

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 **ACNHP-Q101(285)E**  
**DEPARTMENT OF TRANSPORTATION**  
**PROJECT PLANS FOR CONSTRUCTION ON**  
**STATE HIGHWAY**  
**IN VENTURA COUNTY AT LA CONCHITA**  
**FROM 0.6 MILE NORTH OF MOBIL PIER UNDERCROSSING**

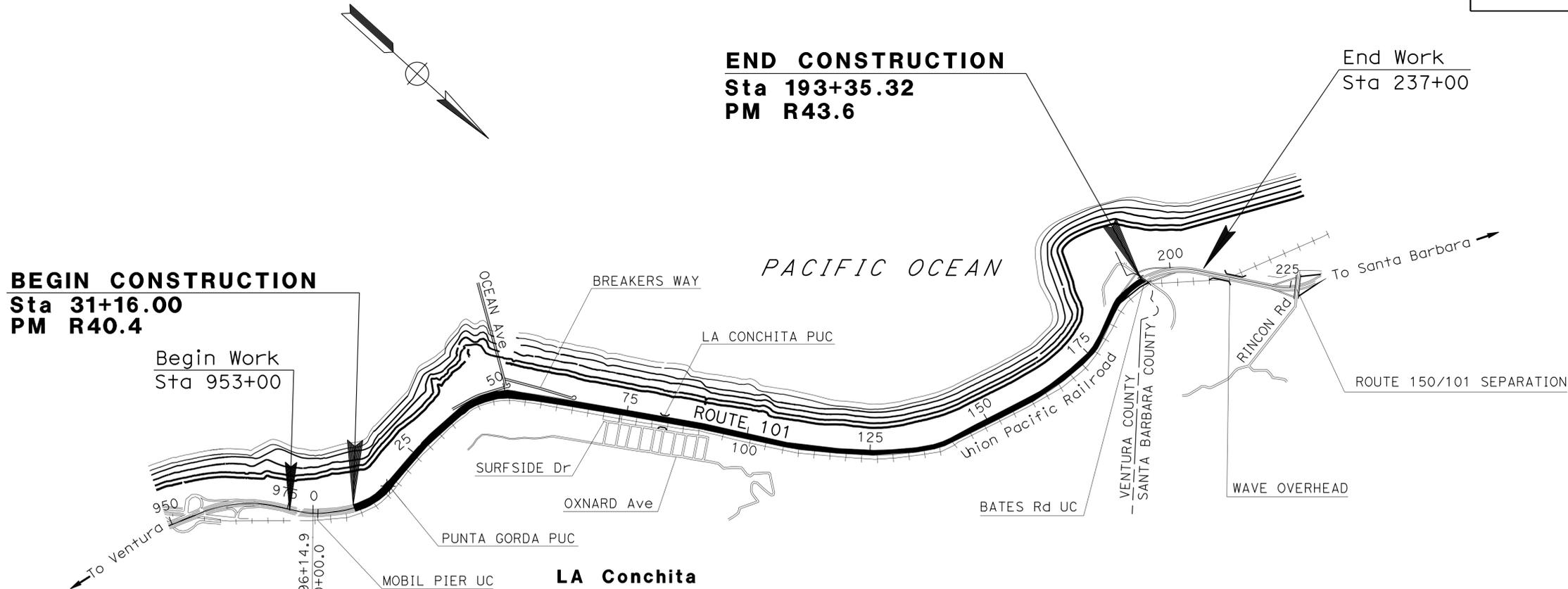
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	1	48



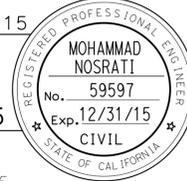


LOCATION MAP



PROJECT MANAGER: SHAHRIAR YADECARI  
DESIGN MANAGER: CHARLES TON

  
 PROJECT ENGINEER REGISTERED CIVIL ENGINEER  
 DATE: 9-20-15  
 PLANS APPROVAL DATE: September 28, 2015  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



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

NO SCALE

CONTRACT No.	<b>07-251904</b>
PROJECT ID	<b>0700021082</b>

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	2	48

9-20-15  
 REGISTERED CIVIL ENGINEER DATE  
 9-28-15  
 PLANS APPROVAL DATE

MOHAMMAD NOSRATI  
 No. 59597  
 Exp. 12/31/15  
 CIVIL  
 STATE OF CALIFORNIA

**NOTES:**

- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- DO NOT COLD PLANE, PLACE RHMA-G, OR HMA-A ON BRIDGE DECKS AND APPROACH SLABS.
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

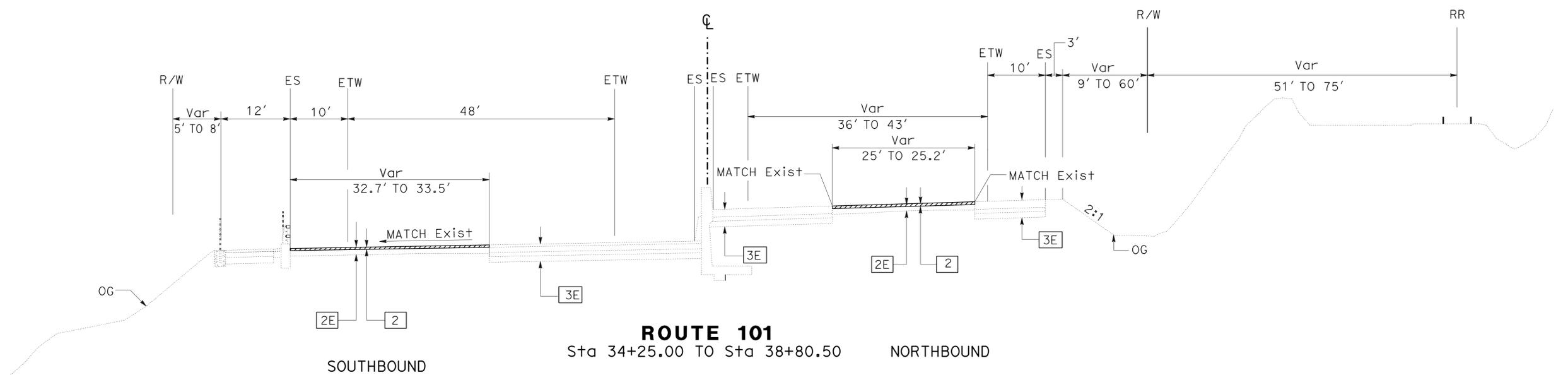
**Exist STRUCTURAL SECTIONS**

- 1E 0.75' PCC  
0.45' CEMENT TREATED BASE  
0.50' CLASS B AGGREGATE BASE
- 2E 0.33' ASPHALT CONCRETE (TYPE B)  
0.67' CEMENT TREATED BASE
- 3E 0.95' JOINTED PLAIN CONCRETE PAVEMENT (JPCP)  
0.50' LEAN CONCRETE BASE (LCB)  
0.70' CLASS 3 AGGREGATE BASE (AB)
- 4E 0.30' ASPHALT CONCRETE (TYPE B)  
0.60' CLASS 2 AGGREGATE BASE  
0.80' CLASS 4 AGGREGATE BASE
- 5E 0.20' HOT MIX ASPHALT (TYPE B)  
1.00' IMPORTED SUBBASE MATERIALS
- 6E 0.25' HOT MIX ASPHALT (TYPE B)  
1.00' IMPORTED SUBBASE MATERIALS
- 7E 0.50' HOT MIX ASPHALT (TYPE B)  
0.50' LEAN CONCRETE BASE (LCB)  
0.90' CLASS 3 AGGREGATE BASE (AB)

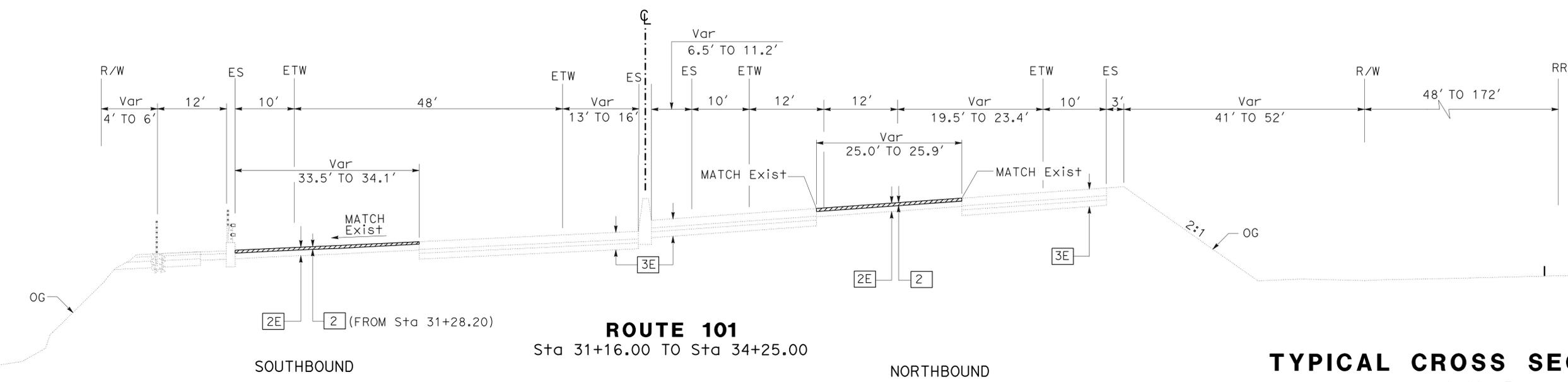
**STRUCTURAL SECTIONS**

- 1 0.75' JPCP-RAPID STRENGTH CONCRETE  
----- BASE BOND BREAKER (GEOSYNTHETIC)  
0.45' LCB-RAPID STRENGTH
- 2 0.35' COLD PLANE AC Pvm+  
0.15' RHMA (GAP GRADED)  
0.20' HMA (TYPE A)
- 3 0.30' COLD PLANE AC Pvm+  
0.15' RHMA (GAP GRADED)  
0.15' HMA (TYPE A)
- 4 0.85' JPCP-RAPID STRENGTH CONCRETE  
----- BASE BOND BREAKER (GEOSYNTHETIC)  
0.35' LCB-RAPID STRNGTH  
0.60' CLASS 3 AB
- 5 0.20' COLD PLANE AC Pvm+  
0.20' RHMA (GAP GRADED)
- 6 0.10' COLD PLANE AC Pvm+  
0.10' RHMA (GAP GRADED)

**PAVEMENT CLIMATE REGION**  
SOUTH COAST



**ROUTE 101**  
Sta 34+25.00 TO Sta 38+80.50  
SOUTHBOUND NORTHBOUND



**ROUTE 101**  
Sta 31+16.00 TO Sta 34+25.00  
SOUTHBOUND NORTHBOUND

**TYPICAL CROSS SECTIONS**  
NO SCALE

**X-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 DESIGN  
 Et Caltrans  
 FUNCTIONAL SUPERVISOR CHARLES TON  
 CHECKED BY SHAFIQ RAHMAN  
 MOHAMMAD NOSRATI  
 REVISOR BY SHAFIQ RAHMAN  
 DATE REVISED 8/7/2015  
 MN

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	3	48

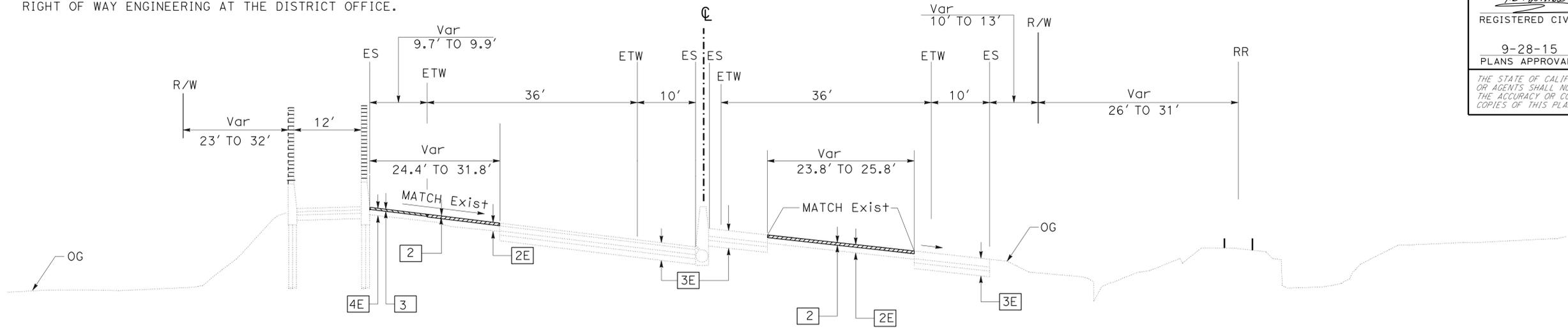
<i>Mohammad Nosrati</i>		9-20-15
REGISTERED CIVIL ENGINEER	DATE	
9-28-15		
PLANS APPROVAL DATE		

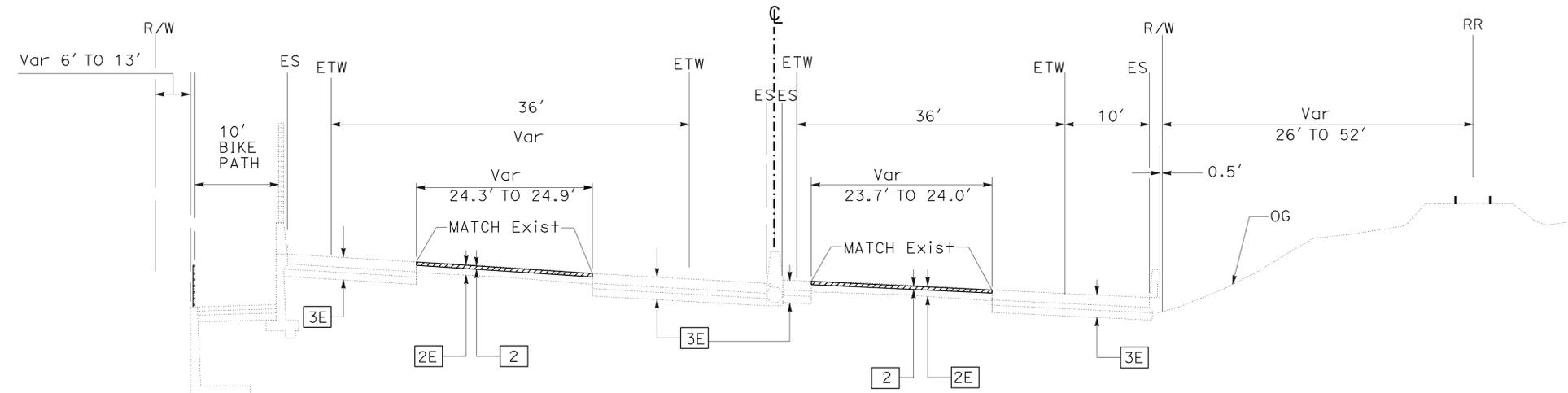
REGISTERED PROFESSIONAL ENGINEER
MOHAMMAD NOSRATI
No. 59597
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

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.

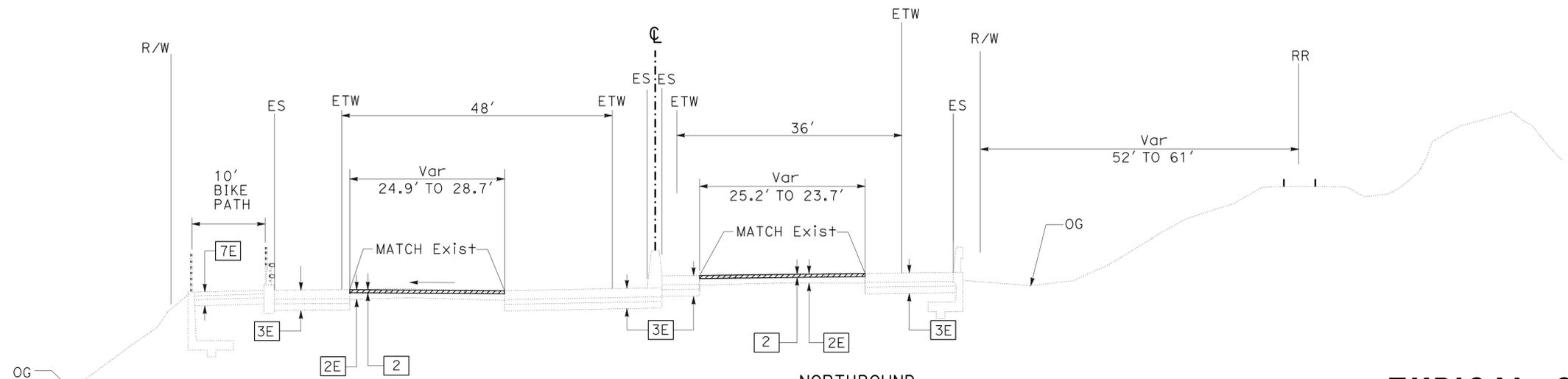
**NOTE:**  
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



**SOUTHBOUND ROUTE 101**      **NORTHBOUND**  
Sta 60+45.00 TO Sta 73+77.00



**SOUTHBOUND ROUTE 101**      **NORTHBOUND**  
Sta 46+00.00 TO Sta 57+44.40



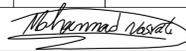
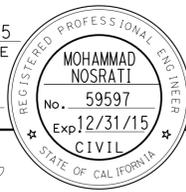
**SOUTHBOUND ROUTE 101**      **NORTHBOUND**  
Sta 38+80.50 TO Sta 46+00.00

**TYPICAL CROSS SECTIONS**  
NO SCALE

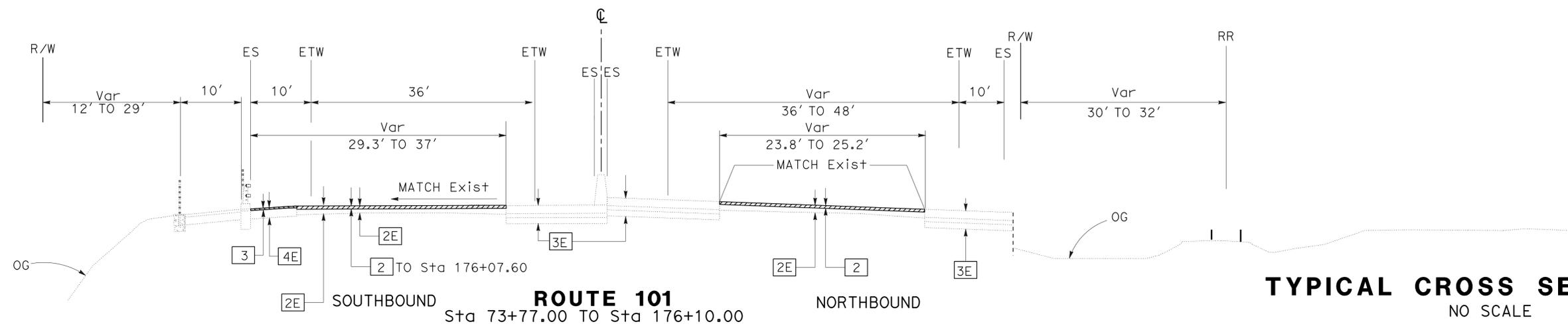
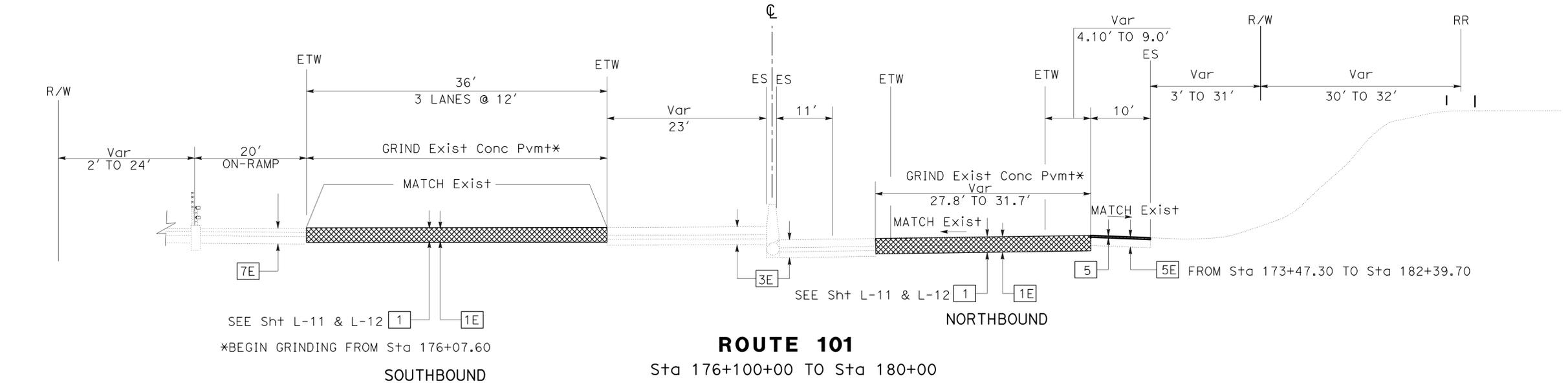
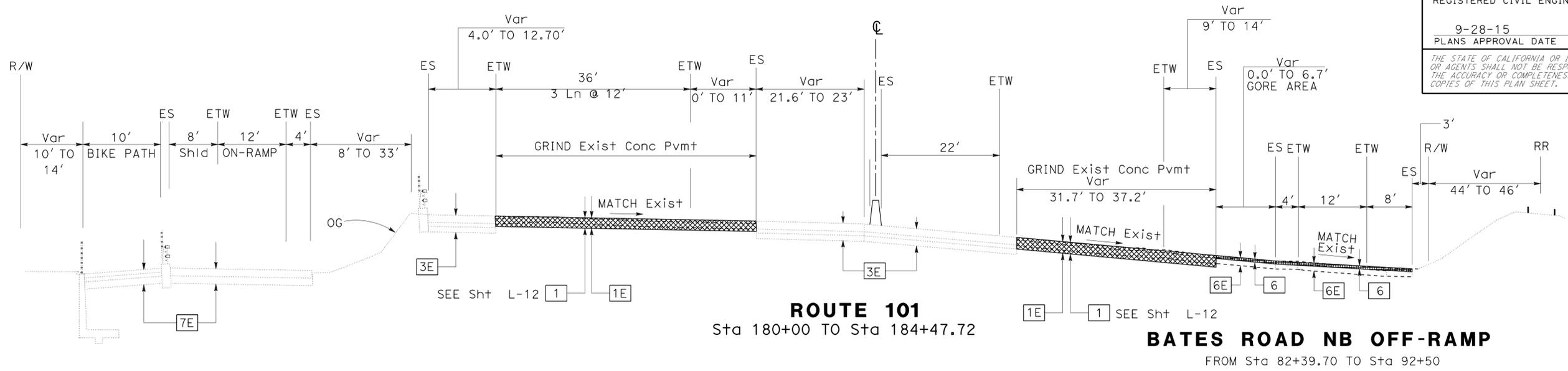
**X-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
<b>Caltrans</b> DESIGN
FUNCTIONAL SUPERVISOR
CHARLES TON
CALCULATED/DESIGNED BY
CHECKED BY
MOHAMMAD NOSRATI
SHAFIQ RAHMAN
REVISOR
DATE REVISED
8/7/2015
MN

LAST REVISION DATE PLOTTED => 22-DEC-2015 00-00-00 TIME PLOTTED => 13:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	4	48
 REGISTERED CIVIL ENGINEER			9-20-15	DATE	
9-28-15 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>					

**NOTE:**  
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



**TYPICAL CROSS SECTIONS**  
 NO SCALE  
**X-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN  
 FUNCTIONAL SUPERVISOR: CHARLES TON  
 CALCULATED/DESIGNED BY: MOHAMMAD NOSRATI  
 CHECKED BY: SHAFIQ RAHMAN  
 REVISOR: MN  
 DATE REVISED: 8/7/2015

USERNAME => s115263  
 DGN FILE => 725190ca003.dgn

RELATIVE BORDER SCALE  
 1" = 15' IN INCHES



UNIT 1807

PROJECT NUMBER & PHASE

07000210821

LAST REVISION DATE PLOTTED => 22-DEC-2015  
 00-00-00 TIME PLOTTED => 13:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	5	48

<i>Mohammad Nosrati</i>	9-20-15
REGISTERED CIVIL ENGINEER	DATE
9-28-15	
PLANS APPROVAL DATE	

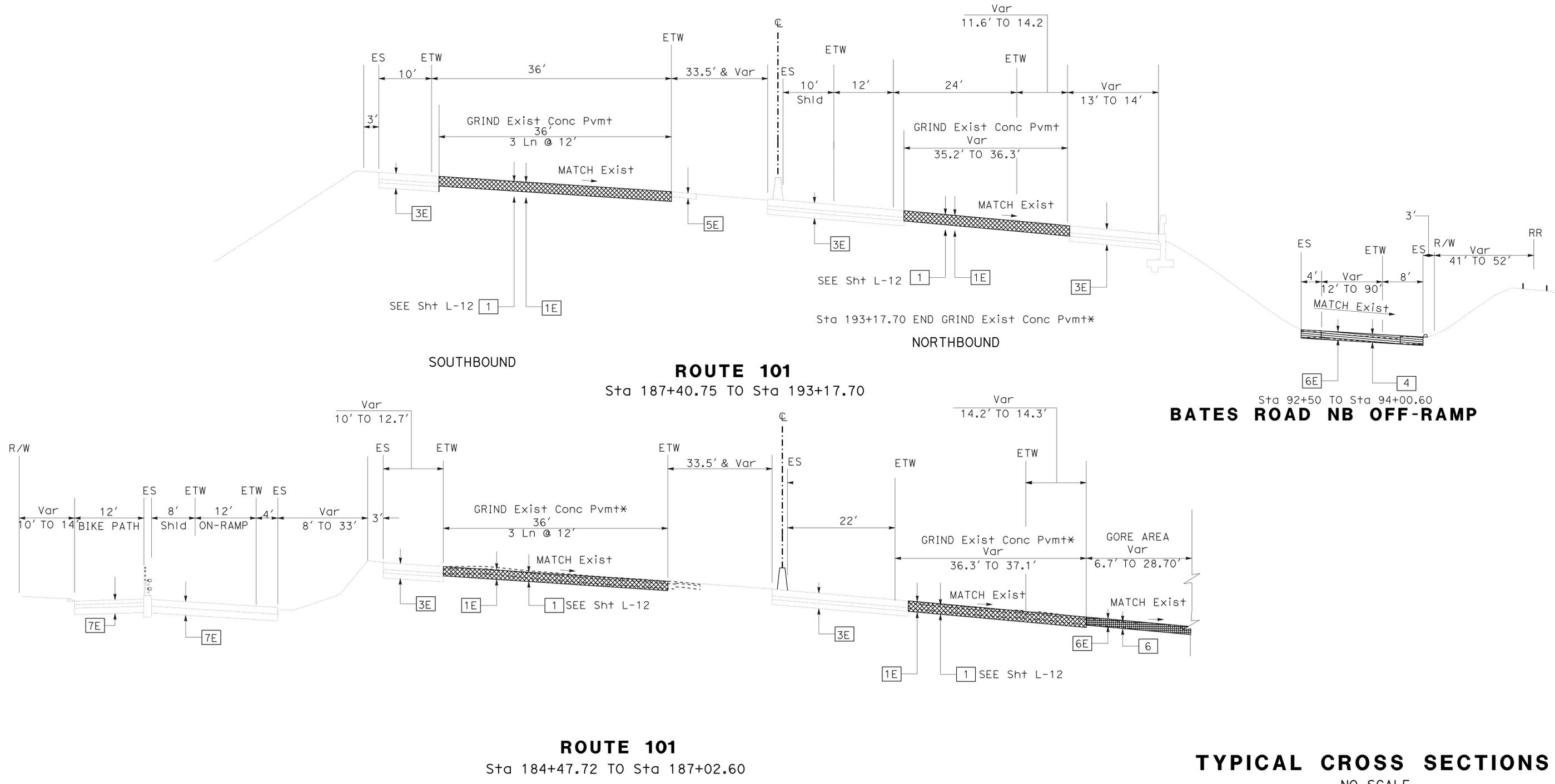
  

REGISTERED PROFESSIONAL ENGINEER
MOHAMMAD NOSRATI
No. 59597
Exp. 12/31/15
CIVIL

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.

**NOTE:**  
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
 RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
<b>Caltrans</b>
DESIGN
FUNCTIONAL SUPERVISOR
CHARLES TON
CALCULATED/DESIGNED BY
CHECKED BY
MOHAMMAD NOSRATI
SHAFIQ RAHMAN
REVISOR BY
DATE REVISED
MN
7/2015

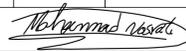


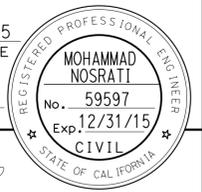
**ROUTE 101**  
 Sta 184+47.72 TO Sta 187+02.60

**TYPICAL CROSS SECTIONS**  
 NO SCALE

**X-4**

LAST REVISION DATE PLOTTED => 22-DEC-2015  
 00-00-00 TIME PLOTTED => 13:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	6	48
			9-20-15	DATE	
REGISTERED CIVIL ENGINEER			DATE		
9-28-15			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>					

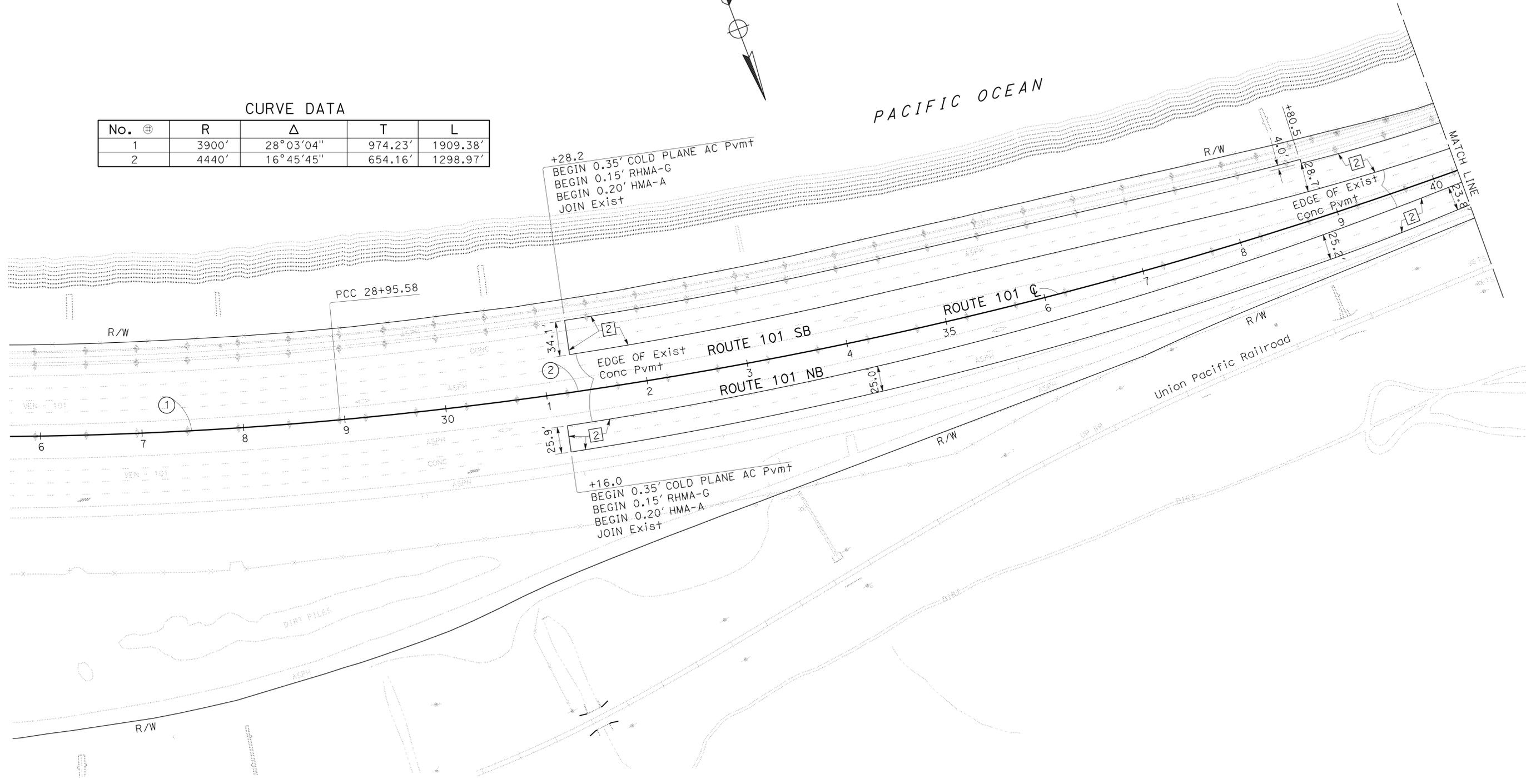


**NOTES:**

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. EXACT LOCATIONS AND DIMENSIONS OF REMOVAL AND SLAB REPLACEMENT WILL BE DETERMINED BY THE ENGINEER.
3. EXACT LOCATIONS OF SPALL REPAIR WILL BE DETERMINED BY THE ENGINEER.
4. EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.

