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STRUCTURE PLANS

18-30 ROUTE 15 BRIDGES

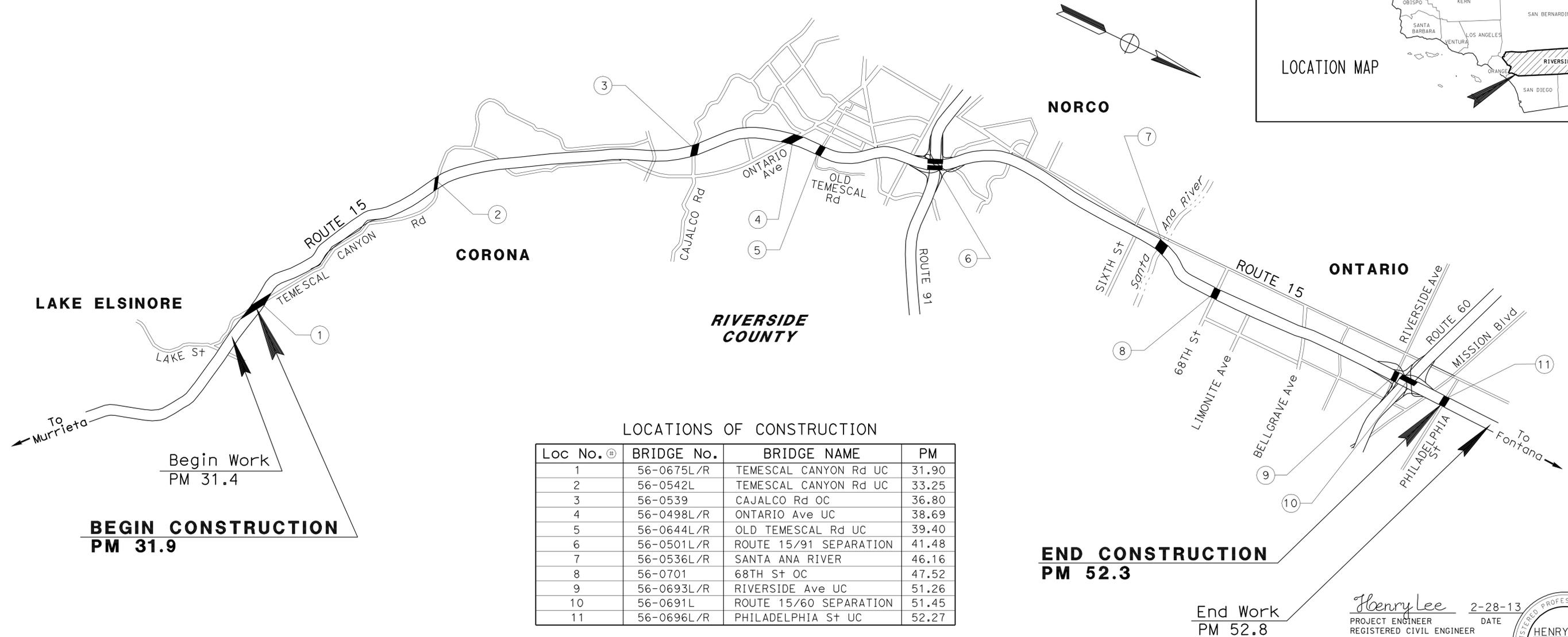
THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN RIVERSIDE COUNTY
ON ROUTE 15
FROM TEMESCAL CANYON ROAD UNDERCROSSING
TO PHILADELPHIA STREET UNDERCROSSING**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	1	30

LOCATION MAP



Begin Work
PM 31.4

**BEGIN CONSTRUCTION
PM 31.9**

**END CONSTRUCTION
PM 52.3**

End Work
PM 52.8

LOCATIONS OF CONSTRUCTION

Loc No. ④	BRIDGE No.	BRIDGE NAME	PM
1	56-0675L/R	TEMESCAL CANYON Rd UC	31.90
2	56-0542L	TEMESCAL CANYON Rd UC	33.25
3	56-0539	CAJALCO Rd OC	36.80
4	56-0498L/R	ONTARIO Ave UC	38.69
5	56-0644L/R	OLD TEMESCAL Rd UC	39.40
6	56-0501L/R	ROUTE 15/91 SEPARATION	41.48
7	56-0536L/R	SANTA ANA RIVER	46.16
8	56-0701	68TH St OC	47.52
9	56-0693L/R	RIVERSIDE Ave UC	51.26
10	56-0691L	ROUTE 15/60 SEPARATION	51.45
11	56-0696L/R	PHILADELPHIA St UC	52.27

NO SCALE

PROJECT MANAGER
CATALINO PINING

DESIGN ENGINEER
HENRY LEE

Henry Lee 2-28-13
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

March 25, 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.



CONTRACT No.	08-0Q8504
PROJECT ID	0800020560

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	2	30

TRAN HOANG
 REGISTERED CIVIL ENGINEER DATE 2-28-13
 3-25-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 TRAN HOANG
 No. 54996
 Exp. 6-30-14
 CIVIL
 STATE OF CALIFORNIA

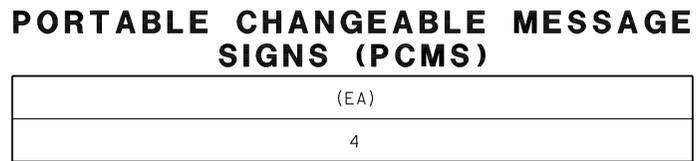
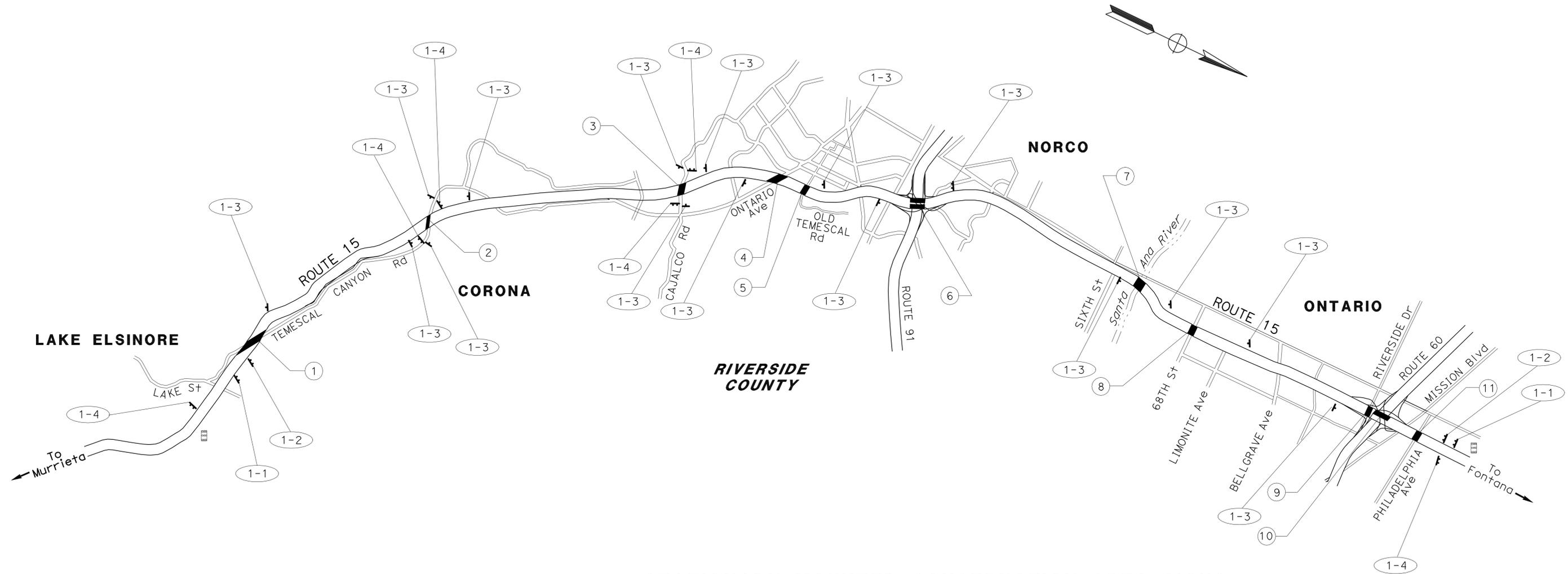
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND:

- 1 ONE POST SIGN
- 1 TWO POST SIGN
- ROAD WORK AREA
- (X-X) CONSTRUCTION AREA SIGN CODE
- PORTABLE CHANGEABLE MESSAGE SIGN
- (X) BRIDGE LOCATIONS NUMBER (SEE TITLE SHEET)

NOTES:

1. CONSTRUCTION AREA SIGN LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
2. REFER TO SHEETS TCS-1, TCS-2, TCS-3, TCS-4 AND TCS-5 FOR TRAFFIC CONTROL REQUIREMENTS.
3. LOCATIONS OF PCMS NOT SHOWN ON THIS PLAN WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. (X-X)	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	No. OF SIGNS
	FEDERAL	CALIFORNIA				
1-1		C40(CA)	144" x 60"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2 - 6" x 8"	2
1-2	G20-1		90" x 48"	ROAD WORK NEXT 20 MILES	2 - 6" x 6"	2
1-3	W20-1		48" x 48"	ROAD WORK AHEAD	1 - 6" x 6"	16
1-4	G20-2		48" x 24"	END ROAD WORK	2 - 4" x 4"	6

CONSTRUCTION AREA SIGNS
NO SCALE **CS-1**

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 TRAN HOANG
 HORMUZD SETHNA
 WILLIAM E. WASSER
 TRAN HOANG
 HORMUZD SETHNA
 WILLIAM E. WASSER
 TRAN HOANG
 HORMUZD SETHNA
 WILLIAM E. WASSER

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	3	30

TRAN HOANG
 REGISTERED CIVIL ENGINEER DATE 2-28-13
 3-25-12
 PLANS APPROVAL DATE

TRAN HOANG
 No. 54996
 Exp. 6-30-14
 CIVIL

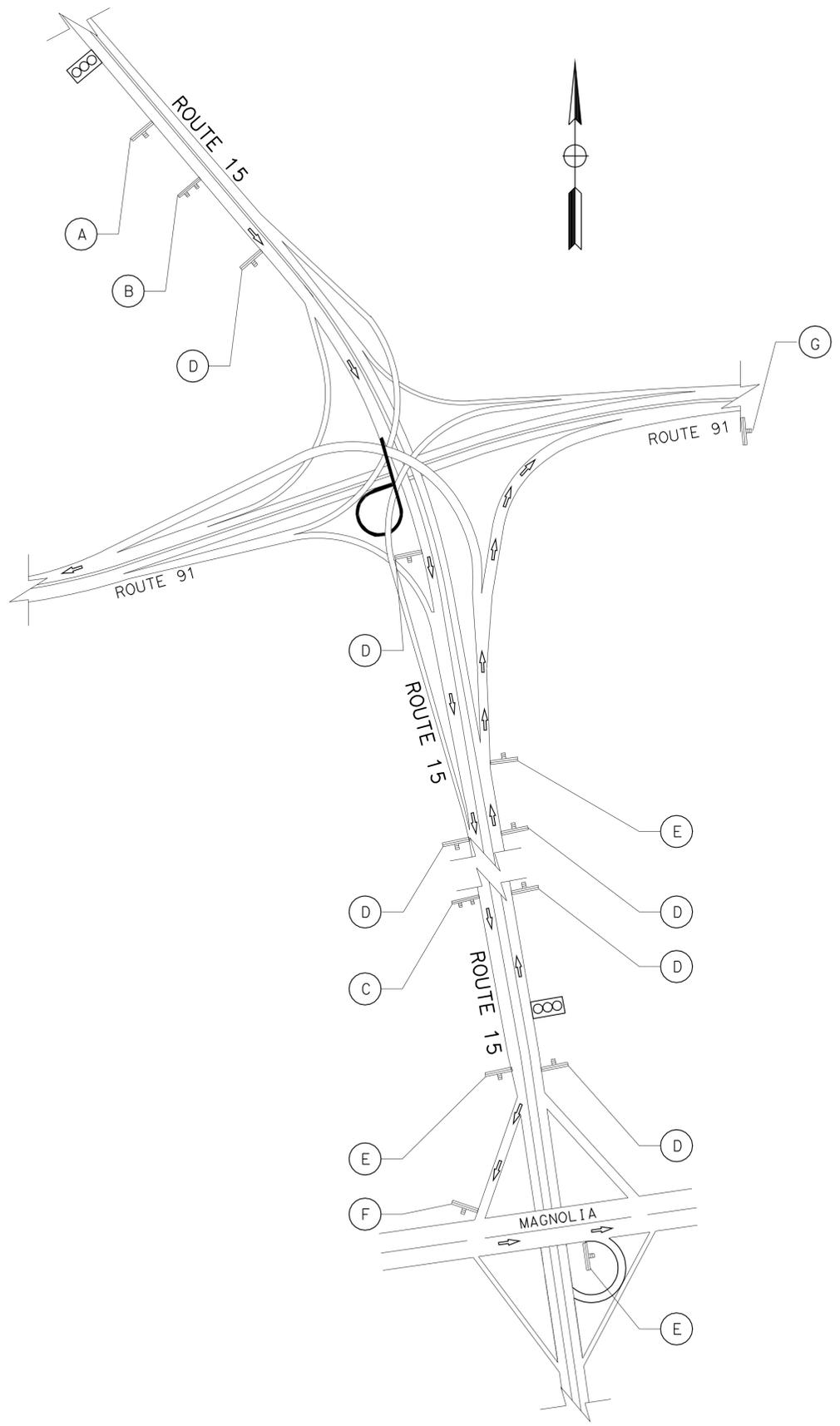
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

- LEGEND:**
- PORTABLE CHANGEABLE MESSAGE SIGN(PCMS)
 - ONE POST CONSTRUCTION AREA SIGN
 - TWO POST CONSTRUCTION AREA SIGN
 - DIRECTION OF DETOURED TRAFFIC
 - CONSTRUCTION AREA SIGN CODE
 - CLOSURE AREA

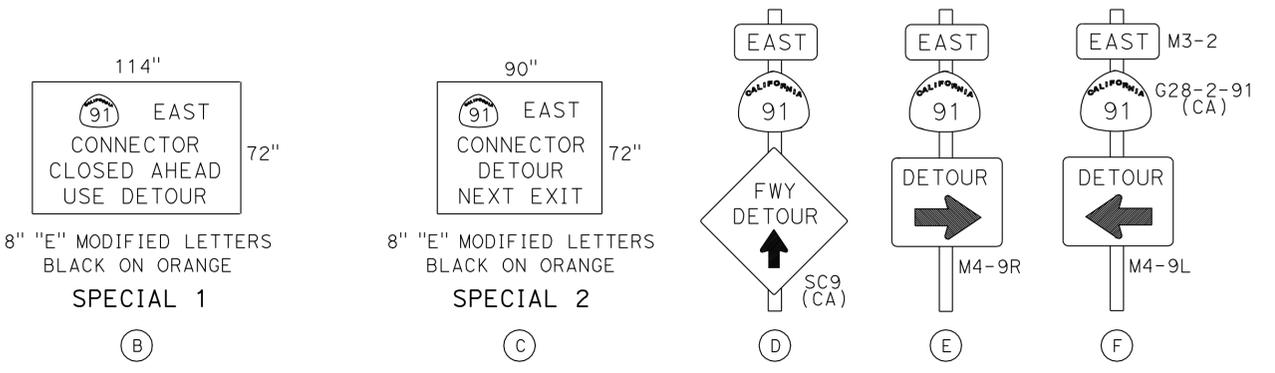
- NOTES:**
- LOCATIONS OF THE CONSTRUCTION AREA SIGNS AND PCMS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
 - REFER TO SHEET TCS-6 FOR TRAFFIC CONTROL OF RAMP AND CONNECTOR CLOSURES.

CONSTRUCTION AREA DETOUR SIGNS

SIGN No. (X)	SIGN CODE	PANEL SIZE	NUMBER OF POSTS AND SIZE	No. OF SIGNS	SIGN MESSAGE
A	W20-2	48" X 48"	1 - 6" X 6"	1	DETOUR AHEAD
B	SPECIAL 1	114" X 72"	2 - 6" X 8"	1	EAST CONNECTOR CLOSED AHEAD USE DETOUR
C	SPECIAL 2	90" X 72"	2 - 6" X 8"	1	EAST CONNECTOR DETOUR NEXT EXIT
D	G28-2-91 (CA) M3-2 SC9 (CA)	24" X 25" 30" X 15" 36" X 36"	1 - 6" X 6"	6	 EAST FWY DETOUR/ARROW
E	G28-2-91 (CA) M3-2 M4-9R	24" X 25" 30" X 15" 48" X 36"	1 - 6" X 6"	3	 EAST DETOUR/ARROW RIGHT
F	G28-2-91 (CA) M3-2 M4-9L	24" X 25" 30" X 15" 48" X 36"	1 - 6" X 6"	1	 EAST DETOUR/ARROW LEFT
G	M4-8a	24" X 18"	1 - 4" X 4"	1	END DETOUR
TOTAL				14	



DETOUR
WHEN SB 15 TO EB 91 CONNECTOR IS CLOSED



MOTORIST INFORMATION PLAN
NO SCALE **MI-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 TRAN HOANG
 HORMUZD SETHNA
 WILLIAM E. WASSER
 TRAFFIC DESIGN

APPROVED FOR MOTORIST INFORMATION WORK ONLY

LAST REVISION | DATE PLOTTED => 29-MAR-2013
 02-28-13 | TIME PLOTTED => 12:01

PAVEMENT DELINEATION QUANTITIES

LOCATION	DETAIL No. OR PAVEMENT MARKING	REMOVE PAVEMENT MARKERS			REMOVE THERMOPLASTIC PAVEMENT MARKINGS			REMOVE PAINTED TRAFFIC STRIPE			REMOVE THERMOPLASTIC TRAFFIC STRIPE			PAVEMENT MARKER			THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)			THERMOPLASTIC PAVEMENT MARKING
		EA	SQFT	LF	LF	LF	EA	EA	EA	LF	LF	LF	TYPE A	TYPE G	TYPE H	4" YELLOW	4" WHITE	8" WHITE		
																			NON-REFLECTIVE	
LOCATION 1L	25	8		350										8	350					
	13M	75				175			60	15						700				
	27B					350										350				
LOCATION 1R	25	8		353										8	353					
	13M	75				176			60	15					706					
	27B					353									353					
LOCATION 2	25	8		345										8	345					
	13M	75				176			60	15					706					
	27B					353									353					
LOCATION 3	25	8		345										8	345					
	13M	75				690			60	15					690					
	27B					345									345					
LOCATION 3	21			790											395					
	38						790												395	
	27B					790									790					
	SIGNAL AHEAD		144																	64
	ARROW TYPE II		144																	62
LOCATION 4L	25	10		402									10	402						
	13M	130				302			104	26					1206					
	27B					402									402					
LOCATION 4R	25	10		402									10	402						
	13M	130				302			104	26					1206					
	27B					402									402					
LOCATION 5L	25	9		383									9	383						
	13M	125				288			100	25					1149					
	27B					383									383					
LOCATION 5R	25	9		382									9	382						
	13M	125				288			100	25					1149					
	27B					382									382					
LOCATION 6L	25	10		415									10	415						
	13M	94				208			76	18					830					
	27B					415									415					
LOCATION 6R	25	10		415									10	415						
	13M	94				208			76	18					830					
	27B					415									415					
LOCATION 7L	25	20		910									20	910						
	13M	190				455			152	38					1820					
	27B					910									910					
LOCATION 7R	25	20		910									20	910						
	13M	190				455			152	38					1820					
	27B					910									910					
LOCATION 8	21			838											419					
	27B					838									838					
LOCATION 9L	25	9		382									9	382						
	13M	85				191			68	17					764					
	27B					382									382					
LOCATION 9R	25	9		382									9	382						
	13M	125				287			100	25					1146					
	27B					382									382					
LOCATION 10	25	10		434									10	434						
	13M	293				217			76	19					868					
	27B					434									434					
LOCATION 11L	25	9		384									9	384						
	13M	120				288			96	24					1152					
	27B					384									384					
LOCATION 11R	25	9		384									9	384						
	13M	160				96			128	32					1536					
	27B					384									384					
SUBTOTAL		2254	432	8861	13487	790	1512	376	168		8047	26433	395	168						
SUBTOTAL		2254	432	8861	14277		1512	544			34875			168						

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	4	30
			2-28-13	DATE	
REGISTERED CIVIL ENGINEER			DATE		
3-25-12			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER No. 54996 Exp. 6-30-14 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.					

PAVEMENT DELINEATION QUANTITIES

LOCATION	DETAIL No. OR PAVEMENT MARKING	REMOVE PAVEMENT MARKERS			REMOVE THERMOPLASTIC PAVEMENT MARKINGS			REMOVE PAINTED TRAFFIC STRIPE			REMOVE THERMOPLASTIC TRAFFIC STRIPE			PAVEMENT MARKER			THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)			THERMOPLASTIC PAVEMENT MARKING
		EA	SQFT	LF	LF	LF	EA	EA	EA	LF	LF	LF	TYPE A	TYPE G	TYPE H	4" YELLOW	4" WHITE	8" WHITE		
																			NON-REFLECTIVE	
PM 31.90 TO PM 52.27 SB	13M														7872*	1968*				
	37															572*				
	38															2414*				
PM 31.90 TO PM 52.27 NB	13M														7858*	1964*				
	37															315*				
	38															14*				
SUBTOTAL 2															15730*	7247*				
TOTAL		2254	432	8861	14277		1512	544			34875			168						

* THE QUANTITIES OF PAVEMENT MARKERS WITHIN THE LIMITS SHOWN ARE ONLY FOR THE MISSING PAVEMENT MARKERS.

