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THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN MERCED, STANISLAUS AND TUOLUMNE COUNTIES
AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

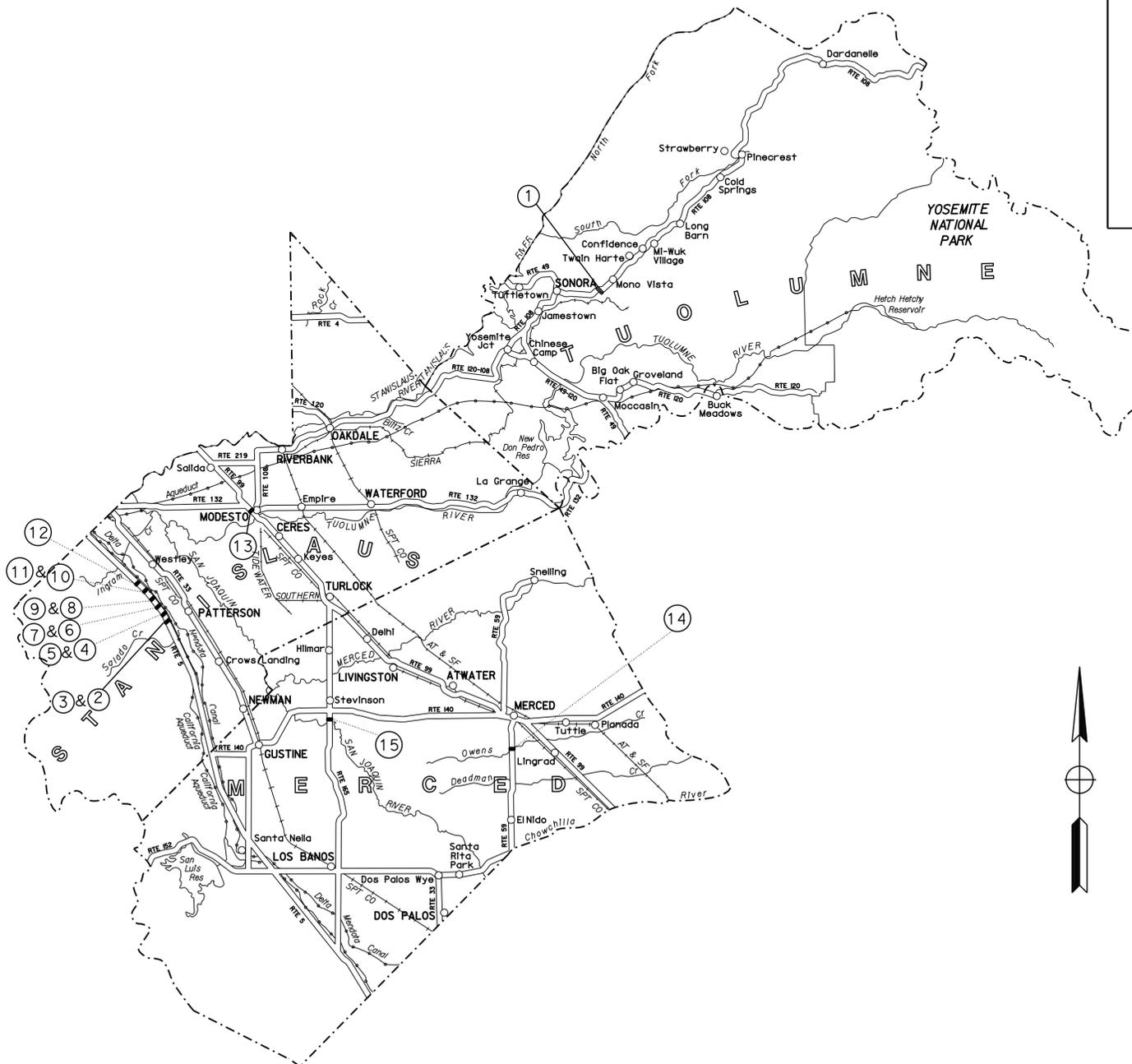
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuo	5, 59, 99, 108, 165	Var	1	20

LOCATION MAP

LOCATIONS OF CONSTRUCTION

Loc	Co	Rte	PM	STRUCTURE NAME	BRIDGE No.
①	Tuo	108	R2.20	MONO WAY UC	32-0066
②	Sta	5	14.94	NIELS HANSON ROAD UC	38-0118L
③	Sta	5	14.94	NIELS HANSON ROAD UC	38-0118R
④	Sta	5	15.86	DEL PUERTO CANYON ROAD UC	38-0119L
⑤	Sta	5	15.86	DEL PUERTO CANYON ROAD UC	38-0119R
⑥	Sta	5	17.25	HANSON ROAD UC	38-0120L
⑦	Sta	5	17.24	HANSON ROAD UC	38-0120R
⑧	Sta	5	18.31	DEL PUERTO CREEK ROAD UC	38-0122L
⑨	Sta	5	18.31	DEL PUERTO CREEK ROAD UC	38-0122R
⑩	Sta	5	20.69	KERN CREEK ROAD UC	38-0123L
⑪	Sta	5	20.68	KERN CREEK ROAD UC	38-0123R
⑫	Sta	5	22.99	INGRAM CREEK ROAD UC	38-0125R
⑬	Sta	99	R15.1	TUOLUMNE BLVD UC	38-0096L
⑭	Mer	59	11.37	OWENS CREEK	39-0065
⑮	Mer	165	7.17	CCID* MAIN CANAL	39-0202

* CCID - CENTRAL CALIFORNIA IRRIGATION DISTRICT.



NO SCALE

PROJECT MANAGER
ALVIN MANGINDIN

DESIGN MANAGER
ALVIN MANGINDIN

10/15/15
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER
DONALD O. EMUKPOERUO
No. 74058
Exp. 12/31/16
CIVIL
STATE OF CALIFORNIA

November 16, 2015
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONTRACT No. 10-1E1304
PROJECT ID 101500072

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE

ABBREVIATION:

CCID - CENTRAL CALIFORNIA IRRIGATION DISTRICT.

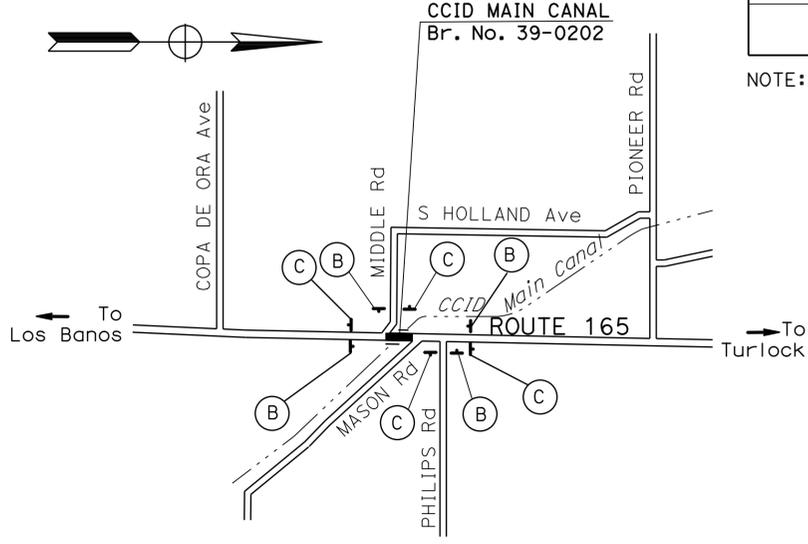
STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
(A)	G20-1		60" x 36"	ROAD WORK NEXT 8 MILES	2 - 4" x 6"	4
(B)	W20-1		36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	9
(C)	G20-2		36" x 18"	END ROAD WORK	1 - 4" x 4"	13

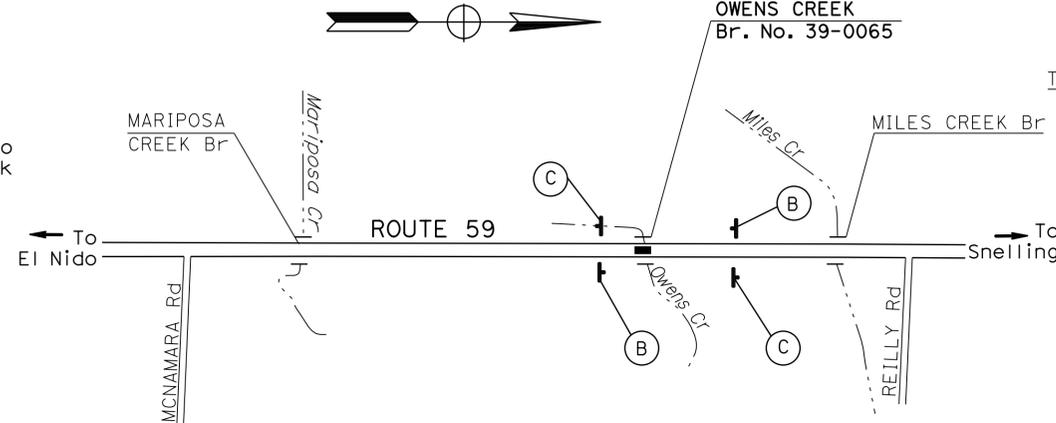
NOTE: EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuo	5, 59, 99, 108, 165	Var	2	20

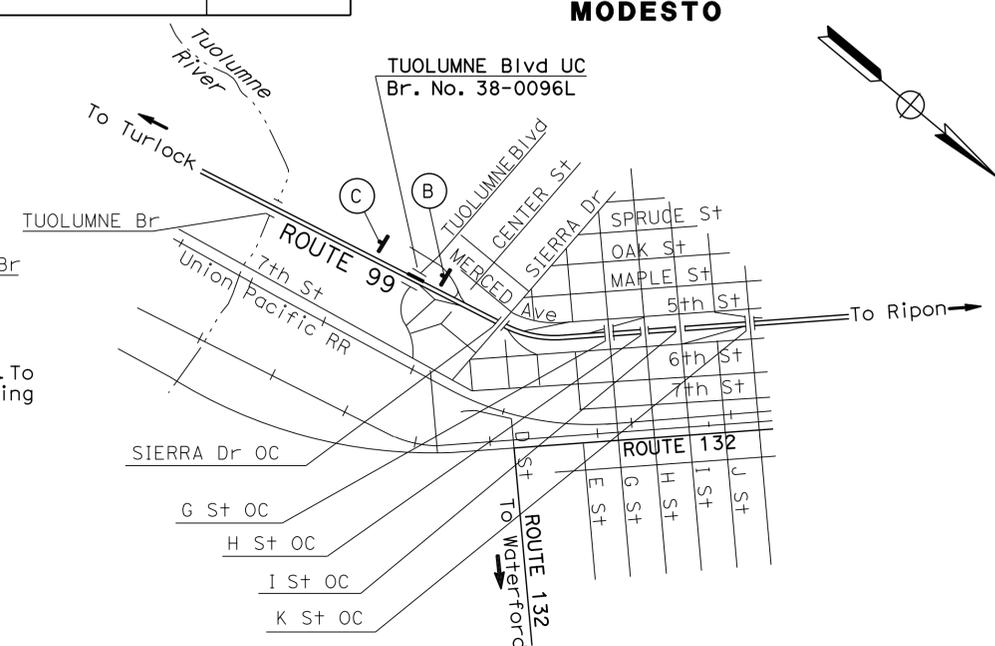
REGISTERED CIVIL ENGINEER DATE 10/15/15
 DONALD O. EMUKPOERUO No. 76333 Exp. 12/31/16
 PLANS APPROVAL DATE 11-16-15
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



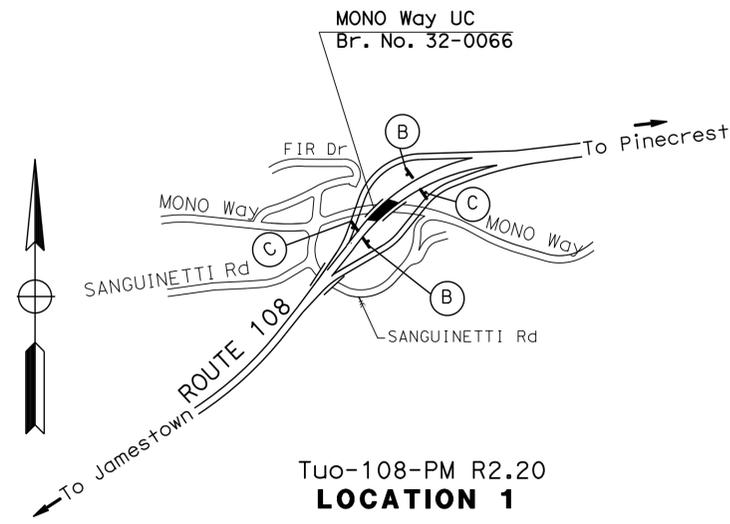
Mer-165-PM 7.17
LOCATION 15



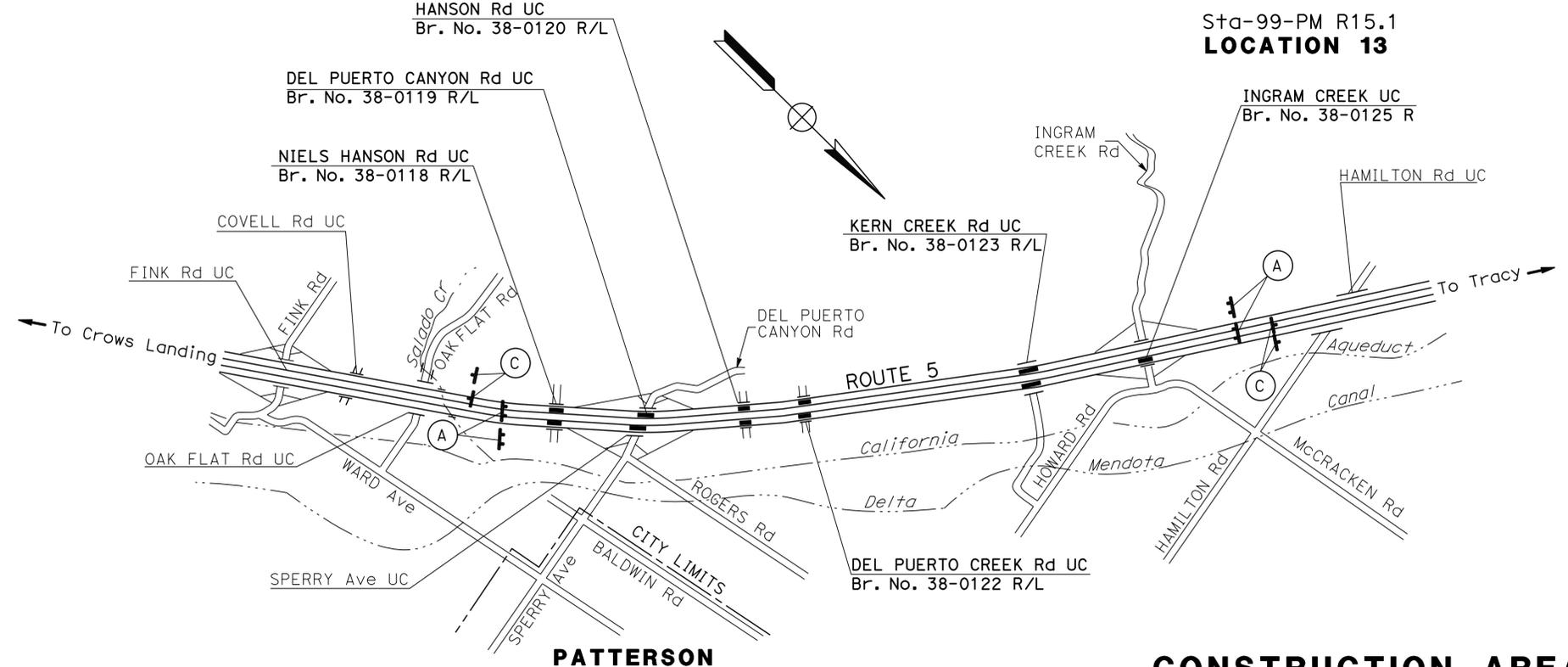
Mer-59-PM 11.37
LOCATION 14



Sta-99-PM R15.1
LOCATION 13



Tuo-108-PM R2.20
LOCATION 1



Sta-5-PM 14.94/22.99
LOCATION 2-12

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE

DE 08/20/15

REVISOR BY DATE REVISOR

DONALD EMUKPOERUO JOSE ALICEA

CALCULATED-DESIGNED BY CHECKED BY

FUNCTIONAL SUPERVISOR ALVIN MANGINDIN

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Mer, Sta, Tuo	5, 59, 99, 108, 165	Var	3	20

10/15/15
REGISTERED CIVIL ENGINEER DATE

11-16-15
PLANS APPROVAL DATE

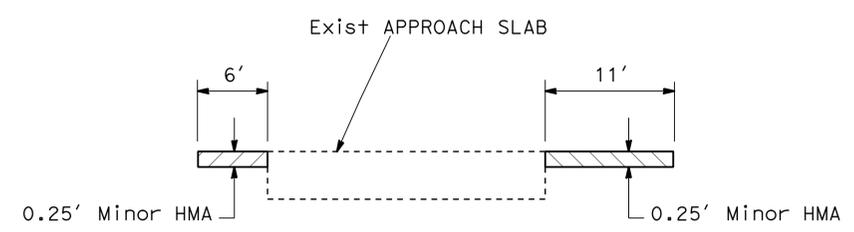
REGISTERED PROFESSIONAL ENGINEER
DONALD O. EMUKPOERUO
No. 76333
Exp. 12/31/16
CIVIL
STATE OF CALIFORNIA

