

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-6	CONSTRUCTION DETAILS
7	CONSTRUCTION AREA SIGNS
8-10	SUMMARY OF QUANTITIES
11-20	REVISED STANDARD PLANS

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

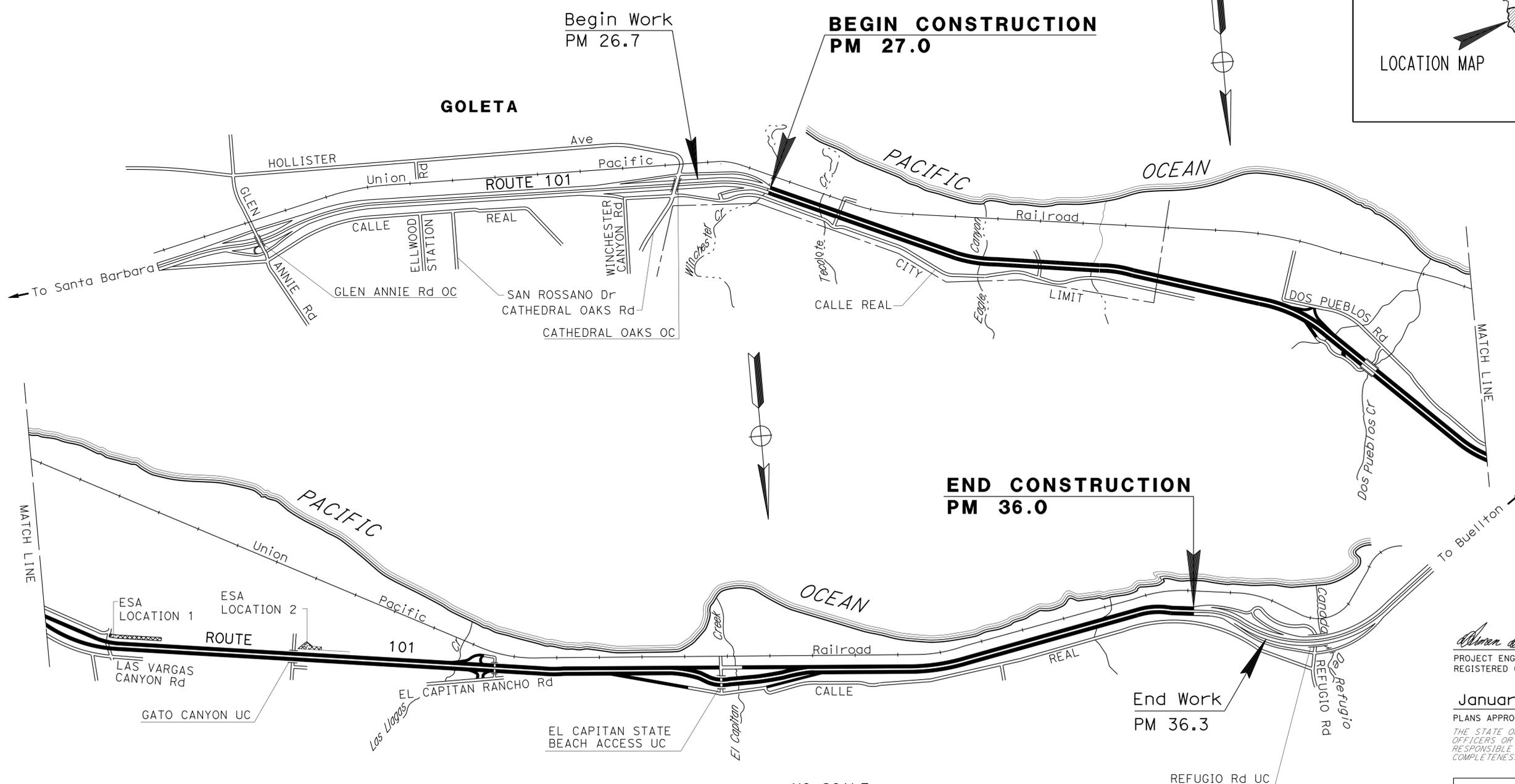
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

ACNHP-Q101(293)E

PROJECT PLANS FOR CONSTRUCTION ON  
STATE HIGHWAY  
IN SANTA BARBARA COUNTY  
IN AND NEAR GOLETA  
FROM 0.1 MILE NORTH OF CATHEDRAL OAKS OVERCROSSING  
TO 0.6 MILE SOUTH OF REFUGIO ROAD UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	1	20



PROJECT MANAGER  
KELLY MCCLAIN

DESIGN MANAGER  
KELLY MCCLAIN

*Arman Asefvaziri* 1-11-16  
PROJECT ENGINEER DATE  
REGISTERED CIVIL ENGINEER

January 11, 2016  
PLANS APPROVAL DATE

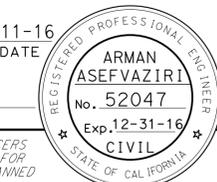
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



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

NO SCALE

CONTRACT No.	<b>05- 1G6204</b>
PROJECT ID	<b>0515000055</b>

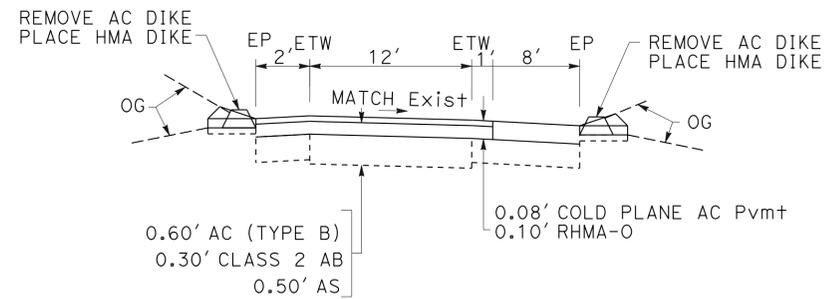
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05	SB	101	27.0/36.0	2	20
 REGISTERED CIVIL ENGINEER DATE 1-11-16					
PLANS APPROVAL DATE 1-11-16					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

**NOTES:**

- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- EXACT LOCATIONS, AND TYPES OF HMA DIKE, AND COLD PLANE AC DIKE ARE SHOWN IN THE SUMMARY OF QUANTITIES SHEETS.
- EXACT LOCATIONS OF ADJUST METAL BEAM GUARDRAILS ARE SHOWN IN THE SUMMARY OF QUANTITIES SHEETS.
- RHMA-O SHALL NOT BE PLACED UNDER HMA DIKES.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

**ABBREVIATIONS:**

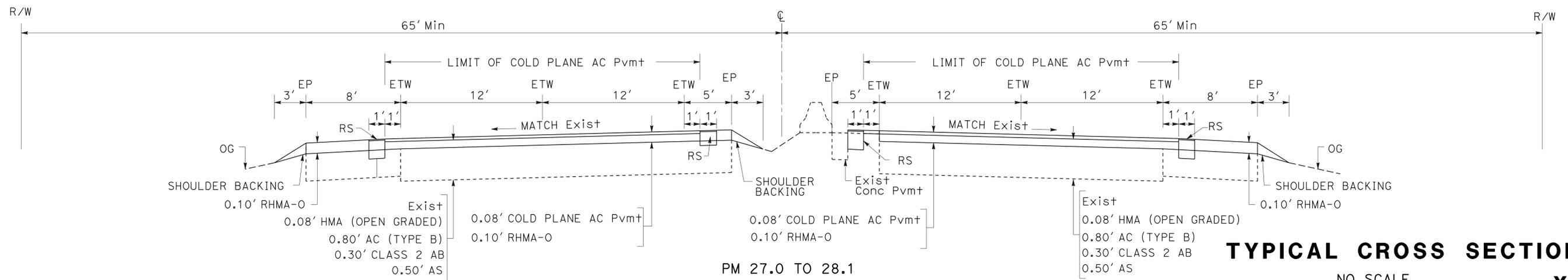
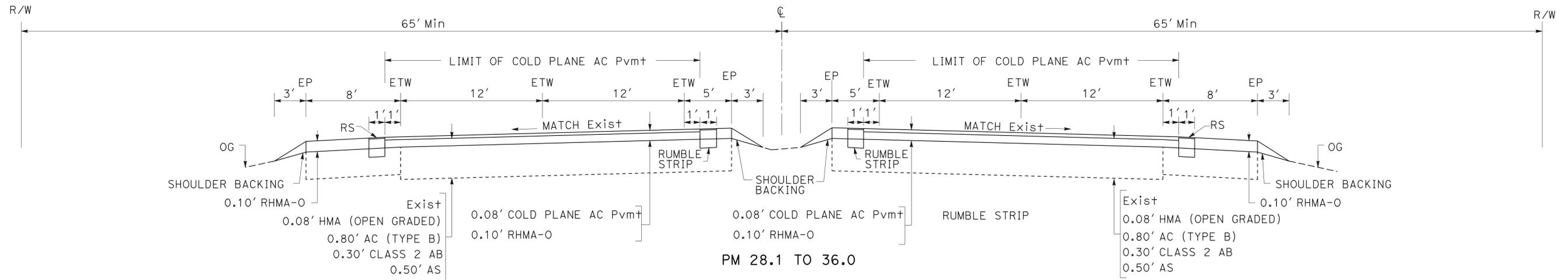
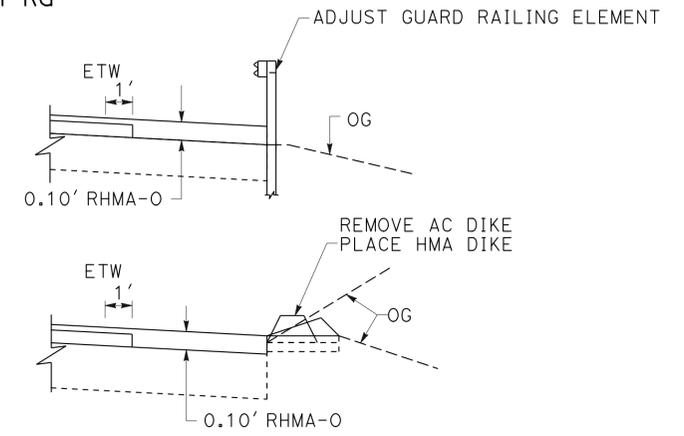
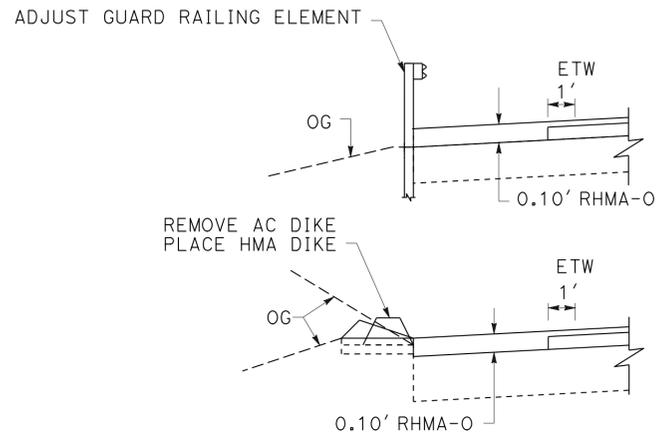
RHMA-O = RUBBERIZED HOT MIX ASPHALT-OPEN GRADED (OPEN GRADED FRICTION COARSE)  
 RS = SHOULDER RUMBLE STRIP(HMA, GROUND-IN INDENTATION)