PAVEMENT DELINEATION QUANTITIES PDQ-1

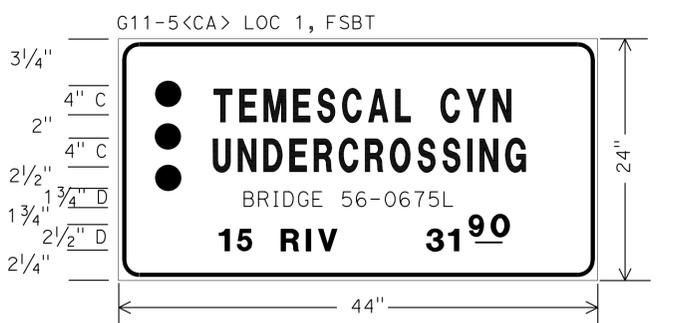
LAST REVISION: DATE PLOTTED => 29-MAR-2013 12:04
 02-28-13 TIME PLOTTED => 12:04

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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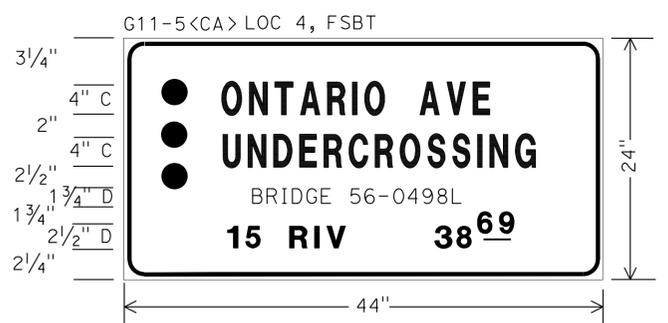
<i>Tran Hoang</i>	2-28-13
REGISTERED CIVIL ENGINEER	DATE
3-25-12	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	TRAN HOANG
No. 54996	
Exp. 6-30-14	
CIVIL	

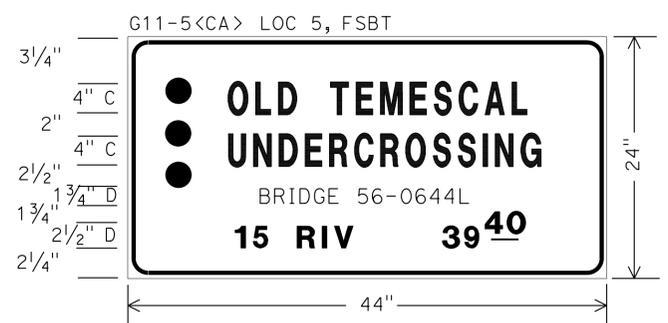
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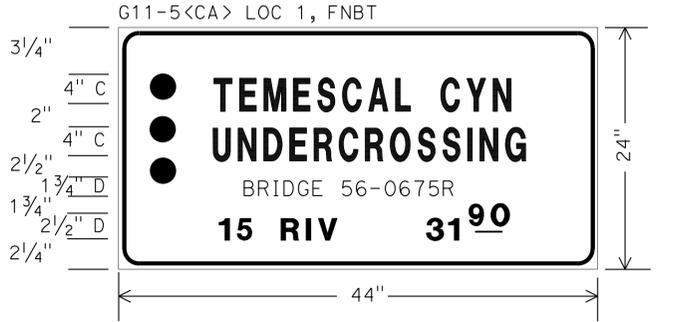
1.5" Rad., 0.625" Border, Black on White; [TEMESCAL CYN] 4"B; [UNDERCROSSING] 4"B; [BRIDGE 56-0675L] 1 3/4" D; [15 RIV 31.90] 2 1/2" D
INSTALL ROADSIDE SIGN (ONE POST)



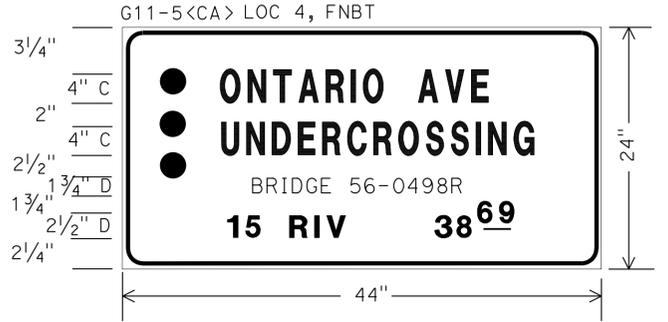
1.5" Rad., 0.625" Border, Black on White; [ONTARIO AVE] 4"B; [UNDERCROSSING] 4"B; [BRIDGE 56-0498L] 1 3/4" D; [15 RIV 38.69] 2 1/2" D
INSTALL ROADSIDE SIGN (ONE POST)



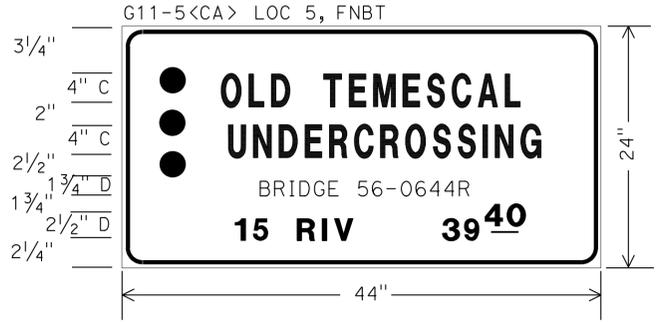
1.5" Rad., 0.625" Border, Black on White; [OLD TEMESCAL] 4"B; [UNDERCROSSING] 4"B; [BRIDGE 56-0644L] 1 3/4" D; [15 RIV 39.40] 2 1/2" D
INSTALL ROADSIDE SIGN (ONE POST)



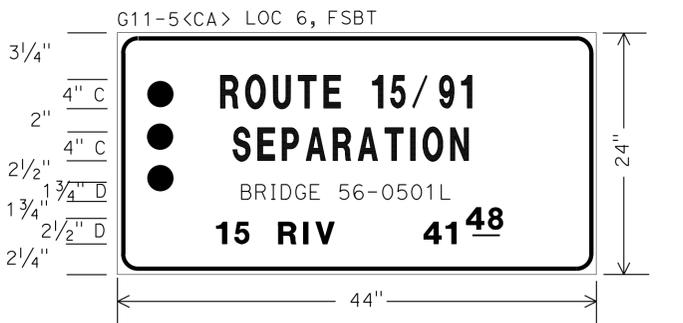
1.5" Rad., 0.625" Border, Black on White; [TEMESCAL CYN] 4"B; [UNDERCROSSING] 4"B; [BRIDGE 56-0675R] 1 3/4" D; [15 RIV 31.90] 2 1/2" D
INSTALL ROADSIDE SIGN (ONE POST)



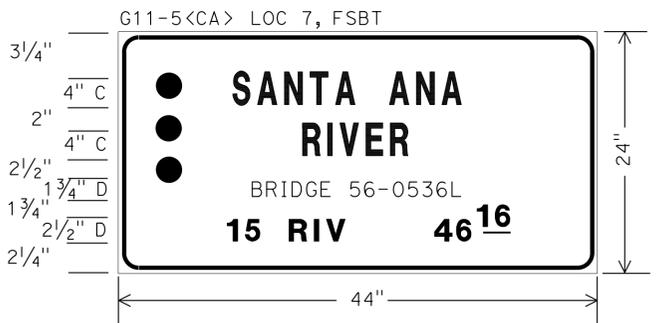
1.5" Rad., 0.625" Border, Black on White; [ONTARIO AVE] 4"B; [UNDERCROSSING] 4"B; [BRIDGE 56-0498R] 1 3/4" D; [15 RIV 38.69] 2 1/2" D
INSTALL ROADSIDE SIGN (ONE POST)



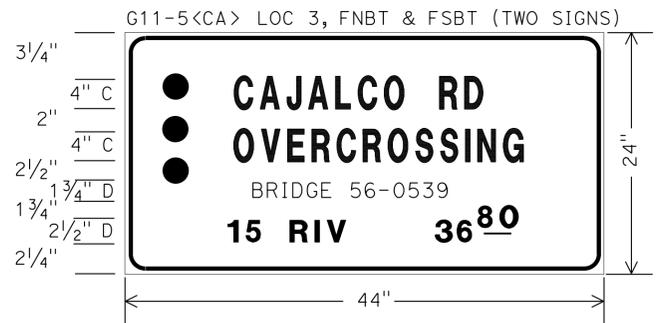
1.5" Rad., 0.625" Border, Black on White; [OLD TEMESCAL] 4"B; [UNDERCROSSING] 4"B; [BRIDGE 56-0644R] 1 3/4" D; [15 RIV 39.40] 2 1/2" D
INSTALL ROADSIDE SIGN (ONE POST)



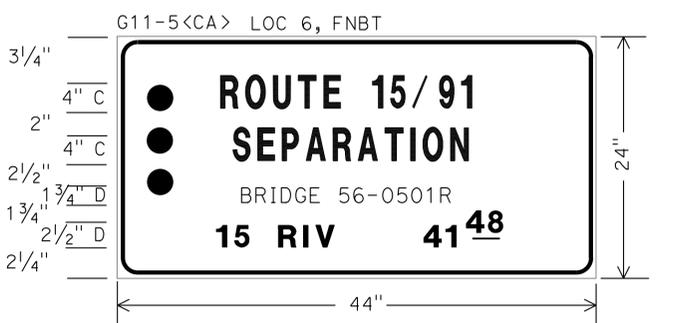
1.5" Rad., 0.625" Border, Black on White; [ROUTE 15/91] 4"C; [SEPARATION] 4"C; [BRIDGE 56-0501L] 1 3/4" D; [15 RIV 41.48] 2 1/2" D
INSTALL ROADSIDE SIGN (ONE POST)



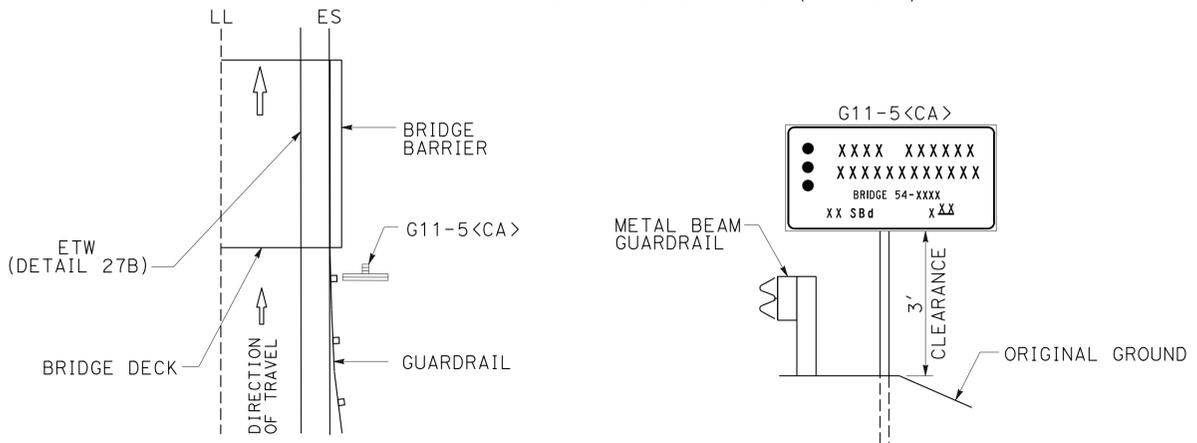
1.5" Rad., 0.625" Border, Black on White; [SANTA ANA] 4"C; [RIVER] 4"C; [BRIDGE 56-0536L] 1 3/4" D; [15 RIV 46.16] 2 1/2" D
INSTALL ROADSIDE SIGN (ONE POST)



1.5" Rad., 0.625" Border, Black on White; [CAJALCO RD] 4"B; [OVERCROSSING] 4"B; [BRIDGE 56-0539] 1 3/4" D; [15 RIV 36.80] 2 1/2" D
INSTALL ROADSIDE SIGN (ONE POST)



1.5" Rad., 0.625" Border, Black on White; [ROUTE 15/91] 4"C; [SEPARATION] 4"C; [BRIDGE 56-0501R] 1 3/4" D; [15 RIV 41.48] 2 1/2" D
INSTALL ROADSIDE SIGN (ONE POST)



TYPICAL LOCATION AND INSTALLATION OF G11-5(CA) SIGN

SIGN DETAILS
NO SCALE
SD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 TRAN HOANG
 HORMUZD SETHNA
 WILLIAM E. WASSER
 TRAFFIC DESIGN

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	6	30

 2-28-13
 REGISTERED CIVIL ENGINEER DATE

3-25-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 No. 54996
 Exp. 6-30-14
 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.

LEGEND:
 L = LENGTH OF SIGN
 D = DEPTH OF SIGN

SIGN PANEL MATERIAL SUMMARY

LOCATION AND DIRECTION	SIGN CODE		PANEL SIZE L x D	SINGLE FACED	BACKGROUND		LEGEND		PROTECTIVE OVERLAY PREMIUM	ROADSIDE SIGN
					SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE		SINGLE SHEET
	UNFRAMED ALUMINUM									
	0.080" SQFT									
1 (FSBT)	FEDERAL	CALIFORNIA	44" X 24"	X	GREEN	IV	WHITE	IV	X	7.34
1 (FNBT)			44" X 24"	X	GREEN	IV	WHITE	IV	X	7.34
3 (FNBT)			44" X 24"	X	GREEN	IV	WHITE	IV	X	7.34
3 (FSBT)			44" X 24"	X	GREEN	IV	WHITE	IV	X	7.34
4 (FSBT)			44" X 24"	X	GREEN	IV	WHITE	IV	X	7.34
4 (FNBT)			44" X 24"	X	GREEN	IV	WHITE	IV	X	7.34
5 (FSBT)			44" X 24"	X	GREEN	IV	WHITE	IV	X	7.34
5 (FNBT)			44" X 24"	X	GREEN	IV	WHITE	IV	X	7.34
6 (FSBT)			44" X 24"	X	GREEN	IV	WHITE	IV	X	7.34
6 (FNBT)			44" X 24"	X	GREEN	IV	WHITE	IV	X	7.34
7 (FSBT)			44" X 24"	X	GREEN	IV	WHITE	IV	X	7.34
TOTAL										80.74

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR
 WILLIAM E. WASSER
 CALCULATED/DESIGNED BY
 CHECKED BY
 TRAN HOANG
 HORMUZD SETHNA
 REVISED BY
 DATE REVISED

SIGN QUANTITIES
SQ-1

LAST REVISION | DATE PLOTTED => 29-MAR-2013
 02-28-13 | TIME PLOTTED => 07:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	7	30

 2-28-13
 REGISTERED CIVIL ENGINEER DATE

3-25-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
TRAN HOANG
 No. 54996
 Exp. 6-30-14
 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:

1. EXACT LOCATION AND POSITION OF ROADSIDE SIGNS TO BE DETERMINED BY THE ENGINEER.
2. POST LENGTHS GIVEN ARE APPROXIMATE.
3. "VC" DIM = VERTICAL CLEARANCE EP TO BOTTOM OF SIGN PANEL.

ROADSIDE SIGN QUANTITIES

LOCATION AND DIRECTION	SIGN CODE		"VC" DIMENSION IN FEET	POST LENGTH	POST SIZE	ROADSIDE SIGN
	FEDERAL	CALIFORNIA				ONE POST
						EA
1 (FSBT)		G11-5	3	8.5	x	1
1 (FNBT)		G11-5	3	8.5	x	1
3 (FNBT)		G11-5	3	8.5	x	1
3 (FSBT)		G11-5	3	8.5	x	1
4 (FSBT)		G11-5	3	8.5	x	1
4 (FNBT)		G11-5	3	8.5	x	1
5 (FSBT)		G11-5	3	8.5	x	1
5 (FNBT)		G11-5	3	8.5	x	1
6 (FSBT)		G11-5	3	8.5	x	1
6 (FNBT)		G11-5	3	8.5	x	1
7 (FSBT)		G11-5	3	8.5	x	1
TOTAL						11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR
 WILLIAM E. WASSER
 CALCULATED/DESIGNED BY
 CHECKED BY
 TRAN HOANG
 HORMUZD SETHNA
 REVISED BY
 DATE REVISED

SIGN QUANTITIES SQ-2

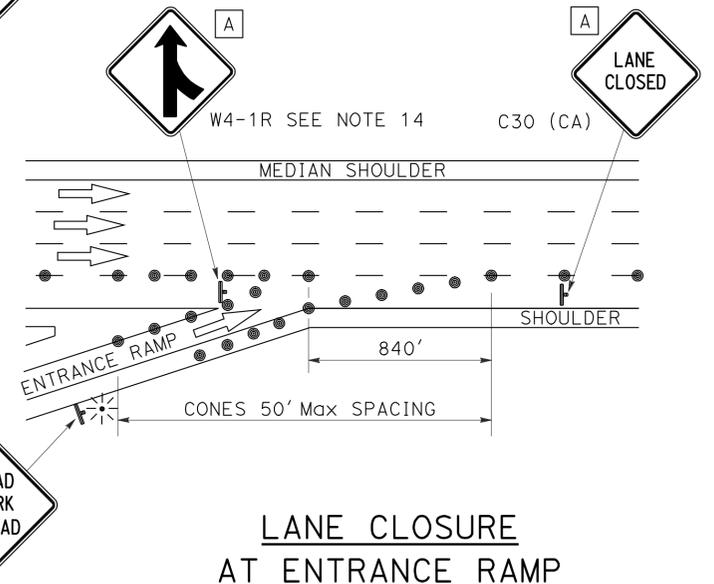
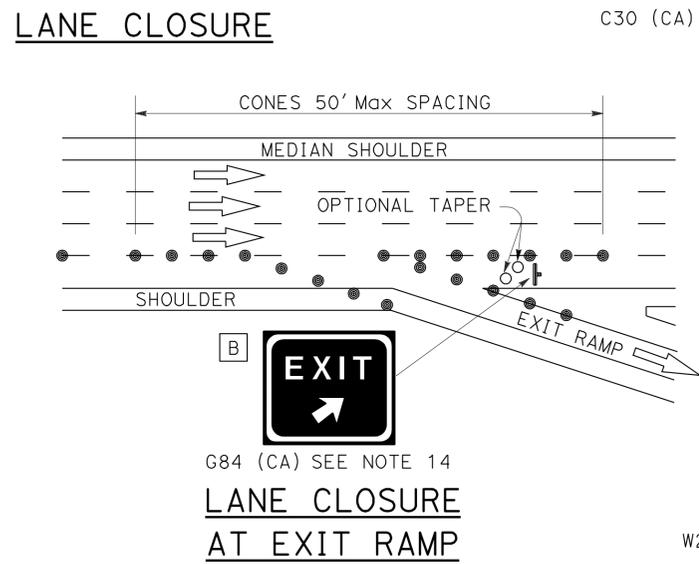
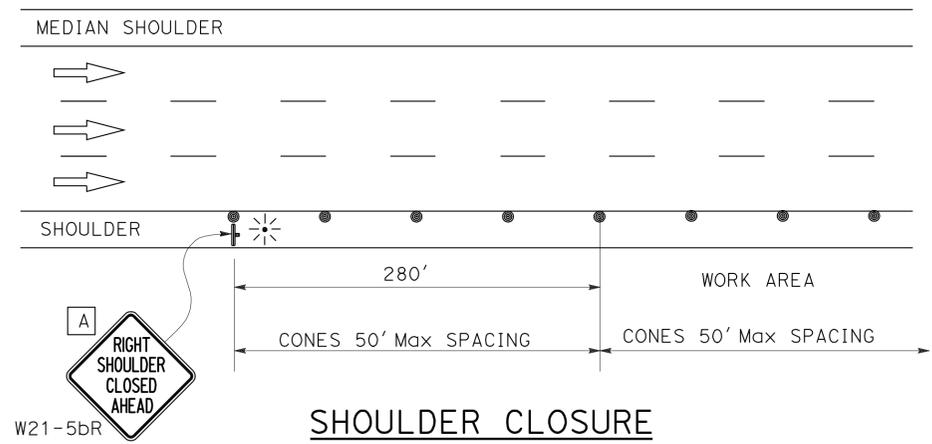
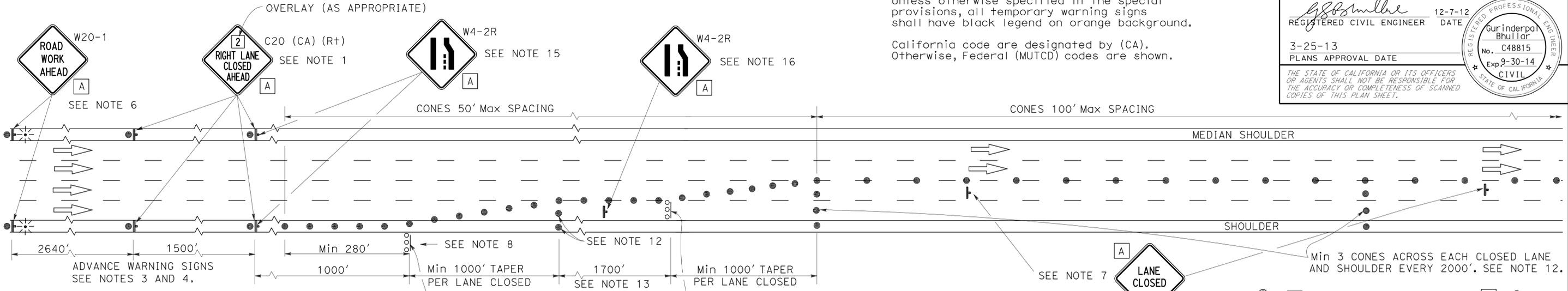
LAST REVISION DATE PLOTTED => 29-MAR-2013
 02-28-13 TIME PLOTTED => 07:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	8	30

<i>Gurinderpal Bhullar</i>	12-7-12
REGISTERED CIVIL ENGINEER	DATE
3-25-13	
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.

