

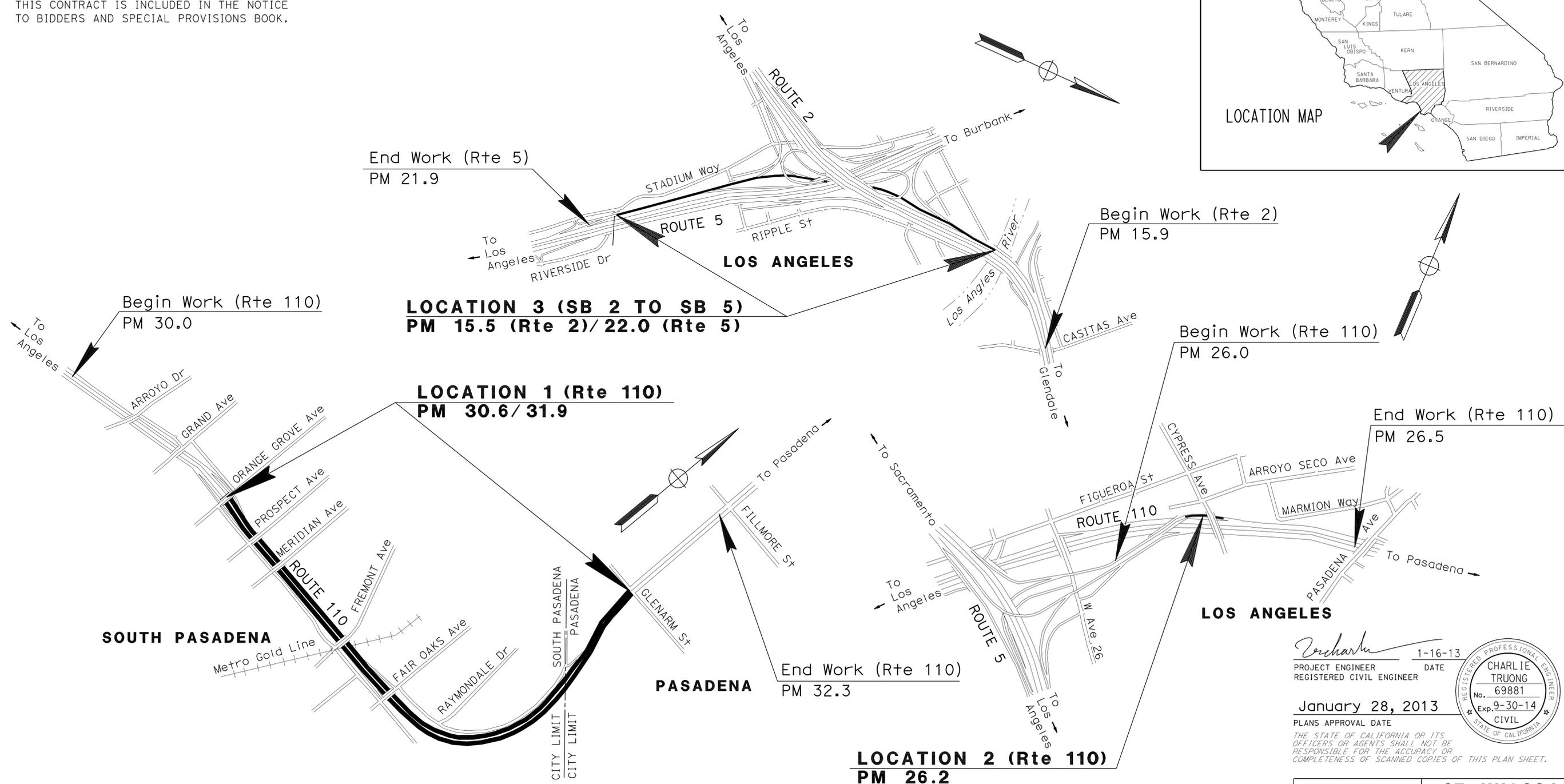
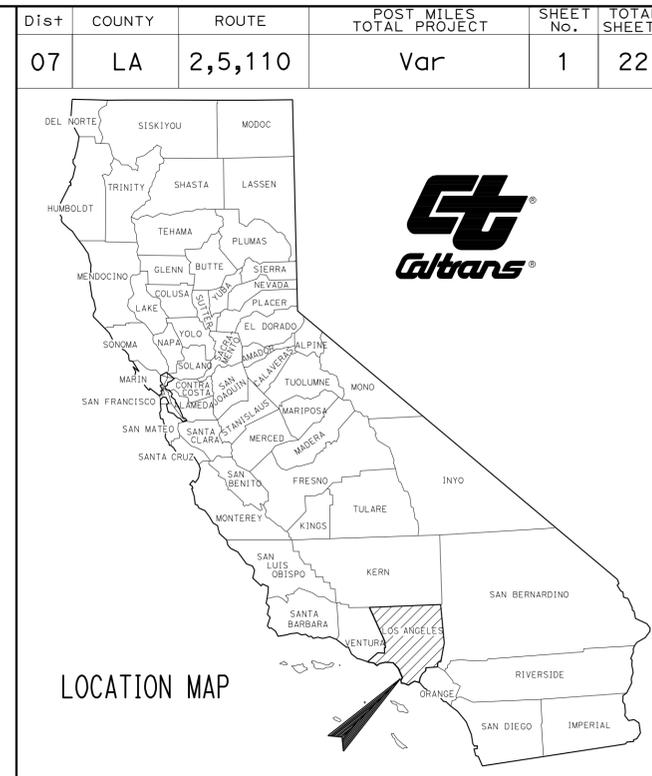
INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-4	TYPICAL CROSS SECTIONS
5	CONSTRUCTION DETAILS
6-7	CONSTRUCTION AREA SIGNS
8-13	TRAFFIC HANDLING DETAILS
14	PAVEMENT DELINEATION QUANTITIES
15	SUMMARY OF QUANTITIES
16-18	ELECTRICAL PLANS
19-21	TRAFFIC CONTROL SYSTEM
22	REVISED STANDARD PLAN

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
AT VARIOUS LOCATIONS

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



PROJECT MANAGER
GARY KEVORKIAN
 DESIGN ENGINEER
JOHN ZAKI

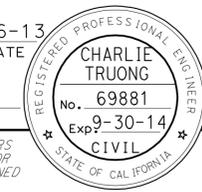
PROJECT ENGINEER DATE 1-16-13
 REGISTERED CIVIL ENGINEER
 No. 69881
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

January 28, 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

DATE PLOTTED => 23-JAN-2013
 TIME PLOTTED => 11:19
 LAST REVISION 01-16-13

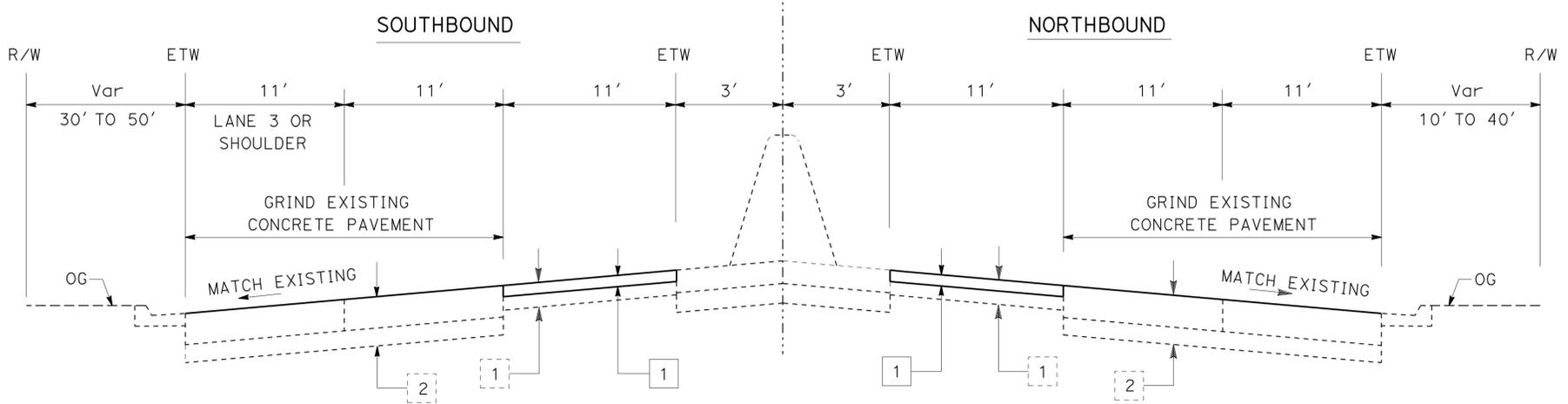
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	2,5,110	Var	2	22
 REGISTERED CIVIL ENGINEER DATE 1-16-13					
1-28-13 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- EXISTING UTILITIES FACILITIES ARE NOT SHOWN ON THESE PLANS.
- EXISTING DRAINAGE INLETS HAVE NOT BEEN PLOTTED ON THESE PLANS.
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- OMIT COLD PLANING AND HMA OVERLAY ON BRIDGE DECKS, PCC PAVEMENT, MANHOLES AND GUTTERS.
- OMIT GRINDING ON AC PAVEMENT, BRIDGE DECKS, AND APPROACH AND DEPARTURE SLABS.

ABBREVIATIONS:

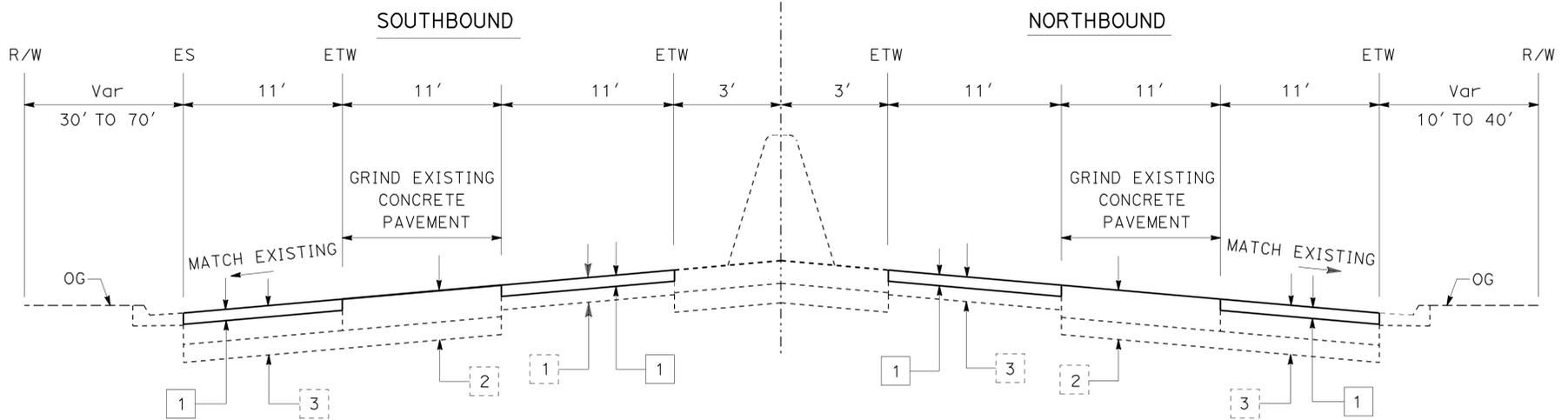
RHMA-G: RUBBERIZED HOT MIX ASPHALT (GAP GRADED)



**Loc 1 - ROUTE 110
PM 30.70/31.17**

TYPICAL PAVEMENT STRUCTURAL SECTIONS

- 1 0.17' COLD PLANE AC Pvm+
0.17' RHMA-G
- 1 EXISTING
0.50' AC
Var IMPORTED BASE MATERIAL
- 2 EXISTING
0.67'-0.75 PCC
Var IMPORTED BASE MATERIAL
- 3 EXISTING
0.17' AC
0.58' PCC
Var IMPORTED BASE MATERIAL



