

INDEX OF PLANS

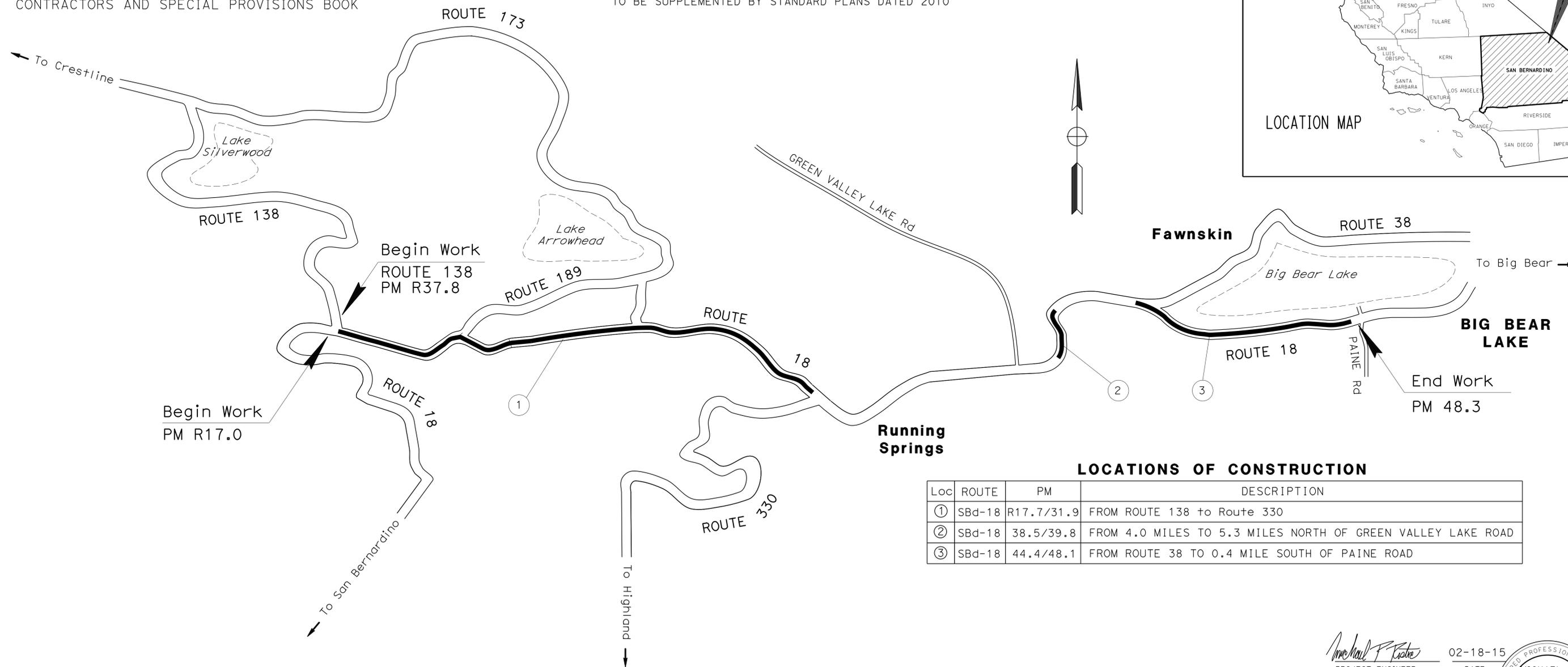
SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-5	CONSTRUCTION DETAILS
6	CONSTRUCTION AREA SIGNS
7-10	MOTORIST INFORMATION PLAN
11-13	PAVEMENT DELINEATION QUANTITIES
14-15	SUMMARY OF QUANTITIES
16-22	ELECTRICAL PLANS
23-34	REVISED STANDARD PLANS

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN SAN BERNARDINO COUNTY
AT VARIOUS LOCATIONS
FROM ROUTE 138 SEPARATION
TO NEAR BIG BEAR CITY

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010



LOCATIONS OF CONSTRUCTION

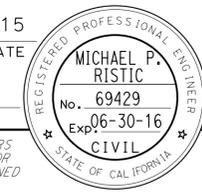
Loc	ROUTE	PM	DESCRIPTION
①	SBd-18	R17.7/31.9	FROM ROUTE 138 to Route 330
②	SBd-18	38.5/39.8	FROM 4.0 MILES TO 5.3 MILES NORTH OF GREEN VALLEY LAKE ROAD
③	SBd-18	44.4/48.1	FROM ROUTE 38 TO 0.4 MILE SOUTH OF PAINE ROAD

NO SCALE

PROJECT MANAGER
MIKE RISTIC
DESIGN ENGINEER
RHEA VILLARAMA

Michael P. Ristic
PROJECT ENGINEER
REGISTERED CIVIL ENGINEER
DATE 02-18-15
FEBRUARY 23, 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.

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

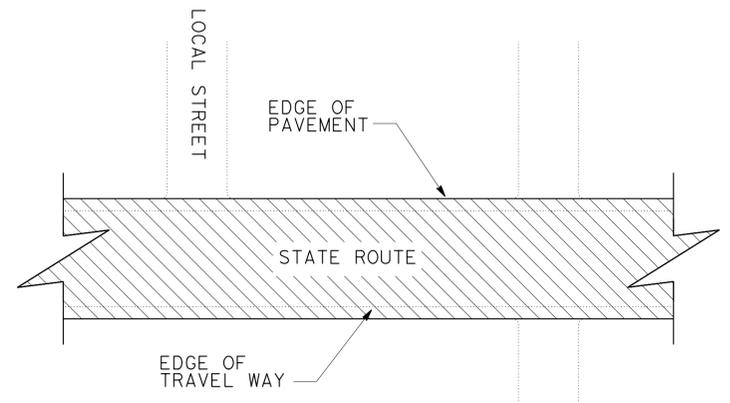
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 44.4/48.1	3	34
 REGISTERED CIVIL ENGINEER			2-18-15	DATE	
PLANS APPROVAL DATE			2-23-15	DATE	
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					
					

NOTES:

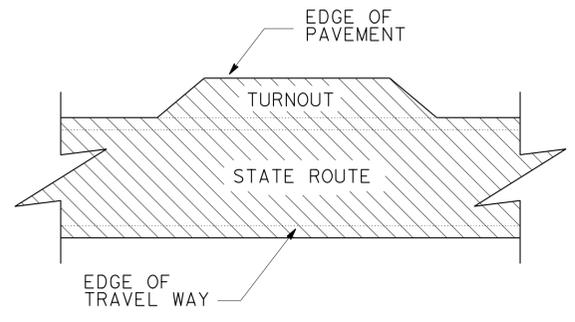
1. SEE SHEET Q-1 FOR TURNOUT LOCATION AND AREA. EXACT LIMITS SHALL BE DETERMINED BY THE ENGINEER.
2. EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
3. EXACT LOCATIONS AND DIMENSION OF LOCALIZED DIG-OUTS SHALL BE DETERMINED BY THE ENGINEER.
4. PROTECT IN-PLACE EXISTING UTILITY VALVES AND MANHOLES.

LEGEND:

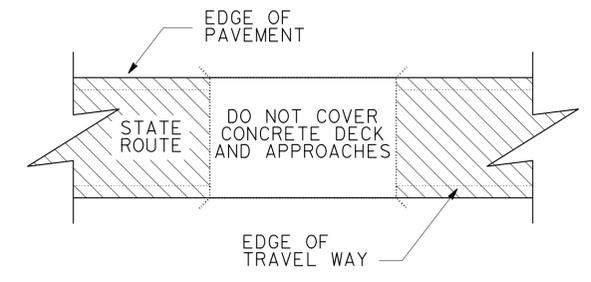
-  0.1' COLD PLANE AC PAVEMENT AND PLACE 0.1' HMA (TYPE A)
-  LIMITS OF WORK
-  REPLACE AC SURFACING HMA (TYPE A)



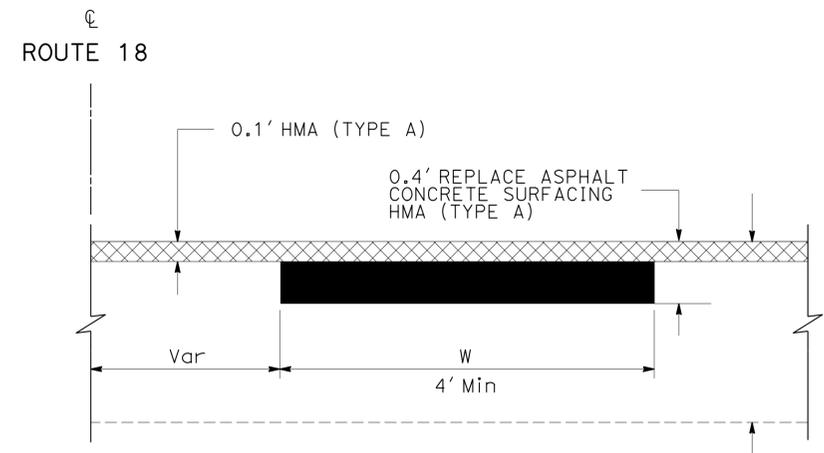
LOCAL STREET
TYPICAL



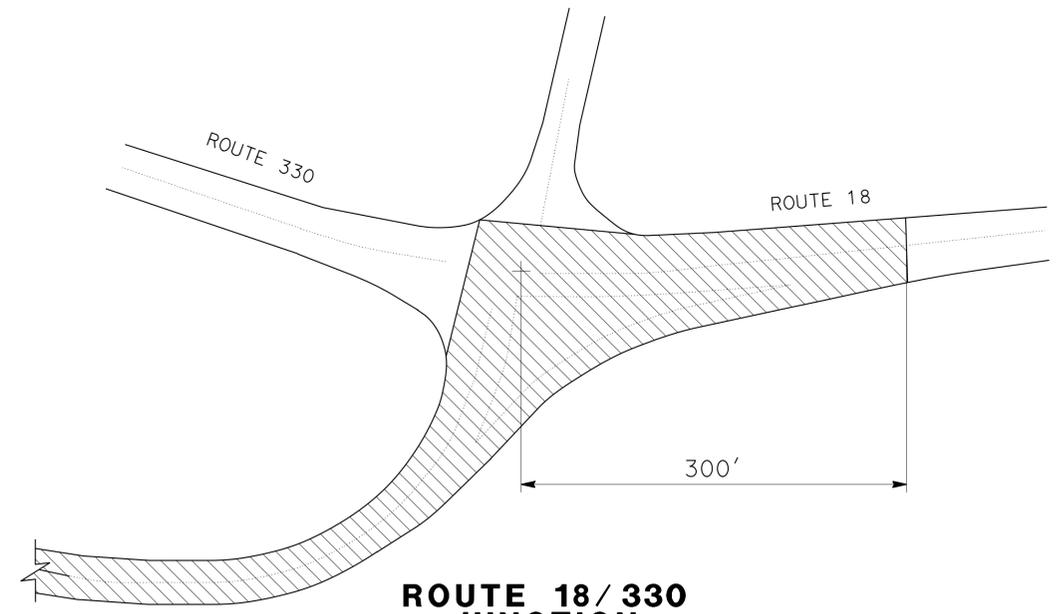
TURNOUT
TYPICAL



STRUCTURE DECK
TYPICAL



DIGOUTS



ROUTE 18 / 330 JUNCTION
(PM 31.9)

CONSTRUCTION DETAILS

NO SCALE

C-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR: MICHAEL P. RISTIC
 CHECKED BY: MICHAEL P. RISTIC
 DESIGNED BY: RHEA VILLARAMA
 REVISIONS: REVISOR: MICHAEL P. RISTIC, DATE: 2-23-15
 REVISOR: RHEA VILLARAMA, DATE: 2-18-15

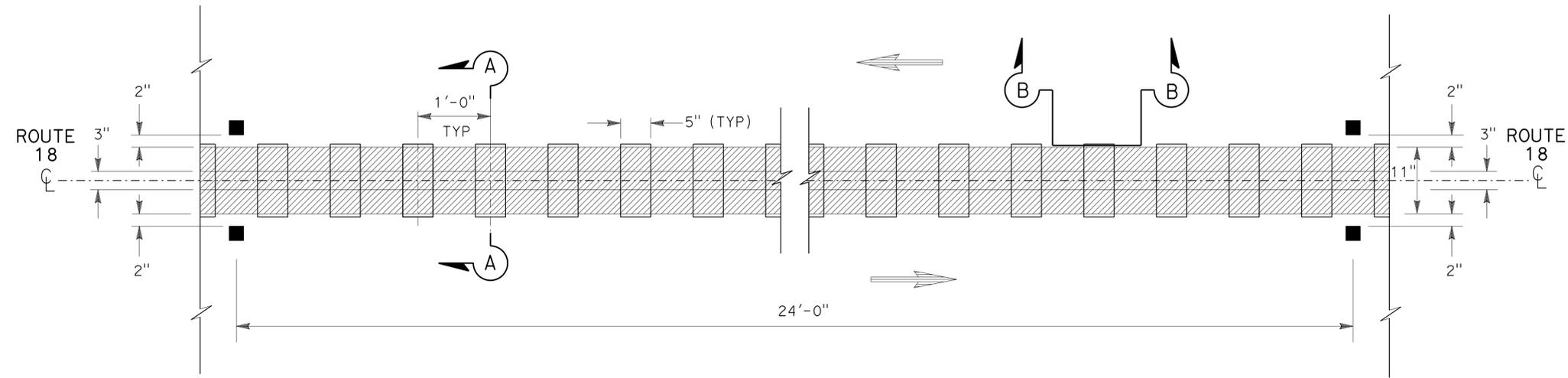


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 44.4/48.1	4	34
 REGISTERED CIVIL ENGINEER			02-18-15	DATE	
02-23-15 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



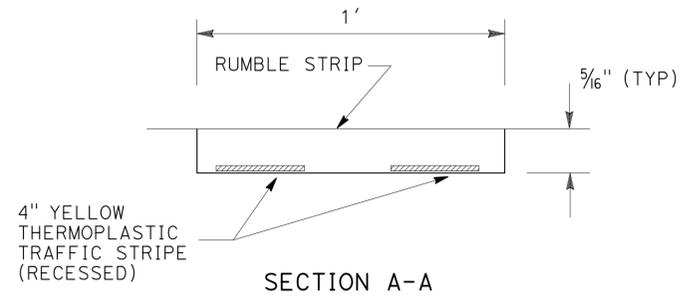
NOTES:

- EXACT LOCATION OF RUMBLE STRIP SHALL BE DETERMINED BY THE ENGINEER AND PLACED ONLY ON NO-PASSING SECTION.
- DO NOT INSTALL CENTERLINE RUMBLE STRIPS AT THE FOLLOWING SEGMENTS: PM 22.53 (PINE AVENUE WEST) TO PM 22.96 (BEAR SPRINGS ROAD) AND PM 25.60 TO PM 26.20 (SKY FOREST VILLAGE).
- SEE STANDARD PLAN A20A, DETAIL 22, FOR RETROREFLECTIVE-RECESSED PAVEMENT MARKER.

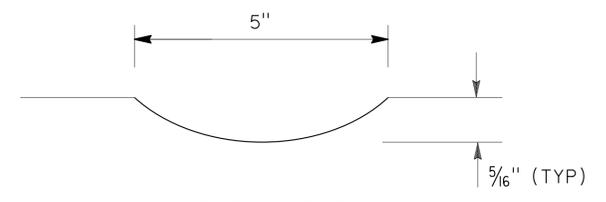


**CENTERLINE RUMBLE STRIP
(ASPHALT CONCRETE, GROUND-IN INDENTATIONS)**

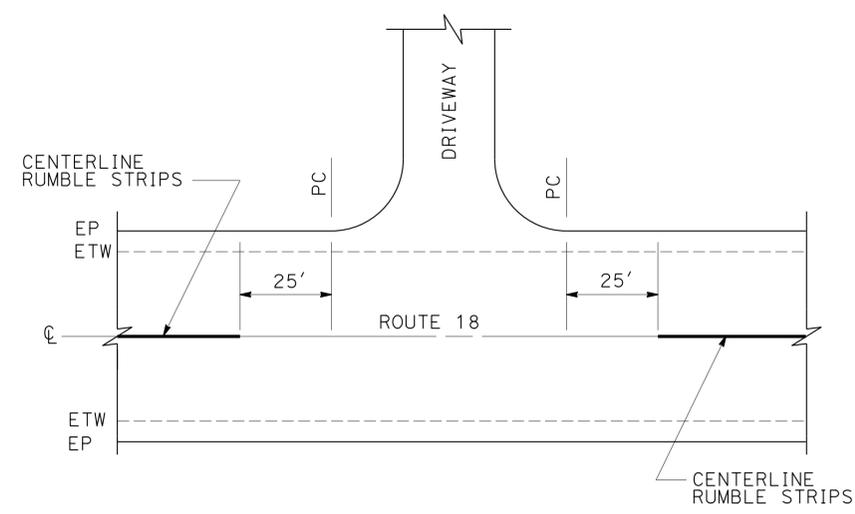
PLAN VIEW



SECTION A-A

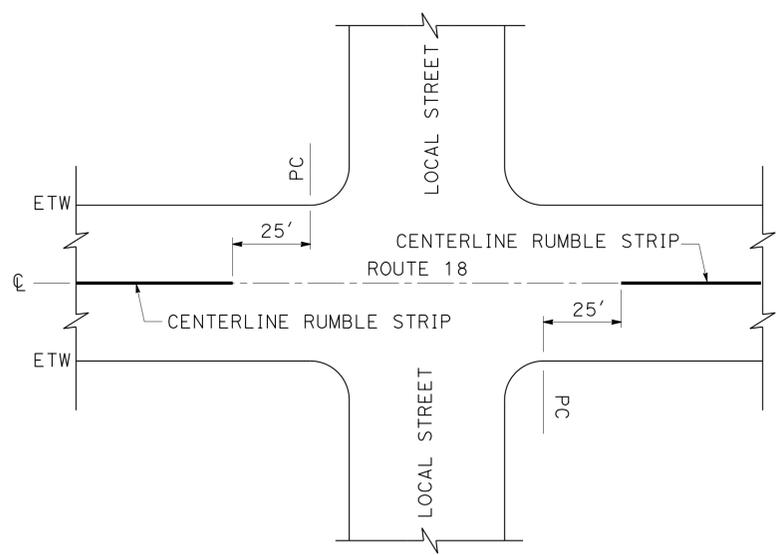


SECTION B-B



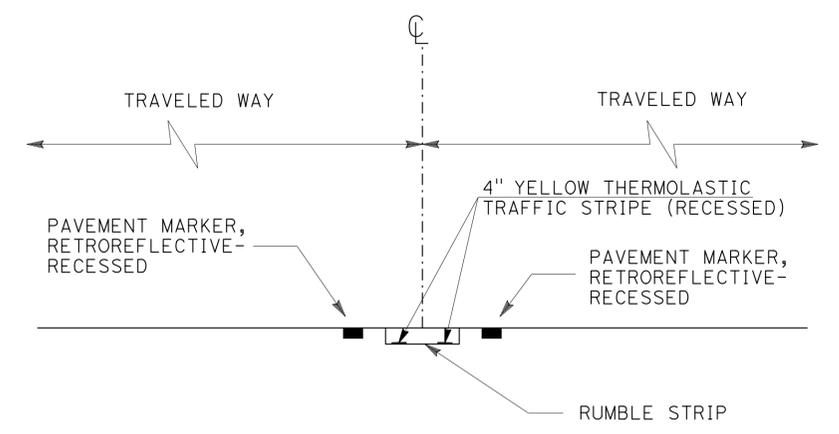
**LIMITS OF WORK AT
TYPICAL INTERSECTION**

PLAN VIEW



**LIMITS OF WORK AT
TYPICAL DRIVEWAY**

PLAN VIEW



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

CROSS SECTION

CONSTRUCTION DETAILS

NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR: MICHAEL P. RISTIC
 CALCULATED/DESIGNED BY: MICHAEL P. RISTIC
 CHECKED BY:
 RHEA VILLARAMA
 MICHAEL P. RISTIC
 REVISED BY: DATE: REVISIONS:
 REVISIONS:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9,38.5/39.8 44.4/48.1	5	34

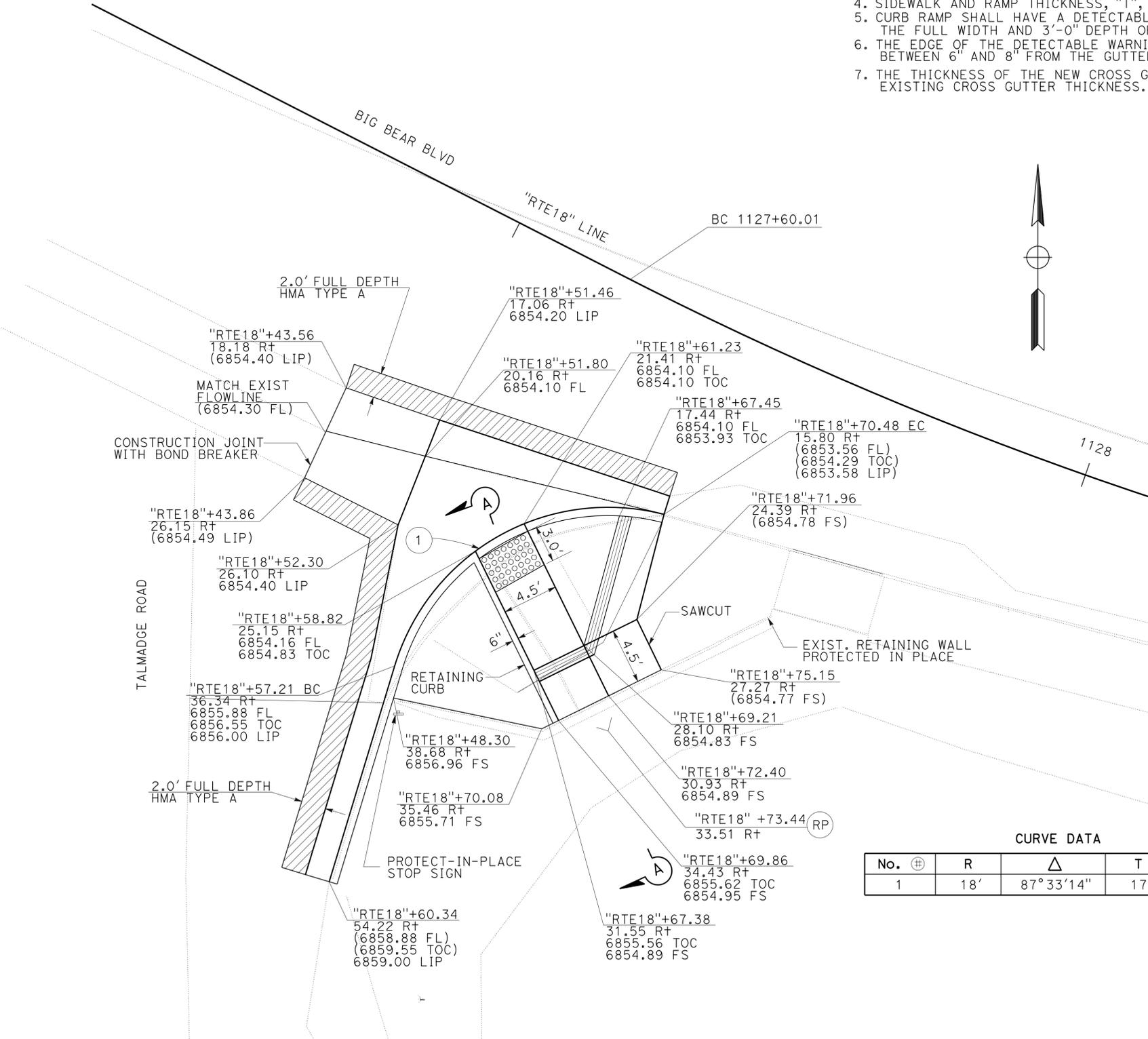
REGISTERED CIVIL ENGINEER DATE 2-13-15
 2-23-15
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 MICHAEL P. RISTIC
 No. 69429
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA

