

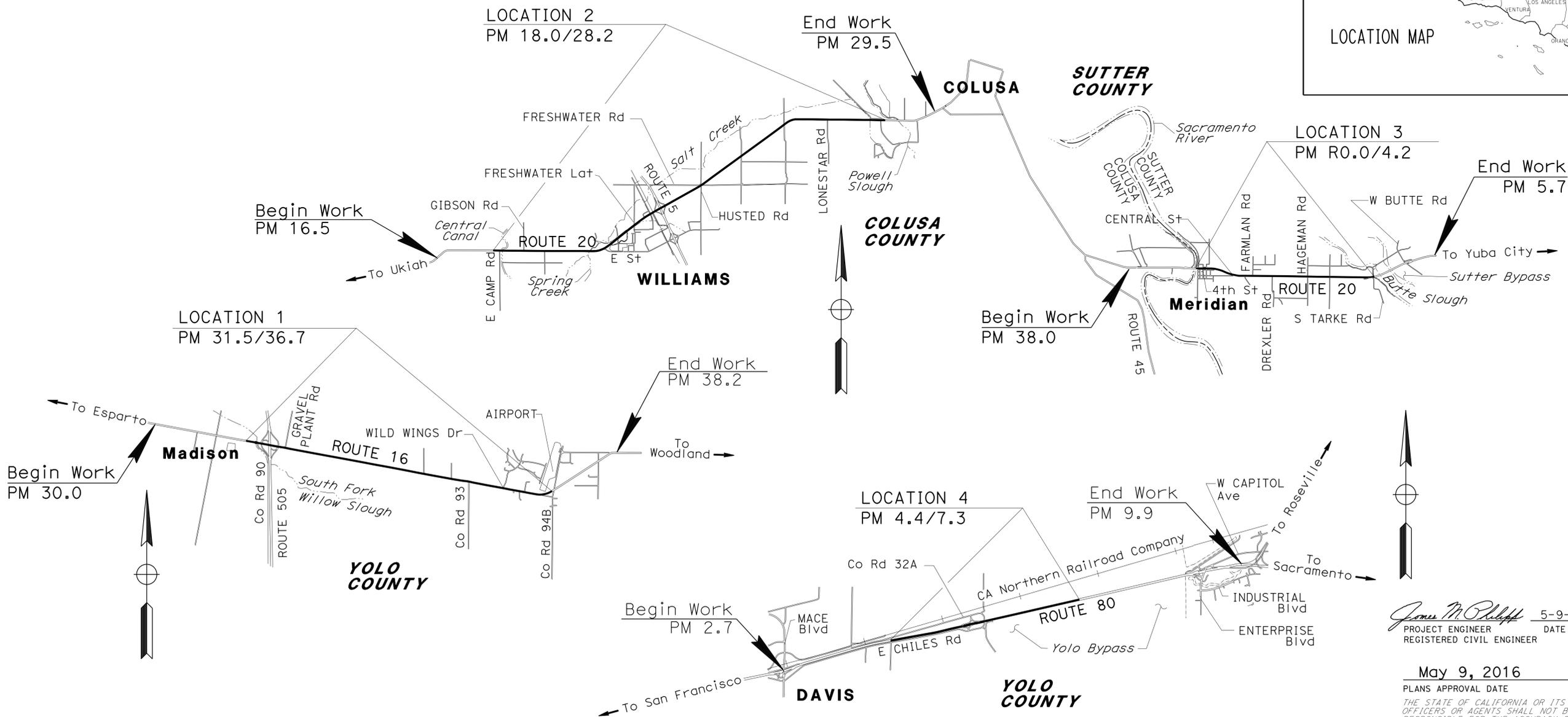
INDEX OF PLANS

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

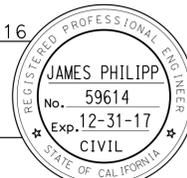
STATE OF CALIFORNIA ACHSST-000C(437)
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN COLUSA, SUTTER, AND YOLO COUNTIES
AT
VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



PROJECT MANAGER
NAJED DAKAK
 DESIGN MANAGER
MIKE HAGEN

PROJECT ENGINEER
 REGISTERED CIVIL ENGINEER
 DATE: 5-9-16



May 9, 2016
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

NO SCALE

CONTRACT No.	03-0H7304
PROJECT ID	0316000009

DATE PLOTTED => 05-MAY-2016
 TIME PLOTTED => 12:02
 00-00-00

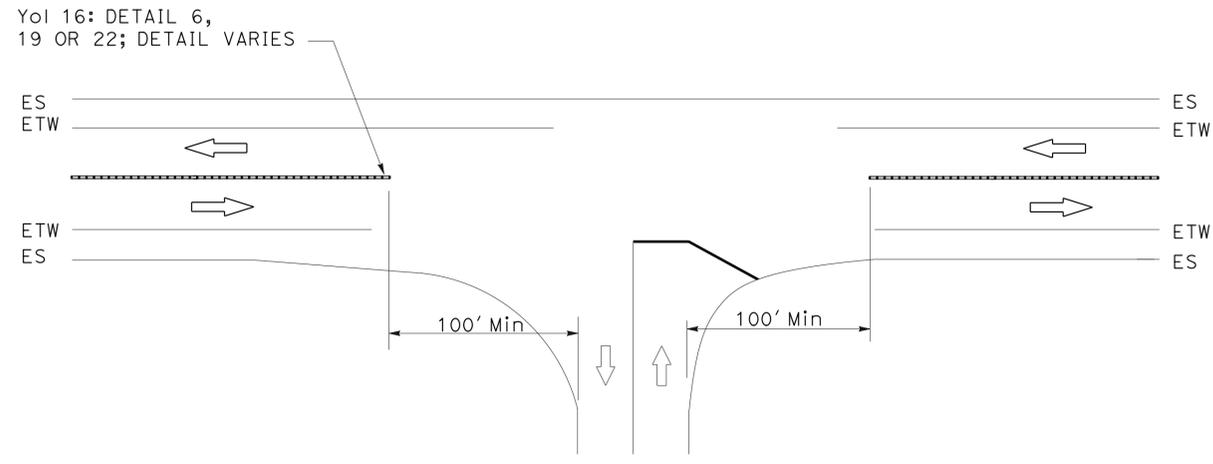
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Col, Sut, Yoi	16, 20, 80	Var	3	18
<i>James M. Philipp</i> REGISTERED CIVIL ENGINEER DATE 5-9-16			PROFESSIONAL ENGINEER No. C59614 Exp. 12-31-17 CIVIL		
5-9-16 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTE:

1. SEE SUMMARY OF QUANTITIES SHEET FOR EXACT BEGIN AND END OF SHOULDER AND CENTER RUMBLE STRIPS.

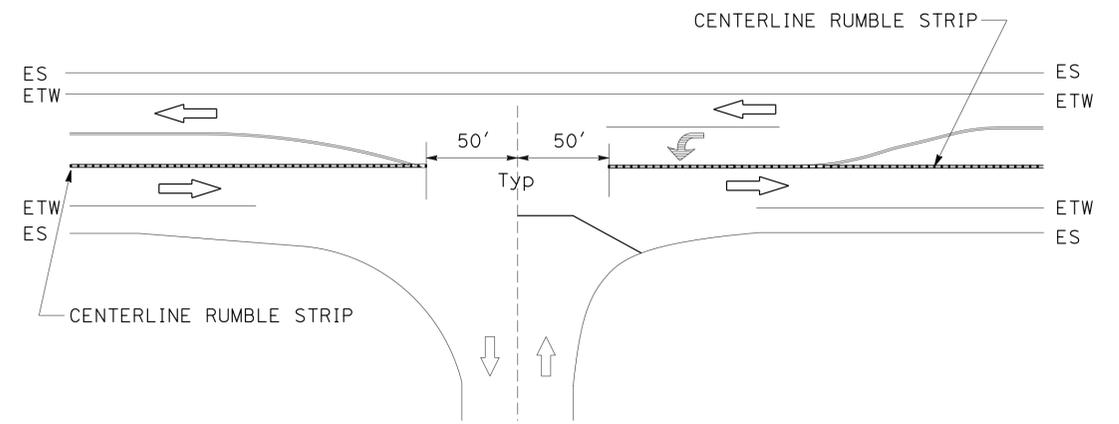
LEGEND:

