

INDEX OF PLANS

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN ORANGE COUNTY
AT VARIOUS LOCATIONS**

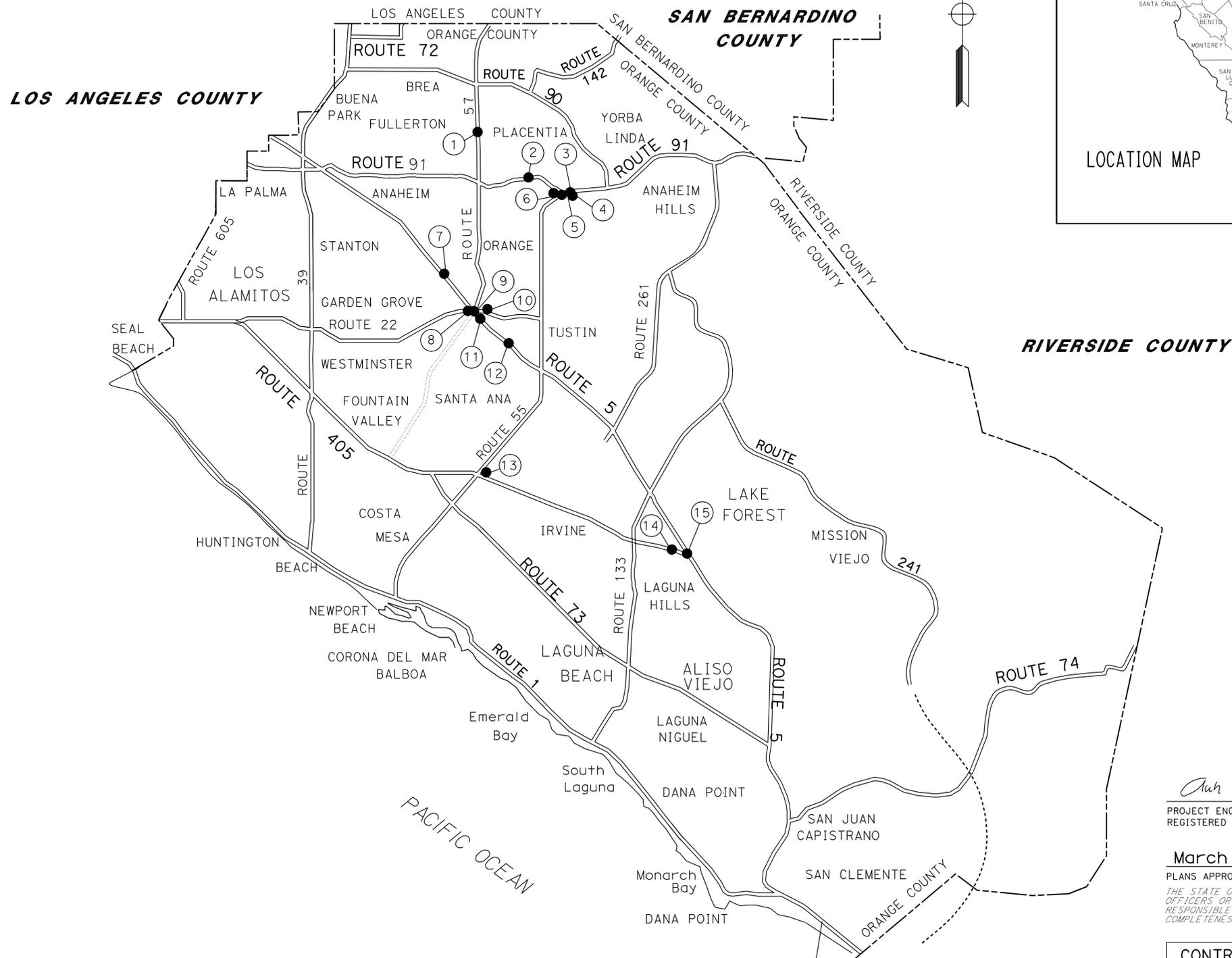
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	5,55,57,91,405	Var	1	29





LOCATION MAP



NO SCALE

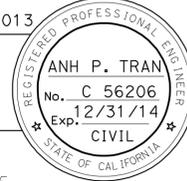
PROJECT MANAGER ANH P. TRAN	DESIGN ENGINEER LOANNA HUYNH
---------------------------------------	--

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

Anh Tran 01-29-2013
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

March 4, 2013
PLANS APPROVAL DATE

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



CONTRACT No.	12-0M9304
PROJECT ID	1213000038

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE

FUNCTIONAL SUPERVISOR
 MASSOUD TAJIK

CALCULATED/DESIGNED BY
 CHECKED BY

ANH P. TRAN
 AHMED A ABBAS

REVISOR BY
 DATE REVISED

LH
 09/17/12

LOCATIONS OF CONSTRUCTION			
LOCATION	ROUTE	PM	DESCRIPTION
①	57	16.2	NB ROUTE 57 ORANGETHORPE AVENUE OFF-RAMP
②	91	7.1	EB ROUTE 91 KRAEMER BOULEVARD OFF-RAMP
③	91	R9.5	WB ROUTE 91 TO SB ROUTE 55 (TOLL ROAD)
④	91	R9.4	WB ROUTE 91 TO SB ROUTE 55 CONNECTOR
⑤	91	R9.1	EB ROUTE 91 AT ROUTE 91 AND ROUTE 55 INTERCHANGE
⑥	55	R17.7	NB ROUTE 55 TO WB ROUTE 91 CONNECTOR
⑦	5	35.0	NB ROUTE 5 STATE COLLEGE AVENUE OFF-RAMP
⑧	57	11.1	SB ROUTE 57 TO WB ROUTE 22 CONNECTOR
⑨	5	34.4	SB ROUTE 5 TO EB ROUTE 22/ LA VETA AVENUE/ BRISTOL STREET OFF-RAMP
⑩	57	11.1	SB ROUTE 57 TO SB ROUTE 5 CONNECTOR
⑪	57	10.9	SB ROUTE 57 TO SB ROUTE 5 HOV LANE
⑫	5	32.5	NB ROUTE 5 HOV LANE AT 17th STREET
⑬	405	8.3	NB ROUTE 405 TO NB ROUTE 55 CONNECTOR
⑭	405	0.6	SB ROUTE 405 TO SB ROUTE 5 HOV LANE
⑮	5	20.1	NB ROUTE 5 TO NB 405 HOV LANE

LOCATIONS OF CONSTRUCTION

LC-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	2	29

ANH P. TRAN
 REGISTERED CIVIL ENGINEER
 No. C 56206
 Exp. 12/31/14
 CIVIL
 STATE OF CALIFORNIA

01-29-2012
 DATE
 3-4-13
 PLANS APPROVAL DATE

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	3	29
<i>Anh Tran</i> 01-29-2012 REGISTERED CIVIL ENGINEER DATE					
3-4-13			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>					

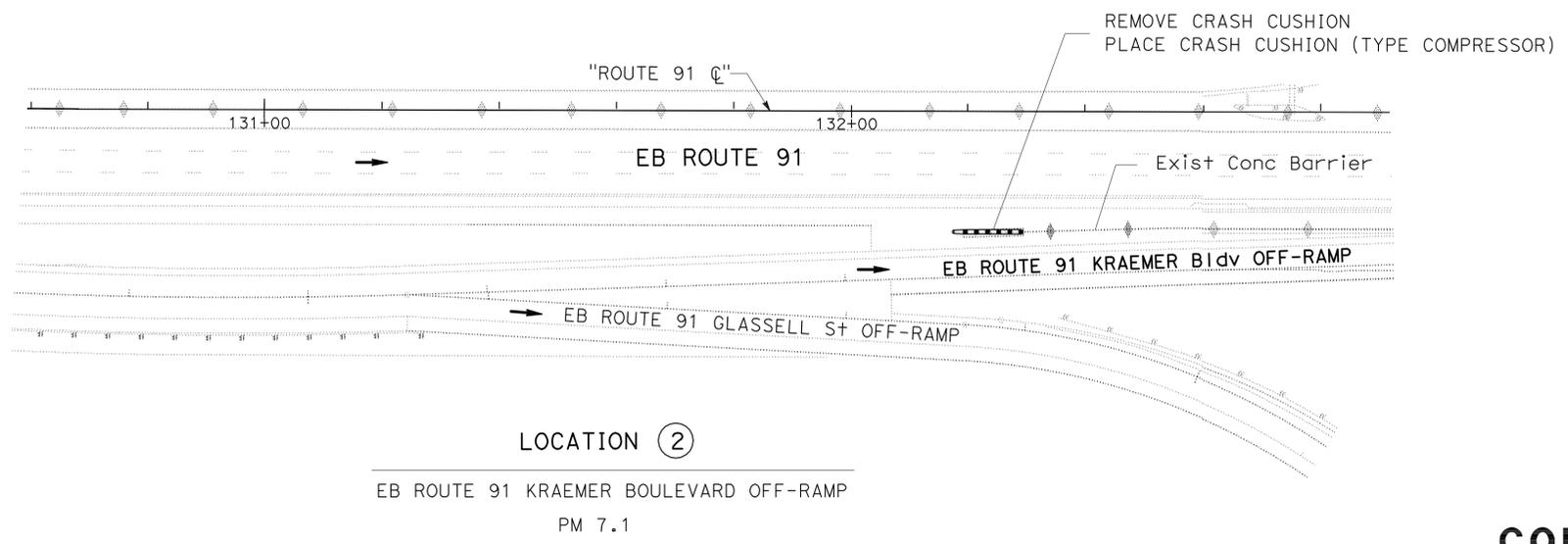
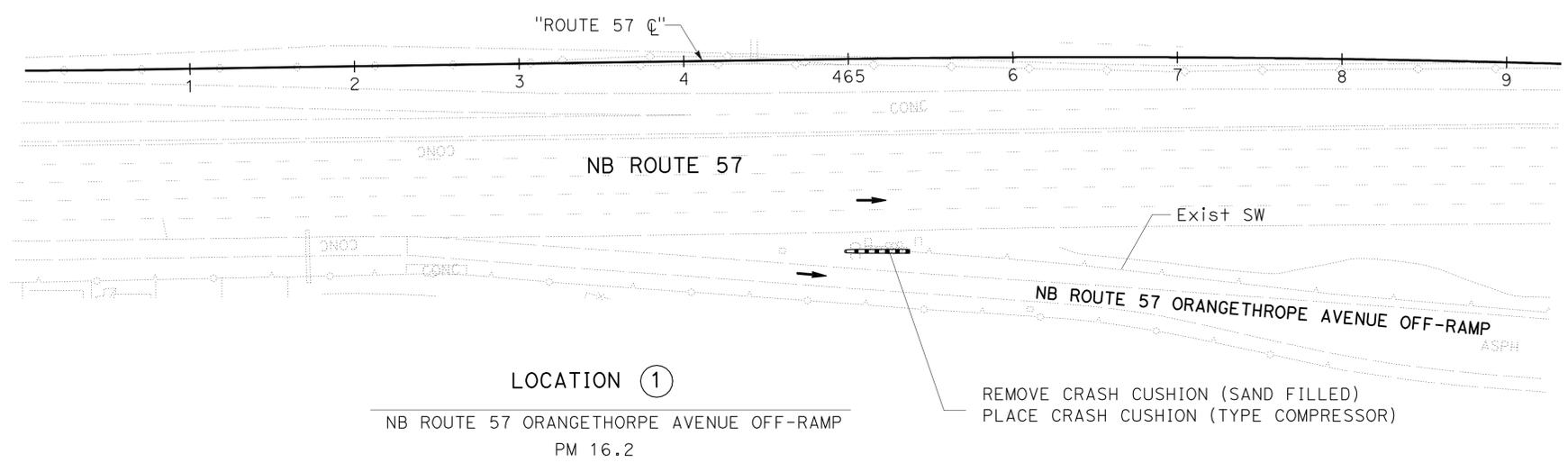
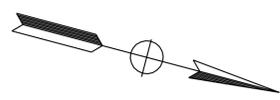
NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
- THE CONTRACTOR SHALL VERIFY DEPENDENT DIMENSIONS IN THE FIELD BEFORE ORDERING MATERIALS.
- DIMENSION OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTION) ARE SUBJECTED TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- REFER TO INFORMATION HANDOUT FOR CRASH CUSHIONS (TYPE COMPRESSOR, TYPE SCI 100GM, TYPE REACT 9CBB, TYPE REACT 9SCBS, TYPE REACT 62B060, AND TYPE REACT 350 WIDE (96")).

LEGEND:

- LOCATION NUMBER
- CRASH CUSHION
- TEMPORARY CRASH CUSHION MODULE
- DIRECTION OF TRAFFIC

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 PHAT TRAN
 ANH P. TRAN
 ANH P. TRAN
 ANH P. TRAN
 ANH P. TRAN



CONSTRUCTION DETAILS
(LOCATION ① & ②)

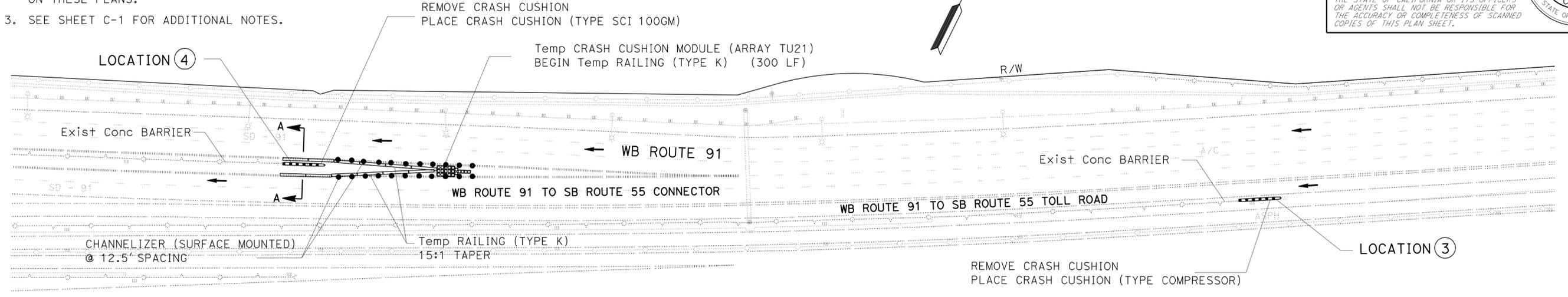
NO SCALE

C-1

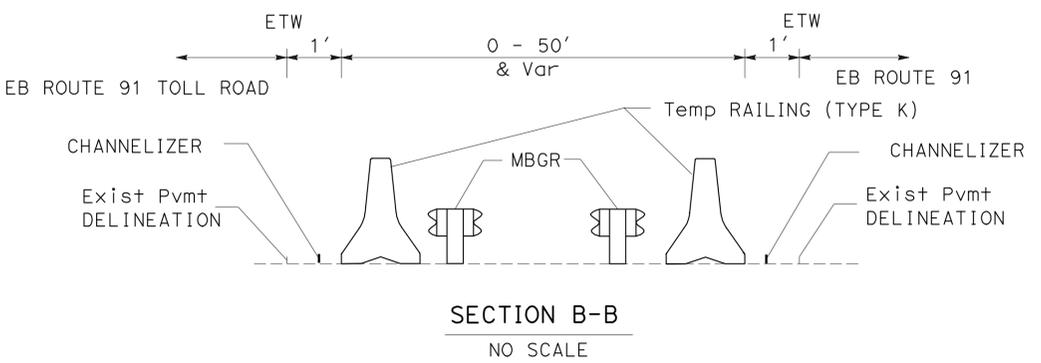
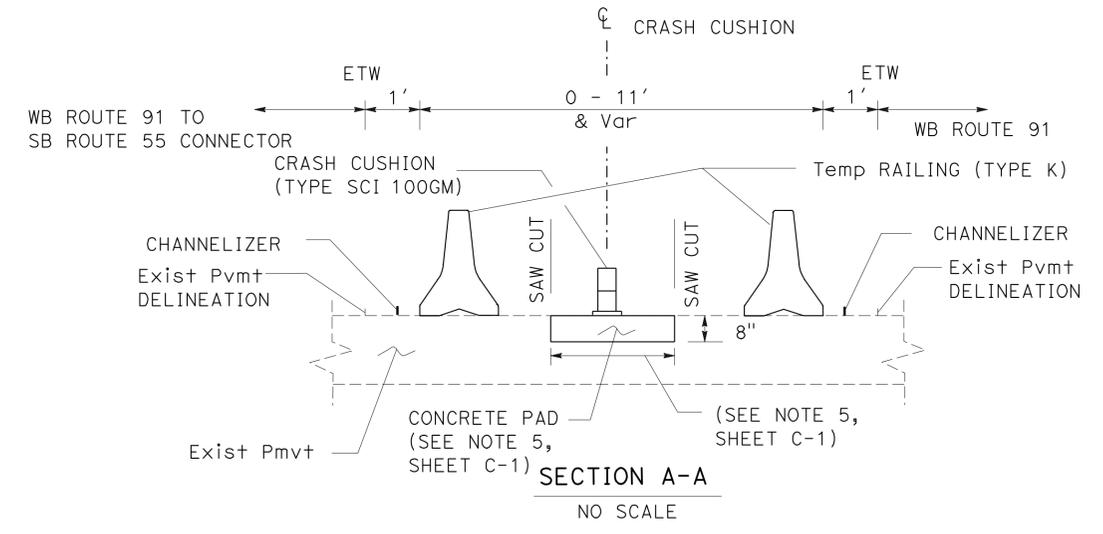
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	4	29
<i>Anh Tran</i> REGISTERED CIVIL ENGINEER		02-27-2013 DATE			
3-4-13 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
- SEE SHEET C-1 FOR ADDITIONAL NOTES.



