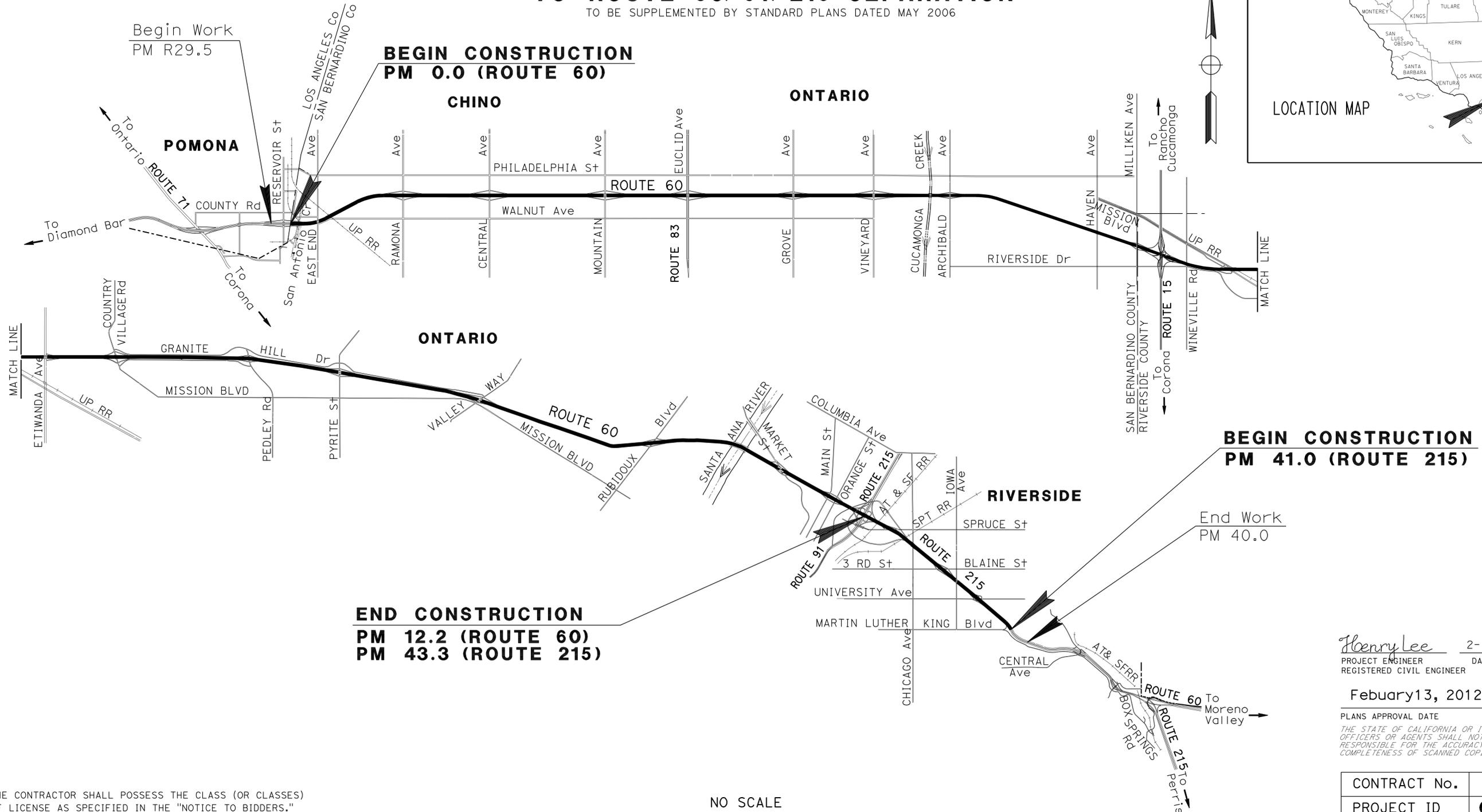
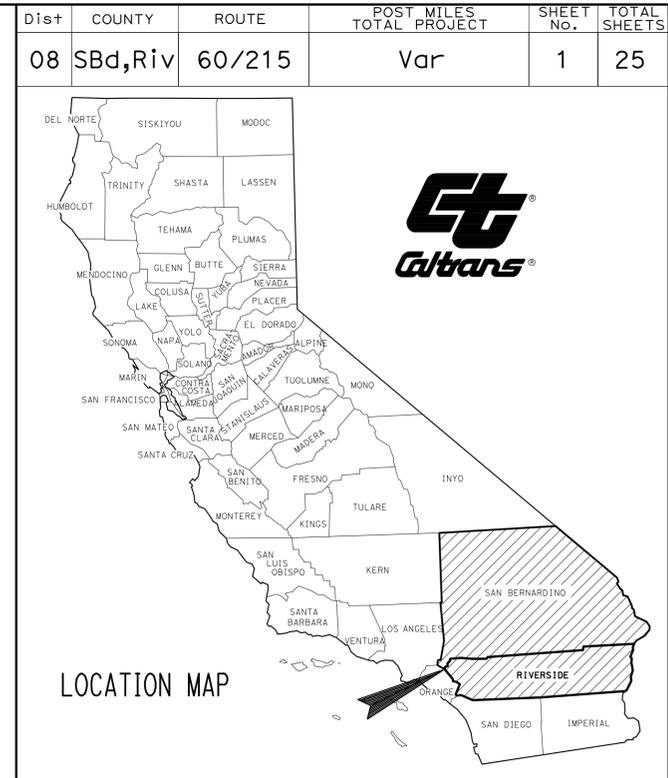


INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-3	TYPICAL CROSS SECTIONS
4	CONSTRUCTION DETAILS
5	CONSTRUCTION AREA SIGNS
6	PAVEMENT DELINEATION QUANTITIES
7	SUMMARY OF QUANTITIES
8-16	ELECTRICAL PLANS
17-25	REVISED AND NEW STANDARD PLANS

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY**
IN SAN BERNARDINO AND RIVERSIDE COUNTIES
ON ROUTE 60 FROM LOS ANGELES COUNTY LINE
TO ROUTE 60/91/215 SEPARATION AND ON ROUTE 215
FROM MARTIN LUTHER KING BOULEVARD UNDERCROSSING
TO ROUTE 60/91/215 SEPARATION
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



PROJECT MANAGER CATALINO PINING	DESIGN ENGINEER HENRY LEE
---	-------------------------------------

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

NO SCALE



USERNAME => s102458
DGN FILE => 80p850ab001.dgn

UNIT 2344 PROJECT NUMBER & PHASE 08000200371

Henry Lee 2-8-12
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER



February 13, 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.

CONTRACT No.	08-0P8504
PROJECT ID	0800020037

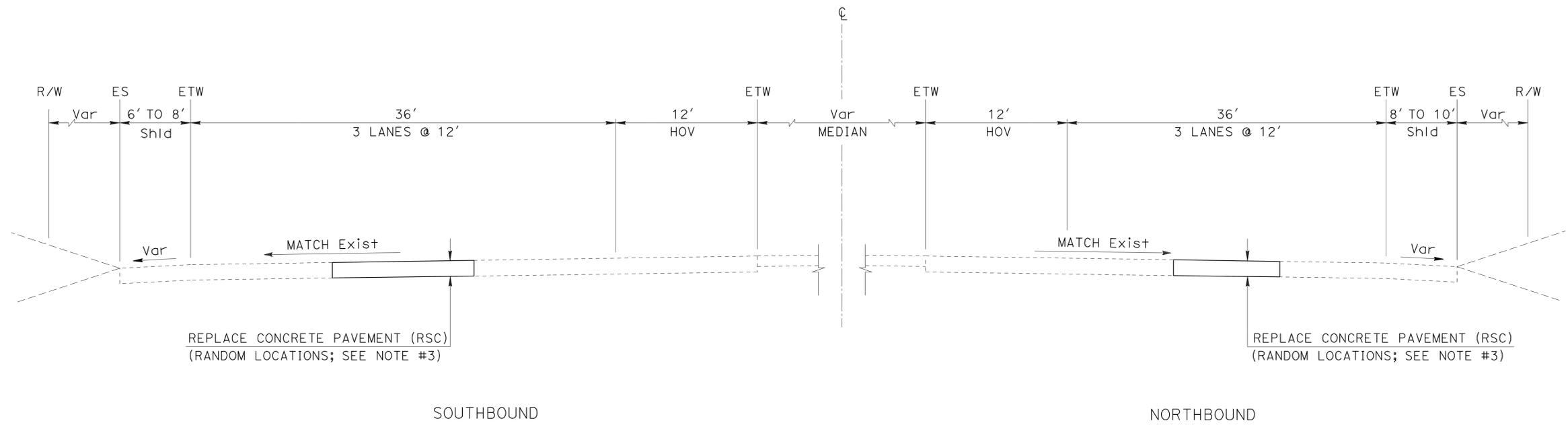
DATE PLOTTED => 08-FEB-2012
TIME PLOTTED => 10:10
LAST REVISION 02-08-12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Sbd,Riv	60, 215	Var	3	25

Henry Lee 2-8-12
 REGISTERED CIVIL ENGINEER DATE
 2-13-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 HENRY LEE
 No. C69931
 Exp. 9-30-12
 CIVIL
 STATE OF CALIFORNIA

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



ROUTE 215
PM 41.0 TO 43.3

TYPICAL CROSS SECTIONS
NO SCALE
X-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR	DATE
Caltrans MAINTENANCE ENGINEERING	KUANG H. CHEN	KUANG H. CHEN	HENRY LEE	
		CHECKED BY	DATE	
			REVISOR	DATE
			DATE	REVISOR

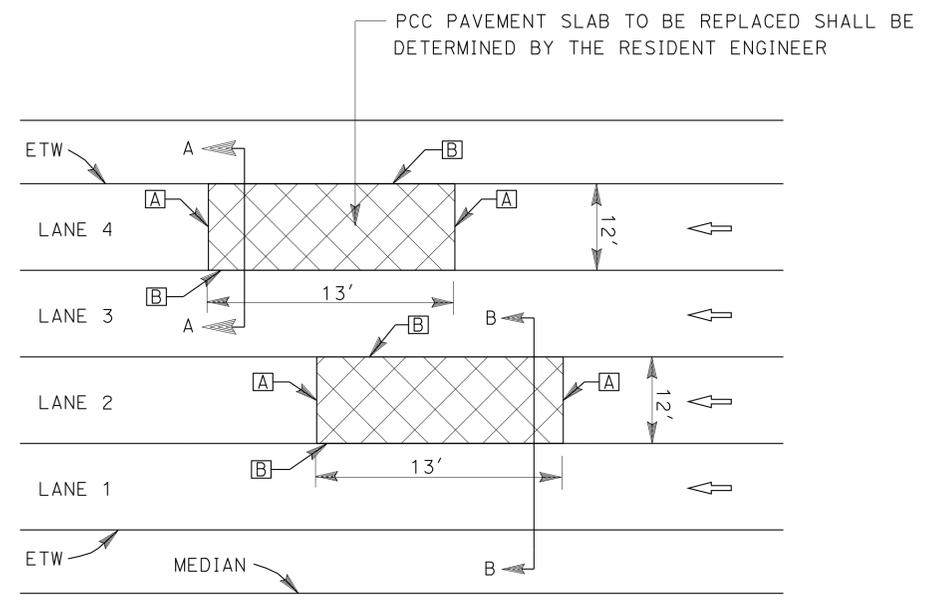
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Sbd,Riv	60, 215	Var	4	25
Henry Lee			2-8-12	REGISTERED CIVIL ENGINEER DATE	
2-13-12			PLANS APPROVAL DATE		
HENRY LEE No. C69931 Exp. 9-30-12 CIVIL STATE OF CALIFORNIA					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

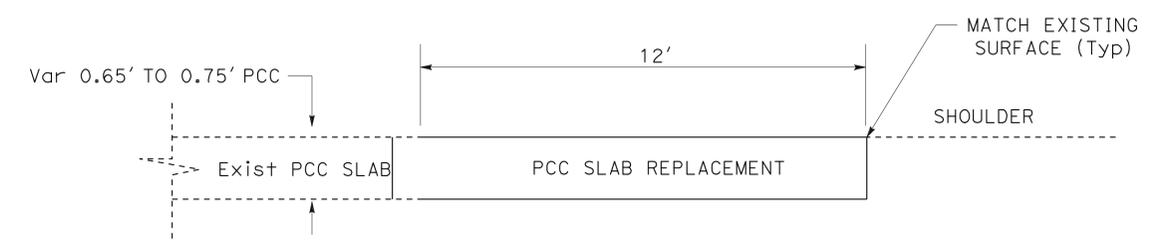
- ENGINEER TO DETERMINE CASE FOR EACH SLAB.
- FOR LOCATIONS OF THE PCC SLAB REPLACEMENT, SEE SHEET Q-1.
- REMOVE EXISTING PCC SLABS WITH A NON-IMPACT METHOD.
- PROTECT IN-PLACE EXISTING SUBBASE AND SUBGRADE DURING PCC SLAB REMOVAL.
- USE TYPE II SLAB LAYOUT OF REVISED STANDARD PLAN RSP P8.
- DO NOT WORK ON APPROACH/DEPARTURE SLABS AND STRUCTURE DECKS.

LEGEND:

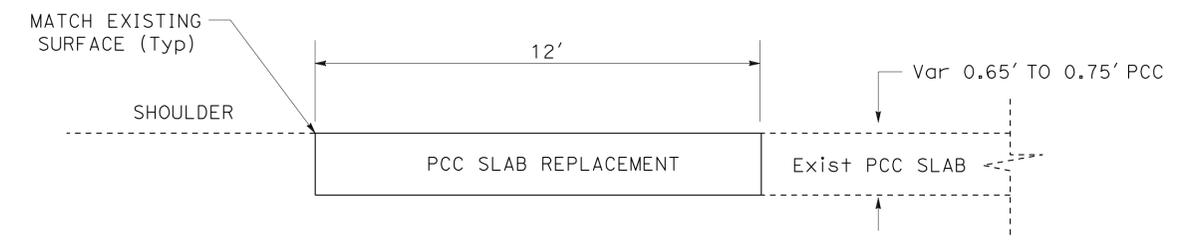
-  REPLACE PCC SLAB
-  DIRECTION OF TRAFFIC
-  EXISTING TRANSVERSE JOINT OR SAWCUT JOINT
-  EXISTING LONGITUDINAL JOINT



TYPICAL CONCRETE PAVEMENT SLAB REPLACEMENT



SECTION A-A
OUTSIDE LANES
(LANES No. 3 & 4)



SECTION B-B
INSIDE LANES
(LANES No. 1 & 2)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE ENGINEERING
 FUNCTIONAL SUPERVISOR: KUANG H. CHEN
 CALCULATED/DESIGNED BY: HENRY LEE
 CHECKED BY: KUANG H. CHEN
 REVISOR: HENRY LEE
 DATE: 2-8-12
 REVISION: 2-13-12



