

INDEX OF PLANS

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

STATE OF CALIFORNIA **ACNHPI-780-2(366)E**  
**DEPARTMENT OF TRANSPORTATION**  
**PROJECT PLANS FOR CONSTRUCTION ON**  
**STATE HIGHWAY**  
**IN SOLANO COUNTY**  
**IN BENICIA AND VALLEJO**  
**FROM PARK ROAD UNDERCROSSING TO LEMON STREET**

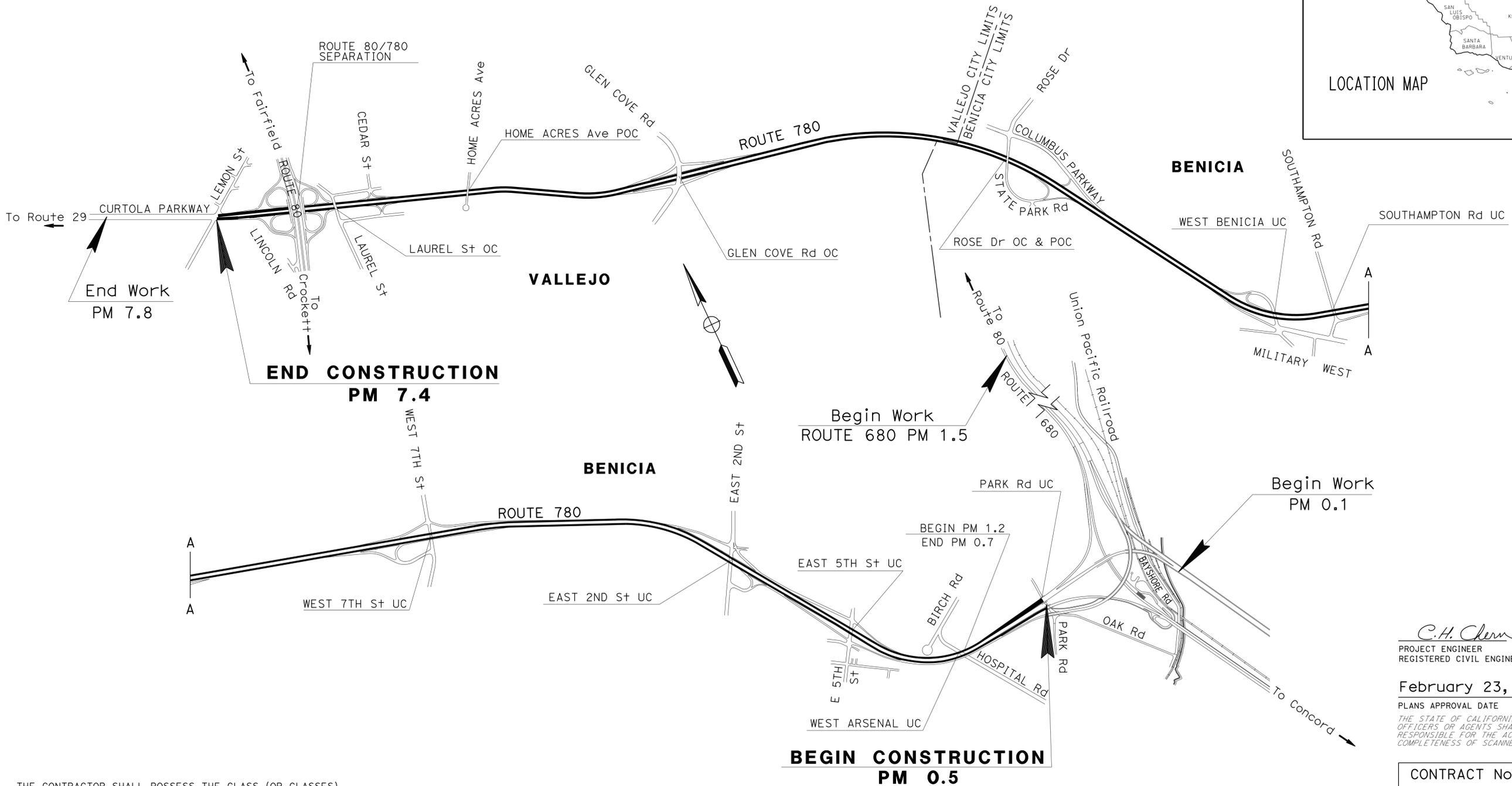
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	780	0.5/7.4	1	49





LOCATION MAP



PROJECT MANAGER  
**RAMSES SARGISS**  
 DESIGN MANAGER  
**NGOC TRAN**

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

NO SCALE

RELATIVE BORDER SCALE 0 1 2 3  
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 DGN FILE => 0414000472ab001.dgn

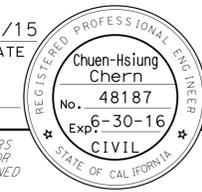
*C.H. Chern* 1/15/15  
 PROJECT ENGINEER DATE  
 REGISTERED CIVIL ENGINEER  
**February 23, 2015**  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



CONTRACT No.	<b>04-2J2804</b>
PROJECT ID	<b>0414000472</b>

DATE PLOTTED => 25-FEB-2015  
 TIME PLOTTED => 08:48  
 LAST REVISION 02-20-15



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	3	49
C.H. Chern		1/15/15		REGISTERED CIVIL ENGINEER DATE	
2-23-15		PLANS APPROVAL DATE			
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

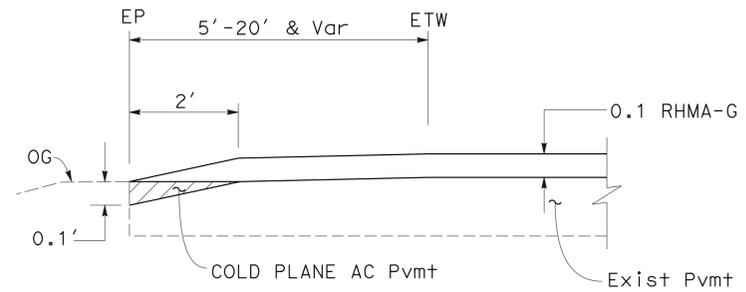
**LEGEND:**

-  COLD PLANE AC PAVEMENT & PLACE RHMA-G
-  0.1 RHMA-G
-  TRANSITION AREA

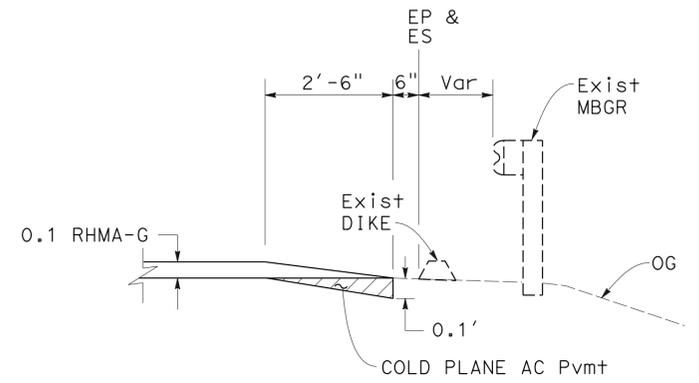
**ABBREVIATION:**

& AND

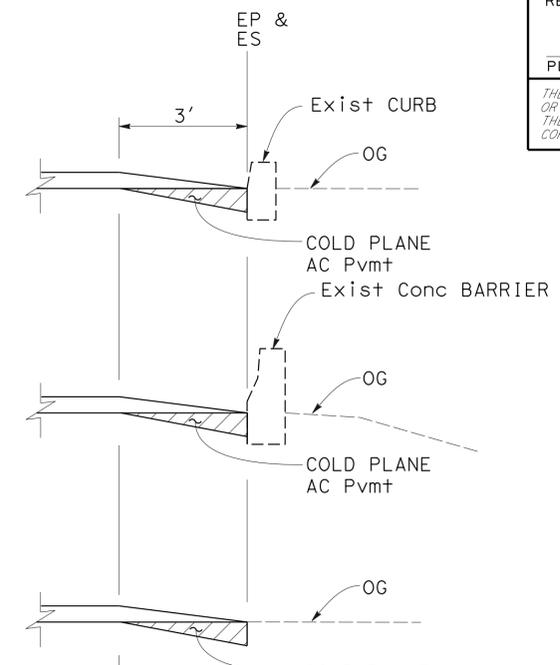
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION MAINTENANCE  
 CHUEN-HSIUNG CHERN NGOC TRAN  
 CC 12/16/14  
 REVISOR BY DATE REVISOR  
 CALCULATED/DESIGNED BY CHECKED BY  
 FUNCTIONAL SUPERVISOR NGOC TRAN



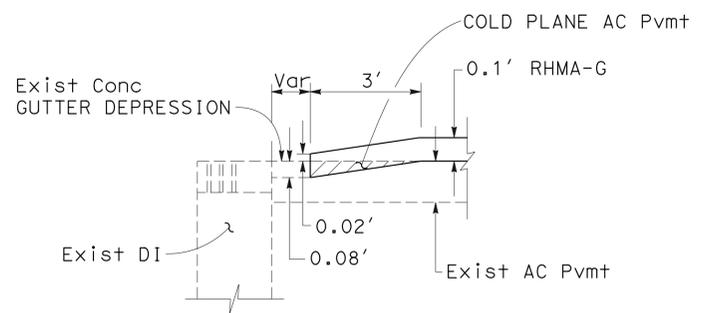
**LONGITUDINAL PAVING CONFORM ALONG INSIDE SHOULDER (TYPICAL)**



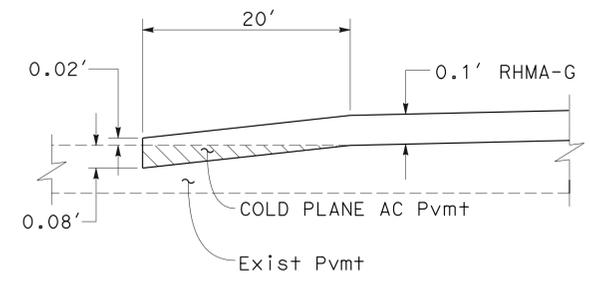
**PAVING CONFORM WHERE MBGR IS PRESENT (TYPICAL)**



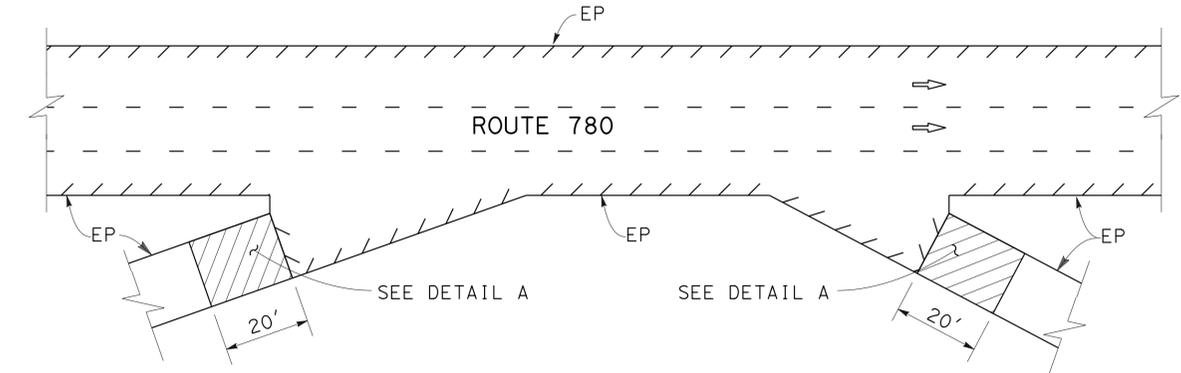
**LONGITUDINAL PAVING CONFORM ALONG OUTSIDE SHOULDER (TYPICAL)**



**PAVING CONFORM AT DRAINAGE INLET OR CONCRETE GUTTER (TYPICAL)**



**TRANSVERSE PAVING CONFORM AT BRIDGE APPROACH AND DEPARTURE, AT RAMPS, BEGIN AND END OF CONSTRUCTION (TYPICAL) DETAIL A**



**PAVING LIMITS ON MAINLINE AND AT ON/OFF-RAMPS (TYPICAL)**

**CONSTRUCTION DETAILS**  
NO SCALE

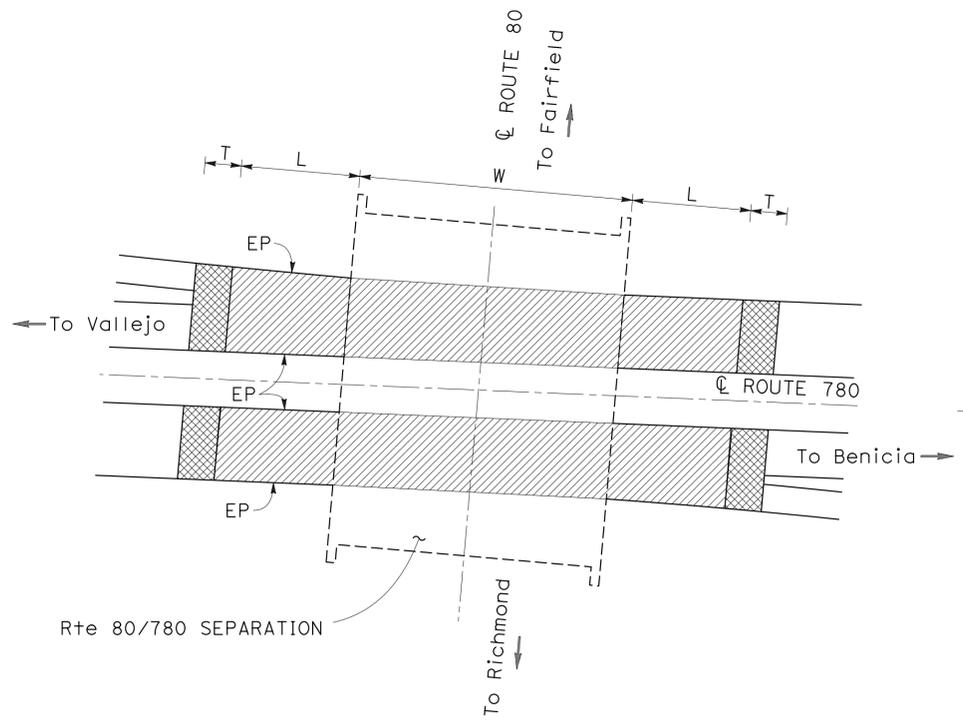
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	4	49

C.H. Chern 1/15/15  
REGISTERED CIVIL ENGINEER DATE

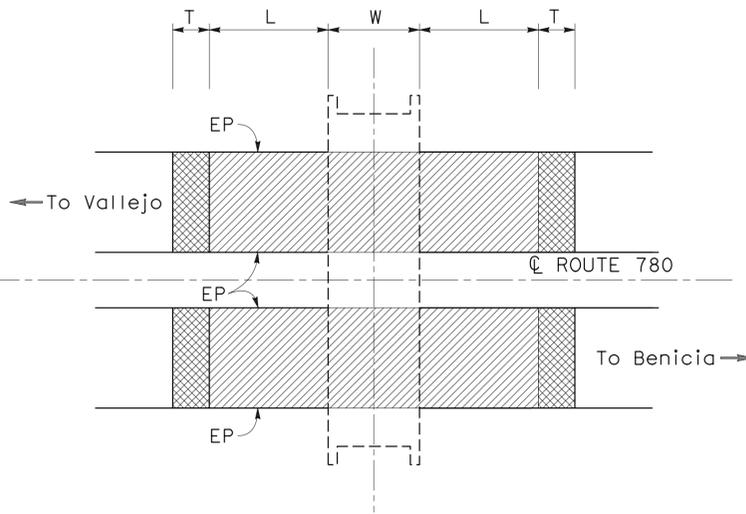
2-23-15  
PLANS APPROVAL DATE

Chuen-Hsiung Chern  
No. 48187  
Exp. 6-30-16  
CIVIL

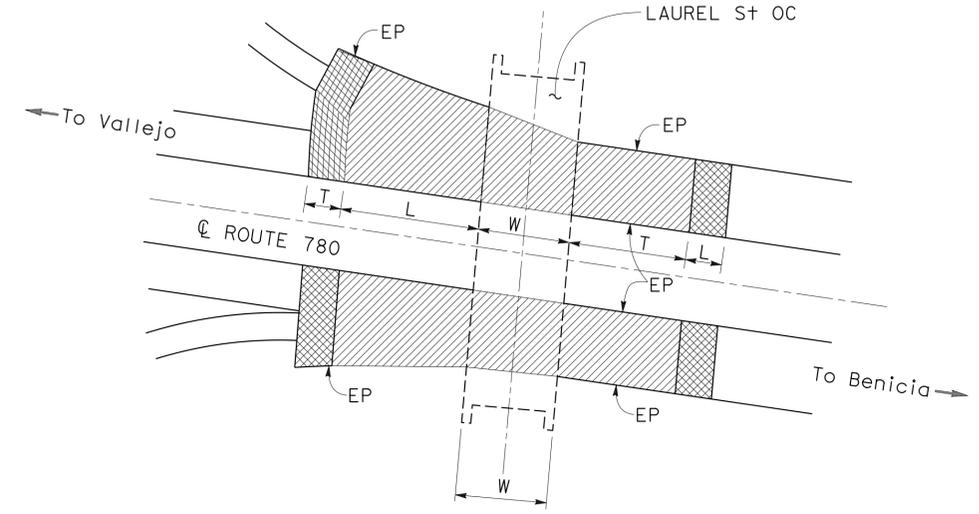
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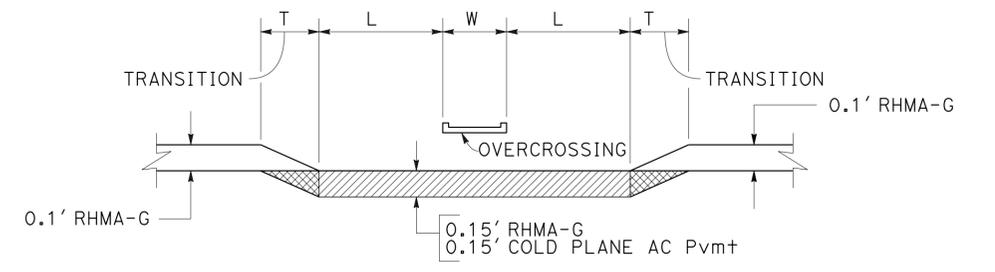
**AT ROUTE 80/780 SEPARATION**



**PLAN  
AT ROSE Dr OC, GLEN COVE Rd OC  
AND HOME ACRES POC**



**AT LAUREL St OC**



**ELEVATION  
PAVING TRANSITION DETAIL AT OVERCROSSINGS**

**OVERCROSSING BRIDGE WIDTH**

BRIDGE NAME	W(LF)	L(LF)	T(LF)
ROSE Dr OC	52	140	60
GLEN COVE Rd OC	37	100	40
HOME ACRES POC	10	65	20
LAUREL St OC	40	80	20
ROUTE 80/780 SEPARATION	172	65	20

**CONSTRUCTION DETAILS  
NO SCALE**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE

CHUEN-HSIUNG CHERN NGOC TRAN

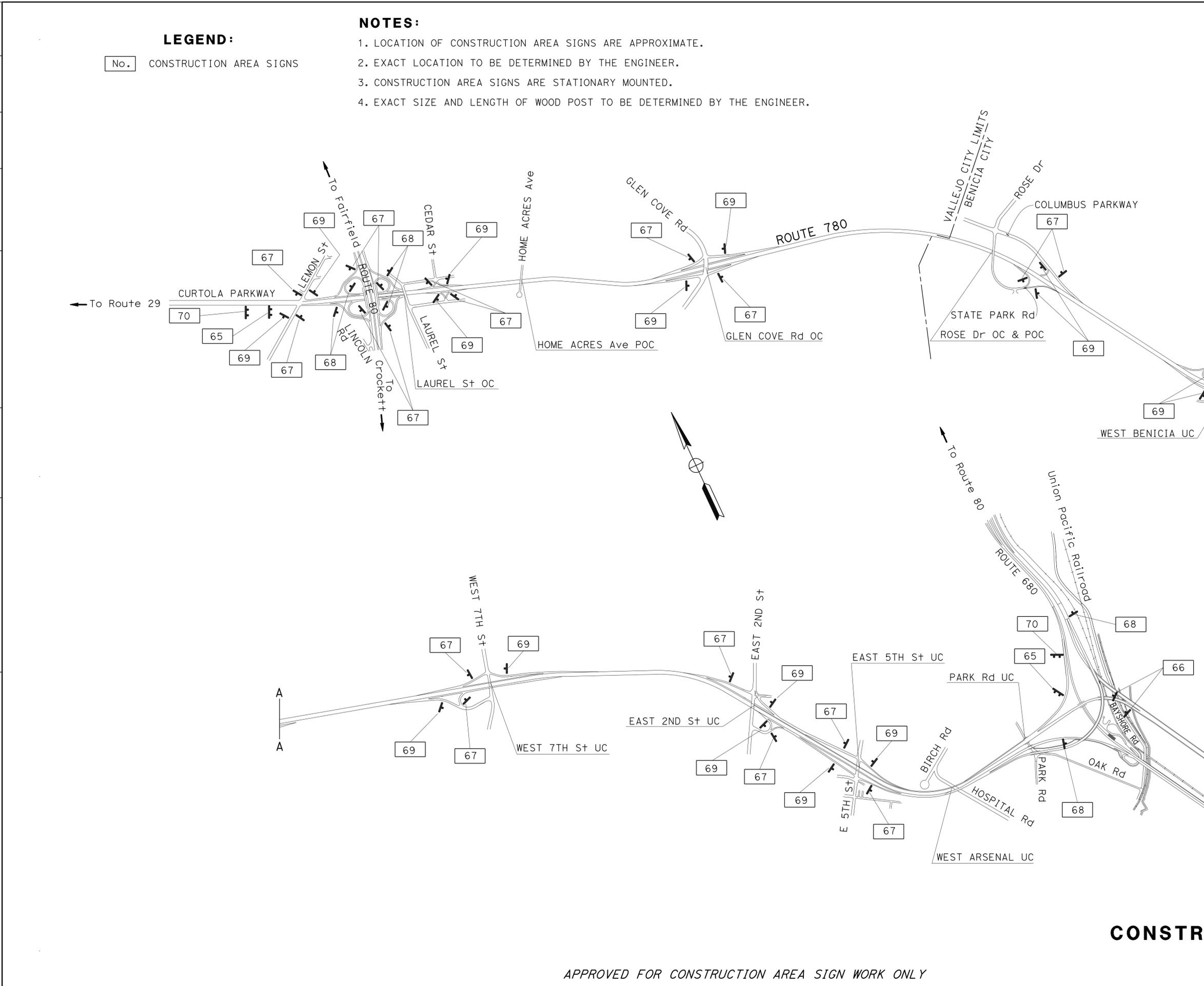
REVISOR: NGOC TRAN DATE: 12/16/14

FUNCTIONAL SUPERVISOR: NGOC TRAN

CC: 12/16/14



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 TRAFFIC



**LEGEND:**

No. CONSTRUCTION AREA SIGNS

**NOTES:**

1. LOCATION OF CONSTRUCTION AREA SIGNS ARE APPROXIMATE.
2. EXACT LOCATION TO BE DETERMINED BY THE ENGINEER.
3. CONSTRUCTION AREA SIGNS ARE STATIONARY MOUNTED.
4. EXACT SIZE AND LENGTH OF WOOD POST TO BE DETERMINED BY THE ENGINEER.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	6	49

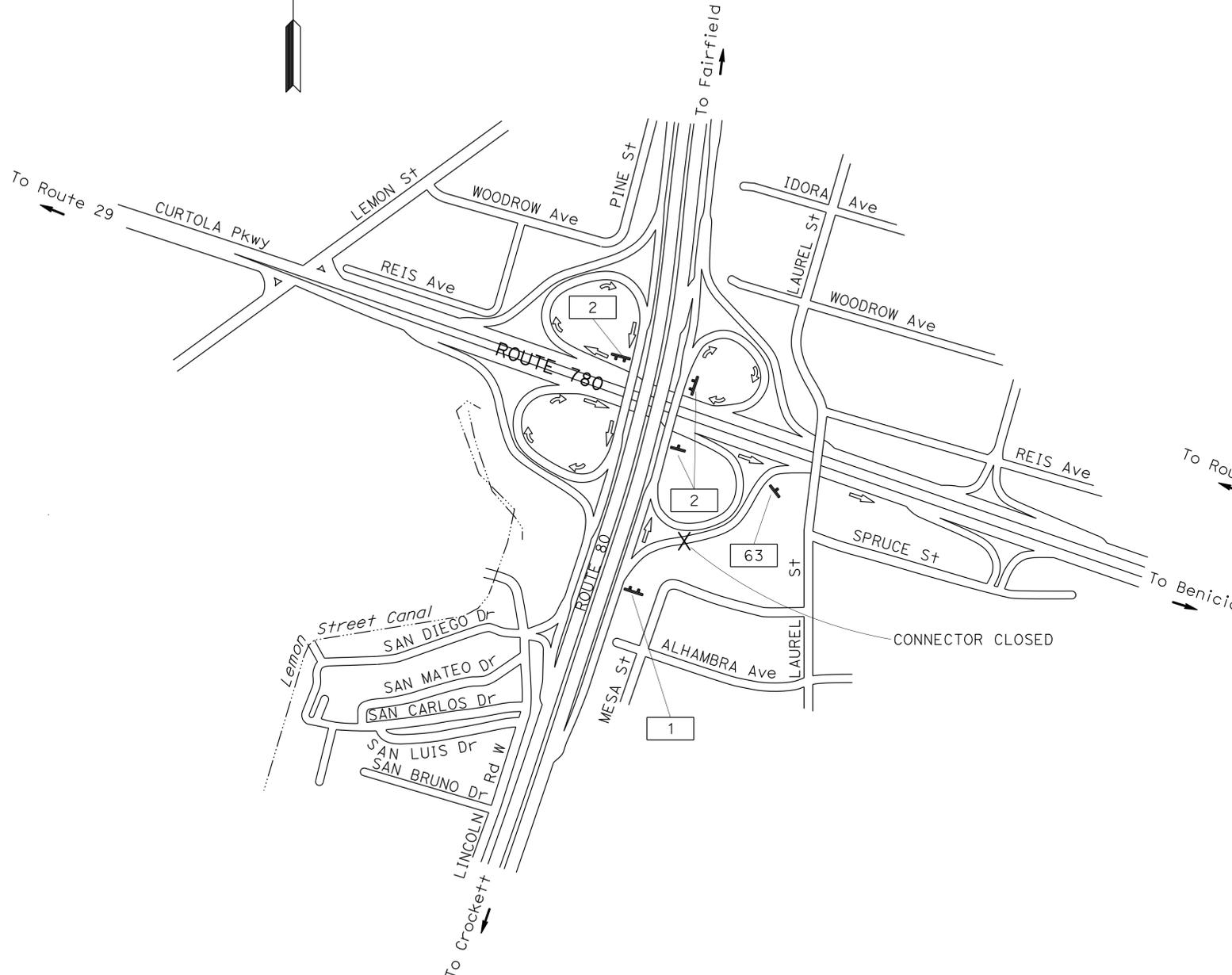
REGISTERED CIVIL ENGINEER: Jerilyn L. Struven  
 No. 49964  
 Exp. 2-31-16  
 CIVIL  
 DATE: 2/13/15  
 PLANS APPROVAL DATE: 2-23-15

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 CALCULATED/DESIGNED BY: JERILYN STRUVEN  
 CHECKED BY:  
 REVISED BY: ULICES VEGA  
 DATE REVISED: 1/22/15  
 UV  
 1/22/15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	7	49

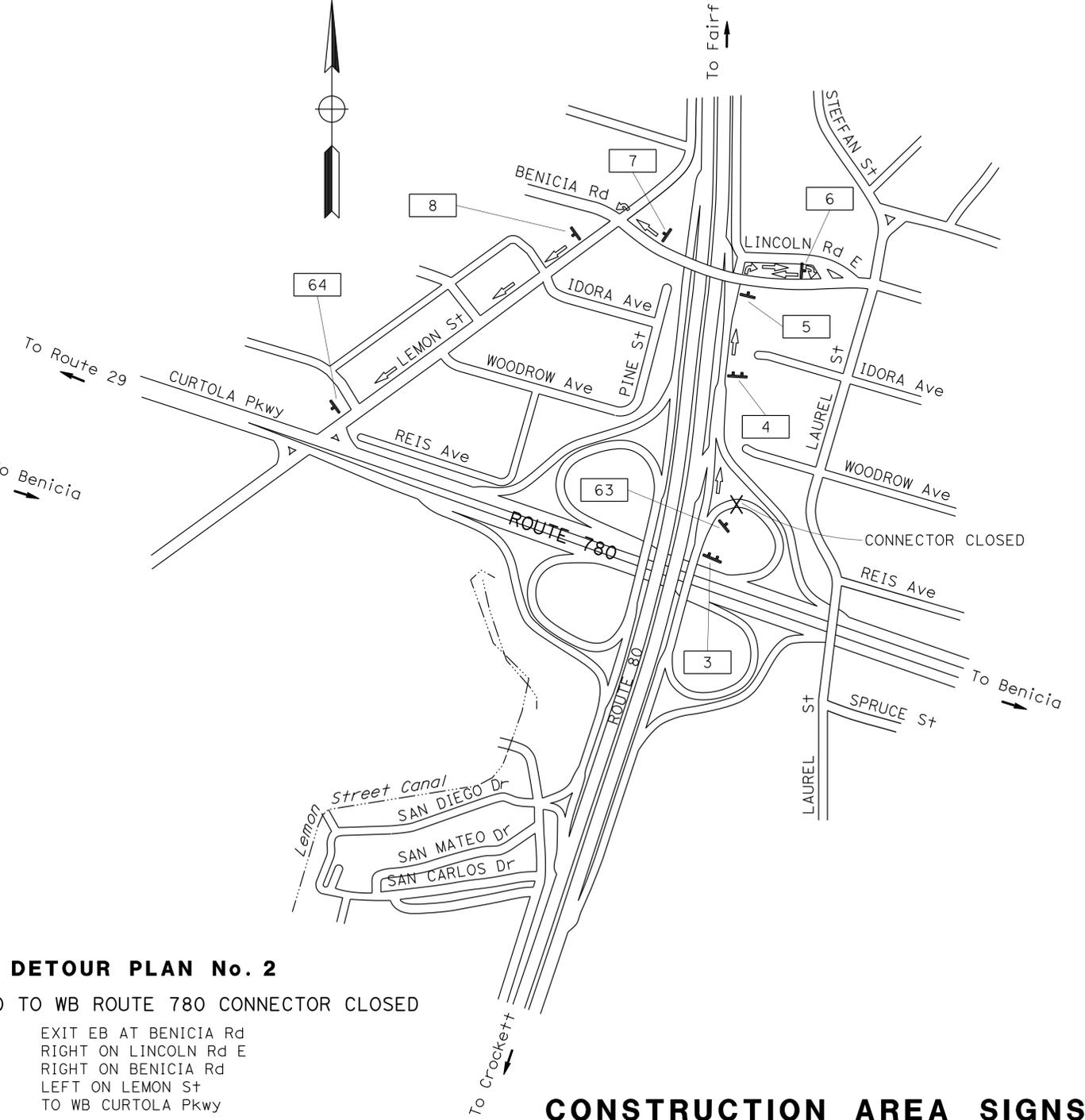
*Jerilyn L. Struven* 2/13/15  
 REGISTERED CIVIL ENGINEER DATE  
 2-23-15  
 PLANS APPROVAL DATE  
 No. 49964  
 Exp. 2-31-16  
 CIVIL  
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**DETOUR PLAN No. 1**

EB ROUTE 80 TO EB ROUTE 780 CONNECTOR CLOSED

- EXIT TO WB Rte 780
- RIGHT EXIT TO WB Rte 80
- RIGHT EXIT TO EB Rte 780



**DETOUR PLAN No. 2**

EB ROUTE 80 TO WB ROUTE 780 CONNECTOR CLOSED

- EXIT EB AT BENICIA Rd
- RIGHT ON LINCOLN Rd E
- RIGHT ON BENICIA Rd
- LEFT ON LEMON St
- TO WB CURTOLA Pkwy

**CONSTRUCTION AREA SIGNS**

NO SCALE

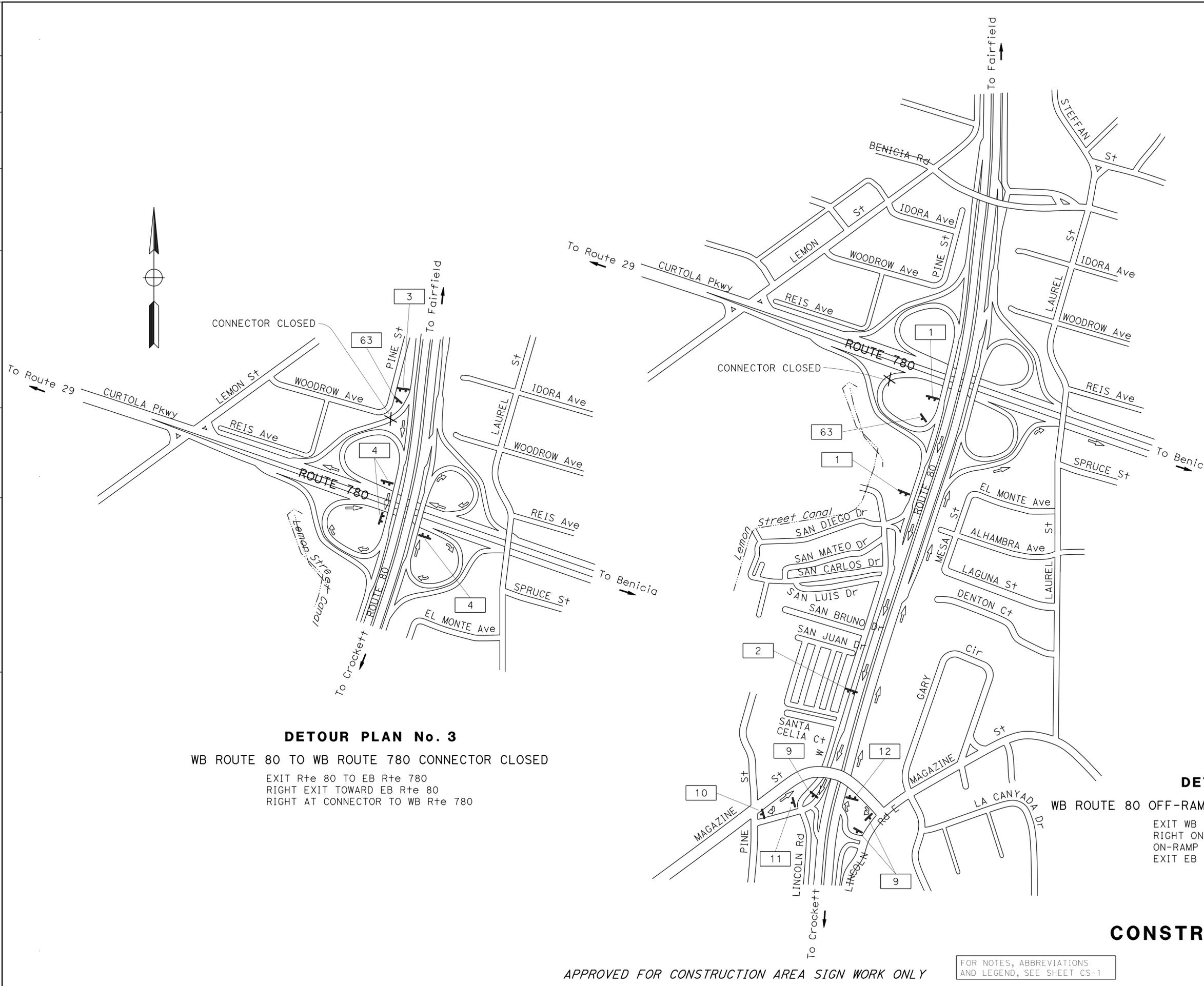
APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