----- CENTERLINE RUMBLE STRIP (AC, GROUND-IN INDENTATIONS)



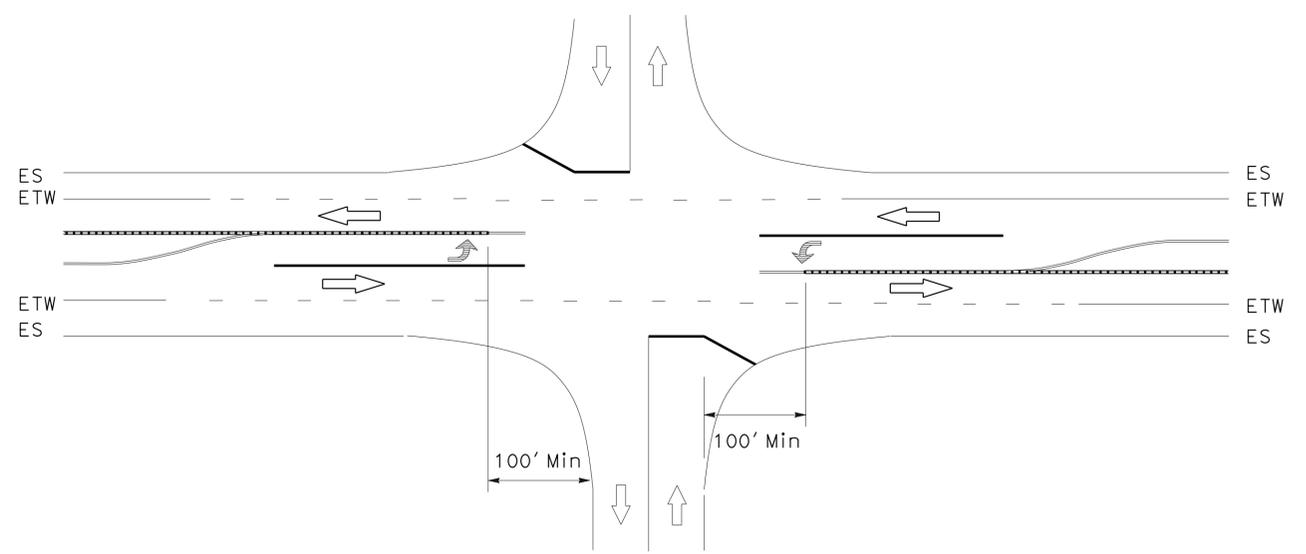
GRADE INTERSECTION APPROACH, (Typ)

Yoi-16: Co Rd 94B (R+) (PM 36.71) Col 20: EAST CAMP Rd (R+) (PM 18.19)
 E St (R+) (PM 20.56)
 RICHMOND HUNT CLUB (R+) (PM 24.24)
 SAN JOSE Rd (PM 24.69)



LEFT TURN POCKETS, (Typ)

Yoi-16: Co Rd 90 (PM 31.68) Col 20: NORTH WILLIAMS Conn (L+) (PM R21.72)
 GRAVEL PLANT Rd (L+) (PM 32.48) SB 5 ON/OFF RAMPS (PM R21.99)
 Co Rd 93 (R+) (PM 35.36) NB 5 ON/OFF RAMPS (PM R22.24)
 WILD WINGS Dr (L+) (PM 35.88) LONE STAR Rd (PM 26.94)



DUAL TURN POCKETS, (Typ)

Yoi 16: 505 SB ON/OFF RAMP (PM 31.74) Col 20: FRESHWATER LATERAL (PM R21.41)
 505 NB ON/OFF RAMP (PM 32.36) FRESHWATER/HUSTED Rd (PM T23.18) (L+/R+)



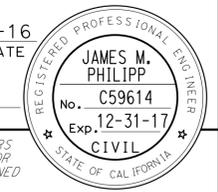
BRIDGES, (Typ)

Yoi 16: SOUTH FORK WILLOW SLOUGH Br No. 22-0028 (PM 31.65)
 Yoi 505/16 Sep Br No. 22-0111 (PM 31.84)
 Col 20: NORTH WILLIAMS OH Br No. 15-0024 (PM R21.85)
 ROUTE 20/5 Sep Br No. 15-0078 (PM R22.09)

CONSTRUCTION DETAILS
 NO SCALE
C-2

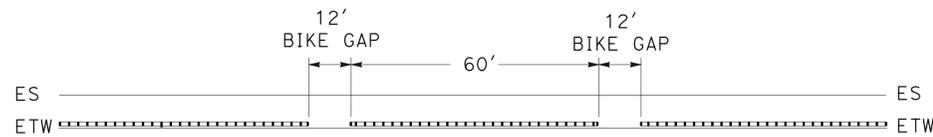
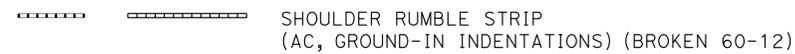
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - TRAFFIC SAFETY
 JAMES PHILIPP
 DAVINDER MINHAS
 MICHAEL HAGEN

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Col, Sut, Yoi	16, 20, 80	Var	4	18
			5-9-16	DATE	
REGISTERED CIVIL ENGINEER					
5-9-16 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

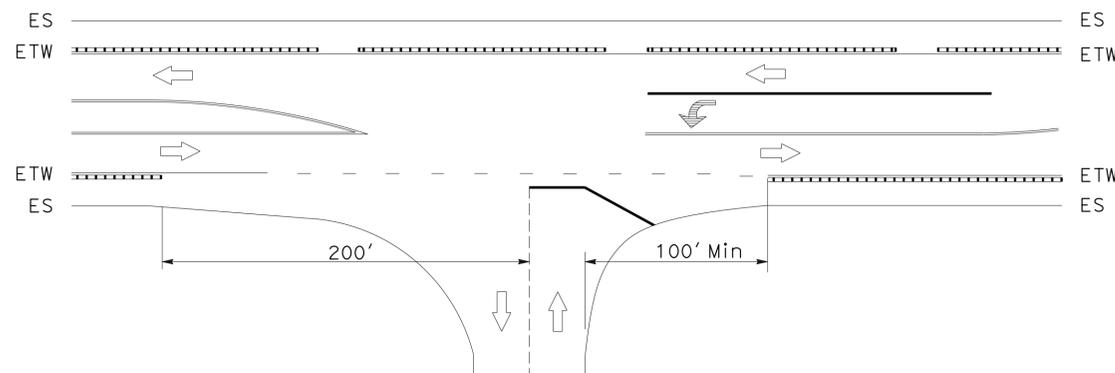


NOTES: 1. FOR GROUND-IN SHOULDER RUMBLE STRIP DETAIL SEE 2010 STANDARD PLAN A40B.
 2. PROVIDE 12' BIKE GAP IN INDENTATIONS EVERY 60' FOR BICYCLES.

LEGEND:

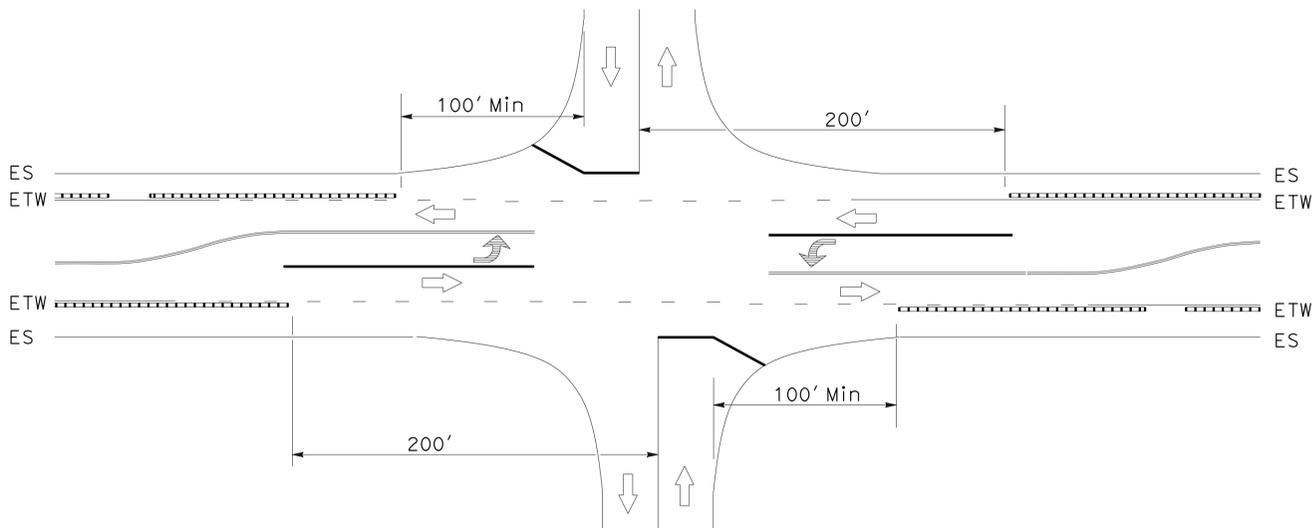


(BROKEN 60-10), (Typ)