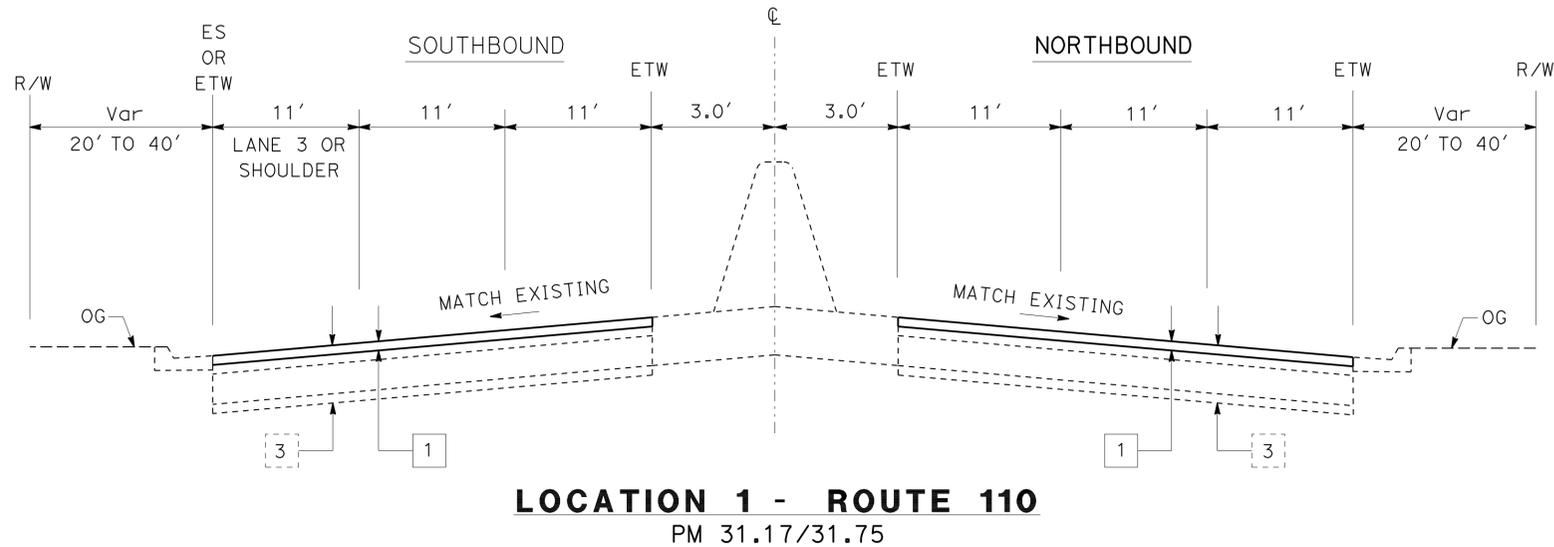
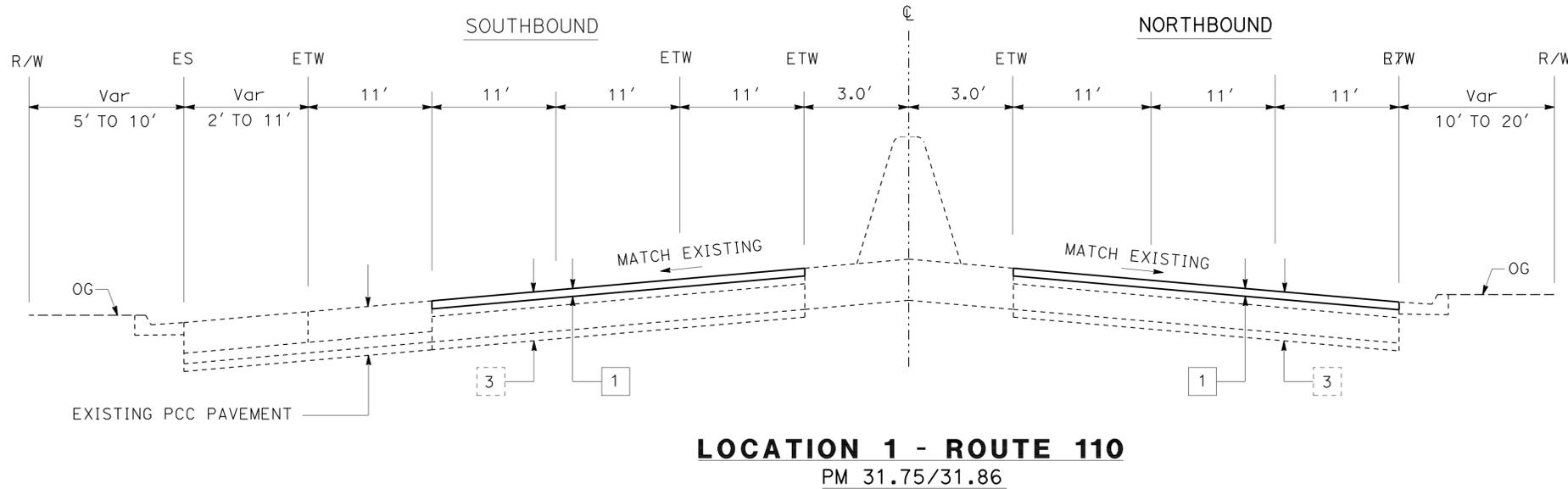
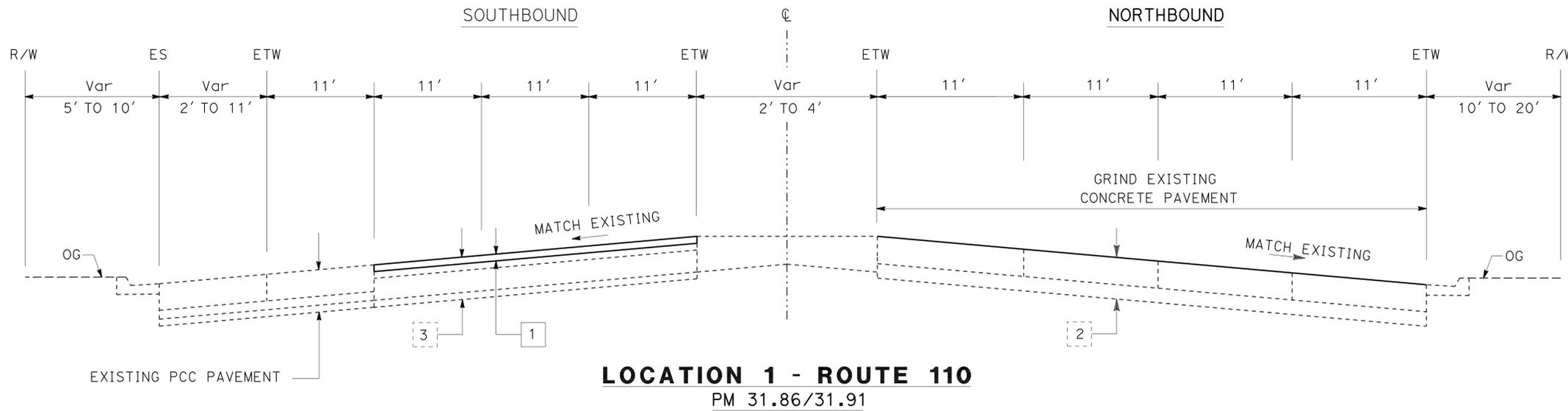
**Loc 1 - ROUTE 110
PM 30.59/30.70**

**TYPICAL CROSS SECTIONS
NO SCALE**

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR JOHN ZAKI
 CALCULATED/DESIGNED BY CHARLIE TRUONG
 CHECKED BY JOHN ZAKI
 REVISED BY DATE
 REVISIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	2,5,110	Var	3	22
			1-16-13		
REGISTERED CIVIL ENGINEER			DATE		
1-28-13			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>					



TYPICAL CROSS SECTIONS
NO SCALE

X-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

REVISOR: CHARLIE TRUONG
DATE: JOHN ZAKI

CALCULATED/DESIGNED BY: JOHN ZAKI
CHECKED BY:

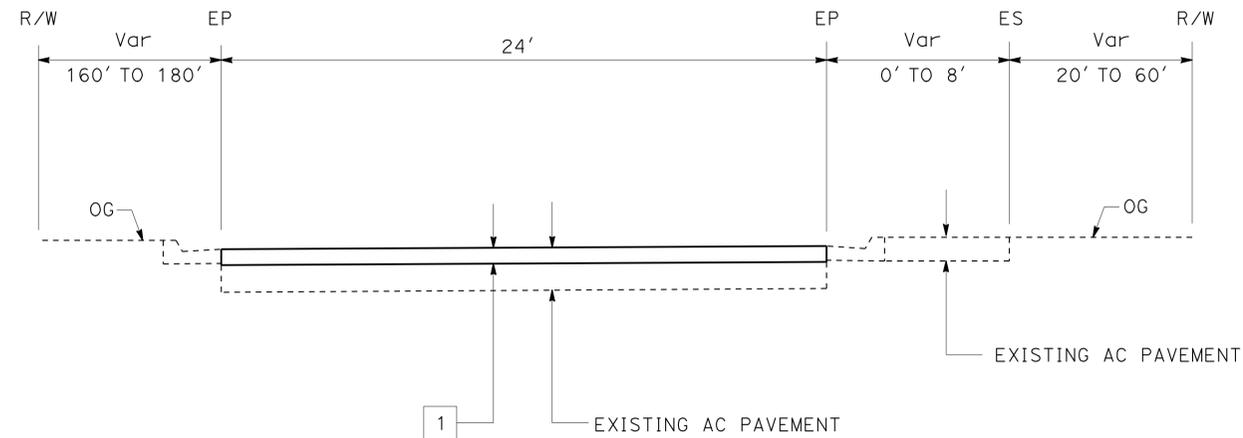
FUNCTIONAL SUPERVISOR: JOHN ZAKI

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	2,5,110	Var	4	22

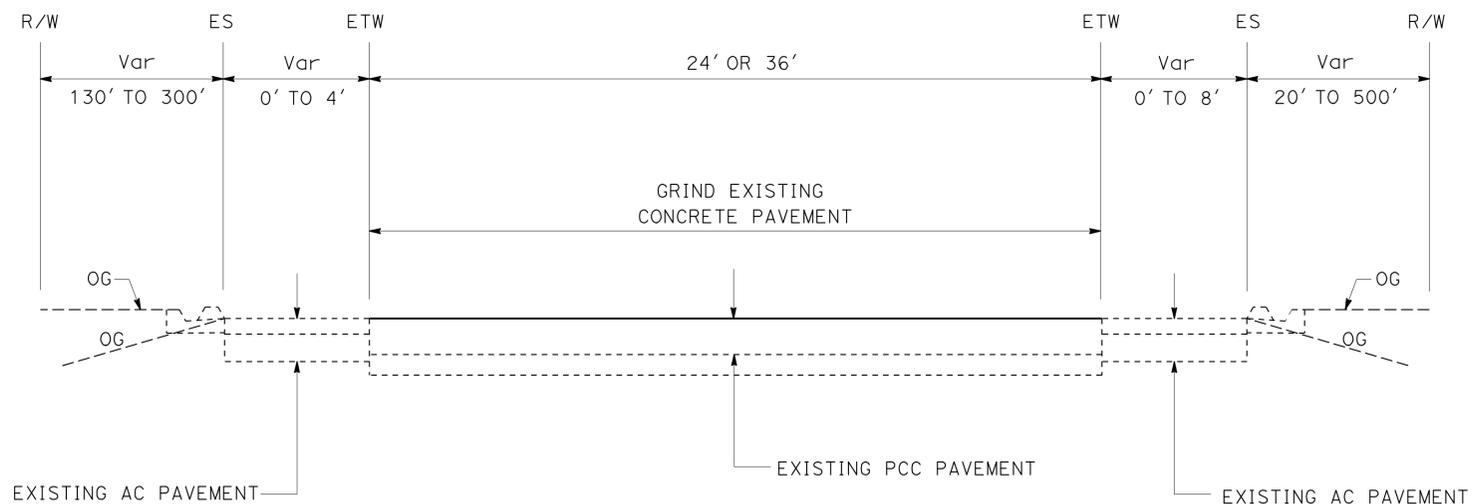
Charlie Truong
 REGISTERED CIVIL ENGINEER DATE 1-16-13
 1-28-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
CHARLIE TRUONG
 No. 69881
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

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LOCATION 2 - SB ROUTE 110 OFF TO ROUTE 5
 PM 26.13/26.22 (ROUTE 110)



Loc 3 - SB ROUTE 2 OFF TO SB ROUTE 5
 PM 15.50 (ROUTE 2)/PM 22.00 (ROUTE 5)

TYPICAL CROSS SECTIONS
 NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: JOHN ZAKI
 CALCULATED/DESIGNED BY: JOHN ZAKI
 CHECKED BY:
 CHARLIE TRUONG
 JOHN ZAKI
 REVISED BY: DATE REVISED:
 REVISIONS:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	2,5,110	Var	5	22

1-16-13
 REGISTERED CIVIL ENGINEER DATE
 1-28-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 CHARLIE TRUONG
 No. 69881
 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.

NOTES:

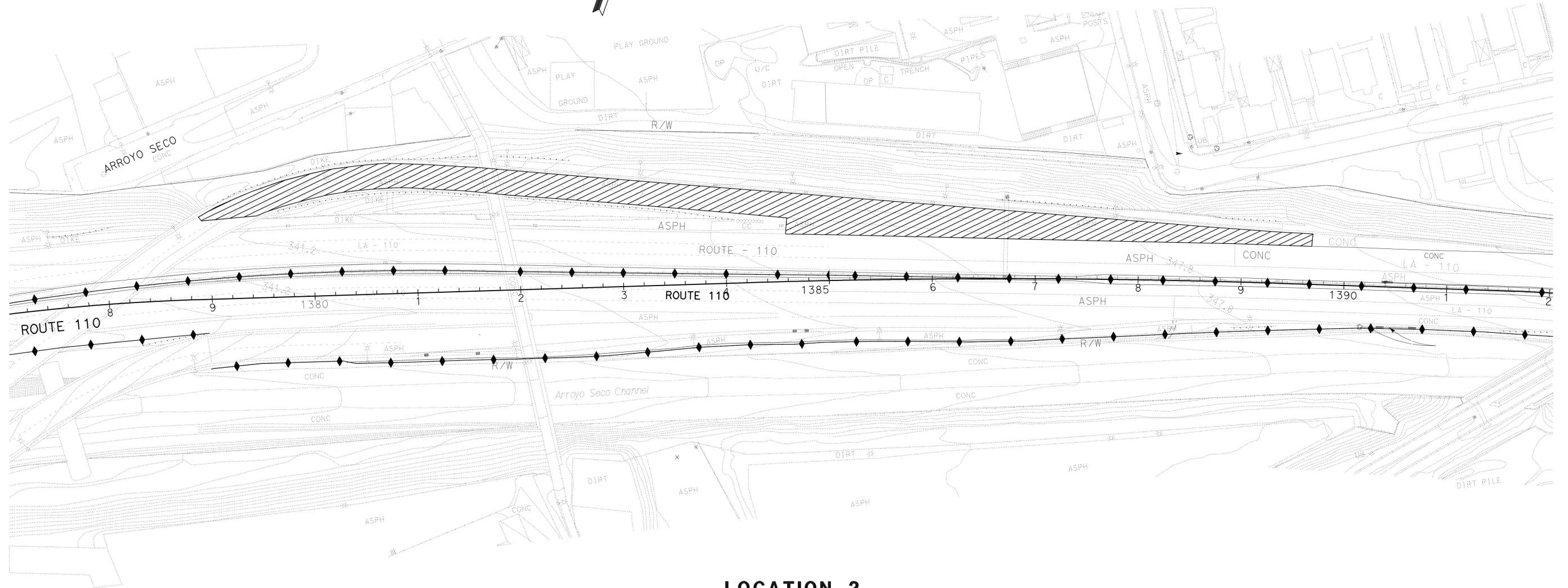
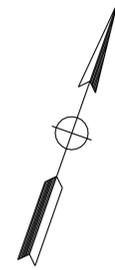
- EXISTING DRAINAGE INLETS HAVE NOT BEEN PLOTTED ON THESE PLANS.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
- OMIT COLD PLANNING AND OVERLAY AC ON BRIDGE DECKS, PCC PAVEMENT, MANHOLES AND GUTTERS.

