

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-3	CONSTRUCTION AREA SIGNS
4-13	TRAFFIC HANDLING PLAN
14-15	TRAFFIC HANDLING QUANTITIES
16	PAVEMENT DELINEATION QUANTITIES
17-23	REVISED STANDARD PLANS

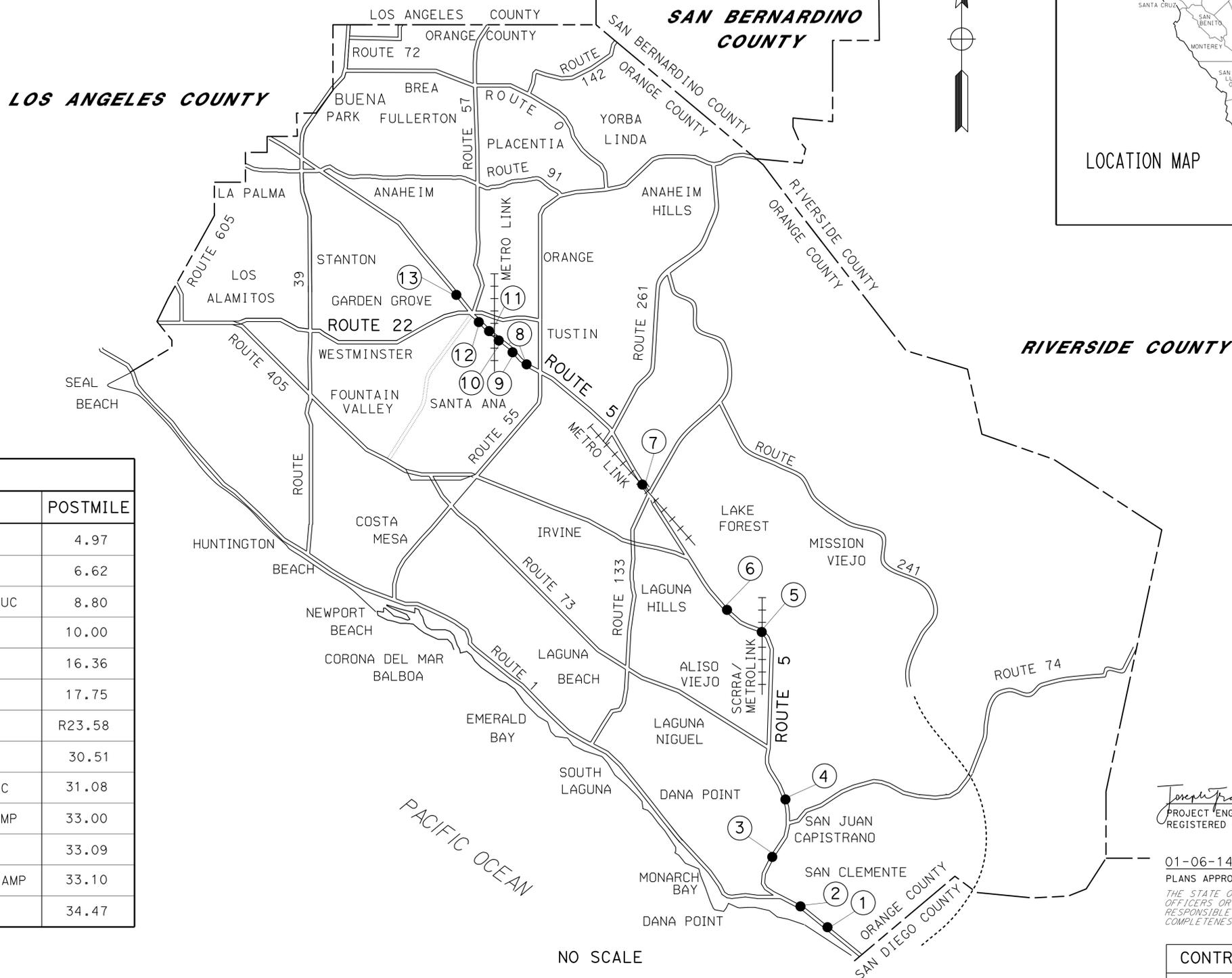
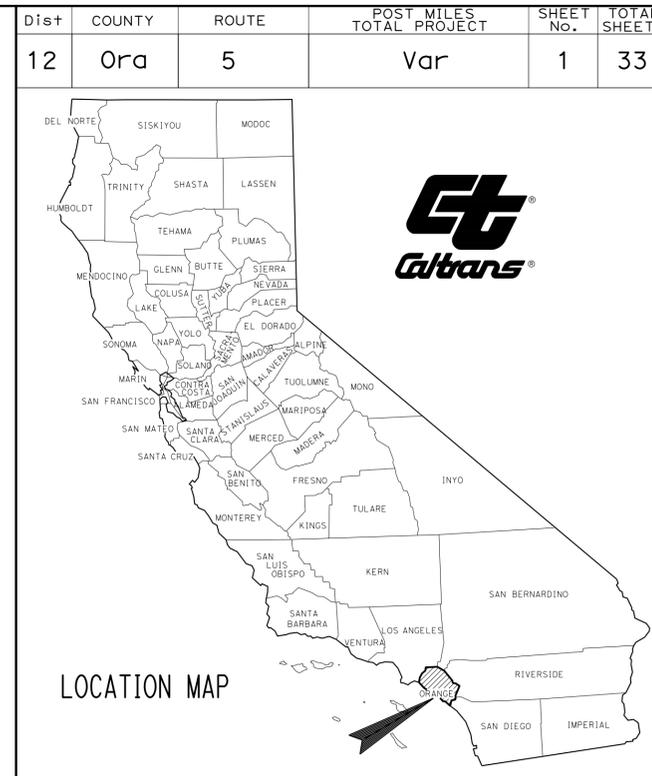
STRUCTURE PLANS

24-29	GENERAL PLANS No.1 TO No.7
30-33	MISCELLANEOUS DETAILS No.1 TO No.3

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

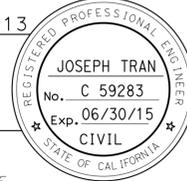
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**PROJECT PLANS FOR CONSTRUCTION ON  
STATE HIGHWAY  
IN ORANGE COUNTY  
AT VARIOUS LOCATIONS**

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



LOCATIONS OF CONSTRUCTION				
No.	BRIDGE #	ROUTE		POSTMILE
①	55-0223	5	AVENIDA VAQUERO UC	4.97
②	55-0225	5	VIA CALIFORNIA OC	6.62
③	55-0298	5	SAN JUAN CREEK ROAD UC	8.80
④	55-0230	5	EL HORNO STREET UC	10.00
⑤	55-0221S	5	EL TORO OH	16.36
⑥	55-0014	5	ALISO CREEK	17.75
⑦	55-0002	5	IRVINE OH	R23.58
⑧	55-0190	5	MAIN STREET UC	30.51
⑨	55-0661S	5	N5-1ST ST OFF-RAMP OC	31.08
⑩	55-0686	5	SANTA CLARA-N5 ON-RAMP	33.00
⑪	55-0674	5	MAIN STREET OC	33.09
⑫	55-0685Y	5	EDGEWOOD DRIVE HOV RAMP	33.10
⑬	55-0811	5	SANTA ANA RIVER	34.47

12-04-13  
 PROJECT ENGINEER REGISTERED CIVIL ENGINEER DATE  
 01-06-14  
 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.	<b>12-0M7304</b>
PROJECT ID	<b>1212000190</b>

PROJECT MANAGER: MASSOUD TAJIK  
 DESIGN ENGINEER: JOSEPH TRAN

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

DATE PLOTTED => 09-JAN-2014  
 TIME PLOTTED => 14:00  
 LAST REVISION 10-22-13

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 MAINTENANCE  
 FUNCTIONAL SUPERVISOR MASSOUD TAJIK  
 CHECKED BY JOSEPH TRAN  
 PHAT TRAN  
 REVISED BY J TRAN  
 DATE REVISED 10-22-13

**NOTES:**

1. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. FOR ADDITIONAL QUANTITIES OF CONSTRUCTION AREA SIGNS, SEE SHEET THQ-1 AND THQ-2.
3. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
4. (C) SIGN SHALL BE PLACED 10 DAYS PRIOR TO CLOSURE.

**LEGEND:**

- (X) CONSTRUCTION AREA SIGN
- ┆ CONSTRUCTION AREA SIGN, 1-POST
- ┆ CONSTRUCTION AREA SIGN, 2-POST
- CONSTRUCTION WORK AREA

**STATIONARY CONSTRUCTION AREA SIGNS**

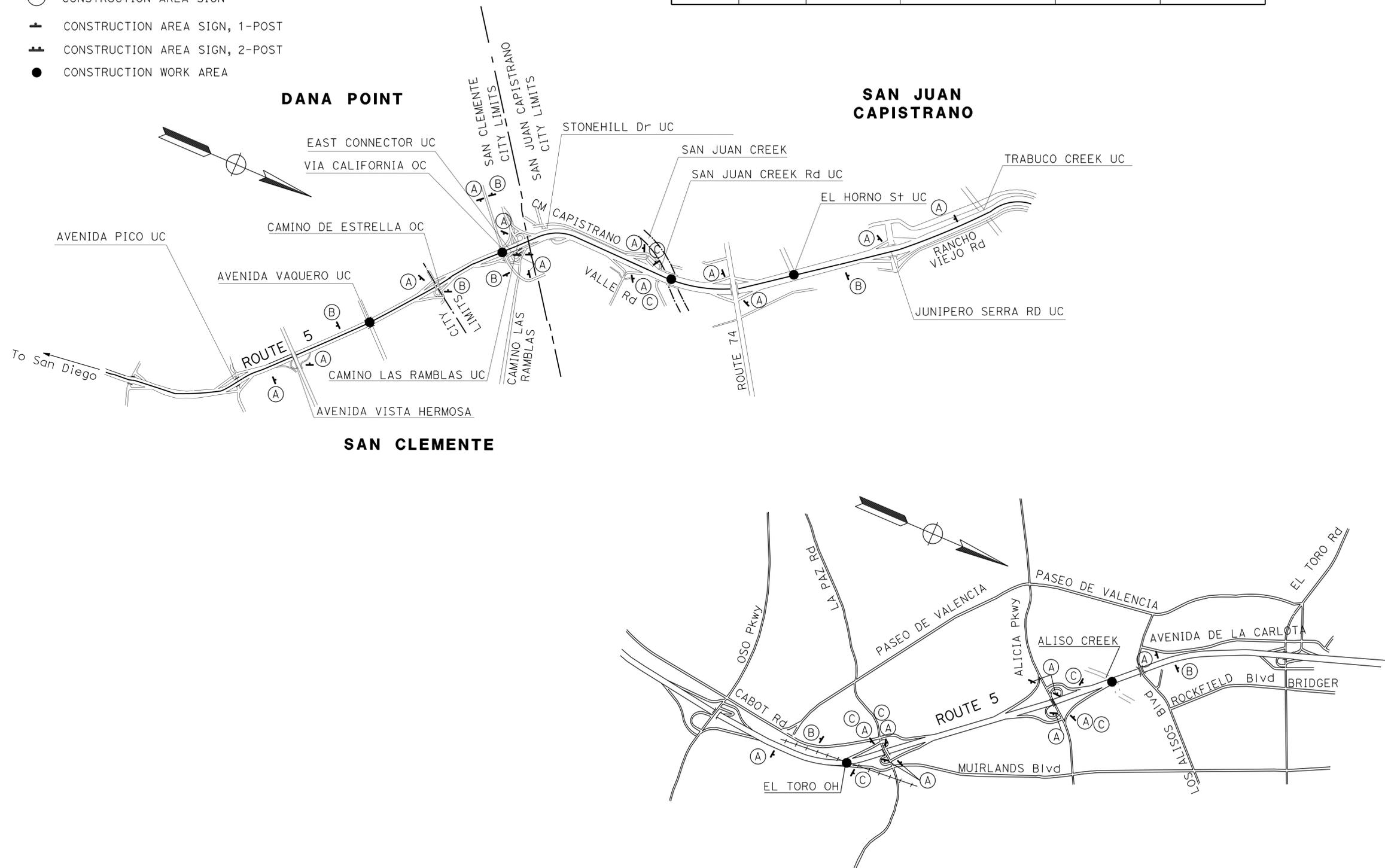
SIGN No.	TYPE	PANEL SIZE	SIGN MESSAGE	No. OF POST AND SIZE	No. OF SIGN (EA)
(A)	W20-1	48" x 48"	ROAD WORK AHEAD	1 - 4" x 4"	38
(B)	W20-1	48" x 48"	END ROAD WORK	1 - 4" x 4"	15
(C)	SC6-3	48" x 48"	RAMP CLOSED	1 - 4" x 4"	9

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	2	33

12-04-13  
 REGISTERED CIVIL ENGINEER DATE  
 JOSEPH TRAN  
 No. C 59283  
 Exp. 6/30/15  
 CIVIL  
 STATE OF CALIFORNIA  
 REGISTERED PROFESSIONAL ENGINEER

01-06-14  
 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.



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

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

LAST REVISION | DATE PLOTTED => 09-JAN-2014  
 07-01-13 TIME PLOTTED => 14:00

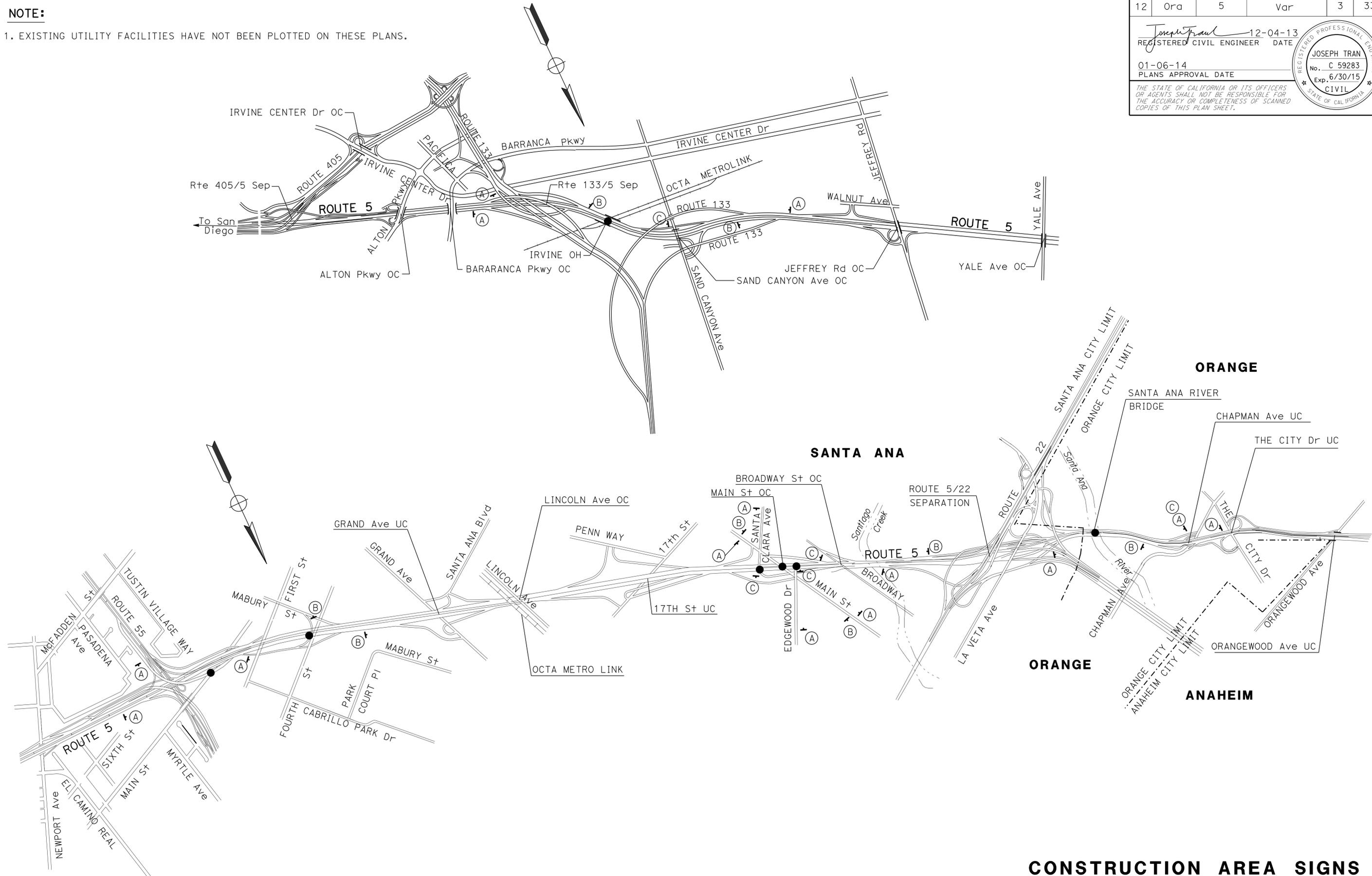
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 MAINTENANCE  
 FUNCTIONAL SUPERVISOR: MASSOUD TAJIK  
 PHAT TRAN: JOSEPH TRAN  
 REVISIONS: J TRAN 10-22-13  
 REVISIONS: J TRAN 10-22-13

**NOTE:**

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	3	33

REGISTERED CIVIL ENGINEER: JOSEPH TRAN  
 No. C 59283  
 Exp. 6/30/15  
 CIVIL  
 DATE: 12-04-13  
 PLANS APPROVAL DATE: 01-06-14  
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.



**CONSTRUCTION AREA SIGNS**  
 NO SCALE  
**CS-2**

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

LAST REVISION DATE PLOTTED => 09-JAN-2014  
 10-22-13 TIME PLOTTED => 14:00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	4	33

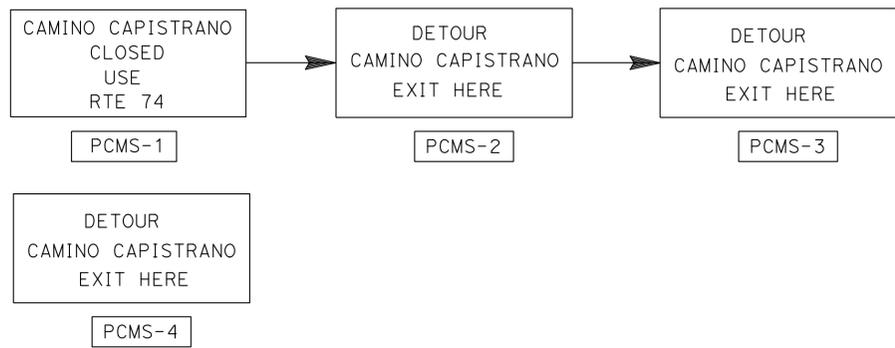
Joseph Tran REGISTERED CIVIL ENGINEER No. C 59283 Exp. 6/30/15 CIVIL STATE OF CALIFORNIA	12-04-13 DATE 01-06-14 PLANS APPROVAL DATE
---	---

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:**

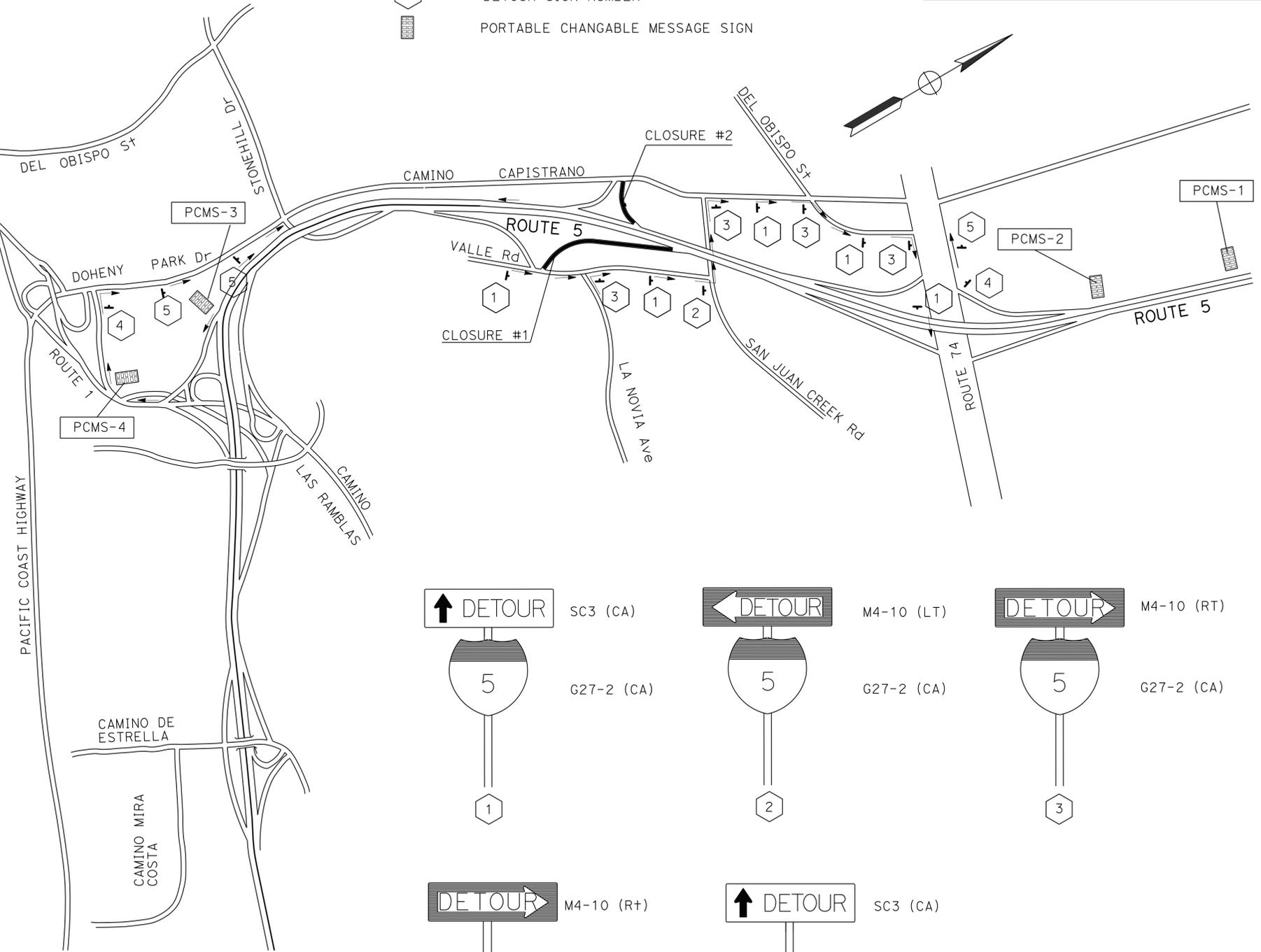
1. LOCATIONS OF CONSTRUCTION AREA SIGNS (DETOUR) AND PCMS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
2. FOR ADDITIONAL QUANTITIES OF CONSTRUCTION AREA SIGNS, SEE SHEET CS-1.
3. MESSAGE TO BE DISPLAYED ON THE PCMS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
4. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DURING THE CLOSURE,  
THE PCMS SHOULD READ AS FOLLOWS:



**LEGEND:**

- DETOUR SIGN
- DIRECTION OF TRAVEL
- LOCATION OF CLOSURE
- DETOUR SIGN NUMBER
- PORTABLE CHANGABLE MESSAGE SIGN



**CLOSURE #1:**

NB ROUTE 5 CAMINO CAPISTRANO ON-RAMP

**DETOUR:**

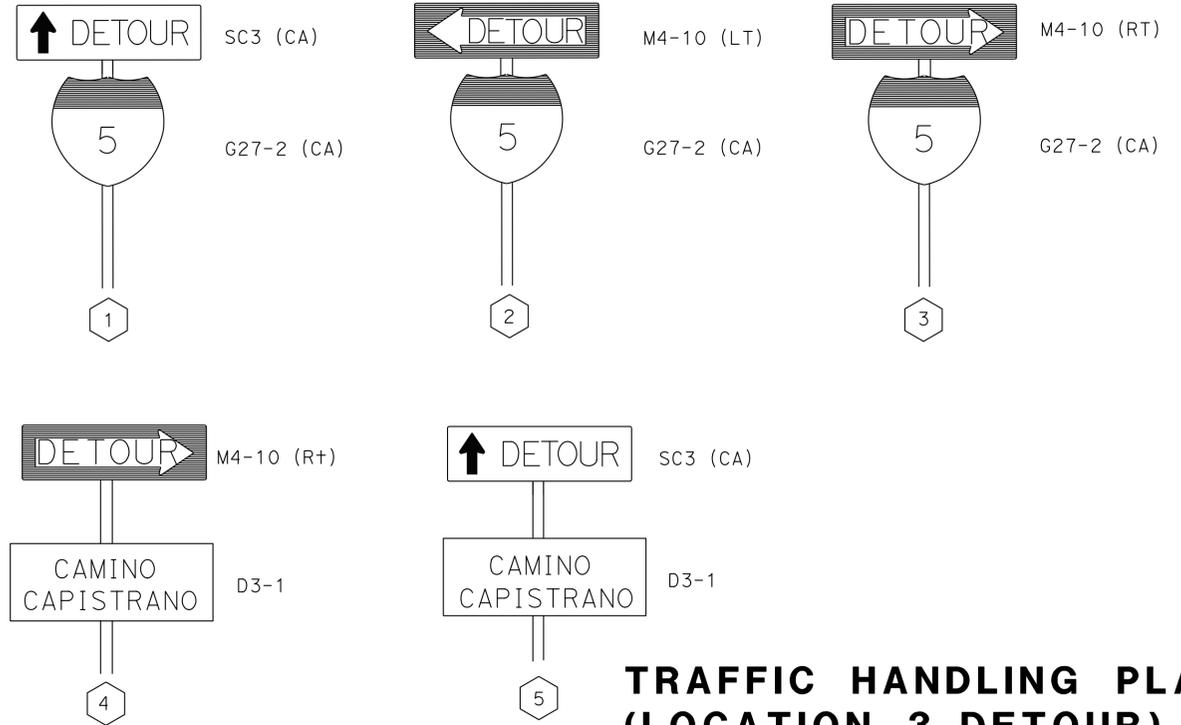
- 1- FROM VALLE Rd, LEFT ON SAN JUAN CREEK Rd, RIGHT ON CAMINO CAPISTRANO, RIGHT ON DEL OBISPO St, AND RIGHT ON ROUTE 74
- 2- FROM LA NOVIA Ave, RIGHT ON VALLE Rd, LEFT ON SAN JUAN CREEK Rd, RIGHT ON CAMINO CAPISTRANO, RIGHT ON DEL OBISPO St, AND RIGHT ON ROUTE 74

**CLOSURE #2:**

SB ROUTE 5 CAMINO CAPISTRANO OFF-RAMP

**DETOUR:**

- 1- EXIT ROUTE 74 (ORTEGA Hwy), RIGHT ON ROUTE 74 (ORTEGA Hwy)
- 2- TO NB ROUTE 1, EXIT DOHENY PARK Dr, AND RIGHT ON DOHENY PARK Rd



**TRAFFIC HANDLING PLAN  
(LOCATION 3 DETOUR)  
NO SCALE  
TH-1**

APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION MAINTENANCE  
 Et Caltrans  
 FUNCTIONAL SUPERVISOR MASSOUD TAJIK  
 CALCULATED/DESIGNED BY JOSEPH TRAN  
 CHECKED BY JOSEPH TRAN  
 PHAT TRAN  
 REVISOR J TRAN  
 DATE 10-22-13

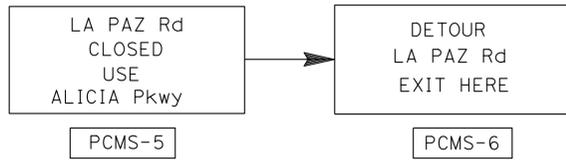
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	5	33

REGISTERED CIVIL ENGINEER DATE 12-04-13  
 JOSEPH TRAN  
 No. C 59283  
 Exp. 6/30/15  
 CIVIL  
 PLANS APPROVAL DATE 01-06-14  
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.