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

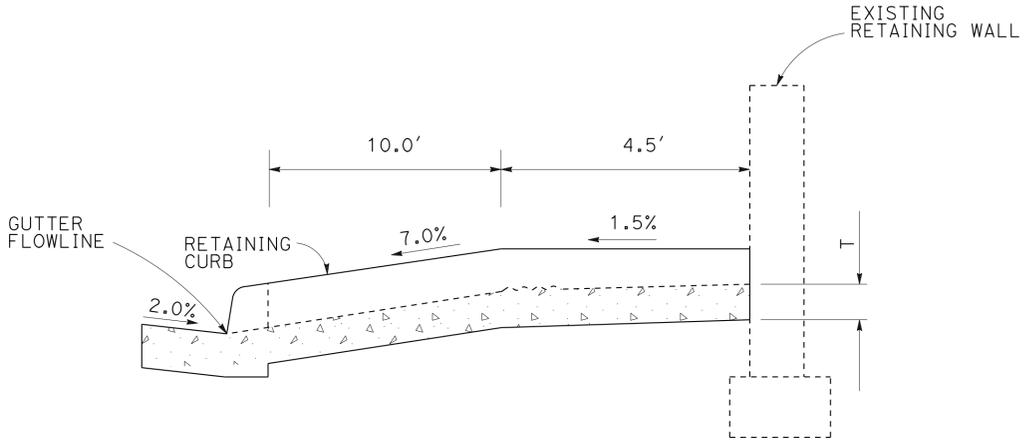
- NOTES:
1. SIDEWALK WIDTH IS MEASURED FROM THE BACK OF CURB.
 2. THE CURB RAMP SHALL BE OUTLINED, AS SHOWN, WITH A 1'-0" WIDE BORDER WITH 1/4" GROOVES APPROXIMATELY 3/4" ON CENTER. SEE GROOVING DETAIL.
 3. TRANSITION FROM RAMPS AND LANDING TO WALKS, GUTTERS OR STREETS SHALL BE FLUSH (NO LIP) AND FREE OF ABRUPT CHANGES.
 4. SIDEWALK AND RAMP THICKNESS, "T", SHALL BE 3-1/2" MINIMUM.
 5. CURB RAMP SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND 3'-0" DEPTH OF THE RAMP.
 6. THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST THE STREET SHALL BE BETWEEN 6" AND 8" FROM THE GUTTER FLOWLINE.
 7. THE THICKNESS OF THE NEW CROSS GUTTER PORTION WILL MATCH THE EXISTING CROSS GUTTER THICKNESS.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR MICHAEL P. RISTIC
 CALCULATED/DESIGNED BY CHECKED BY
 HAO HO RHEA VILLARAMA
 REVISED BY DATE
 HAO HO RHEA VILLARAMA



CURVE DATA

No.	±	R	Δ	T	L
1		18'	87°33'14"	17'	28'



SECTION A-A
NO SCALE

**CURB RAMP DETAIL
CASE G MODIFIED**
SCALE: 1"=10'

**CONSTRUCTION DETAILS
C-3**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 & 44.4/48.1	6	34

Daryush Nami 2-18-2015
 REGISTERED CIVIL ENGINEER DATE
 2-23-2015
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 DARYUSH NAMI
 No. 78890
 Exp. 3/31/16
 CIVIL
 STATE OF CALIFORNIA

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

NOTES:

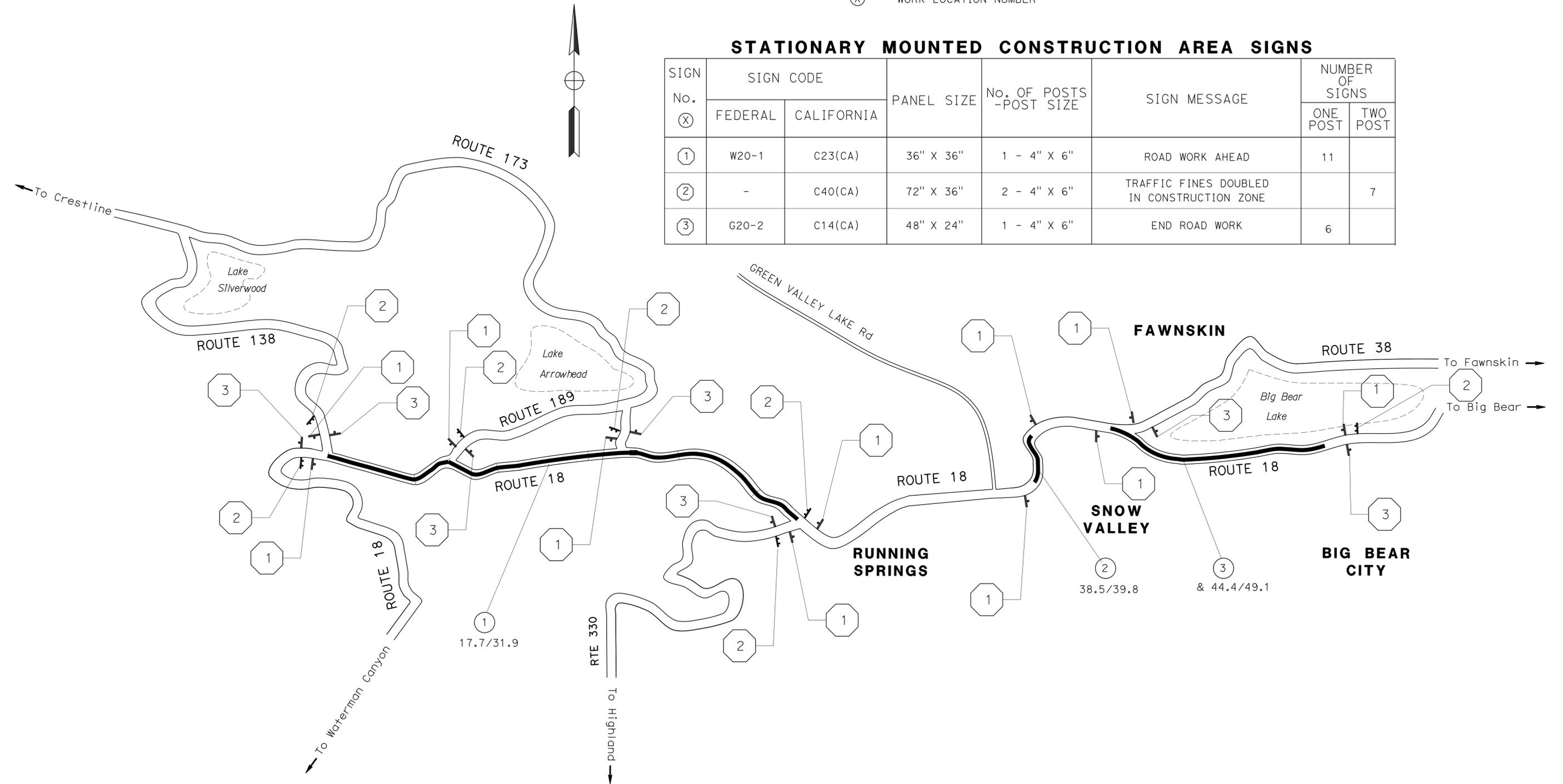
1. LOCATIONS OF CONSTRUCTION AREA SIGNS AND PCMS ARE APPROXIMATE. EXACT LOCATIONS AND THE PCMS MESSAGES WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. REFER TO RSPT9, RSPT12, RSPT13, AND RSPT 14 STANDARD PLANS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. PORTABLE CHANGEABLE MESSAGE SIGN MESSAGES MAY BE DETERMINED BY THE ENGINEER.

LEGEND:

-  CONSTRUCTION AREA
-  CONSTRUCTION AREA SIGN (ONE POST)
-  CONSTRUCTION AREA SIGN (TWO POST)
-  CONSTRUCTION AREA SIGN NUMBER
-  WORK LOCATION NUMBER

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE		PANEL SIZE	No. OF POSTS -POST SIZE	SIGN MESSAGE	NUMBER OF SIGNS	
	FEDERAL	CALIFORNIA				ONE POST	TWO POST
①	W20-1	C23(CA)	36" X 36"	1 - 4" X 6"	ROAD WORK AHEAD	11	
②	-	C40(CA)	72" X 36"	2 - 4" X 6"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONE		7
③	G20-2	C14(CA)	48" X 24"	1 - 4" X 6"	END ROAD WORK	6	



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

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

NO SCALE **CS-1**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9,38.5/39.8 44.4/48.1	7	34

Daryush Nami 2-18-2015
 REGISTERED CIVIL ENGINEER DATE
 2-23-2015
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 DARYUSH NAMI
 No. 78890
 Exp. 3/31/16
 CIVIL
 STATE OF CALIFORNIA

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

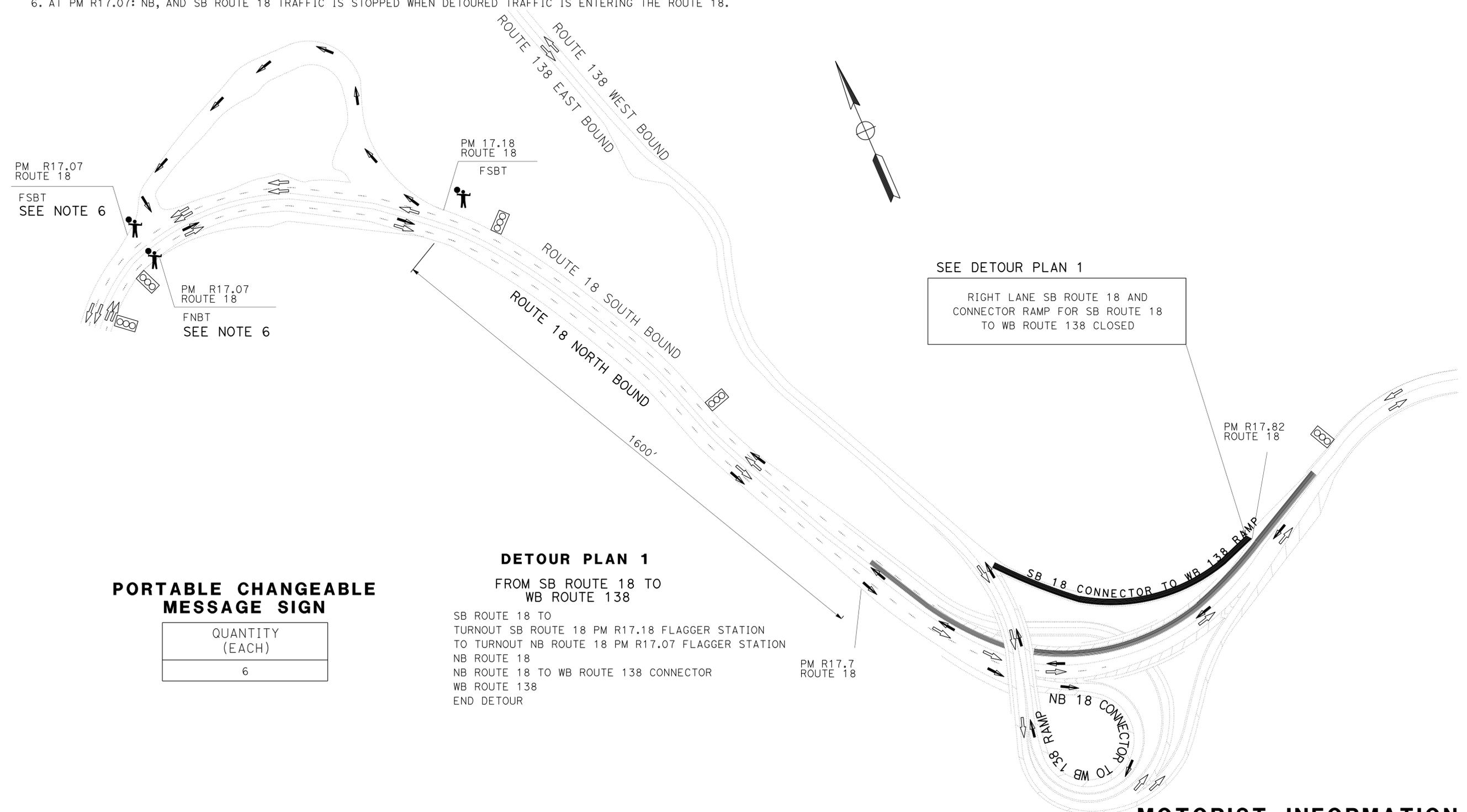
NOTES:

1. LOCATIONS OF THE CONSTRUCTION AREA SIGNS AND PCMS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. REFER TO RSP T9, RSP T12, RSP T13, AND RSP T14 STANDARD PLANS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. ALL SIGNS ON SHEETS MI-1 THROUGH MI-4 ARE PART OF THE TRAFFIC CONTROL ITEM.
4. PLACEMENT, MAINTENANCE, RE-LOCATION, AND REMOVAL OF ALL PCMS' SHOWN ON THE FOLLOWING SHEETS ARE PART OF THE PORTABLE CHANGEABLE MESSAGE SIGN ITEM.
5. WHEN SB ROUTE 18 IS CLOSED, REFER TO STANDARD PLAN RSPT 12 TO UTILIZE NB ROUTE 18 FOR HALF ROAD CLOSURE TRAFFIC CONTROL.
6. AT PM R17.07: NB, AND SB ROUTE 18 TRAFFIC IS STOPPED WHEN DETOURED TRAFFIC IS ENTERING THE ROUTE 18.

LEGEND:

- FLAGGER STATION (STANDARD PLAN RSPT 13 CLOSURE)
- PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- DIRECTION OF DETOUR TRAFFIC
- ROAD CLOSED

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	DESIGNED BY	REVISOR
Caltrans TRAFFIC DESIGN	W.E. WASSER	CHECKED BY	DATE REVISED
		DARYUSH NAMI	TRAN HOANG



PORTABLE CHANGEABLE MESSAGE SIGN

QUANTITY (EACH)
6

DETOUR PLAN 1

FROM SB ROUTE 18 TO WB ROUTE 138

SB ROUTE 18 TO TURNOUT SB ROUTE 18 PM R17.18 FLAGGER STATION TO TURNOUT NB ROUTE 18 PM R17.07 FLAGGER STATION

NB ROUTE 18 NB ROUTE 18 TO WB ROUTE 138 CONNECTOR

WB ROUTE 138 END DETOUR

APPROVED FOR MOTORIST INFORMATION WORK ONLY

MOTORIST INFORMATION PLAN

NO SCALE

MI-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9,38.5/39.8 44.4/48.1	8	34

<i>Daryush Nami</i> 2-18-2015	
REGISTERED CIVIL ENGINEER	DATE
2-23-2015	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	DARYUSH NAMI
No.	78890
Exp.	3/31/16
CIVIL	

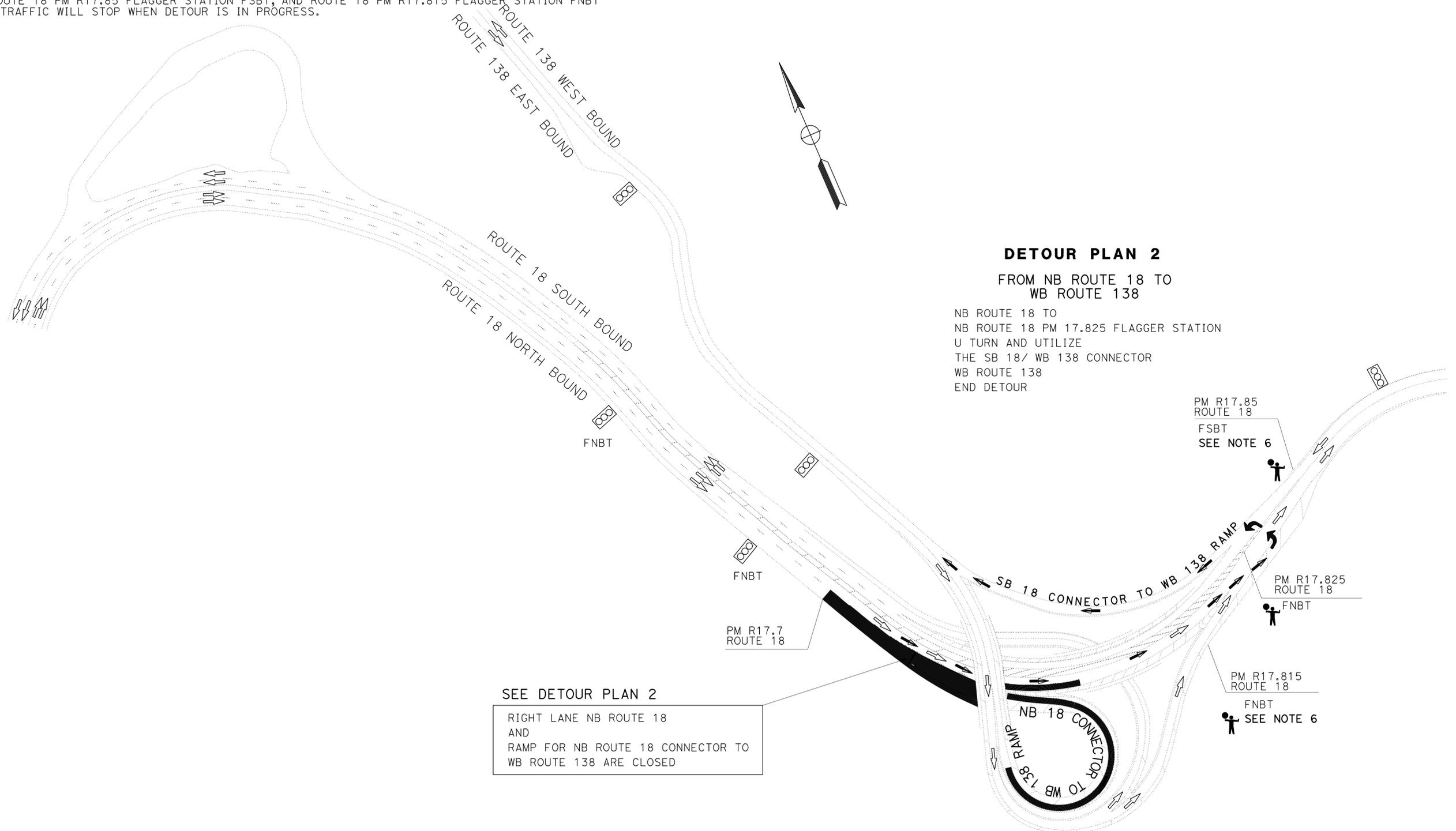
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. LOCATIONS OF THE CONSTRUCTION AREA SIGNS AND PCMS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. REFER TO RSPT9, RSPT12, RSPT 13, AND RSPT 14 STANDARD PLANS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. ALL SIGNS ON SHEETS MI-1 THROUGH MI-4 ARE PART OF THE TRAFFIC CONTROL ITEM.
4. PLACEMENT, MAINTENANCE, RE-LOCATION, AND REMOVAL OF ALL PCMS' SHOWN ON THE FOLLOWING SHEETS ARE PART OF THE PORTABLE CHANGEABLE MESSAGE SIGN ITEM.
5. WHEN NB ROUTE 18 IS CLOSED, REFER TO STANDARD PLAN RSPT 12 TO UTILIZE SB ROUTE 18 FOR HALF ROAD CLOSURE TRAFFIC CONTROL.
6. AT ROUTE 18 PM R17.85 FLAGGER STATION FSBT, AND ROUTE 18 PM R17.815 FLAGGER STATION FNBT THRU TRAFFIC WILL STOP WHEN DETOUR IS IN PROGRESS.

