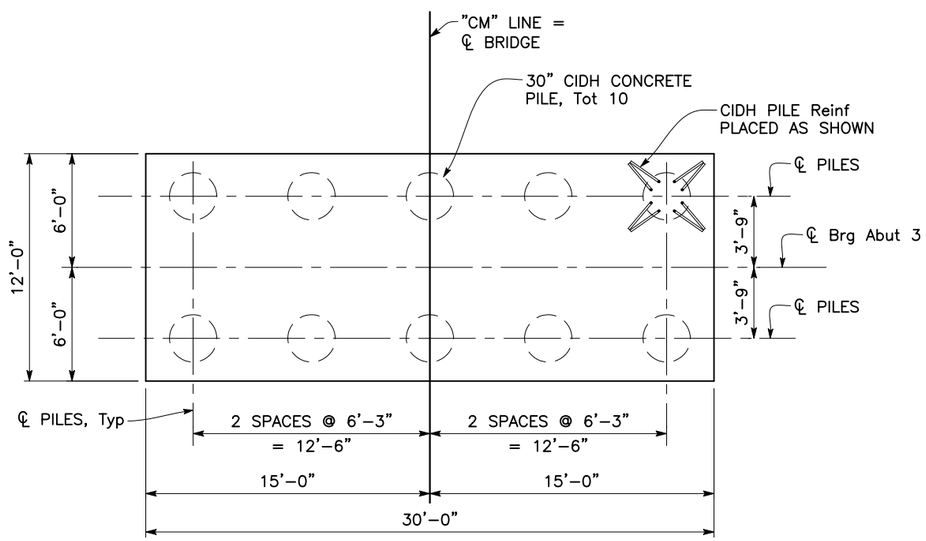


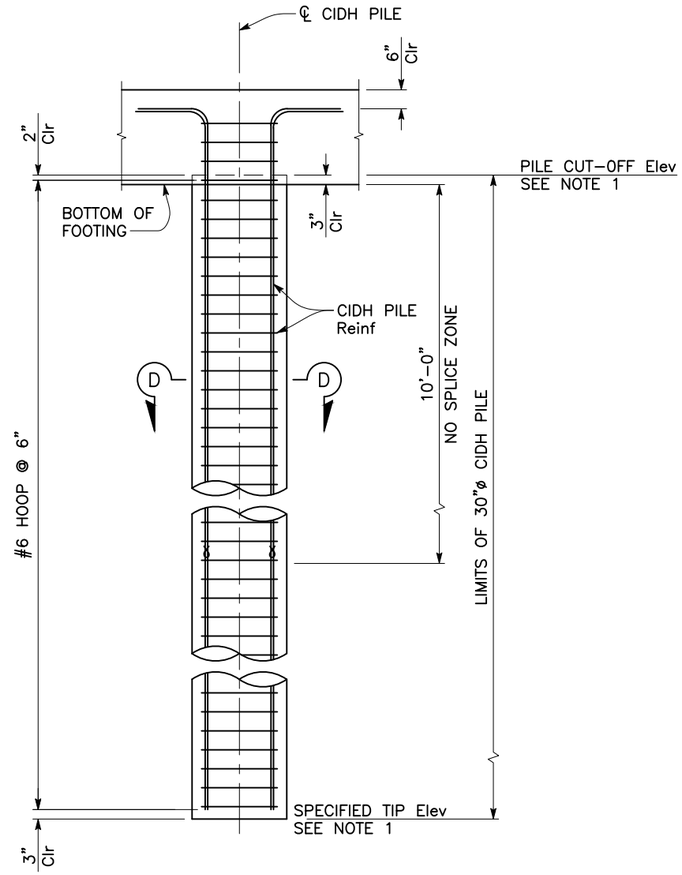
ABUTMENT 1 PILE LAYOUT

¼" = 1'–0"



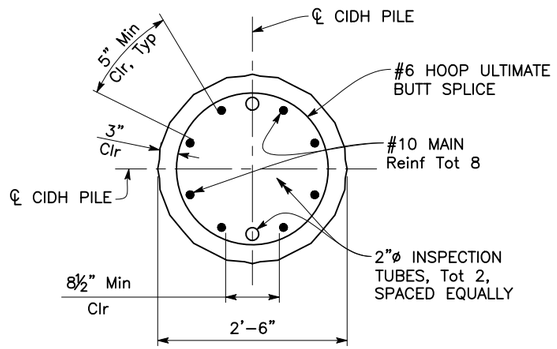
ABUTMENT 3 PILE LAYOUT

¼" = 1'–0"



30" DIAMETER CIDH PILE

½" = 1'–0"



SECTION D-D

1" = 1'–0"

NOTES:

1. For Abutment Pile information, see "PILE DATA TABLE" on "FOUNDATION PLAN" sheet.

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER
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Exp. 09/30/23
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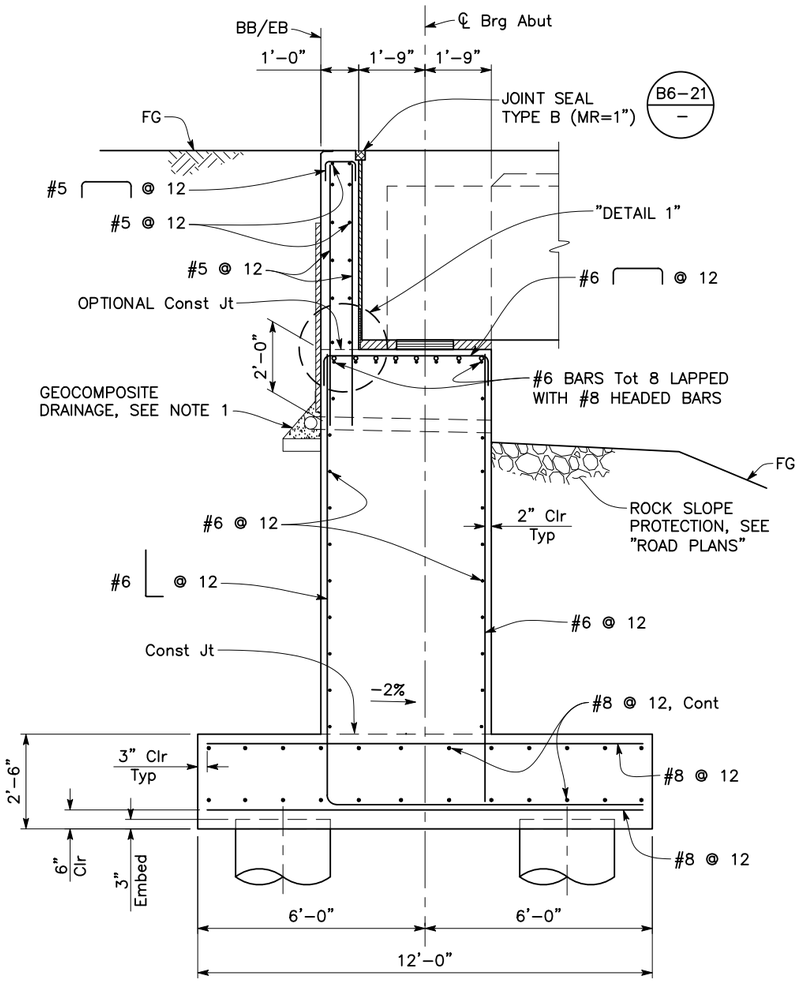
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
ABUTMENT DETAILS NO. 1

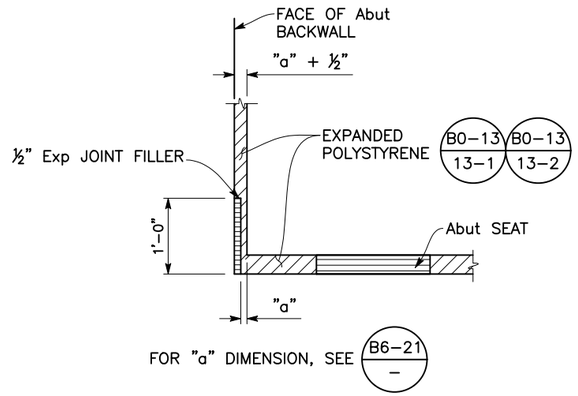
TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23–01
FILE:	
SHEET:	ST–6
	24 OF 39 SHEETS



SECTION A-A

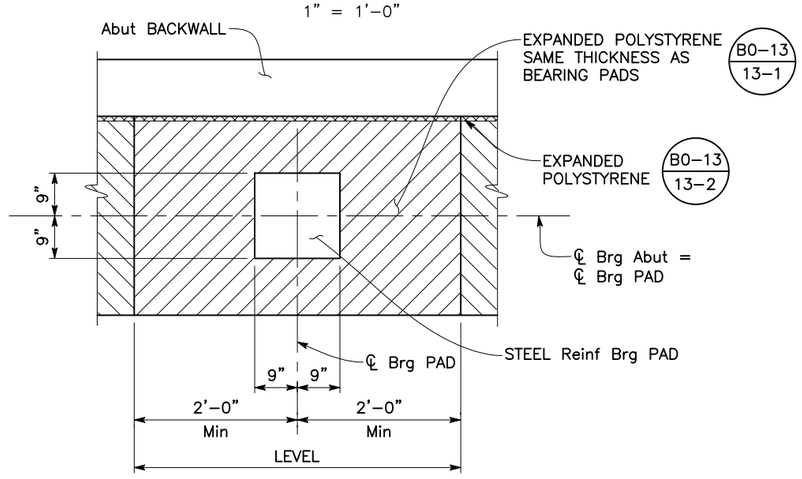
½" = 1'–0"

ABUTMENT 1 SHOWN, ABUTMENT 3 SIMILAR

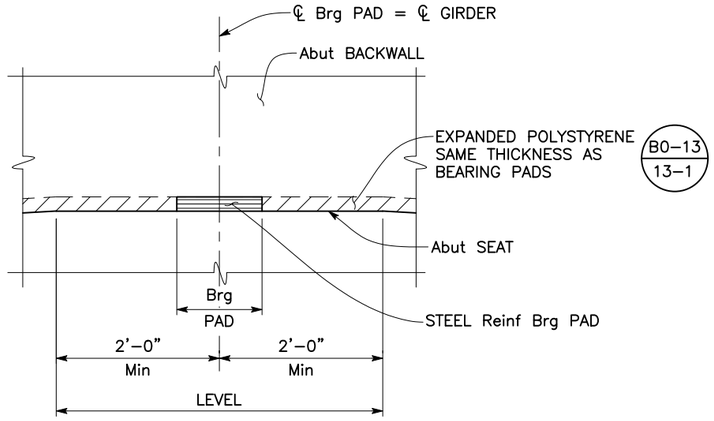


DETAIL 1

1" = 1'–0"



PLAN



ELEVATION

BEARING PAD DETAIL

¾" = 1'–0"

NOTES:

1. For "WEEP HOLE AND GEOCOMPOSITE DRAIN DETAIL" see "ABUTMENT DETAILS NO. 5" sheet.

Revision	Date	By

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT

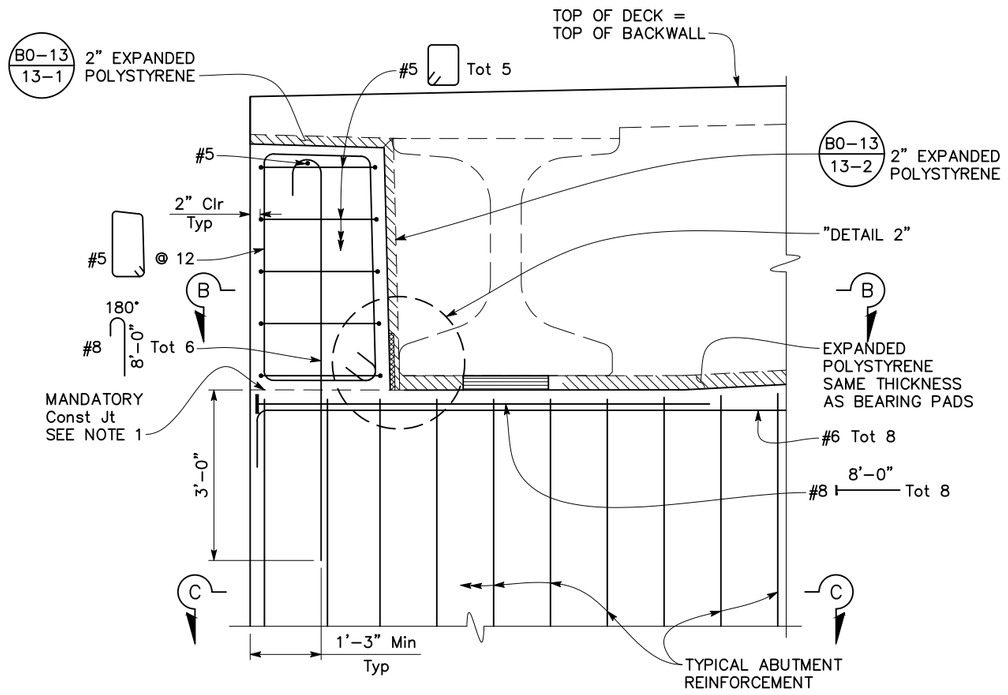
COURTHOUSE – 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
ABUTMENT DETAILS NO. 2

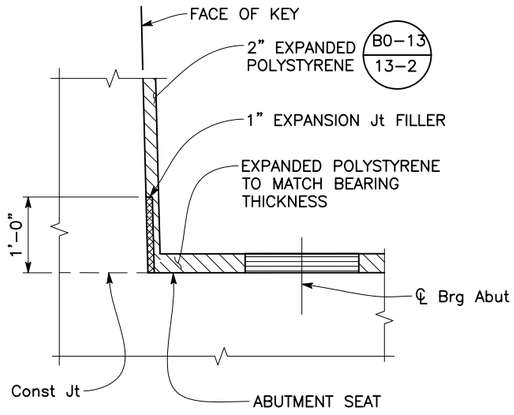
TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23–01
FILE:	
SHEET:	ST–7
	25 OF 39 SHEETS