**NOTE:**

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DURING THE CLOSURE,  
THE PCMS SHOULD READ AS FOLLOWS:



**CLOSURE #3:**

NB ROUTE 5 LA PAZ Rd OFF-RAMP

**DETOUR:**

EXIT ALICIA Pkwy, RIGHT ON ALICIA Pkwy, AND RIGHT ON MUIRLANS Blvd

**CLOSURE #4:**

SB ROUTE 5 LA PAZ Rd LOOP ON-RAMP

**DETOUR:**

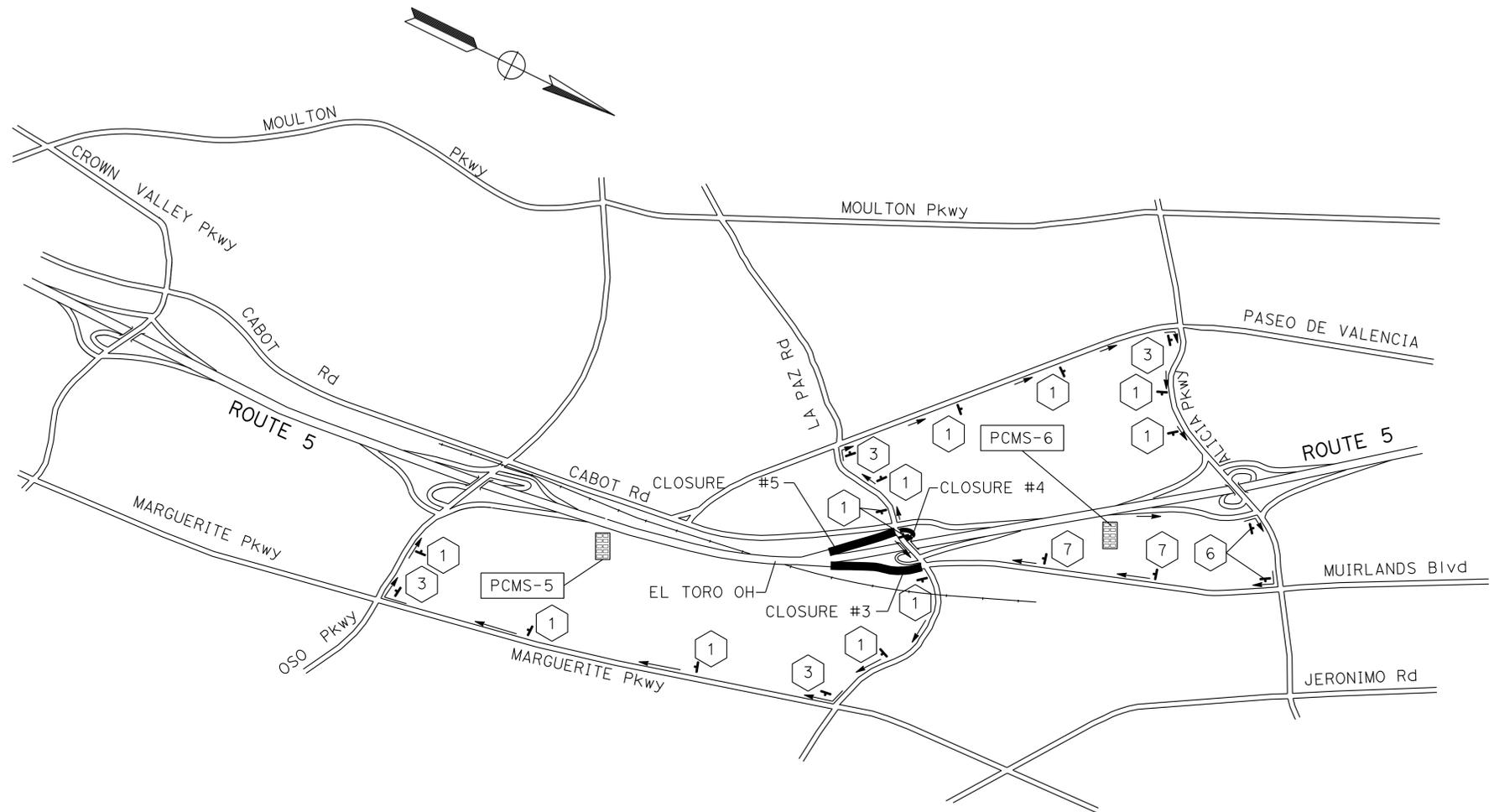
RIGHT ON PASEO DE VALENCIA, AND RIGHT ON ALICIA Pkwy

**CLOSURE #5:**

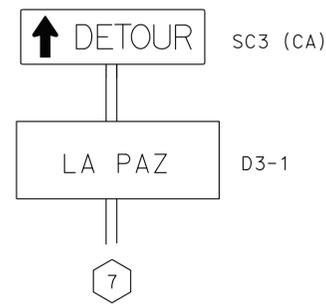
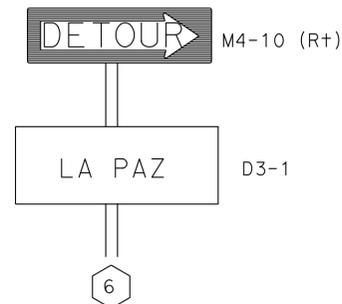
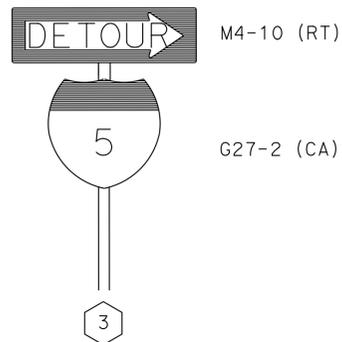
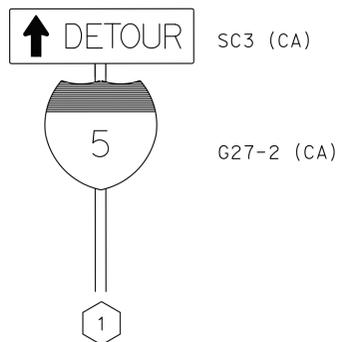
SB ROUTE 5 LA PAZ Rd ON-RAMP

**DETOUR:**

RIGHT ON MARGUERITE Pkwy, AND RIGHT ON OSO Pkwy



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**MAINTENANCE**  
 FUNCTIONAL SUPERVISOR MASSOUD TAJIK  
 CALCULATED/DESIGNED BY JOSEPH TRAN  
 PHAT TRAN  
 REVISOR J TRAN  
 DATE REVISED 10-22-13



**TRAFFIC HANDLING PLAN  
(LOCATION 5 DETOUR)  
NO SCALE  
TH-2**

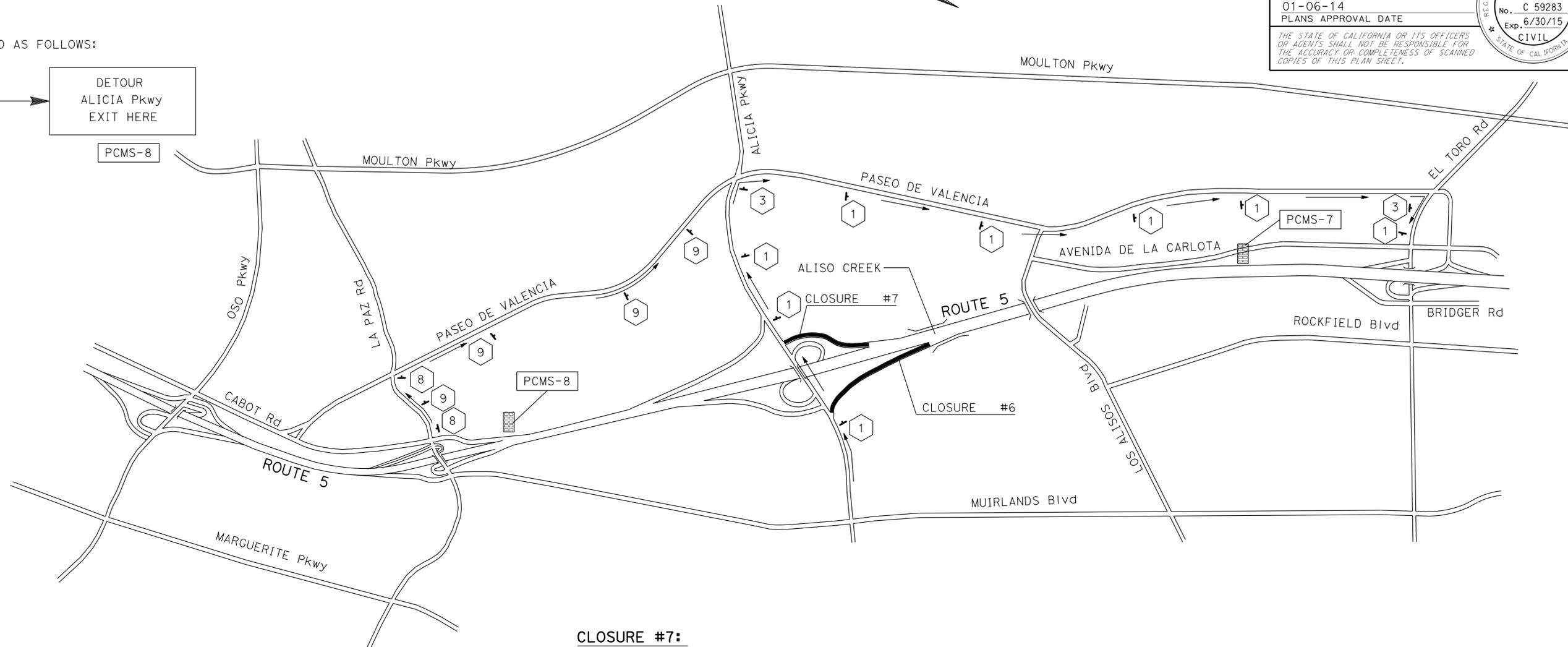
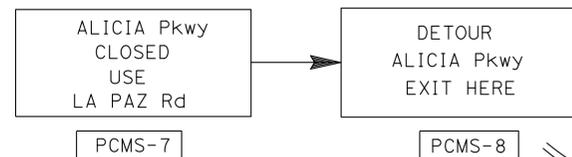
APPROVED FOR TRAFFIC HANDLING WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	6	33
REGISTERED CIVIL ENGINEER <i>Joseph Tran</i> 12-04-13 DATE			REGISTERED PROFESSIONAL ENGINEER JOSEPH TRAN No. C 59283 Exp. 6/30/15 CIVIL STATE OF CALIFORNIA		
01-06-14 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>					

**NOTE:**

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DURING THE CLOSURE,  
THE PCMS SHOULD READ AS FOLLOWS:



**CLOSURE #6:**

NB ROUTE 5 ALICIA Pkwy ON-RAMP

**CLOSURE #7:**

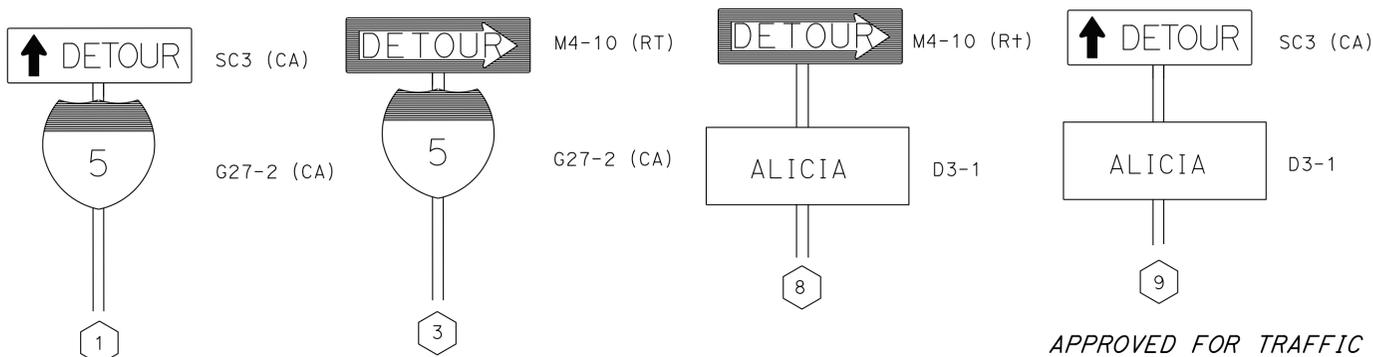
SB ROUTE 5 ALICIA Pkwy OFF-RAMP

**DETOUR:**

RIGHT ON PASEO DE VALENCIA, AND RIGHT ON EL TORO Rd

**DETOUR:**

Exit LA PAZ Rd, RIGHT ON LA PAZ Rd, AND RIGHT ON PASEO DE VALENCIA



APPROVED FOR TRAFFIC HANDLING WORK ONLY

**TRAFFIC HANDLING PLAN  
(LOCATION 6 DETOUR)  
NO SCALE  
TH-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 MAINTENANCE  
 Et Caltrans  
 PHAT TRAN  
 JOSEPH TRAN  
 J TRAN  
 10-22-13  
 REVISOR BY  
 DATE REVISED  
 CALCULATED-DESIGNED BY  
 CHECKED BY  
 FUNCTIONAL SUPERVISOR  
 MASSOUD TAJIK  
 BORDER LAST REVISED 7/2/2010

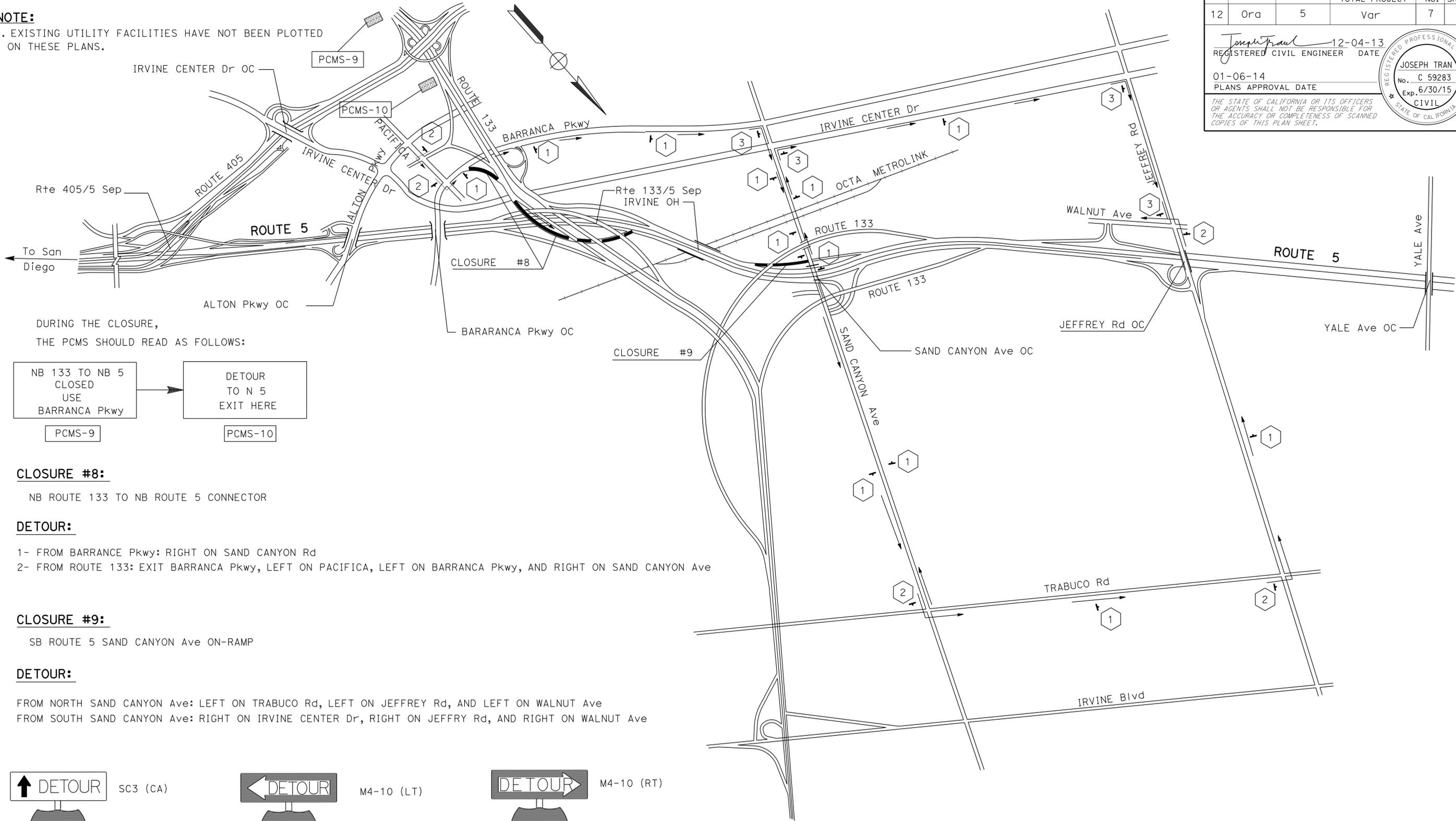
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	7	33

12-04-13  
 REGISTERED CIVIL ENGINEER DATE  
 JOSEPH TRAN  
 No. C 59283  
 Exp. 6/30/15  
 CIVIL  
 STATE OF CALIFORNIA

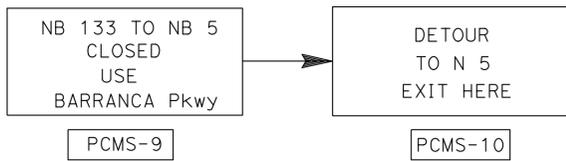
01-06-14  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTE:**

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.



DURING THE CLOSURE, THE PCMS SHOULD READ AS FOLLOWS:



**CLOSURE #8:**

NB ROUTE 133 TO NB ROUTE 5 CONNECTOR

**DETOUR:**

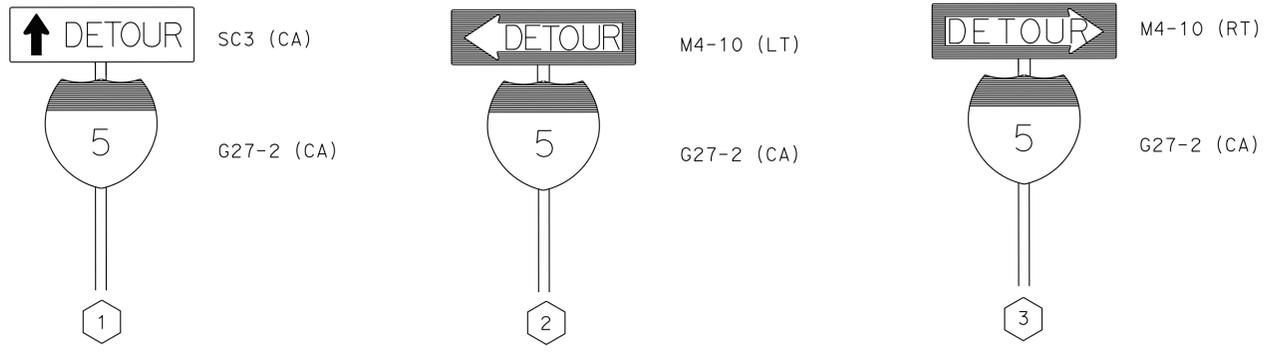
- 1- FROM BARRANCA Pkwy: RIGHT ON SAND CANYON Rd
- 2- FROM ROUTE 133: EXIT BARRANCA Pkwy, LEFT ON PACIFICA, LEFT ON BARRANCA Pkwy, AND RIGHT ON SAND CANYON Ave

**CLOSURE #9:**

SB ROUTE 5 SAND CANYON Ave ON-RAMP

**DETOUR:**

- FROM NORTH SAND CANYON Ave: LEFT ON TRABUCO Rd, LEFT ON JEFFREY Rd, AND LEFT ON WALNUT Ave
- FROM SOUTH SAND CANYON Ave: RIGHT ON IRVINE CENTER Dr, RIGHT ON JEFFREY Rd, AND RIGHT ON WALNUT Ave



**TRAFFIC HANDLING PLAN (LOCATION 7 DETOUR)**  
NO SCALE  
**TH-4**

APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 MAINTENANCE  
 Et Caltrans  
 FUNCTIONAL SUPERVISOR MASSOUD TAJIK  
 PHAT TRAN JOSEPH TRAN  
 REVISOR J TRAN  
 DATE 10-22-13

LAST REVISION DATE PLOTTED => 09-JAN-2014  
 10-22-13 TIME PLOTTED => 14:00

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	8	33

		12-04-13
REGISTERED CIVIL ENGINEER	DATE	
01-06-14		
PLANS APPROVAL DATE		

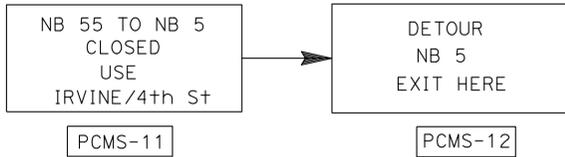
  

	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>	

**NOTE:**

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DURING THE CLOSURE,  
THE PCMS SHOULD READ AS FOLLOWS:



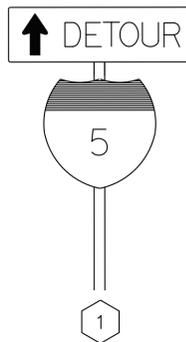
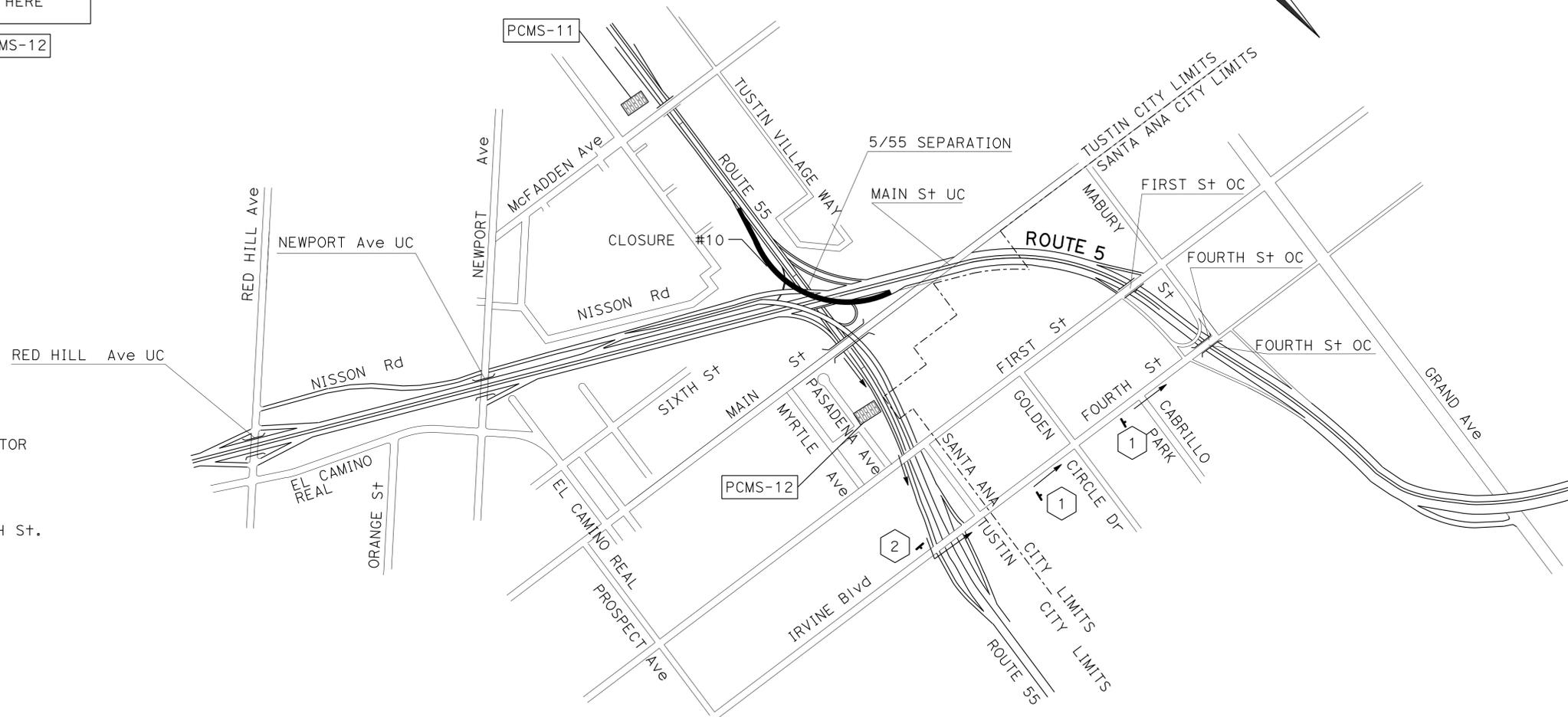
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	MAINTENANCE
FUNCTIONAL SUPERVISOR	MASSOUD TAJIK
CALCULATED-DESIGNED BY	CHECKED BY
PHAT TRAN	JOSEPH TRAN
REVISOR	DATE
J TRAN	10-22-13

**CLOSURE #10**

NB ROUTE 55 TO NB ROUTE 5 CONNECTOR

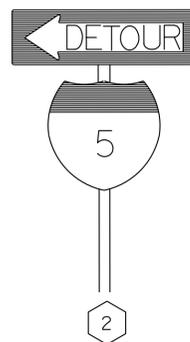
**DETOUR:**

EXIT IRVINE Blvd/4TH St, LEFT ON 4TH St.



