

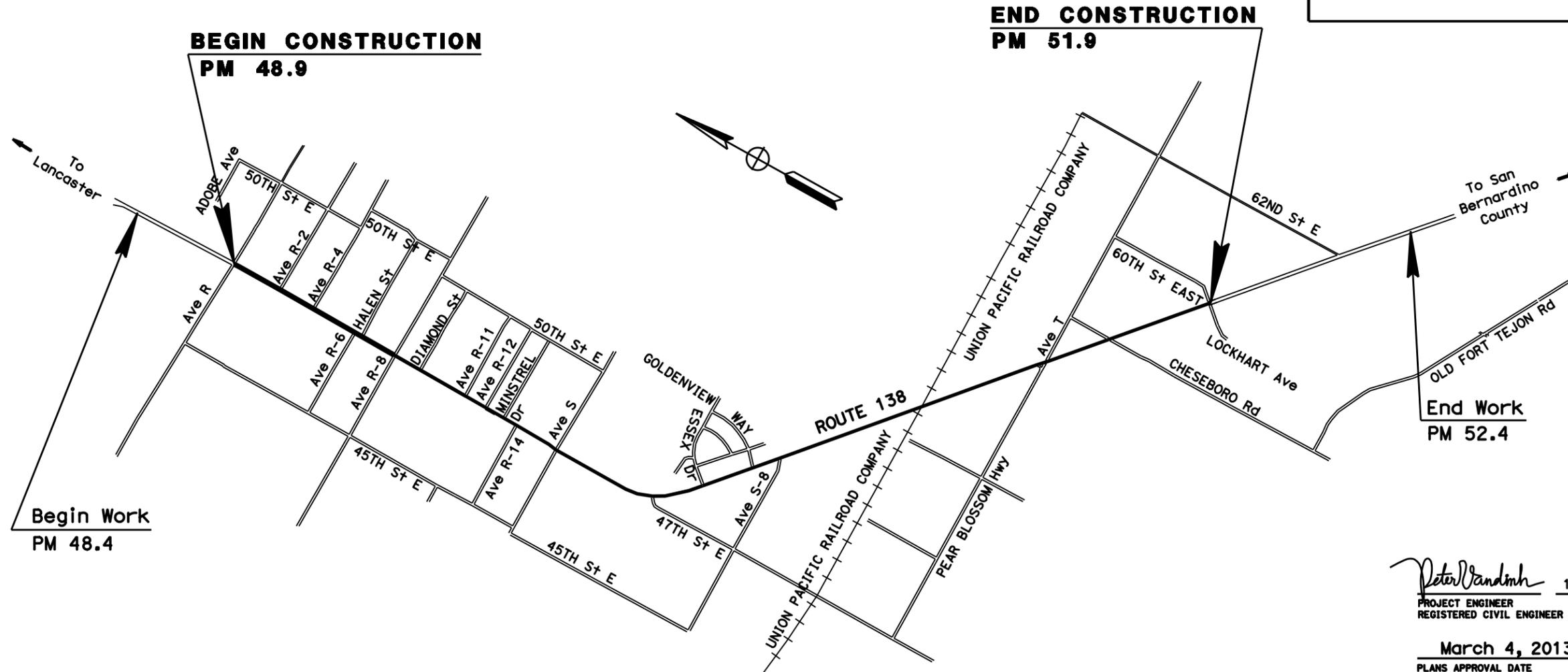
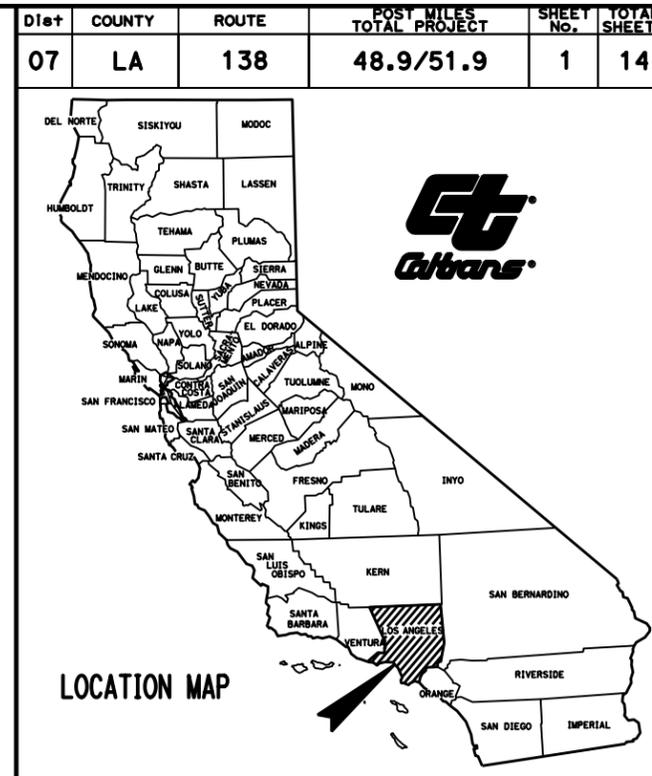
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	CONSTRUCTION DETAILS
3	PROJECT CONTROL AND MONUMENTATION
4	CONSTRUCTION AREA SIGNS
5	PAVEMENT DELINEATION QUANTITIES
6	SUMMARY OF QUANTITIES
7	ELECTRICAL PLAN
8-10	TRAFFIC CONTROL SYSTEM
11-14	REVISED STANDARD PLANS

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN LOS ANGELES COUNTY
IN PALMDALE
FROM AVENUE R TO 60TH STREET EAST

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



PROJECT MANAGER
GARY KEVORKIAN

DESIGN ENGINEER
PETER VAN DINH

Peter Van Dinh 1-3-13
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER

March 4, 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.



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

NO SCALE



USERNAME => s112049
 DGN FILE => 71w570ab001.dgn

CONTRACT No.	07-1W5704
PROJECT ID	0712000276

DATE PLOTTED => 01-MAR-2013
 TIME PLOTTED => 06:30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	48.9/51.9	2	14

<i>Peter Van Dinh</i>	1-3-13
REGISTERED CIVIL ENGINEER	DATE
3-4-13	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
PETER VAN DINH
No. C62666
Exp. 6-30-14
CIVIL
STATE OF CALIFORNIA

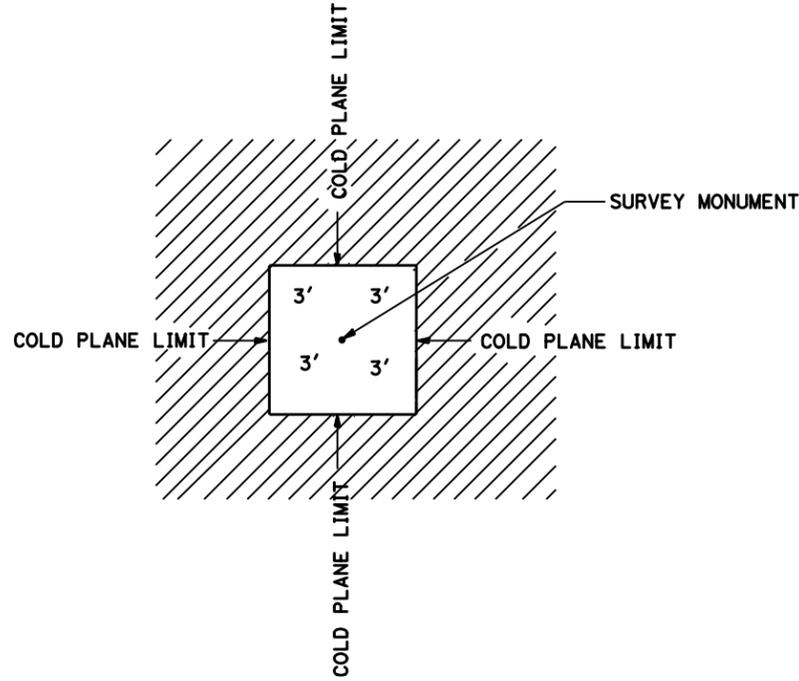
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NOTES:

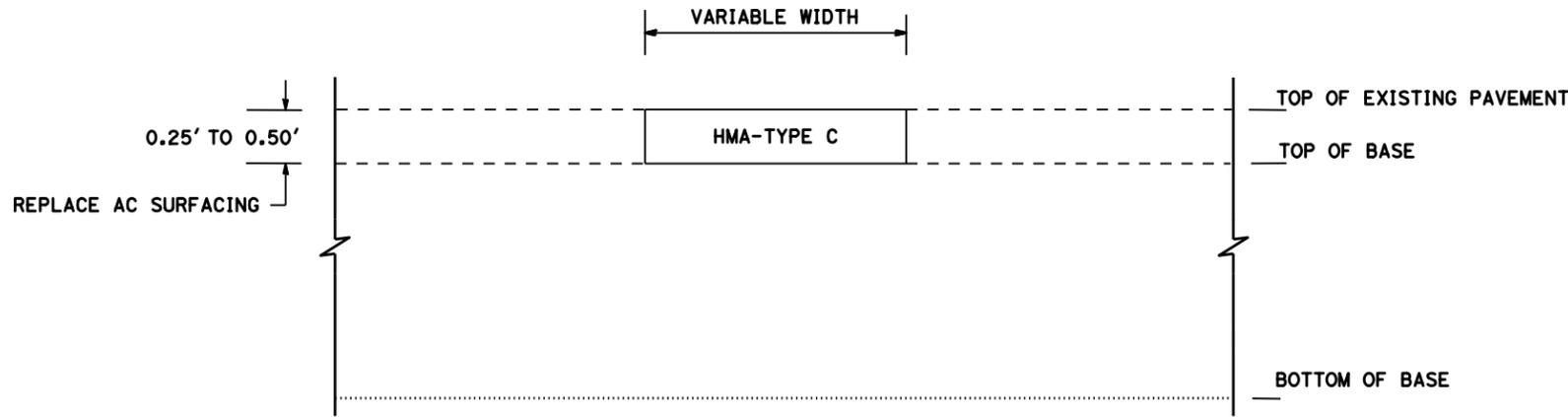
1. OMIT COLD PLANING AC ON PCC PAVEMENT.
2. EXISTING DRAINAGE INLETS HAVE NOT BEEN PLOTTED ON THESE PLANS.
3. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