NOTES:
 Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on orange background.
 California code are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



- NOTES:**
- Median lane closures shall conform to the details for outside lane closures except that C20 (CA) (Lt) 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 C14 (CA) "END ROAD WORK" sign, 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.
 - If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "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 first flashing arrow sign shall be Type I. All others may be either Type I or Type II.
 - 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 1700' tangent shown along lane lines shall be used between the 1000' tapers required for each closed traffic lane.
 - Unless otherwise specified in the special provisions, the G84 (CA) and W4-1 signs shall be used as shown.
 - When specified in the special provisions, a W4-2 "LANE ENDS" symbol sign is to be used in place of the C20 (CA) "RIGHT LANE CLOSED AHEAD" sign.
 - The W4-2 "LANE ENDS" symbol sign shown at this location is to be used where the W4-2 sign is used as advance warning as described in Note 15.

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 54" x 48"

LEGEND

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURE ON
 FREEWAYS AND EXPRESSWAYS**

NO SCALE

TCS-1

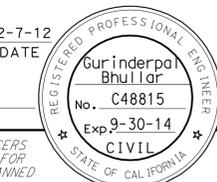
REVISOR
 DATE

CALCULATED-DESIGNED BY
 CHECKED BY

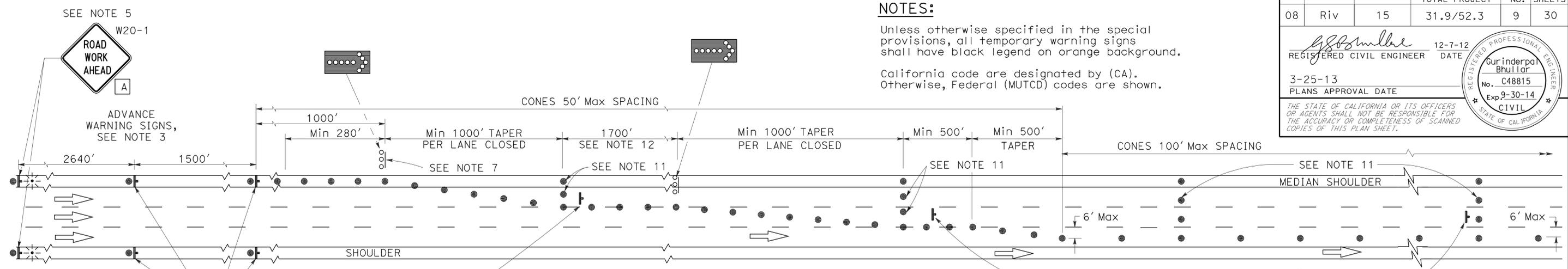
FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

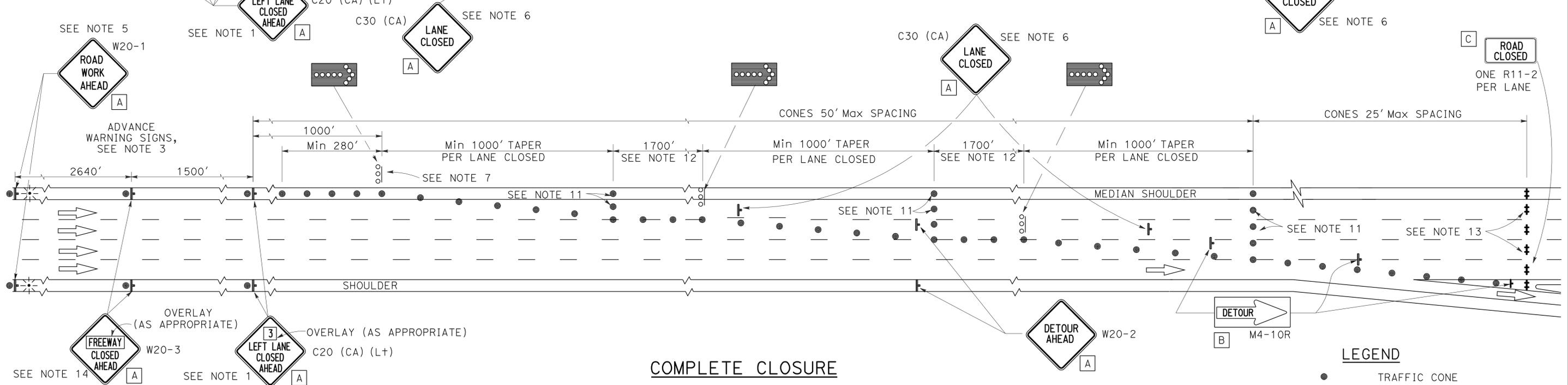
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	9	30

 REGISTERED CIVIL ENGINEER 12-7-12 DATE		
3-25-13 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>		

NOTES:
 Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on orange background.
 California code are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



LANE CLOSURE WITH PARTIAL SHOULDER USE



COMPLETE CLOSURE

NOTES:

- Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details for inside lane closure except that C20 (CA) (Rt) signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
- 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 C14 (CA) "END ROAD WORK" sign, 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.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "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 first flashing arrow sign shall be Type I. All others may be either Type I or Type II.
- 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 the 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 With Partial Shoulder Use" 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 1700' tangent shown along lane lines shall be used between the 1000' tapers required for each closed traffic lane.
- A minimum of Two Type II barricades shall be placed across each closed lane and shoulder at the location shown and every 2000' within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- When specified in the special provisions, a W20-2 "DETOUR AHEAD" sign is to be used in place of the W20-3 "FREEWAY CLOSED AHEAD" sign.

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 18"
- C 48" x 30"

LEGEND

- TRAFFIC CONE
- † TEMPORARY SIGN
- ‡ BARRICADE
-  FLASHING ARROW SIGN (FAS)
-  FAS SUPPORT OR TRAILER
-  PORTABLE FLASHING BEACON

TRAFFIC CONTROL SYSTEM FOR LANE AND COMPLETE CLOSURES ON FREEWAYS AND EXPRESSWAYS

NO SCALE

TCS-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Et Caltrans®
 REVISIONS: 00-00-00 TIME PLOTTED => 06:32
 00-00-00 DATE PLOTTED => 29-MAR-2013

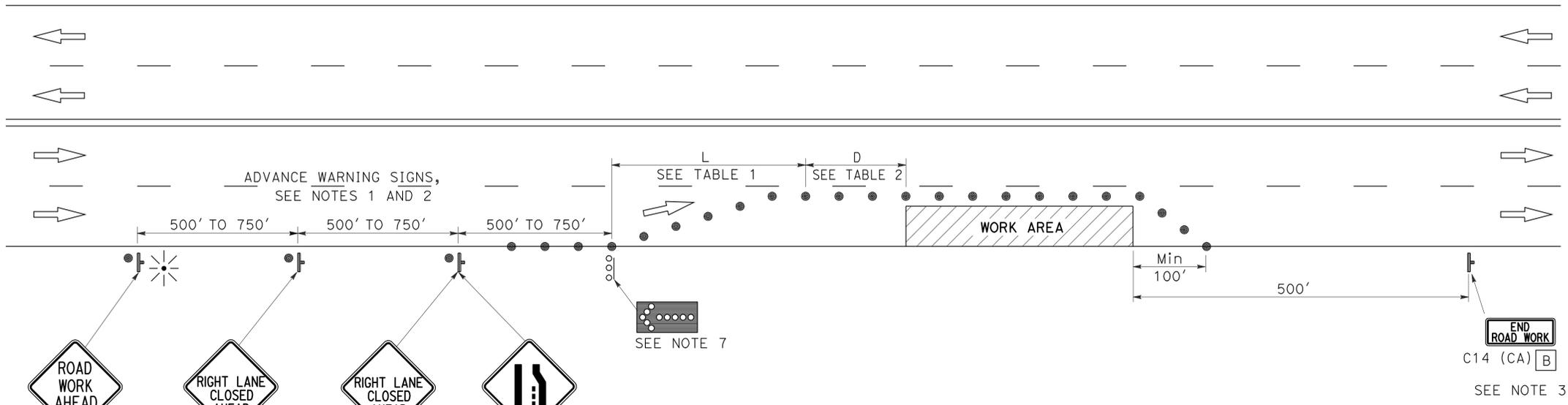
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	10	30

12-7-12
 REGISTERED CIVIL ENGINEER DATE
 3-25-13
 PLANS APPROVAL DATE

Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL

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



NOTES:

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

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

TABLE 1

APPROACH SPEED	* MINIMUM L	** Max SPACING OF CONES ALONG TAPER
mph	ft	ft
20 AND BELOW	80	20
25	125	25
30	180	30
35	245	35
40	320	40
45	540	45
50	600	50
Over 50	SEE NOTE 9	
* USE L FOR LANE WIDTHS LESS THAN OR EQUAL TO 12'.		
** SEE NOTE 8.		

TABLE 2

APPROACH SPEED	MINIMUM D	DOWNGRADE MINIMUM D *		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
25 AND BELOW	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
OVER 50	SEE NOTE 9			
* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.				

LEGEND

- TRAFFIC CONE
- ⊥ TEMPORARY SIGN
- ⋯ FLASHING ARROW SIGN (FAS)
- ⊖ FAS SUPPORT OR TRAILER
- ⊛ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

A 36" x 36"

B 36" x 18"

- NOTES:**
- Where approach speeds are low, advance warning signs may be placed at 300' spacing and placed closer in urban areas.
 - Each advance warning 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. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
 - A C14 (CA) "END ROAD WORK" sign, 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.
 - If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "ROAD WORK NEXT _____ MILES", use a C20 (CA) 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.
 - Flashing arrow sign shall be either Type I or Type II.
 - The maximum spacing between cones along a tangent shall be 50' and along a taper shall be approximately as shown in Table 1.
 - For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
 - When specified in the special provisions, a W4-2 "LANE ENDS" symbol sign is to be used in place of the C20 (CA) "RIGHT LANE CLOSED AHEAD" sign.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

TCS-3

REVISIONS: 00-00-00 TIME PLOTTED => 06:32
 00-00-00 DATE PLOTTED => 29-MAR-2013
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Et Caltrans®
 FUNCTIONAL SUPERVISOR
 CALCULATED/DESIGNED BY
 CHECKED BY
 REVISED BY
 DATE REVISED

LEGEND

- TRAFFIC CONE
- TEMPORARY SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- PORTABLE FLASHING BEACON

TABLE 1

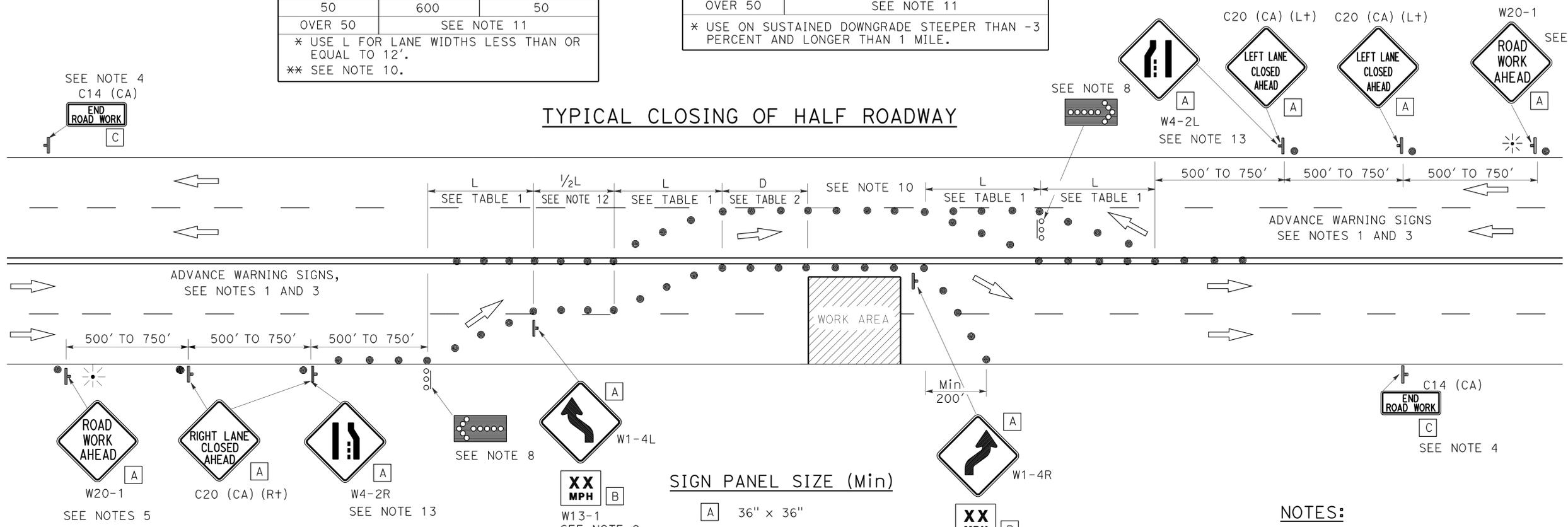
APPROACH SPEED	* MINIMUM L	** Max SPACING OF CONES ALONG TAPER
mph	ft	ft
20 and below	80	20
25	125	25
30	180	30
35	245	35
40	320	40
45	540	45
50	600	50
OVER 50	SEE NOTE 11	

* USE L FOR LANE WIDTHS LESS THAN OR EQUAL TO 12'.
** SEE NOTE 10.

TABLE 2

APPROACH SPEED	MINIMUM D	DOWNGRADE MINIMUM D *		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
25 AND BELOW	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
OVER 50	SEE NOTE 11			

* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.



SIGN PANEL SIZE (Min)

A	36" x 36"
B	24" x 24"
C	36" x 18"

NOTES:

- Where Approach speeds are low, advance warning signs may be placed at 300' spacing and placed closer in urban areas.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.
- 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 C14 (CA) "END ROAD WORK" sign, 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.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "ROAD WORK NEXT MILES", use a C20 (CA) 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.
- Flashing arrow signs shall be either Type I or Type II.
- Advisory speed will be determined by the Engineer. The W13-1 Sign will not be required when advisory speed is more than the posted or maximum speed limit.
- The maximum spacing between cones along a tangent shall be 50' and along a taper shall be approximately as shown in Table 1.
- For approach speeds over 50 mph, use the "Traffic Control System For Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
- Unless otherwise specified in the special provisions, the (1/2 L) shown between the two (L) lane closure tapers shall be used.
- When specified in the special provisions, a W4-2 "Lane Ends" symbol sign is to be used in place of the C20 (CA) "RIGHT (LEFT) LANE CLOSED AHEAD" sign.

NOTES:
 Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on orange background.
 California code are designated by (CA).
 Otherwise, Federal (MUTCD) codes are shown.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURE ON
 MULTILANE CONVENTIONAL
 HIGHWAYS**

NO SCALE

TCS-4

REVISIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 30" x 30"
- D 48" x 48" - SPEED OF 50 mph OR MORE
36" x 36" - SPEED LESS THAN 50 mph
- E 48" x 36"

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	13	30

Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER 12-7-12 DATE
 No. C48815
 Exp. 9-30-14
 CIVIL

3-25-13
 PLANS APPROVAL DATE

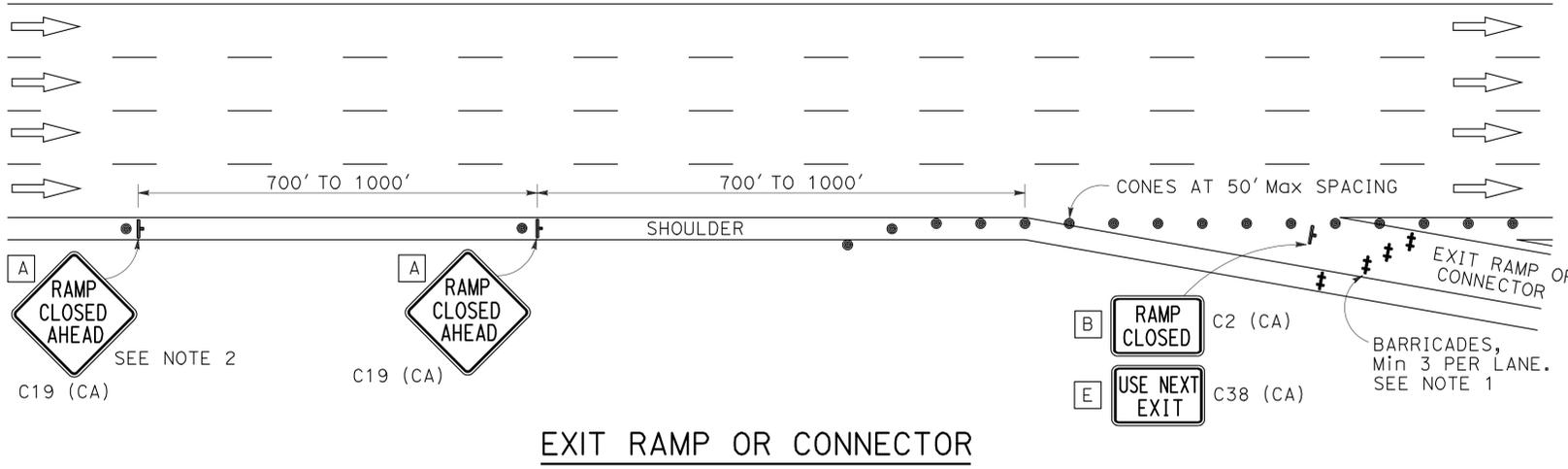
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND

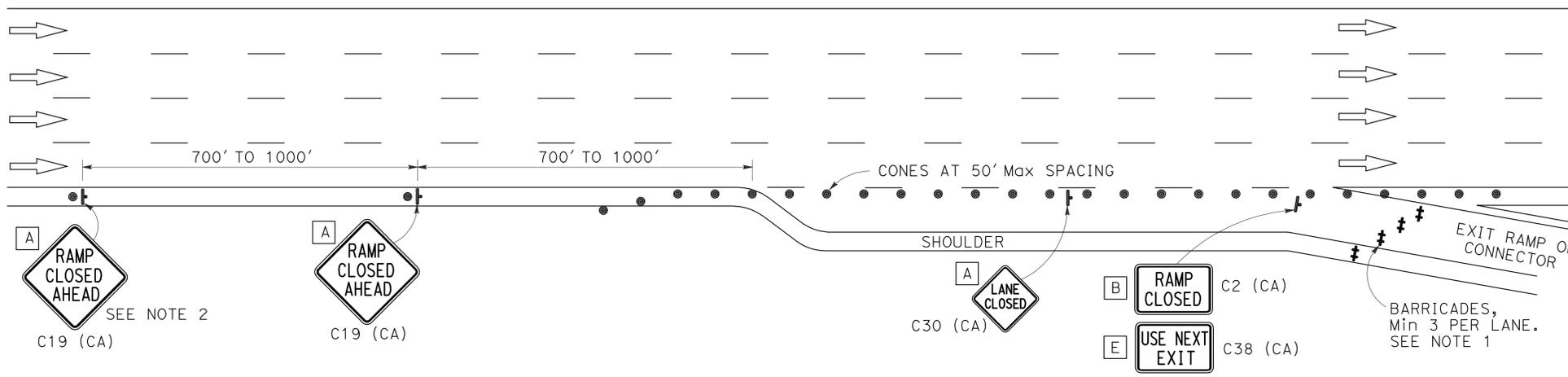
- TRAFFIC CONE
- † TEMPORARY SIGN
- ‡ BARRICADES

NOTES:

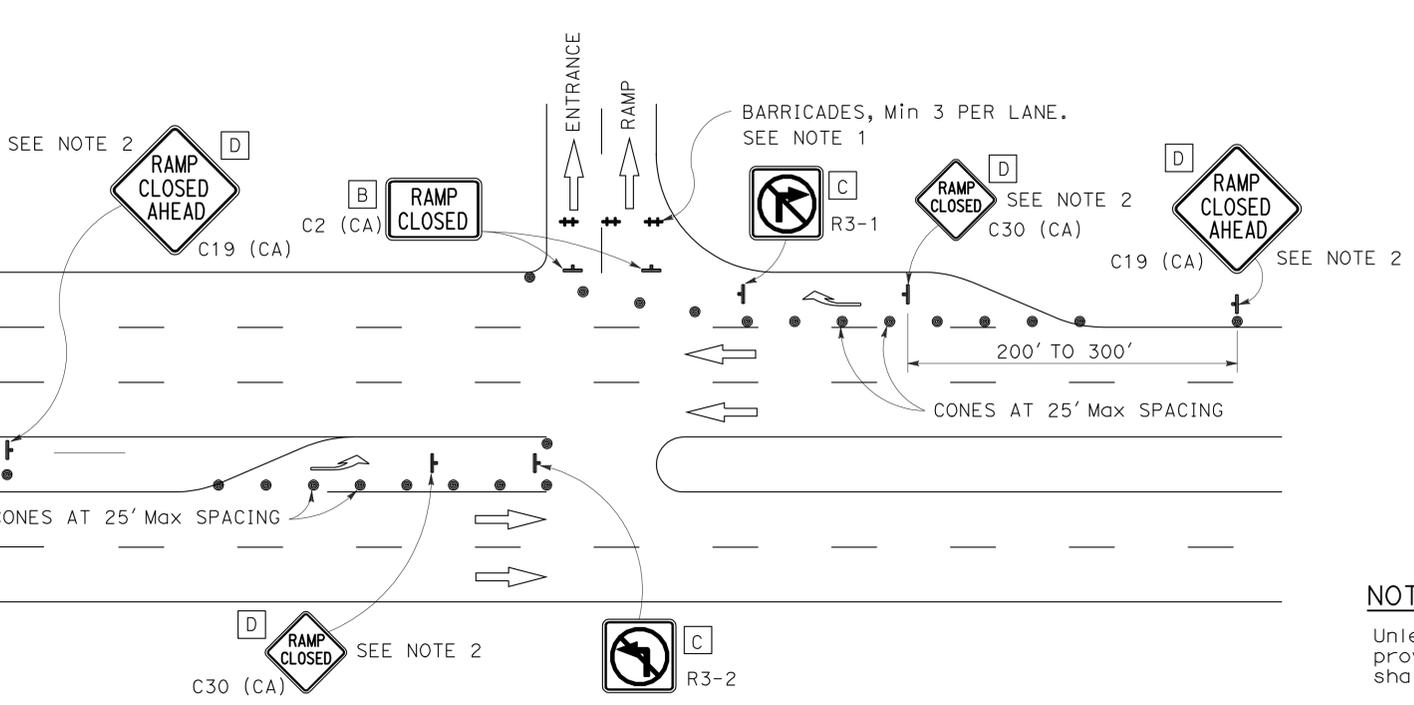
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19 (CA) "RAMP CLOSED AHEAD" and C30 (CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed 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.
- 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" sign in the gore area shall be covered during ramp closures.