SC3 (CA)

G27-2 (CA)

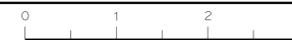


M4-10 (LT)

G27-2 (CA)

APPROVED FOR TRAFFIC HANDLING WORK ONLY

**TRAFFIC HANDLING PLAN  
(LOCATION 8 DETOUR)  
NO SCALE  
TH-5**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	9	33

<i>Joseph Tran</i>	12-04-13
REGISTERED CIVIL ENGINEER	DATE
01-06-14	
PLANS APPROVAL DATE	

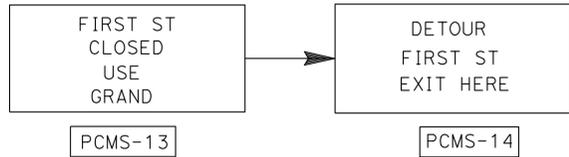
JOSEPH TRAN
No. C 59283
Exp. 6/30/15
CIVIL

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.

**NOTE:**

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DURING THE CLOSURE,  
THE PCMS SHOULD READ AS FOLLOWS:



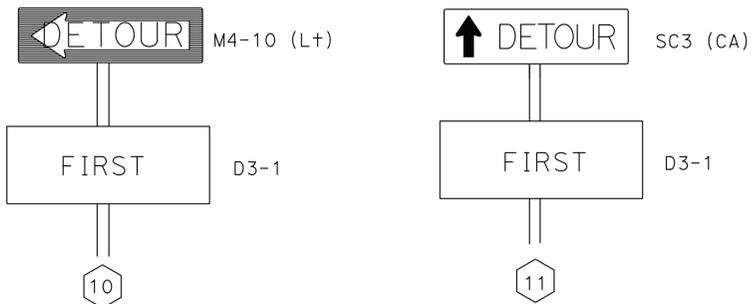
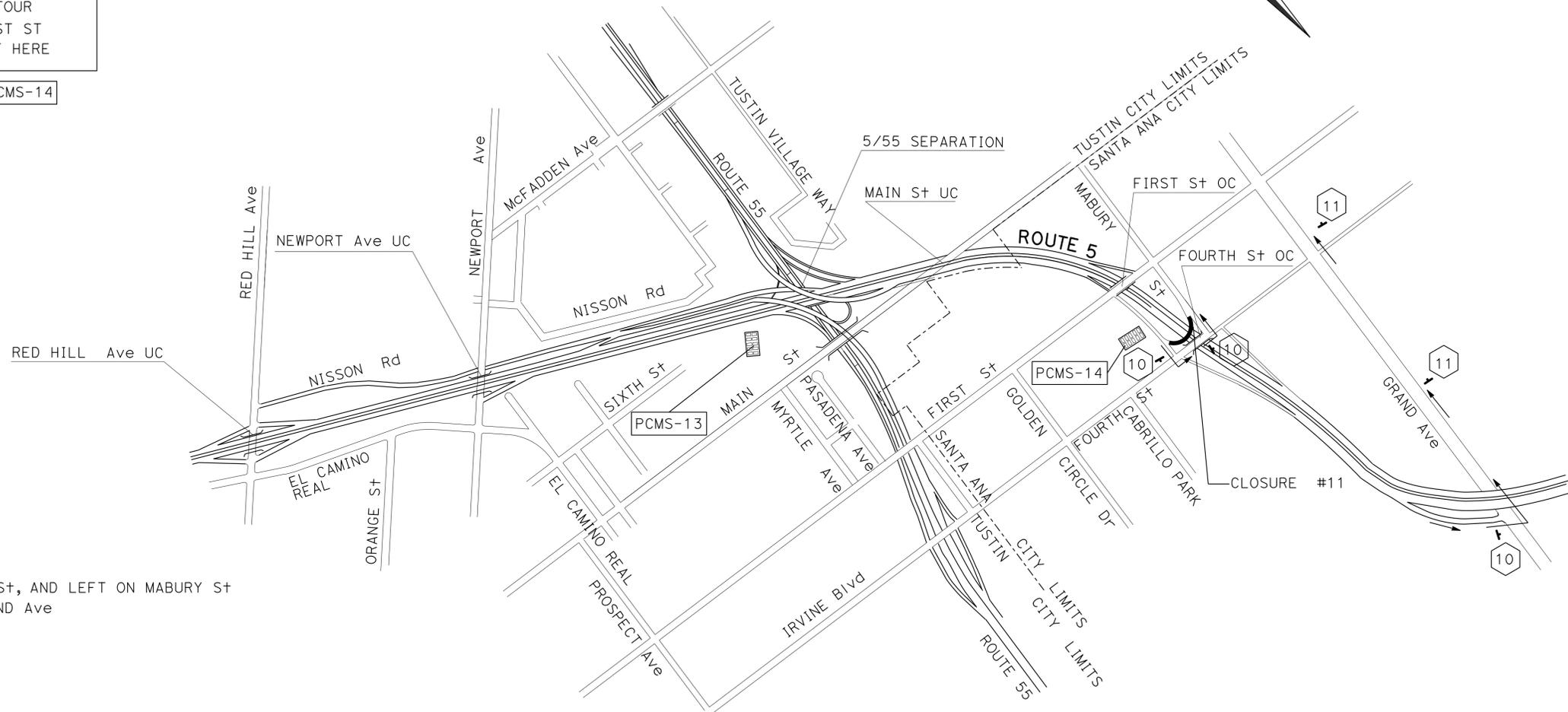
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	MAINTENANCE
FUNCTIONAL SUPERVISOR	MASSOUD TAJIK
CALCULATED-DESIGNED BY	CHECKED BY
PHAT TRAN	JOSEPH TRAN
REVISOR	DATE
J TRAN	10-22-13

**CLOSURE #11**

NB ROUTE 5 FIRST ST OFF-RAMP

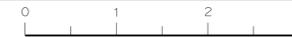
**DETOUR:**

- 1- Exit FOURTH St, LEFT ON FOURTH St, AND LEFT ON MABURY St
- 2- Exit GRAND Ave, AND LEFT ON GRAND Ave



APPROVED FOR TRAFFIC HANDLING WORK ONLY

**TRAFFIC HANDLING PLAN  
(LOCATION 9 DETOUR)  
NO SCALE  
TH-6**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	10	33

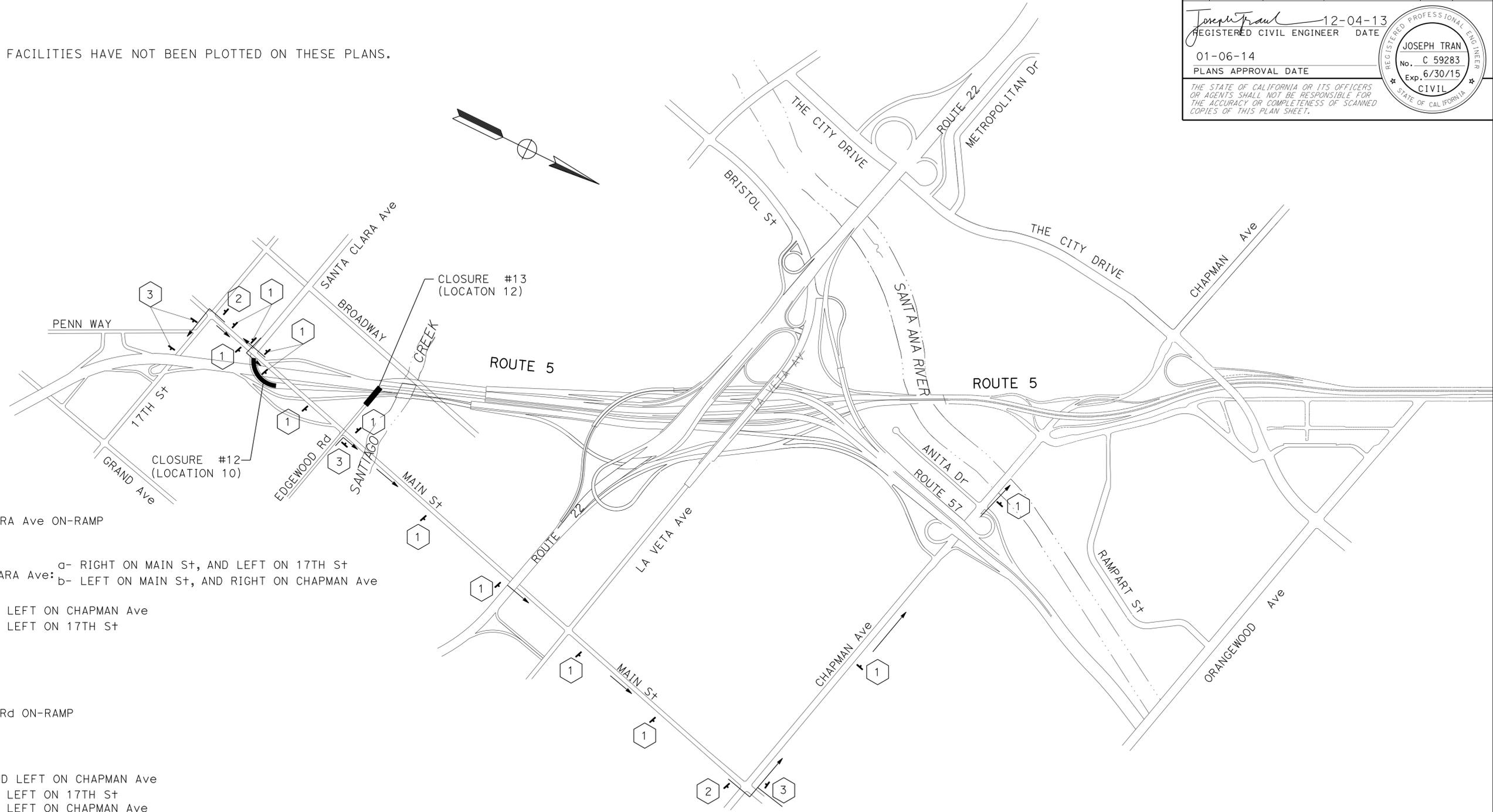
12-04-13  
 REGISTERED CIVIL ENGINEER DATE  
 JOSEPH TRAN  
 No. C 59283  
 Exp. 6/30/15  
 CIVIL  
 STATE OF CALIFORNIA  
 REGISTERED PROFESSIONAL ENGINEER

01-06-14  
 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.

**NOTE:**

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.



**CLOSURE #12**

NB ROUTE 5 SANTA CLARA Ave ON-RAMP

**DETOUR:**

- 1- From WEST SANTA CLARA Ave:
  - a- RIGHT ON MAIN St, AND LEFT ON 17TH St
  - b- LEFT ON MAIN St, AND RIGHT ON CHAPMAN Ave
- 2- From SOUTH MAIN St: LEFT ON CHAPMAN Ave
- 3- From NORTH MAIN St: LEFT ON 17TH St

**CLOSURE #13**

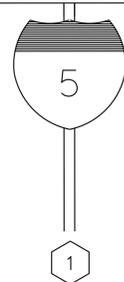
NB ROUTE 5 EDGEWOOD Rd ON-RAMP

**DETOUR:**

- 1- RIGHT ON MAIN St, AND LEFT ON CHAPMAN Ave
- 2- From NORTH MAIN St: LEFT ON 17TH St
- 3- From SOUTH MAIN St: LEFT ON CHAPMAN Ave



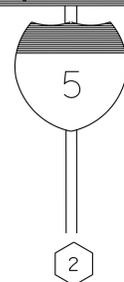
SC3 (CA)



G27-2 (CA)



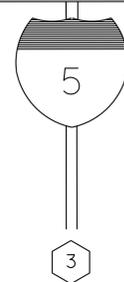
M4-10 (LT)



G27-2 (CA)



M4-10 (RT)



G27-2 (CA)

**TRAFFIC HANDLING PLAN  
(LOCATION 10 & 12 DETOUR)  
TH-7**

NO SCALE

APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	MAINTENANCE
FUNCTIONAL SUPERVISOR	MASSOUD TAJIK
CALCULATED-DESIGNED BY	CHECKED BY
PHAT TRAN	JOSEPH TRAN
REVISOR	DATE
J TRAN	10-22-13

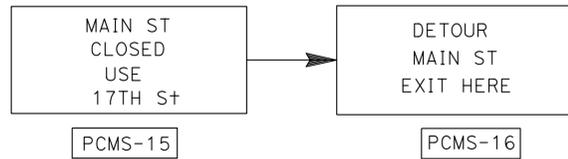
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	11	33

Joseph Tran 12-04-13  
 REGISTERED CIVIL ENGINEER DATE  
 01-06-14  
 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.

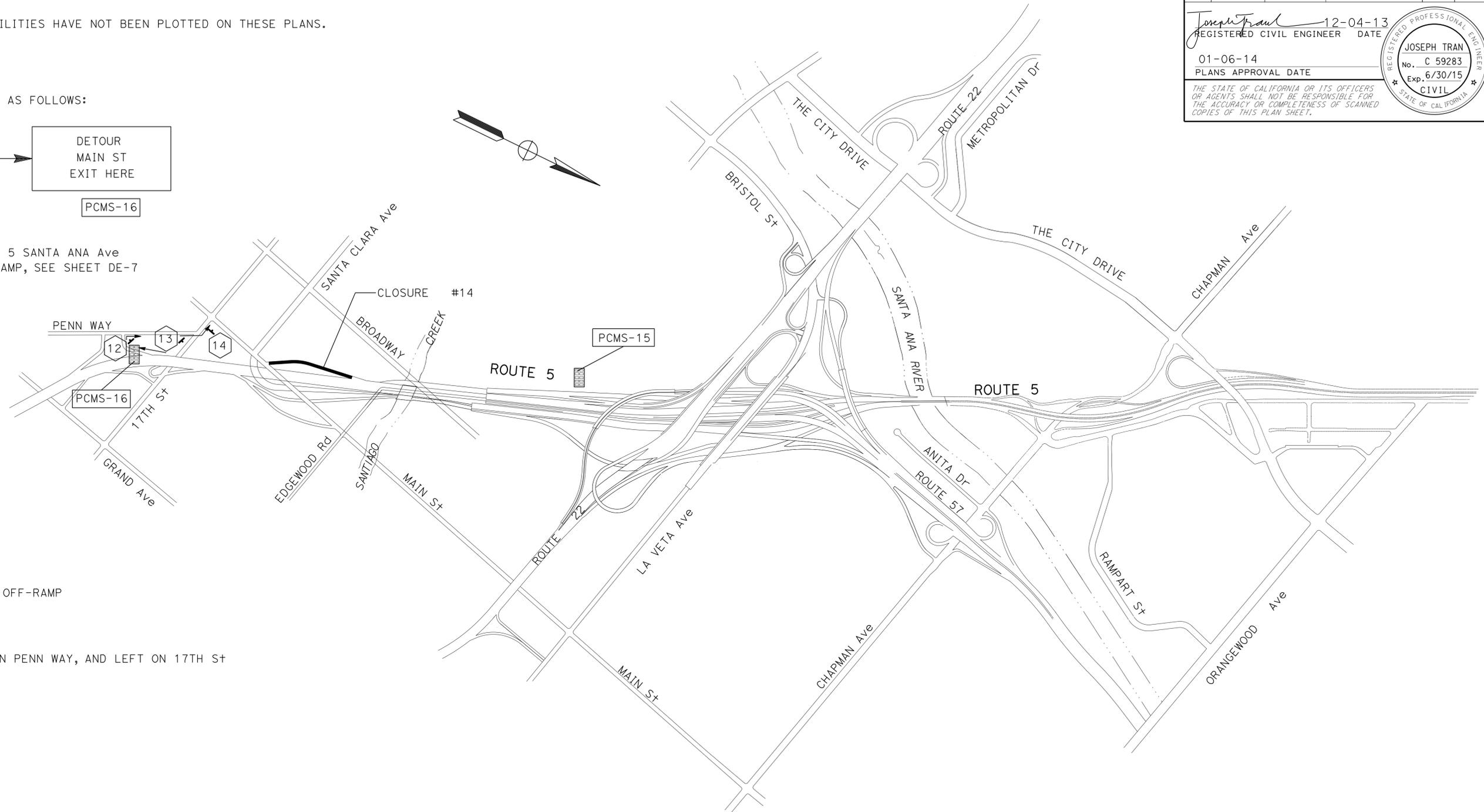
**NOTE:**

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DURING THE CLOSURE,  
THE PCMS SHOULD READ AS FOLLOWS:



FOR CLOSURE NB ROUTE 5 SANTA ANA Ave AND EDGEWOOD Rd ON RAMP, SEE SHEET DE-7



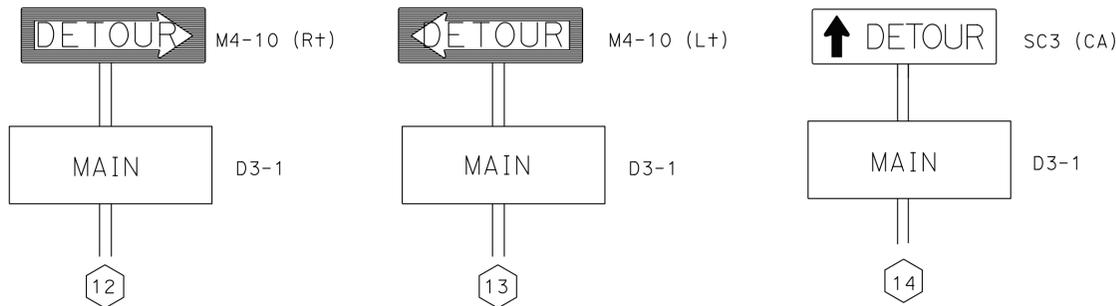
**CLOSURE #14**

SB ROUTE 5 MAIN ST OFF-RAMP

**DETOUR:**

EXIT 17TH ST, RIGHT ON PENN WAY, AND LEFT ON 17TH ST

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 MAINTENANCE  
 PHAT TRAN  
 JOSEPH TRAN  
 J TRAN  
 REVISOR BY  
 DATE REVISED  
 CALCULATED-DESIGNED BY  
 CHECKED BY  
 FUNCTIONAL SUPERVISOR  
 MASSOUD TAJIK  
 BORDER LAST REVISED 7/2/2010



APPROVED FOR TRAFFIC HANDLING WORK ONLY

**TRAFFIC HANDLING PLAN  
(LOCATION 11 DETOUR)  
NO SCALE  
TH-8**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	12	33

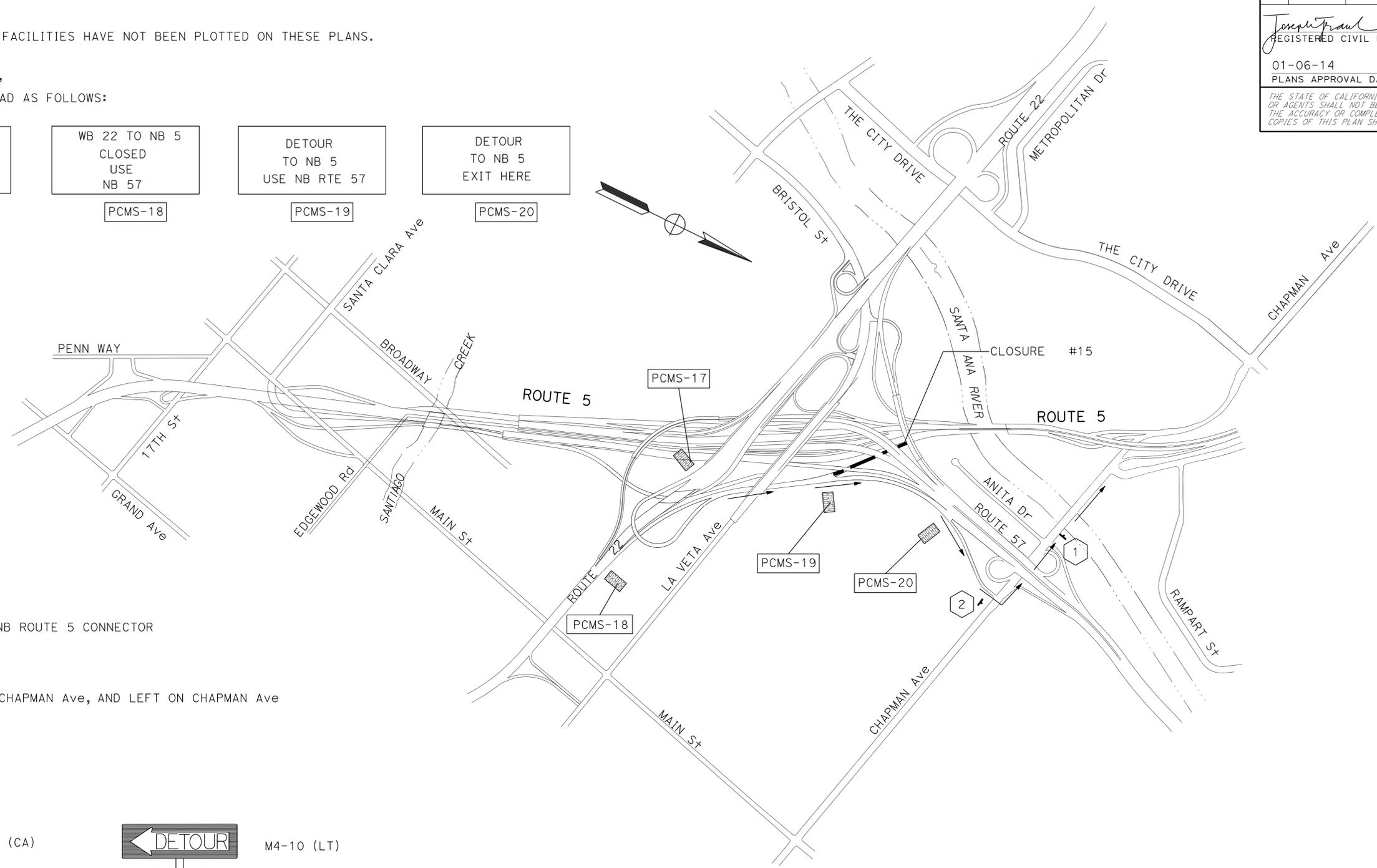
Joseph Tran 12-04-13  
 REGISTERED CIVIL ENGINEER DATE  
 01-06-14  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTE:**

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DURING THE CLOSURE,  
THE PCMS SHOULD READ AS FOLLOWS:

EB 22 TO NB 5 CLOSED USE NB 57 PCMS-17	WB 22 TO NB 5 CLOSED USE NB 57 PCMS-18	DETOUR TO NB 5 USE NB RTE 57 PCMS-19	DETOUR TO NB 5 EXIT HERE PCMS-20
--	--	---	---

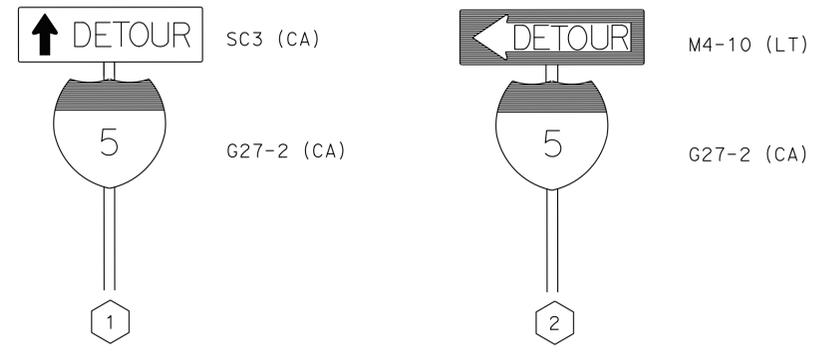


**CLOSURE #15**

EB & WB ROUTE 22 TO NB ROUTE 5 CONNECTOR

**DETOUR:**

TO NB ROUTE 57, EXIT CHAPMAN Ave, AND LEFT ON CHAPMAN Ave



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 MAINTENANCE  
 PHAT TRAN  
 JOSEPH TRAN  
 J TRAN  
 10-22-13  
 REVISOR  
 DATE REVISOR  
 CALCULATED-DESIGNED BY  
 CHECKED BY  
 FUNCTIONAL SUPERVISOR  
 MASSOUD TAJIK  
 BORDER LAST REVISED 7/2/2010

APPROVED FOR TRAFFIC HANDLING WORK ONLY

**TRAFFIC HANDLING PLAN  
(LOCATION 13 DETOUR)  
NO SCALE  
TH-9**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	13	33

12-04-13  
 REGISTERED CIVIL ENGINEER DATE  
 01-06-14  
 PLANS APPROVAL DATE

JOSEPH TRAN  
 No. C 59283  
 Exp. 6/30/15  
 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.