**RAMPS**

EL CAPITAN STATE BEACH  
 EL CAPITAN RANCH Rd  
 DOS PUEBLOS Rd

PAVEMENT CLIMATE REGION  
 SOUTH COAST



**TYPICAL CROSS SECTIONS**

NO SCALE

**X-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** MAINTENANCE DESIGN

AA 10-29-15  
 REVISOR BY DATE  
 ARMAN ASEFVAZIRI KELLY McCLAIN  
 CALCULATED/DESIGNED BY CHECKED BY

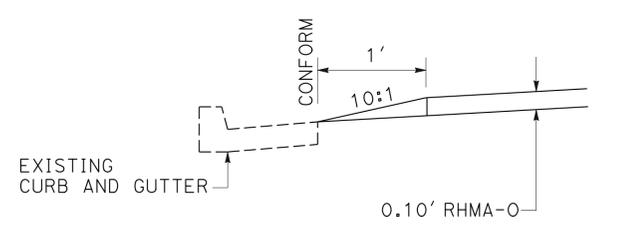
FUNCTIONAL SUPERVISOR  
 KELLY McCLAIN

LAST REVISION DATE PLOTTED => 13-JAN-2016  
 TIME PLOTTED => 13:33

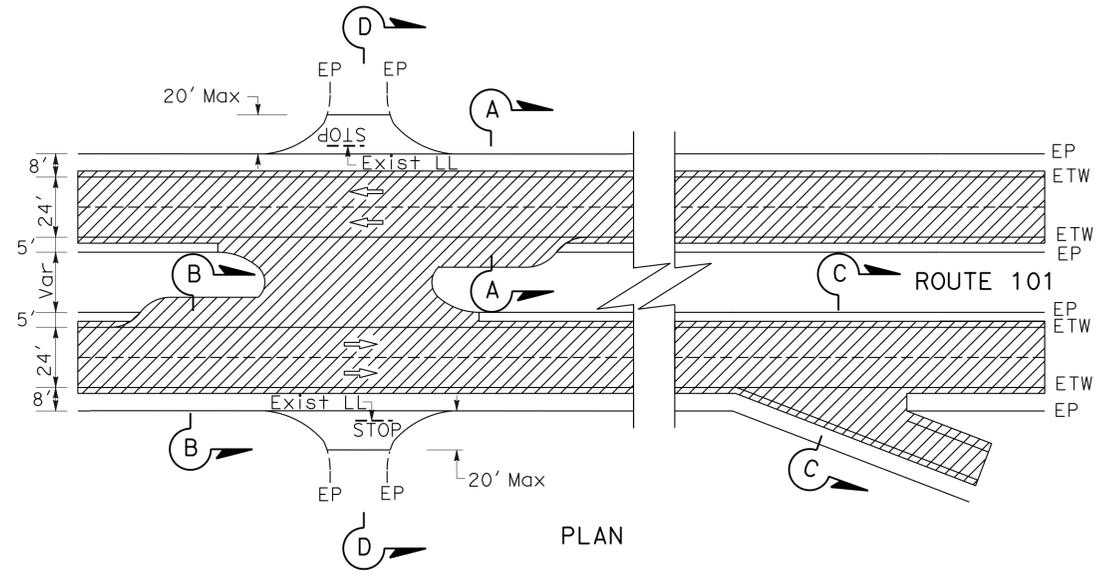
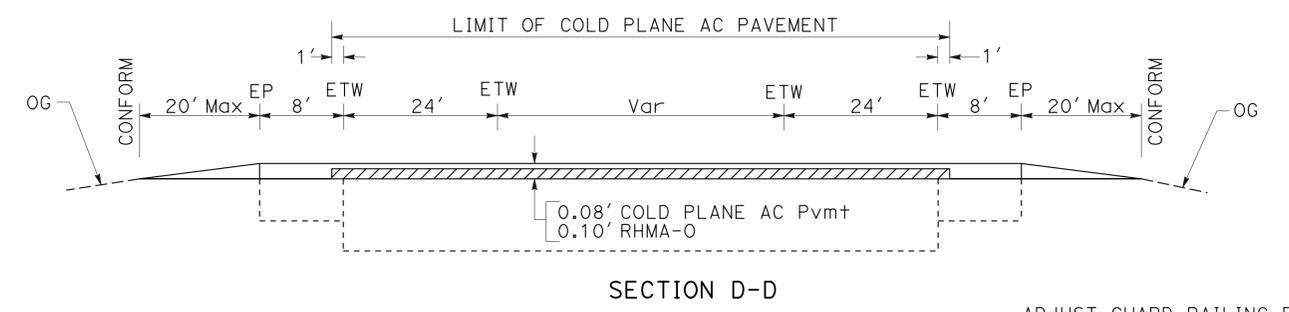
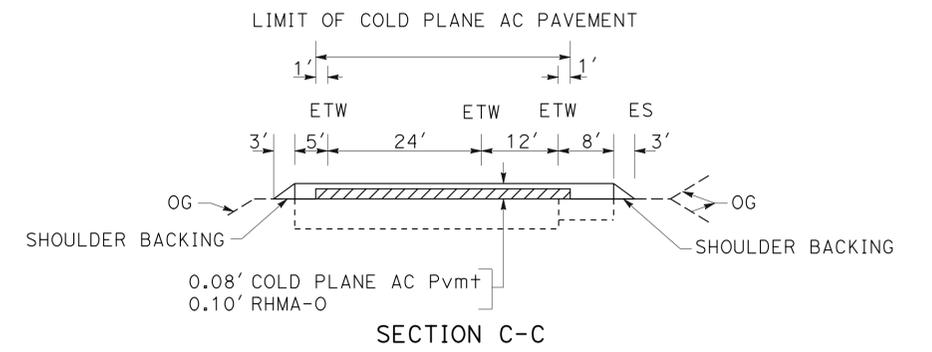
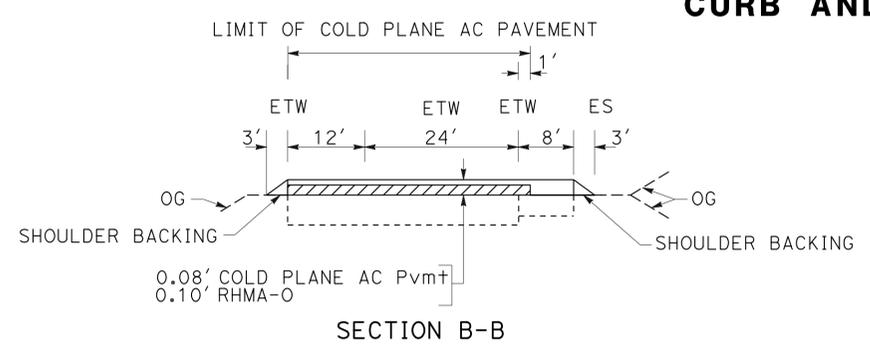
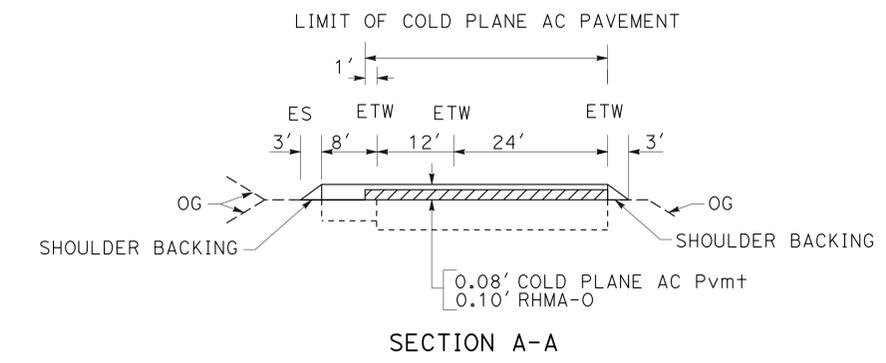
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	3	20
			1-11-16	DATE	
1-11-16 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

- LEGEND:**
- 0.08' COLD PLANE AC PAVEMENT
  - 0.20' COLD PLANE AC PAVEMENT
  - DIRECTIONAL ARROW

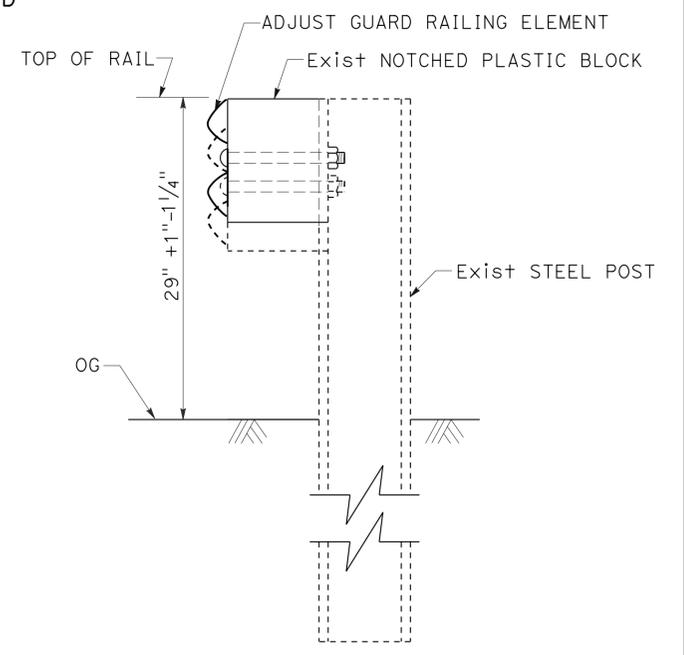
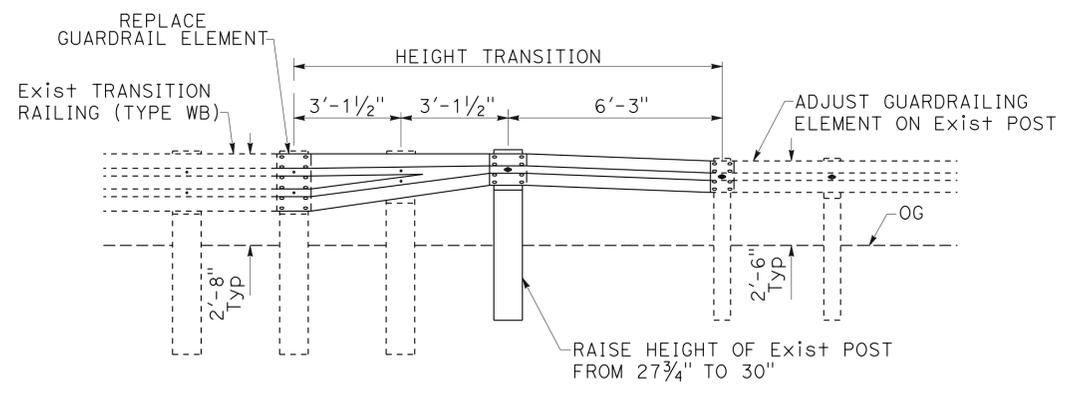
**ABBREVIATION:**  
 RHMA-O = RUBBERIZED HOT MIX MIX ASPHALT-OPEN GRADED (OPEN GRADED FRICTION COARSE)



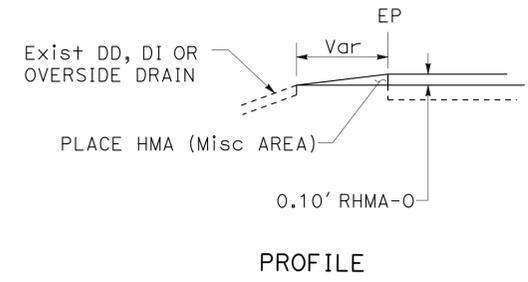
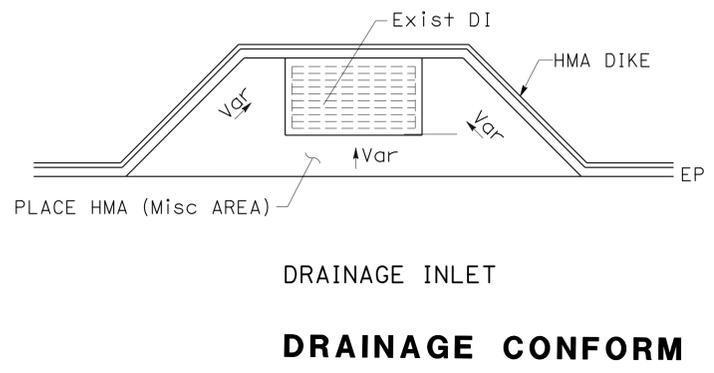
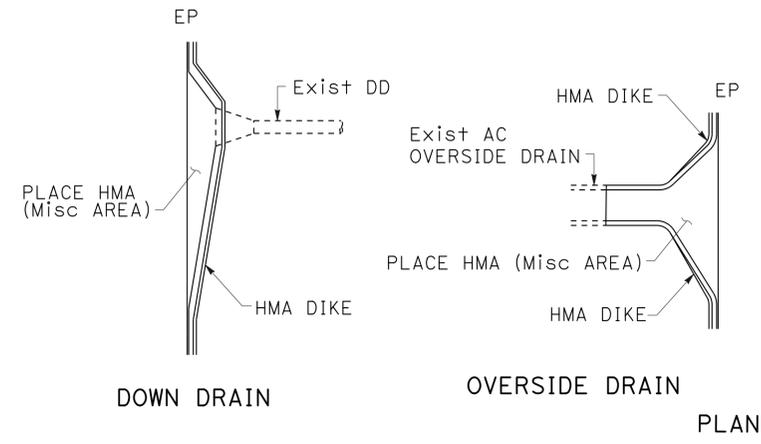
**CURB AND GUTTER CONFORM**



**LIMIT OF COLD PLANE AC Pvm+**



**ADJUST GUARD RAILING ELEMENT**



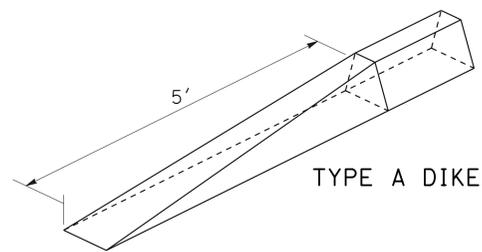
**CONSTRUCTION DETAILS C-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** MAINTENANCE DESIGN  
 FUNCTIONAL SUPERVISOR: KELLY McCLAIN  
 CALCULATED/DESIGNED BY: ARMAN ASEFVAZIRI  
 CHECKED BY: KELLY McCLAIN  
 REVISED BY: AA  
 DATE REVISED: 07-06-15  
 USERNAME => s109144  
 DGN FILE => 0515000055ga001.dgn

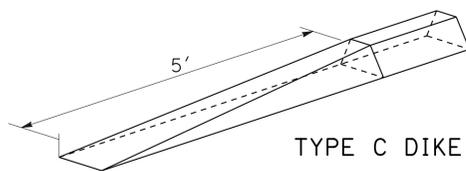


LAST REVISION: DATE PLOTTED => 13-JAN-2016  
 01-11-16 TIME PLOTTED => 13:33

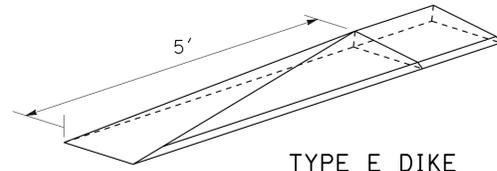
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05	SB	101	27.0/36.0	4	20
			1-11-16	DATE	
REGISTERED CIVIL ENGINEER			1-11-16	PLANS APPROVAL DATE	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