LEGEND:

-  FLAGGER STATION (STANDARD PLAN RSPT 13 CLOSURE)
-  PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
-  DIRECTION OF DETOUR TRAFFIC
-  ROAD CLOSED



DETOUR PLAN 2

FROM NB ROUTE 18 TO
WB ROUTE 138

NB ROUTE 18 TO
NB ROUTE 18 PM 17.825 FLAGGER STATION
U TURN AND UTILIZE
THE SB 18/ WB 138 CONNECTOR
WB ROUTE 138
END DETOUR

PM R17.85
ROUTE 18
FSBT
SEE NOTE 6

PM R17.825
ROUTE 18
FNBT

PM R17.815
ROUTE 18
FNBT
SEE NOTE 6

SEE DETOUR PLAN 2

RIGHT LANE NB ROUTE 18
AND
RAMP FOR NB ROUTE 18 CONNECTOR TO
WB ROUTE 138 ARE CLOSED

**MOTORIST INFORMATION PLAN
MI-2**

NO SCALE

APPROVED FOR MOTORIST INFORMATION WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans TRAFFIC DESIGN	W.E. WASSER	DARYUSH NAMI	2-18-2015
		TRAN HOANG	2-23-2015

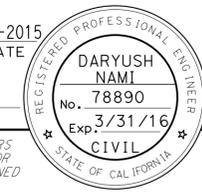
REVISOR	DATE	REVISION
DARYUSH NAMI	TRAN HOANG	
CALCULATED-DESIGNED BY	CHECKED BY	
FUNCTIONAL SUPERVISOR	W.E. WASSER	
REVISOR	DATE	REVISION
DARYUSH NAMI	TRAN HOANG	
CALCULATED-DESIGNED BY	CHECKED BY	
FUNCTIONAL SUPERVISOR	W.E. WASSER	

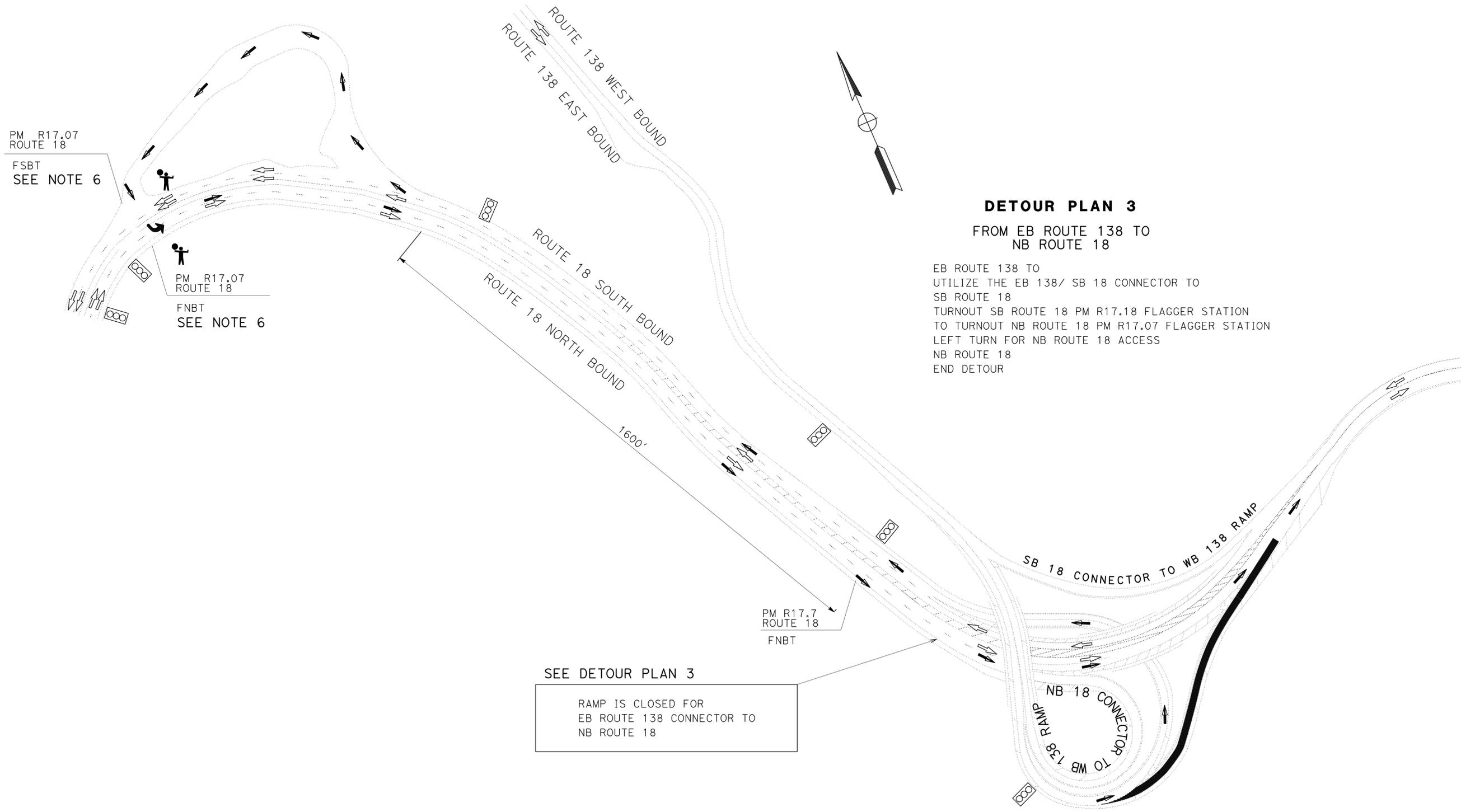
NOTES:

1. LOCATIONS OF THE CONSTRUCTION AREA SIGNS AND PCMS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. REFER TO RSP T9, RSP T12, RSPT 13, AND RSPT 14 STANDARD PLANS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
3. ALL SIGNS ON SHEETS MI-1 THROUGH MI-4 ARE PART OF THE TRAFFIC CONTROL ITEM.
4. PLACEMENT, MAINTENANCE, RE-LOCATION, AND REMOVAL OF ALL PCMS SHOWN ON THE FOLLOWING SHEETS ARE PART OF THE PORTABLE CHANGEABLE MESSAGE SIGN ITEM.
5. REFER TO STANDARD PLAN RSPT 14 TO FOR EB ROUTE 138 TO NB ROUTE 18 CONNECTOR CLOSURE TRAFFIC CONTROL.
6. AT NB, AND SB ROUTE 18 PM R17.07 FLAGGER STATIONS, THRU TRAFFIC SHALL BE STOPPED WHEN DETOURED TRAFFIC IS ENTERING THE ROUTE 18.

LEGEND:

-  FLAGGER STATION (STANDARD PLAN RSPT 13 CLOSURE)
-  PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
-  DIRECTION OF DETOURE TRAFFIC
-  ROAD CLOSED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9,38.5/39.8 44.4/48.1	9	34
Daryush Nami REGISTERED CIVIL ENGINEER			2-18-2015 DATE		
2-23-2015 PLANS APPROVAL DATE			No. 78890 Exp. 3/31/16 CIVIL		
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.					



DETOUR PLAN 3

FROM EB ROUTE 138 TO NB ROUTE 18

EB ROUTE 138 TO
 UTILIZE THE EB 138/ SB 18 CONNECTOR TO
 SB ROUTE 18
 TURNOUT SB ROUTE 18 PM R17.18 FLAGGER STATION
 TO TURNOUT NB ROUTE 18 PM R17.07 FLAGGER STATION
 LEFT TURN FOR NB ROUTE 18 ACCESS
 NB ROUTE 18
 END DETOUR

SEE DETOUR PLAN 3
 RAMP IS CLOSED FOR
 EB ROUTE 138 CONNECTOR TO
 NB ROUTE 18

MOTORIST INFORMATION PLAN MI-3
 NO SCALE

APPROVED FOR MOTORIST INFORMATION WORK ONLY

DATE PLOTTED => 26-FEB-2015 TIME PLOTTED => 10:50

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN

REVISOR	DATE	REVISOR	DATE
DARYUSH NAMI	TRAN HOANG		
CALCULATED-DESIGNED BY	CHECKED BY	FUNCTIONAL SUPERVISOR	
		W.E. WASSER	

- LEGEND:**
-  FLAGGER STATION (STANDARD PLAN RSPT 13 CLOSURE)
 -  PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
 -  DIRECTION OF DETOUR TRAFFIC
 -  ROAD CLOSED

- NOTES:**
- LOCATIONS OF THE CONSTRUCTION AREA SIGNS AND PCMS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.
 - REFER TO RSP T9, RSP T12, AND RSPT 13 STANDARD PLANS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
 - ALL SIGNS ON SHEETS MI-1 THROUGH MI-4 ARE PART OF THE TRAFFIC CONTROL ITEM.
 - PLACEMENT, MAINTENANCE, RE-LOCATION, AND REMOVAL OF ALL PCMS' SHOWN ON THE FOLLOWING SHEETS ARE PART OF THE PORTABLE CHANGEABLE MESSAGE SIGN ITEM.
 - REFER TO STANDARD PLAN RSPT 12 TO UTILIZE ROUTE 18 FOR TWO WAY TRAFFIC CONTROL.
 - REFER TO STANDARD PLAN RSPT 14 TO FOR SB ROUTE 138 TO SB ROUTE 18 CONNECTOR CLOSURE TRAFFIC CONTROL.
 - AT ROUTE 18 PM R17.85 FLAGGER STATION FSBT, AND ROUTE 18 PM R17.815 FLAGGER STATION FNBT THRU TRAFFIC WILL STOP WHEN DETOUR IS IN PROGRESS.
 - AT ROUTE 18 PM R17.742 FLAGGER STATION NB, THE TRAFFIC FROM NB ROUTE 18 TO WB ROUTE 138 CONNECTOR WILL STOP WHEN DETOUR IS IN PROGRESS.

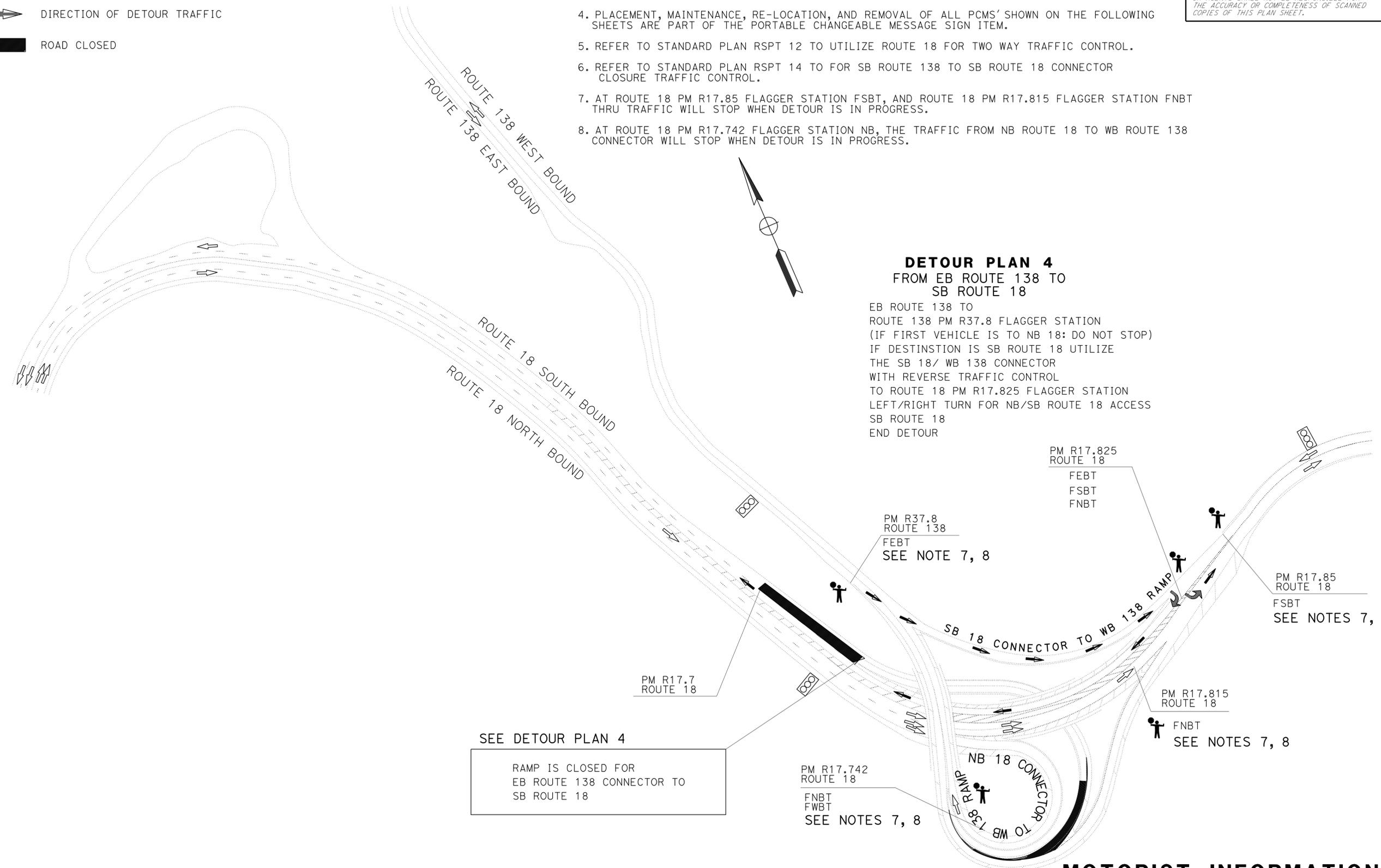
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9,38.5/39.8 44.4/48.1	10	34

Daryush Nami 2-18-2015
 REGISTERED CIVIL ENGINEER DATE

2-23-2015
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 DARYUSH NAMI
 No. 78890
 Exp. 3/31/16
 CIVIL
 STATE OF CALIFORNIA

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



DETOUR PLAN 4
 FROM EB ROUTE 138 TO
 SB ROUTE 18

EB ROUTE 138 TO
 ROUTE 138 PM R37.8 FLAGGER STATION
 (IF FIRST VEHICLE IS TO NB 18: DO NOT STOP)
 IF DESTINATION IS SB ROUTE 18 UTILIZE
 THE SB 18/ WB 138 CONNECTOR
 WITH REVERSE TRAFFIC CONTROL
 TO ROUTE 18 PM R17.825 FLAGGER STATION
 LEFT/RIGHT TURN FOR NB/SB ROUTE 18 ACCESS
 SB ROUTE 18
 END DETOUR

SEE DETOUR PLAN 4

RAMP IS CLOSED FOR
 EB ROUTE 138 CONNECTOR TO
 SB ROUTE 18

MOTORIST INFORMATION PLAN
 NO SCALE
MI-4

APPROVED FOR MOTORIST INFORMATION WORK ONLY

DATE PLOTTED => 26-FEB-2015
 TIME PLOTTED => 10:50
 LAST REVISION 2-19-15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 & 44.4/48.1	11	34

Daryush Nami 2-18-2015
REGISTERED CIVIL ENGINEER DATE

2-23-2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DARYUSH NAMI
No. 78890
Exp. 3/31/16
CIVIL
STATE OF CALIFORNIA

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

ROUTE 18 PAVEMENT DELINEATION QUANTITIES

LOCATION	LENGTH	DIR	DETAIL No. AND QUANTITY OF PAVEMENT MARKING	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE HAZARDOUS WASTE	REMOVE THERMOPLASTIC PAVEMENT MARKING (N)		REMOVE THERMOPLASTIC TRAFFIC STRIPE (N)	REMOVE PAVEMENT MARKER (N)	4" RECESSED THERMOPLASTIC TRAFFIC STRIPE				8" RECESSED THERMOPLASTIC TRAFFIC STRIPE		THERMOPLASTIC PAVEMENT MARKING		RECESSED PAVEMENT MARKER RETROREFLECTIVE	
					YELLOW	WHITE			WHITE SOLID	WHITE BROKEN	YELLOW SOLID	YELLOW BROKEN	WHITE SOLID	WHITE	YELLOW	TYPE D	TYPE G	
PM	PM	FEET	EA	DETAIL	LF	SQFT	SQFT	LF	EA	LF	LF	LF	LF	LF	SQFT	SQFT	EA	EA
FROM 17.7 TO 31.9	74976	NB/SB	27B					149952		149952								
FROM 17.70 TO 17.85	792	NB/SB	29					3168	68			3168					68	
FROM 17.7 TO 17.8	528	NB	9					154	12		528							12
FROM 17.70 TO 17.87	450	FNBT	CHEVRON				450							450				
FROM 17.80 TO 17.854		FNBT	3 TYPE V ARROW				342							99				
FROM 17.71 TO 17.82	600	NB	36					600	26					600				26
FROM 17.71 TO 17.825	200	FSBT	CHEVRON				200							200				
FROM 17.81 TO 17.826	240	SB	36					240	11					240				11
FROM 17.842 TO 20.481	13944	NB/SB	22					27888	1164			27888					1164	
FROM 20.075 TO 20.075		FNBT	1 SIGNAL AHEAD				133							63				
FROM 20.331 TO 20.331		FNBT	1 SIGNAL AHEAD				133							63				
FROM 20.493 TO 20.493		FNBT	1 SIGNAL AHEAD				133							63				
FROM 20.528 TO 20.61	456	NB	38					456						456				20
FROM 20.49 TO 20.61	648	NB/SB	29					2592	56			2592					56	
FROM 20.528 TO 20.61		FNBT	3 TYPE IV(L) ARROW				144							45				
FROM 20.528 TO 20.61	300	FNBT	CHEVRON				300							300				
FROM 20.61 TO 20.61	48	FNBT	LIMIT LINE				48							48				
FROM 20.630 TO 20.630	36	FSBT	LIMIT LINE				36							36				
FROM 20.630 TO 20.670		FSBT	2 TYPE IV(R) ARROW				96							30				
FROM 20.630 TO 20.670	216	SB	38					216	10					216				10
FROM 20.630 TO 20.687	312	FSBT	29					1248	28			1248					28	
FROM 20.630 TO 20.687	300	FSBT	CHEVRON			300										300		
FROM 20.744 TO 20.744		FSBT	1 SIGNAL AHEAD											63				
FROM 20.857 TO 20.857		FSBT	1 SIGNAL AHEAD											63				
FROM 20.687 TO 22.925	11832	NB/SB	22					23664	988			23664					988	
FROM 22.912 TO 22.919	36	SB	38					36	3					36				3
FROM 22.925 TO 22.944	96	NB/SB	32					384	12			192	192				12	
FROM 22.944 TO 22.954	48	NB/SB	22					96	6			96					6	
FROM 22.964 TO 22.977	72	SB	38					72	4					72				4
FROM 22.964 TO 23.257	1560	NB/SB	22					3120	132					3120			132	
FROM 23.257 TO 23.296	216	NB/SB	29					864	20					864			20	
FROM 23.296 TO 23.319	144	NB/SB	22					288	14					288			14	
FROM 23.300 TO 23.319	96	NB	38					96	5					96				5
FROM 23.329 TO 23.369	216	NB/SB	29					864	20					864			20	
FROM 23.369 TO 23.386	96	NB	38					96	5					96				5
FROM 23.369 TO 23.386	96	NB/SB	22					192	10					192			10	
FROM 23.399 TO 23.884	2568	NB/SB	22					5136	216					5136			216	
FROM 23.884 TO 23.912	168	NB/SB	29					672	16					672			16	
FROM 23.912 TO 23.931	96	NB	38					96	5					96				5
FROM 23.912 TO 23.931	96	NB/SB	22					192	10					192			10	
SUB TOTAL SHEET PDQ-1						300	2015	222382	2841 (N)	149952	528	70176	192	1908	1523	300	2760	101

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: W.E. WASSER
 CALCULATED/DESIGNED BY: DARYUSH NAMI
 CHECKED BY: TRAN HOANG
 REVISED BY: DATE REVISOR

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION QUANTITIES

NO SCALE **PDQ-1**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9,38.5/39.8 & 44.4/48.1	12	34

Daryush Nami 2-18-2015
REGISTERED CIVIL ENGINEER DATE

2-23-2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DARYUSH NAMI
No. 78890
Exp. 3/31/16
CIVIL
STATE OF CALIFORNIA

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

ROUTE 18 PAVEMENT DELINEATION QUANTITIES

LOCATION	LENGTH	DIR	DETAIL No. AND QUANTITY OF PAVEMENT MARKING		REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE HAZARDOUS WASTE LF	REMOVE THERMOPLASTIC PAVEMENT MARKING (N)		REMOVE THERMOPLASTIC TRAFFIC STRIPE (N) LF	REMOVE PAVEMENT MARKER (N) EA	4" RECESSED THERMOPLASTIC TRAFFIC STRIPE				8" RECESSED THERMOPLASTIC TRAFFIC STRIPE		THERMOPLASTIC PAVEMENT MARKING		RECESSED PAVEMENT MARKER RETROREFLECTIVE		
			EA	DETAIL		YELLOW	WHITE			WHITE SOLID	WHITE BROKEN	YELLOW SOLID	YELLOW BROKEN	WHITE SOLID	WHITE	YELLOW	TYPE D	TYPE G		
PM	FEET		EA	DETAIL	LF	SQFT	SQFT	LF	EA	LF	LF	LF	LF	LF	SQFT	SQFT	EA	EA		
FROM 23.947 TO 24.57	3312	NB/SB		22				6624	278			6624					278			
FROM 24.57 TO 24.652	456	NB/SB		29				1824	40			1824					40			
FROM 24.652 TO 24.697	240	NB/SB		22				480	22			480					22			
FROM 24.671 TO 24.697	144	NB		38				144	7					144				7		
FROM 24.671 TO 24.697		FNBT	2	TYPE IV(L) ARROW			96							30						
FROM 24.725 TO 25.052	1728	NB/SB		22				3456	146			3456					146			
FROM 25.052 TO 25.11	312	NB/SB		29				1248	28			1248					28			
FROM 25.087 TO 25.11	144	NB		38				144	7					144				7		
FROM 25.117 TO 25.146	168	NB/SB		22				336	16			336					16			
FROM 25.135 TO 25.146	72	NB		38				72	4					72				4		
FROM 25.158 TO 25.809	3456	NB/SB		22				6912	290			6912					290			
FROM 25.79 TO 25.809	96	NB		38				96	5					96				5		
FROM 25.819 TO 30.11	22656	NB/SB		22				45312	1890			45312					1890			
FROM 30.098 TO 30.11	72	NB		38				72	4					72				4		
FROM 30.121 TO 30.158	204	NB/SB		29				816	19			816					19			
FROM 30.158 TO 31.9	9216	NB/SB		22				18432	770			18432					770			
FROM 31.9 TO 31.9	408	NB/SB		38				408	18					408				18		
FROM 31.9 TO 31.9		NB/SB		CHEVRON			360							360						
From 38.5 to 39.8	6864	NB/SB		27B				13728		13728										
From 38.5 to 39.8	6864	NB/SB		22				13728	574			13728					574			
SUB TOTAL SHEET PDQ-2										456	86376(N)	4118 (N)	13728		99168		936	390	4073	45

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
 FUNCTIONAL SUPERVISOR: W.E. WASSER
 CALCULATED/DESIGNED BY: DARYUSH NAMI
 CHECKED BY: TRAN HOANG
 REVISED BY: DATE
 REVISIONS:

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION QUANTITIES

NO SCALE

PDQ-2



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 & 44.4/48.1	13	34

Daryush Nami 2-18-2015
REGISTERED CIVIL ENGINEER DATE

2-23-2015
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
DARYUSH NAMI
No. 78890
Exp. 3/31/16
CIVIL
STATE OF CALIFORNIA