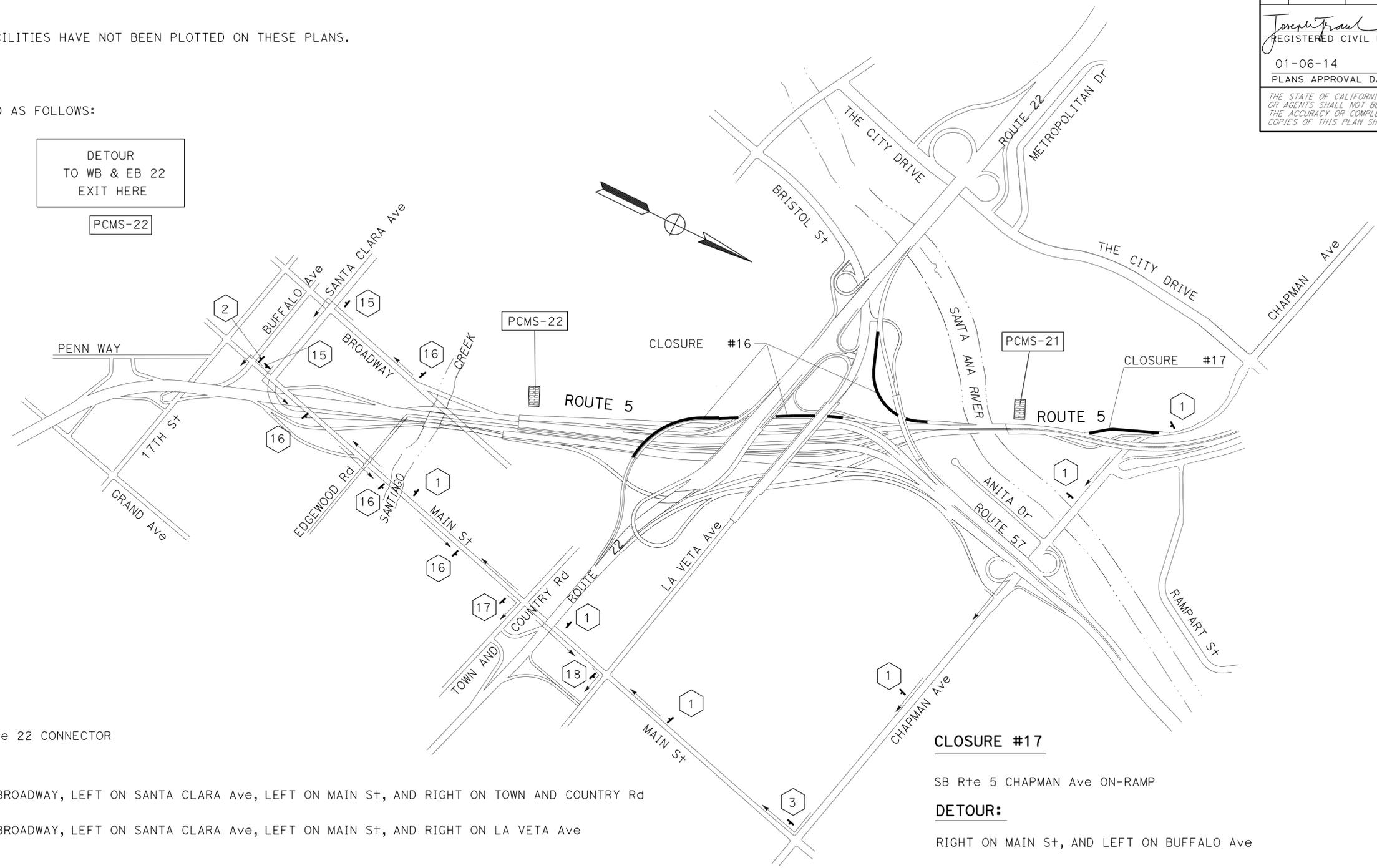
**NOTE:**

1. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DURING THE CLOSURE,  
THE PCMS SHOULD READ AS FOLLOWS:

SB Rte 5 TO  
EB & WB 22  
CLOSE USE  
BROADWAY  
  
PCMS-21

DETOUR  
TO WB & EB 22  
EXIT HERE  
  
PCMS-22



**CLOSURE #16**

SB Rte 5 TO EB & WB Rte 22 CONNECTOR

**DETOUR:**

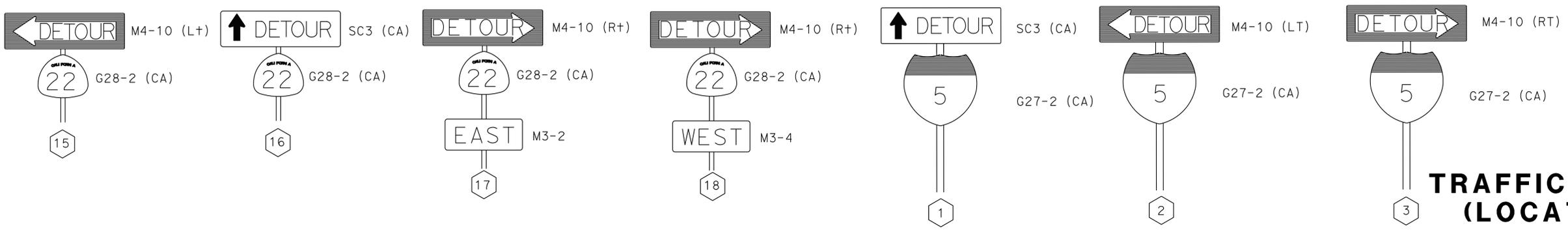
- 1- TO EB Rte 22: EXIT BROADWAY, LEFT ON SANTA CLARA Ave, LEFT ON MAIN St, AND RIGHT ON TOWN AND COUNTRY Rd
- 2- TO WB Rte 22: EXIT BROADWAY, LEFT ON SANTA CLARA Ave, LEFT ON MAIN St, AND RIGHT ON LA VETA Ave

**CLOSURE #17**

SB Rte 5 CHAPMAN Ave ON-RAMP

**DETOUR:**

RIGHT ON MAIN St, AND LEFT ON BUFFALO Ave



**TRAFFIC HANDLING PLAN  
(LOCATION 13 DETOUR)**  
NO SCALE  
**TH-10**

APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 MAINTENANCE  
 FUNCTIONAL SUPERVISOR: MASSOUD TAJIK  
 CALCULATED/DESIGNED BY: JOSEPH TRAN  
 CHECKED BY: JOSEPH TRAN  
 REVISED BY: J TRAN  
 DATE REVISED: 10-22-13



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	15	33

Joseph Tran 12-04-13  
 REGISTERED CIVIL ENGINEER DATE  
 01-06-14  
 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.

### TEMPORARY PAVEMENT DELINEATION QUANTITIES

LOCATION - DESCRIPTION					TEMPORARY TRAFFIC STRIPE (PAINT)													TEMPORARY PAVEMENT MARKING (PAINT)					
					DETAIL 40	4" SOLID WHITE	HOV 4" SOLID WHITE	HOV 4" SOLID YELLOW	DETAIL 21 4" SOLID YELLOW	DETAIL 25, 25A 4" SOLID YELLOW	DETAIL 27B 4" SOLID WHITE	DETAIL 2 4" YELLOW BROKEN (17-7)	DETAIL 9 4" WHITE BROKEN (17-7)	DETAIL 13 Mod 4" WHITE BROKEN (36-12)	HOV 8" WHITE BROKEN (36-12)	DETAIL 37 8" WHITE BROKEN (12-3)	DETAIL 36 8" SOLID WHITE	DETAIL 38 8" SOLID WHITE	12" DIAGONAL STRIPE	LIMIT LINE	HOV DIAMOND SYMBOL & WORDS	WORDS	ARROW
Loc	Rte	PM	BRIDGE NAME & No.	Dir	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	SQFT	SQFT	SQFT	SQFT	SQFT	
①	5	4.97	AVENIDA VAQUERO 55-0223	NB					174	174					131								
				SB						174	174					131							
②	5	6.62	VIA CALIFORNIA 55-0225										129										
③	5	8.80	SAN JUAN CREEK Rd 55-0298	NB			129	516	129	129					97			60			11		
				SB			129	516	129	129			97		530							11	
④	5	10.00	EL HORNO St 55-0230	NB			178	712	178	178					178								
				SB			178	712	178	178			134	142									
⑤	5	16.36	EL TORO OH 55-0221S	NB					252	252					189	126							
				SB			252	1008	252	252			189		1008								
⑥	5	17.75	ALISO CREEK 55-0014	NB			126	504	126	126					158								
				SB			126	504	126	126			126		244								
⑧	5	30.51	MAIN St UC 55-0190												34								
⑨	5	31.08	N5-1ST St OFF-RAMP 55-0661S						240	240					60								
⑩	5	33.00	NB Rte 5 SANTA CLARA ON-RAMP 55-0686			50			269	269					55							98	50
⑪	5	33.09	MAIN St OC 55-0674	NB	17	560			873	873		451									61	168	60
				SB	17	1100				873	873		451										65
⑫	5	33.11	EDGEWOOD Dr HOV RAMP 55-0685Y	OFF		50		110	170	280				24				50	118				99
				ON		145		110	170	280											119	168	
⑬	5	34.47	SANTA ANA RIVER 55-0811	NB			503	2012	503	503					629							280	
				SB			503	2012	503	503			503		152	1440	1040	280				11	
SUB-TOTAL					34	1905	2124	8496	220	5319	5539	129	902	2735	126	294	3252	1284	670	461	369	161	382
TOTAL					32359													2043					

### TRAFFIC HANDLING QUANTITIES THQ-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 MAINTENANCE  
 FUNCTIONAL SUPERVISOR: MASSOUD TAJIK  
 PHAT TRAN: JOSEPH TRAN  
 REVISOR: J. TRAN  
 DATE: 10-22-13

LAST REVISION | DATE PLOTTED => 09-JAN-2014  
 10-22-13 | TIME PLOTTED => 14:00



	<b>M</b>	
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	
	<b>N</b>	
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	
	<b>O</b>	
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	
	<b>P</b>	
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	

	<b>P continued</b>	
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	
	<b>Q</b>	
Qty	QUANTITY	
	<b>R</b>	
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	

	<b>S</b>	
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	
±	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	
	<b>T</b>	
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	

	<b>T continued</b>	
TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL	
Typ	TYPICAL	
	<b>U</b>	
UC	UNDERCROSSING	
UD	UNDERDRAIN	
UG	UNDERGROUND	
UON	UNLESS OTHERWISE NOTED	
UP	UNDERPASS	
	<b>V</b>	
V	VALVE, DESIGN SPEED	
Var	VARIABLE, VARIES	
VC	VERTICAL CURVE	
VCP	VITRIFIED CLAY PIPE	
Vert	VERTICAL	
Via	VIADUCT	
Vol	VOLUME	
	<b>W</b>	
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	
WWLOL	WINGWALL LAYOUT LINE	
	<b>X</b>	
X Sec	CROSS SECTION	
Xing	CROSSING	
	<b>Y</b>	
Yr	YEAR	
Yrs	YEARS	

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	17	33



*Grace M. Tsushima*  
 REGISTERED CIVIL ENGINEER  
 July 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.

TO ACCOMPANY PLANS DATED 01-06-14

**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 <sup>3</sup> , 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

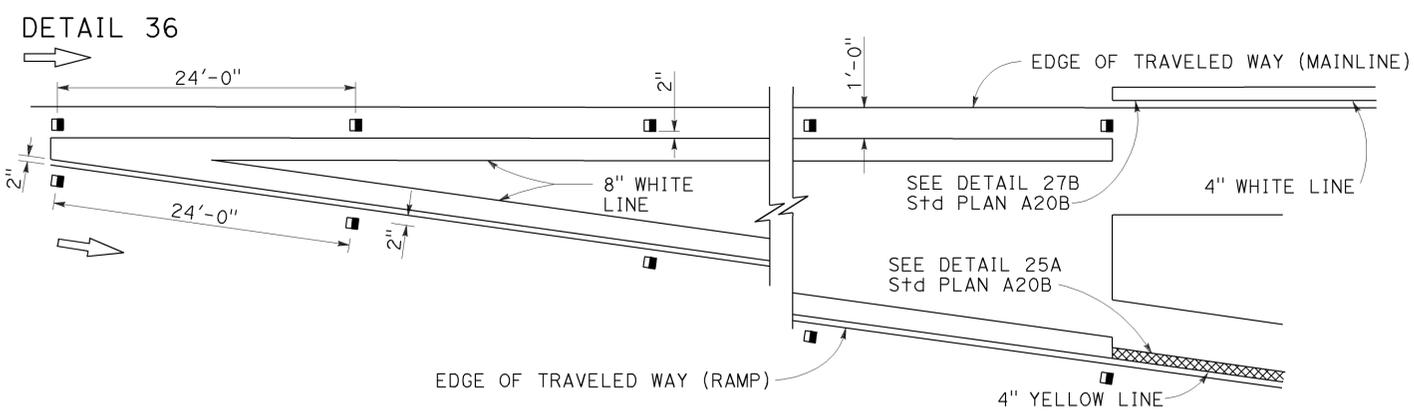
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	18	33

REGISTERED CIVIL ENGINEER  
 Roberta L. McLaughlin  
 No. C40375  
 Exp. 3-31-15  
 CIVIL  
 STATE OF CALIFORNIA

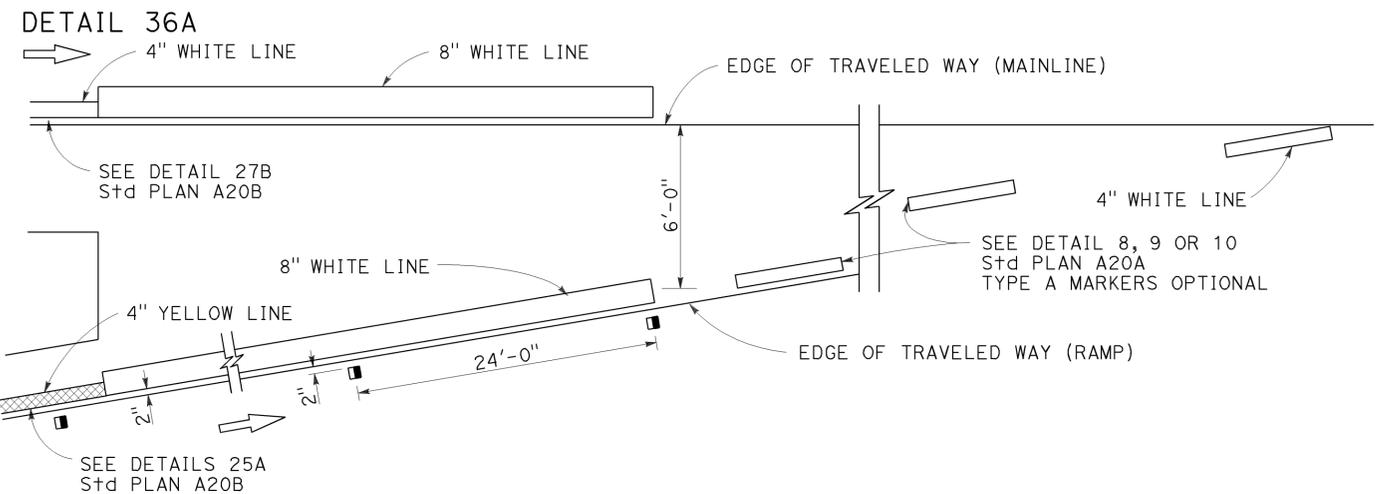
July 19, 2013  
 PLANS APPROVAL DATE

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.

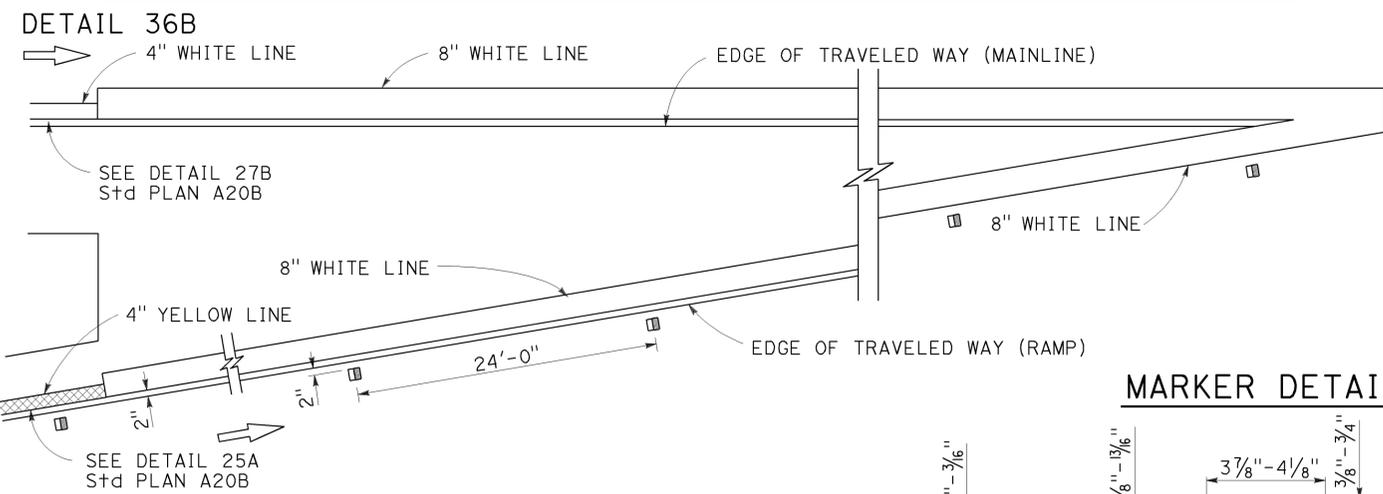
### EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



### ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



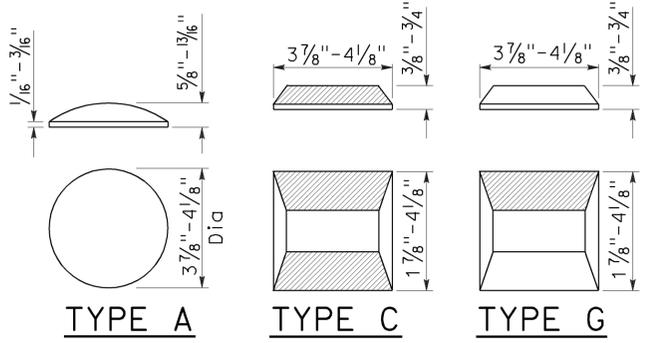
### ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT



### MARKER DETAILS

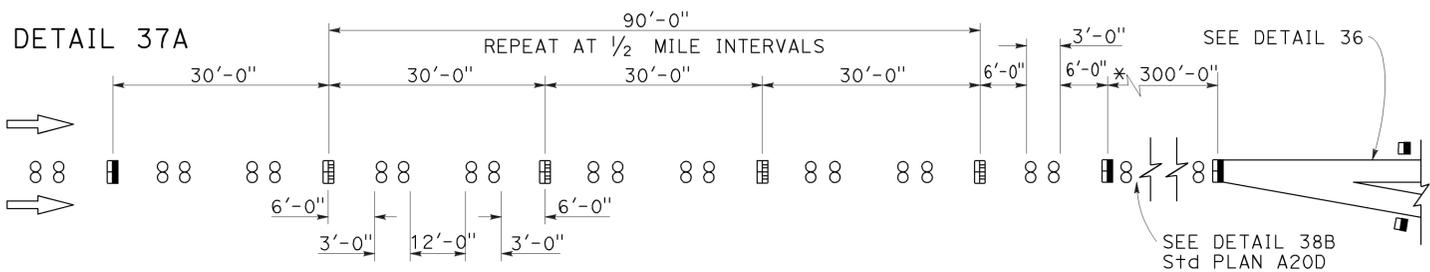
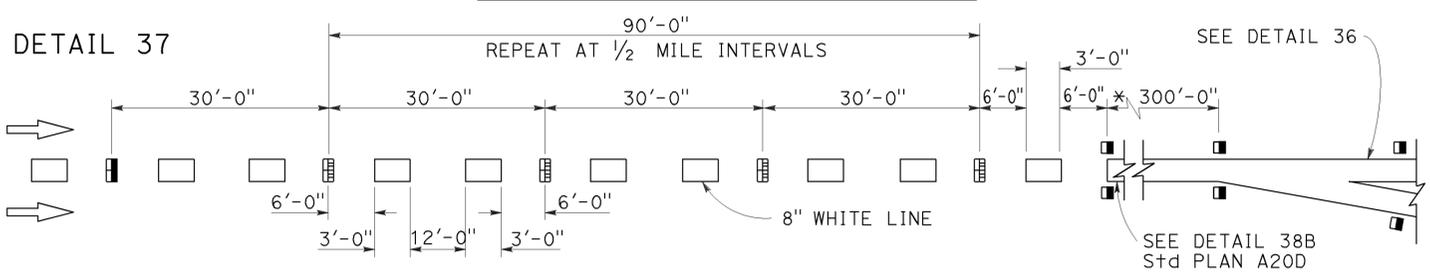
#### LEGEND:

- MARKERS
- TYPE A WHITE NON-REFLECTIVE
  - ◻ TYPE C RED-CLEAR RETROREFLECTIVE
  - TYPE G ONE-WAY CLEAR RETROREFLECTIVE



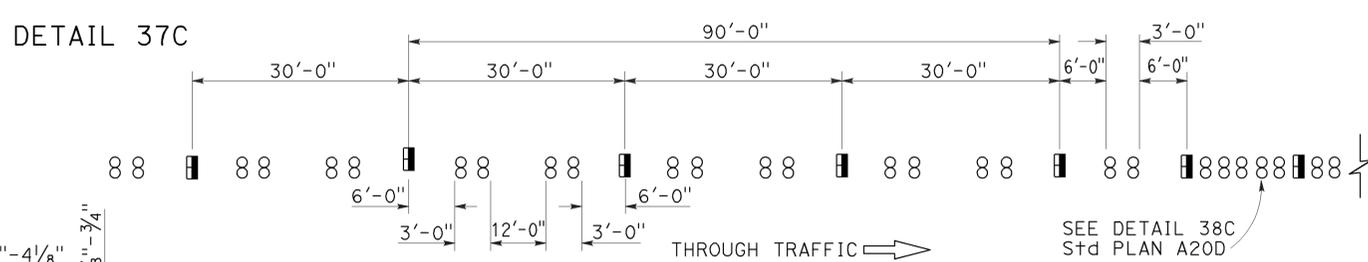
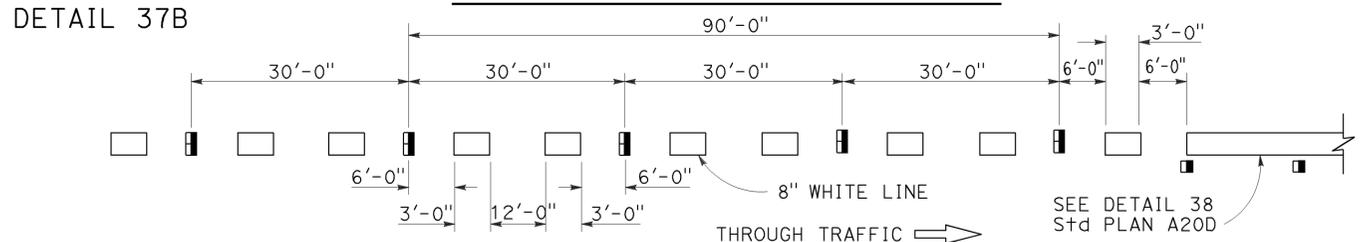
RETROREFLECTIVE FACE

### LANE DROP AT EXIT RAMP



\* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

### LANE DROP AT INTERSECTIONS



STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKERS  
 AND TRAFFIC LINE  
 TYPICAL DETAILS**  
 NO SCALE

RSP A20C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A20C  
 DATED MAY 20, 2011 - PAGE 11 OF THE STANDARD PLANS BOOK DATED 2010.