U:\16604 – N. Fork Cache Creek at Chalk Mt. Road – Lake County\400 Project Design Files\430 Bridges & Structures\Plans\CM–S–A02.dwg



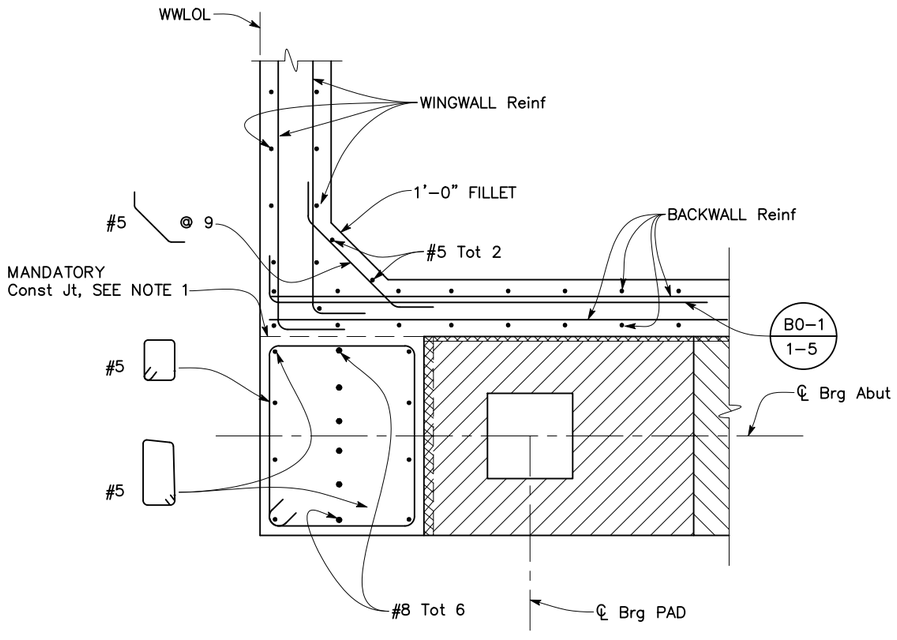
TYPICAL ABUTMENT SHEAR KEY

¾" = 1'–0"



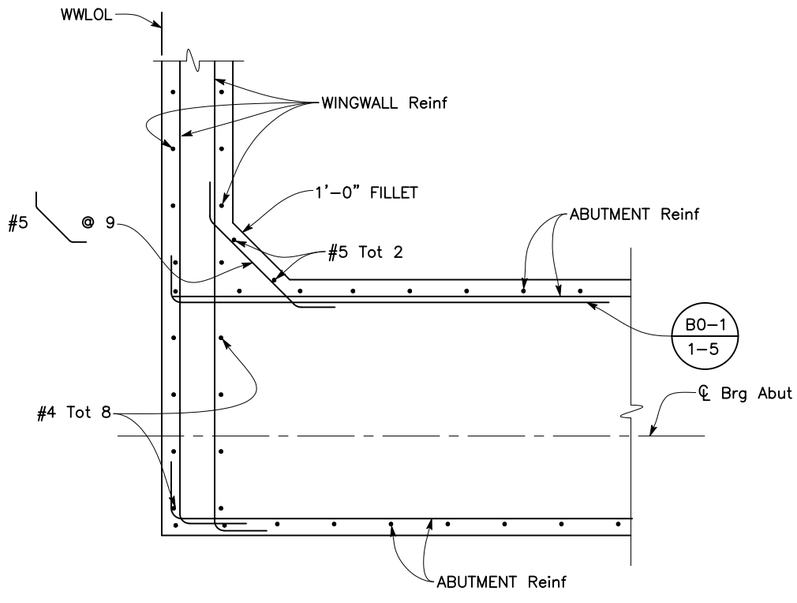
DETAIL 2

1" = 1'–0"



SECTION B-B

¾" = 1'–0"



SECTION C-C

¾" = 1'–0"

NOTE:

1. Mandatory joint must be smooth finished and lined with 15 pound construction paper.

Revision	Date	By

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LAKEPORT, CALIFORNIA 95453
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PHONE: (707)263-2341

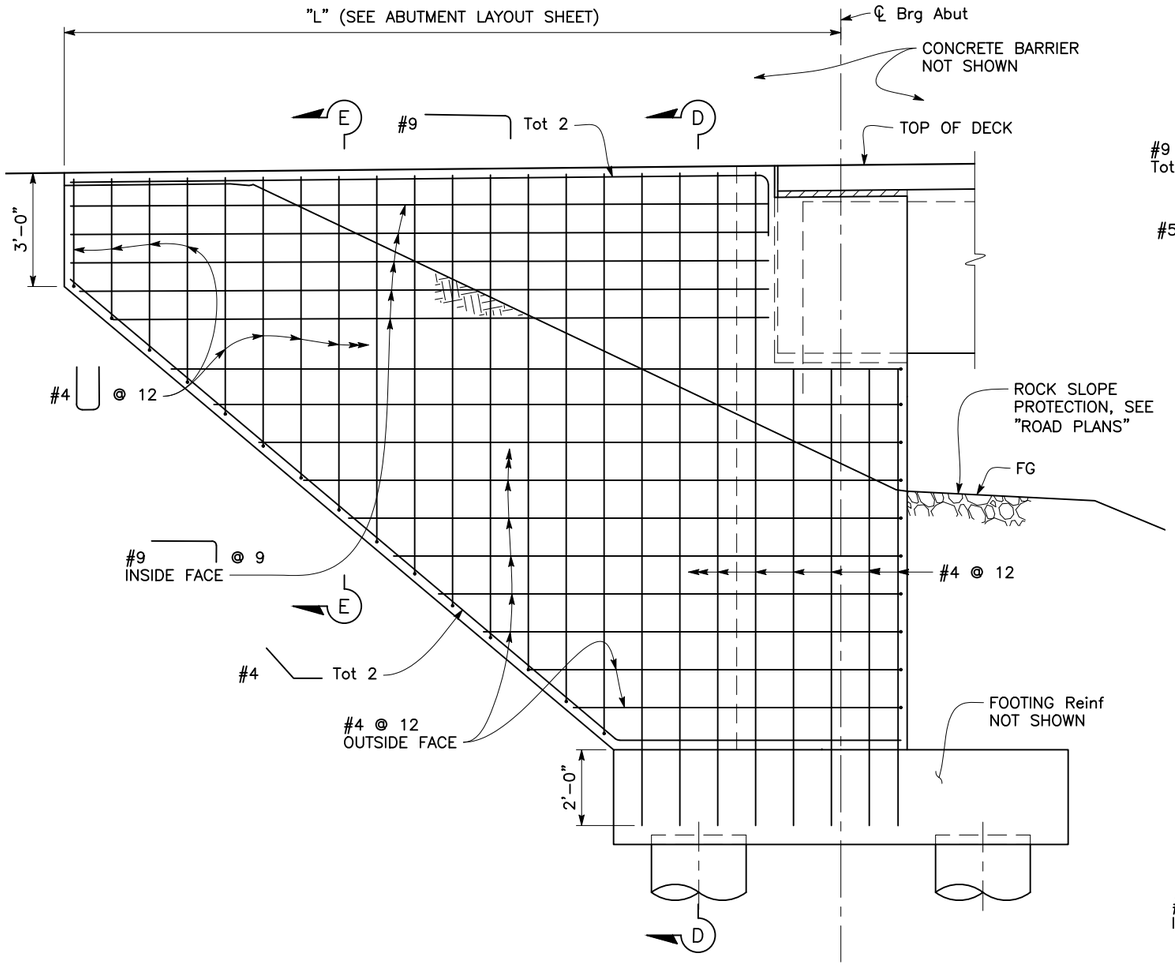
PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
ABUTMENT DETAILS NO. 3

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23–01
FILE:	
SHEET:	ST–8

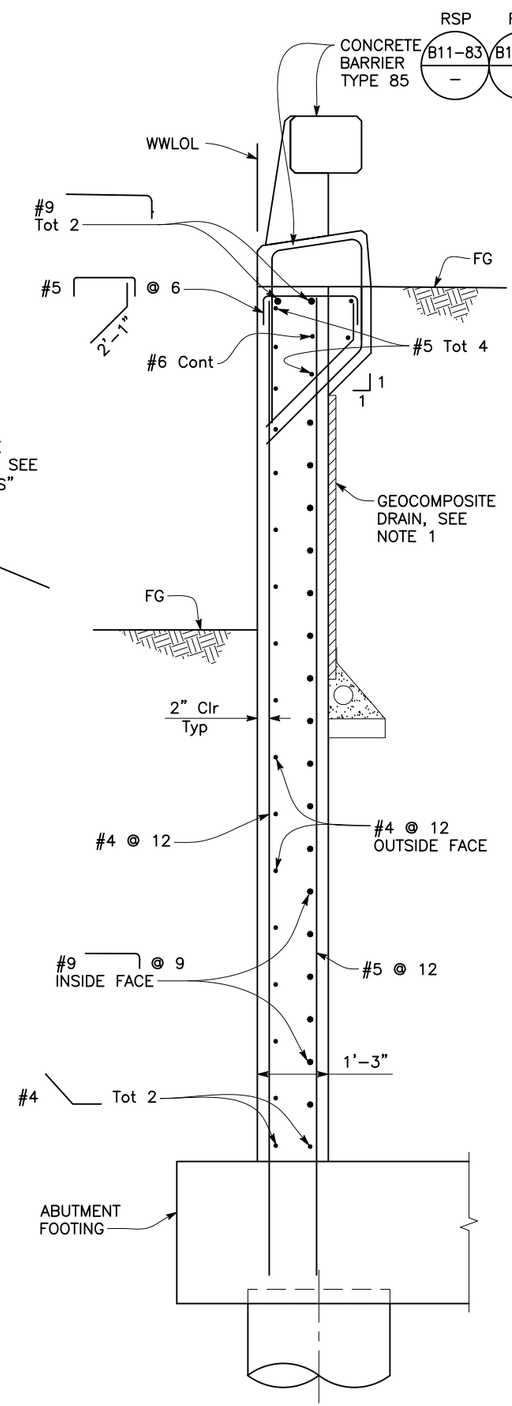
26 OF 39 SHEETS

U:\16004 – N. Fork Cache Creek at Chalk Mt. Road – Lake County\400 Project Design Files\430 Bridges & Structures\Plans\CM-S-A02.dwg



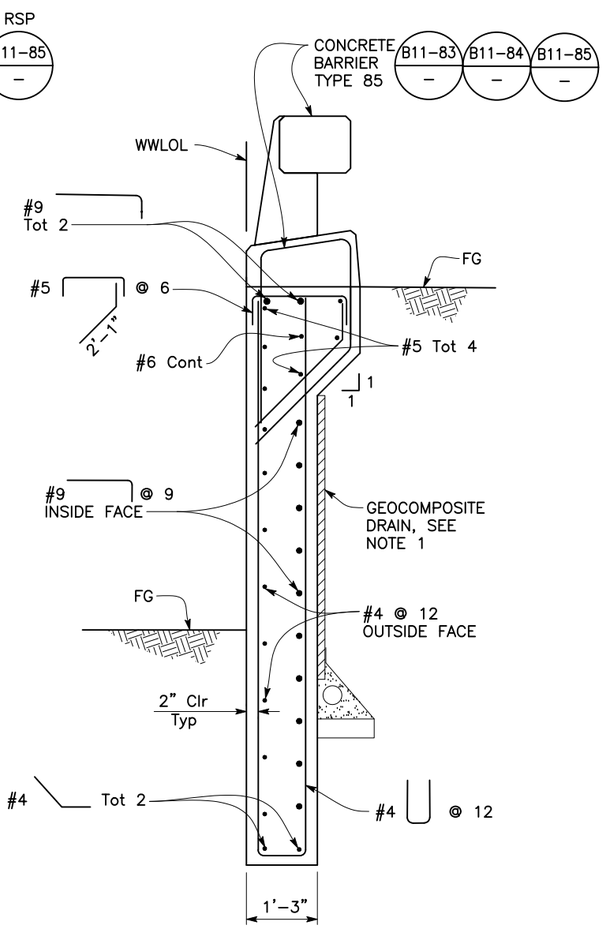
TYPICAL WINGWALL ELEVATION

½" = 1'-0"



SECTION D-D

¾" = 1'-0"



SECTION E-E

¾" = 1'-0"

NOTE:

1. For "WEEP HOLE AND GEOCOMPOSITE DRAIN DETAIL", see "ABUTMENT DETAILS NO. 5" sheet.

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER
KYLE LUNDBLOM
No. 92686
Exp. 09/30/23
CIVIL
STATE OF CALIFORNIA

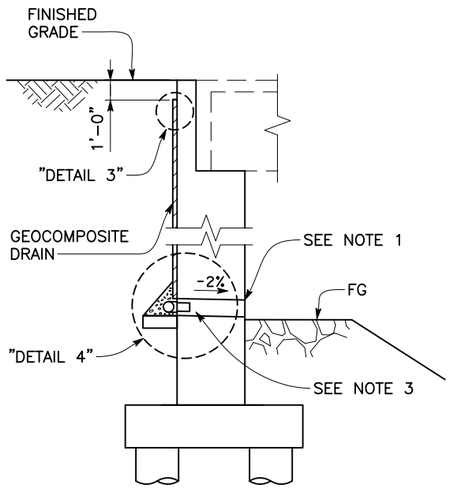
COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT
COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