**CURVE DATA**

No.	⊕	R	Δ	T	L
1		3900'	28°03'04"	974.23'	1909.38'
2		4440'	16°45'45"	654.16'	1298.97'



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN  
 FUNCTIONAL SUPERVISOR: CHARLES TON  
 CALCULATED/DESIGNED BY: MOHAMMAD NOSRATI  
 CHECKED BY: SHAFIQ RAHMAN  
 REVISED BY: MN  
 DATE REVISED: 8/7/15

**LAYOUT**  
SCALE: 1" = 50'

**L-1**

LAST REVISION DATE PLOTTED => 22-DEC-2015  
 00-00-00 TIME PLOTTED => 13:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	7	48

REGISTERED CIVIL ENGINEER DATE 9-20-15  
 REGISTERED CIVIL ENGINEER DATE 9-28-15  
 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.

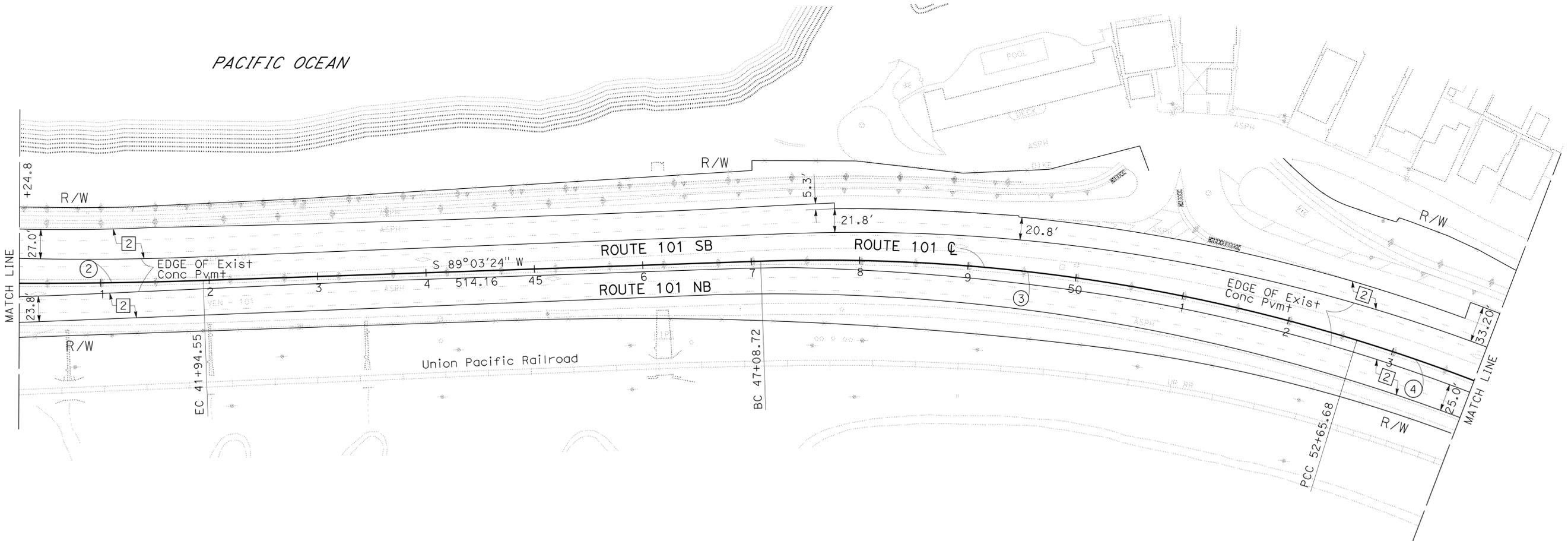
REGISTERED PROFESSIONAL ENGINEER  
 MOHAMMAD NOSRATI  
 No. 59597  
 Exp. 12/31/15  
 CIVIL  
 STATE OF CALIFORNIA

**NOTES:**

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.

**CURVE DATA**

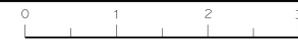
No.	⊕	R	Δ	T	L
2		4440'	16°45'45"	654.16'	1298.97'
3		1681'	18°59'18"	281.06'	556.97'
4		1649'	35°27'44"	527.27'	1020.67'



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN  
 Caltrans®  
 FUNCTIONAL SUPERVISOR CHARLES TON  
 CALCULATED/DESIGNED BY CHECKED BY  
 MOHAMMAD NOSRATI SHAFIQ RAHMAN  
 REVISED BY DATE REVISED  
 MN 8/7/15

**LAYOUT**  
SCALE: 1" = 50'

**L-2**



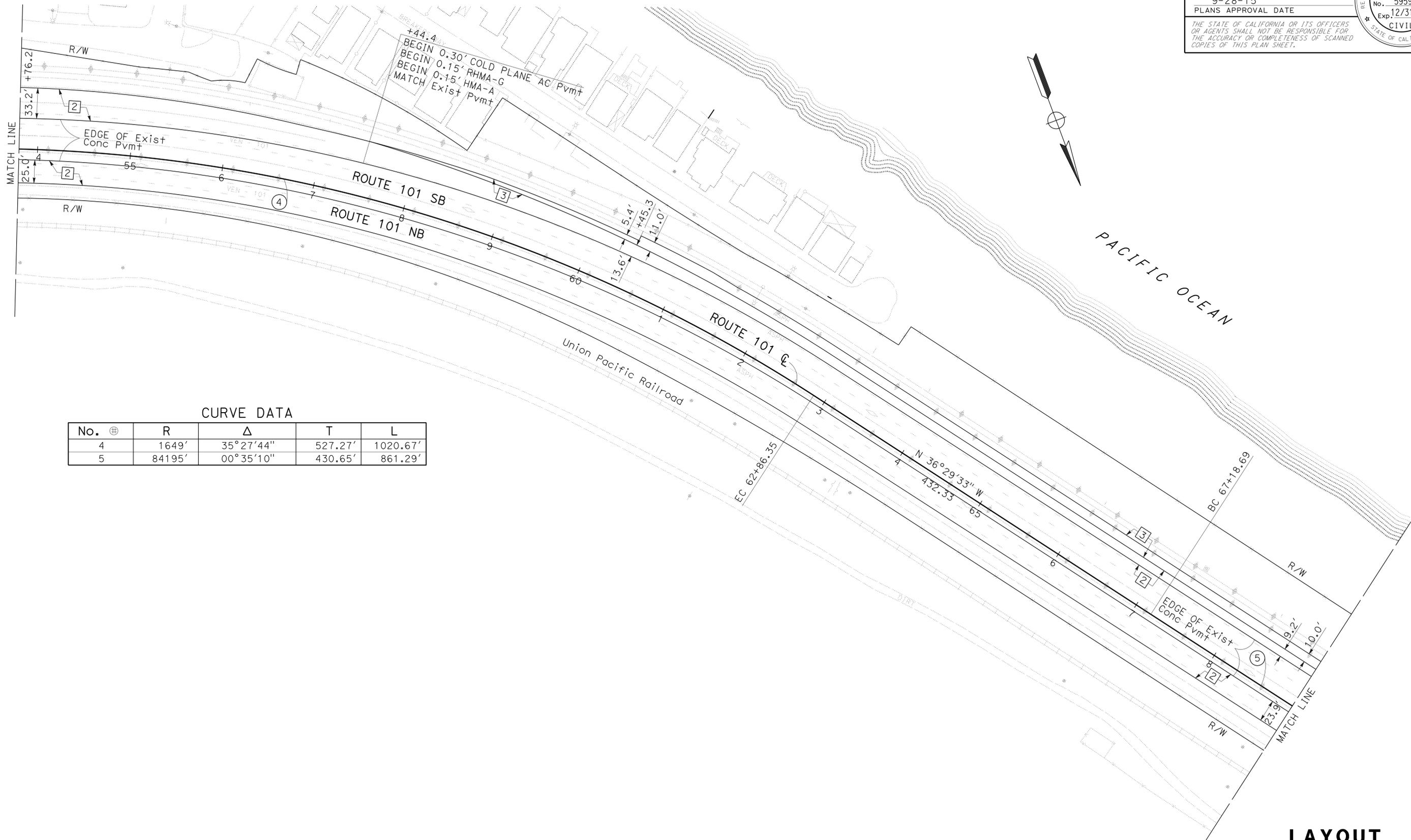
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	8	48

REGISTERED CIVIL ENGINEER DATE 9-20-15  
 REGISTERED PROFESSIONAL ENGINEER MOHAMMAD NOSRATI No. 59597 Exp. 12/31/15 CIVIL  
 PLANS APPROVAL DATE 9-28-15

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**NOTES:**

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- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.



**CURVE DATA**

No.	⊕	R	Δ	T	L
4		1649'	35°27'44"	527.27'	1020.67'
5		84195'	00°35'10"	430.65'	861.29'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN

FUNCTIONAL SUPERVISOR: CHARLES TON  
 MOHAMMAD NOSRATI  
 SHAFIQ RAHMAN  
 REVISOR: MN  
 DATE REVISED: 8/7/15  
 CALCULATED/DESIGNED BY: MOHAMMAD NOSRATI  
 CHECKED BY: SHAFIQ RAHMAN

**LAYOUT**  
SCALE: 1" = 50'

**L-3**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	9	48

REGISTERED CIVIL ENGINEER DATE 9-20-15  
 PLANS APPROVAL DATE 9-28-15

REGISTERED PROFESSIONAL ENGINEER  
 MOHAMMAD NOSRATI  
 No. 59597  
 Exp. 12/31/15  
 CIVIL  
 STATE OF CALIFORNIA

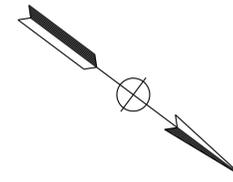
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**NOTES:**

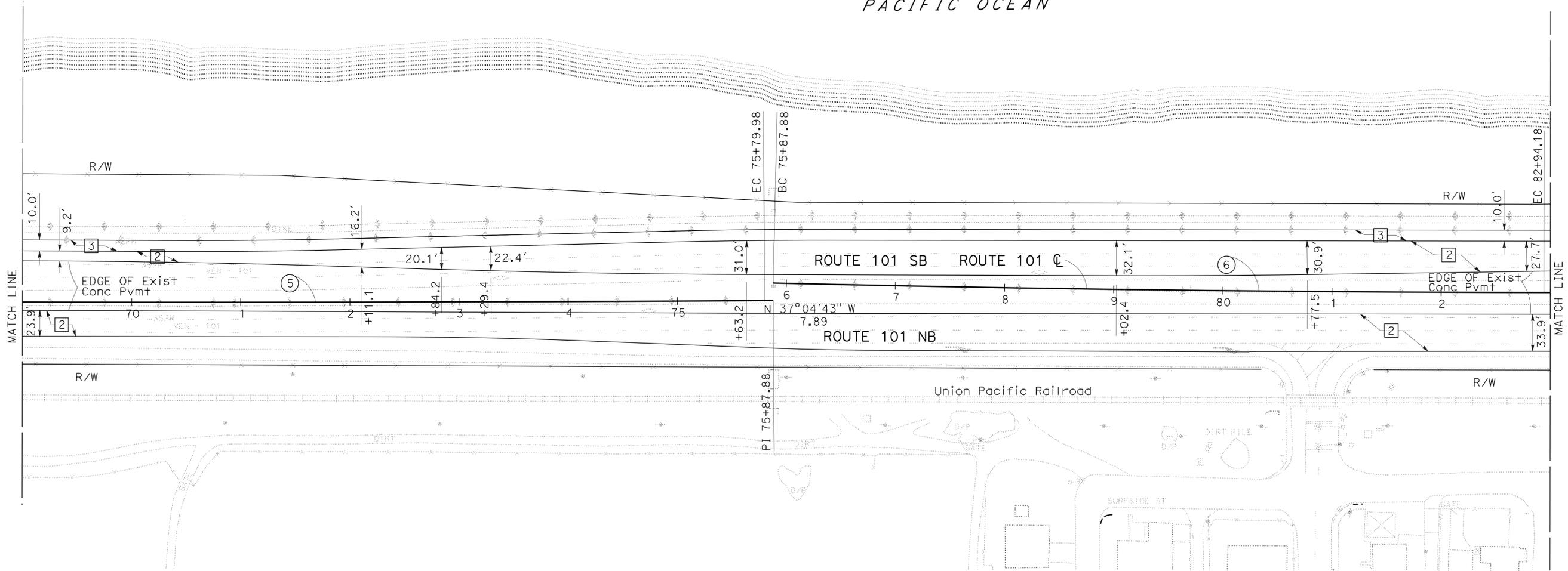
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.

**CURVE DATA**

No.	⊕	R	Δ	T	L
5		84195'	00°35'10"	430.65'	861.29'
6		32074'	01°15'42"	353.16'	706.30'



PACIFIC OCEAN

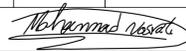


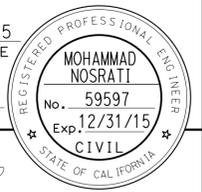
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN  
 FUNCTIONAL SUPERVISOR CHARLES TON  
 CALCULATED/DESIGNED BY CHECKED BY  
 MOHAMMAD NOSRATI SHAFIQ RAHMAN  
 REVISED BY DATE REVISED  
 MN 8/7/15

**LAYOUT**  
SCALE: 1" = 50'

**L-4**

LAST REVISION DATE PLOTTED => 22-DEC-2015  
 00-00-00 TIME PLOTTED => 13:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	10	48
			9-20-15	DATE	
REGISTERED CIVIL ENGINEER			DATE		
9-28-15			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>					

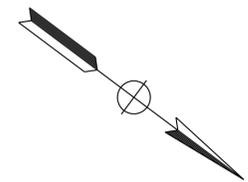


**NOTES:**

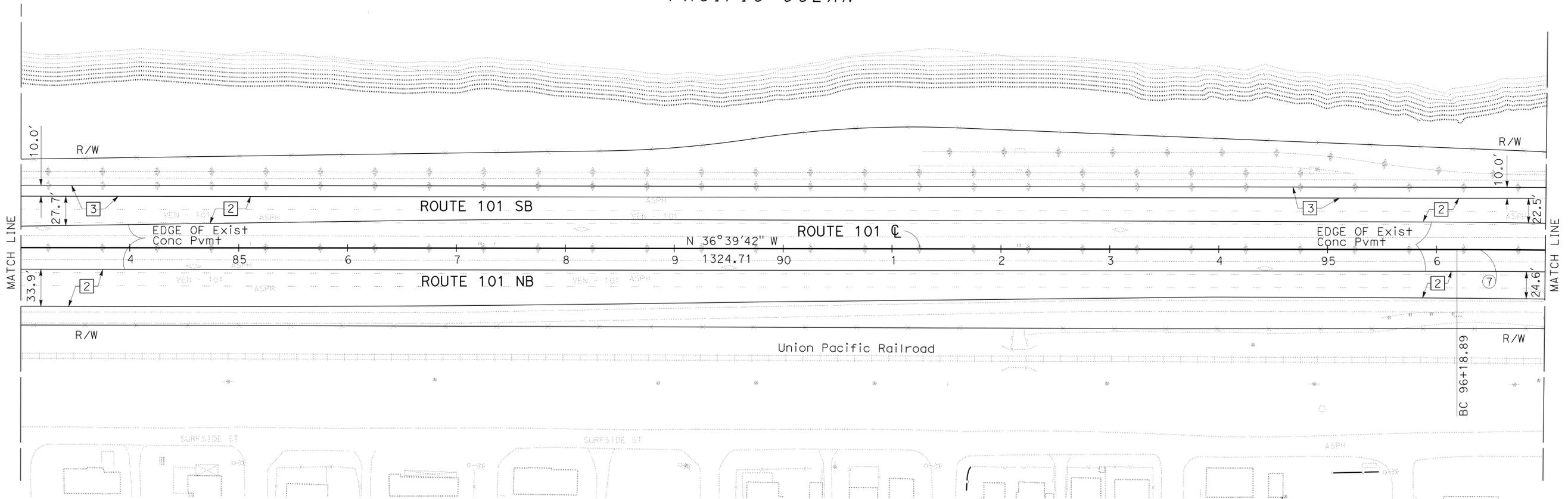
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.

**CURVE DATA**

No. ⊕	R	Δ	T	L
7	8611'	04°22'52"	329.36'	658.40'



PACIFIC OCEAN



MATCH LINE

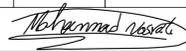
MATCH LINE

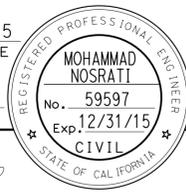
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
	
FUNCTIONAL SUPERVISOR	CHARLES TON
CALCULATED/DESIGNED BY	CHECKED BY
MOHAMMAD NOSRATI	SHAFIQ RAHMAN
REVISOR	DATE
MN	8/7/15

**LAYOUT**  
SCALE: 1" = 50'

**L-5**



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	11	48
			9-20-15	DATE	
REGISTERED CIVIL ENGINEER			DATE		
9-28-15			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:**

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN

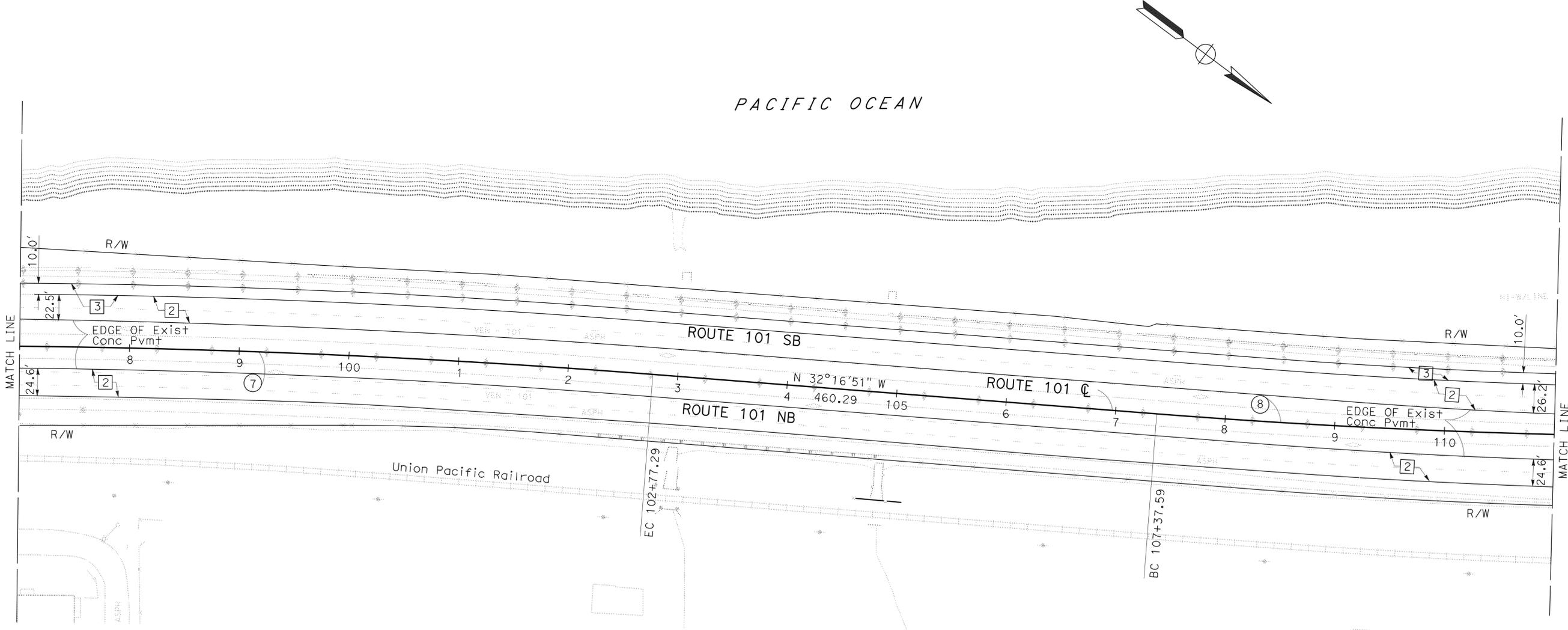
FUNCTIONAL SUPERVISOR  
 CHARLES TON

CALCULATED BY  
 DESIGNED BY  
 CHECKED BY

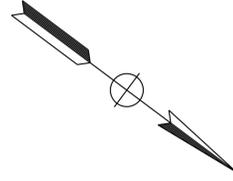
MOHAMMAD NOSRATI  
 SHAFIQ RAHMAN

REVISOR BY  
 DATE REVISED

MN  
 8/7/15



PACIFIC OCEAN

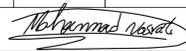


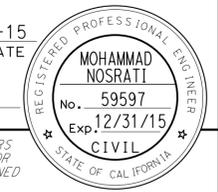
**CURVE DATA**

No. ⊕	R	Δ	T	L
7	8611'	04°22'52"	329.36'	658.40'
8	6893'	09°23'13"	565.91'	1129.28'

**LAYOUT**  
 SCALE: 1" = 50'

**L-6**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	12	48
			9-20-15	DATE	
REGISTERED CIVIL ENGINEER			DATE		
9-28-15			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>					

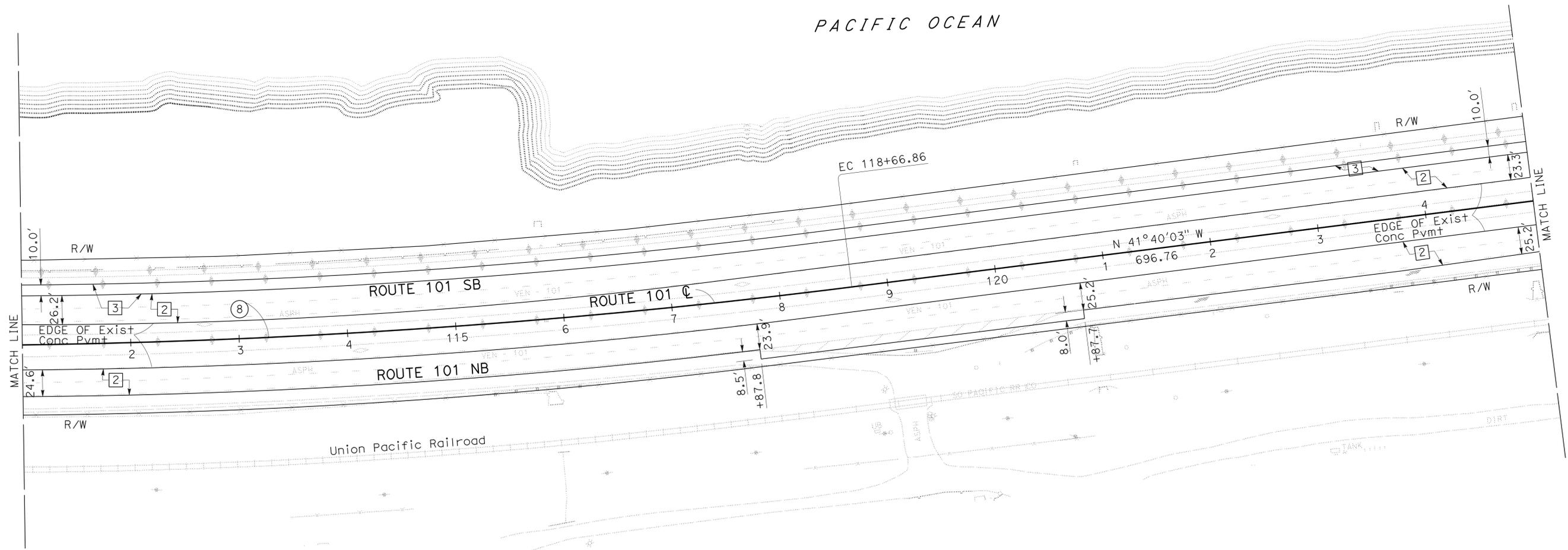
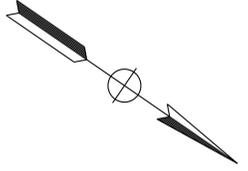


**NOTES:**

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.

**CURVE DATA**

No.	⊕	R	Δ	T	L
8		6893'	09°23'13"	565.91'	1129.28'

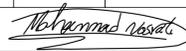


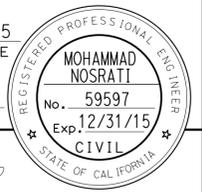
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN  
 FUNCTIONAL SUPERVISOR: CHARLES TON  
 CALCULATED/DESIGNED BY: MOHAMMAD NOSRATI  
 CHECKED BY: SHAFIQ RAHMAN  
 REVISED BY: MN  
 DATE REVISED: 8/7/15

**LAYOUT**  
SCALE: 1" = 50'

**L-7**

LAST REVISION | DATE PLOTTED => 22-DEC-2015  
 00-00-00 | TIME PLOTTED => 13:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	13	48
			9-20-15	DATE	
REGISTERED CIVIL ENGINEER			DATE		
9-28-15			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>					

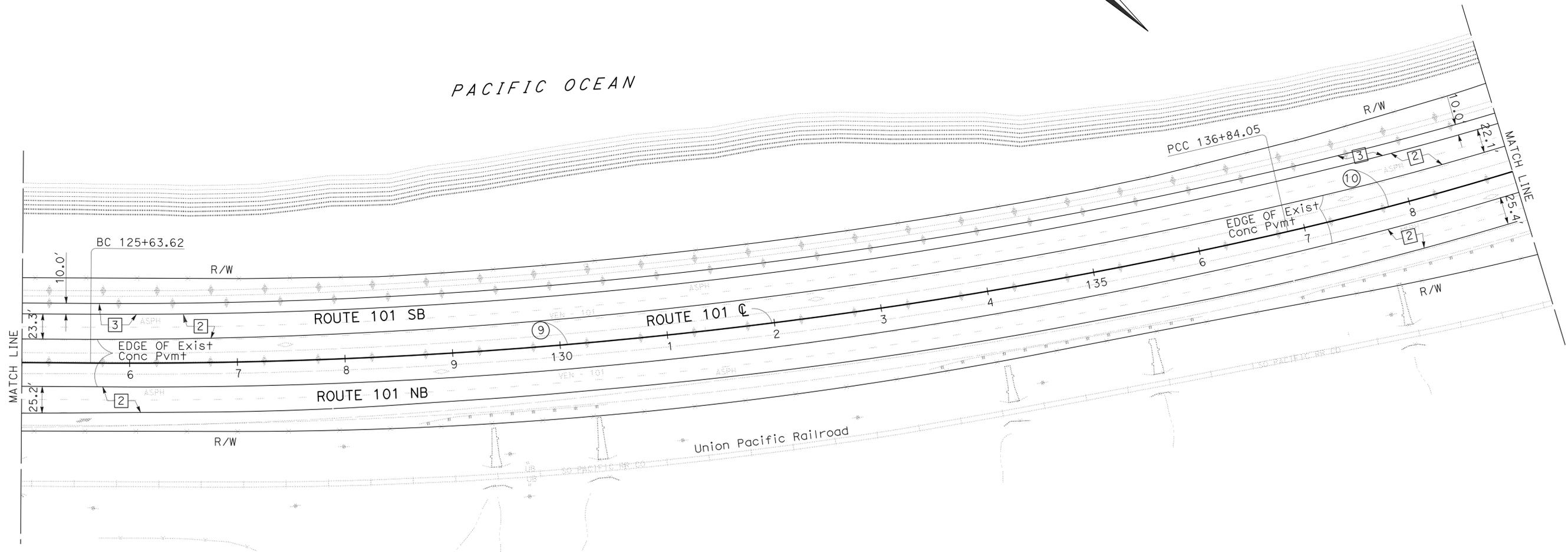
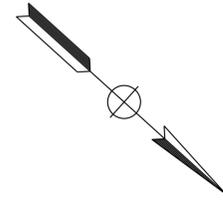


**NOTES:**

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.

**CURVE DATA**

No. Ⓢ	R	Δ	T	L
9	4810'	13°20'51"	562.76'	1120.42'
10	3095'	18°12'43"	496.06'	983.74'



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
	
FUNCTIONAL SUPERVISOR	CHARLES TON
CALCULATED/DESIGNED BY	CHECKED BY
MOHAMMAD NOSRATI	SHAFIQ RAHMAN
REVISED BY	DATE REVISED
MN	8/7/15

**LAYOUT**  
SCALE: 1" = 50'

**L-8**

LAST REVISION DATE PLOTTED => 22-DEC-2015  
00-00-00 TIME PLOTTED => 13:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	14	48

REGISTERED CIVIL ENGINEER *Mohammad Nosrati* DATE 9-20-15  
 PLANS APPROVAL DATE 9-28-15

REGISTERED PROFESSIONAL ENGINEER  
 MOHAMMAD NOSRATI  
 No. 59597  
 Exp. 12/31/15  
 CIVIL  
 STATE OF CALIFORNIA

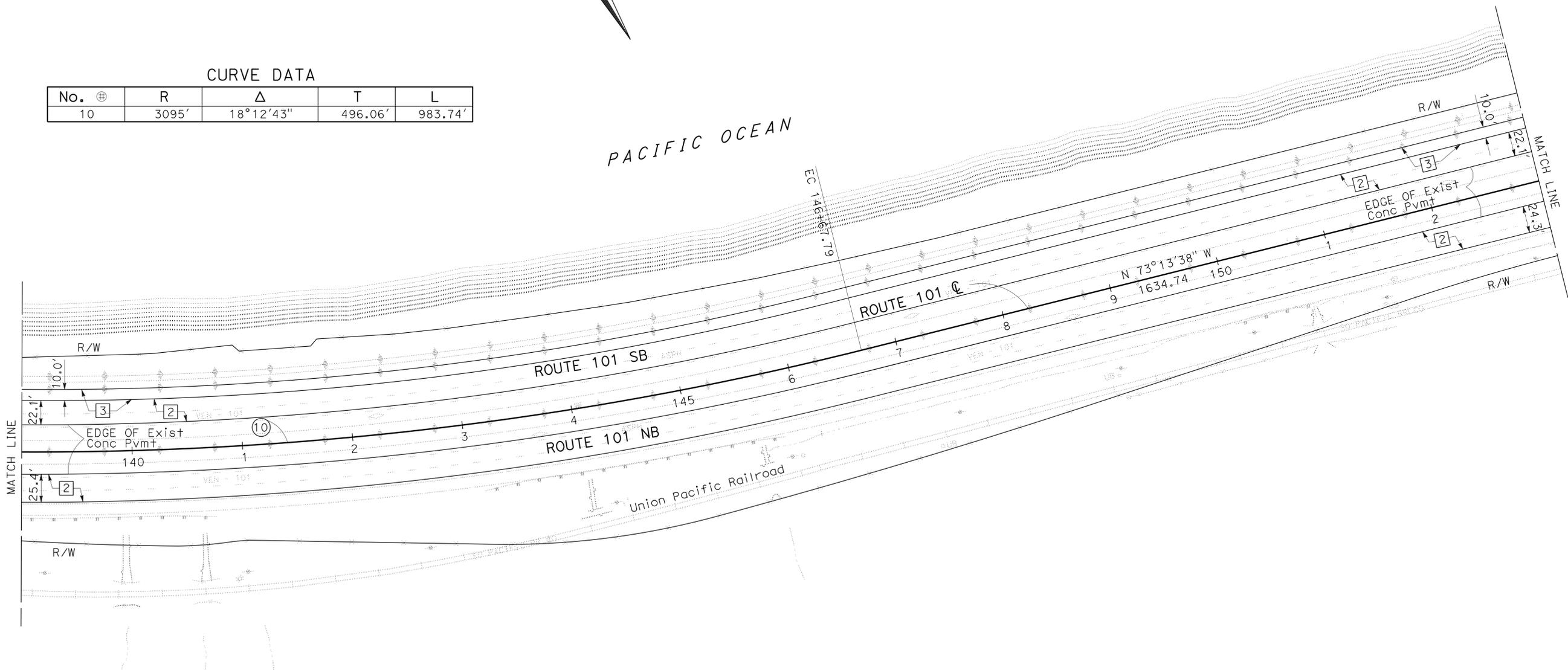
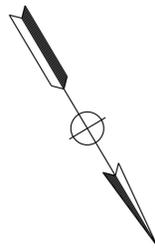
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTES:**

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.

