

WARNING: ALL INDIVIDUALS INTERESTED IN BIDDING ON THIS PROJECT MUST OBTAIN THE FINAL PLANS AND SPECIFICATIONS FROM THE DEPARTMENT MANAGING THE PROJECT OR AS OTHERWISE STATED IN THE ADVERTISEMENT FOR BIDS FOR THE PROJECT. DO NOT USE THE PLANS AND SPECIFICATIONS POSTED ON THE CLERK OF THE BOARD'S WEBSITE FOR BIDDING ON THIS PROJECT.

SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS



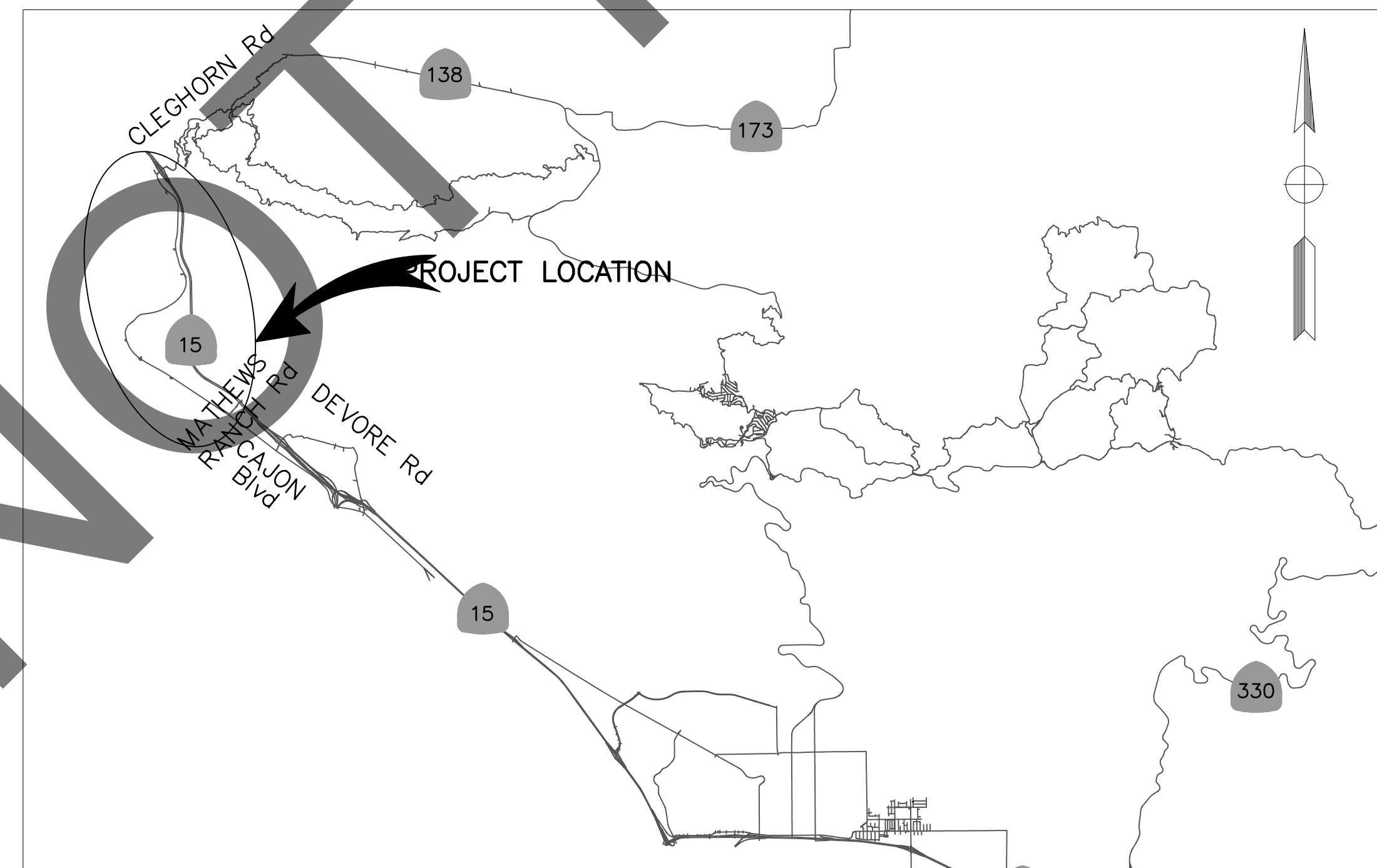
TRANSPORTATION PLANS FOR CONSTRUCTION ON

CAJON BOULEVARD

BETWEEN MATHEWS RANCH ROAD AND CLEGHORN ROAD GUARDRAIL REPLACEMENT PROJECT AT DEVORE AREA

WORK ORDER NO. TX1799

ROAD NO. 199950-060



LOCATION MAP
NOT TO SCALE

SAN BERNARDINO COUNTY

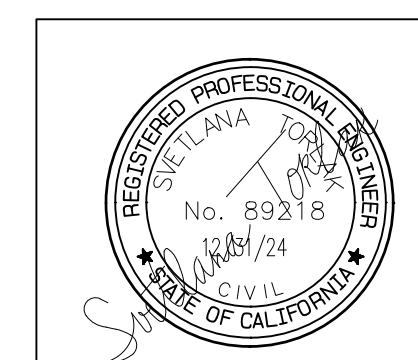
APPROVED BY:

Noel Castillo
NOEL CASTILLO, P.E., DIRECTOR OF PUBLIC WORKS R.C.E. 78044

6/12/24

DATE

T-1



MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		
FIELD CHANGES		SHT. NO.	TOT. SHT'S.
		1	21

MARK	REVISIONS	APPR.	DATE
MARK	REVISIONS	APPR.	DATE

INDEX OF SHEETS

1	TITLE SHEET
2	PROJECT NOTES, LEGENDS, INDEX MAP AND INDEX OF SHEETS
3-15	LAYOUT PLANS
16-20	CONSTRUCTION DETAILS
21	SUMMARY OF QUANTITIES

THE FOLLOWING COUNTY STANDARDS ARE ATTACHED TO THE SPECIAL PROVISIONS:

303A	303B	305
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TO BE SUPPLEMENTED BY THE FOLLOWING CALTRANS STANDARD PLANS DATED 2018:

A3A	A3B	A3C	RSP A20B
A73C	A77L2	A77M1	A77N2
RSP A77N4	A77N5	A77N5A	A77N6
A77P1	A77S1	A77T2	RSP A77U4
A87B	T3A	T3B	T9
T10	T13		

TO BE SUPPLEMENTED BY THE FOLLOWING CA MUTCD STANDARD PLANS DATED 2014 REV 6:

FIGURE 2A-2 (CA)	FIGURE 2C-13 (CA)
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THIS PROJECT REQUIRES A CONTRACTOR'S LICENSE CLASS "A"

GENERAL NOTES

U. THE FACT THAT ANY UTILITY FACILITY IS SHOWN OR NOT SHOWN UPON THE PLANS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY UNDER SECTION 5-1.36D "NON HIGHWAY FACILITIES" OF THE CALTRANS STANDARD SPECIFICATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY, PURSUANT THERETO, TO ASCERTAIN THE LOCATION OF ANY UTILITY FACILITY WHICH MAY BE SUBJECT TO DAMAGE BY REASON OF THE CONTRACTOR'S OPERATIONS.

1. ALL STATIONING NOTES ON PLAN REFER TO THE CL IMP ROAD OR SIDE STREET.
2. DIMENSIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE CALTRANS STANDARD SPECIFICATIONS.
3. ALL PAVEMENT WIDTH DIMENSIONS SHOWN ON THE PLANS ARE TO THE EDGE OF PAVEMENT OR TO THE TOP OF CURB, UNLESS OTHERWISE NOTED.
4. TRANSITIONS AND WARPING SHALL BE AS SHOWN AND AS DETERMINED BY THE ENGINEER.
5. ASPHALT CONCRETE OVERLAYS SHALL BE FEATHERED TO MEET EXISTING AS SHOWN ON THE PLANS OR AS DETERMINED BY THE ENGINEER.
6. ALL TREES & VEGETATION OUTSIDE THE LIMITS OF EXCAVATION AND EMBANKMENT SLOPE LINES, SHALL BE PROTECTED IN PLACE.

BASIS OF BEARINGS:

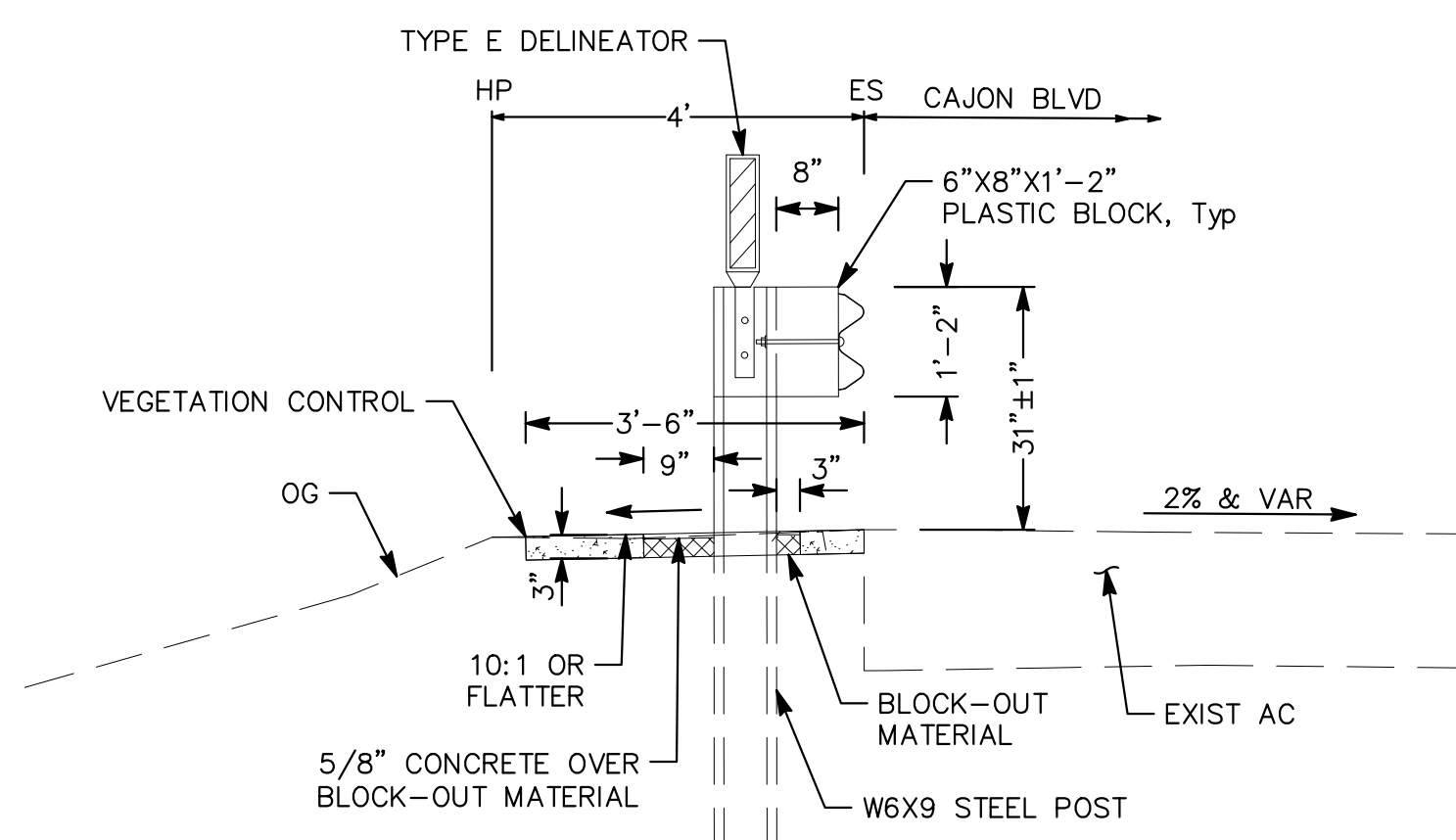
THE NORTH LINE OF THE NW 1/4 OF SECTION 13, T2N R6W, PER CS 6403/10; BEING N89°59'49"W.

BENCH MARK:

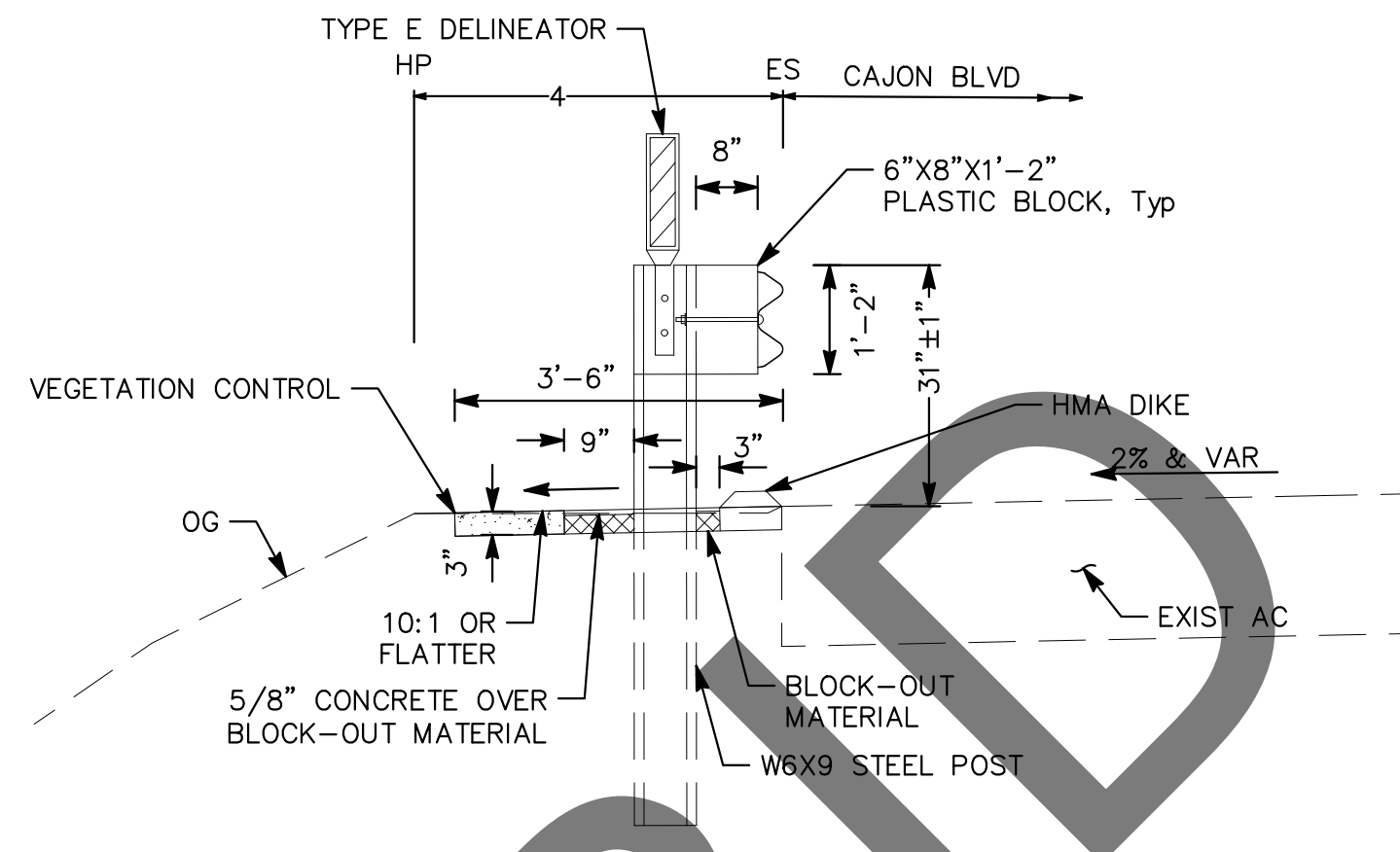
FOUND BOLT IN TOP OF WEST END OF SOUTH CONC ABUT OF RAILROAD BRIDGE, 12' S/O & 138' W/O SWARTHOUT CANYON ROAD AND CAJON CREEK PER CSFB 4083/67. NGVD-29 ELEV = 2730.95'

SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES :

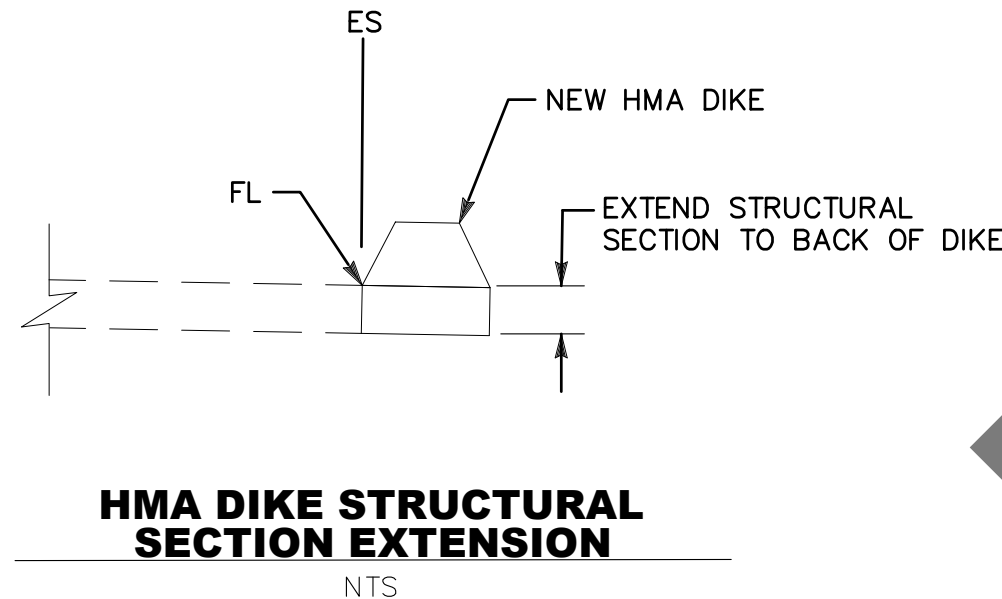
- 1- ALL SIGNING, STRIPING AND PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE CALIFORNIA MUTCD LATEST EDITION.
 - A. CONSTRUCTION SIGNS SHALL BE OF DIAMOND GRADE (FHWA TYPE IX) FLUORESCENT ORANGE RETRO-REFLECTIVE SHEETING.
- 2- ALL DELINEATORS, CHANNELIZERS, AND OBJECT MARKERS SHALL BE OF (FHWA TYPE VII) RETRO-REFLECTIVE SHEETING.
- 3- SIGNS SHALL BE MOUNTED ON METAL POSTS SIMILAR TO COUNTY STANDARDS 303(a) AND 303(b).
- 4- ALL CONFLICTING STRIPING AND PAVEMENT MARKINGS NOT SHOWN ON PLANS SHALL BE REMOVED BY THE CONTRACTOR. REMOVAL SHALL BE ACCOMPLISHED BY SANDBLASTING, GRINDING, OR AS DIRECTED BY COUNTY REPRESENTATIVE.
- 5- ALL CONFLICTING SIGNS SHALL BE REMOVED, RELOCATED, OR COVERED BY THE CONTRACTOR. RELOCATABLE SIGNS SHALL BE INSTALLED AS SPECIFIED ON THE PLANS OR AS DIRECTED BY COUNTY REPRESENTATIVE.
- 6- ALL UNPROTECTED LOCATIONS RESULTING IN ISOLATED ABRUPT DEPRESSIONS OR ELEVATED OBJECTS (i.e. CATCH BASINS, HEADWALLS, POWER POLES, END TREATMENT OF ASPHALT DIKES AND CONCRETE CURBS) SHALL BE PROTECTED BY DELINEATORS OR BARRIERS PER THE CALIFORNIA MUTCD LATEST EDITION.
- 7- ALL EXISTING SIGNING, STRIPING AND PAVEMENT MARKINGS (i.e. CROSS STREET STOP, STOP LIMIT LINE, AND CROSSWALK PAVEMENT MARKINGS) NOT SHOWN ON PLANS, IF REMOVED/OBLITERATED, SHALL BE REPLACED/RESTORED OF SAME KIND, AND IN CONFORMANCE WITH THE CALIFORNIA MUTCD LATEST EDITION.
- 8- THE CONTRACTOR SHALL NOTIFY COUNTY REPRESENTATIVE TO SCHEDULE A FINAL REVIEW (WALK THROUGH) WITH TRAFFIC DIVISION PERSONNEL FOR APPROVAL OF TRAFFIC CONTROL DEVICES PRIOR TO PROJECT ACCEPTANCE.



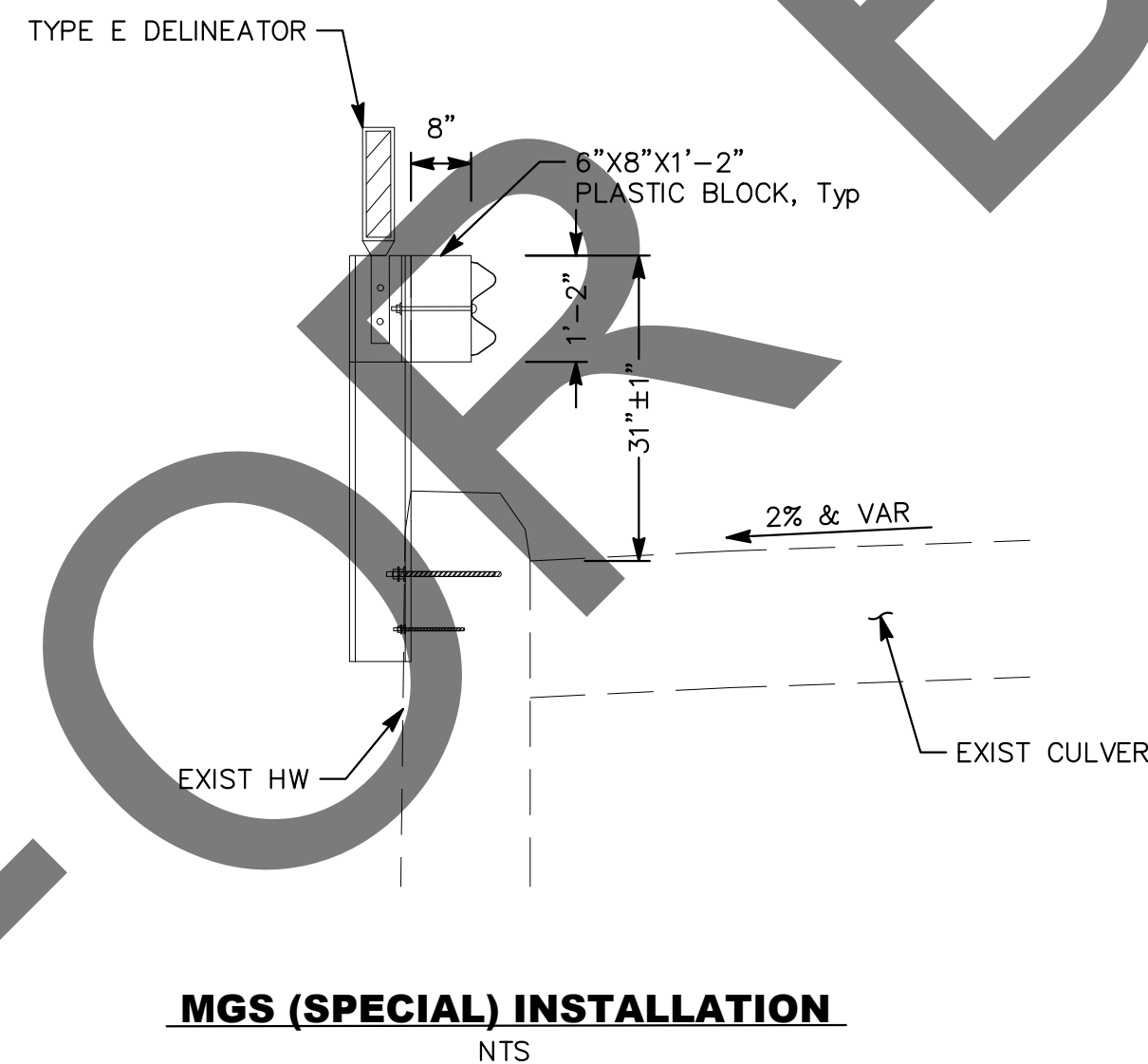
MIDWEST GUARDRAIL SYSTEM NTS



MIDWEST GUARDRAIL SYSTEM NTS



HMA DIKE STRUCTURAL SECTION EXTENSION NTS



MGS (SPECIAL) INSTALLATION NTS

TYPICAL SECTIONS

CONSTRUCTION NOTES:

- 1 REMOVE AND DISPOSE OF EXISTING GUARDRAIL/BARRICADE.
- 2 REMOVE AND DISPOSE OF EXISTING BARRIER RAILING.
- 3 REMOVE CONCRETE BARRIER (TYPE K).
- 4 REMOVE CONCRETE CURB.
- 5 REMOVE ASPHALT CONCRETE DIKE.
- 6 PROTECT IN PLACE.
- 7 INSTALL CALTRANS APPROVED 31" IN-LINE TERMINAL SYSTEM END TREATMENT PER RSI MSKT-SP-MGS TERMINAL (8" BLOCKS) TEST LEVEL 3 PER CALTRANS REVISED STANDARD PLAN A77P1.
- 8 INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLANS RSP A77L2, RSP A77M1, AND A77N2.
- 9 INSTALL MIDWEST GUARDRAIL SYSTEM (SPECIAL) PER DETAIL ON SHEET C-5.
- 10 INSTALL TRANSITION RAILING (TYPE WB-31) Mod PER DETAIL ON SHEET C-1.
- 11 INSTALL TRANSITION RAILING (TYPE WB-31) PER CALTRANS REVISED STANDARD PLAN A77U4.
- 12 CONSTRUCT 3" THICK CONCRETE VEGETATION CONTROL PER CALTRANS STANDARD PLAN A77N5 AND A77N6.
- 13 INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A73C.
- 14 INSTALL ASPHALT CONCRETE DIKE (TYPE C) PER CALTRANS STANDARD PLAN A87B AND RSP A77N4.
- 15 INSTALL ASPHALT CONCRETE DIKE (TYPE F) PER CALTRANS STANDARD PLAN A87B AND RSP A77N4.
- 16 INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3R) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
- 17 INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3L) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
- 18 PAINT 6" WIDE WHITE EDGE LINE STRIPE PER CALTRANS STANDARD PLAN A20B, DETAIL 27B.
- 19 INSTALL END ANCHOR ASSEMBLY (TYPE SFT) PER CALTRANS REVISED STANDARD PLAN A77S1.
- 20 INSTALL BARRICADE PER COUNTY STANDARD PLAN 305.
- 21 UTILITY CONDUITS TO BE REMOVED AND REATTACHED BY OTHERS.

ABBREVIATIONS LEGEND:

ABUT	=	ABUTMENT	L	=	LENGTH
AC	=	ASPHALT CONCRETE	LB	=	POUND
ADA	=	AMERICANS WITH DISABILITIES ACT	LF	=	LINEAR FEET
AP	=	ANGLE POINT	LT	=	LEFT
AT&T	=	AMERICAN TELEPHONE AND TELEGRAPH COMPANY	Max	=	MAXIMUM
BC	=	BEGIN CURVE	MGS	=	MIDWEST GUARDRAIL SYSTEM
BEG	=	BEGINNING	Min	=	MINIMUM
BLVD	=	BOULEVARD	Mod	=	MODIFIED
CA	=	CALIFORNIA	MUTCD	=	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
CIDH	=	CAST-IN-DRILLED-HOLE	N	=	NORTHING
CL	=	CENTER LINE	No.	=	NUMBER
Conc	=	CONCRETE	NTS	=	NOT TO SCALE
Cont	=	CONTINUOUS	OC	=	ON CENTER
CRT	=	CONTROLLED RELEASE TERMINAL	OG	=	ORIGINAL GROUND
D	=	DEPTH	OH	=	OVERHEAD
DIA	=	DIAMETER	PCC	=	POINT OF COMPOUND CURVE
DN	=	DIAMETER NOMINAL	PP	=	POWER POLE
DYS	=	DOUBLE YELLOW STRIPE	PVC	=	POLYVINYL CHLORIDE
E	=	EASTING	R	=	RADIUS
EA	=	EACH	REV	=	REVISION
EC	=	END CURVE	Rd	=	ROAD
ELEV	=	ELEVATION	RSP	=	REVISED STANDARD PLAN
EP	=	EDGE OF PAVEMENT	RT	=	RIGHT
ES	=	EDGE OF SHOULDER	R/W	=	RIGHT OF WAY
ETW	=	EDGE OF TRAVELED WAY	S	=	SPACING
EXIST	=	EXISTING	SCE	=	SOUTHERN CALIFORNIA EDISON
FD	=	FOUND	SFT	=	SQUARE FEET
FG	=	FINISHED GRADE	STD	=	STANDARD
FH	=	FIRE HYDRANT	SUR	=	SURVEY
FHWA	=	FEDERAL HIGHWAY ADMINISTRATION	STA	=	STATION
FL	=	FLOW LINE	SOYD	=	SQUARE YARD
F/O	=	FIBER OPTIC	T	=	TANGENT
GP	=	GUARD POST	Thru	=	THROUGH
GR	=	GUARDRAIL	Tot	=	TOTAL
HMA	=	HOT MIX ASPHALT	Trans	=	TRANSITION
HP	=	HINGE POINT	Typ	=	TYPICAL
HS	=	HIGH STRENGTH	UG	=	UNDERGROUND
HW	=	HEAD WALL	Var	=	VARIES
Hwy	=	HIGHWAY	W	=	WEST
IN	=	INCH	W/O	=	WITHOUT
			WS	=	WHITE STRIPE

CONSTRUCTION MATERIALS

	PORTLAND CEMENT CONCRETE
	BLOCK-OUT MATERIAL
	NATURAL MATERIAL
	EXISTING GUARDRAIL
	MIDWEST GUARDRAIL SYSTEM
	R/W
	EXISTING WALL
	POTHOLE LOCATION
	DIRECTION OF TRAFFIC

UNDERGROUND UTILITY LEGEND

GAS LINE	- g - g - g - g - g -
SEWER MAIN LINE	- ss - ss - ss - ss - ss -
WATER LINE	- w - w - w - w - w -
ELECTRIC LINE	- e - e - e - e - e -
TELEPHONE LINE	- tel - tel - tel - tel - tel -
DATA/CABLE LINE	- fo - fo - fo - fo - fo -

PREPARED BY:

 1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA. 92111-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		
FIELD CHANGES			



SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: ST	DRAWN BY: MN	CHECKED BY: AOF	RECOMMENDED BY:	DATE: 6/6/2024
APPROVED BY:			DATE: 6/6/2024	DATE: 06/12/2024
ELOY RIVALCABA, P.E. SUPERVISING ENGINEER		MERVAT N. MIKHAIL, P.E. DEPUTY DIRECTOR		

SAN BERNARDINO AREA GUARDRAIL REPLACEMENTS PROJECT NOTES, LEGENDS, INDEX MAP AND INDEX OF SHEETS

SAN BERNARDINO AREA

J.L. REF. J.L. 11815	W.O. NO. TX1799	PLAN SCALE N/A	SHT. NO. 2	TOT. SHTS. 21
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K-1