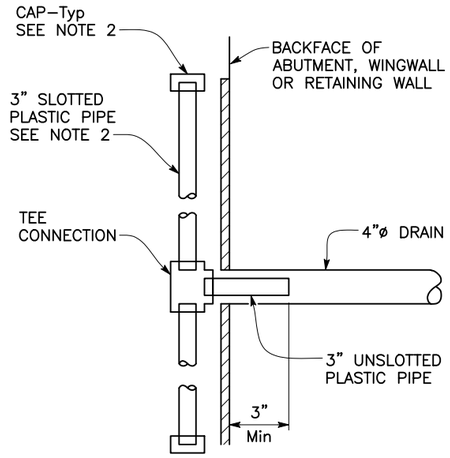
SHEET DESCRIPTION:
ABUTMENT DETAILS NO. 4

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	ST-9
	27 OF 39 SHEETS

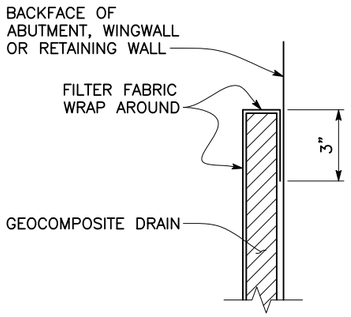
U:\16004 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\430 Bridges & Structures\Plans\CM-S-A02.dwg



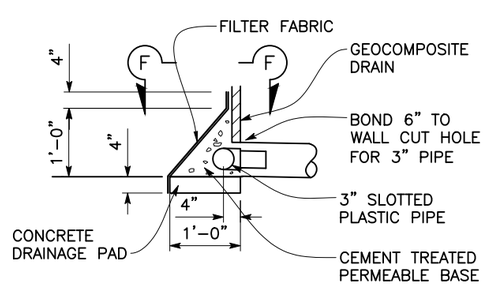
WALL SECTION



SECTION F-F



DETAIL 3



DETAIL 4

WEEP HOLE AND GEOCOMPOSITE DRAIN DETAIL

NO SCALE

NOTES:

1. 4"ø Drains at Intermediate Sag Points and at 25'–0" Max Center to Center. Exposed Wall drains shall be located 3"± above Finished Grade.

2. Geocomposite Drain, Cement Treated Permeable Base, Drainage Pad, and 3"ø Slotted Plastic Pipe continuous behind Wall. Cap ends of pipe. Provide "Tee" connection at each 4" drain.

3. Provide 1'–0" x 4" Drainage Pad when 3" Slotted Plastic Pipe is not supported by Footing.

Revision	Date	By

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT
COURTHOUSE – 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

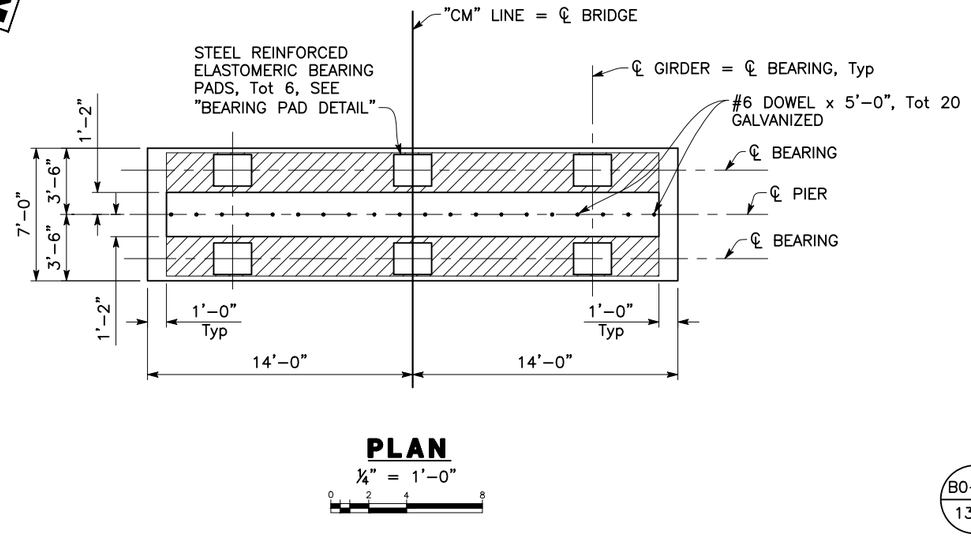
PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
ABUTMENT DETAILS NO. 5

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23–01
FILE:	
SHEET:	ST–10

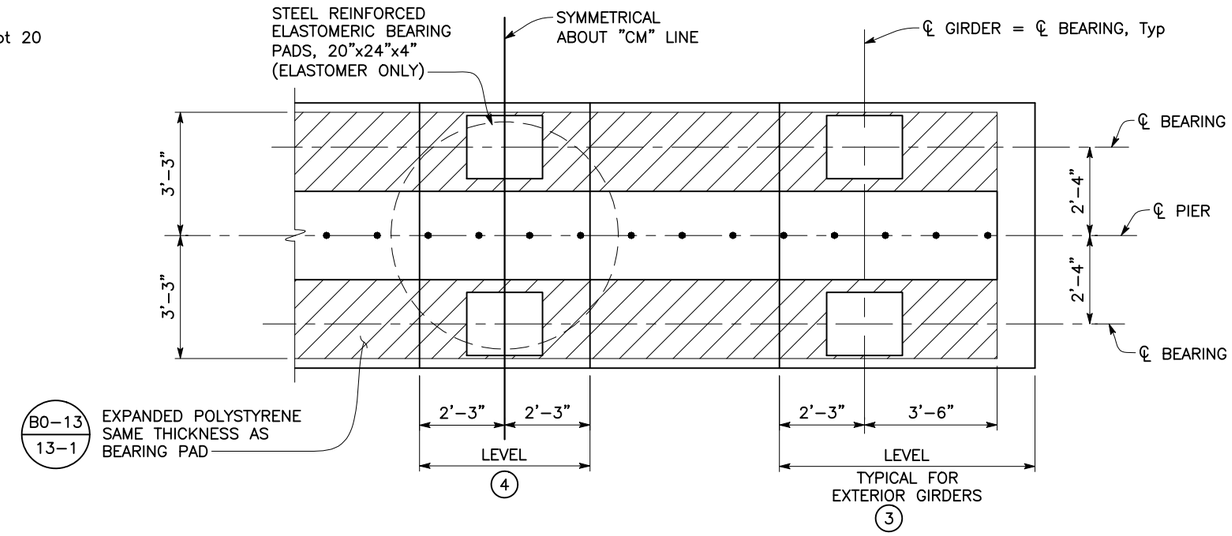
28 OF 39 SHEETS

U:\16004 – N. Fork Cache Creek at Chalk Mt. Road – Lake County\400 Project Design Files\430 Bridges & Structures\Plans\CM-S-A02.dwg



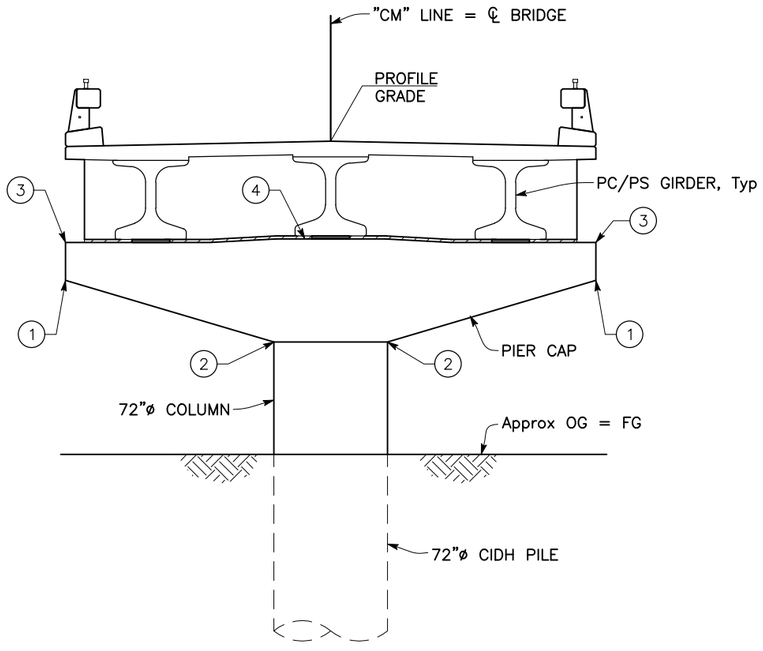
PLAN

¼" = 1'-0"



BEARING PAD DETAIL

½" = 1'-0"



ELEVATION

¼" = 1'-0"

PIER CAP ELEVATIONS		
LOCATIONS	STA 13+35.67	STA 13+42.67
1	1131.48	1131.51
2	1128.23	1128.26
3	1133.48	1133.51
4	1133.67	1133.70

Revision	Date	By

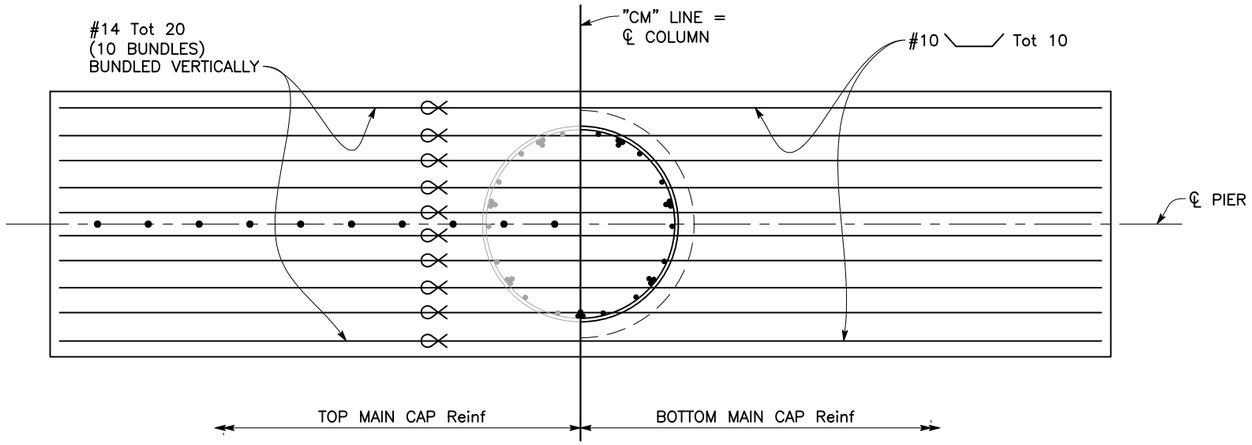
COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT
COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
PIER LAYOUT

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	ST-11
	29 OF 39 SHEETS

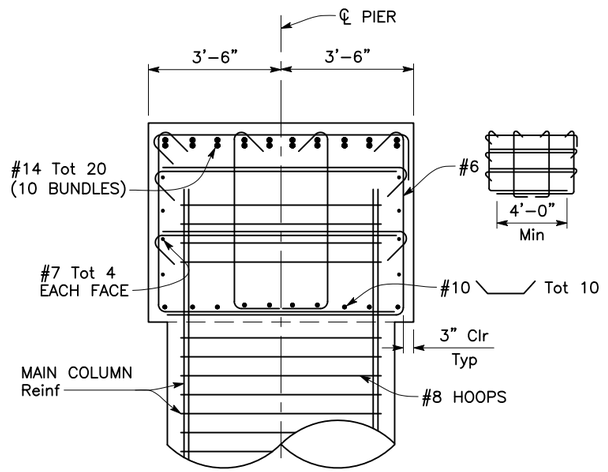
U:\16004 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\430 Bridges & Structures\Plans\CM-S-PL.dwg



TOP REINFORCEMENT **BOTTOM REINFORCEMENT**

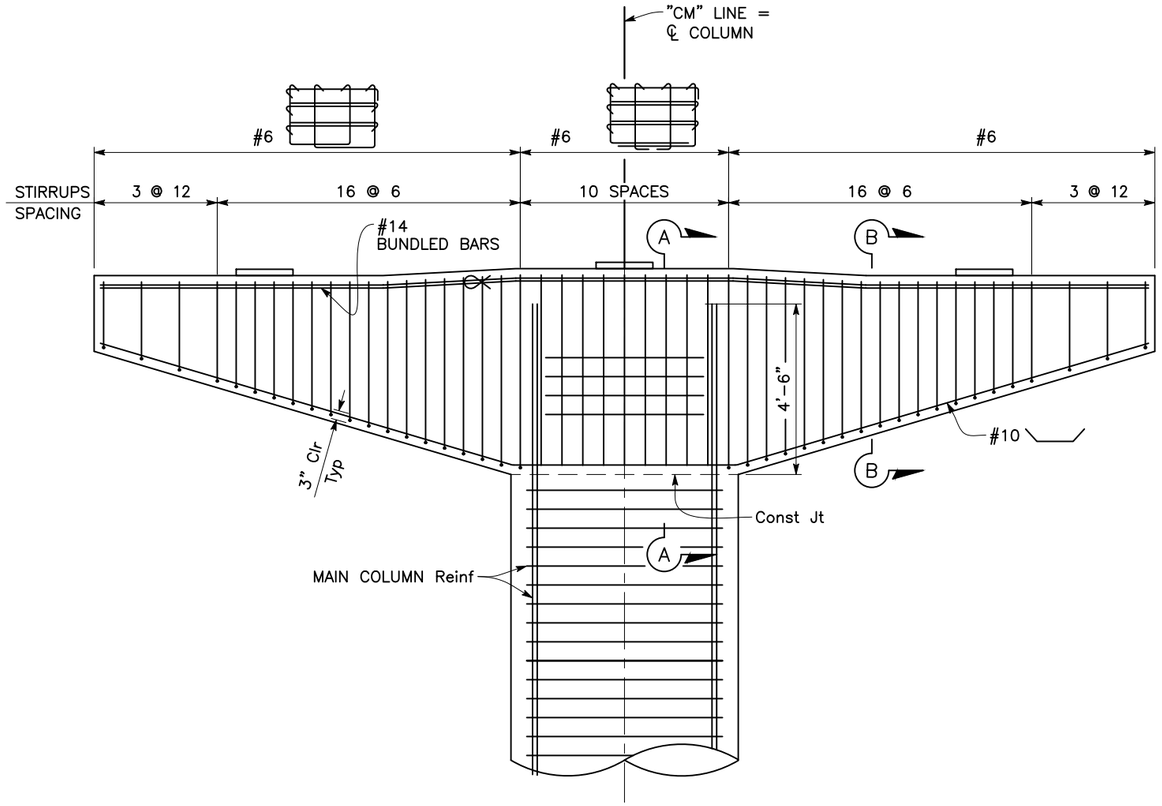
PLAN

½" = 1'–0"



