

SHEET No.	INDEX OF PLANS DESCRIPTION
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19	PAVEMENT DELINEATION QUANTITIES
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22-26	ELECTRICAL PLANS
27-44	NEW & REVISED STANDARD PLANS

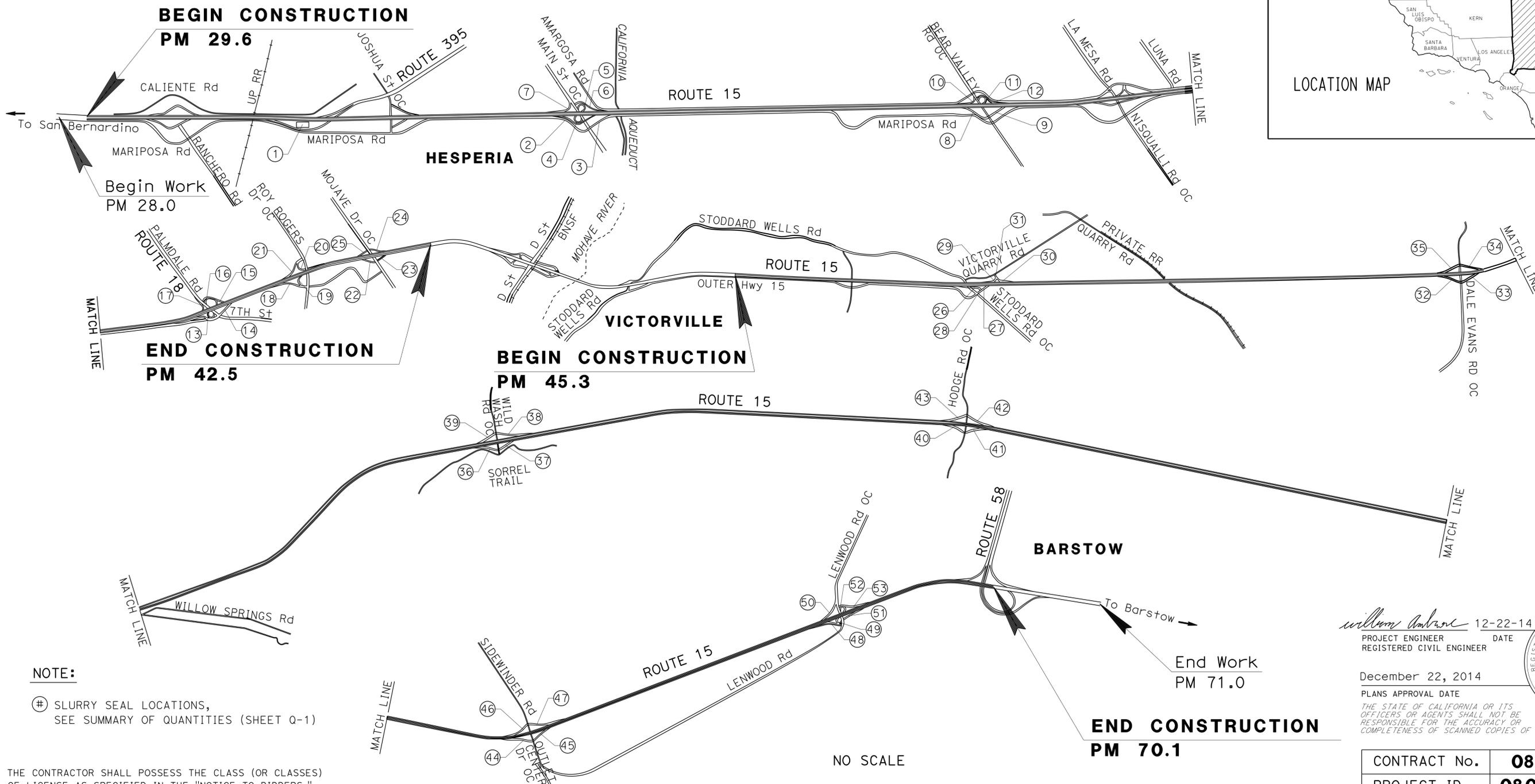
THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO CONTRACTORS AND SPECIAL PROVISIONS BOOK

STATE OF CALIFORNIA ACNHPI-015-1(234)133E
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN SAN BERNARDINO COUNTY
NEAR HESPERIA AND BARSTOW
FROM 0.8 MILE SOUTH OF RANCHERO ROAD
TO ROUTE 58

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	1	44

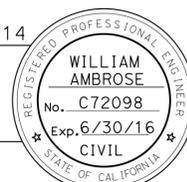
LOCATION MAP



NOTE:
 (⊕) SLURRY SEAL LOCATIONS,
 SEE SUMMARY OF QUANTITIES (SHEET Q-1)

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

William Ambrose 12-22-14
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER
 December 22, 2014
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



CONTRACT No.	08-0Q4704
PROJECT ID	0800020592

PROJECT MANAGER
MIKE RISTIC
 DESIGN ENGINEER
WILLIAM AMBROSE

NOTES:

1. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO THE TOLERANCE SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. FOR PAVEMENT CONFORM, SEE CONSTRUCTION DETAIL SHEET.
4. DRAINAGE INLETS AND DOWN DRAINS TO BE PROTECTED FROM FOG SEAL COAT.
5. FOG SEAL HMA SURFACES ONLY
6. FOR REPLACE ASPHALT CONCRETE SURFACING DETAILS SEE SHEET C-1
7. COLDPLANE AND OVERLAY ONLY OVER HMA SURFACES

LEGEND:

- RHMA-G RUBBERIZED HOT MIX ASPHALT (TYPE G)
- COLD PLANE RHMA-G
- FOG SEAL
- 1 REPLACE ASPHALT CONCRETE SURFACING- SEE CONSTRUCTION DETAIL C-1

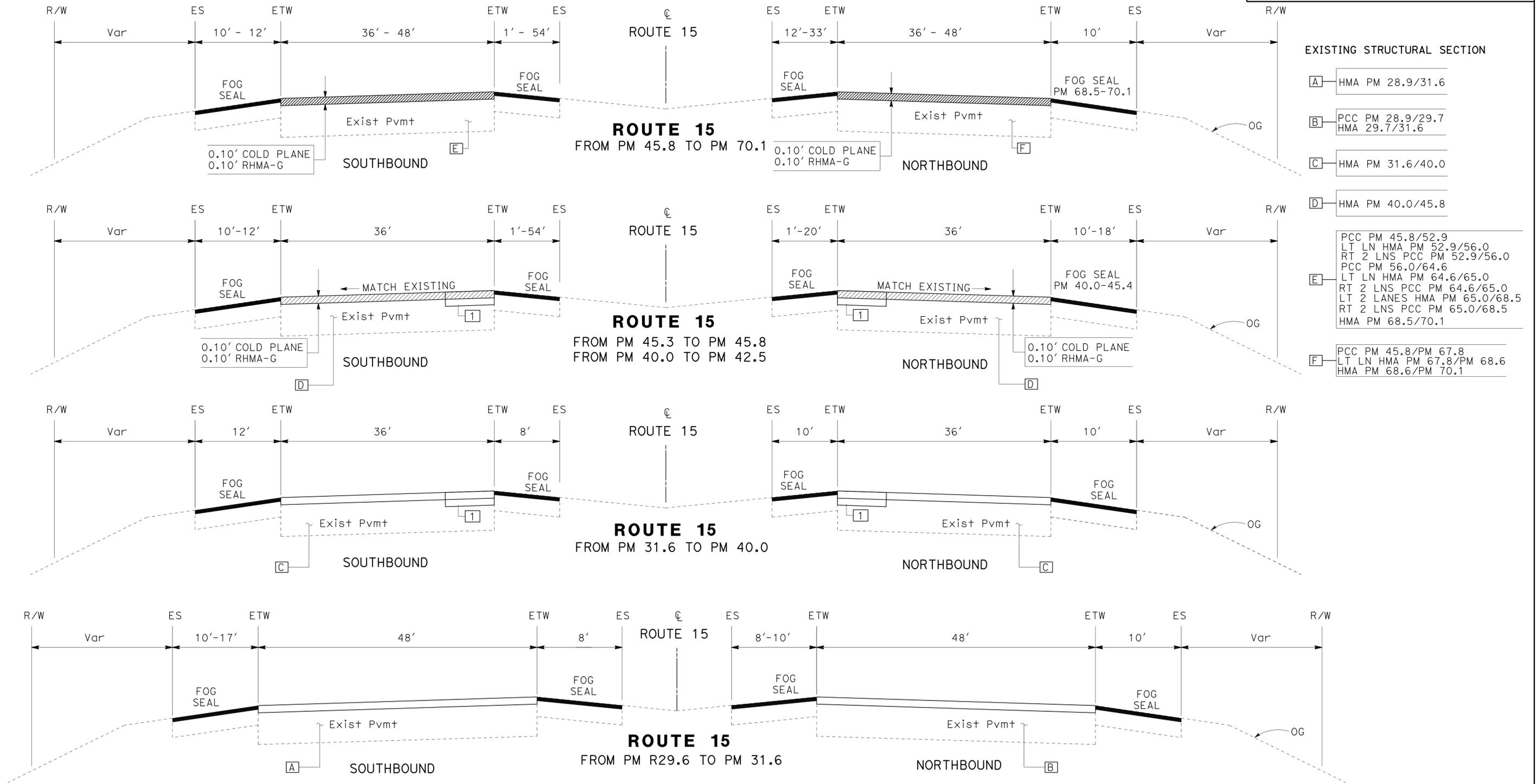
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	2	44

12-22-14
 REGISTERED CIVIL ENGINEER DATE
 12-22-14
 PLANS APPROVAL DATE

WILLIAM AMBROSE
 No. C72098
 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.

REVISOR: WILLIAM AMBROSE, KEVIN CHEN
 CALCULATED/DESIGNED BY: KEVIN CHEN
 FUNCTIONAL SUPERVISOR: KEVIN CHEN
 DEPARTMENT OF TRANSPORTATION - MAINTENANCE DESIGN



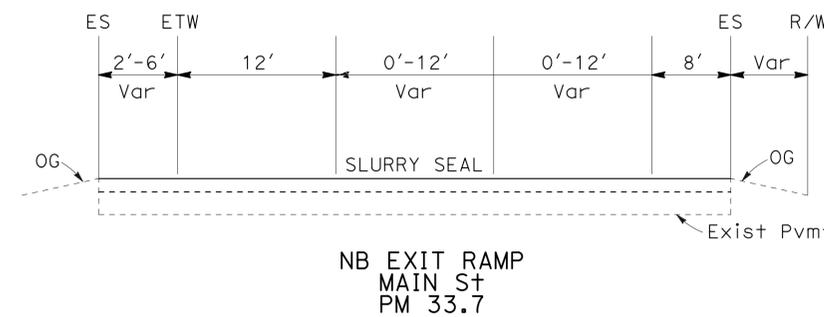
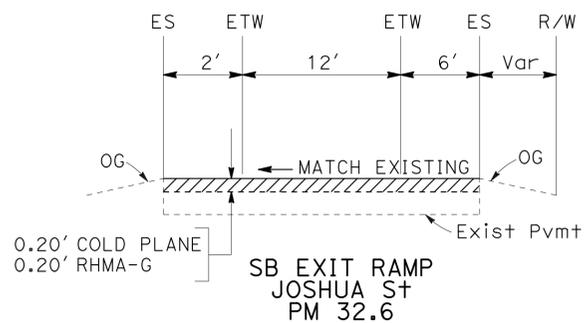
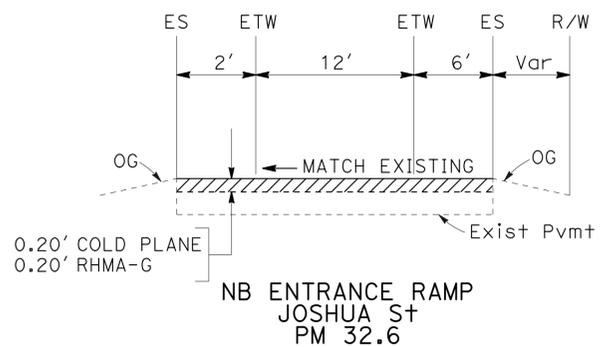
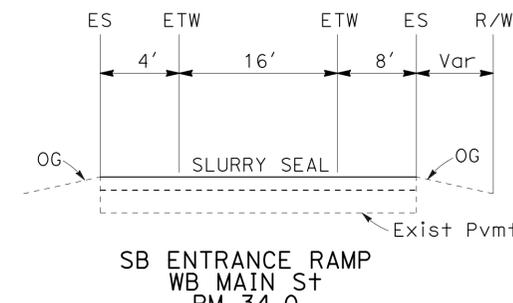
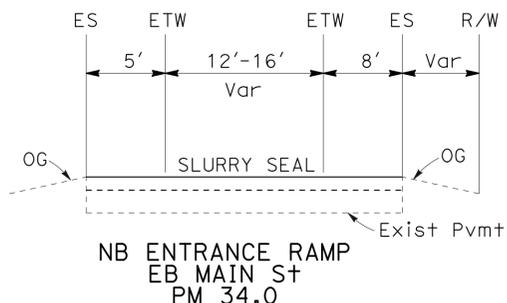
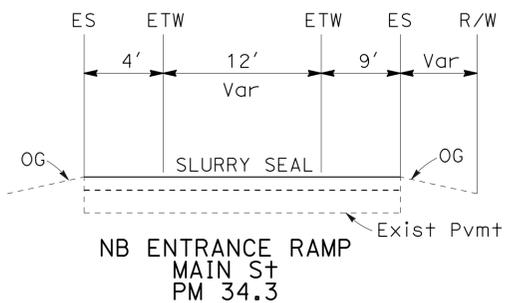
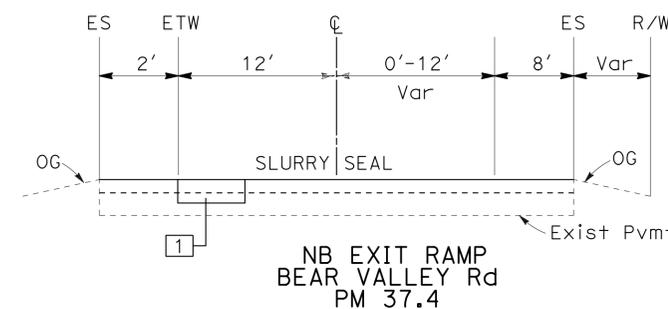
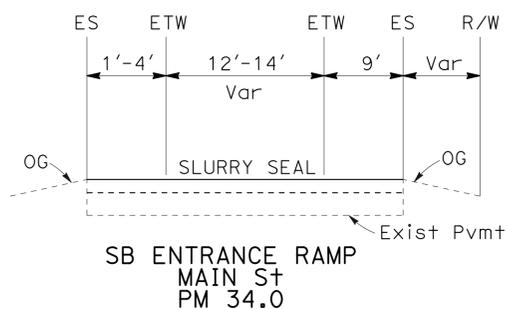
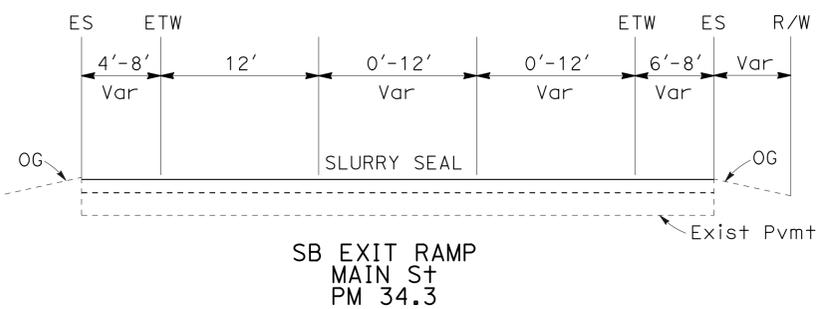
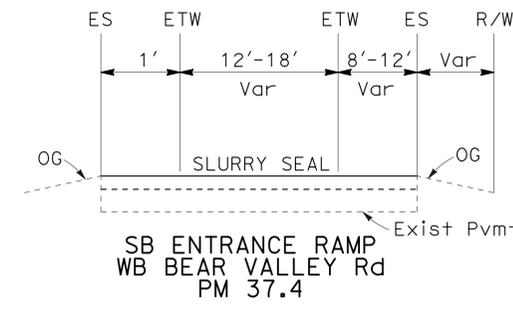
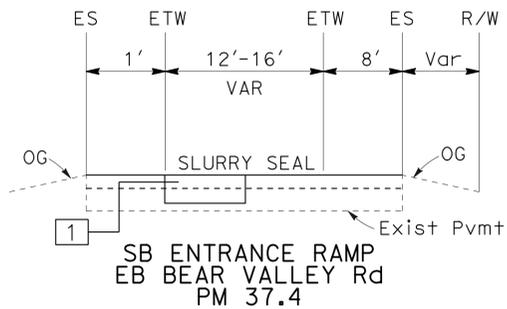
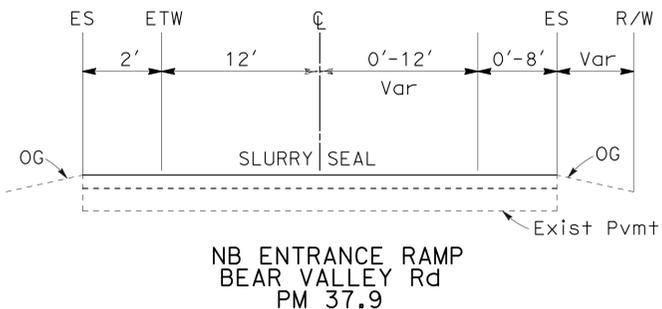
TYPICAL CROSS SECTIONS

NO SCALE X-1

NOTES:

1. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO THE TOLERANCE SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. FOR PAVEMENT CONFORM, SEE CONSTRUCTION DETAIL SHEET.
4. DRAINAGE INLETS AND DOWN DRAINS TO BE PROTECTED FROM FOG SEAL COAT.
5. FOG SEAL HMA SURFACE ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	3	44
			12-22-14	DATE	
REGISTERED CIVIL ENGINEER			WILLIAM AMBROSE No. C72098 Exp 6/30/16 CIVIL		
12-22-14			PLANS APPROVAL DATE		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



TYPICAL CROSS SECTIONS

NO SCALE

X-2



NOTES:

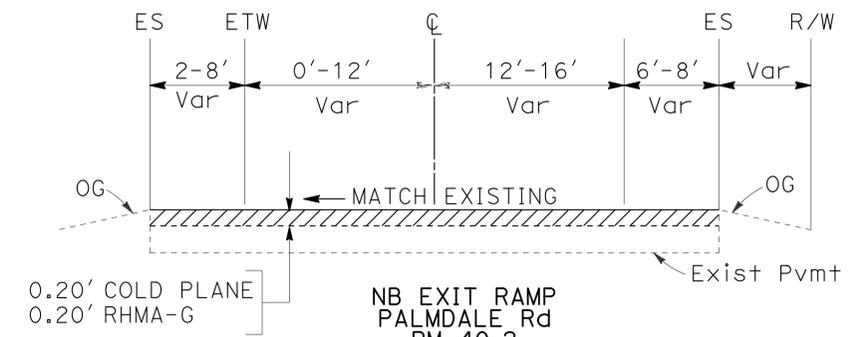
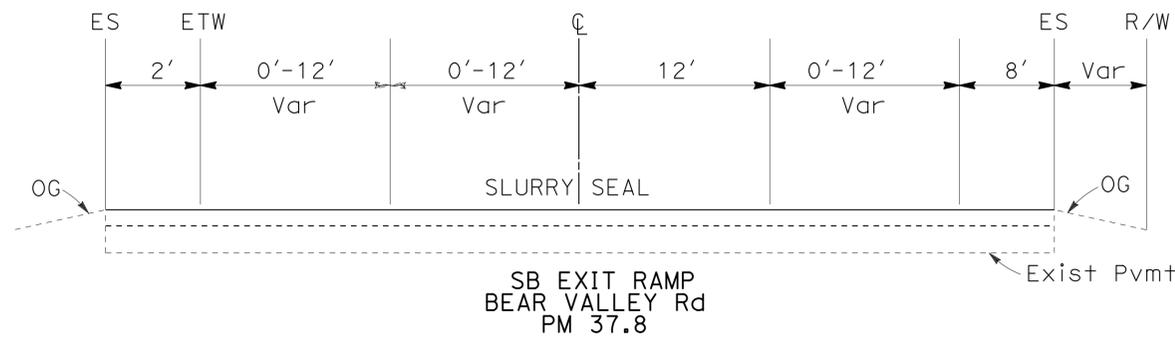
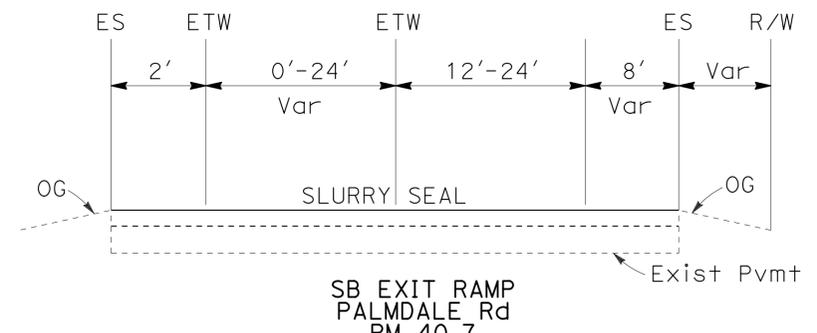
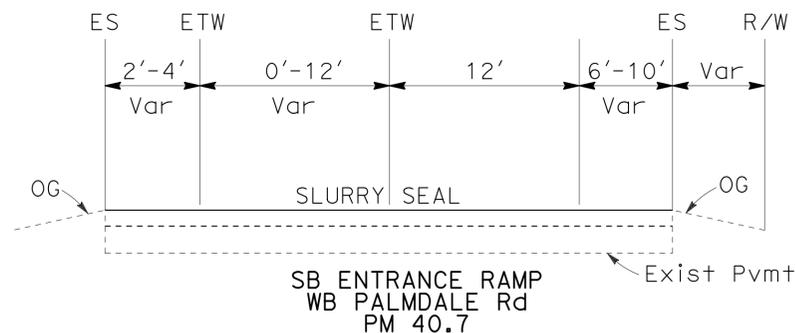
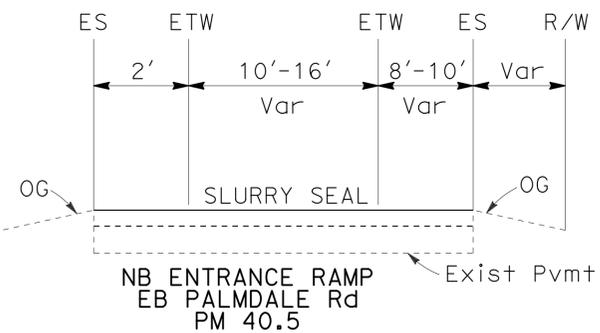
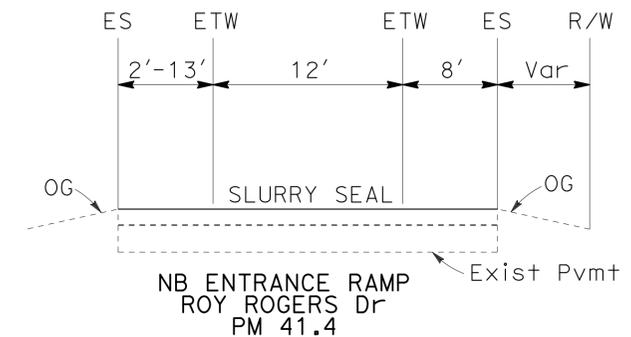
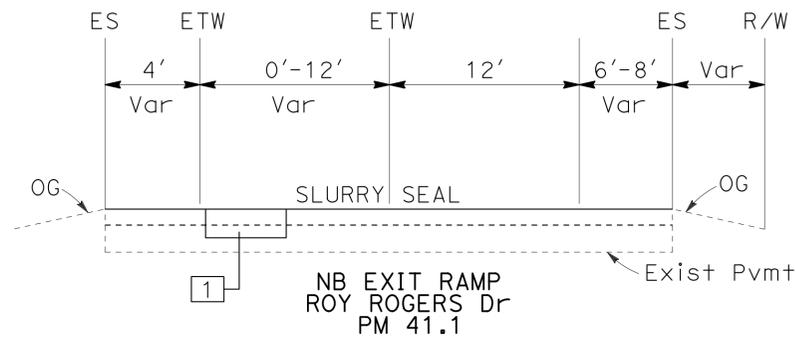
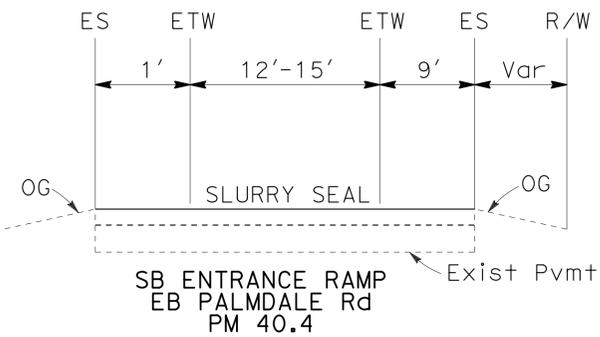
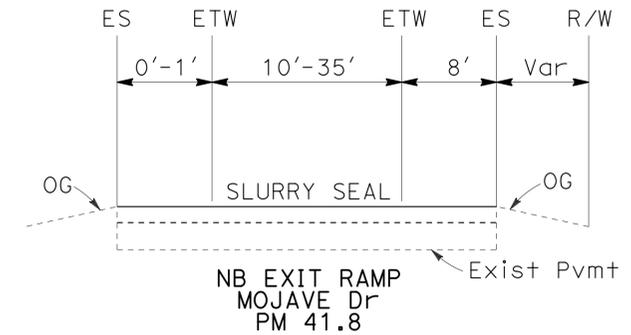
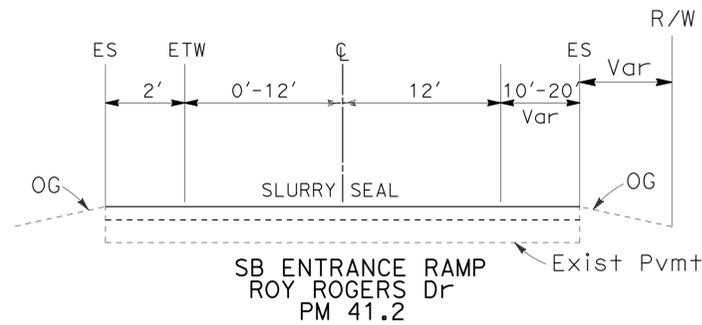
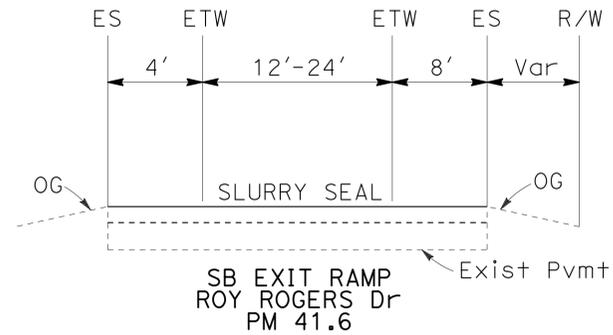
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08	SBd	15	R29.6/70.1	4	44

William Ambrose 12-22-14
 REGISTERED CIVIL ENGINEER DATE
 12-22-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 WILLIAM AMBROSE
 No. C72098
 Exp 9/30/16
 CIVIL
 STATE OF CALIFORNIA