ABBREVIATIONS:

RHMA-G: RUBBERIZED HOT MIX ALPHALT (GAP GRADED)

LEGEND:

 COLD PLANE AC PAVEMENT AND PLACE RHMA-G



LOCATION 2
SB ROUTE 110 OFF TO ROUTE 5
 PM 26.13/26.22 (ROUTE 110)

CONSTRUCTION DETAILS
 NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: JOHN ZAKI
 CALCULATED/DESIGNED BY: CHARLIE TRUONG
 CHECKED BY: JOHN ZAKI
 REVISED BY: JOHN ZAKI
 DATE REVISED:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	2,5,110	Var	6	22

1-16-13
 REGISTERED CIVIL ENGINEER DATE

1-28-13
 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.

REGISTERED PROFESSIONAL ENGINEER
 CHARLIE TRUONG
 No. 69881
 Exp. 9-30-14
 CIVIL
 STATE OF CALIFORNIA

NOTES:

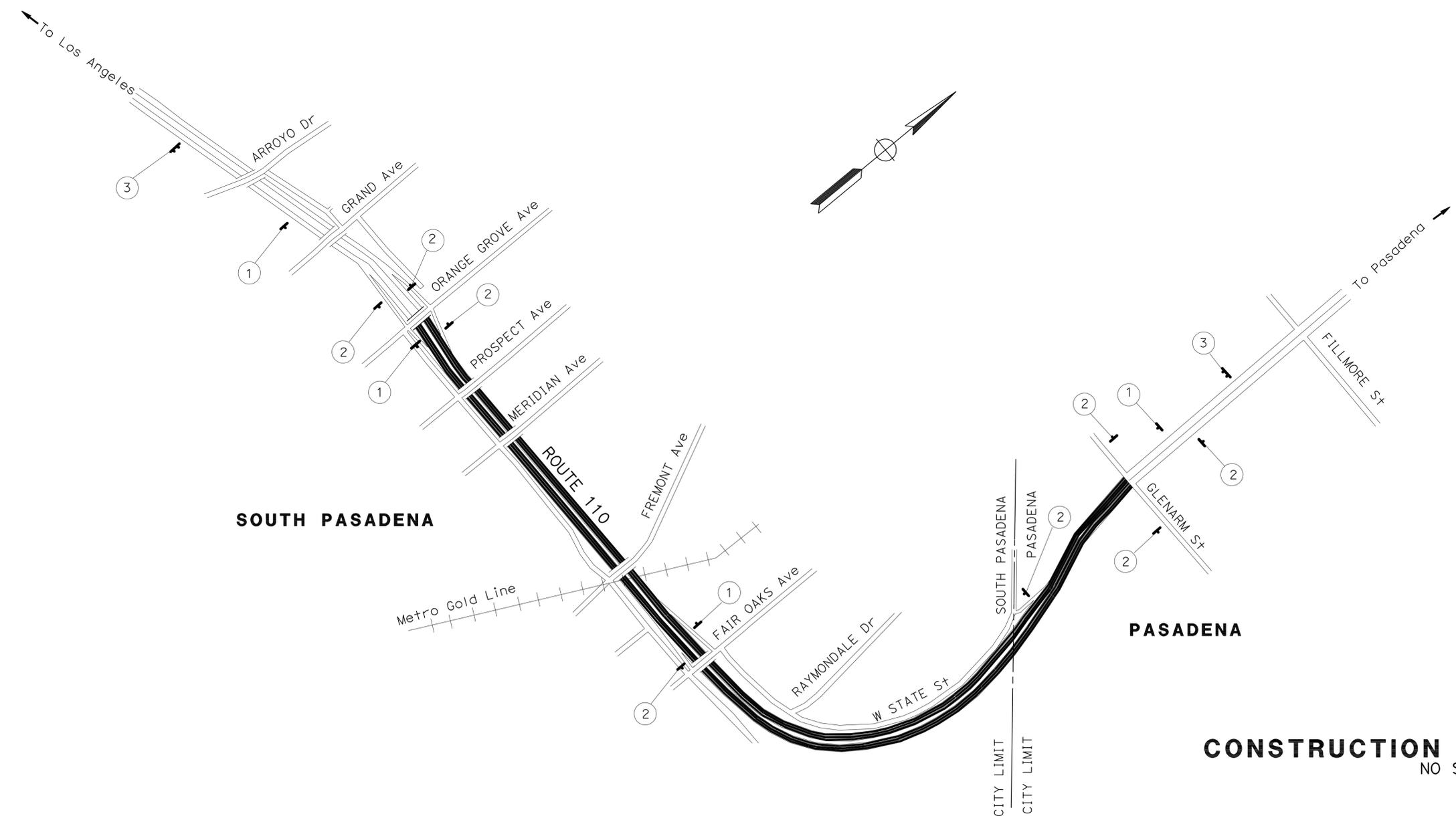
- LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
- "TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES" SIGNS SHALL BE PLACED APPROXIMATELY 500 FEET IN ADVANCE OF "ROAD WORK AHEAD" SIGNS OR AS DETERMINED BY THE ENGINEER.

LEGEND:

- (X) SIGN NUMBER
- ↑ ONE POST SIGN LOCATION
- ↑↑ TWO POST SIGN LOCATION

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS					
SIGN NUMBER	CODE	SIGN MESSAGE	PANEL SIZE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS (SHEET CS-1 AND CS-2)
①	W20-1	ROAD WORK AHEAD	48" x 48"	1 - 6" x 6"	8
②	G20-2	END ROAD WORK	48" x 24"	1 - 4" x 6"	12
③	C40(CA)	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	144" x 60"	2 - 6" x 8"	4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR JOHN ZAKI
 CALCULATED/DESIGNED BY CHECKED BY
 CHARLIE TRUONG JOHN ZAKI
 REVISED BY DATE REVISED



CONSTRUCTION AREA SIGNS
NO SCALE

CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING

FUNCTIONAL SUPERVISOR: JOHN ZAKI
 CALCULATED/DESIGNED BY: JOHN ZAKI
 CHECKED BY: JOHN ZAKI
 REVISIONS: CHARLIE TRUONG, JOHN ZAKI

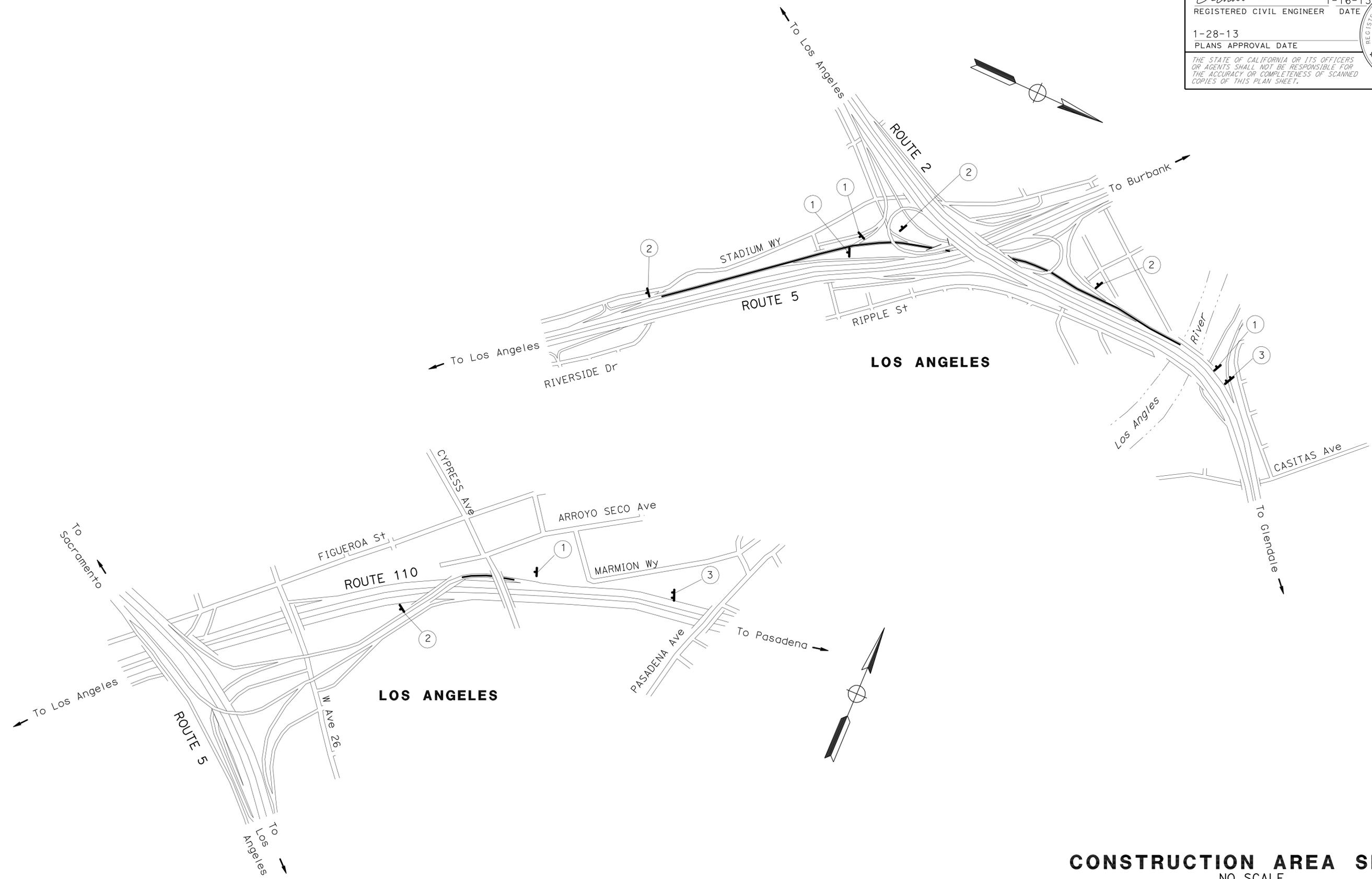
REVISOR: CHARLIE TRUONG
 DATE: 1-28-13

REVISOR: JOHN ZAKI
 DATE: 1-16-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	2,5,110	Var	7	22

Verchar
 1-16-13
 REGISTERED CIVIL ENGINEER DATE
 1-28-13
 PLANS APPROVAL DATE

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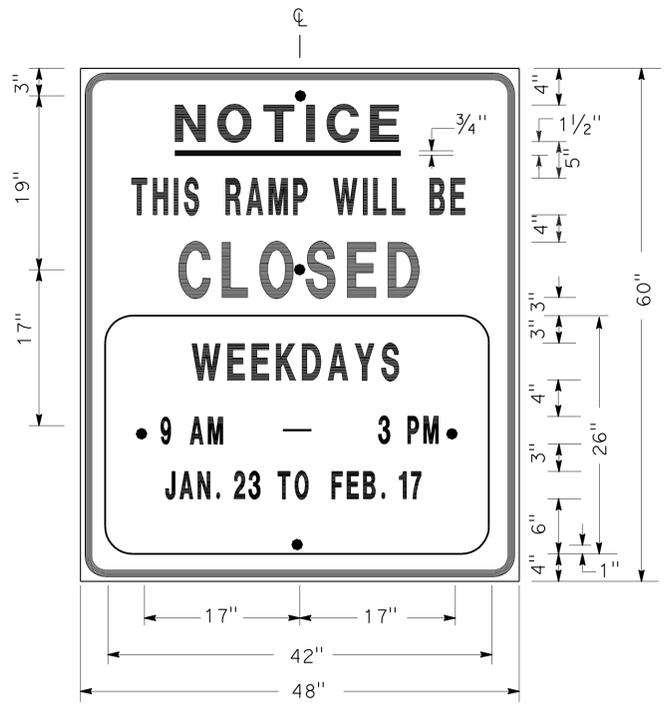
CONSTRUCTION AREA SIGNS
 NO SCALE

CS-2

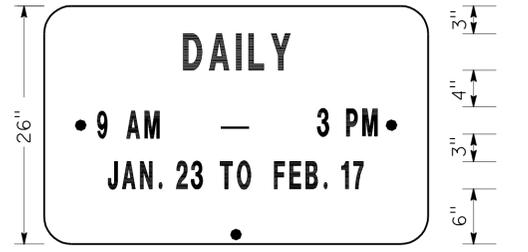
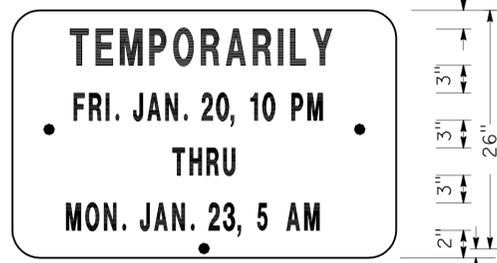
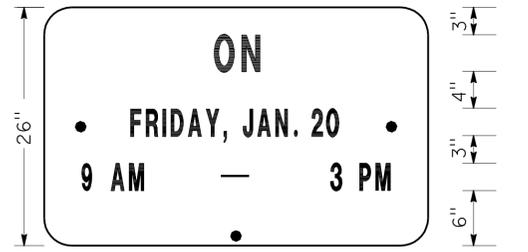
APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	2,5,110	Var	8	18