LEGEND:

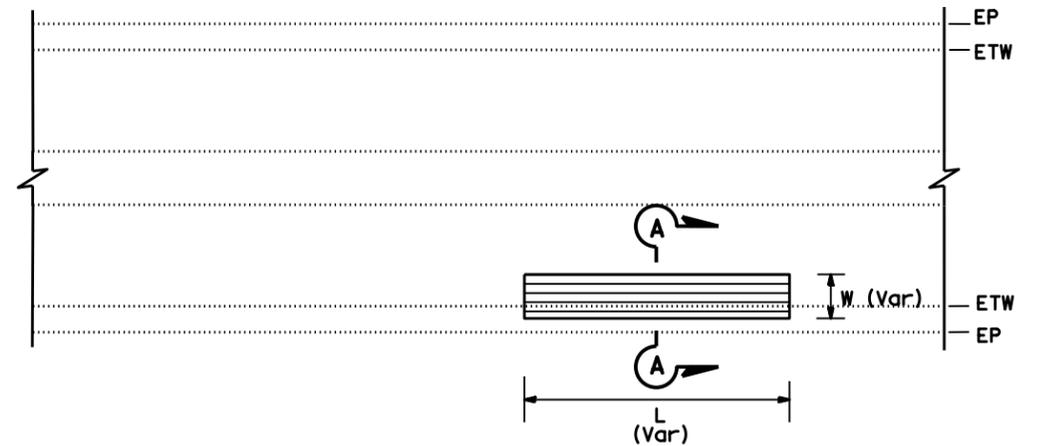
- REPLACE AC SURFACING
- W - WIDTH
- L - LENGTH



MONUMENT PROTECTION



SECTION A-A



PLAN

TYPICAL DETAIL FOR REPLACE ASPHALT CONCRETE SURFACING

CONSTRUCTION DETAILS

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR
 HAMID SAADATNEJADI
 CALCULATED/DESIGNED BY
 CHECKED BY
 HOALU NGUYEN
 PETER V. DINH
 REVISED BY
 DATE REVISED

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	48.9/51.9	3	14

REGISTERED CIVIL ENGINEER DATE 1-3-13
 PETER VAN DINH
 No. C62666
 Exp. 6-30-14
 CIVIL
 PLANS APPROVAL DATE 3-4-13
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.

SURVEY MONUMENTATION (N)				
LATITUDE	LONGITUDE	DESCRIPTION	POST MILE	LOCATION
34° 33' 55.4" N	118° 02' 42.3" W	GIN PIN & C.T. WASHER	49.47	ROUTE 138 & Ave R-8
34° 33' 41.5" N	118° 02' 43.5" W	GIN PIN & C.T. WASHER	49.75	ROUTE 138 & Ave R-12
34° 33' 31.9" N	118° 02' 42.6" W	GIN PIN & C.T. WASHER	49.95	BC ROUTE 138, N/O Ave S
34° 33' 31.2" N	118° 02' 42.7" W	GIN PIN & C.T. WASHER	49.96	PI ROUTE 138, N/O Ave S
34° 33' 30.5" N	118° 02' 42.7" W	GIN PIN & C.T. WASHER	49.96	EC ROUTE 138, N/O Ave S
34° 33' 29.1" N	118° 02' 43.6" W	GIN PIN & C.T. WASHER	49.97	SECTION CORNER 5/4 T5N R11W
34° 33' 29.1" N	118° 02' 43.8" W	GIN PIN & C.T. WASHER	49.97	TANGENT LINE & Ave S
34° 33' 29.1" N	118° 02' 43.9" W	GIN PIN & C.T. WASHER	49.97	ROUTE 138 & Ave S
34° 33' 29.1" N	118° 02' 43.2" W	GIN PIN & C.T. WASHER	49.97	1/4, 1/4 SECTION LINE & Ave S
34° 33' 27.9" N	118° 02' 43.1" W	GIN PIN & C.T. WASHER	49.97	BC ROUTE 138, S/O Ave S
34° 33' 27.0" N	118° 02' 43.2" W	GIN PIN & C.T. WASHER	49.98	PI ROUTE 138, S/O Ave S
34° 33' 26.1" N	118° 02' 43.2" W	GIN PIN & C.T. WASHER	49.98	EC ROUTE 138, S/O Ave S
34° 33' 18.2" N	118° 02' 43.1" W	LEAD & C.T. TAG	50.18	BC ROUTE 138, N/O 47th St EAST
34° 33' 12.9" N	118° 02' 43.0" W	GIN PIN & C.T. WASHER	50.28	GPS Point #59, NEAR Int OF 47th St E & ROUTE 138
34° 33' 12.9" N	118° 02' 43.0" W	SQUARE HEAD SPIKE	50.28	PI ON 47th St E, NEAR Int OF 47th St E & ROUTE 138
34° 33' 09.4" N	118° 02' 38.2" W	GIN PIN & C.T. WASHER	50.38	EC ROUTE 138, S/O 47th St E
34° 33' 00.9" N	118° 02' 25.96" W	GIN PIN & C.T. WASHER	50.65	ROUTE 138 & Ave S-8
34° 32' 50.3" N	118° 02' 12.6" W	GIN PIN & C.T. WASHER	50.85	ROUTE 138 & 52nd St E
34° 32' 40.1" N	118° 01' 57.5" W	GIN PIN & C.T. WASHER	51.20	BC ROUTE 138, N/O Ave T
34° 32' 38.3" N	118° 01' 55.0" W	GIN PIN & C.T. WASHER	51.21	PI ROUTE 138, N/O Ave T
34° 32' 36.5" N	118° 01' 52.7" W	GIN PIN & C.T. WASHER	51.31	PRC ROUTE 138, N/O Ave T
34° 32' 32.7" N	118° 01' 48.1" W	GIN PIN & C.T. WASHER	51.41	PI ROUTE 138, S/O Ave T
34° 32' 29.4" N	118° 01' 42.9" W	GIN PIN & C.T. WASHER	51.45	EC ROUTE 138, N/O 57th St E
34° 32' 28.9" N	118° 01' 42.2" W	GIN PIN & C.T. WASHER	51.50	BC ROUTE 138, N/O 57th St E
34° 32' 27.3" N	118° 01' 39.8" W	GIN PIN & C.T. WASHER	51.60	PI ROUTE 138, N/O 57th St E
34° 32' 27.2" N	118° 01' 40.7" W	GIN PIN & C.T. WASHER	51.60	ROUTE 138 & 57th St E
34° 32' 25.7" N	118° 01' 37.6" W	GIN PIN & C.T. WASHER	51.70	EC ROUTE 138, S/O 57th St E

NOTE:
 FOR COMPLETE PROJECT CONTROL AND MONUMENTATION DATA, SEE THE SURVEY RECORDS ON FILE IN THE SURVEYS DEPARTMENT AT THE DISTRICT OFFICE.

ABBREVIATION:
 (N) - FOR INFORMATION ONLY.

LEGEND:
 C.T - CALTRANS TAG
 N/O - NORTH OF
 S/O - SOUTH OF

**PROJECT CONTROL
 AND
 MONUMENTATION
 PC-1**

LAST REVISION DATE PLOTTED => 01-MAR-2013
 02-25-13 TIME PLOTTED => 06:30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	48.9/51.9	4	14

Peter Vandinh 1-3-13
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE

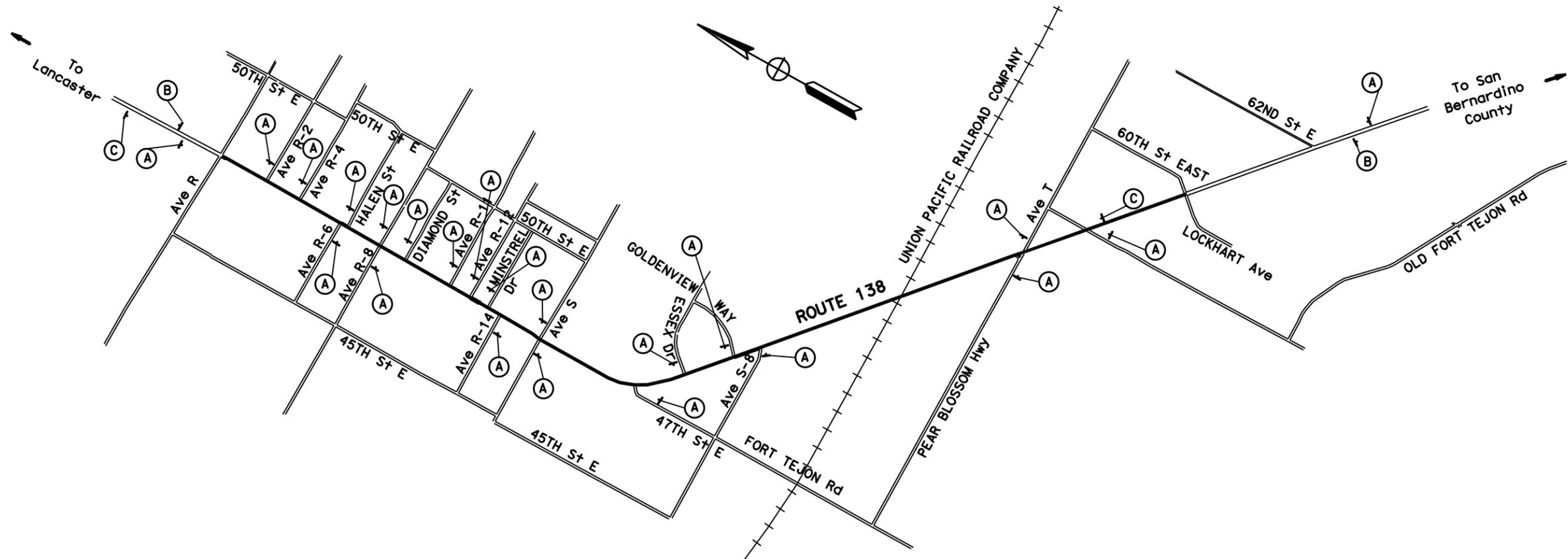
REGISTERED PROFESSIONAL ENGINEER
 PETER VAN DINH
 No. C62666
 Exp. 6-30-14
 CIVIL
 STATE OF CALIFORNIA

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.