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TYPICAL CROSS SECTIONS

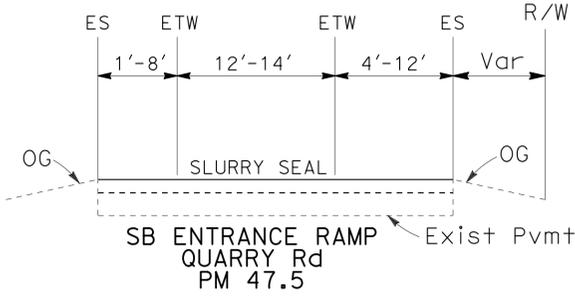
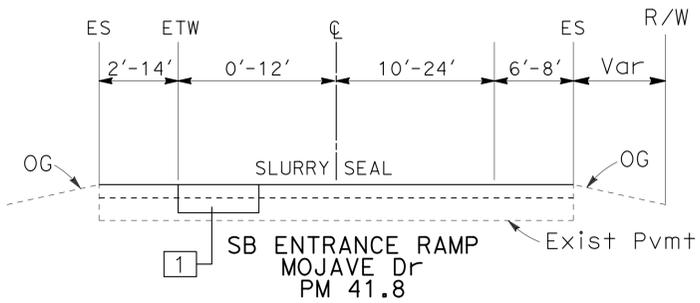
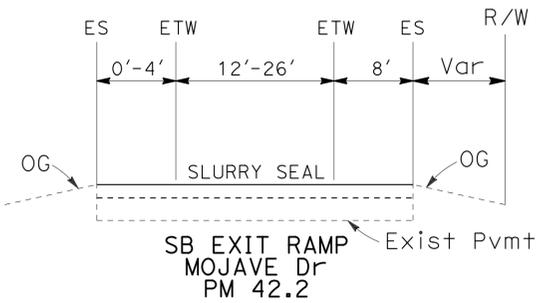
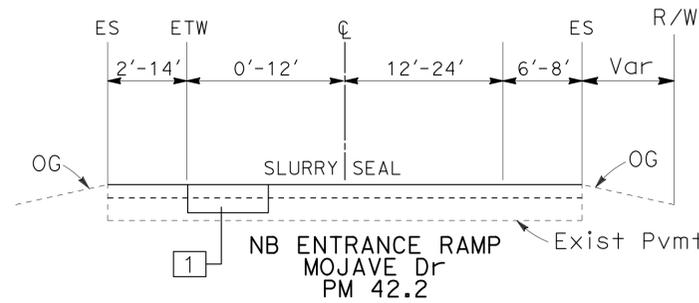
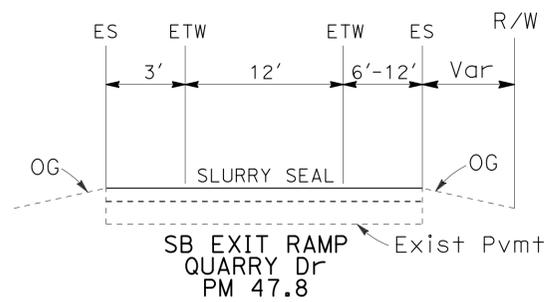
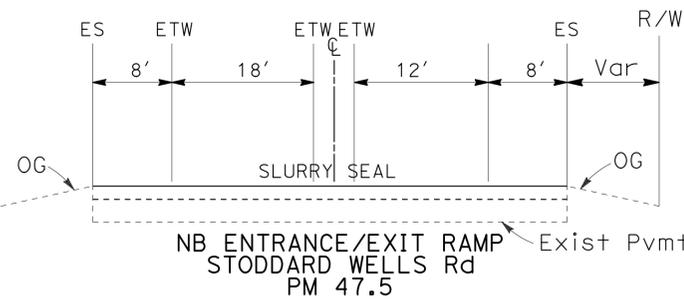
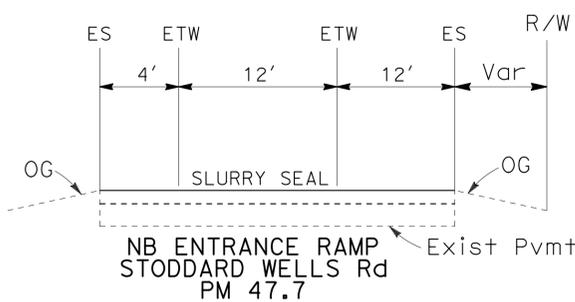
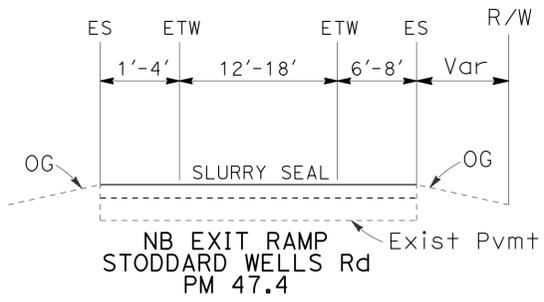
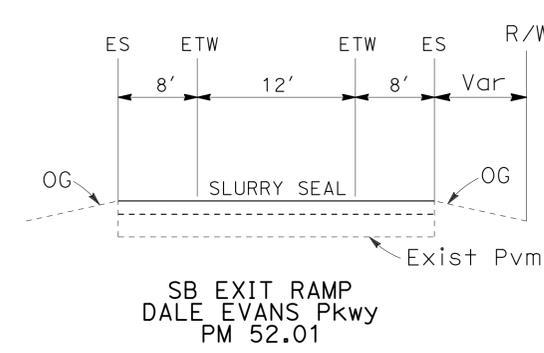
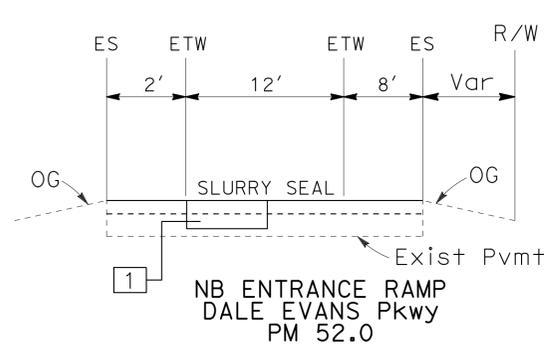
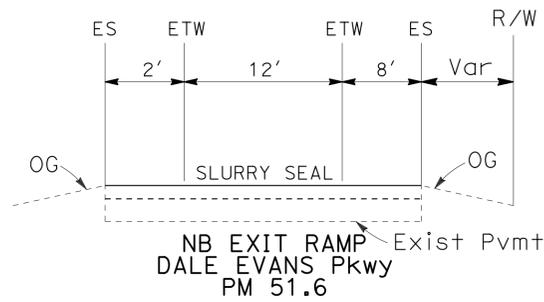
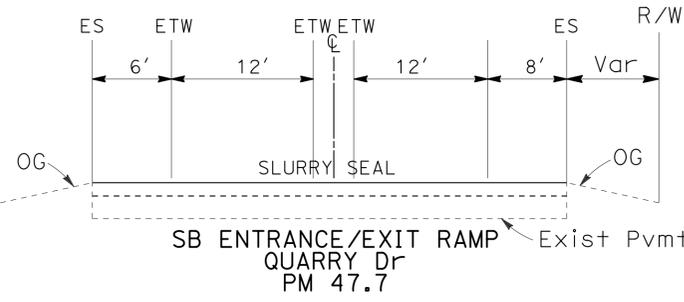
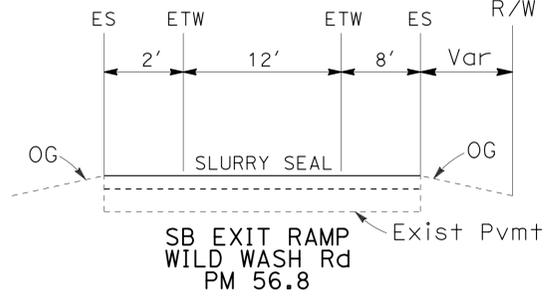
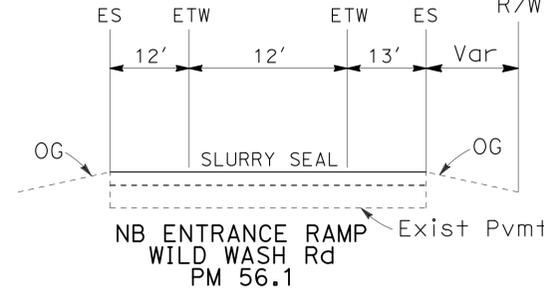
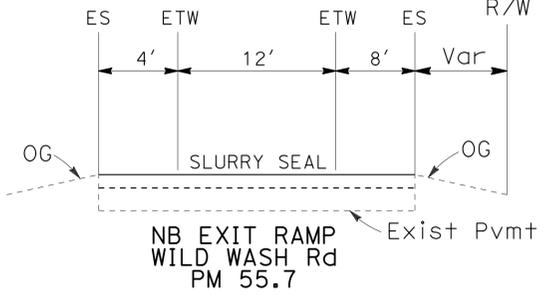
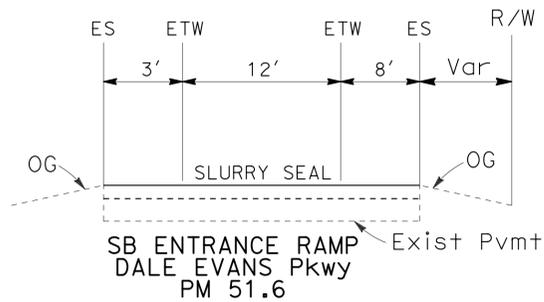
NO SCALE

X-3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	5	44
			12-22-14	DATE	
REGISTERED CIVIL ENGINEER			WILLIAM AMBROSE		
12-22-14			No. C72098		
PLANS APPROVAL DATE			Exp 6/30/16		
<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. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO THE TOLERANCE SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. FOR PAVEMENT CONFORM, SEE CONSTRUCTION DETAIL SHEET.
4. DRAINAGE INLETS AND DOWN DRAINS TO BE PROTECTED FROM FOG SEAL COAT.
5. FOG SEAL HMA SURFACE ONLY



TYPICAL CROSS SECTIONS

NO SCALE

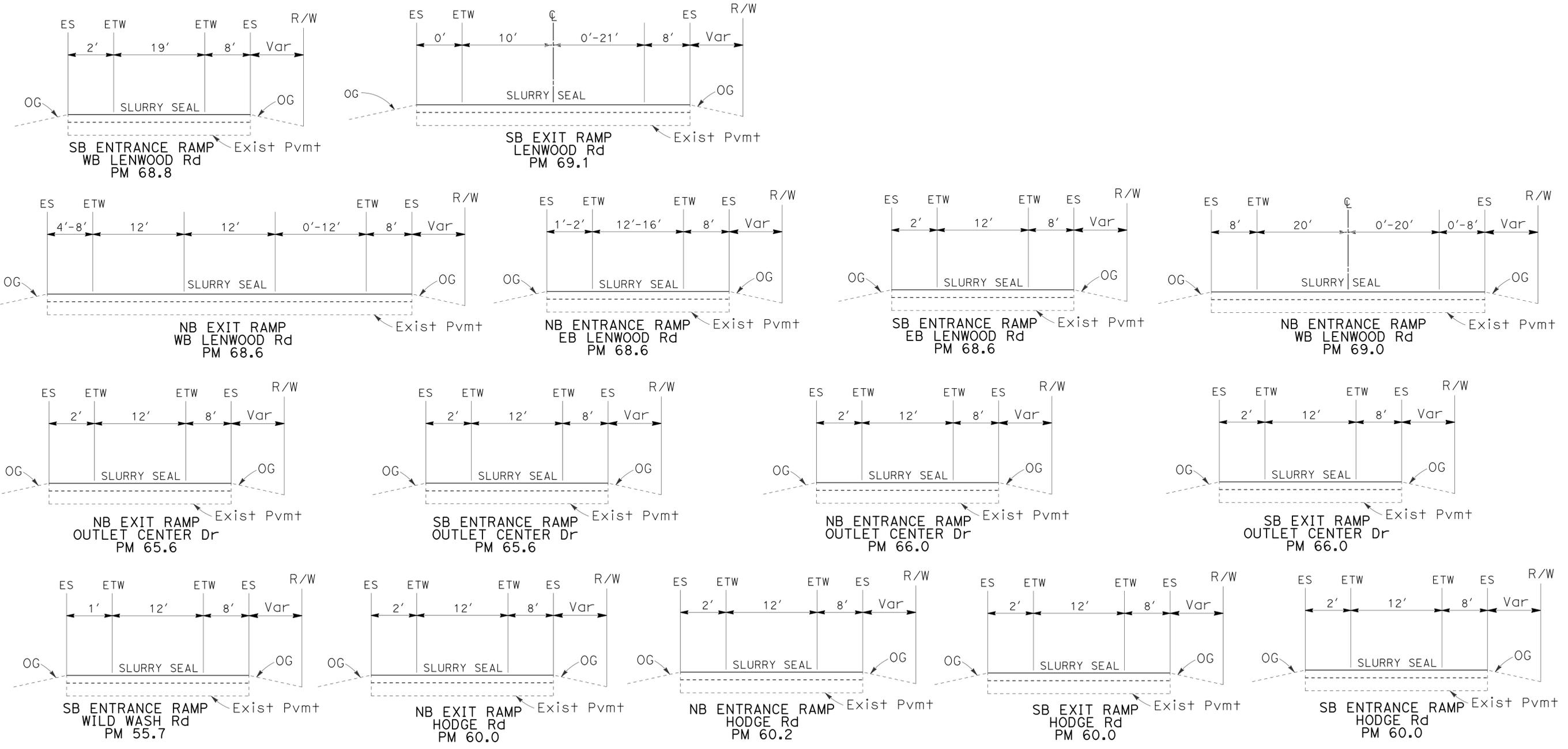
X-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR KEVIN CHEN
 CHECKED BY
 CALCULATED/DESIGNED BY
 WILLIAM AMBROSE KEVIN CHEN
 REVISED BY DATE
 REVISIONS: x, x, x, x, x

LAST REVISION DATE PLOTTED => 22-DEC-2014
 12-17-14 TIME PLOTTED => 08:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	6	44
<i>William Ambrose</i> 12-22-14 REGISTERED CIVIL ENGINEER DATE			WILLIAM AMBROSE No. C72098 Exp. 6/30/16 CIVIL		
12-22-14 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

- NOTES:**
1. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO THE TOLERANCE SPECIFIED IN THE STANDARD SPECIFICATIONS.
 2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
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 5. FOG SEAL HMA SURFACE ONLY



TYPICAL CROSS SECTIONS

NO SCALE **X-5**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR: KEVIN CHEN
 CALCULATED/DESIGNED BY: KEVIN CHEN
 CHECKED BY: KEVIN CHEN
 REVISED BY: KEVIN CHEN
 DATE REVISED:

LAST REVISION DATE PLOTTED => 22-DEC-2014
 12-17-14 TIME PLOTTED => 08:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	7	44

<i>William Ambrose</i>	12-22-14
REGISTERED CIVIL ENGINEER	DATE
12-22-14	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
WILLIAM AMBROSE
No. C72098
Exp 6/30/16
CIVIL
STATE OF CALIFORNIA

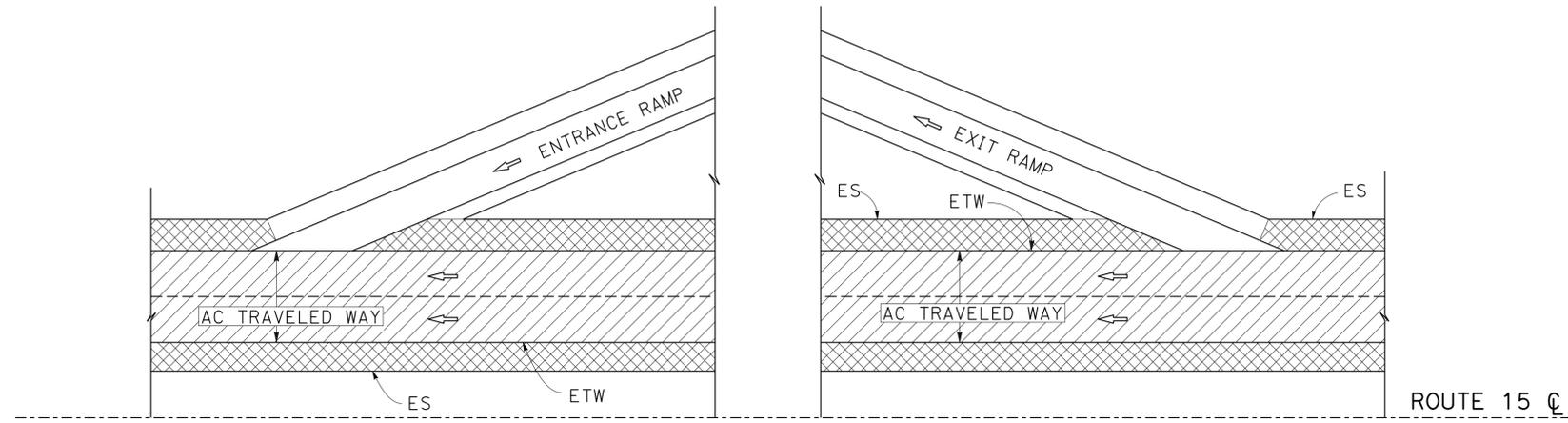
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

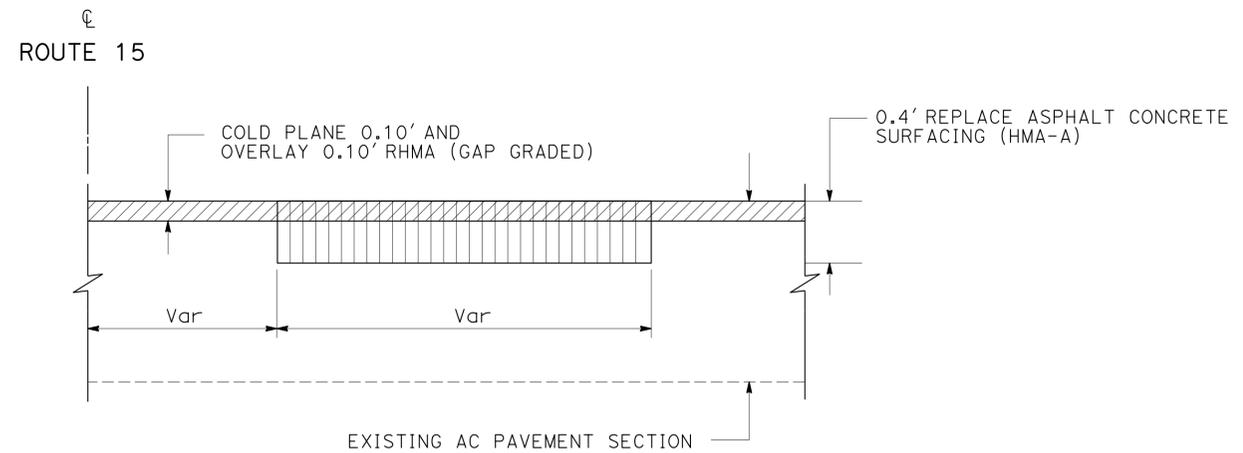
1. FOR REPLACE ASPHALT CONCRETE SURFACING LOCATIONS AND DIMENSIONS SEE SHEET Q-1

LEGEND:

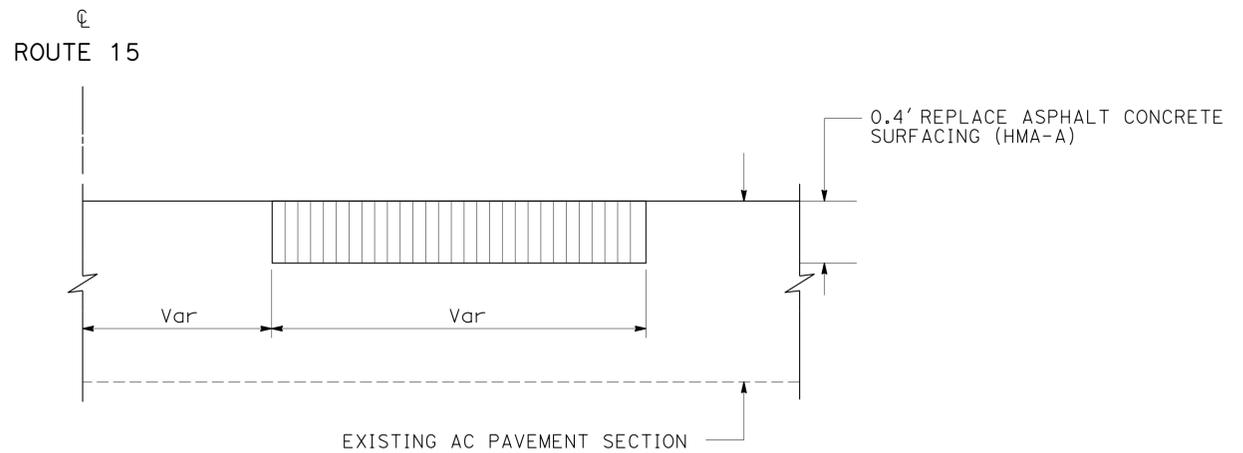
- RHMA-G RUBBERIZED HOT MIX ASPHALT (TYPE G)
-  COLD PLANE, 0.10' AND PLACE 0.10' RHMA (GAP GRADED)
-  FOG SEAL
-  REPLACE ASPHALT CONCRETE SURFACING WITH HMA-A



LIMIT OF WORK AT GORE AREA
FROM PM 40.0 TO PM 45.8



DIGOUTS
FROM PM 40.0 TO PM 45.8



DIGOUTS
FROM PM R28.9 TO PM 40.0
AND FROM PM 45.8 TO PM 70.1
WHERE THERE IS HMA PAVEMENT

CONSTRUCTION DETAILS

NO SCALE **C-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESING
 FUNCTIONAL SUPERVISOR: KEVIN CHEN
 CALCULATED/DESIGNED BY: KEVIN CHEN
 CHECKED BY: KEVIN CHEN
 WILLIAM AMBROSE
 KEVIN CHEN
 REVISED BY: DATE
 REVISED BY: DATE

LAST REVISION DATE PLOTTED => 22-DEC-2014
 12-17-14 TIME PLOTTED => 08:40

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR
 KEVIN CHEN

CALCULATED/DESIGNED BY
 CHECKED BY

WILLIAM AMBROSE
 KEVIN CHEN

REVISED BY
 DATE REVISED

NOTES:

1. FOR QUANTITIES SEE SHEET Q-1
2. ALL DIMENSIONS APPROXIMATE AND FOR INFORMATIONAL PURPOSES ONLY. PLACE SLURRY SEAL ONLY OVER HATCHED AREA

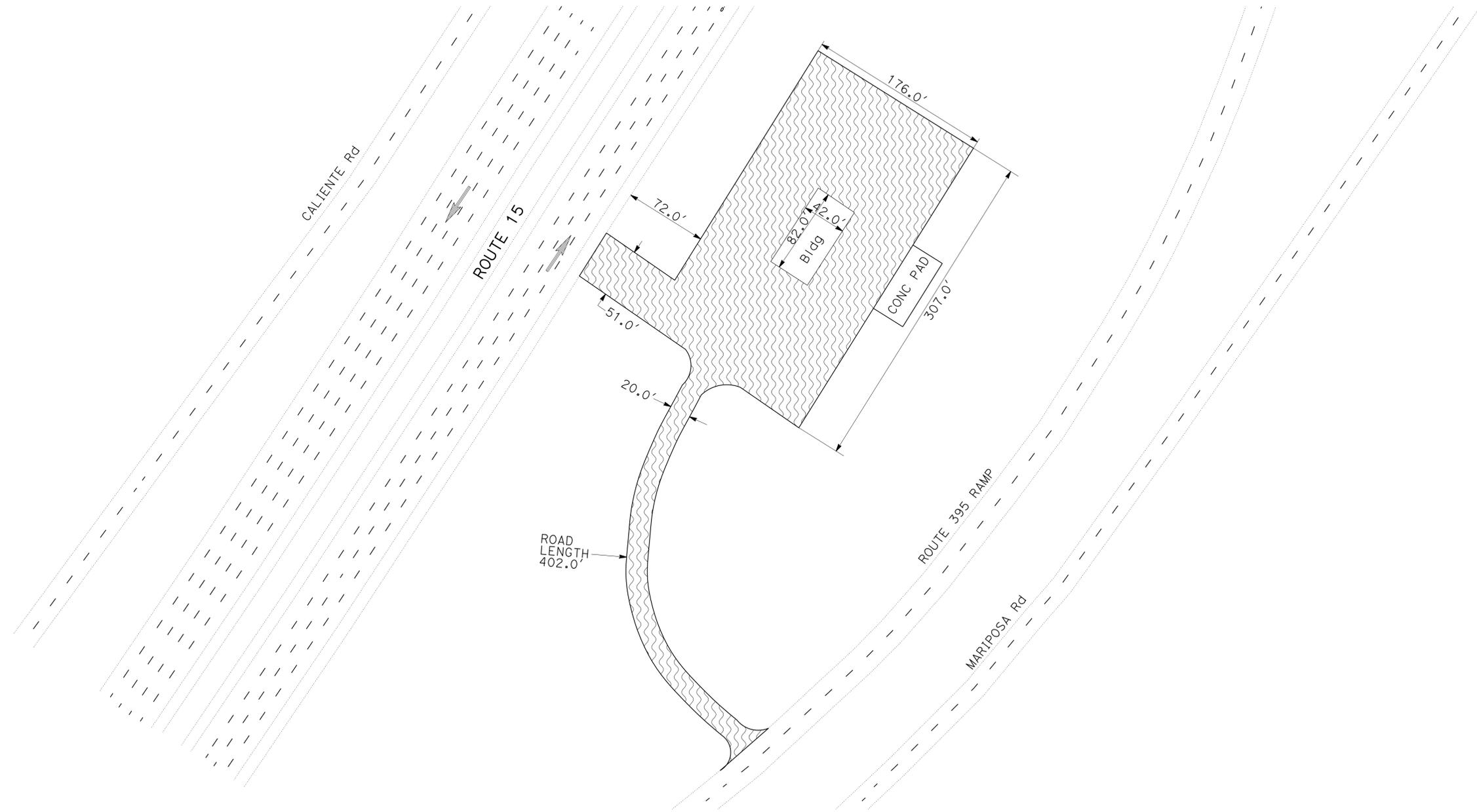
LEGEND:



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	8	44

William Ambrose 12-22-14
 REGISTERED CIVIL ENGINEER DATE
 12-22-14
 PLANS APPROVAL DATE

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



**SLURRY SEAL SALT STATION
 PM 31.5**

CONSTRUCTION DETAILS

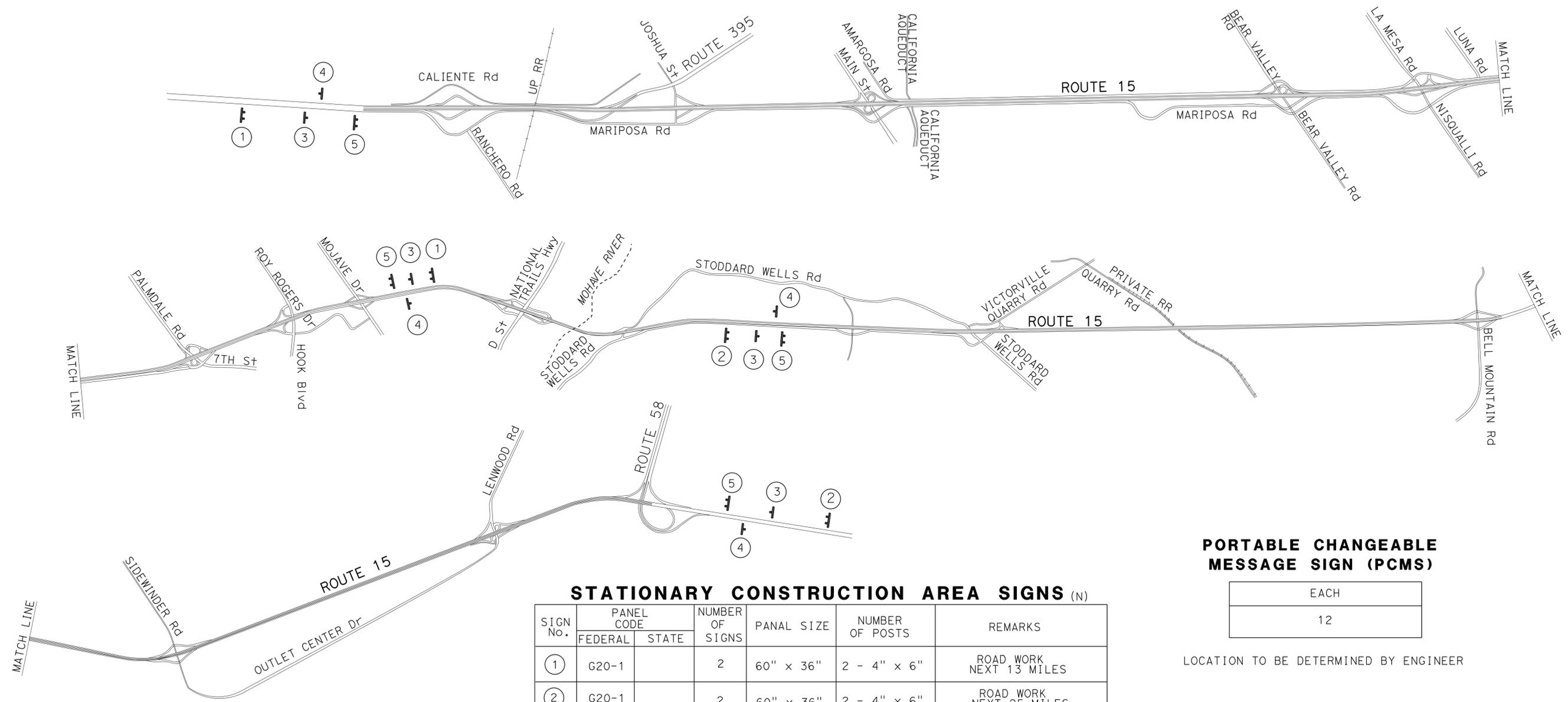
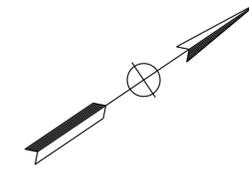
NO SCALE

C-2



NOTES:

- 1 - THE LOCATION OF CONSTRUCTION AREA SIGNS ON THE PLAN IS APPROXIMATE, THE EXACT LOCATION SHALL BE DETERMINED BY THE ENGINEER.
- 2 - SIGNS MUST BE COVERED IF NOT IN USE.