LOCATION ③ & ④
 WB ROUTE 91 TO SB ROUTE 55 (TOLL ROAD)
 WB ROUTE 91 TO SB ROUTE 55 CONNECTOR
 PM R9.5 & R9.4



CONSTRUCTION DETAILS

(LOCATION ③, ④ & ⑤)

NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE

PHAT TRAN
 ANH P. TRAN

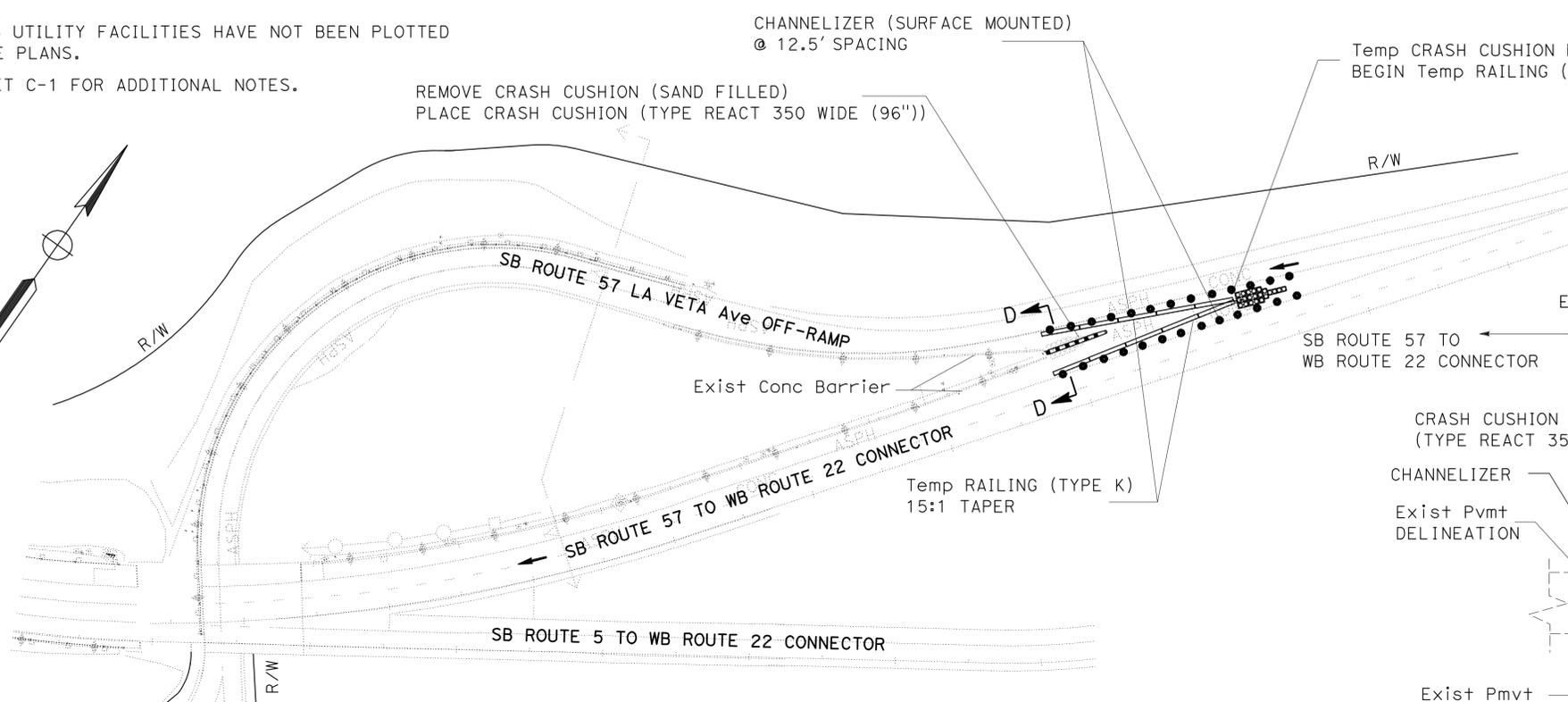
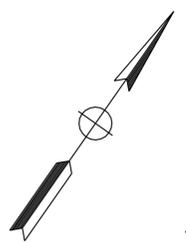
FUNCTIONAL SUPERVISOR
 ANH P. TRAN

REVISOR
 LH
 09/17/12

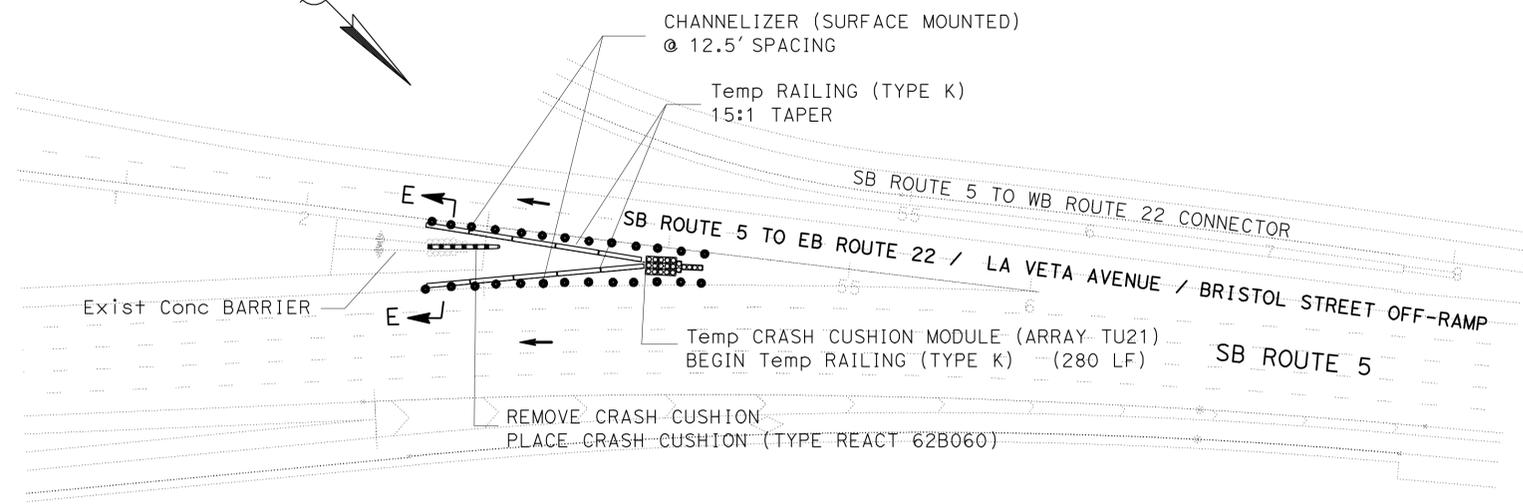
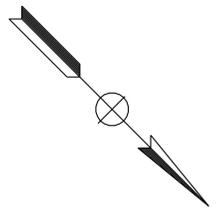
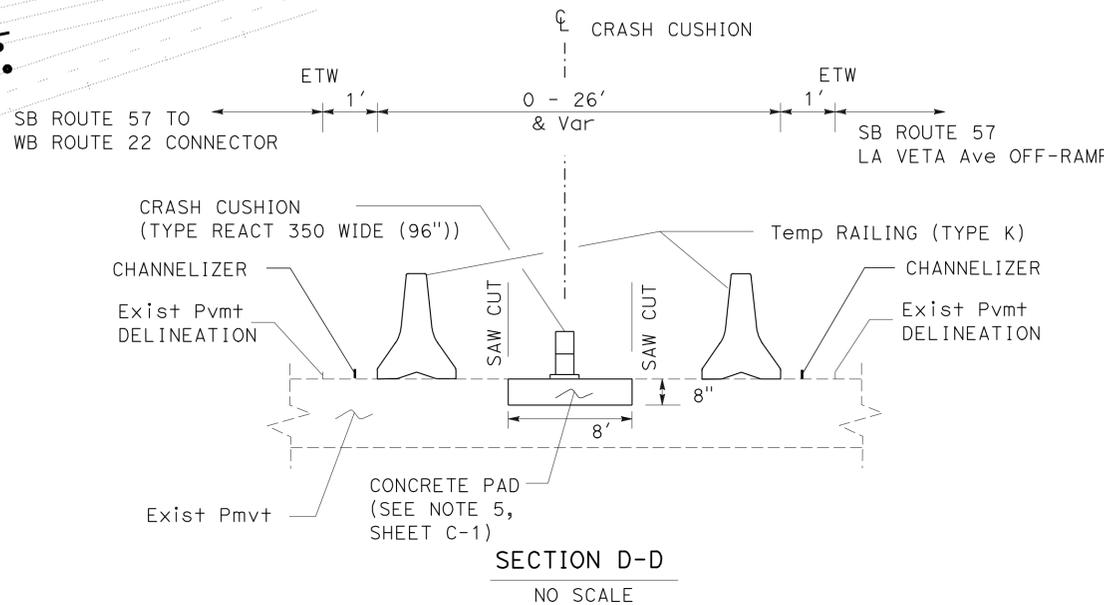
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12	Ora	5,55,57,91,405	Var	6	29
<i>Anh Tran</i> 02-27-2013 REGISTERED CIVIL ENGINEER DATE					
3-4-13 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

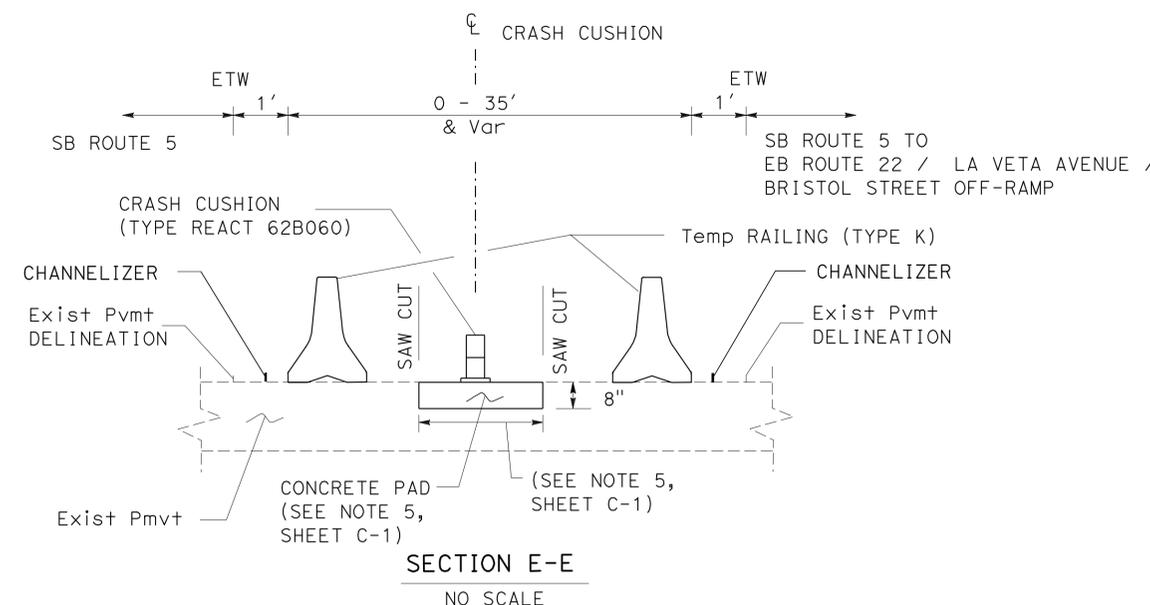
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
- SEE SHEET C-1 FOR ADDITIONAL NOTES.



LOCATION ⑧
 SB ROUTE 57 TO WB ROUTE 22 CONNECTOR
 PM 11.1



LOCATION ⑨
 SB ROUTE 5 TO EB ROUTE 22 /
 LA VETA AVENUE / BRISTOL STREET OFF-RAMP
 PM 34.4



CONSTRUCTION DETAILS
 (LOCATION ⑧ & ⑨)
 NO SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 MAINTENANCE
 PHAT TRAN
 ANH P. TRAN
 ANH P. TRAN
 ANH P. TRAN
 REVISIONS: LH 09/17/12
 REVISIONS: REVISOR DATE
 CALCULATED/DESIGNED BY CHECKED BY
 FUNCTIONAL SUPERVISOR
 USERNAME => s114926
 DGN FILE => 1213000038ga004.dgn



LAST REVISION: 02-27-13
 DATE PLOTTED => 08-MAR-2013
 TIME PLOTTED => 11:32

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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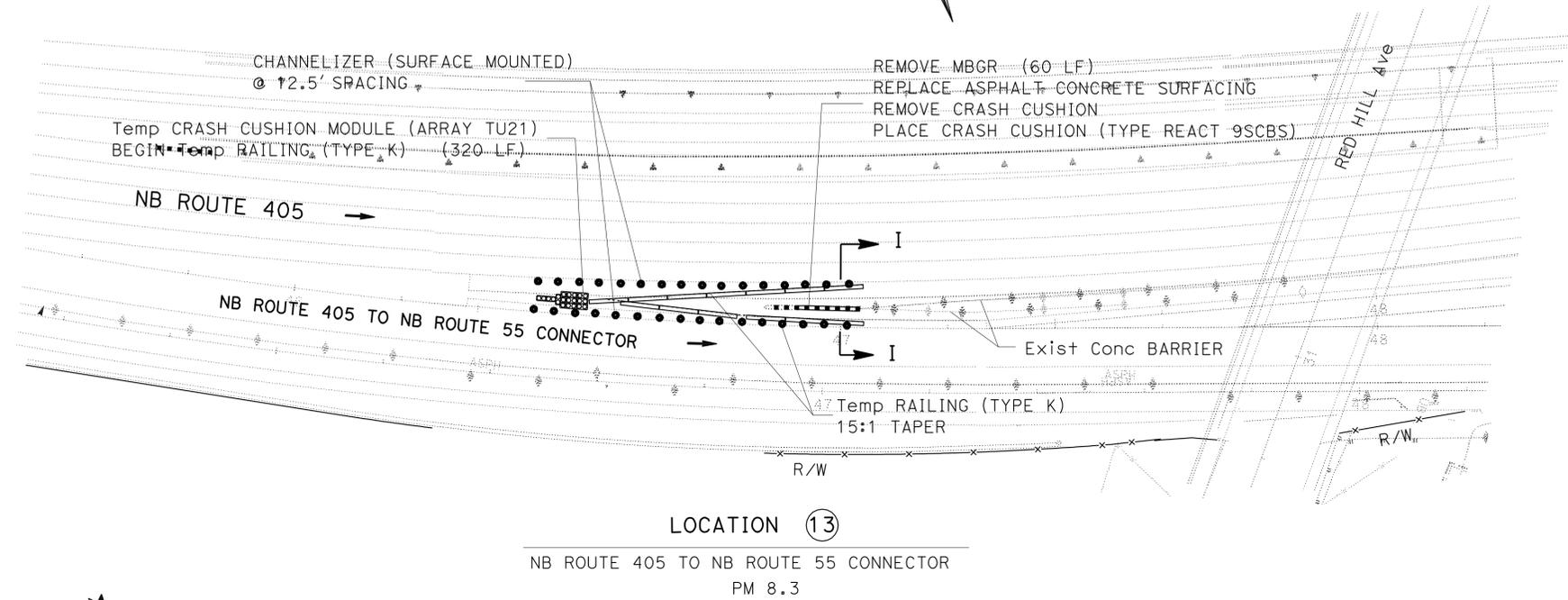
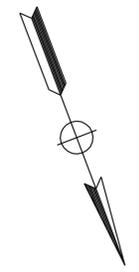
<i>Anh Tran</i>	02-27-2013
REGISTERED CIVIL ENGINEER	DATE
3-4-13	
PLANS APPROVAL DATE	

ANH P. TRAN
No. C 56206
Exp. 12/31/14
CIVIL

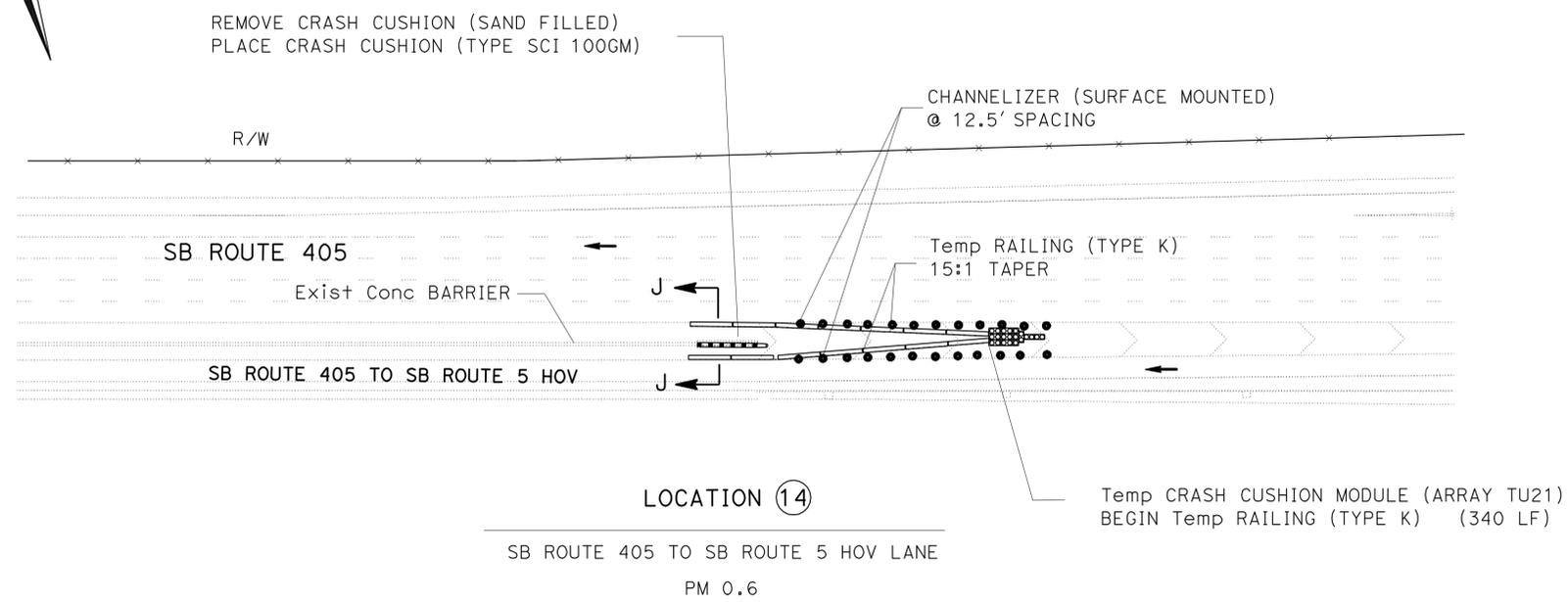
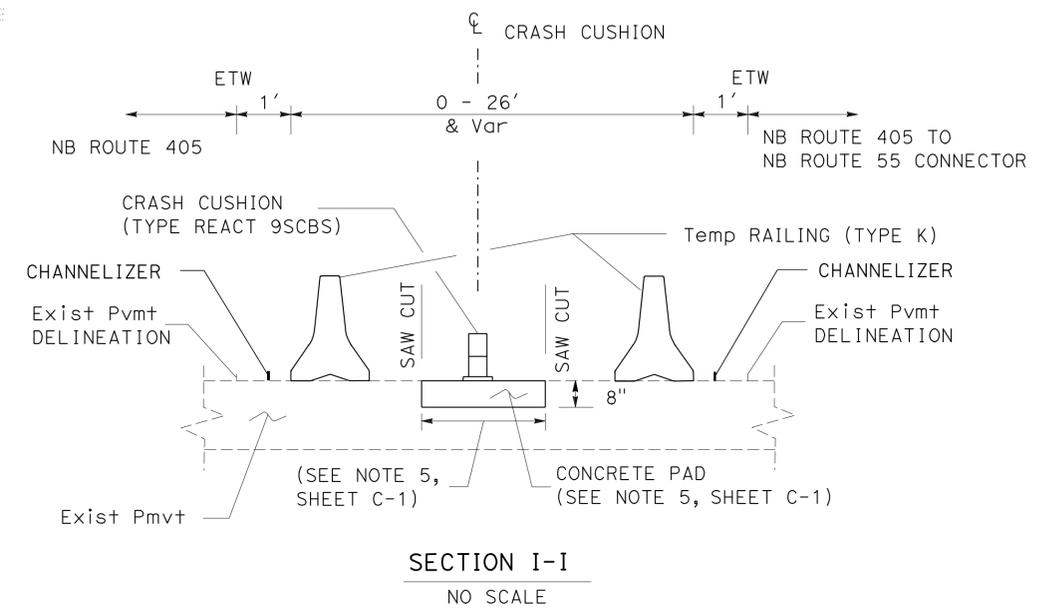
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

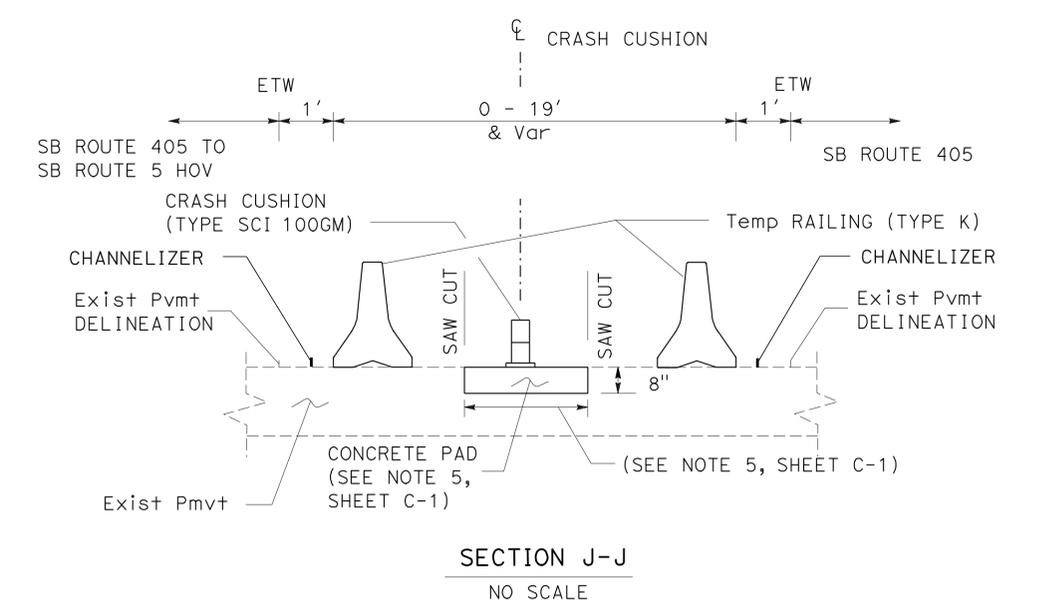
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
- SEE SHEET C-1 FOR ADDITIONAL NOTES.