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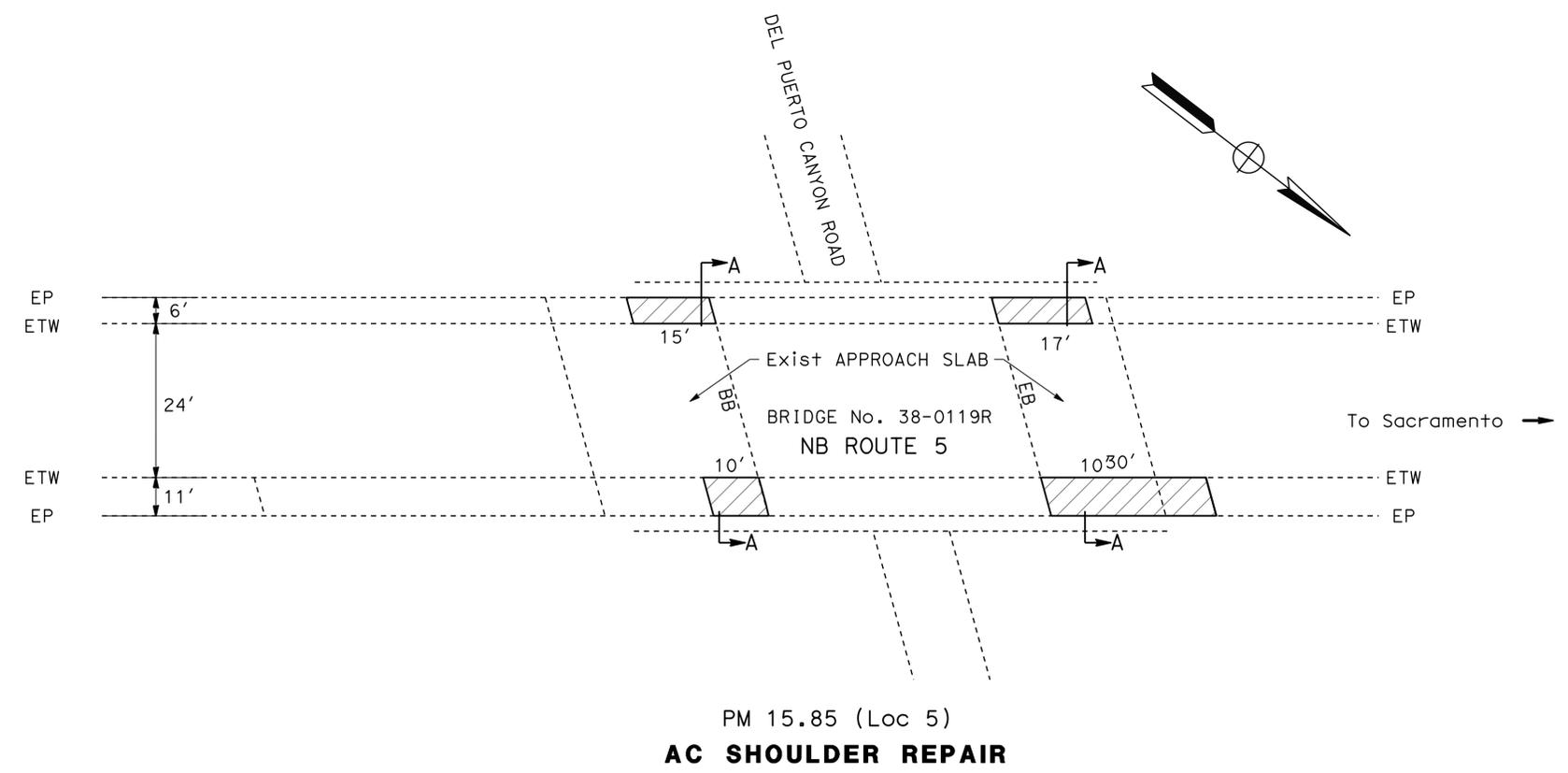
LEGEND:

 - 0.25' COLD PLANE AC PAVEMENT
 - MINOR HMA

PAVEMENT CLIMATE REGION
INLAND VALLEY



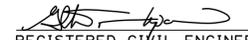
SECTION A-A
PM 15.85 (Loc 5)



PM 15.85 (Loc 5)
AC SHOULDER REPAIR

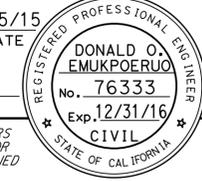
CONSTRUCTION DETAILS
NO SCALE
C-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tu	5,59, 99,108,165	Var	4	20

 10/15/15
 REGISTERED CIVIL ENGINEER DATE

11-16-15
 PLANS APPROVAL DATE

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PAVEMENT DELINEATION ITEMS

Loc No.	STRUCTURE NAME	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	4" THERMOPLASTIC TRAFFIC STRIPE		4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 36-12)		REMOVE PAVEMENT MARKER	PAVEMENT MARKER (RETROREFLECTIVE)				
			YELLOW		WHITE	YELLOW		WHITE	TYPE D	TYPE G	TYPE H	
			DETAIL 22	DETAIL 25	DETAIL 27B	DETAIL 6		DETAIL 12	DETAIL 6	DETAIL 22	DETAIL 12	DETAIL 25
		LF	LF		LF		EA	EA				
1	MONO WAY UC WB/EB											
2	NIELS HANSON ROAD UC SB	75	75	75		75	4		2	2		
3	NIELS HANSON ROAD UC NB	200	200	200		200	12		6	6		
4	DEL PUERTO CANYON Rd UC SB	175	175	175		175	8		4	4		
5	DEL PUERTO CANYON Rd UC NB	145	145	145		145	8		4	4		
6	HANSON ROAD UC SB	130	130	130		130	8		4	4		
7	HANSON ROAD UC NB	125	125	125		125	8		4	4		
8	DEL PUERTO CREEK Rd UC SB	125	125	125		125	8		4	4		
9	DEL PUERTO CREEK Rd UC NB	110	110	110		110	8		4	4		
10	KERN CREEK ROAD UC SB	75	75	75		75	4		2	2		
11	KERN CREEK ROAD UC NB	80	80	80		80	4		2	2		
12	INGRAM CREEK ROAD UC NB	130	130	130		130	8		4	4		
13	TUOLUMNE BLVD UC SB	60	60	60		60	4		2	2		
14	OWENS CREEK SB/NB	120	80	40	40		2	2				
15	CCID MAIN CANAL NB/SB	180	180	180			10		10			
SUBTOTAL		1730	180	1510	1650	40	1430	96	2	10	42	42
TOTAL		1730	3340			1470		96	96			

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 FUNCTIONAL SUPERVISOR: ALVIN MANGINDIN
 CALCULATED/DESIGNED BY: DONALD EMUKPOERUO
 CHECKED BY: JOSE ALICEA
 REVISED BY: DE
 DATE REVISED: 05/13/15

PAVEMENT DELINEATION QUANTITIES PDQ-1

LAST REVISION | DATE PLOTTED => 02-DEC-2015 | TIME PLOTTED => 13:11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 FUNCTIONAL SUPERVISOR
 ALVIN MANGINDIN
 CALCULATED-DESIGNED BY
 CHECKED BY
 DONALD EMUKPOERUO
 JOSE ALICEA
 REVISED BY
 DATE REVISED
 DE
 08/20/15

NOTES:

1. * - SEE HMA (BRIDGE) QUANTITIES IN STRUCTURE GENERAL PLAN.
2. (N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuolumne	5,59, 99,108,165	Var	5	20

10/15/15
 REGISTERED CIVIL ENGINEER DATE

11-16-15
 PLANS APPROVAL DATE

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TRAFFIC MANAGEMENT SYSTEM ELEMENTS (EXISTING)

PM	DIR	LOCATION	TYPE	DESCRIPTION
R2.180		MONO WAY WB ON-OFF RAMP	SIGNAL	SIGNAL
R2.360		MONO WAY EB ON-OFF RAMP	SIGNAL	SIGNAL
R14.711	NB	S/O TUOLUMNE BRIDGE	TMS	TRAFFIC MONITORING SYSTEM
R14.711	SB	S/O TUOLUMNE BRIDGE	TMS	TRAFFIC MONITORING SYSTEM
16.290	NB	MAZE BLVD	TMS	TRAFFIC MONITORING SYSTEM

NOTE: TRAFFIC MANAGEMENT SYSTEM ELEMENTS LOCATIONS ARE APPROXIMATE.

ROADWAY ITEMS

Loc No.	STRUCTURE NAME	BRIDGE No.	LOCATION	LENGTH (N)	WIDTH (N)	COLD PLANE AC PAVEMENT	Minor HMA	HMA (Bridge)	Tack Coat
						SQYD	TON	TON	TON
5	DEL PUERTO CANYON ROAD UC	38-0119R	APPROACH	10'	11'	13	3		
			APPROACH	15'	6'	10	2		
			DEPARTURE	30'	11'	37	7		
			DEPARTURE	17'	6'	12	2		
15	CCID MAIN CANAL	39-0202					39*	0.2	
TOTAL						72	14	39	0.2

SUMMARY OF QUANTITIES
Q-1

LAST REVISION DATE PLOTTED => 02-DEC-2015
 08-20-15 TIME PLOTTED => 13:11

	M	
Maint	MAINTENANCE	
Max	MAXIMUM	
MB	METAL BEAM	
MBB	METAL BEAM BARRIER	
MBGR	METAL BEAM GUARD RAILING	
Med	MEDIAN	
MGS	MIDWEST GUARDRAIL SYSTEM	
MH	MANHOLE	
Min	MINIMUM	
Misc	MISCELLANEOUS	
Misc I & S	MISCELLANEOUS IRON AND STEEL	
Mkr	MARKER	
Mod	MODIFIED, MODIFY	
Mon	MONUMENT	
MP	METAL PLATE	
MPGR	METAL PLATE GUARD RAILING	
MR	MOVEMENT RATING	
MSE	MECHANICALLY STABILIZED EMBANKMENT	
Mt	MOUNTAIN, MOUNT	
MtI	MATERIAL	
MVP	MAINTENANCE VEHICLE PULLOUT	
	N	
N	NORTH	
NB	NORTHBOUND	
No.	NUMBER (MUST HAVE PERIOD)	
Nos.	NUMBERS (MUST HAVE PERIOD)	
NPS	NOMINAL PIPE SIZE	
NS	NEAR SIDE	
NSP	NEW STANDARD PLAN	
NTS	NOT TO SCALE	
	O	
Obir	OBLITERATE	
OC	OVERCROSSING	
OD	OUTSIDE DIAMETER	
OF	OUTSIDE FACE	
OG	ORIGINAL GROUND	
OGAC	OPEN GRADED ASPHALT CONCRETE	
OGFC	OPEN GRADED FRICTION COURSE	
OH	OVERHEAD	
OHWM	ORDINARY HIGH WATER MARK	
O-O	OUT TO OUT	
Opp	OPPOSITE	
OSD	OVERSIDE DRAIN	
	P	
p	PAGE	
PAP	PERFORATED ALUMINUM PIPE	
PB	PULL BOX	
PC	POINT OF CURVATURE, PRECAST	
PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT CONCRETE	
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN	
PCP	PERFORATED CONCRETE PIPE, PRESTRESSED CONCRETE PIPE	
PCVC	POINT OF COMPOUND VERTICAL CURVE	
PEC	PERMIT TO ENTER AND CONSTRUCT	
Ped	PEDESTRIAN	
Ped OC	PEDESTRIAN OVERCROSSING	
Ped UC	PEDESTRIAN UNDERCROSSING	
Perm MtI	PERMEABLE MATERIAL	

	P continued	
PG	PROFILE GRADE	
PI	POINT OF INTERSECTION	
PJP	PARTIAL JOINT PENETRATION	
Pkwy	PARKWAY	
PL, PL	PLATE	
P/L	PROPERTY LINE	
PM	POST MILE, TIME FROM NOON TO MIDNIGHT	
PN	PAVING NOTCH	
POC	POINT OF HORIZONTAL CURVE	
POT	POINT OF TANGENT	
POVC	POINT OF VERTICAL CURVE	
PP	PIPE PILE, PLASTIC PIPE, POWER POLE	
PPL	PREFORMED PERMEABLE LINER	
PPP	PERFORATED PLASTIC PIPE	
PRC	POINT OF REVERSE CURVE	
PRF	PAVEMENT REINFORCING FABRIC	
PRVC	POINT OF REVERSE VERTICAL CURVE	
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES	
PS, P/S	PRESTRESSED	
PSP	PERFORATED STEEL PIPE	
PT	POINT OF TANGENCY	
PVC	POLYVINYL CHLORIDE	
Pvmt	PAVEMENT	
	Q	
Qty	QUANTITY	
	R	
R	RADIUS	
R & D	REMOVE AND DISPOSE	
R & S	REMOVE AND SALVAGE	
R/C	RATE OF CHANGE	
RCA	REINFORCED CONCRETE ARCH	
RCB	REINFORCED CONCRETE BOX	
RCP	REINFORCED CONCRETE PIPE	
RCPA	REINFORCED CONCRETE PIPE ARCH	
Rd	ROAD	
Reinf	REINFORCED, REINFORCEMENT, REINFORCING	
Rel	RELOCATE	
Repl	REPLACEMENT	
Ret	RETAINING	
Rev	REVISED, REVISION	
Rdwy	ROADWAY	
RHMA	RUBBERIZED HOT MIX ASPHALT	
Riv	RIVER	
RM	ROAD-MIXED	
RP	RADIUS POINT, REFERENCE POINT	
RR	RAILROAD	
RSP	ROCK SLOPE PROTECTION, REVISED STANDARD PLAN	
Rt	RIGHT	
Rte	ROUTE	
RW	REDWOOD, RETAINING WALL	
R/W	RIGHT OF WAY	
Rwy	RAILWAY	

	S	
S	SOUTH, SUPPLEMENT	
SAE	STRUCTURE APPROACH EMBANKMENT	
Salv	SALVAGE	
SAPP	STRUCTURAL ALUMINUM PLATE PIPE	
SB	SOUTHBOUND	
SC	SAND CUSHION	
SCSP	SLOTTED CORRUGATED STEEL PIPE	
SD	STORM DRAIN	
Sec	SECOND, SECTION	
Sep	SEPARATION	
SG	SUBGRADE	
Shld	SHOULDER	
Sht	SHEET	
Sim	SIMILAR	
SL	STATION LINE	
SM	SELECTED MATERIAL	
Spec	SPECIAL, SPECIFICATIONS	
SPP	SLOTTED PLASTIC PIPE	
SS	SLOPE STAKE	
SSBM	STRAP AND SADDLE BRACKET METHOD	
SSD	STRUCTURAL SECTION DRAIN	
SSPA	STRUCTURAL STEEL PLATE ARCH	
SSPP	STRUCTURAL STEEL PLATE PIPE	
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH	
SSRP	STEEL SPIRAL RIB PIPE	
St	STREET	
Sta	STATION	
STBB	SINGLE THRIE BEAM BARRIER	
Std	STANDARD	
Str	STRUCTURE	
Surf	SURFACING	
SW	SIDEWALK, SOUND WALL	
Swr	SEWER	
Sym	SYMMETRICAL	
S4S	SURFACE 4 SIDES	
	T	
T	SEMI-TANGENT	
Tan	TANGENT	
TBB	THRIE BEAM BARRIER	
Tbr	TIMBER	
TC	TOP OF CURB	
TCB	TRAFFIC CONTROL BOX	
TCE	TEMPORARY CONSTRUCTION EASEMENT	
TeI	TELEPHONE	
Temp	TEMPORARY	
TG	TOP OF GRADE	
Tot	TOTAL	
TP	TELEPHONE POLE	
TPB	TREATED PERMEABLE BASE	
TPM	TREATED PERMEABLE MATERIAL	
Trans	TRANSITION	

	T continued	
TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL	
Typ	TYPICAL	
	U	
UC	UNDERCROSSING	
UD	UNDERDRAIN	
UG	UNDERGROUND	
UON	UNLESS OTHERWISE NOTED	
UP	UNDERPASS	
	V	
V	VALVE, DESIGN SPEED	
Var	VARIABLE, VARIES	
VC	VERTICAL CURVE	
VCP	VITRIFIED CLAY PIPE	
Vert	VERTICAL	
Via	VIADUCT	
Vol	VOLUME	
	W	
W	WEST, WIDTH	
WB	WESTBOUND	
WH	WEEP HOLE	
WM	WIRE MESH	
WS	WATER SURFACE	
WSP	WELDED STEEL PIPE	
Wt	WEIGHT	
WV	WATER VALVE	
WW	WINGWALL	
WWL	WINGWALL LAYOUT LINE	
	X	
X Sec	CROSS SECTION	
Xing	CROSSING	
	Y	
Yr	YEAR	
Yrs	YEARS	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuo	5,59, 99,108,165	Var	6	20

Grace M. Tsushima
REGISTERED CIVIL ENGINEER



July 19, 2013
PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 11-16-15

UNIT OF MEASUREMENT SYMBOLS:

Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

SYMBOL USED	DEFINITIONS
ACRE	ACRE
CF	CUBIC FOOT
CY	CUBIC YARD
EA	EACH
GAL	GALLON
LB	POUND
LF	LINEAR FOOT
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STA	100 FEET
TAB	TABLET
TON	2,000 POUNDS

Some of the symbols used in the plans other than in the project plan quantity tables are:

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft ³ , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
ø	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kíp	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

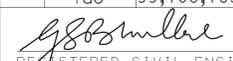
**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

RSP A10B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A10B
DATED MAY 20, 2011 - PAGE 2 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A10B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuo	5,59, 99,108,165	Var	7	20


 REGISTERED CIVIL ENGINEER
 July 19, 2013
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TO ACCOMPANY PLANS DATED 11-16-15

TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING							
SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	X	Y	Z **
					TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	160	80	40	27	20	40	10
25	250	125	63	42	25	50	12
30	360	180	90	60	30	60	15
35	490	245	123	82	35	70	17
40	640	320	160	107	40	80	20
45	1080	540	270	180	45	90	22
50	1200	600	300	200	50	100	25
55	1320	660	330	220	55	110	27
60	1440	720	360	240	60	120	30
65	1560	780	390	260	65	130	32
70	1680	840	420	280	70	140	35

* - For other offsets, use the following merging taper length formula for L:
 For speed of 40 mph or less, $L = WS^2/60$
 For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet
 W = Width of offset in feet
 S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING				
SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
		ft	ft	ft
mph	ft	ft	ft	ft
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph
 ** - Longitudinal buffer space or flagger station spacing
 *** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ADVANCE WARNING SIGN SPACING			
ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM TABLES
 FOR LANE AND RAMP CLOSURES**
 NO SCALE

RSP T9 DATED JULY 19, 2013 SUPERSEDES RSP T9 DATED APRIL 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP T9

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuo	5,59, 99,108,165	Var	8	20

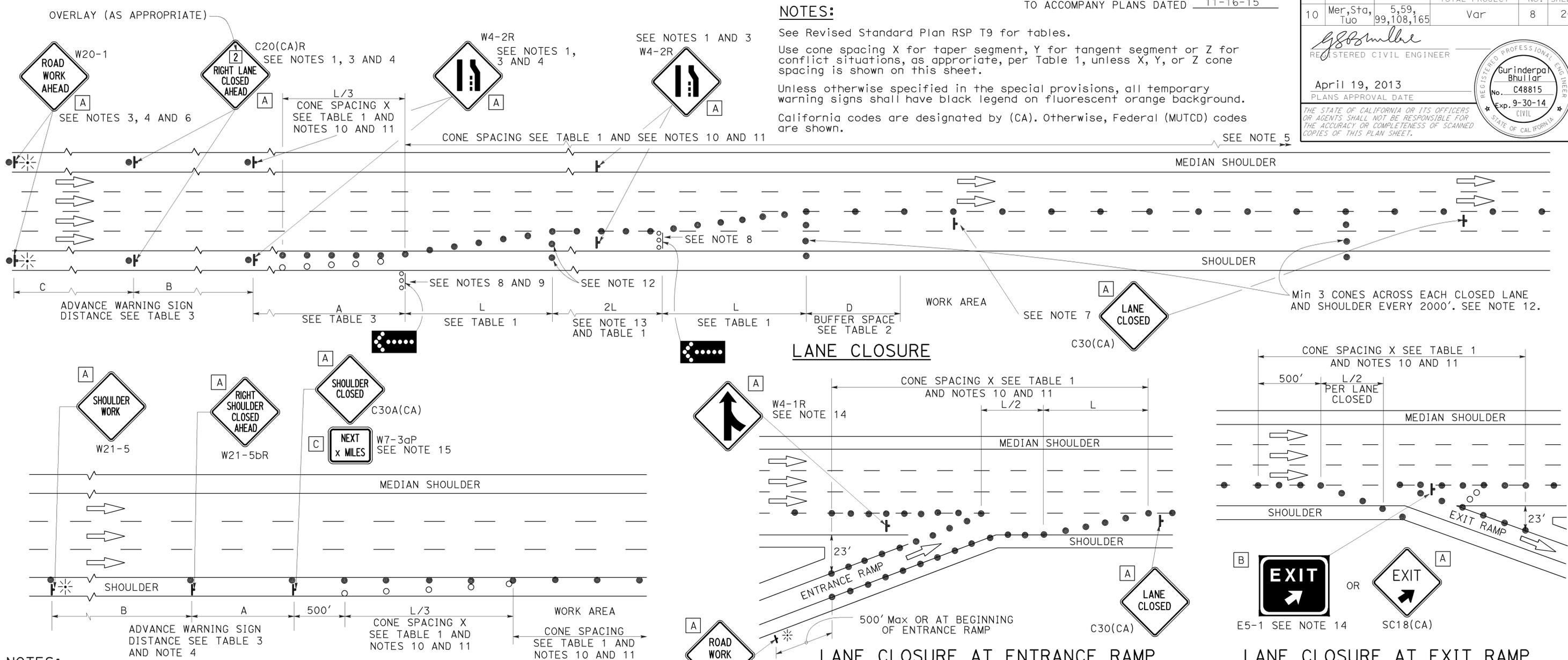
REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 11-16-15

NOTES:

See Revised Standard Plan RSP T9 for tables.
 Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
 Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
 California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



NOTES:

- Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
- Duplicate sign installations are not required:
 - On opposite shoulder if at least one-half of the available lanes remain open to traffic.
 - In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
- Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.