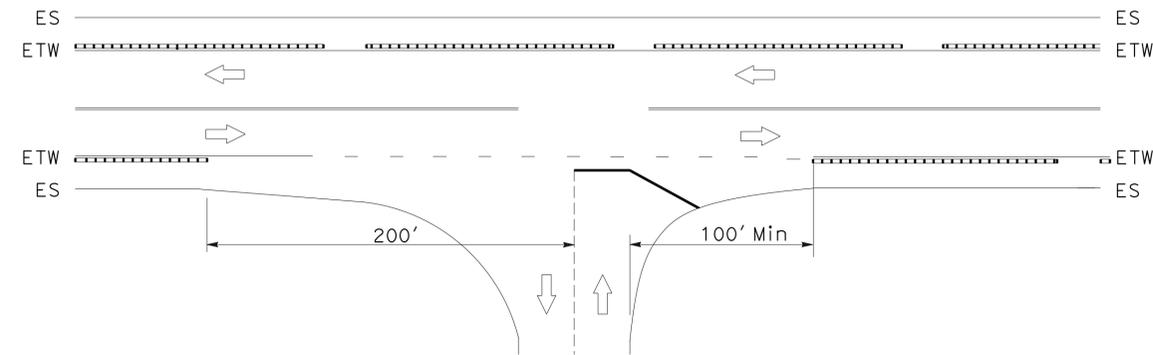
SINGLE TURN POCKET, (Typ)

CENTRAL St (PM R0.88)
 DREXLER Rd (PM 1.90)
 SOUTH TARKE Rd (PM 3.99)



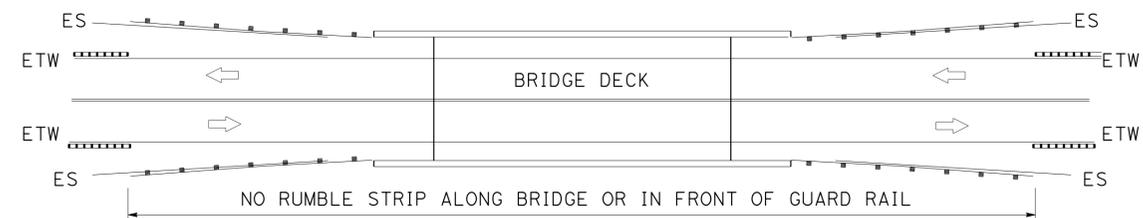
DUAL TURN POCKETS, (Typ)

4TH St (PM R0.24)
 HAGEMAN Rd (PM 2.72)



T-INTERSECTION APPROACH, (Typ)

McARTHUR Rd (PM R1.07)
 FARMLAND Rd (PM 1.46)
 WOOD Rd (PM R1.14)



BRIDGES, (Typ)

SACRAMENTO RIVER Br No. 18-0008 (PM R0.06)
 SUTTER BYPASS Br No. 18-0005 (PM 4.22)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC SAFETY
 FUNCTIONAL SUPERVISOR: MICHAEL HAGEN
 CALCULATED/DESIGNED BY: JAMES PHILIPP
 CHECKED BY: DAVINDER MINHAS
 REVISED BY: [blank]
 DATE REVISED: [blank]

Sut 20
CONSTRUCTION DETAILS
 NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC SAFETY

REVISOR BY
 DATE

JAMES PHILIPP
 DAVINDER MINHAS

CALCULATED/DESIGNED BY
 CHECKED BY

FUNCTIONAL SUPERVISOR
 MICHAEL HAGEN

NOTE:
 1. DO NOT PLACE RUMBLE STRIPS ALONG THE AUXILIARY LANES APPROACHING OR DEPARTING THE ON AND OFF RAMPS.

LEGEND:
 SHOULDER RUMBLE STRIP
 (AC, GROUND-IN INDENTATIONS)

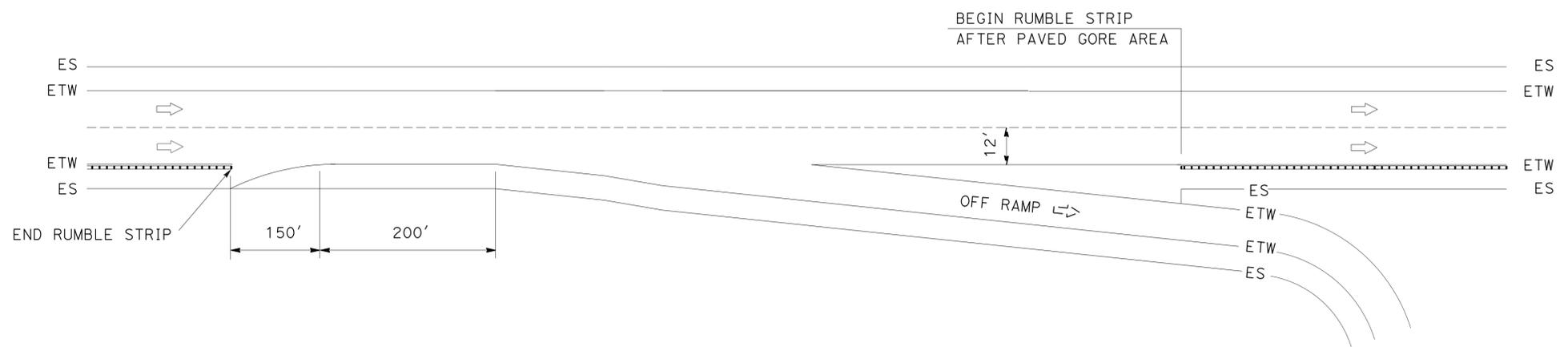
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Col, Sut, Yoi	16, 20, 80	Var	5	18

5-9-16
 REGISTERED CIVIL ENGINEER DATE

5-9-16
 PLANS APPROVAL DATE

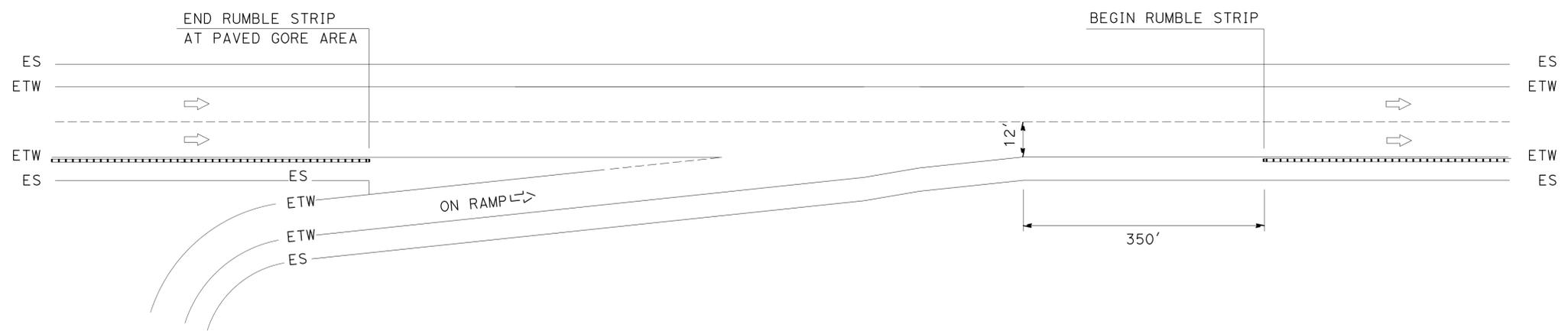
JAMES M. PHILIPP
 No. C59614
 Exp. 12-31-17
 CIVIL

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SHOULDER RUMBLE STRIPS AT OFF RAMPS