**CURVE DATA**

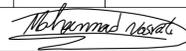
No. ⊕	R	Δ	T	L
10	3095'	18°12'43"	496.06'	983.74'

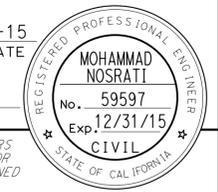


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN  
 FUNCTIONAL SUPERVISOR: CHARLES TON  
 CALCULATED/DESIGNED BY: MOHAMMAD NOSRATI  
 CHECKED BY: SHAFIQ RAHMAN  
 REVISED BY: MN  
 DATE REVISED: 8/7/15

**LAYOUT**  
SCALE: 1" = 50'

**L-9**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	15	48
			9-20-15	DATE	
REGISTERED CIVIL ENGINEER			DATE		
9-28-15			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:**

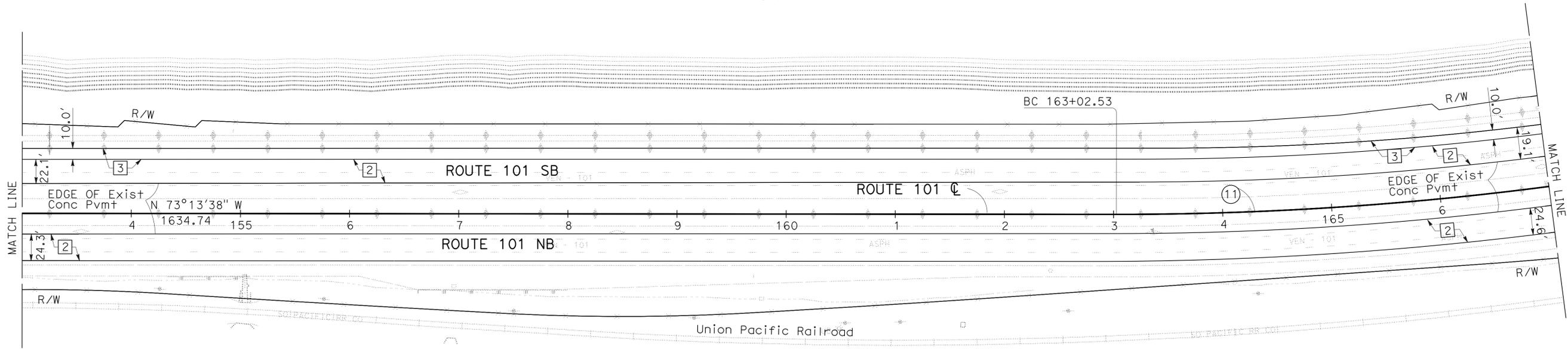
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS.



**CURVE DATA**

No.	⊕	R	Δ	T	L
11		3051'	27°37'28"	750.09'	1471.01'

PACIFIC OCEAN



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
	
FUNCTIONAL SUPERVISOR	CHARLES TON
CALCULATED/DESIGNED BY	
CHECKED BY	
MOHAMMAD NOSRATI	SHAFIQ RAHMAN
REVISOR BY	
DATE REVISED	8/7/15
MN	

**LAYOUT**  
SCALE: 1" = 50'  
**L-10**

LAST REVISION      DATE PLOTTED => 22-DEC-2015      00-00-00      TIME PLOTTED => 13:40



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	17	48

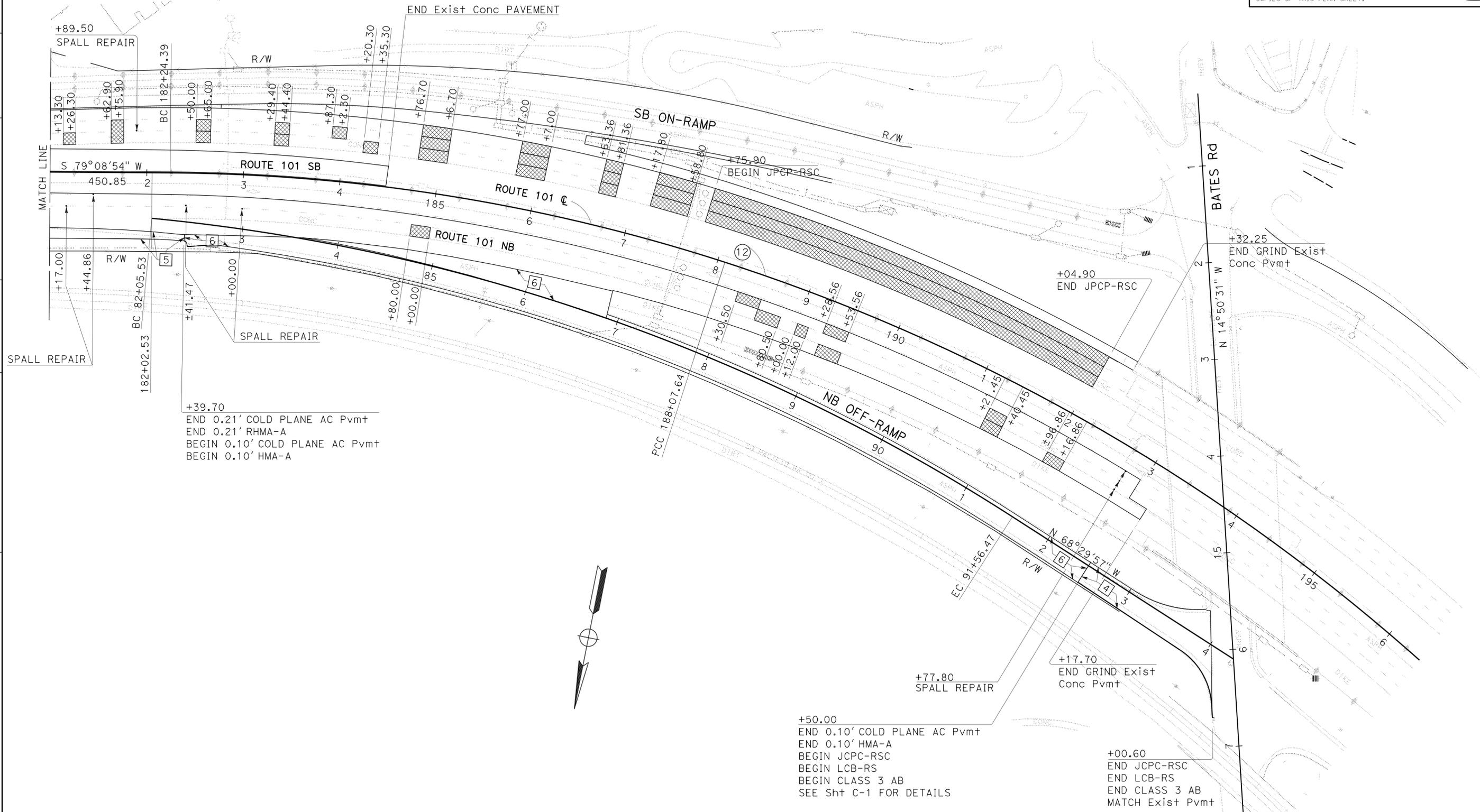
REGISTERED CIVIL ENGINEER DATE 9-20-15  
 REGISTERED CIVIL ENGINEER MOHAMMAD NOSRATI No. 59597 Exp. 12/31/15  
 PLANS APPROVAL DATE 9-28-15

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.

No.	⊕	R	Δ	T	L
12		1906'	17° 31' 59"	293.93'	583.26'

**NOTES:**

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN INCLUDED ON THESE PLANS. NO EXISTING UTILITY FACILITIES WERE FOUND WITHIN 4 FEET OF EXCAVATION LIMITS AT THE BATES ROAD 101 NB OFF-RAMP TERMINI LOCATION.
- TRAFFIC LOOPS MUST BE PROTECTED DURING CONSTRUCTION.



**LAYOUT**  
SCALE: 1" = 50'  
**L-12**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	CHARLES TON
CALCULATED/DESIGNED BY	CHECKED BY
MOHAMMAD NOSRATI	SHAFIQ RAHMAN
REVISOR	DATE
MN	8/7/15



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	19	48

REGISTERED CIVIL ENGINEER DATE 9-20-15  
 REGISTERED CIVIL ENGINEER MOHAMMAD NOSRATI No. 59597 Exp. 12/31/15 CIVIL  
 PLANS APPROVAL DATE 9-28-15

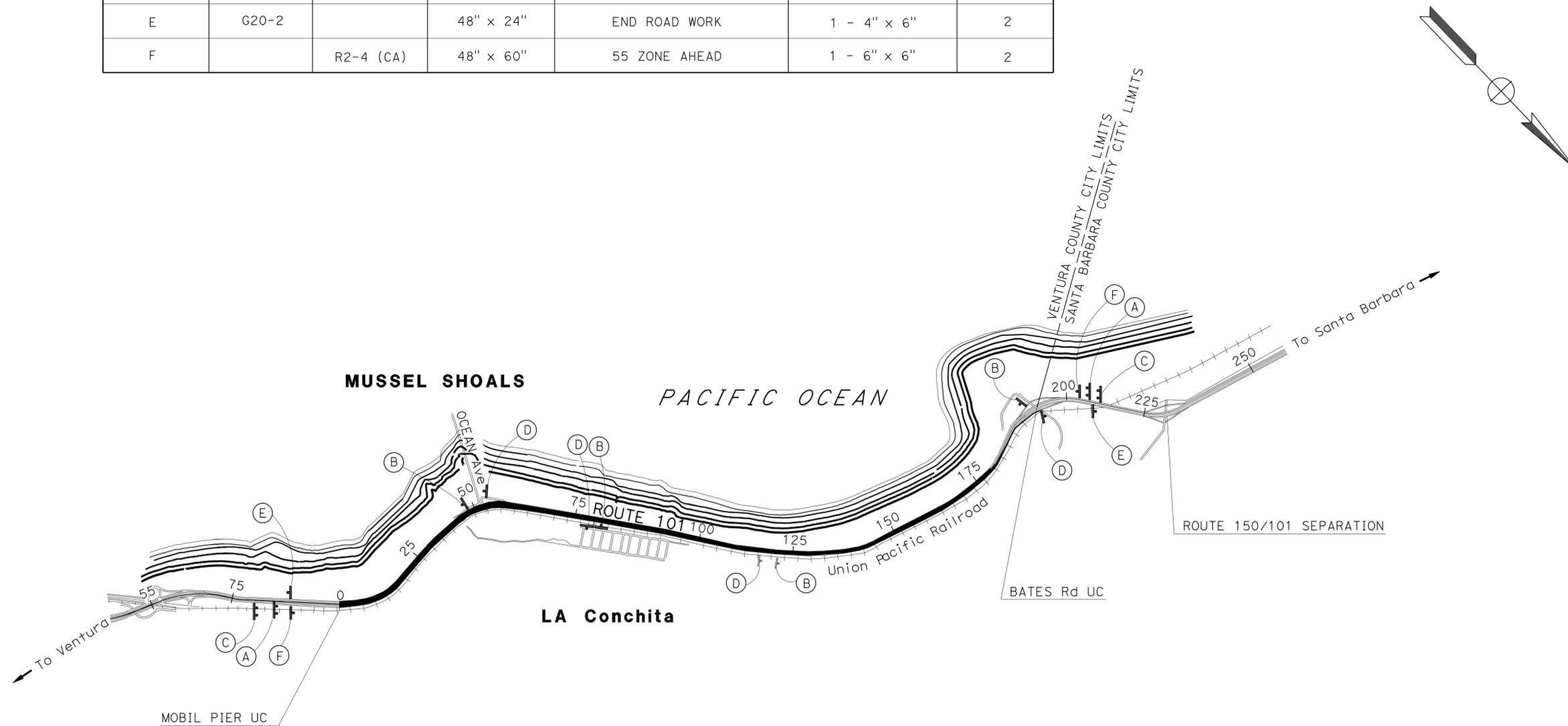
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTES:**

- LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
- FOR SIGN "C40" (TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES), ALL LETTERS SHALL BE BLACK ON WHITE BACKGROUND.
- SIGN CODES PER 2010 MUTCD (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES) AND CALIFORNIA SUPPLEMENT.

**STATIONARY MOUNTED CONSTRUCTION AREA SIGNS**

SIGN No. (X)	SIGN CODE		PANEL SIZE	SIGN MESSAGE	NUMBER OF POSTS AND SIZE	NUMBER OF SIGNS
	FEDERAL	CALIFORNIA				
A	W20-1		60" x 60"	ROAD WORK AHEAD	2 - 6" x 6"	2
B	W20-1		48" x 48"	ROAD WORK AHEAD	1 - 6" x 6"	4
C		C40 (CA)	144" x 60"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2 - 6" x 8"	2
D	G20-2		36" x 18"	END ROAD WORK	1 - 4" x 4"	4
E	G20-2		48" x 24"	END ROAD WORK	1 - 4" x 6"	2
F		R2-4 (CA)	48" x 60"	55 ZONE AHEAD	1 - 6" x 6"	2



**CONSTRUCTION AREA SIGNS**

NO SCALE

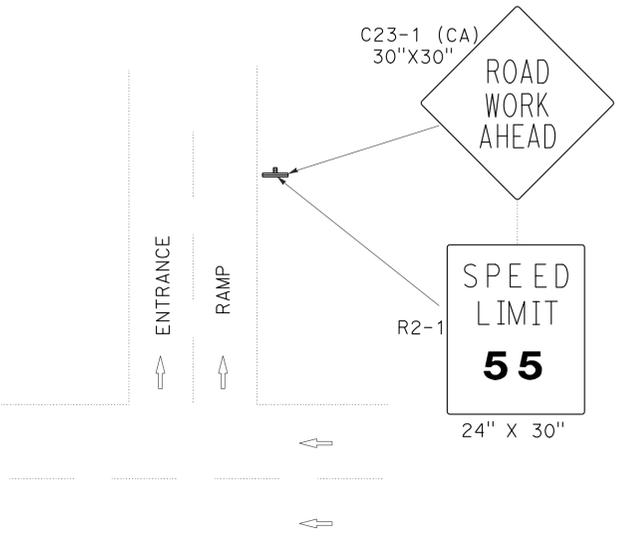
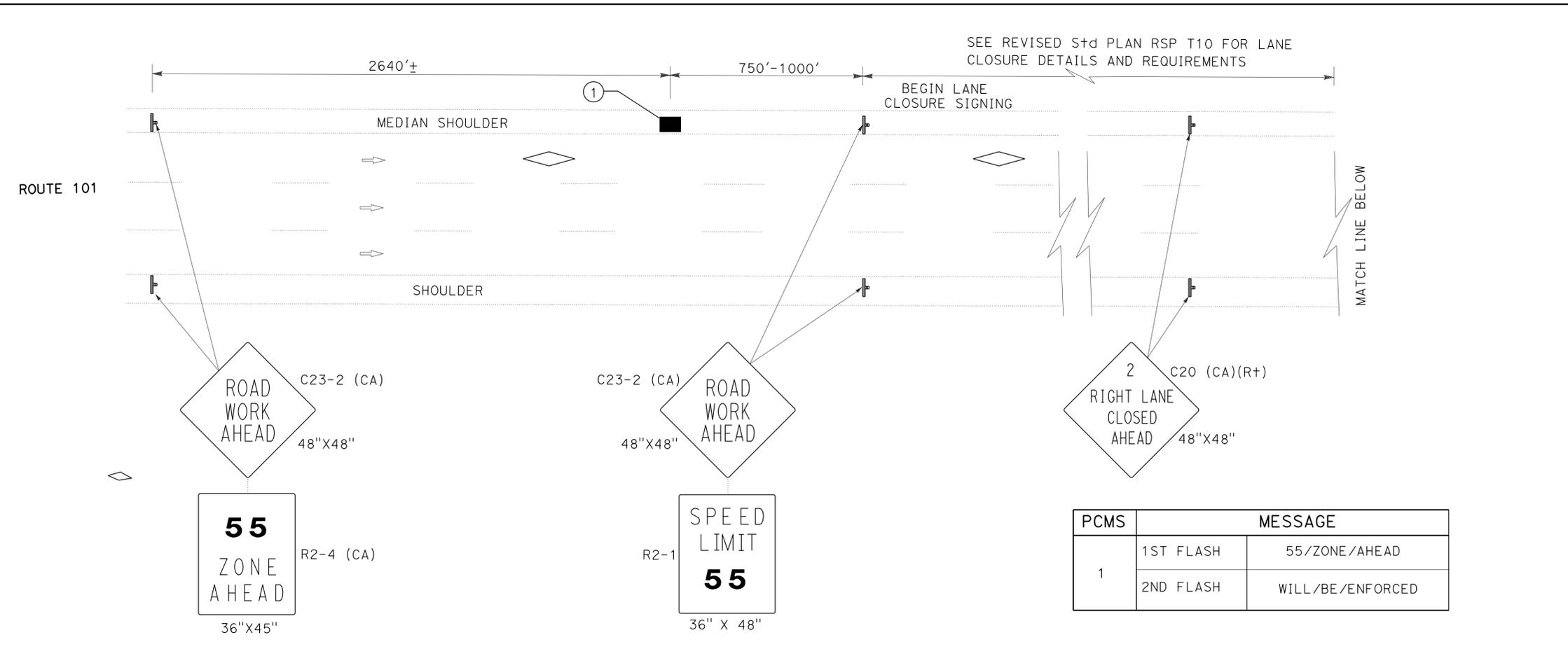
**CS-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN  
 FUNCTIONAL SUPERVISOR CHARLES TON  
 CALCULATED/DESIGNED BY CHECKED BY  
 MOHAMMAD NOSRATI SHAFIQ RAHMAN  
 REVISED BY DATE REVISED  
 MS 08/05/15

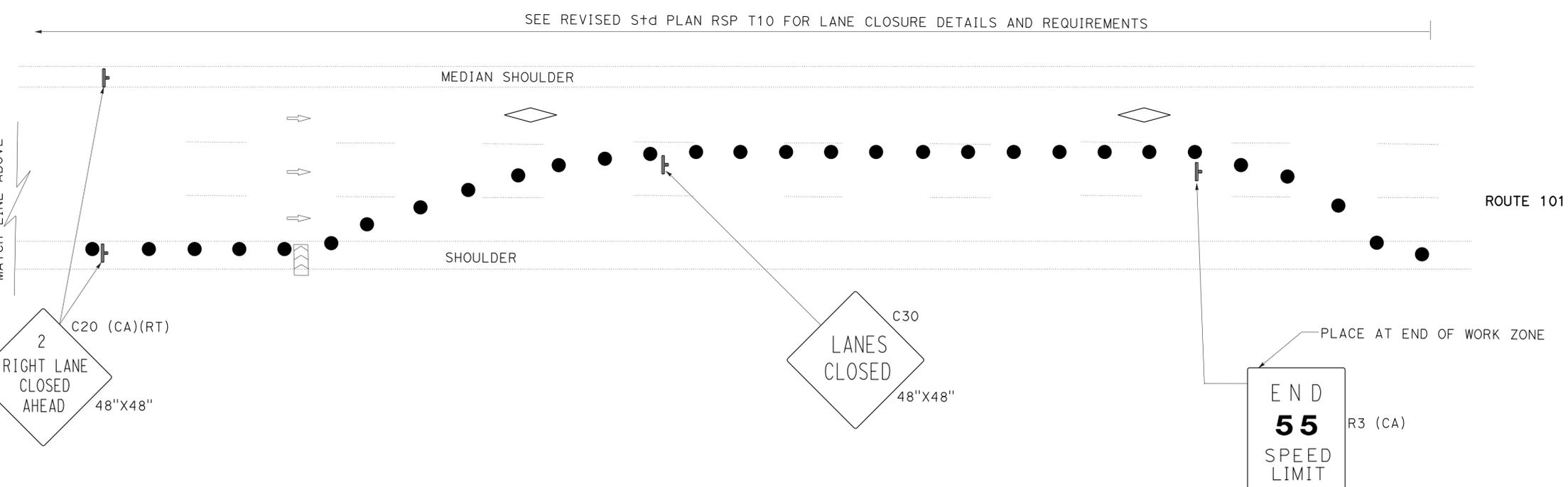
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	20	48

REGISTERED CIVIL ENGINEER: *Shangjia Horn*  
 DATE: 7-23-15  
 PLANS APPROVAL DATE: 9-28-15  
 No. 51846  
 Exp. 6/30/16  
 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.



PCMS	MESSAGE
1	1ST FLASH: 55/ZONE/AHEAD
	2ND FLASH: WILL/BE/ENFORCED



- LEGENDS**
- DIRECTION OF TRAVEL
  - ⏏ FLASHING ARROW SIGN
  - PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
  - TRAFFIC CONE

- NOTES:**
- SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
  - PLACE PORTABLE CHANGEABLE MESSAGE SIGN ON THE MEDIAN SHOULDER.

**TRAFFIC HANDLING DETAILS  
SPEED REDUCTION  
DURING A SINGLE LANE CLOSURE**

APPROVED FOR TRAFFIC HANDLING WORK ONLY

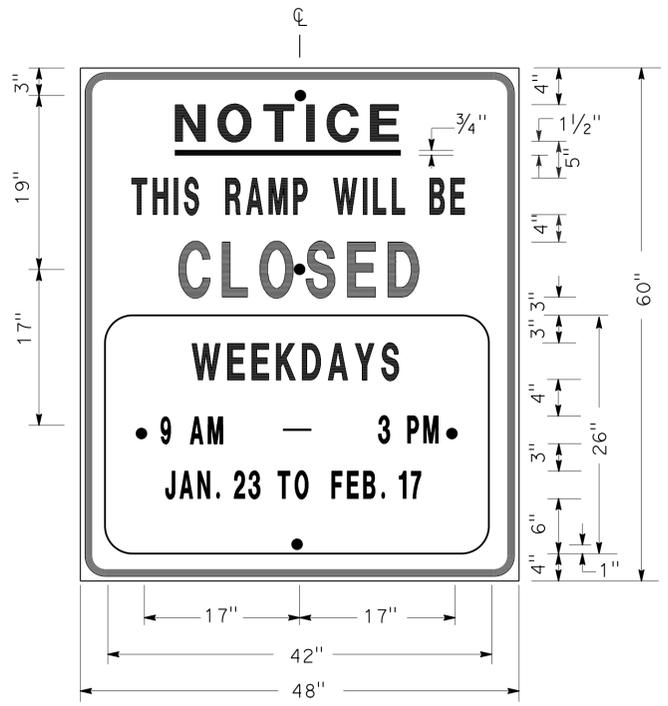
NO SCALE **THD-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 DT M  
 FUNCTIONAL SUPERVISOR: SAM ESQUENAZI  
 REVISIONS: [None]  
 DESIGNED BY: ALBERT K YU  
 CHECKED BY: JOCELYN C CHIANG  
 REVISIONS: [None]  
 DATE: [None]  
 USERNAME => s115263  
 DGN FILE => 725190me001.dgn

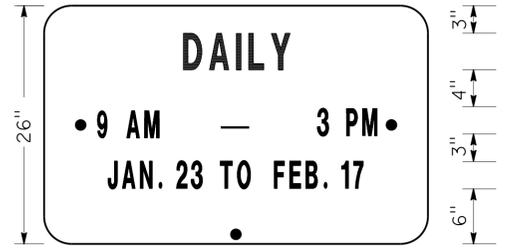
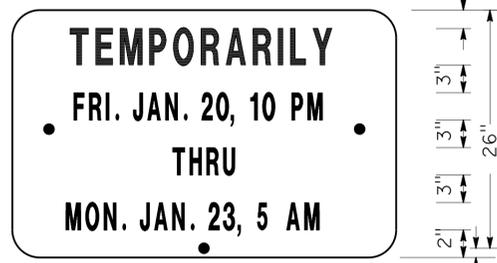
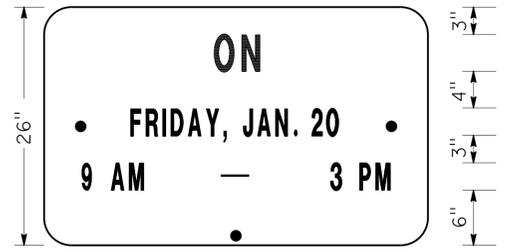
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	21	48

REGISTERED CIVIL ENGINEER: SHANGJIA HORN  
 No. 51846  
 Exp. 6/30/16  
 CIVIL  
 DATE: 7-23-15  
 PLANS APPROVAL DATE: 9-28-15

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.



SIGN SP-1



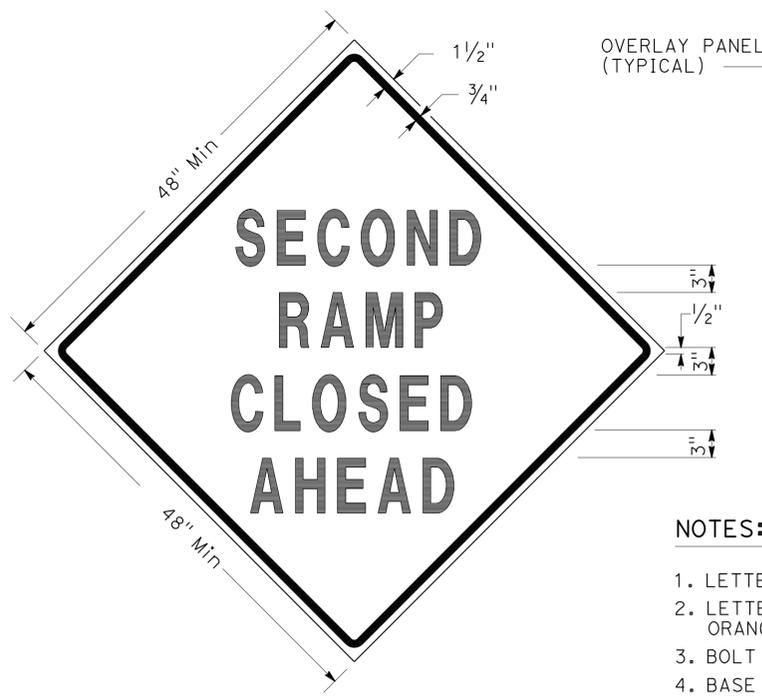
ALTERNATE OVERLAY PANELS (TYPICAL)

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

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

\* CONDENSED SPACING IF NECESSARY

**SPECIAL ADVANCE NOTICE PUBLICITY SIGN**



SIGN SP-3



SIGN SP-5

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

**SPECIAL SIGNS FOR EXIT RAMP CLOSURES**



SIGN SP-4

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

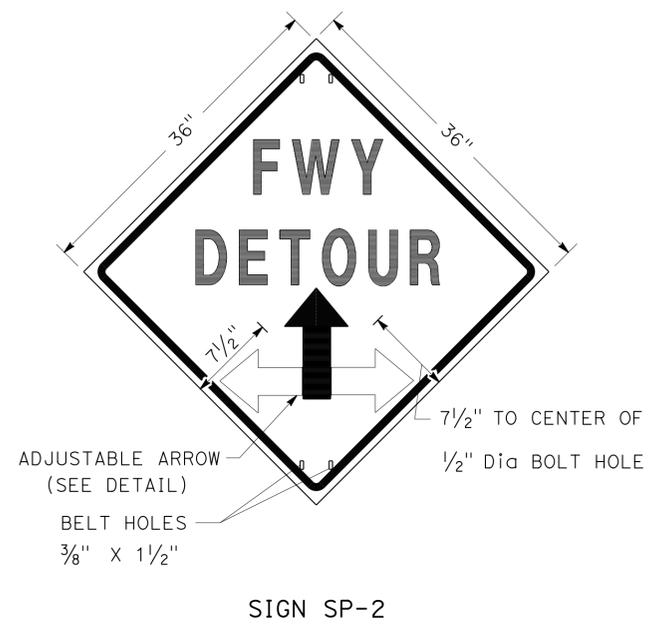
**SPECIAL SIGN FOR ENTRANCE RAMP CLOSURES**

**TRAFFIC HANDLING DETAILS  
 TRAFFIC CONTROL SYSTEM  
 FOR RAMP CLOSURES, DETOUR SIGNS,  
 AND MISCELLANEOUS DETAILS  
 SHEET 1 OF 2**

NO SCALE

THD-2

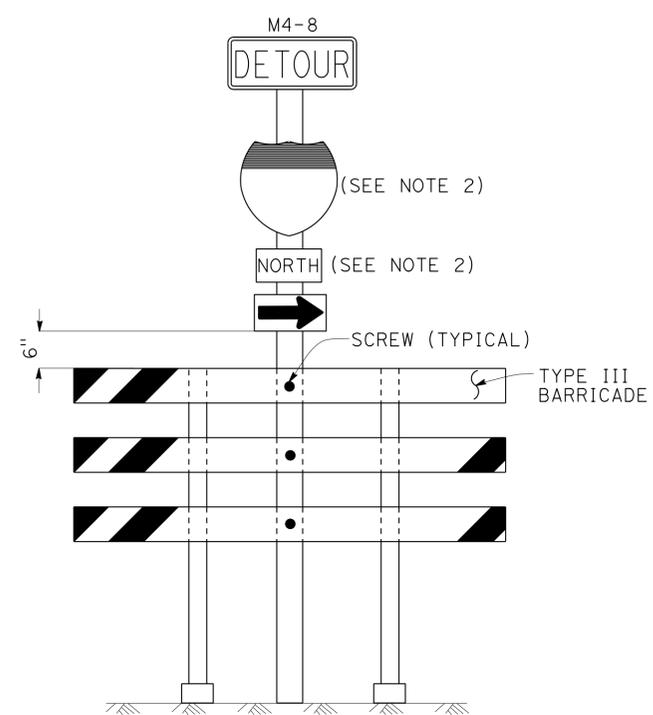
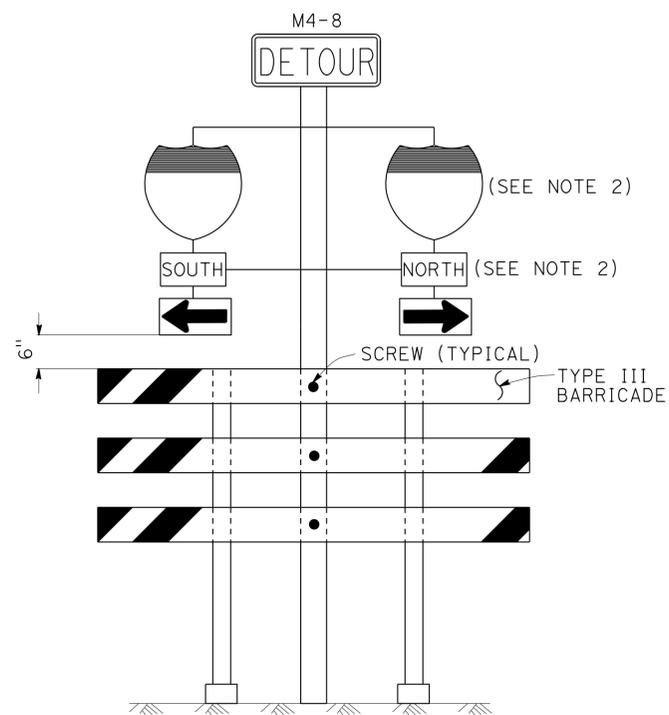
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 DTM  
 Et Caltrans®  
 FUNCTIONAL SUPERVISOR  
 SAM ESOUENAZI  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 REVISOR BY  
 DATE REVISED  
 JC  
 2/14



- NOTES:** SIGN SP-2
- LETTERS - 6" SERIES E.
  - LETTERS, BORDER AND ARROW - BLACK ON RETROREFLECTORIZED ORANGE BACKGROUND.
  - BASE MATERIAL FOR SIGNS AND ARROWS MUST BE ALUMINUM (MINIMUM 0.06").
  - BELTS (LUGGAGE STRAPS) MUST BE 1" WIDE BY 48" LONG, MADE OF COTTON OR POLYPROPYLENE WEB MATERIAL.
  - SIGNS MUST BE MOUNTED WITH BOTTOMS OF SIGNS A MINIMUM OF 7' ABOVE GROUND EXCEPT AS OTHERWISE SHOWN ON OTHER TRAFFIC HANDLING DETAILS PLANS.

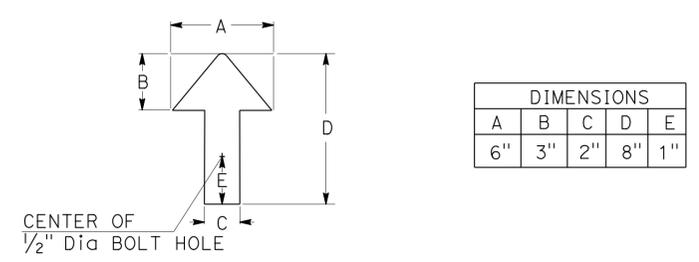
**ABBREVIATION**

(CA) CALIFORNIA CODE



- NOTES:** SIGNS SP-6 & SP-7
- IN LIEU OF PLACING SIGNS ON TYPE III BARRICADES, SIGNS, INCLUDING POSTS, MAY BE PLACED INTO THE GROUND OR FASTENED ONTO ELECTROLIERS.
  - USE APPROPRIATE ROUTE MARKER [G26-2(CA), G27-2(CA), G28-2(CA)] AND CARDINAL DIRECTION [NORTH (M3-1), SOUTH (M3-3), EAST (M3-2), WEST (M3-4)].