### REVISED STANDARD PLAN RSP A20C

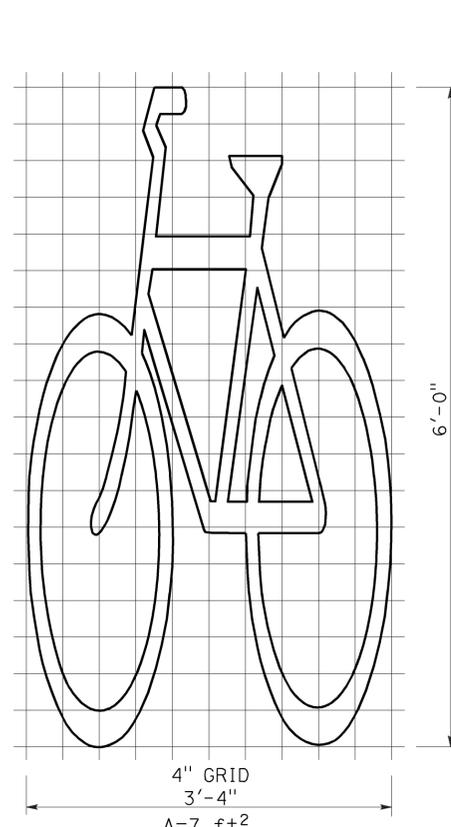
2010 REVISED STANDARD PLAN RSP A20C

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	19	33

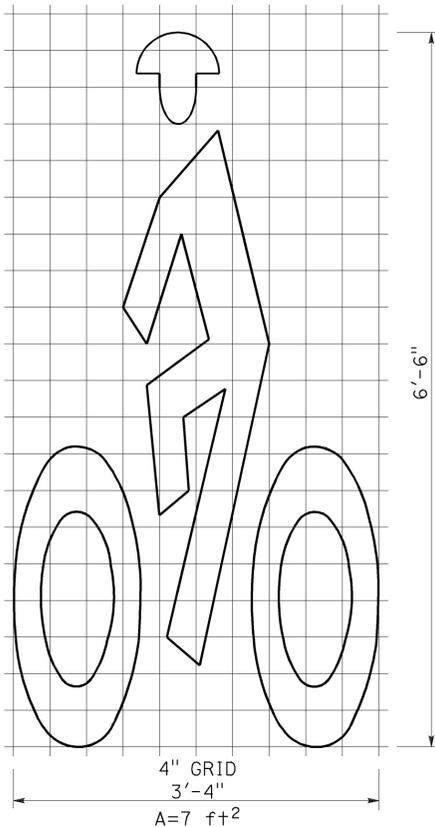
Registered Professional Engineer  
 Roberto L. McLaughlin  
 No. C40375  
 Exp. 3-31-13  
 CIVIL  
 STATE OF CALIFORNIA

October 19, 2012  
 PLANS APPROVAL DATE

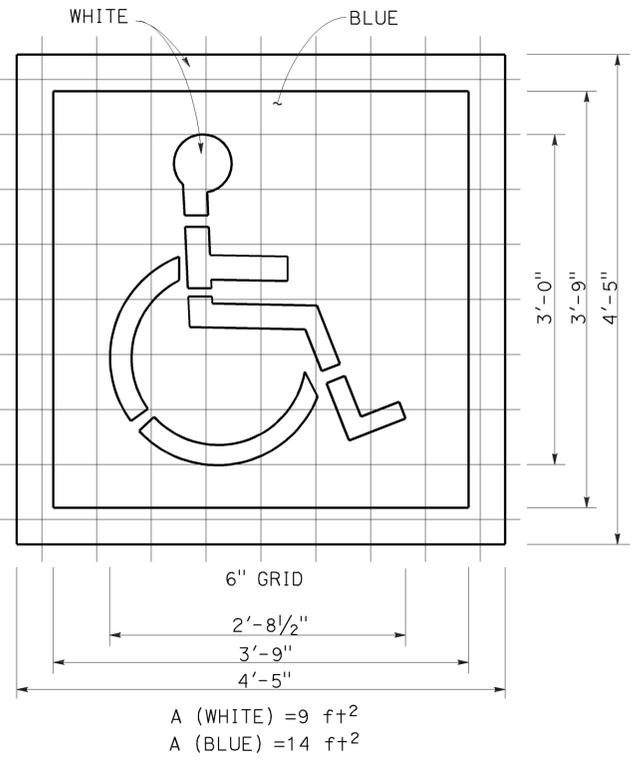
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



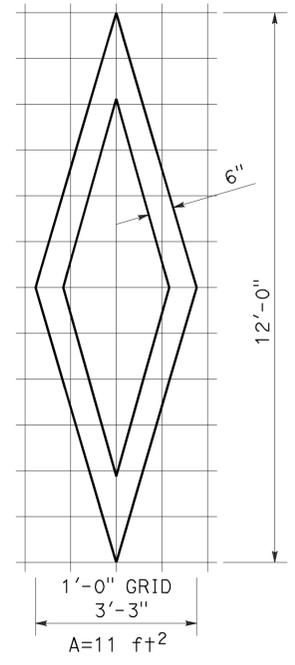
**BIKE LANE SYMBOL WITHOUT PERSON**



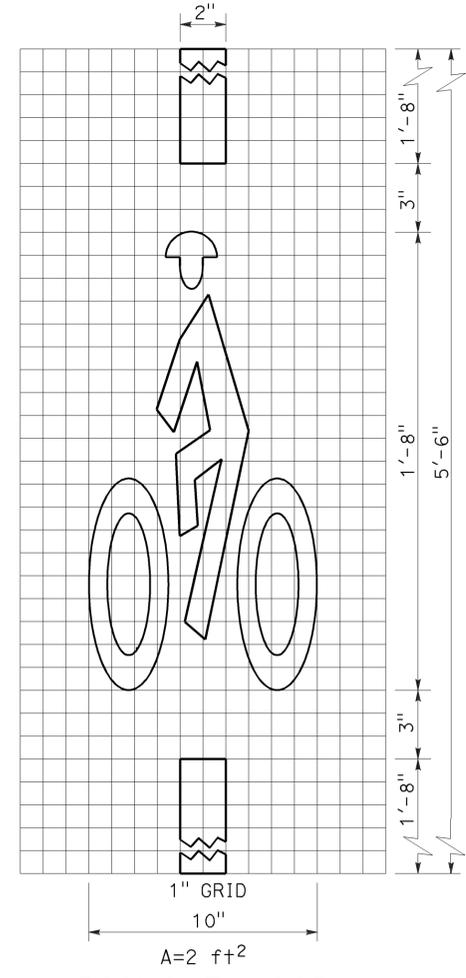
**BIKE LANE SYMBOL WITH PERSON**



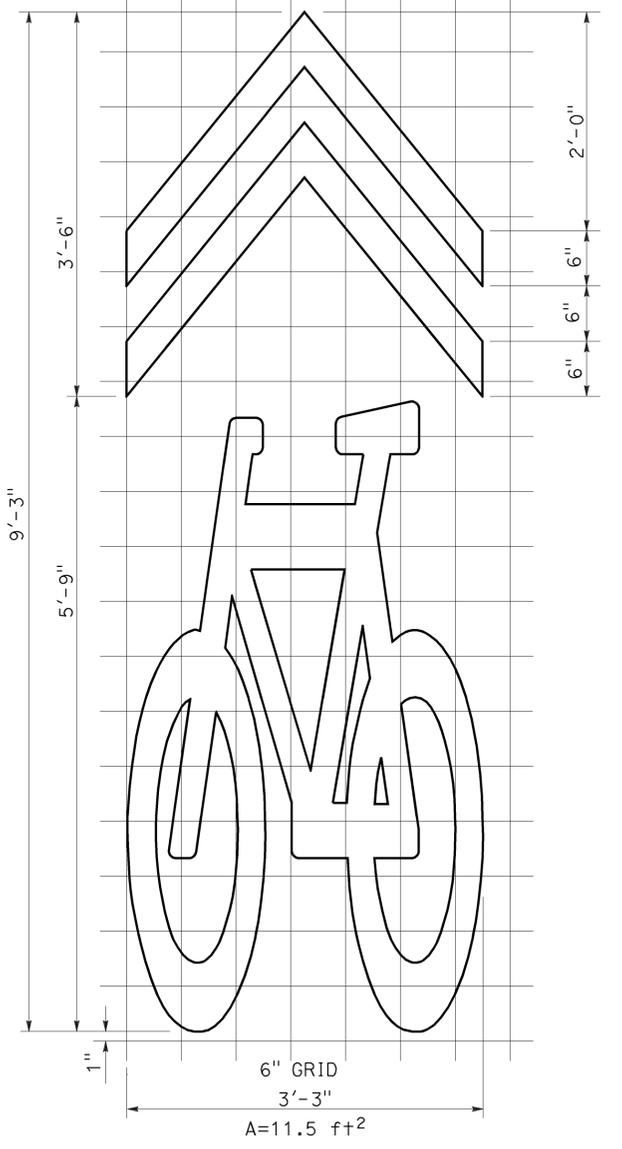
**INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING**



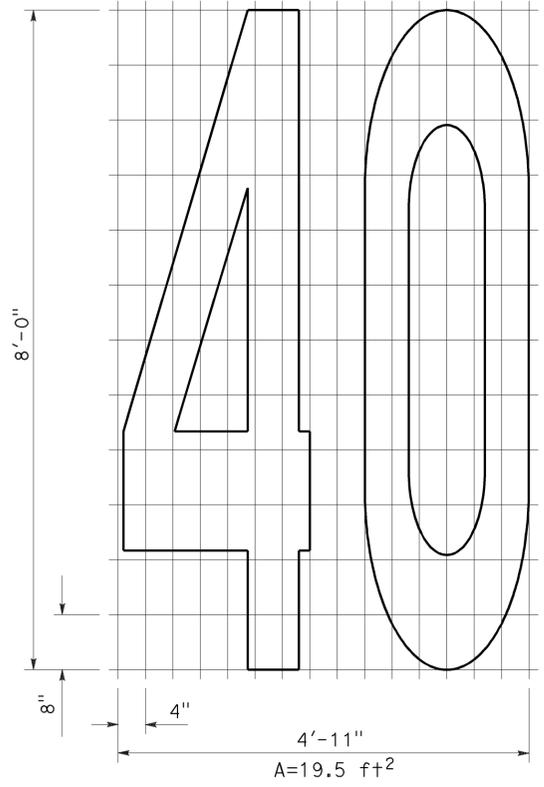
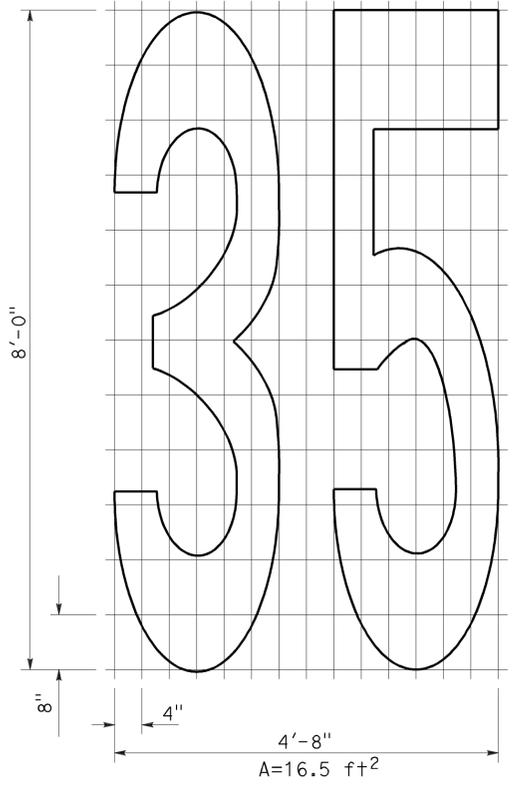
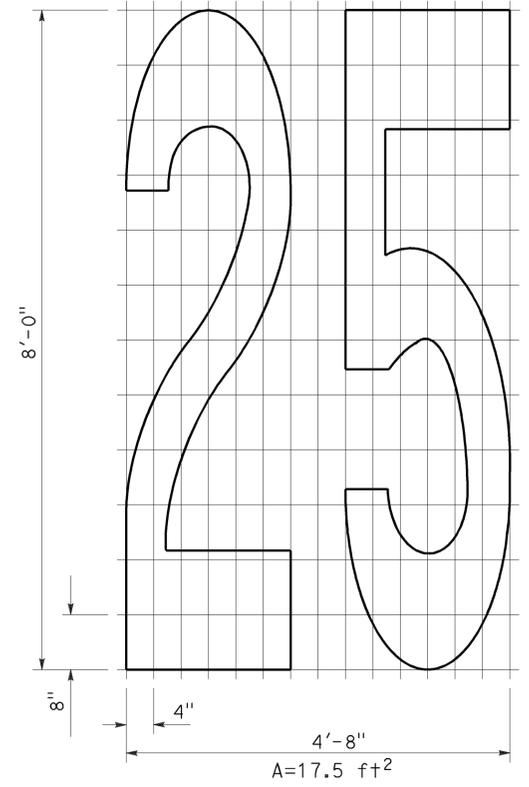
**DIAMOND SYMBOL**



**BICYCLE LOOP DETECTOR SYMBOL**



**SHARED ROADWAY BICYCLE MARKING**



**NUMERALS**

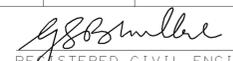
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS  
 SYMBOLS AND NUMERALS**  
 NO SCALE

RSP A24C DATED OCTOBER 19, 2012 SUPERSEDES STANDARD PLAN A24C DATED MAY 20, 2011 - PAGE 15 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP A24C**

**2010 REVISED STANDARD PLAN RSP A24C**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	20	33

  
 REGISTERED CIVIL ENGINEER  
 July 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.

TO ACCOMPANY PLANS DATED 01-06-14

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
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.

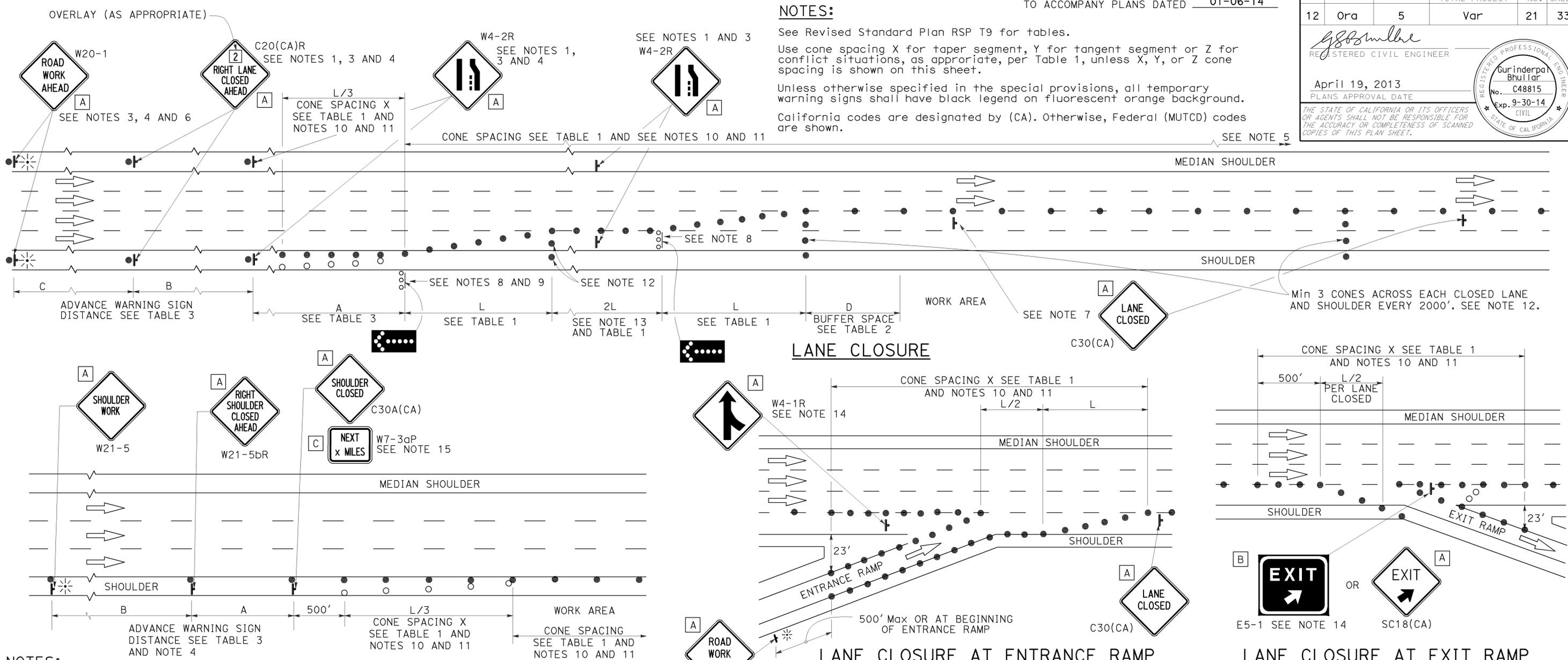
**REVISED STANDARD PLAN RSP T9**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	21	33


  
 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.

**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.
- 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) "NEXT \_\_\_\_\_ MILES" 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.

**SHOULDER CLOSURE**

**LANE CLOSURE AT ENTRANCE RAMP**

**LANE CLOSURE AT EXIT RAMP**

**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"

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**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**

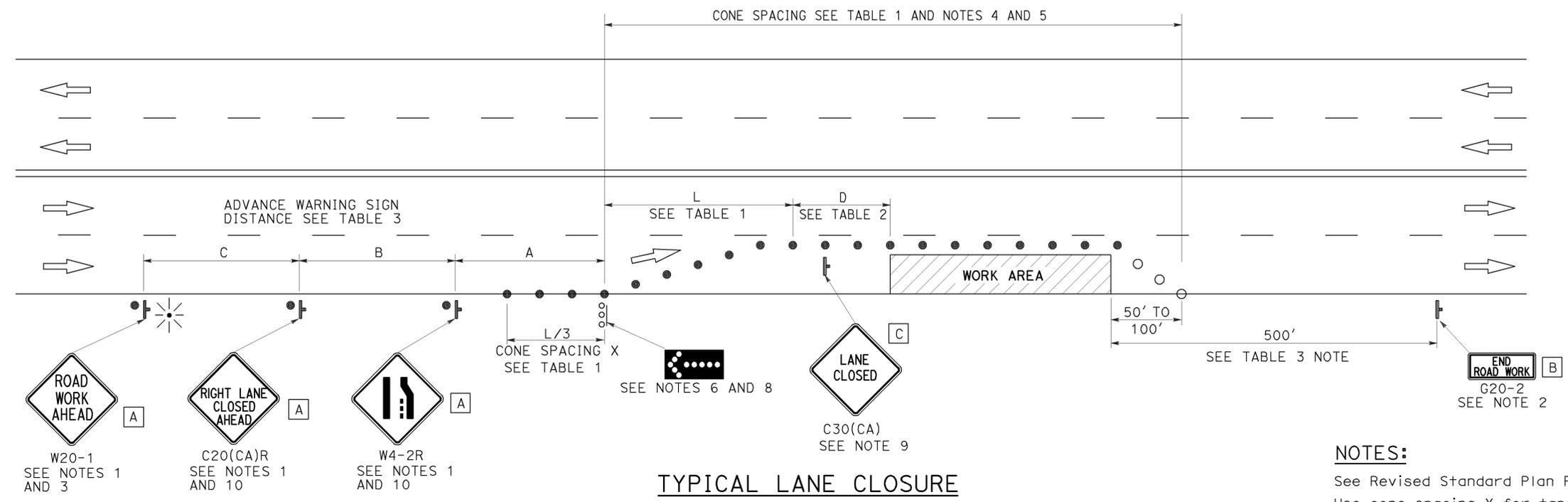
2010 REVISED STANDARD PLAN RSP T10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	22	33

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 01-06-14



TYPICAL LANE CLOSURE

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:

- 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 G20-2 "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 G20-1 "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.
- 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.
- 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.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- 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 closure unless, otherwise directed by the Engineer.

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 36" x 18"
- C 30" x 30"

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

NO SCALE

RSP T11 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T11 DATED MAY 20, 2011 - PAGE 239 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T11**

2010 REVISED STANDARD PLAN RSP T11

# 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
12	Ora	5	Var	23	33

*Gurinderpal Bhullar*  
 REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE

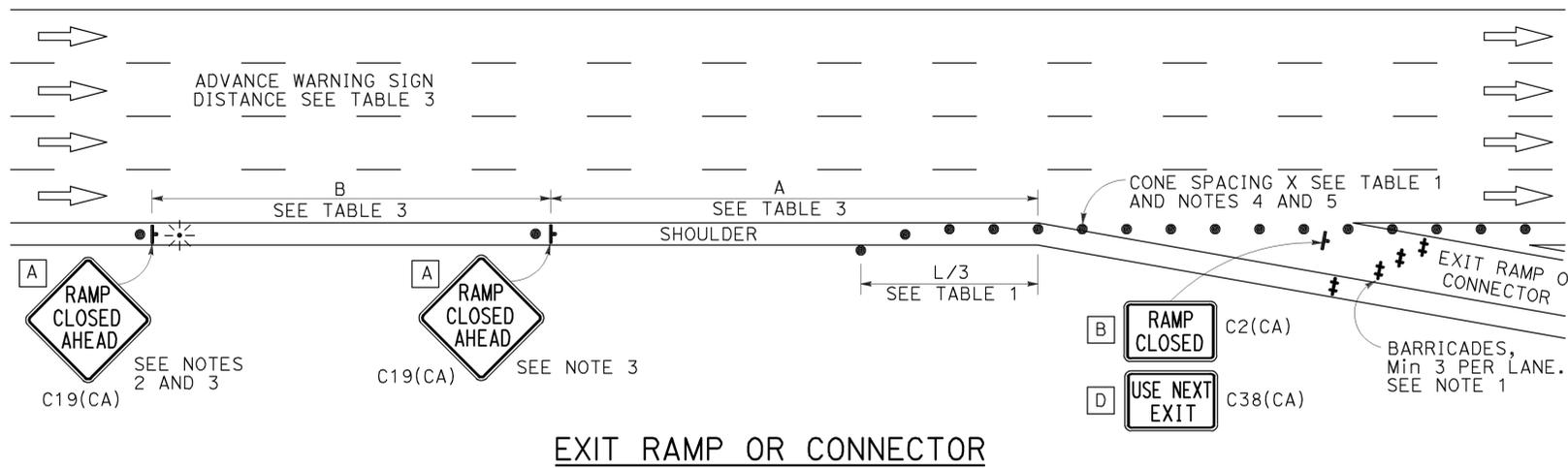
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

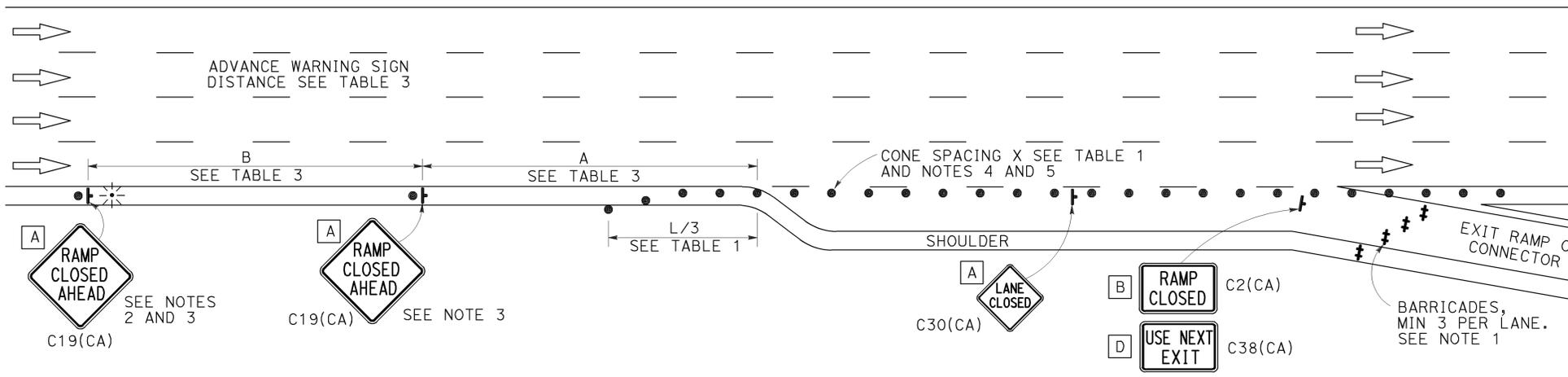
TO ACCOMPANY PLANS DATED 01-06-14

## NOTES:

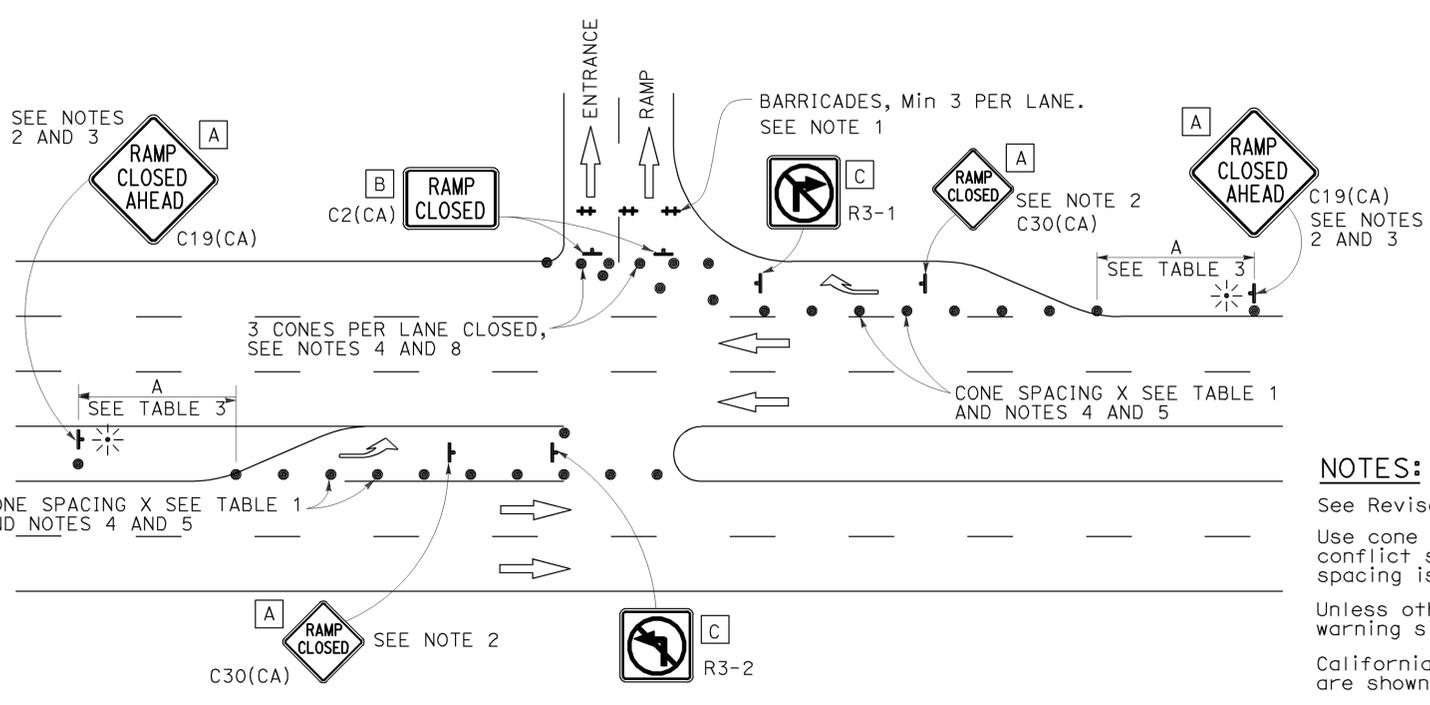
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed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