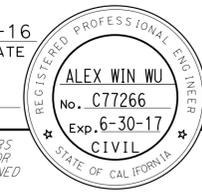
EB OFF E CHILES Rd/Co Rd 32A (PM 5.44)
 WB OFF E CHILES Rd/Co 32A (PM 5.60)



SHOULDER RUMBLE STRIPS AT ON RAMPS

EB ON TO E CHILES Rd/Co 32A (PM 5.60)
 WB ON FROM E CHILES Rd/Co 32A (PM 5.44)

Yoi 80
CONSTRUCTION DETAILS
 NO SCALE
C-4

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Col, Sut, Yoi	16, 20, 80	Var	6	18
			5-9-16	DATE	
REGISTERED CIVIL ENGINEER			DATE		
5-9-16			PLANS APPROVAL DATE		
					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

LOCATION	SIGN LOCATION				SIGN CODE	PANEL SIZE	SIGN MESSAGE	NUMBER OF POST AND SIZE	NUMBER OF SIGNS	
	DESCRIPTION	FACING TRAFFIC								
		NB	SB	EB						WB
LOCATION 1, Yoi-16	1000'± BEFORE BEGINNING OF CONSTRUCTION			1		CSP-1(5)<CA>	60" x 30"	ROAD WORK NEXT 5 MILES	2 - 4" x 6"	1
	500'± BEFORE BEGINNING OF CONSTRUCTION			1		C40(Mod)<CA>	48" x 36"	TRAFFIC FINES DOUBLED IN WORK ZONES	1 - 4" x 6"	1
	500'± BEFORE BEGINNING OF CONSTRUCTION				1	G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	1
	750'± AFTER END OF CONSTRUCTION				1	C40(Mod)<CA>	48" x 36"	TRAFFIC FINES DOUBLED IN WORK ZONES	1 - 4" x 6"	1
	750'± AFTER END OF CONSTRUCTION			1		G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	1
	1000'± AFTER END OF CONSTRUCTION				1	CSP-1(5)<CA>	60" x 30"	ROAD WORK NEXT 5 MILES	2 - 4" x 6"	1
	COUNTY ROAD 90	1				W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1
	COUNTY ROAD 90		1			G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	1
	SB ROUTE 505 EXIT RAMP TO ROUTE 16		1			W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1
	SB ROUTE 505 ENTRANCE RAMP FROM ROUTE 16		1			G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	1
	SB ROUTE 505 LOOP ENTRANCE RAMP FROM ROUTE 16		1			G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	1
	NB ROUTE 505 LOOP ENTRANCE RAMP FROM ROUTE 16	1				G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	1
	NB ROUTE 505 ENTRANCE RAMP FROM ROUTE 16	1				G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	1
	NB ROUTE 505 EXIT RAMP TO ROUTE 16	1				W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1
	COUNTY ROAD 93	1				W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1
	WILD WINGS DRIVE		1			W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1
COUNTY ROAD 23A	1				W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1	
COUNTY ROAD 94B	1	1			W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	2	

NOTES:

- EXACT SIGN LOCATION TO BE DETERMINED BY THE ENGINEER.
- ALL SIGN CODES SHOWN ARE FEDERAL SIGN CODES UNLESS OTHERWISE DESIGNATED AS A CALIFORNIA SIGN CODE.
- <CA> = CALIFORNIA SIGN CODE.

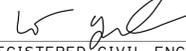
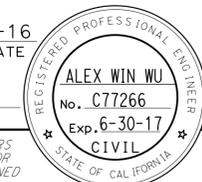
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: JOYCE K LOFTUS
 CALCULATED/DESIGNED BY: JACK KEMMERLY
 CHECKED BY: ALEX WU
 REVISED BY: DATE REVISED:

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

CS-1

DATE PLOTTED => 09-MAY-2016
 TIME PLOTTED => 12:02
 LAST REVISION: 5-2-16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Col, Sut, Yoi	16, 20, 80	Var	7	18
			5-9-16	DATE	
REGISTERED CIVIL ENGINEER					
5-9-16			PLANS APPROVAL DATE		
					
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STATIONARY MOUNTED CONSTRUCTION AREA SIGNS (CONTINUED)

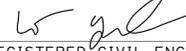
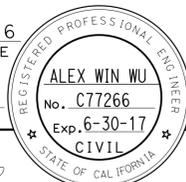
LOCATION	SIGN LOCATION				SIGN CODE	PANEL SIZE	SIGN MESSAGE	NUMBER OF POST AND SIZE	NUMBER OF SIGNS	
	DESCRIPTION	FACING TRAFFIC								
		NB	SB	EB						WB
LOCATION 2, Col-20	1000'± BEFORE BEGINNING OF CONSTRUCTION			1		CSP-1(10)<CA>	60" x 30"	ROAD WORK NEXT 10 MILES	2 - 4" x 6"	1
	500'± BEFORE BEGINNING OF CONSTRUCTION			1		C40(Mod)<CA>	48" x 36"	TRAFFIC FINES DOUBLED IN WORK ZONES	1 - 4" x 6"	1
	500'± BEFORE BEGINNING OF CONSTRUCTION				1	G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	1
	500'± AFTER END OF CONSTRUCTION				1	C40(Mod)<CA>	48" x 36"	TRAFFIC FINES DOUBLED IN WORK ZONES	1 - 4" x 6"	1
	500'± AFTER END OF CONSTRUCTION			1		G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	1
	1000'± AFTER END OF CONSTRUCTION				1	CSP-1(10)<CA>	60" x 30"	ROAD WORK NEXT 10 MILES	2 - 4" x 6"	1
	EAST CAMP ROAD	1				W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1
	E STREET	1				W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1
	FRESHWATER LATERAL	1	1			W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	2
	NORTH WILLIAMS Conn		1			W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1
	NORTH WILLIAMS Conn	1				G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	1
	SB ROUTE 5 ENTRANCE RAMP FROM ROUTE 20		1			G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	1
	SB ROUTE 5 EXIT RAMP TO ROUTE 20		1			W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1
	NB ROUTE 5 ENTRANCE RAMP FROM ROUTE 20	1				G20-2	36" x 18"	END ROAD WORK	1 - 4" x 4"	1
	NB ROUTE 5 EXIT RAMP TO ROUTE 20	1				W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1
	MARGUERITE STREET	1				W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1
	FRESHWATER ROAD/HUSTED ROAD	1	1			W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	2
	FRESHWATER ROAD	1				W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1
SAN JOSE ROAD	1	1			W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	2	
LOAN STAR ROAD	1				W20-1	36" x 36"	ROAD WORK AHEAD	1 - 4" x 6"	1	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: JOYCE K LOFTUS
 JACK KEMMERLY
 ALEX WU
 REVISIONS: REVISOR, DATE, REVISION
 CALCULATED/DESIGNED BY: CHECKED BY:

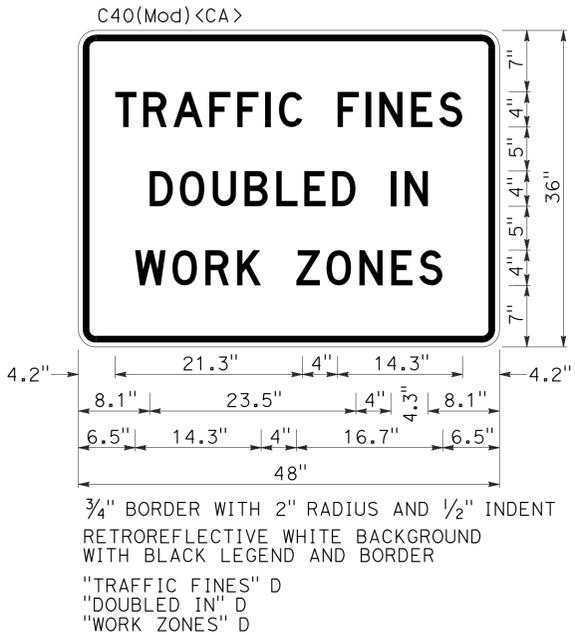
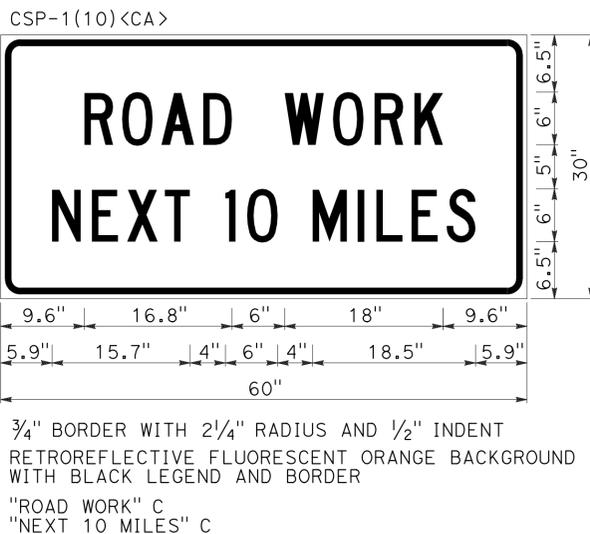
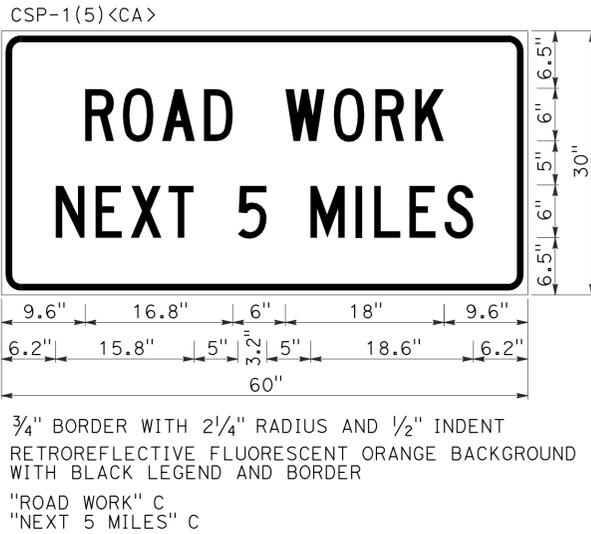
CONSTRUCTION AREA SIGNS

CS-2

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Col, Sut, Yoi	16, 20, 80	Var	8	18
 REGISTERED CIVIL ENGINEER DATE 5-9-16					
PLANS APPROVAL DATE 5-9-16					
					
<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>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
Caltrans	JOYCE K LOFTUS	JACK KEMMERLY	JACK KEMMERLY
TRAFFIC		ALEX WU	ALEX WU

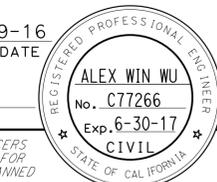


SIGN DETAILS

CONSTRUCTION AREA SIGNS

CS-3

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Col, Sut, Yoi	16, 20, 80	Var	9	18
 REGISTERED CIVIL ENGINEER DATE 5-9-16					
PLANS APPROVAL DATE 5-9-16					
<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>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: JOYCE K LOFTUS
 CALCULATED/DESIGNED BY: JACK KEMMERLY
 CHECKED BY: ALEX WU
 REVISED BY: DATE REVISED:

PAVEMENT DELINEATION QUANTITIES

LOCATION No.	COUNTY AND ROUTE	POST MILE		DIRECTION	4" THERMOPLASTIC TRAFFIC STRIPE (EWNV)				4" THERMOPLASTIC TRAFFIC STRIPE (EWNV) (BROKEN 36-12)		4" THERMOPLASTIC TRAFFIC STRIPE (EWNV) (BROKEN 12-3)	PAVEMENT MARKER (RETROREFLECTIVE)	
		FROM	TO		DETAIL 19	DETAIL 22	DETAIL 27B	DETAIL 29	DETAIL 6	DETAIL 19	DETAIL 27C	TYPE D	TYPE H
					LF	LF	LF	LF	LF	LF	LF	EA	EA
1	Yoi-16	31.50	36.71	EB,WB	1,342	13,422		14,844	13,264	1,342		1,172	56
2	Col-20	18.00	28.24	EB,WB	3,675	9,264		25,894	36,211	3,675		1,756	153
3	Sut-20	00.06	4.22	EB,WB			41,507				1,595		
4	Yoi-80	4.36	7.25	EB,WB			30,145						
SUBTOTAL					5,017	22,686	71,652	40,738	49,475	5,017		2,928	209
TOTAL					140,093				54,492		1,595	3,137	

NOTE:
EWNV = ENHANCED WET NIGHT VISIBILITY.

PAVEMENT DELINEATION QUANTITIES

PDQ-1

DATE PLOTTED => 09-MAY-2016
 TIME PLOTTED => 12:02
 5-2-16

NOTE: 1. (N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Col, Sut, YoI	16, 20, 80	Var	10	18

James M. Philipp 5-9-16
 REGISTERED CIVIL ENGINEER DATE

5-9-16
 PLANS APPROVAL DATE

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

CENTERLINE RUMBLE STRIP

	LENGTH	(N)	CENTERLINE RUMBLE STRIP (AC, GROUND-IN INDENTATIONS)
LOCATION 1 YoI-16 (PM 31.50 - 36.71)			
31.50 TO 31.65 SOUTH FORK WILLOW SLOUGH Br No. 22-0028	550	5.5	
31.65 TO 31.68 Co Rd 90 (Rt)	100	1	
31.68 TO 31.74 ROUTE 505 SB ON/OFF RAMP	200	2	
31.74 TO 31.84 ROUTE 16/505 Sep Br No. 22-0111	500	5	
31.84 TO 32.36 ROUTE 505 NB ON/OFF RAMP	500	5	
32.36 TO 32.48 GRAVEL PLANT Rd (Lt)	500	5	
32.48 TO 35.36 Co Rd 93 (Rt)	15,100	151	
35.36 TO 35.88 WILD WINGS Dr (Lt)	2,750	27.5	
35.88 TO 36.71 Co Rd 94B (Rt) END	4,300	43	
SUBTOTAL	24,500	245.0	

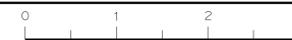
CENTERLINE RUMBLE STRIP

	LENGTH	(N)	CENTERLINE RUMBLE STRIP (AC, GROUND-IN INDENTATIONS)
LOCATION 2 Col-20 (PM 18.00 - 28.24)			
18.00 TO 18.19 EAST CAMP Rd (Rt)	900	9	
18.19 TO 20.21 SALT Cr Br No. 15-0022	10,570	105.7	
20.21 TO 20.56 E St (Rt)	1,750	17.50	
20.56 TO R21.41 FRESHWATER LATERAL	4,290	42.9	
R21.41 TO R21.72 NORTH WILLIAMS Conn (Lt)	1,430	14.3	
R21.72 TO R21.85 NORTH WILLIAMS OH Br No. 15-0024	650	6.5	
R21.85 TO R21.99 SB 5 ON/OFF RAMP	300	3	
R21.99 TO R22.09 ROUTE 20/5 Sep Br No. 15-0078	450	4.5	
R22.09 TO R22.24 NB 5 ON/OFF RAMP	450	4.5	
R22.24 TO 23.71 HUSTED Rd/FRESHWATER Rd (Rt/Lt)	4,750	47.5	
23.71 TO 24.24 RICHMOND HUNT CLUB (Rt)	3,350	33.5	
24.24 TO 24.69 SAN JOSE Rd (Rt)	2,300	23	
24.69 TO 26.94 LONE STAR (Rt)	11,680	116.8	
26.94 TO 27.83 COLUSA BASIN Br No. 15-0020	4,600	46	
27.83 TO 28.24 - 0.30 BEFORE POWELL SLOUGH Br No. 15-0020	2,150	21.5	
SUBTOTAL	49,620	496.2	
LOCATION 1	24,500	245.0	
LOCATION 2	49,620	496.2	
TOTAL	74,120	741.2	

SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 TRAFFIC SAFETY
 FUNCTIONAL SUPERVISOR: MICHAEL HAGEN
 CALCULATED/DESIGNED BY: JAMES PHILIPP
 CHECKED BY: DAVINDER MINHAS
 REVISED BY: DATE REVISED:



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC SAFETY

FUNCTIONAL SUPERVISOR
 MICHAEL HAGEN

CALCULATED/DESIGNED BY
 CHECKED BY

JAMES PHILIPP
 DAVINDER MINHAS

REVISED BY
 DATE REVISED

NOTES: 1. SHOULDER RUMBLE STRIP QUANTITIES SHOWN ON Q-2 INCLUDE THE GAP LENGTHS FOR THE VARIOUS ON AND OFF RAMPS.
 2. (N) NOT A SEPARATE PAY ITEM. FOR INFORMATION ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Col, Sut, Yoi	16, 20, 80	Var	11	18