SHOULDER CLOSURE

- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
- Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
- A W7-3aP "NEXT _____ MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- † TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- ⚡ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 72" x 60"
- C 36" x 30"

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

RSP T10 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10 DATED MAY 20, 2011 - PAGE 237 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10

2010 REVISED STANDARD PLAN RSP T10

NOTES:

See Revised Standard Plan RSP T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.

California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuo	5,59, 99,108,165	Var	9	20

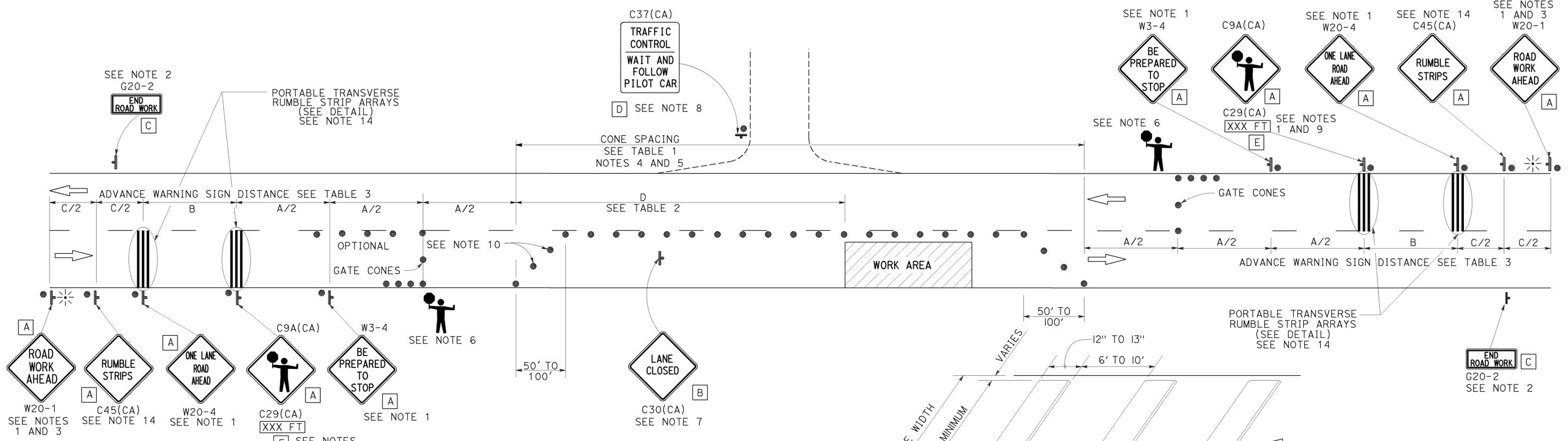
Devinder Singh
 REGISTERED CIVIL ENGINEER
 No. C50470
 Exp. 6-30-17
 CIVIL
 STATE OF CALIFORNIA

October 30, 2015
 PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

TO ACCOMPANY PLANS DATED 11-16-15



NOTES:

- Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a W20-4 sign for the first advance warning sign.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging-station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.
- Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
- When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. Where traffic can not be effectively self-regulated, at least one flagger shall be used at each intersection within traffic control area.
- An optional C29(CA) sign may be placed below the C9A(CA) sign.
- Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.
- The color of the portable transverse rumble strips shall be black or orange. Use 2 arrays, each array shall consist of 3 rumble strips.
- Portable transverse rumble strips shall not be placed on sharp horizontal or vertical curves nor shall they be placed through pedestrian crossings.
- If the portable transverse rumble strips become out of alignment (skewed) by more than 6 inches, measured from one end to the other, they shall be readjusted to bring the placement back to the original location.
- Portable transverse rumble strips are not required if any one of the following conditions is satisfied:
 - Work duration occupies a location for four hours or less
 - Posted speed limit is below 45 MPH
 - Work is of emergency nature
 - Work zone is in snow or icy weather conditions

LEGEND

- TRAFFIC CONE
- ⊥ TEMPORARY TRAFFIC CONTROL SIGN
- ⚡ PORTABLE FLASHING BEACON
- 🚧 FLAGGER

PORTABLE TRANSVERSE RUMBLE STRIP ARRAY DETAIL

LANE WIDTH
 10' MINIMUM
 VARIES
 12" TO 13"
 6' TO 10'
 5/8" TO 3/4"

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 30" x 30"
- C 36" x 18"
- D 36" x 42"
- E 20" x 7"

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

RSP T13 DATED OCTOBER 30, 2015 SUPERSEDES
 RSP T13 DATED OCTOBER 17, 2014, RSP T13 DATED JULY 18, 2014
 AND RSP T13 DATED APRIL 19, 2013 AND STANDARD PLAN T13 DATED
 MAY 20, 2011 - PAGE 241 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T13

2010 REVISED STANDARD PLAN RSP T13

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 36" x 36"
- D 48" x 36"

LEGEND

- TRAFFIC CONE
- † TEMPORARY TRAFFIC CONTROL SIGN
- ‡ BARRICADES
- ⚡ PORTABLE FLASHING BEACON

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuo	5,59, 99,108,165	Var	10	20

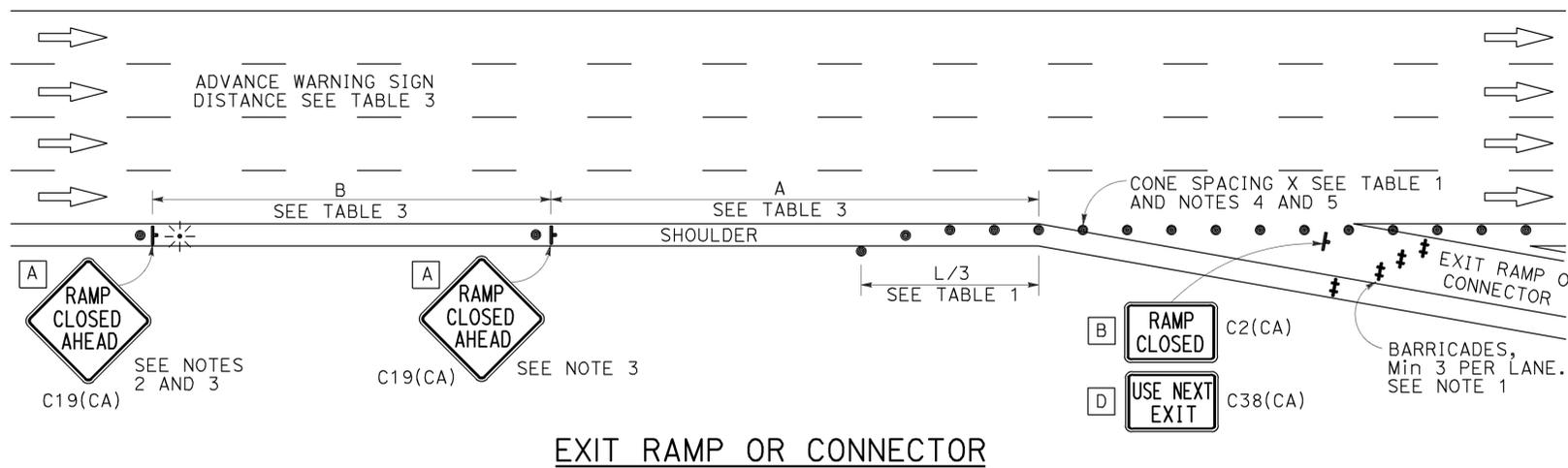
Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

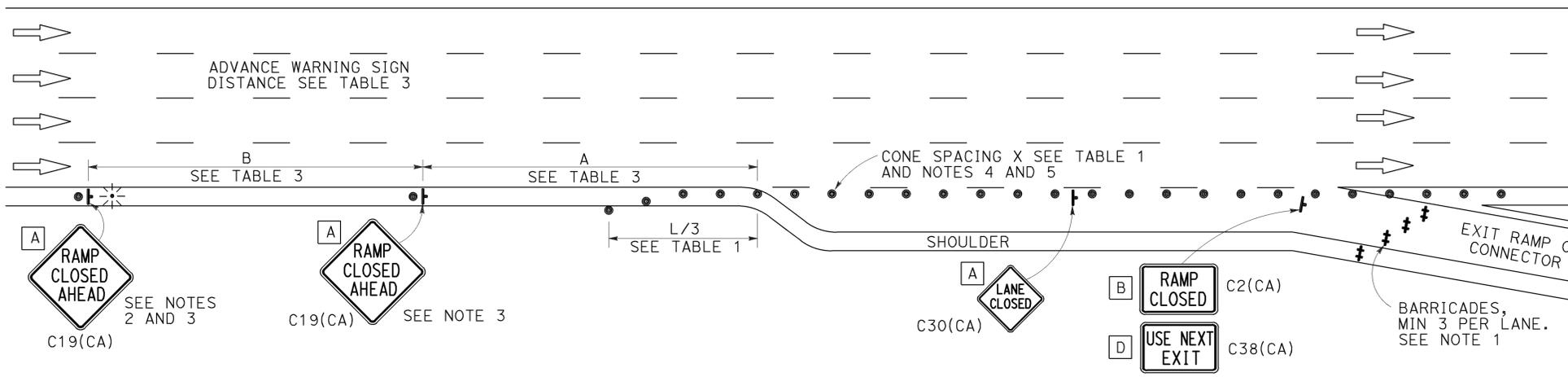
TO ACCOMPANY PLANS DATED 11-16-15

NOTES:

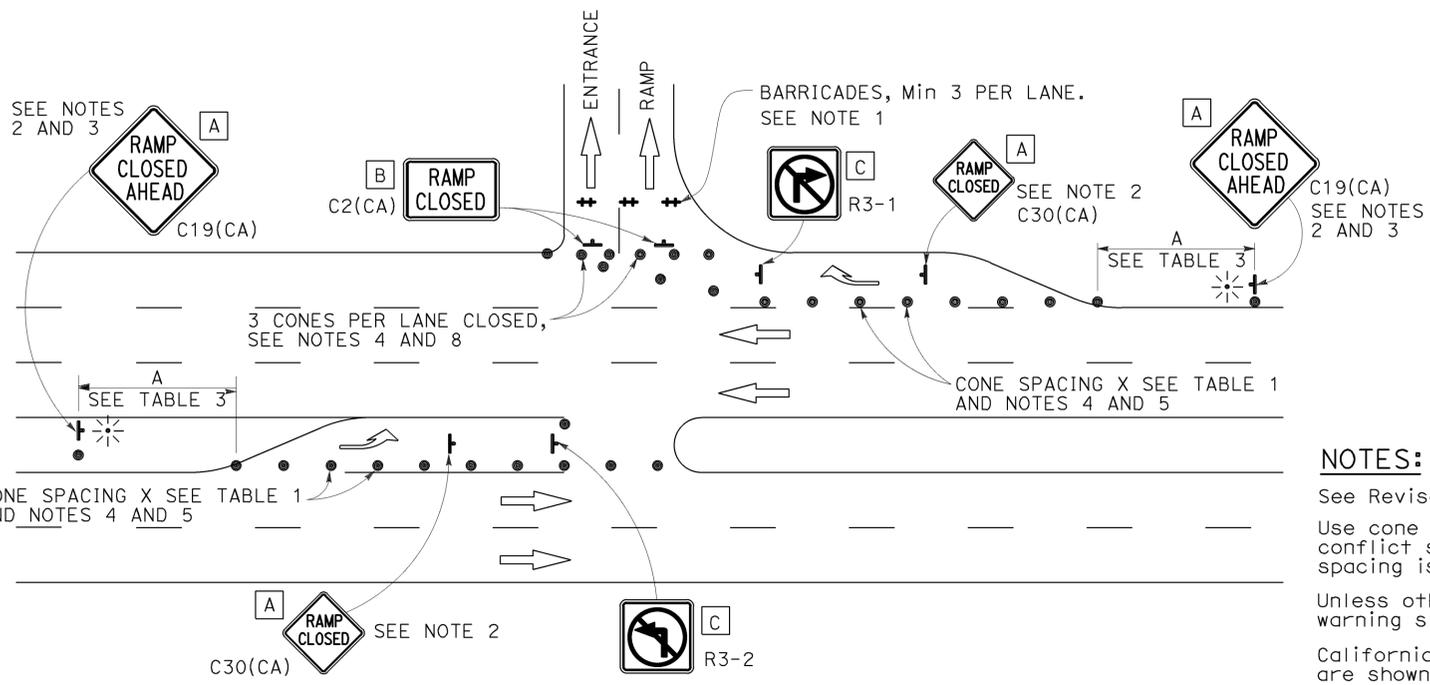
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed by the Engineer, on all guide signs that refer to the closed ramp. The letter size on the overlay shall be the same as the guide sign.
- Each advance C19(CA) "RAMP CLOSED AHEAD" sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
- All cones used for ramp closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime ramp closures only.
- At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by the Engineer.
- The existing "EXIT" signs shall be covered during ramp closures.
- A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.



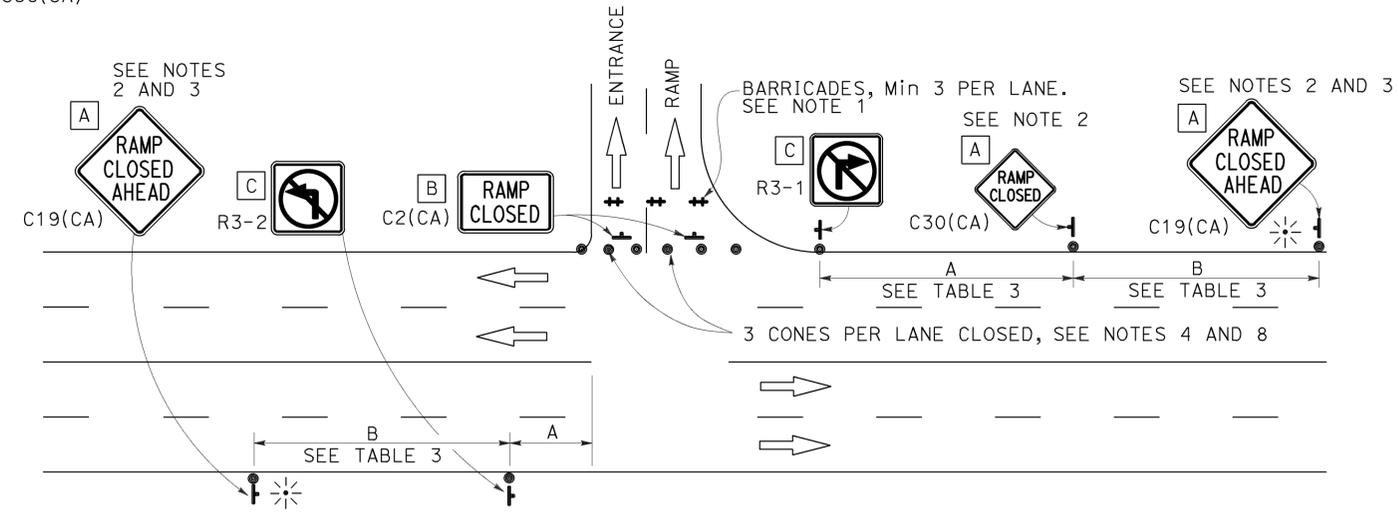
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

- See Revised Standard Plan RSP T9 for tables.
- Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
- Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
- California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

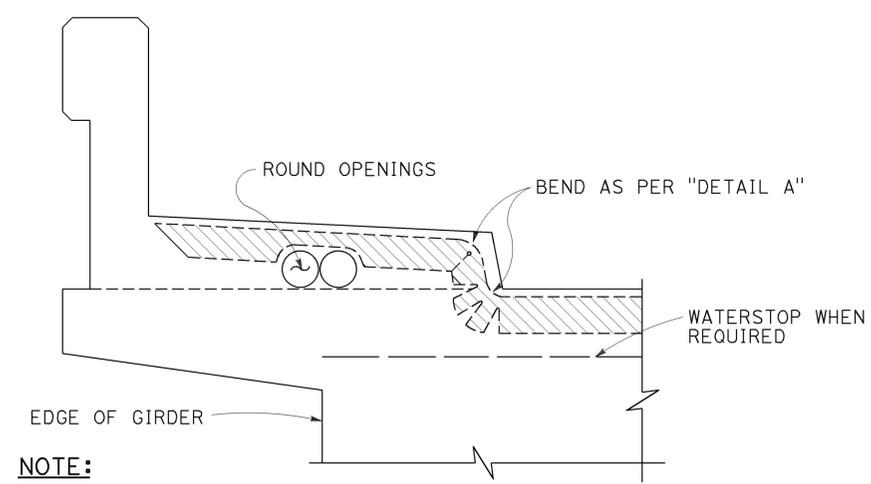
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR RAMP CLOSURE**
 NO SCALE