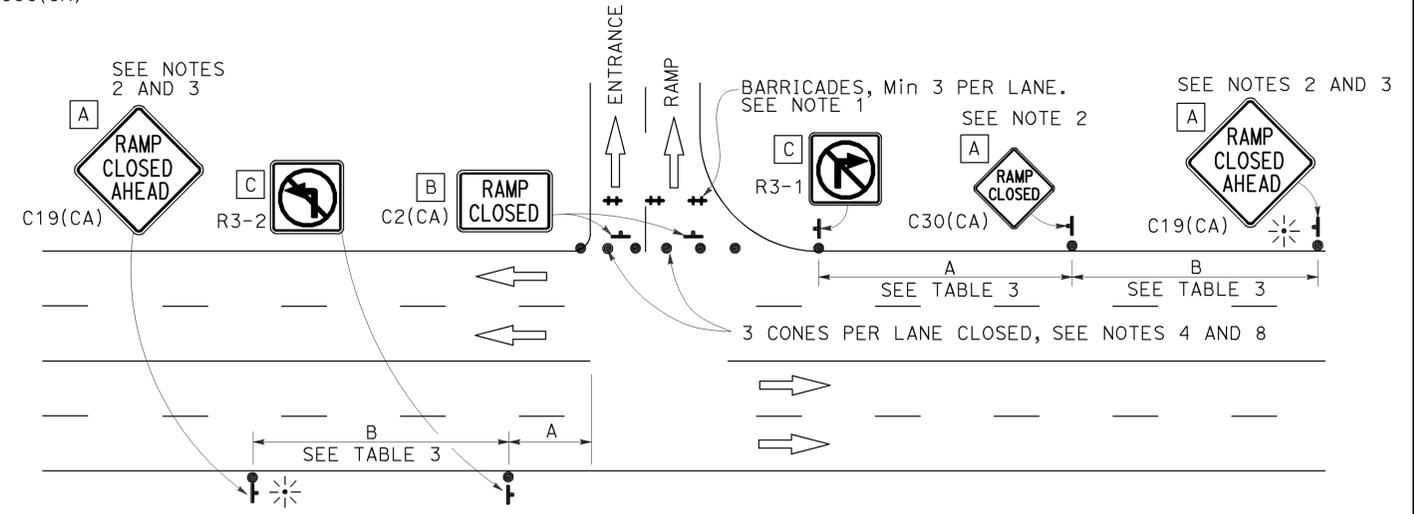
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

## NOTES:

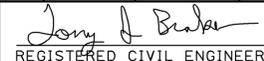
- See Revised Standard Plan RSP T9 for tables.
- Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
- Unless otherwise specified in the special provisions, all temporary warning 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

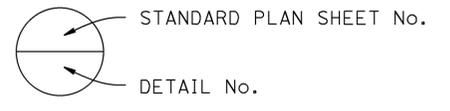
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	24	33
			10/09/13		
REGISTERED CIVIL ENGINEER			DATE		
<b>01-06-14</b> PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

### INDEX TO PLANS

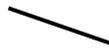
SHEET NO.	TITLE
1	GENERAL PLAN NO. 1
2	GENERAL PLAN NO. 2
3	GENERAL PLAN NO. 3
4	GENERAL PLAN NO. 4
5	GENERAL PLAN NO. 5
6	GENERAL PLAN NO. 6
7	GENERAL PLAN NO. 7
8	MISCELLANEOUS DETAILS NO. 1
9	MISCELLANEOUS DETAILS NO. 2
10	MISCELLANEOUS DETAILS NO. 3

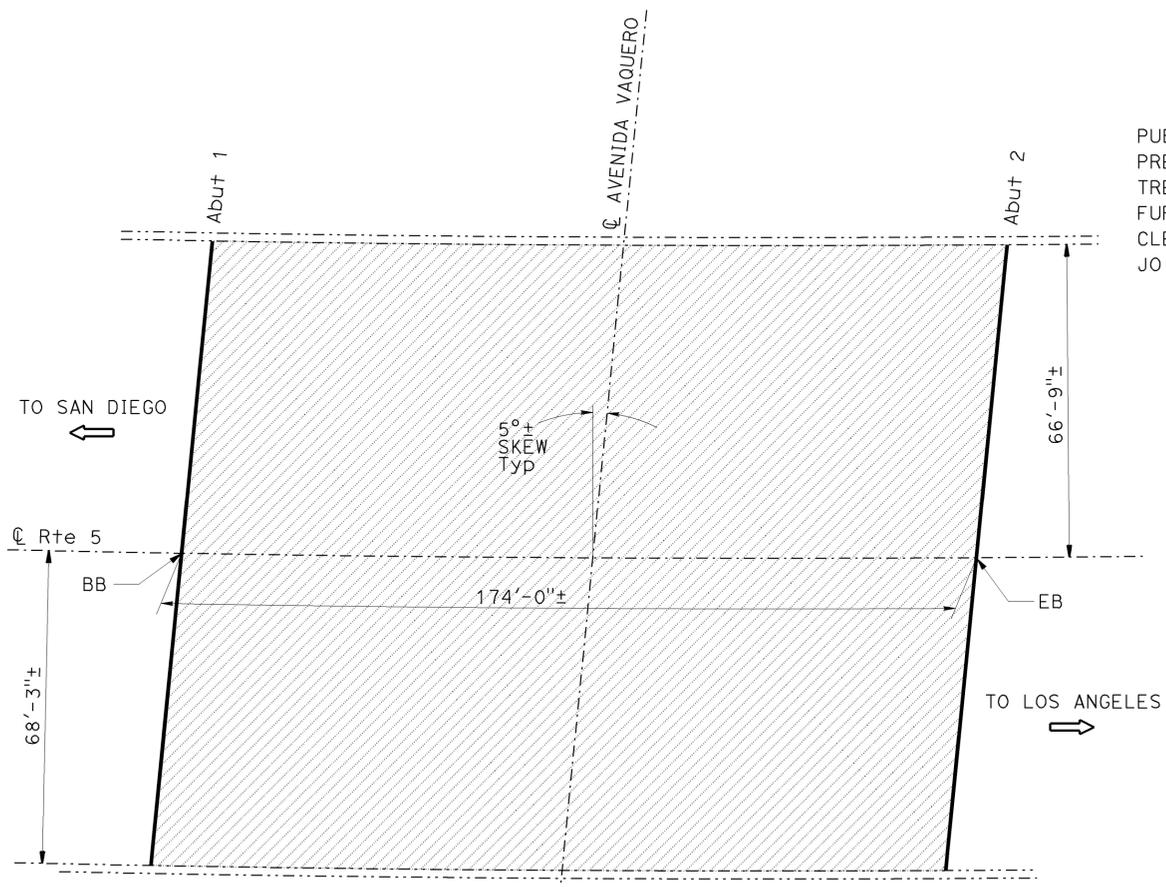
### STANDARD PLANS DATED 2010

SHEET NO.	TITLE
A10A	ABBREVIATIONS (SHEET 1 OF 2)
RSP A10B	ABBREVIATIONS (SHEET 2 OF 2)
A10C	LINES AND SYMBOLS (SHEET 1 OF 3)
A10D	LINES AND SYMBOLS (SHEET 2 OF 3)
A10E	LINES AND SYMBOLS (SHEET 3 OF 3)
B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")



### LEGEND:

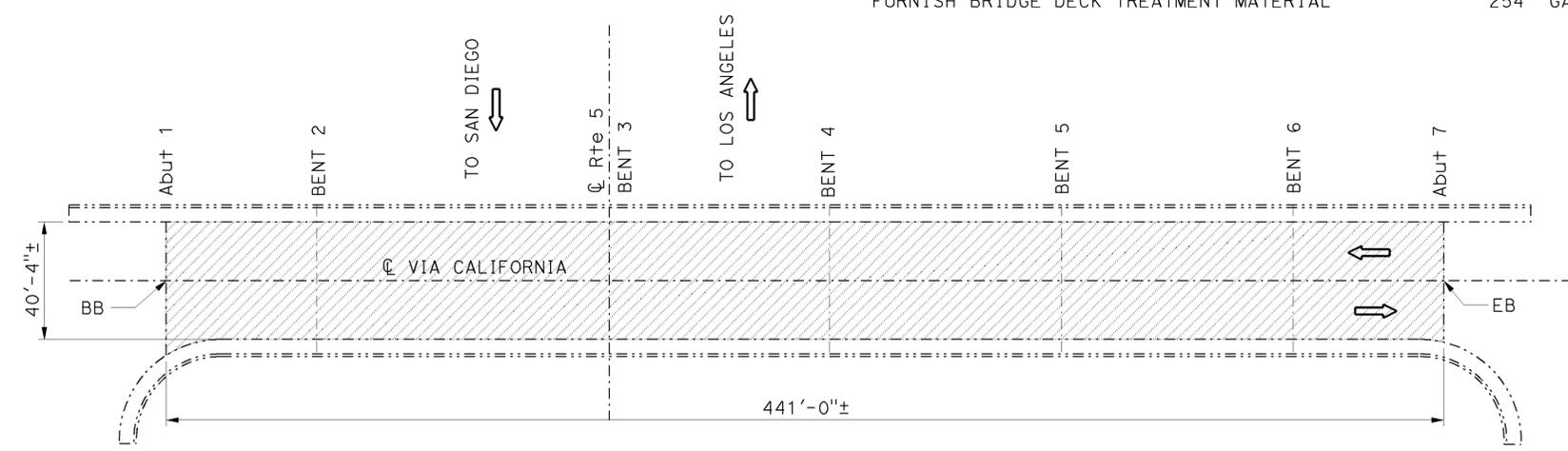
- Indicates existing.
- ➔ Indicates direction of traffic.
-  Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate.
-  Indicates location of clean expansion joint and placement of new joint seal.



AVENIDA VAQUERO UC (55-0223)

#### QUANTITIES

	LUMP	SUM
PUBLIC SAFETY PLAN		
PREPARE CONCRETE BRIDGE DECK SURFACE	23,490	SQFT
TREAT BRIDGE DECK	23,490	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	336	GAL
CLEAN EXPANSION JOINT	272	LF
JOINT SEAL (MR 1 1/2")	272	LF



VIA CALIFORNIA OC (55-0225)

#### QUANTITIES

	LUMP	SUM
PUBLIC SAFETY PLAN		
PREPARE CONCRETE BRIDGE DECK SURFACE	17,790	SQFT
TREAT BRIDGE DECK	17,790	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	254	GAL

### AVENIDA VAQUERO UC

Br No. 55-0223, Rte 5, PM 4.97  
1" = 20'

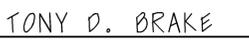


### VIA CALIFORNIA OC

Br No. 55-0225, Rte 5, PM 6.62  
1" = 30'



NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

 TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Tony Brake	CHECKED Ramesh Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
	DETAILS	BY Tom Dang	CHECKED Tony Brake	LAYOUT	BY Tom Dang
	QUANTITIES	BY Tony Brake	CHECKED Ramesh Patel	SPECIFICATIONS	BY Theresa Nedwick

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE  
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	Various
POST MILE	Varies

### ROUTE 5 BRIDGES GENERAL PLAN NO. 1

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

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: 3489  
PROJECT NUMBER & PHASE: 1212000190 1 CONTRACT NO.: 12-0M7301

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
4-15-13	01	10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	25	33

Tony D. Brake 10/09/13  
 REGISTERED CIVIL ENGINEER DATE  
 01-06-14  
 PLANS APPROVAL DATE  
 Tony D. Brake  
 No. C57863  
 Exp. 06/30/14  
 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.

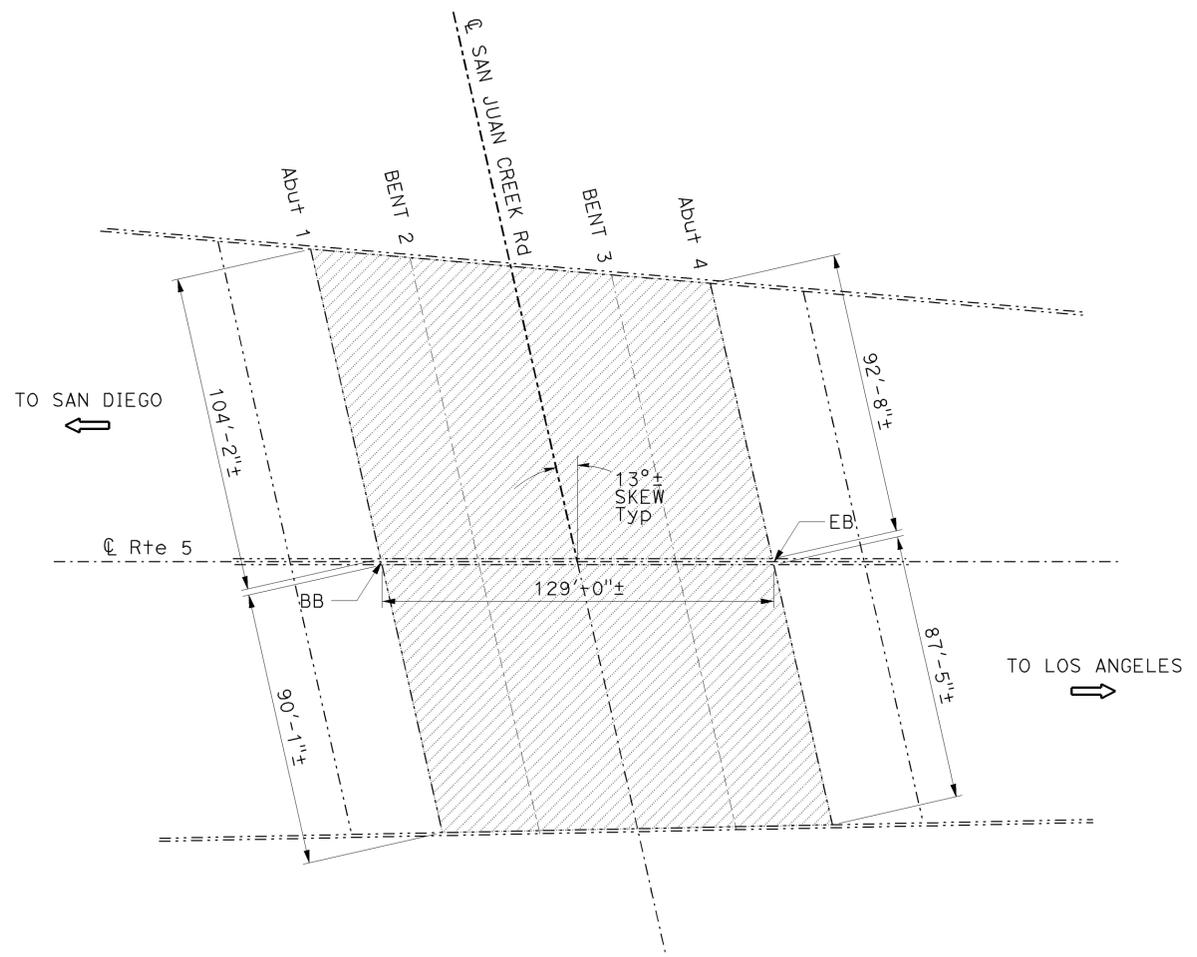
SAN JUAN CREEK ROAD UC (55-0298)

QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM	
PREPARE CONCRETE BRIDGE DECK SURFACE	24,150 SQFT	
TREAT BRIDGE DECK	24,150 SQFT	
FURNISH BRIDGE DECK TREATMENT MATERIAL	345 GAL	

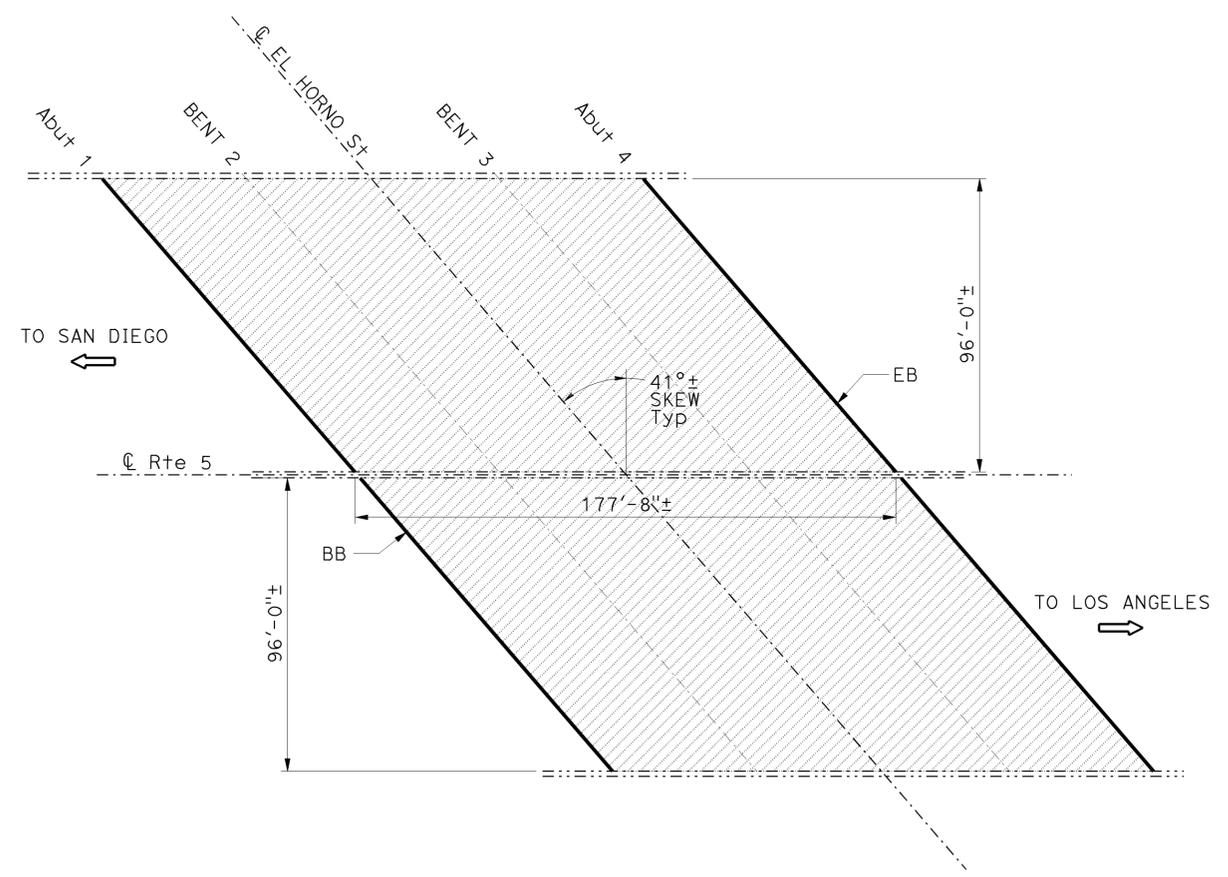
**LEGEND:**

- Indicates existing.
- ⇒ Indicates direction of traffic.
- ▨ Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate.
- /— Indicates location of clean expansion joint and placement of new joint seal.



**SAN JUAN CREEK ROAD UC**

Br No. 55-0298, Rte 5, PM 8.80  
1" = 30'



**EL HORNO STREET UC**

**EL HORNO STREET UC**

Br No. 55-0230, Rte 5, PM 10.00  
1" = 30'



QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM	
PREPARE CONCRETE BRIDGE DECK SURFACE	34,120 SQFT	
TREAT BRIDGE DECK	34,120 SQFT	
FURNISH BRIDGE DECK TREATMENT MATERIAL	488 GAL	
CLEAN EXPANSION JOINT	510 LF	
JOINT SEAL (MR 1/2")	510 LF	

NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Tony Brake	CHECKED Ramesh Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
	DETAILS	BY Tom Dang	CHECKED Tony Brake	LAYOUT	BY Tom Dang
	QUANTITIES	BY Tony Brake	CHECKED Ramesh Patel	SPECIFICATIONS	BY Theresa Nedwick

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF MAINTENANCE  
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various  
 POST MILE Varies  
**ROUTE 5 BRIDGES**  
**GENERAL PLAN NO. 2**

USERNAME => s129239 DATE PLOTTED => 09-OCT-2013 TIME PLOTTED => 13:04

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	26	33

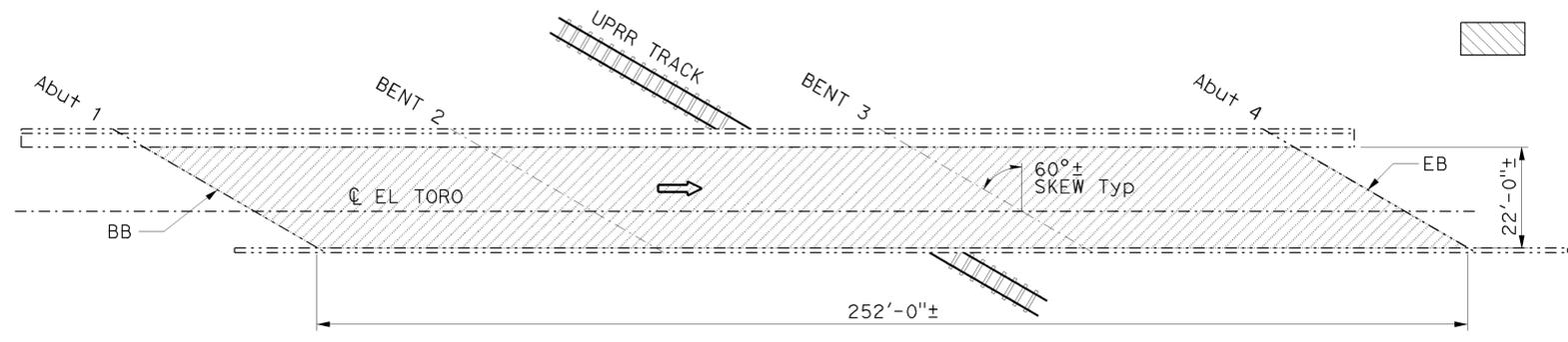
Tony D. Brake 10/09/13  
 REGISTERED CIVIL ENGINEER DATE  
 01-06-14  
 PLANS APPROVAL DATE  
 Tony D. Brake  
 No. C57863  
 Exp. 06/30/14  
 CIVIL  
 STATE OF CALIFORNIA  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

EL TORO OH (55-0221S)  
 QUANTITIES

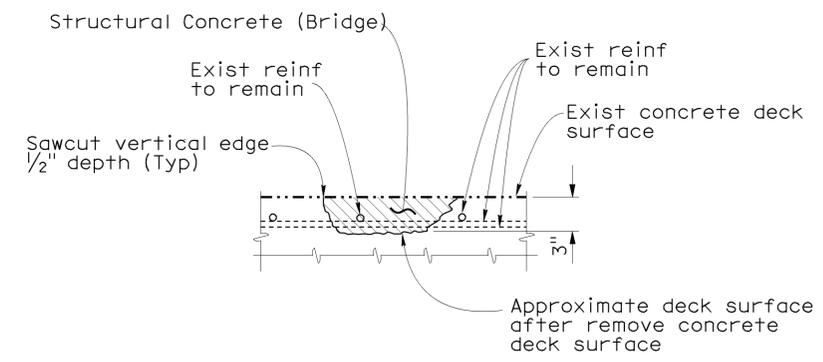
PUBLIC SAFETY PLAN	LUMP SUM	
PREPARE CONCRETE BRIDGE DECK SURFACE	5,545	SQFT
TREAT BRIDGE DECK	5,545	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	79	GAL

**LEGEND:**

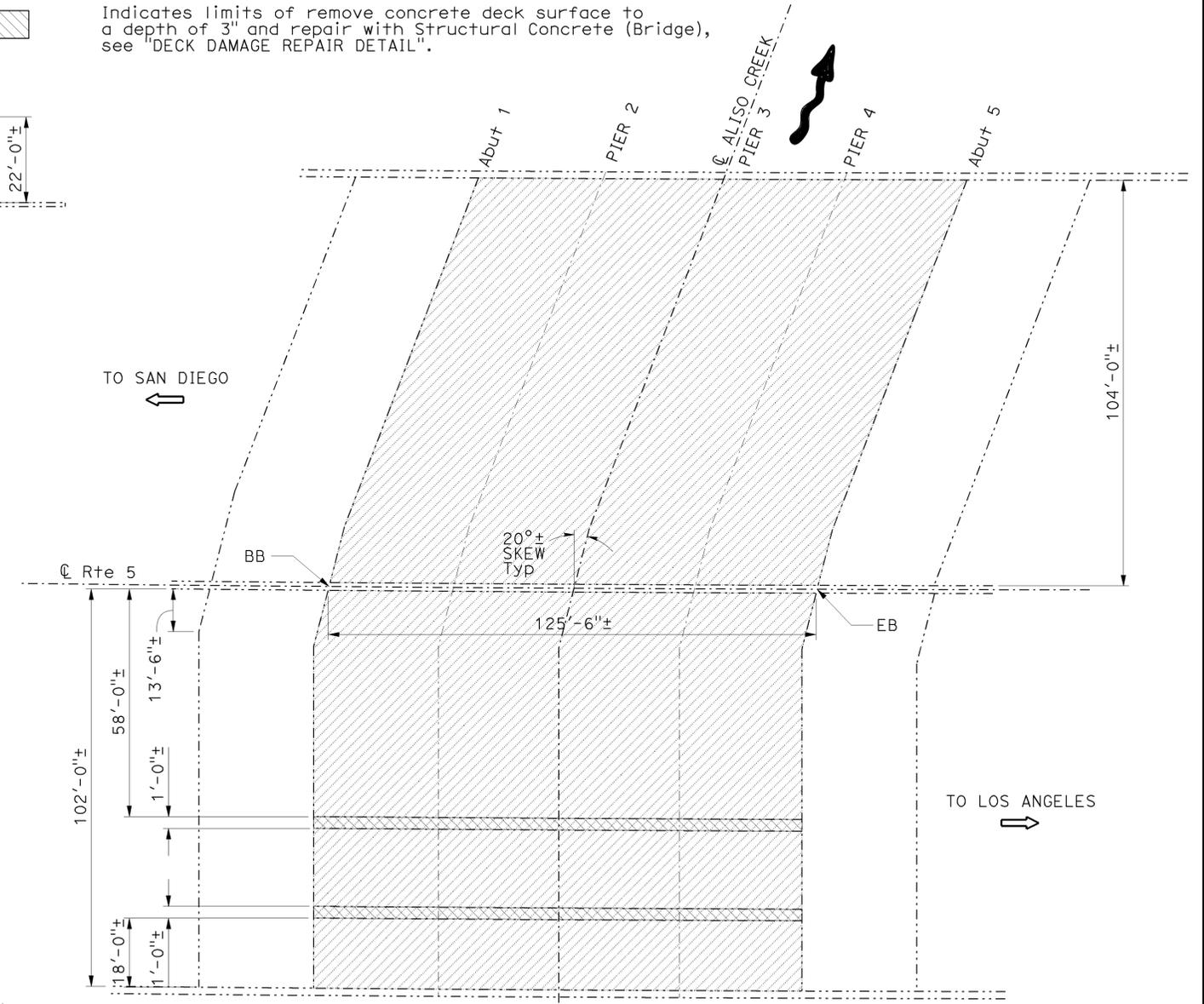
- Indicates existing.
- ➔ Indicates direction of traffic.
-  Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate.
-  Indicates limits of remove concrete deck surface to a depth of 3" and repair with Structural Concrete (Bridge), see "DECK DAMAGE REPAIR DETAIL".