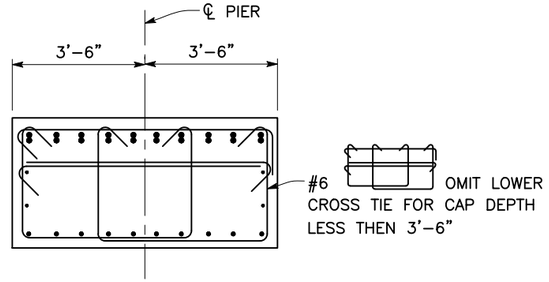
SECTION A-A

½" = 1'–0"



ELEVATION

½" = 1'–0"



SECTION B-B

½" = 1'–0"

LEGEND:

Denotes bundled reinforcement

Revision	Date	By

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT
COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

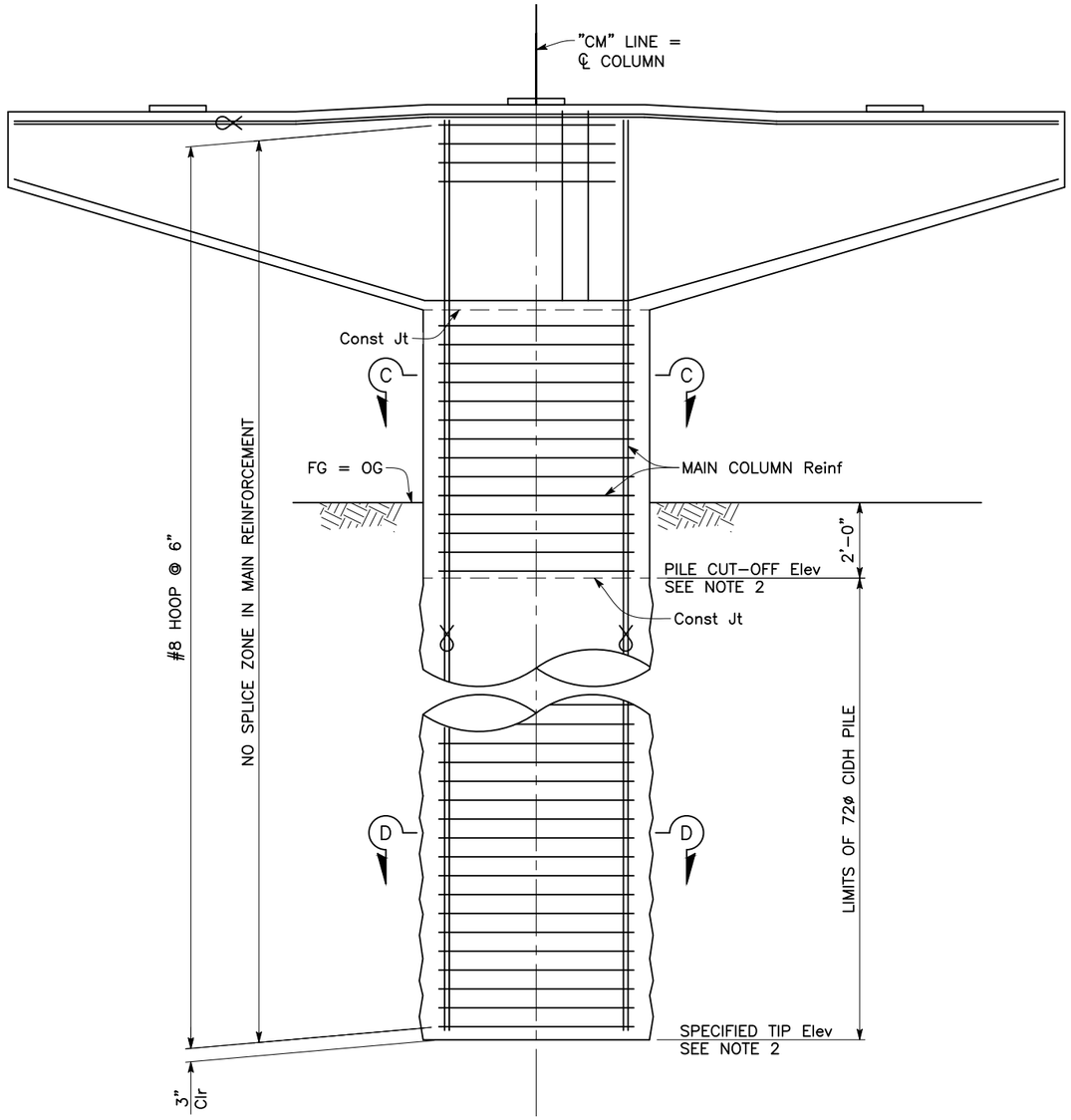
PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
PIER DETAILS NO. 1

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	ST–12

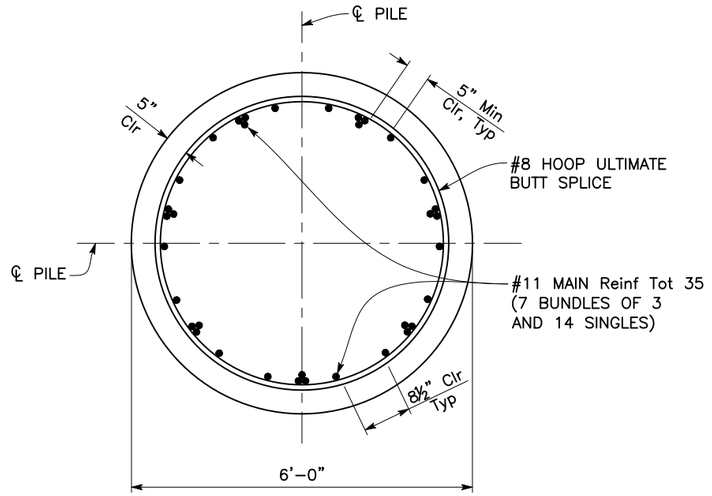
30 OF 39 SHEETS

U:\16004 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\430 Bridges & Structures\Plans\CM-S-PD.dwg



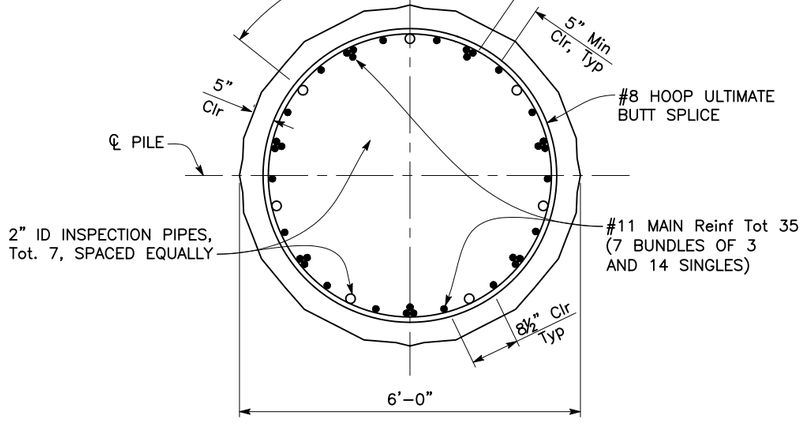
PIER 2 ELEVATION

½" = 1'–0"



SECTION C-C

¾" = 1'–0"



SECTION D-D

¾" = 1'–0"

LEGEND:

⋉ Denotes bundled reinforcement

NOTES:

1. For Pile Data, see "FOUNDATION PLAN" sheet.
2. For Cut–Off and Specified Tip Elevation, see "FOUNDATION PLAN" sheet.
3. Only Staggered "Ultimate" Splices are allowed in Main CIDH Reinforcement.

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER
KYLE LUNDBLOM
No. 92686
Exp. 09/30/23
CIVIL
STATE OF CALIFORNIA

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT

COURTHOUSE – 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263–2341

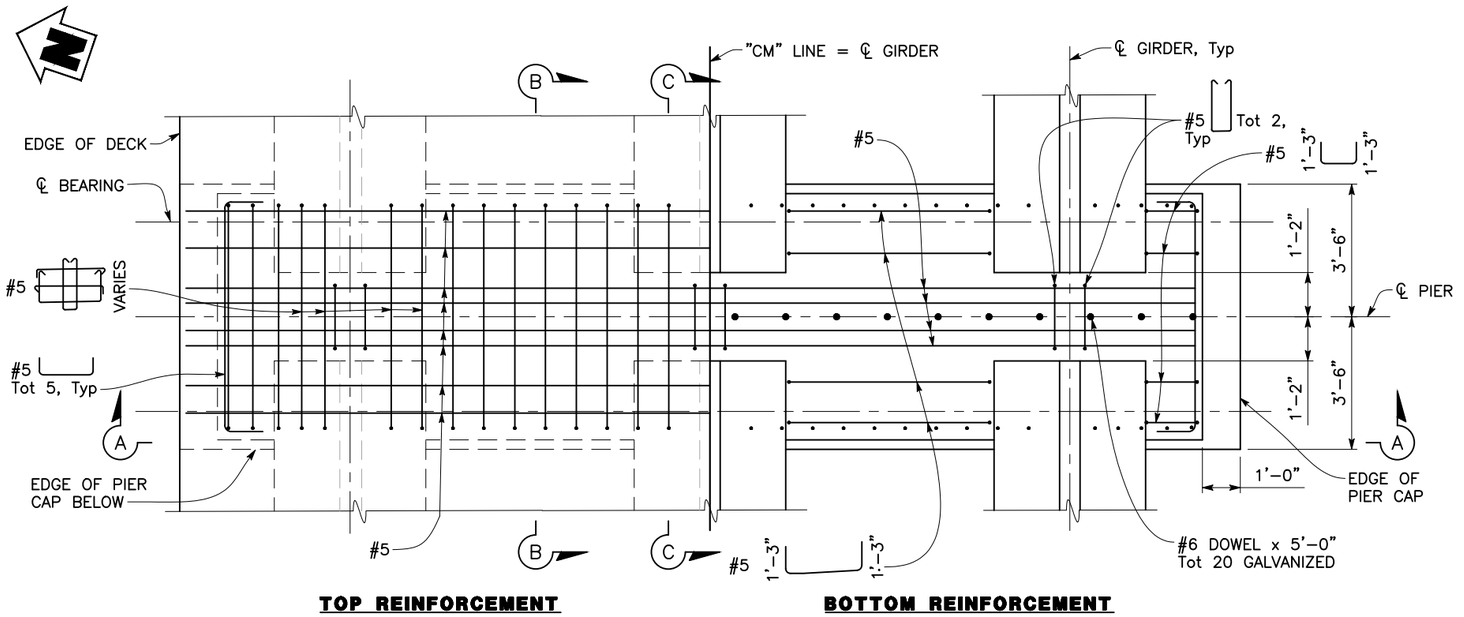
PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
PIER DETAILS NO. 2

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23–01
FILE:	
SHEET:	ST–13

31 OF 39 SHEETS

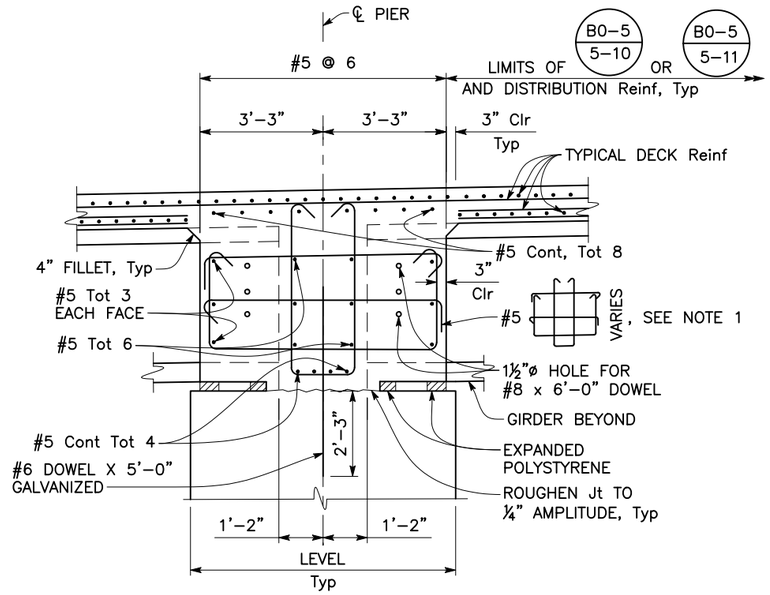
U:\16004 – N. Fork Cache Creek at Chalk Mt. Road – Lake County\400 Project Design Files\430 Bridges & Structures\Plans\CM-S-P02.dwg