REGISTERED CIVIL ENGINEER: *Daisy Vergara* 8-31-12
 DATE: 1-28-13
 PLANS APPROVAL DATE: 1-28-13
 No. 62656
 Exp. 6-30-14
 CIVIL
 STATE OF CALIFORNIA



SIGN SP-1



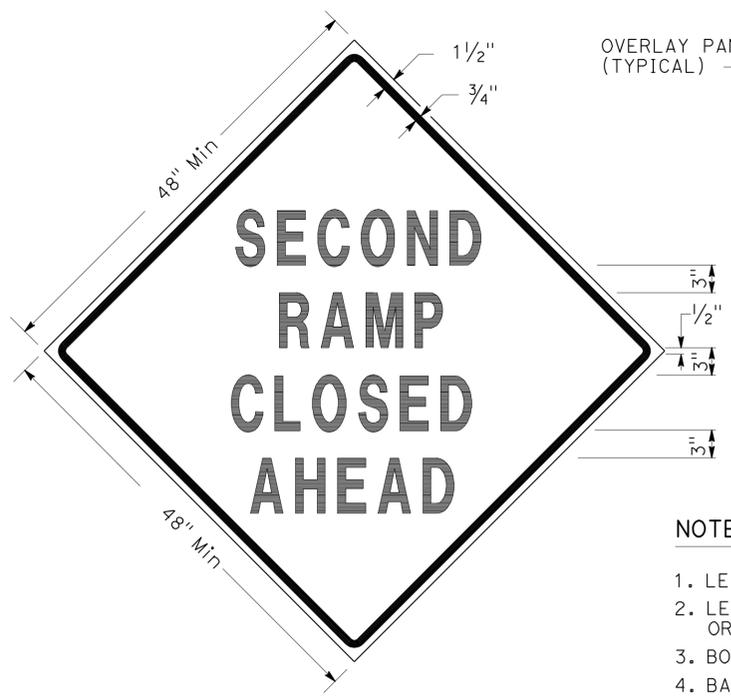
ALTERNATE OVERLAY PANELS (TYPICAL)

- NOTES: SIGN SP-1
- LETTERS AND BORDER SHALL BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
 - BOLT HOLES SHALL BE 3/8" DIAMETER.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND.

SIZE	BORDER WIDTH	MARGIN WIDTH	LETTER SIZE					CORNER RADIUS
			LINE 1	LINE 2*	LINE 3	LINE 4	LINE 5, 6, & 7*	
48"x60"	1 1/4"	3/4"	4E	4D	6E	4D		3"
42"x26"	OVERLAY						3D	1 1/2"

* CONDENSED SPACING IF NECESSARY

SPECIAL ADVANCE NOTICE PUBLICITY SIGN



SIGN SP-3



SIGN SP-5

- NOTES: SIGNS SP-3 & SP-5
- LETTERS - 6" SERIES D.
 - LETTERS AND BORDER SHALL BE BLACK ON REFLECTORIZED ORANGE BACKGROUND.
 - BOLT HOLES SHALL BE 3/8" DIAMETER.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND.
 - SIGN SP-5 SHALL BE USED IF THE OFF-RAMP TO BE CLOSED FOLLOWS A FREEWAY OFF-CONNECTOR.

SPECIAL SIGNS FOR EXIT RAMP CLOSURES



SIGN SP-4

- NOTES: SIGN SP-4
- LETTERS - 6" SERIES C.
 - LETTERS AND BORDER SHALL BE BLACK ON REFLECTORIZED WHITE BACKGROUND.
 - BOLT HOLES SHALL BE 3/8" DIAMETER.
 - BASE MATERIAL SHALL BE ALUMINUM (MINIMUM 0.06").
 - SIGNS SHALL BE PLACED AT RAMP ENTRANCES IN ADDITION TO SIGNS POSTED IN ACCORDANCE WITH STANDARD PLAN T14.

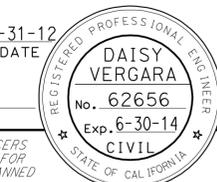
SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES

**TRAFFIC HANDLING DETAILS
 TRAFFIC CONTROL SYSTEM
 FOR RAMP CLOSURES, DETOUR SIGNS,
 AND MISCELLANEOUS DETAILS**

SHEET 1 OF 2

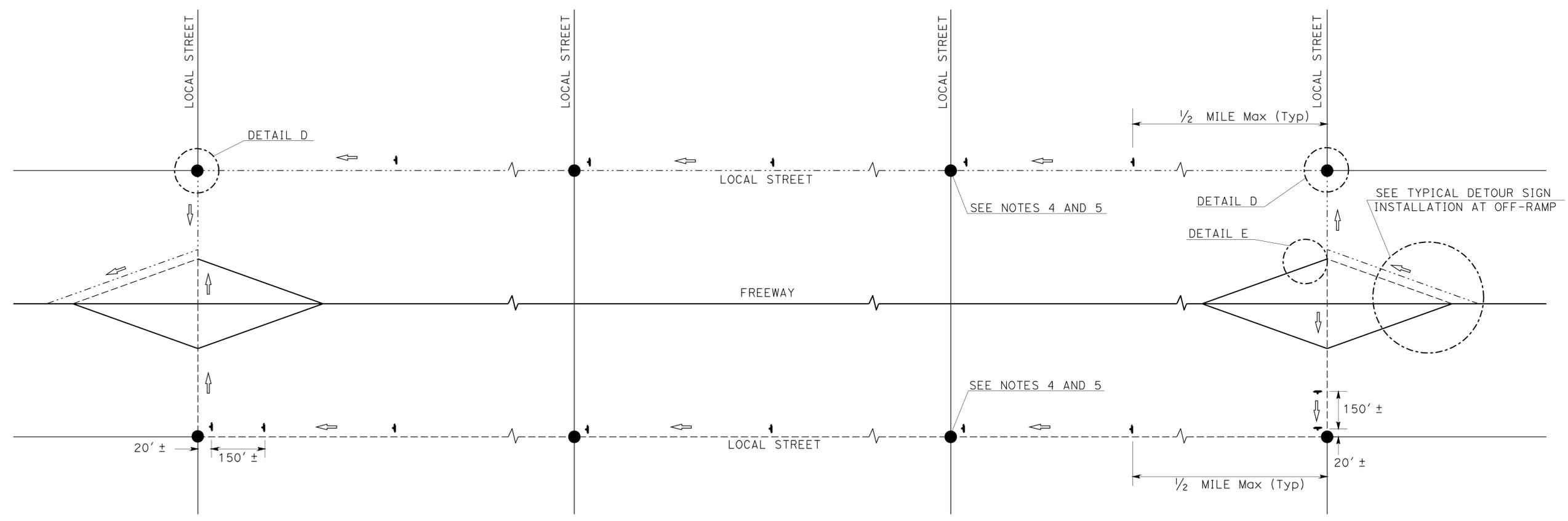
NO SCALE

THD-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	2,5,110	Var	10	18
 REGISTERED CIVIL ENGINEER DATE 8-31-12					
1-28-13			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**
-  SIGN SP-2
 -  AND/OR DESIGNATED DETOUR ROUTE
 -  DETOUR DIRECTION
 -  CONTROLLED INTERSECTION

- NOTES:**
- SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
 - SP-2 SIGNS SHALL NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
 - SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
 - SP-2 SIGNS SHALL BE POSTED AT EACH CONTROLLED INTERSECTION (EXCEPT AT COMMERCIAL PROPERTY, RESIDENTIAL COMPLEX OR T-INTERSECTION FROM ONE-WAY STREET) ALONG THE DESIGNATED DETOUR ROUTE.
 - UNLESS OTHERWISE SHOWN ON OTHER THD PLANS, WHEN CONTROLLED INTERSECTIONS ALONG THE DESIGNATED DETOUR ROUTE ARE CLOSELY SPACED, PLACE SP-2 SIGNS AT CONTROLLED INTERSECTIONS AT A DISTANCE NOT TO EXCEED 1/4 MILE FROM THE PRECEDING DETOUR SIGN.
 - EXCEPT AS OTHERWISE SHOWN ON OTHER PLANS OR SPECIFIED IN THE SPECIAL PROVISIONS, SP-2 SIGNS SHALL BE PLACED AS SHOWN ON THIS PLAN.



TYPICAL DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR DETOUR SIGN INSTALLATION
ALONG DESIGNATED DETOUR ROUTE
SHEET 1 OF 3
NO SCALE
THD-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: MARTIN OREGEL
 CHECKED BY: JOCELYN C CHIANG
 DESIGNED BY: ALBERT K YU
 REVISIONS: 3/12
 REVISOR: JC

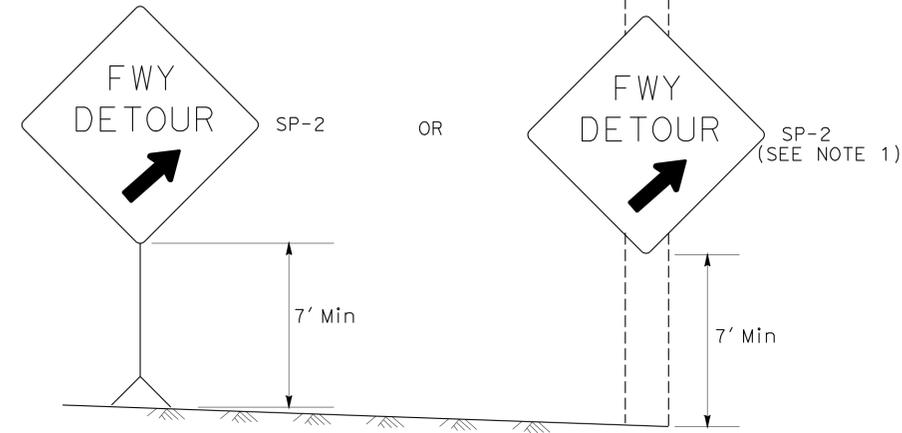
LAST REVISION: 01-28-13
 DATE PLOTTED => 23-JAN-2013
 TIME PLOTTED => 11:21

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	2,5,110	Var	11	18

REGISTERED CIVIL ENGINEER		DATE
1-28-13		8-31-12
PLANS APPROVAL DATE		

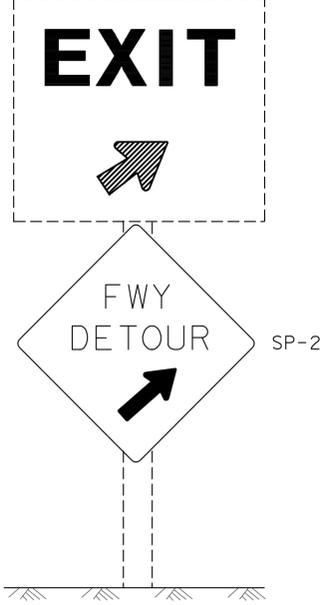
REGISTERED PROFESSIONAL ENGINEER
DAISY VERGARA
No. 62656
Exp. 6-30-14
CIVIL

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.



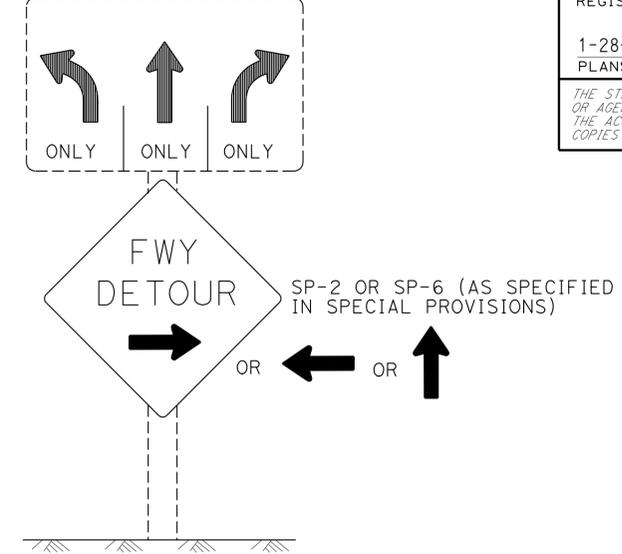
DETAIL A (SEE NOTE 3)

Exist E5-1, G84-2 (CA) OR G84-3 (CA)

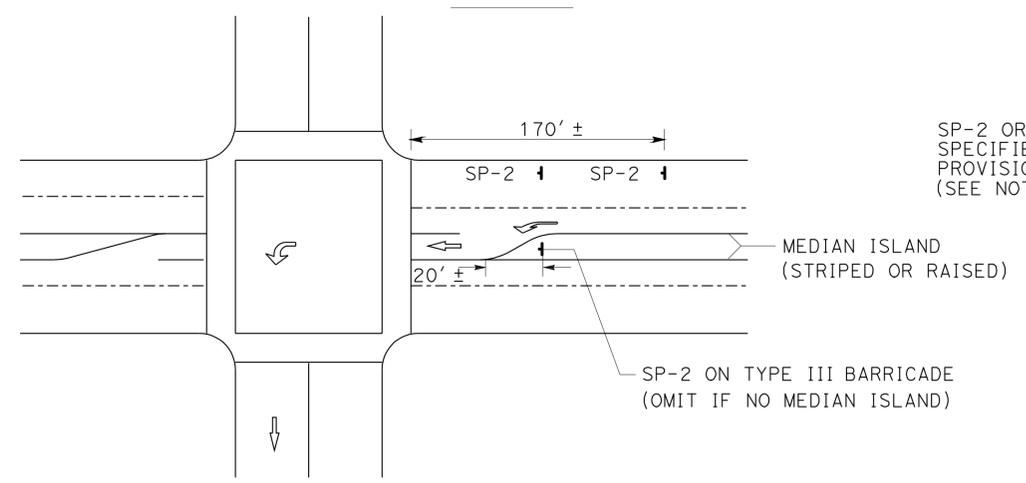


DETAIL B (SEE NOTE 3)