RSP T14 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T14
 DATED MAY 20, 2011 - PAGE 242 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T14

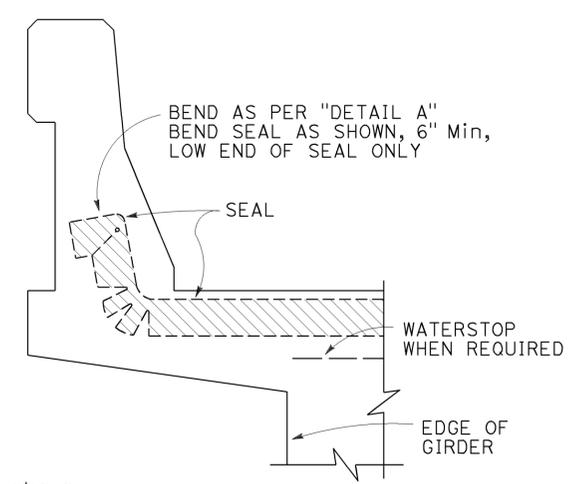
2010 REVISED STANDARD PLAN RSP T14

TO ACCOMPANY PLANS DATED 11-16-15

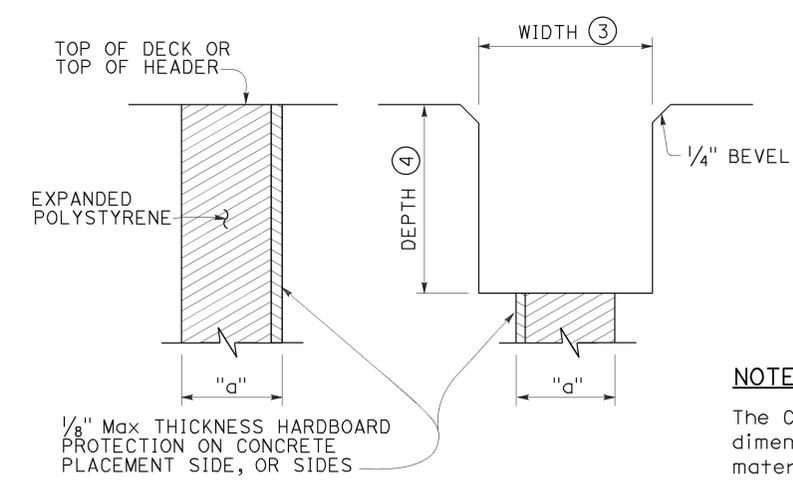


NOTE:
 Type "B" seal shown. Type "A" seals to conform to the general path of seal shown, cuts for bending not required. Bend type "A" seals 3" up into curb or barrier rail on only the low end of the seal.

CONCRETE BARRIER AND SIDEWALK



CONCRETE BARRIER

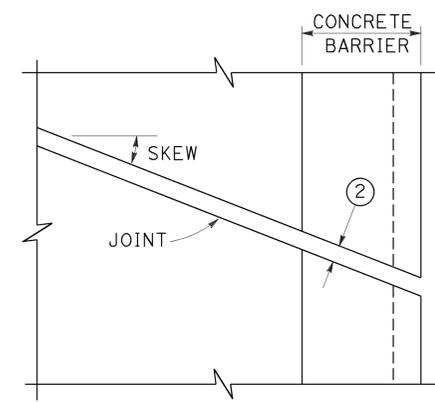


FORMING DETAIL SAWCUT DETAIL

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

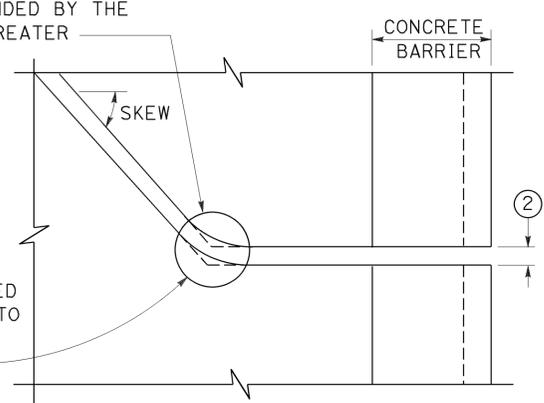
JOINT SEALS DETAILS

Min ϕ RADIUS TO BE 4 TIMES UNCOMPRESSED WIDTH OF SEAL OR AS RECOMMENDED BY THE MANUFACTURER, WHICHEVER IS GREATER



PLAN OF JOINT (SKEW $\leq 20^\circ$)

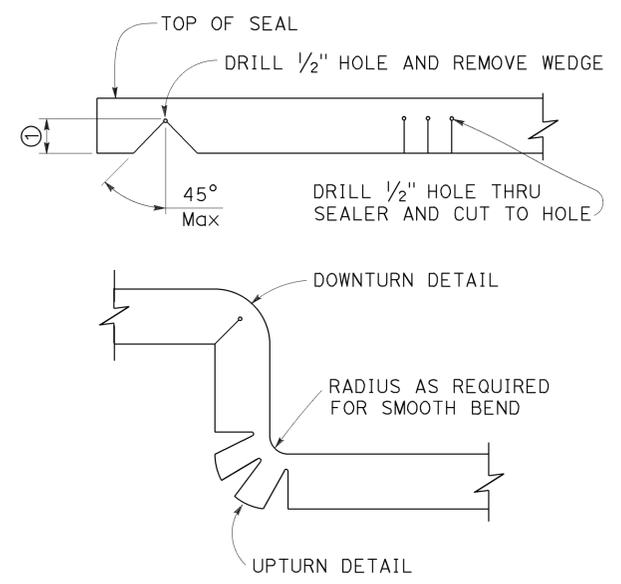
IN LIEU OF SAW CUTTING, THIS AREA MAY BE BLOCKED OUT AND RECONSTRUCTED TO MATCH SAW CUTTING ON BOTH SIDES.



PLAN OF JOINT (SKEW $> 20^\circ$)

NOTES:

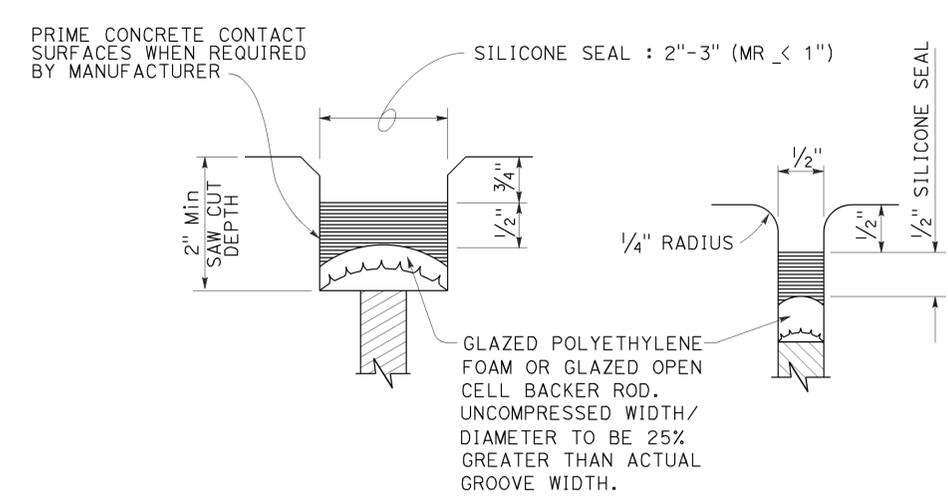
- Make smooth cuts from the bottom of seal to 1 1/2" clear of top leaving at least one complete cell between the top of the cut and top of the seal. When necessary cut back of seal to clear conduit and round openings.
- Opening in barrier to match width of sawn deck joint.
- Sawcut groove widths shall be as ordered by the Engineer.
- Depth of sawcut: Type A - Depth to be 2" minimum.
 Type B - Depth to be equal to or greater than the depth of seal measured along the contact surface, when compressed to minimum width position (W_2) plus dimensions shown.
- MR (movement rating) as shown on other plan sheets.
- Other depths must be approved by the Engineer.
- A sidewalk joint shall be covered by an expansion joint armor.



DETAIL A

DIMENSIONS "a" OF JOINT REQUIRED

MOVEMENT RATING (MR) ⑤	BRIDGE TYPE	"a" DIMENSION		
		DECK CONCRETE PLACED		
		WINTER	FALL-SPRING	SUMMER
2"	ALL EXCEPT CIP/PS	1 1/2"	1 1/4"	3/4"
	CIP/PS	1 1/4"	1"	1/2"
1 1/2"	ALL EXCEPT CIP/PS	1 1/4"	1"	1/2"
	CIP/PS	1"	3/4"	1/2"
1"	ALL EXCEPT CIP/PS	1"	3/4"	1/2"
	CIP/PS	3/4"	1/2"	1/2"
1/2"	ALL EXCEPT CIP/PS	3/4"	3/4"	1/2"
	CIP/PS	1/2"	1/2"	1/2"

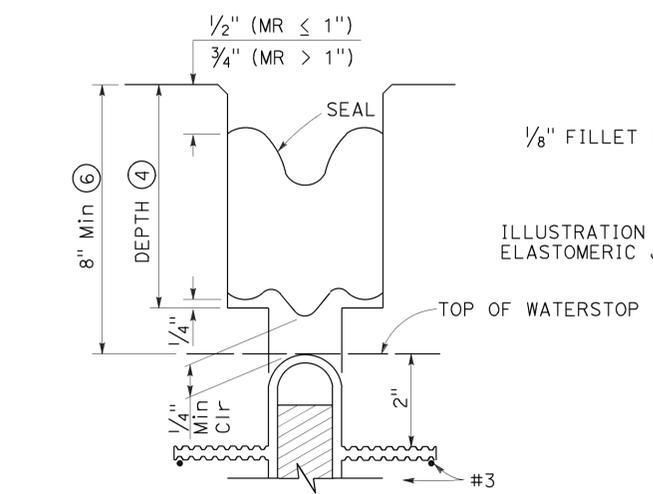


TYPE A SEAL

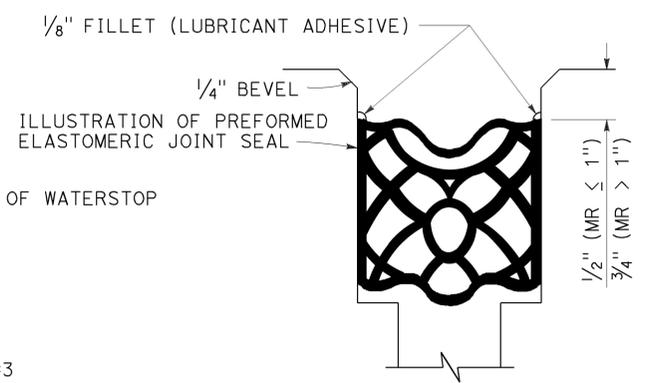
Movement rating : Silicone = 1" Max

TYPE AL SEAL

Longitudinal joints only



TYPE B JOINT SEAL IN MINIMUM WIDTH POSITION (W_2)



TYPE B SEAL

Movement Rating $\leq 2"$

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
JOINT SEALS
(MAXIMUM MOVEMENT RATING = 2")

NO SCALE
 RSP B6-21 DATED OCTOBER 30, 2015 SUPERSEDES
 STANDARD PLAN B6-21 DATED MAY 20, 2011 -
 PAGE 283 OF THE STANDARD PLANS BOOK DATED 2010.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuo	5, 59, 99, 108, 165	Var	12	20

Arlene Frank 10-09-15
 REGISTERED CIVIL ENGINEER DATE
 11-16-15
 PLANS APPROVAL DATE
 No. C 55562
 Exp. 12-31-16
 ARLENE FRANK
 REGISTERED PROFESSIONAL ENGINEER
 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.

NOTES: (APPLY TO ALL SHEETS)

----- Indicates existing.

THE CONTRACTOR MUST VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

STANDARD PLANS DATED 2010

SHEET NO.	TITLE
A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP A10B	ABBREVIATIONS (SHEET 2 OF 2)
RSP B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")

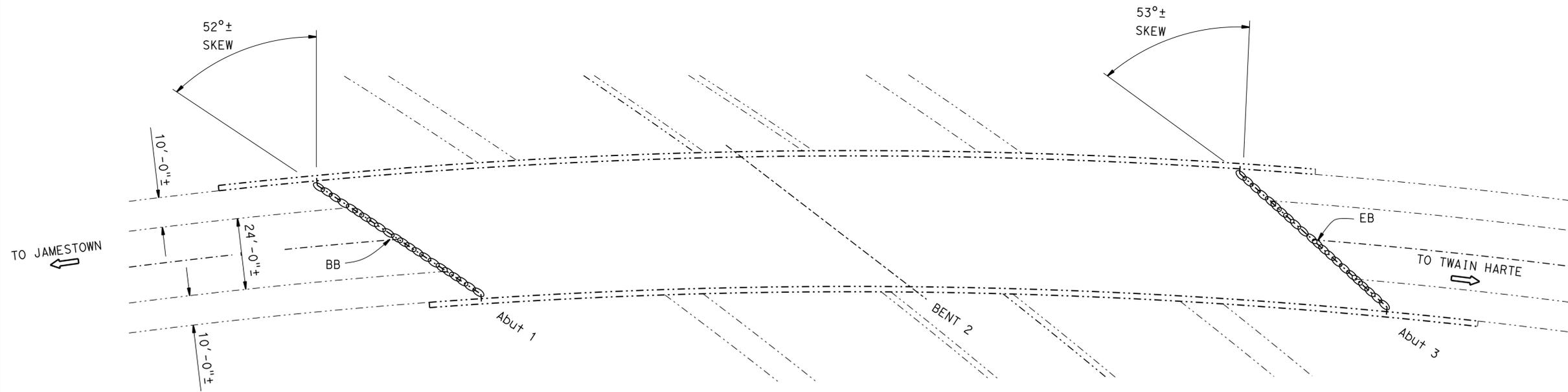
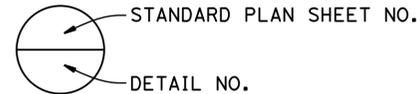
INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN NO. 1
2	GENERAL PLAN NO. 2
3	GENERAL PLAN NO. 3
4	GENERAL PLAN NO. 4
5	GENERAL PLAN NO. 5
6	GENERAL PLAN NO. 6
7	JOINT SEAL DETAILS NO. 1
8	STRUCTURE APPROACH TYPE R (30D)
9	STRIP JOINT SEAL ASSEMBLY MAXIMUM MOVEMENT RATING = 4"

NOTES: (APPLY TO THIS SHEET ONLY)



Indicates limits of clean joint and replace neoprene gland (WABO Stripseal SE-500). For details see "STRIP JOINT SEAL ASSEMBLY MAXIMUM MOVEMENT RATING = 4" sheet.



MONO WAY UNDERCROSSING

Br No. 32-0066, Tuo, ROUTE 108, PM 2.20
1"=20'

MONO WAY UNDERCROSSING

REPLACE NEOPRENE GLAND (WABO STRIPSEAL SE-500)

QUANTITIES

BRIDGE NO. 32-0066

146 LF

DESIGN ENGINEER 10-09-15

DESIGN BY A. FRANK
 DETAILS BY DAVID KISH
 QUANTITIES BY A. FRANK

CHECKED P. KANG
 CHECKED P. KANG
 CHECKED P. KANG

LOAD FACTOR DESIGN
 LAYOUT BY DAVID KISH
 SPECIFICATIONS BY MARY KOPSA

LIVE LOADING: HS20-44 AND ALTERNATIVE DESIGN LOAD
 CHECKED P. KANG
 PLANS AND SPECS COMPARED MARY KOPSA

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. VARIOUS
 POST MILE VARIES

ROUTE 108, 5, 99, 59 & 165 BRIDGES
GENERAL PLAN NO. 1

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT: 3488
PROJECT NUMBER & PHASE: 1015000072