**EL TORO OH**  
 Br No. 55-0221S, Rte 5, PM 16.36  
 1" = 20'



**DECK DAMAGE REPAIR DETAIL**  
 Br No. 55-0014  
 (Reinforcement may be encountered during deck concrete removal and is to remain undamaged.)



**ALISO CREEK**  
 Br No. 55-0014, Rte 5, PM 17.75  
 NO SCALE

ALISO CREEK (55-0014)  
 QUANTITIES

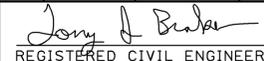
PUBLIC SAFETY PLAN	LUMP SUM	
REMOVE CONCRETE DECK SURFACE	251	SQFT
PREPARE CONCRETE BRIDGE DECK SURFACE	25,855	SQFT
TREAT BRIDGE DECK	25,855	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	369	GAL
STRUCTURAL CONCRETE, BRIDGE	2	CY

NOTE:  
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DESIGN	BY Tony Brake	CHECKED Ramesh Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Tom Dang	CHECKED Tony Brake	LAYOUT	BY Tom Dang
QUANTITIES	BY Tony Brake	CHECKED Ramesh Patel	SPECIFICATIONS	BY Theresa Nedwick

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

<b>ROUTE 5 BRIDGES</b>	
<b>GENERAL PLAN NO. 3</b>	
PROJECT NUMBER & PHASE: 1212000190 1	CONTRACT NO.: 12-0M7301

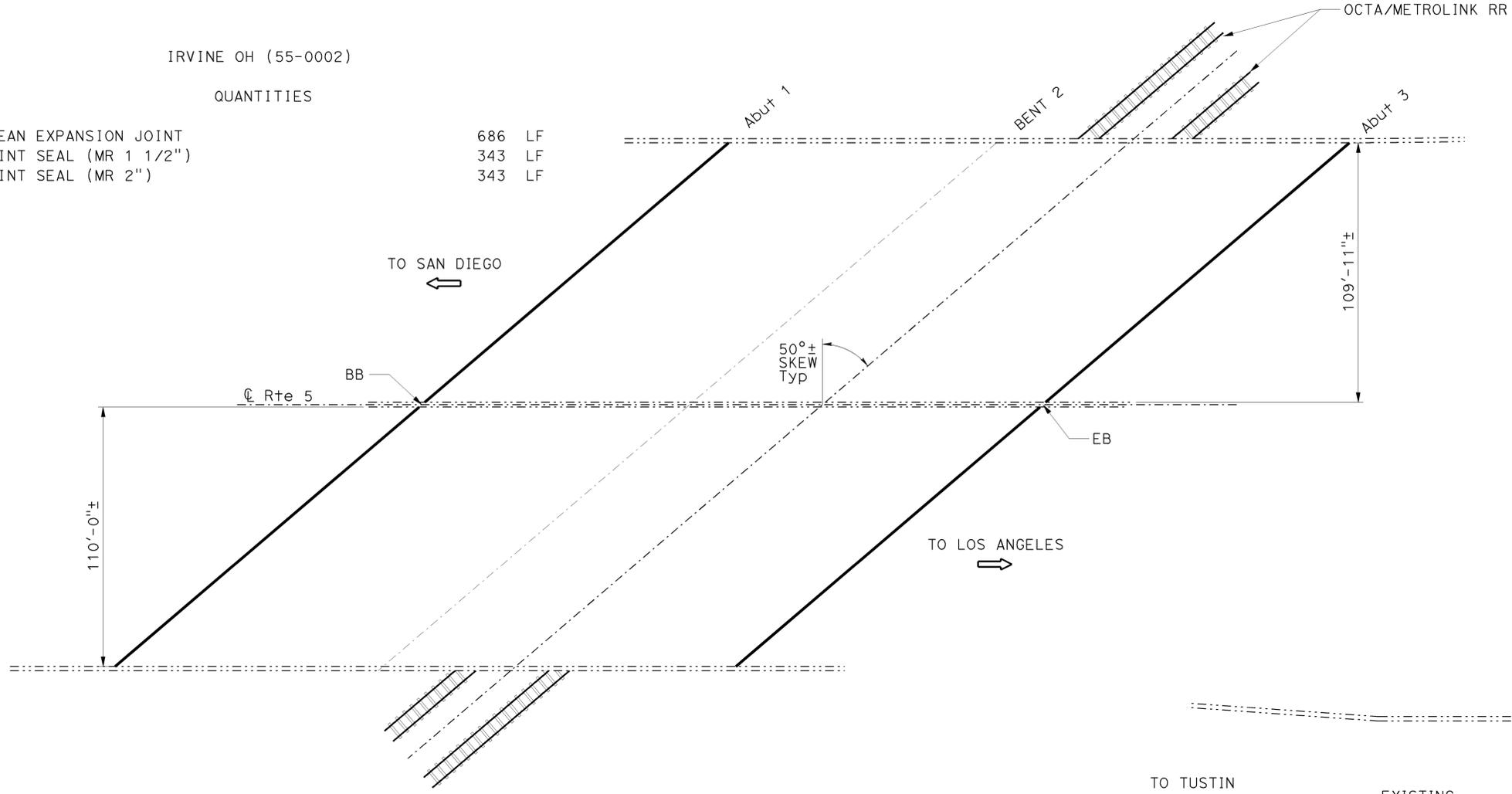
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	27	33
			10/09/13		
REGISTERED CIVIL ENGINEER			DATE		
<b>01-06-14</b> PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					



IRVINE OH (55-0002)

**QUANTITIES**

CLEAN EXPANSION JOINT	686	LF
JOINT SEAL (MR 1 1/2")	343	LF
JOINT SEAL (MR 2")	343	LF



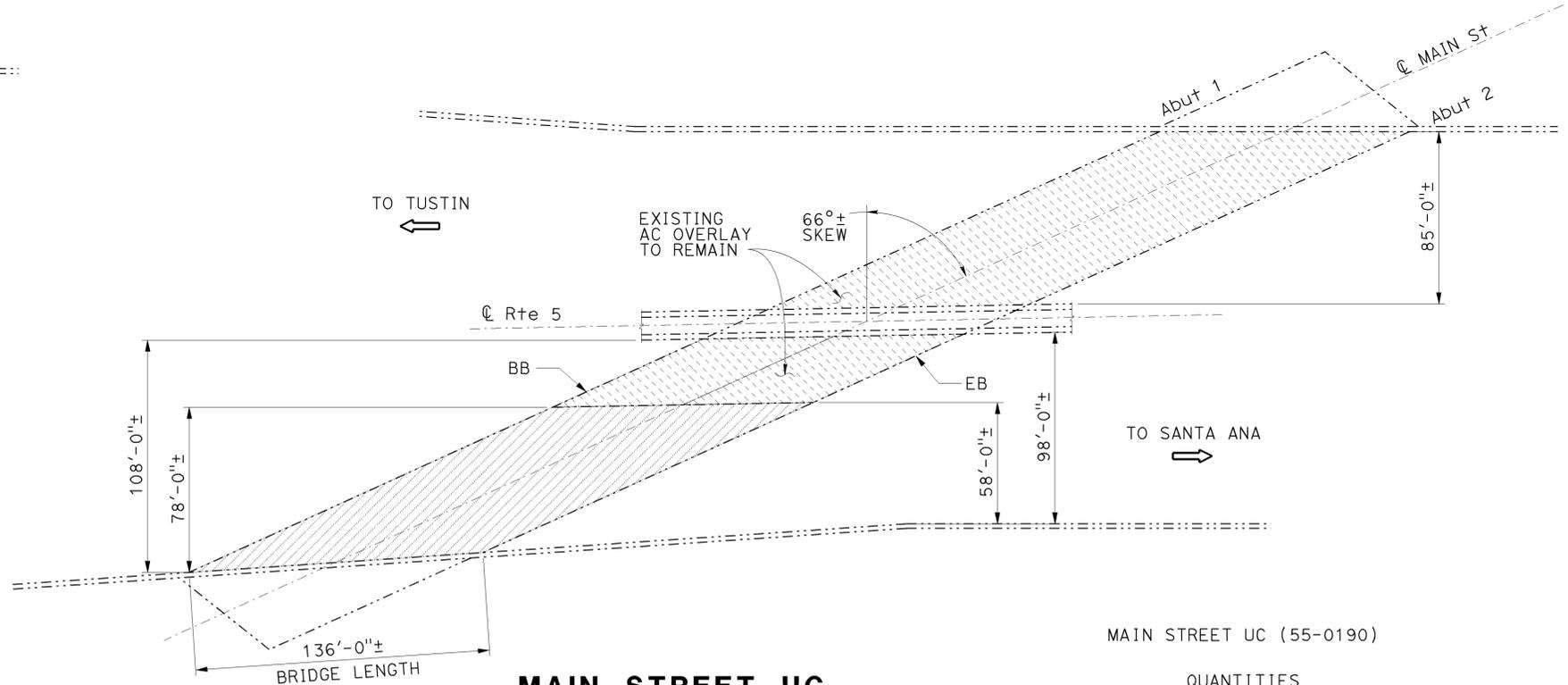
**IRVINE OH**

Br No. 55-0002, Rte 5, PM R23.58  
1" = 30'



**LEGEND:**

- Indicates existing.
- ➔ Indicates direction of traffic.
-  Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate.
-  Indicates location of clean expansion joint and placement of new joint seal.
-  Indicates limits of existing AC overlay to remain.



**MAIN STREET UC**

Br No. 55-0190, Rte 5, PM 30.51  
NO SCALE

**QUANTITIES**

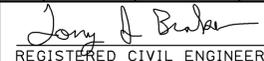
PUBLIC SAFETY PLAN	LUMP SUM	
PREPARE CONCRETE BRIDGE DECK SURFACE	9,250	SQFT
TREAT BRIDGE DECK	9,250	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	132	GAL

NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DESIGN	BY Tony Brake	CHECKED Ramesh Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Tom Dang	CHECKED Tony Brake	LAYOUT	BY Tom Dang
QUANTITIES	BY Tony Brake	CHECKED Ramesh Patel	SPECIFICATIONS	BY Theresa Nedwick

**STATE OF CALIFORNIA**  
 DEPARTMENT OF TRANSPORTATION  
**DIVISION OF MAINTENANCE**  
**STRUCTURE MAINTENANCE DESIGN**

**ROUTE 5 BRIDGES**  
**GENERAL PLAN NO. 4**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	28	33
			10/09/13		
REGISTERED CIVIL ENGINEER			DATE		
<b>01-06-14</b> 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 deck with high molecular weight methacrylate.
-  Indicates location of clean expansion joint and placement of new joint seal.
-  Indicates location of existing TechStar, Inc Strip Seal Joint Assembly. Remove and replace existing A325 bolts that anchor the existing top checkered plate. 3/8" Ø x 1 1/2" long bolts spaced at 6" center to center. See "MISCELLANEOUS DETAILS NO. 3" sheet.

**N5-1ST ST OFF-RAMP OC (55-0661S)**

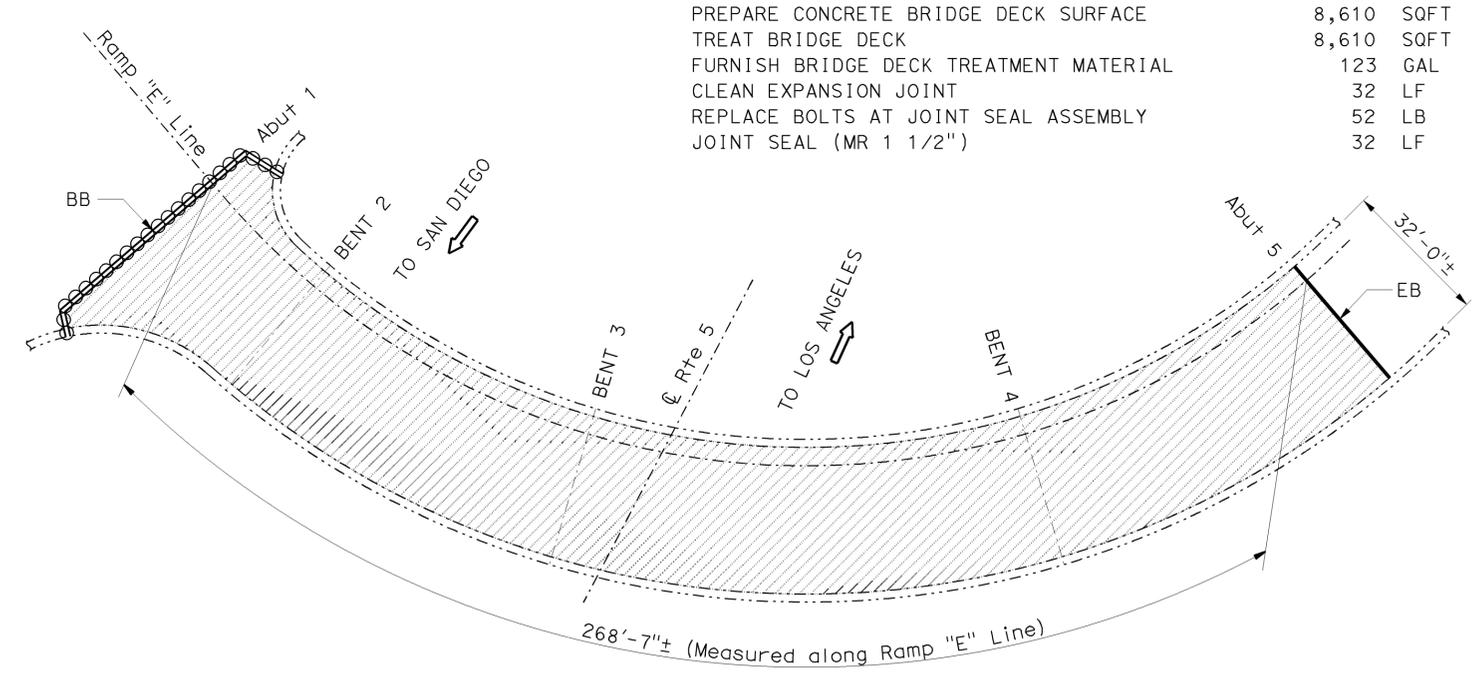
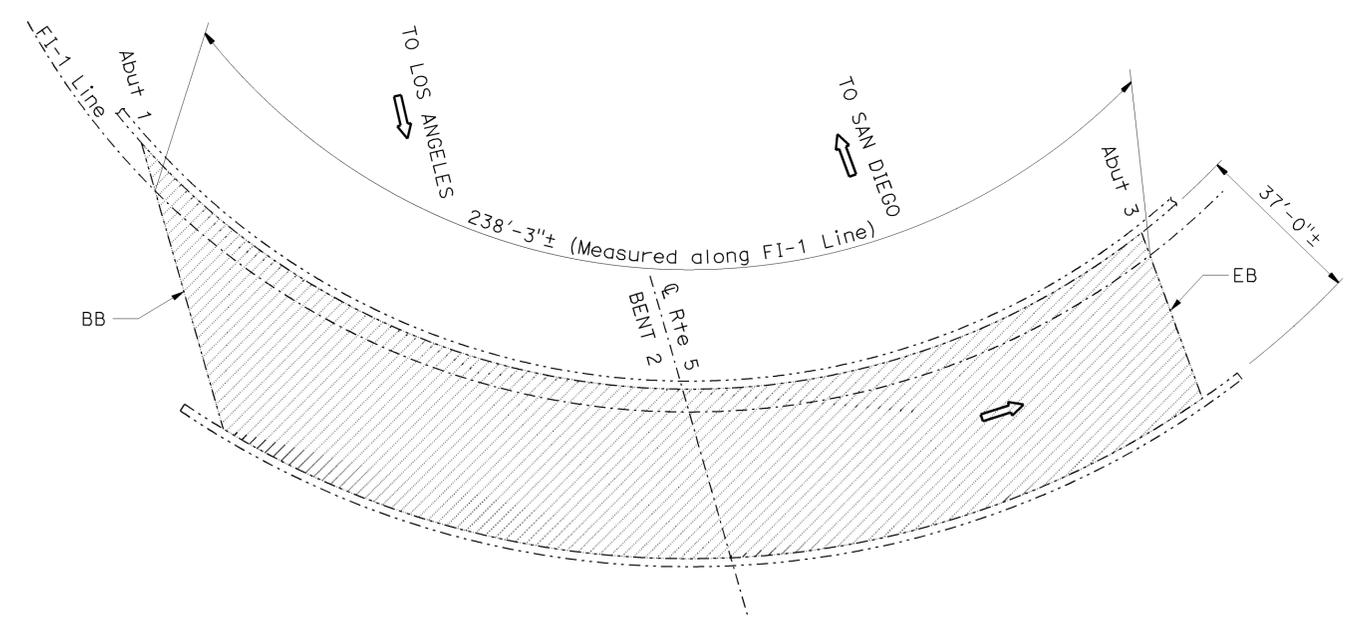
**QUANTITIES**

PUBLIC SAFETY PLAN	LUMP SUM	
PREPARE CONCRETE BRIDGE DECK SURFACE	8,815	SQFT
TREAT BRIDGE DECK	8,815	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	126	GAL

**SANTA CLARA-N5 ON-RAMP (55-0686)**

**QUANTITIES**

PUBLIC SAFETY PLAN	LUMP SUM	
PREPARE CONCRETE BRIDGE DECK SURFACE	8,610	SQFT
TREAT BRIDGE DECK	8,610	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	123	GAL
CLEAN EXPANSION JOINT	32	LF
REPLACE BOLTS AT JOINT SEAL ASSEMBLY	52	LB
JOINT SEAL (MR 1 1/2")	32	LF



**N5-1ST ST OFF-RAMP OC**

Br No. 55-0661S, Rte 5, PM 31.08  
1" = 20'



**SANTA CLARA-N5 ON-RAMP**

Br No. 55-0686, Rte 5, PM 33.00  
1" = 20'



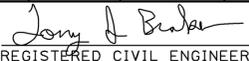
NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

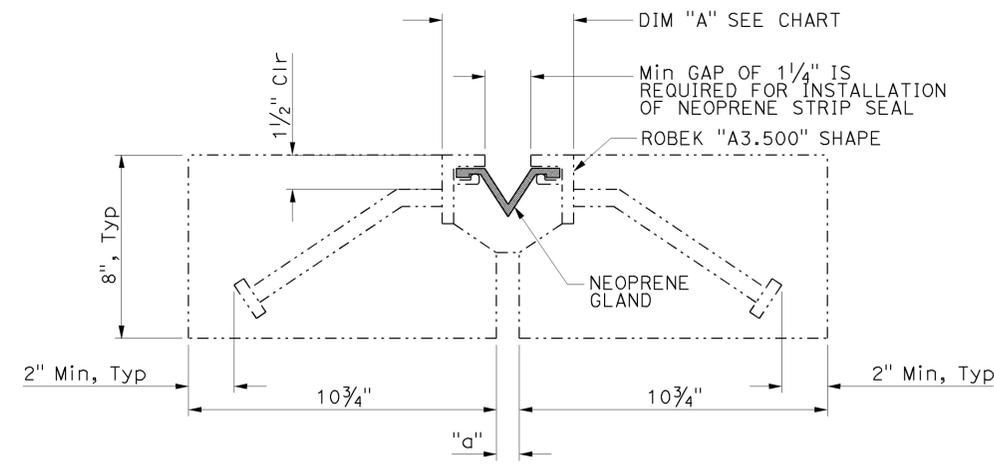
<b>TONY D. BRAKE</b> DESIGN ENGINEER	DESIGN	BY Tony Brake	CHECKED Ramesh Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
	DETAILS	BY Tom Dang	CHECKED Tony Brake	LAYOUT	BY Tom Dang
	QUANTITIES	BY Tony Brake	CHECKED Ramesh Patel	SPECIFICATIONS	BY Theresa Nedwick

**STATE OF CALIFORNIA**  
DEPARTMENT OF TRANSPORTATION

**DIVISION OF MAINTENANCE**  
STRUCTURE MAINTENANCE DESIGN

**ROUTE 5 BRIDGES**  
GENERAL PLAN NO. 5

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	29	33
 REGISTERED CIVIL ENGINEER			10/09/13 DATE		
PLANS APPROVAL DATE 01-06-14					
<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>					



**SECTION A-A**  
NO SCALE

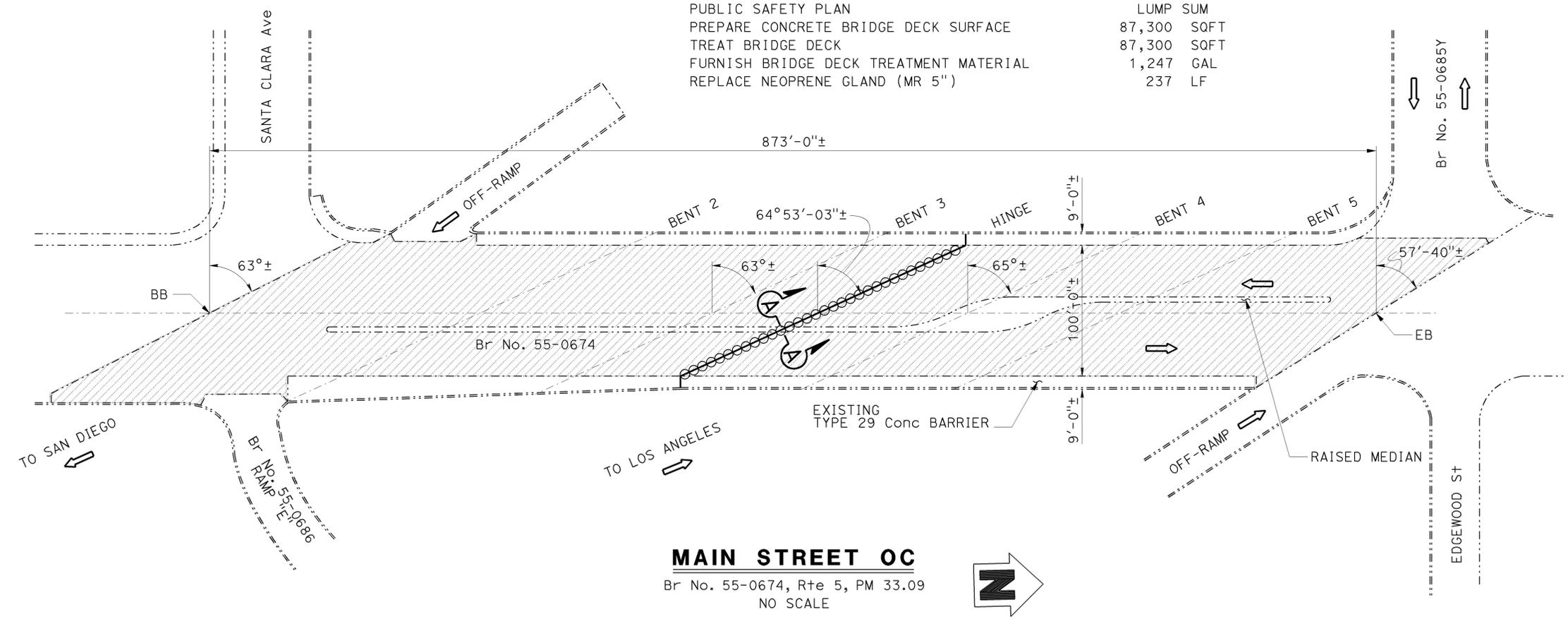
**LEGEND:**

-  Indicates existing.
-  Indicates direction of traffic.
-  Indicates limits of prepare concrete bridge deck surface and treat existing bridge deck with high molecular weight methacrylate.
-  Indicates removal and replacement of neoprene gland in existing TechStar, Inc Strip Steel Joint Assembly, Robek "A3.500" shape, Strip Seal L-009 gland.