NOTES:

1. THE ENGINEER DETERMINES EXACT LOCATION AND POSITION OF SIGNS.
2. SIGN POST LENGTH ARE APPROXIMATE, THE ENGINEER DETERMINES EXACT SIZE AND LENGTH.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS					
	SIGN CODE	PANEL SIZE (INCHES)	SIGN MESSAGE	No. OF POSTS AND SIZE	No. OF SIGNS (EA)
(A)	W20-1	48 X 48	ROAD WORK AHEAD	1 - 6" X 6"	22
(B)	G20-2	48 X 24	END ROAD WORK	1 - 4" X 6"	2
(C)	C40(CA)	102 X 40	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2 - 6" X 6"	2



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 MAINTENANCE ENGINEERING
 HOALU NGUYEN
 PETER V. DINH
 HAMID SAADATNEJADI
 REVISIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	48.9/51.9	5	14

Peter Vandinh 1-3-13
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 MAINTENANCE ENGINEERING
 HOALU NGUYEN
 PETER V. DINH
 REVISOR BY
 DATE REVISOR
 CALCULATED-DESIGNED BY
 CHECKED BY
 FUNCTIONAL SUPERVISOR
 HAMID SAADATNEJADI

POST MILE	DIRECTION	LANE No.	LOCATION	THERMOPLASTIC TRAFFIC STRIPE						THERMOPLASTIC PAVEMENT MARKING		PAVEMENT MARKER		
				4" DETAIL 25A	4" DETAIL 29	4" DETAIL 32	4" DETAIL 27B	4" DETAIL 12	8" DETAIL 38B	DIAGONAL / STOP LINE / LIMIT LINE	ARROW / WORD	RETROREFLECTIVE		
												SPECIAL TYPE D	SPECIAL TYPE G	SPECIAL TYPE H
LF	LF	LF	LF	LF	LF	SOFT	SOFT	EA	EA	EA				
48.98	EB	2	PM 48.9 TO Ave R-6				500	500					21	
49.47	EB/WB		INTERSECTION AT Ave R-8						720					
49.48	EB	2	Ave R-8				650	650					27	
49.95	EB	2	Ave S				670	670					28	
49.97	EB		INTERSECTION AT Ave S					125					5	
50.58	EB	2	GOLDENVIEW WAY TO RAILROAD UNDERPASS				1,500	1,500					63	
51.41	EB	2	Ave T				500	500					21	
49.47	EB	1	Ave R-8 TO Ave S	350	2,102	2,725		2,615	877		150	263	182	15
49.97	EB	1	Ave S TO 47th PLACE	700	1,400			700			90	175	29	29
50.56	EB	1	APPROACH GOLDEN VIEW WAY			1,000		500			30		21	
51.88	WB	1	60th St			1,500		750					31	
51.41	WB		LEFT TURN AT Ave T						395				33	
51.41	WB	1	Ave T TO RAILROAD UNDERPASS			3,000		1,500					63	
50.01	EB/WB		INTERSECTION AT 47th St EAST					90		400	180		4	
49.97	WB	1	Ave S TO MINSTREL Dr	350	680	920		820				85	34	15
49.47	WB	2	Ave R-8 TO Ave R-6				630	630					26	
49.97	WB	2	Ave S TO Ave R-8				2,615	2,615					109	
49.35	WB	2	Ave R-6 TO PM 48.9				1,342	1,342					56	
SUBTOTAL				1,400	4,182	9,145	8,407	15,507	1,272	1,120	450	523	753	59
TOTAL				38,641						1,272	1,570	1,335		

PAVEMENT DELINEATION QUANTITIES

PDQ-1

LAST REVISION DATE PLOTTED => 01-MAR-2013
 02-25-13 TIME PLOTTED => 06:30

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	48.9/51.9	6	14

Peter Vandinh 1-3-13
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 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.

SUMMARY OF QUANTITIES

POST MILE	DIRECTION	LANE No.	LOCATION	LENGTH (*N)	WIDTH (*N)	THICKNESS (*N)	REPLACE ASPHALT CONCRETE SURFACING
				LF	LF	LF	CY
48.98	EB	2	PM 48.9 TO Ave R-6	500	20	0.25	92.59
49.47	EB/WB		INTERSECTION AT Ave R-8	95	75	0.25	65.97
49.48	EB	2	Ave R-8	650	20	0.25	120.37
49.95	EB	2	Ave S	670	30	0.25	186.11
49.97	EB		INTERSECTION AT Ave S	125	70	0.25	81.02
50.58	EB	2	GOLDENVIEW WAY TO RAILROAD UNDERPASS	1,500	20	0.25	277.78
51.41	EB	2	Ave T	500	20	0.25	92.59
49.47	EB	1	Ave R-8 TO Ave S	2,615	14	0.25	338.98
49.97	EB	1	Ave S TO 47th PLACE	700	14	0.5	181.48
50.56	EB	1	APPROACH GOLDEN VIEW WAY	500	14	0.5	129.63
51.88	WB	1	60th St	750	14	0.25	97.22
51.41	WB		LEFT TURN AT Ave T	395	14	0.25	51.20
51.41	WB	1	Ave T TO RAILROAD UNDERPASS	1,500	14	0.25	194.44
50.01	EB/WB		INTERSECTION AT 47th St EAST	90	80	0.5	133.33
49.97	WB	1	Ave S TO MINSTREL Dr	820	14	0.25	106.30
49.47	WB	2	Ave R-8 TO Ave R-6	630	20	0.25	116.67
49.97	WB	2	Ave S TO Ave R-8	2,615	20	0.25	484.26
49.35	WB	2	Ave R-6 TO PM 48.9	1,342	20	0.25	248.52
TOTAL							2,998.46

*N : NOT A SEPERATE PAY ITEM. FOR INFORMATION ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 HOALU NGUYEN
 PETER V. DINH
 CALCULATED-DESIGNED BY
 CHECKED BY
 FUNCTIONAL SUPERVISOR
 HAMID SAADATNEJADI
 MAINTENANCE ENGINEERING

SUMMARY OF QUANTITIES

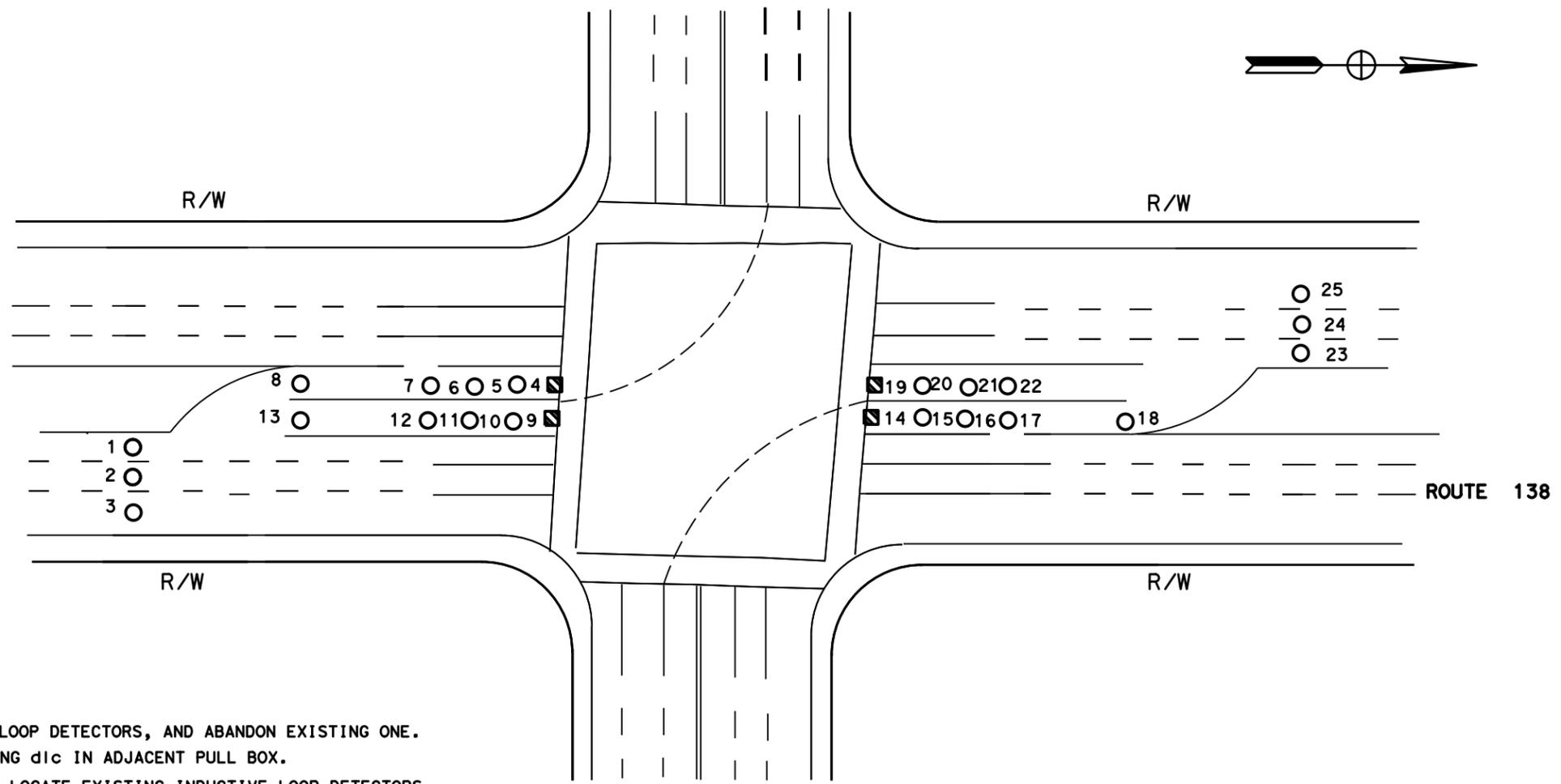
Q-1

LAST REVISION DATE PLOTTED => 01-MAR-2013
 02-25-13 TIME PLOTTED => 06:30

INDUCTIVE LOOP DETECTOR SCHEDULE

LOCATION	LOOP	SEE DETAIL A ON THIS SHEET FOR TYPICAL LOCATION OF LOOP DETECTORS																									No. OF STUBOUTS (REPLACE)	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25		
ROUTE 138:																												
Ave R-8				0	X	X	X	X							0	X	X	X	X							X	X	5
Ave S	X	X		0	X	X	X		0	X	X	X		0	X	X	X		0	X	X	X	X	X	X		4	
THE PLACE ON 47th St (PM 49.98)	X	X	X											0	X	X	X		0	X	X	X	X	X		3		
FORT TEJON Rd (PM 50.0)	X	X		0	X	X	X																	X	X	3		
Ave T / PEARLBLOSSOM Hwy	X	X		0	X	X	X							0	X	X	X							X	X	4		