TYPE A DIKE

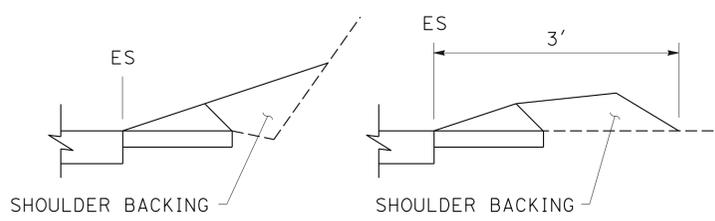


TYPE C DIKE

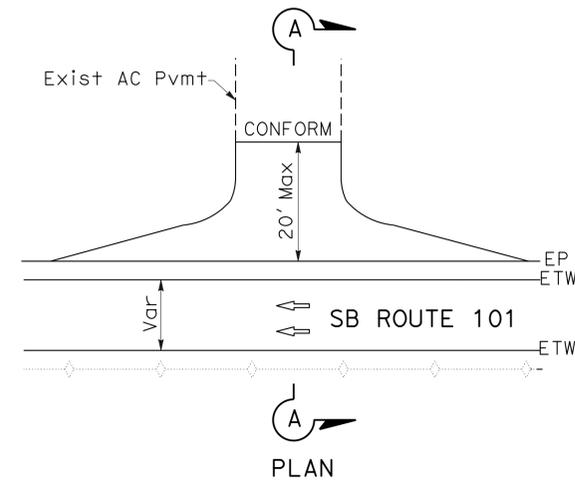


TYPE E DIKE

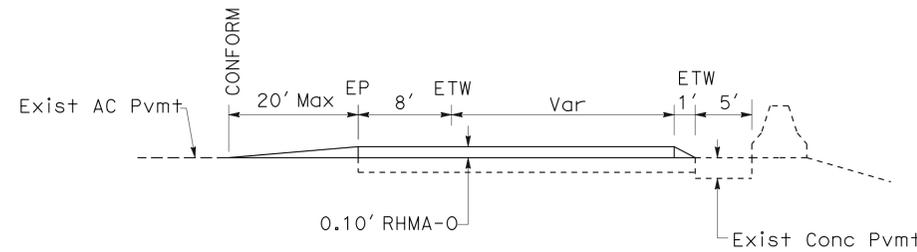
**AC DIKE TRANSITION**



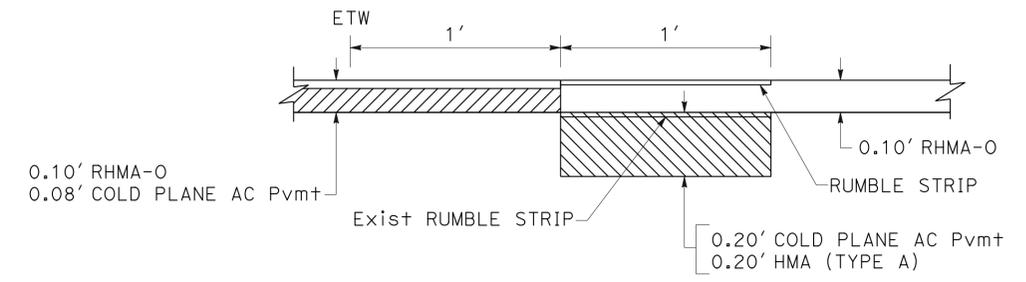
**SHOULDER BACKING BEHIND DIKES**



PLAN



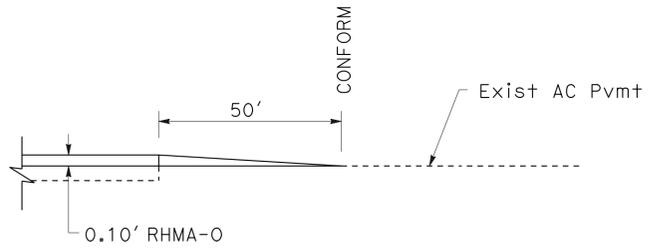
SECTION A-A



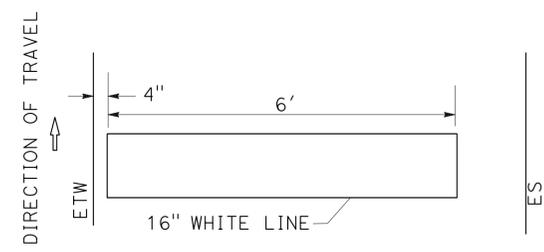
**RUMBLE STRIP**

**LOCAL ROAD AND CONCRETE PAVEMENT CONFORM**

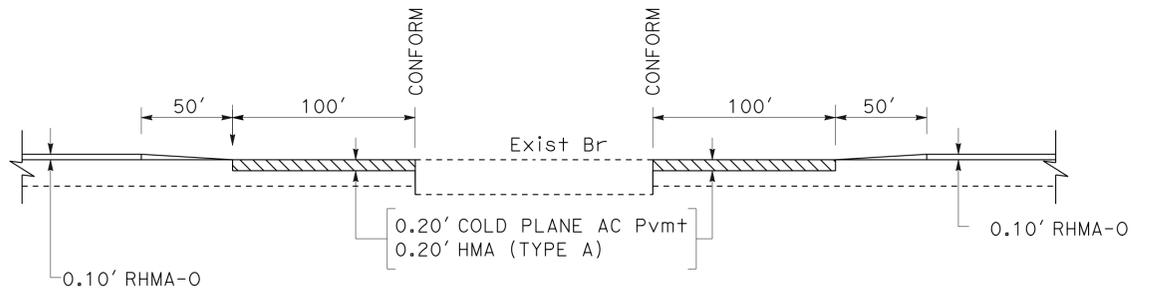
PM 27.50



PM 27.0 AND 36.0  
**LONGITUDINAL CONFORM**

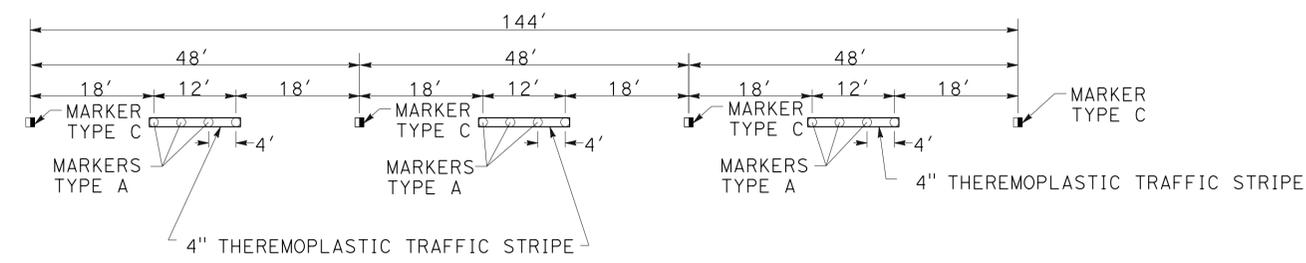


**AERIAL PATROL MARKING DETAIL**

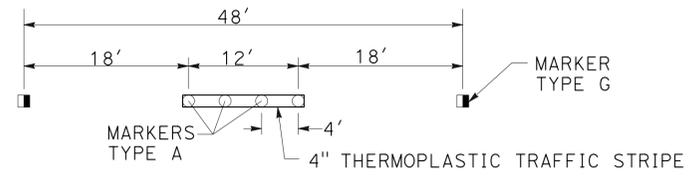


**BRIDGE CONFORM**

DOS PUEBLOS Cr Br  
EL CAPITAN BEACH UC  
EL CAPITAN RANCH Rd UC



**DETAIL 14 (Mod)**



**DETAIL 13A**

**CONSTRUCTION DETAILS**

NO SCALE

**C-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** MAINTENANCE DESIGN  
 FUNCTIONAL SUPERVISOR: KELLY McCLAIN  
 REVISIONS: AA 07-06-15  
 REVISIONS: ARMAN ASEFVAZIRI, KELLY McCLAIN  
 CALCULATED/DESIGNED BY: ARMAN ASEFVAZIRI  
 CHECKED BY: KELLY McCLAIN

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	5	20

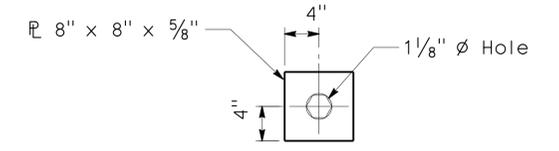
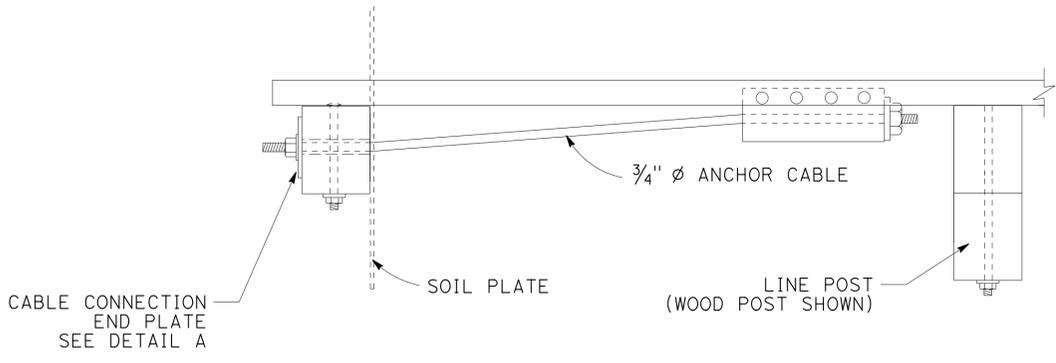
REGISTERED CIVIL ENGINEER	DATE
ARMAN ASEFVAZIRI	1-11-16
No. 52047	
Exp. 12-31-16	
CIVIL	

PLANS APPROVAL DATE 1-11-16

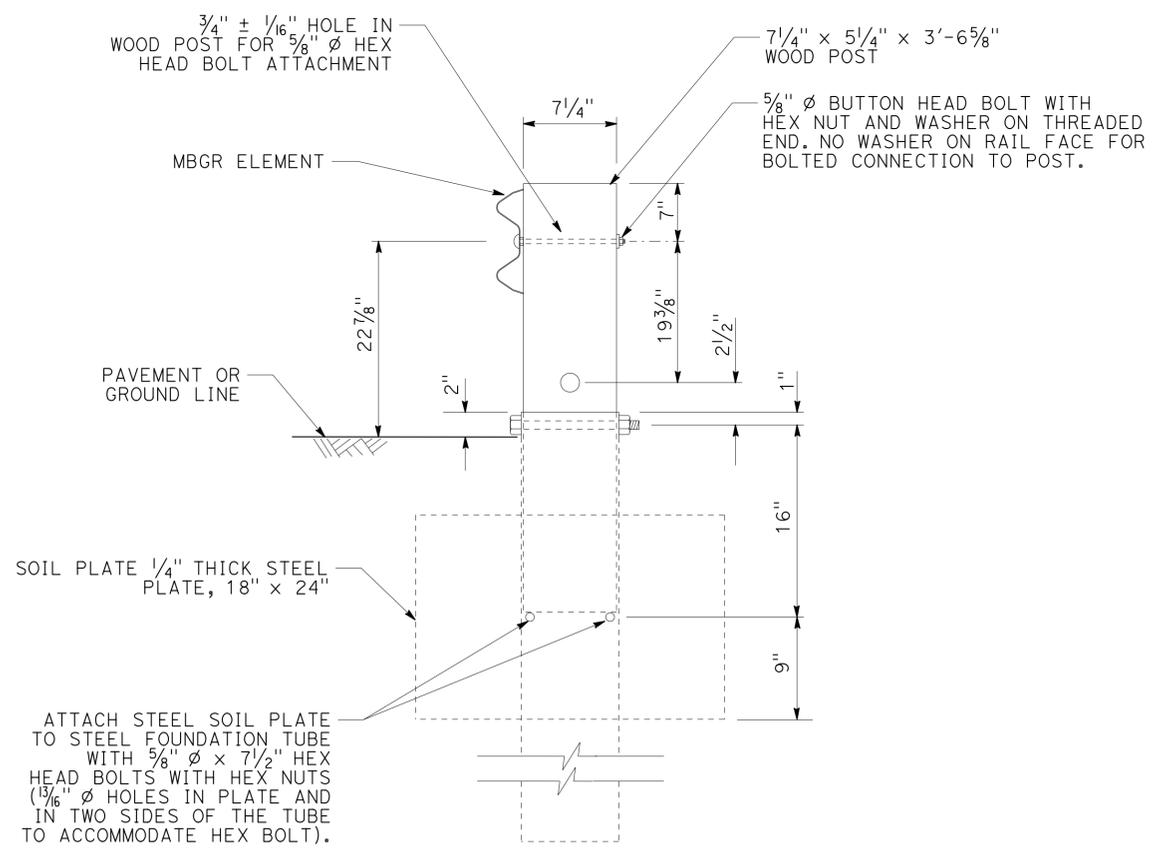
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTES:**

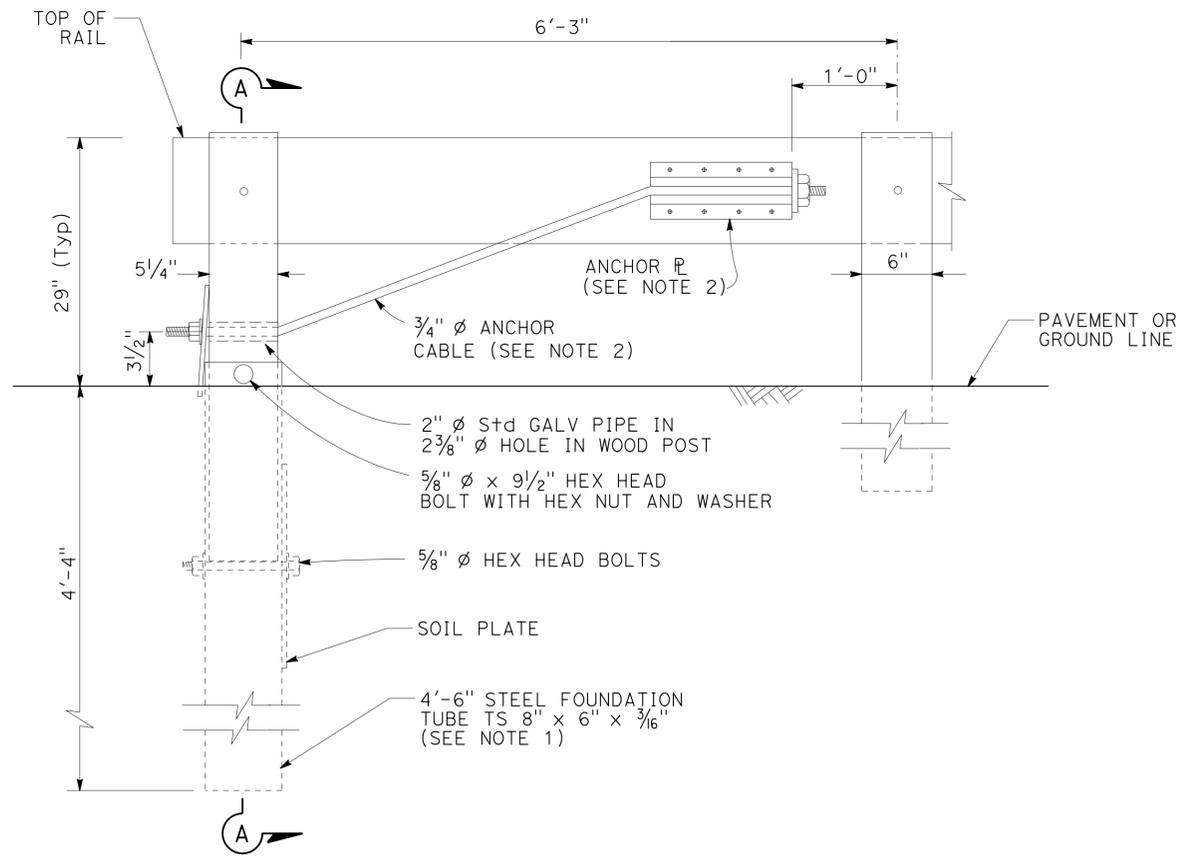
1. A 6'-0" LENGTH STEEL FOUNDATION TUBE, TS 8 x 16 x 3/16, WITHOUT A SOIL PLATE, MAY BE FURNISHED AND INSTALLED IN PLACE OF THE 4'-6" LENGTH STEEL FOUNDATION TUBE AND SOIL PLATE SHOWN. MINIMUM EMBEDMENT OF THE 6'-0" LENGTH TUBE SHALL BE 5'-9". A 5/8" DIA HEX HEAD BOLT AND NUT SHALL BE INSTALLED IN THE HOLE IN THE 6'-0" LENGTH TUBE TO KEEP THE WOOD POST FROM DROPPING INTO THE TUBE.
2. FOR DETAILS NOT SHOWN, SEE REVISED STANDARD PLAN A77S1.