**CS-2**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	8	49
		<i>Jerilyn L. Struven</i> 2/13/15 REGISTERED CIVIL ENGINEER DATE		No. 49964 Exp. 2-31-16 CIVIL	
		2-23-15 PLANS APPROVAL DATE			
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR	DATE
<b>Caltrans</b>	ROLAND AU-YEUNG	JERILYN STRUVEN	ULICES VEGA	1/22/15
TRAFFIC		CHECKED BY	REVISOR	DATE
			JERILYN STRUVEN	1/22/15



**DETOUR PLAN No. 3**  
 WB ROUTE 80 TO WB ROUTE 780 CONNECTOR CLOSED  
 EXIT Rte 80 TO EB Rte 780  
 RIGHT EXIT TOWARD EB Rte 80  
 RIGHT AT CONNECTOR TO WB Rte 780

**DETOUR PLAN No. 4**  
 WB ROUTE 80 OFF-RAMP TO EB ROUTE 780 CONNECTOR CLOSED  
 EXIT WB Rte 80 AT MAGAZINE ST  
 RIGHT ON MAGAZINE ST  
 ON-RAMP TO EB Rte 80 AT MAGAZINE ST  
 EXIT EB Rte 80 TO EB Rte 780

**CONSTRUCTION AREA SIGNS**  
 NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

**CS-3**



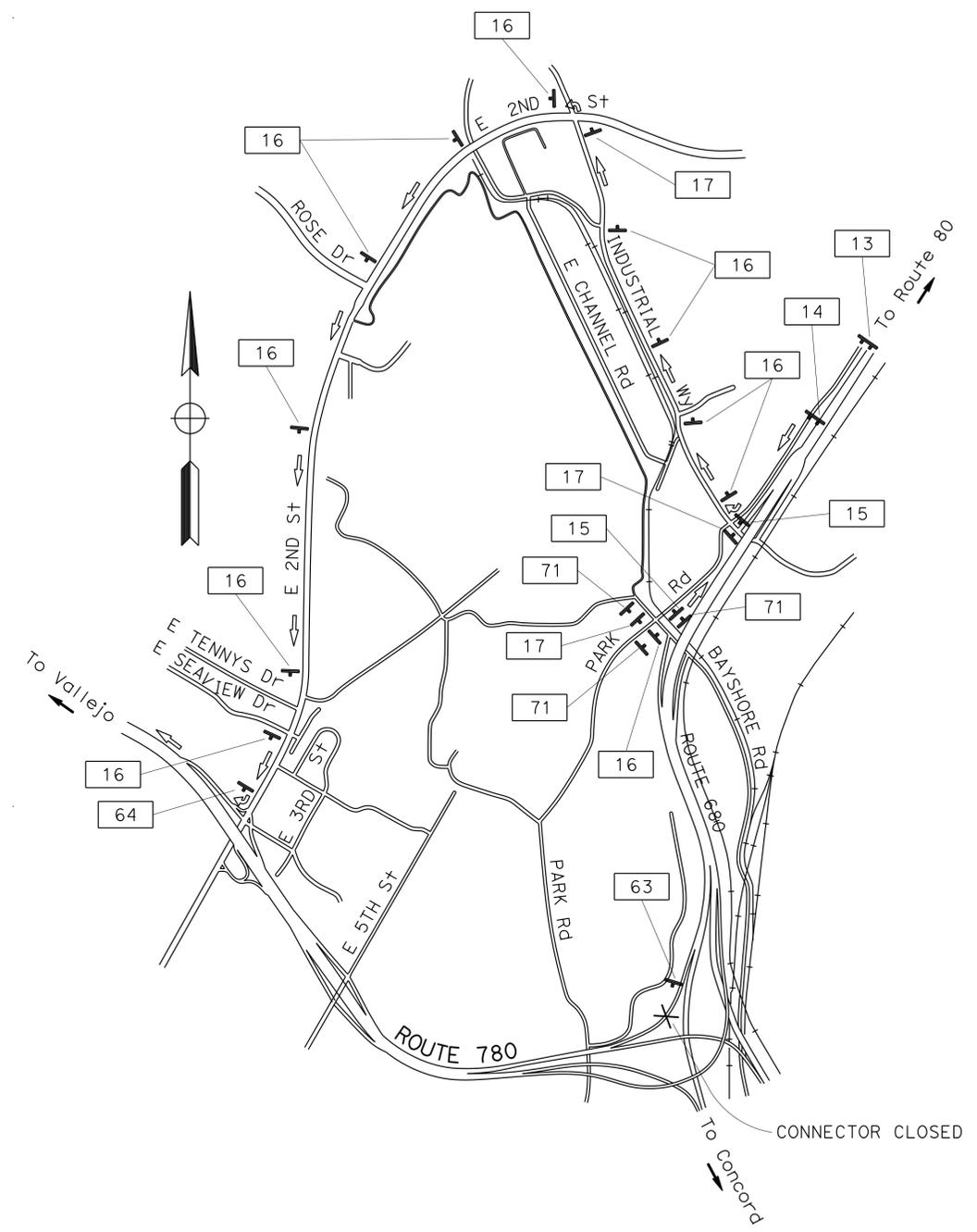
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 02-23-15 | TIME PLOTTED => 08:48

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 CALCULATED/DESIGNED BY: JERILYN STRUVEN  
 CHECKED BY: JERILYN STRUVEN  
 REVISED BY: ULICES VEGA  
 DATE REVISED: 1/22/15  
 UV

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	9	49

*Jerilyn L. Struven* 2/13/15  
 REGISTERED CIVIL ENGINEER DATE  
 2-23-15  
 PLANS APPROVAL DATE  
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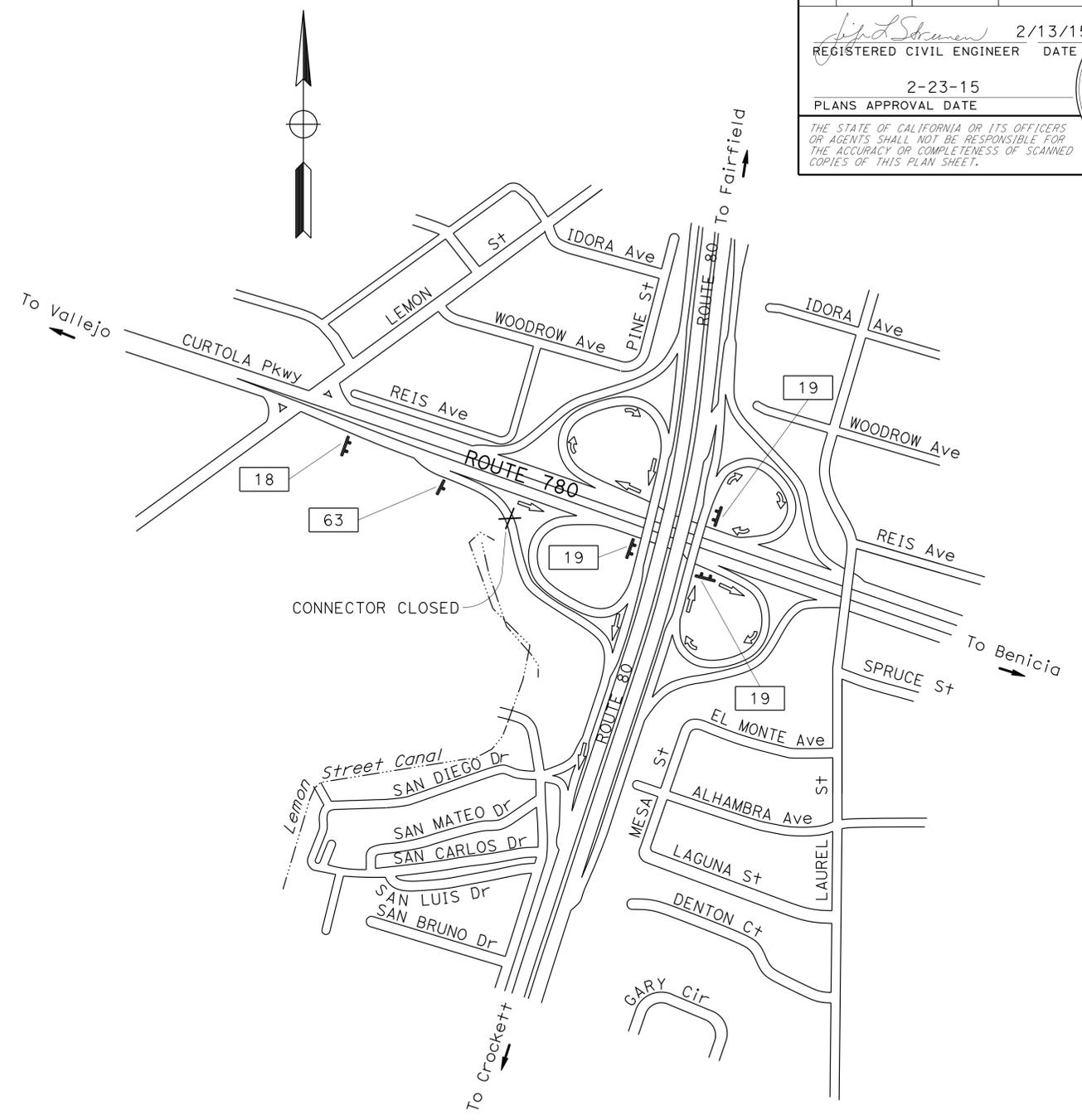
REGISTERED PROFESSIONAL ENGINEER  
 Jerilyn L. Struven  
 No. 49964  
 Exp. 2-31-16  
 CIVIL  
 STATE OF CALIFORNIA



**DETOUR PLAN No. 5**

SB ROUTE 680 TO WB ROUTE 780 CONNECTOR CLOSED

- EXIT ON INDUSTRIAL Wy
- RIGHT ON INDUSTRIAL Wy
- LEFT ON E 2ND St
- SB ON E 2ND St
- ON-RAMP TO WB Rte 780



**DETOUR PLAN No. 6**

WB ROUTE 80 ON-RAMP FROM EB ROUTE 780 CONNECTOR CLOSED

- EXIT TO EB Rte 80
- EXIT TO WB Rte 780
- EXIT TO WB Rte 80

**CONSTRUCTION AREA SIGNS**

NO SCALE

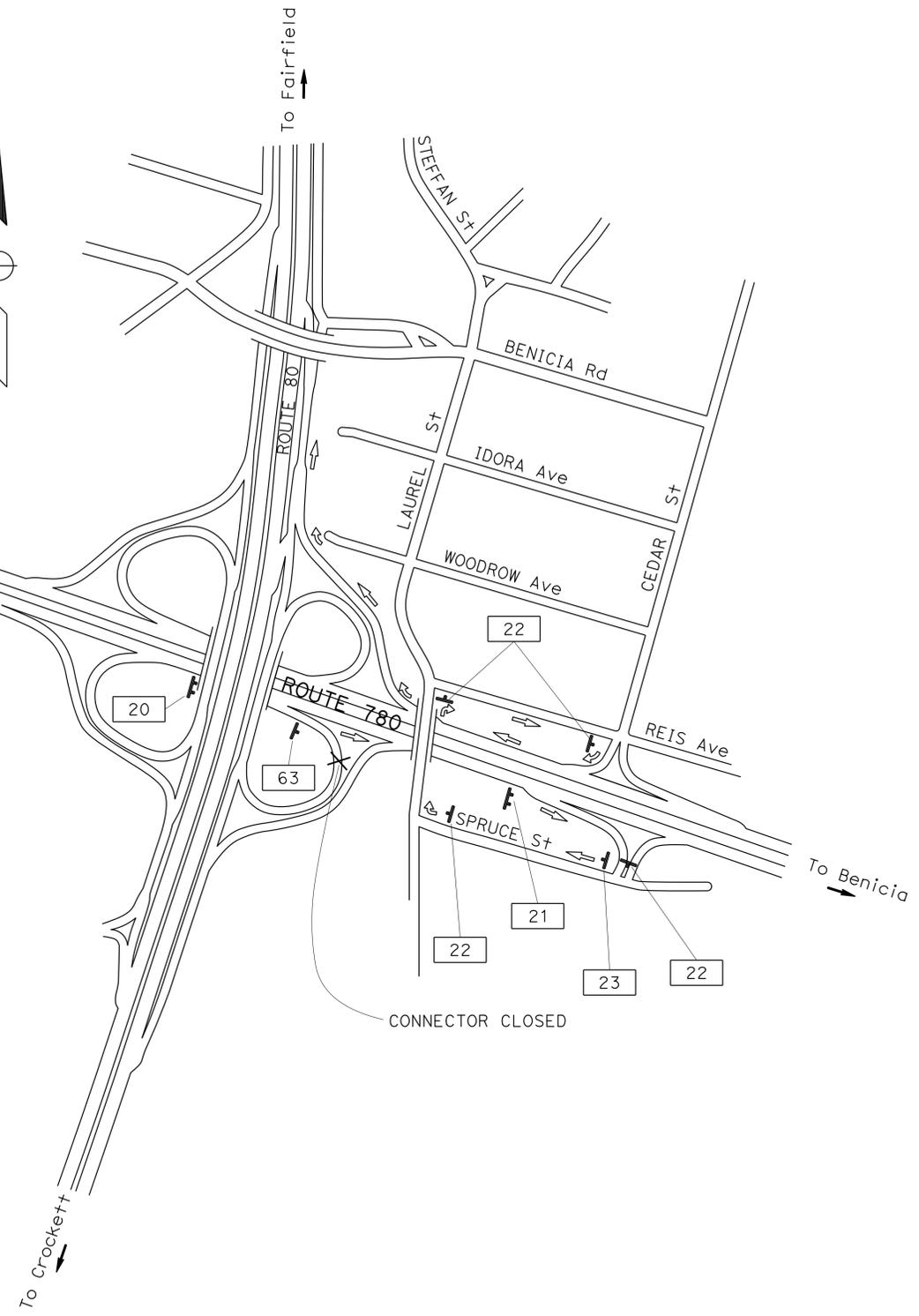
APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

**CS-4**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 TRAFFIC

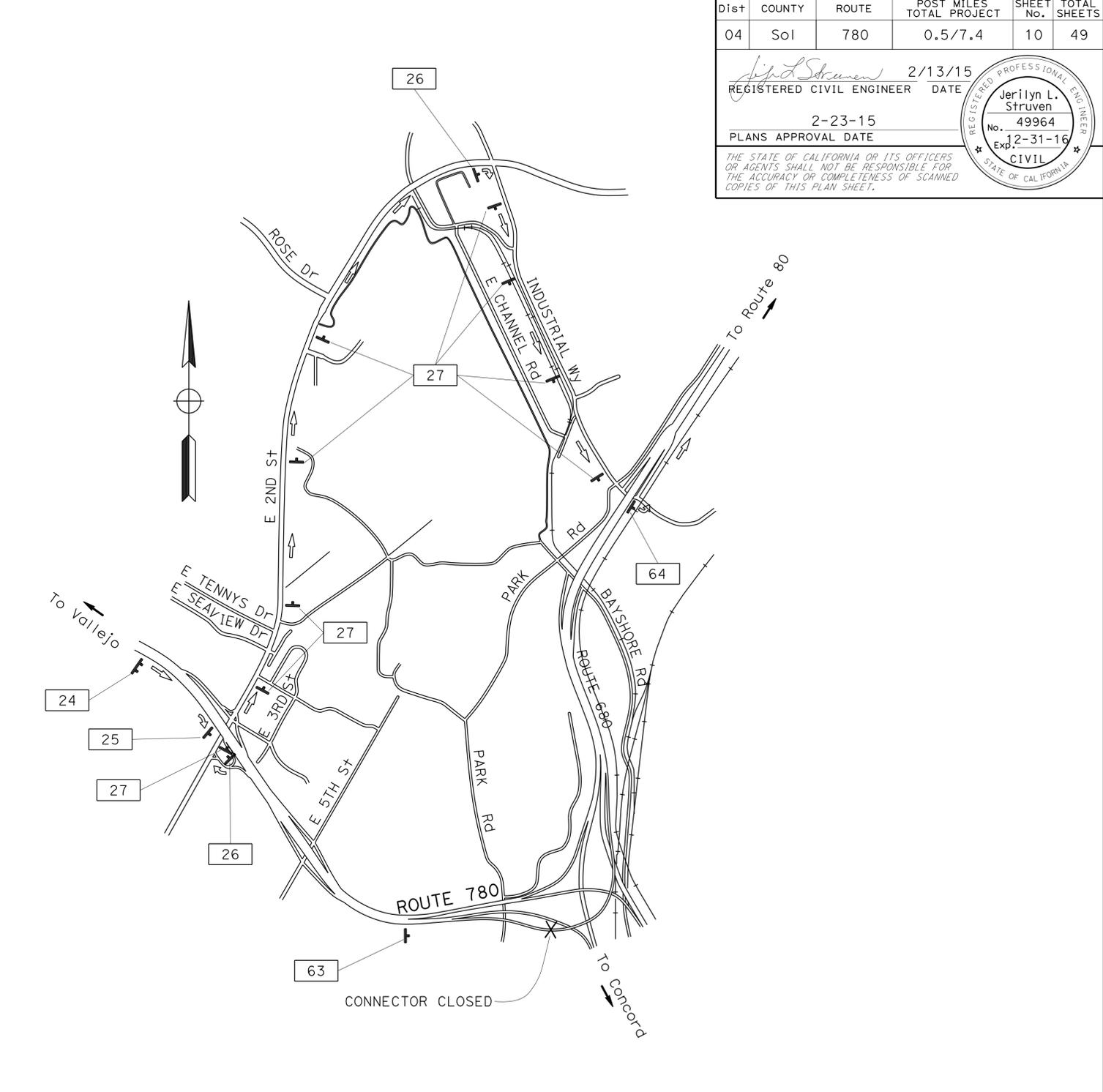
FUNCTIONAL SUPERVISOR	ROLAND AU-YEUNG
CALCULATED/DESIGNED BY	CHECKED BY
ULICES VEGA	JERILYN STRUVEN
REVISOR	DATE
UV	1/22/15



**DETOUR PLAN No. 7**

EB ROUTE 780 TO EB ROUTE 80 CONNECTOR CLOSED

- EXIT TO LAUREL ST
- RIGHT ON SPRUCE ST
- RIGHT ON LAUREL ST
- RIGHT ON REIS Ave
- RIGHT ONTO ON-RAMP WB Rte 780
- EXIT TO EB Rte 80



**DETOUR PLAN No. 8**

EB ROUTE 780 TO NB ROUTE 680 CONNECTOR CLOSED

- EXIT TO E 2ND ST
- RIGHT ON E 2ND ST
- NORTH ON E 2ND ST
- RIGHT ON INDUSTRIAL WY
- LEFT ONTO ON-RAMP TO NB Rte 680

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	10	49

*Jerilyn L. Struven* 2/13/15  
 REGISTERED CIVIL ENGINEER DATE  
 2-23-15  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 No. 49964  
 Exp. 2-31-16  
 CIVIL  
 STATE OF CALIFORNIA

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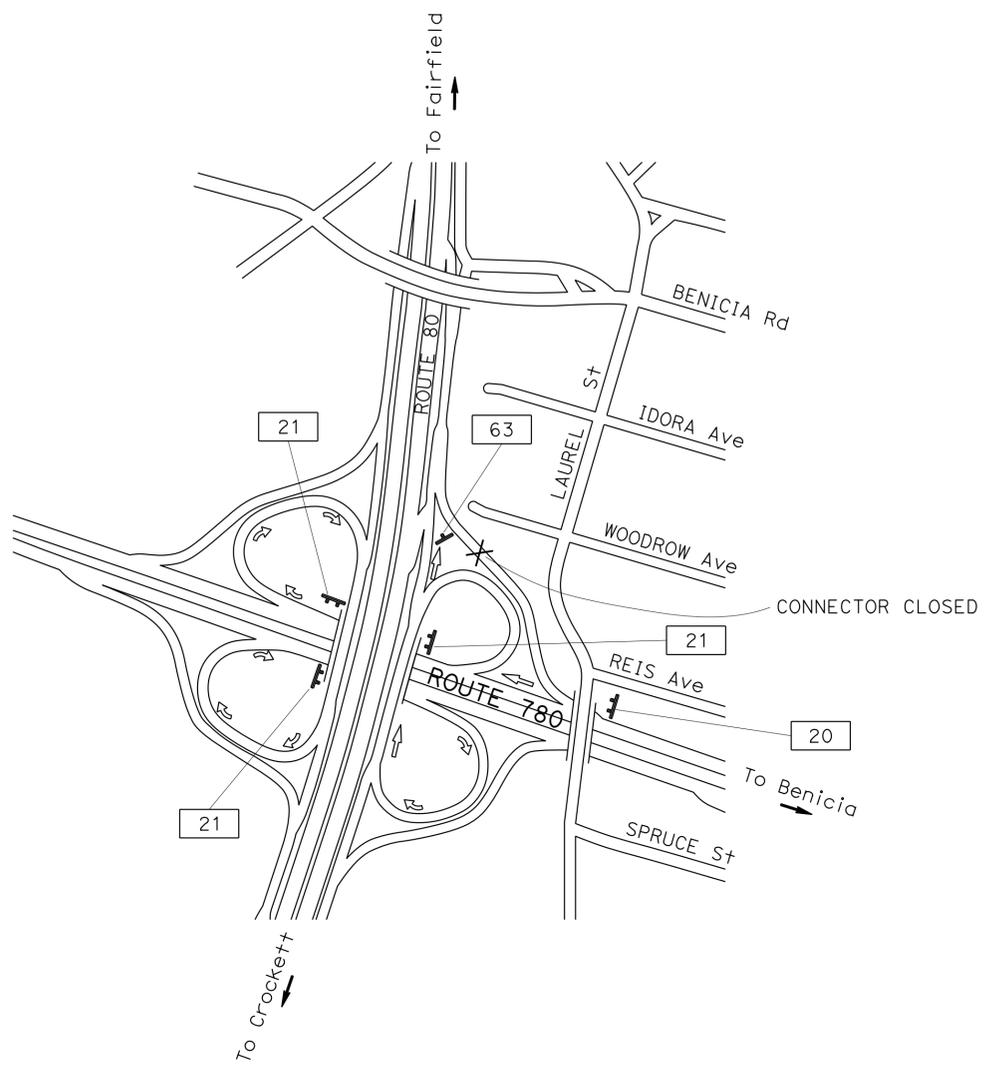
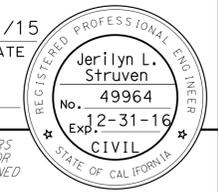
**CONSTRUCTION AREA SIGNS**  
 NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

**CS-5**

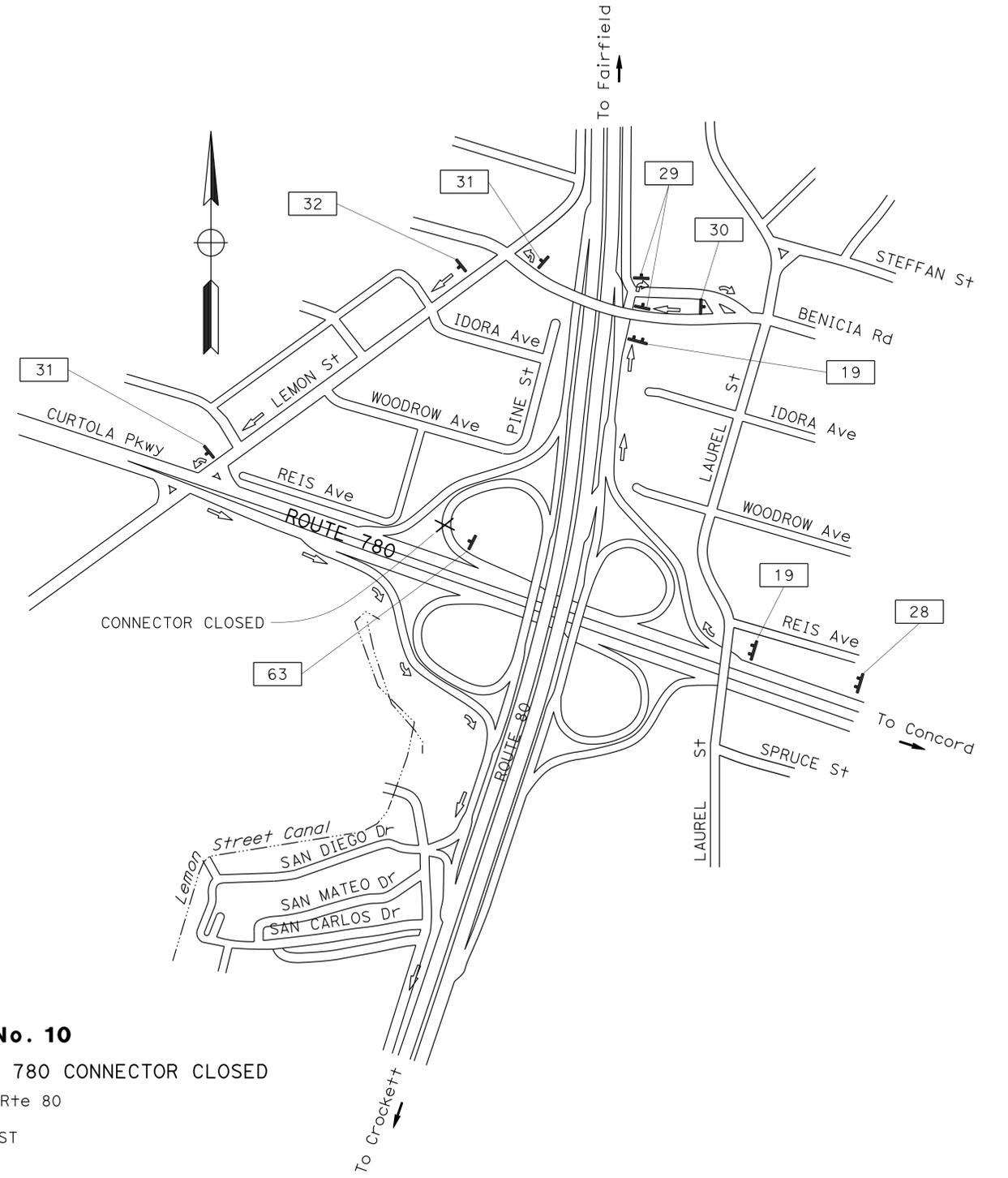
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	11	49
		2/13/15			
REGISTERED CIVIL ENGINEER		DATE			
2-23-15		PLANS APPROVAL DATE			
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**DETOUR PLAN No. 9**

EB ROUTE 80 ON-RAMP FROM WB ROUTE 780 CONNECTOR CLOSED

- EXIT WB Rte 780 TO WB Rte 80
- RIGHT EXIT TO EB Rte 780
- RIGHT EXIT TO EB Rte 80



**DETOUR PLAN No. 10**

WB ROUTE 80 ON-RAMP FROM WB ROUTE 780 CONNECTOR CLOSED

- EXIT WB Rte 780 TO EB Rte 80
- EXIT AT BENICIA Rd
- RIGHT ON LINCOLN Rd EAST
- RIGHT ON BENICIA Rd
- LEFT ON LEMON St
- LEFT EB Rte 780/CURTOLA Pkwy
- EXIT EB Rte 780 TO WB Rte 80

**CONSTRUCTION AREA SIGNS**

NO SCALE

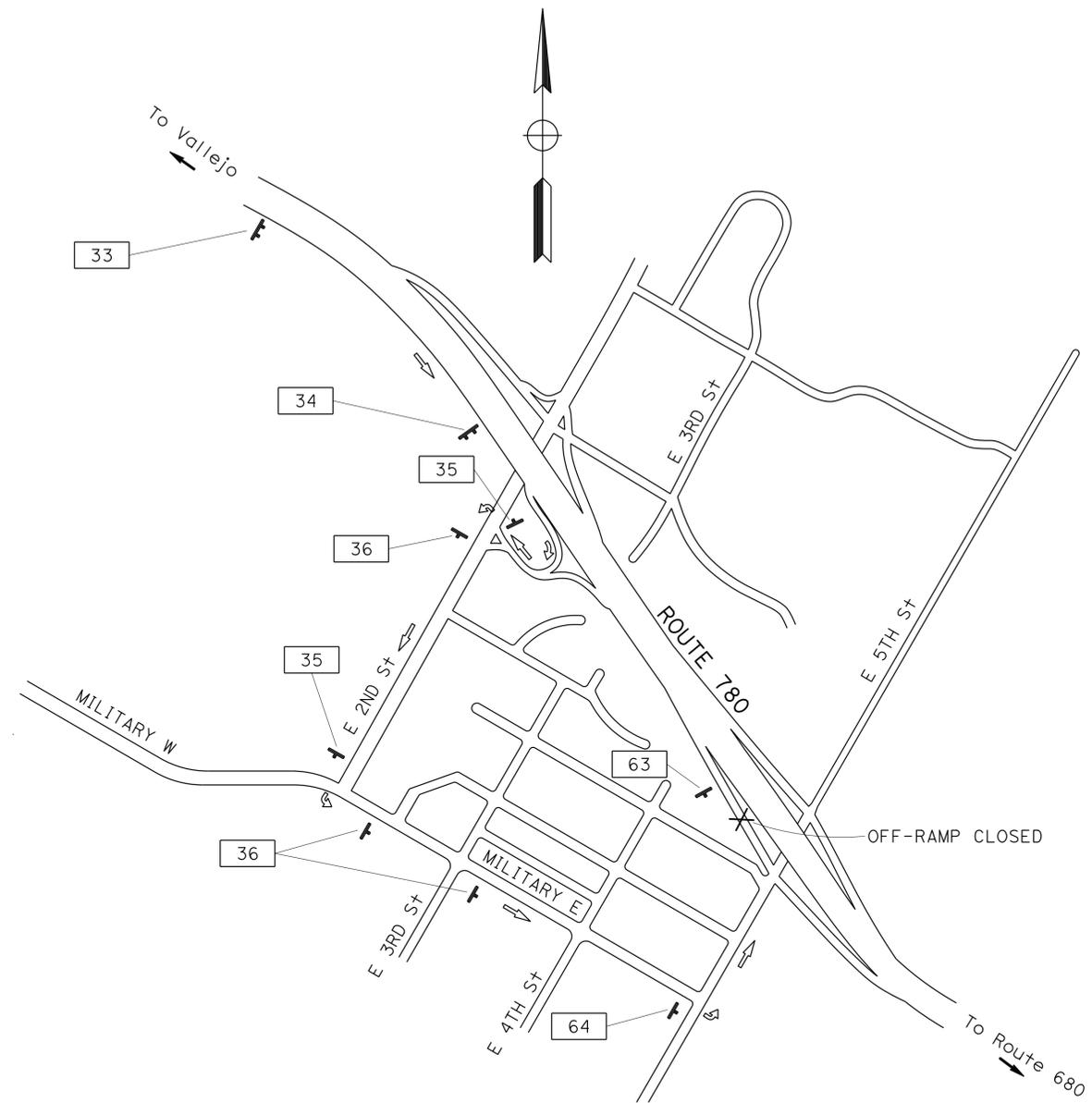
**CS-6**

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR	DATE
<b>Caltrans</b>	ROLAND AU-YEUNG	ULICES VEGA	UV	1/22/15
		JERILYN STRUVEN		