STATIONARY CONSTRUCTION AREA SIGNS (N)

SIGN No.	PANEL CODE		NUMBER OF SIGNS	PANEL SIZE	NUMBER OF POSTS	REMARKS
	FEDERAL	STATE				
①	G20-1		2	60" x 36"	2 - 4" x 6"	ROAD WORK NEXT 13 MILES
②	G20-1		2	60" x 36"	2 - 4" x 6"	ROAD WORK NEXT 25 MILES
③	W20-1		4	48" x 48"	1 - 6" x 6"	ROAD WORK AHEAD
④	G20-2		4	48" x 24"	1 - 4" x 6"	END ROAD WORK
⑤		C40(CA)	4	144" x 60"	2 - 6" x 8"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES

(N) - NOT A SEPERATE PAY ITEM; FOR INFORMATION ONLY

PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

EACH
12

LOCATION TO BE DETERMINED BY ENGINEER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: W.E. WASSER
 CALCULATED/DESIGNED BY: MOKHTARI
 CHECKED BY: WASSER
 REVISED BY: DATE REVISD:

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

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

LAST REVISION | DATE PLOTTED => 22-DEC-2014
 12-17-14 TIME PLOTTED => 08:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	10	44

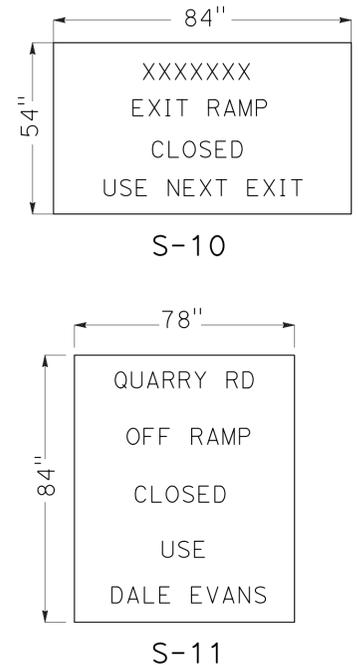
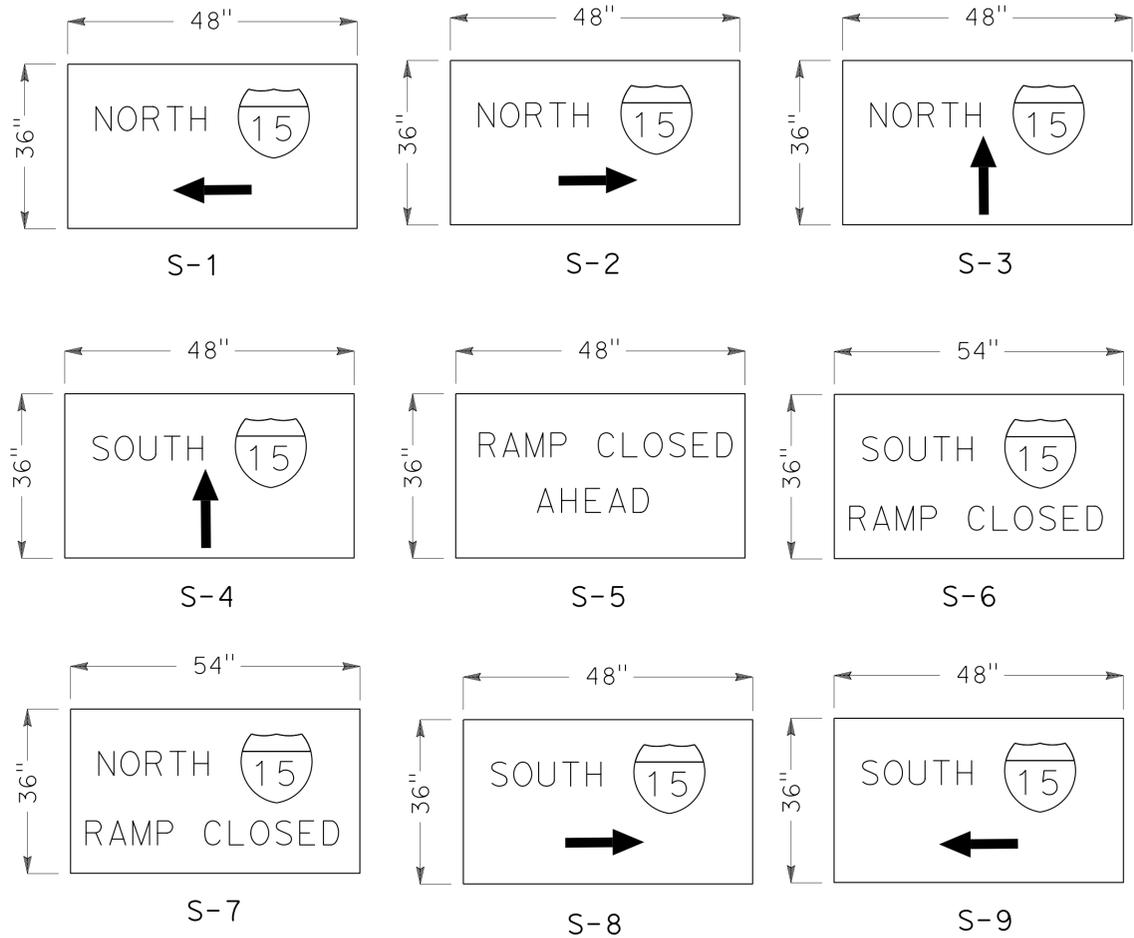
W.E. Wasser 12-22-14
 REGISTERED CIVIL ENGINEER DATE
 12-22-14
 PLANS APPROVAL DATE

W.E. WASSER
 No. 37378
 Exp. 06-30-16
 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.

LEGEND:

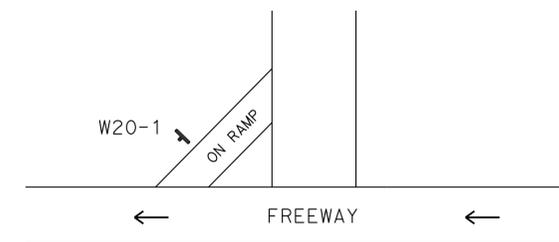
XXXXXXX NAME OF ROAD/EXIT



CONSTRUCTION AREA SIGNS FOR TRAFFIC HANDLING (N)

SIGN CODE	SIGN MESSAGE	PANEL SIZE	No. OF POST AND SIZE	No. OF SIGNS
S-1	SEE TH SHEETS FOR DETAIL	54" x 36"	1 - 4" x 6"	11
S-2		54" x 36"	1 - 4" x 6"	12
S-3		54" x 36"	1 - 4" x 6"	4
S-4		54" x 36"	1 - 4" x 6"	2
S-5		54" x 36"	1 - 4" x 6"	4
S-6		54" x 36"	1 - 4" x 6"	25
S-7		54" x 36"	1 - 4" x 6"	22
S-8		48" x 36"	1 - 4" x 6"	22
S-9		48" x 36"	1 - 4" x 6"	9
S-10		90" x 48"	2 - 6" x 6"	30
S-11		84" x 78"	2 - 6" x 8"	1
SC3(CA)	↑ DETOUR	48" x 18"	1 - 4" x 4"	76
M4-10(L)	← DETOUR	48" x 18"	1 - 4" x 4"	10
M4-10(R)	→ DETOUR	48" x 18"	1 - 4" x 4"	7
W20-1	ROAD WORK AHEAD	48" x 48"	1 - 6" x 6"	30 ENTRANCE RAMP
TOTAL				265

(N) - NOT A SEPERATE PAY ITEM; FOR INFORMATION ONLY



TYPICAL ADVANCE SIGN FOR ENTRANCE RAMP

LETTER SIZE - 4 INCH CAPITAL

COLORS

MESSAGE, BORDER - BLACK
 BACKGROUND - ORANGE (REFLECTIVE)
 ARROW SIZE 9.0" X 5.0"

LETTER SIZE - 6 INCH CAPITAL

S-10, S-11

COLORS

MESSAGE, BORDER - BLACK
 BACKGROUND - ORANGE (REFLECTIVE)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Mokhtari Wasser W.E. Wasser
 FUNCTIONAL SUPERVISOR
 TRAFFIC DESIGN

APPROVED FOR TRAFFIC HANDLING SIGN WORK ONLY

TRAFFIC HANDLING PLAN

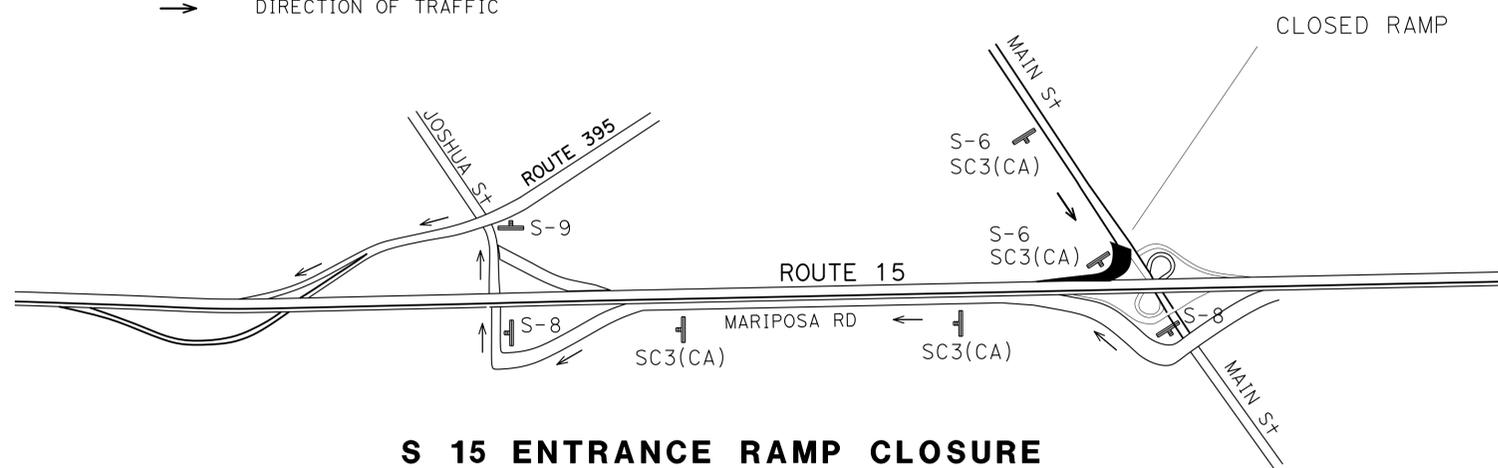
NO SCALE

TH-1

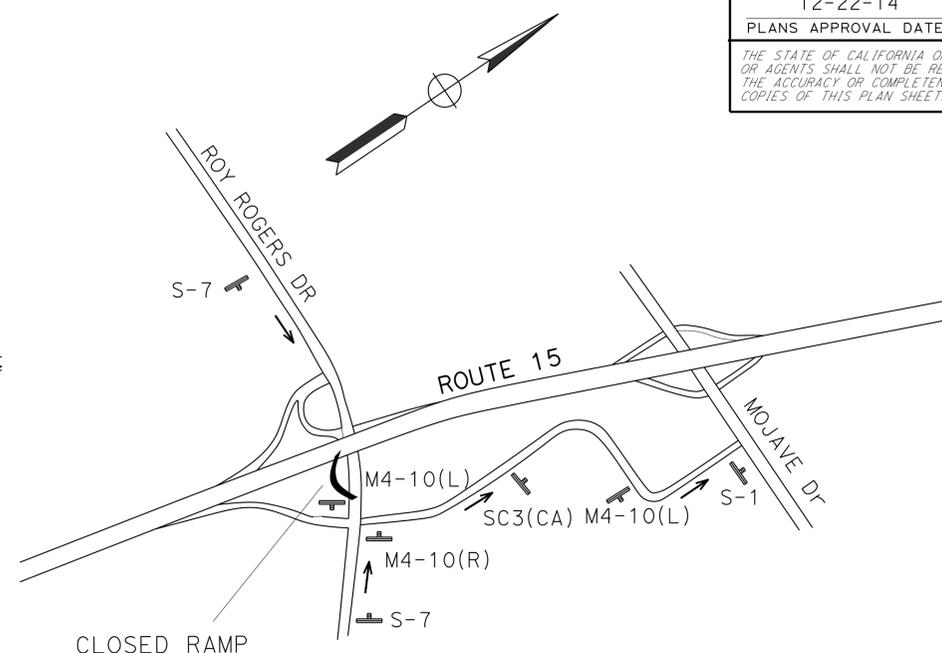
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	11	44
W.E. Wasser		12-22-14		REGISTERED CIVIL ENGINEER DATE	
12-22-14		PLANS APPROVAL DATE			
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

LEGEND:

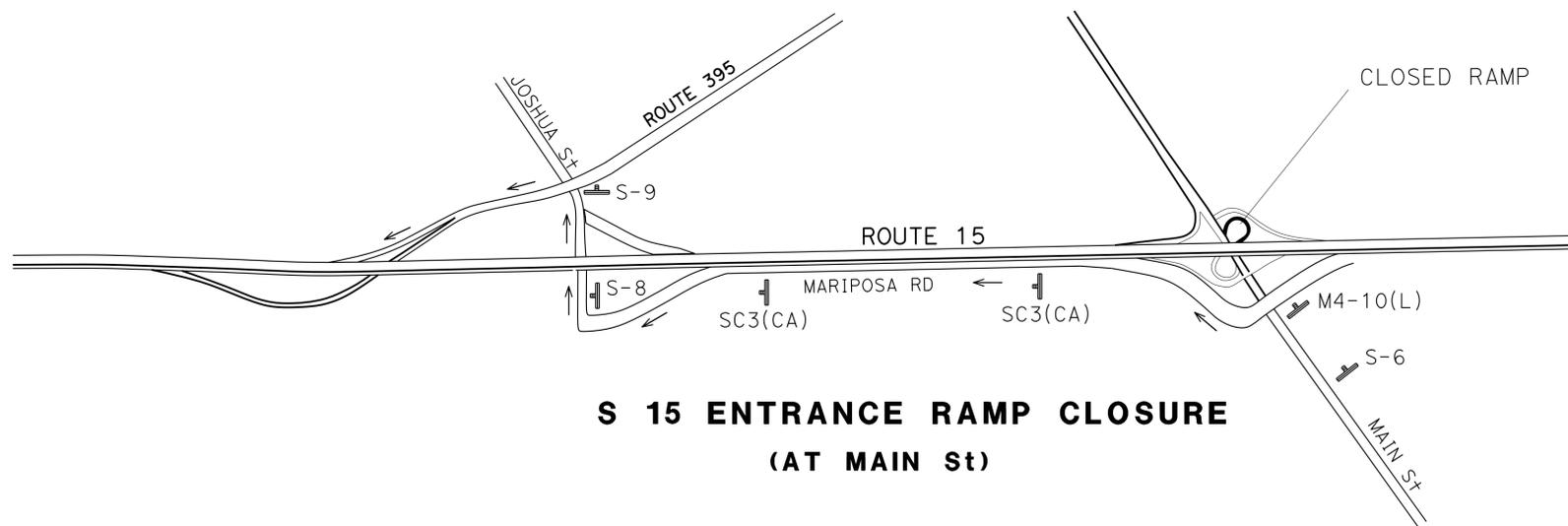
- CLOSED RAMP
- DIRECTION OF TRAFFIC



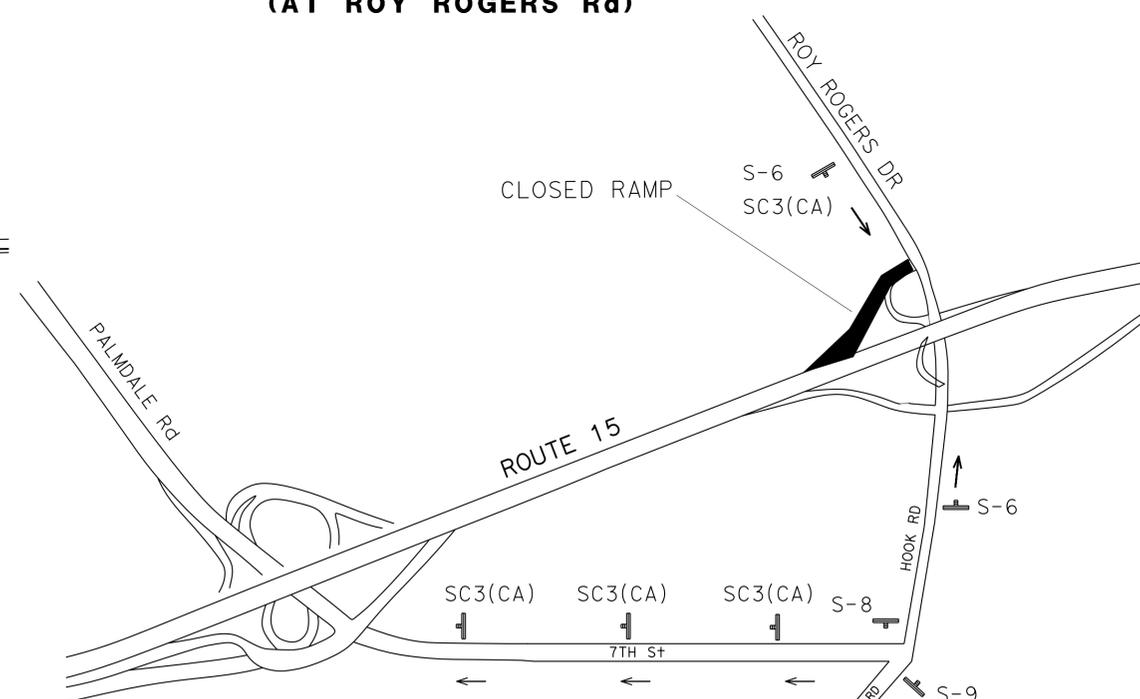
**S 15 ENTRANCE RAMP CLOSURE
(AT MAIN St)**



**N 15 ENTRANCE RAMP CLOSURE
(AT ROY ROGERS Rd)**



**S 15 ENTRANCE RAMP CLOSURE
(AT MAIN St)**



**S 15 ENTRANCE RAMP CLOSURE
(AT ROY ROGERS Dr)**

TRAFFIC HANDLING PLAN

NO SCALE

TH-2

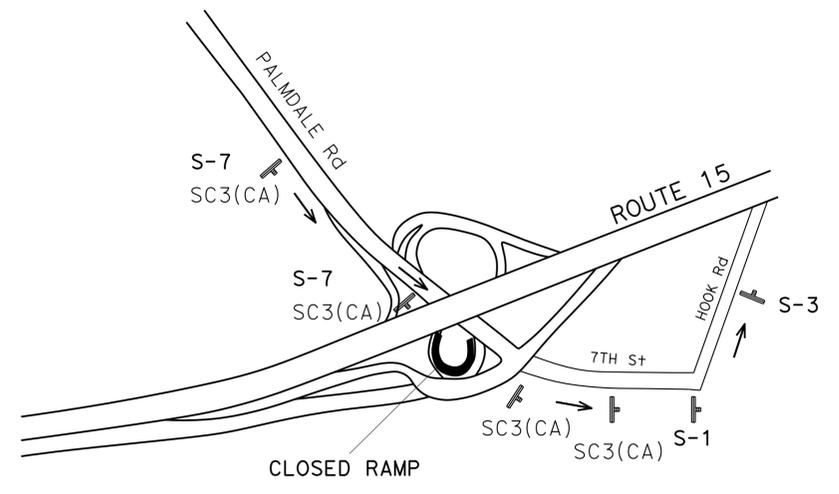
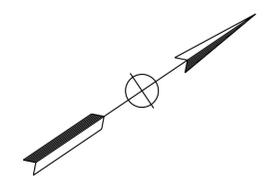
APPROVED FOR TRAFFIC HANDLING SIGN WORK ONLY



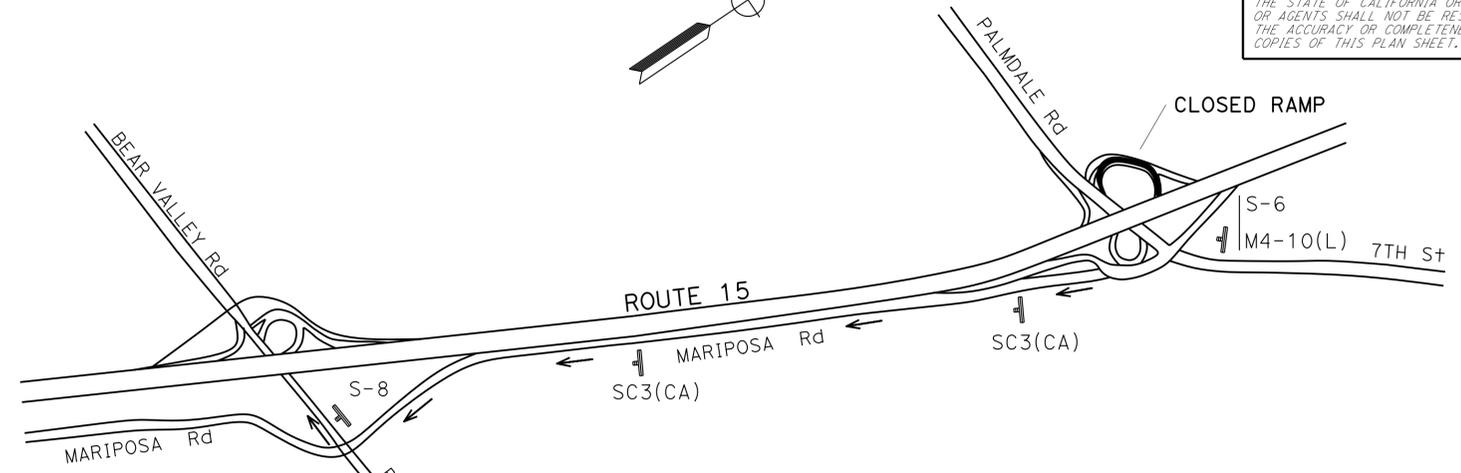
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	TRAFFIC DESIGN
FUNCTIONAL SUPERVISOR	W.E. WASSER
CALCULATED/DESIGNED BY	CHECKED BY
MOKHTARI	WASSER
REVISED BY	DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Sbd	15	R29.6/70.1	12	44
W E Wasser		12-22-14		REGISTERED CIVIL ENGINEER DATE	
12-22-14		PLANS APPROVAL DATE			
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

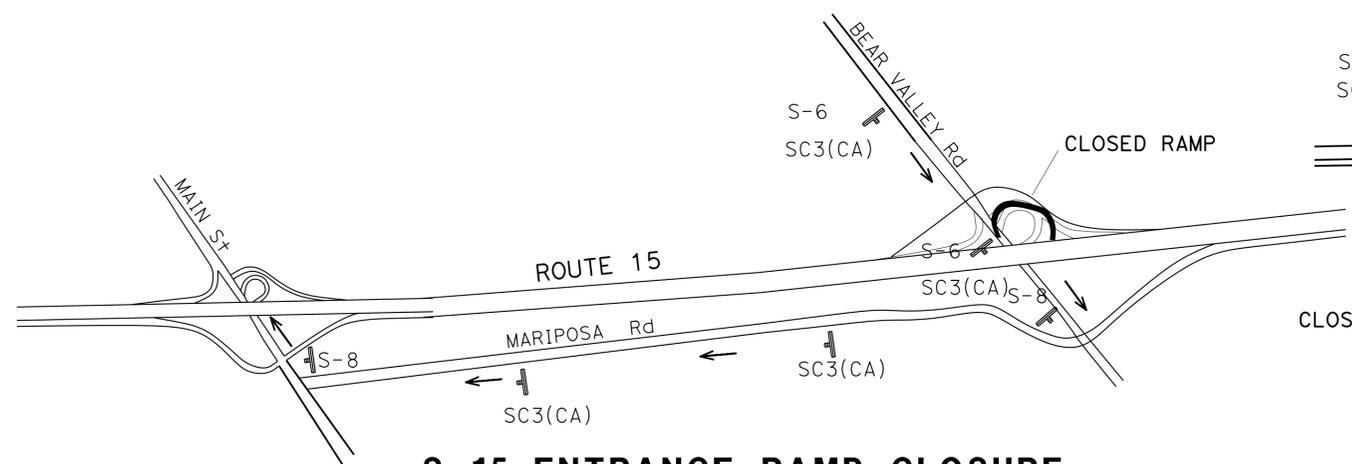
LEGEND:
 CLOSED RAMP
 DIRECTION OF TRAFFIC



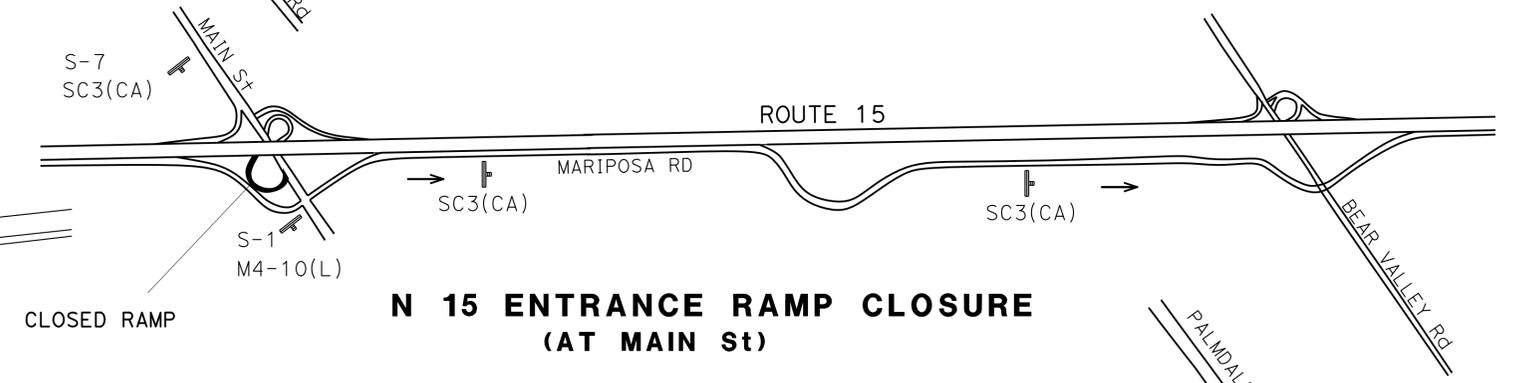
**N 15 ENTRANCE RAMP CLOSURE
(AT PALMDALE Rd)**



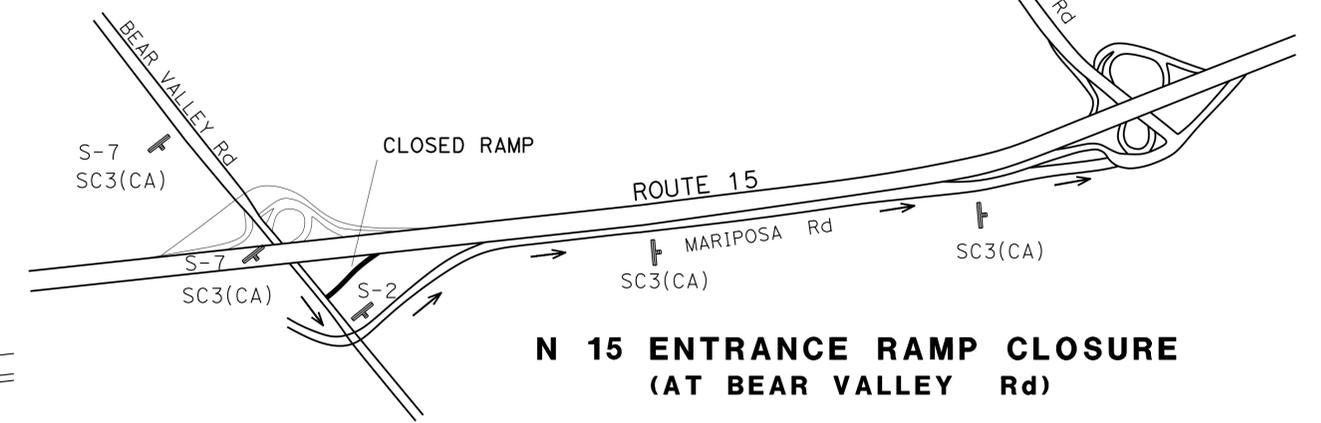
**S 15 ENTRANCE RAMP CLOSURE
(AT PALMDALE Rd)**