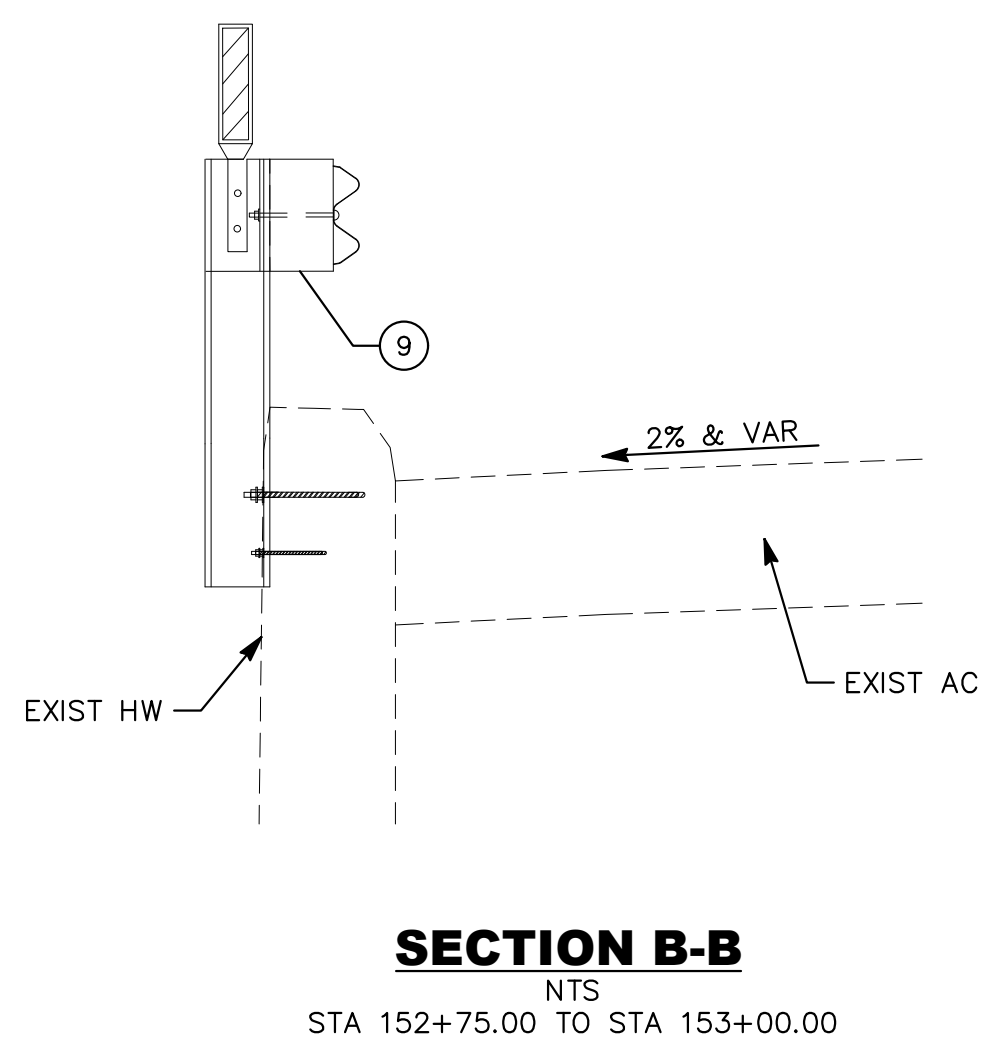
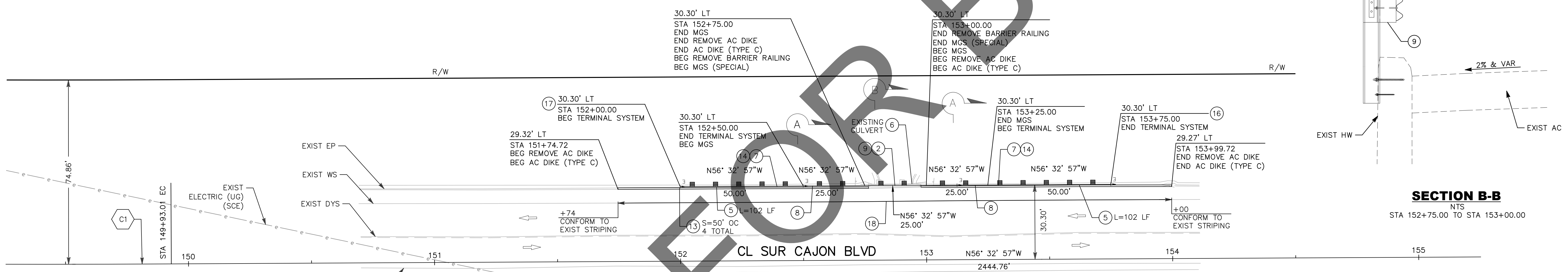
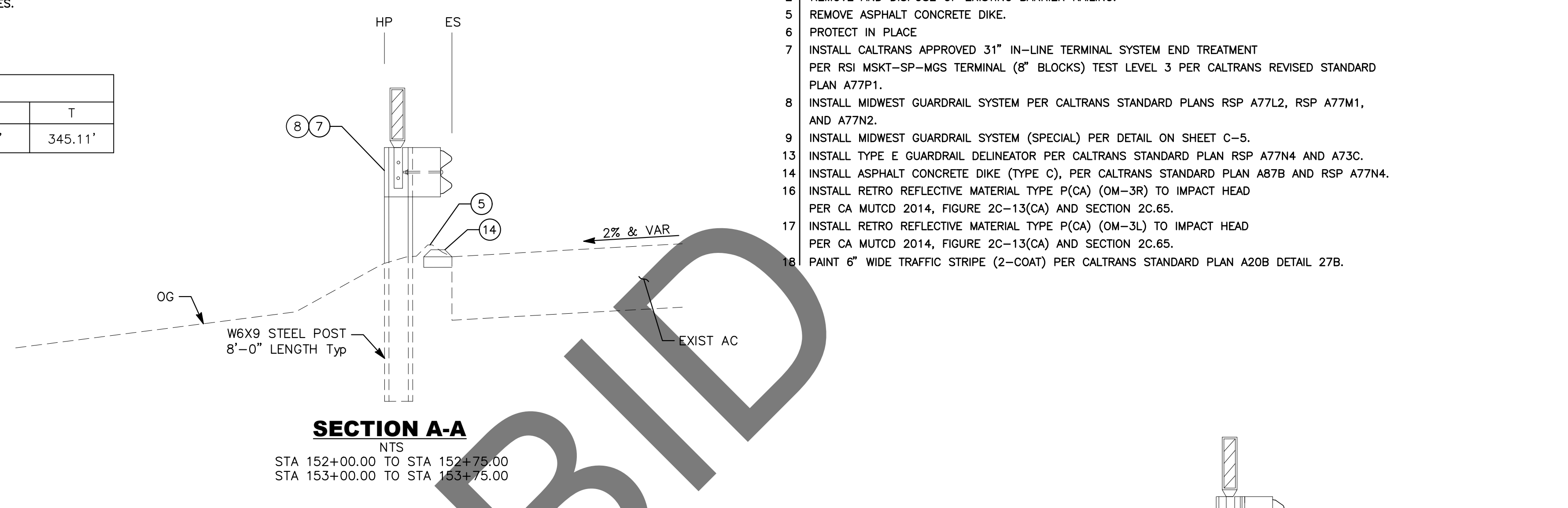
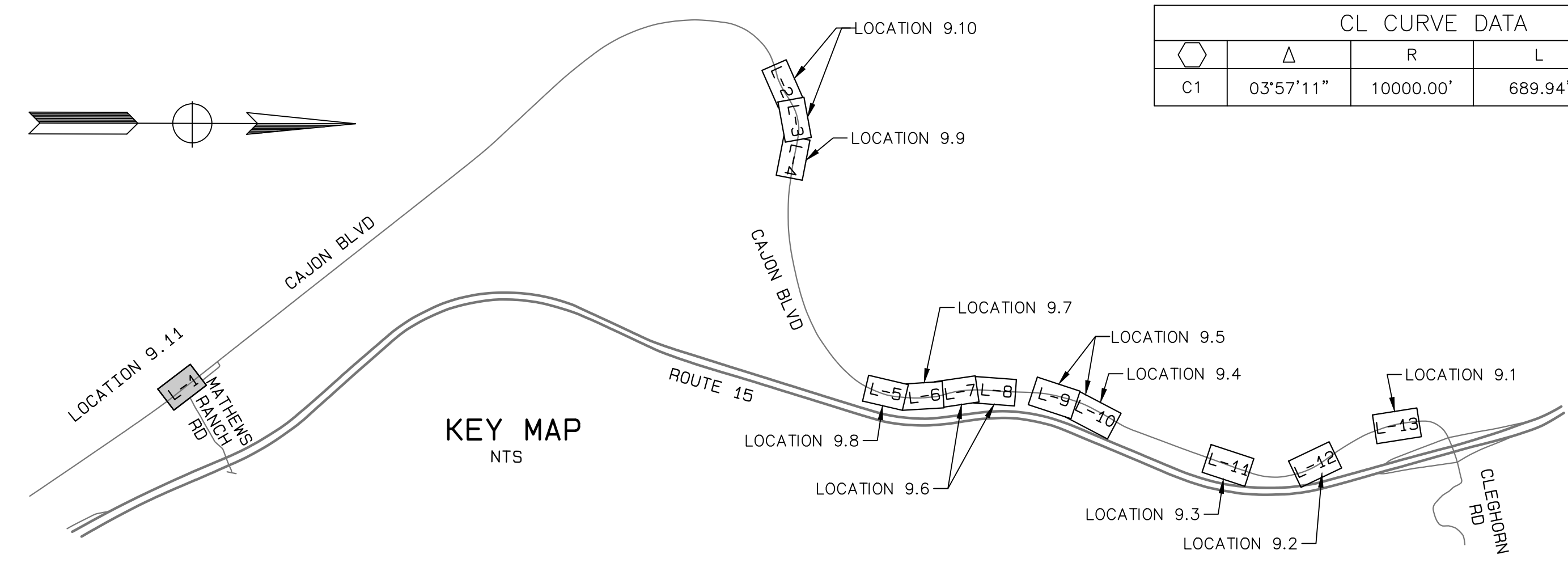
FILE NO. 199950-060

FILE NO. 199950-060

- NOTES:**
- 1- SEE SHEET 2 FOR SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES.
 - 2- SEE SHEET C-4 FOR NARROW ROADWAY INSTALLATION POST EMBEDMENT.

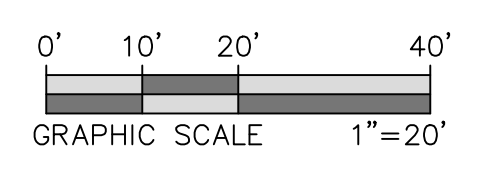
CL CURVE DATA				
C1	Δ	R	L	T
C1	03°57'11"	10000.00'	689.94'	345.11'

- CONSTRUCTION NOTES:**
- 2 REMOVE AND DISPOSE OF EXISTING BARRIER RAILING.
 - 5 REMOVE ASPHALT CONCRETE DIKE.
 - 6 PROTECT IN PLACE
 - 7 INSTALL CALTRANS APPROVED 31" IN-LINE TERMINAL SYSTEM END TREATMENT PER RSI MSKT-SP-MGS TERMINAL (8" BLOCKS) TEST LEVEL 3 PER CALTRANS REVISED STANDARD PLAN A77P1.
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 - 9 INSTALL MIDWEST GUARDRAIL SYSTEM (SPECIAL) PER DETAIL ON SHEET C-5.
 - 13 INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A73C.
 - 14 INSTALL ASPHALT CONCRETE DIKE (TYPE C), PER CALTRANS STANDARD PLAN A87B AND RSP A77N4.
 - 16 INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3R) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - 17 INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3L) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - 18 PAINT 6" WIDE TRAFFIC STRIPE (2-COAT) PER CALTRANS STANDARD PLAN A20B DETAIL 27B.



CONTROL POINTS				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
28	2410.87	1911212.45	6731221.05	TRAVPT-SET S/W SBCO (RP) FLUSH

CAUTION:
FIBER OPTIC (5)
PROTECT IN PLACE



PREPARED BY:

DOKKEN ENGINEERING

1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA. 92131-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES



SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: ST
DRAWN BY: MN
CHECKED BY: AOF
DATE: 6/6/2024

RECOMMENDED BY: *Chris Nguyen*
DATE: 6/6/2024

APPROVED BY: *Eloy Ruvalcaba*
DATE: 6/6/2024

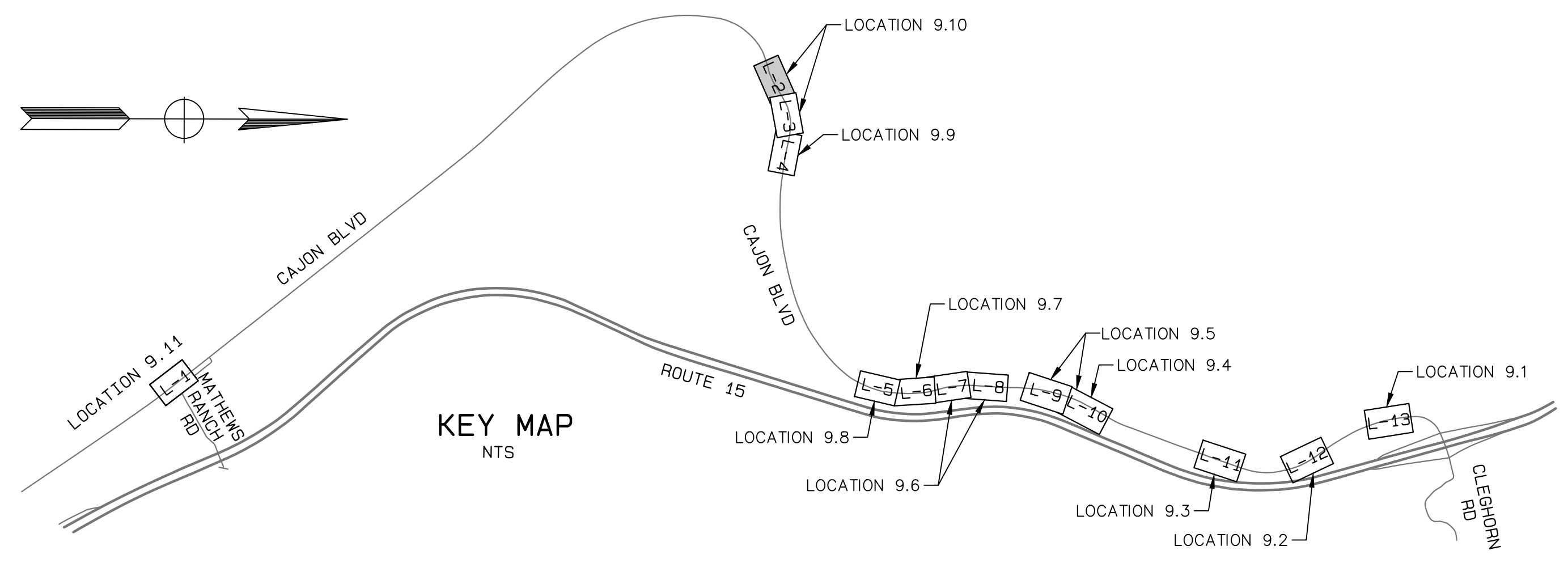
ELOY RUVALCABA, P.E. SUPERVISING ENGINEER

SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS

LAYOUT
FROM STA 149+25 TO 155+25
DEVORE AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 11815	TX1799	1" = 20'	3	21

MARK	REVISIONS	DATE



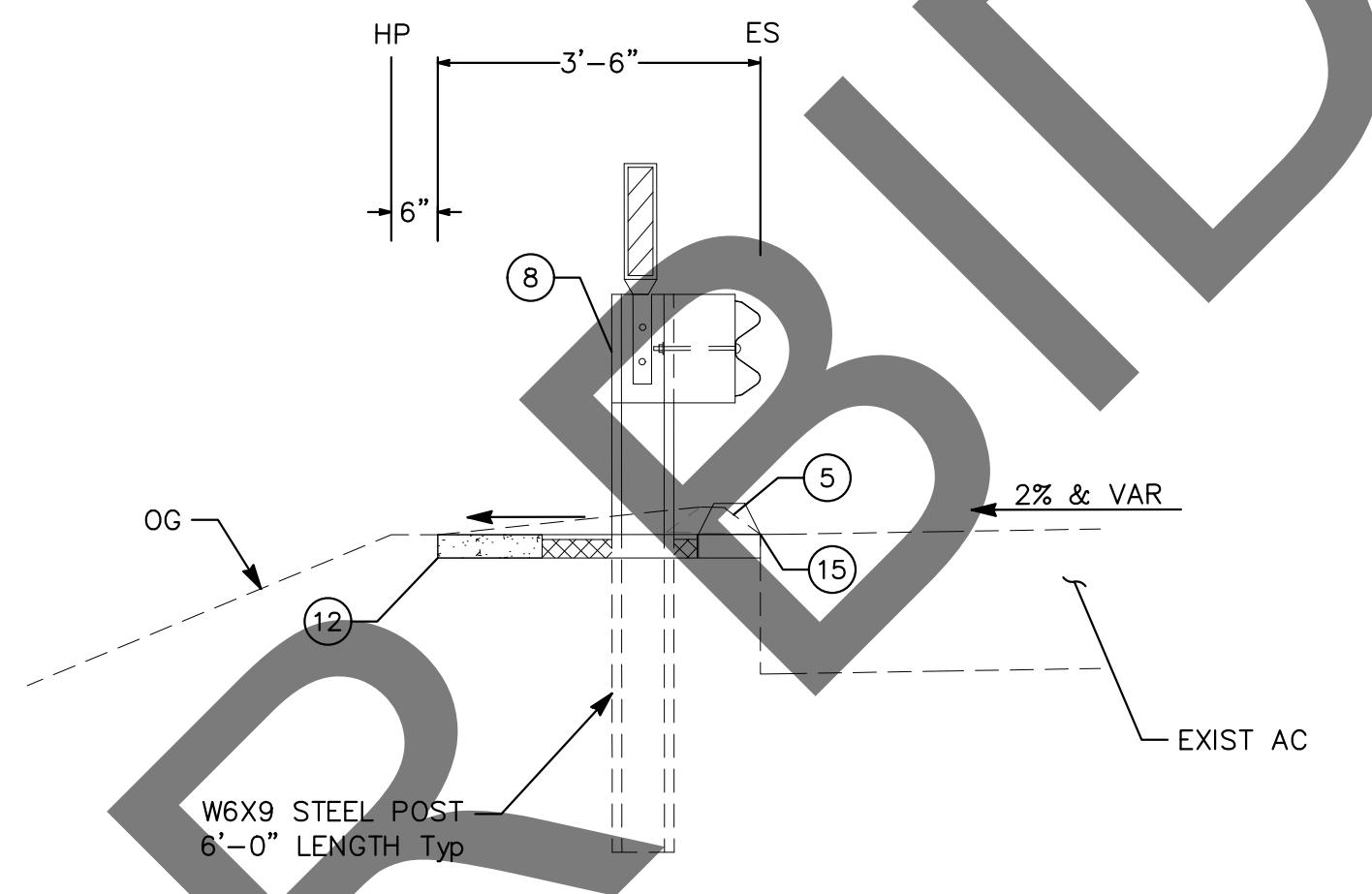
CONTROL POINTS				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
30	2629.39	1919192.66	6723276.79	TRAVPT-FD S/W SBCO (RP) FLUSH
32	2630.63	1919230.91	6723315.87	FD SBCO S&W RP

CL CURVE DATA				
Curve ID	Δ	R	L	T
C2	15°32'00"	900.00'	244.00'	122.75'
C3	09°17'40"	900.00'	146.00'	73.16'

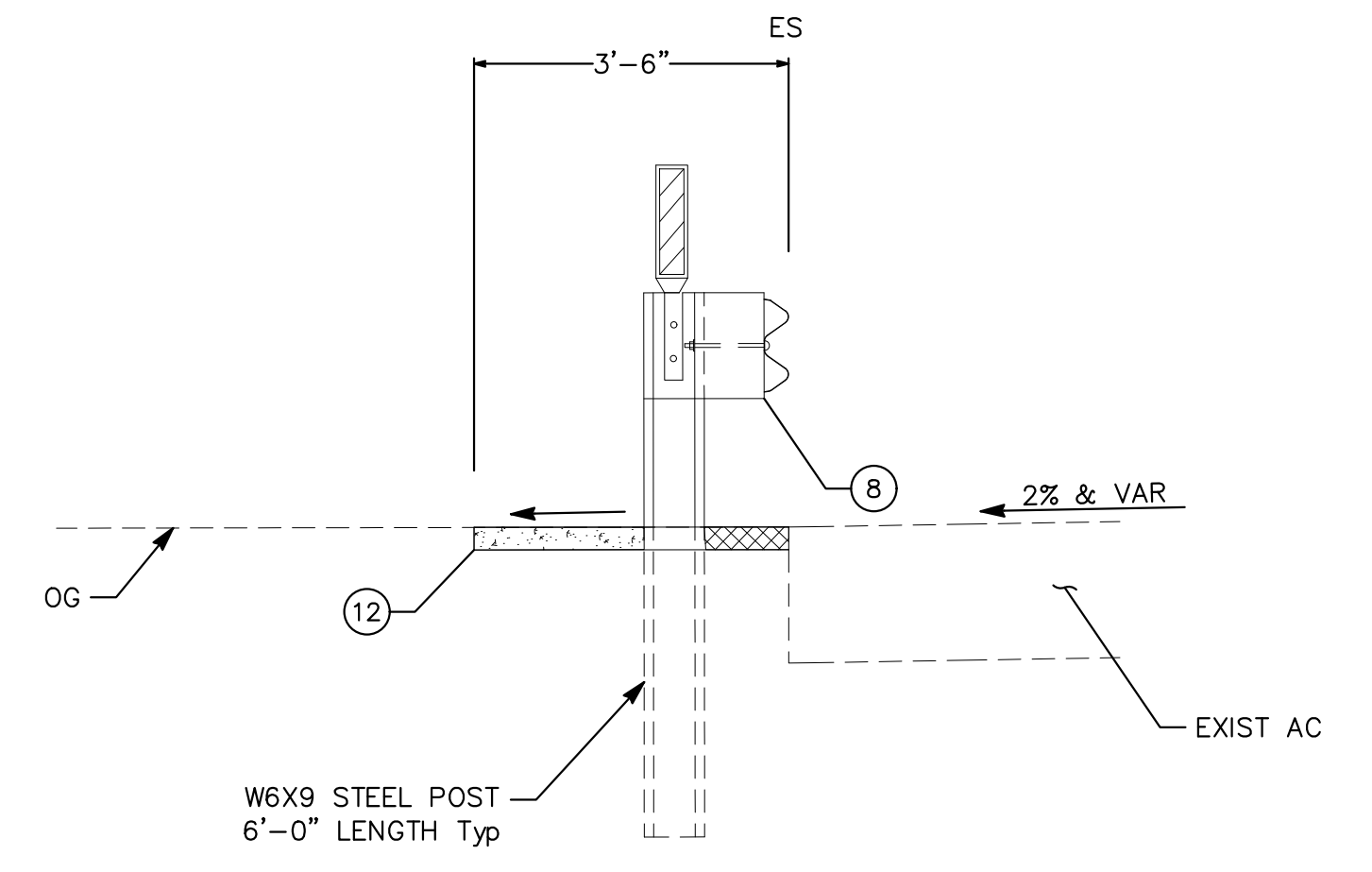
GUARDRAIL CURVE DATA				
Curve ID	Δ	R	L	T
C11	05°43'42"	1152.00'	115.17'	57.64'
C47	13°23'47"	890.00'	208.09'	104.52'

NOTE:
1- SEE SHEET 2 FOR SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES.

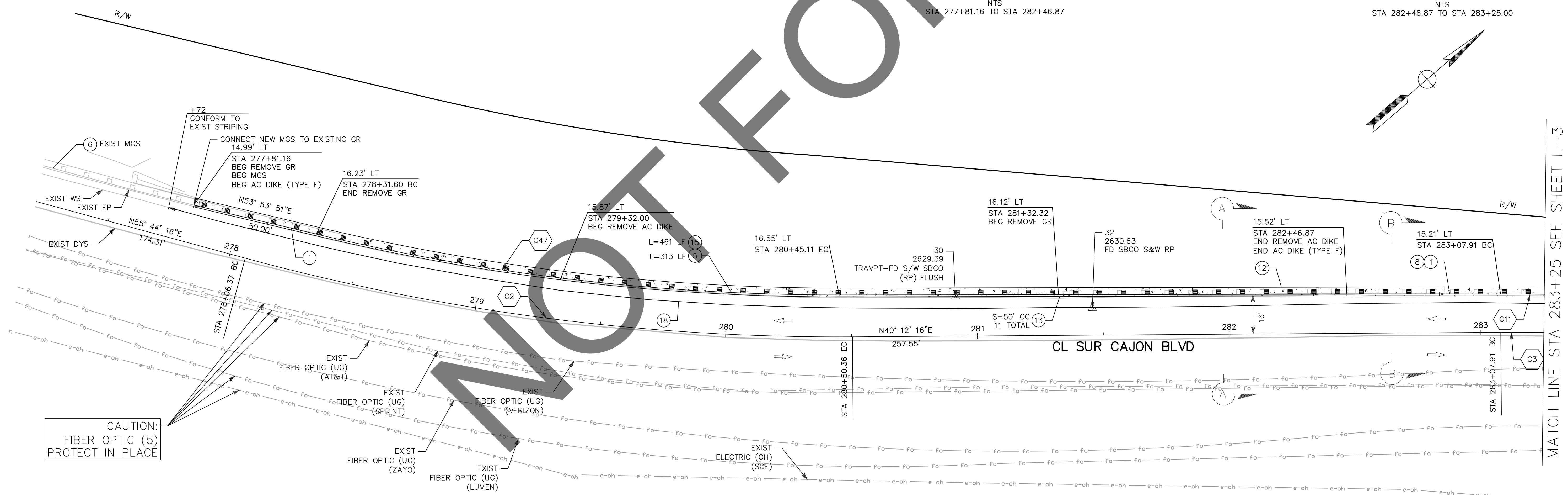
- CONSTRUCTION NOTES:**
- 1 REMOVE AND DISPOSE OF EXISTING GUARDRAIL/BARRICADE.
 - 2 REMOVE ASPHALT CONCRETE DIKE.
 - 3 PROTECT IN PLACE.
 - 4 INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLANS RSP A77L2, RSP A77M1, AND A77N2.
 - 5 CONSTRUCT 3" THICK CONCRETE VEGETATION CONTROL PER CALTRANS STANDARD PLAN A77N5 AND A77N6.
 - 6 INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A73C.
 - 7 INSTALL ASPHALT CONCRETE DIKE (TYPE F) PER CALTRANS STANDARD PLAN A87B AND RSP A77N4.
 - 8 PAINT 6" WIDE TRAFFIC STRIPE (2-COAT) PER CALTRANS STANDARD PLAN A20B DETAIL 27B.



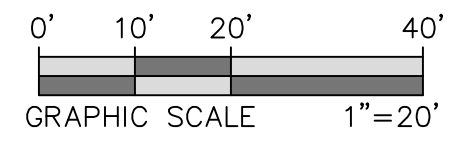
SECTION A-A
NTS
STA 277+81.16 TO STA 282+46.87



SECTION B-B
NTS
STA 282+46.87 TO STA 283+25.00



CAUTION:
FIBER OPTIC (5)
PROTECT IN PLACE



PREPARED BY:
DE DOKKEN ENGINEERING
1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92131-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES



SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

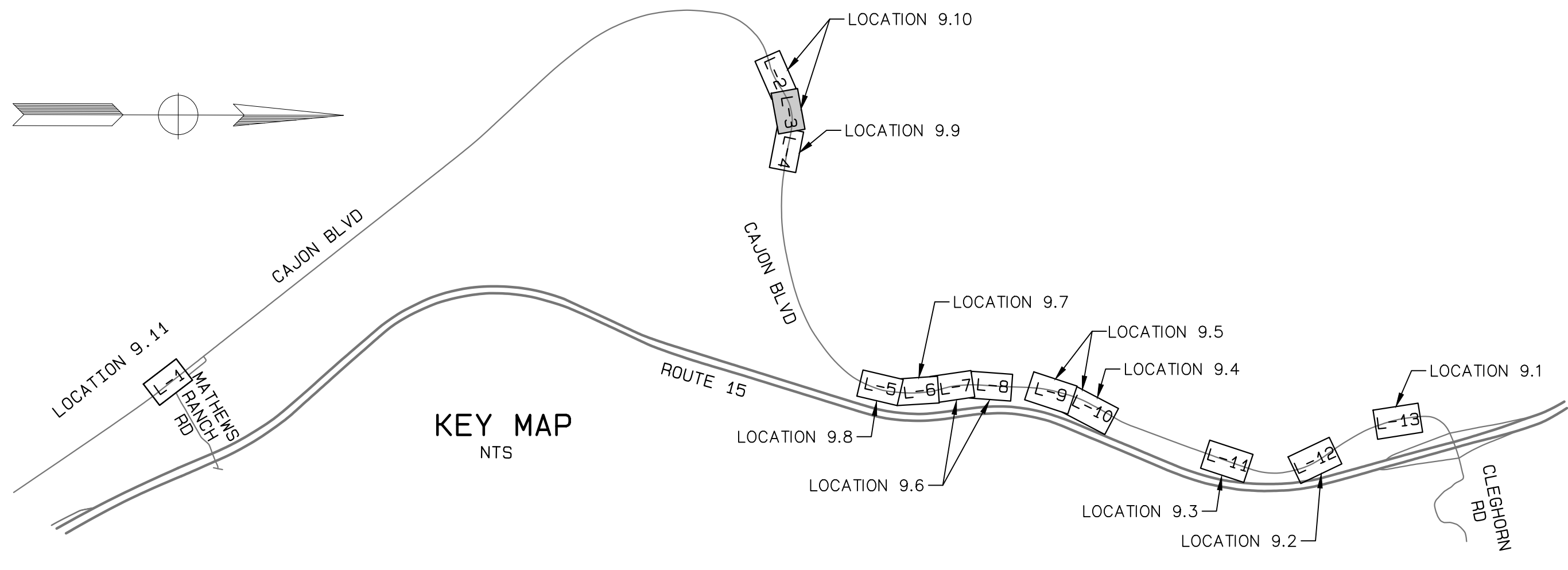
DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
ST	MN	ADF	Chris Nguyen, P.E.
			6/6/2024
APPROVED BY:			
ELOY RUIVALCABA, P.E.			6/6/2024
SUPERVISING ENGINEER			

SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS
LAYOUT
FROM STA 277+25 TO 283+25
DEVORE AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 11815	TX1799	1" = 20'	4	21

REVISIONS	DATE	APPR.

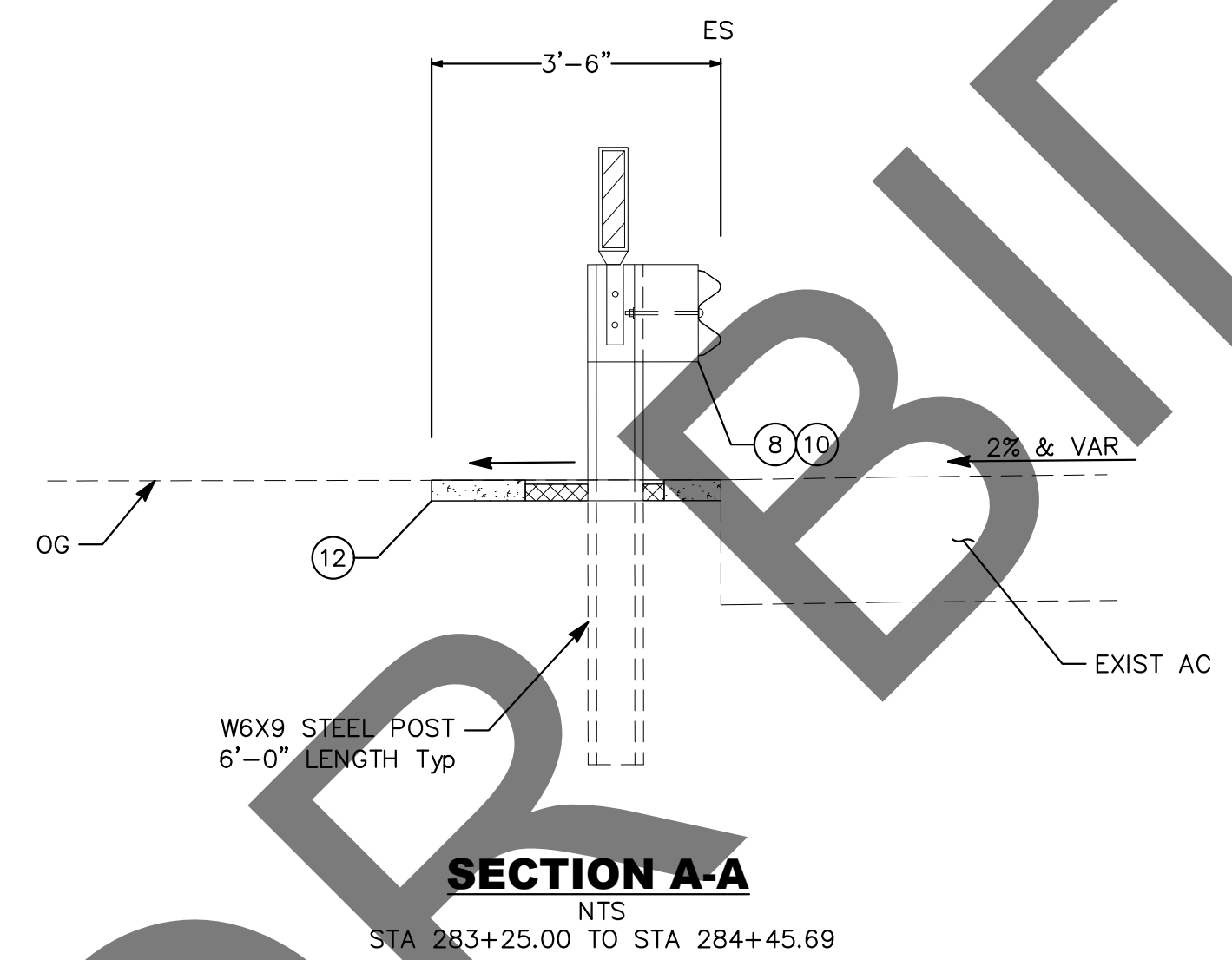
MATCH LINE STA 283+25 SEE SHEET L-3



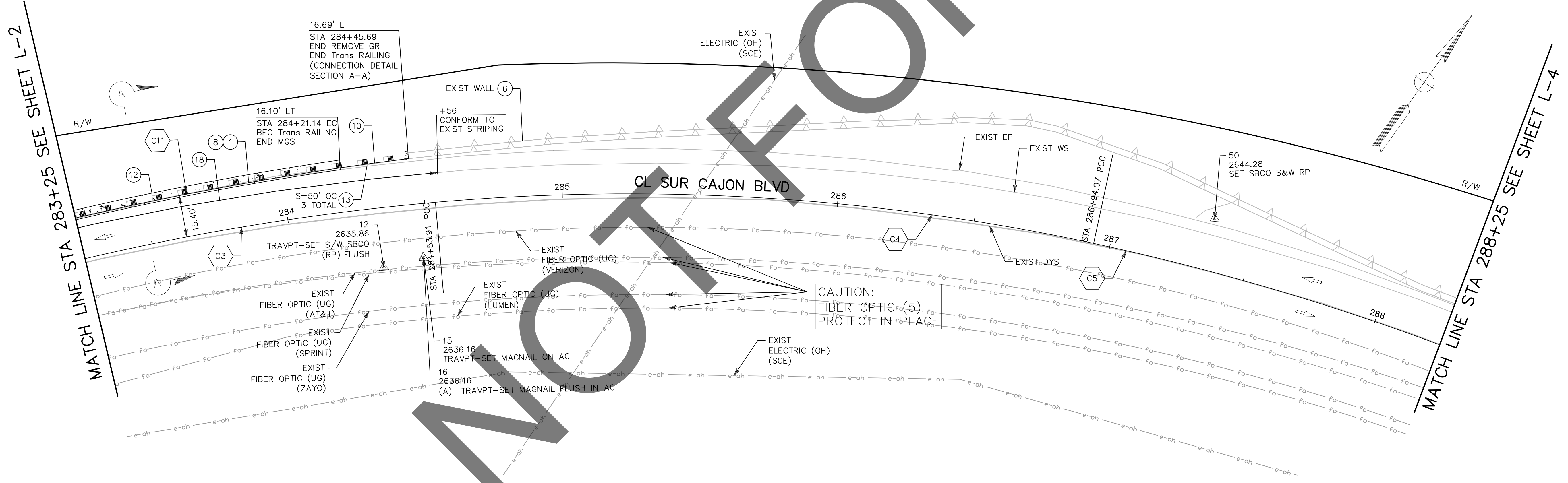
CL CURVE DATA				
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C3	09°17'40"	900.00'	145.99'	73.16'
C4	17°12'00"	800.00'	240.16'	120.99'
C5	15°47'05"	900.00'	247.95'	124.76'

GUARDRAIL CURVE DATA				
Curve	Δ	R	L	T
C11	06°58'18"	1152.00'	140.17'	70.14'

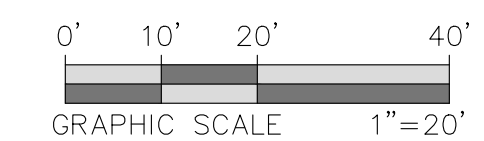
- CONSTRUCTION NOTES:**
- 1 REMOVE AND DISPOSE OF EXISTING GUARDRAIL/BARRICADE.
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 - 8 INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLANS RSP A77L2, RSP A77M1, AND A77N2.
 - 10 INSTALL TRANSITION RAILING (TYPE WB-31) Mod PER DETAIL ON SHEET C-1.
 - 12 CONSTRUCT 3" THICK CONCRETE VEGETATION CONTROL PER CALTRANS STANDARD PLAN A77N5 AND A77N6.
 - 13 INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A73C.
 - 18 PAINT 6" WIDE TRAFFIC STRIPE (2-COAT) PER CALTRANS STANDARD PLAN A20B DETAIL 27B.