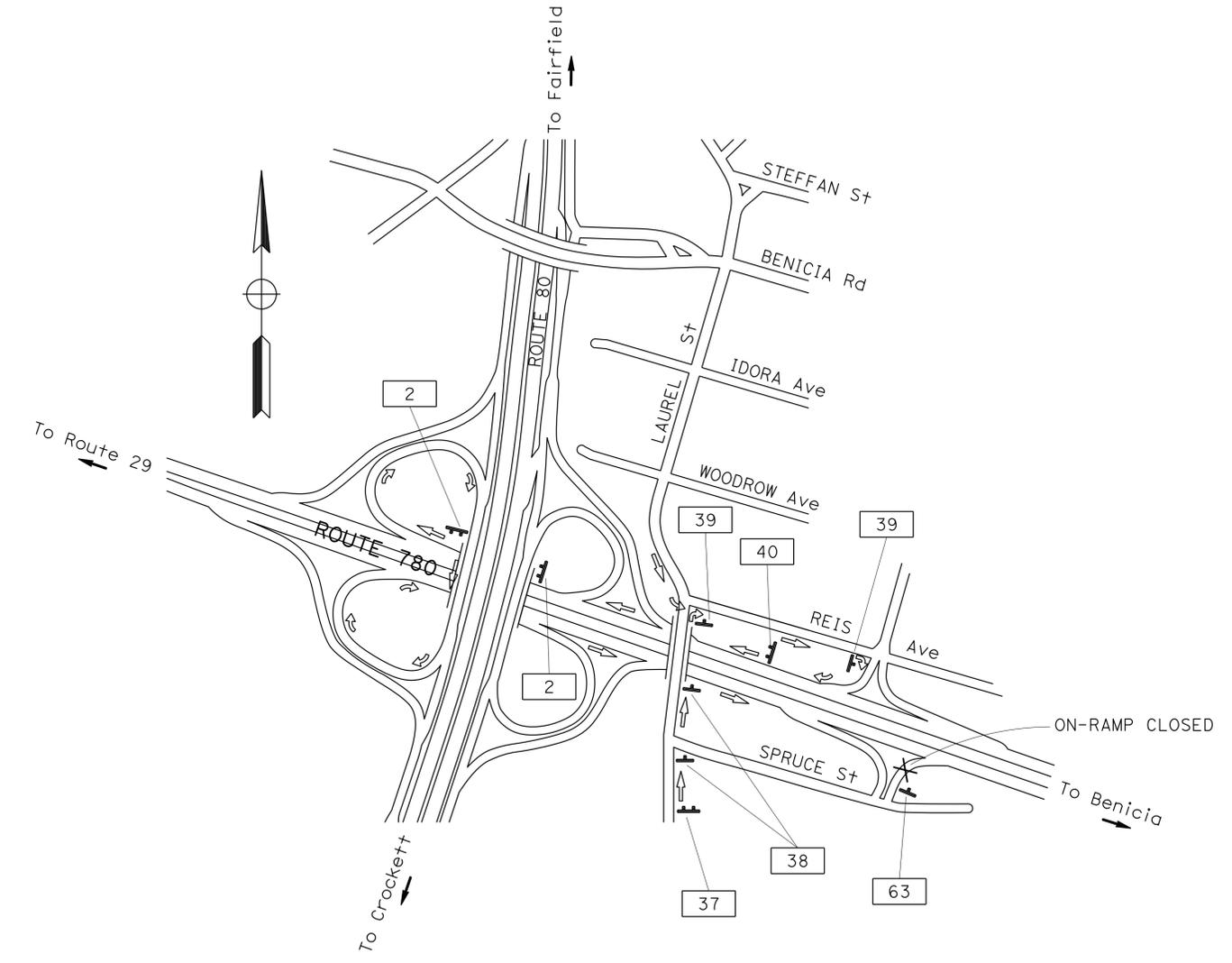
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	12	49
		<i>Jerilyn L. Struven</i> 2/13/15 REGISTERED CIVIL ENGINEER DATE		REGISTERED PROFESSIONAL ENGINEER Jerilyn L. Struven No. 49964 Exp. 2-31-16 CIVIL STATE OF CALIFORNIA	
		2-23-15 PLANS APPROVAL DATE			
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**DETOUR PLAN No. 11**

EB ROUTE 780 OFF-RAMP TO E 5TH St CLOSED

- EXIT E 2ND St
- LEFT ON E 2ND St
- LEFT ON MILITARY E
- LEFT ON E 5TH St



**DETOUR PLAN No. 12**

EB ROUTE 780 ON-RAMP FROM LAUREL St CLOSED

- EB ON REIS Ave
- ON-RAMP TO WB Rte 780
- EXIT TO WB Rte 80
- RIGHT ONTO EB Rte 780

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 CALCULATED/DESIGNED BY: CHECKED BY:  
 ULICES VEGA JERILYN STRUVEN  
 REVISED BY: DATE REVISED: 1/22/15  
 UV  
 TRAFFIC

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

**CONSTRUCTION AREA SIGNS**  
NO SCALE

**CS-7**

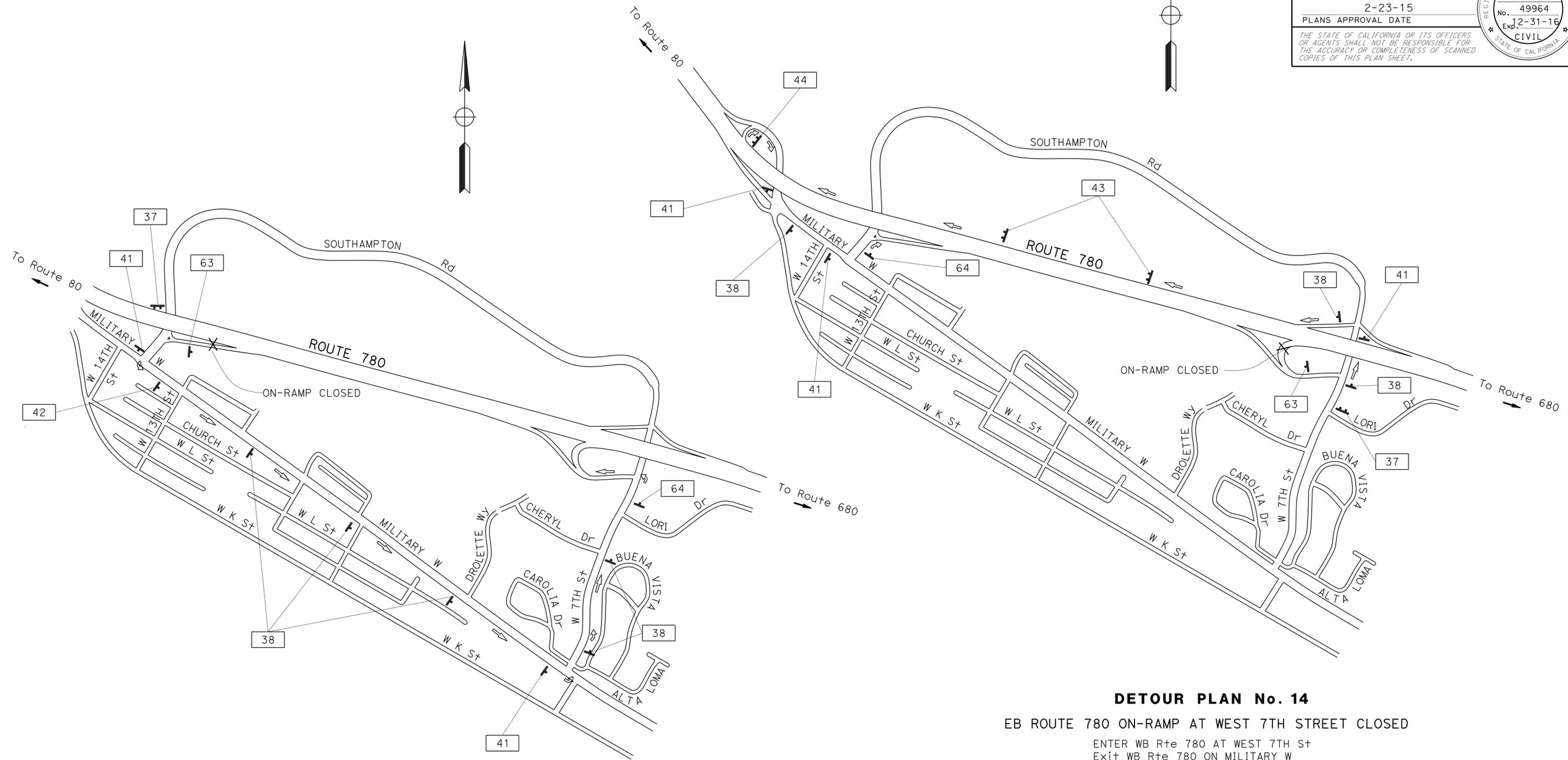


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 CALCULATED/DESIGNED BY: JERILYN STRUVEN  
 CHECKED BY: JERILYN STRUVEN  
 REVISED BY: ULICES VEGA  
 DATE REVISED: 1/22/15  
 UV  
 1/22/15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	13	49

*Jerilyn L. Struven* 2/13/15  
 REGISTERED CIVIL ENGINEER DATE  
 2-23-15  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
 Jerilyn L. Struven  
 No. 49964  
 Exp. 2-31-16  
 CIVIL  
 STATE OF CALIFORNIA



**DETOUR PLAN No. 13**  
 EB ROUTE 780 ON-RAMP FROM SOUTHAMPTON ROAD CLOSED  
 LEFT ON MILITARY W  
 LEFT ON W 7TH ST  
 LEFT ONTO ON-RAMP TO EB Rte 780

**DETOUR PLAN No. 14**  
 EB ROUTE 780 ON-RAMP AT WEST 7TH STREET CLOSED  
 ENTER WB Rte 780 AT WEST 7TH ST  
 Exit WB Rte 780 ON MILITARY W  
 LEFT AT MILITARY W  
 LEFT ON-RAMP TO EB Rte 780

**CONSTRUCTION AREA SIGNS**  
 NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

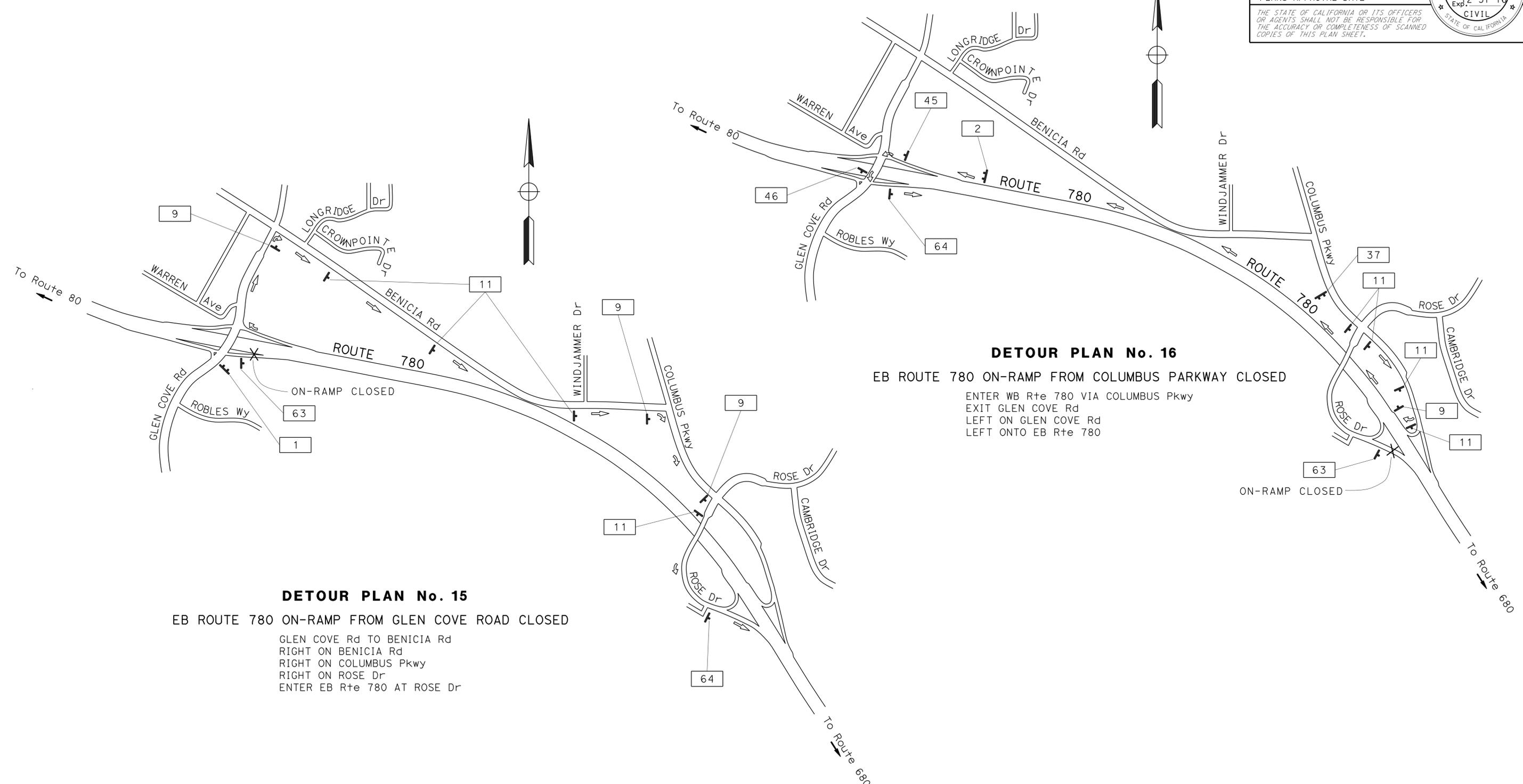
**CS-8**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 CALCULATED/DESIGNED BY: JERILYN STRUVEN  
 CHECKED BY: JERILYN STRUVEN  
 REVISED BY: UV  
 DATE REVISED: 1/22/15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	14	49

2/13/15  
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REGISTERED PROFESSIONAL ENGINEER  
 Jerilyn L. Struven  
 No. 49964  
 Exp. 2-31-16  
 CIVIL  
 STATE OF CALIFORNIA



**DETOUR PLAN No. 15**  
 EB ROUTE 780 ON-RAMP FROM GLEN COVE ROAD CLOSED  
 GLEN COVE Rd TO BENICIA Rd  
 RIGHT ON BENICIA Rd  
 RIGHT ON COLUMBUS Pkwy  
 RIGHT ON ROSE Dr  
 ENTER EB Rte 780 AT ROSE Dr

**DETOUR PLAN No. 16**  
 EB ROUTE 780 ON-RAMP FROM COLUMBUS PARKWAY CLOSED  
 ENTER WB Rte 780 VIA COLUMBUS Pkwy  
 EXIT GLEN COVE Rd  
 LEFT ON GLEN COVE Rd  
 LEFT ONTO EB Rte 780

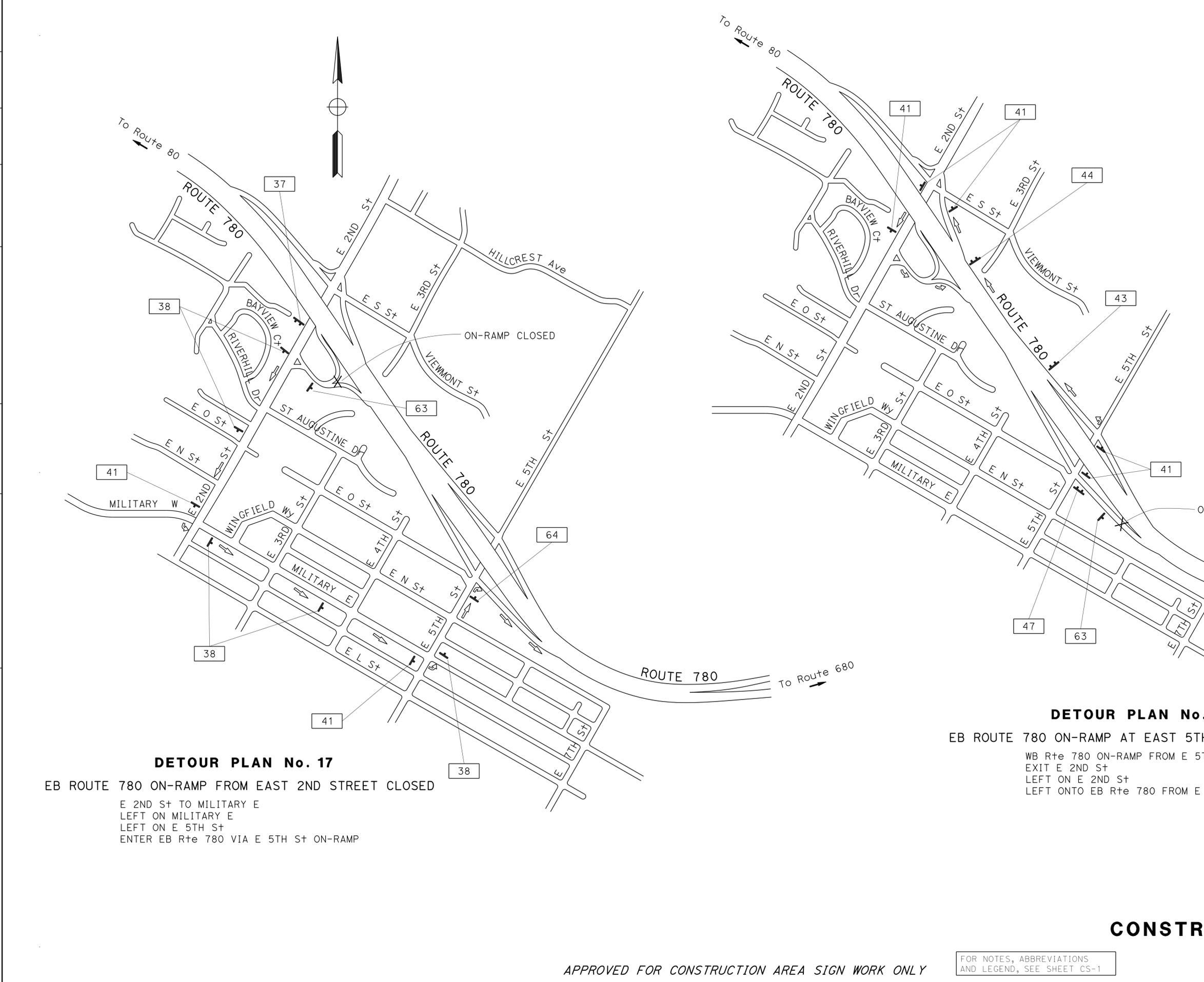
**CONSTRUCTION AREA SIGNS**  
 NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

**CS-9**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 TRAFFIC



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	15	49

REGISTERED CIVIL ENGINEER: Jerilyn L. Struven  
 No. 49964  
 Exp. 2-31-16  
 CIVIL  
 STATE OF CALIFORNIA

2/13/15 DATE  
 2-23-15 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.

**DETOUR PLAN No. 17**  
 EB ROUTE 780 ON-RAMP FROM EAST 2ND STREET CLOSED  
 E 2ND St+ TO MILITARY E  
 LEFT ON MILITARY E  
 LEFT ON E 5TH St+  
 ENTER EB Rte 780 VIA E 5TH St+ ON-RAMP

**DETOUR PLAN No. 18**  
 EB ROUTE 780 ON-RAMP AT EAST 5TH STREET CLOSED  
 WB Rte 780 ON-RAMP FROM E 5TH St+  
 EXIT E 2ND St+  
 LEFT ON E 2ND St+  
 LEFT ONTO EB Rte 780 FROM E 2ND St+

**CONSTRUCTION AREA SIGNS**  
 NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

**CS-10**

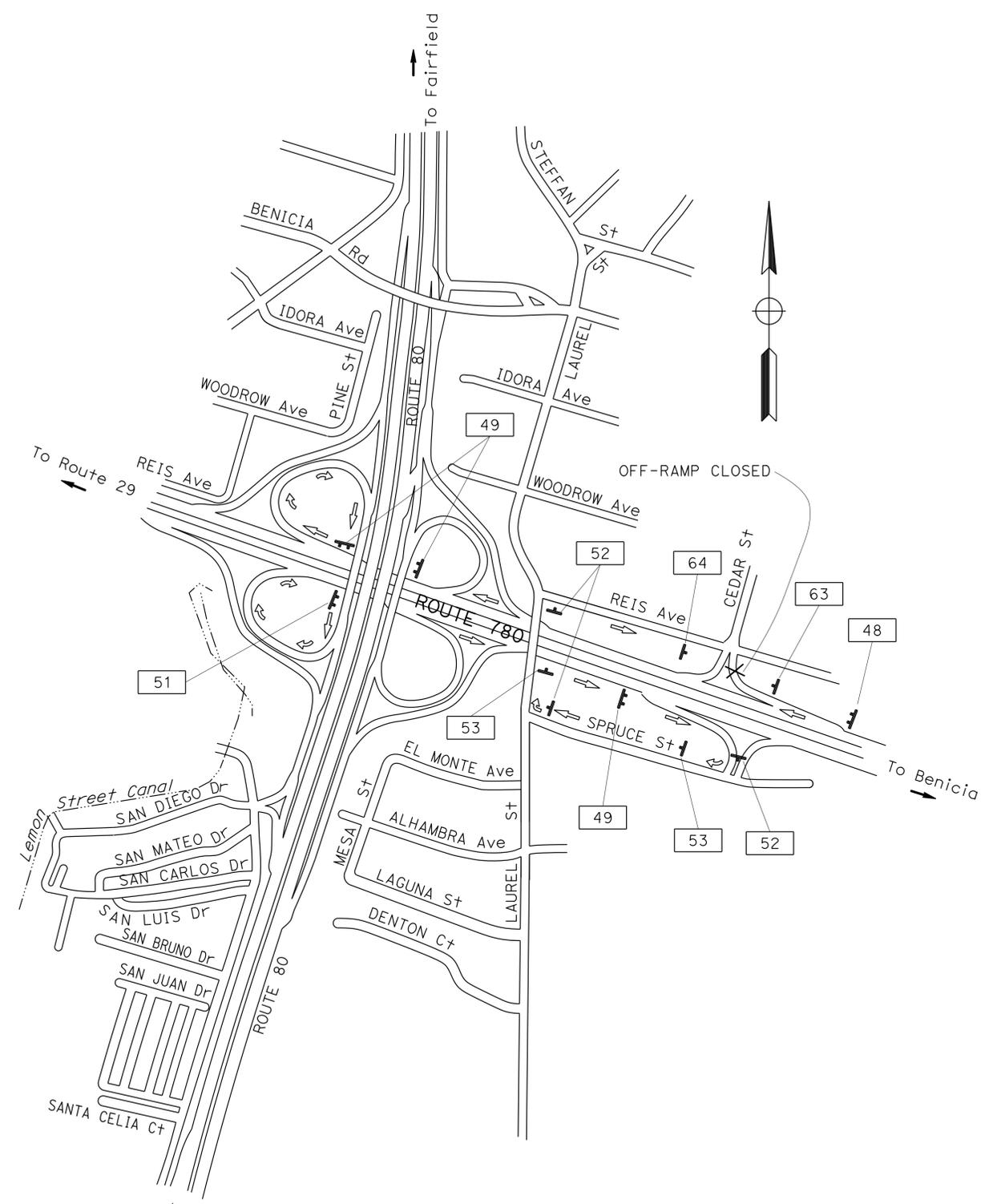


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 CALCULATED/DESIGNED BY: JERILYN STRUVEN  
 CHECKED BY: JERILYN STRUVEN  
 REVISED BY: ULICES VEGA  
 DATE REVISED: 1/22/15  
 UV

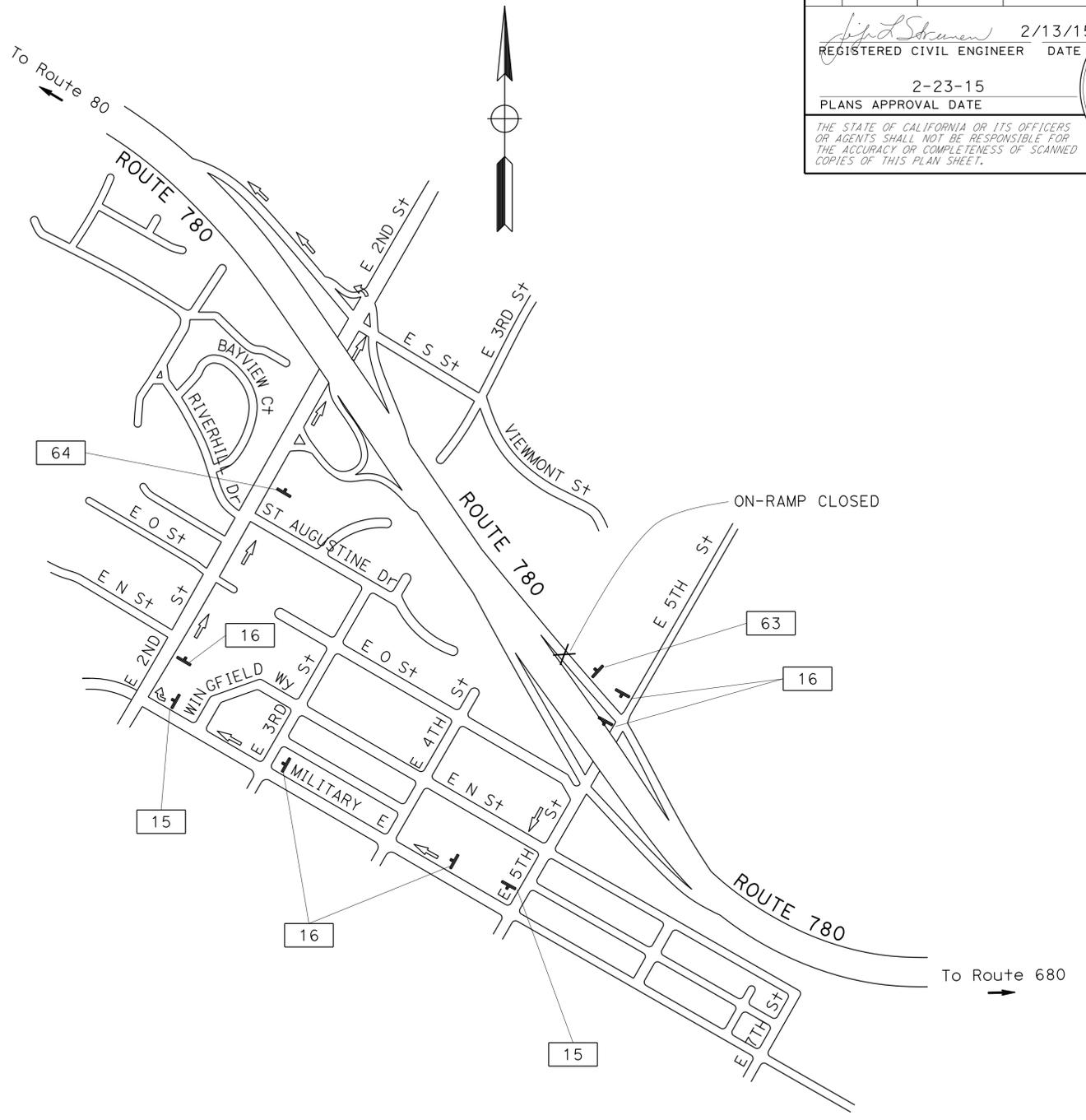
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Soi	780	0.5/7.4	16	49

*Jerilyn L. Struven* 2/13/15  
 REGISTERED CIVIL ENGINEER DATE  
 2-23-15  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
**Jerilyn L. Struven**  
 No. 49964  
 Exp. 2-31-16  
 CIVIL  
 STATE OF CALIFORNIA



**DETOUR PLAN No. 19**  
 WB ROUTE 780 OFF-RAMP TO CEDAR STREET CLOSED  
 Exit LOOP OFF-RAMP TO WB Rte 80  
 EXIT LOOP OFF-RAMP TO EB Rte 780  
 EXIT AT LAUREL ST  
 RIGHT ON SPRUCE ST  
 RIGHT ON LAUREL ST



**DETOUR PLAN No. 20**  
 WB ROUTE 780 ON-RAMP FROM EAST 5TH STREET CLOSED  
 E 5TH ST TO MILITARY E  
 RIGHT ON MILITARY E  
 RIGHT ON E 2ND ST  
 WB Rte 780 ON-RAMP FROM E 2ND ST

**CONSTRUCTION AREA SIGNS**  
 NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

**CS-11**

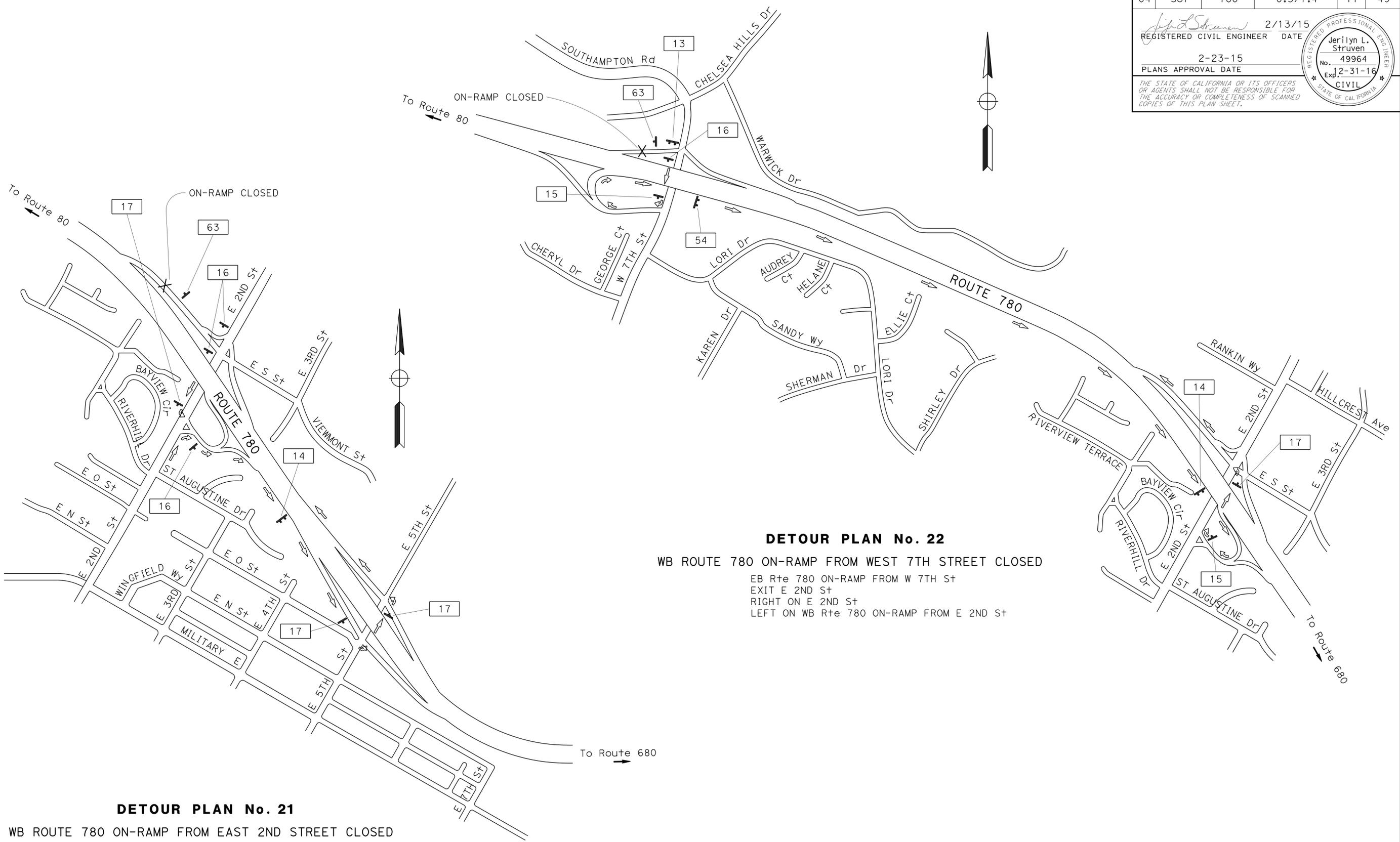
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	17	49

<i>Jerilyn L. Struven</i>	2/13/15
REGISTERED CIVIL ENGINEER	DATE
2-23-15	
PLANS APPROVAL DATE	

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**DETOUR PLAN No. 21**  
 WB ROUTE 780 ON-RAMP FROM EAST 2ND STREET CLOSED  
 EB Rte 780 ON-RAMP FROM E 2ND St  
 EXIT E 5TH St  
 LEFT ON E 5TH St  
 WB Rte 780 ON-RAMP FROM E 5TH St

**DETOUR PLAN No. 22**  
 WB ROUTE 780 ON-RAMP FROM WEST 7TH STREET CLOSED  
 EB Rte 780 ON-RAMP FROM W 7TH St  
 EXIT E 2ND St  
 RIGHT ON E 2ND St  
 LEFT ON WB Rte 780 ON-RAMP FROM E 2ND St

**CONSTRUCTION AREA SIGNS**  
 NO SCALE

**CS-12**

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR	DATE
<b>Caltrans</b>	ROLAND AU-YEUNG	JERILYN STRUVEN	ULICES VEGA	1/22/15
			UV	

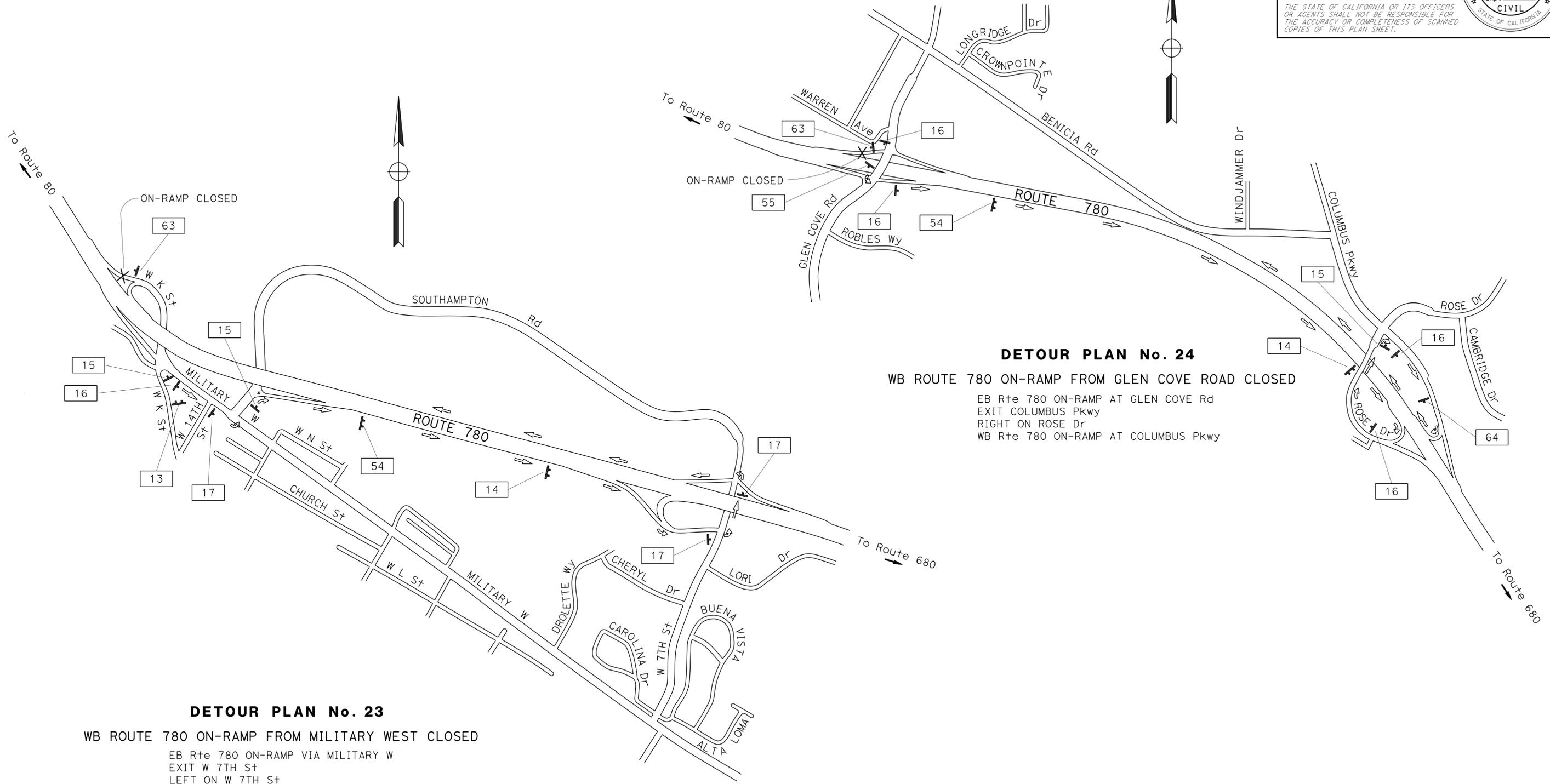
LAST REVISION DATE PLOTTED => 25-FEB-2015 02-23-15 TIME PLOTTED => 08:48

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 CALCULATED/DESIGNED BY: JERILYN STRUVEN  
 CHECKED BY: JERILYN STRUVEN  
 REVISED BY: ULICES VEGA  
 DATE REVISED: 1/22/15  
 UV