LOCATION 13
NB ROUTE 405 TO NB ROUTE 55 CONNECTOR
PM 8.3



LOCATION 14
SB ROUTE 405 TO SB ROUTE 5 HOV LANE
PM 0.6



CONSTRUCTION DETAILS

(LOCATION 13 & 14)

NO SCALE

C-6

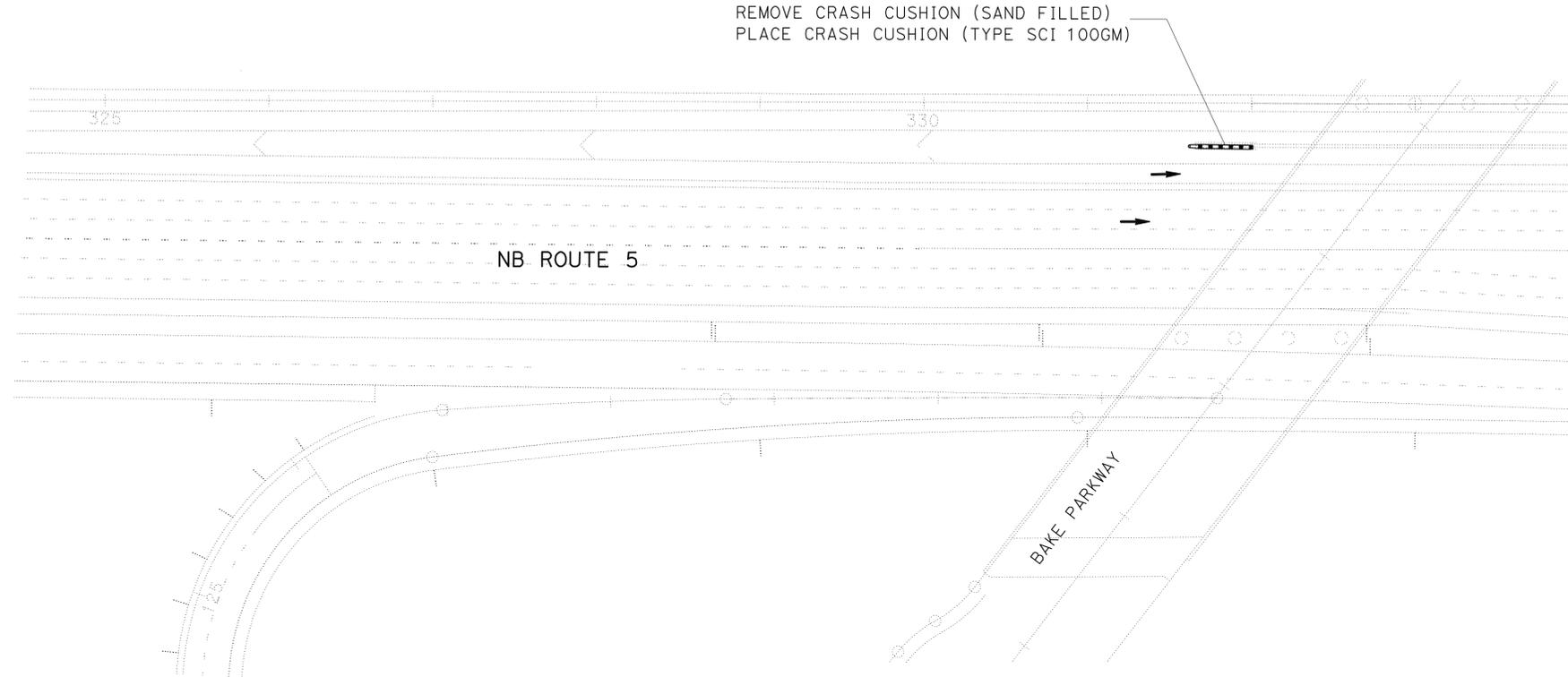
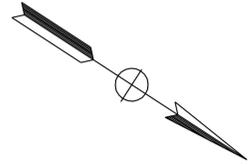
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
FUNCTIONAL SUPERVISOR: ANH P. TRAN
PHAT TRAN
ANH P. TRAN
LH: 09/17/12
REVISED BY: DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	9	29
		01-29-2012			
ANH P. TRAN		REGISTERED CIVIL ENGINEER		DATE	
3-4-13		PLANS APPROVAL DATE			
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NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.
- SEE SHEET C-1 FOR ADDITIONAL NOTES.



LOCATION (15)
 NB ROUTE 5 TO NB 405 HOV LANE
 PM 20.1

CONSTRUCTION DETAILS
 (LOCATION (15))
 NO SCALE

C-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	PHAT TRAN	REVISED BY	LH
Caltrans	ANH P. TRAN	CHECKED BY	ANH P. TRAN	DATE REVISED	09/17/12
MAINTENANCE					



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR
 ANH P. TRAN

CALCULATED/DESIGNED BY
 CHECKED BY

PHAT TRAN
 ANH P. TRAN

REVISED BY
 DATE REVISED

LH
 09/17/12

LOCATION	EXISTING STRUCTURE SECTION
①	0.50' AC (TYPE B) 0.25' ATPB 0.60' AB C12
②	0.45' AC (TYPE B) 0.60' LCB 0.40' AB C12
③	0.30' AC (TYPE B) 0.60' AB 0.80' - 1.10' AS
④	0.30' AC (TYPE B) 0.60' AB 0.80' - 1.10' AS
⑤	0.30' AC (TYPE B) 0.60' AB 0.80' - 1.10' AS
⑥	0.90' & Var AC 0.35' ATPB 0.50' AB C12 0.95' AS C14
⑦	0.35' AC (TYPE B) 0.80' AB C12
⑧	0.45' AC (TYPE B) 0.70' AB C12 0.85' & Var AS C14
⑨	0.85' PCC 0.25' ATPB 0.35' AB C13 0.70' AS C14
⑩	0.85' PCC 0.25' ATPB 0.35' AB C13 0.70' AS C14
⑪	0.45' AC (TYPE B) 0.70' AB C12 0.85' & Var AS C14
⑫	0.85' PCC 0.25' ATPB 0.35' AB C13 0.70' AS C14
⑬	0.50' AC (TYPE B) 0.25' ATPB 0.55' AB C12 1.00' AS C14
⑭	0.40' AC (TYPE B) 0.70' AB C12 0.80' AS C14
⑮	0.70' PCC 0.35' LCB 0.50' AS C14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	10	29

Anh Tran 01-29-2012
 REGISTERED CIVIL ENGINEER DATE

3-4-13
 PLANS APPROVAL DATE

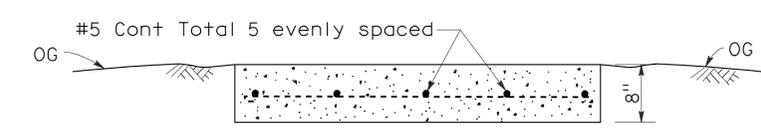
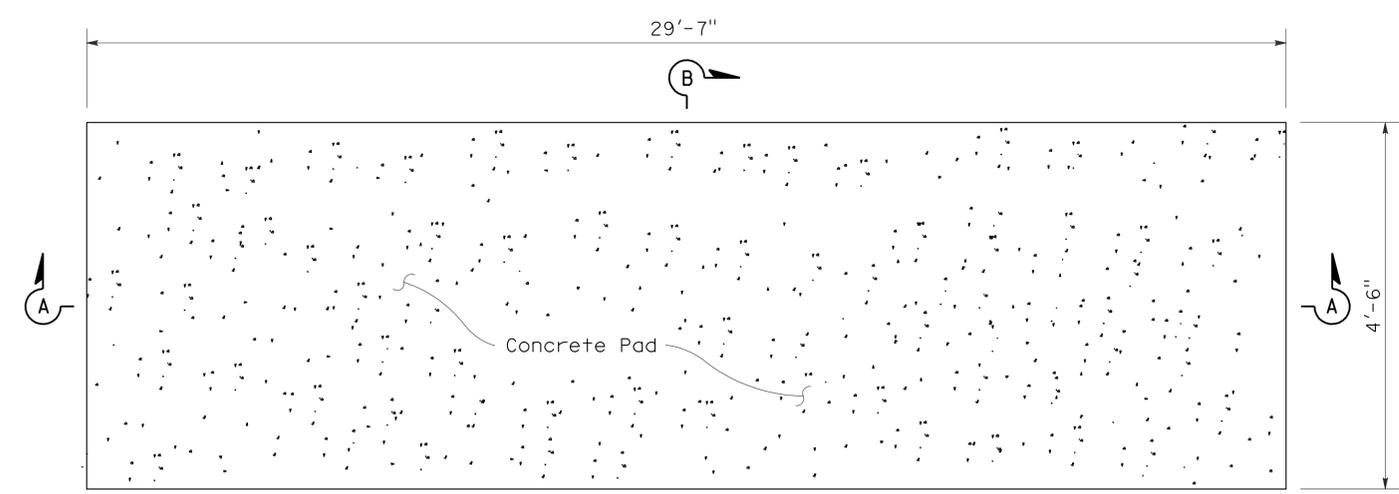
ANH P. TRAN
 No. C 56206
 Exp. 12/31/14
 CIVIL

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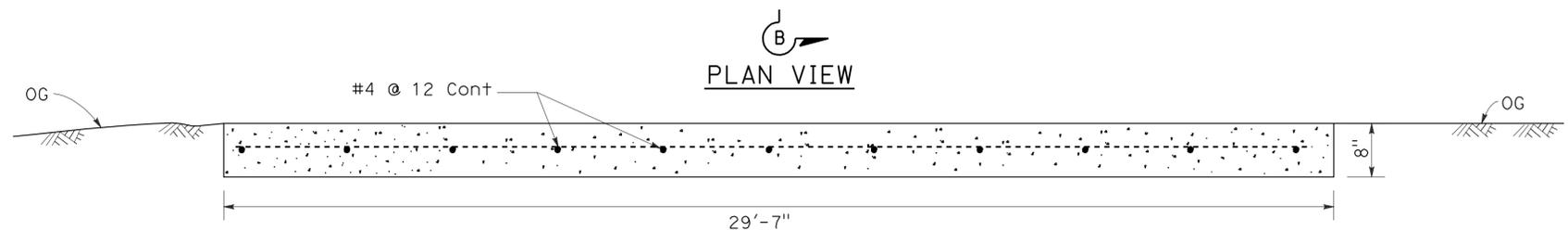
CONSTRUCTION DETAILS

LAST REVISION | DATE PLOTTED => 08-MAR-2013
 01-25-13 TIME PLOTTED => 13:07

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	11	29
<i>Anh Tran</i> REGISTERED CIVIL ENGINEER		03-04-2013 DATE			
3-4-13 PLANS APPROVAL DATE		THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.			



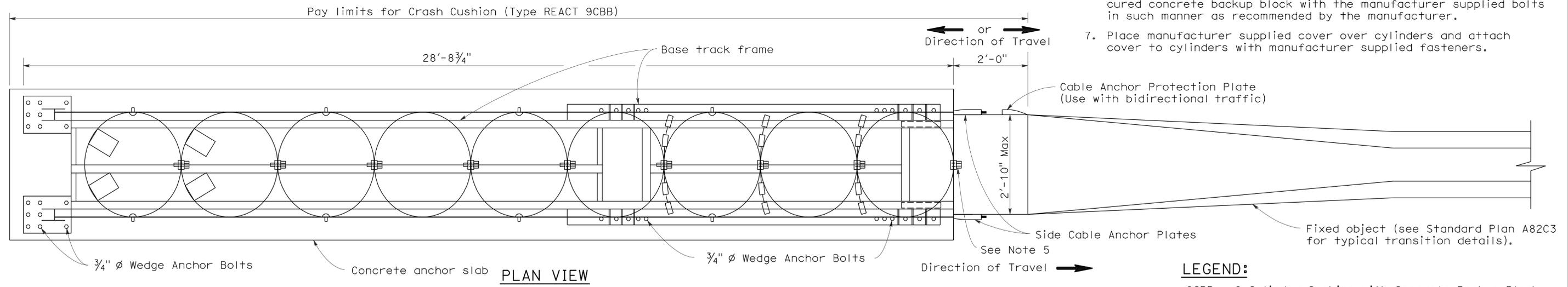
SECTION B-B



SECTION A-A
CONCRETE ANCHOR SLAB

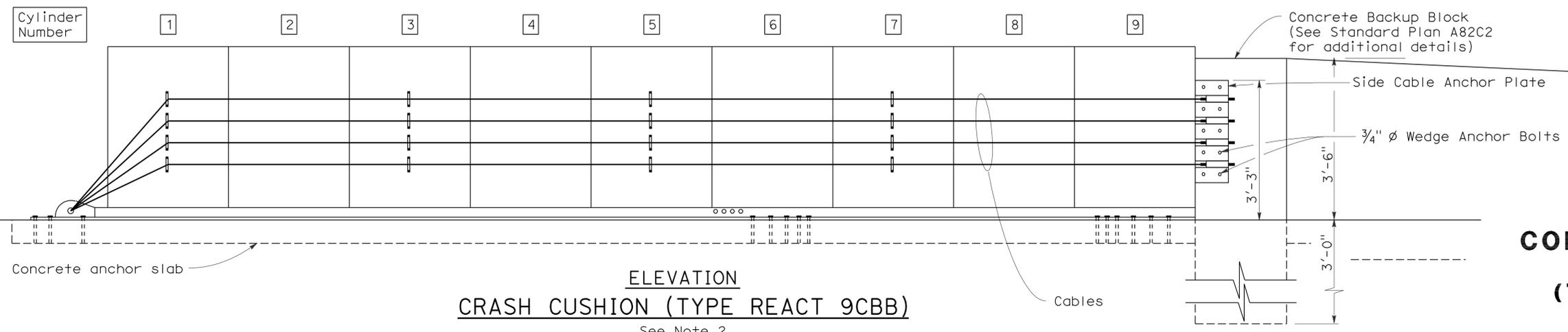
NOTES:

- For additional details of this crash cushion, refer to manufacturer's installation instructions.
- For details of the REACT Crash Cushion with self contained backup support (no concrete backup block), see Standard Plan A82D1.
- The base track frame with cylinders attached comes from the manufacturer as a completely pre-assembled unit.
- Place the crash cushion unit on the cured concrete anchor slab and use the base track frame of the crash cushion as a template for drilling anchor bolt holes. Drill holes in slab and attach crash cushion with wedge anchor bolts supplied by the manufacturer.
- Attach last cylinder to concrete backup block with manufacturer supplied fastener in such manner as recommended by the manufacturer.
- Attach the manufacturer supplied side cable anchor plates to the cured concrete backup block with the manufacturer supplied bolts in such manner as recommended by the manufacturer.
- Place manufacturer supplied cover over cylinders and attach cover to cylinders with manufacturer supplied fasteners.



LEGEND:

9CBB = 9 Cylinder Cushion with Concrete Backup Block



ELEVATION
CRASH CUSHION (TYPE REACT 9CBB)
See Note 2

**CONSTRUCTION DETAILS
CRASH CUSHION
(TYPE REACT 9CBB)**
NO SCALE **C-9**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE

FUNCTIONAL SUPERVISOR: ANH P. TRAN

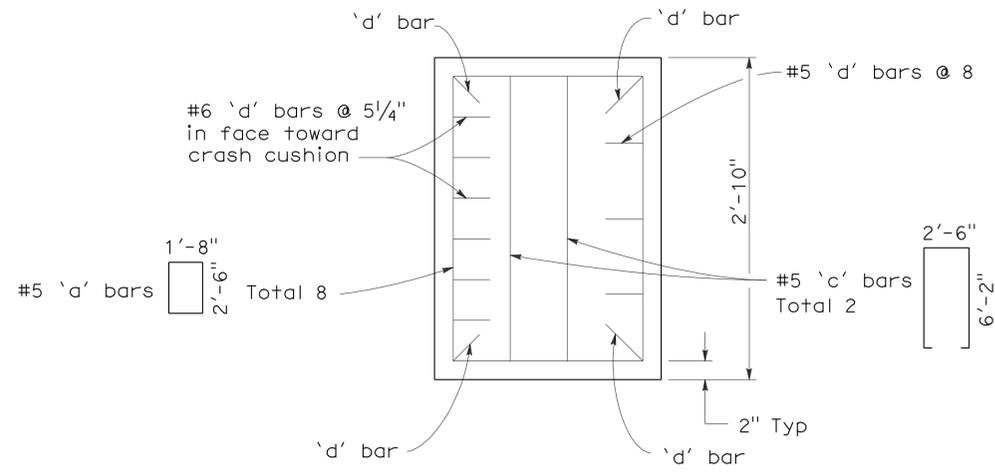
REVISOR: [] DATE: []

CALCULATED/DESIGNED BY: [] CHECKED BY: []

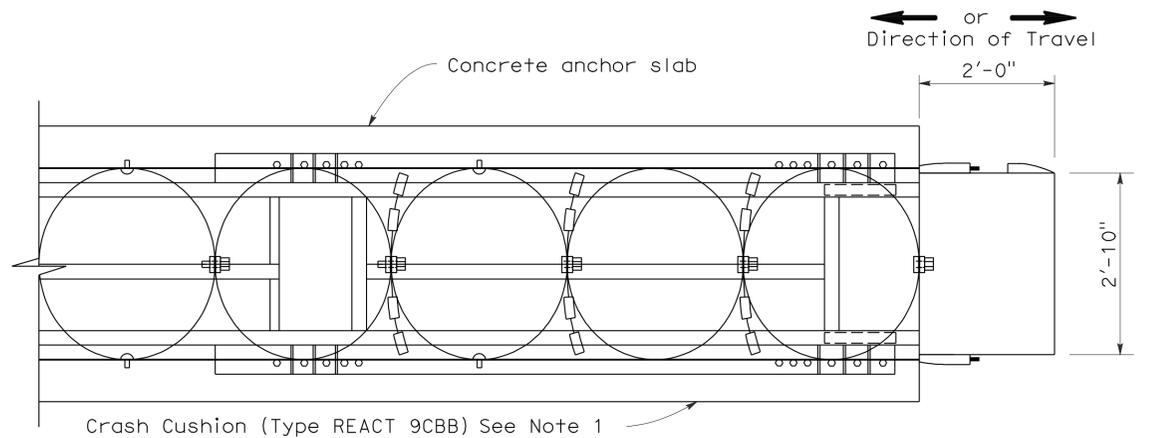
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	12	29
		ANH P. TRAN		03-04-2013	
		REGISTERED CIVIL ENGINEER		DATE	
		3-4-13		PLANS APPROVAL DATE	
		No. C 56206		Exp. 12/31/14	
		CIVIL		STATE OF CALIFORNIA	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

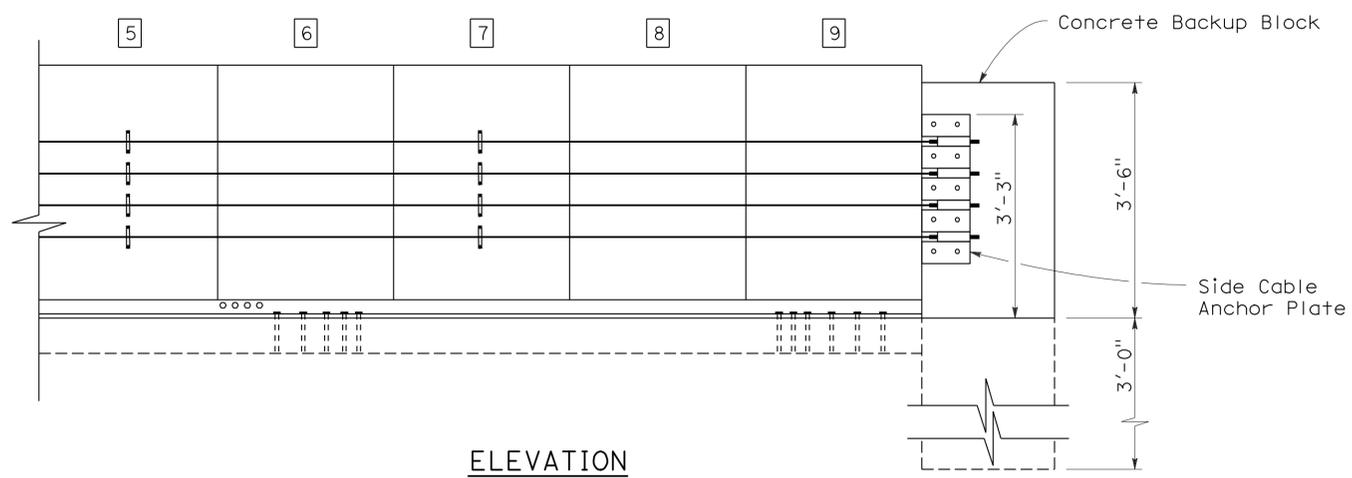
- For additional details of Crash Cushion (Type REACT 9CBB), see Standard Plan A82C1.
- For transition details of fixed object to backup block, see Standard Plan A82C3.
- For details of the REACT Crash Cushion with self contained backup support (no concrete backup block), see Standard plan A82D1.