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Sbd,Riv	60, 215	Var	5	25

2-8-12
 REGISTERED CIVIL ENGINEER DATE
 2-13-12
 PLANS APPROVAL DATE

TRAN HOANG
 No. C54996
 Exp. 6-30-12
 CIVIL

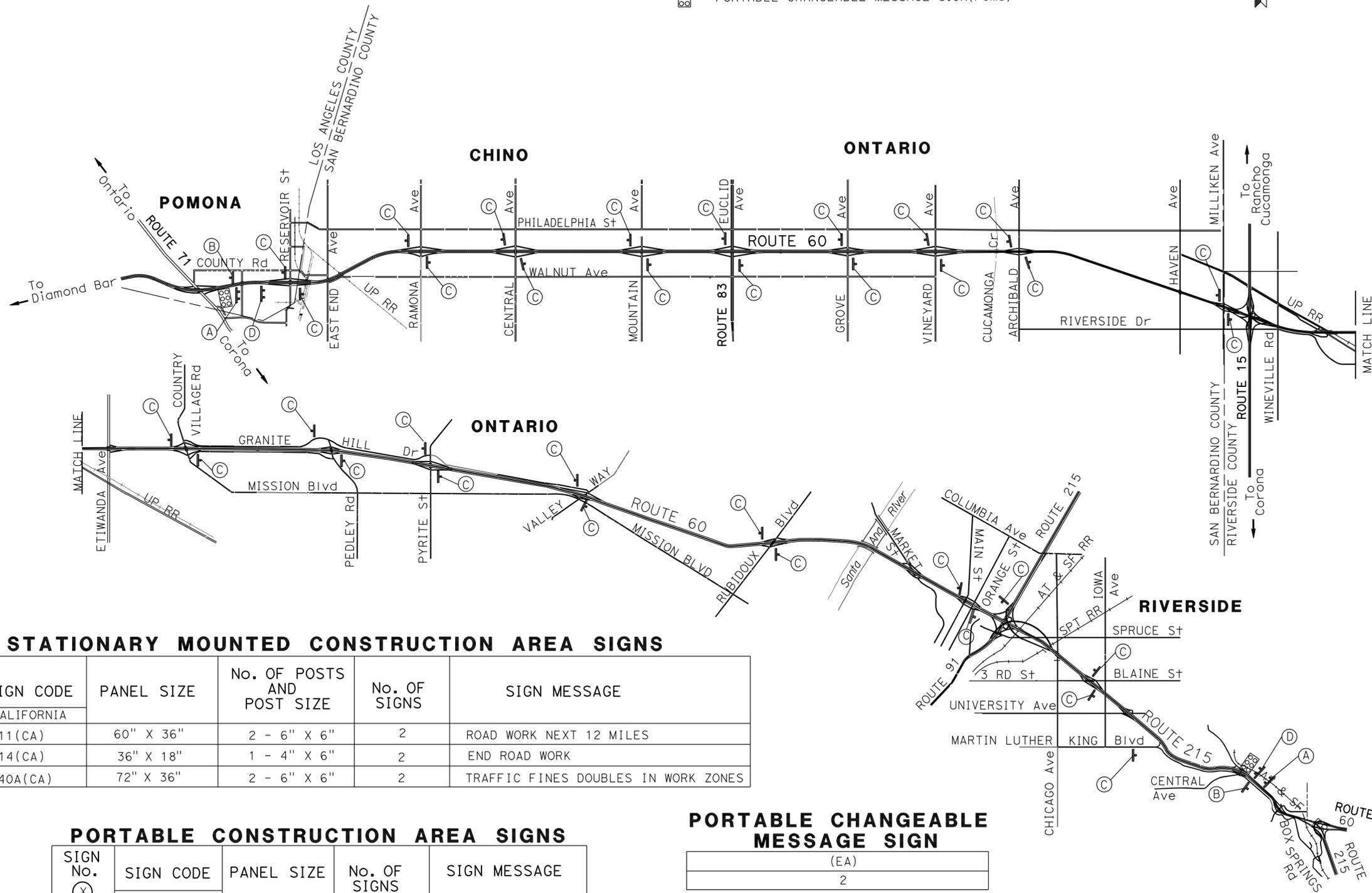
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS, AND PCMS ARE APPROXIMATE. EXACT LOCATIONS AND POSITION OF THE CONSTRUCTION AREA SIGNS AND PCMS WILL BE DETERMINED BY THE ENGINEER.
2. REFER TO STANDARD PLANS T10 AND T14 FOR TRAFFIC CONTROL REQUIREMENTS.
3. CONTRACTOR SHALL CO-ORDINATE WITH RESIDENT ENGINEER TO SCHEDULE RAMP CLOSURE AND STRIPING DETAILS.

LEGEND:

- CONSTRUCTION AREA
- ↓ CONSTRUCTION AREA SIGN (ONE POST)
- ↓ CONSTRUCTION AREA SIGN (TWO POST)
- ⊗ CONSTRUCTION AREA SIGN LETTER
- ☐ PORTABLE CHANGEABLE MESSAGE SIGN(PCMS)



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No. ⊗	SIGN CODE	PANEL SIZE	No. OF POSTS AND POST SIZE	No. OF SIGNS	SIGN MESSAGE
	CALIFORNIA				
A	C11(CA)	60" X 36"	2 - 6" X 6"	2	ROAD WORK NEXT 12 MILES
B	C14(CA)	36" X 18"	1 - 4" X 6"	2	END ROAD WORK
D	C40A(CA)	72" X 36"	2 - 6" X 6"	2	TRAFFIC FINES DOUBLES IN WORK ZONES

PORTABLE CONSTRUCTION AREA SIGNS

SIGN No. ⊗	SIGN CODE	PANEL SIZE	No. OF SIGNS	SIGN MESSAGE
C	C23(CA)	48" X 48"	48	ROAD WORK AHEAD

PORTABLE CHANGEABLE MESSAGE SIGN

(EA)
2

CONSTRUCTION AREA SIGNS
NO SCALE
CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

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

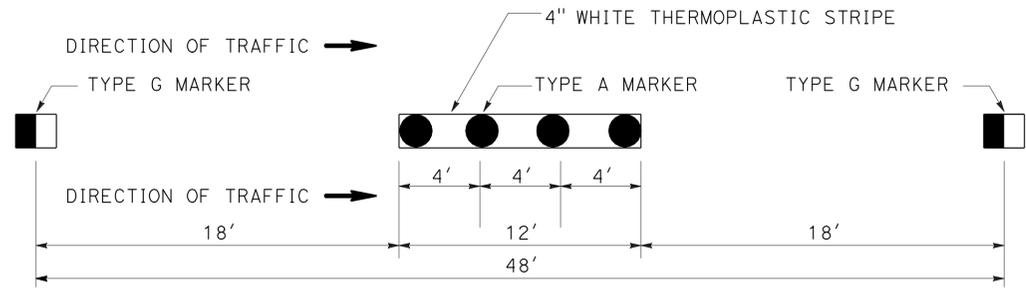
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SbD, Riv	60, 215	Var	6	25

2-8-12
 REGISTERED CIVIL ENGINEER DATE
 2-13-12
 PLANS APPROVAL DATE

TRAN HOANG
 No. C54996
 Exp. 6-30-12
 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:
 WHEN REPLACING DETERIORATED SLABS, ONLY RESTRIPE AND REPLACE THE STRIPING AND MARKERS WHICH WERE SUBJECT TO REMOVAL DURING CONSTRUCTION ACTIVITY.



DETAIL 13 MODIFIED (13M)

PAVEMENT DELINEATION QUANTITIES

Rte & COUNTY	POSTMILE		DIR	NO. OF SLABS				REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (Hazardous Waste)	PAVEMENT MARKER			THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)		
									RETRO-REFLECTIVE		NON-REFLECTIVE	4 INCH YELLOW	4 INCH WHITE	8 INCH WHITE
	FROM	TO		1	2	3	4		TYPE G	TYPE H	TYPE A	LF	LF	LF
60 SBd	1.1	2.0	WB	1		5		78	10	4	40	78	195	
60 SBd	2.3	2.5	WB			2			4		16		78	
60 SBd	4.6	5.8	WB			1			2		8		39	
60 SBd	5.8	6.8	WB			2			4		16		78	
60 SBd	6.8	7.8	WB			2			4		16		78	
60 SBd	7.8	8.9	WB			8			16		64		312	
60 SBd	1.3	2.3	EB			3			6		24		117	
60 SBd	2.3	3.6	EB			6			12		48		234	
60 SBd	3.6	4.5	EB			1			2		8		39	
60 SBd	4.5	5.8	EB			40			80		320		1560	
60 SBd	5.8	6.8	EB			43			86		344		1677	
60 SBd	6.8	7.8	EB			10			20		80		390	
60 SBd	7.8	8.9	EB			29			58		232		1131	
60 SBd	8.9	9.95	EB			7			14		56		273	
60 Riv	6.0	7.0	WB		40				80		320		1560	
60 Riv	7.0	8.0	WB		40				80		320		1560	
60 Riv	10.0	11.0	WB		41				82		328		1599	
60 Riv	11.0	12.2	WB		48				96		384		1872	
60 Riv	2.0	3.0	EB			20			20		0		780	
60 Riv	4.0	5.0	EB			20			20		0		780	
60 Riv	7.0	8.0	EB		15				30		120		585	
60 Riv	8.0	9.0	EB		20				40		160		780	
60 Riv	9.0	10.0	EB		20				40		160		780	
60 Riv	10.0	11.0	EB		40				80		320		1560	
60 Riv	11.0	12.2	EB		30				60		240		1170	
215 Riv	41.4	42.1	NB		17				34		136		663	
215 Riv	42.1	43.3	NB		20				40		160		780	
215 Riv	41.4	42.1	SB	25	35				145		380		1852.5	487.5
215 Riv	42.1	43.3	SB	25	35				145		380		1852.5	487.5
SUBTOTAL								78	1310	4	4680	78	24375	975
TOTAL								78			4680		24453	975

PAVEMENT DELINEATION QUANTITIES
 NO SCALE
PDQ-1

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

LAST REVISION DATE PLOTTED => 08-FEB-2012
 TIME PLOTTED => 10:10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBD,Riv	60, 215	Var	8	25
<i>Michael Apante</i> REGISTERED ELECTRICAL ENGINEER			2-8-12	DATE	
PLANS APPROVAL DATE			2-13-12		
<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>					

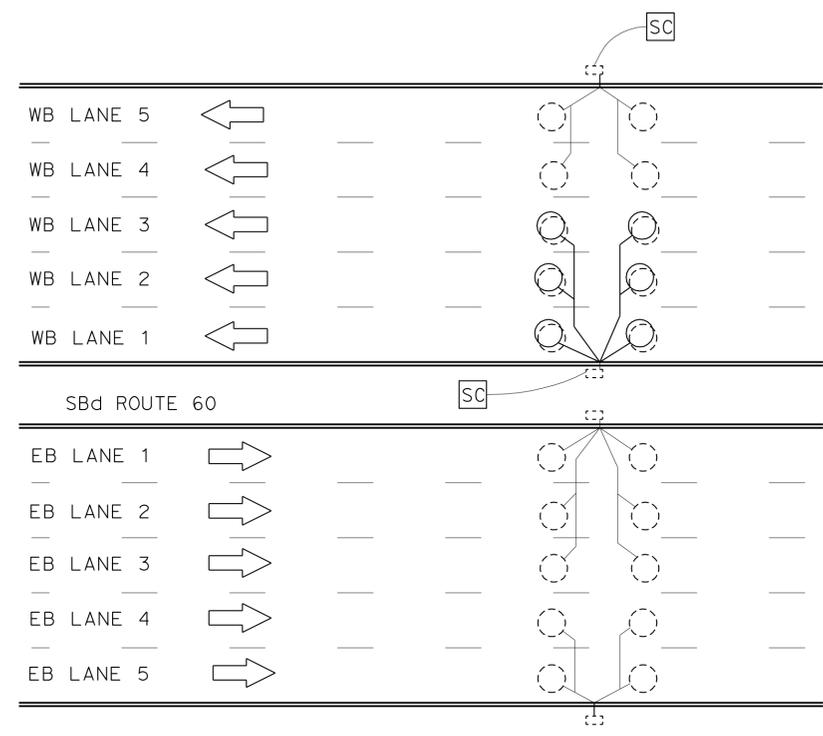


GENERAL NOTES: (SHEETS E-1 TO E-7)

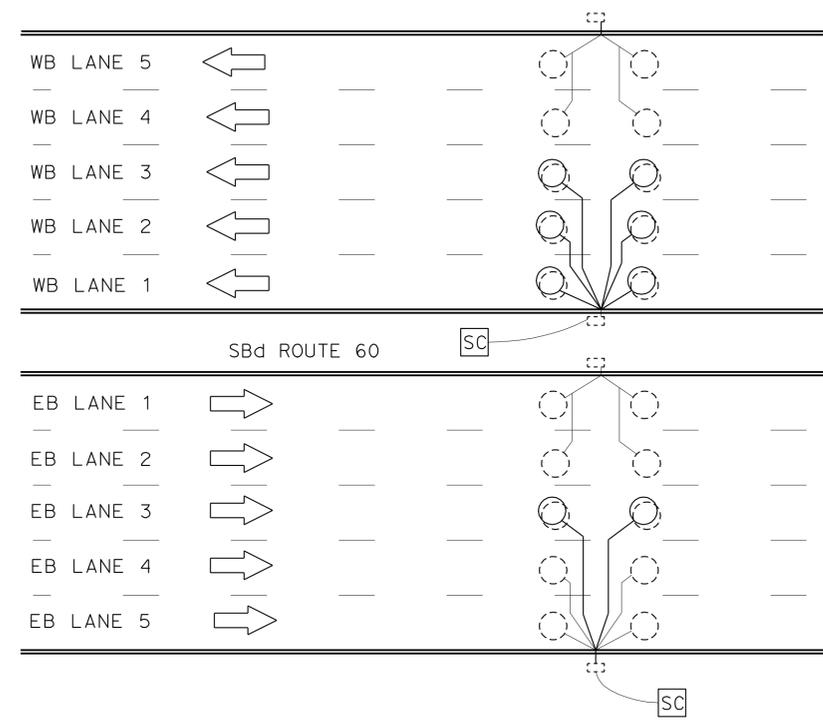
1. THE POSTMILE LOCATIONS ON SHEET E-7 ARE APPROXIMATE. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL LOCATIONS OF EXISTING INDUCTIVE LOOP DETECTORS.
2. EXISTING LOOP DETECTORS, SHOWN TO BE REPLACED SHALL BE AB.