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	18	49

2/13/15  
 REGISTERED CIVIL ENGINEER DATE  
 2-23-15  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
 Jerilyn L. Struven  
 No. 49964  
 Exp. 12-31-16  
 CIVIL  
 STATE OF CALIFORNIA



**DETOUR PLAN No. 23**  
 WB ROUTE 780 ON-RAMP FROM MILITARY WEST CLOSED  
 EB Rte 780 ON-RAMP VIA MILITARY W  
 EXIT W 7TH ST  
 LEFT ON W 7TH ST  
 LEFT ON WB Rte 780 ON-RAMP FROM W 7TH ST

**DETOUR PLAN No. 24**  
 WB ROUTE 780 ON-RAMP FROM GLEN COVE ROAD CLOSED  
 EB Rte 780 ON-RAMP AT GLEN COVE Rd  
 EXIT COLUMBUS Pkwy  
 RIGHT ON ROSE Dr  
 WB Rte 780 ON-RAMP AT COLUMBUS Pkwy

**CONSTRUCTION AREA SIGNS**  
 NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

**CS-13**

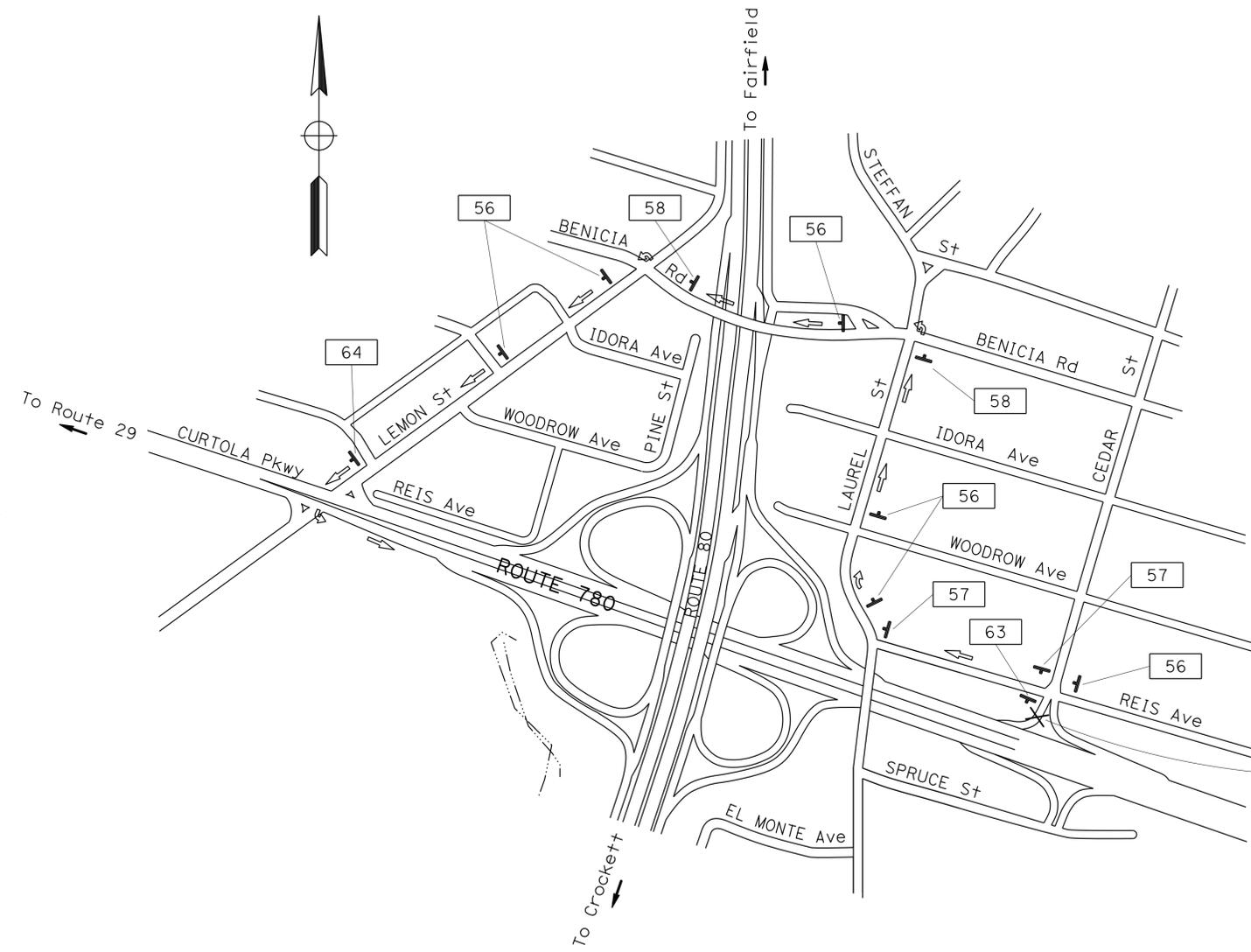
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	19	49

*Jerilyn L. Struven* 2/13/15  
 REGISTERED CIVIL ENGINEER DATE  
 2-23-15  
 PLANS APPROVAL DATE

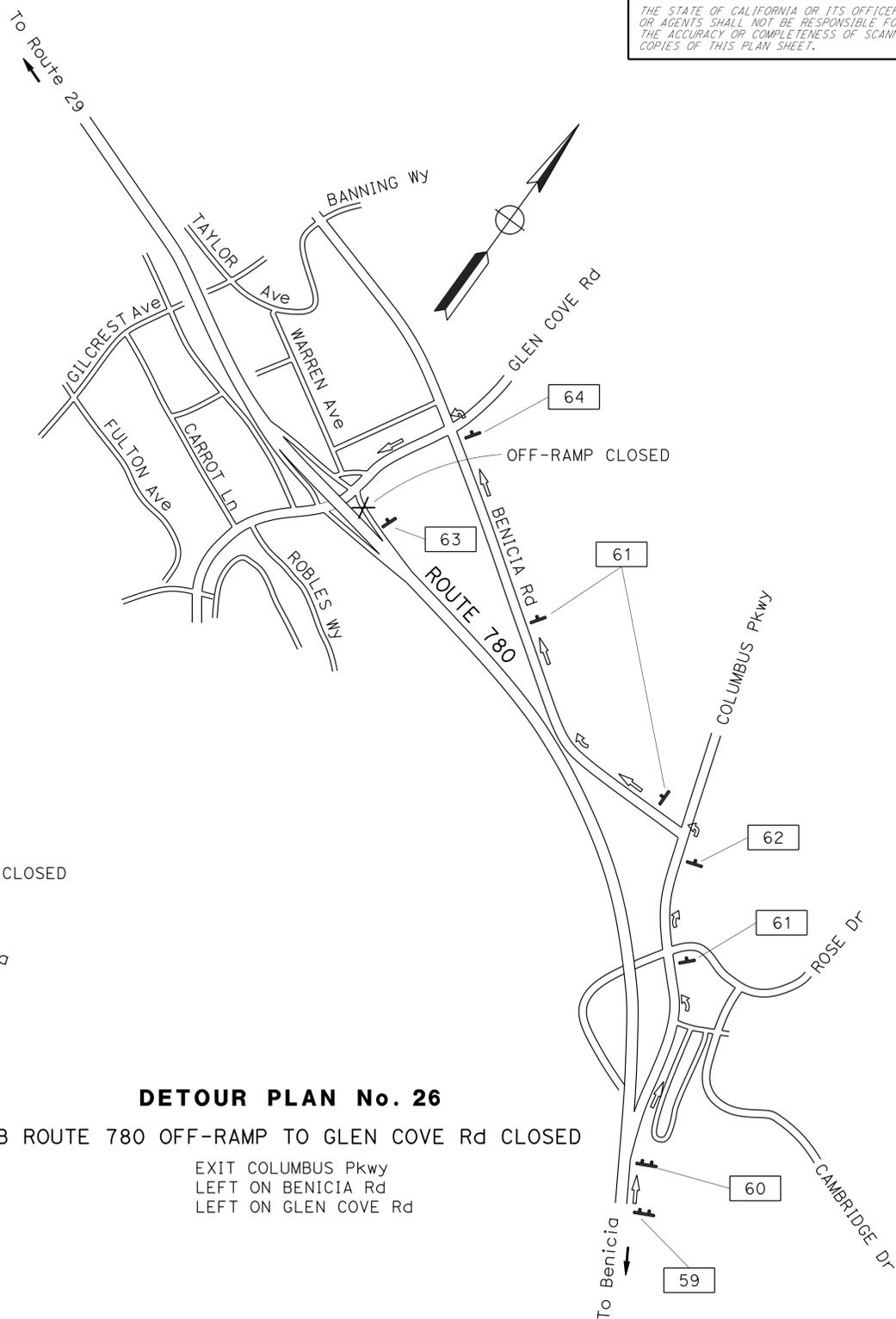
REGISTERED PROFESSIONAL ENGINEER  
 Jerilyn L. Struven  
 No. 49964  
 Exp. 2-31-16  
 CIVIL  
 STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 TRAFFIC  
 CALCULATED/DESIGNED BY: ULICES VEGA  
 CHECKED BY: JERILYN STRUVEN  
 REVISED BY: UV  
 DATE REVISED: 1/22/15



**DETOUR PLAN No. 25**  
 WB ROUTE 780 ON-RAMP FROM CEDAR STREET CLOSED  
 FROM REIS Ave  
 RIGHT ON LAUREL St  
 LEFT ON BENICIA Rd  
 LEFT ON LEMON St  
 LEFT ON EB Rte 780  
 CONNECT TO PREFERRED ROUTE



**DETOUR PLAN No. 26**  
 WB ROUTE 780 OFF-RAMP TO GLEN COVE Rd CLOSED  
 EXIT COLUMBUS Pkwy  
 LEFT ON BENICIA Rd  
 LEFT ON GLEN COVE Rd

**CONSTRUCTION AREA SIGNS**  
 NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

**CS-14**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 TRAFFIC

FUNCTIONAL SUPERVISOR  
 ROLAND AU-YEUNG

CALCULATED/DESIGNED BY  
 CHECKED BY

ULICES VEGA  
 JERILYN STRUVEN

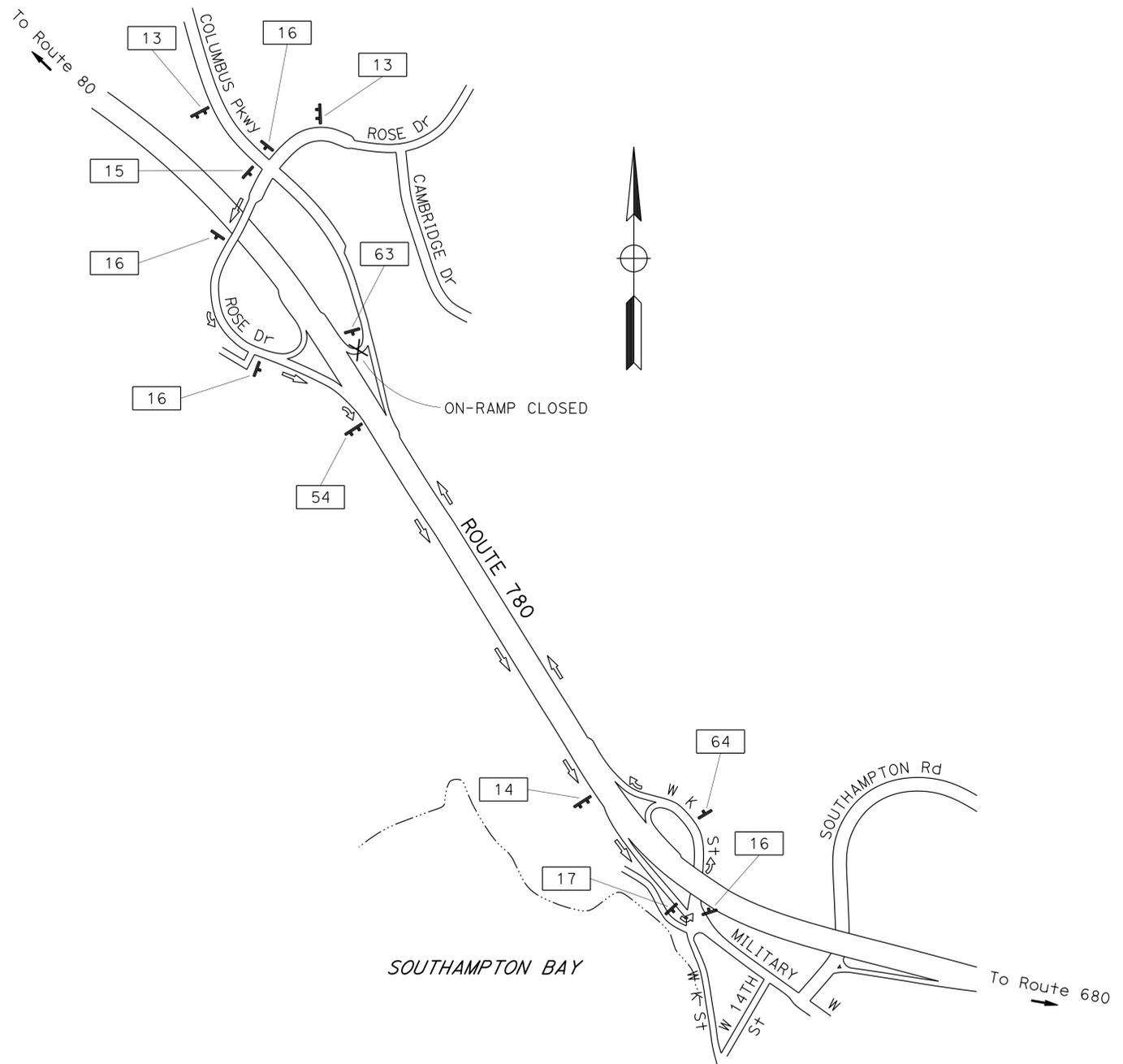
REVISOR  
 DATE

UV  
 1/22/15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	20	49

*Jerilyn L. Struven* 2/13/15  
 REGISTERED CIVIL ENGINEER DATE  
 2-23-15  
 PLANS APPROVAL DATE  
 No. 49964  
 Exp. 2-31-16  
 CIVIL  
 STATE OF CALIFORNIA

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**DETOUR PLAN No. 27**  
 WB ROUTE 780 ON-RAMP FROM COLUMBUS PARKWAY CLOSED  
 EB Rte 780 ON-RAMP FROM ROSE Dr  
 EXIT MILITARY W  
 LEFT ON W K St  
 WB Rte 780 ON-RAMP FROM W K St

**CONSTRUCTION AREA SIGNS**  
 NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

**CS-15**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 CALCULATED/DESIGNED BY: JERILYN STRUVEN  
 CHECKED BY: JERILYN STRUVEN  
 REVISED BY: UV  
 DATE REVISED: 1/22/15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	21	49

*Jerilyn L. Struven* 2/13/15  
 REGISTERED CIVIL ENGINEER DATE  
 2-23-15  
 PLANS APPROVAL DATE  
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78" x 78" 8" E Mod  
 ↑ DETOUR  
 780 EAST BENICIA  
 SPEC 1

78" x 78" 8" E Mod  
 DETOUR ↗  
 780 EAST BENICIA  
 SPEC 2

108" x 60" 8" E Mod  
 ↑ DETOUR  
 CURTOLA PKWY NEXT EXIT  
 SPEC 3

72" x 60" 8" E Mod  
 DETOUR ↗  
 CURTOLA PKWY  
 SPEC 4

48" x 24" 8" E Mod  
 CURTOLA PKWY  
 SPEC 5

48" x 48" 6" C  
 DETOUR  
 CURTOLA PKWY ↻  
 SPEC 6

48" x 36" 6" C  
 780 EAST BENICIA  
 SPEC 7

48" x 54" 6" C  
 DETOUR  
 780 EAST BENICIA ↻  
 SPEC 8

78" x 78" 8" E Mod  
 DETOUR  
 780 EAST BENICIA NEXT EXIT  
 SPEC 9

90" x 78" 8" E Mod  
 780 WEST CONNECTOR CLOSED USE DETOUR  
 SPEC 10

78" x 72" 8" E Mod  
 DETOUR ↗  
 780 WEST VALLEJO  
 SPEC 11

48" x 36" 6" C  
 780 WEST VALLEJO  
 SPEC 12

108" x 78" 8" E Mod  
 DETOUR  
 80 WEST SAN FRANCISCO NEXT EXIT  
 SPEC 13

108" x 78" 8" E Mod  
 DETOUR ↗  
 80 WEST SAN FRANCISCO  
 SPEC 14

96" x 84" 8" E Mod  
 DETOUR  
 80 EAST SACRAMENTO NEXT EXIT  
 SPEC 15

96" x 84" 8" E Mod  
 DETOUR ↗  
 80 EAST SACRAMENTO  
 SPEC 16

48" x 36" 6" C  
 80 EAST SACRAMENTO  
 SPEC 17

90" x 78" 8" E Mod  
 680 NORTH CONNECTOR CLOSED USE DETOUR  
 SPEC 18

42" x 48" 6" C  
 DETOUR ↗  
 680 NORTH  
 SPEC 19

90" x 78" 8" E Mod  
 80 WEST CONNECTOR CLOSED USE DETOUR  
 SPEC 20

48" x 54" 6" C  
 DETOUR  
 80 WEST SAN FRANCISCO ↻  
 5" C  
 SPEC 21

48" x 30" 5" C  
 80 WEST SAN FRANCISCO  
 SPEC 22

96" x 66" 8" E Mod  
 E. FIFTH ST ON-RAMP CLOSED USE DETOUR  
 SPEC 23

84" x 60" 8" E Mod  
 DETOUR ↗  
 E. FIFTH ST  
 SPEC 24

42" x 24" 6" C  
 E. FIFTH ST  
 SPEC 25

66" x 60" 6" E Mod  
 780 EAST ON-RAMP CLOSED USE DETOUR  
 SPEC 26

84" x 102" 8" E Mod  
 DETOUR  
 780 EAST USE 80 WEST  
 SPEC 27

78" x 72" 8" E Mod  
 DETOUR  
 780 EAST NEXT EXIT  
 SPEC 28

72" x 72" 8" E Mod  
 DETOUR ↗  
 780 EAST  
 SPEC 29

72" x 72" 8" E Mod  
 DETOUR ↑  
 780 EAST  
 SPEC 30

72" x 84" 8" E Mod  
 DETOUR  
 CEDAR ST USE 80 WEST  
 SPEC 31

78" x 60" 8" E Mod  
 DETOUR ↗  
 CEDAR ST  
 SPEC 32

42" x 18" 6" C  
 CEDAR ST  
 SPEC 33

78" x 60" 8" E Mod  
 DETOUR ↑  
 CEDAR ST  
 SPEC 34

78" x 84" 8" E Mod  
 DETOUR  
 780 WEST VALLEJO NEXT EXIT  
 SPEC 35

102" x 60" 8" E Mod  
 GLEN COVE RD EXIT CLOSED USE DETOUR  
 SPEC 36

78" x 54" 8" E Mod  
 DETOUR ↗  
 GLEN COVE RD  
 SPEC 37

42" x 24" 5" C  
 GLEN COVE RD  
 SPEC 38

54" x 60" 6" C  
 780 WEST CONNECTOR CLOSED USE DETOUR  
 SPEC 39

**CONSTRUCTION AREA SIGNS**  
 NO SCALE

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

**CS-16**



LAST REVISION | DATE PLOTTED => 25-FEB-2015  
 01-22-15 TIME PLOTTED => 08:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	22	49

*Jerilyn L. Struven* 2/13/15  
 REGISTERED CIVIL ENGINEER DATE  
 2-23-15  
 PLANS APPROVAL DATE

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### CONSTRUCTION AREA SIGNS

SIGN No.	MUTCD CODE	PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	No. OF SIGNS	REMARKS
		INCH x INCH		EA - INCH x INCH	EA	
1	SPEC 1	78 x 78	DETOUR 780 EAST BENICIA	2 - 4 x 6	4	
2	SPEC 2	78 x 78	DETOUR 780 EAST BENICIA	2 - 4 x 6	7	
3	SPEC 3	108 x 60	DETOUR CURTOLA PKWY NEXT EXIT	2 - 4 x 6	2	
4	SPEC 4	72 x 60	DETOUR CURTOLA PKWY	2 - 4 x 6	4	
5	M4-10R	48 x 18	DETOUR	1 - 4 x 6	1	
	SPEC 5	48 x 24	CURTOLA PKWY			
6	SPEC 6	48 x 48	DETOUR CURTOLA PKWY	1 - 6 x 6	1	
7	M4-10L	48 x 18	DETOUR	1 - 4 x 6	1	
	SPEC 5	48 x 24	CURTOLA PKWY			
8	SC3 (CA)	48 x 18	DETOUR	1 - 4 x 6	1	
	SPEC 5	48 x 24	CURTOLA PKWY			
9	M4-10R	48 x 18	DETOUR	1 - 4 x 6	7	
	SPEC 7	48 x 36	780 EAST BENICIA			
10	SPEC 8	48 x 54	DETOUR 780 EAST BENICIA	1 - 6 x 6	1	
11	SC3 (CA)	48 x 18	DETOUR	1 - 4 x 6	9	
	SPEC 7	48 x 36	780 EAST BENICIA			
12	SPEC 9	78 x 78	DETOUR 780 EAST BENICIA NEXT EXIT	2 - 4 x 6	1	
13	SPEC 10	30 x 78	780 WEST CONNECTOR CLOSED USE DETOUR	2 - 6 x 8	5	
14	SPEC 11	78 x 72	DETOUR 780 WEST VALLEJO	2 - 6 x 6	6	
15	M4-10R	48 x 18	DETOUR	1 - 4 x 6	10	
	SPEC 12	48 x 36	780 WEST VALLEJO			
16	SC3 (CA)	48 x 18	DETOUR	1 - 4 x 6	28	
	SPEC 12	48 x 36	780 WEST VALLEJO			
17	M4-10L	48 x 18	DETOUR	1 - 4 x 6	11	
	SPEC 12	48 x 36	780 WEST VALLEJO			
18	SPEC 13	108 x 78	DETOUR 80 WEST SAN FRANCISCO NEXT EXIT	2 - 6 x 8	1	
19	SPEC 14	108 x 78	DETOUR 80 WEST SAN FRANCISCO	2 - 6 x 8	5	
20	SPEC 15	96 x 84	DETOUR 80 EAST SACRAMENTO NEXT EXIT	2 - 6 x 8	2	
21	SPEC 16	96 x 84	DETOUR 80 EAST SACRAMENTO	2 - 6 x 8	4	
22	M4-10R	48 x 18	DETOUR	1 - 4 x 6	4	
	SPEC 17	48 x 36	80 EAST SACRAMENTO			
23	SC3 (CA)	48 x 18	DETOUR	1 - 4 x 6	1	
	SPEC 17	48 x 36	80 EAST SACRAMENTO			
24	SPEC 18	90 x 78	680 NORTH CONNECTOR CLOSED USE DETOUR	2 - 6 x 8	1	
25	SPEC 19	42 x 48	DETOUR 680 NORTH	1 - 4 x 6	1	
26	M4-10R	48 x 18	DETOUR	1 - 4 x 6	2	
	G27-2 (CA)	21 x 18	680			
	M3-1	24 x 12	NORTH			
27	SC3 (CA)	48 x 18	DETOUR	1 - 4 x 6	9	
	G27-2 (CA)	21 x 18	680			
	M3-1	24 x 12	NORTH			
28	SPEC 20	90 x 78	80 WEST CONNECTOR CLOSED USE DETOUR	2 - 6 x 8	1	
29	M4-10R	48 x 18	DETOUR	1 - 4 x 6	2	
	SPEC 22	48 x 30	80 WEST SAN FRANCISCO			
30	SPEC 21	48 x 54	DETOUR 80 WEST SAN FRANCISCO	1 - 6 x 6	1	
31	M4-10L	48 x 18	DETOUR	1 - 4 x 6	2	
	SPEC 22	48 x 30	80 WEST SAN FRANCISCO			
32	SC3 (CA)	48 x 18	DETOUR	1 - 4 x 6	1	
	SPEC 22	48 x 30	80 WEST SAN FRANCISCO			
33	SPEC 23	96 x 66	E. FIFTH ST ON-RAMP CLOSED USE DETOUR	2 - 4 x 6	1	
34	SPEC 24	84 x 60	DETOUR E. FIFTH ST	2 - 4 x 6	1	
35	M4-10L	48 x 18	DETOUR	1 - 4 x 6	2	
	SPEC 25	42 x 24	E. FIFTH ST			

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 CALCULATED/DESIGNED BY: [ ] CHECKED BY: [ ]  
 ULICES VEGA JERILYN STRUVEN  
 REVISED BY: [ ] DATE REVISED: 1/22/15  
 UV

### CONSTRUCTION AREA SIGNS

NO SCALE

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

**CS-17**

LAST REVISION DATE PLOTTED => 25-FEB-2015 02-20-15 TIME PLOTTED => 08:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	23	49

*Jerilyn L. Struven* 2/13/15  
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### CONSTRUCTION AREA SIGNS

SIGN No.	MUTCD CODE	PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	No. OF SIGNS	REMARKS
		Inch x Inch		EA - INCH x INCH	EA	
36	SC3 (CA)	48 x 18	DETOUR	1 - 4 x 6	3	
	SPEC 25	42 x 24	E. FIFTH ST			
37	SPEC 26	66 x 60	780 EAST ON-RAMP CLOSED USE DETOUR	2 - 4 x 6	5	
38	SC3 (CA)	48 x 18	DETOUR	1 - 4 x 6	15	
	G27-2 (CA)	21 x 18	780			
	M3-2	24 x 12	EAST			
39	M4-10R	48 x 18	DETOUR	1 - 4 x 6	2	
	G27-2 (CA)	21 x 18	780			
40	M3-2	24 x 12	EAST	2 - 6 x 8	1	
	SPEC 27	84 x 102	DETOUR 780 EAST USE 80 WEST			
	M4-10L	48 x 18	DETOUR			
41	G27-2 (CA)	21 x 18	780	1 - 4 x 6	12	
	M3-2	24 x 12	EAST			
	SC3 (CA)	48 x 18	DETOUR			
42	G27-2 (CA)	21 x 18	780		1	SSBM
	M3-2	24 x 12	EAST			SSBM
	SC3 (CA)	48 x 18	DETOUR			SSBM
43	SPEC 28	78 x 72	DETOUR 780 EAST NEXT EXIT	2 - 6 x 6	3	
44	SPEC 29	72 x 72	DETOUR 780 EAST	2 - 6 x 6	2	
45	M4-10L	48 x 18	DETOUR	1 - 4 x 6	1	
	SPEC 7	48 x 36	780 EAST BENICIA			
46	M4-10L	48 x 18	DETOUR		1	SSBM
	SPEC 7	48 x 36	780 EAST BENICIA			SSBM
47	SPEC 30	72 x 72	DETOUR 780 EAST	2 - 6 x 6	1	
48	SPEC 31	72 x 84	DETOUR CEDAR ST USE 80 WEST	2 - 6 x 6	1	
49	SPEC 32	78 x 60	DETOUR CEDAR ST	2 - 4 x 6	3	
50			DELETED			
51	SPEC 34	78 x 60	DETOUR CEDAR ST	2 - 4 x 6	1	
	M4-10R	48 x 18	DETOUR			
52	SPEC 33	42 x 18	CEDAR ST	1 - 4 x 6	3	
	SC3 (CA)	48 x 18	DETOUR			
53	SPEC 33	48 x 18	CEDAR ST	1 - 4 x 6	2	
	SPEC 35	78 x 84	DETOUR 780 WEST VALLEJO NEXT EXIT			
54	M4-10L	48 x 18	DETOUR		1	SSBM
	SPEC 12	48 x 36	780 WEST VALLEJO			SSBM
	SC3 (CA)	48 x 18	DETOUR			
55	G27-2 (CA)	21 x 18	780	1 - 4 x 6	6	
	M3-4	21 x 18	WEST			
	M4-10R	24 x 12	DETOUR			
56	G27-2 (CA)	48 x 18	780	1 - 4 x 6	2	
	M3-4	24 x 12	WEST			
	M4-10L	48 x 18	DETOUR			
57	G27-2 (CA)	21 x 18	780	1 - 4 x 6	2	
	M3-4	24 x 12	WEST			
	M4-10L	48 x 18	DETOUR			
58	G27-2 (CA)	21 x 18	780	1 - 4 x 6	2	
	M3-4	24 x 12	WEST			
	SPEC 36	102 x 60	GLEN COVE RD EXIT CLOSED USE DETOUR			
59	SPEC 37	78 x 54	DETOUR GLEN COVE RD	2 - 6 x 6	1	
	SC3 (CA)	48 x 18	DETOUR			
60	SPEC 38	42 x 24	GLEN COVE RD	1 - 4 x 6	3	
	M4-10L	48 x 18	DETOUR			
61	SPEC 38	42 x 24	GLEN COVE RD	1 - 4 x 6	1	
	M4-10L	48 x 18	DETOUR			
62	SPEC 38	42 x 24	GLEN COVE RD	1 - 6 x 6	27	
	SC6-4 (CA)	48 x 60	RAMP CLOSED (DATES) (TIMES)			
63	M4-8A	30 x 15	END DETOUR	1 - 4 x 4	15	
	G20-1	90 x 48	ROAD WORK NEXT ## MILES			
64	W20-1	48 x 48	ROAD WORK AHEAD	2 - 4 x 6	2	
	W16-4	30 x 24	NEXT ## MILES			
65	W20-1	48 x 48	ROAD WORK AHEAD		2	SSBM
	W16-4	30 x 24	NEXT ## MILES			SSBM
66	W20-1	48 x 48	ROAD WORK AHEAD	1 - 6 x 6	20	
	G20-2	48 x 24	END ROAD WORK			
67	G20-2	36 x 18	END ROAD WORK	1 - 4 x 4	6	
	G20-2	36 x 18	END ROAD WORK			
68	G20-2	36 x 18	END ROAD WORK	1 - 4 x 4	16	
	G20-2	36 x 18	END ROAD WORK			
69	C40 (CA)	144 x 60	TRAFFIC SIGNS DOUBLED IN	2 - 6 x 8	2	
	SPEC 39	54 x 60	780 WEST CONNECTOR CLOSED USE DETOUR			
70						
71						

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: ROLAND AU-YEUNG  
 CALCULATED/DESIGNED BY: ULICES VEGA  
 CHECKED BY: JERILYN STRUVEN  
 REVISED BY: UV  
 DATE REVISED: 1/22/15

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET CS-1

### CONSTRUCTION AREA SIGNS

NO SCALE

**CS-18**

LAST REVISION DATE PLOTTED => 25-FEB-2015 02:20:15 TIME PLOTTED => 08:49







Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	27	49

*C.H. Chern* 1/15/15  
REGISTERED CIVIL ENGINEER DATE

2-23-15  
PLANS APPROVAL DATE

Chuen-Hsiung Chern  
No. 48187  
Exp. 6-30-16  
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.

**TRAFFIC STRIPES, PAVEMENT MARKINGS AND PAVEMENT MARKERS**

DIRECTION	LOCATION	DETAIL No.	THERMOPLASTIC TRAFFIC STRIPE (ENHANCED WET NIGHT VISIBILITY)						PAVEMENT MARKER				THERMOPLASTIC PAVEMENT MARKING (ENHANCED WET NIGHT VISIBILITY)			REMOVE			
			4" WHITE	4" YELLOW	8" WHITE	8" WHITE BROKEN (12-3)	4" WHITE BROKEN (17-7)	4" WHITE BROKEN (35-13)	NON-REFLECTIVE TYPE A	RETROREFLECTIVE			ARROW	LIMIT LINE	DIAGONAL	THERMO-PLASTIC TRAFFIC STRIPE WHITE	THERMO-PLASTIC TRAFFIC STRIPE YELLOW	PAVEMENT MARKER	THERMO-PLASTIC PAVEMENT MARKING
										TYPE C	TYPE G	TYPE H				LF	EA	EA	SQFT
EB	ROSE Dr OC TO GLEN COVE Rd OC PM 4.96/6.0	25		5491							115						5491	115	
		13M					5059	420		103				1365			523		
		14M					432	36	12					117			48		
		36A	300		300					13				956			13		
		27B	5491											5491					
	GLEN COVE Rd OC TO HOME ACRES Ave POC PM 6.0/6.66 SEE NOTE 4	25		3485								73					3485	73	
		13M					3197	264		65				832			329		
		14M					288	12	8					104			20		
		36			624					28				1248			28		
		27B	3485											3485					
	HOME ACRES Ave POC TO LAUREL St OC PM 6.66/7.07 SEE NOTE 4	25		2165								46					2165	46	
		13M					2021	168		42				546			210		
		14M					144	12	4					39			16		
		36			528					24				1056			24		
		36A			72		79			4				172			4		
		27B	2165											2165					
		25		634								14					634	14	
	LAUREL St OC TO ROUTE 80/780 SEPARATION PM 7.07/7.19	13M					634	52		14				169			66		
		36			336					16				672			16		
		36B	50		72					4				248			4		
		37				270				20				108			20		
		27B	634											634					
		25		1288								28					1288	28	
	ROUTE 80/780 SEPARATION TO LEMON St PM 7.19/7.43	13M					1144	96		24				312			120		
		14M					144	12	4					39			16		
36				264					13				528			13			
36B		50		80					4				282			4			
37					330				24				132			24			
27B		1288											1288						
	TYPE I ARROW (2)												62					62	
SHEET TOTAL			13463	13063	2276	600	79	13063	1072	28	398	276	62			21988	13063	1774	62
SHEET TOTAL WB FROM PDQ-1			21394	20446	3796		1080	20406	1676	44	565	432				34813	20446	2717	
SHEET TOTAL WB FROM PDQ-2			13567	13063	2817	600	360	13063	1084	24	427	275	249	45	114	22772	13063	1810	408
SHEET TOTAL EB FROM PDQ-3			20863	20395	5142	808	528	20395	1692	48	673	430		120		37163	20395	2843	120
GRAND TOTAL			136254	14031	2008	2047	66927	5524			3620		590		120	116736	66967	9144	590

**PAVEMENT DELINEATION QUANTITIES**  
**PDQ-4**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION MAINTENANCE  
 CHUEN-HSIUNG CHERN  
 NGOC TRAN  
 CC  
 12/16/14  
 REVISOR BY  
 DATE REVISED  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 FUNCTIONAL SUPERVISOR  
 NGOC TRAN  
 BORDER LAST REVISED 7/2/2010  
 USERNAME => s119915  
 DGN FILE => 0414000472nc004.dgn  
 RELATIVE BORDER SCALE IS IN INCHES  
 UNIT 0976  
 PROJECT NUMBER & PHASE  
 04140004721

LAST REVISION DATE PLOTTED => 25-FEB-2015  
 02-20-15 TIME PLOTTED => 08:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	28	49

*C.H. Chern* 1/15/15  
 REGISTERED CIVIL ENGINEER DATE

2-23-15  
 PLANS APPROVAL DATE

Chuen-Hsiung Chern  
 No. 48187  
 Exp. 6-30-16  
 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.