**SPECIAL PORTABLE FREEWAY DETOUR SIGNS**



**TRAFFIC HANDLING DETAILS**  
**TRAFFIC CONTROL SYSTEM**  
**FOR RAMP CLOSURES, DETOUR SIGNS,**  
**AND MISCELLANEOUS DETAILS**  
**SHEET 2 OF 2**  
 NO SCALE

**THD-3**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	23	48

REGISTERED CIVIL ENGINEER	DATE
7-23-15	
PLANS APPROVAL DATE	
9-28-15	

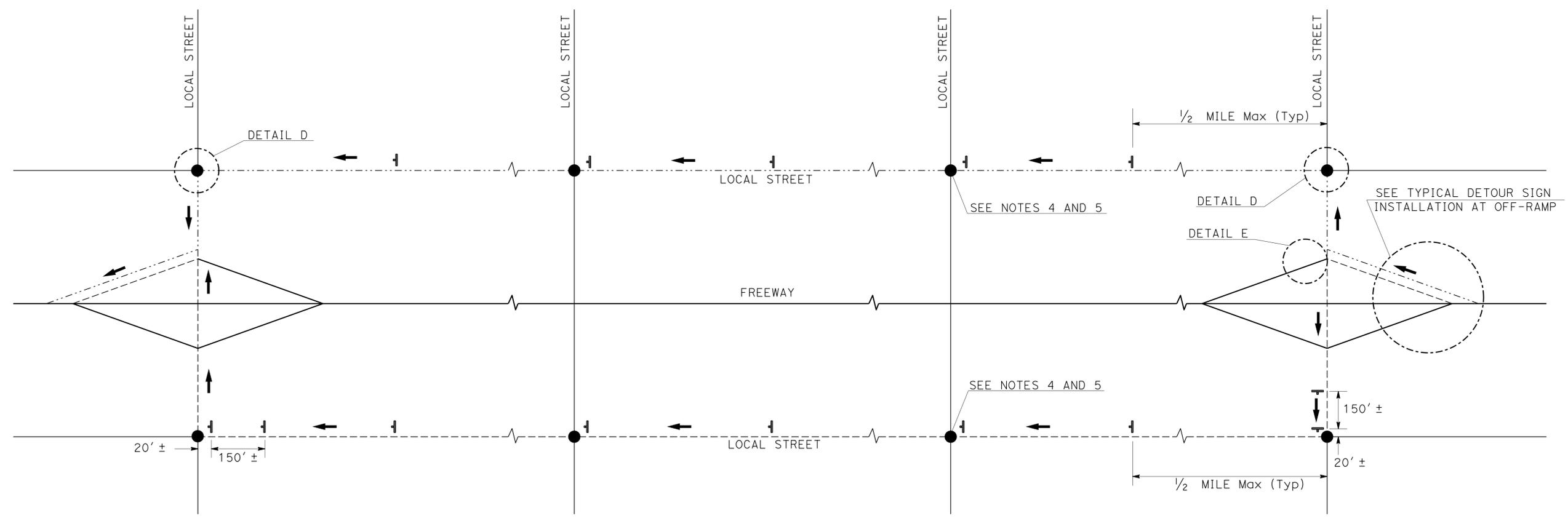
  

REGISTERED PROFESSIONAL ENGINEER
SHANGJIA HORN
No. 51846
Exp. 6/30/16
CIVIL
STATE OF CALIFORNIA

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.

- LEGEND**
- ↓ SIGN SP-2
  - AND/OR DESIGNATED DETOUR ROUTE
  - DETOUR DIRECTION
  - CONTROLLED INTERSECTION

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



**TYPICAL DETOUR SIGN INSTALLATION ALONG DESIGNATED DETOUR ROUTE**

**TRAFFIC HANDLING DETAILS  
TRAFFIC CONTROL SYSTEM  
FOR DETOUR SIGN INSTALLATION  
ALONG DESIGNATED DETOUR ROUTE  
SHEET 1 OF 2**

NO SCALE

**THD-4**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DTM
FUNCTIONAL SUPERVISOR	SAM ESQUENAZI
CALCULATED/DESIGNED BY	CHECKED BY
ALBERT K YU	JOCELYN C CHIANG
REVISOR	DATE
JC	2/14





Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	26	48

<i>Jennifer Nguyen</i>	9-20-15
REGISTERED CIVIL ENGINEER	DATE
9-28-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER  
**JENNIFER NGUYEN**  
 No. C65953  
 Exp. 6/30/16  
 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.

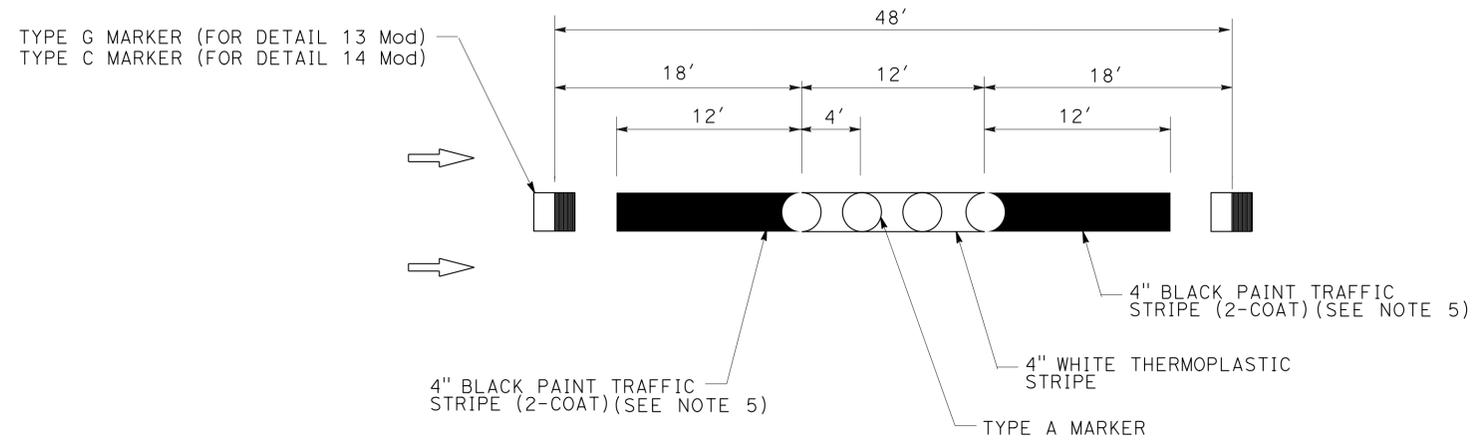
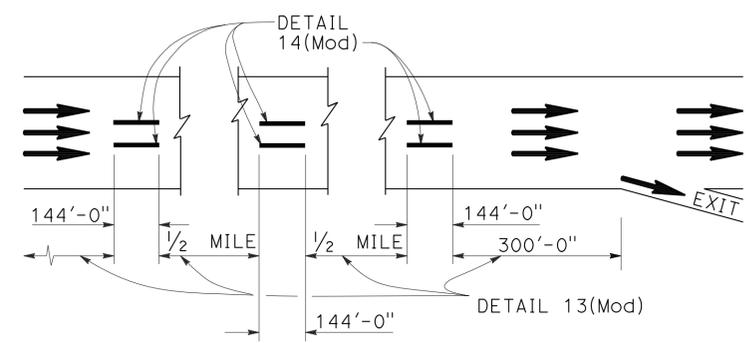
**NOTES:**

1. ALL STRIPES AND PAVEMENT MARKINGS MUST BE THERMOPLASTIC (ENHANCE WET NIGHT VISIBILITY), UNLESS OTHERWISE NOTED.
2. CHEVRON AND DIAGONAL MARKINGS MUST BE APPLIED AT A 45 DEGREE ANGLE FROM THE ETW.
3. ALL CONFLICTING STRIPING MUST BE REMOVED.
4. ALL CHEVRONS, LIMIT LINES, AND DIAGONALS MUST BE 12" SOLID WHITE, UNLESS OTHERWISE NOTED.
5. 4" BLACK PAINT TRAFFIC STRIPE (2-COAT) APPLIED ON PCC SURFACE ONLY UNLESS OTHERWISE NOTED.

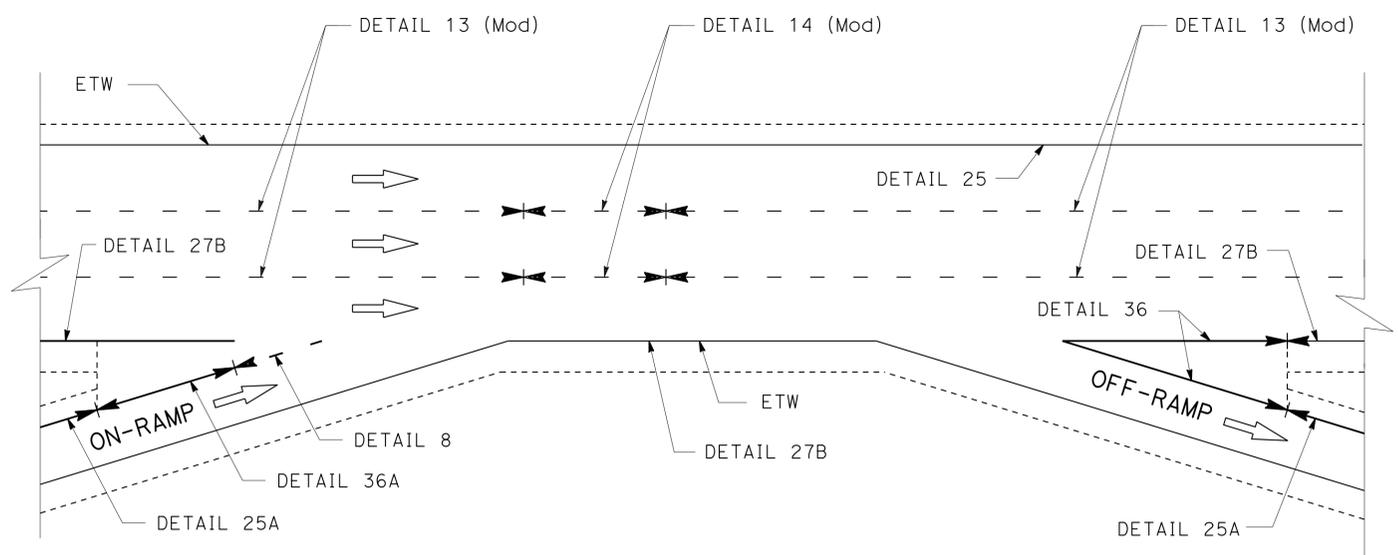
**LEGEND:**

- CHANGE IN PAVEMENT DELINEATION DETAILS
- DIRECTION OF TRAFFIC

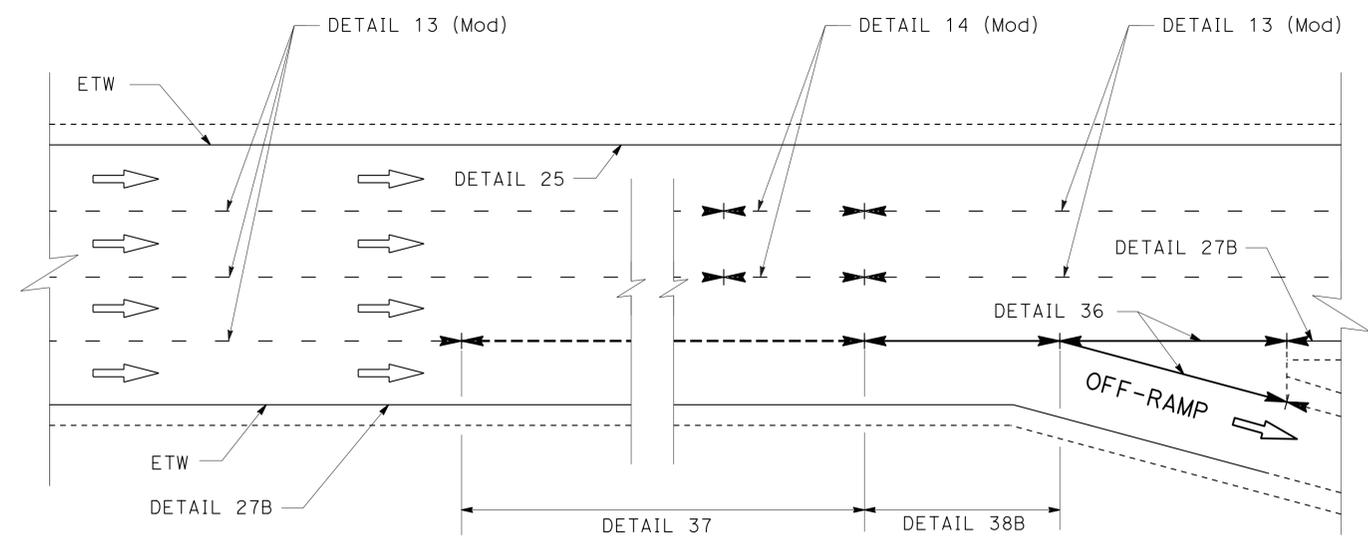
**DETAIL 14 (Mod)  
TYPICAL LANE LINE DELINEATION  
IN ADVANCE OF EXIT RAMP**



**DETAIL 13/14 (Mod)**



**TYPICAL RAMPS**



**TYPICAL LANE DROP**

**PAVEMENT DELINEATION DETAILS**

NO SCALE

**PDD-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** TRAFFIC DESIGN  
 FUNCTIONAL SUPERVISOR: GRISH BIGLIARIAN  
 REVISIONS: 00-00-00  
 EUGENE BRAVO  
 JENNIFER NGUYEN  
 CALCULATED/DESIGNED BY: JENNIFER NGUYEN  
 CHECKED BY: JENNIFER NGUYEN  
 REVISOR: EUGENE BRAVO  
 DATE: 7/2/2010

USERNAME => s115263  
DGN FILE => 725190nb001.dgn



UNIT 1877

PROJECT NUMBER & PHASE

07000210821

LAST REVISION: DATE PLOTTED => 22-DEC-2015  
 00-00-00 TIME PLOTTED => 13:40

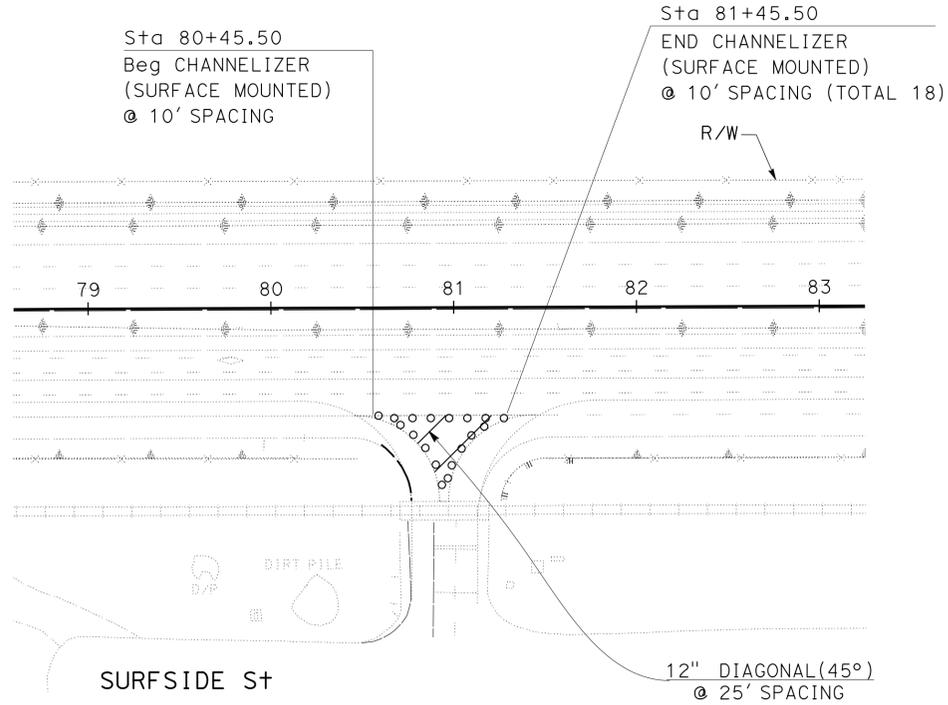
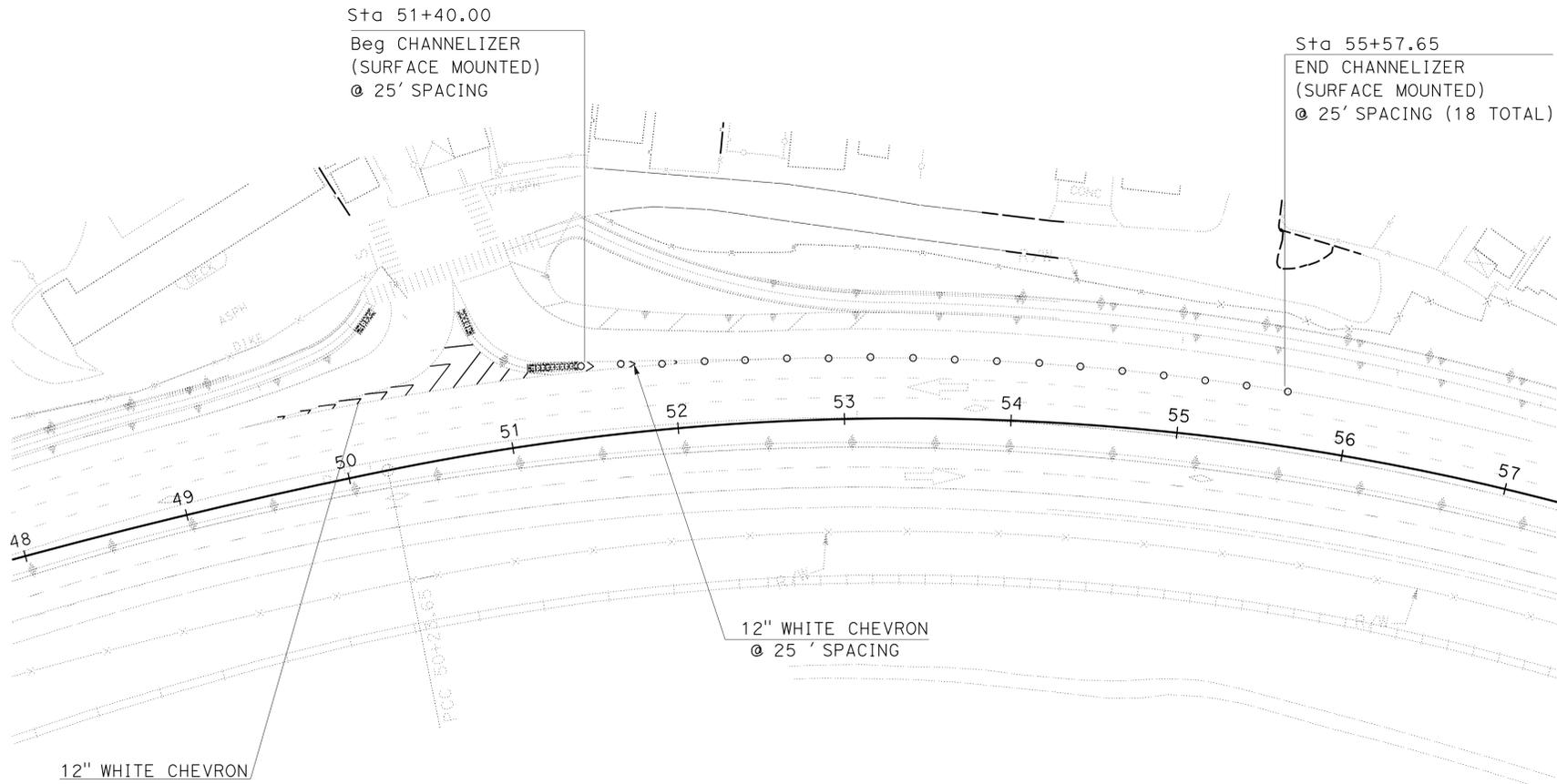
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	27	48

<i>Jennifer Nguyen</i>	9-20-15
REGISTERED CIVIL ENGINEER	DATE
9-28-15	
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER  
**JENNIFER NGUYEN**  
 No. C65953  
 Exp. 6/30/16  
 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.



FUNCTIONAL SUPERVISOR	GRISH BIGLARIAN
CALCULATED/DESIGNED BY	CHECKED BY
EUGENE BRAVO	JENNIFER NGUYEN
REVISED BY	DATE REVISED

BORDER LAST REVISED 7/2/2010

USERNAME => s115263  
DGN FILE => 725190nb002.dgn



UNIT 1877

PROJECT NUMBER & PHASE

07000210821

## PAVEMENT DELINEATION DETAILS

NO SCALE

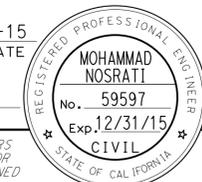
### SURFACE MOUNTED CHANNELIZERS

PDD - 2

LAST REVISION | DATE PLOTTED => 22-DEC-2015  
 00-00-00 | TIME PLOTTED => 13:40



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	29	48

  
 REGISTERED CIVIL ENGINEER DATE: 9-20-15  
 PLANS APPROVAL DATE: 9-28-15  
  
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

### ROADWAY QUANTITIES

SHEET NUMBER	STATION	JOINTED PLAIN CONCRETE PAVEMENT (RSC) CY	LEAN CONCRETE BASE RAPID STRENGTH CY	COLD PLANE ASPHALT CONCRETE PAVEMENT				HOT MIX ASPHALT (TYPE A) TON	RUBBERIZED HOT MIX ASPHALT (GAP GRADED) TON	TACK COAT TON	ROADWAY EXCAVATION CY	CLASS 3 AGGREGATE BASE CY	REMOVE CONCRETE PAVEMENT AND BASE CY	DRILL AND BOND (DOWEL BAR) EA	DRILL AND BOND (TIE BAR) EA	REMOVE ASPHALT CONCRETE DIKE LF	GRIND EXISTING CONCRETE PAVEMENT SQYD	BASE BOND BREAKER (GEOSYNTHETIC) SQYD	MINOR CONCRETE (CURB AND GUTTER) CY	TEMPORARY DRAINAGE INLET PROTECTION EA	SPALL REPAIR (POLYESTER CONCRETE) SQYD
				.35'	.30'	.20'	.10'														
L-1	Sta 31+16 TO 40+25			5,750				776	582	2											
L-2	Sta 40+25 TO 53+80			7,440				1,004	753	2											
L-3	Sta 53+80 TO 69+00			6,952	1,085			1,048	814	3											
L-4	Sta 69+00 TO 83+00			8,428	1,555			1,295	1,011	3											
L-5	Sta 83+00 TO 97+00			7,966	1,549			1,233	964	3											
L-6	Sta 97+00 TO 111+00			7,503	1,557			1,170	916	3											
L-7	Sta 111+00 TO 125+00			8,021	1,547			1,239	968	3											
L-8	Sta 125+00 TO 139+00			7,110	1,542			1,116	876	3											
L-9	Sta 139+00 TO 153+00			7,206	1,543			1,129	886	3											
L-10	Sta 153+00 TO 167+00			7,185	1,516			1,123	881	3											
L-11	Sta 167+00 TO 181+00	26	16	5,172	883	858		788	735	3			42	11			3,940	105		10	5
L-12	Sta 181+00 TO 192+17.7	665	399			140			20	3			1,064	1573	504		9,440	2,660		1	4
L-12	OFF-RAMP Sta 82+50.53 TO 92+50						2,942		199	2										3	
L-12	OFF-RAMP Sta 92+50 TO 94+00.65	162	67							1	343	114		345	66	212		570	13	3	
	<b>SUBTOTAL</b>			78,733	12,777	998	2,942														
	<b>TOTAL</b>	853	482		95,450			11,921	9,605	37	343	114	1,106	1,929	570	212	13,380	3,335	13	17	9

### SUMMARY OF QUANTITIES

Q-1

LAST REVISION DATE PLOTTED => 22-DEC-2015 02-14-11 TIME PLOTTED => 13:40

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	30	48

*Grace M. Tsushima*  
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 9-28-15

**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 <sup>3</sup> , 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**

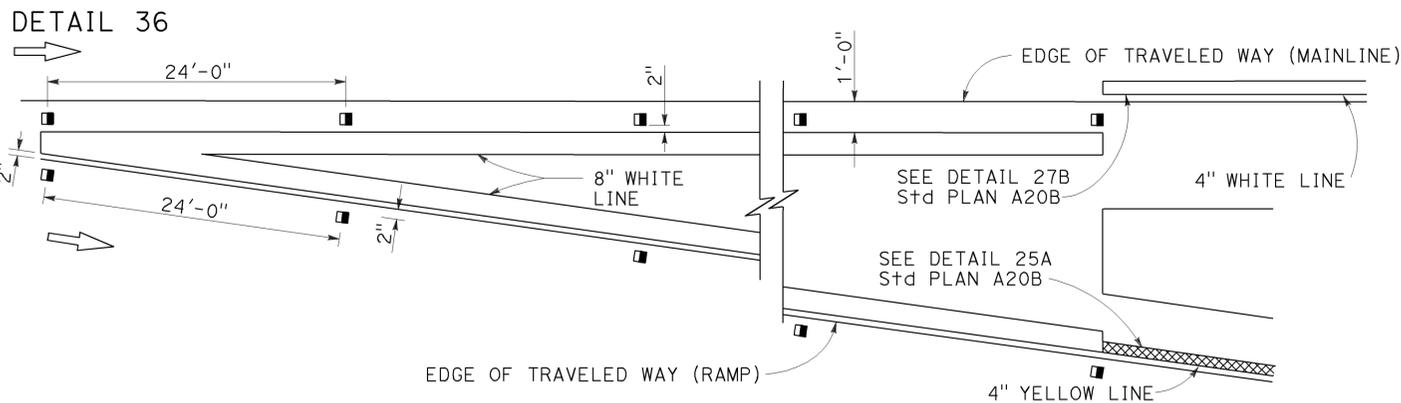
	<b>M</b>
Maint	MAINTENANCE
Max	MAXIMUM
MB	METAL BEAM
MBB	METAL BEAM BARRIER
MBGR	METAL BEAM GUARD RAILING
Med	MEDIAN
MGS	MIDWEST GUARDRAIL SYSTEM
MH	MANHOLE
Min	MINIMUM
Misc	MISCELLANEOUS
Misc I & S	MISCELLANEOUS IRON AND STEEL
Mkr	MARKER
Mod	MODIFIED, MODIFY
Mon	MONUMENT
MP	METAL PLATE
MPGR	METAL PLATE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

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

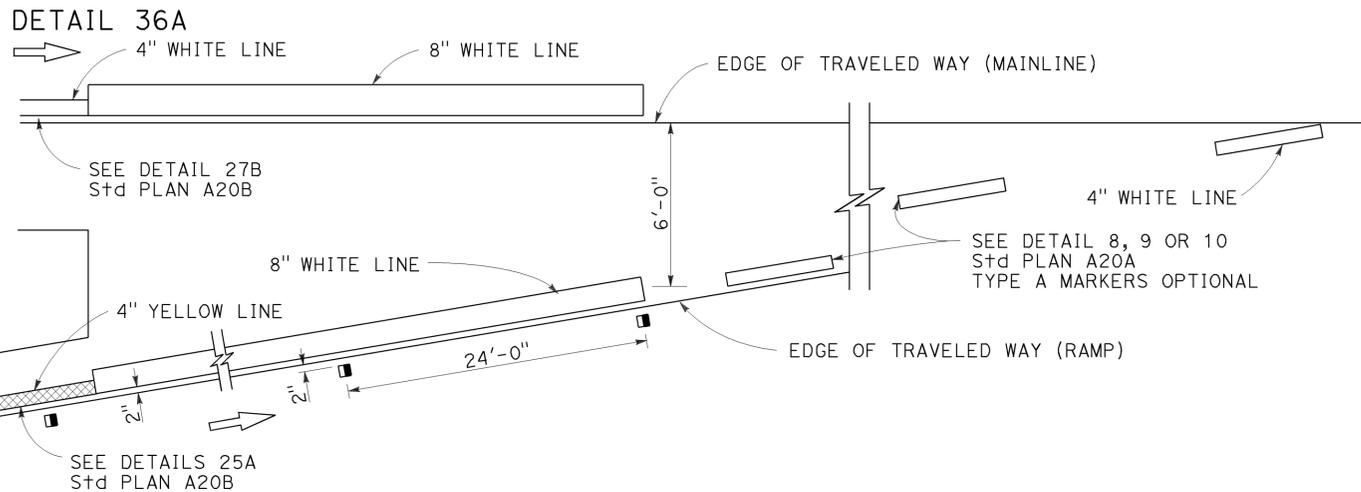
	<b>S</b>
S	SOUTH, SUPPLEMENT
SAE	STRUCTURE APPROACH EMBANKMENT
Salv	SALVAGE
SAPP	STRUCTURAL ALUMINUM PLATE PIPE
SB	SOUTHBOUND
SC	SAND CUSHION
SCSP	SLOTTED CORRUGATED STEEL PIPE
SD	STORM DRAIN
Sec	SECOND, SECTION
Sep	SEPARATION
SG	SUBGRADE
Shld	SHOULDER
Sht	SHEET
Sim	SIMILAR
ℒ	STATION LINE
SM	SELECTED MATERIAL
Spec	SPECIAL, SPECIFICATIONS
SPP	SLOTTED PLASTIC PIPE
SS	SLOPE STAKE
SSBM	STRAP AND SADDLE BRACKET METHOD
SSD	STRUCTURAL SECTION DRAIN
SSPA	STRUCTURAL STEEL PLATE ARCH
SSPP	STRUCTURAL STEEL PLATE PIPE
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH
SSRP	STEEL SPIRAL RIB PIPE
St	STREET
Sta	STATION
STBB	SINGLE THRIE BEAM BARRIER
Std	STANDARD
Str	STRUCTURE
Surf	SURFACING
SW	SIDEWALK, SOUND WALL
Swr	SEWER
Sym	SYMMETRICAL
S4S	SURFACE 4 SIDES
	<b>T</b>
T	SEMI-TANGENT
Tan	TANGENT
TBB	THRIE BEAM BARRIER
Tbr	TIMBER
TC	TOP OF CURB
TCB	TRAFFIC CONTROL BOX
TCE	TEMPORARY CONSTRUCTION EASEMENT
TeI	TELEPHONE
Temp	TEMPORARY
TG	TOP OF GRADE
Tot	TOTAL
TP	TELEPHONE POLE
TPB	TREATED PERMEABLE BASE
TPM	TREATED PERMEABLE MATERIAL
Trans	TRANSITION

	<b>T continued</b>
TS	TRANSVERSE, TRAFFIC SIGNAL, TUBULAR STEEL
Typ	TYPICAL
	<b>U</b>
UC	UNDERCROSSING
UD	UNDERDRAIN
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS
	<b>V</b>
V	VALVE, DESIGN SPEED
Var	VARIABLE, VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
Vert	VERTICAL
Via	VIADUCT
Vol	VOLUME
	<b>W</b>
W	WEST, WIDTH
WB	WESTBOUND
WH	WEEP HOLE
WM	WIRE MESH
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
Wt	WEIGHT
WV	WATER VALVE
WW	WINGWALL
WWLOL	WINGWALL LAYOUT LINE
	<b>X</b>
X Sec	CROSS SECTION
Xing	CROSSING
	<b>Y</b>
Yr	YEAR
Yrs	YEARS

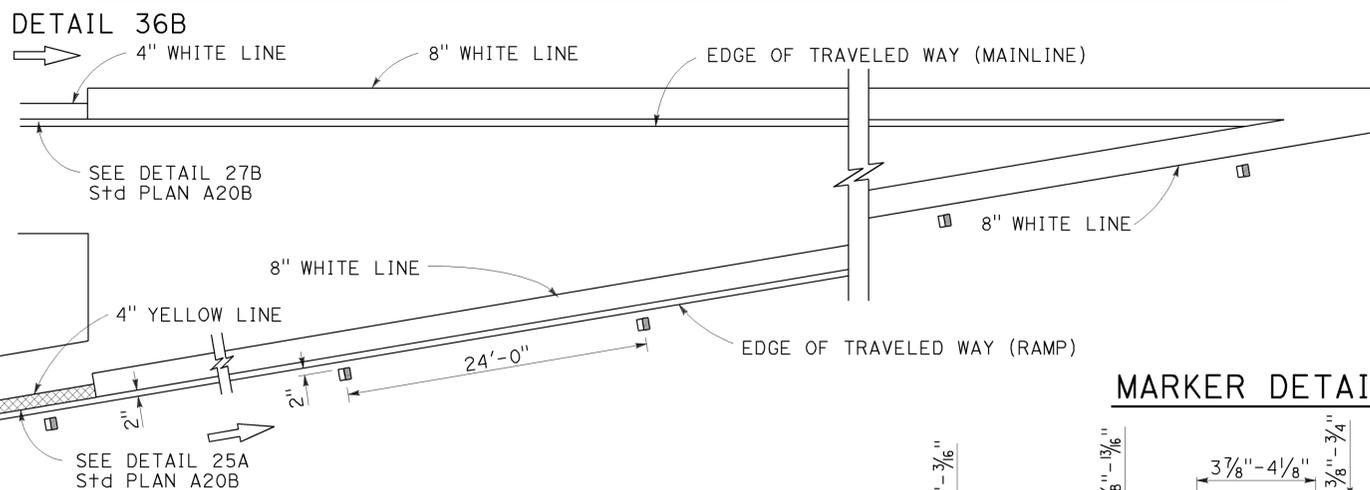
### EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



### ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



### ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT

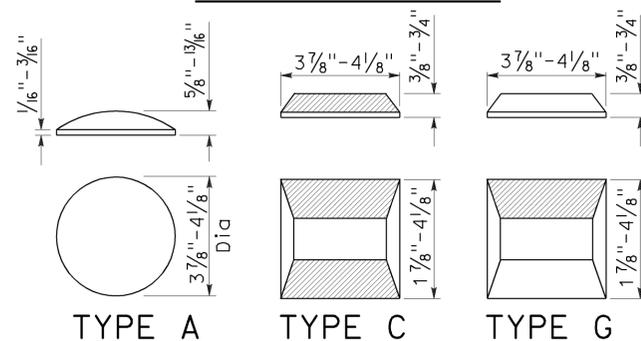


### MARKER DETAILS

#### LEGEND:

#### MARKERS

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



RETROREFLECTIVE FACE

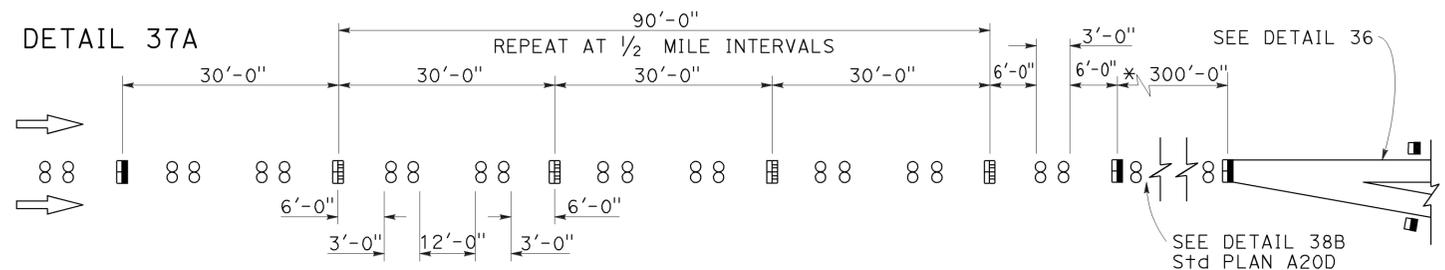
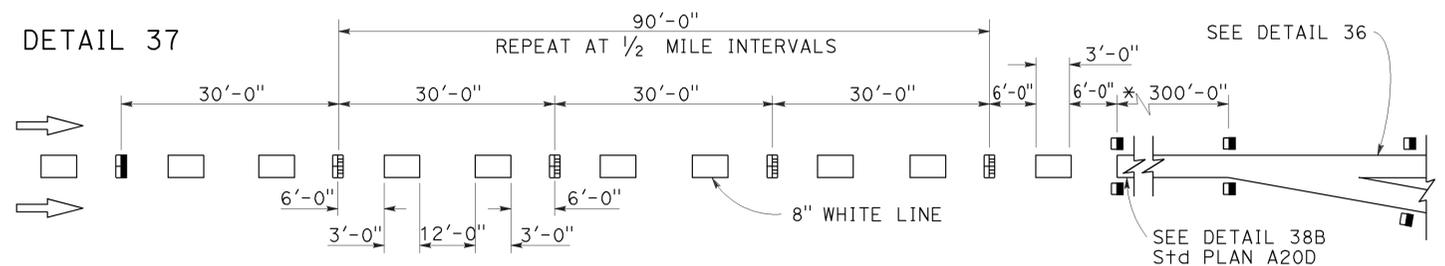
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	31	48

*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

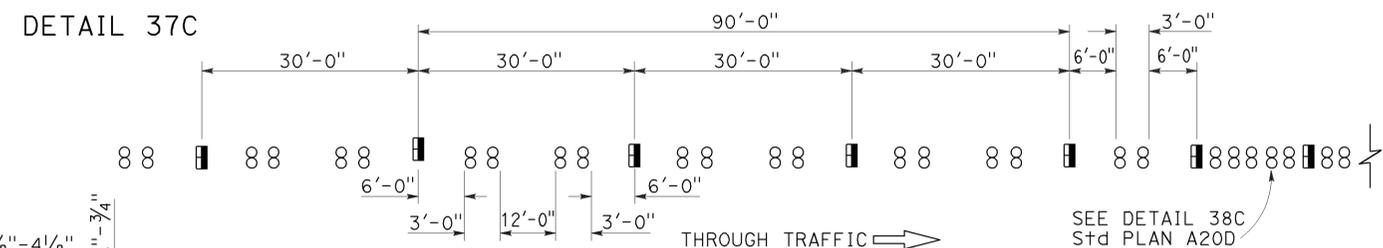
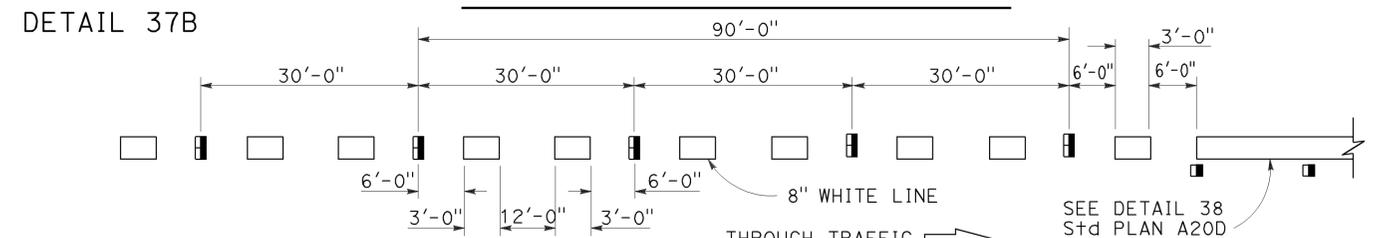
TO ACCOMPANY PLANS DATED 9-28-15

### LANE DROP AT EXIT RAMP



\* 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

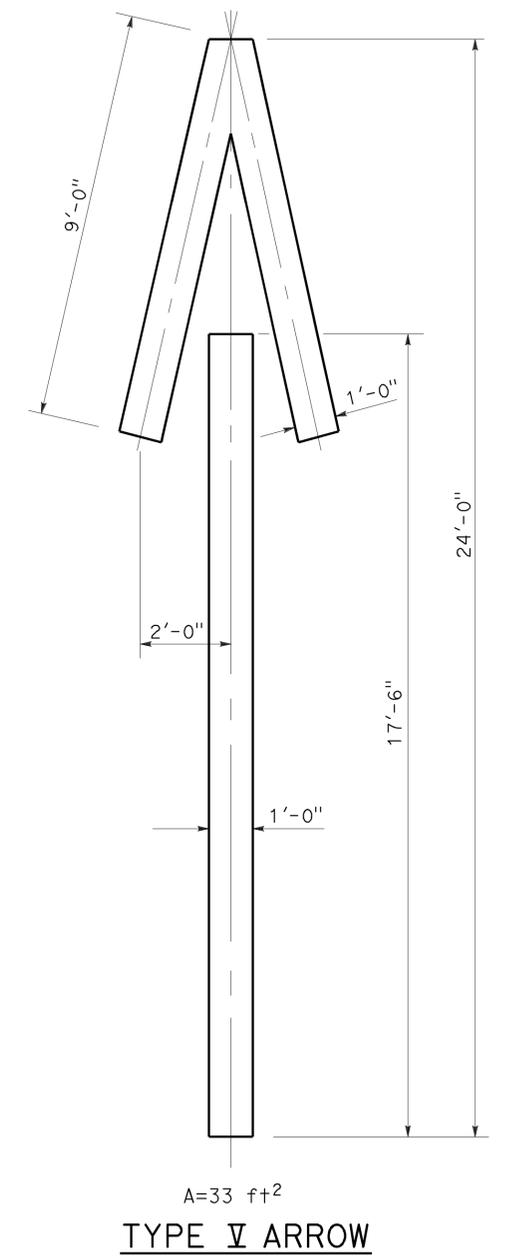
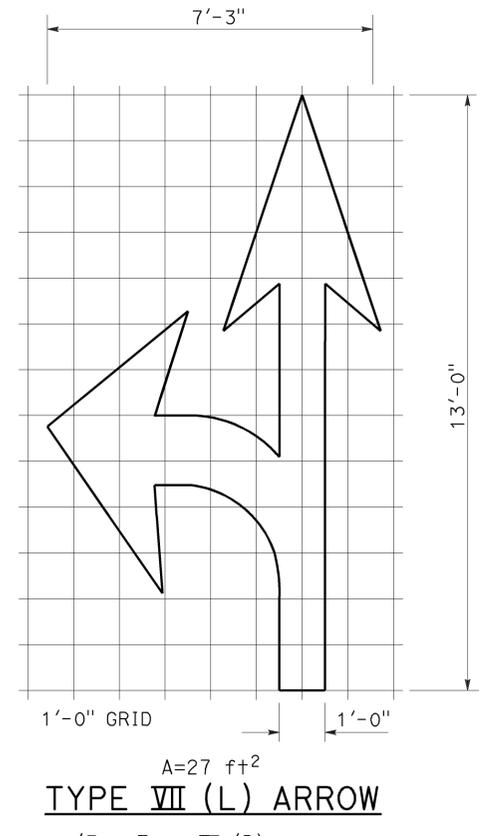
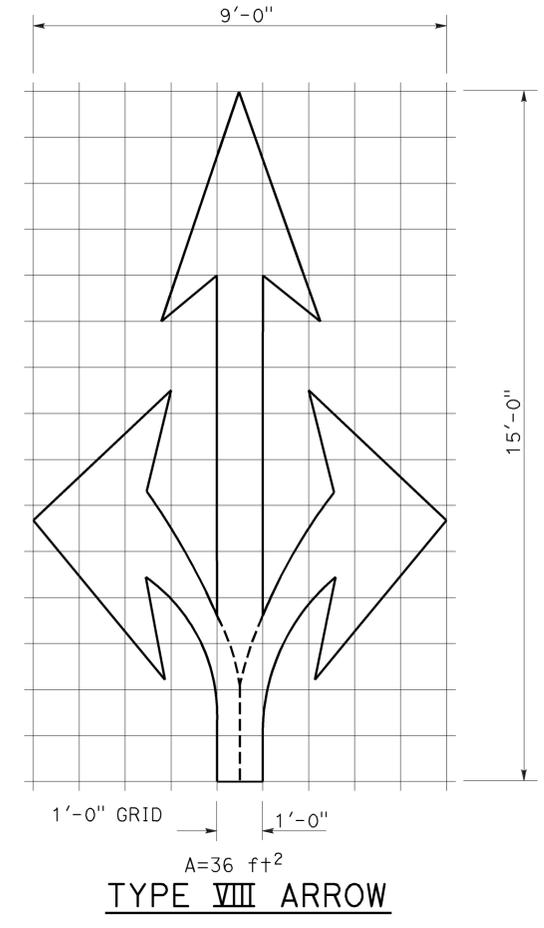
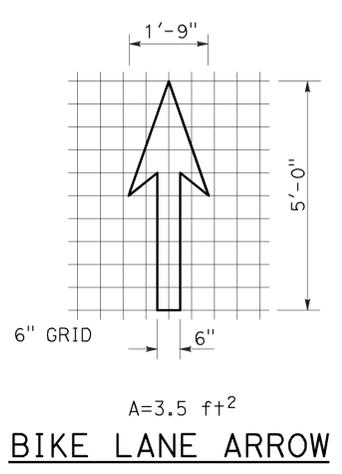
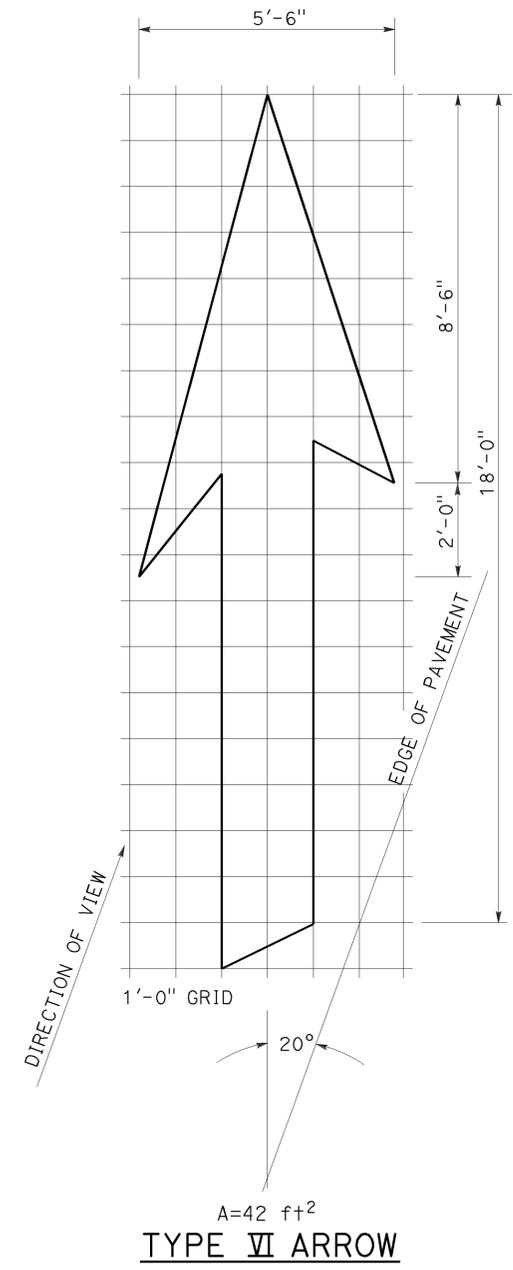
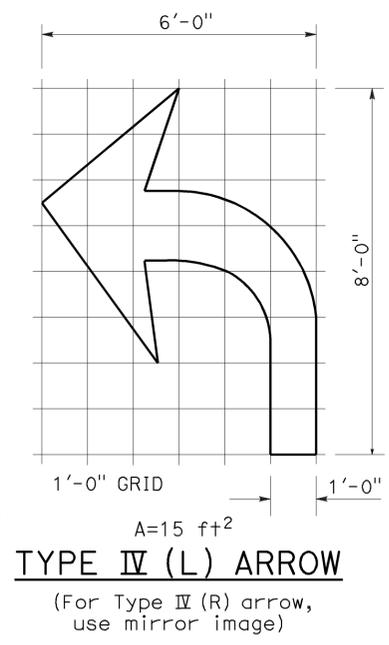
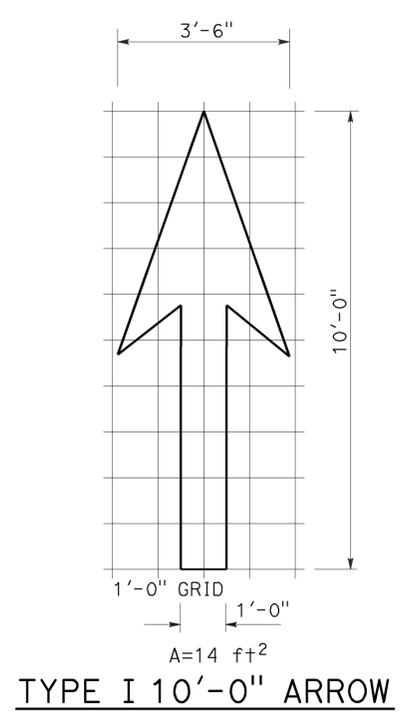
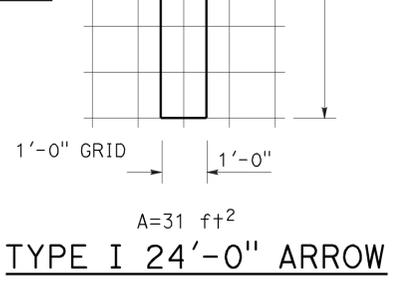
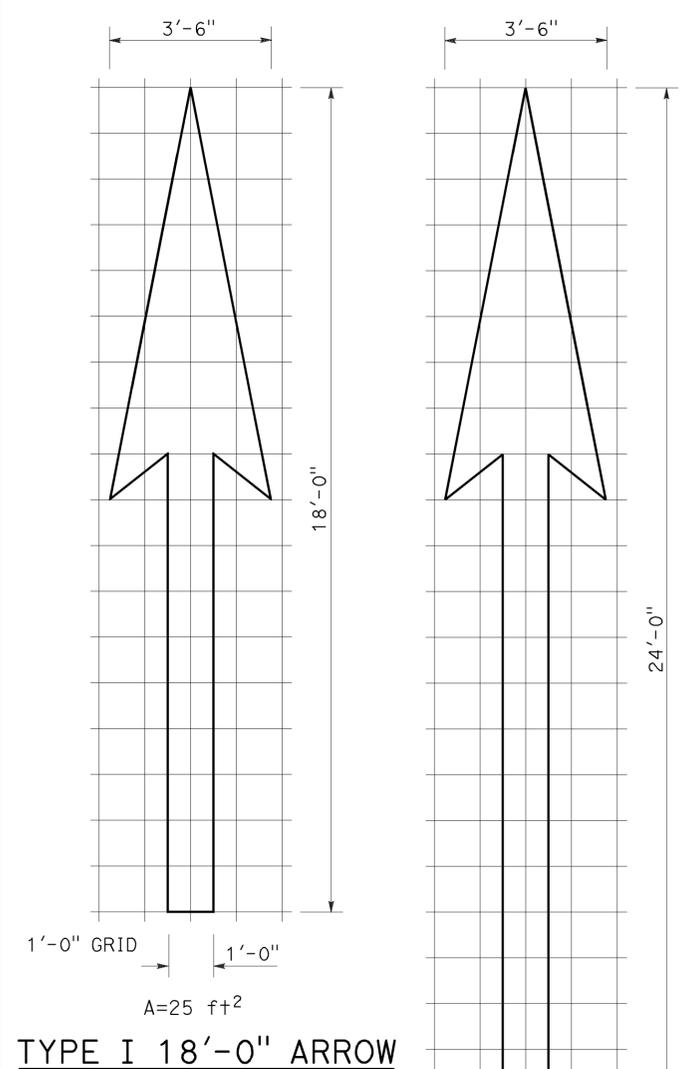
2010 REVISED STANDARD PLAN RSP A20C

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	32	48

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 9-28-15



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

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

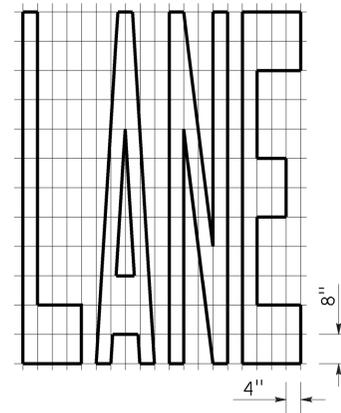
RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A DATED MAY 20, 2011 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP A24A**

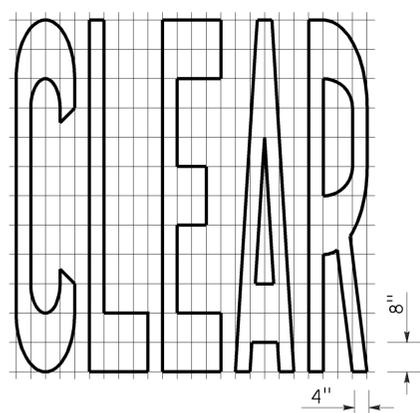
2010 REVISED STANDARD PLAN RSP A24A



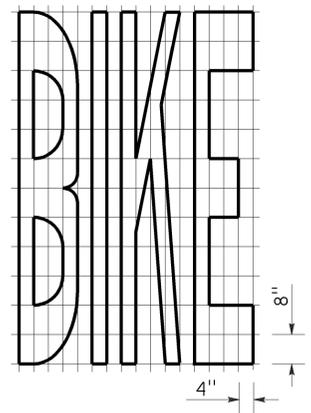
TO ACCOMPANY PLANS DATED 9-28-15



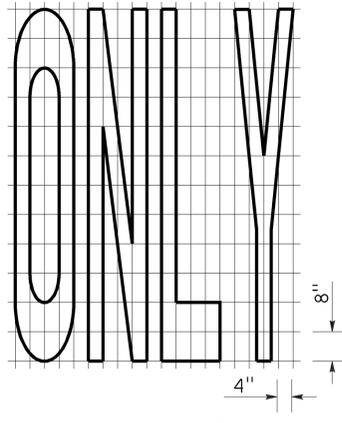
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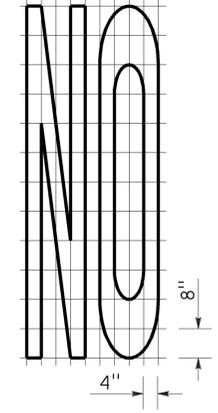
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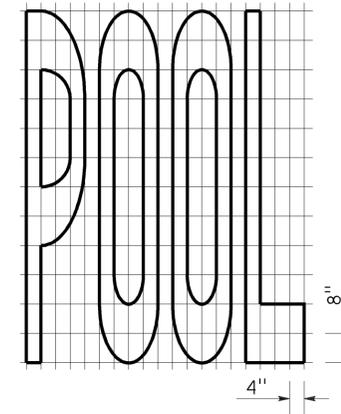
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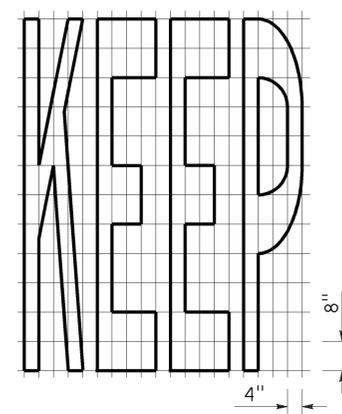
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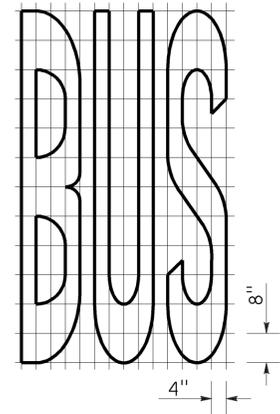
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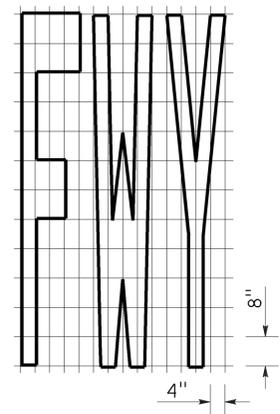
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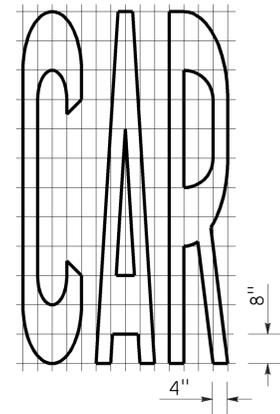
A=24 ft<sup>2</sup>



A=20 ft<sup>2</sup>

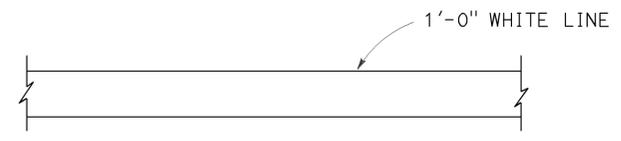
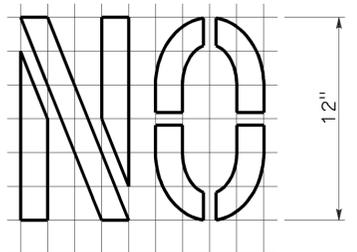


A=16 ft<sup>2</sup>

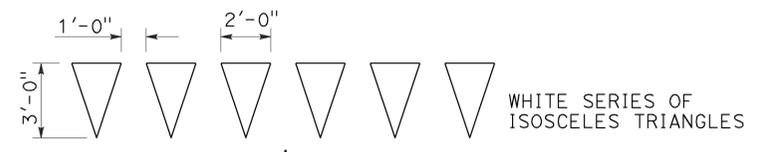


A=17 ft<sup>2</sup>

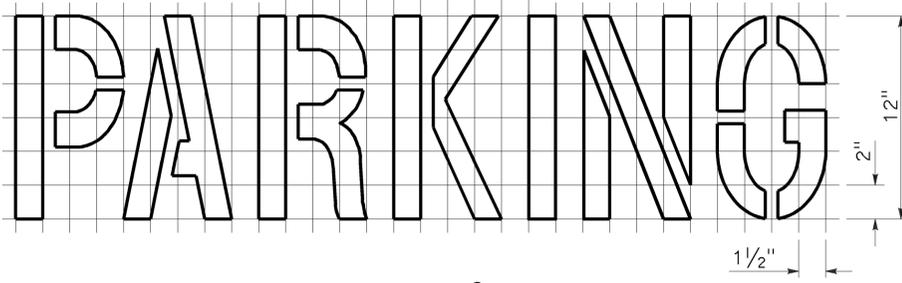
WORD MARKINGS			
ITEM	ft <sup>2</sup>	ITEM	ft <sup>2</sup>
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



LIMIT LINE (STOP LINE)



YIELD LINE



A=2 ft<sup>2</sup>  
See Notes 6 and 7

**NOTES:**

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

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS  
WORDS, LIMIT AND YIELD LINES**  
NO SCALE

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

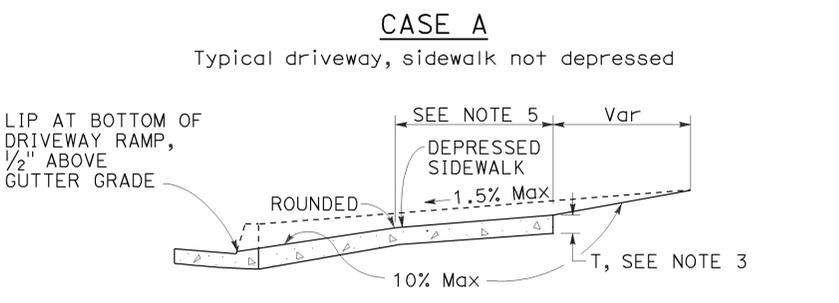
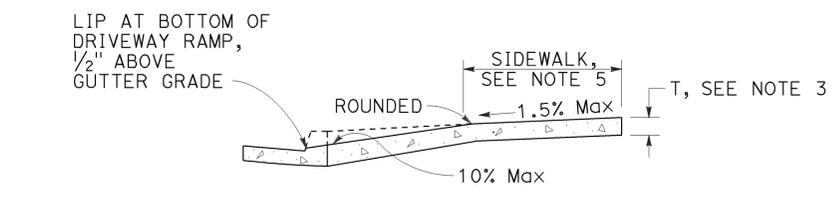
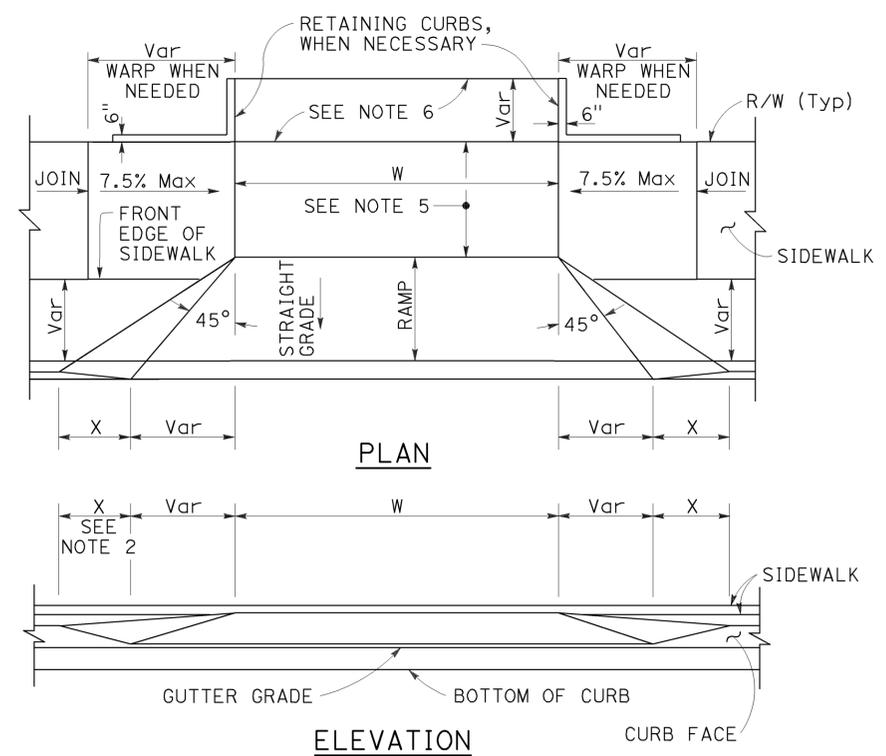
TO ACCOMPANY PLANS DATED 9-28-15

**CURB QUANTITIES**

TYPE	CUBIC YARDS PER LINEAR FOOT
A1-6	0.02585
A1-8	0.03084
A2-6	0.05903
A2-8	0.06379
A3-6	0.01036
A3-8	0.01435
B1-4	0.02185
B1-6	0.02930
B2-4	0.05515
B2-6	0.06171
B3-4	0.00641
B3-6	0.01074
B4	0.05709
D-4	0.04083
D-6	0.06804
E	0.06661

**TABLE A**

CURB TYPE	DIMENSIONS			
	"H1"	"H2"	"W1"	"W2"
A1-6	1'-2"	6"	7 1/2"	1 1/2"
A1-8	1'-4"	8"	8"	2"
A2-6	1'-0"	6"	2'-7 1/2"	1 1/2"
A2-8	1'-2"	8"	2'-8"	2"
A3-6	6"	5"	7 1/4"	1 1/4"
A3-8	8"	7"	7 3/4"	1 3/4"
B1-4	1'-0"	4"	7 1/2"	2 1/2"
B1-6	1'-2"	6"	9"	4"
B2-4	10"	4"	2'-7 1/2"	2 1/2"
B2-6	1'-0"	6"	2'-9"	4"
B3-4	4"	3"	7"	2"
B3-6	6"	5"	8 1/2"	3 1/2"
D-4	10"	4"	1'-6"	1'-1"
D-6	1'-0"	6"	2'-2"	1'-9"



**CASE A**

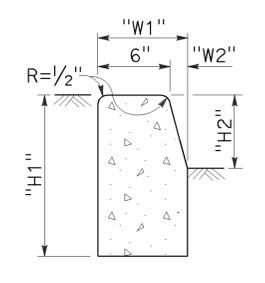
Typical driveway, sidewalk not depressed

**CASE B**

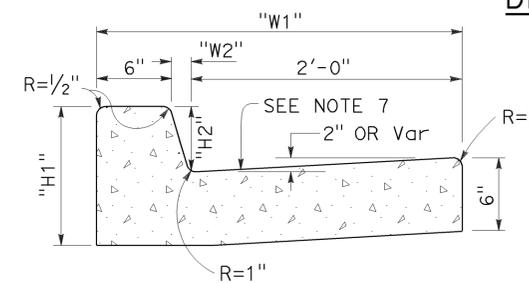
Driveway with depressed sidewalk

**SECTIONS**

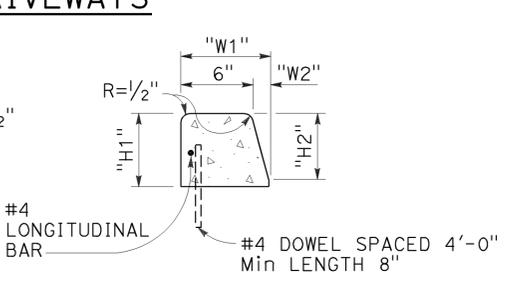
**DRIVEWAYS**



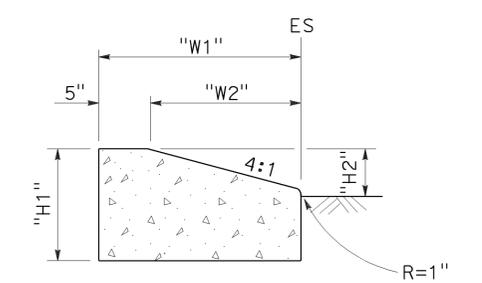
**TYPE A1 CURBS**  
See Table A



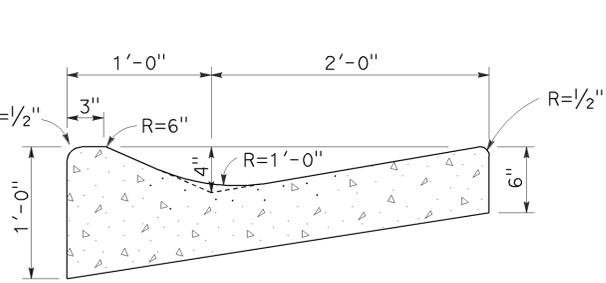
**TYPE A2 CURBS**  
See Table A



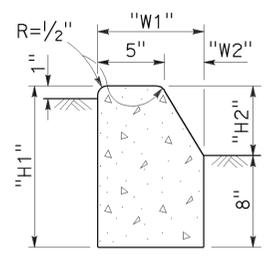
**TYPE A3 CURBS**  
Superimposed on existing pavement  
See Table A