ABBREVIATIONS: (SHEET E-1 TO E-7)

- CS COUNT STATION
 RMS RAMP METERING SYSTEM
 RCTC RIVERSIDE COUNTY TRANSPORTATION COMMISSION



LOCATION 1



LOCATION 2 AND 3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN A
 FUNCTIONAL SUPERVISOR: DAVID A. GONZALEZ
 CALCULATED/DESIGNED BY: DAVID A. GONZALEZ
 REVISOR: DAVID A. GONZALEZ
 DATE: 7/2/2010

APPROVED FOR ELECTRICAL WORK ONLY

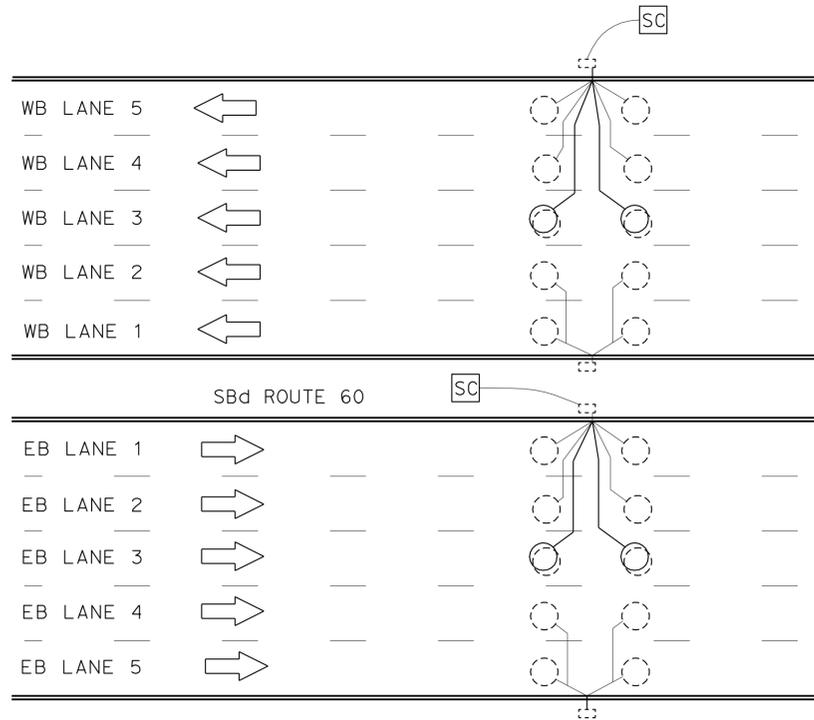
INDUCTIVE LOOP DETECTOR
 NO SCALE
E-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBD,Riv	60, 215	Var	9	25

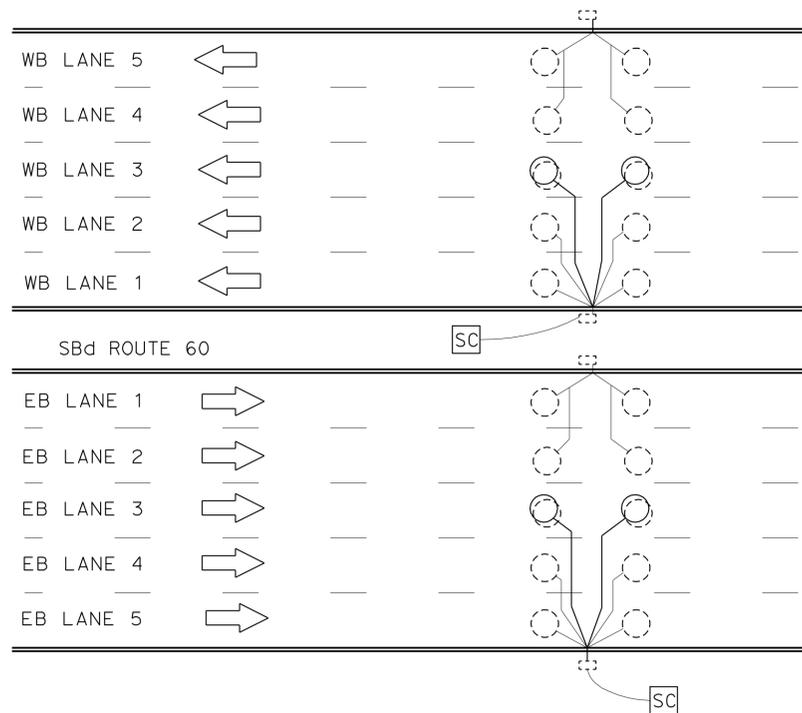
<i>Michael Apante</i>	2-8-12
REGISTERED ELECTRICAL ENGINEER	DATE
	2-13-12
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER MICHAEL APANTE No. E17164 Exp 9/30/11 ELECTRICAL STATE OF CALIFORNIA

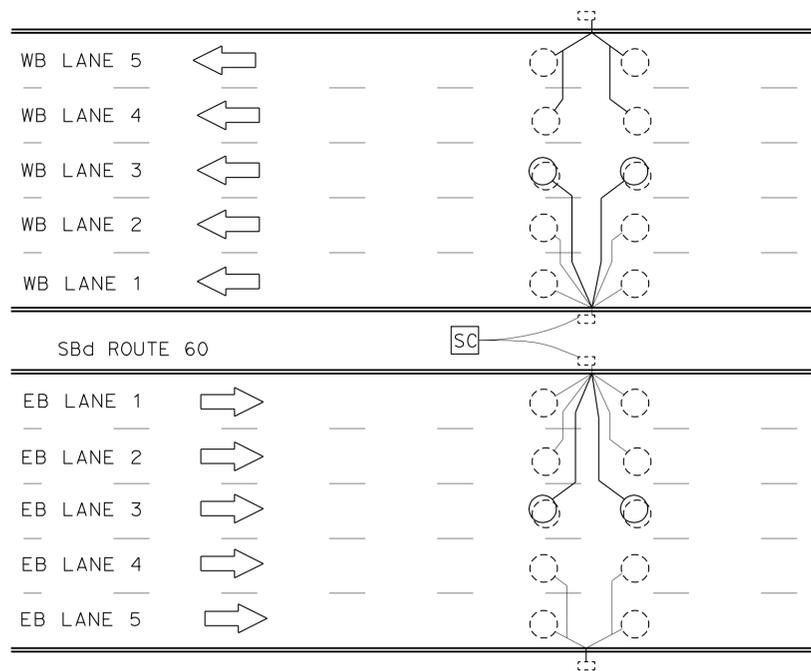
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



LOCATION 4, 6, 8, 9, 10, 15, 17, 18 AND 21



LOCATION 5, 7, 12, 14, 16 AND 19



LOCATION 11, 13 AND 20

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN A

REVISOR BY
 MICHAEL APANTE

DATE REVISOR
 DAVID A. GONZALEZ

CALCULATED-DESIGNED BY
 CHECKED BY

FUNCTIONAL SUPERVISOR
 DAVID A. GONZALEZ

APPROVED FOR ELECTRICAL WORK ONLY

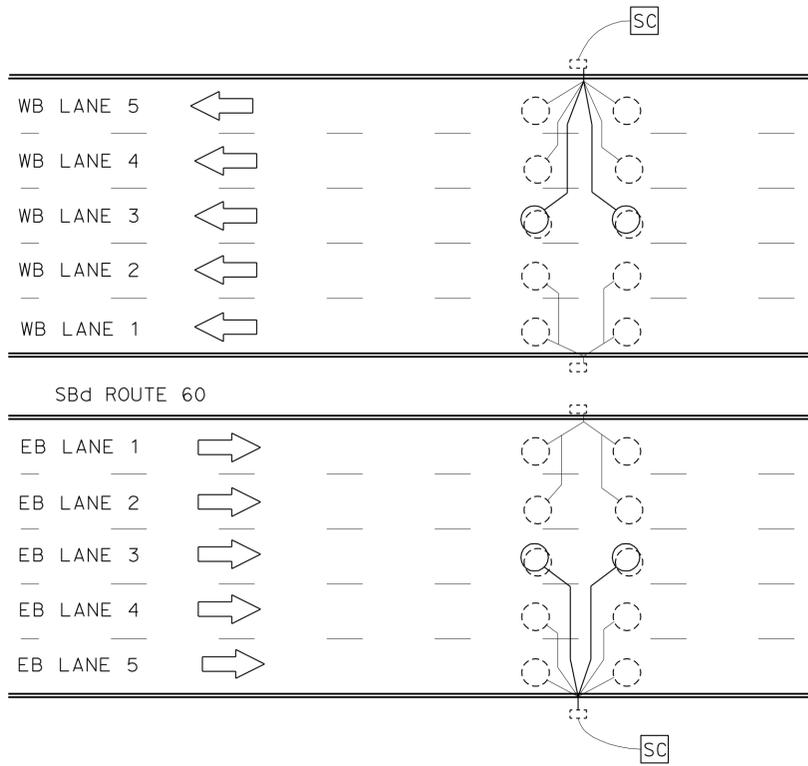
INDUCTIVE LOOP DETECTOR
 NO SCALE
E-2

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBD,Riv	60, 215	Var	10	25

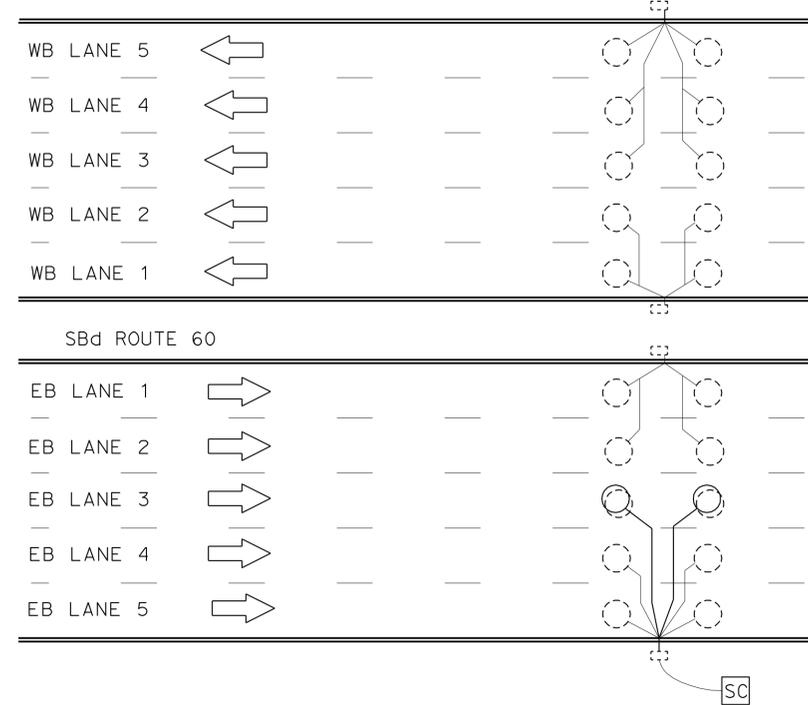
Michael Apante 2-8-12
 REGISTERED ELECTRICAL ENGINEER DATE
 2-13-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MICHAEL APANTE
 No. E17164
 Exp 9/30/11
 ELECTRICAL
 STATE OF CALIFORNIA

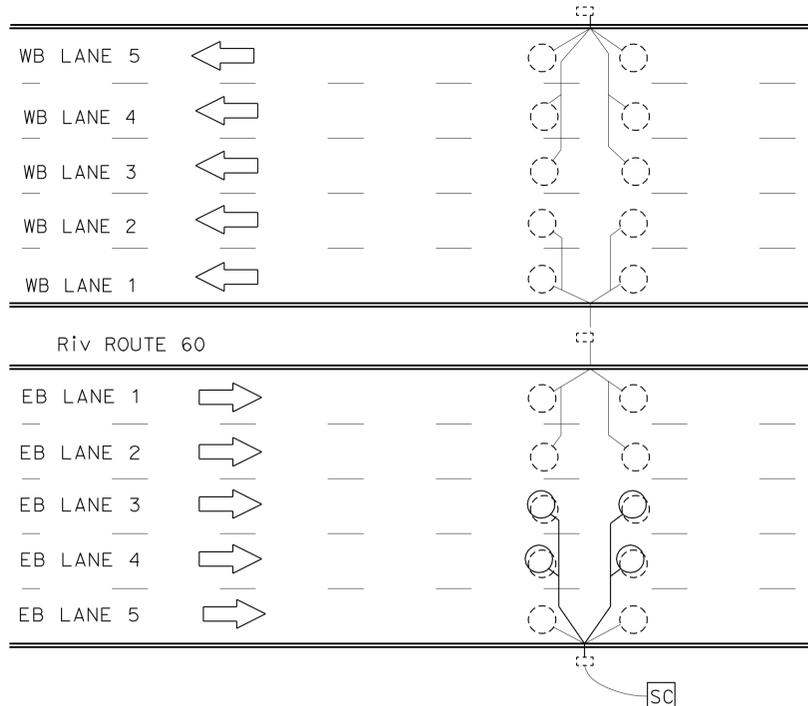
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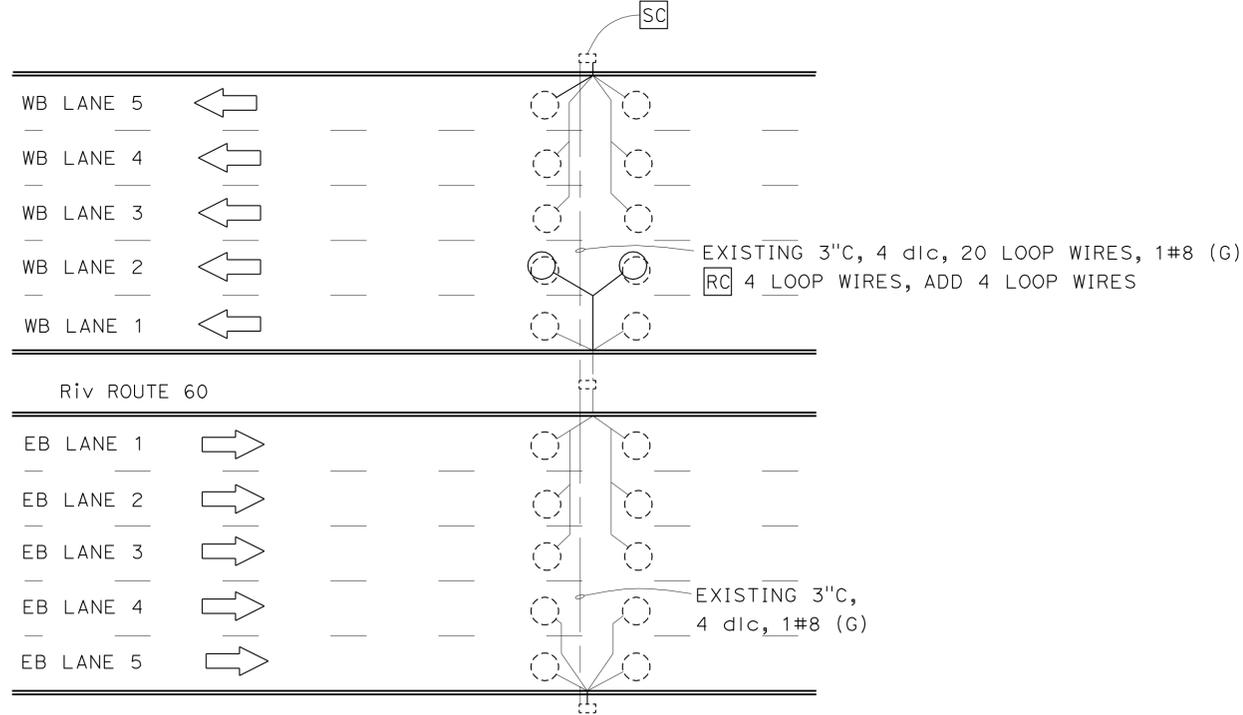
LOCATION 22



LOCATION 23



LOCATION 24



LOCATION 25

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN A
 FUNCTIONAL SUPERVISOR: DAVID A. GONZALEZ
 CALCULATED/DESIGNED BY: [blank] CHECKED BY: [blank]
 MICHAEL APANTE
 DAVID A. GONZALEZ
 REVISED BY: [blank] DATE REVISED: [blank]

APPROVED FOR ELECTRICAL WORK ONLY

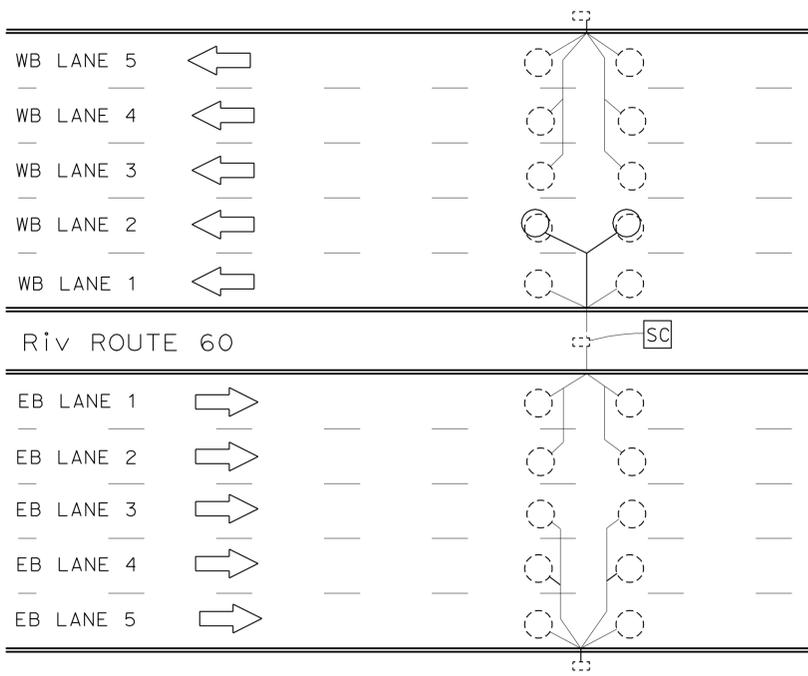
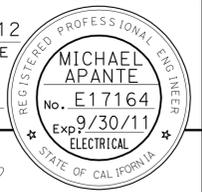
INDUCTIVE LOOP DETECTOR
NO SCALE
E-3