**CURB AND HOT MIX ASPHALT DIKE QUANTITIES (WB)**

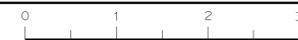
LOCATION	POST MILES	REMOVE		PLACE DIKE		PLACE CURB	
		DIKE	CURB	TYPE E	HMA (TYPE A)	TYPE E (N)	MINOR CONCRETE
		LF		TON		LF	CY
WEST ARSENAL UC TO 5TH St UC	1.27 TO 1.4	992		992	26.11		
	1.42 TO 1.49	1145		1145	30.14		
E 5TH St UC TO E 2ND St UC	1.68 TO 1.82	853		853	22.46		
	1.86 TO 1.9	238		238	6.27		
E 2ND St UC TO W 7TH St UC	2.39 TO 2.69	1400		1400	36.86		
	2.71 TO 2.83	587		587	15.45		
	2.8 TO 2.94	681		681	17.93		
W 7TH St UC TO SOUTHAMPTON Rd UC	2.97 TO 3.05	427		427	11.24		
	3.1 TO 3.77	3825		3825	100.69		
SOUTHAMPTON Rd UC TO W BENICIA UC	3.82 TO 3.97	643		643	16.93		
	4.01 TO 4.07		295			295	19.65
W BENICIA UC TO ROSE Dr OC	4.07 TO 4.15	470		470	12.37		
	4.15 TO 4.27	565		565	14.87		
	4.27 TO 4.34	318		318	8.37		
	4.34 TO 4.48	690		690	18.16		
	4.48 TO 4.55	365		365	9.61		
	4.63 TO 4.72	540		540	14.22		
	4.72 TO 4.79	322		322	8.48		
	4.86 TO 4.89	412		412	10.85		
ROSE Dr OC TO HOME ACRES Ave POC	4.91 TO 4.97	550		550	14.48		
	4.97 TO 5.47	2641		2641	69.52		
	5.6 TO 5.74	878		878	23.11		
	5.87 TO 5.89	123		123	3.24		
	6.0 TO 6.05			246	6.48		
HOME ACRES Ave POC TO LAUREL St OC	6.09 TO 6.47	2000		2000	52.65		
	6.59 TO 6.65	367		367	9.66		
LAUREL St OC TO LEMON St	6.66 TO 6.84	961		961	25.30		
	6.91 TO 6.97		302	302	7.95		
LAUREL St OC TO LEMON St	7.09 TO 7.14		243	243	6.40		
	7.09 TO 7.16	174		174	4.58		
	7.24 TO 7.28	205		205	5.40		
	7.26 TO 7.31		281	281	7.40		
SUBTOTAL WB		22372	1121	23444	617.18	295	19.65
SUBTOTAL EB		20124	919	22045	580.32		
TOTAL WB AND EB		42496	2040	45489	1197.50	295	19.65

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

**CURB AND HOT MIX ASPHALT DIKE QUANTITIES (EB)**

LOCATION	POST MILES	REMOVE		PLACE DIKE	
		DIKE	CURB	TYPE E	HMA (TYPE A)
		LF		TON	
E 5TH St UC TO E 2ND St UC	1.72 TO 1.79	633		633	16.66
	1.92 TO 1.96	318		318	8.37
E 2ND St UC TO W 7TH St UC	2.03 TO 2.49	2373		2373	62.47
	2.65 TO 2.94	1450		1450	38.17
W 7TH St UC TO W BENICIA UC	2.99 TO 3.05	328		328	8.63
	3.05 TO 3.17	623		623	16.40
	3.20 TO 3.26	456		456	12.00
	3.28 TO 3.65	1844		1844	48.54
	3.64 TO 3.80	808		808	21.27
W BENICIA UC TO ROSE Dr OC	4.14 TO 4.19	362		362	9.53
	4.21 TO 4.27	224		224	5.90
	4.27 TO 4.65	1982		1982	52.18
	4.67 TO 4.73	292		292	7.69
	4.72 TO 4.83	601		601	15.82
ROSE Dr OC TO HOME ACRES Ave POC	4.90 TO 4.95	270		270	7.11
	4.95 TO 5.83	4661		4661	122.70
	5.83 TO 5.92	500		500	13.16
	5.92 TO 6.11			1002	26.38
HOME ACRES Ave POC TO LAUREL St OC	6.23 TO 6.24	70		70	1.84
	6.34 TO 6.65	1630		1630	42.91
	6.65 TO 6.68	62		62	1.63
LAUREL St OC TO LEMON St	6.68 TO 6.80	637		637	16.77
	6.91 TO 6.95		237	237	6.24
LAUREL St OC TO LEMON St	7.08 TO 7.15		350	350	9.21
	7.26 TO 7.31		332	332	8.74
SUBTOTAL EB		20124	919	22045	580.32

**SUMMARY OF QUANTITIES**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	29	49

*C.H. Chern* 1/15/15  
 REGISTERED CIVIL ENGINEER DATE

2-23-15  
 PLANS APPROVAL DATE

Chuen-Hsiung Chern  
 No. 48187  
 Exp. 6-30-16  
 CIVIL

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### ROADWAY QUANTITIES

DIRECTION	LOCATION	AREA (N)	RHMA-G	TACK COAT
		SQFT		TON
WB	MAIN LINE FROM PARK Rd UC TO W ARSENAL UC (PM 0.5/1.21)	54600	410	2.53
	MAIN LINE FROM W ARSENAL UC TO LEMON St (PM 1.21/7.43)	1160316	8857	53.76
	SB 680 CONNECTOR TO WB 780 GORE AREA	3970	30	0.18
	GORE AREA OFF-RAMP TO E 5TH St	7511	56	0.35
	GORE AREA ON-RAMP FROM E 5TH St	8084	61	0.37
	GORE AREA OFF-RAMP TO E 2ND St	8437	63	0.39
	GORE AREA ON-RAMP FROM E 2ND St	8965	67	0.42
	GORE AREA OFF-RAMP TO W 7TH St	7368	55	0.34
	GORE AREA ON-RAMP FROM W 7TH St	10565	79	0.49
	GORE AREA OFF-RAMP TO W K St	6967	52	0.32
	GORE AREA ON-RAMP FROM W K St	10128	76	0.47
	GORE AREA OFF-RAMP TO COLUMBUS Pkwy	7205	54	0.33
	GORE AREA ON-RAMP FROM COLUMBUS Pkwy	7994	60	0.37
	GORE AREA OFF-RAMP TO GLEN COVE Rd	6764	51	0.31
	GORE AREA ON-RAMP FROM GLEN COVE Rd	11869	89	0.55
	GORE AREA OFF-RAMP TO REIS Ave	6622	50	0.31
	GORE AREA ON-RAMP FROM CEDAR St AND OFF-RAMP TO EB 80	10948	82	0.51
	GORE AREA EB 80 OFF-RAMP TO WB 780 AND ON-RAMP TO WB 80	13239	99	0.61
	GORE AREA WB 80 OFF-RAMP TO LEMON St	11345	85	0.53
	<b>SUBTOTAL (WB)</b>		<b>1362897</b>	<b>10376</b>
EB	MAIN LINE FROM PARK Rd UC TO W ARSENAL UC (PM 0.5/1.21)	67375	505	3.12
	MAIN LINE FROM W ARSENAL UC TO LEMON St (PM 1.21/7.43)	1159560	9079	53.73
	EB ADDITIONAL 3RD LANE (PM 0.64/1.45)	51132	383	2.37
	GORE AREA ON-RAMP TO WB 80	4925	37	0.23
	GORE AREA WB 80 OFF-RAMP TO E 780 AND ON-RAMP TO EB 80	7047	53	0.33
	GORE AREA WB 80 OFF-RAMP TO EB 780 AND EXIT TO SPRUCE St	15136	114	0.70
	GORE AREA ON-RAMP FROM SPRUCE St	4783	36	0.22
	GORE AREA OFF-RAMP TO GLEN COVE Rd	8641	65	0.40
	GORE AREA ON-RAMP FROM GLEN COVE Rd	13909	104	0.64
	GORE AREA OFF-RAMP TO ROSE Dr	8987	67	0.42
	GORE AREA ON-RAMP FROM ROSE Dr	15851	119	0.73
	GORE AREA OFF-RAMP TO W K St	9581	72	0.44
	GORE AREA ON-RAMP FROM SOUTHAMPTON Rd	7532	56	0.35
	GORE AREA OFF-RAMP TO W 7TH St	8642	65	0.40
	GORE AREA ON-RAMP FROM W 7TH St	8932	67	0.41
	GORE AREA OFF-RAMP TO E 2ND St	6678	50	0.31
	GORE AREA ON-RAMP FROM E 2ND St AND OFF-RAMP TO E 5TH St	14370	108	0.67
GORE AREA ON-RAMP FROM E 5TH St	5416	41	0.25	
GORE AREA EXIT TO NB 680	3801	29	0.18	
<b>SUBTOTAL (EB)</b>		<b>1422298</b>	<b>11050</b>	<b>65.90</b>
<b>TOTAL</b>		<b>2785195</b>	<b>21426</b>	<b>129.05</b>

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

### REPLACE ASPHALT CONCRETE SURFACING

DIRECTION	POST MILE	LANE 2	LENGTH (N)	WIDTH (N)	REPLACE AC SURFACING
			LF	LF	CY
WB	6.62-7.29	X	3500	12	856
	7.21-7.23	X	100	12	25
EB	6.73-6.85	X	530	12	130
	6.57-6.65	X	380	12	93
	5.62-5.66	X	200	12	49
	5.26-5.28	X	150	12	37
<b>TOTAL</b>					<b>1190</b>

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

## SUMMARY OF QUANTITIES

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	30	49

C.H. Chern 1/15/15  
 REGISTERED CIVIL ENGINEER DATE

2-23-15  
 PLANS APPROVAL DATE

Chuen-Hsiung Chern  
 No. 48187  
 Exp. 6-30-16  
 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.

**COLD PLANE AC PAVEMENT**

LOCATION	AREA (N)	COLD PLANE AC PAVEMENT
	SQFT	SQYD
AT OVERCROSSING	ROSE Dr OC	13091
	GLEN COVE Rd OC	12029
	HOME ACRES POC	10068
	WB 780 AT LAUREL St OC	11802
	EB 780 AT LAUREL St OC	9724
	WB 780 AT 80/780 SEPARATION	13885
	EB 780 AT 80/780 SEPARATION	15337
SUBTOTAL		9549
CONFORM AREA	PARK ROAD UC (WB)	1160
	PARK ROAD UC (EB)	880
	WEST ARSENAL UC (L & R)	3120
	EAST 5TH St UC (L & R)	3120
	EAST 2ND St UC (L & R)	3120
	WEST 7TH St UC (L & R)	3120
	SOUTHAMPTON Rd UC (L & R)	3120
	WEST BENICIA UC (L & R)	3120
	ROSE Dr OC	8640
	HOME ACRES POC	2880
	GLEN COVE Rd OC	5760
	LAUREL St OC	4220
	80/780 SEPARATION	3580
	RAMPS CONFORM AREA	18720
CONFORM AT BOTH SHOULDERS: PARK Rd UC TO W ARSENAL UC	15263	
CONFORM AT BOTH SHOULDERS: W ARSENAL UC TO LEMON St	32200	
CONFORM AT DRAINAGE INLET	3840	
SUBTOTAL		45099
TOTAL		54648

(N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

**SUMMARY OF QUANTITIES**  
**Q-3**

LAST REVISION DATE PLOTTED => 25-FEB-2015 02-20-15 TIME PLOTTED => 08:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	31	49

1/22/15  
 REGISTERED ELECTRICAL ENGINEER DATE  
 Elaine Wong  
 No. 13753  
 Exp. 6-30-15  
 ELECTRICAL  
 STATE OF CALIFORNIA  
 2-23-15  
 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.

**PROJECT NOTES:**

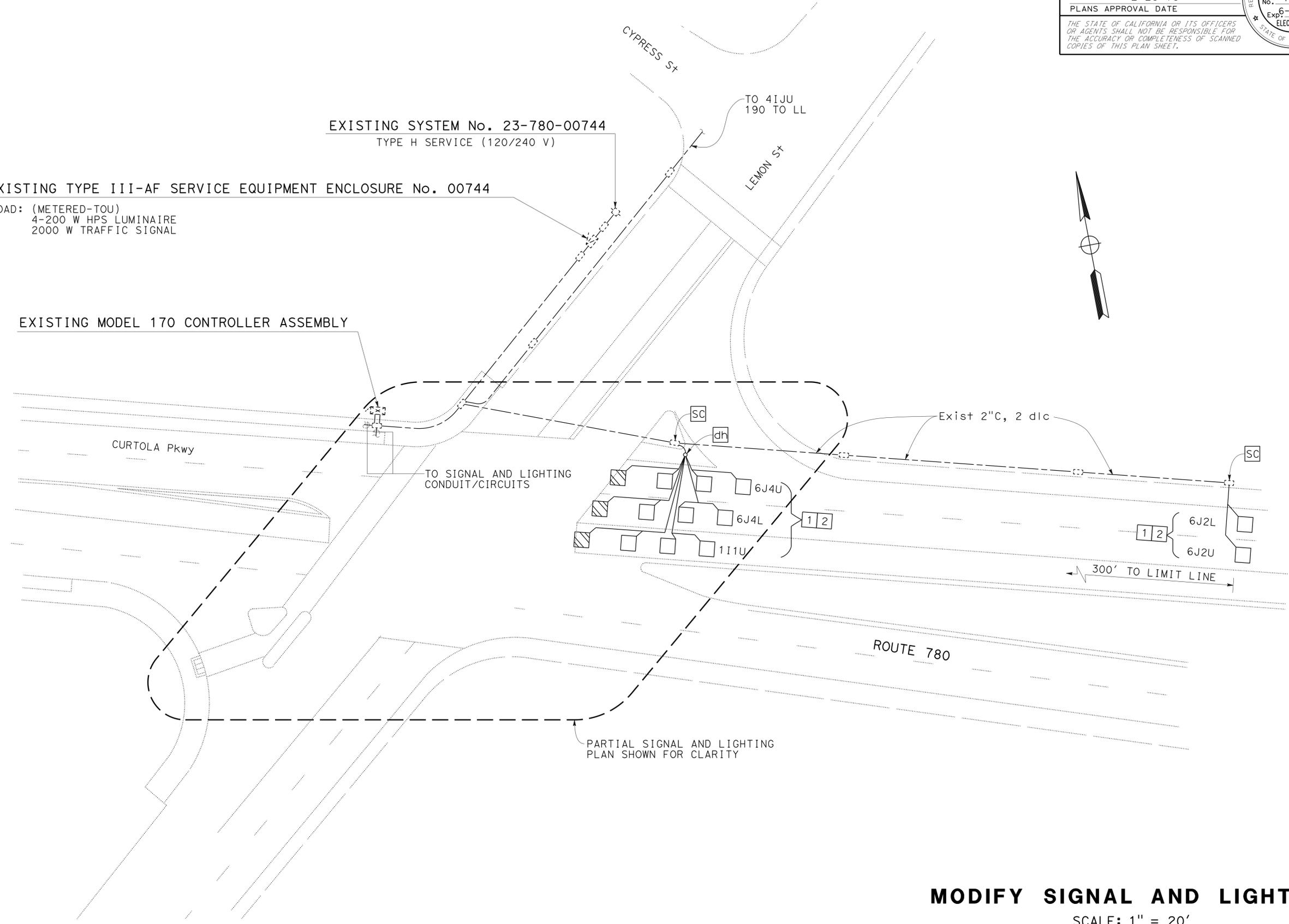
- 1 AB Exist LOOPS
- 2 INSTALL DETECTOR LOOP AS SHOWN

JC	12/3/14	JESSIE CABUGAO	ELAINE WONG	BEHZAD GOLEMOHAMMADI	ELECTRICAL
REVISD BY	DATE REVISED	CALCULATED/DESIGNED BY	CHECKED BY	FUNCTIONAL SUPERVISOR	DEPARTMENT OF TRANSPORTATION

EXISTING SYSTEM No. 23-780-00744  
 TYPE H SERVICE (120/240 V)

EXISTING TYPE III-AF SERVICE EQUIPMENT ENCLOSURE No. 00744  
 LOAD: (METERED-TOU)  
 4-200 W HPS LUMINAIRE  
 2000 W TRAFFIC SIGNAL

EXISTING MODEL 170 CONTROLLER ASSEMBLY

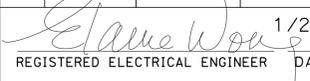


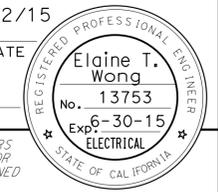
**MODIFY SIGNAL AND LIGHTING**  
 SCALE: 1" = 20'

APPROVED FOR ELECTRICAL WORK ONLY

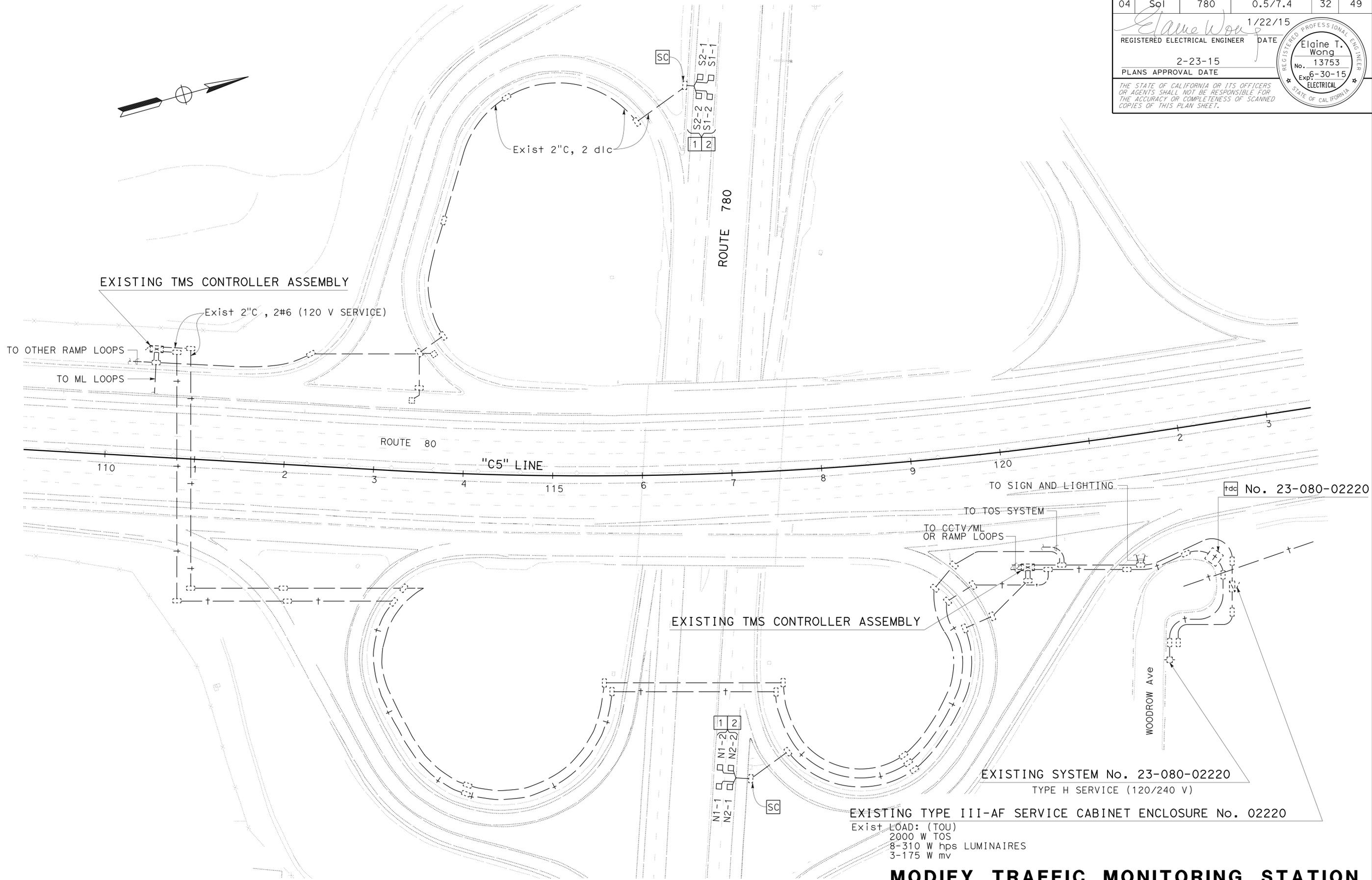
**E-1**

LAST REVISION | DATE PLOTTED => 25-FEB-2015  
 02-20-15 TIME PLOTTED => 08:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	So1	780	0.5/7.4	32	49
			DATE	1/22/15	
REGISTERED ELECTRICAL ENGINEER			No. 13753		
PLANS APPROVAL DATE			Exp. 6-30-15		
2-23-15			ELECTRICAL		
<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>					



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
<b>ELECTRICAL</b>	BEHZAD GOLEMHAMMADI	JC	12/3/14
<b>Caltrans</b>		JESSIE CABUGAO	
		ELAINE WONG	
		CALCULATED/DESIGNED BY	CHECKED BY



NOTE:  
PARTIAL TMS AND TOS SYSTEMS ARE SHOWN FOR CLARITY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET E-1

APPROVED FOR ELECTRICAL WORK ONLY

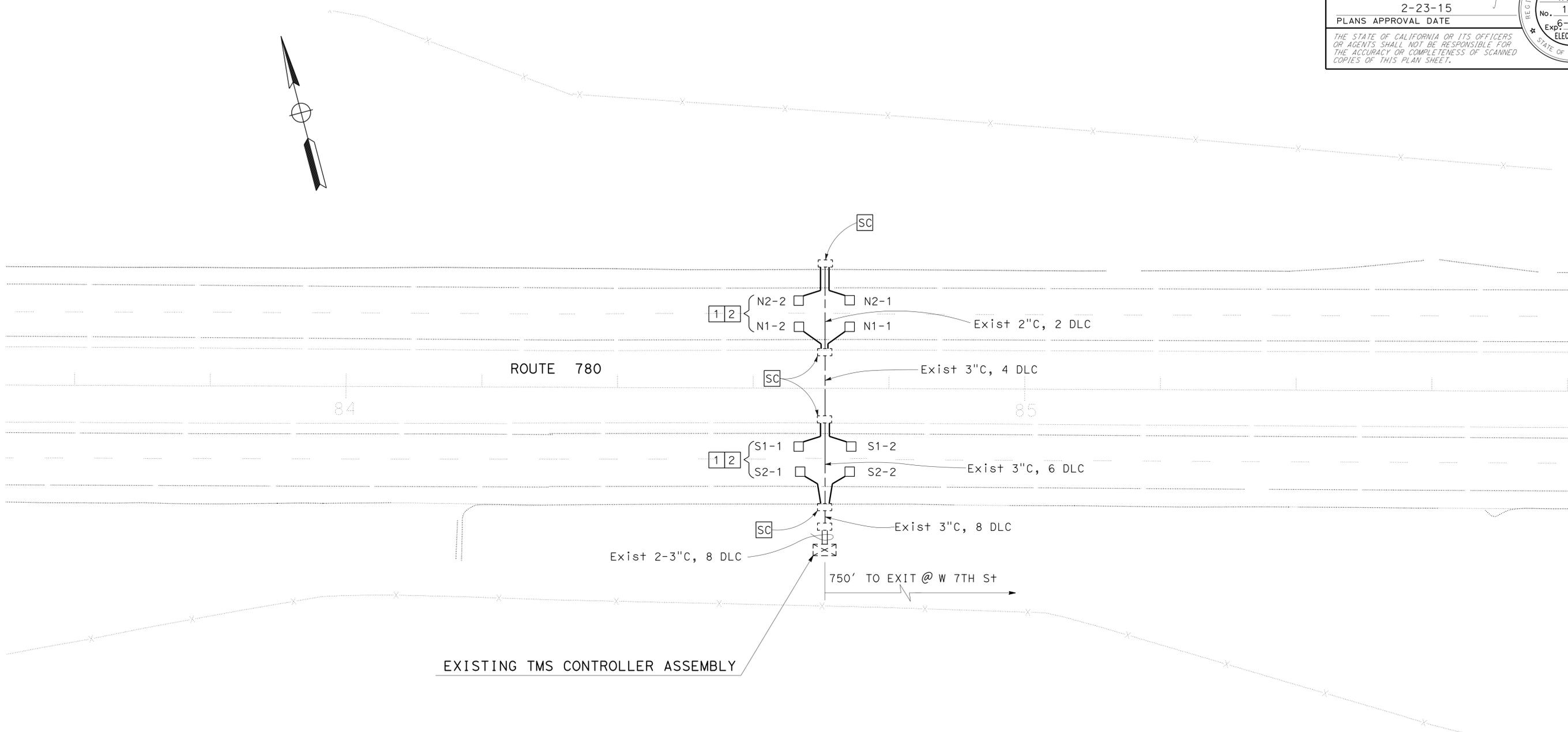
# MODIFY TRAFFIC MONITORING STATION

SCALE: 1" = 50'

E-2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	33	49
			1/22/15		
REGISTERED ELECTRICAL ENGINEER			DATE		
2-23-15			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	JC
<b>Caltrans</b>	REVISOR
<b>ELECTRICAL</b>	DATE
FUNCTIONAL SUPERVISOR	REVISOR
BEHZAD GOLEMOHAMMADI	DATE
CALCULATED/DESIGNED BY	REVISOR
CHECKED BY	DATE
JESSIE CABUGAO	JC
ELAINE WONG	12/3/14



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET E-1

APPROVED FOR ELECTRICAL WORK ONLY

**MODIFY TRAFFIC MONITORING STATION**

SCALE: 1" = 50'

**E-3**

LAST REVISION | DATE PLOTTED => 25-FEB-2015  
02-23-15 | TIME PLOTTED => 08:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	34	49

*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 2-23-15

**UNIT OF MEASUREMENT SYMBOLS:**

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

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

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

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft <sup>3</sup> , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
∅	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.

**REVISED STANDARD PLAN RSP A10B**

	<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
ℒ	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

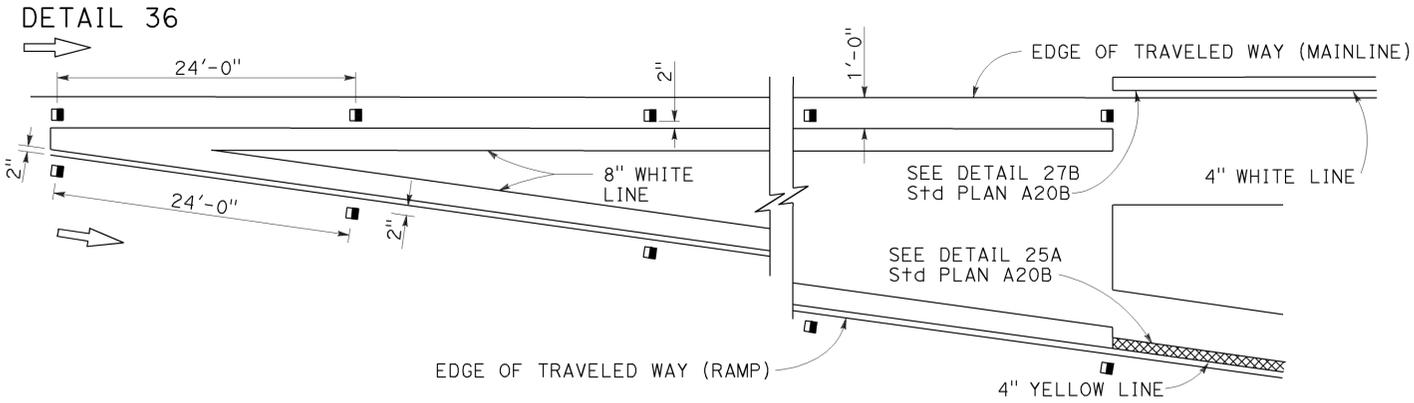
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	35	49

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

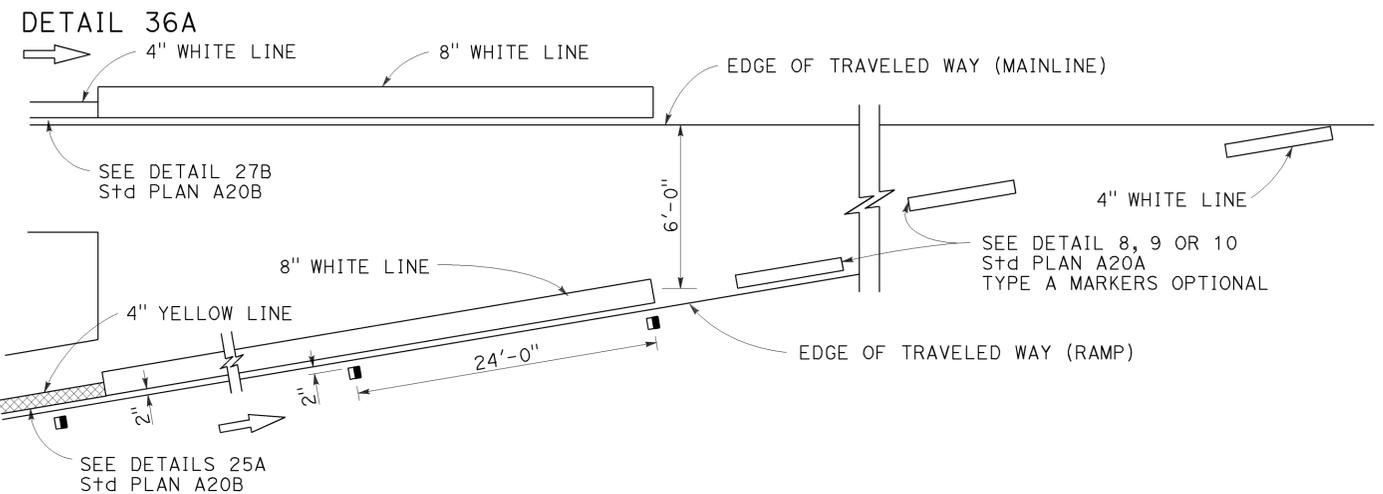
July 19, 2013  
 PLANS APPROVAL DATE

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.