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

ROUTE 18 PAVEMENT DELINEATION QUANTITIES

LOCATION PM PM	LENGTH FEET	DIR	DETAIL No. and QUANTITY OF PAVEMENT MARKING		REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE Hazardous Waste LF	REMOVE THERMOPLASTIC PAVEMENT MARKING (N)		REMOVE THERMOPLASTIC TRAFFIC STRIPE (N) LF	REMOVE PAVEMENT MARKER (N) EA	4" RECESSED THERMOPLASTIC TRAFFIC STRIPE				8" RECESSED THERMOPLASTIC TRAFFIC STRIPE		THERMOPLASTIC PAVEMENT MARKING		RECESSED PAVEMENT MARKER RETROREFLECTIVE	
			EA	DETAIL		YELLOW SQFT	WHITE SQFT			WHITE SOLID LF	WHITE BROKEN LF	YELLOW SOLID LF	YELLOW BROKEN LF	WHITE SOLID LF	WHITE SQFT	YELLOW SQFT	TYPE D EA	TYPE G EA	
																			EA
From 44.01 to 44.01		FNBT	1	SIGNAL AHEAD			133									63			
From 44.164 to 49.7	29230	NB/SB		27B				58460		58460									
From 44.164 to 44.279	624	NB/SB		22				1248	54				1248					54	
From 44.172 to 44.279	576	NB		38				576	25						576				25
From 44.172 to 44.279		FNBT	3	TYPE III(L) ARROW			432									126			
From 44.172 to 44.279		FSBT	3	TYPE VI ARROW			297									126			
From 44.279 to 44.279	24	FNBT		LIMIT LINE			24									24			
From 44.257 to 44.279	120	SB		38				120							120				6
From 44.294 to 44.294	24	FNBT		LIMIT LINE			24									24			
From 44.294 to 44.471		FSBT	3	TYPE I(24') ARROW			252									93			
From 44.294 to 44.471		FSBT	3	TYPE II(R) ARROW			504									135			
From 44.531 to 44.531		FSBT	1	SIGNAL AHEAD			133									63			
From 44.294 to 47.208	15408	NB/SB		22				30816	1286				30816					1286	
From 47.208 to 47.208		FNBT	2	TYPE IV(L) ARROW			96									30			
From 47.221 to 47.288	384	NB/SB		32				1536	23				768	768				23	
From 47.288 to 48.12	4392	NB/SB		22				8784	368				8784					368	
From 48.105 to 48.12	72	NB		38				72	4							72			4
Talmadge Road		FNBT		LIMIT LINE			16									16			
Talmadge Road		FNBT		STOP			51									22			
From 48.105 to 48.105		FNBT	1	TYPE IV(R) ARROW			48									15			
From 48.145 to 48.145		FSBT	2	TYPE IV(L) ARROW			96									30			
From 48.129 to 48.145	96	SB		38				96	5							96			5
SUB TOTAL SHEET PDQ-3							2106	101708	1765	58460		41616	768		864(*2)	767		1731	40
SUB TOTAL SHEET PDQ-2							456	86376	4118	13728		99168			936(*2)	390		4073	45
SUB TOTAL SHEET PDQ-1							300	2015	222382	2841	149952	528	70176	192	1908(*2)	1523	300	2760	101
TOTAL							5069(N)	420738(N)	8724 (N)				442004			2980		8750	

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY
(*2) - WILL COUNT DOUBLE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PAVEMENT DELINEATION QUANTITIES

NO SCALE **PDQ-3**



TURNOUT PAVEMENT

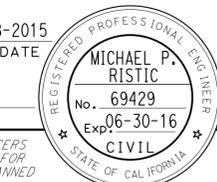
DIRECTION	PM	AREA (SF)	COLD PLANE AC (SQYD)	HMA (TYPE A) (TON)	TACK COAT (TON)	DIRECTION	PM	AREA (SF)	COLD PLANE AC (SQYD)	HMA (TYPE A) (TON)	TACK COAT (TON)
SB	18.03	2260	84	18	0.02	NB	21.95	8570	317	66	0.08
NB	18.04	2740	101	21	0.03	SB	21.97	1870	69	14	0.02
NB	18.18	3692	137	29	0.03	SB	22.71	1620	60	13	0.02
NB	18.25	2940	109	23	0.03	NB	23.46	1580	59	12	0.01
NB	18.30	4282	159	33	0.04	NB	23.57	4190	155	32	0.04
NB	18.61	1725	64	13	0.02	SB	24.09	2390	89	19	0.02
NB	18.66	1786	66	14	0.02	NB	24.12	6680	247	52	0.06
SB	18.79	2830	105	22	0.03	NB	24.29	3900	144	30	0.04
NB	18.84	18,090	670	140	0.17	SB	24.63	9475	351	73	0.09
SB	18.92	1582	59	12	0.01	NB	24.80	3085	114	24	0.03
NB	19.00	1900	70	15	0.02	NB	24.88	9590	355	74	0.09
SB	19.03	1200	44	9	0.01	SB	24.88	5620	208	44	0.05
NB	19.08	1030	38	8	0.01	NB	26.87	2870	106	22	0.03
NB	19.11	2860	106	22	0.03	NB	27.14	1650	61	13	0.02
NB	19.16	10,820	401	84	0.10	NB	27.50	2285	85	18	0.02
SB	19.22	2130	79	17	0.02	NB	27.92	3490	129	27	0.03
NB	19.25	5110	189	40	0.05	NB	28.12	8450	313	65	0.08
NB	19.31	3310	123	26	0.03	SB	28.12	3430	127	27	0.03
NB	19.36	1430	53	11	0.01	NB	28.38	2590	96	20	0.02
NB	19.42	15,360	569	119	0.14	NB	28.44	5520	204	43	0.05
NB	19.51	2800	104	22	0.03	NB	28.78	6420	238	50	0.06
NB	19.62	5252	195	41	0.05	NB	28.86	5700	211	44	0.05
SB	19.71	1300	48	10	0.01	SB	29.33	8620	319	67	0.08
NB	19.73	1580	59	12	0.01	SB	29.53	6060	224	47	0.06
SB	19.94	3000	111	23	0.03	NB	29.72	1860	69	14	0.02
NB	19.97	2530	94	20	0.02	SB	38.50	2875	106	22	0.03
NB	20.04	2186	81	17	0.02	NB	38.57	2890	107	22	0.03
NB	20.11	3630	134	28	0.03	SB	38.94	5052	187	39	0.05
NB	20.20	1794	66	14	0.02	SB	38.98	2780	103	22	0.03
NB	20.25	1310	49	10	0.01	NB	39.13	2900	107	22	0.03
NB	20.31	14,200	526	110	0.13	NB	39.17	4510	167	35	0.04
NB	20.55	16,190	600	125	0.15	NB	39.29	2100	78	16	0.02
NB	20.90	1770	66	14	0.02	NB	39.37	11,410	423	88	0.11
NB	20.96	4835	179	37	0.04	SB	39.62	14,470	536	112	0.13
NB	21.03	2340	87	18	0.02	NB	39.80	3690	137	29	0.03
NB	21.48	11,660	432	90	0.01	SB	44.69	2050	76	16	0.02
NB	21.69	1650	61	13	0.02	SB	44.88	1100	41	9	0.01
NB	21.85	3428	127	27	0.03	SB	45.64	2870	106	22	0.03
SB	21.89	3820	141	30	0.04						
SUBTOTAL			6383	1336	1.60	SUBTOTAL			6526	1366	1.63

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9,38.5/39.8 44.4/48.1	14	34


 2-18-2015
 REGISTERED CIVIL ENGINEER DATE

2-23-2015
 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.



ROADWAY PAVEMENT

BEGIN PM	END PM	SOUTHBOUND		MEDIAN/TURN LANE (FT)	NORTHBOUND		WIDTH (FT)	COLD PLANE AC (SQYD)	HMA (TYPE A) (TON)	TACK COAT (TON)
		SHLD (FT)	LANE(S) (FT)		LANE(S) (FT)	SHLD (FT)				
R17.73	R17.76	8	24	4	24	8	68	372	78	0.3
R17.76	R17.80	0	30	4	13	0	47	368	77	0.3
R17.80	R17.81	8	24	4	24	8	68	186	39	0.1
R17.81	R17.84	0	30	4	30	0	64	363	76	0.3
R17.84	19.00	2	13	0	13	2	30	6799	1423	5.1
19.00	19.08	2	16	0	16	2	36	535	112	0.4
19.08	19.21	2	12	0	12	2	28	768	152	0.5
19.21	19.76	2	16	0	16	2	36	3865	809	2.9
19.76	20.49	2	12	0	12	2	28	3975	832	3.0
20.49	20.70	12	13	0	13	12	50	2102	440	1.6
20.70	22.01	4	13	0	13	4	34	8697	1820	6.5
22.01	22.39	4	12	0	12	4	32	2384	499	1.8
22.39	22.95	8	12	0	12	8	40	4380	917	3.3
22.95	23.89	3	12	0	12	3	30	5497	1550	4.1
23.89	23.93	0	12	12	12	4	40	352	74	0.3
23.93	24.14	10	12	0	12	2	36	1458	311	1.1
24.14	24.58	3	12	0	12	3	30	2575	539	1.9
24.58	24.70	2	12	12	12	2	40	892	187	0.7
24.70	29.51	5	12	0	12	7	36	33,891	7092	25.4
29.51	31.64	3	12	0	12	3	30	12,508	2617	9.4
31.64	31.66	4	12	0	12	4	32	94	20	0.1
31.66	31.73	3	12	0	12	3	30	417	87	0.3
31.73	38.50	8	13	0	13	6	40	1369	286	1.0
38.50	38.93	3	12	0	12	1	26	2207	462	1.7
38.93	44.40	0	22	0	22	0	44	7451	1559	5.6
44.40	45.80	2	12	0	12	2	28	7666	1604	5.7
45.80	48.10	4	12	0	12	4	32	14,393	3012	10.8
SUBTOTAL								125,552	26,272	94.2
ROADWAY AND TURNOUT PAVEMENT TOTAL								138,431	28,974	97.5

SUMMARY OF QUANTITIES

Q-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR
 MICHAEL P. RISTIC

REVISOR
 RHEA VILLARAMA
 CHECKED BY
 MICHAEL P. RISTIC

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 44.4/48.1	15	34

 2-18-2015
 REGISTERED CIVIL ENGINEER DATE
 2-23-2015
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 MICHAEL P. RISTIC
 No. 69429
 Exp. 06-30-16
 CIVIL
 STATE OF CALIFORNIA

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

DIGOUTS

PM	AREA (SQFT)	REPLACE ASPHALT CONCRETE SURFACING (CY)
R17.7/31.9	236,394	3,502
38.5/39.8	21,686	321
44.4/48.1	61,722	914
TOTAL		4,737

CENTERLINE RUMBLE STRIP

PM	CENTERLINE RUMBLE STRIP (GROUND-IN INDENTATIONS) (STA)
R17.8/22.53	250
22.96/25.6	139
26.20/29.40	169
TOTAL	558

TEMPORARY DRAINAGE INLET PROTECTION

PM	TEMPORARY DRAINAGE INLET PROTECTION (N) (EA)
R17.7/31.9	110
38.5/39.8	10
44.4/48.1	40
TOTAL	160

(N) = NOT A PAY ITEM, FOR INFORMATION ONLY.

NOTE:
 DRAINAGE INLET COUNT PER LOCATION IS APPROXIMATE.

SIDEWALK CURB RAMP

LOCATION	CORNER	CURB RAMP CASE	REMOVE CONCRETE (CY)	REMOVE CONCRETE (CURB AND GUTTER) (LF)	ROADWAY EXCAVATION (CY)	DETECTABLE WARNING SURFACE (SQFT)	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION) (CY)
INTERSECTION OF TALMADGE ROAD AND ROUTE 18	SE	G MODIFIED	8	45	12	14	12

SUMMARY OF QUANTITIES

Q-2

LAST REVISION | DATE PLOTTED => 26-FEB-2015
 02-17-15 | TIME PLOTTED => 10:50

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	R17.7/31.9, 38.5/39.8 & 44.4/48.1	16	34

2-18-2015
 REGISTERED ELECTRICAL ENGINEER DATE
 2-23-2015
 PLANS APPROVAL DATE

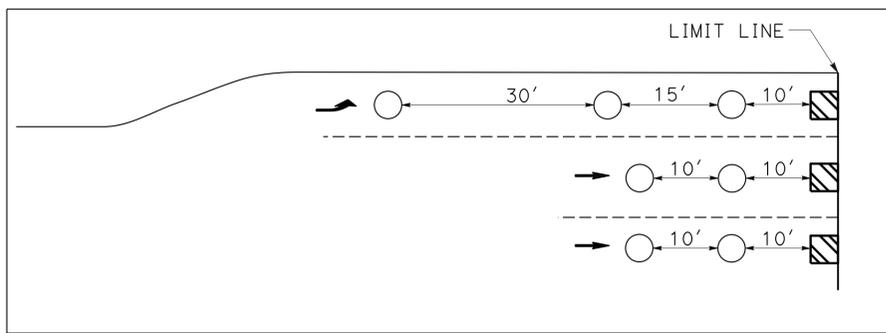
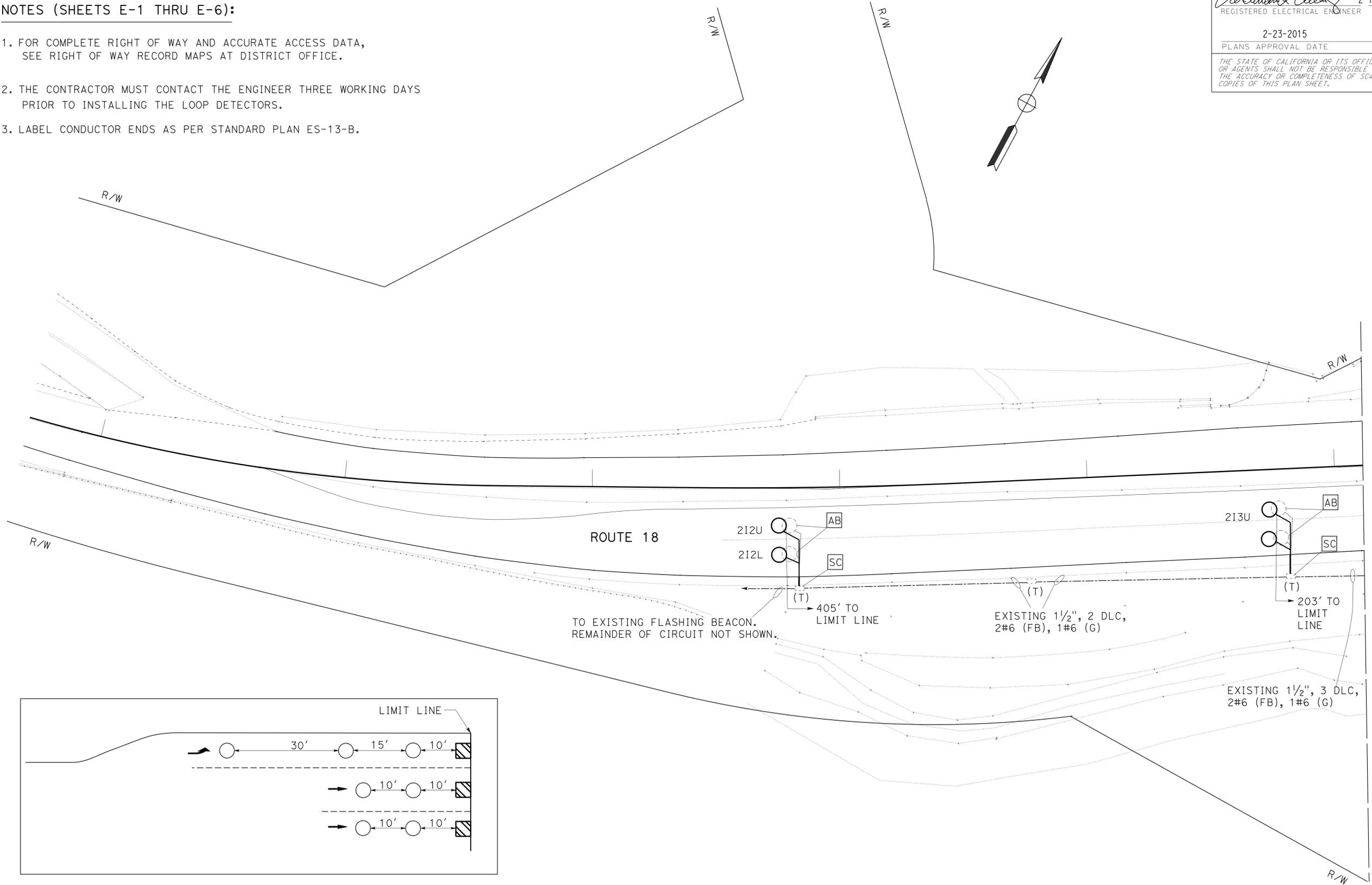
REGISTERED PROFESSIONAL ENGINEER
 FERDINAND DE LA CRUZ
 No. E 17215
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

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

NOTES (SHEETS E-1 THRU E-6):

- FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
- THE CONTRACTOR MUST CONTACT THE ENGINEER THREE WORKING DAYS PRIOR TO INSTALLING THE LOOP DETECTORS.
- LABEL CONDUCTOR ENDS AS PER STANDARD PLAN ES-13-B.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR	DATE
Caltrans ELECTRICAL DESIGN	FERDINAND DE LA CRUZ	CHECKED BY	LUIS PENALOZA	12-02-14
			FERDINAND DE LA CRUZ	



TYPICAL LOOP DETECTOR SETBACKS

APPROVED FOR ELECTRICAL WORK ONLY

MODIFY SIGNAL

NO SCALE **E-1**

LAST REVISION | DATE PLOTTED => 26-FEB-2015 | 02-02-15 | TIME PLOTTED => 10:50

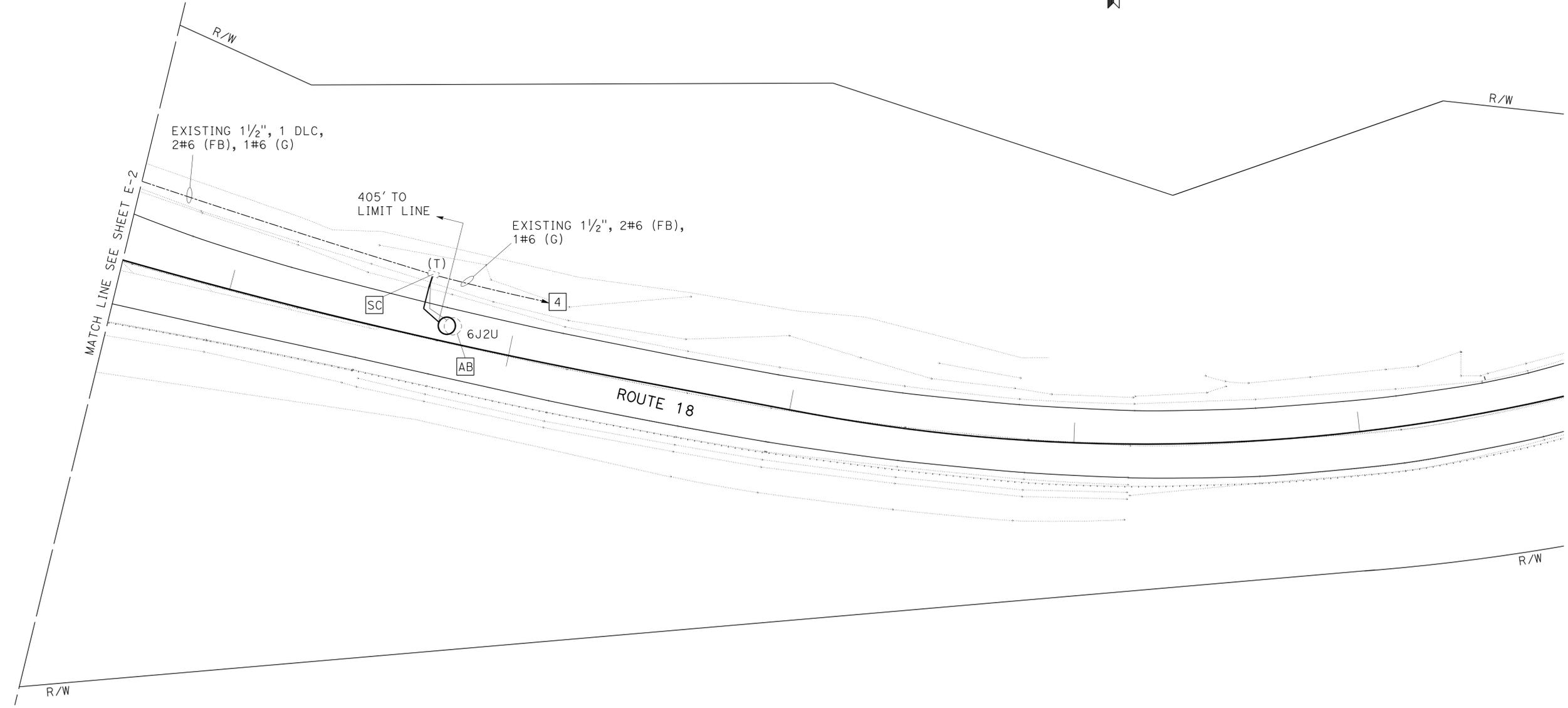
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR	DATE
Caltrans ELECTRICAL DESIGN	FERDINAND DE LA CRUZ	CHECKED BY	LPJ	12-03-14

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	R17.7/31.9, 38.5/39.8 & 44.4/48.1	18	34

2-18-2015
 REGISTERED ELECTRICAL ENGINEER DATE
 2-23-2015
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 FERDINAND DE LA CRUZ
 No. E 17215
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