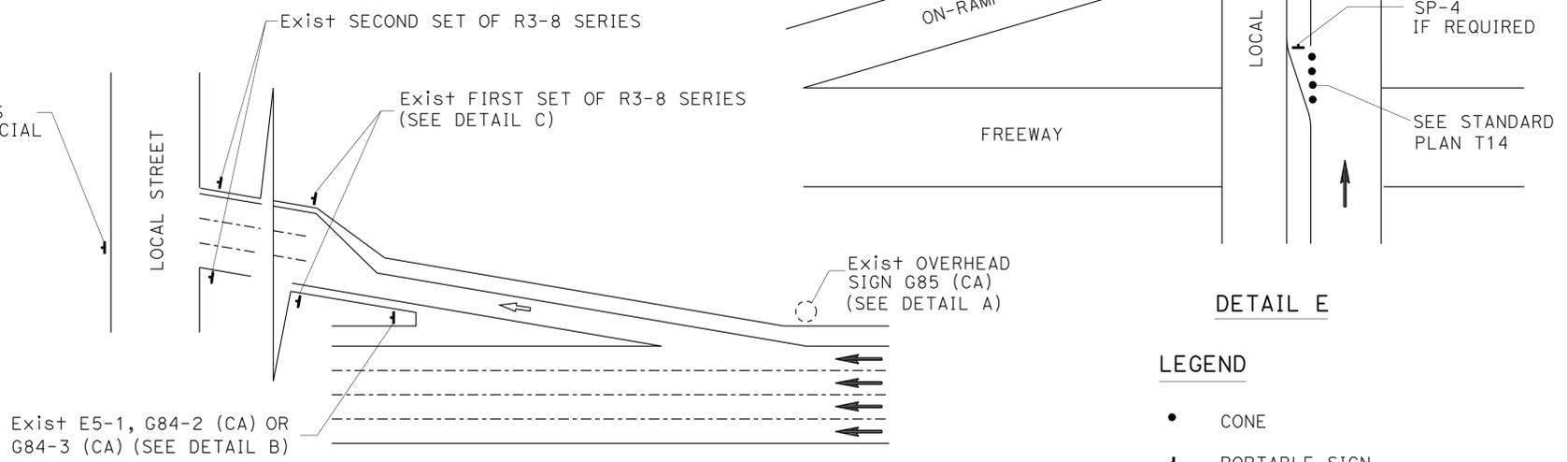
Exist R3-8 SERIES



DETAIL C (SEE NOTES 4, 5, AND 6)



DETAIL D



DETAIL E

- LEGEND**
- CONE
 - ⚡ PORTABLE SIGN
 - ➡ DIRECTION OF TRAVEL
 - ↪ DETOUR DIRECTION
 - EXISTING OVERHEAD SIGN

TYPICAL DETOUR SIGN INSTALLATION AT OFF-RAMP

SIGN CODE LEGEND

XXYY-Y: FEDERAL SIGN CODE PER MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
 XXYY-Y (CA): CALIFORNIA SIGN CODE PER CALIFORNIA MUTCD

**TRAFFIC HANDLING DETAILS
 TRAFFIC CONTROL SYSTEM
 FOR DETOUR SIGN INSTALLATION
 ALONG DESIGNATED DETOUR ROUTE
 SHEET 2 OF 3**

NO SCALE **THD-4**

NOTES: SIGN SP-2

1. SP-2 SIGNS MAY BE STRAPPED ON EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
2. SP-2 SIGNS SHALL NOT BE INSTALLED ON BARRICADES EXCEPT AS OTHERWISE SHOWN.
3. OMIT DETAILS A AND B FOR FULL FREEWAY CLOSURES.
4. SEE TRAFFIC HANDLING DETAILS-TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURES, DETOUR SIGNS, AND MISCELLANEOUS DETAILS PLAN SHEET 2 OF 2 FOR SP-6 SIGN DETAILS.
5. IF R3-8 SERIES SIGNS ARE NOT PRESENT AT THE OFF-RAMP, SP-2 OR SP-6 SIGNS SHALL BE FASTENED ONTO EXISTING ELECTROLIER, SIGNAL POST OR SIGN POST.
6. EXCEPT FOR DETAILS A & B, OMIT SP-2 SIGNS IF RAMP HAS MANDATORY SINGLE MOVE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DT
 FUNCTIONAL SUPERVISOR: MARTIN OREGEL
 CHECKED BY: JOCELYN C CHIANG
 DESIGNED BY: ALBERT K YU
 DATE REVISED: 3/12
 REVISIONS: JC

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	2,5,110	Var	12	18

REGISTERED CIVIL ENGINEER *Daisy Vergara* 8-31-12 DATE
 1-28-13 PLANS APPROVAL DATE
 No. 62656 Exp. 6-30-14 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.

NOTES:

- LANE CLOSURES SHALL NOT BE PLACED ON CREST VERTICAL CURVES OR ON HORIZONTAL CURVES.
- PCMS SHALL BE ACTIVATED PRIOR TO TRAFFIC CONTROL ACTIVITIES ON THE LANE.
- A MINIMUM SIGHT DISTANCE OF 1500' SHALL BE PROVIDED IN ADVANCE OF PCMS.
- VEHICLE-MOUNTED SIGN PANELS SHALL BE TYPE III OR IV RETROREFLECTORIZED SHEETING, BLACK ON WHITE OR BLACK ON ORANGE WITH 8" MINIMUM SERIES D LETTERS PER CALTRANS SIGN SPECIFICATIONS.

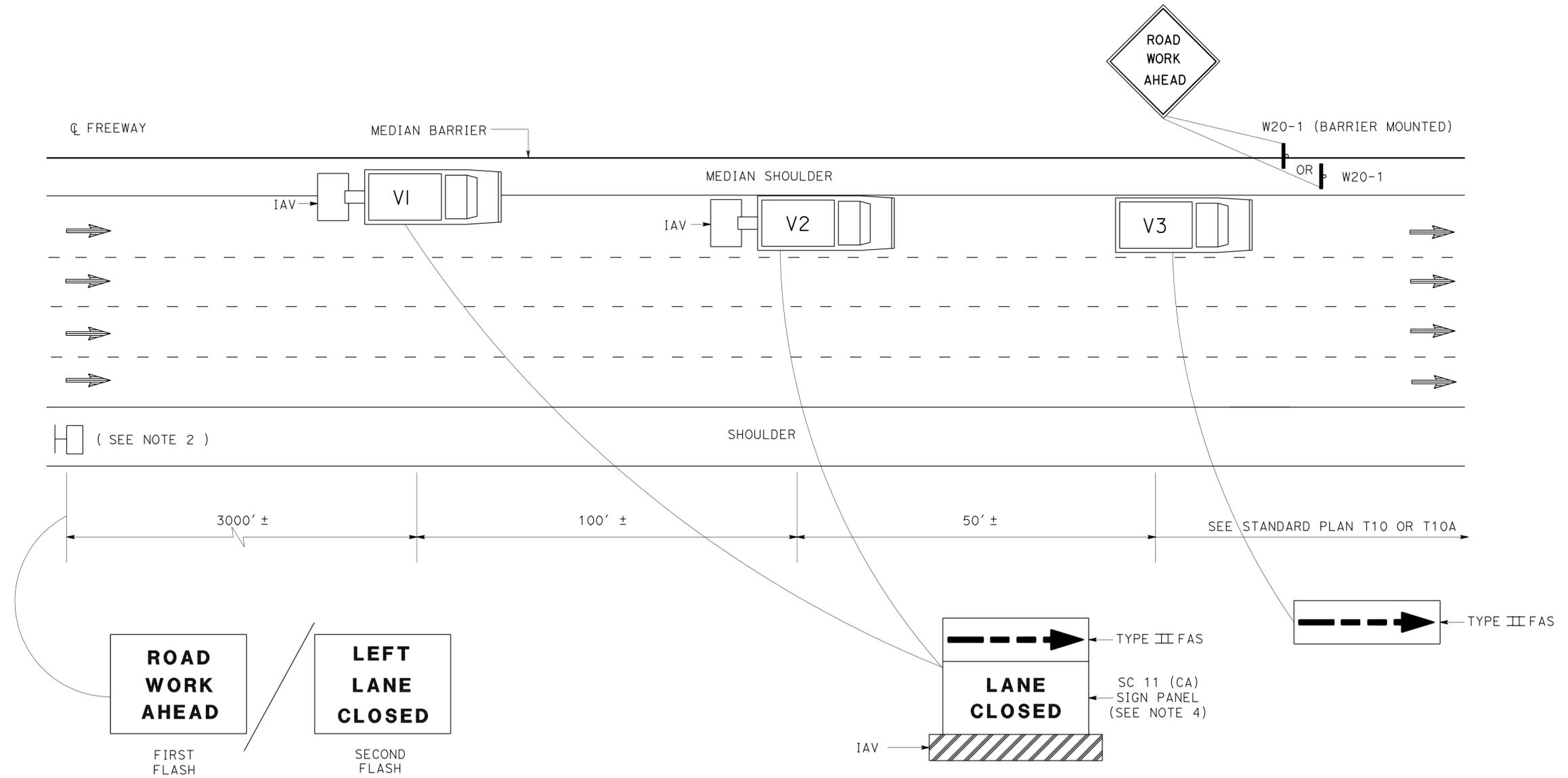
LEGEND

- V1, V2 SHADOW VEHICLES
- V3 WORK/APPLICATION VEHICLE
- PCMS
- DIRECTION OF TRAVEL
- CONSTRUCTION AREA SIGN

ABBREVIATIONS

- FAS FLASHING ARROW SIGN
- IAV IMPACT ATTENUATOR VEHICLE
- CMS CHANGEABLE MESSAGE SIGN
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- (CA) CALIFORNIA CODE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DTIC
 FUNCTIONAL SUPERVISOR MARTIN OREGEL
 CHECKED BY
 DESIGNED BY
 REVISIONS BY DATE
 3/12
 JOCELYN C CHIANG
 ALBERT K YU
 JC



PCMS OR TRUCK MOUNTED CMS MESSAGE

**TRAFFIC HANDLING DETAILS
TRAFFIC CONTROL SYSTEM
FOR MEDIAN SHOULDERS LESS THAN 8 FEET**

NO SCALE

THD-5

NOTES:

- EXACT LOCATION OF PCMS WILL BE DETERMINED BY THE ENGINEER TO PROVIDE ADEQUATE VISIBILITY.
- PCMS MESSAGE DISPLAYED WILL BE APPROVED BY THE ENGINEER.
- PCMS MESSAGE SHALL BE CHANGED AT THE BEGINNING OF CURE PERIOD TO REFLECT NUMBER OF CLOSED LANES.

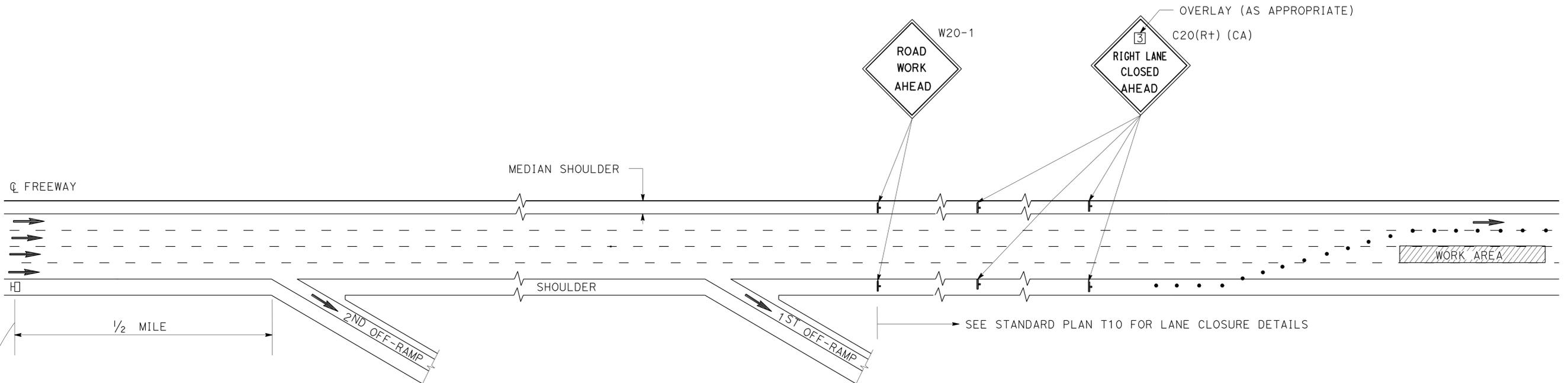
ABBREVIATIONS

PCMS PORTABLE CHANGEABLE MESSAGE SIGN
 (CA) CALIFORNIA CODE

LEGEND

- CONE
- ↑ PORTABLE SIGN
- DIRECTION OF TRAVEL
- PCMS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DT M
 FUNCTIONAL SUPERVISOR MARTIN OREGEL
 CHECKED BY JOCELYN C CHIANG
 REVISIONS BY ALBERT K YU
 DATE 3/12
 REVISIONS BY JC



FIRST FLASH	X (NO OF LANES) RIGHT / LEFT	← 1ST LINE (TYPICAL)
	LANES	← 2ND LINE (TYPICAL)
	CLOSED	← 3RD LINE (TYPICAL)
SECOND FLASH	A ST	← LIMIT OF CLOSURE (TYPICAL)
	TO B DR	← LIMIT OF CLOSURE (TYPICAL)

WORDING FORMAT FOR PCMS MESSAGE

**TRAFFIC HANDLING DETAILS
 TRAFFIC CONTROL SYSTEM
 FOR CONCRETE PAVEMENT AND
 APPROACH SLAB REPLACEMENT**

NO SCALE

THD-6

LAST REVISION DATE PLOTTED => 23-JAN-2013
 01-28-13 TIME PLOTTED => 11:21

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	2,5,110	Var	15	22

 1-16-13
 REGISTERED CIVIL ENGINEER DATE

1-28-13
 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.