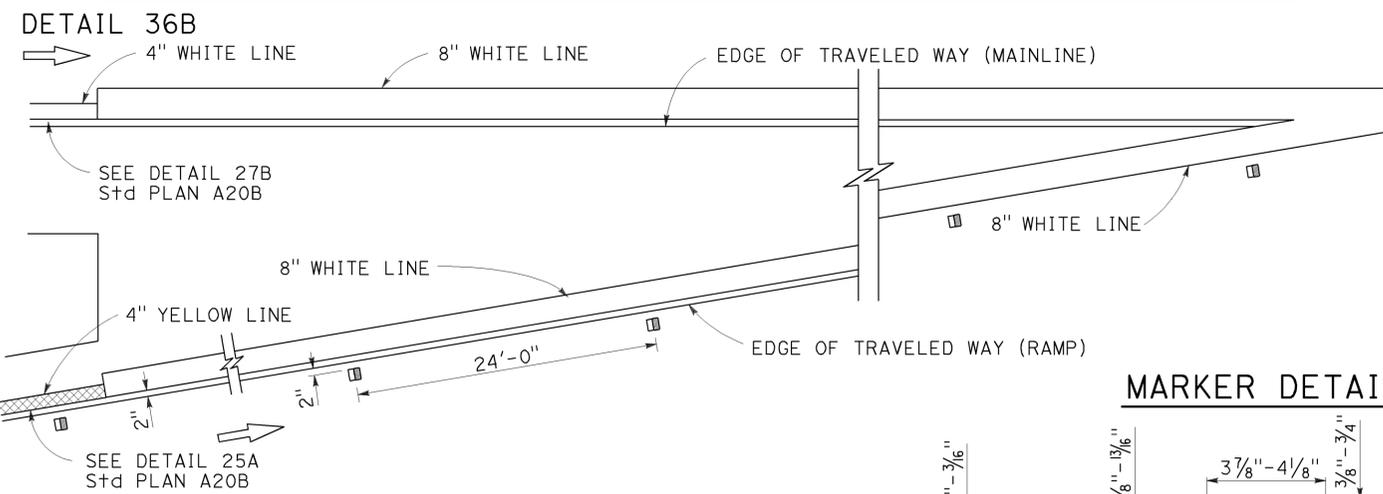
### EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



### ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



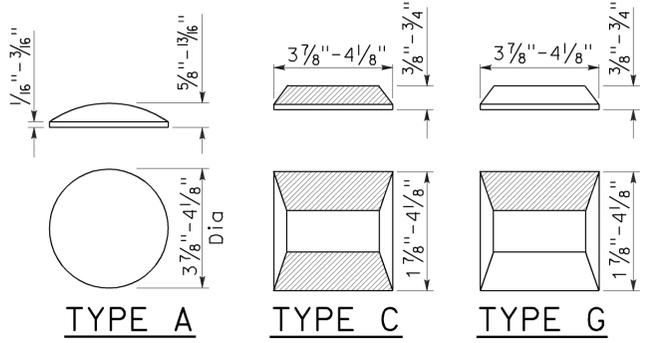
### ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT



### MARKER DETAILS

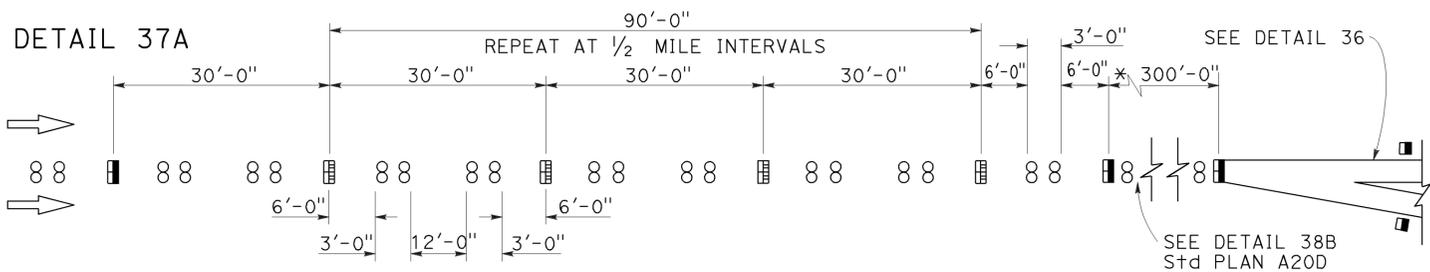
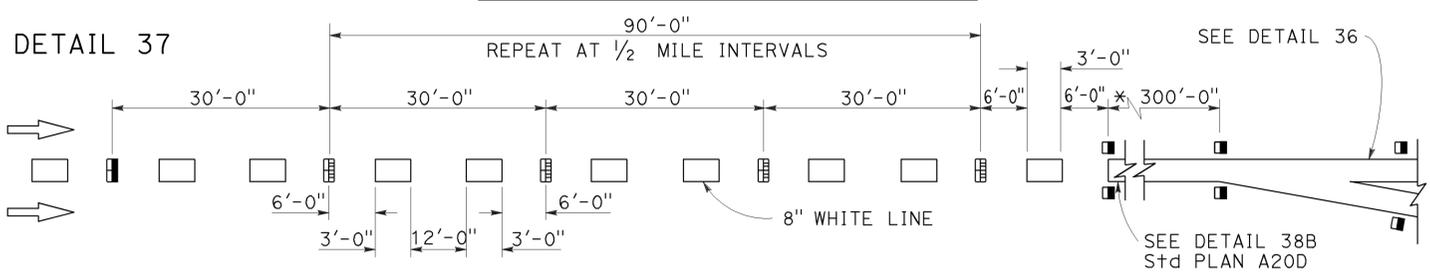
#### LEGEND:

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



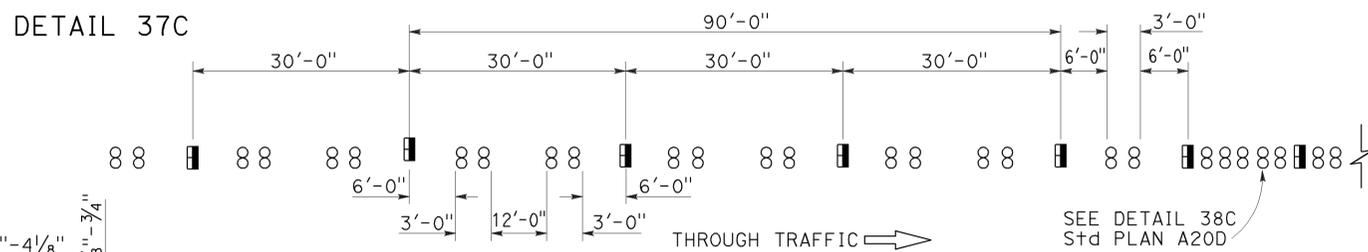
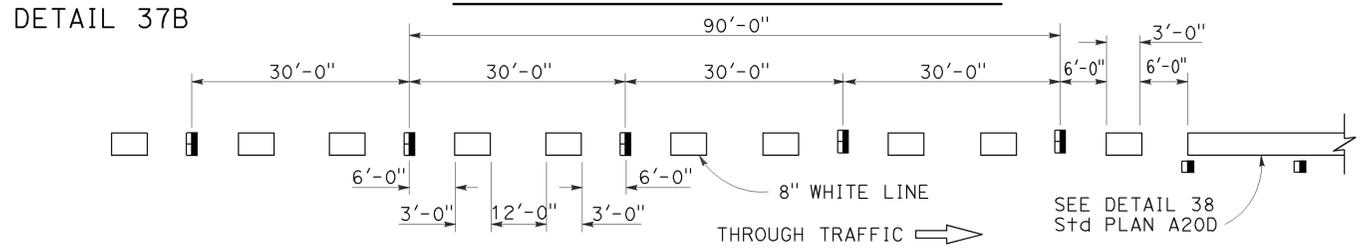
RETROREFLECTIVE FACE

### 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



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 DEPARTMENT OF TRANSPORTATION

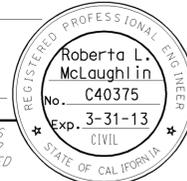
## PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

NO SCALE

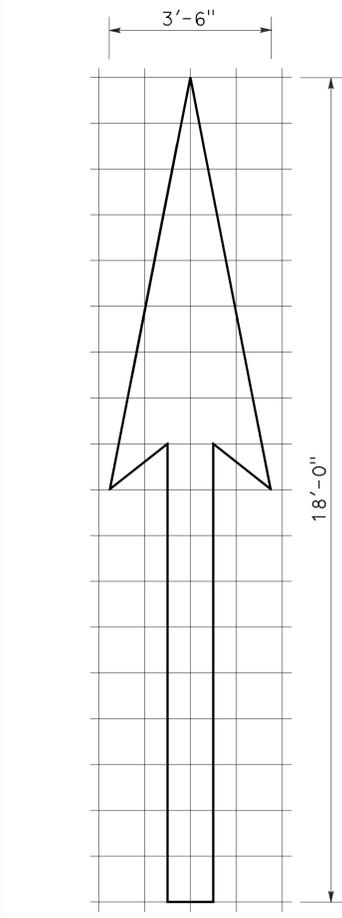
RSP A20C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A20C DATED MAY 20, 2011 - PAGE 11 OF THE STANDARD PLANS BOOK DATED 2010.

## REVISED STANDARD PLAN RSP A20C

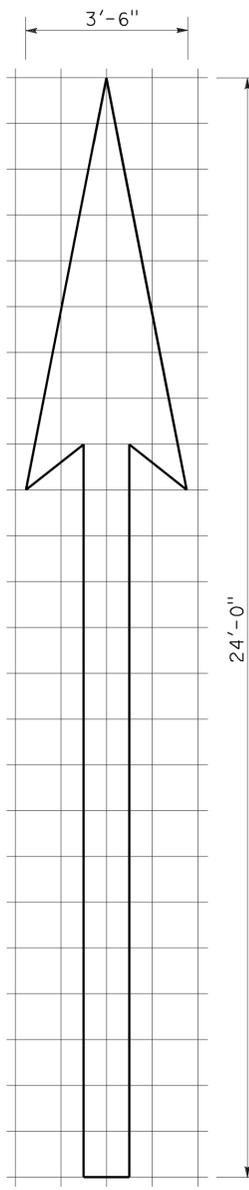
2010 REVISED STANDARD PLAN RSP A20C



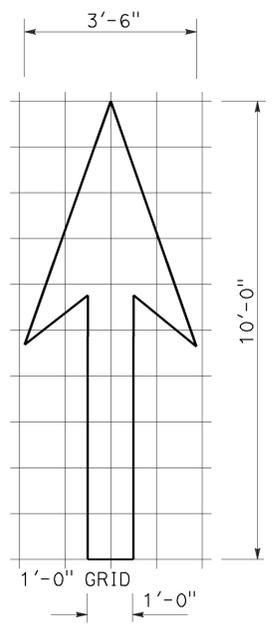
TO ACCOMPANY PLANS DATED 2-23-15



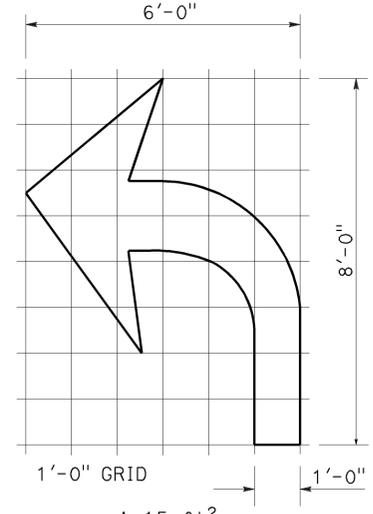
A=25 ft<sup>2</sup>  
**TYPE I 18'-0" ARROW**



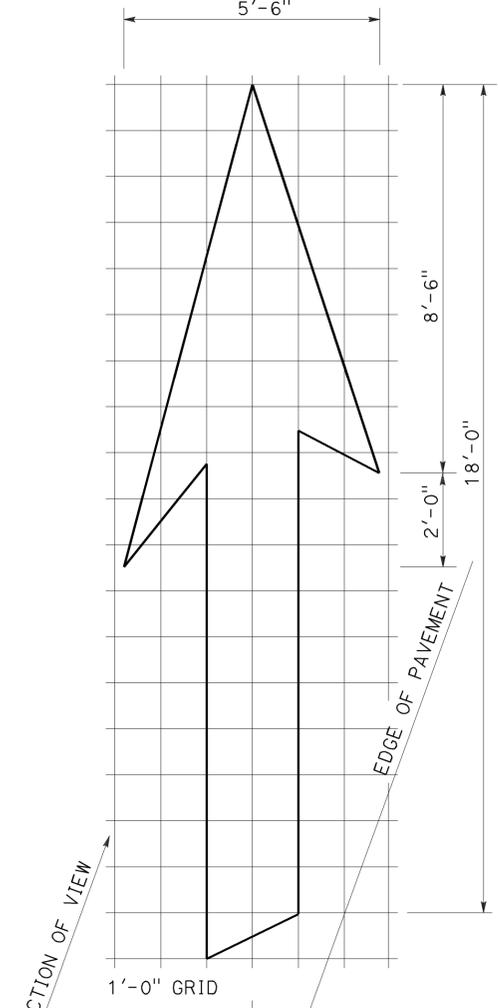
A=31 ft<sup>2</sup>  
**TYPE I 24'-0" ARROW**



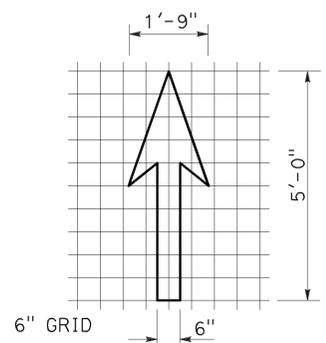
A=14 ft<sup>2</sup>  
**TYPE I 10'-0" ARROW**



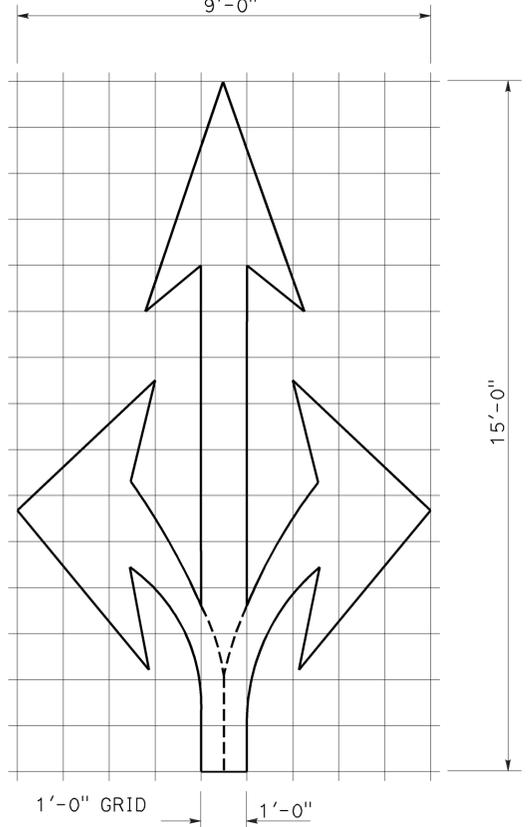
A=15 ft<sup>2</sup>  
**TYPE IV (L) ARROW**  
 (For Type IV (R) arrow, use mirror image)



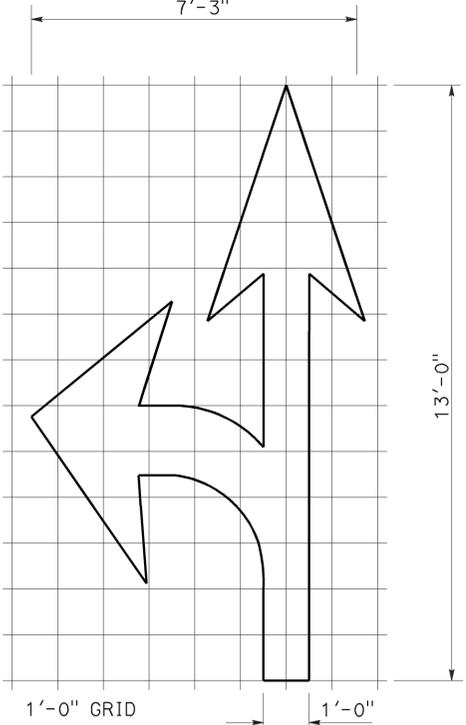
A=42 ft<sup>2</sup>  
**TYPE VI ARROW**  
 Right lane drop arrow  
 (For left lane, use mirror image)



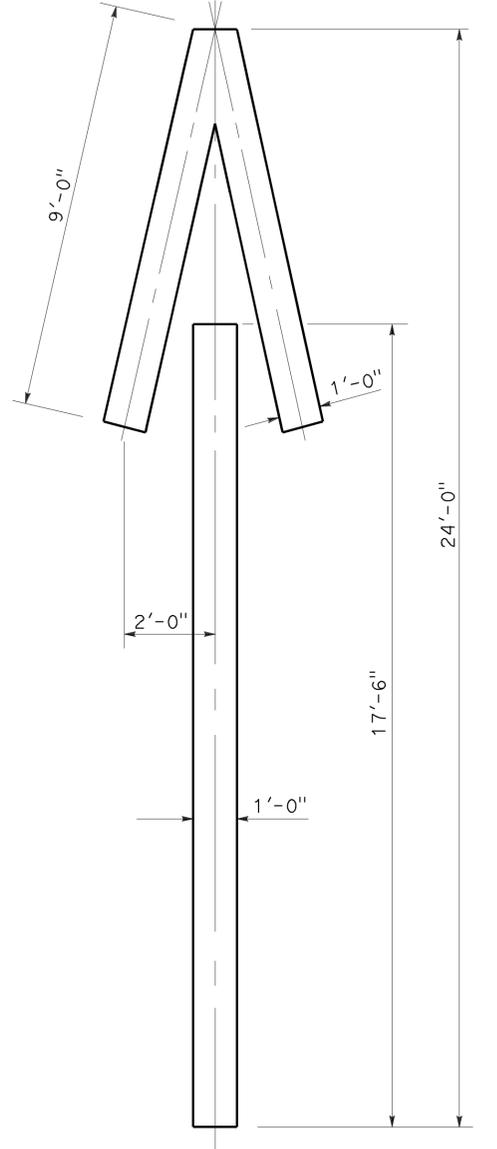
A=3.5 ft<sup>2</sup>  
**BIKE LANE ARROW**



A=36 ft<sup>2</sup>  
**TYPE VIII ARROW**



A=27 ft<sup>2</sup>  
**TYPE VII (L) ARROW**  
 (For Type VII (R) arrow, use mirror image)



A=33 ft<sup>2</sup>  
**TYPE V ARROW**

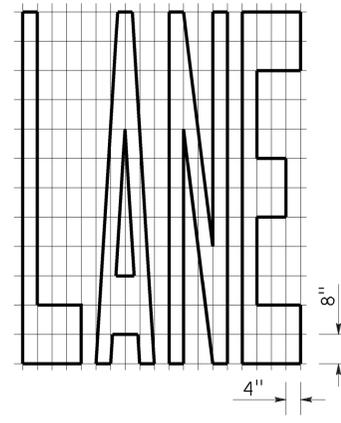
**NOTE:**  
 Minor variations in dimensions may be accepted by the Engineer.

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

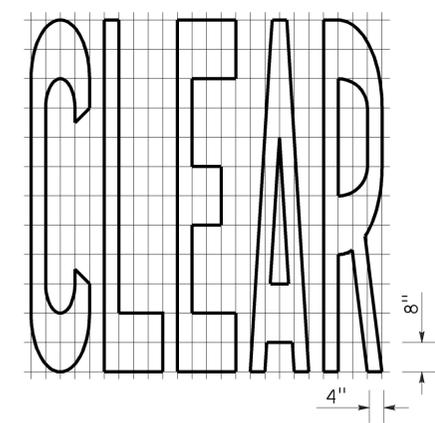
RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A DATED MAY 20, 2011 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2010.

TO ACCOMPANY PLANS DATED 2-23-15

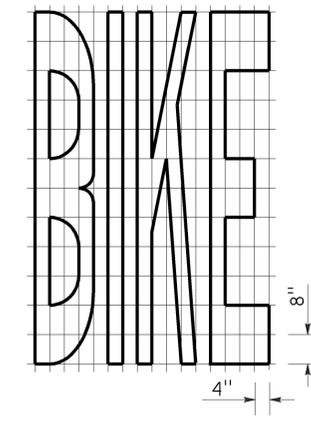
2010 REVISED STANDARD PLAN RSP A24E



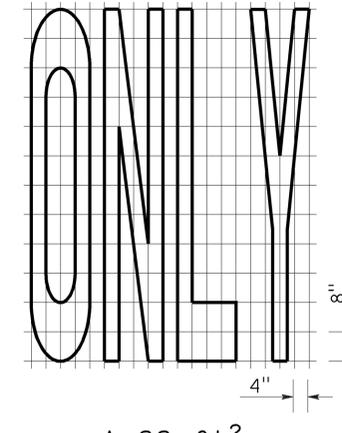
A=24 ft<sup>2</sup>



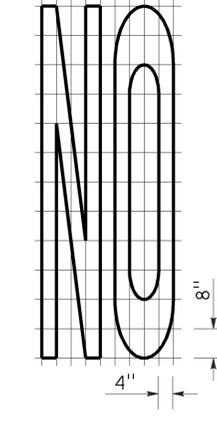
A=27 ft<sup>2</sup>



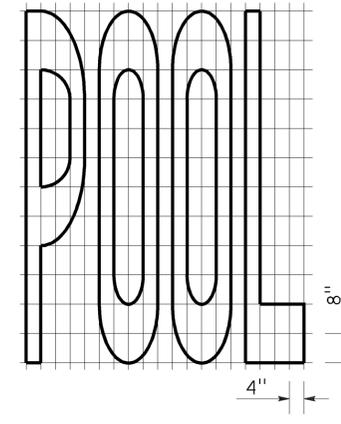
A=21 ft<sup>2</sup>



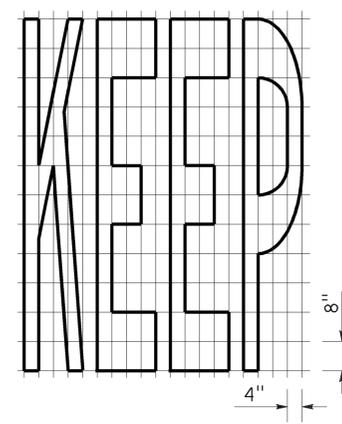
A=22 ft<sup>2</sup>



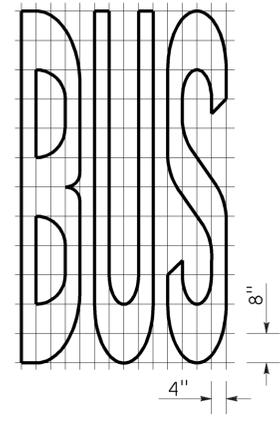
A=14 ft<sup>2</sup>



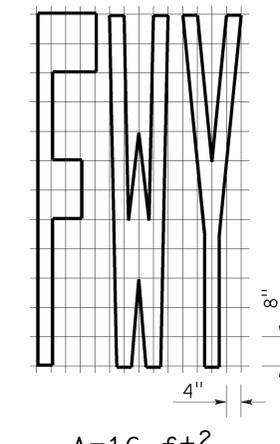
A=23 ft<sup>2</sup>



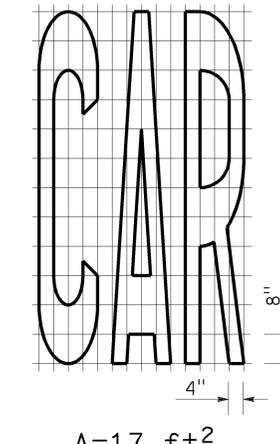
A=24 ft<sup>2</sup>



A=20 ft<sup>2</sup>

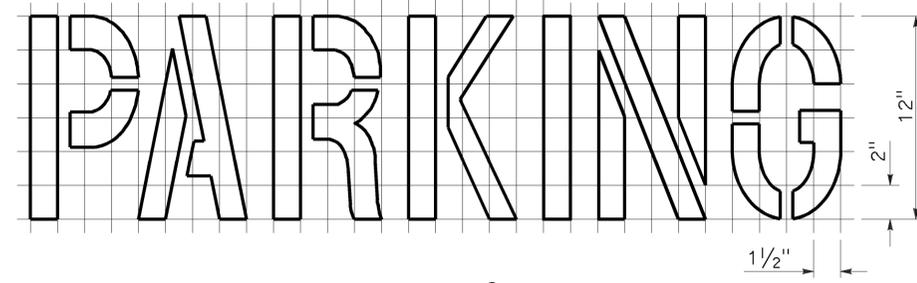
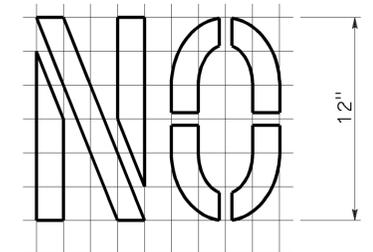


A=16 ft<sup>2</sup>

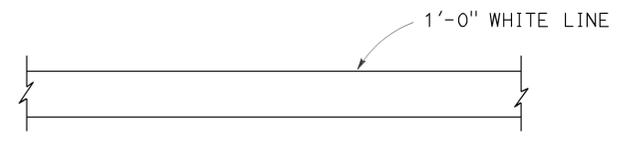


A=17 ft<sup>2</sup>

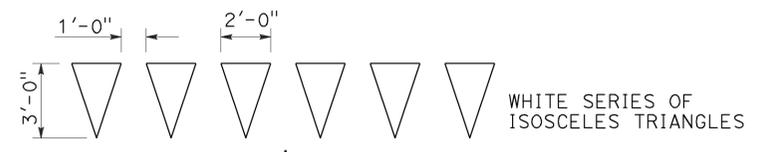
WORD MARKINGS			
ITEM	ft <sup>2</sup>	ITEM	ft <sup>2</sup>
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



A=2 ft<sup>2</sup>  
See Notes 6 and 7



LIMIT LINE (STOP LINE)



↑  
DIRECTION OF TRAVEL  
YIELD LINE

**NOTES:**

1. If a message consists of more than one word, it should read "UP", i.e., the first word should be nearest the driver.
2. The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
6. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKINGS  
WORDS, LIMIT AND YIELD LINES**

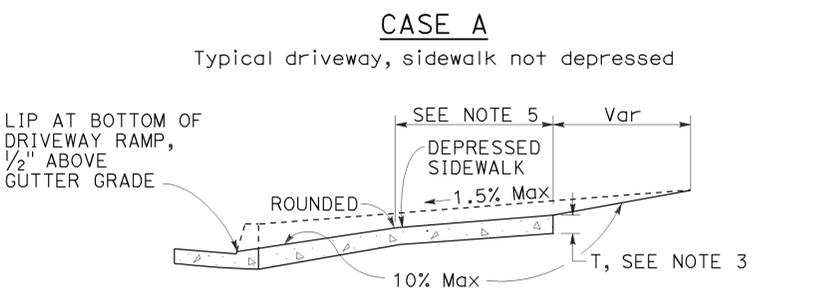
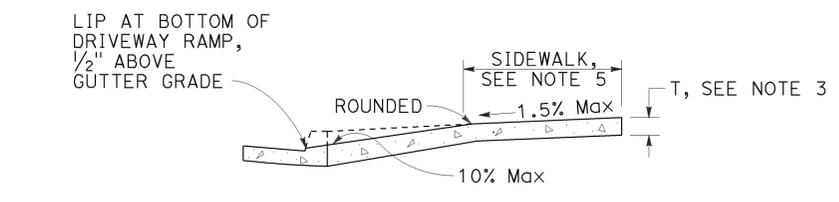
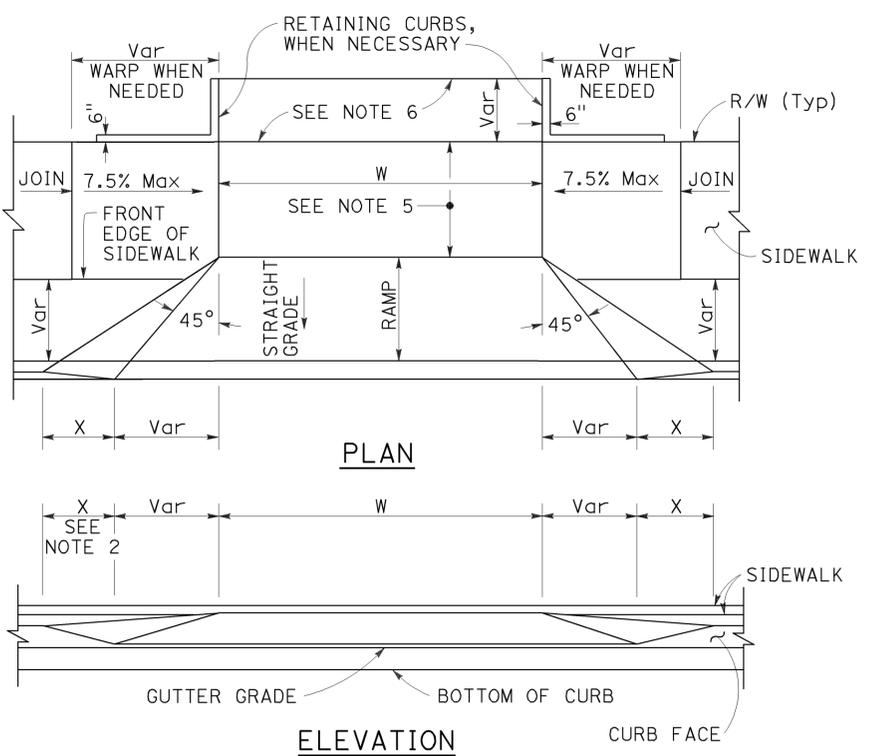
NO SCALE

RSP A24E DATED JULY 20, 2012 SUPERSEDES STANDARD PLAN A24E  
DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

TO ACCOMPANY PLANS DATED 2-23-15

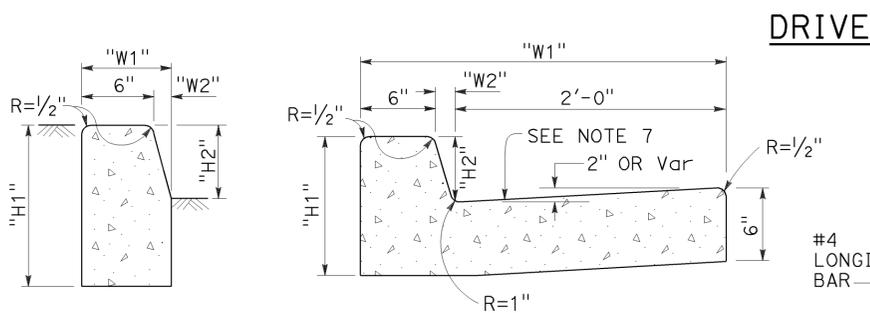
**CURB QUANTITIES**

TYPE	CUBIC YARDS PER LINEAR FOOT
A1-6	0.02585
A1-8	0.03084
A2-6	0.05903
A2-8	0.06379
A3-6	0.01036
A3-8	0.01435
B1-4	0.02185
B1-6	0.02930
B2-4	0.05515
B2-6	0.06171
B3-4	0.00641
B3-6	0.01074
B4	0.05709
D-4	0.04083
D-6	0.06804
E	0.06661

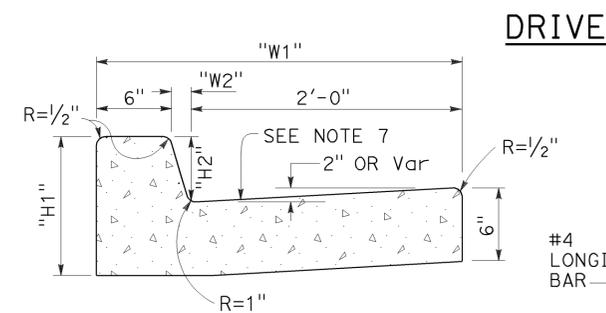


**TABLE A**

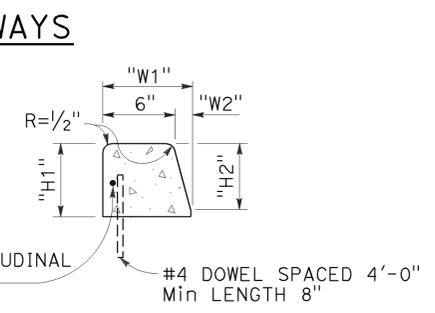
CURB TYPE	DIMENSIONS			
	"H1"	"H2"	"W1"	"W2"
A1-6	1'-2"	6"	7 1/2"	1 1/2"
A1-8	1'-4"	8"	8"	2"
A2-6	1'-0"	6"	2'-7 1/2"	1 1/2"
A2-8	1'-2"	8"	2'-8"	2"
A3-6	6"	5"	7 1/4"	1 1/4"
A3-8	8"	7"	7 3/4"	1 3/4"
B1-4	1'-0"	4"	7 1/2"	2 1/2"
B1-6	1'-2"	6"	9"	4"
B2-4	10"	4"	2'-7 1/2"	2 1/2"
B2-6	1'-0"	6"	2'-9"	4"
B3-4	4"	3"	7"	2"
B3-6	6"	5"	8 1/2"	3 1/2"
D-4	10"	4"	1'-6"	1'-1"
D-6	1'-0"	6"	2'-2"	1'-9"



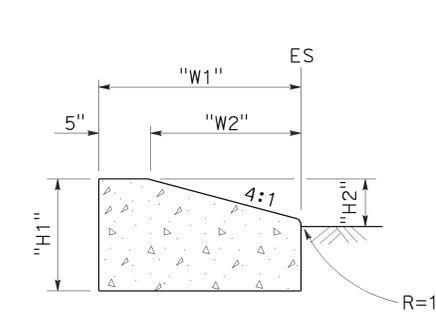
**TYPE A1 CURBS**  
See Table A



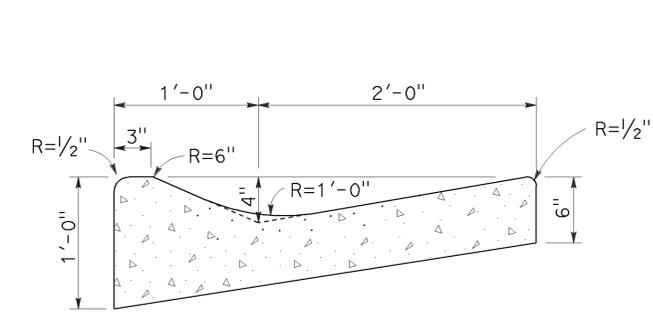
**TYPE A2 CURBS**  
See Table A



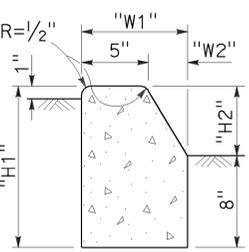
**TYPE A3 CURBS**  
Superimposed on existing pavement  
See Table A



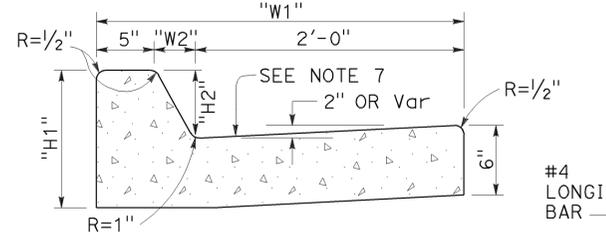
**TYPE D CURBS**  
See Table A



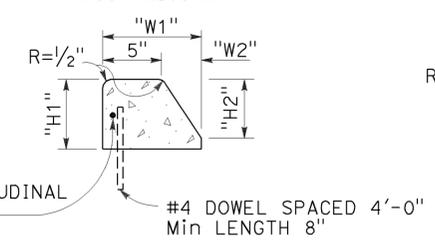
**TYPE E CURB**



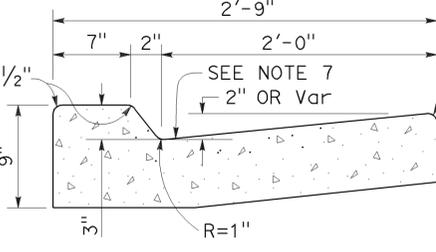
**TYPE B1 CURBS**  
See Table A



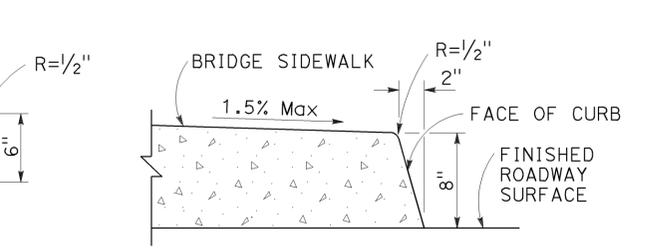
**TYPE B2 CURBS**  
See Table A



**TYPE B3 CURBS**  
Superimposed on existing pavement  
See Table A



**TYPE B4 CURBS**



**TYPE H CURB**  
On Bridges

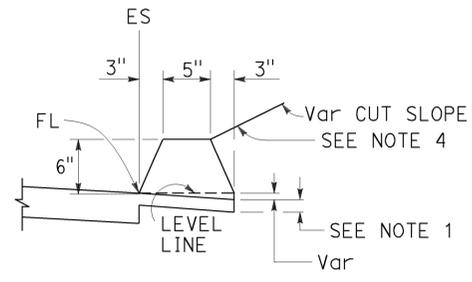
**CURBS**

- NOTES:**
- Case A driveway section typically applies.
  - X=3'-0" except for curb heights over 10" where 4:1 slopes shall be used on curb slope.
  - Sidewalk and ramp thickness "T" at driveway shall be 4" for residential and 6" for commercial.
  - Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5'-0" from gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.
  - Minimum width of clear passageway for sidewalk shall be 4'-2".
  - Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 6".
  - Across the pedestrian route at curb ramp locations, the gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.