LAST REVISION:
 DATE PLOTTED => 08-FEB-2012
 TIME PLOTTED => 10:10

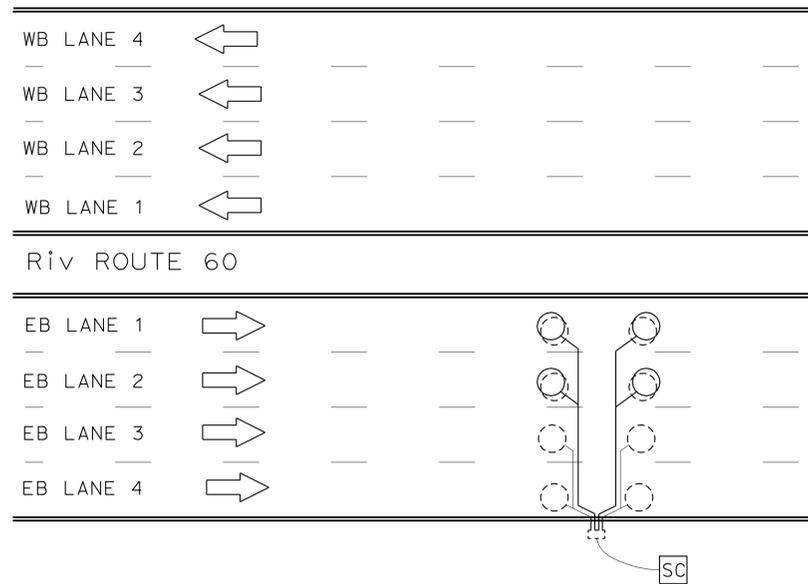
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBD,Riv	60, 215	Var	11	25

<i>Michael Apante</i>	2-8-12
REGISTERED ELECTRICAL ENGINEER	DATE
	2-13-12
PLANS APPROVAL DATE	

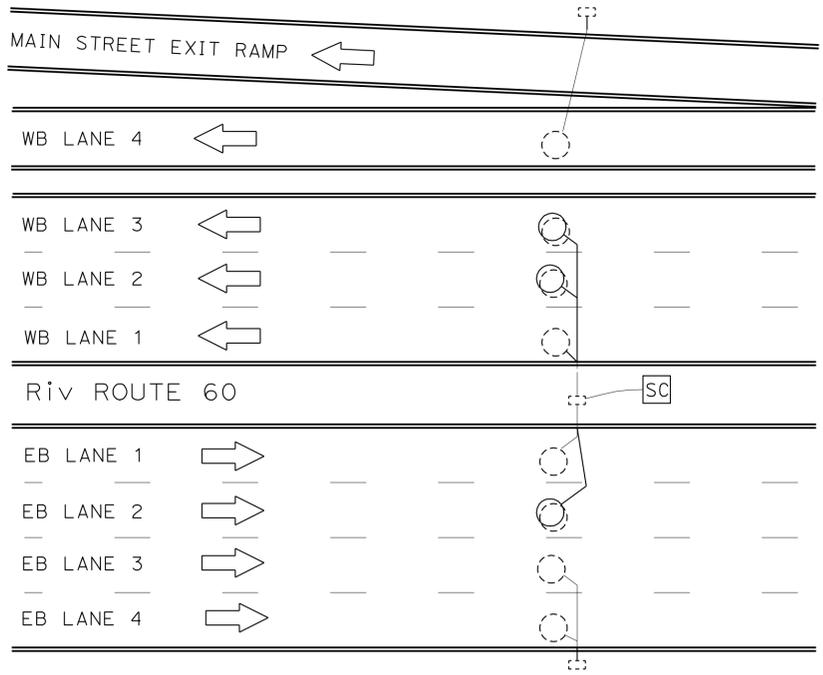
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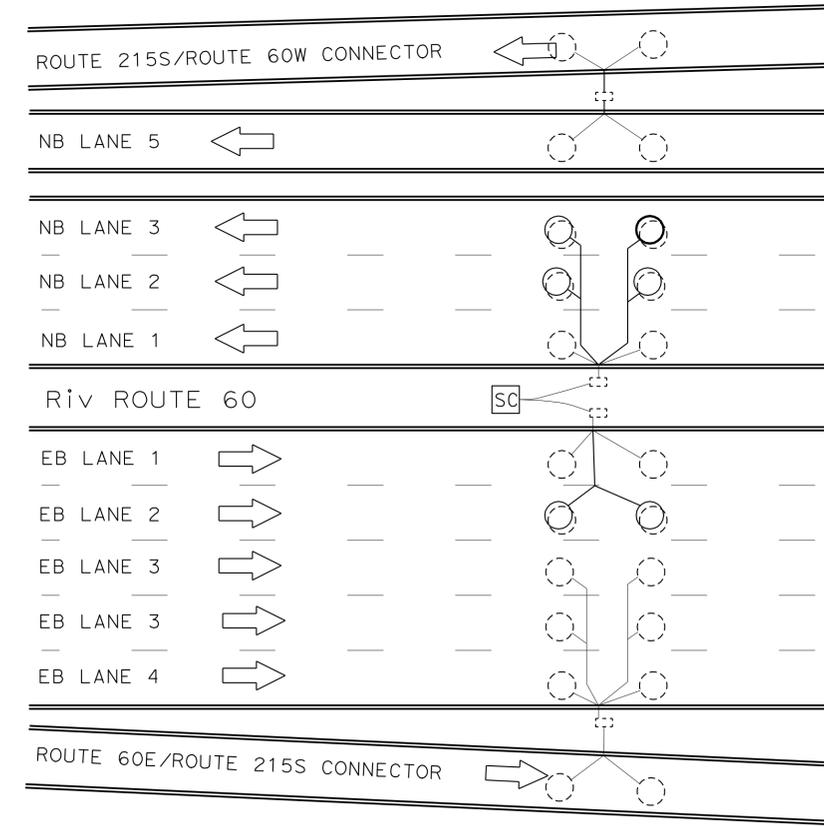
LOCATION 26



LOCATION 27



LOCATION 28



LOCATION 29

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN A

REVISOR BY: MICHAEL APANTE
 DATE: DAVID A. GONZALEZ

CALCULATED/DESIGNED BY: MICHAEL APANTE
 CHECKED BY: DAVID A. GONZALEZ

FUNCTIONAL SUPERVISOR: DAVID A. GONZALEZ

APPROVED FOR ELECTRICAL WORK ONLY

INDUCTIVE LOOP DETECTOR
 NO SCALE
E-4

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBD,Riv	60, 215	Var	13	25

Michael Apante 2-8-12
 REGISTERED ELECTRICAL ENGINEER DATE
 2-13-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MICHAEL APANTE
 No. E17164
 Exp 9/30/11
 ELECTRICAL
 STATE OF CALIFORNIA

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

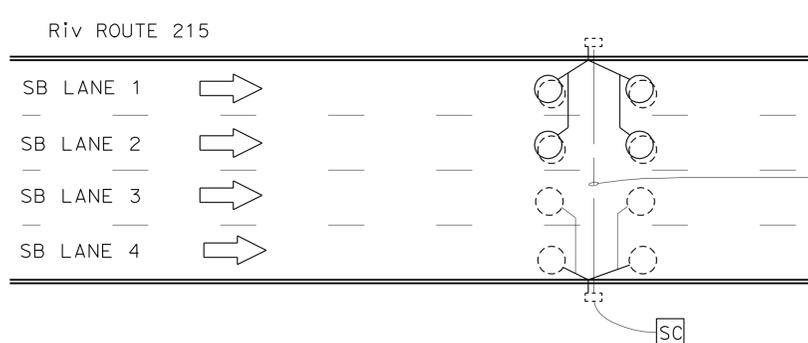
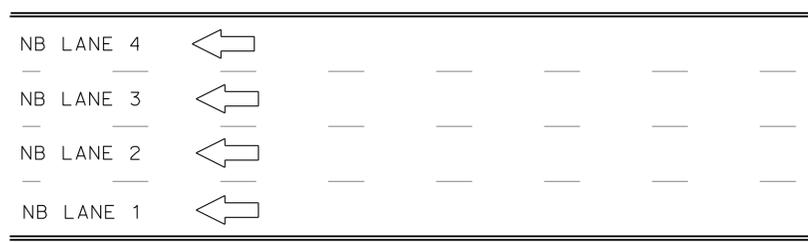
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN A

FUNCTIONAL SUPERVISOR
 DAVID A. GONZALEZ

CALCULATED-DESIGNED BY
 CHECKED BY

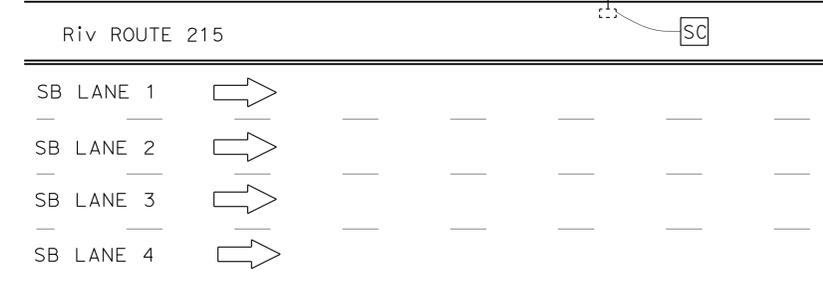
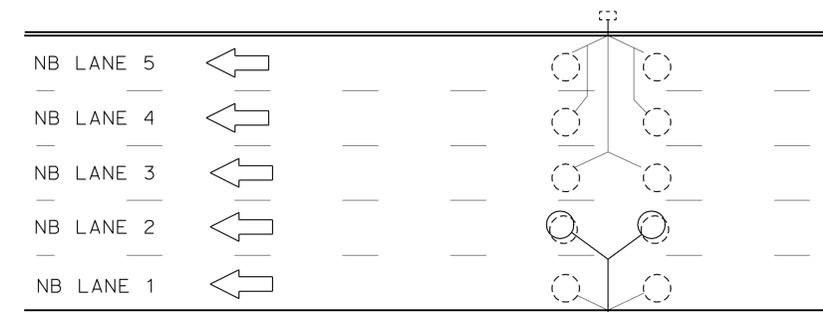
MICHAEL APANTE
 DAVID A. GONZALEZ

REVISED BY
 DATE



EXISTING 2 1/2" C, 8 LOOP WIRES, 1#8 (G),
 RC 8 LOOP WIRES, ADD 8 LOOP WIRES

LOCATION 30



LOCATION 31

INDUCTIVE LOOP DETECTOR
 NO SCALE
E-5

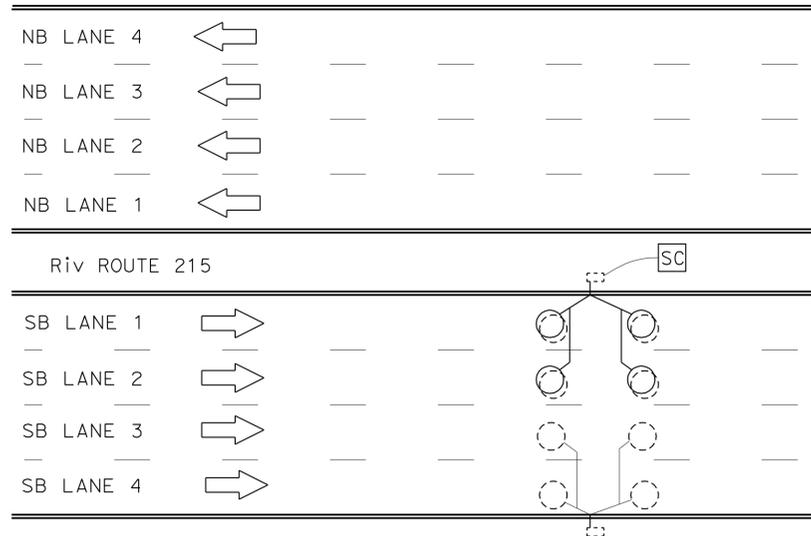
APPROVED FOR ELECTRICAL WORK ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBD,Riv	60, 215	Var	12	25

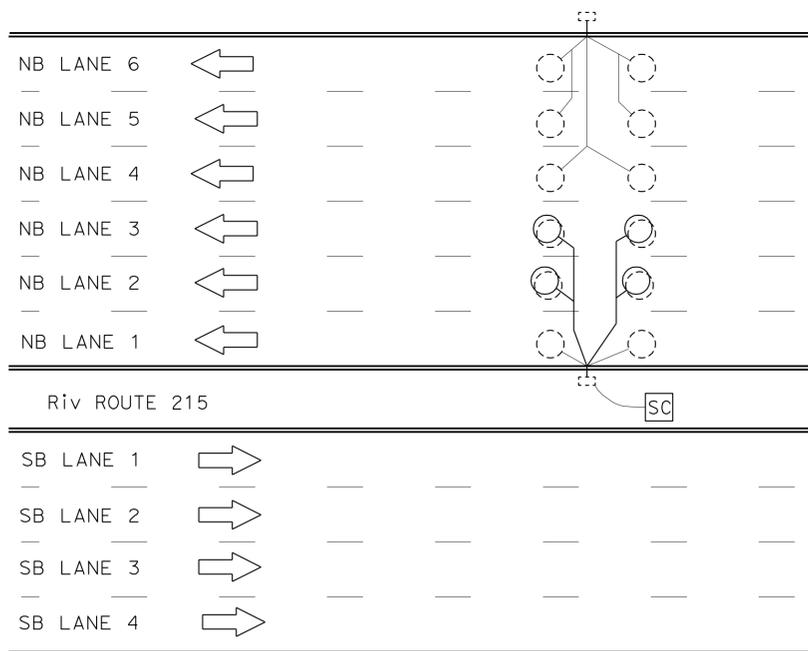
<i>Michael Apante</i>	2-8-12
REGISTERED ELECTRICAL ENGINEER	DATE
	2-13-12
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER MICHAEL APANTE No. E17164 Exp 9/30/11 ELECTRICAL STATE OF CALIFORNIA