**DETAIL A  
CABLE CONNECTION  
END PLATE**



SECTION A-A



ELEVATION

**MBGR  
END ANCHOR ASSEMBLY  
(TYPE SFT)**

**CONSTRUCTION DETAILS**

NO SCALE

**C-3**

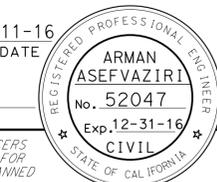
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR: KELLY McCLAIN

REVISOR: AA 07-06-15

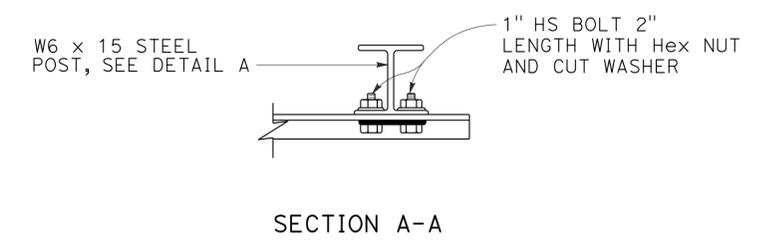
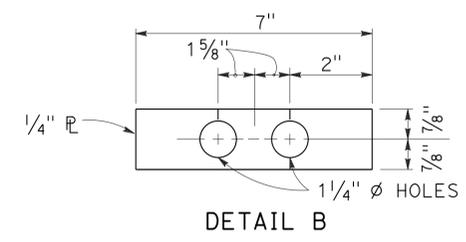
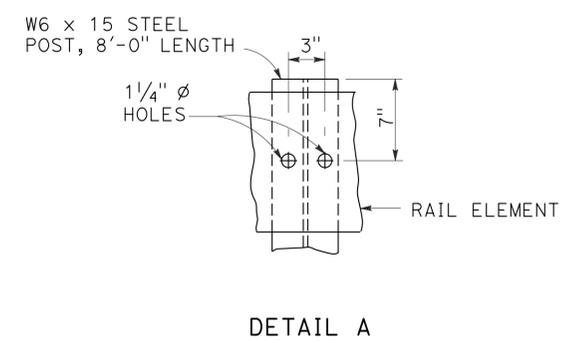
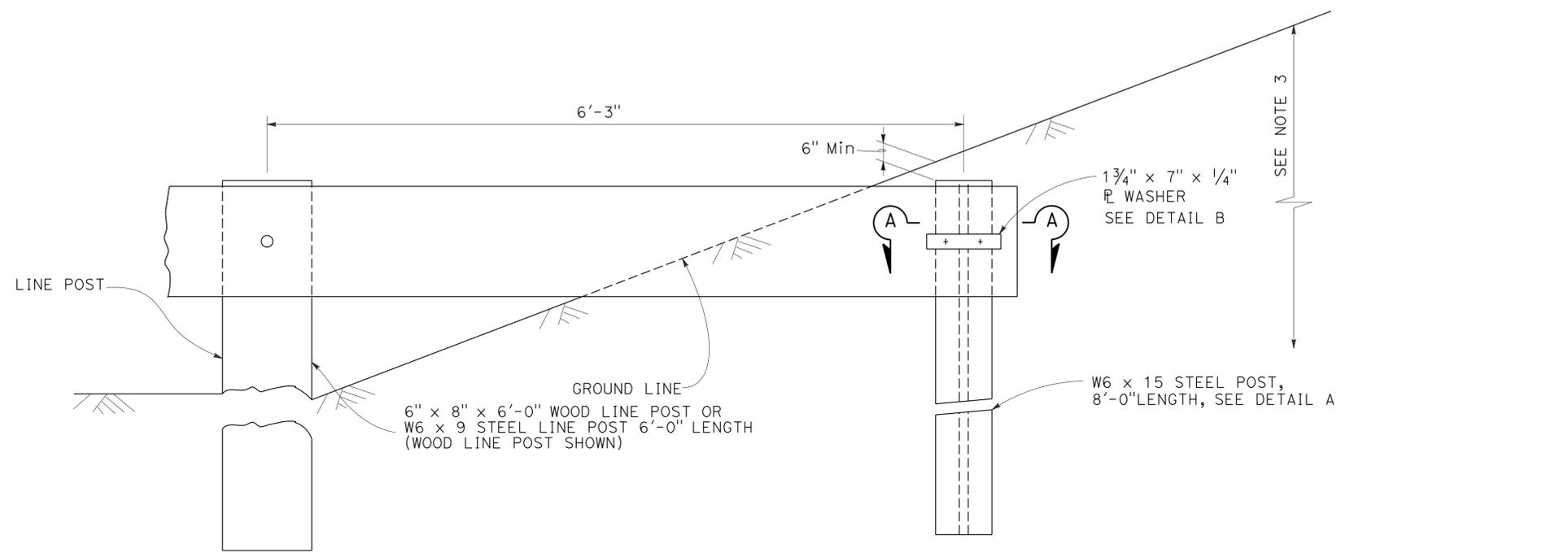
DESIGNER: KELLY McCLAIN

DATE: 07-06-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	6	20
 REGISTERED CIVIL ENGINEER DATE 1-11-16					
PLANS APPROVAL DATE 1-11-16					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

**NOTES:**

1. FOR TYPICAL USE OF THIS TYPE OF END ANCHOR WITH GUARD RAILING, SEE THE A77E, A77F AND A77G SERIES OF THE STANDARD PLANS.
2. HOLES EXCAVATION IN THE SLOPE TO CONSTRUCT THE BURIED POST END ANCHOR SHALL BE BACKFILLED WITH SELECTED EARTH, PLACED IN LAYERS APPROXIMATELY 1'-0" THICK. EACH LAYER SHALL BE MOISTENED AND THOROUGHLY COMPACTED.
3. THE BURIED POST END ANCHOR SHALL ONLY BE CONSTRUCTED AT THOSE LOCATIONS WHERE THE SLOPE PERPENDICULAR TO THE ROADWAY IS NON-TRAVERSABLE.



**MBGR  
BURIED POST END ANCHOR**

**CONSTRUCTION DETAILS  
NO SCALE  
C-4**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Kelly McClain  
 Functional Supervisor  
 Kelly McClain  
 Calculated/Designed By  
 Kelly McClain  
 Checked By  
 Kelly McClain  
 Revised By  
 AA  
 Date Revised  
 07-06-15

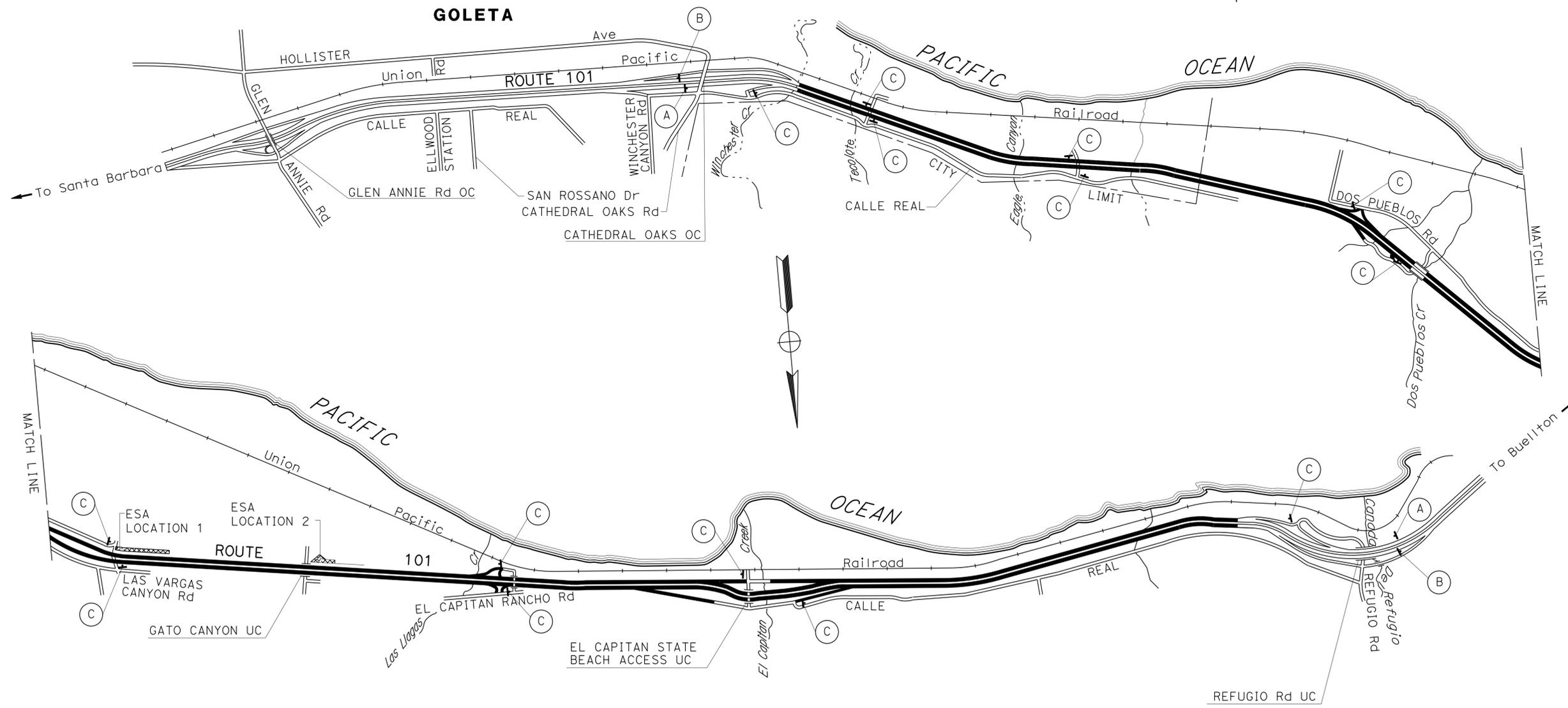
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** MAINTENANCE DESIGN  
 FUNCTIONAL SUPERVISOR: KELLY McCLAIN  
 REVISIONS: AA 11-18-15  
 DESIGNED BY: ARMAN ASEFVAZIRI  
 CHECKED BY: KELLY McCLAIN  
 DESIGNED BY: ARMAN ASEFVAZIRI  
 CHECKED BY: KELLY McCLAIN  
 REVISIONS: AA 11-18-15  
 DESIGNED BY: ARMAN ASEFVAZIRI  
 CHECKED BY: KELLY McCLAIN

### STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
(A)	G20-1		48" x 24"	ROAD WORK NEXT 9 MILES	2 - 4" x 4"	2
(B)	G20-2		36" x 18"	END ROAD WORK	1 - 4" x 4"	2
(C)	W20-1		36" x 36"	ROAD WORK AHEAD	1 - 4" x 4"	14

EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.



APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	7	20

REGISTERED CIVIL ENGINEER: *Arman Asefvaziri* 1-11-16  
 DATE: 1-11-16  
 PLANS APPROVAL DATE: 1-11-16

REGISTERED PROFESSIONAL ENGINEER  
**ARMAN ASEFVAZIRI**  
 No. 52047  
 Exp. 12-31-16  
 CIVIL  
 STATE OF CALIFORNIA

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	8	20

1-11-16  
 REGISTERED CIVIL ENGINEER DATE  
 1-11-16  
 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  
 ARMAN ASEFVAZIRI  
 No. 52047  
 Exp. 12-31-16  
 CIVIL  
 STATE OF CALIFORNIA

### PAVEMENT STRUCTURE

LOCATION	RUBBERIZED HMA-OPEN GRADED (OPEN GRADED FRICTION COARSE) TON	HMA (TYPE A) TON	TACK COAT TON	COLD PLANE AC PAVEMENT		SHOULDER BACKING TON
				0.08' SQYD	0.20' SQYD	
MAINLINE	24,750	350	61	287,200	2,500	2,900
RAMPS	1,550		8	18,800		100
RUMBLE STRIP		2,200	7		17,200	
HMA DIKE		1,800				
Misc AREA		8				
<b>SUBTOTAL</b>				306,000	19,700	
<b>TOTAL</b>	26,300	4,358	76	325,700		3,000

### RUMBLE STRIP

POST MILE	HMA (TYPE A)	SHOULDER RUMBLE STRIP (GROUND-IN INDENTATION)	TACK COAT
	TON	STA	TON
27.8 TO 36.0	* 2,200	2,300	* 7

\* QUANTITY INCLUDED IN PAVEMENT STRUCTURE SUMMARY.

### PAVEMENT DELINEATION

POST MILE	DETAIL	4" THERMOPLASTIC TRAFFIC STRIPE	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 17-7)	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 36-12)	8" THERMOPLASTIC TRAFFIC STRIPE	PAVEMENT MARKER (RETROREFLECTIVE)				REMOVE THERMOPLASTIC PAVEMENT MARKING	THERMOPLASTIC PAVEMENT MARKING
						TYPE G	TYPE C	TYPE H	TYPE A		
		LF	EA	LF	LF	EA	EA	EA	EA	SQFT	SQFT
27.0 TO 36.0	8		1,056						7,488		
	13A			89,856		1,874					
	14 (Mod)			5,184			144				
	25	95,040						1,992			
	25A	4,685						219			
	27B	95,040									
	38				7,000	157					
	STOP									110	176
	AHEAD									62	62
	LIMIT LINE									192	212
	AERIAL MARKING									114	152
	TYPE I ARROW										186
	TYPE III ARROW										252
	TYPE IV ARROW										126
	TYPE V ARROW										1,188
<b>SUBTOTAL</b>						2,032	144	2,211			
<b>TOTAL</b>		194,765	1,056	95,040	7,000	4,387		7,488	478	2,354	

### PLACE HMA (Misc AREA)

LOCATION	HMA (TYPE A)	PLACE HMA (Misc AREA)
	TON	SQYD
D1, DD, AND OVERSIDE DRAINS	* 8	85

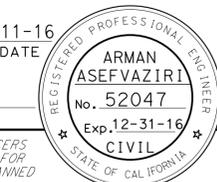
\* QUANTITY INCLUDED IN PAVEMENT STRUCTURE SUMMARY.

## SUMMARY OF QUANTITIES Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Kelly McClain  
 FUNCTIONAL SUPERVISOR  
 Kelly McClain  
 CALCULATED/DESIGNED BY  
 Kelly McClain  
 CHECKED BY  
 Kelly McClain  
 ARMAN ASEFVAZIRI  
 Kelly McClain  
 REVISOR BY  
 Kelly McClain  
 DATE REVISOR  
 Kelly McClain  
 AA  
 07-06-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	9	20

  
 REGISTERED CIVIL ENGINEER DATE 1-11-16  
 PLANS APPROVAL DATE 1-11-16



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.

### GUARDRAIL

POST MILE	DIRECTION	REMOVE GUARDRAIL	REMOVE CABLE ANCHOR ASSEMBLY (N)	TREATED WOOD WASTE	ADJUST GUARD RAILING ELEMENT	GUARDRAIL HEIGHT TRANSITION	ALTERNATIVE IN-LINE TERMINAL SYSTEM	ALTERNATIVE FLARED TERMINAL SYSTEM	END ANCHOR ASSEMBLY (TYPE SFT)	BURIED END ANCHOR (N)	GUARDRAIL LAYOUT (N)	
		LF	EA	LB	LF	EA	EA	EA	EA	EA	EA	TYPE
27.14 TO 27.43	NORTHBOUND	43.75	2	686	1,487.5			1	1		11B	
28.03 TO 28.18		6.25	1	98	785.7				1	1	11C	
29.97 TO 30.01		37.50	1	588	173.7	1		1			12B	
29.98 TO 30.01		37.50	1	588	120.9	1		1			12B	
30.06 TO 30.12		6.25	1	98	310.6	1			1		Br/SFT	
31.80 TO 31.83		43.75	2	686	114.6			1	1		11B	
32.51 TO 32.65		43.75	2	686	695.5			1	1		11B	
32.76 TO 32.80		37.50	1	588	173.7	1		1			12B	
32.78 TO 32.80		37.50	1	588	68.1	1		1			12B	
33.77 TO 33.81		37.50	1	588	173.7	1		1			12BB	
33.80 TO 33.81		37.50	1	588	15.3	1		1			12BB	
33.84 TO 33.85		6.25	1	98	46.5	1			1		Br/SFT	
34.01 TO 34.03		6.25	1	98	99.4				1	1	11C	
27.29 TO 27.44		SOUTHBOUND	43.75	2	686	748.3		1		1		11A
27.66 TO 27.71			43.75	2	686	220.3			1	1	1	11B
27.72 TO 27.81			6.25	1	98	468.9				1	1	11C
30.08 TO 30.11			37.50	1	588	120.9	1		1			12B
30.08 TO 30.11			37.50	1	588	120.9	1		1			12B
31.32 TO 31.54	43.75		2	686	1,118.8		1		1		11A	
31.81 TO 31.92	6.25		1	98	574.6				1	1	11C	
32.80 TO 32.81	37.50		1	588	15.3	1		1			12BB	
32.80 TO 32.83	37.50		1	588	120.9	1		1			12BB	
33.83 TO 33.84	37.50		1	588	15.3	1		1			12B	
33.83 TO 33.86	37.50	1	588	120.9	1		1			12B		
34.17 TO 34.28	43.75	2	686	537.0			1	1		11B		
34.49 TO 34.51	43.75	2	686	61.8			1	1		11B		
EL CAPITAN RANCH	43.75	2	686	281.3			1	1		11B		
<b>TOTAL</b>		881.25		13,818	8,789	14	2	19	15			

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

## SUMMARY OF QUANTITIES

### Q-2

LAST REVISION | DATE PLOTTED => 13-JAN-2016 | 01-11-16 | TIME PLOTTED => 13:33

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	10	20

*Arman Asefvaziri* 1-11-16  
 REGISTERED CIVIL ENGINEER DATE

1-11-16  
 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.