CONTROL POINTS				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
12	2635.86	1919192.66	6723276.79	TRAVPT-SET S/W SBCO (RP) FLUSH
15	2630.63	1919230.91	6723540.14	TRAVPT-SET MAGNAIL ON AC
16	2630.63	1919230.91	6723540.14	TRAVPT-SET MAGNAIL FLUSH IN AC
50	2644.28	1919610.46	6723765.33	SET SBCO S&W RP



MARK	REVISIONS	DATE



PREPARED BY:

1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92131-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES



SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:	DATE
ST	MN	ADF	Chris Nguyen, P.E.	6/6/2024

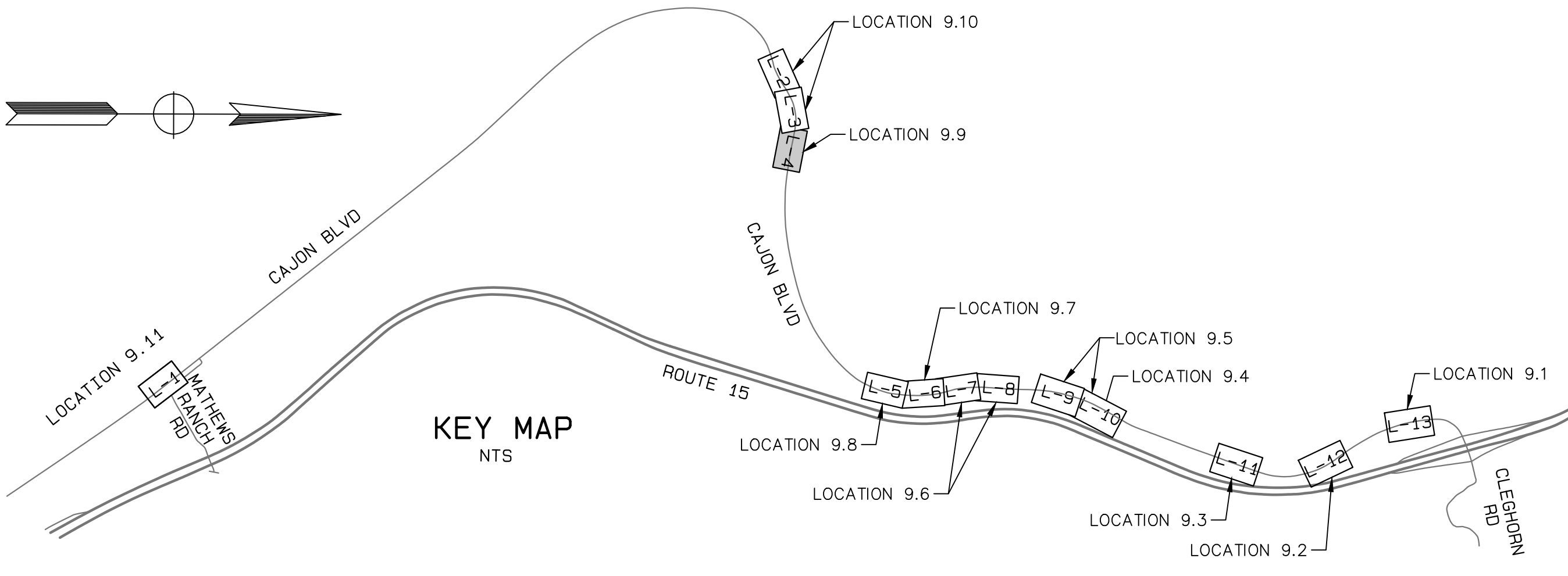
APPROVED BY: Mervat N. Mikhail, P.E. DEPUTY DIRECTOR

SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS

LAYOUT
FROM STA 283+25 TO 288+25

DEVORE AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 11815	TX1799	1" = 20'	5	21

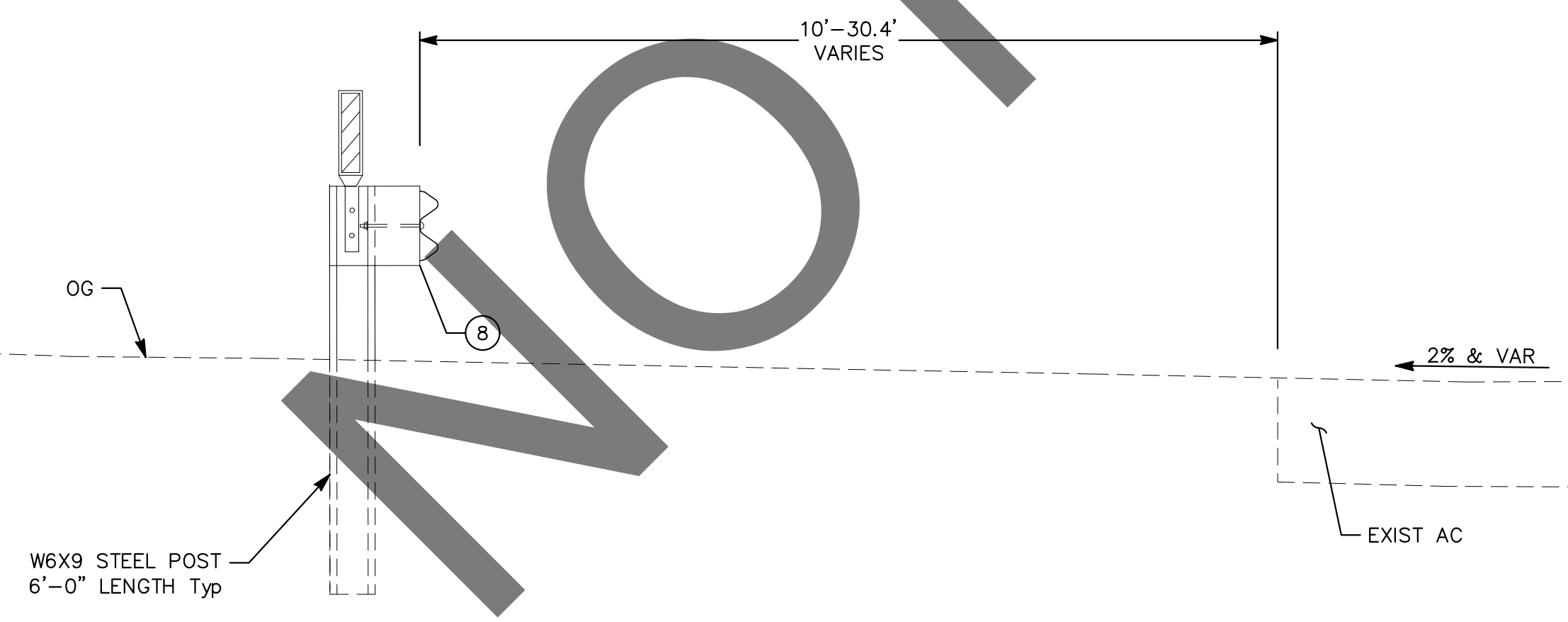
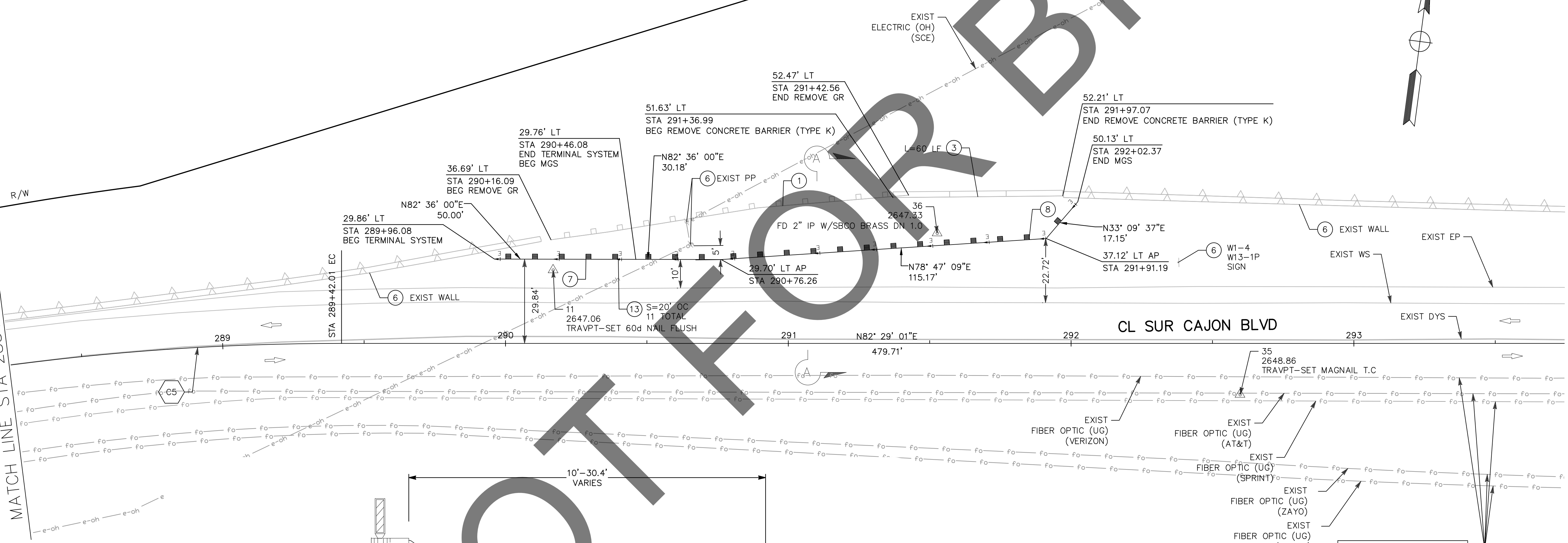


CL CURVE DATA				
	Δ	R	L	T
C5	15°47'05"	900.00'	247.95'	124.76'

- CONSTRUCTION NOTES:**
- 1 REMOVE AND DISPOSE OF EXISTING GUARDRAIL/BARRICADE.
 - 3 REMOVE CONCRETE BARRIER (TYPE K).
 - 6 PROTECT IN PLACE.
 - 7 INSTALL CALTRANS APPROVED 31" IN-LINE TERMINAL SYSTEM END TREATMENT PER RSI MSKT-SP-MGS TERMINAL (8" BLOCKS) TEST LEVEL 3 PER CALTRANS REVISED STANDARD PLAN A77P1.
 - 8 INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLANS RSP A77L2, RSP A77M1, AND A77N2.
 - 13 INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A73C.

NOTE:
1- SEE SHEET 2 FOR SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES.

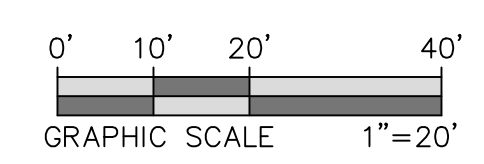
MATCH LINE STA 288+25 SEE SHEET L-3



CONTROL POINTS				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
11	2647.06	1919678.95	6724043.95	TRAVPT-SET 60d NAIL FLUSH
35	2648.86	1919667.02	6724290.40	TRAVPT-SET MAGNAIL T.C
36	2647.33	1919709.67	6724176.84	FD 2" IP W/SBCO BRASS DN 1.0

CAUTION:
FIBER OPTIC (5)
PROTECT IN PLACE

SECTION A-A
NTS
STA 289+96.08 TO STA 292+02.37



PREPARED BY:

1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92131-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		
FIELD CHANGES			



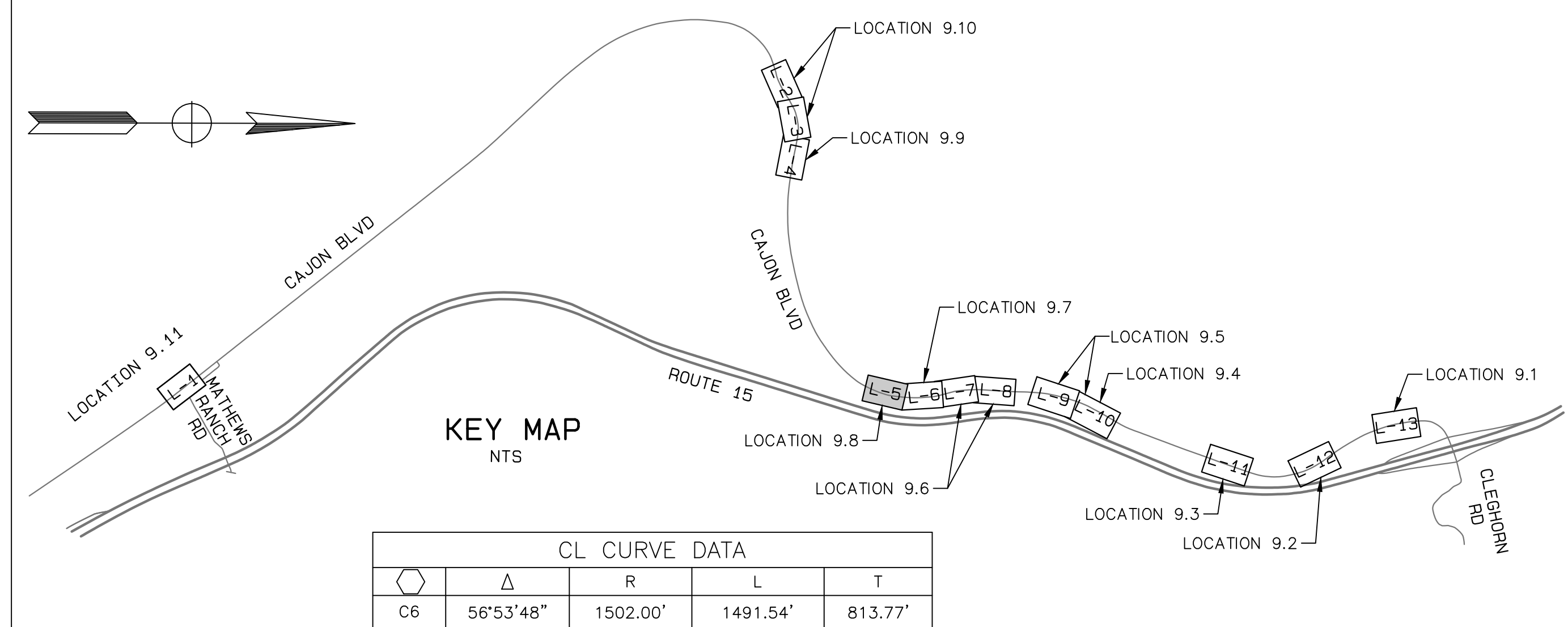
SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:	DATE
ST	MN	AOJ	<i>Chris Nguyen</i>	6/6/2024
APPROVED BY:			<i>Mervat N. Mikhail</i>	06/12/2024
ELOY RUVALCABA, P.E. SUPERVISING ENGINEER			MERVAT N. MIKHAIL, P.E. DEPUTY DIRECTOR	DATE

SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS
LAYOUT
FROM STA 288+25 TO 293+75
DEVORE AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 11815	TX1799	1" = 20'	6	21

MARK	REVISIONS	DATE
MARK	REVISIONS	DATE
MARK	REVISIONS	DATE



CL CURVE DATA

Curve	Δ	R	L	T
C6	56°53'48"	1502.00'	1491.54'	813.77'

GUARDRAIL CURVE DATA

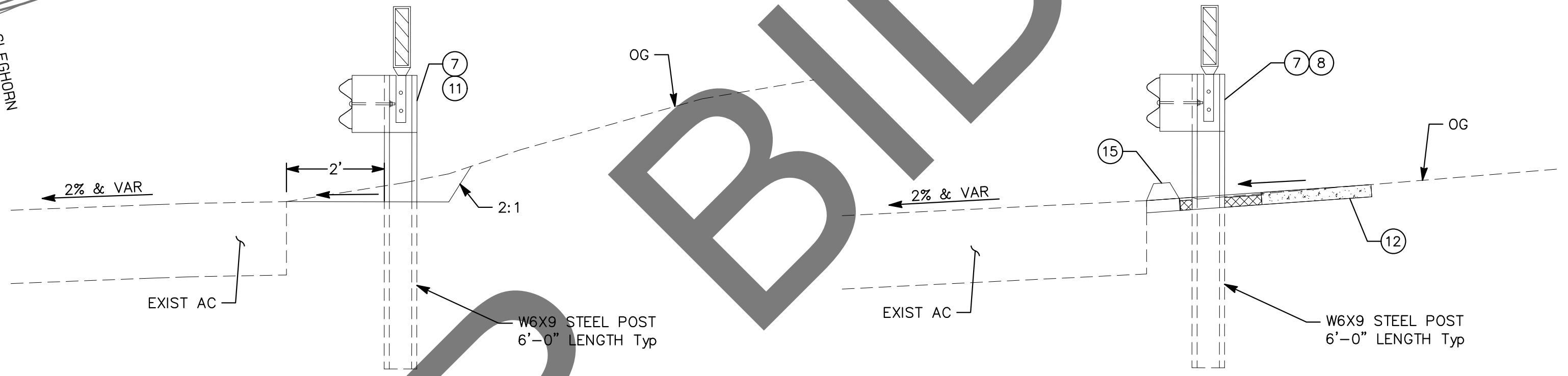
Curve	Δ	R	L	T
C13	06°06'18"	1525.05'	162.50'	81.25'
C15	02°49'05"	1524.88'	75.00'	68.75'

NOTE:
1- SEE SHEET 2 FOR SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES.

CONTROL POINTS

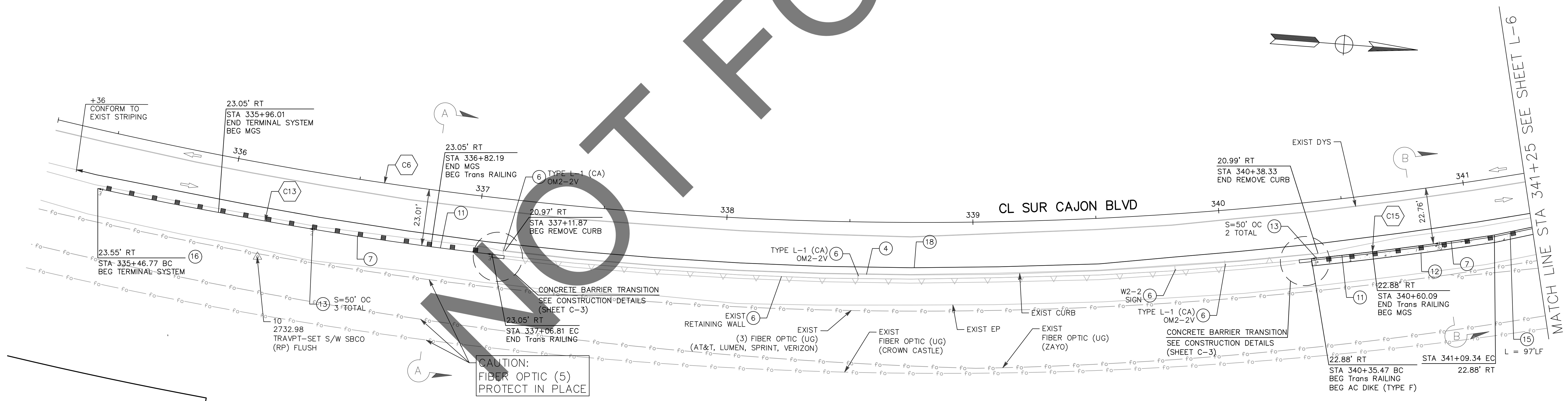
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
10	2732.98	1922143.22	6727580.62	TRAVPT-SET S/W SBCC (RP) FLUSH

- CONSTRUCTION NOTES:**
- REMOVE CONCRETE CURB.
 - PROTECT IN PLACE.
 - INSTALL CALTRANS APPROVED 31" IN-LINE TERMINAL SYSTEM END TREATMENT PER RSI MSKT-SP-MGS TERMINAL (8" BLOCKS) TEST LEVEL 3 PER CALTRANS REVISED STANDARD PLAN A77P1.
 - INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLANS RSP A77L2, RSP A77M1, AND A77N2.
 - INSTALL TRANSITION RAILING (TYPE WB-31) PER CALTRANS REVISED STANDARD PLAN A77U4
 - CONSTRUCT 3" THICK CONCRETE VEGETATION CONTROL PER CALTRANS STANDARD PLAN A77N5 AND A77N6.
 - INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A77N3.
 - INSTALL ASPHALT CONCRETE DIKE (TYPE F) PER CALTRANS STANDARD PLAN A87B AND RSP A77N4.
 - INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3R) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3L) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - PAINT 6" WIDE TRAFFIC STRIPE (2-COAT) PER CALTRANS STANDARD PLAN A20B DETAIL 27B.

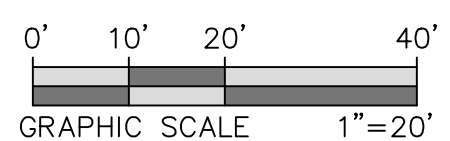


SECTION A-A
NTS
STA 335+46.77 TO STA 337+06.81

SECTION B-B
NTS
STA 340+35.47 TO STA 341+25.00



CAUTION:
FIBER OPTIC (5)
PROTECT IN PLACE



PREPARED BY:
DE DOKKEN ENGINEERING
1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92161-514-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES



SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: ST	DRAWN BY: MN	CHECKED BY: AOF	RECOMMENDED BY: <i>[Signature]</i> 6/6/2024
APPROVED BY: <i>[Signature]</i> 6/6/2024			DATE: 06/12/2024

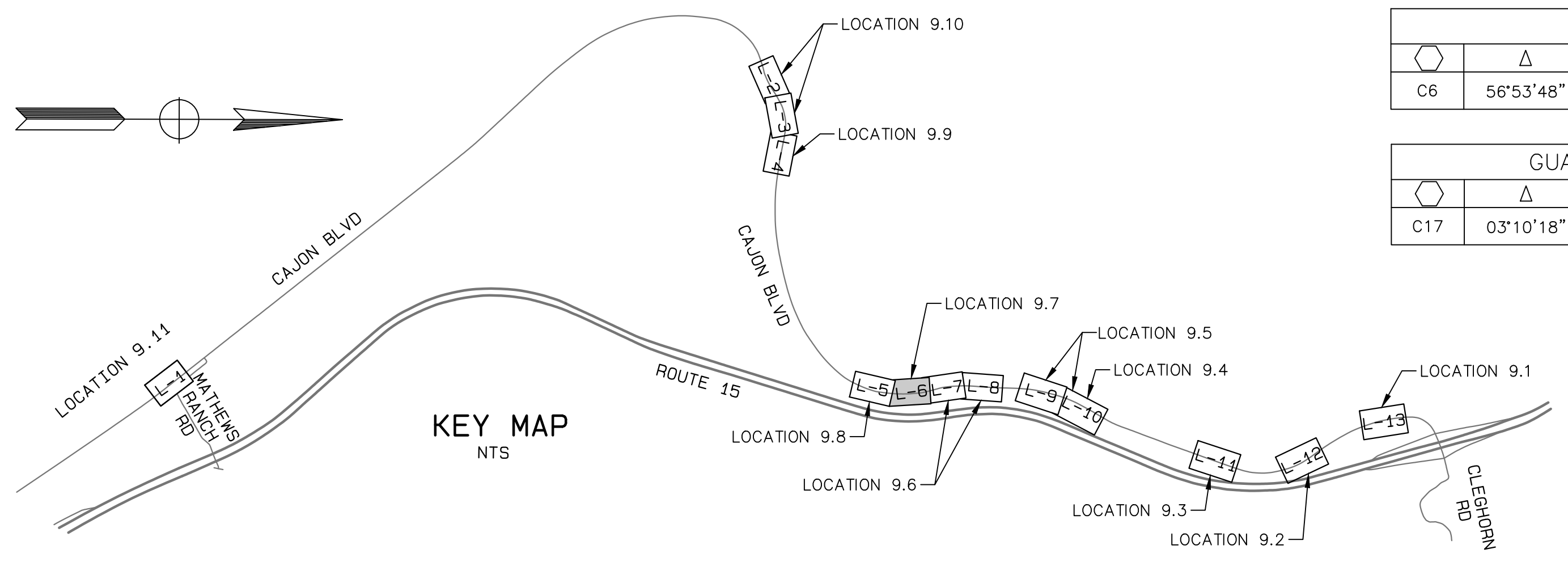
ELOY RIVALCABA, P.E. SUPERVISING ENGINEER

SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS

LAYOUT
FROM STA 335+25 TO 341+25
DEVORE AREA

J.L. REF. 11815	W.O. NO. TX1799	PLAN SCALE 1" = 20'	SHT. NO. 7	TOT. SHT'S. 21
-----------------	-----------------	---------------------	------------	----------------

REVISIONS	DATE	APPR.



CL CURVE DATA				
Station	Δ	R	L	T
C6	56°53'48"	1502.00'	1491.54'	813.77'

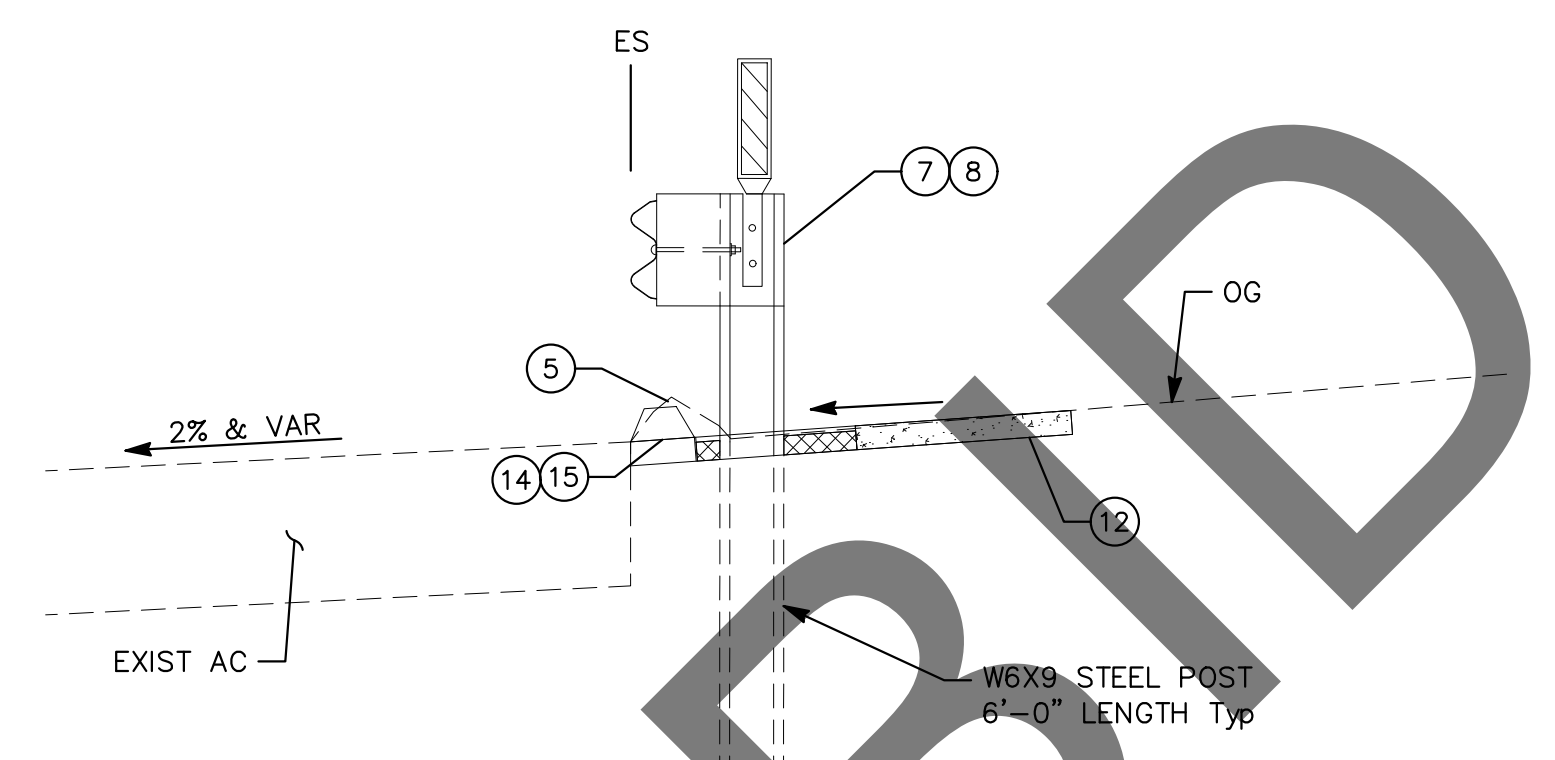
GUARDRAIL CURVE DATA				
Station	Δ	R	L	T
C17	03°10'18"	3152.00'	174.48'	87.25'

POSITIVE LOCATION INFORMATION

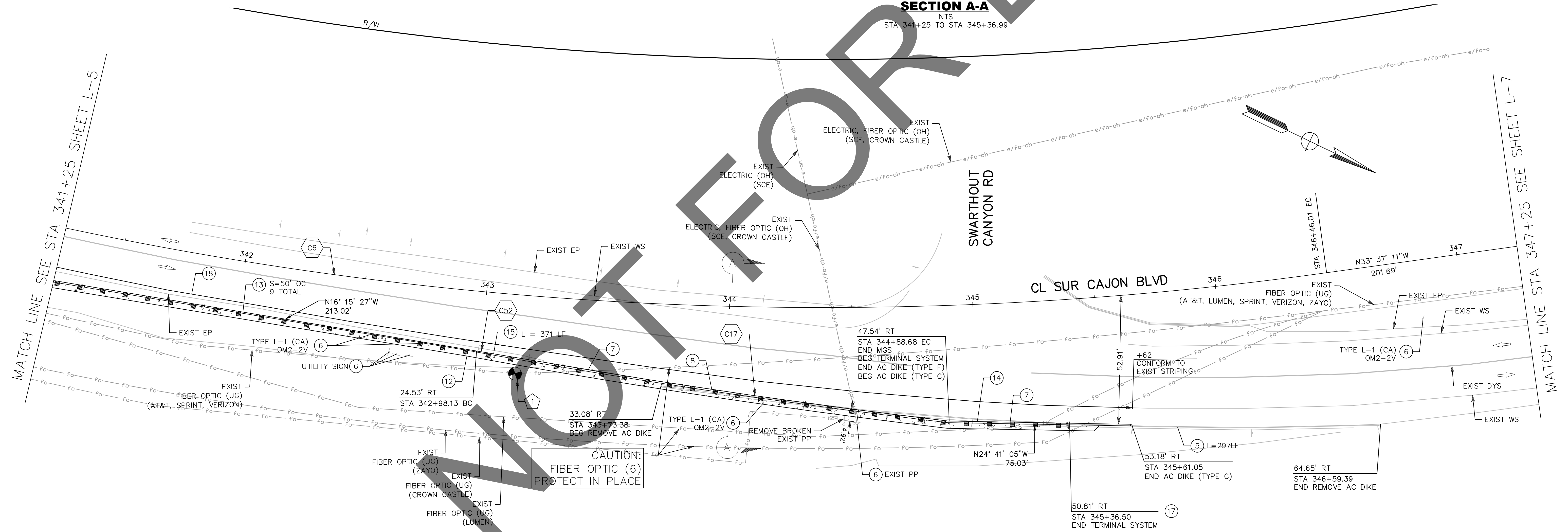
NO.	LOCATION	DEPTH	OG ELEV	METHOD	SIZE & TYPE	OWNER	NORTHING	EASTING
1	32.29' RT 343+14.31	42"	2753.06	POTHOLING	(4) 4" PLASTIC F/O	AT&T SPRINT VERIZON	1922845.922	6727481.253

- CONSTRUCTION NOTES:**
- REMOVE ASPHALT CONCRETE DIKE.
 - PROTECT IN PLACE.
 - INSTALL CALTRANS APPROVED 31" IN-LINE TERMINAL SYSTEM END TREATMENT PER RSI MSKT-SP-MGS TERMINAL (8" BLOCKS) TEST LEVEL 3 PER CALTRANS REVISED STANDARD PLAN A77P1.
 - INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLANS RSP A77L2, RSP A77M1, AND A77N2.
 - CONSTRUCT 3" THICK CONCRETE VEGETATION CONTROL PER CALTRANS STANDARD PLAN A77N5 AND A77N6.
 - INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A73C.
 - INSTALL ASPHALT CONCRETE DIKE (TYPE C), PER CALTRANS STANDARD PLAN A87B AND RSP A77N4.
 - INSTALL ASPHALT CONCRETE DIKE (TYPE F), PER CALTRANS STANDARD PLAN A87B AND RSP A77N4.
 - INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3R) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3L) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - PAINT 6" WIDE TRAFFIC STRIPE (2-COAT) PER CALTRANS STANDARD PLAN A20B DETAIL 27B.

NOTE:
1- SEE SHEET 2 FOR SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES.

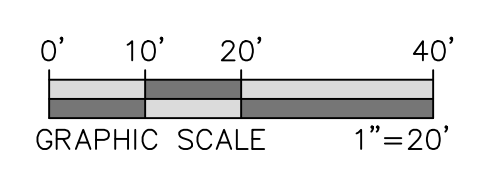


SECTION A-A
NTS
STA 341+25 TO STA 345+36.99



CAUTION:
FIBER OPTIC (6)
PROTECT IN PLACE

REVISIONS	DATE	APPR.



PREPARED BY:
DE DOKKEN ENGINEERING
1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92131-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES



SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

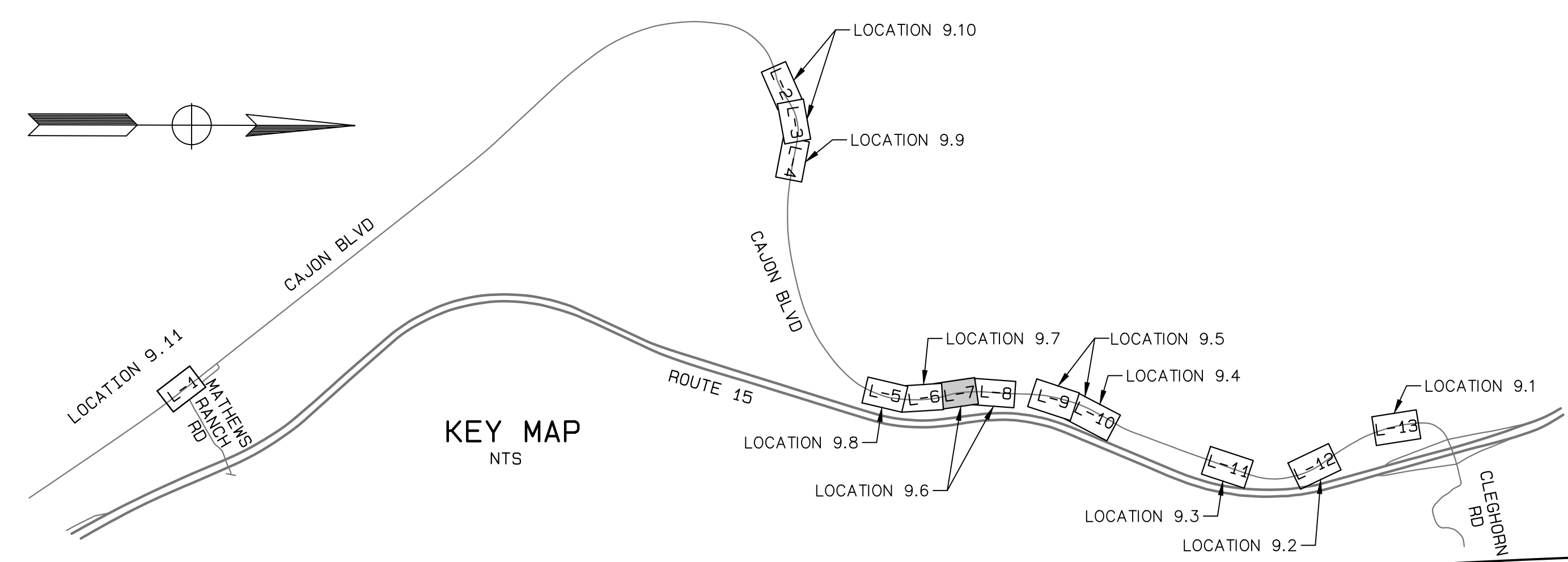
DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:	DATE
ST	MN	ADF	Chris Nguyen, P.E.	6/6/2024
APPROVED BY:			DATE	
ELOY RIVALCABA, P.E.			6/6/2024	
SUPERVISING ENGINEER			MERVIAT N. MIKHAIL, P.E.	06/12/2024
			DEPUTY DIRECTOR	

SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS

LAYOUT
FROM STA 341+25 TO 347+25

DEVORE AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 11815	TX1799	1" = 20'	8	21

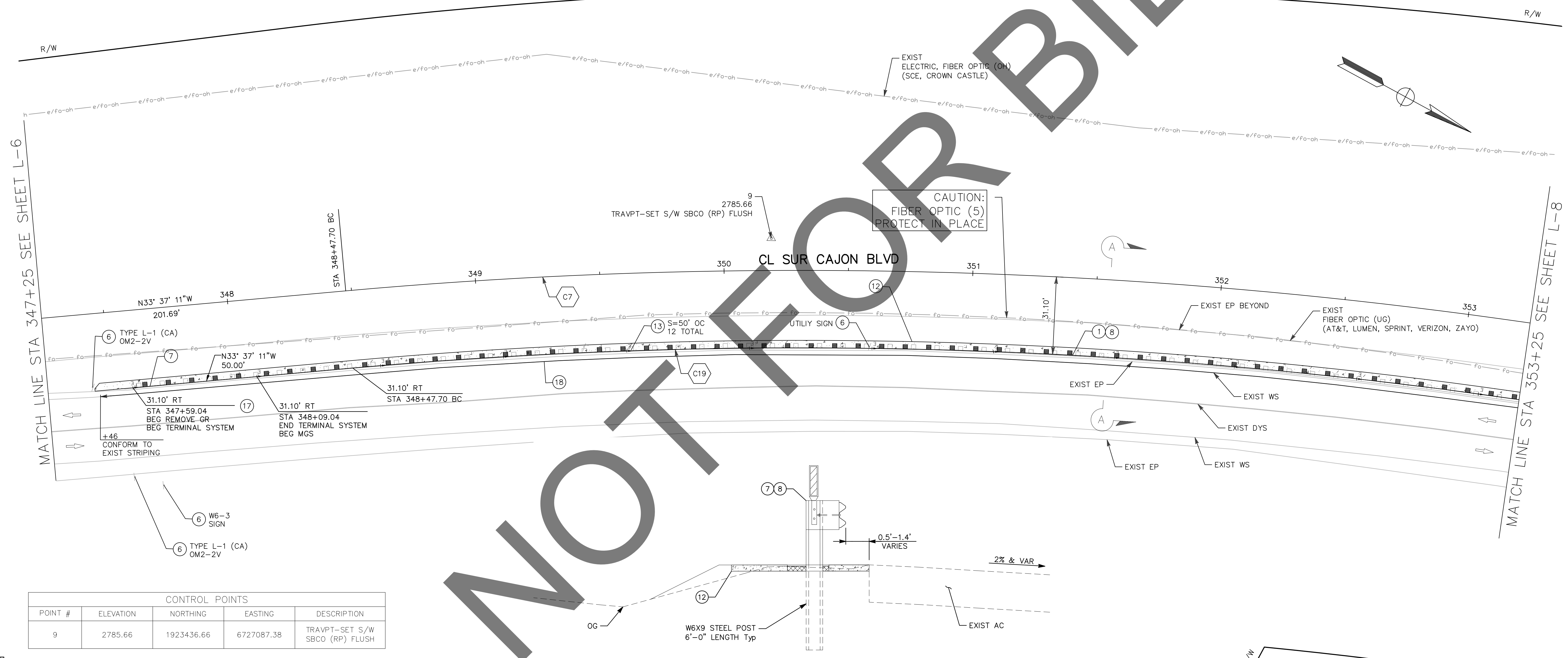


CL CURVE DATA				
Curve	Δ	R	L	T
C7	21°30'00"	2042.00'	766.25'	387.69'

GUARDRAIL CURVE DATA				
Curve	Δ	R	L	T
C19	17°16'04"	2010.91'	606.05'	305.34'

- CONSTRUCTION NOTES:**
- 1 REMOVE AND DISPOSE OF EXISTING GUARDRAIL/BARRICADE.
 - 2 PROTECT IN PLACE.
 - 3 INSTALL CALTRANS APPROVED 31" IN-LINE TERMINAL SYSTEM END TREATMENT PER RSI MSKT-SP-MGS TERMINAL (8' BLOCKS) TEST LEVEL 3 PER CALTRANS REVISED STANDARD PLAN A77P1.
 - 4 INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLANS RSP A77L2, RSP A77M1, AND A77N2.
 - 5 CONSTRUCT 3" THICK CONCRETE VEGETATION CONTROL PER CALTRANS STANDARD PLAN A77N5 AND A77N6.
 - 6 INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A73C.
 - 7 INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3L) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - 8 PAINT 6" WIDE TRAFFIC STRIPE (2-COAT) PER CALTRANS STANDARD PLAN A20B DETAIL 27B.