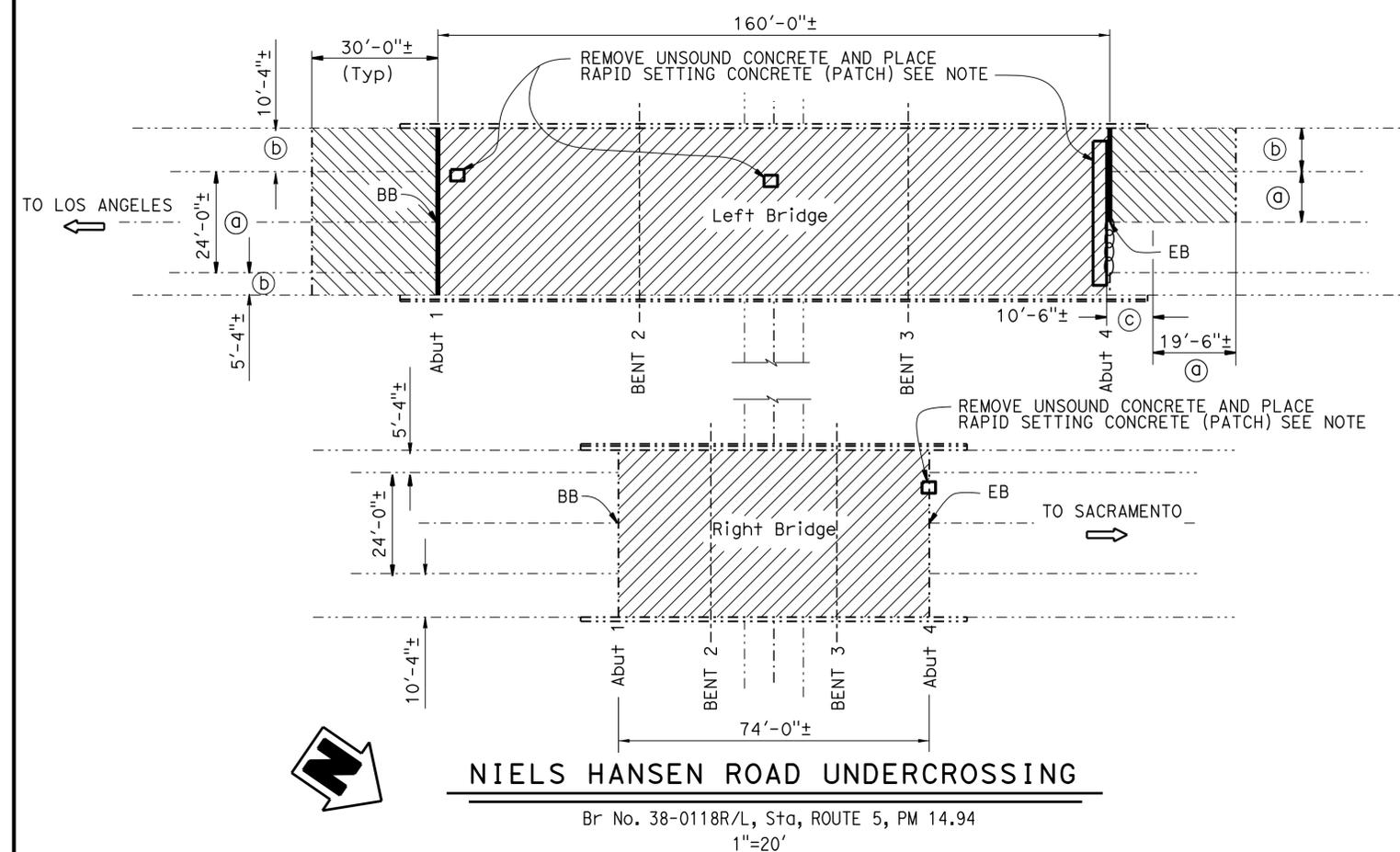
CONTRACT NO.: 10-1E1304

DISREGARD PRINTS BEARING EARLIER REVISION DATES

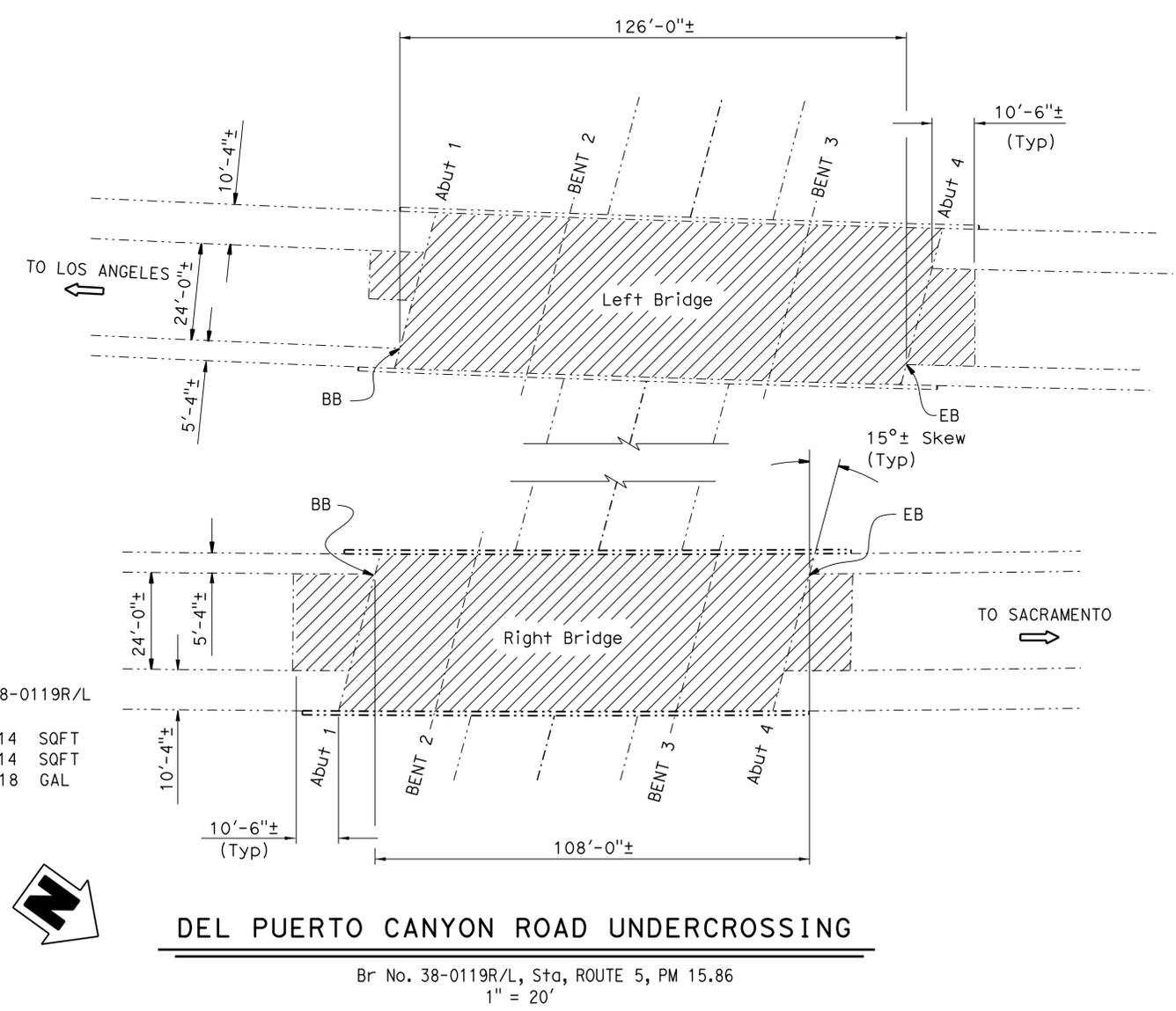
REVISION DATES	SHEET	OF
3-18-15 9-28-15 11-03-15	1	9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuo	5, 99, 108, 165	Var	13	20

Arlene Frank 10-09-15
 REGISTERED CIVIL ENGINEER DATE
 11-16-15
 PLANS APPROVAL DATE
 REGISTERED PROFESSIONAL ENGINEER
 ARLENE FRANK
 No. C 55562
 Exp. 12-31-16
 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.



- NOTES: (APPLY TO THIS SHEET ONLY)
- Indicates limits of prepare concrete bridge deck surface and treat bridge deck.
 - Indicates limits of Structure Approach Slab Type R and paving notch extension for details see "STRUCTURE APPROACH TYPE R (30D)" sheet.
 - Indicates limits of install joint seal
 - Indicates limits of clean expansion joint and install joint seal.
 - See "DECK REPAIR TABLE" on "JOINT SEAL DETAILS NO. 1" sheet.
 - See "EXISTING ROADWAY STRUCTURAL SECTIONS" on this sheet



QUANTITIES

NIELS HANSEN ROAD UC BRIDGE NO. 38-0118R/L

RAPID SETTING CONCRETE (PATCH)	8	CF
REMOVE UNSOUND CONCRETE	8	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	9,283	SQFT
TREAT BRIDGE DECK	9,283	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	103	GAL
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	86	CY
PAVING NOTCH EXTENSION	47	CF
CLEAN EXPANSION JOINT	12	LF
JOINT SEAL (MR 1/2")	75	LF

QUANTITIES

DEL PUERTO CANYON ROAD UC BRIDGE NO. 38-0119R/L

PREPARE CONCRETE BRIDGE DECK SURFACE	10,614	SQFT
TREAT BRIDGE DECK	10,614	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	118	GAL

EXISTING ROADWAY STRUCTURAL SECTIONS

LIMITS	APPROXIMATE DEPTH (INCHES)	ROADWAY MATERIAL
a	3.5	AC with PRF
	9	PCC
	4	CTB
b	4+	AB
	3	AC
	4	AB
c	8+	AS
	9	REINFORCED APPROACH SLAB (No. 2 LANE ONLY)
	4	AB
	2+	AS

 DESIGN ENGINEER 10-09-15	DESIGN	BY A. FRANK	CHECKED P. KANG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE DESIGN LOAD
	DETAILS	BY DAVID KISH	CHECKED P. KANG	LAYOUT	BY DAVID KISH
	QUANTITIES	BY A. FRANK	CHECKED P. KANG	SPECIFICATIONS	BY MARY KOPSA

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE	BRIDGE NO. VARIOUS	ROUTE 108, 5, 99, 59 & 165 BRIDGES GENERAL PLAN NO. 2
	STRUCTURE MAINTENANCE DESIGN	POST MILE VARIES	

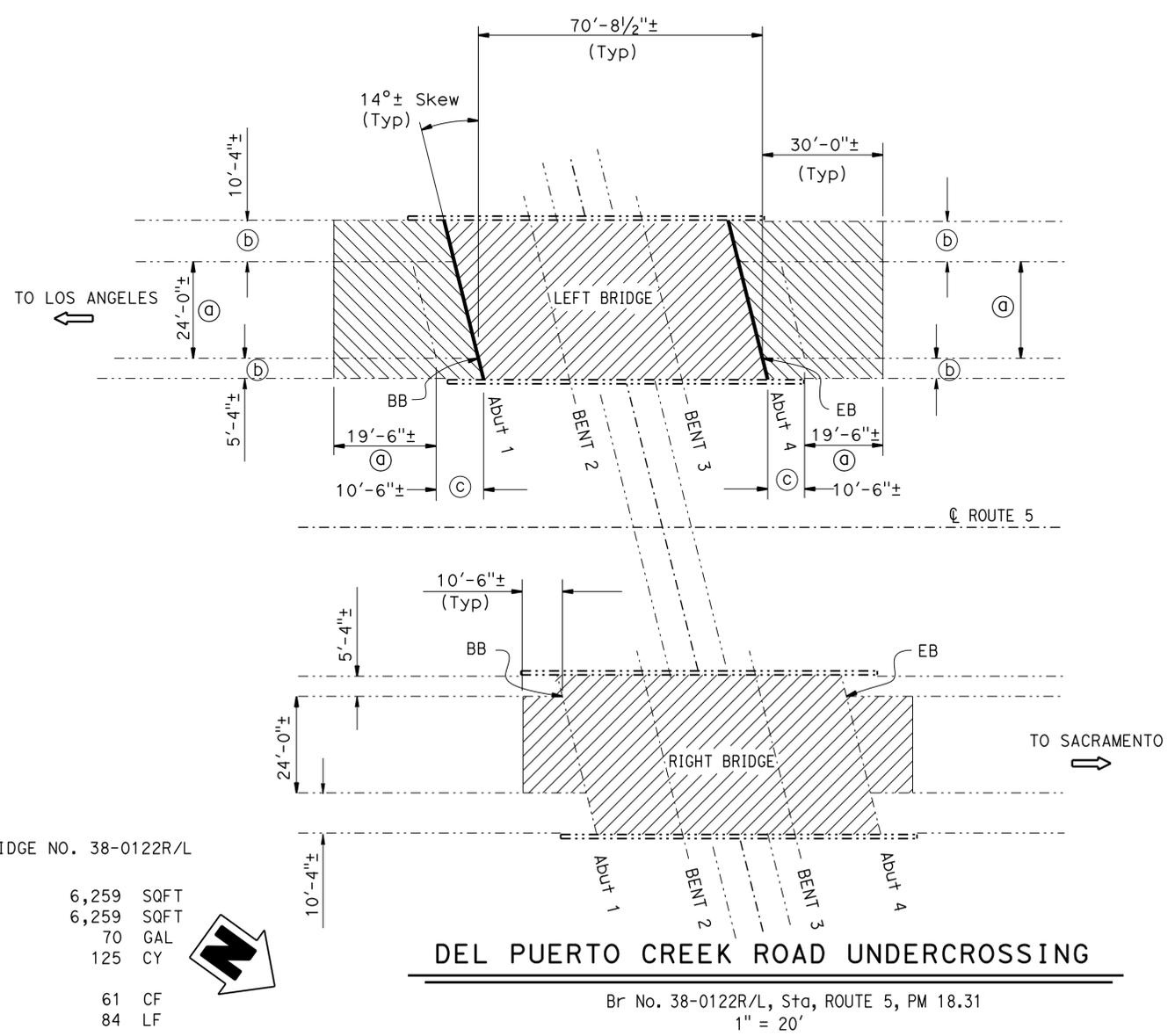
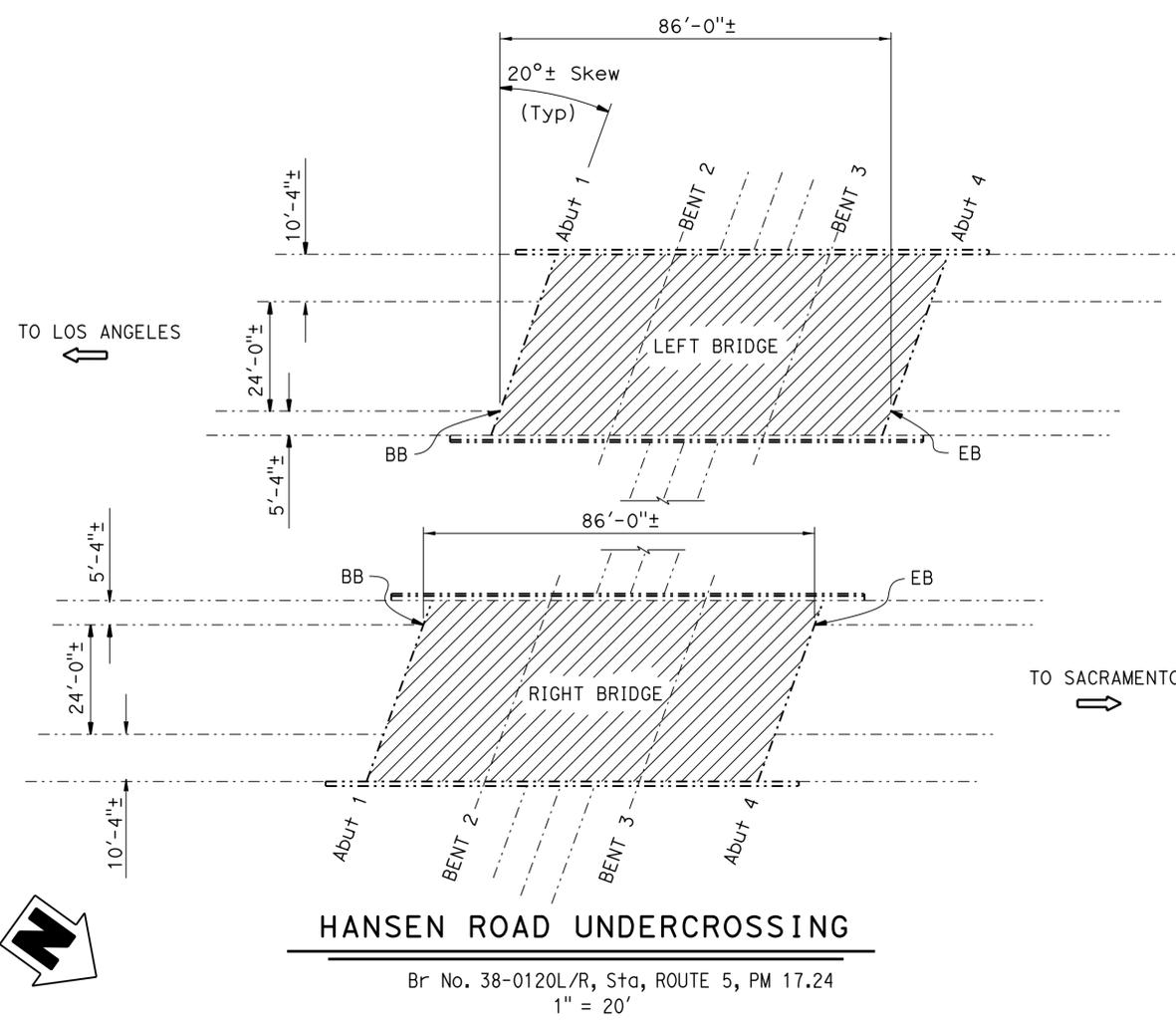
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tu	5, 59, 99, 108, 165	Var	14	20

10-09-15
 REGISTERED CIVIL ENGINEER DATE
 11-16-15
 PLANS APPROVAL DATE
 ARLENE FRANK
 No. C 55562
 Exp. 12-31-16
 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.

NOTES: (APPLY TO THIS SHEET ONLY)

-  Indicates limits of prepare concrete bridge deck surface and treat bridge deck.
-  Indicates limits of Structure Approach Slab Type R and paving notch extension for details see "STRUCTURE APPROACH TYPE R (30D)" sheet.
-  Indicates limits of install joint seal
- Ⓐ Ⓑ Ⓒ See "EXISTING ROADWAY STRUCTURAL SECTIONS" on this sheet



QUANTITIES

HANSEN ROAD UNDERCROSSING	BRIDGE NO. 38-0120R/L
PREPARE CONCRETE BRIDGE DECK SURFACE	6,823 SQFT
TREAT BRIDGE DECK	6,823 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	76 GAL

QUANTITIES

DEL PUERTO CREEK ROAD UC	BRIDGE NO. 38-0122R/L
PREPARE CONCRETE BRIDGE DECK SURFACE	6,259 SQFT
TREAT BRIDGE DECK	6,259 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	70 GAL
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	125 CY
PAVING NOTCH EXTENSION	61 CF
JOINT SEAL (MR 1/2")	84 LF

EXISTING ROADWAY STRUCTURAL SECTIONS		
LIMITS	APPROXIMATE DEPTH (INCHES)	ROADWAY MATERIAL
a	3	AC with PRF
	9	PCC
	4	CTB
b	3	AC
	5	AB
	7+	AS
c	9	REINFORCED APPROACH SLAB (No. 1 & 2 LANE ONLY)
	4	CTB
	2+	AB

 DESIGN ENGINEER 10-09-15	DESIGN BY A. FRANK	CHECKED P. KANG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO. VARIOUS	ROUTE 108, 5, 99, 59 & 165 BRIDGES GENERAL PLAN NO. 3
	DETAILS BY DAVID KISH	CHECKED P. KANG	LAYOUT BY DAVID KISH	CHECKED P. KANG			POST MILE VARIES	
	QUANTITIES BY A. FRANK	CHECKED P. KANG	SPECIFICATIONS BY MARY KOPSA	PLANS AND SPECS COMPARED MARY KOPSA			UNIT: 3488 PROJECT NUMBER & PHASE: 1015000072 CONTRACT NO.: 10-1E1304	

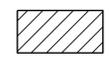
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)
 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
 DISREGARD PRINTS BEARING EARLIER REVISION DATES
 REVISION DATES: 11-03-15, 8-24-15, 9-24-15, 10-05-15
 SHEET 3 OF 9
 USERNAME => s120300 DATE PLOTTED => 03-DEC-2015 TIME PLOTTED => 13:29

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuo	5, 59, 99, 108, 165	Var	15	20

10-09-15
 REGISTERED CIVIL ENGINEER DATE
 11-16-15
 PLANS APPROVAL DATE
 ARLENE FRANK
 No. C 55562
 Exp. 12-31-16
 CIVIL
 STATE OF CALIFORNIA

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NOTES: (APPLY TO THIS SHEET ONLY)



Indicates limits of prepare concrete bridge deck surface and treat bridge deck.