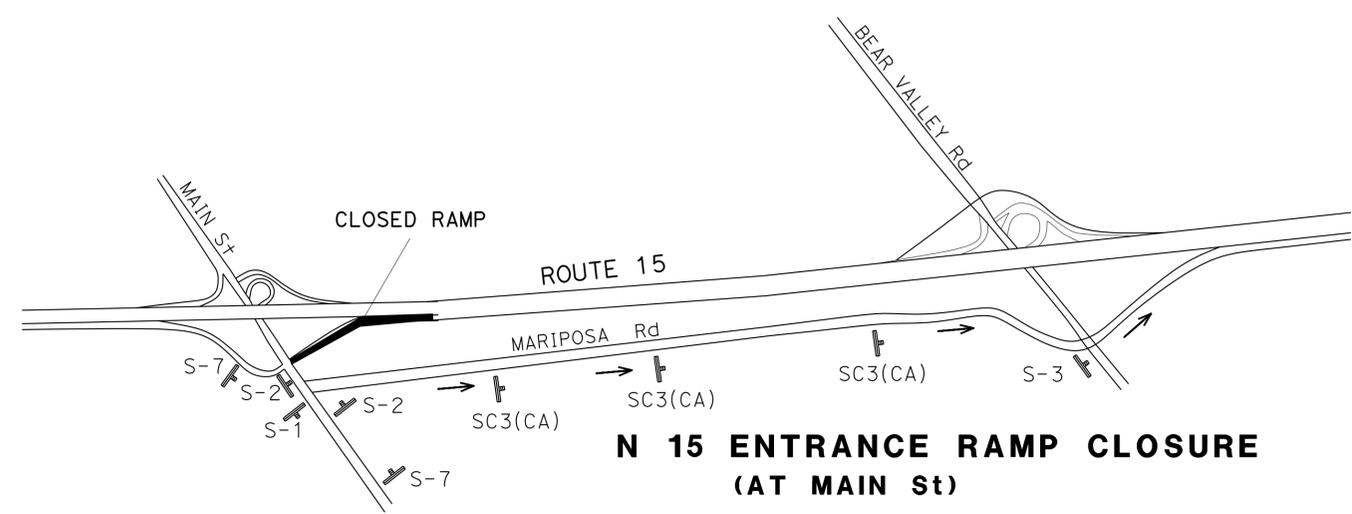
**S 15 ENTRANCE RAMP CLOSURE
(AT BEAR VALLEY Rd)**



**N 15 ENTRANCE RAMP CLOSURE
(AT MAIN St)**



**N 15 ENTRANCE RAMP CLOSURE
(AT BEAR VALLEY Rd)**



**N 15 ENTRANCE RAMP CLOSURE
(AT MAIN St)**

TRAFFIC HANDLING PLAN

NO SCALE

TH-3

APPROVED FOR TRAFFIC HANDLING SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: W.E. WASSER
 CALCULATED/DESIGNED BY: WASSER
 CHECKED BY: WASSER
 REVISIONS:
 REVISOR: MOKHTARI
 DATE: WASSER
 REVISOR: WASSER
 DATE: WASSER

USERNAME => s110420
 DGN FILE => 0800020592md003.dgn

RELATIVE BORDER SCALE
 1" = 15' IN INCHES

UNIT 2284

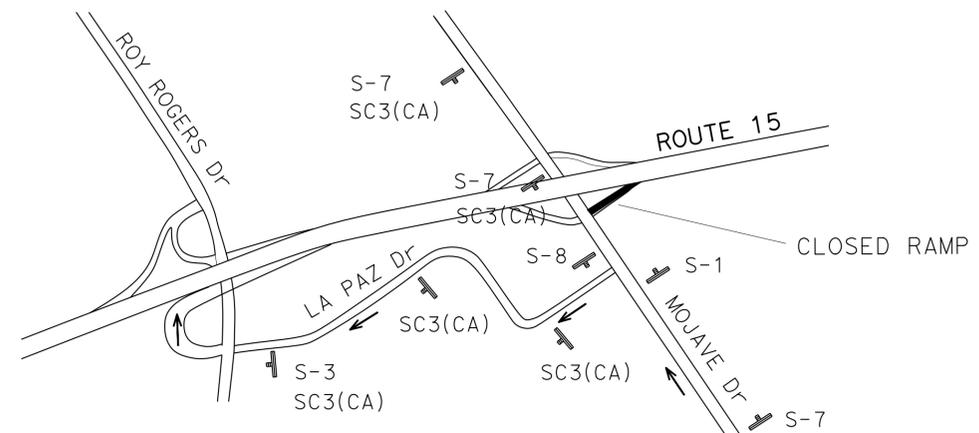
PROJECT NUMBER & PHASE

08000205921

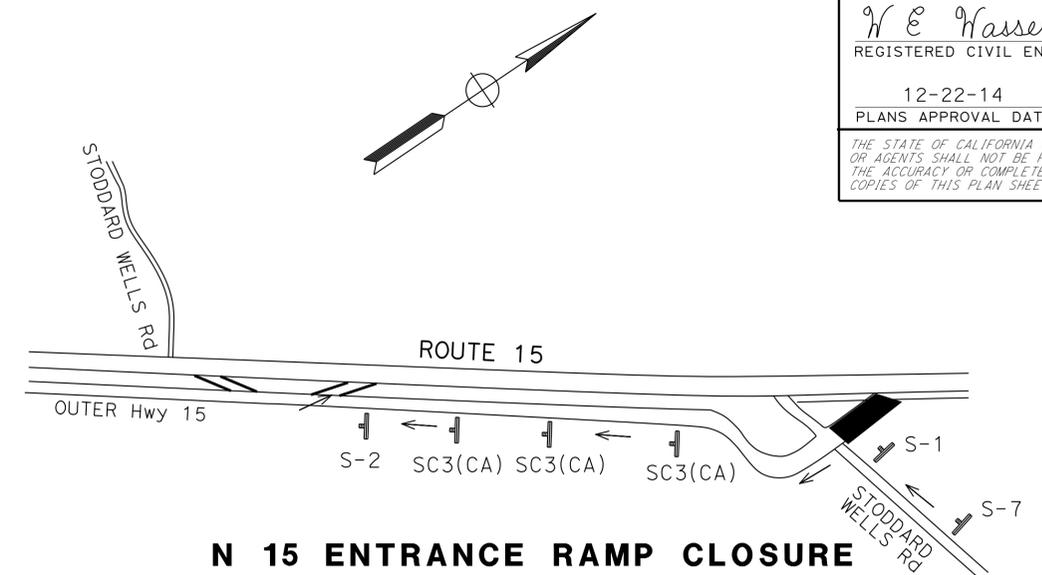
LAST REVISION: DATE PLOTTED => 22-DEC-2014
 12-17-14 TIME PLOTTED => 08:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	14	44
W.E. Wasser		12-22-14		REGISTERED CIVIL ENGINEER DATE	
12-22-14		PLANS APPROVAL DATE			
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

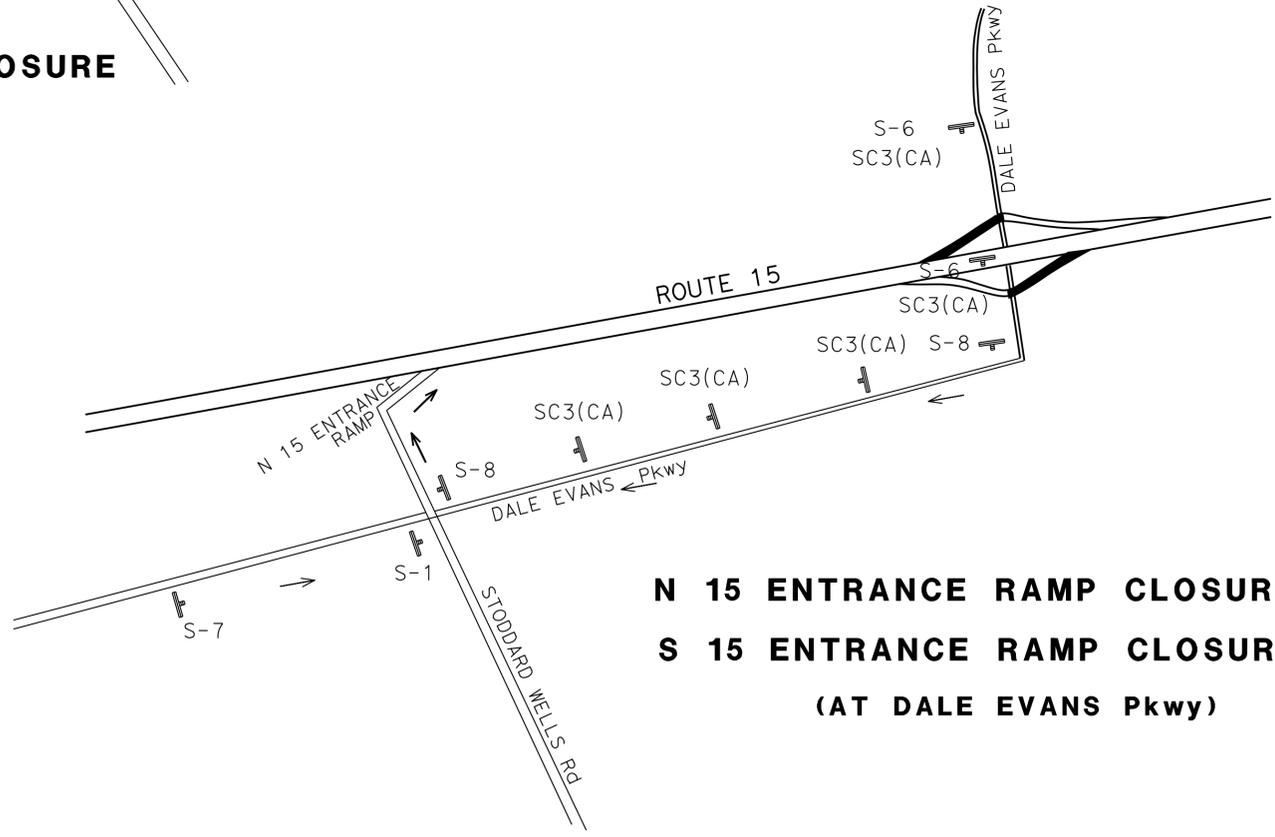
LEGEND:
 CLOSED RAMP
 DIRECTION OF TRAFFIC



**N 15 ENTRANCE RAMP CLOSURE
(AT MOJAVE Dr)**



**N 15 ENTRANCE RAMP CLOSURE
(AT STODDARD WELLS Rd)**



**N 15 ENTRANCE RAMP CLOSURE
S 15 ENTRANCE RAMP CLOSURE
(AT DALE EVANS Pkwy)**

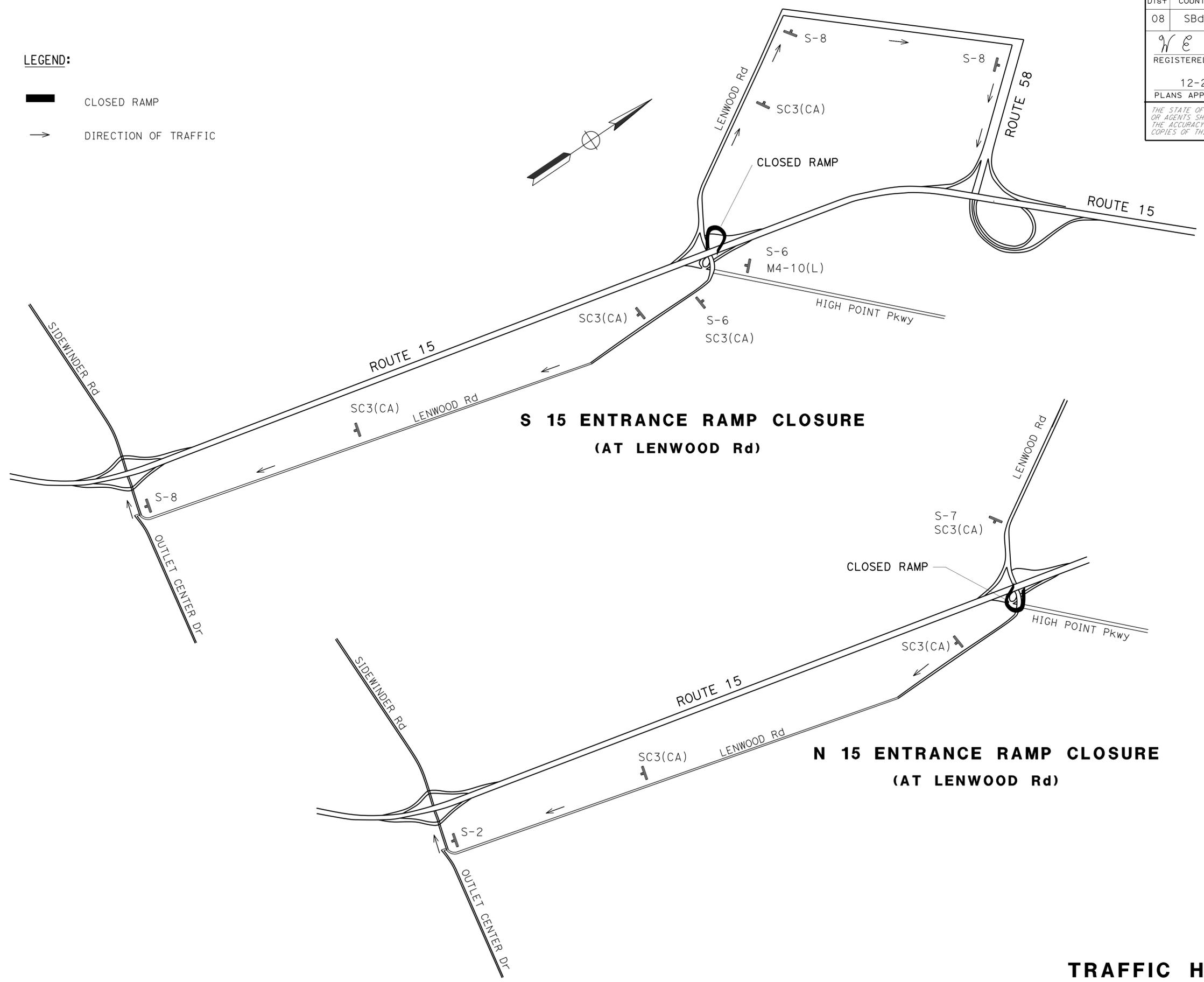
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: W.E. WASSER
 CALCULATED/DESIGNED BY: WASSER
 CHECKED BY:
 MOKHTARI: WASSER
 REVISED BY: DATE REVISED:

APPROVED FOR TRAFFIC HANDLING SIGN WORK ONLY

TRAFFIC HANDLING PLAN
 NO SCALE
TH-5

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	15	44
W.E. Wasser		12-22-14		REGISTERED CIVIL ENGINEER DATE	
12-22-14		PLANS APPROVAL DATE			
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

LEGEND:
 CLOSED RAMP
 DIRECTION OF TRAFFIC



**S 15 ENTRANCE RAMP CLOSURE
(AT LENWOOD Rd)**

**N 15 ENTRANCE RAMP CLOSURE
(AT LENWOOD Rd)**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: W.E. WASSER
 CALCULATED/DESIGNED BY: [blank]
 CHECKED BY: [blank]
 MOKHTARI: WASSER
 REVISED BY: [blank]
 DATE REVISED: [blank]

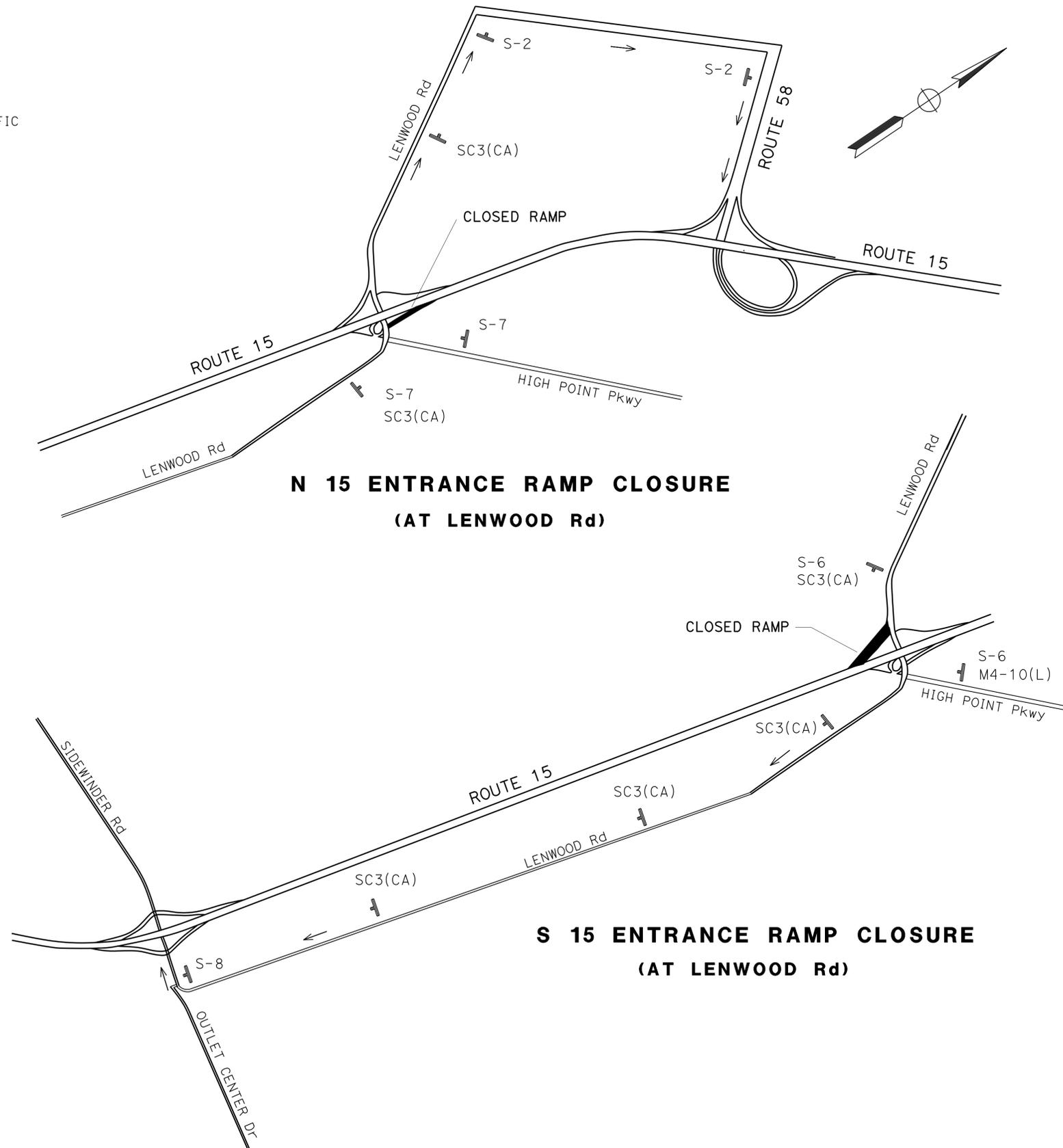
APPROVED FOR TRAFFIC HANDLING SIGN WORK ONLY

TRAFFIC HANDLING PLAN
 NO SCALE
TH-6

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	16	44
<i>W.E. Wasser</i> 12-22-14 REGISTERED CIVIL ENGINEER DATE					
12-22-14			PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

LEGEND:

- CLOSED RAMP
- DIRECTION OF TRAFFIC



**N 15 ENTRANCE RAMP CLOSURE
(AT LENWOOD Rd)**

**S 15 ENTRANCE RAMP CLOSURE
(AT LENWOOD Rd)**

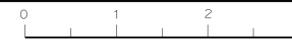
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans TRAFFIC DESIGN	W.E. WASSER	MOKHTARI	WASSER
	CHECKED BY	DESIGNED BY	

APPROVED FOR TRAFFIC HANDLING SIGN WORK ONLY

TRAFFIC HANDLING PLAN

NO SCALE

TH-7



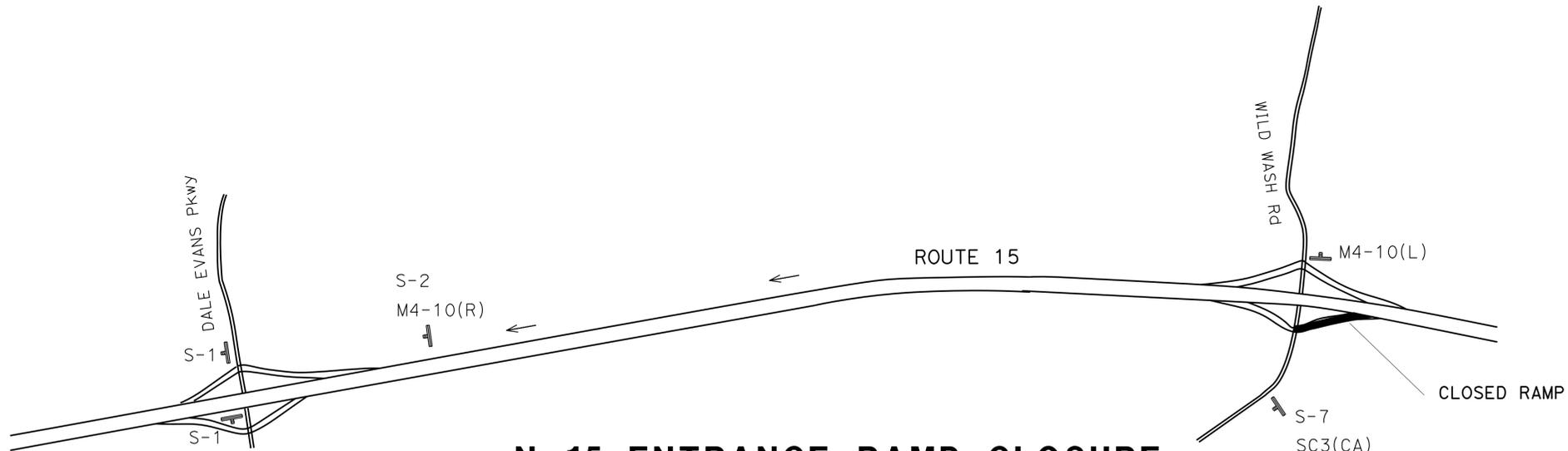
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	18	44
<i>W.E. Wasser</i> 12-22-14 REGISTERED CIVIL ENGINEER DATE					
12-22-14 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

LEGEND:

- CLOSED RAMP
- DIRECTION OF TRAFFIC



**S 15 ENTRANCE RAMP CLOSURE
(AT WILD WASH Rd)**



**N 15 ENTRANCE RAMP CLOSURE
(AT WILD WASH Rd)**

TRAFFIC HANDLING PLAN

NO SCALE

TH-9

APPROVED FOR TRAFFIC HANDLING SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans	W.E. WASSER	MOKHTARI	12-22-14
TRAFFIC DESIGN		WASSER	
	CHECKED BY	DESIGNED BY	



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	19	44

W.E. Wasser 12-22-14
 REGISTERED CIVIL ENGINEER DATE
 12-22-14
 PLANS APPROVAL DATE

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

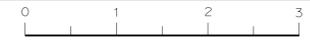
PAVEMENT DELINEATION QUANTITIES

LOCATION	DETAIL	REMOVE PAVEMENT MARKER (EA)	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE) DETAIL No.						PAVEMENT MARKER (RETRO-REFLECTIVE) (RECESSED)		REMOVE THERMOPLASTIC PAVEMENT MARKING (SQFT)	THERMOPLASTIC PAVEMENT MARKING (SQFT)	TEMPORARY TRAFFIC STRIPE (PAINT) (LF)
			YELLOW (LF)			WHITE (LF)			TYPE H	TYPE G			
			25A	25	27B	37	12	8					
ON ROUTE 15													
PM 29.6 TO 40.0 NB PM 40.0 TO 42.5 NB PM 45.3 TO 45.8 NB PM 45.8 TO 70.1 NB		12550		199057	199057	8600	398112			4150	8400		804850
PM 45.8 TO 70.1 SB PM 45.3 TO 45.8 SB PM 40.0 TO 42.5 SB PM 29.6 TO 40.0 SB		12550		199057	199057	6310	398112			4150	8400		804850
RAMPS		2100	50150		50428					2100			
	TYPE II (R) ARROW										405	135	
	TYPE III (R) ARROW										2774	950	
	TYPE III (L) ARROW										3858	1300	
	TYPE III (B) ARROW										2527	876	
	TYPE I ARROW 24'-00"										1050	350	
	TYPE V ARROW										1914	660	
	TYPE VI ARROW										378	126	
	TYPE VIII ARROW										316	72	
	SIGNAL										1312	448	
	AHEAD										1984	682	
	STOP										684	220	
	LIMIT LINE										6600	2235	
	HATCH LINE										6200	2000	
	SUB-TOTAL	27200	50150	398114	448542	14910	796224	8070	10400	16800	30000	10000	1609700
	TOTAL	27200	1716010					27200		30000	10000	1609700	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: W.E. WASSER
 CALCULATED/DESIGNED BY: MOKHTARI
 CHECKED BY: WASSER
 REVISED BY: DATE REVISD:

PAVEMENT DELINEATION QUANTITIES

PDQ-1



LAST REVISION | DATE PLOTTED => 22-DEC-2014
 12-19-14 | TIME PLOTTED => 08:40

SLURRY SEAL

TITLE SHEET NUMBER	DIRECTION	RAMP STREET NAME	POSTMILE	ENTRANCE/EXIT RAMP	ASPHALTIC EMULSION	SCREENINGS	SLURRY SEAL
	NB/SB	NAME	PM	PM	Ton (N)	Ton (N)	Ton
①	NB	SALT STATION	31.5	ENTIRE FACILITY	9.5	52.8	62.3
②	NB	MAIN St	33.7	EXIT	6.6	36.7	43.3
③	NB	MAIN St	34.3	ENTRANCE	3.8	21.4	25.2
④	NB	EB MAIN St	34	ENTRANCE	4.6	25.4	29.9
⑤	SB	WB MAIN St	34	ENTRANCE	4.3	23.7	27.9
⑥	SB	MAIN St	34.3	EXIT	8.5	47.2	55.7
⑦	SB	MAIN St	33.7	ENTRANCE	8.5	47.2	55.7
⑧	NB	BEAR VALLEY Rd	37.4	EXIT	5.4	29.8	35.1
⑨	NB	BEAR VALLEY Rd	37.4	ENTRANCE	6.6	36.9	43.5
⑩	SB	EB BEAR VALLEY Rd	37.4	ENTRANCE	3.5	19.5	23.0
⑪	SB	WB BEAR VALLEY Rd	37.4	ENTRANCE	4.7	26.2	30.9
⑫	SB	BEAR VALLEY Rd	37.8	EXIT	7.3	40.7	48.1
⑬	NB	EB PALMDALE Rd TO NB 15	40.5	ENTRANCE	3.6	19.9	23.5
⑭	NB	WB PALMDALE Rd TO NB 15	40.7	ENTRANCE	4.6	25.5	30.1
⑮	SB	PALMDALE Rd	40.7	EXIT	10.1	56.2	66.3
⑯	SB	WB PALMDALE Rd TO SB 15	40.5	ENTRANCE	4.2	23.4	27.6
⑰	SB	EB PALMDALE Rd TO SB 15	40.4	ENTRANCE	2.2	12.4	14.6
⑱	NB	ROY ROGERS Dr	41.1	EXIT	8.1	45.0	53.1
⑲	NB	ROY ROGERS Dr	41.4	ENTRANCE	5.1	28.2	33.2
⑳	SB	ROY ROGERS Dr	41.6	EXIT	7.0	38.9	45.9
㉑	SB	ROY ROGERS Dr	41.2	ENTRANCE	9.0	50.2	59.3
㉒	NB	MOJAVE Dr	41.8	EXIT	3.0	16.7	19.7
㉓	NB	MOJAVE Dr	42.2	ENTRANCE	1.7	9.6	11.3
㉔	SB	MOJAVE Dr	42.2	EXIT	2.5	13.9	16.4
㉕	SB	MOJAVE Dr	41.8	ENTRANCE	2.5	14.0	16.5
㉖	NB	STODDARD WELLS Rd	47.4	EXIT	3.6	19.8	23.4
㉗	NB	STODDARD WELLS Rd	47.7	ENTRANCE	3.9	21.5	25.4
㉘	NB	STODDARD WELLS Rd	47.5	ENTRANCE/EXIT	0.9	4.8	5.7
㉙	SB	QUARRY Rd	47.5	ENTRANCE	2.0	11.3	13.4
㉚	SB	QUARRY Rd	47.8	EXIT	2.8	15.4	18.2
㉛	SB	QUARRY Rd	47.7	ENTRANCE/EXIT	0.6	3.4	4.0
㉜	NB	DALE EVANS Pkwy	51.6	EXIT	3.4	18.7	22.1
㉝	NB	DALE EVANS Pkwy	52	ENTRANCE	3.3	18.3	21.6
㉞	SB	DALE EVANS Pkwy	52.01	EXIT	4.8	26.9	31.7
㉟	SB	DALE EVANS Pkwy	51.6	ENTRANCE	3.3	18.4	21.8
㊱	NB	WILD WASH Rd	55.7	EXIT	3.4	19.0	22.4
㊲	NB	WILD WASH Rd	56.1	ENTRANCE	5.0	27.9	32.9
㊳	SB	WILD WASH Rd	56.8	EXIT	3.8	21.0	24.8
㊴	SB	WILD WASH Rd	55.7	ENTRANCE	2.6	14.5	17.1
㊵	NB	HODGE Rd	60	EXIT	3.3	18.3	21.6
㊶	NB	HODGE Rd	60.2	ENTRANCE	3.1	17.2	20.3
㊷	SB	HODGE Rd	60	EXIT	3.1	17.1	20.2
㊸	SB	HODGE Rd	60	ENTRANCE	3.1	17.0	20.0
㊹	NB	OUTLET CENTER Dr	65.6	EXIT	4.0	22.3	26.4
㊺	NB	OUTLET CENTER Dr	66	ENTRANCE	3.3	18.5	21.9
㊻	SB	OUTLET CENTER Dr	66	EXIT	4.9	27.0	31.8
㊼	SB	OUTLET CENTER Dr	65.6	ENTRANCE	3.2	18.0	21.2
㊽	NB	LENWOOD Rd	68.6	EXIT	4.5	25.2	29.8
㊾	NB	EB LENWOOD Rd	68.6	ENTRANCE	3.9	21.9	25.9
㊿	SB	EB LENWOOD Rd	68.6	ENTRANCE	1.4	8.0	9.5
①	NB	WB LENWOOD Rd	68.6	ENTRANCE	4.3	23.8	28.1
②	SB	WB LENWOOD Rd	68.8	ENTRANCE	3.9	21.5	25.4
③	SB	LENWOOD Rd	69.1	EXIT	6.1	33.8	39.9
				TOTAL	232.5	1291.7	1524.3

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

⊕ SEE TITLE SHEET FOR LOCATIONS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	R29.6/70.1	20	44

William Ambrose 12-22-14
 REGISTERED CIVIL ENGINEER DATE
 12-22-14
 PLANS APPROVAL DATE

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

(RAMPS) COLDPLANE AND PLACE RUBBERIZED HOT MIX ASPHALT (GAP GRADED) (*)

PM	NAME	NB/SB	ENTRANCE/EXIT	COLD PLANE AC PAVEMENT	TACK COAT	RHMA GAP GRADED
				(SQYD)	(TON)	(TON)
32.6	JOSHUA	NB	ENTRANCE	2,900	1.0	196
32.6	JOSHUA	SB	EXIT	3,316	1.1	224
40.2	PALMDALE Rd	NB	EXIT	3,396	1.1	229
SUBTOTAL				9,612	3.2	649

(*) COLDPLANE AND PLACE RHMA-G ONLY OVER EXISTING HMA PAVEMENT

(MAINLINE) COLDPLANE AND PLACE RUBBERIZED HOT MIX ASPHALT (GAP GRADED) (*)

PM	PM	COLD PLANE AC PAVEMENT	TACK COAT	RHMA GAP GRADED
BEGIN	END	(SQYD)	(TON)	(TON)
40.0	42.5	52,800	17.6	3,564
45.3	70.1	215,494	72.0	14,546
SUBTOTAL		268,294	89.6	18,110

(*) COLDPLANE AND PLACE RHMA-G ONLY OVER EXISTING HMA PAVEMENT

(TOTAL) COLDPLANE AND PLACE RUBBERIZED HOT MIX ASPHALT (GAP GRADED) (*)

	COLD PLANE AC PAVEMENT	TACK COAT	RHMA GAP GRADED
	(SQYD)	(TON)	(TON)
SUBTOTAL (RAMPS)	9,612	3.2	649
SUBTOTAL (MAINLINE)	268,294	89.6	18,110
TOTAL	277,906	92.8	18,759

(*) COLDPLANE AND PLACE RHMA-G ONLY OVER EXISTING HMA PAVEMENT

SUMMARY OF QUANTITIES

Q-1



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	15	R29.6/70.1	21	44

William Ambrose 12-22-14
 REGISTERED CIVIL ENGINEER DATE

12-22-14
 PLANS APPROVAL DATE

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

NOTE:

1. FOR REPLACE ASPHALT CONCRETE SURFACING DETAILS, SEE SHEET C-1

(RAMPS) REPLACE ASPHALT CONCRETE SURFACING ()**

LOCATION				VOLUME
PM	DIRECTION	RAMP	EXIT/ENTRANCE	CY
37.4	NB	BEAR VALLEY Rd	EXIT	53.3
41.1	NB	ROY RODGERS Rd	EXIT	88.9
42.2	NB	MOJAVE Dr	ENTRANCE	17.8
52.0	SB	DALE EVANS Pkwy	ENTRANCE	53.3
41.8	SB	MOJAVE Dr	ENTRANCE	53.3
37.4	SB	BEAR VALLEY Rd	ENTRANCE	53.3
SUBTOTAL				319.9

(**) EXACT LOCATIONS AND DIMENSIONS OF REPLACE AC SURFACING SHALL BE DETERMINED BY THE ENGINEER.

(MAINLINE) REPLACE ASPHALT CONCRETE SURFACING ()**

LOCATION			VOLUME
FROM PM	TO PM	DIRECTION	CY
39.0	41.0	NB	160.0
43.0	44.0	NB	265.4
44.0	45.0	NB	222.2
45.0	45.5	NB	225.9
40.0	42.0	SB	155.6
42.0	43.5	SB	290.4
44.5	45.5	SB	160.0
TOTAL			1479.5

(**) EXACT LOCATIONS AND DIMENSIONS OF REPLACE AC SURFACING SHALL BE DETERMINED BY THE ENGINEER.

(TOTAL) REPLACE ASPHALT CONCRETE SURFACING ()**

RAMPS AND MAINLINE	VOLUME
	CY
SUBTOTAL (RAMPS)	319.9
SUBTOTAL (MAINLINE)	1479.5
TOTAL	1799.5

(**) EXACT LOCATIONS AND DIMENSIONS OF REPLACE AC SURFACING SHALL BE DETERMINED BY THE ENGINEER.

FOG SEAL SHOULDERS (*)**

PM	PM	ASPHALT EMULSION (FOG SEAL COAT)
BEGIN	END	(TON)
R28.9	70.1	243

(***) FOG SEAL ONLY OVER EXISTING HMA SURFACES

SUMMARY OF QUANTITIES

Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 WILLIAM AMBROSE
 KEVIN CHEN
 KEVIN CHEN
 KEVIN CHEN

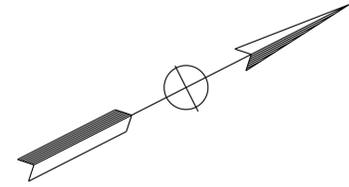


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	23	44

Ferdinand De La Cruz 12-22-14
 REGISTERED ELECTRICAL ENGINEER DATE
 12-22-14
 PLANS APPROVAL DATE

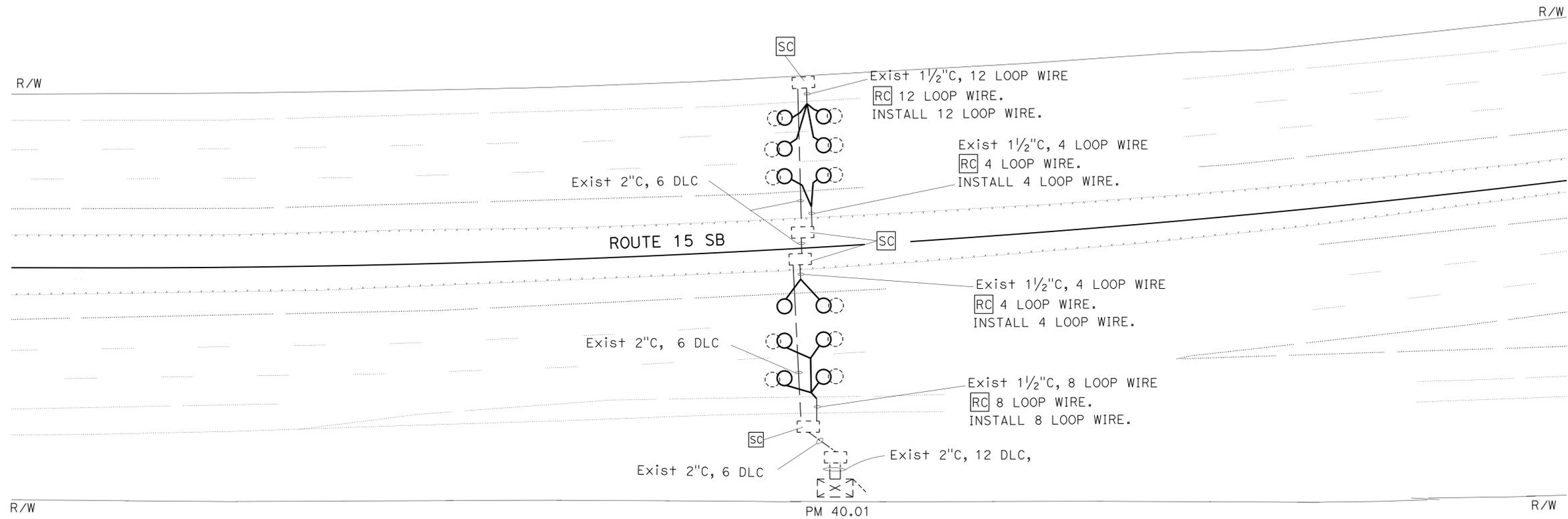
REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
 No. E17215
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

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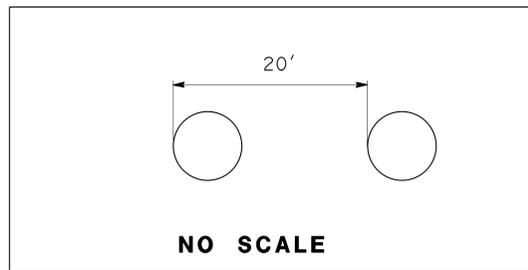


NOTES:

- FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
- ALL INDUCTIVE LOOPS SHOWN AS EXISTING SHALL BE AB



LOOP DETECTOR LAYOUT



(PALMDALE ROAD)

INDUCTIVE LOOP DETECTOR (EA)

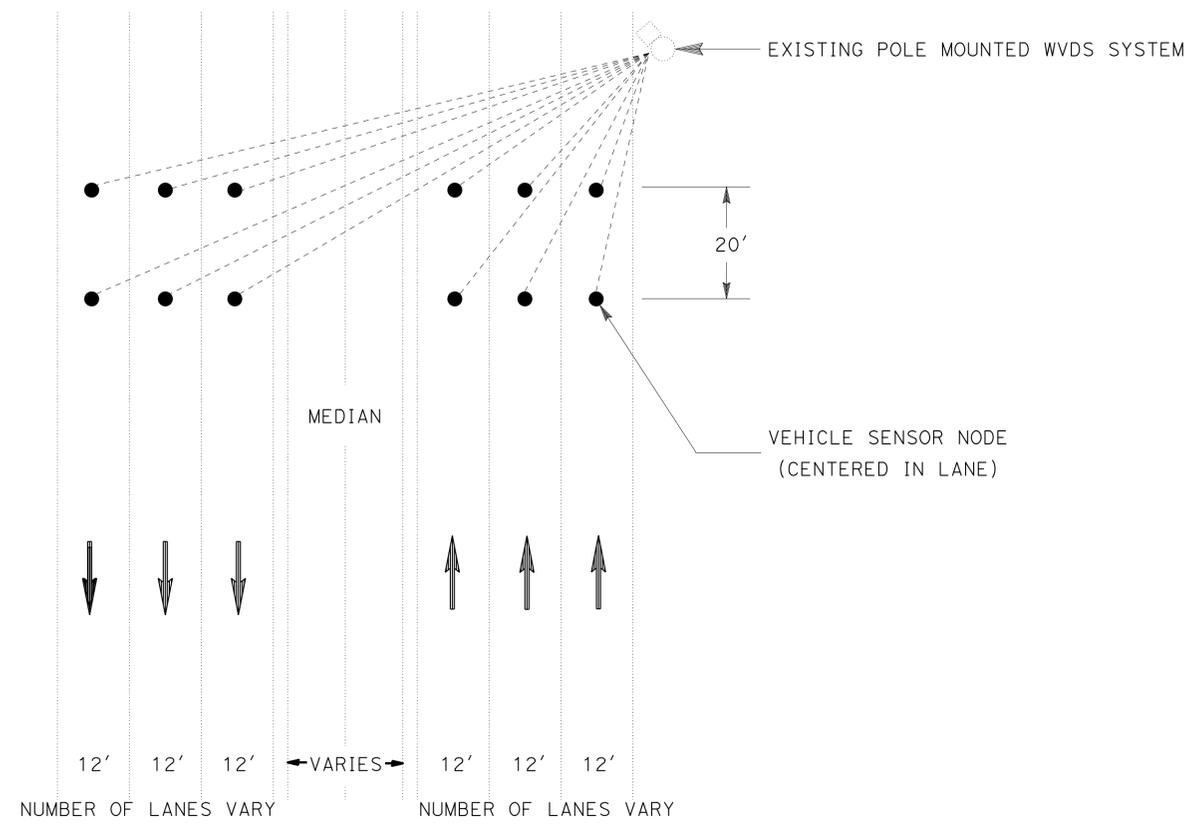
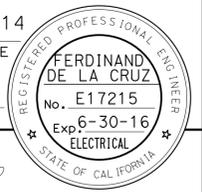
APPROVED FOR ELECTRICAL WORK ONLY

NO SCALE

E-2

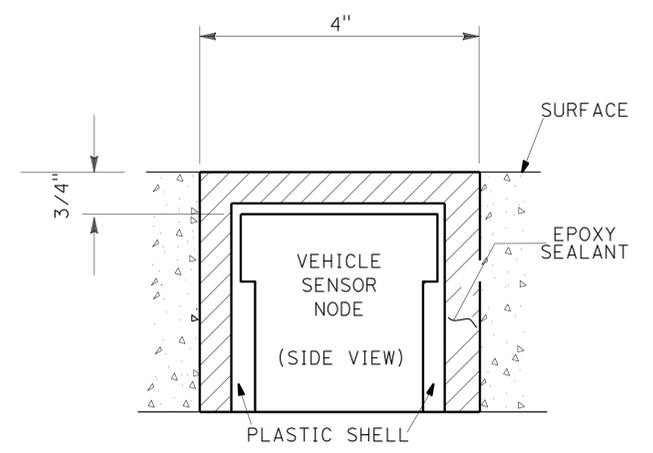
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	REVISOR	DATE
Caltrans ELECTRICAL DESIGN	LPJ	11-06-14
FUNCTIONAL SUPERVISOR	REVISOR	DATE
Ferdinand De La Cruz	Ferdinand De La Cruz	11-06-14
CALCULATED/DESIGNED BY	CHECKED BY	
Ferdinand De La Cruz		

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	25	44
			REGISTERED ELECTRICAL ENGINEER	DATE	
			12-22-14		
			PLANS APPROVAL DATE		
			12-22-14		
<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>					



DETAIL 'A'

VEHICLE SENSOR NODE
PLACEMENT DETAIL



DETAIL 'B'

VEHICLE SENSOR NODE
INSTALLED IN ROADWAY

WIRELESS VEHICLE SENSOR NODE INSTALLATION PROCEDURE

1. PRIOR TO INSTALLATION, IDENTIFY SENSOR'S ID, LANE NUMBER, AND LOCATION IN LANE.
2. INSTALL THE VEHICLE SENSOR NODE AS PER MANUFACTURER'S INSTRUCTIONS.
3. RECORD THE DISTANCES BETWEEN EACH VEHICLE SENSOR NODE PAIR.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: FERDINAND DE LA CRUZ
 CALCULATED/DESIGNED BY: FERDINAND DE LA CRUZ
 CHECKED BY:
 REVISOR: LUIS PENALOZA
 DATE REVISED: 11/06/14
 LPJ

APPROVED FOR ELECTRICAL WORK ONLY



UNIT 2292

PROJECT NUMBER & PHASE

08000205921

BORDER LAST REVISED 7/2/2010

USERNAME => s110420
 DGN FILE => 0800020592uad004.dgn

ELECTRICAL DETAILS

NO SCALE

E-4

LAST REVISION | DATE PLOTTED => 22-DEC-2014
 12-19-14 | TIME PLOTTED => 08:40

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR
 FERDINAND DE LA CRUZ
 CALCULATED/DESIGNED BY
 CHECKED BY
 FERDINAND DE LA CRUZ
 LUIS PENALOZA JR
 FERDINAND DE LA CRUZ
 REVISED BY
 DATE REVISED
 LPJ
 11/06/14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	R29.6/70.1	26	44

Ferdinand De La Cruz 12-22-14
 REGISTERED ELECTRICAL ENGINEER DATE

12-22-14
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 FERDINAND DE LA CRUZ
 No. E17215
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

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

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

MODIFY SIGNAL

SHEET No.	(N) TYPE E LOOP	(N) TYPE D LOOP
	EA	EA
E-1	6	3

INDUCTIVE LOOP DETECTOR (EA)

SHEET No.	TYPE E LOOP
	EA
E-2	12

VEHICLE SENSOR NODE REPLACEMENT

SHEET No.	VEHICLE SENSOR NODE
	EA
E-3	36

ELECTRICAL QUANTITIES

E-5

LAST REVISION | DATE PLOTTED => 22-DEC-2014
 12-19-14 | TIME PLOTTED => 08:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	29.6/70.1	27	44

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Grace M. Tsushima
No. C49814
Exp. 9-30-14
CIVIL
STATE OF CALIFORNIA

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

TO ACCOMPANY PLANS DATED 12-22-14

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 ³ , pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
ø	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kíp	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

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

REVISED STANDARD PLAN RSP A10B

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

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

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

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

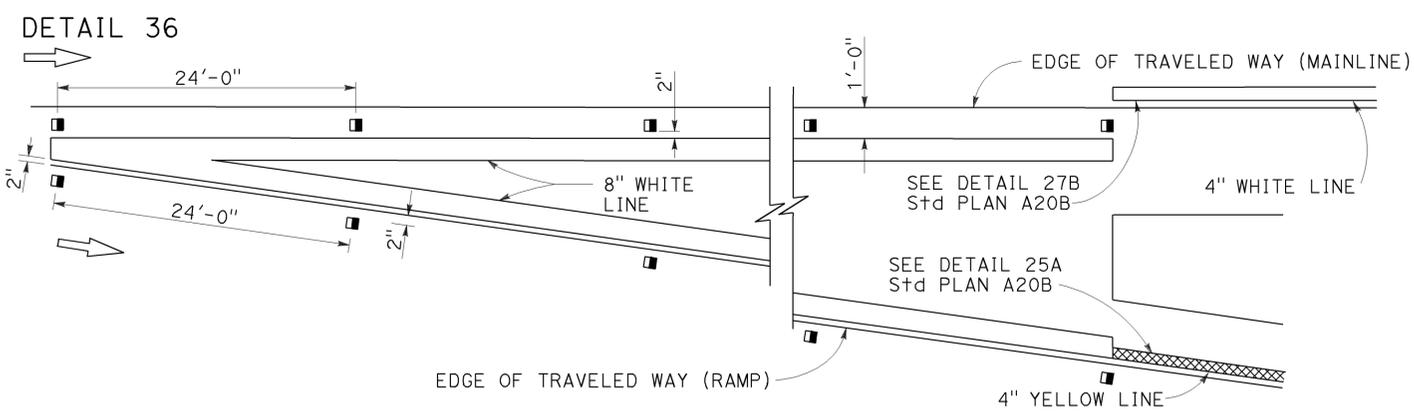
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	29.6/70.1	28	44

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

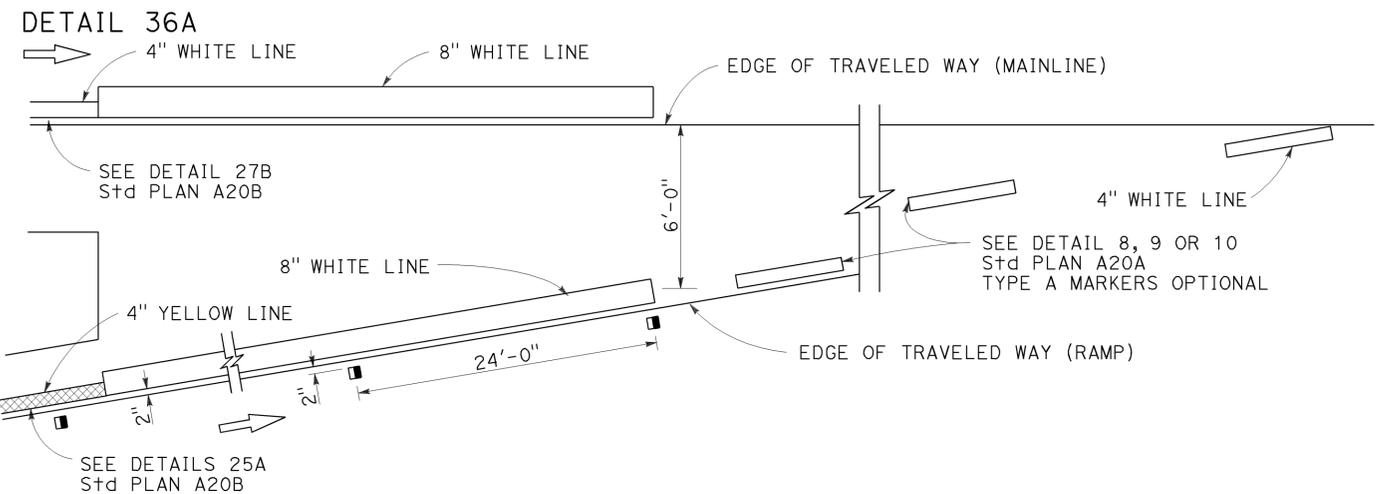
July 19, 2013
 PLANS APPROVAL DATE

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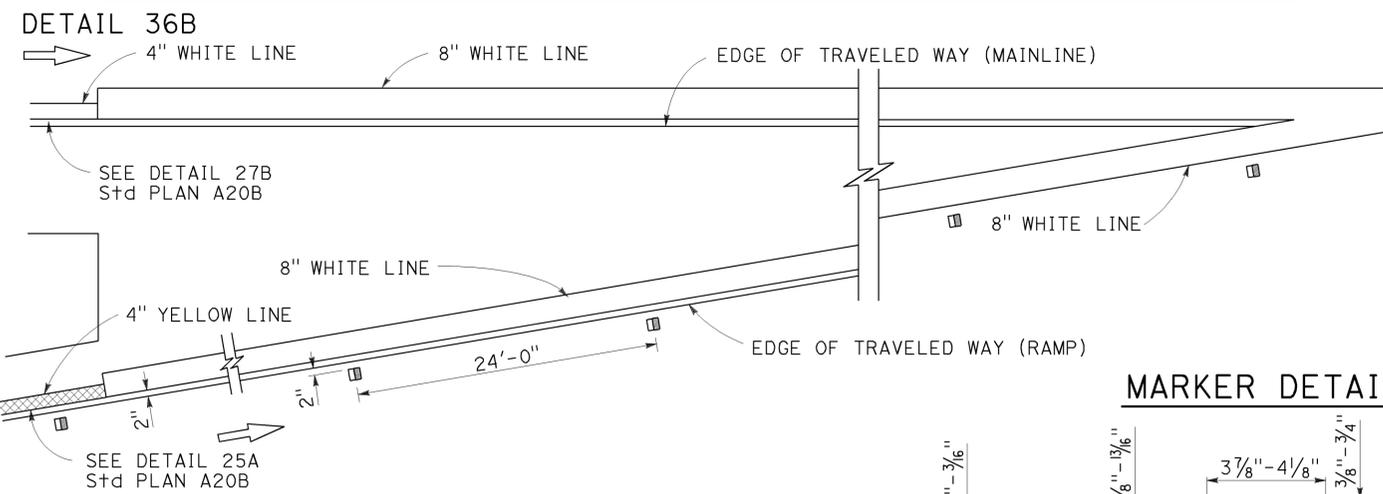
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT

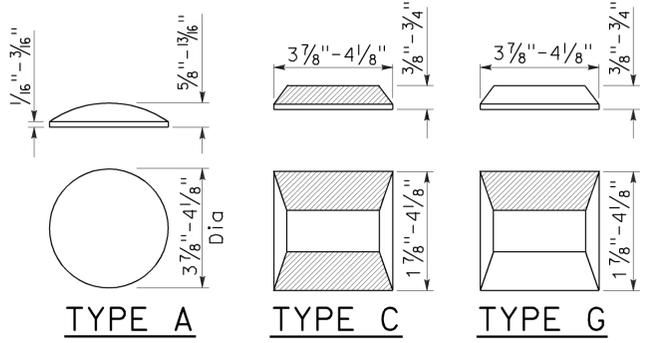


ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

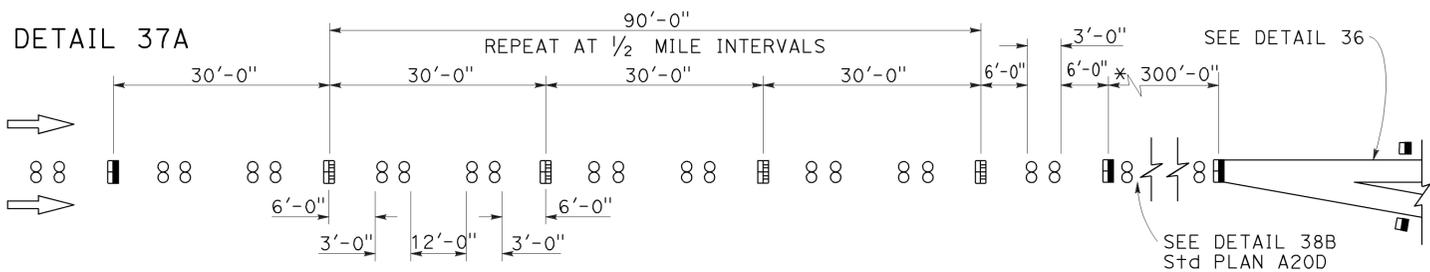
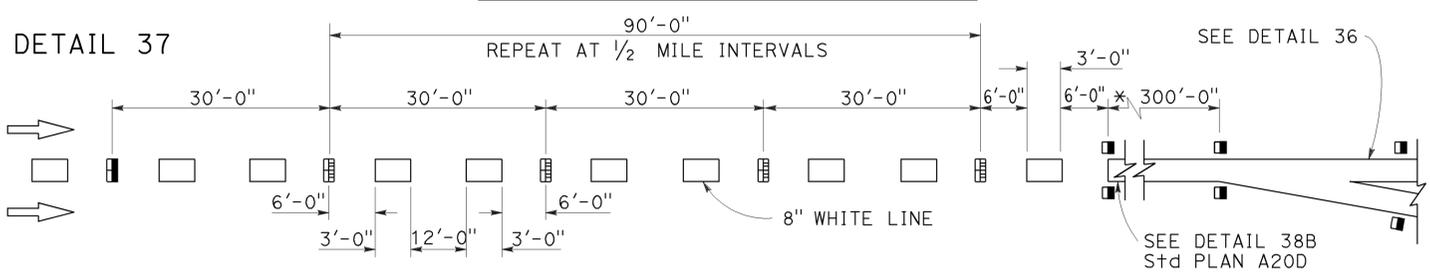