X - ABANDON EXISTING LOOP. INSTALL NEW TYPE E LOOP AT SAME LOCATION
 O - ABANDON EXISTING LOOP. INSTALL NEW TYPE D LOOP AT SAME LOCATION



GENERAL NOTES (THIS SHEET)

1. INSTALL NEW 2" STUBOUT FOR NEW LOOP DETECTORS, AND ABANDON EXISTING ONE.
2. SPLICE NEW LOOP WIRES TO EXISTING d/c IN ADJACENT PULL BOX.
3. PRIOR TO CONSTRUCTION, YOU MUST LOCATE EXISTING INDUCTIVE LOOP DETECTORS.
4. TAG EXISTING d/c IN ADJACENT PULL BOX AND AT CONTROLLER CABINET.

DETAIL A
 TYPICAL INDUCTIVE LOOP DETECTOR CONFIGURATION

INDUCTIVE LOOP DETECTOR (REPLACEMENT)

APPROVED FOR ELECTRICAL WORK ONLY

NO SCALE

E-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR YI TSAU
 CHECKED BY
 CALCULATED-DESIGNED BY
 CECILIO BURCIAGA
 LUKE SUN
 REVISOR BY
 DATE REVISOR

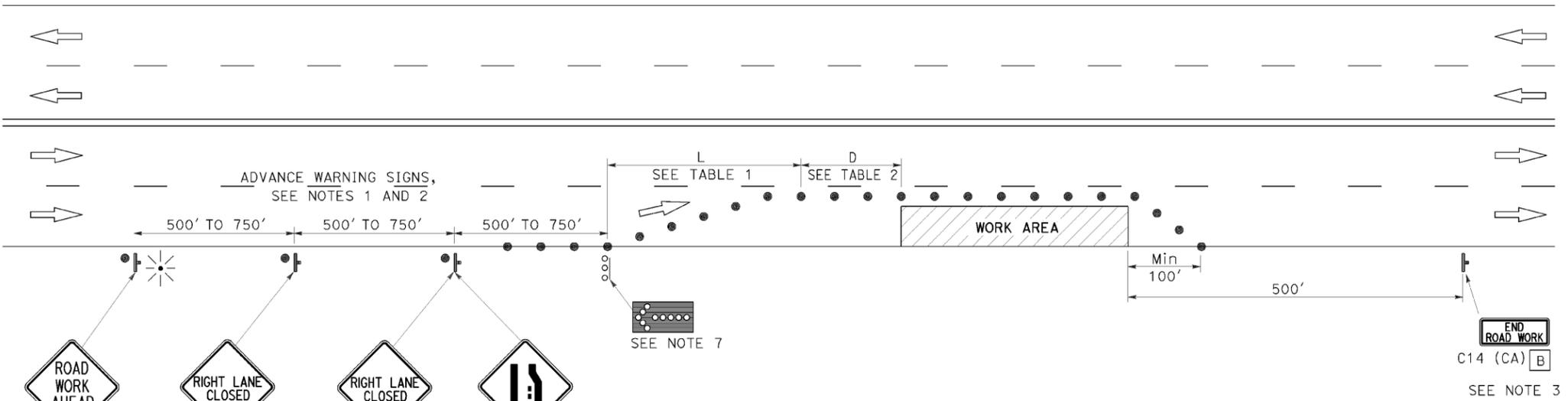
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	48.9/51.9	8	14

REGISTERED CIVIL ENGINEER: *Gurinderpal Bhullar*
 DATE: 12-7-12
 PLANS APPROVAL DATE: 3-4-13

REGISTERED PROFESSIONAL ENGINEER
 Gurinderpal Bhullar
 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.

TYPICAL LANE CLOSURE



NOTES:

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

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

- ROAD WORK AHEAD W20-1 [A] SEE NOTE 4
- RIGHT LANE CLOSED AHEAD C20 (CA) (Rt) [A]
- RIGHT LANE CLOSED AHEAD C20 (CA) (Rt) [A]
- LANE ENDS W4-2R [A] SEE NOTE 10

TABLE 1

APPROACH SPEED	* MINIMUM L	** Max SPACING OF CONES ALONG TAPER
mph	ft	ft
20 AND BELOW	80	20
25	125	25
30	180	30
35	245	35
40	320	40
45	540	45
50	600	50
Over 50	SEE NOTE 9	

* USE L FOR LANE WIDTHS LESS THAN OR EQUAL TO 12'.
** SEE NOTE 8.

TABLE 2

APPROACH SPEED	MINIMUM D	DOWNGRADE MINIMUM D *		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
25 AND BELOW	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
OVER 50	SEE NOTE 9			

* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

LEGEND

- TRAFFIC CONE
- ⊥ TEMPORARY SIGN
- ⊥ FLASHING ARROW SIGN (FAS)
- ⊥ FAS SUPPORT OR TRAILER
- ⊥ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- [A] 36" x 36"
- [B] 36" x 18"

- NOTES:**
- Where approach speeds are low, advance warning signs may be placed at 300' spacing and placed closer in urban areas.
 - 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 C14 (CA) "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 C11 (CA) "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.
 - The maximum spacing between cones along a tangent shall be 50' and along a taper shall be approximately as shown in Table 1.
 - 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.
 - When specified in the special provisions, a W4-2 "LANE ENDS" symbol sign is to be used in place of the C20 (CA) "RIGHT LANE CLOSED AHEAD" sign.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

TCS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Hamid Saadatnejadi
 MAINTENANCE ENGINEERING

DATE PLOTTED => 10-DEC-2012 TIME PLOTTED => 09:45
 LAST REVISION: 02-22-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	48.9/51.9	9	14

12-7-12
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE

Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 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.

LEGEND

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

TABLE 1

APPROACH SPEED	* MINIMUM L	** Max SPACING OF CONES ALONG TAPER
mph	ft	ft
20 and below	80	20
25	125	25
30	180	30
35	245	35
40	320	40
45	540	45
50	600	50
OVER 50	SEE NOTE 11	

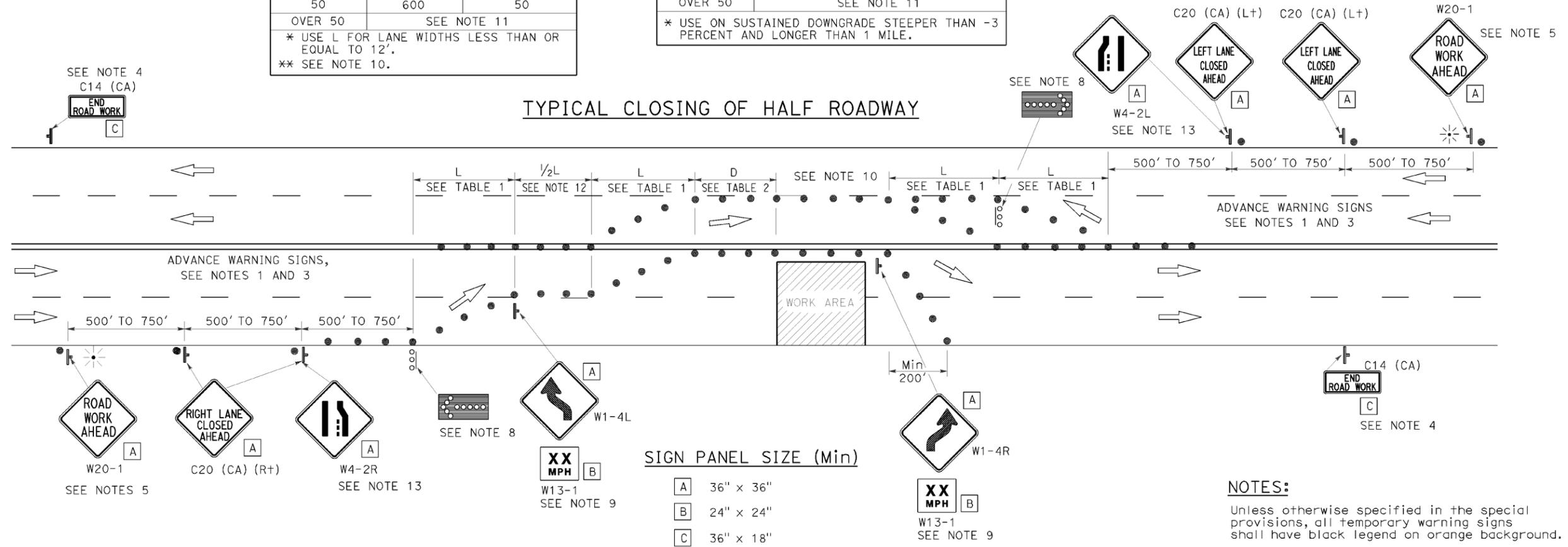
* USE L FOR LANE WIDTHS LESS THAN OR EQUAL TO 12'.
 ** SEE NOTE 10.