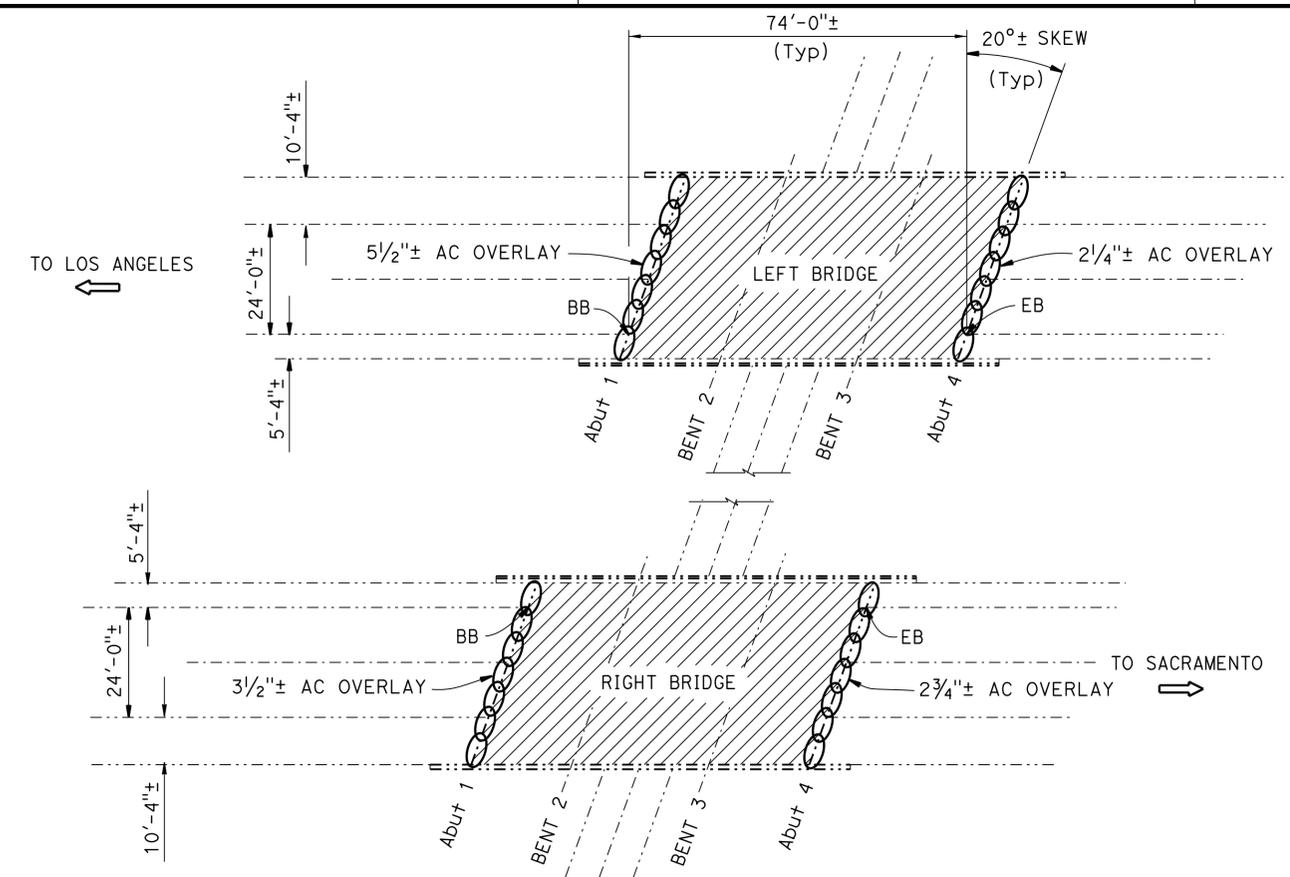
Indicates approximate limits of repair spalled surface area.



Indicates approximate location of repair spalled surface area. For details, see "REPAIR SPALLED DETAIL" on this sheet.



Indicates limits of polyester concrete expansion dam and install joint seal. For details see, "POLYESTER CONCRETE EXPANSION DAM" on "JOINT SEAL DETAILS NO. 1" sheet.



KERN CREEK ROAD UNDERCROSSING

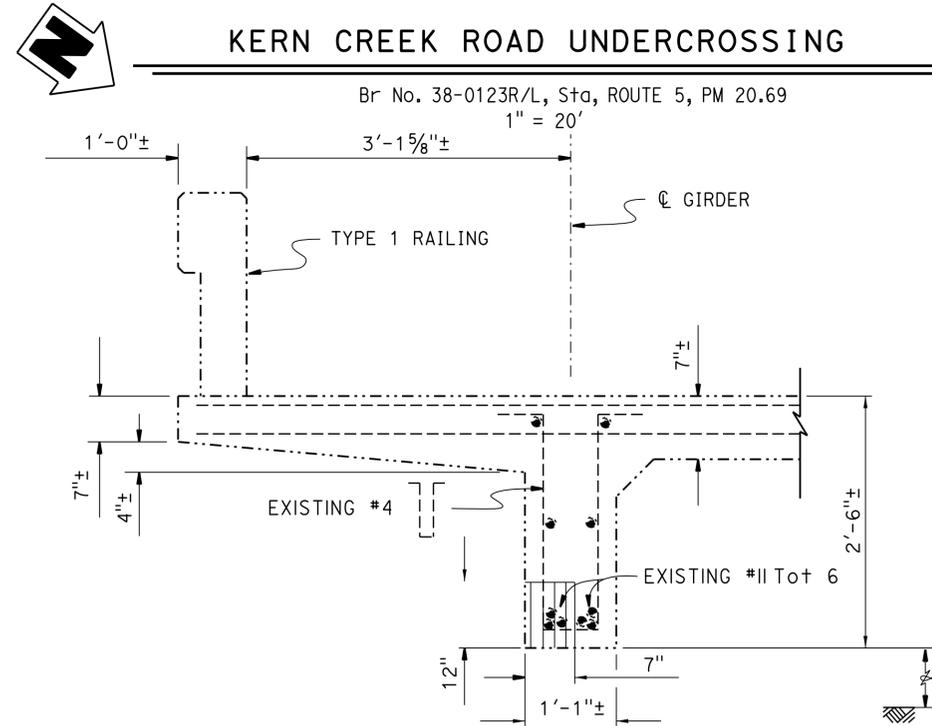
Br No. 38-0123R/L, Sta, ROUTE 5, PM 20.69
1" = 20'

KERN CREEK ROAD UC

BRIDGE NO. 38-0123R/L

- POLYESTER CONCRETE EXPANSION DAM 49 CF
- PREPARE CONCRETE BRIDGE DECK SURFACE 5,871 SQFT
- TREAT BRIDGE DECK 5,871 SQFT
- FURNISH BRIDGE DECK TREATMENT MATERIAL 65 GAL
- JOINT SEAL (MR 1/2") 172 LF

QUANTITIES



NOTES: { Spalled Surface area is 12" long x 12" wide
For additional details see, "REPAIR SPALLED SURFACE AREA" on "JOINT SEAL DETAILS NO. 1" sheet.

REPAIR SPALLED DETAIL

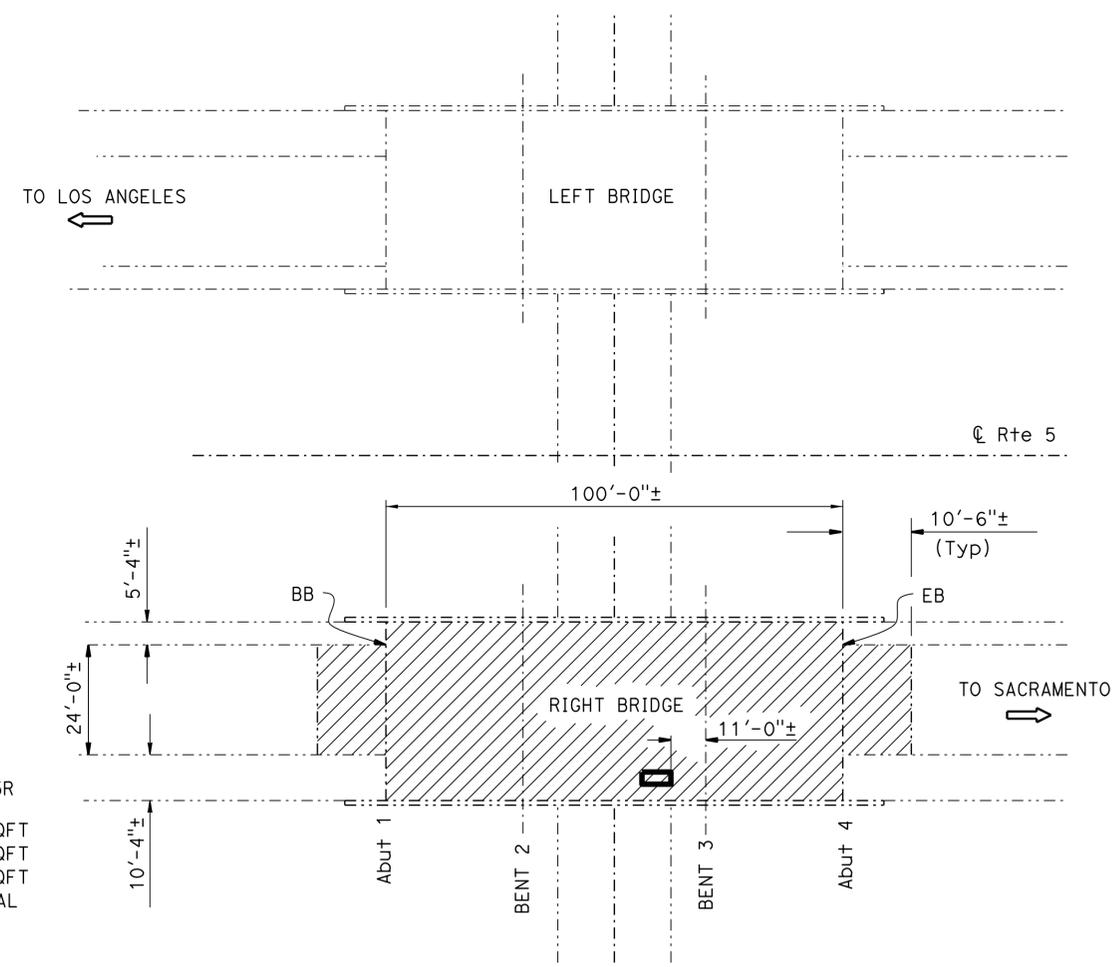
3/4" = 1'-0"

INGRAM CREEK ROAD UC

BRIDGE NO. 38-0125R

- REPAIR SPALLED SURFACE AREA 1 SQFT
- PREPARE CONCRETE BRIDGE DECK SURFACE 4,471 SQFT
- TREAT BRIDGE DECK 4,471 SQFT
- FURNISH BRIDGE DECK TREATMENT MATERIAL 50 GAL

QUANTITIES



INGRAM CREEK ROAD UNDERCROSSING

Br No. 38-0125R, Sta, ROUTE 5, PM 22.99
1" = 20'

10-09-15
DESIGN ENGINEER

DESIGN	BY A. FRANK	CHECKED P. KANG
DETAILS	BY DAVID KISH	CHECKED P. KANG
QUANTITIES	BY A. FRANK	CHECKED P. KANG

LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE DESIGN LOAD
LAYOUT	BY DAVID KISH
SPECIFICATIONS	BY MARY KOPSA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

ROUTE 108, 5, 99, 59 & 165 BRIDGES
GENERAL PLAN NO. 4

USERNAME => s120300 DATE PLOTTED => 03-DEC-2015 TIME PLOTTED => 13:29

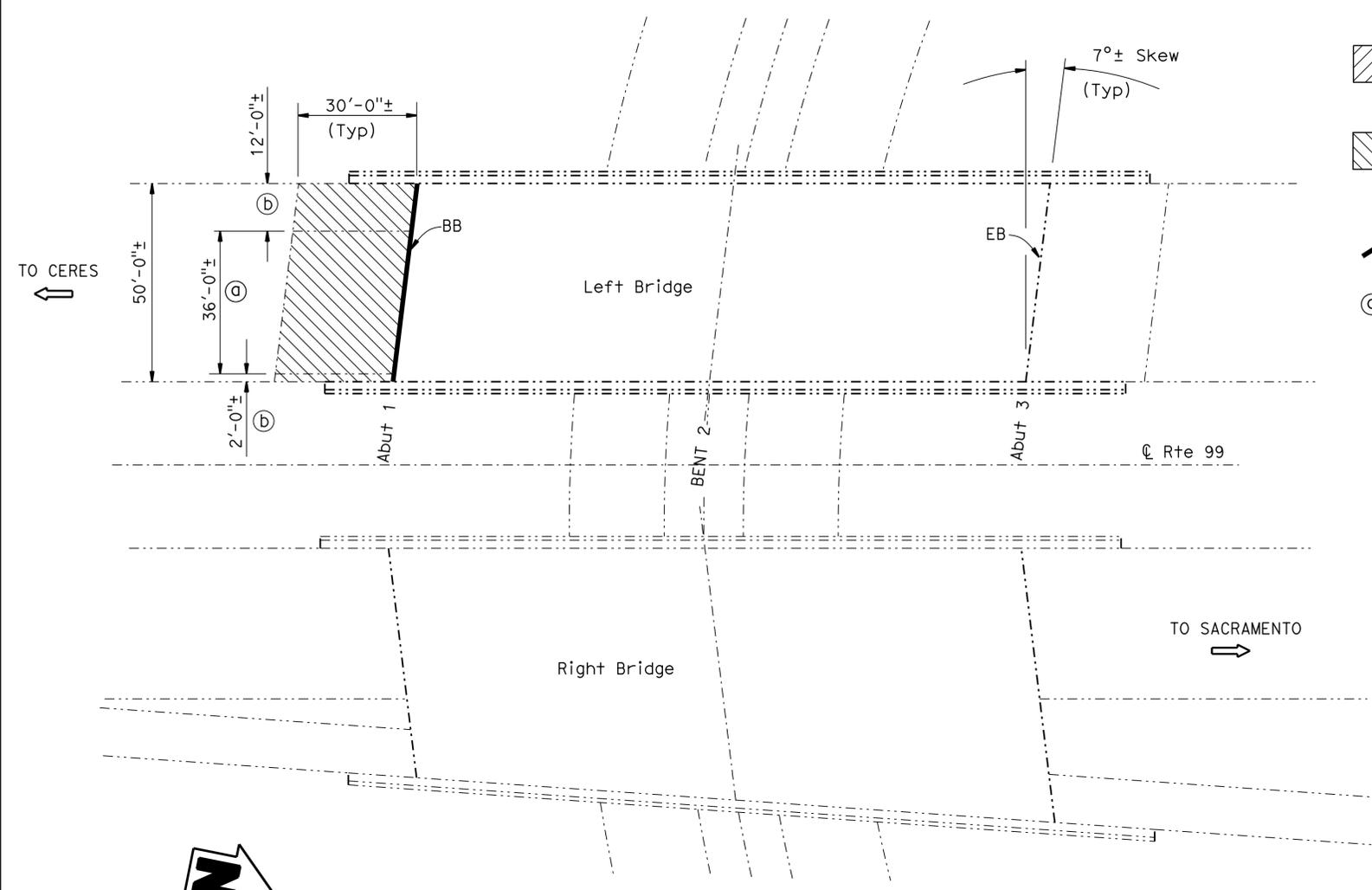
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuo	5, 59, 99, 108, 165	Var	16	20

Arlene Frank 10-09-15
 REGISTERED CIVIL ENGINEER DATE
 11-16-15
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 ARLENE FRANK
 No. C 55562
 Exp. 12-31-16
 CIVIL
 STATE OF CALIFORNIA

NOTES: (APPLY TO THIS SHEET ONLY)

- Indicates limits of prepare concrete bridge deck surface and treat bridge deck.
- Indicates limits of Structure Approach Slab Type R and paving notch extension for details see "STRUCTURE APPROACH TYPE R (30D)" sheet.
- Indicates limits of install joint seal
- ⓐ ⓑ See "EXISTING ROADWAY STRUCTURAL SECTIONS" on this sheet



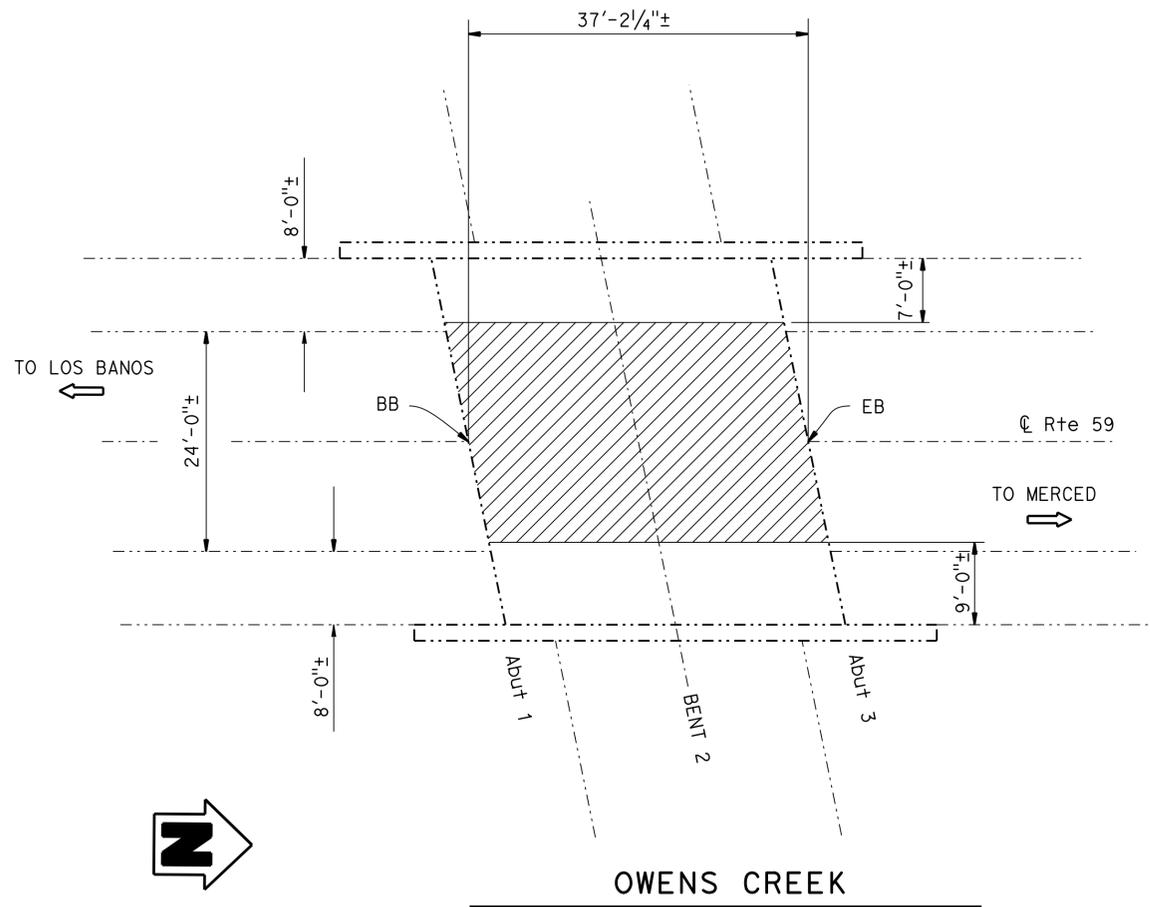
TUOLUMNE BOULEVARD UNDERCROSSING
 Br No. 38-0096L, Sta, ROUTE 99, PM R15.10
 1"=20'