James M. Philipp 5-9-16
 REGISTERED CIVIL ENGINEER DATE
 5-9-16
 PLANS APPROVAL DATE

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

SHOULDER RUMBLE STRIP

LOCATION 3 Su+20 (PM R0.06 - 4.22)	DIRECTION	LENGTH	
		SHOULDER RUMBLE STRIP (AC, GROUND-IN INDENTATIONS) (BROKEN 60-12)	
		LF	STA
R0.06 SACRAMENTO Br No. 18-0008 TO R0.24 4TH St	EB	750	7.5
	WB	850	8.5
R0.24 TO R0.88 CENTRAL St (R+)	EB	3,200	32
	WB	3,300	33
R0.88 TO R1.07 McARTHUR Rd (R+)	EB	800	8
	WB	1,000	10
R1.07 TO R1.14 WOOD Rd (R+)	EB	0	0
	WB	350	3.5
R1.14 TO 1.46 FARMLAN Rd (Lt)	EB	850	8.5
	WB	850	8.5
1.46 TO 1.90 DREXLER Rd (R+)	EB	2,150	21.5
	WB	2,150	21.5
1.90 TO 2.72 HAGEMAN Rd	EB	4,200	42
	WB	3,900	39
2.72 TO 3.99 SOUTH TARKE Rd (R+) 3.99	EB	6,400	64
	WB	6,400	64
3.99 TO 4.22 SUTTER BYPASS Br, No. 18-0005	EB	1,100	11
	WB	1,000	10
TOTAL		39,250	392.5

SHOULDER RUMBLE STRIP

LOCATION 4 EB/WB Yoi-80 (PM 4.36 - 7.25)	DIRECTION	LENGTH	
		SHOULDER RUMBLE STRIP (AC, GROUND-IN INDENTATIONS)	
		LF	STA
4.36 1.0 MILE BEFORE EB/OFF & WB/ON AT EAST CHILES Rd/Co Rd 32A	EB	5,250	52.5
	WB	5,200	52
5.44 EB/OFF & WB/ON AT EAST CHILES Rd/Co Rd 32A	EB	400	4
5.44 TO 5.60 EB/ON & WB/OFF AT EAST CHILES Rd/Co Rd 32A	WB	700	7
5.60 TO 5.78 WEBSTER Rd UC Br No. 22-0043	EB	300	3
	WB	0	0
5.78 TO 5.81 YOLO CAUSEWAY WEST Br No. 22-0044	EB	0	0
	WB	0	0
5.81 TO 7.25 YOLO CAUSEWAY EAST Br No. 22-0045	EB	4,700	47
	WB	2,150	21.5
TOTAL		18,700	187.0

SUMMARY OF QUANTITIES
Q-2

LAST REVISION DATE PLOTTED => 09-MAY-2016 00-00-00 TIME PLOTTED => 12:02

	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	
SL	STATION LINE	
SM	SELECTED MATERIAL	
Spec	SPECIAL, SPECIFICATIONS	
SPP	SLOTTED PLASTIC PIPE	
SS	SLOPE STAKE	
SSBM	STRAP AND SADDLE BRACKET METHOD	
SSD	STRUCTURAL SECTION DRAIN	
SSPA	STRUCTURAL STEEL PLATE ARCH	
SSPP	STRUCTURAL STEEL PLATE PIPE	
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH	
SSRP	STEEL SPIRAL RIB PIPE	
St	STREET	
Sta	STATION	
STBB	SINGLE THRIE BEAM BARRIER	
Std	STANDARD	
Str	STRUCTURE	
Surf	SURFACING	
SW	SIDEWALK, SOUND WALL	
Swr	SEWER	
Sym	SYMMETRICAL	
S4S	SURFACE 4 SIDES	
	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	W
VC	VERTICAL CURVE	
VCP	VITRIFIED CLAY PIPE	
Vert	VERTICAL	
Via	VIADUCT	
Vol	VOLUME	
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	
WWLLOL	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
03	Col, Sut, Yol	16, 20, 80	Var	12	18

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 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 5-9-16

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

TABLE A

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

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

TABLE B

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft 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.

2010 REVISED STANDARD PLAN RSP A10B

TO ACCOMPANY PLANS DATED 5-9-16

TABLE 1

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

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

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

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

TABLE 2

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

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

TABLE 3

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

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM TABLES FOR LANE AND RAMP CLOSURES

NO SCALE

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

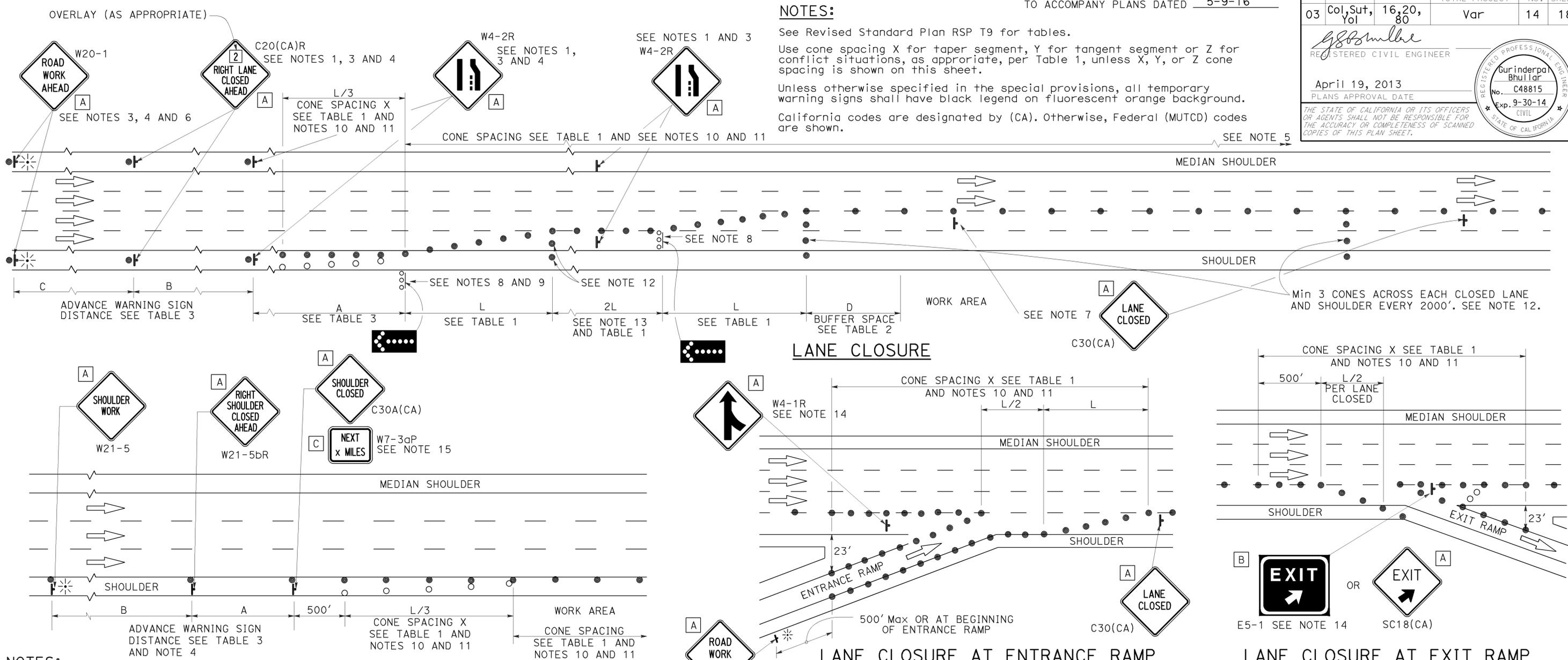
2010 REVISED STANDARD PLAN RSP T9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Col, Sut, Yoi	16, 20, 80	Var	14	18

REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE

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

2010 REVISED STANDARD PLAN RSP T10



- NOTES:**
1. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
 2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
 3. Duplicate sign installations are not required:
 - a) On opposite shoulder if at least one-half of the available lanes remain open to traffic.
 - b) In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
 4. Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
 5. A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.

- SHOULDER CLOSURE**
6. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA)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.