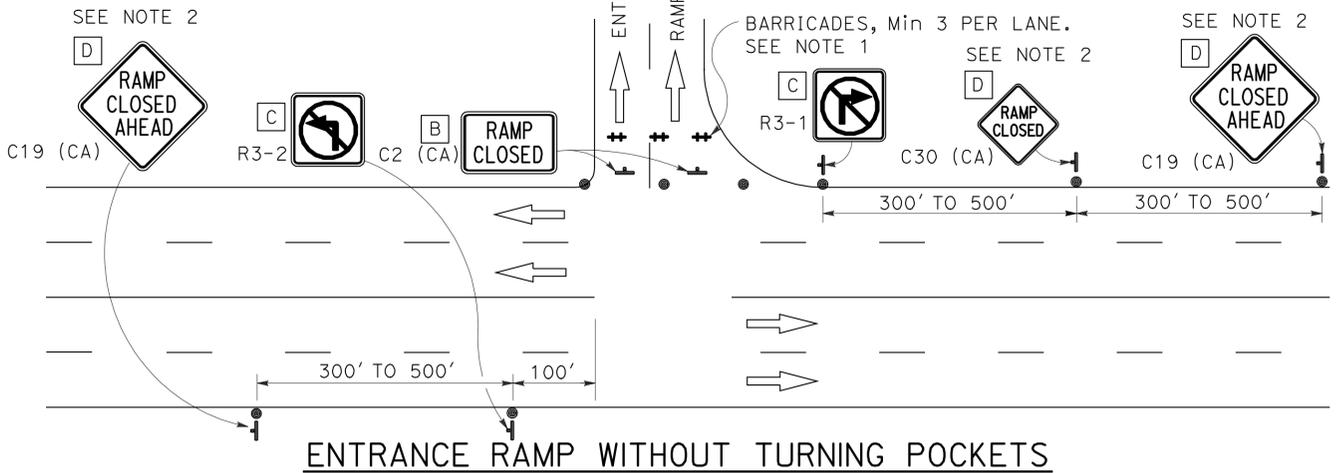
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

- Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on orange background.
- California code are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURE

NO SCALE

TCS-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans

REVISED BY
DATE

CALCULATED BY
DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR

BORDER LAST REVISED 7/2/2010

USERNAME => s124496
DGN FILE => tcs14.dgn

RELATIVE BORDER SCALE IS IN INCHES



UNIT 2343

PROJECT NUMBER & PHASE

08000205601

LAST REVISION DATE PLOTTED => 29-MAR-2013
 00-00-00 TIME PLOTTED => 06:33

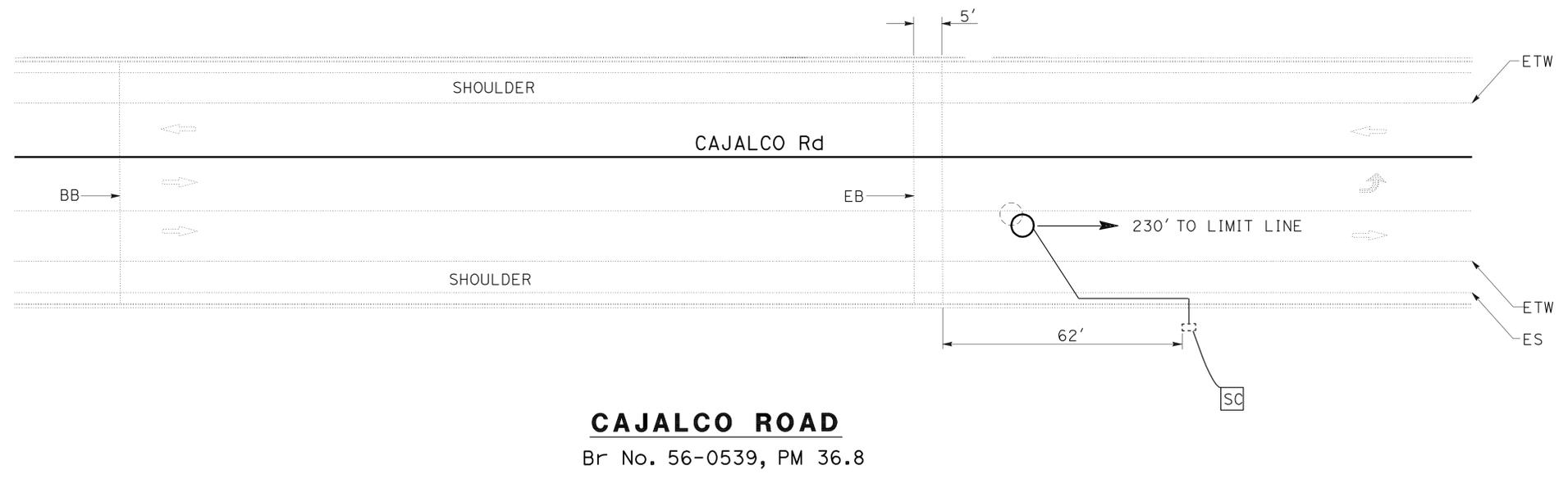
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	16	30

Dilara Zaman 2-28-13
 REGISTERED ELECTRICAL ENGINEER DATE
 3-25-13
 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.

GENERAL NOTES: THIS SHEET ONLY

1. NEW DETECTOR LOOP MUST BE INSTALLED AT EXISTING LOCATION.
2. NEW DETECTOR LOOP MUST BE SPLICED TO EXISTING dlc.
3. **AB** EXISTING LOOP THAT IS TO BE REPLACED.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	NASIMA HYDER	REVISOR BY	
Caltrans ELECTRICAL DESIGN A	DAVID A. GONZALEZ	CHECKED BY	DILARA ZAMAN	DATE REVISED	

DETECTOR LOOP
NO SCALE
E-1

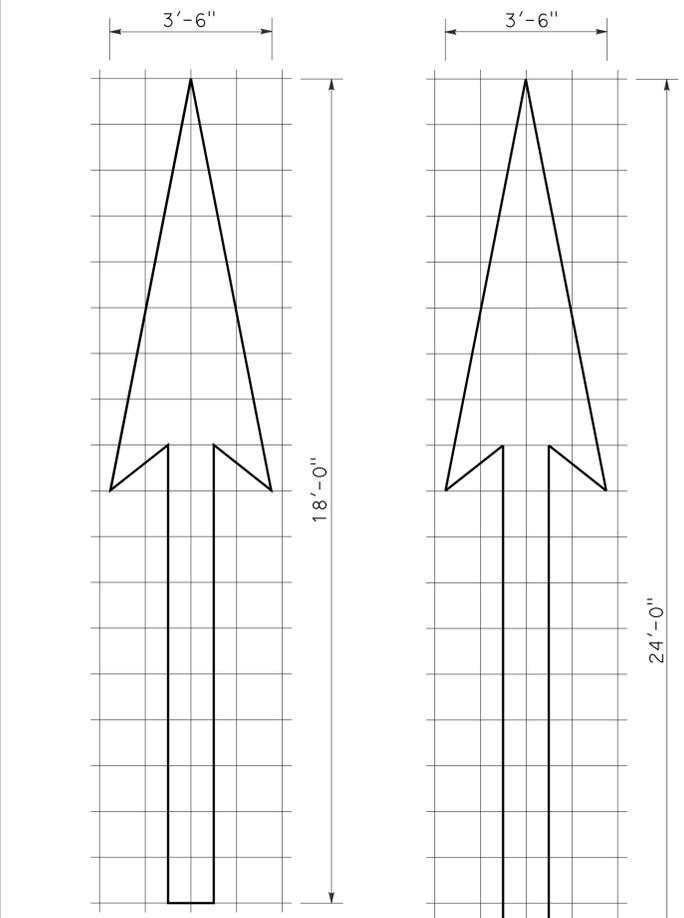
APPROVED FOR ELECTRICAL WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	17	30

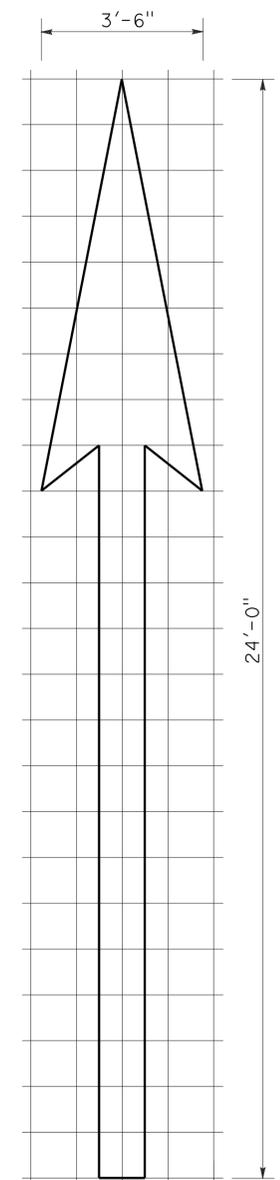
Roberto L. McLaughlin
 REGISTERED CIVIL ENGINEER
 April 20, 2012
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 Roberto L. McLaughlin
 No. C40375
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

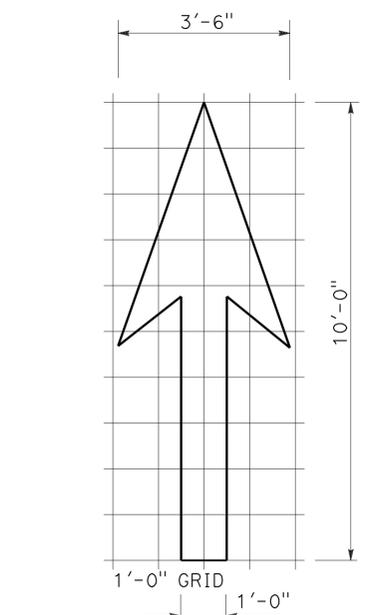
TO ACCOMPANY PLANS DATED 3-25-13



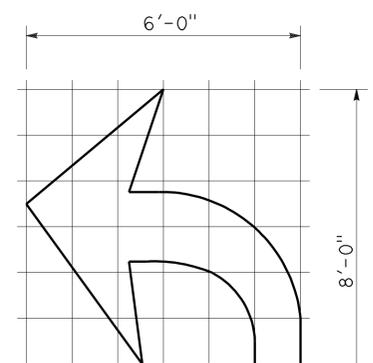
1'-0" GRID
A=25 ft²
TYPE I 18'-0" ARROW



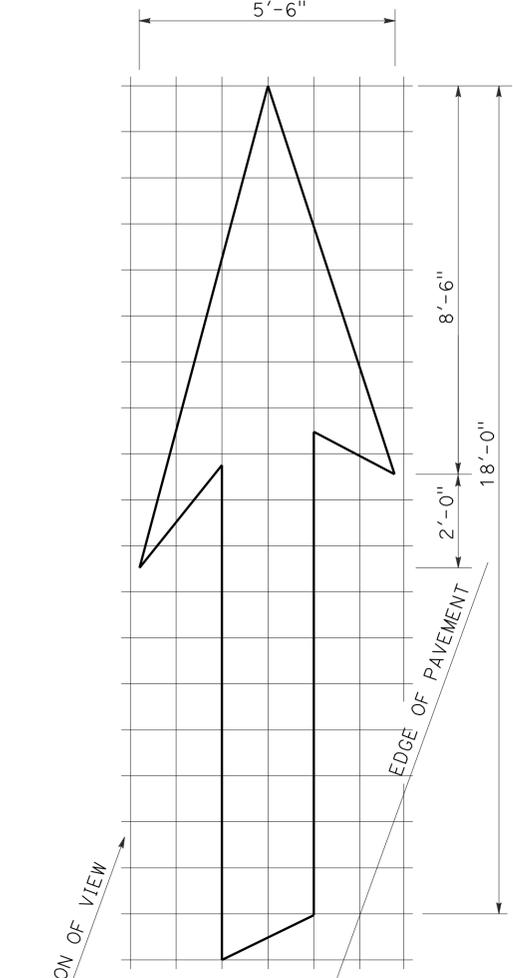
1'-0" GRID
A=31 ft²
TYPE I 24'-0" ARROW



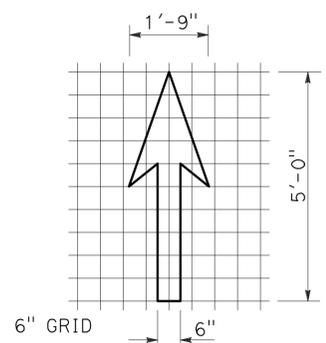
1'-0" GRID
A=14 ft²
TYPE I 10'-0" ARROW



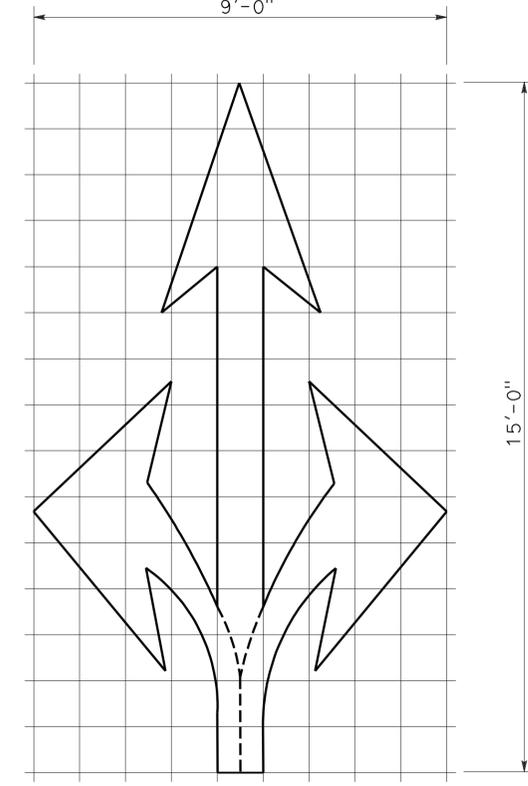
1'-0" GRID
A=15 ft²
TYPE IV (L) ARROW
(For Type IV (R) arrow, use mirror image)



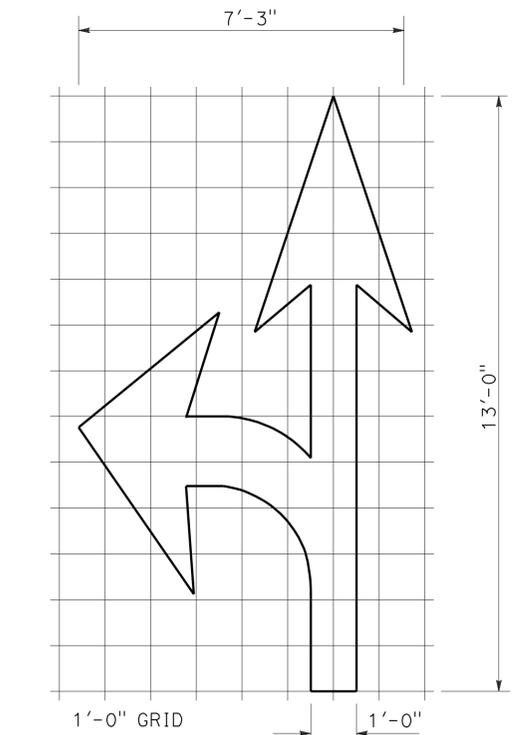
DIRECTION OF VIEW
1'-0" GRID
A=42 ft²
TYPE VI ARROW
Right lane drop arrow
(For left lane, use mirror image)



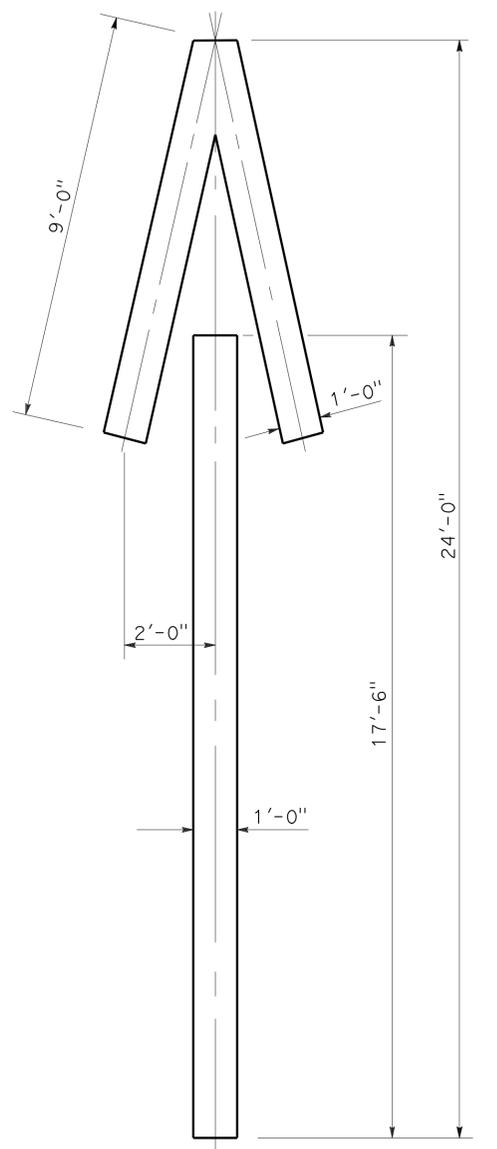
6" GRID
A=3.5 ft²
BIKE LANE ARROW



1'-0" GRID
A=36 ft²
TYPE VIII ARROW



1'-0" GRID
A=27 ft²
TYPE VII (L) ARROW
(For Type VII (R) arrow, use mirror image)



A=33 ft²
TYPE V ARROW

NOTE:
Minor variations in dimensions may be accepted by the Engineer.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
ARROWS**
NO SCALE

RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A DATED MAY 20, 2011 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A24A

2010 REVISED STANDARD PLAN RSP A24A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	18	30

REGISTERED CIVIL ENGINEER DATE 02-19-13
 PLANS APPROVAL DATE 3-25-13
 No. C69896
 Exp. 09/30/14
 CIVIL
 STATE OF CALIFORNIA
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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	GENERAL PLAN NO. 7
8	GENERAL PLAN NO. 8
9	GENERAL PLAN NO. 9
10	MISCELLANEOUS DETAILS NO. 1
11	MISCELLANEOUS DETAILS NO. 2
12	STRUCTURE APPROACH TYPE R(30D)
13	SOFFIT ACCESS DOOR DETAIL

NOTES:

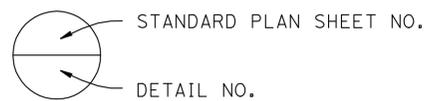
- For Approach slab details, see "Structure Approach Type R(30D)" sheet No. 12.
- For spall repair detail, see "Miscellaneous details No. 2" sheet No. 11.
- For deck damage repair detail, see "Miscellaneous details No. 2" sheet No. 11.