ROADWAY QUANTITIES								
ROUTE	POSTMILE		DIRECTION	COLD PLANE ASPHALT CONCRETE PAVEMENT	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	TACK COAT	GRIND EXISTING CONCRETE PAVEMENT	REMARKS
	FROM	TO		SQYD	TON	TON	SQYD	
110	30.59	30.70	NB	1,419.7	173.8	0.24	710	
110	30.70	31.17	NB	3,033.1	371.2	0.52	6,066	
110	31.17	31.86	NB	13,358.4	1,635.1	2.27		
110	31.86	31.91	NB				1,291	
110	30.59	30.70	SB	1,419.7	173.8	0.24	710	
110	30.70	31.17	SB	3,033.1	371.2	0.52	6,066	
110	31.17	31.91	SB	14,326.4	1,753.6	2.44		
110	26.13	26.22	SB	2,885.6	353.2	0.49		SB ROUTE 110 OFF TO ROUTE 5
2 & 5	15.50 (Rte 2)	22.00 (Rte 5)	SB				14,740	SB ROUTE 2 OFF TO SB ROUTE 5
TOTAL				39,476.0	4,831.9	6.72	29,583	

SUMMARY OF QUANTITIES

Q-1

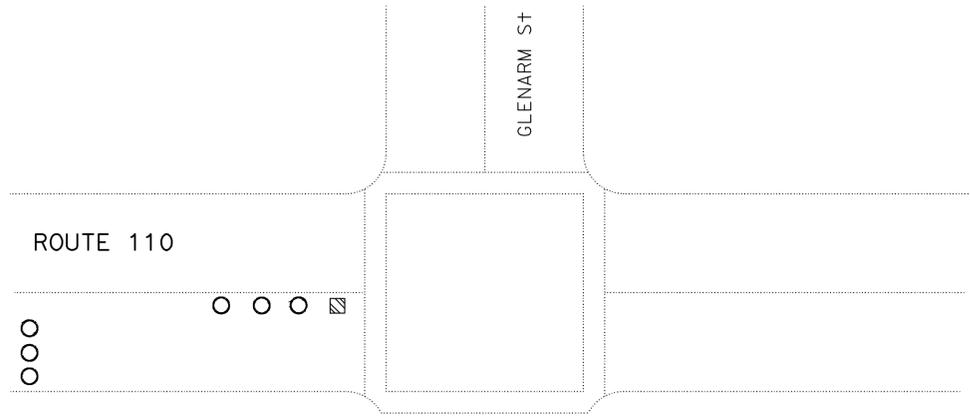
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR JOHN ZAKI
 CALCULATED/DESIGNED BY CHARLIE TRUONG
 CHECKED BY JOHN ZAKI
 REVISED BY CHARLIE TRUONG
 DATE REVISED JOHN ZAKI

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	2,5,110	Var	16	22

<i>G.S. Toor</i>	10-2-12
REGISTERED ELECTRICAL ENGINEER	DATE
1-28-13	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	
G.S. TOOR	No. E15613
	Exp. 12/31/13
ELECT	
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. INSTALL 2" CONDUIT STUB OUT FOR NEW INDUCTIVE LOOP DETECTOR.
2. PRIOR TO CONSTRUCTION, LOCATE ALL EXISTING INDUCTIVE LOOP DETECTORS.
3. SPLICE NEW INDUCTIVE LOOP DETECTOR CONDUCTORS TO EXISTING d/c IN ADJACENT PULL BOX.
4. TAG EXISTING d/c IN ADJACENT PULL BOX AND AT CONTROLLER CABINET.
5. ABANDON EXISTING INDUCTIVE LOOP DETECTOR. INSTALL NEW INDUCTIVE LOOP DETECTOR AT SAME LOCATION.

DETAIL A

DETAIL FOR TYPICAL LOOP DETECTOR INSTALLATION ON HIGHWAY

INDUCTIVE LOOP DETECTOR
NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN

GARY TOOR
OSWALD ELIZONDO

REVISOR
DATE

DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR
OSWALD ELIZONDO

CALCULATED BY
DESIGNED BY

GARY TOOR
OSWALD ELIZONDO

REVISOR
DATE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR
 OSWALD ELIZONDO

CALCULATED-DESIGNED BY
 CHECKED BY

GARY TOOR
 OSWALD ELIZONDO

REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	2,5,110	Var	17	22

 10-2-12
 REGISTERED ELECTRICAL ENGINEER DATE

1-28-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 G.S. TOOR
 No. E15613
 Exp. 12/31/13
 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.

INDUCTIVE LOOP DETECTOR			
SHEET No.	LOOP TYPE 'E' (N)	LOOP TYPE 'D' (N)	STUB-OUT (N)
		EA	EA
E-1	6	11	2

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

ELECTRICAL QUANTITIES

NO SCALE

E-2

LAST REVISION | DATE PLOTTED => 23-JAN-2013
 01-28-13 | TIME PLOTTED => 11:21

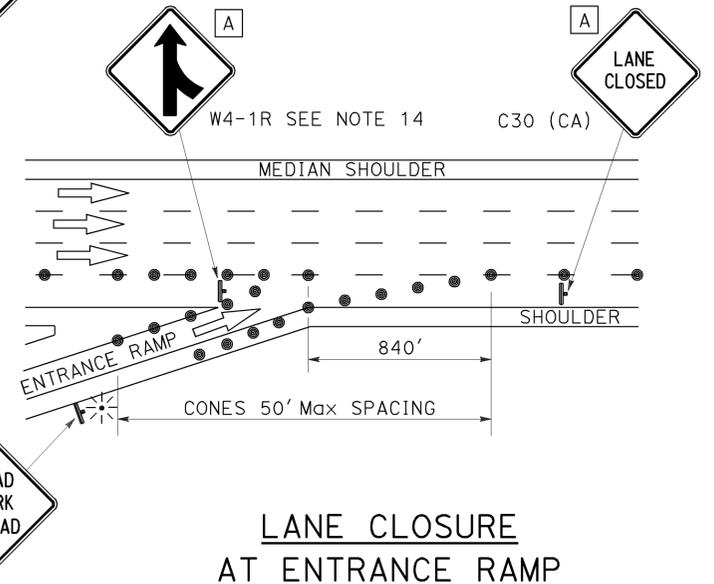
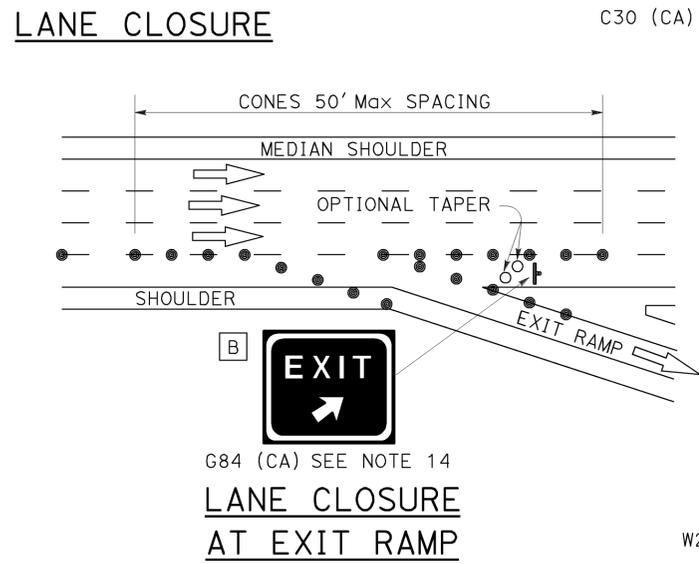
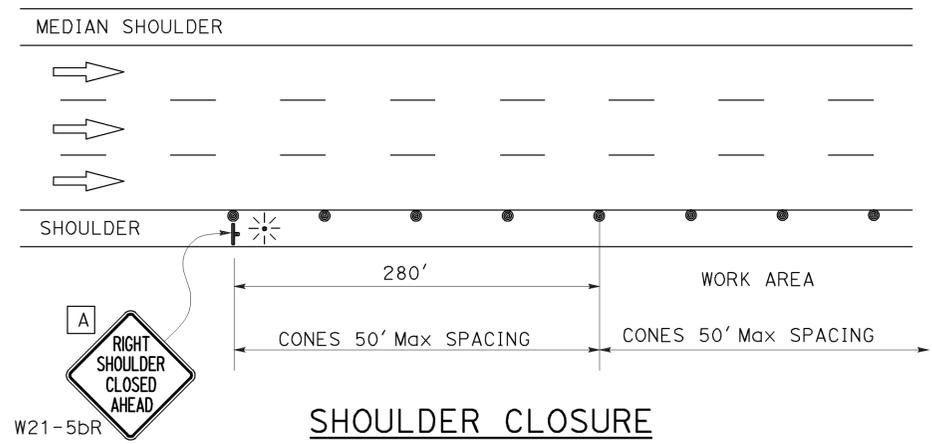
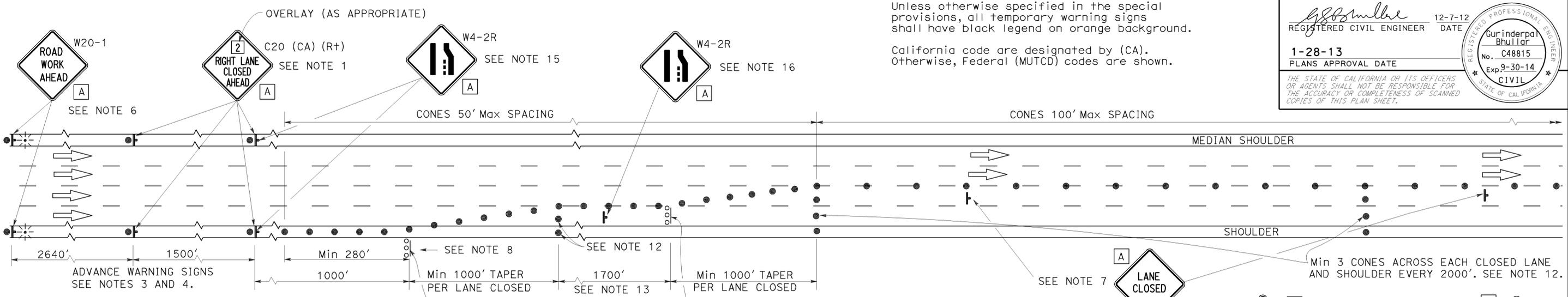
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	Var	2,5,110	19	22

REGISTERED CIVIL ENGINEER	DATE
12-7-12	

1-28-13
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.

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.



- NOTES:**
- Median lane closures shall conform to the details for outside lane closures except that C20 (CA) (Lt) signs shall be used.
 - At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
 - Duplicate sign installations are not required:
 - On opposite shoulder if at least one-half of the available lanes remain open to traffic.
 - In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
 - 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 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.
 - Place a C30 (CA) sign every 2000' throughout length of lane closure.
 - One flashing arrow sign for each lane closed. The first flashing arrow sign shall be Type I. All others may be either Type I or Type II.
 - 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.
 - 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" 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 1700' tangent shown along lane lines shall be used between the 1000' tapers required for each closed traffic lane.
 - Unless otherwise specified in the special provisions, the G84 (CA) and W4-1 signs shall be used as shown.
 - 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.
 - The W4-2 "LANE ENDS" symbol sign shown at this location is to be used where the W4-2 sign is used as advance warning as described in Note 15.