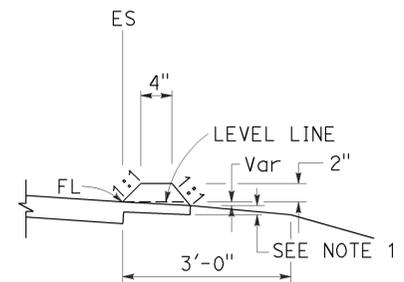
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**CURBS AND DRIVEWAYS**  
 NO SCALE

2010 REVISED STANDARD PLAN RSP A87A

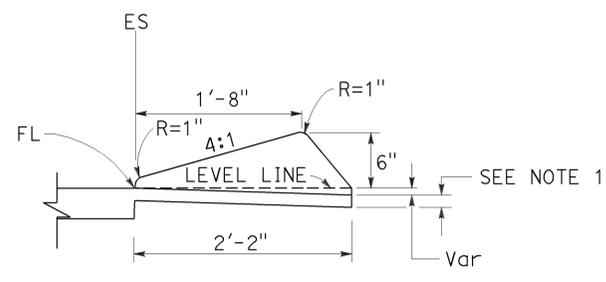
TO ACCOMPANY PLANS DATED 2-23-15



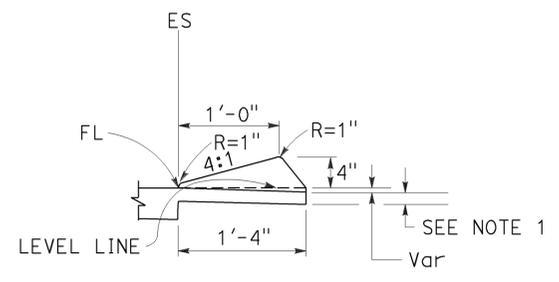
**TYPE A**  
See Note 3



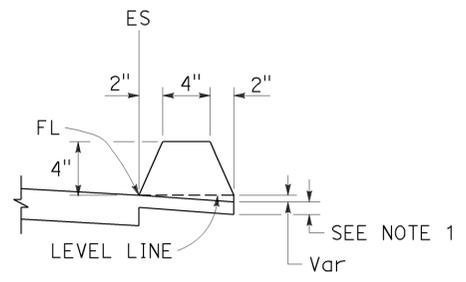
**TYPE C**



**TYPE D**

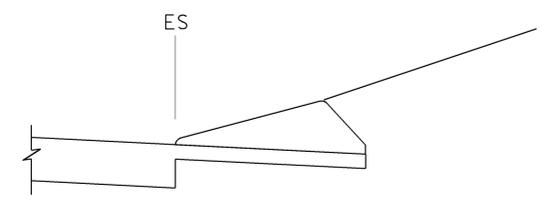


**TYPE E**

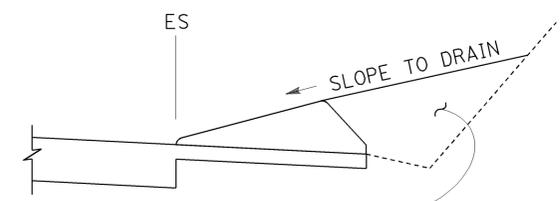


**TYPE F**  
See Note 5

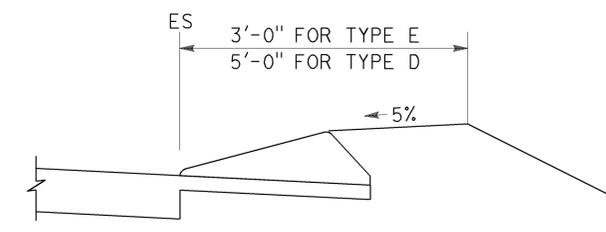
**DIKES**



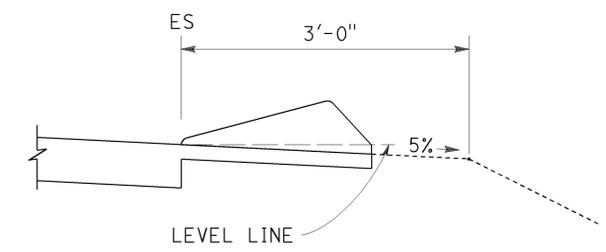
**CASE C-1**  
Cut Slope



**CASE C-2**  
Cut Slope



**CASE F**



**CASE R**  
See Note 2

**TYPE D AND E BACKFILL DETAILS**

**NOTES:**

- For HMA shoulders only, extend top layer of HMA placed on the shoulder under dike with no joint at the ES. For projects with OGFC shoulders, do not extend OGFC under dike. See project plans for modified dike detail.
- Case R applies to retrofit only projects where restrictive conditions do not provide enough width for Case F backfill.
- Type A dike only to be used where restrictive slope conditions do not provide enough width to use Type D or Type E dike.
- Fill and compact with excavated material to top of dike.
- Use Type F dike, where dike is required with guard railing installations. See Revised Standard Plan RSP A77N4 for dike positioning details.

**DIKE QUANTITIES**

TYPE	CUBIC YARDS PER LINEAR FOOT
A	0.0135
C	0.0038
D	0.0293
E	0.0130
F	0.0066

Quantities based on 5% cross slope.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**HOT MIX ASPHALT DIKES**

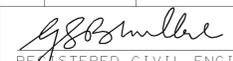
NO SCALE

RSP A87B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A87B  
DATED MAY 20, 2011 - PAGE 120 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP A87B**

2010 REVISED STANDARD PLAN RSP A87B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	40	49

  
 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 2-23-15

TABLE 1

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

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

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

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

TABLE 2

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

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

TABLE 3

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

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

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

## TRAFFIC CONTROL SYSTEM TABLES FOR LANE AND RAMP CLOSURES

NO SCALE

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

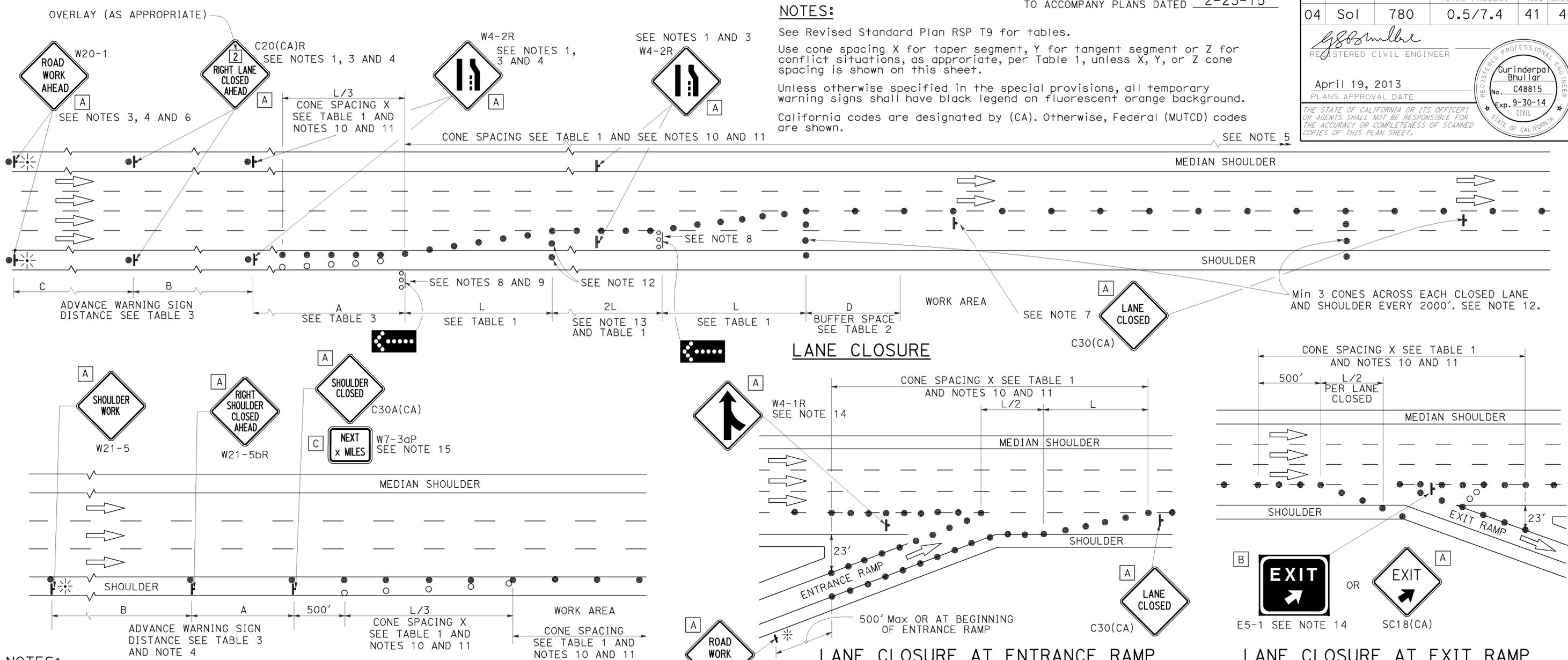
**REVISED STANDARD PLAN RSP T9**

2010 REVISED STANDARD PLAN RSP T9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Soi	780	0.5/7.4	41	49

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



- NOTES:**
1. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
  2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
  3. Duplicate sign installations are not required:
    - a) On opposite shoulder if at least one-half of the available lanes remain open to traffic.
    - b) In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
  4. 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.
  5. A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.

- SHOULDER CLOSURE**
6. 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) and W4-2L signs shall be used.
  7. Place a C30(CA) sign every 2000' throughout length of lane closure.
  8. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
  9. 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.
  10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
  11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

- LANE CLOSURE AT ENTRANCE RAMP**
12. 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.
  13. Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
  14. Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
  15. A W7-3aP "NEXT \_\_\_\_\_ MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.

**LEGEND**

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

**SIGN PANEL SIZE (Min)**

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

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

# 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

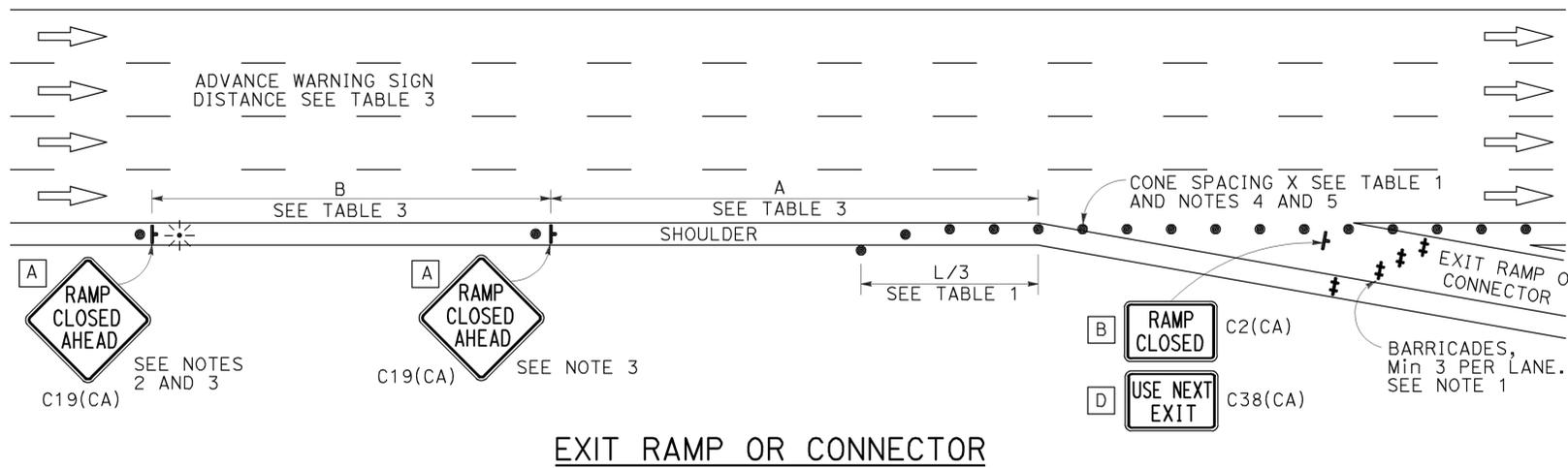
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Soi	780	0.5/7.4	42	49

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

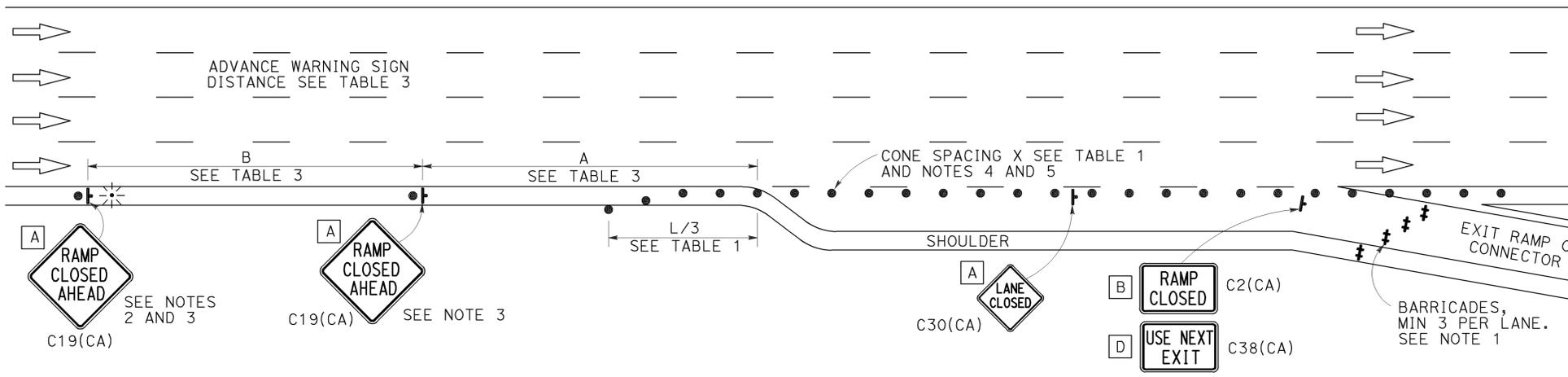
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

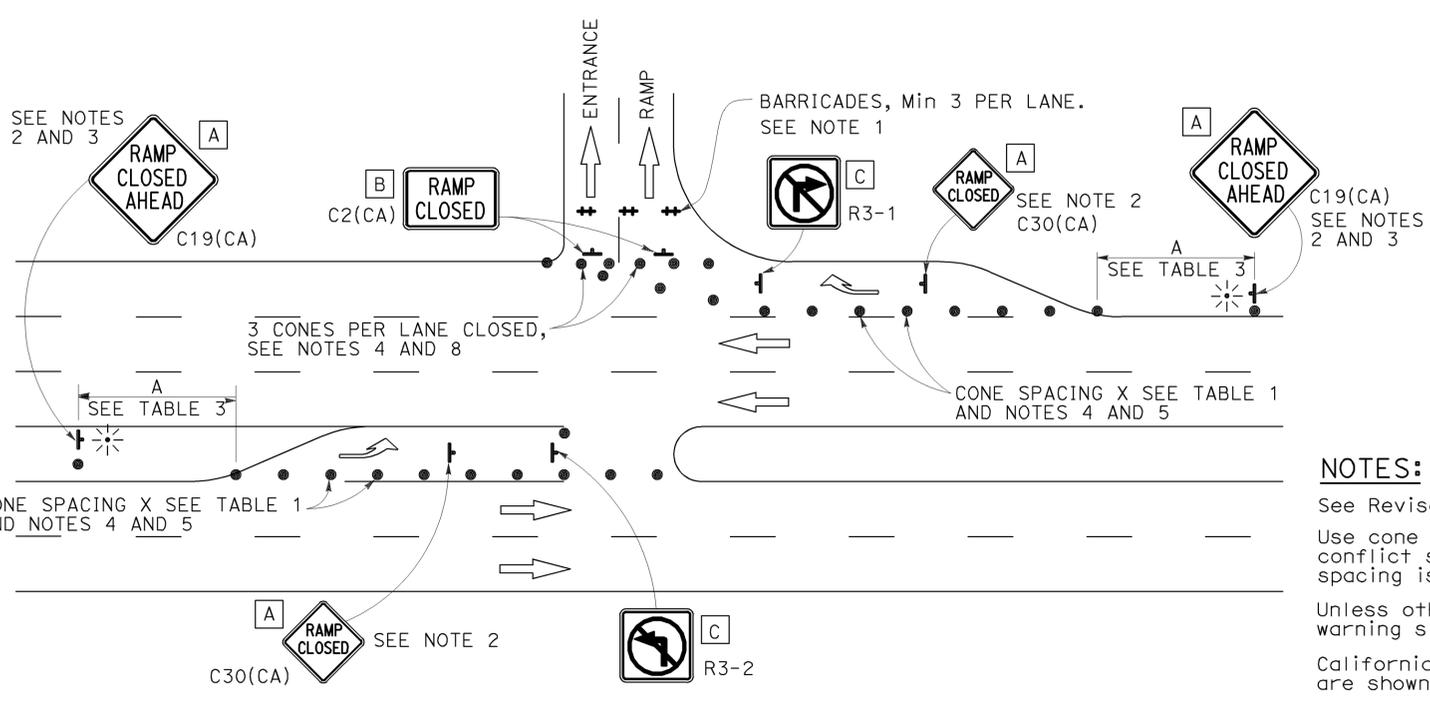
TO ACCOMPANY PLANS DATED 2-23-15



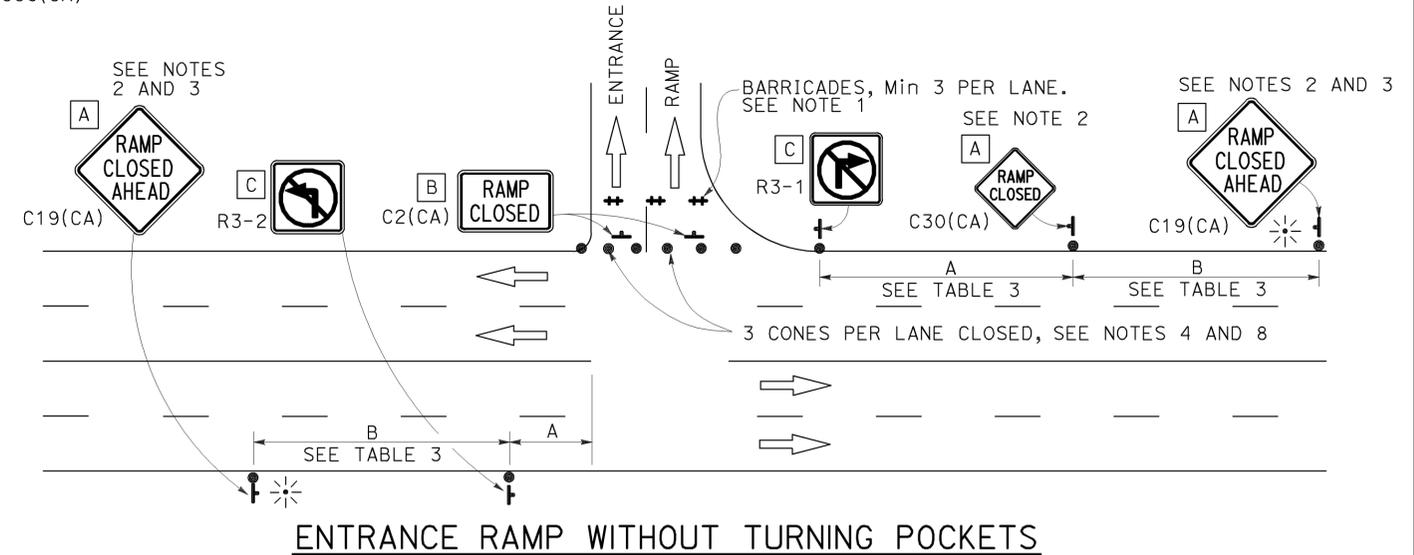
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

## NOTES:

1. See Revised Standard Plan RSP T9 for tables.
2. 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.
3. Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
4. California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

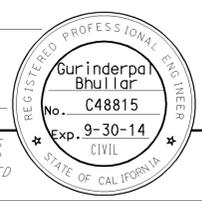
## NOTES:

1. 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.
2. 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.
3. 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.
4. All cones used for ramp closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime ramp closures only.
6. At least one person shall be assigned to provide full time maintenance of traffic control devices, unless otherwise directed by the Engineer.
7. The existing "EXIT" signs shall be covered during ramp closures.
8. A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.

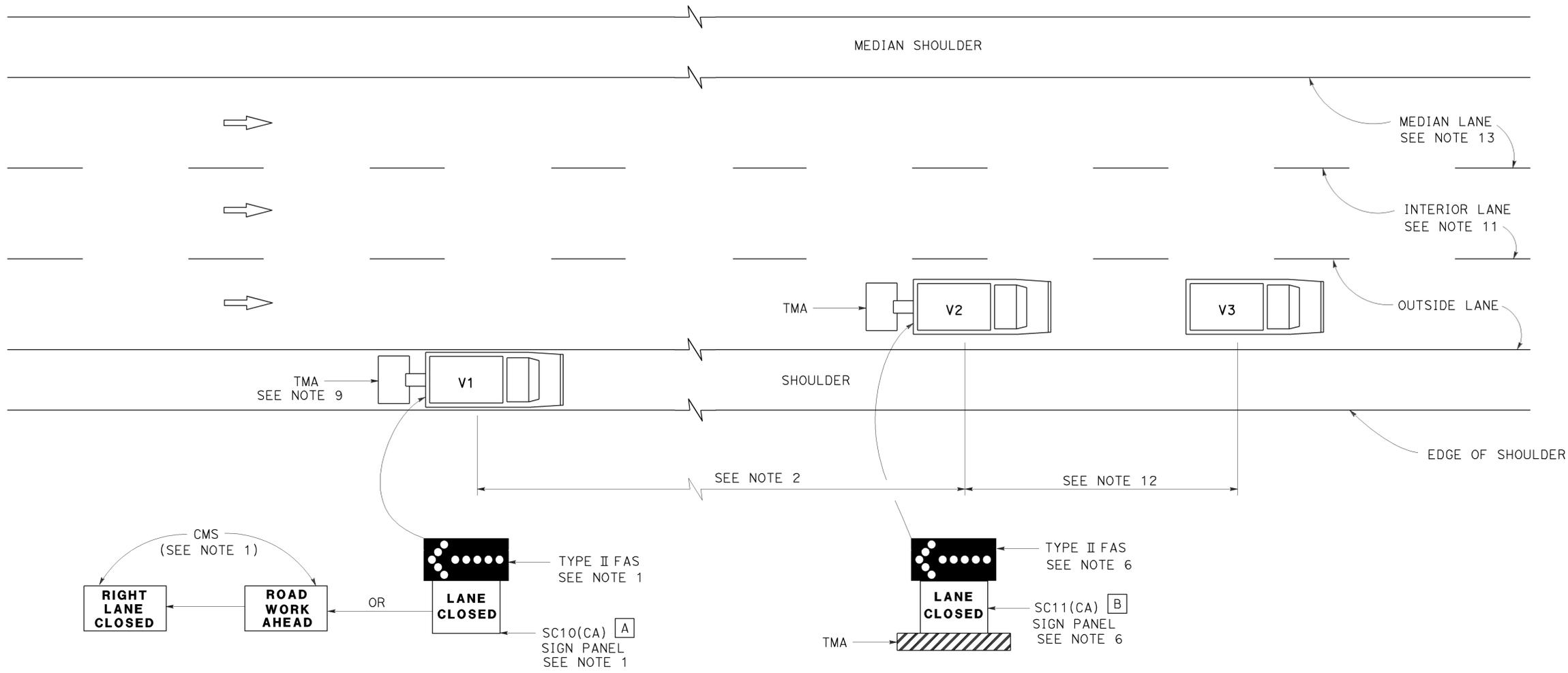
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR RAMP CLOSURE**  
 NO SCALE

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

2010 REVISED STANDARD PLAN RSP T14



TO ACCOMPANY PLANS DATED 2-23-15



**SIGN PANEL SIZE (Min)**

- A 66" x 36"
- B 54" x 42"

**LEGEND**

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- FLASHING ARROW SIGN (FAS)
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

**MOVING LANE CLOSURE ON MEDIAN LANE OR OUTSIDE LANE OF MULTILANE HIGHWAYS**

**NOTES:**

1. Either a changeable message sign or a SC10(CA) sign panel and a Type II flashing arrow sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "RIGHT LANE CLOSED" message. For median lane closure, the flashing arrow symbol shall be reversed with the arrowhead on the right and the changeable message sign shall show "LEFT LANE CLOSED".
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2. For median lane closure the flashing arrow sign symbol shall be displayed with the arrowhead on the right.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11, etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on interior lane of multilane highways, use Revised Standard Plan T16.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.
13. When the work/application vehicle V3 occupies the median lane, sign vehicle V1 should drive in the median shoulder and indicate left lane closed ahead.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS**

NO SCALE

RSP T15 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T15 DATED MAY 20, 2011 - PAGE 243 OF THE STANDARD PLANS BOOK DATED 2010.

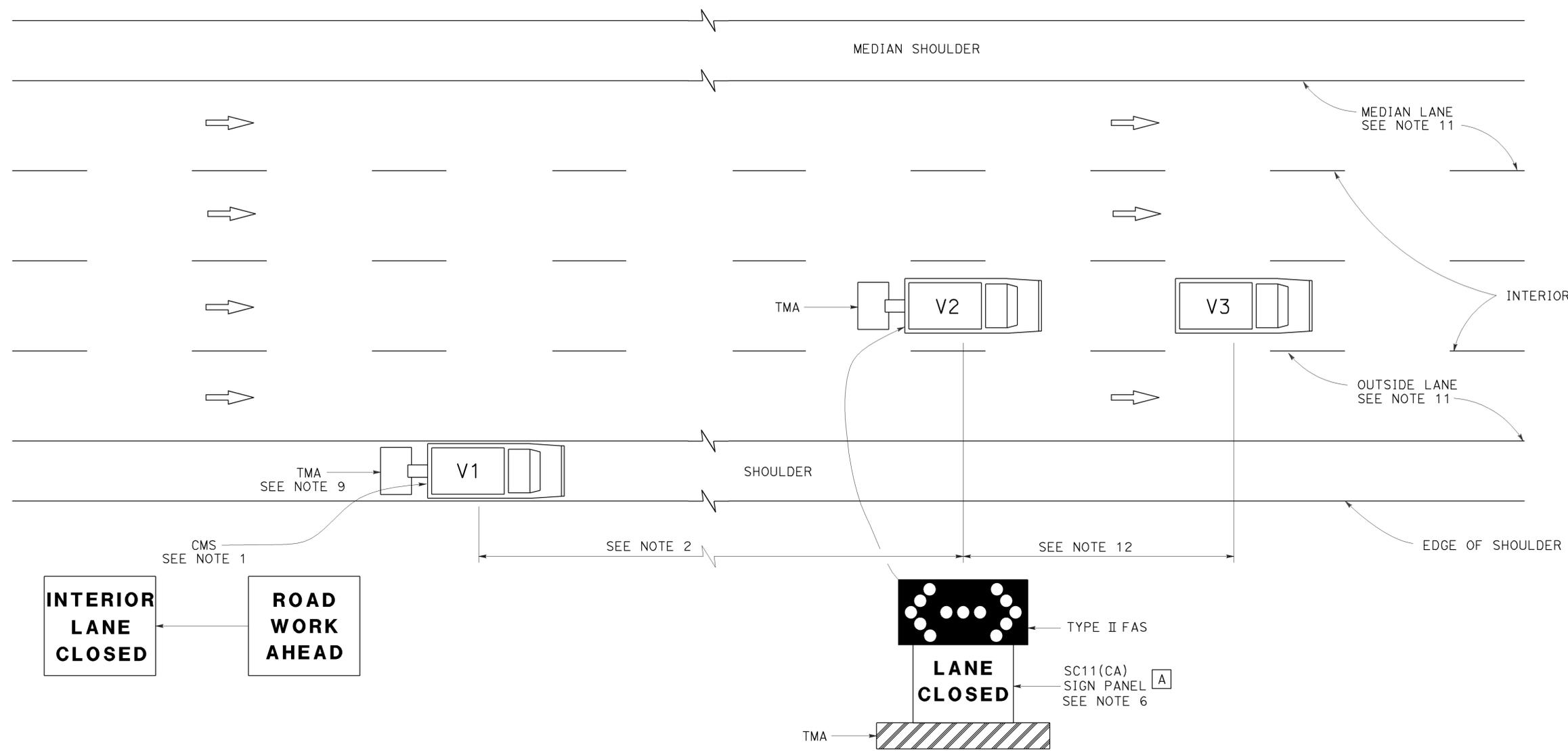
**REVISED STANDARD PLAN RSP T15**

2010 REVISED STANDARD PLAN RSP T15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	44	49

*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.

TO ACCOMPANY PLANS DATED 2-23-15



SIGN PANEL SIZE (Min)

**A** 54" x 42"

**LEGEND**

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- FLASHING ARROW SIGN (FAS) IN FLASHING DOUBLE ARROW MODE
- CMS CHANGEABLE MESSAGE SIGN
- TMA TRUCK-MOUNTED ATTENUATOR

**MOVING LANE CLOSURE ON INTERIOR LANE OF MULTILANE HIGHWAYS**

**NOTES:**

1. A changeable message sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "INTERIOR LANE CLOSED" message. The message "CENTER LANE CLOSED" may be used in place of the "INTERIOR LANE CLOSED" message.
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11 etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on median lane or outside lane of multilane highways, use Revised Standard Plan T15.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR MOVING LANE CLOSURE  
 ON MULTILANE HIGHWAYS**  
 NO SCALE

RSP T16 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T16 DATED MAY 20, 2011 - PAGE 244 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T16**

2010 REVISED STANDARD PLAN RSP T16

**LEGEND:**

<b>AB</b>	ABANDON. IF APPLIED TO CONDUIT, REMOVE CONDUCTORS
<b>BC</b>	INSTALL PULL BOX IN EXISTING CONDUIT RUN
<b>BP</b>	PEDESTRIAN BARRICADE, TYPE AS INDICATED ON PLAN
<b>CB</b>	INSTALL CONDUIT INTO EXISTING PULL BOX
<b>CC</b>	CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED
<b>CF</b>	CONDUIT TO REMAIN FOR FUTURE USE. REMOVE CONDUCTORS. INSTALL PULL TAPE
<b>DH</b>	DETECTOR HANDHOLE
<b>FA</b>	FOUNDATION TO BE ABANDONED
<b>IS</b>	INSTALL SIGN ON SIGNAL MAST ARM
<b>NS</b>	NO SLIP BASE ON STANDARD
<b>PEC</b>	PHOTOELECTRIC CONTROL
<b>PEU</b>	PHOTOELECTRIC UNIT
<b>RC</b>	EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR
<b>RE</b>	REMOVE ELECTROLIER, FUSES AND BALLAST. TAPE ENDS OF CONDUCTORS
<b>RL</b>	RELOCATE EQUIPMENT
<b>RR</b>	REMOVE AND REUSE EQUIPMENT
<b>RS</b>	REMOVE AND SALVAGE EQUIPMENT
<b>SC</b>	SPLICE NEW TO EXISTING CONDUCTORS
<b>SD</b>	SERVICE DISCONNECT
<b>TSP</b>	TELEPHONE SERVICE POINT

**ABBREVIATIONS**

APS	ACCESSIBLE PEDESTRIAN SIGNAL	M/M	MULTIPLE TO MULTIPLE TRANSFORMER
BBS	BATTERY BACKUP SYSTEM	Mtg	MOUNTING
BC	BOLT CIRCLE	MV	MERCURY VAPOR LIGHTING FIXTURE
BPB	BICYCLE PUSH BUTTON	MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
C	CONDUIT	N	NEUTRAL (GROUNDED CONDUCTOR)
CB	CIRCUIT BREAKER	NB	NEUTRAL BUS
CCTV	CLOSED CIRCUIT TELEVISION	NC	NORMALLY CLOSE
Ck+	CIRCUIT	NO	NORMALLY OPEN
CMS	CHANGEABLE MESSAGE SIGN	P	CIRCUIT BREAKER'S POLE
C+id	CALTRANS IDENTIFICATION	PB	PULL BOX
Comm	COMMUNICATION	PBA	PUSH BUTTON ASSEMBLY
DLC	LOOP DETECTOR LEAD-IN CABLE	PEC	PHOTOELECTRIC CONTROL
EMS	EXTINGUISHABLE MESSAGE SIGN	Ped	PEDESTRIAN
EVUC	EMERGENCY VEHICLE UNIT CABLE	PEU	PHOTOELECTRIC UNIT
EVUD	EMERGENCY VEHICLE UNIT DETECTOR	PT	CONDUIT WITH PULL TAPE
FB	FLASHING BEACON	RE	RELOCATED EQUIPMENT
FBCA	FLASHING BEACON CONTROL ASSEMBLY	RM	RAMP METERING
FBS	FLASHING BEACON WITH SLIP BASE	RWIS	ROADSIDE WEATHER INFORMATION SYSTEM
FO	FIBER OPTIC	SB	SLIP BASE
G	EQUIPMENT GROUNDING CONDUCTOR	SIC	SIGNAL INTERCONNECT CABLE
GB	GROUND BUS	Sig	SIGNAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SMA	SIGNAL MAST ARM
HAR	HIGHWAY ADVISORY RADIO	SNS	STREET NAME SIGN
Hex	HEXAGONAL	SP	SERVICE POINT
HPS	HIGH PRESSURE SODIUM	TDC	TELEPHONE DEMARCATION CABINET
IISNS	INTERNALLY ILLUMINATED STREET NAME SIGN	TMS	TRAFFIC MONITORING STATION
ISL	INDUCTION SIGN LIGHTING	TOS	TRAFFIC OPERATIONS SYSTEM
LED	LIGHT EMITTING DIODE	Veh	VEHICLE
LMA	LUMINAIRE MAST ARM	VIVDS	VIDEO IMAGE VEHICLE DETECTION SYSTEM
LPS	LOW PRESSURE SODIUM	WIM	WEIGH-IN-MOTION
Ltg	LIGHTING	Xfmr	TRANSFORMER
Lum	LUMINAIRE		
M	METERED		
MAT	MAST ARM MOUNTING TOP ATTACHMENT		
MAS	MAST ARM MOUNTING SIDE ATTACHMENT		

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Soi	780	0.5/7.4	45	49

*Theresa Gabriel*  
REGISTERED ELECTRICAL ENGINEER

July 19, 2013  
PLANS APPROVAL DATE

Theresa  
Aziz Gabriel  
No. E15129  
Exp. 6-30-14  
ELECTRICAL  
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 2-23-15

**SOFFIT AND WALL MOUNTED LUMINAIRES**

- PENDANT, 70 W HPS UNLESS OTHERWISE SPECIFIED
- FLUSH, 70 W HPS UNLESS OTHERWISE SPECIFIED
- WALL SURFACE, 70 W HPS UNLESS OTHERWISE SPECIFIED
- EXISTING SOFFIT OR WALL LUMINAIRE TO REMAIN UNMODIFIED
- EXISTING SOFFIT OR WALL LUMINAIRE TO BE MODIFIED AS SPECIFIED

**NOTE:**  
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

SYMBOL USED	DEFINITIONS
$\Omega$	OHMS
min	MINUTE
s	SECOND
bps	BITS PER SECOND
Bps	BYTES PER SECOND
A	AMPERE
V	VOLT
V(dc)	VOLT (DIRECT CURRENT)
V(ac)	VOLT (ALTERNATING CURRENT)
FC	FOOT - CANDLE
W	WATTS
VA	VOLT-AMPERE
M	MEGA
k	KILO
m	MILLI
$\mu$	MICRO
P	PICO
HZ	HERTZ

**MISCELLANEOUS ELECTROLIERS**

NEW	EXISTING	
		LUMINAIRE ON WOOD POLE
		NON-STANDARD ELECTROLIER (SEE PROJECT NOTES OR PROJECT PLANS)
		CITY ELECTROLIER
		ELECTROLIER FOUNDATION (FUTURE INSTALLATION)

- NOTES:**
- HPS luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. HPS luminaires shall be 200 W when installed on other type standards or poles, unless otherwise specified.
  - LED luminaires shall be 235 W when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. LED luminaires shall be 165 W when installed on other type standards or poles, unless otherwise specified.
  - Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.