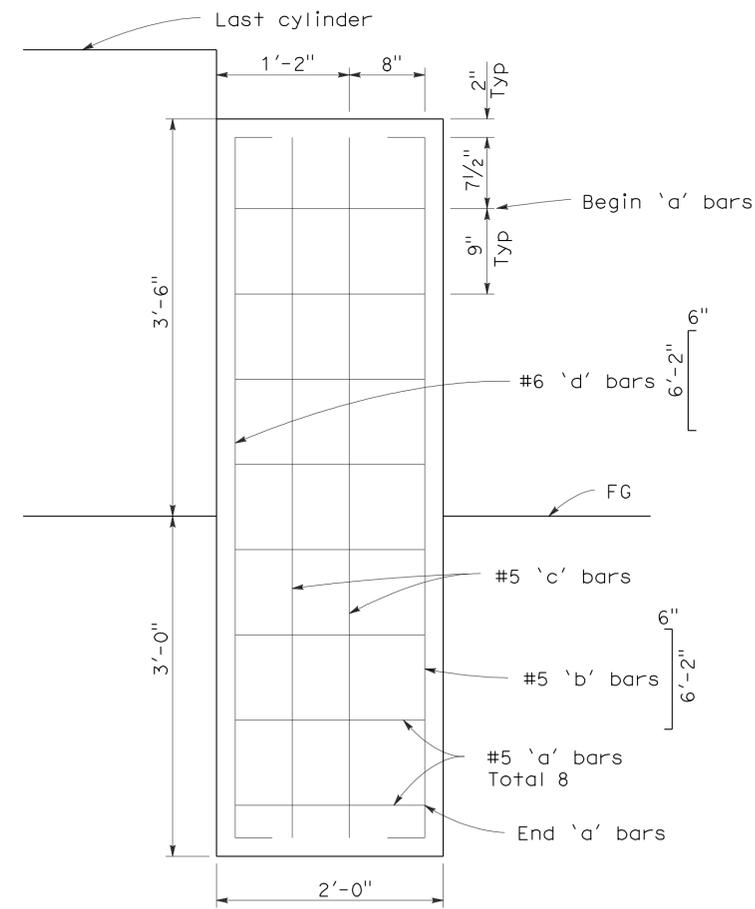
PLAN VIEW



PLAN VIEW



ELEVATION



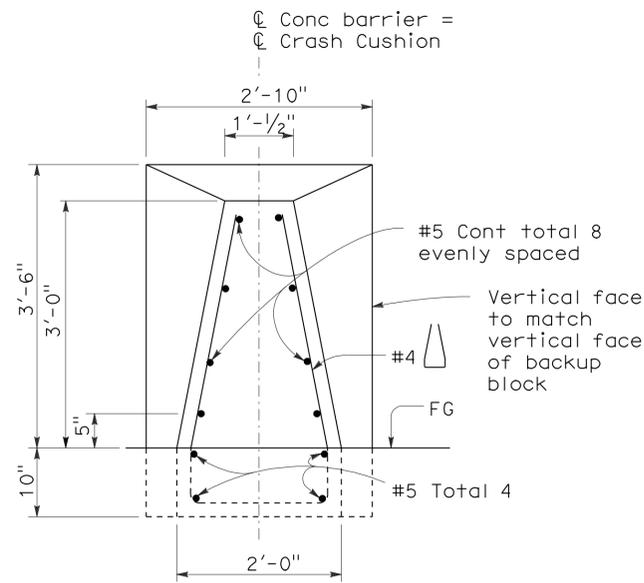
**ELEVATION
CONCRETE BACKUP BLOCK**

**CONSTRUCTION DETAILS
CRASH CUSHION
(TYPE REACT 9CBB)
BACKUP BLOCK DETAILS**

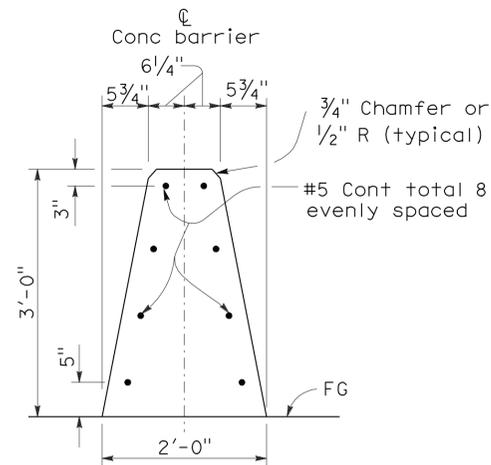
NO SCALE

C-10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	13	29
		ANH P. TRAN		03-04-2013	
		REGISTERED CIVIL ENGINEER		DATE	
		3-4-13		PLANS APPROVAL DATE	
		No. C 56206		12/31/14	
		Exp.		CIVIL	
<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>					



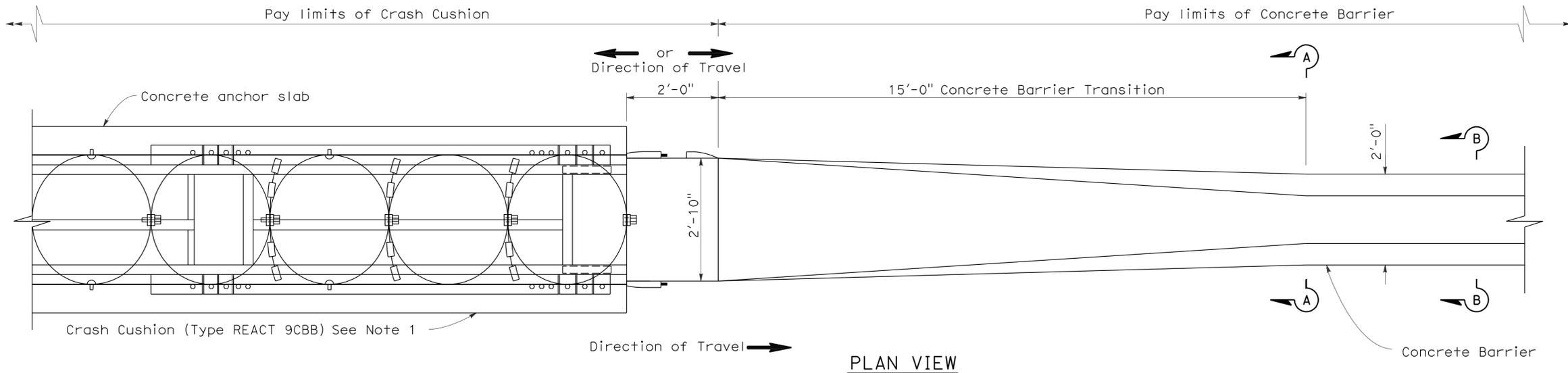
SECTION A-A
See Note 3



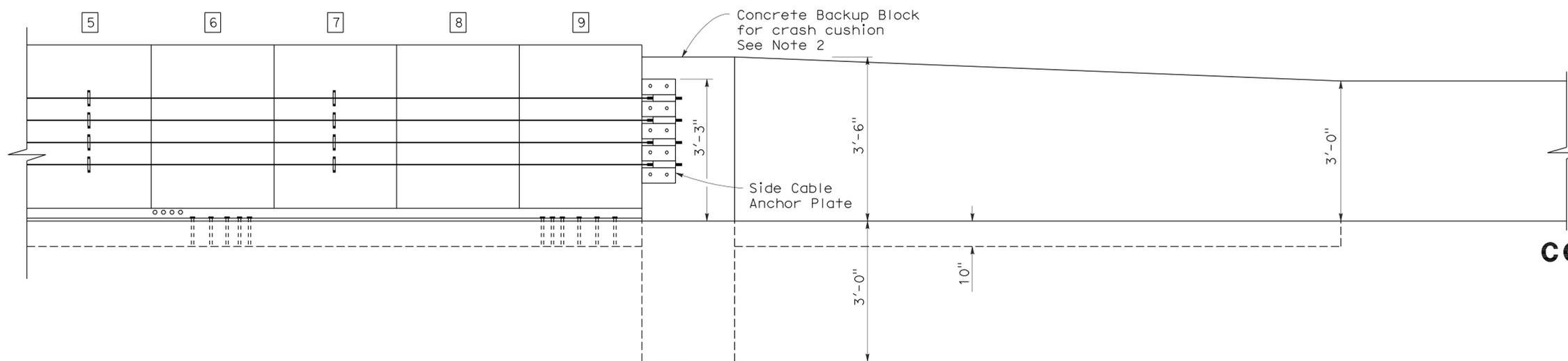
SECTION B-B
(Type 60 Barrier shown)

NOTES:

- For additional details of Crash Cushion (Type REACT 9CBB), see Standard Plan A82C1.
- For additional details of the concrete backup block, see Standard Plan A82C2.
- Transitions for other types of concrete barrier similar to that shown for Type 60.



PLAN VIEW



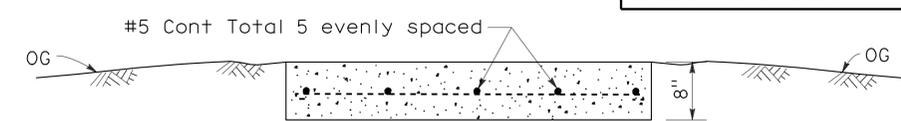
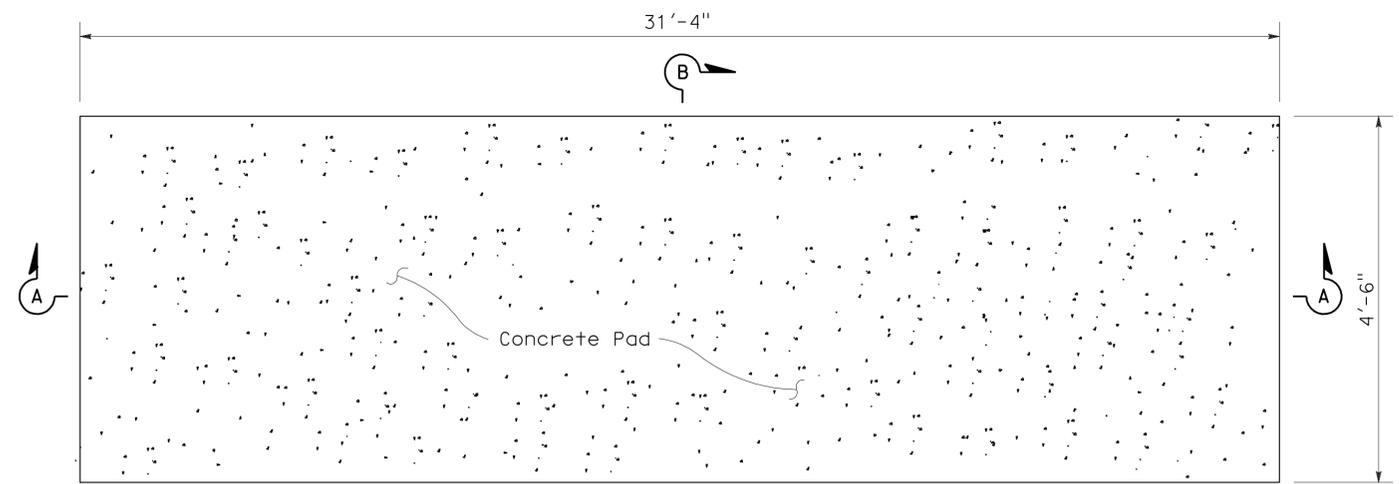
ELEVATION

**CONSTRUCTION DETAILS
CRASH CUSHION
(TYPE REACT 9CBB)
CONCRETE BARRIER
TRANSITION DETAILS**

NO SCALE

C-11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	14	29
<i>Anh Tran</i> REGISTERED CIVIL ENGINEER DATE 03-04-2013			ANH P. TRAN No. C 56206 Exp. 12/31/14 CIVIL		
3-4-13 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>					



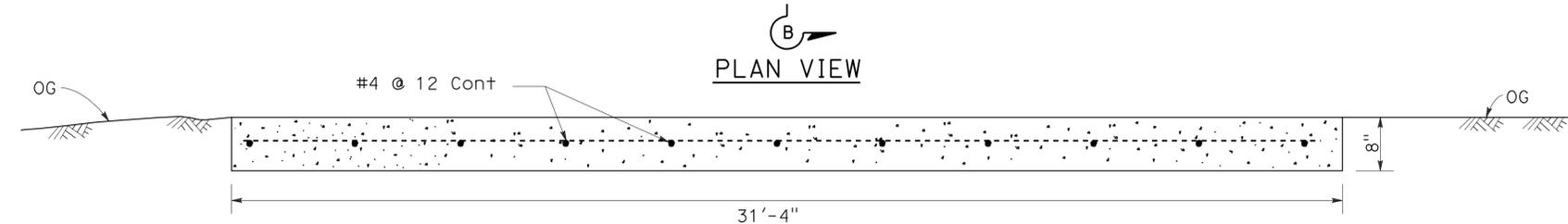
SECTION B-B

NOTES:

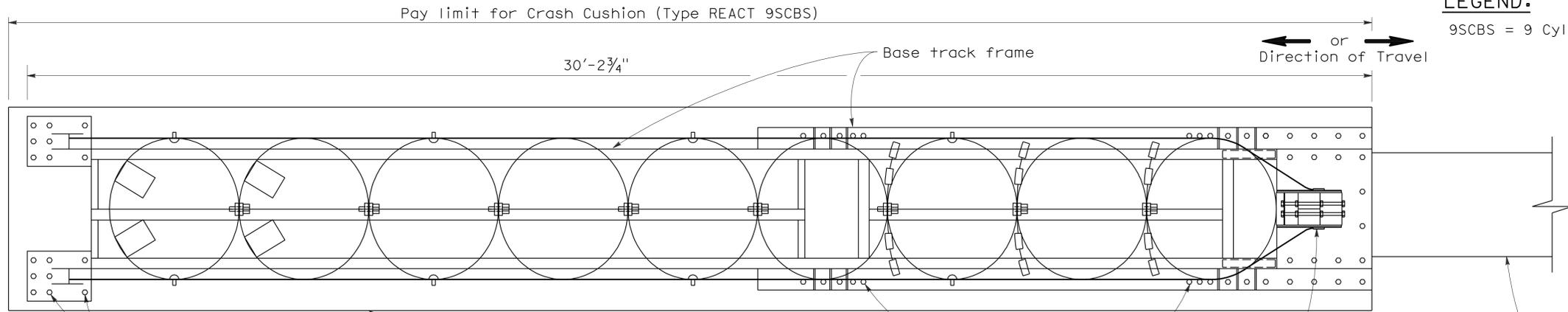
- For additional details of this crash cushion, refer to manufacturer's installation instructions.
- For details of the REACT Crash Cushion with concrete backup block (no self contained backup support), see Standard Plan A82C1.
- This crash cushion comes from the manufacturer as a completely pre-assembled unit, including the self contained cable backup support.
- Place the crash cushion unit on the cured concrete anchor slab and use the base track frame as a template for drilling anchor bolt holes. Drill holes in slab and attach crash cushion with wedge anchor bolts supplied by the manufacturer.
- Place manufacturer supplied cover over cylinders and attach cover to cylinders with manufacturer supplied fasteners.

LEGEND:

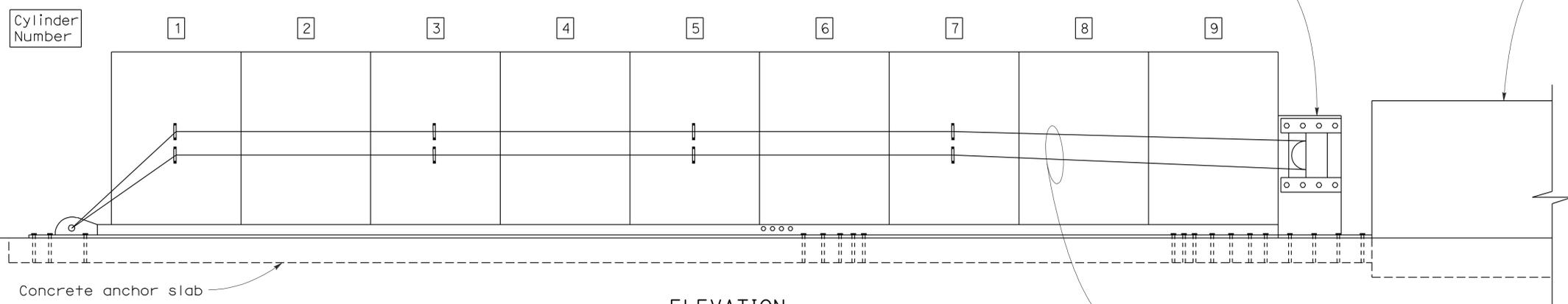
9SCBS = 9 Cylinder Cushion with Self Contained Backup Support



SECTION A-A
CONCRETE ANCHOR SLAB



PLAN VIEW



ELEVATION
CRASH CUSHION (TYPE REACT 9SCBS)

See Note 2

**CONSTRUCTION DETAILS
CRASH CUSHION
(TYPE REACT 9SCBS)**

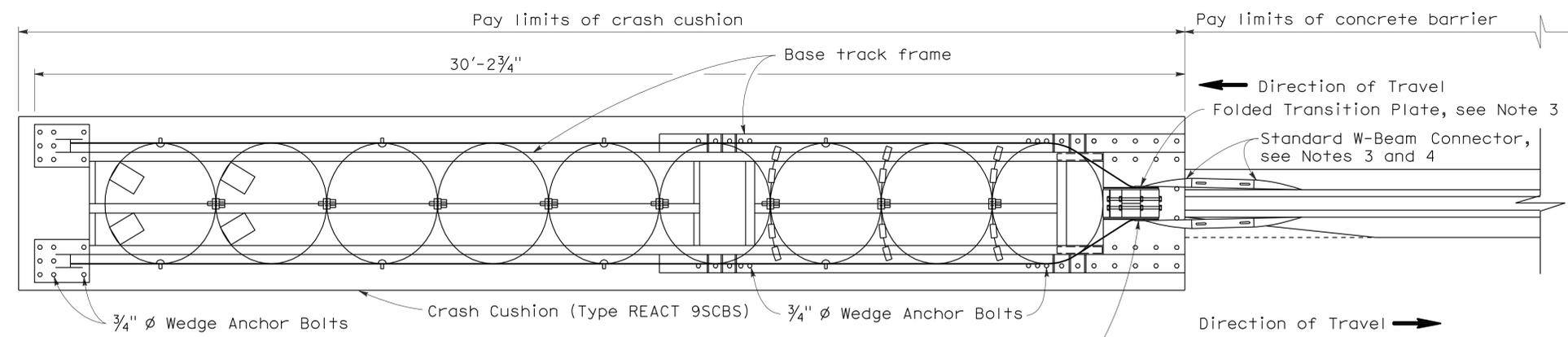
NO SCALE

C-12

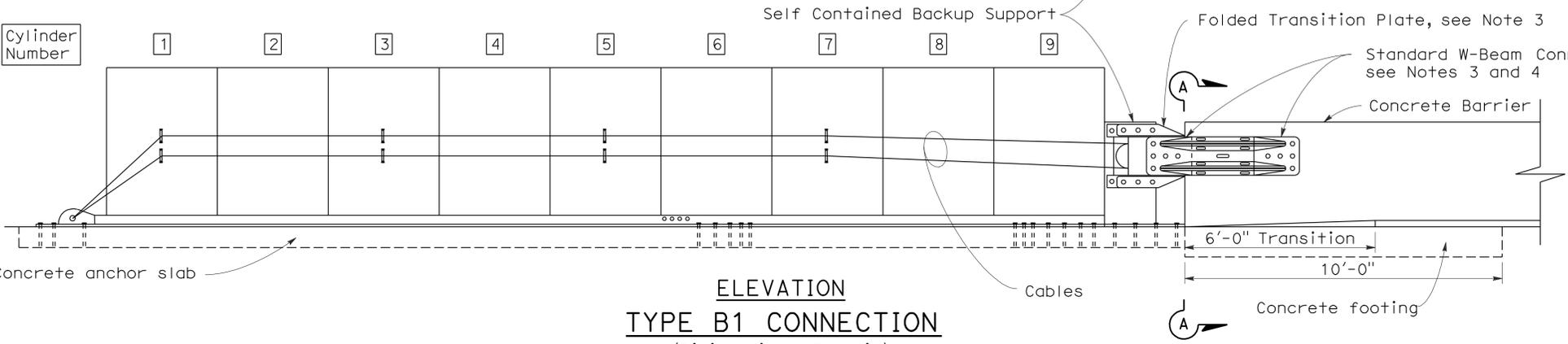
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
MAINTENANCE
ANH P. TRAN
FUNCTIONAL SUPERVISOR
CALCULATED/DESIGNED BY
CHECKED BY
REVISOR BY
DATE REVISOR