LEGEND:

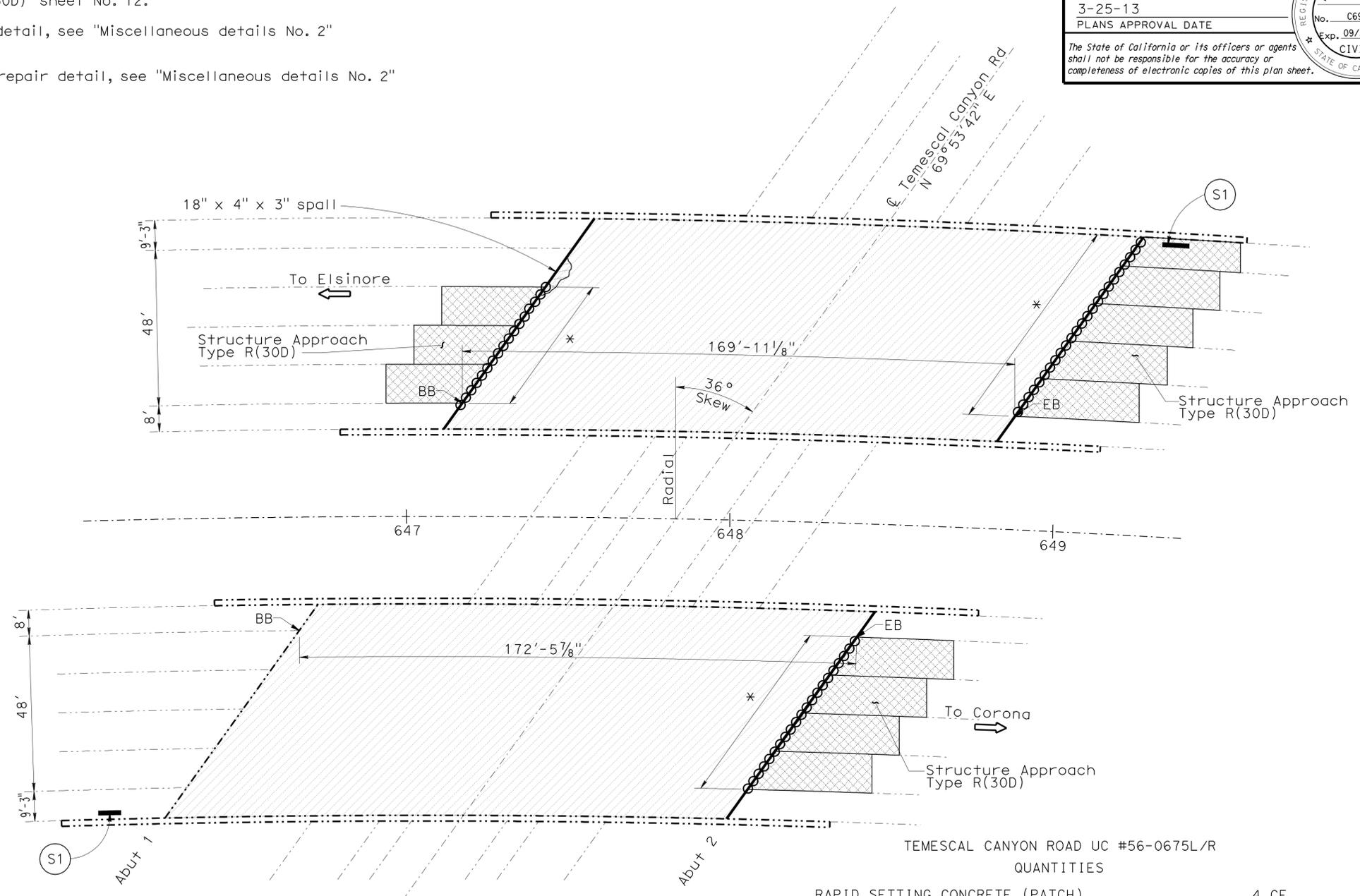
- Indicates existing.
- Indicates direction of traffic.
- Indicates limits of prepare concrete bridge deck surface and treat existing bridge with high molecular weight methacrylate.
- Indicates location of existing joint seal removal, clean expansion joint and placement of new joint seal. Prior to placement of new joint seal, repair joint spalls.
- Indicates limits of remove existing approach and place new Structure Approach Type R(30D). For details see "STRUCTURE APPROACH TYPE R(30D)" sheet.
- Indicates location of install new joint seal and paving notch.
- Indicates limits of paving notch extension.
- Repaint stencil bridge number on the rail.
- Indicates location of remove unsound concrete and patch with rapid setting concrete.

STANDARD PLANS DATED MAY 2010

SHEET NO.	TITLE
A10A	ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
A10B	ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
A10C	SYMBOLS (SHEET 1 OF 2)
A10D	SYMBOLS (SHEET 2 OF 2)
B6-21	JOINT SEAL (MAXIMUM MR=2")



NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



TEMESCAL CANYON ROAD UC

Br No. 56-0675L/R, Rte 15, PM 31.90
1" = 20'

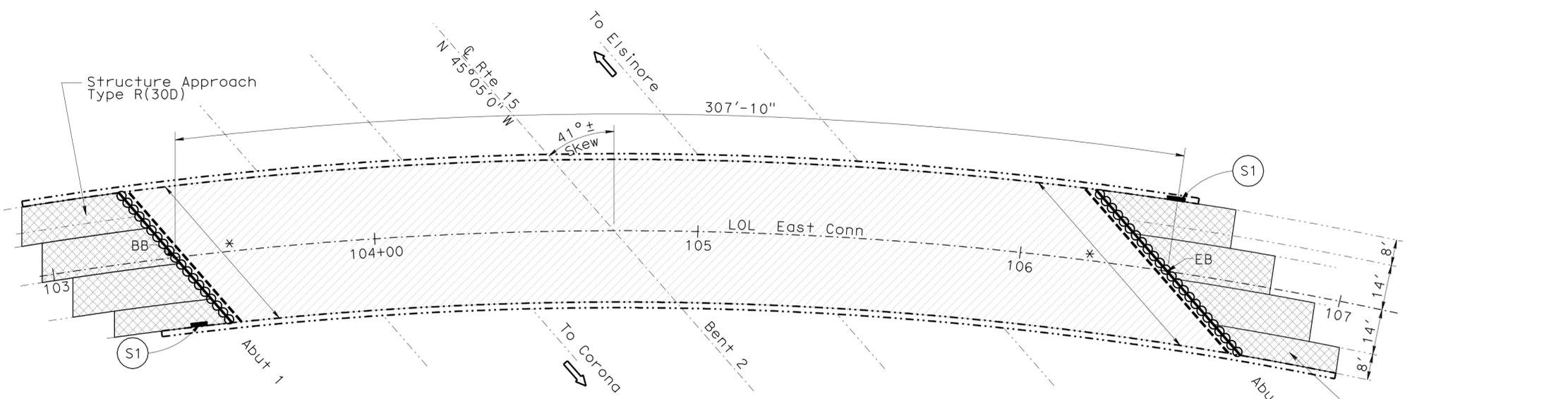
QUANTITIES	
RAPID SETTING CONCRETE (PATCH)	4 CF
REMOVE UNSOUND CONCRETE	4 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	22,360 SQFT
TREAT BRIDGE DECK	22,360 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	280 GAL
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	190 CY
PAVING NOTCH EXTENSION	132 CF
CLEAN EXPANSION JOINT	68 LF
PAINT BRIDGE NAME AND NUMBER	2 EA
JOINT SEAL (MR 1/2")	243 LF

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 15 BRIDGES GENERAL PLAN NO. 1
	DETAILS	BY Clayton Tom	CHECKED Mazin Ibrahim	LAYOUT	BY Clayton Tom			CHECKED Mazin Ibrahim	
	QUANTITIES	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	SPECIFICATIONS	BY Steven Seifert	CHECKED Steven Seifert	PLANS AND SPECS COMPARED	Varies	

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS
 UNIT: 3489 PROJECT NUMBER & PHASE: 0800020560 1 CONTRACT NO.: 08-008501
 DISREGARD PRINTS BEARING EARLIER REVISION DATES
 REVISION DATES: 07-13-12, 08-22-12, 12-04-12, 02-19-13
 SHEET 01 OF 13

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	19	30

REGISTERED CIVIL ENGINEER DATE 02-19-13
 PLANS APPROVAL DATE 3-25-13
 No. C69896
 Exp. 09/30/14
 CIVIL
 STATE OF CALIFORNIA
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NOTES:

- For spall repair detail, see "Miscellaneous details No. 2" sheet No. 11.
- For deck damage repair detail, see "Miscellaneous details No. 2" sheet No. 11.

LEGEND:

- Indicates existing.
- ➔ Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge with high molecular weight methacrylate.
- Indicates location of existing joint seal removal, clean expansion joint and placement of new joint seal. Prior to placement of new joint seal, repair joint spalls.
- ▩ Indicates limits of remove existing approach and place new Structure Approach Type R(30D). For details see "STRUCTURE APPROACH TYPE R(30D)" sheet.
- * Indicates limits of paving notch extension.
- (S1) Repaint stencil bridge number on the rail.
- ⊗ Indicates location of install new joint seal and paving notch. Prior to placement of new joint seal, repair joint spalls.
- Indicates location of existing joint seal to remain.
- ▨ Indicates location of remove unsound concrete and patch with rapid setting concrete.

CAJALCO OFF-RAMP OC

Br No. 56-0539, Rte 15, PM 36.80
1" = 20'

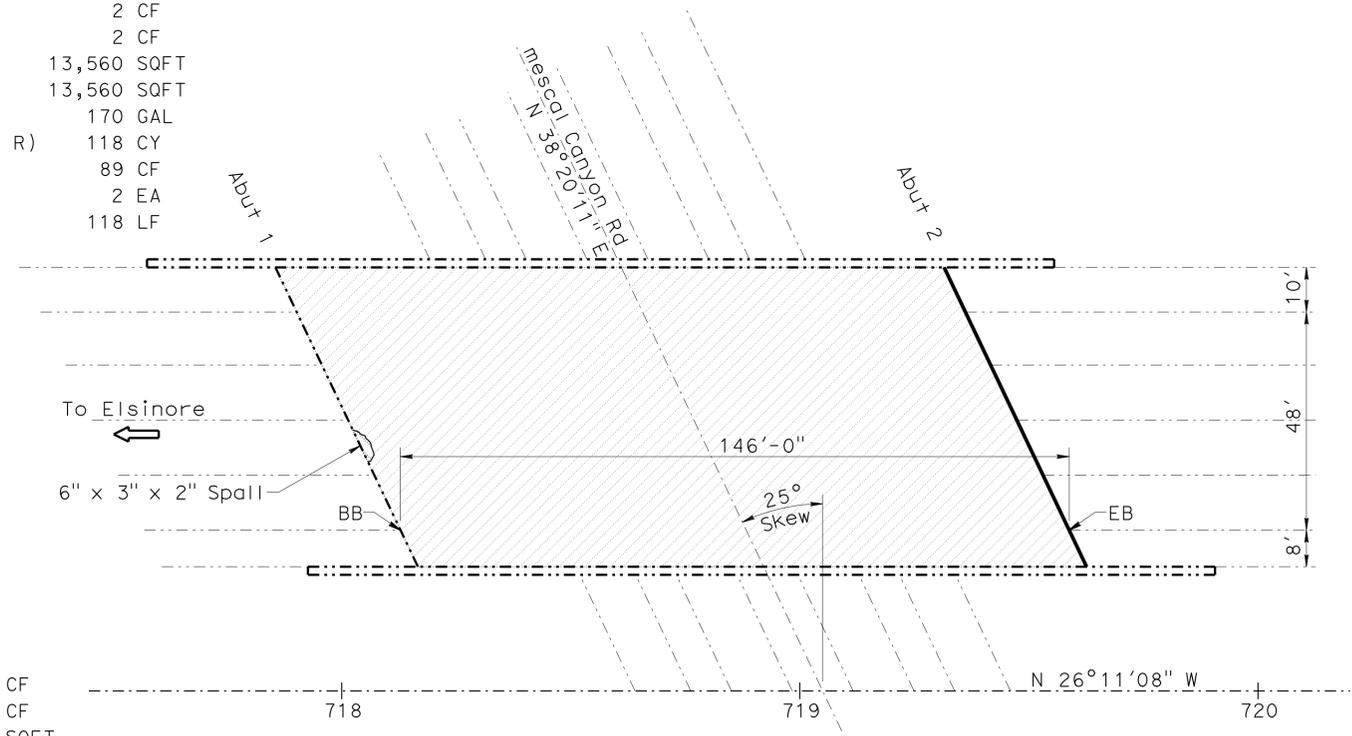


CAJALCO OFF-RAMP OC #56-0539
QUANTITIES

RAPID SETTING CONCRETE (PATCH)	2 CF
REMOVE UNSOUND CONCRETE	2 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	13,560 SQFT
TREAT BRIDGE DECK	13,560 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	170 GAL
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	118 CY
PAVING NOTCH EXTENSION	89 CF
PAINT BRIDGE NAME AND NUMBER	2 EA
JOINT SEAL (MR 1/2")	118 LF

TEMESCAL CANYON ROAD UC #56-0542L
QUANTITIES

RAPID SETTING CONCRETE (PATCH)	2 CF
REMOVE UNSOUND CONCRETE	2 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	9,640 SQFT
TREAT BRIDGE DECK	9,640 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	120 GAL
CLEAN EXPANSION JOINT	75 LF
JOINT SEAL (MR 1")	75 LF



TEMESCAL CANYON ROAD UC

Br No. 56-0542L, Rte 15, PM 33.25
1" = 20'



NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
	DETAILS	BY Clayton Tom	CHECKED Mazin Ibrahim	LAYOUT	BY Clayton Tom
	QUANTITIES	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	SPECIFICATIONS	BY Steven Seifert

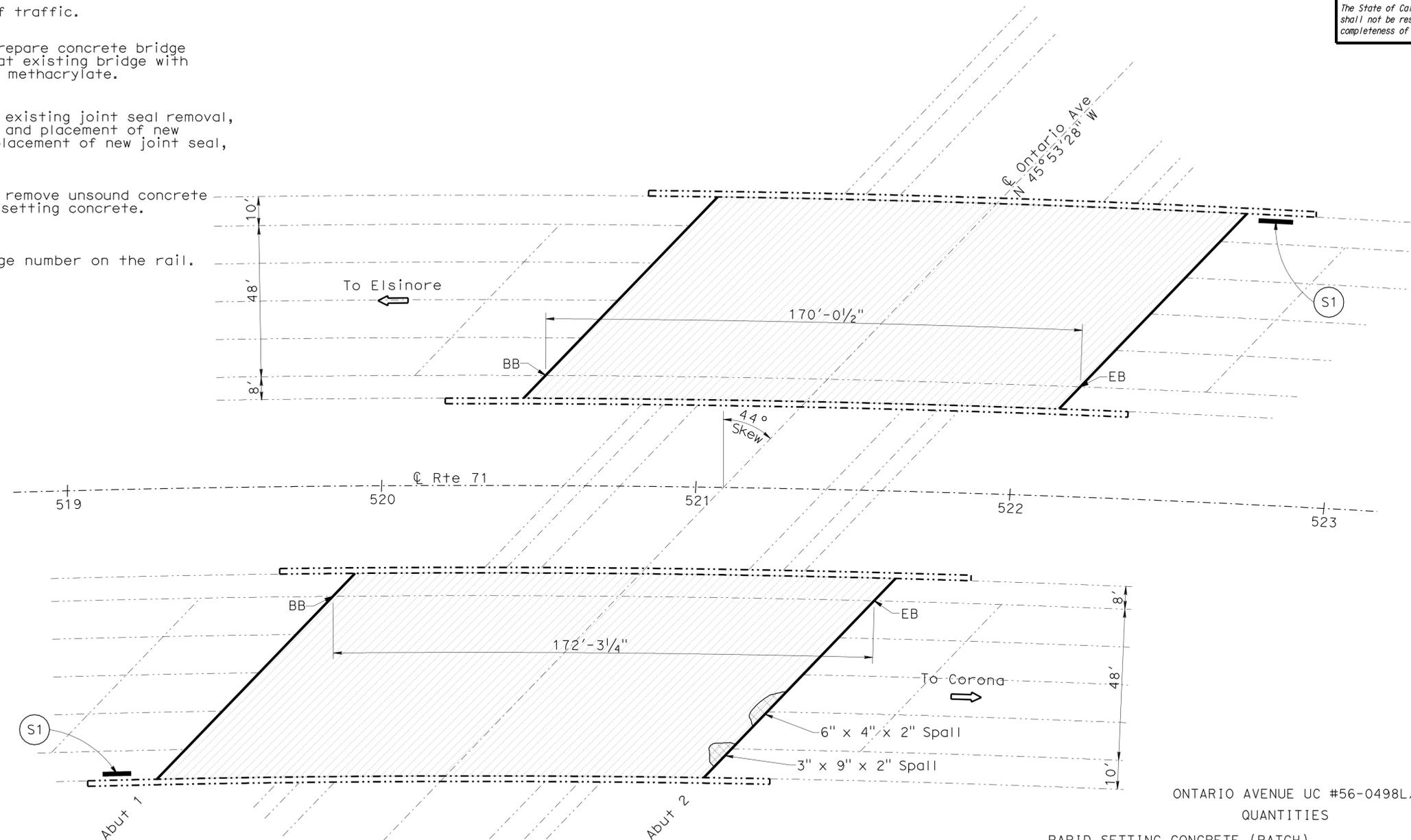
STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE	BRIDGE NO.	ROUTE 15 BRIDGES GENERAL PLAN NO. 2
	STRUCTURE MAINTENANCE DESIGN	Various	
		Varies	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	20	30

REGISTERED CIVIL ENGINEER DATE 02-19-13
 PLANS APPROVAL DATE 3-25-13
 No. C69896
 Exp. 09/30/14
 CIVIL
 STATE OF CALIFORNIA
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LEGEND:

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- ⇒ Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge with high molecular weight methacrylate.
- Indicates location of existing joint seal removal, clean expansion joint and placement of new joint seal. Prior to placement of new joint seal, repair joint spalls.
- ▩ Indicates location of remove unsound concrete and patch with rapid setting concrete.
- Ⓢ Repaint stencil bridge number on the rail.



NOTES:

- For spall repair detail, see "Miscellaneous details No. 2" sheet No. 11.
- For deck damage repair detail, see "Miscellaneous details No. 2" sheet No. 11.

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

ONTARIO AVENUE UC

Br No. 56-0498L/R, Rte 15, PM 38.69
1" = 20'



ONTARIO AVENUE UC #56-0498L/R
QUANTITIES

RAPID SETTING CONCRETE (PATCH)	5 CF
REMOVE UNSOUND CONCRETE	5 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	22,590 SQFT
TREAT BRIDGE DECK	22,590 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	283 GAL
CLEAN EXPANSION JOINT	368 LF
PAINT BRIDGE NAME AND NUMBER	2 EA
JOINT SEAL (MR 1 1/2")	368 LF

TONY D. BRAKE
DESIGN ENGINEER

DESIGN	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Clayton Tom	CHECKED Mazin Ibrahim	LAYOUT	BY Clayton Tom
QUANTITIES	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	SPECIFICATIONS	BY Steven Seifert

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

**ROUTE 15 BRIDGES
GENERAL PLAN NO. 3**

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3489
PROJECT NUMBER & PHASE: 0800020560 1
CONTRACT NO.: 08-008501

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
07-13-12 08-22-12 12-04-12 02-19-13	03	13

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	21	30

REGISTERED CIVIL ENGINEER	DATE
<i>M. S. Ibrahim</i>	02-19-13
PLANS APPROVAL DATE	
3-25-13	

REGISTERED PROFESSIONAL ENGINEER
<i>M. S. Ibrahim</i>
No. C69896
Exp. 09/30/14
CIVIL
STATE OF CALIFORNIA

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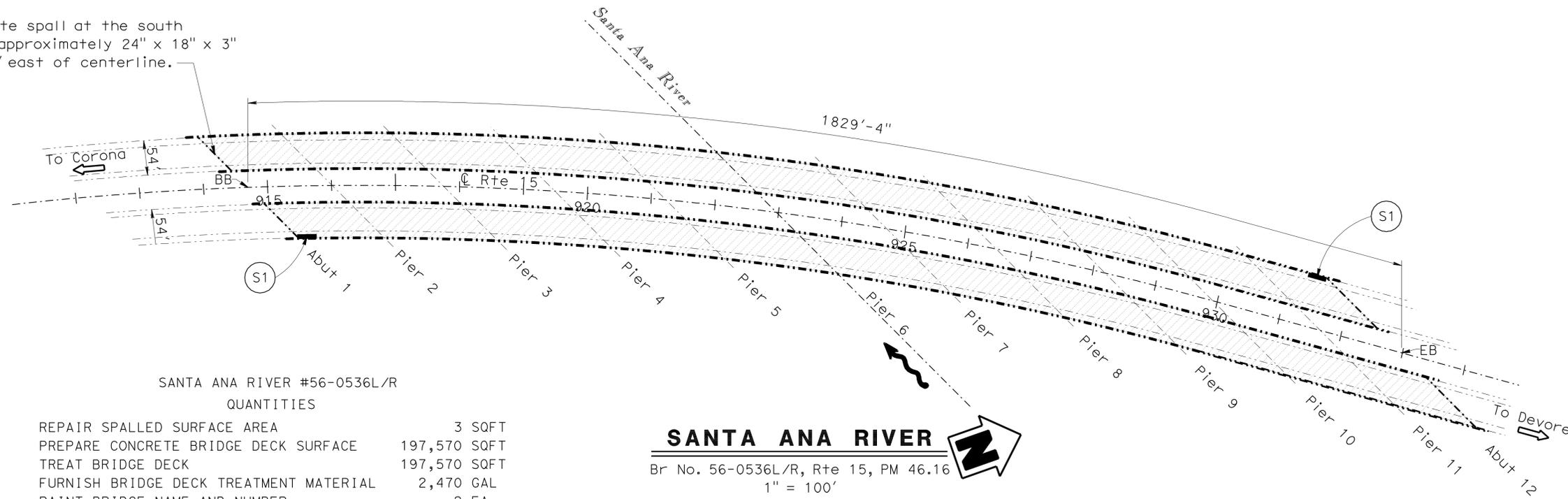
LEGEND:

- Indicates existing.
- ➔ Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge with high molecular weight methacrylate.
- Ⓢ1 Repaint stencil bridge number on the rail.

NOTES:

- For deck damage repair detail, see "Miscellaneous details No. 2" sheet No. 11.

Repair the concrete spall at the south abutment #1 wall approximately 24" x 18" x 3" located about 6.5' east of centerline.



NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY: Mazin Ibrahim	CHECKED: Mehran Sajjadi	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 15 BRIDGES GENERAL PLAN NO. 4	
	DETAILS	BY: Clayton Tom	CHECKED: Mazin Ibrahim	LAYOUT	BY: Clayton Tom			CHECKED: Mazin Ibrahim		POST MILE
	QUANTITIES	BY: Mazin Ibrahim	CHECKED: Mehran Sajjadi	SPECIFICATIONS	BY: Steven Seifert			PLANS AND SPECS COMPARED: Steven Seifert		Varies

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT: 3489	PROJECT NUMBER & PHASE: 0800020560 1	CONTRACT NO.: 08-008501	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
							07-13-12 08-22-12 12-04-12 02-19-13	04	13

FILE => 08-0q8501-a-gp04.dgn

USERNAME => s114640 DATE PLOTTED => 29-MAR-2013 TIME PLOTTED => 06:51

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	22	30

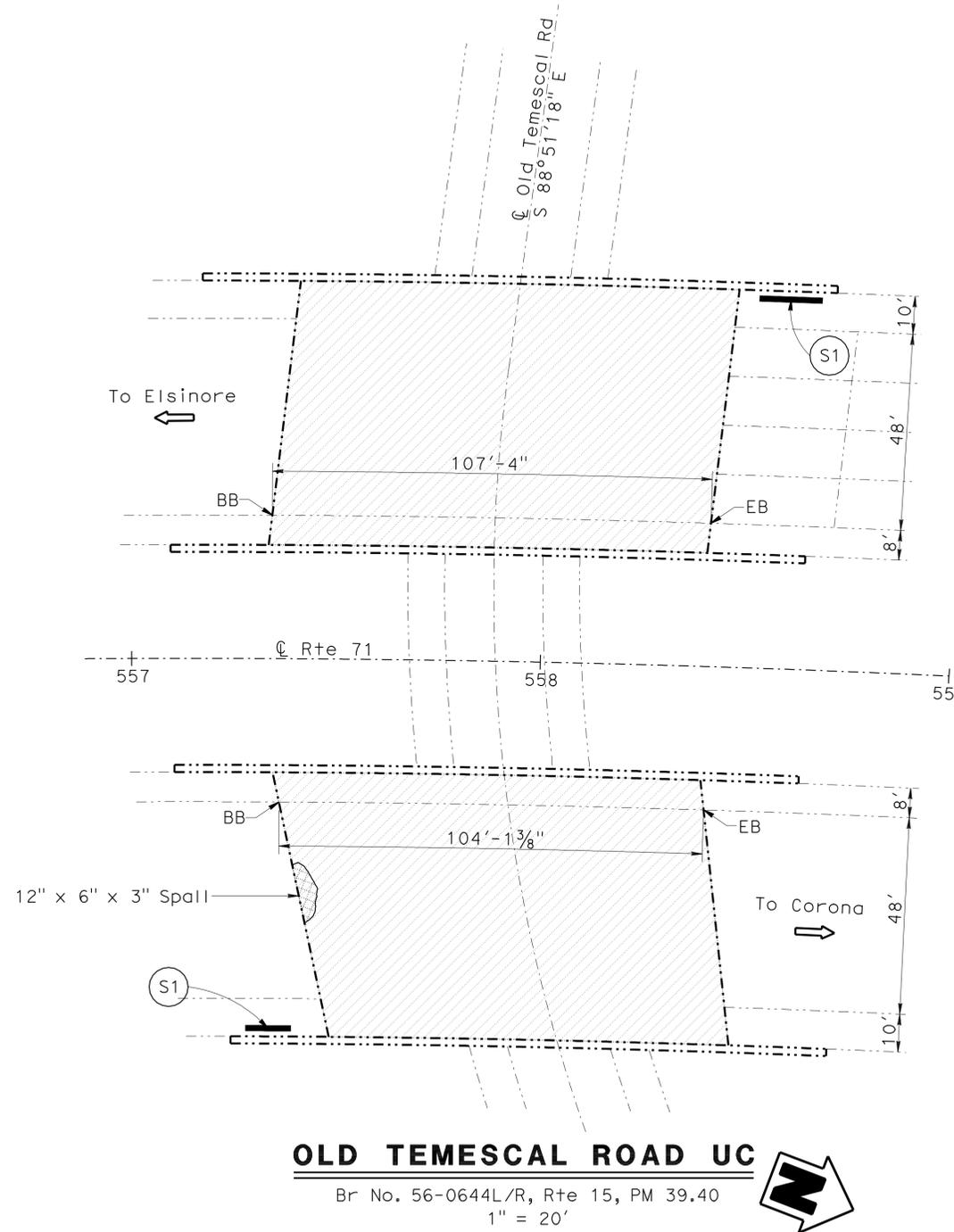
REGISTERED CIVIL ENGINEER DATE 02-19-13
 PLANS APPROVAL DATE 3-25-13
 No. C69896
 Exp. 09/30/14
 CIVIL
 STATE OF CALIFORNIA
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LEGEND:

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- ➔ Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge with high molecular weight methacrylate.
- ▩ Indicates location of remove unsound concrete and patch with rapid setting concrete.
- (S1) Repaint stencil bridge number on the rail.
- ▩ Indicates location of remove unsound concrete and patch with rapid setting concrete.

NOTE:

For deck damage repair detail and spall repair detail, see "Miscellaneous details No. 2" sheet No. 11.



OLD TEMESCAL ROAD UC #56-0644L/R
QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
RAPID SETTING CONCRETE (PATCH)	1 CF
REMOVE UNSOUND CONCRETE	1 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	13,975 SQFT
TREAT BRIDGE DECK	13,975 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	176 GAL
PAINT BRIDGE NAME AND NUMBER	2 EA

OLD TEMESCAL ROAD UC

Br No. 56-0644L/R, Rte 15, PM 39.40
1" = 20'

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 15 BRIDGES GENERAL PLAN NO. 5	
	DETAILS	BY Clayton Tom	CHECKED Mazin Ibrahim	LAYOUT	BY Clayton Tom			CHECKED Mazin Ibrahim		POST MILE
	QUANTITIES	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	SPECIFICATIONS	BY Steven Seifert			CHECKED Steven Seifert		PLANS AND SPECS COMPARED

STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10) ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3 UNIT: 3489 PROJECT NUMBER & PHASE: 0800020560 1 CONTRACT NO.: 08-008501 DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
07-13-12 08-22-12 12-04-12 02-19-13	05	13

FILE => 08-0q8501-a-gp05.dgn

USERNAME => s114640 DATE PLOTTED => 29-MAR-2013 TIME PLOTTED => 06:51

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	23	30

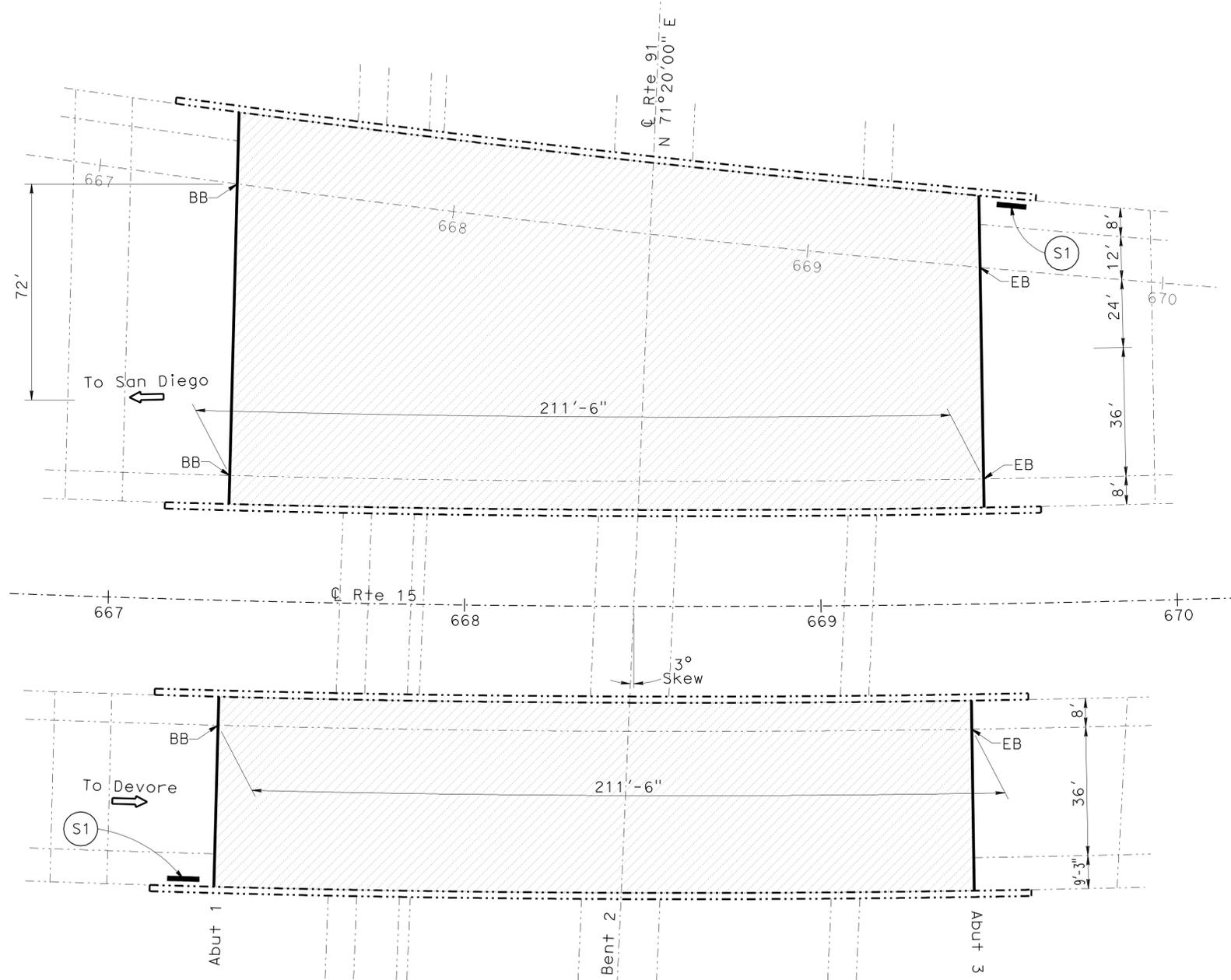
REGISTERED CIVIL ENGINEER DATE 02-19-13
 PLANS APPROVAL DATE 3-25-13
 No. C69896
 Exp. 09/30/14
 CIVIL
 STATE OF CALIFORNIA
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LEGEND:

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- ➔ Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge with high molecular weight methacrylate.
- Indicates location of existing joint seal removal, clean expansion joint and placement of new joint seal.
- (S1) Repaint stencil bridge number on the rail.

NOTES:

- For joint spall repair detail, see "MISCELLANEOUS DETAILS DETAILS No. 2" sheet No.11
- For deck damage repair detail, see "Miscellaneous details No. 2" sheet No. 11.



ROUTE 15/91 SEPARATION #56-0501L/R QUANTITIES

RAPID SETTING CONCRETE (PATCH)	4 CF
REMOVE UNSOUND CONCRETE	4 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	31,140 SQFT
TREAT BRIDGE DECK	31,140 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	390 GAL
CLEAN EXPANSION JOINT	296 LF
PAINT BRIDGE NAME AND NUMBER	2 EA
JOINT SEAL (MR 1 1/2")	296 LF

ROUTE 15/ 91 SEPARATION

Br No. 56-0501L/R, Rte 15, PM 41.48
1" = 20'



NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 15 BRIDGES GENERAL PLAN NO. 6				
	DETAILS	BY Clayton Tom	CHECKED Mazin Ibrahim	LAYOUT	BY Clayton Tom			CHECKED Mazin Ibrahim		POST MILE			
	QUANTITIES	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	SPECIFICATIONS	BY Steven Seifert			CHECKED Steven Seifert		PLANS AND SPECS COMPARED	Varies		
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)													
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						UNIT: 3489 PROJECT NUMBER & PHASE: 0800020560 1		CONTRACT NO.: 08-008501					
DISREGARD PRINTS BEARING EARLIER REVISION DATES								REVISION DATES					
								07-13-12	08-22-12	12-04-12	02-19-13	SHEET 06	OF 13

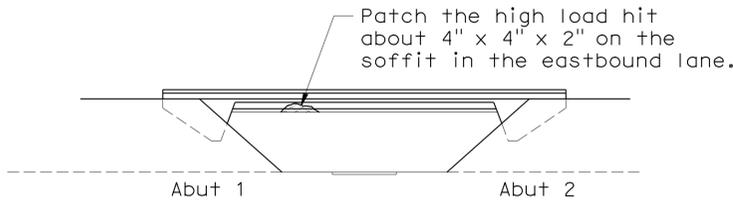
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	24	30
			02-19-13	REGISTERED CIVIL ENGINEER DATE	
			3-25-13	PLANS APPROVAL DATE	
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					

LEGEND:

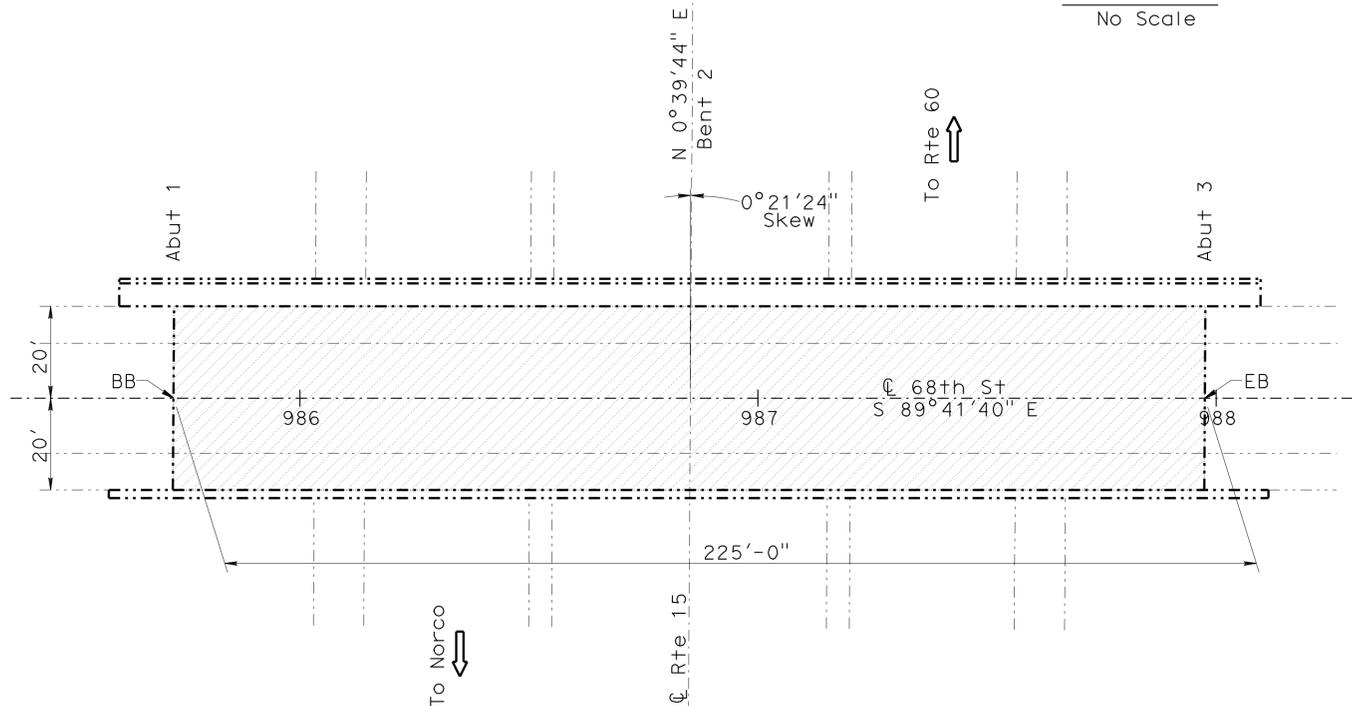
- Indicates existing.
- ➔ Indicates direction of traffic.
- Indicates limits of prepare concrete bridge deck surface and treat existing bridge with high molecular weight methacrylate.
- Indicates location of existing joint seal removal, clean expansion joint and placement of new joint seal. Prior to placement of new joint seal, repair joint spalls.
- (S1) Repaint stencil bridge number on the rail.

NOTES:

1. For joint spall repair detail, see "Miscellaneous details No. 2" sheet No. 11.
2. For deck damage repair detail, see "Miscellaneous details No. 2" sheet No. 11.



VIEW A-A
No Scale



68TH STREET OC

Br No. 56-0701, Rte 15, PM 47.52
1" = 20'

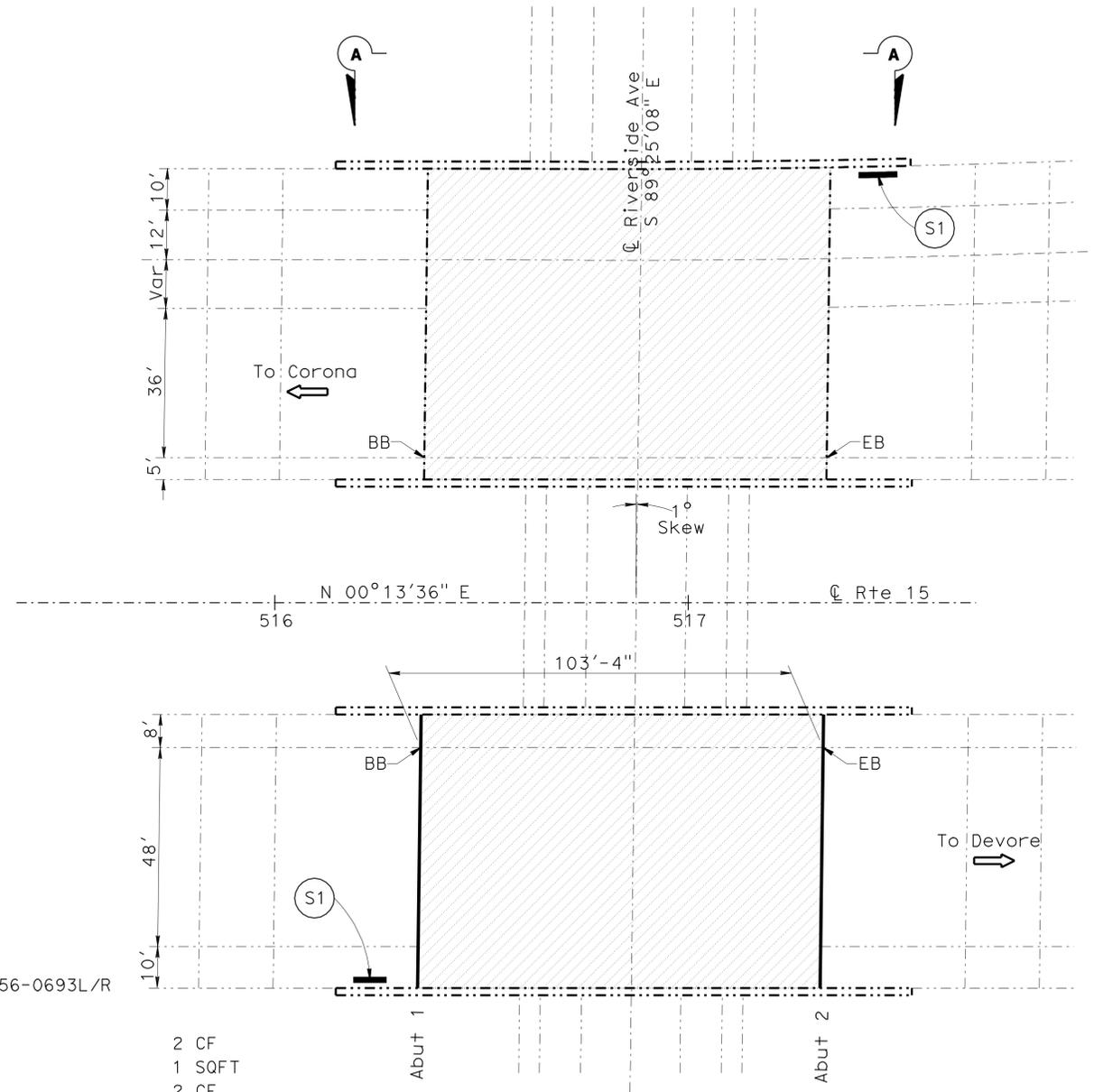
68TH STREET OC #56-0701
QUANTITIES

PREPARE CONCRETE BRIDGE DECK SURFACE	9,000 SQFT
TREAT BRIDGE DECK	9,000 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	113 GAL

RIVERSIDE AVENUE UC #56-0693L/R
QUANTITIES

RAPID SETTING CONCRETE (PATCH)	2 CF
REPAIR SPALLED SURFACE AREA	1 SQFT
REMOVE UNSOUND CONCRETE	2 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	14,570 SQFT
TREAT BRIDGE DECK	14,570 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	183 GAL
CLEAN EXPANSION JOINT	132 LF
PAINT BRIDGE NAME AND NUMBER	2 EA
JOINT SEAL (MR 1/2")	132 LF

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



RIVERSIDE AVENUE UC

Br No. 56-0693L/R, Rte 15, PM 51.26
1" = 20'

 DESIGN ENGINEER	DESIGN	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
	DETAILS	BY Clayton Tom	CHECKED Mazin Ibrahim	LAYOUT	BY Clayton Tom
	QUANTITIES	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	SPECIFICATIONS	BY Steven Seifert

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE	BRIDGE NO.
	STRUCTURE MAINTENANCE DESIGN	Various
		POST MILE
		Varies