- LANE CLOSURE AT ENTRANCE RAMP**
12. Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
 13. Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
 14. Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
 15. A W7-3aP "NEXT _____ MILES" plaque must be used if the shoulder closure extends beyond the distance that can be perceived by road users.

LEGEND

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

SIGN PANEL SIZE (Min)

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

RSP T10 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10 DATED MAY 20, 2011 - PAGE 237 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10

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.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Col, Sut, Yoi	16, 20, 80	Var	15	18

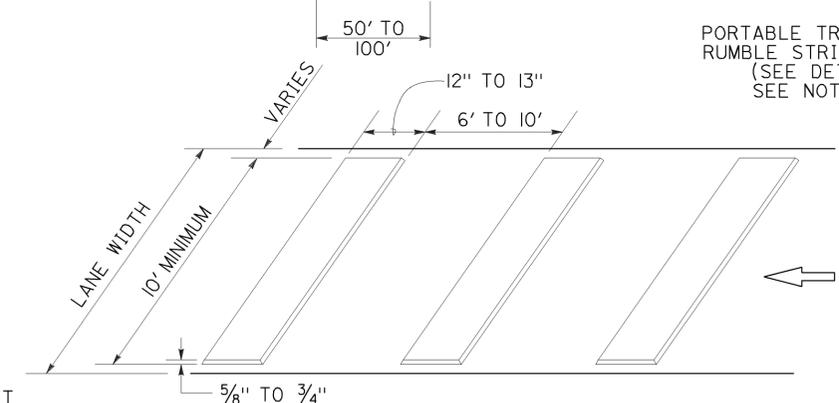
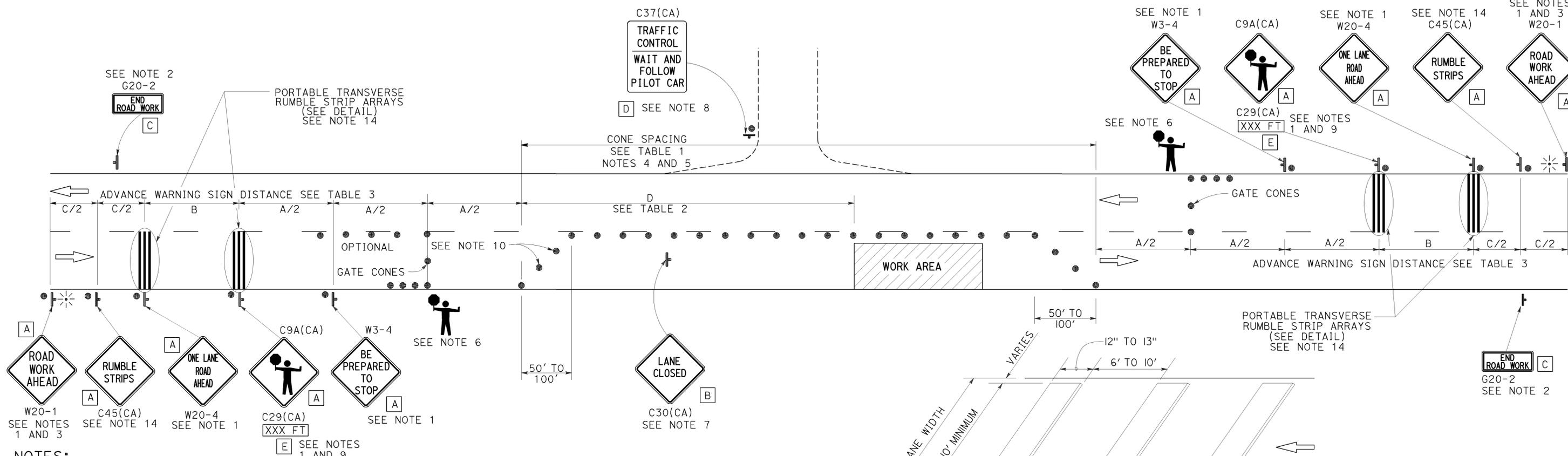
Devinder Singh
 REGISTERED CIVIL ENGINEER
 No. C50470
 Exp. 6-30-17
 CIVIL
 STATE OF CALIFORNIA

October 30, 2015
 PLANS APPROVAL DATE

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

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

TO ACCOMPANY PLANS DATED 5-9-16



NOTES:

- Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control 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 W20-4 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.
- Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging-station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.
- Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
- When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. Where traffic can not be effectively self-regulated, at least one flagger shall be used at each intersection within traffic control area.
- An optional C29(CA) sign may be placed below the C9A(CA) sign.
- Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.
- The color of the portable transverse rumble strips shall be black or orange. Use 2 arrays, each array shall consist of 3 rumble strips.
- Portable transverse rumble strips shall not be placed on sharp horizontal or vertical curves nor shall they be placed through pedestrian crossings.
- If the portable transverse rumble strips become out of alignment (skewed) by more than 6 inches, measured from one end to the other, they shall be readjusted to bring the placement back to the original location.
- Portable transverse rumble strips are not required if any one of the following conditions is satisfied:
 - Work duration occupies a location for four hours or less
 - Posted speed limit is below 45 MPH
 - Work is of emergency nature
 - Work zone is in snow or icy weather conditions

LEGEND

- TRAFFIC CONE
- ⊥ TEMPORARY TRAFFIC CONTROL SIGN
- ⚡ PORTABLE FLASHING BEACON
- 🚧 FLAGGER

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 30" x 30"
- C 36" x 18"
- D 36" x 42"
- E 20" x 7"

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

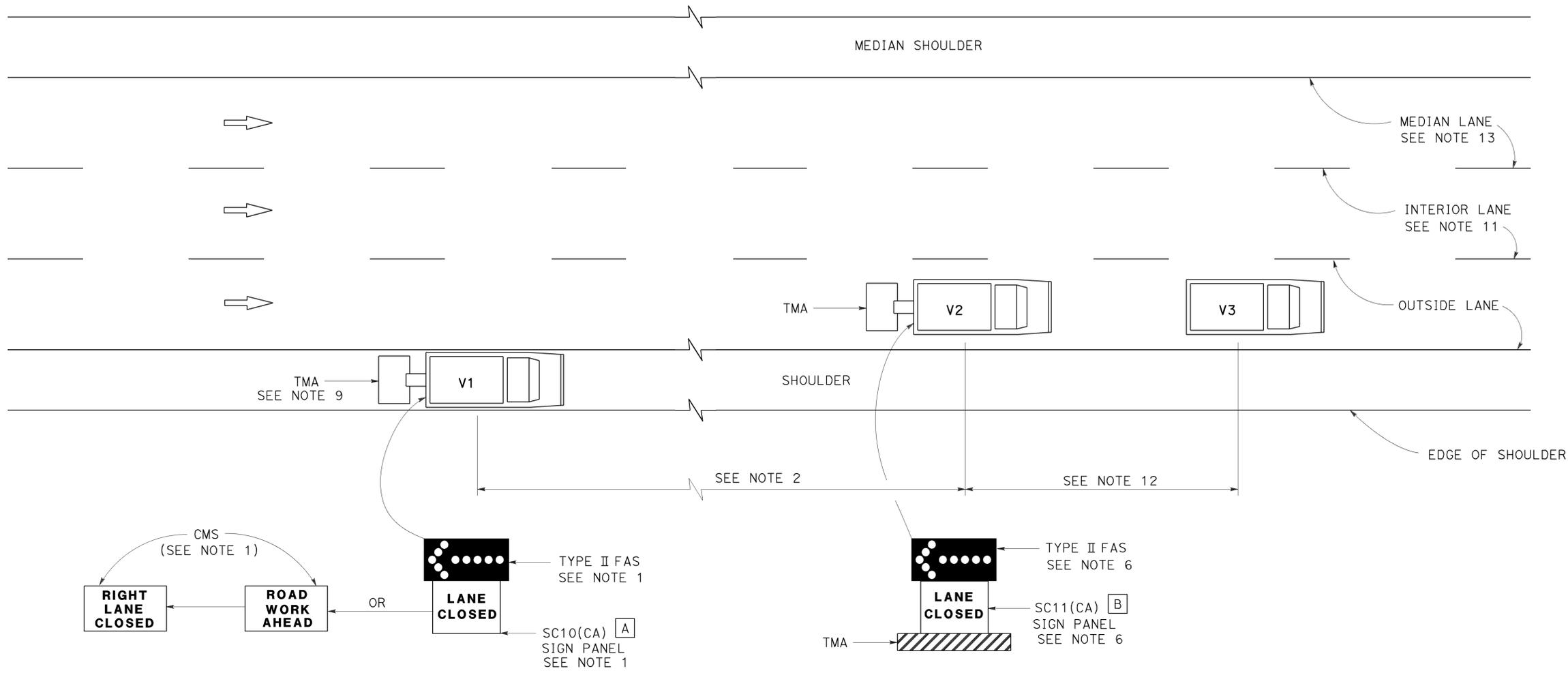
RSP T13 DATED OCTOBER 30, 2015 SUPERSEDES RSP T13 DATED OCTOBER 17, 2014, RSP T13 DATED JULY 18, 2014 AND RSP T13 DATED APRIL 19, 2013 AND STANDARD PLAN T13 DATED MAY 20, 2011 - PAGE 241 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T13