NOTE:
SEE SHEET 2 FOR SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES.

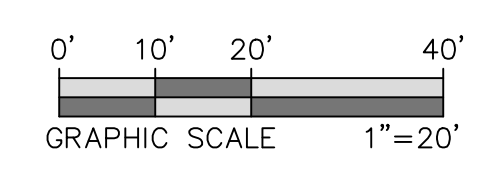


MATCH LINE STA 347+25 SEE SHEET L-6

MATCH LINE STA 353+25 SEE SHEET L-8

CONTROL POINTS				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
9	2785.66	1923436.66	6727087.38	TRAVPT-SET S/W SBCO (RP) FLUSH

SECTION A-A
NTS
STA 347+59.04 TO STA 353+25.00



PREPARED BY:

1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92131-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES



SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

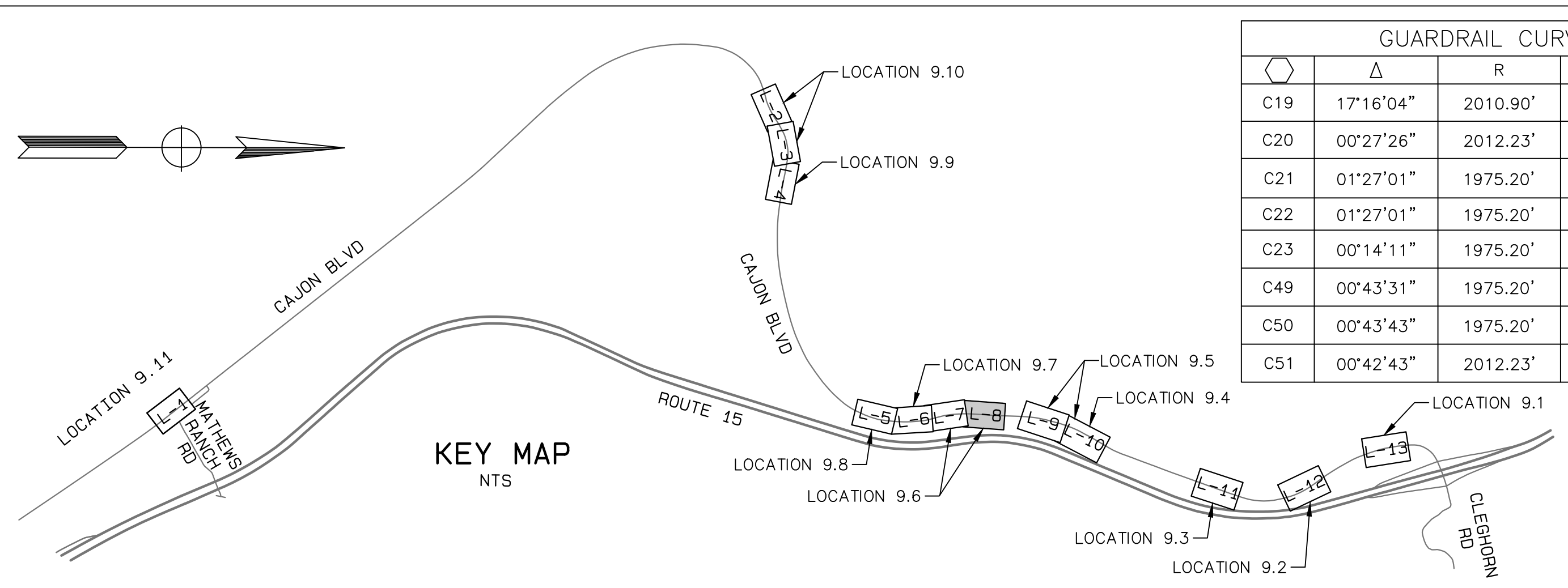
DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:	DATE
ST	MN	ADF	Chris Nguyen, P.E.	6/6/2024
APPROVED BY:			Mervat N. Mikhail, P.E.	06/12/2024
ELOY RUVALCABA, P.E. SUPERVISING ENGINEER			Mervat N. Mikhail, P.E. DEPUTY DIRECTOR	

SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS

LAYOUT
FROM STA 347+25 TO 353+25
DEVORE AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 11815	TX1799	1" = 20'	9	21

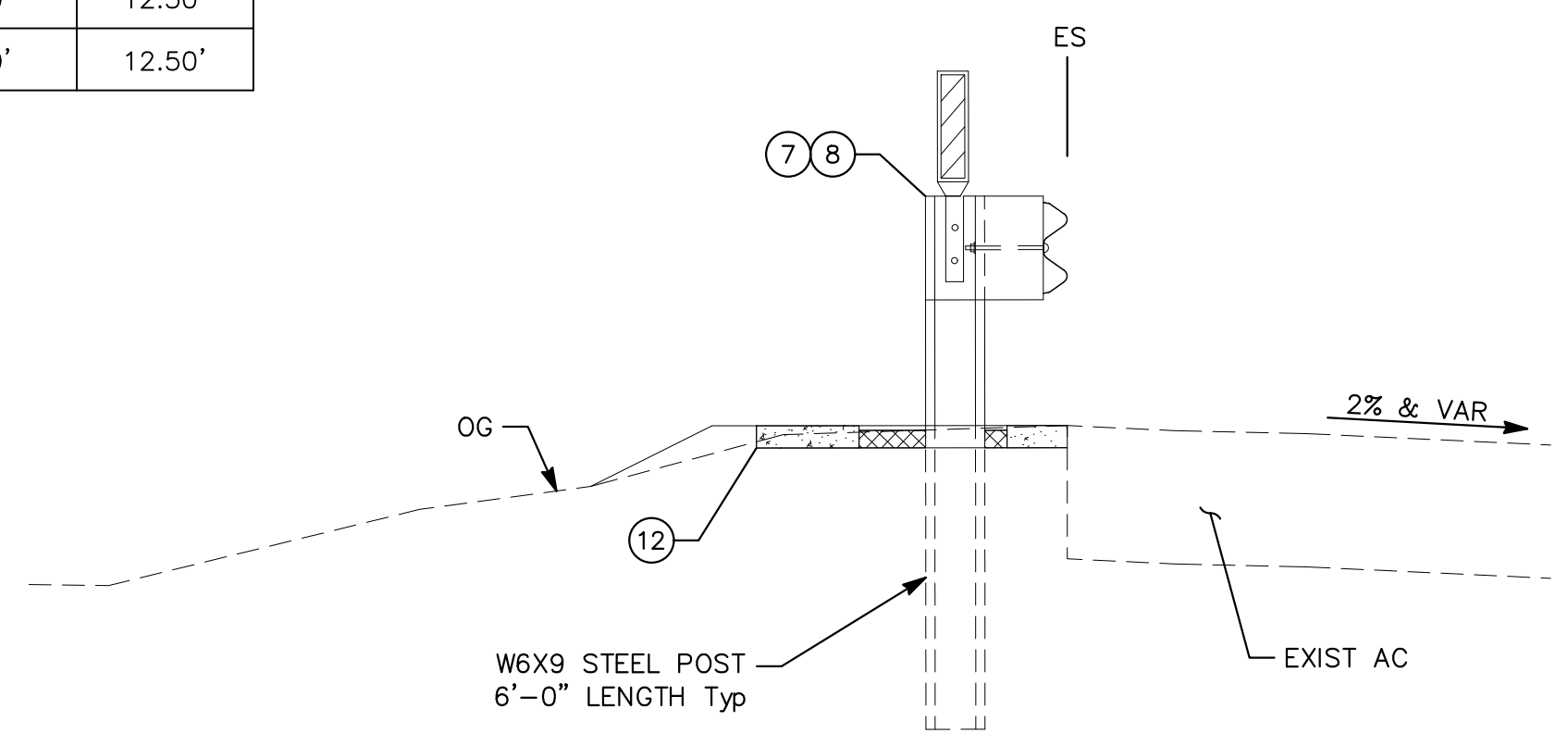
REVISIONS	DATE	APPR.



GUARDRAIL CURVE DATA				
Station	Δ	R	L	T
C19	17°16'04"	2010.90'	606.05'	305.34'
C20	00°27'26"	2012.23'	16.05'	8.03'
C21	01°27'01"	1975.20'	50.00'	25.00'
C22	01°27'01"	1975.20'	50.00'	25.00'
C23	00°14'11"	1975.20'	8.15'	4.07'
C49	00°43'31"	1975.20'	25.00'	12.50'
C50	00°43'43"	1975.20'	25.00'	12.50'
C51	00°42'43"	2012.23'	25.00'	12.50'

CL CURVE DATA				
Station	Δ	R	L	T
C7	21°30'00"	2042.00'	766.25'	387.69'

NOTE:
1- SEE SHEET 2 FOR SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES.

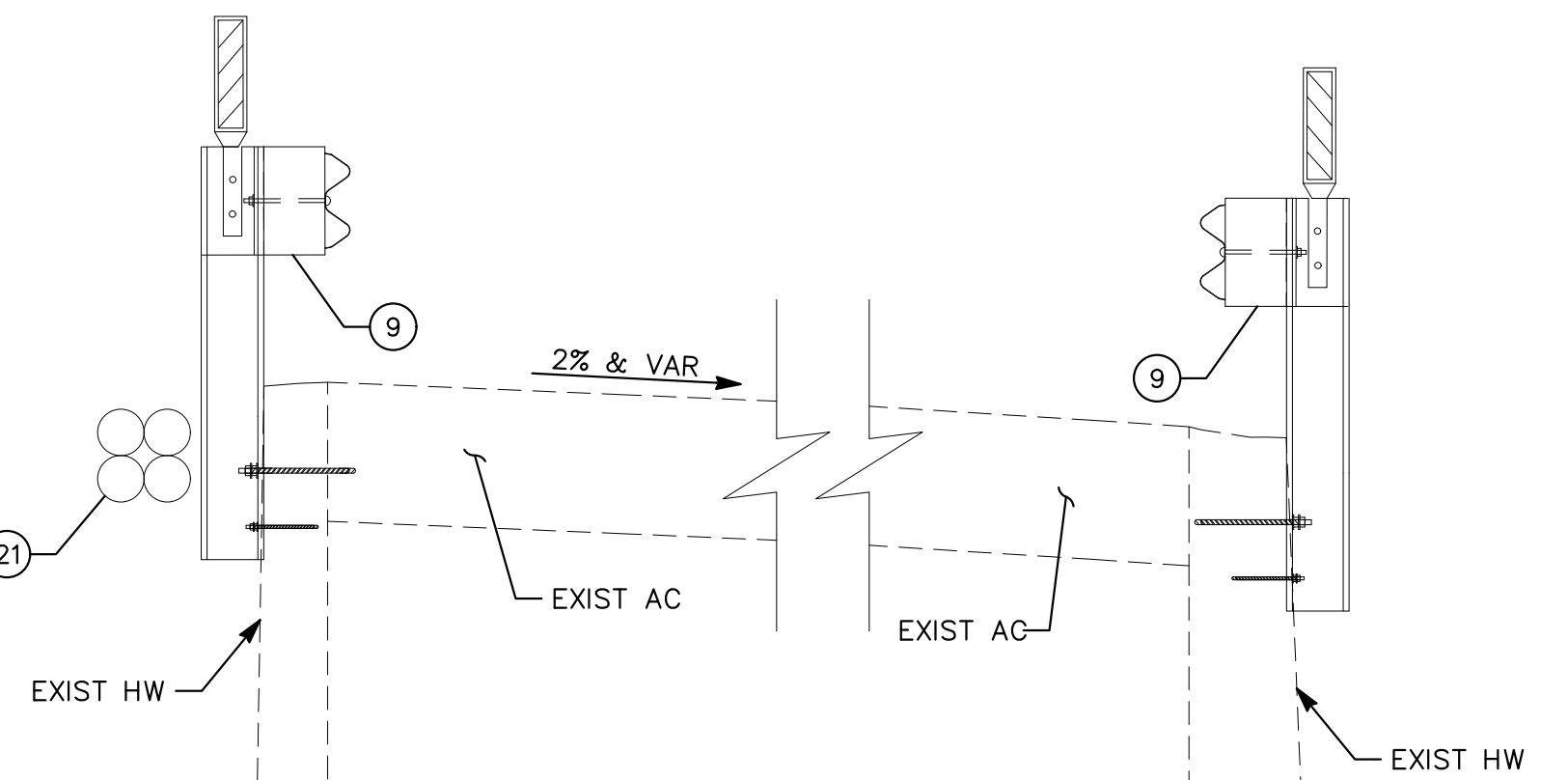
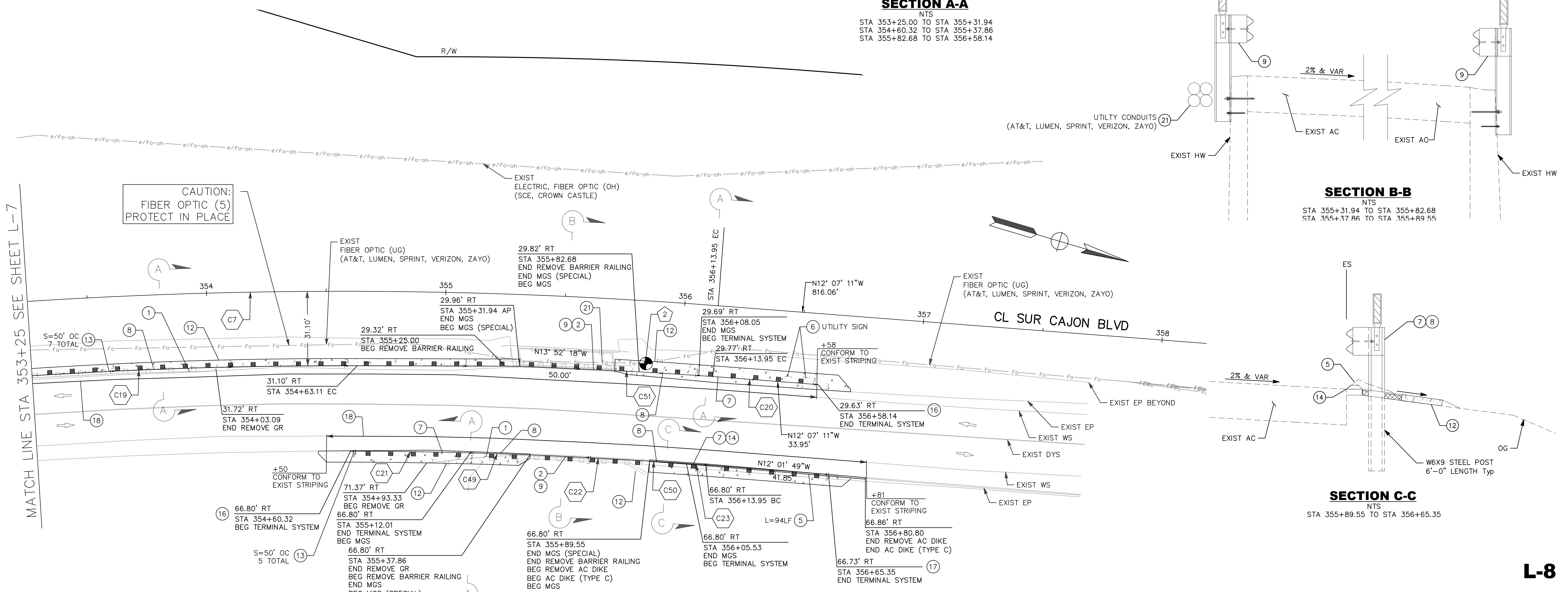


SECTION A-A
NTS
STA 353+25.00 TO STA 355+31.94
STA 354+60.32 TO STA 355+37.86
STA 355+82.68 TO STA 356+58.14

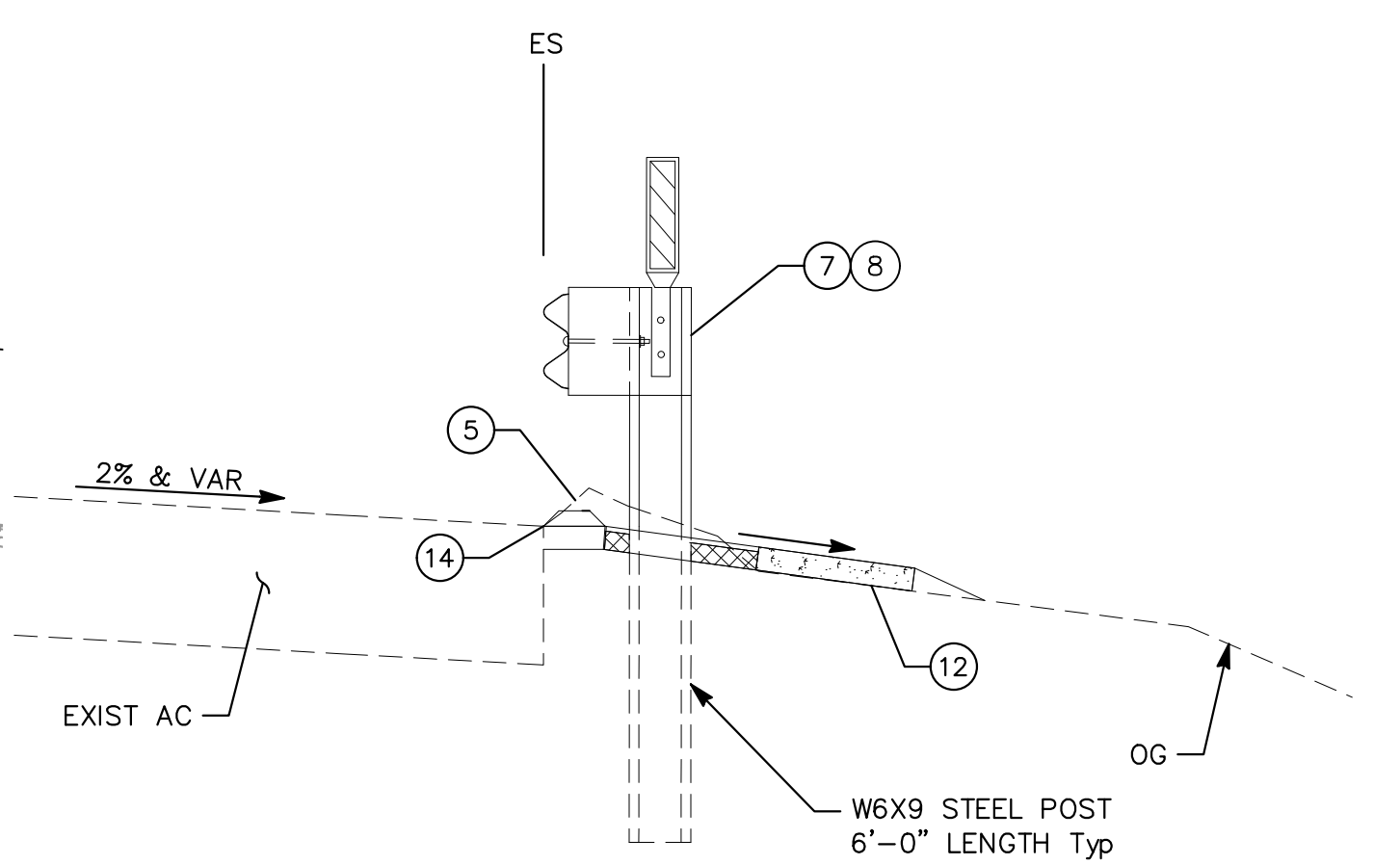
- CONSTRUCTION NOTES:**
- REMOVE AND DISPOSE OF EXISTING GUARDRAIL/BARRICADE.
 - REMOVE AND DISPOSE OF EXISTING BARRIER RAILING.
 - REMOVE ASPHALT CONCRETE DIKE.
 - PROTECT IN PLACE.
 - INSTALL CALTRANS APPROVED 31" IN-LINE TERMINAL SYSTEM END TREATMENT PER RSI MSKT-SP-MGS TERMINAL (8" BLOCKS) TEST LEVEL 3 PER CALTRANS REVISED STANDARD PLAN A77P1.
 - INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLANS RSP A77L2, RSP A77M1, AND A77N2.
 - INSTALL MIDWEST GUARDRAIL SYSTEM (SPECIAL) PER DETAIL ON SHEET C-5.
 - CONSTRUCT 3" THICK CONCRETE VEGETATION CONTROL PER CALTRANS STANDARD PLAN A77N5 AND A77N6.
 - INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A73C.
 - INSTALL ASPHALT CONCRETE DIKE (TYPE C), PER CALTRANS STANDARD PLAN A87B AND RSP A77N4.
 - INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3R) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3L) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - PAINT 6" WIDE TRAFFIC STRIPE (2-COAT) PER CALTRANS STANDARD PLAN A20B DETAIL 27B.
 - UTILITY CONDUITS TO BE REMOVED AND REATTACHED BY OTHERS.

POSITIVE LOCATION INFORMATION

NO.	LOCATION	DEPTH	OG ELEV	METHOD	SIZE & TYPE	OWNERS	NORTHING	EASTING
2	26.10' RT 355+85.28	19"	2800.53	POTHOLING	(4) 4" PLASTIC F/O	AT&T SPRINT LUMEN VERIZON	1923976.229	6726923.243

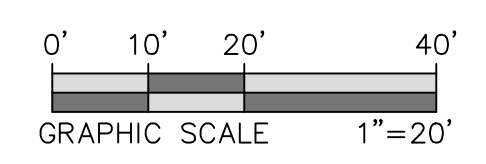


SECTION B-B
NTS
STA 355+31.94 TO STA 355+82.68
STA 355+37.86 TO STA 355+89.55



SECTION C-C
NTS
STA 355+89.55 TO STA 356+65.35

CAUTION:
FIBER OPTIC (5)
PROTECT IN PLACE



PREPARED BY:
DOKKEN ENGINEERING
1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92131-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES



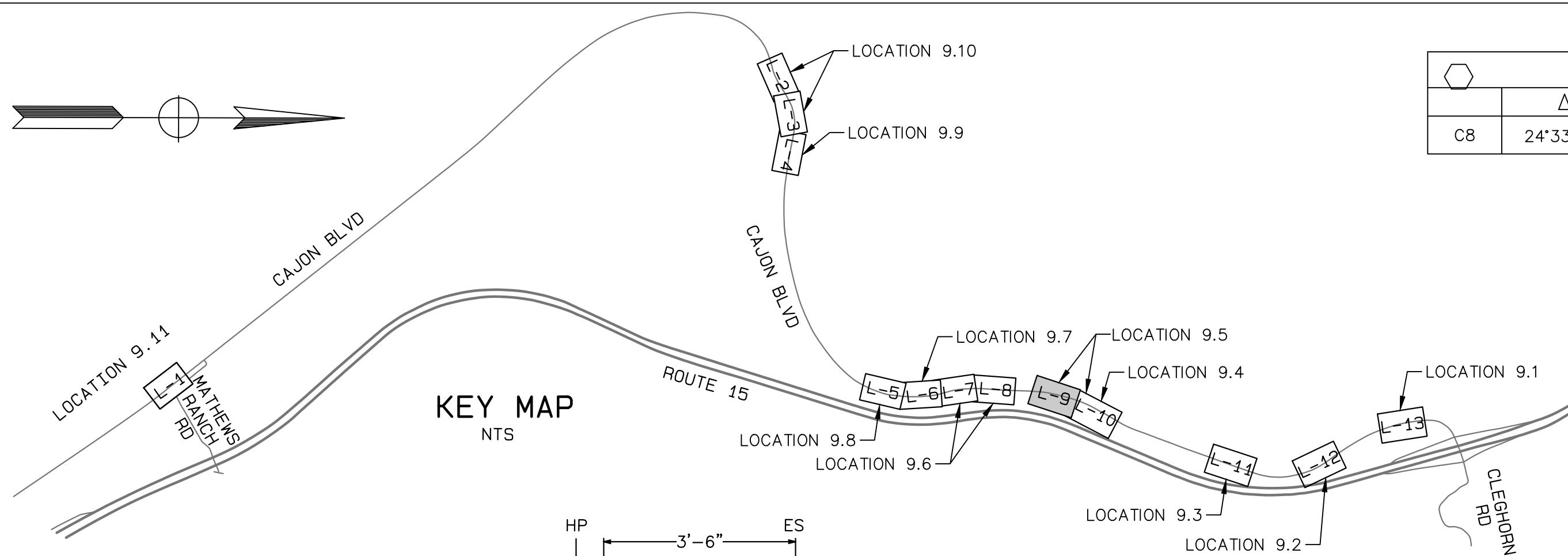
SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: ST
DRAWN BY: MN
CHECKED BY: AOF
RECOMMENDED BY: Chris Nguyen, P.E., ENGINEERING MANAGER, 6/6/2024
APPROVED BY: Eloy Rivalcaba, P.E., DEPUTY DIRECTOR, 06/12/2024

SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS
LAYOUT
FROM STA 353+25 TO 358+25
DEVORE AREA

J.L. REF. J.L. 11815	W.O. NO. TX1799	PLAN SCALE 1" = 20'	SHT. NO. 10	TOT. SHT'S. 21
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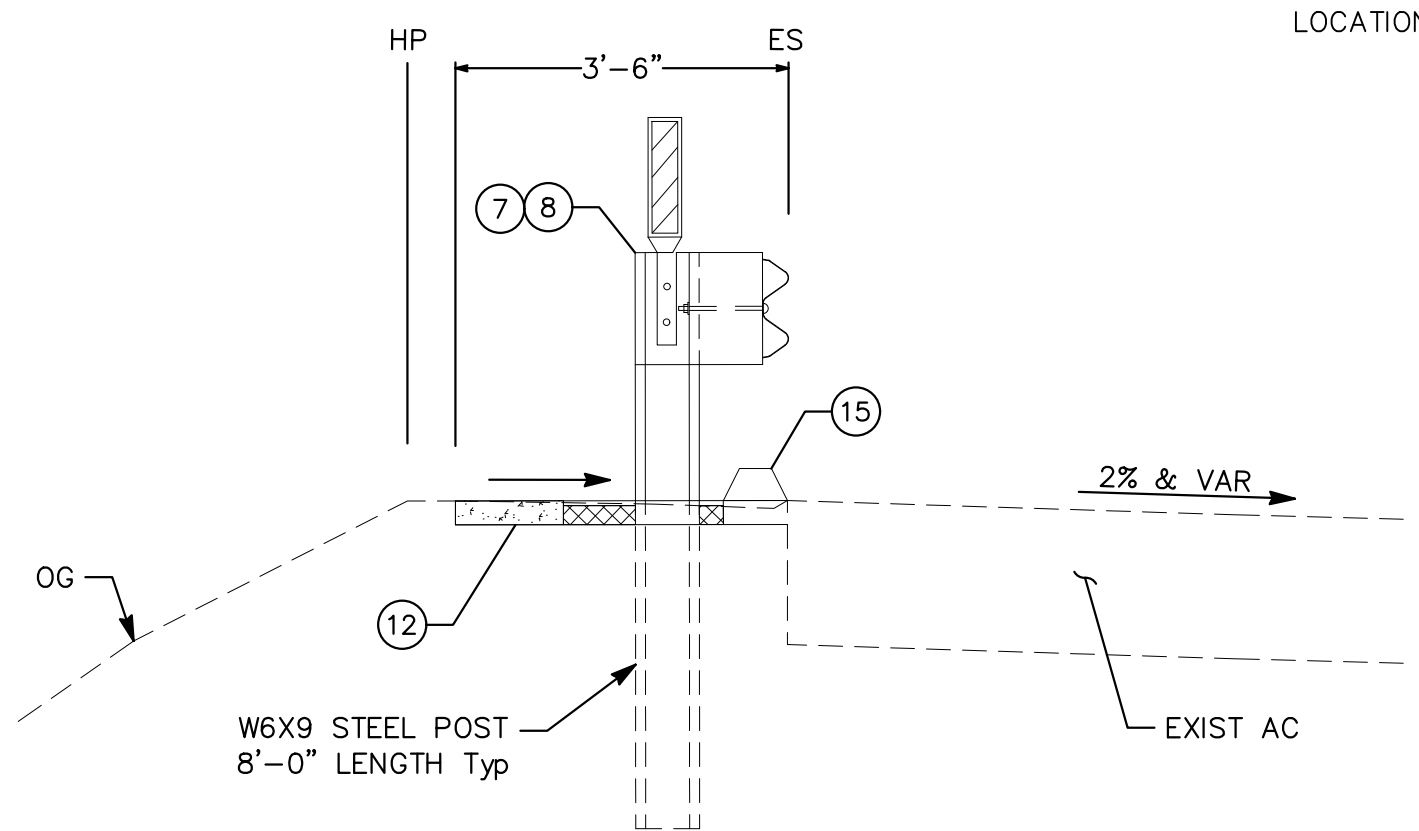
REVISIONS	DATE	APPR.



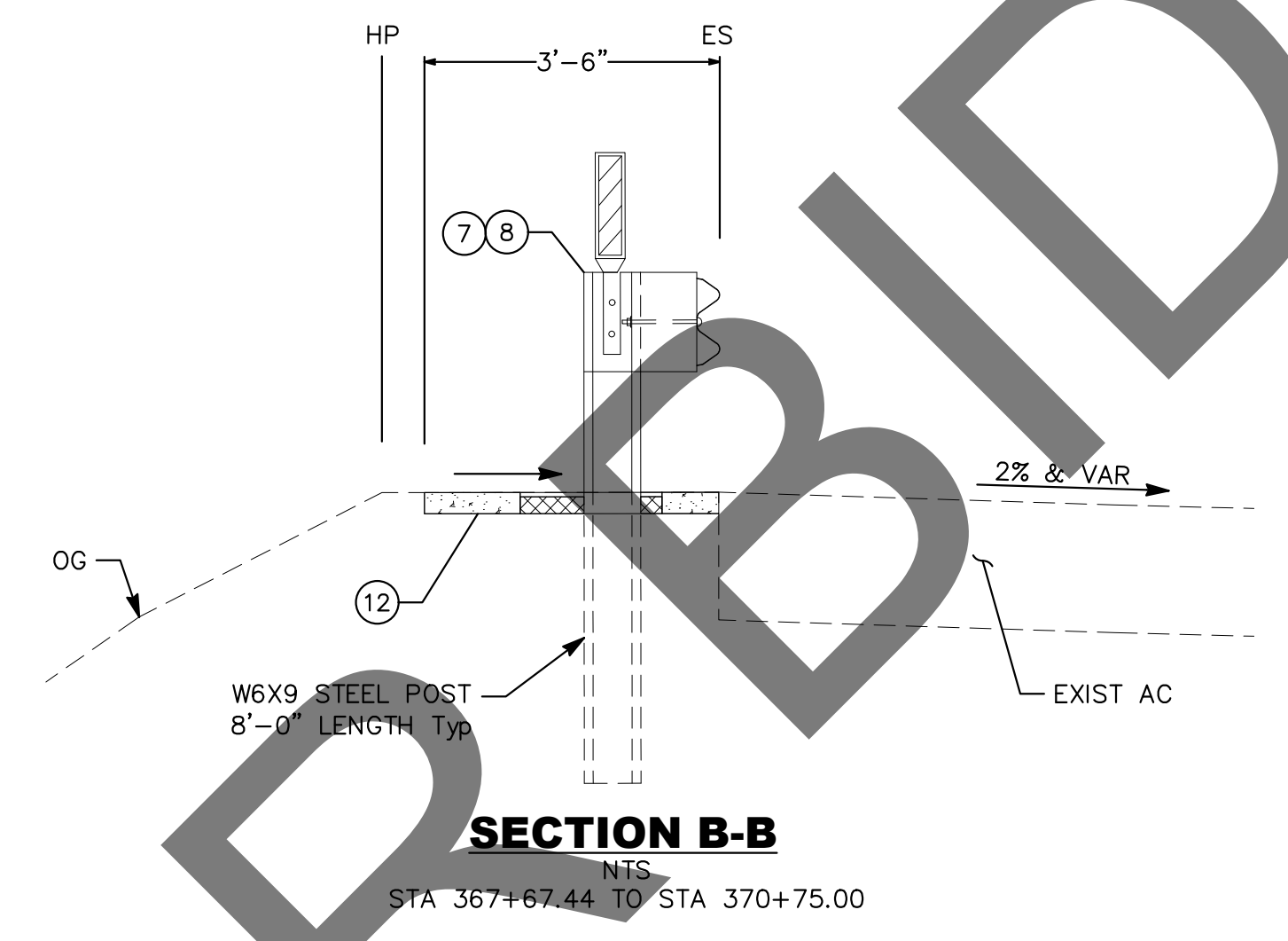
CL CURVE DATA				
Δ	R	L	T	
C8	24°33'27"	2600.00'	1114.38'	565.88'

GUARDRAIL CURVE DATA				
Δ	R	L	T	
C24	01°05'41"	2617	50.00'	25.00'
C25	84°15'29"	29.75'	43.75'	26.91'
C26	17°07'18"	2615.75'	781.65'	392.82'

- CONSTRUCTION NOTES:**
- 1 REMOVE AND DISPOSE OF EXISTING GUARDRAIL/BARRICADE.
 - 2 REMOVE ASPHALT CONCRETE DIKE.
 - 3 PROTECT IN PLACE.
 - 4 INSTALL CALTRANS APPROVED 31" IN-LINE TERMINAL SYSTEM END TREATMENT PER RSI MSKT-SP-MGS TERMINAL (8" BLOCKS) TEST LEVEL 3 PER CALTRANS REVISED STANDARD PLAN A77P1.
 - 5 INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLANS RSP A77L2, RSP A77M1, AND A77N2.
 - 6 CONSTRUCT 3" THICK CONCRETE VEGETATION CONTROL PER CALTRANS STANDARD PLAN A77N5 AND A77N6.
 - 7 INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A73C.
 - 8 INSTALL ASPHALT CONCRETE DIKE (TYPE C) PER CALTRANS STANDARD PLAN A87B AND RSP A77N4.
 - 9 INSTALL ASPHALT CONCRETE DIKE (TYPE F) PER CALTRANS STANDARD PLAN A87B AND RSP A77N4.
 - 10 INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3R) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - 11 INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3L) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - 12 PAINT 6" WIDE TRAFFIC STRIPE (2-COAT) PER CALTRANS STANDARD PLAN A20B DETAIL 27B.
 - 13 INSTALL END ANCHOR ASSEMBLY (TYPE SFT) PER CALTRANS REVISED STANDARD PLAN A77S1.
 - 14 INSTALL BARRICADE PER COUNTY STANDARD PLAN 305.