**HMA DIKE**

POST MILE	DIRECTION	PLACE HMA DIKE (TYPE A)	PLACE HMA DIKE (TYPE C)	PLACE HMA DIKE (TYPE E)	REMOVE AC DIKE	HMA (TYPE A)
		LF	LF	LF	SQYD	TON
27.14 TO 27.44	SOUTHBOUND	1,584			176	41.0
27.44 TO 27.45			62.5		7	0.5
27.47 TO 27.52				264	29	6.6
27.52 TO 27.70		950			106	24.6
27.70 TO 27.71			62.5		7	0.5
27.72 TO 27.78		317			35	8.2
27.78 TO 27.82				211.0	3	1.5
27.82 TO 28.04		1,162			129	30.1
28.04 TO 28.19				792	88	19.7
28.19 TO 28.62		2,270			252	58.8
28.80 TO 28.86		317			35	8.2
29.56 TO 29.63				370	41	9.2
29.70 TO 29.77		370			41	9.6
29.77 TO 30.03				1,373	153	34.2
30.08 TO 30.10		106			12	2.7
30.10 TO 30.11			62.5		7	0.5
30.11 TO 30.18				370	41	9.2
31.44 TO 31.54		528			59	13.7
31.54 TO 31.55			62.5		6	0.5
31.55 TO 31.63				422	47	10.5
31.63 TO 31.92		1,531			170	39.6
31.92 TO 31.93			62.5		7	0.5
31.93 TO 32.11		950			106	24.6
32.59 TO 32.65				317	35	7.9
32.70 TO 32.80				528	59	13.2
32.80 TO 32.81		53			6	1.4
32.81 TO 32.82			62.5		7	0.5
32.82 TO 33.02		1,056			117	27.3
33.02 TO 33.11				475	53	11.8
33.11 TO 33.24		686			76	17.8
33.24 TO 33.34				528	59	13.2
33.40 TO 33.80				2,112	235	52.6
33.82 TO 33.84		106			12	2.7
33.84 TO 33.85			62.5		7	0.5
33.85 TO 34.07				1,162	129	28.9
34.12 TO 34.28		845			94	21.9
34.28 TO 34.29			62.5		7	0.5
34.29 TO 34.49				1,056	117	26.3
34.49 TO 34.51		106			12	2.7
34.51 TO 34.52			62.5		7	0.5
35.11 TO 35.25			739	82	18.4	
35.41 TO 35.59			950	106	23.7	
35.68 TO 35.76			422	47	10.5	
35.76 TO 35.85	475			53	12.3	
DOS PUEBLOS Rd			250	28	6.2	
DOS PUEBLOS Rd			220	24	5.5	
EL CAPITAN BEACH Rd			2,500	278	62.3	
EL CAPITAN BEACH Rd	800			89	20.7	
<b>SB SUBTOTAL</b>	<b>14,211</b>	<b>774</b>	<b>14,850</b>	<b>3,294</b>	<b>743</b>	

**HMA DIKE**

POST MILE	DIRECTION	PLACE HMA DIKE (TYPE A)	PLACE HMA DIKE (TYPE C)	PLACE HMA DIKE (TYPE E)	REMOVE AC DIKE	HMA (TYPE A)
		LF	LF	LF	SQYD	TON
27.13 TO 27.14	NORTHBOUND		62.5		7	0.5
27.14 TO 27.43		1,531			170	39.6
27.45 TO 27.66		1,109			123	28.7
27.66 TO 27.84				950	106	23.7
27.84 TO 28.03		1,003			111	26.0
28.21 TO 28.54		1,742			194	45.1
28.54 TO 28.76				1,162	3	28.9
28.76 TO 29.00		1,267			141	32.8
29.00 TO 29.85				4,488	499	111.8
29.85 TO 29.97		634			70	16.4
29.97 TO 29.98			62.5		7	0.5
29.98 TO 30.01		158			18	4.1
30.06 TO 30.58		2,746			305	71.1
30.62 TO 30.92		1,584			176	41.0
31.02 TO 31.79		4,066			452	105.2
31.79 TO 31.80			62.5		7	0.5
31.80 TO 31.83		158			18	4.1
31.83 TO 31.93				528	58	13.2
31.93 TO 32.13		1,056			117	27.3
32.13 TO 32.38				1,320	147	32.9
32.38 TO 32.50		634			70	16.4
32.50 TO 32.51			62.5		7	0.5
32.51 TO 32.65		739			82	19.1
32.73 TO 32.78				264	29	6.6
32.78 TO 32.79			62.5		7	0.5
32.79 TO 33.04		1,320			147	34.2
33.04 TO 33.10				317	35	7.9
33.10 TO 33.22		634			70	16.4
33.22 TO 33.73				2,693	299	67.1
34.03 TO 34.07		211			23	5.5
34.09 TO 34.12		158			18	4.1
34.17 TO 34.41		1,267			141	32.8
34.41 TO 34.72				1,629	182	40.8
34.84 TO 35.07		1,214			135	31.4
35.21 TO 36.00		4,171			463	107.9
EL CAPITAN RANCH Rd		500			56	12.9
<b>NB SUBTOTAL</b>		<b>27,903</b>	<b>313</b>	<b>13,350</b>	<b>4,493</b>	<b>1,057</b>
<b>SB SUBTOTAL</b>		<b>14,211</b>	<b>774</b>	<b>14,850</b>	<b>3,294</b>	<b>743</b>
<b>TOTAL</b>		<b>42,114</b>	<b>1,087</b>	<b>28,200</b>	<b>7,787</b>	<b>* 1,800</b>

\* QUANTITY INCLUDED IN PAVEMENT STRUCTURE SUMMARY.

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



	<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	
SL	STATION LINE	
SM	SELECTED MATERIAL	
Spec	SPECIAL, SPECIFICATIONS	
SPP	SLOTTED PLASTIC PIPE	
SS	SLOPE STAKE	
SSBM	STRAP AND SADDLE BRACKET METHOD	
SSD	STRUCTURAL SECTION DRAIN	
SSPA	STRUCTURAL STEEL PLATE ARCH	
SSPP	STRUCTURAL STEEL PLATE PIPE	
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH	
SSRP	STEEL SPIRAL RIB PIPE	
St	STREET	
Sta	STATION	
STBB	SINGLE THRIE BEAM BARRIER	
Std	STANDARD	
Str	STRUCTURE	
Surf	SURFACING	
SW	SIDEWALK, SOUND WALL	
Swr	SEWER	
Sym	SYMMETRICAL	
S4S	SURFACE 4 SIDES	
	<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	
WWL	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
05	SB	101	27.0/36.0	11	20

*Grace M. Tsushima*  
REGISTERED CIVIL ENGINEER



July 19, 2013  
PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 1-11-16

**UNIT OF MEASUREMENT SYMBOLS:**  
Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

**TABLE A**

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:

**TABLE B**

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

\* For use on a sign panel only

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

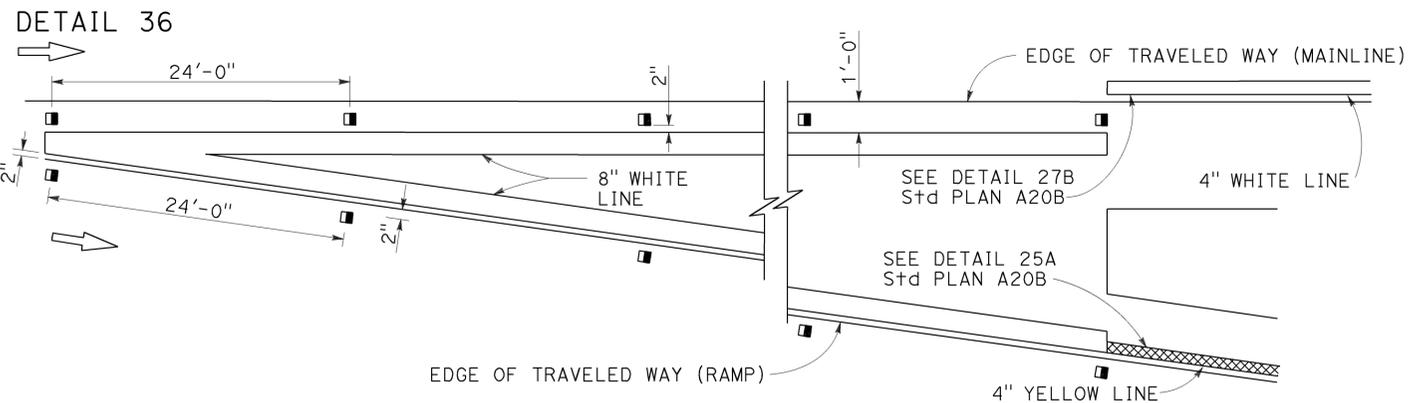
**ABBREVIATIONS  
(SHEET 2 OF 2)**

NO SCALE

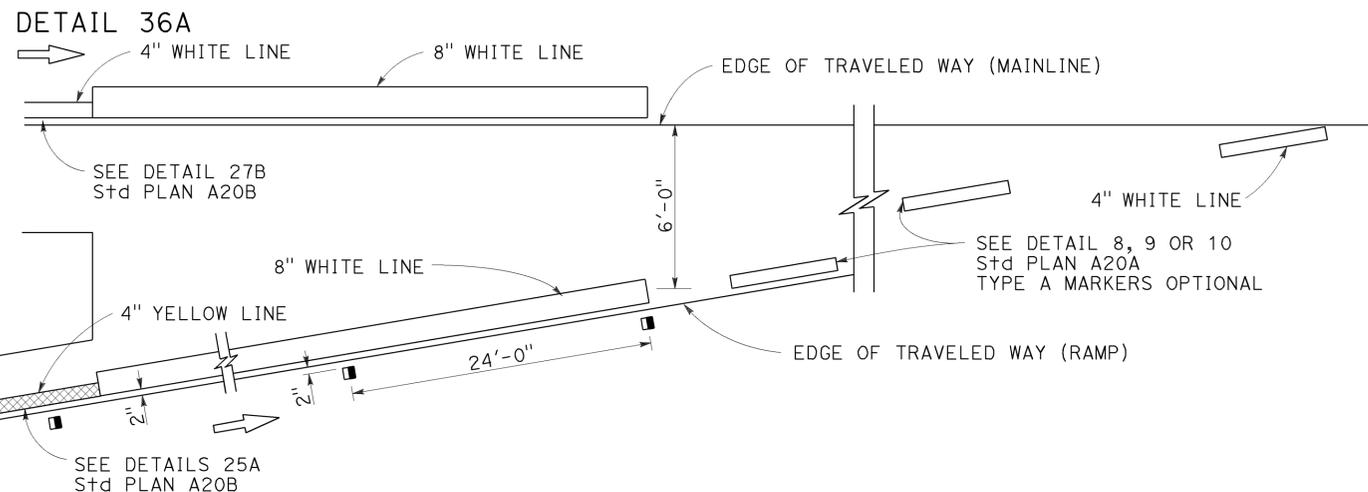
RSP A10B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A10B  
DATED MAY 20, 2011 - PAGE 2 OF THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A10B

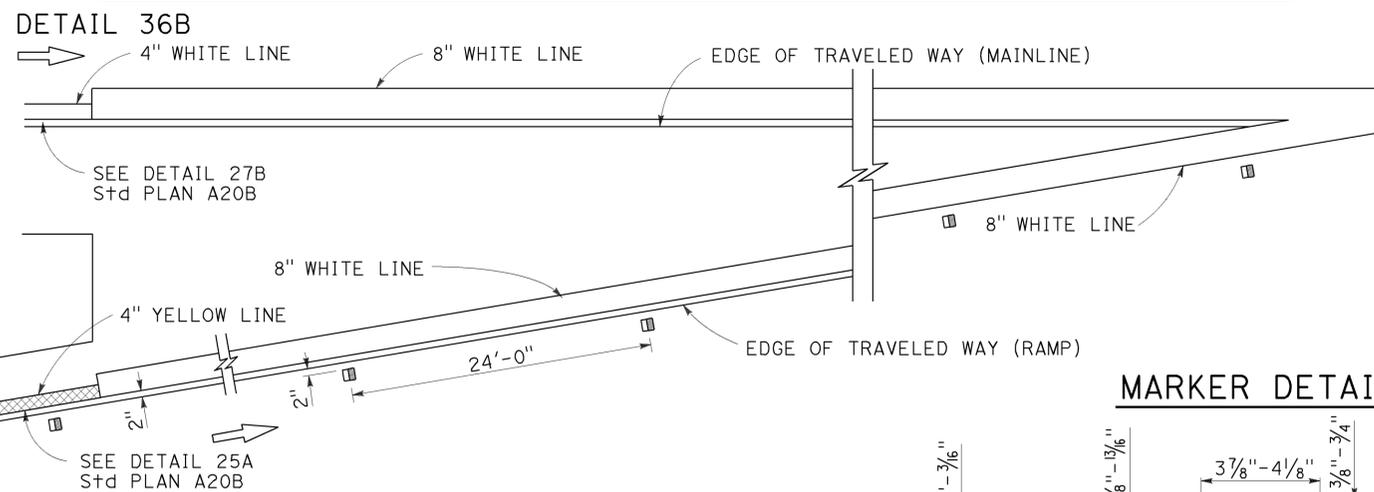
### EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



### ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



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

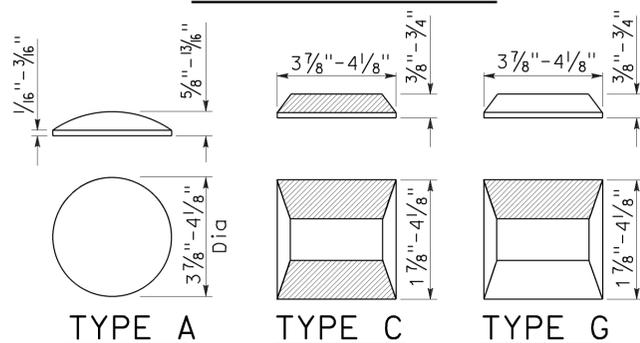


### MARKER DETAILS

#### LEGEND:

#### MARKERS

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



RETROREFLECTIVE FACE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	12	20

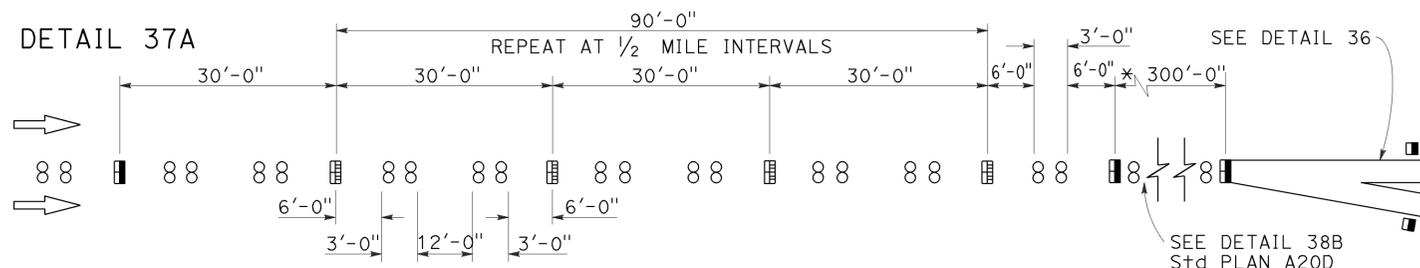
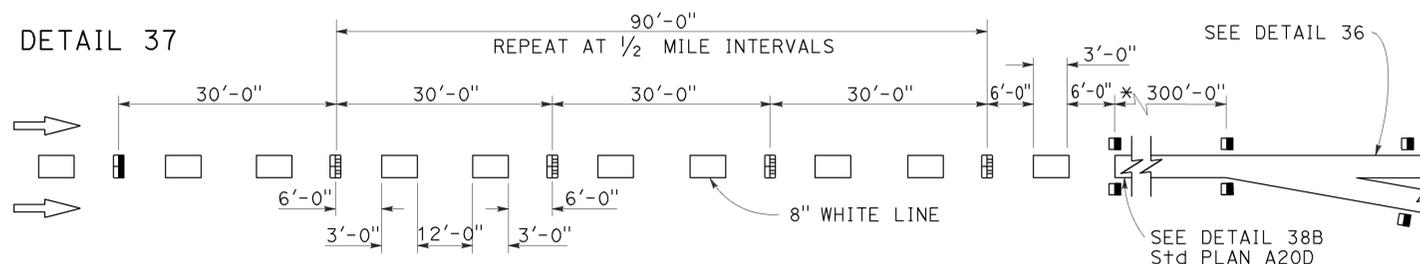
*Roberta L. McLaughlin*  
 REGISTERED CIVIL ENGINEER  
 No. C40375  
 Exp. 3-31-15  
 CIVIL  
 STATE OF CALIFORNIA

July 19, 2013  
PLANS APPROVAL DATE

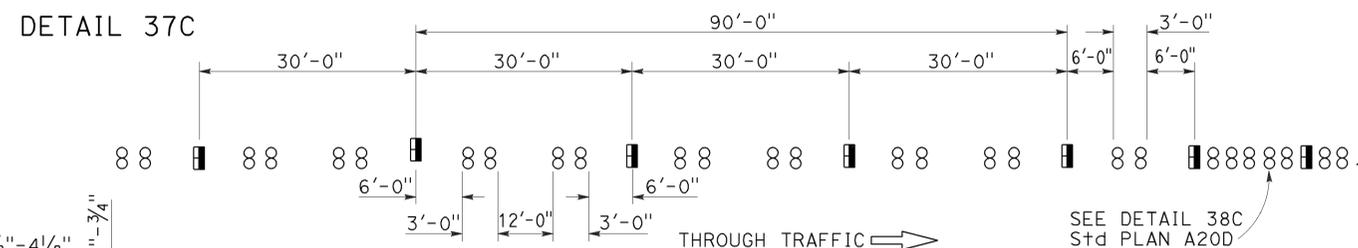
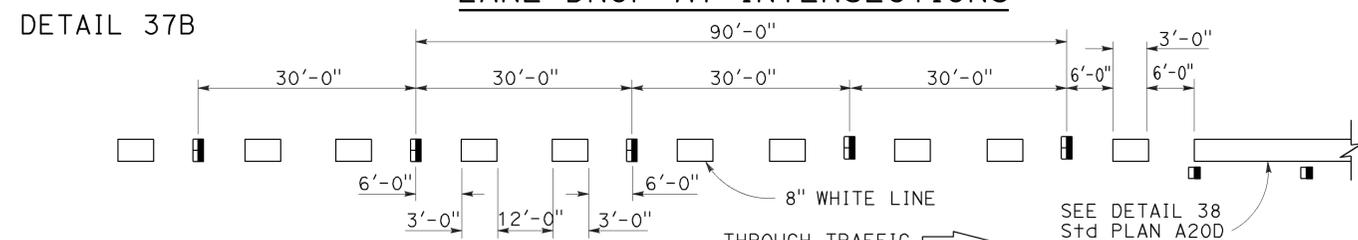
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TO ACCOMPANY PLANS DATED 1-11-16

### LANE DROP AT EXIT RAMP



### LANE DROP AT INTERSECTIONS



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

## PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

NO SCALE

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

## REVISED STANDARD PLAN RSP A20C

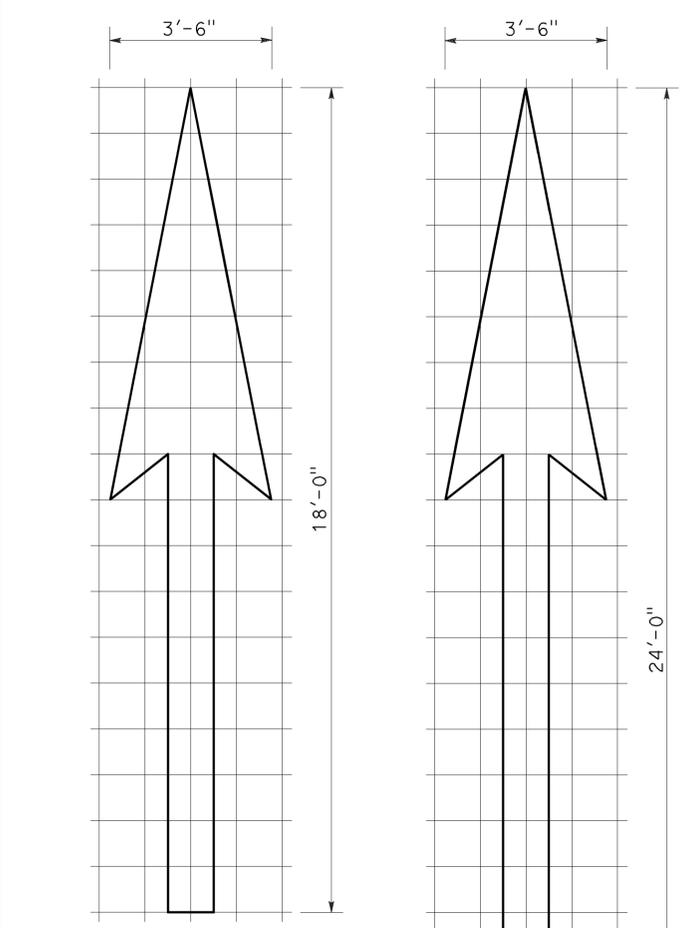
2010 REVISED STANDARD PLAN RSP A20C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	13	20

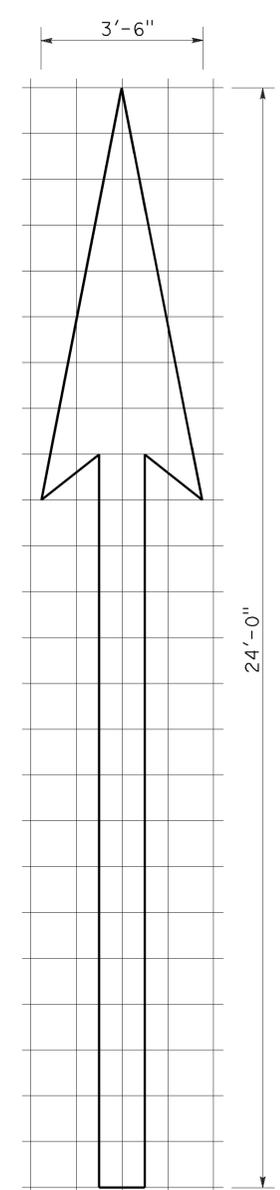
*Roberta L. McLaughlin*  
 REGISTERED CIVIL ENGINEER  
 April 20, 2012  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

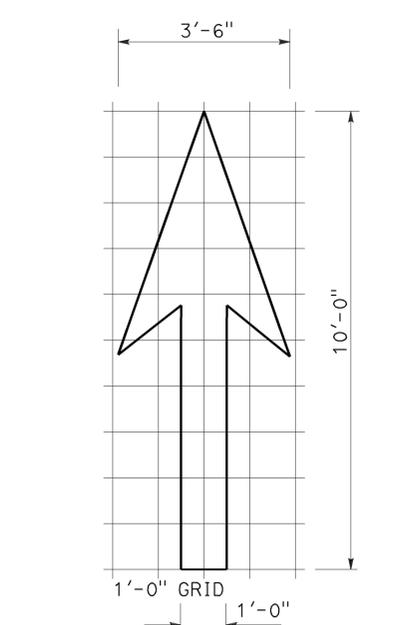
TO ACCOMPANY PLANS DATED 1-11-16



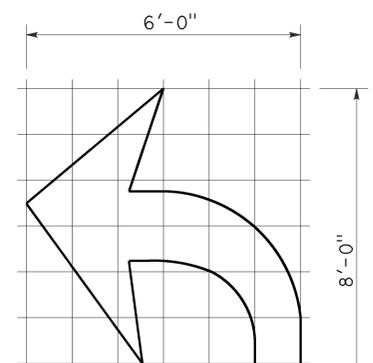
**TYPE I 18'-0" ARROW**  
A=25 ft<sup>2</sup>



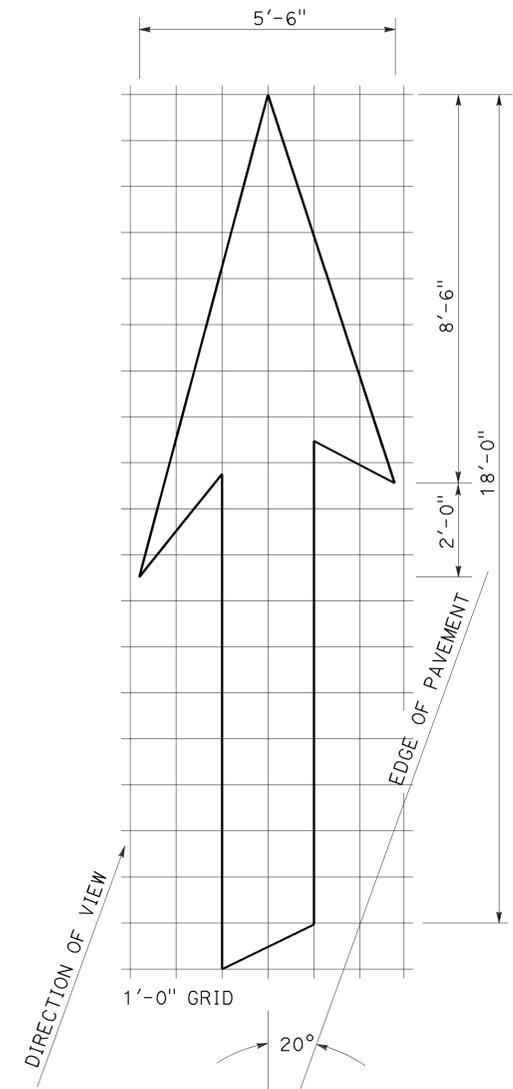
**TYPE I 24'-0" ARROW**  
A=31 ft<sup>2</sup>



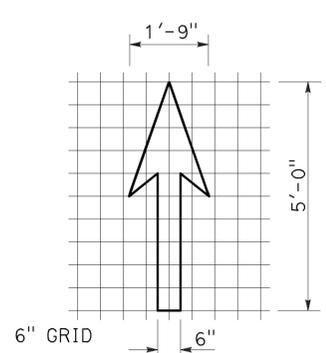
**TYPE I 10'-0" ARROW**  
A=14 ft<sup>2</sup>



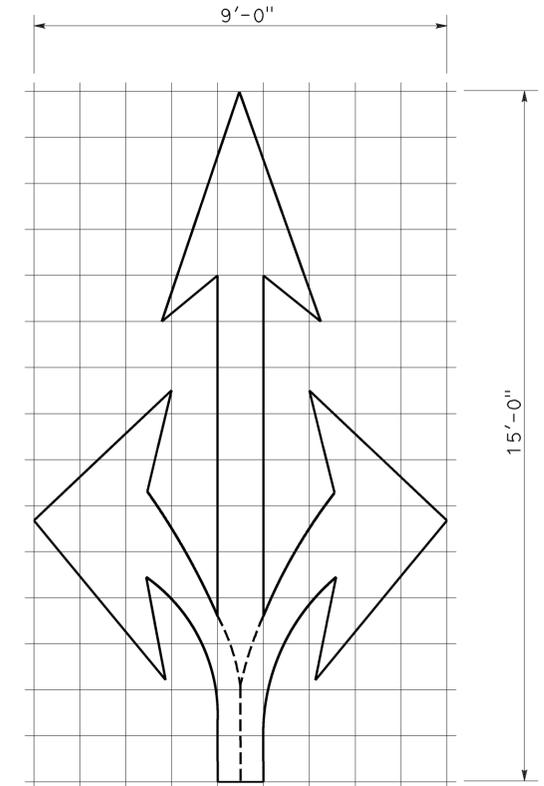
**TYPE IV (L) ARROW**  
A=15 ft<sup>2</sup>  
(For Type IV (R) arrow, use mirror image)



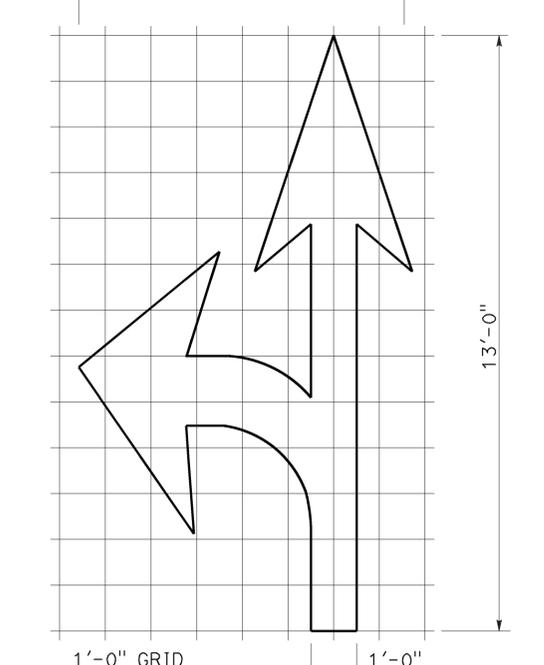
**TYPE VI ARROW**  
A=42 ft<sup>2</sup>  
Right lane drop arrow  
(For left lane, use mirror image)



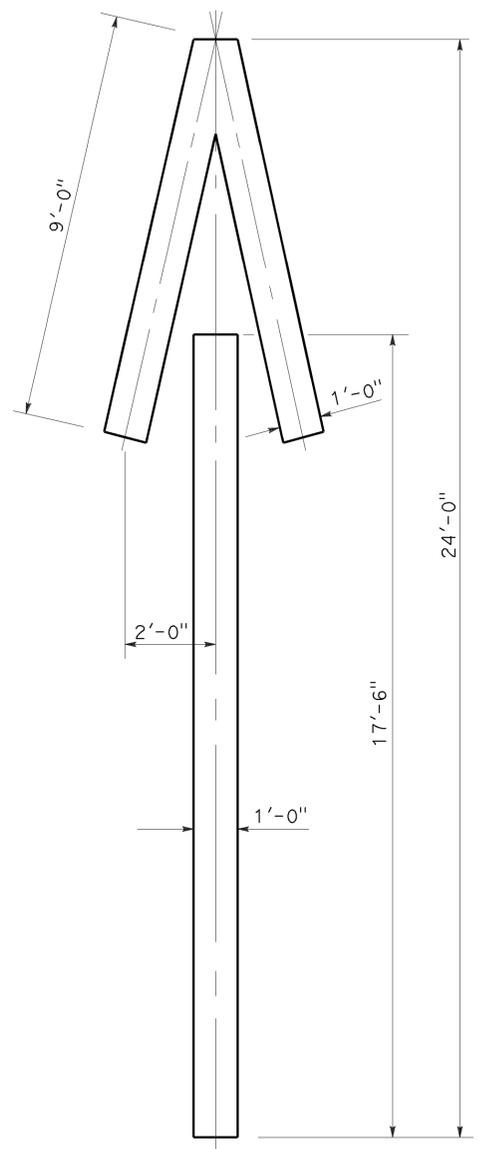
**BIKE LANE ARROW**  
A=3.5 ft<sup>2</sup>