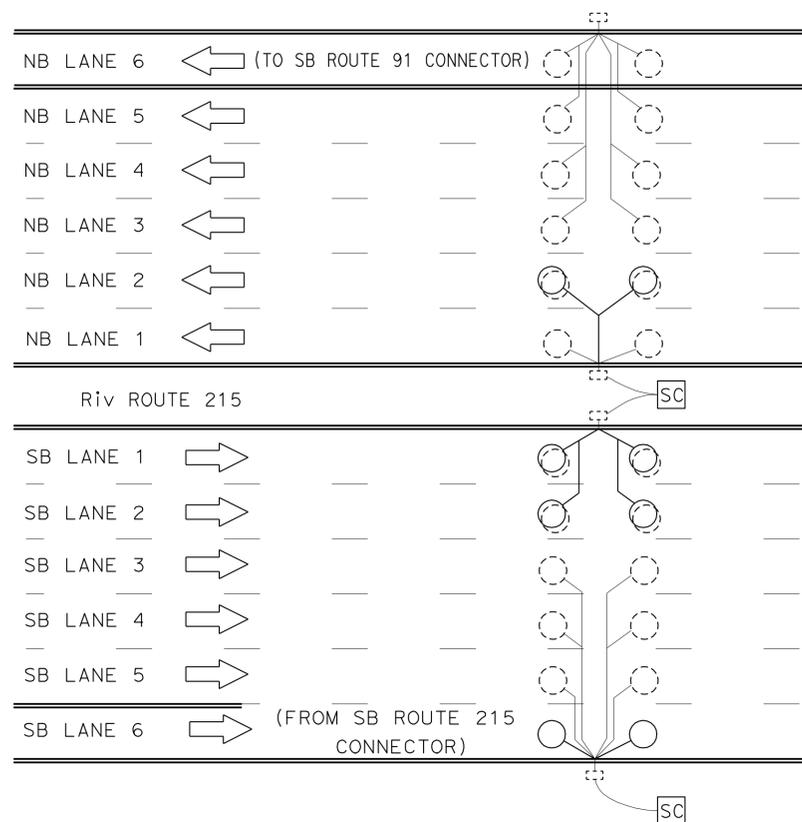
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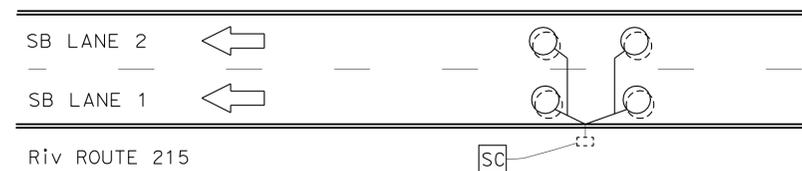
LOCATION 32



LOCATION 33



LOCATION 34



LOCATION 35

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	REVISOR	DATE
Caltrans ELECTRICAL DESIGN A	DAVID A. GONZALEZ	MICHAEL APANTE	
		DAVID A. GONZALEZ	

APPROVED FOR ELECTRICAL WORK ONLY

INDUCTIVE LOOP DETECTOR
NO SCALE
E-6

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBD,Riv	60, 215	Var	14	25

Michael Apante 2-8-12
 REGISTERED ELECTRICAL ENGINEER DATE
 2-13-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MICHAEL APANTE
 No. E17164
 Exp 9/30/11
 ELECTRICAL
 STATE OF CALIFORNIA

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

LOOP QUANTITIES TABLE A
(SAN BERNARDINO COUNTY)

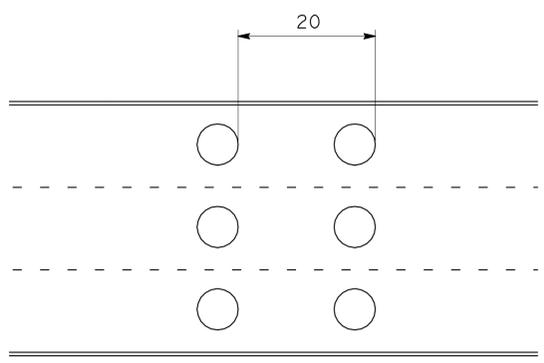
LOCATION	SYSTEM	ROUTE	NAME OF LOCATION	POST MILE	USE	QTY
1	TMS	60	EAST OF PIPELINE AVENUE OC	0.88	TMS	6
2	RMS	60	WEST OF RAMONA AVENUE	1.20	RMS	8
3	RMS	60	EAST OF RAMONA AVENUE	1.48	RMS	8
4	RMS	60	WEST OF CENTRAL AVENUE	2.18	RMS	4
5	RMS	60	EAST OF CENTRAL AVENUE	2.53	RMS	4
6	TMS	60	WEST OF BENSON AVENUE OC	2.78	TMS	4
7	RMS	60	WEST OF MOUNTAIN AVENUE	3.43	RMS	4
8	RMS	60	EAST OF MOUNTAIN AVENUE	3.79	RMS	4
9	TMS	60	EAST OF SAN ANTONIO AVENUE UC	4.14	TMS	4
10	RMS	60	WEST OF EUCLID AVENUE	4.40	RMS	4
11	RMS	60	EAST OF EUCLID AVENUE	4.78	RMS	4
12	TMS	60	EAST OF CAMPUS AVENUE UC	5.14	TMS	4
13	RMS	60	WEST OF GROVE AVENUE	5.69	RMS	4
14	RMS	60	EAST OF GROVE AVENUE	6.03	RMS	4
15	RMS	60	WEST OF VINEYARD AVENUE	6.68	RMS	4
16	RMS	60	EAST OF VINEYARD AVENUE	7.04	RMS	4
17	RMS	60	WEST OF ARCHIBALD AVENUE	7.70	RMS	4
18	RMS	60	EAST OF ARCHIBALD AVENUE	8.05	RMS	4
19	TMS	60	BETWEEN ARCHIBALD AVENUE AND HAVEN AVENUE	8.28	TMS	4
20	RMS	60	WEST OF HAVEN AVENUE	8.71	RMS	4
21	TMS	60	EAST OF HAVEN AVENUE	9.05	RMS	4
22	CS 600	60	EAST OF HAVEN AVENUE	9.48	CS	4
23	RMS	60	WEST OF MILLIKEN AVENUE	9.76	RMS	2
SAN BERNARDINO COUNTY TOTAL						100

LOOP QUANTITIES TABLE B
(RIVERSIDE COUNTY)

LOCATION	SYSTEM	ROUTE	LOCATION	POST MILE	USE	QTY
24	CS 714	60	WEST OF MISSION BOULEVARD	1.53	CS	4
25	RCTC SMART CALL BOX	60	WEST OF CAMINO REAL UC	6.08	CS	2
26	RCTC SMART CALL BOX	60	EAST OF CAMINO REAL UC	6.38	CS	2
27	RMS	60	WEST OF ORANGE STREET OC	11.81	RMS	4
28	TMS	60	WEST OF 60/91/215 INTERCHANGE	11.91	TMS	3
29	CS 859	60	WEST OF SR 215	12.09	CS	6
30	RMS	215	SOUTH OF UNIVERSITY AVENUE	41.37	RMS	4
31	RMS	215	NORTH OF UNIVERSITY AVENUE	41.58	RMS	2
32	RMS	215	SOUTH OF BLAINE STREET	42.07	RMS	4
33	RMS	215	NORTH OF BLAINE STREET	42.22	RMS	4
34	CS	215	EAST OF 60/91/215 INTERCHANGE	42.54	CS	8
35	CS 904	215	SB 215 / SB 215 CONNECTOR	43.25	CS	4
RIVERSIDE COUNTY TOTAL						47

LOOP QUANTITIES TABLE C

REGION	QTY
SAN BERNARDINO COUNTY TOTAL	100
RIVERSIDE COUNTY TOTAL	47
TOTAL	147



TYPICAL LOOP DETECTOR SEPARATION

INDUCTIVE LOOP DETECTOR
NO SCALE
E-7

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN A
 FUNCTIONAL SUPERVISOR: DAVID A. GONZALEZ
 CALCULATED/DESIGNED BY: DAVID A. GONZALEZ
 REVISOR: MICHAEL APANTE
 DATE: 2-8-12
 REVISION: 2-13-12

LAST REVISION DATE PLOTTED => 08-FEB-2012 10:11
 02-08-12 TIME PLOTTED => 10:11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBD,Riv	60, 215	Var	15	25

2-8-12
 REGISTERED ELECTRICAL ENGINEER DATE
 2-13-12
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
MICHAEL APANTE
 No. E17164
 Exp 9/30/11
 ELECTRICAL
 STATE OF CALIFORNIA

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LEGEND: (THIS SHEET ONLY)

○ EXISTING VEHICLE SENSOR NODE

ABBREVIATIONS: (THIS SHEET ONLY)

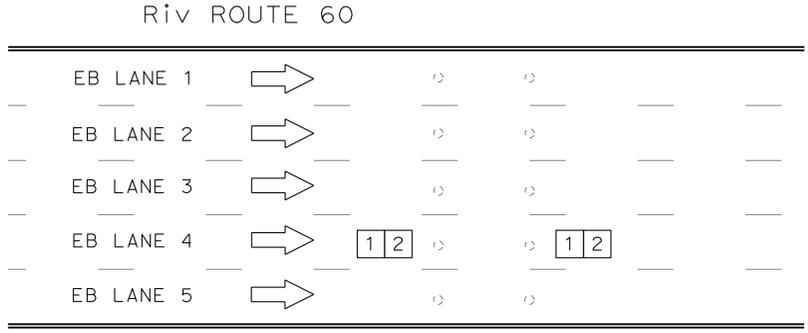
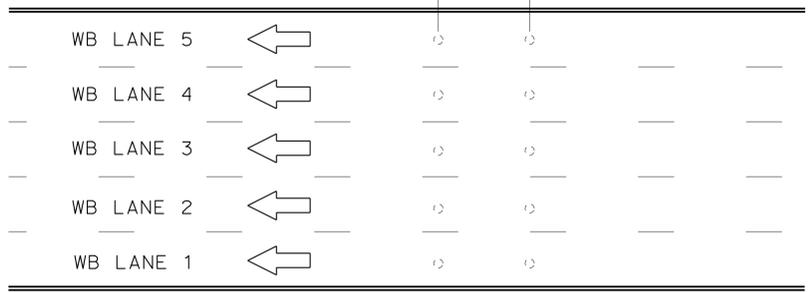
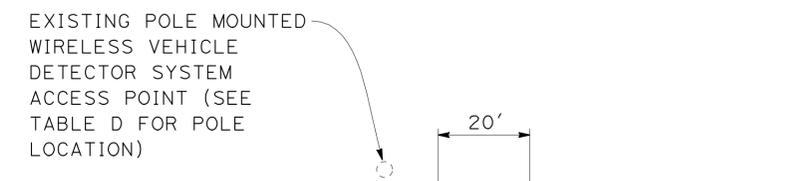
VDS VEHICLE DETECTION SYSTEM
 VSN VEHICLE SENSOR NODE

PROJECT NOTES: (THIS SHEET ONLY)

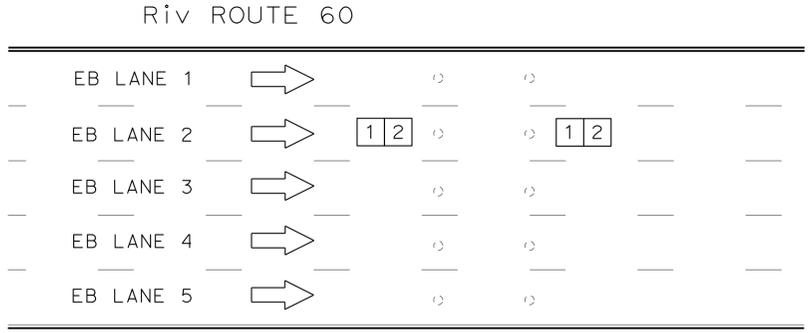
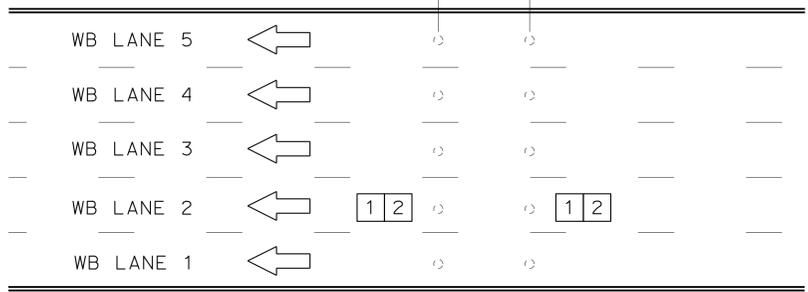
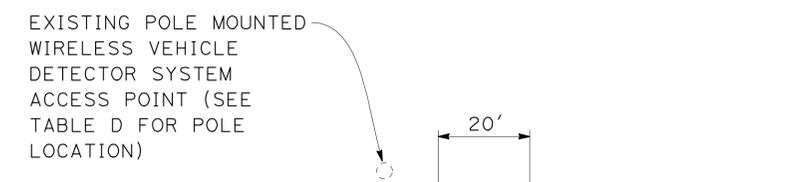
- REMOVE AND DIPOSE SENSYS VSN PER MANUFACTURER'S INSTRUCTIONS.
- AFTER ROADWAY REHABILITATION, INSTALL THE VEHICLE SENSOR NODE WITH CLAM SHELL HOUSING. SEE SHEET E-9 FOR INSTALLATION DETAILS.

GENERAL NOTES: (THIS SHEET ONLY)

1. THE POSTMILE LOCATIONS ARE APPROXIMATE. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL LOCATIONS OF EXISTING VIDEO SENSOR NODES.



LOCATION 36, 37, 38 AND 39



LOCATION 40, 41, 42, 43, 44 AND 45

VSN QUANTITIES TABLE D

LOCATION	APPROXIMATE LOCATION	POST MILE	VDS POLE LOCATION	APPROXIMATE GPS COORDINATES OF VDS POLE		VSN QTY
				LATITUDE	LONGITUDE	
36	EAST OF ETIWANDA AVENUE	2.2	WB	N 34° 01' 06.4"	W 117° 31' 08.6"	2
37	AT COUNTRY VILLAGE ROAD	3.1	EB	N 34° 01' 07.0"	W 117° 30' 23.8"	2
38	WEST OF PYRITE STREET	4.4	WB	N 34° 01' 10.3"	W 117° 28' 58.4"	2
39	PYRITE STREET	5.5	WB	N 34° 00' 59.6"	W 117° 27' 46.4"	2
40	EAST OF PEDLEY ROAD	6.3	WB	N 34° 00' 51.5"	W 117° 26' 57.4"	4
41	WEST OF VALLEY WAY	7.3	WB	N 34° 00' 46.2"	W 117° 26' 15.8"	4
42	WEST OF RUBIDOUX BLVD @ CMS SIGN	8.7	EB	N 34° 00' 20.5"	W 117° 24' 54.5"	4
43	WEST OR RUBIDOUX BOULEVARD	9.3	WB	N 34° 00' 15.7"	W 117° 24' 20.3"	4
44	SANTA ANA RIVER BRIDGE	10.7	WB	N 34° 00' 11.8"	W 117° 22' 50.1"	4
45	WEST OF MAIN STREET	11.6	WB	N 33° 59' 49.8"	W 117° 21' 58.0"	4
TOTAL						32

**MODIFY VEHICLE SENSOR NODE
 VEHICLE SENSOR NODE REPLACEMENT**

NO SCALE

E-8

APPROVED FOR ELECTRICAL WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN A
 FUNCTIONAL SUPERVISOR: DAVID A. GONZALEZ
 CALCULATED/DESIGNED BY: MICHAEL APANTE
 CHECKED BY: DAVID A. GONZALEZ
 REVISED BY: MICHAEL APANTE
 DATE REVISED:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBD,Riv	60, 215	Var	16	25

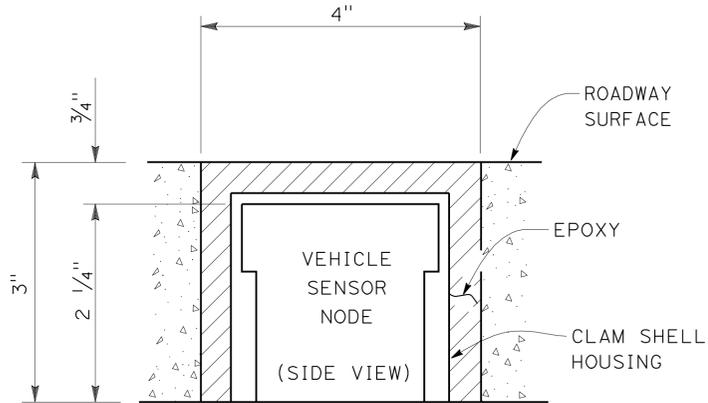
<i>Michael Apante</i>	2-8-12
REGISTERED ELECTRICAL ENGINEER	DATE
	2-13-12
PLANS APPROVAL DATE	

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.