SIGN PANEL SIZE (Min)

A	48" x 48"
B	54" x 48"

LEGEND

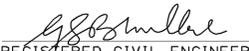
●	TRAFFIC CONE
○	TRAFFIC CONE (OPTIONAL TAPER)
†	TEMPORARY SIGN
⊛	FLASHING ARROW SIGN (FAS)
⊞	FAS SUPPORT OR TRAILER
⊛	PORTABLE FLASHING BEACON

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM
 FOR LANE CLOSURE ON
 FREEWAYS AND EXPRESSWAYS**
 NO SCALE
TCS-1

REVISOR: CHARLIE TRUONG, JOHN ZAKI
 CALCULATED/DESIGNED BY: JOHN ZAKI
 FUNCTIONAL SUPERVISOR: JOHN ZAKI
 DEPARTMENT OF TRANSPORTATION - MAINTENANCE ENGINEERING

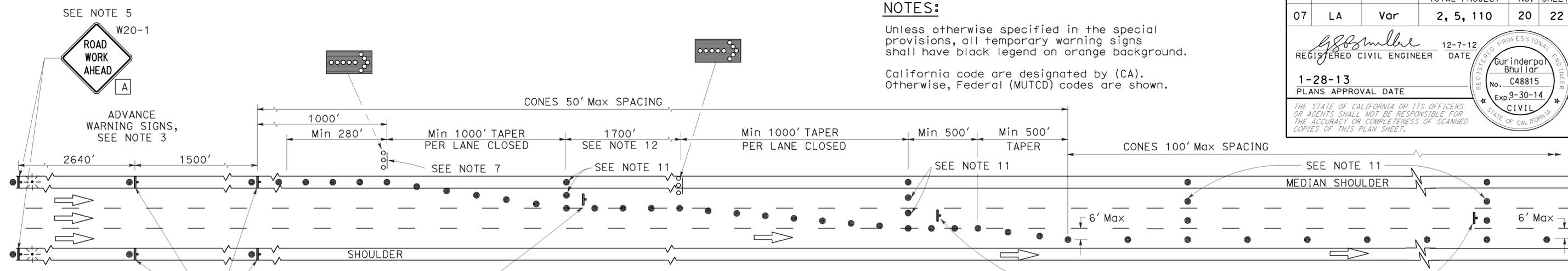
LAST REVISION: DATE PLOTTED => 10-06-2012
 TIME PLOTTED => 09:45

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	Var	2, 5, 110	20	22

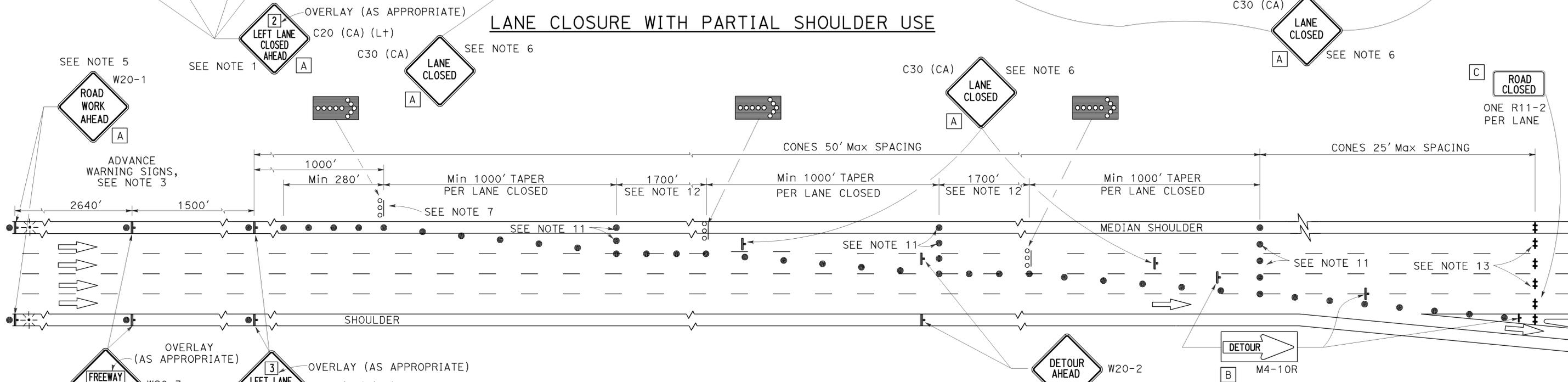
	
 REGISTERED CIVIL ENGINEER 12-7-12 DATE	PLANS APPROVAL DATE 1-28-13

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.

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.



LANE CLOSURE WITH PARTIAL SHOULDER USE



COMPLETE CLOSURE

NOTES:

- Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details for inside lane closure except that C20 (CA) (Rt) 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 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.
- Place a C30 (CA) sign every 2000' throughout length of lane closure.
- One flashing arrow sign for each lane closed. The first flashing arrow sign shall be Type I. All others may be either Type I or Type II.
- 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 1700' tangent shown along lane lines shall be used between the 1000' tapers required for each closed traffic lane.
- A minimum of Two Type II 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
- † TEMPORARY SIGN
- ‡ BARRICADE
-  FLASHING ARROW SIGN (FAS)
-  FAS SUPPORT OR TRAILER
-  PORTABLE FLASHING BEACON

TRAFFIC CONTROL SYSTEM FOR LANE AND COMPLETE CLOSURES ON FREEWAYS AND EXPRESSWAYS

NO SCALE

TCS-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE ENGINEERING

LAST REVISION DATE PLOTTED => 10-06-2012 00-00-00 TIME PLOTTED => 09:45

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 48" x 30"
- C 30" x 30"
- D 48" x 48" - SPEED OF 50 mph OR MORE
36" x 36" - SPEED LESS THAN 50 mph
- E 48" x 36"

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	Var	2,5,110	21	22

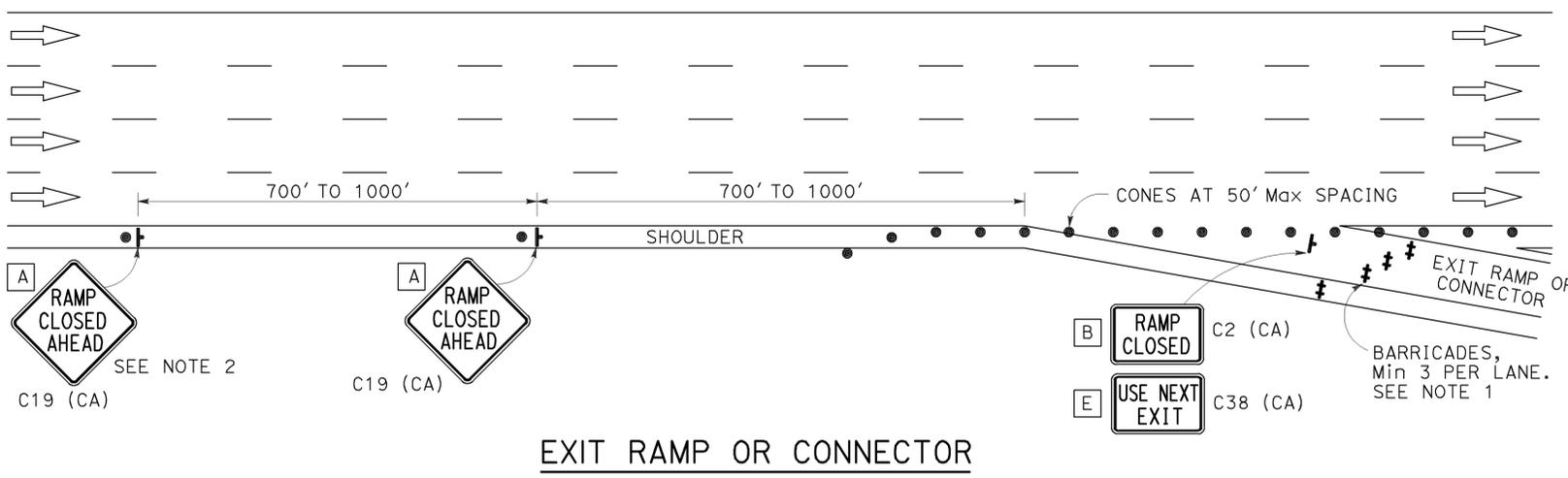
12-7-12 DATE
 REGISTERED CIVIL ENGINEER
 1-28-13 PLANS APPROVAL DATE
 Gurinderpal Bhullar
 No. C48815
 Exp. 9-30-14
 CIVIL
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

LEGEND

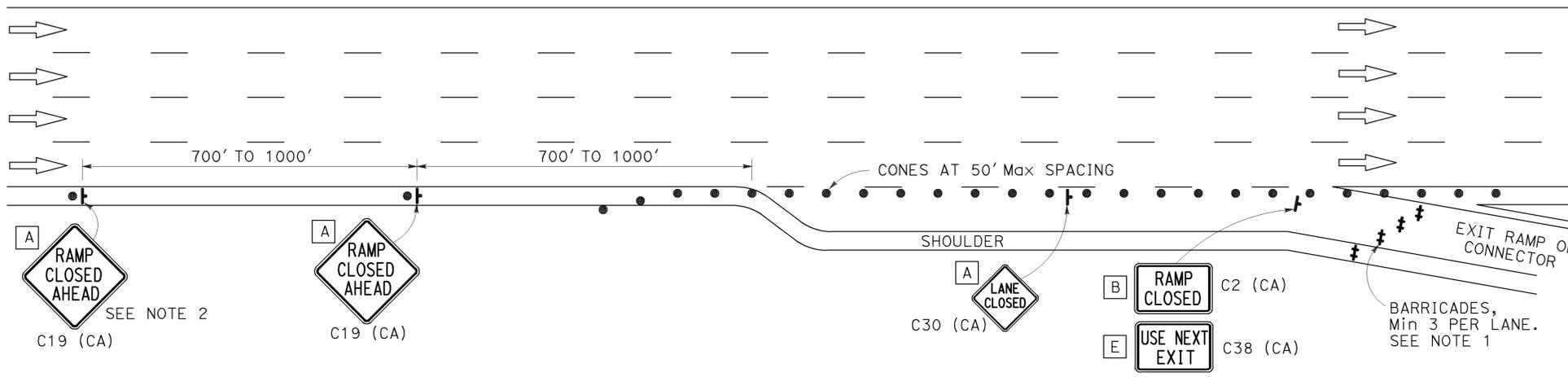
- TRAFFIC CONE
- † TEMPORARY SIGN
- ‡ BARRICADES

NOTES:

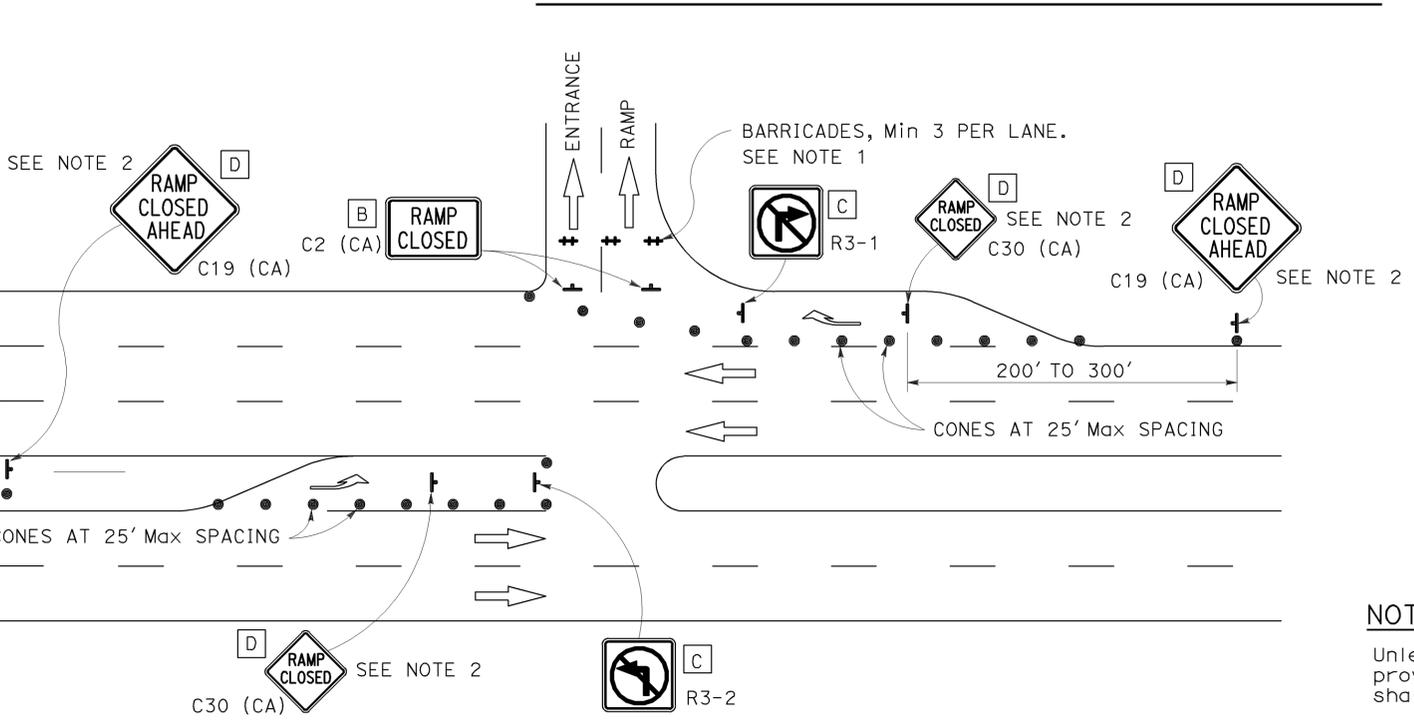
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19 (CA) "RAMP CLOSED AHEAD" and C30 (CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed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



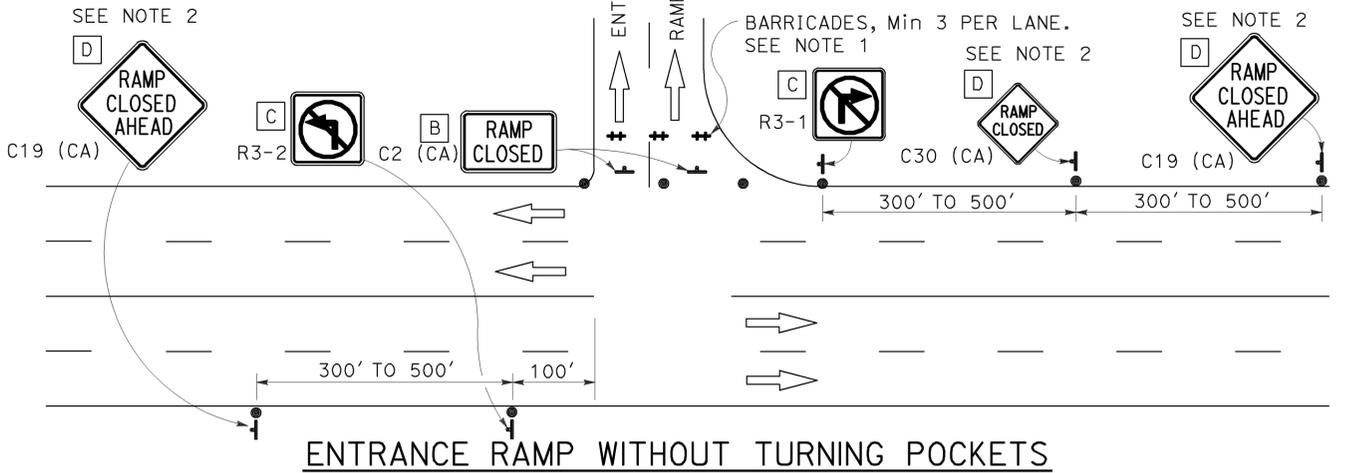
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