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



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



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

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

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

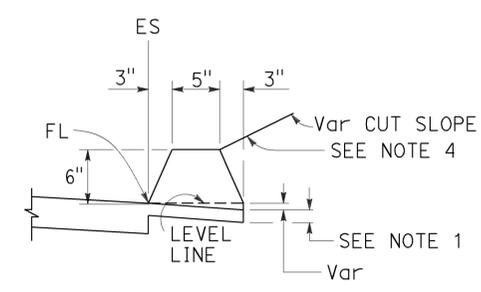
RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A DATED MAY 20, 2011 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP A24A**

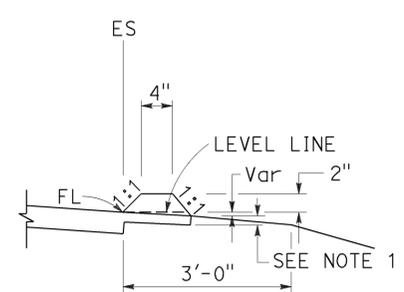
2010 REVISED STANDARD PLAN RSP A24A



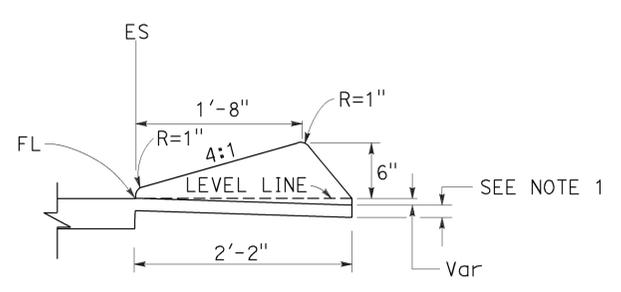
TO ACCOMPANY PLANS DATED 1-11-16



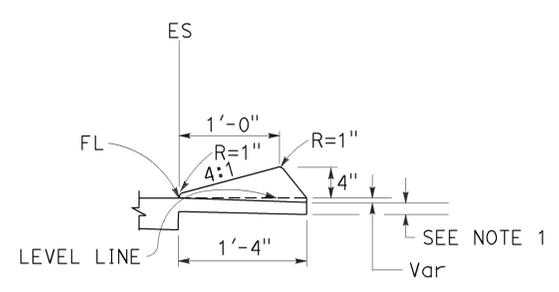
**TYPE A**  
See Note 3



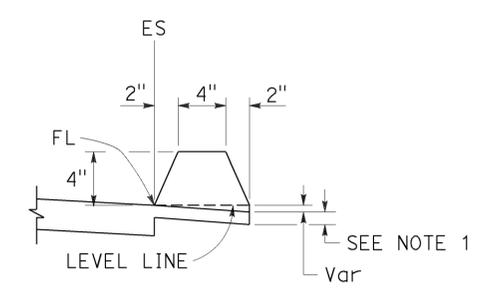
**TYPE C**



**TYPE D**

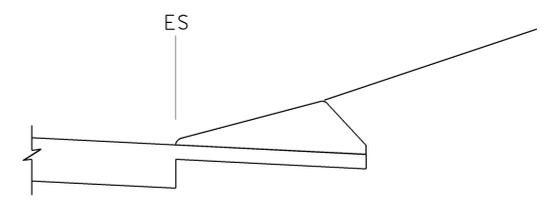


**TYPE E**

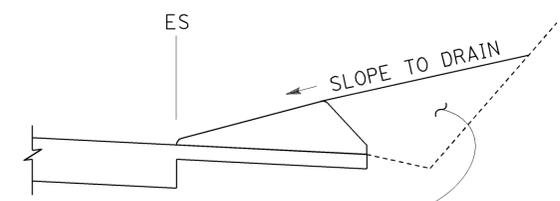


**TYPE F**  
See Note 5

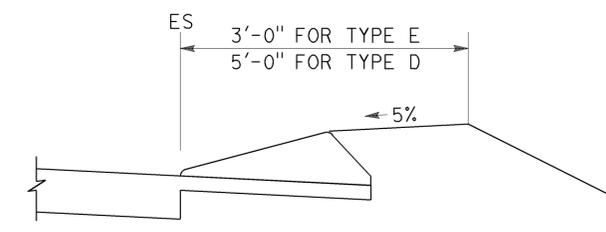
**DIKES**



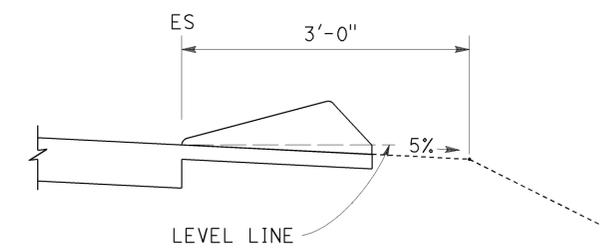
**CASE C-1**  
Cut Slope



**CASE C-2**  
Cut Slope



**CASE F**



**CASE R**  
See Note 2

**TYPE D AND E BACKFILL DETAILS**

**NOTES:**

1. 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.
2. Case R applies to retrofit only projects where restrictive conditions do not provide enough width for Case F backfill.
3. Type A dike only to be used where restrictive slope conditions do not provide enough width to use Type D or Type E dike.
4. Fill and compact with excavated material to top of dike.
5. 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

TO ACCOMPANY PLANS DATED 1-11-16

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

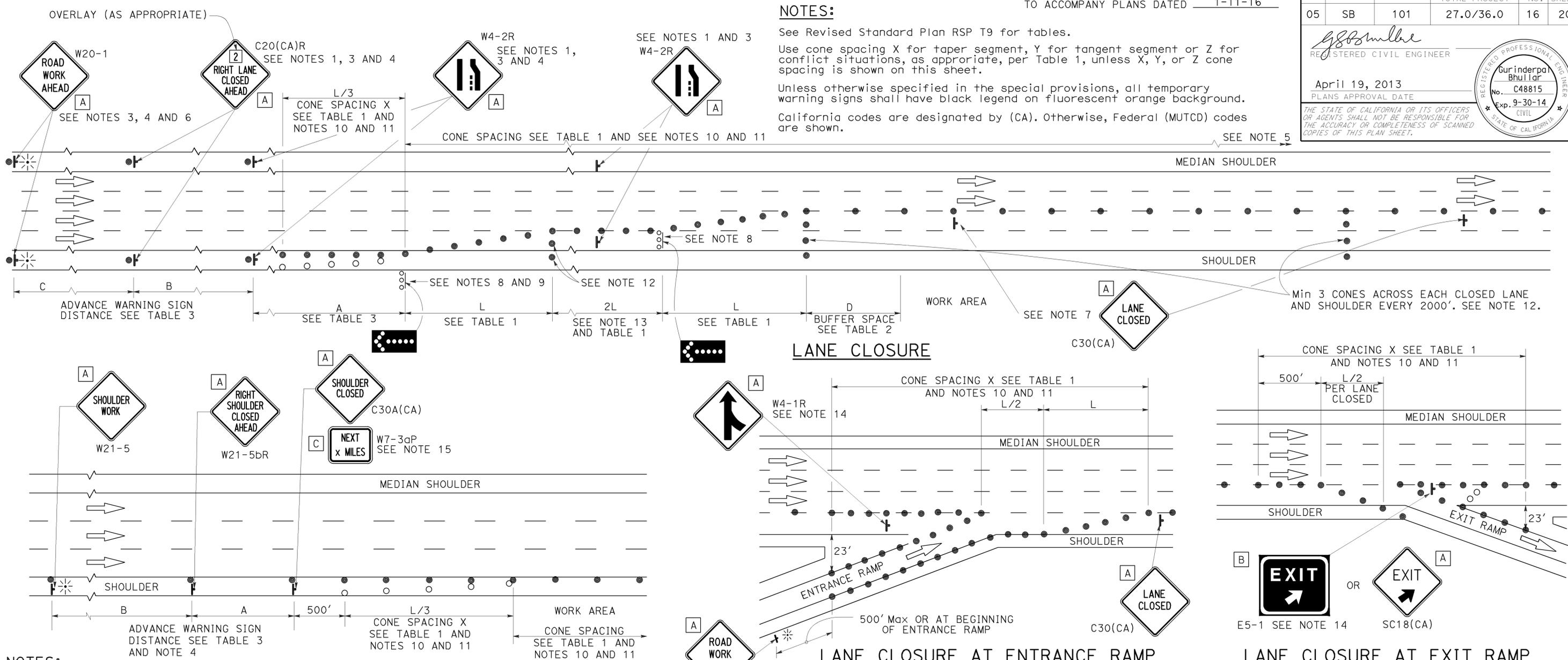
RSP T9 DATED JULY 19, 2013 SUPERSEDES RSP T9 DATED APRIL 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	16	20

REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE

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

2010 REVISED STANDARD PLAN RSP T10



- 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.

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)L 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.

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"

**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**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	17	20

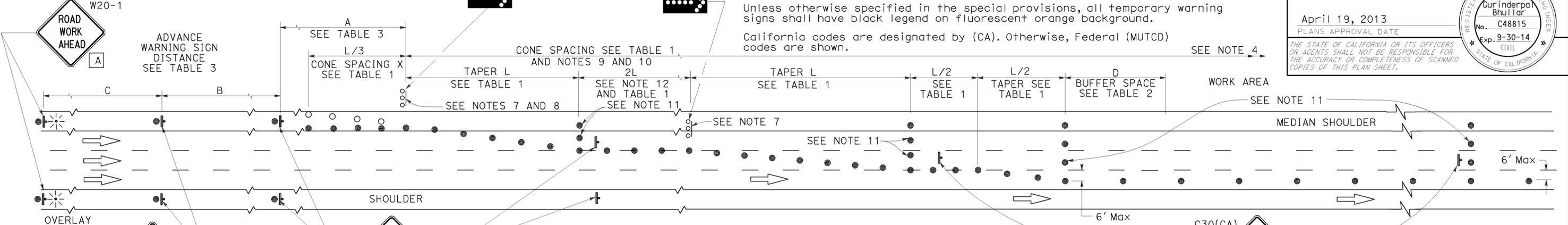
REGISTERED CIVIL ENGINEER  
 Gurinderpal Bhullar  
 No. C48815  
 Exp. 9-30-14  
 STATE OF CALIFORNIA

April 19, 2013  
 PLANS APPROVAL DATE

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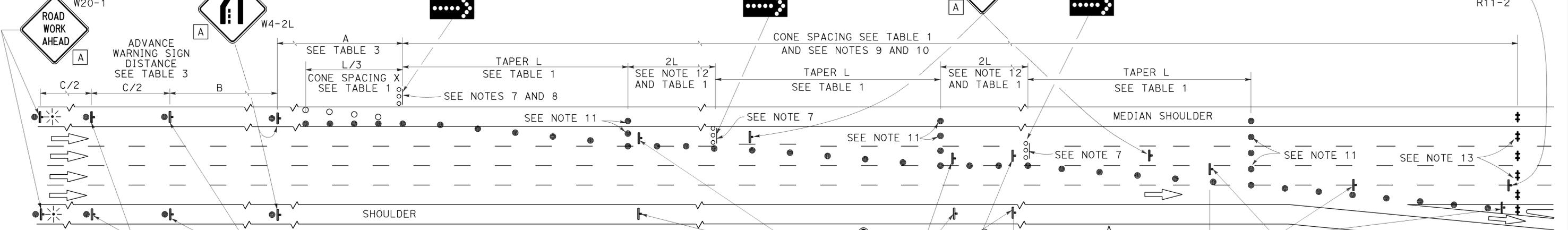
**NOTES:** See Revised Standard Plan RSP T9 for tables.  
 Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.  
 Unless otherwise specified in the special provisions, all temporary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

SEE NOTES 3 AND 5



**LANE CLOSURE WITH PARTIAL SHOULDER USE**

SEE NOTES 3 AND 5



**COMPLETE CLOSURE**

**NOTES:**

- Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details as shown except that C20(CA)R and W4-2R signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
- Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" X 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT \_\_\_ MILES", use a C20(CA) sign for the first advance warning sign.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure With Partial Shoulder Use" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
- A minimum of Two Type II or III barricades shall be placed across each closed lane and shoulder at the location shown and every 2000' within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- When specified in the special provisions, a W20-2 "DETOUR AHEAD" sign is to be used in place of the W20-3 "FREEWAY CLOSED AHEAD" sign.

**SIGN PANEL SIZE (Min)**

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

**LEGEND**

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

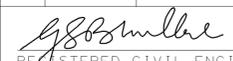
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR LANE CLOSURES ON  
 FREEWAYS AND EXPRESSWAYS**  
 NO SCALE

RSP T10A DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10A DATED MAY 20, 2011 - PAGE 238 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T10A**

2010 REVISED STANDARD PLAN RSP T10A

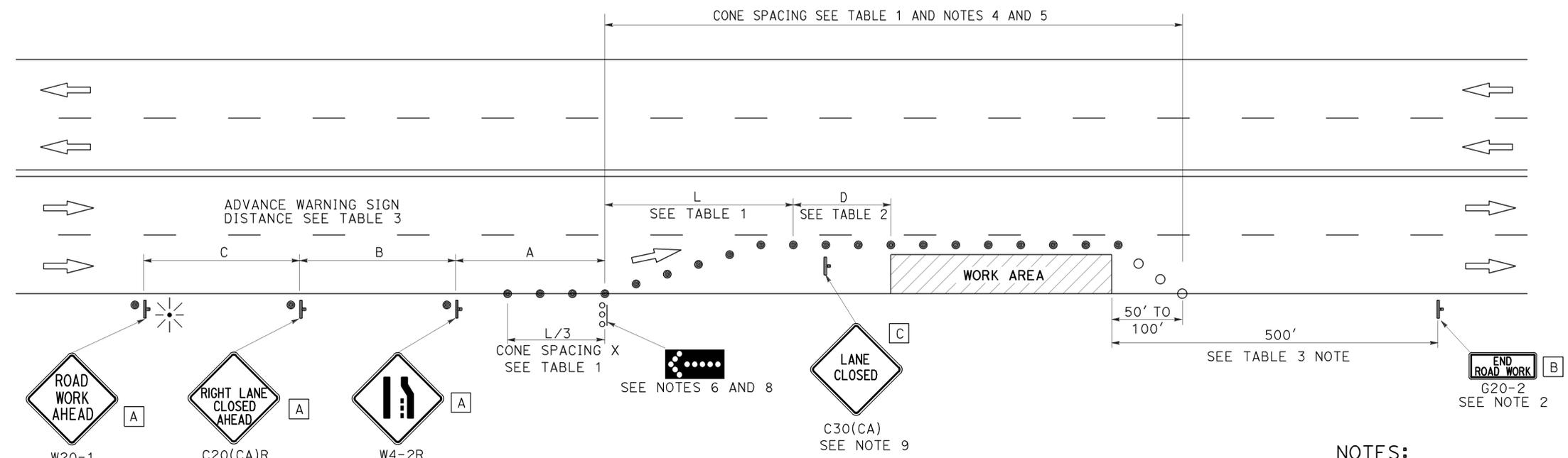
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	18	20

  
 REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE



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

TO ACCOMPANY PLANS DATED 1-11-16



**TYPICAL LANE CLOSURE**

**NOTES:**

See Revised Standard Plan RSP T9 for tables.