TOP REINFORCEMENT **BOTTOM REINFORCEMENT**

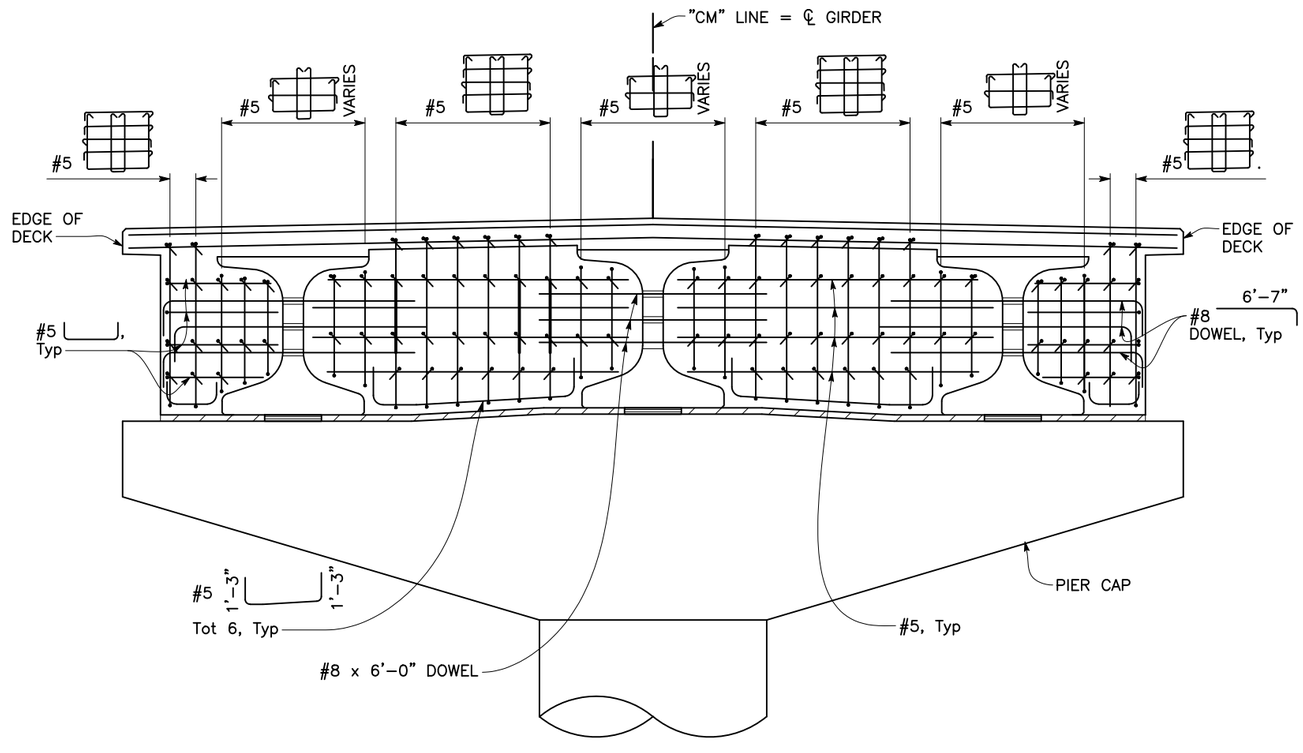
PLAN

½" = 1'-0"



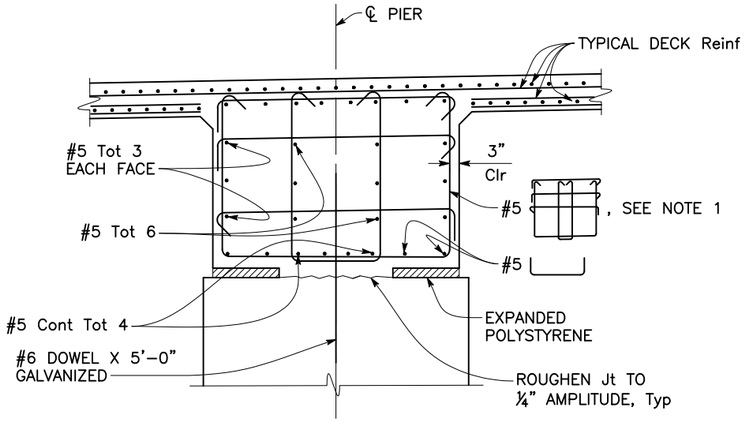
SECTION C-C

½" = 1'-0"



SECTION A-A

½" = 1'-0"



SECTION B-B

½" = 1'-0"

Revision	Date	By

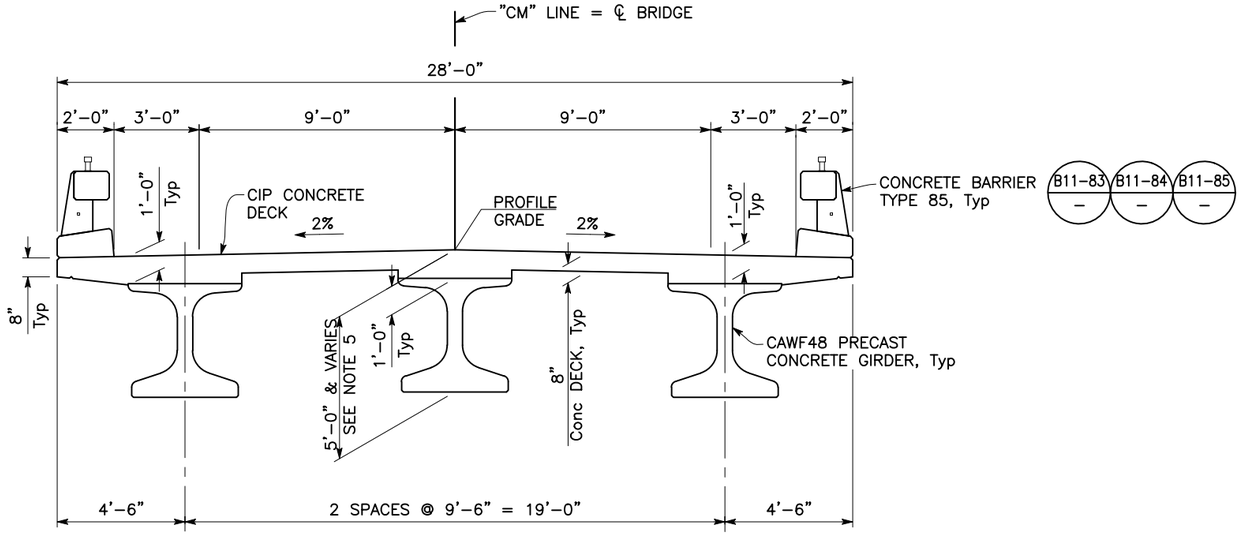
COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT
COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
PIER DETAILS NO. 3

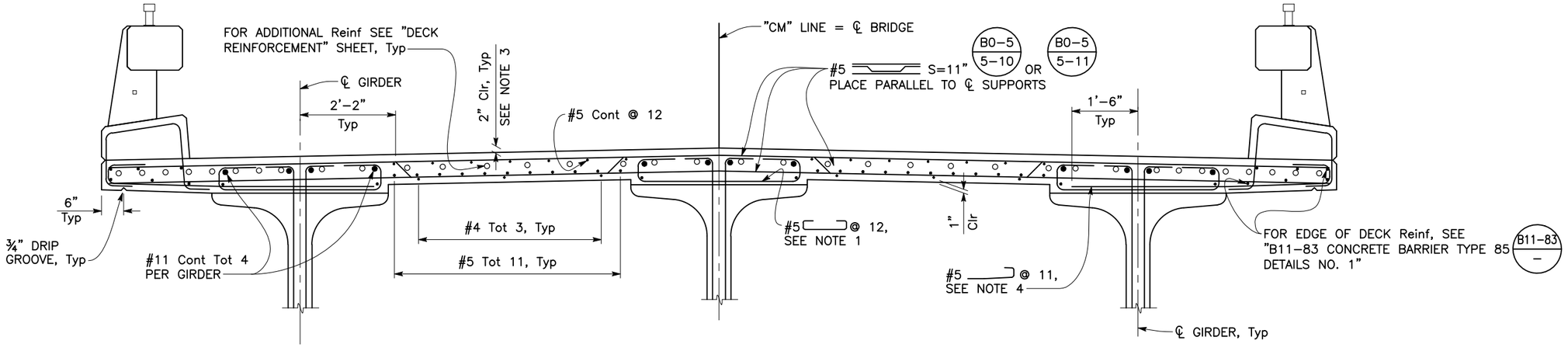
TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	ST-14
	32 OF 39 SHEETS

U:\16024 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\430 Bridges & Structures\Plans\CM-S-P03.dwg



TYPICAL SECTION

3⁄8" = 1'–0"



PART TYPICAL SECTION

¾" = 1'–0"

NOTES:

1. Stirrups may be eliminated where haunch thickness is less than 3", as approved by the Engineer.
2. Profile Grade is at top of Concrete Deck.
3. Clearance from the top of Concrete Deck to top of reinforcement.
4. Alternate bars with top deck transverse reinforcement.
5. Measured at ℄ bearing of supports.

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER
KYLE LUNDBLOM
No. 92686
Exp. 09/30/23
CIVIL
STATE OF CALIFORNIA

COUNTY OF LAKE
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DEPARTMENT
COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
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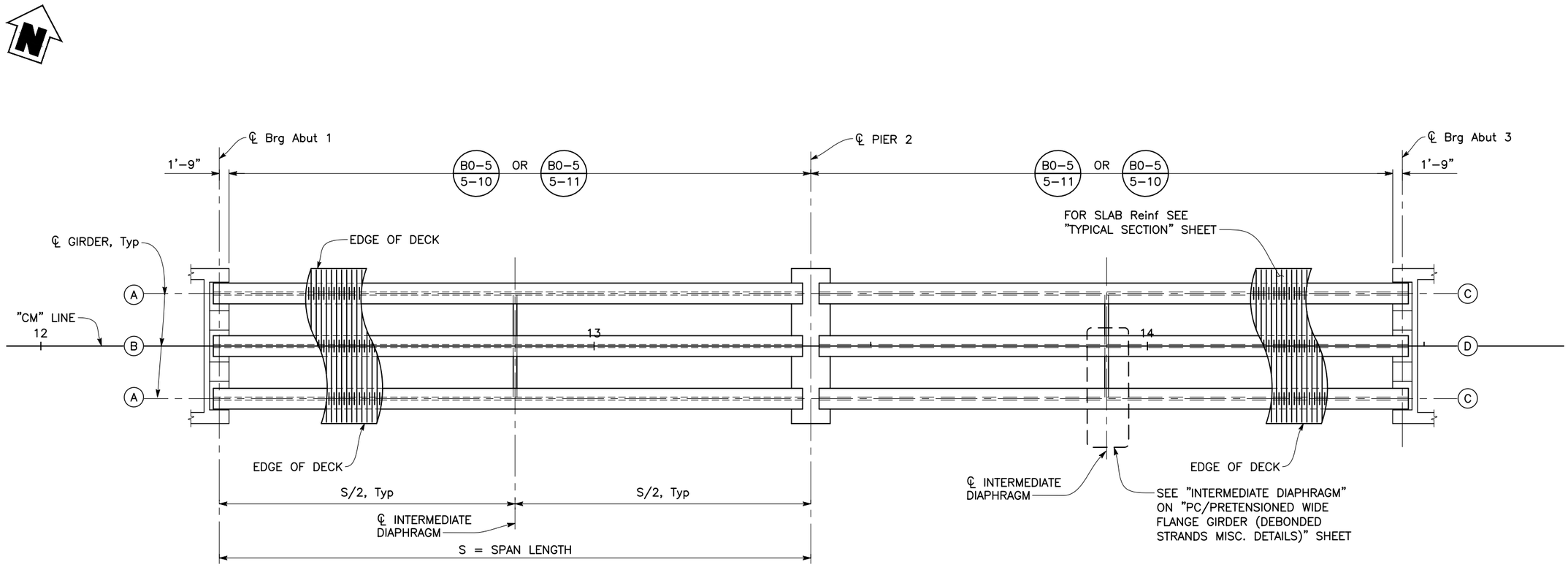
PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
TYPICAL SECTION

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23–01
FILE:	
SHEET:	ST–15
	33 OF 39 SHEETS

U:\16004 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\430 Bridges & Structures\Plans\CM-S-TS.dwg



PLAN

1" = 10'

10 5 0 10 20

LEGEND:

(A) Indicates Girder Designation

NOTE:

1. For Girder Designation information, see "PC/PRETENSIONED WIDE FLANGE GIRDER (DEBONDED STRANDS)" sheet.

Revision	Date	By

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT
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LAKEPORT, CALIFORNIA 95453
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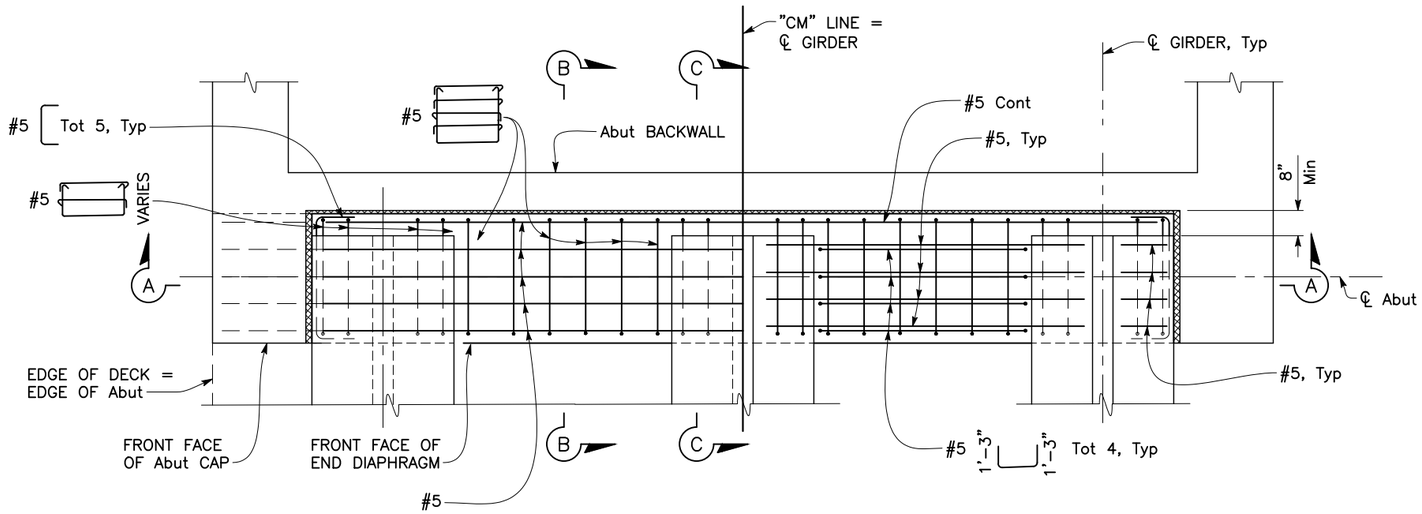
PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
GIRDER LAYOUT

TYPE:
STATE: CA
DATE: 04/07/2023
SCALE:
DESIGN BY: KL
CO. JOB: 5914(094)
BID: 23–01
FILE:
SHEET: ST–16
34 OF 39 SHEETS

U:\16004 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\430 Bridges & Structures\Plans\Cal-S-GL.dwg

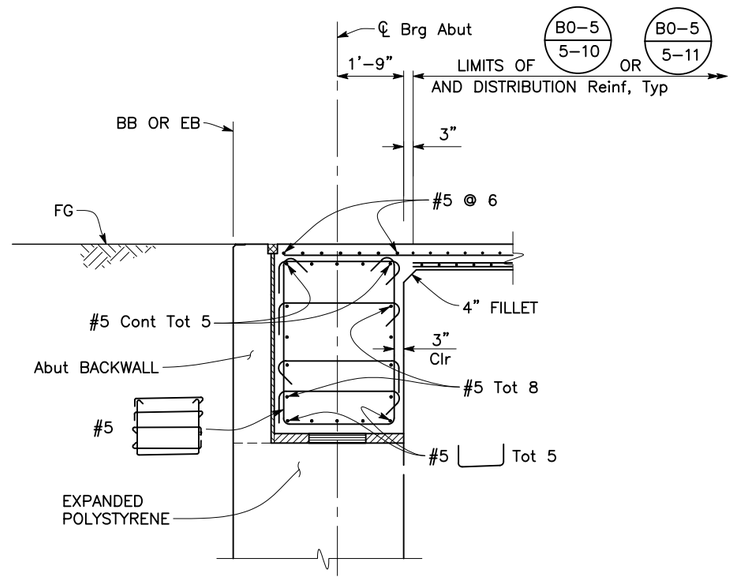


TOP REINFORCEMENT **BOTTOM REINFORCEMENT**

ABUTMENT END DIAPHRAGM - PLAN

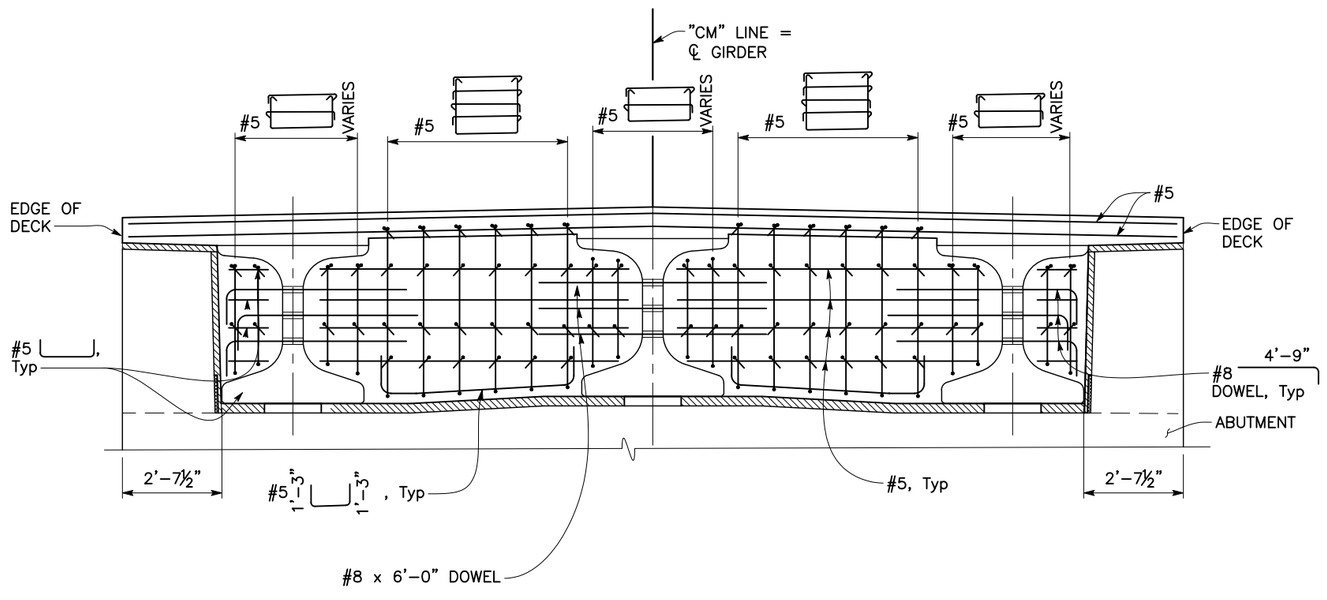
½" = 1'-0"

0 1 2 4



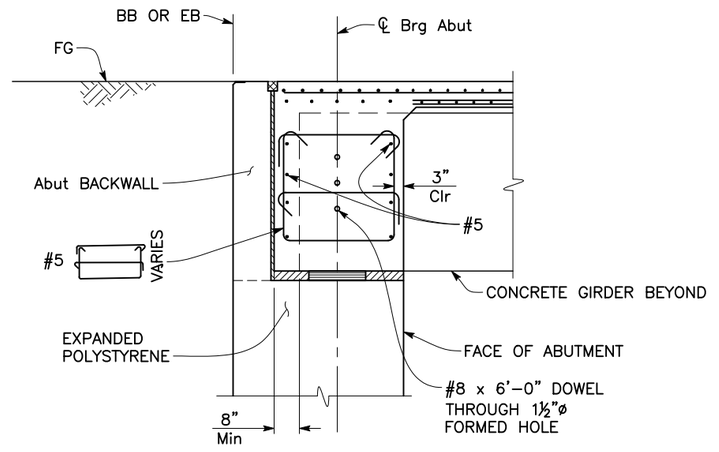
SECTION B-B

½" = 1'-0"



SECTION A-A

½" = 1'-0"



SECTION C-C

½" = 1'-0"

FOR DETAIL NOT SHOWN, SEE "SECTION B-B"

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER KYLE LUNDBLOM No. 92686 Exp. 09/30/23 CIVIL STATE OF CALIFORNIA

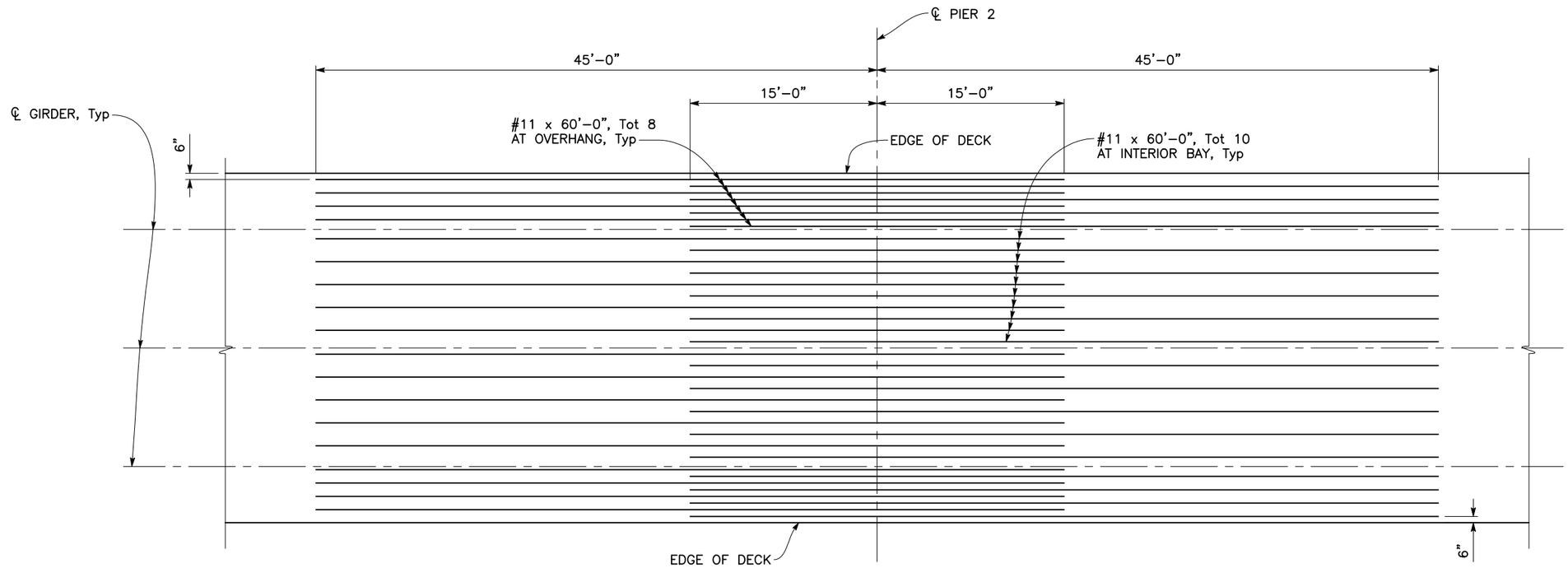
COUNTY OF LAKE PUBLIC WORKS DEPARTMENT
COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
GIRDER DETAILS

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	ST-17

35 OF 39 SHEETS



PARTIAL PLAN

NO SCALE

NOTE:

1. For deck reinforcement not shown, see "PART TYPICAL SECTION" on "TYPICAL SECTION" sheet.

Revision	Date	By

REGISTERED PROFESSIONAL ENGINEER
KYLE LUNDBLOM
No. 92686
Exp. 09/30/23
CIVIL
STATE OF CALIFORNIA

COUNTY OF LAKE
PUBLIC WORKS
DEPARTMENT

COURTHOUSE - 255 N. FORBES ST.
LAKEPORT, CALIFORNIA 95453
WEBSITE: WWW.CO.LAKE.CA.US
PHONE: (707)263-2341

PROJECT DESCRIPTION:
CHALK MOUNTAIN ROAD
OVER NORTH FORK OF
CACHE CREEK BRIDGE
REPLACEMENT PROJECT
CHALK MOUNTAIN ROAD
LAKE COUNTY, CA

SHEET DESCRIPTION:
DECK REINFORCEMENT

TYPE:	
STATE:	CA
DATE:	04/07/2023
SCALE:	
DESIGN BY:	KL
CO. JOB:	5914(094)
BID:	23-01
FILE:	
SHEET:	ST–18
	36 OF 39 SHEETS

U:\16004 - N. Fork Cache Creek at Chalk Mt. Road - Lake County\400 Project Design Files\430 Bridges & Structures\Plans\CM-S-DR.dwg

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
1	LAKE	–		37	39

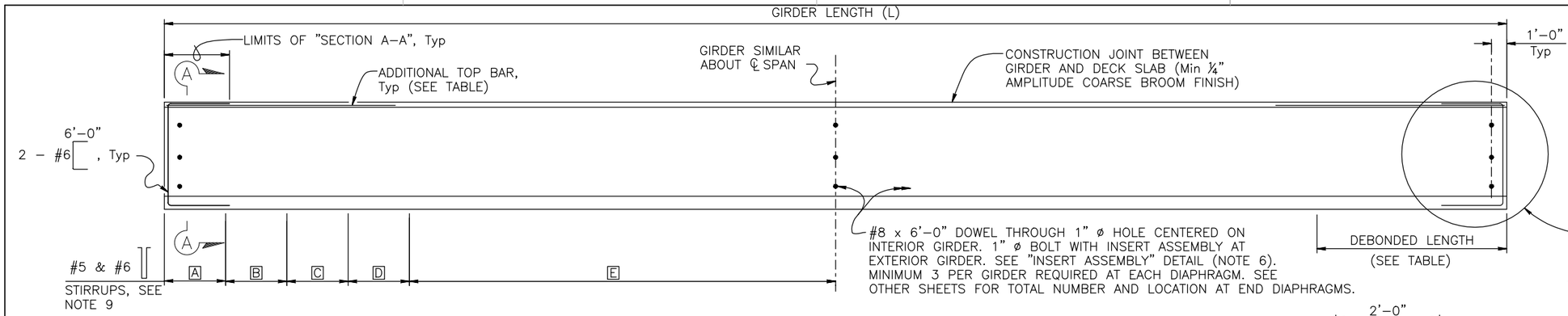
REGISTERED CIVIL ENGINEER — 4/7/23 DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KYLE JAMES LUNDGREN — No. 92686 — Exp. 09/30/23 — CIVIL — STATE OF CALIFORNIA

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.