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



APPROVED FOR ELECTRICAL WORK ONLY

MODIFY SIGNAL
NO SCALE **E-3**

LAST REVISION | DATE PLOTTED => 26-FEB-2015
 02-02-15 | TIME PLOTTED => 10:50

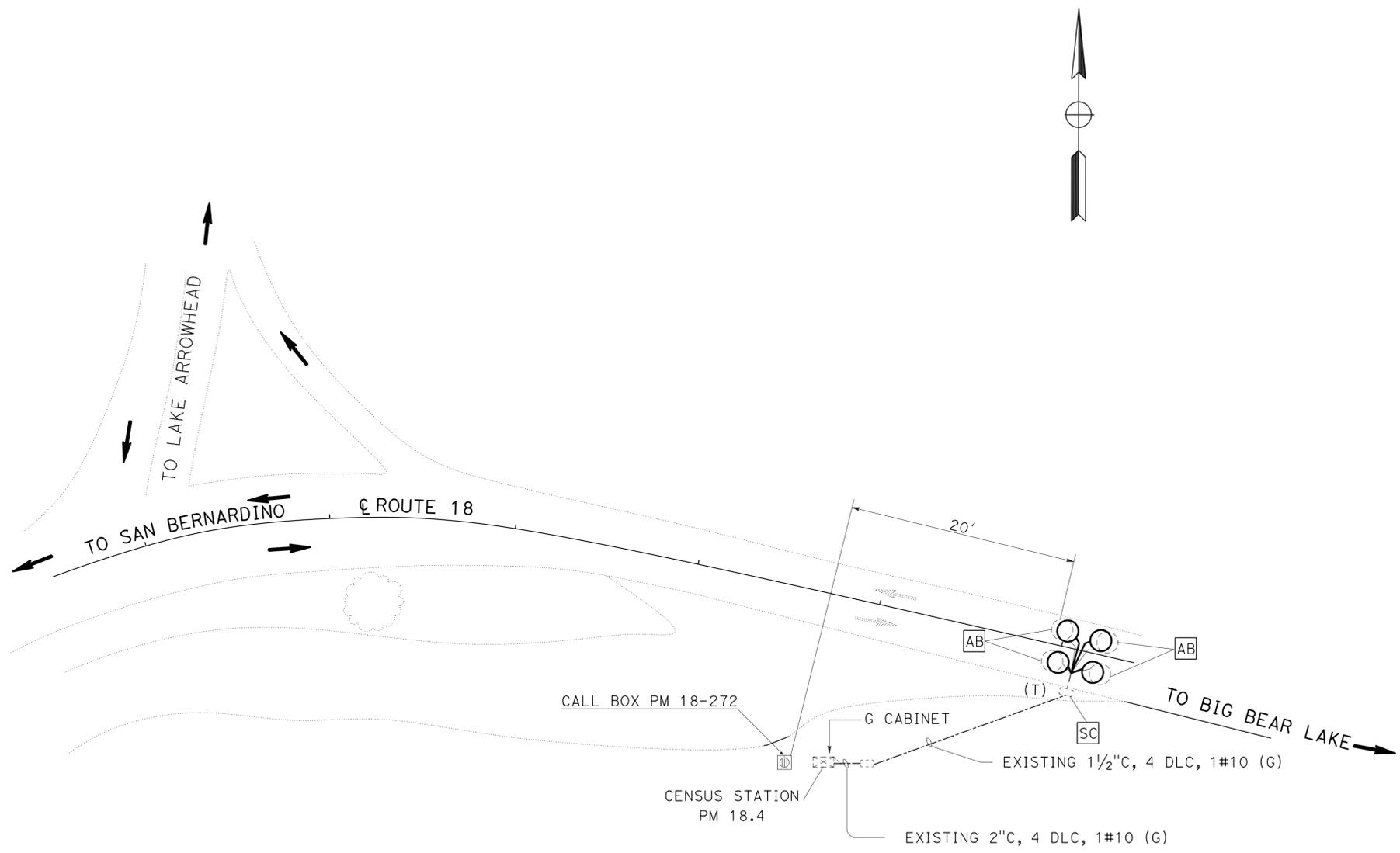
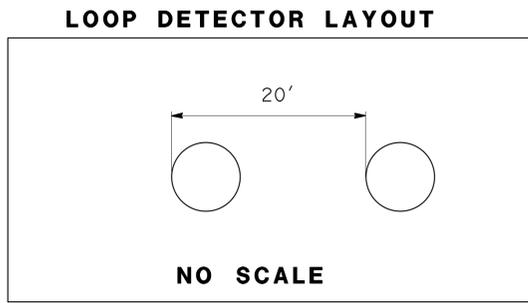
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	R17.7/31.9, 38.5/39.8 & 44.4/48.1	19	34

Ferdinand De la Cruz 2-18-2015
 REGISTERED ELECTRICAL ENGINEER DATE
 2-23-2015
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
 No. E 17215
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

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

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR	DATE
Caltrans ELECTRICAL DESIGN	FERDINAND DE LA CRUZ	CHECKED BY	LUIS PENALOZA	12-03-14



**MODIFY TRAFFIC MONITORING STATION
(COUNT LOCATION 1)**

NO SCALE

E-4

LAST REVISION | DATE PLOTTED => 26-FEB-2015
02-02-15 | TIME PLOTTED => 10:50

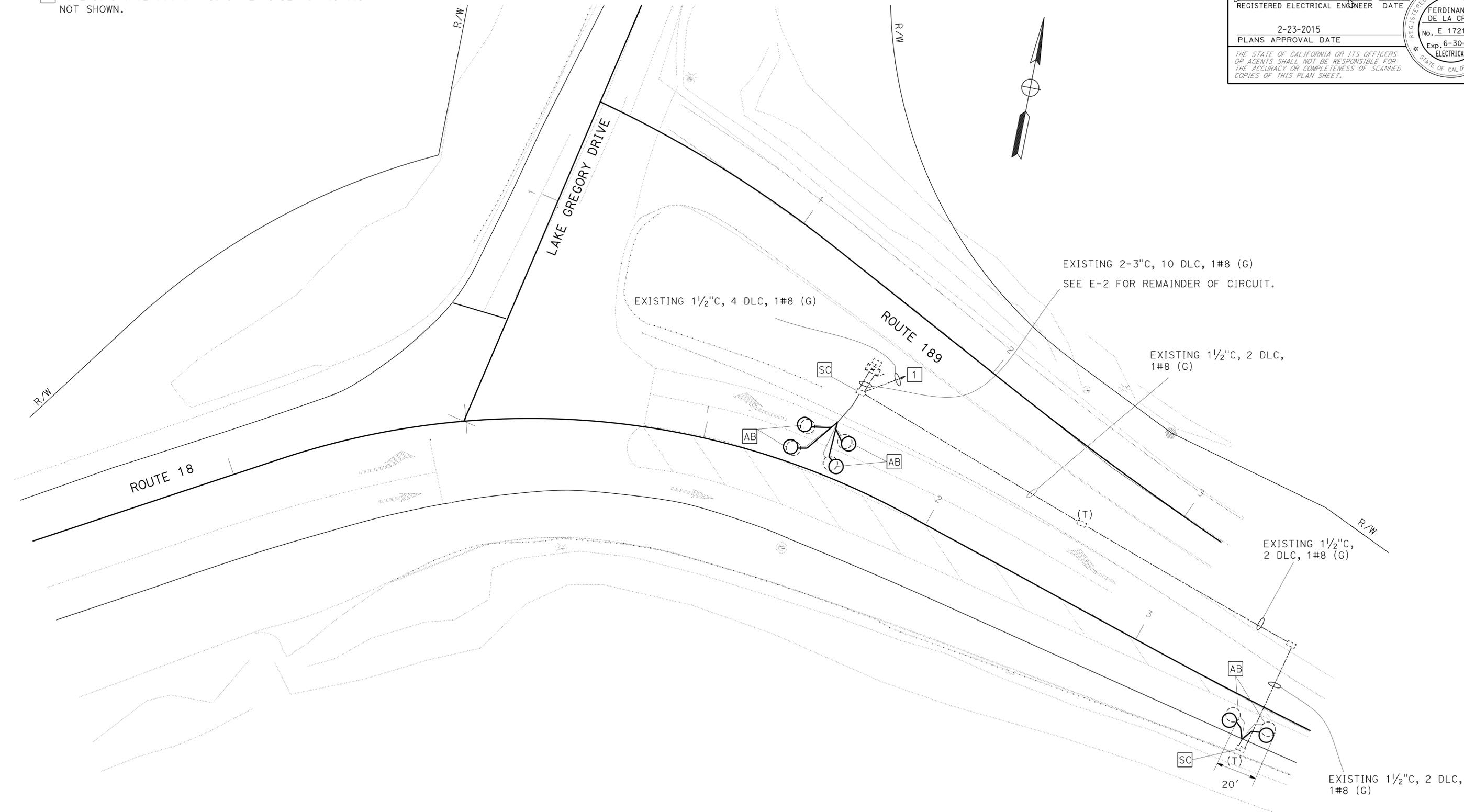
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	R17.7/31.9, 38.5/39.8 & 44.4/48.1	20	34

<i>Ferdinand De La Cruz</i>	2-18-2015
REGISTERED ELECTRICAL ENGINEER	DATE
2-23-2015	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
FERDINAND DE LA CRUZ
No. E 17215
Exp. 6-30-16
ELECTRICAL
STATE OF CALIFORNIA

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

NOTE:
 1 TO EXISTING CENSUS STATION. REMAINDER OF CIRCUIT NOT SHOWN.



**MODIFY TRAFFIC MONITORING STATION
 (COUNT LOCATION 2)**

APPROVED FOR ELECTRICAL WORK ONLY

NO SCALE

E-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
FUNCTIONAL SUPERVISOR FERDINAND DE LA CRUZ
CALCULATED/DESIGNED BY CHECKED BY
LUIS PENALOZA JR FERDINAND DE LA CRUZ
REVISOR BY DATE REVISED
LPJ 12-10-14

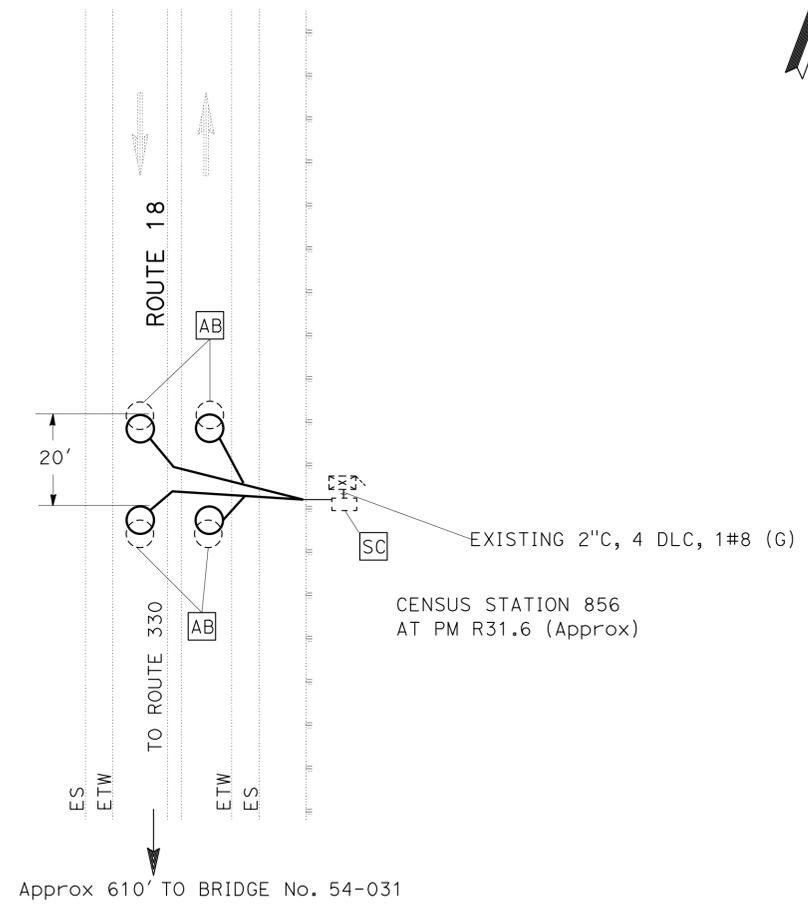
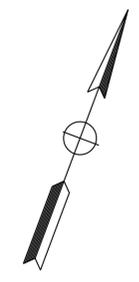
LAST REVISION | DATE PLOTTED => 26-FEB-2015
 02-02-15 | TIME PLOTTED => 10:50

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans ® ELECTRICAL DESIGN	FUNCTIONAL SUPERVISOR FERDINAND DE LA CRUZ	CALCULATED/DESIGNED BY CHECKED BY	LUIS PENALOZA JR FERDINAND DE LA CRUZ	REVISED BY DATE REVISED	LPJ 12-03-14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	R17.7/31.9, 38.5/39.8 & 44.4/48.1	21	34

Ferdinand De La Cruz 2-18-2015
 REGISTERED ELECTRICAL ENGINEER DATE
 2-23-2015
 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.



**MODIFY TRAFFIC MONITORING STATION
(COUNT LOCATION 3)**

APPROVED FOR ELECTRICAL WORK ONLY

NO SCALE

E-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

FUNCTIONAL SUPERVISOR
 FERDINAND DE LA CRUZ

CALCULATED/DESIGNED BY
 CHECKED BY

LUIS PENALOZA JR
 FERDINAND DE LA CRUZ

REVISED BY
 DATE REVISED

LPJ
 12-03-14

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	R17.7/31.9, 38.5/39.8 & 44.4/48.1	22	34

Ferdinand De La Cruz 2-18-2015
 REGISTERED ELECTRICAL ENGINEER DATE

2-23-2015
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 FERDINAND DE LA CRUZ
 No. E 17215
 Exp. 6-30-16
 ELECTRICAL
 STATE OF CALIFORNIA

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

MODIFY SIGNAL

SHEET No.	(N) TYPE E LOOP	(N) TYPE D LOOP	(N) DLC
	EA	EA	LF
E-1	4	-	-
E-2	11	4	100
E-3	1	-	-

MODIFY TRAFFIC MONITORING STATION (COUNT LOCATION 1)

SHEET No.	(N) TYPE E LOOP
	EA
E-4	4

MODIFY TRAFFIC MONITORING STATION (COUNT LOCATION 2)

SHEET No.	(N) TYPE E LOOP
	EA
E-5	6

MODIFY TRAFFIC MONITORING STATION (COUNT LOCATION 3)

SHEET No.	(N) TYPE E LOOP
	EA
E-6	4

ELECTRICAL QUANTITIES

E-7

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 & 44.4/48.1	23	34

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

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

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

TO ACCOMPANY PLANS DATED 2-23-15

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
∅	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kíp	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ABBREVIATIONS
(SHEET 2 OF 2)**

NO SCALE

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

REVISED STANDARD PLAN RSP A10B

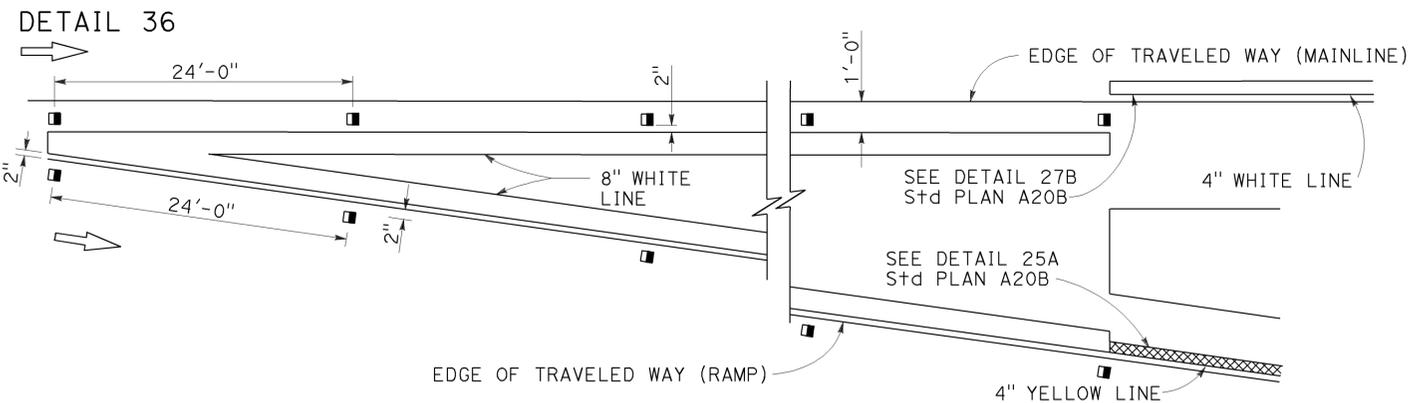
Maint	MAINTENANCE
Max	MAXIMUM
MB	METAL BEAM
MBB	METAL BEAM BARRIER
MBGR	METAL BEAM GUARD RAILING
Med	MEDIAN
MGS	MIDWEST GUARDRAIL SYSTEM
MH	MANHOLE
Min	MINIMUM
Misc	MISCELLANEOUS
Misc I & S	MISCELLANEOUS IRON AND STEEL
Mkr	MARKER
Mod	MODIFIED, MODIFY
Mon	MONUMENT
MP	METAL PLATE
MPGR	METAL PLATE GUARD RAILING
MR	MOVEMENT RATING
MSE	MECHANICALLY STABILIZED EMBANKMENT
Mt	MOUNTAIN, MOUNT
MtI	MATERIAL
MVP	MAINTENANCE VEHICLE PULLOUT
N	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
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	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

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

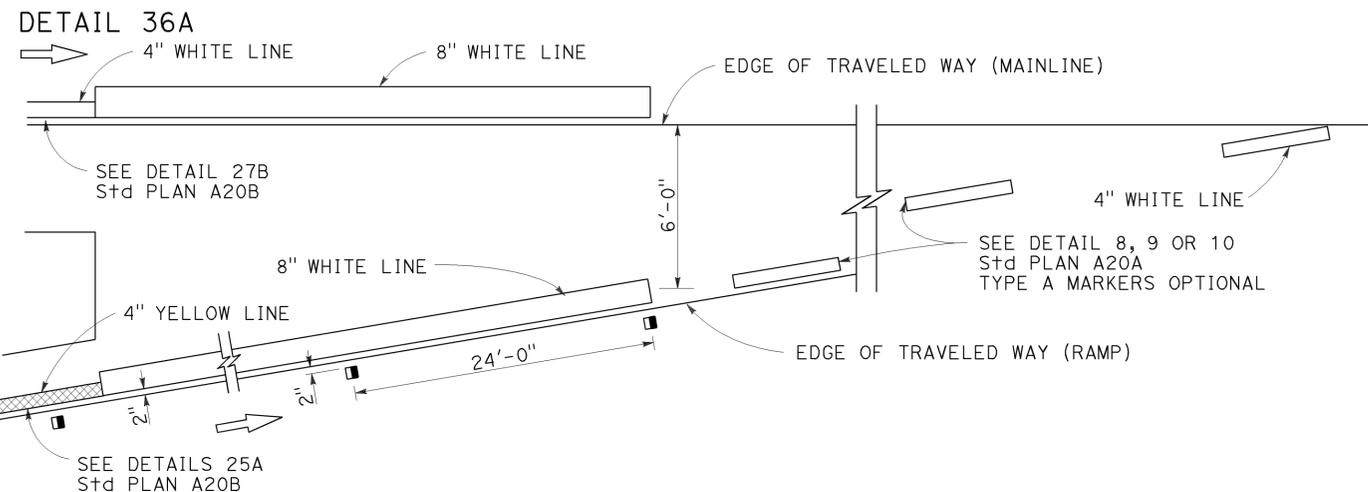
S	SOUTH, SUPPLEMENT	S	SOUTH, SUPPLEMENT
SAE	STRUCTURE APPROACH EMBANKMENT	Sep	SEPARATION
Salv	SALVAGE	SG	SUBGRADE
SAPP	STRUCTURAL ALUMINUM PLATE PIPE	Shld	SHOULDER
SB	SOUTHBOUND	Sht	SHEET
SC	SAND CUSHION	Sim	SIMILAR
SCSP	SLOTTED CORRUGATED STEEL PIPE	Sim	SIMILAR
SD	STORM DRAIN	§	STATION LINE
Sec	SECOND, SECTION	SM	SELECTED MATERIAL
Sep	SEPARATION	Spec	SPECIAL, SPECIFICATIONS
SG	SUBGRADE	SPP	SLOTTED PLASTIC PIPE
Shld	SHOULDER	SS	SLOPE STAKE
Sht	SHEET	SSBM	STRAP AND SADDLE BRACKET METHOD
Sim	SIMILAR	SSD	STRUCTURAL SECTION DRAIN
§	STATION LINE	SSPA	STRUCTURAL STEEL PLATE ARCH
SM	SELECTED MATERIAL	SSPP	STRUCTURAL STEEL PLATE PIPE
Spec	SPECIAL, SPECIFICATIONS	SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH
SPP	SLOTTED PLASTIC PIPE	SSRP	STEEL SPIRAL RIB PIPE
SS	SLOPE STAKE	St	STREET
SSBM	STRAP AND SADDLE BRACKET METHOD	Sta	STATION
SSD	STRUCTURAL SECTION DRAIN	STBB	SINGLE THRIE BEAM BARRIER
SSPA	STRUCTURAL STEEL PLATE ARCH	Std	STANDARD
SSPP	STRUCTURAL STEEL PLATE PIPE	Str	STRUCTURE
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH	Surf	SURFACING
SSRP	STEEL SPIRAL RIB PIPE	SW	SIDEWALK, SOUND WALL
St	STREET	Swr	SEWER
Sta	STATION	Sym	SYMMETRICAL
STBB	SINGLE THRIE BEAM BARRIER	S4S	SURFACE 4 SIDES
Std	STANDARD	T	SEMI-TANGENT
Str	STRUCTURE	Tan	TANGENT
Surf	SURFACING	TBB	THRIE BEAM BARRIER
SW	SIDEWALK, SOUND WALL	Tbr	TIMBER
Swr	SEWER	TC	TOP OF CURB
Sym	SYMMETRICAL	TCB	TRAFFIC CONTROL BOX
S4S	SURFACE 4 SIDES	TCE	TEMPORARY CONSTRUCTION EASEMENT
T	SEMI-TANGENT	TeI	TELEPHONE
Tan	TANGENT	Temp	TEMPORARY
TBB	THRIE BEAM BARRIER	TG	TOP OF GRADE
Tbr	TIMBER	Tot	TOTAL
TC	TOP OF CURB	TP	TELEPHONE POLE
TCB	TRAFFIC CONTROL BOX	TPB	TREATED PERMEABLE BASE
TCE	TEMPORARY CONSTRUCTION EASEMENT	TPM	TREATED PERMEABLE MATERIAL
TeI	TELEPHONE	Trans	TRANSITION
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
U		Typ	TYPICAL
UC	UNDERCROSSING	UC	UNDERCROSSING
UD	UNDERDRAIN	UD	UNDERDRAIN
UG	UNDERGROUND	UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED	UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS	UP	UNDERPASS
V	VALVE, DESIGN SPEED	V	VALVE, DESIGN SPEED
Var	VARIABLE, VARIES	Var	VARIABLE, VARIES
VC	VERTICAL CURVE	VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE	VCP	VITRIFIED CLAY PIPE
Vert	VERTICAL	Vert	VERTICAL
Via	VIADUCT	Via	VIADUCT
Vol	VOLUME	Vol	VOLUME
W	WEST, WIDTH	W	WEST, WIDTH
WB	WESTBOUND	WB	WESTBOUND
WH	WEEP HOLE	WH	WEEP HOLE
WM	WIRE MESH	WM	WIRE MESH
WS	WATER SURFACE	WS	WATER SURFACE
WSP	WELDED STEEL PIPE	WSP	WELDED STEEL PIPE
Wt	WEIGHT	Wt	WEIGHT
WV	WATER VALVE	WV	WATER VALVE
WW	WINGWALL	WW	WINGWALL
WWLOL	WINGWALL LAYOUT LINE	WWLOL	WINGWALL LAYOUT LINE
X		X Sec	CROSS SECTION
Xing	CROSSING	Xing	CROSSING
Y		Yr	YEAR
Yr	YEAR	Yrs	YEARS
Yrs	YEARS		