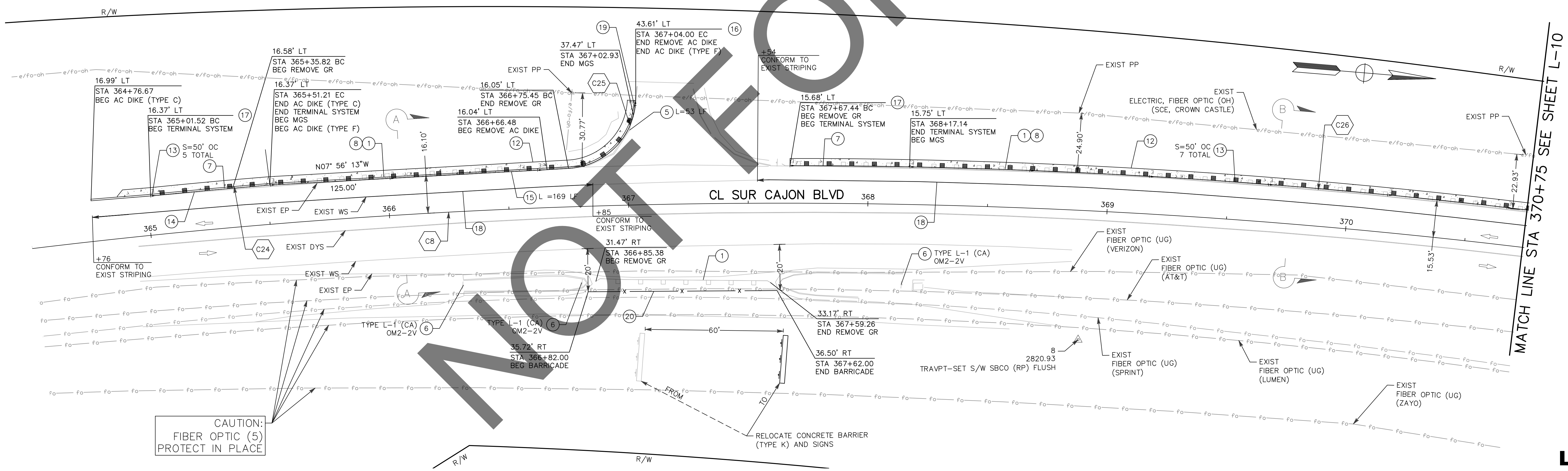
SECTION A-A
NTS
STA 365+01.52 TO STA 367+02.93



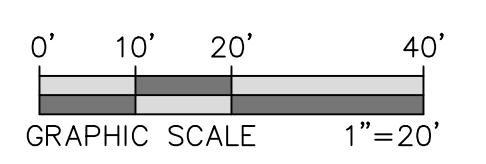
SECTION B-B
NTS
STA 367+67.44 TO STA 370+75.00

- NOTES:**
- 1- SEE SHEET 2 FOR SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES.
 - 2- WHERE HINGE POINT IS LESS THAN 18", CONSTRUCT PER STANDARD PLAN A77N5A FOR NARROW VEGETATION CONTROL INSTALLATION.
 - 3- FOR MGS SECTIONS WITH RADIUS OF CURVATURE LESS THAN 150', THE RAIL ELEMENT MUST BE SHAPED IN THE SHOP.
 - 4- SEE SHEET C-4 FOR NARROW ROADWAY INSTALLATION POST EMBEDMENT.

CONTROL POINTS				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
8	2820.93	1925254.45	6726717.75	TRAVPT-SET S/W SBCCO (RP) FLUSH



CAUTION:
FIBER OPTIC (5)
PROTECT IN PLACE



PREPARED BY:
DE DOKKEN ENGINEERING
1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92108-514-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES



SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
ST	MN	ADF	Chris Nguyen, P.E.
			6/6/2024

APPROVED BY:
ELOY RIVALCABA, P.E. SUPERVISING ENGINEER
6/6/2024

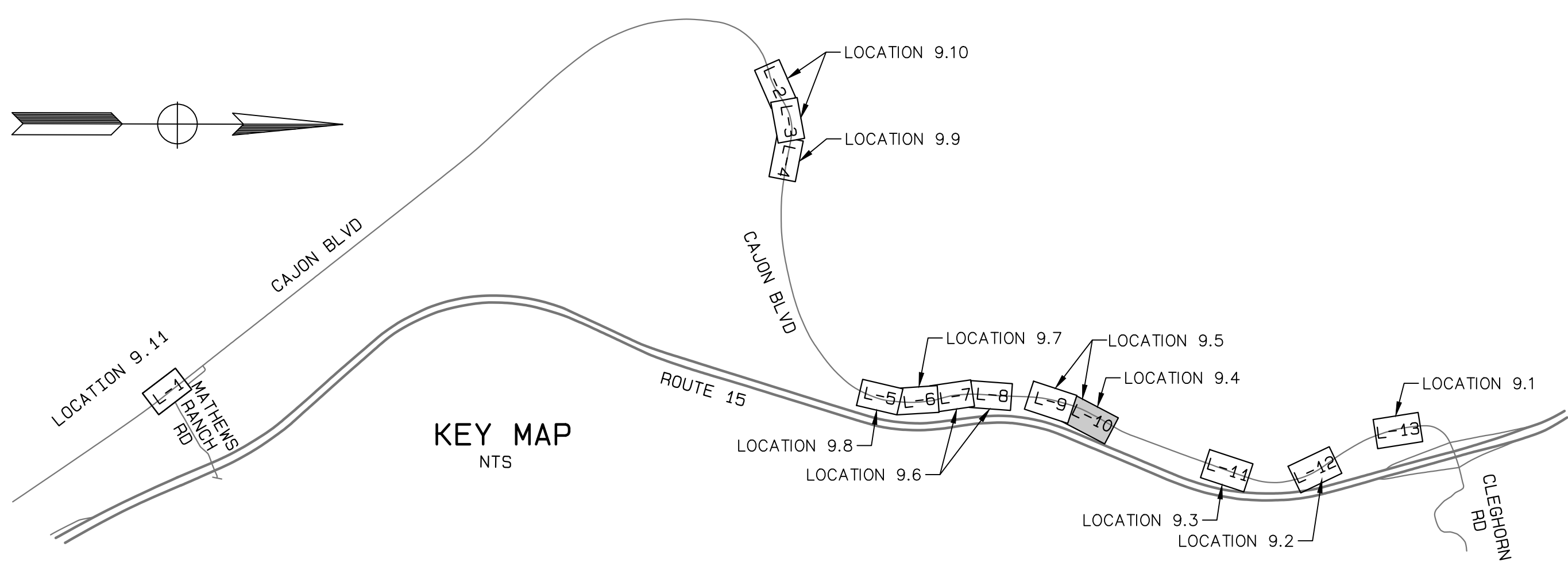
SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS
LAYOUT
FROM STA 364+50 TO 370+75
DEVORE AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 11815	TX1799	1" = 20'	11	21

L-9

MATCH LINE STA 370+75 SEE SHEET L-10

REVISIONS	DATE	APPR.
MARK	DATE	APPR.



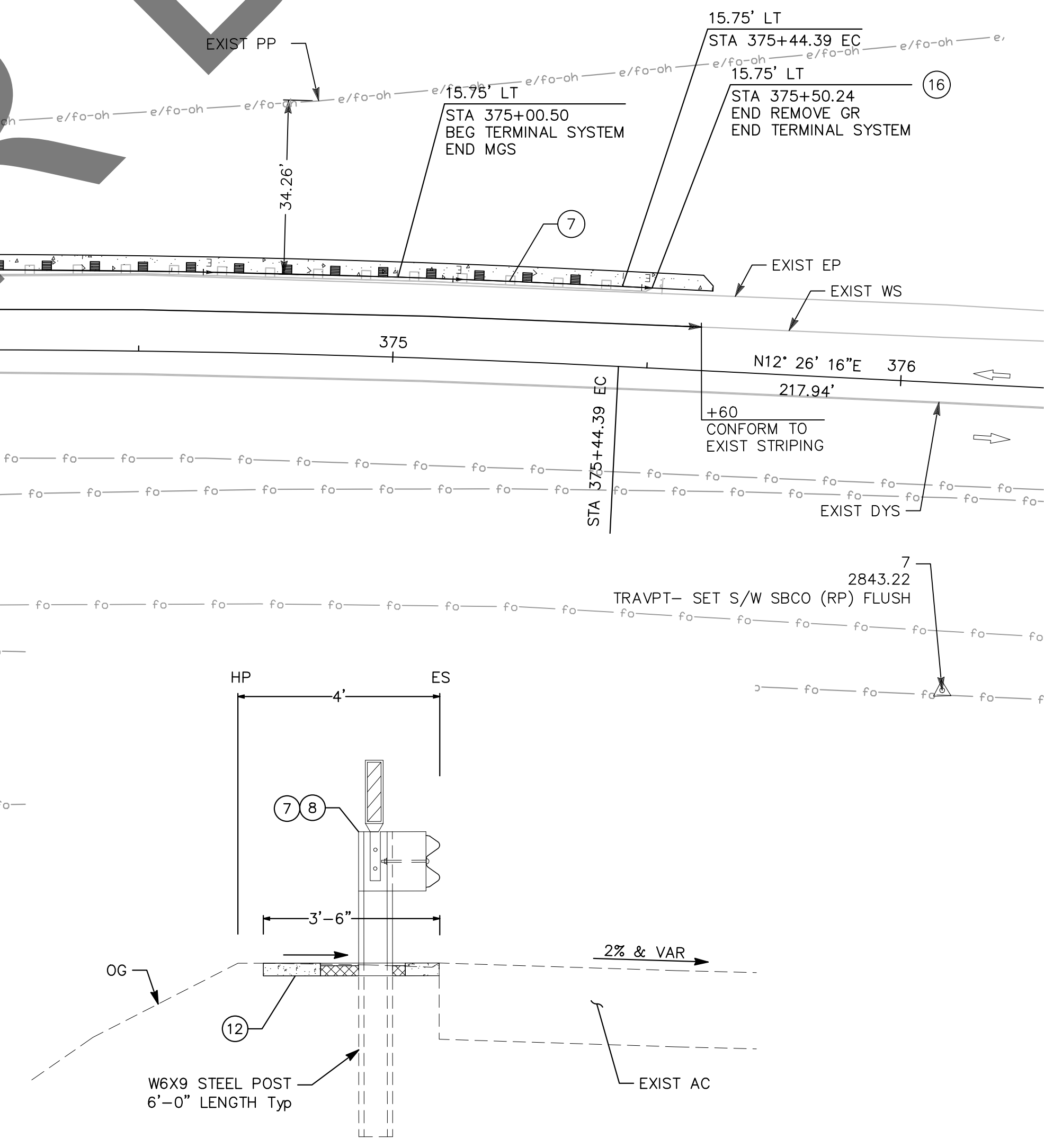
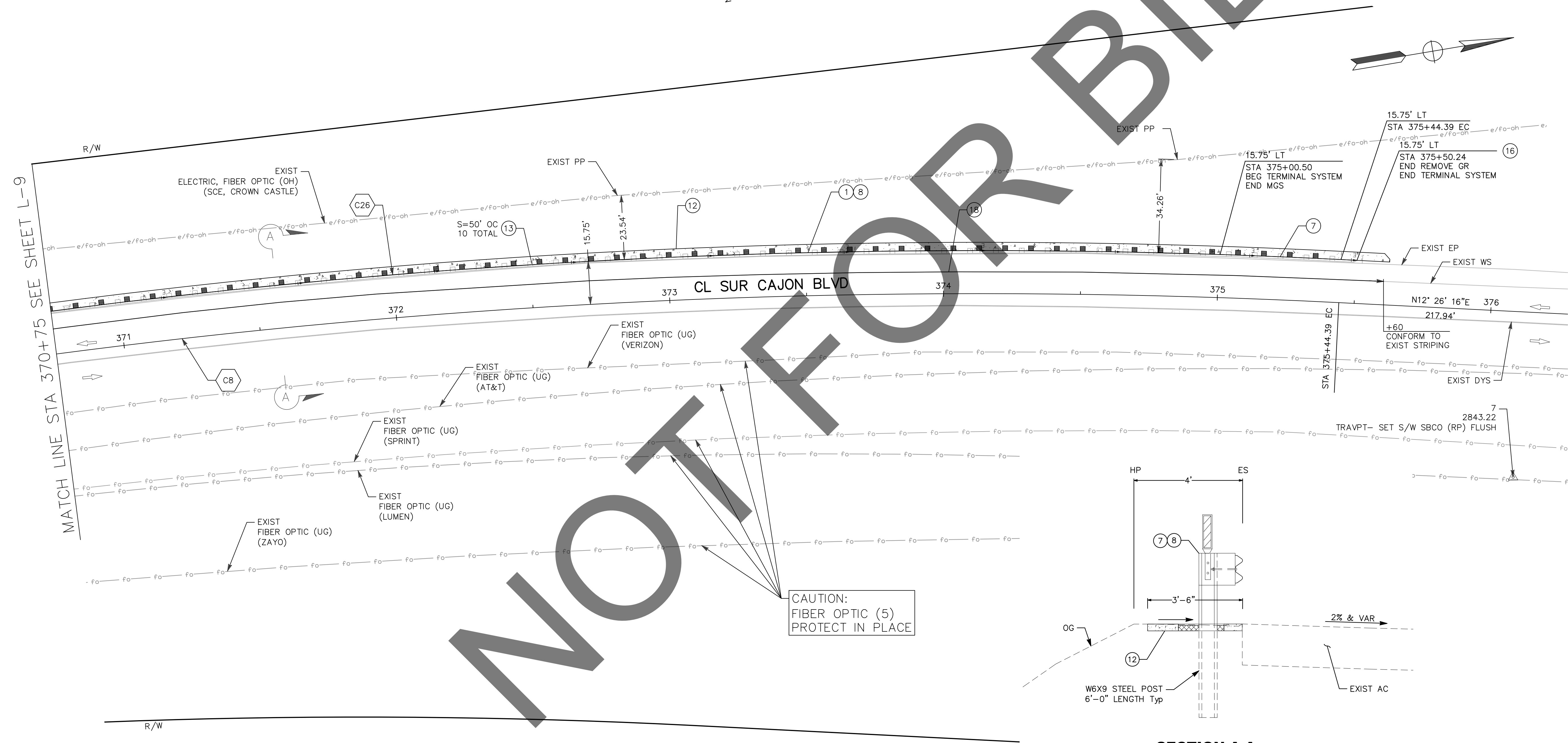
CL CURVE DATA				
Curve	Δ	R	L	T
C8	24°33'27"	2600.00'	1114.38'	565.88'

GUARDRAIL CURVE DATA				
Curve	Δ	R	L	T
C26	17°07'18"	2615.75'	781.65'	392.82'

CONTROL POINTS				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
7	2843.22	1925954.22	6726796.60	TRAVPT-SET S/W SBCO (RP) FLUSH

- CONSTRUCTION NOTES:**
- REMOVE AND DISPOSE OF EXISTING GUARDRAIL/BARRICADE.
 - INSTALL CALTRANS APPROVED 31" IN-LINE TERMINAL SYSTEM END TREATMENT PER RSI MSKT-SP-MGS TERMINAL (8" BLOCKS) TEST LEVEL 3 PER CALTRANS REVISED STANDARD PLAN A77P1.
 - INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLANS RSP A77L2, RSP A77M1, AND A77N2.
 - CONSTRUCT 3" THICK CONCRETE VEGETATION CONTROL PER CALTRANS STANDARD PLAN A77N5 AND A77N6.
 - INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A77N3.
 - INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3R) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - PAINT 6" WIDE TRAFFIC STRIPE (2-COAT) PER CALTRANS STANDARD PLAN A20B DETAIL 27B.

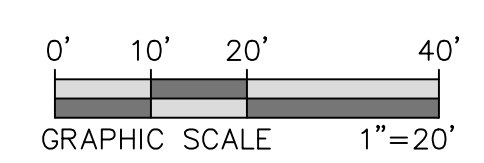
NOTE:
SEE SHEET 2 FOR SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES.



SECTION A-A
NTS
STA 370+75.00 TO STA 375+50.24

L-10

MARK	REVISIONS	DATE



PREPARED BY:
DE DOKKEN ENGINEERING
1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA. 92111-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

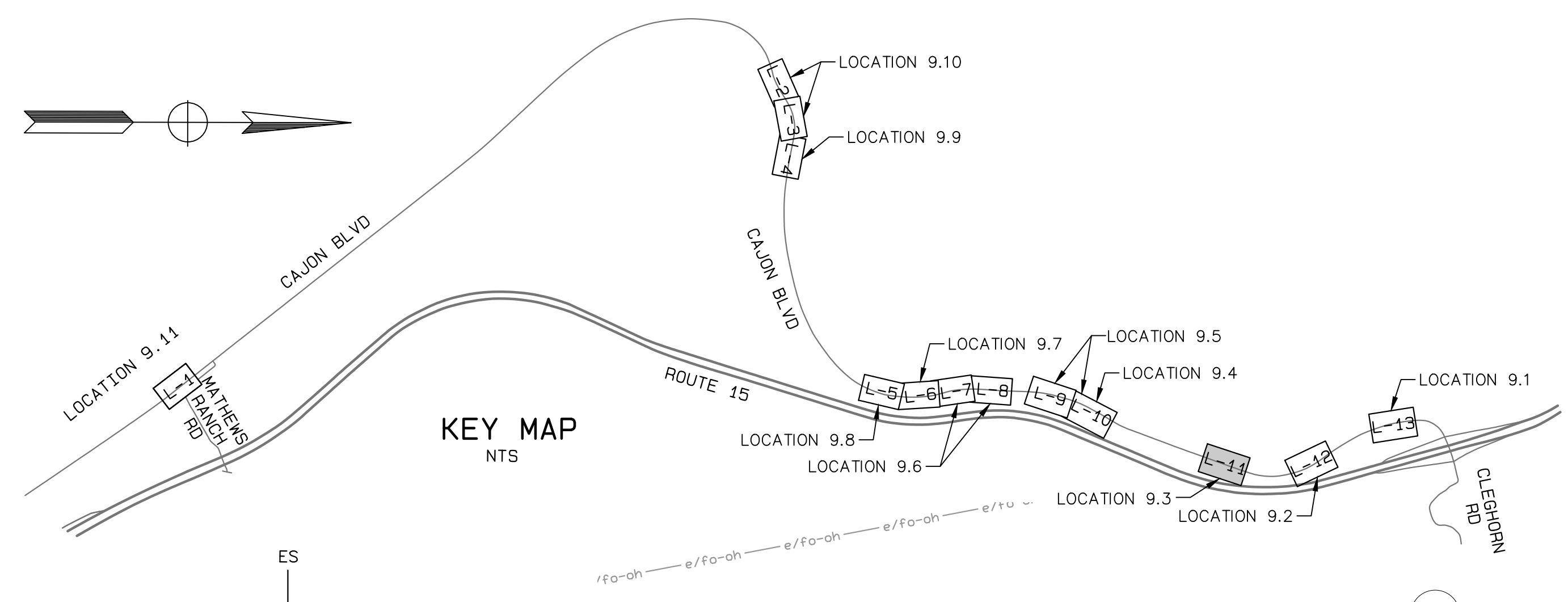


SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:	DATE:
ST	MN	ADF	<i>Chris Nguyen</i>	6/6/2024
APPROVED BY:			MERVAT N. MIKHAIL, P.E.	06/12/2024
ELOY RUVALCABA, P.E.			DEPUTY DIRECTOR	DATE

SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS
LAYOUT
FROM STA 370+75 TO 376+25
DEVORE AREA

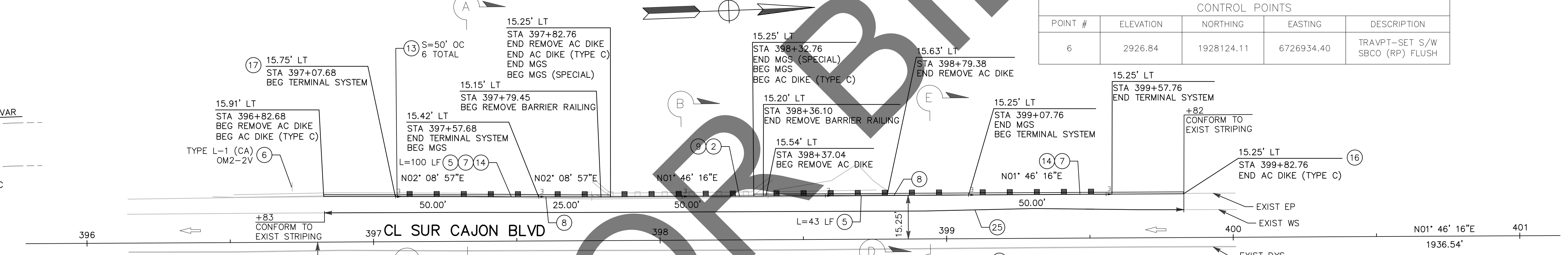
J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 11815	TX1799	1" = 20'	12	21



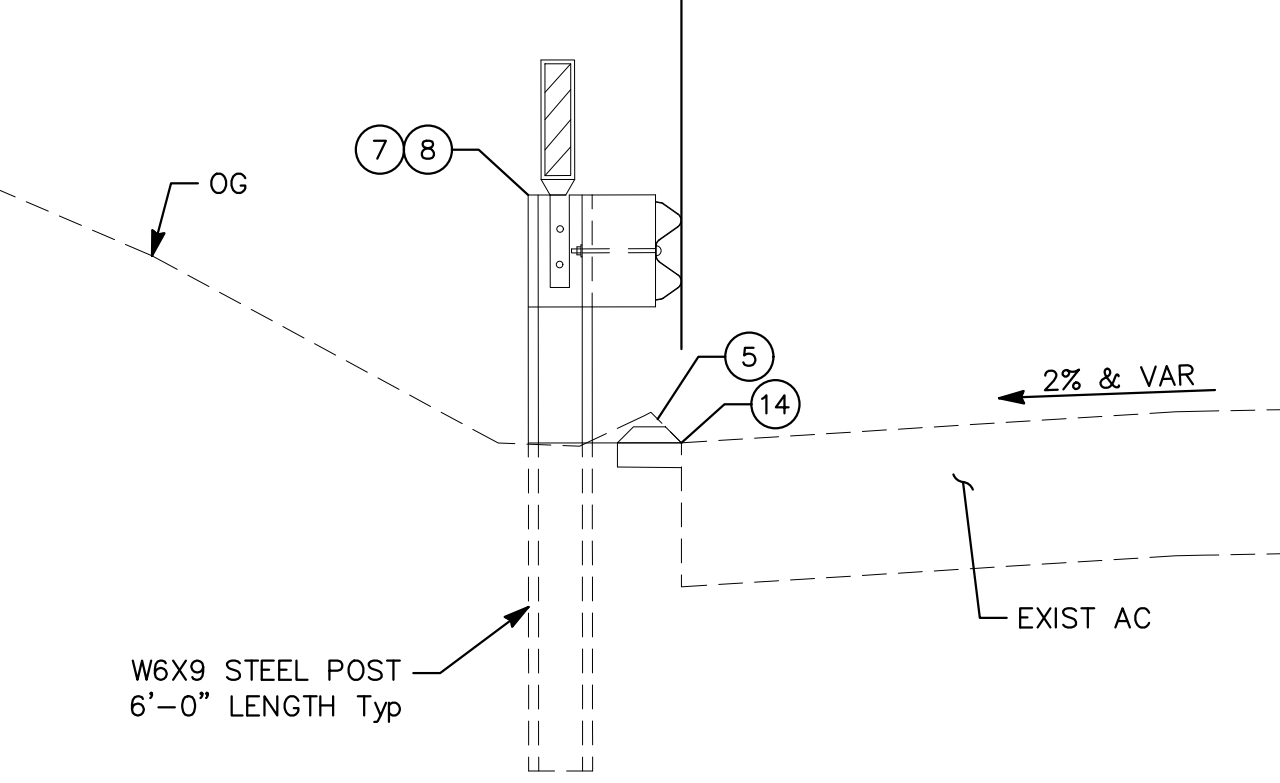
- NOTES:**
- 1- SEE SHEET 2 FOR SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES.
 - 2- WHERE HINGE POINT IS LESS THAN 18", CONSTRUCT PER STANDARD PLAN A77N5A FOR NARROW VEGETATION CONTROL INSTALLATION.
 - 3- CONTRACTOR TO MAINTAIN EXISTING FLOWLINE AND DRAINAGE PATTERN.
 - 4- FOR DETAILS NOT SHOWN, SEE STANDARD PLAN A77N5A FOR CONCRETE VEGETATION CONTROL ON CUT SLOPE DETAIL.
 - 5- CONFORM BACK OF VEGETATION CONTROL AT THE EXISTING OVERSIDE DRAIN, MAINTAIN EXISTING DRAINAGE PATTERNS.
 - 6- SEE SHEET C-4 FOR NARROW ROADWAY INSTALLATION POST EMBEDMENT.

- CONSTRUCTION NOTES:**
- 2 REMOVE AND DISPOSE OF EXISTING BARRIER RAILING.
 - 5 REMOVE ASPHALT CONCRETE DIKE.
 - 6 PROTECT IN PLACE.
 - 7 INSTALL CALTRANS APPROVED 31" IN-LINE TERMINAL SYSTEM END TREATMENT PER RSI MSKT-SP-MGS TERMINAL (8" BLOCKS) TEST LEVEL 3 PER CALTRANS REVISED STANDARD PLAN A77P1.
 - 8 INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLANS RSP A77L2, RSP A77M1, AND A77N2.
 - 9 INSTALL MIDWEST GUARDRAIL SYSTEM (SPECIAL) PER DETAIL ON SHEET C-5.
 - 12 CONSTRUCT 3" THICK CONCRETE VEGETATION CONTROL PER CALTRANS STANDARD PLAN A77N5 AND A77N6.
 - 13 INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A73C.
 - 14 INSTALL ASPHALT CONCRETE DIKE (TYPE C), PER CALTRANS STANDARD PLAN A87B AND RSP A77N4.
 - 16 INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3R) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - 17 INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3L) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - 18 PAINT 6" WIDE TRAFFIC STRIPE (2-COAT) PER CALTRANS STANDARD PLAN A20B DETAIL 27B.

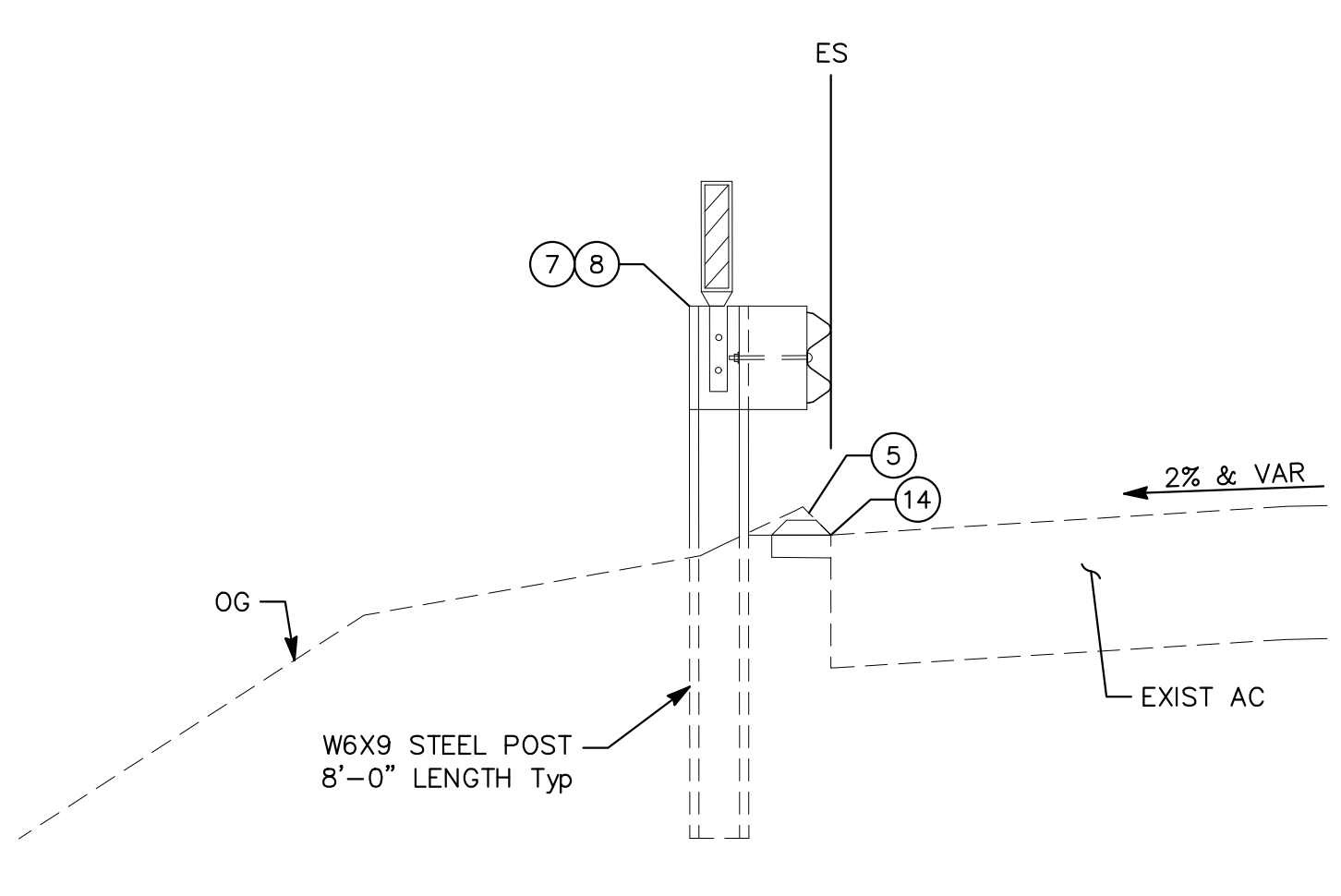
CONTROL POINTS				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
6	2926.84	1928124.11	6726934.40	TRAVPT-SET S/W SBCO (RP) FLUSH



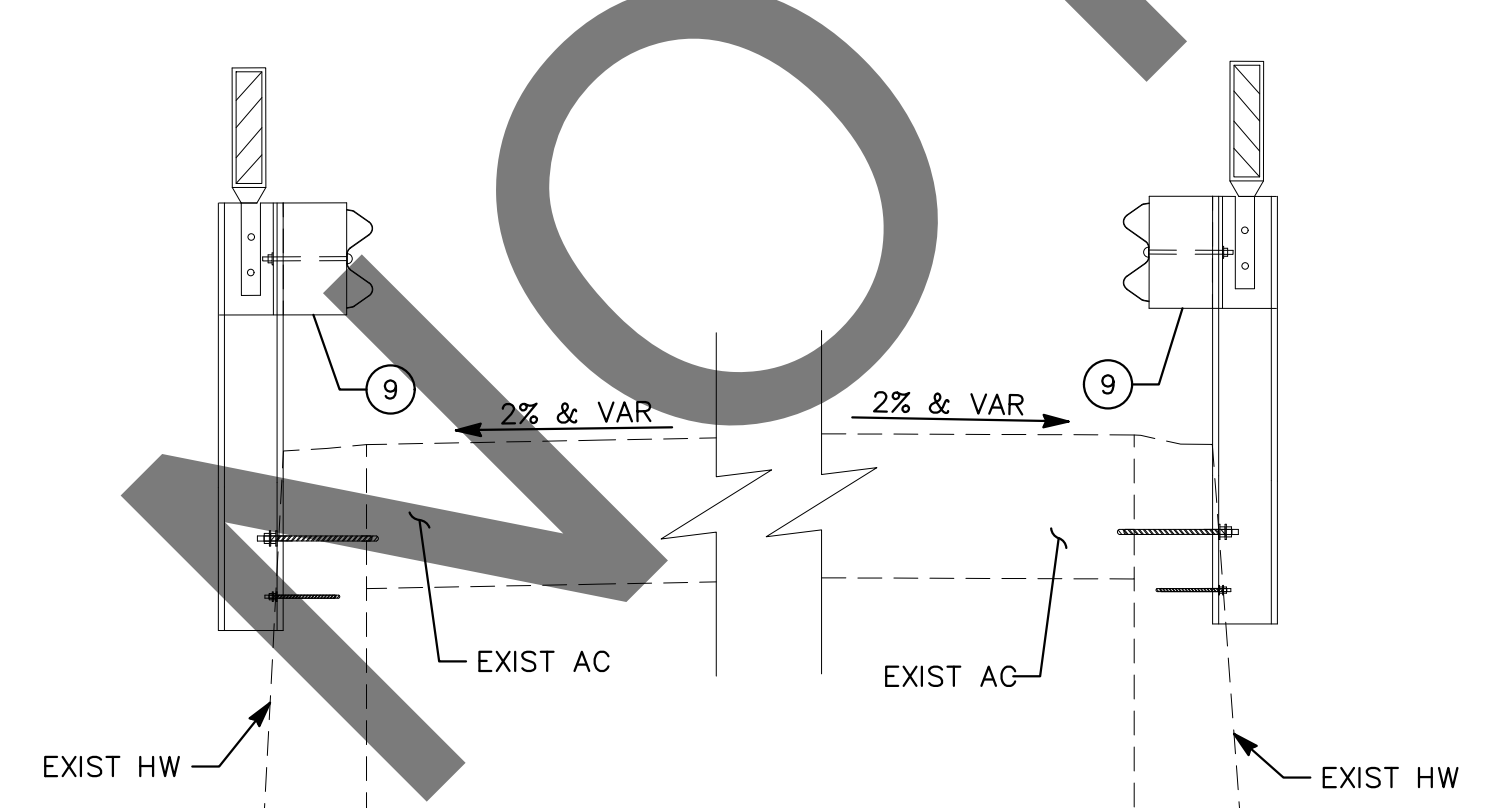
SECTION E-E
NTS
STA 398+32.76 TO STA 399+57.76