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405'	Var	15	29

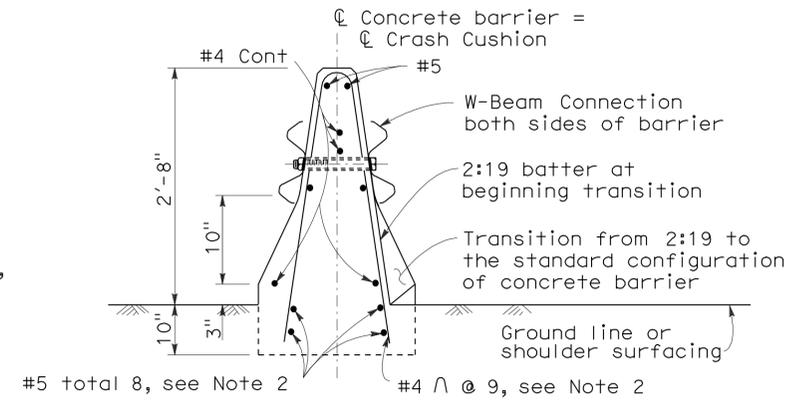
Anh Tran 03-04-2013
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE
 ANH P. TRAN
 No. C. 56206
 Exp. 12/31/14
 CIVIL
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PLAN VIEW



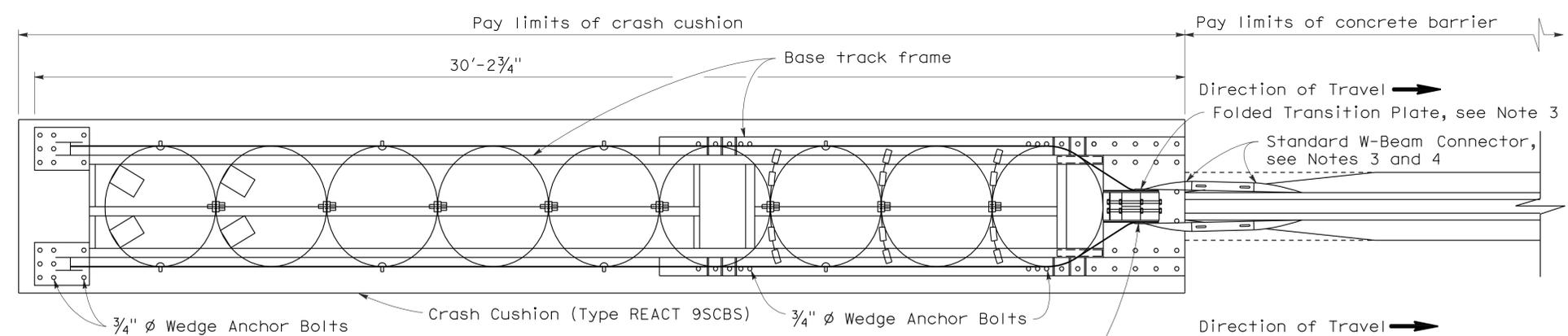
ELEVATION
TYPE B1 CONNECTION
(Bidirectional Traffic)



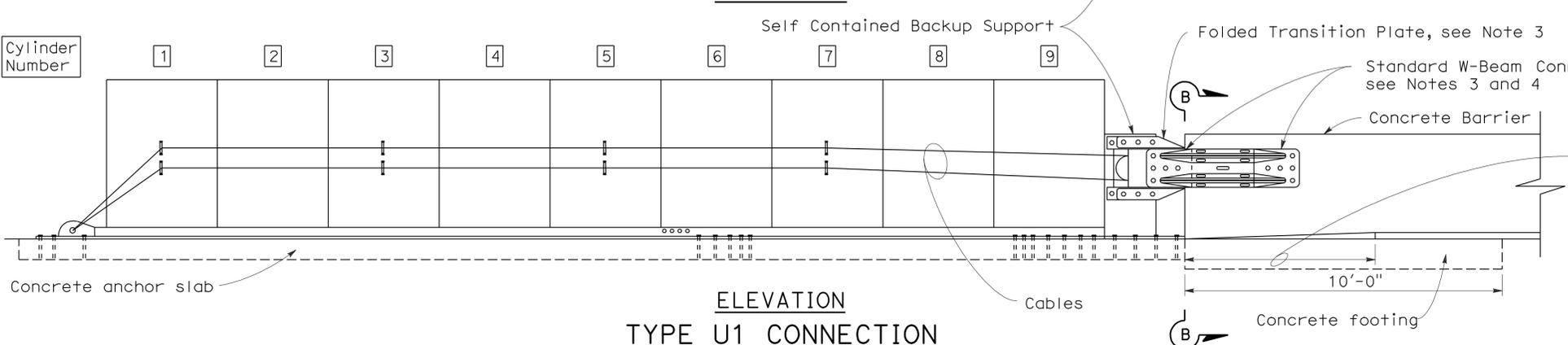
SECTION A-A
(Type 50 Barrier shown)

NOTES:

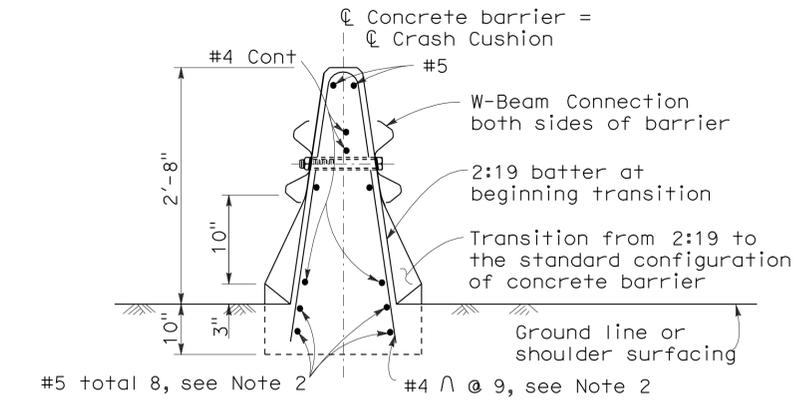
- For additional details of Crash Cushion (Type REACT 9SCBS), see Standard Plan A82D1.
- Place this reinforcement for the full 10'-0" length of the terminus of the concrete barrier.
- Attach manufacturer supplied folded transition plates and W-Beam connectors to backup support with manufacturer supplied bolts.
- Attach W-Beam Connectors to barrier with manufacturer supplied anchor bolts in the manner recommended by the manufacturer.



PLAN VIEW



ELEVATION
TYPE U1 CONNECTION
(Unidirectional Traffic)



SECTION B-B
(Type 50 Barrier shown)

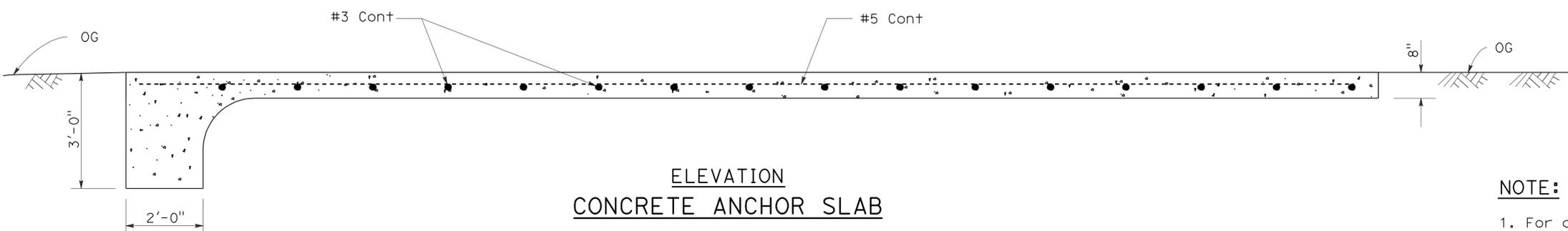
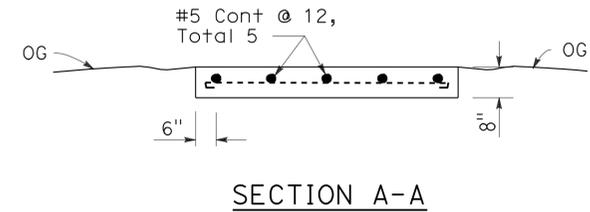
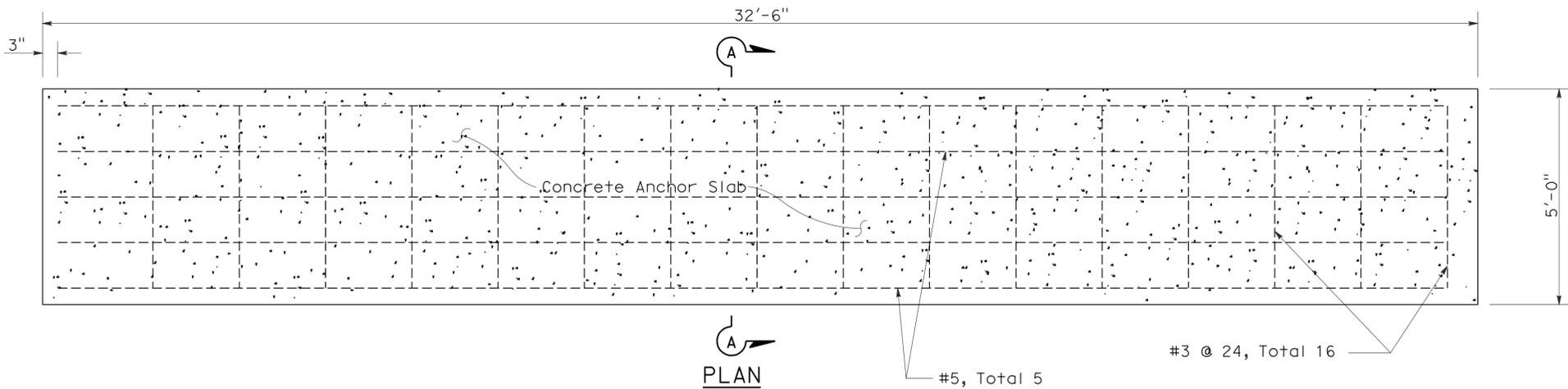
CONSTRUCTION DETAILS
CRASH CUSHION
(TYPE REACT 9SCBS)
CONNECTION TO
CONCRETE BARRIER
NO SCALE

REVISOR: [] DATE: []
 CALCULATED/DESIGNED BY: [] CHECKED BY: []
 FUNCTIONAL SUPERVISOR: ANH P. TRAN
 DEPARTMENT OF TRANSPORTATION MAINTENANCE
 STATE OF CALIFORNIA - Caltrans

LAST REVISION: [] DATE PLOTTED => 08-MAR-2013
 00-00-00 TIME PLOTTED => 14:44

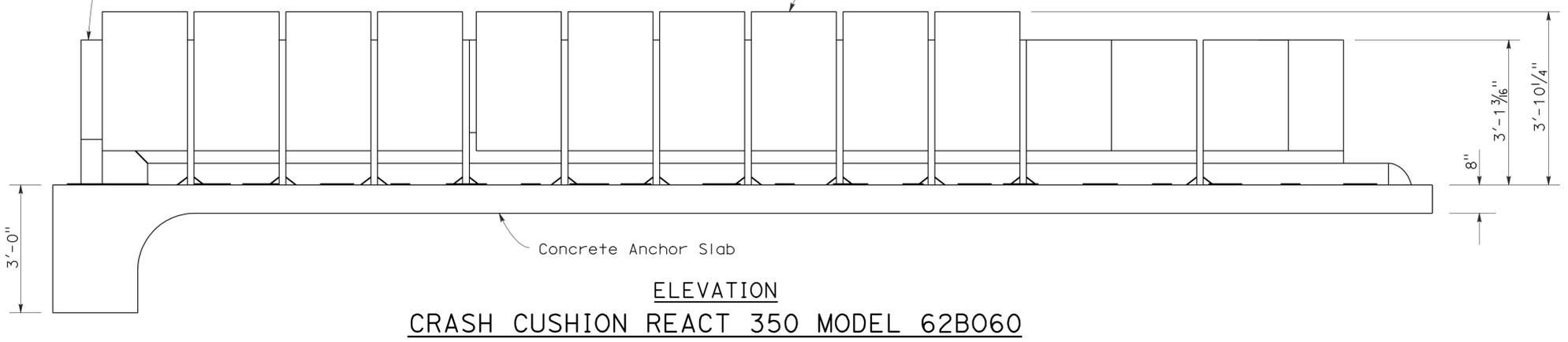
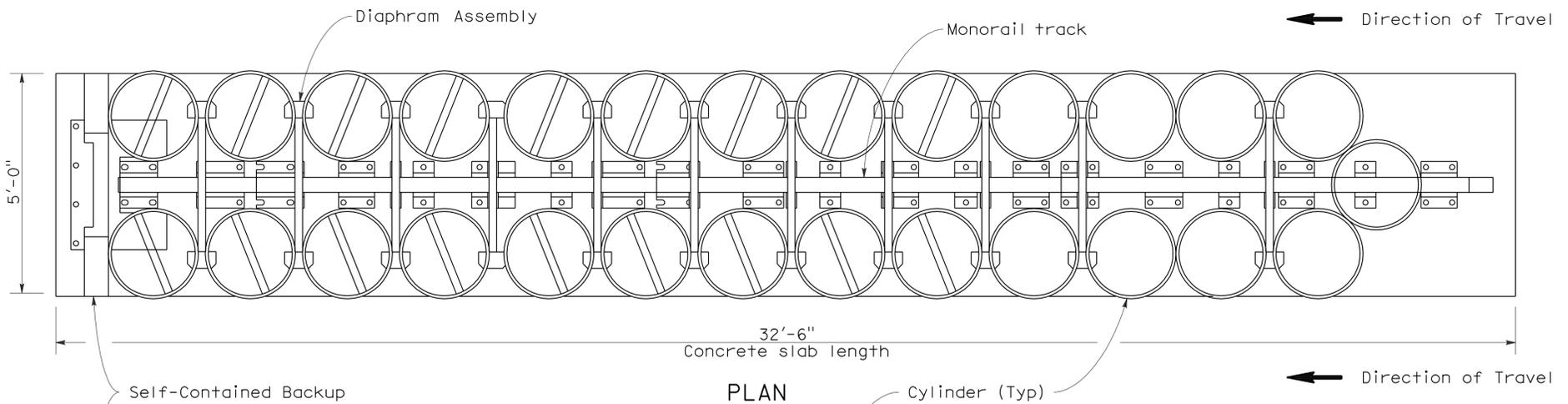
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	17	29

03-04-2013
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE
 ANH P. TRAN
 No. C 56206
 Exp. 12/31/14
 CIVIL
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NOTE:

- For additional details of this crash cushion, refer to manufacturer's installation instructions.



**CONSTRUCTION DETAILS
CRASH CUSHION
(TYPE REACT 62B060)**

NO SCALE

C-15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - MAINTENANCE

FUNCTIONAL SUPERVISOR: ANH P. TRAN

REVISOR: REVISED BY DATE

DESIGNER: CALCULATED/DESIGNED BY

CHECKER: CHECKED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

ANH TRAN
 01-04-13

REVISOR BY
 DATE REVISED

PHAT TRAN
 ANH TRAN

CALCULATED-DESIGNED BY
 CHECKED BY

FUNCTIONAL SUPERVISOR
 MASSOUD TAJIK

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

NOTES:

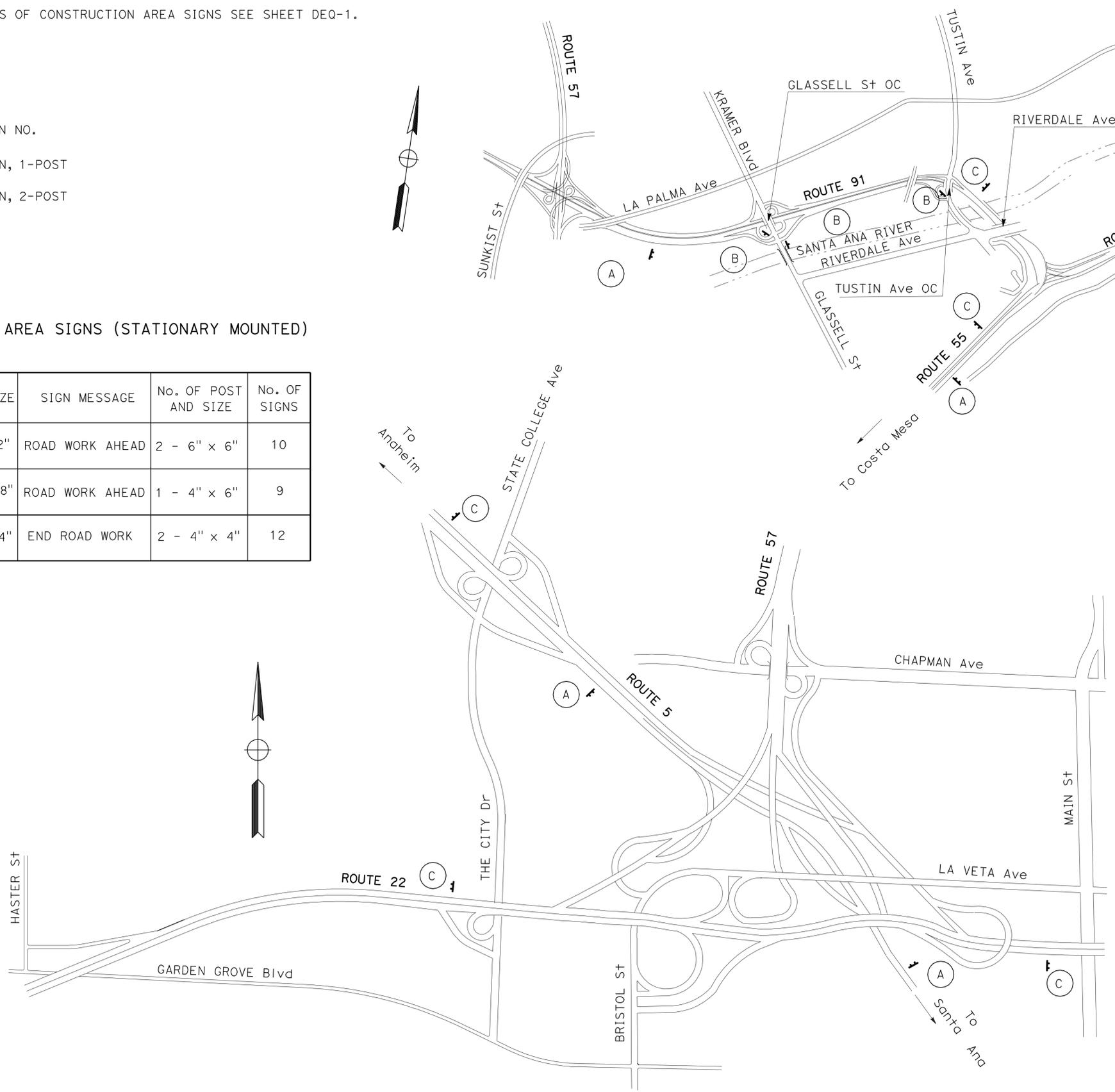
1. CONSTRUCTION AREA SIGN LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. FOR ADDITIONAL QUANTITIES OF CONSTRUCTION AREA SIGNS SEE SHEET DEQ-1.