ROUTE 15 BRIDGES GENERAL PLAN NO. 7		REVISION DATES	SHEET	OF
		07-13-12 08-22-12 12-04-12 02-19-13	07	13

USERNAME => s114640 DATE PLOTTED => 29-MAR-2013 TIME PLOTTED => 06:51

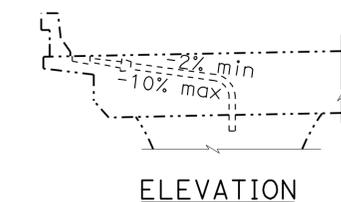
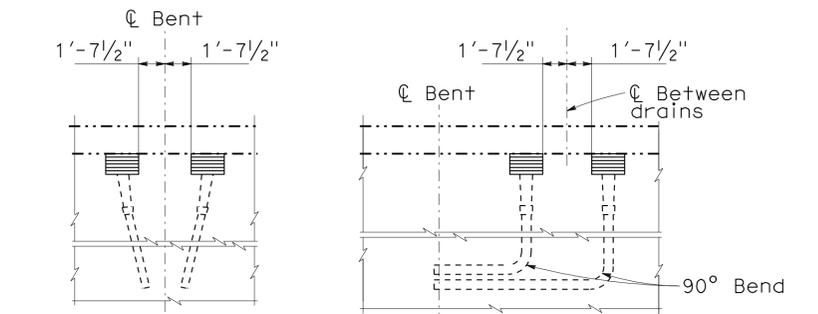
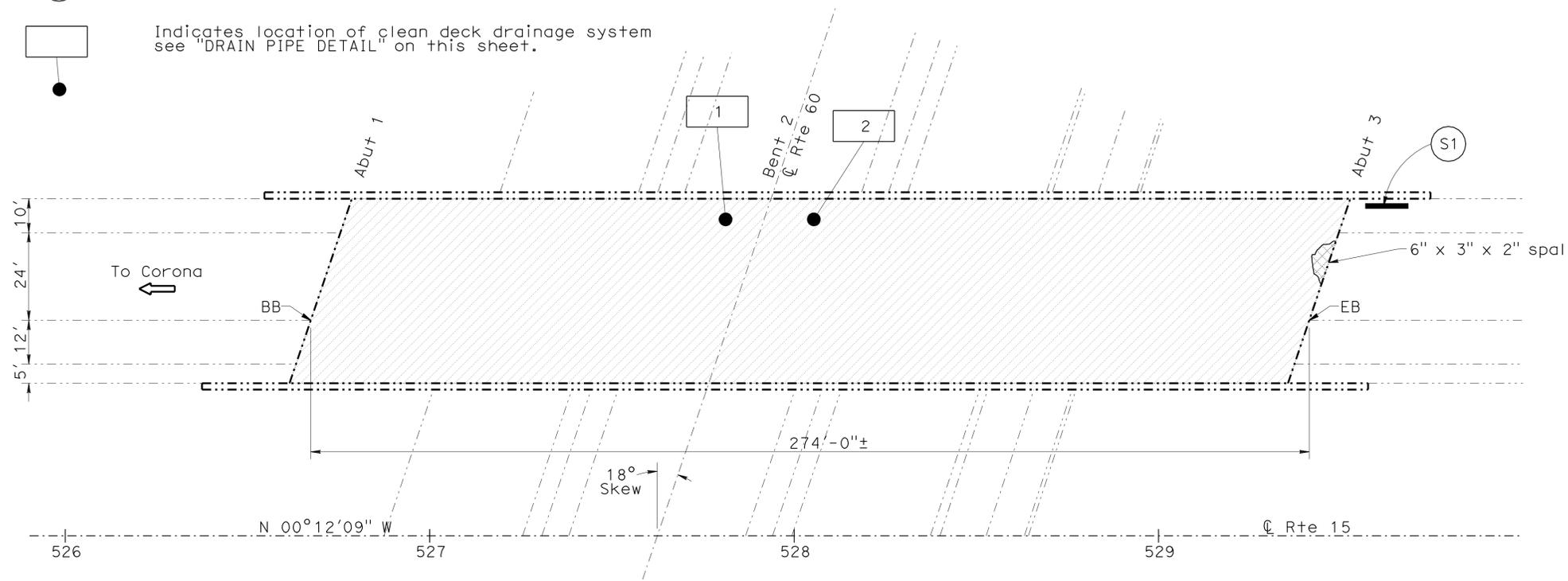
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08	Riv	15	31.9/52.3	25	30
			02-19-13	DATE	
			3-25-13	PLANS APPROVAL DATE	
REGISTERED CIVIL ENGINEER No. C69896 Exp. 09/30/14 CIVIL STATE OF CALIFORNIA					

LEGEND:

- Indicates existing.
- ➔ Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge with high molecular weight methacrylate.
- ▩ Indicates location of remove unsound concrete and patch with rapid setting concrete.
- ⊙ S1 Repaint stencil bridge number on the rail.
- Indicates location of clean deck drainage system see "DRAIN PIPE DETAIL" on this sheet.
-

NOTE:

For deck damage repair and spall repair detail, see "MISCELLANEOUS DETAILS NO. 2" sheet No. 11.



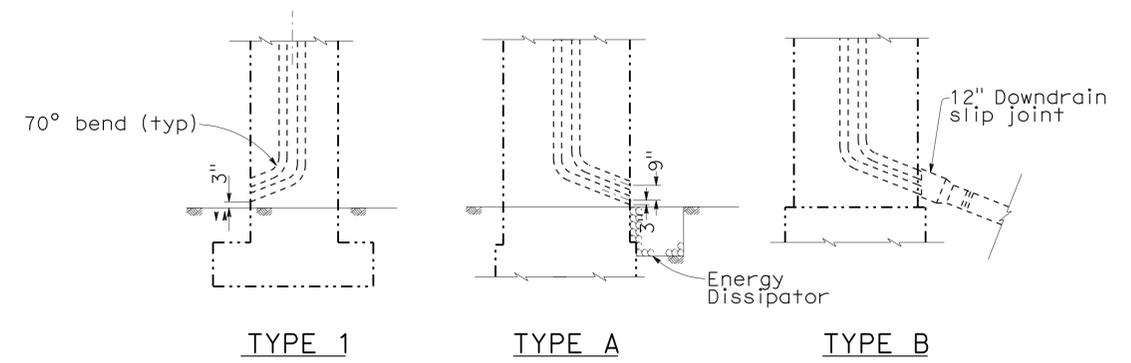
ROUTE 15/60 SEPARATION

Br No. 56-0691L, Rte 15, PM 51.45
1" = 20'

ROUTE 15/60 SEPARATION #56-0691L

QUANTITIES

RAPID SETTING CONCRETE (PATCH)	1 CF
REMOVE UNSOUND CONCRETE	1 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	13,975 SQFT
TREAT BRIDGE DECK	13,975 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	175 GAL
CLEAN BRIDGE DECK DRAIN	50 LF
PAINT BRIDGE NAME AND NUMBER	1 EA



DRAIN PIPE DETAIL

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

TONY D. BRAKE
DESIGN ENGINEER

DESIGN	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Clayton Tom	CHECKED Mazin Ibrahim	LAYOUT	BY Clayton Tom
QUANTITIES	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	SPECIFICATIONS	BY Steven Seifert

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTE 15 BRIDGES
GENERAL PLAN NO. 8

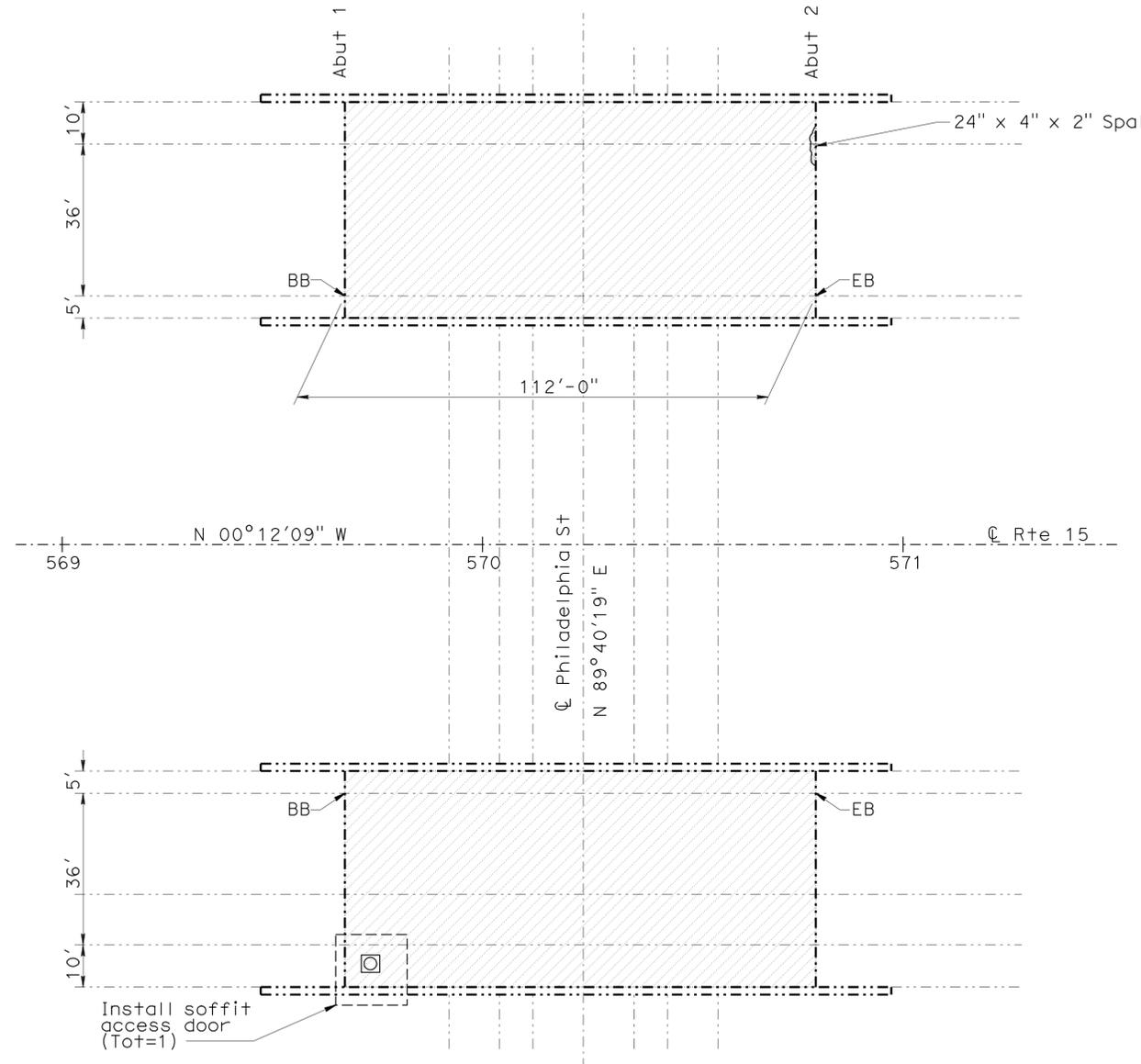
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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			02-19-13	DATE	
REGISTERED CIVIL ENGINEER			DATE		
3-25-13			PLANS APPROVAL DATE		
			No. C69896	Exp. 09/30/14	
			CIVIL		
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

LEGEND:

- Indicates existing.
- ⇒ Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge with high molecular weight methacrylate.
- ⊙ Indicates location of install soffit access door at existing 2'-6"± diameter soffit opening. See "SOFFIT ACCESS DOOR" sheet.
- ▩ Indicates location of remove unsound concrete and patch with rapid setting concrete.

NOTE:

For deck damage repair detail and spall repair detail, see "Miscellaneous details No. 2" sheet No. 11.



PHILADELPHIA STREET UC #56-0696L/R
QUANTITIES

	LUMP SUM
PUBLIC SAFETY PLAN	
RAPID SETTING CONCRETE (PATCH)	1 CF
REMOVE UNSOUND CONCRETE	1 CF
PREPARE CONCRETE BRIDGE DECK SURFACE	11,425 SQFT
TREAT BRIDGE DECK	11,425 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	144 GAL
ACCESS OPENING, SOFFIT	1 EA

PHILADELPHIA STREET UC

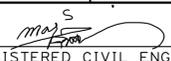
Br No. 56-0696L/R, Rte 15, PM 52.27
1" = 20'



NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 15 BRIDGES GENERAL PLAN NO. 9			
	DETAILS	BY Clayton Tom	CHECKED Mazin Ibrahim	LAYOUT	BY Clayton Tom			CHECKED Mazin Ibrahim		POST MILE		
	QUANTITIES	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	SPECIFICATIONS	BY Steven Seifert			CHECKED Steven Seifert		Varies		
STRUCTURES MAINTENANCE GENERAL PLAN SHEET (ENGLISH) (REV. 09-01-10)						ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3489 PROJECT NUMBER & PHASE: 0800020560 1	CONTRACT NO.: 08-008501	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 09	OF 13

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	27	30

 02-19-13
 REGISTERED CIVIL ENGINEER DATE

3-25-13
 PLANS APPROVAL DATE

No. C69896
 Exp. 09/30/14
 CIVIL
 STATE OF CALIFORNIA

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JOINT SEAL TABLE								
BRIDGE NAME	BRIDGE NUMBER	JOINT SEAL LOCATION	MINIMUM "MR" (inches)	EXISTING WATERSTOP	APPROX LENGTH (ft)	APPROX DEPTH TO CLEAN EXP JOINT (inches)	REMOVE UNSOUND CONCRETE (CU FT)	RAPID SETTING CONCRETE (PATCH) (CU FT)
Temescal Canyon Rd UC	56-0675L	Abut 1	1 1/2	No	81	6	1	1
		Abut 2	1 1/2	No	81	6	1	1
Temescal Canyon Rd UC	56-0675R	Abut 2	1 1/2	No	81	6	1	1
Temescal Canyon Rd UC	56-0542L	Abut 2	1	No	75	6	1	1
Ontario Ave UC	56-0498L	Abut 1	1 1/2	No	92	6	1	1
		Abut 2	1 1/2	No	92	6	1	1
Ontario Ave UC	56-0498R	Abut 1	1 1/2	No	92	6	1	1
		Abut 2	1 1/2	No	92	6	1	1
Route 15/91 Sep	56-0501L	Abut 1	1 1/2	Yes	100	12	1	1
		Abut 3	1 1/2	Yes	88	12	1	1
Route 15/91 Sep	56-0501R	Abut 1	1 1/2	Yes	54	12	1	1
		Abut 3	1 1/2	Yes	54	12	1	1
Riverside Ave UC	56-0693R	Abut 1	1 1/2	No	66	6	1	1
		Abut 2	1 1/2	No	66	6	1	1
Cajalco Off-Ramp OC	56-0539K	Abut 1	1/2	No	59	6	1	1
		Abut 3	1/2	No	59	6	1	1

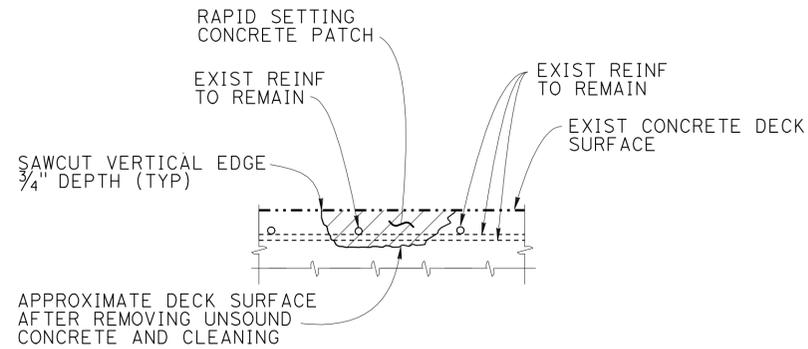
NOTE:
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN BY Mazin Ibrahim CHECKED Mehran Sajjadi DETAILS BY Clayton Tom CHECKED Mazin Ibrahim QUANTITIES BY Mazin Ibrahim CHECKED Mehran Sajjadi	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 15 BRIDGES MISCELLANEOUS DETAILS NO. 1			
			Various				
			POST MILE		Varies		
STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	UNIT: 3489 PROJECT NUMBER & PHASE: 0800020560 1	CONTRACT NO.: 08-008501	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES: 07-13-12, 08-22-12, 12-04-12, 02-19-13	SHEET 10 OF 13

FILE => 08-0q8501-u-miscd+01.dgn

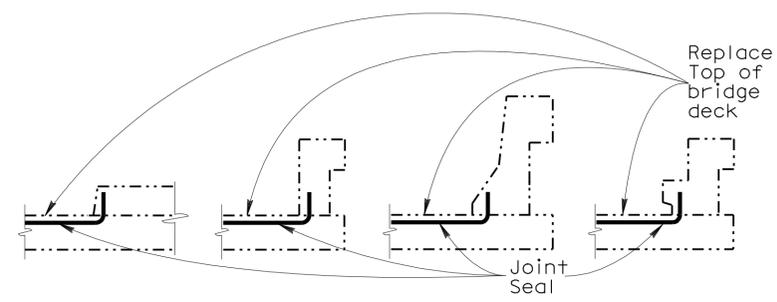
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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			02-19-13		
REGISTERED CIVIL ENGINEER			DATE		
3-25-13			PLANS APPROVAL DATE		
<small>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</small>					



DECK DAMAGE REPAIR DETAIL

Location will be determined by the Engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.

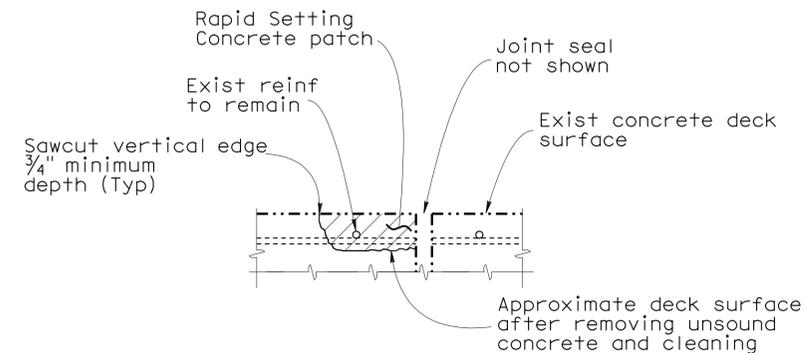


BARRIER RAIL

JOINT SEAL AT LOW SIDE OF DECK

Note: Details shown for illustration purposes only.

For use only where deck joint matches the sidewalk, curb or barrier rail joint.



JOINT SPALL REPAIR DETAIL

Note: Reinforcement may be encountered during deck concrete removal and is to remain undamaged.

NOTES:

The following notes apply to JOINT SEAL TYPE A:

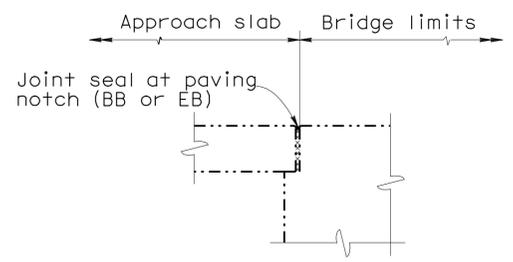
Install Joint Seal (MR = 1/2") or Silicone Joint Seal 3" up into curb or barrier rail on the low side of the deck where deck joint aligns with curb or barrier rail joint.

For details not shown see B6-21.

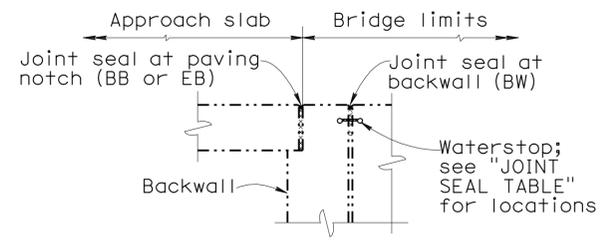
The following notes apply to JOINT SEAL TYPE B:

- Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.
- Minimum W1 is the calculated maximum width of the joint based on field measurements. After the joints have been cleaned, minimum W1 is to be recalculated by the Engineer.
- W1 shall be the smaller of the values determined as follows:
 - 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
 - The width of the seal on the third successive test cycle of the pressure deflection test, when compressed to an average pressure of 3.0 PSI.
- Bend Type B joint seal 6 inches up into curb or rail on the low side of the deck where deck joint matches curb or rail joint.

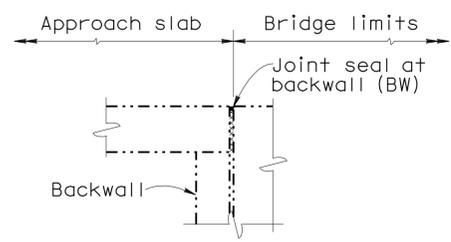
For details not shown see B6-21.