TABLE 2

APPROACH SPEED	MINIMUM D	DOWNGRADE MINIMUM D *		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
25 AND BELOW	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
OVER 50	SEE NOTE 11			

* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

TYPICAL CLOSING OF HALF ROADWAY



- NOTES:**
- 1. Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on orange background.
 - 2. California code are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

NOTES:

1. Where Approach speeds are low, advance warning signs may be placed at 300' spacing and placed closer in urban areas.
2. 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.
3. 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.
4. A C14 (CA) "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.
5. If the W20-1 sign would follow within 2000' of a stationary W20-1 or C11 (CA) "ROAD WORK NEXT MILES", use a C20 (CA) sign for the first advance warning sign.
6. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
7. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
8. Flashing arrow signs shall be either Type I or Type II.
9. Advisory speed will be determined by the Engineer. The W13-1 Sign will not be required when advisory speed is more than the posted or maximum speed limit.
10. The maximum spacing between cones along a tangent shall be 50' and along a taper shall be approximately as shown in Table 1.
11. 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.
12. Unless otherwise specified in the special provisions, the (1/2 L) shown between the two (L) lane closure tapers shall be used.
13. When specified in the special provisions, a W4-2 "Lane Ends" symbol sign is to be used in place of the C20 (CA) "RIGHT (LEFT) LANE CLOSED AHEAD" sign.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

TCS-2

DATE PLOTTED => 10-DEC-2012
 TIME PLOTTED => 09:45
 02-22-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	48.9/51.9	10	14

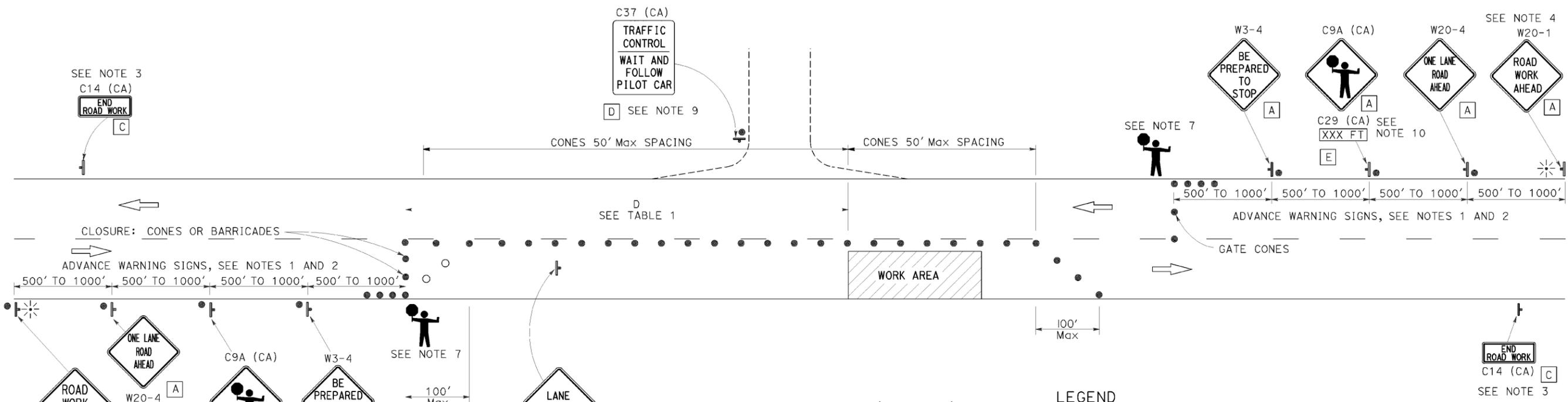
REGISTERED CIVIL ENGINEER: *Gurinderpal Bhullar*
 DATE: 12-7-12
 PLANS APPROVAL DATE: 3-4-13
 No. C48815
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

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NOTES:

Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on orange background. California code are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL



SIGN PANEL SIZE (MINIMUM)

- A 48" x 48" - SPEED OF 45 mph OR MORE
36" x 36" - SPEED LESS THAN 45 mph
- B 30" x 30"
- C 36" x 18"
- D 36" x 42"
- E 36" x 9"

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- † TEMPORARY SIGN
- ☼ PORTABLE FLASHING BEACON
- 👤 FLAGGER

TABLE 1

APPROACH SPEED	MINIMUM D	DOWNGRADE MINIMUM D *		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
25 AND BELOW	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

* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.

NOTES:

- Where approach speeds are low, advance warning signs may be placed at 300' spacing, and closer in urban areas.
- 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 C14 (CA) "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 C11 (CA) "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 at all intersections within traffic control area. Signs shall be clean and visible at all times.
- An optional C29 (CA) sign may be placed below the C9A (CA) sign.
- Traffic cones or barricades may be placed on the optional taper as shown, barricades shall be Type I, II, or III.

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

NO SCALE

TCS-3

DATE PLOTTED => 10-DEC-2012 TIME PLOTTED => 09:45 LAST REVISION: 02-22-13

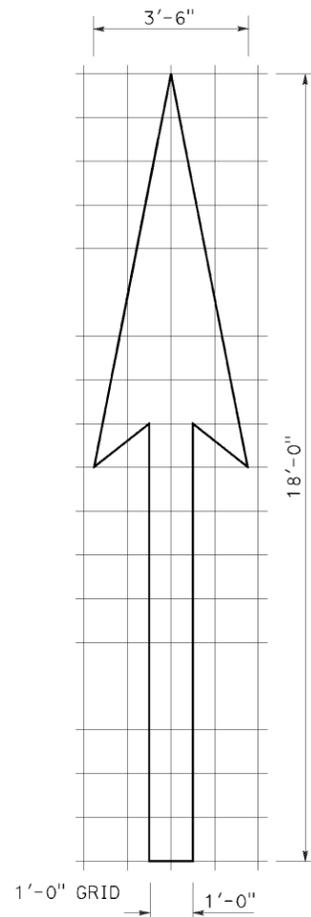
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	48.9/51.9	11	14

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

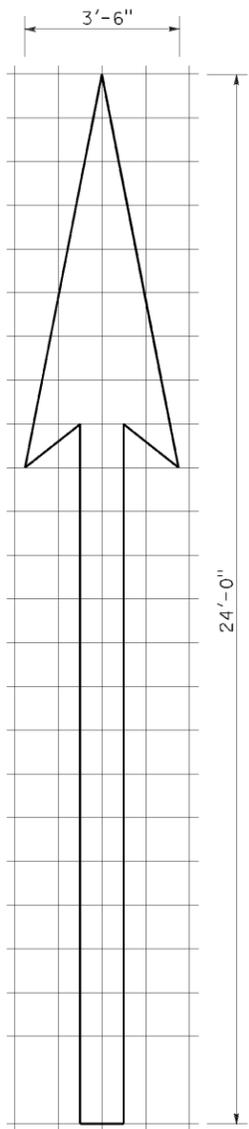
April 20, 2012
 PLANS APPROVAL DATE

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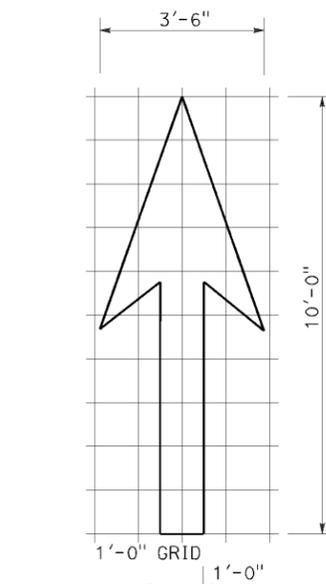
TO ACCOMPANY PLANS DATED 3-4-13