LEGEND:

- CONSTRUCTION AREA SIGN NO.
- ↑ CONSTRUCTION AREA SIGN, 1-POST
- ↑ CONSTRUCTION AREA SIGN, 2-POST

CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)

SIGN No.	TYPE	PANEL SIZE	SIGN MESSAGE	No. OF POST AND SIZE	No. OF SIGNS
Ⓐ	W20-1	72" x 72"	ROAD WORK AHEAD	2 - 6" x 6"	10
Ⓑ	W20-1	48" x 48"	ROAD WORK AHEAD	1 - 4" x 6"	9
Ⓒ	G20-2	60" x 24"	END ROAD WORK	2 - 4" x 4"	12



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	18	29

ANH P. TRAN
 REGISTERED CIVIL ENGINEER
 No. C 56206
 Exp. 12/31/14
 CIVIL

01-29-2012
 DATE
 3-4-13
 PLANS APPROVAL DATE

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CONSTRUCTION AREA SIGNS
 NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGNS WORK ONLY

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR
 MASSOUD TAJIK

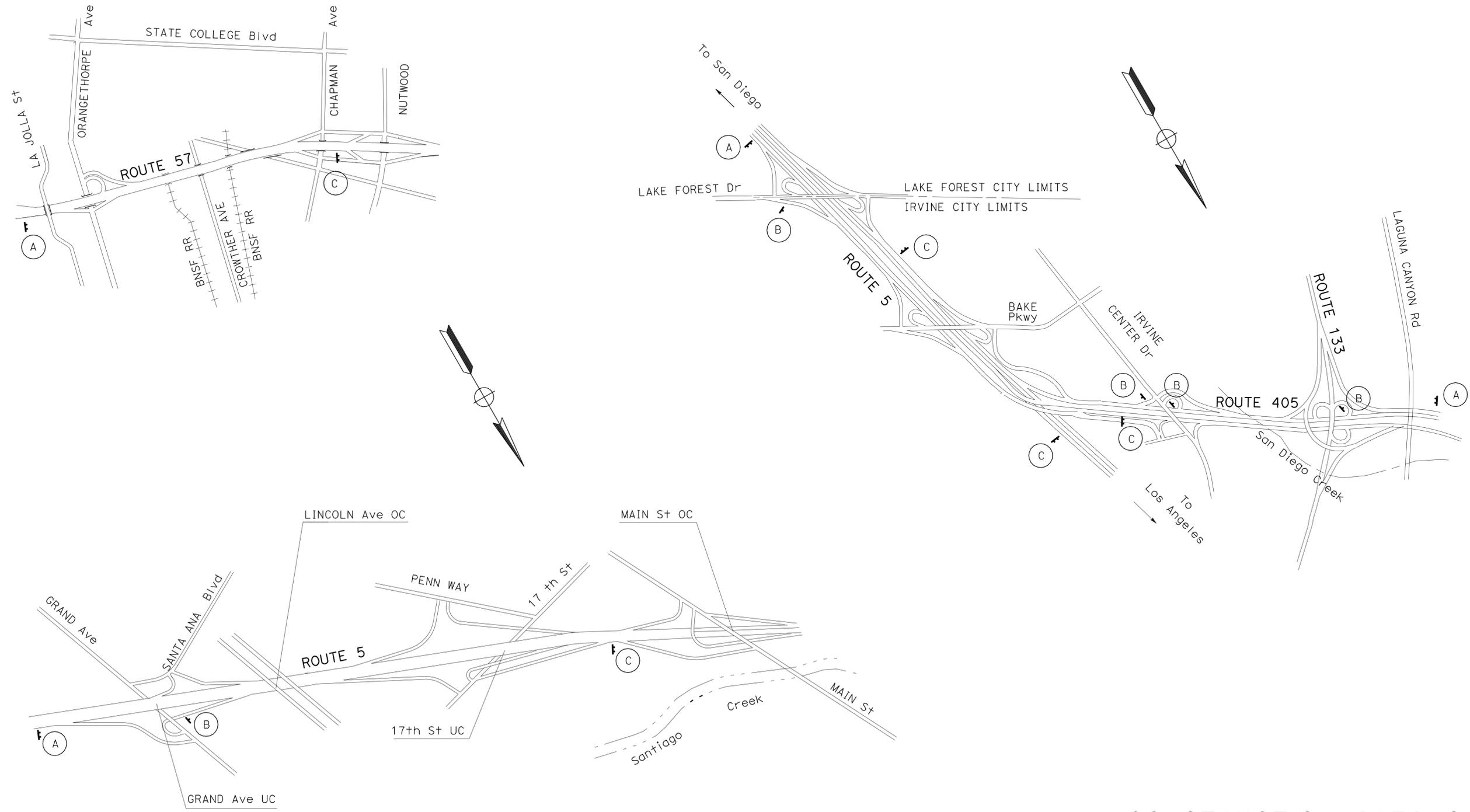
REVISOR
 ANH TRAN
 DATE
 01-04-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	19	29

Anh Tran 01-29-2012
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 ANH P. TRAN
 No. C 56206
 Exp. 12/31/14
 CIVIL
 STATE OF CALIFORNIA

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CONSTRUCTION AREA SIGNS
 NO SCALE

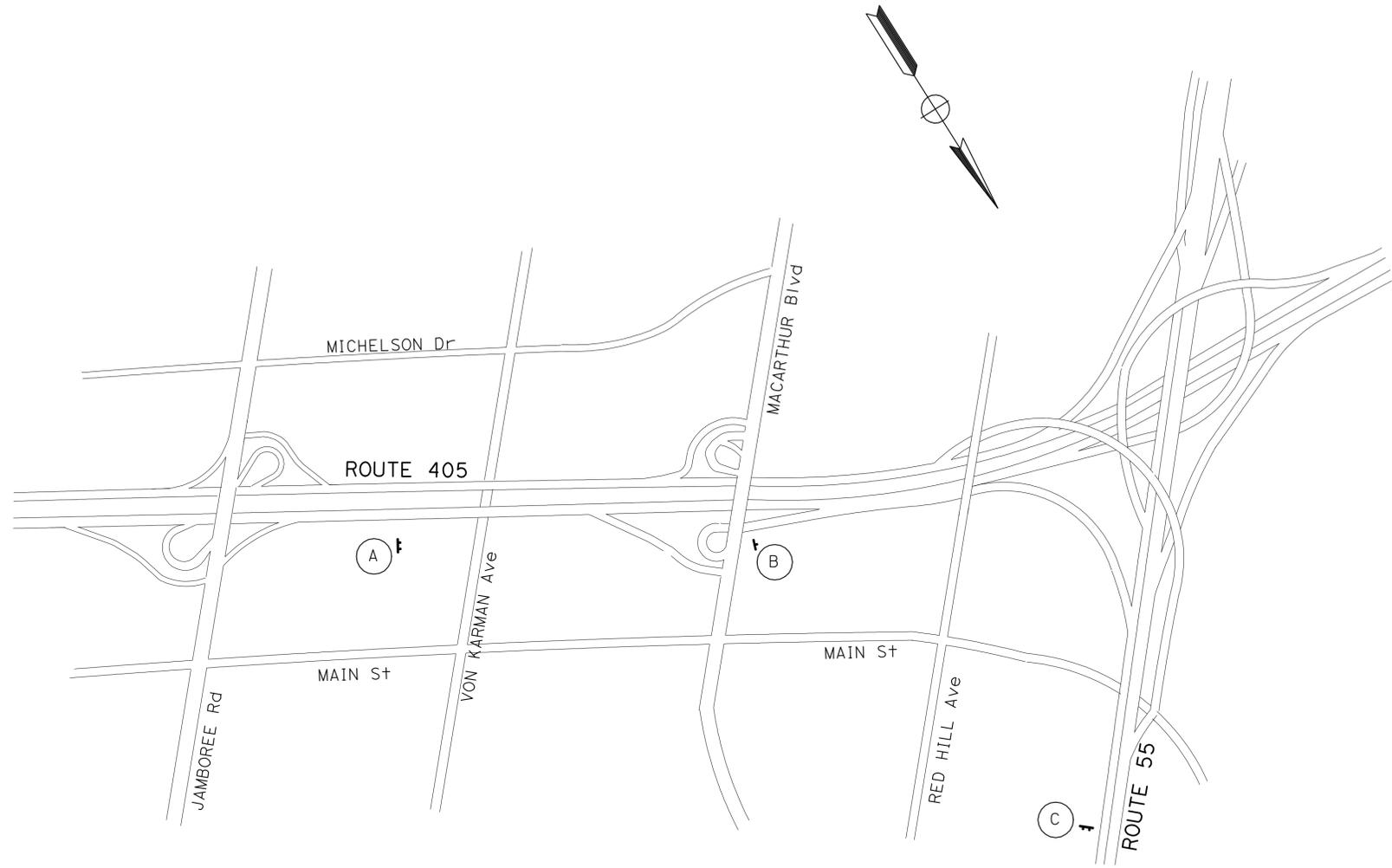
APPROVED FOR CONSTRUCTION AREA SIGNS WORK ONLY

CS-2

LAST REVISION | DATE PLOTTED => 08-MAR-2013 01-25-13 | TIME PLOTTED => 11:34

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans MAINTENANCE	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	PHAT TRAN	REVISOR	ANH TRAN
	MASSOUD TAJIK	CHECKED BY	ANH TRAN	DATE REVISED	01-04-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	20	29
		ANH TRAN 01-29-2012		REGISTERED CIVIL ENGINEER DATE	
		3-4-13		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>					



CONSTRUCTION AREA SIGNS

NO SCALE

APPROVED FOR CONSTRUCTION AREA SIGNS WORK ONLY

CS-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

PHAT TRAN
 ANH TRAN
 REVISOR: PHAT TRAN
 DATE: 12/01/12
 AT: 12/01/12

NOTES:

1. DURING THE NB ROUTE 57 ORANGETHORPE OFF-RAMP CLOSURE, THE PCMS SHOULD READ:

ORANGETHORPE CLOSED USE CHAPMAN Ave
 PCMS-1

DETOUR ORANGETHORPE EXIT HERE
 PCMS-2

2. DURING THE EB 91 KRAEMER Blvd OFF-RAMP CLOSURE, THE PCMS SHOULD READ:

KRAEMER CLOSED USE TUSTIN Ave
 PCMS-3

DETOUR KRAEMER EXIT HERE
 PCMS-4

LEGEND:

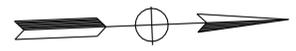
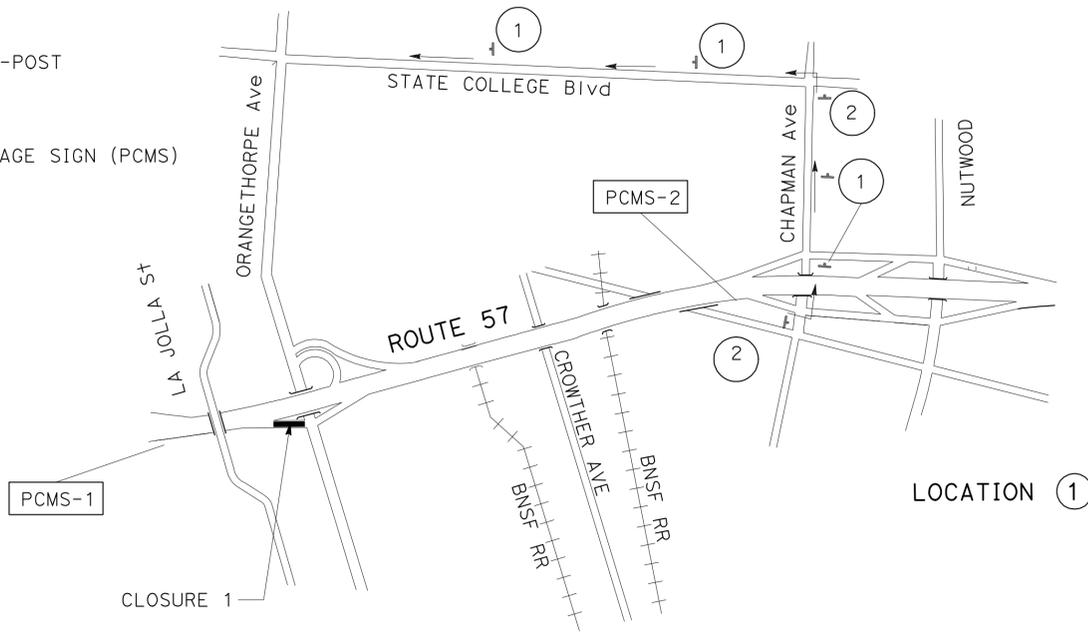
- CONSTRUCTION DETOUR SIGN
- CONSTRUCTION AREA
- ⊥ CONSTRUCTION AREA SIGN, 1-POST
- DIRECTION OF TRAVEL
- ▭ PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57,91,405	Var	21	29

01-29-2012
 REGISTERED CIVIL ENGINEER DATE
 ANH P. TRAN
 No. C. 56206
 Exp. 12/31/14
 CIVIL
 STATE OF CALIFORNIA

3-4-13
 PLANS APPROVAL DATE

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CLOSURE 1:

OFF-RAMP - NB ROUTE 57 ORANGETHORPE Ave

DETOUR:

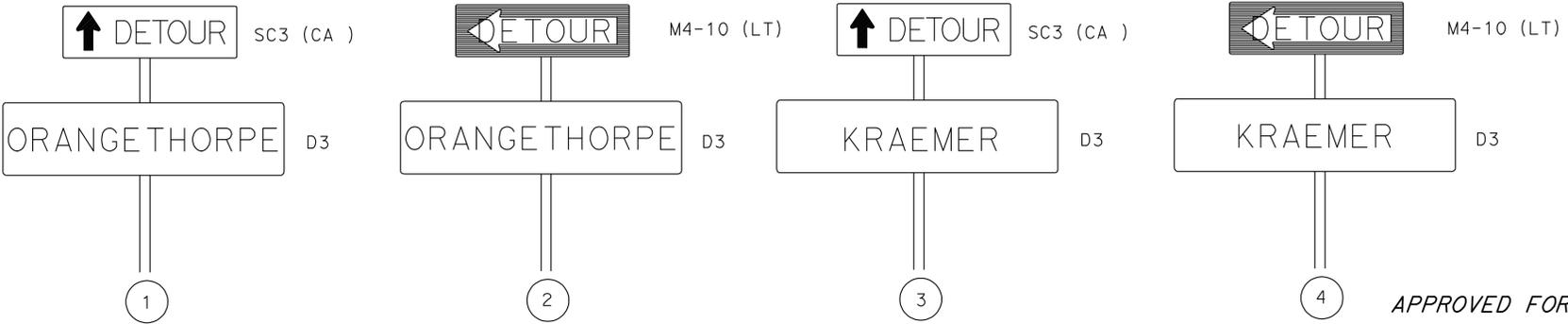
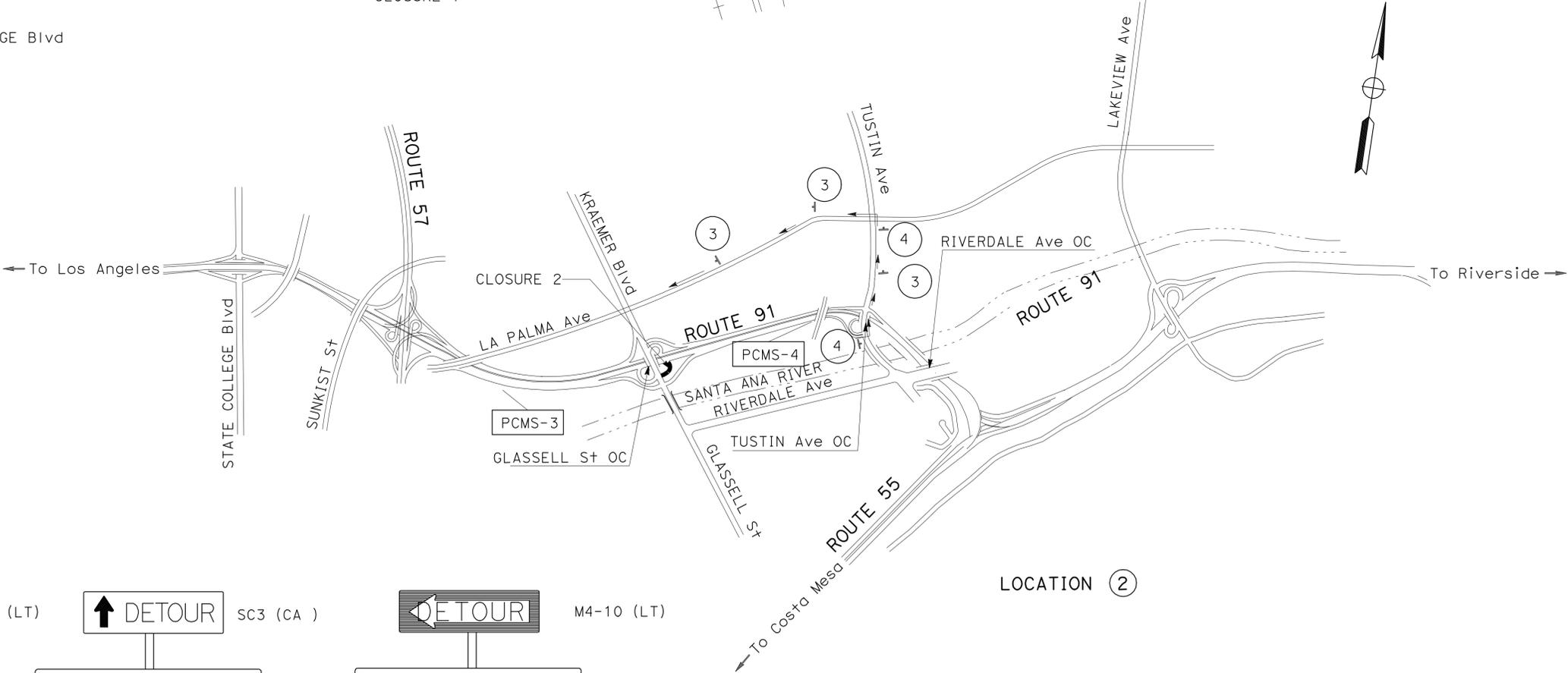
Exit Chapman Ave, LEFT ON CHAPMAN Ave, AND LEFT ON STATE COLLEGE Blvd

CLOSURE 2:

OFF-RAMP - EB ROUTE 91 KRAEMER Blvd

DETOUR:

Exit TUSTIN Ave, LEFT ON TUSTIN Ave, AND LEFT ON LA PALMA Ave



DETOUR PLAN
 NO SCALE
DE-1

APPROVED FOR TRAFFIC HANDLING WORK ONLY

LAST REVISION DATE PLOTTED => 08-MAR-2013 01-25-13 TIME PLOTTED => 14:44

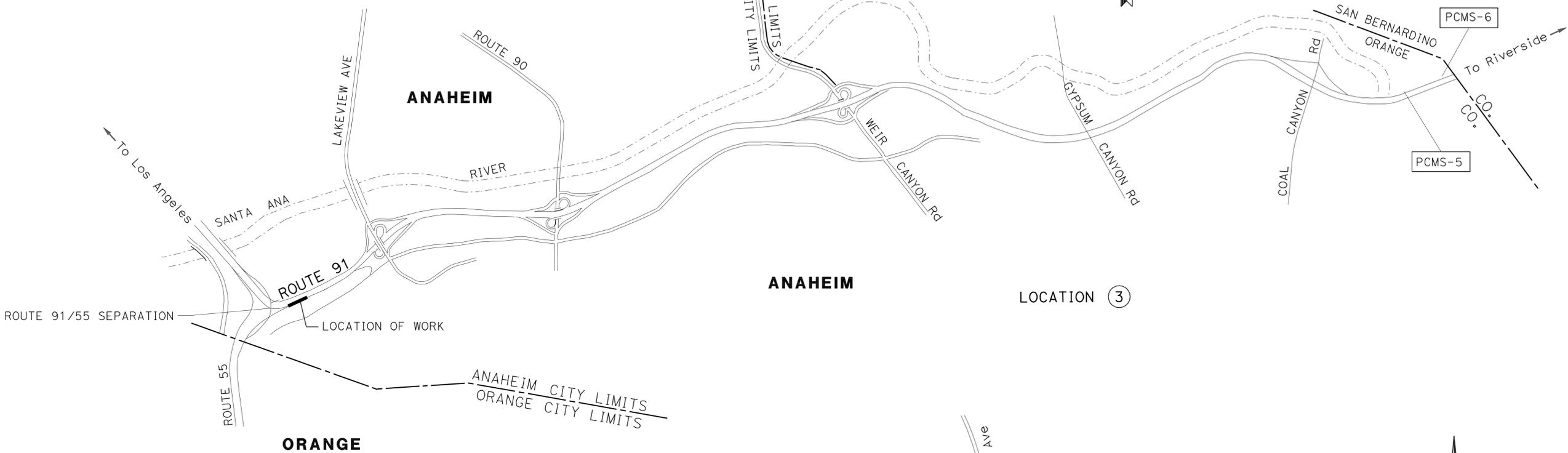
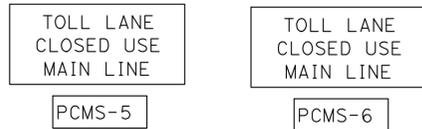
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