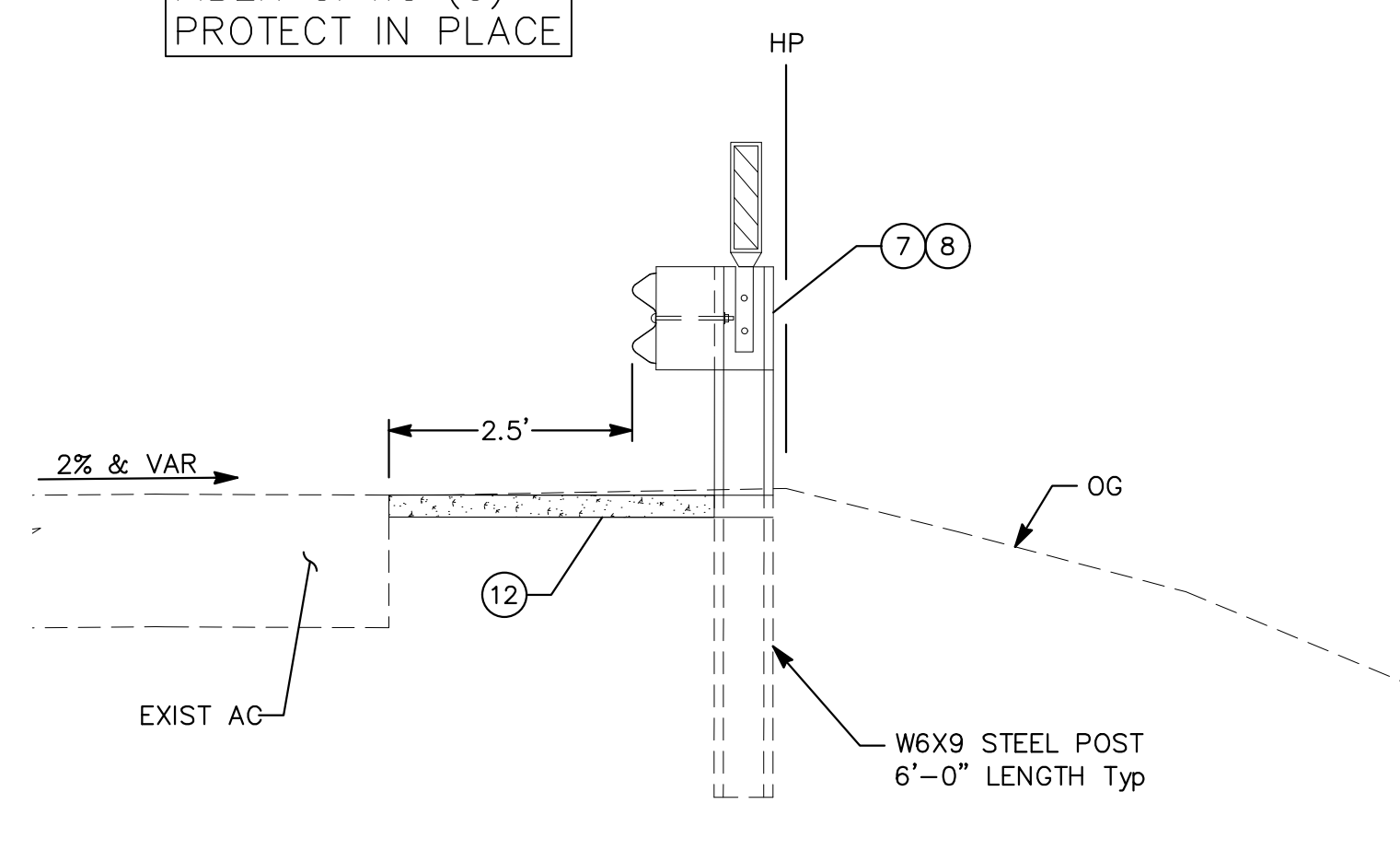
SECTION A-A
NTS
STA 397+07.68 TO STA 397+82.76



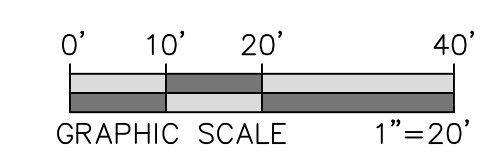
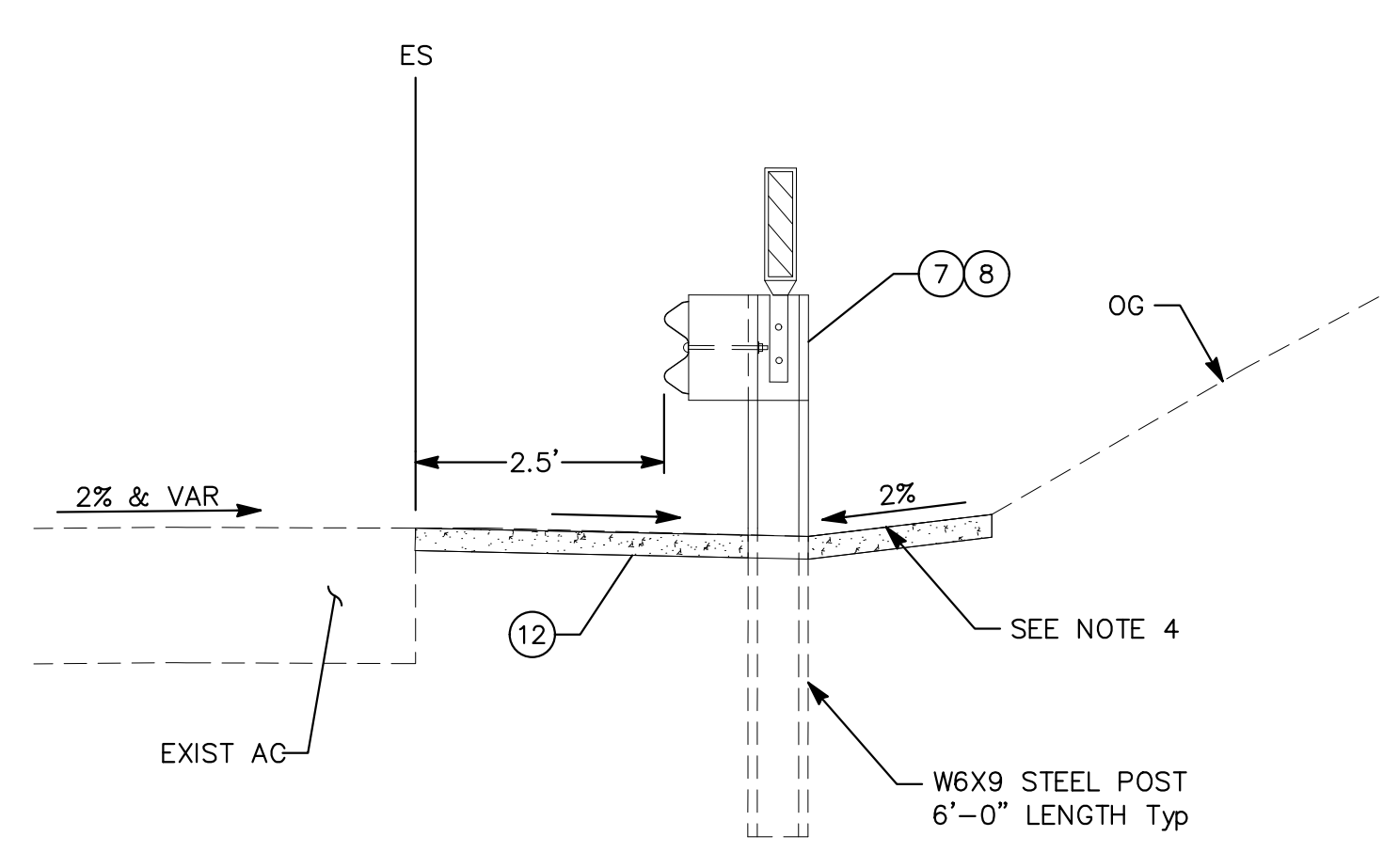
SECTION B-B
NTS
STA 397+82.76 TO STA 398+32.76
STA 397+82.49 TO STA 398+32.50



SECTION C-C
NTS
STA 396+32.44 TO STA 397+82.49



SECTION D-D
NTS
STA 398+32.50 TO STA 399+32.50



PREPARED BY:

1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92111-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES



SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:	DATE:
ST	MN	ADF	<i>Chris Nguyen</i>	6/6/2024
			APPROVED BY:	DATE:
			<i>Eloy Ruivalcaba</i>	06/12/2024

ELOY RUIVALCABA, P.E. SUPERVISING ENGINEER

MERVAT N. MIKHAIL, P.E. DEPUTY DIRECTOR

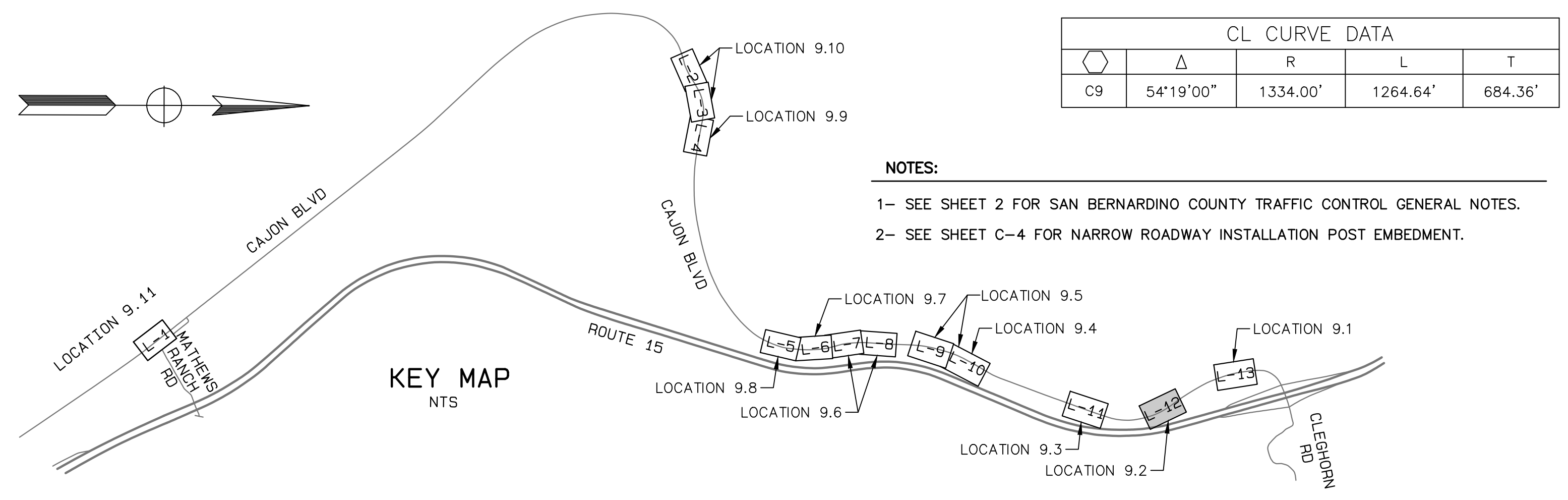
SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS

LAYOUT
FROM STA 395+75 TO 401+25

DEVORE AREA

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHTS.
J.L. 11815	TX1799	1" = 20'	13	21

MARK	REVISIONS	DATE



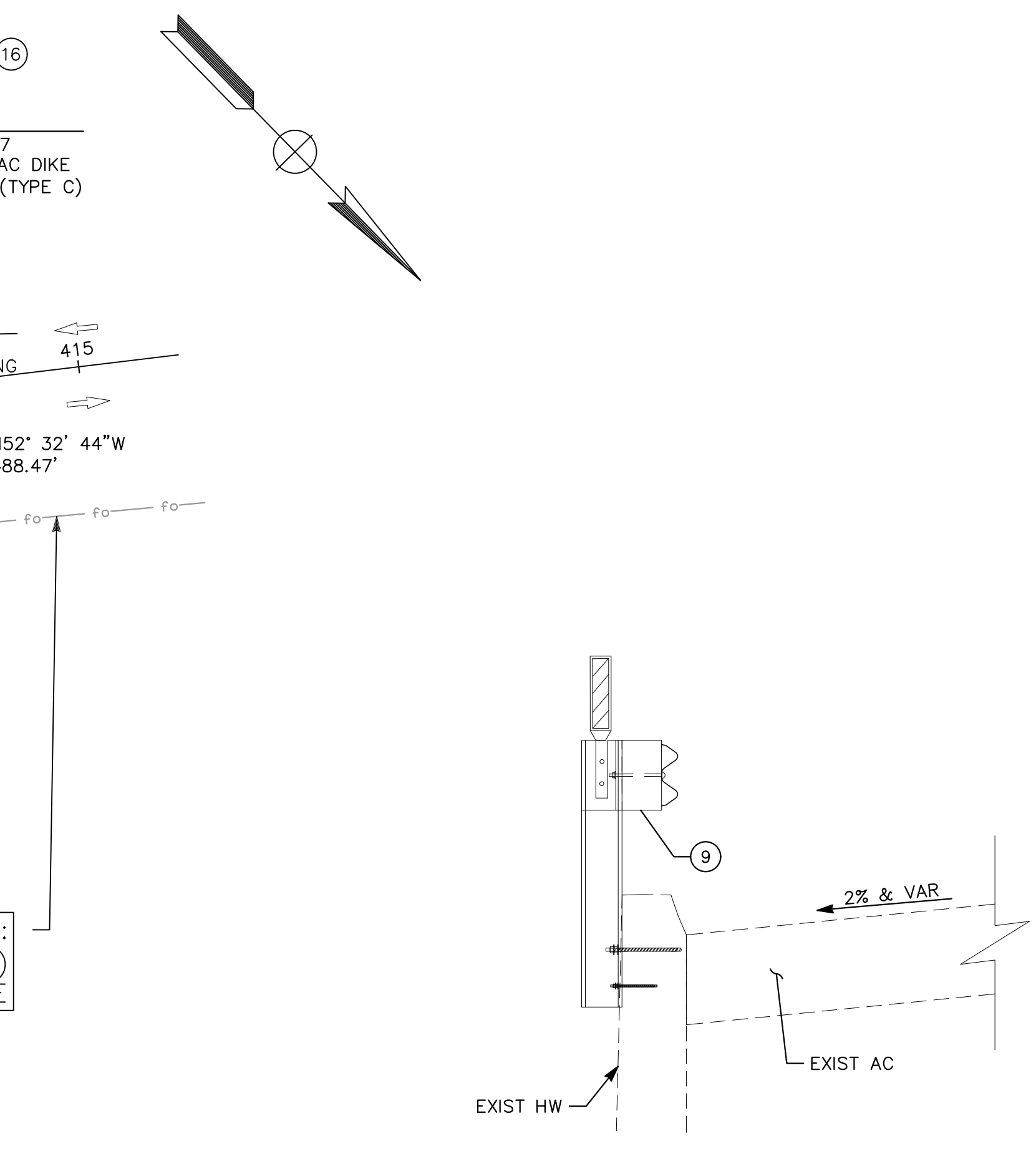
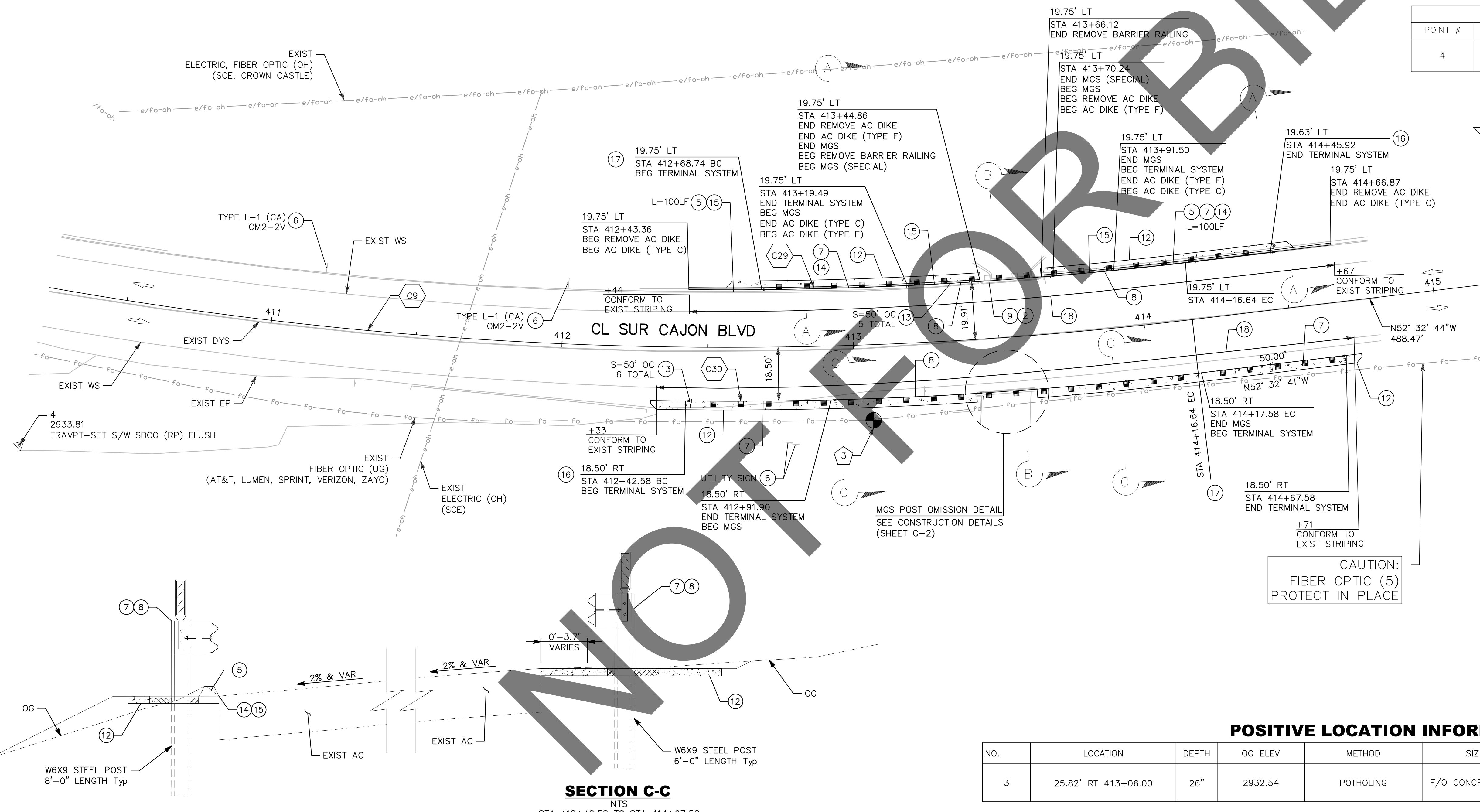
CL CURVE DATA				
	Δ	R	L	T
C9	54°19'00"	1334.00'	1264.64'	684.36'

GUARDRAIL CURVE DATA				
	Δ	R	L	T
C29	06°21'10"	1314.25'	149.77'	72.93'
C30	07°24'49"	1352.50'	175.00'	87.82'

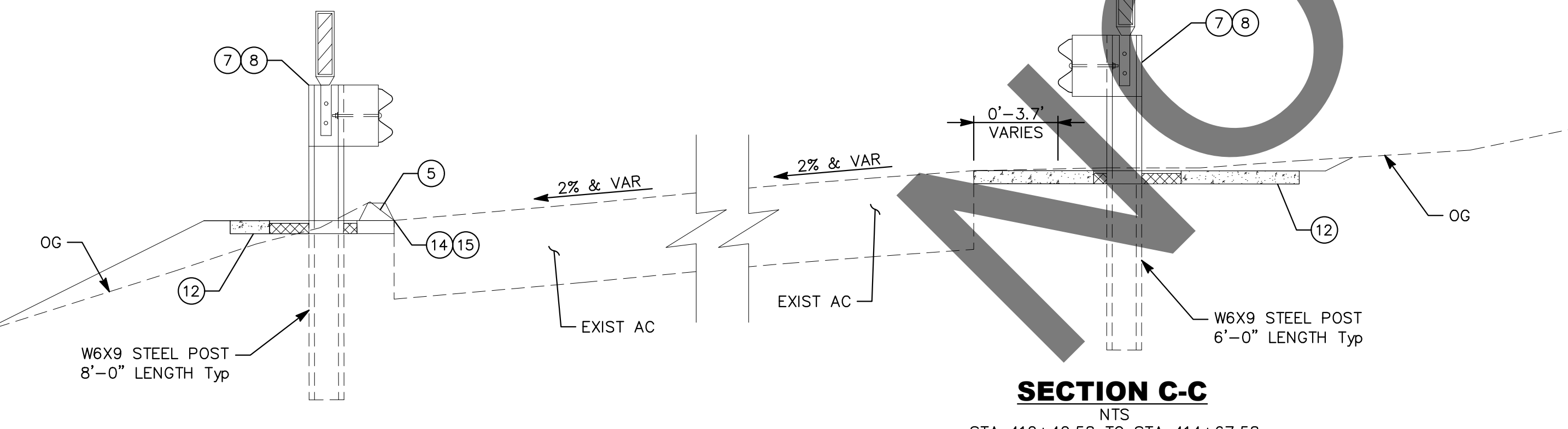
- NOTES:**
- 1- SEE SHEET 2 FOR SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES.
 - 2- SEE SHEET C-4 FOR NARROW ROADWAY INSTALLATION POST EMBEDMENT.

- CONSTRUCTION NOTES:**
- REMOVE AND DISPOSE OF EXISTING BARRIER RAILING.
 - REMOVE ASPHALT CONCRETE DIKE.
 - PROTECT IN PLACE.
 - INSTALL CALTRANS APPROVED 31" IN-LINE TERMINAL SYSTEM END TREATMENT PER RSI MSKT-SP-MGS TERMINAL (8" BLOCKS) TEST LEVEL 3 PER CALTRANS REVISED STANDARD PLAN A77P1.
 - INSTALL MIDWEST GUARDRAIL SYSTEM PER CALTRANS STANDARD PLANS RSP A77L2, RSP A77M1, AND A77N2.
 - INSTALL MIDWEST GUARDRAIL SYSTEM (SPECIAL) PER DETAIL ON SHEET C-5.
 - CONSTRUCT 3" THICK CONCRETE VEGETATION CONTROL PER CALTRANS STANDARD PLAN A77N5 AND A77N6.
 - INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A73C.
 - INSTALL ASPHALT CONCRETE DIKE (TYPE C) PER CALTRANS STANDARD PLAN A87B AND RSP A77N4.
 - INSTALL ASPHALT CONCRETE DIKE (TYPE F) PER CALTRANS STANDARD PLAN A87B AND RSP A77N4.
 - INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (0M-3R) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (0M-3L) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - PAINT 6" WIDE TRAFFIC STRIPE (2-COAT) PER CALTRANS STANDARD PLAN A20B DETAIL 27B.

CONTROL POINTS				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
4	2933.81	1929349.42	6726887.05	TRAVPT-SET S/W SBDO (RP) FLUSH



SECTION B-B
NTS
STA 413+44.86 TO STA 413+70.86



SECTION C-C
NTS
STA 412+42.58 TO STA 414+67.58

CAUTION:
FIBER OPTIC (5)
PROTECT IN PLACE

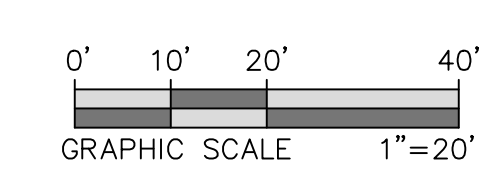
POSITIVE LOCATION INFORMATION

NO.	LOCATION	DEPTH	OG ELEV	METHOD	SIZE & TYPE	OWNER	NORTHING	EASTING
3	25.82' RT 413+06.00	26"	2932.54	POTHOLING	F/O CONCRETE ENCASEMENT	AT&T, LUMEN, SPRINT, VERIZON, ZAYO	1929547.947	6726466.141

L-12

REVISIONS	DATE	APPR.	DATE	APPR.

FILE NO. 199950-060



PREPARED BY:

DOKKEN ENGINEERING

1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA. 92131-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES



SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: ST
DRAWN BY: MN
CHECKED BY: AOF
RECOMMENDED BY: Chris Nguyen, P.E., Engineering Manager
APPROVED BY: Eloy Ruvalcaba, P.E., Supervising Engineer
DATE: 6/6/2024

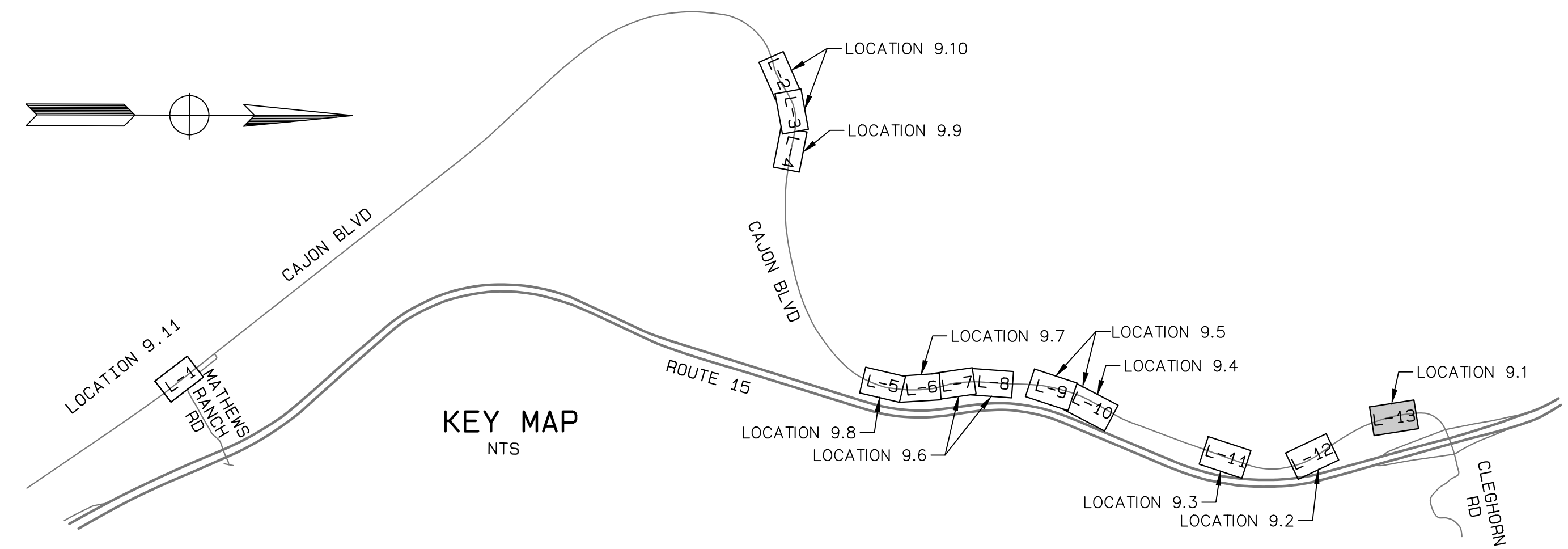
SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS
LAYOUT
FROM STA 410+25 TO 415+17
DEVORE AREA

J.L. REF. J.L. 11815
W.O. NO. TX1799
PLAN SCALE 1" = 20'
SHT. NO. 14
TOT. SHTS. 21

CL CURVE DATA				
CL	Δ	R	L	T
C10	28°51'00"	2500.00'	1258.82'	643.05'

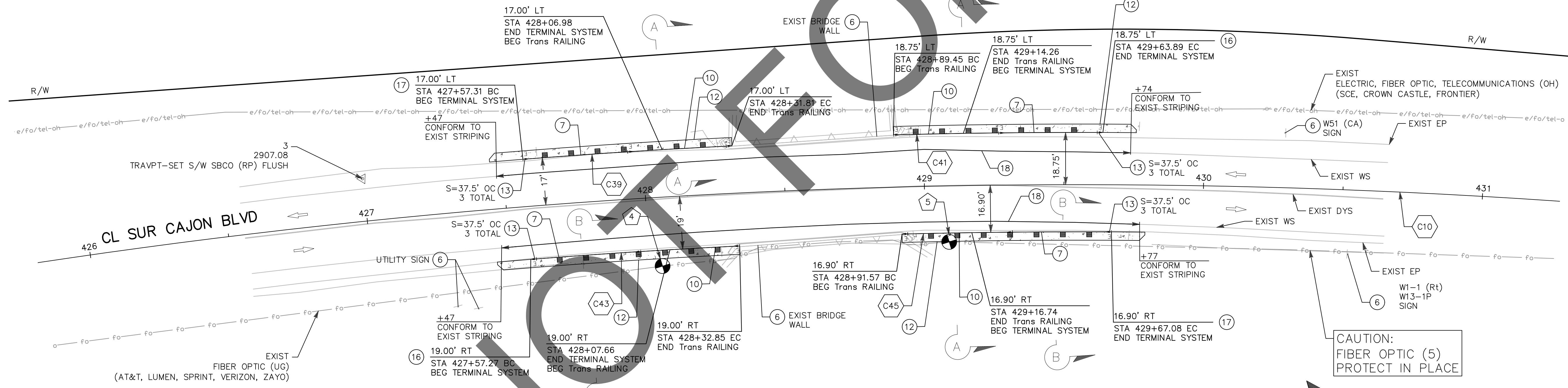
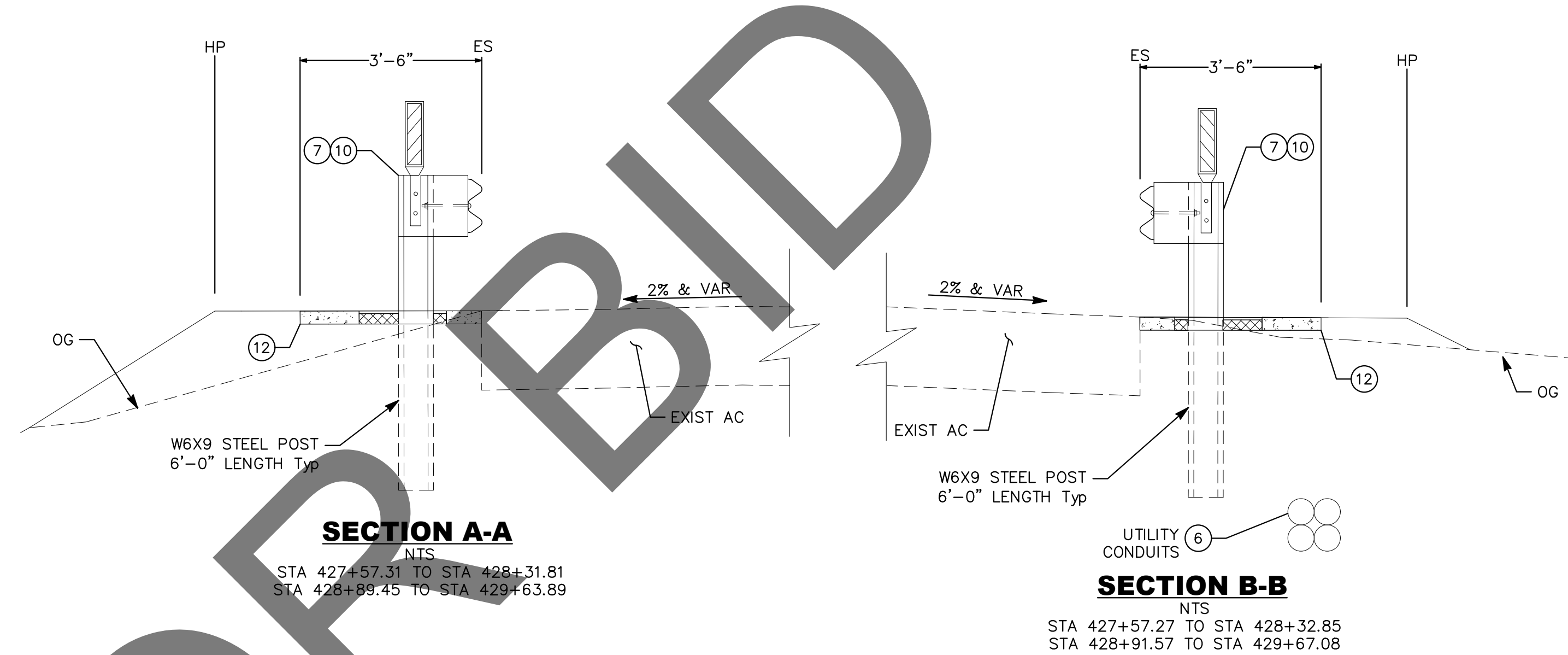
GUARDRAIL CURVE DATA				
CL	Δ	R	L	T
C39	01°42'26"	2517.00'	75.00'	37.50'
C41	01°42'22"	2518.75'	75.00'	37.50'
C43	01°43'55"	2481.00'	75.00'	37.50'
C45	01°43'50"	2483.10'	75.00'	37.50'

- CONSTRUCTION NOTES:**
- PROTECT IN PLACE.
 - INSTALL CALTRANS APPROVED 31" IN-LINE TERMINAL SYSTEM END TREATMENT PER RSI MSKT-SP-MGS TERMINAL (8" BLOCKS) TEST LEVEL 3 PER CALTRANS REVISED STANDARD PLAN A77P1.
 - INSTALL TRANSITION RAILING (TYPE WB-31) Mod PER DETAIL ON SHEET C-1.
 - CONSTRUCT 3" THICK CONCRETE VEGETATION CONTROL PER CALTRANS STANDARD PLAN A77N5 AND A77N6.
 - INSTALL TYPE E GUARDRAIL DELINEATOR PER CALTRANS STANDARD PLAN RSP A77N4 AND A73C.
 - INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3R) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - INSTALL RETRO REFLECTIVE MATERIAL TYPE P(CA) (OM-3L) TO IMPACT HEAD PER CA MUTCD 2014, FIGURE 2C-13(CA) AND SECTION 2C.65.
 - PAINT 6" WIDE TRAFFIC STRIPE (2-COAT) PER CALTRANS STANDARD PLAN A20B DETAIL 27B.



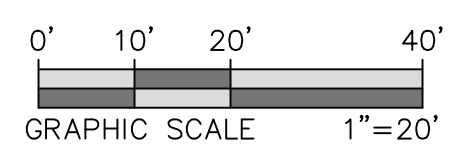
POSITIVE LOCATION INFORMATION

NO.	LOCATION	DEPTH	OG ELEV	METHOD	SIZE & TYPE	OWNER	NORTHING	EASTING
4	20.66' RT 427+99.63	41"	2905.85	POTHOLING	(5) 4" PVC F/O	AT&T LUMEN SPRINT VERIZON ZAYO	1930572.169	6725395.650
5	18.66' RT 429+08.81	49"	2905.25	POTHOLING	(4) 4" PVC F/O	AT&T LUMEN SPRINT VERIZON ZAYO	1930658.293	6725339.044



CONTROL POINTS				
POINT #	ELEVATION	NORTHING	EASTING	DESCRIPTION
3	2907.08	1930462.58	6725419.16	TRAVPT-SET S/W SBDO (RP) FLUSH

NOTE:
1- SEE SHEET 2 FOR SAN BERNARDINO COUNTY TRAFFIC CONTROL GENERAL NOTES.