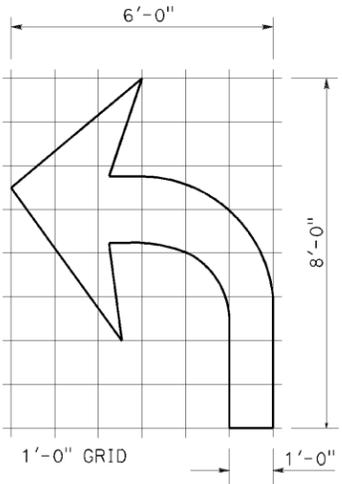
A=25 ft²
TYPE I 18'-0" ARROW



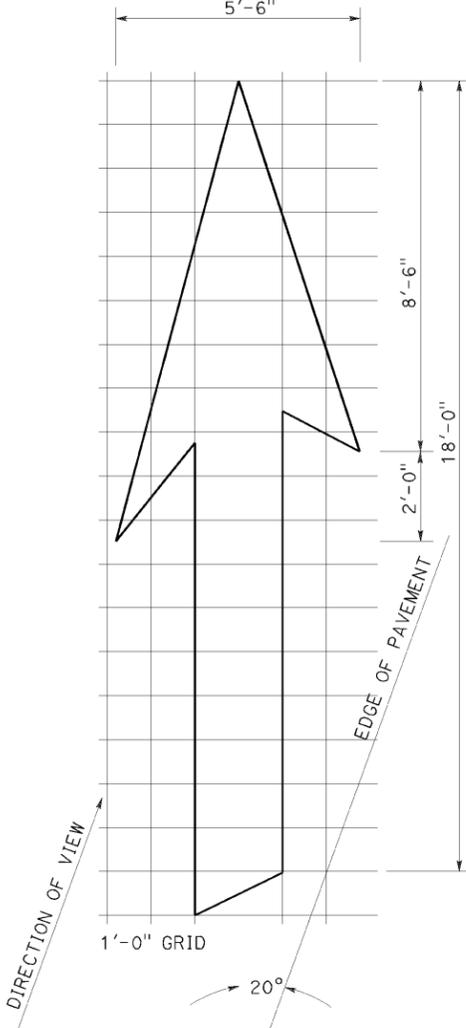
A=31 ft²
TYPE I 24'-0" ARROW



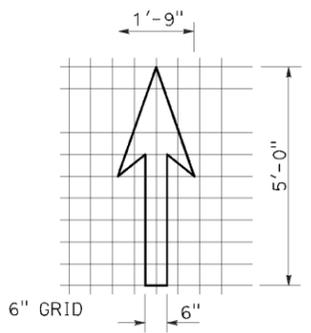
A=14 ft²
TYPE I 10'-0" ARROW



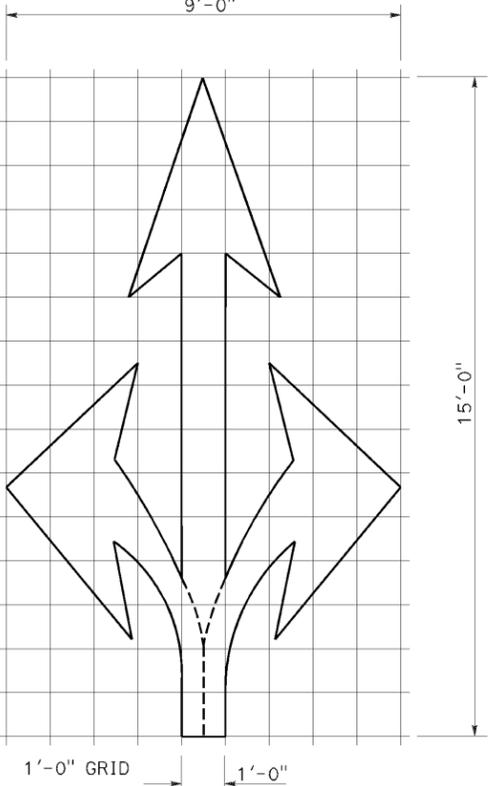
A=15 ft²
TYPE IV (L) ARROW
(For Type IV (R) arrow, use mirror image)



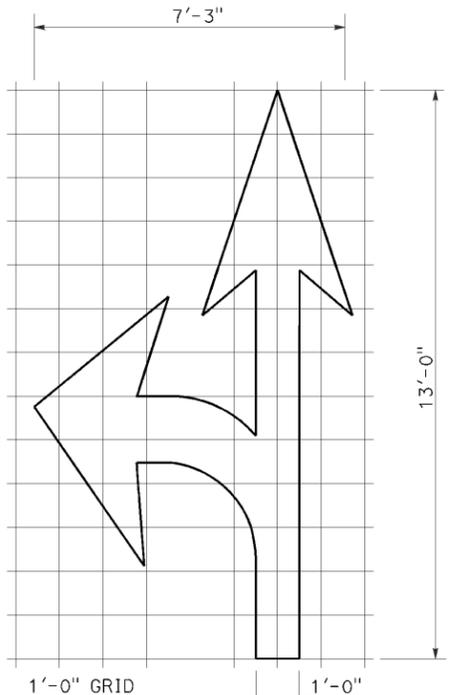
A=42 ft²
TYPE VI ARROW
Right lane drop arrow
(For left lane, use mirror image)



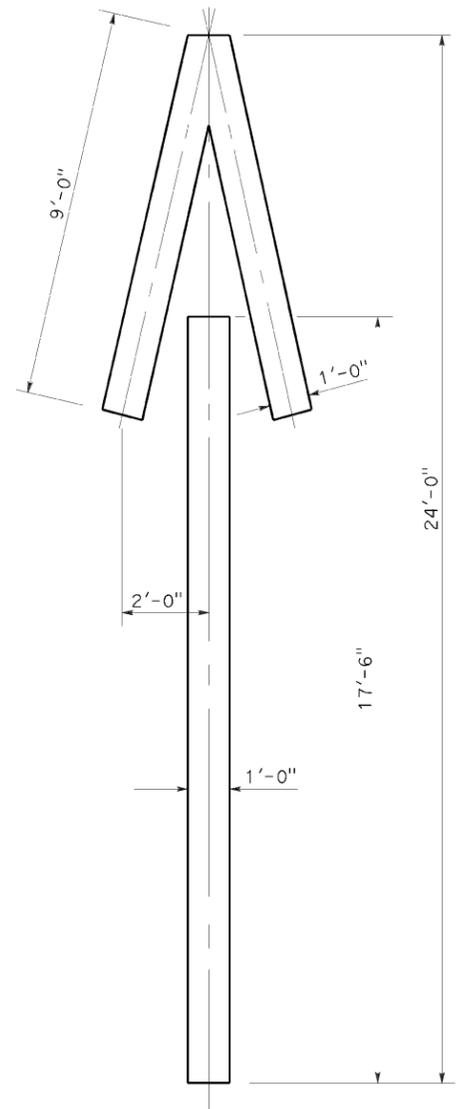
A=3.5 ft²
BIKE LANE ARROW



A=36 ft²
TYPE VIII ARROW



A=27 ft²
TYPE VII (L) ARROW
(For Type VII (R) arrow, use mirror image)



A=33 ft²
TYPE V ARROW

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

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

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

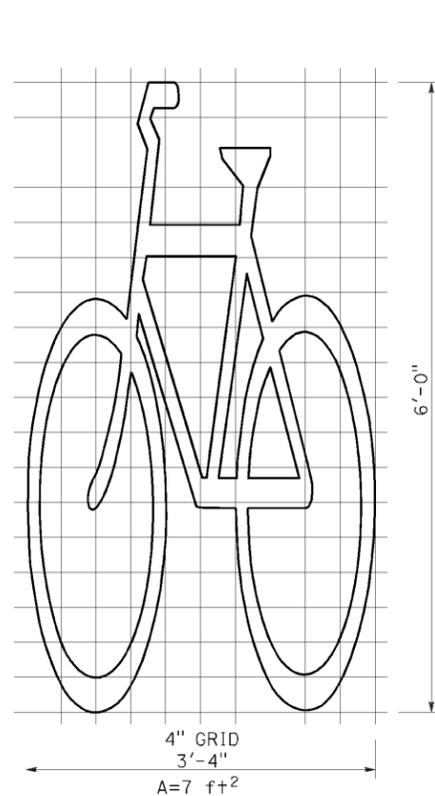
REVISED STANDARD PLAN RSP A24A

2010 REVISED STANDARD PLAN RSP A24A

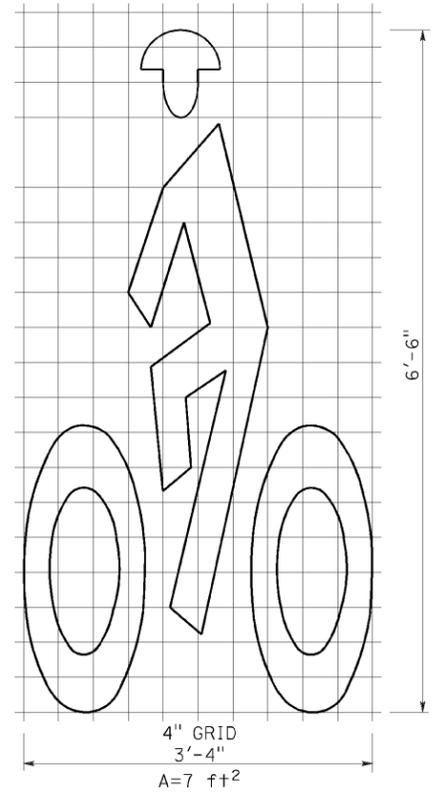
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	48.9/51.9	12	14

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

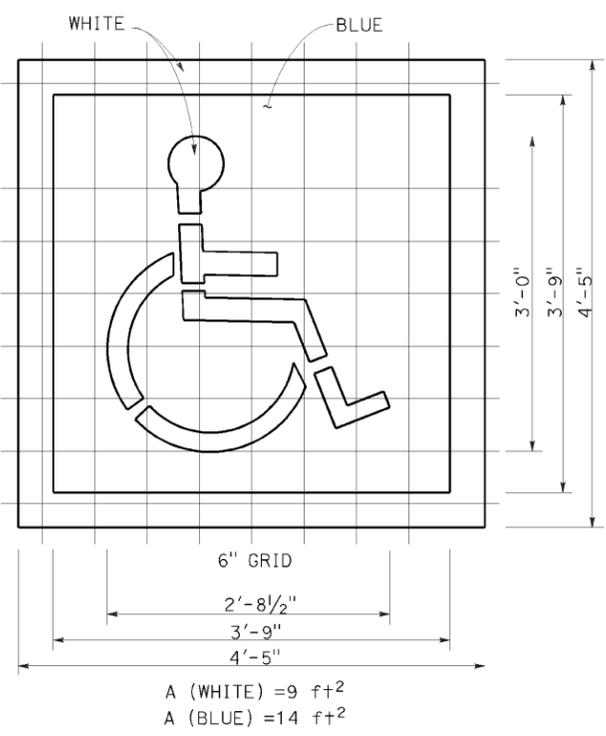
October 19, 2012
 PLANS APPROVAL DATE
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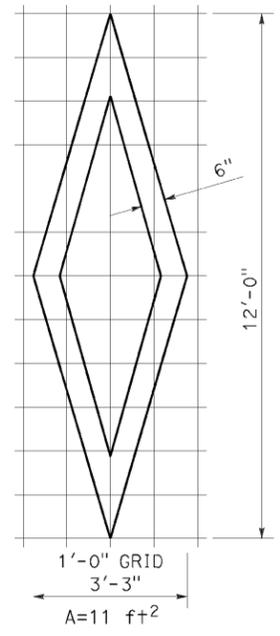
**BIKE LANE SYMBOL
WITHOUT PERSON**