VEHICLE SENSOR NODE INSTALLATION PROCEDURE:

1. PRIOR TO INSTALLATION, IDENTIFY SENSOR'S ID, LANE NUMBER AND LOCATION IN LANE.
2. INSTALL THE VSN AS PER MANUFACTURERS INSTRUCTIONS.
3. RECORD THE DISTANCES BETWEEN EACH SENSOR PAIR.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN A
 FUNCTIONAL SUPERVISOR: DAVID A. GONZALEZ
 CALCULATED/DESIGNED BY: DAVID A. GONZALEZ
 CHECKED BY: DAVID A. GONZALEZ
 REVISIONS: (None)
 REVISOR: (None)
 DATE: (None)
 REVISIONS: (None)
 REVISOR: (None)
 DATE: (None)



DETAIL B
 VEHICLE SENSOR NODE
 INSTALLED IN ROADWAY

VEHICLE SENSOR NODE REPLACEMENT

NO SCALE

E-9

APPROVED FOR ELECTRICAL WORK ONLY



ELECTROLIERS

STANDARD TYPES		
15, 15D		High mast light pole
15 STRUCTURE		Double Arm lighting standard
21, 21D STRUCTURE		Existing electrolier
30		Electrolier foundation (Future installation)
31		
32		
35		
36-20A		

NOTES:

- Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified.
- Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.
- Variations noted adjacent to symbol on project plans.

- Electrolier (see project notes or project plans)
- Luminaire on wood pole

STANDARD NOTES:

- AB** Abandon. If applied to conduit, remove conductors.
- BC** Install pull box in existing conduit run.
- BP** Pedestrian barricade, type as indicated on plan.
- CB** Install conduit into existing pull box.
- CC** Connect new and existing conduit. Remove existing conductors and install conductors as indicated.
- CF** Conduit to remain for future use. Remove conductors. Install pull wire or rope.
- DH** Detector handhole.
- FA** Foundation to be abandoned.
- IS** Install sign on signal mast arm.
- NS** No slip base on standard.
- PEC** Photoelectric control.
- PEU** Photoelectric unit.
- RC** Equipment or material to be removed and become the property of the Contractor.
- RE** Remove electrolier, fuses and ballast. Tape ends of conductors.
- RL** Relocate equipment.
- RR** Remove and reuse equipment.
- RS** Remove and salvage equipment.
- SC** Splice new to existing conductors.
- SD** Service disconnect.
- SF** Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP** Telephone service point.

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED EXISTING

BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces, side attachment - 4 signal section
MAS-4B	mas-4B	
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces, side attachment - 5 signal section
MAS-5B	mas-5B	
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL		Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd,Riv	60,215	Var	17	25

Jeffrey G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

Jeffrey G. McRae
REGISTERED PROFESSIONAL ENGINEER
No. E14512
Exp. 6-30-08
ELECTRICAL
STATE OF CALIFORNIA

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To accompany plans dated 2-13-12

SOFFIT AND WALL MOUNTED LUMINAIRES

- Pendant, 70 W HPS unless otherwise specified.
- Flush, 70 W HPS unless otherwise specified.
- Wall surface, 70 W HPS unless otherwise specified.
- Existing soffit or wall luminaire to remain unmodified.
- Existing soffit or wall luminaire to be modified as specified.

NOTE:

Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

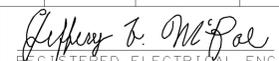
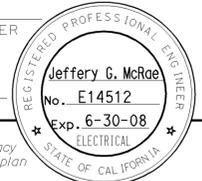
NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A
DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

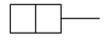
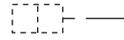
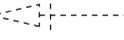
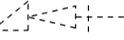
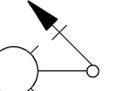
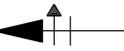
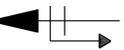
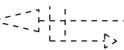
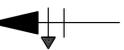
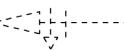
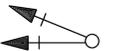
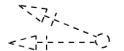
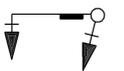
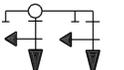
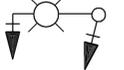
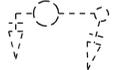
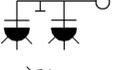
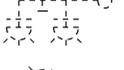
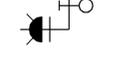
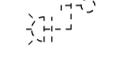
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd,Riv	60,215	Var	18	25


 REGISTERED ELECTRICAL ENGINEER
 October 5, 2007
 PLANS APPROVAL DATE

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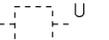
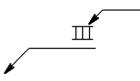
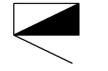
CONDUIT

PROPOSED	EXISTING	
---	---	Lighting Conduit, unless otherwise indicated or noted
---	---	Traffic signal conduit
-C-	-c-	Communication conduit
-T-	-t-	Telephone conduit
-F-	-f-	Fire alarm conduit
-FO-	-fo-	Fiber optic conduit
---	---	Conduit termination 
		Conduit riser in/on structure or service pole

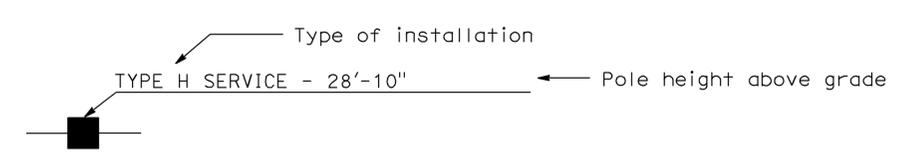
SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
		Modifications of basic symbols: "L" Indicates all non-arrow sections lowered "LG" Indicates lowered green section only "PV" Indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
		Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

SERVICE EQUIPMENT

PROPOSED	EXISTING	
---OH---	---oh---	Overhead lines
		Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
		Telephone demarcation cabinet

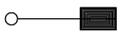
POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
		Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

NOTES:

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

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

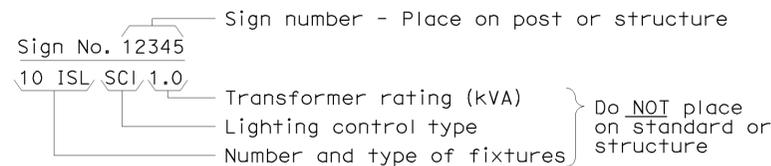
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

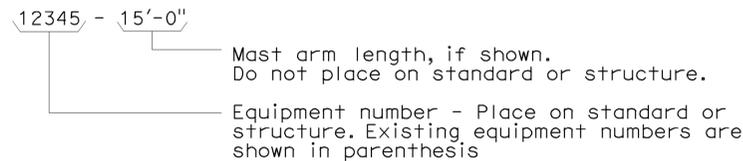
2006 REVISED STANDARD PLAN RSP ES-1B

EQUIPMENT IDENTIFICATION

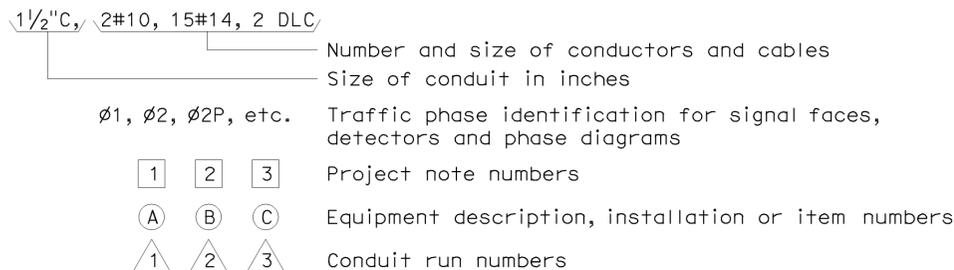
ILLUMINATED SIGN IDENTIFICATION NUMBER:



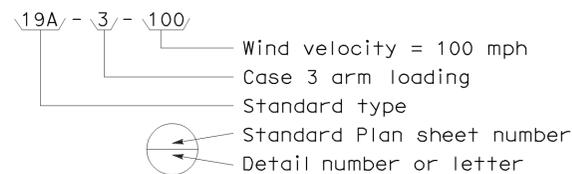
ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



CONDUIT AND CONDUCTOR IDENTIFICATION:



SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



MISCELLANEOUS EQUIPMENT

PROPOSED	EXISTING	
		Changeable message sign
		Closed circuit television camera
		Highway advisory radio pole and antenna
		Extinguishable message sign
		Detection device M = Microwave sensor V = Video image sensor

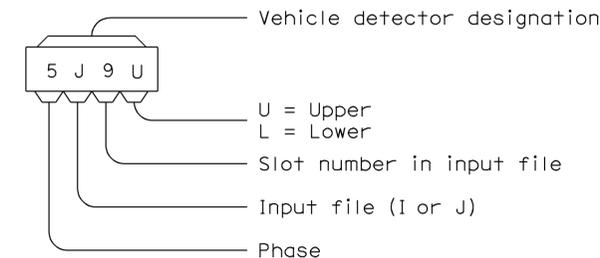
WIRING DIAGRAM LEGEND

P	Pole	----	External conductor
CB	Circuit breaker	—	Conductor or bus
A	Ampere	—●—	Tie point
V	Volt	—/—	Contactor coil
M	Metered	— —	Contactor, Contact NO
UM	Unmetered	— —	Terminal blocks
NB	Neutral bus	— —	Contactor, Contact NC
GB	Ground bus	—/—	Enclosure bond
G	Equipment grounding conductor	—/—	
N	Grounded conductor (Neutral)	—/—	
		⏏	Grounding electrode
		— —	Circuit breaker
		Ⓜ	Receptacle

PULL BOXES

PROPOSED	EXISTING	
		Pull box-No. 5 unless otherwise indicated or noted.
		Pull box-Additional designations or descriptions
3		(C) = Communications pull box
5		(E) = Pull box with extension
6		(S) = Sprinkler control pull box
7		(21) = Anchor bolts and conduit for future installation of Type 21 Standard
8		(T) = Traffic pull box
9		
9A		

VEHICLE DETECTORS



PROPOSED	EXISTING	
		Type A detector loop. Outline of sawcut shown.
		Type B detector loop. Outline of sawcut shown.
		Type C detector loop. Outline of sawcut shown.
		Type D detector loop. Outline of sawcut shown.
		Type E detector loop. Outline of sawcut shown.
		Type Q detector loop. Outline of sawcut shown.
		Magnetic detector
		Detector handhole
		Microwave or video detection zone

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

RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C
 DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBD, Riv	60,215	Var	20	25

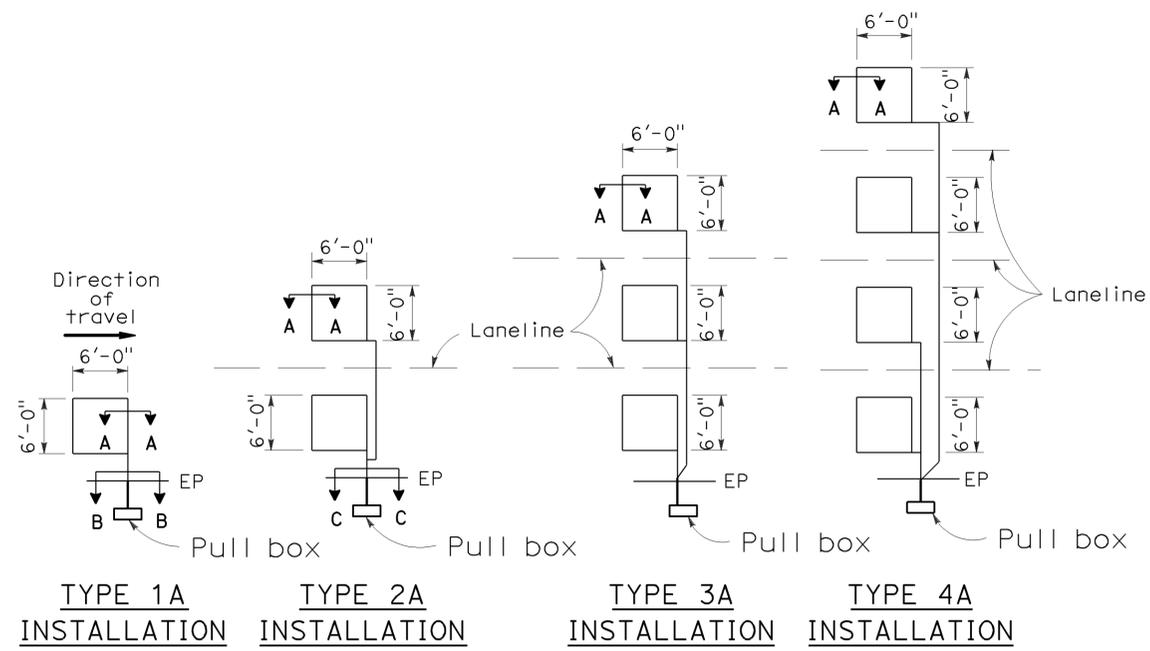
REGISTERED ELECTRICAL ENGINEER
 REGISTERED PROFESSIONAL ENGINEER
 Jeffery G. McRae
 No. E14512
 Exp. 6-30-08
 ELECTRICAL
 STATE OF CALIFORNIA

October 5, 2007
 PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

LOOP INSTALLATION PROCEDURE

- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
- Bottom of saw slot shall be smooth with no sharp edges.
- Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
- Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
- Identify and tag loop circuit pairs in the pull box with loop number, start (S) and finish (F) of conductor. Identify and tag lead-in-cable with sensor number and phase.
- Install loop conductor in slot using a 3/16" to 1/4" thick wood paddle. Hold loop conductors with wood paddles (at the bottom of the sawed slot) during sealant placement.
- No more than 2 twisted pairs shall be installed in one sawed slot.
- Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
- The additional length of each conductor for each loop shall be twisted together into a pair (6 turns per 3'-4" minimum) before being placed in the slot and conduit leading to pull box.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
- Fill slots as shown in details.
- Splice loop conductors to lead-in-cable. Splices shall be soldered.
- End of lead-in-cable and Type 2 loop conductor shall be waterproofed prior to installing in conduit to prevent moisture from entering the cable.
- Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
- Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.