QUANTITIES

TUOLUMNE BOULEVARD UC	BRIDGE NO. 38-0096L
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	77 CY
PAVING NOTCH EXTENSION	38 CF
JOINT SEAL (MR 1/2")	51 LF

EXISTING ROADWAY STRUCTURAL SECTIONS

LIMITS	APPROXIMATE DEPTH (INCHES)	ROADWAY MATERIAL
a	1 1/2	AC
	9	PCC
	4 1/2	CTB
b	2 1/2	AC
	6	AB
	8 1/2	AS



OWENS CREEK
 Br No. 39-0065, Mer, ROUTE 59, PM 11.37
 1"=10'

QUANTITIES

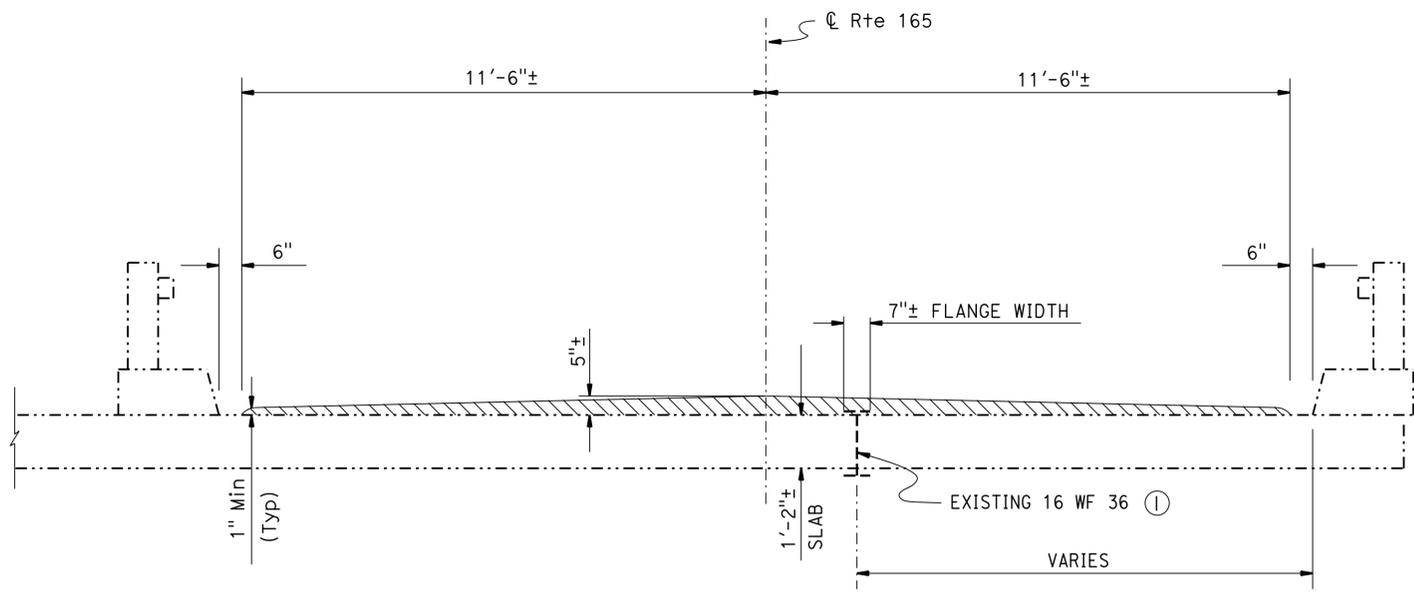
OWENS CREEK	BRIDGE NO. 39-0065
PREPARE CONCRETE BRIDGE DECK SURFACE	893 SQFT
TREAT BRIDGE DECK	893 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	10 GAL

	DESIGN	BY A. FRANK	CHECKED P. KANG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE DESIGN LOAD
	DETAILS	BY DAVID KISH	CHECKED P. KANG	LAYOUT	BY DAVID KISH
	QUANTITIES	BY A. FRANK	CHECKED P. KANG	SPECIFICATIONS	BY MARY KOPSA

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 108, 5, 99, 59 & 165 BRIDGES
		VARIOUS	
		POST MILE	GENERAL PLAN NO. 5
		VARIES	

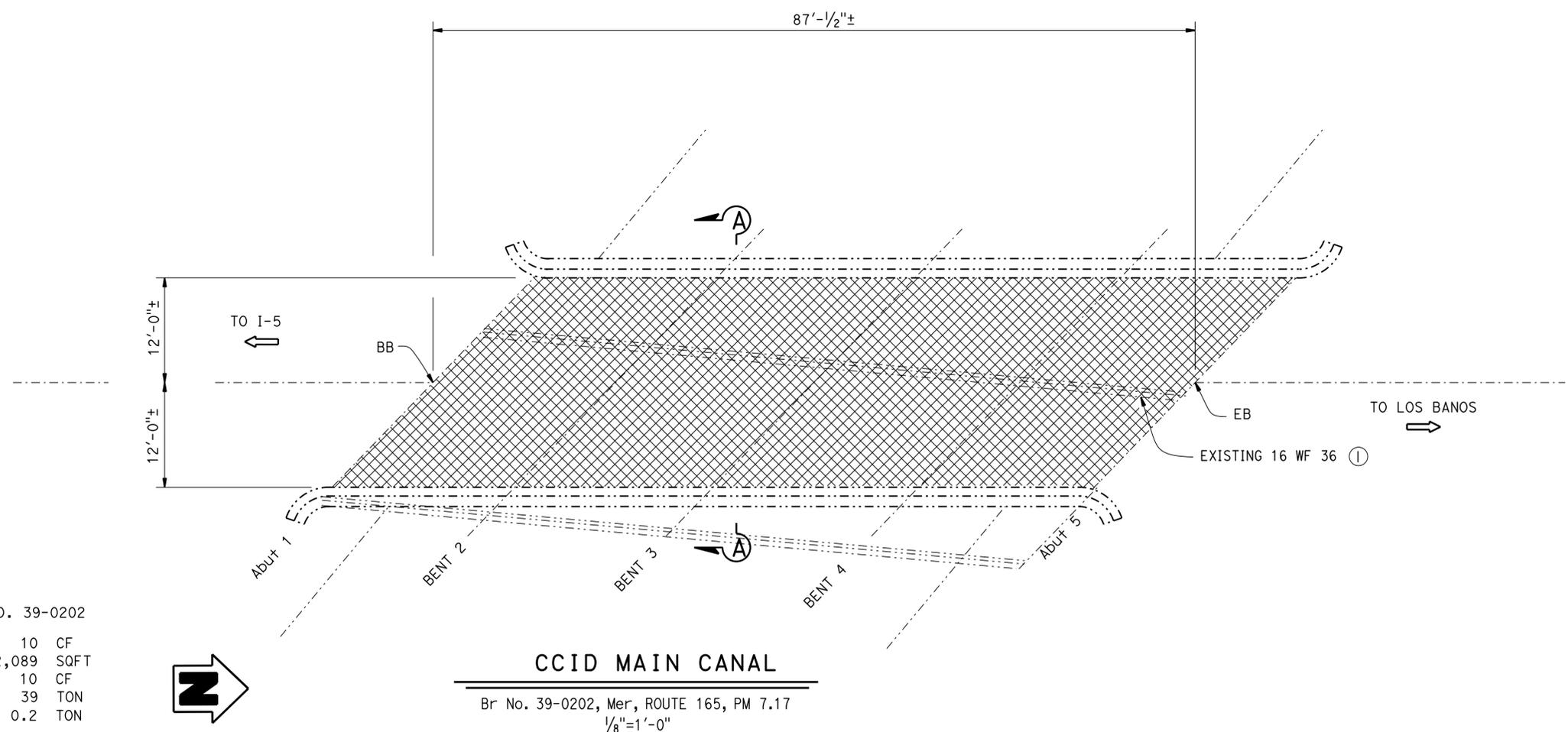
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuo	5, 59, 99, 108, 165	Var	17	20
<i>Arlene Frank</i> REGISTERED CIVIL ENGINEER			10-09-15	DATE	
11-16-15 PLANS APPROVAL DATE					
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SECTION A-A
 $\frac{1}{2}'' = 1'-0''$

- NOTES:** (APPLY TO THIS SHEET ONLY)
- Indicates limits of remove AC surfacing, varying depth of 1"± to 5"±. Before removing AC surfacing, locate steel (I6 WF 36) girder. Sawcut 2" depth, 6" outside girder flange edges. Remove AC surfacing with hand tools above and around the steel girder flange without damage to the flange.
 - Indicates limits of prepare bridge deck surface. Remove unsound concrete and place rapid setting concrete (patch). Place 1/2" to 5" HMA (bridge) overlay, see "SECTION A-A" for FG profile. Conform to roadway approach.
 - ① Existing I6WF36 is approximately 1/2" above the concrete bridge deck (finished grade).



QUANTITIES

CCID MAIN CANAL	BRIDGE NO. 39-0202
RAPID SETTING CONCRETE (PATCH)	10 CF
REMOVE ASPHALT CONCRETE SURFACING	2,089 SQFT
REMOVE UNSOUND CONCRETE	10 CF
HOT MIX ASPHALT (BRIDGE)	39 TON
TACK COAT	0.2 TON

CCID MAIN CANAL
 Br No. 39-0202, Mer, ROUTE 165, PM 7.17
 $\frac{1}{8}'' = 1'-0''$

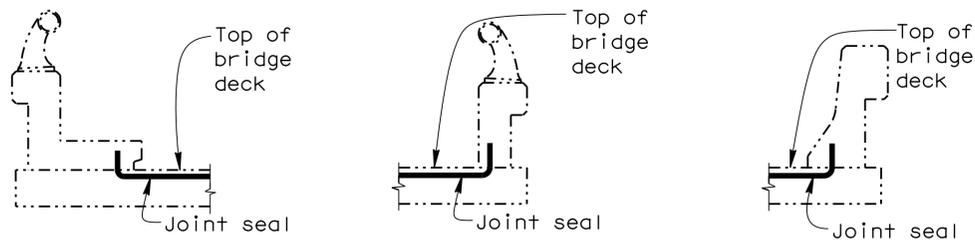
 DESIGN ENGINEER 10-09-15	DESIGN	BY A. FRANK	CHECKED P. KANG	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	ROUTE 108, 5, 99, 59 & 165 BRIDGES GENERAL PLAN NO. 6			
	DETAILS	BY DAVID KISH	CHECKED P. KANG	LAYOUT	BY DAVID KISH		CHECKED P. KANG		VARIOUS		
	QUANTITIES	BY A. FRANK	CHECKED P. KANG	SPECIFICATIONS	BY MARY KOPSA		PLANS AND SPECS COMPARED		MARY KOPSA	POST MILE	
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3488	CONTRACT NO.: 10-1E1304	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 6 OF 9

USERNAME => 8120300 DATE PLOTTED => 03-DEC-2015 TIME PLOTTED => 13:29

BRIDGE NO.	BRIDGE NAME	LOCATION		MINIMUM "MR" (INCHES)	APPROX LENGTH (FEET)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JOINT (INCHES)	APPROX LENGTH GLAND (FEET)
32-0066	MONO WAY	ABUT 1	BW		-		-	72
		ABUT 4	BW		-		-	74
38-0118L	NIELS HANSEN UNDERCROSSING	ABUT 1	PN	1/2	40	NO	-	
		ABUT 4	PN	1/2	35	NO	12	
38-0122L	DEL PUERTO CREEK ROAD UNDERCROSSING	ABUT 1	PN	1/2	42	NO	-	
		ABUT 4	PN	1/2	42	NO	-	
38-0096L	TUOLUMNE BOULEVARD UNDERCROSSING	ABUT 1	PN	1/2	51	NO	-	
38-0123L/R	KERN CREEK ROAD UNDERCROSSING	ABUT 1 L/R	PN	1/2	86	NO	-	
		ABUT 4 L/R	PN	1/2	86	NO	-	

NOTES:
 PN = Paving Notch
 BW = Backwall

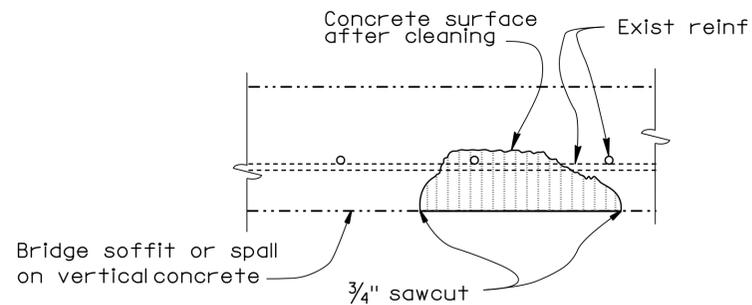
DECK REPAIR TABLE REMOVE UNSOUND CONCRETE AND RAPID SETTING CONCRETE (PATCH)				
BRIDGE NAME	BRIDGE NUMBER	APPROXIMATE AREA DAMAGED (PERCENT)	APPROXIMATE DEPTH (INCHES)	APPROXIMATE AREA (ft ²)
CCID MAIN CANAL	39-0202	2	3	10.0
NIELS HANSEN ROAD UC	38-0118L		4	1.6
			4	1.6
			4	17.5
	38-0118R		4	2.7



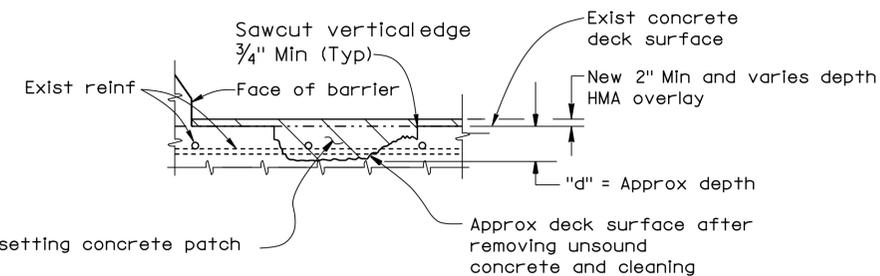
BARRIER RAIL

JOINT SEAL AT LOW SIDE OF DECK

Notes: Details shown for illustration purposes only. For use only where deck joint matches the sidewalk, curb or barrier rail joint.

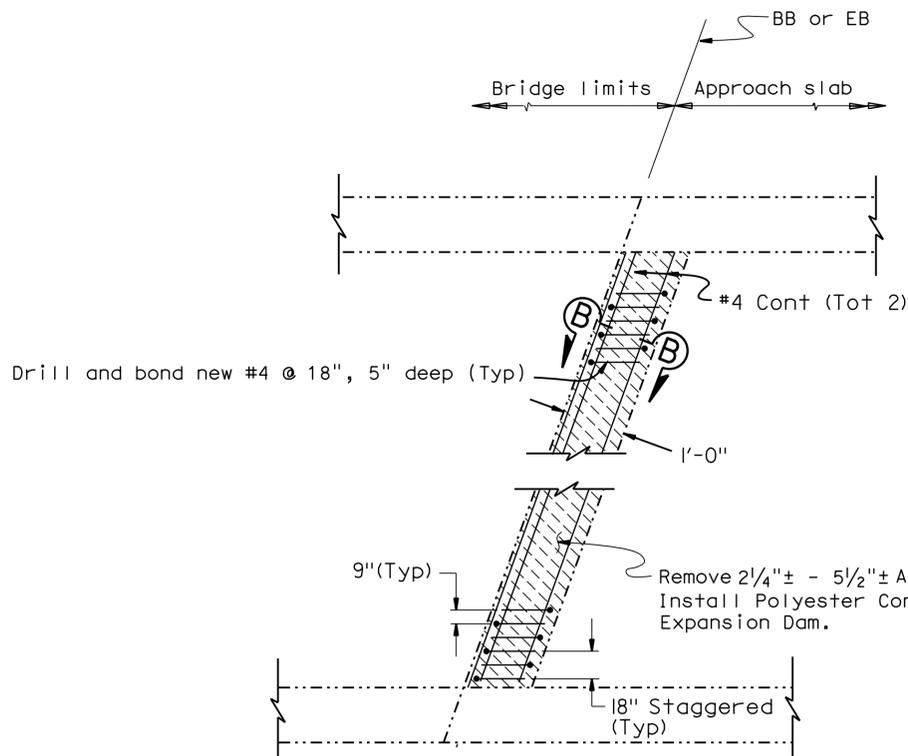


REPAIR SPALLED SURFACE AREA

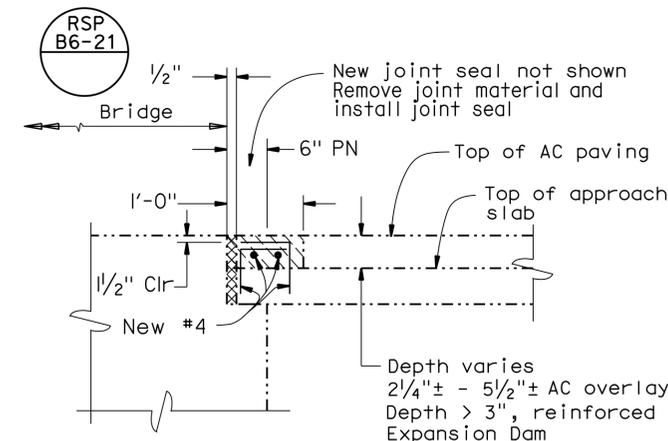


DECK REPAIR DETAIL-OVERLAY

Note: Reinforcement may be encountered during deck concrete removal.