The Registered Civil Engineer for the project is responsible for the selection and proper application of the component design and any modifications shown.

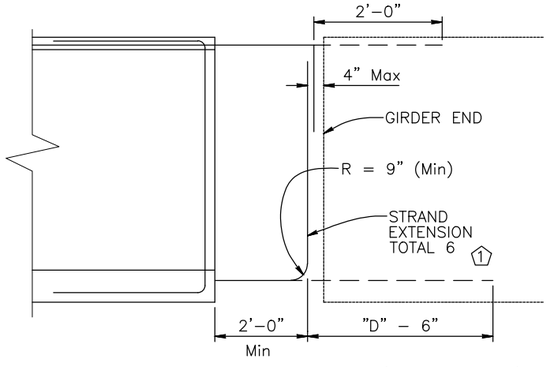


② ELEVATION

NOTE:
Girder ends to be cast such that a level surface is provided at bearing pads

① LOCATION	A	B	C	D	E
GIRDER A	20 @ 3	30 @ 6	9 @ 9	11 @ 12	14 @ 15
GIRDER B	20 @ 3	30 @ 6	9 @ 9	11 @ 12	14 @ 15
GIRDER C	20 @ 3	30 @ 6	9 @ 9	11 @ 12	14 @ 15
GIRDER D	20 @ 3	30 @ 6	9 @ 9	11 @ 12	14 @ 15

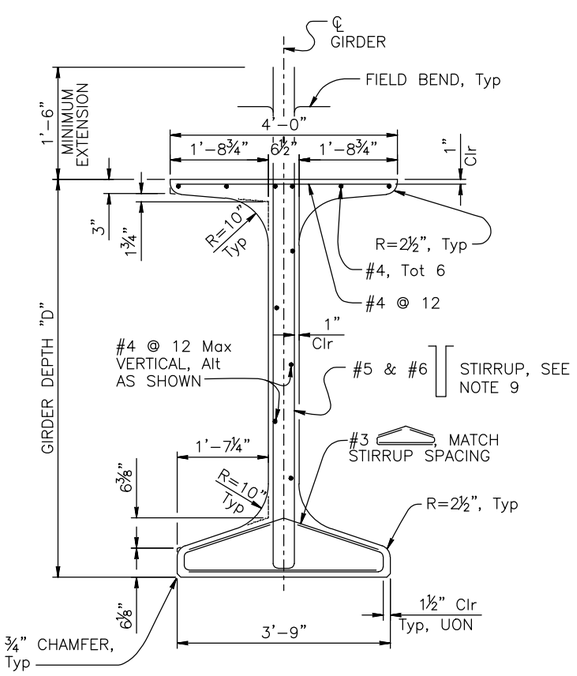
① LOCATION	GIRDER LENGTH (L)	GIRDER DEPTH (D)	NUMBER OF 0.6" Á STRANDS	JACKING FORCE (P)	CONCRETE STRENGTH (ksi) f'ci	CONCRETE STRENGTH (ksi) f'c	MIDSPAN DEAD LOAD DEFLECTION (in) DECK	MIDSPAN DEAD LOAD DEFLECTION (in) RAIL	ADDITIONAL TOP BAR (AT PIERS)
GIRDER A	106'–10"	4'–0"	46	2021.36 kips (43.94 kips/STRAND)	6	8ksi	1.94	0.07	#7 x 12'–0" Tot 4
GIRDER B	106'–10"	4'–0"	48	2109.24 kips (43.94 kips/STRAND)	6	8ksi	1.98	0.07	#7 x 12'–0" Tot 4
GIRDER C	106'–10"	4'–0"	46	2021.36 kips (43.94 kips/STRAND)	6	8ksi	1.94	0.07	#7 x 12'–0" Tot 4
GIRDER D	106'–10"	4'–0"	48	2109.24 kips (43.94 kips/STRAND)	6	8ksi	1.98	0.07	#7 x 12'–0" Tot 4



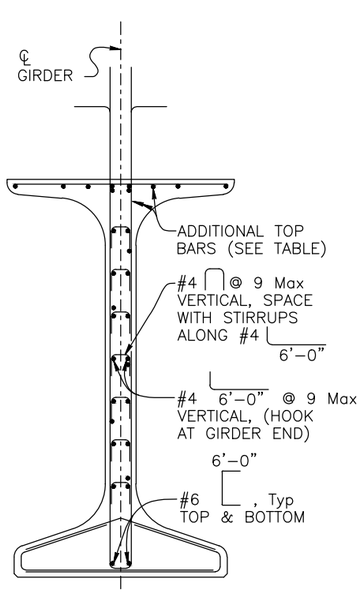
② STRAND EXTENSION HOOK DETAIL (AT BENT)

NOTES

1. The Jacking Force (P) is the jacking force required at the point of control along the span. The jacking force does not include any specific fabrication losses.
2. Concrete strength:
   f'ci is at time of initial stressing
   f'c is at 28 days
3. Deflection components are informational only and will be used to set screed line elevations.
4. Screed line elevations for deck concrete will be determined by the Engineer.
5. Prestressing strand shall be 270 ksi low relaxation.
6. For "INSERT ASSEMBLY" Detail, see "PC/PRETENSIONED WIDE FLANGE GIRDER (DEBONDED STRANDS MISC. DETAILS)" sheet.
7. ① For Girder Locations, see "GIRDER LAYOUT" sheet.
8. ① "DECK" Midspan Dead Load Deflection does not include Midspan Dead Load Deflection due to Intermediate Diaphragms.
9. ① Use #6 stirrups for distance D/4 at girder ends.

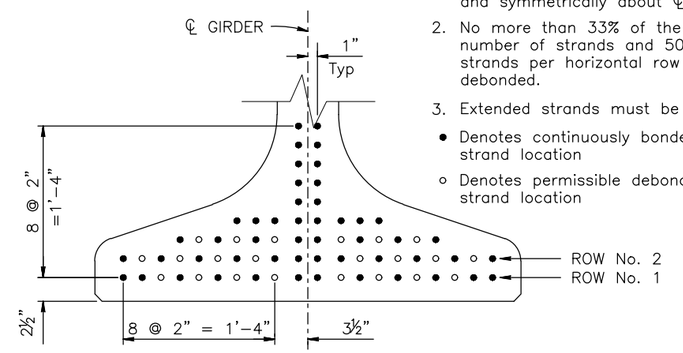


TYPICAL GIRDER SECTION



NOTE:
For details not shown, see "TYPICAL GIRDER SECTION"

SECTION A-A



① STRAND TEMPLATE & DEBONDING PATTERN

STRAND TEMPLATE NOTES:

1. Strands shall be placed as low as possible in the strand template and symmetrically about ℄ of Girder.
2. No more than 33% of the total number of strands and 50% of the strands per horizontal row may be debonded.
3. Extended strands must be bonded strands

- ● Denotes continuously bonded strand location
- ○ Denotes permissible debonded strand location

① GIRDER A AND C

ROW No.	TOTAL No. OF STRANDS	No. OF DEBONDED STRANDS	DEBONDED LENGTH
3	6	–	–
2	20	2	8'–0"
1	20	4 2 2	6'–0" 8'–0" 10'–0"

① GIRDER B AND D

ROW No.	TOTAL No. OF STRANDS	No. OF DEBONDED STRANDS	DEBONDED LENGTH
3	8	–	–
2	20	2 2	6'–0" 8'–0"
1	20	2 2 4	6'–0" 8'–0" 10'–0"

NO SCALE

SPECIAL DETAILS **ST-19**

CHALK MOUNTAIN ROAD AT N.F. CACHE CREEK

PC/PRETENSIONED WIDE FLANGE GIRDER (DEBONDED STRANDS)

BRIDGE STANDARD DETAILS		
xs1-122-1 (FILE NO.)	July 2020 (APPROVAL DATE)	*The components of the Bridge Standard Details have been prepared under the responsible charge of the Technical Owner, a registered civil engineer in the State of California*

Refer to: http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheets/index.html

MODIFICATION SHOWN:
① INFORMATION ADDED
② REVISED DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO.
POST MILE

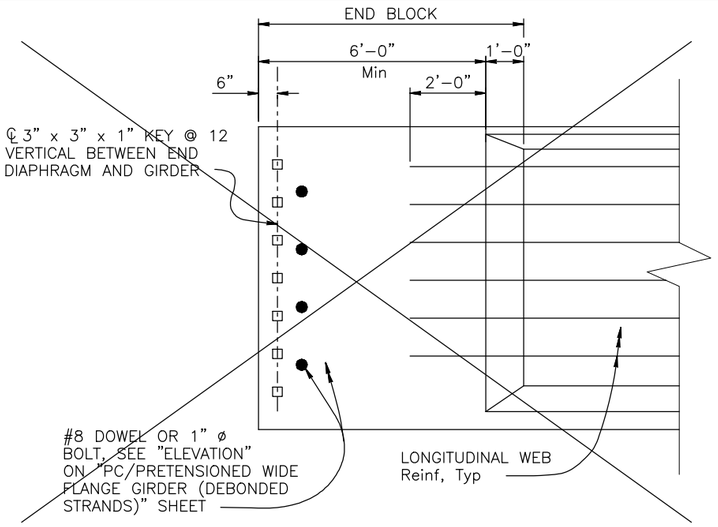
FILE => U:\16004 – N. Fork Cache Creek at Chalk Mt. Road – Lake County\400 Project Design Files\430 Bridges & Structures\Plans\Xxs1-123-1.dwg
USERNAME => lkinnebrew TIME PLOTTED => 7:00 pm DATE PLOTTED => Apr 19, 2023

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

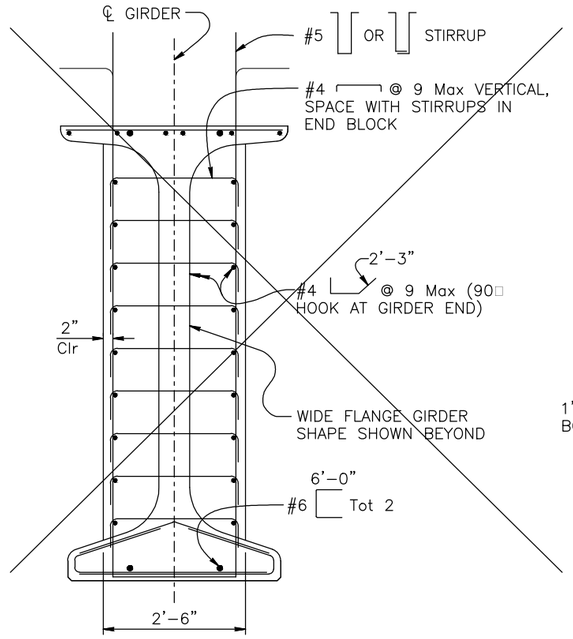
UNIT:
PROJECT NUMBER & PHASE:
CONTRACT NO.:

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES				SHEET	OF
10/3/16	11-1-16			37	39

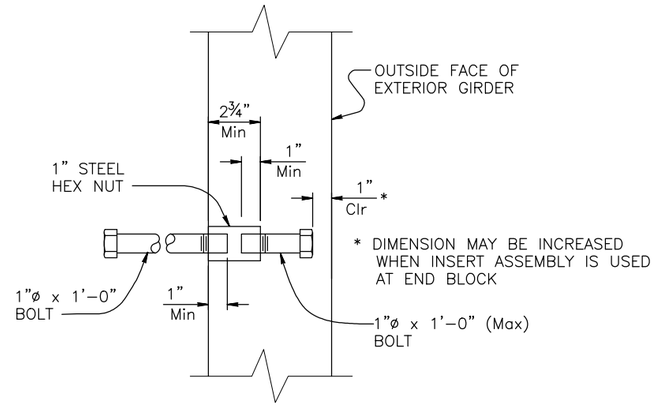


① END BLOCK ELEVATION
(OPTIONAL)



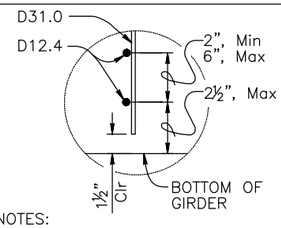
NOTE:
For details shown but not noted, see "TYPICAL GIRDER SECTION" on "PC/PRETENSIONED WIDE FLANGE GIRDER (DEBONDED STRANDS)" sheet.