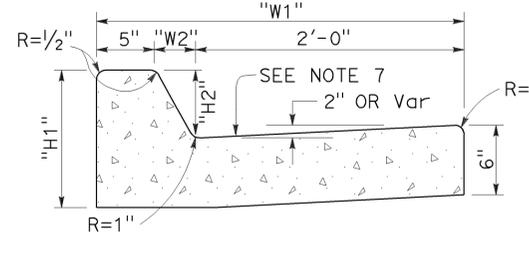
**TYPE D CURBS**  
See Table A



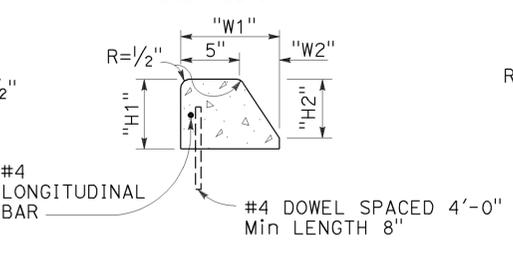
**TYPE E CURB**



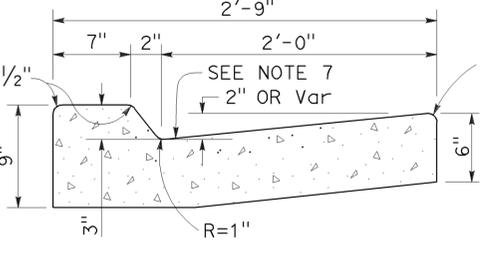
**TYPE B1 CURBS**  
See Table A



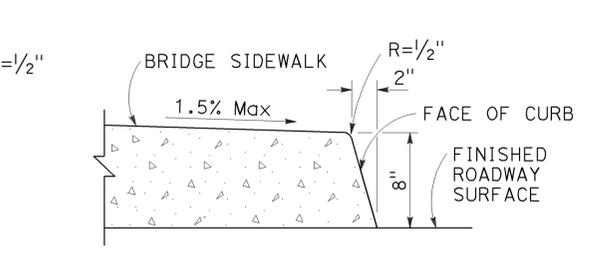
**TYPE B2 CURBS**  
See Table A



**TYPE B3 CURBS**  
Superimposed on existing pavement  
See Table A



**TYPE B4 CURBS**



**TYPE H CURB**  
On Bridges

**CURBS**

- NOTES:**
- Case A driveway section typically applies.
  - X=3'-0" except for curb heights over 10" where 4:1 slopes shall be used on curb slope.
  - Sidewalk and ramp thickness "T" at driveway shall be 4" for residential and 6" for commercial.
  - Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5'-0" from gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.
  - Minimum width of clear passageway for sidewalk shall be 4'-2".
  - Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 6".
  - Across the pedestrian route at curb ramp locations, the gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**CURBS AND DRIVEWAYS**

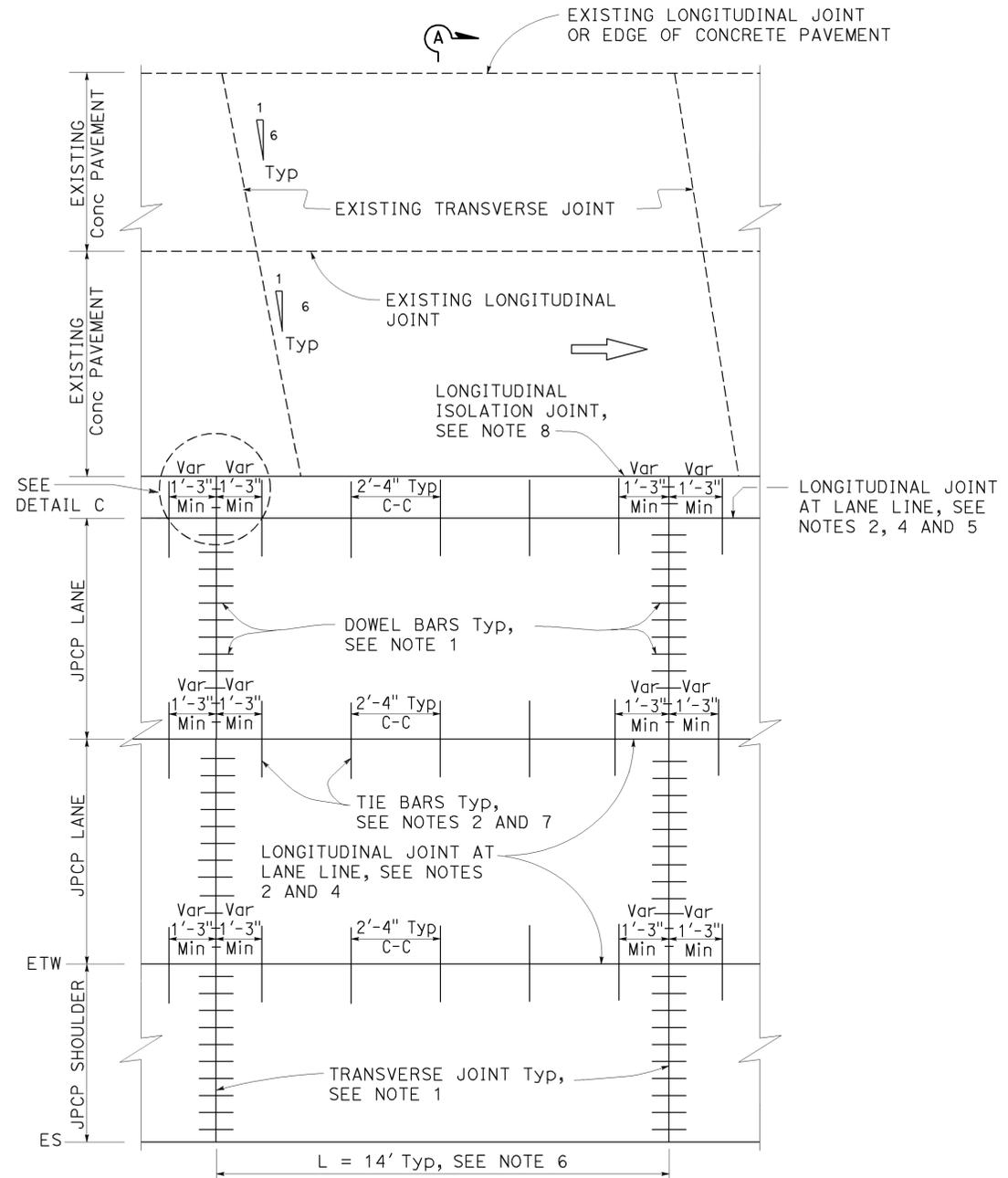
NO SCALE

RSP A87A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A87A  
DATED MAY 20, 2011 - PAGE 119 OF THE STANDARD PLANS BOOK DATED 2010.

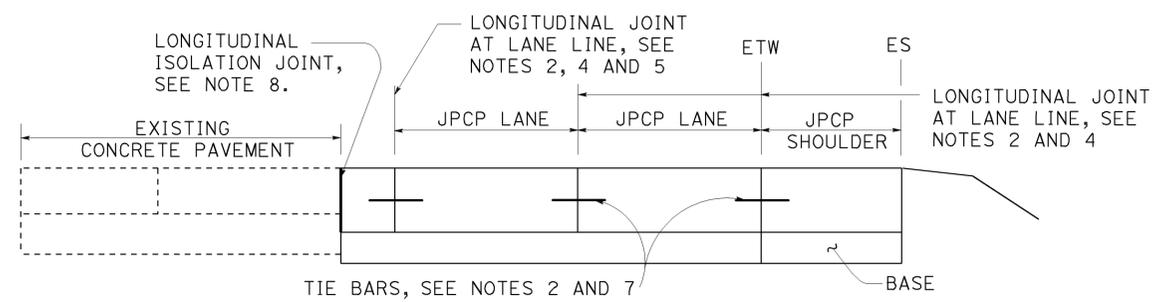
**REVISED STANDARD PLAN RSP A87A**

2010 REVISED STANDARD PLAN RSP A87A

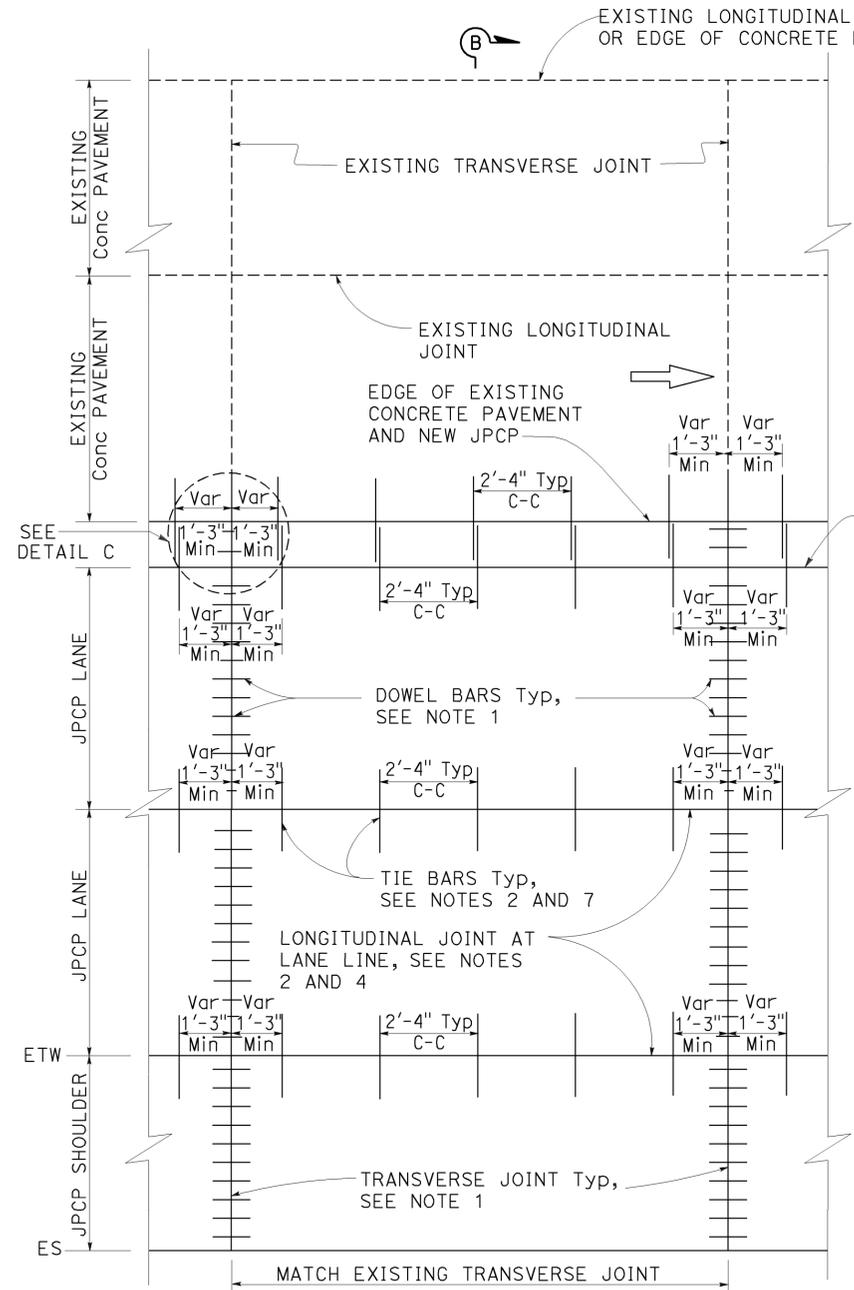
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	36	48
<i>William K. Farnbach</i> REGISTERED CIVIL ENGINEER					
July 19, 2013 PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					
TO ACCOMPANY PLANS DATED <u>9-28-15</u>					



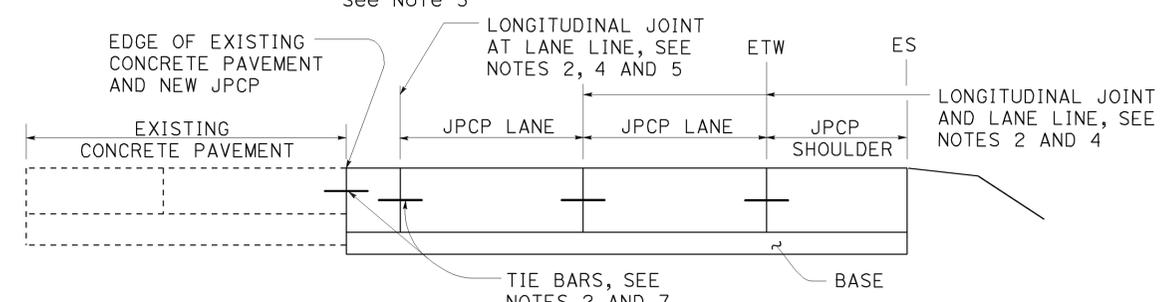
**PLAN ISOLATED**  
See Note 3



**SECTION A-A**



**PLAN TIED**  
See Note 3

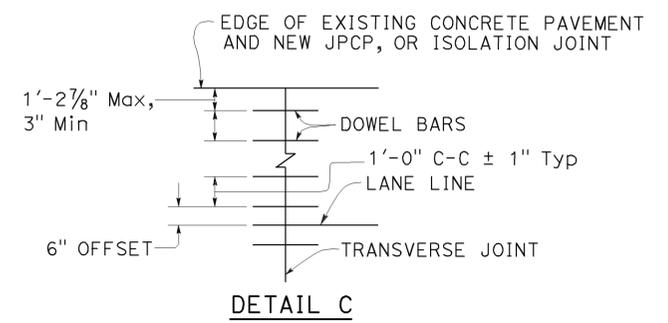


**SECTION B-B**

LONGITUDINAL JOINT AT LANE LINE, SEE NOTES 2, 4 AND 5

**NOTES:**

1. For transverse joint and dowel bar details not shown, see Revised Standard Plan RSP P10.
2. For longitudinal joint and tie bar details not shown, see Revised Standard Plan RSP P15.
3. For joint layout at intersections, see Project Plans.
4. For additional longitudinal joint details, see Revised Standard Plan RSP P18.
5. Omit longitudinal joint when edge of new concrete pavement is 3'-3" or less from JPCP lane line.
6. Transverse joint spacing may be adjusted to no less than 10' and no more than 15'-6" to conform to bridges, change in pavement type and existing pavement.
7. For dowel bars at longitudinal joint, see Revised Standard Plan RSP P18.
8. For isolation joints, see Detail A on Revised Standard Plan RSP P18.



**DETAIL C**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

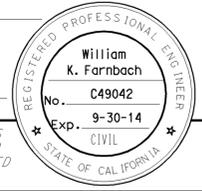
**JOINTED PLAIN CONCRETE PAVEMENT LANE & SHOULDER ADDITION OR REPLACEMENT**

NO SCALE

RSP P3A DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP P3A**

2010 REVISED STANDARD PLAN RSP P3A



TO ACCOMPANY PLANS DATED 9-28-15

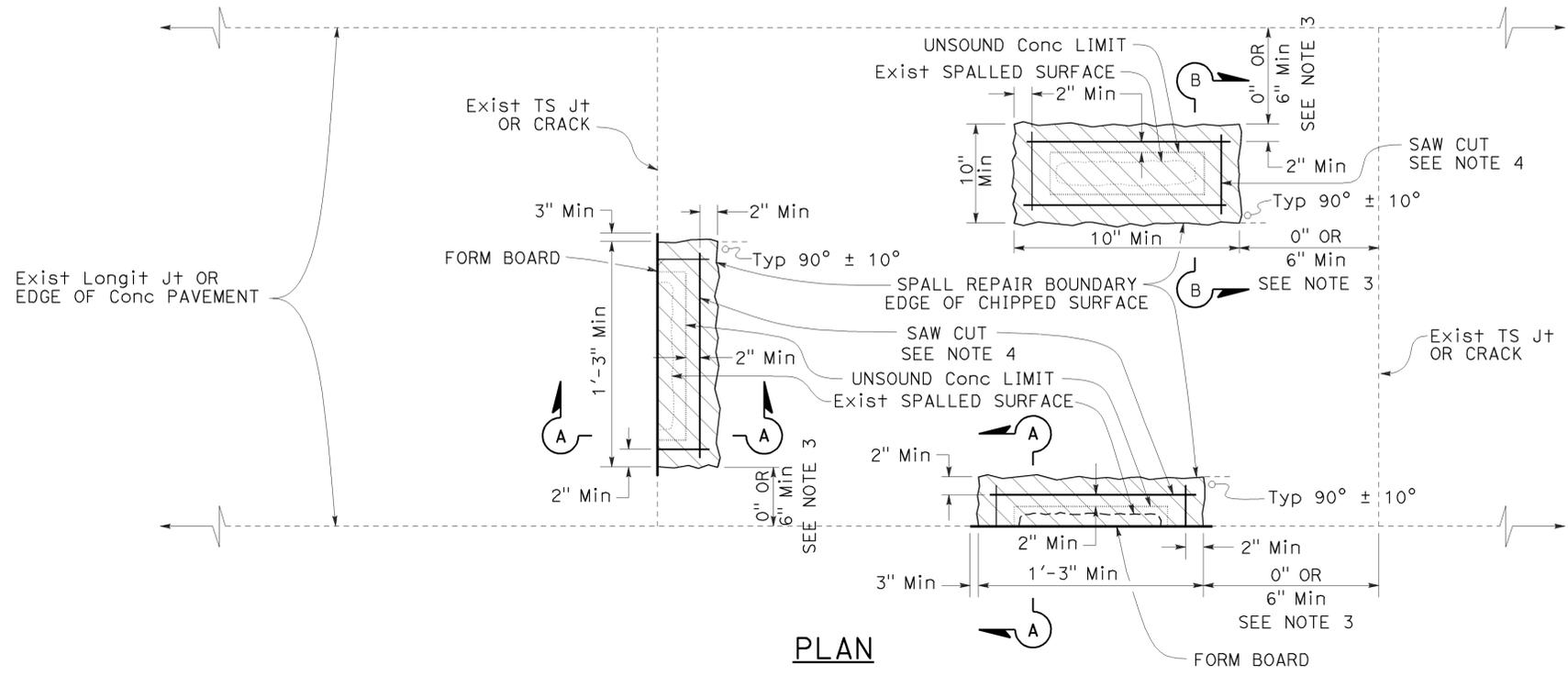
**LEGEND**



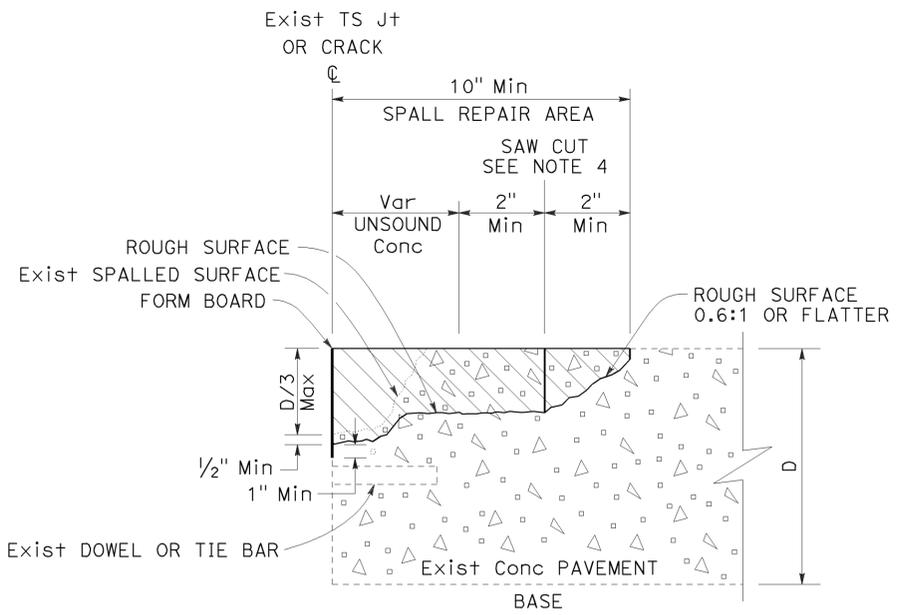
**NOTES:**

1. See Project Plans for spall repair locations.
2. Combine spall repair areas closer than 2' apart.
3. If the spall repair area is less than 6" from a joint, extend the repair to the joint.
4. Cut at least 2" beyond the rectangular limits of unsound concrete determined by the Engineer. Determine the saw cut depth using the following table:

Conc MATERIAL	SAW CUT DEPTH	
	Min	Max
FAST-SETTING	2"	3 1/2"
POLYESTER	1 1/2"	3 1/2"

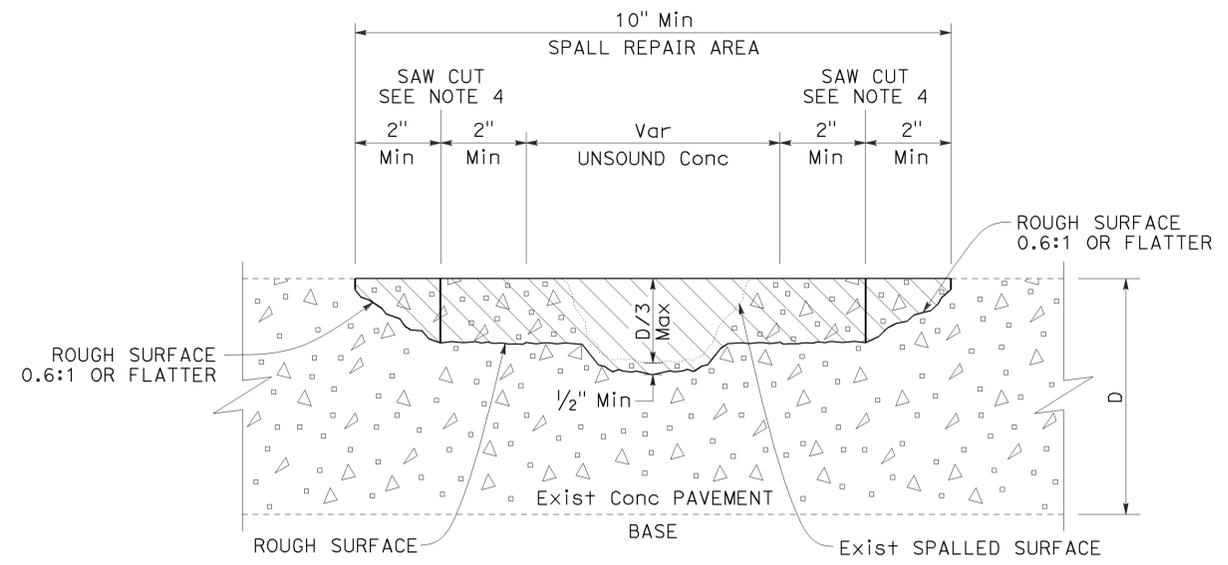


**PLAN**



**SECTION A-A**

**JOINT, CRACK, OR EDGE OF CONCRETE PAVEMENT REPAIR**



**SECTION B-B**

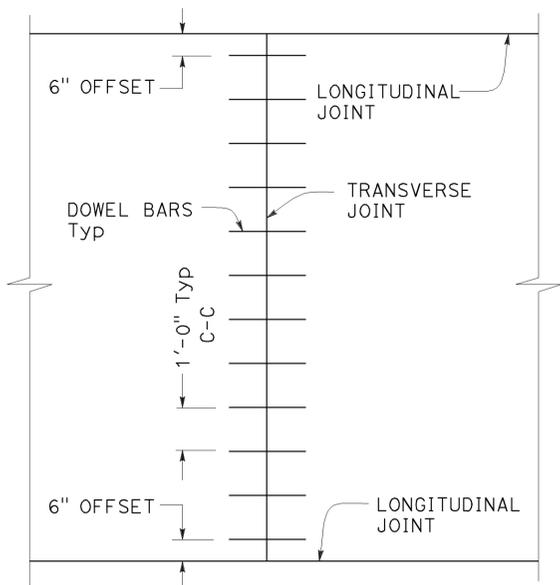
**MISCELLANEOUS SPALL REPAIR**

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**SPALL REPAIR**  
 NO SCALE

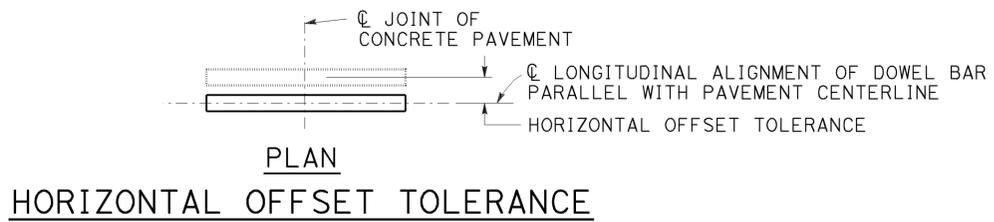
2010 REVISED STANDARD PLAN RSP P6

TO ACCOMPANY PLANS DATED 9-28-15

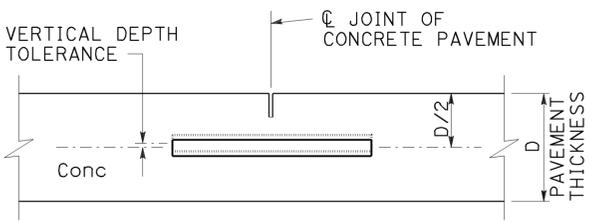
- NOTES:**
- See Revised Standard Plan RSP P1 for typical dowel bar placement and locations.
  - Where fresh concrete pavement is placed against new concrete or existing concrete pavement, rounding the corner of the existing concrete pavement is not required.
  - May also use 3/4" Dia dowel bars 2'-4" ± 1/4" in length. Center the length of dowel bars at the centerline of longitudinal joint.



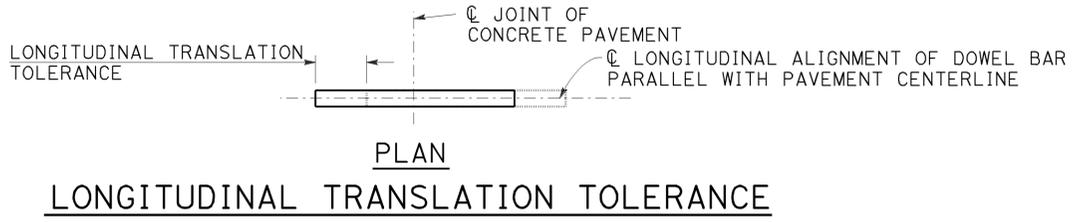
**TRANSVERSE JOINT  
DOWEL BAR LAYOUT**



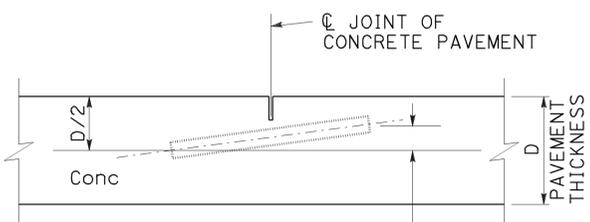
**PLAN  
HORIZONTAL OFFSET TOLERANCE**



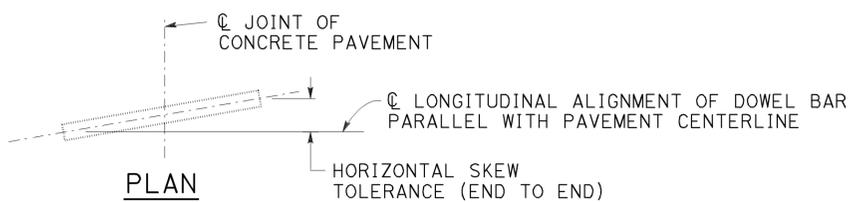
**ELEVATION  
VERTICAL DEPTH TOLERANCE**



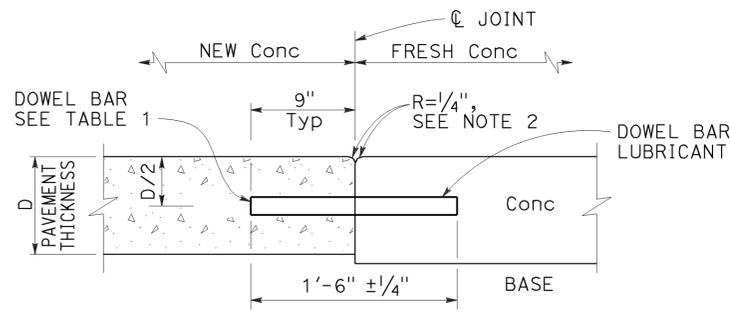
**PLAN  
LONGITUDINAL TRANSLATION TOLERANCE**



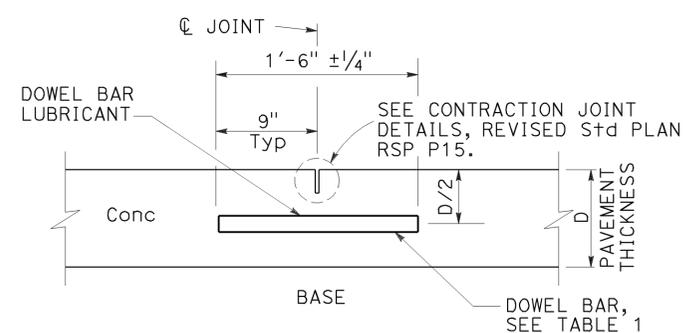
**ELEVATION  
VERTICAL SKEW TOLERANCE**



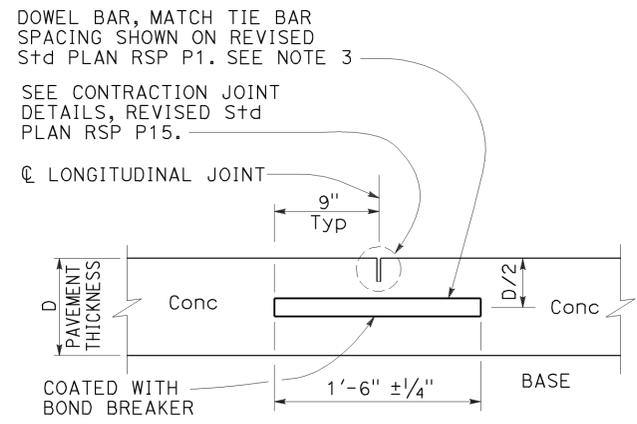
**PLAN  
HORIZONTAL SKEW TOLERANCE**



**TRANSVERSE  
CONSTRUCTION JOINT DETAIL**



**TRANSVERSE CONTRACTION JOINT**

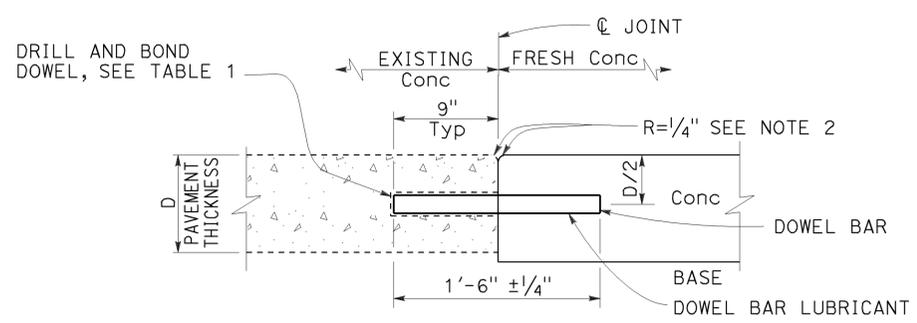


**LONGITUDINAL CONTRACTION  
JOINT WITH DOWEL BARS**  
See Revised Std Plan RSP P18

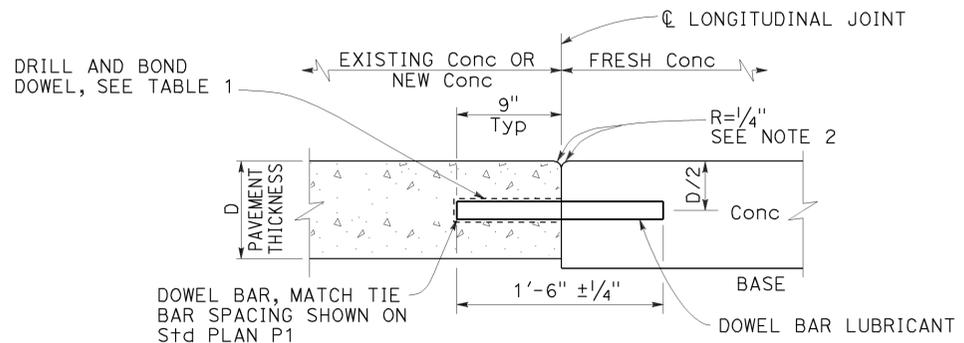
**TABLE 1  
DOWEL BAR DIAMETER TABLE**

PAVEMENT THICKNESS	0.65'	> 0.65' - 0.85'	> 0.85'
MINIMUM DOWEL * BAR DIAMETER	1"	1 1/4"	1 1/2"

\* The drilled hole diameter must be 1/8" to 3/16" larger than the bar diameter.