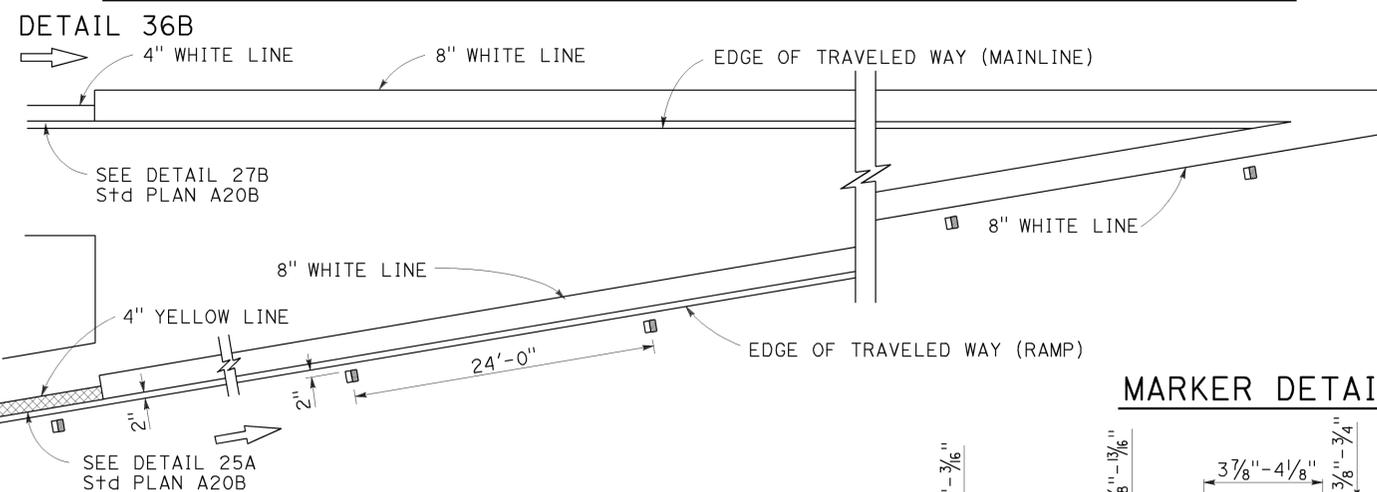
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

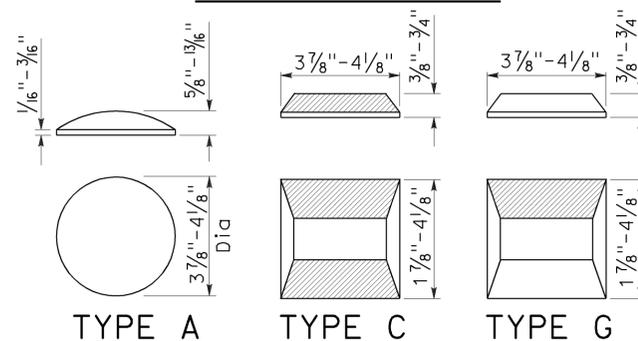


MARKER DETAILS

LEGEND:

MARKERS

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



RETROREFLECTIVE FACE

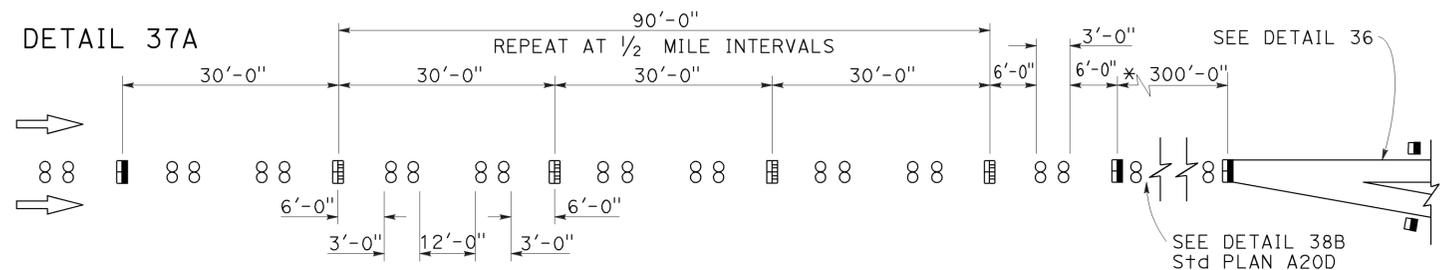
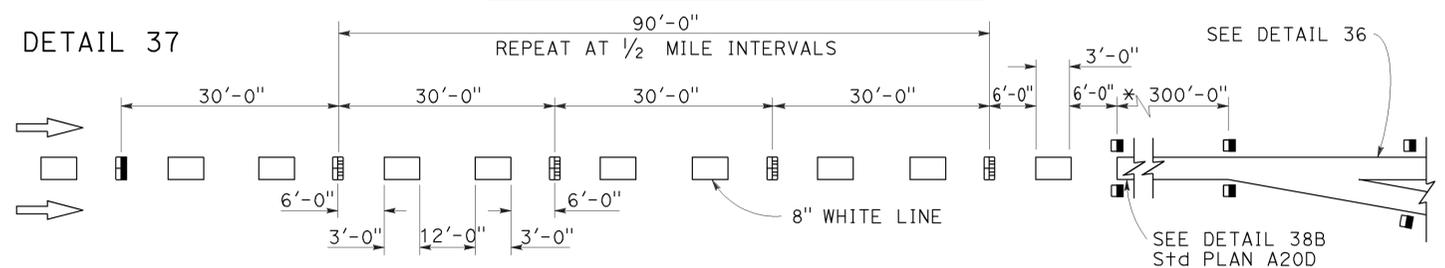
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 & 44.4/48.1	24	34

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

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

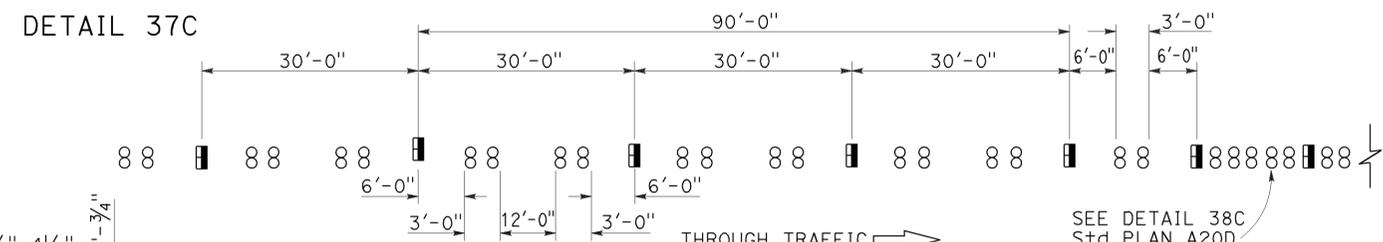
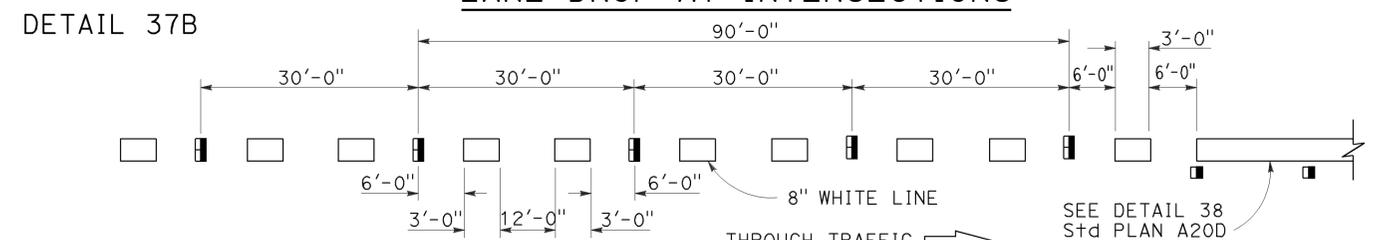
TO ACCOMPANY PLANS DATED 2-23-15

LANE DROP AT EXIT RAMPS



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

LANE DROP AT INTERSECTIONS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINE TYPICAL DETAILS

NO SCALE

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

REVISED STANDARD PLAN RSP A20C

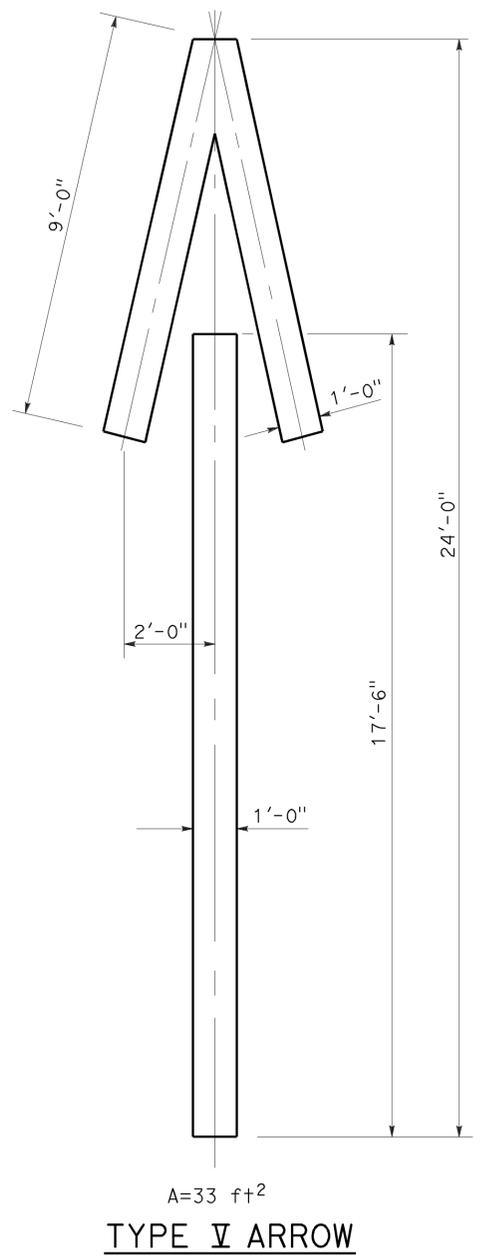
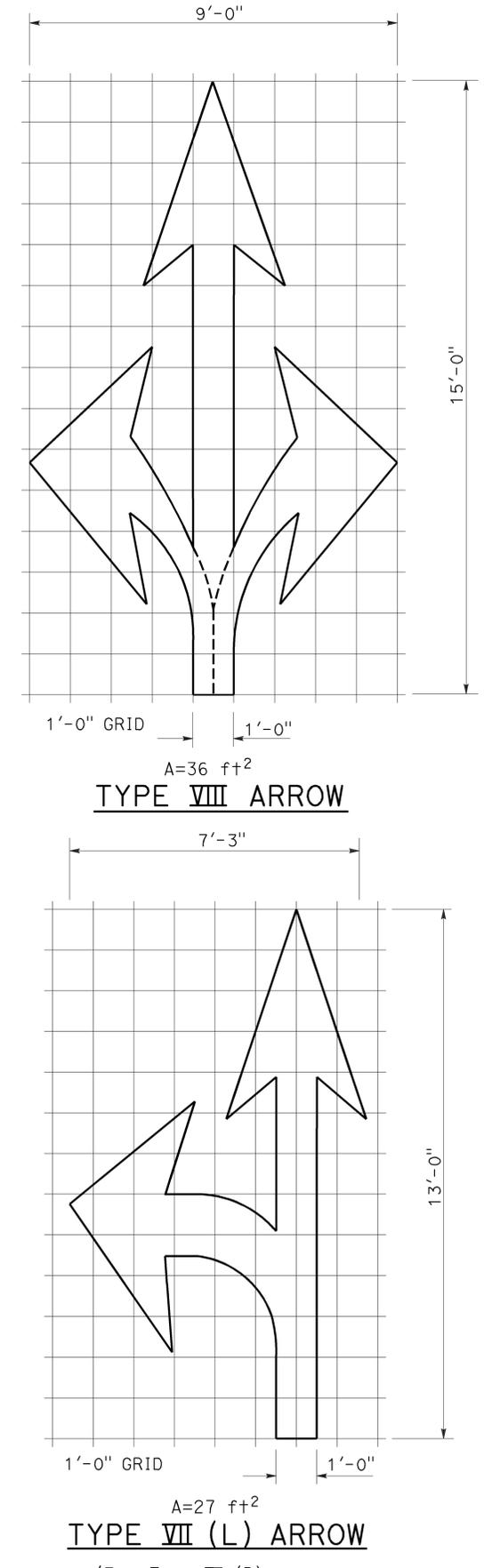
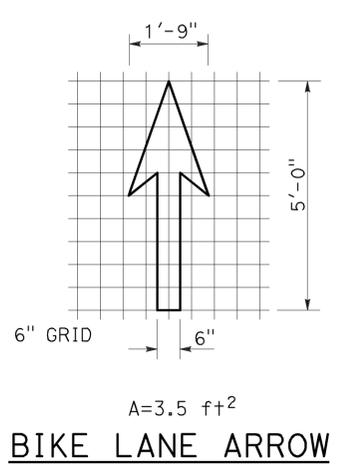
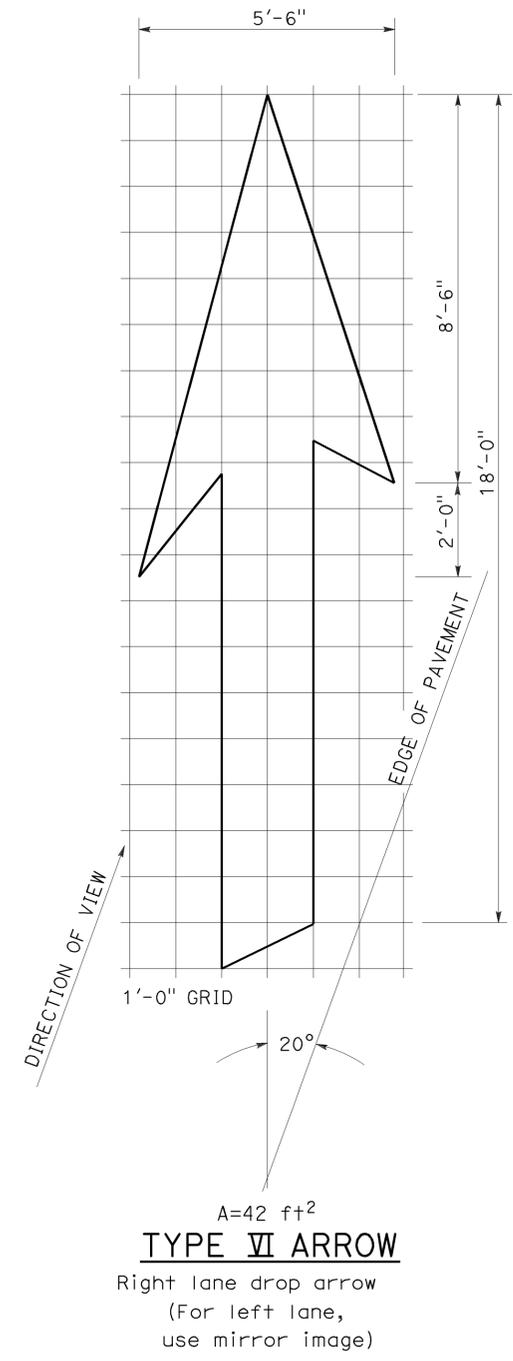
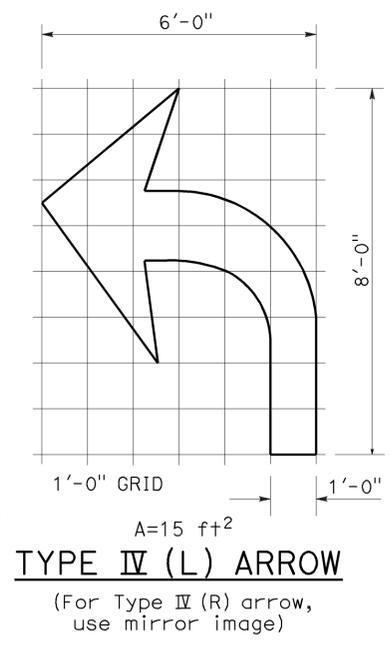
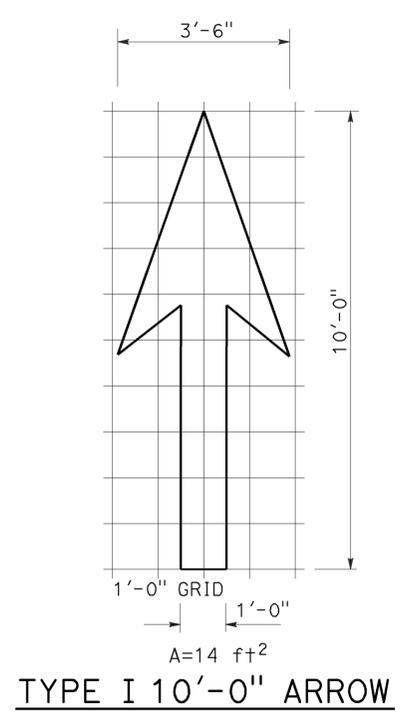
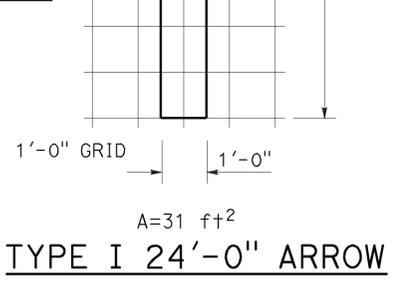
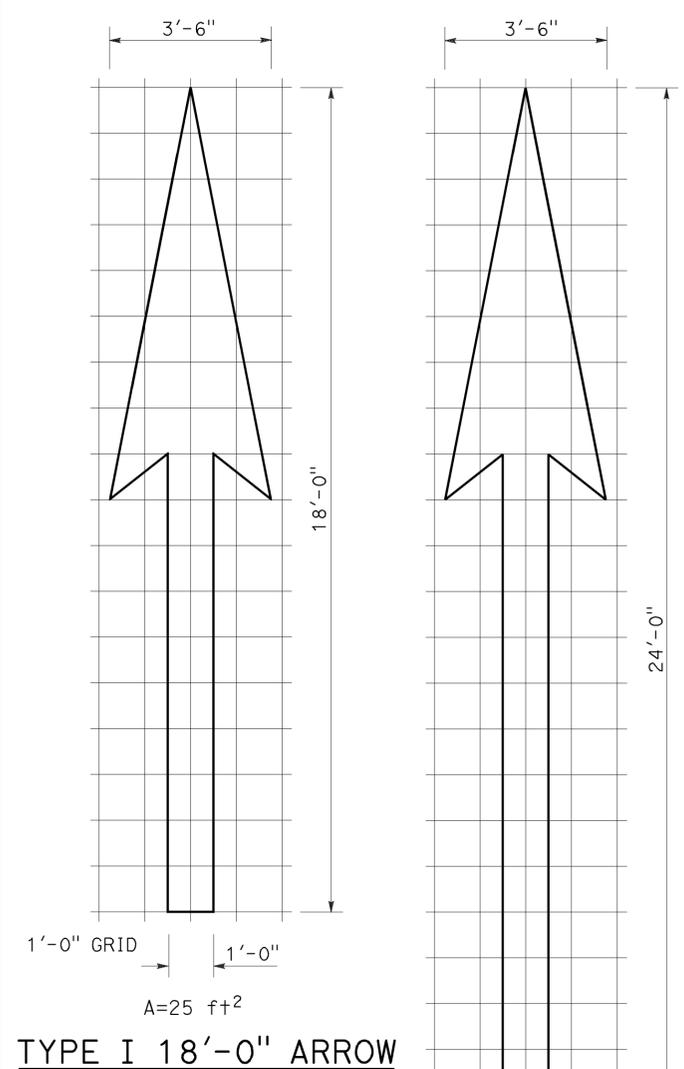
2010 REVISED STANDARD PLAN RSP A20C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 & 44.4/48.1	25	34

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 SCANNED COPIES OF THIS PLAN SHEET.

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

TO ACCOMPANY PLANS DATED 2-23-15



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.

LEGEND:

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

ABBREVIATIONS

APS	ACCESSIBLE PEDESTRIAN SIGNAL	M/M	MULTIPLE TO MULTIPLE TRANSFORMER
BBS	BATTERY BACKUP SYSTEM	Mtg	MOUNTING
BC	BOLT CIRCLE	MV	MERCURY VAPOR LIGHTING FIXTURE
BPB	BICYCLE PUSH BUTTON	MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
C	CONDUIT	N	NEUTRAL (GROUNDED CONDUCTOR)
CB	CIRCUIT BREAKER	NB	NEUTRAL BUS
CCTV	CLOSED CIRCUIT TELEVISION	NC	NORMALLY CLOSE
Ck+	CIRCUIT	NO	NORMALLY OPEN
CMS	CHANGEABLE MESSAGE SIGN	P	CIRCUIT BREAKER'S POLE
Ctid	CALTRANS IDENTIFICATION	PB	PULL BOX
Comm	COMMUNICATION	PBA	PUSH BUTTON ASSEMBLY
DLC	LOOP DETECTOR LEAD-IN CABLE	PEC	PHOTOELECTRIC CONTROL
EMS	EXTINGUISHABLE MESSAGE SIGN	Ped	PEDESTRIAN
EVUC	EMERGENCY VEHICLE UNIT CABLE	PEU	PHOTOELECTRIC UNIT
EVUD	EMERGENCY VEHICLE UNIT DETECTOR	PT	CONDUIT WITH PULL TAPE
FB	FLASHING BEACON	RE	RELOCATED EQUIPMENT
FBCA	FLASHING BEACON CONTROL ASSEMBLY	RM	RAMP METERING
FBS	FLASHING BEACON WITH SLIP BASE	RWIS	ROADSIDE WEATHER INFORMATION SYSTEM
FO	FIBER OPTIC	SB	SLIP BASE
G	EQUIPMENT GROUNDING CONDUCTOR	SIC	SIGNAL INTERCONNECT CABLE
GB	GROUND BUS	Sig	SIGNAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SMA	SIGNAL MAST ARM
HAR	HIGHWAY ADVISORY RADIO	SNS	STREET NAME SIGN
Hex	HEXAGONAL	SP	SERVICE POINT
HPS	HIGH PRESSURE SODIUM	TDC	TELEPHONE DEMARCATION CABINET
IISNS	INTERNALLY ILLUMINATED STREET NAME SIGN	TMS	TRAFFIC MONITORING STATION
ISL	INDUCTION SIGN LIGHTING	TOS	TRAFFIC OPERATIONS SYSTEM
LED	LIGHT EMITTING DIODE	Veh	VEHICLE
LMA	LUMINAIRE MAST ARM	VIVDS	VIDEO IMAGE VEHICLE DETECTION SYSTEM
LPS	LOW PRESSURE SODIUM	WIM	WEIGH-IN-MOTION
Ltg	LIGHTING	Xfmr	TRANSFORMER
Lum	LUMINAIRE		
M	METERED		
MAT	MAST ARM MOUNTING TOP ATTACHMENT		
MAS	MAST ARM MOUNTING SIDE ATTACHMENT		

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 & 44.4/48.1	26	34

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Theresa
Aziz Gabriel
No. E15129
Exp. 6-30-14
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.