MARKER DETAILS

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

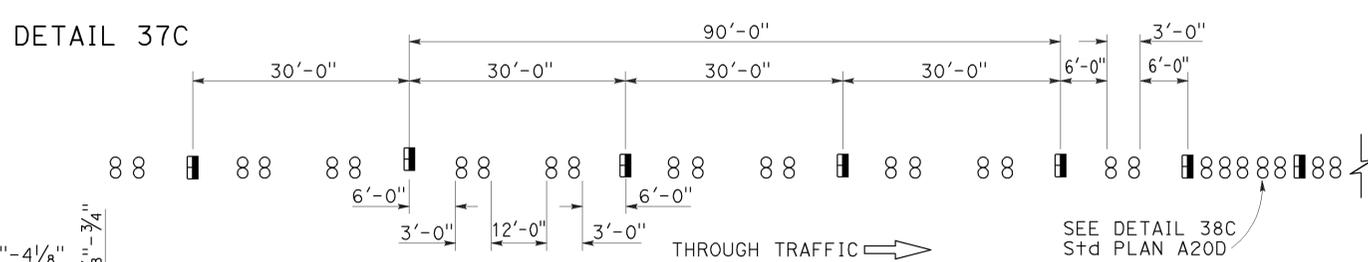
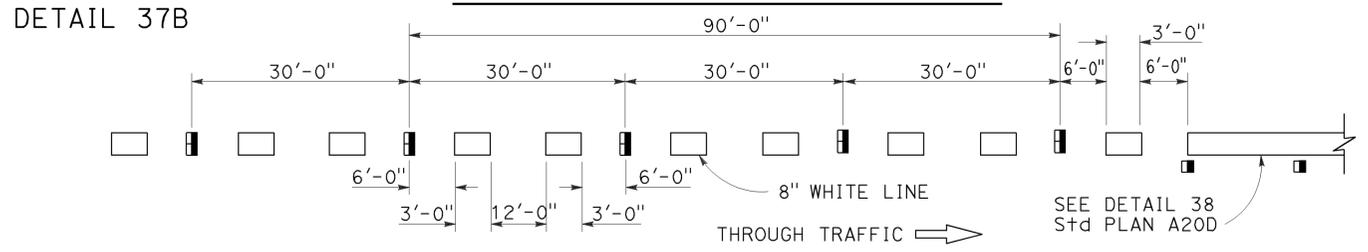


LANE DROP AT EXIT RAMP



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

LANE DROP AT INTERSECTIONS



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

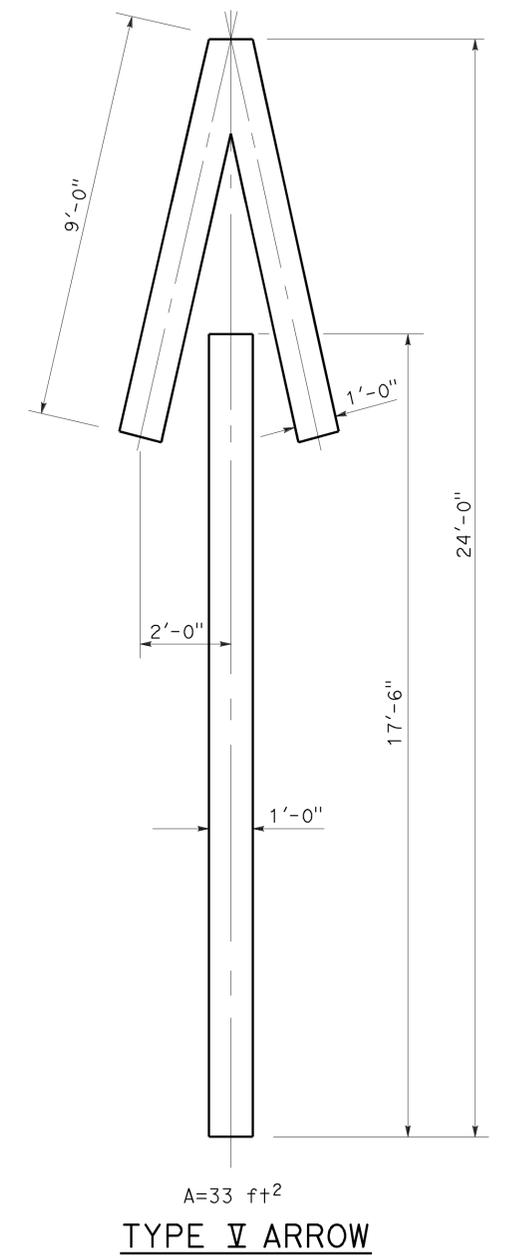
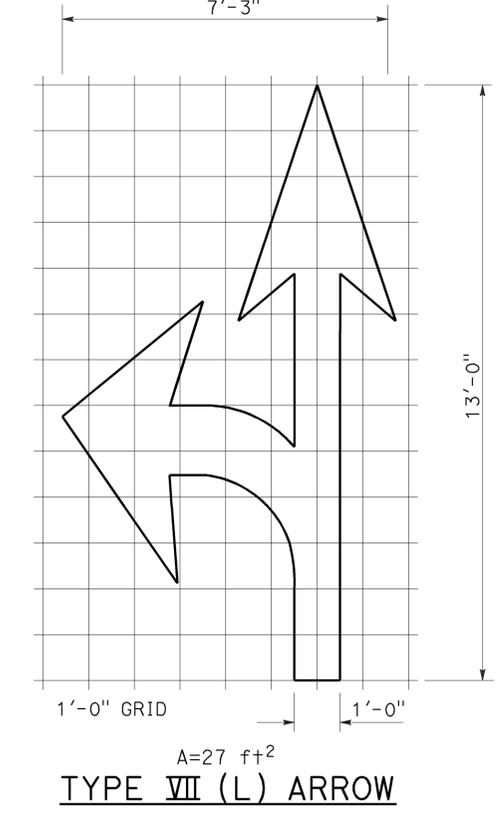
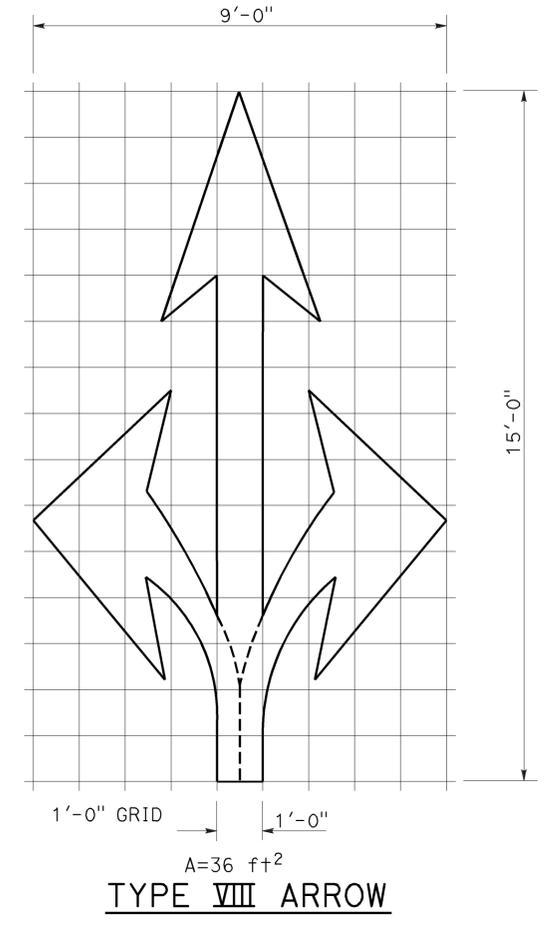
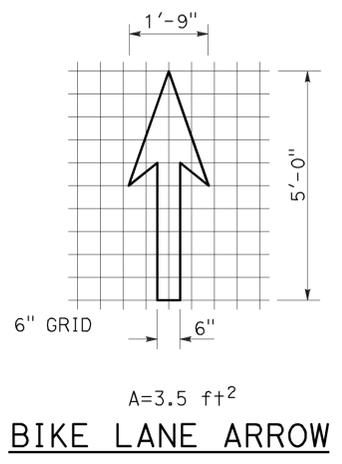
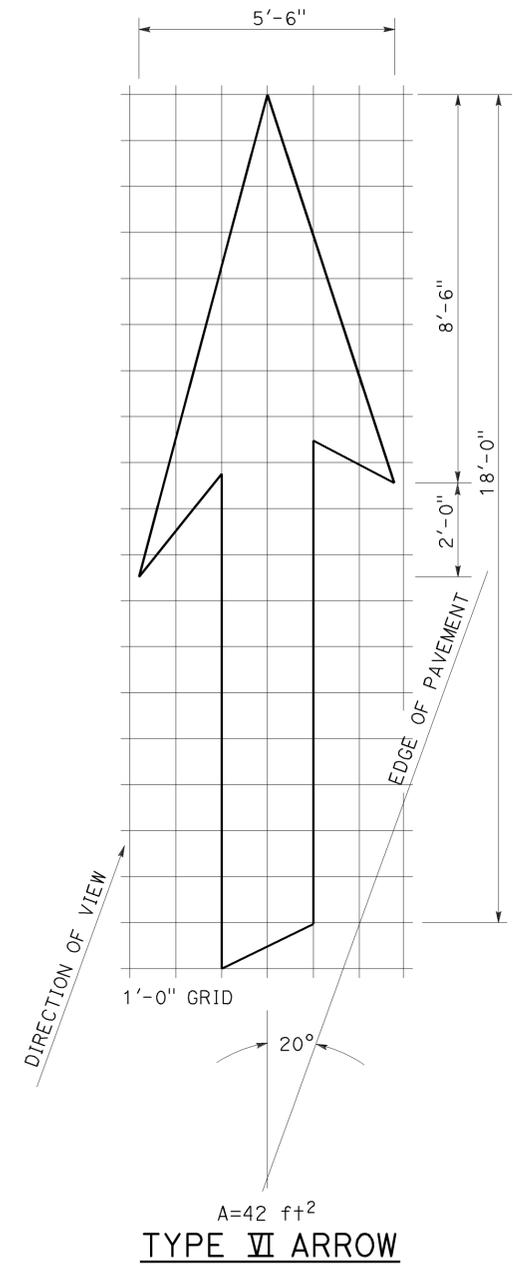
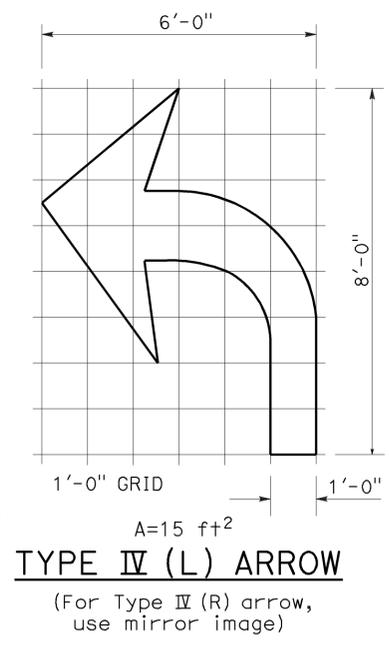
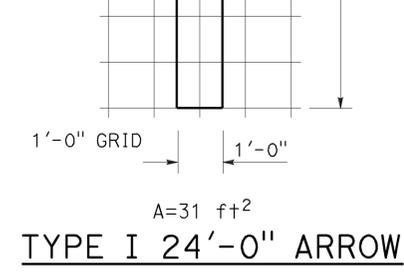
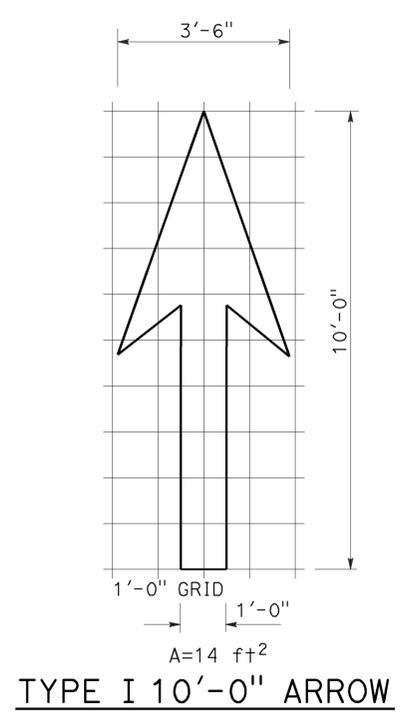
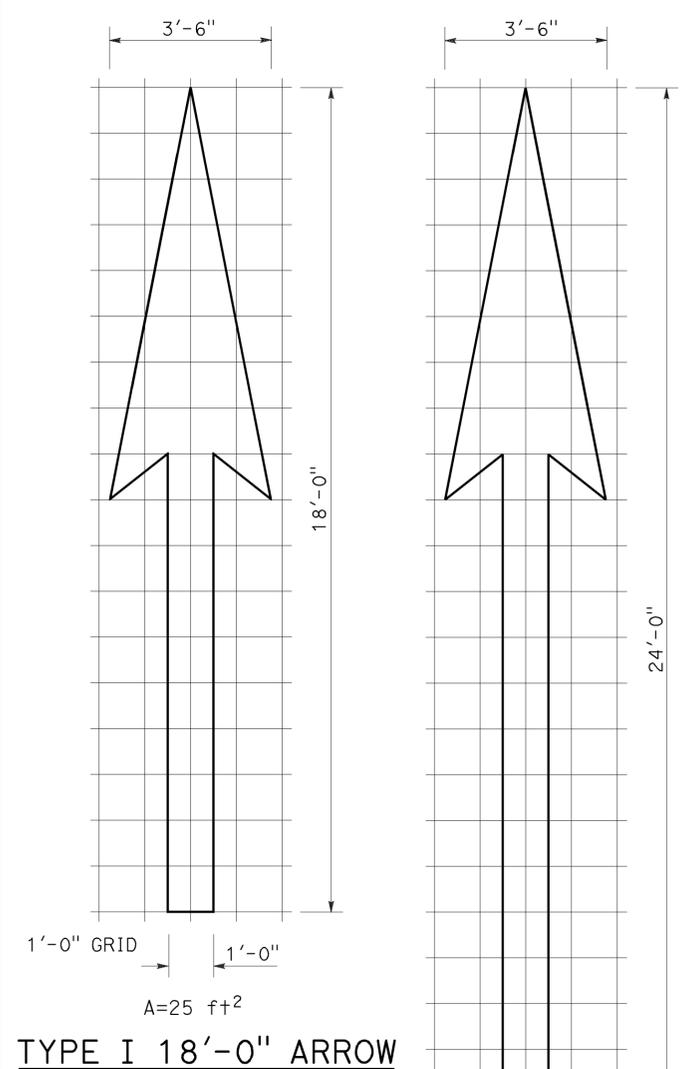
NO SCALE

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

REVISED STANDARD PLAN RSP A20C

2010 REVISED STANDARD PLAN RSP A20C

TO ACCOMPANY PLANS DATED 12-22-14

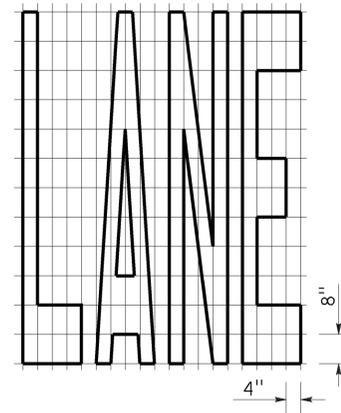


NOTE:
Minor variations in dimensions may be accepted by the Engineer.

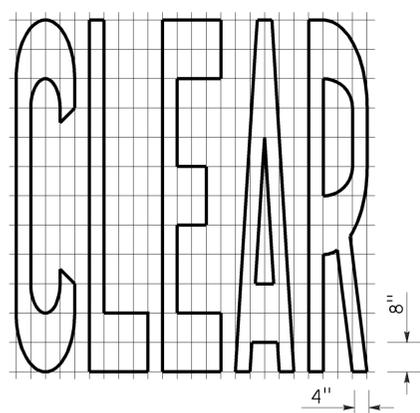
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
ARROWS**
NO SCALE

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

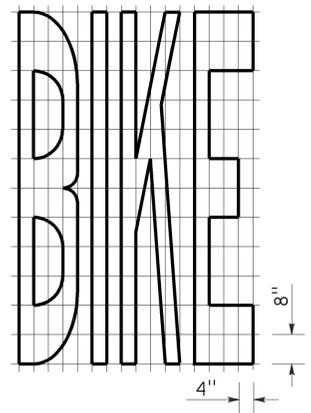
TO ACCOMPANY PLANS DATED 12-22-14



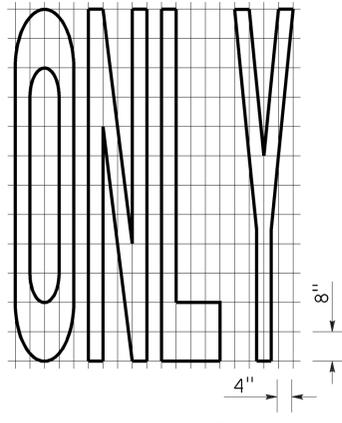
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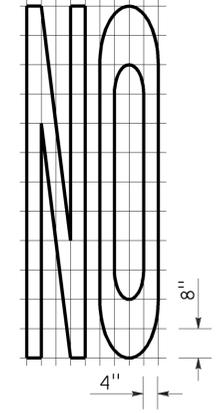
A=27 ft²



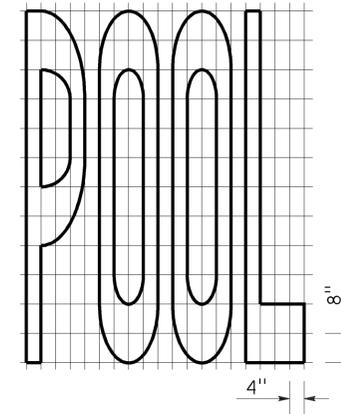
A=21 ft²



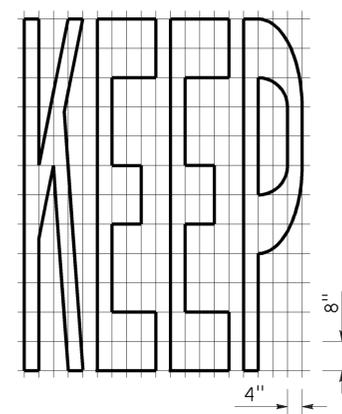
A=22 ft²



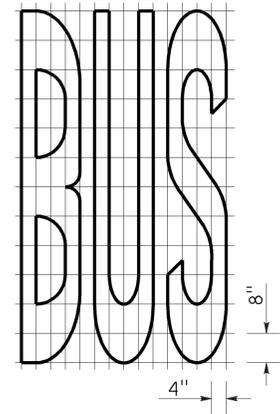
A=14 ft²



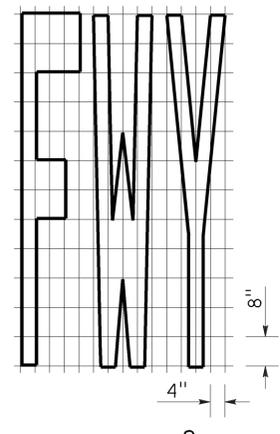
A=23 ft²



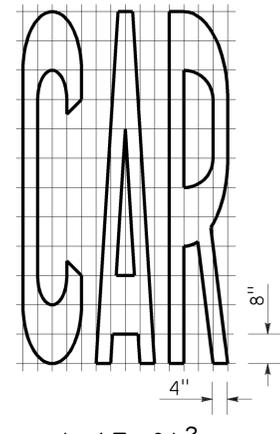
A=24 ft²



A=20 ft²

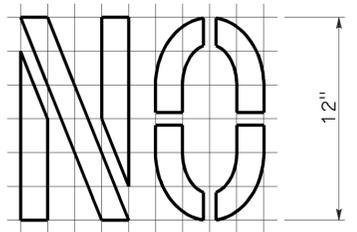


A=16 ft²



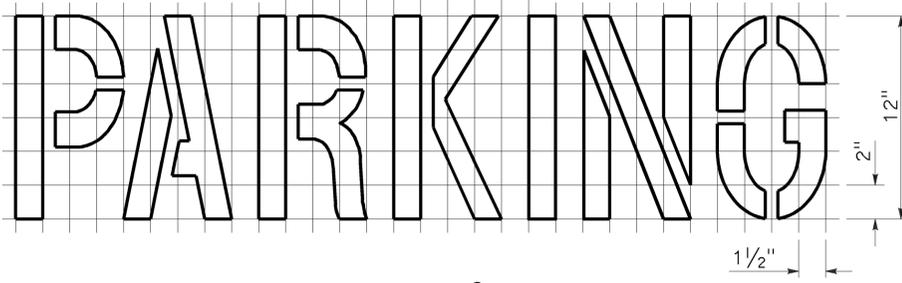
A=17 ft²

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



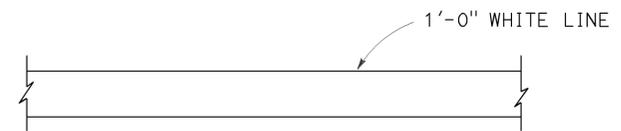
A=2 ft²

See Notes 6 and 7



A=2 ft²

See Notes 6 and 7



LIMIT LINE (STOP LINE)



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**

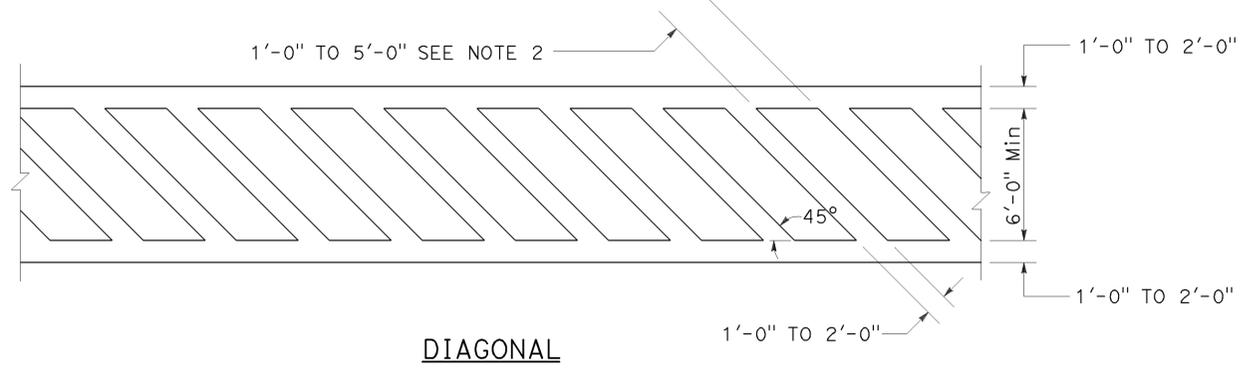
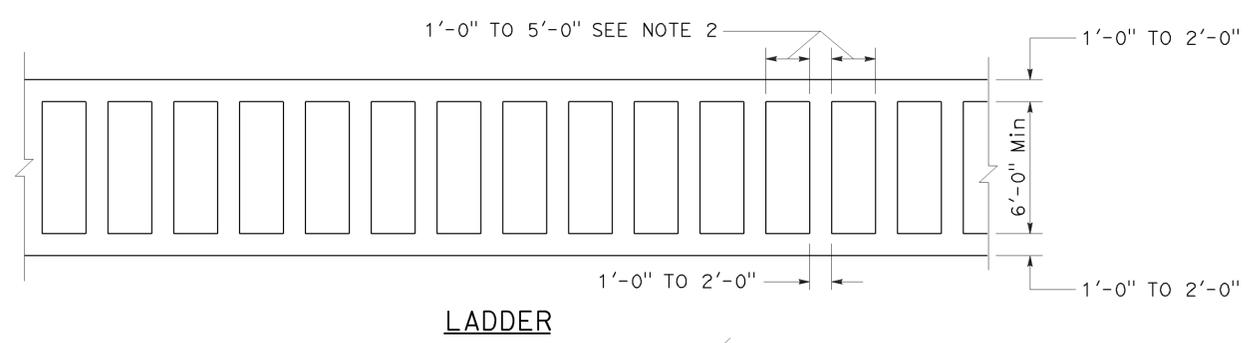
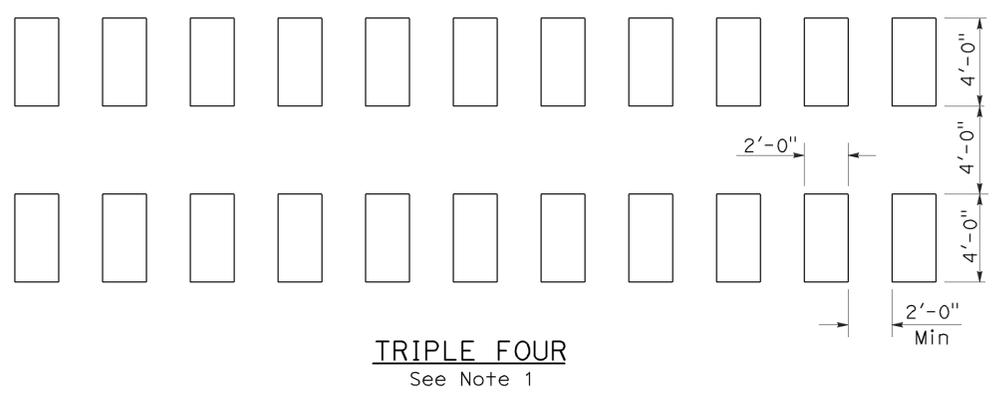
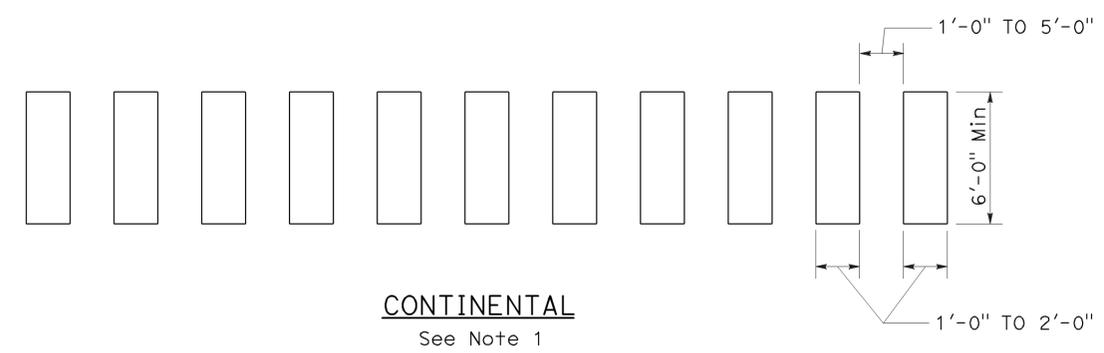
NO SCALE

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	29.6/70.1	32	44

Roberta L. McLaughlin
 REGISTERED CIVIL ENGINEER
 July 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.

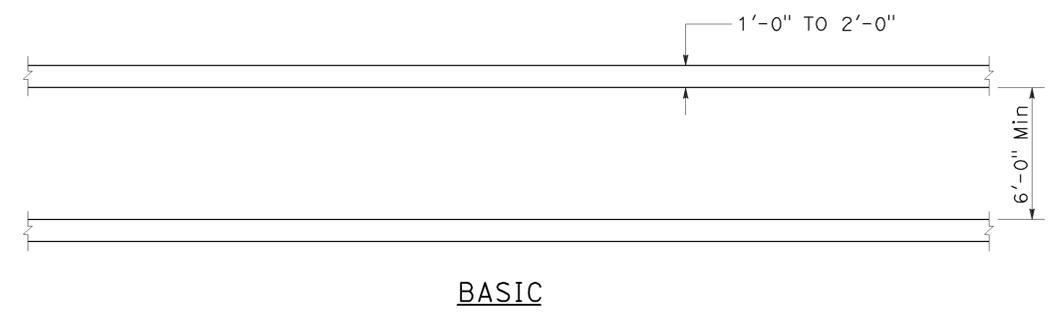
TO ACCOMPANY PLANS DATED 12-22-14



HIGHER VISIBILITY CROSSWALKS

NOTES:

1. Spaces between markings should be placed in wheel tracks of each lane.
2. Spacings not to exceed 2.5 times width of longitudinal line.
3. All crosswalk markings must be white except for those near schools must be yellow.