**TRANSVERSE CONSTRUCTION JOINT  
FOR EXISTING CONCRETE PAVEMENT**



**LONGITUDINAL CONSTRUCTION JOINT  
WITH DOWEL BARS**  
See Revised Std Plan RSP P18

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT  
DOWEL BAR  
DETAILS**  
NO SCALE

RSP P10 DATED JULY 19, 2013 SUPERSEDES RSP P10 DATED APRIL 20, 2012 AND STANDARD PLAN P10 DATED MAY 20, 2011 - PAGE 131 OF THE STANDARD PLANS BOOK DATED 2010.

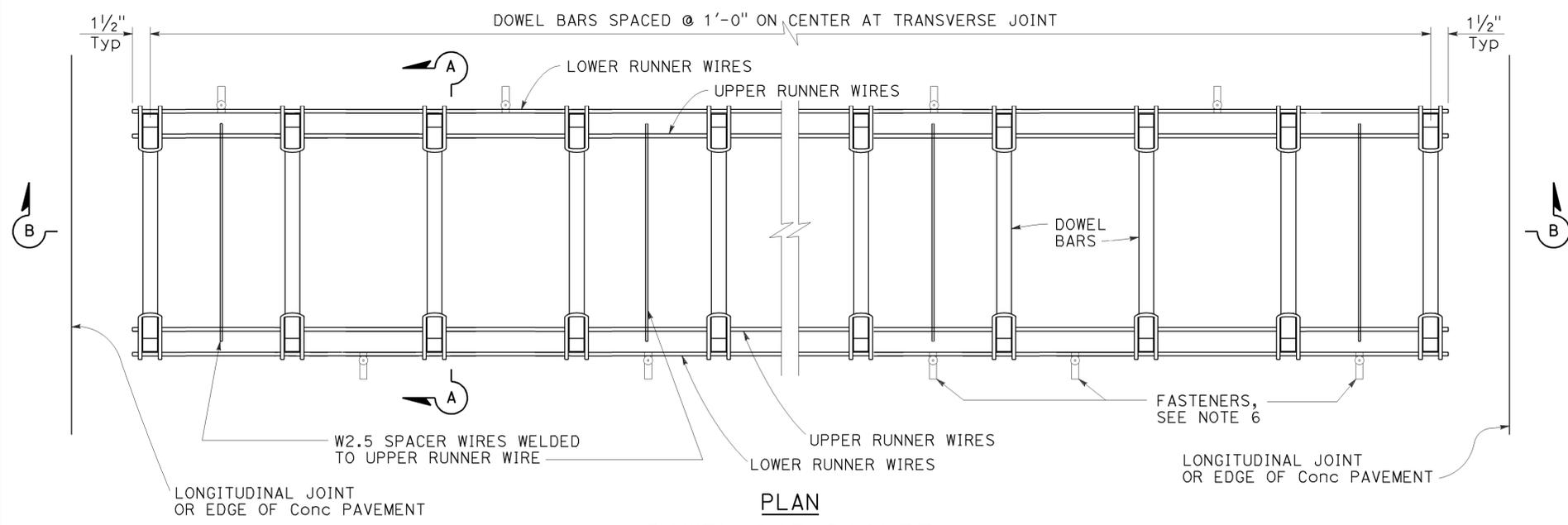
2010 REVISED STANDARD PLAN RSP P10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	39	48

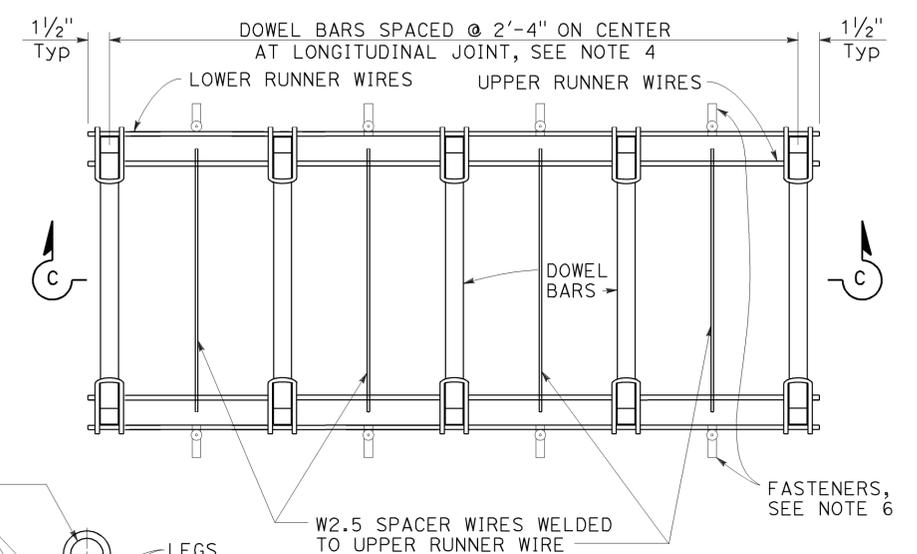
William K. Farnbach  
 REGISTERED CIVIL ENGINEER  
 July 19, 2013  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER  
 William K. Farnbach  
 No. C49042  
 Exp. 9-30-14  
 CIVIL  
 STATE OF CALIFORNIA

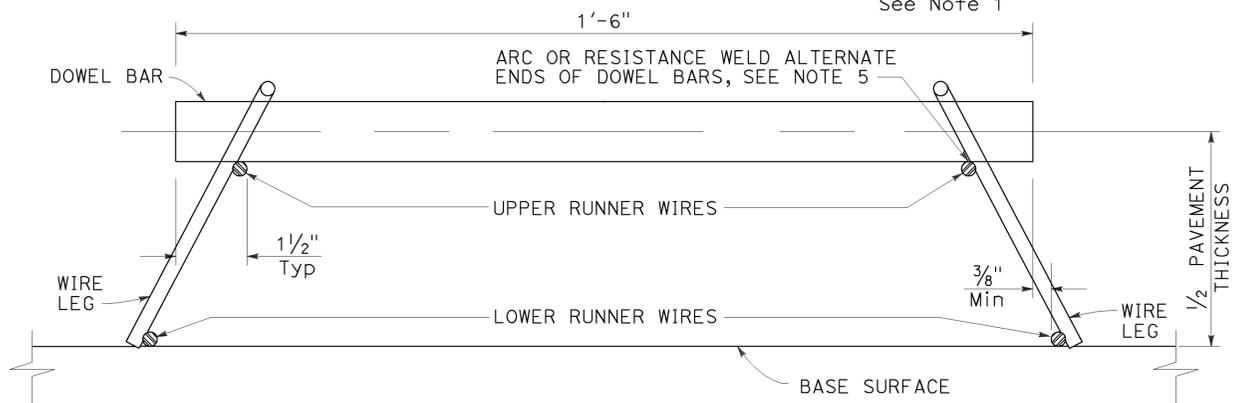
TO ACCOMPANY PLANS DATED 9-28-15



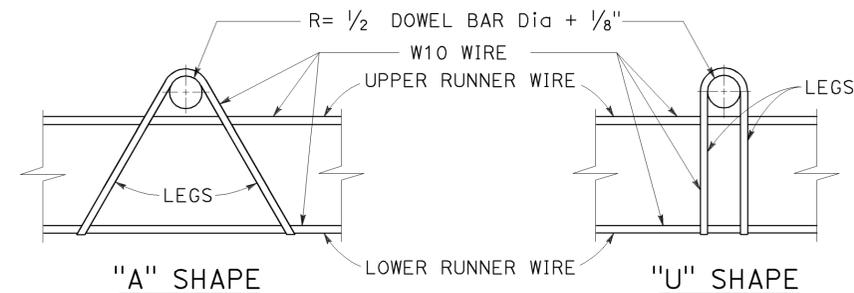
**PLAN**  
**DOWEL BAR BASKET**  
**(TRANSVERSE JOINT)**  
 See Note 1



**PLAN**  
**DOWEL BAR BASKET**  
**(LONGITUDINAL JOINT)**  
 See Note 1



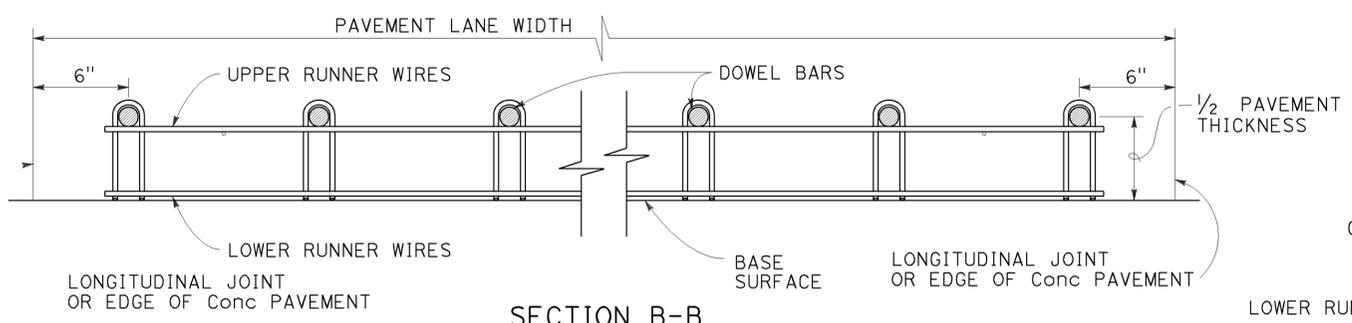
**SECTION A-A**



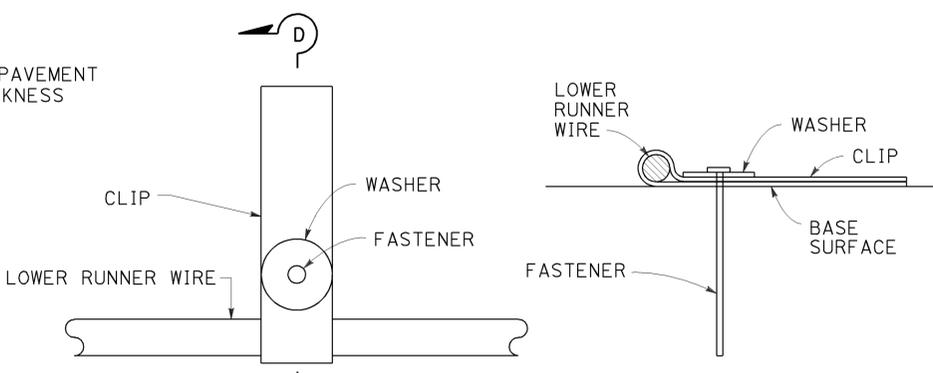
**ASSEMBLY FRAME DETAILS**

**NOTES:**

- "U" frame shape assembly shown. Use either "U" frame shape or "A" frame shape.
- Wire sizes shown are the minimum required.
- All wire intersections must be resistance welded.
- Use tie bar spacing for longitudinal dowel bar locations. See Revised Standard Plans RSP P1, RSP P2, RSP P3A, and RSP P3B for tie bar requirements.
- Weld may be at the top or bottom of the dowel bar.
- Use anchor pins where soil or granular base is used. See Revised Standard Plan RSP P17 for Anchor Pin Detail.

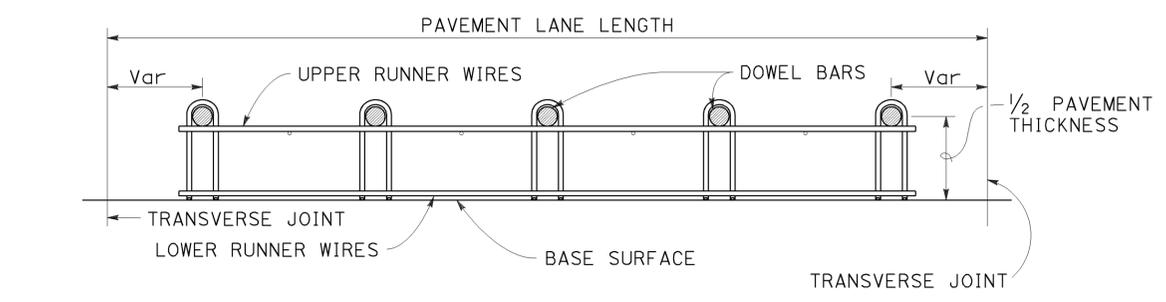


**SECTION B-B**  
 See Note 1



**FASTENER DETAIL**  
 See Note 6

**SECTION D-D**



**SECTION C-C**  
 See Notes 1 and 4

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT**  
**DOWEL BAR BASKET**  
**DETAILS**  
 NO SCALE

RSP P12 DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN P12  
 DATED MAY 20, 2011 - PAGE 132 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP P12**

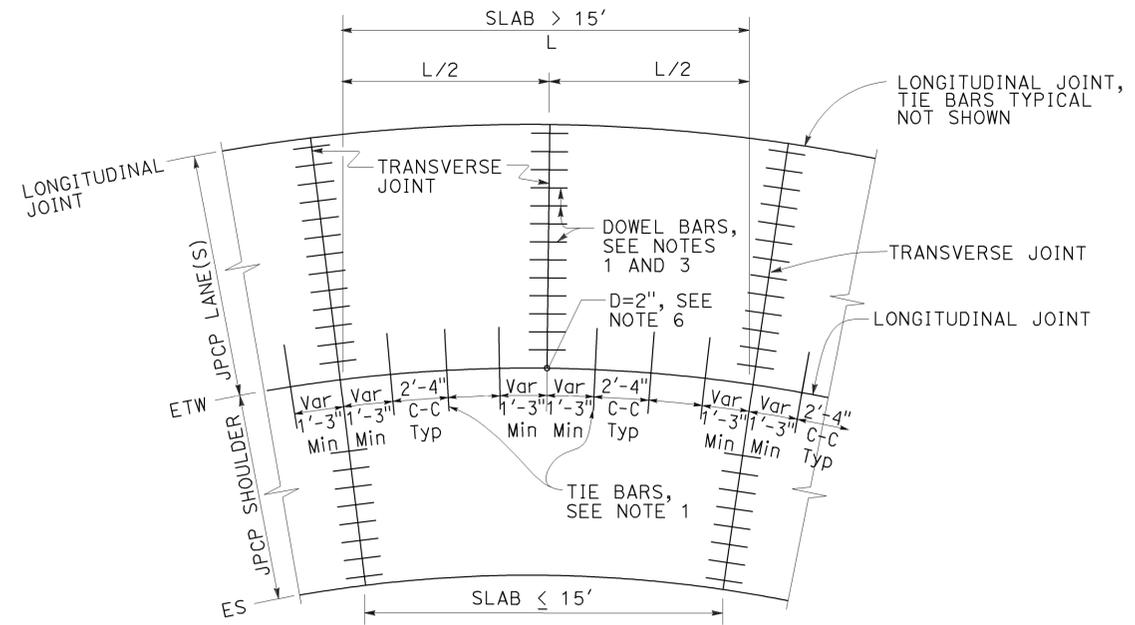
2010 REVISED STANDARD PLAN RSP P12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	40	48

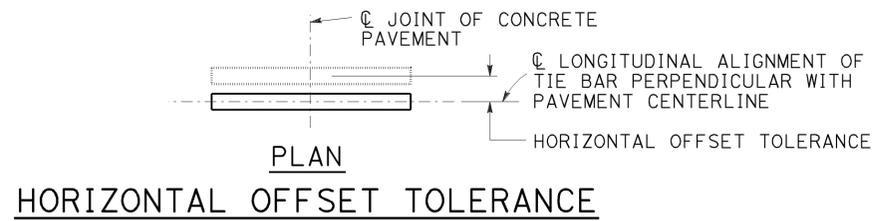
William K. Farnbach  
 REGISTERED CIVIL ENGINEER  
 July 19, 2013  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER  
 William K. Farnbach  
 No. C49042  
 Exp. 9-30-14  
 CIVIL  
 STATE OF CALIFORNIA

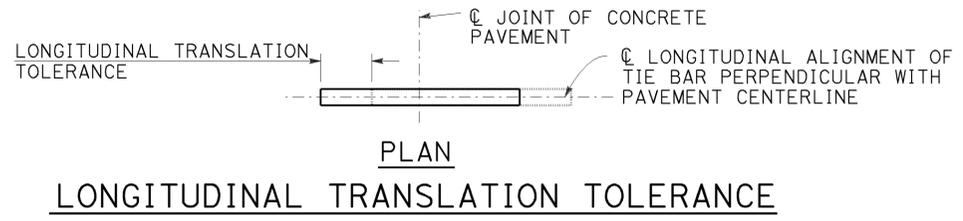
TO ACCOMPANY PLANS DATED 9-28-15



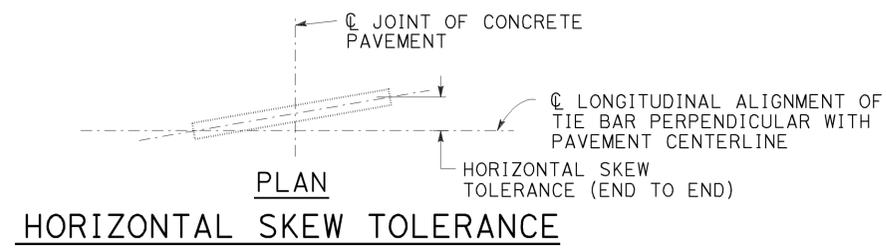
**TIE BAR LAYOUT IN CURVED LANES**



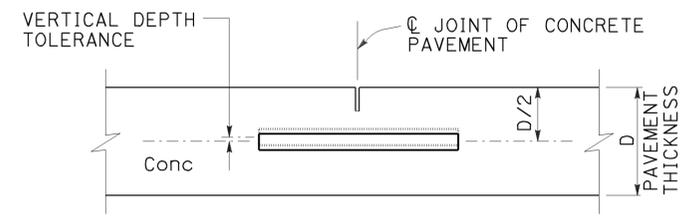
**HORIZONTAL OFFSET TOLERANCE**



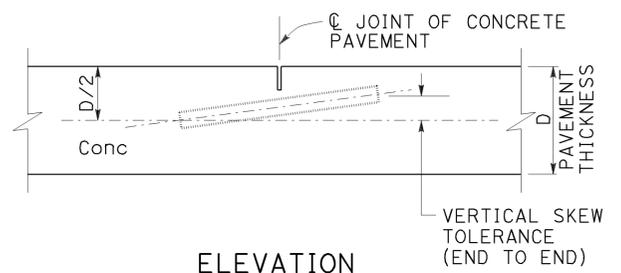
**LONGITUDINAL TRANSLATION TOLERANCE**



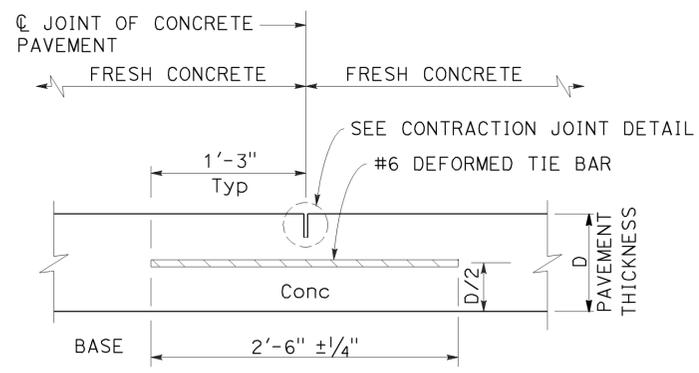
**HORIZONTAL SKEW TOLERANCE**



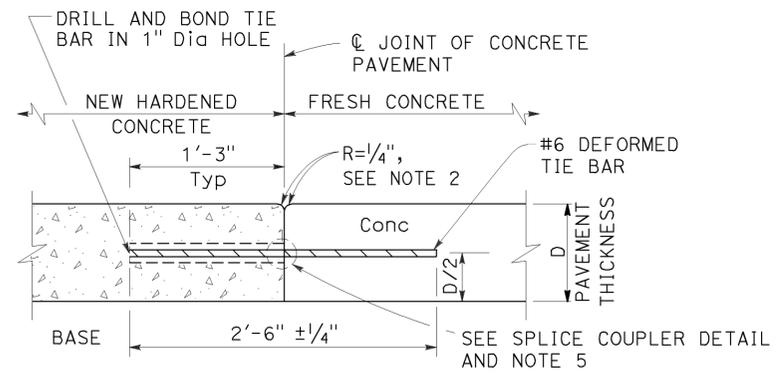
**ELEVATION VERTICAL DEPTH TOLERANCE**



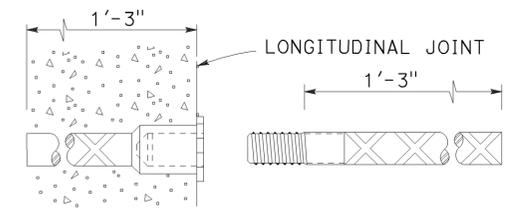
**ELEVATION VERTICAL SKEW TOLERANCE**



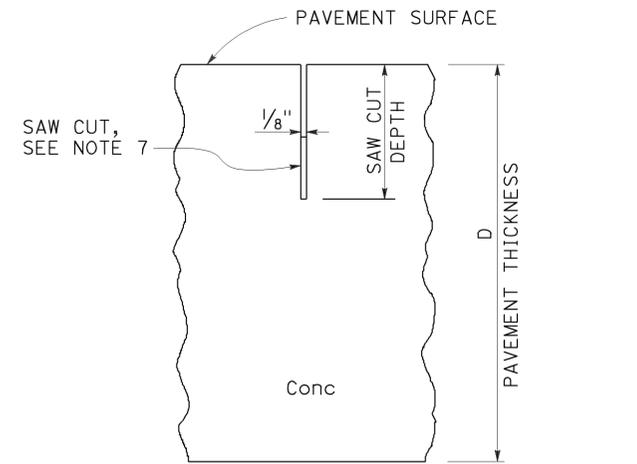
**LONGITUDINAL CONTRACTION JOINT**



**LONGITUDINAL CONSTRUCTION JOINT**



**ALTERNATIVE SPLICE COUPLER**



**CONTRACTION JOINT DETAIL**

- NOTES:**
1. See Revised Standard Plan RSP P1 for typical dowel bar and tie bar placement and locations.
  2. Where new pavement is placed against existing concrete pavement, rounding the corner is not required.
  3. For dowel bar sizes, See Revised Standard Plan RSP P10.
  4. Tie bar details apply to inside widenings.
  5. Use either drill and bond or splice couplers.
  6. Full depth drilled hole. Fill hole with filler material.
  7. The bottom of the saw cut must be at least 0.5" clear of any dowel bar, tie bar and bar reinforcement.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**CONCRETE PAVEMENT-TIE BAR DETAILS**  
 NO SCALE

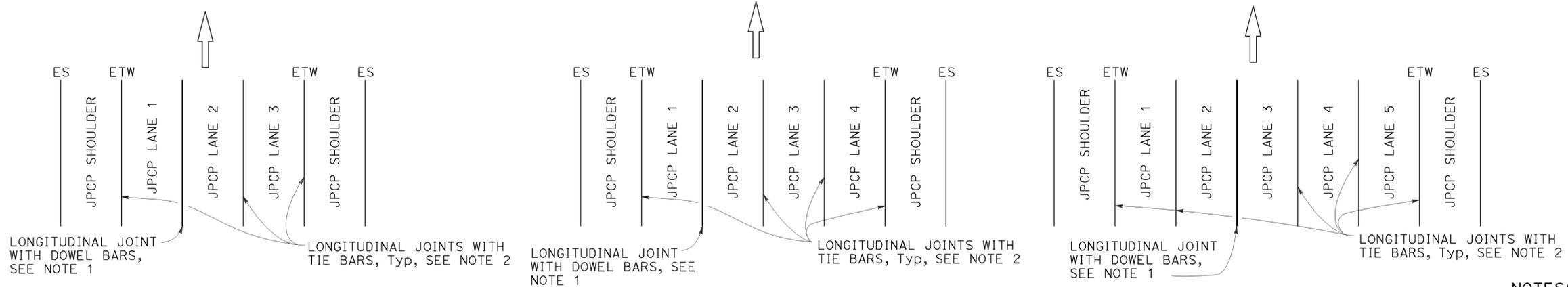
RSP P15 DATED JULY 19, 2013 SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

2010 REVISED STANDARD PLAN RSP P15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	41	48

William K. Farnbach  
 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.

2010 REVISED STANDARD PLAN RSP P18



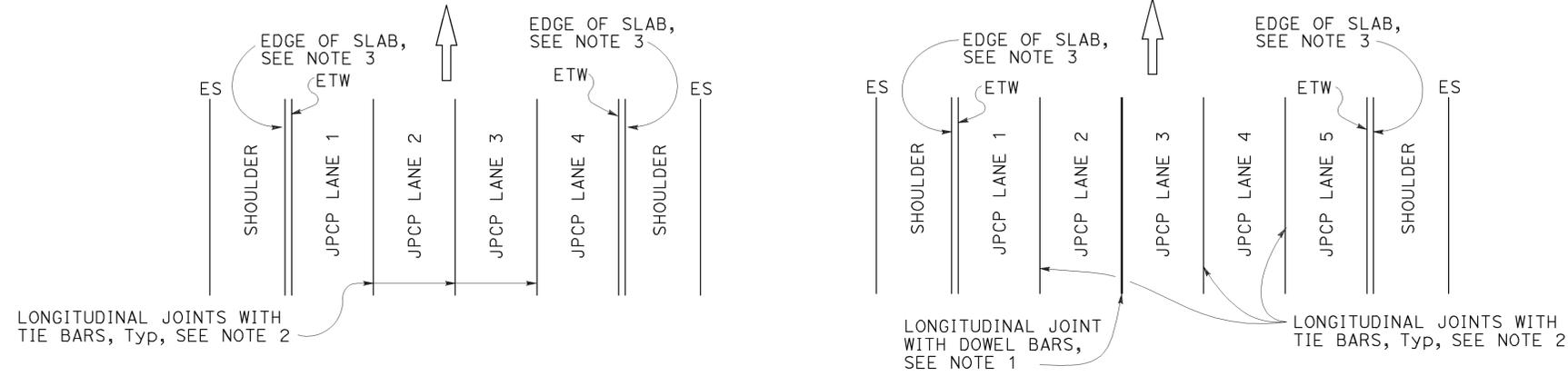
**3 LANES WITH CONCRETE SHOULDERS**  
PLAN

**4 LANES WITH CONCRETE SHOULDERS**  
PLAN

**5 LANES WITH CONCRETE SHOULDERS**  
PLAN

**NOTES:**

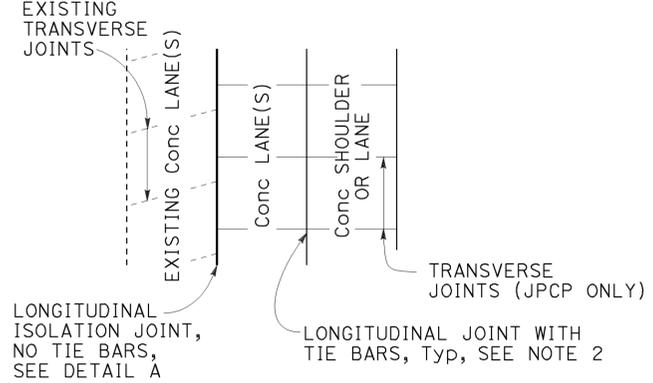
- See Revised Standard Plan RSP P10 for longitudinal joint with dowel bars.
- See Revised Standard Plan RSP P15 for longitudinal joint with tie bars.
- S = Reservoir depth.  
 $S = \frac{7}{8}'' \pm \frac{1}{16}''$  for asphalt rubber seals  
 $S = \frac{9}{16}'' \pm \frac{1}{16}''$  for silicone seals  
 Preformed compression seals must be  $\frac{13}{16}''$  wide and  $S = 1\frac{1}{16}'' \pm \frac{1}{16}''$



**4 LANES OR LESS WITH AC SHOULDERS**  
PLAN

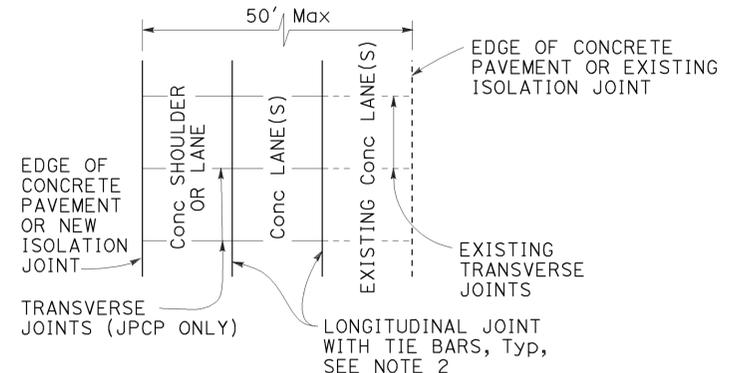
**5 LANES WITH AC SHOULDERS**  
PLAN

**NEW CONSTRUCTION**  
Location of Longitudinal Joints For JPCP



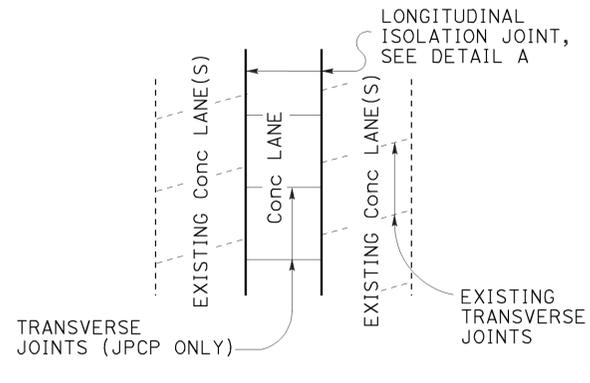
**CASE 1**  
PLAN

Transverse joints do not align between new and existing.



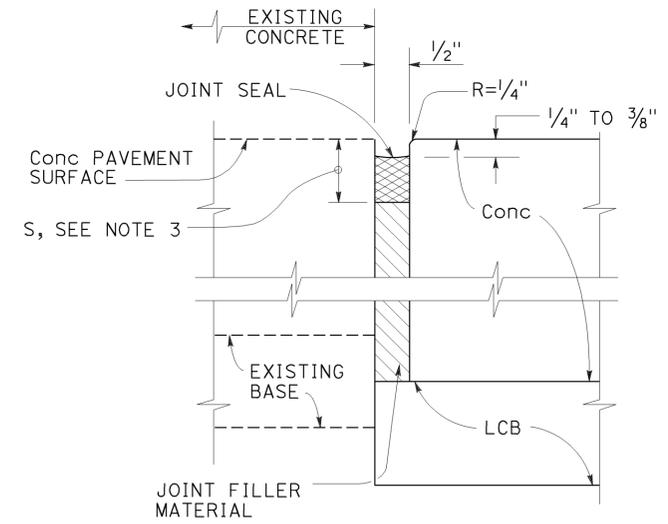
**CASE 2**  
PLAN

Transverse joints align between new and existing. (For JPCP only)



**CASE 3 (INTERIOR LANE REPLACEMENT)**  
PLAN

Transverse joints do not align between new and existing.