PREPARED BY:
DE DOKKEN ENGINEERING
1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA. 92111-8377

FIELD CHANGES		
MARK	CHANGES	DATE
	NO CHANGES	



SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: ST
DRAWN BY: MN
CHECKED BY: AOF
RECOMMENDED BY: *Chris Nguyen*
DATE: 6/6/2024

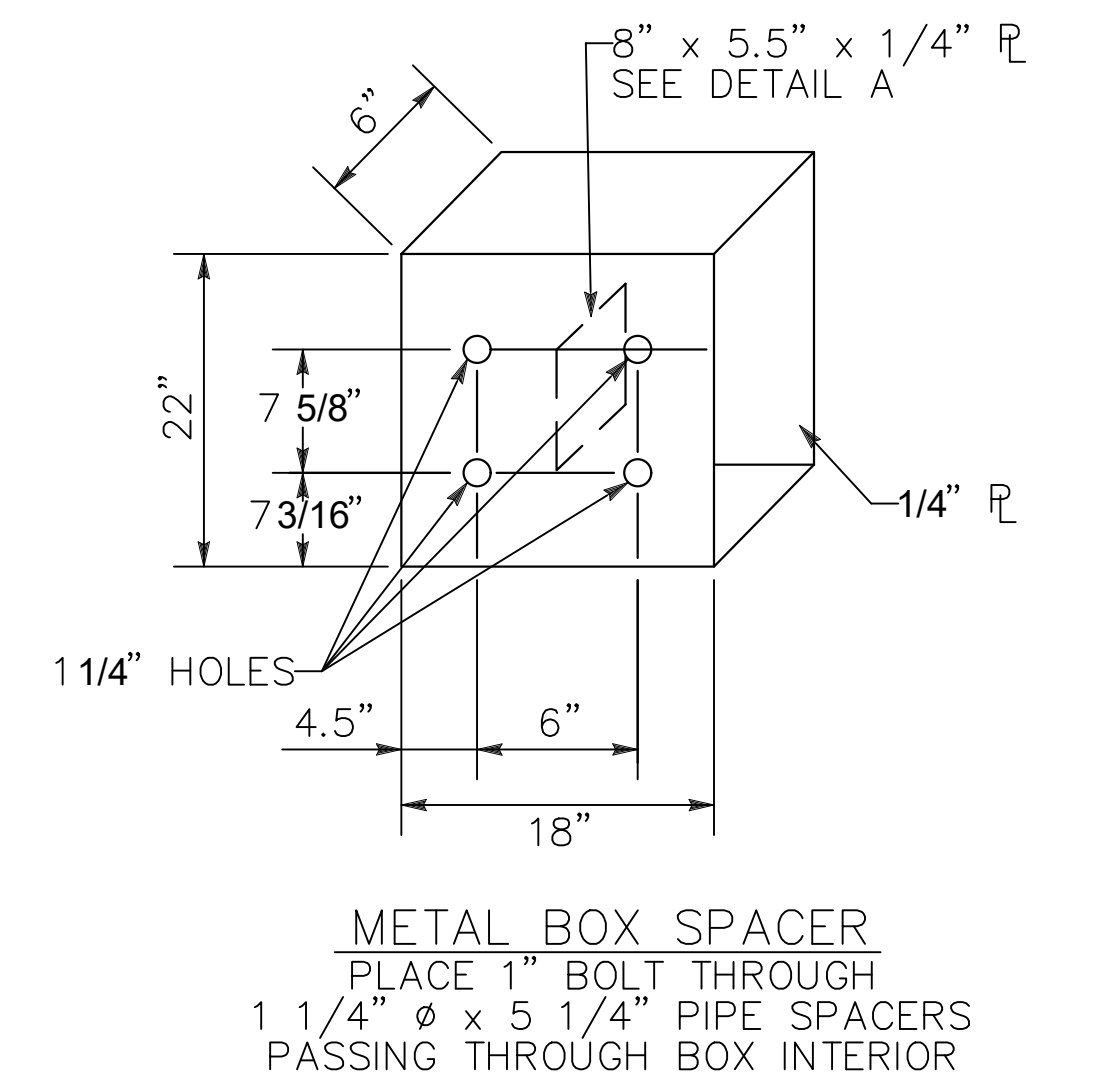
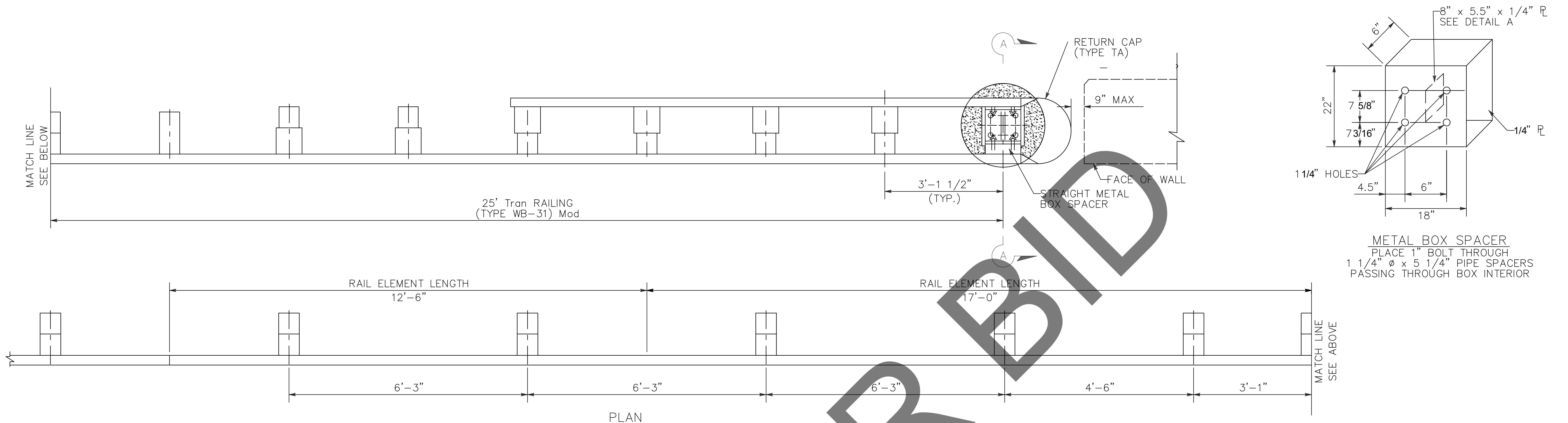
APPROVED BY: *Eloy Ruivalcaba*
DATE: 6/6/2024

ELOY RUIVALCABA, P.E.
SUPERVISING ENGINEER

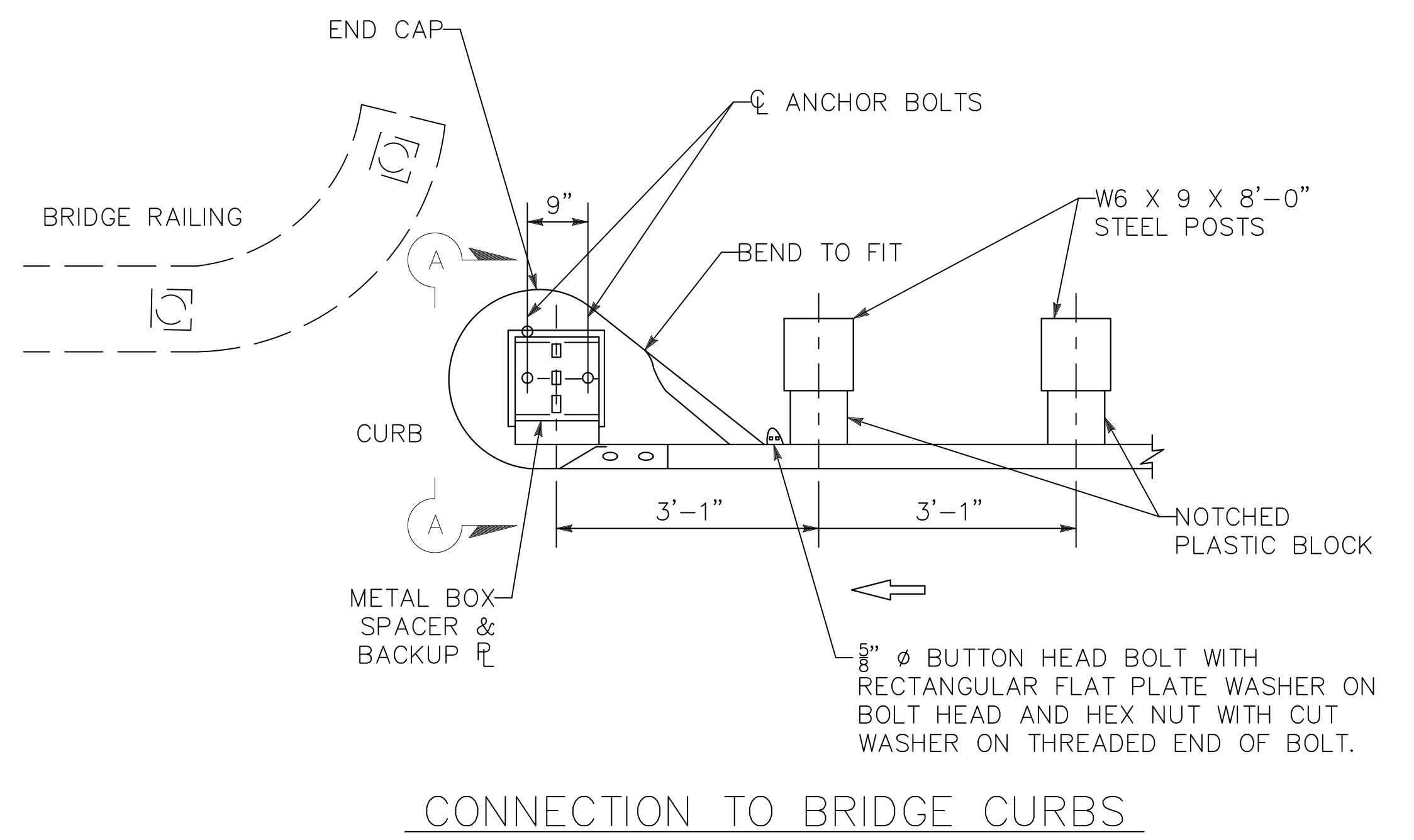
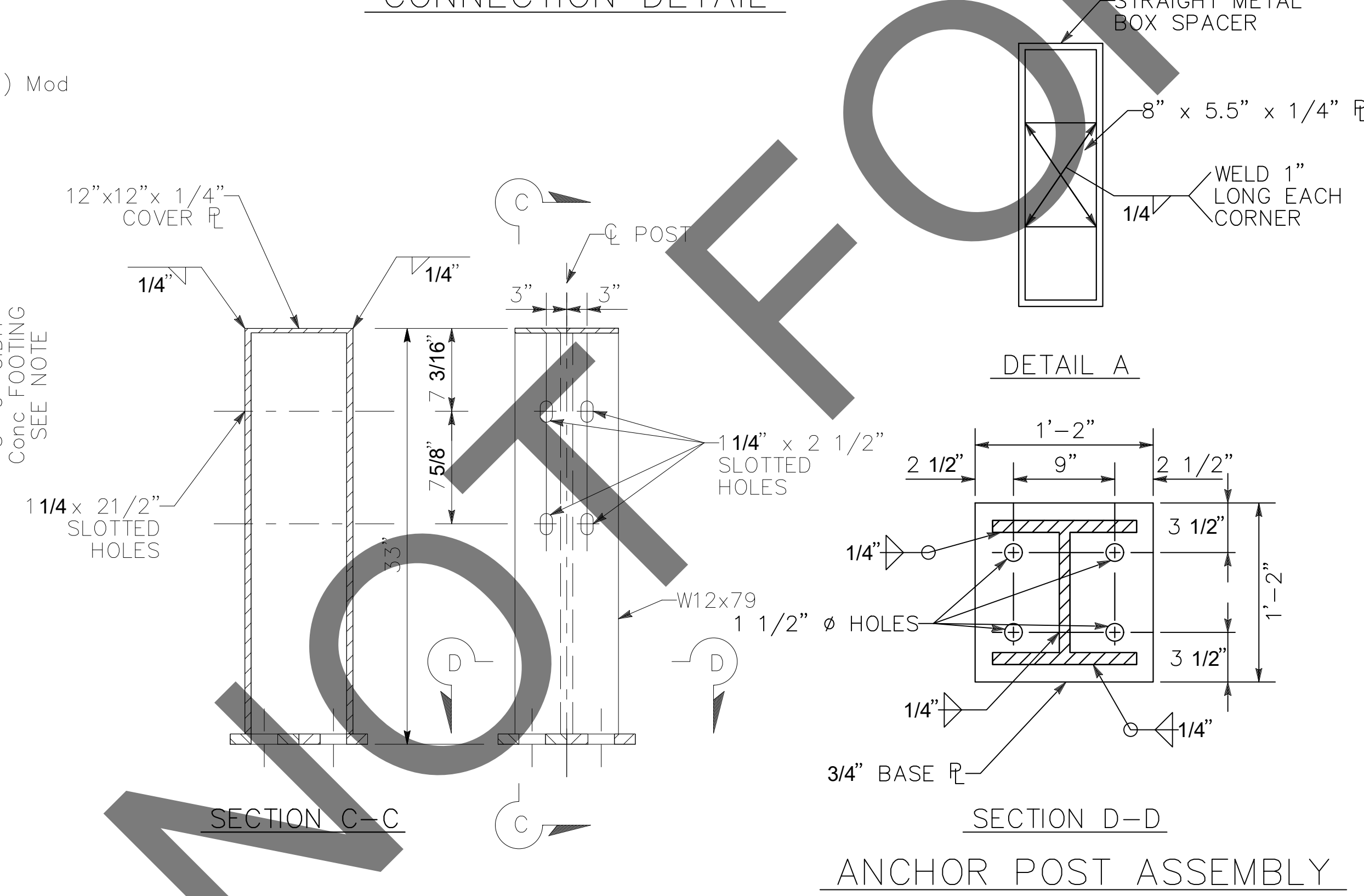
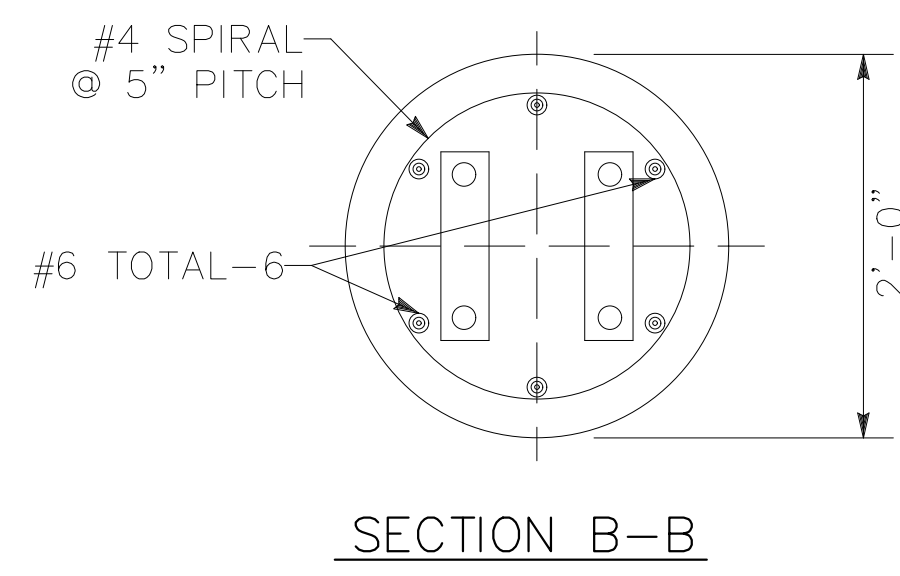
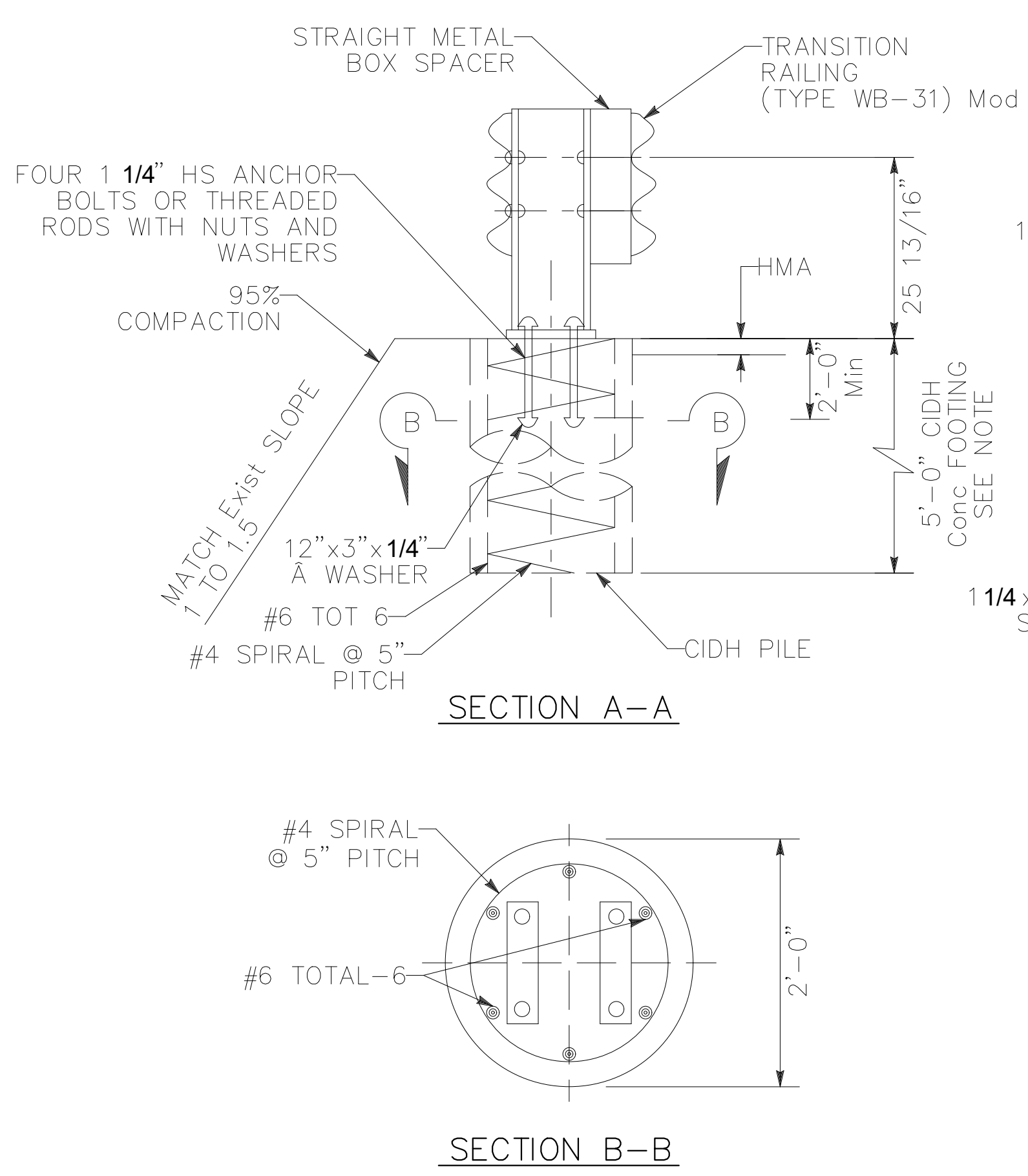
SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS
LAYOUT
FROM STA 425+75 TO 431+25
DEVORE AREA

J.L. REF. W.O. NO. PLAN SCALE SHT. NO. TOT. SHTS.
J.L. 11815 TX1799 1" = 20' 15 21

REVISIONS	DATE	DESCRIPTION



PLAN
 CONNECTION DETAIL



TRANSITION RAILING (TYPE WB-31) Mod
 (NO SCALE)

PREPARED BY:
DE DOKKEN ENGINEERING
 1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92161-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		
FIELD CHANGES			



SAN BERNARDINO COUNTY
 DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:	DATE
ST	MN	ADF	Chris Nguyen, P.E.	6/6/2024
APPROVED BY:			DATE	
Eloy Ruvalcaba, P.E.			6/6/2024	06/12/2024
SUPERVISING ENGINEER			DEPUTY DIRECTOR	

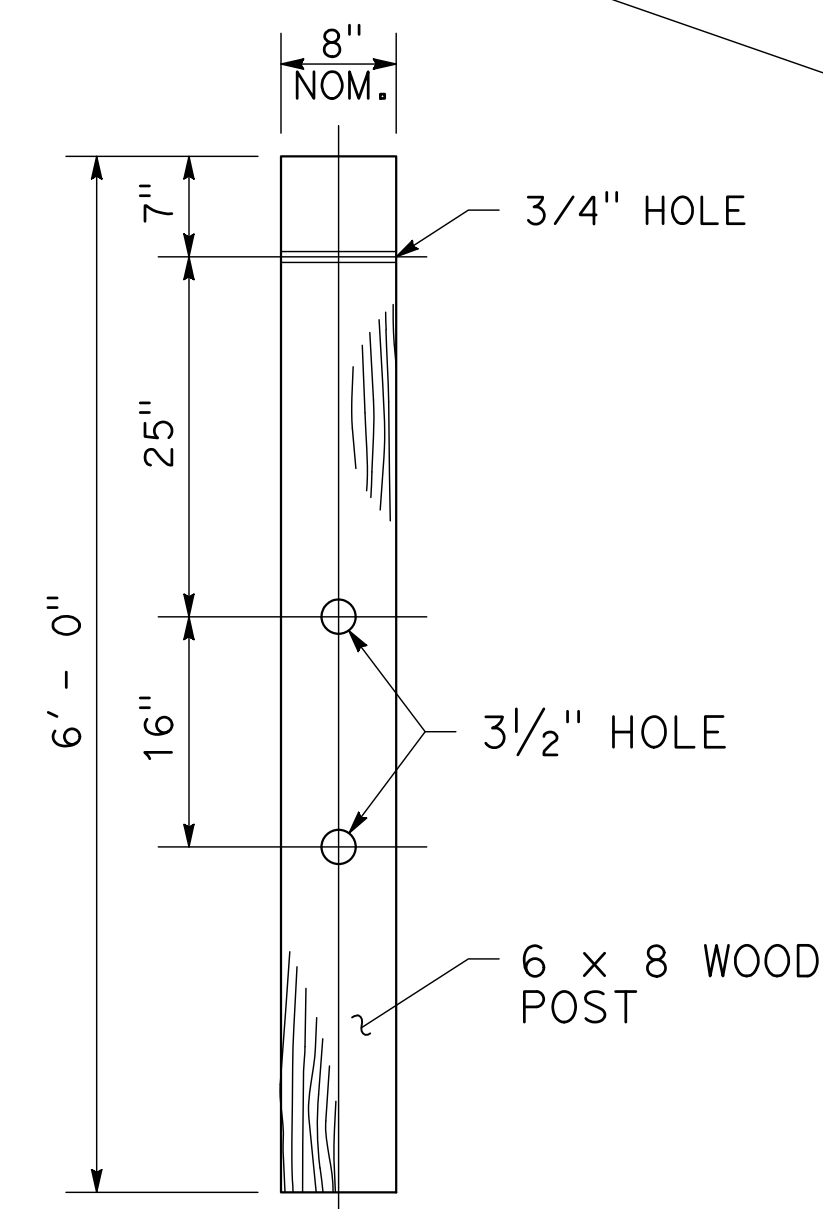
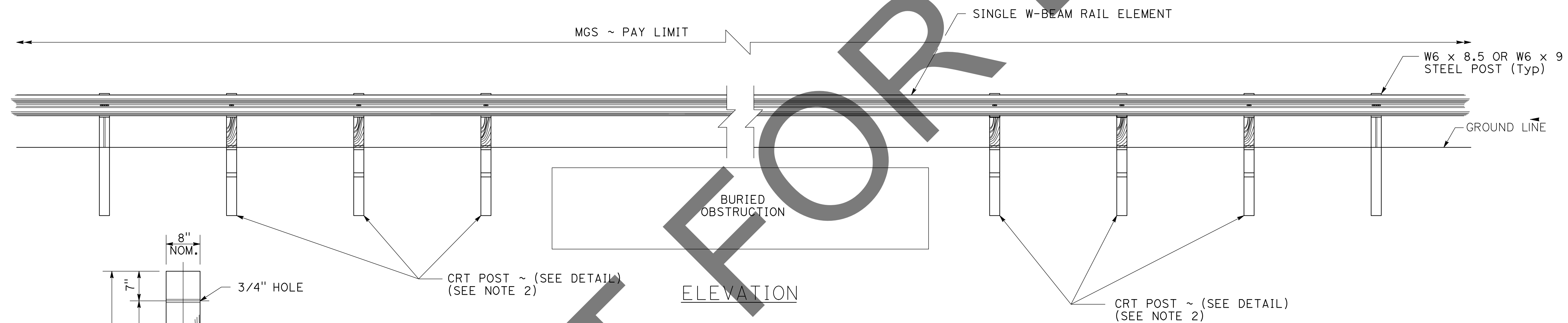
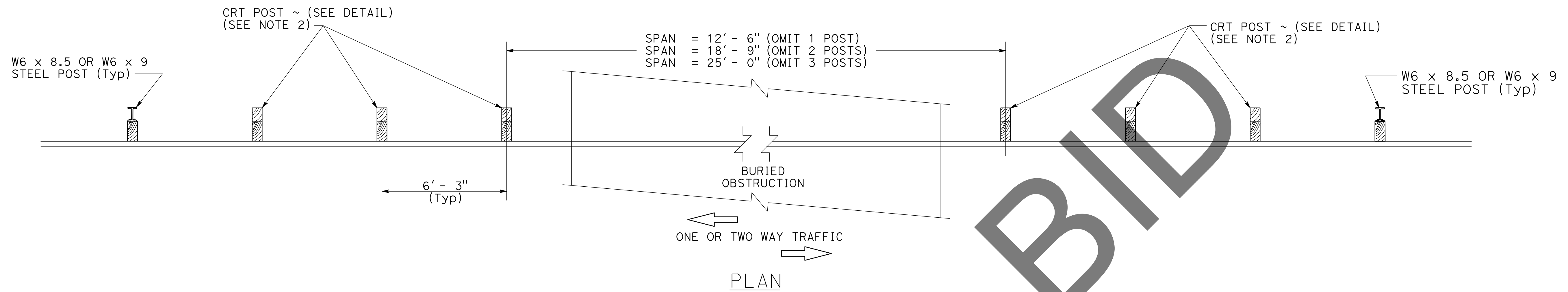
SAN BERNARDINO AREA
 GUARDRAIL REPLACEMENTS
 CONSTRUCTION DETAILS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 11815	TX1799	N/A	16	21

MARK	REVISIONS	DATE

NOTES:

- FOR ADDITIONAL DETAILS NOT SHOWN ON THIS PLAN, REFER TO STANDARD PLANS A77L1 AND A77L2.
- 3- CRT POST TO BE WOOD ONLY AT APPROACH AND DEPARTURE SIDE OF THE BURIED OBSTRUCTION.



MGS POST OMISSION DETAIL
SEE SHEET L-12

NOT FOR BID

MARK	CHANGES	NO CHANGES	RESIDENT ENGINEER	DATE

FILE NO. 199950-060

PREPARED BY:

1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA. 92131-8377

MARK	CHANGES	NO CHANGES	RESIDENT ENGINEER	DATE

FIELD CHANGES

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:	DATE
ST	MN	ADF	<i>Chris Nguyen</i>	6/6/2024
APPROVED BY:			<i>Mervat N. Mikhail</i>	06/12/2024
ELOY RUVALCABA, P.E. SUPERVISING ENGINEER			MERVAT N. MIKHAIL, P.E. DEPUTY DIRECTOR	DATE

SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS

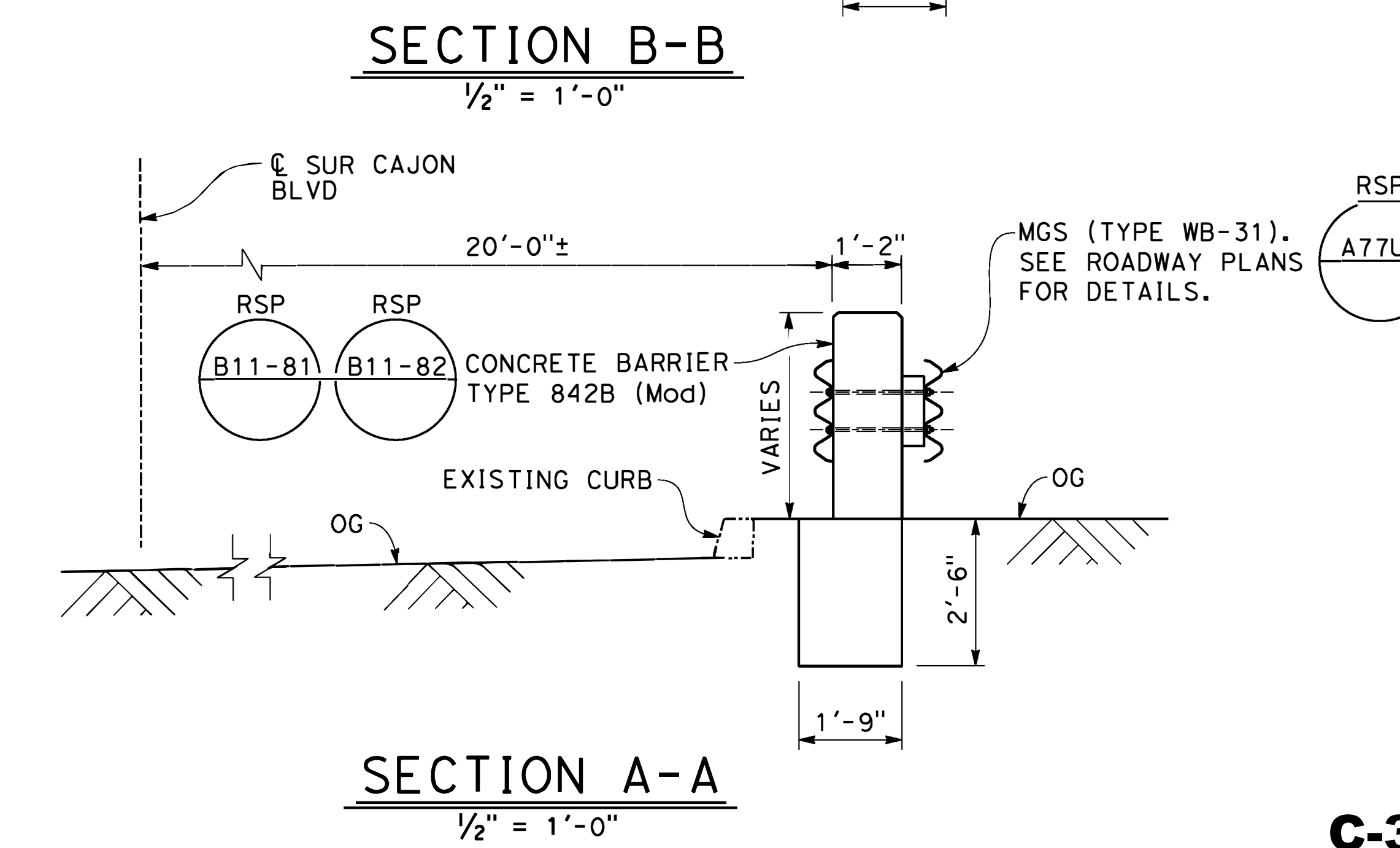
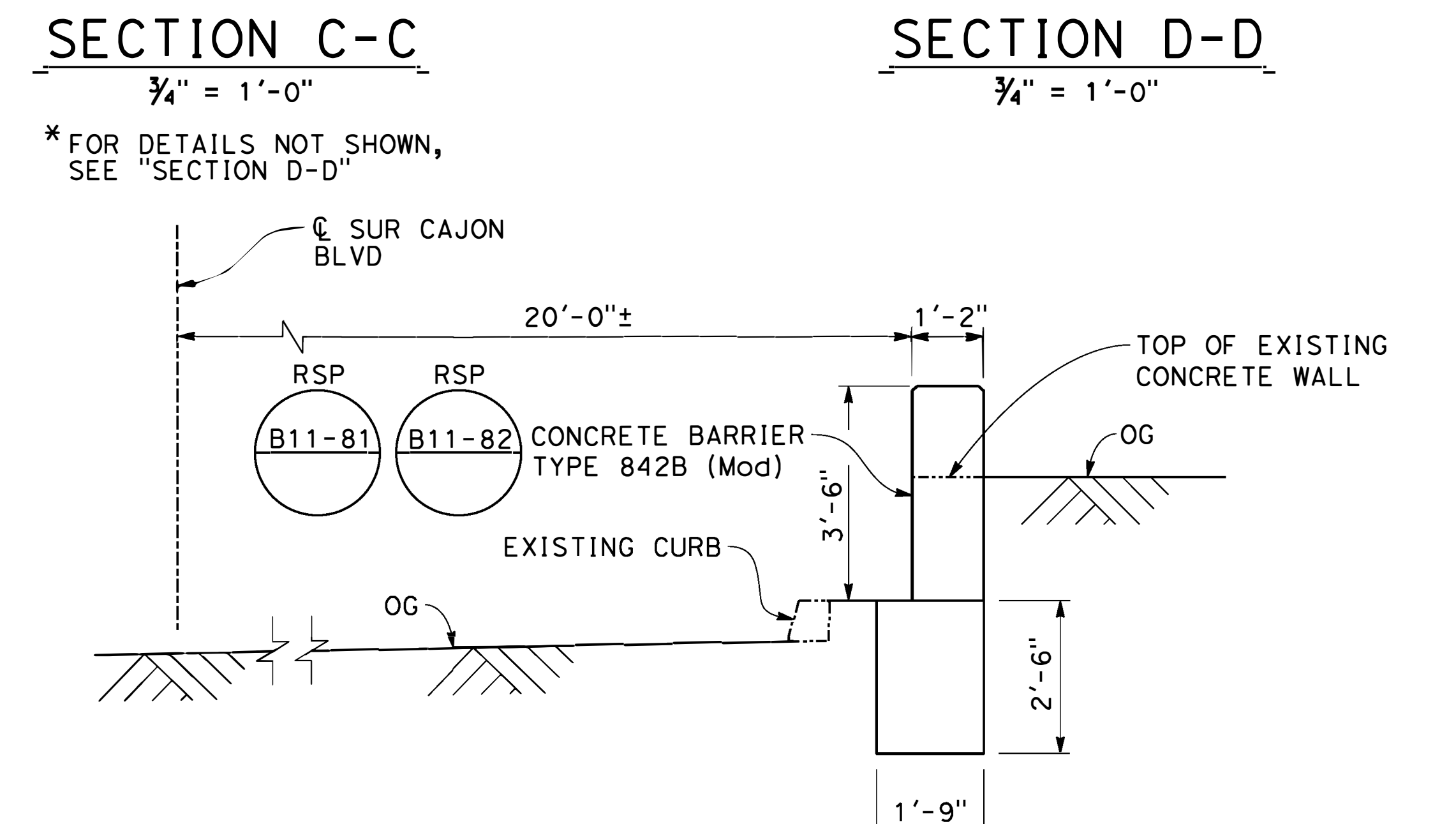
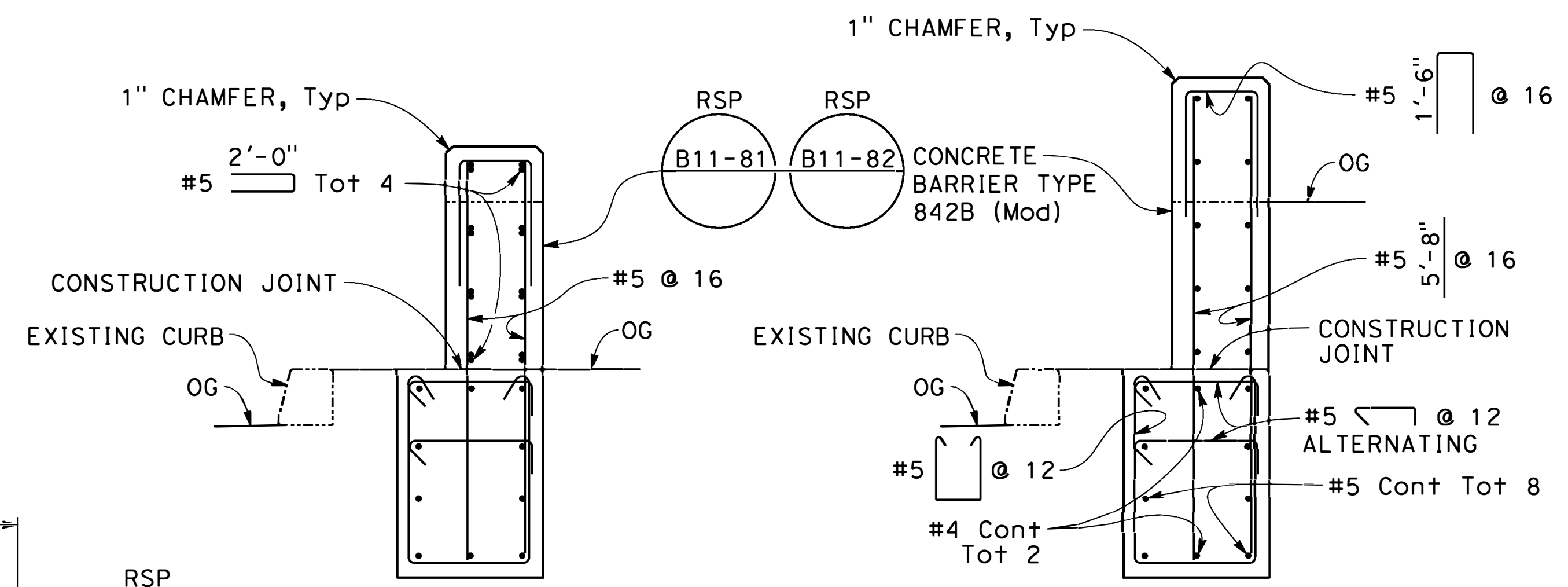
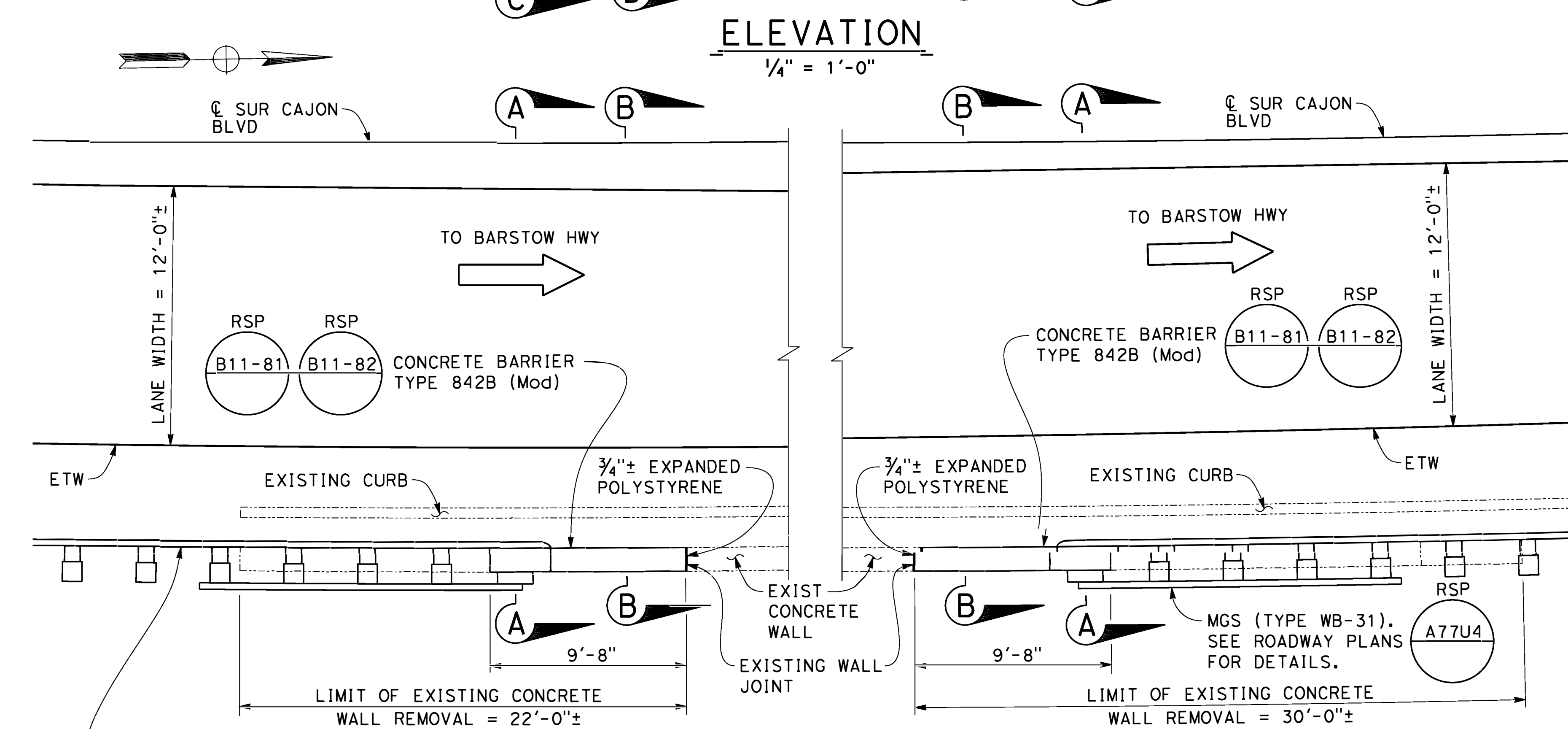
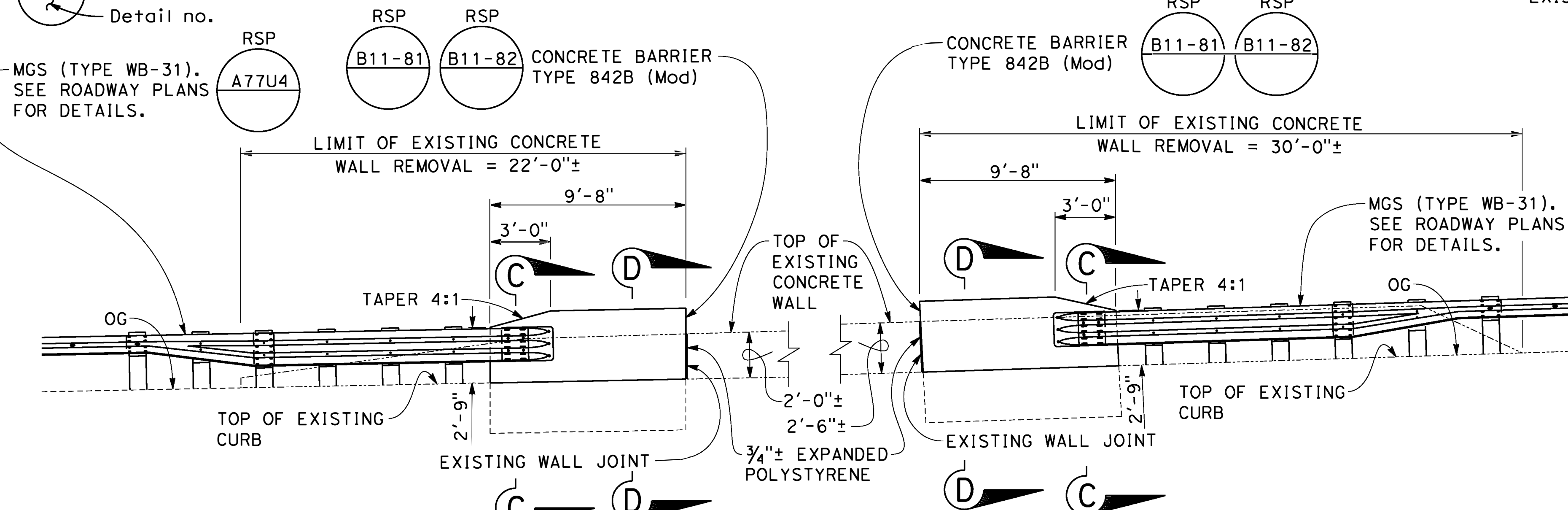
CONSTRUCTION DETAILS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHTS.
J.L. 11815	TX1799	N/A	17	21