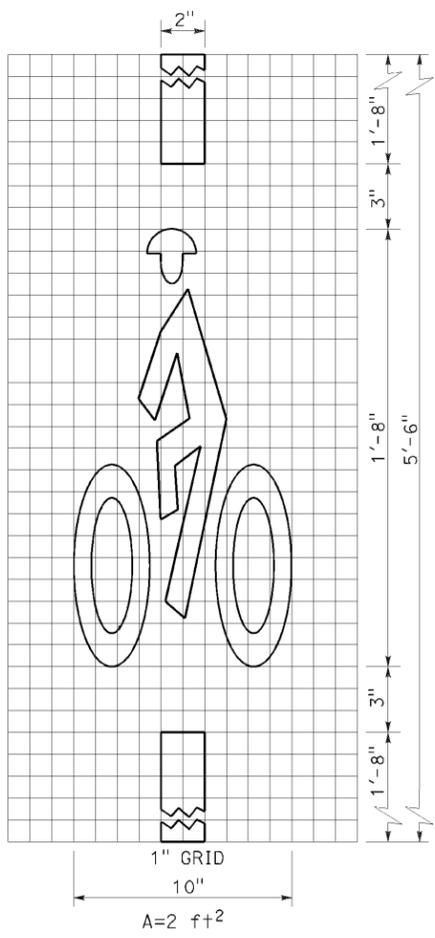
**BIKE LANE SYMBOL
WITH PERSON**



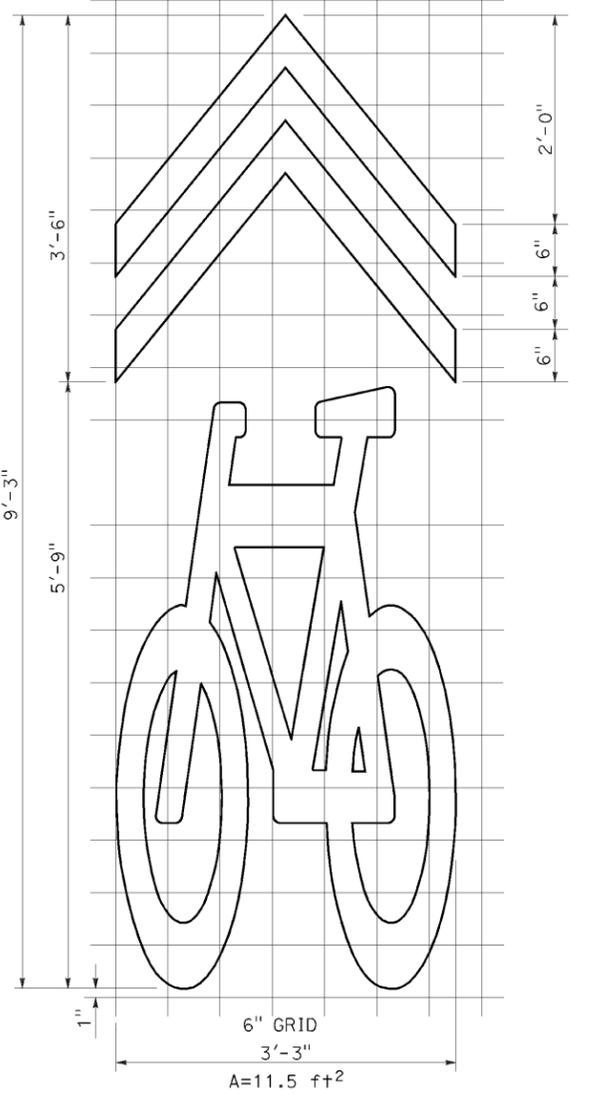
**INTERNATIONAL SYMBOL
OF ACCESSIBILITY (ISA) MARKING**



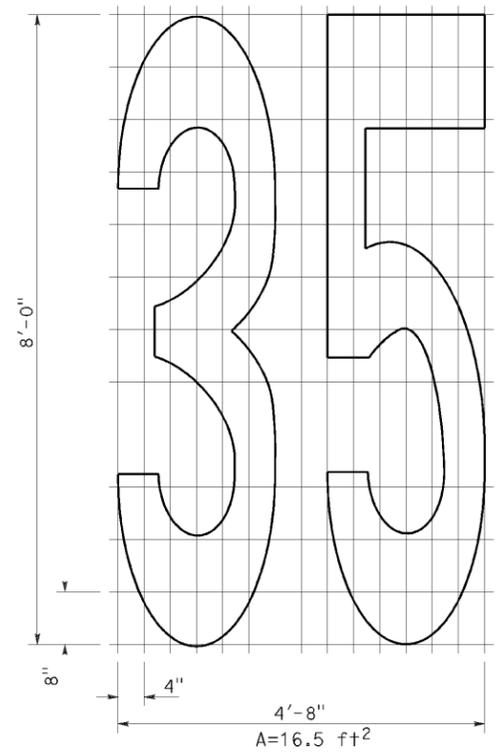
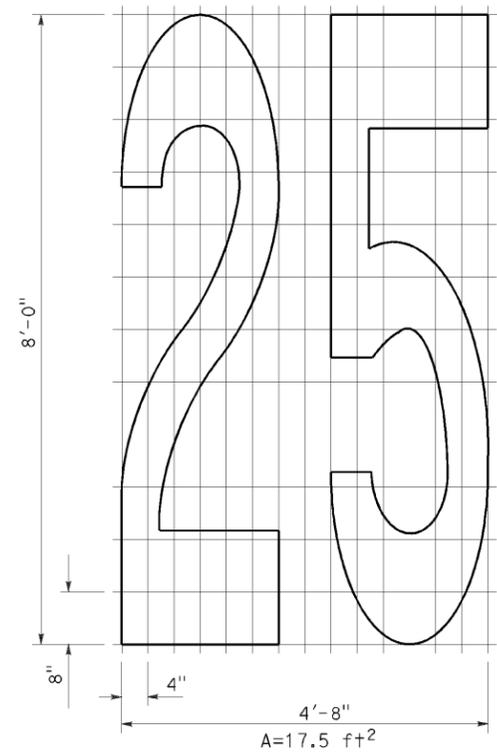
DIAMOND SYMBOL



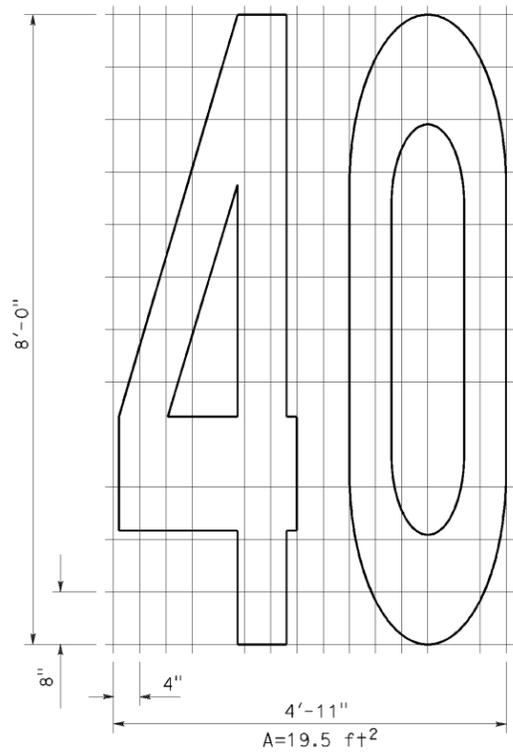
**BICYCLE LOOP
DETECTOR SYMBOL**



SHARED ROADWAY BICYCLE MARKING



NUMERALS



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

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

REVISED STANDARD PLAN RSP A24C

2010 REVISED STANDARD PLAN RSP A24C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	48.9/51.9	13	14

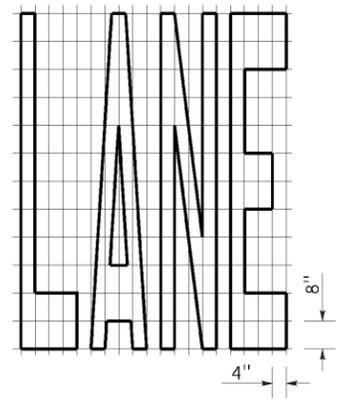
Registered Civil Engineer
 Roberta L. McLaughlin
 No. C40375
 Exp. 3-31-13
 CIVIL
 STATE OF CALIFORNIA

July 20, 2012
 PLANS APPROVAL DATE

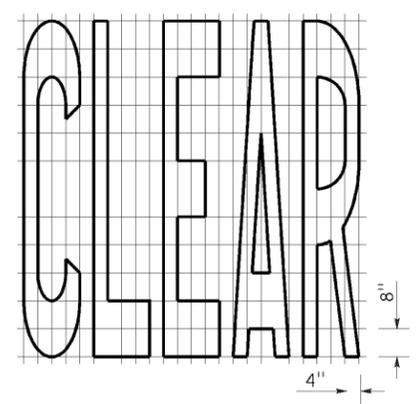
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TO ACCOMPANY PLANS DATED 3-4-13

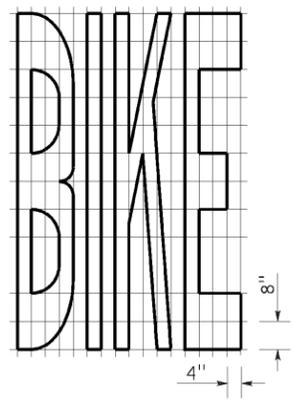
WORD MARKINGS			
ITEM	ft ²	ITEM	ft ²
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