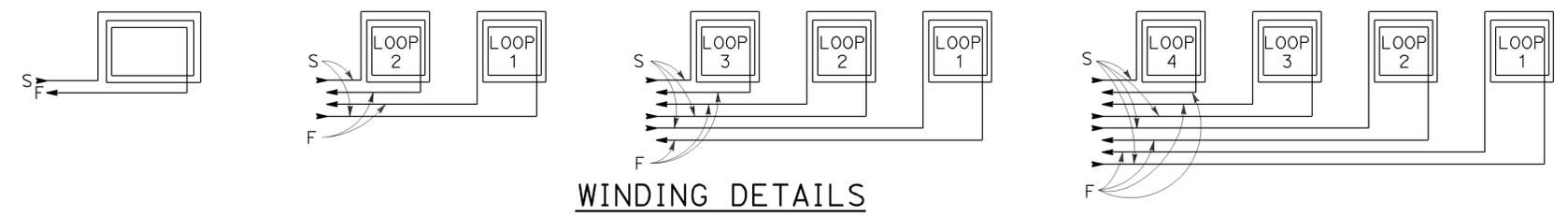
TYPE 1A INSTALLATION TYPE 2A INSTALLATION TYPE 3A INSTALLATION TYPE 4A INSTALLATION

SAWCUT DETAILS

- (Type A loop detector configurations illustrated)
- 1A thru 4A = 1 Type A loop configuration in each lane.
 - 1B thru 4B = 1 Type B loop configuration in each lane.
 - 1C = 1 Type C loop configuration entering lanes as required.
 - 1D thru 4D = 1 Type D loop configuration in each lane.
 - 1E thru 4E = 1 Type E loop configuration in each lane.
 - 1Q thru 4Q = 1 Type Q loop configuration in each lane.
- (Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans)

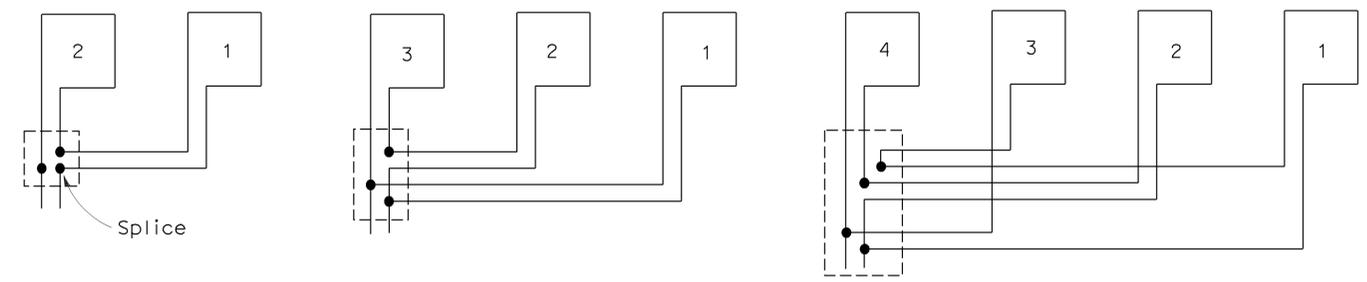
To accompany plans dated 2-13-12

2006 REVISED STANDARD PLAN RSP ES-5A



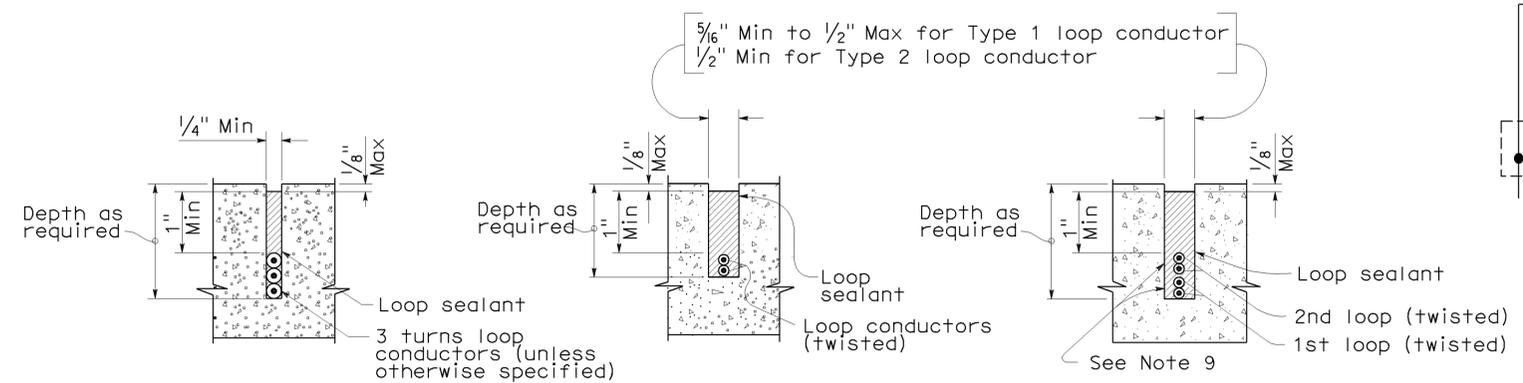
WINDING DETAILS

See Notes 6 and 7



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



SECTION A-A SECTION B-B SECTION C-C
SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR

ELECTRICAL SYSTEMS (DETECTORS)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

NO SCALE

RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A
DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

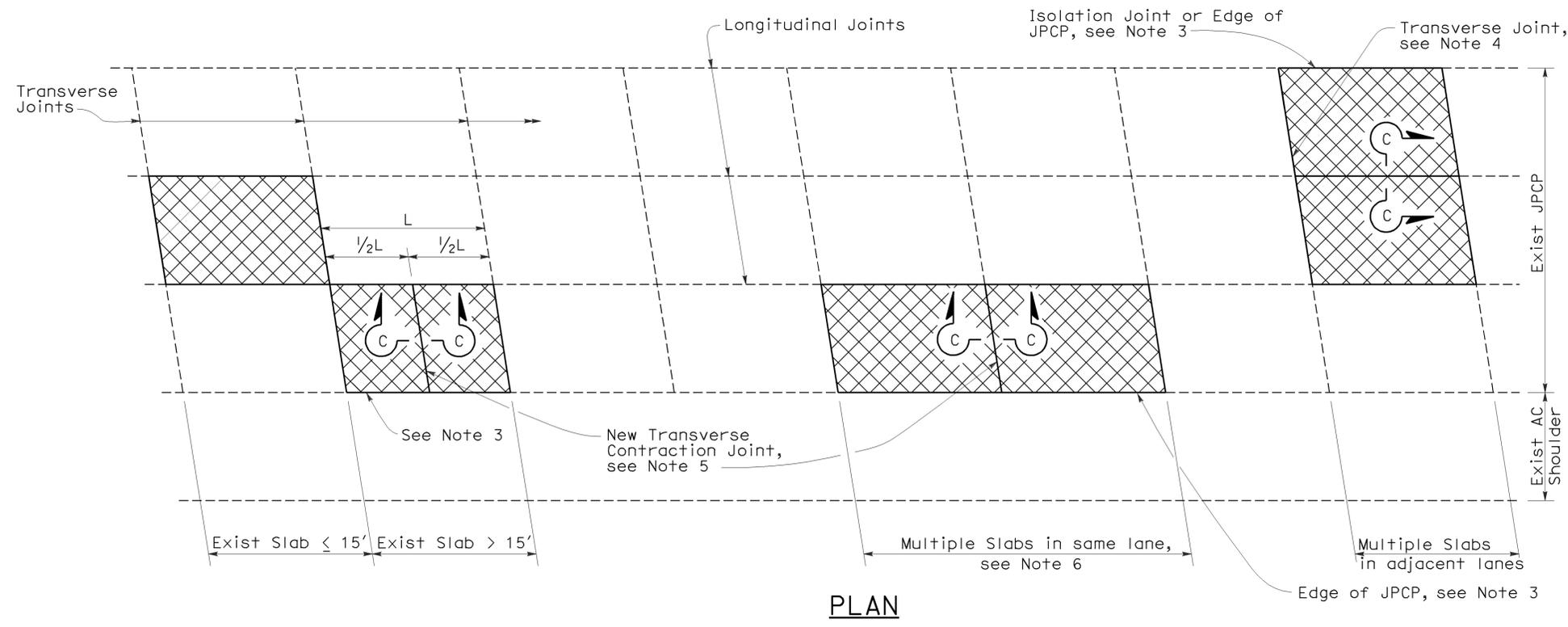
REVISED STANDARD PLAN RSP ES-5A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBD, Riv	60,215	Var	21	25

William K. Farnbach
 REGISTERED CIVIL ENGINEER
 May 15, 2009
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 William K. Farnbach
 No. C49042
 Exp. 9-30-10
 CIVIL
 STATE OF CALIFORNIA

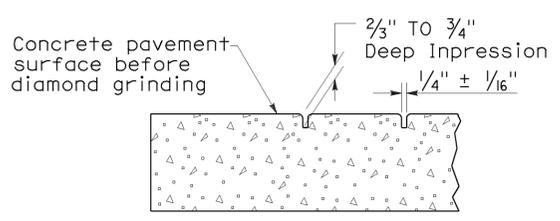
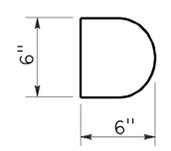
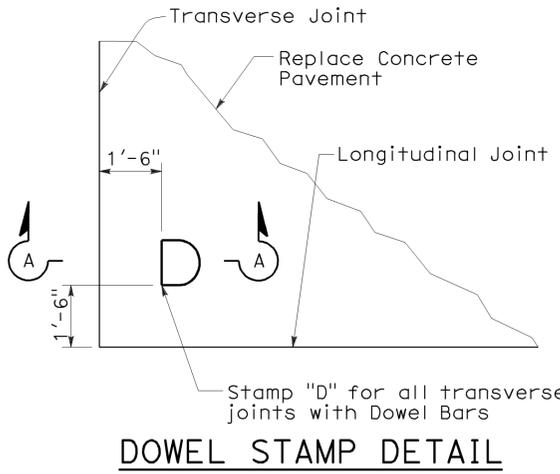
To accompany plans dated 2-13-12



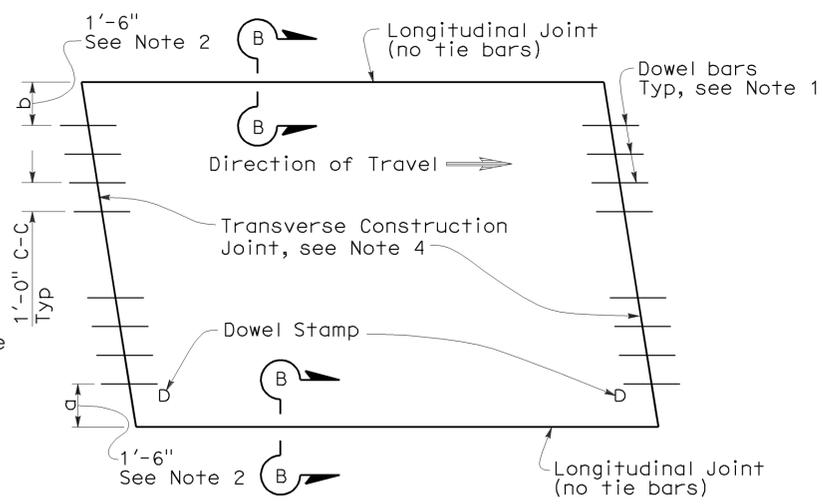
NOTES:

- For details not shown, see Revised Standard Plan RSP P10.
- Where the existing outer shoulder pavement is asphalt concrete pavement, the "a" dimension shall be 1'-0" and the "b" dimension shall be 2'-0".
- Side forms shall be used where edge of pavement is adjacent to asphalt concrete.
- For detail, see Transverse Construction Joint for existing concrete pavement detail on Revised Standard Plan RSP P10.
- Transverse joint to match skew of existing joint. Omit dowel bars.
- This Standard Plan only applicable when replacing multiple slabs in the same lane is less than 100'.

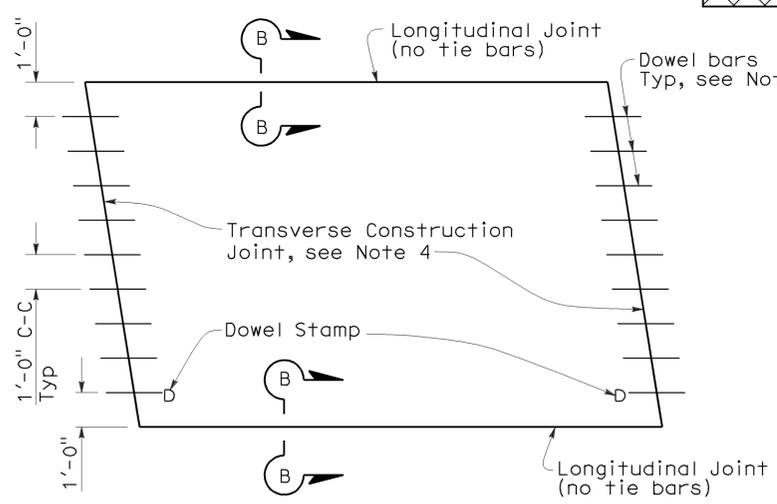
LEGEND



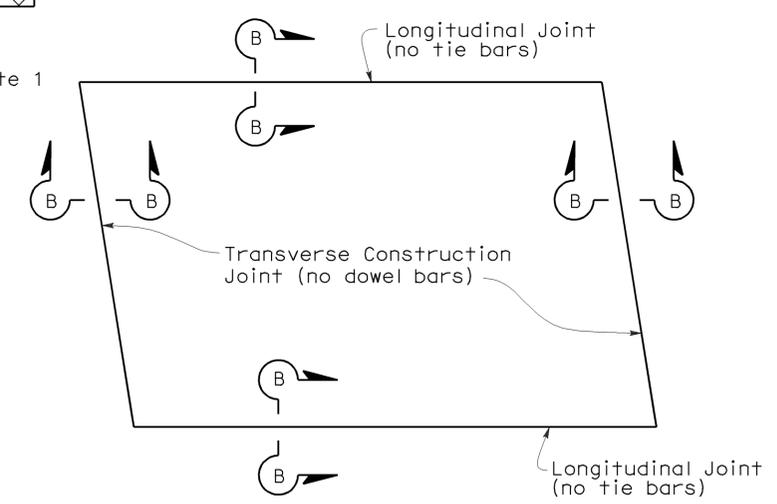
SECTION A-A



TYPE I
(traffic lane lines match longitudinal joints)

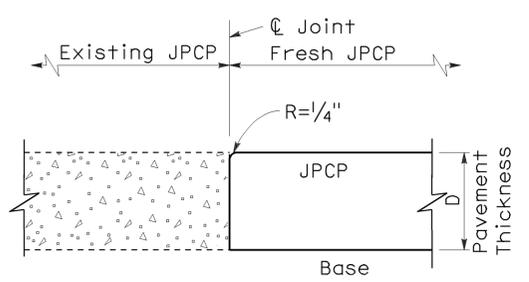


TYPE II
(traffic lane lines do not match longitudinal joints)

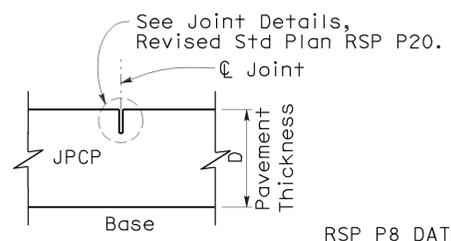


TYPE III
(for short term repairs < 5 yrs design life or for slab replacements with a cracking and seating operation)

SLAB LAYOUT



SECTION B-B



SECTION C-C

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOINTED PLAIN CONCRETE PAVEMENT-INDIVIDUAL SLAB REPLACEMENT

NO SCALE

RSP P8 DATED MAY 15, 2009 SUPERSEDES RSP P8 DATED SEPTEMBER 1, 2006 AND STANDARD PLAN P8 DATED MAY 1, 2006 - PAGE 123 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P8