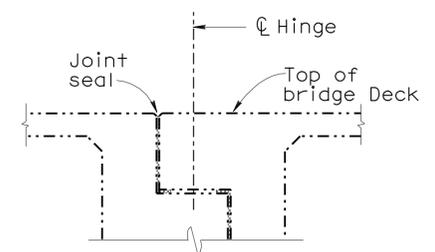
DIAPHRAGM ABUTMENT



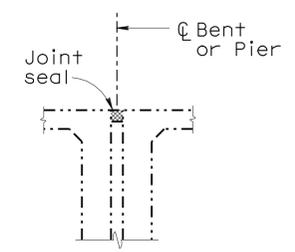
ABUTMENT WITH BACKWALL AND PAVING NOTCH



ABUTMENT WITH BACKWALL



HINGE



BENT OR PIER

JOINT SEAL LOCATION

NO SCALE

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

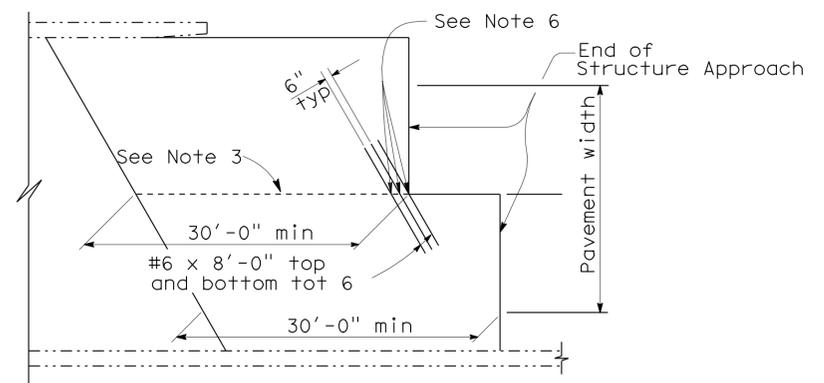
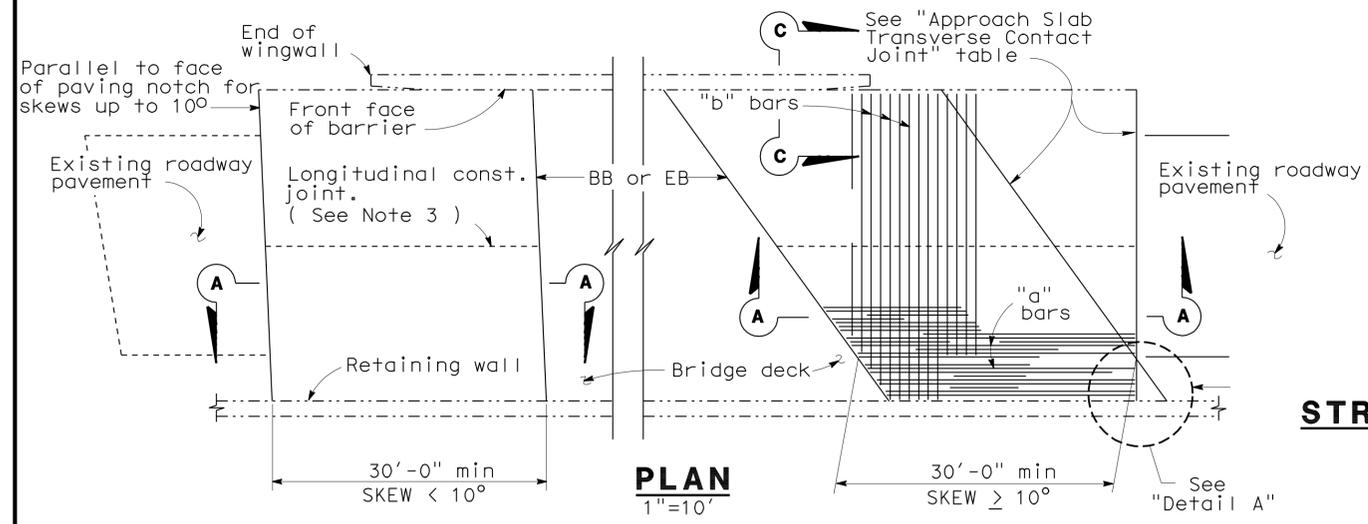
STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 15 BRIDGES
	DETAILS	BY Clayton Tom	CHECKED Mazin Ibrahim			Various	
	QUANTITIES	BY Mazin Ibrahim	CHECKED Mehran Sajjadi			Varies	
				UNIT: 3489	PROJECT NUMBER & PHASE: 0800020560 1	CONTRACT NO.: 08-008501	DISREGARD PRINTS BEARING EARLIER REVISION DATES
				ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	REVISION DATES	SHEET 11 OF 13

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	29	30

02-19-13
 REGISTERED CIVIL ENGINEER DATE
 3-25-13
 PLANS APPROVAL DATE

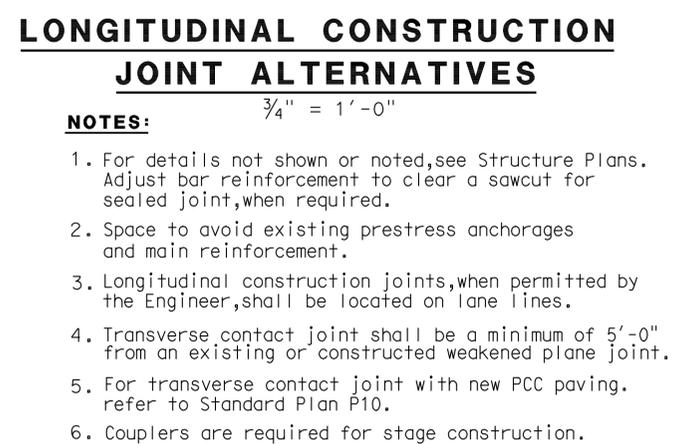
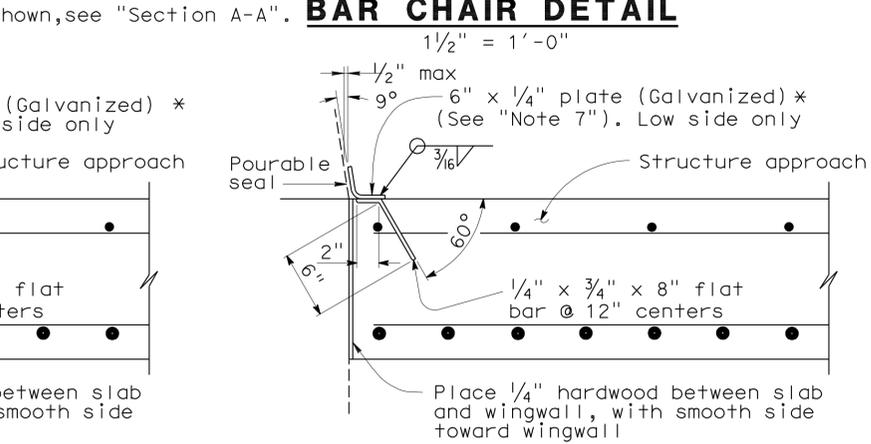
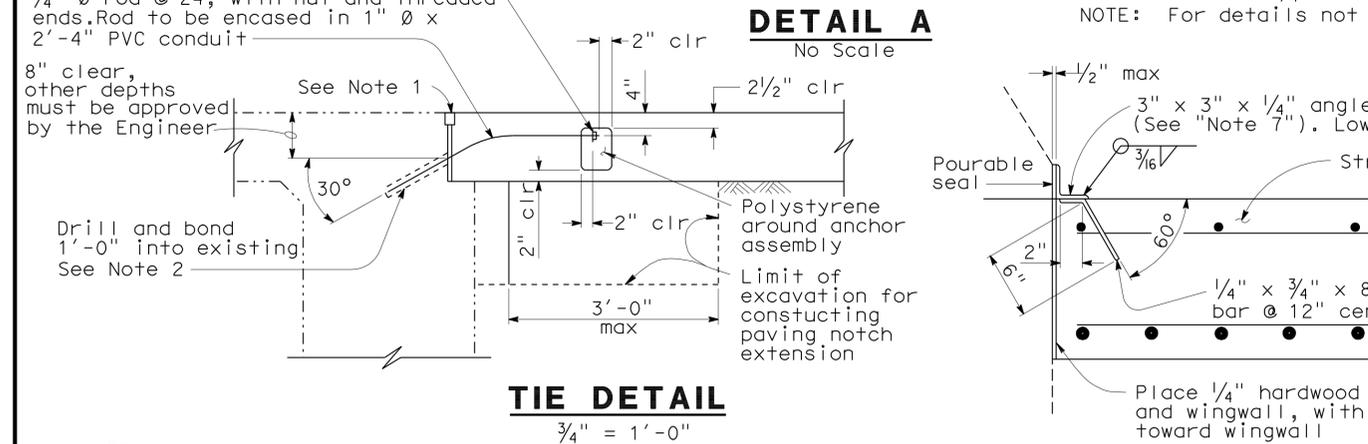
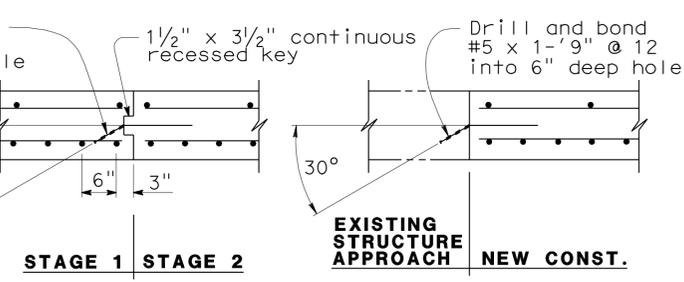
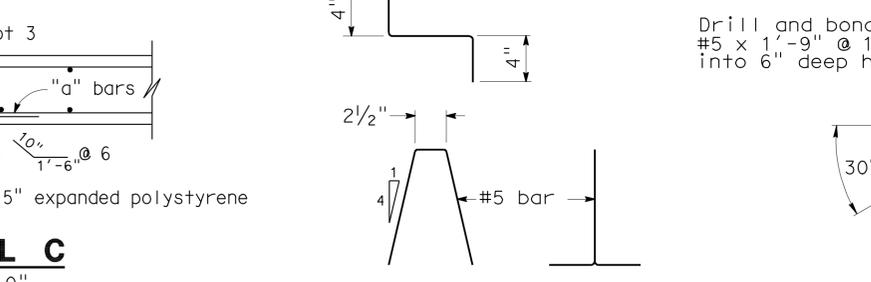
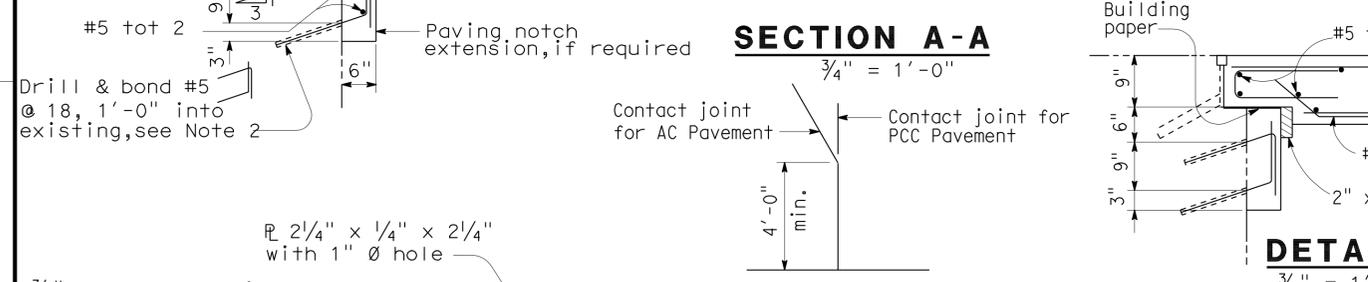
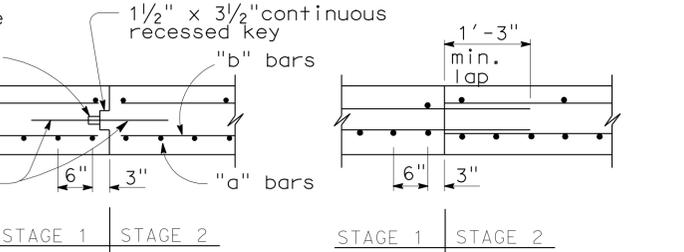
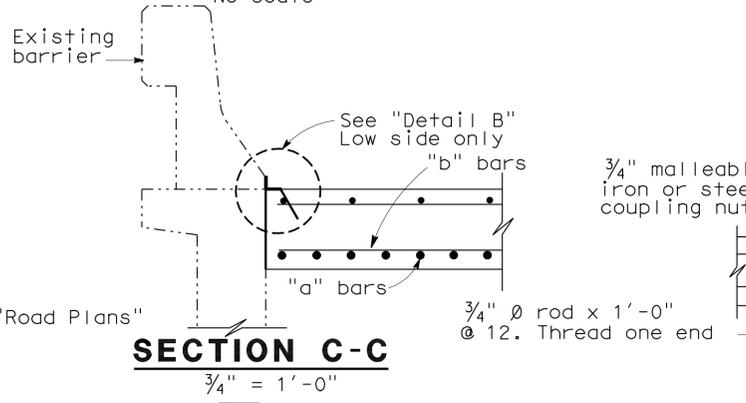
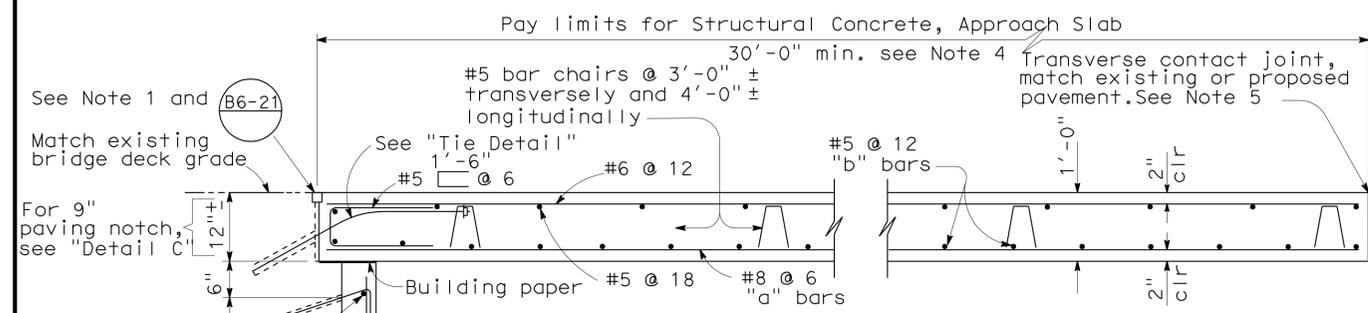
REGISTERED PROFESSIONAL ENGINEER
 IMZIN S. IBRAHIM
 No. C69896
 Exp. 09/30/14
 CIVIL
 STATE OF CALIFORNIA

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



STRUCTURE APPROACH - END STAGGER DETAIL

APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 10°	Parallel to face of paving notch	Parallel to face of paving notch
10° - 45°	Parallel to face of P N use (Detail A)	Stagger lines 24' to 36' apart
> 45°	Parallel to face of P N use (Detail A)	Stagger at each lane line



NOTE:
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

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

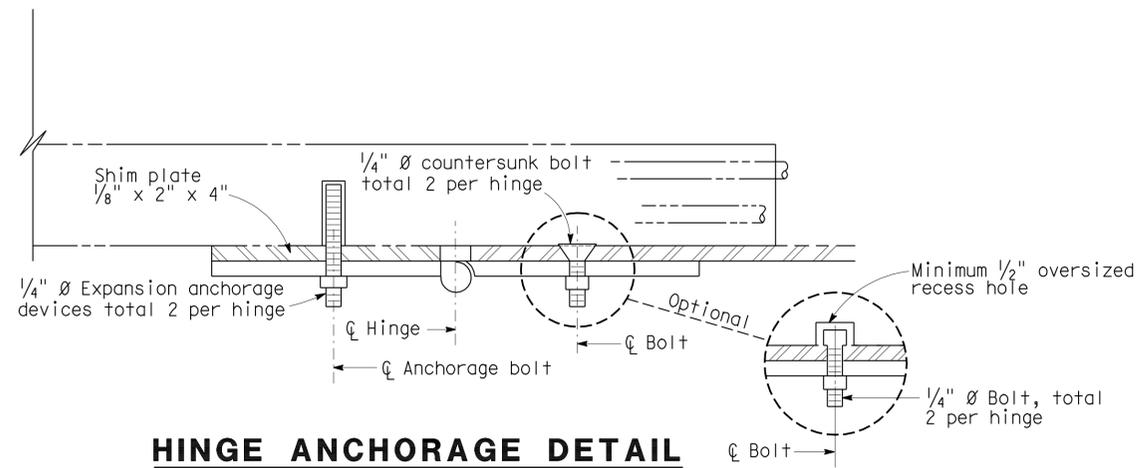
- NOTES:**
- For details not shown or noted, see Structure Plans. Adjust bar reinforcement to clear a sawcut for sealed joint, when required.
 - Space to avoid existing prestress anchorages and main reinforcement.
 - Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines.
 - Transverse contact joint shall be a minimum of 5'-0" from an existing or constructed weakened plane joint.
 - For transverse contact joint with new PCC paving, refer to Standard Plan P10.
 - Couplers are required for stage construction.
 - End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach as applicable.

STANDARD DRAWING			
RELEASE DATE	DESIGN BY	CHECKED	RELEASED BY
3/14/05	M. TRAFFALIS	E. THORKILDSEN	
FILE NO.	DETAILS BY	CHECKED	
xs3-140e	R. YEE	E. THORKILDSEN	
	SUBMITTED BY	DRAWING DATE	OFFICE CHIEF
	M. HA	8/92	

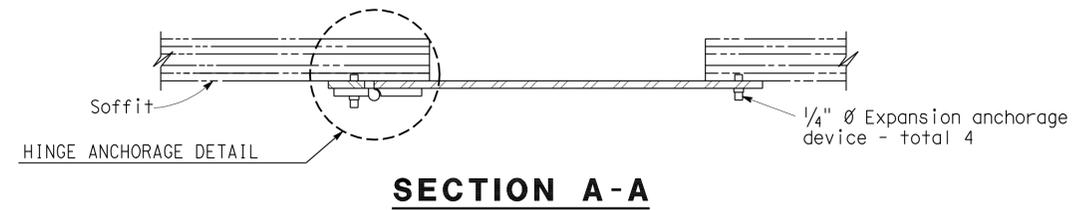
STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES	BRIDGE NO. Various	ROUTE 15 BRIDGES
		POST MILE Varies	STRUCTURE APPROACH TYPE R(30D)

UNIT: 3489	PROJECT NUMBER & PHASE: 0800020560 1	CONTRACT NO.: 08-008501	DISREGARD PRINTS BEARING EARLIER REVISION DATES
			REVISION DATES
			07-13-12 08-22-12 12-04-12 02-19-13
			SHEET 12 OF 13

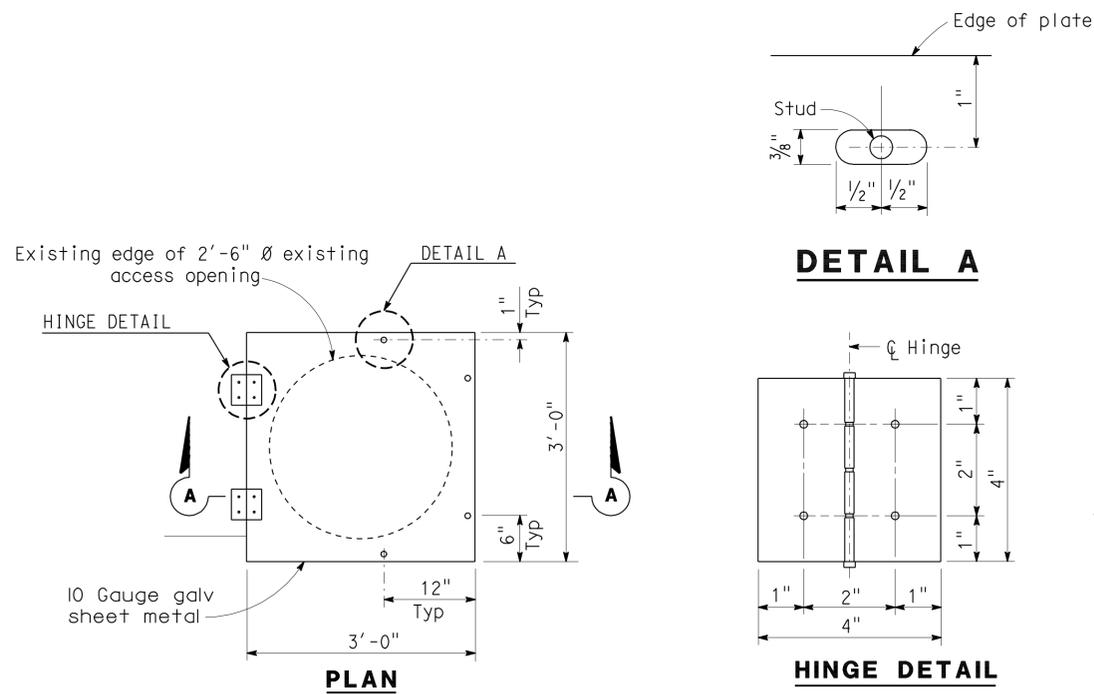
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	31.9/52.3	30	30
			02-19-13		
REGISTERED CIVIL ENGINEER			DATE		
3-25-13			PLANS APPROVAL DATE		
REGISTERED PROFESSIONAL ENGINEER MAZIN S. IBRAHIM No. C69896 Exp. 09/30/14 CIVIL STATE OF CALIFORNIA					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



HINGE ANCHORAGE DETAIL



SECTION A-A



SOFFIT ACCESS DOOR ASSEMBLY

Note: Soffit access door opening direction to be determined by the Engineer

NOTES:

1. Non-removable pin in hinge.
2. Hinge assembly to be galvanized, brass or stainless steel.
3. Use thread locking system for all hinge nuts.
4. Hinge assembly to be minimum 1/8" thick.

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

TONY D. BRAKE
DESIGN ENGINEER

DESIGN	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Clayton Tom	CHECKED Mazin Ibrahim	LAYOUT	BY Clayton Tom
QUANTITIES	BY Mazin Ibrahim	CHECKED Mehran Sajjadi	SPECIFICATIONS	BY Steven Seifert

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various
POST MILE Varies

ROUTE 15 BRIDGES
SOFFIT ACCESS DOOR DETAIL

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3489
PROJECT NUMBER & PHASE: 0800020560 1 CONTRACT NO.: 08-008501

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
07-13-12 08-22-12 12-04-12 02-19-13	13	13