FUNCTIONAL SUPERVISOR	MASSOUD TAJIK
CALCULATED/DESIGNED BY	CHECKED BY
PHAT TRAN	ANH TRAN
REVISED BY	DATE REVISED
LH	09/17/12

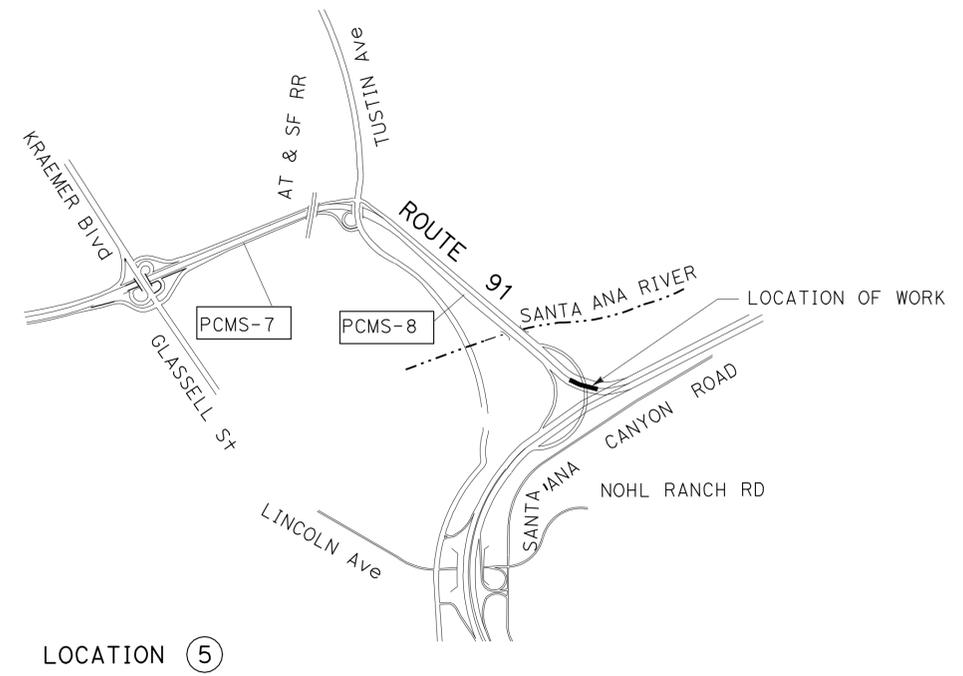
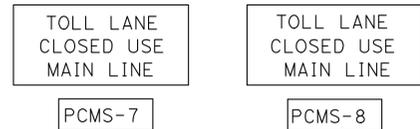
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57,91,405	Var	22	29
ANH P. TRAN REGISTERED CIVIL ENGINEER No. C 56206 Exp. 12/31/14 CIVIL			01-29-2012 DATE 3-4-13 PLANS APPROVAL DATE		

NOTES:

1. DURING THE WB ROUTE 91 EXPRESS TOLL LANE CLOSURE, THE PCMS SHOULD READ:



2. DURING THE EB ROUTE 91 EXPRESS TOLL LANE CLOSURE, CLOSURE, THE PCMS SHOULD READ:



DETOUR PLAN
NO SCALE

APPROVED FOR TRAFFIC HANDLING WORK ONLY

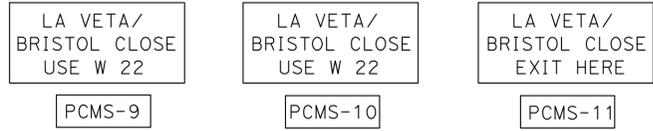
DE-2

LAST REVISION DATE PLOTTED => 08-MAR-2013 01-25-13 TIME PLOTTED => 11:34

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	23	29
		01-29-2012			
REGISTERED CIVIL ENGINEER		DATE			
3-4-13		PLANS APPROVAL DATE			
ANH P. TRAN No. C 56206 Exp. 12/31/14 CIVIL					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTE:

DURING THE SB ROUTE 57 TO WB ROUTE 22 CONNECTOR CLOSURE, THE PCMS SHOULD READ:

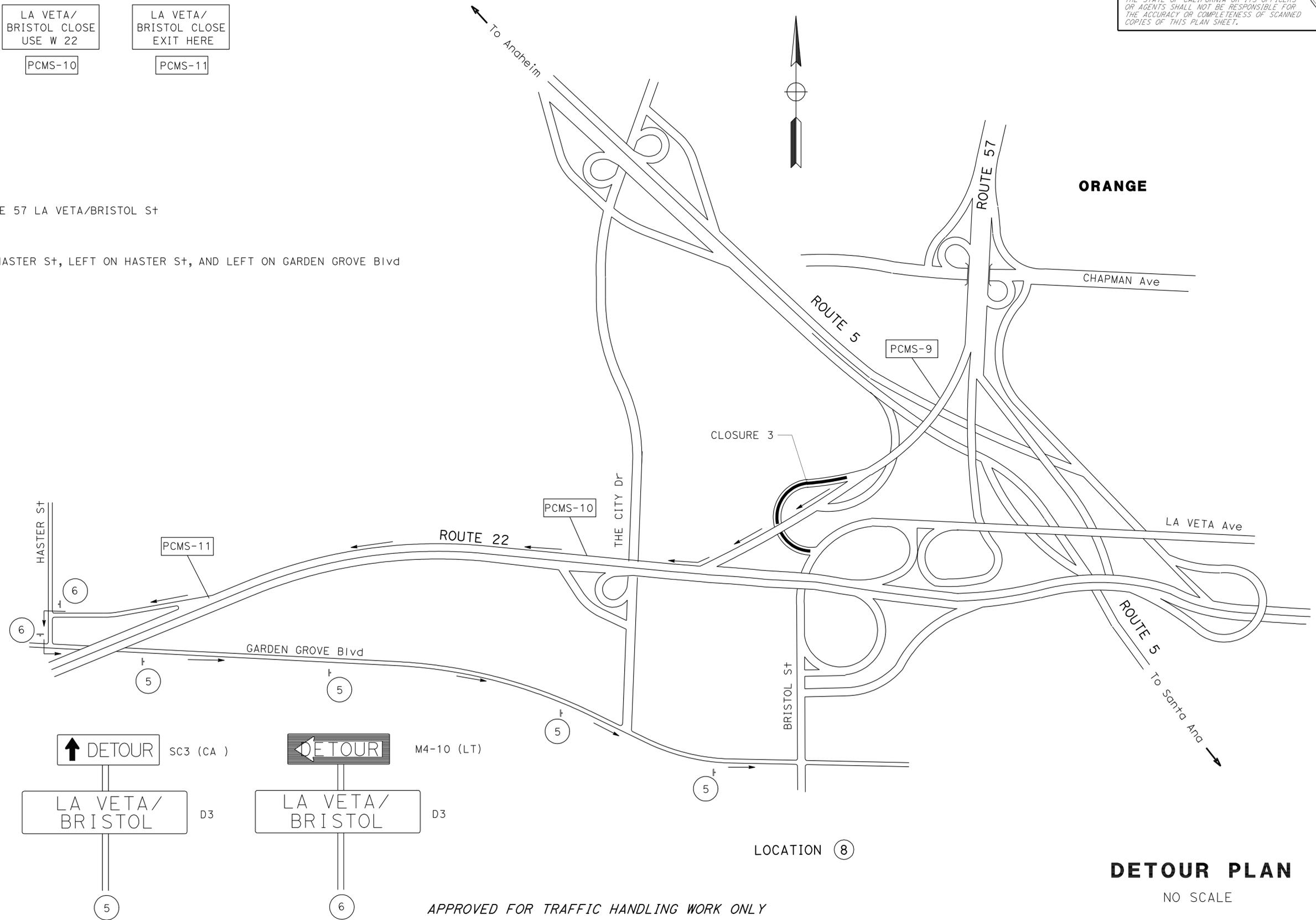


CLOSURE 3:

OFF-RAMP - SB ROUTE 57 LA VETA/BRISTOL ST

DETOUR:

WB ROUTE 22, Exit HASTER St, LEFT ON HASTER St, AND LEFT ON GARDEN GROVE Blvd



APPROVED FOR TRAFFIC HANDLING WORK ONLY

DETOUR PLAN

NO SCALE

DE-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	MAINTENANCE
FUNCTIONAL SUPERVISOR	MASSOUD TAJIK
CALCULATED/DESIGNED BY	CHECKED BY
PHAT TRAN	ANH TRAN
REVISOR	DATE
AT	09/17/12

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	MAINTENANCE	FUNCTIONAL SUPERVISOR	MASSOUD TAJIK	CALCULATED/DESIGNED BY	PHAT TRAN	REVISOR	AT
Caltrans				CHECKED BY	ANH TRAN	DATE REVISED	09/17/12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57,91,405	Var	24	29
		01-29-2012			
REGISTERED CIVIL ENGINEER		DATE			
3-4-13		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>					

NOTE:

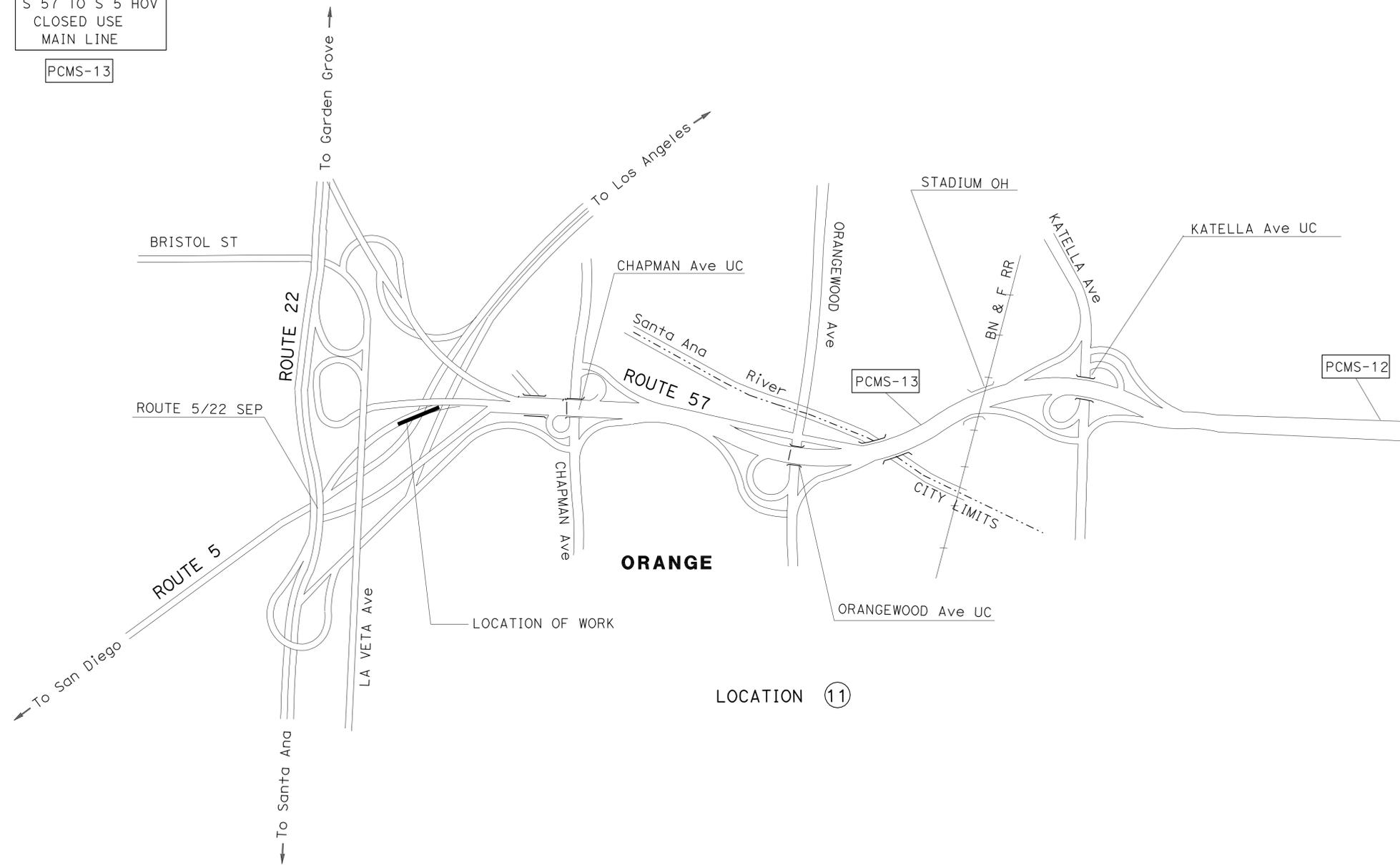
DURING THE SB ROUTE 57 TO SB ROUTE 5 HOV CONNECTOR CLOSURE, THE PCMS SHOULD READ:

S 57 TO S 5 HOV
CLOSED USE
MAIN LINE

PCMS-12

S 57 TO S 5 HOV
CLOSED USE
MAIN LINE

PCMS-13



DETOUR PLAN
NO SCALE

APPROVED FOR TRAFFIC HANDLING WORK ONLY

DE-4



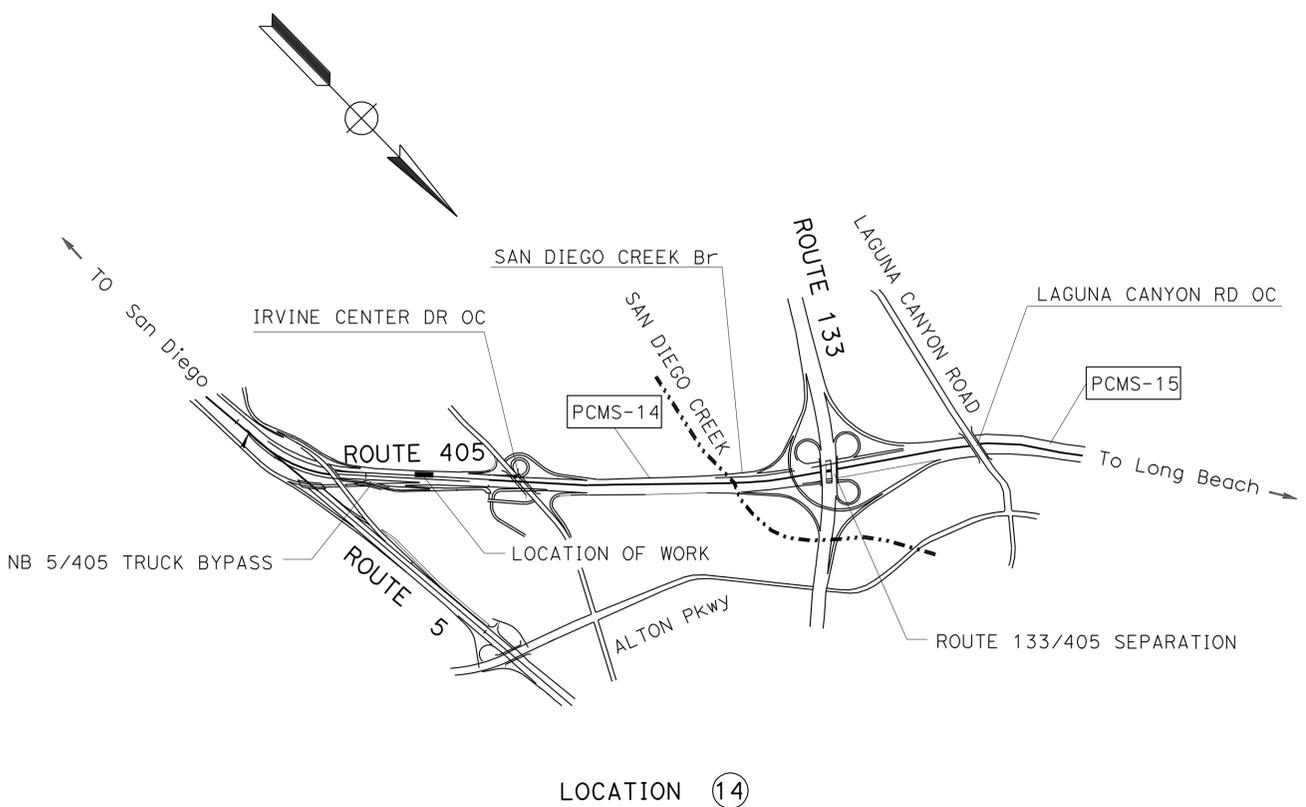
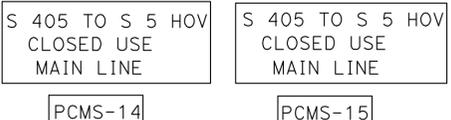
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57,91,405	Var	25	29

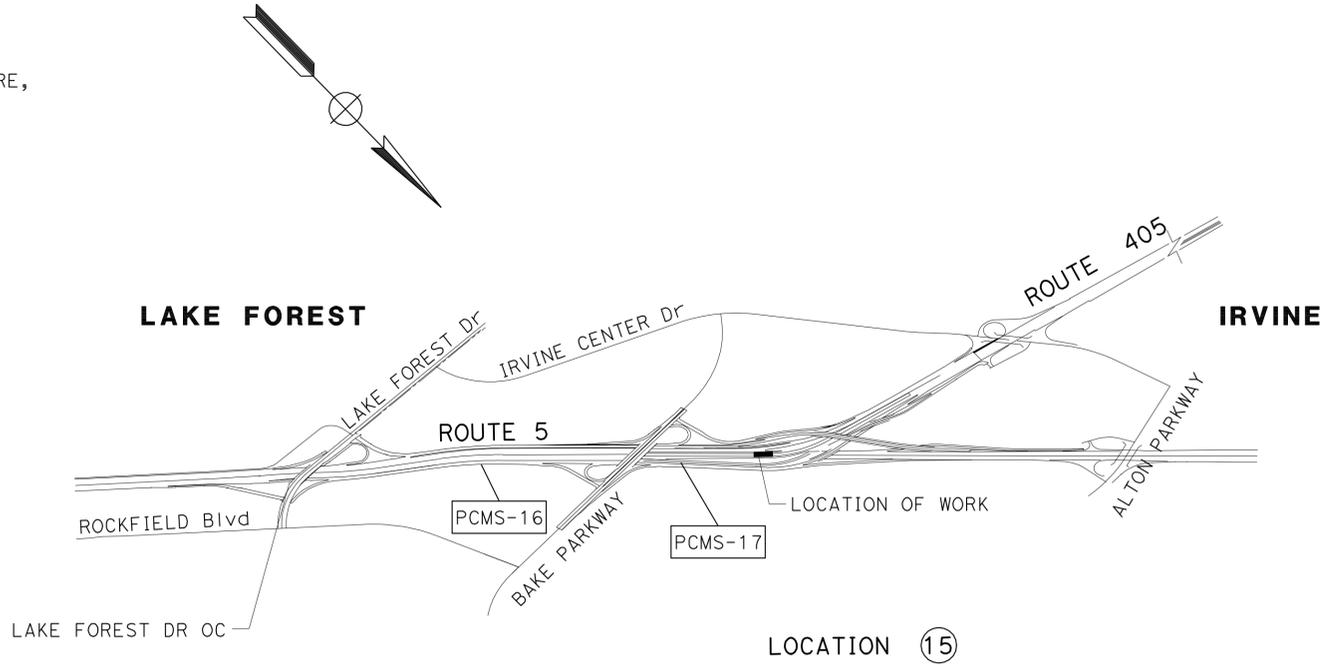
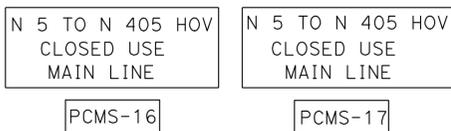
01-29-2012
 REGISTERED CIVIL ENGINEER DATE
 ANH P. TRAN
 No. C 56206
 Exp. 12/31/14
 CIVIL
 STATE OF CALIFORNIA

NOTES:

1. DURING THE SB 405 TO SB 5 HOV CLOSURE, THE PCMS SHOULD READ:



2. DURING THE NB ROUTE 5 TO NB ROUTE 405 HOV CLOSURE, THE PCMS SHOULD READ:



DETOUR PLAN
NO SCALE

APPROVED FOR TRAFFIC HANDLING WORK ONLY

DE-5

LAST REVISION DATE PLOTTED => 08-MAR-2013
 01-25-13 TIME PLOTTED => 11:34

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR
 MASSOUD TAJIK
 PHAT TRAN
 ANHTRAN
 REVISOR BY
 DATE REVISOR
 CALCULATED/DESIGNED BY
 CHECKED BY

NOTE:

FOR ADDITIONAL QUANTITIES OF CONSTRUCTION AREA SIGNS, SEE SHEET CS-1.