BASIC

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
CROSSWALKS**

NO SCALE
RSP A24F DATED JULY 20, 2012 SUPPLEMENTS THE
STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP A24F

LEGEND:

AB	ABANDON. IF APPLIED TO CONDUIT, REMOVE CONDUCTORS
BC	INSTALL PULL BOX IN EXISTING CONDUIT RUN
BP	PEDESTRIAN BARRICADE, TYPE AS INDICATED ON PLAN
CB	INSTALL CONDUIT INTO EXISTING PULL BOX
CC	CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED
CF	CONDUIT TO REMAIN FOR FUTURE USE. REMOVE CONDUCTORS. INSTALL PULL TAPE
DH	DETECTOR HANDHOLE
FA	FOUNDATION TO BE ABANDONED
IS	INSTALL SIGN ON SIGNAL MAST ARM
NS	NO SLIP BASE ON STANDARD
PEC	PHOTOELECTRIC CONTROL
PEU	PHOTOELECTRIC UNIT
RC	EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR
RE	REMOVE ELECTROLIER, FUSES AND BALLAST. TAPE ENDS OF CONDUCTORS
RL	RELOCATE EQUIPMENT
RR	REMOVE AND REUSE EQUIPMENT
RS	REMOVE AND SALVAGE EQUIPMENT
SC	SPLICE NEW TO EXISTING CONDUCTORS
SD	SERVICE DISCONNECT
TSP	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
Ctid	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
08	SBd	15	29.6/70.1	33	44

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 12-22-14

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
Ω	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
μ	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

TO ACCOMPANY PLANS DATED 12-22-14

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

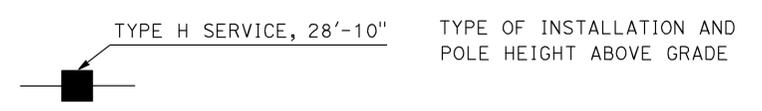
NEW	EXISTING	
---OH---	---oh---	OVERHEAD LINES
		WOOD POLE, "U" INDICATES UTILITY OWNED
		POLE GUY WITH ANCHOR
		UTILITY TRANSFORMER - GROUND MOUNTED
		SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE
		TELEPHONE DEMARCATION CABINET

		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.

REVISED STANDARD PLAN RSP ES-1B

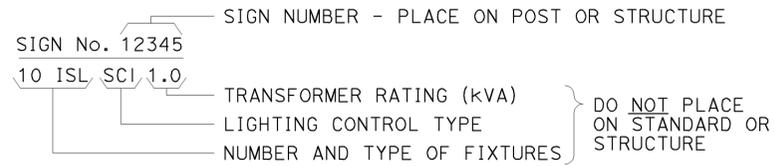
2010 REVISED STANDARD PLAN RSP ES-1B



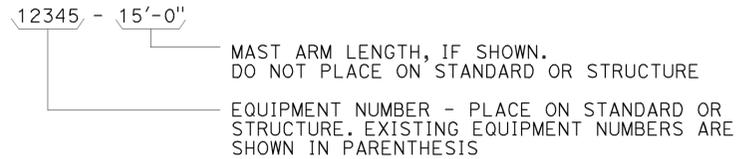
TO ACCOMPANY PLANS DATED 12-22-14

EQUIPMENT IDENTIFICATION

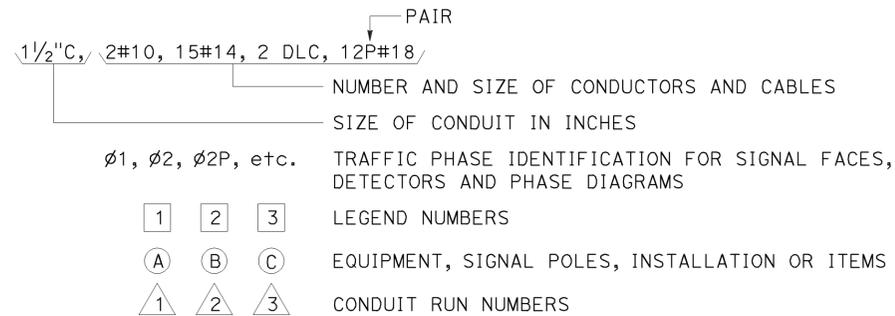
ILLUMINATED SIGN IDENTIFICATION NUMBER:



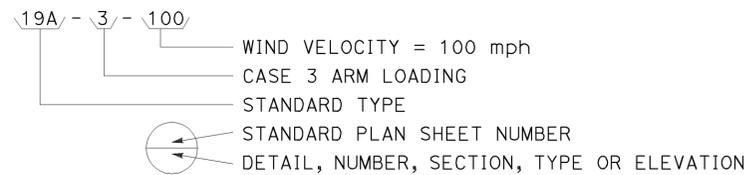
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



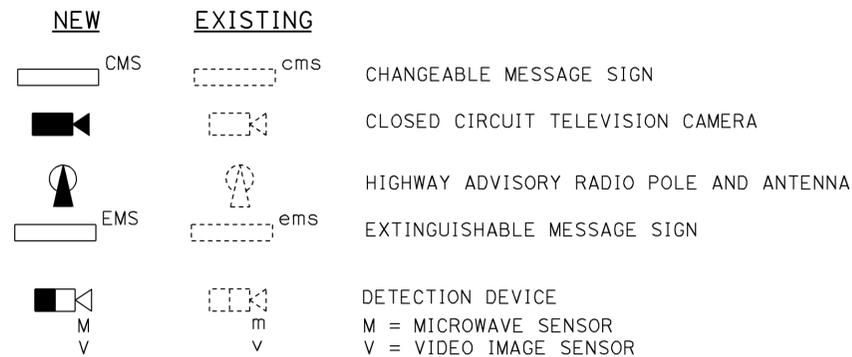
CONDUIT AND CONDUCTOR IDENTIFICATION:



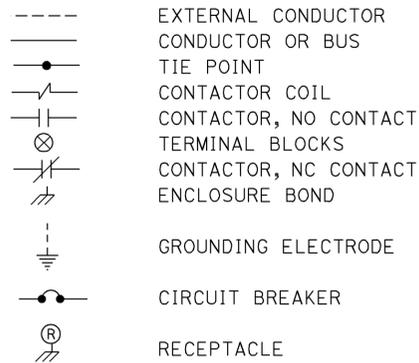
SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



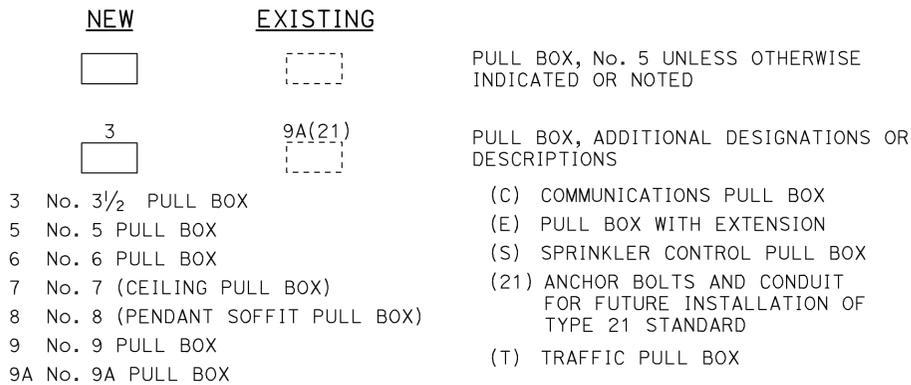
MISCELLANEOUS EQUIPMENT



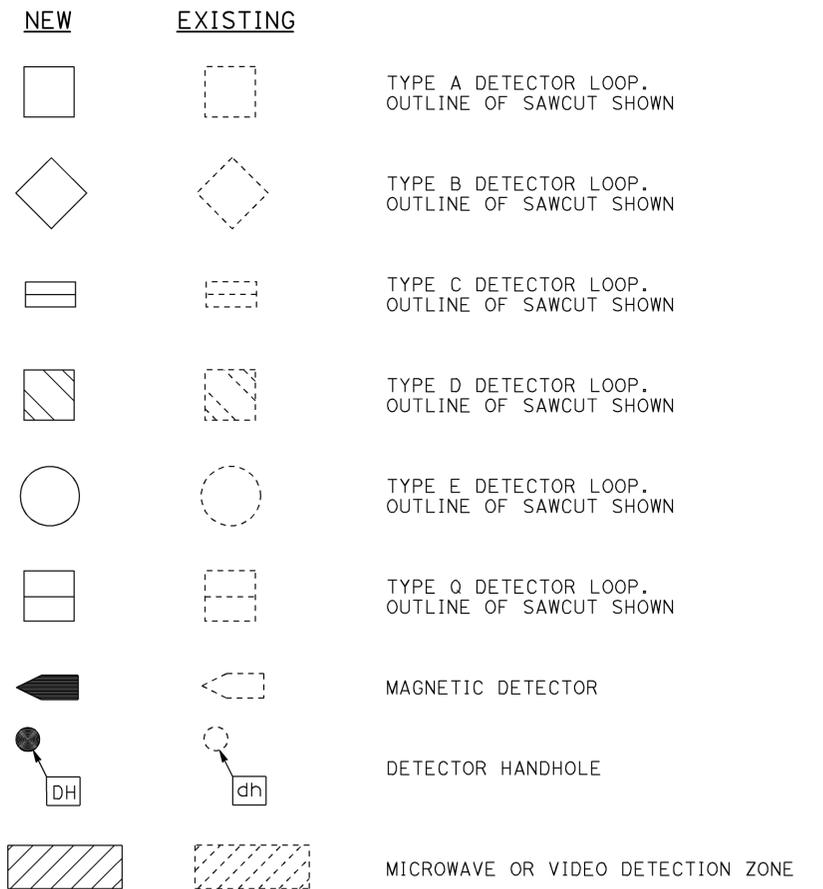
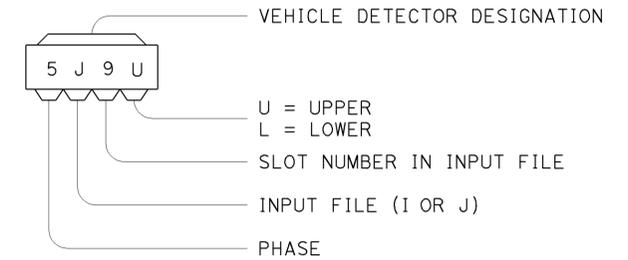
WIRING DIAGRAM LEGEND



PULL BOXES



VEHICLE DETECTORS



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

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.

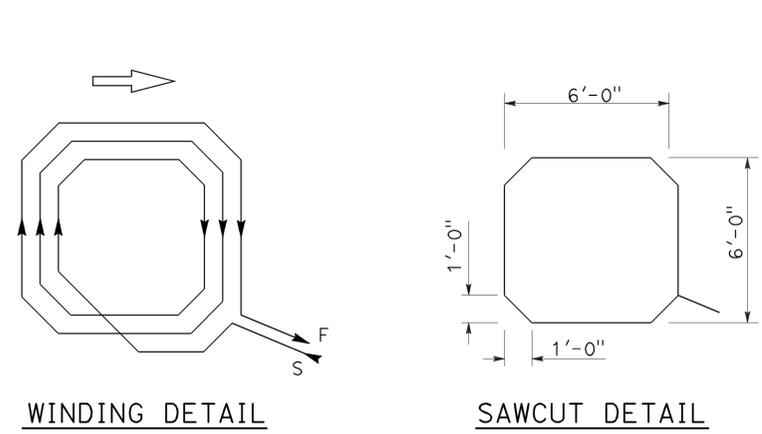
2010 REVISED STANDARD PLAN RSP ES-1C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SbD	15	29.6/70.1	36	44

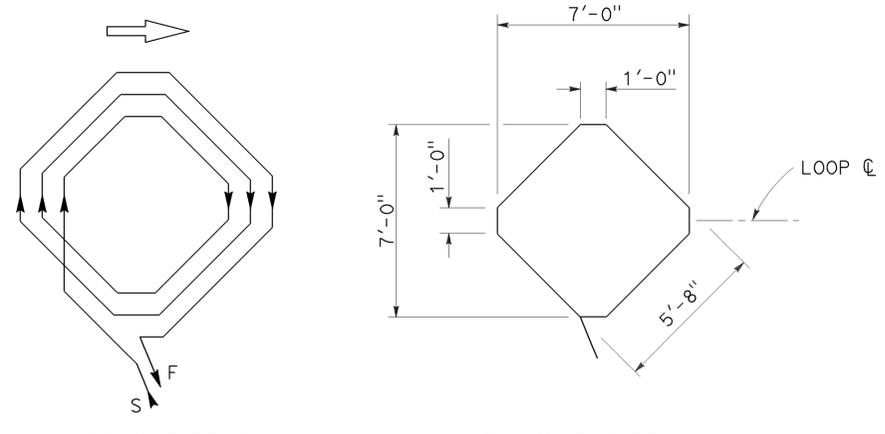
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

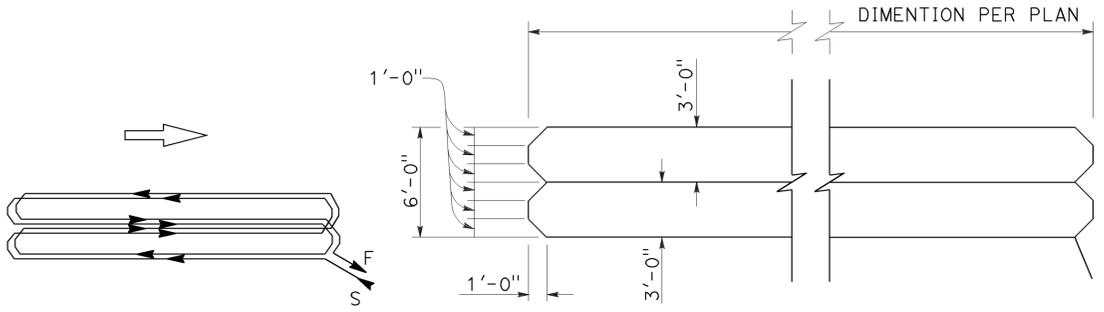
TO ACCOMPANY PLANS DATED 12-22-14



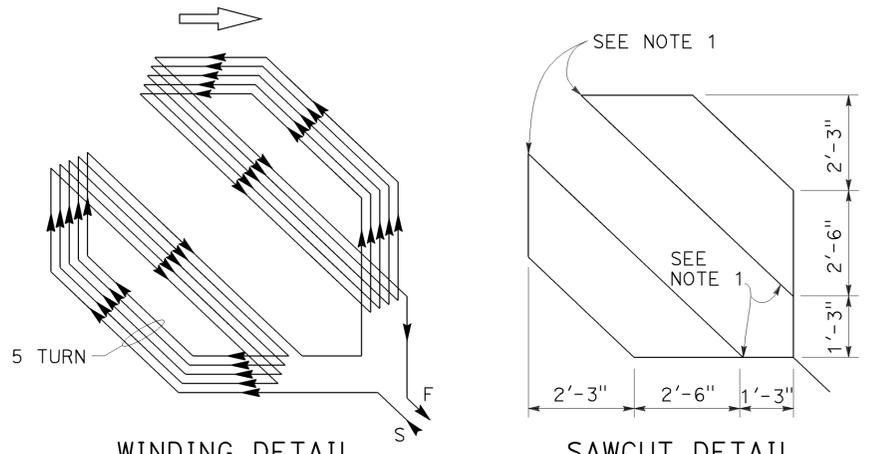
WINDING DETAIL
SAWCUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



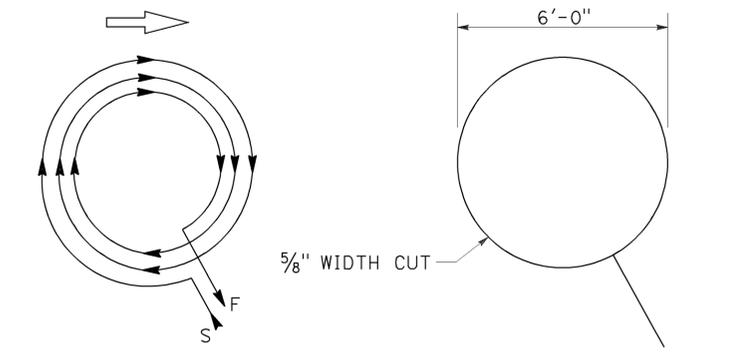
WINDING DETAIL
SAWCUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



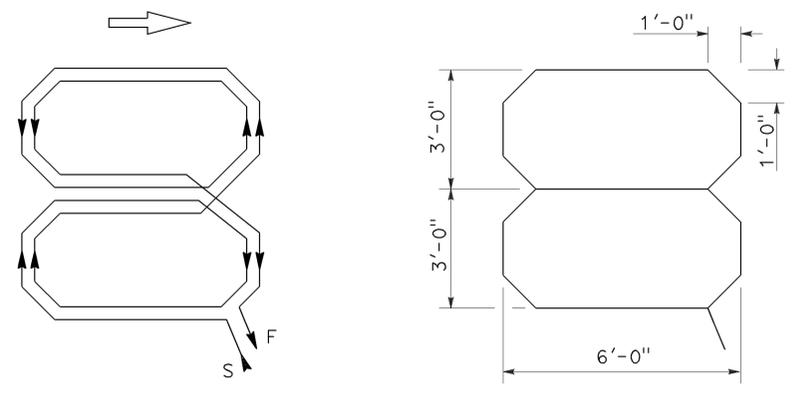
WINDING DETAIL
SAWCUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



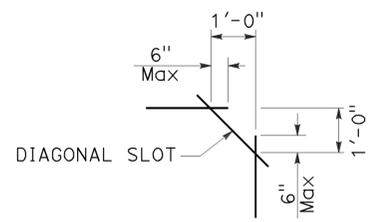
WINDING DETAIL
SAWCUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



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.

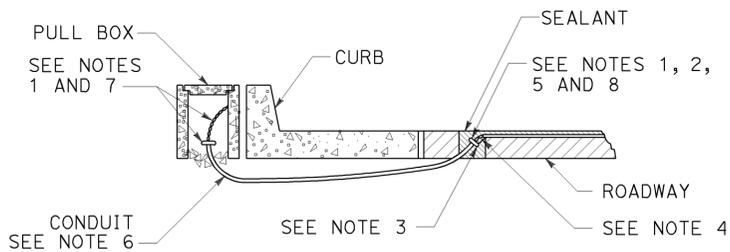
2010 REVISED STANDARD PLAN RSP ES-5B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBD	15	29.6/70.1	37	44

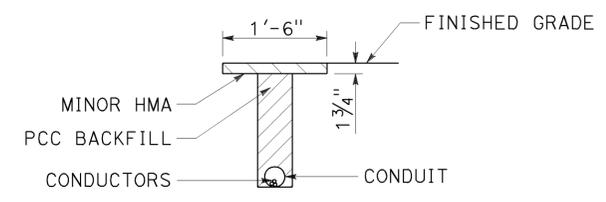
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

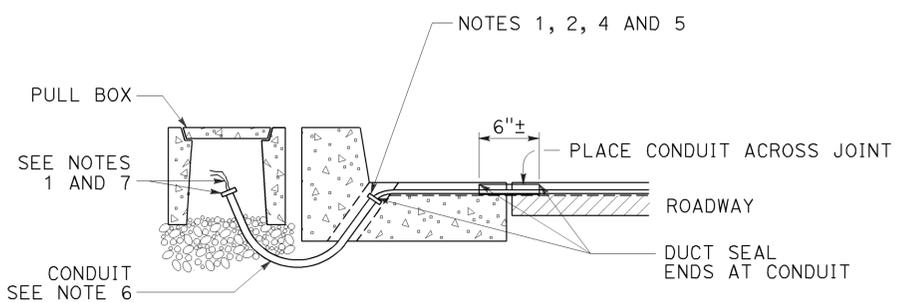
TO ACCOMPANY PLANS DATED 12-22-14



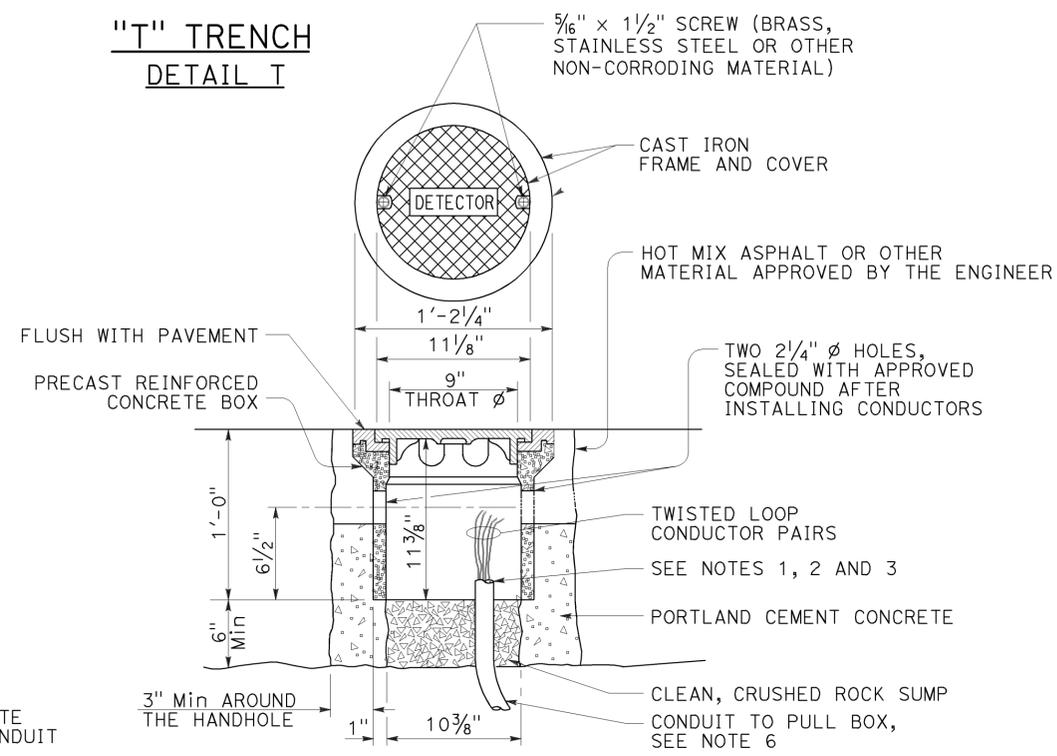
TYPE A
CURB TERMINATION DETAIL



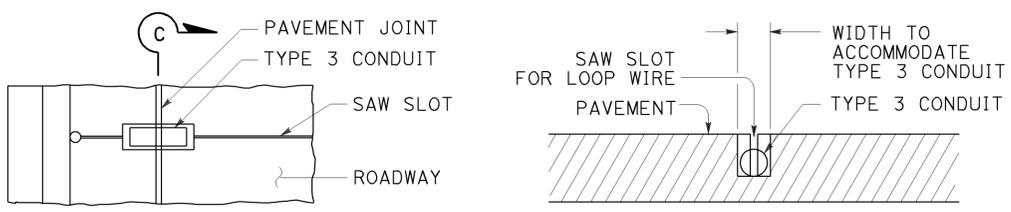
"T" TRENCH
DETAIL T



CROSS SECTION



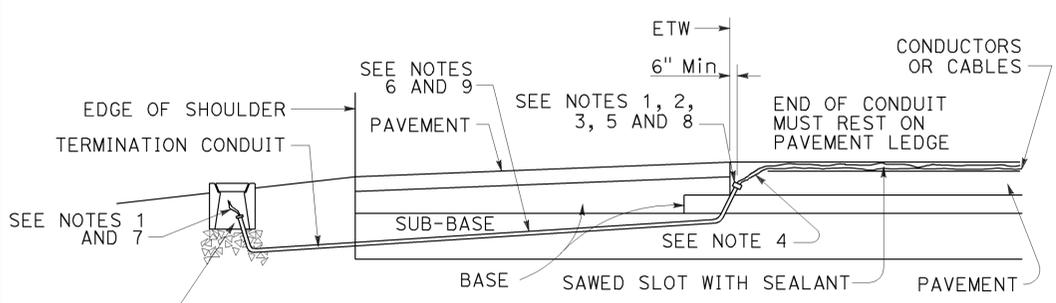
DETECTOR HANDHOLE DETAIL



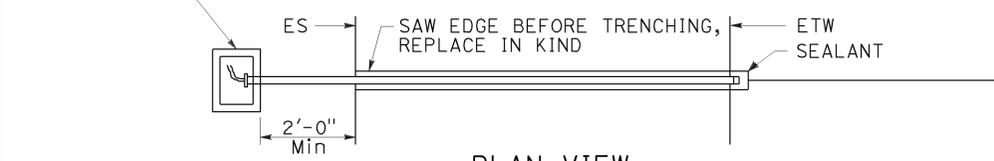
PLAN VIEW

SECTION C-C

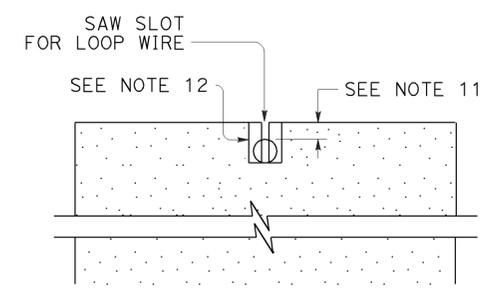
TYPE B
CURB TERMINATION DETAIL



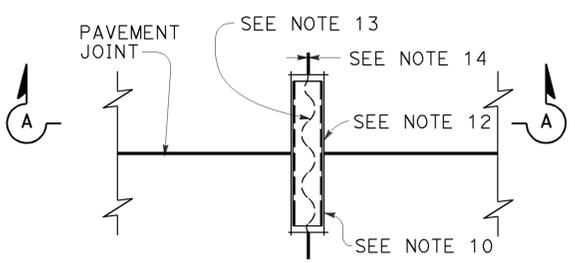
CROSS SECTION



PLAN VIEW
SHOULDER TERMINATION DETAILS

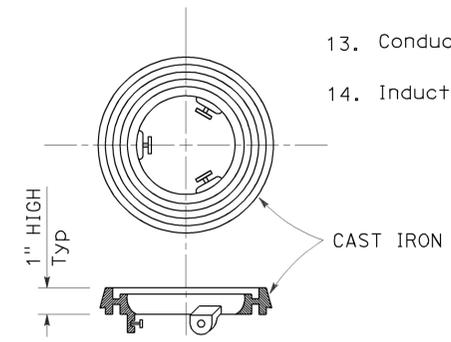


SECTION A-A



PLAN VIEW

TYPICAL LOOP LEAD-IN DETAIL
AT PAVEMENT JOINT



LOCKING GRADE RING

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

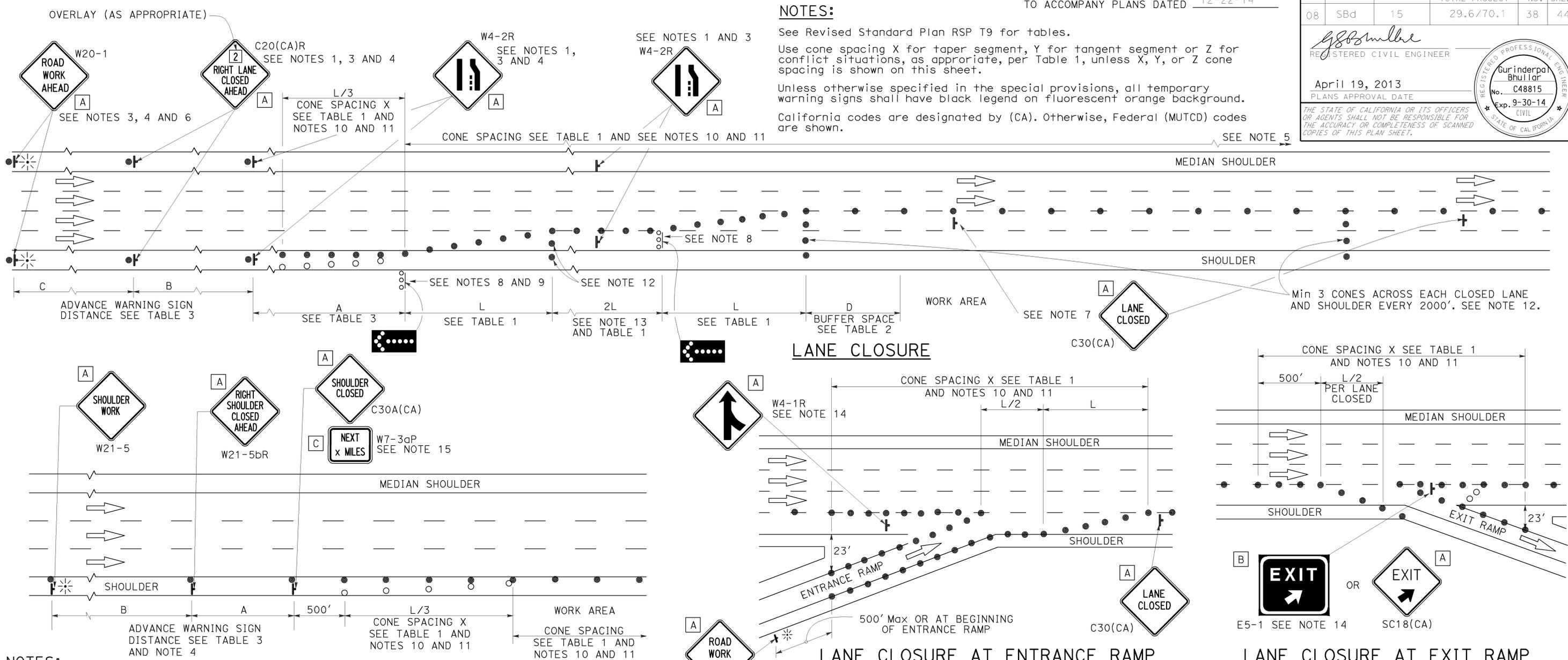
2010 REVISED STANDARD PLAN RSP ES-5D

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SbD	15	29.6/70.1	38	44

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.