PLAN



SECTION B-B

POLYESTER CONCRETE EXPANSION DAM

NO SCALE

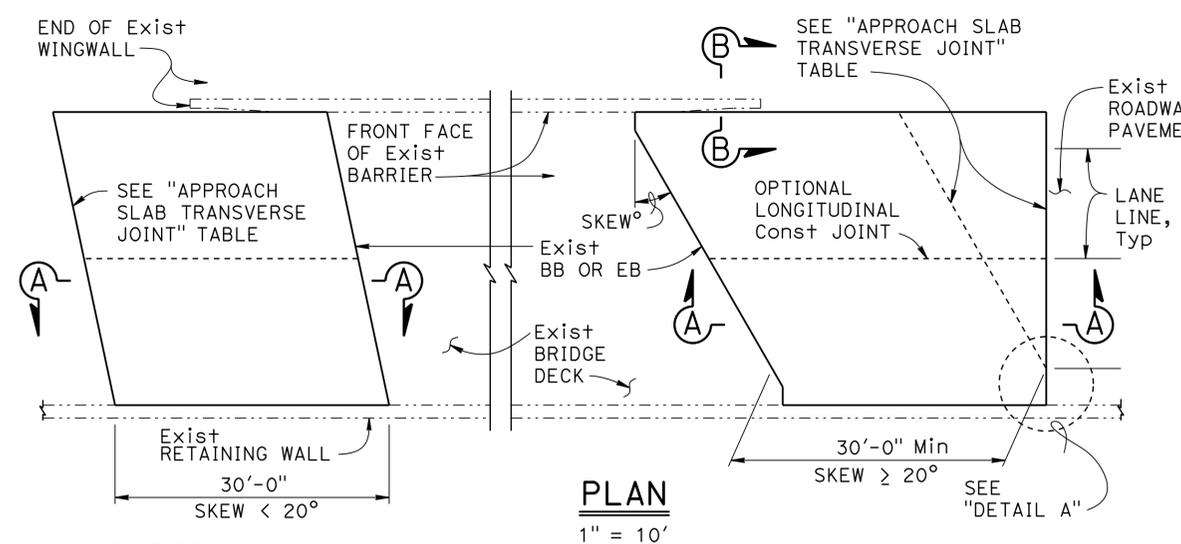
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DETAILS	BY DAVID KISH	CHECKED P. KANG
QUANTITIES	BY A. FRANK	CHECKED P. KANG

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

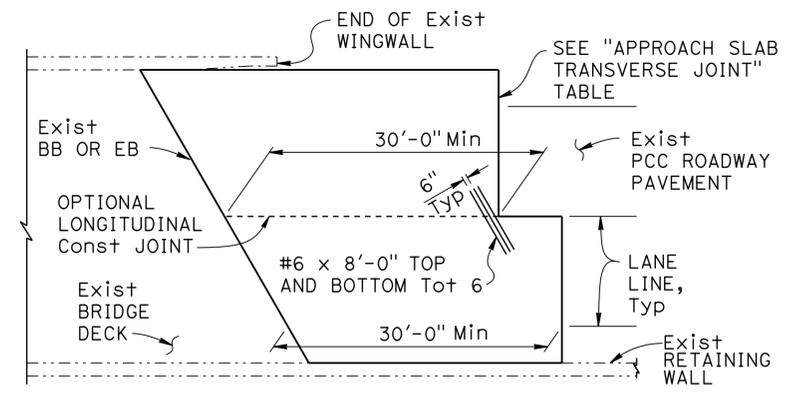
DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	VARIOUS
POST MILE	VARIES

ROUTE 108, 5, 99, 59 & 165 BRIDGES
 JOINT SEAL DETAILS NO.1

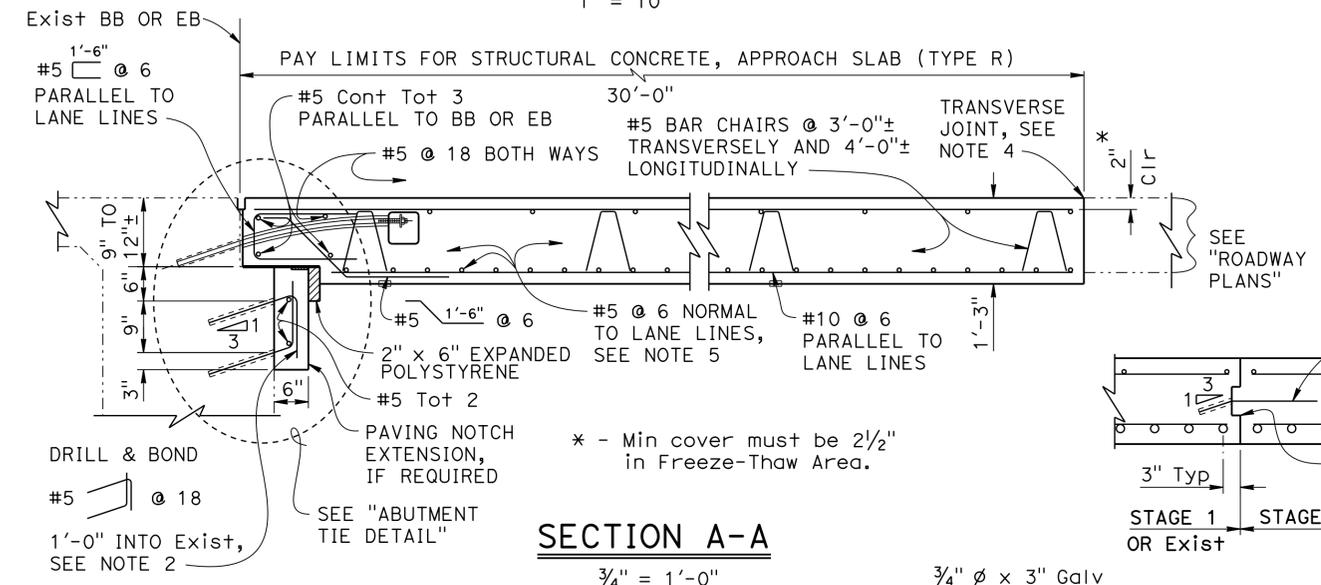


DETAIL A
No Scale

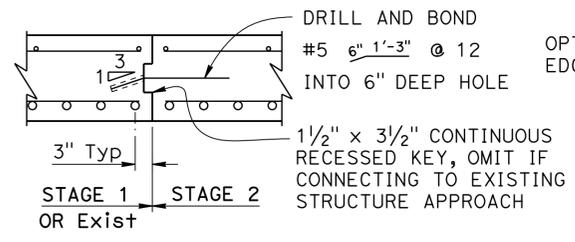


END STAGGER DETAIL
1" = 10'

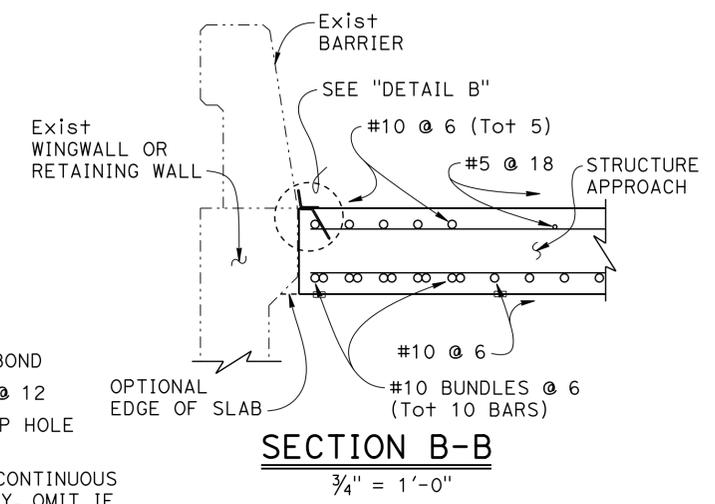
APPROACH SLAB TRANSVERSE JOINT		
APPROACH SKEW	WITH HMA ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	PARALLEL TO BB OR EB	PARALLEL TO BB OR EB
20° - 45°	PARALLEL TO BB OR EB USE "DETAIL A"	STAGGER AT LANE LINES 24' TO 36' APART, SEE "END STAGGER DETAIL"
> 45°	PARALLEL TO BB OR EB USE "DETAIL A"	STAGGER AT EACH LANE LINE, SEE "END STAGGER DETAIL"



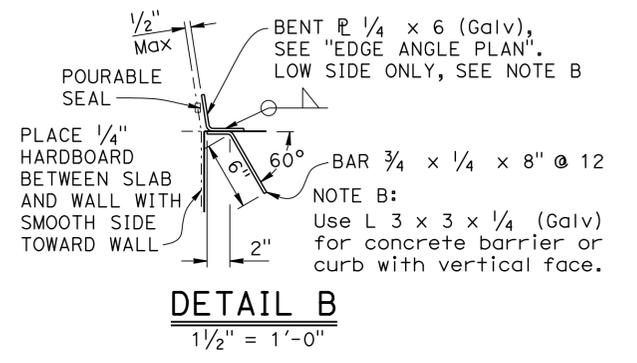
SECTION A-A
3/4" = 1'-0'



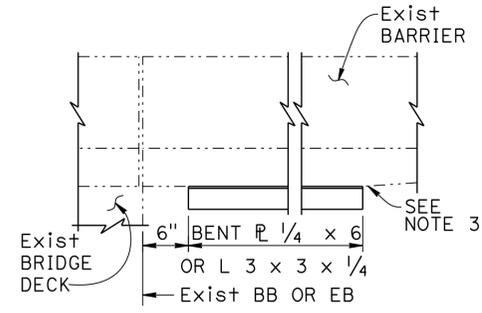
LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES
3/4" = 1'-0'



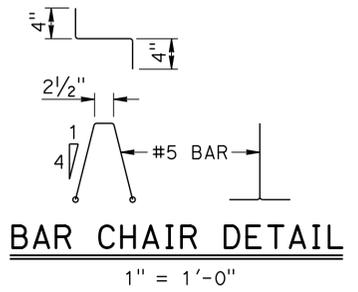
SECTION B-B
3/4" = 1'-0'



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



EDGE ANGLE PLAN
1" = 1'-0'



BAR CHAIR DETAIL
1" = 1'-0'

DESIGN NOTES

- DESIGN: AASHTO LRFD Bridge Design Specifications, 2012 Edition with Caltrans Amendments, preface dated January 2014
- LIMIT STATES: Service I, Strength I & II, Extreme II and Fatigue I ($\gamma_{FAT} = 1.0$)
- DEAD LOAD: Includes 35 psf for future wearing surface
- LIVE LOAD: HL93 and permit design load
Equivalent strip width method: $W_1 = 12$ ft
Slab span: $L_1 = 24.5$ ft
- REINFORCED CONCRETE:
 $f_y = 60$ ksi
 $f'_c = 3.6$ ksi
 $n = 8$

- NOTES:
- For details not shown, see other plan sheets. Adjust reinforcement to clear sawcut for sealed joint.
 - Space reinforcement to avoid existing prestress anchorages and other abutment reinforcement.
 - End the plate or edge angle at beginning of barrier transition, end of wingwall, or end of structure approach as applicable.
 - Transverse joint must be a minimum of 5'-0" from an existing or constructed weakened plane joint in approach PCC roadway pavement. Refer to Standard Plans P10 and P14.
 - At the Contractor's option, approach slab transverse reinforcement may be placed parallel to BB or EB. Spacing of transverse reinforcement is measured along ℓ roadway.

----- Indicates Existing Structure

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

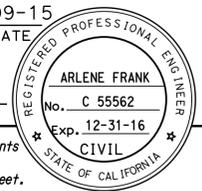
NOTE: For details not shown, see "SECTION A-A".

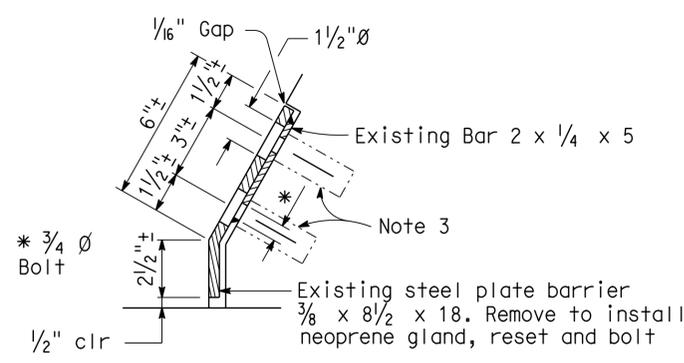
DESIGN	BY A. FRANK	CHECKED P. KANG
DETAILS	BY DAVID KISH	CHECKED P. KANG
QUANTITIES	BY A. FRANK	CHECKED P. KANG

STATE OF CALIFORNIA	DIVISION OF MAINTENANCE	BRIDGE NO.	VARIOUS
DEPARTMENT OF TRANSPORTATION	STRUCTURE MAINTENANCE DESIGN	POST MILE	VARIES

ROUTE 108, 5, 99, 59 & 165 BRIDGES	STRUCTURE APPROACH TYPE R (30D)
------------------------------------	---------------------------------

TIME PLOTTED => 13:23 USERNAME => s120300 DATE PLOTTED => 03-DEC-2015

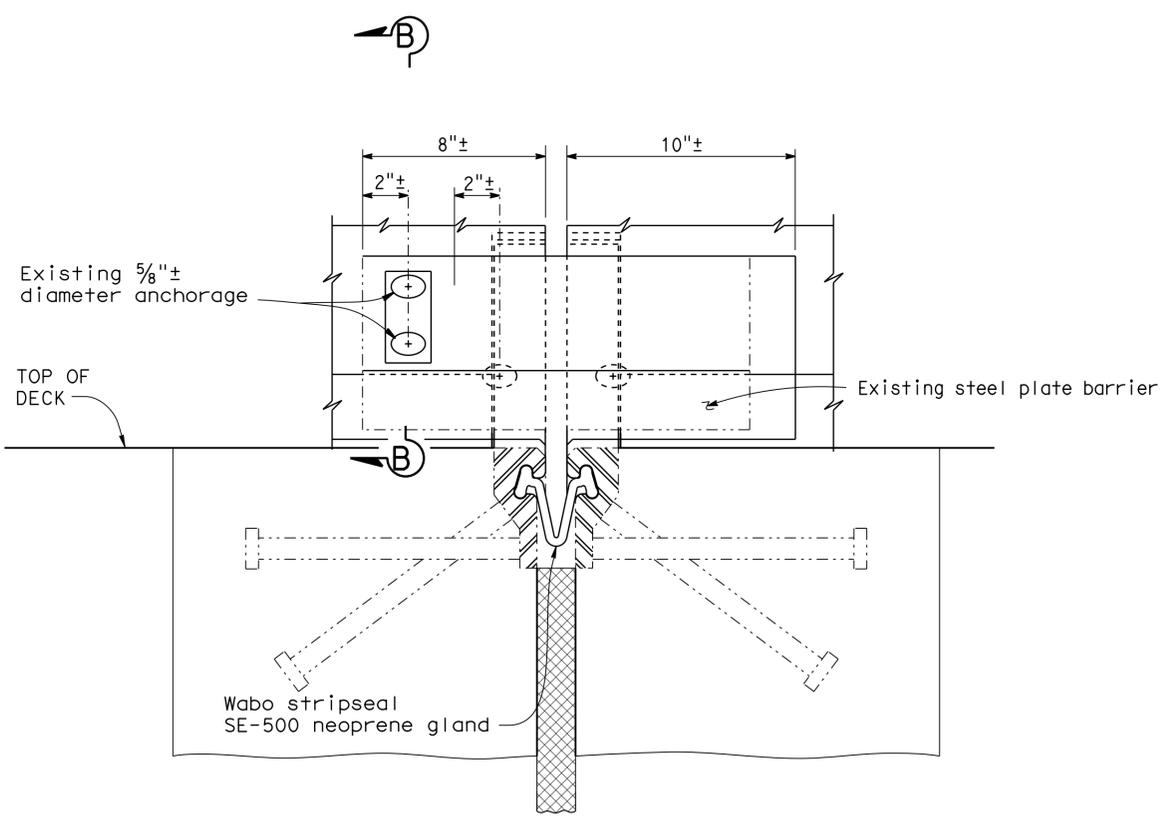
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Mer, Sta, Tuo	5, 59, 99, 108,165	Var	20	20
			10-09-15	DATE	
REGISTERED CIVIL ENGINEER			DATE		
11-16-15			PLANS APPROVAL DATE		
					
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of scanned copies of this plan sheet.</small>					



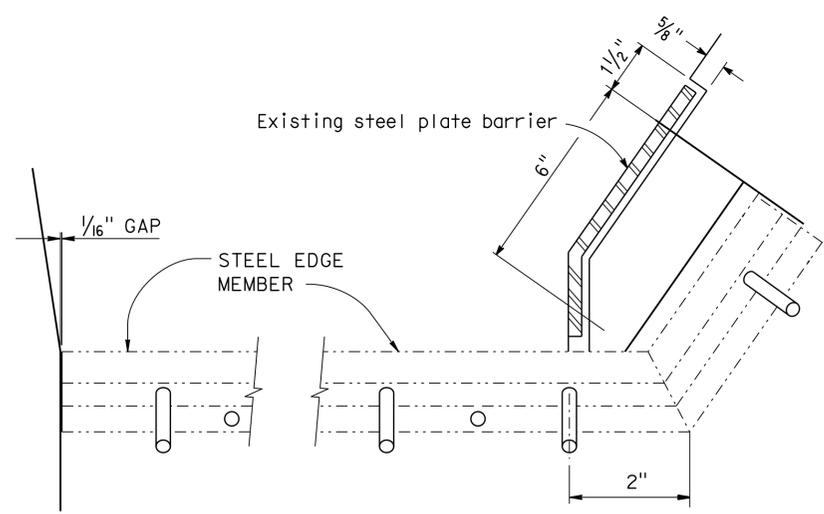
SECTION B-B

NOTES:

1. Wabo stripseal SE-500 neoprene gland must be fabricated in one continuous piece and must be fabricated to bend around corners. Field splices of the neoprene gland are not allowed.
2. Remove nuts and steel plate barriers. Remove existing neoprene gland from steel edge members, clean steel surfaces and install new neoprene gland. Reset and bolt steel plate barrier back into place.
3. Reuse existing anchorage assembly.



SECTION A-A



**BARRIER DETAIL
HIGH SIDE**

**BARRIER DETAIL
LOW SIDE**

NO SCALE				ROUTE 108, 5, 99, 59 & 165 BRIDGES			
STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION		DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN		BRIDGE NO. VARIOUS POST MILE VARIES		STRIP JOINT SEAL ASSEMBLY MAXIMUM MOVEMENT RATING = 4"	
DESIGN	BY A. FRANK	CHECKED	P. KANG				
DETAILS	BY DAVID KISH	CHECKED	P. KANG				
QUANTITIES	BY A. FRANK	CHECKED	P. KANG				
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3488 PROJECT NUMBER & PHASE: 1015000072 CONTRACT NO.: 10-1E1304	
				DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES 10-09-15 10-09-15 11-03-15	
				FILE => 10-1e1301_09jtseal.dgn		SHEET OF 9 9	

USERNAME => s120300 DATE PLOTTED => 03-DEC-2015 TIME PLOTTED => 13:29