① TYPICAL END BLOCK SECTION



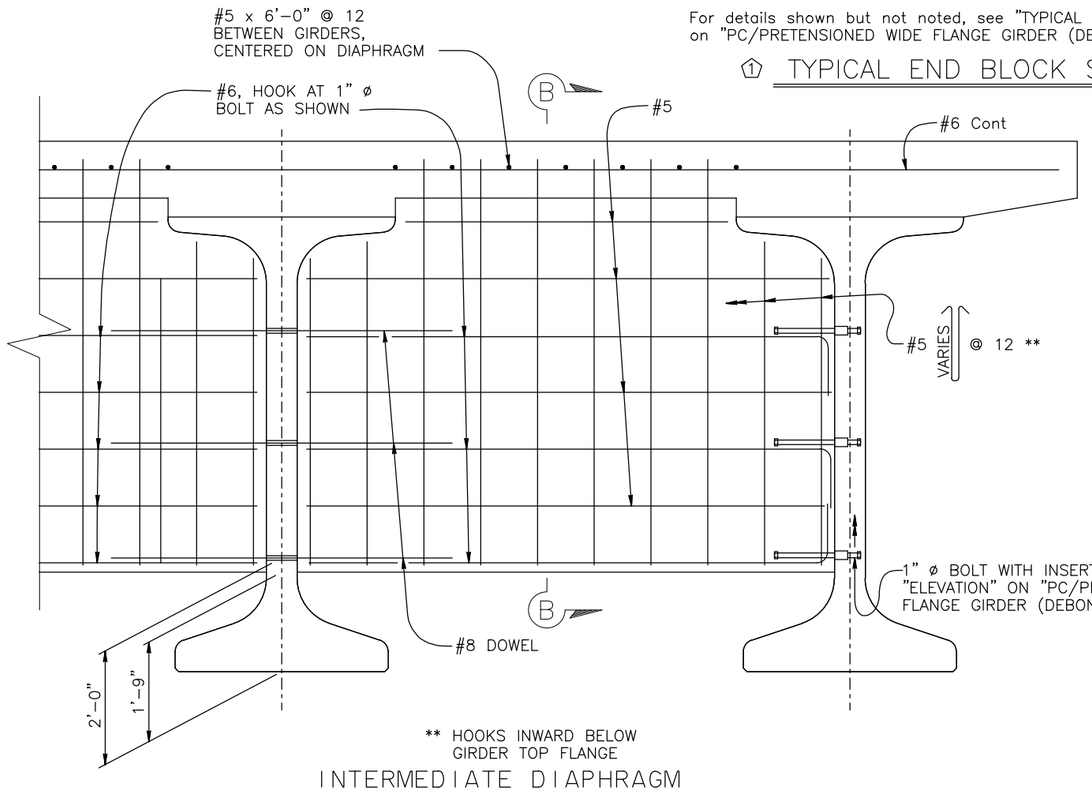
* DIMENSION MAY BE INCREASED WHEN INSERT ASSEMBLY IS USED AT END BLOCK

INSERT ASSEMBLY



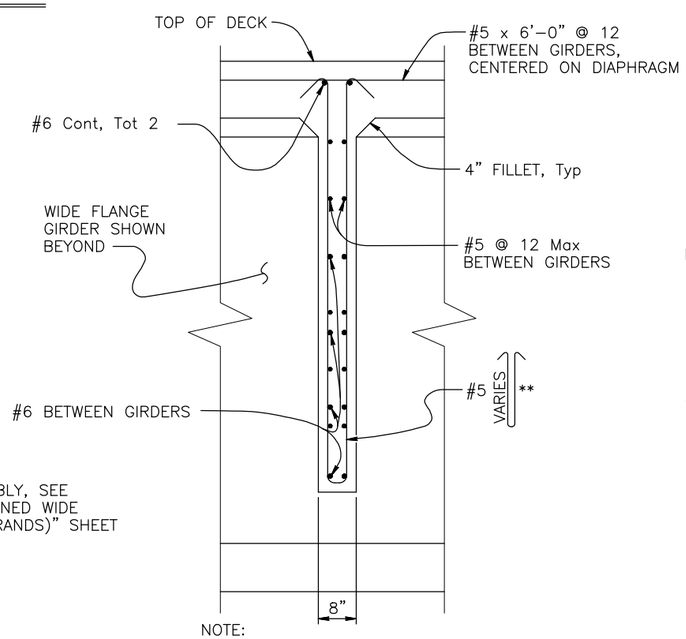
NOTES:
1. Bottom of stirrup WWR detail shown, top similar
2. Longitudinal wire area shall be 40% or greater of vertical deformed wire's area

DETAIL A



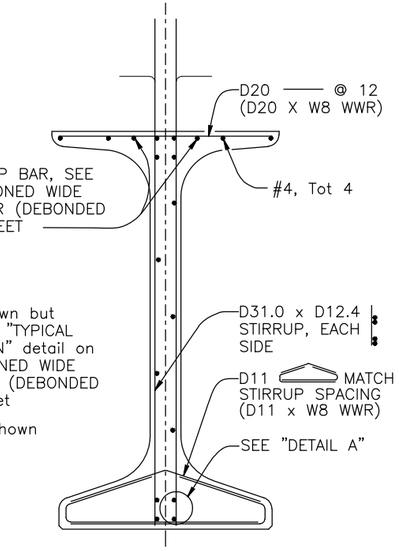
** HOOKS INWARD BELOW GIRDER TOP FLANGE

INTERMEDIATE DIAPHRAGM



NOTE:
Diaphragm may be vertical or normal to deck grade

SECTION B-B



NOTES:
1. For details shown but not noted, see "TYPICAL GIRDER SECTION" detail on "PC/PRETENSIONED WIDE FLANGE GIRDER (DEBONDED STRANDS)" sheet
2. W8 WWR not shown

WELDED WIRE REINFORCEMENT (WWR) ALTERNATIVE

NO SCALE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
1	LAKE	–		38	39

REGISTERED CIVIL ENGINEER — DATE 4/7/23

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — KYLE JAMES LUNDGREN — No. 92686 — Exp. 09/30/23 — CIVIL — STATE OF CALIFORNIA

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The Registered Civil Engineer for the project is responsible for the selection and proper application of the component design and any modifications shown.

BRIDGE STANDARD DETAILS

xs1-122-3 (FILE NO.) — July 2020 (APPROVAL DATE)

The components of the Bridge Standard Details have been prepared under the responsible charge of the Technical Owner, a registered civil engineer in the State of California

MODIFICATION SHOWN:
① DETAIL REMOVED

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO.

POST MILE

SPECIAL DETAILS **ST-20**

CHALK MOUNTAIN ROAD AT N.F. CACHE CREEK

PC/PRETENSIONED WIDE FLANGE GIRDER (DEBONDED STRANDS MISC DETAILS)

Refer to: http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheets/index.html

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USERNAME => lkinnebrew *TIME PLOTTED =>* 7:05 pm *DATE PLOTTED =>* Apr 19, 2023

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

UNIT:
PROJECT NUMBER & PHASE:
CONTRACT NO.:

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
10/3/16	38	39

NOTES:

STANDARD PENETRATION TEST SAMPLER: I.D. = 1.4"; O.D. = 2"
MODIFIED CALIFORNIA SAMPLER: I.D. = 2.5"; O.D. = 3"
HAMMER ASSEMBLY: A 140 LB HAMMER WITH A 30" DROP (AUTOMATIC HAMMER)

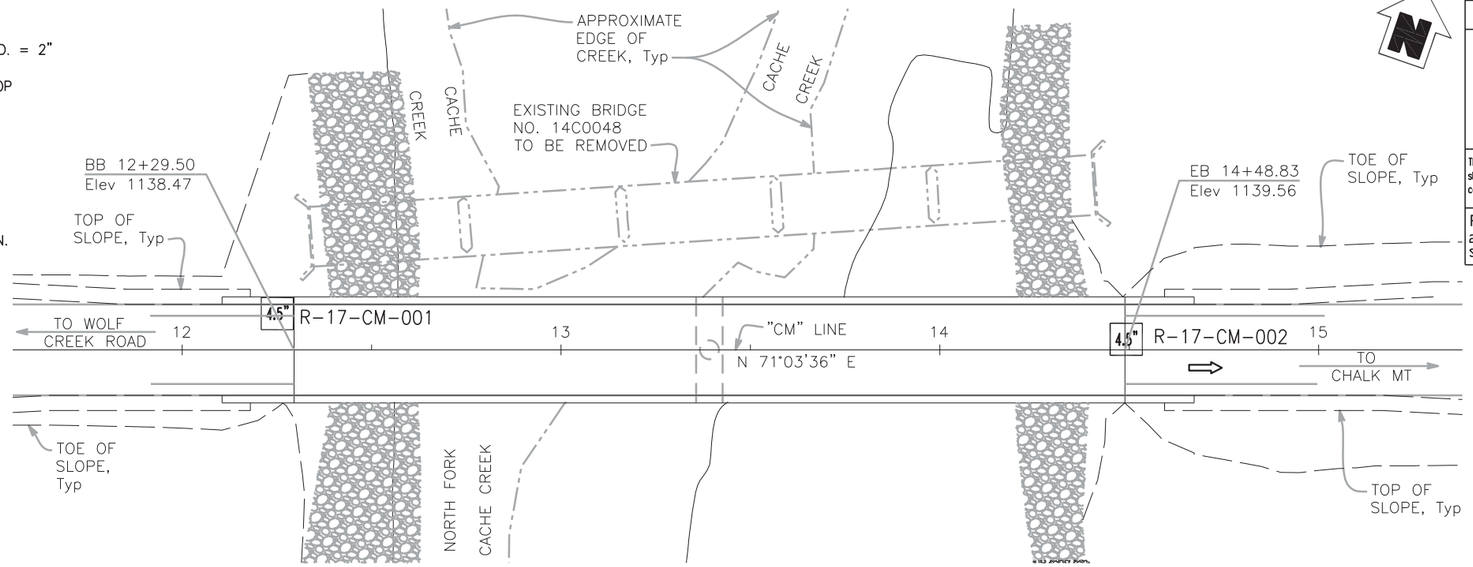
THIS LOTB SHEET WAS PREPARED IN ACCORDANCE WITH THE CALTRANS SOIL & ROCK, LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

SEE CALTRANS 2018 STANDARD PLANS A10F, A10G, AND A10H FOR SOIL AND ROCK LEGENDS.

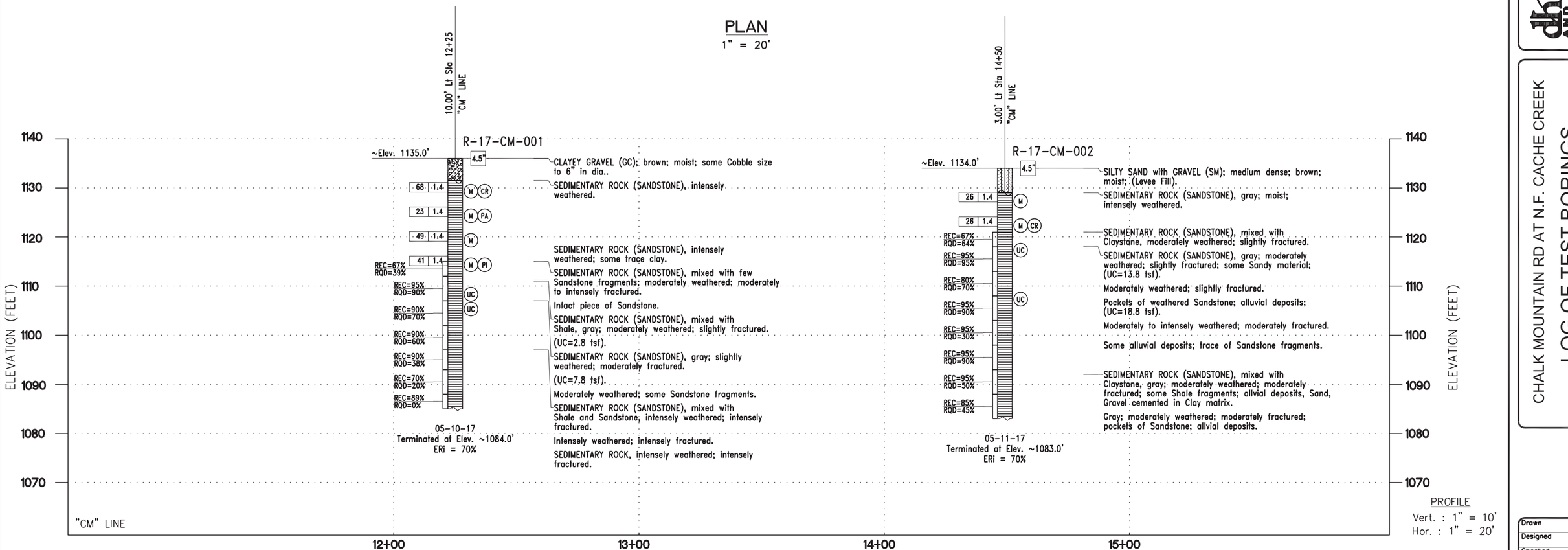
ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE SHOWN.

BASEMAP IS PREPARED BY Dewberry, June 31, 2020.

1. HORIZONTAL DATUM: CCS83 ZONE 2 BASED UPON GPS OBSERVATIONS, PROCESSED BY NGS OPUS WITH CORS STATIONS P270, P192. & HP190. REFERENCE EPOCH 2010.00 AT CONTROL POINT #2
2. VERTICAL DATUM: NAVD 88 BASED UPON GPS OBSERVATIONS, PROCESSED BY NGS OPUS WITH CORS STATIONS P270, P192. & HP190. REFERENCE EPOCH 2010.00 AT CONTROL POINT #2



PLAN
1" = 20'



PROFILE
Vert. : 1" = 10'
Hor. : 1" = 20'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
01	LAKE	–	–	39	39

GEOTECHNICAL PROFESSIONAL — 8-5-22 DATE

REGISTERED PROFESSIONAL ENGINEER — GARY PARIKH — No. G.E. 666 — Exp. 12/31/23 GEOTECHNICAL — STATE OF CALIFORNIA

PLANS APPROVAL DATE

The County of Mariposa or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

PARIKH CONSULTANTS, INC.
2360 QUME DRIVE, SUITE A
SAN JOSE, CA 95131

BY / REVISION / NO.

drake haglan AND ASSOCIATES
10423 Old Placerville Road, Suite 200
Sacramento, CA 95827

CHALK MOUNTAIN RD AT N.F. CACHE CREEK

LOG OF TEST BORINGS

DRAWN BY	KIM OUYANG	EL S. BHANGOO FIELD INVESTIGATION BY:	KANDEEPAN SARAVANAPAVAN PROJECT ENGINEER
CHECKED BY	KANDEEPAN SARAVANAPAVAN	DATE: MAY 2017	

Drawn
Designed
Checked
Date
Scale
SHT. DES. ST-21
SHT. 39 OF 39

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