MAIN STREET OC (55-0674)

QUANTITIES

PUBLIC SAFETY PLAN	LUMP SUM
PREPARE CONCRETE BRIDGE DECK SURFACE	87,300 SQFT
TREAT BRIDGE DECK	87,300 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	1,247 GAL
REPLACE NEOPRENE GLAND (MR 5")	237 LF



**MAIN STREET OC**  
Br No. 55-0674, Rte 5, PM 33.09  
NO SCALE



NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

LOCATION	MINIMUM "MR" (INCHES)	SKEW	"a" Dimension			"A" Dimension		
			Winter	Spring/Fall	Summer	Winter	Spring/Fall	Summer
HINGE	5	64°53'03"	3/4"	1/2"	1/2"	5 1/4"	5"	5"

DESIGN	BY Tony Brake	CHECKED Ramesh Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Tom Dang	CHECKED Tony Brake	LAYOUT	BY Tom Dang
QUANTITIES	BY Tony Brake	CHECKED Ramesh Patel	SPECIFICATIONS	BY Theresa Nedwick

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

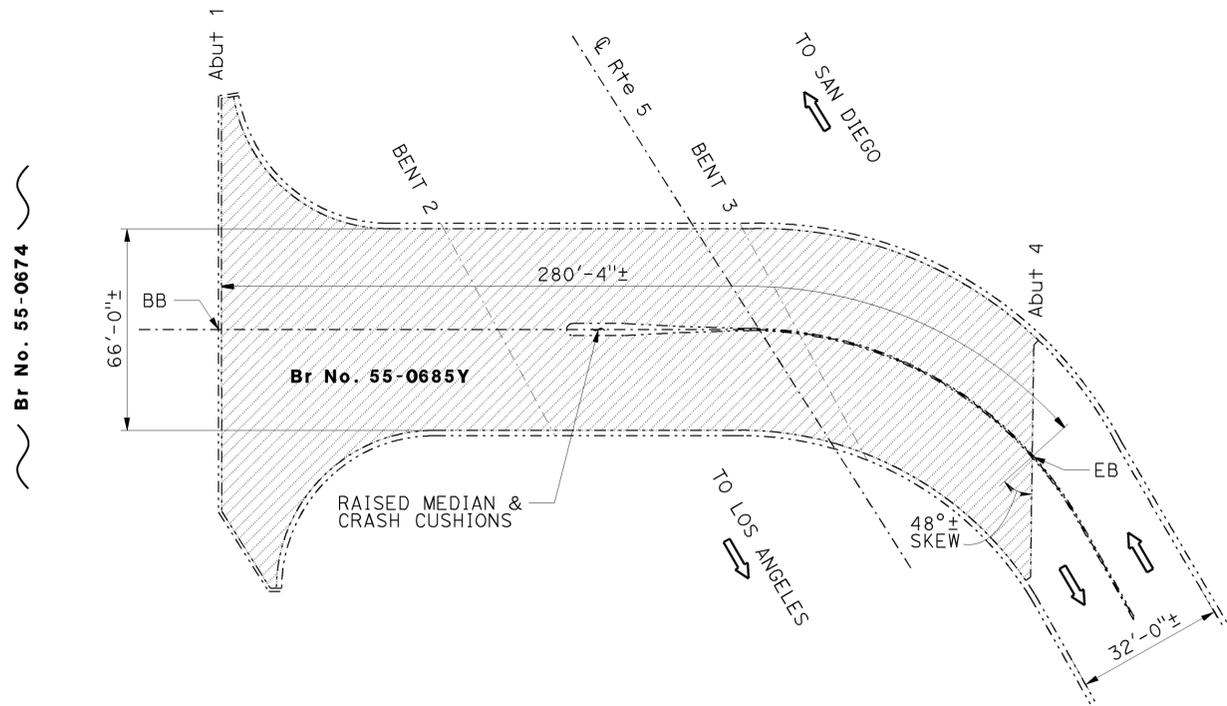
DIVISION OF MAINTENANCE  
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various  
POST MILE Varies

ROUTE 5 BRIDGES  
GENERAL PLAN NO. 6

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	30	33

Tony D. Brake 10/09/13  
 REGISTERED CIVIL ENGINEER DATE  
 01-06-14  
 PLANS APPROVAL DATE  
 Tony D. Brake  
 No. C57863  
 Exp. 06/30/14  
 CIVIL  
 STATE OF CALIFORNIA  
 REGISTERED PROFESSIONAL ENGINEER  
 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.



**EDGEWOOD DRIVE HOV RAMP**

Br No. 55-0685Y, Rte 5, PM 33.10  
1" = 30'

EDGEWOOD DRIVE HOV RAMP (55-0685Y)

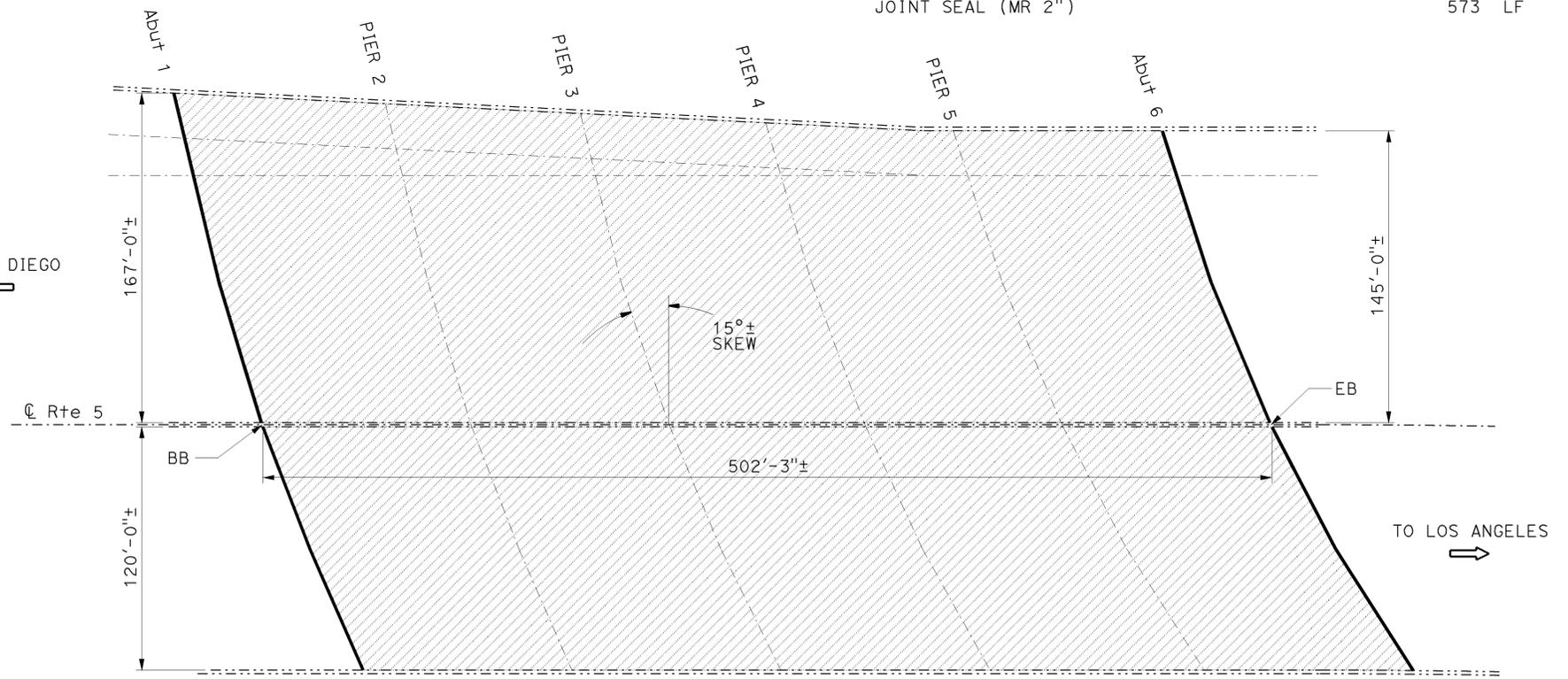
QUANTITIES

	LUMP SUM
PUBLIC SAFETY PLAN	
PREPARE CONCRETE BRIDGE DECK SURFACE	14,425 SQFT
TREAT BRIDGE DECK	14,425 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	206 GAL

SANTA ANA RIVER (55-0811)

QUANTITIES

	LUMP SUM
PUBLIC SAFETY PLAN	
PREPARE CONCRETE BRIDGE DECK SURFACE	138,620 SQFT
TREAT BRIDGE DECK	138,620 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	1,980 GAL
CLEAN EXPANSION JOINT	573 LF
JOINT SEAL (MR 2")	573 LF



**SANTA ANA RIVER**

Br No. 55-0811, Rte 5, PM 34.47  
1" = 40'

NOTE:  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

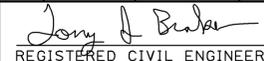
DESIGN	BY Tony Brake	CHECKED Ramesh Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE AND PERMIT DESIGN LOAD
DETAILS	BY Tom Dang	CHECKED Tony Brake	LAYOUT	BY Tom Dang
QUANTITIES	BY Tony Brake	CHECKED Ramesh Patel	SPECIFICATIONS	BY Theresa Nedwick

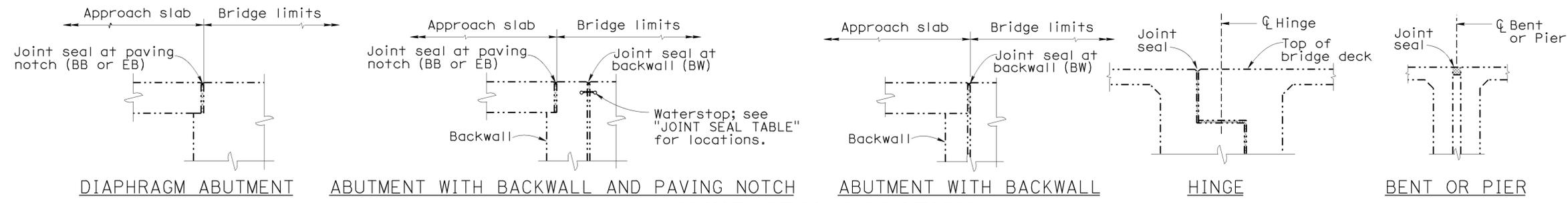
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE  
STRUCTURE MAINTENANCE DESIGN

BRIDGE NO. Various  
POST MILE Varies

ROUTE 5 BRIDGES  
GENERAL PLAN NO. 7

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	31	33
			10/09/13		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14			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>					



**JOINT SEAL LOCATION**

NO SCALE

**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 Standard Plan B6-21 sheet.

The following notes apply to JOINT SEAL TYPE B:

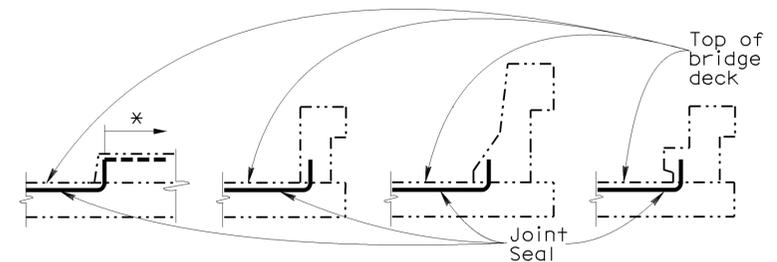
- 1) Seal must satisfy both minimum Movement Rating (MR) and minimum W1 requirements.
- 2) Minimum W1 is the calculated maximum width of the joint based on field measurements. After the joints have been cleaned, minimum W1 is to be recalculated by the Engineer.
- 3) W1 shall be the smaller of the values determined as follows:
  - A) 0.85 times the manufacturer's designed minimum uncompressed width of the seal.
  - B) 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.
- 4) 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 Standard Plan B6-21 sheet.

JOINT SEAL TABLE							
BRIDGE NAME	BRIDGE NUMBER	LOCATION		MINIMUM "MR" (INCHES)	APPROX JOINT LENGTH (LF)	EXISTING WATERSTOP	APPROX DEPTH TO CLEAN EXP JOINT (INCHES)
		ABUT	PN				
AVENIDA VAQUERO UC	55-0223	ABUT 1	PN	1 1/2	136	NO	9
		ABUT 2	PN	1 1/2	136	NO	9
EL HORNO STREET UC	55-0230	ABUT 1	PN	1 1/2	255	NO	9
		ABUT 4	PN	1 1/2	255	NO	9
IRVINE OH	55-0002	ABUT 1	BW	1 1/2	343	NO	9
		ABUT 3	BW	2	343	NO	9
SANTA CLARA-N5 ON-RAMP	55-0686	ABUT 1	HINGE	3*	78	NO	---
		ABUT 5	BW	1 1/2	32	NO	9
MAIN STREET OC	55-0674	HINGE	SPAN 3	5**	237	NO	---
SANTA ANA RIVER	55-0811	ABUT 1	BW	2	298	NO	9
		ABUT 6	BW	2	275	NO	9

PN = PAVING NOTCH  
 BW = BACKWALL

\* = REMOVE AND REPLACE ANCHOR BOLTS ON TOP STEEL SLIDING COVER PLATE IN EXISTING STRIP SEAL JOINT ASSEMBLY.  
 \*\* = REMOVE AND REPLACE NEOPRENE GLAND IN EXISTING STRIP SEAL ASSEMBLY.



**BARRIER RAIL**

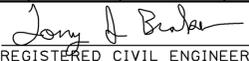
**JOINT SEAL AT LOW SIDE OF DECK**

Note: Details shown for illustration purposes only.

For use only where deck joint matches the sidewalk, curb or barrier rail joint.  
 \* Extension of Joint will be determined by the Engineer if necessary.

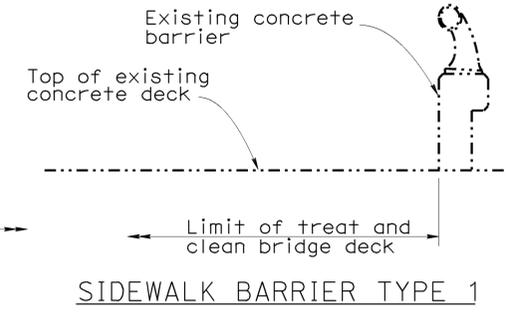
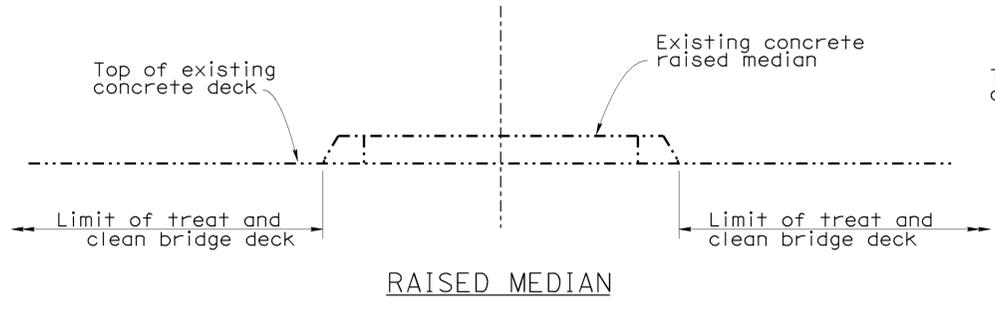
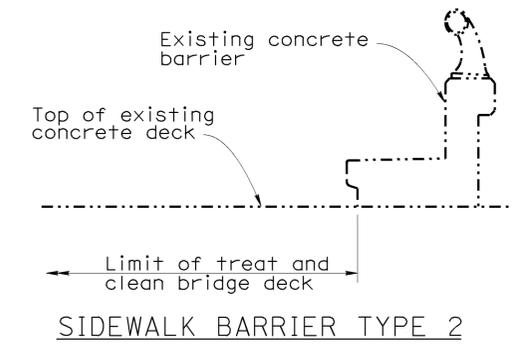
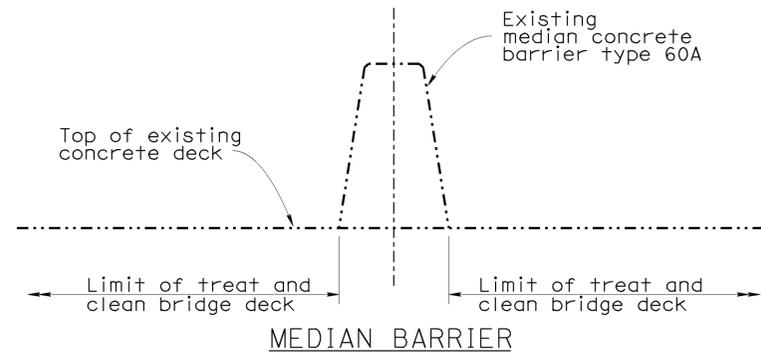
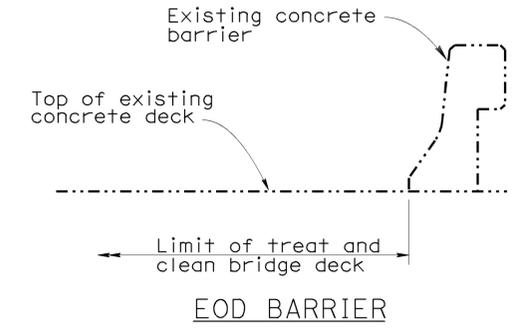
NOTE:  
 THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DESIGN BY Tony Brake CHECKED Ramesh Patel DETAILS BY Tom Dang CHECKED Tony Brake QUANTITIES BY Tony Brake CHECKED Ramesh Patel	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION		DIVISION OF MAINTENANCE <b>STRUCTURE MAINTENANCE DESIGN</b>	BRIDGE NO. Various POST MILE Varies	<b>ROUTE 5 BRIDGES</b> <b>MISCELLANEOUS DETAILS NO. 1</b>		
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			UNIT: 3489 PROJECT NUMBER & PHASE: 1212000190 1	CONTRACT NO.: 12-0M7301	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES SHEET 08 OF 10
	STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)			FILE => 12-0m7301-b-miscdt101.dgn	4-15-13		

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5	Var	32	33
			10/09/13		
REGISTERED CIVIL ENGINEER			DATE		
01-06-14			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>					

**NOTES:**

- Existing reinforcement shall be protected in place during unsound concrete removal and patching operations.
- It is responsibility of the Contractor to repair any reinforcement that is accidentally cut by saw cutting operations.
- When existing transverse reinforcement is exposed in the deck surface, saw cutting may be waived with the approval of the Engineer.
- The saw cut depth shall not exceed  $\frac{3}{4}$  inch or the concrete cover over the top steel reinforcing bars, whichever is less.
- Remove unsound Portland Cement concrete and unsound concrete patches to expose sound, hard concrete substrate. Replace original deck surface with rapid setting concrete patch.



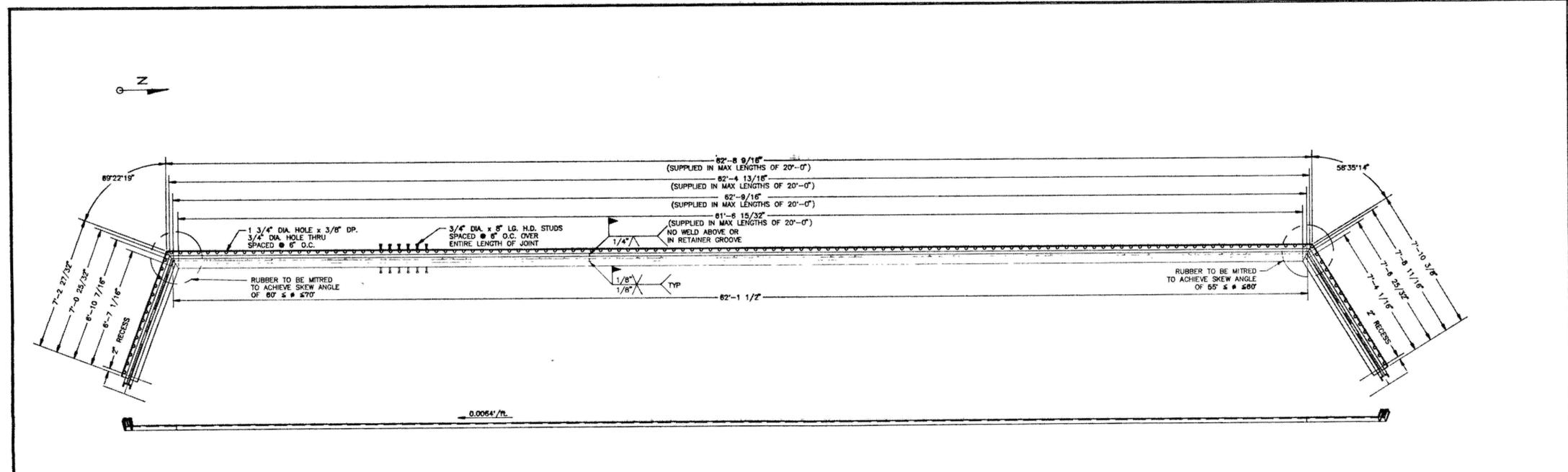
**TYPICAL LIMITS OF DECK WORK**

NO SCALE

**NOTE:**  
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 09-01-10)	DESIGN	BY Tony Brake	CHECKED Ramesh Patel	<b>STATE OF CALIFORNIA</b> DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	<b>ROUTE 5 BRIDGES</b> <b>MISCELLANEOUS DETAILS NO. 2</b>
	DETAILS	BY Tom Dang	CHECKED Tony Brake			Various	
	QUANTITIES	BY Tony Brake	CHECKED Ramesh Patel			Varies	
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT: 3489 PROJECT NUMBER & PHASE: 1212000190 1		CONTRACT NO.: 12-0M7301	
DISREGARD PRINTS BEARING EARLIER REVISION DATES						REVISION DATES 4-15-13	
						SHEET	OF
						09	10

USERNAME => 8129239 DATE PLOTTED => 09-OCT-2013 TIME PLOTTED => 13:05

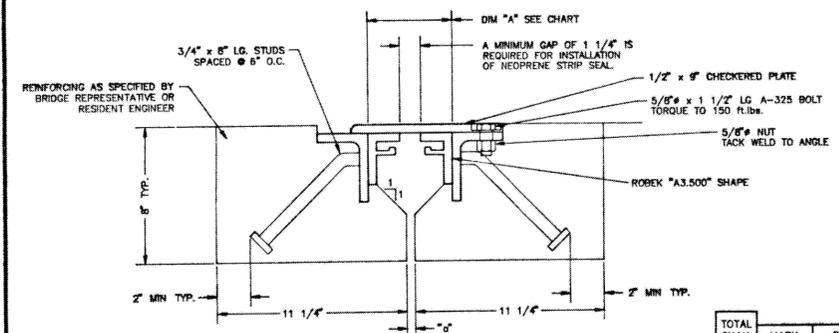


**RAMP E - HINGE**  
SCALE: 3/8"=1'-0"

**APPROVED**  
 PURSUANT TO SECTION 5-1.02  
 OF THE STANDARD SPECIFICATIONS  
 JUN 24 1994  
 FOR THE STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF STRUCTURES  
 BY PARSONS BRINCKERHOFF  
 SACRAMENTO

**NOTES**

- TECHSTAR WILL NOT BE RESPONSIBLE FOR ANY FIELD WORK /BACKCHARGES/SHORTAGE WITHOUT WRITTEN AUTHORIZATION PRIOR TO START OF WORK AS PER TERMS OF TECHSTAR PURCHASE ORDER.
- TECHSTAR FIELD REPRESENTATIVE SHALL BE NOTIFIED 72 HOURS PRIOR TO AND MUST BE PRESENT DURING JOINT INSTALLATION
- A CONCRETE BLOCK-OUT IS RECOMMENDED ON EITHER SIDE OF STRIP SEAL JOINT FOR PROPER ALIGNMENT AFTER DEAD LOAD IS APPLIED TO STRUCTURE. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR VIBRATING CONCRETE AROUND STRIP SEAL JOINT TO ENSURE SOUNDNESS AND BEARING OF CONTROL BOXES AND ANCHORING SYSTEMS
- FOR THE INITIAL INSTALLATION THE SEAL WILL BE FIELD INSTALLED; IF NECESSARY, THE "ROBEK" SEAL MAY BE REPLACED BY SIMPLY LIFTING UP ON THE END OF THE SEAL WITH THE AID OF A CROW BAR, AND ONCE THE INITIAL 1'-0" OF THE SEAL HAS BEEN REMOVED BY PULLING TAUNTLY, THE SEAL CAN THEN BE REMOVED COMPLETELY. THE NEW SEAL CAN THEN BE PLACED.
- ALL EXPOSED SURFACES SHALL BE GALVANIZED PER ASTM-A123 STEEL DAMAGED DURING FIELD SPLICING SHALL BE REPAIRED USING COLD SPRAY GALVANIZING
- SEE DWG #SA-2100A FOR WELD, SPLICE, & UPTURN DETAILS.
- ALL DIMENSIONS OF EXPANSION JOINT STEEL AND RUBBER TO BE FIELD VERIFIED PRIOR TO FABRICATION.



**TYPICAL BLOCK OUT**  
SCALE: 3"=1'-0"

TEMP	SUMMER	WINTER	SPRING/FALL
"A"	5"	5 3/4"	5 1/2"

TOTAL QUAN.	MARK	DESCRIPTION	LENGTH	MATERIAL	REMARKS
01	*	ROBEK "A3500" SHAPE	76'-5 13/16"	ASTM-A572	SPLICE AS REQ'D (MAT. LENGTH LIM. 20')
01	*	ROBEK "A3500" SHAPE	77'-2 5/16"	ASTM-A572	SPLICE AS REQ'D (MAT. LENGTH LIM. 20')
01	*	ANGLE 1/2" x 3" x 4"	77'-9 13/16"	ASTM-A572	SPLICE AS REQ'D (MAT. LENGTH LIM. 20')
01	*	ANGLE 1/2" x 3" x 4"	75'-5 5/8"	ASTM-A572	SPLICE AS REQ'D (MAT. LENGTH LIM. 20')
01	*	CHECKERED PL. 1/2" x 3"	77'-9 13/16"	ASTM-A36	SPLICE AS REQ'D (MAT. LENGTH LIM. 20')
310	*	3/4" DIA. HD. STD.	8"	ASTM-A108	STUDS ON "A3500" SHAPE
01,02	L-009	ROBEK STRIP SEAL	63'-8"	ASTM-D2628	3" MOVEMENT RATING (MITRED)
16	L-015	ANGLE 1/2" x 3" x 4"	6"	ASTM-A572	(2)-ANGLES PER ADJUSTING ASSEMBLY (2)-ASSEMBLIES PER 20' LENGTH

\* MODIFIED TO OMIT THE RECOVERY TEST HARDNESS TYPE A DUROMETER, REQUIREMENTS 60 ± 7, ASTM-D2240 MODIFIED

CONTRACT #	12-005104	PROJECT #	
REFERENCE #	12-ORA-5, PM 32.8/33.6		
LOCATION	MAIN ST. OVER-XING BR. #55-674		
	SANTA ANA, CALIFORNIA		
CUSTOMER	C.C. MYERS, INC	NO	DATE
			REVISIONS FOR SUBMITTAL
ITEM DESCRIPTION	STRIP SEAL JOINT ASSEMBLY		
DRN	BLW		
CHKD			
DRAWING TITLE	RAMP E	DRAWING NO.	SA-1400A

**SANTA CLARA-N5 ON-RAMP**

Br No. 55-0686, Rte 5, PM 33.00  
1" = 20'

**FOR INFORMATIONAL USE ONLY**

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

DESIGN	BY Tony Brake	CHECKED Ramesh Patel
DETAILS	BY Tom Dang	CHECKED Tony Brake
QUANTITIES	BY Tony Brake	CHECKED Ramesh Patel

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

DIVISION OF MAINTENANCE  
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	55-0686
POST MILE	33.00

ROUTE 5 BRIDGES  
 MISCELLANEOUS DETAILS NO. 3