**STANDARD ELECTROLIER**

NEW	EXISTING	STANDARD TYPE
		15
		15D
		15 STRUCTURE
		15D STRUCTURE
		21
		21D
		21 STRUCTURE
		21D STRUCTURE
		30
		31
		32

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS  
(LEGEND AND ABBREVIATIONS)**

NO SCALE

RSP ES-1A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 20, 2011 - PAGE 425 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP ES-1A**

2010 REVISED STANDARD PLAN RSP ES-1A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SoI	780	0.5/7.4	46	49

*Theresa Gabriel*  
REGISTERED ELECTRICAL ENGINEER

July 19, 2013  
PLANS APPROVAL DATE

Theresa  
Aziz Gabriel  
No. E15129  
Exp. 6-30-14  
ELECTRICAL  
STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 2-23-15

**CONDUIT**

**SIGNAL EQUIPMENT**

NEW	EXISTING	
---	---	LIGHTING CONDUIT, UNLESS OTHERWISE INDICATED OR NOTED
---	---	TRAFFIC SIGNAL CONDUIT
---C---	---c---	COMMUNICATION CONDUIT
---T---	---t---	TELEPHONE CONDUIT
---F---	---f---	FIRE ALARM CONDUIT
---FO---	---fo---	FIBER OPTIC CONDUIT
---	---	CONDUIT TERMINATION
		CONDUIT RISER ATTACHED TO THE STRUCTURE OR SERVICE POLE

NEW	EXISTING	
		PEDESTRIAN SIGNAL HEAD "C" INDICATES COUNTDOWN PEDESTRIAN HEAD
		PUSH BUTTON ASSEMBLY POST
		PEDESTRIAN BARRICADE
		VEHICLE SIGNAL HEAD (WITH BACKPLATE AND 3-SECTIONS: RED, YELLOW AND GREEN)
		VEHICLE SIGNAL HEAD WITH ANGLE VISOR
		MODIFICATIONS OF BASIC SYMBOL: "L" INDICATES ALL NON-ARROW SECTIONS LOUVERED "LG" INDICATES LOUVERED GREEN SECTION ONLY "PV" INDICATES ALL 12" SECTIONS PROGRAMMED VISIBILITY "8" INDICATES ALL 8" SECTIONS (ONLY WHEN SPECIFIED)

**SIGNAL EQUIPMENT Cont**

NEW	EXISTING	
		GUARD POST
		TYPE 1 STANDARD WITH RAMP METERING SIGN
		OPTICAL DETECTOR FOR THE EMERGENCY VEHICLE DETECTION SYSTEM

**SERVICE EQUIPMENT**

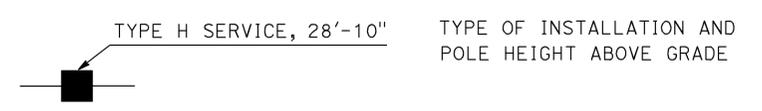
NEW	EXISTING	
---OH---	---oh---	OVERHEAD LINES
		WOOD POLE, "U" INDICATES UTILITY OWNED
		POLE GUY WITH ANCHOR
		UTILITY TRANSFORMER - GROUND MOUNTED
		SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE
		TELEPHONE DEMARCATION CABINET

		VEHICLE SIGNAL HEAD CONSISTING OF RED, YELLOW AND GREEN LEFT ARROW SECTIONS
		VEHICLE SIGNAL HEAD CONSISTING OF RED AND YELLOW SECTIONS WITH AN UP GREEN ARROW SECTION
		VEHICLE SIGNAL HEAD (5 SECTION) CONSISTING OF RED, YELLOW AND GREEN SECTIONS WITH YELLOW AND GREEN RIGHT ARROW SECTIONS
		TYPE 15TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		TYPE 21TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		STANDARD WITH LUMINAIRE AND SIGNAL MAST ARMS AND ATTACHED VEHICLE SIGNAL HEADS
		TYPE 1 STANDARD WITH ATTACHED VEHICLE SIGNAL HEADS
		STANDARD WITH A SIGNAL MAST ARM, ATTACHED VEHICLE SIGNAL HEADS AND INTERNALLY ILLUMINATED STREET NAME SIGN
		CONTROLLER ASSEMBLY. DOOR INDICATES FRONT OF CABINET

**NOTES:**

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.

**POLE-MOUNTED SERVICE DESIGNATION**



**FLASHING BEACON**

NEW	EXISTING	
		FLASHING BEACON (ONE VEHICLE SIGNAL HEAD WITH BACKPLATE AND VISOR) "R" INDICATES RED INDICATION, "Y" INDICATES YELLOW INDICATION
		FLASHING BEACON WITH TYPE 15-FBS STANDARD AND A SIGN.
		FLASHING BEACON WITH TYPES 9, 9A OR 9B SIGN UNLESS OTHERWISE SPECIFIED OR INDICATED

**ILLUMINATED OVERHEAD SIGN**

NEW	EXISTING	
		SINGLE POST, SINGLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, DOUBLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, SINGLE ILLUMINATED SIGN, FULL CANTILEVER
		DOUBLE POST, SINGLE ILLUMINATED SIGN
		SINGLE ILLUMINATED SIGN MOUNTED ON STRUCTURE
		DOUBLE POST, SINGLE ILLUMINATED SIGN WITH ELECTROLIER

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS  
(LEGEND AND ABBREVIATIONS)**

NO SCALE  
RSP ES-1B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

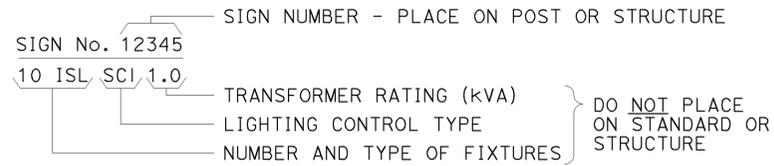
2010 REVISED STANDARD PLAN RSP ES-1B



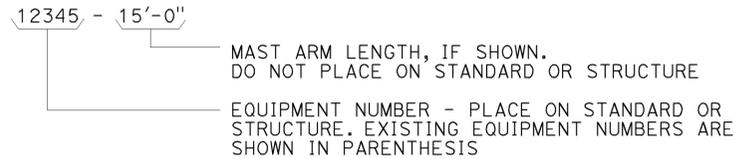
TO ACCOMPANY PLANS DATED 2-23-15

### EQUIPMENT IDENTIFICATION

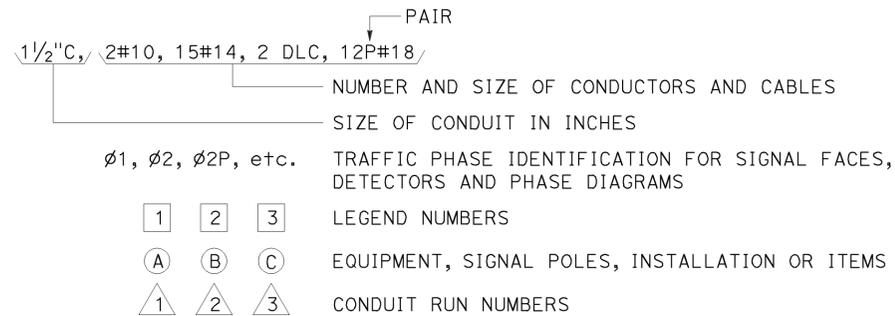
#### ILLUMINATED SIGN IDENTIFICATION NUMBER:



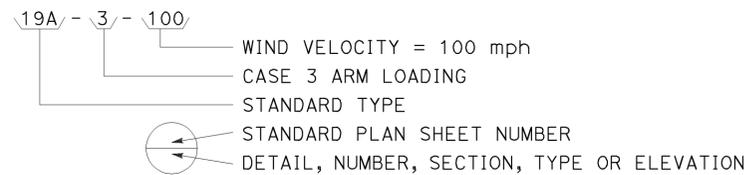
#### ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



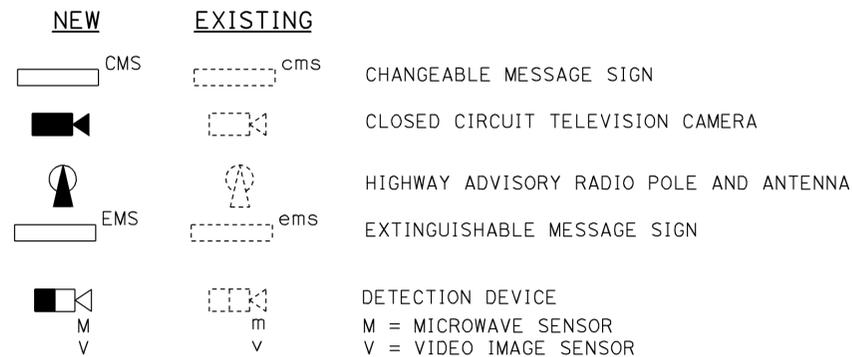
#### CONDUIT AND CONDUCTOR IDENTIFICATION:



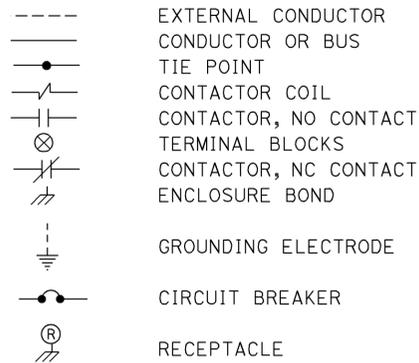
#### SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



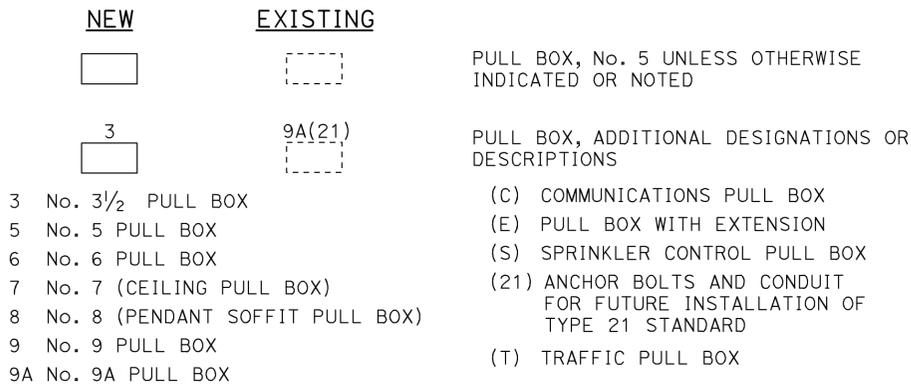
### MISCELLANEOUS EQUIPMENT



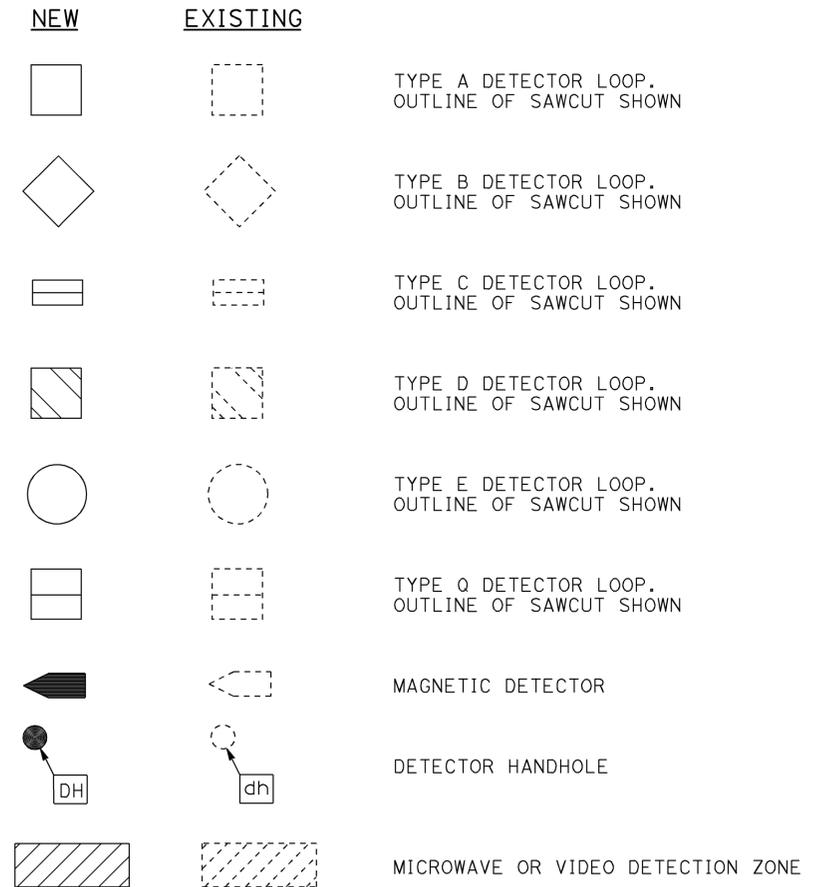
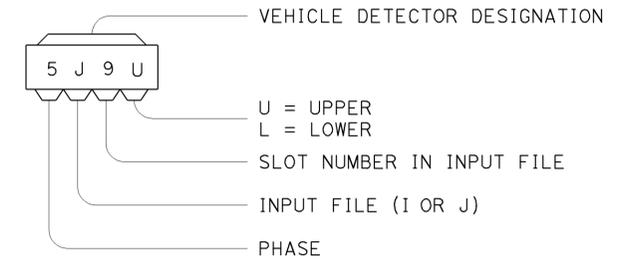
### WIRING DIAGRAM LEGEND



### PULL BOXES



### VEHICLE DETECTORS



STATE OF CALIFORNIA  
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## ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

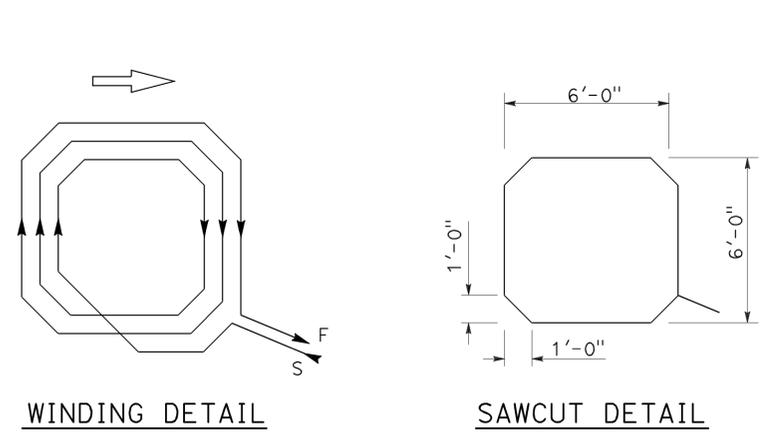
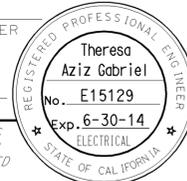
NO SCALE

RSP ES-1C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1C DATED MAY 20, 2011 - PAGE 427 OF THE STANDARD PLANS BOOK DATED 2010.

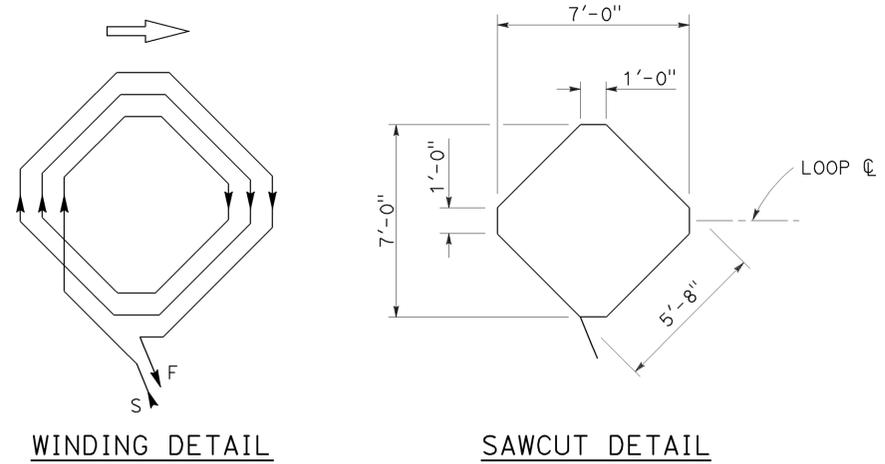
**REVISED STANDARD PLAN RSP ES-1C**

2010 REVISED STANDARD PLAN RSP ES-1C

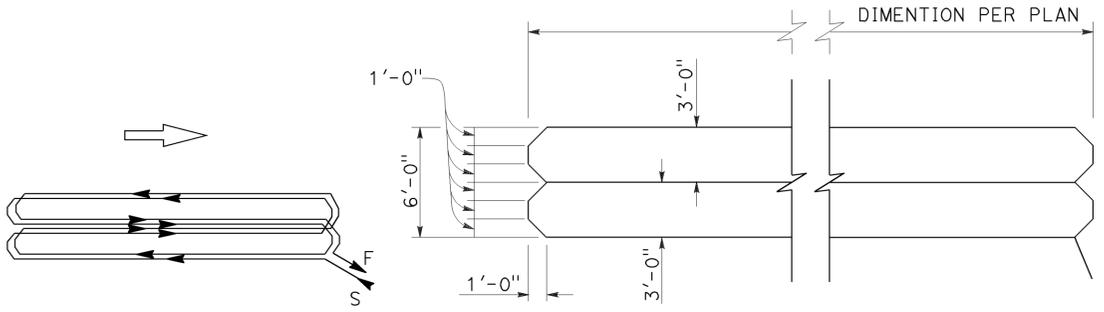
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	780	0.5/7.4	48	49
<i>Theresa Gabriel</i> REGISTERED ELECTRICAL ENGINEER July 19, 2013 PLANS APPROVAL DATE <small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
TO ACCOMPANY PLANS DATED <u>2-23-15</u>					



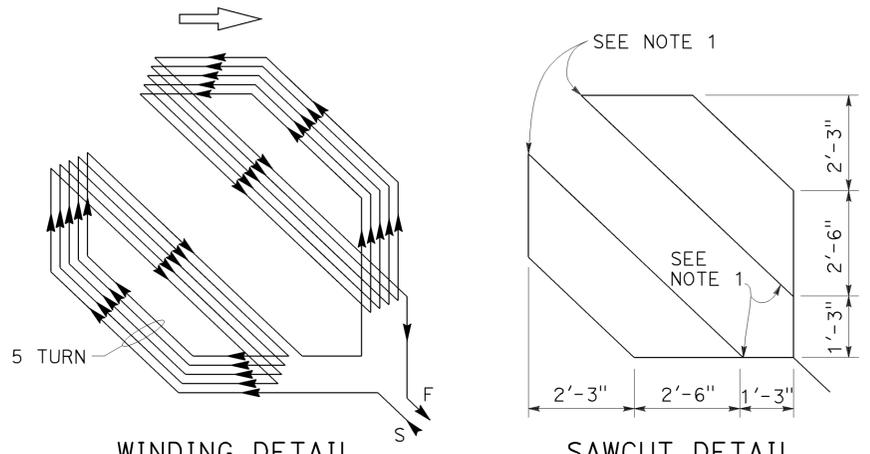
WINDING DETAIL  
SAWCUT DETAIL  
**TYPE A LOOP DETECTOR CONFIGURATION**



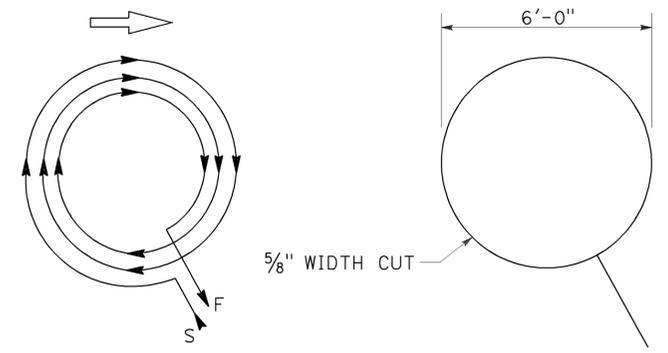
WINDING DETAIL  
SAWCUT DETAIL  
**TYPE B LOOP DETECTOR CONFIGURATION**



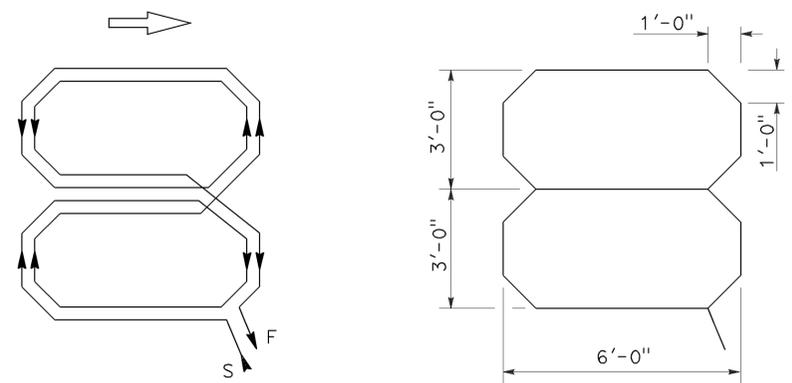
WINDING DETAIL  
SAWCUT DETAIL  
**TYPE C LOOP DETECTOR CONFIGURATION**



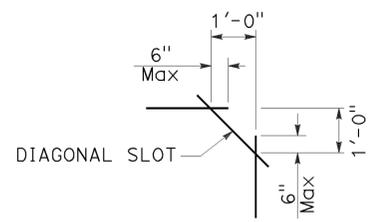
WINDING DETAIL  
SAWCUT DETAIL  
**TYPE D LOOP DETECTOR CONFIGURATION**



WINDING DETAIL  
SAWCUT DETAIL  
**TYPE E LOOP DETECTOR CONFIGURATION**



WINDING DETAIL  
SAWCUT DETAIL  
**TYPE Q LOOP DETECTOR CONFIGURATION**



**PLAN VIEW OF  
DIAGONAL SLOT  
AT CORNERS**

- NOTES:**
1. Round corners of acute angle sawcuts to prevent damage to conductors.
  2. Typical distance separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS  
(DETECTORS)**

NO SCALE

RSP ES-5B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5B  
DATED MAY 20, 2011 - PAGE 449 OF THE STANDARD PLANS BOOK DATED 2010.

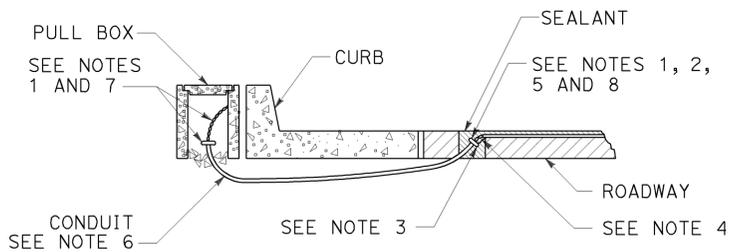
2010 REVISED STANDARD PLAN RSP ES-5B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Sol	780	0.5/7.4	49	49

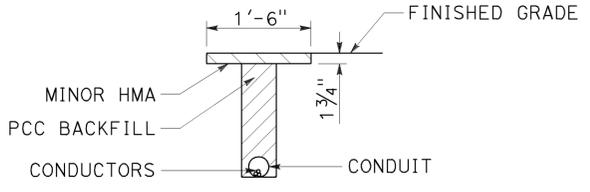
Theresa Gabriel  
 REGISTERED ELECTRICAL ENGINEER  
 July 19, 2013  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



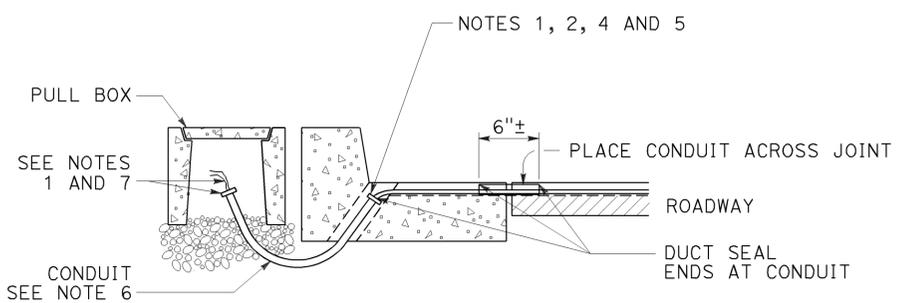
TO ACCOMPANY PLANS DATED 2-23-15



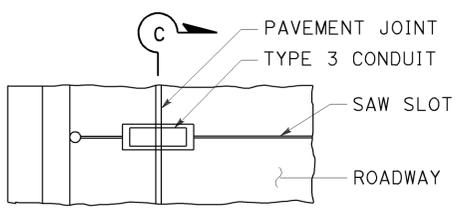
**TYPE A**  
**CURB TERMINATION DETAIL**



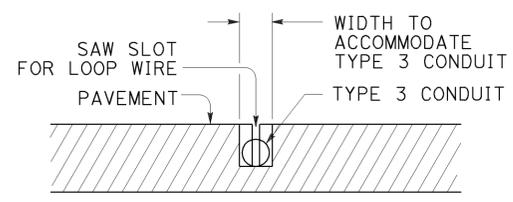
**"T" TRENCH**  
**DETAIL T**



**CROSS SECTION**

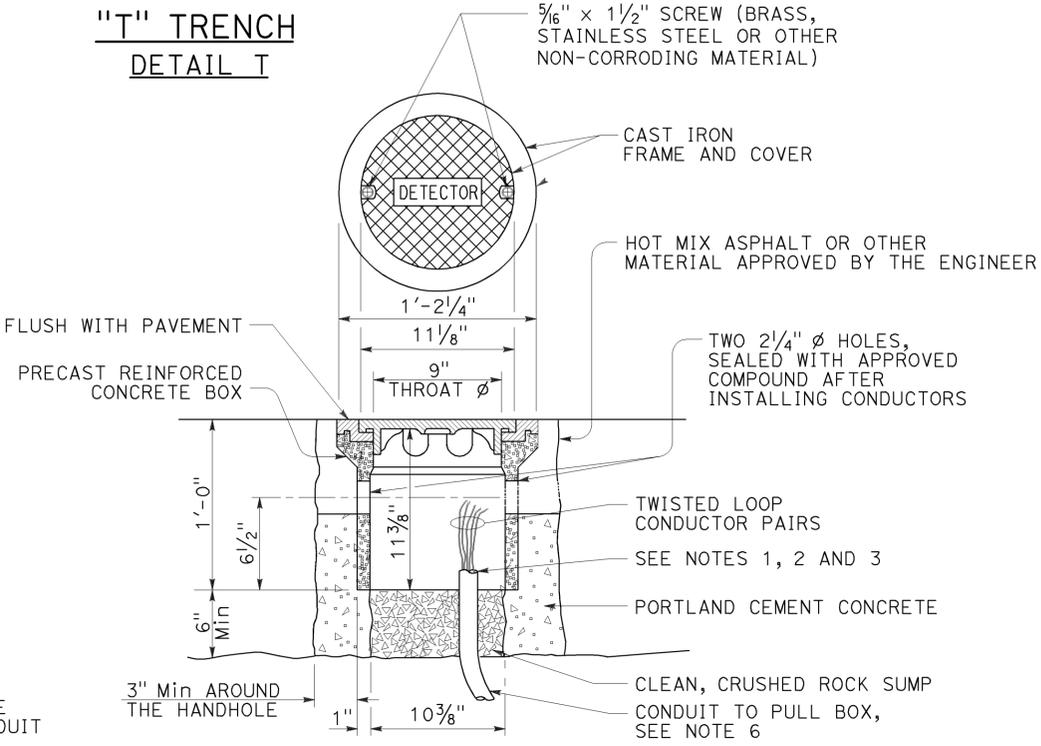


**PLAN VIEW**

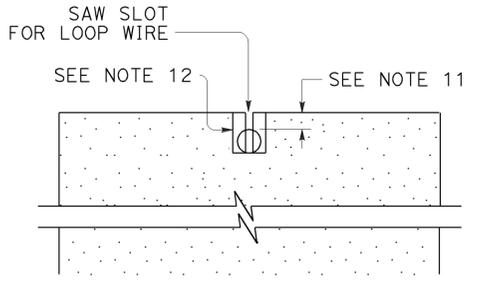


**SECTION C-C**

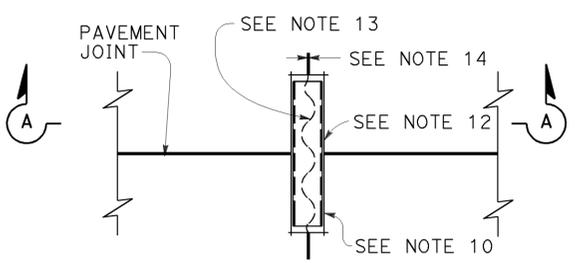
**TYPE B**  
**CURB TERMINATION DETAIL**



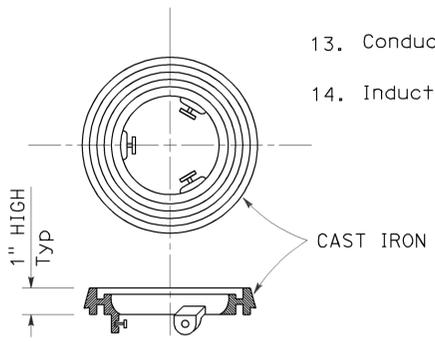
**DETECTOR HANDHOLE DETAIL**



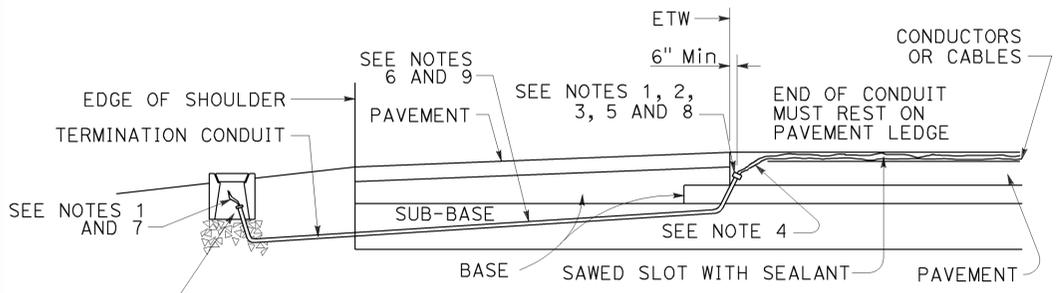
**SECTION A-A**



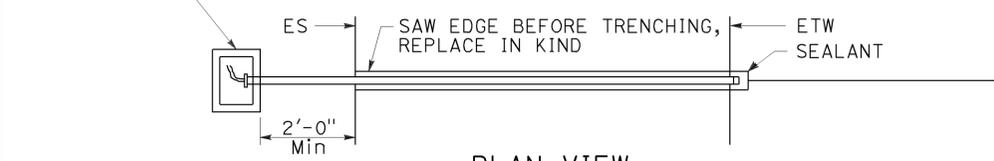
**PLAN VIEW**  
**TYPICAL LOOP LEAD-IN DETAIL**  
**AT PAVEMENT JOINT**



**LOCKING GRADE RING**



**CROSS SECTION**



**PLAN VIEW**  
**SHOULDER TERMINATION DETAILS**

**NOTES:**

- Bushing shall be used at end of conduit.
- Tape detector conductors or cables 3" each side of bushings.
- Install duct seal compound to each end of termination conduit before installing sealant.
- Round all sharp edges where detector conductors or cables have to pass.
- End of conduit shall be 3/8" below roadway surface.
- Conduit size      Loop conductors  
   1"C minimum      1 to 2 pairs  
   1 1/2"C minimum    3 to 4 pairs  
   2"C minimum      5 or more pairs
- Splice detector conductors or cables to detector lead-in-cable.
- Location of detector handhole when shown on plans.
- When the shoulder and traveled way are paved with the same material and there is no joint between them, the conduit shall extend only 2'-0" into the shoulder pavement.
- 3/4"C, Type 3 conduit 6" long minimum, plug both ends with duct compound to keep out sealant.
- 1/2" Minimum between top of conduit and pavement surface.
- Sawcut shall not exceed 1" in width and 1/8" longer than conduit to be installed.
- Conductors with 1/2" minimum slack inside conduit.
- Inductive loop detector saw slot.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS**  
**(CURB TERMINATION**  
**AND HANDHOLE)**  
NO SCALE

RSP ES-5D DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5D DATED MAY 20, 2011 - PAGE 451 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP ES-5D**

2010 REVISED STANDARD PLAN RSP ES-5D