STANDARD PLANS DATED 2018

Sheet No.	Title	Sheet No.	Title
A3A	Abbreviations (Sheet 1 Of 3)	A10C	Lines And Symbols (Sheet 3 Of 5)
A3B	Abbreviations (Sheet 2 Of 3)	A10D	Lines And Symbols (Sheet 4 Of 5)
A3C	Abbreviations (Sheet 3 Of 3)	A10E	Lines And Symbols (Sheet 5 Of 5)
A10A	Lines And Symbols (Sheet 1 Of 5)	RSP A77U4	Midwest Guardrail System Transition Railing (Type WB-31)
A10B	Lines And Symbols (Sheet 2 Of 5)	RSP B11-81	Concrete Barrier Type 842 Details No. 1
		RSP B11-82	Concrete Barrier Type 842 Details No. 2

Standard plan sheet no.
Detail no.



FILE NO. 199950-060

MARK	REVISIONS	DATE

FILE NO. 199950-060

PREPARED BY:

DE DOKKEN ENGINEERING
1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA. 92111-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES

SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY: RB | DRAWN BY: MH | CHECKED BY: RB | RECOMMENDED BY: [Signature] | DATE: 6/6/2024

APPROVED BY: [Signature] | DATE: 06/12/2024

ELOY RUVALCABA, P.E. SUPERVISING ENGINEER | MERVAT N. MICHAEL, P.E. DEPUTY DIRECTOR

JL. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
JL. 11815	TX1799	N/A	18	21

C-3

SAN BERNARDINO AREA GUARDRAIL REPLACEMENTS
CONCRETE BARRIER CONSTRUCTION DETAILS

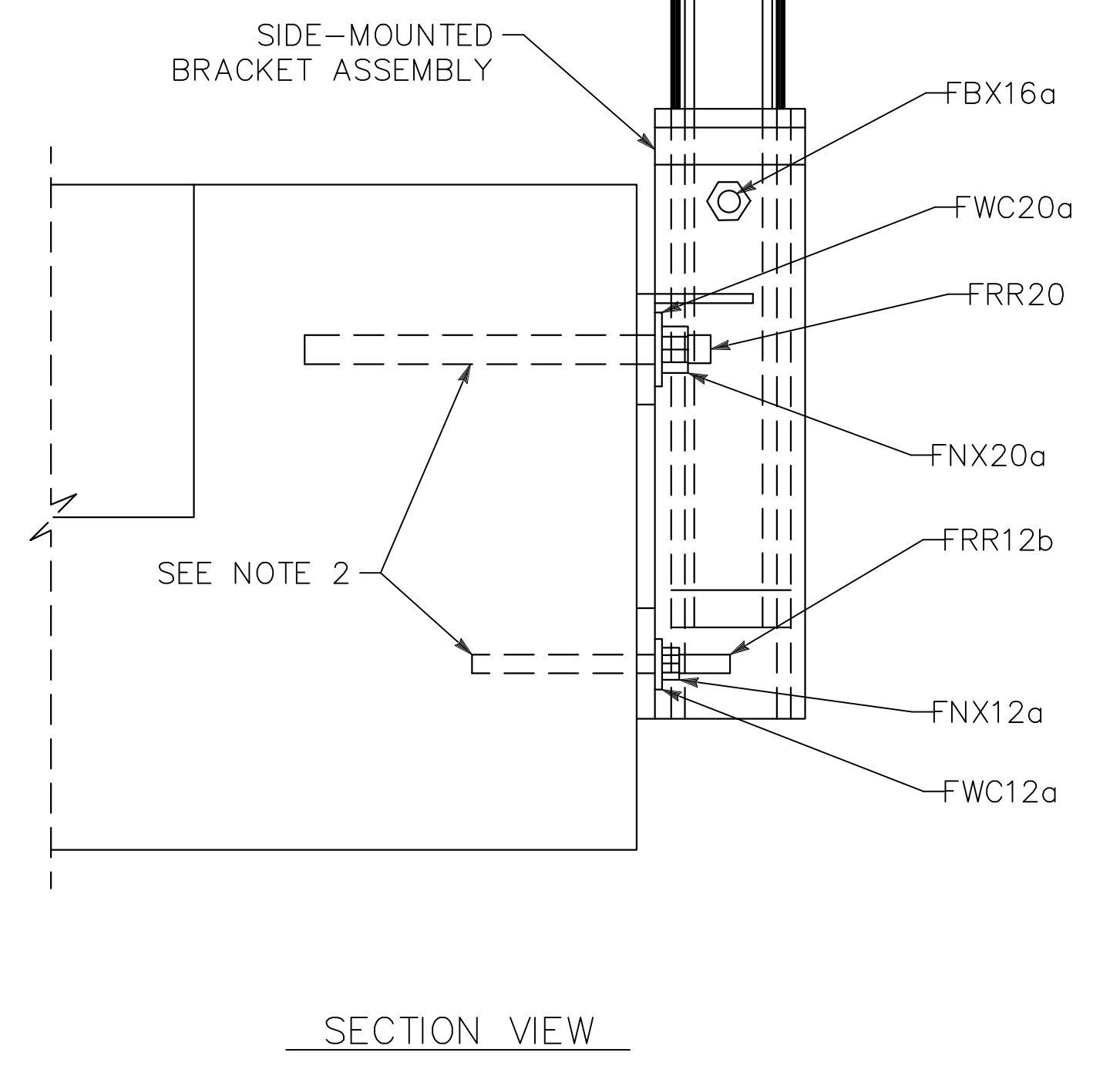
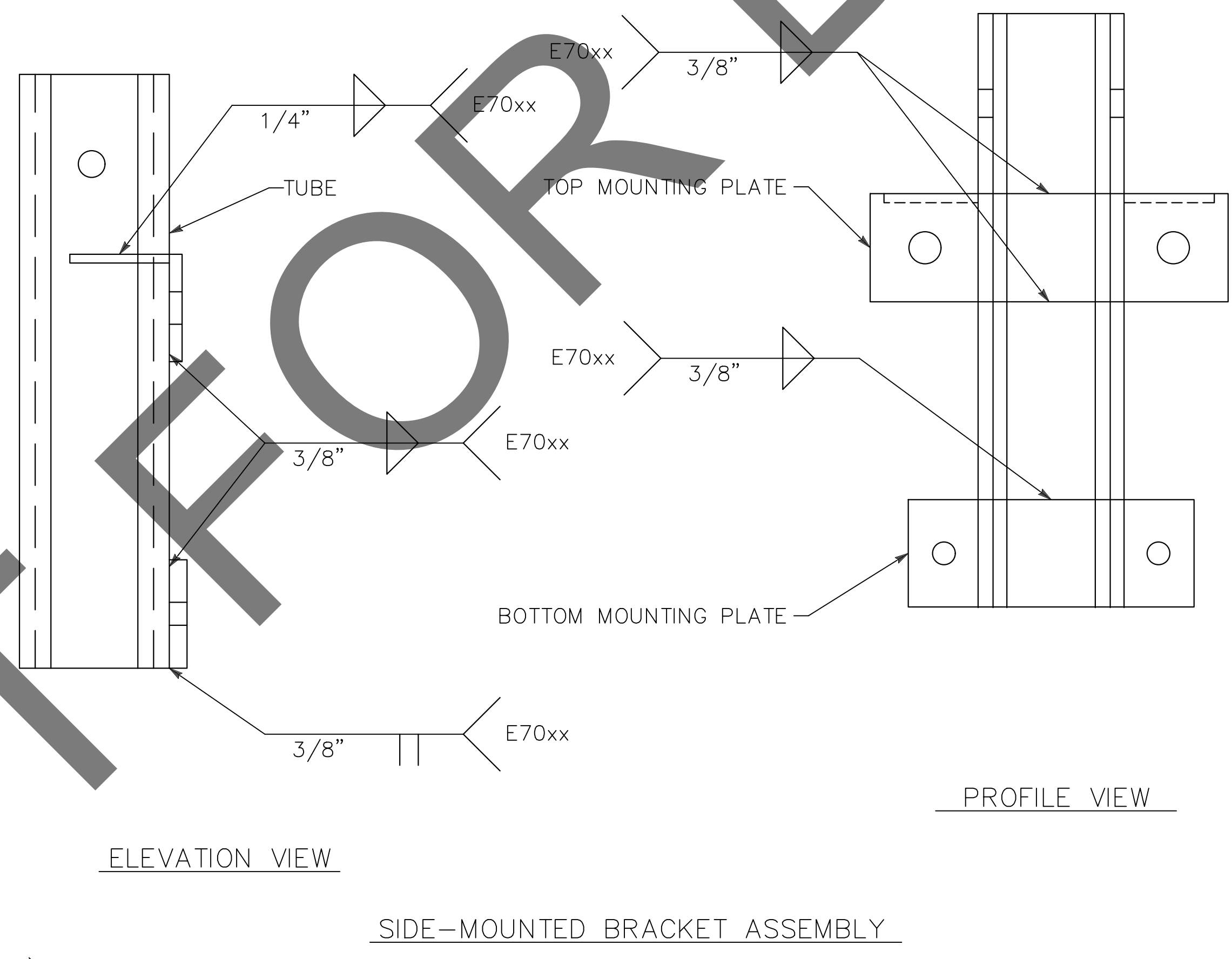
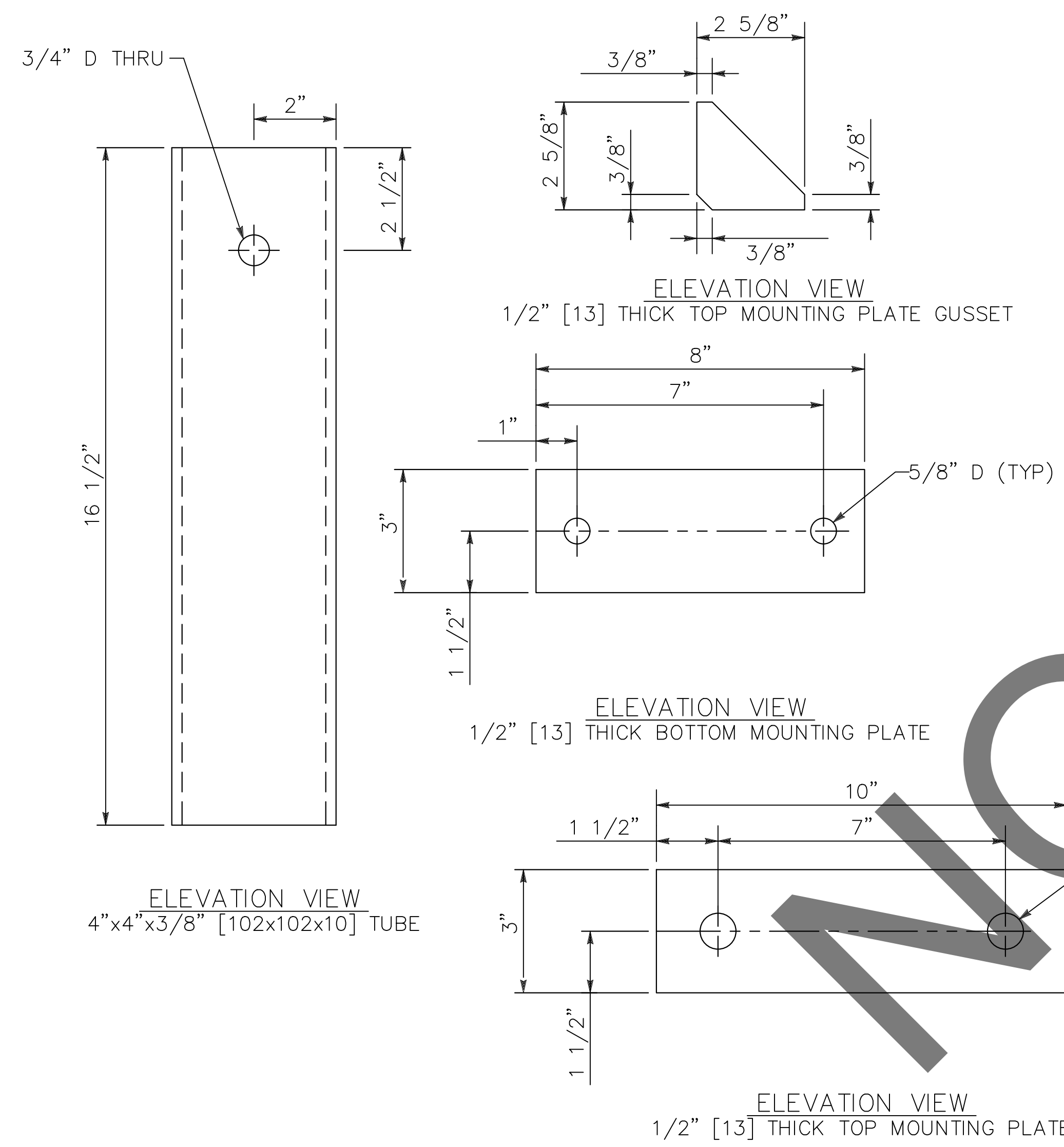
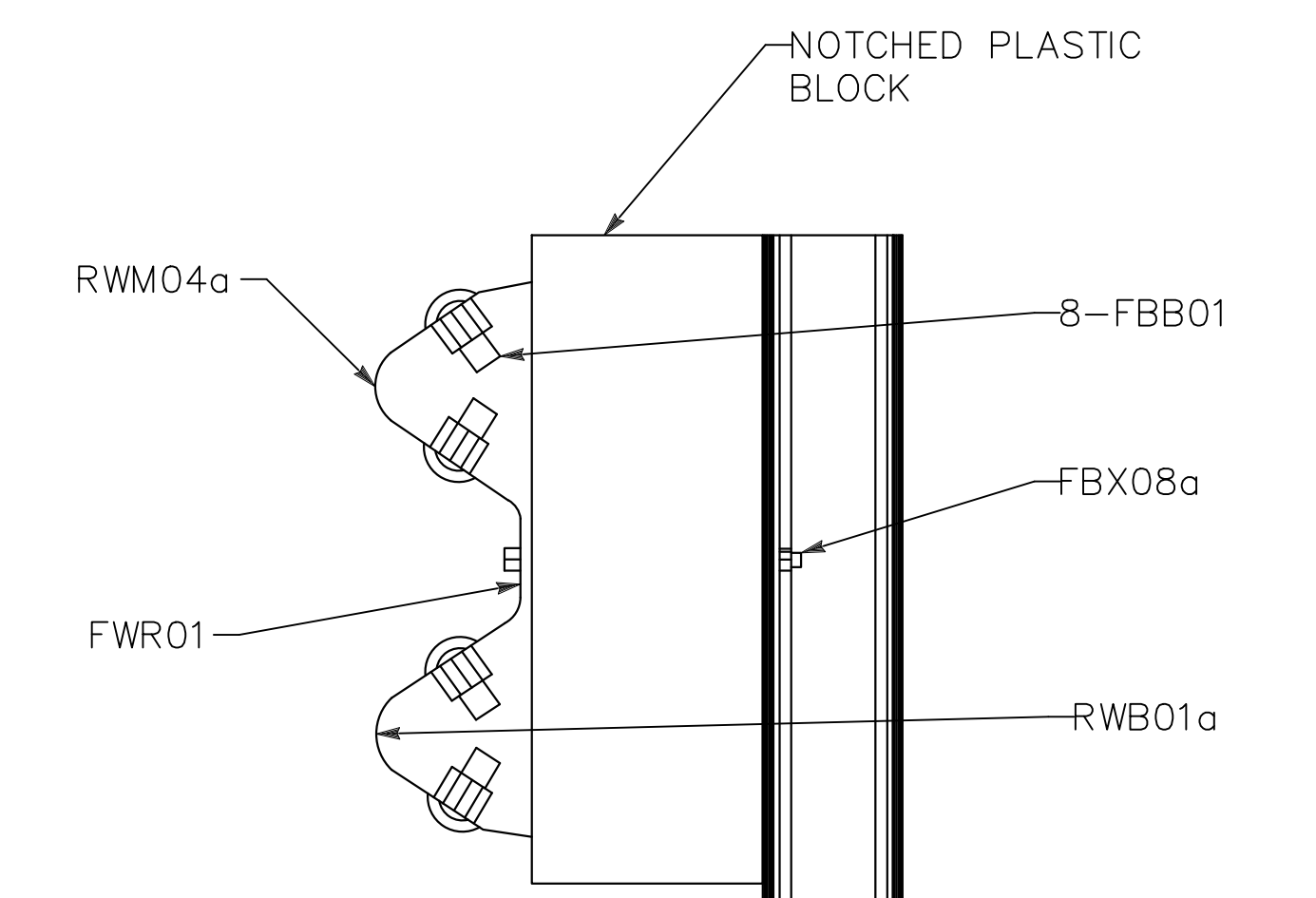
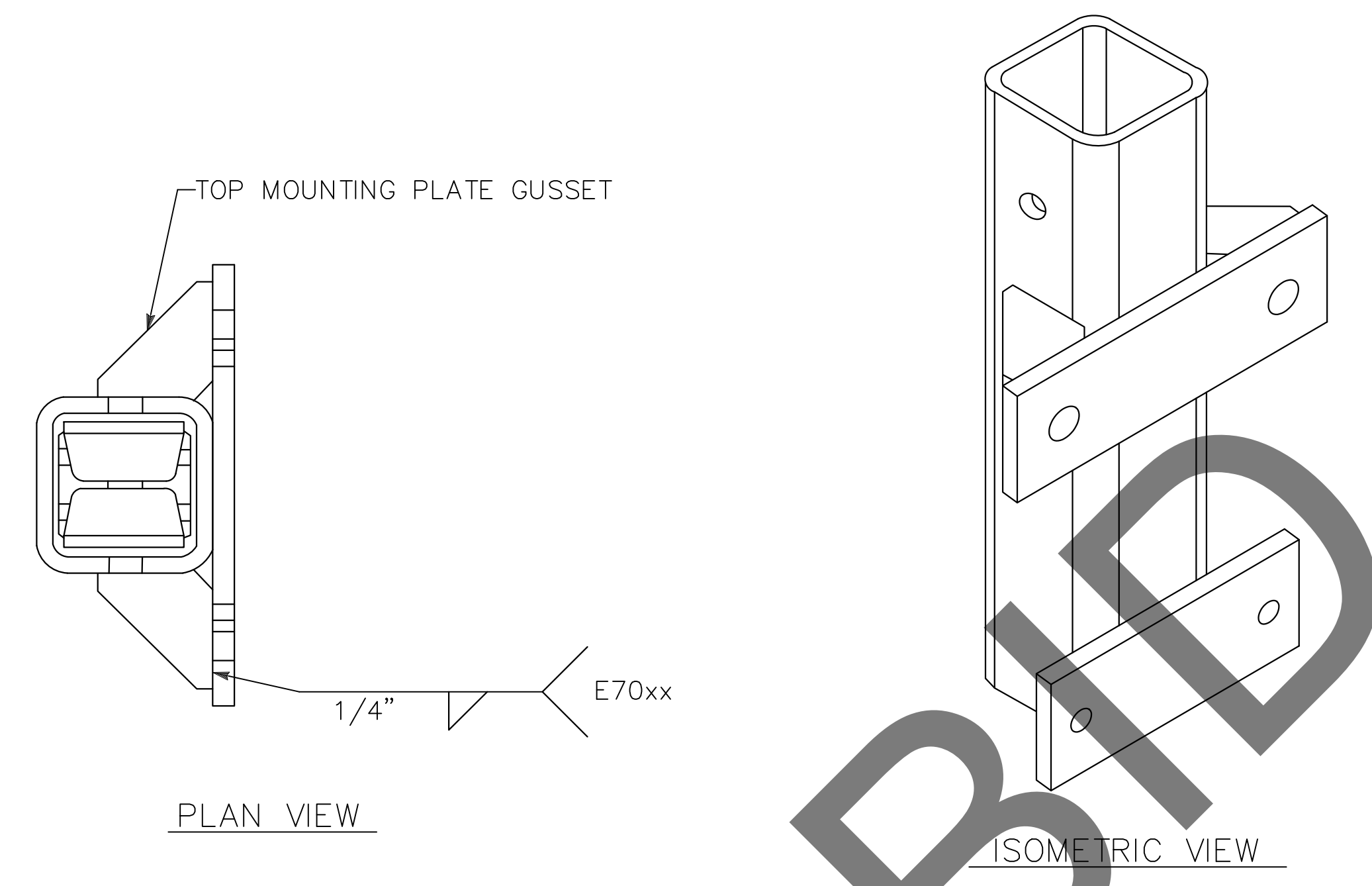
COMPONENTS

UNIT LENGTH=150" [3810]

DESIGNATOR	COMPONENT	NUMBER
PSF01	S3x5.7 BY 44" LONG POST AND STANDOFF	4
RWM04a	12'-6" W-BEAM MGS SECTION 1/2 POST SPACING	1
RWB01a	12" W-BEAM BACKUP PLATE	4
FBX08a	HEX BOLT 5/16"-18x1 1/4"x1 1/4" AND NUT	4
RWR01	1 3/4"x1 3/4"x1/8" SQUARE GUARDRAIL WASHER	4
FBB01	5/8" DIA., 1 1/2" LONG GUARDRAIL BOLT AND NUT	8
FBX16a	HEX BOLT 5/8"-11x5"x1 1/4" AND NUT	4
---	SIDE-MOUNTED BRACKET ASSEMBLY	4
FWC20a	3/4" PLAIN ROUND WASHER	8
FWC12a	1/2" PLAIN ROUND WASHER	8
FRR20b	3/4" DIA., 11" LONG THREADED ROD	8
FNX20a	3/4" DIA., HEX NUT	8
FRR12b	1/2" DIA., 7" LONG THREADED ROD	8
FNX12a	1/2" DIA., HEX NUT	8

NOTE:

1. FILL EXISTING HOLES FROM REMOVED RAILING WITH NON-SHRINK GROUT.
2. DRILL AND BOND THREADED RODS INTO THE EXISTING CONCRETE PER CALTRANS STANDARD SPECIFICATIONS.



MGS (SPECIAL)
(CULVERT HEADWALL)

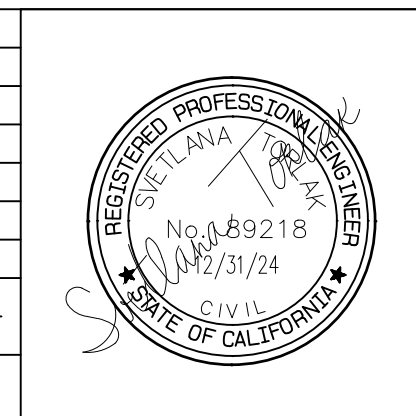
MARK	REVISIONS	DATE

PREPARED BY:

1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92111-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		

FIELD CHANGES



SAN BERNARDINO COUNTY
DEPARTMENT OF PUBLIC WORKS

DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:	DATE
ST	MN	ADF	Chris Nguyen	6/6/2024
APPROVED BY:			Mervat N. Mikhail, P.E.	06/12/2024
ELOY RUVALCABA, P.E.			DEPUTY DIRECTOR	DATE

SAN BERNARDINO AREA
GUARDRAIL REPLACEMENTS
CONSTRUCTION DETAILS

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHTS.
J.L. 11815	TX1799	N/A	20	21

QUANTITIES

SHEET No.	SEGMENT NUMBER	AREA	ROAD	FROM STA TO STA		MGS (STEEL POST)	MGS (SPECIAL)	IN-LINE TERMINAL SYSTEM	TRANSITION RAILING (TYPE WB-31)	MINOR CONCRETE (VEGETATION CONTROL)	END ANCHOR ASSEMBLY (TYPE SFT)	REMOVE BARRIER RAILING	REMOVE GUARDRAIL	TREATED WOOD WASTE	ASPHALT CONCRETE DIKE (TYPE C)	ASPHALT CONCRETE DIKE (TYPE F)	REMOVE AC DIKE	REMOVE CONCRETE BARRIER (TYPE K)	CONCRETE BARRIER TRANSITION	REMOVE CONCRETE CURB
				STA	STA	LF	LF	EA	EA	SQYD	EA	LF	LF	LB	LF	LF	LF	LF	LF	LF
L-1	1	DEVORE	CAJON BLVD	149+25	155+25	50.00	25.00	2												
L-2	2	DEVORE	CAJON BLVD	277+25	283+25	539.70				208			243	3075		460	313			
L-3	3	DEVORE	CAJON BLVD	283+25	288+25	97.80			1	42			122	1544						
L-4	4	DEVORE	CAJON BLVD	288+25	293+75	162.500		1				128	1620				60			
L-5	5	DEVORE	CAJON BLVD	335+25	341+25	153.500		1	2	30						50			20	332
L-6	6	DEVORE	CAJON BLVD	341+25	347+25	371.500		1		140					75	413	297			
L-7	7	DEVORE	CAJON BLVD	347+25	353+25	508.70		1		187			564	7136						
L-8	8	DEVORE	CAJON BLVD	353+25	358+25	278.80	100.00	3		227		100	121	1532	90		94			
L-9	9	DEVORE	CAJON BLVD	364+50	370+75	421.90		2		192	1		529	6694	75	169	53			
L-10	10	DEVORE	CAJON BLVD	370+75	376+25	428.10		1		163			479	6061						
L-11	11	DEVORE	CAJON BLVD	395+75	401+25	250.00	100.00	4		158		122			250		143			
L-12	12	DEVORE	CAJON BLVD	410+25	415+25	175.00	25	4		116		30			150	50	200			
L-13	13	DEVORE	CAJON BLVD	425+75	431+25			4	4	115										
TOTAL						3438	250	24	7	1578	1	279	2186	27662	844	1142	1304	60	20	332

TRAFFIC STRIPE

SHEET No.	SEGMENT NUMBER	AREA	ROAD	FROM STA TO STA		TRAFFIC STRIPE	
				STA	STA	PAINT	DELINEATOR
						6 IN 27B	TYPE E
LF	EA						
L-1	1	DEVORE	CAJON BLVD	149+25	155+25	225	4
L-2	2	DEVORE	CAJON BLVD	277+25	283+25	470	11
L-3	3	DEVORE	CAJON BLVD	283+25	288+25	212	3
L-4	4	DEVORE	CAJON BLVD	288+25	293+75		11
L-5	5	DEVORE	CAJON BLVD	335+25	341+25	595	5
L-6	6	DEVORE	CAJON BLVD	341+25	347+25	461	9
L-7	7	DEVORE	CAJON BLVD	347+25	353+25	572	12
L-8	8	DEVORE	CAJON BLVD	353+25	358+25	554	12
L-9	9	DEVORE	CAJON BLVD	364+50	370+75	532	12
L-10	10	DEVORE	CAJON BLVD	370+75	376+25	487	10
L-11	11	DEVORE	CAJON BLVD	395+75	401+25	612	13
L-12	12	DEVORE	CAJON BLVD	410+25	415+25	478	11
L-13	13	DEVORE	CAJON BLVD	425+75	431+25	457	12
TOTAL						5656	125

PREPARED BY:



1450 FRAZEE ROAD SUITE 100, SAN DIEGO CA 92108-514-8377

MARK	CHANGES	RESIDENT ENGINEER	DATE
	NO CHANGES		
FIELD CHANGES			



SAN BERNARDINO COUNTY DEPARTMENT OF PUBLIC WORKS			
DESIGNED BY:	DRAWN BY:	CHECKED BY:	RECOMMENDED BY:
ST	MN	AOF	Chris Nguyen, P.E. 6/6/2024
APPROVED BY:			DATE
Eloy Ruvalcaba, P.E. 6/6/2024			6/6/2024
SUPERVISING ENGINEER			DEPUTY DIRECTOR

SAN BERNARDINO AREA GUARDRAIL REPLACEMENTS SUMMARY OF QUANTITIES

J.L. REF.	W.O. NO.	PLAN SCALE	SHT. NO.	TOT. SHT'S.
J.L. 11815	TX1799	N/A	21	21

Q-1

MARK	REVISIONS	DATE

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