**DETAIL "A"**  
**ISOLATION JOINT**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**CONCRETE PAVEMENT  
LANE SCHEMATICS  
AND ISOLATION JOINT DETAIL**

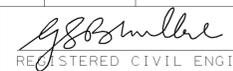
NO SCALE

**LANE/SHOULDER ADDITION OR RECONSTRUCTION**  
For JPCP and CRCP

RSP P18 DATED JULY 19, 2013 SUPERSEDES RSP P18 DATED APRIL 20, 2012 AND STANDARD PLAN P18 DATED MAY 20, 2011 - PAGE 135 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP P18**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	42	48

  
 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 9-28-15

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
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**

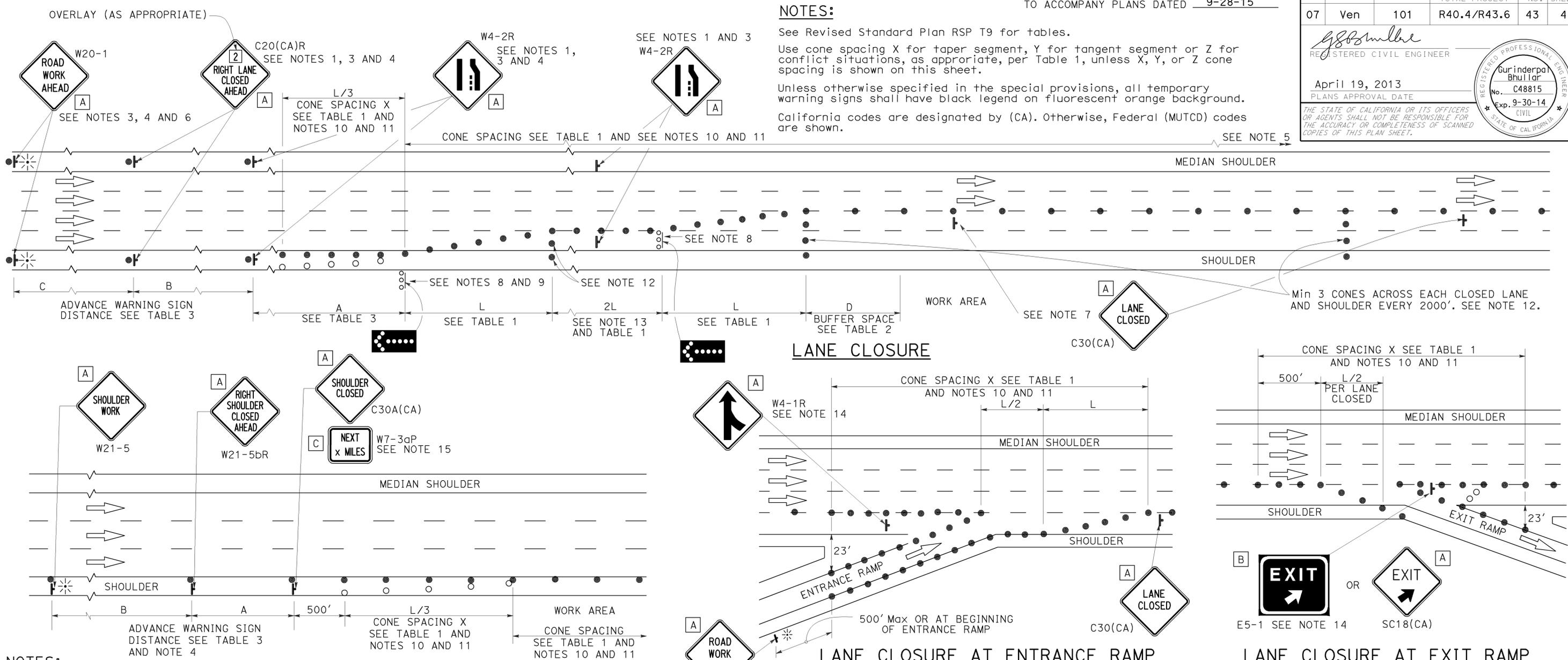
2010 REVISED STANDARD PLAN RSP T9

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	43	48

REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE

Gurinderpal Bhullar  
 No. C48815  
 Exp. 9-30-14  
 CIVIL ENGINEER  
 STATE OF CALIFORNIA

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

- SHOULDER CLOSURE**
6. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT x MILES", use a C20(CA)L and W4-2L signs shall be used.
  7. Place a C30(CA) sign every 2000' throughout length of lane closure.
  8. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
  9. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at top of crest vertical curve or on a horizontal curve.
  10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
  11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.

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

**LEGEND**

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

**SIGN PANEL SIZE (Min)**

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

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

**TRAFFIC CONTROL SYSTEM  
 FOR LANE CLOSURE ON  
 FREEWAYS AND EXPRESSWAYS**

NO SCALE

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

**REVISED STANDARD PLAN RSP T10**

2010 REVISED STANDARD PLAN RSP T10

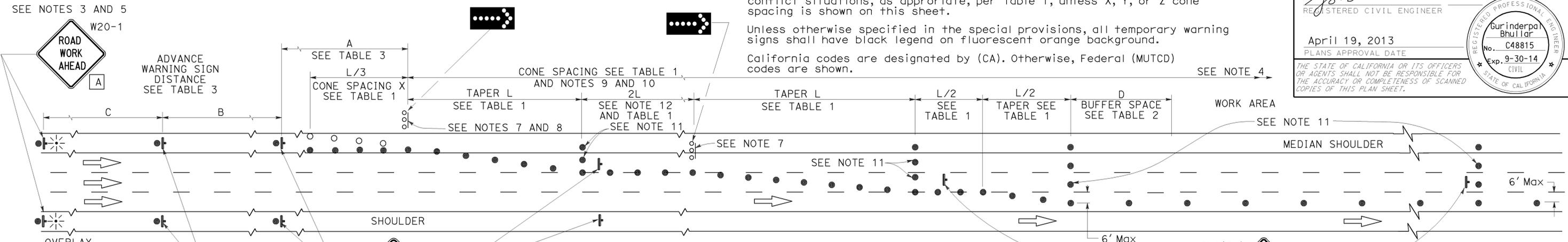
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	44	48

REGISTERED CIVIL ENGINEER  
 Gurinderpal Bhullar  
 No. C48815  
 Exp. 9-30-14  
 CIVIL  
 STATE OF CALIFORNIA

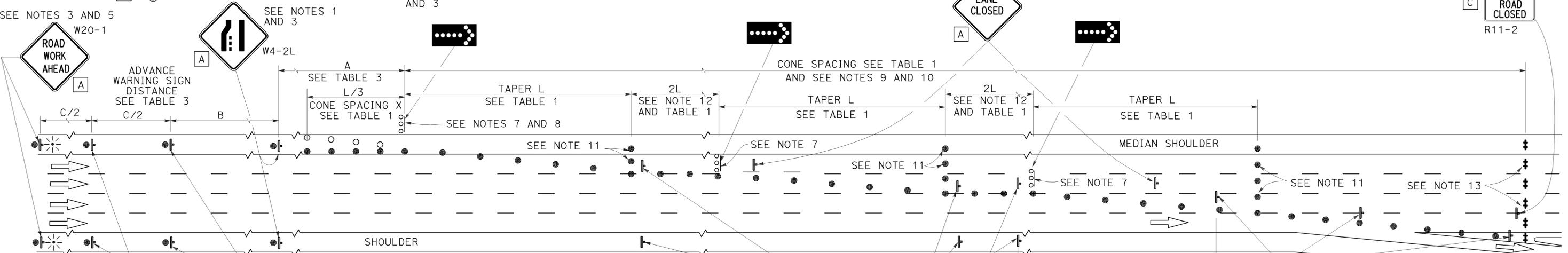
April 19, 2013  
 PLANS APPROVAL DATE

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.

**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.



**LANE CLOSURE WITH PARTIAL SHOULDER USE**



**COMPLETE CLOSURE**

**NOTES:**

- Lane closures on the right side using partial median shoulder as a traffic lane shall conform to the details as shown except that C20(CA)R and W4-2R signs shall be used.
- At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
- Each advance warning sign on each side of the roadway shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" X 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
- A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious or ends within a larger project's limits.
- 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.
- Place a C30(CA) sign every 2000' throughout length of lane closure.
- One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
- A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
- All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
- Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
- Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure With Partial Shoulder Use" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.

- Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
- A minimum of Two Type II or III barricades shall be placed across each closed lane and shoulder at the location shown and every 2000' within the complete closure area. Within the complete closure area, the transverse alignment of the barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
- When specified in the special provisions, a W20-2 "DETOUR AHEAD" sign is to be used in place of the W20-3 "FREEWAY CLOSED AHEAD" sign.

**SIGN PANEL SIZE (Min)**

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

**LEGEND**

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

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR LANE CLOSURES ON  
 FREEWAYS AND EXPRESSWAYS**  
 NO SCALE

RSP T10A DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10A DATED MAY 20, 2011 - PAGE 238 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T10A**

2010 REVISED STANDARD PLAN RSP T10A

# 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
07	Ven	101	R40.4/R43.6	45	48

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

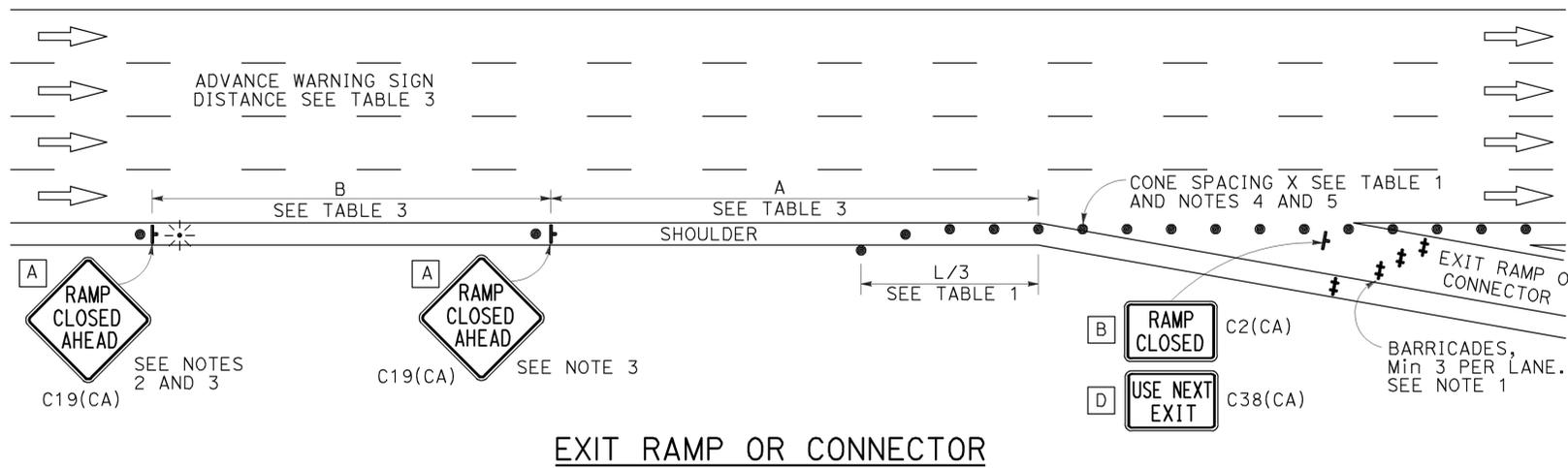
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER  
 Gurinderpal Bhullar  
 No. C48815  
 Exp. 9-30-14  
 CIVIL  
 STATE OF CALIFORNIA

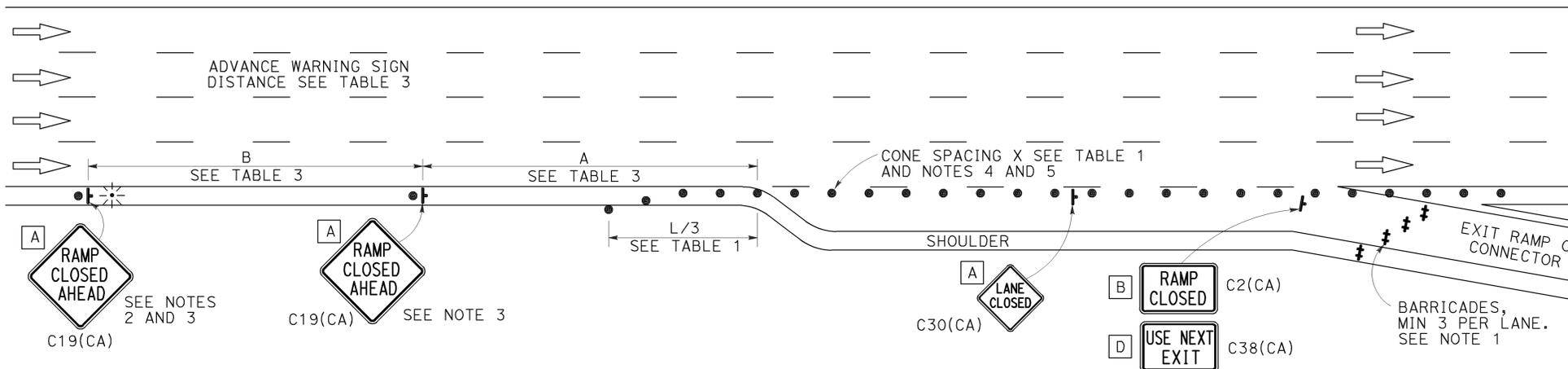
TO ACCOMPANY PLANS DATED 9-28-15

## NOTES:

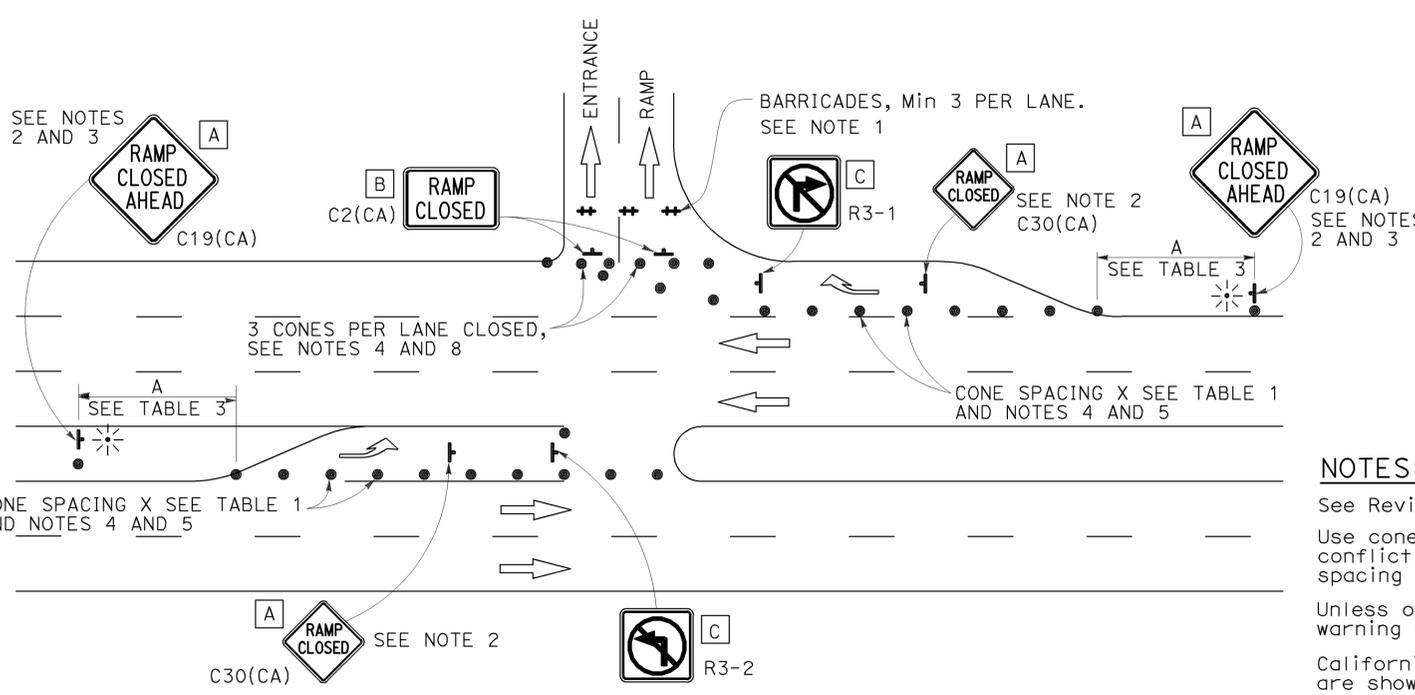
- Barricades shall be Type I, II, or III for closures lasting one week or less and Type III for closures lasting longer than one week.
- In addition to placing the C19(CA) "RAMP CLOSED AHEAD" and C30(CA) "RAMP CLOSED" signs, black on orange overlay plates with the word "CLOSED" may be mounted, as directed 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. A flashing beacon shall be placed on top of the first C19(CA) sign during hours of darkness.
- 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" signs shall be covered during ramp closures.
- A minimum of 3 cones shall be placed transversely across each closed lane and shoulder.



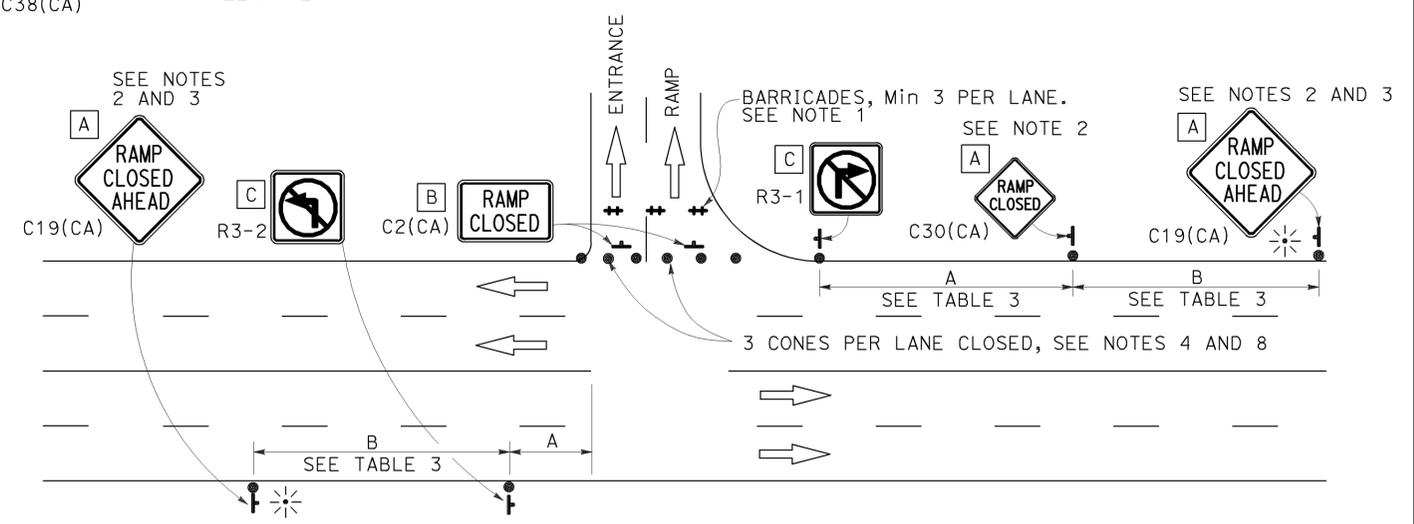
EXIT RAMP OR CONNECTOR



EXIT RAMP OR CONNECTOR WITH ADDITIONAL LANE



ENTRANCE RAMP WITH TURNING POCKETS



ENTRANCE RAMP WITHOUT TURNING POCKETS

## 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.

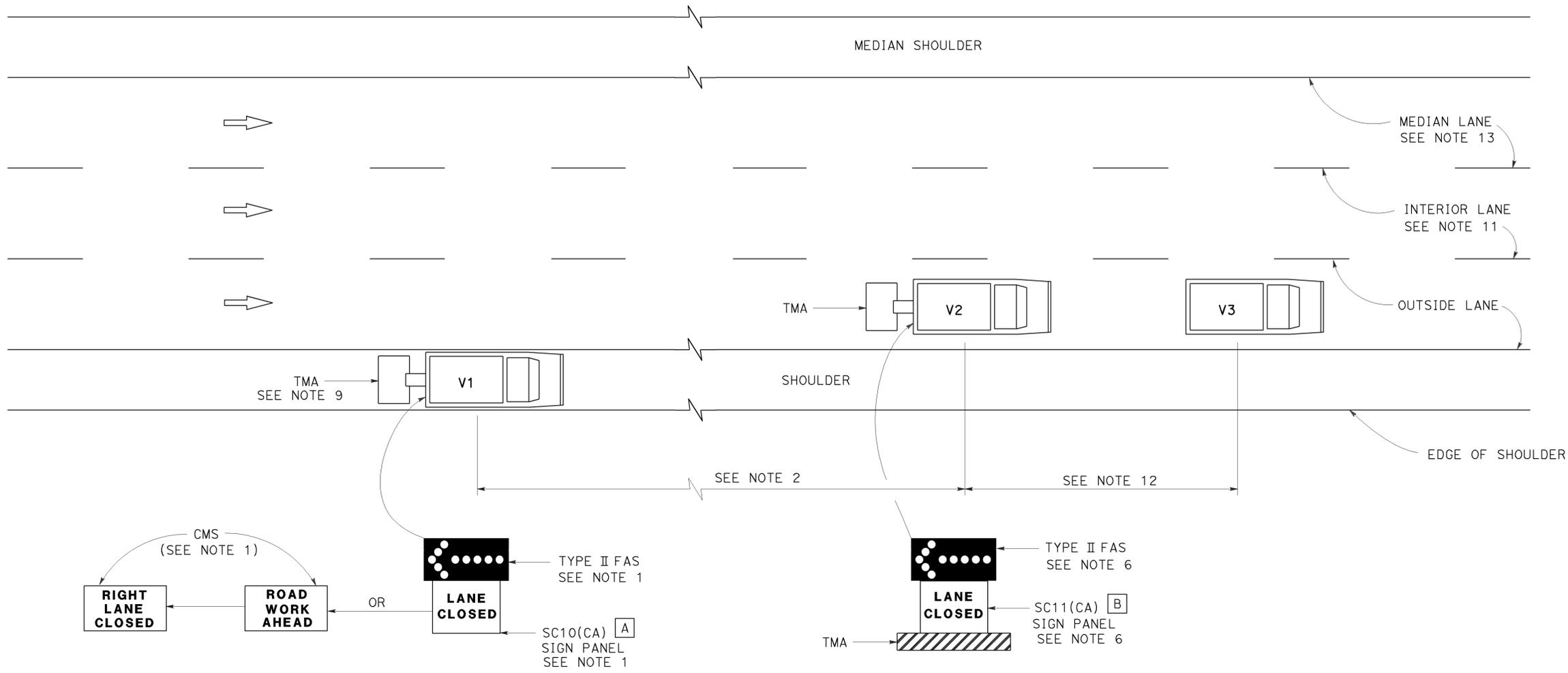
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR RAMP CLOSURE**  
 NO SCALE

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**

2010 REVISED STANDARD PLAN RSP T14

TO ACCOMPANY PLANS DATED 9-28-15



**SIGN PANEL SIZE (Min)**

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

**LEGEND**

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

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

**NOTES:**

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

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

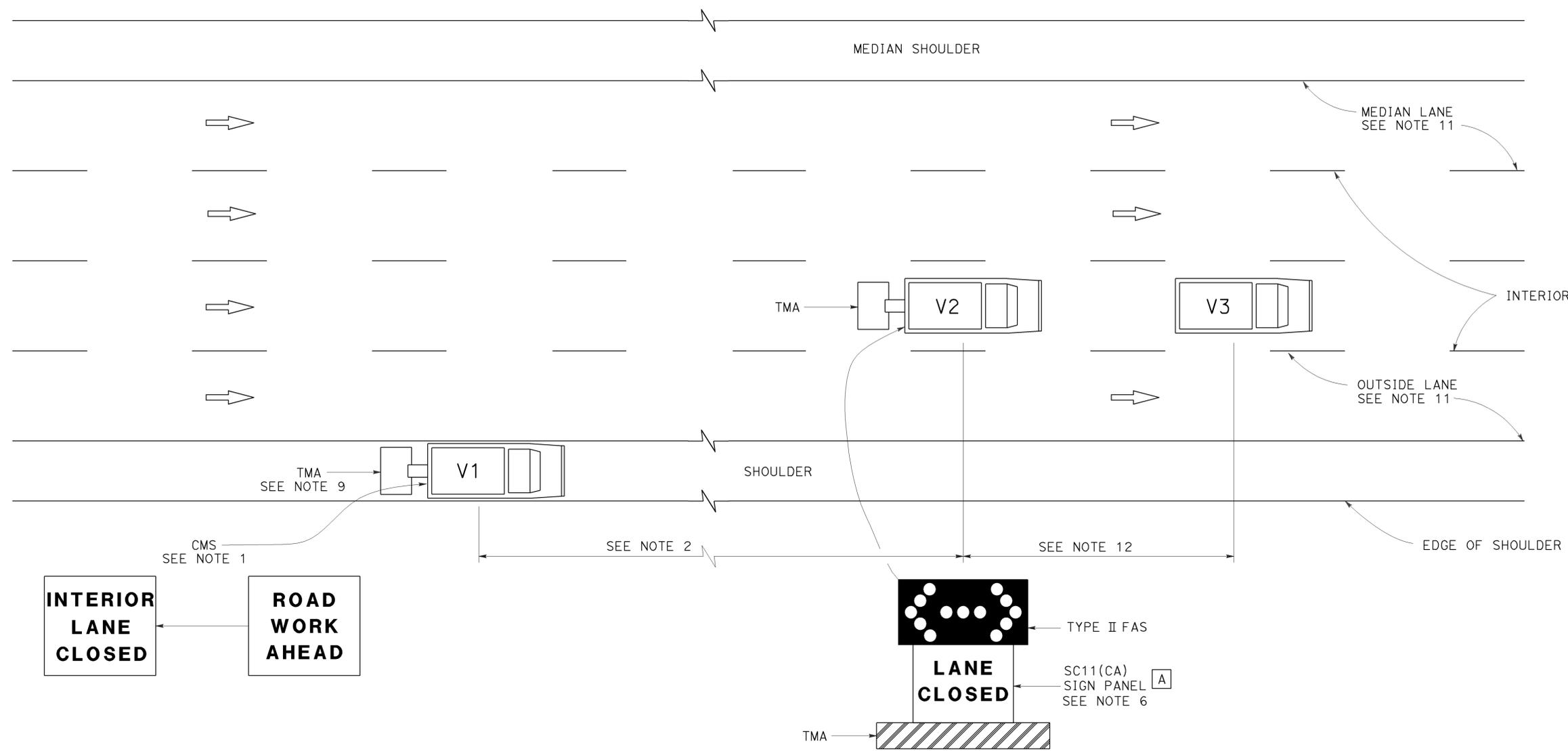
**REVISED STANDARD PLAN RSP T15**

2010 REVISED STANDARD PLAN RSP T15

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	Ven	101	R40.4/R43.6	47	48

*Gurinderpal Bhullar*  
 REGISTERED CIVIL ENGINEER  
 April 19, 2013  
 PLANS APPROVAL DATE  
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TO ACCOMPANY PLANS DATED 9-28-15



SIGN PANEL SIZE (Min)

**A** 54" x 42"

**LEGEND**

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

**MOVING LANE CLOSURE ON INTERIOR LANE OF MULTILANE HIGHWAYS**

**NOTES:**

1. A changeable message sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "ROAD WORK AHEAD" message first, followed by the "INTERIOR LANE CLOSED" message. The message "CENTER LANE CLOSED" may be used in place of the "INTERIOR LANE CLOSED" message.
2. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue. Sign vehicle V1 shall be positioned where highly visible when shoulders are not available.
3. A minimum sight distance of 1500' should be provided in advance of sign vehicle V1.
4. Sign vehicle V1 should remain at the beginning of horizontal or vertical curves until the other vehicles (V2 and V3) are far enough beyond the curve to resume the minimum sight distance of 1500'.
5. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
6. Shadow vehicle V2 shall be equipped with a truck-mounted attenuator. The sign panel shown and a Type II flashing arrow sign shall be mounted on the rear of shadow vehicle V2.
7. All vehicles used for lane closures shall be equipped with two-way radios, and the vehicle operators shall maintain communication during the work or application operation.
8. All vehicles shall be equipped with flashing or rotating amber lights.
9. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.
10. Where workers would be on foot in the work area, a stationary type lane closure (Revised Standard Plan T10, T11 etc., as applicable) shall be used instead of this plan.
11. For moving lane closure on median lane or outside lane of multilane highways, use Revised Standard Plan T15.
12. The spacing between work vehicle(s) and the shadow vehicles, and between each shadow vehicle should be minimized to deter road users from driving in between.

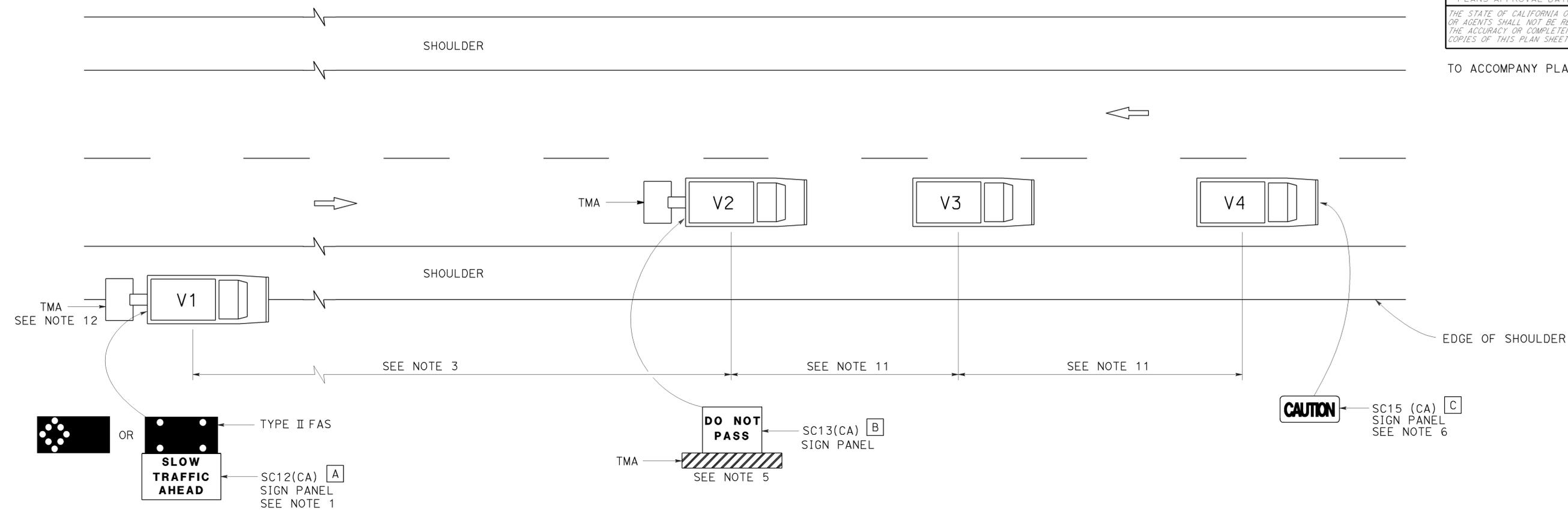
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR MOVING LANE CLOSURE  
 ON MULTILANE HIGHWAYS**  
 NO SCALE

RSP T16 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T16  
 DATED MAY 20, 2011 - PAGE 244 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T16**

2010 REVISED STANDARD PLAN RSP T16

TO ACCOMPANY PLANS DATED 9-28-15



**NOTES:**

1. Either a changeable message sign or a SC12(CA) "SLOW TRAFFIC AHEAD" sign shall be mounted on the rear of sign vehicle V1. The changeable message sign shall be sequenced to show the "CAUTION" message first, follow by the "SLOW TRAFFIC AHEAD" message. A Type II flashing arrow sign may be used with the SC12(CA) sign panel.
2. Sign vehicle V1 should be positioned where highly visible when shoulders are not available.
3. If traffic queues develop, sign vehicle V1 should be positioned upstream from the end of queue.
4. Vehicle-mounted sign panels shall have Type III or above retroreflective sheeting, black on white, or black on fluorescent orange, with 6" minimum series D letters per Caltrans sign specifications.
5. Shadow vehicle shall be equipped with a truck-mounted attenuator. The sign panel shown shall be mounted on the rear of shadow vehicle V2. The message "LANE CLOSED" may be used in place of the "DO NOT PASS" message.
6. The sign panel shown shall be mounted on the front of sign vehicle V4, facing opposing traffic.

7. All vehicles shall be equipped with flashing or rotating amber lights.
8. Sign vehicle V4 will not be required when the work and vehicles V2 and V3 are 2' or more from the centerline of the highway during the work or application operations.
9. All vehicles used for lane closures shall be equipped with two-way radios and the vehicle operators shall maintain communication during the work or application operation.
10. This plan shall not be used where workers would be on foot in the work area. Use a stationary type lane closure (Revised Standard Plan T13) for this condition.
11. Minimize spacing between vehicles V2 and V3 and vehicles V3 and V4 to deter road users from driving in between them.
12. If sign vehicle V1 encroaches into the traffic lane due to insufficient shoulder width, sign vehicle V1 shall be equipped with a truck-mounted attenuator. Sign vehicle V1 shall stay as close to the edge of shoulder as practicable.

**LEGEND**

- V1 SIGN VEHICLE
- V2 SHADOW VEHICLE
- V3 WORK/APPLICATION VEHICLE
- V4 SIGN VEHICLE
- TMA TRUCK-MOUNTED ATTENUATOR
- FLASHING ARROW SIGN (FAS) IN FLASHING CAUTION MODE
- FLASHING ARROW SIGN (FAS) IN ALTERNATING DIAMOND CAUTION

**SIGN PANEL SIZE (Min)**

- A 72" x 42"
- B 54" x 42"
- C 54" x 24"

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

NO SCALE

RSP T17 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T17 DATED MAY 20, 2011 - PAGE 245 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP T17**

2010 REVISED STANDARD PLAN RSP T17