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

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

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

**NOTES:**

- Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
- If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT \_\_\_\_\_ MILES", use a C20(CA) sign for the first advance warning sign.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Flashing arrow sign shall be either Type I or Type II.
- For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.

**LEGEND**

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

**SIGN PANEL SIZE (Min)**

- A** 48" x 48"
- B** 36" x 18"
- C** 30" x 30"

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

**REVISED STANDARD PLAN RSP T11**

2010 REVISED STANDARD PLAN RSP T11

# TYPICAL RAMP CLOSURES

## SIGN PANEL SIZE (Min)

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

## LEGEND

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	19	20

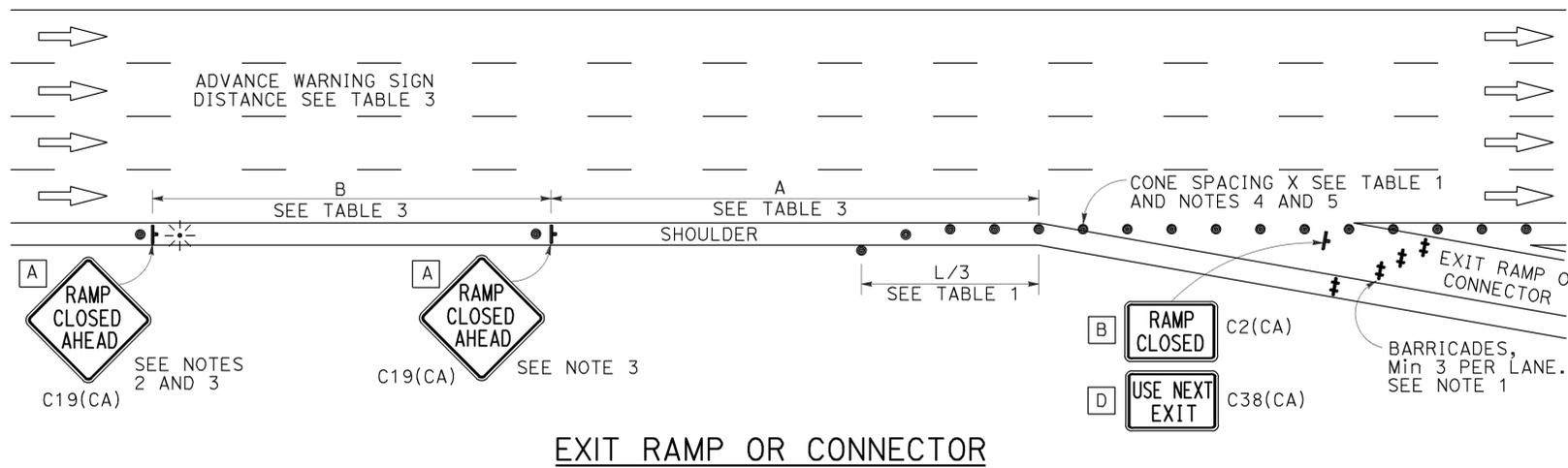
*Gurinderpal Bhullar*  
 REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

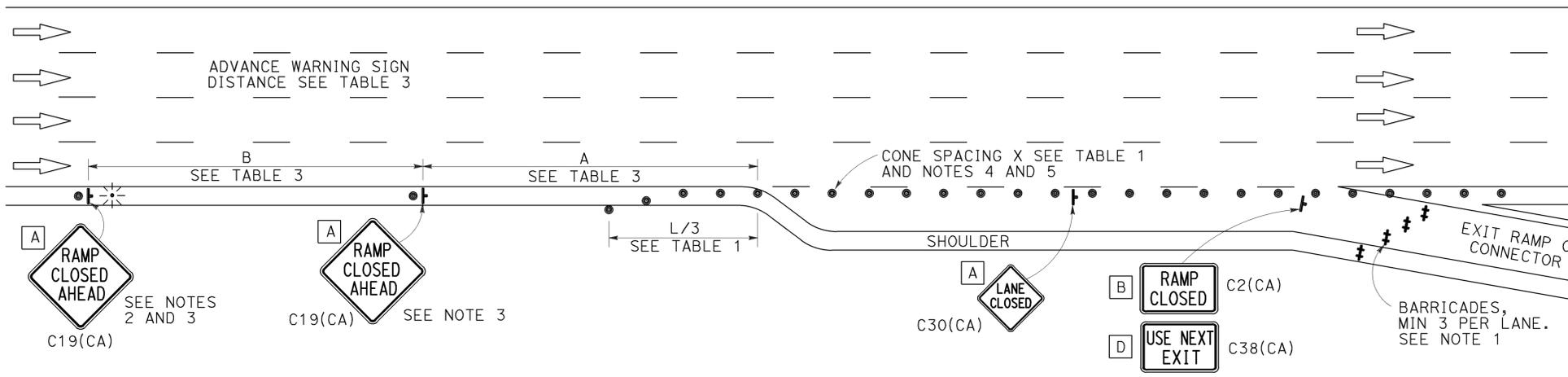
TO ACCOMPANY PLANS DATED 1-11-16

## NOTES:

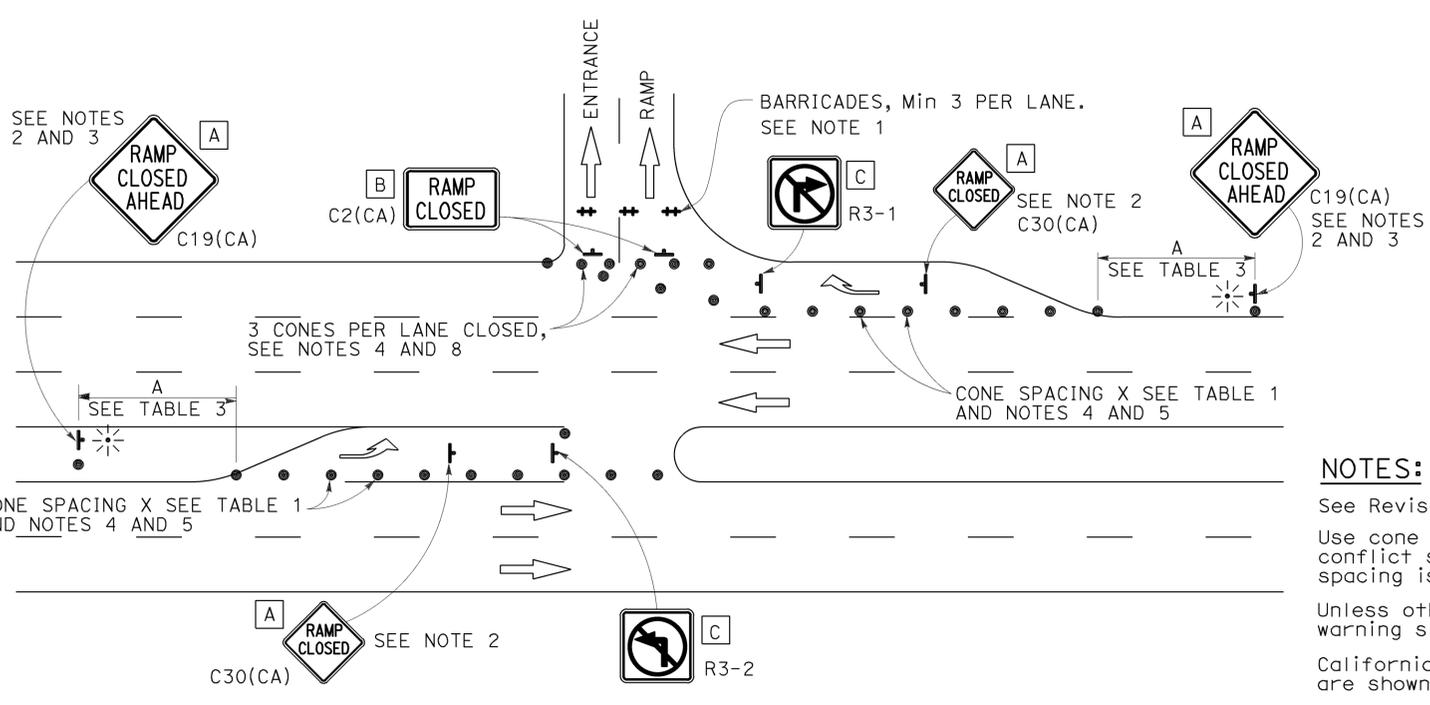
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed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



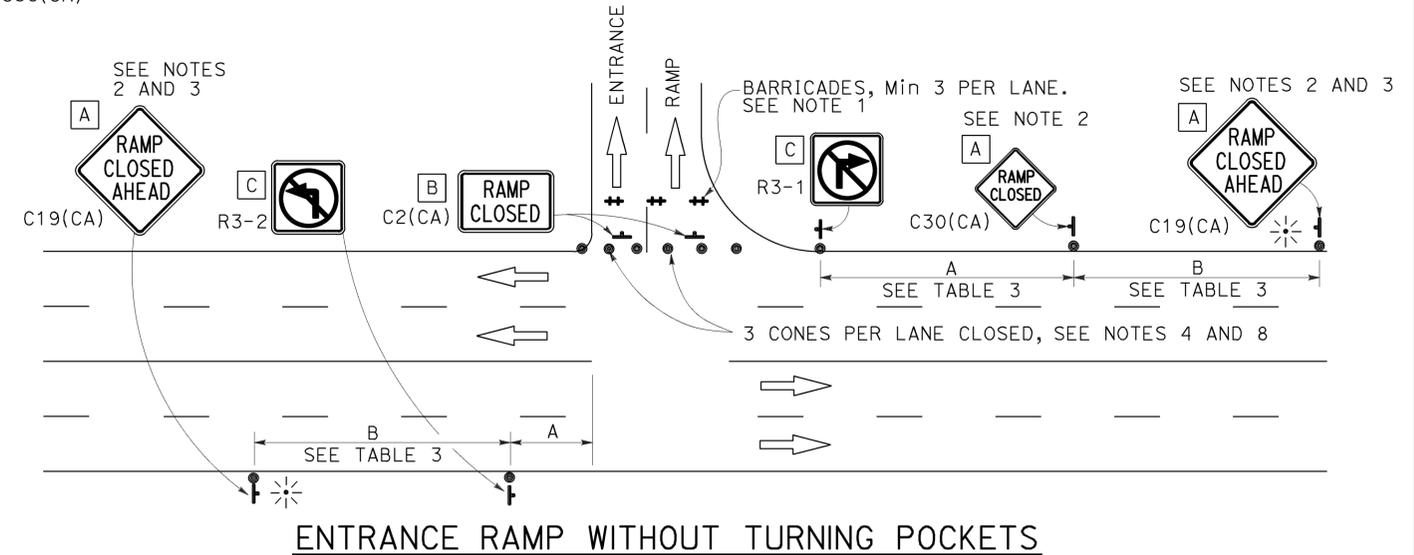
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

## NOTES:

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

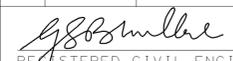
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR RAMP CLOSURE**  
 NO SCALE

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

**REVISED STANDARD PLAN RSP T14**

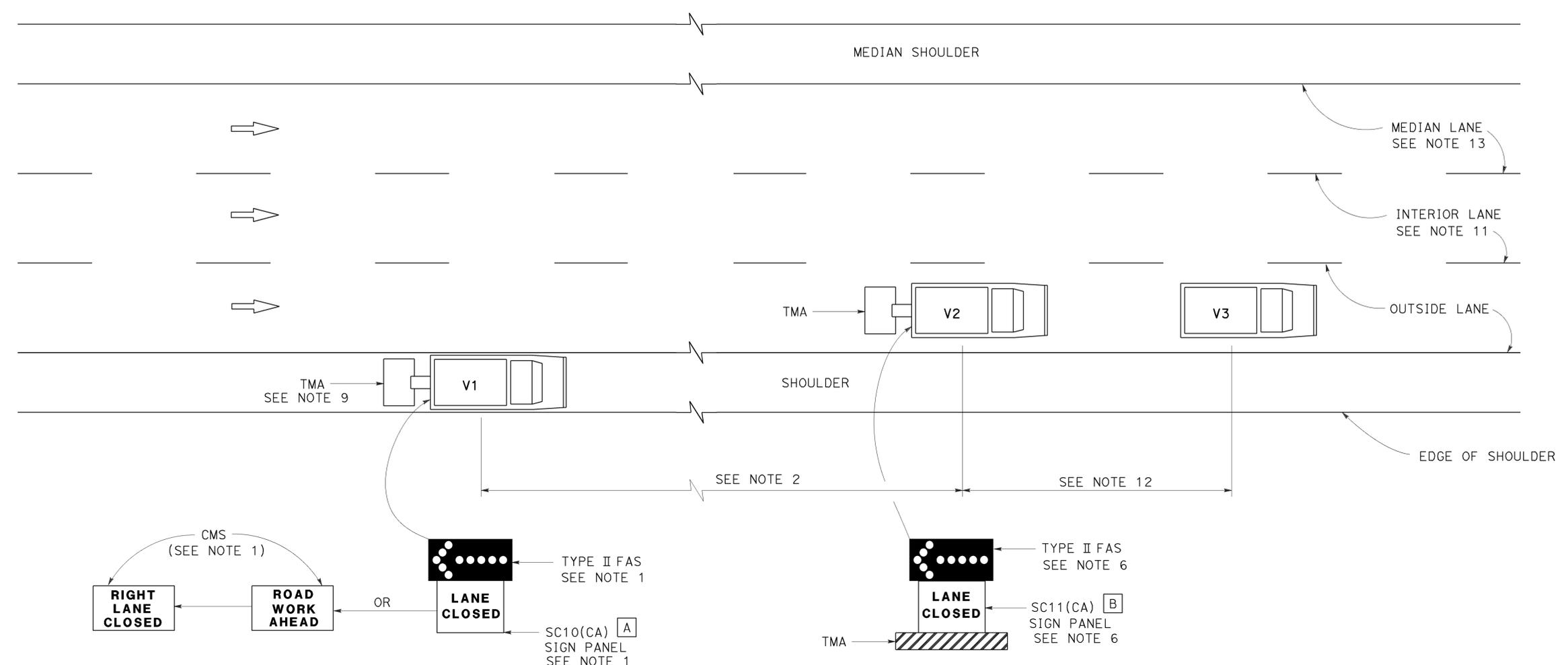
2010 REVISED STANDARD PLAN RSP T14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
05	SB	101	27.0/36.0	20	20

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



TO ACCOMPANY PLANS DATED 1-11-16



**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