TO ACCOMPANY PLANS DATED 2-23-15

SOFFIT AND WALL MOUNTED LUMINAIRES

- PENDANT, 70 W HPS UNLESS OTHERWISE SPECIFIED
- FLUSH, 70 W HPS UNLESS OTHERWISE SPECIFIED
- WALL SURFACE, 70 W HPS UNLESS OTHERWISE SPECIFIED
- EXISTING SOFFIT OR WALL LUMINAIRE TO REMAIN UNMODIFIED
- EXISTING SOFFIT OR WALL LUMINAIRE TO BE MODIFIED AS SPECIFIED

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

SYMBOL USED	DEFINITIONS
Ω	OHMS
min	MINUTE
s	SECOND
bps	BITS PER SECOND
Bps	BYTES PER SECOND
A	AMPERE
V	VOLT
V(dc)	VOLT (DIRECT CURRENT)
V(ac)	VOLT (ALTERNATING CURRENT)
FC	FOOT - CANDLE
W	WATTS
VA	VOLT-AMPERE
M	MEGA
k	KILO
m	MILLI
μ	MICRO
P	PICO
HZ	HERTZ

MISCELLANEOUS ELECTROLIERS

NEW	EXISTING	
		LUMINAIRE ON WOOD POLE
		NON-STANDARD ELECTROLIER (SEE PROJECT NOTES OR PROJECT PLANS)
		CITY ELECTROLIER
		ELECTROLIER FOUNDATION (FUTURE INSTALLATION)

- NOTES:**
- HPS luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. HPS luminaires shall be 200 W when installed on other type standards or poles, unless otherwise specified.
 - LED luminaires shall be 235 W when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. LED luminaires shall be 165 W when installed on other type standards or poles, unless otherwise specified.
 - Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.

STANDARD ELECTROLIER

NEW	EXISTING	STANDARD TYPE
		15
		15D
		15 STRUCTURE
		15D STRUCTURE
		21
		21D
		21 STRUCTURE
		21D STRUCTURE
		30
		31
		32

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**

NO SCALE

RSP ES-1A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 20, 2011 - PAGE 425 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1A

2010 REVISED STANDARD PLAN RSP ES-1A

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 & 44.4/48.1	27	34

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



TO ACCOMPANY PLANS DATED 2-23-15

CONDUIT

NEW	EXISTING	
---	---	LIGHTING CONDUIT, UNLESS OTHERWISE INDICATED OR NOTED
---	---	TRAFFIC SIGNAL CONDUIT
---C---	---c---	COMMUNICATION CONDUIT
---T---	---t---	TELEPHONE CONDUIT
---F---	---f---	FIRE ALARM CONDUIT
---FO---	---fo---	FIBER OPTIC CONDUIT
---	---	CONDUIT TERMINATION
		CONDUIT RISER ATTACHED TO THE STRUCTURE OR SERVICE POLE

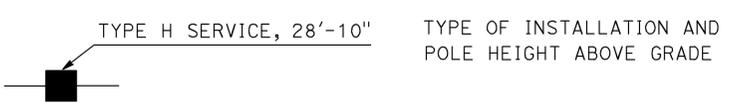
SIGNAL EQUIPMENT

NEW	EXISTING	
		PEDESTRIAN SIGNAL HEAD "C" INDICATES COUNTDOWN PEDESTRIAN HEAD
		PUSH BUTTON ASSEMBLY POST
		PEDESTRIAN BARRICADE
		VEHICLE SIGNAL HEAD (WITH BACKPLATE AND 3-SECTIONS: RED, YELLOW AND GREEN)
		VEHICLE SIGNAL HEAD WITH ANGLE VISOR
		MODIFICATIONS OF BASIC SYMBOL: "L" INDICATES ALL NON-ARROW SECTIONS LOUVERED "LG" INDICATES LOUVERED GREEN SECTION ONLY "PV" INDICATES ALL 12" SECTIONS PROGRAMMED VISIBILITY "8" INDICATES ALL 8" SECTIONS (ONLY WHEN SPECIFIED)
		VEHICLE SIGNAL HEAD CONSISTING OF RED, YELLOW AND GREEN LEFT ARROW SECTIONS
		VEHICLE SIGNAL HEAD CONSISTING OF RED AND YELLOW SECTIONS WITH AN UP GREEN ARROW SECTION
		VEHICLE SIGNAL HEAD (5 SECTION) CONSISTING OF RED, YELLOW AND GREEN SECTIONS WITH YELLOW AND GREEN RIGHT ARROW SECTIONS
		TYPE 15TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		TYPE 21TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
		STANDARD WITH LUMINAIRE AND SIGNAL MAST ARMS AND ATTACHED VEHICLE SIGNAL HEADS
		TYPE 1 STANDARD WITH ATTACHED VEHICLE SIGNAL HEADS
		STANDARD WITH A SIGNAL MAST ARM, ATTACHED VEHICLE SIGNAL HEADS AND INTERNALLY ILLUMINATED STREET NAME SIGN
		CONTROLLER ASSEMBLY. DOOR INDICATES FRONT OF CABINET

SERVICE EQUIPMENT

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

POLE-MOUNTED SERVICE DESIGNATION



FLASHING BEACON

NEW	EXISTING	
		FLASHING BEACON (ONE VEHICLE SIGNAL HEAD WITH BACKPLATE AND VISOR) "R" INDICATES RED INDICATION, "Y" INDICATES YELLOW INDICATION
		FLASHING BEACON WITH TYPE 15-FBS STANDARD AND A SIGN.
		FLASHING BEACON WITH TYPES 9, 9A OR 9B SIGN UNLESS OTHERWISE SPECIFIED OR INDICATED

SIGNAL EQUIPMENT Cont

NEW	EXISTING	
		GUARD POST
		TYPE 1 STANDARD WITH RAMP METERING SIGN
		OPTICAL DETECTOR FOR THE EMERGENCY VEHICLE DETECTION SYSTEM

NOTES:

- All signal sections shall be 12" unless shown otherwise.
- Signal heads shall be provided with backplates unless shown otherwise.

ILLUMINATED OVERHEAD SIGN

NEW	EXISTING	
		SINGLE POST, SINGLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, DOUBLE ILLUMINATED SIGN, BALANCED BUTTERFLY
		SINGLE POST, SINGLE ILLUMINATED SIGN, FULL CANTILEVER
		DOUBLE POST, SINGLE ILLUMINATED SIGN
		SINGLE ILLUMINATED SIGN MOUNTED ON STRUCTURE
		DOUBLE POST, SINGLE ILLUMINATED SIGN WITH ELECTROLIER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(LEGEND AND ABBREVIATIONS)**
NO SCALE

RSP ES-1B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

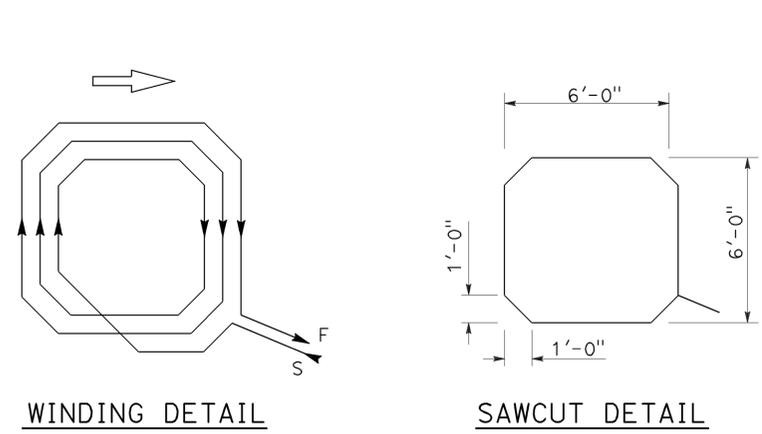
REVISED STANDARD PLAN RSP ES-1B

2010 REVISED STANDARD PLAN RSP ES-1B

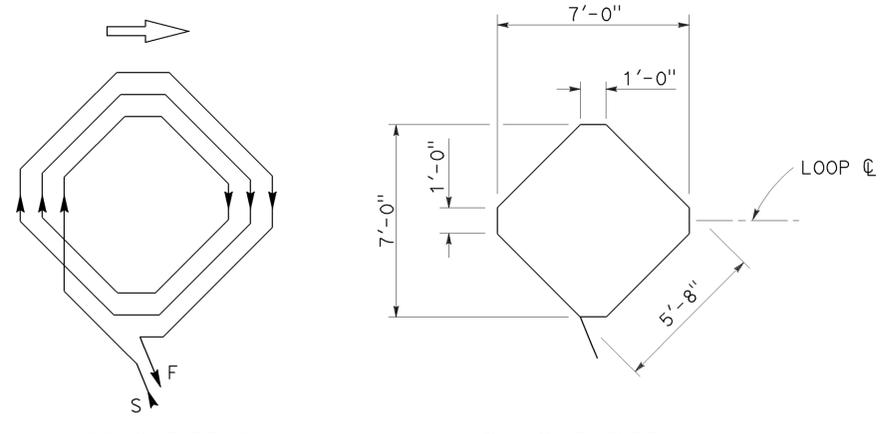
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 & 44.4/48.1	28	34

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

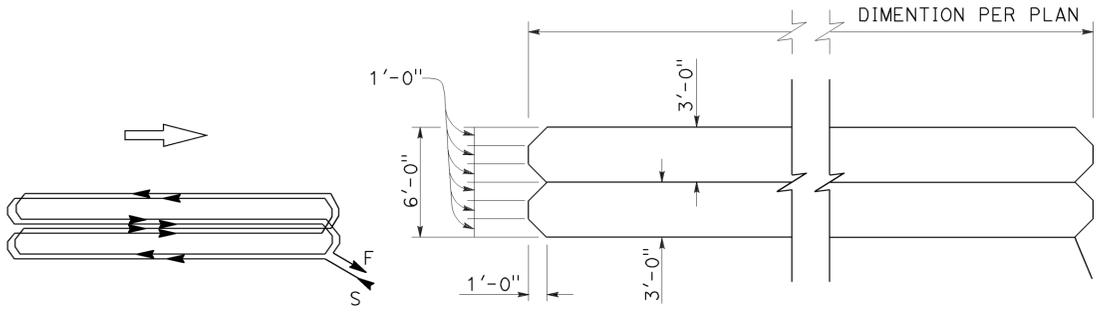
TO ACCOMPANY PLANS DATED 2-23-15



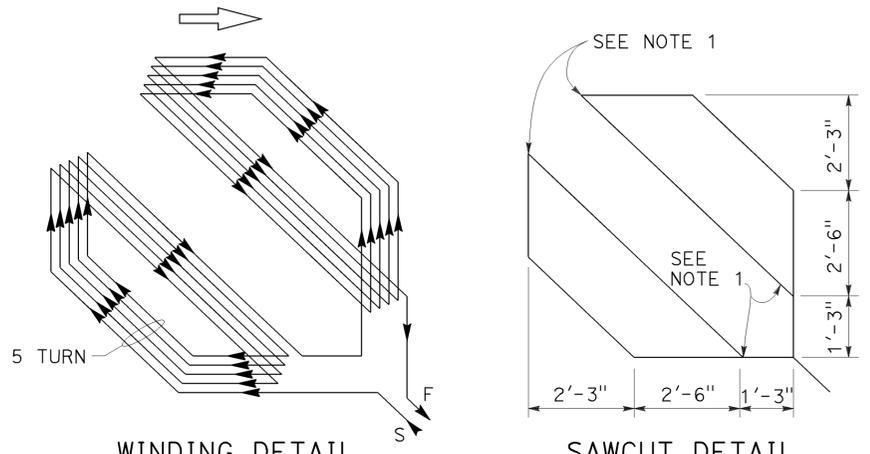
WINDING DETAIL
SAWCUT DETAIL
TYPE A LOOP DETECTOR CONFIGURATION



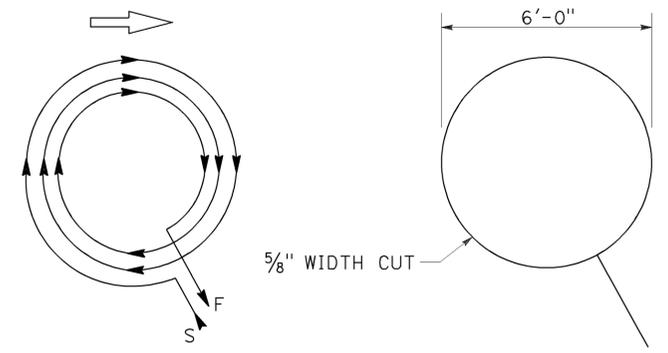
WINDING DETAIL
SAWCUT DETAIL
TYPE B LOOP DETECTOR CONFIGURATION



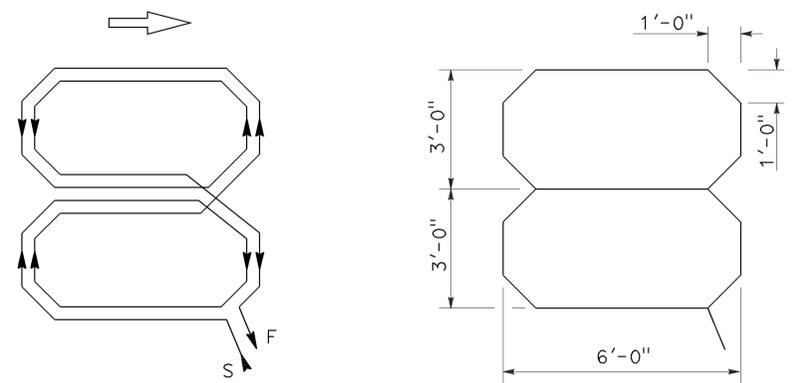
WINDING DETAIL
SAWCUT DETAIL
TYPE C LOOP DETECTOR CONFIGURATION



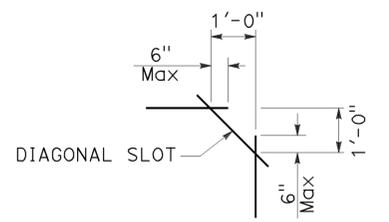
WINDING DETAIL
SAWCUT DETAIL
TYPE D LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE E LOOP DETECTOR CONFIGURATION



WINDING DETAIL
SAWCUT DETAIL
TYPE Q LOOP DETECTOR CONFIGURATION



PLAN VIEW OF DIAGONAL SLOT AT CORNERS

- NOTES:**
1. Round corners of acute angle sawcuts to prevent damage to conductors.
 2. Typical distance separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE

RSP ES-5B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5B DATED MAY 20, 2011 - PAGE 449 OF THE STANDARD PLANS BOOK DATED 2010.

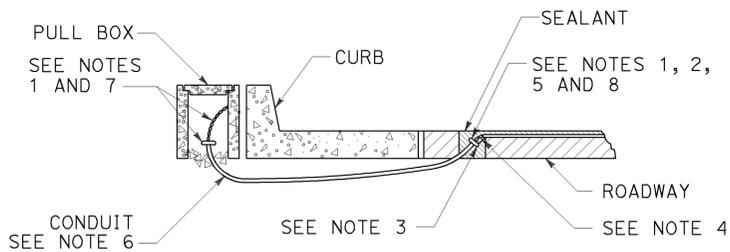
2010 REVISED STANDARD PLAN RSP ES-5B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 & 44.4/48.1	29	34

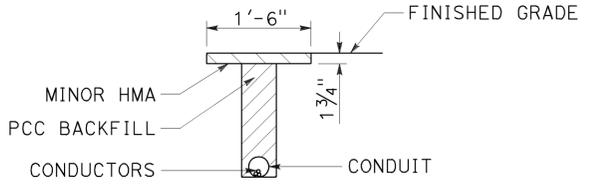
Theresa Gabriel
 REGISTERED ELECTRICAL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

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

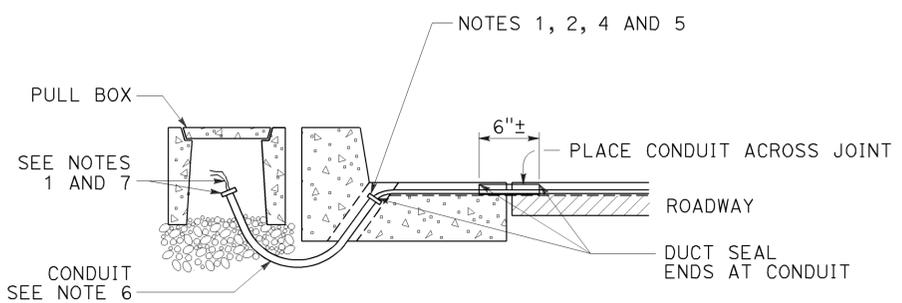
TO ACCOMPANY PLANS DATED 2-23-15



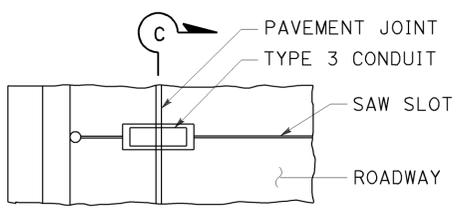
**TYPE A
CURB TERMINATION DETAIL**



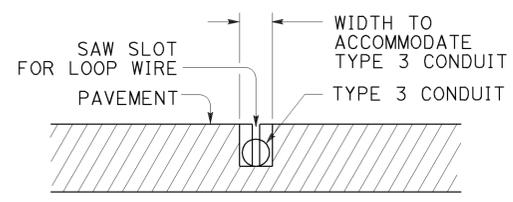
**"T" TRENCH
DETAIL T**



CROSS SECTION

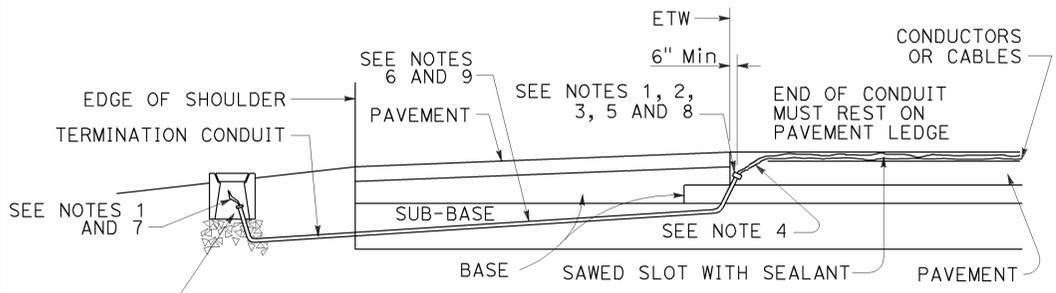


PLAN VIEW

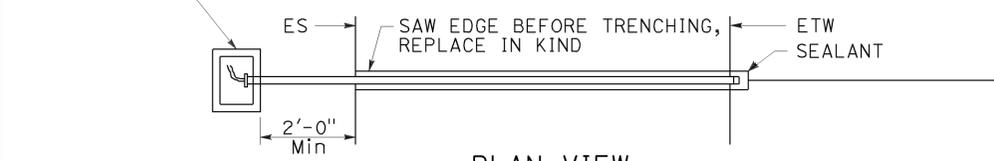


SECTION C-C

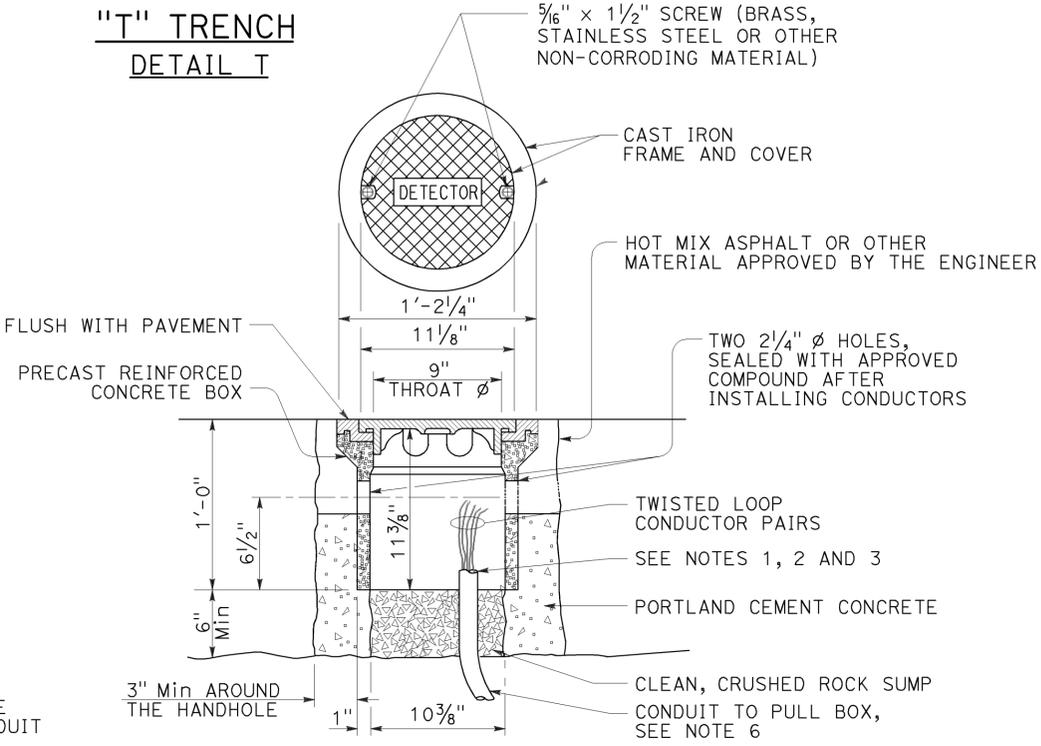
**TYPE B
CURB TERMINATION DETAIL**



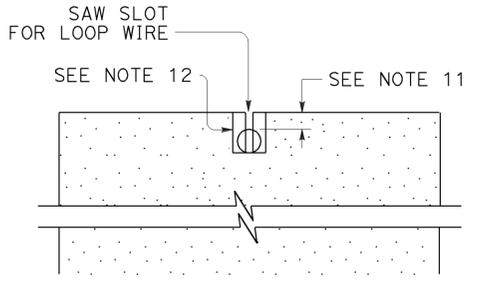
CROSS SECTION



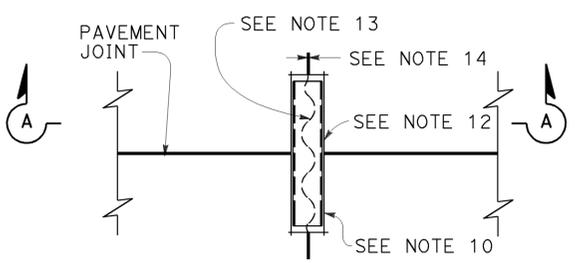
**PLAN VIEW
SHOULDER TERMINATION DETAILS**



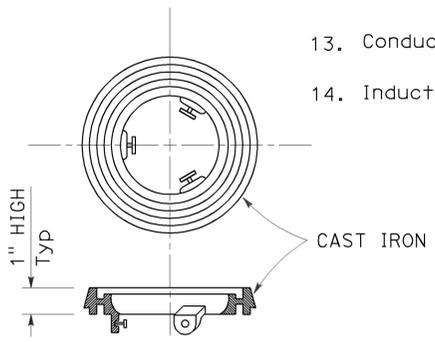
DETECTOR HANDHOLE DETAIL



SECTION A-A



**PLAN VIEW
TYPICAL LOOP LEAD-IN DETAIL
AT PAVEMENT JOINT**



LOCKING GRADE RING

NOTES:

- Bushing shall be used at end of conduit.
- Tape detector conductors or cables 3" each side of bushings.
- Install duct seal compound to each end of termination conduit before installing sealant.
- Round all sharp edges where detector conductors or cables have to pass.
- End of conduit shall be 3/8" below roadway surface.
- Conduit size Loop conductors
 1"C minimum 1 to 2 pairs
 1 1/2"C minimum 3 to 4 pairs
 2"C minimum 5 or more pairs
- Splice detector conductors or cables to detector lead-in-cable.
- Location of detector handhole when shown on plans.
- When the shoulder and traveled way are paved with the same material and there is no joint between them, the conduit shall extend only 2'-0" into the shoulder pavement.
- 3/4"C, Type 3 conduit 6" long minimum, plug both ends with duct compound to keep out sealant.
- 1/2" Minimum between top of conduit and pavement surface.
- Sawcut shall not exceed 1" in width and 1/8" longer than conduit to be installed.
- Conductors with 1/2" minimum slack inside conduit.
- Inductive loop detector saw slot.