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

2010 REVISED STANDARD PLAN RSP T10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBD	15	29.6/70.1	39	44

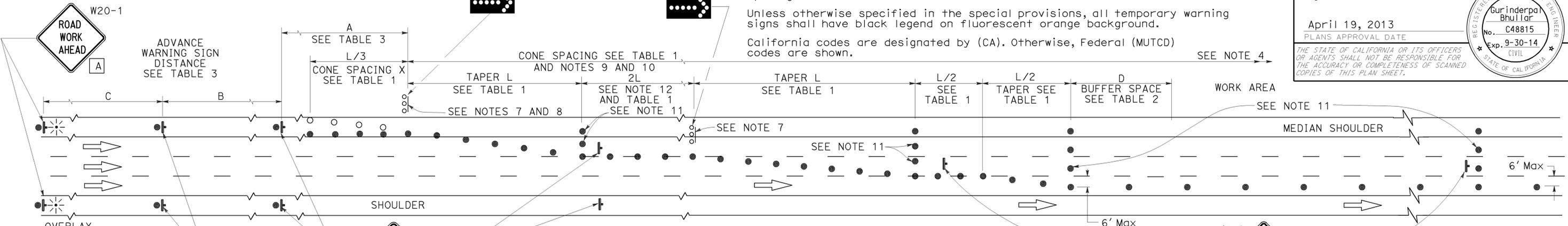
REGISTERED CIVIL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

April 19, 2013
 PLANS APPROVAL DATE

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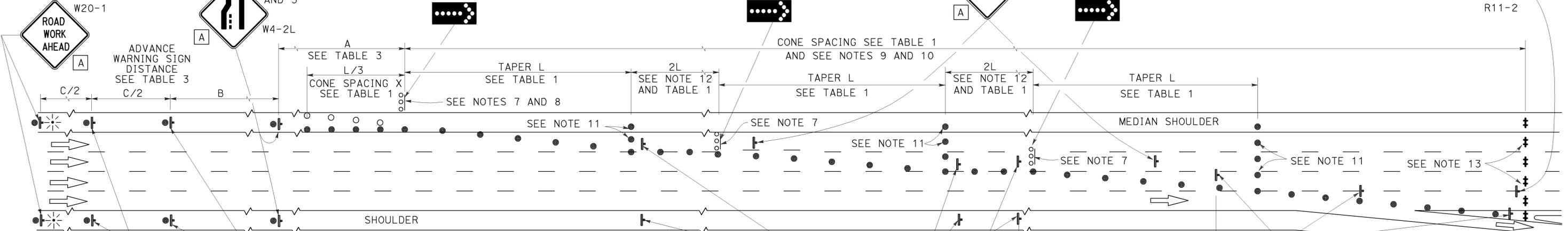
NOTES: See Revised Standard Plan RSP T9 for tables.
 Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.
 Unless otherwise specified in the special provisions, all temporary warning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

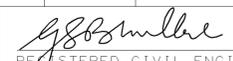
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURES ON
 FREEWAYS AND EXPRESSWAYS**
 NO SCALE

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

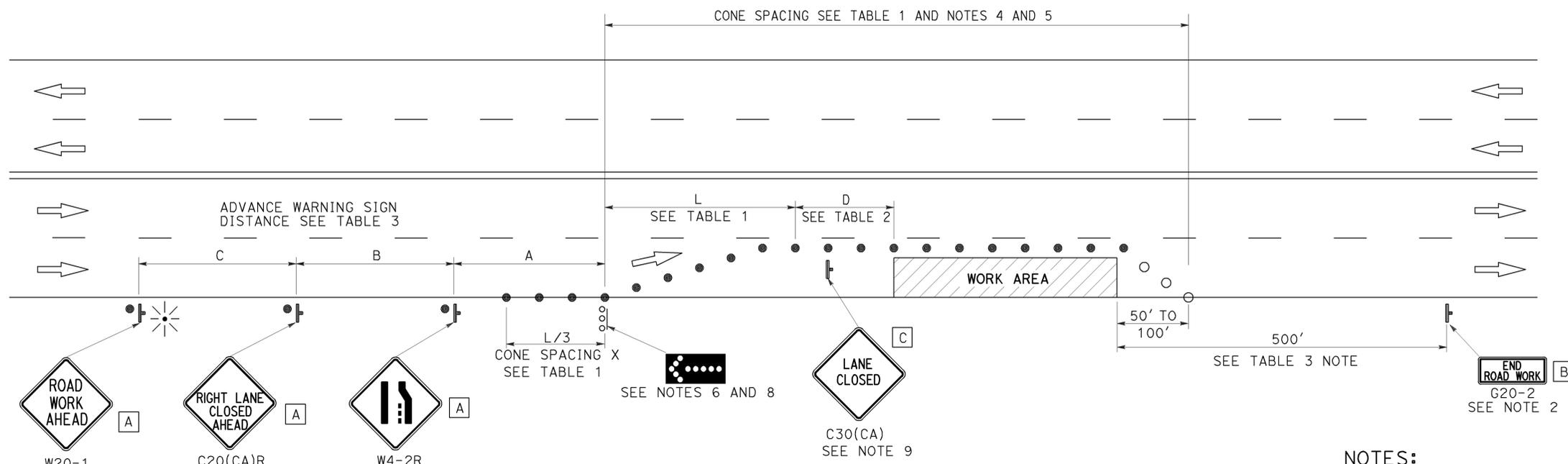
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	29.6/70.1	40	44


 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 12-22-14

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



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

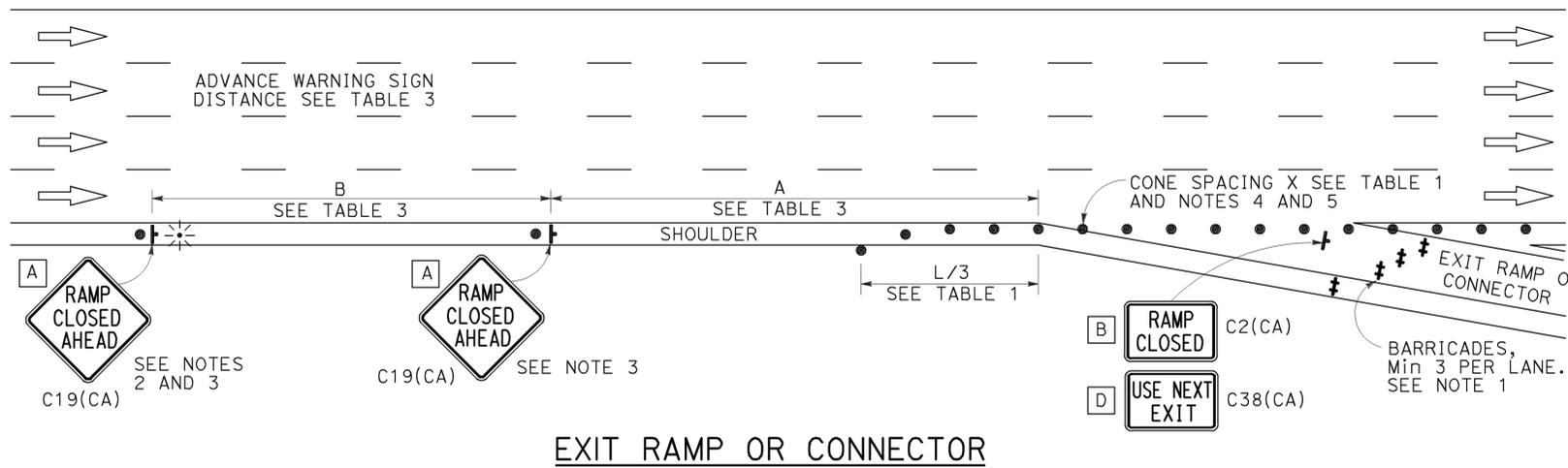
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SbD	15	29.6/70.1	41	44

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

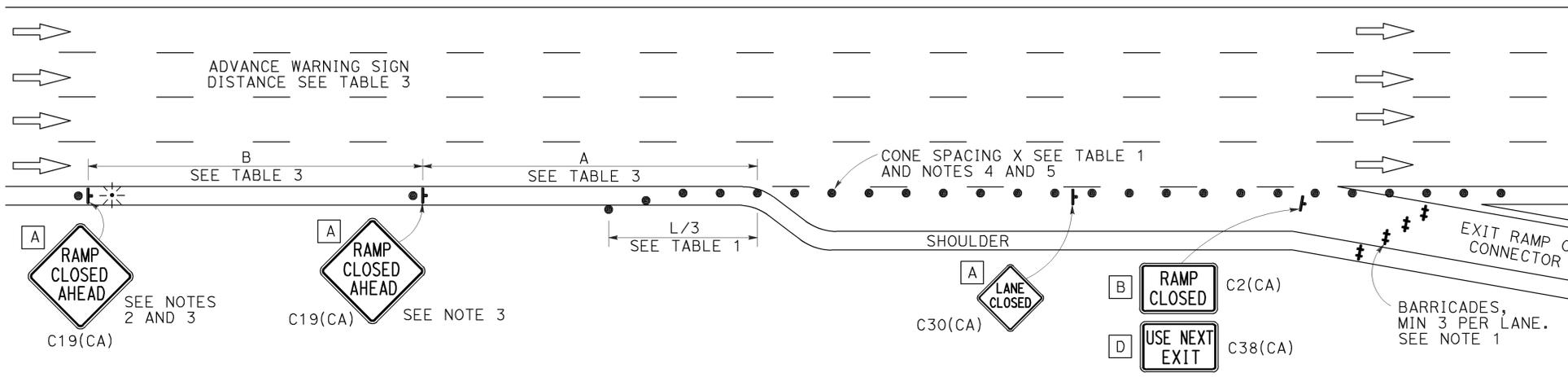
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TO ACCOMPANY PLANS DATED 12-22-14

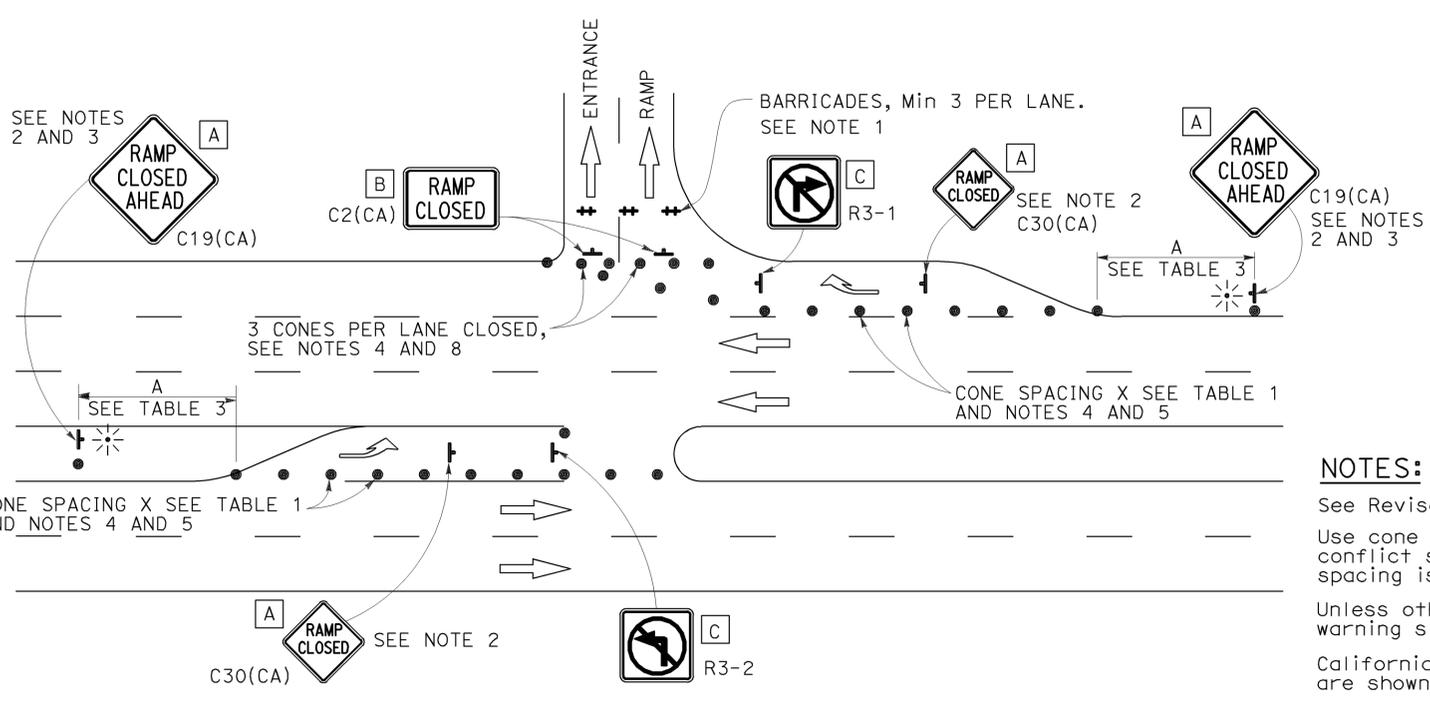
2010 REVISED STANDARD PLAN RSP T14



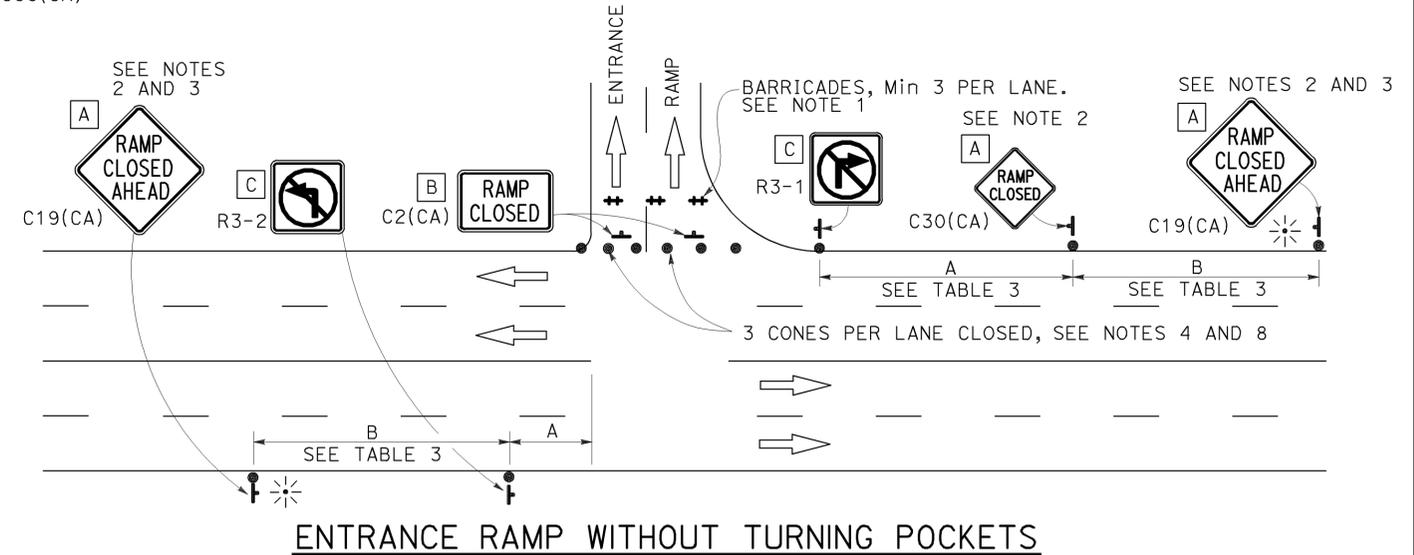
EXIT RAMP OR CONNECTOR



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.

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	29.6/70.1	42	44

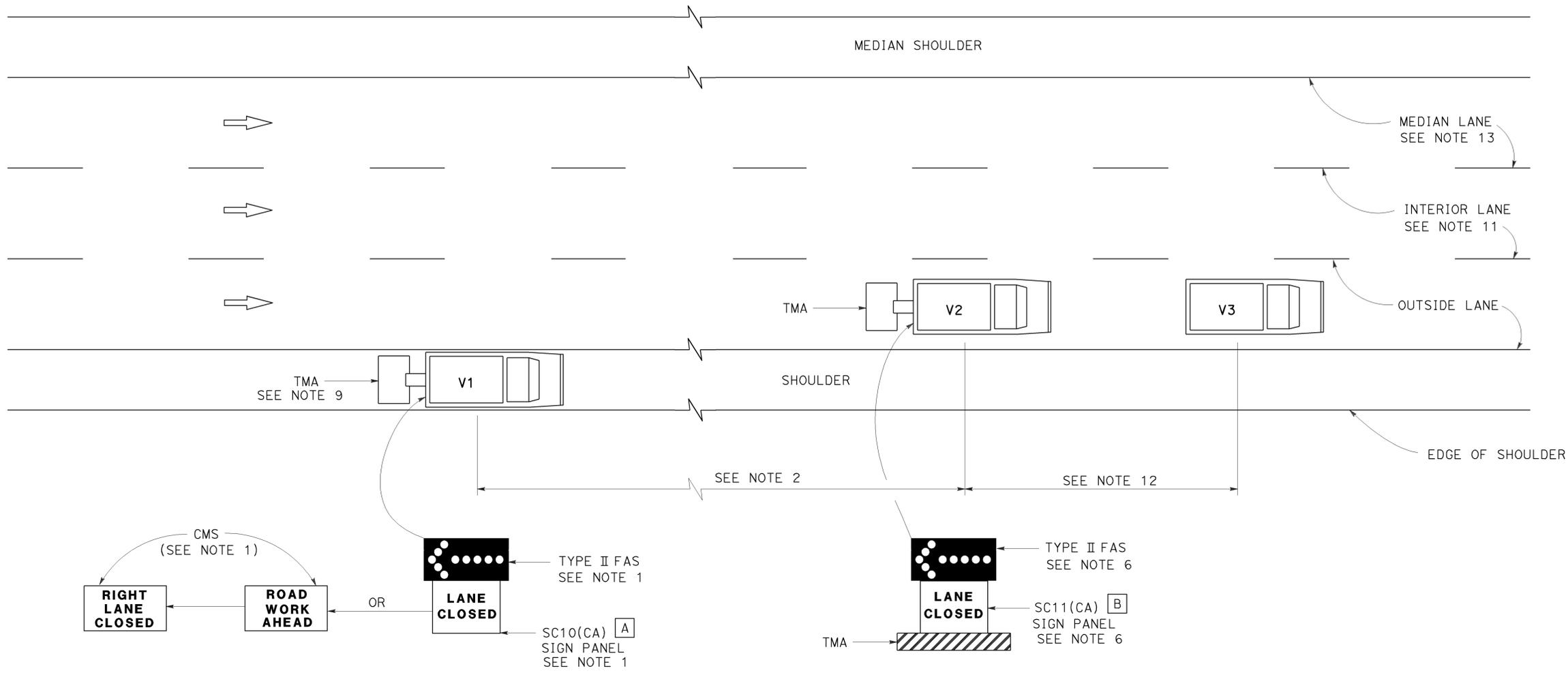
Gurinderpal Bhullar
REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

TO ACCOMPANY PLANS DATED 12-22-14



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

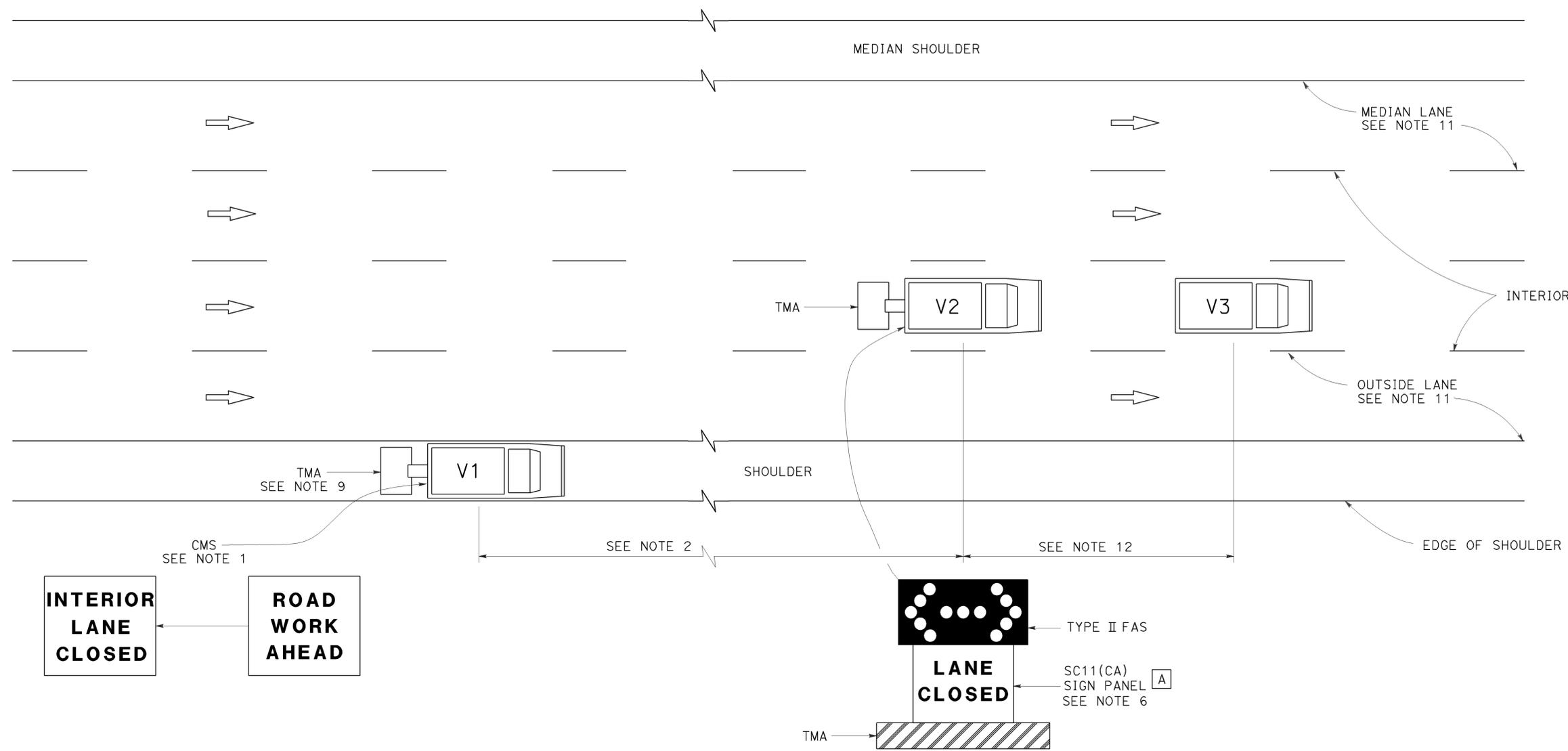
2010 REVISED STANDARD PLAN RSP T15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	29.6/70.1	43	44

Registered Civil Engineer
 April 19, 2013
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

TO ACCOMPANY PLANS DATED 12-22-14



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.

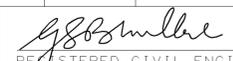
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR MOVING LANE CLOSURE
 ON MULTILANE HIGHWAYS**
 NO SCALE

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

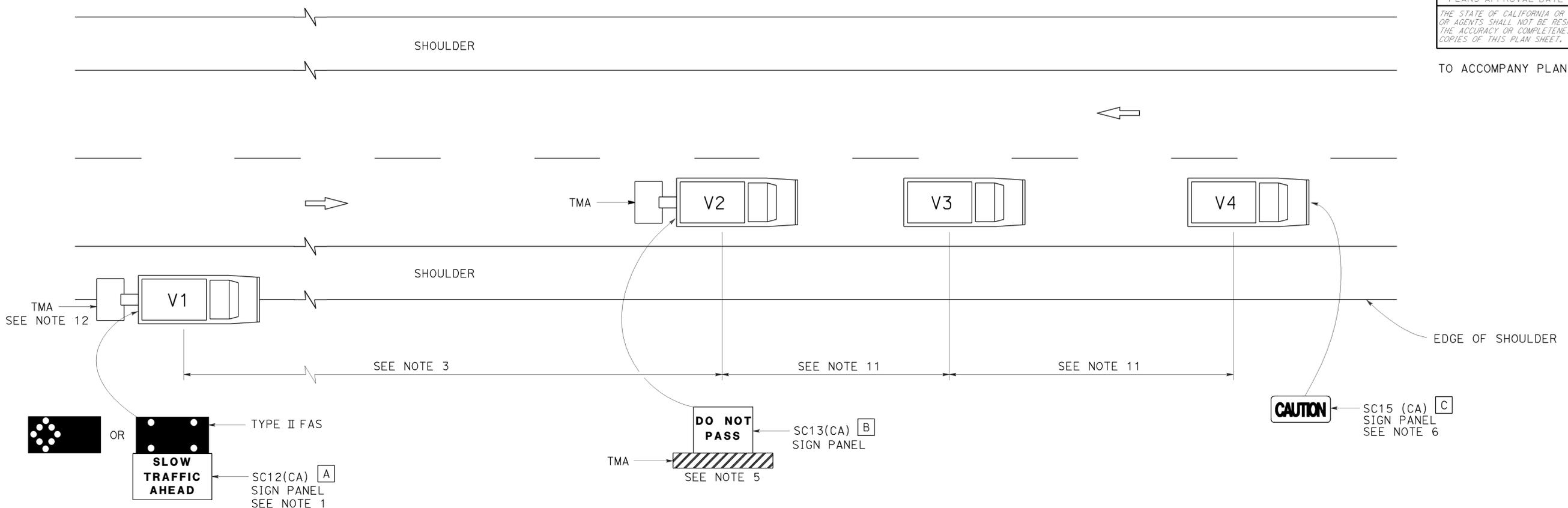
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	15	29.6/70.1	44	44


 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 12-22-14



NOTES:

1. Either a changeable message sign or a SC12(CA) "SLOW TRAFFIC AHEAD" sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "CAUTION" message first, follow by the "SLOW TRAFFIC AHEAD" message. A Type II flashing arrow sign may be used with the SC12(CA) sign panel.
2. Sign vehicle V1 should be positioned where highly visible when shoulders are not available.
3. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue.
4. 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.
5. Shadow vehicle shall be equipped with a truck-mounted attenuator. The sign panel shown shall be mounted on the rear of shadow vehicle V2. The message "LANE CLOSED" may be used in place of the "DO NOT PASS" message.
6. The sign panel shown shall be mounted on the front of sign vehicle V4, facing opposing traffic.

7. All vehicles shall be equipped with flashing or rotating amber lights.
8. Sign vehicle V4 will not be required when the work and vehicles V2 and V3 are 2' or more from the centerline of the highway during the work or application operations.
9. 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.
10. This plan shall not be used where workers would be on foot in the work area. Use a stationary type lane closure (Revised Standard Plan T13) for this condition.
11. Minimize spacing between vehicles V2 and V3 and vehicles V3 and V4 to deter road users from driving in between them.
12. 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.

LEGEND

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- V4 SIGN VEHICLE
- TMA TRUCK-MOUNTED ATTENUATOR
-  FLASHING ARROW SIGN (FAS) IN FLASHING CAUTION MODE
-  FLASHING ARROW SIGN (FAS) IN ALTERNATING DIAMOND CAUTION

SIGN PANEL SIZE (Min)

- A 72" x 42"
- B 54" x 42"
- C 54" x 24"

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

RSP T17 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T17 DATED MAY 20, 2011 - PAGE 245 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T17

2010 REVISED STANDARD PLAN RSP T17