2006 REVISED STANDARD PLAN RSP P8

123

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd,Riv	60,215	Var	22	25

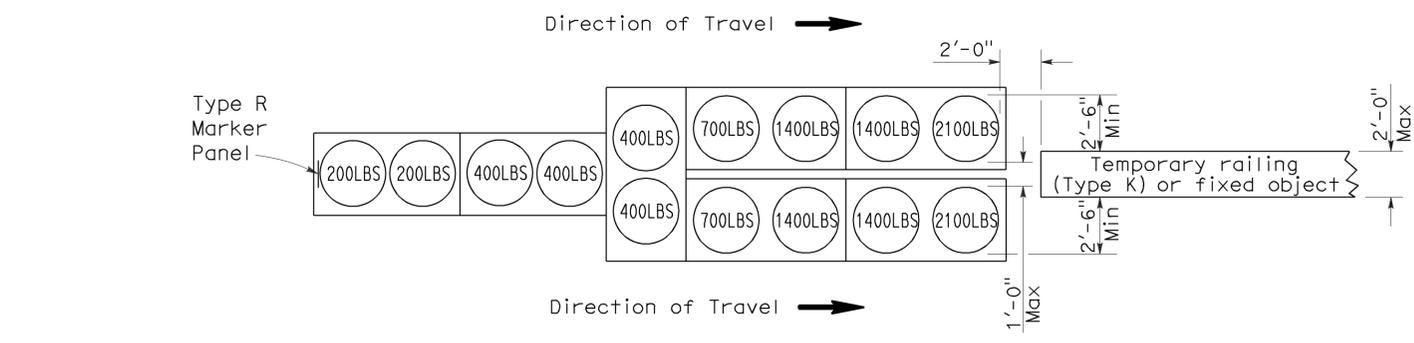
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

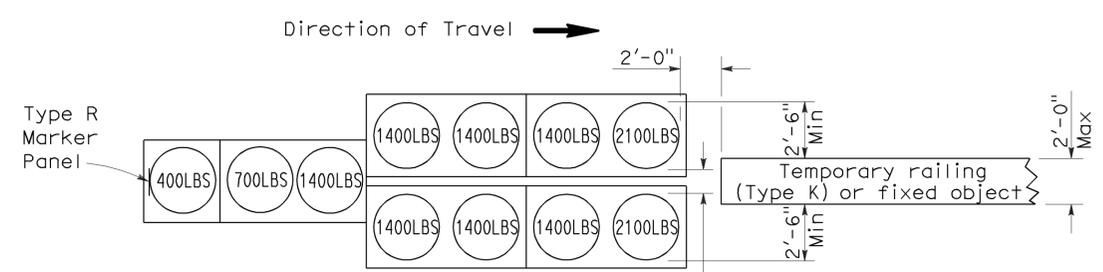
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To accompany plans dated 2-13-12



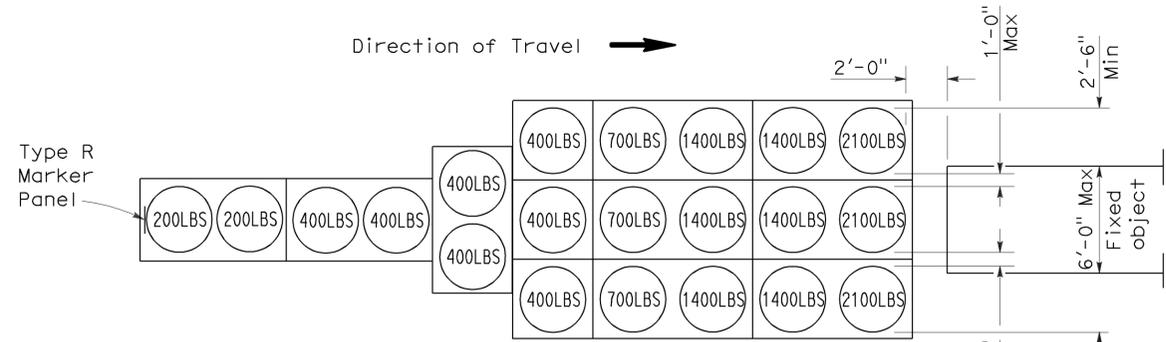
ARRAY 'TU14'

Approach speed 45 mph or more



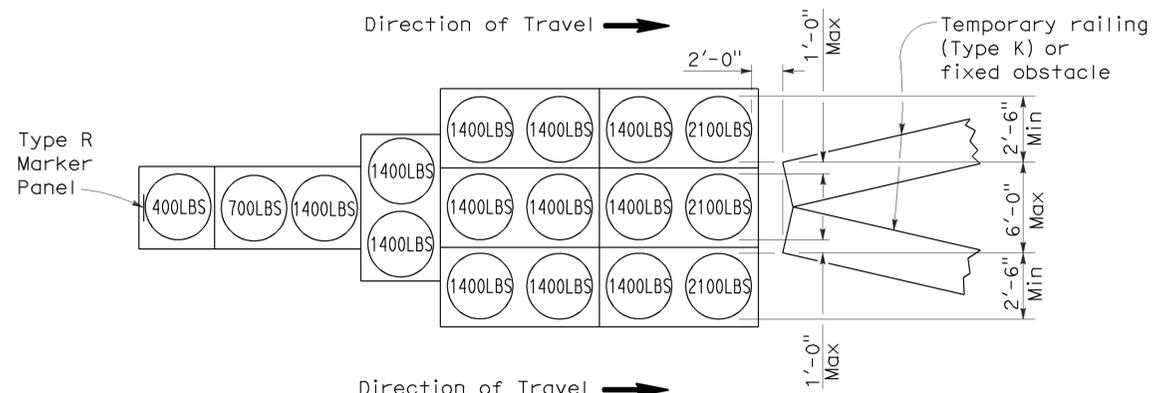
ARRAY 'TU11'

Approach speed less than 45 mph



ARRAY 'TU21'

Approach speed 45 mph or more

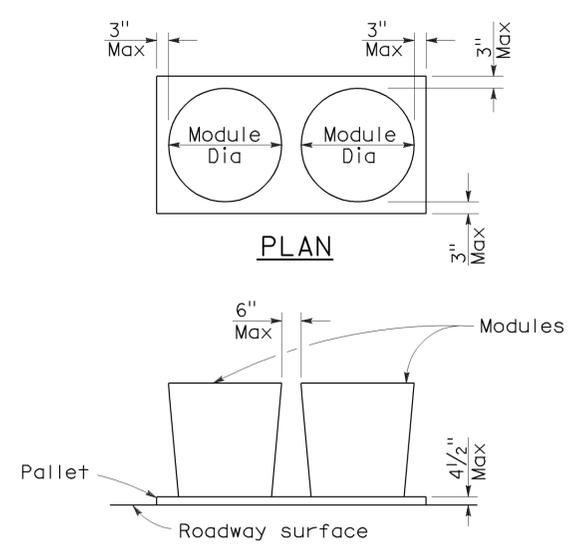


ARRAY 'TU17'

Approach speed less than 45 mph

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the top of Type R marker panel 1" below the module lid.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.



CRASH CUSHION PALLET DETAIL
See Note 7

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(UNIDIRECTIONAL)**

NO SCALE

RSP T1A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1A
DATED MAY 1, 2006 - PAGE 211 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SbD,Riv	60,215	Var	23	25

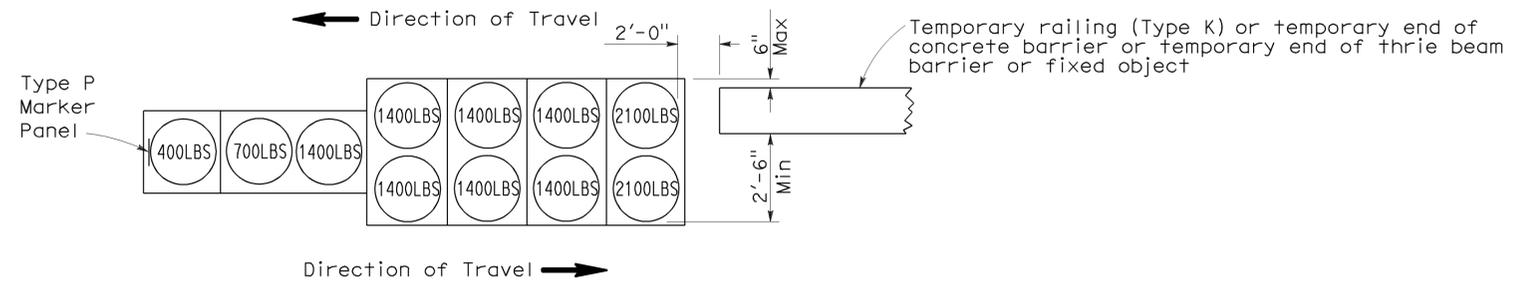
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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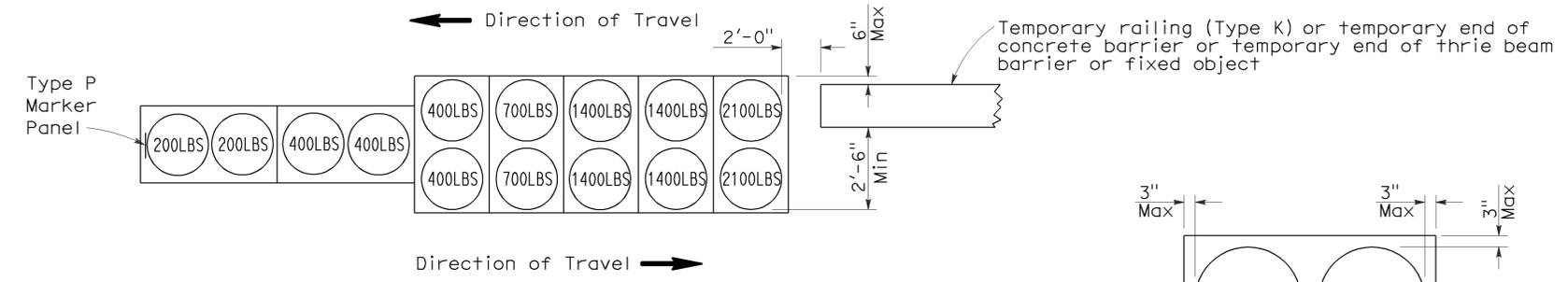
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 2-13-12



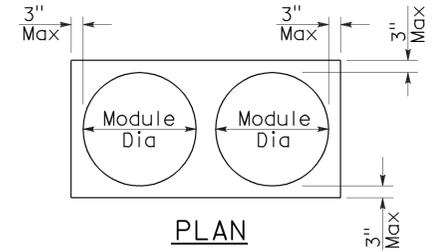
ARRAY 'TB11'

Approach speed less than 45 mph

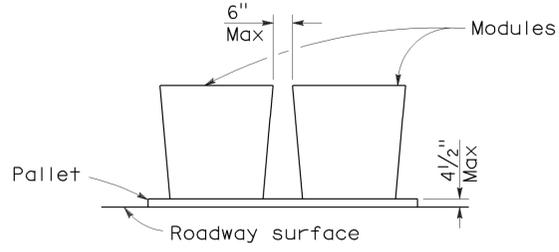


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the Type P marker panel so that the bottom of the panel rests upon the pallet.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(BIDIRECTIONAL)**

NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBD,Riv	60,215	Var	24	25

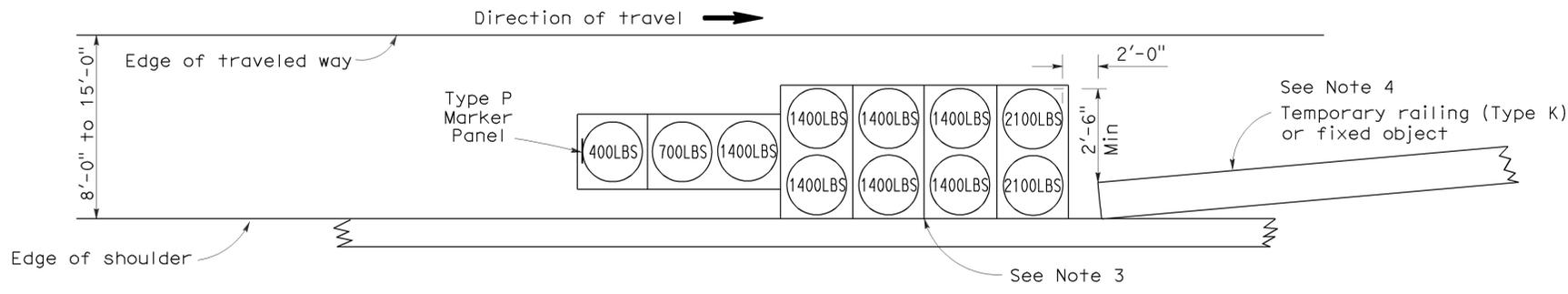
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

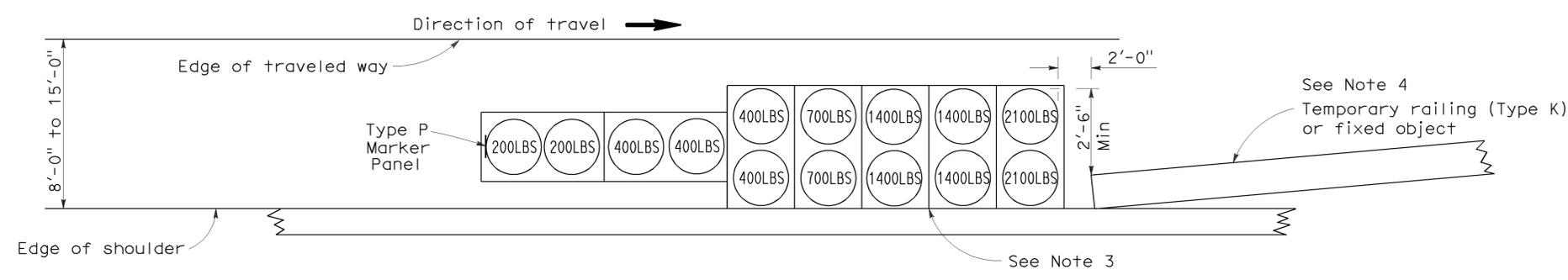
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REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

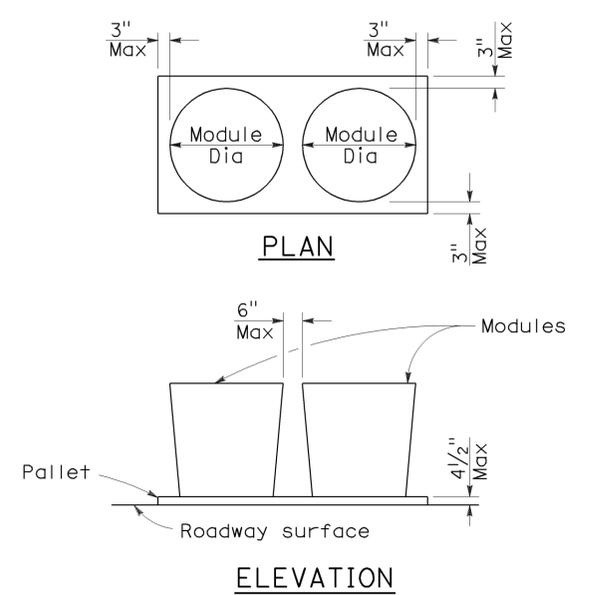
To accompany plans dated 2-13-12



ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



ARRAY 'TS14'
Approach speed 45 mph or more
See Note 9



CRASH CUSHION PALLET DETAIL
See Note 11

NOTES:

- ⊗ Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
- All sand weights are nominal.
- The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic on one side of the temporary crash cushion array.
- If the fixed object or approach end of the temporary railing is less than 15'-0" from the edge of traveled way, a temporary crash cushion is required in a construction or work zone.
- Temporary crash cushion arrays shall not encroach on the traveled way.
- Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
- Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
- Refer to Standard Plan A73B for marker details.
- For shoulder widths less than 8'-0", appropriate approved crash cushion protection, other than sand filled modules, shall be provided at fixed objects and at approach ends of temporary railing. The specific type of crash cushion shall be as shown on the project plans or as specified in the Special Provisions, or if not shown on the project plans or specified in the Special Provisions, shall be as approved by the Engineer.
- Approach speeds indicated conform to NCHRP 350 Report criteria.
- Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**

NO SCALE

RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