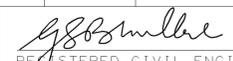
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**ELECTRICAL SYSTEMS
(CURB TERMINATION
AND HANDHOLE)**
NO SCALE

RSP ES-5D DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-5D DATED MAY 20, 2011 - PAGE 451 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-5D

2010 REVISED STANDARD PLAN RSP ES-5D

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 & 44.4/48.1	30	34


 REGISTERED CIVIL ENGINEER
 July 19, 2013
 PLANS APPROVAL DATE



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

TO ACCOMPANY PLANS DATED 2-23-15

TABLE 1

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

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

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

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

TABLE 2

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

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

TABLE 3

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

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

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**TRAFFIC CONTROL SYSTEM TABLES
 FOR LANE AND RAMP CLOSURES**

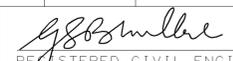
NO SCALE

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

REVISED STANDARD PLAN RSP T9

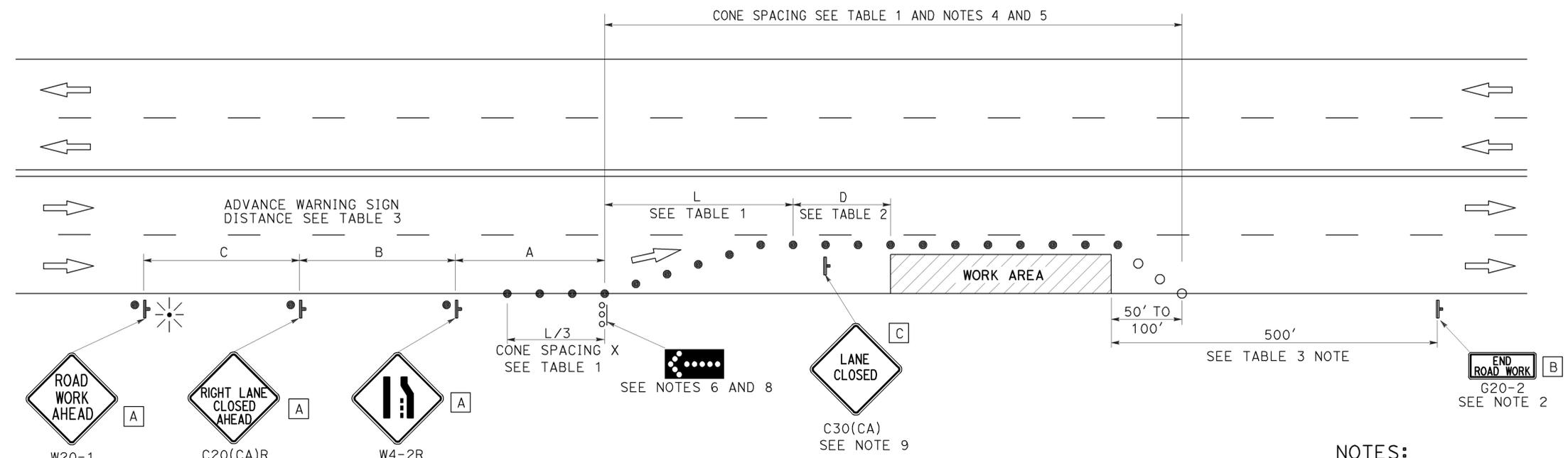
2010 REVISED STANDARD PLAN RSP T9

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 & 44.4/48.1	31	34


 REGISTERED CIVIL ENGINEER
 April 19, 2013
 PLANS APPROVAL DATE

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

TO ACCOMPANY PLANS DATED 2-23-15



TYPICAL LANE CLOSURE

NOTES:

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

NOTES:

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

LEGEND

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

SIGN PANEL SIZE (Min)

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

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

NO SCALE

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

REVISED STANDARD PLAN RSP T11

2010 REVISED STANDARD PLAN RSP T11

LEGEND

- TRAFFIC CONE
- ⌋ TEMPORARY TRAFFIC CONTROL SIGN
- ⬢ FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- ☀ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 24" x 24"
- C 36" x 18"

NOTES:

See Revised Standard Plan RSP T9 for tables.

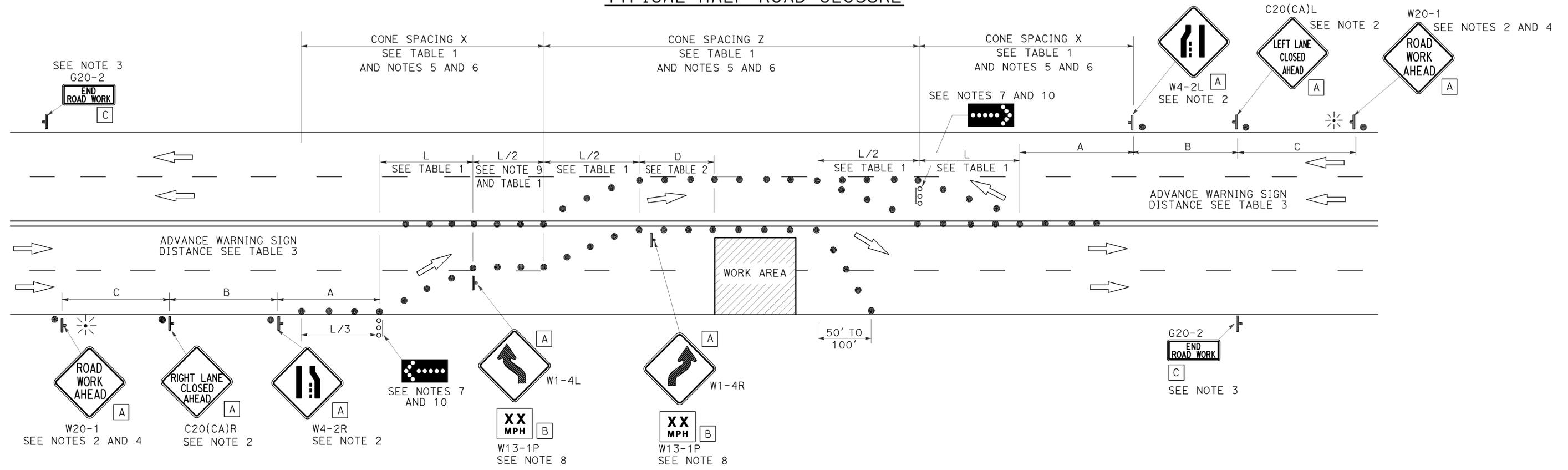
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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.

TO ACCOMPANY PLANS DATED 2-23-15

TYPICAL HALF ROAD CLOSURE



NOTES:

1. 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.
2. 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.
3. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
4. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
5. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
6. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
7. Flashing arrow signs shall be either Type I or Type II.
8. Advisory speed will be determined by the Engineer. The W13-1P Plaque will not be required when advisory speed is more than the posted or maximum speed limit.
9. Unless otherwise specified in the special provisions, the tangent (L/2) shall be used.
10. 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.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM
FOR HALF ROAD CLOSURE ON
MULTILANE CONVENTIONAL
HIGHWAYS AND EXPRESSWAYS**

NO SCALE

RSP T12 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T12
DATED MAY 20, 2011 - PAGE 240 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T12

2010 REVISED STANDARD PLAN RSP T12

NOTES:

See Revised Standard Plan RSP T9 for tables.

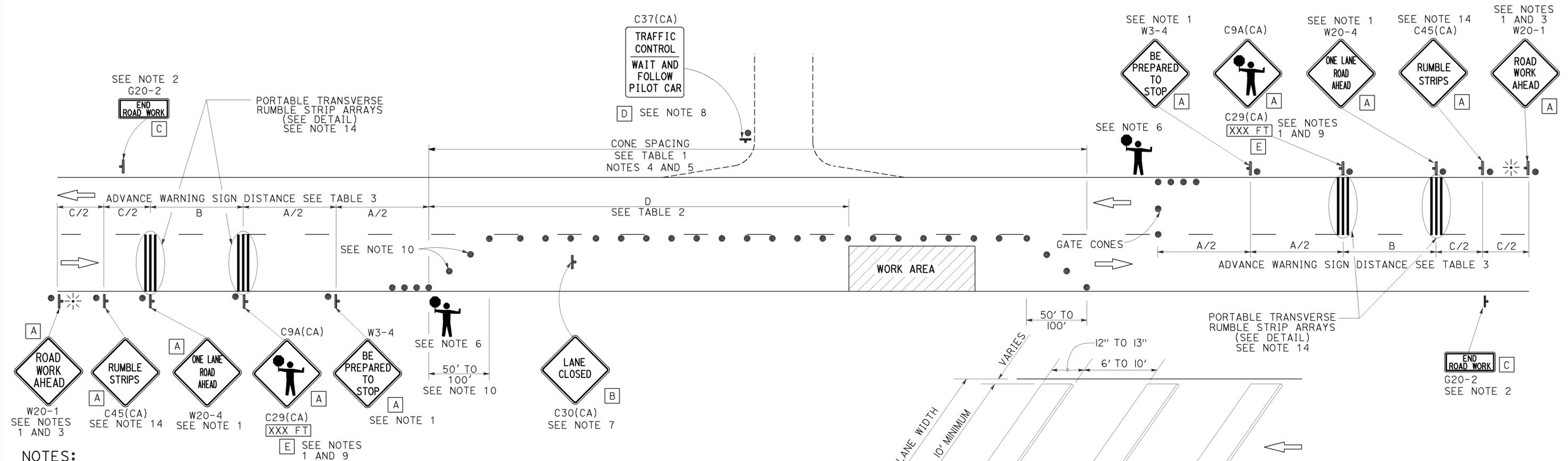
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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.

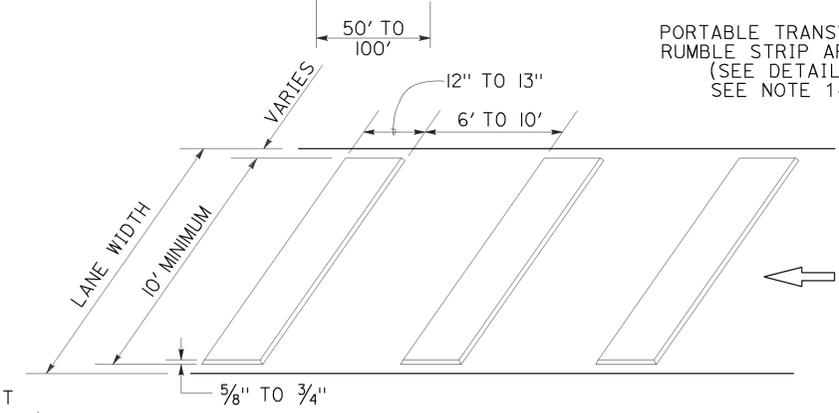
TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL

TO ACCOMPANY PLANS DATED 2-23-15



- 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



SIGN PANEL SIZE (Min)

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

LEGEND

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

RSP T13 DATED OCTOBER 17, 2014 SUPERSEDES 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.

2010 REVISED STANDARD PLAN RSP T13

TYPICAL RAMP CLOSURES

SIGN PANEL SIZE (Min)

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

LEGEND

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

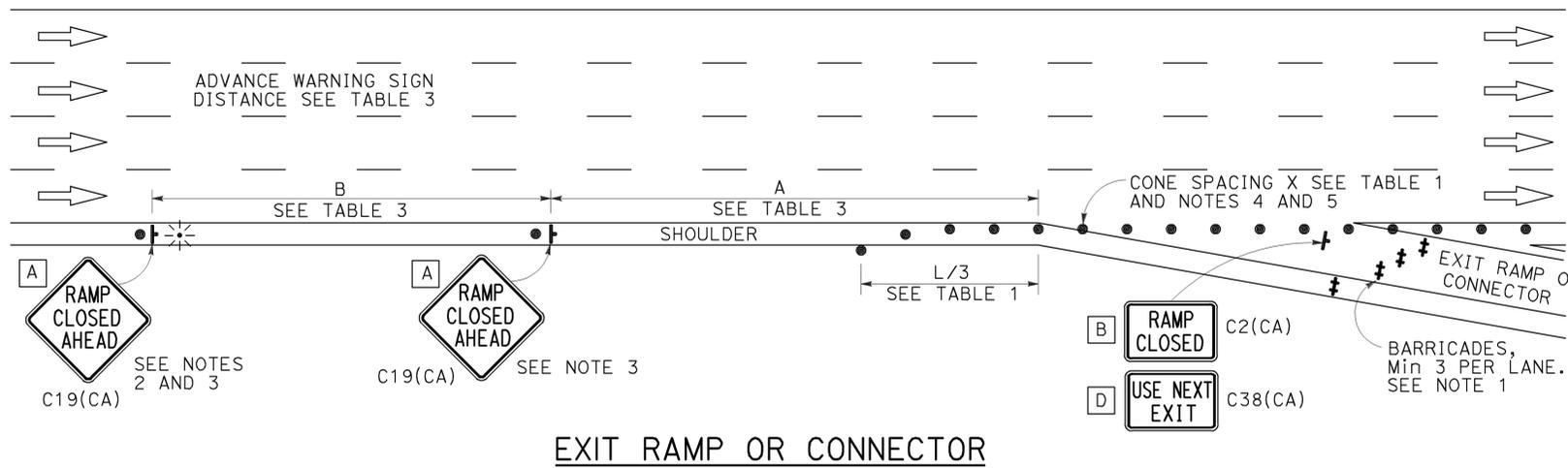
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	18	17.7/31.9, 38.5/39.8 & 44.4/48.1	34	34

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

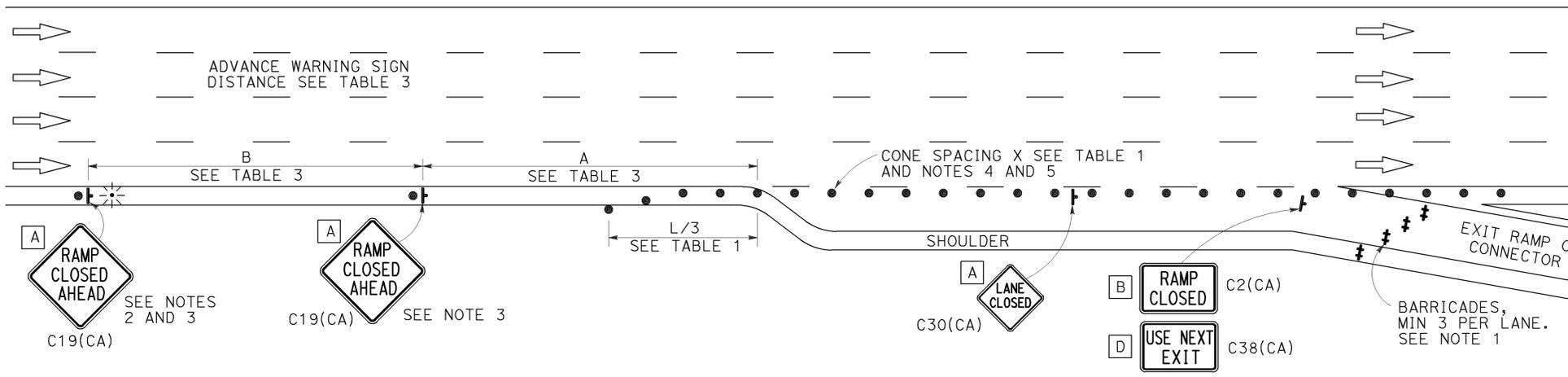
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 2-23-15

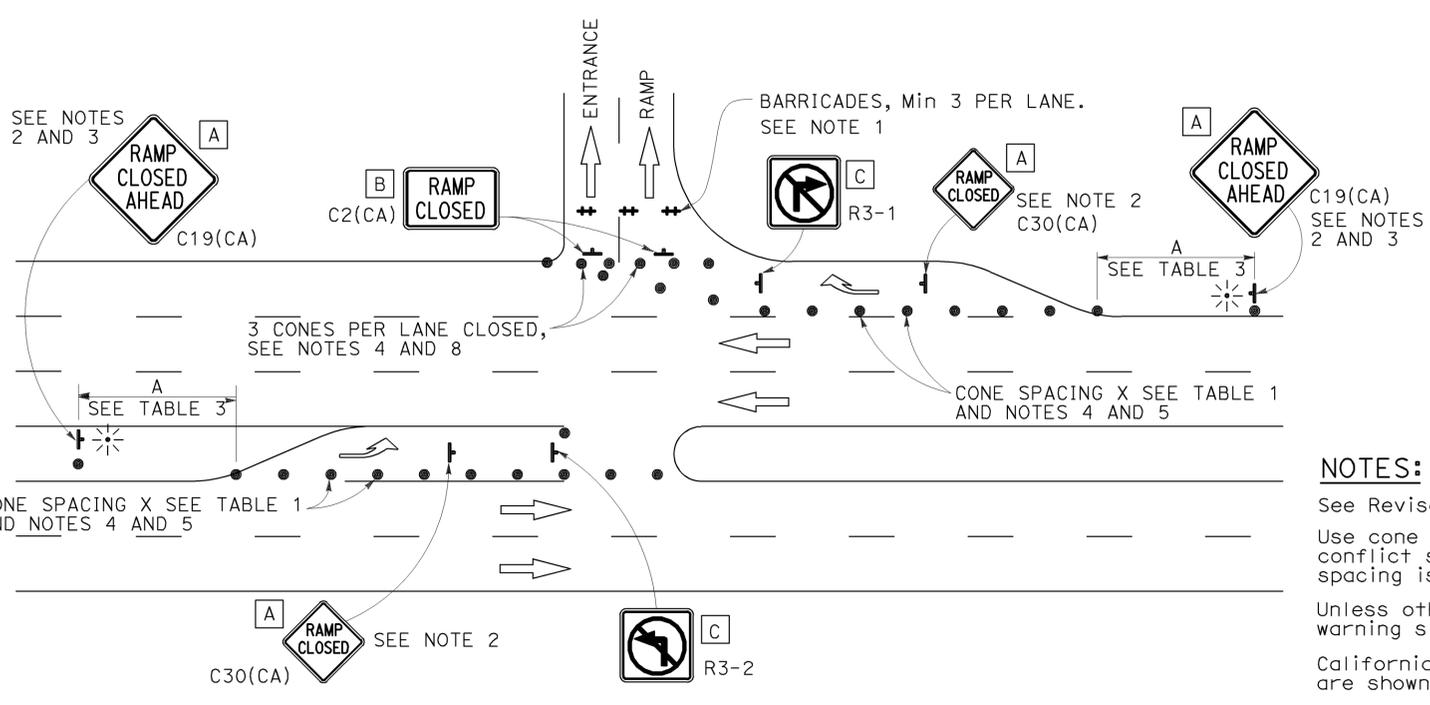
2010 REVISED STANDARD PLAN RSP T14



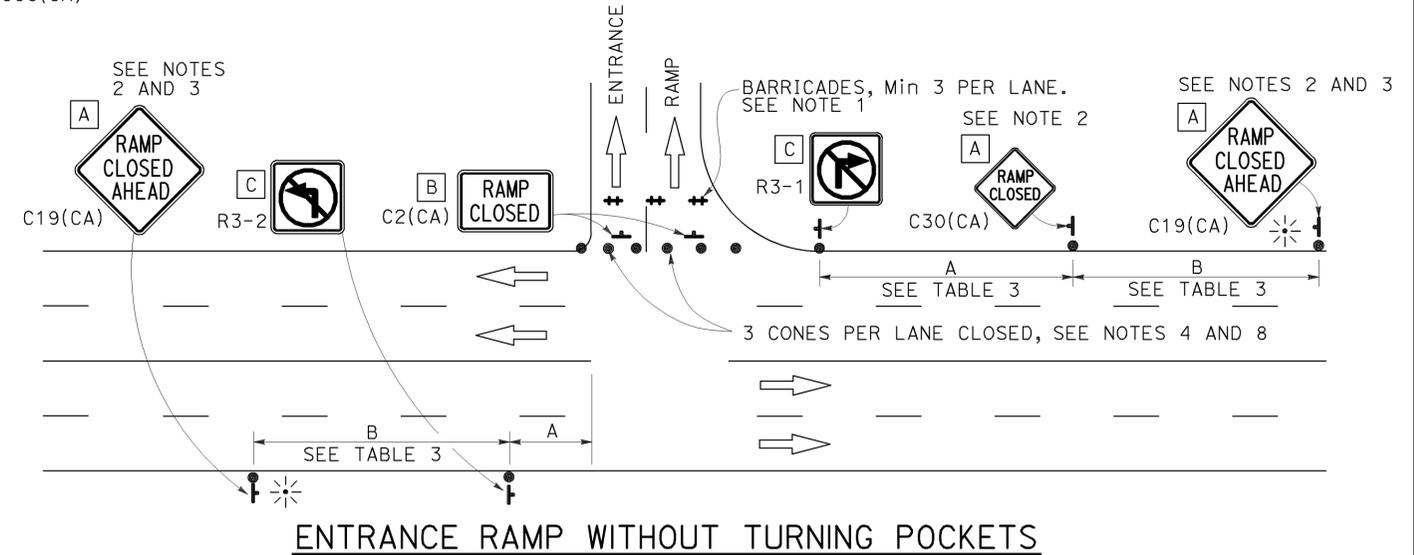
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

NOTES:

1. See Revised Standard Plan RSP T9 for tables.
2. 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.
3. Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.
4. California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

NOTES:

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

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

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