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.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR RAMP CLOSURE

NO SCALE

TCS-3

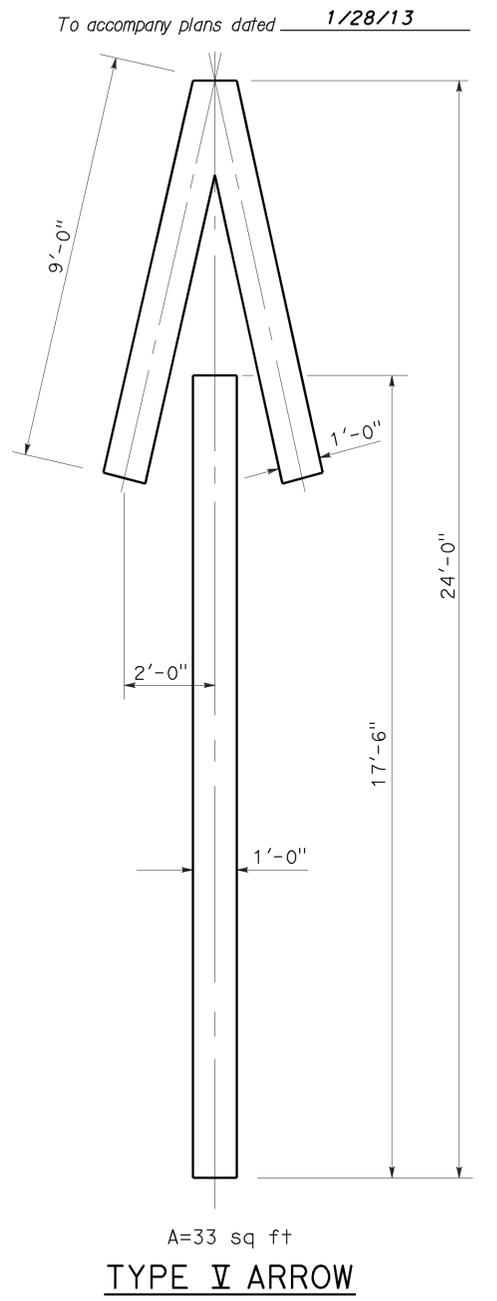
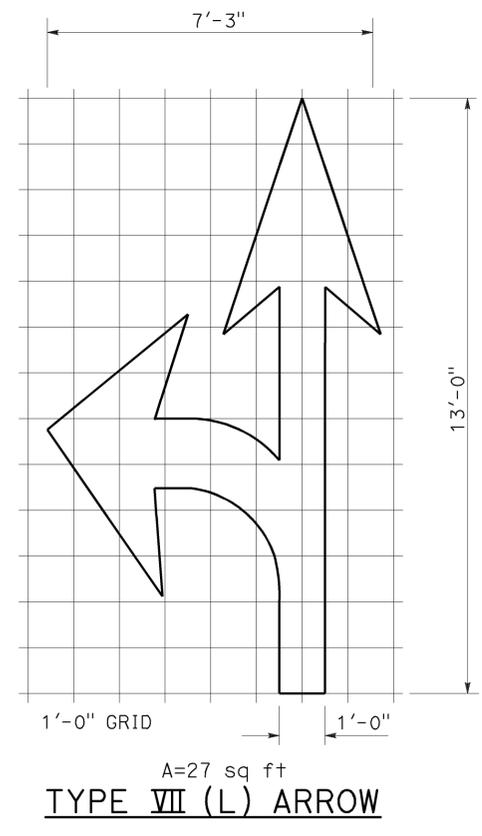
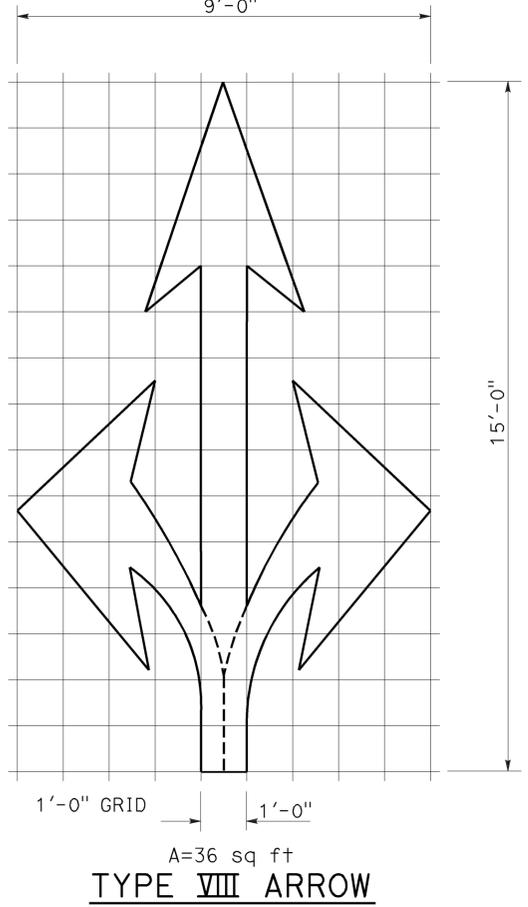
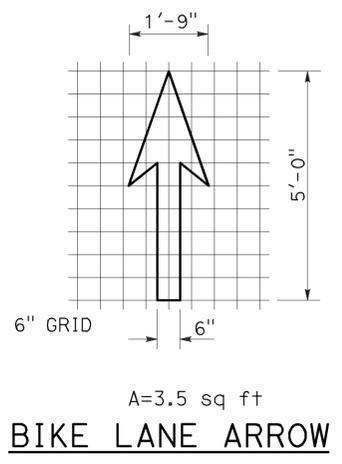
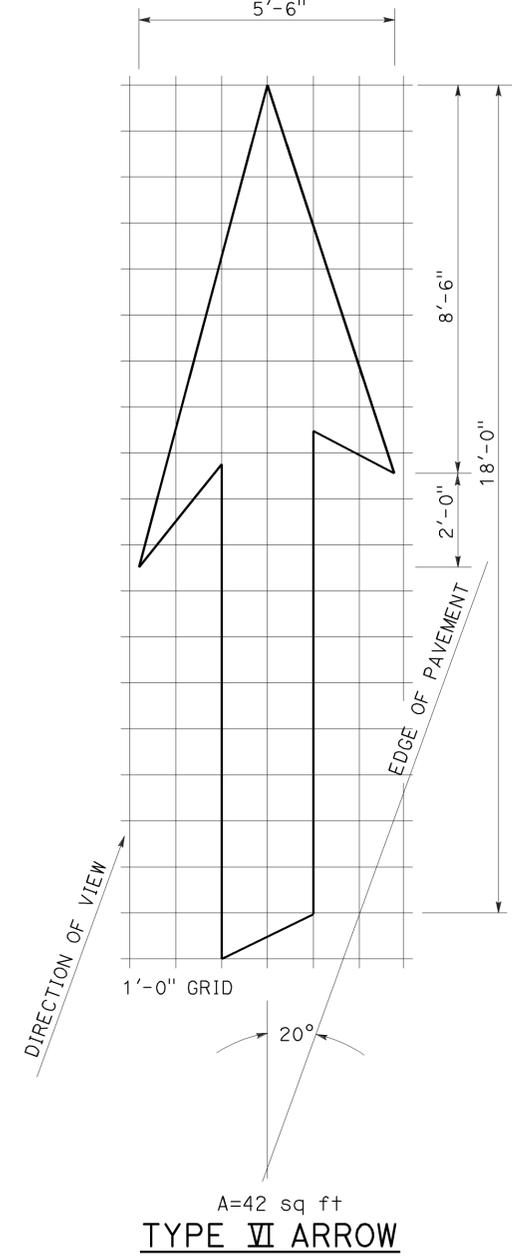
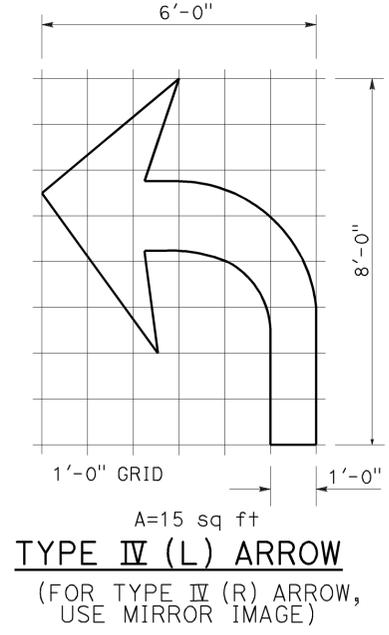
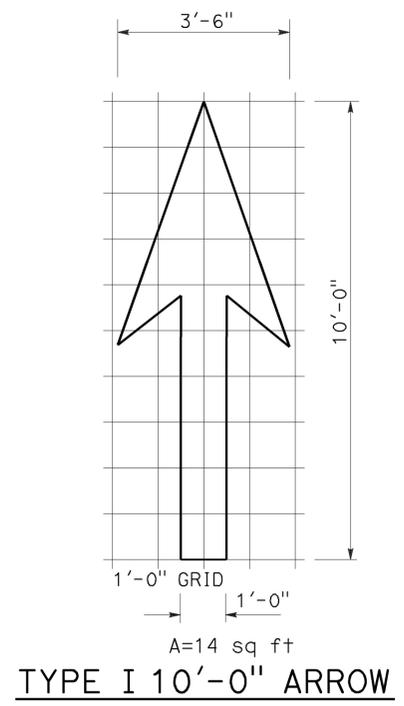
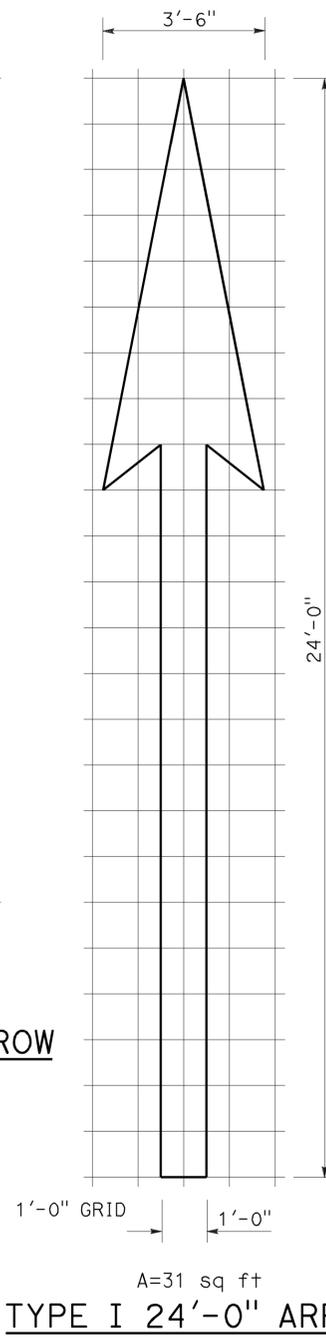
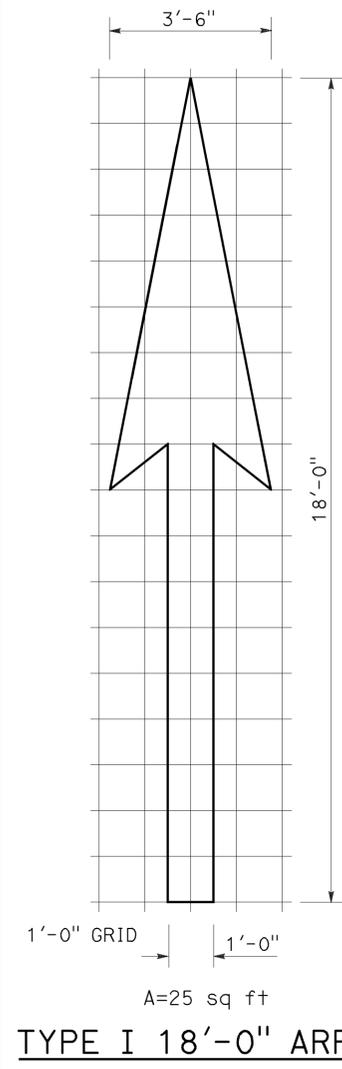
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR JOHN ZAKI
 CHECKED BY JOHN ZAKI
 CALCULATED/DESIGNED BY JOHN ZAKI
 REVISOR CHARLIE TRUONG
 DATE REVISOR JOHN ZAKI

LAST REVISION DATE PLOTTED => 10-DE-2012
 00-00-00 TIME PLOTTED => 09:45

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	Var	2, 5, 110	22	22

Robert L. McLaughlin
 REGISTERED CIVIL ENGINEER
 April 20, 2012
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

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



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 1, 2006 - PAGE 9 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A24A