2010 REVISED STANDARD PLAN RSP T13



TO ACCOMPANY PLANS DATED 5-9-16



SIGN PANEL SIZE (Min)

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

LEGEND

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

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

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR MOVING LANE CLOSURE ON MULTILANE HIGHWAYS

NO SCALE

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

REVISED STANDARD PLAN RSP T15

2010 REVISED STANDARD PLAN RSP T15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Col, Sut, Yol	16, 20, 80	Var	17	18

Registered Civil Engineer
Gurinderpal Bhullar
 April 19, 2013
 PLANS APPROVAL DATE
 No. C48815
 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.

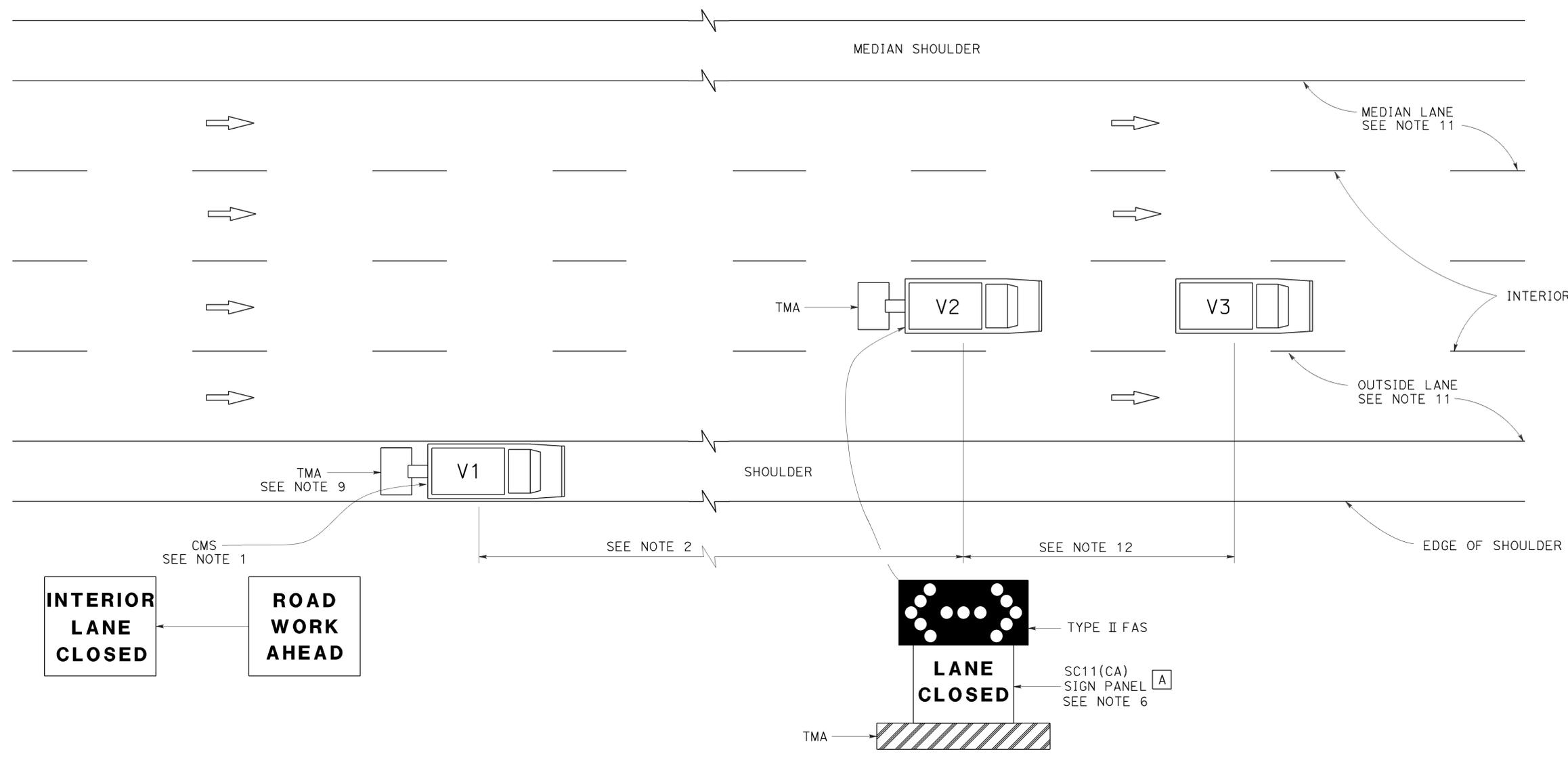
TO ACCOMPANY PLANS DATED 5-9-16

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.

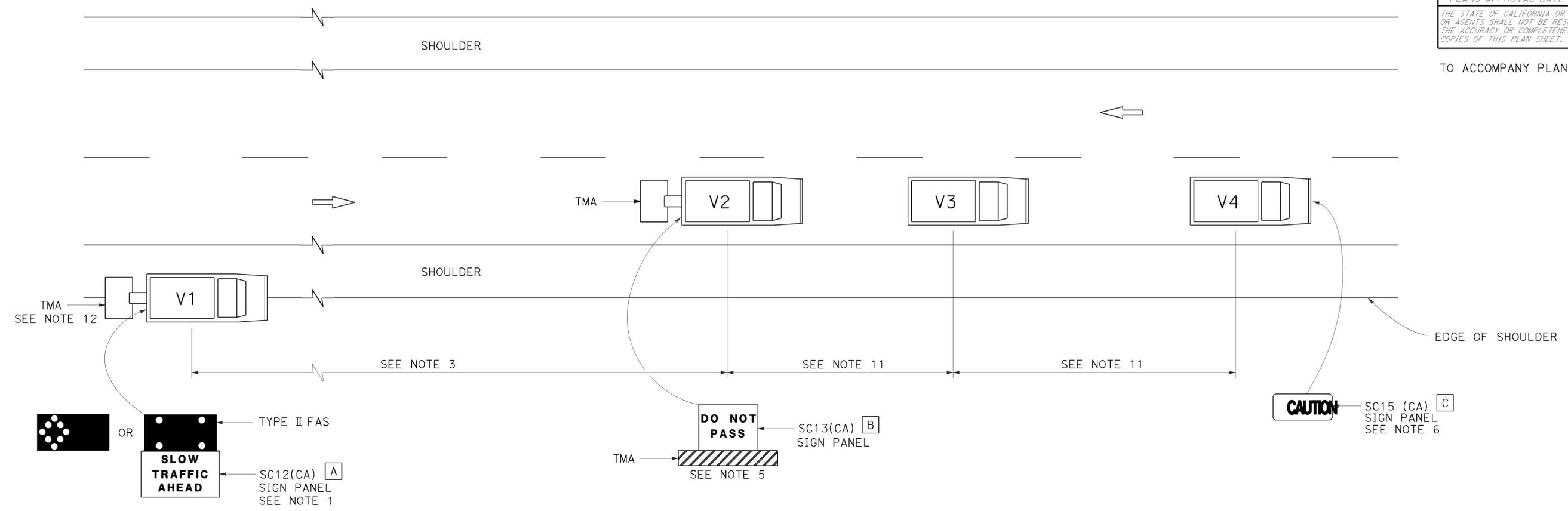
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR MOVING LANE CLOSURE
 ON MULTILANE HIGHWAYS**
 NO SCALE

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

TO ACCOMPANY PLANS DATED 5-9-16



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