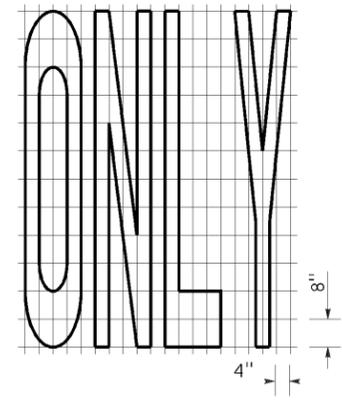
A=24 ft²



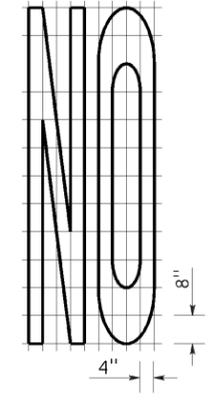
A=27 ft²



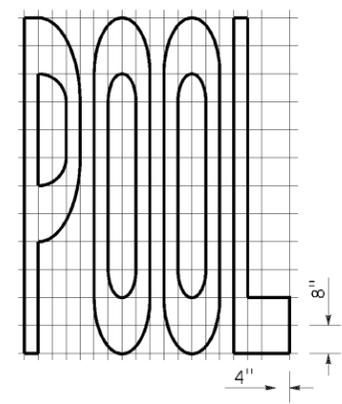
A=21 ft²



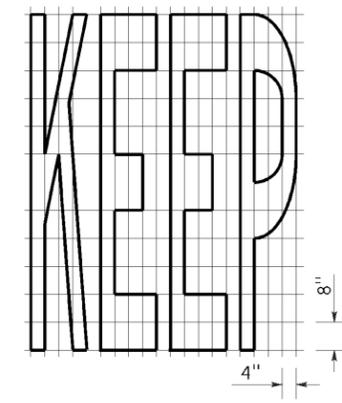
A=22 ft²



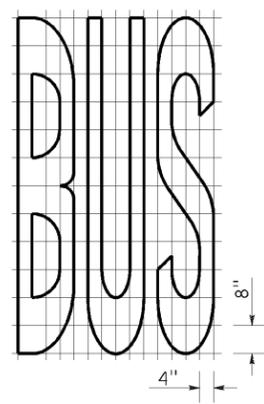
A=14 ft²



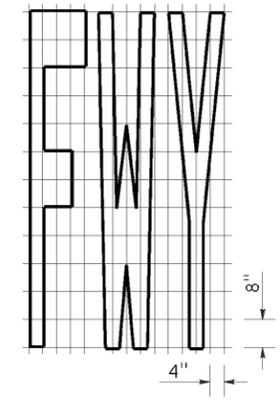
A=23 ft²



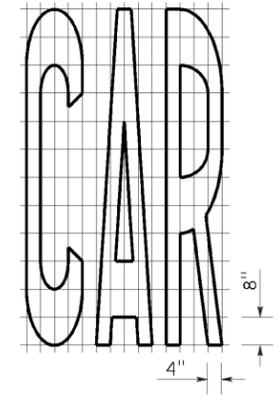
A=24 ft²



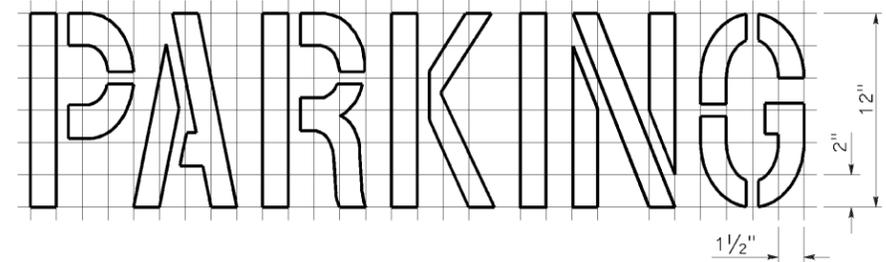
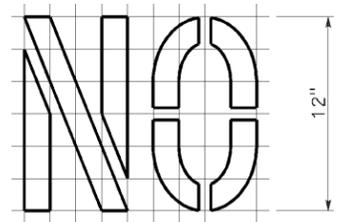
A=20 ft²



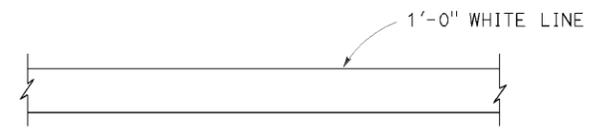
A=16 ft²



A=17 ft²



A=2 ft²
See Notes 6 and 7



LIMIT LINE (STOP LINE)



WHITE SERIES OF ISOSCELES TRIANGLES
DIRECTION OF TRAVEL
YIELD LINE

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

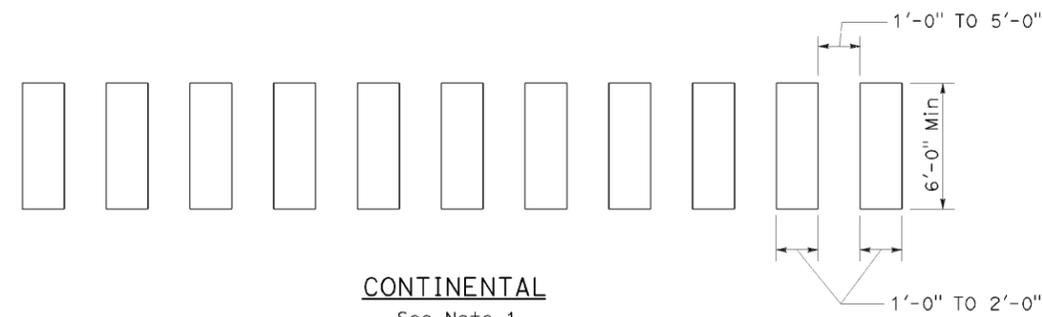
REVISED STANDARD PLAN RSP A24E

2010 REVISED STANDARD PLAN RSP A24E

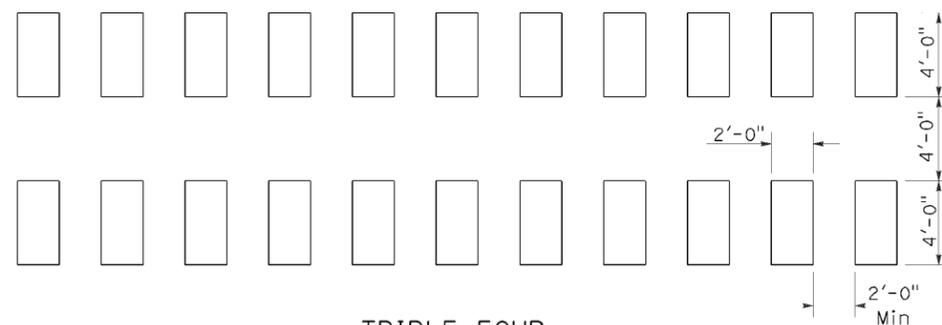
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	138	48.9/51.9	14	14

 REGISTERED CIVIL ENGINEER		
July 20, 2012 PLANS APPROVAL DATE		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>		

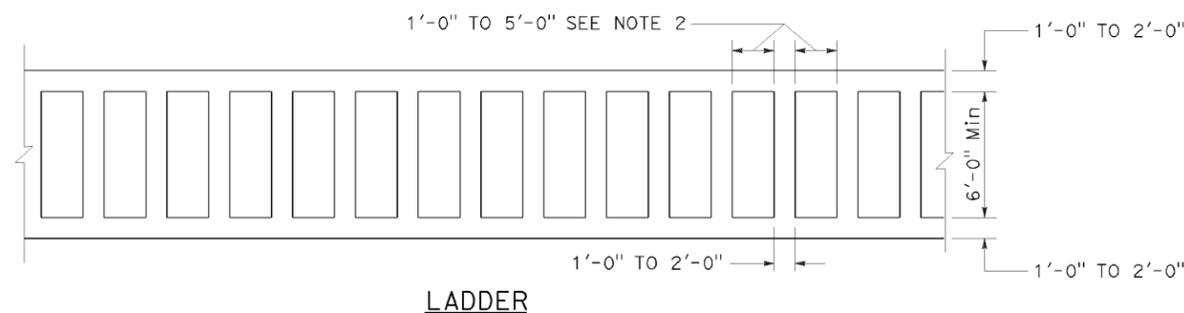
TO ACCOMPANY PLANS DATED 3-4-13



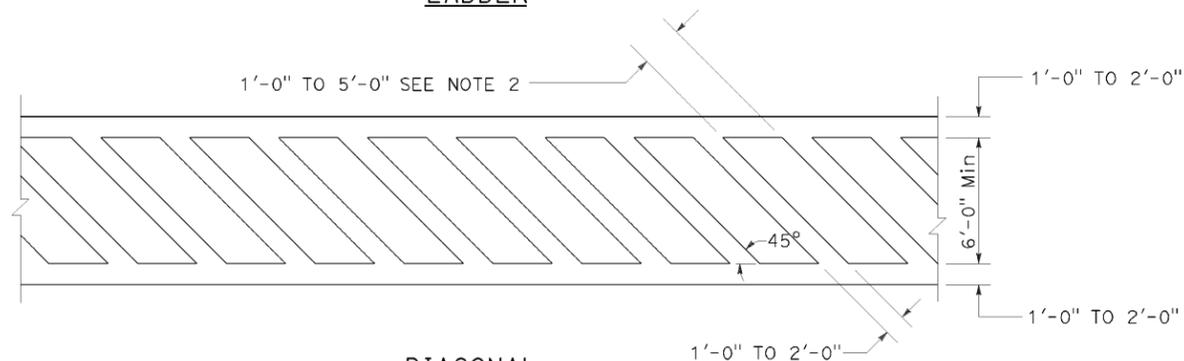
CONTINENTAL
See Note 1



TRIPLE FOUR
See Note 1



LADDER

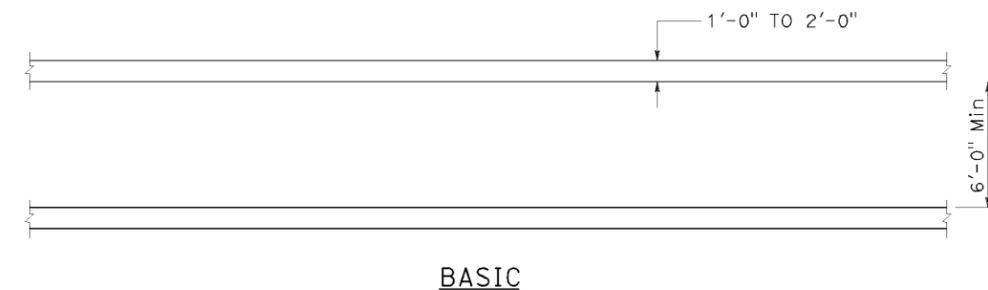


DIAGONAL

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.

REVISED STANDARD PLAN RSP A24F

2010 REVISED STANDARD PLAN RSP A24F