PORTABLE CHANGEABLE MESSAGE SIGN

SHEET No.	PCMS EA
DE-1 TO DE-5 MAXIMUM No. OF PCMS REQUIRED	3

**CONSTRUCTION AREA SIGNS (DETOUR)
 STATIONARY MOUNTED**

SIGN No.	SIGN CODE	No. OF POST AND SIZE	No. OF SIGNS
①	SC3 (CA)	1-4" X 6"	3
	D3		
②	M4-10 (L+)	1-4" X 6"	2
	D3		
③	SC3 (CA)	1-4" X 6"	3
	D3		
④	M4-10 (L+)	1-4" X 6"	2
	D3		
⑤	SC3 (CA)	1-4" X 6"	4
	D3		
⑥	M4-10 (L+)	1-4" X 6"	2
	D3		
TOTAL			16

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	26	29
<i>Anh Tran</i> REGISTERED CIVIL ENGINEER DATE 01-29-2012					
3-4-13			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>					

DETOUR QUANTITIES

DEQ-1



SHEET No.	LOCATION	CRASH CUSHION (TYPE COMPRESSOR)	CRASH CUSHION (TYPE SCI 100GM)	CRASH CUSHION (TYPE REACT 9CBB)	CRASH CUSHION (TYPE REACT 9SCBS)	CRASH CUSHION (TYPE REACT 62B060)	CRASH CUSHION (TYPE REACT 350 WIDE (96"))	REMOVE CRASH CUSHION	REMOVE CRASH CUSHION (SAND FILLED)	REMOVE METAL BEAM GUARD RAILING	REMOVE ASPHALT CONCRETE SURFACING	REPLACE ASPHALT CONCRETE SURFACING
		EA	EA	EA	EA	EA	EA	EA	EA	LF	SQFT	CY
C-1	①	1							1			
	②	1						1				
C-2	③	1						1				
	④		1					1				
C-3	⑤	1							1	270	1300	
	⑥	1						1				
C-4	⑦						1		1			
	⑧						1		1			
C-5	⑨					1		1				
	⑩			1					1	160	1550	
C-6	⑪		1					1				
	⑫				1			1		60		6
C-7	⑬		1					1				
	⑭							1				
TOTAL		5	4	1	1	1	3	8	7	490	2850	6

SHEET No.	LOCATION	METAL BEAM GUARD RAILING (WOOD POST)	TRANSITION RAILING (TYPE WB)	RAIL TENSIONING ASSEMBLY
		LF	EA	EA
C-2	⑤	650	2	2
C-5	⑪	450	2	2
TOTAL		1100	4	4

SHEET No.	LOCATION	Temp RAILING (TYPE K)	Temp CRASH CUSHION MODULE	CHANNELIZER (SURFACE MOUNTED)
		LF	EA	EA
C-2	④	300	21	22
	⑤	540	21	44
C-3	⑦	260	21	26
C-4	⑧	260	21	26
	⑨	280	21	26
C-5	⑩	320	21	34
	⑪	440	21	30
C-6	⑬	320	21	32
	⑭	340	21	24
TOTAL		3060	189	264

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57,91,405	Var	27	29

Anh Tran 02-27-2013
 REGISTERED CIVIL ENGINEER DATE
 3-4-13
 PLANS APPROVAL DATE

ANH P. TRAN
 No. C 56206
 Exp. 12/31/14
 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.

SUMMARY OF QUANTITIES

Q-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	5,55,57, 91,405	Var	28	29

<i>Gurinderpal Bhullar</i>	12-7-12
REGISTERED CIVIL ENGINEER	DATE
3-4-13	
PLANS APPROVAL DATE	

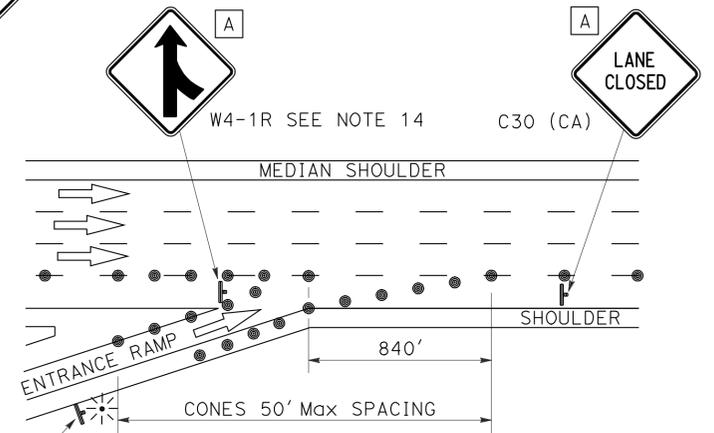
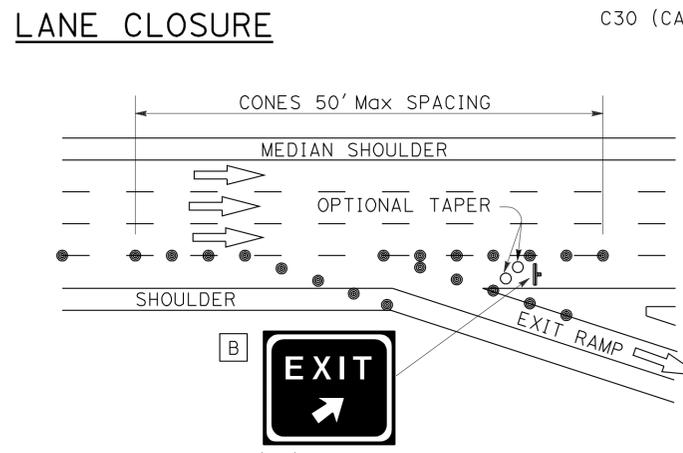
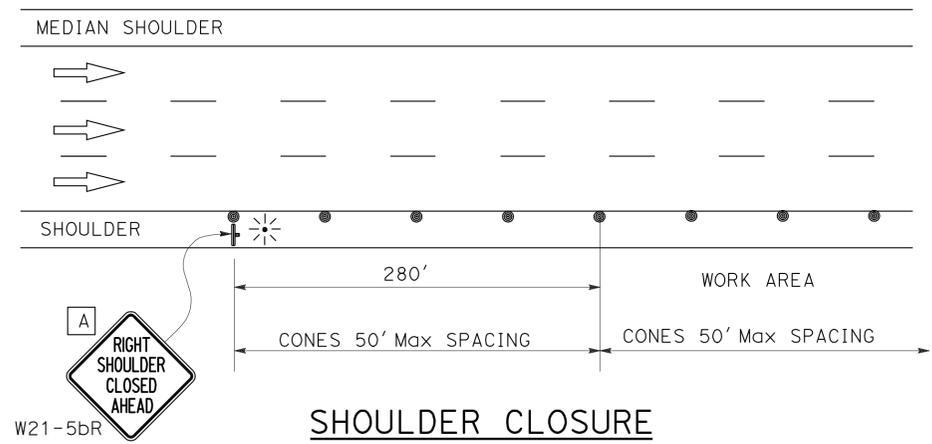
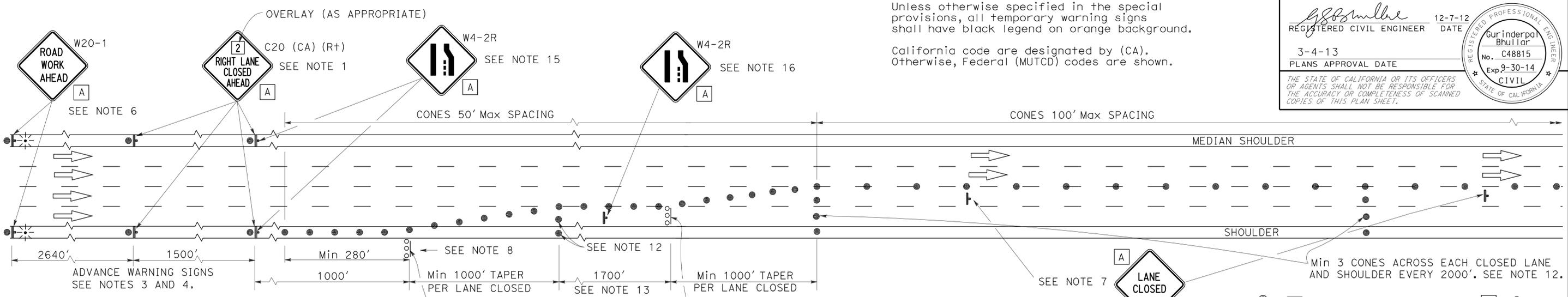
No. C48815
 Exp. 9-30-14
 CIVIL

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NOTES:

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

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



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
DATE

CALCULATED-DESIGNED BY
CHECKED BY

FUNCTIONAL SUPERVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

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
12	Ora	5,55,57, 91,405	Var	29	29

Gurinderpal Bhullar
 REGISTERED CIVIL ENGINEER 12-7-12 DATE
 No. C48815
 Exp. 9-30-14
 CIVIL

3-4-13
 PLANS APPROVAL DATE

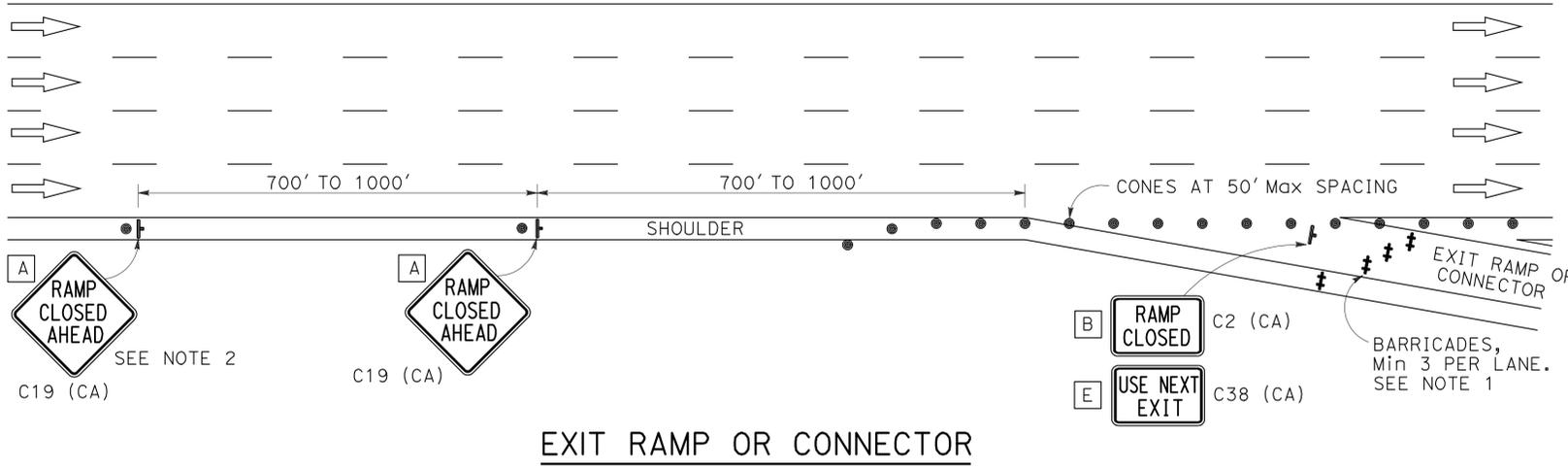
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LEGEND

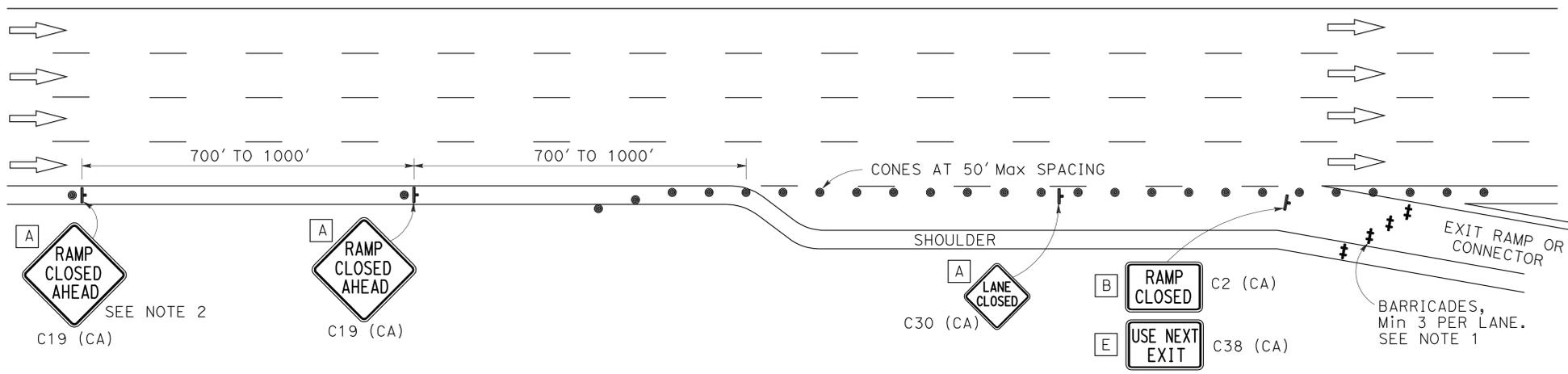
- TRAFFIC CONE
- † TEMPORARY SIGN
- ‡ BARRICADES

NOTES:

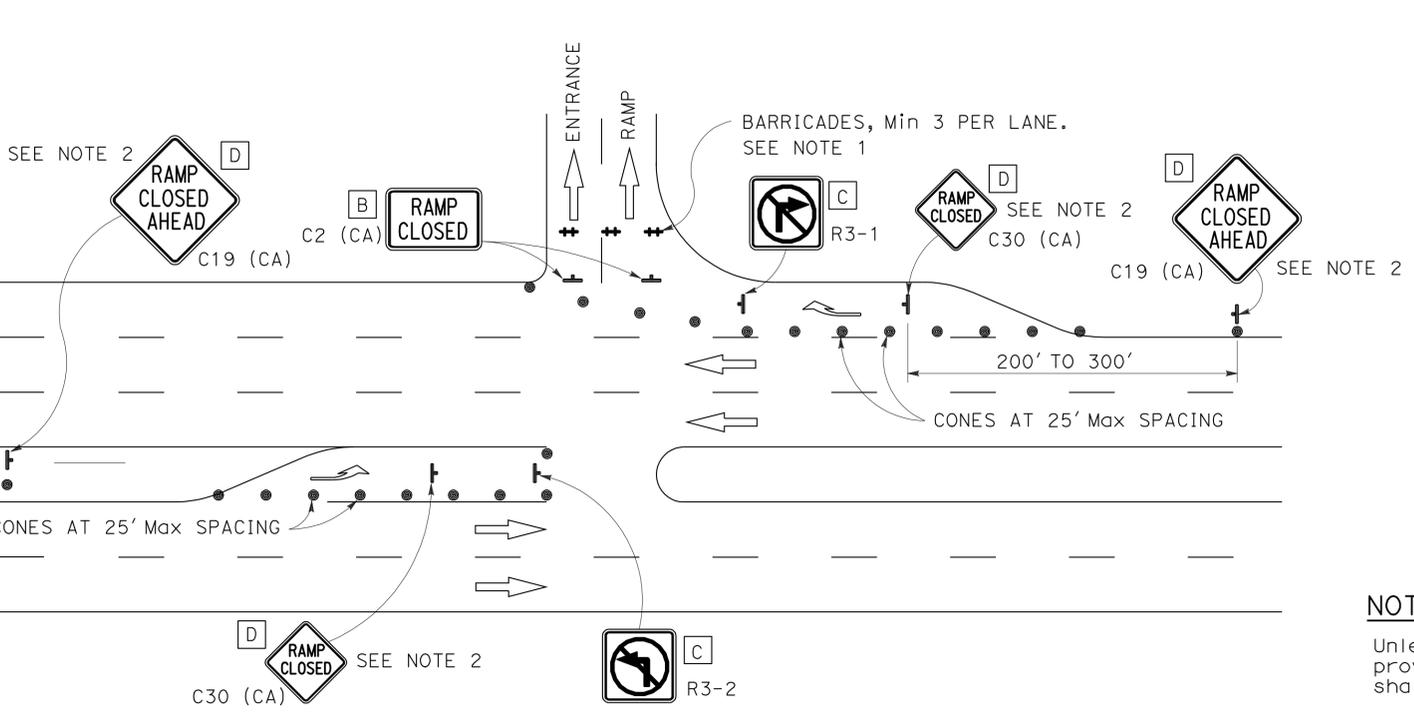
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19 (CA) "RAMP CLOSED AHEAD" and C30 (CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed 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.



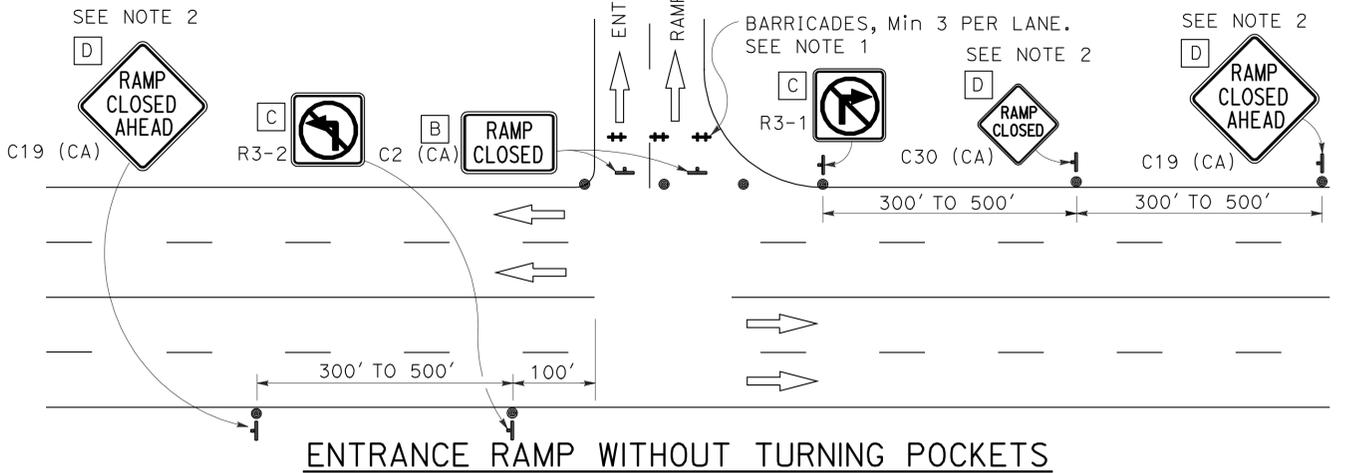
EXIT RAMP OR CONNECTOR



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-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans

REVISOR BY DATE
 CALCULATED/DESIGNED BY
 CHECKED BY

FUNCTIONAL SUPERVISOR

BORDER LAST REVISED 7/2/2010
 USERNAME => s114926
 DGN FILE => tcs14.dgn

RELATIVE BORDER SCALE IS IN INCHES

UNIT 0000

PROJECT NUMBER & PHASE

0000000001

LAST REVISION DATE PLOTTED => 08-MAR-2013
 00-00-00 TIME PLOTTED => 11:36